Pantheon Report

Generated at 2018-04-04 07:34:36 (UTC).

Data path: AWS California 1 Ethernet (*local*) →Stanford Ethernet (*remote*).

Repeated the test of 17 congestion control schemes 10 times.

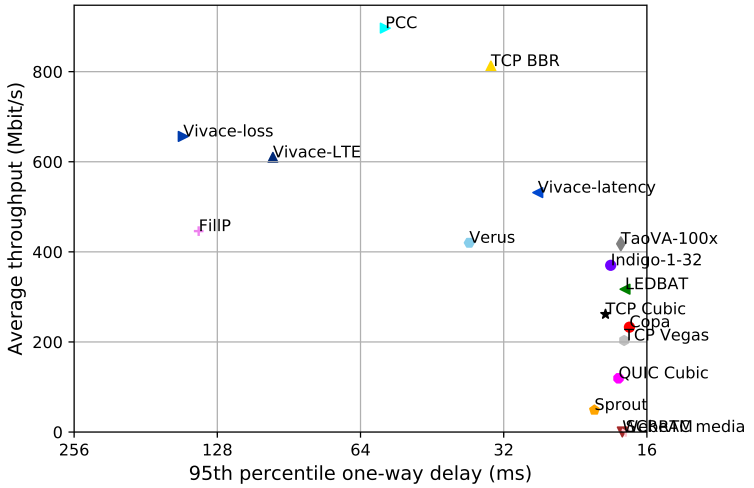
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

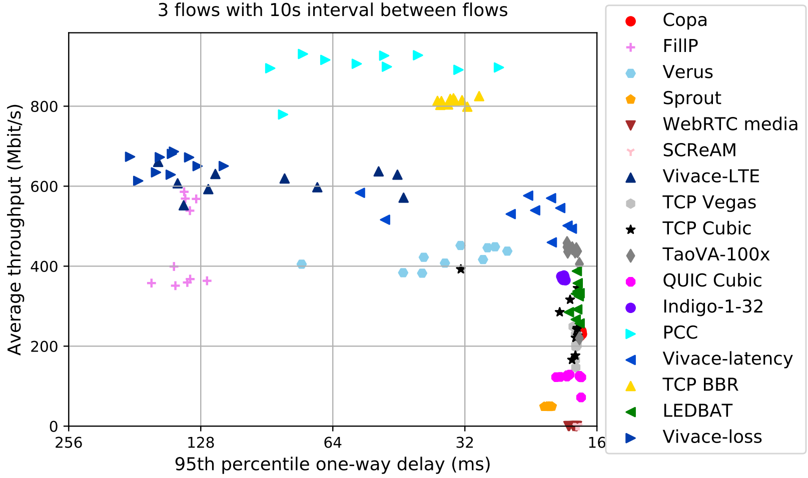
Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ eb420b5be9bafccd22cf68b99ff5a2000462fc59
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272b2a44
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
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/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 California 1 Ethernet to Stanford Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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

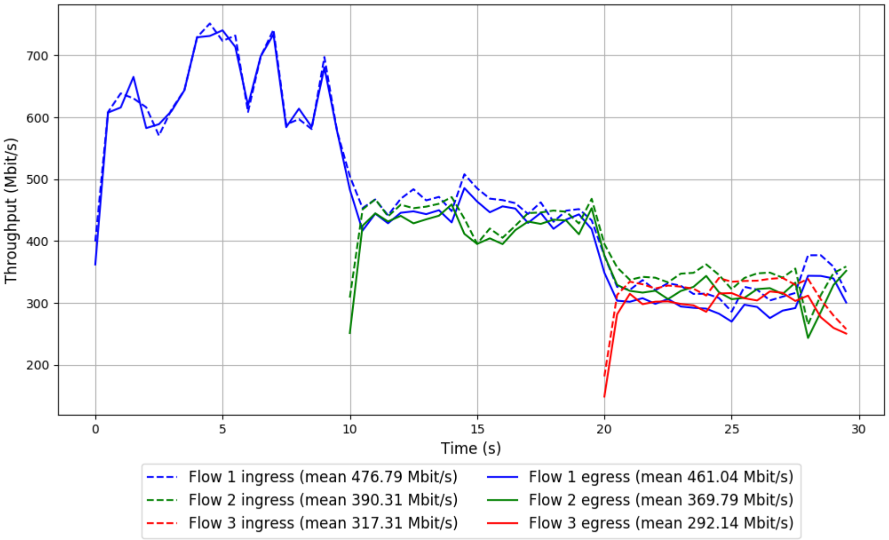
scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	463.88	373.48	300.87	37.27	21.57	19.05	2.65	4.83	6.86
TCP Cubic	10	129.00	129.26	139.98	19.84	19.42	18.75	0.04	0.07	0.10
LEDBAT	10	166.53	157.63	137.55	17.75	17.83	17.86	0.02	0.02	0.03
PCC	10	749.15	180.68	83.21	61.79	18.65	18.63	0.94	0.39	0.39
QUIC Cubic	10	60.14	62.72	53.70	18.01	18.46	19.25	0.00	0.00	0.01
SCReAM	10	0.22	0.22	0.22	17.73	17.72	17.75	0.00	0.00	0.00
WebRTC media	10	0.06	0.06	0.05	18.32	17.84	17.96	0.00	0.00	0.01
Sprout	10	24.59	24.54	24.39	20.64	20.56	20.72	0.11	0.14	0.16
TaoVA-100x	10	220.65	191.73	209.59	17.80	18.23	18.98	0.02	0.07	0.01
TCP Vegas	10	92.18	104.40	125.21	17.83	18.16	17.81	0.04	0.11	0.04
Verus	10	212.98	222.80	178.33	37.22	36.40	40.01	12.63	12.74	14.37
Copa	10	115.07	113.86	126.45	17.40	17.41	17.53	0.01	0.01	0.02
FillP	10	217.37	163.30	364.27	141.74	142.58	158.30	16.68	25.85	24.37
Indigo-1-32	10	193.27	184.97	169.88	18.64	18.85	20.23	0.02	0.02	0.03
Vivace-latency	10	318.87	264.00	112.94	36.75	40.26	18.85	0.22	0.34	0.18
Vivace-loss	10	363.46	325.35	232.40	146.51	140.53	66.48	3.52	1.91	2.46
Vivace-LTE	10	356.51	302.67	158.03	101.31	75.25	36.62	0.48	0.41	0.35

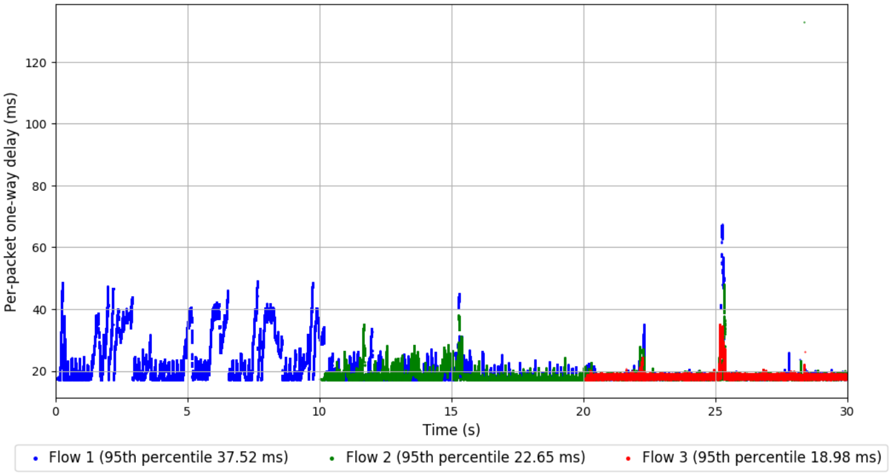
```
Run 1: Statistics of TCP BBR

Start at: 2018-04-03 21:56:56
End at: 2018-04-03 21:57:26
Local clock offset: 0.86 ms
Remote clock offset: 0.368 ms

# Below is generated by plot.py at 2018-04-04 05:30:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 804.21 Mbit/s
95th percentile per-packet one-way delay: 34.944 ms
Loss rate: 4.48%
-- Flow 1:
Average throughput: 461.04 Mbit/s
95th percentile per-packet one-way delay: 37.520 ms
Loss rate: 3.30%
-- Flow 2:
Average throughput: 369.79 Mbit/s
95th percentile per-packet one-way delay: 22.650 ms
Loss rate: 5.26%
-- Flow 3:
Average throughput: 292.14 Mbit/s
95th percentile per-packet one-way delay: 18.978 ms
Loss rate: 7.93%
```

Run 1: Report of TCP BBR — Data Link



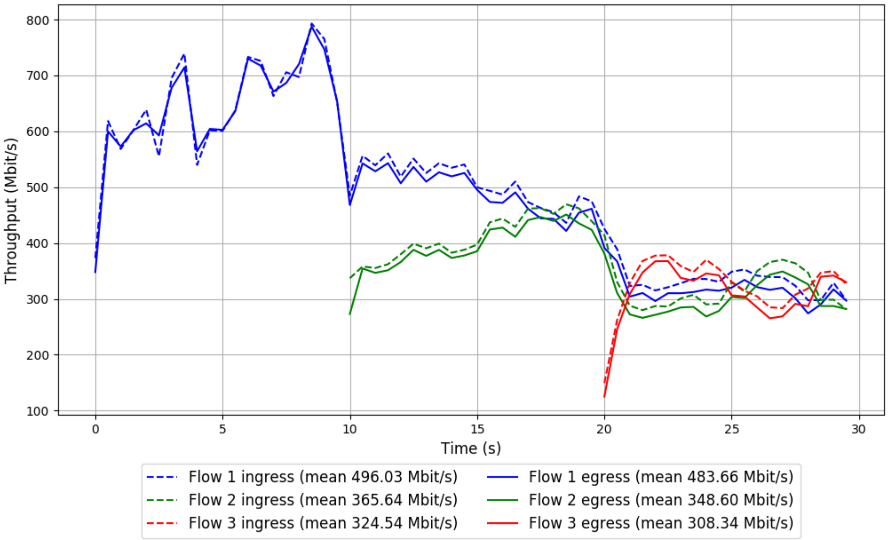


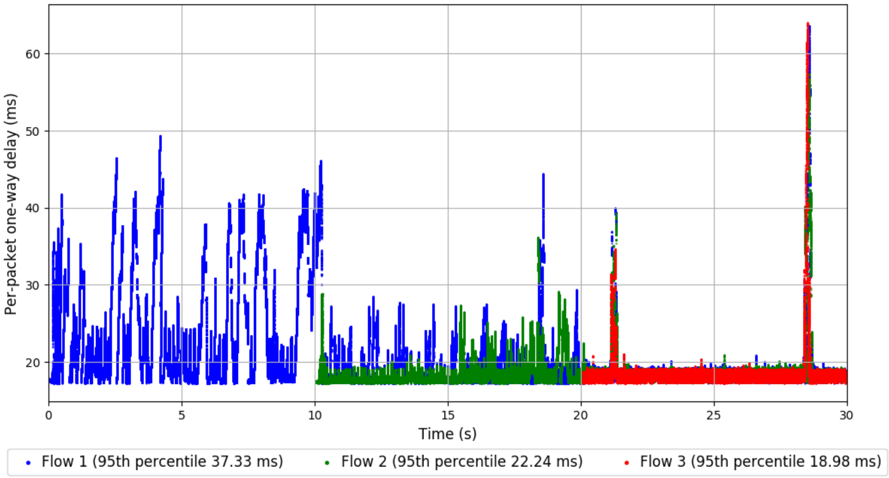
```
Run 2: Statistics of TCP BBR

Start at: 2018-04-03 22:25:42
End at: 2018-04-03 22:26:12
Local clock offset: 0.977 ms
Remote clock offset: 0.18 ms

# Below is generated by plot.py at 2018-04-04 05:30:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 818.31 Mbit/s
95th percentile per-packet one-way delay: 34.550 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 483.66 Mbit/s
95th percentile per-packet one-way delay: 37.326 ms
Loss rate: 2.49%
-- Flow 2:
Average throughput: 348.60 Mbit/s
95th percentile per-packet one-way delay: 22.240 ms
Loss rate: 4.65%
-- Flow 3:
Average throughput: 308.34 Mbit/s
95th percentile per-packet one-way delay: 18.979 ms
Loss rate: 4.99%
```

Run 2: Report of TCP BBR — Data Link



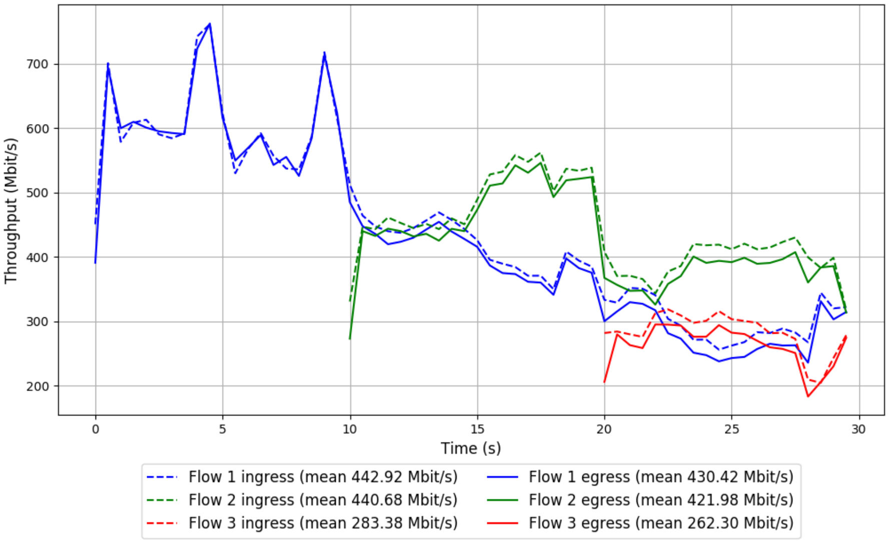


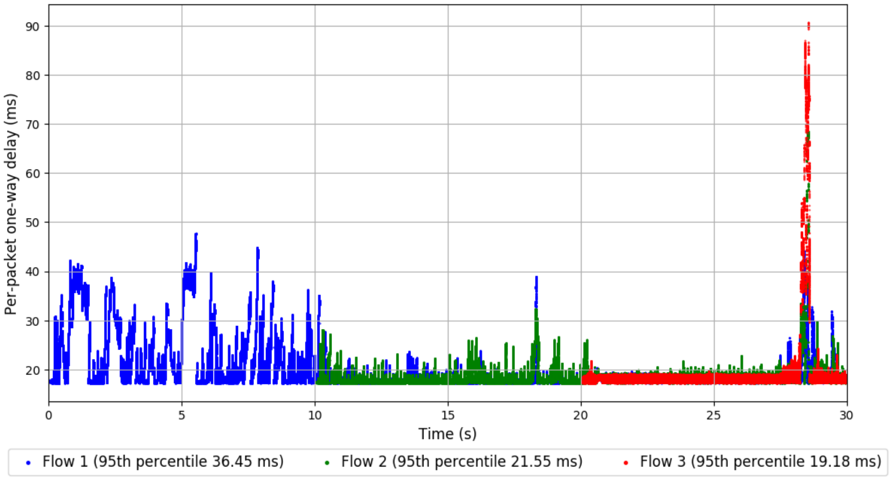
```
Run 3: Statistics of TCP BBR

Start at: 2018-04-03 22:54:32
End at: 2018-04-03 22:55:02
Local clock offset: 1.535 ms
Remote clock offset: 0.081 ms

# Below is generated by plot.py at 2018-04-04 05:30:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 798.79 Mbit/s
95th percentile per-packet one-way delay: 31.593 ms
Loss rate: 3.84%
-- Flow 1:
Average throughput: 430.42 Mbit/s
95th percentile per-packet one-way delay: 36.453 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 421.98 Mbit/s
95th percentile per-packet one-way delay: 21.545 ms
Loss rate: 4.24%
-- Flow 3:
Average throughput: 262.30 Mbit/s
95th percentile per-packet one-way delay: 19.179 ms
Loss rate: 7.42%
```

Run 3: Report of TCP BBR — Data Link



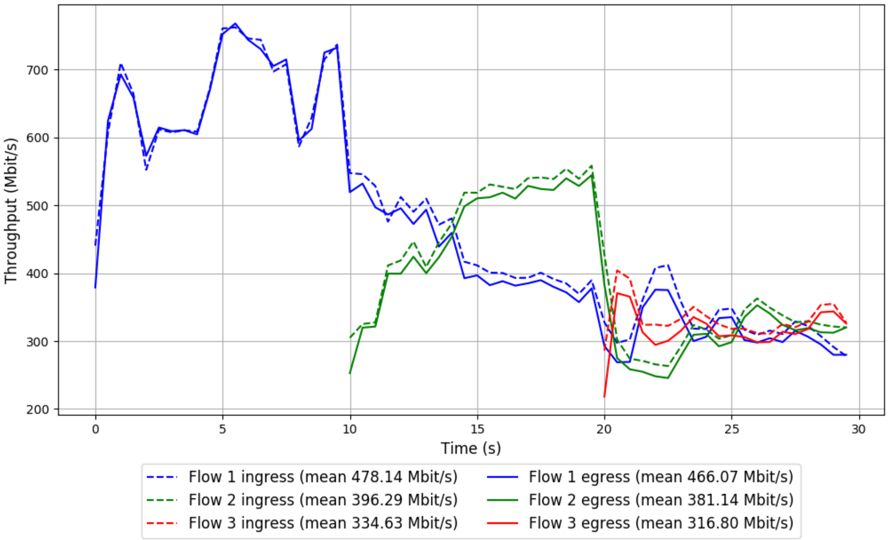


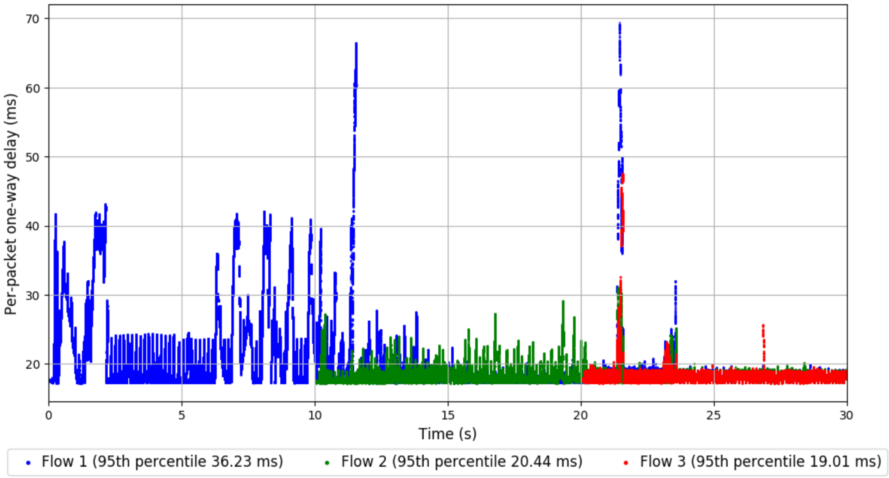
```
Run 4: Statistics of TCP BBR

Start at: 2018-04-03 23:22:58
End at: 2018-04-03 23:23:28
Local clock offset: 1.468 ms
Remote clock offset: 0.395 ms

# Below is generated by plot.py at 2018-04-04 05:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 825.18 Mbit/s
95th percentile per-packet one-way delay: 29.691 ms
Loss rate: 3.29%
-- Flow 1:
Average throughput: 466.07 Mbit/s
95th percentile per-packet one-way delay: 36.230 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 381.14 Mbit/s
95th percentile per-packet one-way delay: 20.439 ms
Loss rate: 3.81%
-- Flow 3:
Average throughput: 316.80 Mbit/s
95th percentile per-packet one-way delay: 19.011 ms
Loss rate: 5.32%
```

Run 4: Report of TCP BBR — Data Link



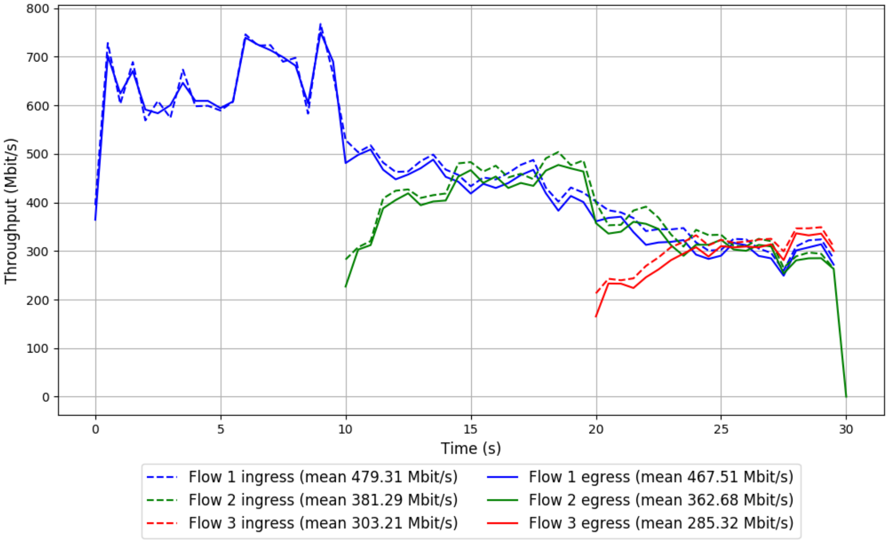


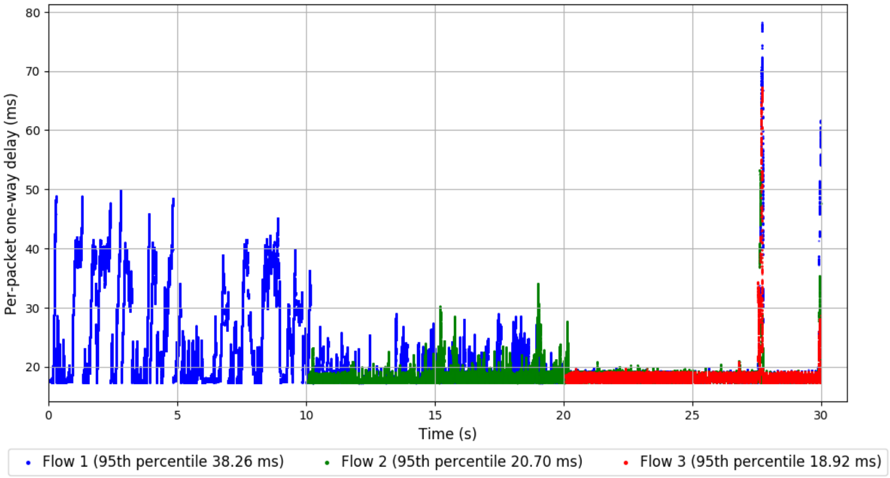
```
Run 5: Statistics of TCP BBR

Start at: 2018-04-03 23:51:40
End at: 2018-04-03 23:52:10
Local clock offset: 0.775 ms
Remote clock offset: 0.453 ms

# Below is generated by plot.py at 2018-04-04 05:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 803.22 Mbit/s
95th percentile per-packet one-way delay: 36.398 ms
Loss rate: 3.57%
-- Flow 1:
Average throughput: 467.51 Mbit/s
95th percentile per-packet one-way delay: 38.259 ms
Loss rate: 2.46%
-- Flow 2:
Average throughput: 362.68 Mbit/s
95th percentile per-packet one-way delay: 20.697 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 285.32 Mbit/s
95th percentile per-packet one-way delay: 18.922 ms
Loss rate: 5.90%
```

Run 5: Report of TCP BBR — Data Link



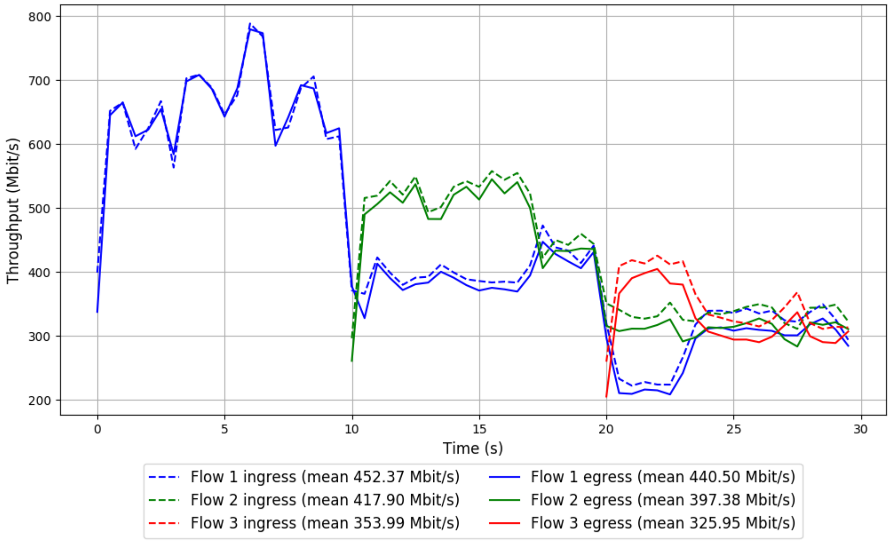


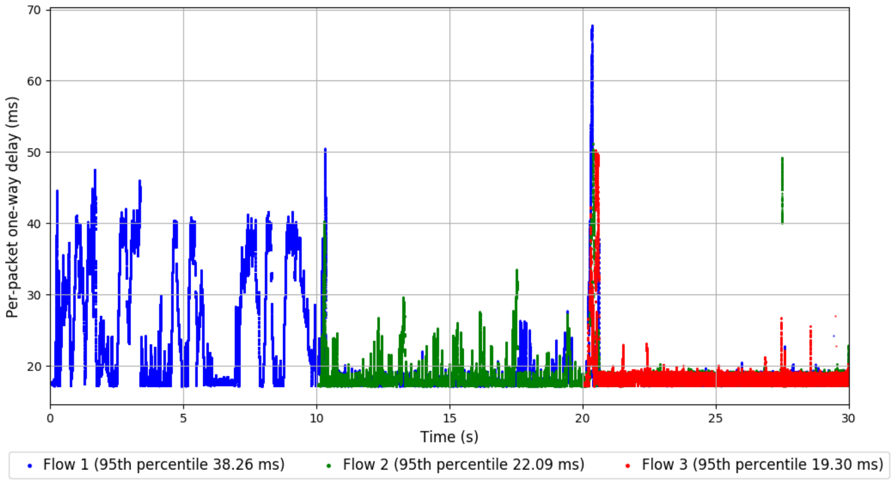
```
Run 6: Statistics of TCP BBR

Start at: 2018-04-04 00:20:28
End at: 2018-04-04 00:20:58
Local clock offset: 0.403 ms
Remote clock offset: 0.421 ms

# Below is generated by plot.py at 2018-04-04 05:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 813.29 Mbit/s
95th percentile per-packet one-way delay: 36.948 ms
Loss rate: 4.10%
-- Flow 1:
Average throughput: 440.50 Mbit/s
95th percentile per-packet one-way delay: 38.257 ms
Loss rate: 2.62%
-- Flow 2:
Average throughput: 397.38 Mbit/s
95th percentile per-packet one-way delay: 22.091 ms
Loss rate: 4.90%
-- Flow 3:
Average throughput: 325.95 Mbit/s
95th percentile per-packet one-way delay: 19.298 ms
Loss rate: 7.91%
```

Run 6: Report of TCP BBR — Data Link



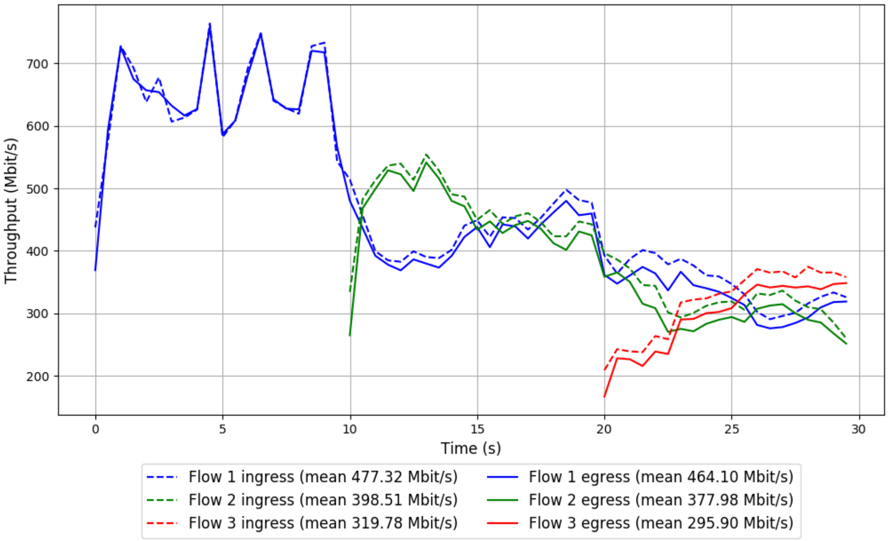


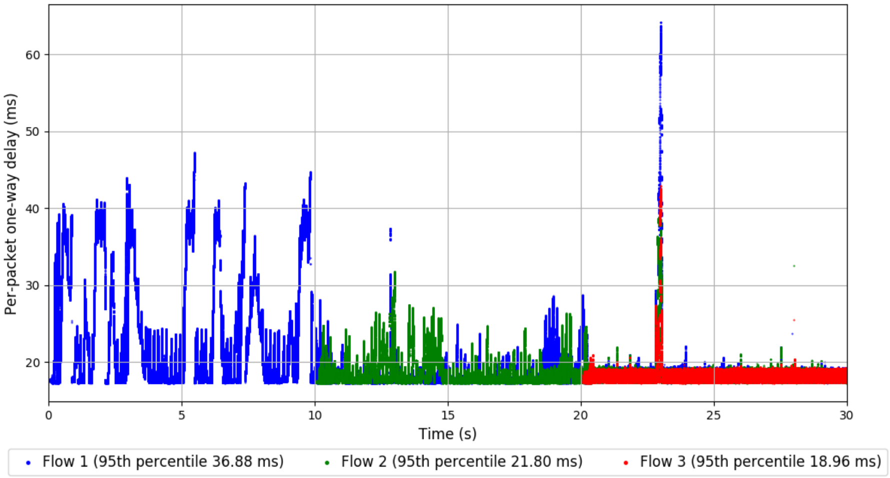
```
Run 7: Statistics of TCP BBR

Start at: 2018-04-04 00:49:15
End at: 2018-04-04 00:49:45
Local clock offset: 0.108 ms
Remote clock offset: 0.365 ms

# Below is generated by plot.py at 2018-04-04 05:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 814.00 Mbit/s
95th percentile per-packet one-way delay: 33.706 ms
Loss rate: 4.10%
-- Flow 1:
Average throughput: 464.10 Mbit/s
95th percentile per-packet one-way delay: 36.879 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 377.98 Mbit/s
95th percentile per-packet one-way delay: 21.800 ms
Loss rate: 5.15%
-- Flow 3:
Average throughput: 295.90 Mbit/s
95th percentile per-packet one-way delay: 18.961 ms
Loss rate: 7.47%
```

Run 7: Report of TCP BBR — Data Link



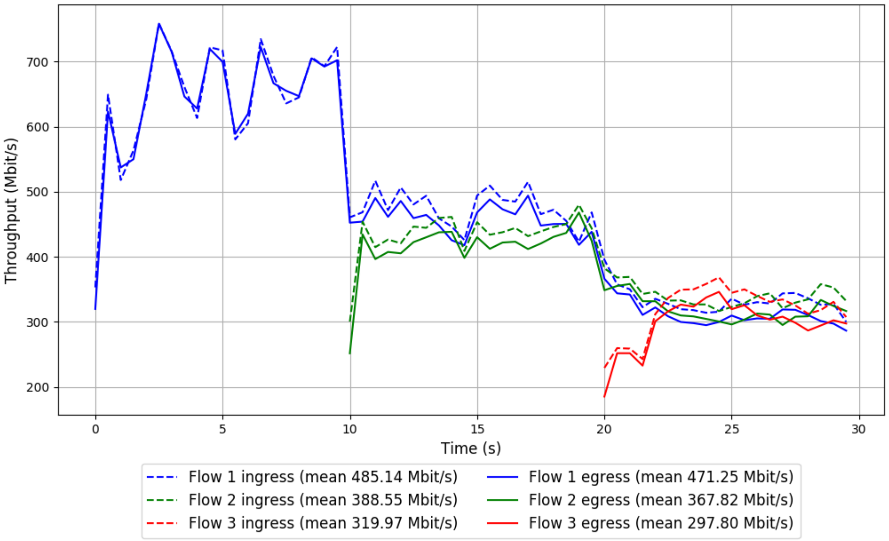


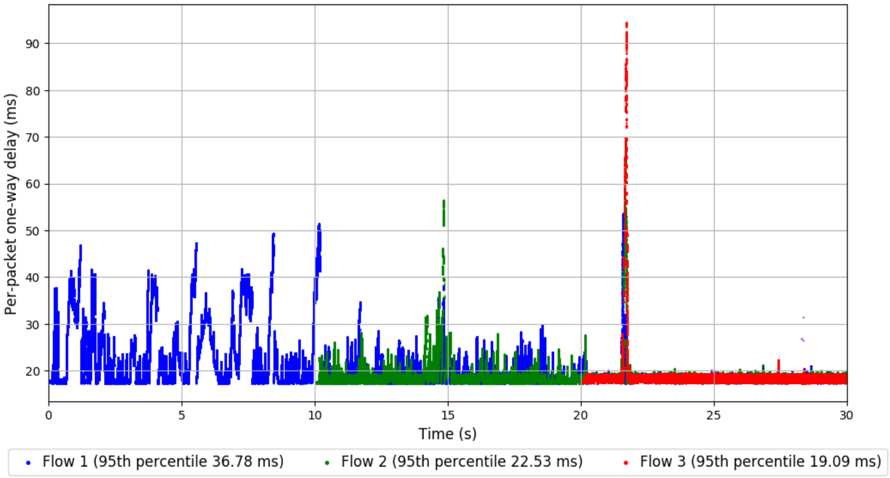
```
Run 8: Statistics of TCP BBR

Start at: 2018-04-04 01:18:06
End at: 2018-04-04 01:18:36
Local clock offset: 0.04 ms
Remote clock offset: 0.42 ms

# Below is generated by plot.py at 2018-04-04 05:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 814.96 Mbit/s
95th percentile per-packet one-way delay: 32.477 ms
Loss rate: 4.12%
-- Flow 1:
Average throughput: 471.25 Mbit/s
95th percentile per-packet one-way delay: 36.778 ms
Loss rate: 2.86%
-- Flow 2:
Average throughput: 367.82 Mbit/s
95th percentile per-packet one-way delay: 22.527 ms
Loss rate: 5.33%
-- Flow 3:
Average throughput: 297.80 Mbit/s
95th percentile per-packet one-way delay: 19.095 ms
Loss rate: 6.93%
```

Run 8: Report of TCP BBR — Data Link



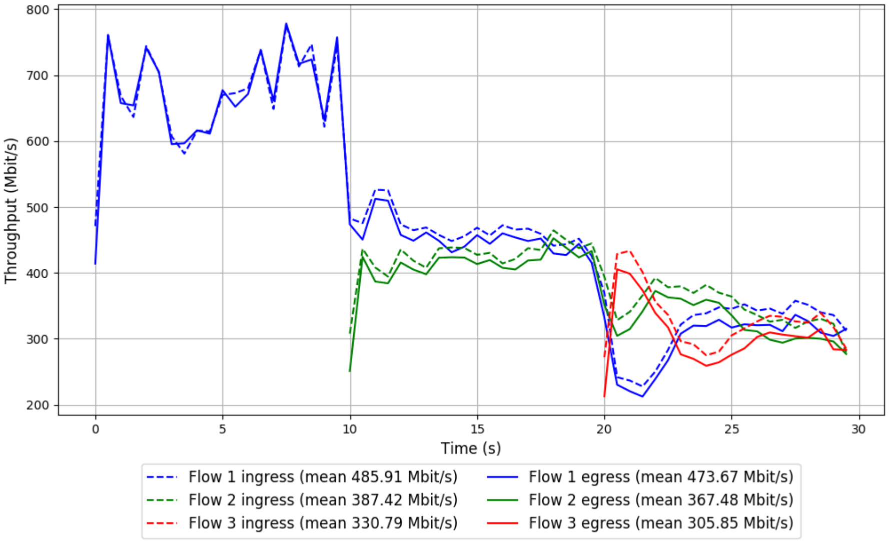


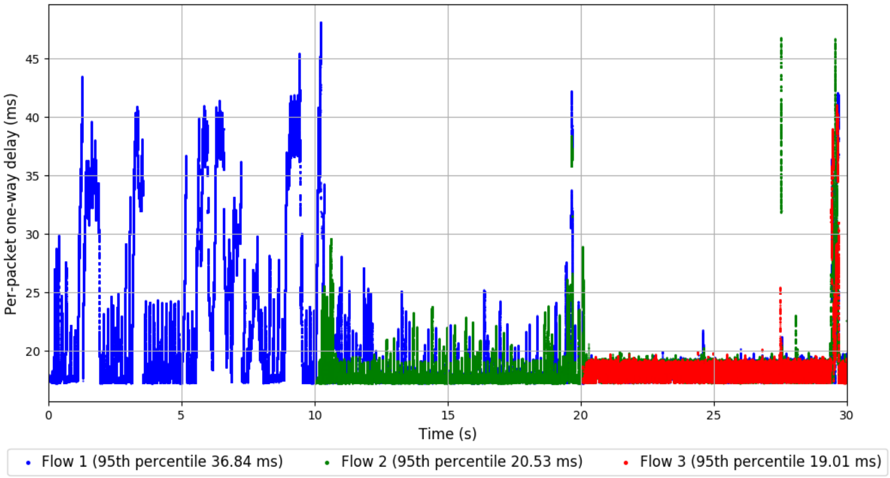
```
Run 9: Statistics of TCP BBR

Start at: 2018-04-04 01:46:58
End at: 2018-04-04 01:47:28
Local clock offset: 0.087 ms
Remote clock offset: 0.342 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 819.74 Mbit/s
95th percentile per-packet one-way delay: 33.973 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 473.67 Mbit/s
95th percentile per-packet one-way delay: 36.837 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 367.48 Mbit/s
95th percentile per-packet one-way delay: 20.532 ms
Loss rate: 5.13%
-- Flow 3:
Average throughput: 305.85 Mbit/s
95th percentile per-packet one-way delay: 19.010 ms
Loss rate: 7.54%
```

Run 9: Report of TCP BBR — Data Link



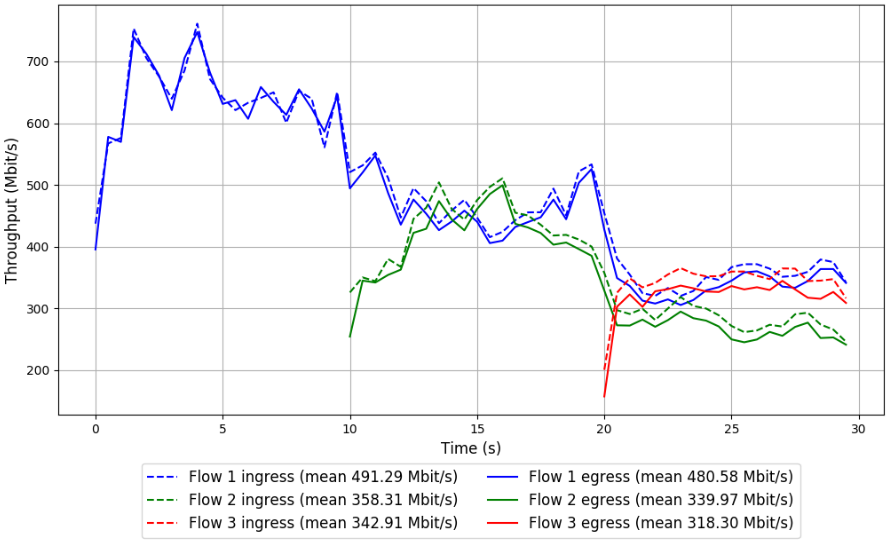


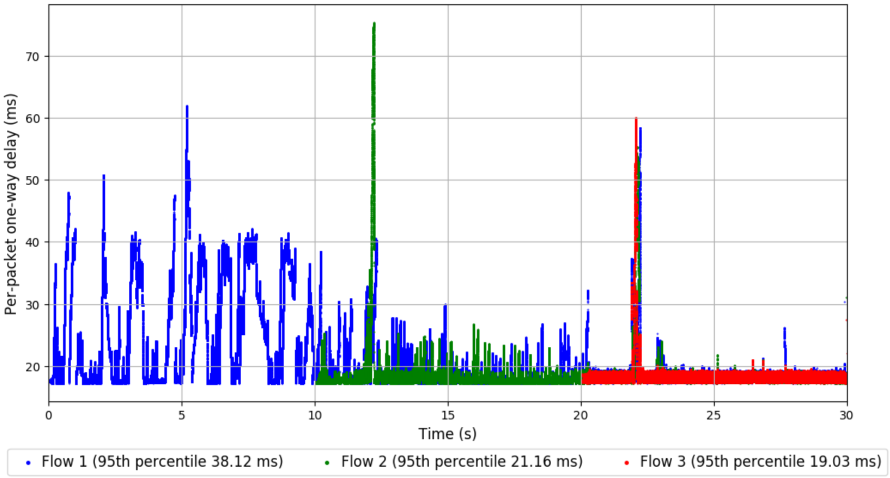
```
Run 10: Statistics of TCP BBR

Start at: 2018-04-04 02:15:55
End at: 2018-04-04 02:16:25
Local clock offset: 0.442 ms
Remote clock offset: 0.487 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 812.73 Mbit/s
95th percentile per-packet one-way delay: 36.194 ms
Loss rate: 3.69%
-- Flow 1:
Average throughput: 480.58 Mbit/s
95th percentile per-packet one-way delay: 38.123 ms
Loss rate: 2.18%
-- Flow 2:
Average throughput: 339.97 Mbit/s
95th percentile per-packet one-way delay: 21.157 ms
Loss rate: 5.12%
-- Flow 3:
Average throughput: 318.30 Mbit/s
95th percentile per-packet one-way delay: 19.030 ms
Loss rate: 7.18%
```

Run 10: Report of TCP BBR — Data Link



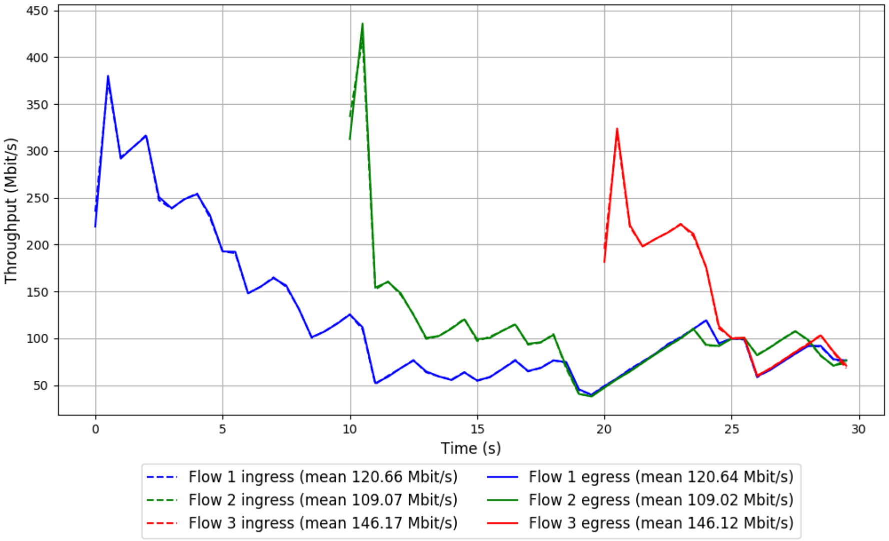


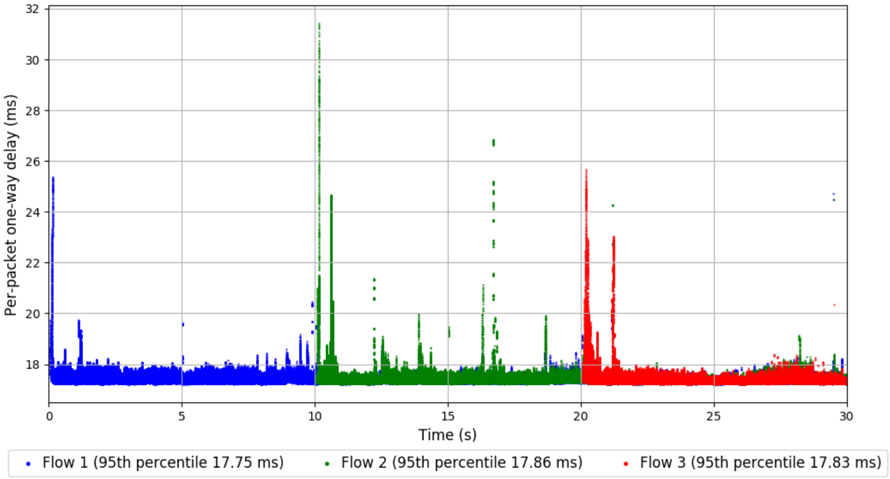
```
Run 1: Statistics of TCP Cubic

Start at: 2018-04-03 21:50:10
End at: 2018-04-03 21:50:40
Local clock offset: 0.924 ms
Remote clock offset: 0.463 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.73 Mbit/s
95th percentile per-packet one-way delay: 17.776 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 120.64 Mbit/s
95th percentile per-packet one-way delay: 17.745 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 109.02 Mbit/s
95th percentile per-packet one-way delay: 17.856 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 146.12 Mbit/s
95th percentile per-packet one-way delay: 17.828 ms
Loss rate: 0.04%
```

Run 1: Report of TCP Cubic — Data Link



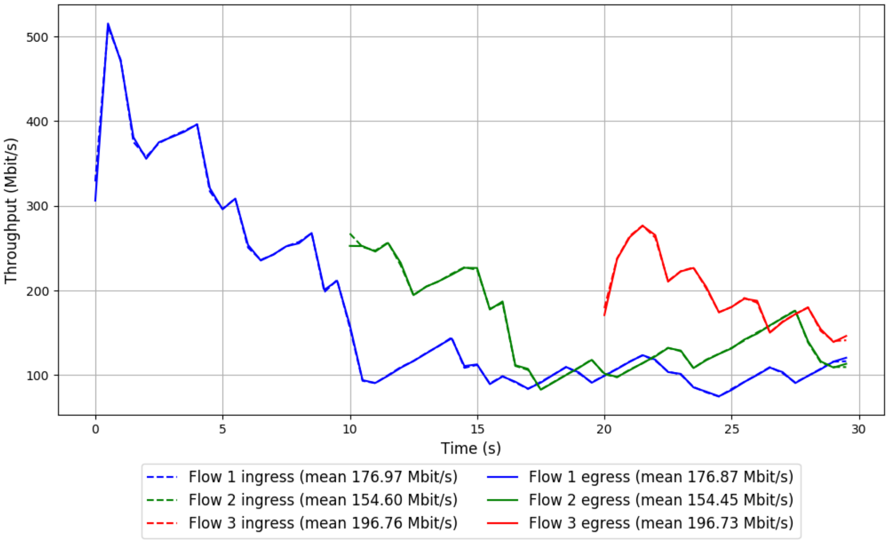


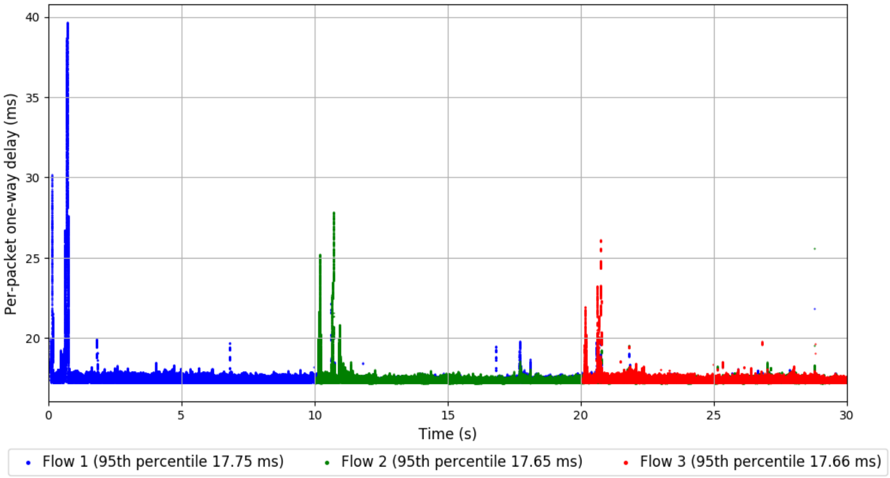
```
Run 2: Statistics of TCP Cubic

Start at: 2018-04-03 22:18:50
End at: 2018-04-03 22:19:20
Local clock offset: 0.772 ms
Remote clock offset: 0.229 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.03 Mbit/s
95th percentile per-packet one-way delay: 17.708 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 176.87 Mbit/s
95th percentile per-packet one-way delay: 17.745 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 154.45 Mbit/s
95th percentile per-packet one-way delay: 17.647 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 196.73 Mbit/s
95th percentile per-packet one-way delay: 17.663 ms
Loss rate: 0.02%
```

Run 2: Report of TCP Cubic — Data Link



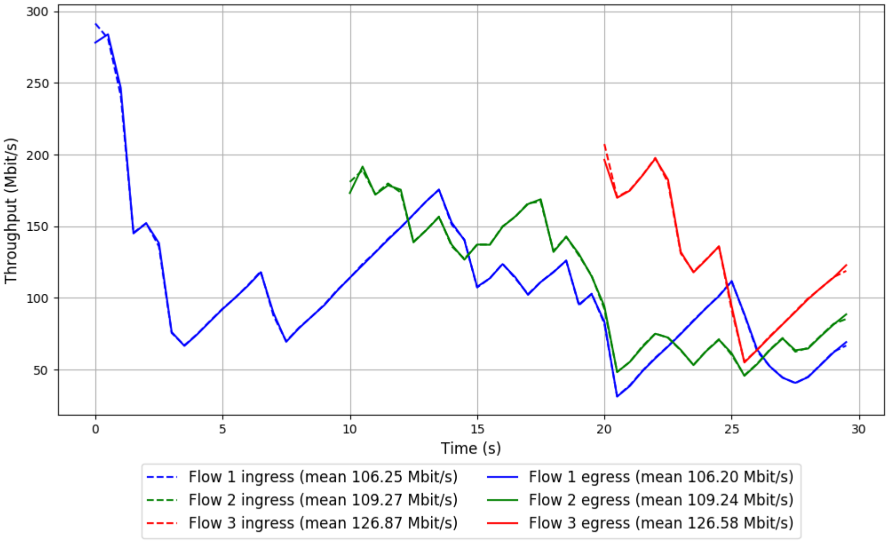


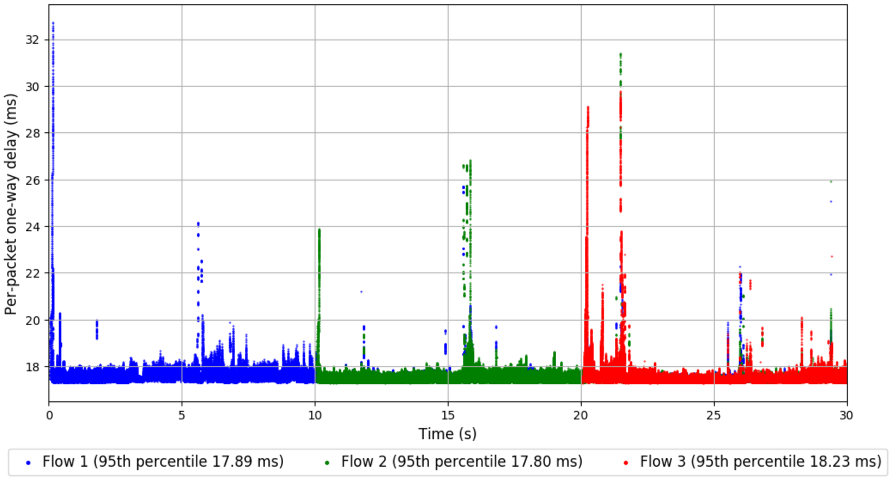
```
Run 3: Statistics of TCP Cubic

Start at: 2018-04-03 22:47:44
End at: 2018-04-03 22:48:14
Local clock offset: 1.285 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 220.95 Mbit/s
95th percentile per-packet one-way delay: 17.896 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 106.20 Mbit/s
95th percentile per-packet one-way delay: 17.888 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 109.24 Mbit/s
95th percentile per-packet one-way delay: 17.795 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 126.58 Mbit/s
95th percentile per-packet one-way delay: 18.226 ms
Loss rate: 0.23%
```

Run 3: Report of TCP Cubic — Data Link



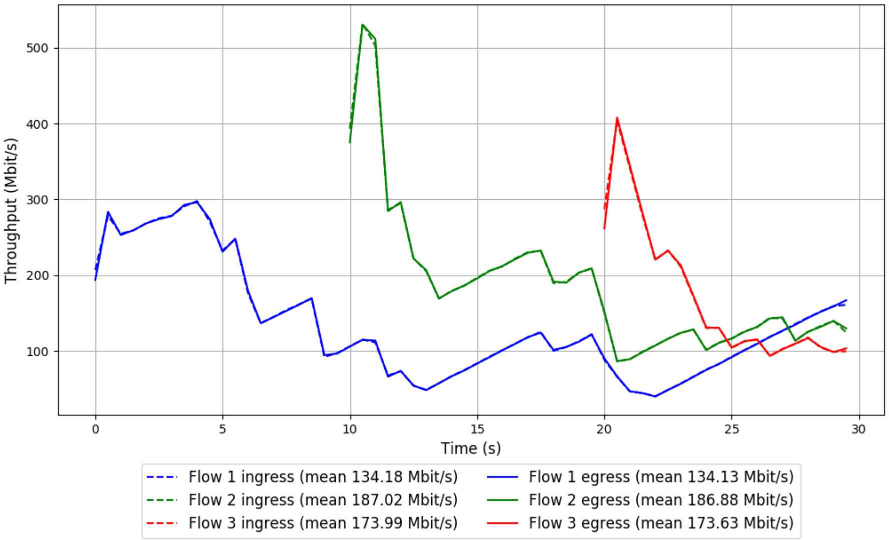


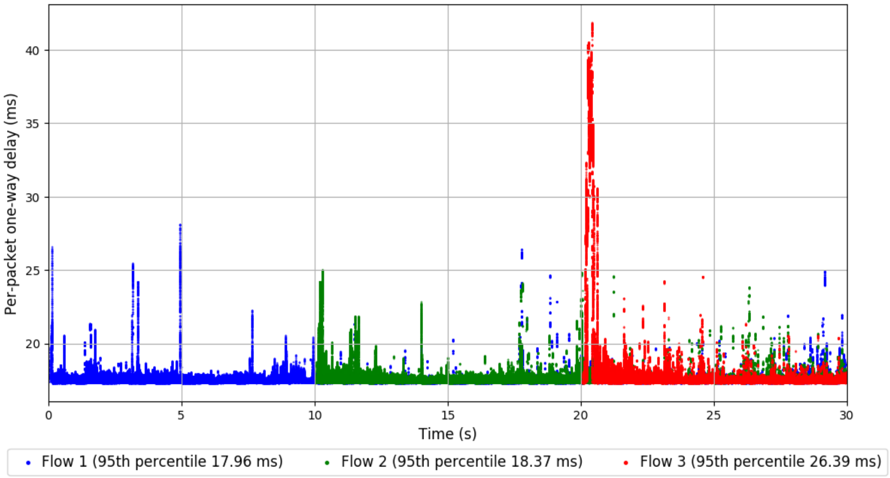
```
Run 4: Statistics of TCP Cubic

Start at: 2018-04-03 23:16:08
End at: 2018-04-03 23:16:38
Local clock offset: 1.313 ms
Remote clock offset: 0.328 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.23 Mbit/s
95th percentile per-packet one-way delay: 18.421 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 134.13 Mbit/s
95th percentile per-packet one-way delay: 17.961 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 186.88 Mbit/s
95th percentile per-packet one-way delay: 18.372 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 173.63 Mbit/s
95th percentile per-packet one-way delay: 26.385 ms
Loss rate: 0.20%
```

Run 4: Report of TCP Cubic — Data Link



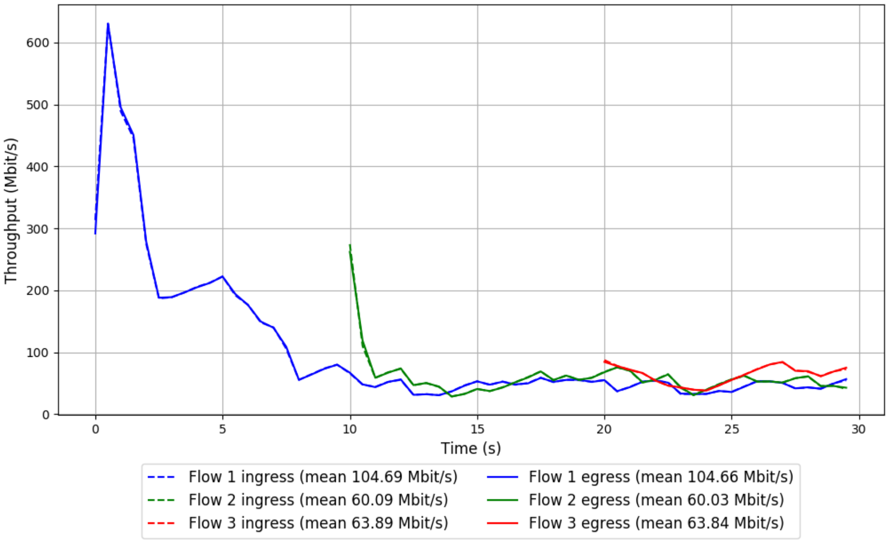


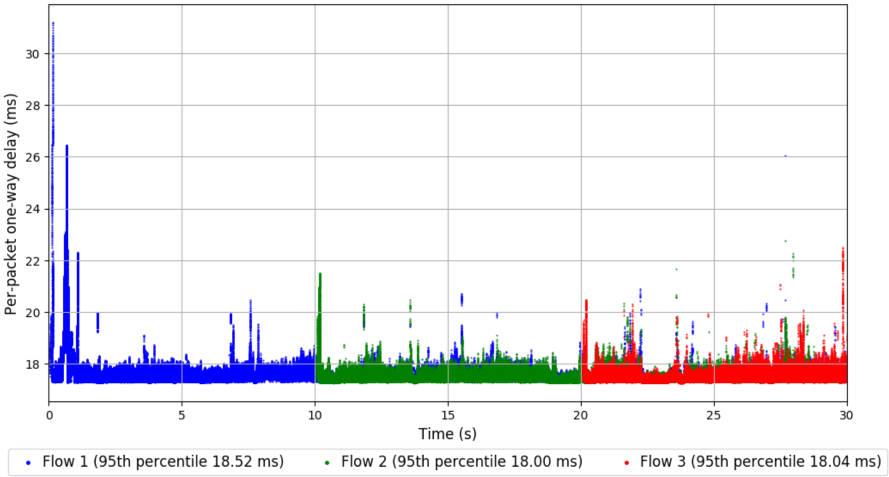
```
Run 5: Statistics of TCP Cubic

Start at: 2018-04-03 23:44:55
End at: 2018-04-03 23:45:26
Local clock offset: 0.929 ms
Remote clock offset: 0.568 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.85 Mbit/s
95th percentile per-packet one-way delay: 18.231 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 104.66 Mbit/s
95th percentile per-packet one-way delay: 18.521 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 60.03 Mbit/s
95th percentile per-packet one-way delay: 17.999 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 63.84 Mbit/s
95th percentile per-packet one-way delay: 18.041 ms
Loss rate: 0.07%
```

Run 5: Report of TCP Cubic — Data Link



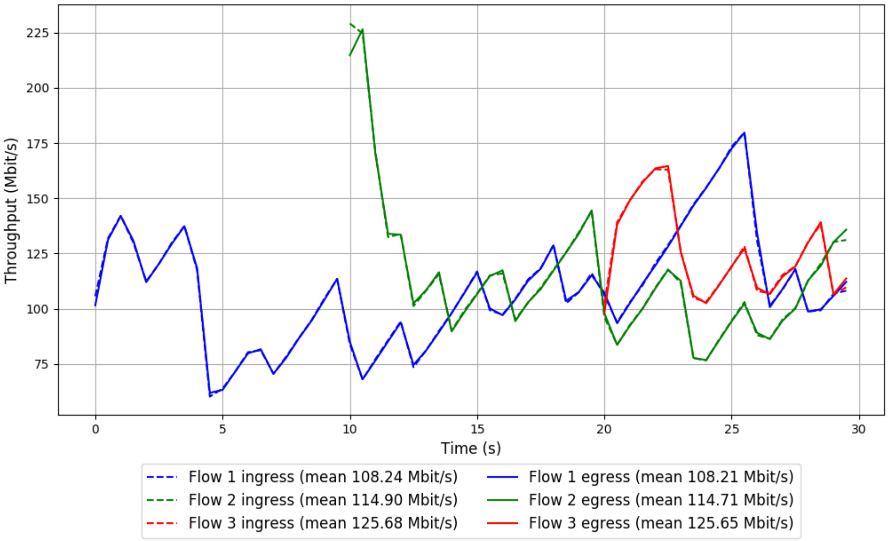


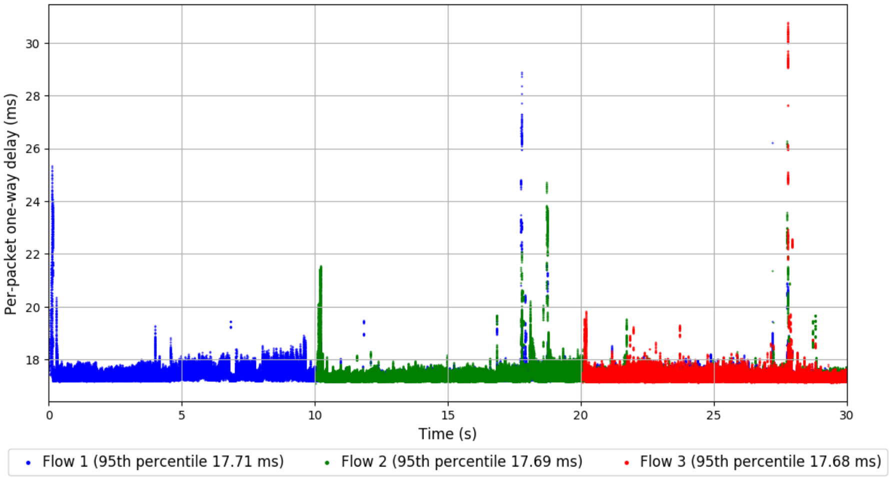
```
Run 6: Statistics of TCP Cubic

Start at: 2018-04-04 00:13:41
End at: 2018-04-04 00:14:11
Local clock offset: 0.528 ms
Remote clock offset: 0.461 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 226.32 Mbit/s
95th percentile per-packet one-way delay: 17.702 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 108.21 Mbit/s
95th percentile per-packet one-way delay: 17.715 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 114.71 Mbit/s
95th percentile per-packet one-way delay: 17.690 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 125.65 Mbit/s
95th percentile per-packet one-way delay: 17.684 ms
Loss rate: 0.02%
```

Run 6: Report of TCP Cubic — Data Link



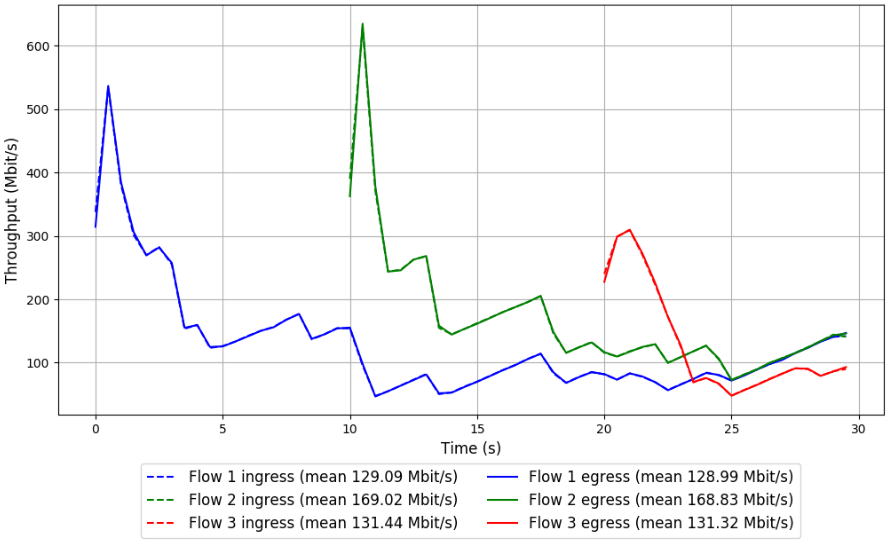


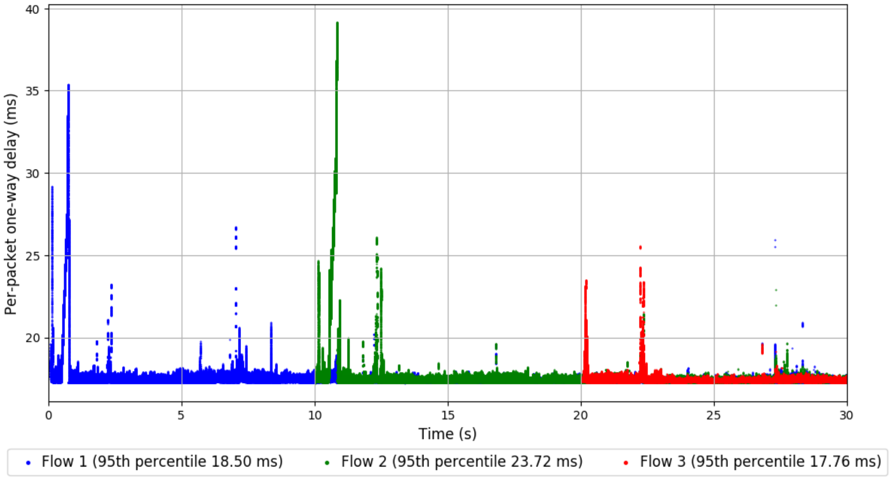
```
Run 7: Statistics of TCP Cubic

Start at: 2018-04-04 00:42:26
End at: 2018-04-04 00:42:56
Local clock offset: 0.204 ms
Remote clock offset: 0.486 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.00 Mbit/s
95th percentile per-packet one-way delay: 19.453 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 128.99 Mbit/s
95th percentile per-packet one-way delay: 18.498 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 168.83 Mbit/s
95th percentile per-packet one-way delay: 23.719 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 131.32 Mbit/s
95th percentile per-packet one-way delay: 17.759 ms
Loss rate: 0.09%
```

Run 7: Report of TCP Cubic — Data Link



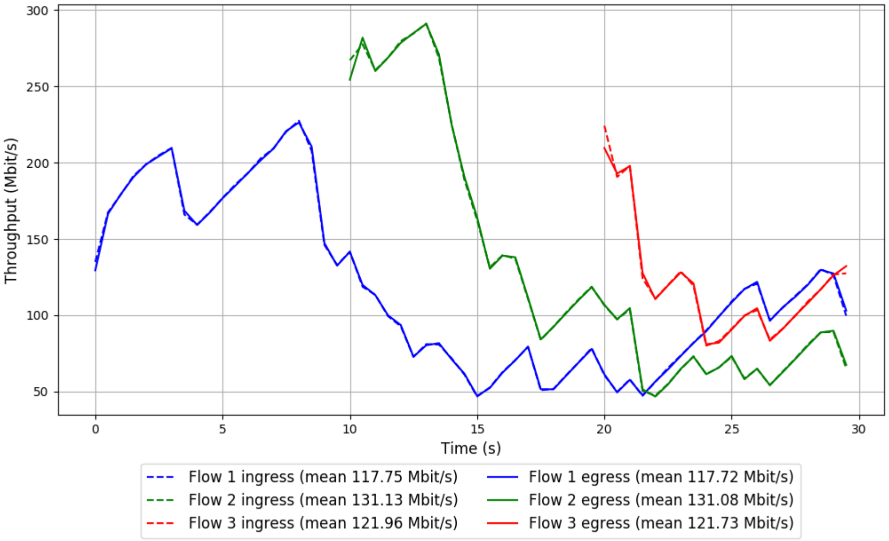


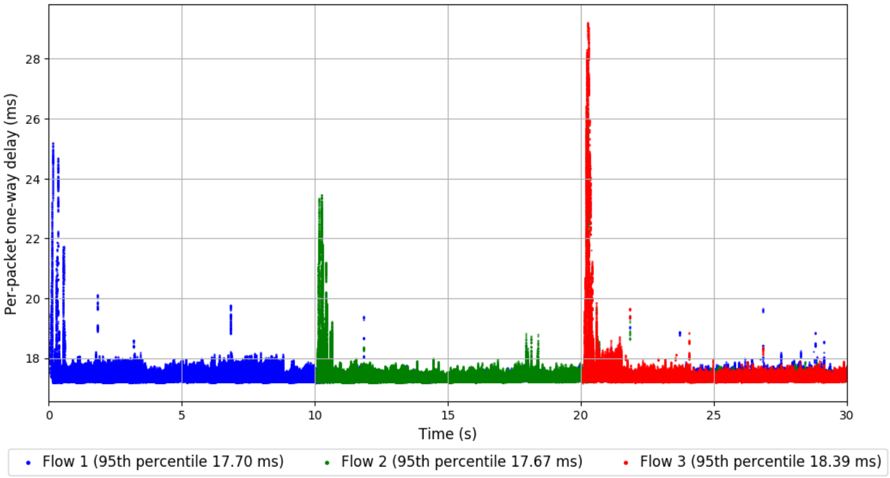
```
Run 8: Statistics of TCP Cubic

Start at: 2018-04-04 01:11:17
End at: 2018-04-04 01:11:47
Local clock offset: -0.158 ms
Remote clock offset: 0.342 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.43 Mbit/s
95th percentile per-packet one-way delay: 17.729 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 117.72 Mbit/s
95th percentile per-packet one-way delay: 17.698 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 131.08 Mbit/s
95th percentile per-packet one-way delay: 17.672 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 121.73 Mbit/s
95th percentile per-packet one-way delay: 18.392 ms
Loss rate: 0.25%
```

Run 8: Report of TCP Cubic — Data Link



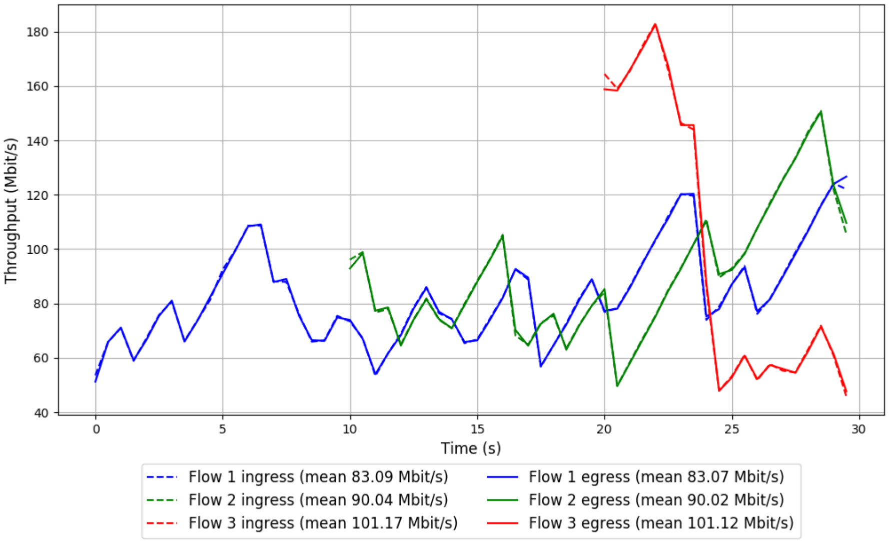


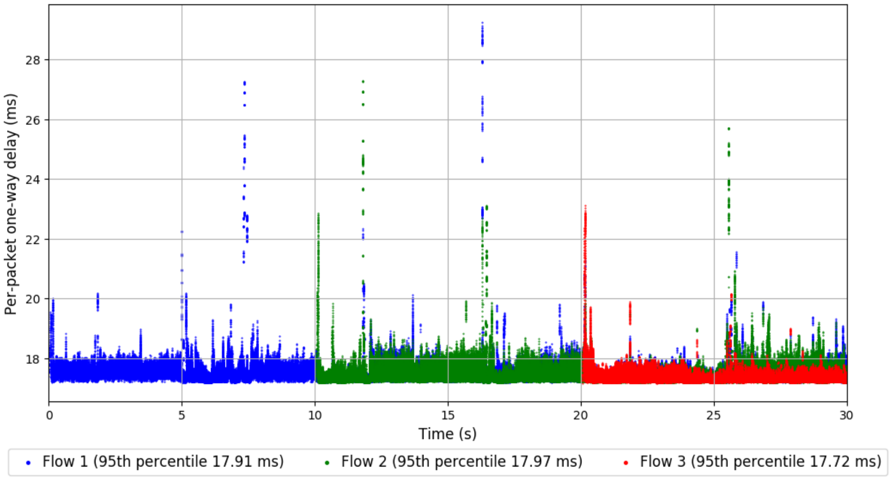
```
Run 9: Statistics of TCP Cubic

Start at: 2018-04-04 01:40:12
End at: 2018-04-04 01:40:42
Local clock offset: 0.179 ms
Remote clock offset: 0.362 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 176.56 Mbit/s
95th percentile per-packet one-way delay: 17.913 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 83.07 Mbit/s
95th percentile per-packet one-way delay: 17.915 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 90.02 Mbit/s
95th percentile per-packet one-way delay: 17.971 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 101.12 Mbit/s
95th percentile per-packet one-way delay: 17.718 ms
Loss rate: 0.05%
```

Run 9: Report of TCP Cubic — Data Link



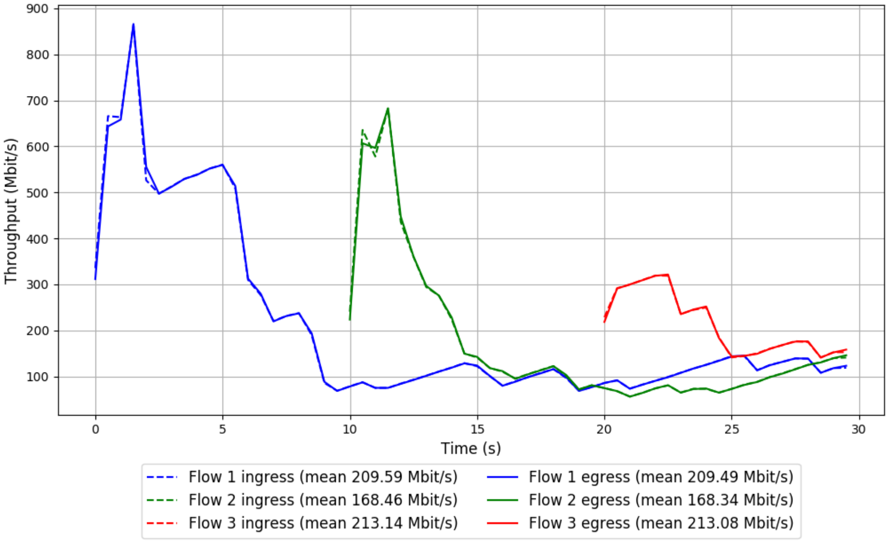


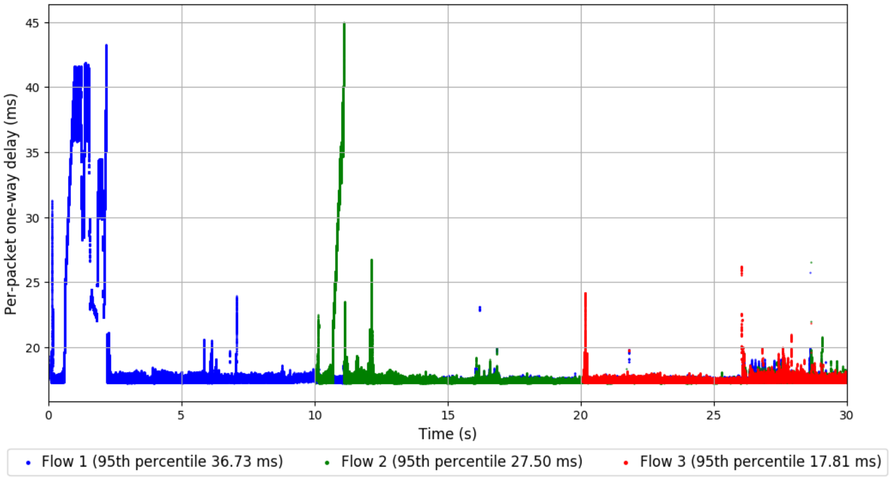
```
Run 10: Statistics of TCP Cubic

Start at: 2018-04-04 02:09:01
End at: 2018-04-04 02:09:31
Local clock offset: 0.255 ms
Remote clock offset: 0.495 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 392.35 Mbit/s
95th percentile per-packet one-way delay: 32.684 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 209.49 Mbit/s
95th percentile per-packet one-way delay: 36.729 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 168.34 Mbit/s
95th percentile per-packet one-way delay: 27.505 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 213.08 Mbit/s
95th percentile per-packet one-way delay: 17.812 ms
Loss rate: 0.02%
```

Run 10: Report of TCP Cubic — Data Link



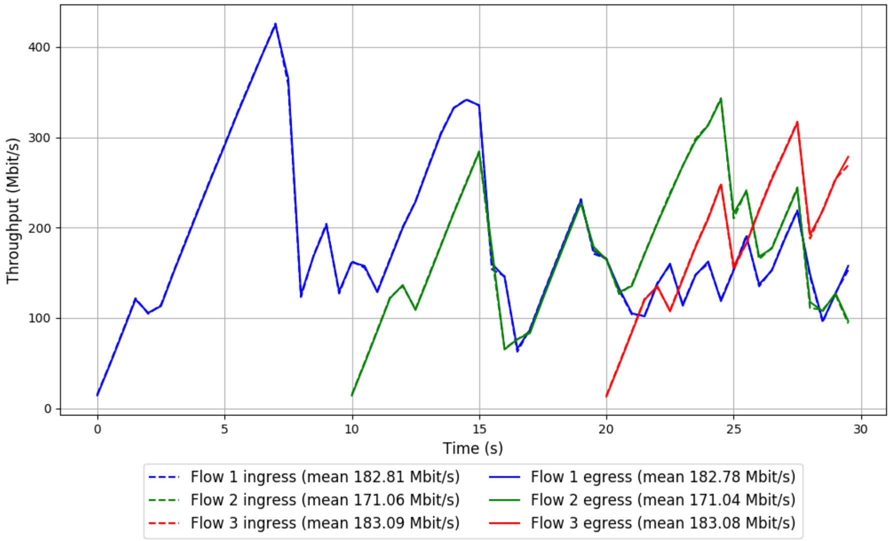


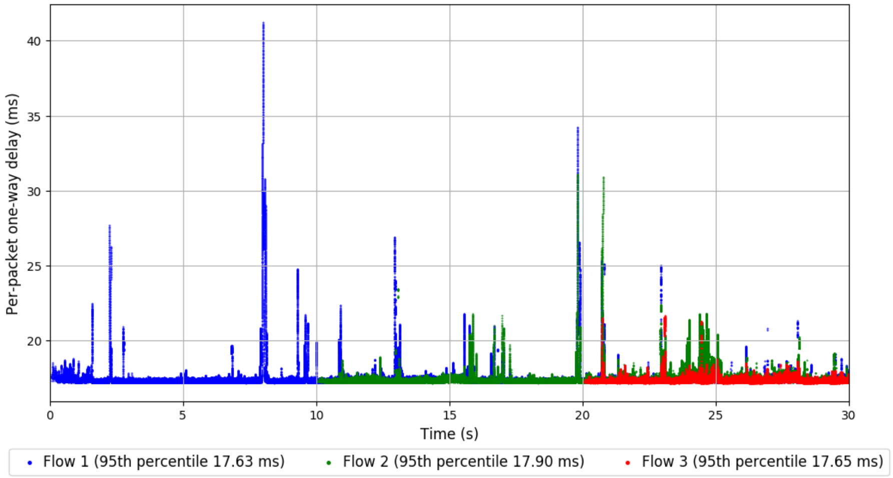
```
Run 1: Statistics of LEDBAT

Start at: 2018-04-03 22:15:38
End at: 2018-04-03 22:16:08
Local clock offset: 0.758 ms
Remote clock offset: 0.196 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 357.42 Mbit/s
95th percentile per-packet one-way delay: 17.700 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 182.78 Mbit/s
95th percentile per-packet one-way delay: 17.628 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 171.04 Mbit/s
95th percentile per-packet one-way delay: 17.899 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 183.08 Mbit/s
95th percentile per-packet one-way delay: 17.648 ms
Loss rate: 0.01%
```

Run 1: Report of LEDBAT — Data Link



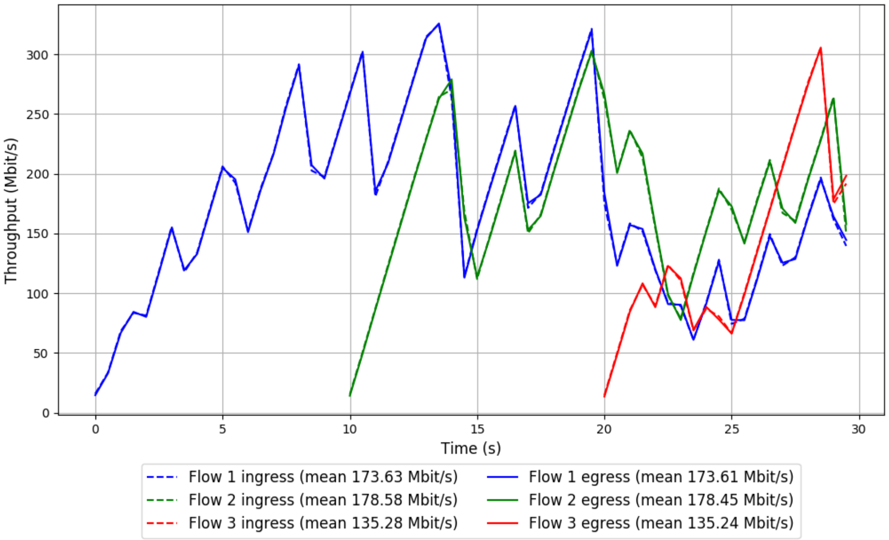


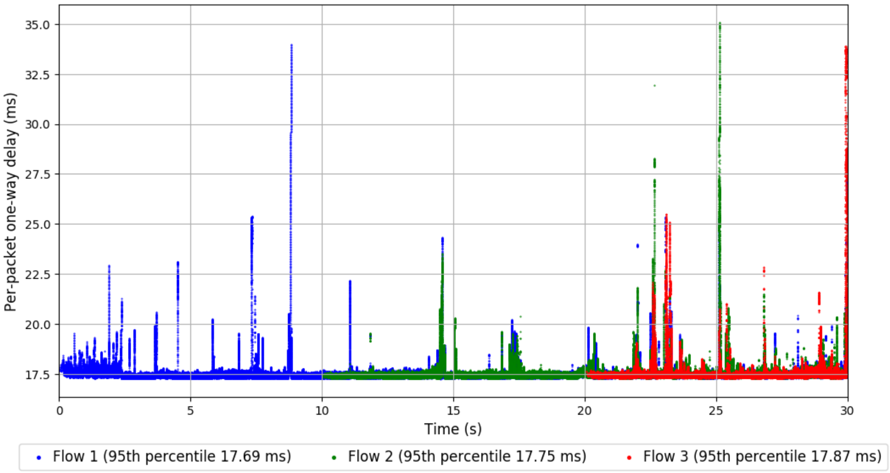
```
Run 2: Statistics of LEDBAT

Start at: 2018-04-03 22:44:33
End at: 2018-04-03 22:45:03
Local clock offset: 1.231 ms
Remote clock offset: 0.078 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.25 Mbit/s
95th percentile per-packet one-way delay: 17.728 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 173.61 Mbit/s
95th percentile per-packet one-way delay: 17.691 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 178.45 Mbit/s
95th percentile per-packet one-way delay: 17.746 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 135.24 Mbit/s
95th percentile per-packet one-way delay: 17.870 ms
Loss rate: 0.03%
```

Run 2: Report of LEDBAT — Data Link



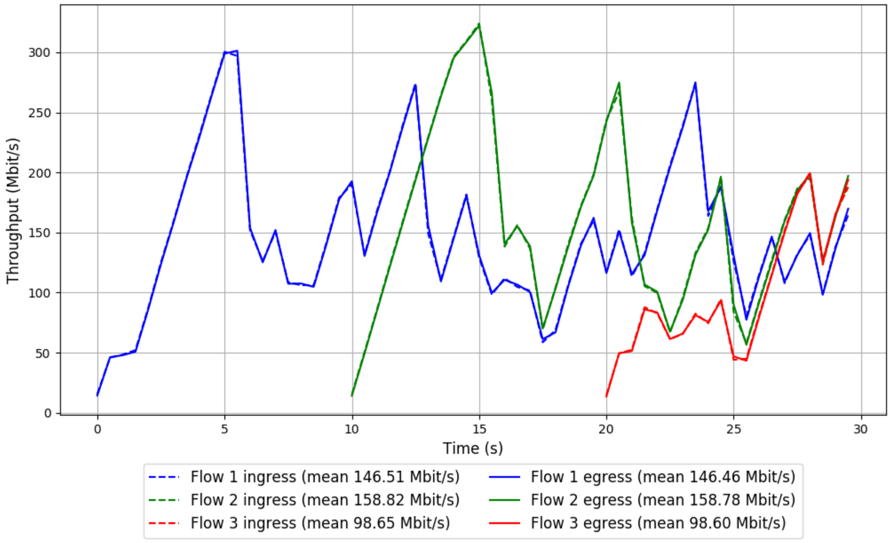


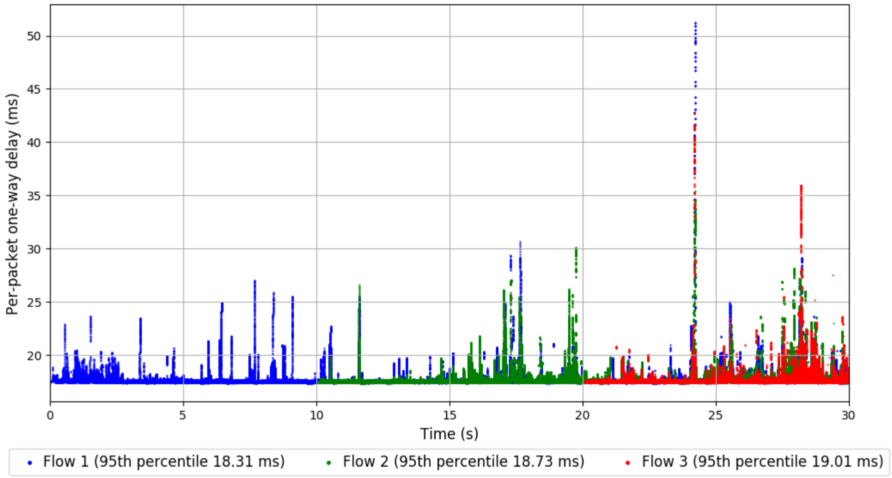
```
Run 3: Statistics of LEDBAT

Start at: 2018-04-03 23:12:59
End at: 2018-04-03 23:13:29
Local clock offset: 1.265 ms
Remote clock offset: 0.311 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.94 Mbit/s
95th percentile per-packet one-way delay: 18.534 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 146.46 Mbit/s
95th percentile per-packet one-way delay: 18.308 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 158.78 Mbit/s
95th percentile per-packet one-way delay: 18.729 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 98.60 Mbit/s
95th percentile per-packet one-way delay: 19.009 ms
Loss rate: 0.06%
```

Run 3: Report of LEDBAT — Data Link



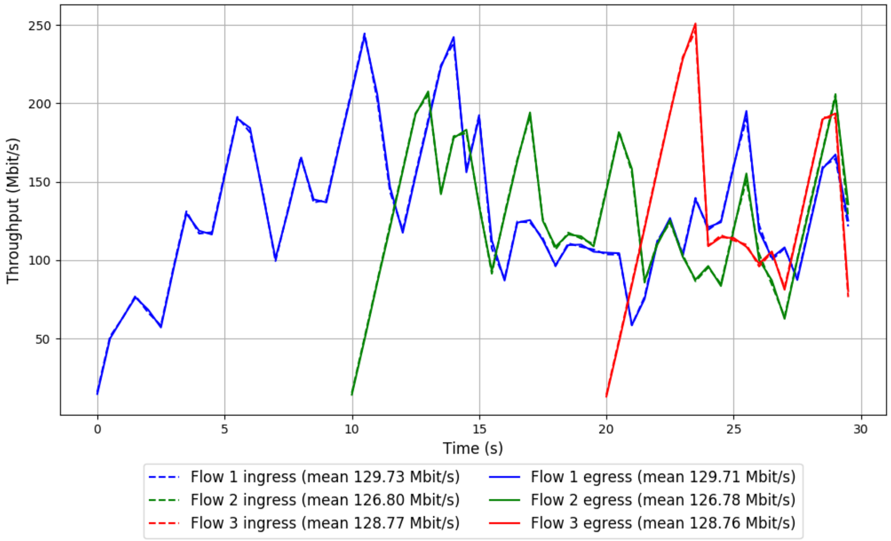


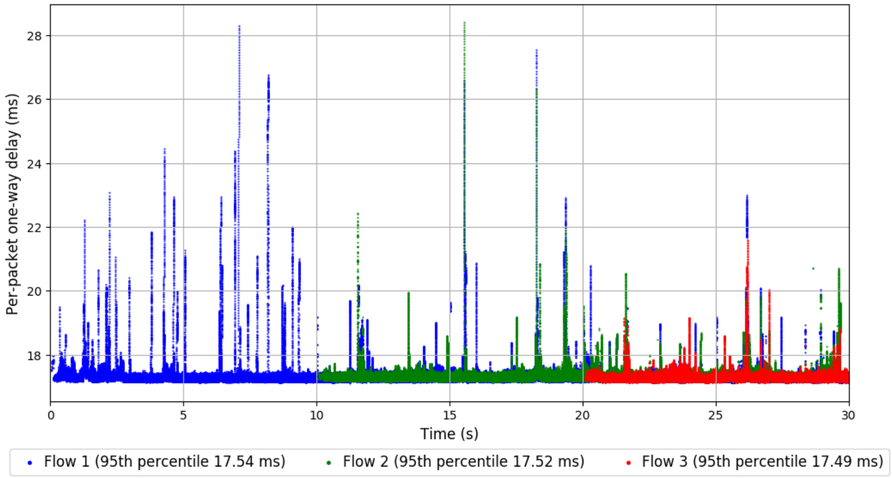
```
Run 4: Statistics of LEDBAT

Start at: 2018-04-03 23:41:48
End at: 2018-04-03 23:42:18
Local clock offset: 0.995 ms
Remote clock offset: 0.475 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.86 Mbit/s
95th percentile per-packet one-way delay: 17.521 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 129.71 Mbit/s
95th percentile per-packet one-way delay: 17.542 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 126.78 Mbit/s
95th percentile per-packet one-way delay: 17.516 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 128.76 Mbit/s
95th percentile per-packet one-way delay: 17.487 ms
Loss rate: 0.01%
```

Run 4: Report of LEDBAT — Data Link



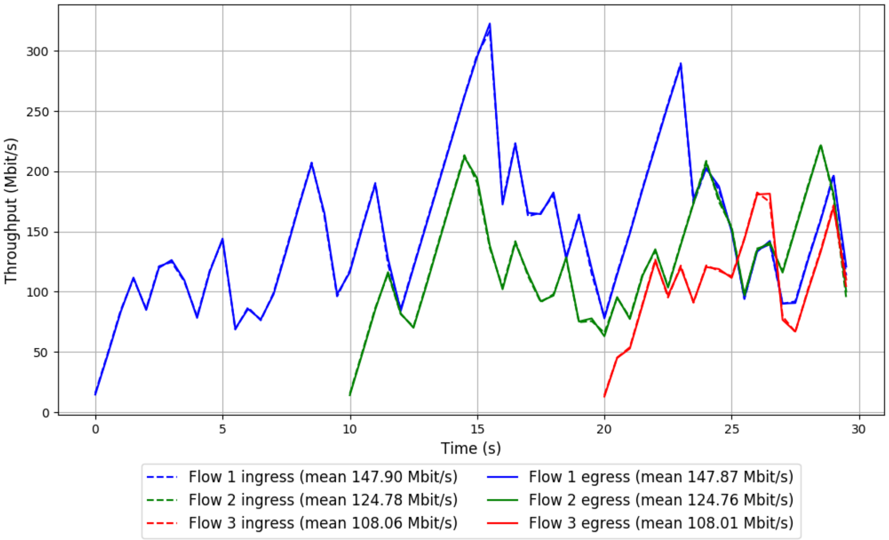


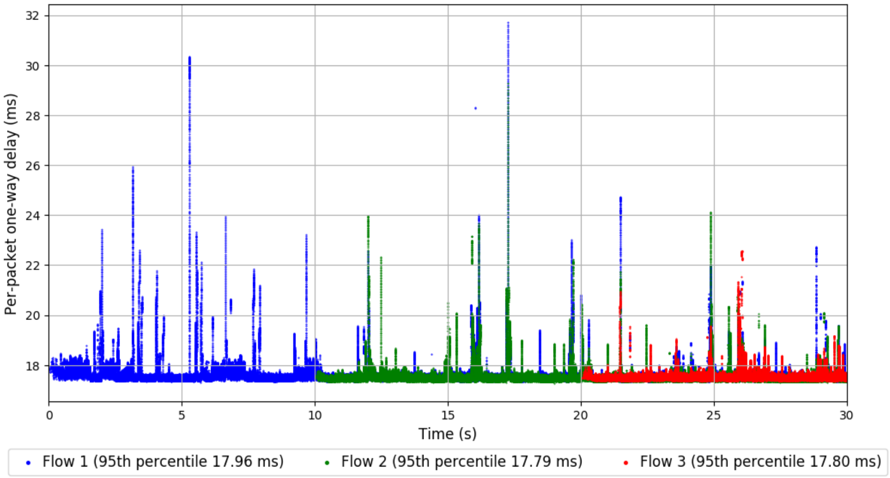
```
Run 5: Statistics of LEDBAT

Start at: 2018-04-04 00:10:33
End at: 2018-04-04 00:11:03
Local clock offset: 0.524 ms
Remote clock offset: 0.584 ms

# Below is generated by plot.py at 2018-04-04 05:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.76 Mbit/s
95th percentile per-packet one-way delay: 17.887 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 147.87 Mbit/s
95th percentile per-packet one-way delay: 17.962 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 124.76 Mbit/s
95th percentile per-packet one-way delay: 17.789 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 108.01 Mbit/s
95th percentile per-packet one-way delay: 17.803 ms
Loss rate: 0.04%
```

Run 5: Report of LEDBAT — Data Link



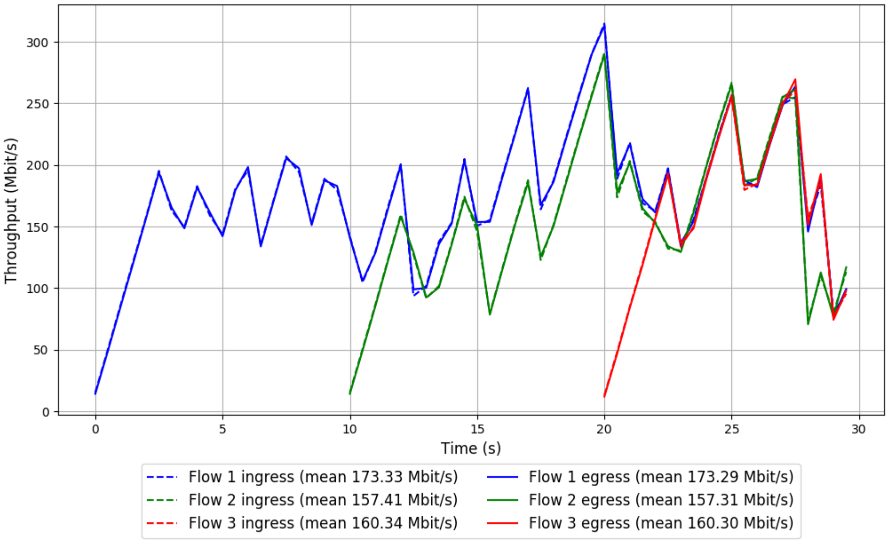


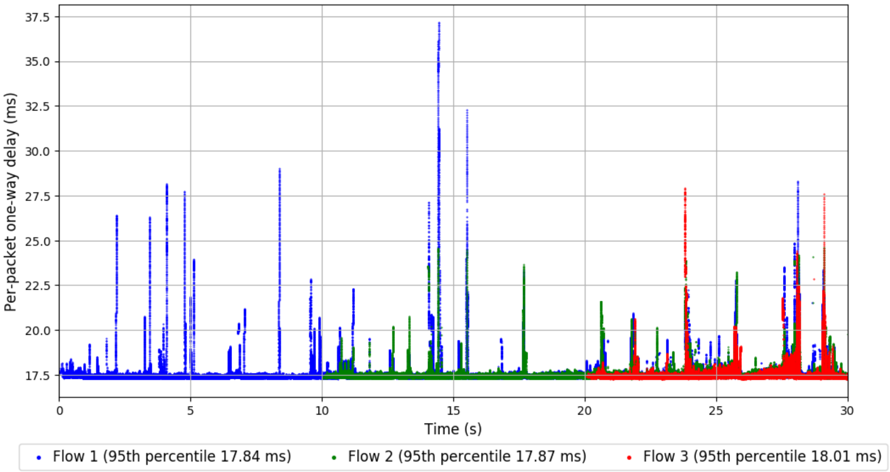
```
Run 6: Statistics of LEDBAT

Start at: 2018-04-04 00:39:14
End at: 2018-04-04 00:39:44
Local clock offset: 0.165 ms
Remote clock offset: 0.504 ms

# Below is generated by plot.py at 2018-04-04 05:45:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 331.12 Mbit/s
95th percentile per-packet one-way delay: 17.881 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 173.29 Mbit/s
95th percentile per-packet one-way delay: 17.844 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 157.31 Mbit/s
95th percentile per-packet one-way delay: 17.873 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 160.30 Mbit/s
95th percentile per-packet one-way delay: 18.008 ms
Loss rate: 0.02%
```

Run 6: Report of LEDBAT — Data Link



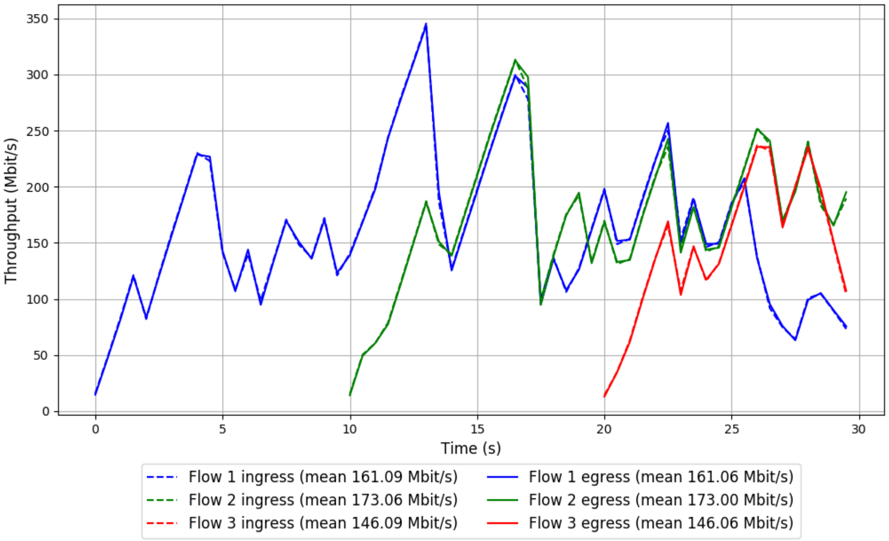


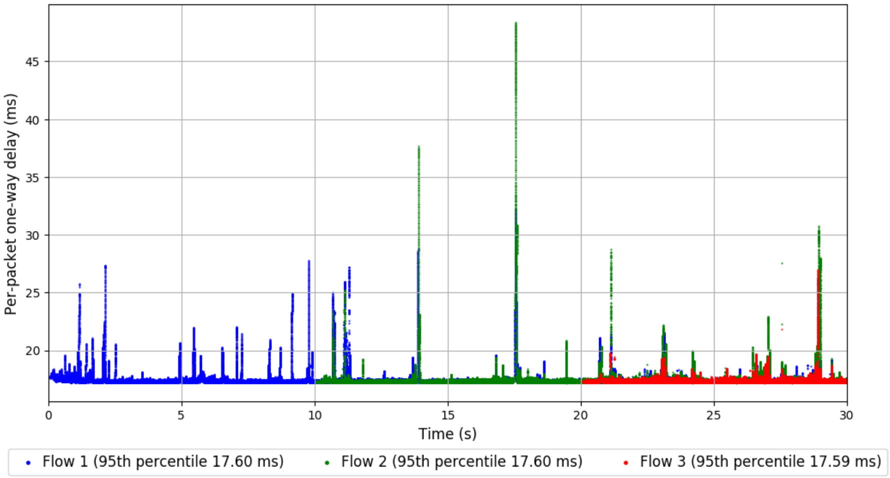
```
Run 7: Statistics of LEDBAT

Start at: 2018-04-04 01:08:07
End at: 2018-04-04 01:08:37
Local clock offset: -0.139 ms
Remote clock offset: 0.42 ms

# Below is generated by plot.py at 2018-04-04 05:46:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 324.69 Mbit/s
95th percentile per-packet one-way delay: 17.598 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 161.06 Mbit/s
95th percentile per-packet one-way delay: 17.597 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 173.00 Mbit/s
95th percentile per-packet one-way delay: 17.602 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 146.06 Mbit/s
95th percentile per-packet one-way delay: 17.591 ms
Loss rate: 0.02%
```

Run 7: Report of LEDBAT — Data Link



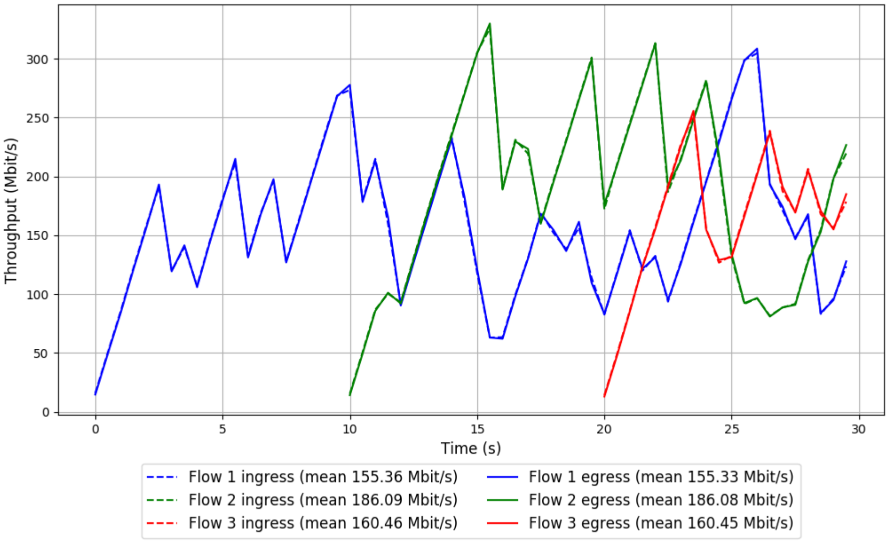


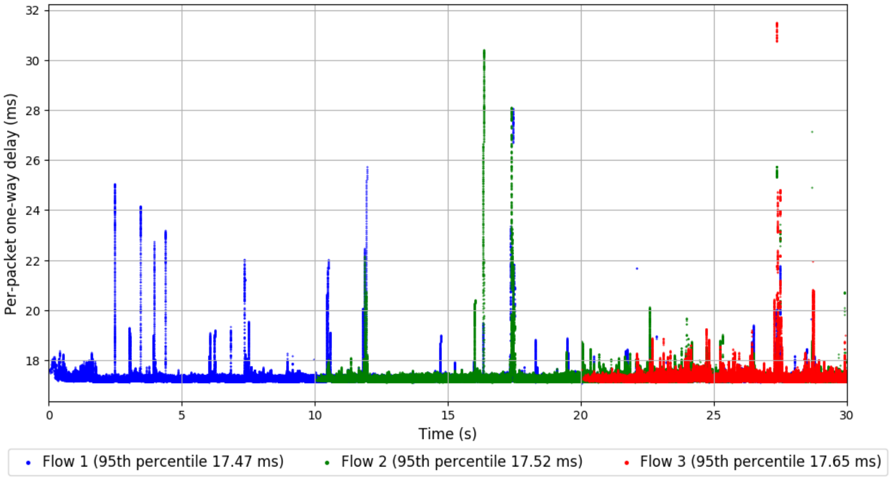
```
Run 8: Statistics of LEDBAT

Start at: 2018-04-04 01:37:00
End at: 2018-04-04 01:37:30
Local clock offset: 0.219 ms
Remote clock offset: 0.36 ms

# Below is generated by plot.py at 2018-04-04 05:46:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 332.50 Mbit/s
95th percentile per-packet one-way delay: 17.525 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 155.33 Mbit/s
95th percentile per-packet one-way delay: 17.468 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 186.08 Mbit/s
95th percentile per-packet one-way delay: 17.523 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 160.45 Mbit/s
95th percentile per-packet one-way delay: 17.647 ms
Loss rate: 0.01%
```

Run 8: Report of LEDBAT — Data Link



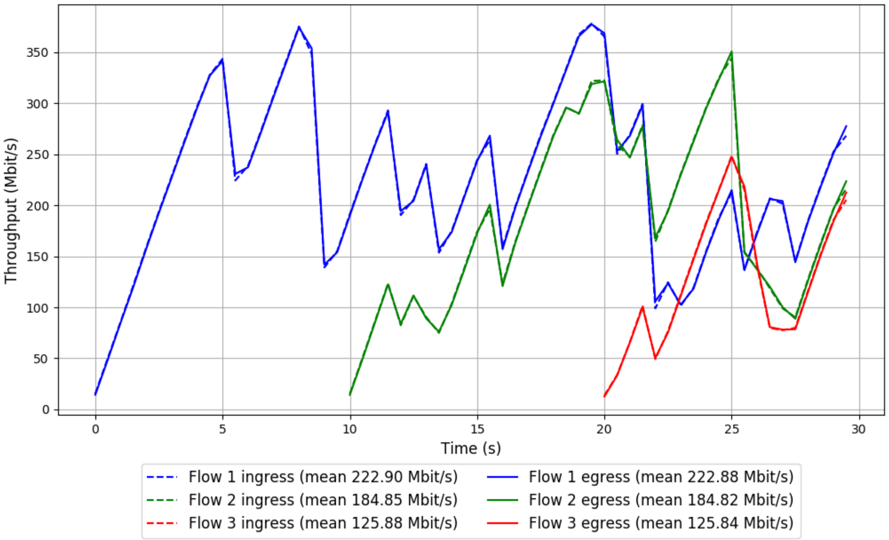


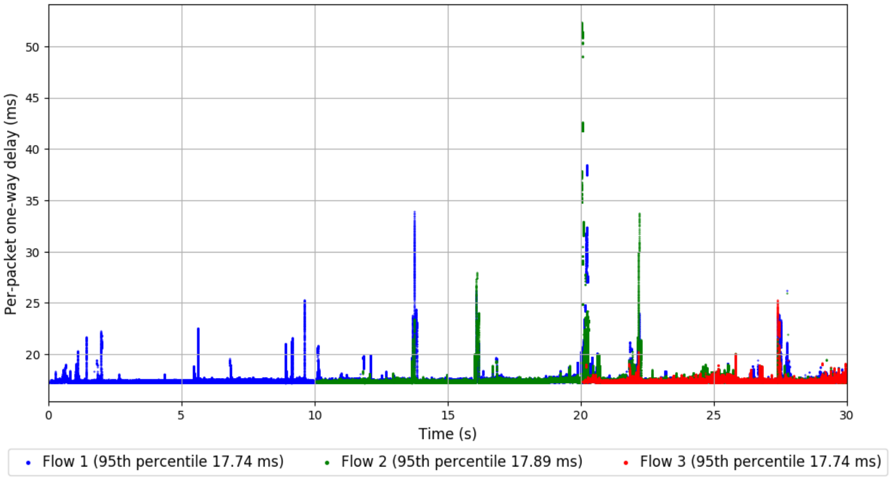
```
Run 9: Statistics of LEDBAT

Start at: 2018-04-04 02:05:47
End at: 2018-04-04 02:06:17
Local clock offset: 0.16 ms
Remote clock offset: 0.448 ms

# Below is generated by plot.py at 2018-04-04 05:46:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.70 Mbit/s
95th percentile per-packet one-way delay: 17.780 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 222.88 Mbit/s
95th percentile per-packet one-way delay: 17.741 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 184.82 Mbit/s
95th percentile per-packet one-way delay: 17.892 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 125.84 Mbit/s
95th percentile per-packet one-way delay: 17.741 ms
Loss rate: 0.03%
```

Run 9: Report of LEDBAT — Data Link



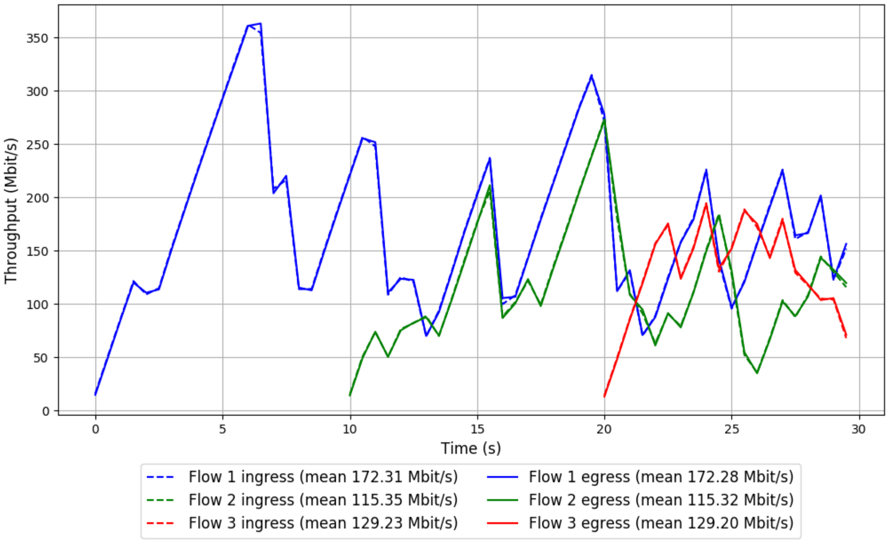


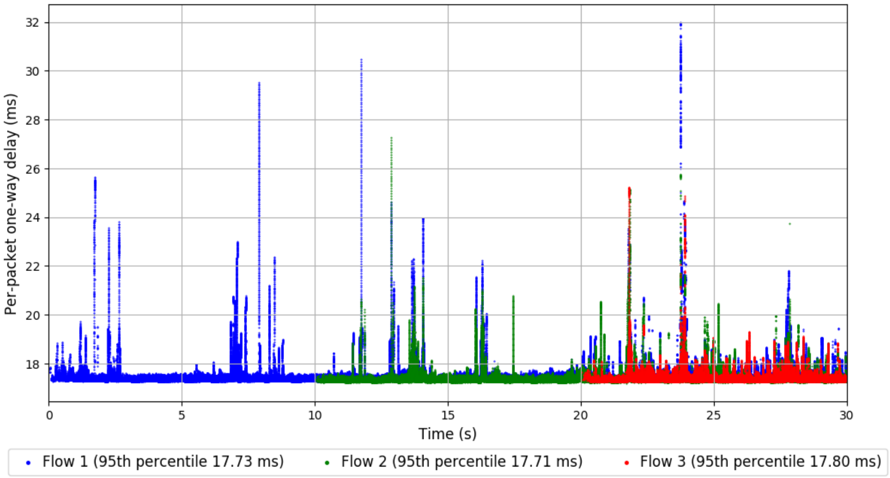
```
Run 10: Statistics of LEDBAT

Start at: 2018-04-04 02:34:53
End at: 2018-04-04 02:35:23
Local clock offset: 0.495 ms
Remote clock offset: 0.516 ms

# Below is generated by plot.py at 2018-04-04 05:46:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.87 Mbit/s
95th percentile per-packet one-way delay: 17.737 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 172.28 Mbit/s
95th percentile per-packet one-way delay: 17.732 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 115.32 Mbit/s
95th percentile per-packet one-way delay: 17.706 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 129.20 Mbit/s
95th percentile per-packet one-way delay: 17.796 ms
Loss rate: 0.03%
```

Run 10: Report of LEDBAT — Data Link



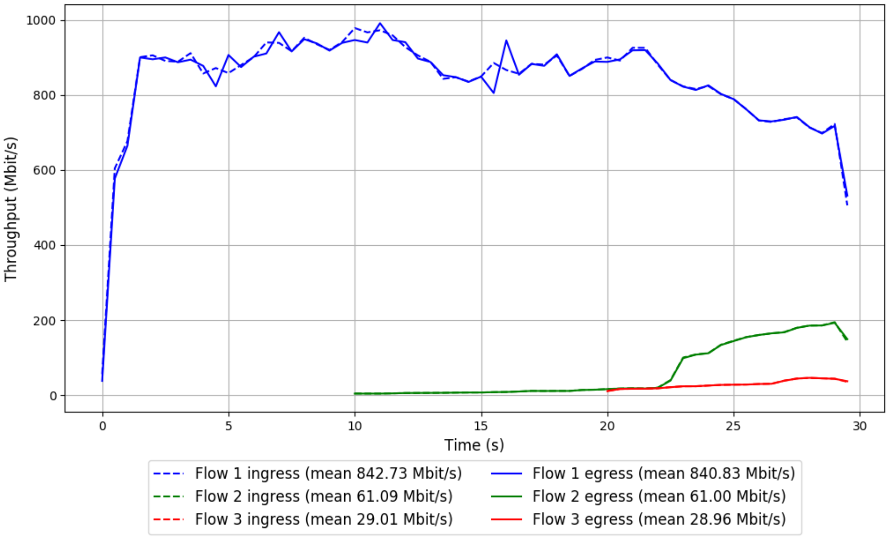


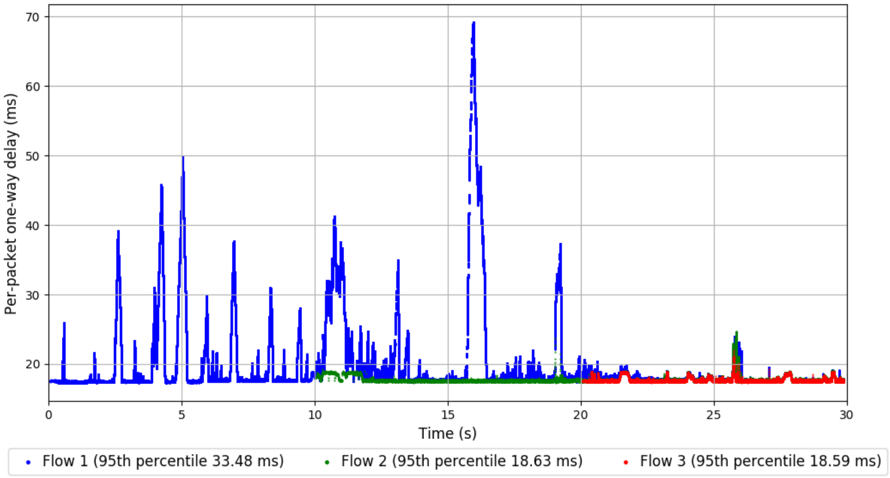
```
Run 1: Statistics of PCC

Start at: 2018-04-03 22:12:05
End at: 2018-04-03 22:12:35
Local clock offset: 0.701 ms
Remote clock offset: 0.226 ms

# Below is generated by plot.py at 2018-04-04 05:54:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 890.94 Mbit/s
95th percentile per-packet one-way delay: 33.093 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 840.83 Mbit/s
95th percentile per-packet one-way delay: 33.483 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 61.00 Mbit/s
95th percentile per-packet one-way delay: 18.626 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 28.96 Mbit/s
95th percentile per-packet one-way delay: 18.593 ms
Loss rate: 0.17%
```

Run 1: Report of PCC — Data Link



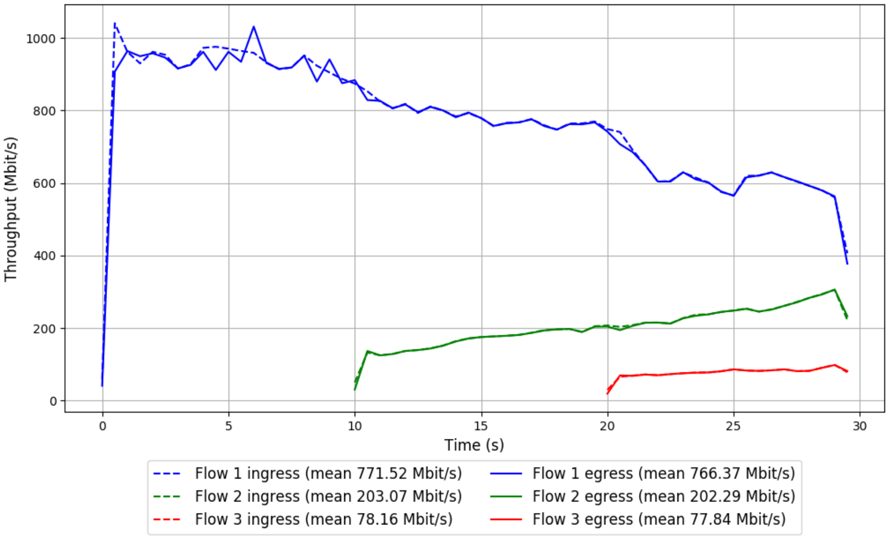


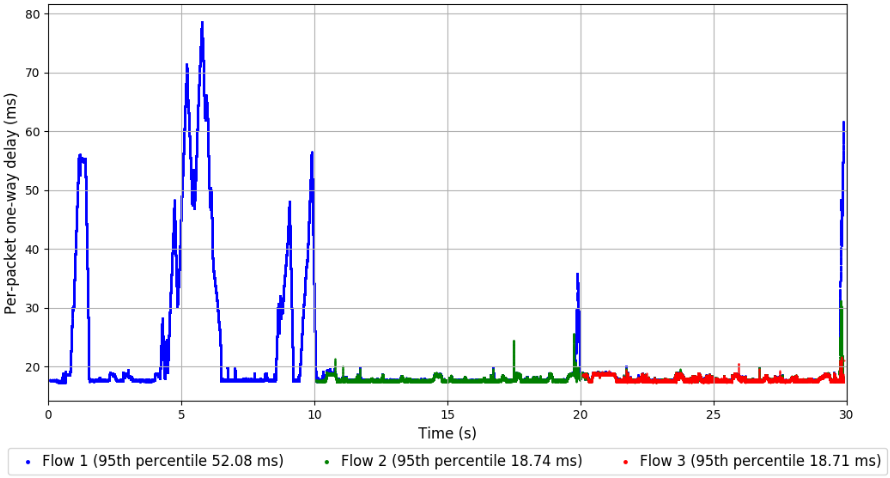
```
Run 2: Statistics of PCC

Start at: 2018-04-03 22:41:00
End at: 2018-04-03 22:41:30
Local clock offset: 1.261 ms
Remote clock offset: 0.117 ms

# Below is generated by plot.py at 2018-04-04 05:57:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 926.36 Mbit/s
95th percentile per-packet one-way delay: 48.867 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 766.37 Mbit/s
95th percentile per-packet one-way delay: 52.079 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 202.29 Mbit/s
95th percentile per-packet one-way delay: 18.736 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 77.84 Mbit/s
95th percentile per-packet one-way delay: 18.708 ms
Loss rate: 0.39%
```

Run 2: Report of PCC — Data Link



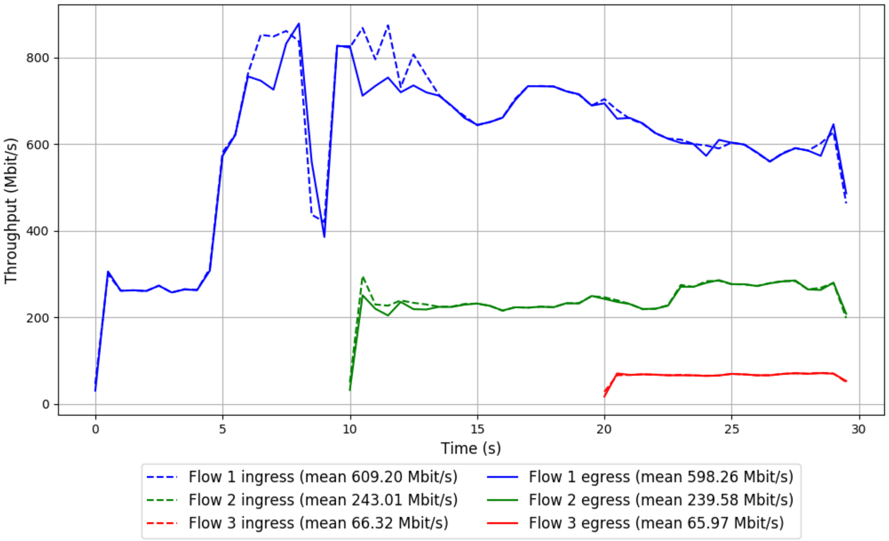


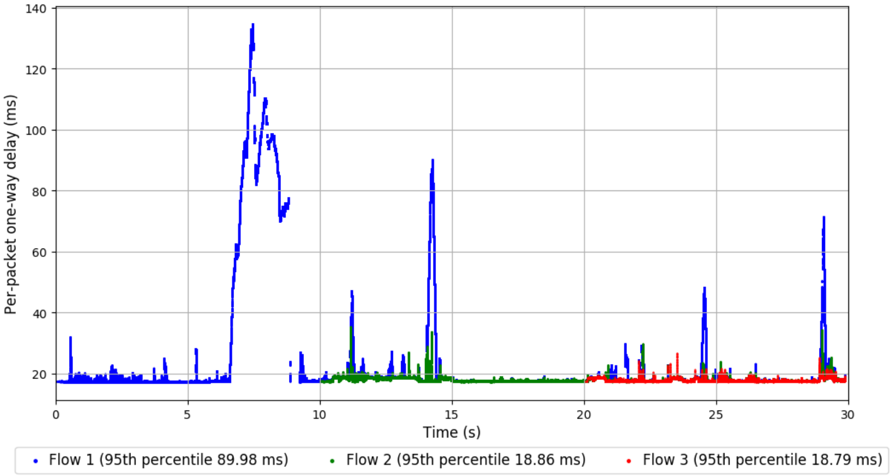
```
Run 3: Statistics of PCC

Start at: 2018-04-03 23:09:46
End at: 2018-04-03 23:10:16
Local clock offset: 1.333 ms
Remote clock offset: 0.26 ms

# Below is generated by plot.py at 2018-04-04 05:57:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 779.26 Mbit/s
95th percentile per-packet one-way delay: 83.088 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 598.26 Mbit/s
95th percentile per-packet one-way delay: 89.981 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 239.58 Mbit/s
95th percentile per-packet one-way delay: 18.865 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 65.97 Mbit/s
95th percentile per-packet one-way delay: 18.791 ms
Loss rate: 0.53%
```

Run 3: Report of PCC — Data Link



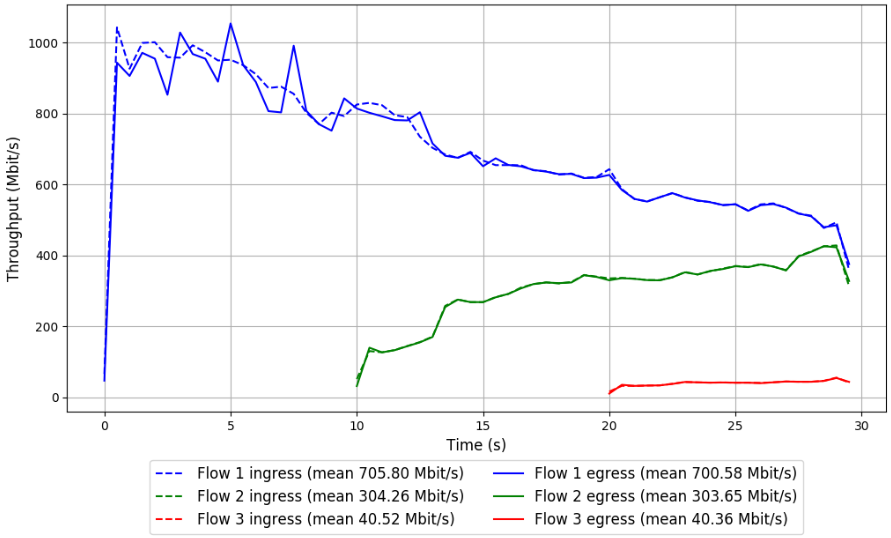


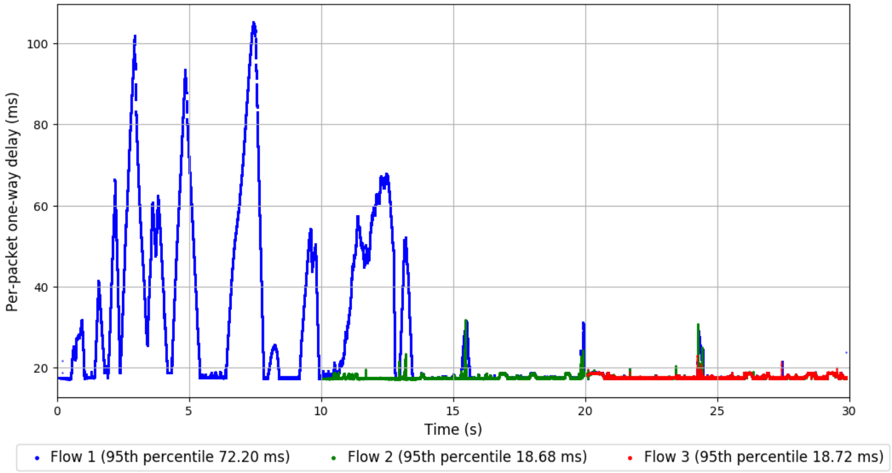
```
Run 4: Statistics of PCC

Start at: 2018-04-03 23:38:16
End at: 2018-04-03 23:38:46
Local clock offset: 0.979 ms
Remote clock offset: 0.416 ms

# Below is generated by plot.py at 2018-04-04 05:59:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 915.73 Mbit/s
95th percentile per-packet one-way delay: 66.563 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 700.58 Mbit/s
95th percentile per-packet one-way delay: 72.205 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 303.65 Mbit/s
95th percentile per-packet one-way delay: 18.676 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 40.36 Mbit/s
95th percentile per-packet one-way delay: 18.719 ms
Loss rate: 0.43%
```

Run 4: Report of PCC — Data Link



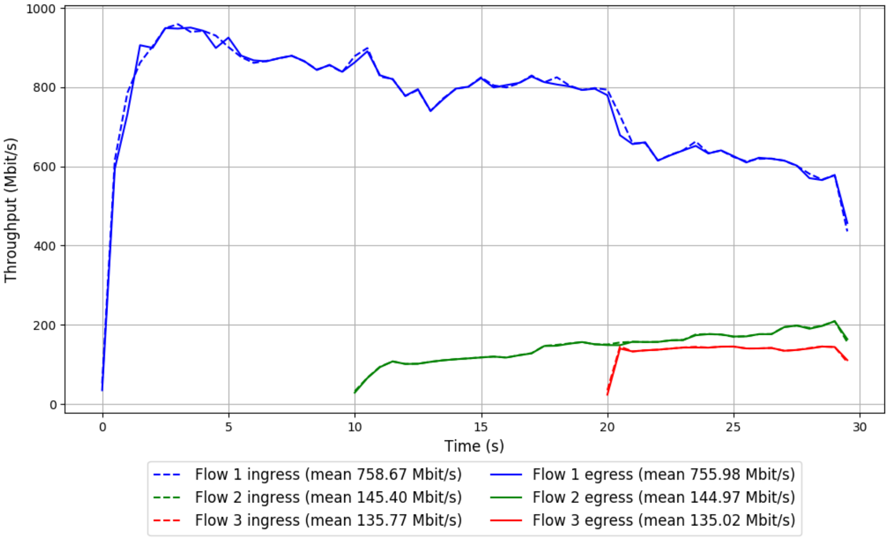


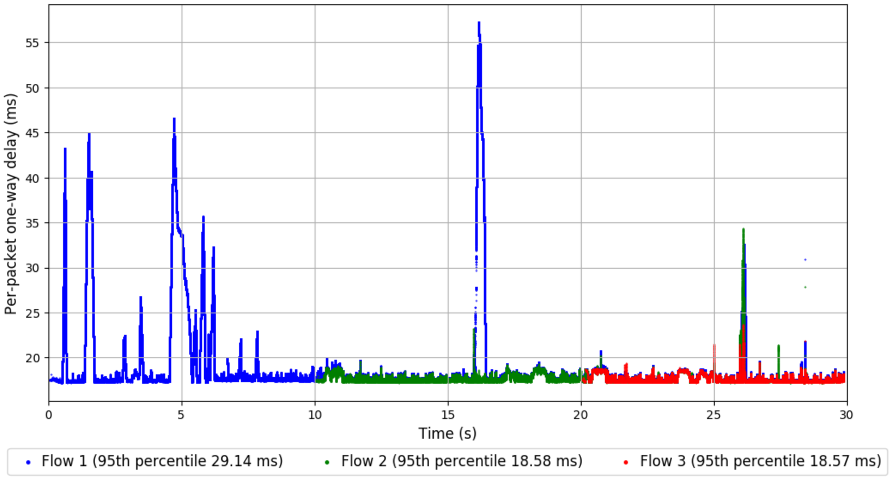
```
Run 5: Statistics of PCC

Start at: 2018-04-04 00:07:03
End at: 2018-04-04 00:07:33
Local clock offset: 0.655 ms
Remote clock offset: 0.529 ms

# Below is generated by plot.py at 2018-04-04 05:59:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 896.81 Mbit/s
95th percentile per-packet one-way delay: 26.764 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 755.98 Mbit/s
95th percentile per-packet one-way delay: 29.135 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 144.97 Mbit/s
95th percentile per-packet one-way delay: 18.582 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 135.02 Mbit/s
95th percentile per-packet one-way delay: 18.573 ms
Loss rate: 0.55%
```

Run 5: Report of PCC — Data Link



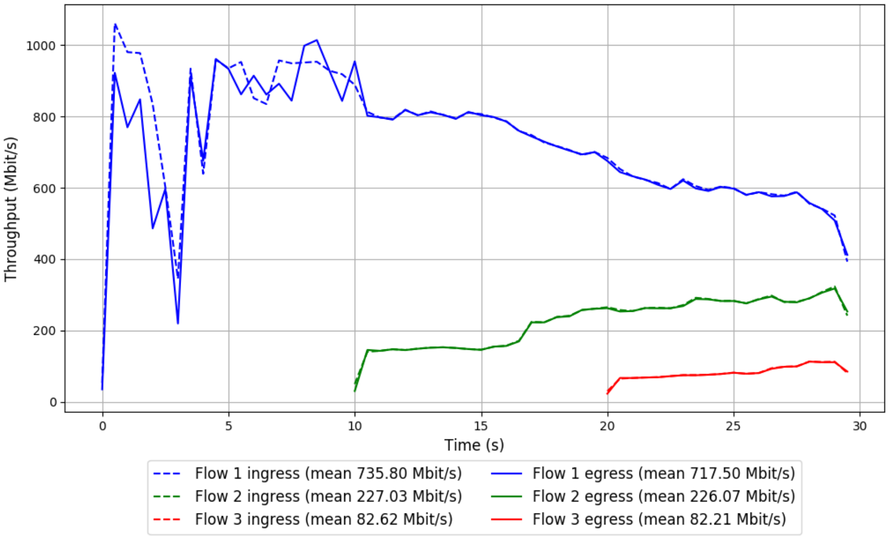


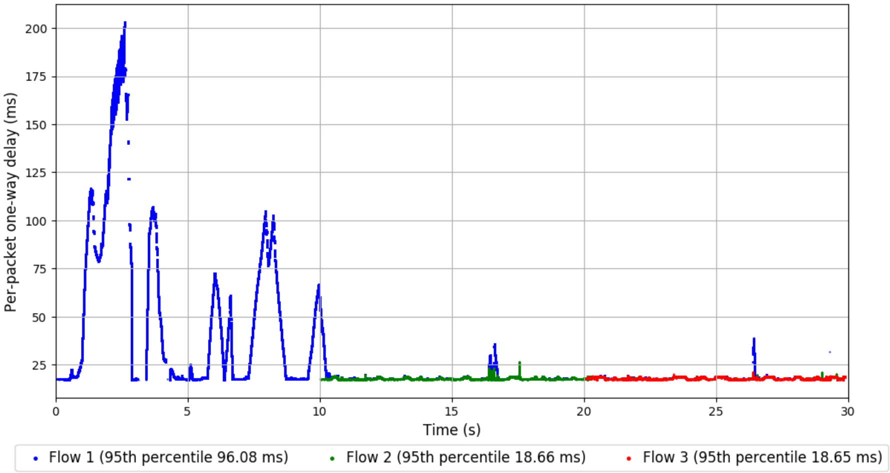
```
Run 6: Statistics of PCC

Start at: 2018-04-04 00:35:42
End at: 2018-04-04 00:36:12
Local clock offset: 0.134 ms
Remote clock offset: 0.392 ms

# Below is generated by plot.py at 2018-04-04 05:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 894.90 Mbit/s
95th percentile per-packet one-way delay: 88.870 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 717.50 Mbit/s
95th percentile per-packet one-way delay: 96.078 ms
Loss rate: 2.48%
-- Flow 2:
Average throughput: 226.07 Mbit/s
95th percentile per-packet one-way delay: 18.664 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 82.21 Mbit/s
95th percentile per-packet one-way delay: 18.652 ms
Loss rate: 0.50%
```

Run 6: Report of PCC — Data Link



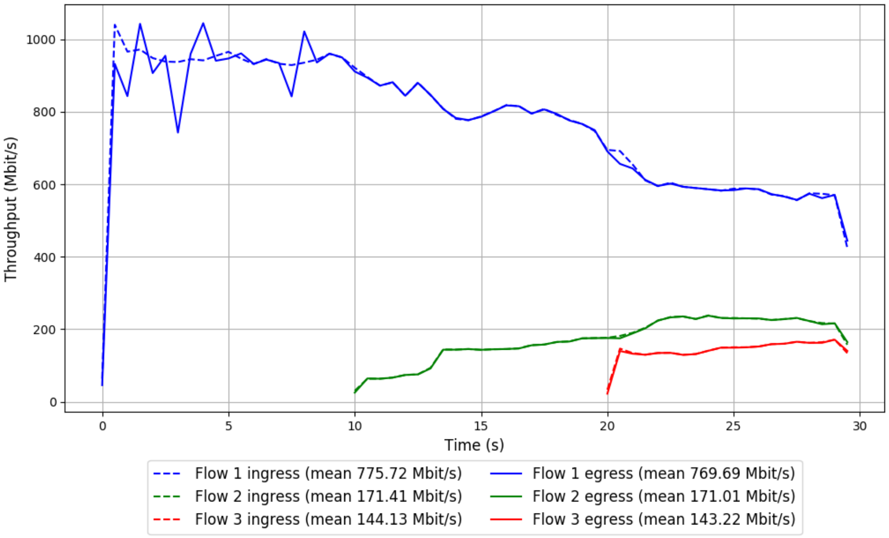


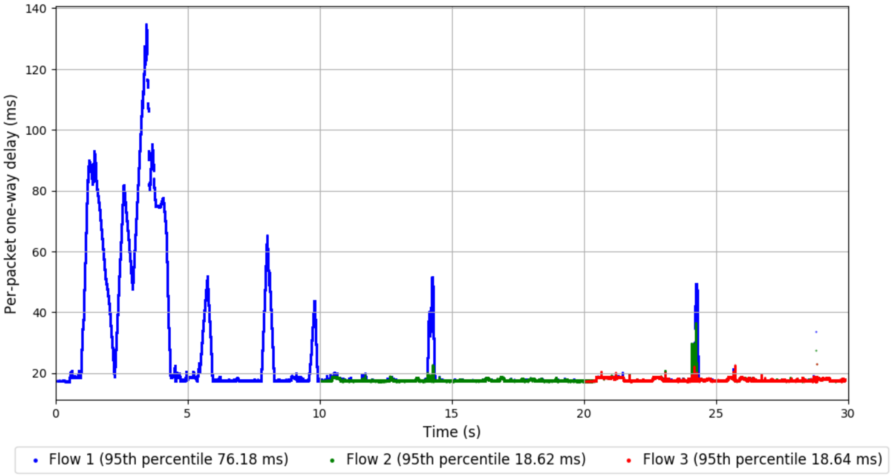
```
Run 7: Statistics of PCC

Start at: 2018-04-04 01:04:34
End at: 2018-04-04 01:05:04
Local clock offset: -0.079 ms
Remote clock offset: 0.353 ms

# Below is generated by plot.py at 2018-04-04 06:00:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 930.55 Mbit/s
95th percentile per-packet one-way delay: 74.849 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 769.69 Mbit/s
95th percentile per-packet one-way delay: 76.177 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 171.01 Mbit/s
95th percentile per-packet one-way delay: 18.623 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 143.22 Mbit/s
95th percentile per-packet one-way delay: 18.643 ms
Loss rate: 0.63%
```

Run 7: Report of PCC — Data Link



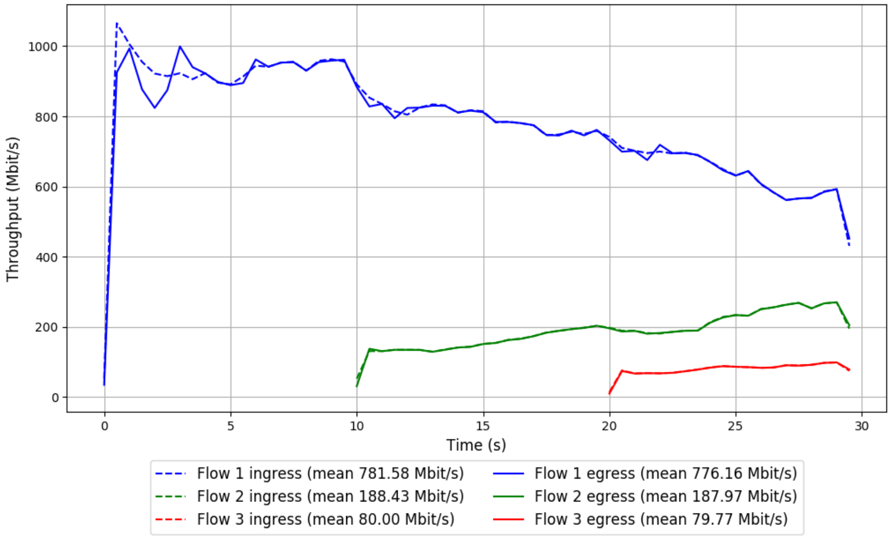


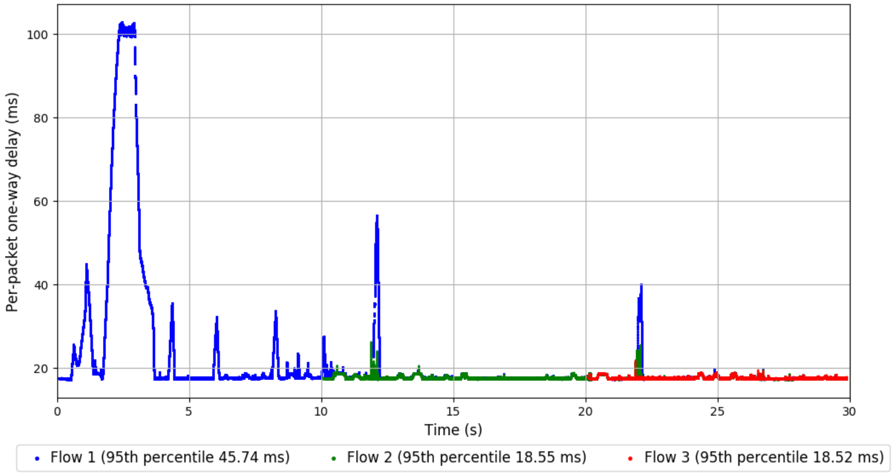
```
Run 8: Statistics of PCC

Start at: 2018-04-04 01:33:25
End at: 2018-04-04 01:33:55
Local clock offset: 0.193 ms
Remote clock offset: 0.328 ms

# Below is generated by plot.py at 2018-04-04 06:01:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 927.36 Mbit/s
95th percentile per-packet one-way delay: 40.928 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 776.16 Mbit/s
95th percentile per-packet one-way delay: 45.744 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 187.97 Mbit/s
95th percentile per-packet one-way delay: 18.549 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 79.77 Mbit/s
95th percentile per-packet one-way delay: 18.515 ms
Loss rate: 0.29%
```

Run 8: Report of PCC — Data Link



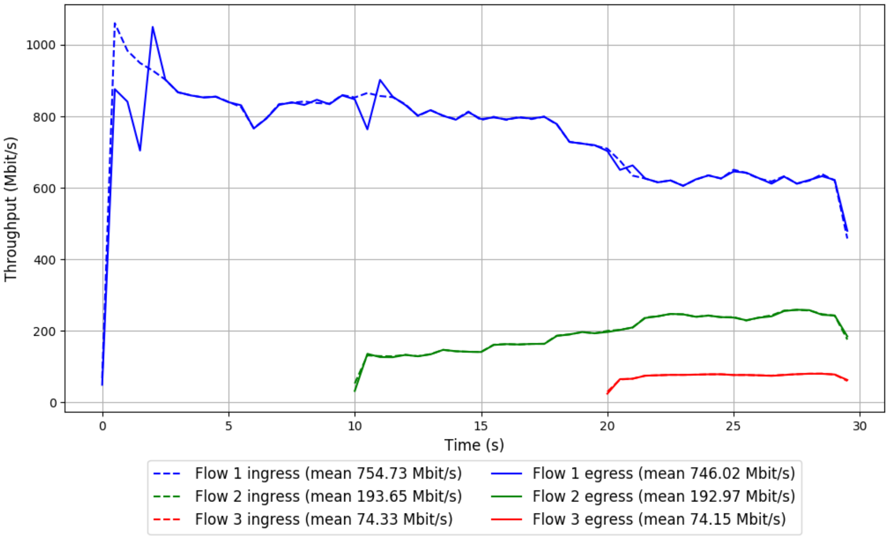


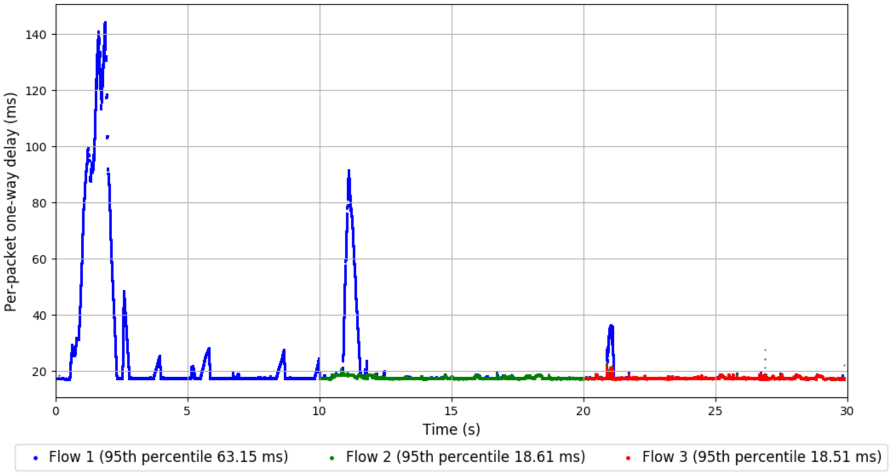
```
Run 9: Statistics of PCC

Start at: 2018-04-04 02:02:16
End at: 2018-04-04 02:02:46
Local clock offset: 0.076 ms
Remote clock offset: 0.425 ms

# Below is generated by plot.py at 2018-04-04 06:09:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 898.65 Mbit/s
95th percentile per-packet one-way delay: 48.188 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 746.02 Mbit/s
95th percentile per-packet one-way delay: 63.152 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 192.97 Mbit/s
95th percentile per-packet one-way delay: 18.614 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 74.15 Mbit/s
95th percentile per-packet one-way delay: 18.514 ms
Loss rate: 0.24%
```

Run 9: Report of PCC — Data Link



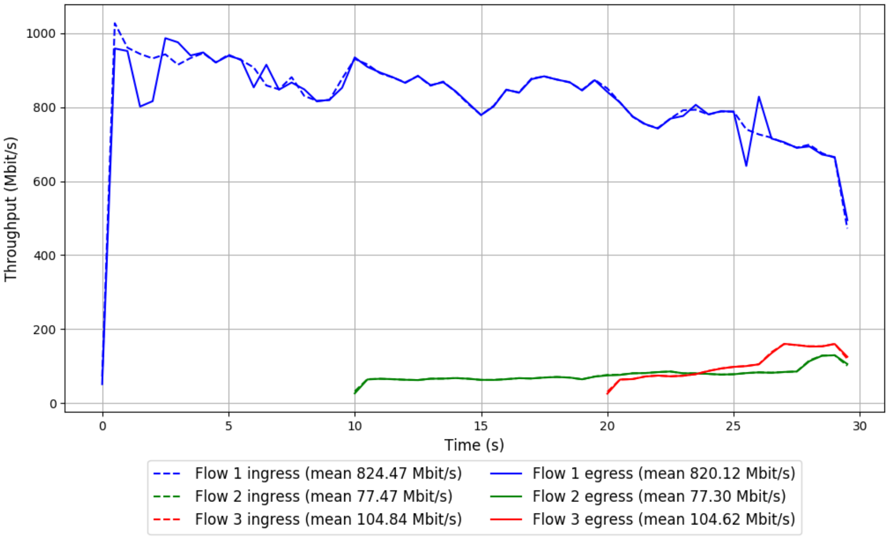


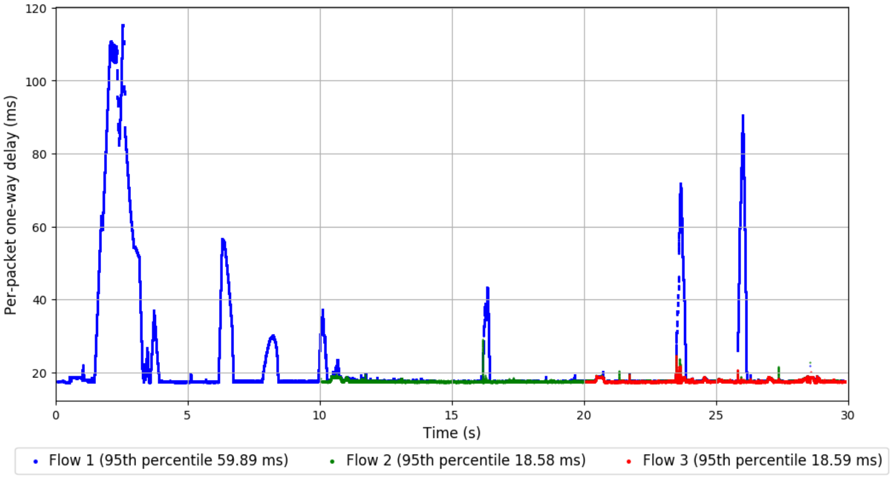
```
Run 10: Statistics of PCC

Start at: 2018-04-04 02:31:20
End at: 2018-04-04 02:31:50
Local clock offset: 0.565 ms
Remote clock offset: 0.594 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 906.01 Mbit/s
95th percentile per-packet one-way delay: 56.439 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 820.12 Mbit/s
95th percentile per-packet one-way delay: 59.893 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 18.578 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 104.62 Mbit/s
95th percentile per-packet one-way delay: 18.590 ms
Loss rate: 0.21%
```

Run 10: Report of PCC — Data Link



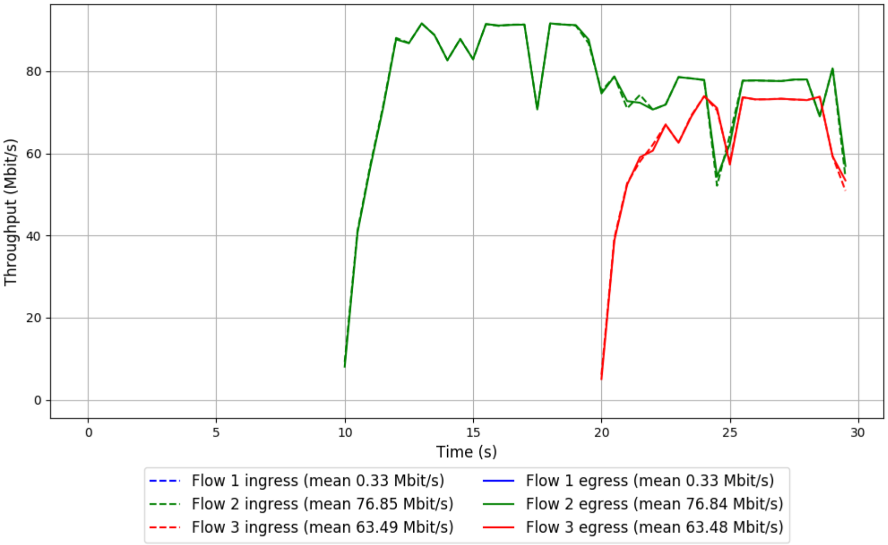


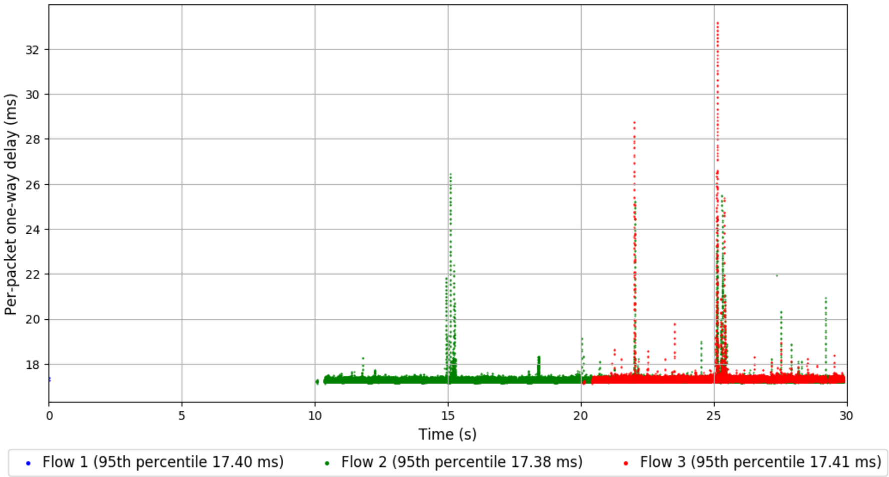
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-03 21:52:56
End at: 2018-04-03 21:53:26
Local clock offset: 0.89 ms
Remote clock offset: 0.411 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.89 Mbit/s
95th percentile per-packet one-way delay: 17.388 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 17.397 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.84 Mbit/s
95th percentile per-packet one-way delay: 17.375 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 63.48 Mbit/s
95th percentile per-packet one-way delay: 17.415 ms
Loss rate: 0.01%
```

Run 1: Report of QUIC Cubic — Data Link



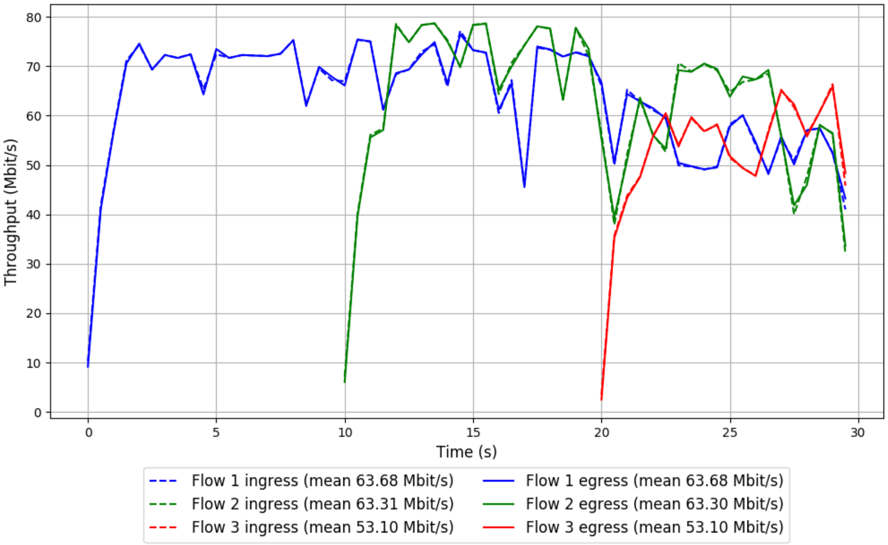


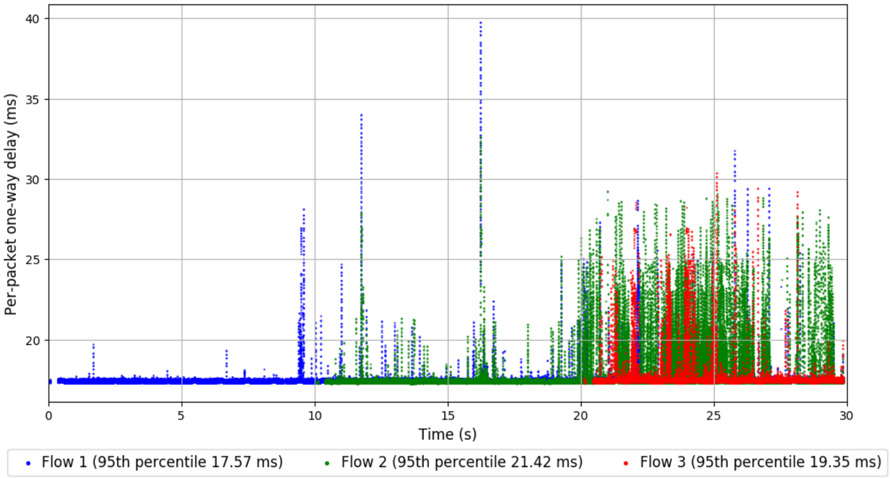
```
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-03 22:21:40
End at: 2018-04-03 22:22:10
Local clock offset: 0.785 ms
Remote clock offset: 0.216 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.04 Mbit/s
95th percentile per-packet one-way delay: 19.391 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 63.68 Mbit/s
95th percentile per-packet one-way delay: 17.572 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.30 Mbit/s
95th percentile per-packet one-way delay: 21.421 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 53.10 Mbit/s
95th percentile per-packet one-way delay: 19.354 ms
Loss rate: 0.01%
```

Run 2: Report of QUIC Cubic — Data Link



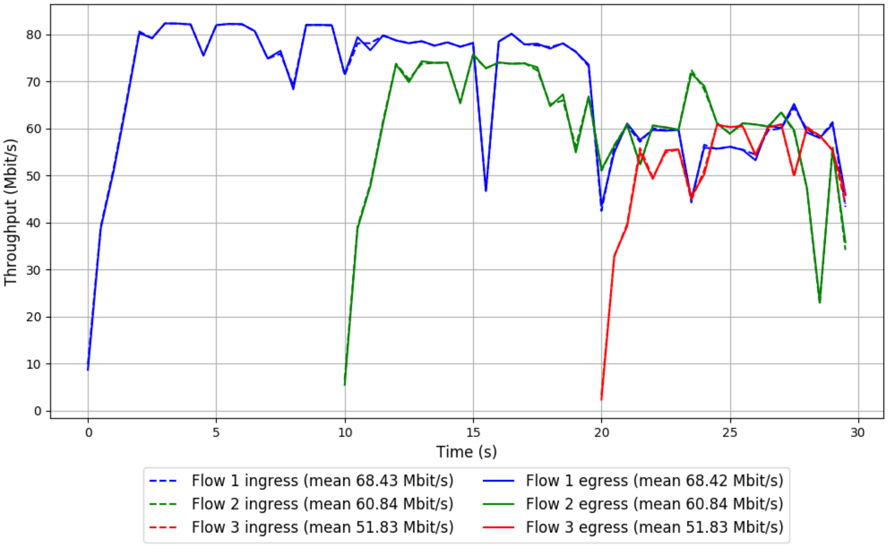


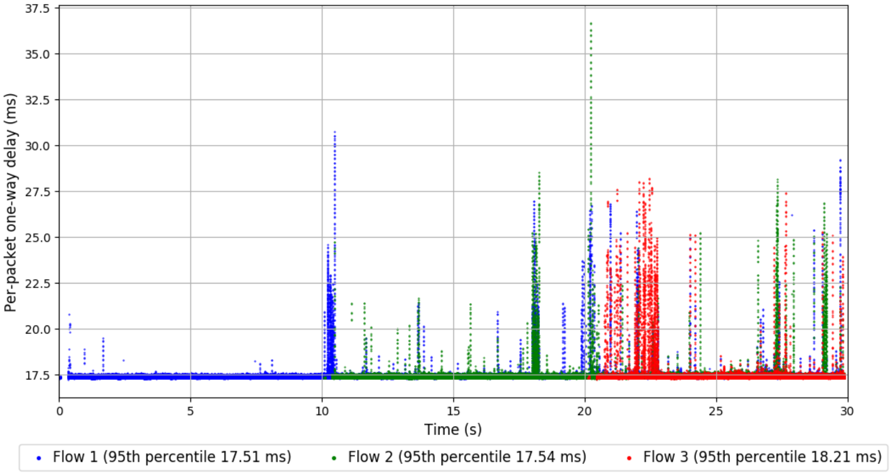
```
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-03 22:50:30
End at: 2018-04-03 22:51:00
Local clock offset: 1.353 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.75 Mbit/s
95th percentile per-packet one-way delay: 17.531 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.42 Mbit/s
95th percentile per-packet one-way delay: 17.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 17.542 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.83 Mbit/s
95th percentile per-packet one-way delay: 18.211 ms
Loss rate: 0.01%
```

Run 3: Report of QUIC Cubic — Data Link



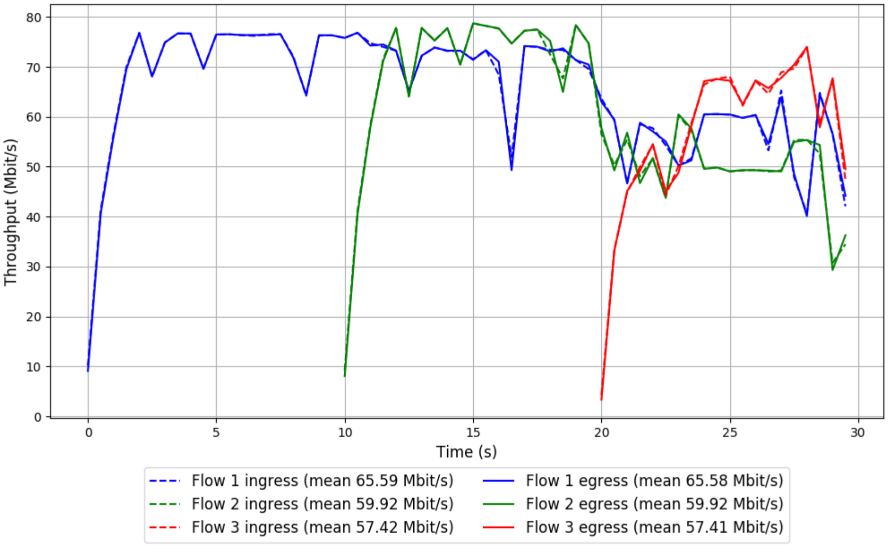


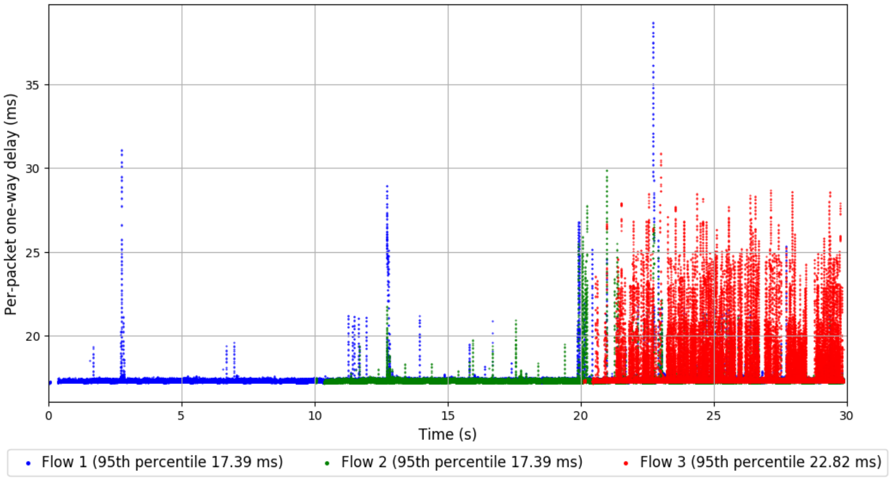
```
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-03 23:18:57
End at: 2018-04-03 23:19:27
Local clock offset: 1.403 ms
Remote clock offset: 0.302 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.20 Mbit/s
95th percentile per-packet one-way delay: 18.717 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 65.58 Mbit/s
95th percentile per-packet one-way delay: 17.393 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 59.92 Mbit/s
95th percentile per-packet one-way delay: 17.387 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 57.41 Mbit/s
95th percentile per-packet one-way delay: 22.824 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link



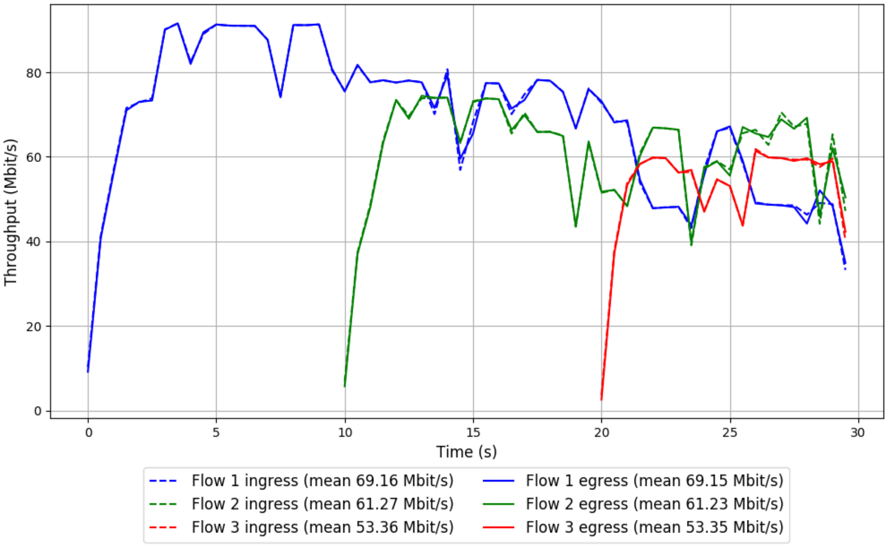


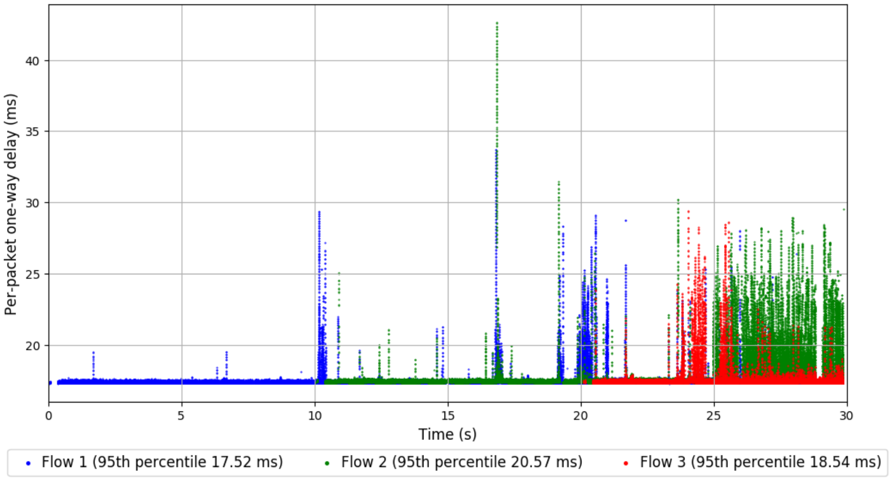
```
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-03 23:47:39
End at: 2018-04-03 23:48:09
Local clock offset: 0.787 ms
Remote clock offset: 0.522 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.23 Mbit/s
95th percentile per-packet one-way delay: 18.691 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 69.15 Mbit/s
95th percentile per-packet one-way delay: 17.525 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 61.23 Mbit/s
95th percentile per-packet one-way delay: 20.575 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.35 Mbit/s
95th percentile per-packet one-way delay: 18.541 ms
Loss rate: 0.01%
```

Run 5: Report of QUIC Cubic — Data Link



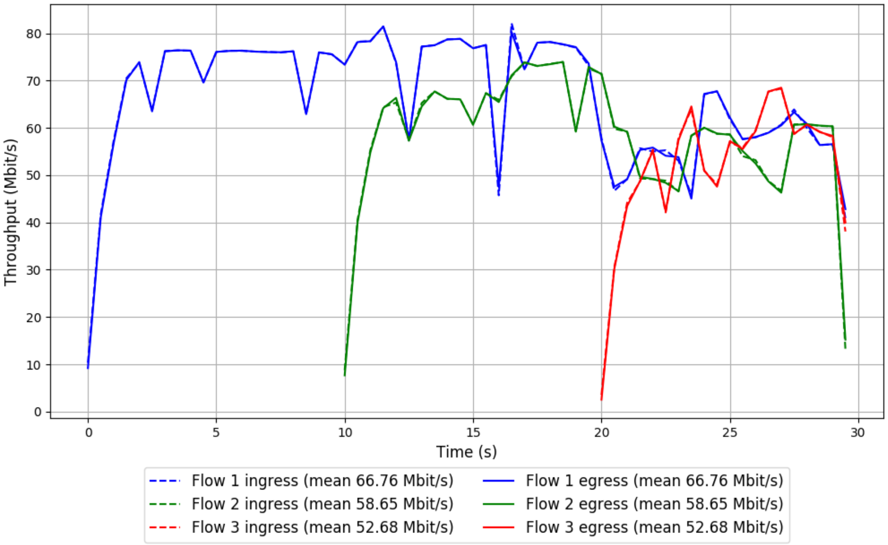


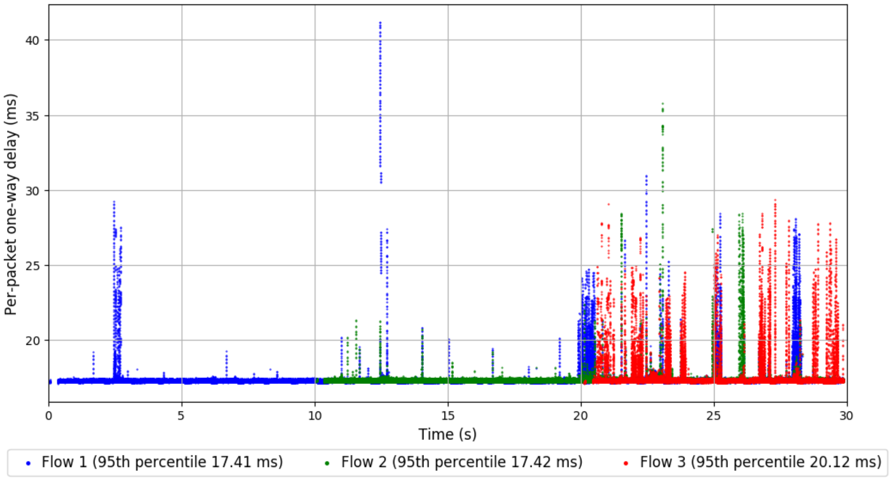
```
Run 6: Statistics of QUIC Cubic

Start at: 2018-04-04 00:16:26
End at: 2018-04-04 00:16:56
Local clock offset: 0.489 ms
Remote clock offset: 0.447 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.96 Mbit/s
95th percentile per-packet one-way delay: 17.477 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.76 Mbit/s
95th percentile per-packet one-way delay: 17.412 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.65 Mbit/s
95th percentile per-packet one-way delay: 17.424 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.68 Mbit/s
95th percentile per-packet one-way delay: 20.118 ms
Loss rate: 0.00%
```

Run 6: Report of QUIC Cubic — Data Link



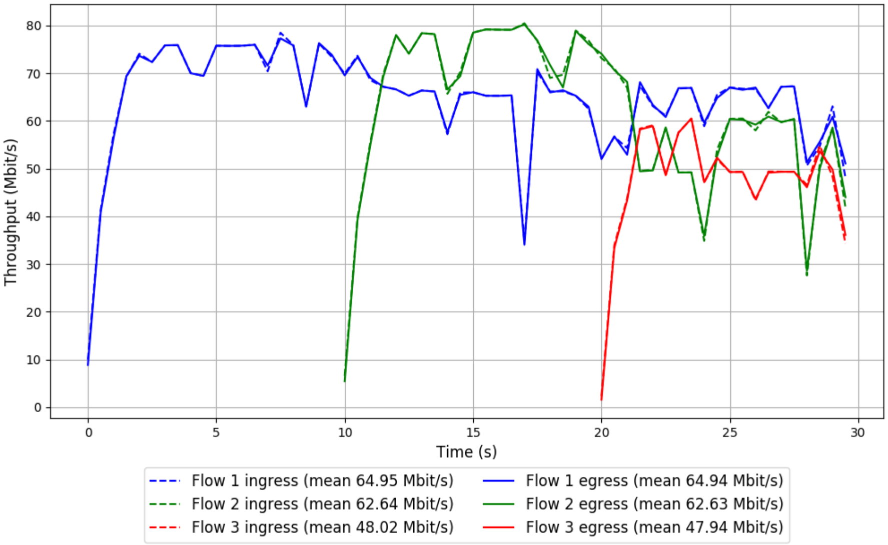


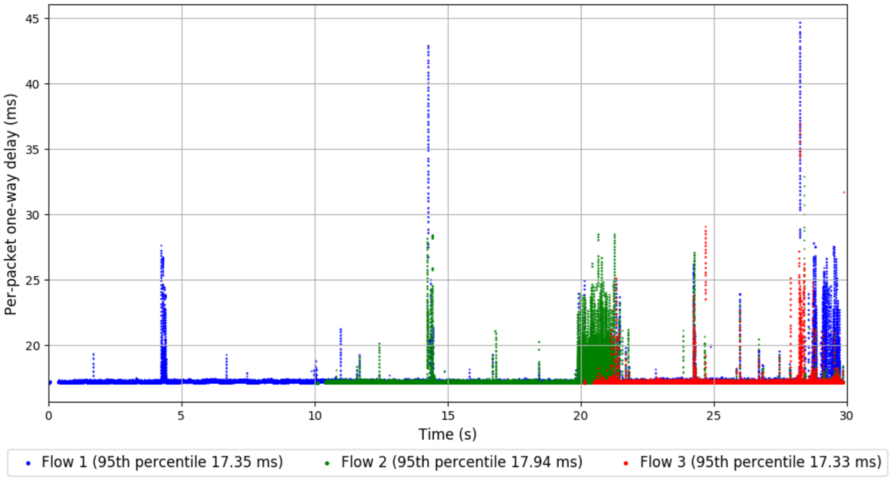
```
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-04 00:45:14
End at: 2018-04-04 00:45:44
Local clock offset: 0.248 ms
Remote clock offset: 0.385 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.12 Mbit/s
95th percentile per-packet one-way delay: 17.370 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 64.94 Mbit/s
95th percentile per-packet one-way delay: 17.350 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 62.63 Mbit/s
95th percentile per-packet one-way delay: 17.940 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 47.94 Mbit/s
95th percentile per-packet one-way delay: 17.332 ms
Loss rate: 0.01%
```

Run 7: Report of QUIC Cubic — Data Link



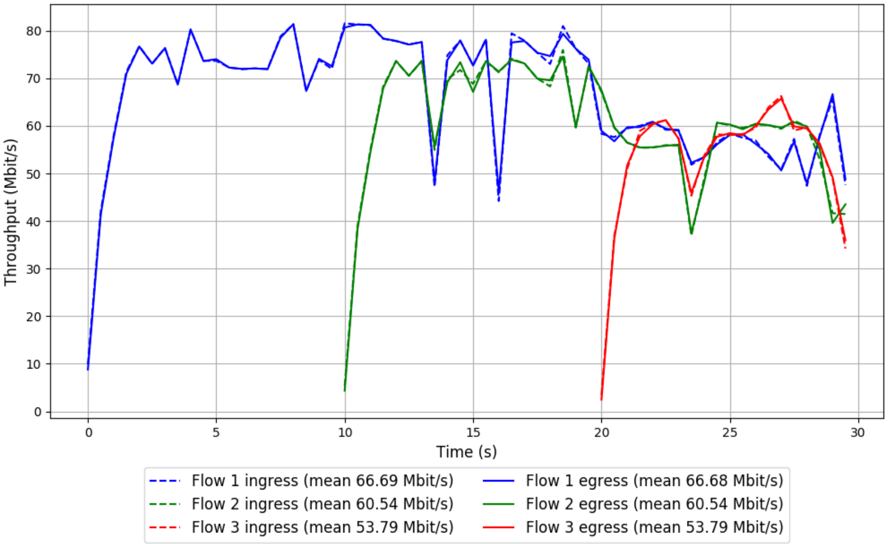


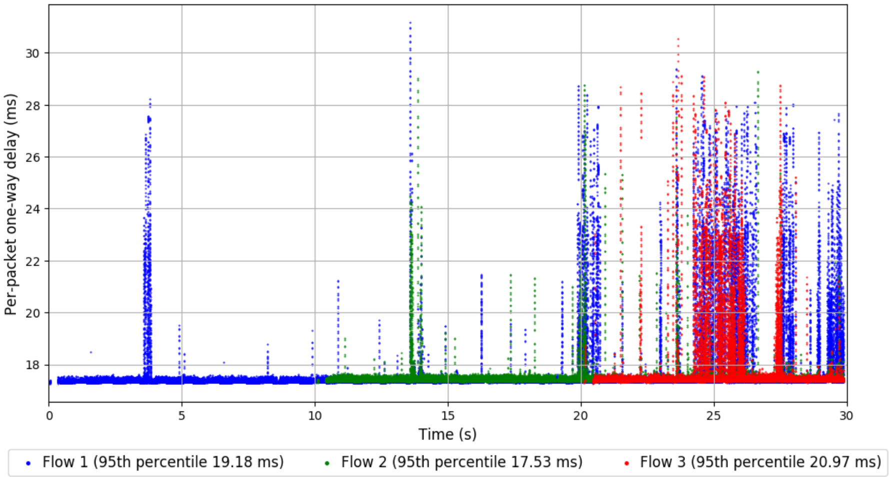
```
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-04 01:14:04
End at: 2018-04-04 01:14:34
Local clock offset: -0.117 ms
Remote clock offset: 0.342 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.45 Mbit/s
95th percentile per-packet one-way delay: 18.715 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 66.68 Mbit/s
95th percentile per-packet one-way delay: 19.176 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 60.54 Mbit/s
95th percentile per-packet one-way delay: 17.533 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.79 Mbit/s
95th percentile per-packet one-way delay: 20.970 ms
Loss rate: 0.00%
```

Run 8: Report of QUIC Cubic — Data Link



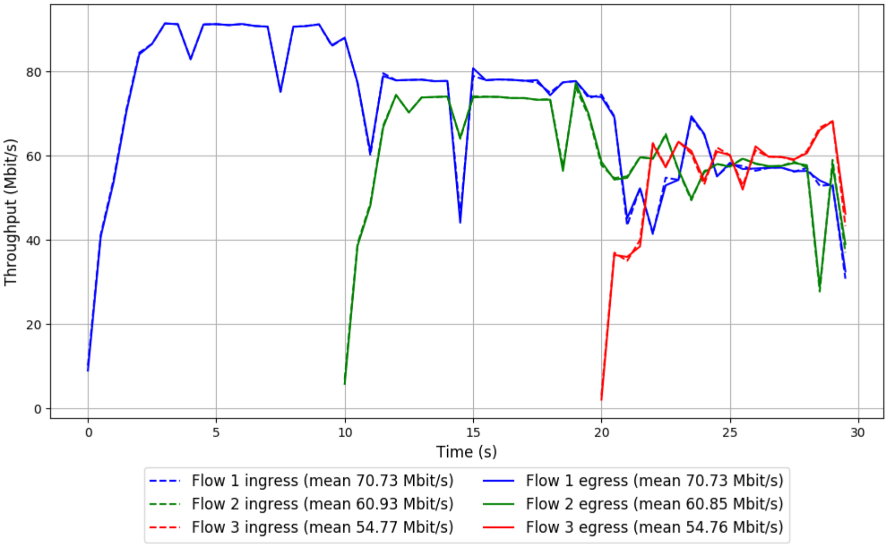


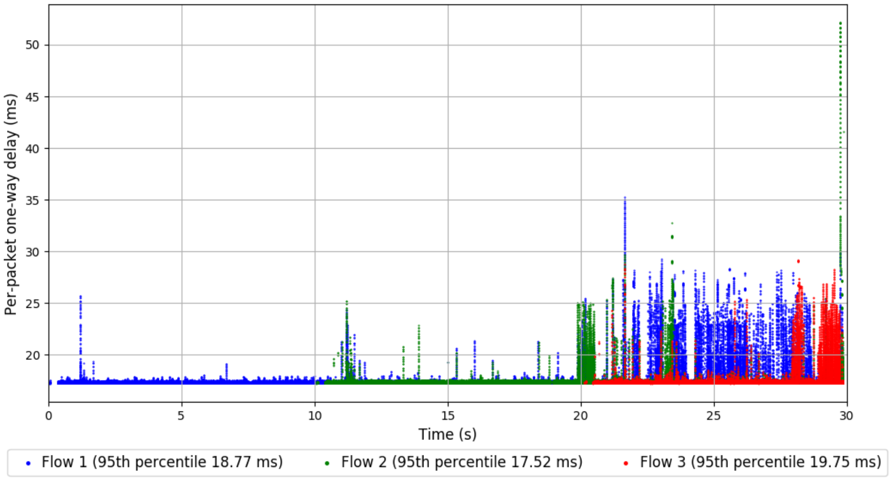
```
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-04 01:42:56
End at: 2018-04-04 01:43:26
Local clock offset: 0.184 ms
Remote clock offset: 0.409 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.91 Mbit/s
95th percentile per-packet one-way delay: 18.467 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.73 Mbit/s
95th percentile per-packet one-way delay: 18.771 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.85 Mbit/s
95th percentile per-packet one-way delay: 17.516 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.76 Mbit/s
95th percentile per-packet one-way delay: 19.750 ms
Loss rate: 0.00%
```

Run 9: Report of QUIC Cubic — Data Link



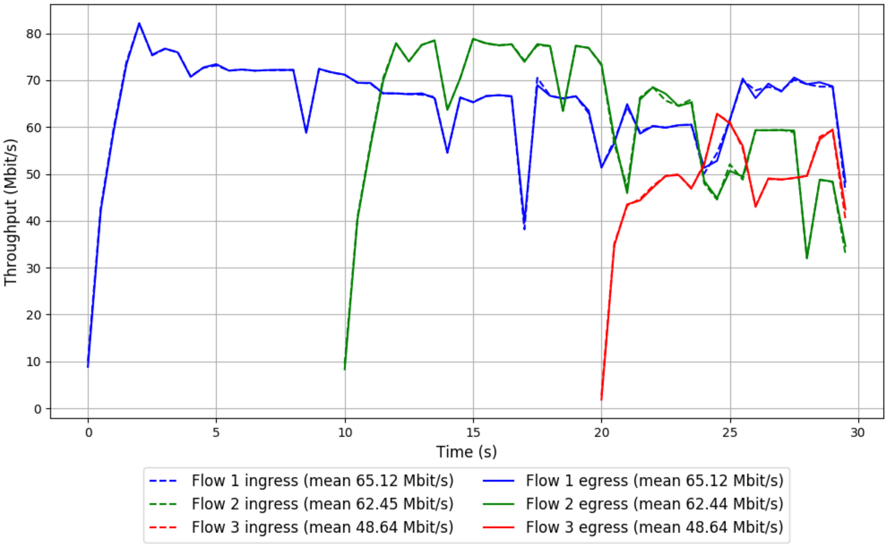


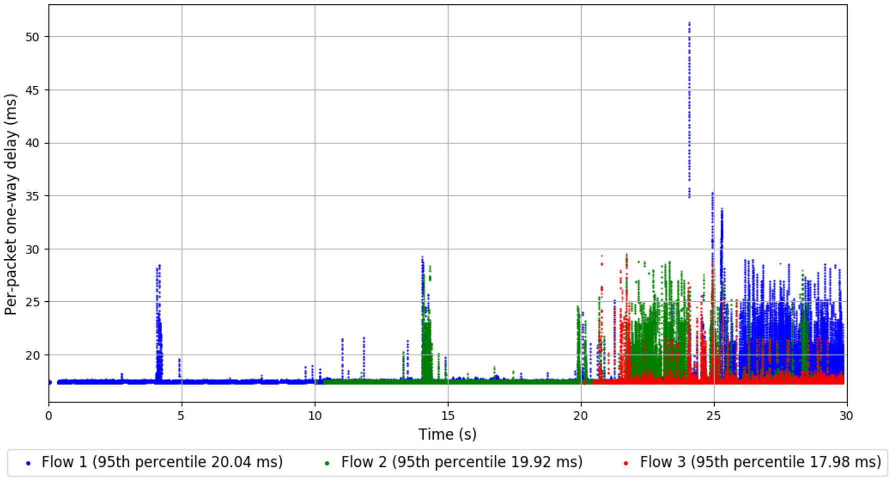
```
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-04 02:11:53
End at: 2018-04-04 02:12:23
Local clock offset: 0.279 ms
Remote clock offset: 0.495 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.51 Mbit/s
95th percentile per-packet one-way delay: 19.817 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.12 Mbit/s
95th percentile per-packet one-way delay: 20.037 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.44 Mbit/s
95th percentile per-packet one-way delay: 19.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.64 Mbit/s
95th percentile per-packet one-way delay: 17.975 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link



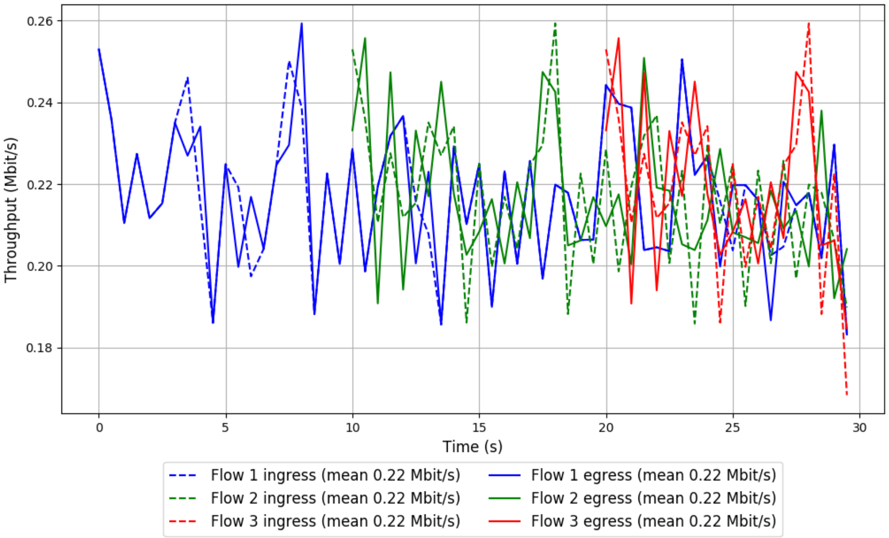


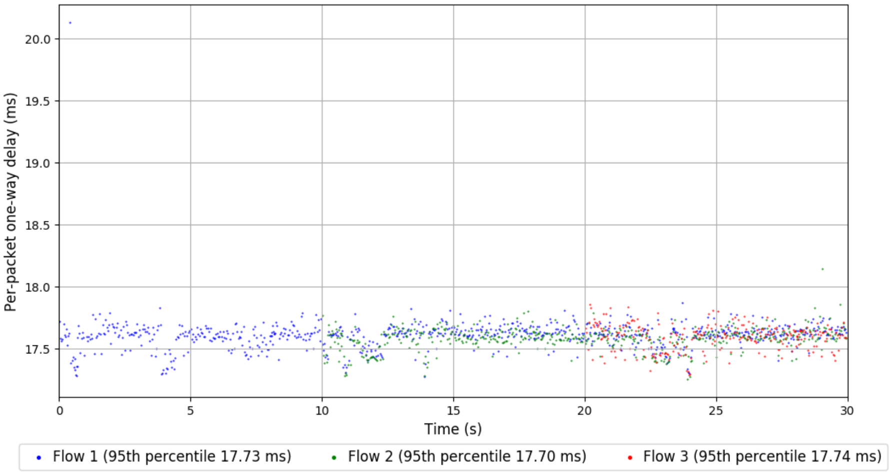
```
Run 1: Statistics of SCReAM

Start at: 2018-04-03 21:55:37
End at: 2018-04-03 21:56:07
Local clock offset: 0.79 ms
Remote clock offset: 0.394 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.724 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.729 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.703 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.738 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



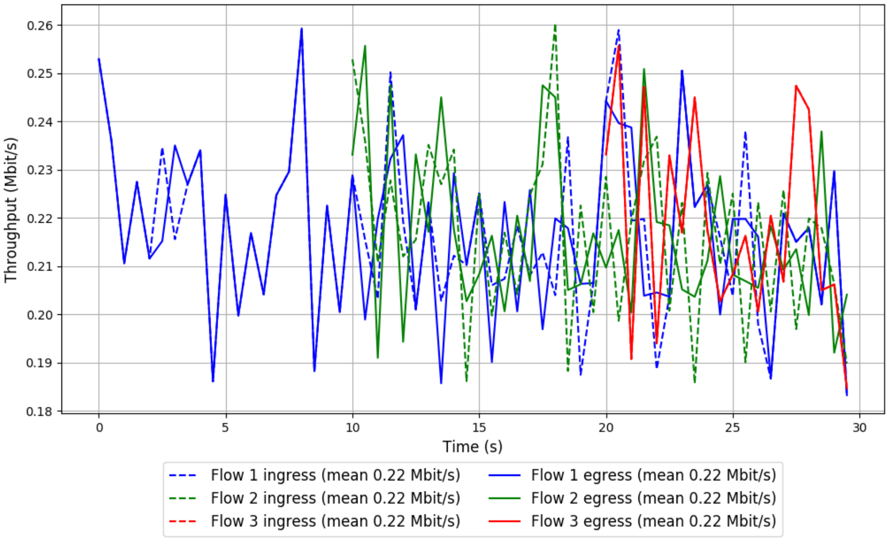


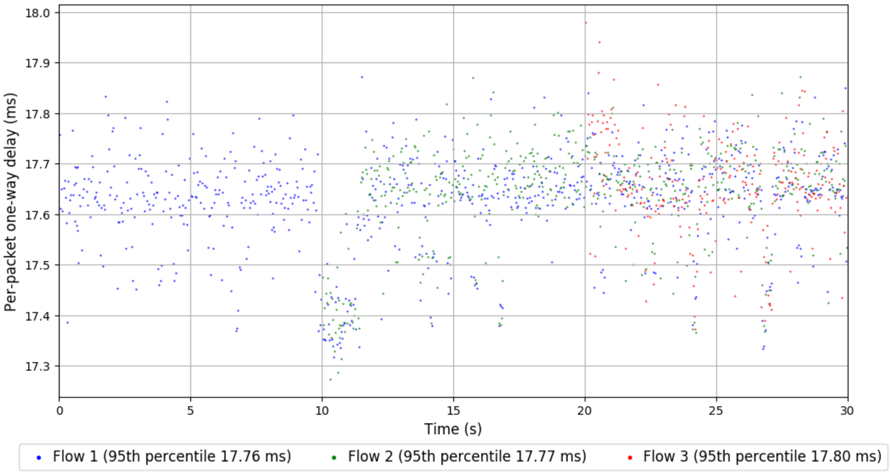
```
Run 2: Statistics of SCReAM

Start at: 2018-04-03 22:24:24
End at: 2018-04-03 22:24:54
Local clock offset: 0.838 ms
Remote clock offset: 0.172 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.770 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.760 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.765 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.799 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link



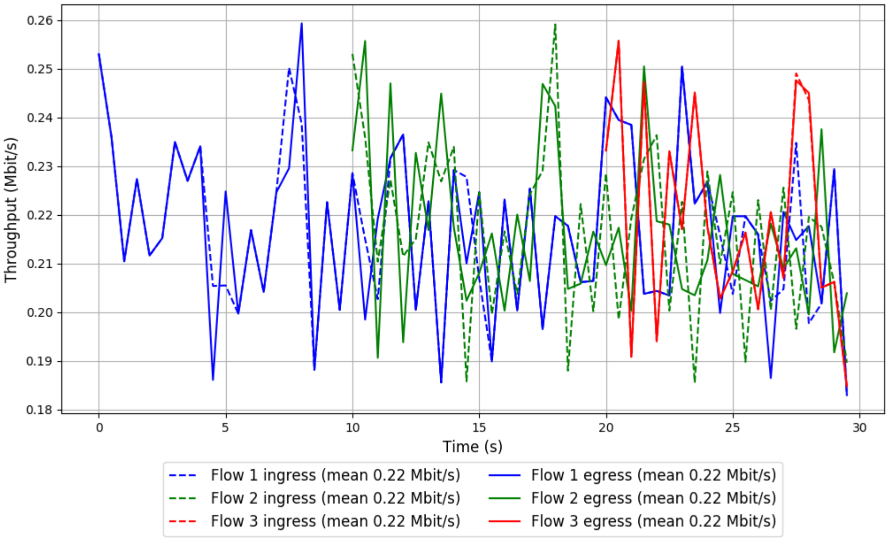


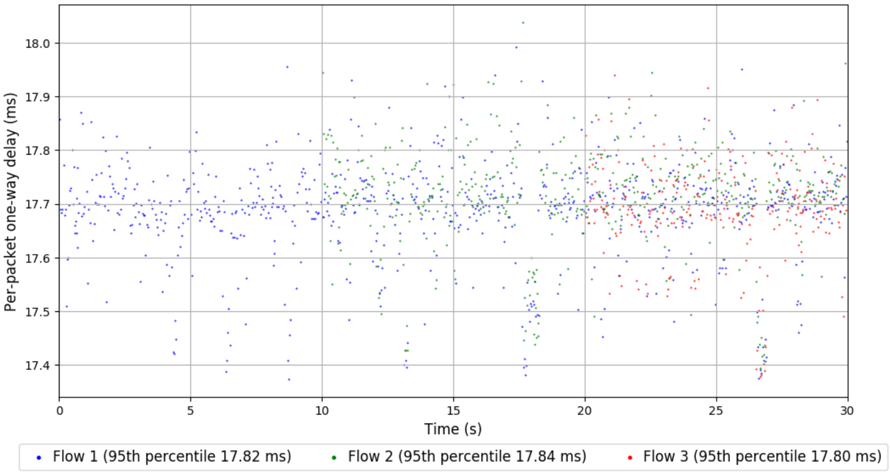
```
Run 3: Statistics of SCReAM

Start at: 2018-04-03 22:53:13
End at: 2018-04-03 22:53:43
Local clock offset: 1.43 ms
Remote clock offset: 0.12 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.819 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.842 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.804 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link



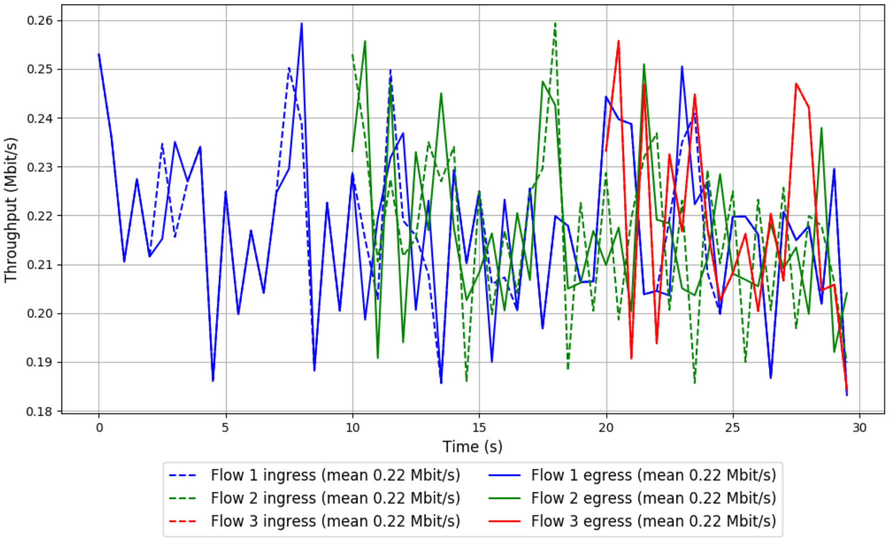


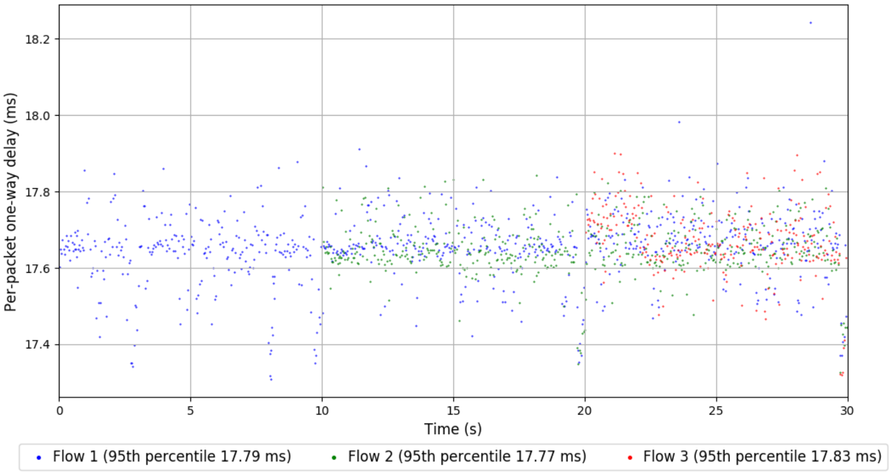
```
Run 4: Statistics of SCReAM

Start at: 2018-04-03 23:21:40
End at: 2018-04-03 23:22:10
Local clock offset: 1.35 ms
Remote clock offset: 0.381 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.787 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.785 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.767 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.831 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link



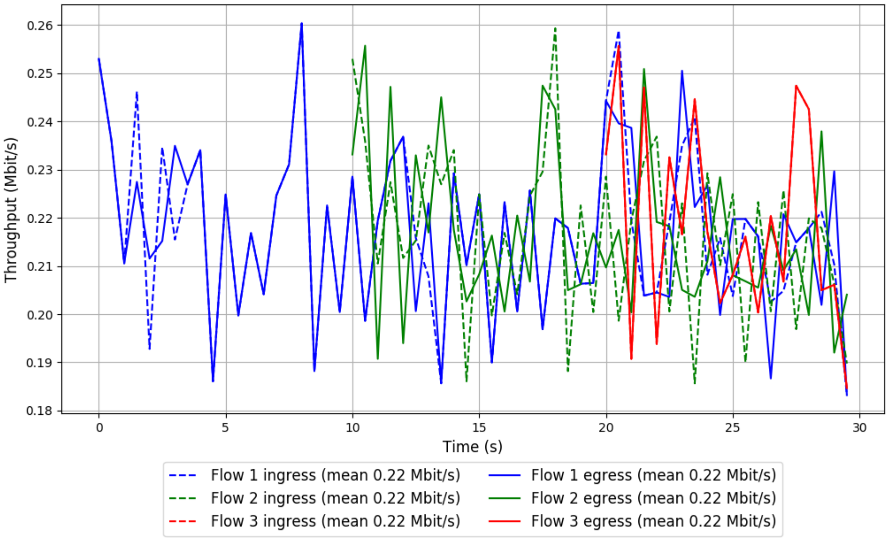


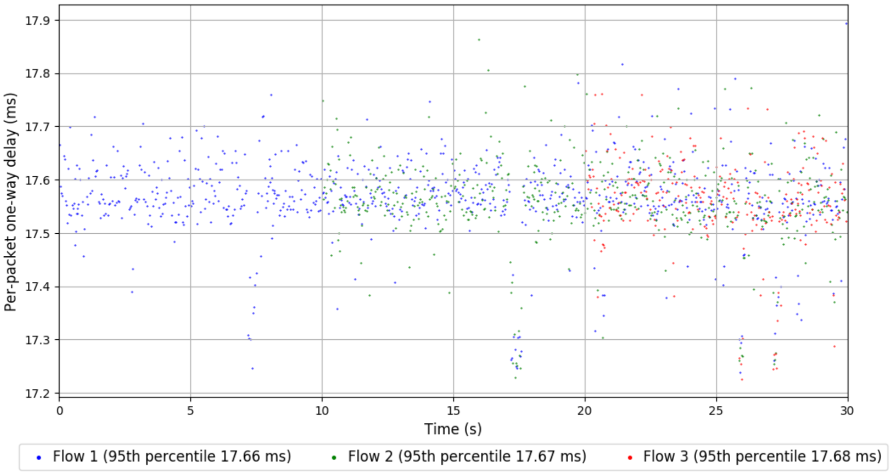
```
Run 5: Statistics of SCReAM

Start at: 2018-04-03 23:50:22
End at: 2018-04-03 23:50:52
Local clock offset: 0.847 ms
Remote clock offset: 0.51 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.673 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.665 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.673 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.679 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link



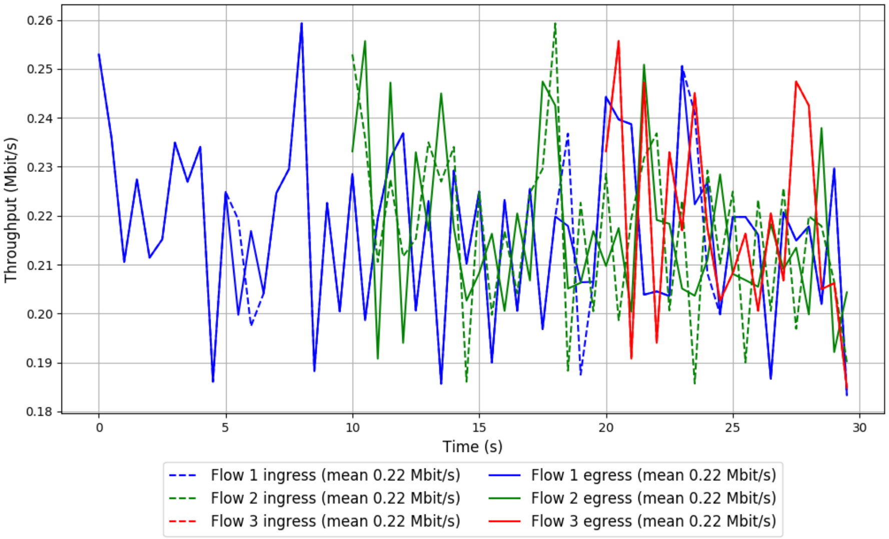


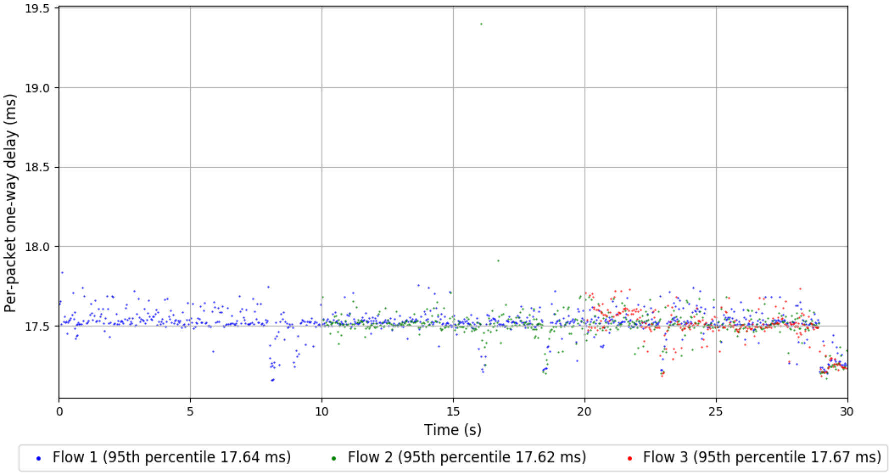
```
Run 6: Statistics of SCReAM

Start at: 2018-04-04 00:19:10
End at: 2018-04-04 00:19:40
Local clock offset: 0.427 ms
Remote clock offset: 0.435 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.641 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.645 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.617 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.671 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link



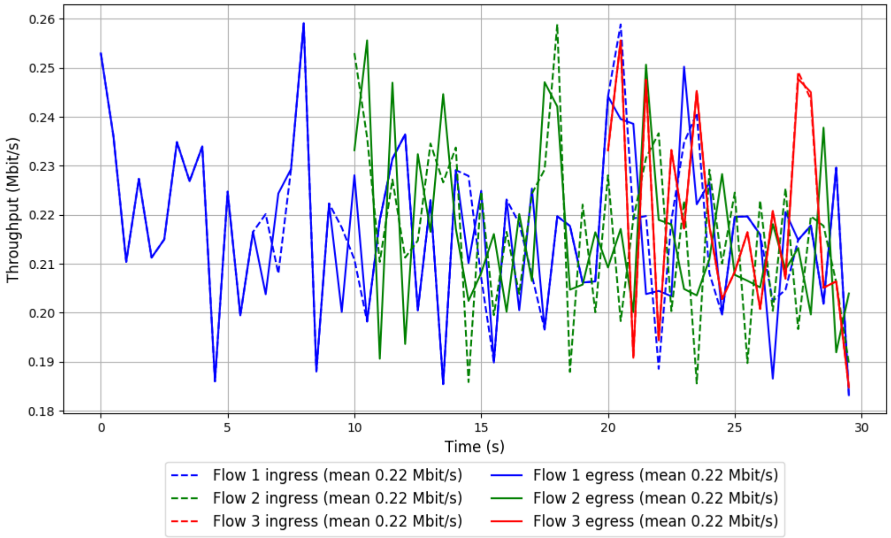


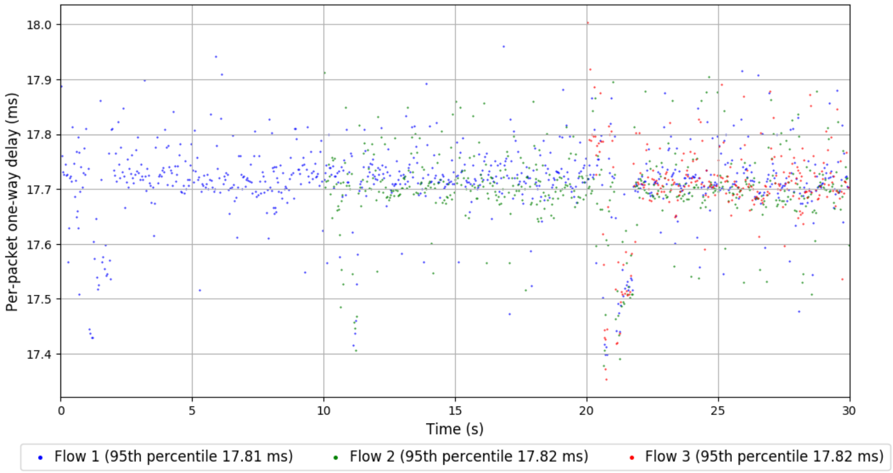
```
Run 7: Statistics of SCReAM

Start at: 2018-04-04 00:47:57
End at: 2018-04-04 00:48:27
Local clock offset: 0.099 ms
Remote clock offset: 0.508 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.814 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.813 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.817 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.821 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link



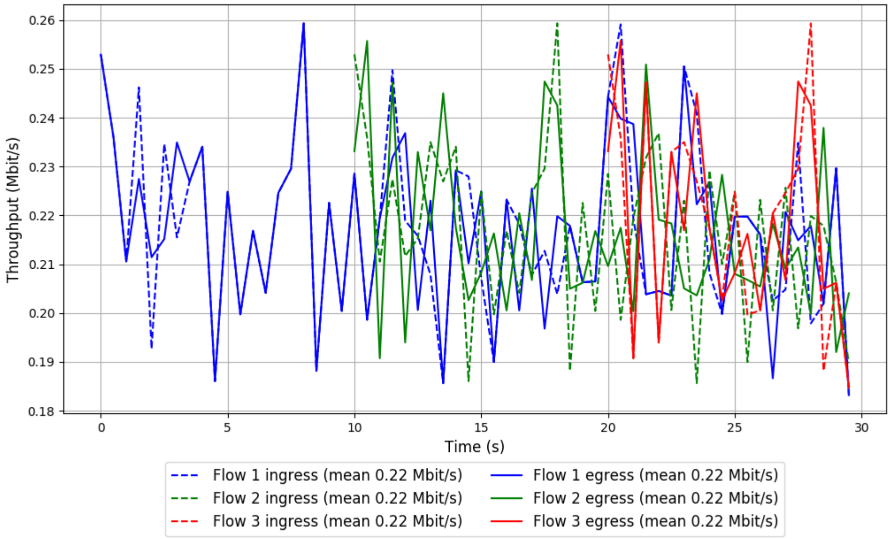


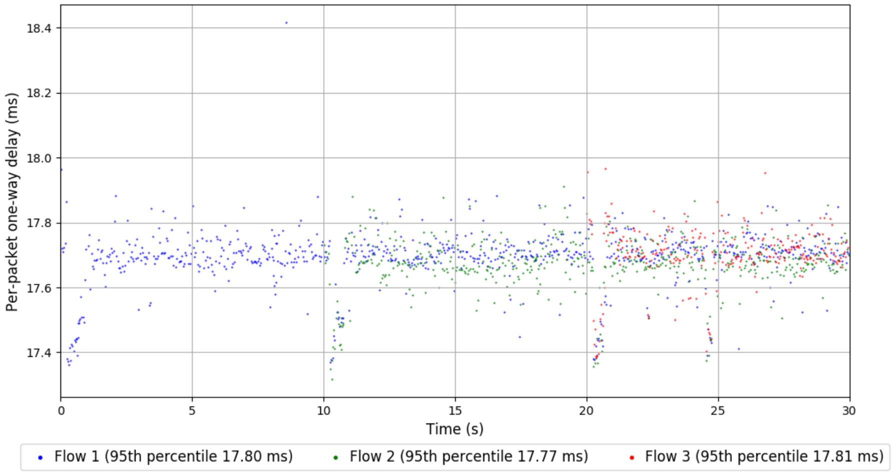
```
Run 8: Statistics of SCReAM

Start at: 2018-04-04 01:16:47
End at: 2018-04-04 01:17:17
Local clock offset: 0.008 ms
Remote clock offset: 0.415 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.799 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.799 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.773 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.814 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link



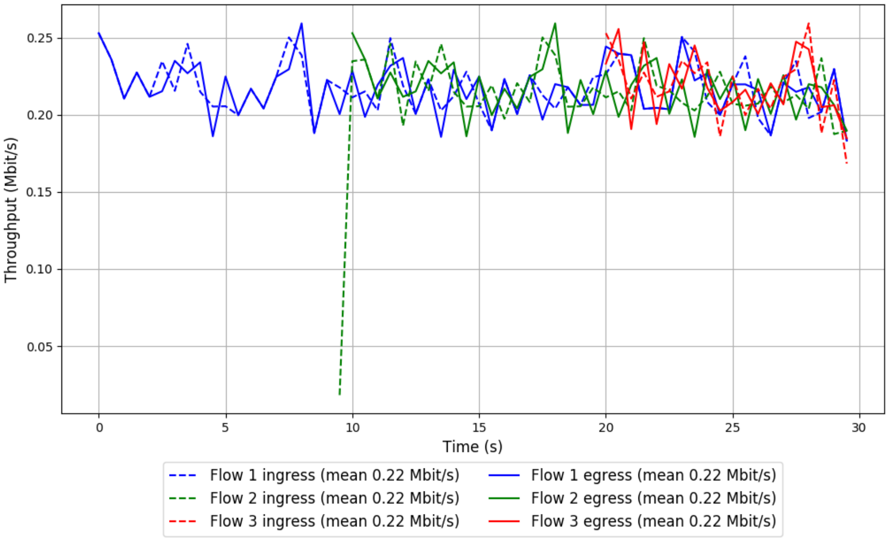


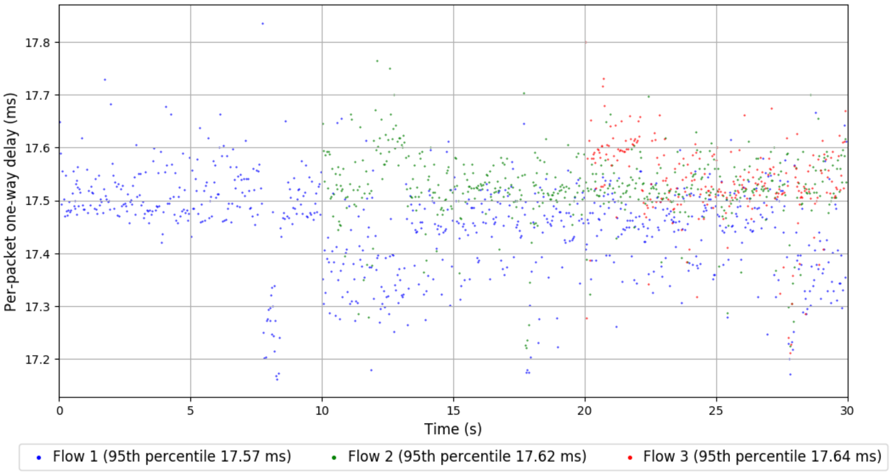
```
Run 9: Statistics of SCReAM

Start at: 2018-04-04 01:45:39
End at: 2018-04-04 01:46:09
Local clock offset: 0.161 ms
Remote clock offset: 0.349 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.613 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.575 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.617 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.642 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link

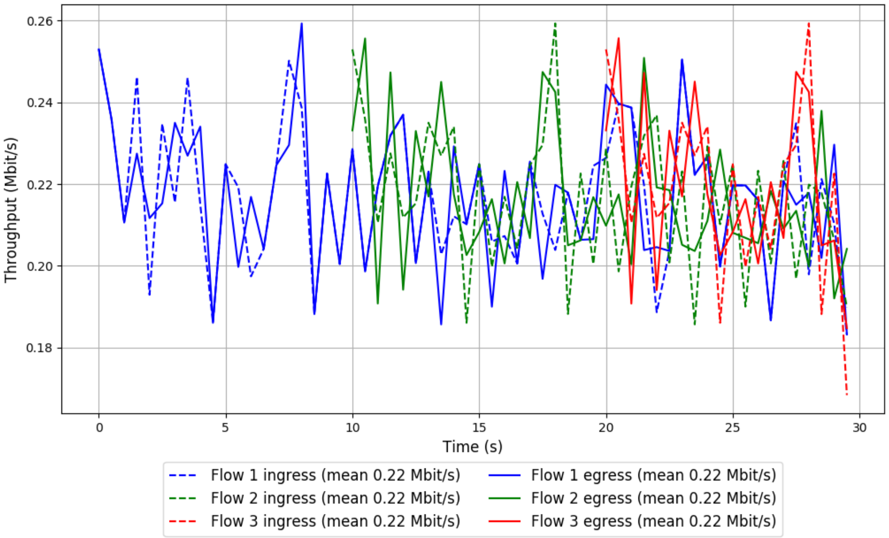


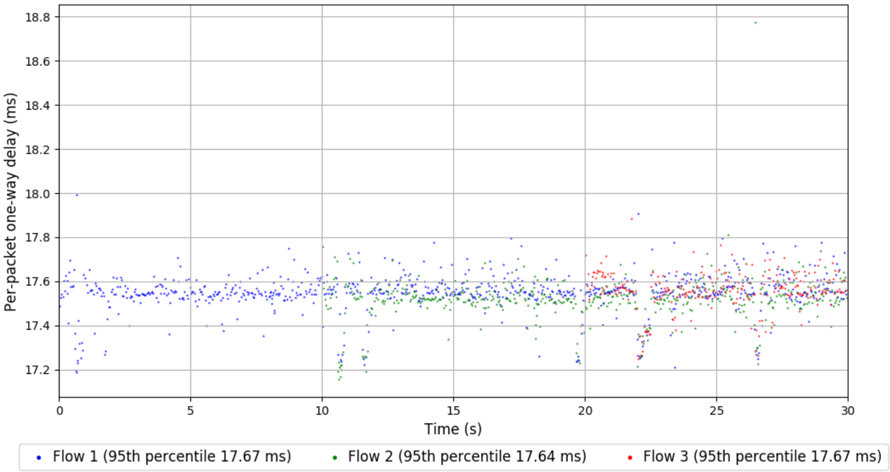


```
Run 10: Statistics of SCReAM

Start at: 2018-04-04 02:14:36
End at: 2018-04-04 02:15:06
Local clock offset: 0.436 ms
Remote clock offset: 0.445 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.664 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.671 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.640 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.674 ms
Loss rate: 0.00%
```


0.26
0.24
0.22
0.20
0.18
Throughput (Mbit/s)
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)
Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 egress (mean 0.22 Mbit/s)

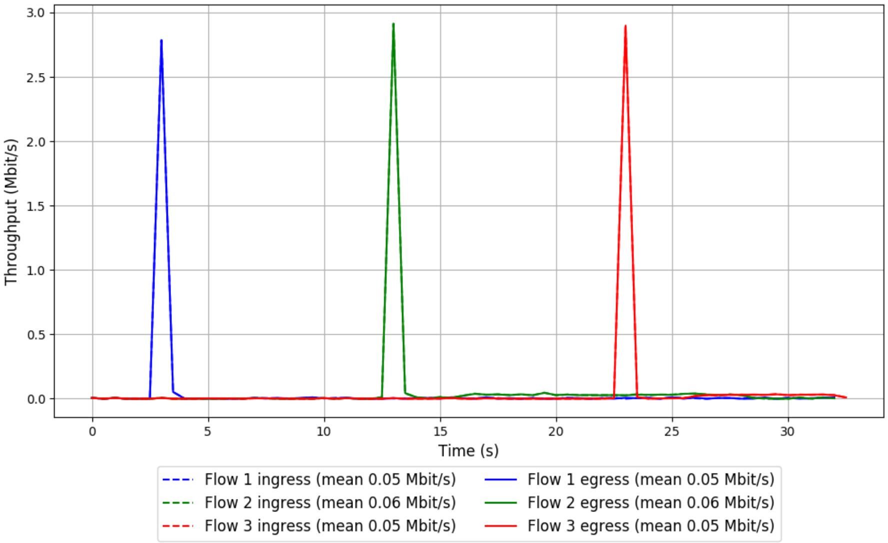

18.8
18.6
18.4
18.2
18.0
17.8
17.6
17.4
17.2
Per-packet one-way delay (ms)
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 17.67 ms)
Flow 2 (95th percentile 17.64 ms)
Flow 3 (95th percentile 17.67 ms)

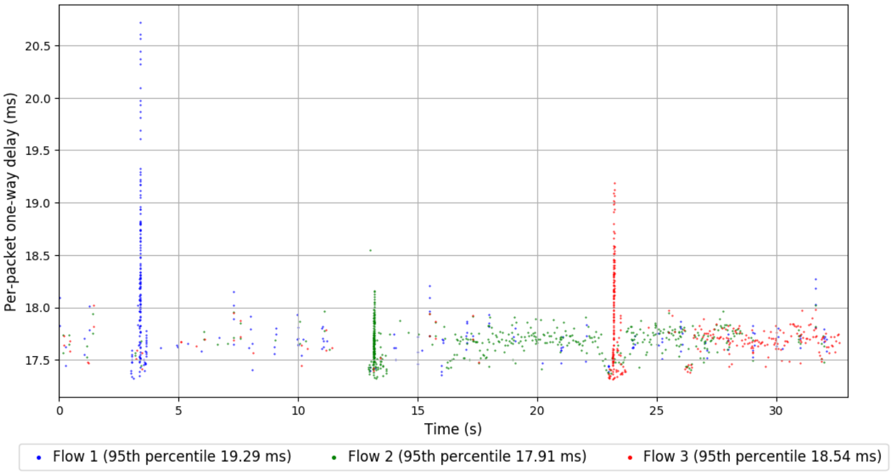
```
Run 1: Statistics of WebRTC media

Start at: 2018-04-03 21:51:37
End at: 2018-04-03 21:52:07
Local clock offset: 0.794 ms
Remote clock offset: 0.494 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 18.583 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 19.290 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.915 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 18.538 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



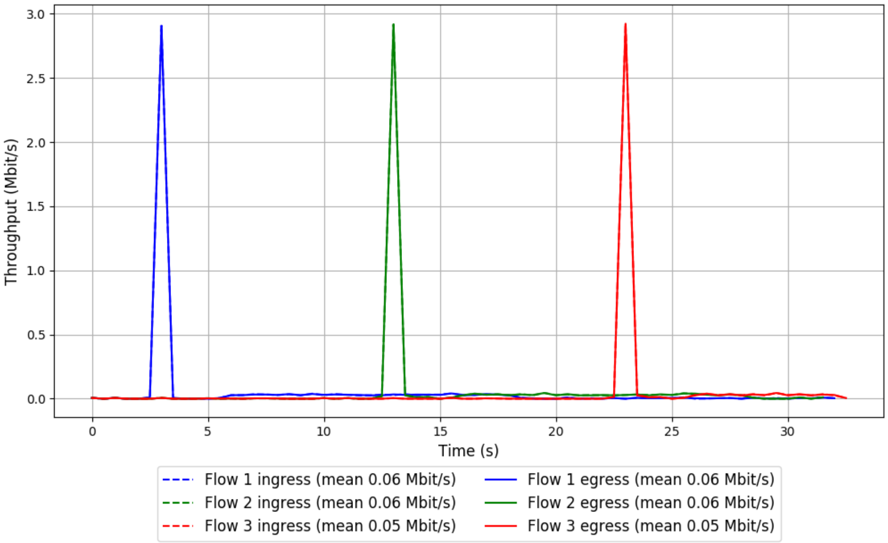


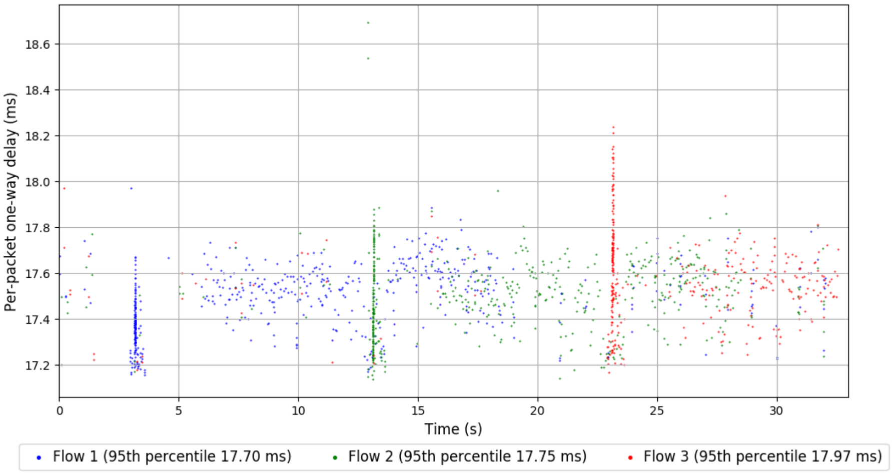
```
Run 2: Statistics of WebRTC media

Start at: 2018-04-03 22:20:22
End at: 2018-04-03 22:20:52
Local clock offset: 0.782 ms
Remote clock offset: 0.172 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 17.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.698 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.754 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 17.967 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



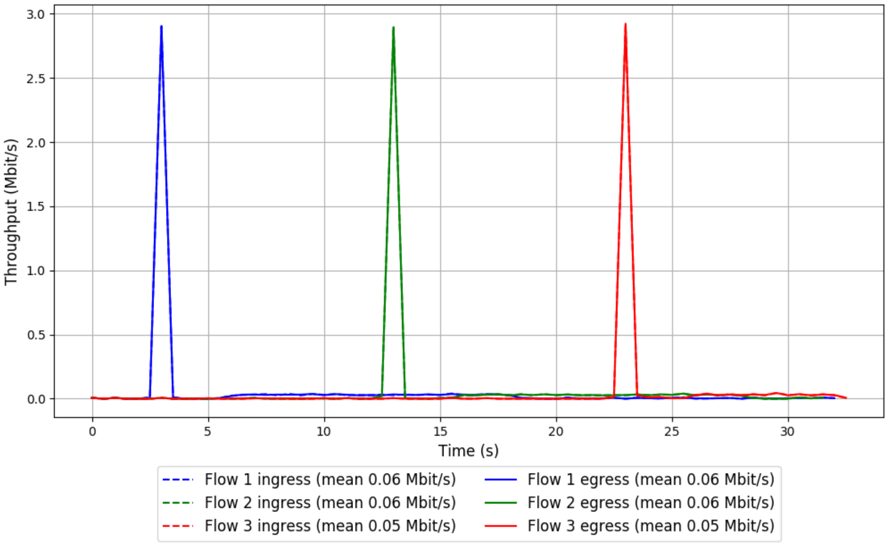


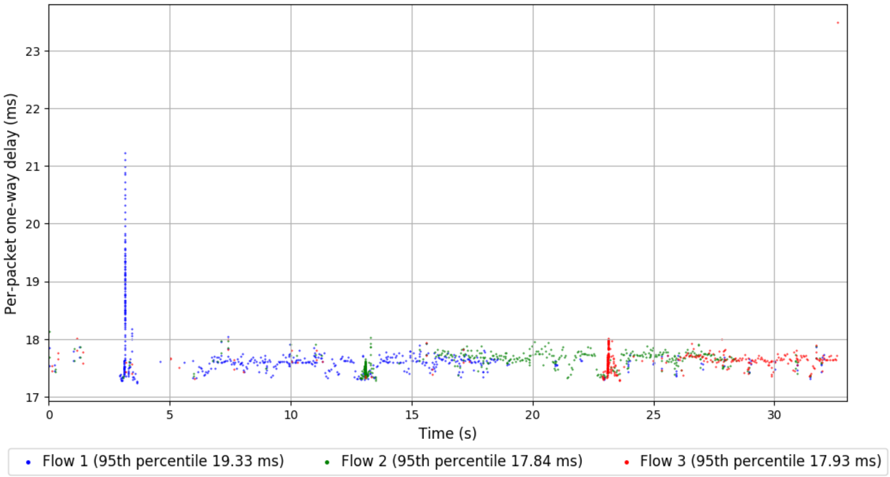
```
Run 3: Statistics of WebRTC media

Start at: 2018-04-03 22:49:11
End at: 2018-04-03 22:49:41
Local clock offset: 1.325 ms
Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 18.496 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 19.330 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.842 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 17.933 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link



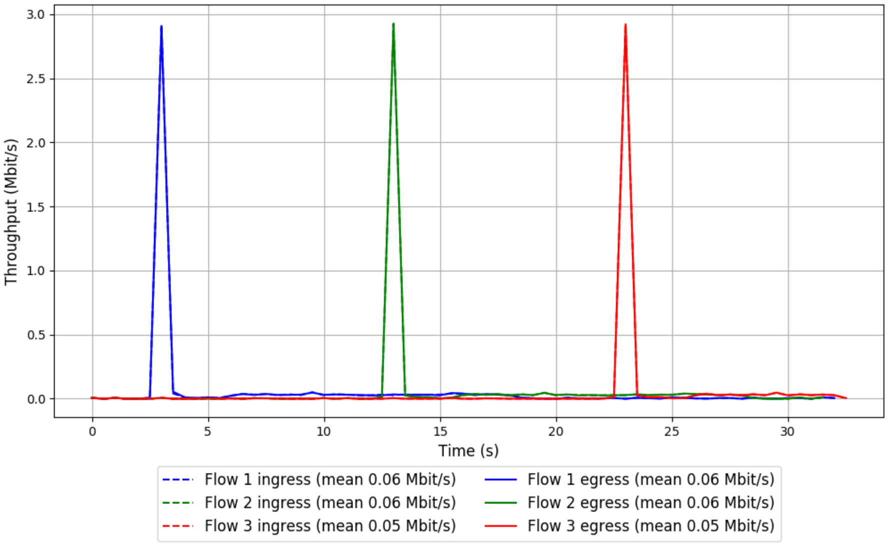


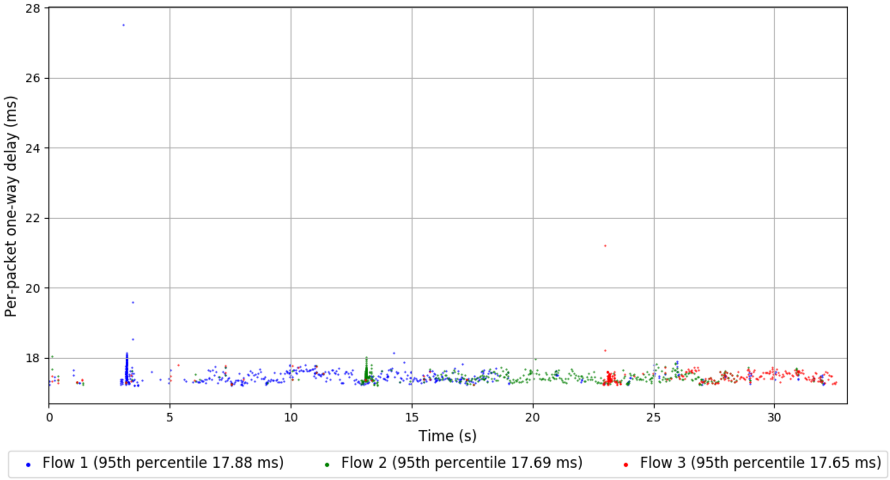
```
Run 4: Statistics of WebRTC media

Start at: 2018-04-03 23:17:38
End at: 2018-04-03 23:18:08
Local clock offset: 1.387 ms
Remote clock offset: 0.373 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 17.778 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.881 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.693 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 17.650 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



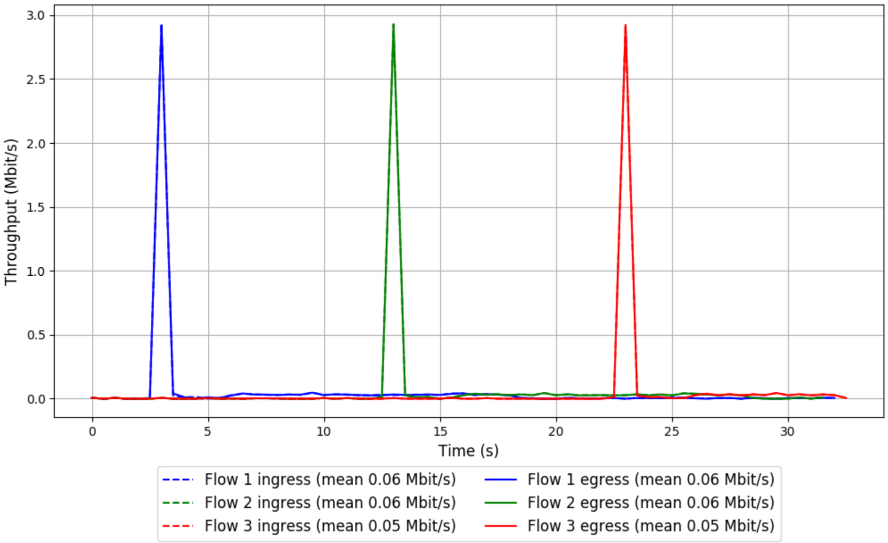


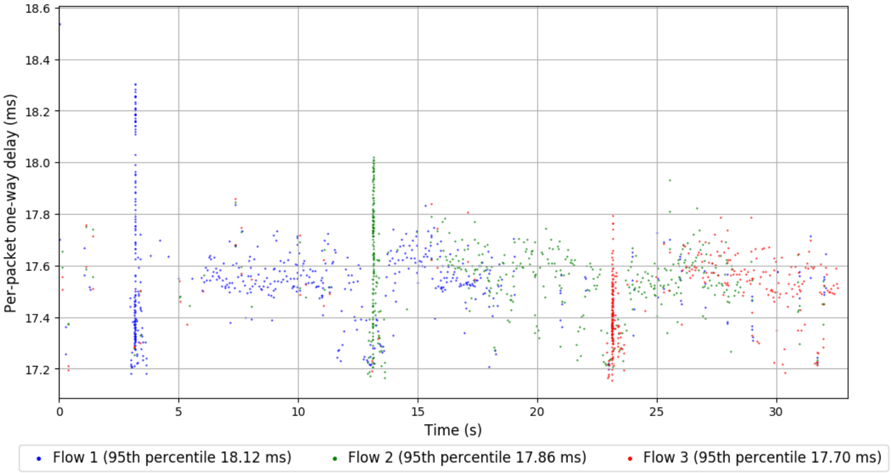
```
Run 5: Statistics of WebRTC media

Start at: 2018-04-03 23:46:20
End at: 2018-04-03 23:46:50
Local clock offset: 0.899 ms
Remote clock offset: 0.516 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 17.845 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 18.120 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.864 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 17.695 ms
Loss rate: 0.08%
```

Run 5: Report of WebRTC media — Data Link



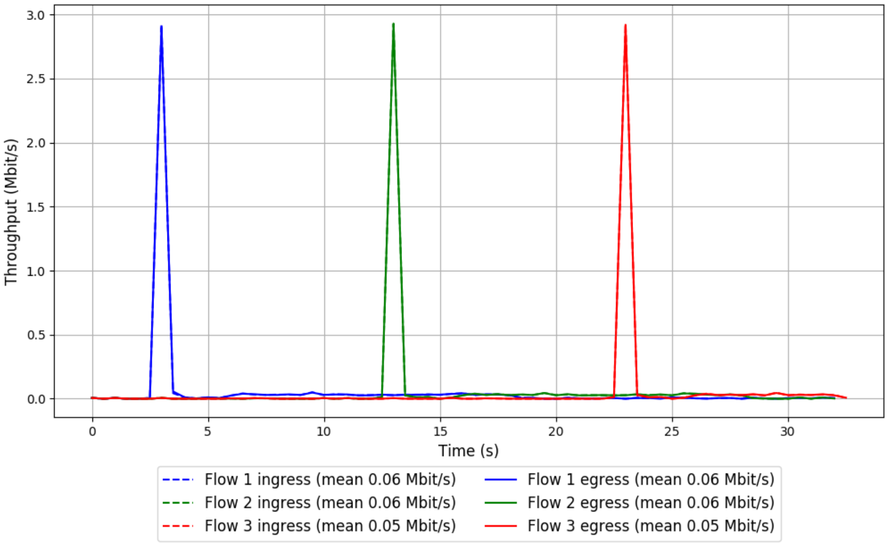


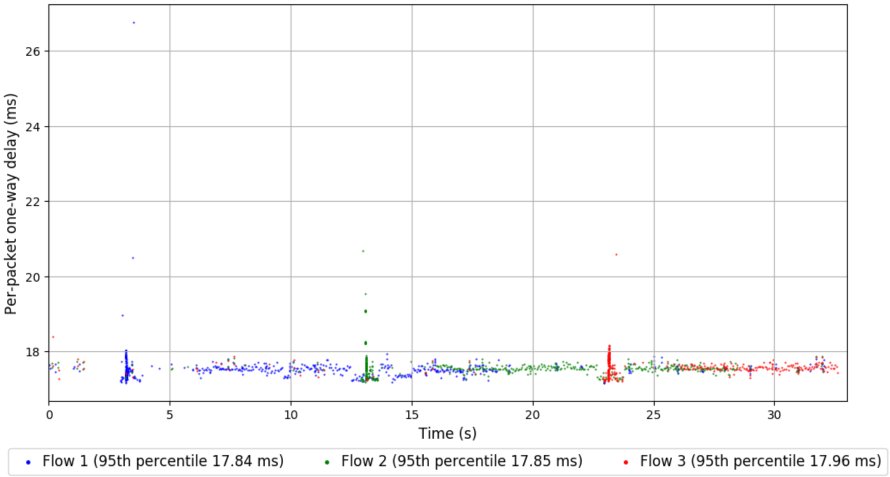
```
Run 6: Statistics of WebRTC media

Start at: 2018-04-04 00:15:08
End at: 2018-04-04 00:15:38
Local clock offset: 0.497 ms
Remote clock offset: 0.51 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 17.875 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.840 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.853 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 17.965 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link



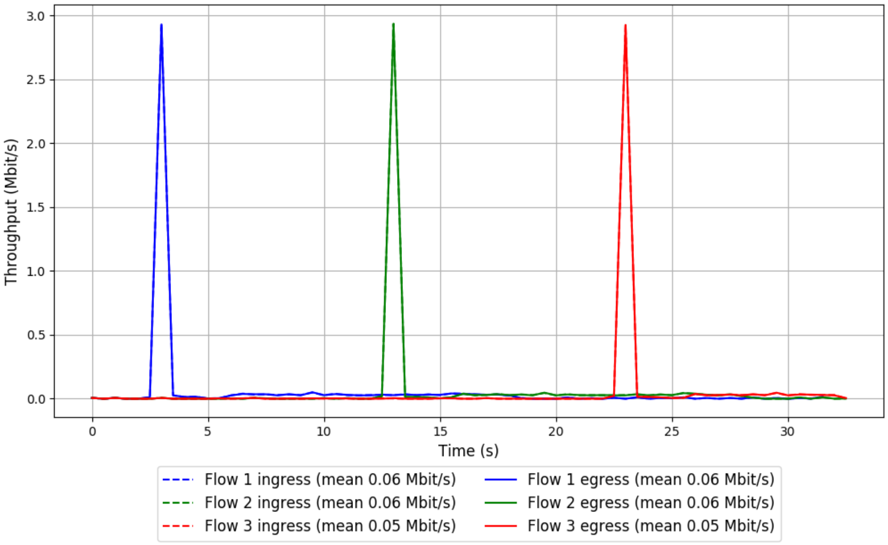


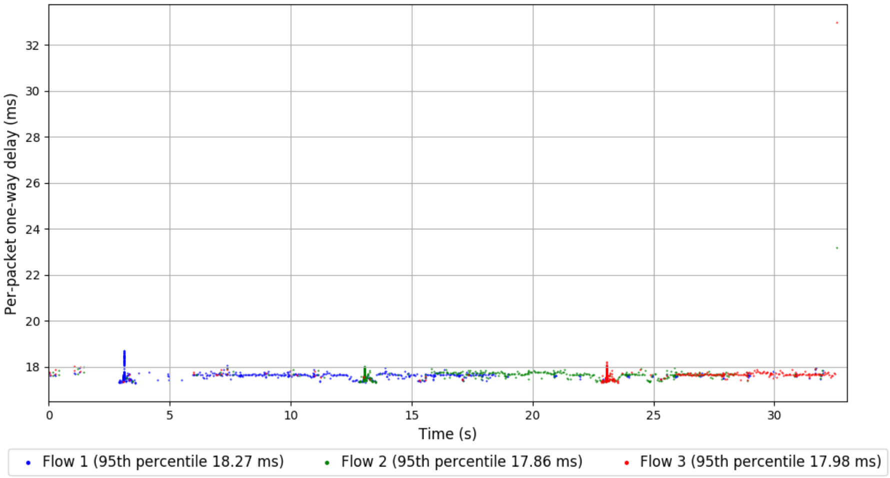
```
Run 7: Statistics of WebRTC media

Start at: 2018-04-04 00:43:56
End at: 2018-04-04 00:44:26
Local clock offset: 0.108 ms
Remote clock offset: 0.487 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 17.971 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 18.274 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.861 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 17.975 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link



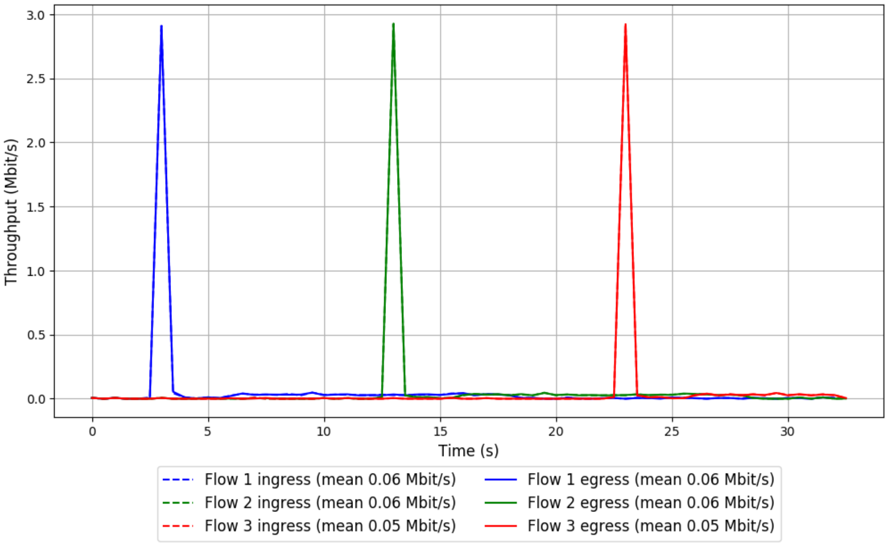


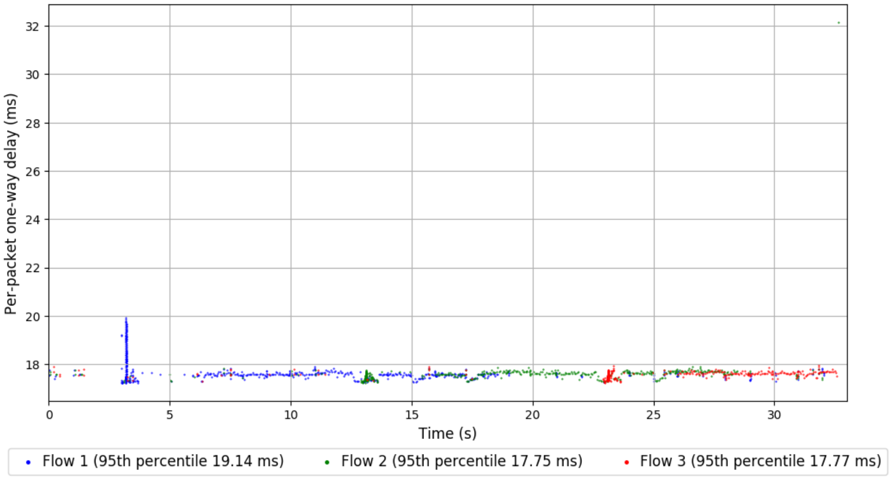
```
Run 8: Statistics of WebRTC media

Start at: 2018-04-04 01:12:45
End at: 2018-04-04 01:13:15
Local clock offset: -0.168 ms
Remote clock offset: 0.341 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 18.132 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 19.135 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.753 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 17.766 ms
Loss rate: 0.00%
```

Run 8: Report of WebRTC media — Data Link



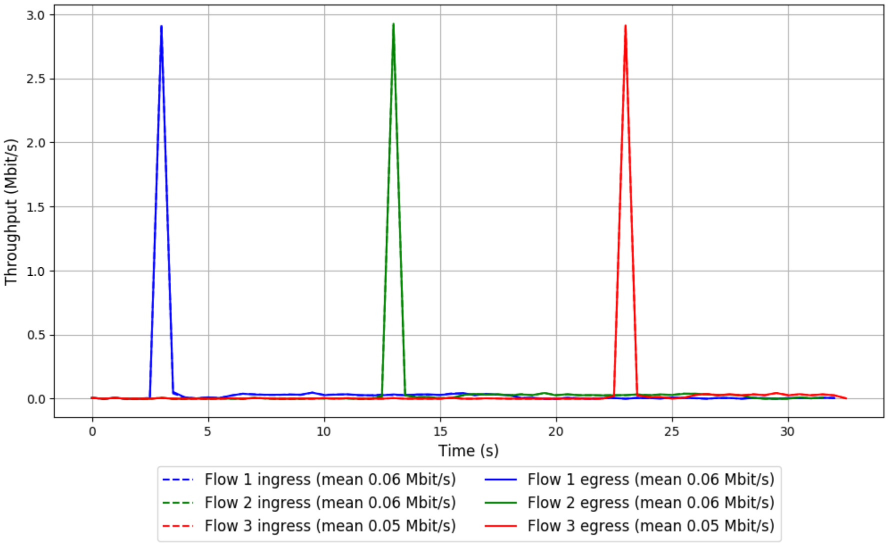


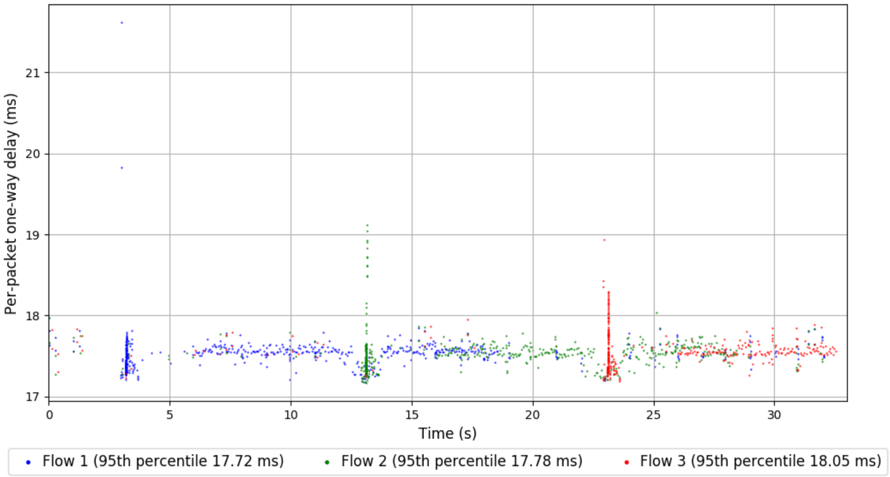
```
Run 9: Statistics of WebRTC media

Start at: 2018-04-04 01:41:37
End at: 2018-04-04 01:42:07
Local clock offset: 0.094 ms
Remote clock offset: 0.351 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 17.811 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.721 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.776 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 18.049 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link



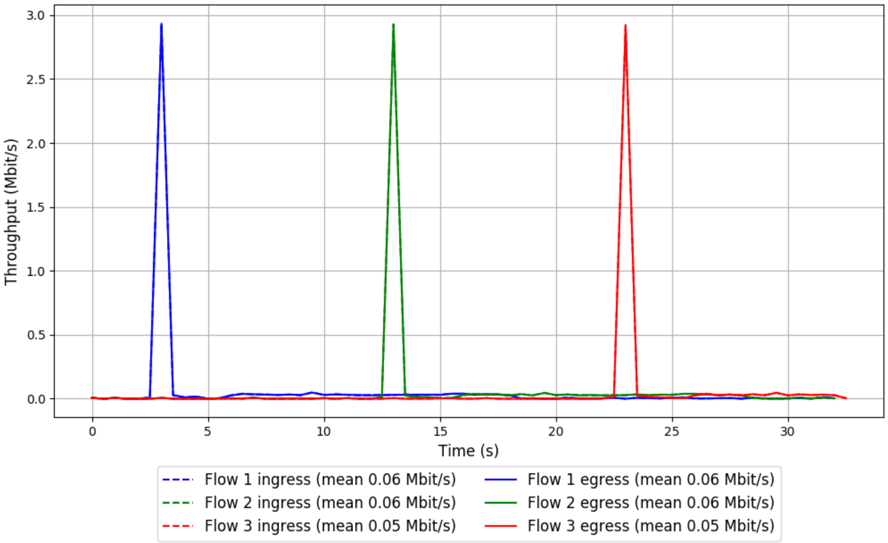


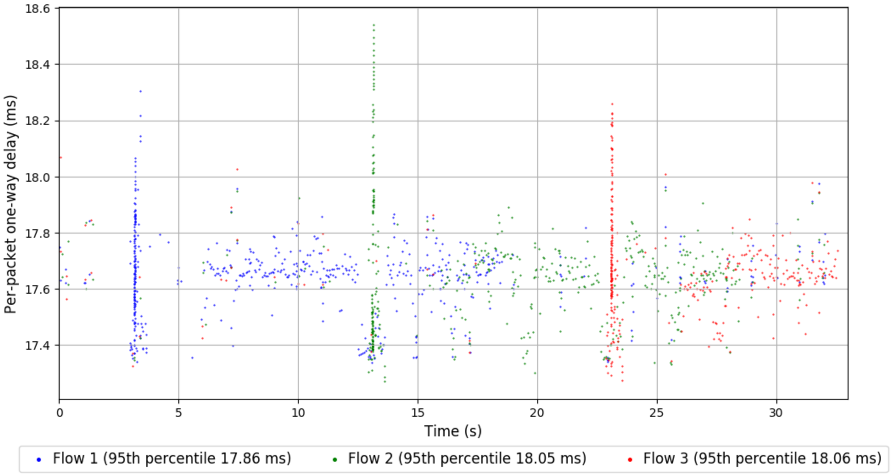
```
Run 10: Statistics of WebRTC media

Start at: 2018-04-04 02:10:34
End at: 2018-04-04 02:11:04
Local clock offset: 0.241 ms
Remote clock offset: 0.497 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 17.972 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 17.862 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 18.046 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 18.060 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link



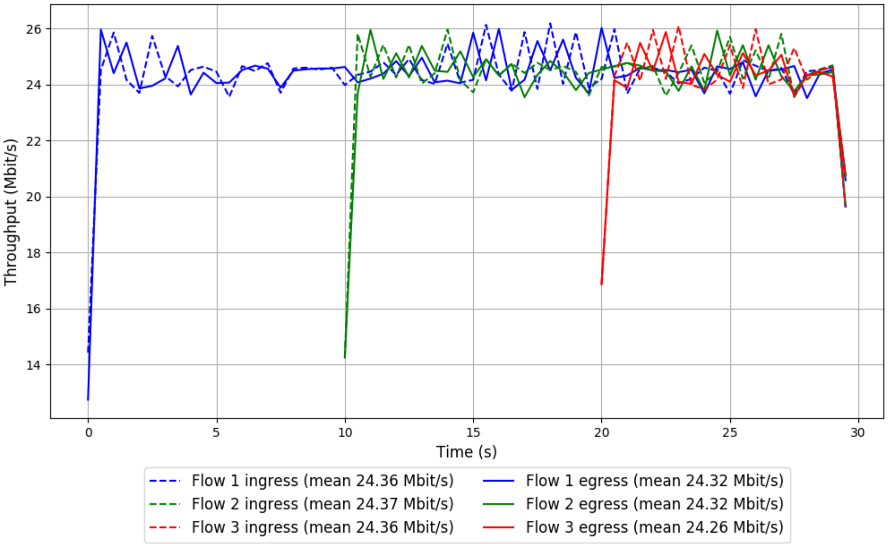


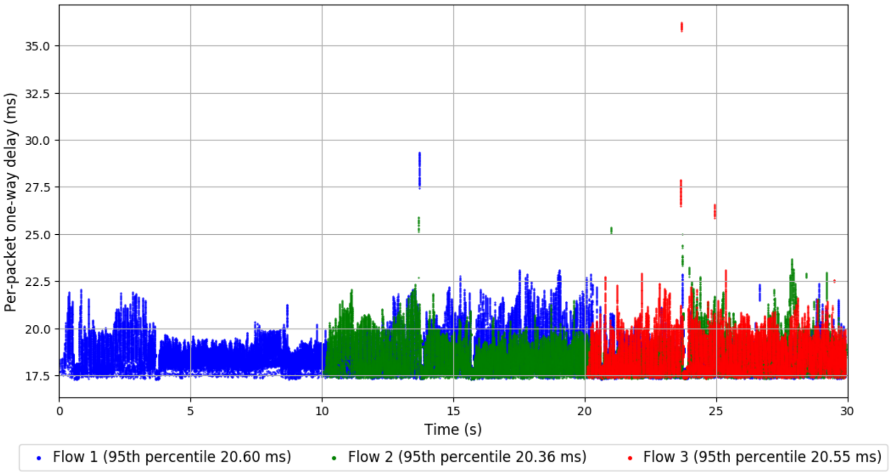
```
Run 1: Statistics of Sprout

Start at: 2018-04-03 21:54:17
End at: 2018-04-03 21:54:47
Local clock offset: 0.778 ms
Remote clock offset: 0.394 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.51 Mbit/s
95th percentile per-packet one-way delay: 20.516 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 20.602 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 20.355 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 24.26 Mbit/s
95th percentile per-packet one-way delay: 20.546 ms
Loss rate: 0.39%
```

Run 1: Report of Sprout — Data Link



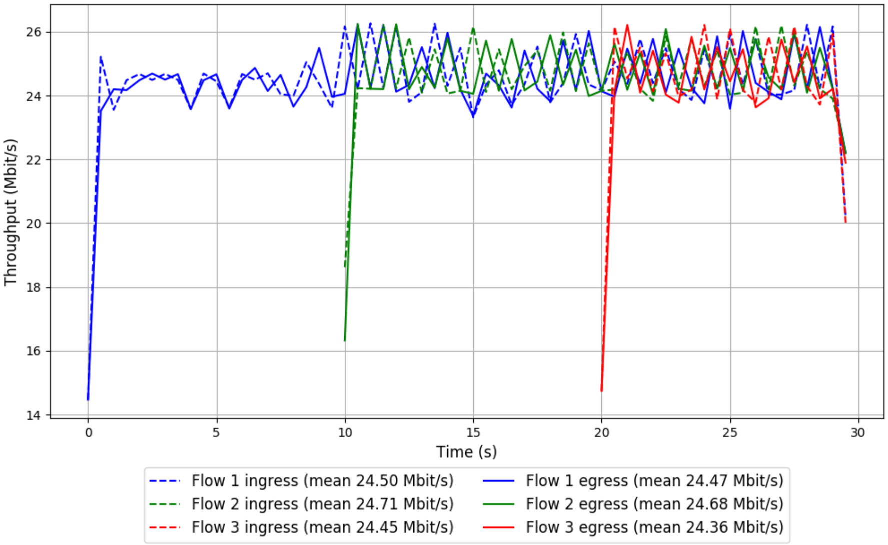


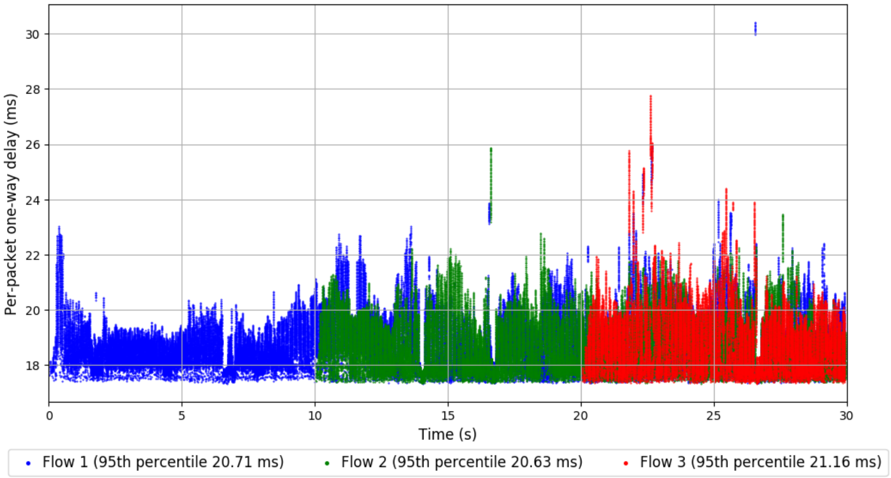
```
Run 2: Statistics of Sprout

Start at: 2018-04-03 22:23:04
End at: 2018-04-03 22:23:34
Local clock offset: 0.874 ms
Remote clock offset: 0.241 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.92 Mbit/s
95th percentile per-packet one-way delay: 20.742 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 24.47 Mbit/s
95th percentile per-packet one-way delay: 20.715 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 20.627 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 21.162 ms
Loss rate: 0.36%
```

Run 2: Report of Sprout — Data Link



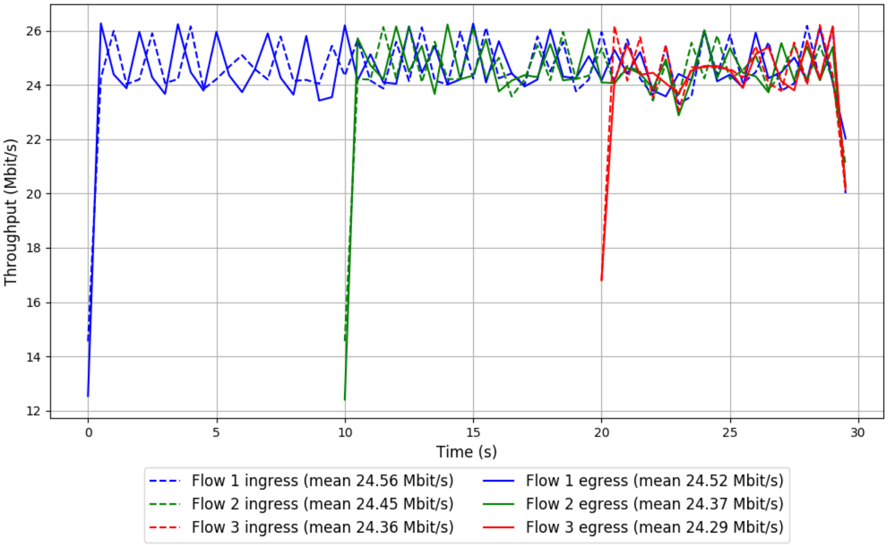


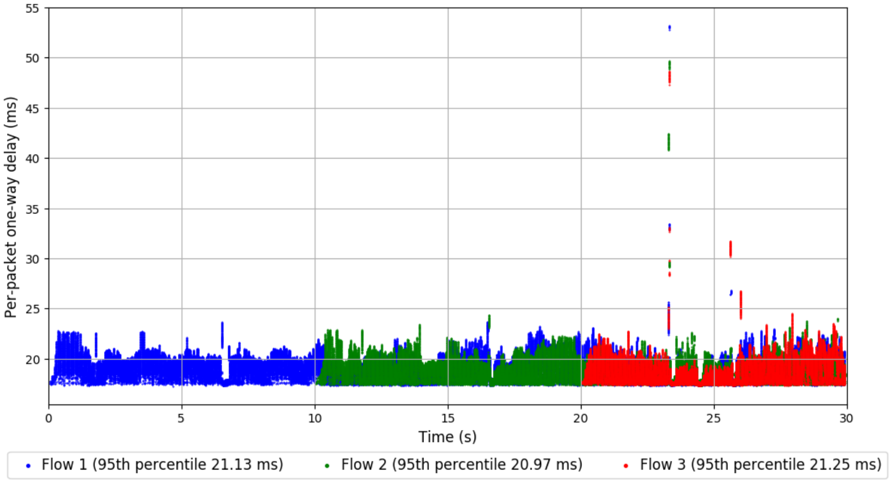
```
Run 3: Statistics of Sprout

Start at: 2018-04-03 22:51:53
End at: 2018-04-03 22:52:23
Local clock offset: 1.48 ms
Remote clock offset: 0.131 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.74 Mbit/s
95th percentile per-packet one-way delay: 21.101 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 21.134 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 24.37 Mbit/s
95th percentile per-packet one-way delay: 20.967 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 24.29 Mbit/s
95th percentile per-packet one-way delay: 21.245 ms
Loss rate: 0.28%
```

Run 3: Report of Sprout — Data Link



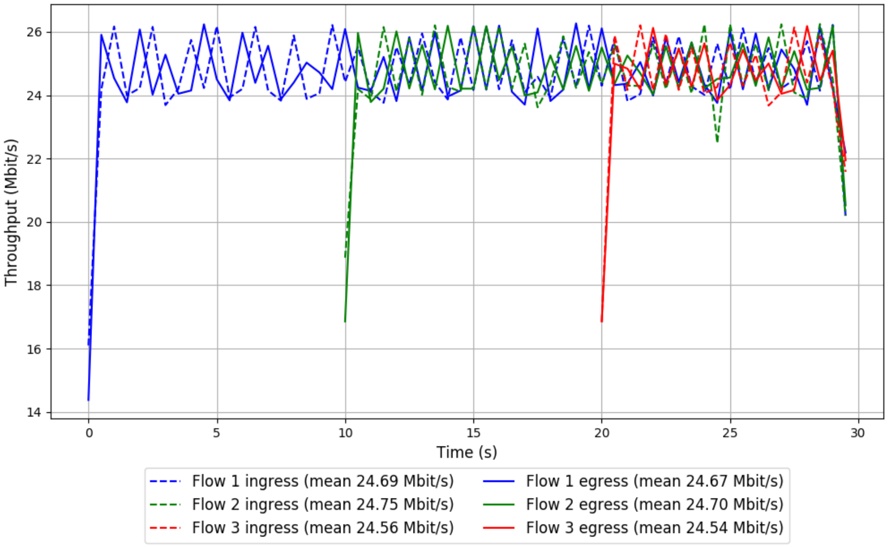


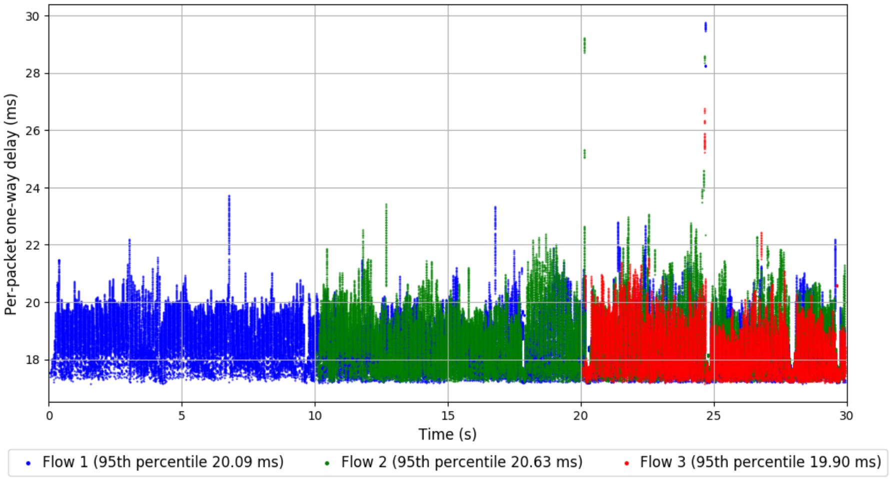
```
Run 4: Statistics of Sprout

Start at: 2018-04-03 23:20:20
End at: 2018-04-03 23:20:50
Local clock offset: 1.438 ms
Remote clock offset: 0.318 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 20.260 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 20.088 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 20.628 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: 19.902 ms
Loss rate: 0.07%
```

Run 4: Report of Sprout — Data Link



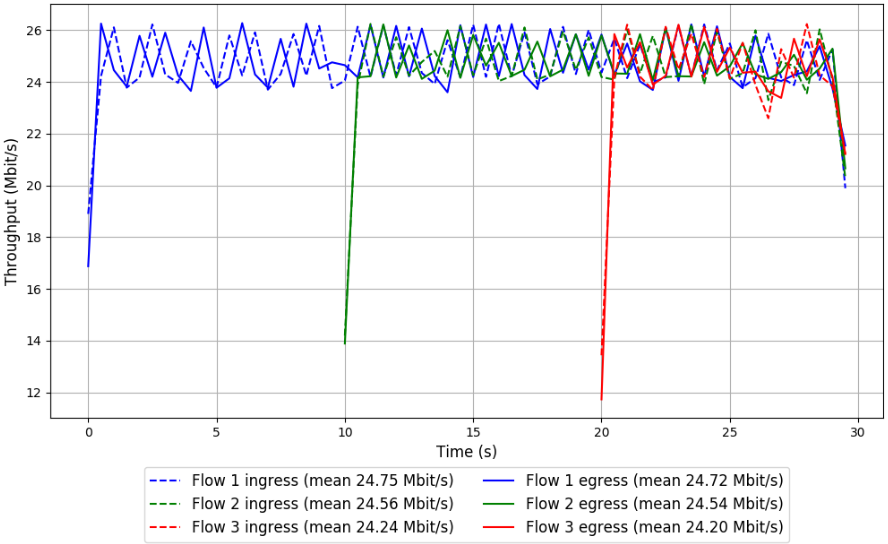


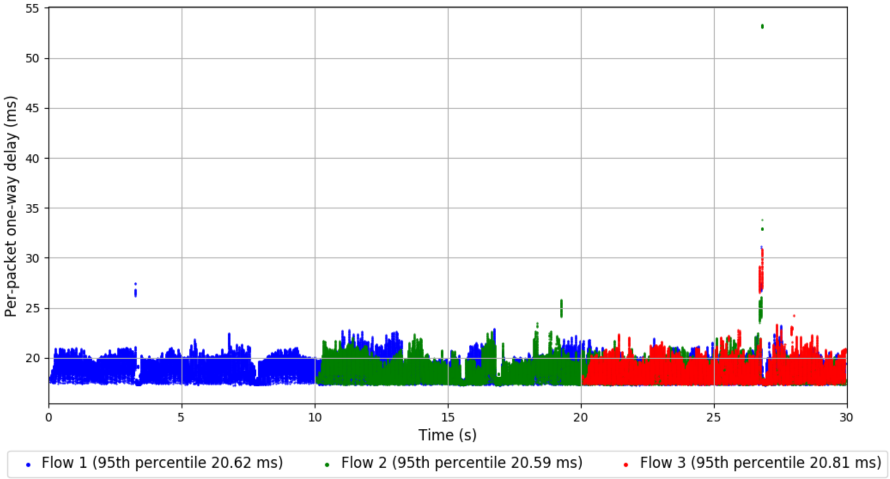
```
Run 5: Statistics of Sprout

Start at: 2018-04-03 23:49:02
End at: 2018-04-03 23:49:32
Local clock offset: 0.777 ms
Remote clock offset: 0.459 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.05 Mbit/s
95th percentile per-packet one-way delay: 20.641 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 24.72 Mbit/s
95th percentile per-packet one-way delay: 20.620 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: 20.588 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 20.808 ms
Loss rate: 0.15%
```

Run 5: Report of Sprout — Data Link



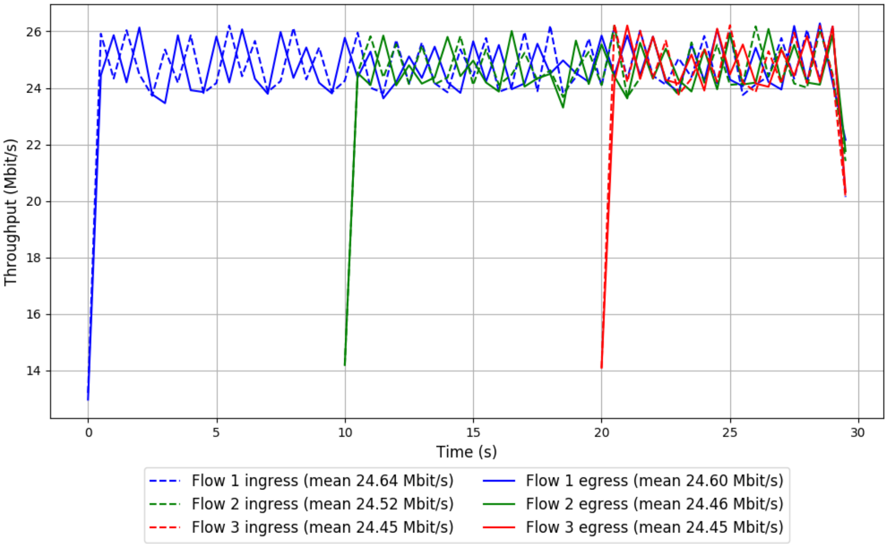


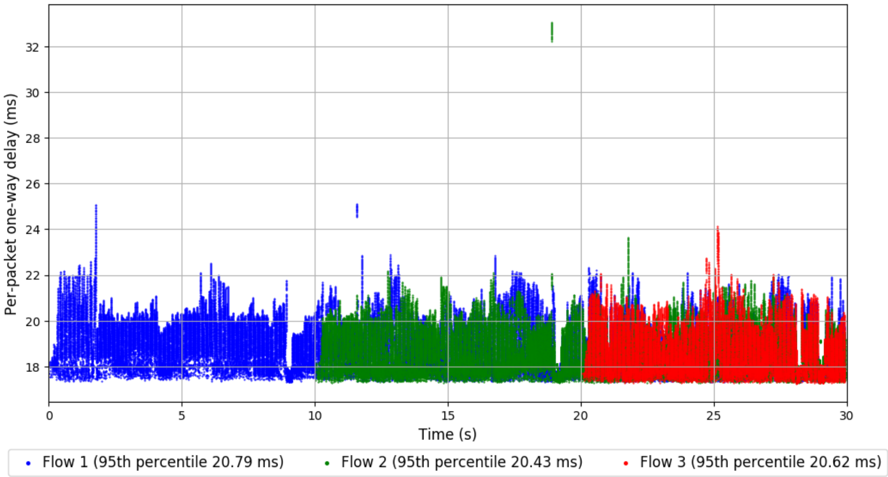
```
Run 6: Statistics of Sprout

Start at: 2018-04-04 00:17:50
End at: 2018-04-04 00:18:20
Local clock offset: 0.378 ms
Remote clock offset: 0.458 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.94 Mbit/s
95th percentile per-packet one-way delay: 20.648 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 24.60 Mbit/s
95th percentile per-packet one-way delay: 20.787 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 24.46 Mbit/s
95th percentile per-packet one-way delay: 20.426 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 20.625 ms
Loss rate: 0.01%
```

Run 6: Report of Sprout — Data Link



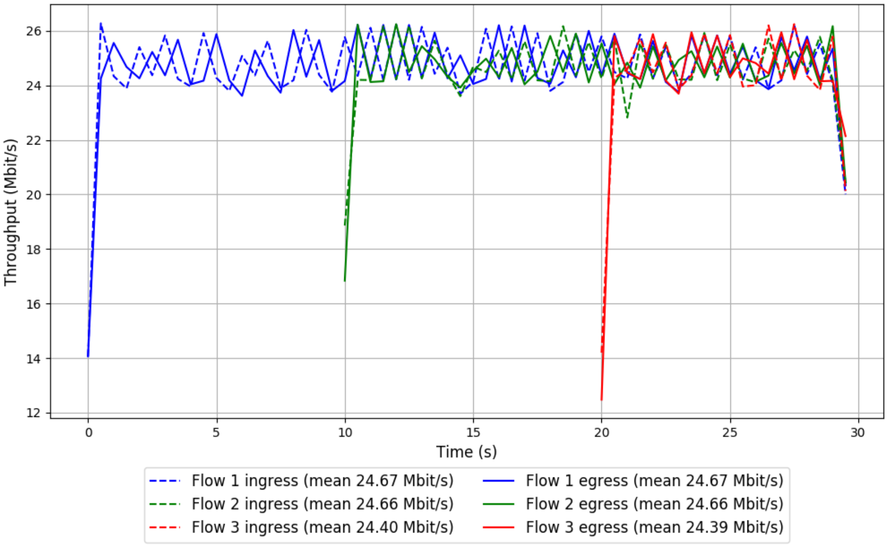


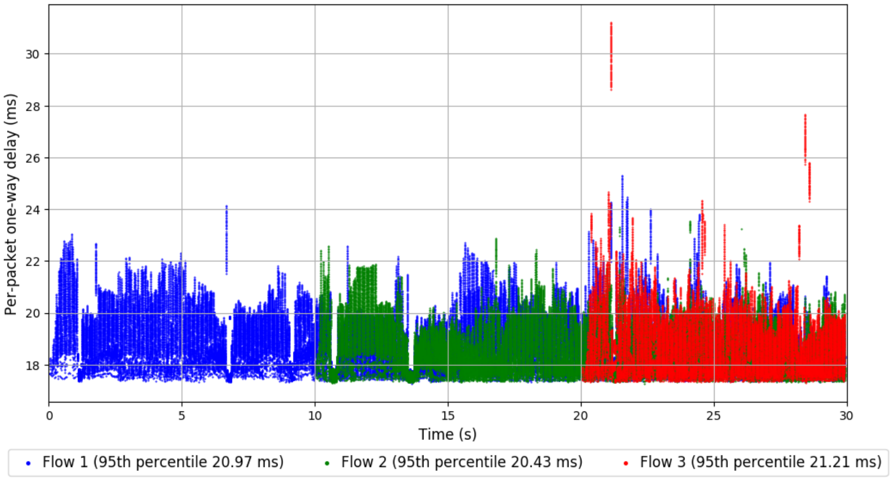
```
Run 7: Statistics of Sprout

Start at: 2018-04-04 00:46:37
End at: 2018-04-04 00:47:07
Local clock offset: 0.194 ms
Remote clock offset: 0.493 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.13 Mbit/s
95th percentile per-packet one-way delay: 20.839 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 20.971 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 24.66 Mbit/s
95th percentile per-packet one-way delay: 20.430 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 21.211 ms
Loss rate: 0.03%
```

Run 7: Report of Sprout — Data Link



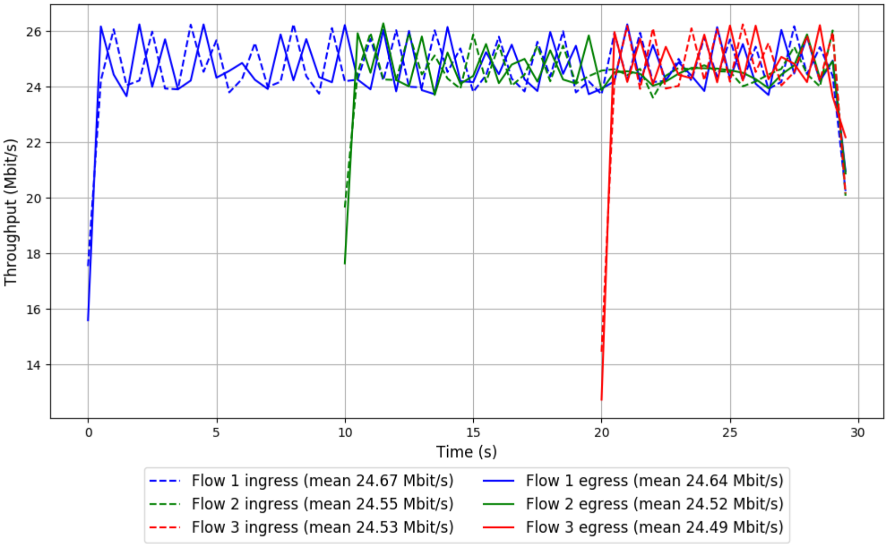


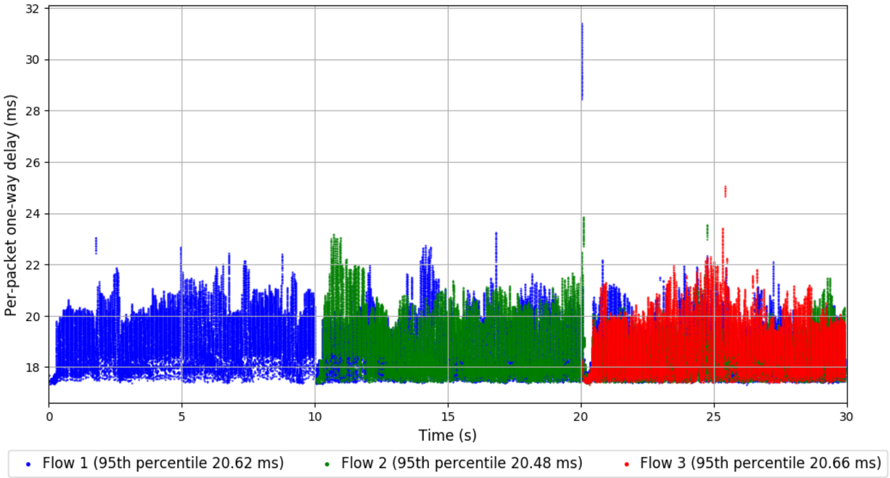
```
Run 8: Statistics of Sprout

Start at: 2018-04-04 01:15:28
End at: 2018-04-04 01:15:58
Local clock offset: -0.044 ms
Remote clock offset: 0.388 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.04 Mbit/s
95th percentile per-packet one-way delay: 20.590 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 24.64 Mbit/s
95th percentile per-packet one-way delay: 20.617 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 20.484 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 20.661 ms
Loss rate: 0.14%
```

Run 8: Report of Sprout — Data Link



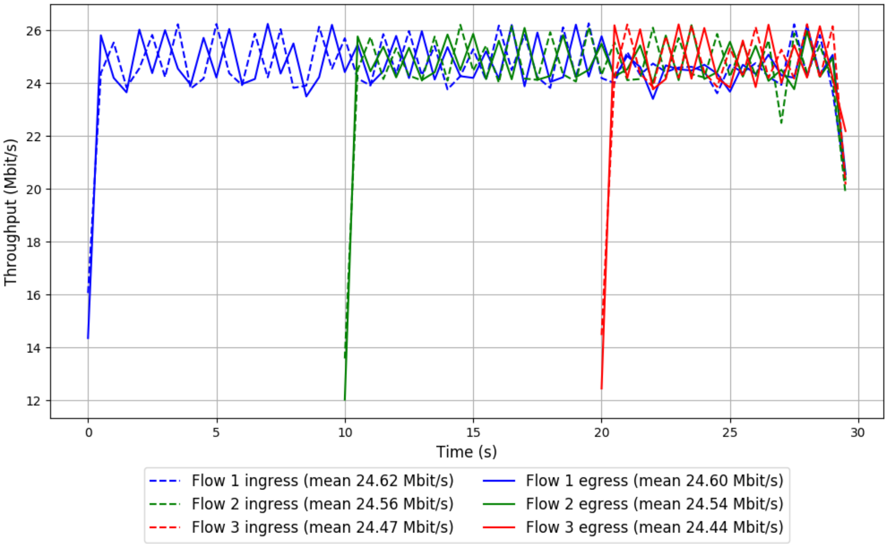


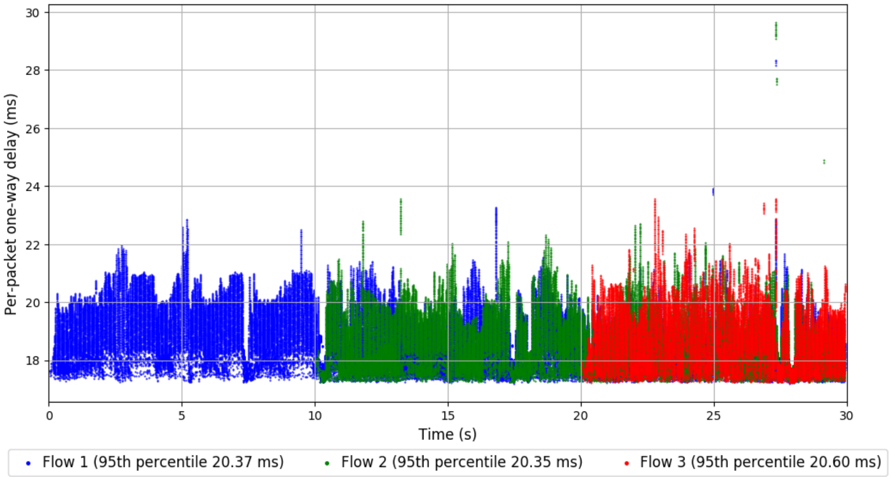
```
Run 9: Statistics of Sprout

Start at: 2018-04-04 01:44:20
End at: 2018-04-04 01:44:50
Local clock offset: 0.159 ms
Remote clock offset: 0.372 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.00 Mbit/s
95th percentile per-packet one-way delay: 20.413 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 24.60 Mbit/s
95th percentile per-packet one-way delay: 20.371 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: 20.353 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 24.44 Mbit/s
95th percentile per-packet one-way delay: 20.601 ms
Loss rate: 0.09%
```

Run 9: Report of Sprout — Data Link



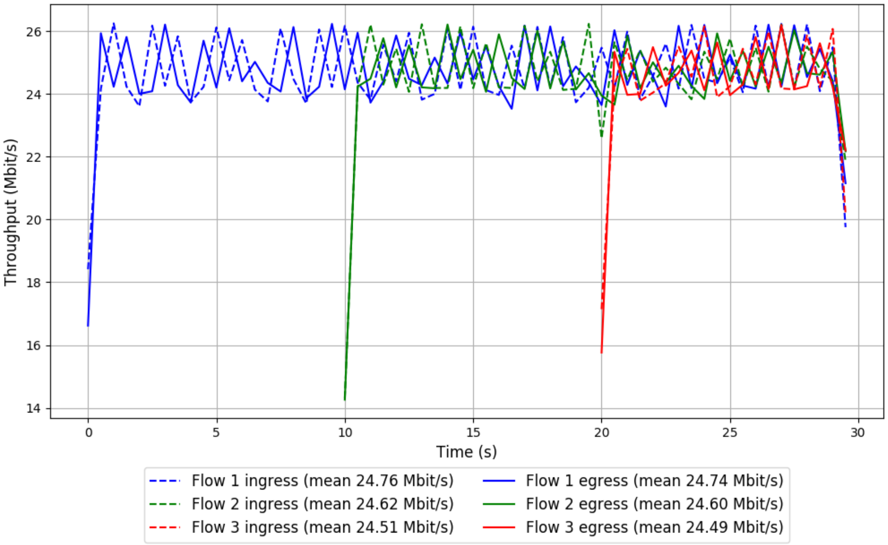


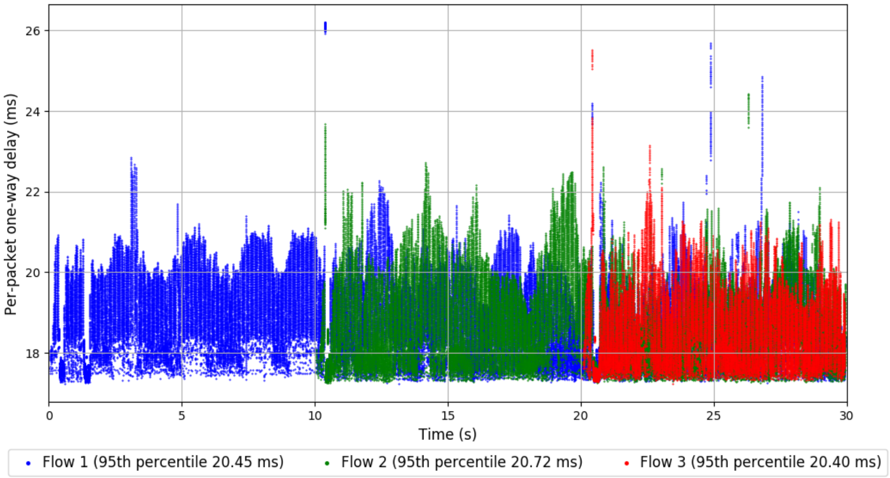
```
Run 10: Statistics of Sprout

Start at: 2018-04-04 02:13:16
End at: 2018-04-04 02:13:46
Local clock offset: 0.425 ms
Remote clock offset: 0.528 ms

# Below is generated by plot.py at 2018-04-04 06:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.19 Mbit/s
95th percentile per-packet one-way delay: 20.521 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 20.450 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 24.60 Mbit/s
95th percentile per-packet one-way delay: 20.723 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 20.396 ms
Loss rate: 0.06%
```

Run 10: Report of Sprout — Data Link



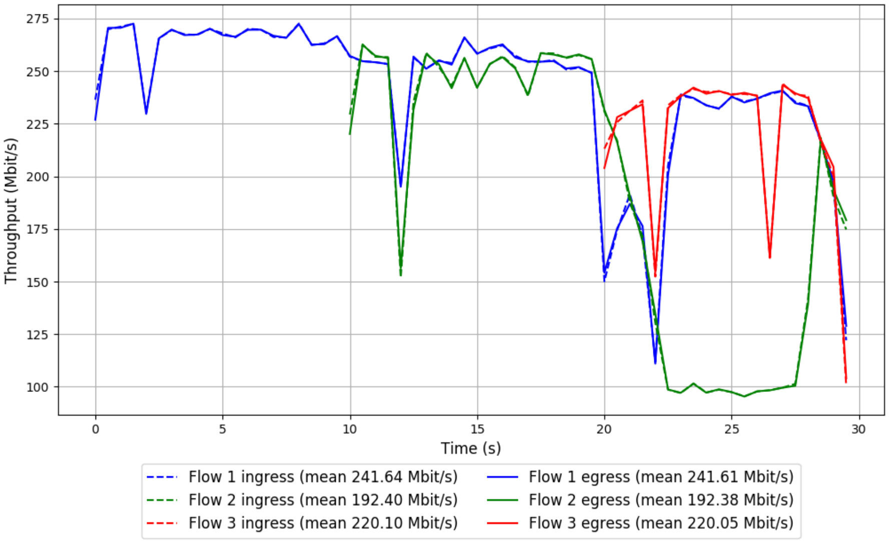


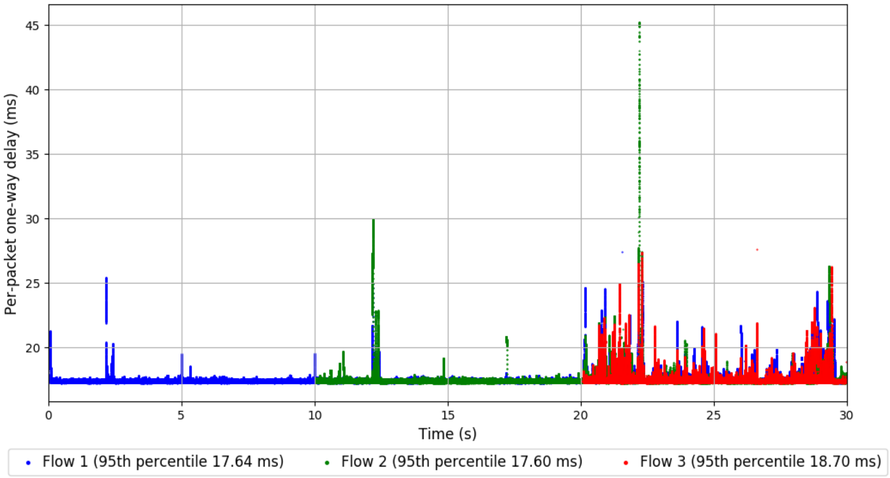
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-03 22:13:48
End at: 2018-04-03 22:14:18
Local clock offset: 0.682 ms
Remote clock offset: 0.206 ms

# Below is generated by plot.py at 2018-04-04 06:16:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 442.56 Mbit/s
95th percentile per-packet one-way delay: 17.826 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 241.61 Mbit/s
95th percentile per-packet one-way delay: 17.640 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 192.38 Mbit/s
95th percentile per-packet one-way delay: 17.600 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 220.05 Mbit/s
95th percentile per-packet one-way delay: 18.701 ms
Loss rate: 0.01%
```

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



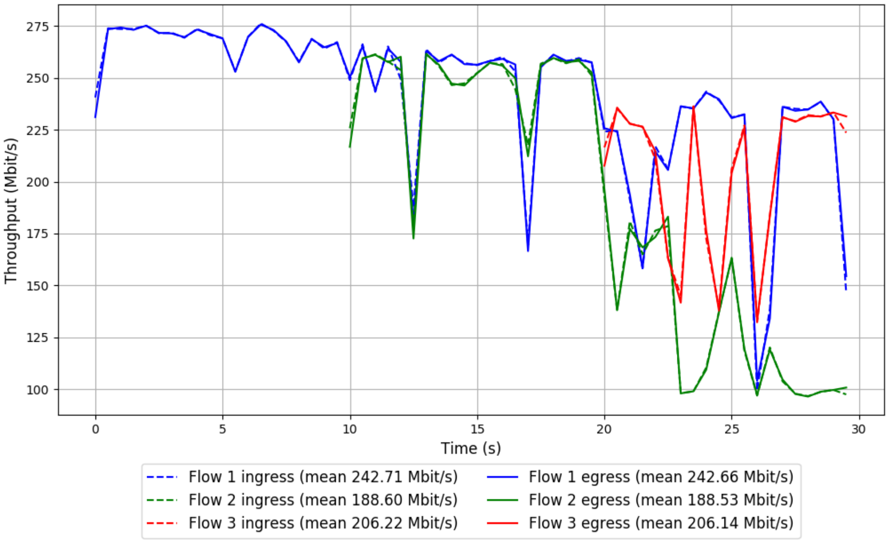


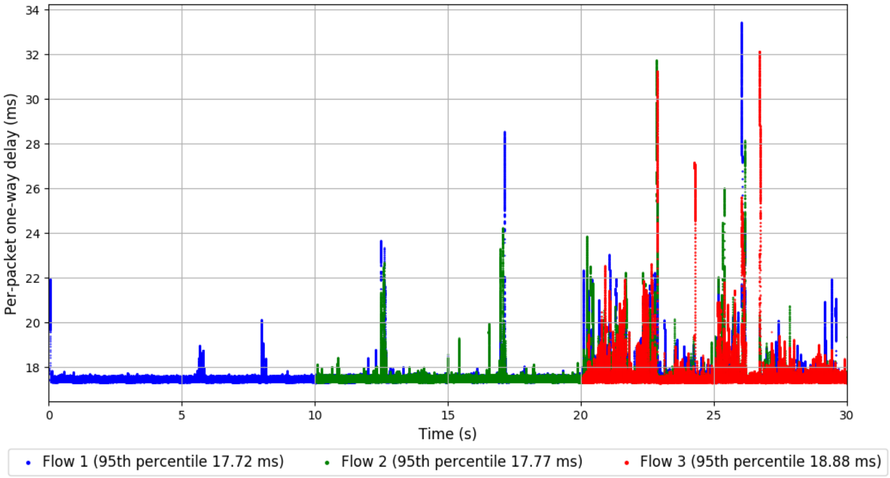
```
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-03 22:42:44
End at: 2018-04-03 22:43:14
Local clock offset: 1.208 ms
Remote clock offset: 0.12 ms

# Below is generated by plot.py at 2018-04-04 06:16:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.63 Mbit/s
95th percentile per-packet one-way delay: 17.941 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 242.66 Mbit/s
95th percentile per-packet one-way delay: 17.716 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 188.53 Mbit/s
95th percentile per-packet one-way delay: 17.772 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 206.14 Mbit/s
95th percentile per-packet one-way delay: 18.878 ms
Loss rate: 0.04%
```

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



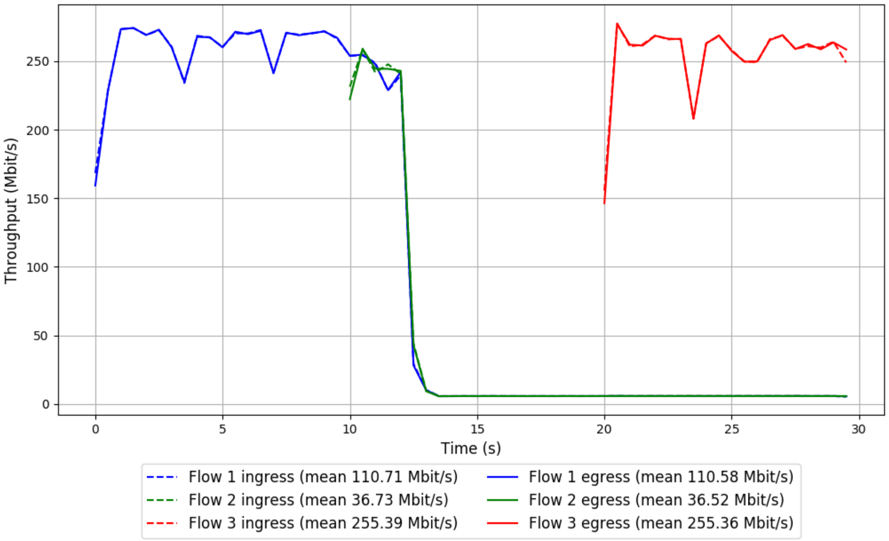


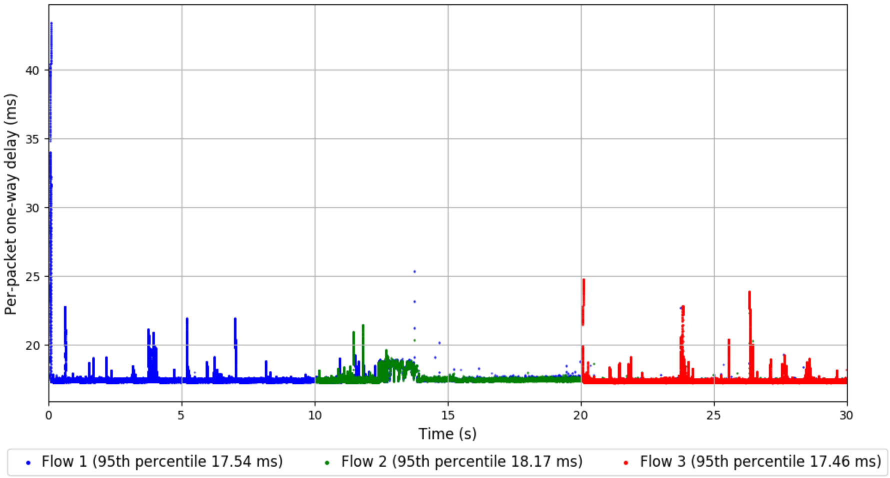
```
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-03 23:11:26
End at: 2018-04-03 23:11:56
Local clock offset: 1.347 ms
Remote clock offset: 0.262 ms

# Below is generated by plot.py at 2018-04-04 06:16:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 219.66 Mbit/s
95th percentile per-packet one-way delay: 17.537 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 110.58 Mbit/s
95th percentile per-packet one-way delay: 17.542 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 36.52 Mbit/s
95th percentile per-packet one-way delay: 18.169 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 255.36 Mbit/s
95th percentile per-packet one-way delay: 17.461 ms
Loss rate: 0.00%
```

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



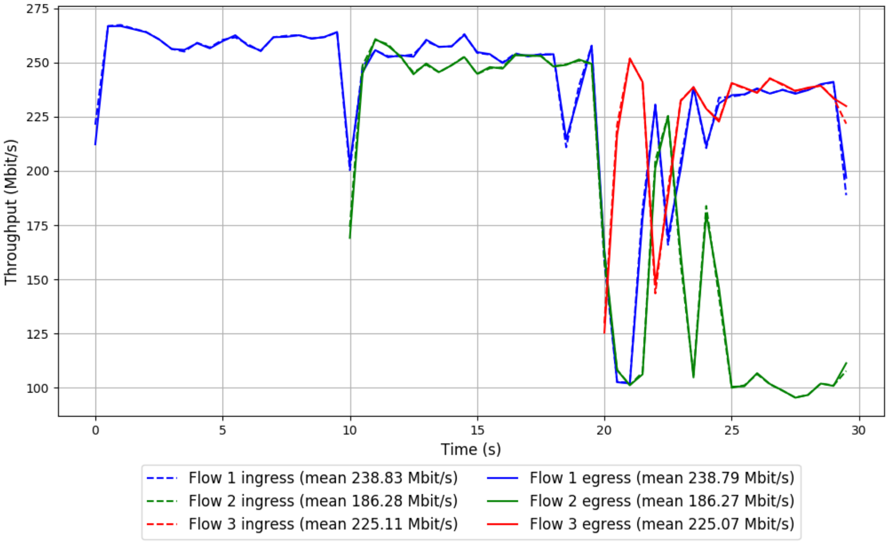


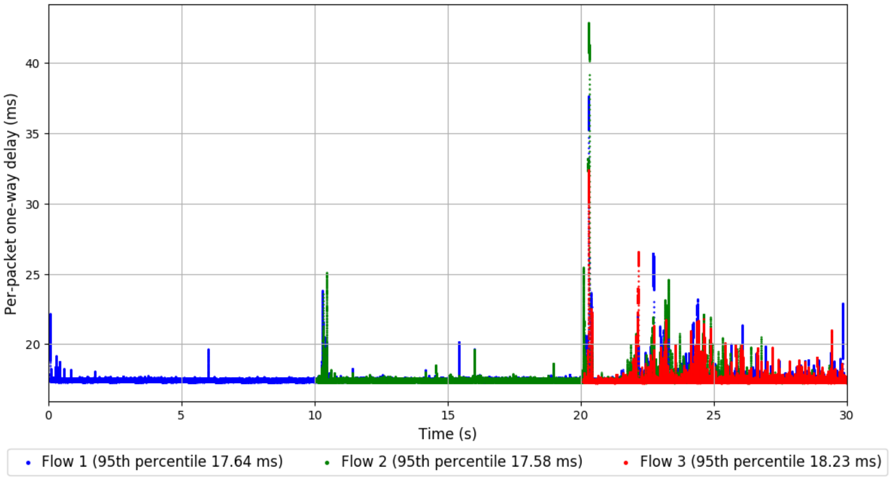
```
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-03 23:39:59
End at: 2018-04-03 23:40:29
Local clock offset: 0.931 ms
Remote clock offset: 0.485 ms

# Below is generated by plot.py at 2018-04-04 06:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 437.38 Mbit/s
95th percentile per-packet one-way delay: 17.714 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 238.79 Mbit/s
95th percentile per-packet one-way delay: 17.639 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 186.27 Mbit/s
95th percentile per-packet one-way delay: 17.577 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 225.07 Mbit/s
95th percentile per-packet one-way delay: 18.234 ms
Loss rate: 0.02%
```

Run 4: Report of TaoVA-100x — Data Link



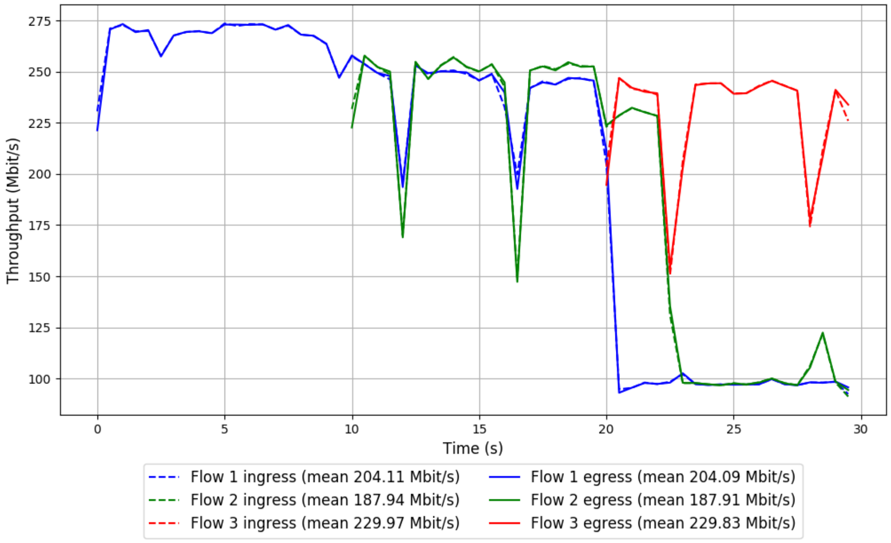


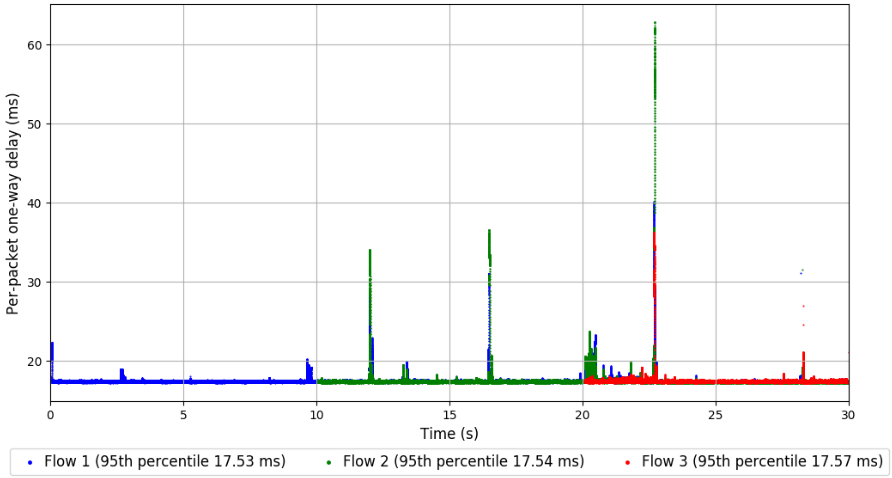
```
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-04 00:08:46
End at: 2018-04-04 00:09:16
Local clock offset: 0.543 ms
Remote clock offset: 0.514 ms

# Below is generated by plot.py at 2018-04-04 06:17:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 405.33 Mbit/s
95th percentile per-packet one-way delay: 17.542 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 204.09 Mbit/s
95th percentile per-packet one-way delay: 17.532 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 187.91 Mbit/s
95th percentile per-packet one-way delay: 17.542 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 229.83 Mbit/s
95th percentile per-packet one-way delay: 17.571 ms
Loss rate: 0.03%
```

Run 5: Report of TaoVA-100x — Data Link



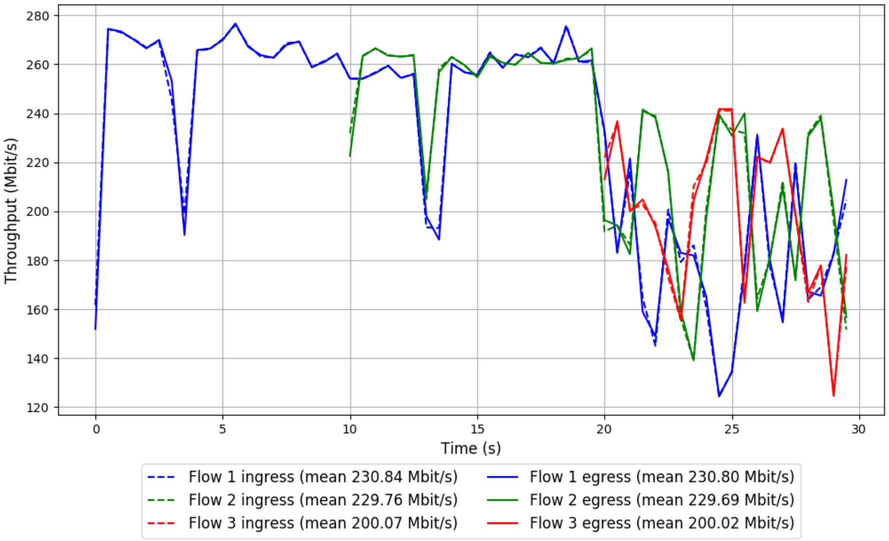


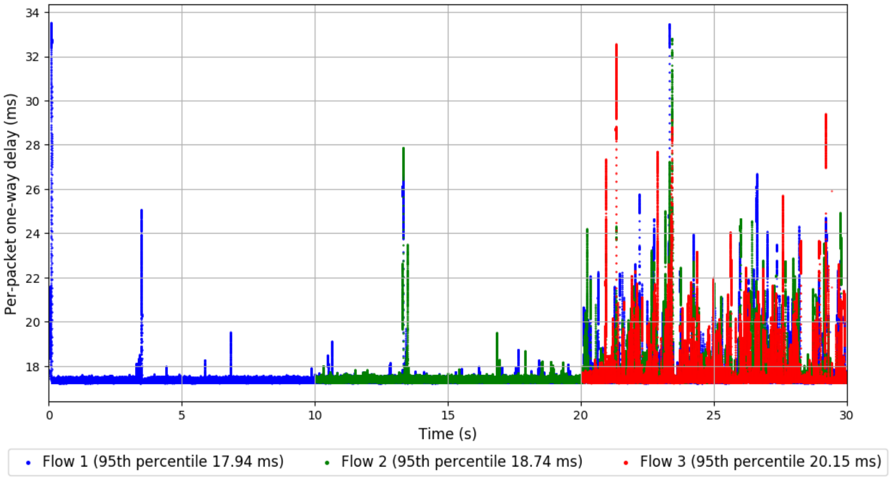
```
Run 6: Statistics of TaoVA-100x

Start at: 2018-04-04 00:37:25
End at: 2018-04-04 00:37:55
Local clock offset: 0.054 ms
Remote clock offset: 0.385 ms

# Below is generated by plot.py at 2018-04-04 06:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.15 Mbit/s
95th percentile per-packet one-way delay: 18.667 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 230.80 Mbit/s
95th percentile per-packet one-way delay: 17.937 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 229.69 Mbit/s
95th percentile per-packet one-way delay: 18.743 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 200.02 Mbit/s
95th percentile per-packet one-way delay: 20.148 ms
Loss rate: 0.02%
```

Run 6: Report of TaoVA-100x — Data Link



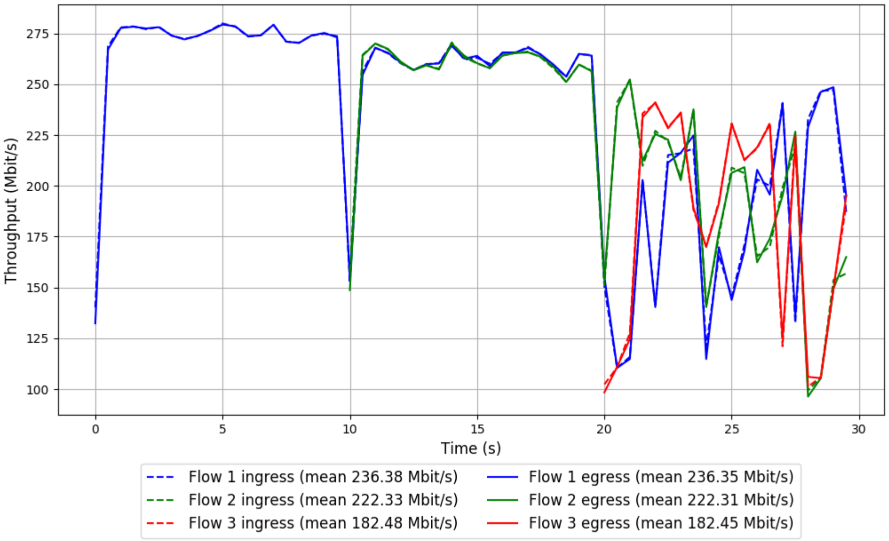


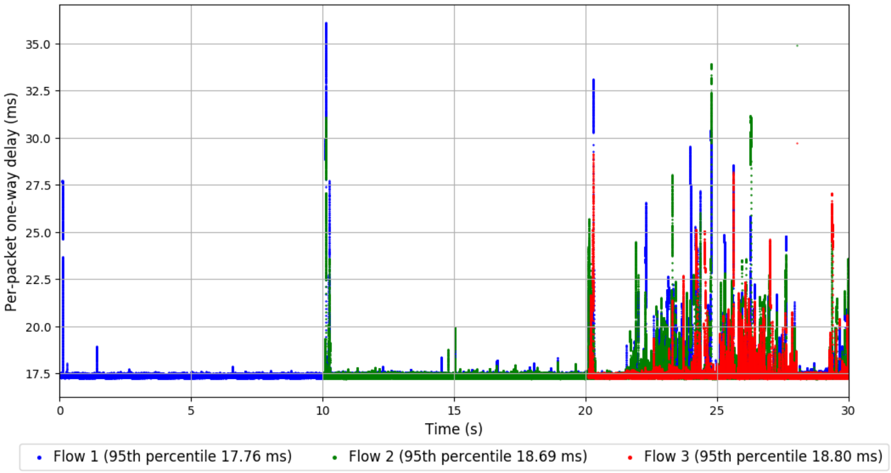
```
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-04 01:06:18
End at: 2018-04-04 01:06:48
Local clock offset: -0.127 ms
Remote clock offset: 0.42 ms

# Below is generated by plot.py at 2018-04-04 06:22:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 444.75 Mbit/s
95th percentile per-packet one-way delay: 18.209 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 236.35 Mbit/s
95th percentile per-packet one-way delay: 17.762 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 222.31 Mbit/s
95th percentile per-packet one-way delay: 18.689 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 182.45 Mbit/s
95th percentile per-packet one-way delay: 18.803 ms
Loss rate: 0.01%
```

Run 7: Report of TaoVA-100x — Data Link



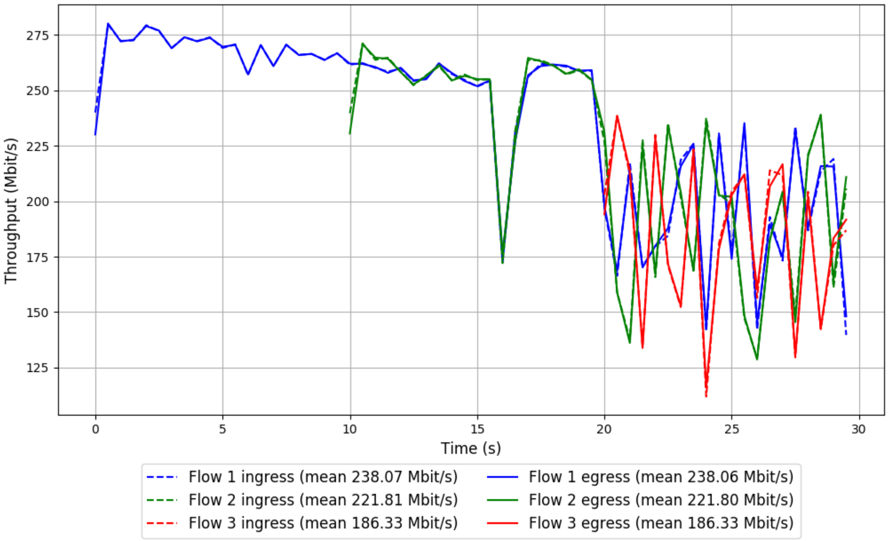


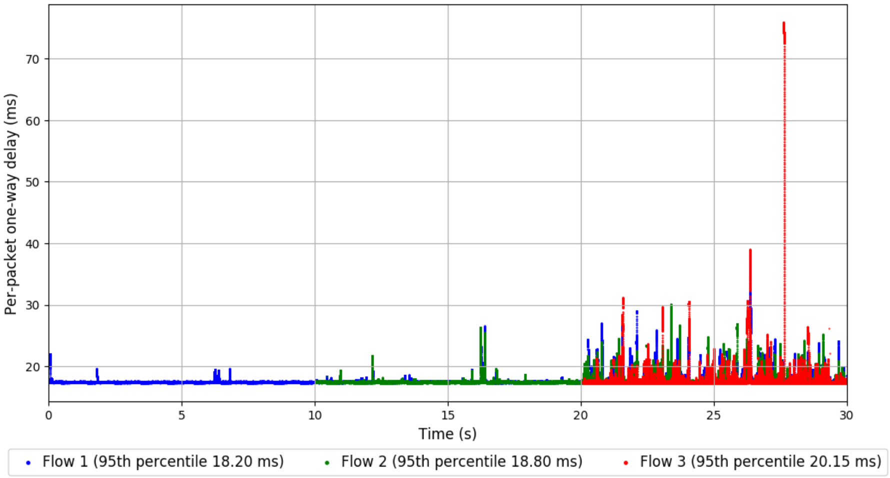
```
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-04 01:35:11
End at: 2018-04-04 01:35:41
Local clock offset: 0.19 ms
Remote clock offset: 0.456 ms

# Below is generated by plot.py at 2018-04-04 06:22:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.49 Mbit/s
95th percentile per-packet one-way delay: 18.715 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 238.06 Mbit/s
95th percentile per-packet one-way delay: 18.203 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 221.80 Mbit/s
95th percentile per-packet one-way delay: 18.804 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 186.33 Mbit/s
95th percentile per-packet one-way delay: 20.151 ms
Loss rate: 0.00%
```

Run 8: Report of TaoVA-100x — Data Link



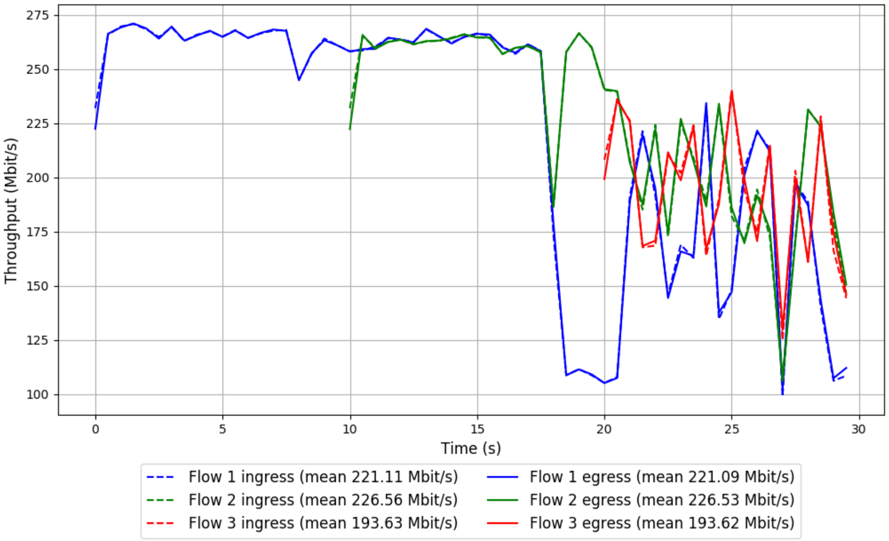


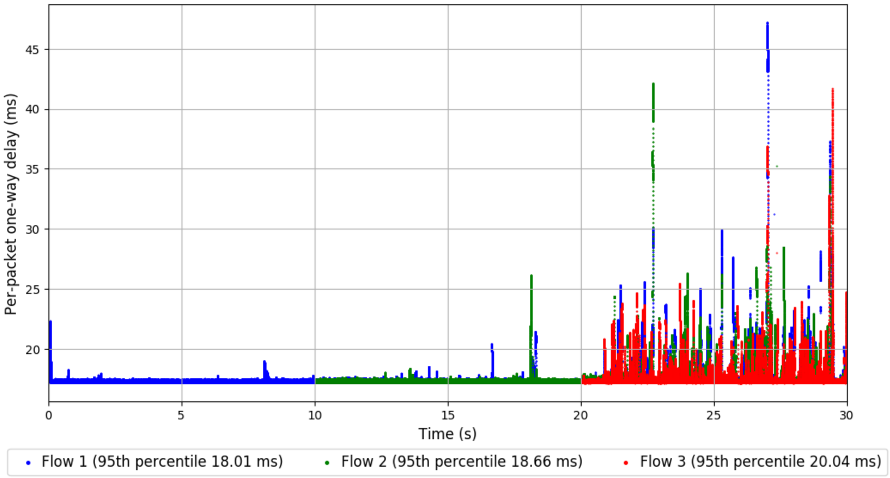
```
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-04 02:03:59
End at: 2018-04-04 02:04:29
Local clock offset: 0.091 ms
Remote clock offset: 0.432 ms

# Below is generated by plot.py at 2018-04-04 06:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.16 Mbit/s
95th percentile per-packet one-way delay: 18.652 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 221.09 Mbit/s
95th percentile per-packet one-way delay: 18.014 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 226.53 Mbit/s
95th percentile per-packet one-way delay: 18.656 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 193.62 Mbit/s
95th percentile per-packet one-way delay: 20.035 ms
Loss rate: 0.00%
```

Run 9: Report of TaoVA-100x — Data Link



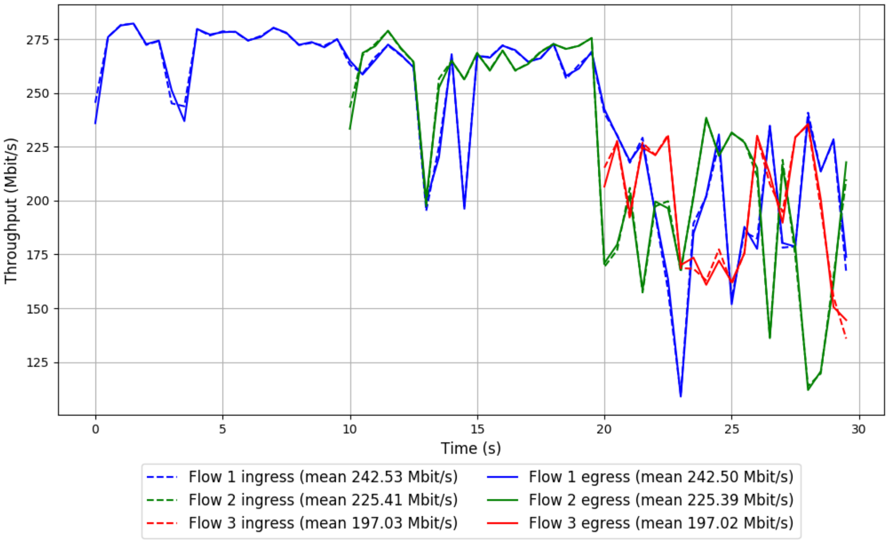


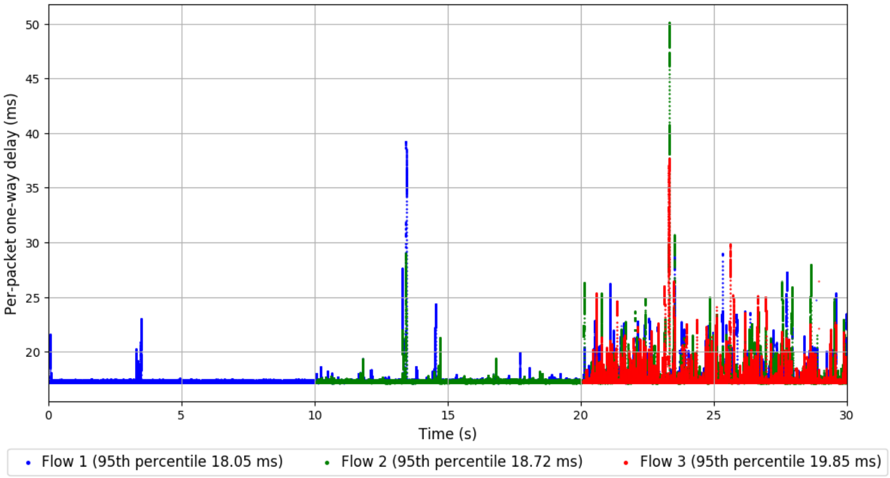
```
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-04 02:33:03
End at: 2018-04-04 02:33:33
Local clock offset: 0.579 ms
Remote clock offset: 0.508 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 457.85 Mbit/s
95th percentile per-packet one-way delay: 18.714 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 242.50 Mbit/s
95th percentile per-packet one-way delay: 18.054 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 225.39 Mbit/s
95th percentile per-packet one-way delay: 18.724 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 197.02 Mbit/s
95th percentile per-packet one-way delay: 19.850 ms
Loss rate: 0.01%
```

Run 10: Report of TaoVA-100x — Data Link



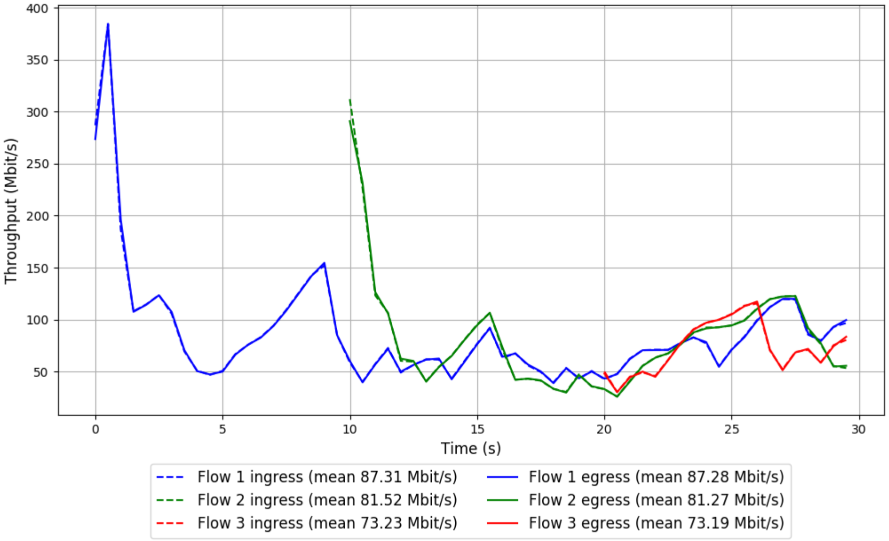


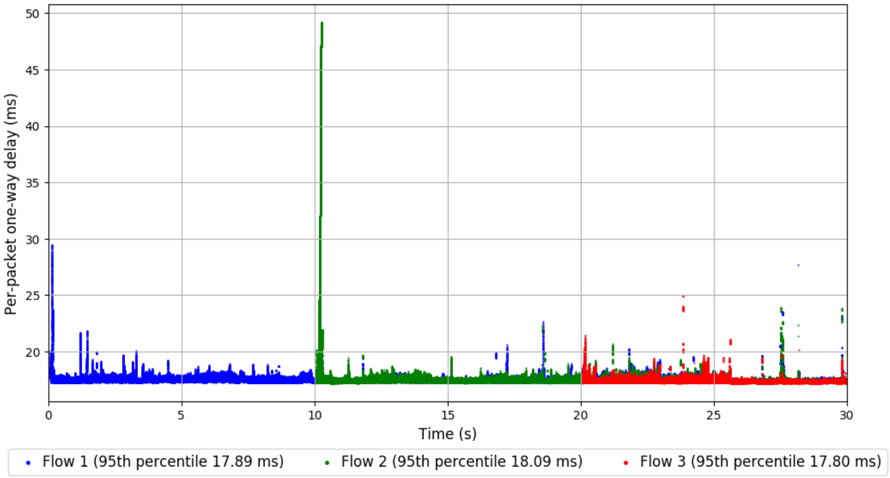
```
Run 1: Statistics of TCP Vegas

Start at: 2018-04-03 22:00:22
End at: 2018-04-03 22:00:52
Local clock offset: 0.751 ms
Remote clock offset: 0.301 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.69 Mbit/s
95th percentile per-packet one-way delay: 17.917 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 87.28 Mbit/s
95th percentile per-packet one-way delay: 17.893 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 81.27 Mbit/s
95th percentile per-packet one-way delay: 18.087 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 73.19 Mbit/s
95th percentile per-packet one-way delay: 17.802 ms
Loss rate: 0.06%
```

Run 1: Report of TCP Vegas — Data Link



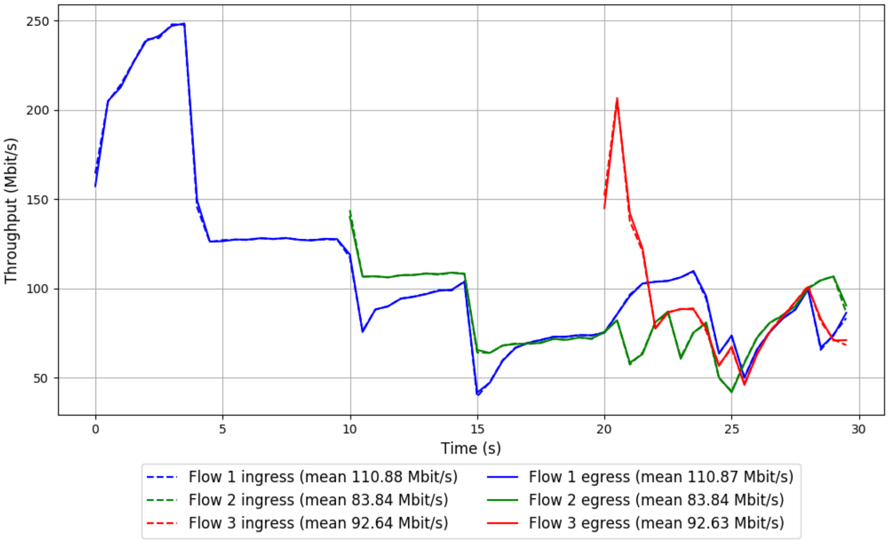


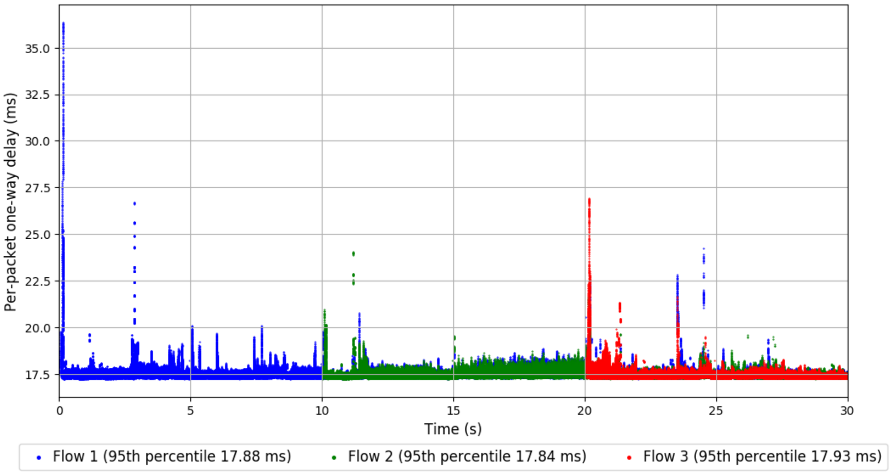
```
Run 2: Statistics of TCP Vegas

Start at: 2018-04-03 22:29:09
End at: 2018-04-03 22:29:39
Local clock offset: 1.053 ms
Remote clock offset: 0.154 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 197.50 Mbit/s
95th percentile per-packet one-way delay: 17.869 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 110.87 Mbit/s
95th percentile per-packet one-way delay: 17.875 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 83.84 Mbit/s
95th percentile per-packet one-way delay: 17.836 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 92.63 Mbit/s
95th percentile per-packet one-way delay: 17.925 ms
Loss rate: 0.01%
```

Run 2: Report of TCP Vegas — Data Link



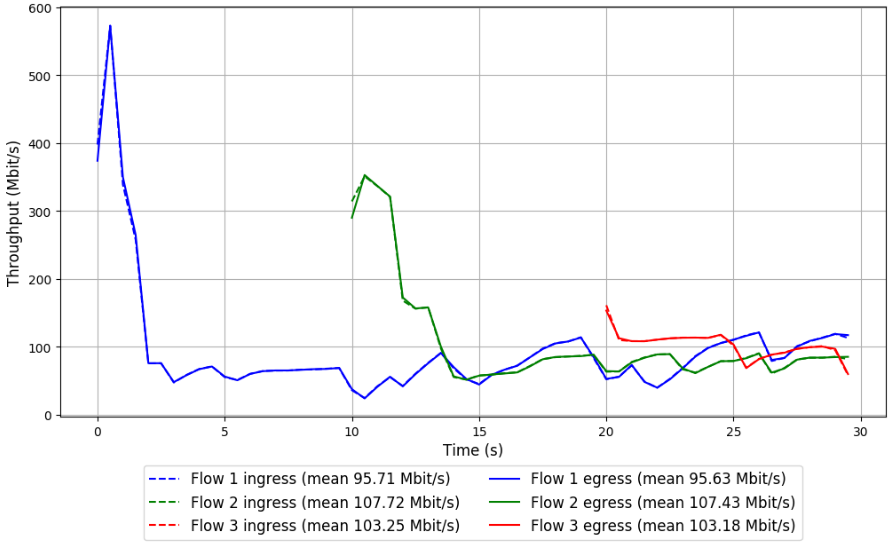


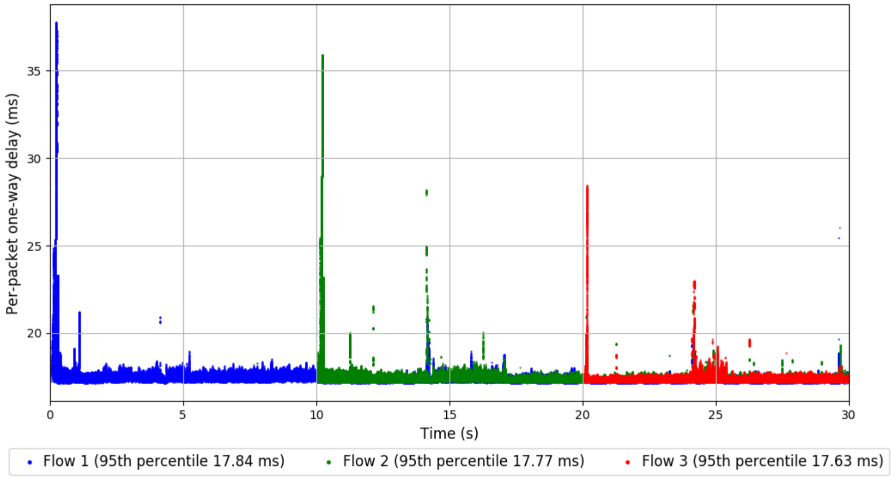
```
Run 3: Statistics of TCP Vegas

Start at: 2018-04-03 22:58:06
End at: 2018-04-03 22:58:36
Local clock offset: 1.416 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 201.46 Mbit/s
95th percentile per-packet one-way delay: 17.788 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 95.63 Mbit/s
95th percentile per-packet one-way delay: 17.841 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 107.43 Mbit/s
95th percentile per-packet one-way delay: 17.775 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 103.18 Mbit/s
95th percentile per-packet one-way delay: 17.627 ms
Loss rate: 0.07%
```

Run 3: Report of TCP Vegas — Data Link



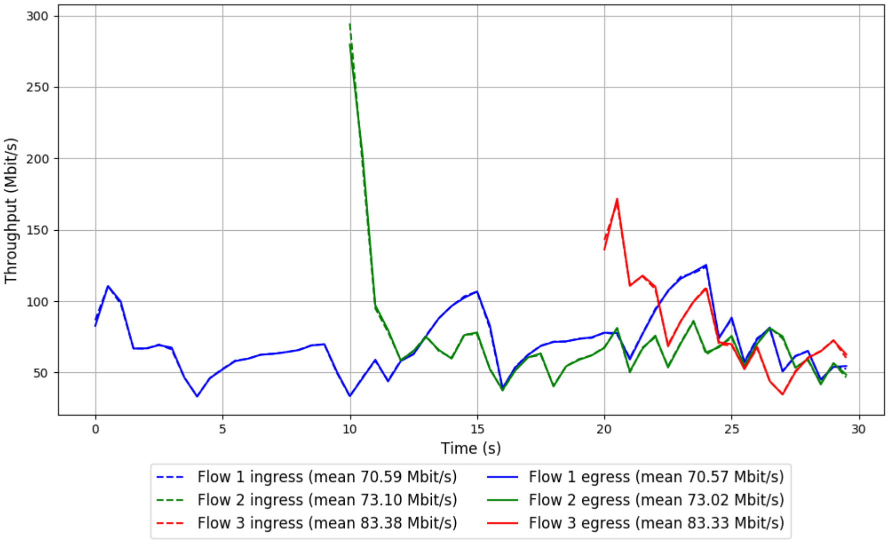


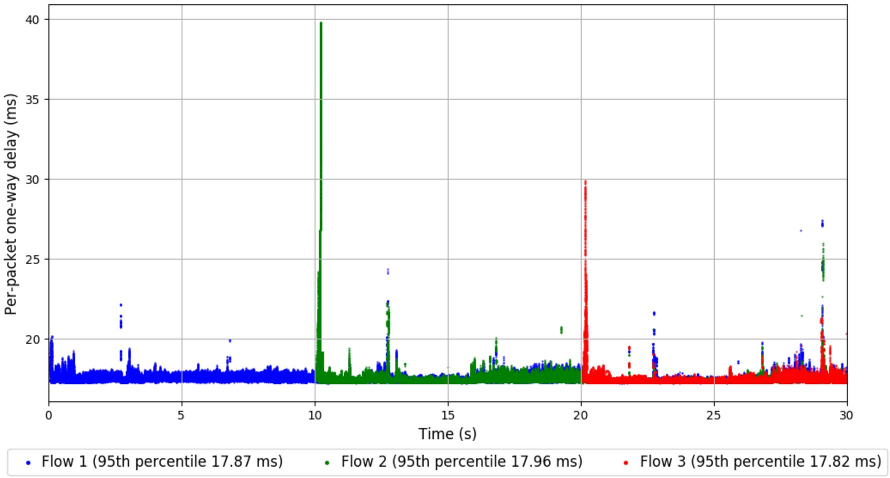
```
Run 4: Statistics of TCP Vegas

Start at: 2018-04-03 23:26:27
End at: 2018-04-03 23:26:57
Local clock offset: 1.473 ms
Remote clock offset: 0.388 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.86 Mbit/s
95th percentile per-packet one-way delay: 17.876 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 70.57 Mbit/s
95th percentile per-packet one-way delay: 17.868 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 73.02 Mbit/s
95th percentile per-packet one-way delay: 17.958 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 83.33 Mbit/s
95th percentile per-packet one-way delay: 17.818 ms
Loss rate: 0.03%
```

Run 4: Report of TCP Vegas — Data Link



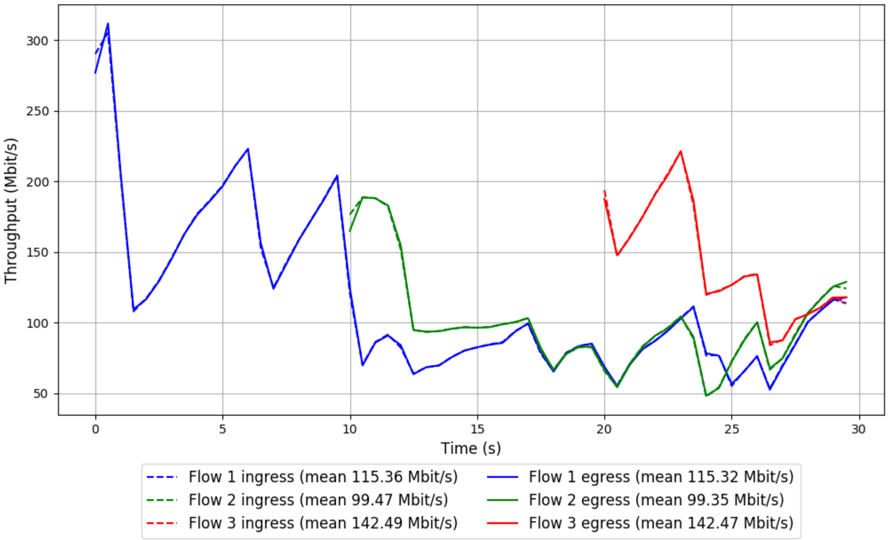


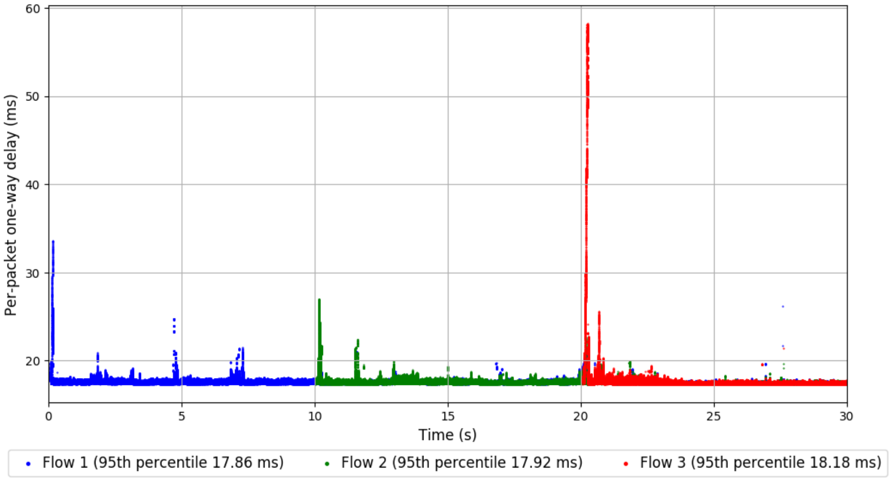
```
Run 5: Statistics of TCP Vegas

Start at: 2018-04-03 23:55:12
End at: 2018-04-03 23:55:42
Local clock offset: 0.722 ms
Remote clock offset: 0.507 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 228.79 Mbit/s
95th percentile per-packet one-way delay: 17.913 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 115.32 Mbit/s
95th percentile per-packet one-way delay: 17.863 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 99.35 Mbit/s
95th percentile per-packet one-way delay: 17.918 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 142.47 Mbit/s
95th percentile per-packet one-way delay: 18.183 ms
Loss rate: 0.02%
```

Run 5: Report of TCP Vegas — Data Link



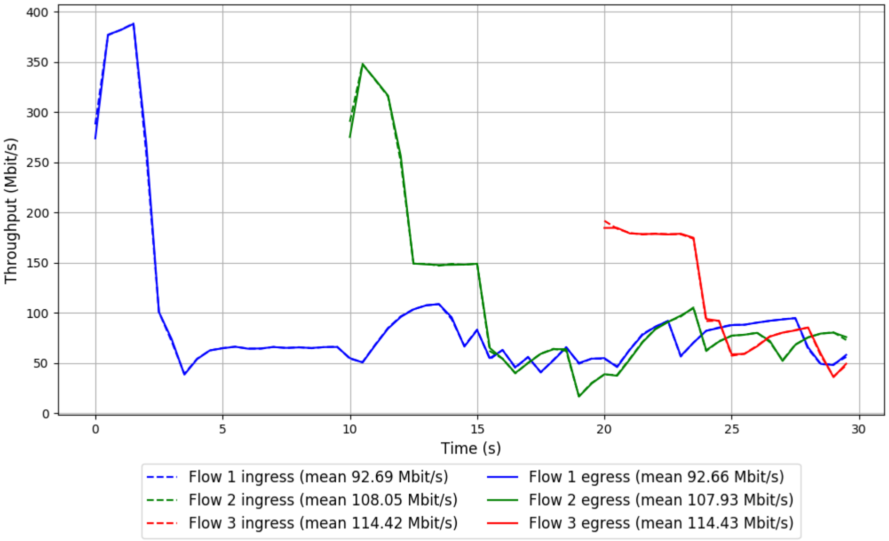


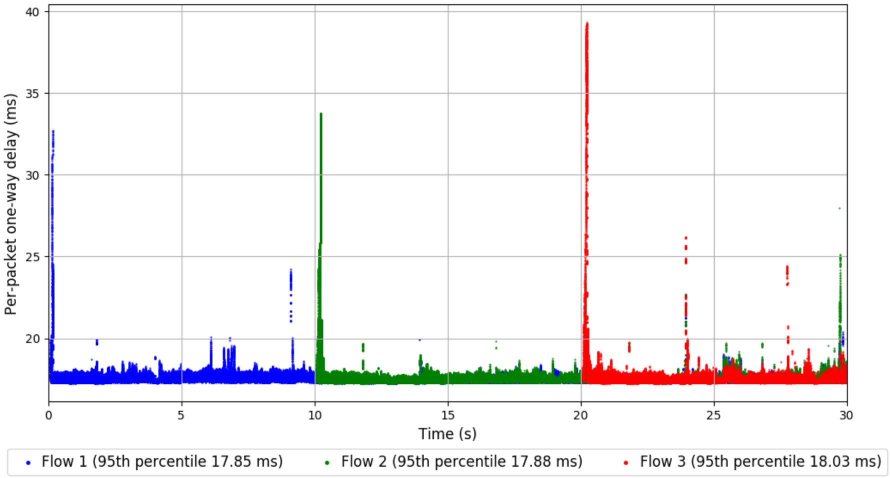
```
Run 6: Statistics of TCP Vegas

Start at: 2018-04-04 00:23:55
End at: 2018-04-04 00:24:25
Local clock offset: 0.268 ms
Remote clock offset: 0.406 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.52 Mbit/s
95th percentile per-packet one-way delay: 17.882 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 92.66 Mbit/s
95th percentile per-packet one-way delay: 17.848 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 107.93 Mbit/s
95th percentile per-packet one-way delay: 17.883 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 114.43 Mbit/s
95th percentile per-packet one-way delay: 18.027 ms
Loss rate: 0.02%
```

Run 6: Report of TCP Vegas — Data Link



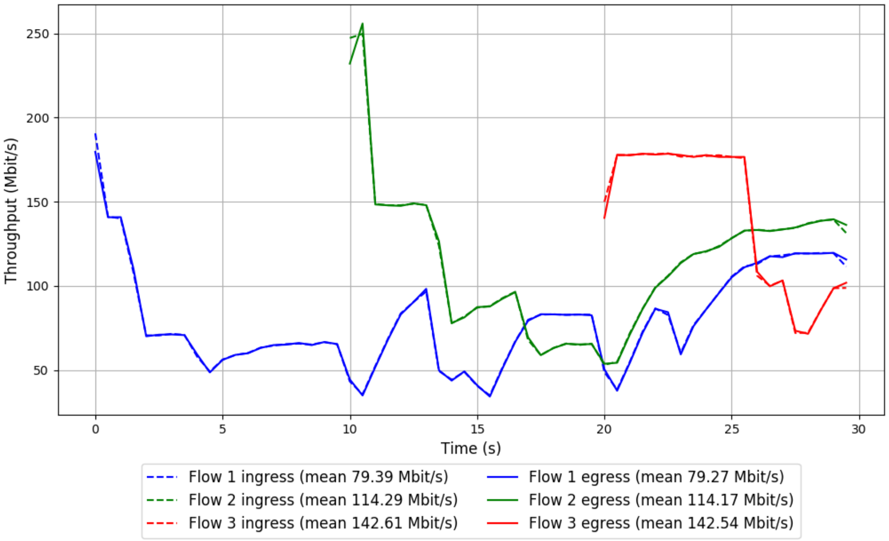


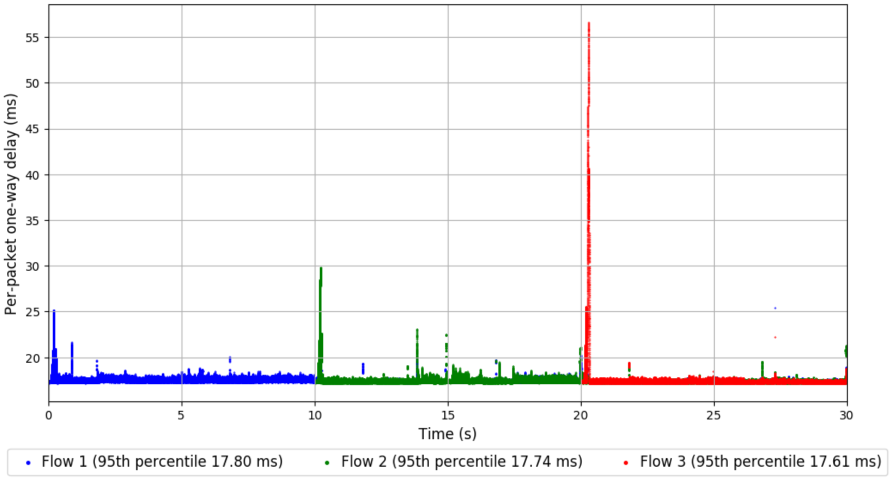
```
Run 7: Statistics of TCP Vegas

Start at: 2018-04-04 00:52:48
End at: 2018-04-04 00:53:18
Local clock offset: 0.169 ms
Remote clock offset: 0.394 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.61 Mbit/s
95th percentile per-packet one-way delay: 17.754 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 79.27 Mbit/s
95th percentile per-packet one-way delay: 17.804 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 114.17 Mbit/s
95th percentile per-packet one-way delay: 17.742 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 142.54 Mbit/s
95th percentile per-packet one-way delay: 17.615 ms
Loss rate: 0.11%
```

Run 7: Report of TCP Vegas — Data Link



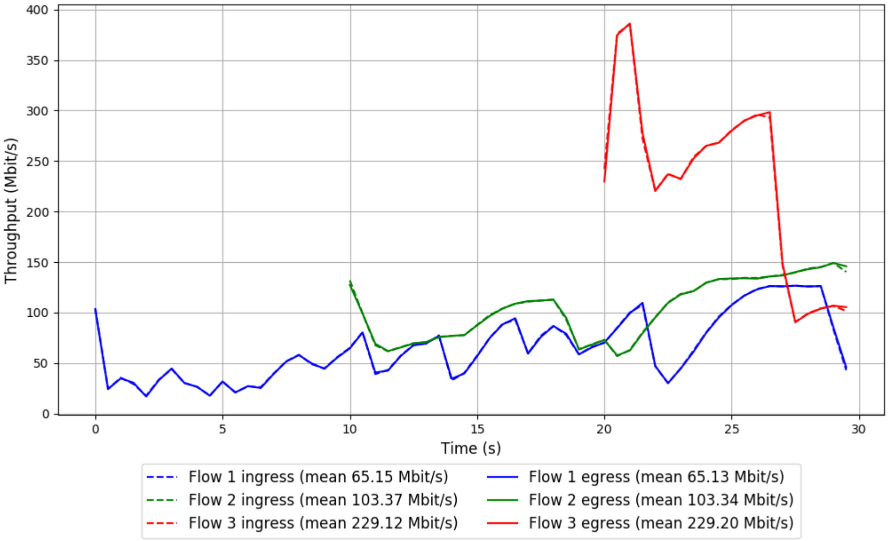


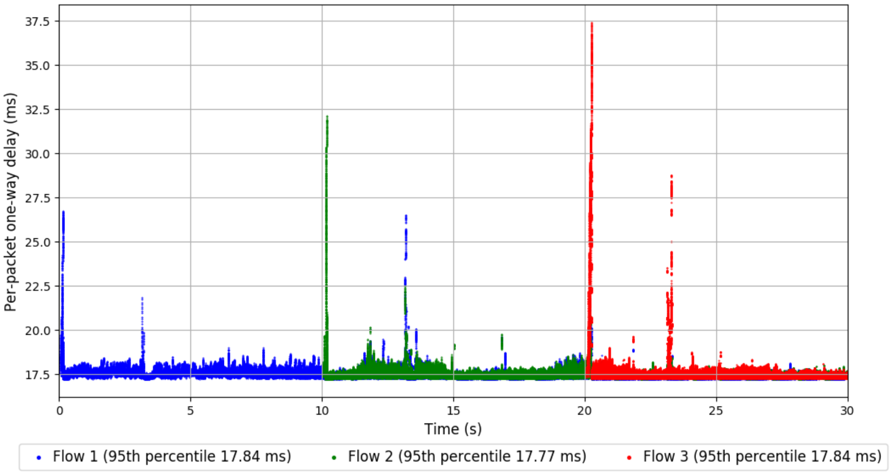
```
Run 8: Statistics of TCP Vegas

Start at: 2018-04-04 01:21:34
End at: 2018-04-04 01:22:04
Local clock offset: 0.189 ms
Remote clock offset: 0.38 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.02 Mbit/s
95th percentile per-packet one-way delay: 17.816 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 65.13 Mbit/s
95th percentile per-packet one-way delay: 17.839 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 103.34 Mbit/s
95th percentile per-packet one-way delay: 17.765 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 229.20 Mbit/s
95th percentile per-packet one-way delay: 17.835 ms
Loss rate: 0.00%
```

Run 8: Report of TCP Vegas — Data Link



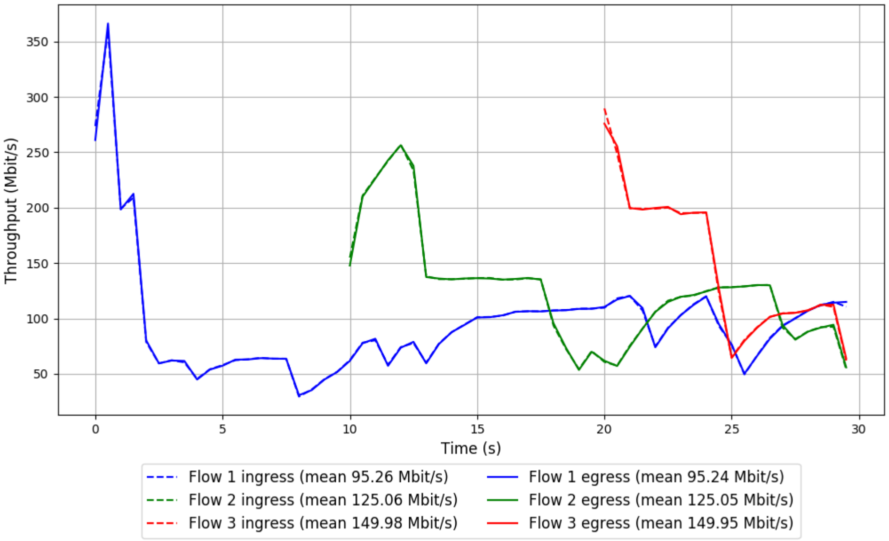


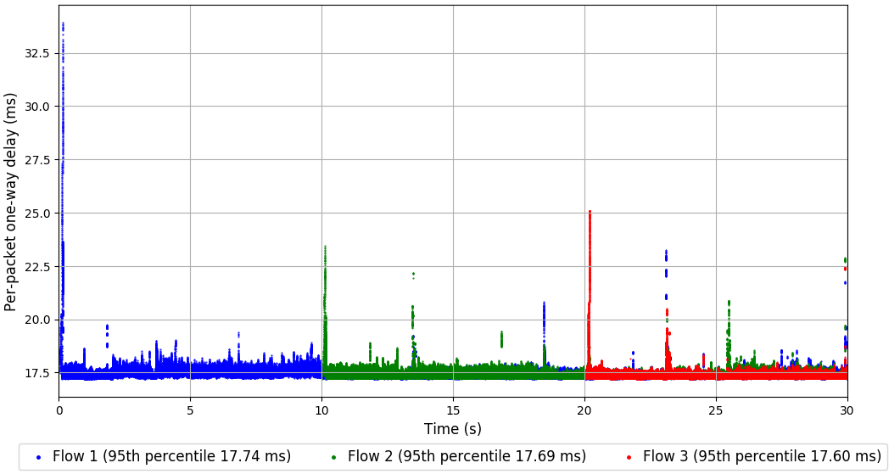
```
Run 9: Statistics of TCP Vegas

Start at: 2018-04-04 01:50:24
End at: 2018-04-04 01:50:54
Local clock offset: 0.156 ms
Remote clock offset: 0.404 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 228.31 Mbit/s
95th percentile per-packet one-way delay: 17.695 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.24 Mbit/s
95th percentile per-packet one-way delay: 17.738 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 125.05 Mbit/s
95th percentile per-packet one-way delay: 17.692 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 149.95 Mbit/s
95th percentile per-packet one-way delay: 17.597 ms
Loss rate: 0.02%
```

Run 9: Report of TCP Vegas — Data Link



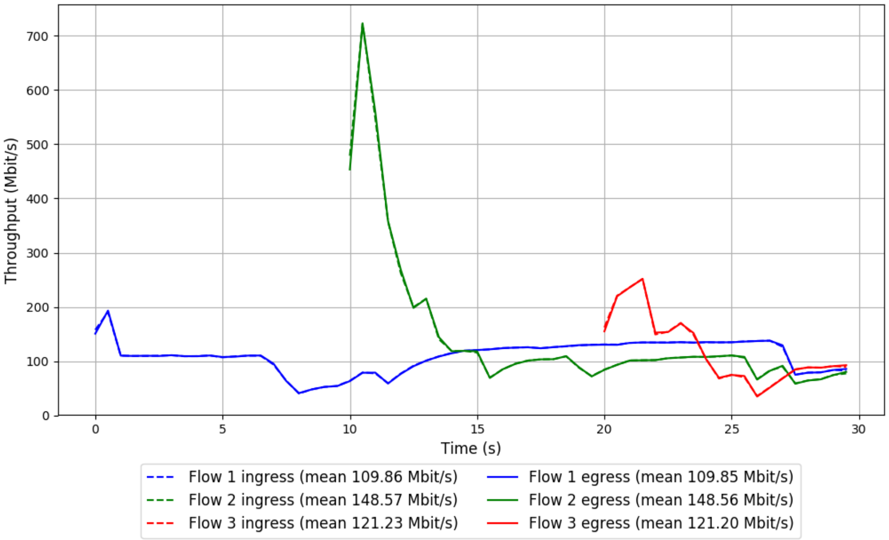


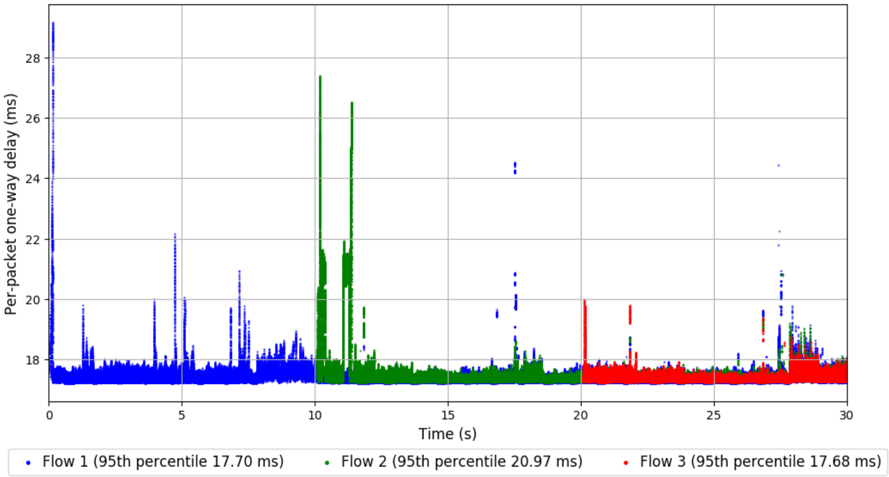
```
Run 10: Statistics of TCP Vegas

Start at: 2018-04-04 02:19:29
End at: 2018-04-04 02:19:59
Local clock offset: 0.452 ms
Remote clock offset: 0.423 ms

# Below is generated by plot.py at 2018-04-04 06:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.03 Mbit/s
95th percentile per-packet one-way delay: 18.132 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 109.85 Mbit/s
95th percentile per-packet one-way delay: 17.697 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 148.56 Mbit/s
95th percentile per-packet one-way delay: 20.967 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 121.20 Mbit/s
95th percentile per-packet one-way delay: 17.683 ms
Loss rate: 0.02%
```

Run 10: Report of TCP Vegas — Data Link



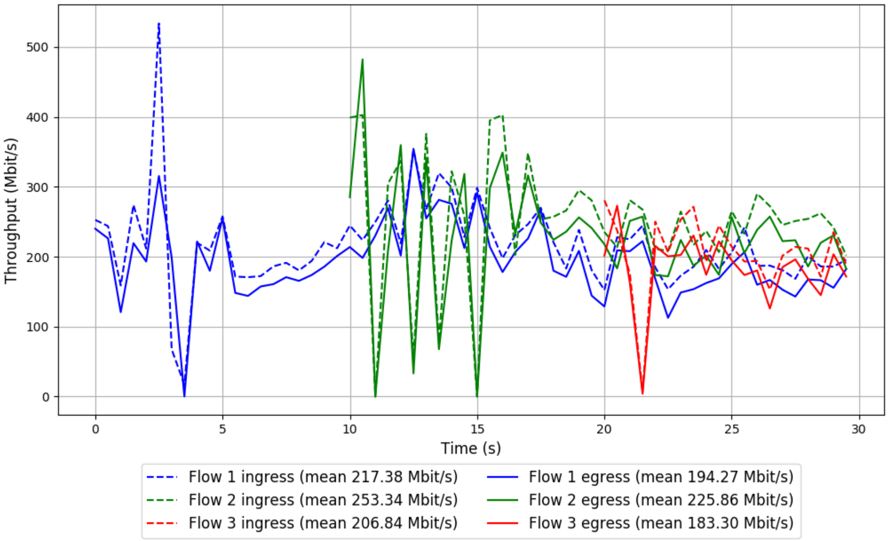


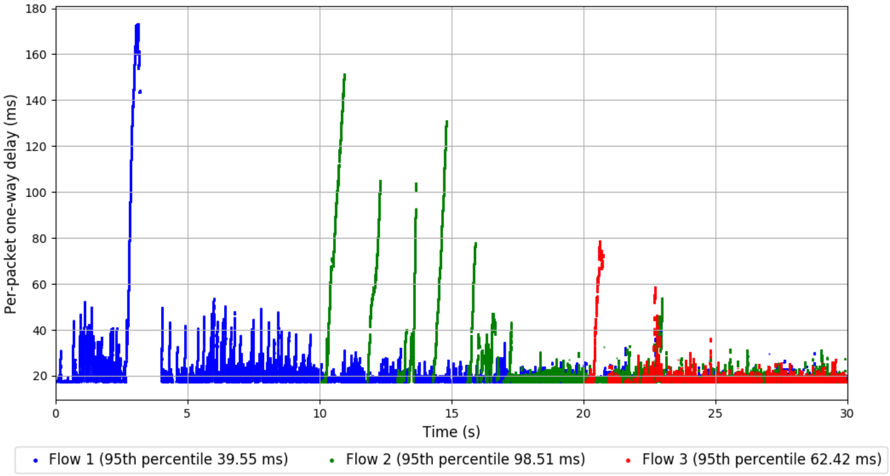
```
Run 1: Statistics of Verus

Start at: 2018-04-03 22:08:38
End at: 2018-04-03 22:09:08
Local clock offset: 0.684 ms
Remote clock offset: 0.304 ms

# Below is generated by plot.py at 2018-04-04 06:29:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 405.00 Mbit/s
95th percentile per-packet one-way delay: 75.369 ms
Loss rate: 10.87%
-- Flow 1:
Average throughput: 194.27 Mbit/s
95th percentile per-packet one-way delay: 39.554 ms
Loss rate: 10.64%
-- Flow 2:
Average throughput: 225.86 Mbit/s
95th percentile per-packet one-way delay: 98.511 ms
Loss rate: 10.95%
-- Flow 3:
Average throughput: 183.30 Mbit/s
95th percentile per-packet one-way delay: 62.417 ms
Loss rate: 11.39%
```

Run 1: Report of Verus — Data Link



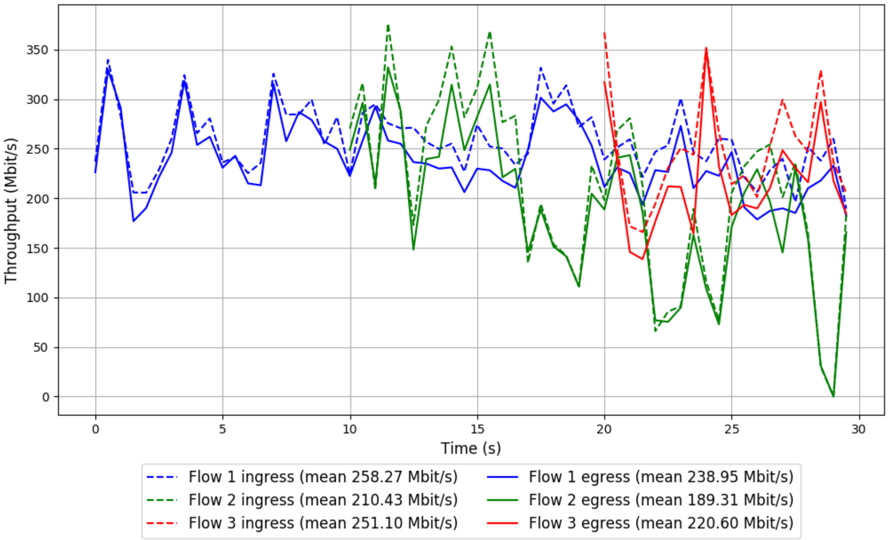


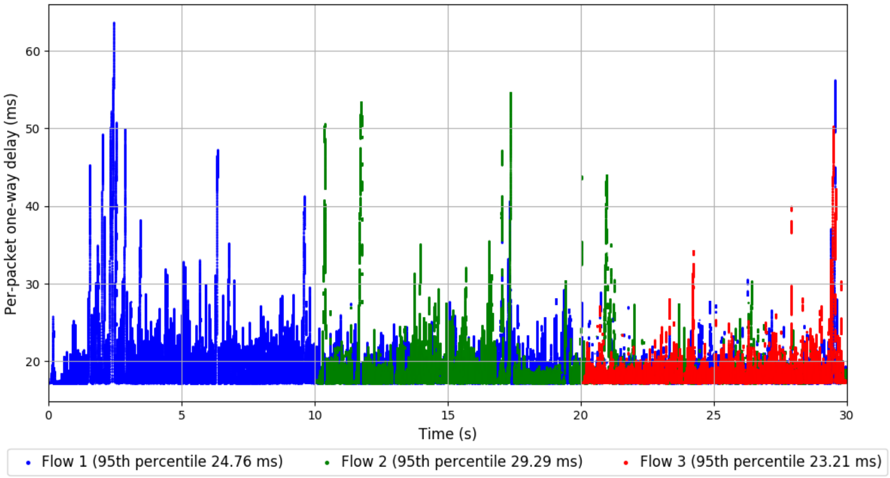
```
Run 2: Statistics of Verus

Start at: 2018-04-03 22:37:31
End at: 2018-04-03 22:38:01
Local clock offset: 1.194 ms
Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-04-04 06:30:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 437.67 Mbit/s
95th percentile per-packet one-way delay: 25.611 ms
Loss rate: 9.02%
-- Flow 1:
Average throughput: 238.95 Mbit/s
95th percentile per-packet one-way delay: 24.761 ms
Loss rate: 7.48%
-- Flow 2:
Average throughput: 189.31 Mbit/s
95th percentile per-packet one-way delay: 29.293 ms
Loss rate: 10.03%
-- Flow 3:
Average throughput: 220.60 Mbit/s
95th percentile per-packet one-way delay: 23.214 ms
Loss rate: 12.14%
```

Run 2: Report of Verus — Data Link



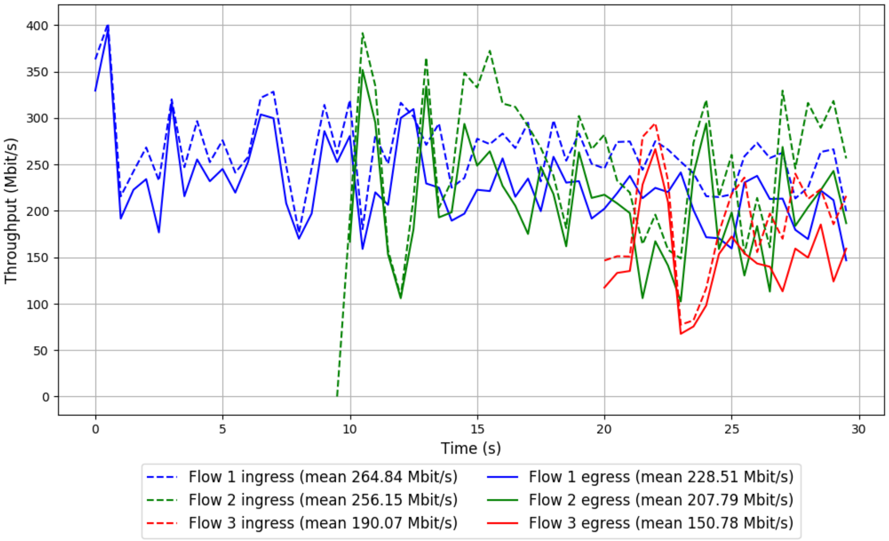


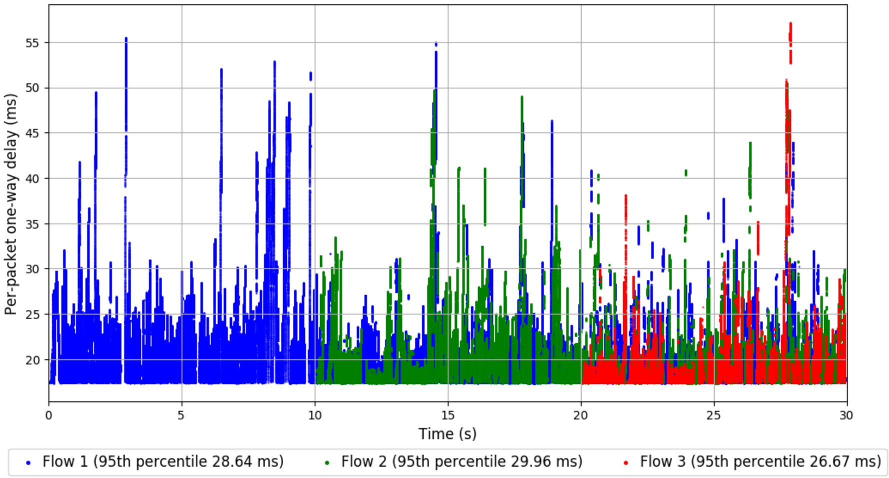
```
Run 3: Statistics of Verus

Start at: 2018-04-03 23:06:22
End at: 2018-04-03 23:06:52
Local clock offset: 1.258 ms
Remote clock offset: 0.198 ms

# Below is generated by plot.py at 2018-04-04 06:30:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 416.57 Mbit/s
95th percentile per-packet one-way delay: 29.091 ms
Loss rate: 16.34%
-- Flow 1:
Average throughput: 228.51 Mbit/s
95th percentile per-packet one-way delay: 28.641 ms
Loss rate: 13.72%
-- Flow 2:
Average throughput: 207.79 Mbit/s
95th percentile per-packet one-way delay: 29.961 ms
Loss rate: 18.83%
-- Flow 3:
Average throughput: 150.78 Mbit/s
95th percentile per-packet one-way delay: 26.674 ms
Loss rate: 20.66%
```

Run 3: Report of Verus — Data Link



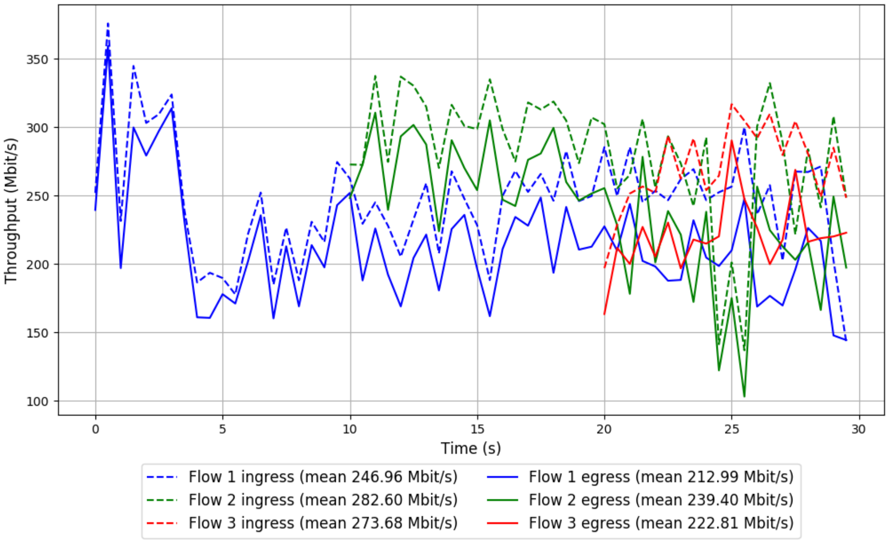


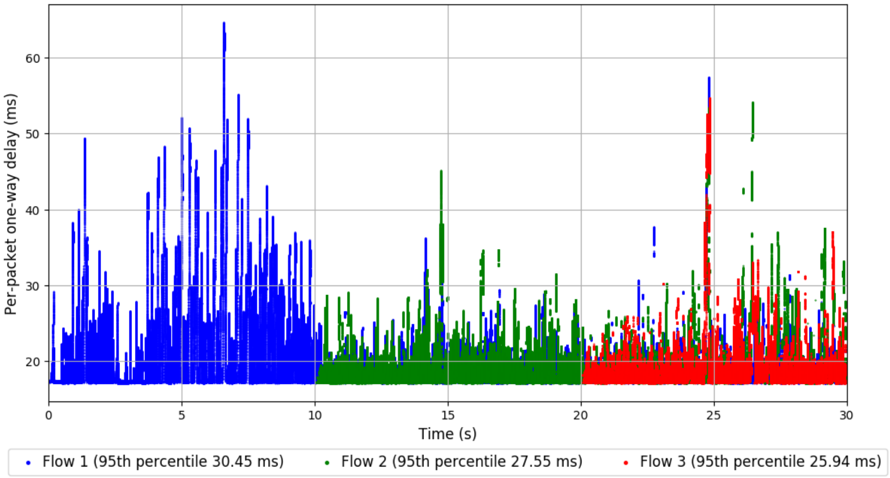
```
Run 4: Statistics of Verus

Start at: 2018-04-03 23:34:45
End at: 2018-04-03 23:35:15
Local clock offset: 1.156 ms
Remote clock offset: 0.389 ms

# Below is generated by plot.py at 2018-04-04 06:30:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.04 Mbit/s
95th percentile per-packet one-way delay: 28.410 ms
Loss rate: 15.13%
-- Flow 1:
Average throughput: 212.99 Mbit/s
95th percentile per-packet one-way delay: 30.451 ms
Loss rate: 13.75%
-- Flow 2:
Average throughput: 239.40 Mbit/s
95th percentile per-packet one-way delay: 27.551 ms
Loss rate: 15.29%
-- Flow 3:
Average throughput: 222.81 Mbit/s
95th percentile per-packet one-way delay: 25.943 ms
Loss rate: 18.56%
```

Run 4: Report of Verus — Data Link



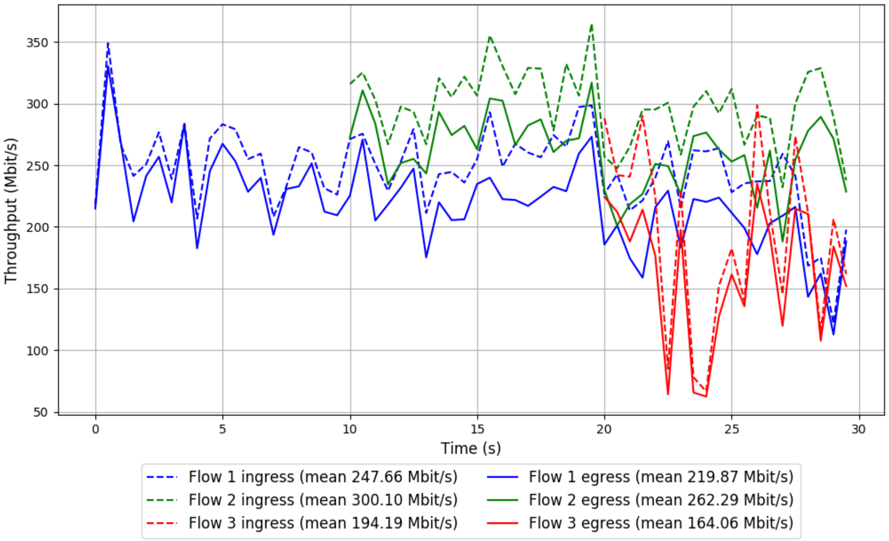


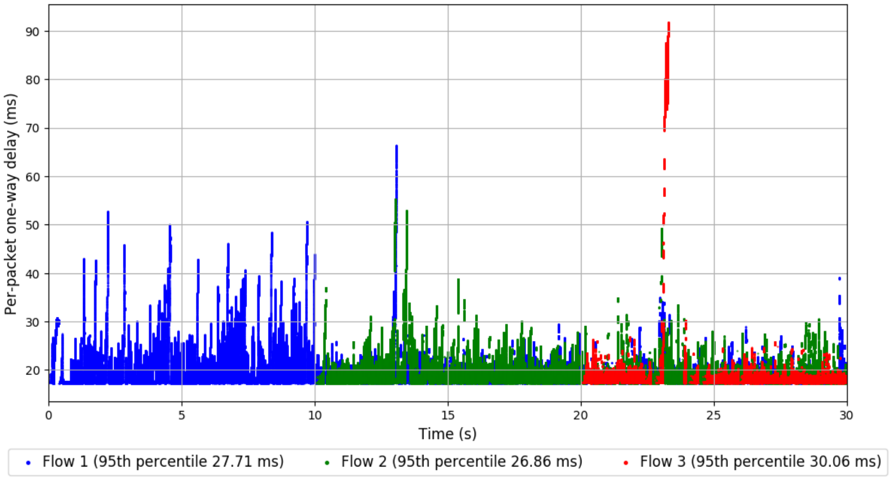
```
Run 5: Statistics of Verus

Start at: 2018-04-04 00:03:36
End at: 2018-04-04 00:04:06
Local clock offset: 0.685 ms
Remote clock offset: 0.517 ms

# Below is generated by plot.py at 2018-04-04 06:31:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 448.45 Mbit/s
95th percentile per-packet one-way delay: 27.320 ms
Loss rate: 12.29%
-- Flow 1:
Average throughput: 219.87 Mbit/s
95th percentile per-packet one-way delay: 27.708 ms
Loss rate: 11.22%
-- Flow 2:
Average throughput: 262.29 Mbit/s
95th percentile per-packet one-way delay: 26.859 ms
Loss rate: 12.59%
-- Flow 3:
Average throughput: 164.06 Mbit/s
95th percentile per-packet one-way delay: 30.057 ms
Loss rate: 15.50%
```

Run 5: Report of Verus — Data Link



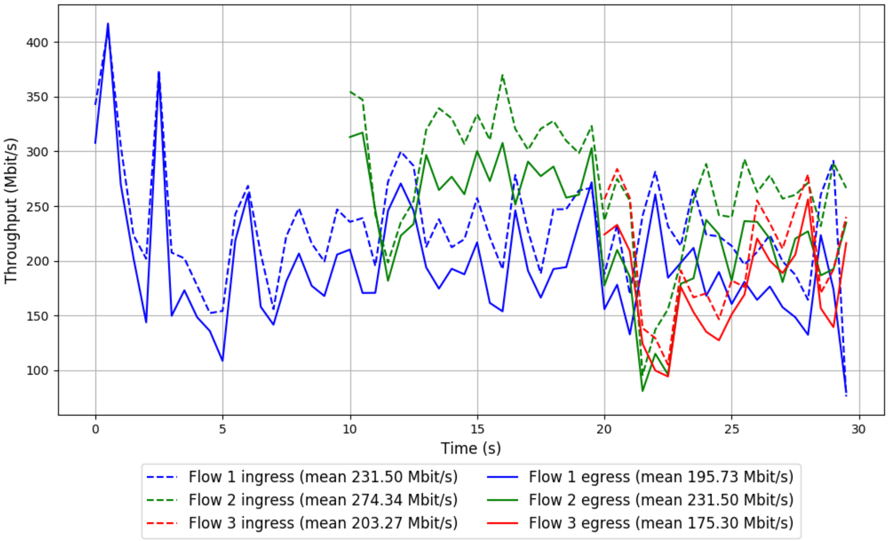


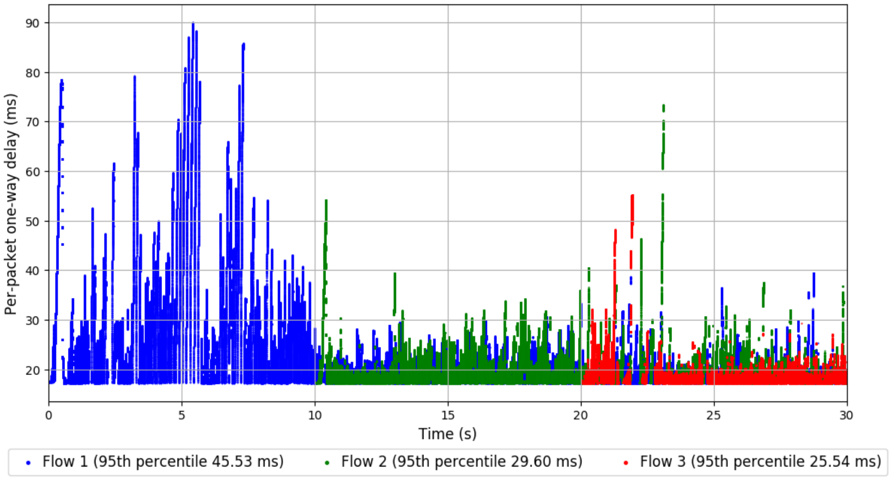
```
Run 6: Statistics of Verus

Start at: 2018-04-04 00:32:15
End at: 2018-04-04 00:32:45
Local clock offset: 0.214 ms
Remote clock offset: 0.453 ms

# Below is generated by plot.py at 2018-04-04 06:32:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 407.75 Mbit/s
95th percentile per-packet one-way delay: 35.534 ms
Loss rate: 15.27%
-- Flow 1:
Average throughput: 195.73 Mbit/s
95th percentile per-packet one-way delay: 45.527 ms
Loss rate: 15.45%
-- Flow 2:
Average throughput: 231.50 Mbit/s
95th percentile per-packet one-way delay: 29.600 ms
Loss rate: 15.61%
-- Flow 3:
Average throughput: 175.30 Mbit/s
95th percentile per-packet one-way delay: 25.538 ms
Loss rate: 13.73%
```

Run 6: Report of Verus — Data Link



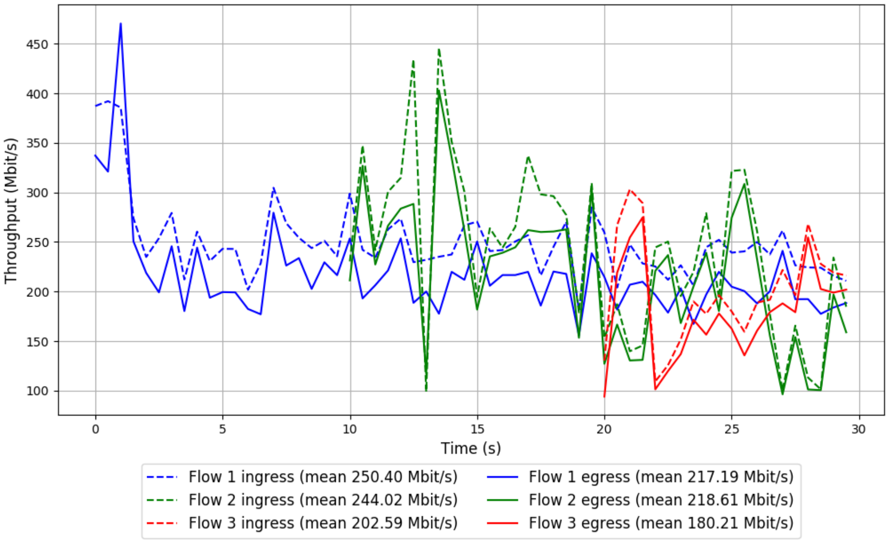


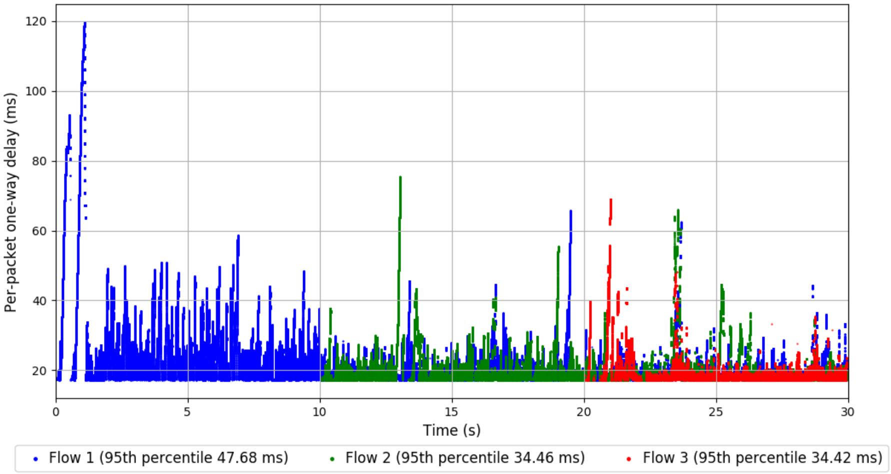
```
Run 7: Statistics of Verus

Start at: 2018-04-04 01:01:09
End at: 2018-04-04 01:01:39
Local clock offset: -0.097 ms
Remote clock offset: 0.343 ms

# Below is generated by plot.py at 2018-04-04 06:33:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.22 Mbit/s
95th percentile per-packet one-way delay: 39.703 ms
Loss rate: 11.98%
-- Flow 1:
Average throughput: 217.19 Mbit/s
95th percentile per-packet one-way delay: 47.678 ms
Loss rate: 13.25%
-- Flow 2:
Average throughput: 218.61 Mbit/s
95th percentile per-packet one-way delay: 34.458 ms
Loss rate: 10.42%
-- Flow 3:
Average throughput: 180.21 Mbit/s
95th percentile per-packet one-way delay: 34.425 ms
Loss rate: 10.99%
```

Run 7: Report of Verus — Data Link



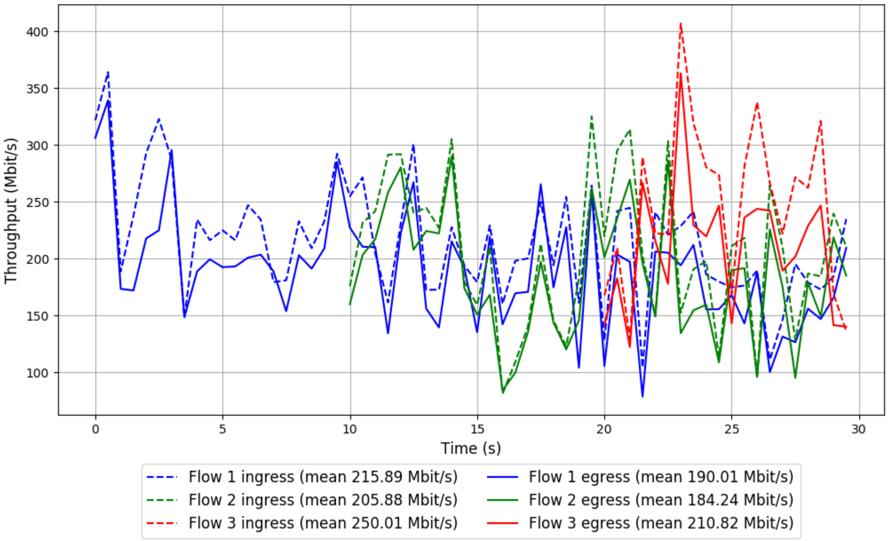


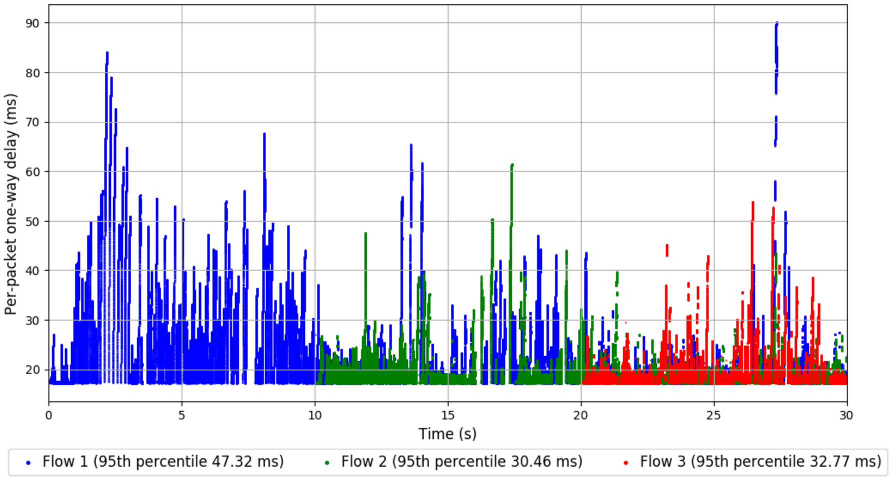
```
Run 8: Statistics of Verus

Start at: 2018-04-04 01:30:00
End at: 2018-04-04 01:30:30
Local clock offset: 0.184 ms
Remote clock offset: 0.318 ms

# Below is generated by plot.py at 2018-04-04 06:35:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.46 Mbit/s
95th percentile per-packet one-way delay: 40.042 ms
Loss rate: 12.21%
-- Flow 1:
Average throughput: 190.01 Mbit/s
95th percentile per-packet one-way delay: 47.321 ms
Loss rate: 11.98%
-- Flow 2:
Average throughput: 184.24 Mbit/s
95th percentile per-packet one-way delay: 30.462 ms
Loss rate: 10.50%
-- Flow 3:
Average throughput: 210.82 Mbit/s
95th percentile per-packet one-way delay: 32.772 ms
Loss rate: 15.66%
```

Run 8: Report of Verus — Data Link



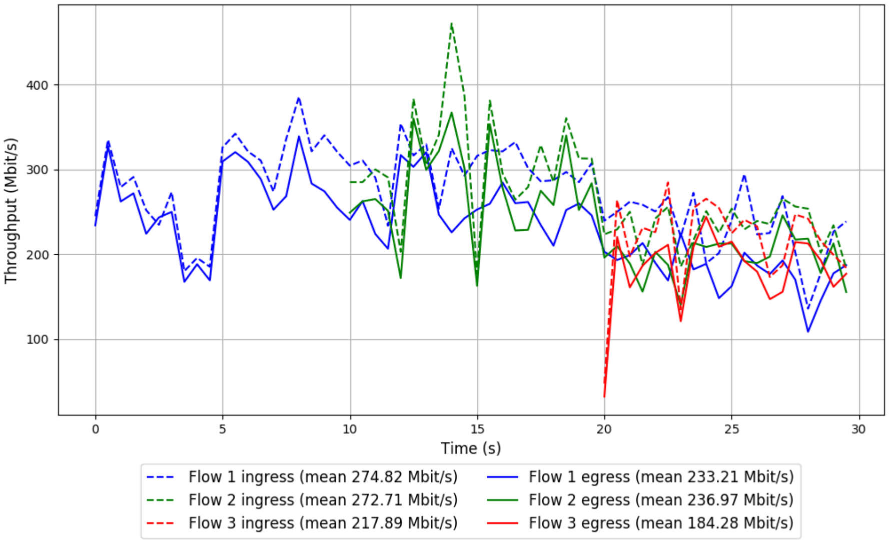


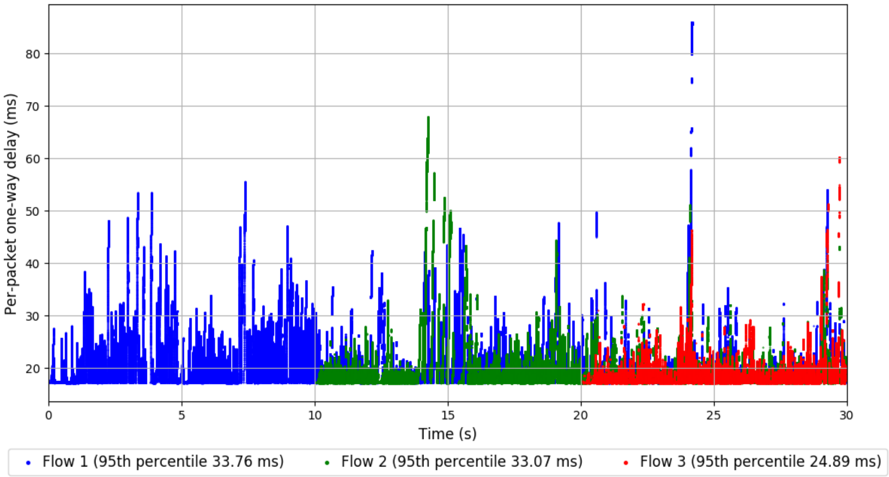
```
Run 9: Statistics of Verus

Start at: 2018-04-04 01:58:48
End at: 2018-04-04 01:59:18
Local clock offset: 0.094 ms
Remote clock offset: 0.357 ms

# Below is generated by plot.py at 2018-04-04 06:37:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.73 Mbit/s
95th percentile per-packet one-way delay: 32.738 ms
Loss rate: 14.48%
-- Flow 1:
Average throughput: 233.21 Mbit/s
95th percentile per-packet one-way delay: 33.762 ms
Loss rate: 15.14%
-- Flow 2:
Average throughput: 236.97 Mbit/s
95th percentile per-packet one-way delay: 33.070 ms
Loss rate: 13.10%
-- Flow 3:
Average throughput: 184.28 Mbit/s
95th percentile per-packet one-way delay: 24.885 ms
Loss rate: 15.41%
```

Run 9: Report of Verus — Data Link



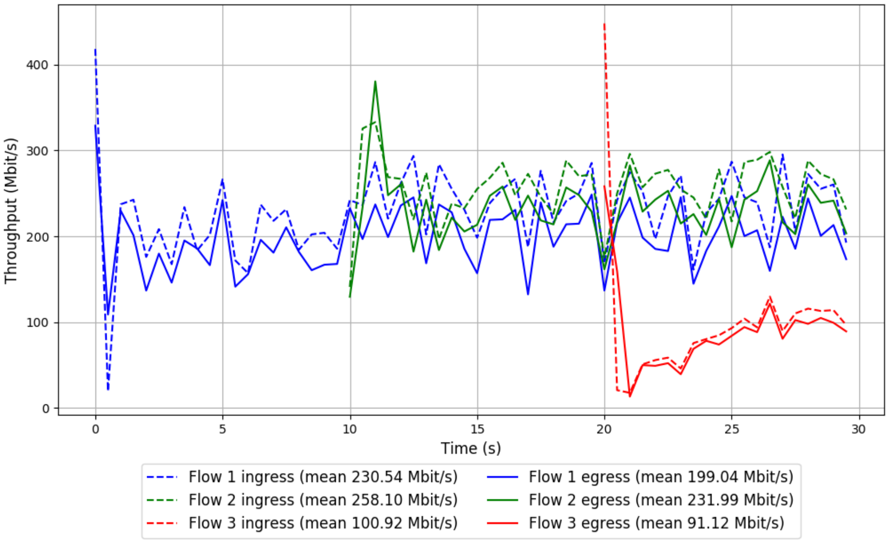


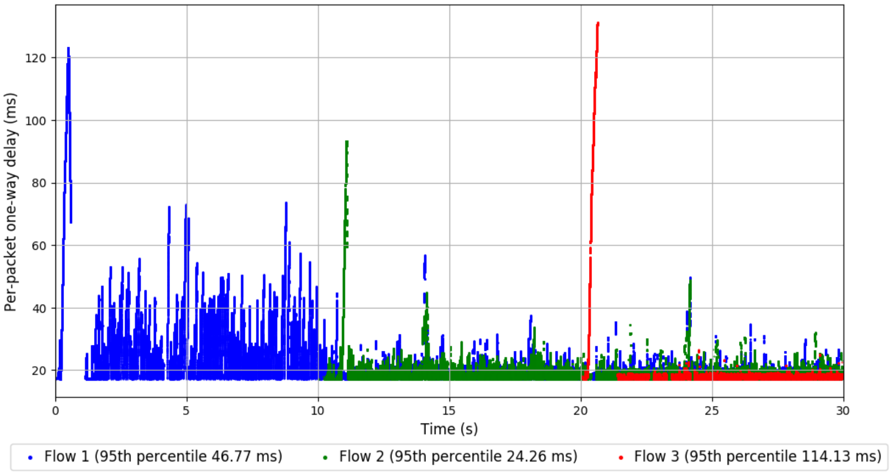
```
Run 10: Statistics of Verus

Start at: 2018-04-04 02:27:52
End at: 2018-04-04 02:28:22
Local clock offset: 0.574 ms
Remote clock offset: 0.467 ms

# Below is generated by plot.py at 2018-04-04 06:37:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 383.64 Mbit/s
95th percentile per-packet one-way delay: 44.239 ms
Loss rate: 11.95%
-- Flow 1:
Average throughput: 199.04 Mbit/s
95th percentile per-packet one-way delay: 46.766 ms
Loss rate: 13.66%
-- Flow 2:
Average throughput: 231.99 Mbit/s
95th percentile per-packet one-way delay: 24.256 ms
Loss rate: 10.09%
-- Flow 3:
Average throughput: 91.12 Mbit/s
95th percentile per-packet one-way delay: 114.128 ms
Loss rate: 9.66%
```

Run 10: Report of Verus — Data Link



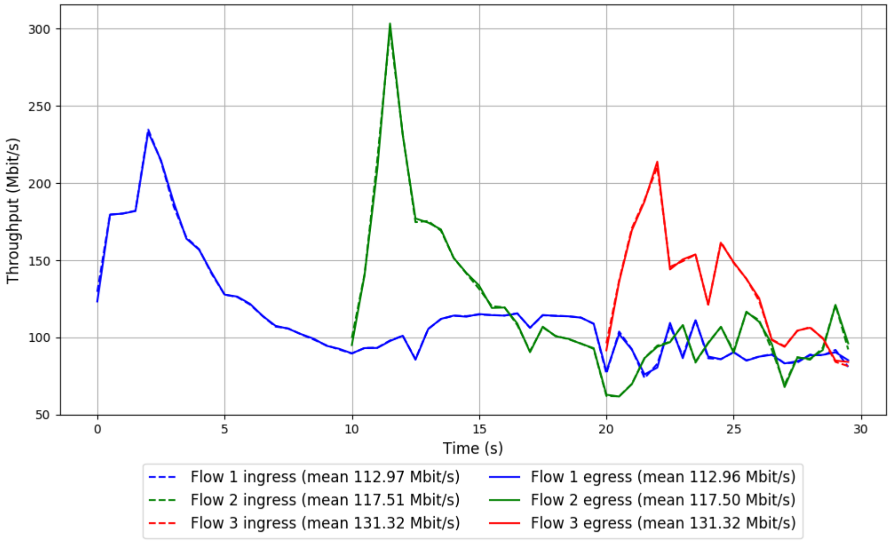


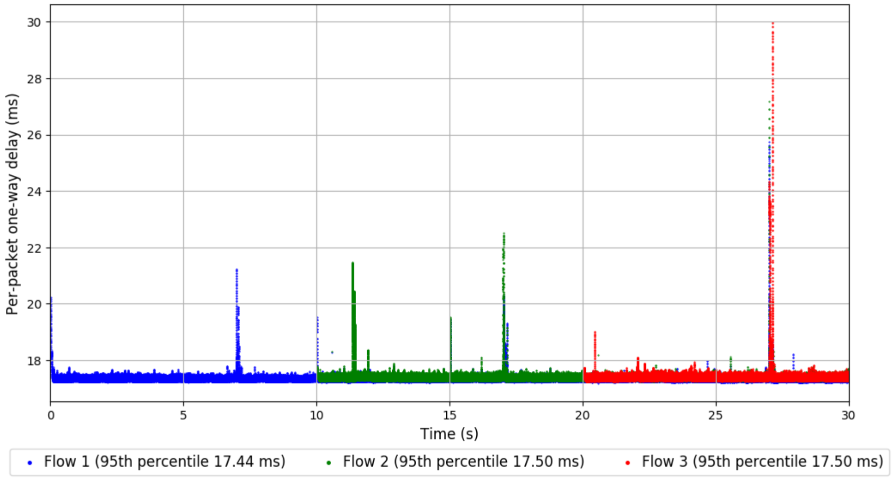
```
Run 1: Statistics of Copa

Start at: 2018-04-03 22:03:24
End at: 2018-04-03 22:03:54
Local clock offset: 0.802 ms
Remote clock offset: 0.364 ms

# Below is generated by plot.py at 2018-04-04 06:37:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 234.83 Mbit/s
95th percentile per-packet one-way delay: 17.477 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 112.96 Mbit/s
95th percentile per-packet one-way delay: 17.441 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 117.50 Mbit/s
95th percentile per-packet one-way delay: 17.497 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 131.32 Mbit/s
95th percentile per-packet one-way delay: 17.502 ms
Loss rate: 0.01%
```

Run 1: Report of Copa — Data Link



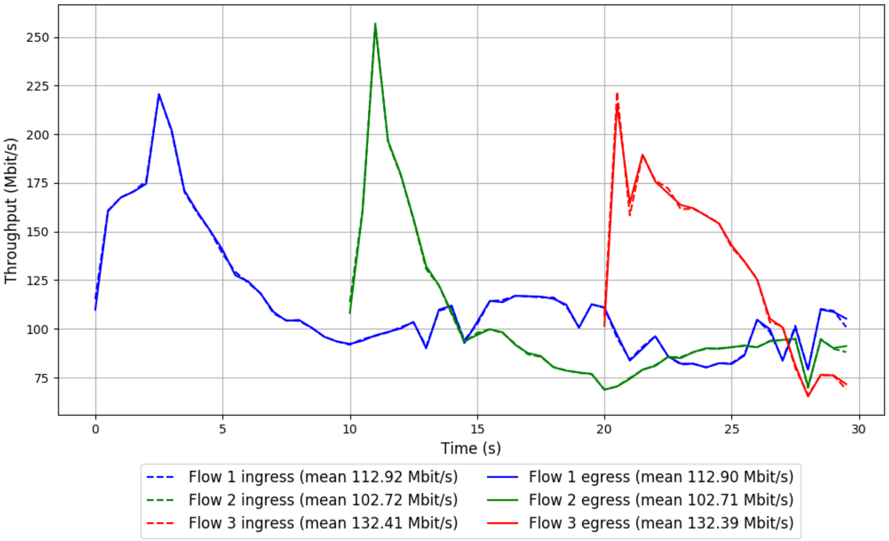


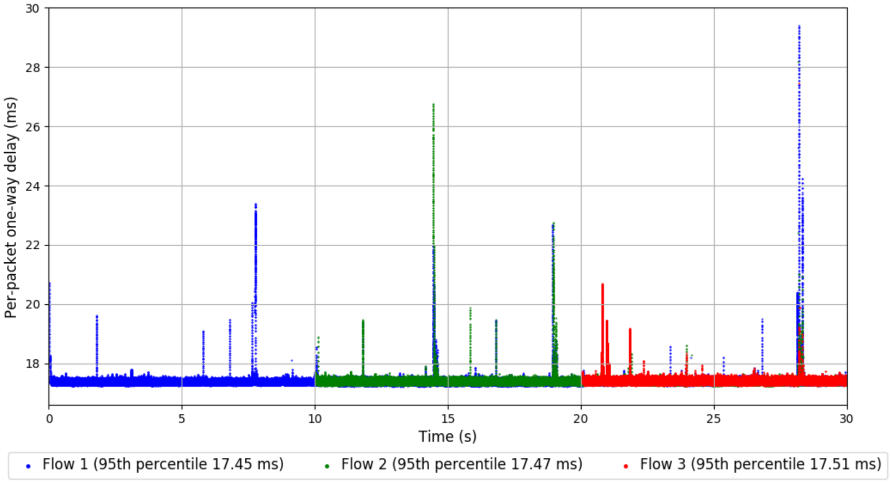
```
Run 2: Statistics of Copa

Start at: 2018-04-03 22:32:12
End at: 2018-04-03 22:32:42
Local clock offset: 1.092 ms
Remote clock offset: 0.146 ms

# Below is generated by plot.py at 2018-04-04 06:37:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.24 Mbit/s
95th percentile per-packet one-way delay: 17.473 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 112.90 Mbit/s
95th percentile per-packet one-way delay: 17.455 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 102.71 Mbit/s
95th percentile per-packet one-way delay: 17.470 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 132.39 Mbit/s
95th percentile per-packet one-way delay: 17.508 ms
Loss rate: 0.02%
```

Run 2: Report of Copa — Data Link



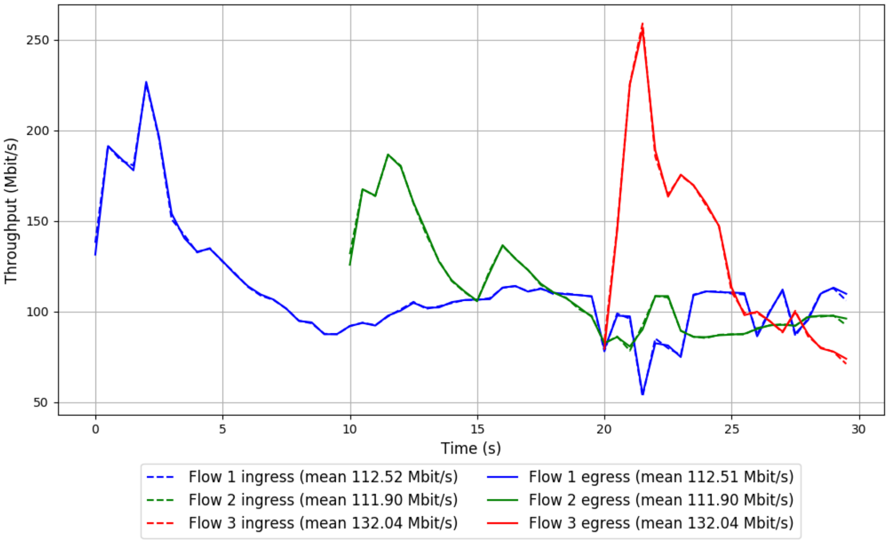


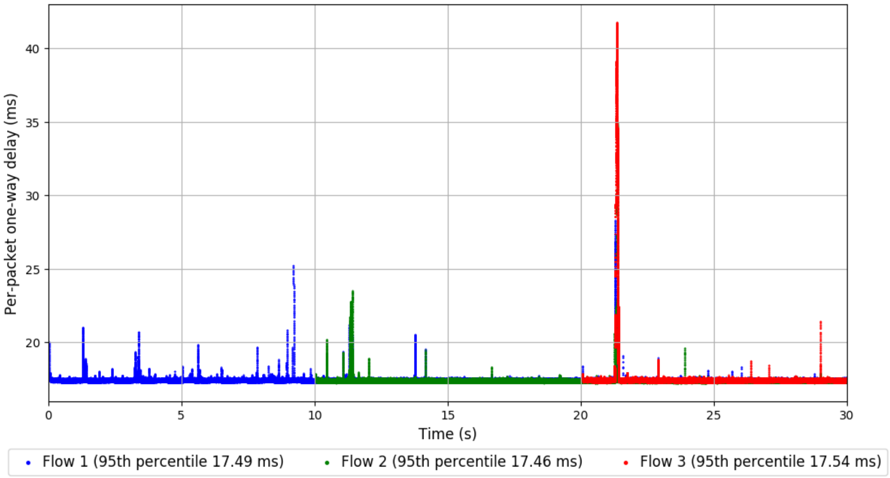
```
Run 3: Statistics of Copa

Start at: 2018-04-03 23:01:09
End at: 2018-04-03 23:01:39
Local clock offset: 1.381 ms
Remote clock offset: 0.143 ms

# Below is generated by plot.py at 2018-04-04 06:37:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 230.78 Mbit/s
95th percentile per-packet one-way delay: 17.487 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 112.51 Mbit/s
95th percentile per-packet one-way delay: 17.486 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 111.90 Mbit/s
95th percentile per-packet one-way delay: 17.460 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.04 Mbit/s
95th percentile per-packet one-way delay: 17.537 ms
Loss rate: 0.01%
```

Run 3: Report of Copa — Data Link



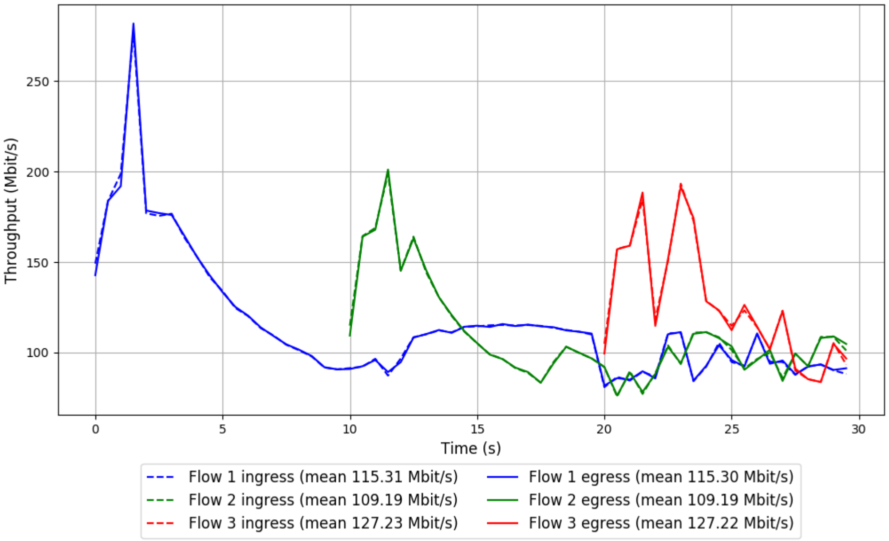


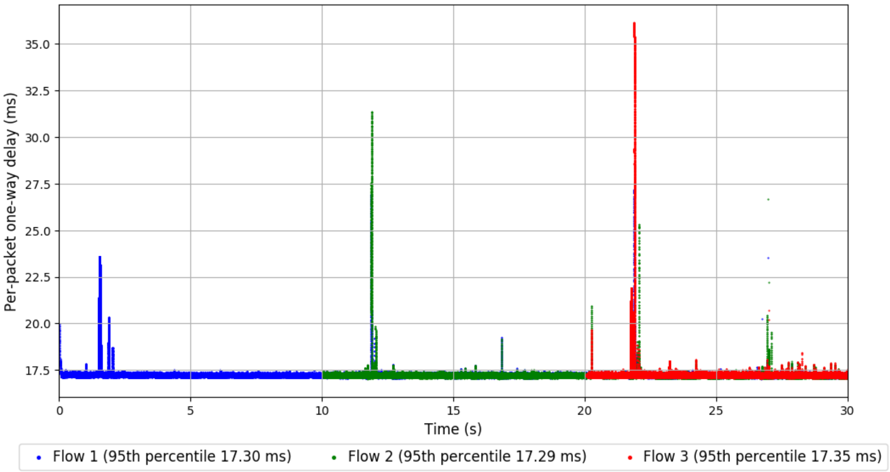
```
Run 4: Statistics of Copa

Start at: 2018-04-03 23:29:27
End at: 2018-04-03 23:29:57
Local clock offset: 1.447 ms
Remote clock offset: 0.345 ms

# Below is generated by plot.py at 2018-04-04 06:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 230.17 Mbit/s
95th percentile per-packet one-way delay: 17.307 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 115.30 Mbit/s
95th percentile per-packet one-way delay: 17.305 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 109.19 Mbit/s
95th percentile per-packet one-way delay: 17.288 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 127.22 Mbit/s
95th percentile per-packet one-way delay: 17.350 ms
Loss rate: 0.01%
```

Run 4: Report of Copa — Data Link



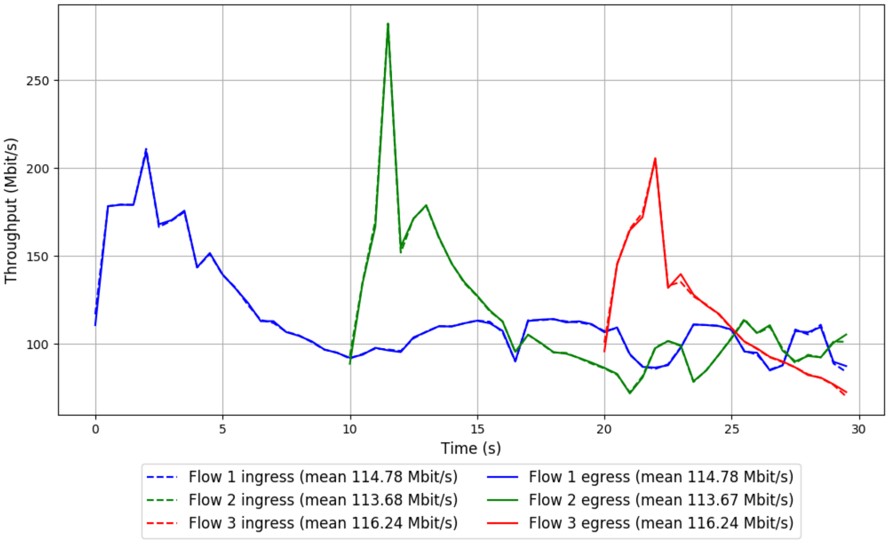


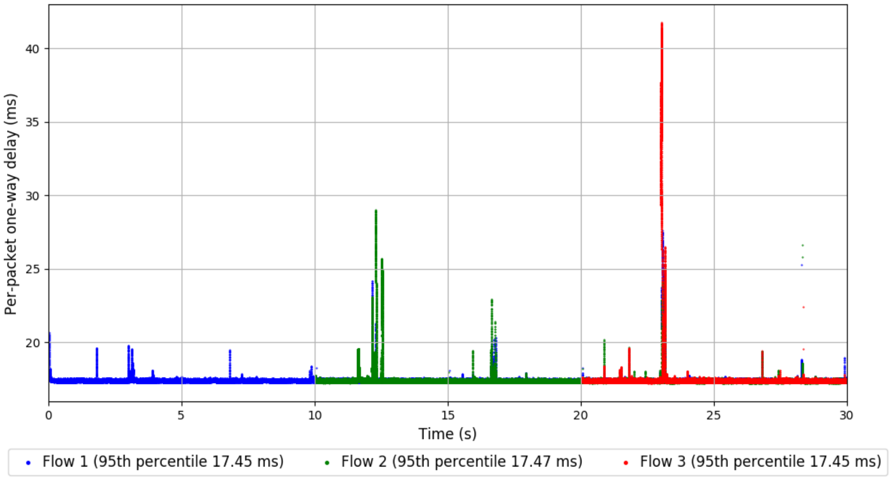
```
Run 5: Statistics of Copa

Start at: 2018-04-03 23:58:16
End at: 2018-04-03 23:58:46
Local clock offset: 0.731 ms
Remote clock offset: 0.446 ms

# Below is generated by plot.py at 2018-04-04 06:39:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 229.03 Mbit/s
95th percentile per-packet one-way delay: 17.454 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 114.78 Mbit/s
95th percentile per-packet one-way delay: 17.446 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 113.67 Mbit/s
95th percentile per-packet one-way delay: 17.471 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 116.24 Mbit/s
95th percentile per-packet one-way delay: 17.451 ms
Loss rate: 0.01%
```

Run 5: Report of Copa — Data Link



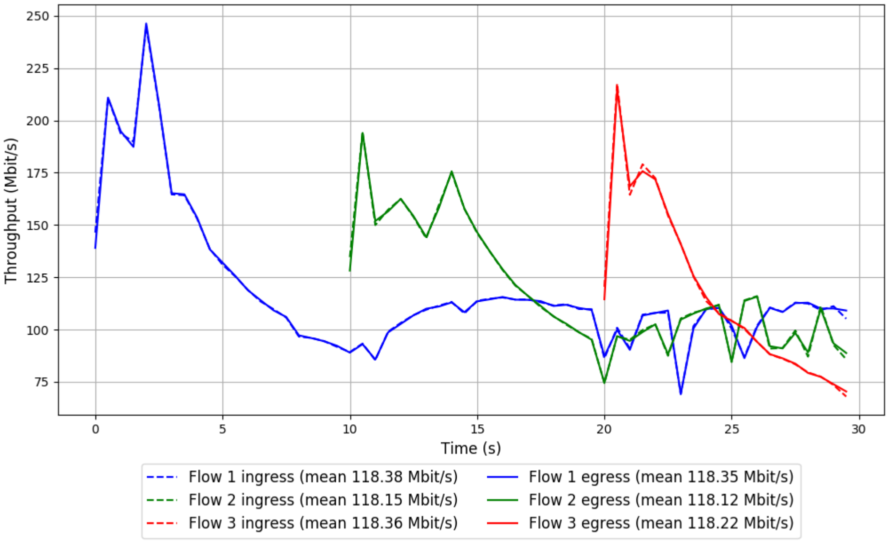


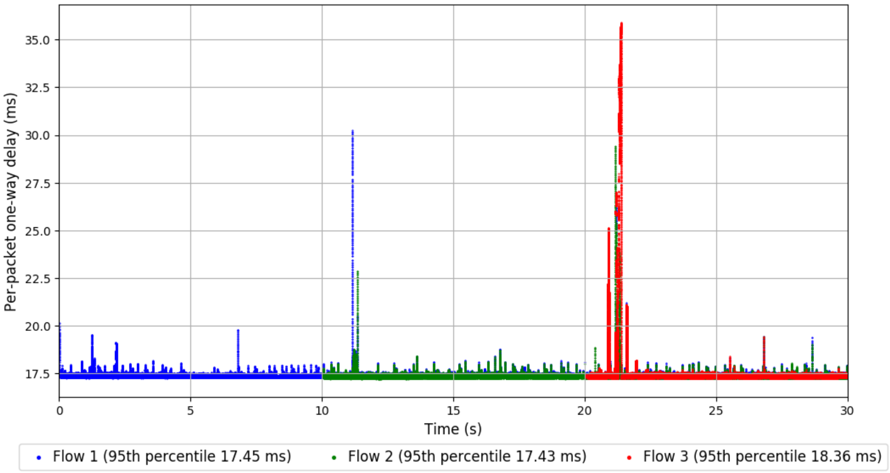
```
Run 6: Statistics of Copa

Start at: 2018-04-04 00:26:57
End at: 2018-04-04 00:27:27
Local clock offset: 0.317 ms
Remote clock offset: 0.493 ms

# Below is generated by plot.py at 2018-04-04 06:42:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.17 Mbit/s
95th percentile per-packet one-way delay: 17.454 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 118.35 Mbit/s
95th percentile per-packet one-way delay: 17.445 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 118.12 Mbit/s
95th percentile per-packet one-way delay: 17.426 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 118.22 Mbit/s
95th percentile per-packet one-way delay: 18.355 ms
Loss rate: 0.12%
```

Run 6: Report of Copa — Data Link



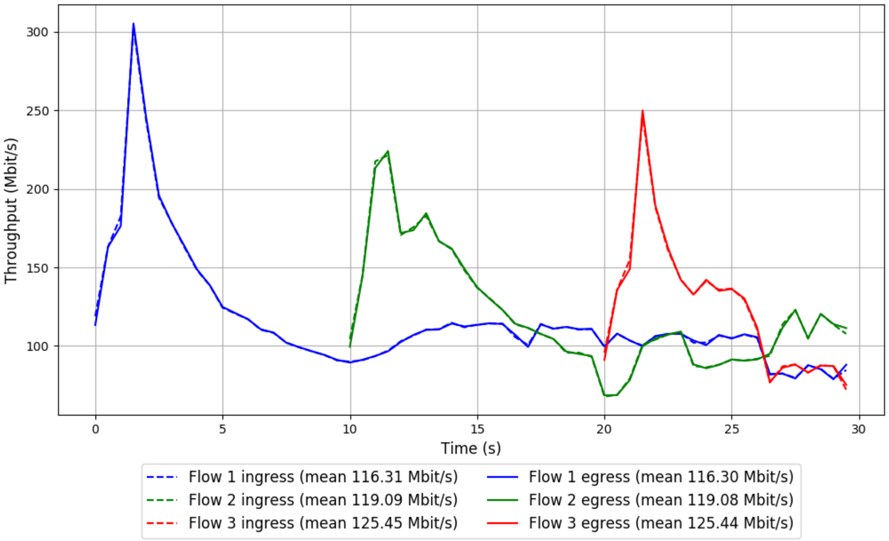


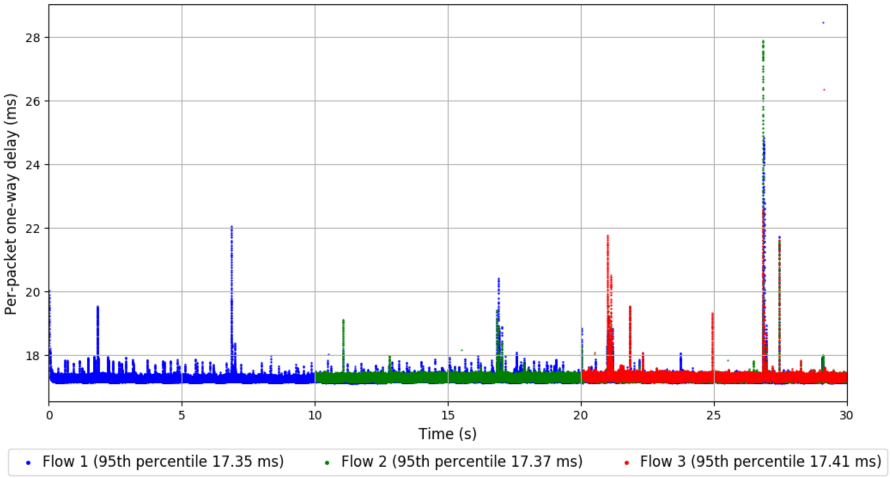
```
Run 7: Statistics of Copa

Start at: 2018-04-04 00:55:51
End at: 2018-04-04 00:56:21
Local clock offset: 0.113 ms
Remote clock offset: 0.379 ms

# Below is generated by plot.py at 2018-04-04 06:43:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.18 Mbit/s
95th percentile per-packet one-way delay: 17.371 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 116.30 Mbit/s
95th percentile per-packet one-way delay: 17.352 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.08 Mbit/s
95th percentile per-packet one-way delay: 17.366 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 125.44 Mbit/s
95th percentile per-packet one-way delay: 17.410 ms
Loss rate: 0.01%
```

Run 7: Report of Copa — Data Link



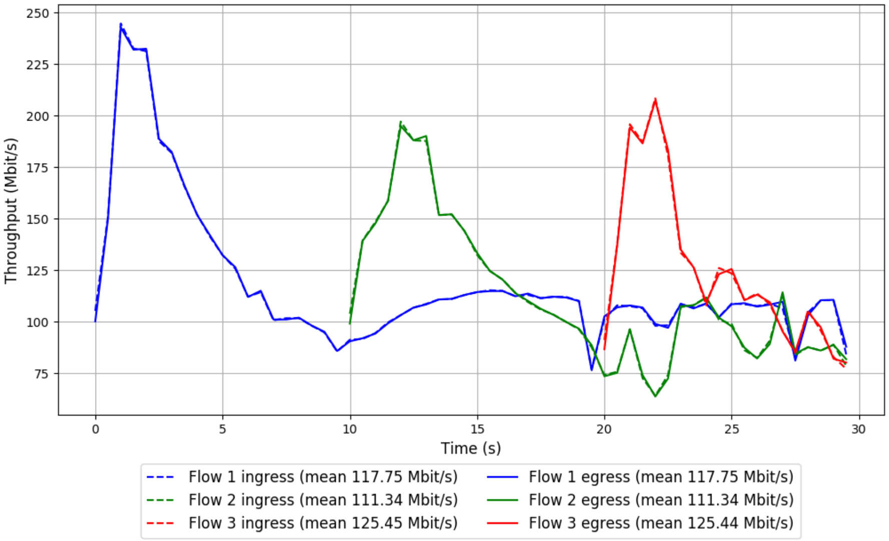


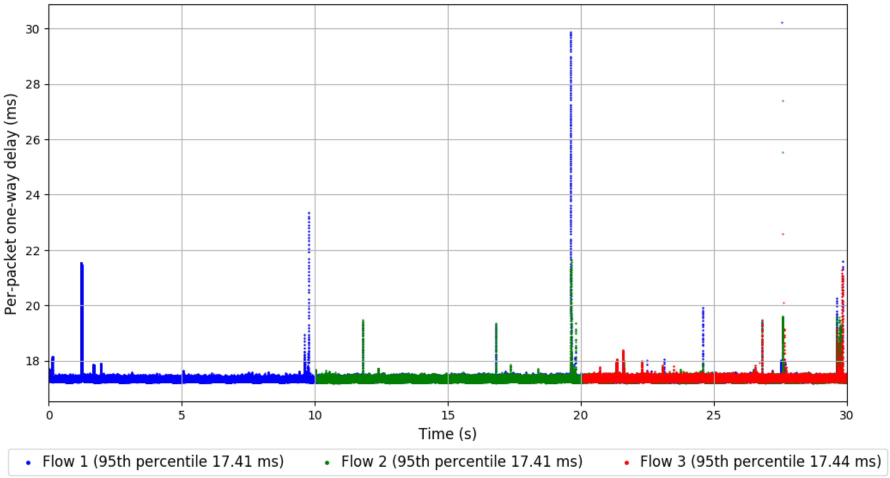
```
Run 8: Statistics of Copa

Start at: 2018-04-04 01:24:38
End at: 2018-04-04 01:25:08
Local clock offset: 0.223 ms
Remote clock offset: 0.381 ms

# Below is generated by plot.py at 2018-04-04 06:43:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 233.46 Mbit/s
95th percentile per-packet one-way delay: 17.420 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 117.75 Mbit/s
95th percentile per-packet one-way delay: 17.414 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 111.34 Mbit/s
95th percentile per-packet one-way delay: 17.414 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 125.44 Mbit/s
95th percentile per-packet one-way delay: 17.441 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link



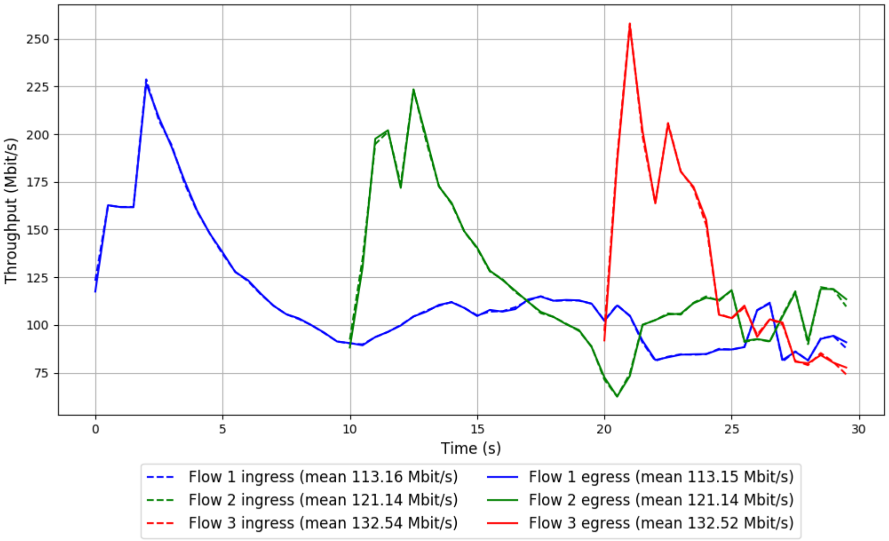


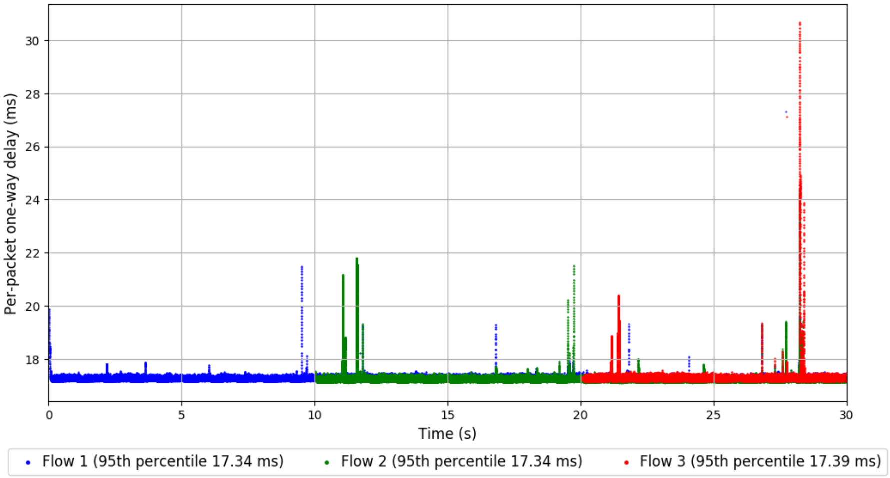
```
Run 9: Statistics of Copa

Start at: 2018-04-04 01:53:28
End at: 2018-04-04 01:53:58
Local clock offset: 0.108 ms
Remote clock offset: 0.325 ms

# Below is generated by plot.py at 2018-04-04 06:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.74 Mbit/s
95th percentile per-packet one-way delay: 17.351 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 113.15 Mbit/s
95th percentile per-packet one-way delay: 17.340 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 121.14 Mbit/s
95th percentile per-packet one-way delay: 17.340 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 132.52 Mbit/s
95th percentile per-packet one-way delay: 17.395 ms
Loss rate: 0.01%
```

Run 9: Report of Copa — Data Link



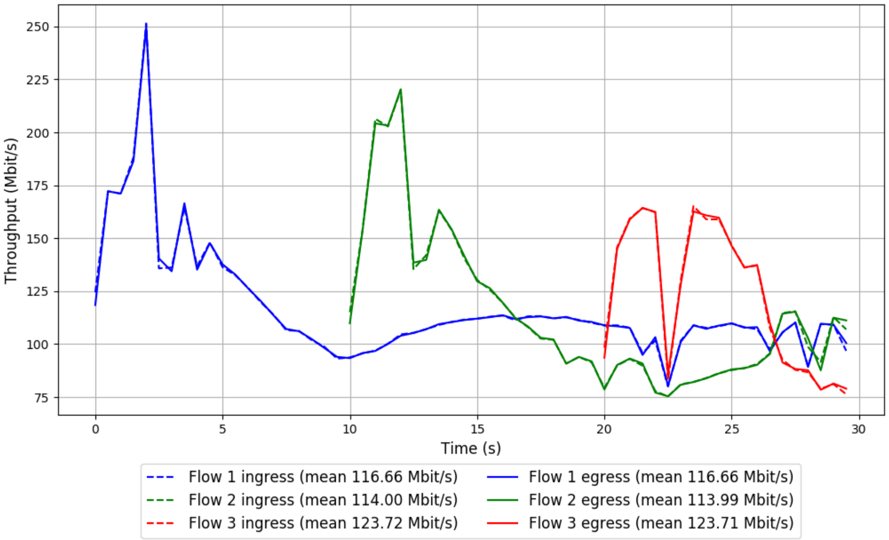


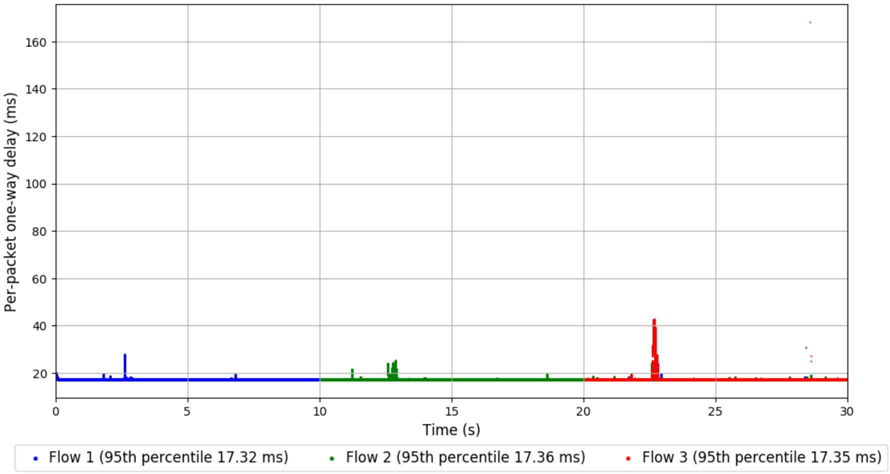
```
Run 10: Statistics of Copa

Start at: 2018-04-04 02:22:34
End at: 2018-04-04 02:23:04
Local clock offset: 0.558 ms
Remote clock offset: 0.451 ms

# Below is generated by plot.py at 2018-04-04 06:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 233.56 Mbit/s
95th percentile per-packet one-way delay: 17.339 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 116.66 Mbit/s
95th percentile per-packet one-way delay: 17.316 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 113.99 Mbit/s
95th percentile per-packet one-way delay: 17.358 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 123.71 Mbit/s
95th percentile per-packet one-way delay: 17.352 ms
Loss rate: 0.00%
```

Run 10: Report of Copa — Data Link



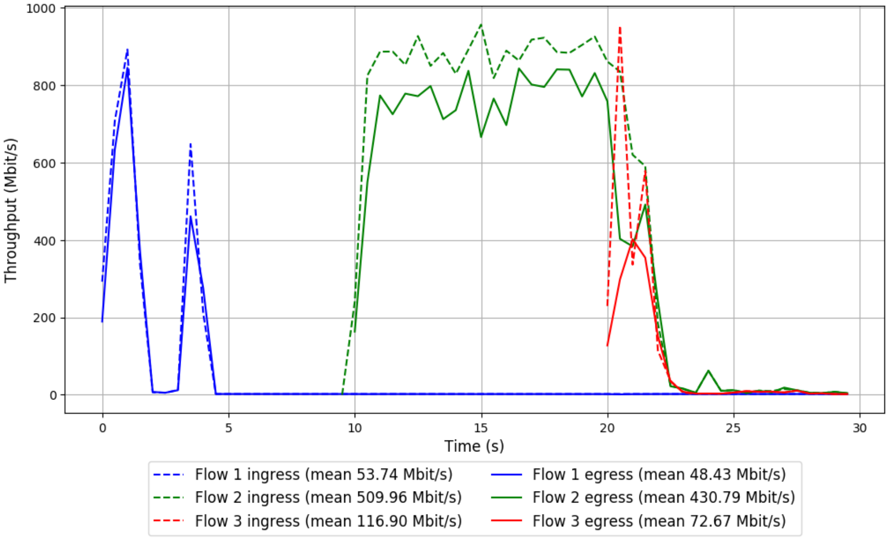


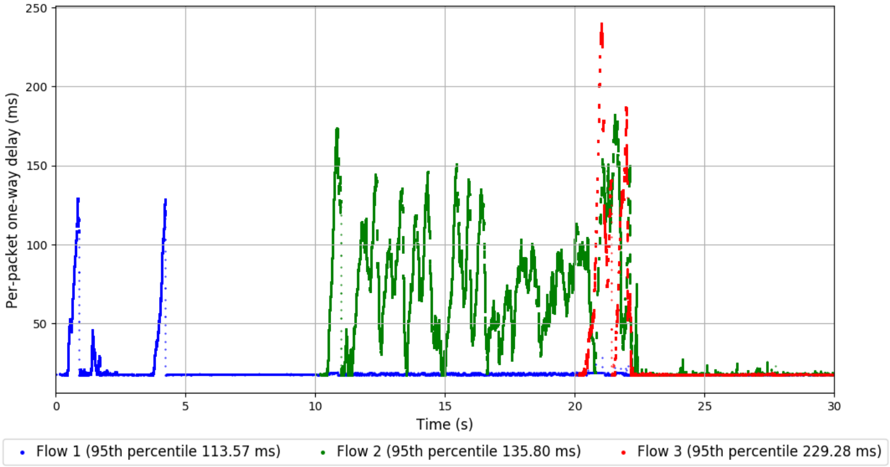
```
Run 1: Statistics of FillP

Start at: 2018-04-03 21:58:50
End at: 2018-04-03 21:59:20
Local clock offset: 0.828 ms
Remote clock offset: 0.354 ms

# Below is generated by plot.py at 2018-04-04 06:44:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 359.29 Mbit/s
95th percentile per-packet one-way delay: 137.342 ms
Loss rate: 16.83%
-- Flow 1:
Average throughput: 48.43 Mbit/s
95th percentile per-packet one-way delay: 113.570 ms
Loss rate: 9.89%
-- Flow 2:
Average throughput: 430.79 Mbit/s
95th percentile per-packet one-way delay: 135.801 ms
Loss rate: 15.53%
-- Flow 3:
Average throughput: 72.67 Mbit/s
95th percentile per-packet one-way delay: 229.281 ms
Loss rate: 37.84%
```

Run 1: Report of FillP — Data Link



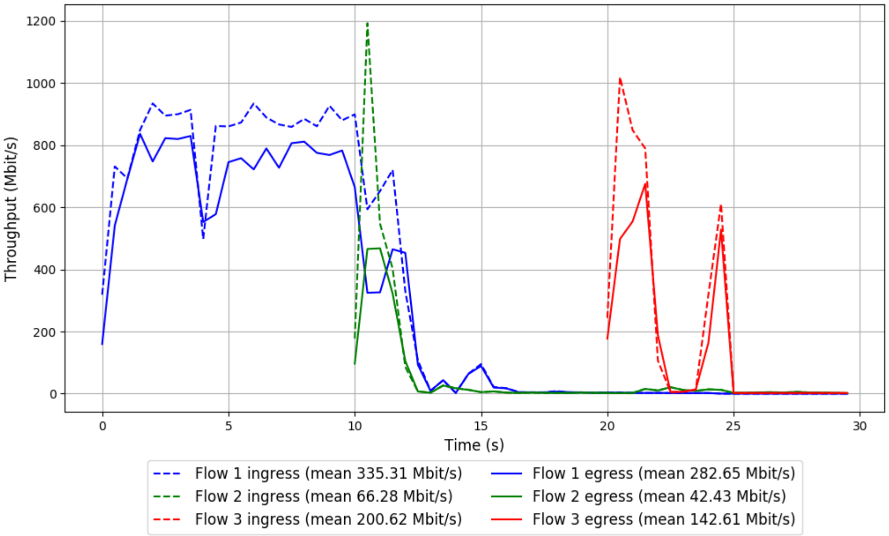


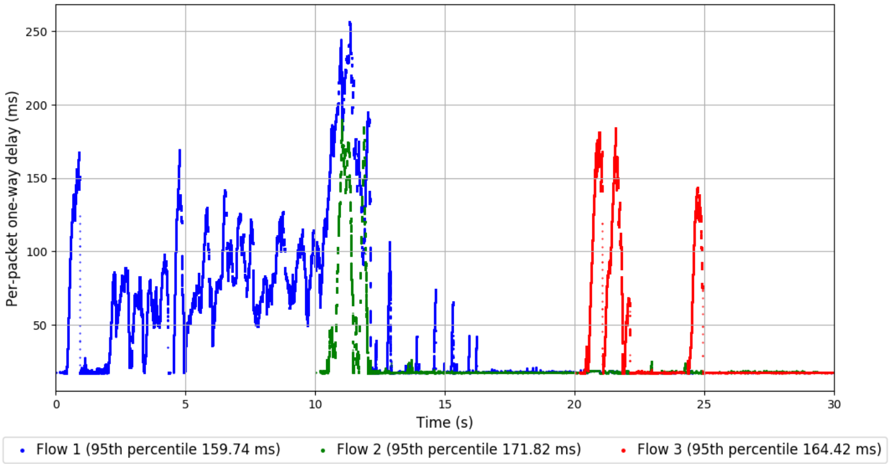
```
Run 2: Statistics of FillP

Start at: 2018-04-03 22:27:37
End at: 2018-04-03 22:28:07
Local clock offset: 0.908 ms
Remote clock offset: 0.163 ms

# Below is generated by plot.py at 2018-04-04 06:45:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 357.71 Mbit/s
95th percentile per-packet one-way delay: 165.765 ms
Loss rate: 19.69%
-- Flow 1:
Average throughput: 282.65 Mbit/s
95th percentile per-packet one-way delay: 159.735 ms
Loss rate: 15.70%
-- Flow 2:
Average throughput: 42.43 Mbit/s
95th percentile per-packet one-way delay: 171.824 ms
Loss rate: 35.97%
-- Flow 3:
Average throughput: 142.61 Mbit/s
95th percentile per-packet one-way delay: 164.421 ms
Loss rate: 28.92%
```

Run 2: Report of FillP — Data Link



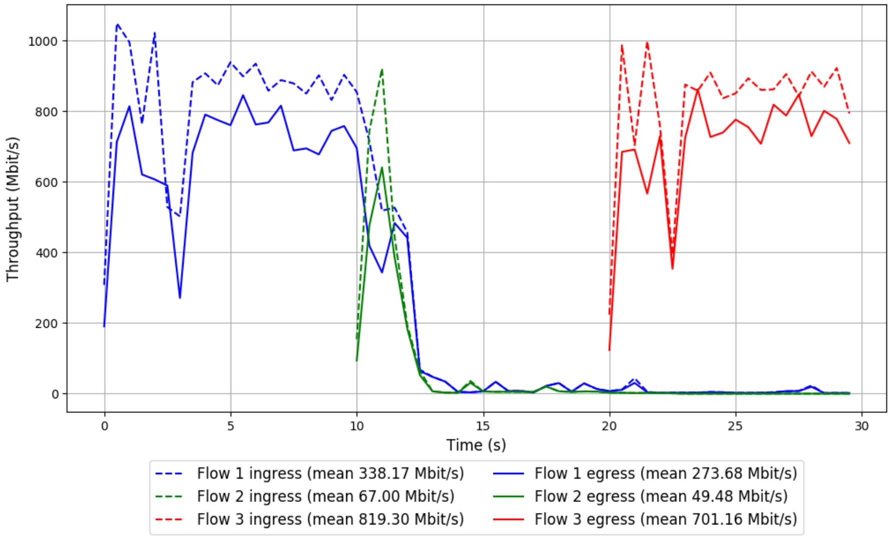


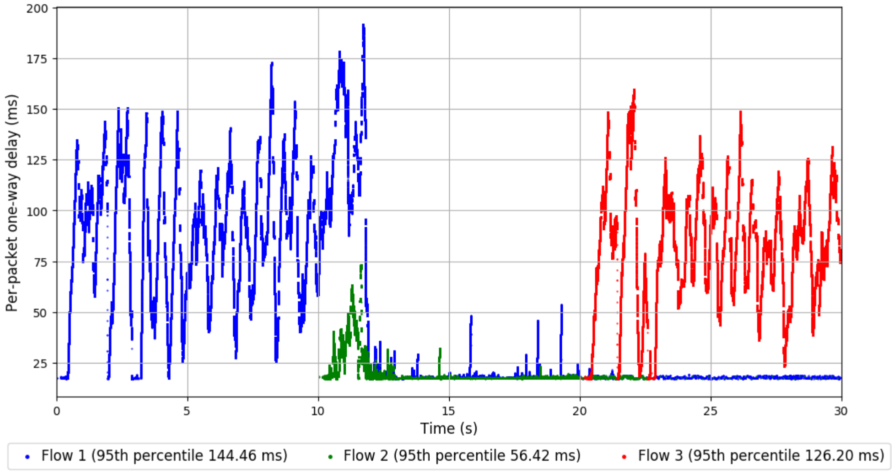
```
Run 3: Statistics of FillP

Start at: 2018-04-03 22:56:27
End at: 2018-04-03 22:56:57
Local clock offset: 1.464 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2018-04-04 06:49:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 538.77 Mbit/s
95th percentile per-packet one-way delay: 135.494 ms
Loss rate: 17.62%
-- Flow 1:
Average throughput: 273.68 Mbit/s
95th percentile per-packet one-way delay: 144.461 ms
Loss rate: 19.07%
-- Flow 2:
Average throughput: 49.48 Mbit/s
95th percentile per-packet one-way delay: 56.423 ms
Loss rate: 26.15%
-- Flow 3:
Average throughput: 701.16 Mbit/s
95th percentile per-packet one-way delay: 126.196 ms
Loss rate: 14.42%
```

Run 3: Report of FillP — Data Link



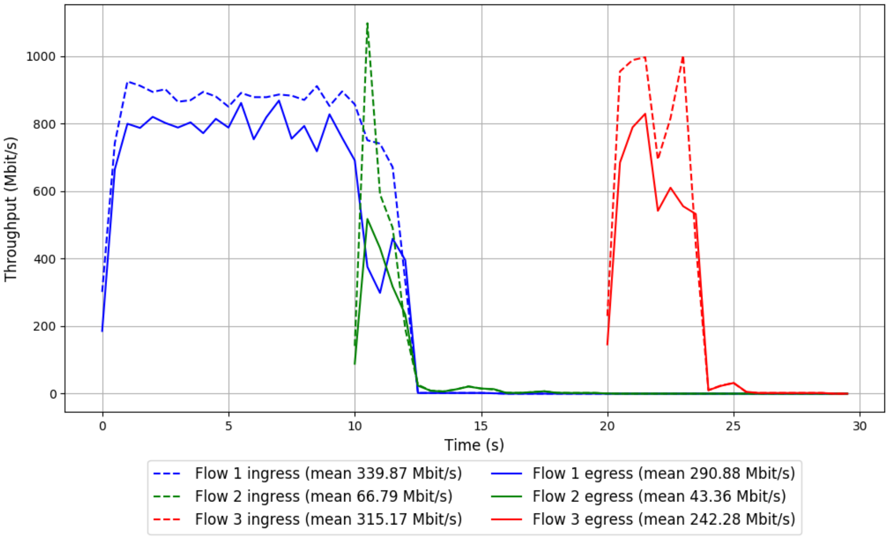


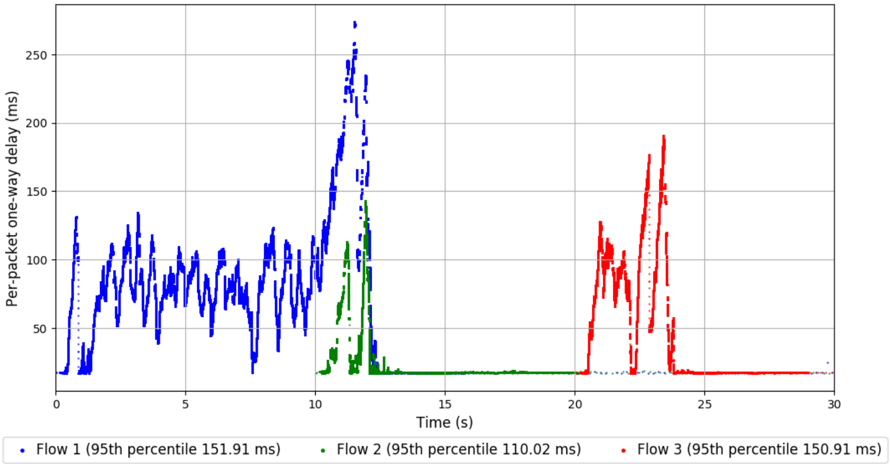
```
Run 4: Statistics of FillP

Start at: 2018-04-03 23:24:53
End at: 2018-04-03 23:25:23
Local clock offset: 1.467 ms
Remote clock offset: 0.329 ms

# Below is generated by plot.py at 2018-04-04 06:49:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 399.26 Mbit/s
95th percentile per-packet one-way delay: 147.322 ms
Loss rate: 18.14%
-- Flow 1:
Average throughput: 290.88 Mbit/s
95th percentile per-packet one-way delay: 151.905 ms
Loss rate: 14.41%
-- Flow 2:
Average throughput: 43.36 Mbit/s
95th percentile per-packet one-way delay: 110.022 ms
Loss rate: 35.08%
-- Flow 3:
Average throughput: 242.28 Mbit/s
95th percentile per-packet one-way delay: 150.909 ms
Loss rate: 23.13%
```

Run 4: Report of FillP — Data Link



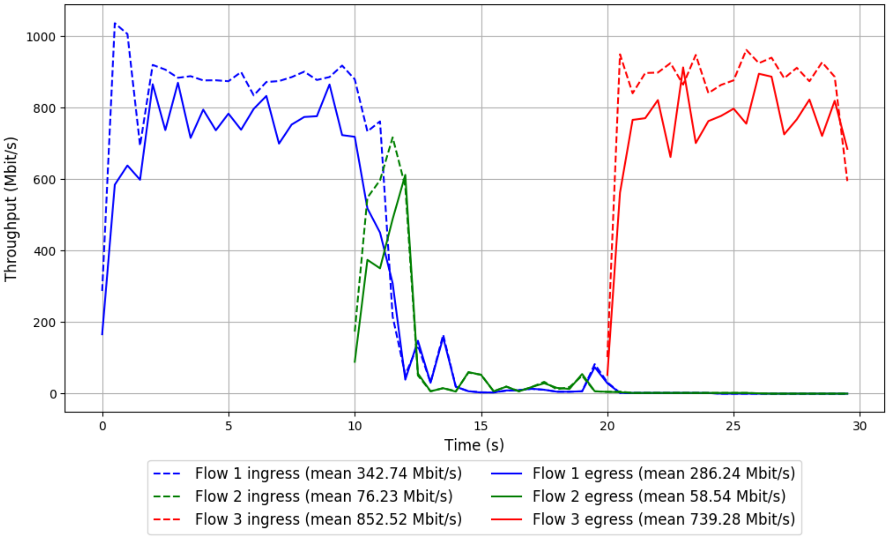


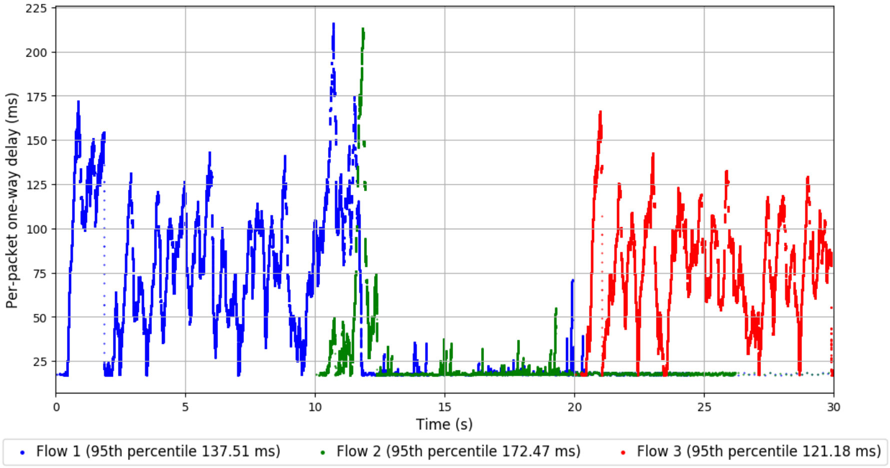
```
Run 5: Statistics of FillP

Start at: 2018-04-03 23:53:33
End at: 2018-04-03 23:54:03
Local clock offset: 0.848 ms
Remote clock offset: 0.489 ms

# Below is generated by plot.py at 2018-04-04 06:52:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 568.17 Mbit/s
95th percentile per-packet one-way delay: 131.086 ms
Loss rate: 15.64%
-- Flow 1:
Average throughput: 286.24 Mbit/s
95th percentile per-packet one-way delay: 137.513 ms
Loss rate: 16.48%
-- Flow 2:
Average throughput: 58.54 Mbit/s
95th percentile per-packet one-way delay: 172.474 ms
Loss rate: 23.20%
-- Flow 3:
Average throughput: 739.28 Mbit/s
95th percentile per-packet one-way delay: 121.181 ms
Loss rate: 13.28%
```

Run 5: Report of FillP — Data Link



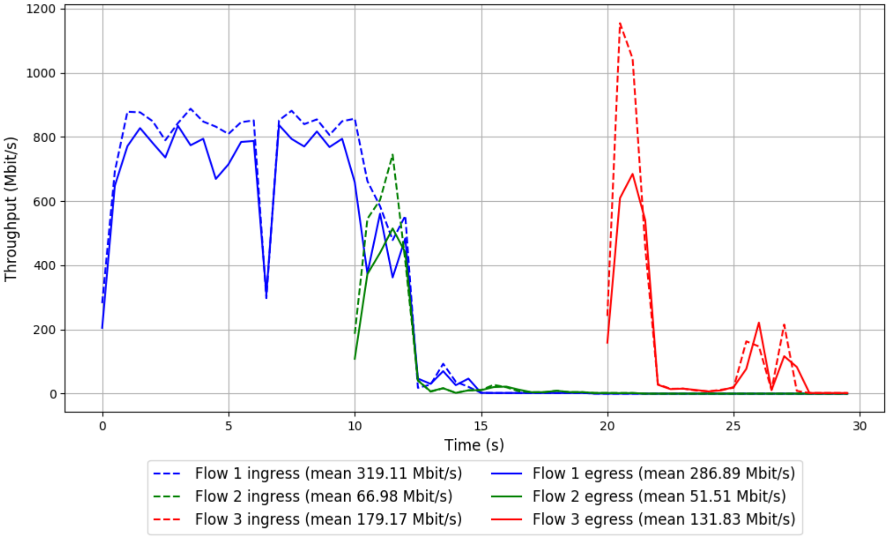


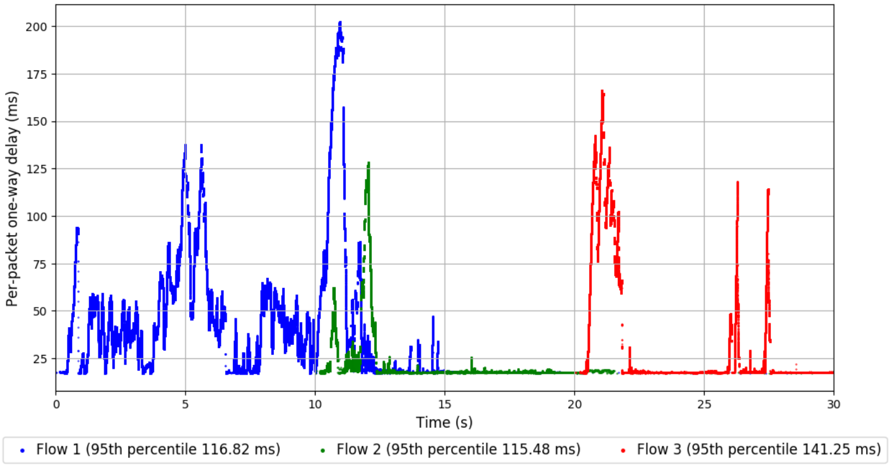
```
Run 6: Statistics of FillP

Start at: 2018-04-04 00:22:23
End at: 2018-04-04 00:22:53
Local clock offset: 0.304 ms
Remote clock offset: 0.499 ms

# Below is generated by plot.py at 2018-04-04 06:52:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.45 Mbit/s
95th percentile per-packet one-way delay: 123.841 ms
Loss rate: 13.78%
-- Flow 1:
Average throughput: 286.89 Mbit/s
95th percentile per-packet one-way delay: 116.817 ms
Loss rate: 10.10%
-- Flow 2:
Average throughput: 51.51 Mbit/s
95th percentile per-packet one-way delay: 115.481 ms
Loss rate: 23.10%
-- Flow 3:
Average throughput: 131.83 Mbit/s
95th percentile per-packet one-way delay: 141.250 ms
Loss rate: 26.42%
```

Run 6: Report of FillP — Data Link



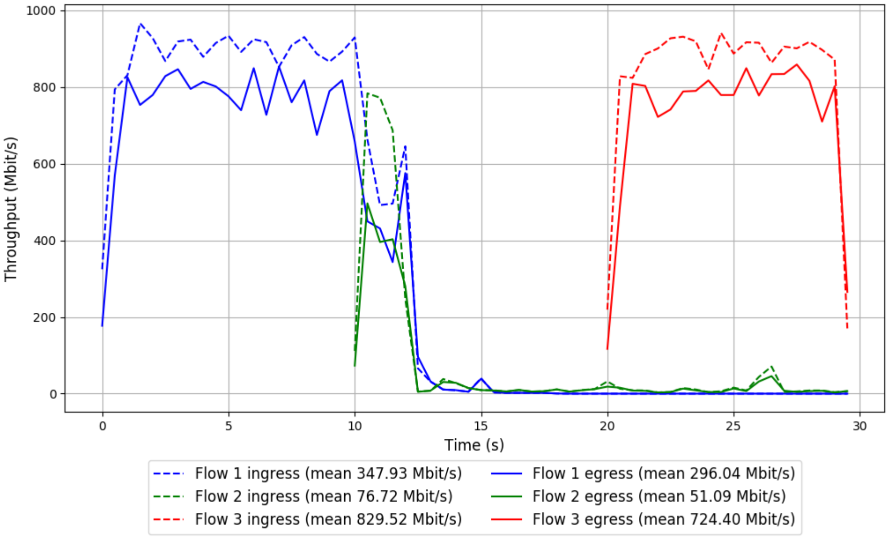


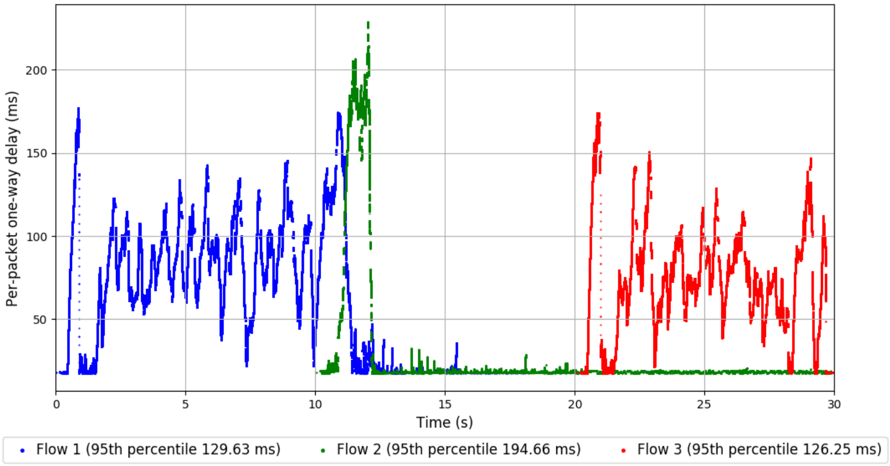
```
Run 7: Statistics of FillP

Start at: 2018-04-04 00:51:09
End at: 2018-04-04 00:51:39
Local clock offset: 0.077 ms
Remote clock offset: 0.451 ms

# Below is generated by plot.py at 2018-04-04 06:53:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 568.97 Mbit/s
95th percentile per-packet one-way delay: 138.809 ms
Loss rate: 15.40%
-- Flow 1:
Average throughput: 296.04 Mbit/s
95th percentile per-packet one-way delay: 129.626 ms
Loss rate: 14.92%
-- Flow 2:
Average throughput: 51.09 Mbit/s
95th percentile per-packet one-way delay: 194.659 ms
Loss rate: 33.40%
-- Flow 3:
Average throughput: 724.40 Mbit/s
95th percentile per-packet one-way delay: 126.249 ms
Loss rate: 12.67%
```

Run 7: Report of FillP — Data Link



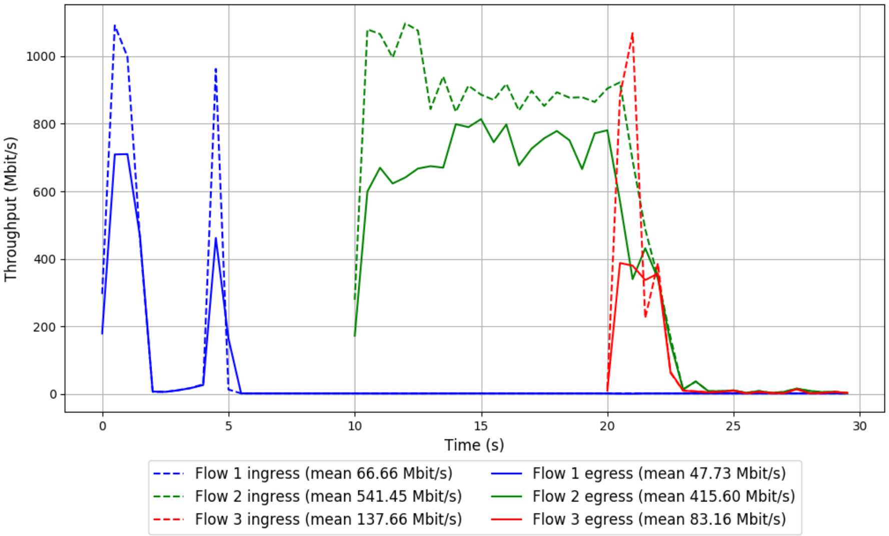


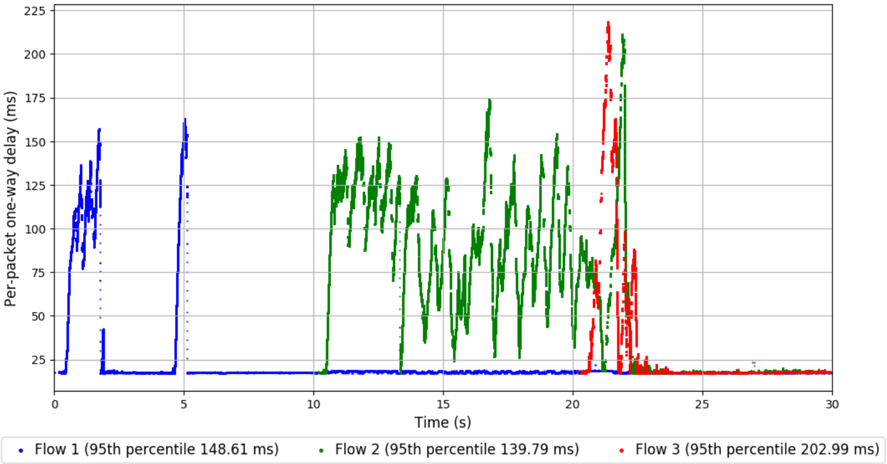
```
Run 8: Statistics of FillP

Start at: 2018-04-04 01:20:01
End at: 2018-04-04 01:20:31
Local clock offset: 0.144 ms
Remote clock offset: 0.361 ms

# Below is generated by plot.py at 2018-04-04 06:53:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.24 Mbit/s
95th percentile per-packet one-way delay: 146.221 ms
Loss rate: 25.64%
-- Flow 1:
Average throughput: 47.73 Mbit/s
95th percentile per-packet one-way delay: 148.613 ms
Loss rate: 28.40%
-- Flow 2:
Average throughput: 415.60 Mbit/s
95th percentile per-packet one-way delay: 139.793 ms
Loss rate: 23.24%
-- Flow 3:
Average throughput: 83.16 Mbit/s
95th percentile per-packet one-way delay: 202.987 ms
Loss rate: 40.52%
```

Run 8: Report of FillP — Data Link



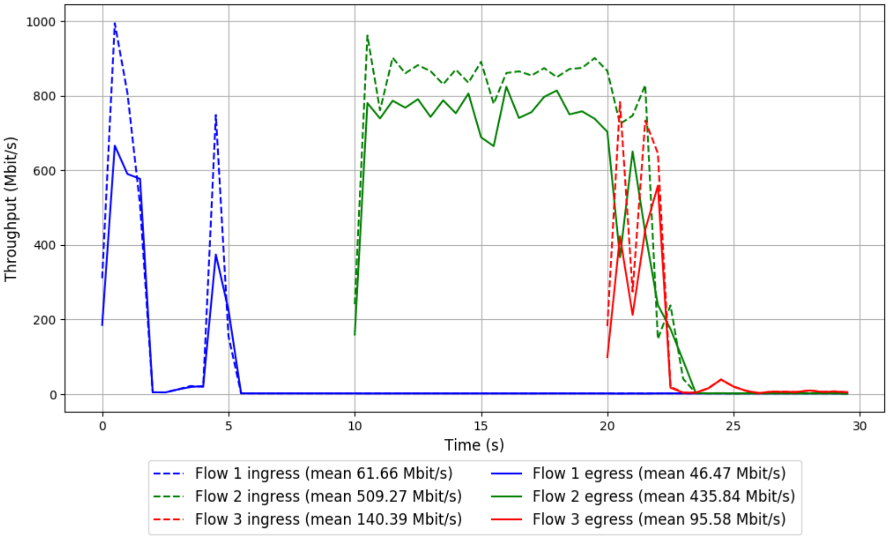


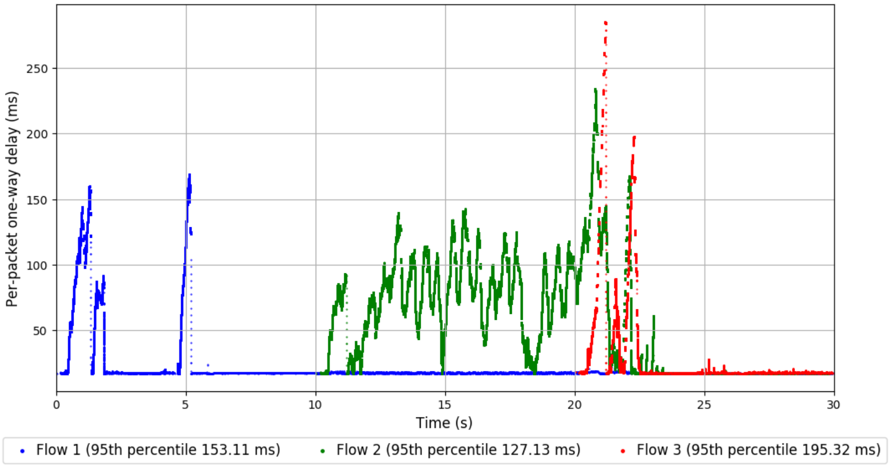
```
Run 9: Statistics of FillP

Start at: 2018-04-04 01:48:51
End at: 2018-04-04 01:49:21
Local clock offset: 0.126 ms
Remote clock offset: 0.398 ms

# Below is generated by plot.py at 2018-04-04 06:53:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.69 Mbit/s
95th percentile per-packet one-way delay: 135.320 ms
Loss rate: 17.65%
-- Flow 1:
Average throughput: 46.47 Mbit/s
95th percentile per-packet one-way delay: 153.113 ms
Loss rate: 24.63%
-- Flow 2:
Average throughput: 435.84 Mbit/s
95th percentile per-packet one-way delay: 127.126 ms
Loss rate: 14.42%
-- Flow 3:
Average throughput: 95.58 Mbit/s
95th percentile per-packet one-way delay: 195.318 ms
Loss rate: 31.92%
```

Run 9: Report of FillP — Data Link



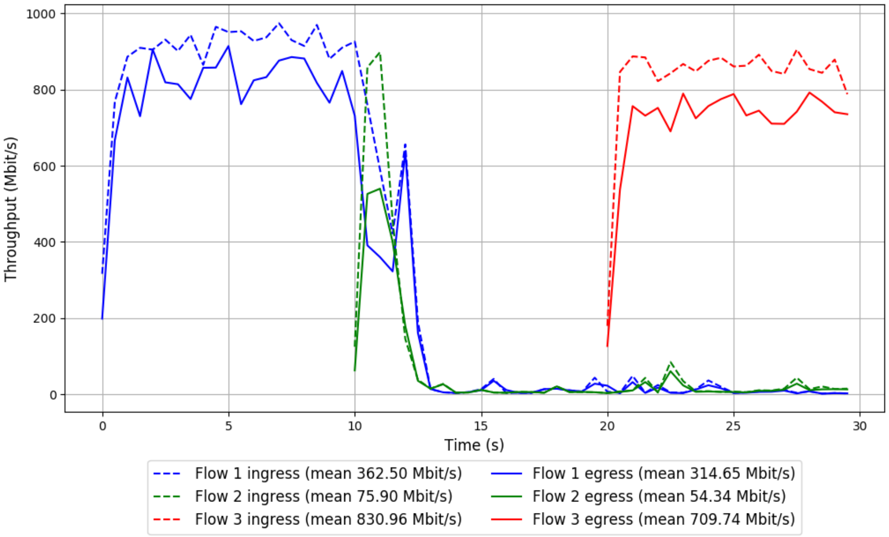


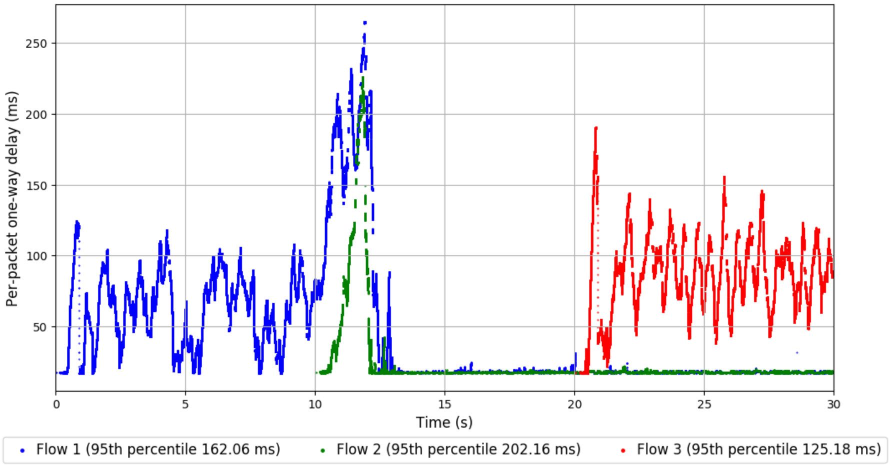
```
Run 10: Statistics of FillP

Start at: 2018-04-04 02:17:50
End at: 2018-04-04 02:18:20
Local clock offset: 0.505 ms
Remote clock offset: 0.487 ms

# Below is generated by plot.py at 2018-04-04 06:55:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.95 Mbit/s
95th percentile per-packet one-way delay: 139.642 ms
Loss rate: 14.86%
-- Flow 1:
Average throughput: 314.65 Mbit/s
95th percentile per-packet one-way delay: 162.063 ms
Loss rate: 13.20%
-- Flow 2:
Average throughput: 54.34 Mbit/s
95th percentile per-packet one-way delay: 202.161 ms
Loss rate: 28.41%
-- Flow 3:
Average throughput: 709.74 Mbit/s
95th percentile per-packet one-way delay: 125.182 ms
Loss rate: 14.57%
```

Run 10: Report of FillP — Data Link



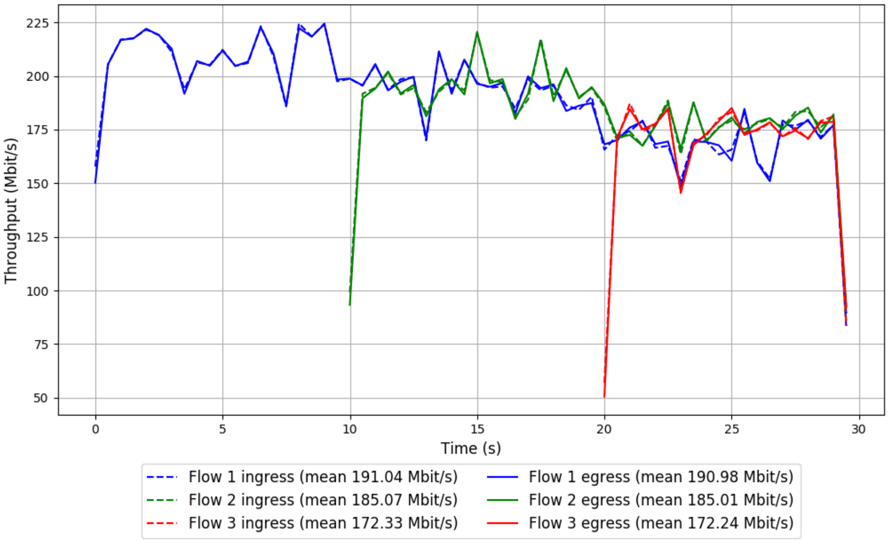


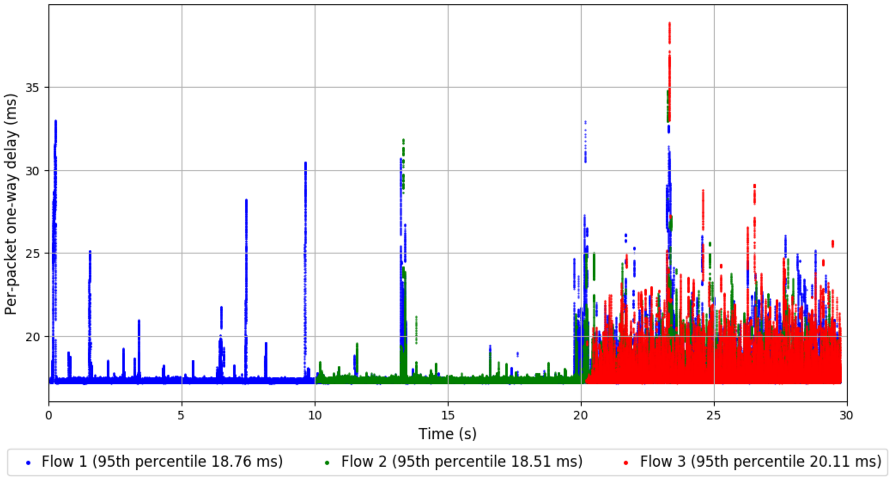
```
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-03 22:01:47
End at: 2018-04-03 22:02:17
Local clock offset: 0.828 ms
Remote clock offset: 0.351 ms

# Below is generated by plot.py at 2018-04-04 06:55:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.62 Mbit/s
95th percentile per-packet one-way delay: 19.036 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 190.98 Mbit/s
95th percentile per-packet one-way delay: 18.762 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 185.01 Mbit/s
95th percentile per-packet one-way delay: 18.507 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 172.24 Mbit/s
95th percentile per-packet one-way delay: 20.112 ms
Loss rate: 0.04%
```

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



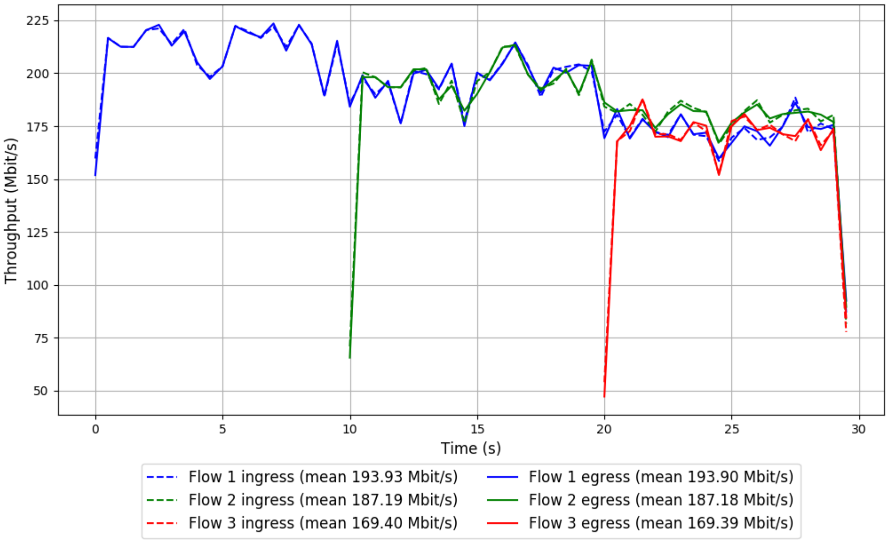


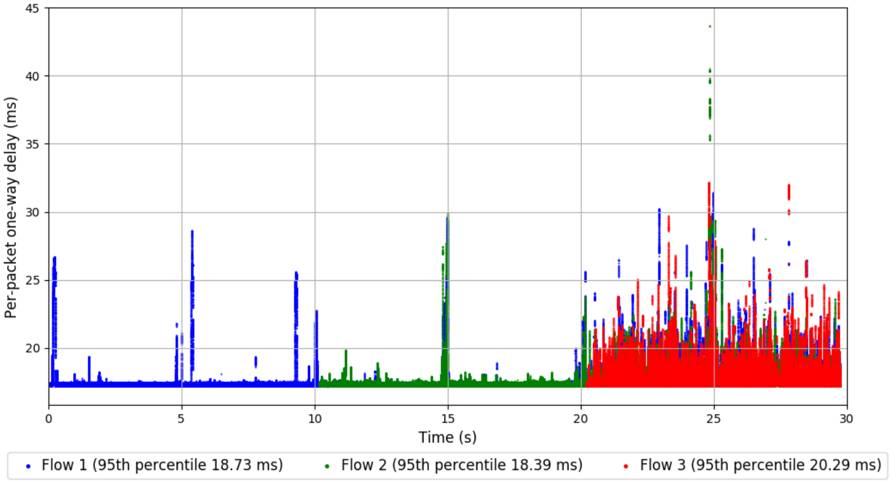
```
Run 2: Statistics of Indigo-1-32

Start at: 2018-04-03 22:30:35
End at: 2018-04-03 22:31:05
Local clock offset: 1.07 ms
Remote clock offset: 0.07 ms

# Below is generated by plot.py at 2018-04-04 06:55:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.67 Mbit/s
95th percentile per-packet one-way delay: 19.009 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 193.90 Mbit/s
95th percentile per-packet one-way delay: 18.725 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 187.18 Mbit/s
95th percentile per-packet one-way delay: 18.385 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 169.39 Mbit/s
95th percentile per-packet one-way delay: 20.285 ms
Loss rate: 0.01%
```

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



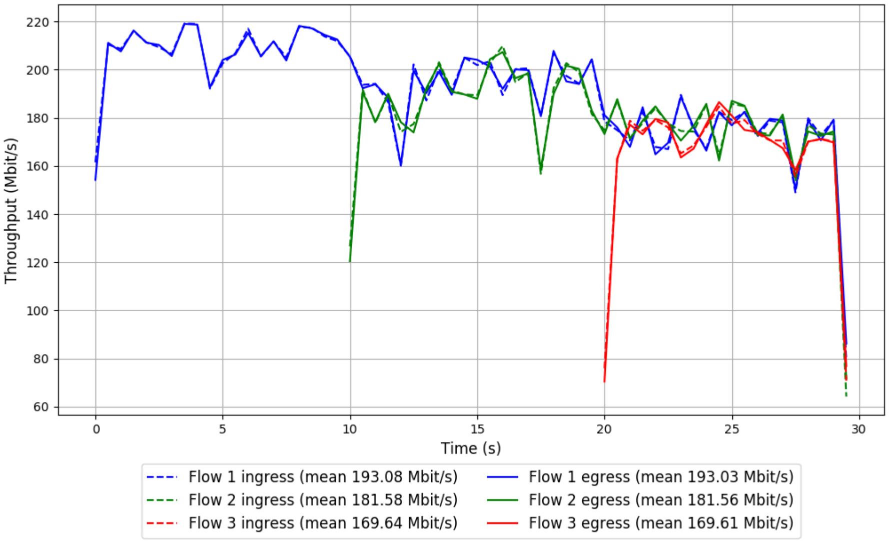


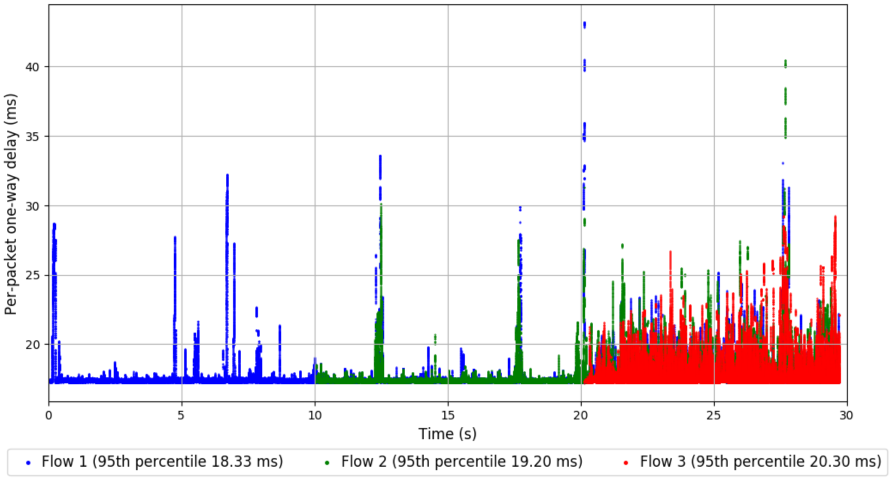
```
Run 3: Statistics of Indigo-1-32

Start at: 2018-04-03 22:59:32
End at: 2018-04-03 23:00:02
Local clock offset: 1.329 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-04-04 06:55:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.04 Mbit/s
95th percentile per-packet one-way delay: 19.091 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 193.03 Mbit/s
95th percentile per-packet one-way delay: 18.329 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 181.56 Mbit/s
95th percentile per-packet one-way delay: 19.201 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 169.61 Mbit/s
95th percentile per-packet one-way delay: 20.304 ms
Loss rate: 0.01%
```

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



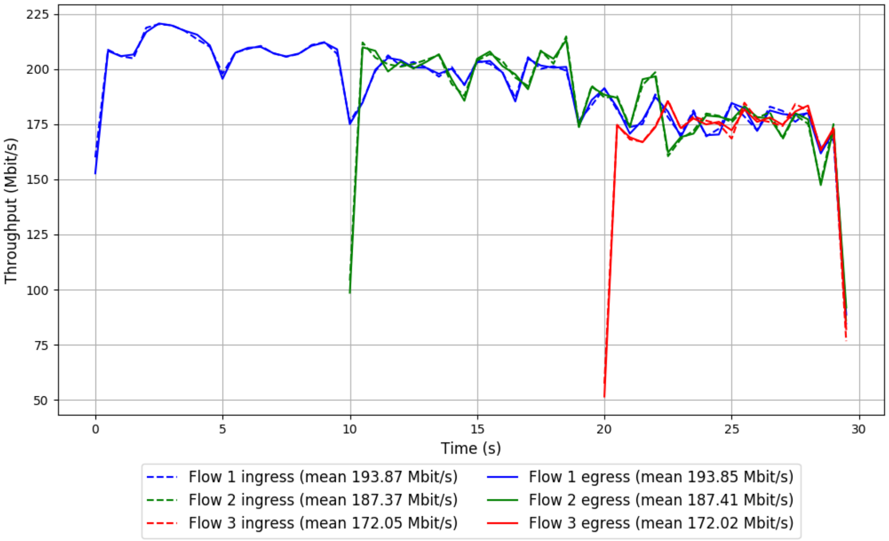


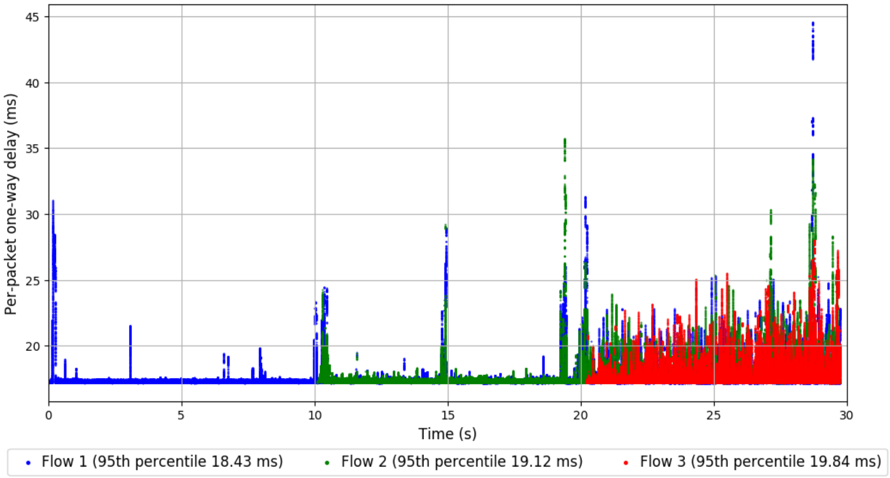
```
Run 4: Statistics of Indigo-1-32

Start at: 2018-04-03 23:27:51
End at: 2018-04-03 23:28:21
Local clock offset: 1.516 ms
Remote clock offset: 0.382 ms

# Below is generated by plot.py at 2018-04-04 06:55:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.88 Mbit/s
95th percentile per-packet one-way delay: 18.974 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 193.85 Mbit/s
95th percentile per-packet one-way delay: 18.425 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 187.41 Mbit/s
95th percentile per-packet one-way delay: 19.117 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 172.02 Mbit/s
95th percentile per-packet one-way delay: 19.838 ms
Loss rate: 0.01%
```

Run 4: Report of Indigo-1-32 — Data Link



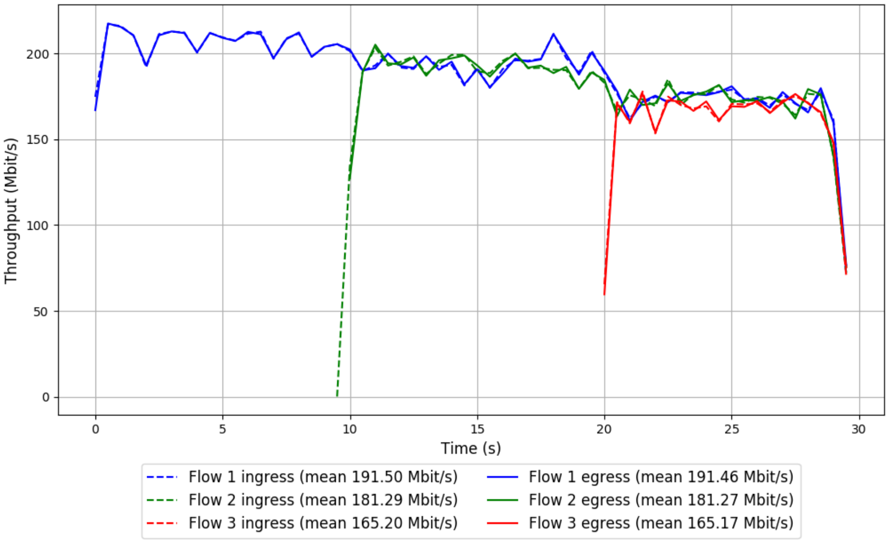


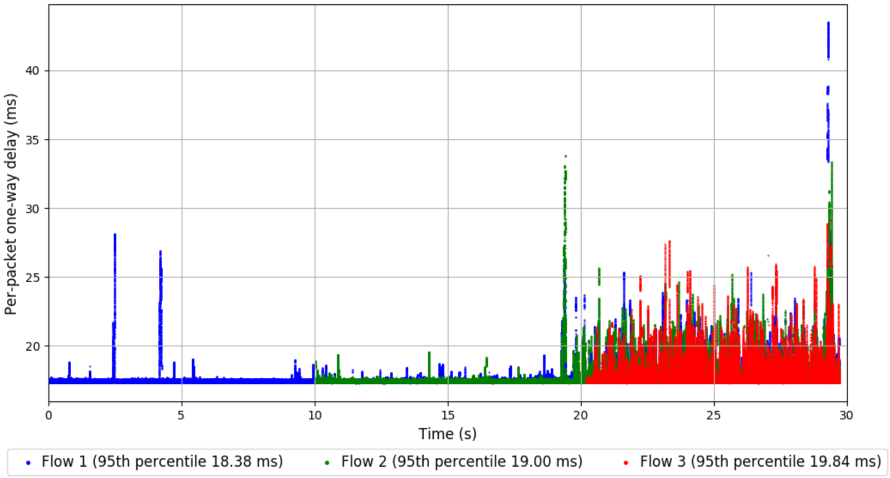
```
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-03 23:56:39
End at: 2018-04-03 23:57:09
Local clock offset: 0.737 ms
Remote clock offset: 0.524 ms

# Below is generated by plot.py at 2018-04-04 06:56:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 364.75 Mbit/s
95th percentile per-packet one-way delay: 18.868 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 191.46 Mbit/s
95th percentile per-packet one-way delay: 18.380 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 181.27 Mbit/s
95th percentile per-packet one-way delay: 18.999 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 165.17 Mbit/s
95th percentile per-packet one-way delay: 19.835 ms
Loss rate: 0.02%
```

Run 5: Report of Indigo-1-32 — Data Link



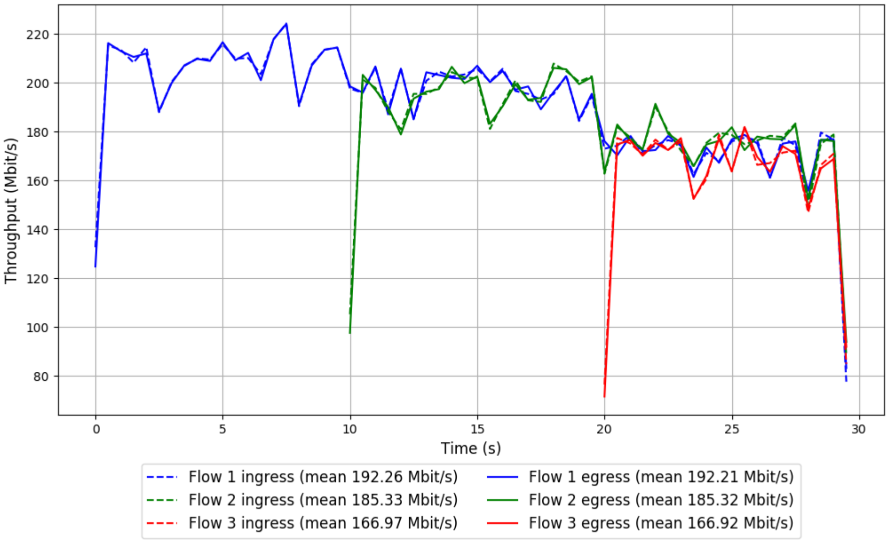


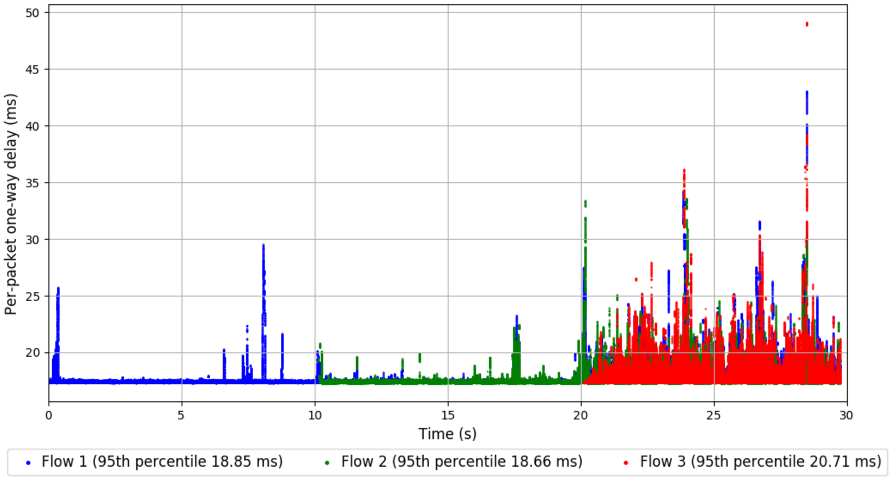
```
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-04 00:25:21
End at: 2018-04-04 00:25:51
Local clock offset: 0.257 ms
Remote clock offset: 0.435 ms

# Below is generated by plot.py at 2018-04-04 06:58:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.40 Mbit/s
95th percentile per-packet one-way delay: 19.200 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 192.21 Mbit/s
95th percentile per-packet one-way delay: 18.852 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 185.32 Mbit/s
95th percentile per-packet one-way delay: 18.656 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 166.92 Mbit/s
95th percentile per-packet one-way delay: 20.714 ms
Loss rate: 0.03%
```

Run 6: Report of Indigo-1-32 — Data Link



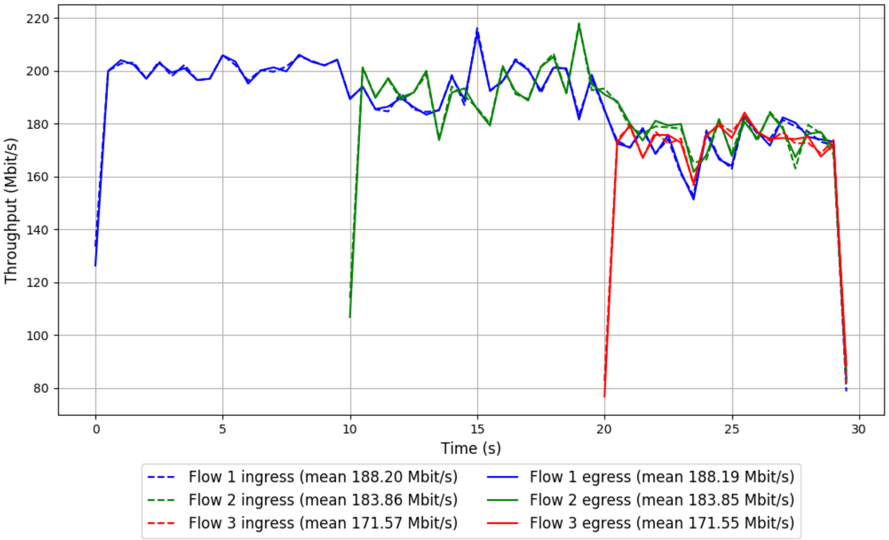


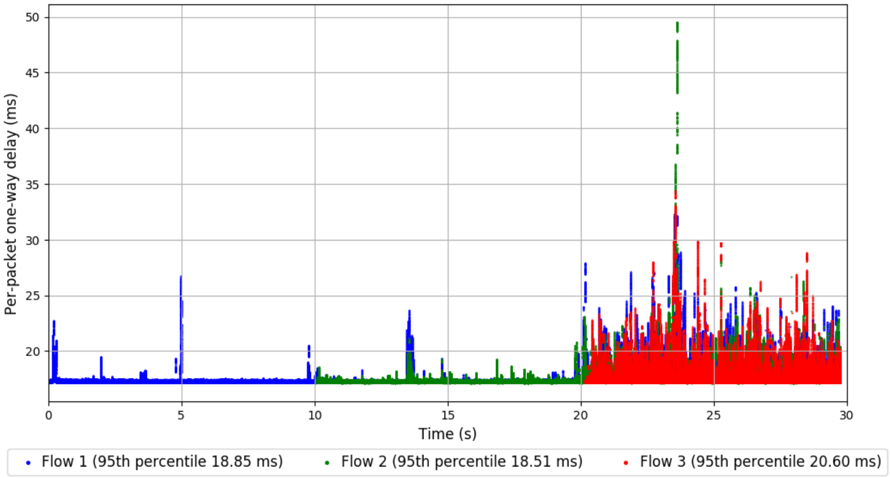
```
Run 7: Statistics of Indigo-1-32

Start at: 2018-04-04 00:54:14
End at: 2018-04-04 00:54:44
Local clock offset: 0.128 ms
Remote clock offset: 0.343 ms

# Below is generated by plot.py at 2018-04-04 06:59:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.38 Mbit/s
95th percentile per-packet one-way delay: 19.100 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 188.19 Mbit/s
95th percentile per-packet one-way delay: 18.849 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 183.85 Mbit/s
95th percentile per-packet one-way delay: 18.509 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 171.55 Mbit/s
95th percentile per-packet one-way delay: 20.597 ms
Loss rate: 0.01%
```

Run 7: Report of Indigo-1-32 — Data Link



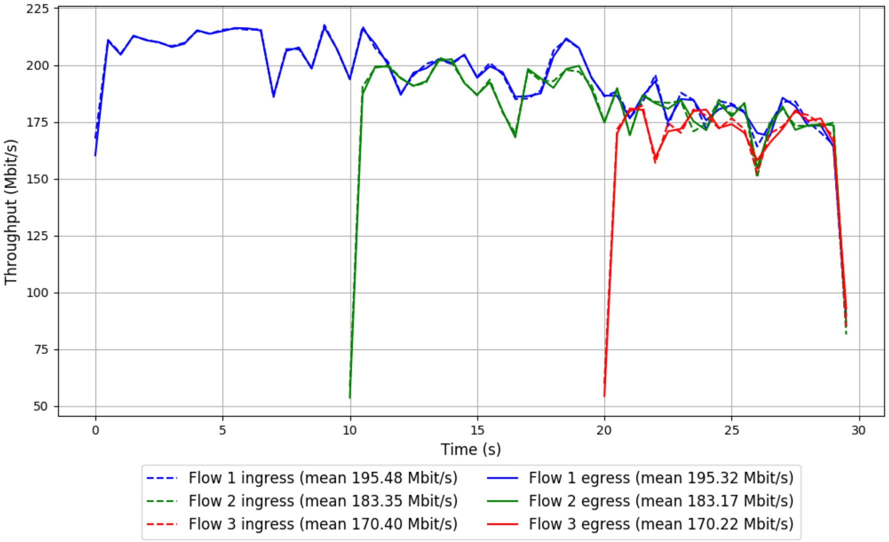


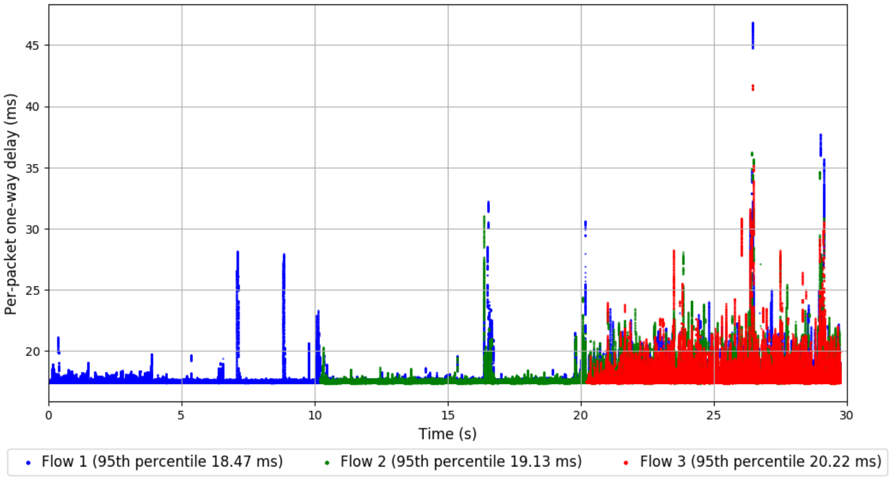
```
Run 8: Statistics of Indigo-1-32

Start at: 2018-04-04 01:23:01
End at: 2018-04-04 01:23:31
Local clock offset: 0.099 ms
Remote clock offset: 0.402 ms

# Below is generated by plot.py at 2018-04-04 07:00:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.34 Mbit/s
95th percentile per-packet one-way delay: 19.067 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 195.32 Mbit/s
95th percentile per-packet one-way delay: 18.469 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 183.17 Mbit/s
95th percentile per-packet one-way delay: 19.133 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 170.22 Mbit/s
95th percentile per-packet one-way delay: 20.218 ms
Loss rate: 0.10%
```

Run 8: Report of Indigo-1-32 — Data Link



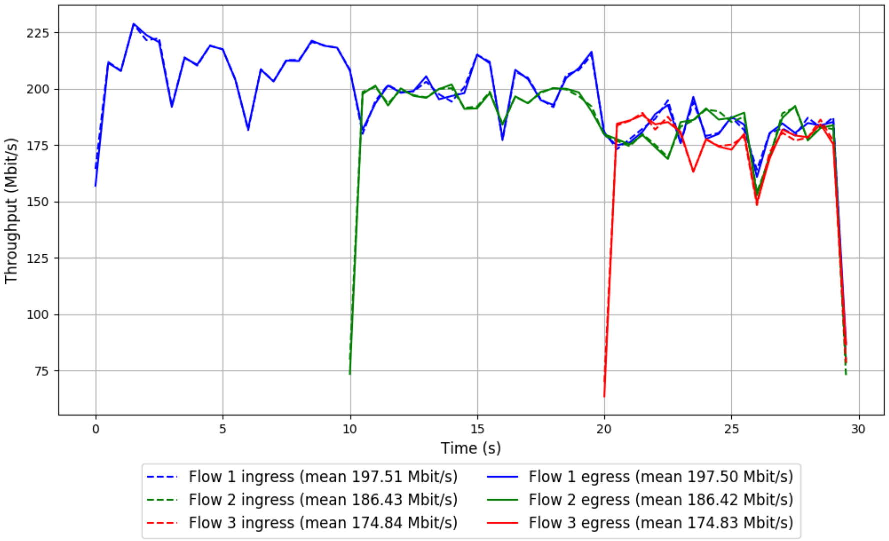


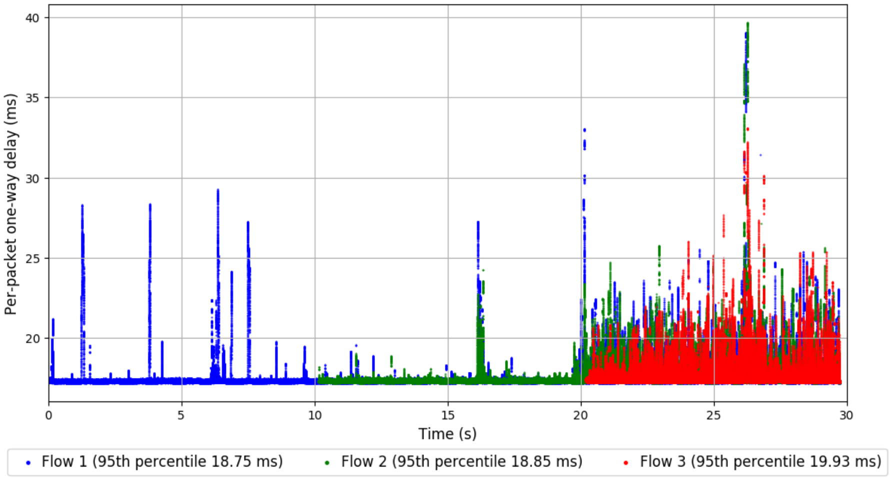
```
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-04 01:51:51
End at: 2018-04-04 01:52:21
Local clock offset: 0.155 ms
Remote clock offset: 0.411 ms

# Below is generated by plot.py at 2018-04-04 07:00:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.72 Mbit/s
95th percentile per-packet one-way delay: 19.021 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 197.50 Mbit/s
95th percentile per-packet one-way delay: 18.748 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 186.42 Mbit/s
95th percentile per-packet one-way delay: 18.846 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 174.83 Mbit/s
95th percentile per-packet one-way delay: 19.931 ms
Loss rate: 0.01%
```

Run 9: Report of Indigo-1-32 — Data Link



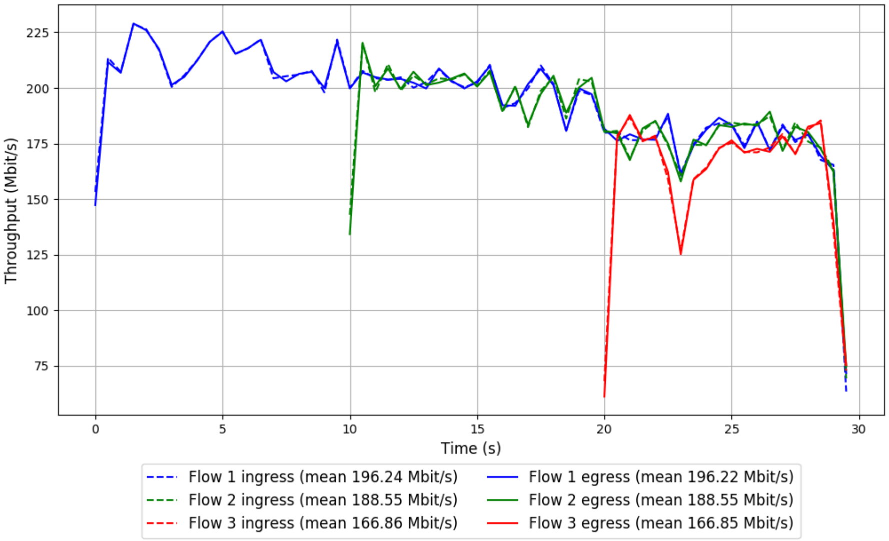


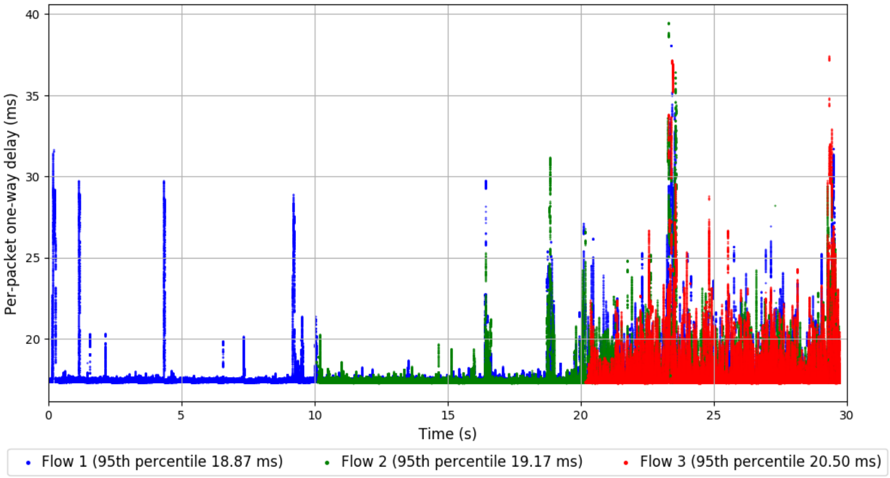
```
Run 10: Statistics of Indigo-1-32

Start at: 2018-04-04 02:20:57
End at: 2018-04-04 02:21:27
Local clock offset: 0.441 ms
Remote clock offset: 0.468 ms

# Below is generated by plot.py at 2018-04-04 07:00:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.49 Mbit/s
95th percentile per-packet one-way delay: 19.297 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 196.22 Mbit/s
95th percentile per-packet one-way delay: 18.870 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 188.55 Mbit/s
95th percentile per-packet one-way delay: 19.171 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 166.85 Mbit/s
95th percentile per-packet one-way delay: 20.503 ms
Loss rate: 0.01%
```

Run 10: Report of Indigo-1-32 — Data Link



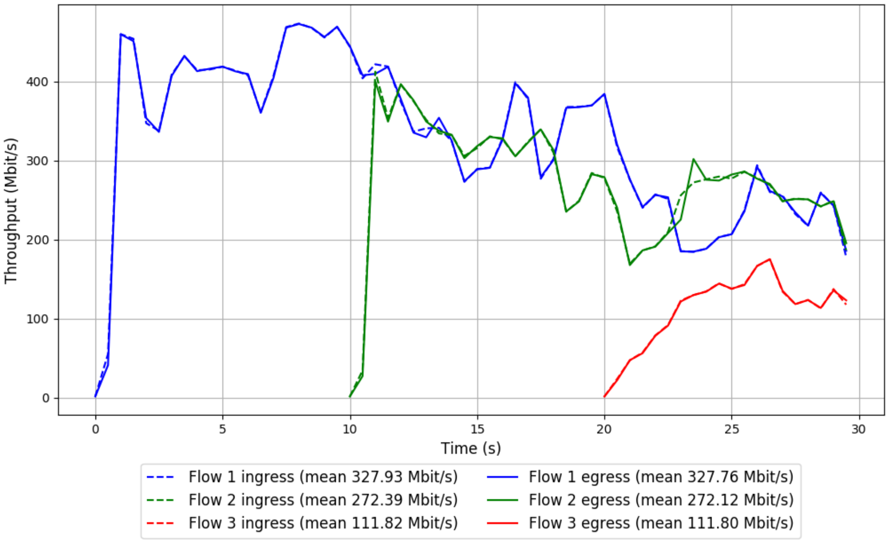


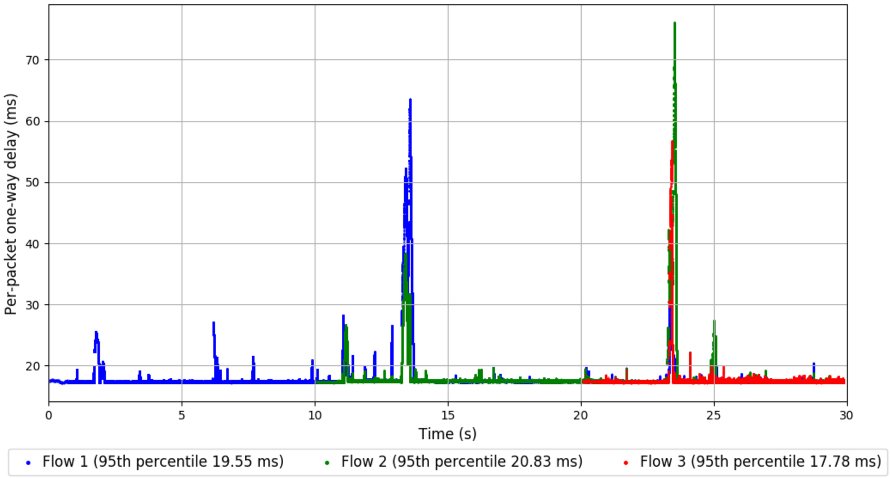
```
Run 1: Statistics of Vivace-latency

Start at: 2018-04-03 22:10:17
End at: 2018-04-03 22:10:47
Local clock offset: 0.795 ms
Remote clock offset: 0.228 ms

# Below is generated by plot.py at 2018-04-04 07:04:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 545.34 Mbit/s
95th percentile per-packet one-way delay: 19.397 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 327.76 Mbit/s
95th percentile per-packet one-way delay: 19.545 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 272.12 Mbit/s
95th percentile per-packet one-way delay: 20.828 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 111.80 Mbit/s
95th percentile per-packet one-way delay: 17.784 ms
Loss rate: 0.01%
```

Run 1: Report of Vivace-latency — Data Link



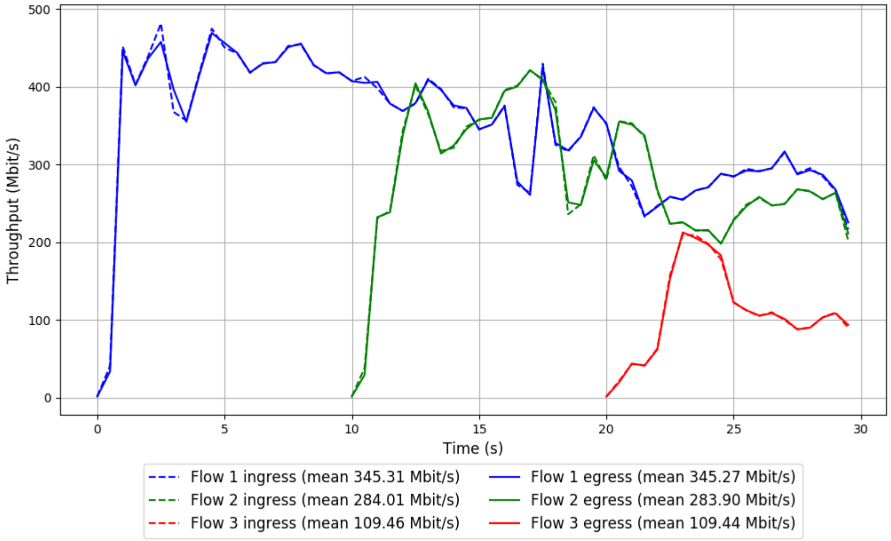


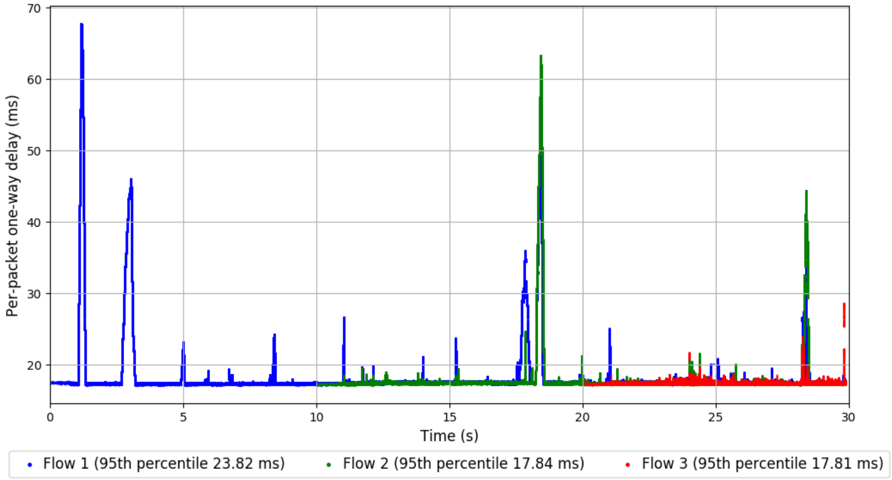
```
Run 2: Statistics of Vivace-latency

Start at: 2018-04-03 22:39:12
End at: 2018-04-03 22:39:42
Local clock offset: 1.221 ms
Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2018-04-04 07:04:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 569.99 Mbit/s
95th percentile per-packet one-way delay: 20.357 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 345.27 Mbit/s
95th percentile per-packet one-way delay: 23.816 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 283.90 Mbit/s
95th percentile per-packet one-way delay: 17.844 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 109.44 Mbit/s
95th percentile per-packet one-way delay: 17.810 ms
Loss rate: 0.02%
```

Run 2: Report of Vivace-latency — Data Link



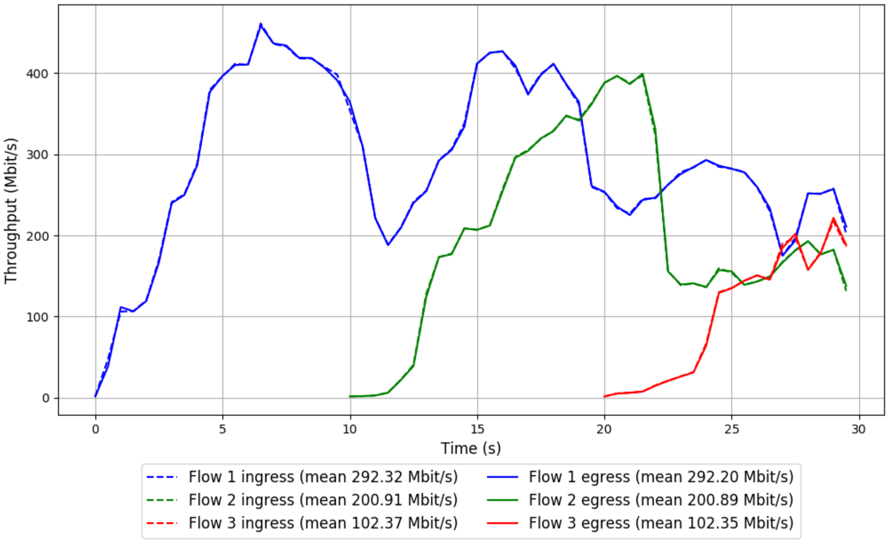


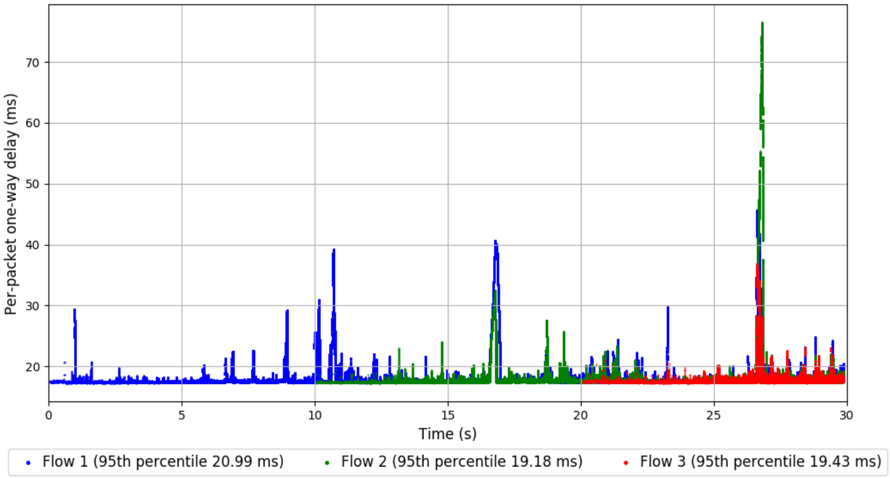
```
Run 3: Statistics of Vivace-latency

Start at: 2018-04-03 23:08:03
End at: 2018-04-03 23:08:33
Local clock offset: 1.266 ms
Remote clock offset: 0.214 ms

# Below is generated by plot.py at 2018-04-04 07:04:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.45 Mbit/s
95th percentile per-packet one-way delay: 20.277 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 292.20 Mbit/s
95th percentile per-packet one-way delay: 20.994 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 200.89 Mbit/s
95th percentile per-packet one-way delay: 19.179 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 102.35 Mbit/s
95th percentile per-packet one-way delay: 19.432 ms
Loss rate: 0.01%
```

Run 3: Report of Vivace-latency — Data Link



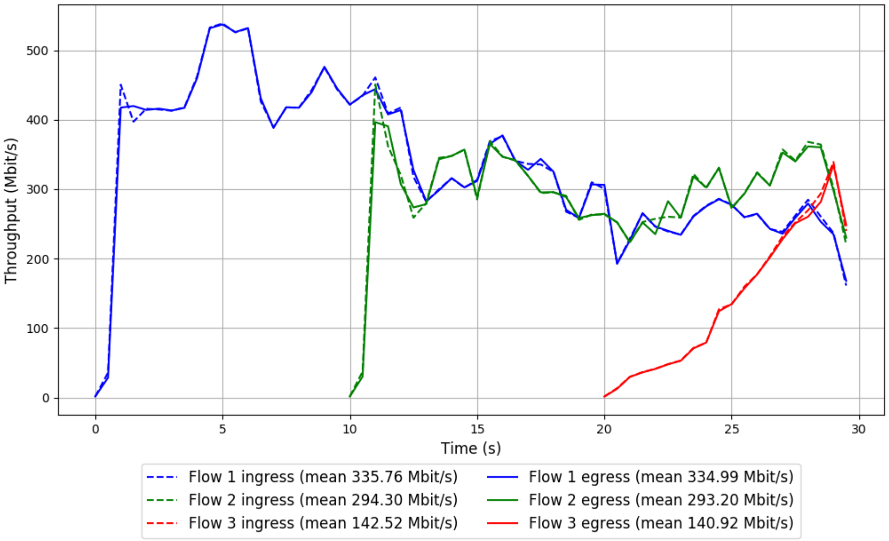


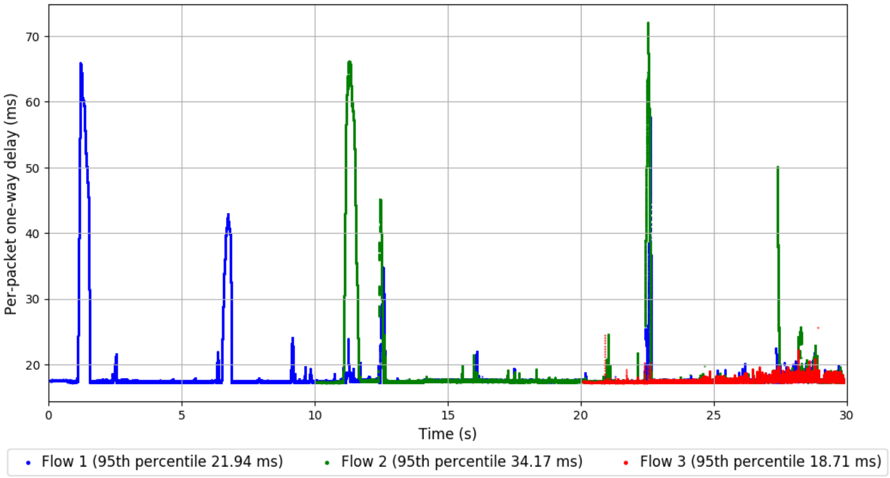
```
Run 4: Statistics of Vivace-latency

Start at: 2018-04-03 23:36:27
End at: 2018-04-03 23:36:57
Local clock offset: 1.015 ms
Remote clock offset: 0.406 ms

# Below is generated by plot.py at 2018-04-04 07:07:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.28 Mbit/s
95th percentile per-packet one-way delay: 22.957 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 334.99 Mbit/s
95th percentile per-packet one-way delay: 21.936 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 293.20 Mbit/s
95th percentile per-packet one-way delay: 34.168 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 140.92 Mbit/s
95th percentile per-packet one-way delay: 18.710 ms
Loss rate: 1.13%
```

Run 4: Report of Vivace-latency — Data Link



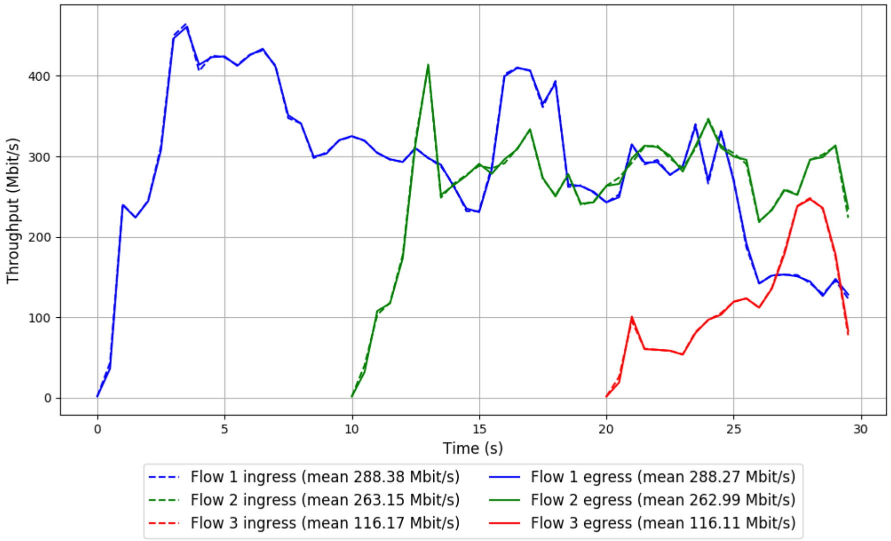


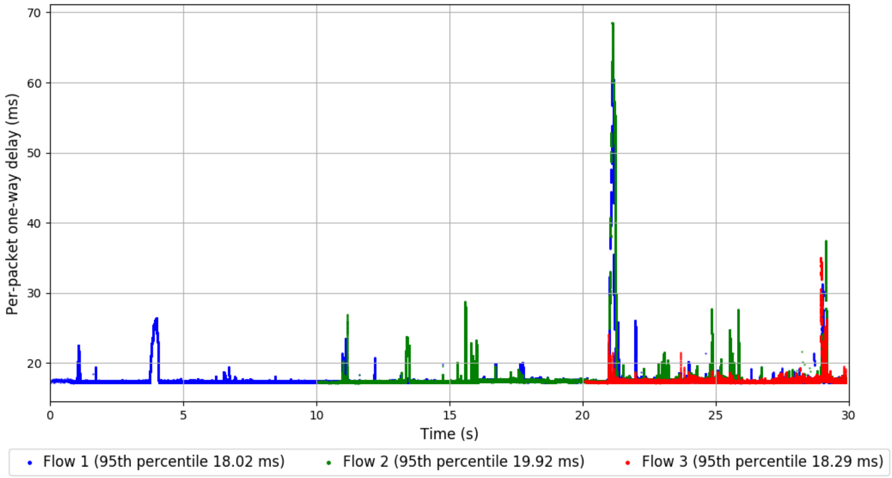
```
Run 5: Statistics of Vivace-latency

Start at: 2018-04-04 00:05:18
End at: 2018-04-04 00:05:48
Local clock offset: 0.718 ms
Remote clock offset: 0.511 ms

# Below is generated by plot.py at 2018-04-04 07:07:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 501.37 Mbit/s
95th percentile per-packet one-way delay: 18.667 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 288.27 Mbit/s
95th percentile per-packet one-way delay: 18.017 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 262.99 Mbit/s
95th percentile per-packet one-way delay: 19.918 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 116.11 Mbit/s
95th percentile per-packet one-way delay: 18.291 ms
Loss rate: 0.06%
```

Run 5: Report of Vivace-latency — Data Link



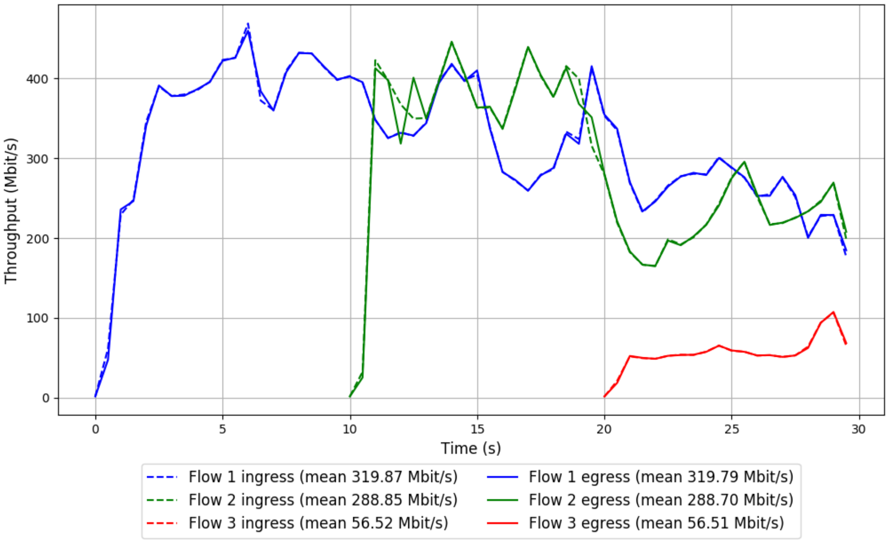


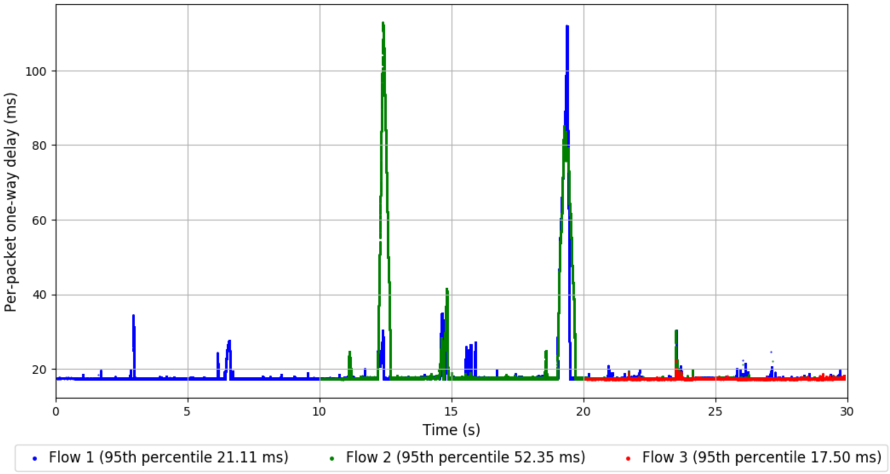
```
Run 6: Statistics of Vivace-latency

Start at: 2018-04-04 00:33:55
End at: 2018-04-04 00:34:25
Local clock offset: 0.141 ms
Remote clock offset: 0.397 ms

# Below is generated by plot.py at 2018-04-04 07:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 530.29 Mbit/s
95th percentile per-packet one-way delay: 25.159 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 319.79 Mbit/s
95th percentile per-packet one-way delay: 21.115 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 288.70 Mbit/s
95th percentile per-packet one-way delay: 52.350 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 56.51 Mbit/s
95th percentile per-packet one-way delay: 17.501 ms
Loss rate: 0.00%
```

Run 6: Report of Vivace-latency — Data Link



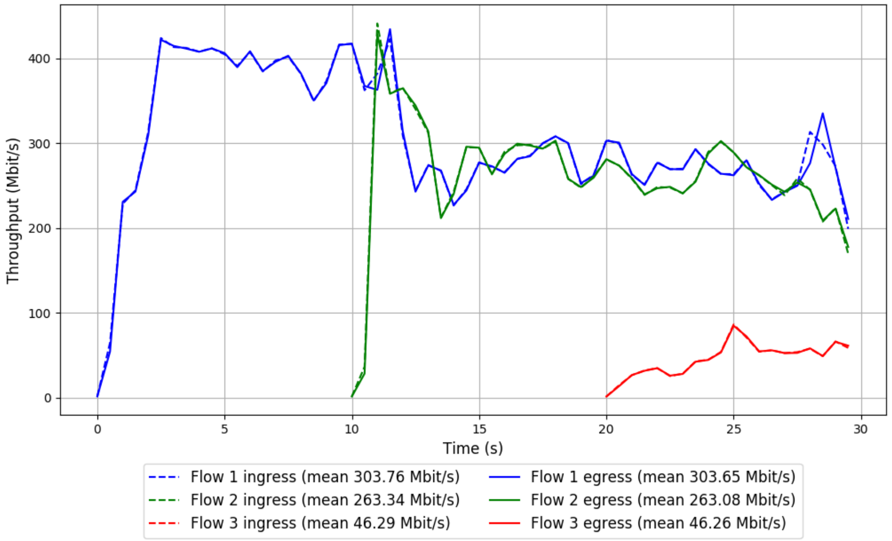


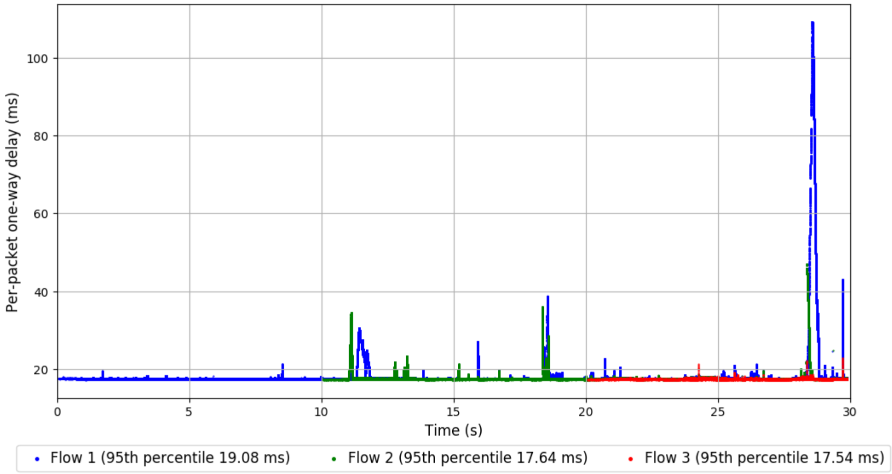
```
Run 7: Statistics of Vivace-latency

Start at: 2018-04-04 01:02:49
End at: 2018-04-04 01:03:19
Local clock offset: -0.048 ms
Remote clock offset: 0.414 ms

# Below is generated by plot.py at 2018-04-04 07:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 493.73 Mbit/s
95th percentile per-packet one-way delay: 18.252 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 303.65 Mbit/s
95th percentile per-packet one-way delay: 19.082 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 263.08 Mbit/s
95th percentile per-packet one-way delay: 17.641 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 46.26 Mbit/s
95th percentile per-packet one-way delay: 17.541 ms
Loss rate: 0.06%
```

Run 7: Report of Vivace-latency — Data Link



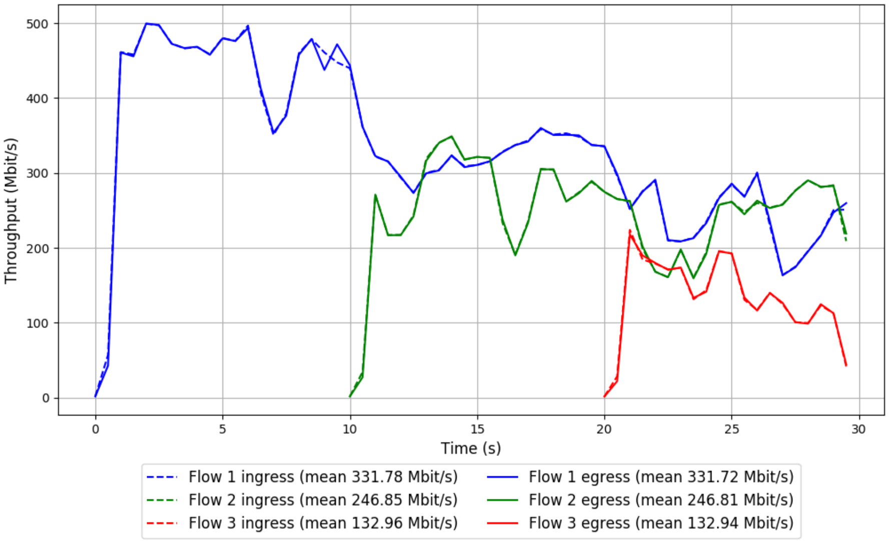


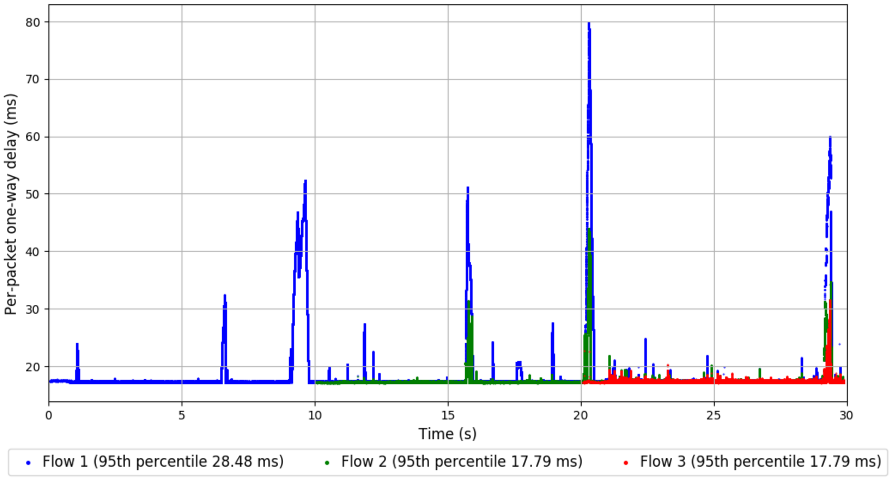
```
Run 8: Statistics of Vivace-latency

Start at: 2018-04-04 01:31:38
End at: 2018-04-04 01:32:08
Local clock offset: 0.214 ms
Remote clock offset: 0.337 ms

# Below is generated by plot.py at 2018-04-04 07:09:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 539.58 Mbit/s
95th percentile per-packet one-way delay: 22.129 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 331.72 Mbit/s
95th percentile per-packet one-way delay: 28.484 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 246.81 Mbit/s
95th percentile per-packet one-way delay: 17.791 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 132.94 Mbit/s
95th percentile per-packet one-way delay: 17.790 ms
Loss rate: 0.03%
```

Run 8: Report of Vivace-latency — Data Link



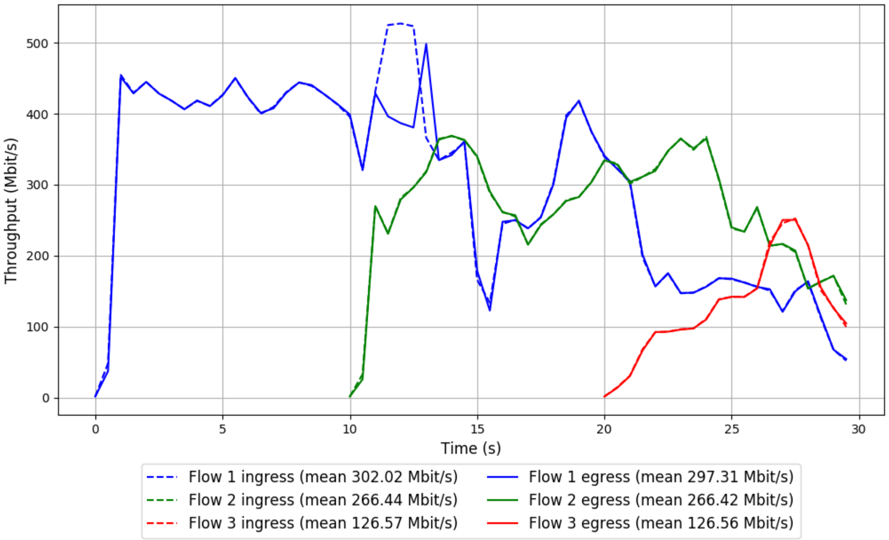


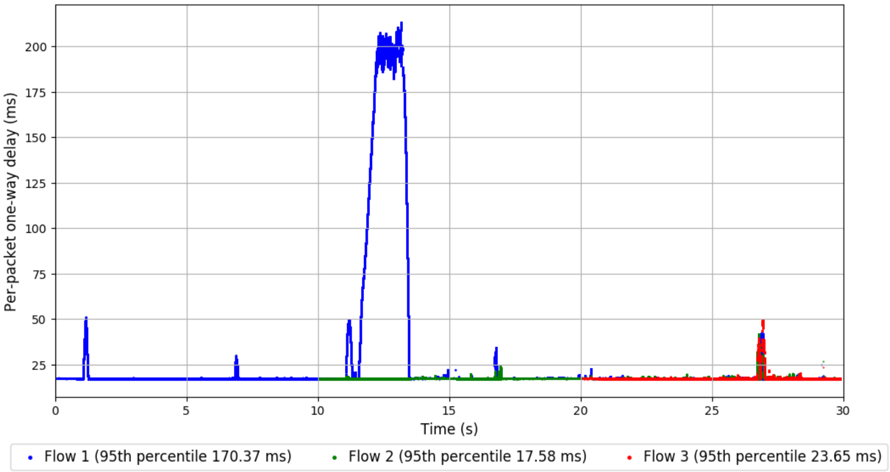
```
Run 9: Statistics of Vivace-latency

Start at: 2018-04-04 02:00:30
End at: 2018-04-04 02:01:00
Local clock offset: 0.094 ms
Remote clock offset: 0.407 ms

# Below is generated by plot.py at 2018-04-04 07:11:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.08 Mbit/s
95th percentile per-packet one-way delay: 48.658 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 297.31 Mbit/s
95th percentile per-packet one-way delay: 170.367 ms
Loss rate: 1.56%
-- Flow 2:
Average throughput: 266.42 Mbit/s
95th percentile per-packet one-way delay: 17.582 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 126.56 Mbit/s
95th percentile per-packet one-way delay: 23.651 ms
Loss rate: 0.00%
```

Run 9: Report of Vivace-latency — Data Link



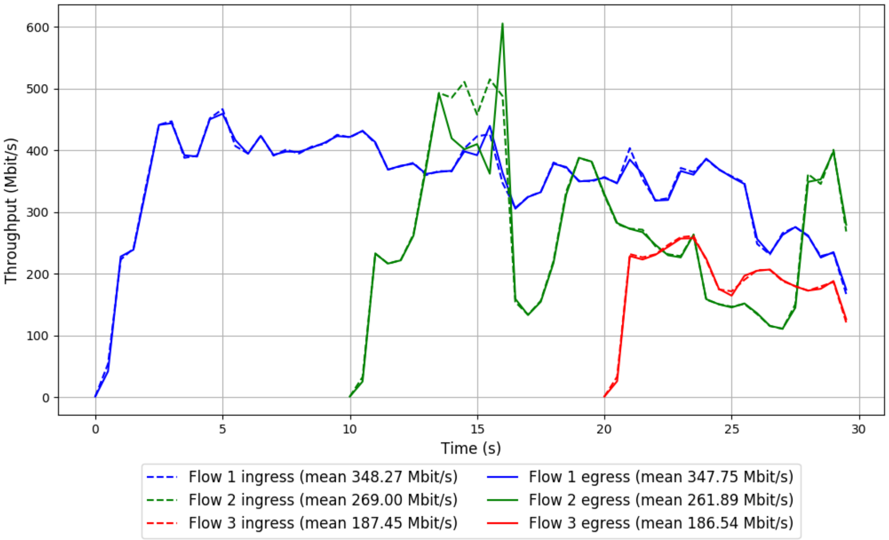


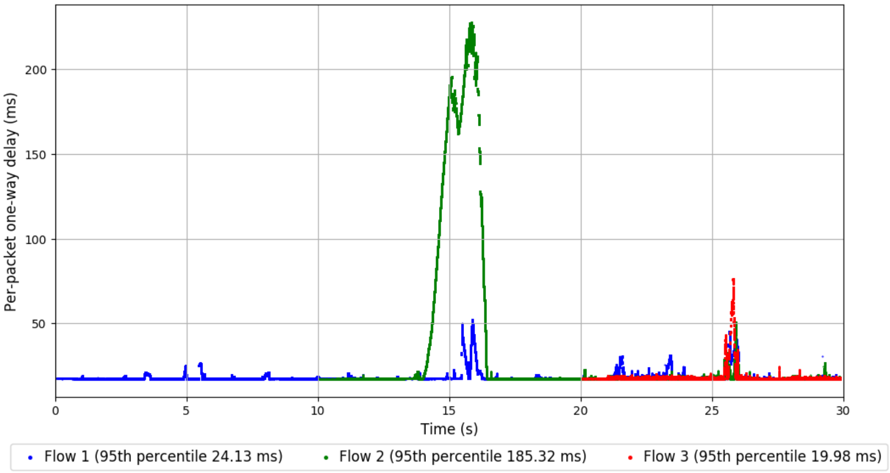
```
Run 10: Statistics of Vivace-latency

Start at: 2018-04-04 02:29:31
End at: 2018-04-04 02:30:01
Local clock offset: 0.55 ms
Remote clock offset: 0.558 ms

# Below is generated by plot.py at 2018-04-04 07:13:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 583.37 Mbit/s
95th percentile per-packet one-way delay: 55.505 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 347.75 Mbit/s
95th percentile per-packet one-way delay: 24.130 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 261.89 Mbit/s
95th percentile per-packet one-way delay: 185.320 ms
Loss rate: 2.64%
-- Flow 3:
Average throughput: 186.54 Mbit/s
95th percentile per-packet one-way delay: 19.984 ms
Loss rate: 0.48%
```

Run 10: Report of Vivace-latency — Data Link



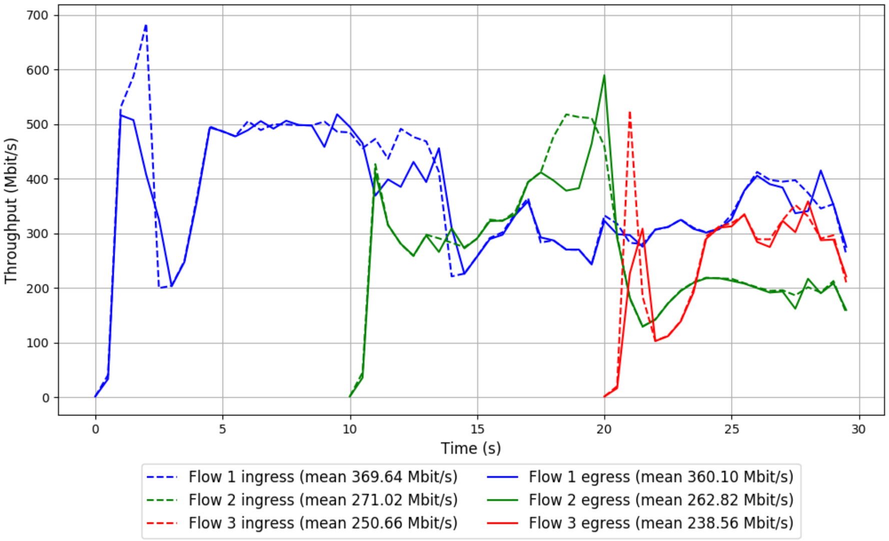


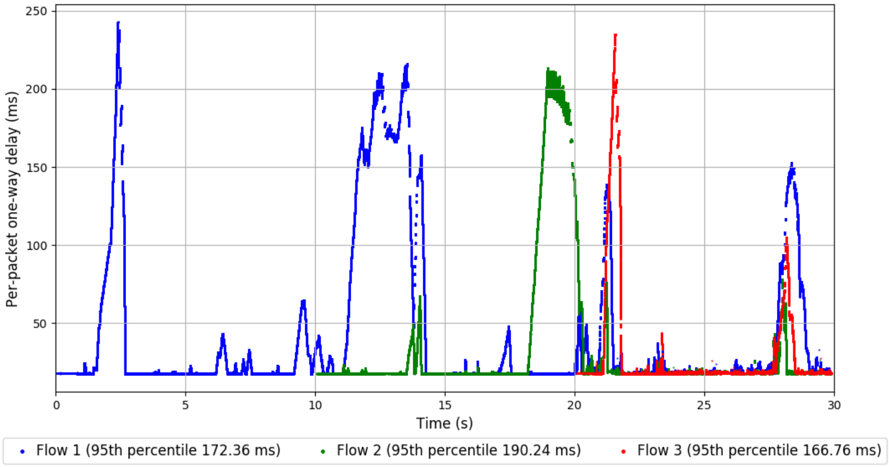
```
Run 1: Statistics of Vivace-loss

Start at: 2018-04-03 22:06:47
End at: 2018-04-03 22:07:17
Local clock offset: 0.705 ms
Remote clock offset: 0.317 ms

# Below is generated by plot.py at 2018-04-04 07:14:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 613.26 Mbit/s
95th percentile per-packet one-way delay: 177.715 ms
Loss rate: 3.00%
-- Flow 1:
Average throughput: 360.10 Mbit/s
95th percentile per-packet one-way delay: 172.361 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 262.82 Mbit/s
95th percentile per-packet one-way delay: 190.237 ms
Loss rate: 3.02%
-- Flow 3:
Average throughput: 238.56 Mbit/s
95th percentile per-packet one-way delay: 166.760 ms
Loss rate: 4.83%
```

Run 1: Report of Vivace-loss — Data Link



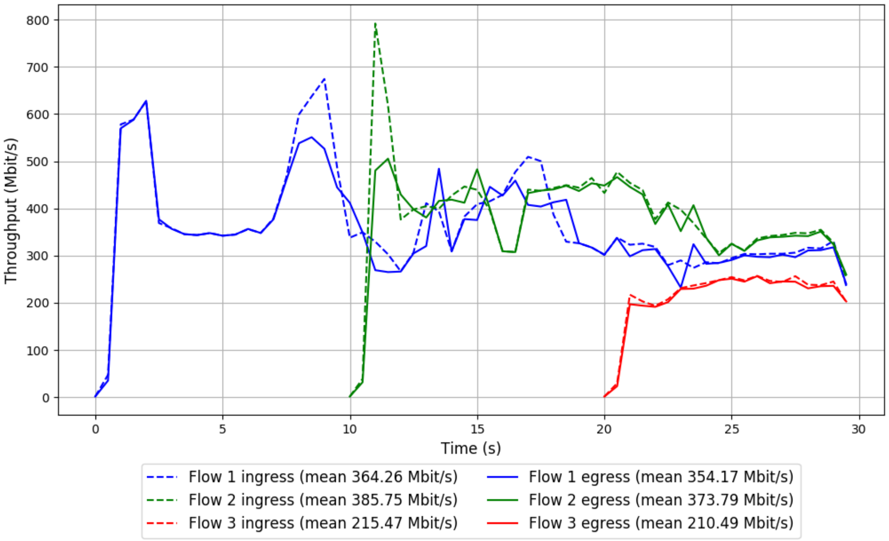


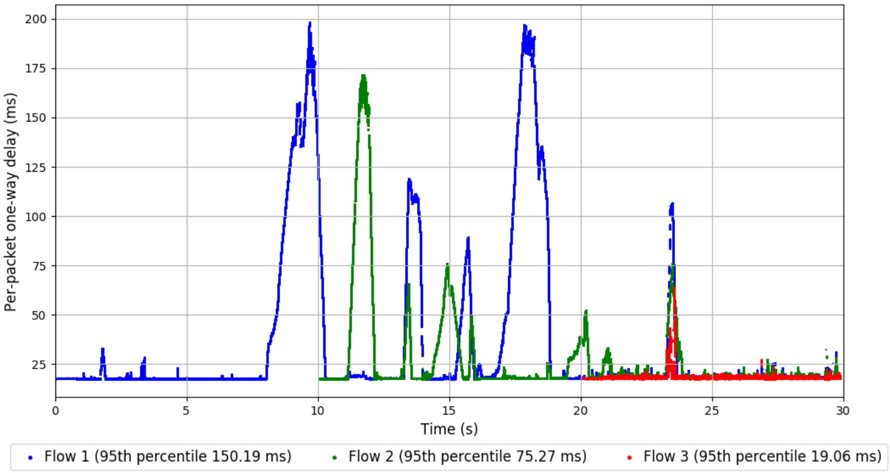
```
Run 2: Statistics of Vivace-loss

Start at: 2018-04-03 22:35:37
End at: 2018-04-03 22:36:07
Local clock offset: 1.092 ms
Remote clock offset: 0.15 ms

# Below is generated by plot.py at 2018-04-04 07:18:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 672.00 Mbit/s
95th percentile per-packet one-way delay: 136.057 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 354.17 Mbit/s
95th percentile per-packet one-way delay: 150.190 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 373.79 Mbit/s
95th percentile per-packet one-way delay: 75.267 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 210.49 Mbit/s
95th percentile per-packet one-way delay: 19.062 ms
Loss rate: 2.31%
```

Run 2: Report of Vivace-loss — Data Link



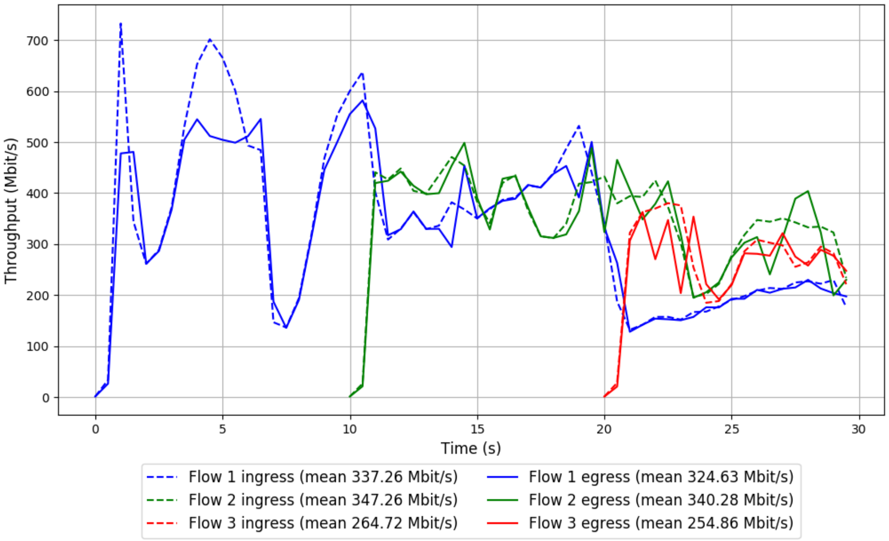


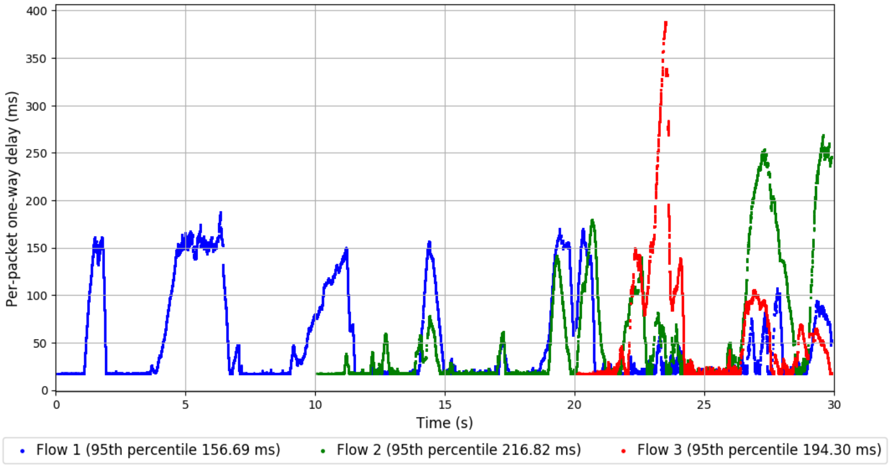
```
Run 3: Statistics of Vivace-loss

Start at: 2018-04-03 23:04:31
End at: 2018-04-03 23:05:01
Local clock offset: 1.239 ms
Remote clock offset: 0.152 ms

# Below is generated by plot.py at 2018-04-04 07:18:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 634.58 Mbit/s
95th percentile per-packet one-way delay: 161.884 ms
Loss rate: 3.14%
-- Flow 1:
Average throughput: 324.63 Mbit/s
95th percentile per-packet one-way delay: 156.693 ms
Loss rate: 3.75%
-- Flow 2:
Average throughput: 340.28 Mbit/s
95th percentile per-packet one-way delay: 216.816 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 254.86 Mbit/s
95th percentile per-packet one-way delay: 194.297 ms
Loss rate: 3.73%
```

Run 3: Report of Vivace-loss — Data Link



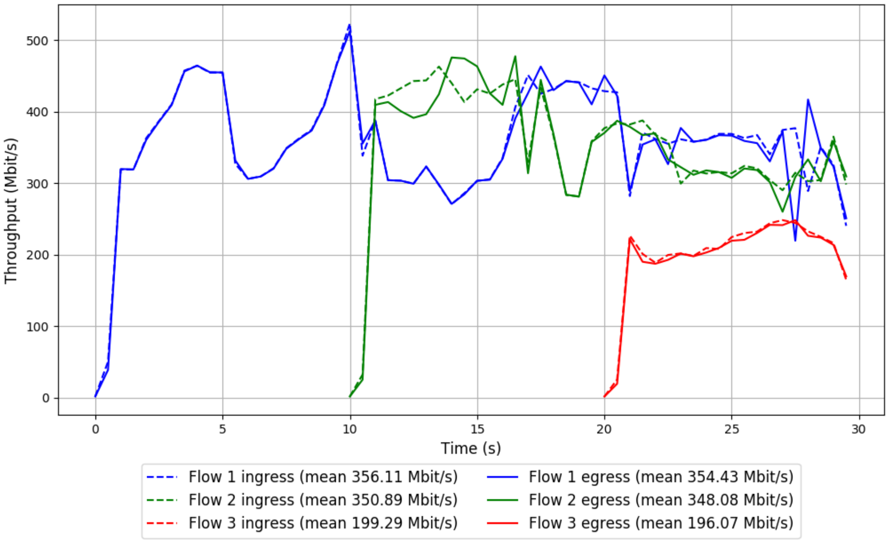


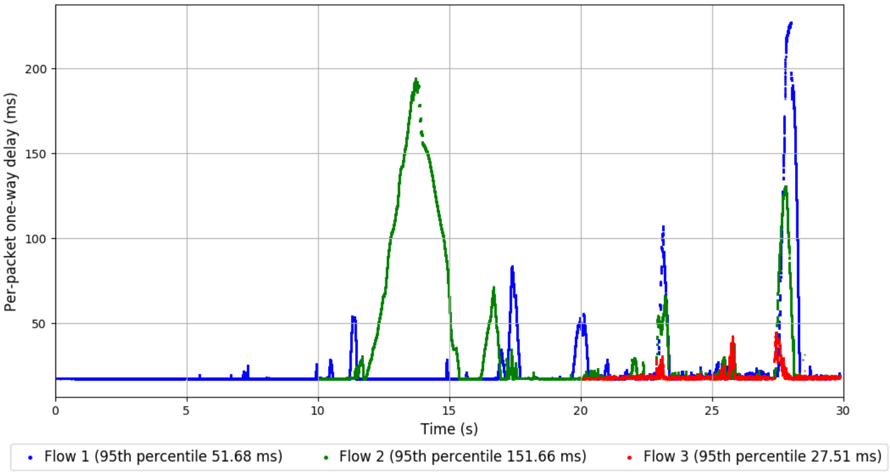
```
Run 4: Statistics of Vivace-loss

Start at: 2018-04-03 23:32:52
End at: 2018-04-03 23:33:22
Local clock offset: 1.24 ms
Remote clock offset: 0.44 ms

# Below is generated by plot.py at 2018-04-04 07:19:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 650.34 Mbit/s
95th percentile per-packet one-way delay: 113.439 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 354.43 Mbit/s
95th percentile per-packet one-way delay: 51.679 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 348.08 Mbit/s
95th percentile per-packet one-way delay: 151.661 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 196.07 Mbit/s
95th percentile per-packet one-way delay: 27.514 ms
Loss rate: 1.60%
```

Run 4: Report of Vivace-loss — Data Link



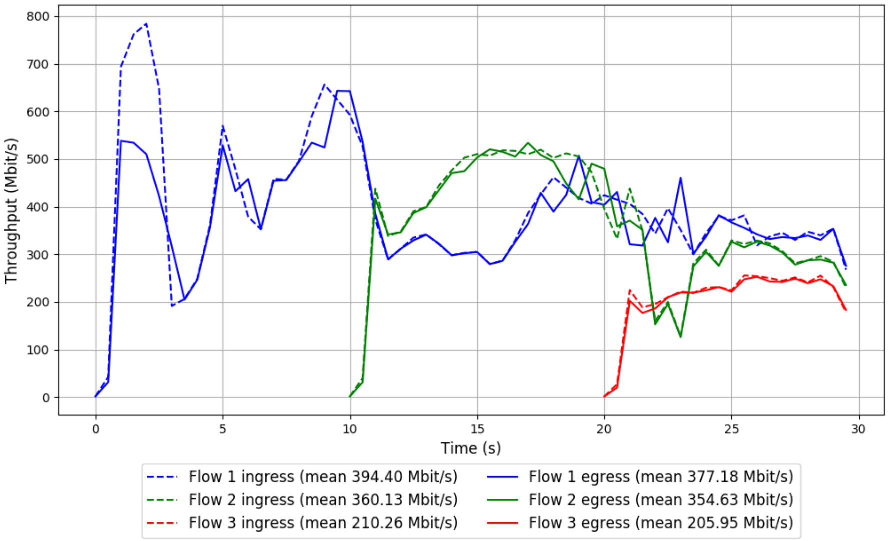


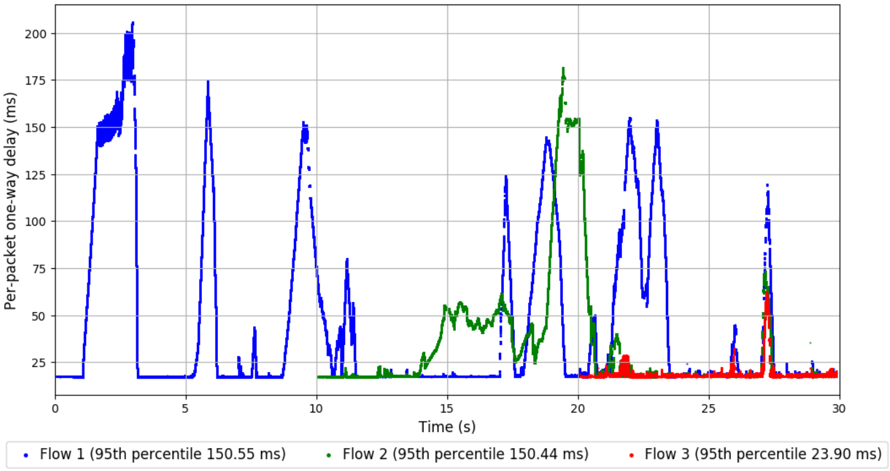
```
Run 5: Statistics of Vivace-loss

Start at: 2018-04-04 00:01:42
End at: 2018-04-04 00:02:12
Local clock offset: 0.799 ms
Remote clock offset: 0.5 ms

# Below is generated by plot.py at 2018-04-04 07:20:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 680.71 Mbit/s
95th percentile per-packet one-way delay: 148.918 ms
Loss rate: 3.17%
-- Flow 1:
Average throughput: 377.18 Mbit/s
95th percentile per-packet one-way delay: 150.546 ms
Loss rate: 4.36%
-- Flow 2:
Average throughput: 354.63 Mbit/s
95th percentile per-packet one-way delay: 150.445 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 205.95 Mbit/s
95th percentile per-packet one-way delay: 23.897 ms
Loss rate: 2.05%
```

Run 5: Report of Vivace-loss — Data Link



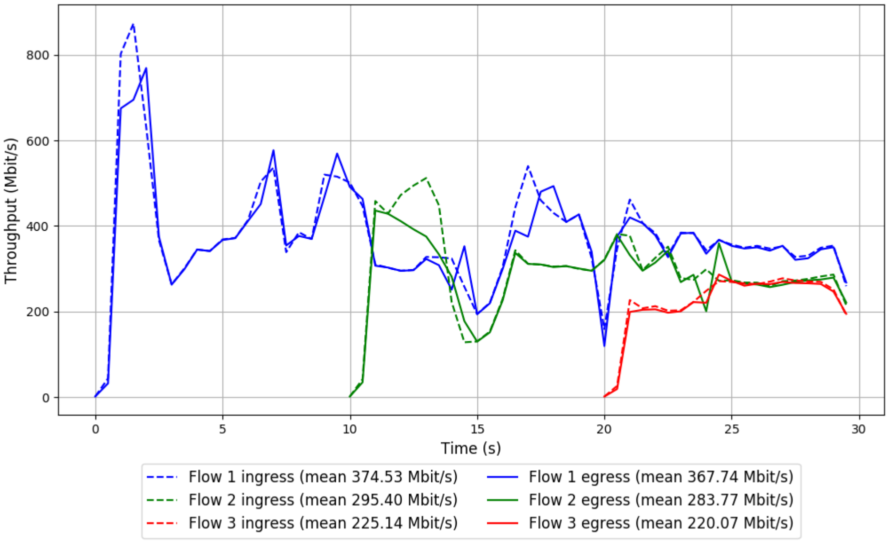


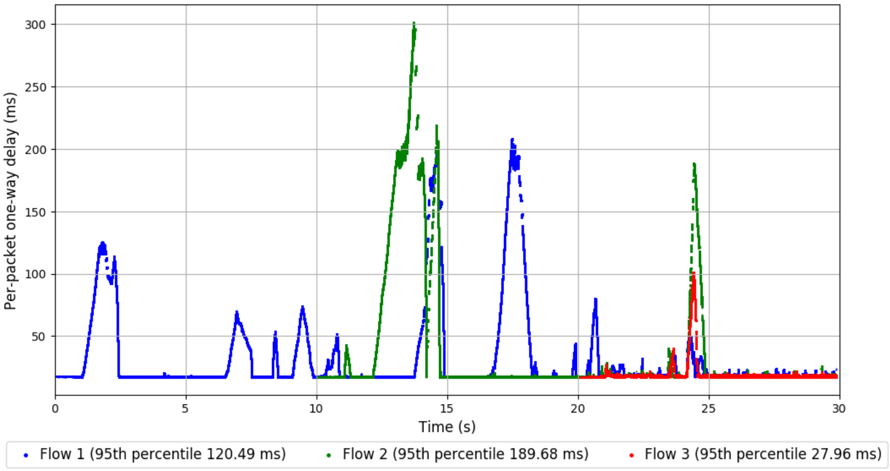
```
Run 6: Statistics of Vivace-loss

Start at: 2018-04-04 00:30:24
End at: 2018-04-04 00:30:54
Local clock offset: 0.242 ms
Remote clock offset: 0.46 ms

# Below is generated by plot.py at 2018-04-04 07:20:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 628.75 Mbit/s
95th percentile per-packet one-way delay: 149.867 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 367.74 Mbit/s
95th percentile per-packet one-way delay: 120.494 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 283.77 Mbit/s
95th percentile per-packet one-way delay: 189.679 ms
Loss rate: 3.94%
-- Flow 3:
Average throughput: 220.07 Mbit/s
95th percentile per-packet one-way delay: 27.959 ms
Loss rate: 2.25%
```

Run 6: Report of Vivace-loss — Data Link



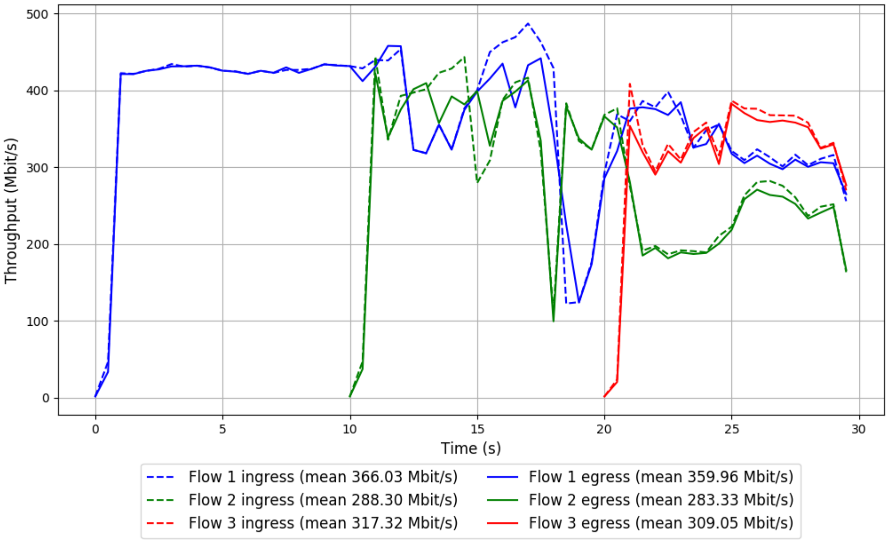


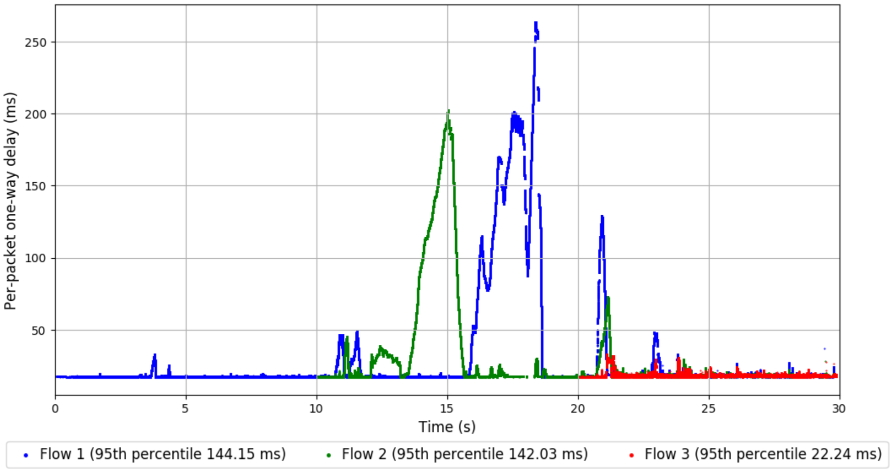
```
Run 7: Statistics of Vivace-loss

Start at: 2018-04-04 00:59:17
End at: 2018-04-04 00:59:47
Local clock offset: 0.028 ms
Remote clock offset: 0.4 ms

# Below is generated by plot.py at 2018-04-04 07:22:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 650.15 Mbit/s
95th percentile per-packet one-way delay: 130.131 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 359.96 Mbit/s
95th percentile per-packet one-way delay: 144.153 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 283.33 Mbit/s
95th percentile per-packet one-way delay: 142.033 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 309.05 Mbit/s
95th percentile per-packet one-way delay: 22.240 ms
Loss rate: 2.60%
```

Run 7: Report of Vivace-loss — Data Link



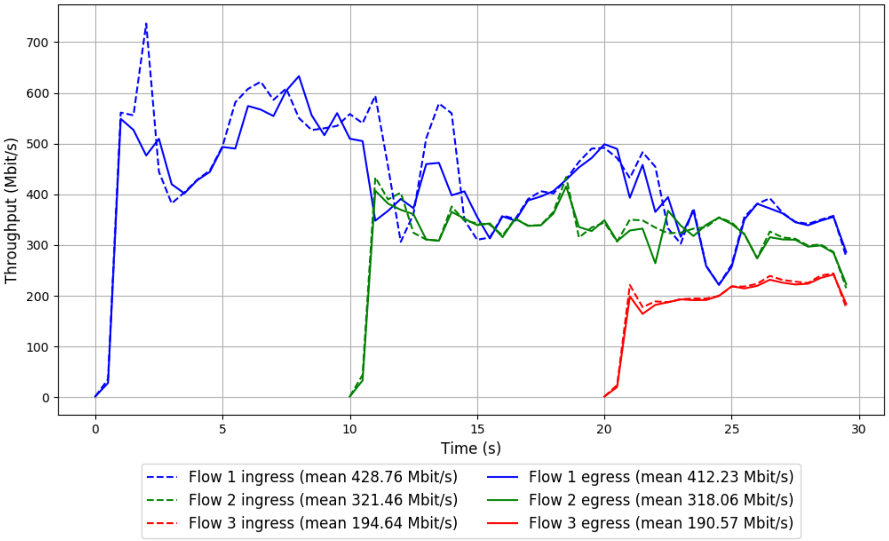


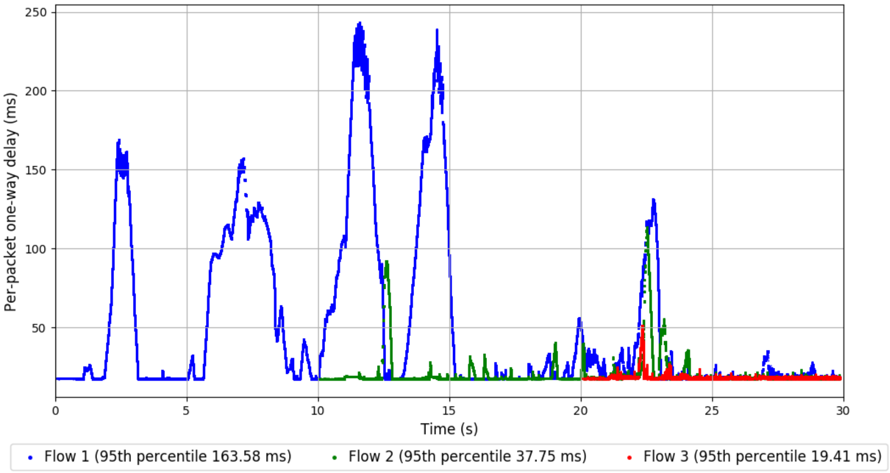
```
Run 8: Statistics of Vivace-loss

Start at: 2018-04-04 01:28:05
End at: 2018-04-04 01:28:35
Local clock offset: 0.205 ms
Remote clock offset: 0.314 ms

# Below is generated by plot.py at 2018-04-04 07:24:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 686.43 Mbit/s
95th percentile per-packet one-way delay: 147.356 ms
Loss rate: 2.85%
-- Flow 1:
Average throughput: 412.23 Mbit/s
95th percentile per-packet one-way delay: 163.579 ms
Loss rate: 3.86%
-- Flow 2:
Average throughput: 318.06 Mbit/s
95th percentile per-packet one-way delay: 37.753 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 190.57 Mbit/s
95th percentile per-packet one-way delay: 19.410 ms
Loss rate: 2.09%
```

Run 8: Report of Vivace-loss — Data Link



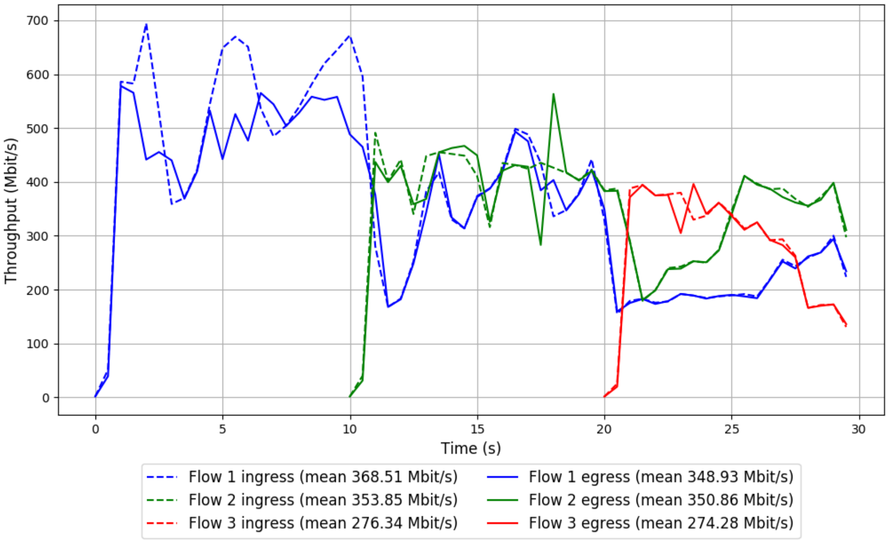


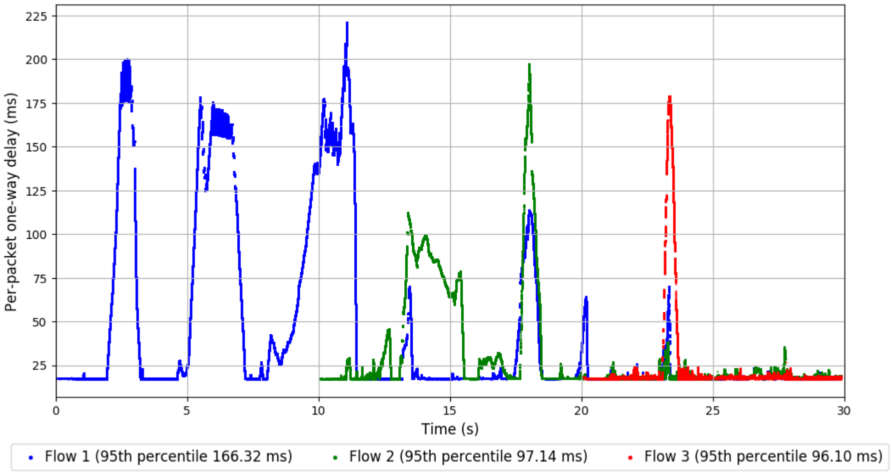
```
Run 9: Statistics of Vivace-loss

Start at: 2018-04-04 01:56:54
End at: 2018-04-04 01:57:24
Local clock offset: 0.085 ms
Remote clock offset: 0.333 ms

# Below is generated by plot.py at 2018-04-04 07:25:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 672.47 Mbit/s
95th percentile per-packet one-way delay: 158.670 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 348.93 Mbit/s
95th percentile per-packet one-way delay: 166.317 ms
Loss rate: 5.31%
-- Flow 2:
Average throughput: 350.86 Mbit/s
95th percentile per-packet one-way delay: 97.140 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 274.28 Mbit/s
95th percentile per-packet one-way delay: 96.098 ms
Loss rate: 0.76%
```

Run 9: Report of Vivace-loss — Data Link



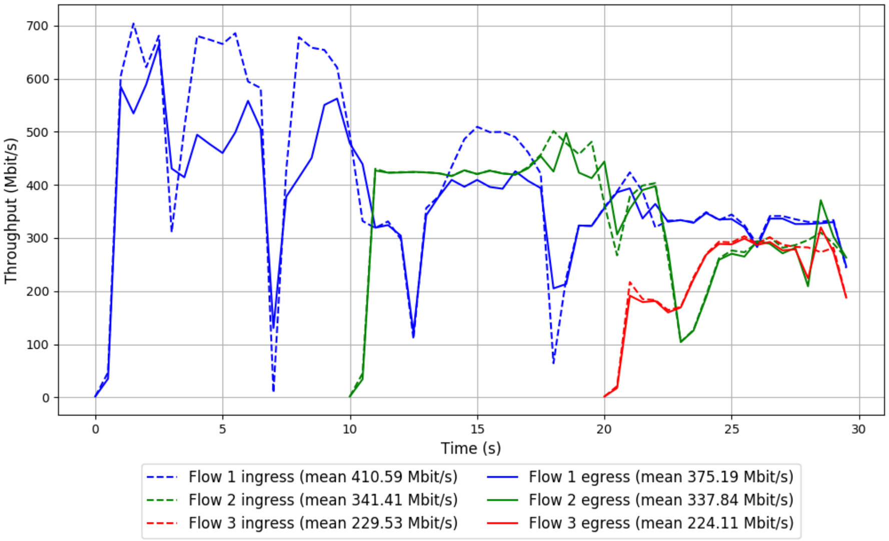


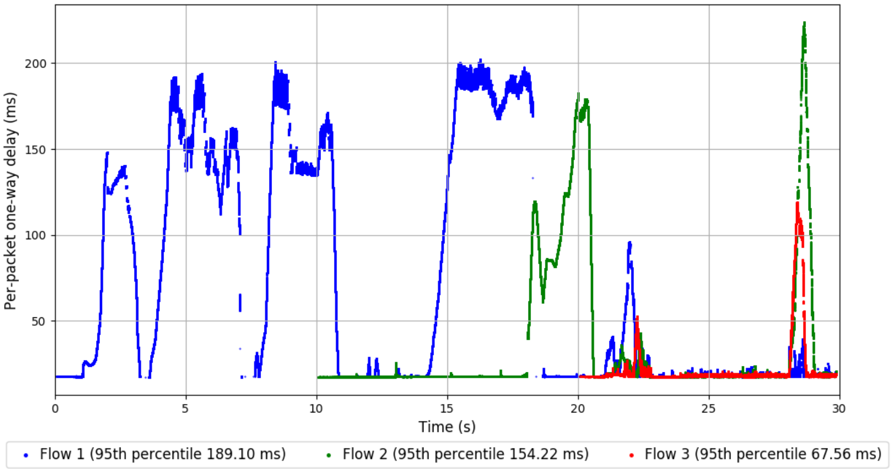
```
Run 10: Statistics of Vivace-loss

Start at: 2018-04-04 02:25:58
End at: 2018-04-04 02:26:28
Local clock offset: 0.437 ms
Remote clock offset: 0.461 ms

# Below is generated by plot.py at 2018-04-04 07:29:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 673.55 Mbit/s
95th percentile per-packet one-way delay: 185.463 ms
Loss rate: 5.54%
-- Flow 1:
Average throughput: 375.19 Mbit/s
95th percentile per-packet one-way delay: 189.099 ms
Loss rate: 8.62%
-- Flow 2:
Average throughput: 337.84 Mbit/s
95th percentile per-packet one-way delay: 154.219 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 224.11 Mbit/s
95th percentile per-packet one-way delay: 67.558 ms
Loss rate: 2.35%
```

Run 10: Report of Vivace-loss — Data Link



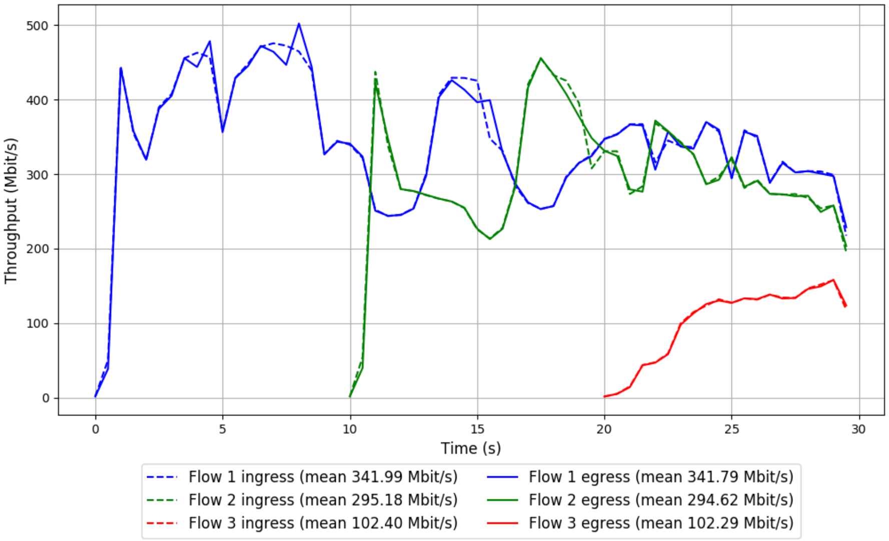


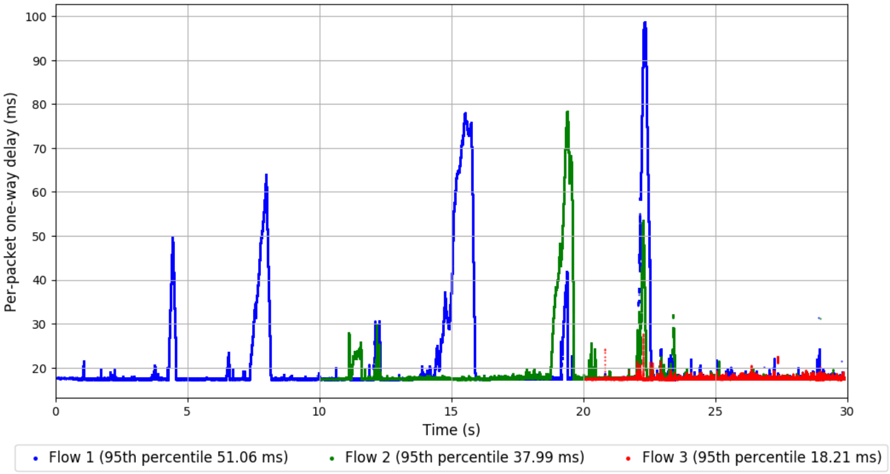
```
Run 1: Statistics of Vivace-LTE

Start at: 2018-04-03 22:04:59
End at: 2018-04-03 22:05:29
Local clock offset: 0.719 ms
Remote clock offset: 0.329 ms

# Below is generated by plot.py at 2018-04-04 07:29:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 571.32 Mbit/s
95th percentile per-packet one-way delay: 44.142 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 341.79 Mbit/s
95th percentile per-packet one-way delay: 51.060 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 294.62 Mbit/s
95th percentile per-packet one-way delay: 37.992 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 102.29 Mbit/s
95th percentile per-packet one-way delay: 18.212 ms
Loss rate: 0.16%
```

Run 1: Report of Vivace-LTE — Data Link



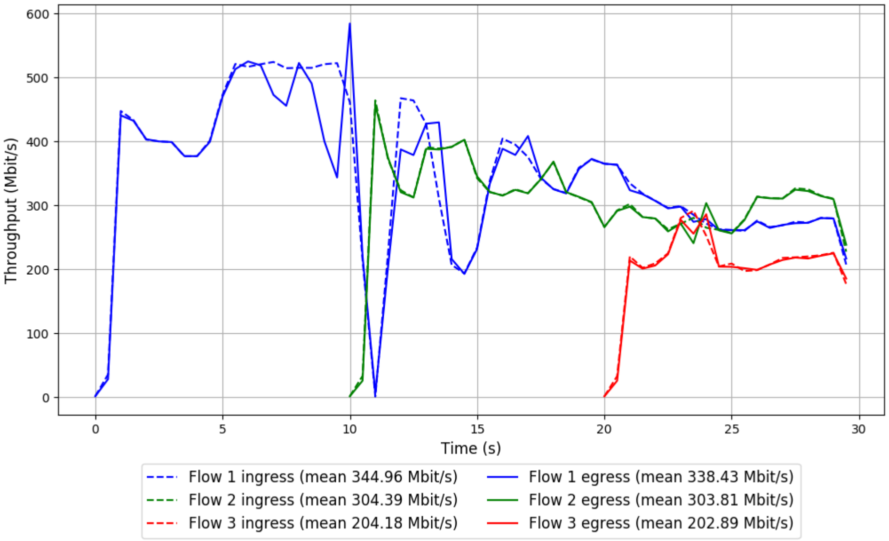


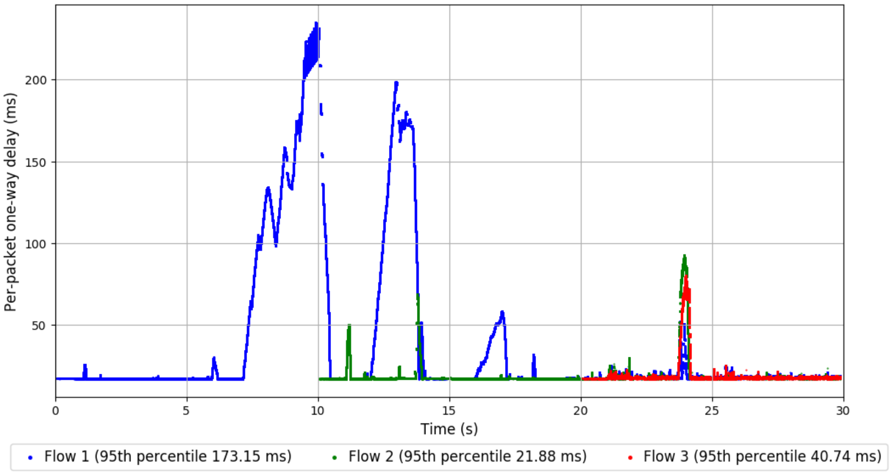
```
Run 2: Statistics of Vivace-LTE

Start at: 2018-04-03 22:33:46
End at: 2018-04-03 22:34:16
Local clock offset: 1.129 ms
Remote clock offset: 0.069 ms

# Below is generated by plot.py at 2018-04-04 07:29:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 607.21 Mbit/s
95th percentile per-packet one-way delay: 144.516 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 338.43 Mbit/s
95th percentile per-packet one-way delay: 173.153 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 303.81 Mbit/s
95th percentile per-packet one-way delay: 21.875 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 202.89 Mbit/s
95th percentile per-packet one-way delay: 40.741 ms
Loss rate: 0.63%
```

Run 2: Report of Vivace-LTE — Data Link



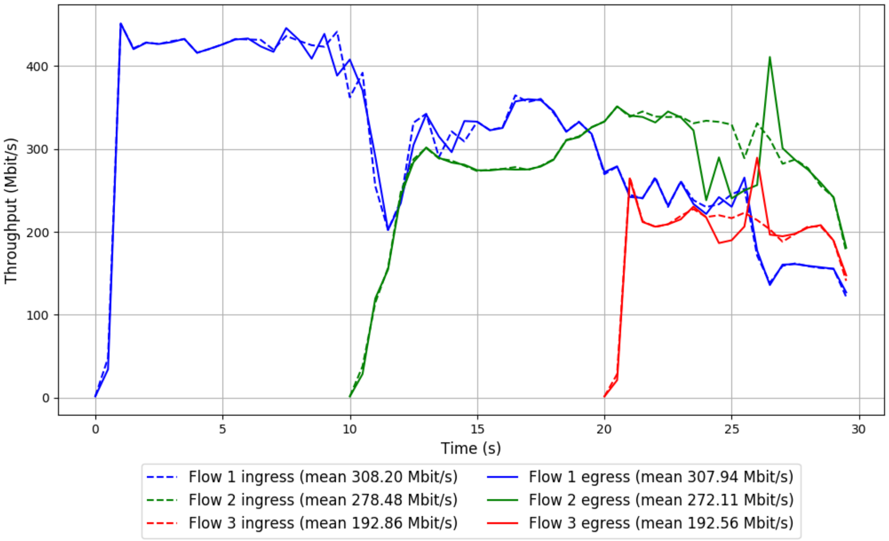


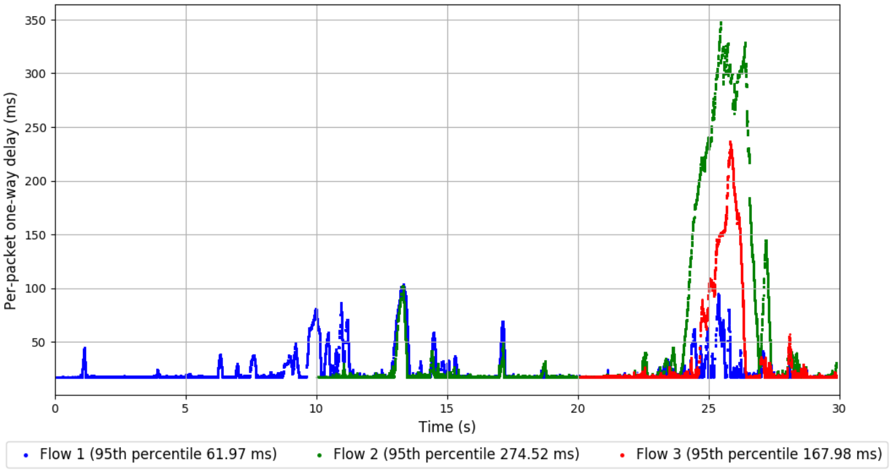
```
Run 3: Statistics of Vivace-LTE

Start at: 2018-04-03 23:02:43
End at: 2018-04-03 23:03:13
Local clock offset: 1.371 ms
Remote clock offset: 0.138 ms

# Below is generated by plot.py at 2018-04-04 07:29:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 552.27 Mbit/s
95th percentile per-packet one-way delay: 139.975 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 307.94 Mbit/s
95th percentile per-packet one-way delay: 61.972 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 272.11 Mbit/s
95th percentile per-packet one-way delay: 274.517 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 192.56 Mbit/s
95th percentile per-packet one-way delay: 167.978 ms
Loss rate: 0.15%
```

Run 3: Report of Vivace-LTE — Data Link



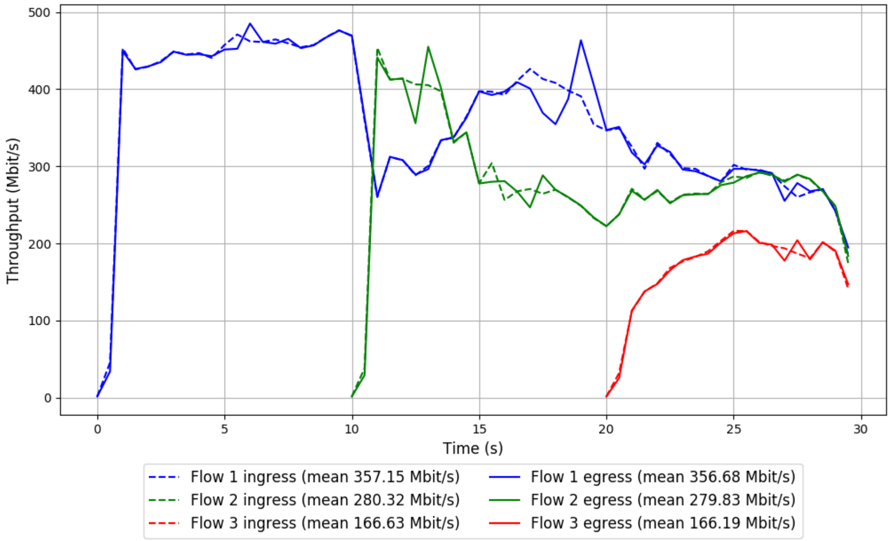


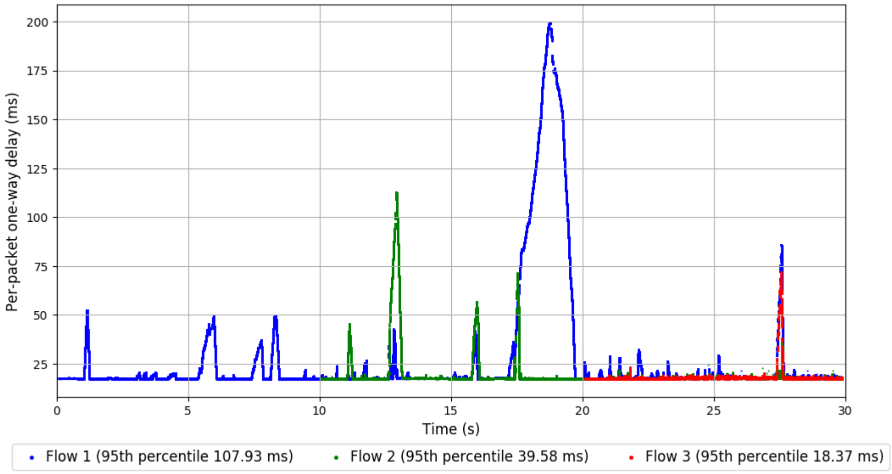
```
Run 4: Statistics of Vivace-LTE

Start at: 2018-04-03 23:31:02
End at: 2018-04-03 23:31:32
Local clock offset: 1.262 ms
Remote clock offset: 0.367 ms

# Below is generated by plot.py at 2018-04-04 07:29:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.38 Mbit/s
95th percentile per-packet one-way delay: 69.417 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 356.68 Mbit/s
95th percentile per-packet one-way delay: 107.928 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 279.83 Mbit/s
95th percentile per-packet one-way delay: 39.579 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 166.19 Mbit/s
95th percentile per-packet one-way delay: 18.371 ms
Loss rate: 0.26%
```

Run 4: Report of Vivace-LTE — Data Link



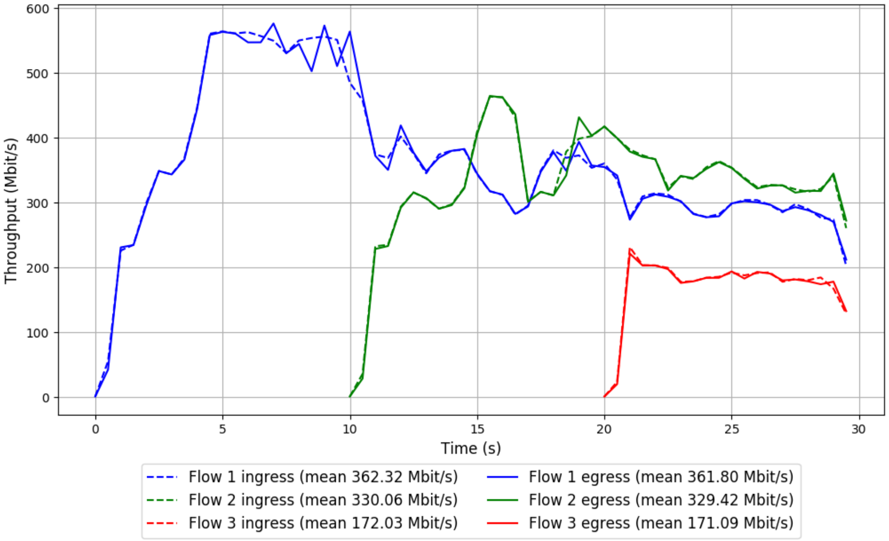


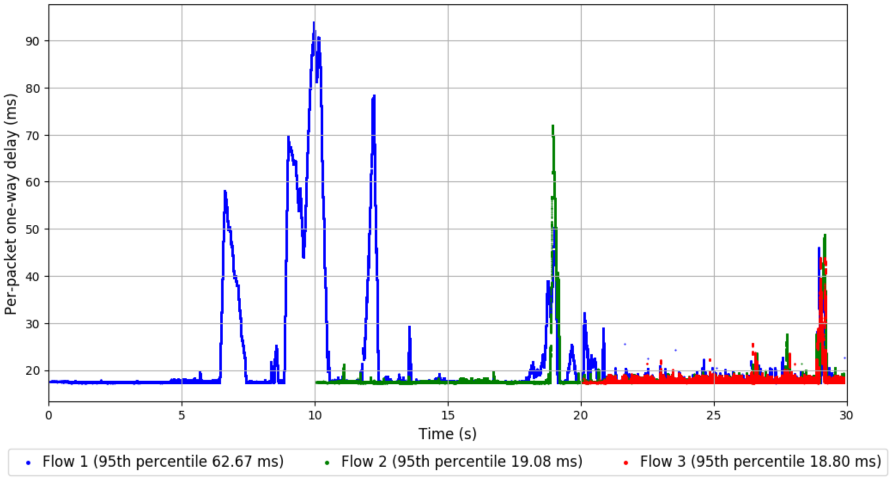
```
Run 5: Statistics of Vivace-LTE

Start at: 2018-04-03 23:59:50
End at: 2018-04-04 00:00:20
Local clock offset: 0.82 ms
Remote clock offset: 0.56 ms

# Below is generated by plot.py at 2018-04-04 07:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 637.05 Mbit/s
95th percentile per-packet one-way delay: 50.317 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 361.80 Mbit/s
95th percentile per-packet one-way delay: 62.671 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 329.42 Mbit/s
95th percentile per-packet one-way delay: 19.079 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 171.09 Mbit/s
95th percentile per-packet one-way delay: 18.797 ms
Loss rate: 0.55%
```

Run 5: Report of Vivace-LTE — Data Link



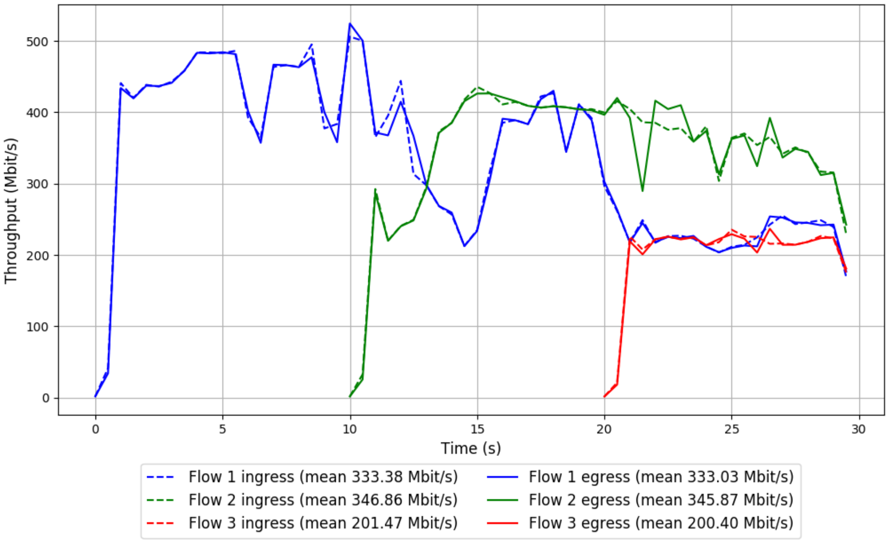


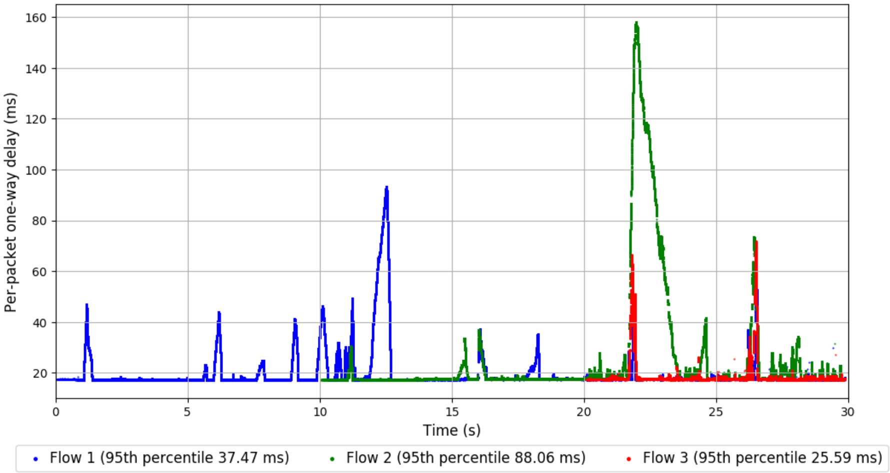
```
Run 6: Statistics of Vivace-LTE

Start at: 2018-04-04 00:28:32
End at: 2018-04-04 00:29:02
Local clock offset: 0.316 ms
Remote clock offset: 0.418 ms

# Below is generated by plot.py at 2018-04-04 07:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 628.83 Mbit/s
95th percentile per-packet one-way delay: 45.591 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 333.03 Mbit/s
95th percentile per-packet one-way delay: 37.466 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 345.87 Mbit/s
95th percentile per-packet one-way delay: 88.064 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 200.40 Mbit/s
95th percentile per-packet one-way delay: 25.586 ms
Loss rate: 0.53%
```

Run 6: Report of Vivace-LTE — Data Link



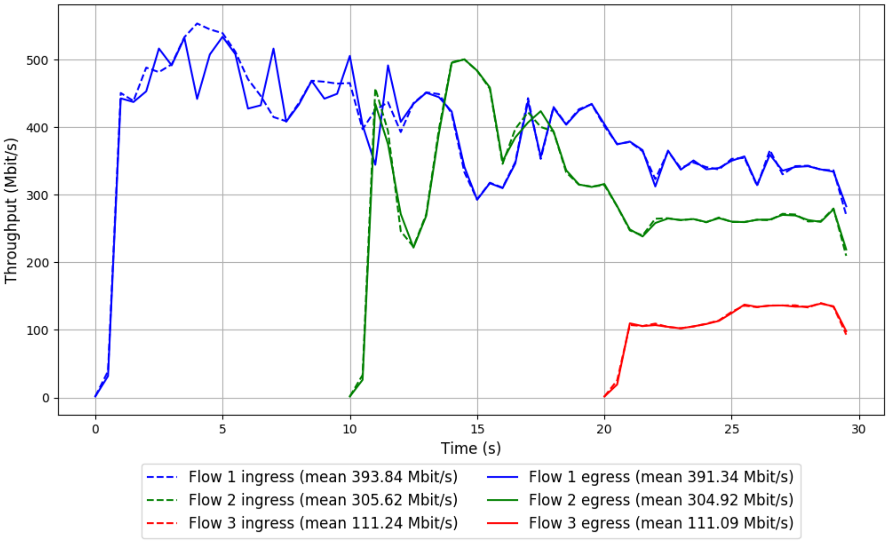


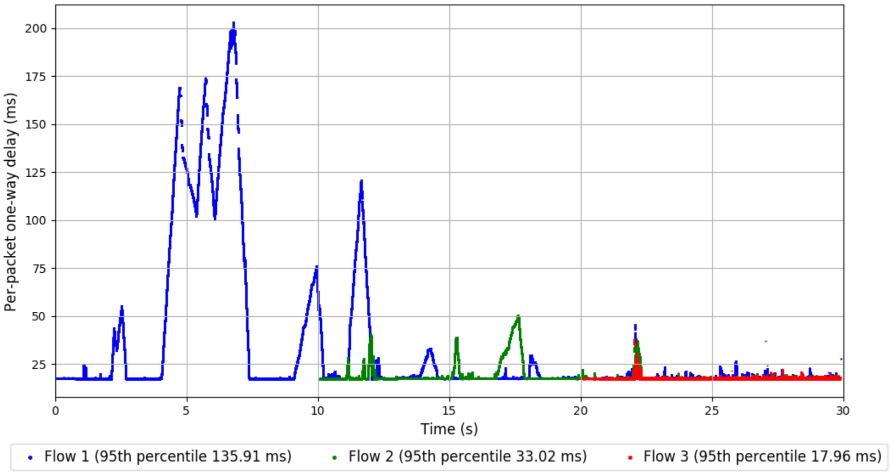
```
Run 7: Statistics of Vivace-LTE

Start at: 2018-04-04 00:57:26
End at: 2018-04-04 00:57:56
Local clock offset: 0.071 ms
Remote clock offset: 0.41 ms

# Below is generated by plot.py at 2018-04-04 07:33:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 630.58 Mbit/s
95th percentile per-packet one-way delay: 118.550 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 391.34 Mbit/s
95th percentile per-packet one-way delay: 135.907 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 304.92 Mbit/s
95th percentile per-packet one-way delay: 33.023 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 111.09 Mbit/s
95th percentile per-packet one-way delay: 17.959 ms
Loss rate: 0.14%
```

Run 7: Report of Vivace-LTE — Data Link



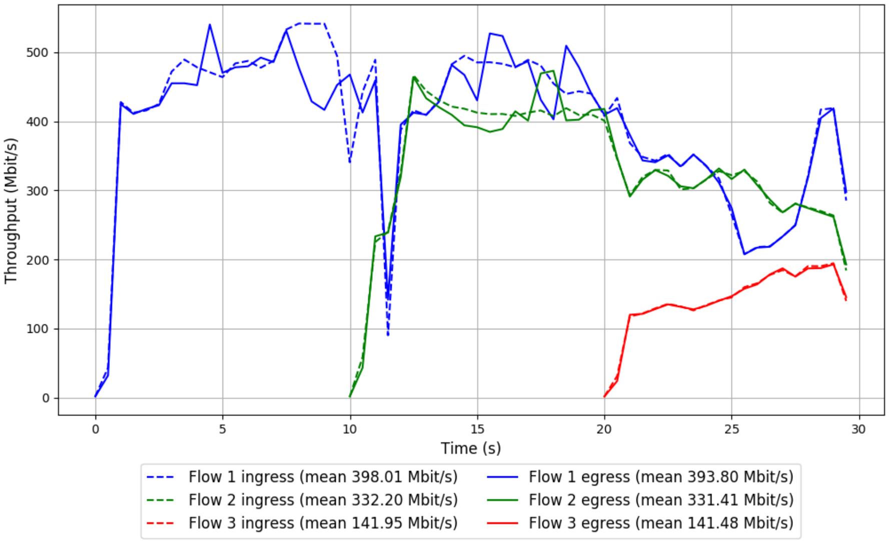


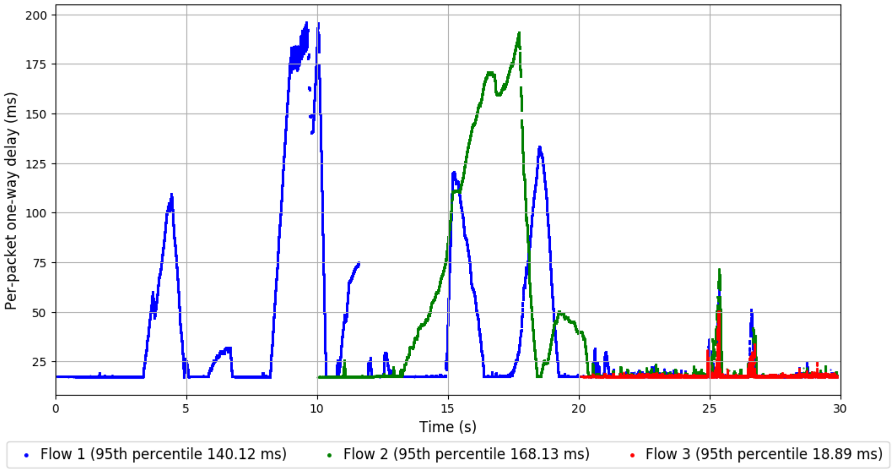
```
Run 8: Statistics of Vivace-LTE

Start at: 2018-04-04 01:26:12
End at: 2018-04-04 01:26:42
Local clock offset: 0.225 ms
Remote clock offset: 0.321 ms

# Below is generated by plot.py at 2018-04-04 07:34:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 660.74 Mbit/s
95th percentile per-packet one-way delay: 160.057 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 393.80 Mbit/s
95th percentile per-packet one-way delay: 140.120 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 331.41 Mbit/s
95th percentile per-packet one-way delay: 168.129 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 141.48 Mbit/s
95th percentile per-packet one-way delay: 18.893 ms
Loss rate: 0.33%
```

Run 8: Report of Vivace-LTE — Data Link



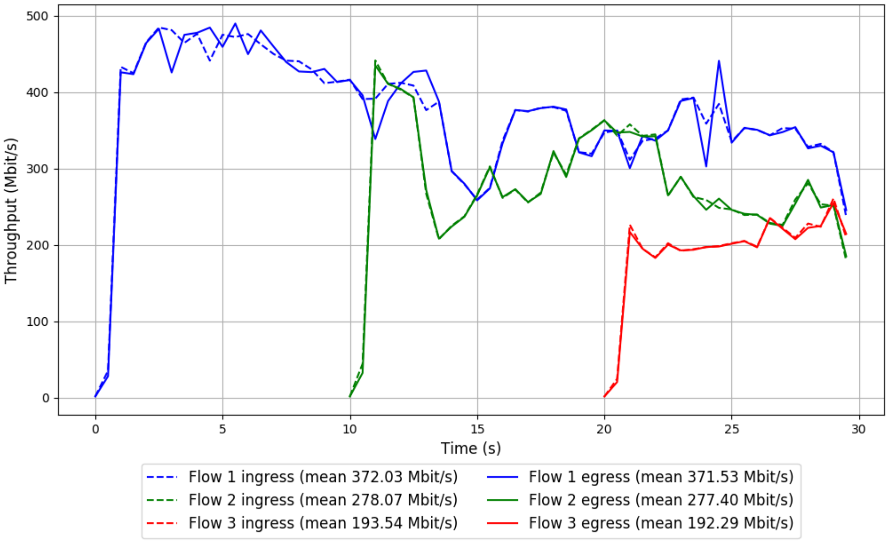


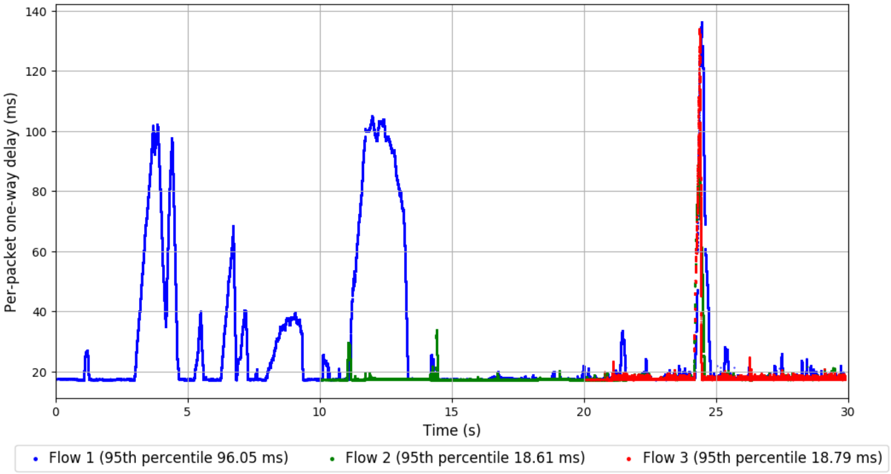
```
Run 9: Statistics of Vivace-LTE

Start at: 2018-04-04 01:55:03
End at: 2018-04-04 01:55:33
Local clock offset: 0.086 ms
Remote clock offset: 0.371 ms

# Below is generated by plot.py at 2018-04-04 07:34:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 619.28 Mbit/s
95th percentile per-packet one-way delay: 82.423 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 371.53 Mbit/s
95th percentile per-packet one-way delay: 96.048 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 277.40 Mbit/s
95th percentile per-packet one-way delay: 18.610 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 192.29 Mbit/s
95th percentile per-packet one-way delay: 18.789 ms
Loss rate: 0.72%
```

Run 9: Report of Vivace-LTE — Data Link



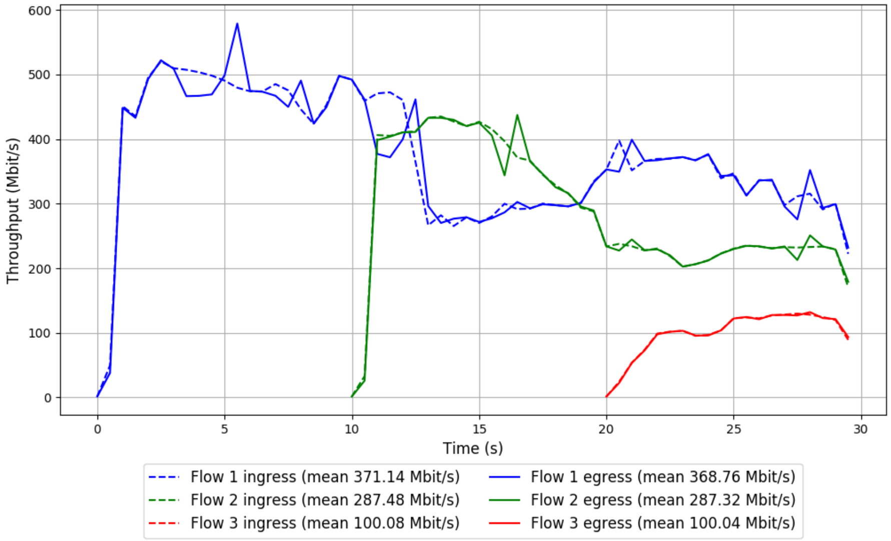


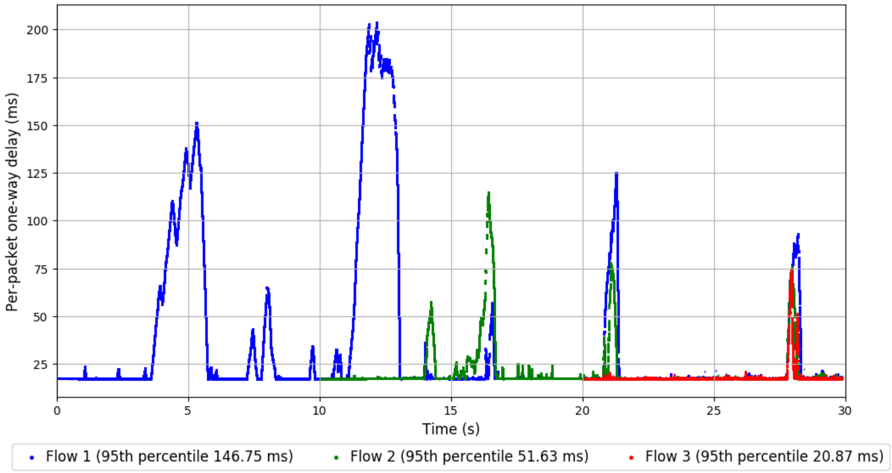
```
Run 10: Statistics of Vivace-LTE

Start at: 2018-04-04 02:24:09
End at: 2018-04-04 02:24:39
Local clock offset: 0.576 ms
Remote clock offset: 0.515 ms

# Below is generated by plot.py at 2018-04-04 07:34:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 592.66 Mbit/s
95th percentile per-packet one-way delay: 123.032 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 368.76 Mbit/s
95th percentile per-packet one-way delay: 146.750 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 287.32 Mbit/s
95th percentile per-packet one-way delay: 51.627 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 100.04 Mbit/s
95th percentile per-packet one-way delay: 20.866 ms
Loss rate: 0.04%
```

Run 10: Report of Vivace-LTE — Data Link


Throughput (Mbit/s)
600
500
400
300
200
100
0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 371.14 Mbit/s)
Flow 1 egress (mean 368.76 Mbit/s)
Flow 2 ingress (mean 287.48 Mbit/s)
Flow 2 egress (mean 287.32 Mbit/s)
Flow 3 ingress (mean 100.08 Mbit/s)
Flow 3 egress (mean 100.04 Mbit/s)


Per-packet one-way delay (ms)
200
175
150
125
100
75
50
25
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 146.75 ms)
Flow 2 (95th percentile 51.63 ms)
Flow 3 (95th percentile 20.87 ms)