

Pantheon Report

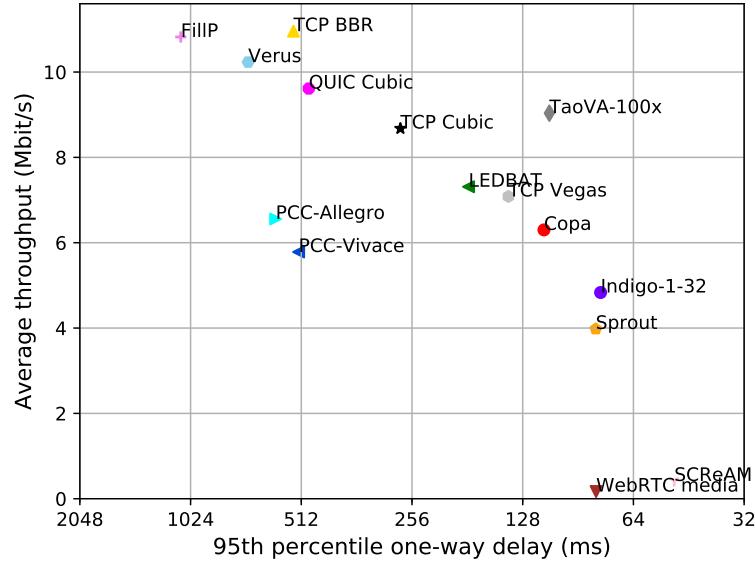
Generated at 2018-04-17 00:58:35 (UTC).
Data path: AWS India 1 Ethernet (*local*) → India ppp0 (*remote*).
Repeated the test of 16 congestion control schemes 3 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) 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:

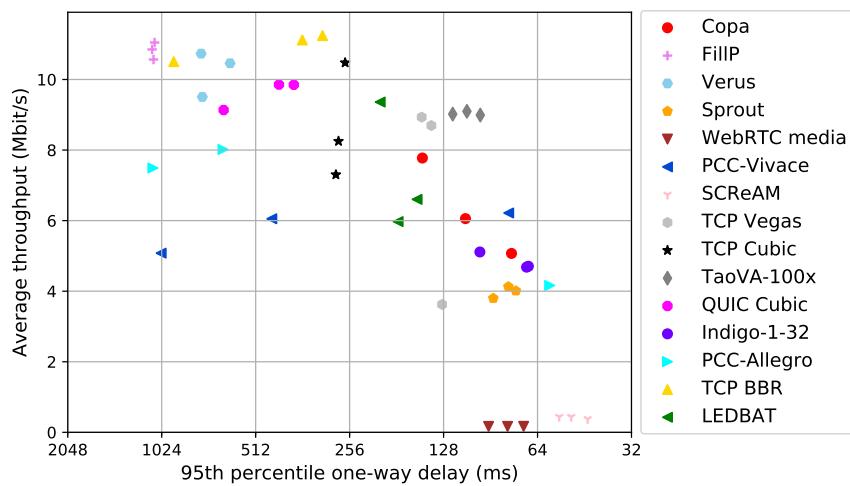
```
branch: master @ b3d6e7098641364fd3a292656a51aa81e316d0b4
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272b2a44
third_party/genericCC @ d223989828276fa83a807da6e0341dc0c7b89aec
third_party/indigo @ 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 @ 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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
```

third_party/webrtc @ f271183af822eee5d0031620f4bebf38aedc5581

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	6.89	4.18	4.03	463.91	564.01	392.84	1.81	1.16	1.75
TCP Cubic	3	4.37	4.73	3.55	253.20	293.26	283.54	2.01	0.71	2.48
LEDBAT	3	3.04	5.74	1.41	149.82	181.80	215.07	2.83	0.60	3.20
PCC-Allegro	3	4.00	2.52	2.79	593.92	603.35	636.55	10.28	28.42	35.44
QUIC Cubic	3	7.72	1.60	2.70	472.13	520.90	495.87	0.65	2.45	3.77
SCReAM	3	0.22	0.19	0.22	52.82	48.57	45.55	0.13	0.39	0.35
WebRTC media	3	0.06	0.06	0.05	91.70	84.41	74.08	0.00	1.07	1.24
Sprout	3	2.13	1.94	1.72	80.23	79.68	78.91	0.07	0.22	1.19
TaoVA-100x	3	4.69	4.58	3.92	101.96	106.23	125.25	1.05	0.13	0.41
TCP Vegas	3	3.21	3.66	4.38	102.63	125.74	152.61	1.10	0.99	1.18
Verus	3	6.42	4.19	3.52	699.02	798.60	683.10	3.44	0.80	3.92
Copa	3	3.97	2.16	2.71	108.93	110.45	121.51	1.28	1.89	0.53
FillP	3	6.16	5.58	3.60	1084.25	1091.86	1095.96	22.15	33.51	46.59
Indigo-1-32	3	2.04	2.46	3.57	71.76	79.39	88.38	0.15	2.36	0.15
PCC-Vivace	3	3.49	2.09	2.76	466.50	532.56	600.37	1.48	1.43	5.07
PCC-Expr	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

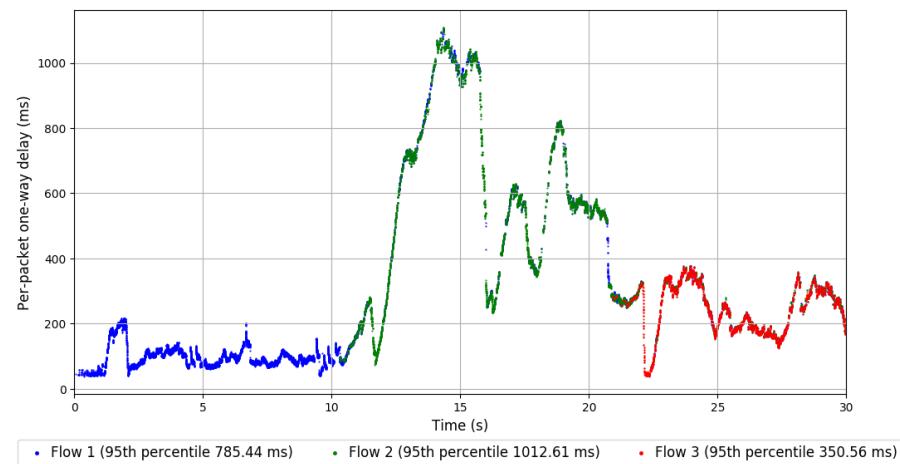
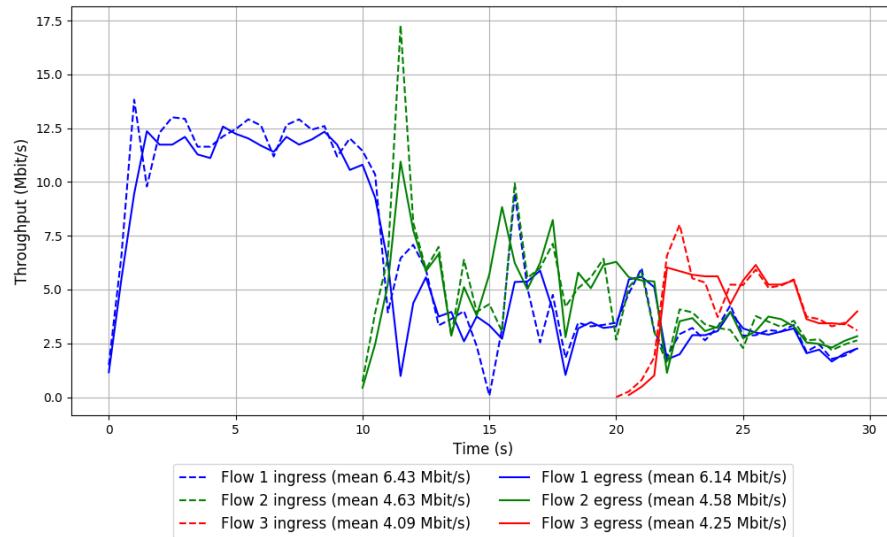
↳

Run 1: Statistics of TCP BBR

```
Start at: 2018-04-17 00:03:43
End at: 2018-04-17 00:04:13
Local clock offset: -10.252 ms
Remote clock offset: -8.317 ms

# Below is generated by plot.py at 2018-04-17 00:57:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.51 Mbit/s
95th percentile per-packet one-way delay: 937.327 ms
Loss rate: 3.44%
-- Flow 1:
Average throughput: 6.14 Mbit/s
95th percentile per-packet one-way delay: 785.440 ms
Loss rate: 4.67%
-- Flow 2:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 1012.614 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 350.565 ms
Loss rate: 1.68%
```

Run 1: Report of TCP BBR — Data Link

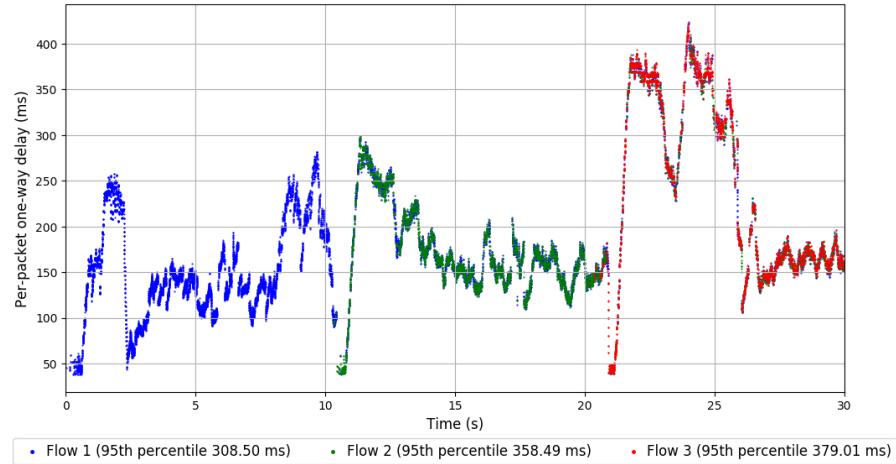
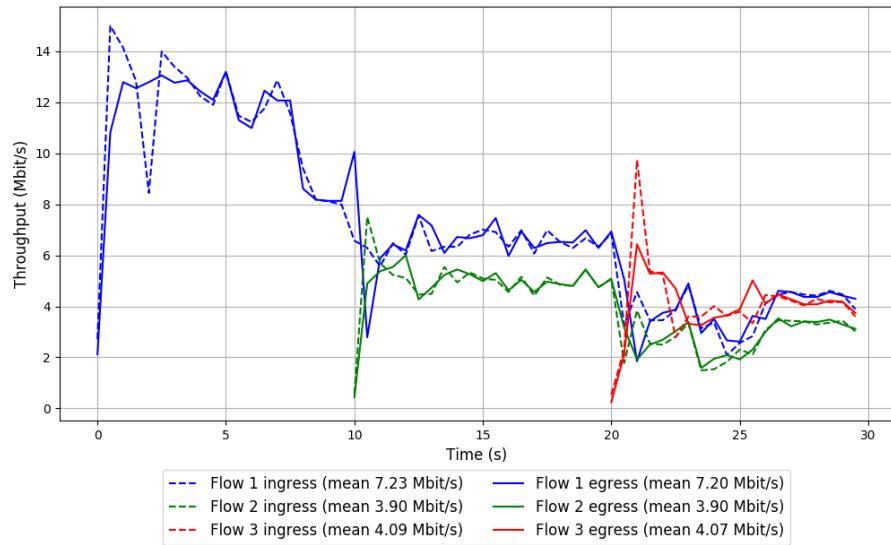


Run 2: Statistics of TCP BBR

```
Start at: 2018-04-17 00:22:33
End at: 2018-04-17 00:23:03
Local clock offset: -9.391 ms
Remote clock offset: -7.914 ms

# Below is generated by plot.py at 2018-04-17 00:57:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.12 Mbit/s
95th percentile per-packet one-way delay: 362.876 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 7.20 Mbit/s
95th percentile per-packet one-way delay: 308.501 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 358.485 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 379.007 ms
Loss rate: 1.65%
```

Run 2: Report of TCP BBR — Data Link

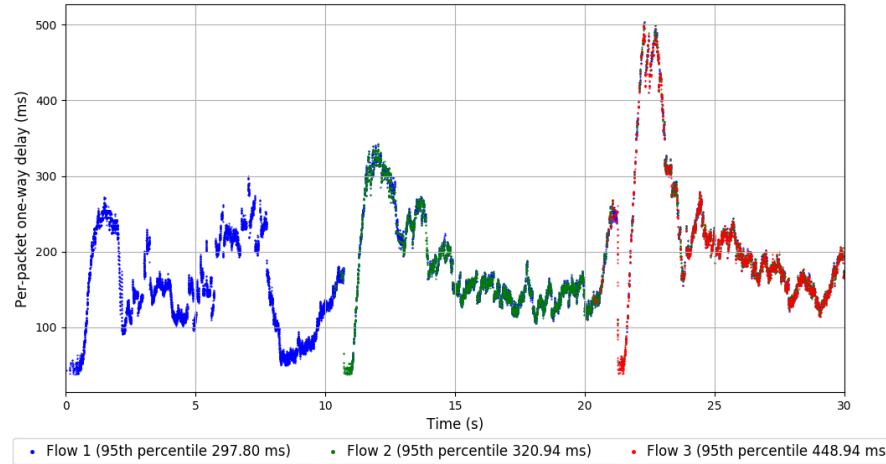
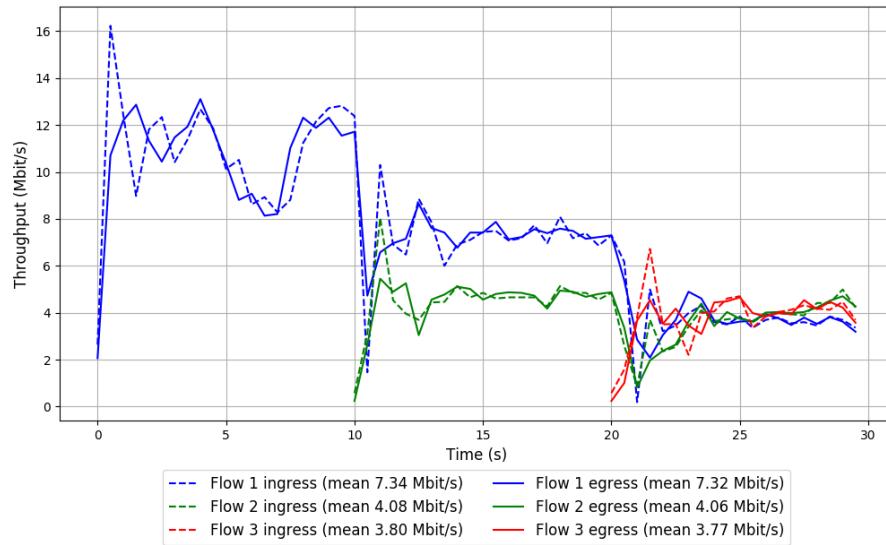


Run 3: Statistics of TCP BBR

```
Start at: 2018-04-17 00:41:20
End at: 2018-04-17 00:41:50
Local clock offset: -8.256 ms
Remote clock offset: -7.226 ms

# Below is generated by plot.py at 2018-04-17 00:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.25 Mbit/s
95th percentile per-packet one-way delay: 312.613 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 7.32 Mbit/s
95th percentile per-packet one-way delay: 297.802 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 4.06 Mbit/s
95th percentile per-packet one-way delay: 320.935 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 448.944 ms
Loss rate: 1.91%
```

Run 3: Report of TCP BBR — Data Link

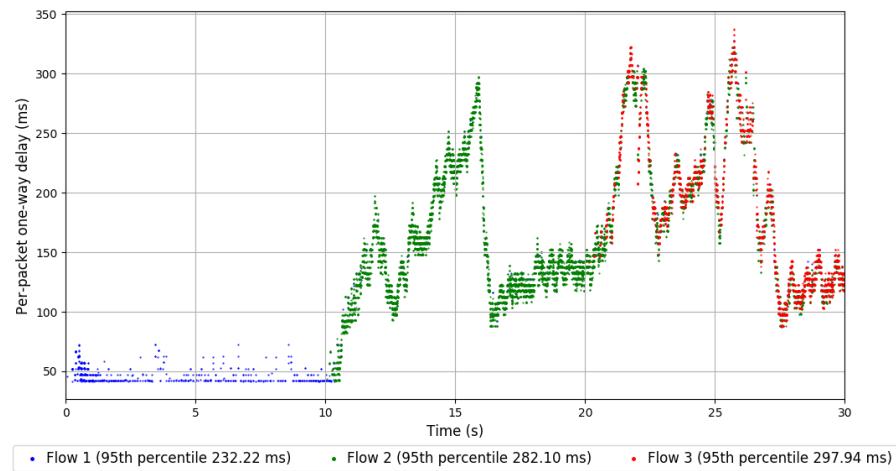
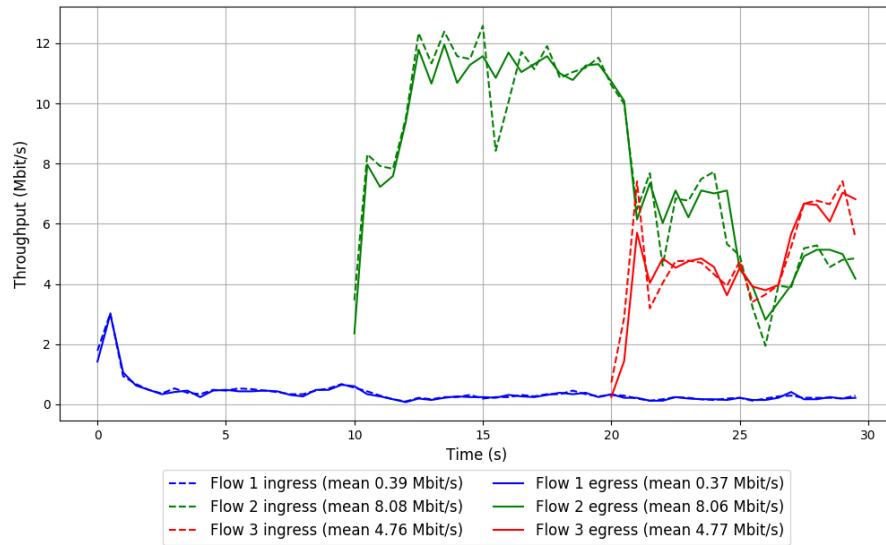


Run 1: Statistics of TCP Cubic

```
Start at: 2018-04-17 00:01:31
End at: 2018-04-17 00:02:01
Local clock offset: -9.48 ms
Remote clock offset: -7.519 ms

# Below is generated by plot.py at 2018-04-17 00:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.30 Mbit/s
95th percentile per-packet one-way delay: 283.319 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 232.218 ms
Loss rate: 5.29%
-- Flow 2:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 282.100 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 297.941 ms
Loss rate: 1.16%
```

Run 1: Report of TCP Cubic — Data Link

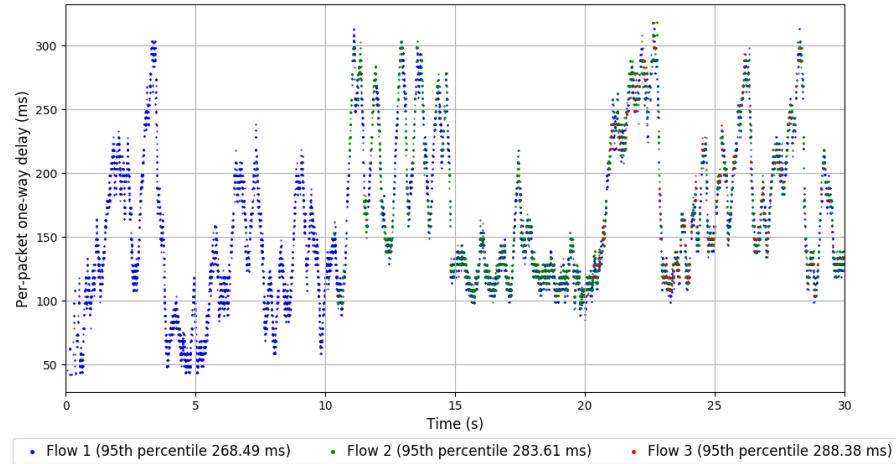
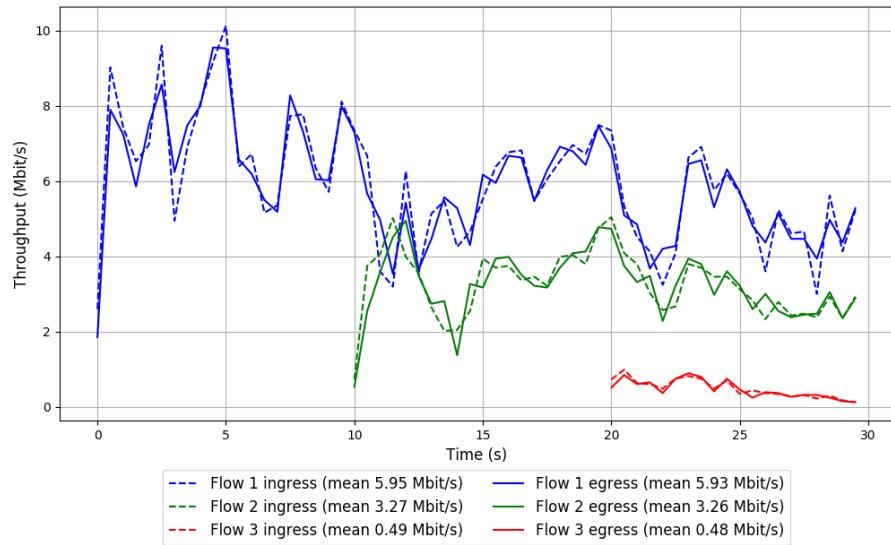


Run 2: Statistics of TCP Cubic

```
Start at: 2018-04-17 00:20:20
End at: 2018-04-17 00:20:50
Local clock offset: -10.68 ms
Remote clock offset: -8.587 ms

# Below is generated by plot.py at 2018-04-17 00:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.25 Mbit/s
95th percentile per-packet one-way delay: 277.886 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 5.93 Mbit/s
95th percentile per-packet one-way delay: 268.485 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 283.614 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 288.384 ms
Loss rate: 3.70%
```

Run 2: Report of TCP Cubic — Data Link

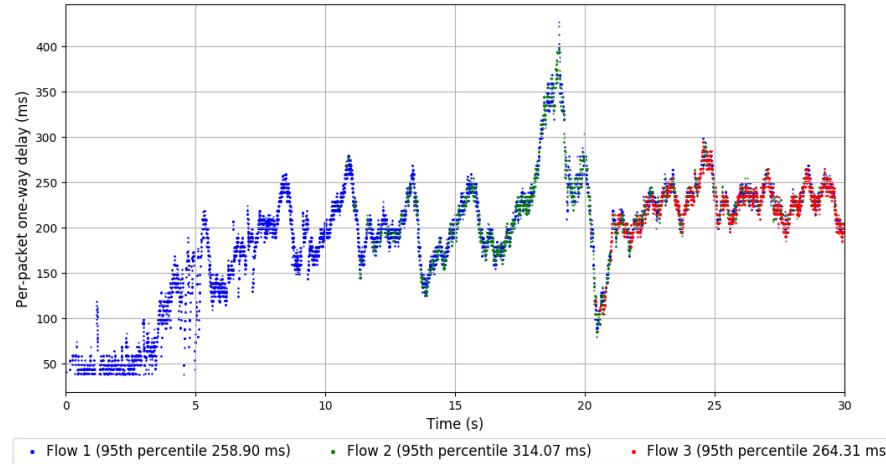
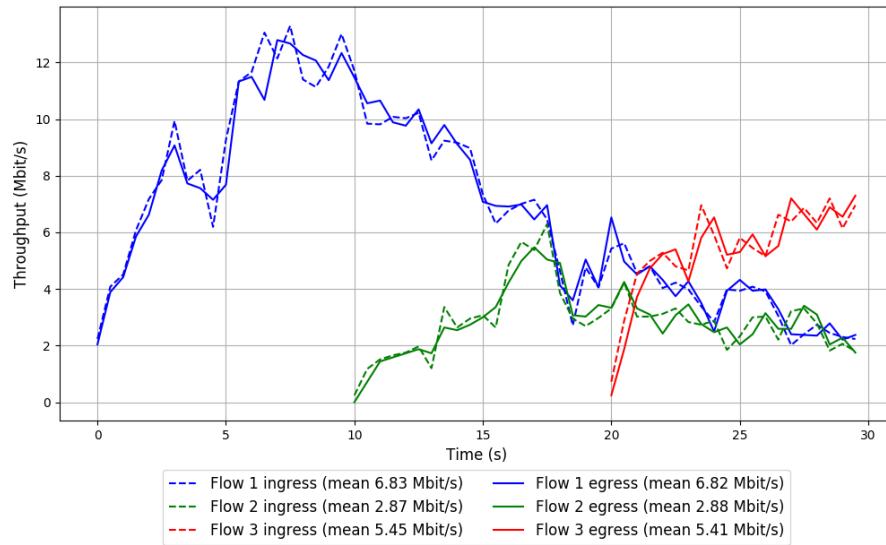


Run 3: Statistics of TCP Cubic

```
Start at: 2018-04-17 00:39:08
End at: 2018-04-17 00:39:38
Local clock offset: -8.355 ms
Remote clock offset: -7.118 ms

# Below is generated by plot.py at 2018-04-17 00:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.48 Mbit/s
95th percentile per-packet one-way delay: 264.616 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 258.902 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 314.068 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 5.41 Mbit/s
95th percentile per-packet one-way delay: 264.308 ms
Loss rate: 2.57%
```

Run 3: Report of TCP Cubic — Data Link

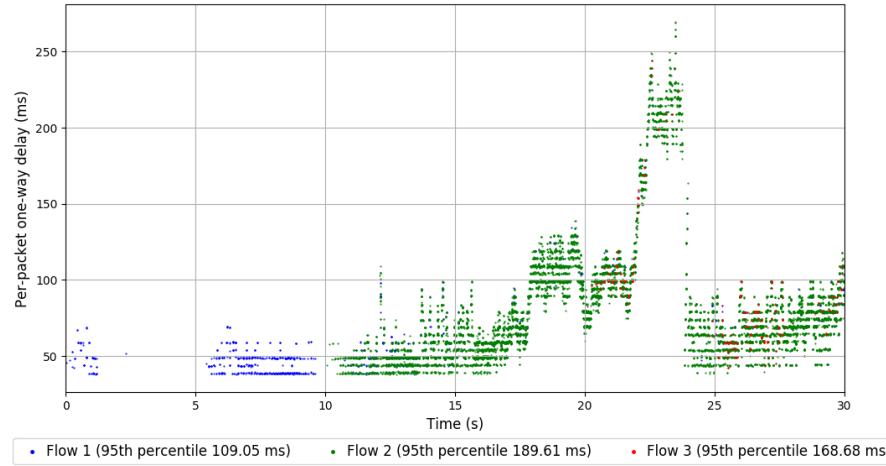
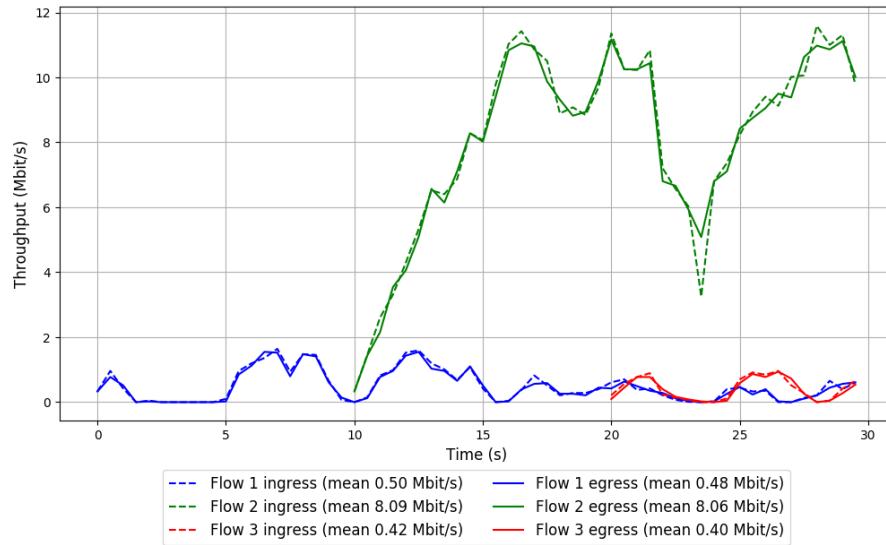


Run 1: Statistics of LEDBAT

```
Start at: 2018-04-17 00:08:08
End at: 2018-04-17 00:08:38
Local clock offset: -9.954 ms
Remote clock offset: -7.798 ms

# Below is generated by plot.py at 2018-04-17 00:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.97 Mbit/s
95th percentile per-packet one-way delay: 179.031 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 109.048 ms
Loss rate: 4.30%
-- Flow 2:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 189.609 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 168.682 ms
Loss rate: 6.19%
```

Run 1: Report of LEDBAT — Data Link

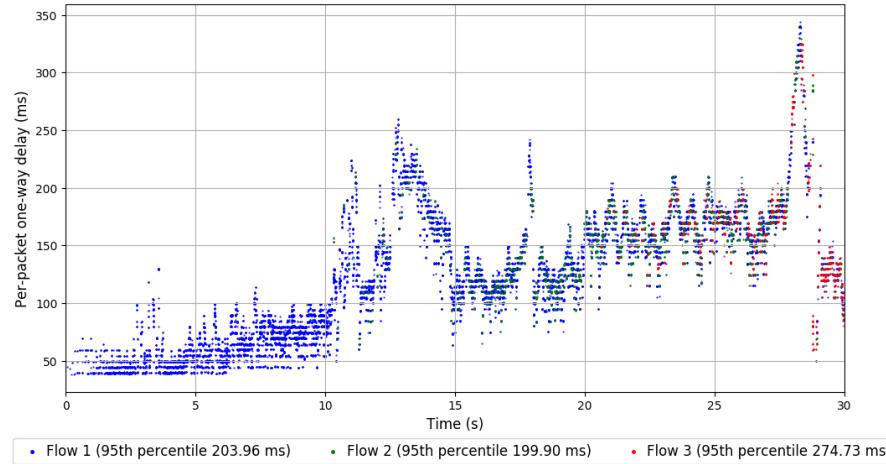
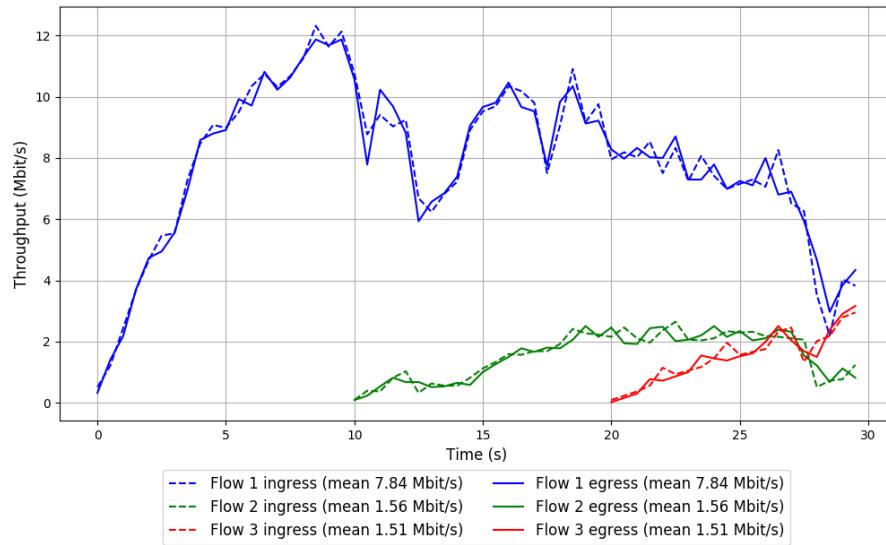


Run 2: Statistics of LEDBAT

```
Start at: 2018-04-17 00:26:58
End at: 2018-04-17 00:27:28
Local clock offset: -8.688 ms
Remote clock offset: -8.069 ms

# Below is generated by plot.py at 2018-04-17 00:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.36 Mbit/s
95th percentile per-packet one-way delay: 204.371 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 203.958 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 199.901 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 274.725 ms
Loss rate: 1.56%
```

Run 2: Report of LEDBAT — Data Link

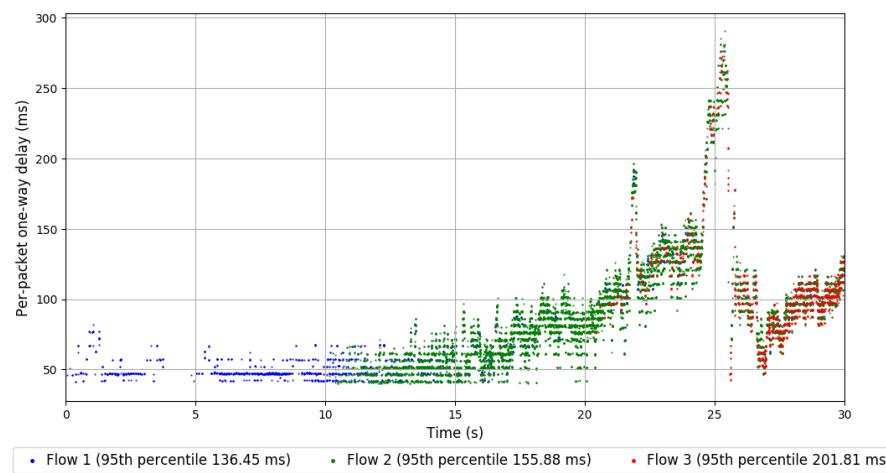
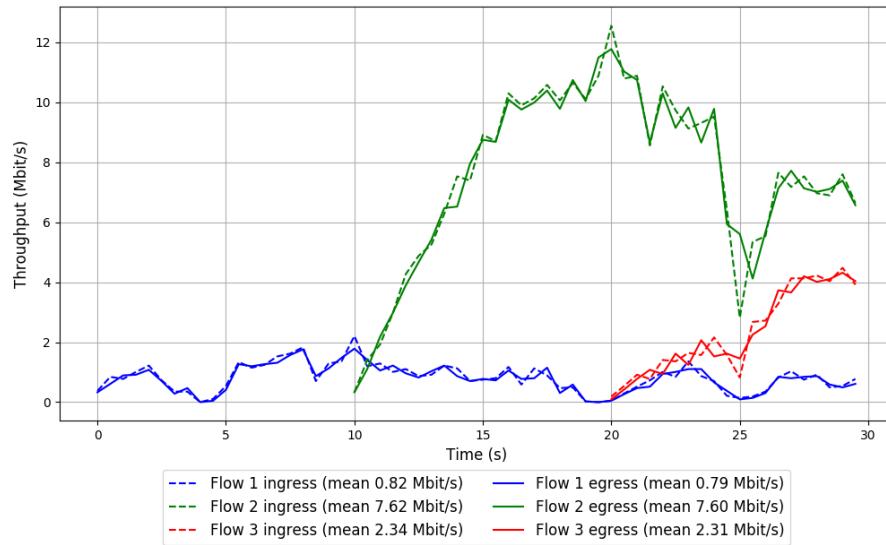


Run 3: Statistics of LEDBAT

```
Start at: 2018-04-17 00:45:46
End at: 2018-04-17 00:46:16
Local clock offset: -8.677 ms
Remote clock offset: -5.771 ms

# Below is generated by plot.py at 2018-04-17 00:57:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.60 Mbit/s
95th percentile per-packet one-way delay: 155.674 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 136.450 ms
Loss rate: 4.03%
-- Flow 2:
Average throughput: 7.60 Mbit/s
95th percentile per-packet one-way delay: 155.884 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 201.808 ms
Loss rate: 1.86%
```

Run 3: Report of LEDBAT — Data Link

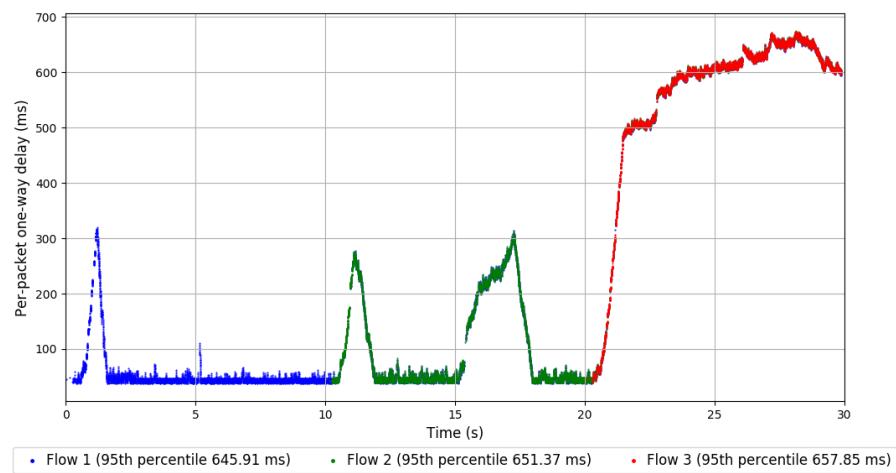
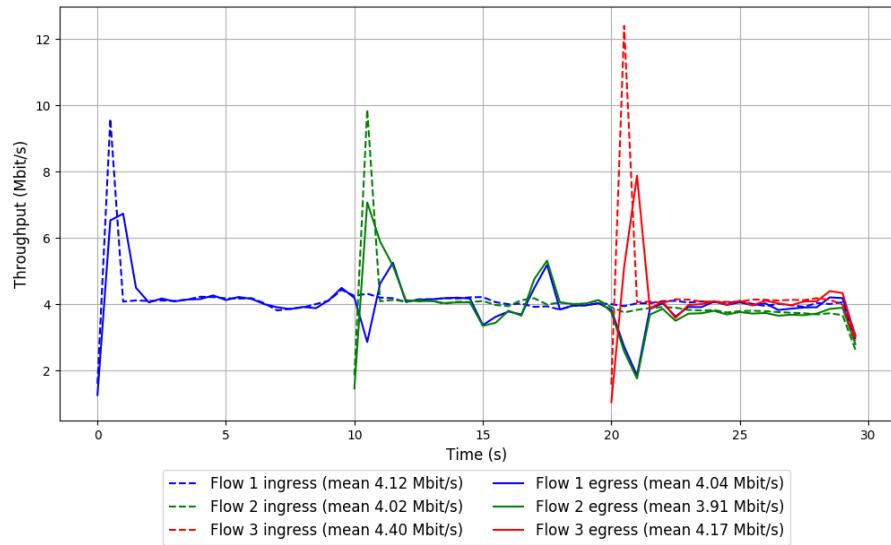


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-04-17 00:05:55
End at: 2018-04-17 00:06:26
Local clock offset: -10.124 ms
Remote clock offset: -7.937 ms

# Below is generated by plot.py at 2018-04-17 00:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 651.574 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 645.914 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 651.368 ms
Loss rate: 2.84%
-- Flow 3:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 657.845 ms
Loss rate: 5.61%
```

Run 1: Report of PCC-Allegro — Data Link

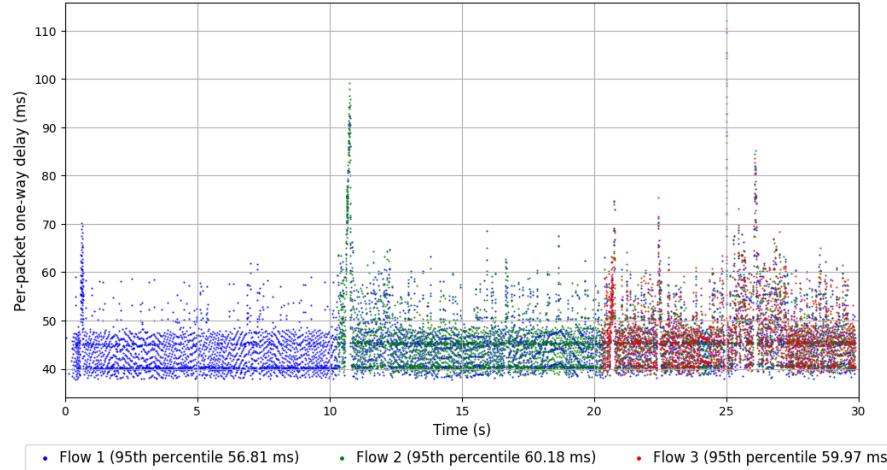
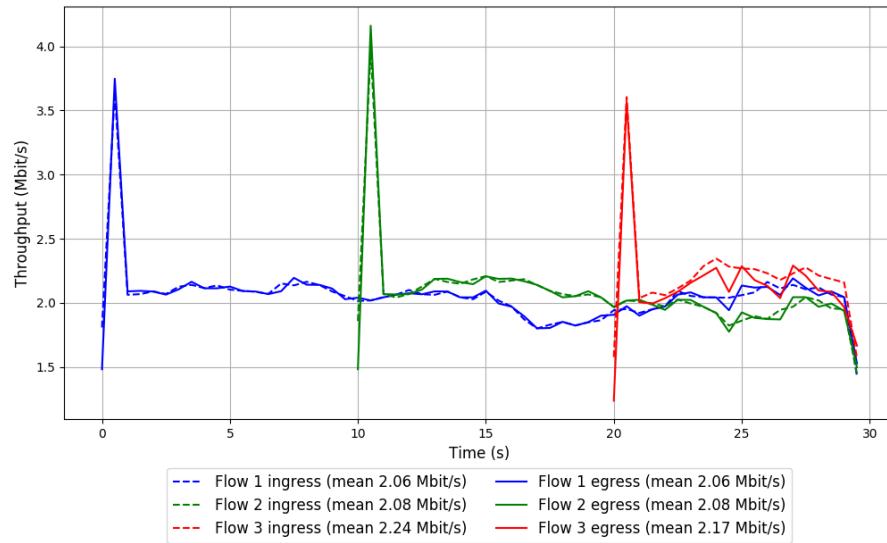


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-04-17 00:24:45
End at: 2018-04-17 00:25:15
Local clock offset: -10.014 ms
Remote clock offset: -7.771 ms

# Below is generated by plot.py at 2018-04-17 00:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 58.512 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 56.810 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 60.178 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 59.974 ms
Loss rate: 3.46%
```

Run 2: Report of PCC-Allegro — Data Link

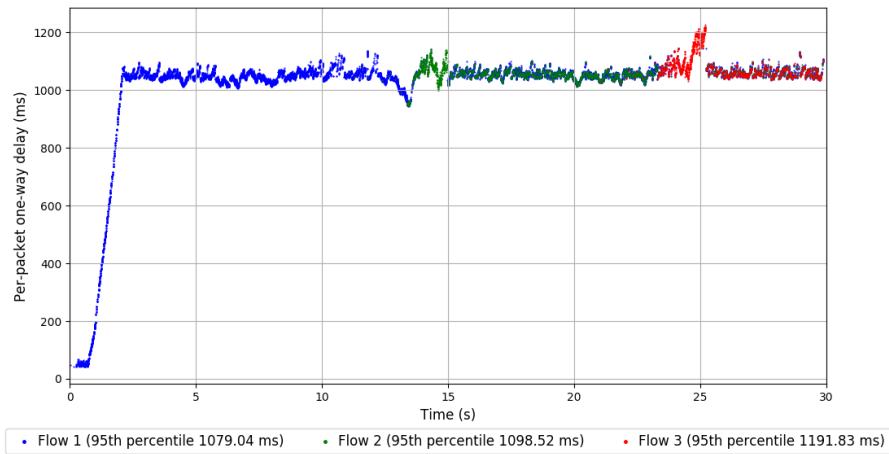
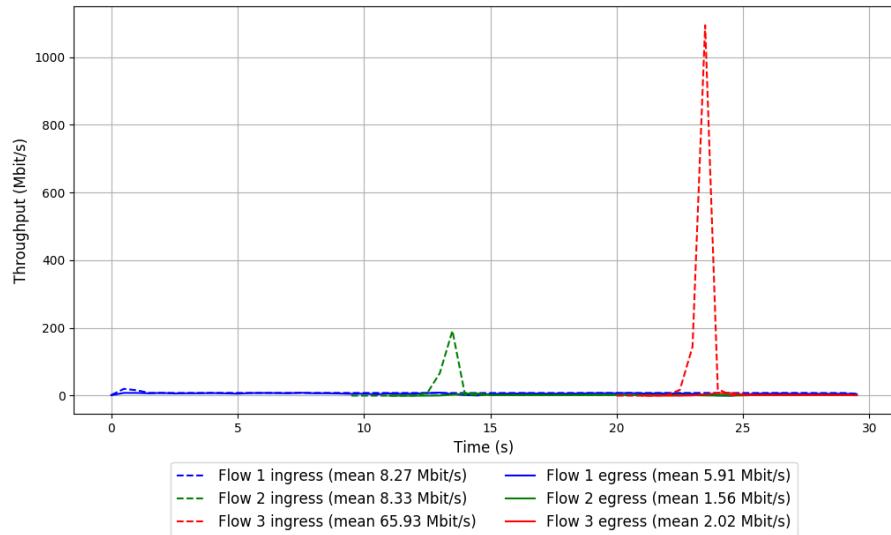


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-04-17 00:43:33
End at: 2018-04-17 00:44:03
Local clock offset: -11.522 ms
Remote clock offset: -6.482 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 1092.987 ms
Loss rate: 78.96%
-- Flow 1:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 1079.039 ms
Loss rate: 28.68%
-- Flow 2:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 1098.515 ms
Loss rate: 82.25%
-- Flow 3:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 1191.825 ms
Loss rate: 97.25%
```

Run 3: Report of PCC-Allegro — Data Link

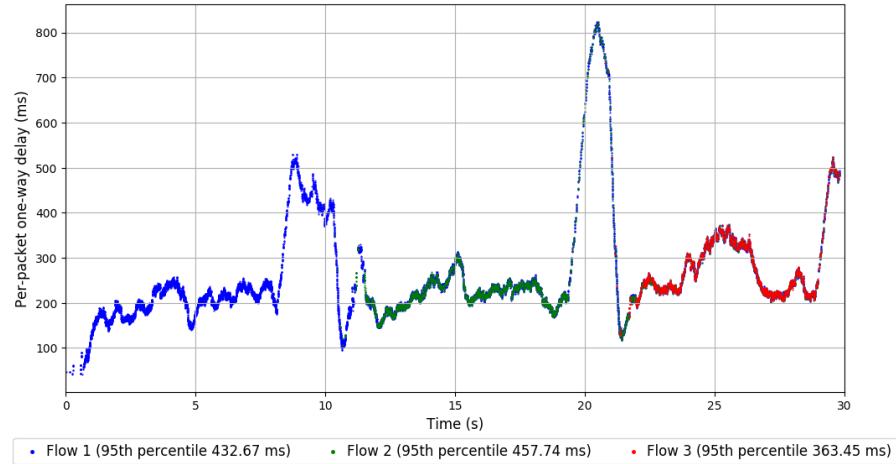
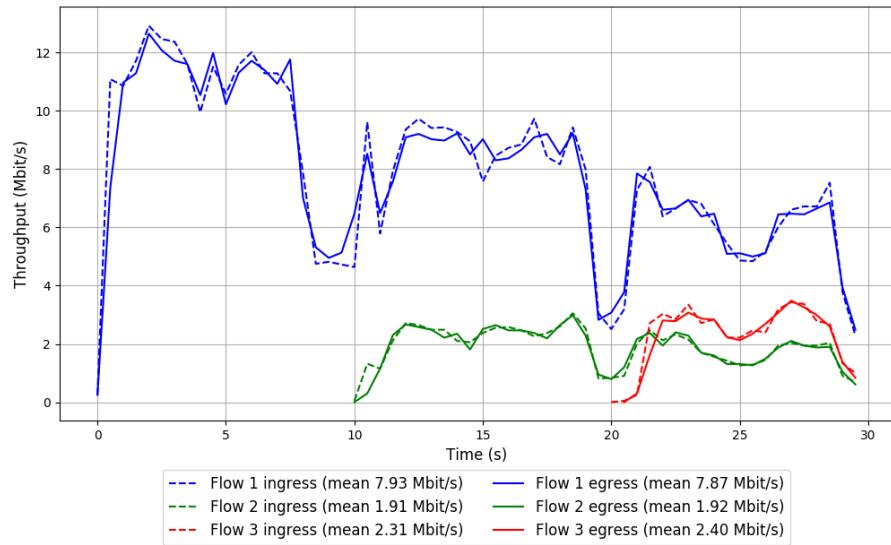


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-04-17 00:17:01
End at: 2018-04-17 00:17:31
Local clock offset: -10.842 ms
Remote clock offset: -7.03 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 431.077 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 432.668 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 457.741 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 363.448 ms
Loss rate: 3.53%
```

Run 1: Report of QUIC Cubic — Data Link

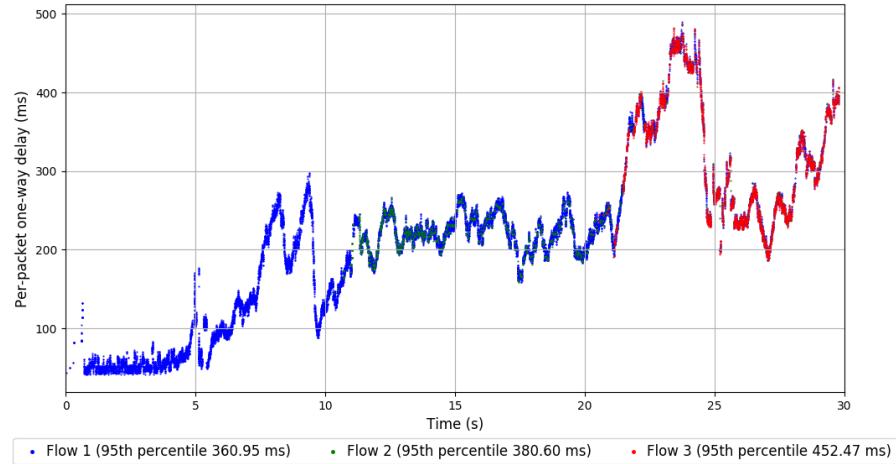
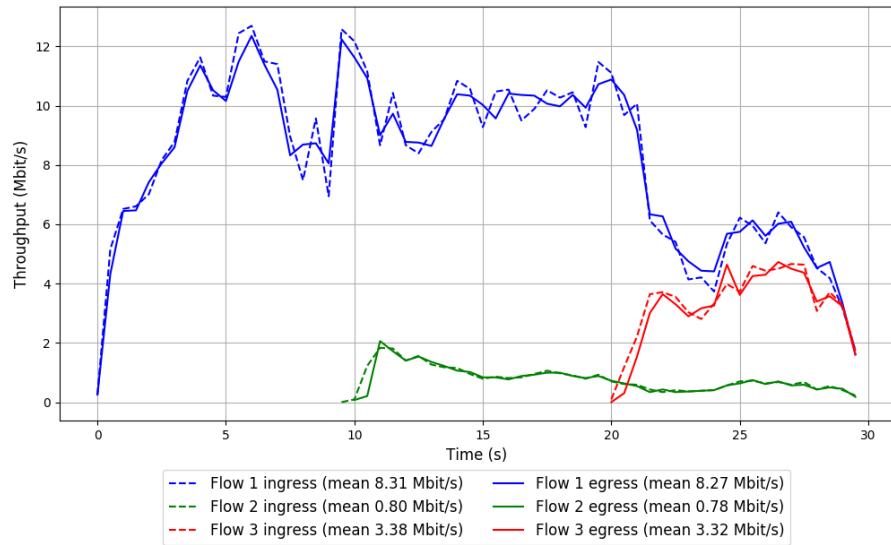


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-04-17 00:35:48
End at: 2018-04-17 00:36:18
Local clock offset: -11.204 ms
Remote clock offset: -7.635 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 386.420 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 360.951 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 380.596 ms
Loss rate: 3.70%
-- Flow 3:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 452.472 ms
Loss rate: 3.91%
```

Run 2: Report of QUIC Cubic — Data Link

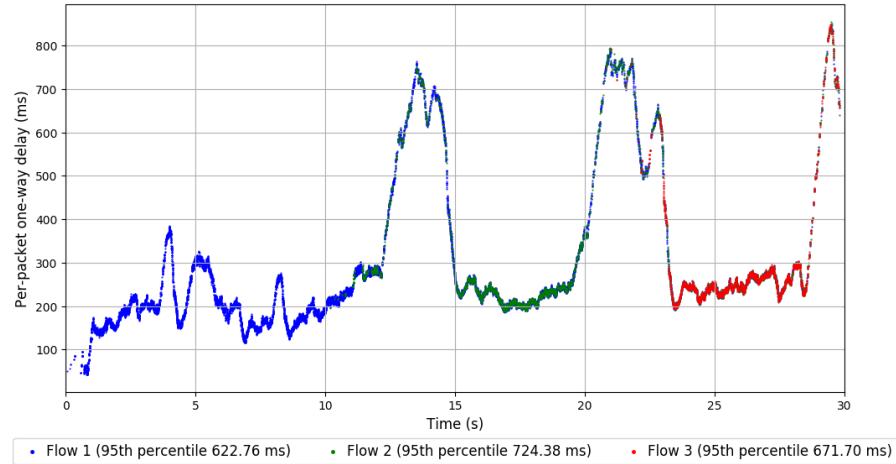
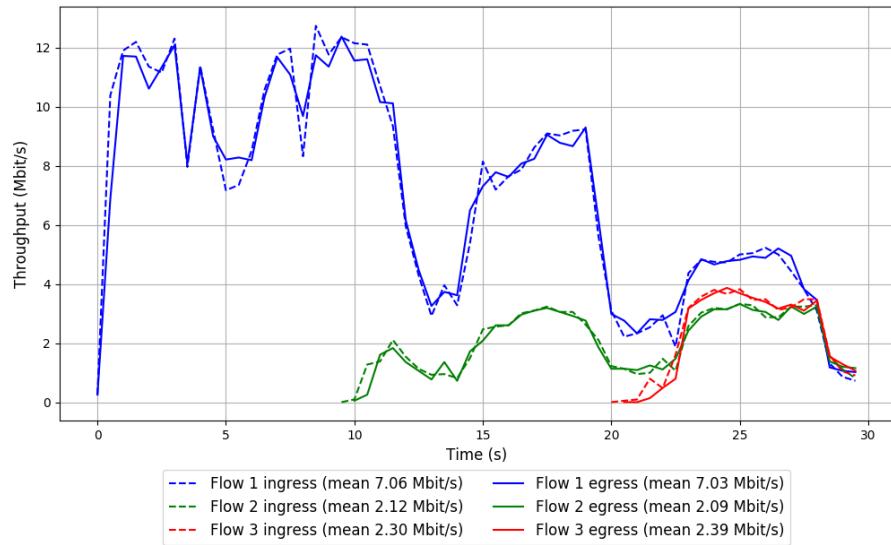


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-04-17 00:54:36
End at: 2018-04-17 00:55:06
Local clock offset: -9.705 ms
Remote clock offset: -4.422 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 648.483 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 622.764 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 724.376 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 671.698 ms
Loss rate: 3.88%
```

Run 3: Report of QUIC Cubic — Data Link

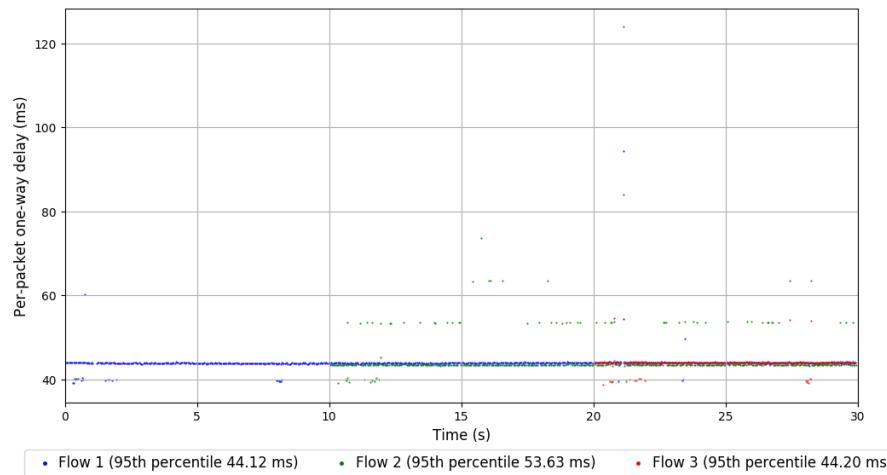
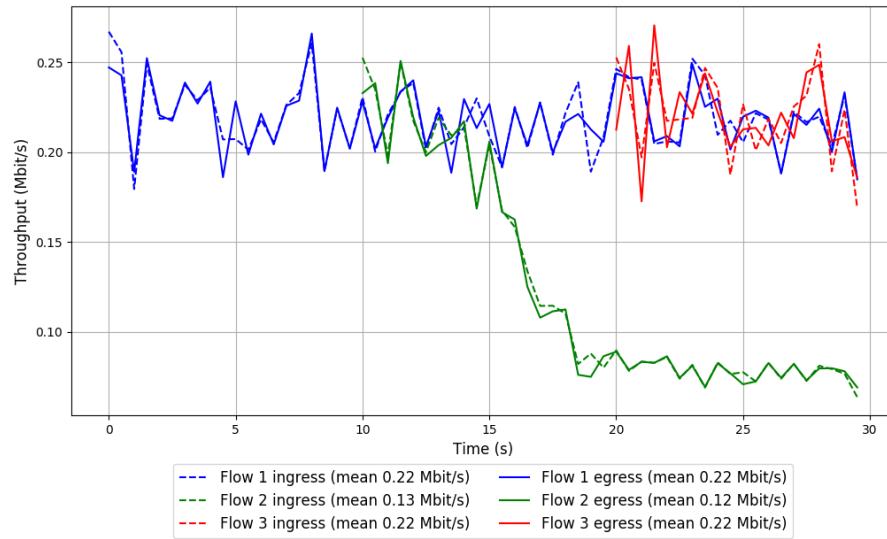


```
Run 1: Statistics of SCReAM

Start at: 2018-04-17 00:13:41
End at: 2018-04-17 00:14:11
Local clock offset: -9.717 ms
Remote clock offset: -7.687 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 44.207 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 44.122 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 53.626 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 44.198 ms
Loss rate: 0.35%
```

Run 1: Report of SCReAM — Data Link

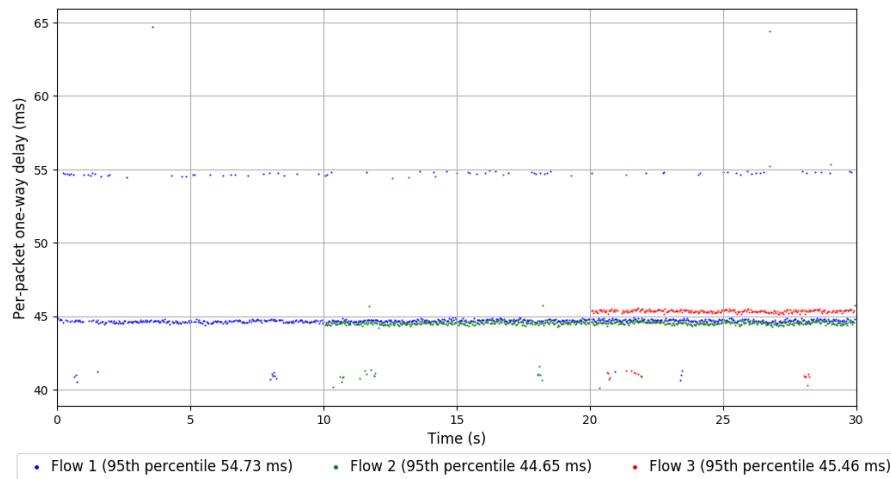
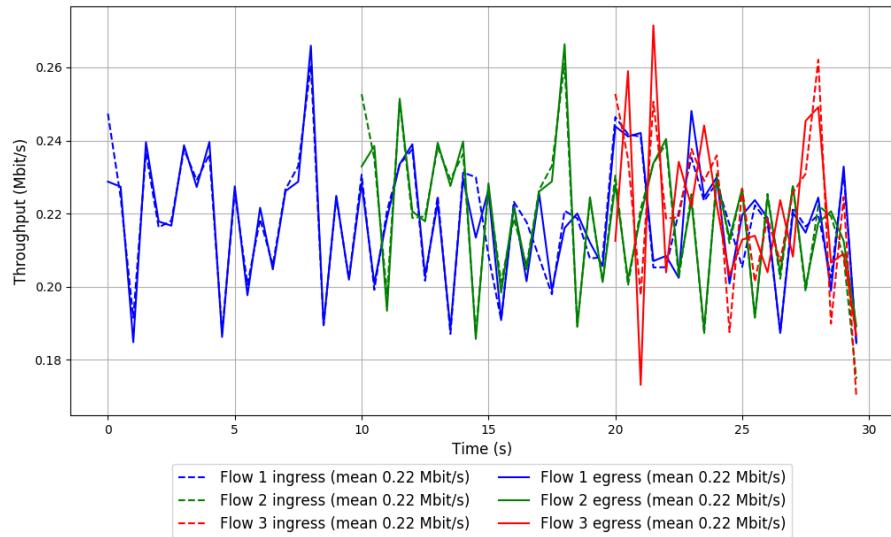


Run 2: Statistics of SCReAM

```
Start at: 2018-04-17 00:32:30
End at: 2018-04-17 00:33:00
Local clock offset: -9.002 ms
Remote clock offset: -8.278 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 54.550 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.733 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 44.651 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 45.463 ms
Loss rate: 0.35%
```

Run 2: Report of SCReAM — Data Link

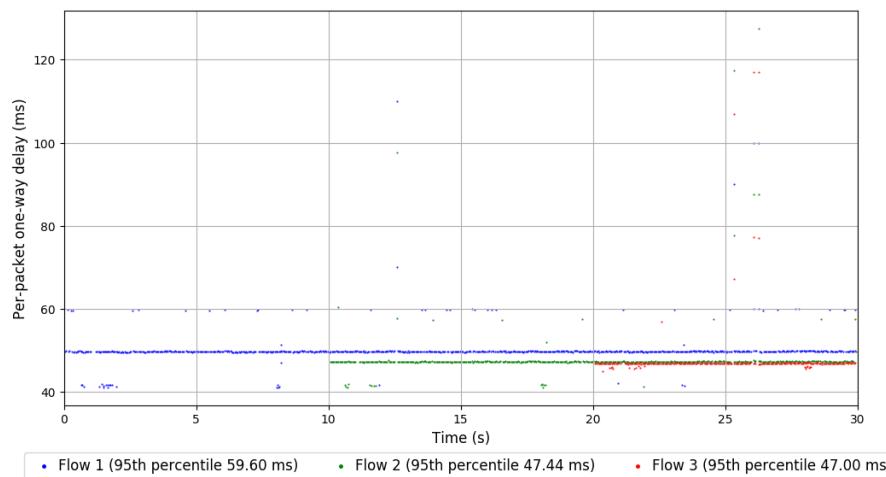
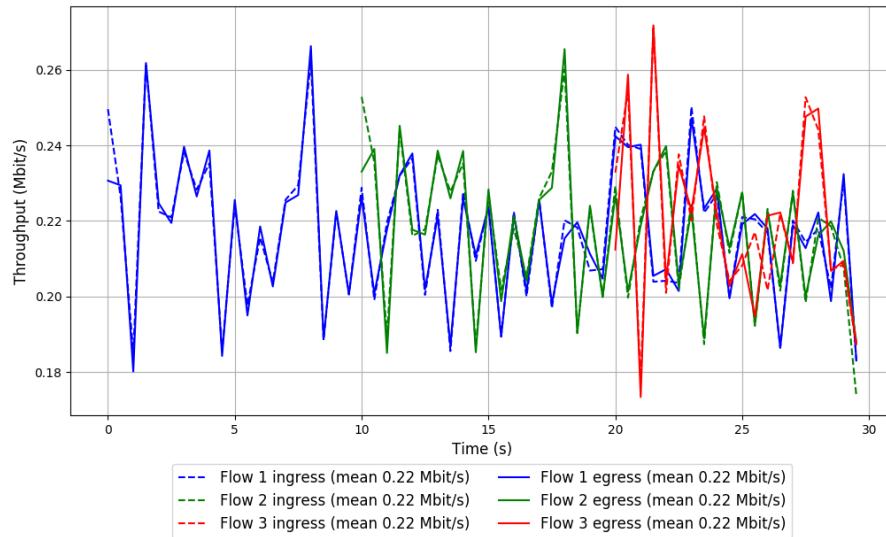


Run 3: Statistics of SCReAM

```
Start at: 2018-04-17 00:51:17
End at: 2018-04-17 00:51:47
Local clock offset: -10.949 ms
Remote clock offset: -4.829 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 49.920 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.604 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.441 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.002 ms
Loss rate: 0.35%
```

Run 3: Report of SCReAM — Data Link

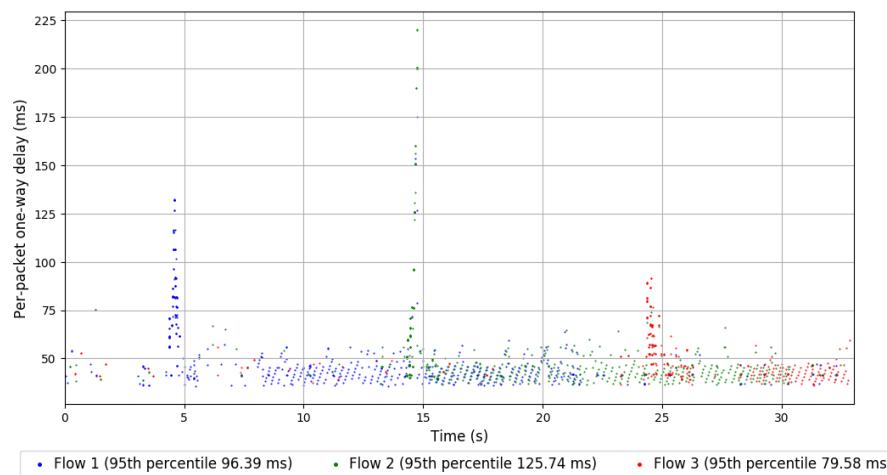
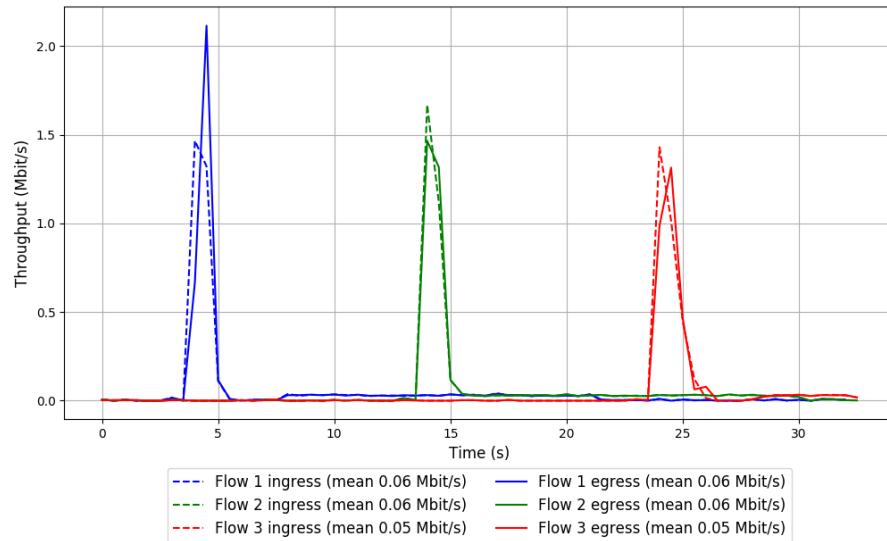


```
Run 1: Statistics of WebRTC media

Start at: 2018-04-17 00:18:08
End at: 2018-04-17 00:18:38
Local clock offset: -9.836 ms
Remote clock offset: -7.828 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 91.822 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 96.393 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 125.740 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 79.576 ms
Loss rate: 3.64%
```

Run 1: Report of WebRTC media — Data Link

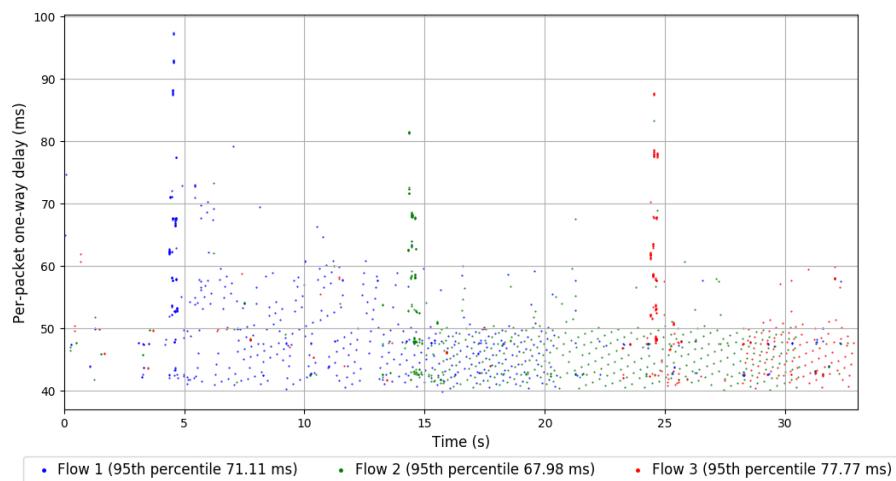
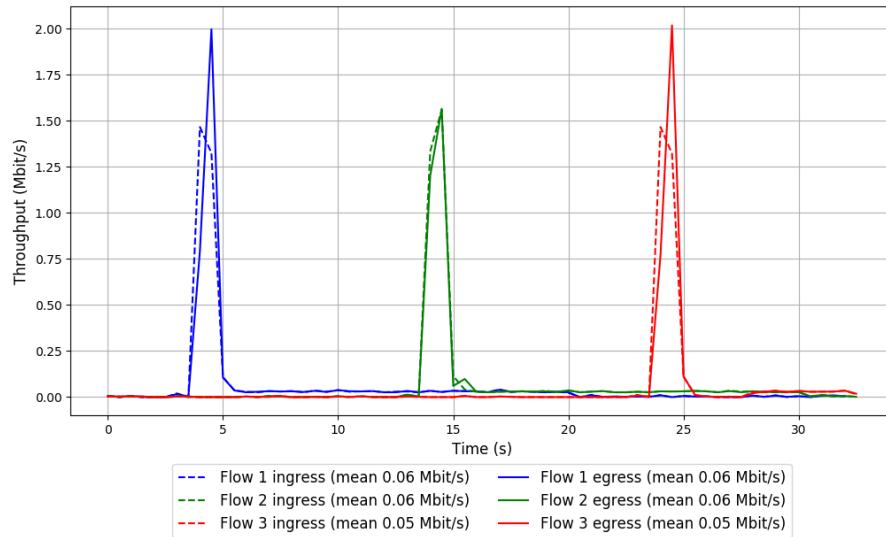


Run 2: Statistics of WebRTC media

```
Start at: 2018-04-17 00:36:54
End at: 2018-04-17 00:37:24
Local clock offset: -11.939 ms
Remote clock offset: -6.737 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 70.925 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 71.111 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 67.981 ms
Loss rate: 3.20%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 77.767 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

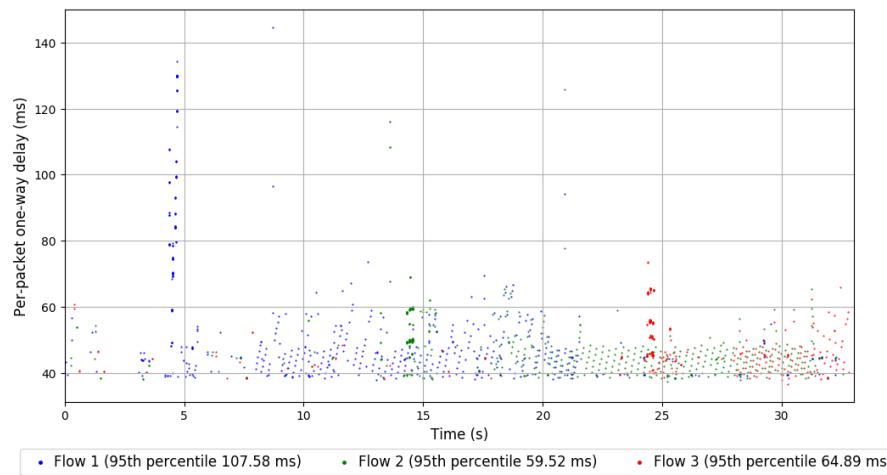
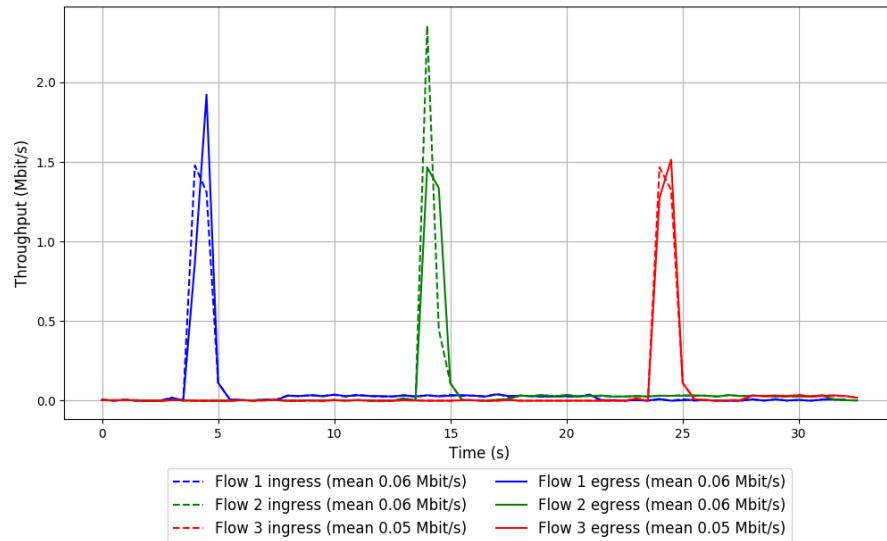


Run 3: Statistics of WebRTC media

```
Start at: 2018-04-17 00:55:42
End at: 2018-04-17 00:56:12
Local clock offset: -7.959 ms
Remote clock offset: -5.847 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 79.827 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 107.581 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 59.518 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 64.887 ms
Loss rate: 0.08%
```

Run 3: Report of WebRTC media — Data Link

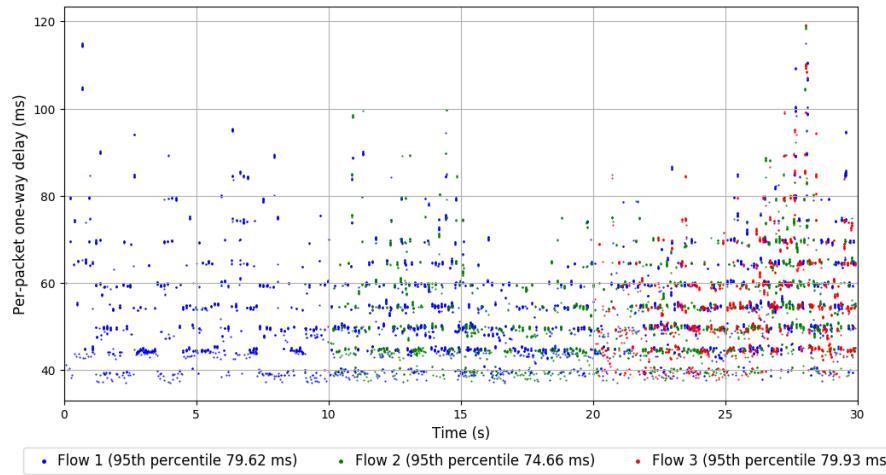
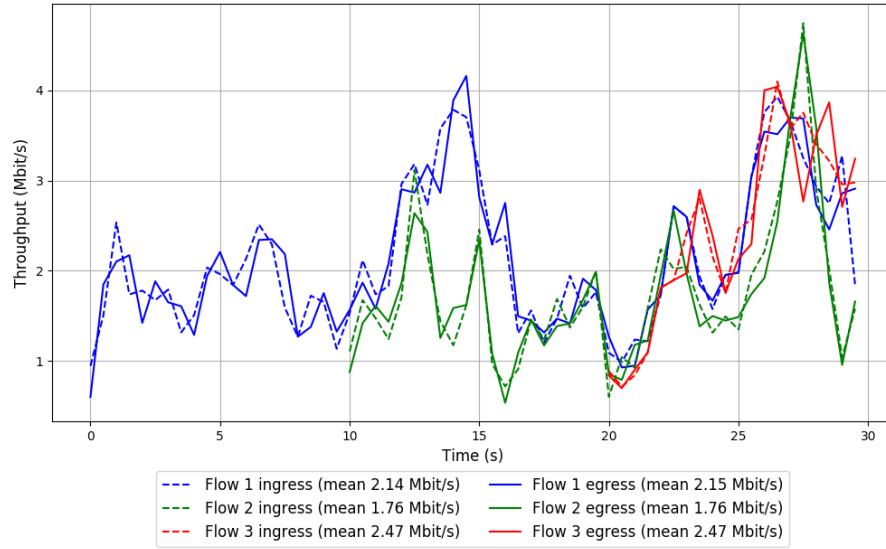


Run 1: Statistics of Sprout

```
Start at: 2018-04-17 00:10:21
End at: 2018-04-17 00:10:51
Local clock offset: -11.06 ms
Remote clock offset: -8.423 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 79.361 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 79.616 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 74.661 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 79.931 ms
Loss rate: 0.46%
```

Run 1: Report of Sprout — Data Link

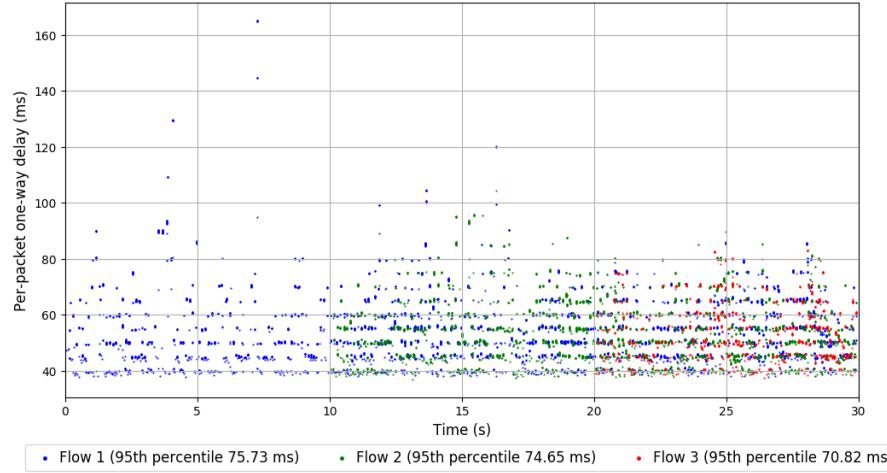
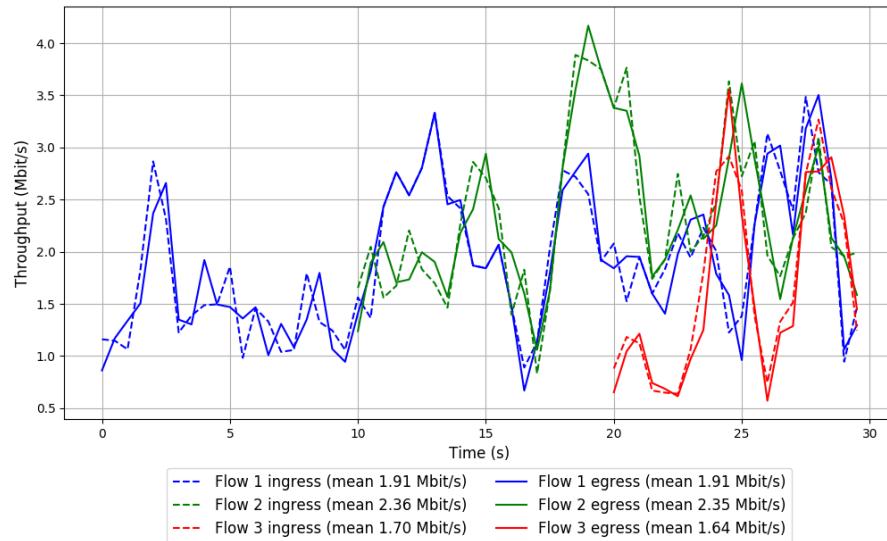


Run 2: Statistics of Sprout

```
Start at: 2018-04-17 00:29:11
End at: 2018-04-17 00:29:41
Local clock offset: -9.125 ms
Remote clock offset: -8.206 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 75.081 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 75.729 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 74.654 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 70.820 ms
Loss rate: 3.11%
```

Run 2: Report of Sprout — Data Link

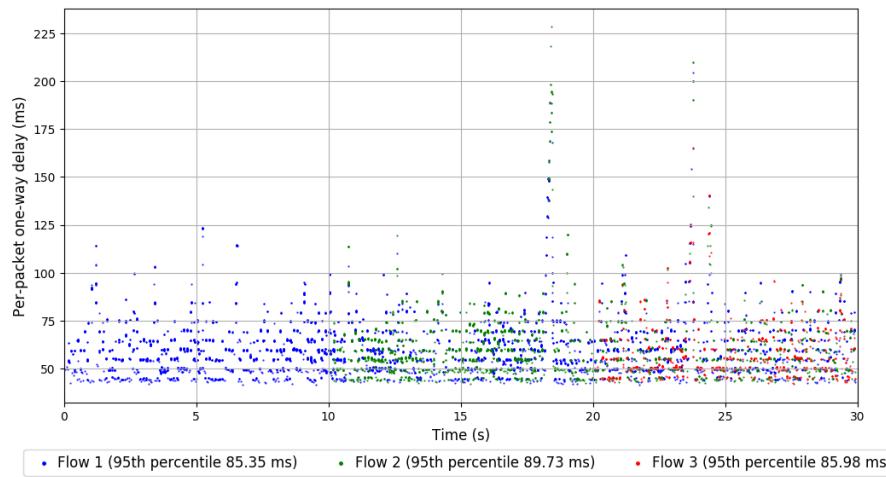
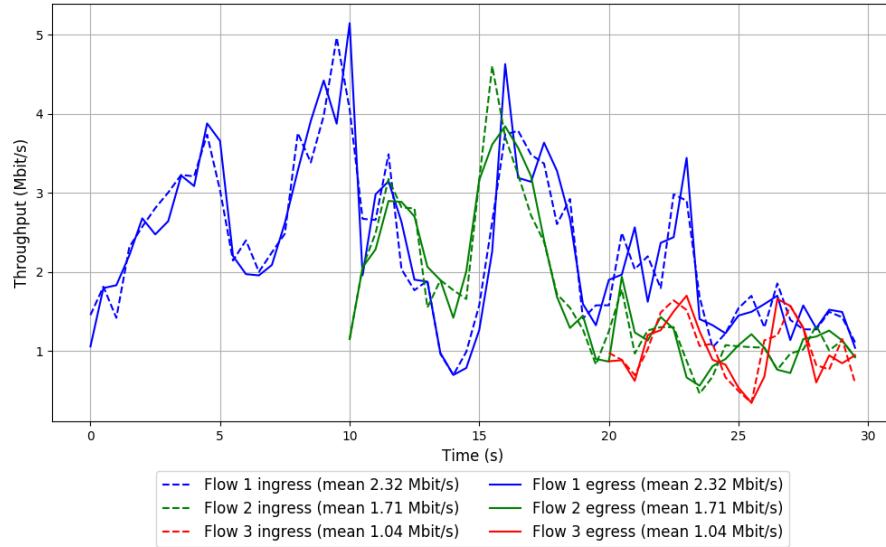


Run 3: Statistics of Sprout

```
Start at: 2018-04-17 00:47:59
End at: 2018-04-17 00:48:29
Local clock offset: -11.579 ms
Remote clock offset: -5.192 ms

# Below is generated by plot.py at 2018-04-17 00:57:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 88.685 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 85.346 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 89.728 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 85.979 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

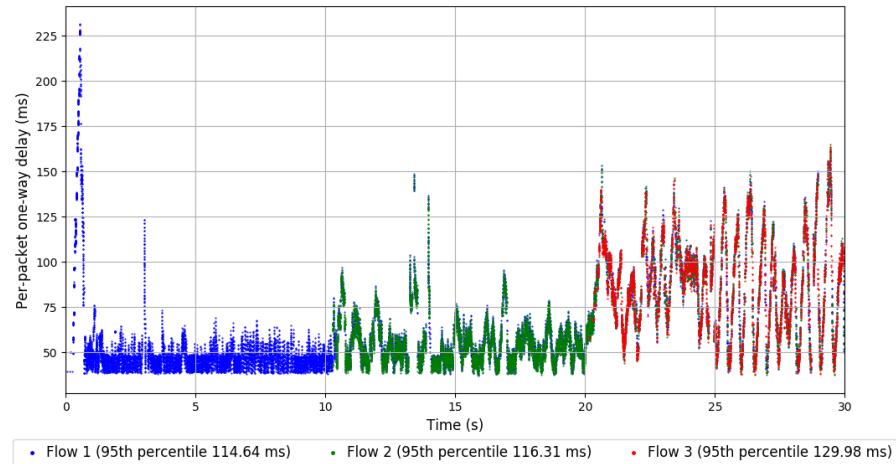
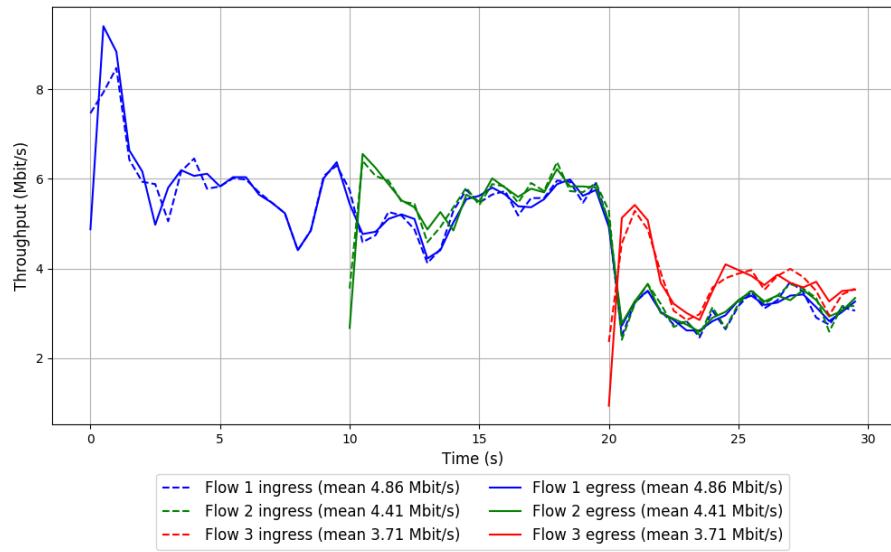


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-04-17 00:12:34
End at: 2018-04-17 00:13:04
Local clock offset: -11.162 ms
Remote clock offset: -8.075 ms

# Below is generated by plot.py at 2018-04-17 00:58:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 119.652 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 114.635 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 116.308 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 129.976 ms
Loss rate: 0.31%
```

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

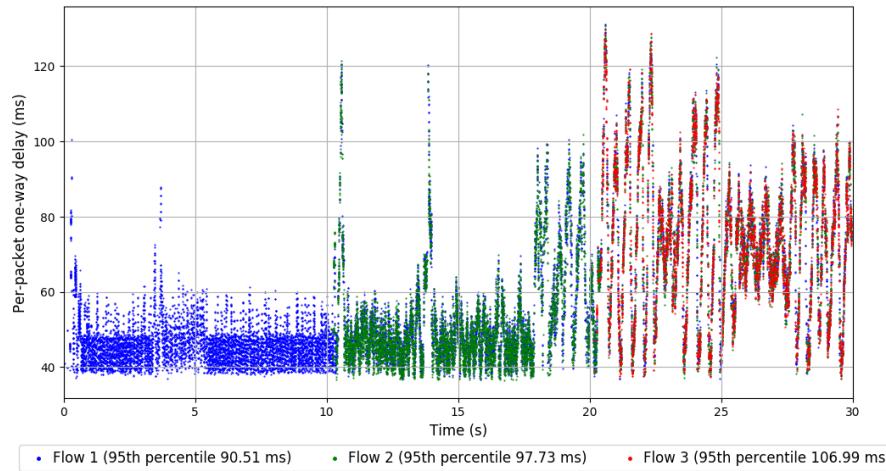
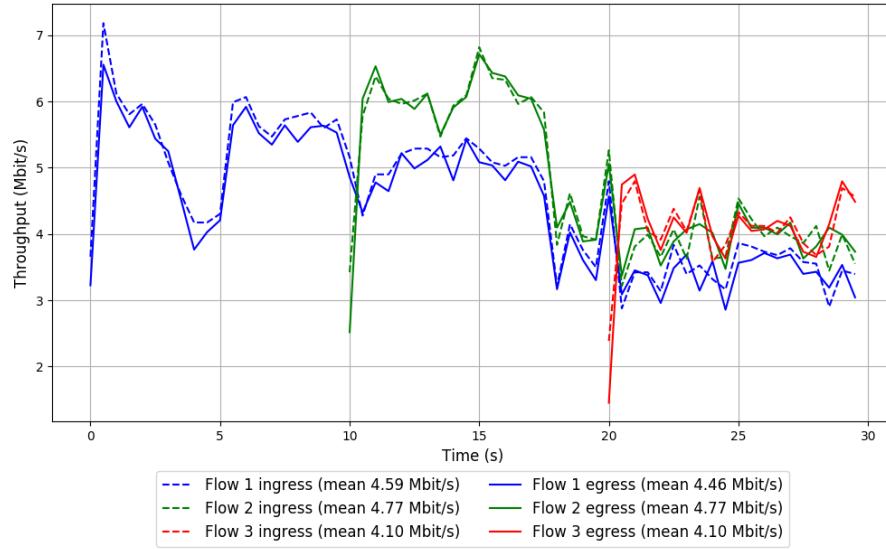


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-04-17 00:31:23
End at: 2018-04-17 00:31:53
Local clock offset: -9.136 ms
Remote clock offset: -8.299 ms

# Below is generated by plot.py at 2018-04-17 00:58:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.99 Mbit/s
95th percentile per-packet one-way delay: 97.617 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 90.511 ms
Loss rate: 2.96%
-- Flow 2:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 97.728 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 106.988 ms
Loss rate: 0.47%
```

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

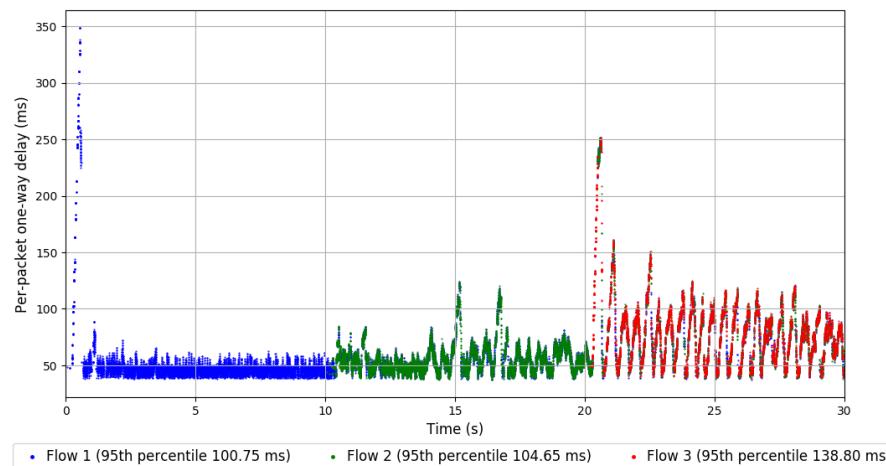
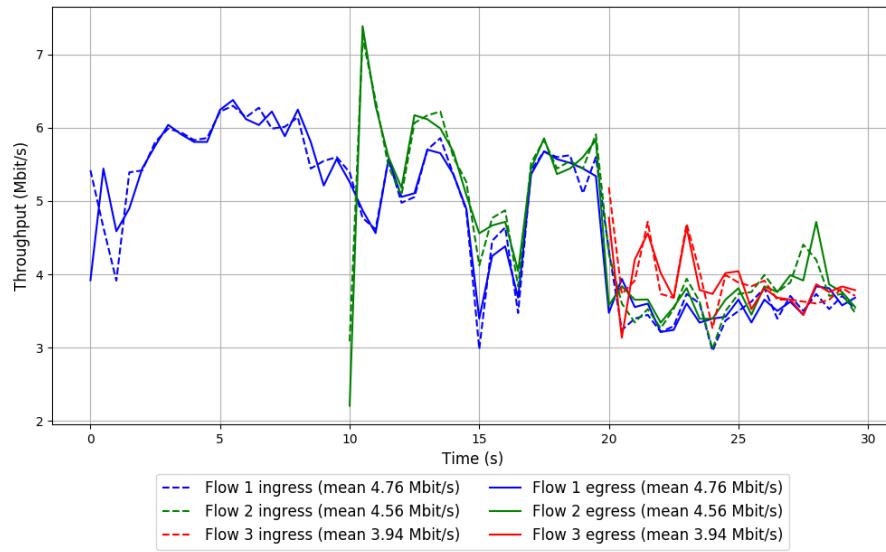


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-04-17 00:50:11
End at: 2018-04-17 00:50:41
Local clock offset: -8.929 ms
Remote clock offset: -4.808 ms

# Below is generated by plot.py at 2018-04-17 00:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.10 Mbit/s
95th percentile per-packet one-way delay: 107.760 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 100.747 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 4.56 Mbit/s
95th percentile per-packet one-way delay: 104.647 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 138.801 ms
Loss rate: 0.46%
```

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

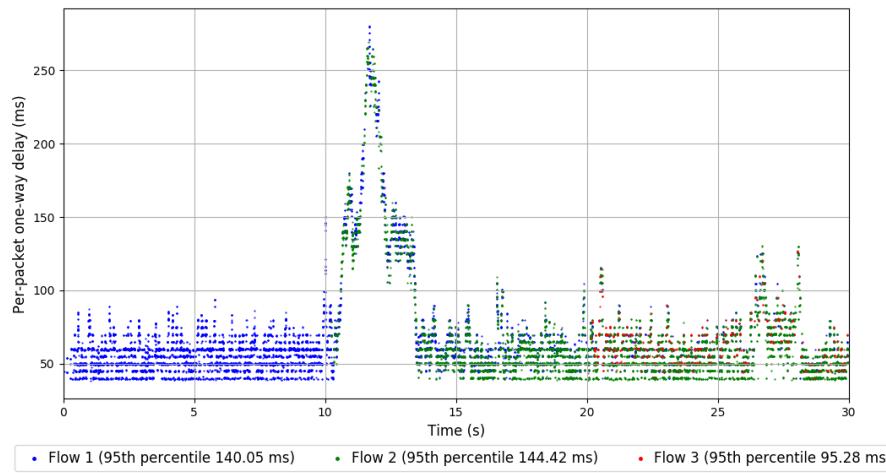
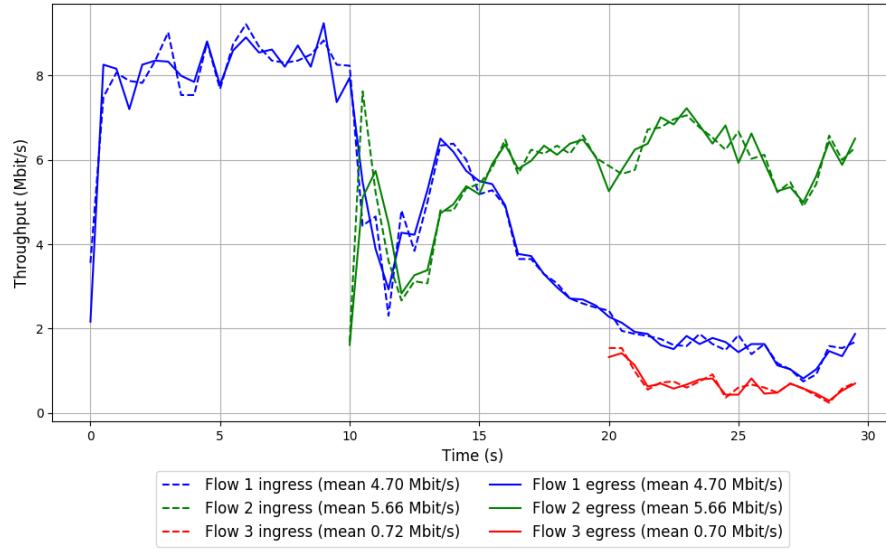


Run 1: Statistics of TCP Vegas

```
Start at: 2018-04-17 00:09:14
End at: 2018-04-17 00:09:44
Local clock offset: -11.089 ms
Remote clock offset: -8.567 ms

# Below is generated by plot.py at 2018-04-17 00:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.70 Mbit/s
95th percentile per-packet one-way delay: 140.081 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 4.70 Mbit/s
95th percentile per-packet one-way delay: 140.052 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 5.66 Mbit/s
95th percentile per-packet one-way delay: 144.420 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 95.280 ms
Loss rate: 2.52%
```

Run 1: Report of TCP Vegas — Data Link

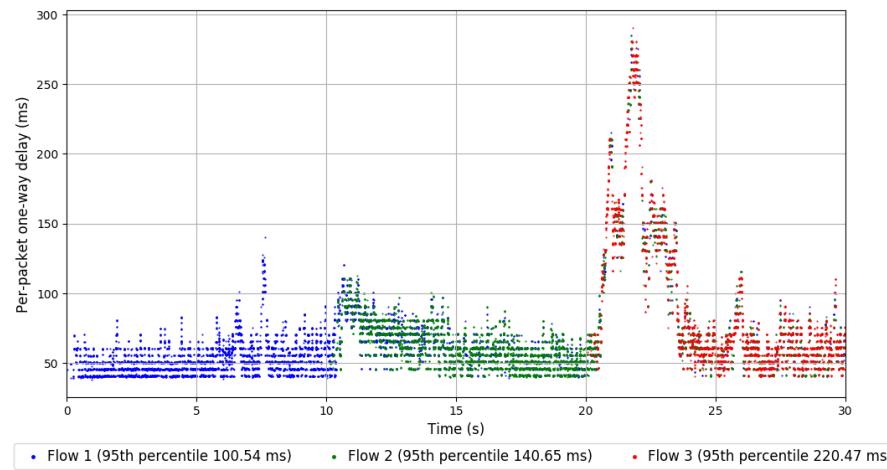
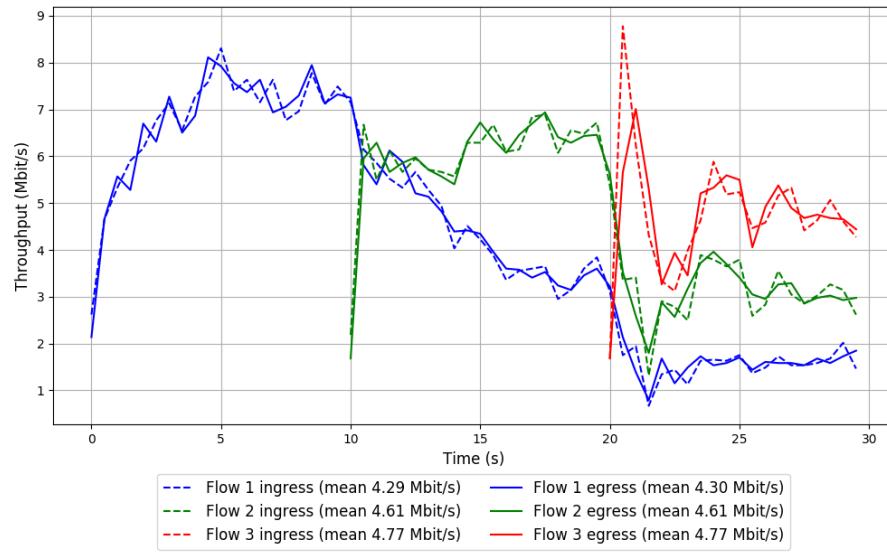


Run 2: Statistics of TCP Vegas

```
Start at: 2018-04-17 00:28:04
End at: 2018-04-17 00:28:34
Local clock offset: -9.136 ms
Remote clock offset: -7.943 ms

# Below is generated by plot.py at 2018-04-17 00:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.93 Mbit/s
95th percentile per-packet one-way delay: 150.432 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 100.542 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 140.649 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 220.469 ms
Loss rate: 0.56%
```

Run 2: Report of TCP Vegas — Data Link

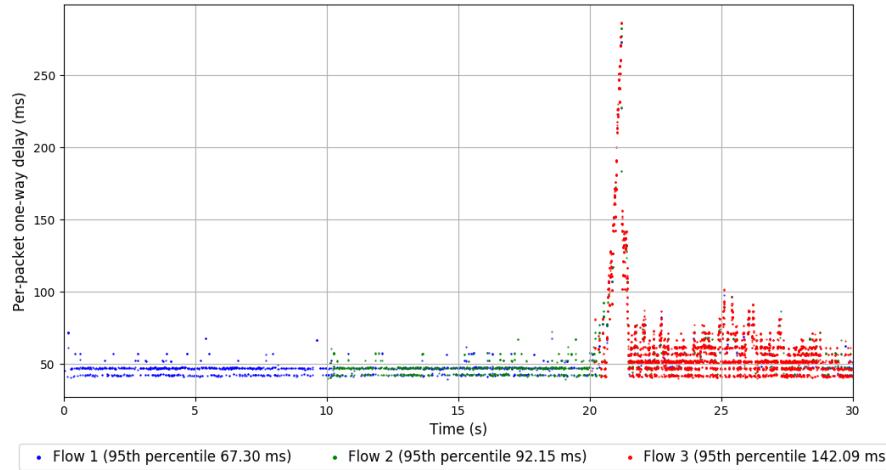
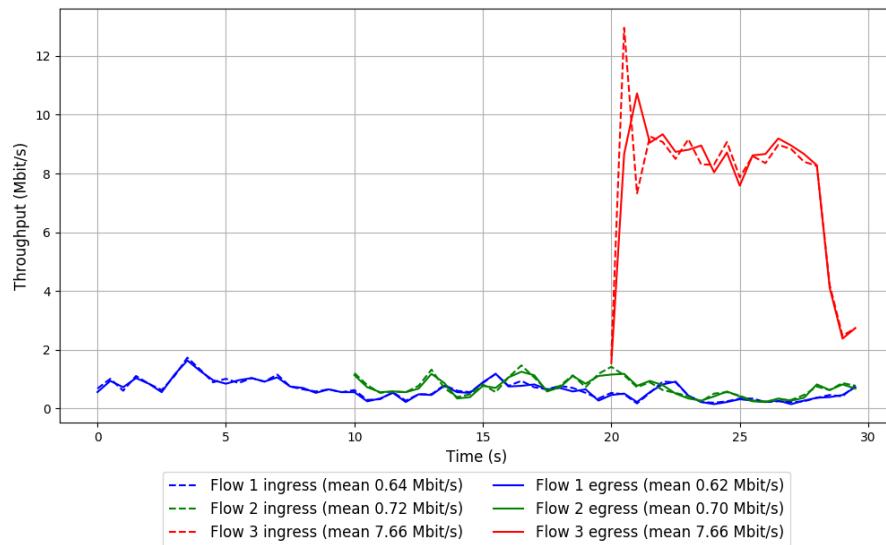


Run 3: Statistics of TCP Vegas

```
Start at: 2018-04-17 00:46:52
End at: 2018-04-17 00:47:22
Local clock offset: -8.818 ms
Remote clock offset: -5.899 ms

# Below is generated by plot.py at 2018-04-17 00:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 129.431 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 67.302 ms
Loss rate: 3.23%
-- Flow 2:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 92.153 ms
Loss rate: 2.60%
-- Flow 3:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 142.088 ms
Loss rate: 0.46%
```

Run 3: Report of TCP Vegas — Data Link

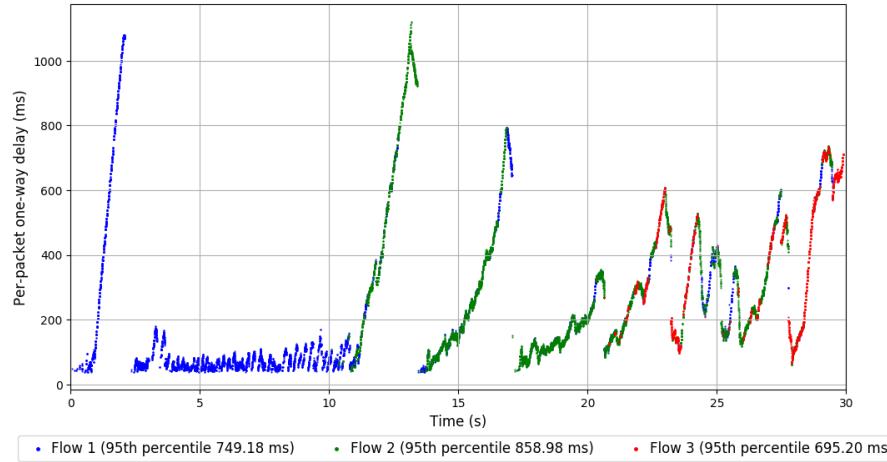
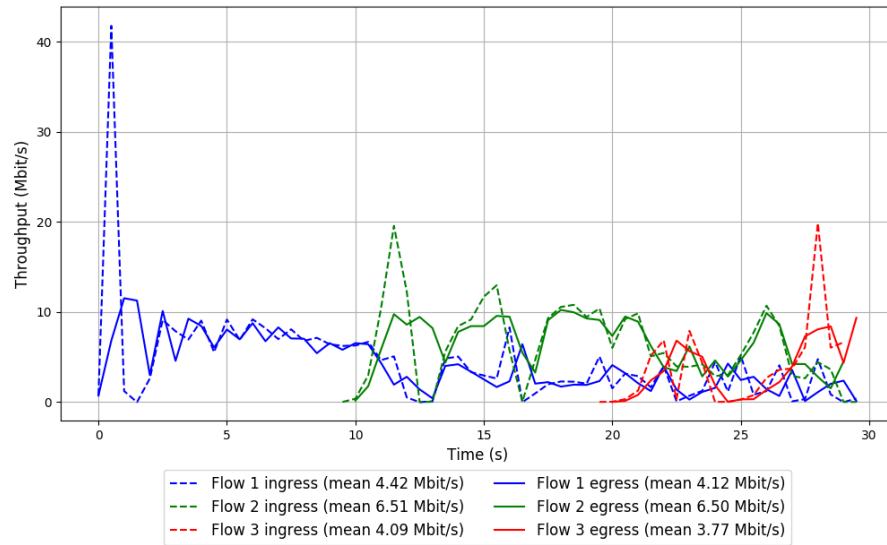


Run 1: Statistics of Verus

```
Start at: 2018-04-17 00:07:02
End at: 2018-04-17 00:07:32
Local clock offset: -10.878 ms
Remote clock offset: -8.442 ms

# Below is generated by plot.py at 2018-04-17 00:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 758.797 ms
Loss rate: 4.59%
-- Flow 1:
Average throughput: 4.12 Mbit/s
95th percentile per-packet one-way delay: 749.182 ms
Loss rate: 7.77%
-- Flow 2:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 858.979 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 695.204 ms
Loss rate: 5.40%
```

Run 1: Report of Verus — Data Link

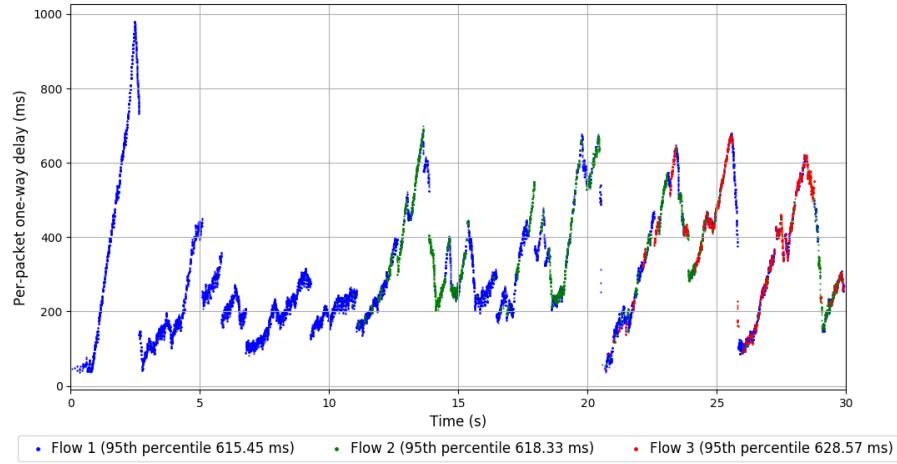
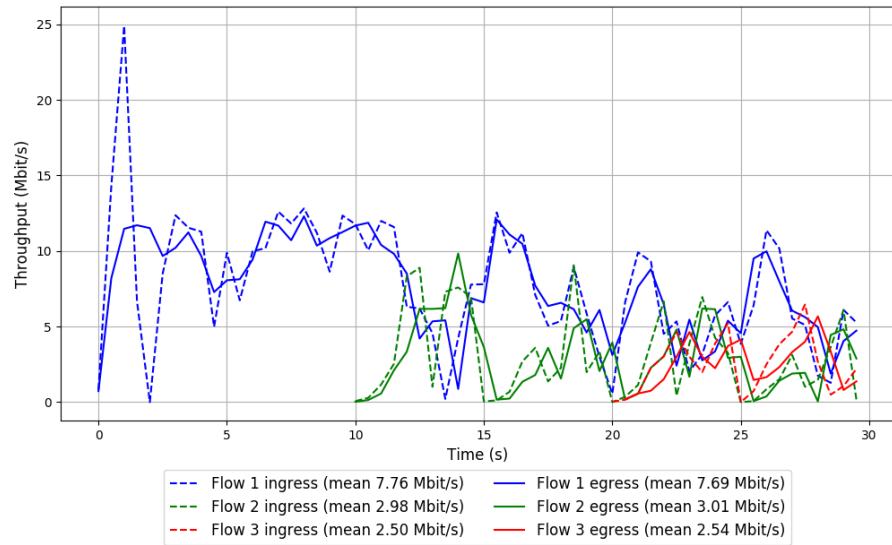


Run 2: Statistics of Verus

```
Start at: 2018-04-17 00:25:51
End at: 2018-04-17 00:26:21
Local clock offset: -8.491 ms
Remote clock offset: -8.248 ms

# Below is generated by plot.py at 2018-04-17 00:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.46 Mbit/s
95th percentile per-packet one-way delay: 618.286 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 7.69 Mbit/s
95th percentile per-packet one-way delay: 615.449 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 618.326 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 628.572 ms
Loss rate: 3.40%
```

Run 2: Report of Verus — Data Link

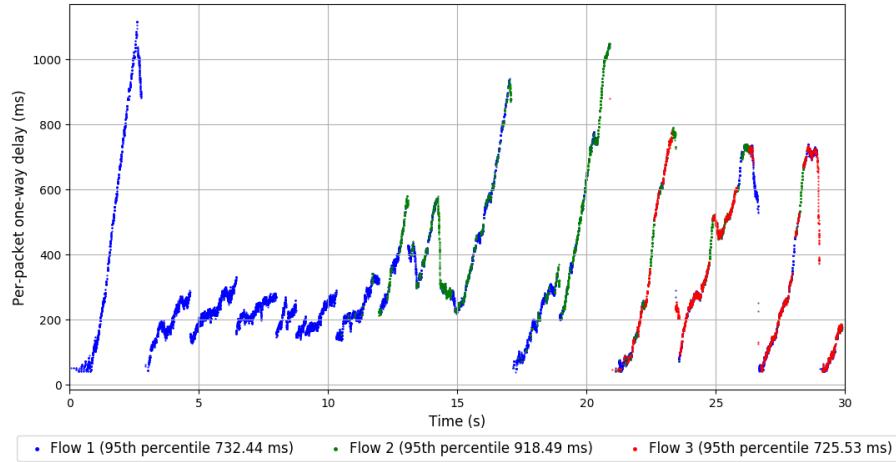
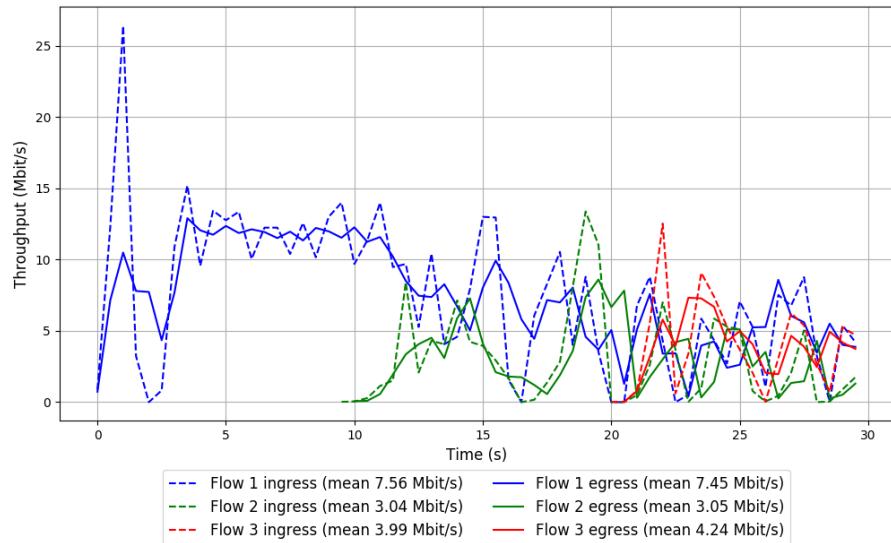


Run 3: Statistics of Verus

```
Start at: 2018-04-17 00:44:39
End at: 2018-04-17 00:45:09
Local clock offset: -10.916 ms
Remote clock offset: -6.231 ms

# Below is generated by plot.py at 2018-04-17 00:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.73 Mbit/s
95th percentile per-packet one-way delay: 765.649 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 7.45 Mbit/s
95th percentile per-packet one-way delay: 732.441 ms
Loss rate: 1.57%
-- Flow 2:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 918.490 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 725.533 ms
Loss rate: 2.95%
```

Run 3: Report of Verus — Data Link

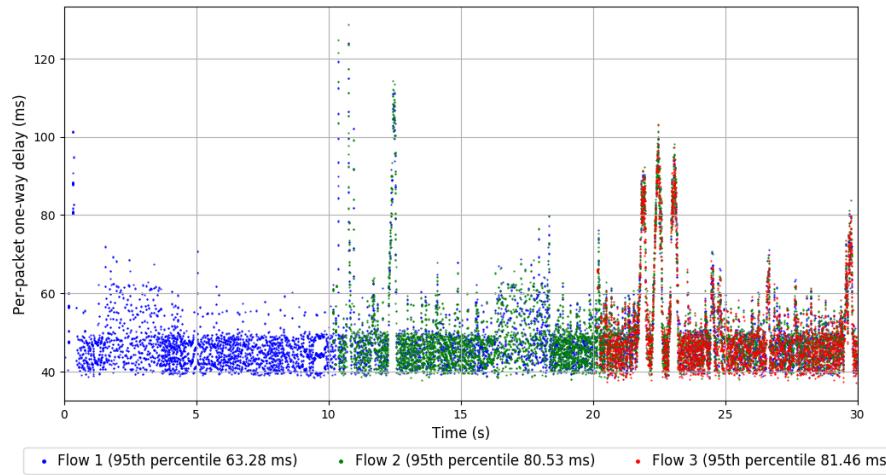
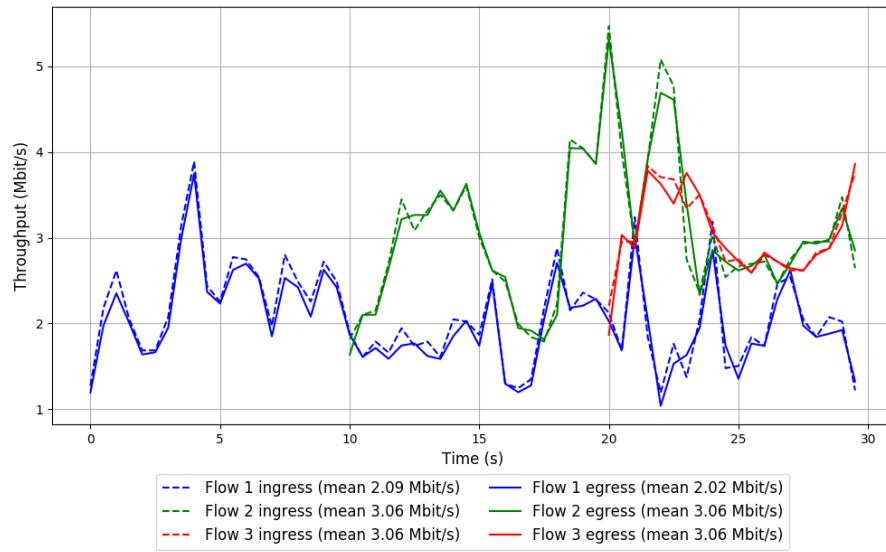


Run 1: Statistics of Copa

```
Start at: 2018-04-17 00:00:24
End at: 2018-04-17 00:00:54
Local clock offset: -10.02 ms
Remote clock offset: -7.823 ms

# Below is generated by plot.py at 2018-04-17 00:58:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 77.552 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 63.277 ms
Loss rate: 3.68%
-- Flow 2:
Average throughput: 3.06 Mbit/s
95th percentile per-packet one-way delay: 80.527 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 3.06 Mbit/s
95th percentile per-packet one-way delay: 81.463 ms
Loss rate: 0.51%
```

Run 1: Report of Copa — Data Link

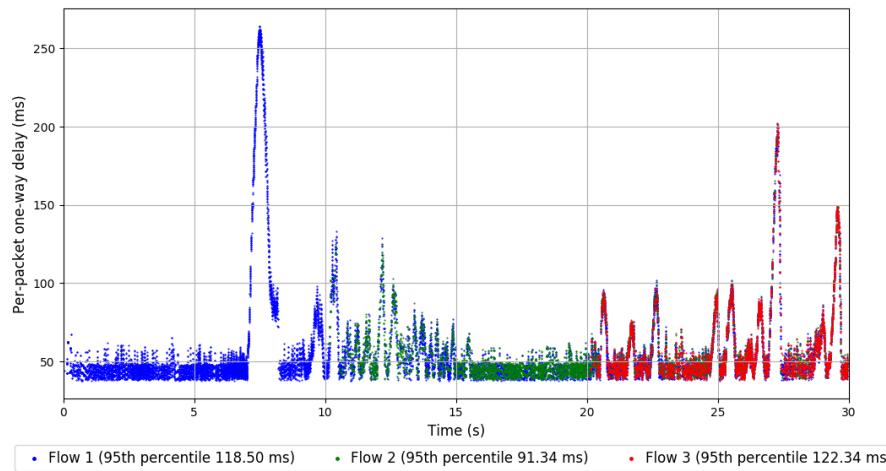
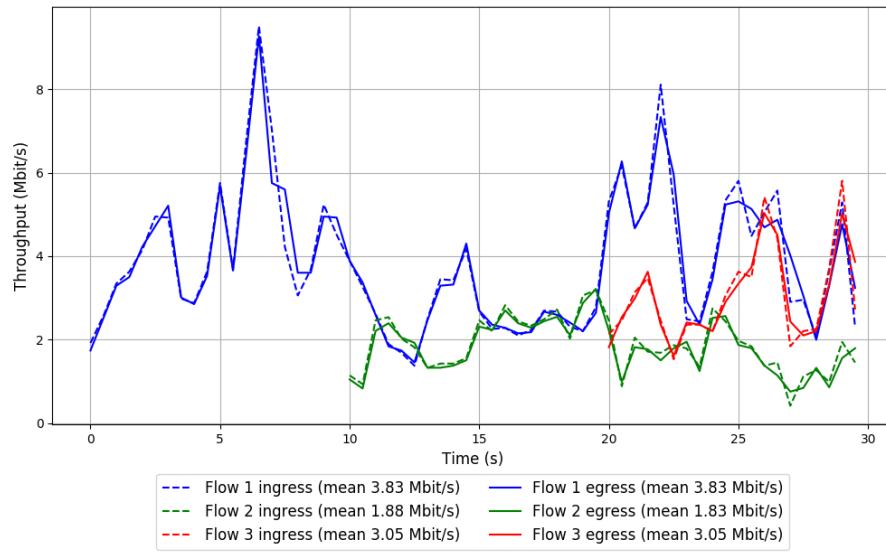


Run 2: Statistics of Copa

```
Start at: 2018-04-17 00:19:14
End at: 2018-04-17 00:19:44
Local clock offset: -10.6 ms
Remote clock offset: -7.723 ms

# Below is generated by plot.py at 2018-04-17 00:58:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 108.926 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 118.495 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 91.339 ms
Loss rate: 3.19%
-- Flow 3:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 122.344 ms
Loss rate: 0.51%
```

Run 2: Report of Copa — Data Link

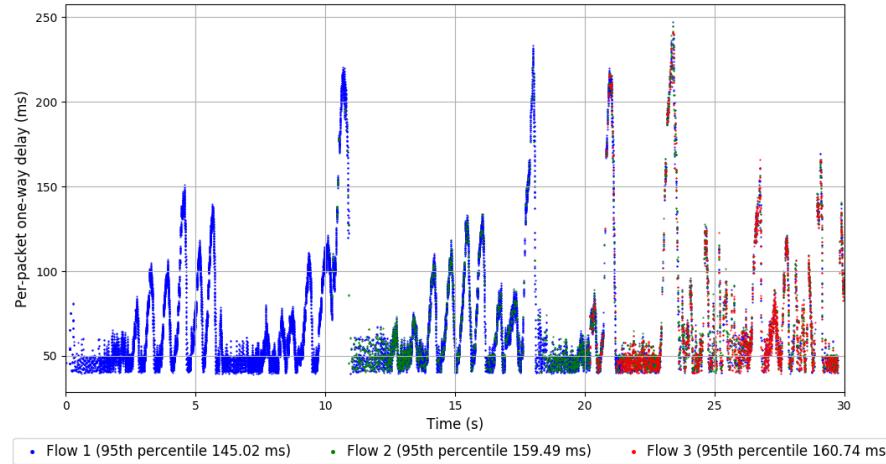
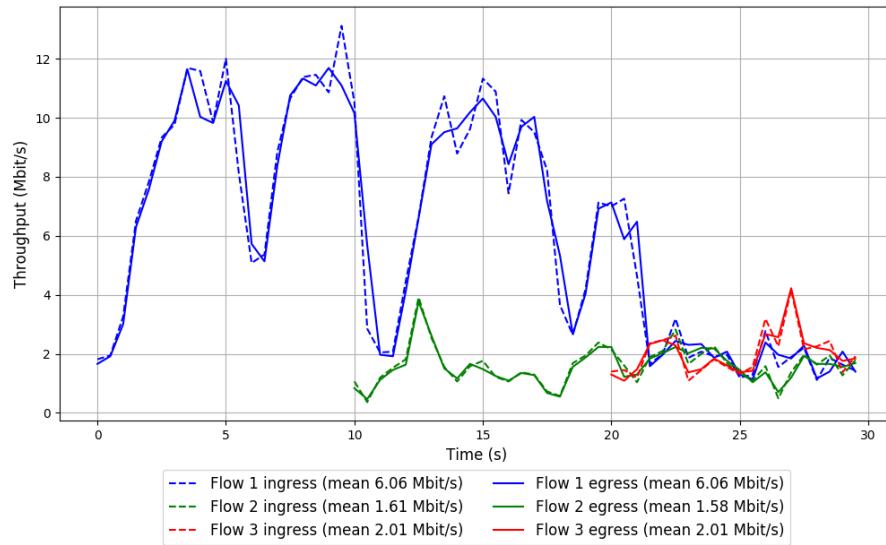


Run 3: Statistics of Copa

```
Start at: 2018-04-17 00:38:00
End at: 2018-04-17 00:38:30
Local clock offset: -11.169 ms
Remote clock offset: -7.06 ms

# Below is generated by plot.py at 2018-04-17 00:58:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.77 Mbit/s
95th percentile per-packet one-way delay: 149.653 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 145.017 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 159.492 ms
Loss rate: 2.34%
-- Flow 3:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 160.738 ms
Loss rate: 0.58%
```

Run 3: Report of Copa — Data Link

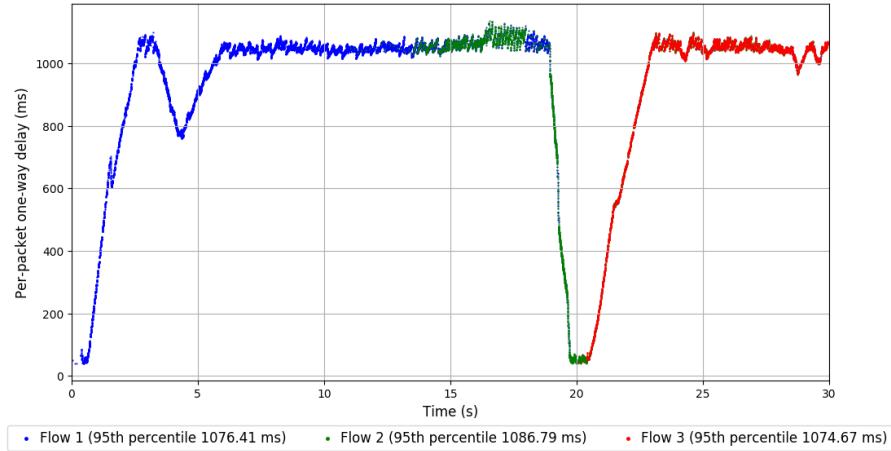
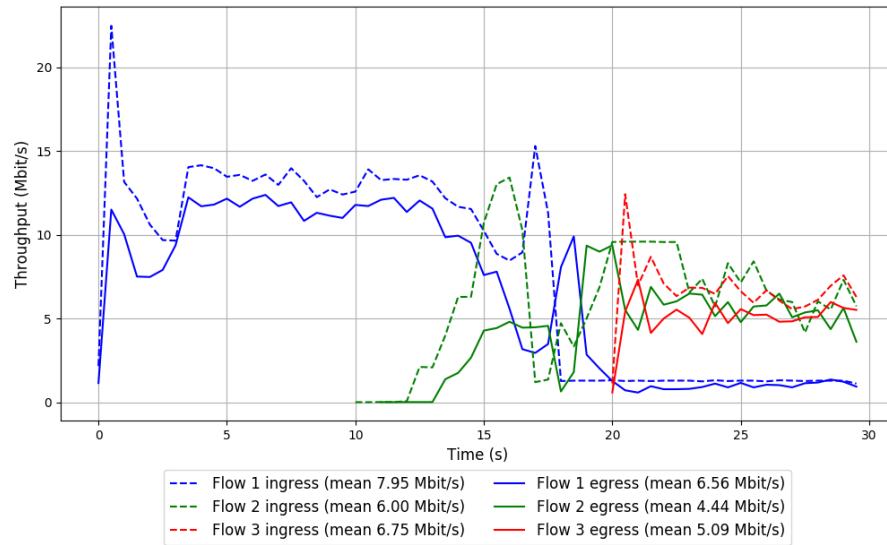


Run 1: Statistics of FillP

```
Start at: 2018-04-17 00:15:54
End at: 2018-04-17 00:16:24
Local clock offset: -11.483 ms
Remote clock offset: -7.545 ms

# Below is generated by plot.py at 2018-04-17 00:58:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 1078.923 ms
Loss rate: 22.18%
-- Flow 1:
Average throughput: 6.56 Mbit/s
95th percentile per-packet one-way delay: 1076.413 ms
Loss rate: 17.58%
-- Flow 2:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 1086.786 ms
Loss rate: 29.85%
-- Flow 3:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 1074.669 ms
Loss rate: 24.78%
```

Run 1: Report of FillP — Data Link

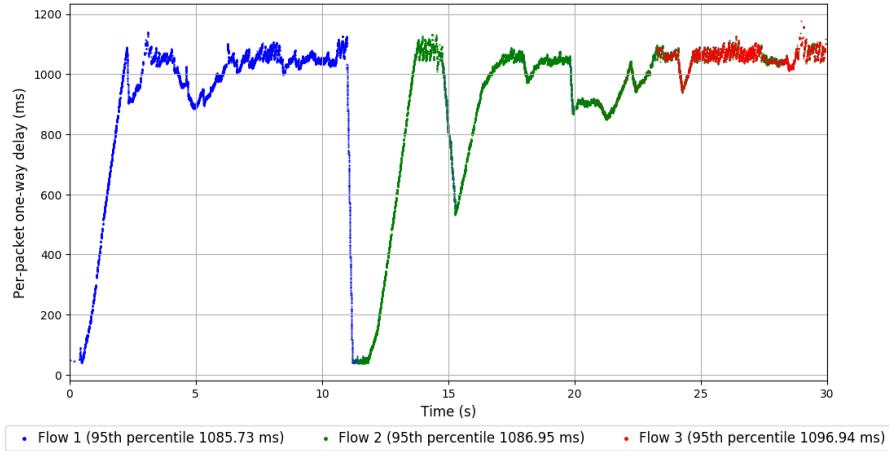
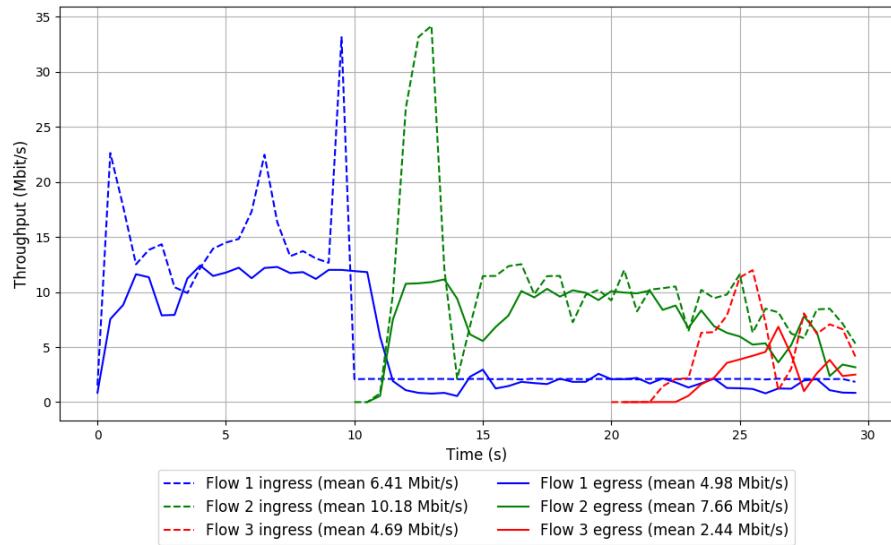


Run 2: Statistics of FillP

```
Start at: 2018-04-17 00:34:42
End at: 2018-04-17 00:35:12
Local clock offset: -9.089 ms
Remote clock offset: -8.293 ms

# Below is generated by plot.py at 2018-04-17 00:58:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.57 Mbit/s
95th percentile per-packet one-way delay: 1087.806 ms
Loss rate: 28.40%
-- Flow 1:
Average throughput: 4.98 Mbit/s
95th percentile per-packet one-way delay: 1085.732 ms
Loss rate: 22.46%
-- Flow 2:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 1086.954 ms
Loss rate: 28.50%
-- Flow 3:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 1096.944 ms
Loss rate: 52.53%
```

Run 2: Report of FillP — Data Link

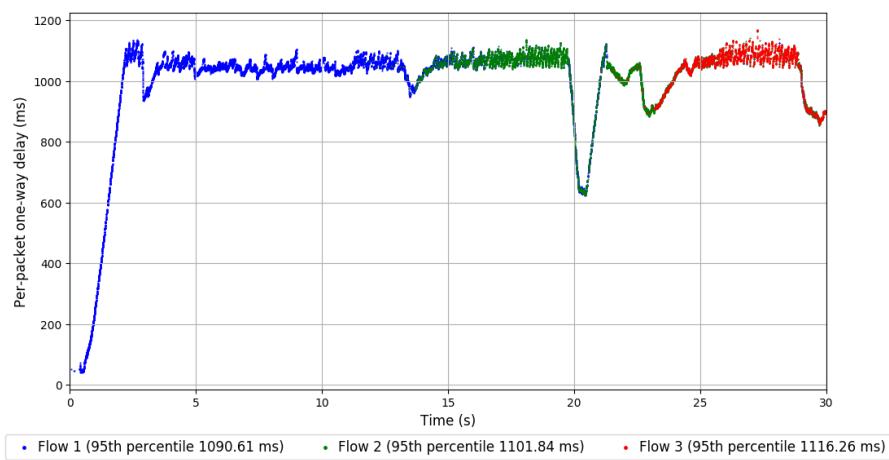
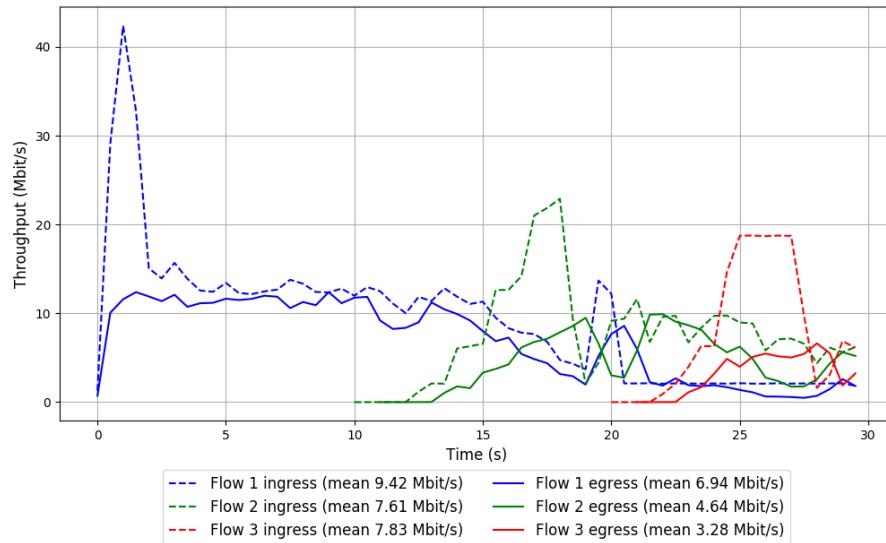


Run 3: Statistics of FillP

```
Start at: 2018-04-17 00:53:29
End at: 2018-04-17 00:53:59
Local clock offset: -9.955 ms
Remote clock offset: -5.028 ms

# Below is generated by plot.py at 2018-04-17 00:58:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.85 Mbit/s
95th percentile per-packet one-way delay: 1099.118 ms
Loss rate: 36.56%
-- Flow 1:
Average throughput: 6.94 Mbit/s
95th percentile per-packet one-way delay: 1090.609 ms
Loss rate: 26.41%
-- Flow 2:
Average throughput: 4.64 Mbit/s
95th percentile per-packet one-way delay: 1101.842 ms
Loss rate: 42.18%
-- Flow 3:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 1116.260 ms
Loss rate: 62.45%
```

Run 3: Report of FillP — Data Link

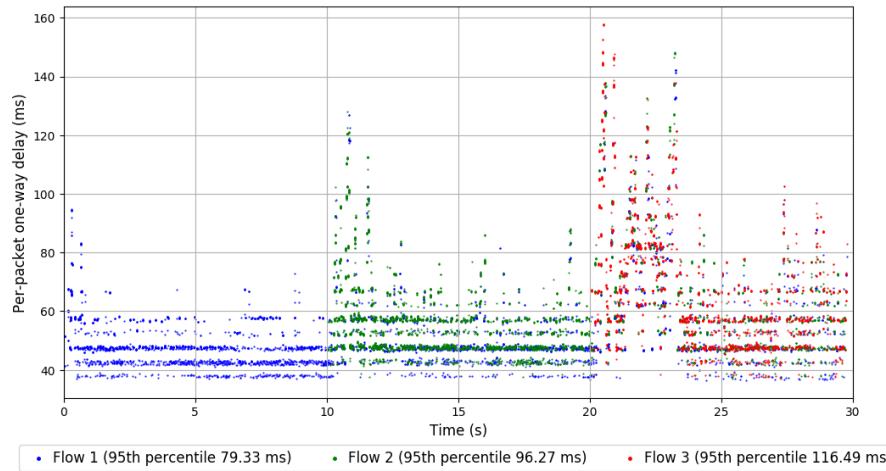
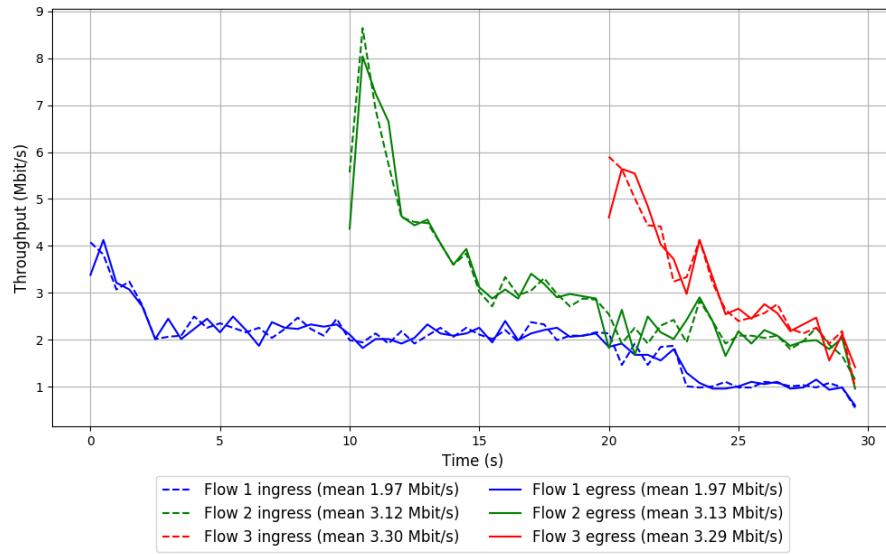


Run 1: Statistics of Indigo-1-32

```
Start at: 2018-04-17 00:04:49
End at: 2018-04-17 00:05:19
Local clock offset: -9.676 ms
Remote clock offset: -7.755 ms

# Below is generated by plot.py at 2018-04-17 00:58:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 97.926 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 79.327 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 96.268 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 3.29 Mbit/s
95th percentile per-packet one-way delay: 116.491 ms
Loss rate: 0.00%
```

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

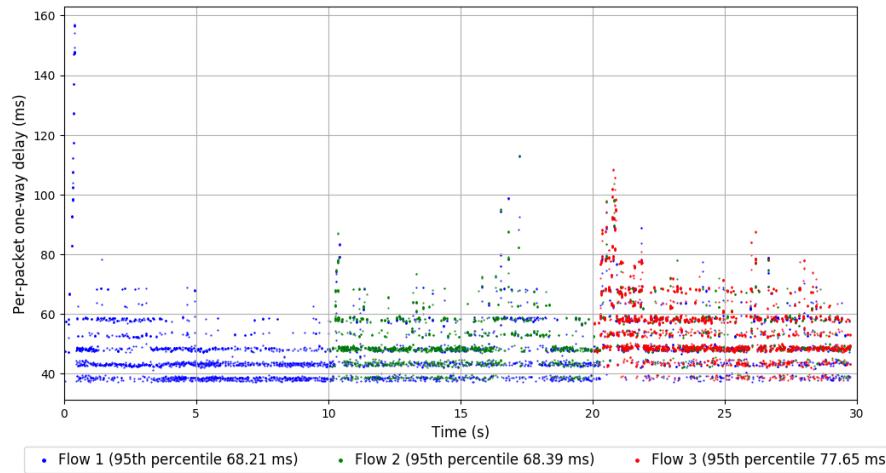
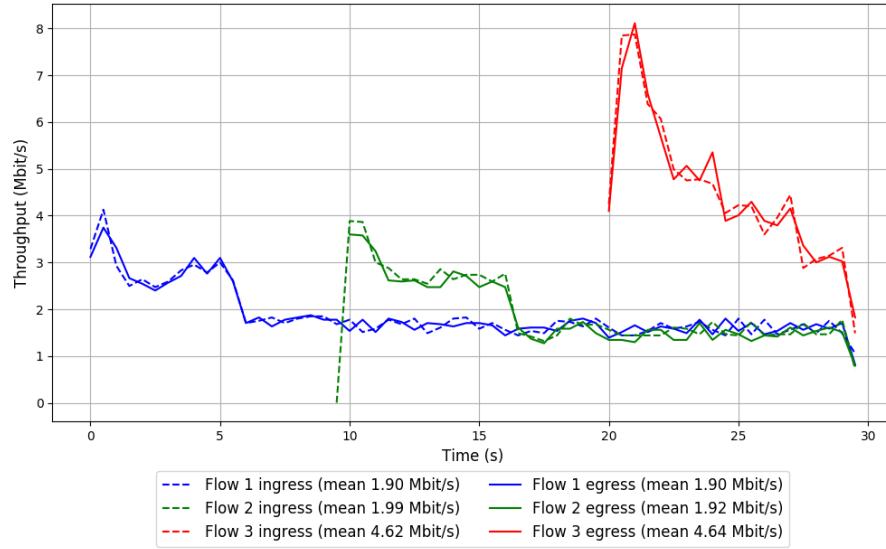


Run 2: Statistics of Indigo-1-32

```
Start at: 2018-04-17 00:23:39
End at: 2018-04-17 00:24:09
Local clock offset: -9.177 ms
Remote clock offset: -7.861 ms

# Below is generated by plot.py at 2018-04-17 00:58:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 69.397 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 68.209 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 68.395 ms
Loss rate: 3.83%
-- Flow 3:
Average throughput: 4.64 Mbit/s
95th percentile per-packet one-way delay: 77.647 ms
Loss rate: 0.05%
```

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

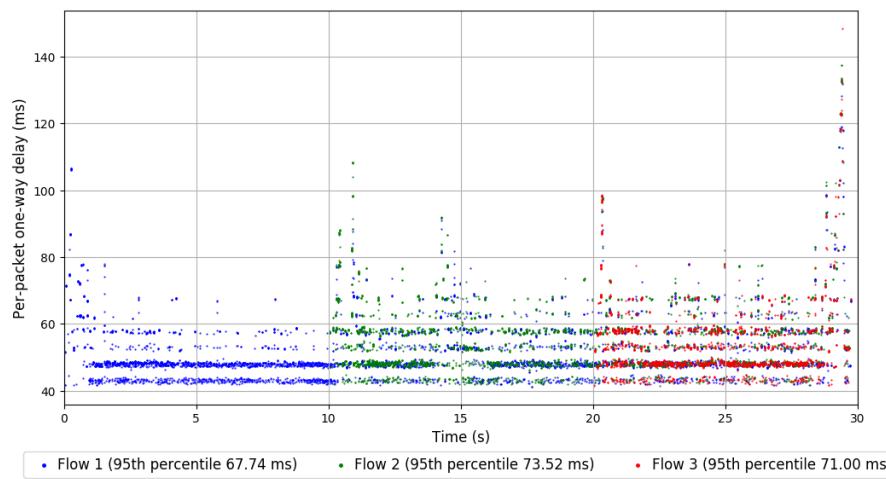
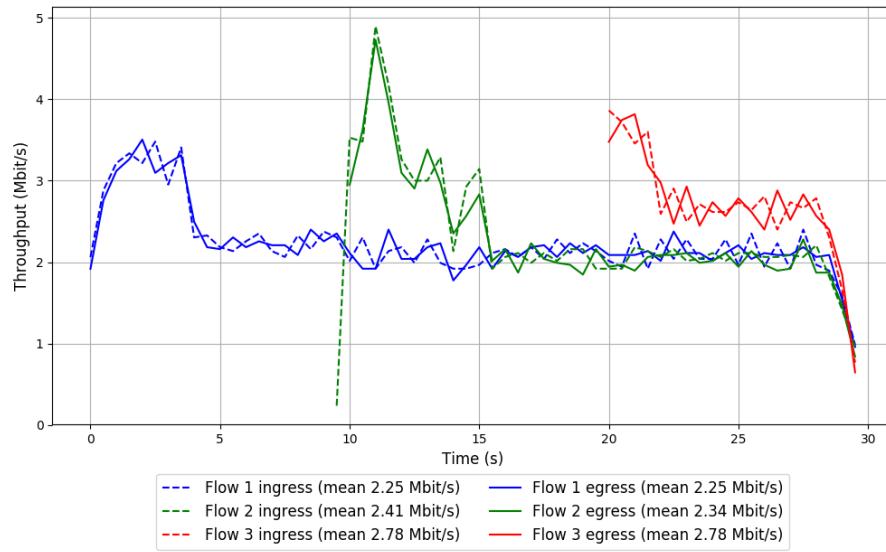


Run 3: Statistics of Indigo-1-32

```
Start at: 2018-04-17 00:42:26
End at: 2018-04-17 00:42:56
Local clock offset: -11.338 ms
Remote clock offset: -6.531 ms

# Below is generated by plot.py at 2018-04-17 00:58:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.71 Mbit/s
95th percentile per-packet one-way delay: 68.478 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 67.743 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 73.521 ms
Loss rate: 3.03%
-- Flow 3:
Average throughput: 2.78 Mbit/s
95th percentile per-packet one-way delay: 70.998 ms
Loss rate: 0.40%
```

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

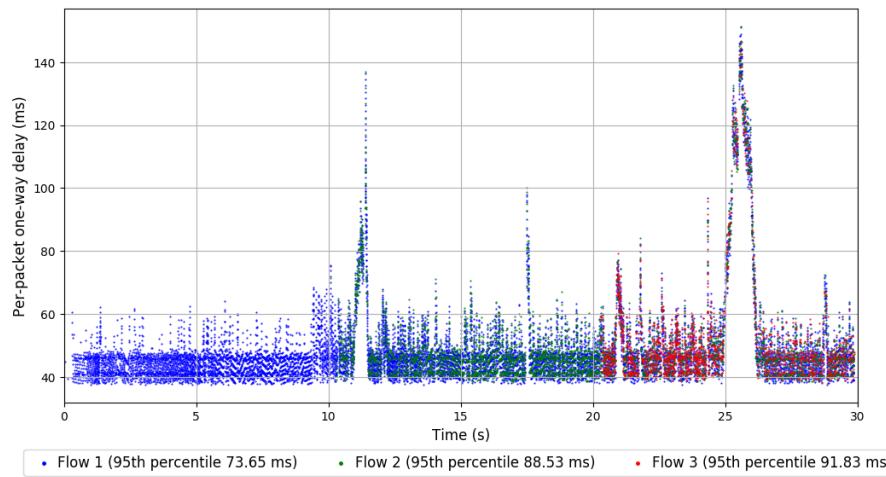
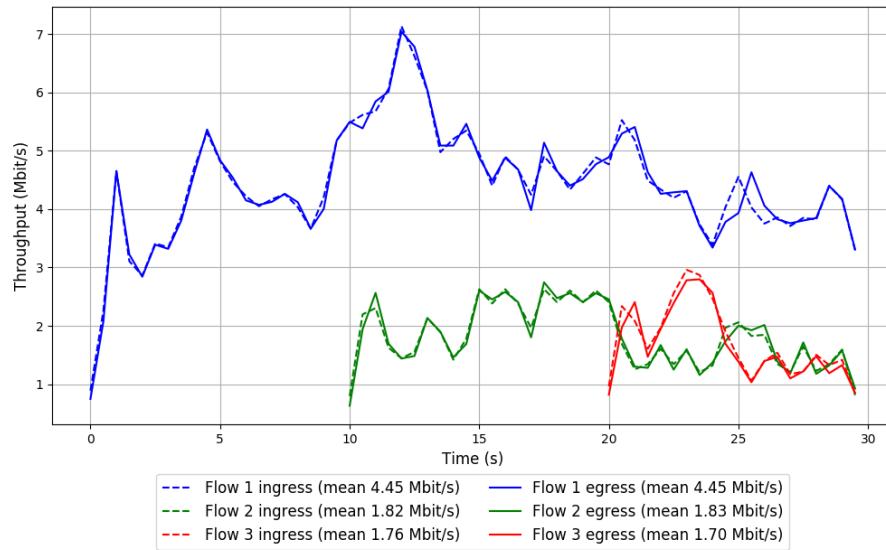


Run 1: Statistics of PCC-Vivace

```
Start at: 2018-04-17 00:14:47
End at: 2018-04-17 00:15:17
Local clock offset: -10.614 ms
Remote clock offset: -8.134 ms

# Below is generated by plot.py at 2018-04-17 00:58:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.22 Mbit/s
95th percentile per-packet one-way delay: 79.195 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 73.649 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 88.532 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 91.826 ms
Loss rate: 3.86%
```

Run 1: Report of PCC-Vivace — Data Link

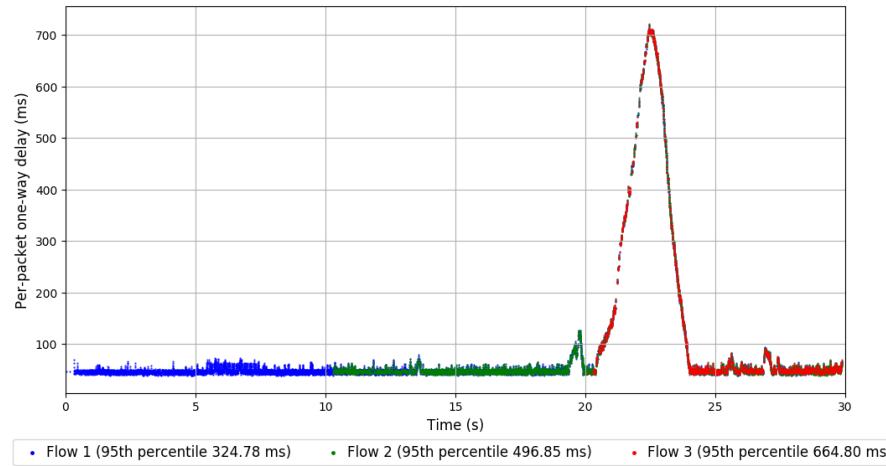
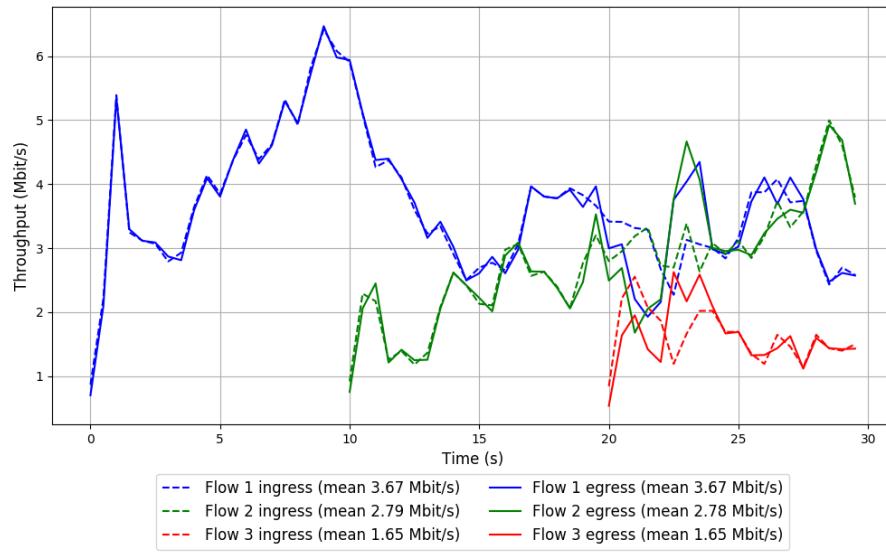


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-04-17 00:33:35
End at: 2018-04-17 00:34:05
Local clock offset: -9.807 ms
Remote clock offset: -7.569 ms

# Below is generated by plot.py at 2018-04-17 00:58:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.05 Mbit/s
95th percentile per-packet one-way delay: 454.542 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 324.780 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 2.78 Mbit/s
95th percentile per-packet one-way delay: 496.849 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 664.804 ms
Loss rate: 0.86%
```

Run 2: Report of PCC-Vivace — Data Link

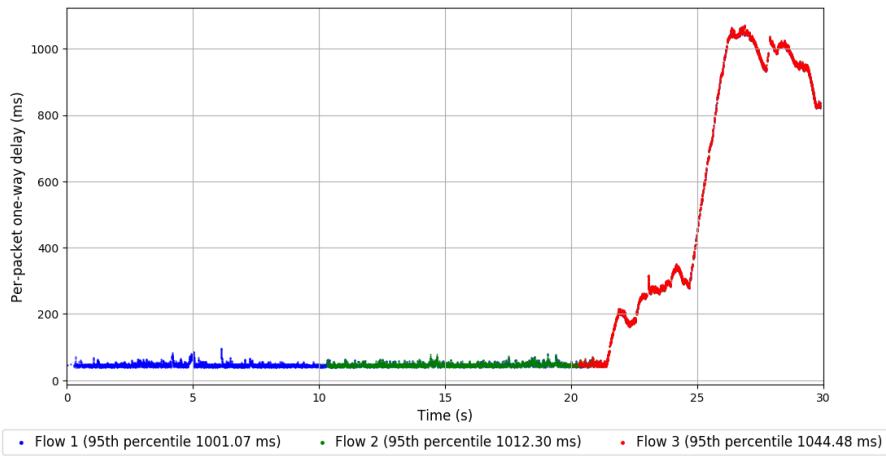
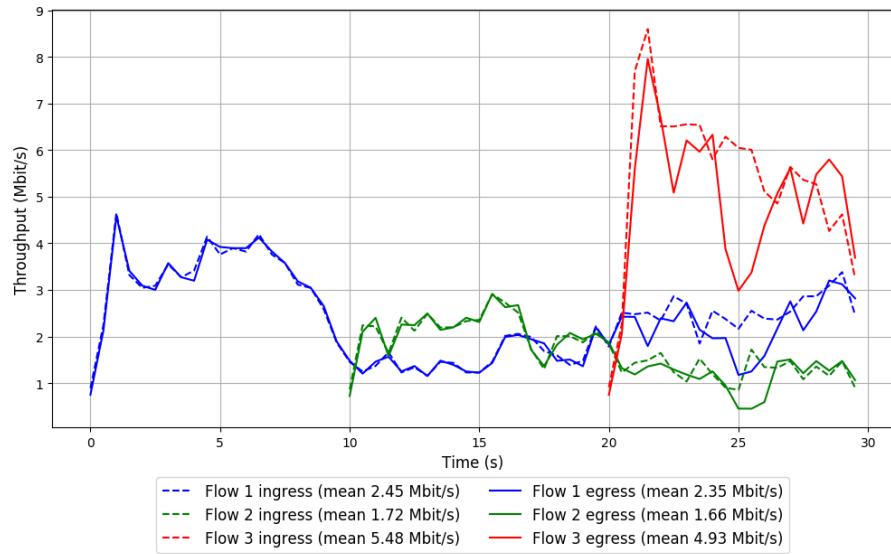


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-04-17 00:52:23
End at: 2018-04-17 00:52:53
Local clock offset: -8.884 ms
Remote clock offset: -5.152 ms

# Below is generated by plot.py at 2018-04-17 00:58:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 1028.309 ms
Loss rate: 6.19%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 1001.073 ms
Loss rate: 4.17%
-- Flow 2:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 1012.300 ms
Loss rate: 3.70%
-- Flow 3:
Average throughput: 4.93 Mbit/s
95th percentile per-packet one-way delay: 1044.484 ms
Loss rate: 10.50%
```

Run 3: Report of PCC-Vivace — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-04-17 00:02:37
End at: 2018-04-17 00:03:07
Local clock offset: -10.219 ms
Remote clock offset: -7.852 ms

Run 1: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of PCC-Expr

Start at: 2018-04-17 00:21:27

End at: 2018-04-17 00:21:57

Local clock offset: -9.519 ms

Remote clock offset: -7.821 ms

Run 2: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of PCC-Expr

Start at: 2018-04-17 00:40:14
End at: 2018-04-17 00:40:44
Local clock offset: -11.375 ms
Remote clock offset: -7.58 ms

Run 3: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing