

## Pantheon Report

Generated at 2018-01-17 07:10:08 (UTC).

Data path: China Ethernet (*remote*) → AWS Korea Ethernet (*local*).

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).

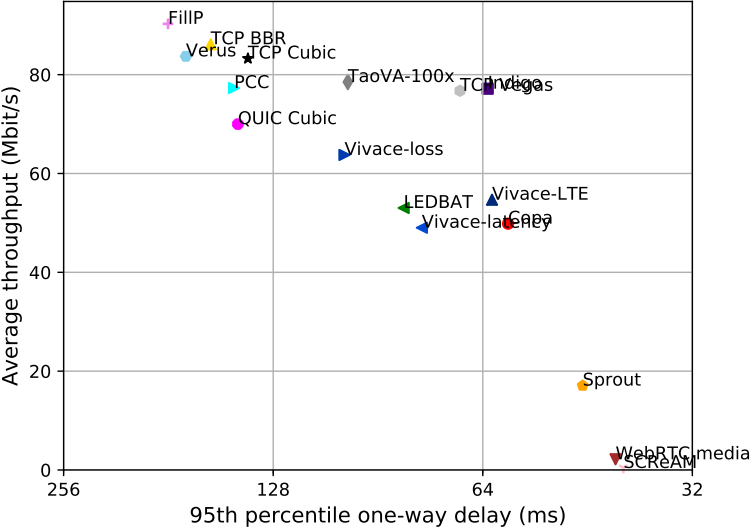
Tested BBR with qdisc of Fair Queuing (*fq*), and other schemes with the default Linux qdisc (*pfifo\_fast*).

NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

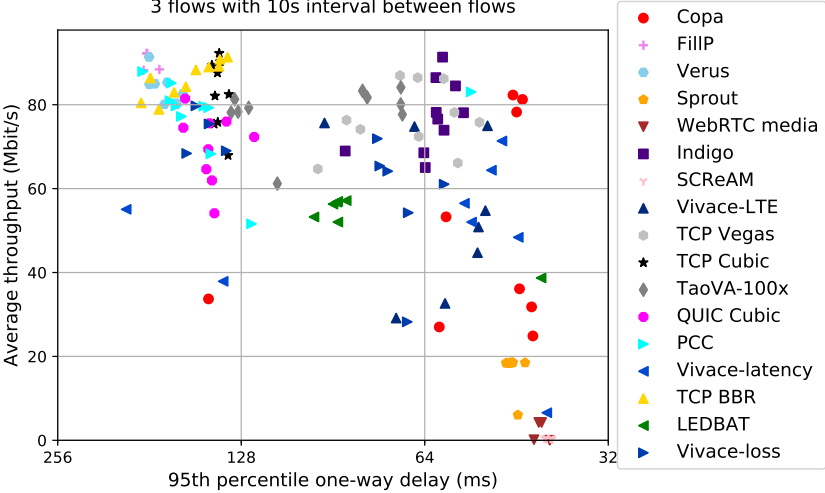
Git summary:

```
branch: master @ 386976fcf771de1359acd909bfbb98a156d79009
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 423cbca3e8ea1d599e7b5cf725835e8a2b6bfac6
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme  
 3 flows with 10s interval between flows





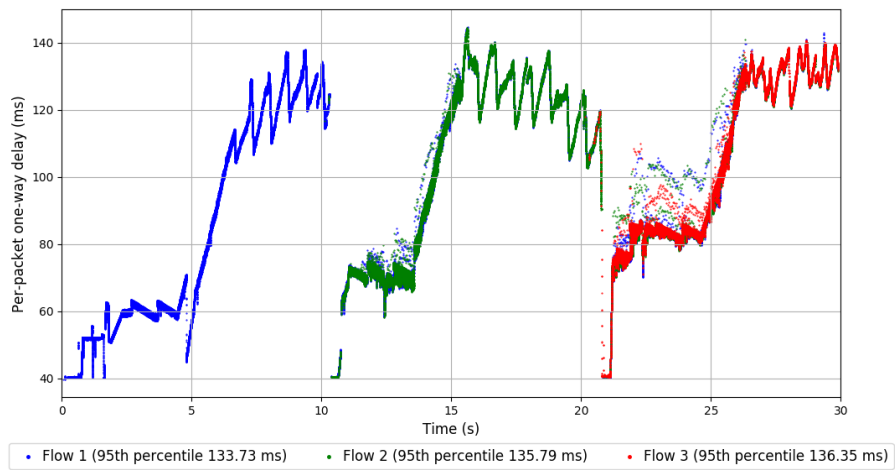
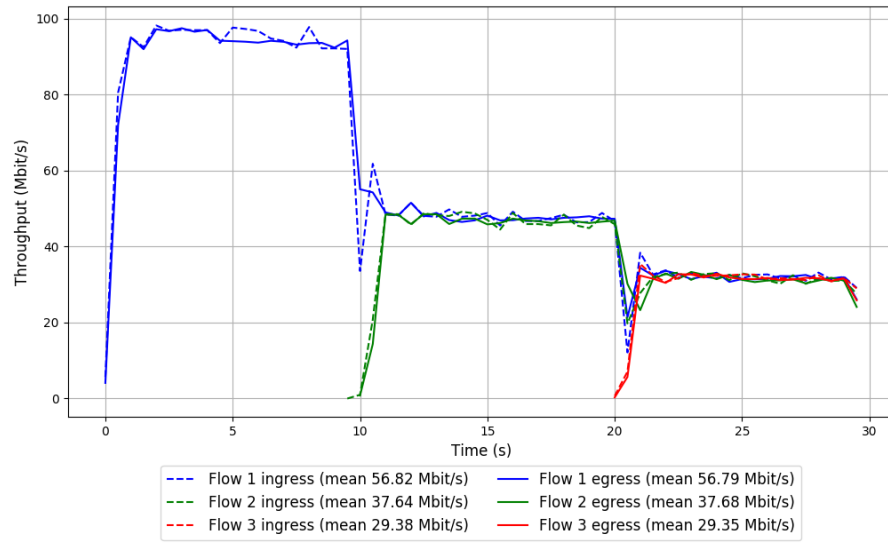
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	54.12	35.22	26.74	152.92	159.78	166.45	0.89	1.80	3.69
TCP Cubic	10	59.95	27.04	16.49	132.75	145.44	146.77	0.44	1.03	2.31
LEDBAT	7	37.13	21.15	5.75	82.39	83.97	85.65	0.61	0.97	2.74
PCC	10	65.96	11.32	11.61	144.33	146.78	148.87	1.88	2.90	5.42
QUIC Cubic	9	39.69	33.61	24.42	130.05	144.54	151.01	0.58	0.96	2.06
SCReAM	8	29.65	0.22	0.22	386.16	40.09	40.15	0.24	0.42	0.74
WebRTC media	4	1.18	0.71	0.27	41.00	43.49	41.40	1.47	1.54	2.73
Sprout	9	8.79	8.47	8.11	45.91	45.96	45.76	0.26	0.43	1.03
TaoVA-100x	10	47.59	35.58	29.19	93.54	101.84	105.25	3.64	4.17	4.91
TCP Vegas	10	56.42	23.66	13.96	68.38	71.60	69.82	0.24	0.42	1.11
Verus	8	56.23	31.11	21.11	162.80	174.27	180.39	0.79	2.30	3.50
Copa	9	30.15	24.75	13.99	52.44	58.42	47.37	0.71	0.80	0.97
FillP	4	52.17	42.33	31.55	179.01	181.82	182.25	6.18	9.81	21.03
Indigo	10	50.17	29.93	21.77	60.44	67.30	67.12	0.28	0.40	0.97
Vivace-latency	8	37.63	13.25	8.13	78.49	395.16	74.88	1.69	2.01	3.15
Vivace-loss	10	47.26	17.59	14.86	102.08	91.37	83.16	4.22	5.61	7.86
Vivace-LTE	8	46.22	14.60	12.54	61.61	69.32	71.32	2.26	3.00	3.29

Run 1: Statistics of TCP BBR

Start at: 2018-01-16 22:57:55  
End at: 2018-01-16 22:58:25  
Local clock offset: -1.097 ms  
Remote clock offset: -7.142 ms

# Below is generated by plot.py at 2018-01-17 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.33 Mbit/s  
95th percentile per-packet one-way delay: 134.778 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 56.79 Mbit/s  
95th percentile per-packet one-way delay: 133.729 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 37.68 Mbit/s  
95th percentile per-packet one-way delay: 135.790 ms  
Loss rate: 0.76%  
-- Flow 3:  
Average throughput: 29.35 Mbit/s  
95th percentile per-packet one-way delay: 136.352 ms  
Loss rate: 1.99%

# Run 1: Report of TCP BBR — Data Link

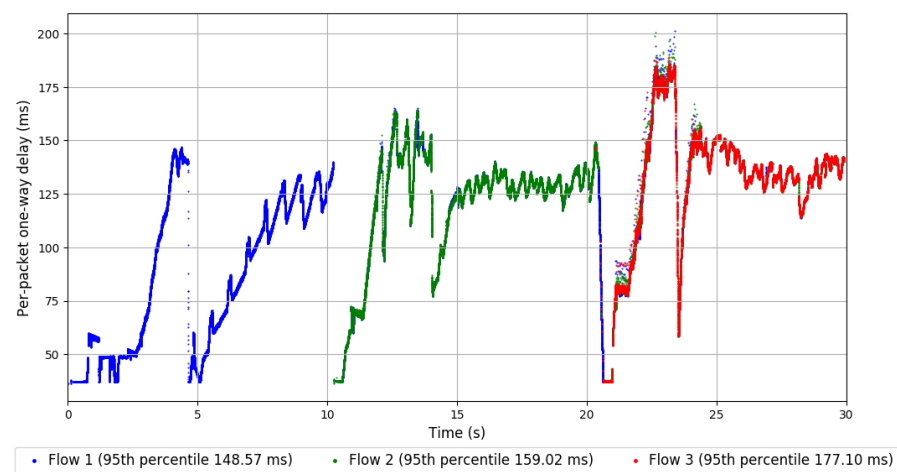
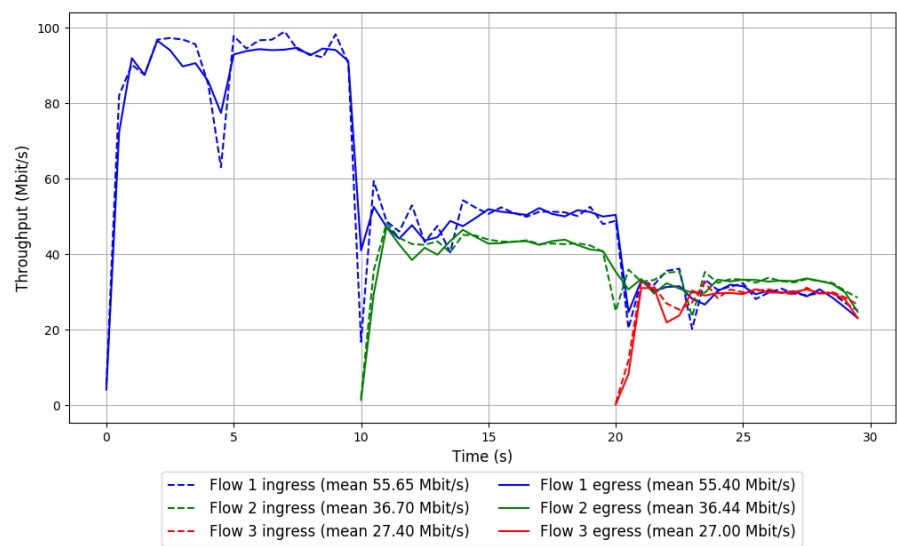


Run 2: Statistics of TCP BBR

Start at: 2018-01-16 23:20:40  
End at: 2018-01-16 23:21:10  
Local clock offset: -4.199 ms  
Remote clock offset: -5.943 ms

# Below is generated by plot.py at 2018-01-17 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.30 Mbit/s  
95th percentile per-packet one-way delay: 151.935 ms  
Loss rate: 1.25%  
-- Flow 1:  
Average throughput: 55.40 Mbit/s  
95th percentile per-packet one-way delay: 148.574 ms  
Loss rate: 0.77%  
-- Flow 2:  
Average throughput: 36.44 Mbit/s  
95th percentile per-packet one-way delay: 159.023 ms  
Loss rate: 1.61%  
-- Flow 3:  
Average throughput: 27.00 Mbit/s  
95th percentile per-packet one-way delay: 177.098 ms  
Loss rate: 3.20%

Run 2: Report of TCP BBR — Data Link

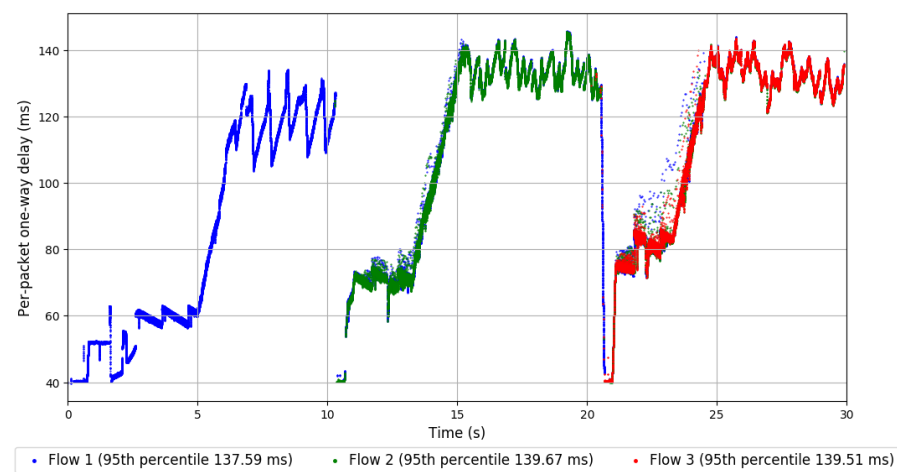
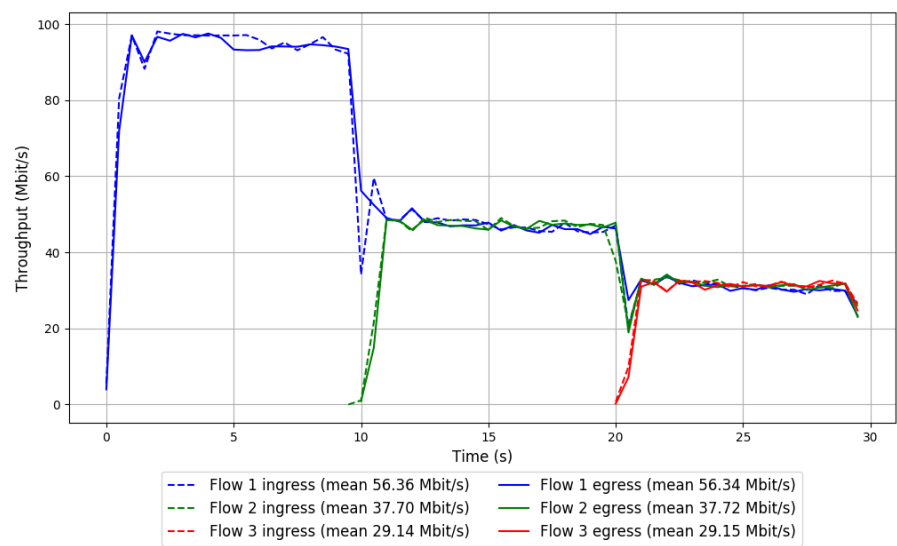


Run 3: Statistics of TCP BBR

Start at: 2018-01-16 23:43:38  
End at: 2018-01-16 23:44:08  
Local clock offset: -1.308 ms  
Remote clock offset: -5.085 ms

# Below is generated by plot.py at 2018-01-17 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.84 Mbit/s  
95th percentile per-packet one-way delay: 138.771 ms  
Loss rate: 0.59%  
-- Flow 1:  
Average throughput: 56.34 Mbit/s  
95th percentile per-packet one-way delay: 137.593 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 37.72 Mbit/s  
95th percentile per-packet one-way delay: 139.672 ms  
Loss rate: 0.74%  
-- Flow 3:  
Average throughput: 29.15 Mbit/s  
95th percentile per-packet one-way delay: 139.511 ms  
Loss rate: 1.74%

Run 3: Report of TCP BBR — Data Link



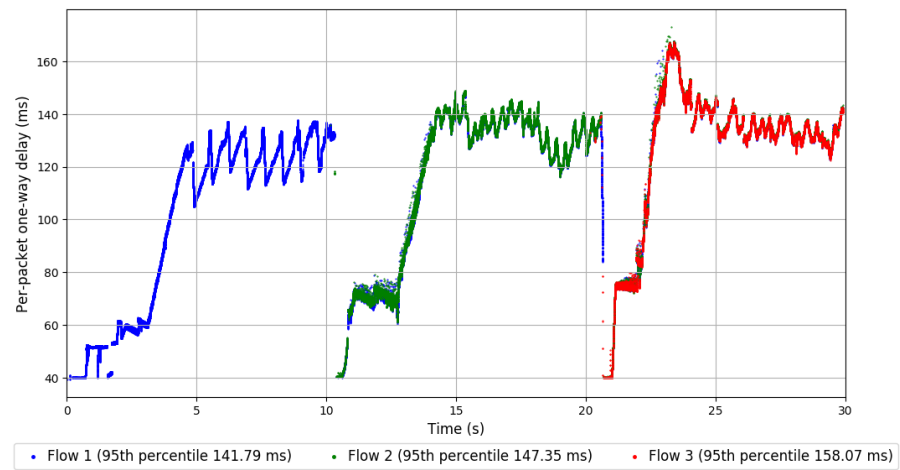
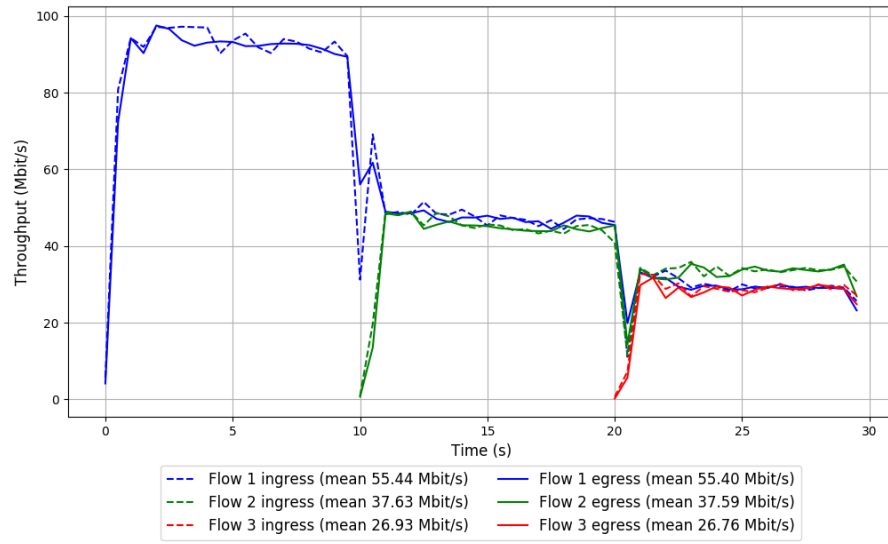
Run 4: Statistics of TCP BBR

Start at: 2018-01-17 00:06:22  
End at: 2018-01-17 00:06:52  
Local clock offset: -1.404 ms  
Remote clock offset: -5.409 ms

# Below is generated by plot.py at 2018-01-17 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.98 Mbit/s  
95th percentile per-packet one-way delay: 144.682 ms  
Loss rate: 0.77%  
-- Flow 1:  
Average throughput: 55.40 Mbit/s  
95th percentile per-packet one-way delay: 141.794 ms  
Loss rate: 0.40%  
-- Flow 2:  
Average throughput: 37.59 Mbit/s  
95th percentile per-packet one-way delay: 147.346 ms  
Loss rate: 0.99%  
-- Flow 3:  
Average throughput: 26.76 Mbit/s  
95th percentile per-packet one-way delay: 158.074 ms  
Loss rate: 2.45%



# Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-17 00:29:49

End at: 2018-01-17 00:30:19

Local clock offset: -1.478 ms

Remote clock offset: -6.66 ms

# Below is generated by plot.py at 2018-01-17 06:48:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.17 Mbit/s

95th percentile per-packet one-way delay: 139.228 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 54.73 Mbit/s

95th percentile per-packet one-way delay: 138.771 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 37.83 Mbit/s

95th percentile per-packet one-way delay: 139.023 ms

Loss rate: 0.74%

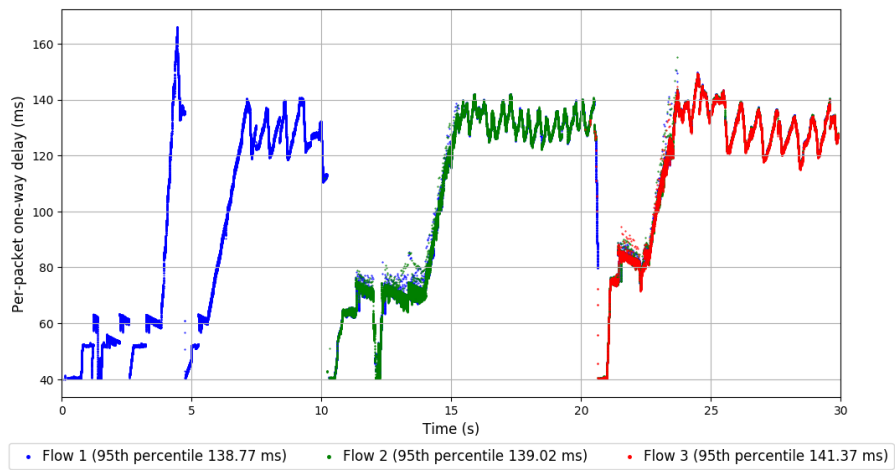
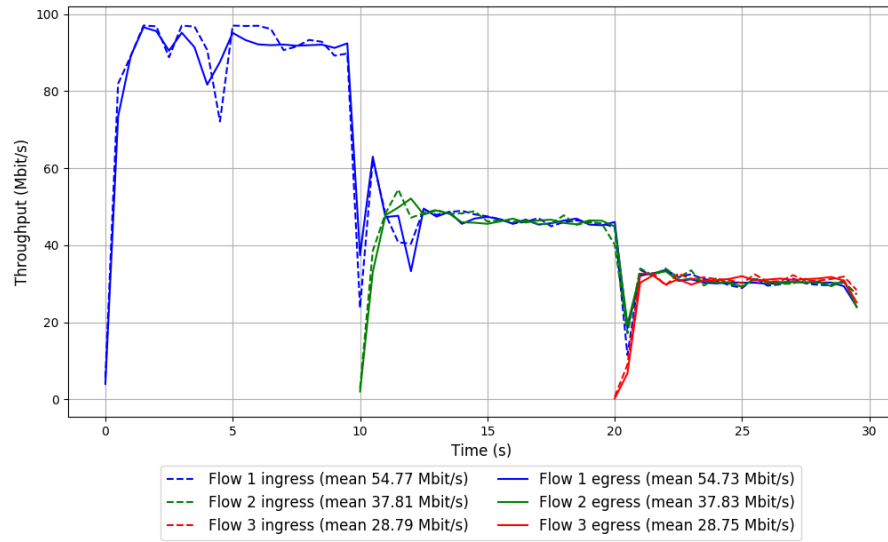
-- Flow 3:

Average throughput: 28.75 Mbit/s

95th percentile per-packet one-way delay: 141.370 ms

Loss rate: 2.02%

### Run 5: Report of TCP BBR — Data Link

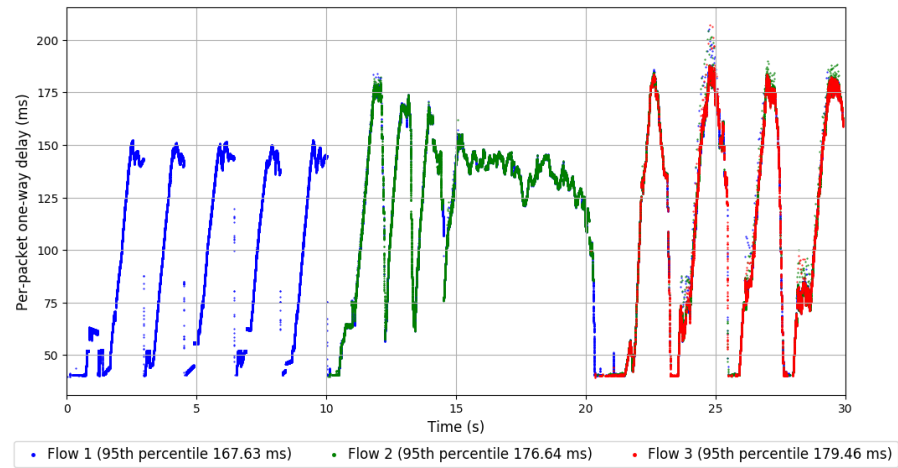
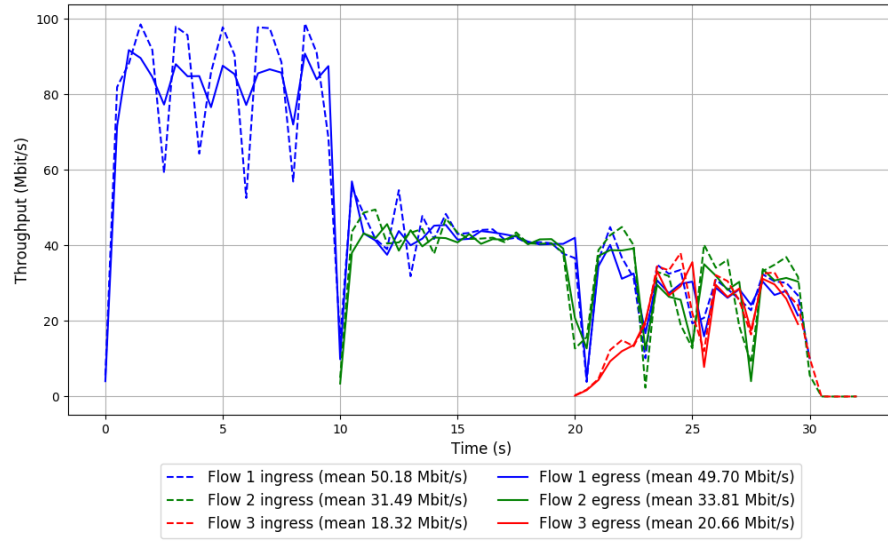


Run 6: Statistics of TCP BBR

Start at: 2018-01-17 00:52:56  
End at: 2018-01-17 00:53:27  
Local clock offset: -1.615 ms  
Remote clock offset: -6.207 ms

# Below is generated by plot.py at 2018-01-17 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.89 Mbit/s  
95th percentile per-packet one-way delay: 174.694 ms  
Loss rate: 2.93%  
-- Flow 1:  
Average throughput: 49.70 Mbit/s  
95th percentile per-packet one-way delay: 167.634 ms  
Loss rate: 1.98%  
-- Flow 2:  
Average throughput: 33.81 Mbit/s  
95th percentile per-packet one-way delay: 176.639 ms  
Loss rate: 3.26%  
-- Flow 3:  
Average throughput: 20.66 Mbit/s  
95th percentile per-packet one-way delay: 179.459 ms  
Loss rate: 8.39%

# Run 6: Report of TCP BBR — Data Link

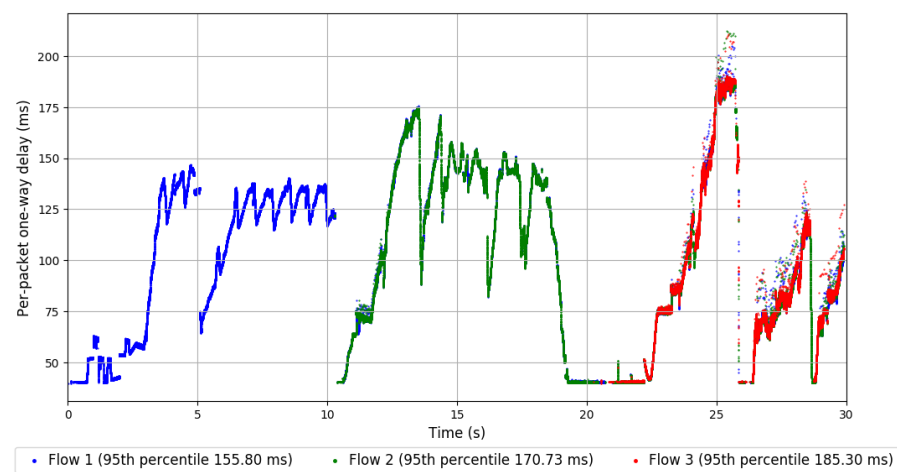
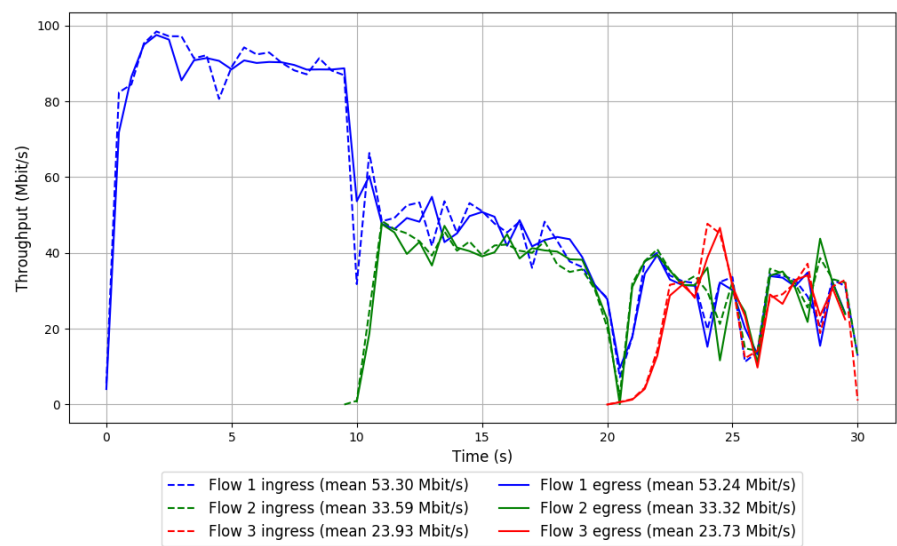


Run 7: Statistics of TCP BBR

Start at: 2018-01-17 01:16:17  
End at: 2018-01-17 01:16:47  
Local clock offset: -1.776 ms  
Remote clock offset: -5.801 ms

# Below is generated by plot.py at 2018-01-17 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.95 Mbit/s  
95th percentile per-packet one-way delay: 164.944 ms  
Loss rate: 1.83%  
-- Flow 1:  
Average throughput: 53.24 Mbit/s  
95th percentile per-packet one-way delay: 155.799 ms  
Loss rate: 1.16%  
-- Flow 2:  
Average throughput: 33.32 Mbit/s  
95th percentile per-packet one-way delay: 170.734 ms  
Loss rate: 2.73%  
-- Flow 3:  
Average throughput: 23.73 Mbit/s  
95th percentile per-packet one-way delay: 185.299 ms  
Loss rate: 3.82%

Run 7: Report of TCP BBR — Data Link



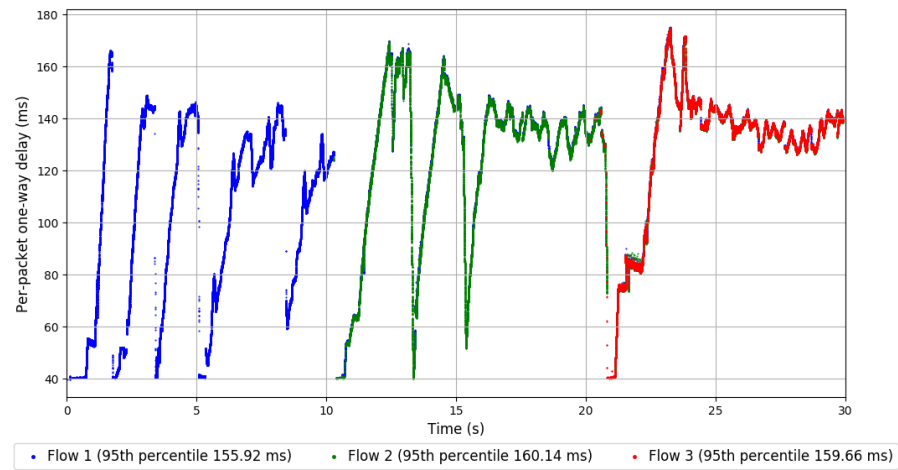
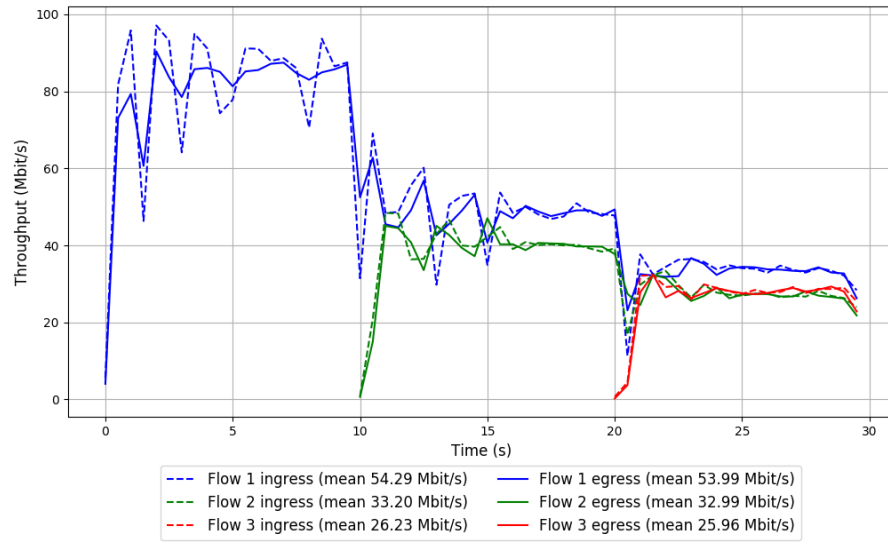
Run 8: Statistics of TCP BBR

Start at: 2018-01-17 01:39:40  
End at: 2018-01-17 01:40:10  
Local clock offset: -1.875 ms  
Remote clock offset: -6.071 ms

# Below is generated by plot.py at 2018-01-17 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.30 Mbit/s  
95th percentile per-packet one-way delay: 157.772 ms  
Loss rate: 1.21%  
-- Flow 1:  
Average throughput: 53.99 Mbit/s  
95th percentile per-packet one-way delay: 155.921 ms  
Loss rate: 0.84%  
-- Flow 2:  
Average throughput: 32.99 Mbit/s  
95th percentile per-packet one-way delay: 160.137 ms  
Loss rate: 1.48%  
-- Flow 3:  
Average throughput: 25.96 Mbit/s  
95th percentile per-packet one-way delay: 159.658 ms  
Loss rate: 2.81%



## Run 8: Report of TCP BBR — Data Link

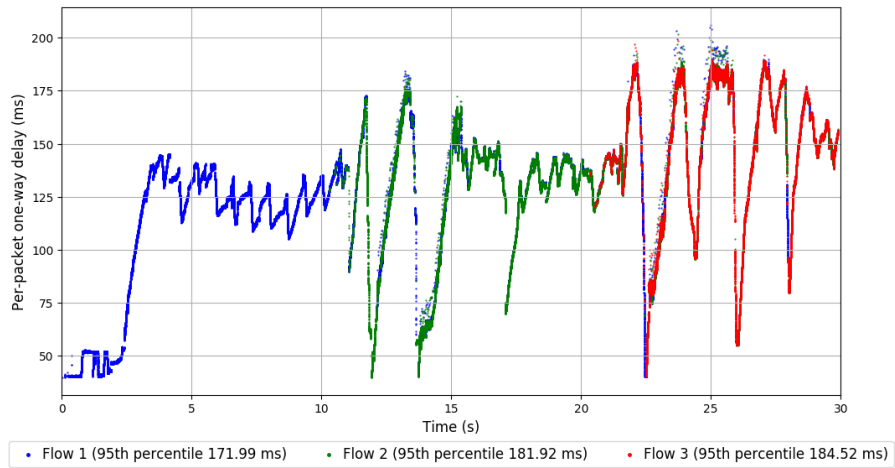
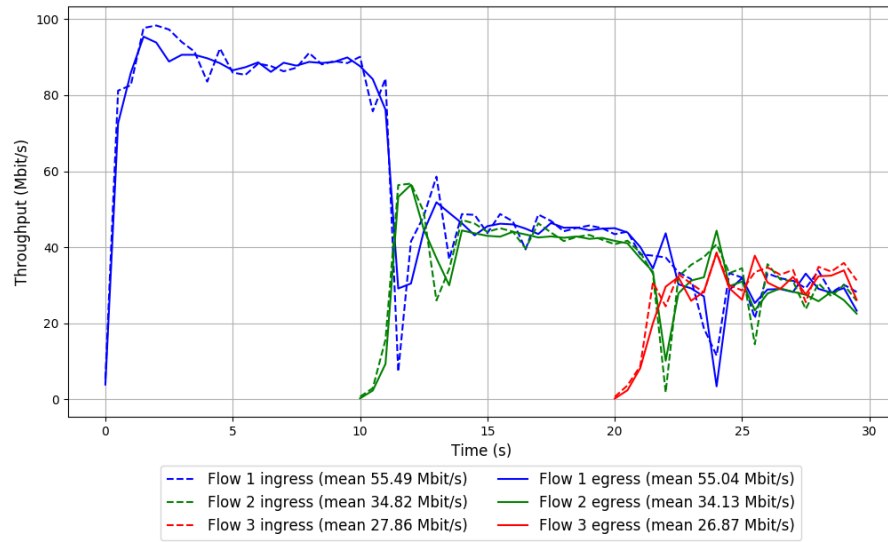


Run 9: Statistics of TCP BBR

Start at: 2018-01-17 02:02:53  
End at: 2018-01-17 02:03:23  
Local clock offset: -1.545 ms  
Remote clock offset: -6.127 ms

# Below is generated by plot.py at 2018-01-17 06:50:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.38 Mbit/s  
95th percentile per-packet one-way delay: 180.383 ms  
Loss rate: 2.00%  
-- Flow 1:  
Average throughput: 55.04 Mbit/s  
95th percentile per-packet one-way delay: 171.988 ms  
Loss rate: 1.10%  
-- Flow 2:  
Average throughput: 34.13 Mbit/s  
95th percentile per-packet one-way delay: 181.921 ms  
Loss rate: 2.79%  
-- Flow 3:  
Average throughput: 26.87 Mbit/s  
95th percentile per-packet one-way delay: 184.516 ms  
Loss rate: 5.42%

# Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-17 02:27:32

End at: 2018-01-17 02:28:02

Local clock offset: -1.022 ms

Remote clock offset: -5.55 ms

# Below is generated by plot.py at 2018-01-17 06:50:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.45 Mbit/s

95th percentile per-packet one-way delay: 186.802 ms

Loss rate: 2.38%

-- Flow 1:

Average throughput: 50.61 Mbit/s

95th percentile per-packet one-way delay: 177.364 ms

Loss rate: 1.64%

-- Flow 2:

Average throughput: 30.70 Mbit/s

95th percentile per-packet one-way delay: 187.476 ms

Loss rate: 2.92%

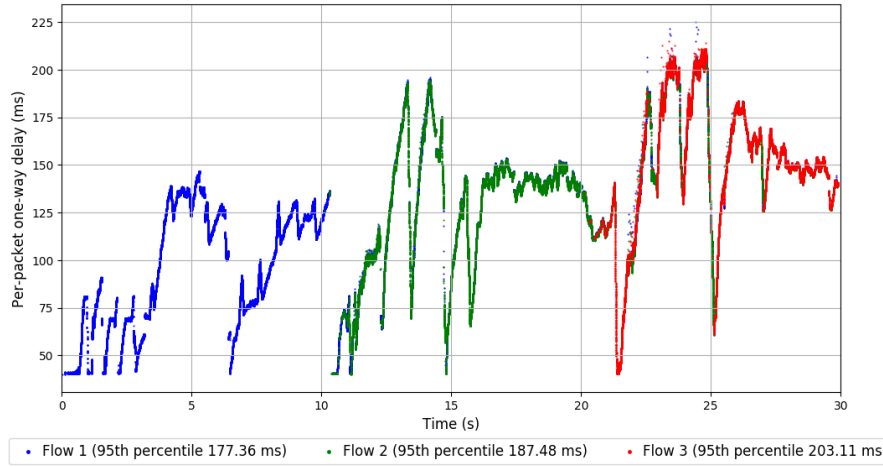
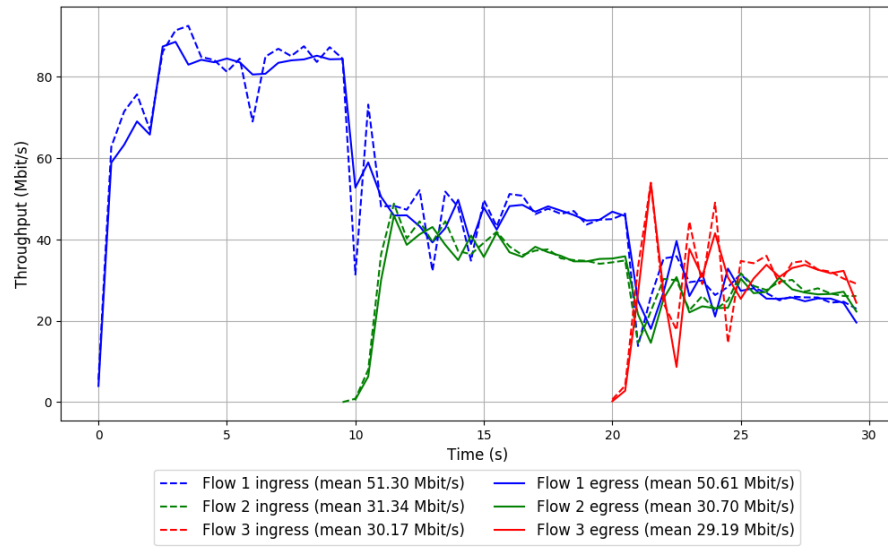
-- Flow 3:

Average throughput: 29.19 Mbit/s

95th percentile per-packet one-way delay: 203.113 ms

Loss rate: 5.04%

# Run 10: Report of TCP BBR — Data Link

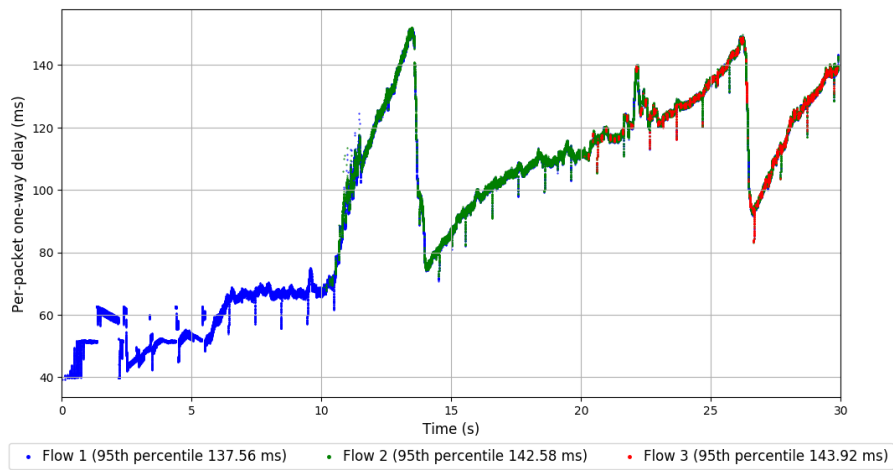
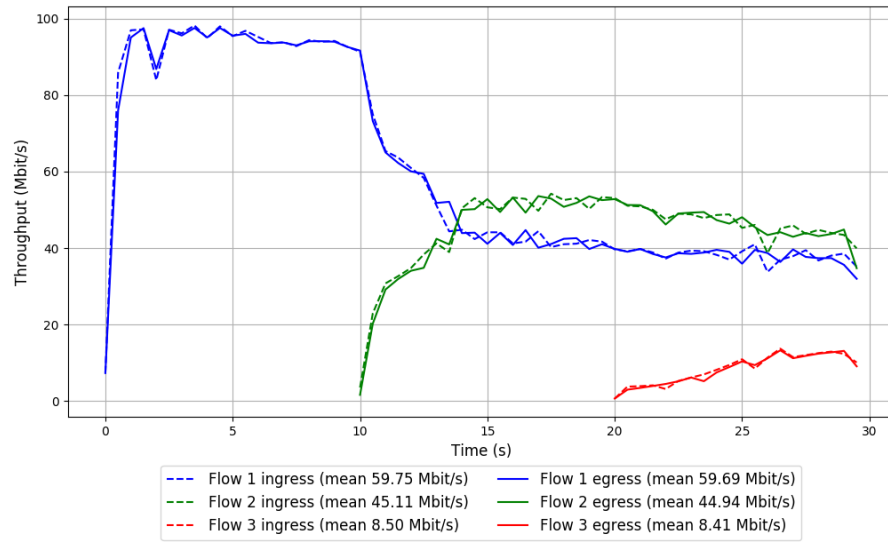


Run 1: Statistics of TCP Cubic

Start at: 2018-01-16 23:06:51  
End at: 2018-01-16 23:07:21  
Local clock offset: -1.389 ms  
Remote clock offset: -6.639 ms

# Below is generated by plot.py at 2018-01-17 06:50:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.27 Mbit/s  
95th percentile per-packet one-way delay: 139.111 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 59.69 Mbit/s  
95th percentile per-packet one-way delay: 137.564 ms  
Loss rate: 0.43%  
-- Flow 2:  
Average throughput: 44.94 Mbit/s  
95th percentile per-packet one-way delay: 142.583 ms  
Loss rate: 0.95%  
-- Flow 3:  
Average throughput: 8.41 Mbit/s  
95th percentile per-packet one-way delay: 143.922 ms  
Loss rate: 2.71%

## Run 1: Report of TCP Cubic — Data Link



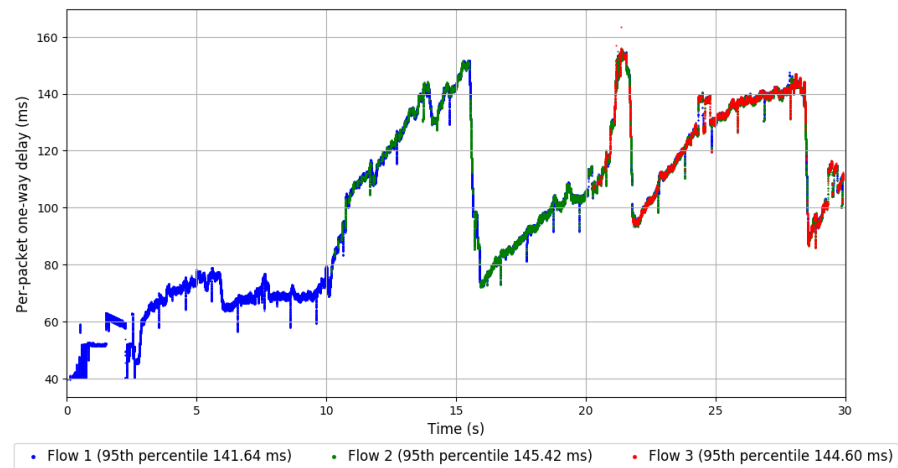
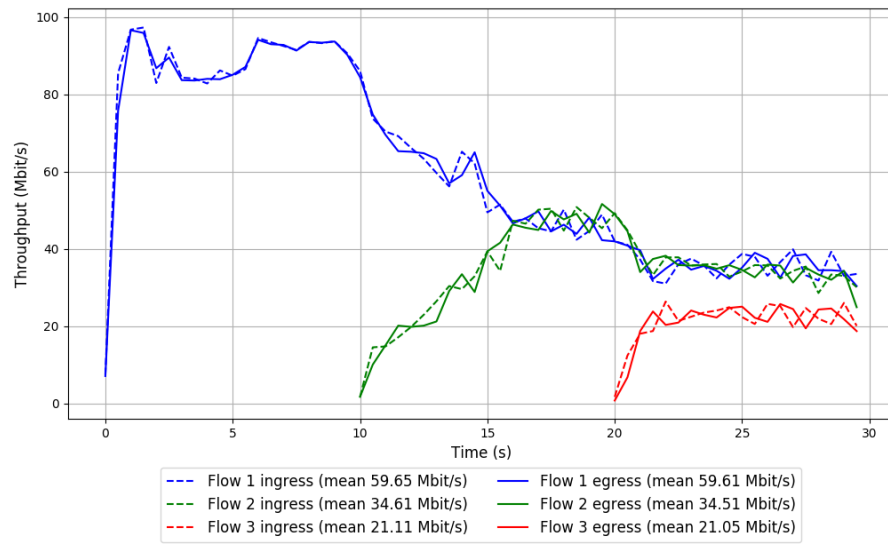
Run 2: Statistics of TCP Cubic

Start at: 2018-01-16 23:29:31  
End at: 2018-01-16 23:30:01  
Local clock offset: -1.411 ms  
Remote clock offset: -5.426 ms

# Below is generated by plot.py at 2018-01-17 06:50:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.42 Mbit/s  
95th percentile per-packet one-way delay: 142.979 ms  
Loss rate: 0.60%  
-- Flow 1:  
Average throughput: 59.61 Mbit/s  
95th percentile per-packet one-way delay: 141.643 ms  
Loss rate: 0.35%  
-- Flow 2:  
Average throughput: 34.51 Mbit/s  
95th percentile per-packet one-way delay: 145.419 ms  
Loss rate: 0.87%  
-- Flow 3:  
Average throughput: 21.05 Mbit/s  
95th percentile per-packet one-way delay: 144.603 ms  
Loss rate: 1.86%



## Run 2: Report of TCP Cubic — Data Link

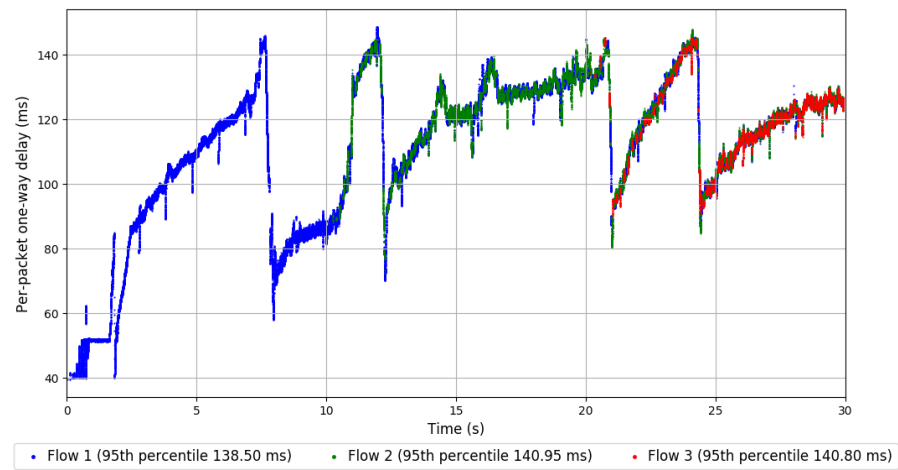
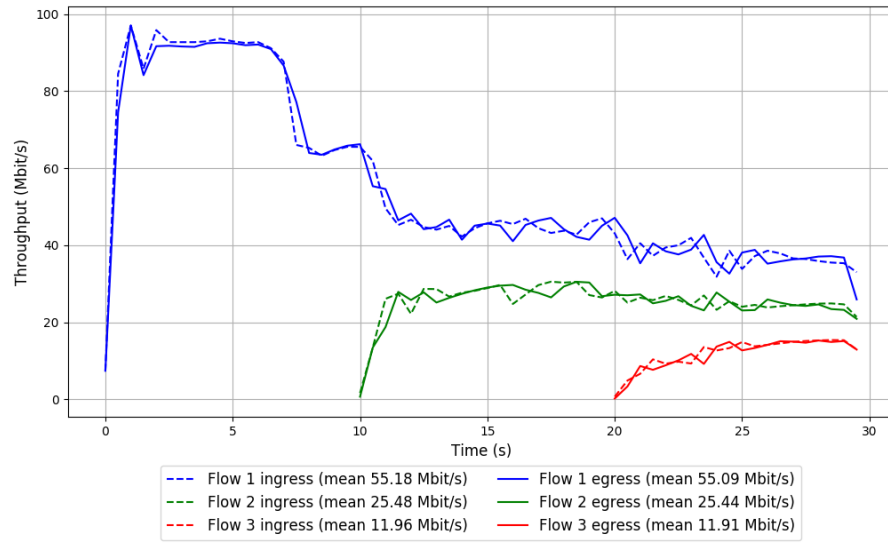


Run 3: Statistics of TCP Cubic

Start at: 2018-01-16 23:52:34  
End at: 2018-01-16 23:53:04  
Local clock offset: -1.638 ms  
Remote clock offset: -5.001 ms

# Below is generated by plot.py at 2018-01-17 06:50:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.82 Mbit/s  
95th percentile per-packet one-way delay: 139.859 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 55.09 Mbit/s  
95th percentile per-packet one-way delay: 138.495 ms  
Loss rate: 0.44%  
-- Flow 2:  
Average throughput: 25.44 Mbit/s  
95th percentile per-packet one-way delay: 140.948 ms  
Loss rate: 0.86%  
-- Flow 3:  
Average throughput: 11.91 Mbit/s  
95th percentile per-packet one-way delay: 140.803 ms  
Loss rate: 2.21%

### Run 3: Report of TCP Cubic — Data Link

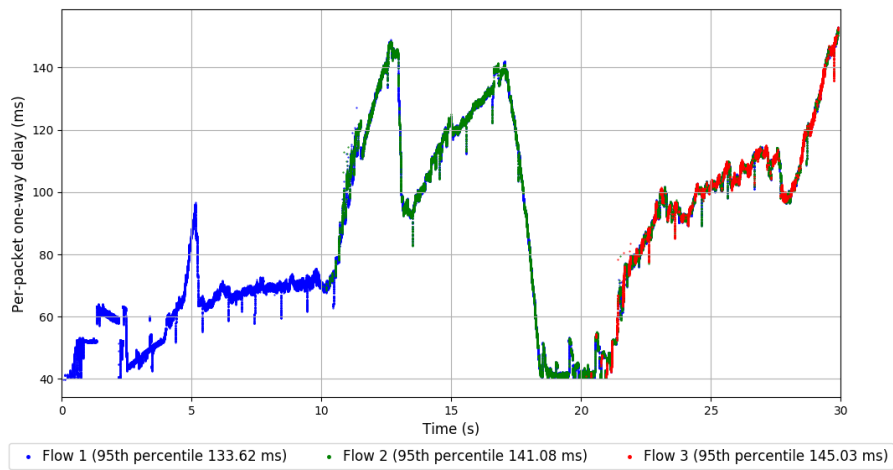
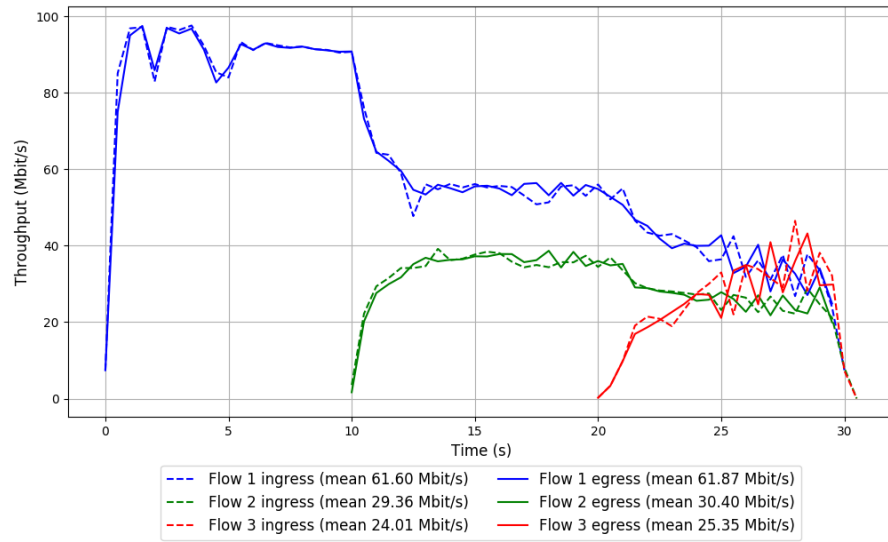


Run 4: Statistics of TCP Cubic

Start at: 2018-01-17 00:15:40  
End at: 2018-01-17 00:16:10  
Local clock offset: -1.414 ms  
Remote clock offset: -6.428 ms

# Below is generated by plot.py at 2018-01-17 06:50:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.31 Mbit/s  
95th percentile per-packet one-way delay: 138.550 ms  
Loss rate: 1.00%  
-- Flow 1:  
Average throughput: 61.87 Mbit/s  
95th percentile per-packet one-way delay: 133.616 ms  
Loss rate: 0.54%  
-- Flow 2:  
Average throughput: 30.40 Mbit/s  
95th percentile per-packet one-way delay: 141.078 ms  
Loss rate: 1.28%  
-- Flow 3:  
Average throughput: 25.35 Mbit/s  
95th percentile per-packet one-way delay: 145.031 ms  
Loss rate: 3.63%

#### Run 4: Report of TCP Cubic — Data Link

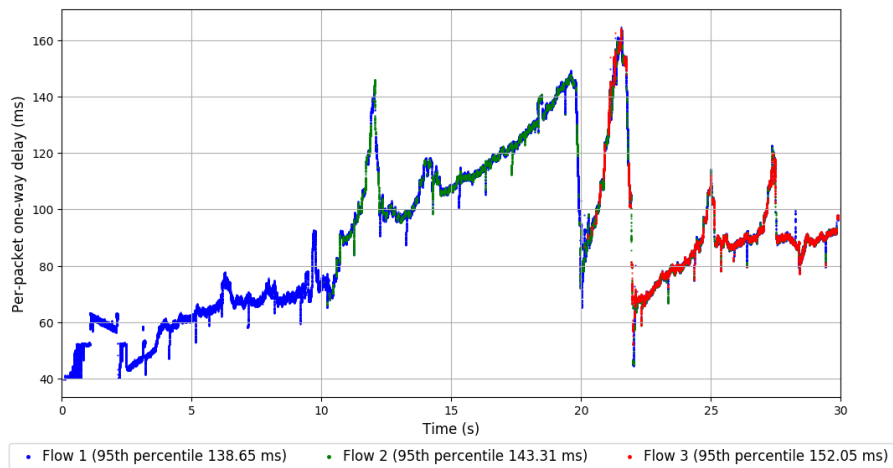
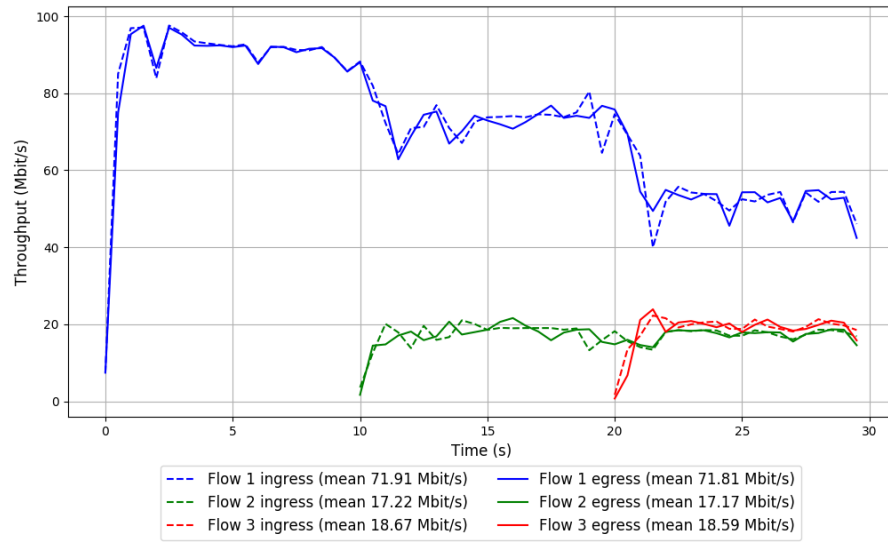


Run 5: Statistics of TCP Cubic

Start at: 2018-01-17 00:38:35  
End at: 2018-01-17 00:39:05  
Local clock offset: -1.581 ms  
Remote clock offset: -6.451 ms

# Below is generated by plot.py at 2018-01-17 06:50:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.28 Mbit/s  
95th percentile per-packet one-way delay: 139.394 ms  
Loss rate: 0.59%  
-- Flow 1:  
Average throughput: 71.81 Mbit/s  
95th percentile per-packet one-way delay: 138.648 ms  
Loss rate: 0.43%  
-- Flow 2:  
Average throughput: 17.17 Mbit/s  
95th percentile per-packet one-way delay: 143.314 ms  
Loss rate: 0.92%  
-- Flow 3:  
Average throughput: 18.59 Mbit/s  
95th percentile per-packet one-way delay: 152.049 ms  
Loss rate: 1.78%

### Run 5: Report of TCP Cubic — Data Link



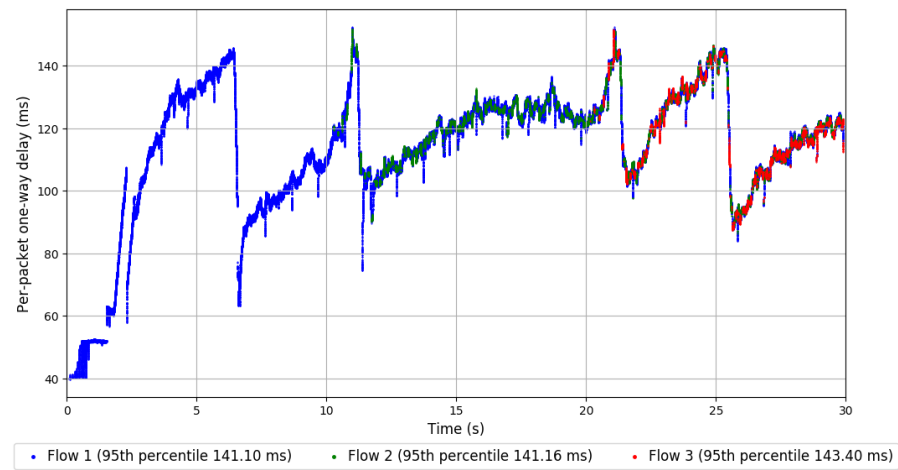
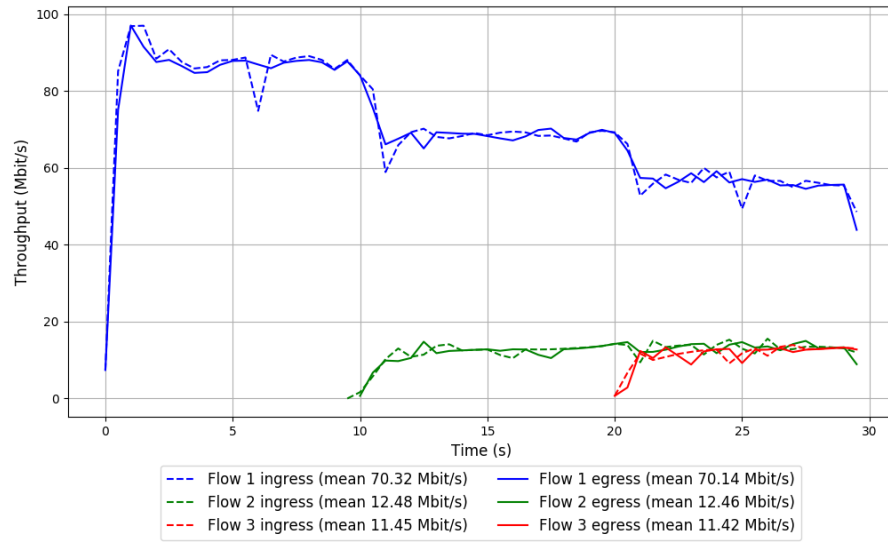
Run 6: Statistics of TCP Cubic

Start at: 2018-01-17 01:02:06  
End at: 2018-01-17 01:02:36  
Local clock offset: -1.851 ms  
Remote clock offset: -5.969 ms

# Below is generated by plot.py at 2018-01-17 06:50:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.11 Mbit/s  
95th percentile per-packet one-way delay: 141.347 ms  
Loss rate: 0.65%  
-- Flow 1:  
Average throughput: 70.14 Mbit/s  
95th percentile per-packet one-way delay: 141.098 ms  
Loss rate: 0.54%  
-- Flow 2:  
Average throughput: 12.46 Mbit/s  
95th percentile per-packet one-way delay: 141.158 ms  
Loss rate: 1.02%  
-- Flow 3:  
Average throughput: 11.42 Mbit/s  
95th percentile per-packet one-way delay: 143.395 ms  
Loss rate: 1.99%



## Run 6: Report of TCP Cubic — Data Link

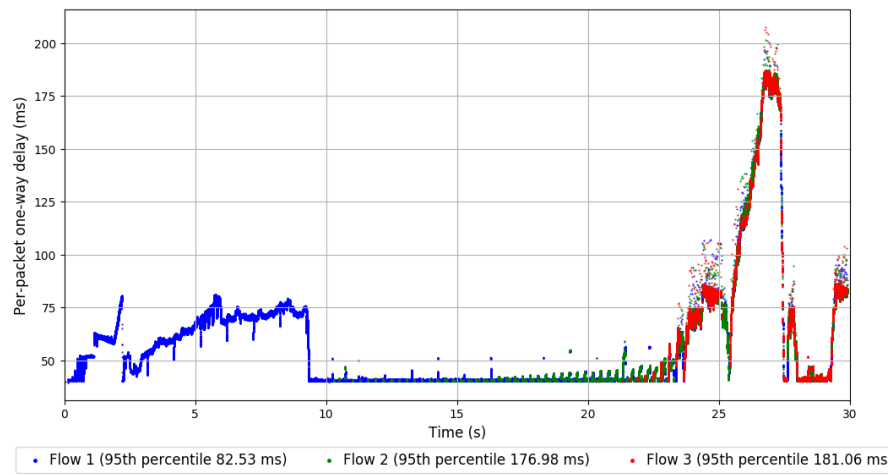
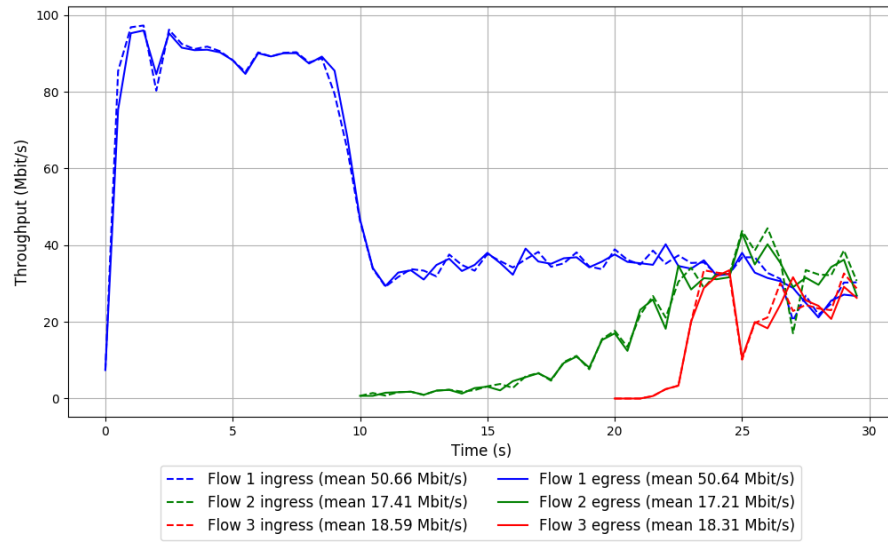


Run 7: Statistics of TCP Cubic

Start at: 2018-01-17 01:25:38  
End at: 2018-01-17 01:26:08  
Local clock offset: -1.716 ms  
Remote clock offset: -5.945 ms

# Below is generated by plot.py at 2018-01-17 06:51:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.93 Mbit/s  
95th percentile per-packet one-way delay: 134.546 ms  
Loss rate: 0.79%  
-- Flow 1:  
Average throughput: 50.64 Mbit/s  
95th percentile per-packet one-way delay: 82.535 ms  
Loss rate: 0.35%  
-- Flow 2:  
Average throughput: 17.21 Mbit/s  
95th percentile per-packet one-way delay: 176.982 ms  
Loss rate: 1.69%  
-- Flow 3:  
Average throughput: 18.31 Mbit/s  
95th percentile per-packet one-way delay: 181.063 ms  
Loss rate: 2.70%

## Run 7: Report of TCP Cubic — Data Link

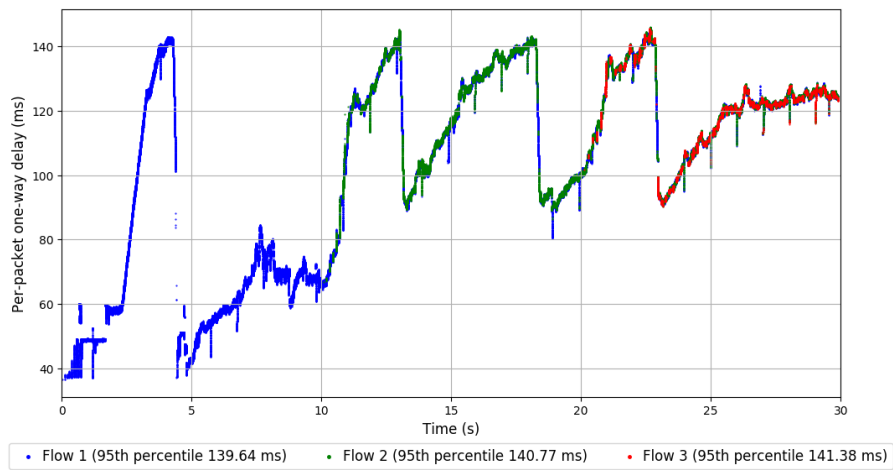
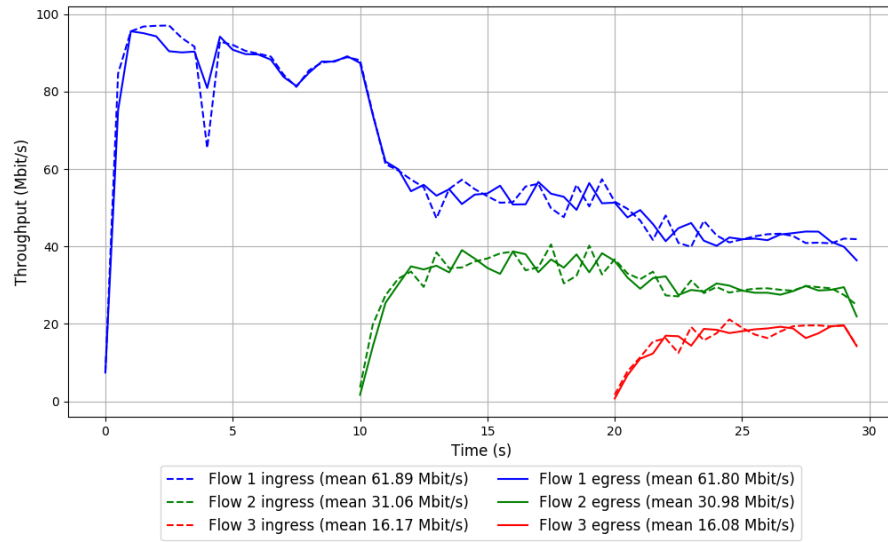


Run 8: Statistics of TCP Cubic

Start at: 2018-01-17 01:48:53  
End at: 2018-01-17 01:49:23  
Local clock offset: -4.555 ms  
Remote clock offset: -6.111 ms

# Below is generated by plot.py at 2018-01-17 06:51:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.60 Mbit/s  
95th percentile per-packet one-way delay: 140.015 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 61.80 Mbit/s  
95th percentile per-packet one-way delay: 139.638 ms  
Loss rate: 0.43%  
-- Flow 2:  
Average throughput: 30.98 Mbit/s  
95th percentile per-packet one-way delay: 140.768 ms  
Loss rate: 0.85%  
-- Flow 3:  
Average throughput: 16.08 Mbit/s  
95th percentile per-packet one-way delay: 141.375 ms  
Loss rate: 2.09%

# Run 8: Report of TCP Cubic — Data Link

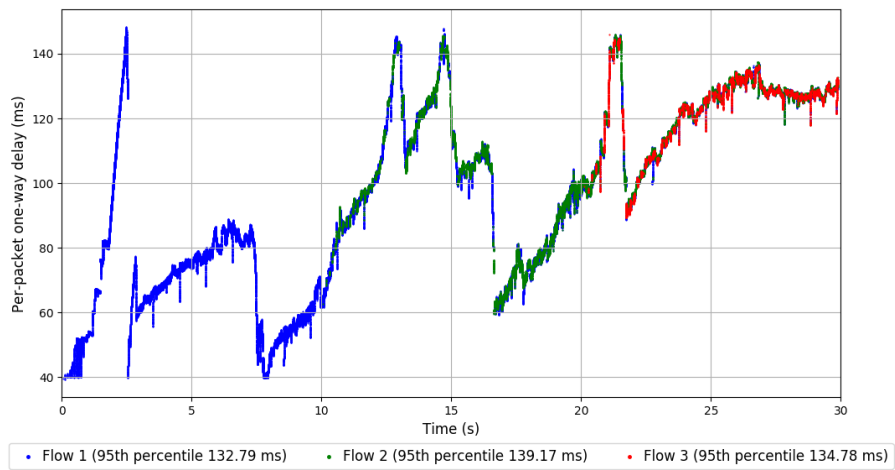
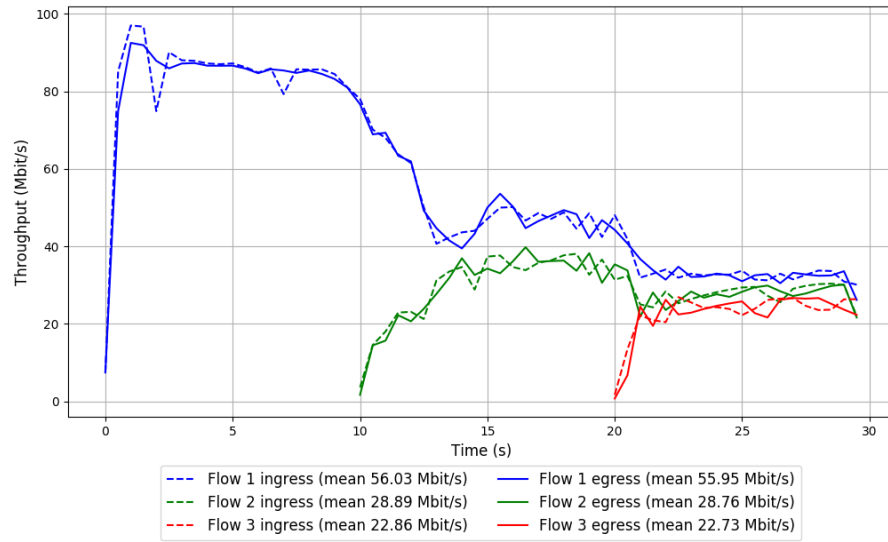


Run 9: Statistics of TCP Cubic

Start at: 2018-01-17 02:11:56  
End at: 2018-01-17 02:12:26  
Local clock offset: -1.975 ms  
Remote clock offset: -5.842 ms

# Below is generated by plot.py at 2018-01-17 06:51:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.48 Mbit/s  
95th percentile per-packet one-way delay: 134.085 ms  
Loss rate: 0.71%  
-- Flow 1:  
Average throughput: 55.95 Mbit/s  
95th percentile per-packet one-way delay: 132.791 ms  
Loss rate: 0.43%  
-- Flow 2:  
Average throughput: 28.76 Mbit/s  
95th percentile per-packet one-way delay: 139.168 ms  
Loss rate: 1.00%  
-- Flow 3:  
Average throughput: 22.73 Mbit/s  
95th percentile per-packet one-way delay: 134.776 ms  
Loss rate: 2.04%

# Run 9: Report of TCP Cubic — Data Link



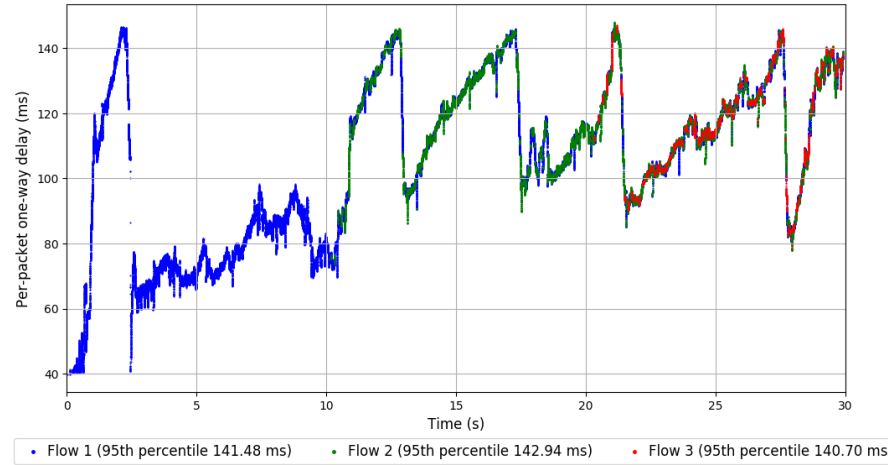
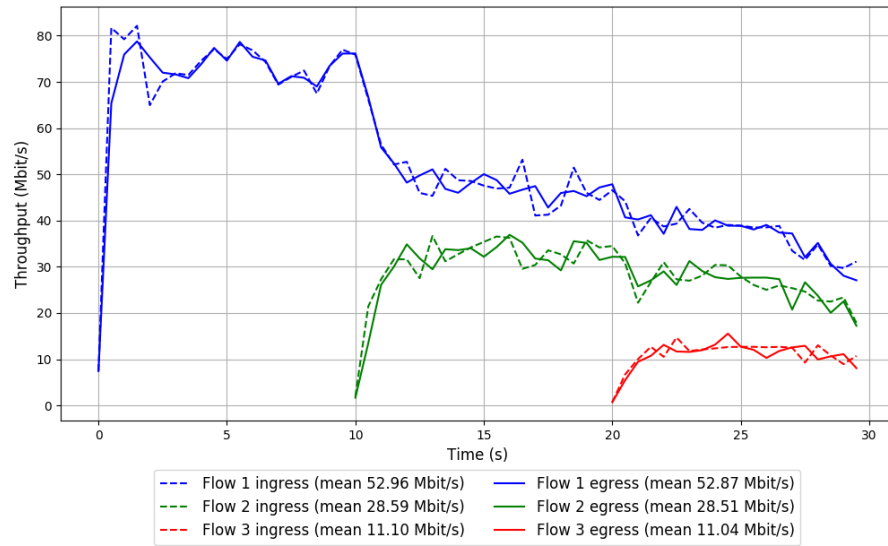
Run 10: Statistics of TCP Cubic

Start at: 2018-01-17 02:36:58  
End at: 2018-01-17 02:37:28  
Local clock offset: -0.618 ms  
Remote clock offset: -5.127 ms

# Below is generated by plot.py at 2018-01-17 06:51:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.40 Mbit/s  
95th percentile per-packet one-way delay: 141.802 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 52.87 Mbit/s  
95th percentile per-packet one-way delay: 141.476 ms  
Loss rate: 0.44%  
-- Flow 2:  
Average throughput: 28.51 Mbit/s  
95th percentile per-packet one-way delay: 142.936 ms  
Loss rate: 0.88%  
-- Flow 3:  
Average throughput: 11.04 Mbit/s  
95th percentile per-packet one-way delay: 140.698 ms  
Loss rate: 2.13%



# Run 10: Report of TCP Cubic — Data Link

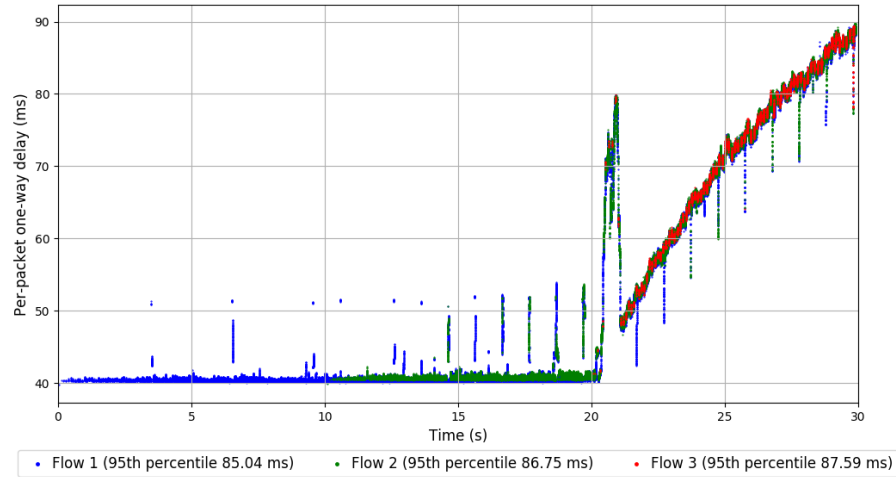
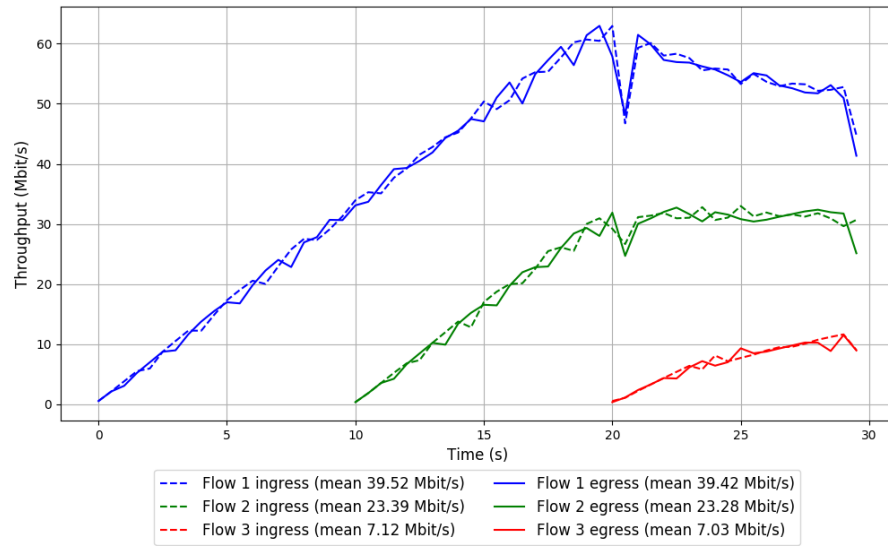


Run 1: Statistics of LEDBAT

Start at: 2018-01-16 23:10:44  
End at: 2018-01-16 23:11:14  
Local clock offset: -1.183 ms  
Remote clock offset: -6.489 ms

# Below is generated by plot.py at 2018-01-17 06:51:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 57.15 Mbit/s  
95th percentile per-packet one-way delay: 86.113 ms  
Loss rate: 0.74%  
-- Flow 1:  
Average throughput: 39.42 Mbit/s  
95th percentile per-packet one-way delay: 85.037 ms  
Loss rate: 0.58%  
-- Flow 2:  
Average throughput: 23.28 Mbit/s  
95th percentile per-packet one-way delay: 86.751 ms  
Loss rate: 0.91%  
-- Flow 3:  
Average throughput: 7.03 Mbit/s  
95th percentile per-packet one-way delay: 87.589 ms  
Loss rate: 2.15%

# Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

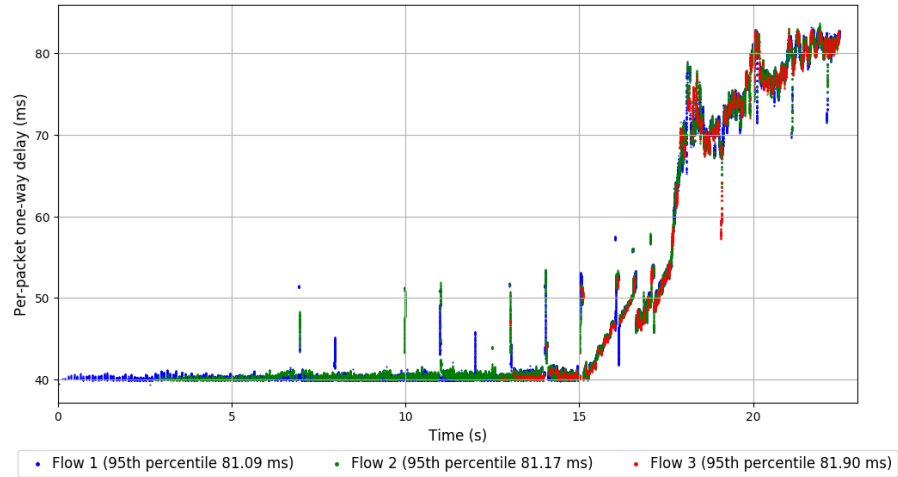
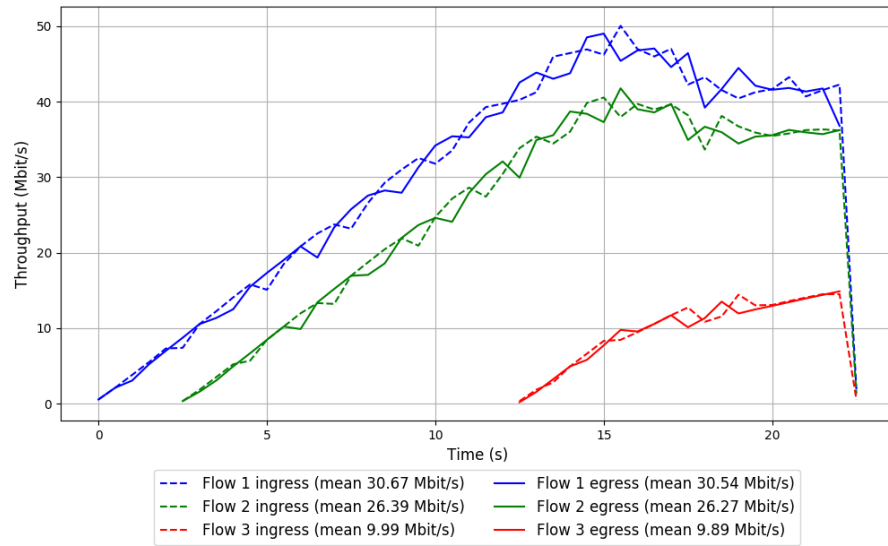
Start at: 2018-01-16 23:33:18

End at: 2018-01-16 23:33:48

Local clock offset: -1.434 ms

Remote clock offset: -5.399 ms

## Run 2: Report of LEDBAT — Data Link

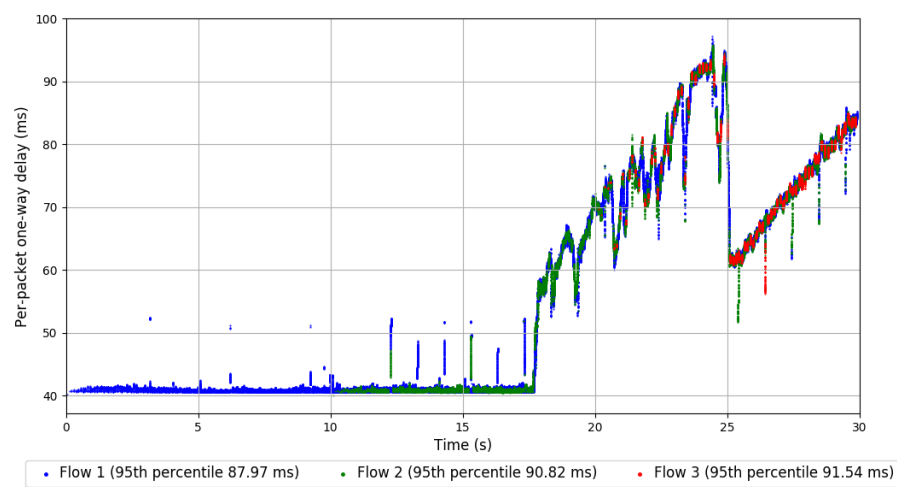
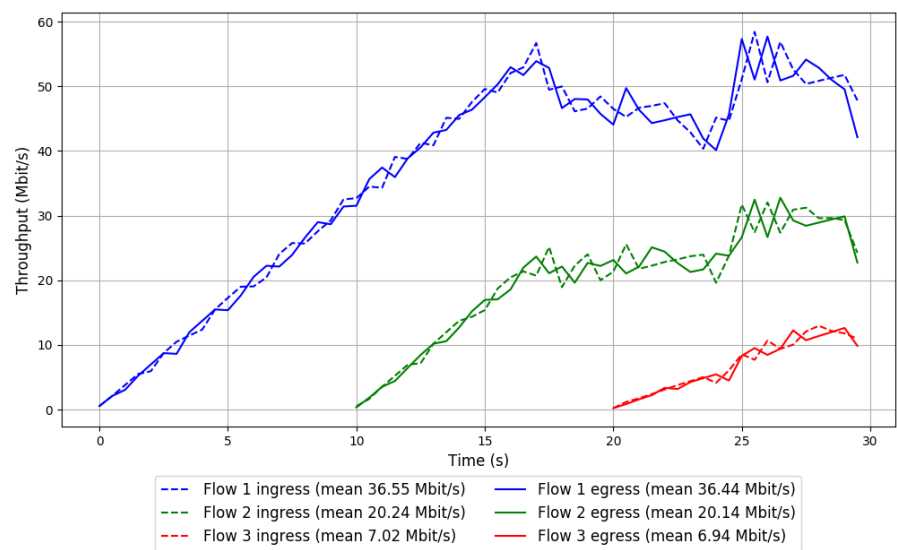


Run 3: Statistics of LEDBAT

Start at: 2018-01-16 23:56:18  
End at: 2018-01-16 23:56:48  
Local clock offset: -1.106 ms  
Remote clock offset: -5.027 ms

# Below is generated by plot.py at 2018-01-17 06:51:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 52.03 Mbit/s  
95th percentile per-packet one-way delay: 88.867 ms  
Loss rate: 0.77%  
-- Flow 1:  
Average throughput: 36.44 Mbit/s  
95th percentile per-packet one-way delay: 87.970 ms  
Loss rate: 0.60%  
-- Flow 2:  
Average throughput: 20.14 Mbit/s  
95th percentile per-packet one-way delay: 90.820 ms  
Loss rate: 0.95%  
-- Flow 3:  
Average throughput: 6.94 Mbit/s  
95th percentile per-packet one-way delay: 91.537 ms  
Loss rate: 2.43%

Run 3: Report of LEDBAT — Data Link



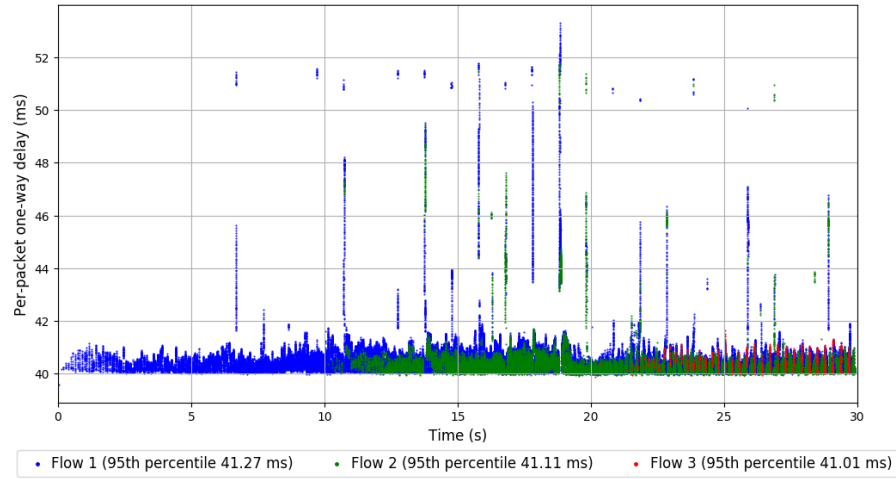
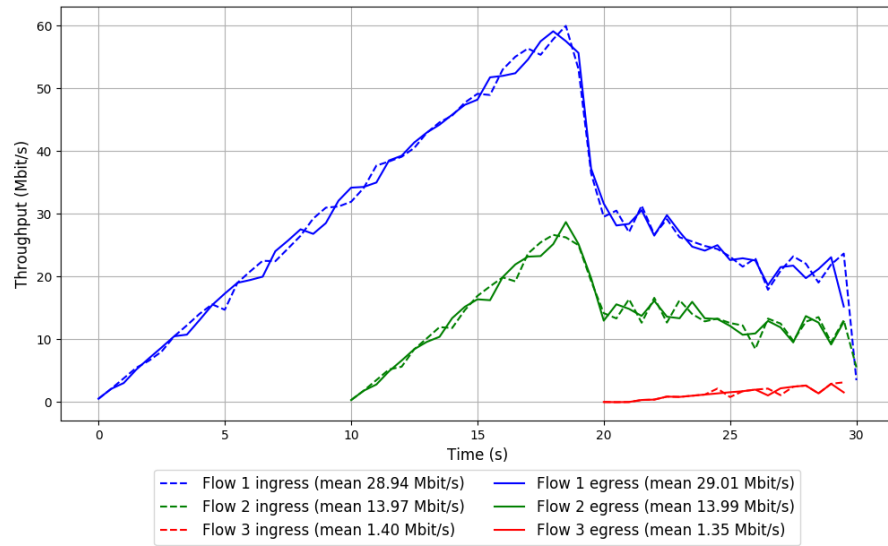
Run 4: Statistics of LEDBAT

Start at: 2018-01-17 00:19:33  
End at: 2018-01-17 00:20:03  
Local clock offset: -1.492 ms  
Remote clock offset: -6.824 ms

# Below is generated by plot.py at 2018-01-17 06:51:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 38.71 Mbit/s  
95th percentile per-packet one-way delay: 41.246 ms  
Loss rate: 0.93%  
-- Flow 1:  
Average throughput: 29.01 Mbit/s  
95th percentile per-packet one-way delay: 41.274 ms  
Loss rate: 0.73%  
-- Flow 2:  
Average throughput: 13.99 Mbit/s  
95th percentile per-packet one-way delay: 41.108 ms  
Loss rate: 1.31%  
-- Flow 3:  
Average throughput: 1.35 Mbit/s  
95th percentile per-packet one-way delay: 41.014 ms  
Loss rate: 5.87%



#### Run 4: Report of LEDBAT — Data Link

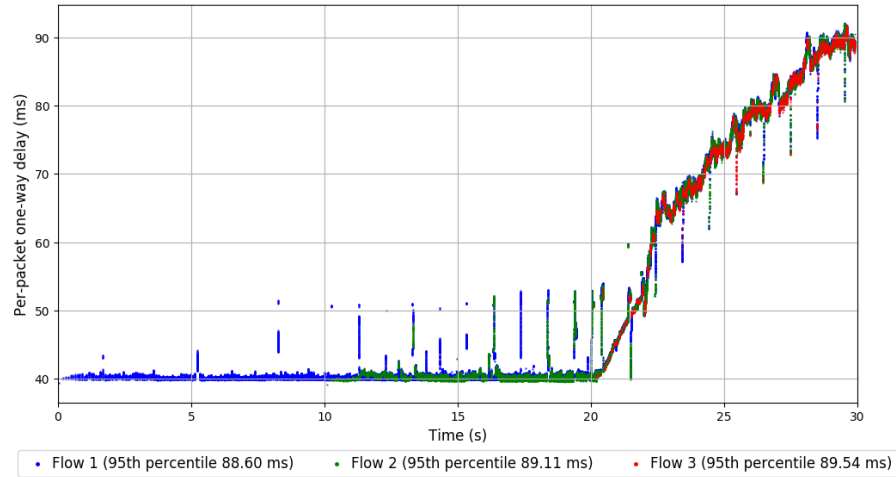
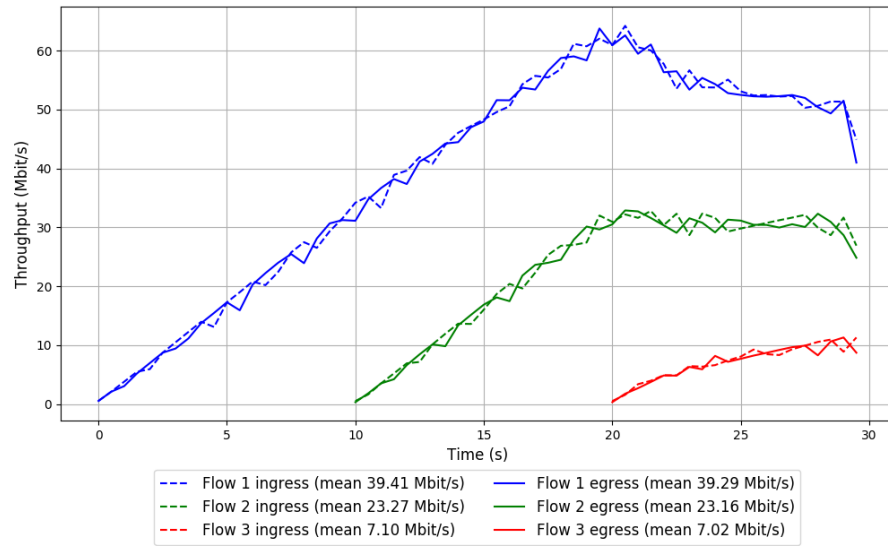


Run 5: Statistics of LEDBAT

Start at: 2018-01-17 00:42:33  
End at: 2018-01-17 00:43:03  
Local clock offset: -2.041 ms  
Remote clock offset: -6.408 ms

# Below is generated by plot.py at 2018-01-17 06:51:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 56.95 Mbit/s  
95th percentile per-packet one-way delay: 88.902 ms  
Loss rate: 0.73%  
-- Flow 1:  
Average throughput: 39.29 Mbit/s  
95th percentile per-packet one-way delay: 88.599 ms  
Loss rate: 0.59%  
-- Flow 2:  
Average throughput: 23.16 Mbit/s  
95th percentile per-packet one-way delay: 89.115 ms  
Loss rate: 0.91%  
-- Flow 3:  
Average throughput: 7.02 Mbit/s  
95th percentile per-packet one-way delay: 89.541 ms  
Loss rate: 2.09%

## Run 5: Report of LEDBAT — Data Link

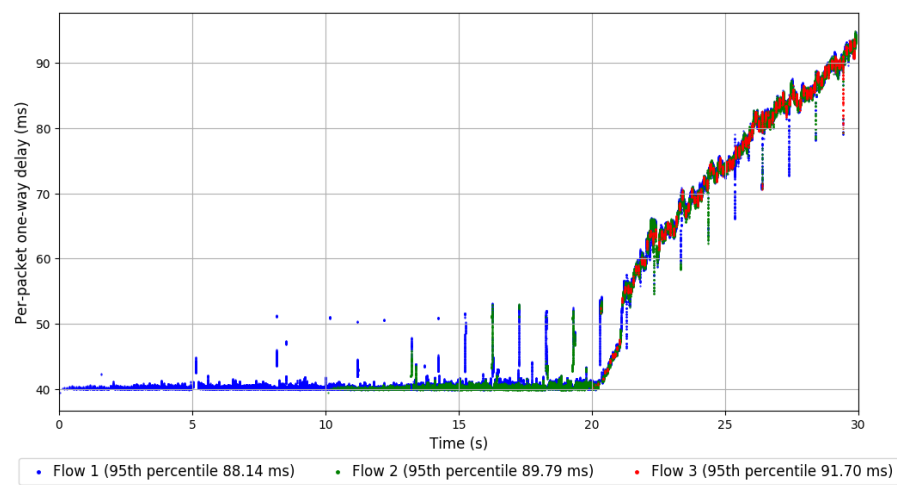
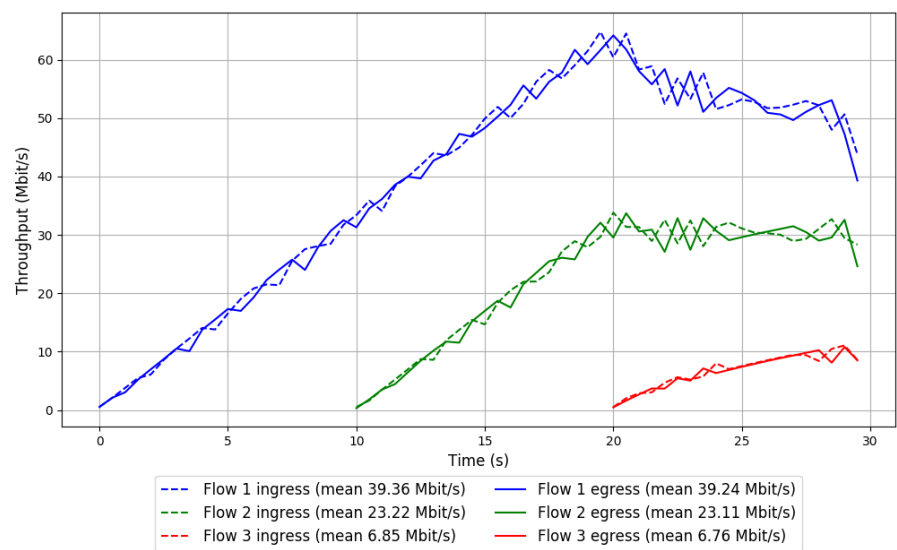


Run 6: Statistics of LEDBAT

Start at: 2018-01-17 01:05:47  
End at: 2018-01-17 01:06:17  
Local clock offset: -1.841 ms  
Remote clock offset: -5.816 ms

# Below is generated by plot.py at 2018-01-17 06:51:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 56.77 Mbit/s  
95th percentile per-packet one-way delay: 89.238 ms  
Loss rate: 0.73%  
-- Flow 1:  
Average throughput: 39.24 Mbit/s  
95th percentile per-packet one-way delay: 88.144 ms  
Loss rate: 0.59%  
-- Flow 2:  
Average throughput: 23.11 Mbit/s  
95th percentile per-packet one-way delay: 89.786 ms  
Loss rate: 0.91%  
-- Flow 3:  
Average throughput: 6.76 Mbit/s  
95th percentile per-packet one-way delay: 91.702 ms  
Loss rate: 2.13%

Run 6: Report of LEDBAT — Data Link

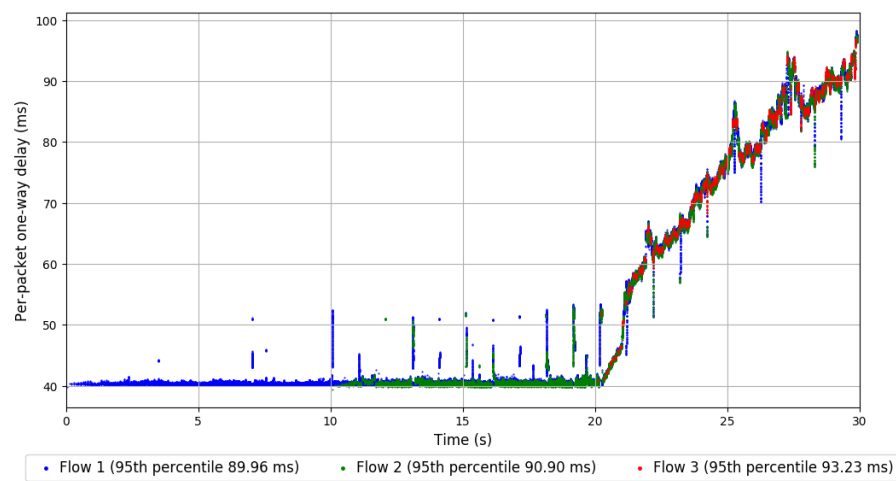
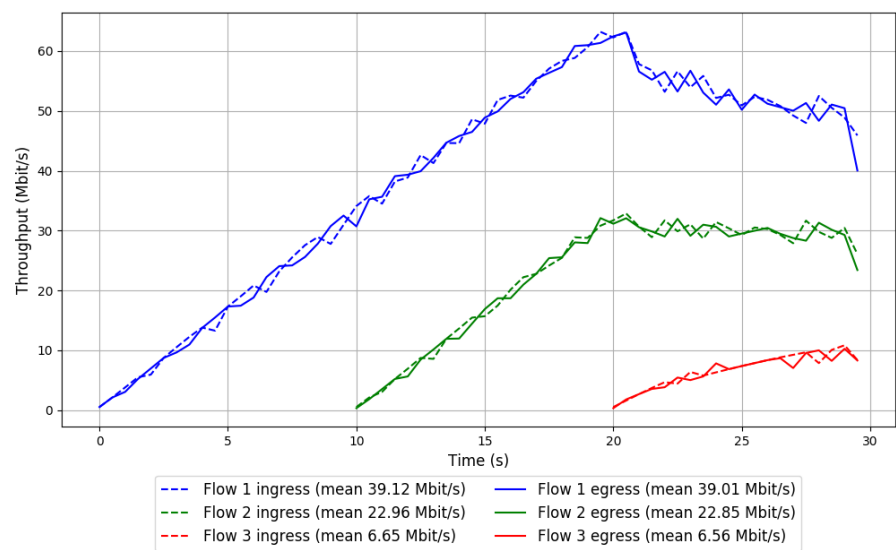


Run 7: Statistics of LEDBAT

Start at: 2018-01-17 01:29:23  
End at: 2018-01-17 01:29:53  
Local clock offset: -1.898 ms  
Remote clock offset: -5.981 ms

# Below is generated by plot.py at 2018-01-17 06:51:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 56.31 Mbit/s  
95th percentile per-packet one-way delay: 90.505 ms  
Loss rate: 0.73%  
-- Flow 1:  
Average throughput: 39.01 Mbit/s  
95th percentile per-packet one-way delay: 89.956 ms  
Loss rate: 0.59%  
-- Flow 2:  
Average throughput: 22.85 Mbit/s  
95th percentile per-packet one-way delay: 90.897 ms  
Loss rate: 0.91%  
-- Flow 3:  
Average throughput: 6.56 Mbit/s  
95th percentile per-packet one-way delay: 93.229 ms  
Loss rate: 2.14%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-17 01:52:53

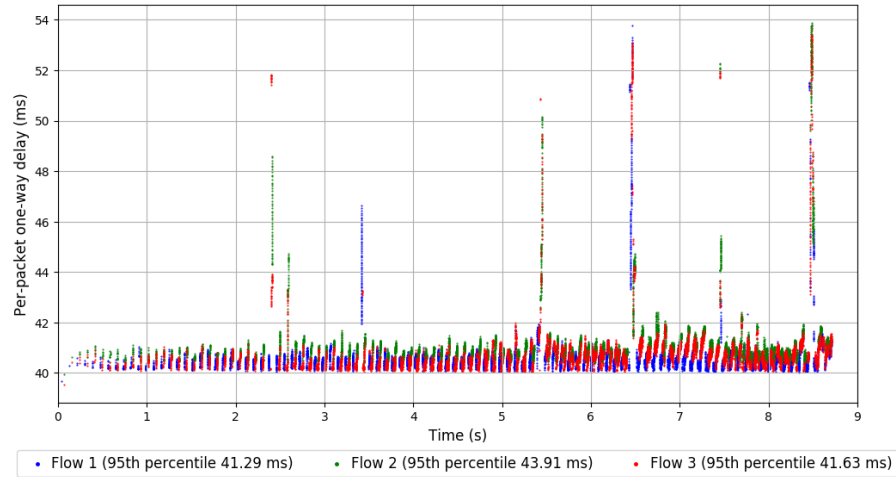
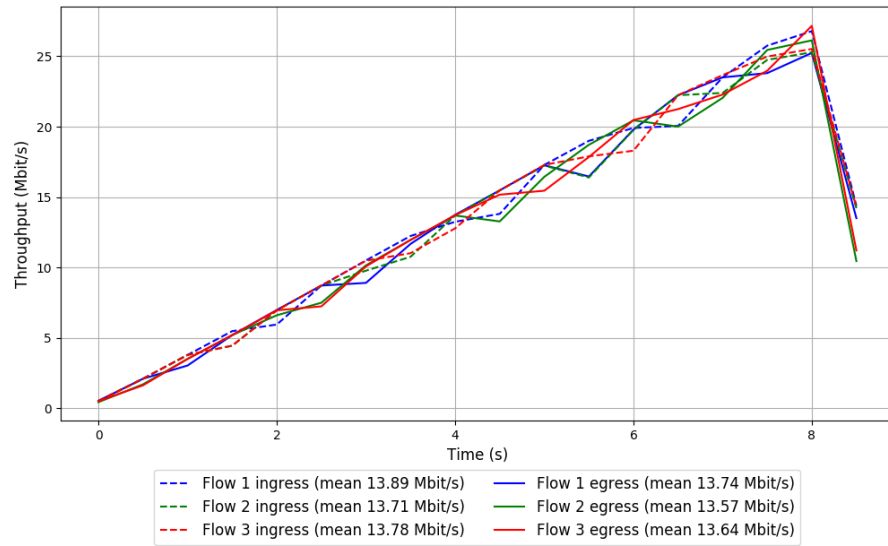
End at: 2018-01-17 01:53:23

Local clock offset: -1.478 ms

Remote clock offset: -6.1 ms



# Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

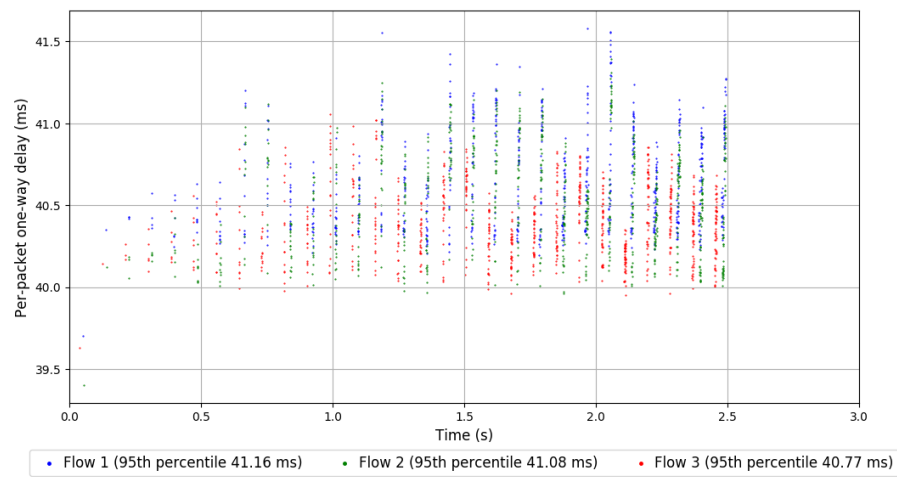
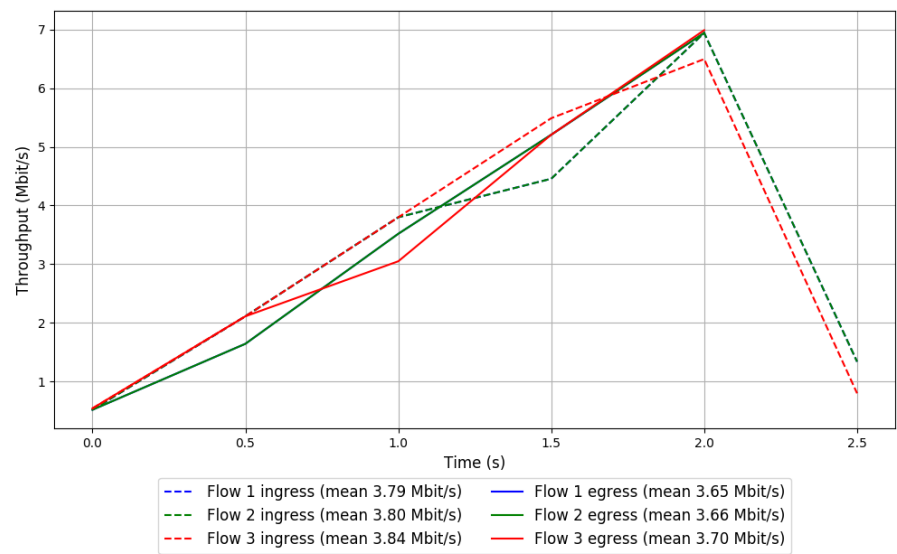
Start at: 2018-01-17 02:15:55

End at: 2018-01-17 02:16:25

Local clock offset: -1.248 ms

Remote clock offset: -5.591 ms

Run 9: Report of LEDBAT — Data Link

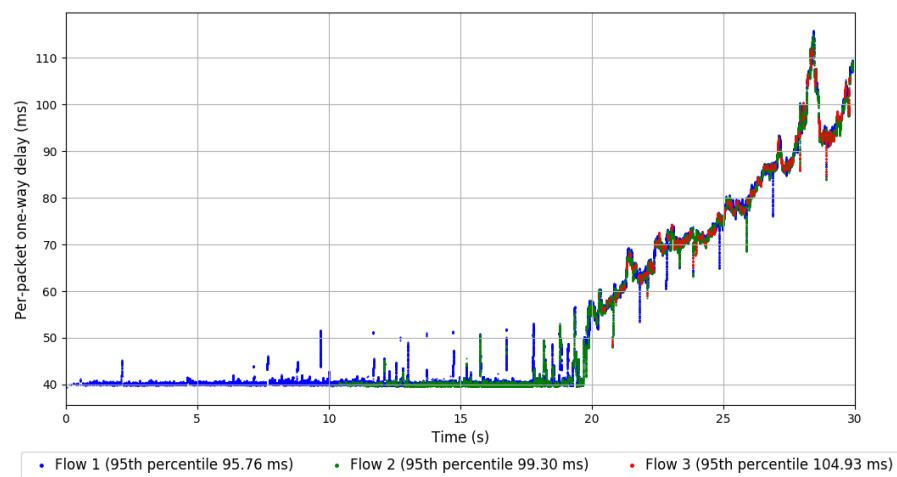
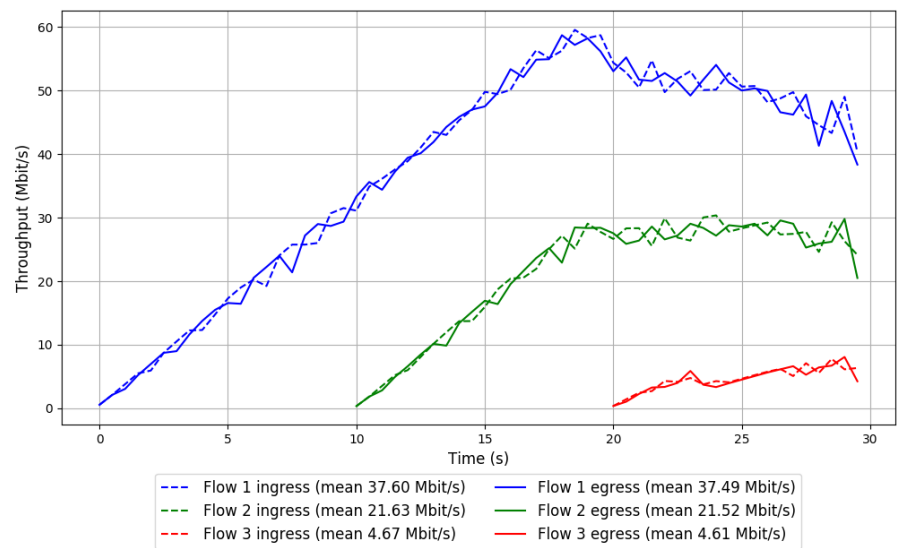


Run 10: Statistics of LEDBAT

Start at: 2018-01-17 02:40:50  
End at: 2018-01-17 02:41:20  
Local clock offset: -1.282 ms  
Remote clock offset: -5.003 ms

# Below is generated by plot.py at 2018-01-17 06:51:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 53.25 Mbit/s  
95th percentile per-packet one-way delay: 97.262 ms  
Loss rate: 0.73%  
-- Flow 1:  
Average throughput: 37.49 Mbit/s  
95th percentile per-packet one-way delay: 95.757 ms  
Loss rate: 0.59%  
-- Flow 2:  
Average throughput: 21.52 Mbit/s  
95th percentile per-packet one-way delay: 99.303 ms  
Loss rate: 0.92%  
-- Flow 3:  
Average throughput: 4.61 Mbit/s  
95th percentile per-packet one-way delay: 104.934 ms  
Loss rate: 2.37%

Run 10: Report of LEDBAT — Data Link

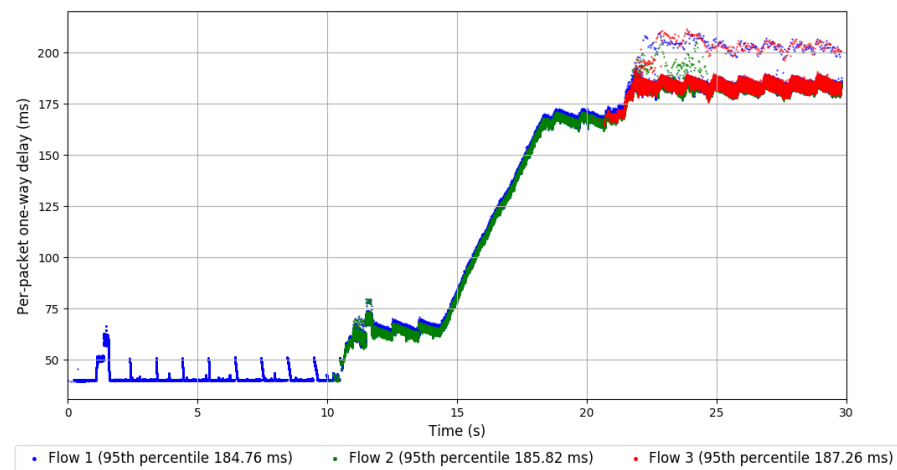
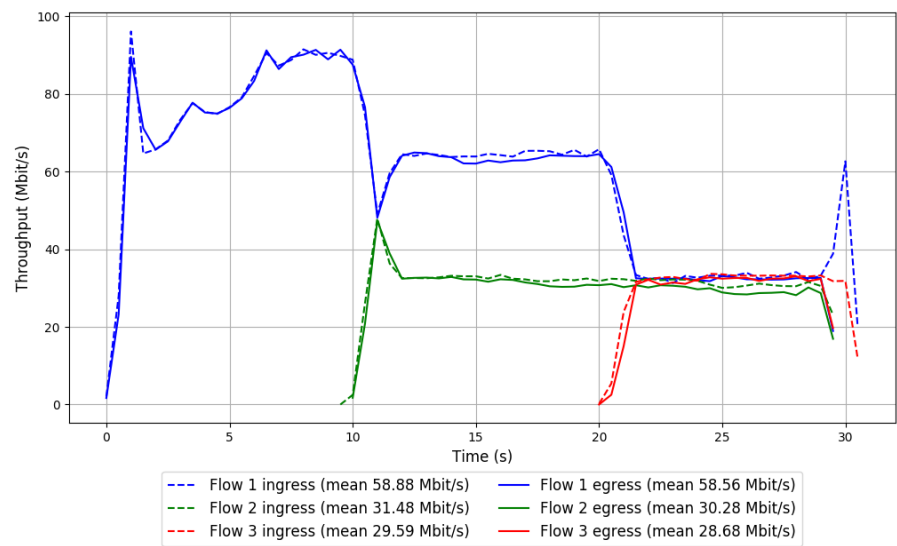


Run 1: Statistics of PCC

Start at: 2018-01-16 23:08:07  
End at: 2018-01-16 23:08:37  
Local clock offset: -1.509 ms  
Remote clock offset: -6.604 ms

# Below is generated by plot.py at 2018-01-17 06:52:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.91 Mbit/s  
95th percentile per-packet one-way delay: 185.742 ms  
Loss rate: 4.80%  
-- Flow 1:  
Average throughput: 58.56 Mbit/s  
95th percentile per-packet one-way delay: 184.760 ms  
Loss rate: 3.54%  
-- Flow 2:  
Average throughput: 30.28 Mbit/s  
95th percentile per-packet one-way delay: 185.824 ms  
Loss rate: 4.41%  
-- Flow 3:  
Average throughput: 28.68 Mbit/s  
95th percentile per-packet one-way delay: 187.257 ms  
Loss rate: 12.83%

Run 1: Report of PCC — Data Link



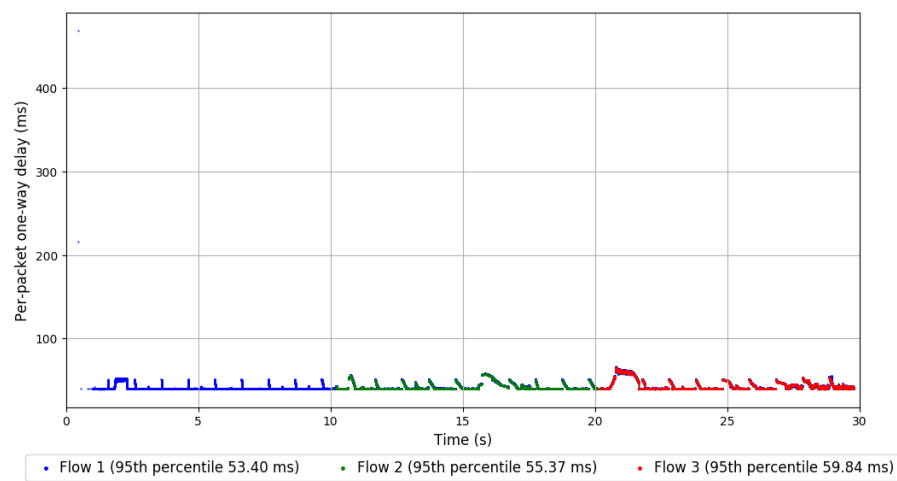
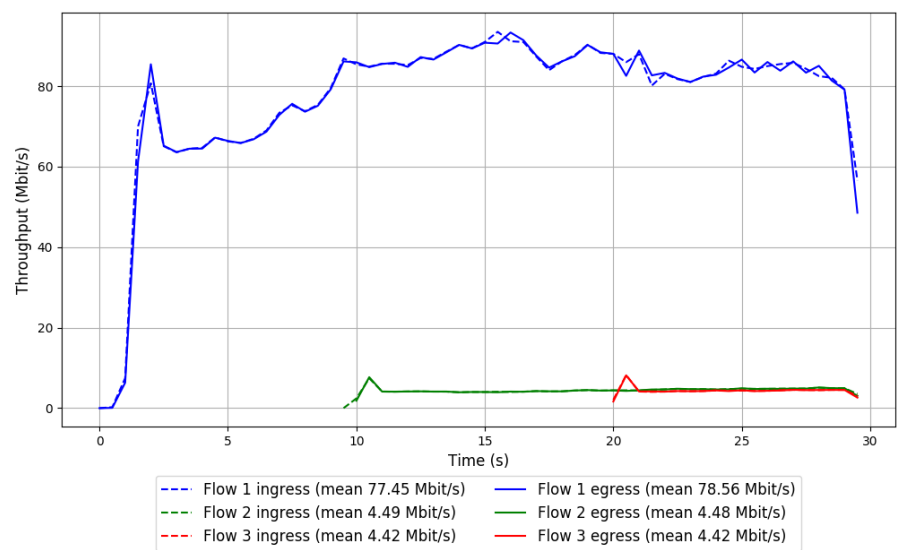
Run 2: Statistics of PCC

Start at: 2018-01-16 23:30:47  
End at: 2018-01-16 23:31:17  
Local clock offset: -1.59 ms  
Remote clock offset: -5.452 ms

# Below is generated by plot.py at 2018-01-17 06:52:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 83.05 Mbit/s  
95th percentile per-packet one-way delay: 53.712 ms  
Loss rate: 0.34%  
-- Flow 1:  
Average throughput: 78.56 Mbit/s  
95th percentile per-packet one-way delay: 53.399 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 4.48 Mbit/s  
95th percentile per-packet one-way delay: 55.372 ms  
Loss rate: 0.52%  
-- Flow 3:  
Average throughput: 4.42 Mbit/s  
95th percentile per-packet one-way delay: 59.845 ms  
Loss rate: 0.92%



Run 2: Report of PCC — Data Link

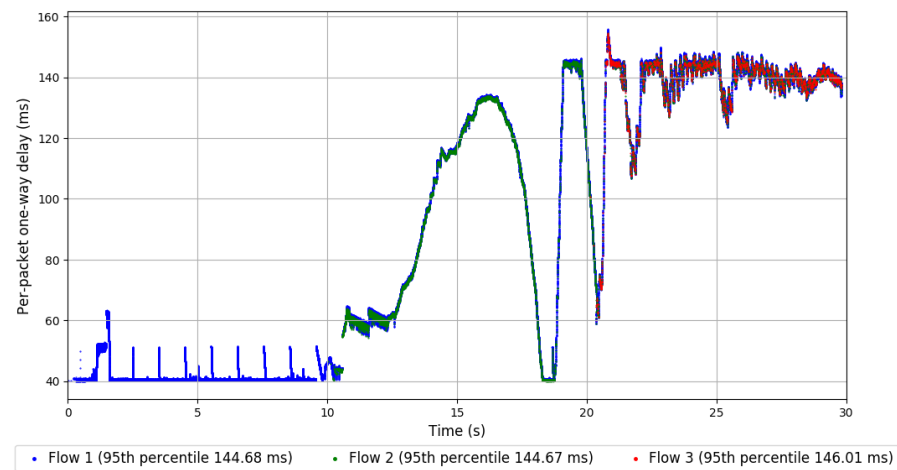
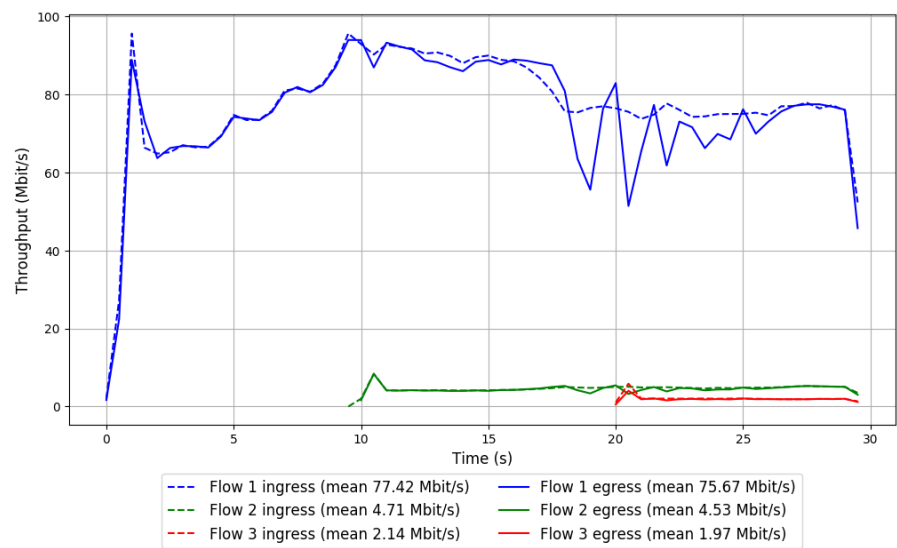


Run 3: Statistics of PCC

Start at: 2018-01-16 23:53:49  
End at: 2018-01-16 23:54:19  
Local clock offset: -1.109 ms  
Remote clock offset: -4.983 ms

# Below is generated by plot.py at 2018-01-17 06:52:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.31 Mbit/s  
95th percentile per-packet one-way delay: 144.695 ms  
Loss rate: 2.67%  
-- Flow 1:  
Average throughput: 75.67 Mbit/s  
95th percentile per-packet one-way delay: 144.681 ms  
Loss rate: 2.54%  
-- Flow 2:  
Average throughput: 4.53 Mbit/s  
95th percentile per-packet one-way delay: 144.669 ms  
Loss rate: 4.41%  
-- Flow 3:  
Average throughput: 1.97 Mbit/s  
95th percentile per-packet one-way delay: 146.007 ms  
Loss rate: 9.44%

Run 3: Report of PCC — Data Link

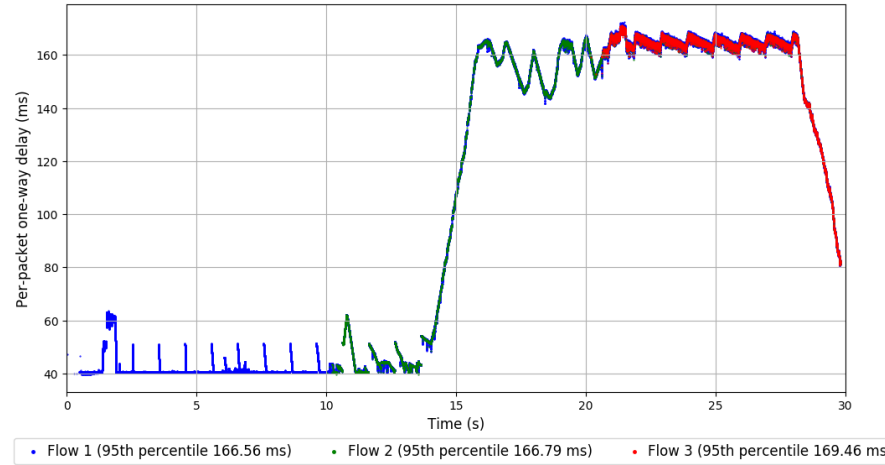
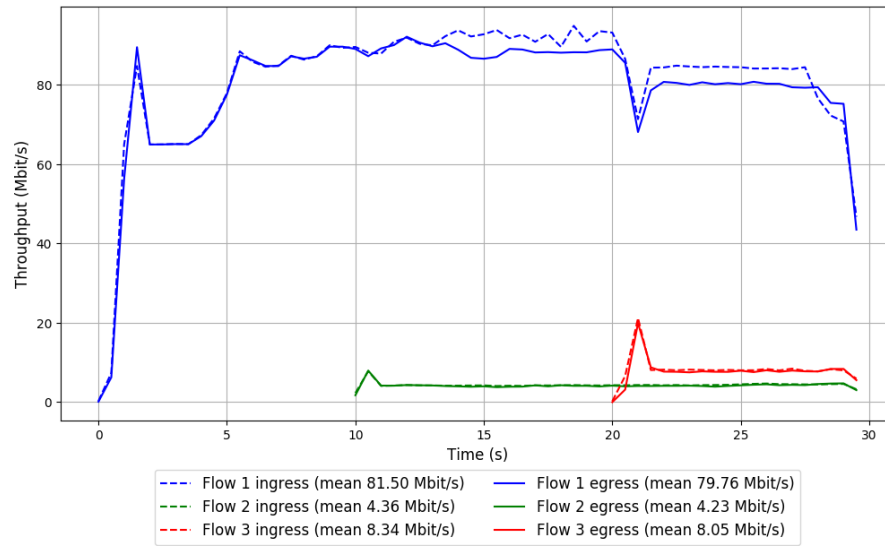


Run 4: Statistics of PCC

Start at: 2018-01-17 00:17:01  
End at: 2018-01-17 00:17:31  
Local clock offset: -1.365 ms  
Remote clock offset: -6.574 ms

# Below is generated by plot.py at 2018-01-17 06:52:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.16 Mbit/s  
95th percentile per-packet one-way delay: 166.673 ms  
Loss rate: 2.58%  
-- Flow 1:  
Average throughput: 79.76 Mbit/s  
95th percentile per-packet one-way delay: 166.558 ms  
Loss rate: 2.45%  
-- Flow 2:  
Average throughput: 4.23 Mbit/s  
95th percentile per-packet one-way delay: 166.794 ms  
Loss rate: 3.46%  
-- Flow 3:  
Average throughput: 8.05 Mbit/s  
95th percentile per-packet one-way delay: 169.460 ms  
Loss rate: 5.44%

# Run 4: Report of PCC — Data Link

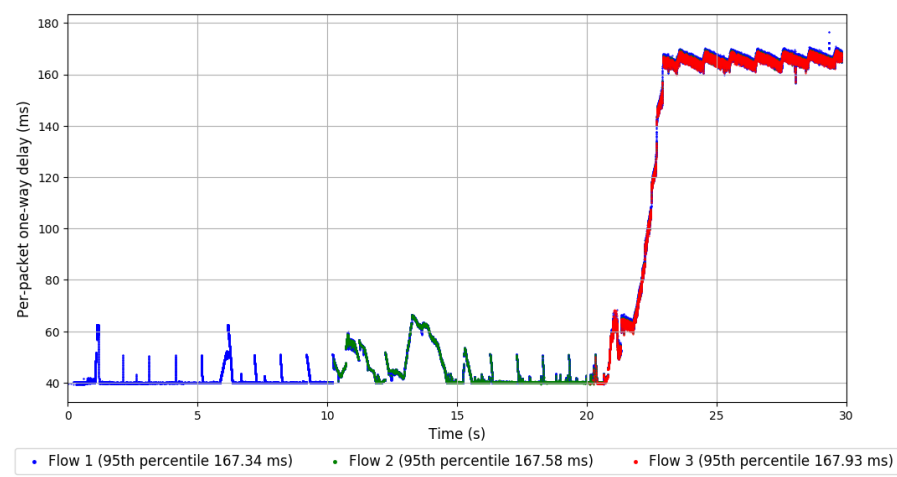
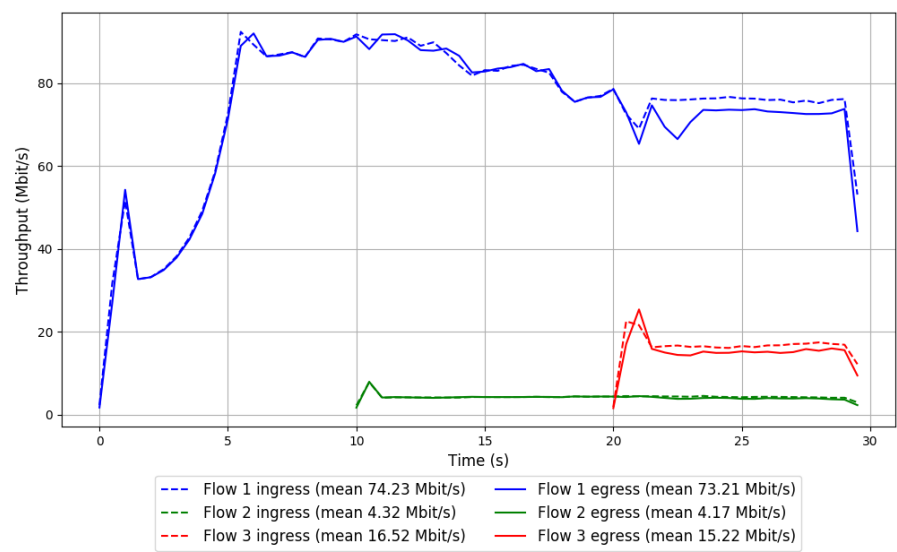


Run 5: Statistics of PCC

Start at: 2018-01-17 00:39:50  
End at: 2018-01-17 00:40:20  
Local clock offset: -1.853 ms  
Remote clock offset: -6.437 ms

# Below is generated by plot.py at 2018-01-17 06:53:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.96 Mbit/s  
95th percentile per-packet one-way delay: 167.428 ms  
Loss rate: 2.24%  
-- Flow 1:  
Average throughput: 73.21 Mbit/s  
95th percentile per-packet one-way delay: 167.337 ms  
Loss rate: 1.70%  
-- Flow 2:  
Average throughput: 4.17 Mbit/s  
95th percentile per-packet one-way delay: 167.584 ms  
Loss rate: 4.03%  
-- Flow 3:  
Average throughput: 15.22 Mbit/s  
95th percentile per-packet one-way delay: 167.933 ms  
Loss rate: 8.73%

Run 5: Report of PCC — Data Link



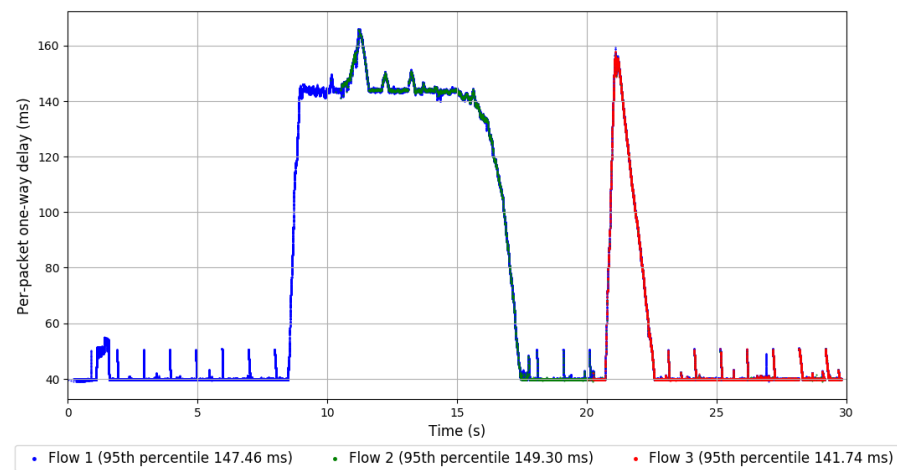
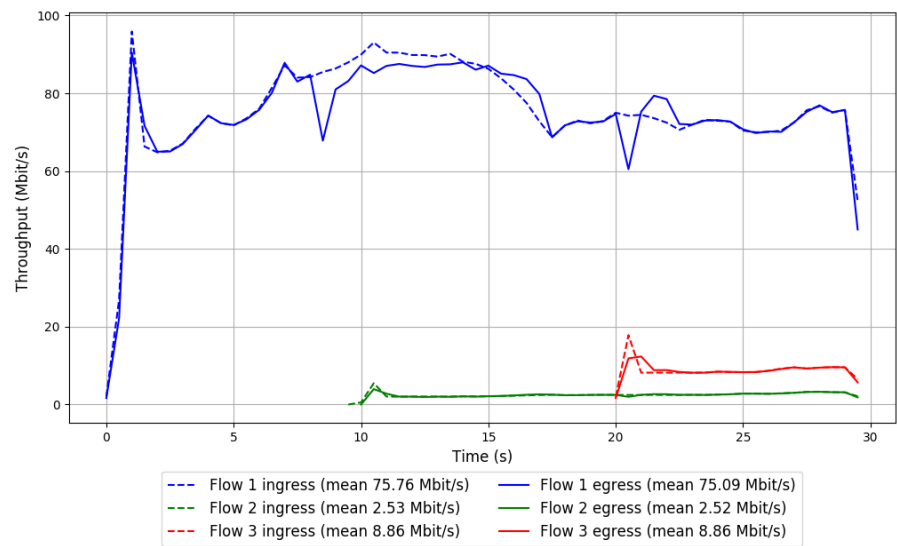
Run 6: Statistics of PCC

Start at: 2018-01-17 01:03:22  
End at: 2018-01-17 01:03:52  
Local clock offset: -2.321 ms  
Remote clock offset: -5.922 ms

# Below is generated by plot.py at 2018-01-17 06:53:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.66 Mbit/s  
95th percentile per-packet one-way delay: 147.459 ms  
Loss rate: 1.17%  
-- Flow 1:  
Average throughput: 75.09 Mbit/s  
95th percentile per-packet one-way delay: 147.459 ms  
Loss rate: 1.17%  
-- Flow 2:  
Average throughput: 2.52 Mbit/s  
95th percentile per-packet one-way delay: 149.302 ms  
Loss rate: 1.54%  
-- Flow 3:  
Average throughput: 8.86 Mbit/s  
95th percentile per-packet one-way delay: 141.736 ms  
Loss rate: 0.92%



Run 6: Report of PCC — Data Link

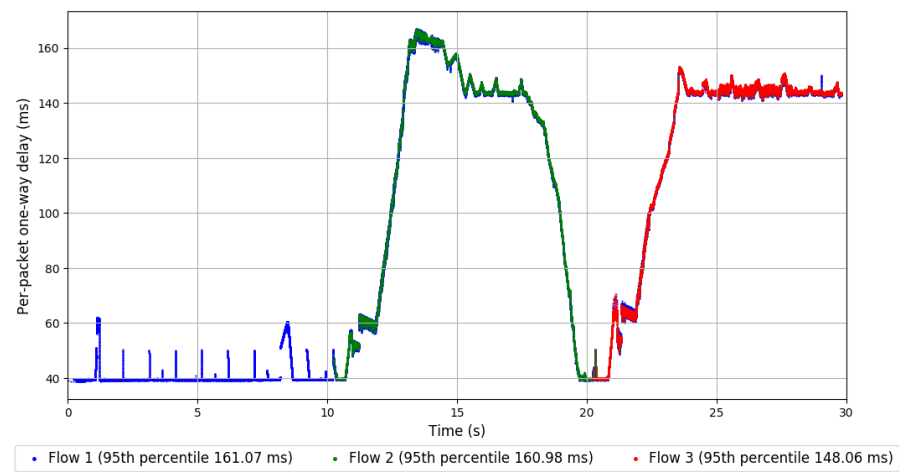
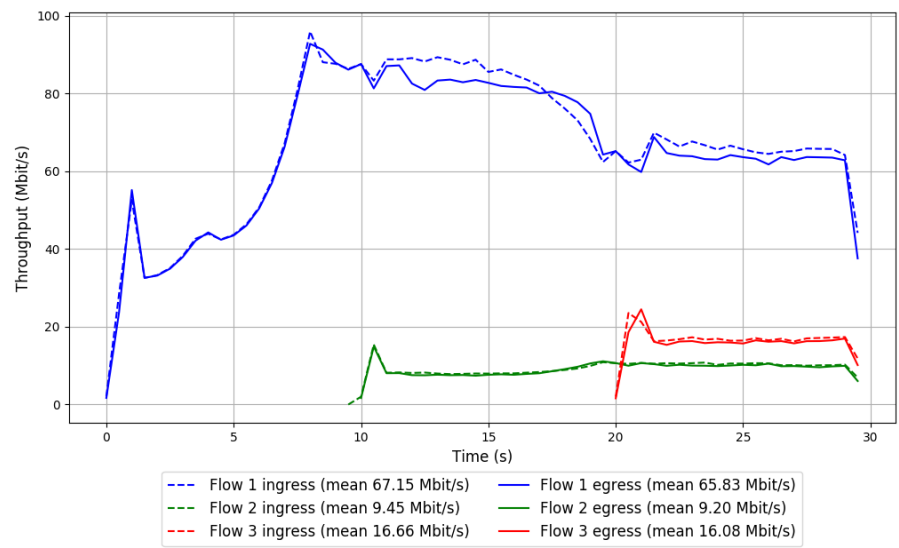


Run 7: Statistics of PCC

Start at: 2018-01-17 01:26:53  
End at: 2018-01-17 01:27:23  
Local clock offset: -2.401 ms  
Remote clock offset: -5.967 ms

# Below is generated by plot.py at 2018-01-17 06:53:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.21 Mbit/s  
95th percentile per-packet one-way delay: 160.474 ms  
Loss rate: 2.47%  
-- Flow 1:  
Average throughput: 65.83 Mbit/s  
95th percentile per-packet one-way delay: 161.069 ms  
Loss rate: 2.26%  
-- Flow 2:  
Average throughput: 9.20 Mbit/s  
95th percentile per-packet one-way delay: 160.977 ms  
Loss rate: 3.07%  
-- Flow 3:  
Average throughput: 16.08 Mbit/s  
95th percentile per-packet one-way delay: 148.062 ms  
Loss rate: 4.37%

Run 7: Report of PCC — Data Link

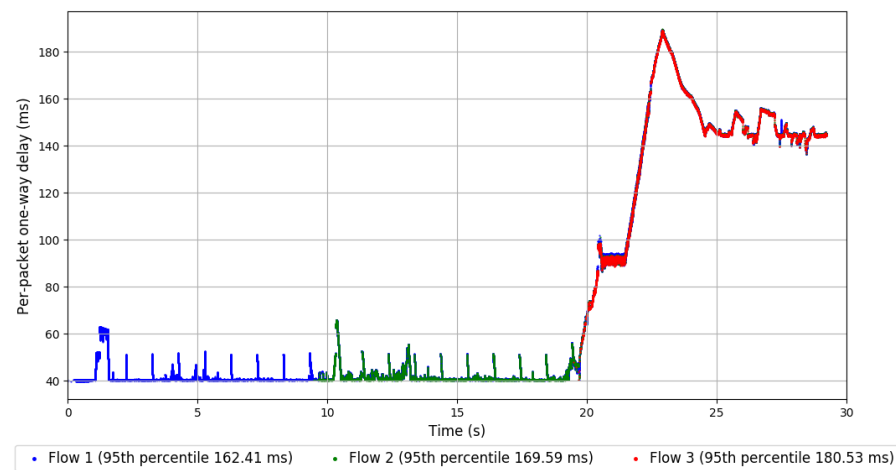
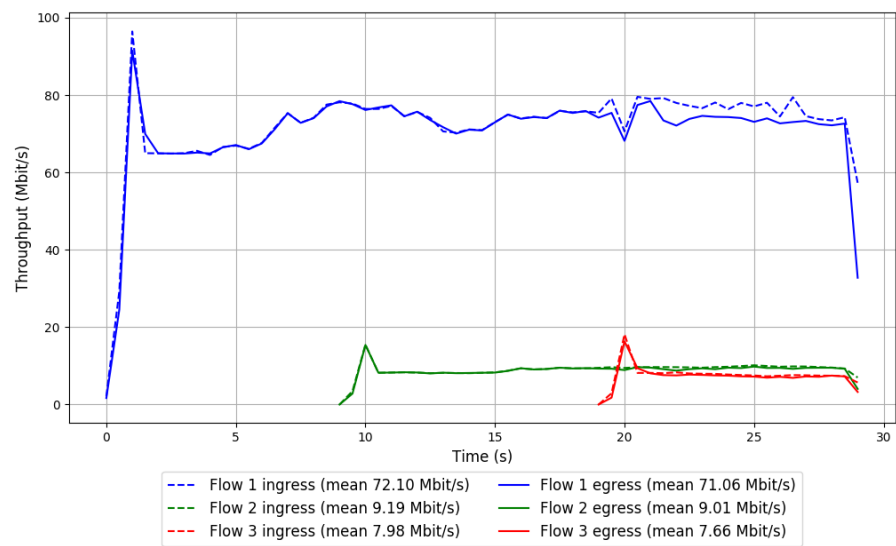


Run 8: Statistics of PCC

Start at: 2018-01-17 01:50:08  
End at: 2018-01-17 01:50:38  
Local clock offset: -1.485 ms  
Remote clock offset: -6.134 ms

# Below is generated by plot.py at 2018-01-17 06:53:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.72 Mbit/s  
95th percentile per-packet one-way delay: 163.670 ms  
Loss rate: 2.30%  
-- Flow 1:  
Average throughput: 71.06 Mbit/s  
95th percentile per-packet one-way delay: 162.407 ms  
Loss rate: 2.10%  
-- Flow 2:  
Average throughput: 9.01 Mbit/s  
95th percentile per-packet one-way delay: 169.593 ms  
Loss rate: 2.93%  
-- Flow 3:  
Average throughput: 7.66 Mbit/s  
95th percentile per-packet one-way delay: 180.531 ms  
Loss rate: 6.00%

Run 8: Report of PCC — Data Link

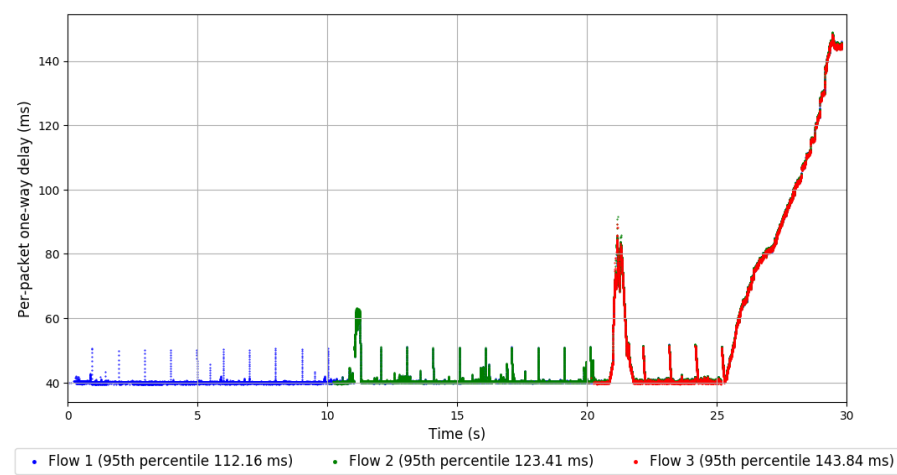
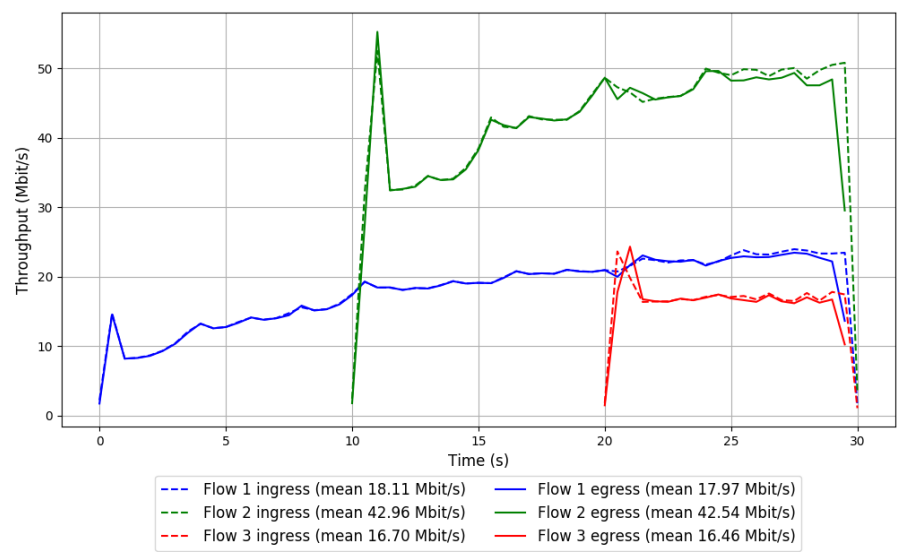


Run 9: Statistics of PCC

Start at: 2018-01-17 02:13:11  
End at: 2018-01-17 02:13:41  
Local clock offset: -1.571 ms  
Remote clock offset: -5.845 ms

# Below is generated by plot.py at 2018-01-17 06:53:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 51.60 Mbit/s  
95th percentile per-packet one-way delay: 123.103 ms  
Loss rate: 2.28%  
-- Flow 1:  
Average throughput: 17.97 Mbit/s  
95th percentile per-packet one-way delay: 112.159 ms  
Loss rate: 1.69%  
-- Flow 2:  
Average throughput: 42.54 Mbit/s  
95th percentile per-packet one-way delay: 123.405 ms  
Loss rate: 2.30%  
-- Flow 3:  
Average throughput: 16.46 Mbit/s  
95th percentile per-packet one-way delay: 143.839 ms  
Loss rate: 4.06%

Run 9: Report of PCC — Data Link



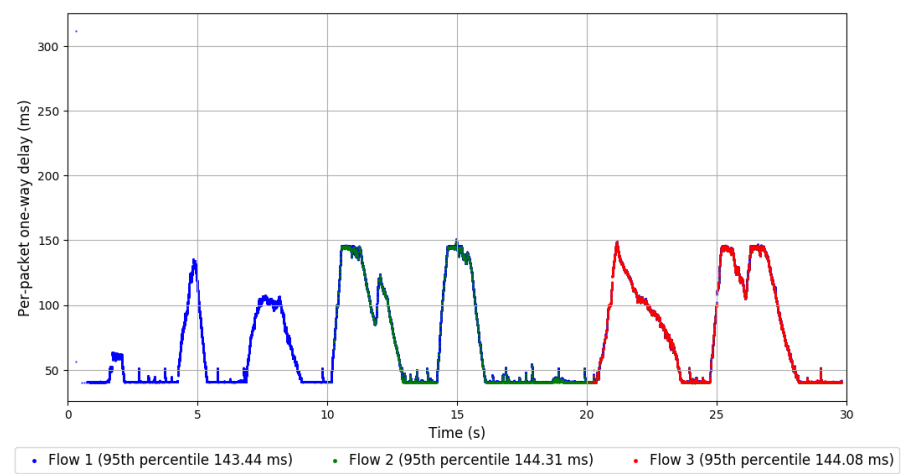
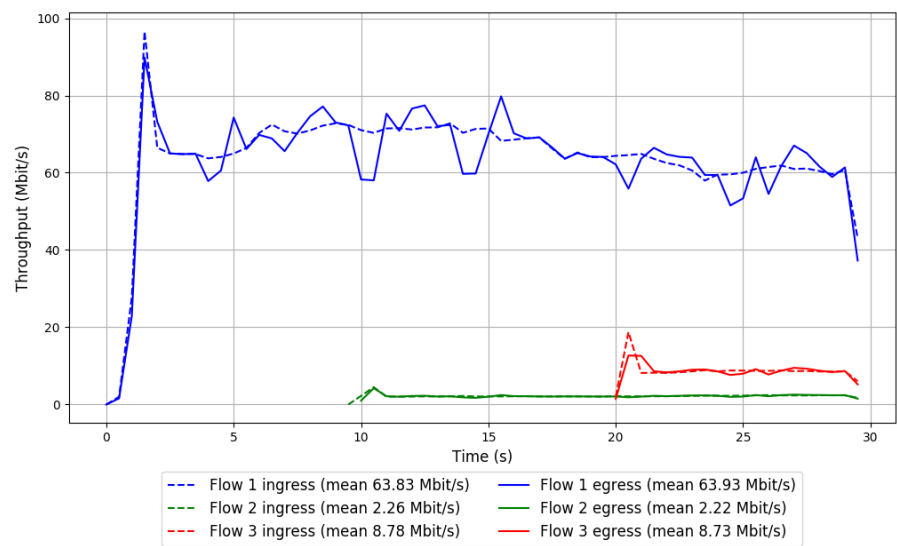
Run 10: Statistics of PCC

Start at: 2018-01-17 02:38:15  
End at: 2018-01-17 02:38:45  
Local clock offset: -0.614 ms  
Remote clock offset: -5.107 ms

# Below is generated by plot.py at 2018-01-17 06:53:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.30 Mbit/s  
95th percentile per-packet one-way delay: 143.550 ms  
Loss rate: 1.11%  
-- Flow 1:  
Average throughput: 63.93 Mbit/s  
95th percentile per-packet one-way delay: 143.442 ms  
Loss rate: 1.06%  
-- Flow 2:  
Average throughput: 2.22 Mbit/s  
95th percentile per-packet one-way delay: 144.313 ms  
Loss rate: 2.33%  
-- Flow 3:  
Average throughput: 8.73 Mbit/s  
95th percentile per-packet one-way delay: 144.076 ms  
Loss rate: 1.49%



Run 10: Report of PCC — Data Link

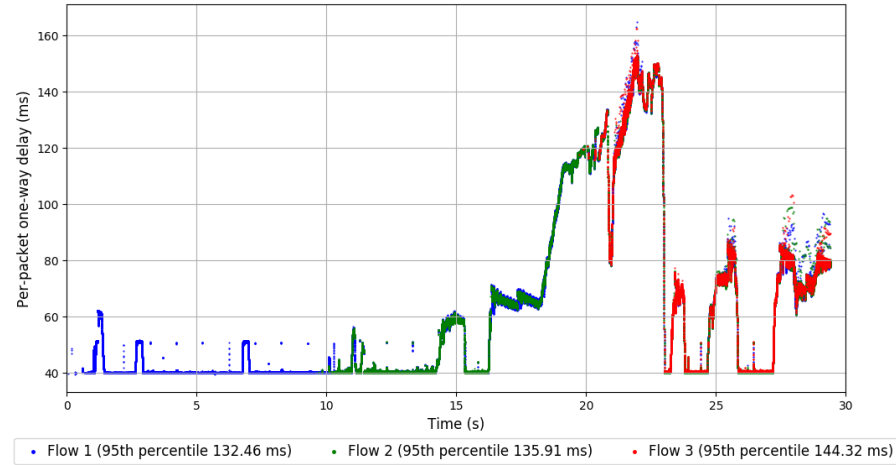
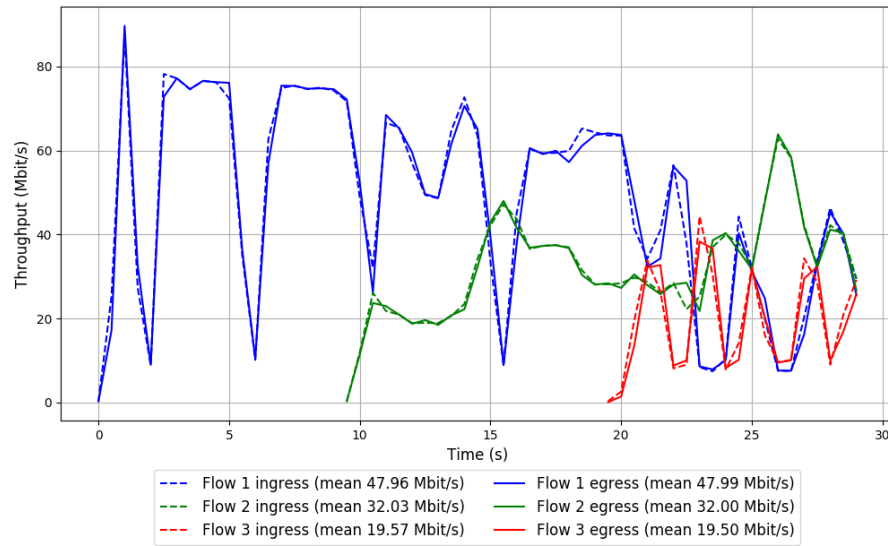


Run 1: Statistics of QUIC Cubic

Start at: 2018-01-16 23:14:26  
End at: 2018-01-16 23:14:56  
Local clock offset: -1.374 ms  
Remote clock offset: -6.328 ms

# Below is generated by plot.py at 2018-01-17 06:53:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.98 Mbit/s  
95th percentile per-packet one-way delay: 135.364 ms  
Loss rate: 0.58%  
-- Flow 1:  
Average throughput: 47.99 Mbit/s  
95th percentile per-packet one-way delay: 132.457 ms  
Loss rate: 0.31%  
-- Flow 2:  
Average throughput: 32.00 Mbit/s  
95th percentile per-packet one-way delay: 135.907 ms  
Loss rate: 0.69%  
-- Flow 3:  
Average throughput: 19.50 Mbit/s  
95th percentile per-packet one-way delay: 144.317 ms  
Loss rate: 2.19%

## Run 1: Report of QUIC Cubic — Data Link

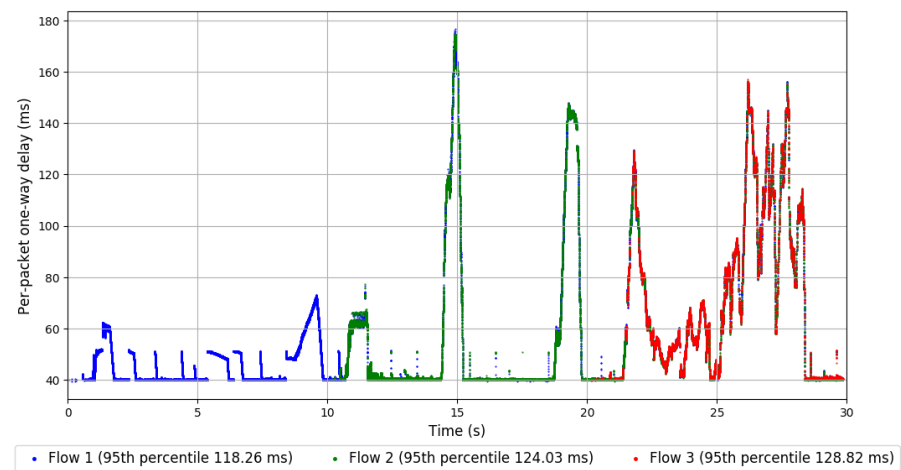
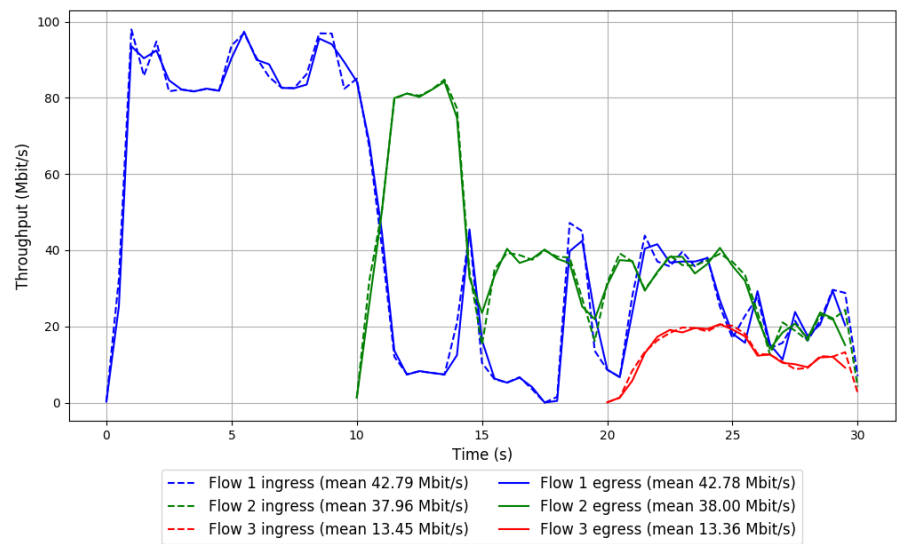


Run 2: Statistics of QUIC Cubic

Start at: 2018-01-16 23:36:59  
End at: 2018-01-16 23:37:29  
Local clock offset: -1.304 ms  
Remote clock offset: -5.316 ms

# Below is generated by plot.py at 2018-01-17 06:53:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 72.32 Mbit/s  
95th percentile per-packet one-way delay: 121.899 ms  
Loss rate: 1.30%  
-- Flow 1:  
Average throughput: 42.78 Mbit/s  
95th percentile per-packet one-way delay: 118.259 ms  
Loss rate: 1.02%  
-- Flow 2:  
Average throughput: 38.00 Mbit/s  
95th percentile per-packet one-way delay: 124.034 ms  
Loss rate: 1.36%  
-- Flow 3:  
Average throughput: 13.36 Mbit/s  
95th percentile per-packet one-way delay: 128.819 ms  
Loss rate: 3.61%

Run 2: Report of QUIC Cubic — Data Link

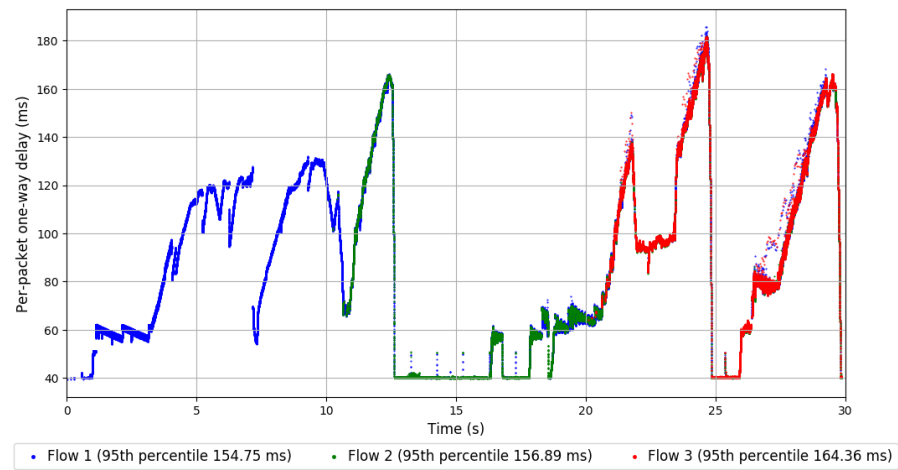
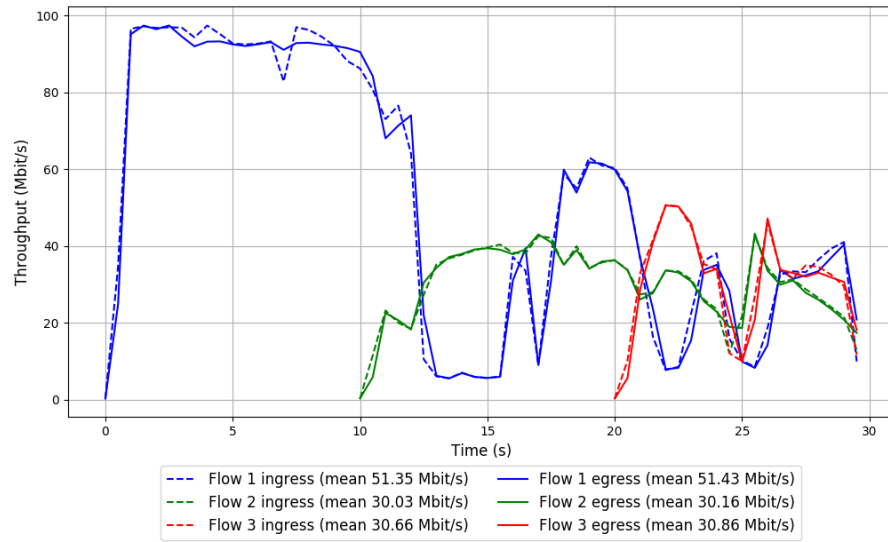


Run 3: Statistics of QUIC Cubic

Start at: 2018-01-16 23:59:59  
End at: 2018-01-17 00:00:29  
Local clock offset: -1.409 ms  
Remote clock offset: -4.968 ms

# Below is generated by plot.py at 2018-01-17 06:54:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.46 Mbit/s  
95th percentile per-packet one-way delay: 158.202 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 51.43 Mbit/s  
95th percentile per-packet one-way delay: 154.749 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 30.16 Mbit/s  
95th percentile per-packet one-way delay: 156.889 ms  
Loss rate: 0.37%  
-- Flow 3:  
Average throughput: 30.86 Mbit/s  
95th percentile per-packet one-way delay: 164.356 ms  
Loss rate: 0.44%

### Run 3: Report of QUIC Cubic — Data Link



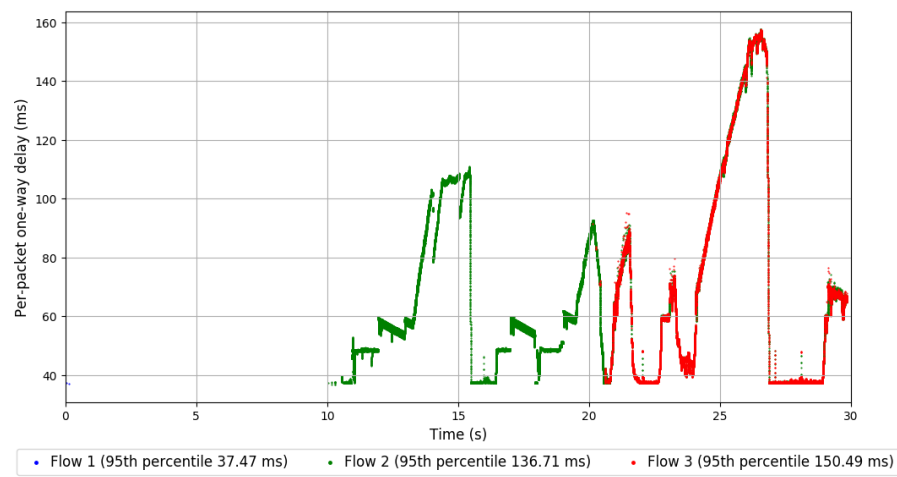
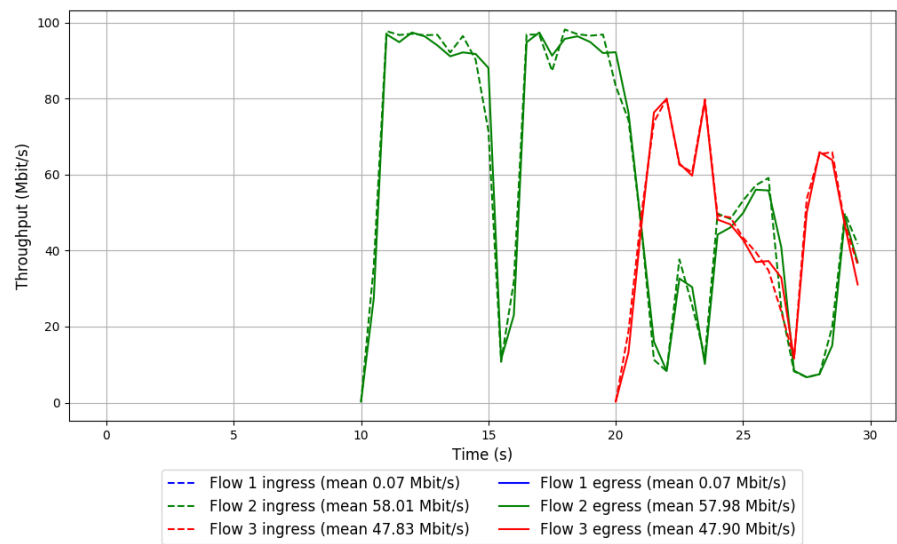
Run 4: Statistics of QUIC Cubic

Start at: 2018-01-17 00:23:22  
End at: 2018-01-17 00:23:52  
Local clock offset: -4.171 ms  
Remote clock offset: -6.826 ms

# Below is generated by plot.py at 2018-01-17 06:54:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 54.12 Mbit/s  
95th percentile per-packet one-way delay: 141.638 ms  
Loss rate: 0.79%  
-- Flow 1:  
Average throughput: 0.07 Mbit/s  
95th percentile per-packet one-way delay: 37.471 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 57.98 Mbit/s  
95th percentile per-packet one-way delay: 136.711 ms  
Loss rate: 0.56%  
-- Flow 3:  
Average throughput: 47.90 Mbit/s  
95th percentile per-packet one-way delay: 150.486 ms  
Loss rate: 1.33%



Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-17 00:46:20

End at: 2018-01-17 00:46:50

Local clock offset: -1.932 ms

Remote clock offset: -6.32 ms

# Below is generated by plot.py at 2018-01-17 06:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.51 Mbit/s

95th percentile per-packet one-way delay: 159.290 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 40.02 Mbit/s

95th percentile per-packet one-way delay: 151.997 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 38.13 Mbit/s

95th percentile per-packet one-way delay: 159.369 ms

Loss rate: 1.14%

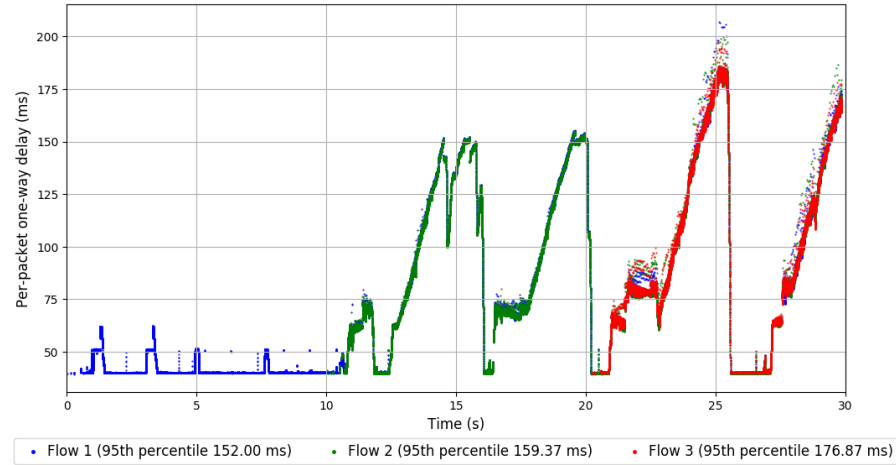
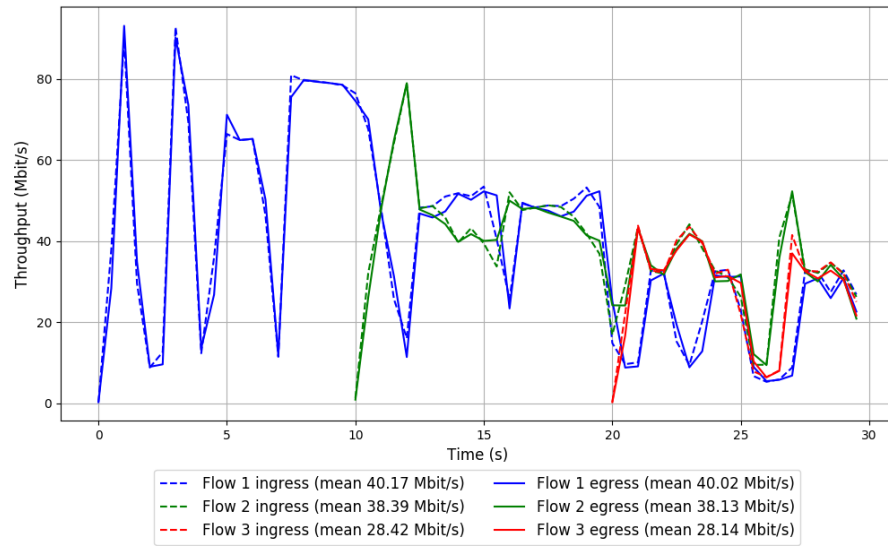
-- Flow 3:

Average throughput: 28.14 Mbit/s

95th percentile per-packet one-way delay: 176.868 ms

Loss rate: 2.62%

## Run 5: Report of QUIC Cubic — Data Link

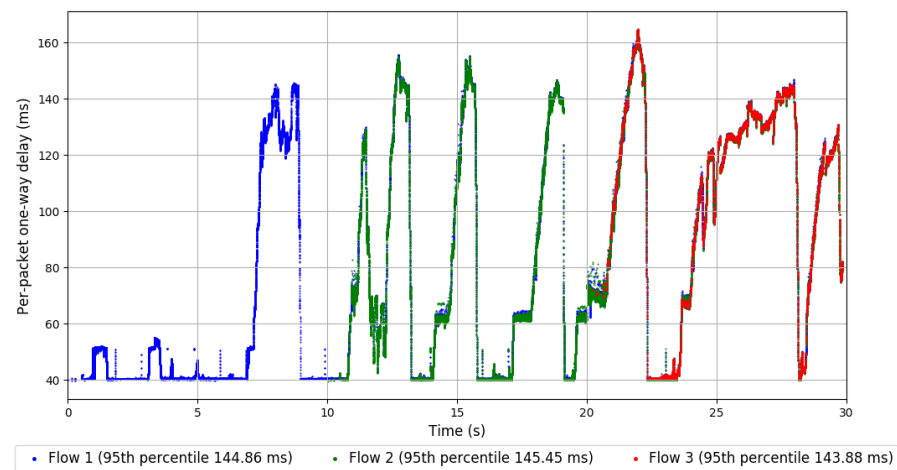
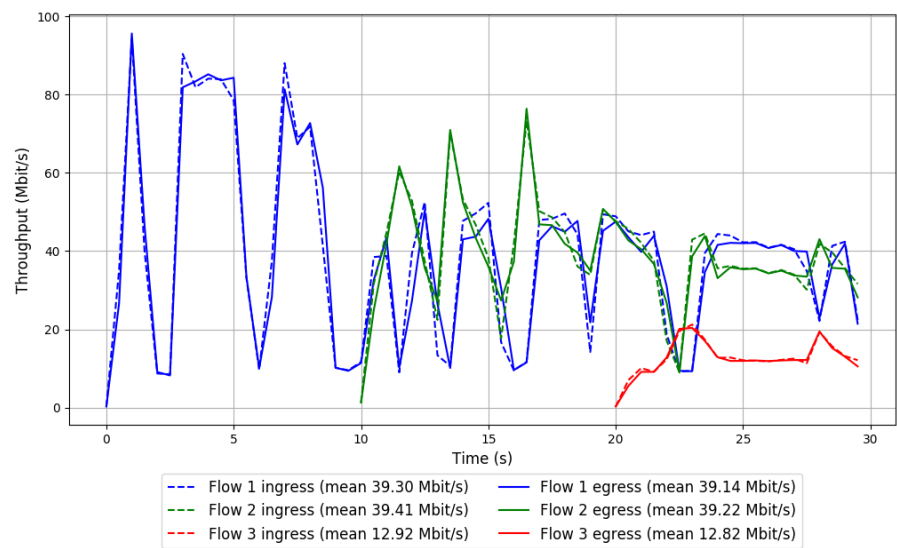


Run 6: Statistics of QUIC Cubic

Start at: 2018-01-17 01:09:39  
End at: 2018-01-17 01:10:09  
Local clock offset: -1.938 ms  
Remote clock offset: -5.779 ms

# Below is generated by plot.py at 2018-01-17 06:54:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 69.38 Mbit/s  
95th percentile per-packet one-way delay: 144.970 ms  
Loss rate: 0.90%  
-- Flow 1:  
Average throughput: 39.14 Mbit/s  
95th percentile per-packet one-way delay: 144.856 ms  
Loss rate: 0.73%  
-- Flow 2:  
Average throughput: 39.22 Mbit/s  
95th percentile per-packet one-way delay: 145.446 ms  
Loss rate: 0.97%  
-- Flow 3:  
Average throughput: 12.82 Mbit/s  
95th percentile per-packet one-way delay: 143.876 ms  
Loss rate: 1.96%

Run 6: Report of QUIC Cubic — Data Link

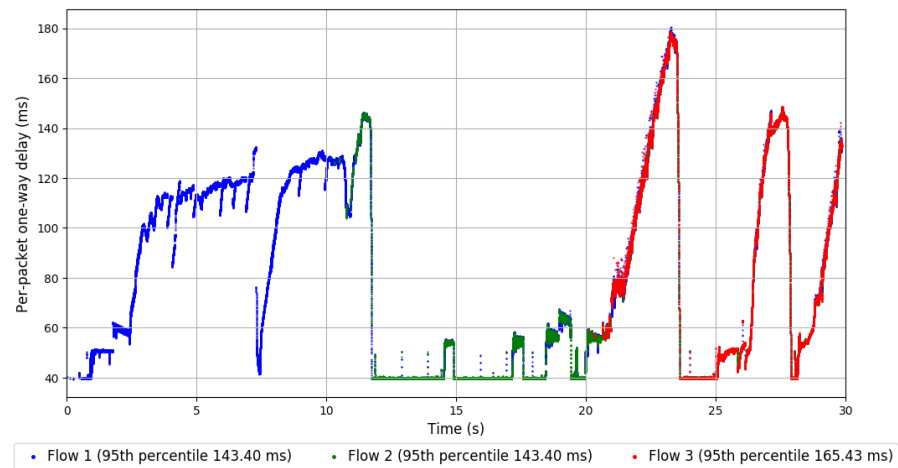
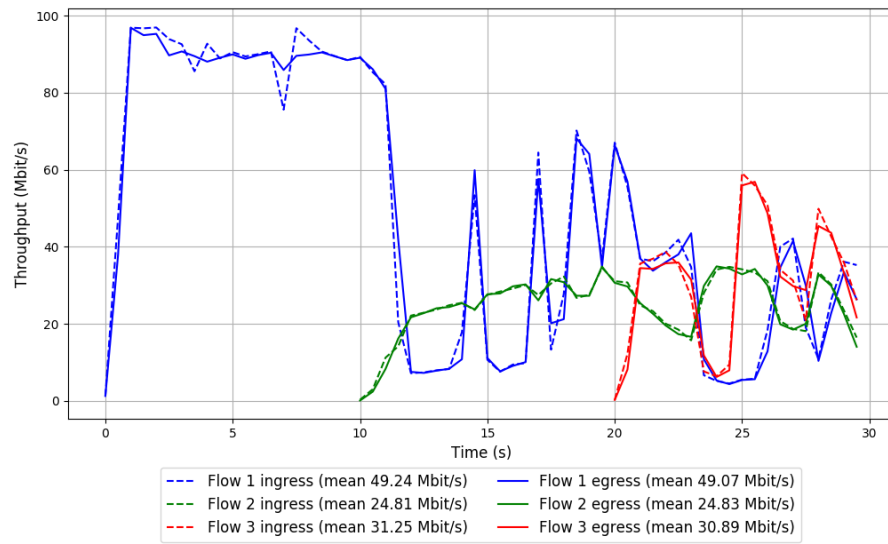


Run 7: Statistics of QUIC Cubic

Start at: 2018-01-17 01:33:06  
End at: 2018-01-17 01:33:36  
Local clock offset: -2.009 ms  
Remote clock offset: -6.036 ms

# Below is generated by plot.py at 2018-01-17 06:55:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.58 Mbit/s  
95th percentile per-packet one-way delay: 144.329 ms  
Loss rate: 0.90%  
-- Flow 1:  
Average throughput: 49.07 Mbit/s  
95th percentile per-packet one-way delay: 143.399 ms  
Loss rate: 0.65%  
-- Flow 2:  
Average throughput: 24.83 Mbit/s  
95th percentile per-packet one-way delay: 143.396 ms  
Loss rate: 0.83%  
-- Flow 3:  
Average throughput: 30.89 Mbit/s  
95th percentile per-packet one-way delay: 165.429 ms  
Loss rate: 2.22%

## Run 7: Report of QUIC Cubic — Data Link



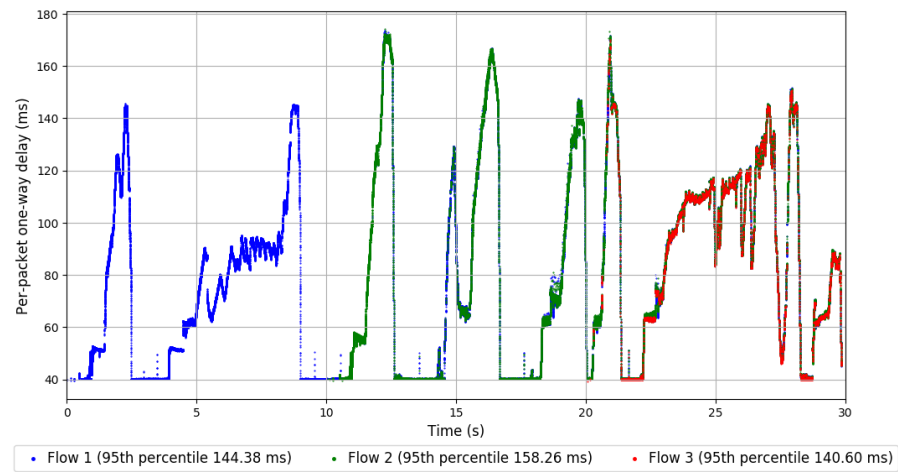
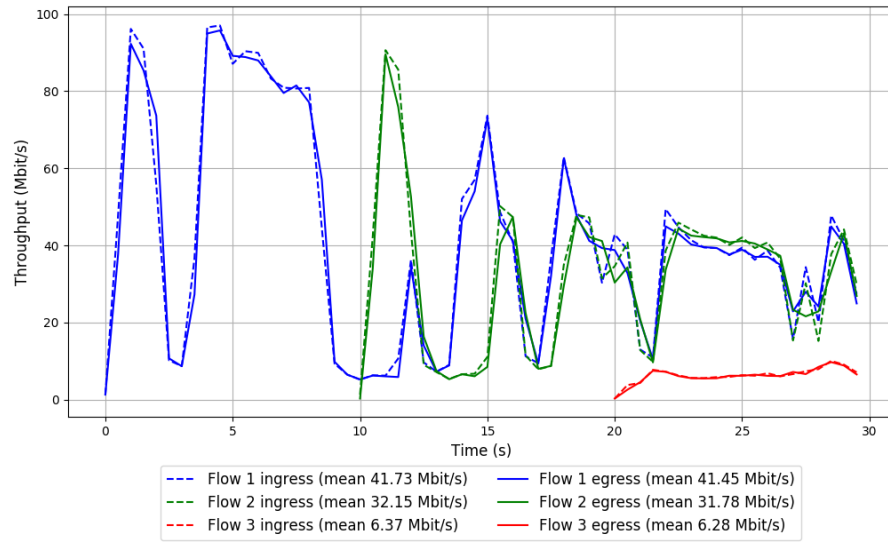
Run 8: Statistics of QUIC Cubic

Start at: 2018-01-17 01:56:36  
End at: 2018-01-17 01:57:06  
Local clock offset: -1.687 ms  
Remote clock offset: -6.142 ms

# Below is generated by plot.py at 2018-01-17 06:55:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 64.62 Mbit/s  
95th percentile per-packet one-way delay: 146.047 ms  
Loss rate: 1.18%  
-- Flow 1:  
Average throughput: 41.45 Mbit/s  
95th percentile per-packet one-way delay: 144.379 ms  
Loss rate: 0.94%  
-- Flow 2:  
Average throughput: 31.78 Mbit/s  
95th percentile per-packet one-way delay: 158.263 ms  
Loss rate: 1.56%  
-- Flow 3:  
Average throughput: 6.28 Mbit/s  
95th percentile per-packet one-way delay: 140.597 ms  
Loss rate: 2.21%



## Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

/home/ubuntu/pantheon\_data/2018-01-16T22-53-China-to-AWS-Korea-10-runs-3-flows/quic\_stats\_ru

Run 9: Report of QUIC Cubic — Data Link

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Figure is missing

Run 10: Statistics of QUIC Cubic

Start at: 2018-01-17 02:44:31

End at: 2018-01-17 02:45:01

Local clock offset: -0.487 ms

Remote clock offset: -4.89 ms

# Below is generated by plot.py at 2018-01-17 06:55:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 61.96 Mbit/s

95th percentile per-packet one-way delay: 142.966 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 45.28 Mbit/s

95th percentile per-packet one-way delay: 142.860 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 10.43 Mbit/s

95th percentile per-packet one-way delay: 140.867 ms

Loss rate: 1.15%

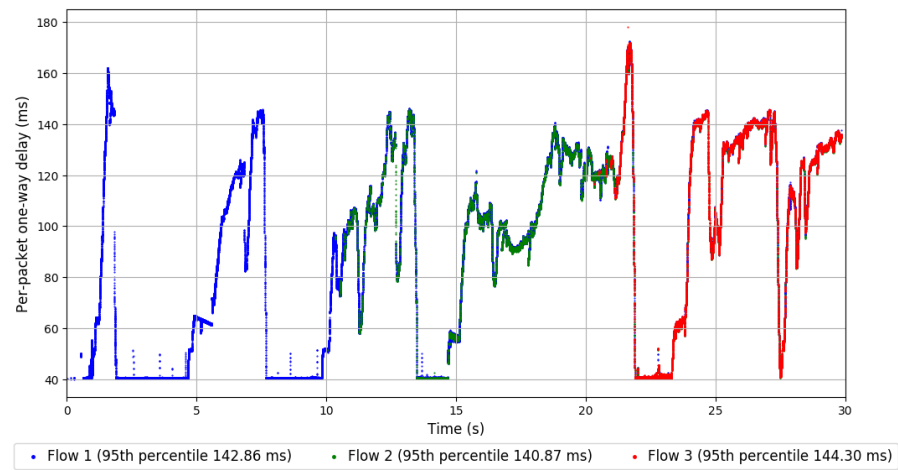
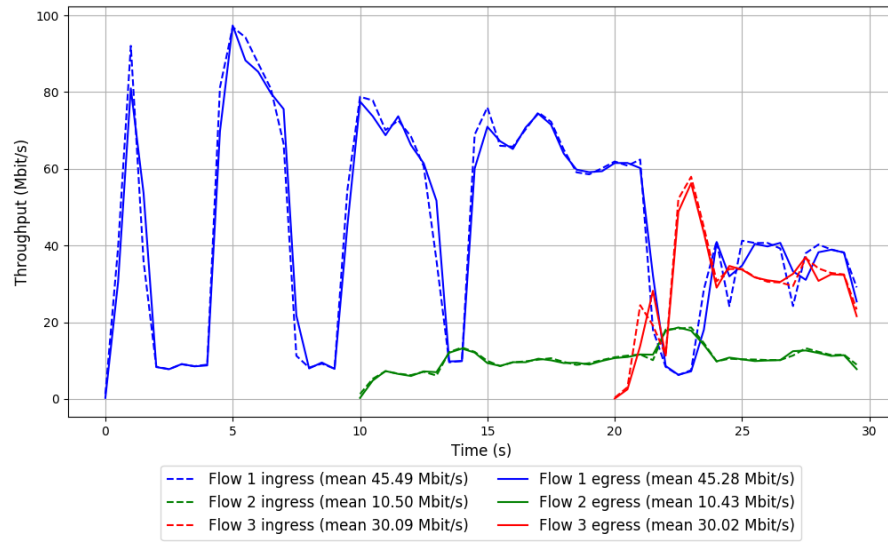
-- Flow 3:

Average throughput: 30.02 Mbit/s

95th percentile per-packet one-way delay: 144.298 ms

Loss rate: 1.98%

# Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

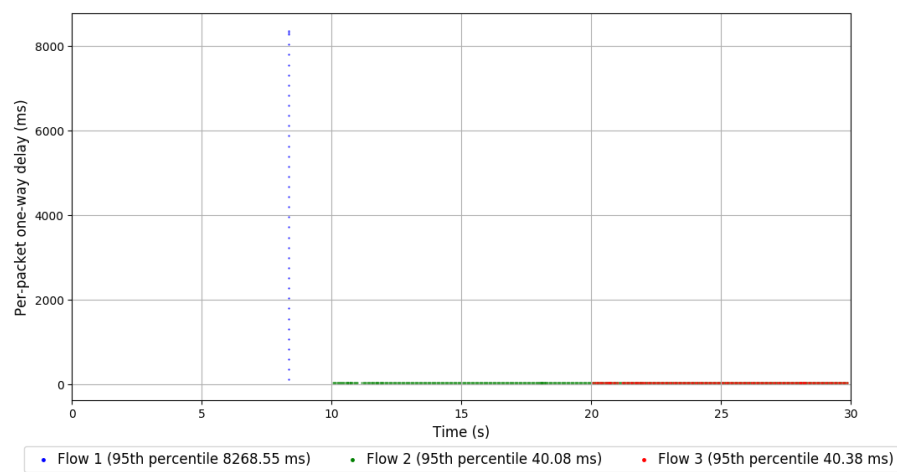
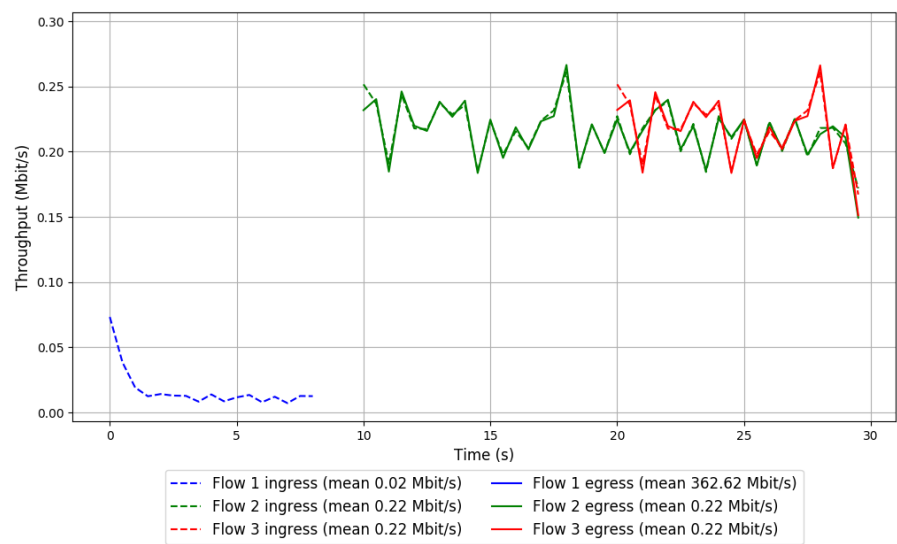
Start at: 2018-01-16 23:11:59

End at: 2018-01-16 23:12:29

Local clock offset: -1.382 ms

Remote clock offset: -6.418 ms

Run 1: Report of SReAM — Data Link



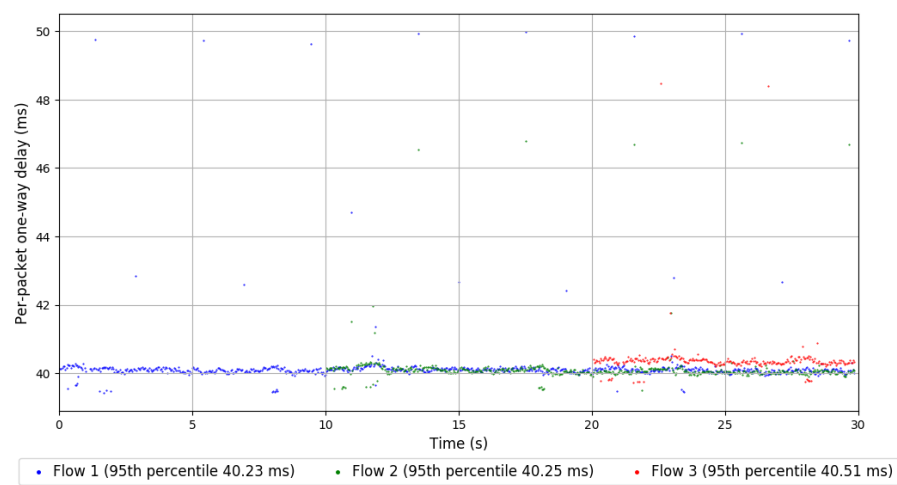
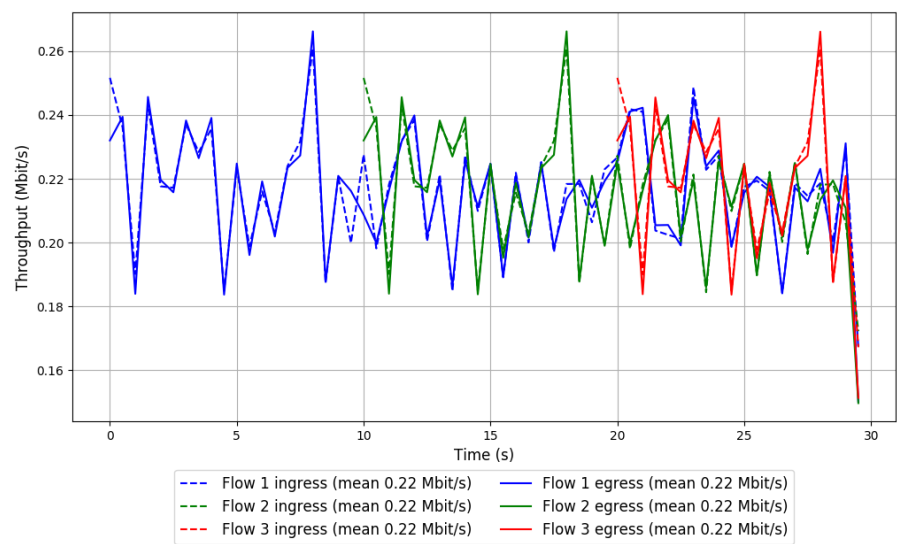
Run 2: Statistics of SReAM

Start at: 2018-01-16 23:34:31  
End at: 2018-01-16 23:35:01  
Local clock offset: -1.292 ms  
Remote clock offset: -5.352 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 40.426 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.233 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.253 ms  
Loss rate: 0.43%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.505 ms  
Loss rate: 0.73%



Run 2: Report of SReAM — Data Link

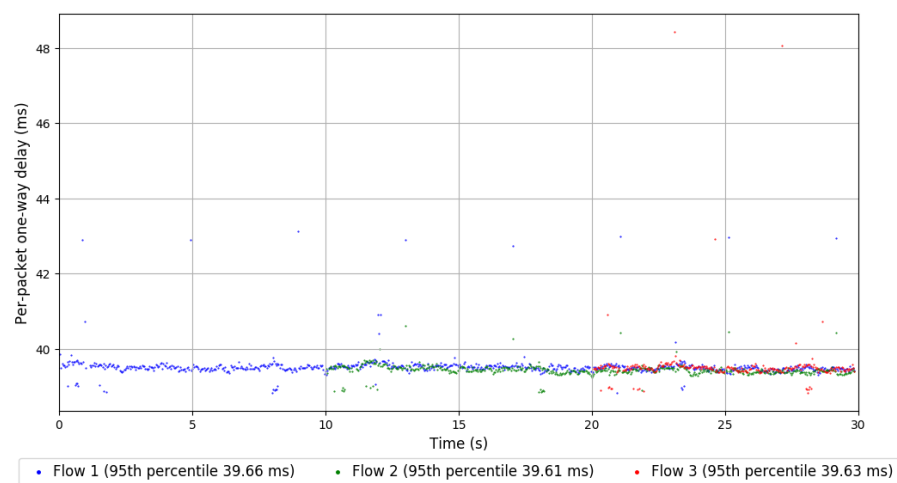
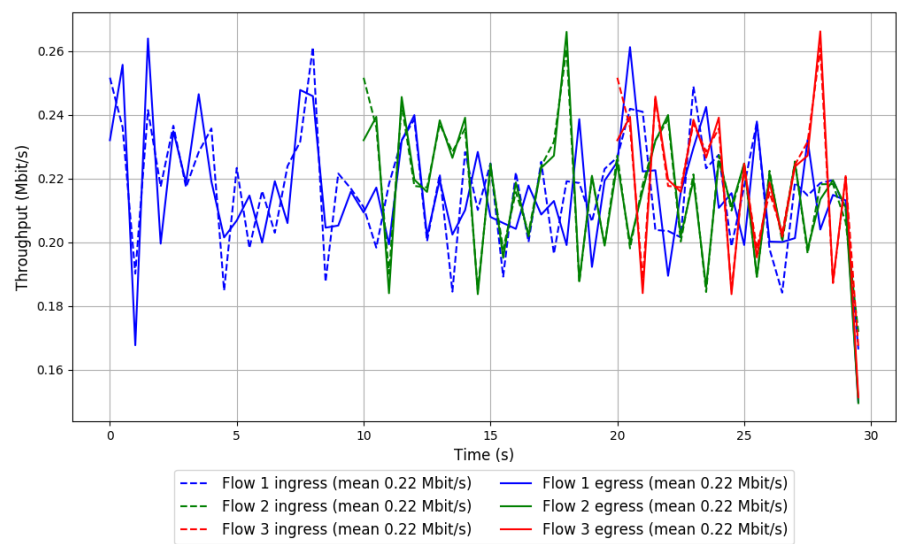


Run 3: Statistics of SReAM

Start at: 2018-01-16 23:57:32  
End at: 2018-01-16 23:58:02  
Local clock offset: -1.898 ms  
Remote clock offset: -4.949 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 39.643 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 39.661 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 39.606 ms  
Loss rate: 0.42%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 39.634 ms  
Loss rate: 0.73%

Run 3: Report of SReAM — Data Link

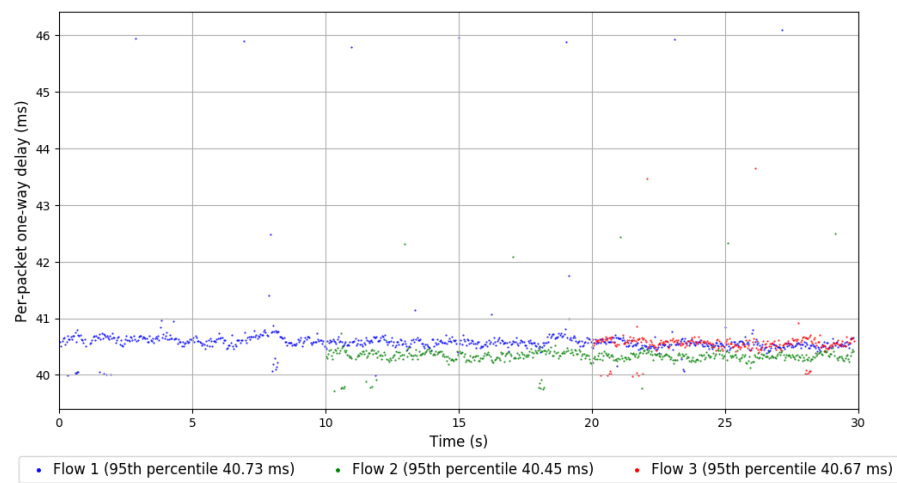
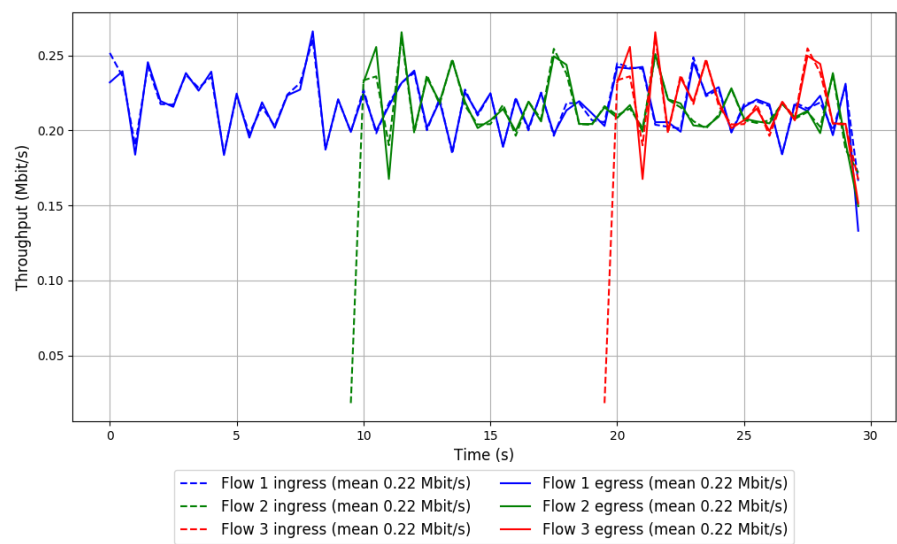


Run 4: Statistics of SReAM

Start at: 2018-01-17 00:20:54  
End at: 2018-01-17 00:21:24  
Local clock offset: -1.27 ms  
Remote clock offset: -6.859 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 40.697 ms  
Loss rate: 0.46%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.734 ms  
Loss rate: 0.38%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.446 ms  
Loss rate: 0.42%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.668 ms  
Loss rate: 0.73%

Run 4: Report of SReAM — Data Link

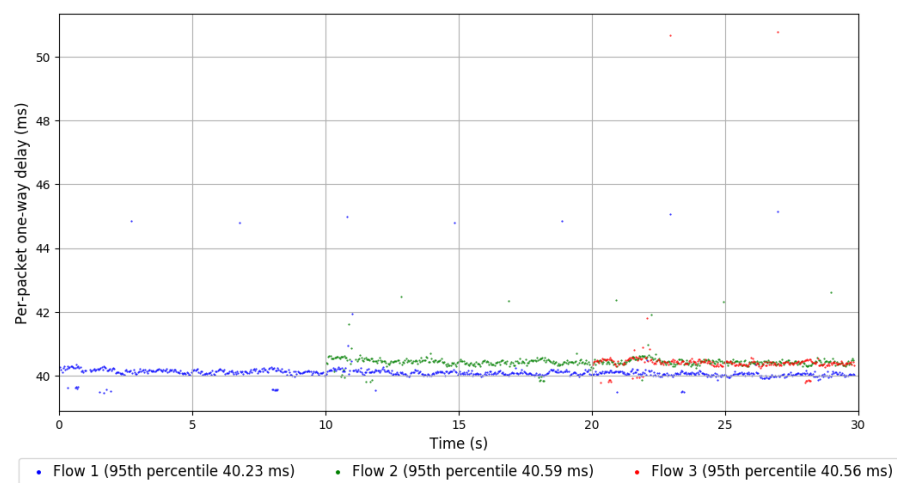
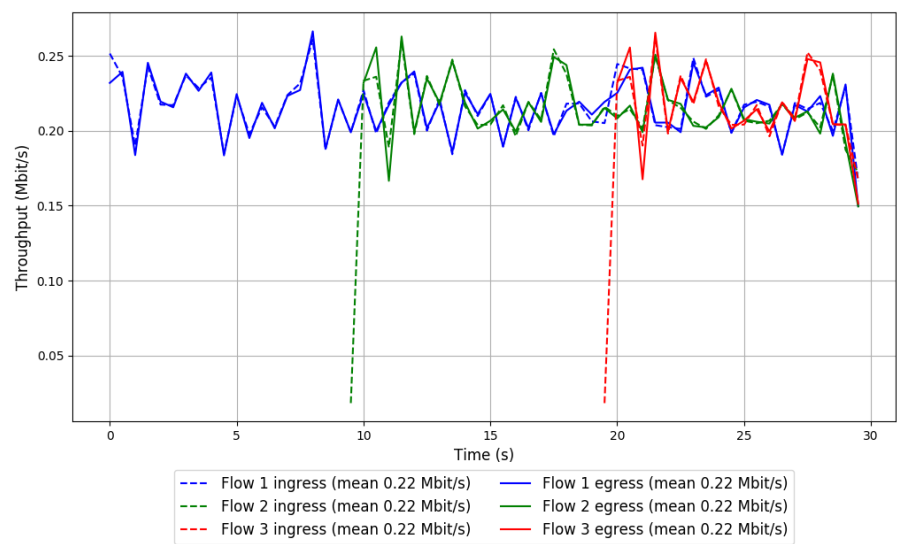


Run 5: Statistics of SReAM

Start at: 2018-01-17 00:43:48  
End at: 2018-01-17 00:44:18  
Local clock offset: -1.546 ms  
Remote clock offset: -6.365 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 40.548 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.233 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.592 ms  
Loss rate: 0.42%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.556 ms  
Loss rate: 0.73%

Run 5: Report of SReAM — Data Link



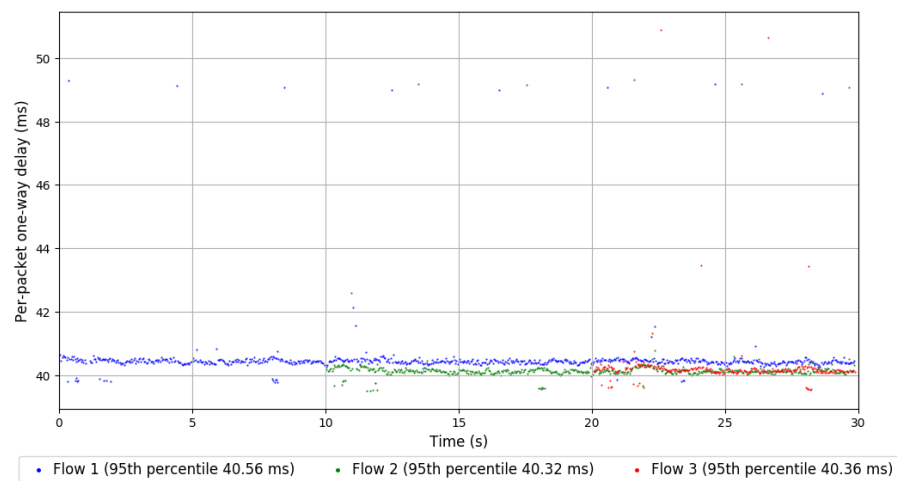
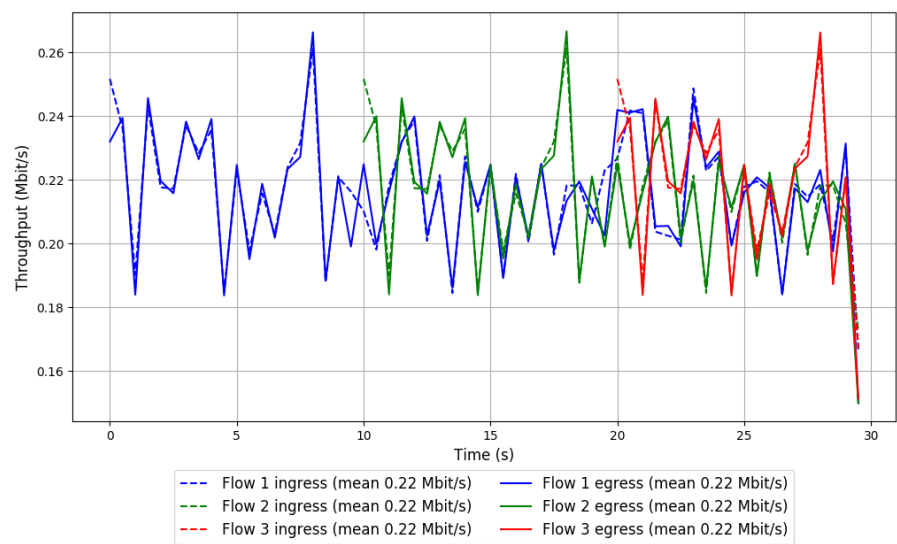
Run 6: Statistics of SReAM

Start at: 2018-01-17 01:07:01  
End at: 2018-01-17 01:07:31  
Local clock offset: -1.675 ms  
Remote clock offset: -5.784 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 40.537 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.563 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.320 ms  
Loss rate: 0.43%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.363 ms  
Loss rate: 0.73%



Run 6: Report of SReAM — Data Link

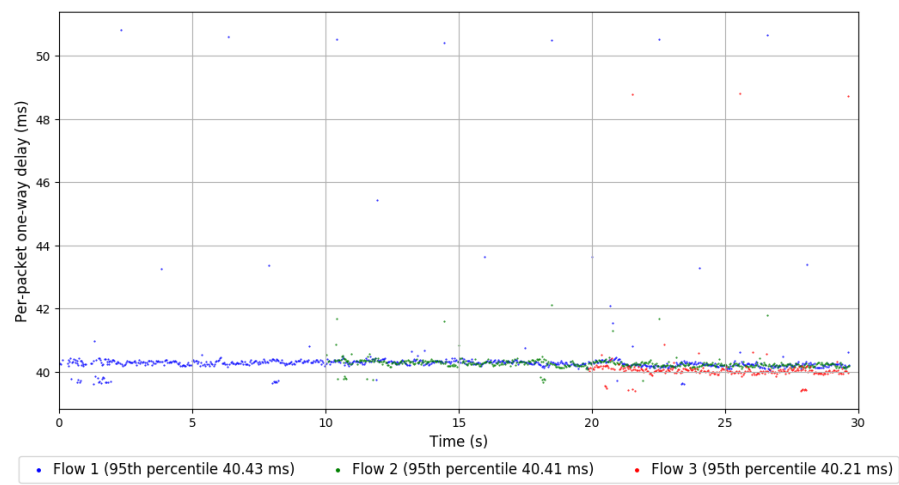
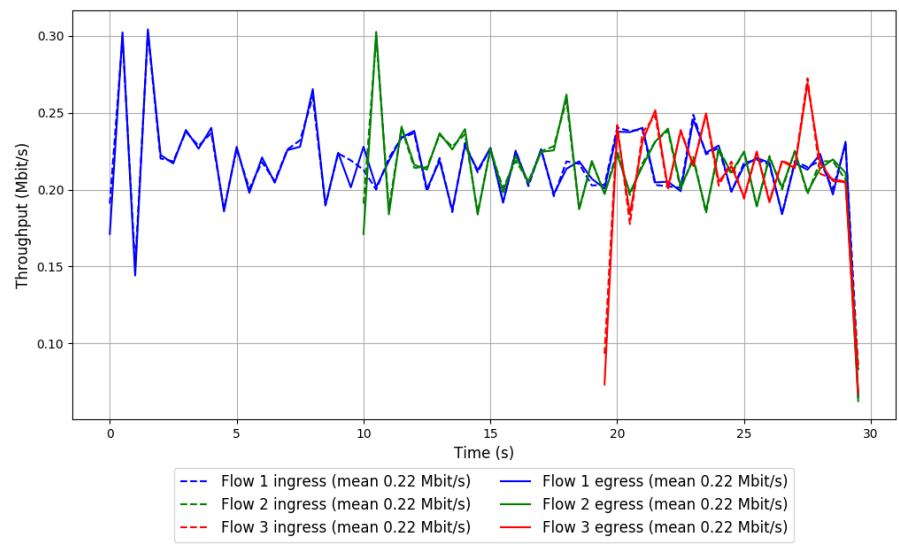


Run 7: Statistics of SReAM

Start at: 2018-01-17 01:30:39  
End at: 2018-01-17 01:31:09  
Local clock offset: -1.787 ms  
Remote clock offset: -5.982 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 40.418 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.428 ms  
Loss rate: 0.27%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.415 ms  
Loss rate: 0.38%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 40.213 ms  
Loss rate: 0.76%

Run 7: Report of SReAM — Data Link

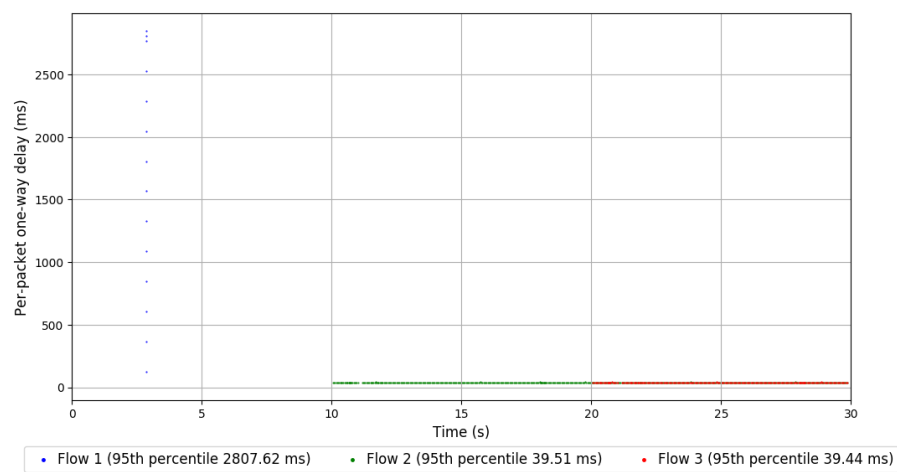
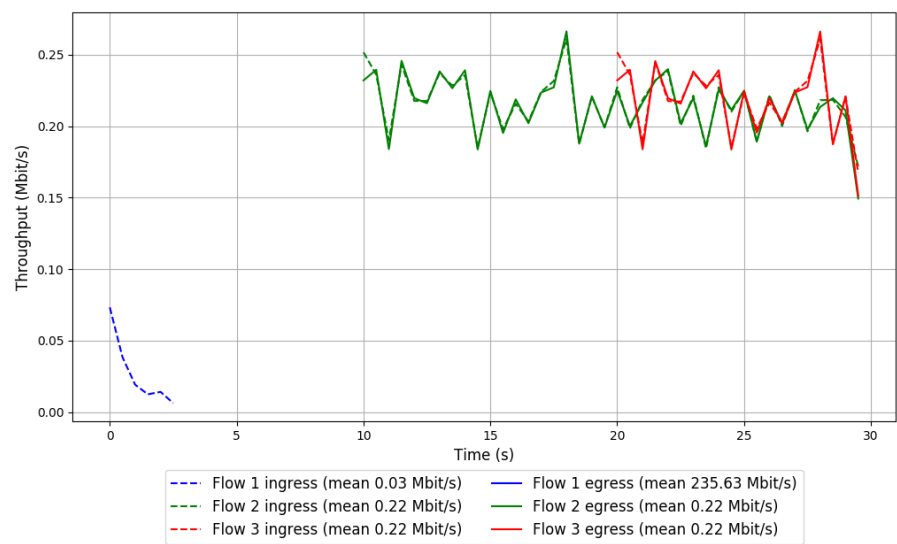


Run 8: Statistics of SReAM

Start at: 2018-01-17 01:54:04  
End at: 2018-01-17 01:54:34  
Local clock offset: -2.288 ms  
Remote clock offset: -6.095 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.24 Mbit/s  
95th percentile per-packet one-way delay: 39.529 ms  
Loss rate: 0.52%  
-- Flow 1:  
Average throughput: 235.63 Mbit/s  
95th percentile per-packet one-way delay: 2807.620 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 39.507 ms  
Loss rate: 0.42%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 39.439 ms  
Loss rate: 0.74%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

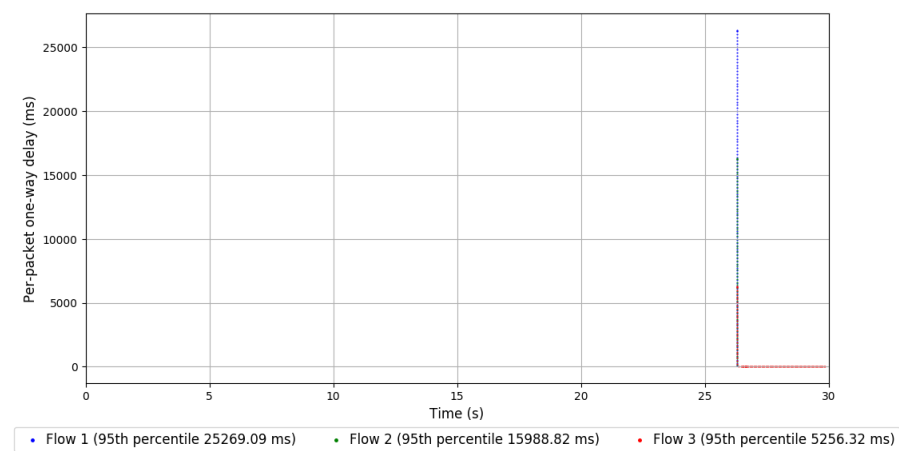
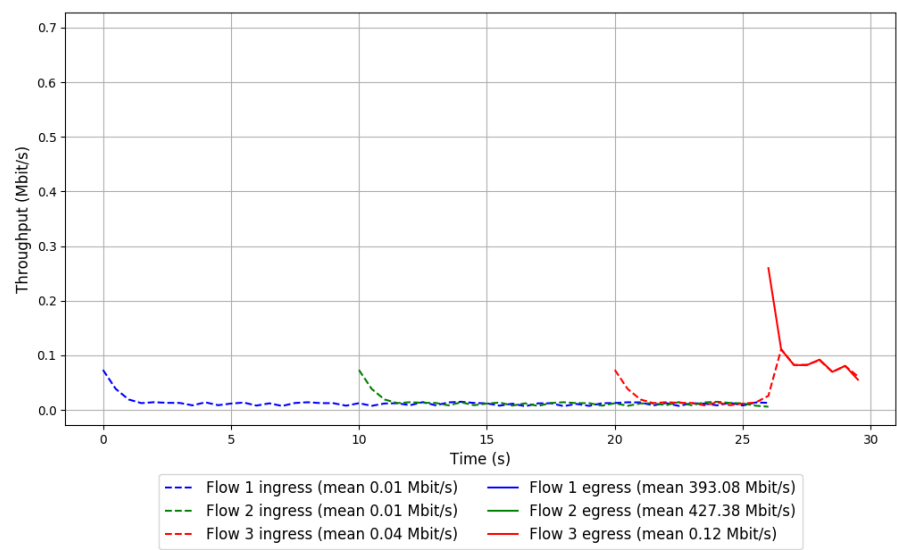
Start at: 2018-01-17 02:17:05

End at: 2018-01-17 02:17:35

Local clock offset: -1.069 ms

Remote clock offset: -5.695 ms

Run 9: Report of SReAM — Data Link



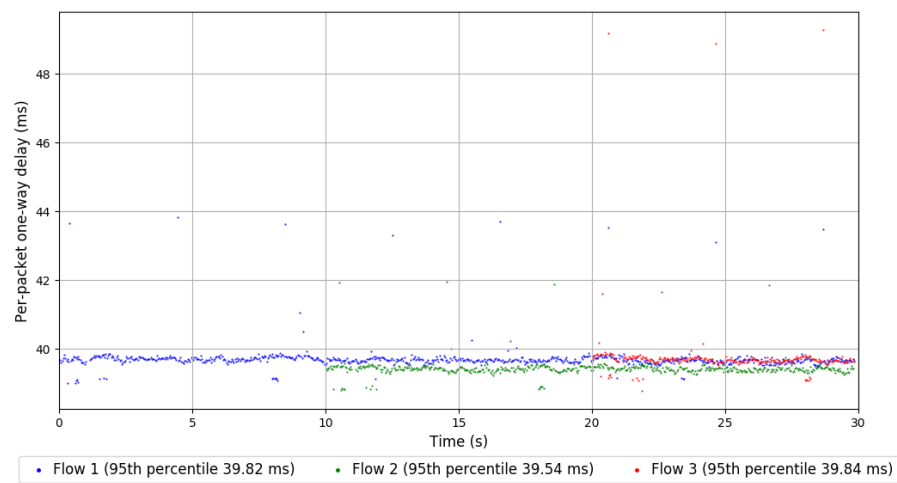
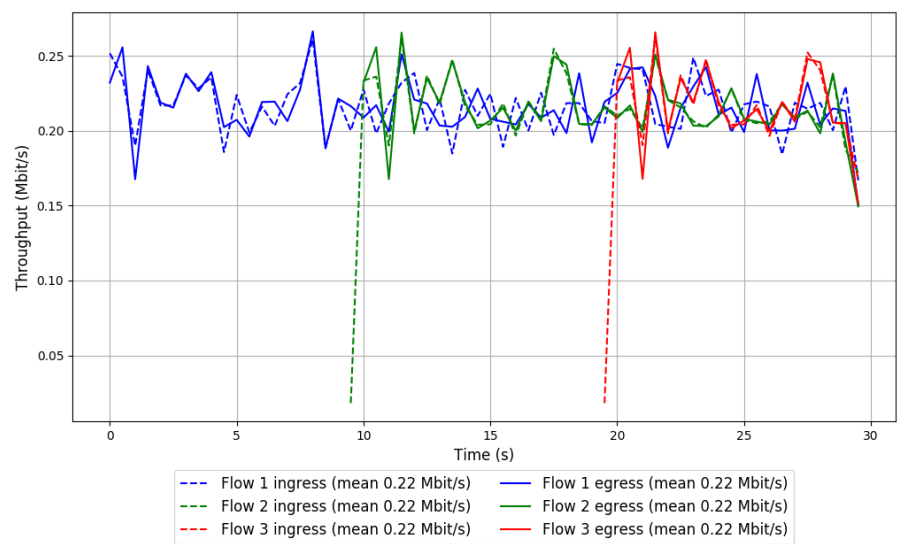
Run 10: Statistics of SReAM

Start at: 2018-01-17 02:42:05  
End at: 2018-01-17 02:42:35  
Local clock offset: -1.383 ms  
Remote clock offset: -4.935 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 39.807 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 39.817 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 39.544 ms  
Loss rate: 0.42%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 39.840 ms  
Loss rate: 0.74%



Run 10: Report of SCReAM — Data Link

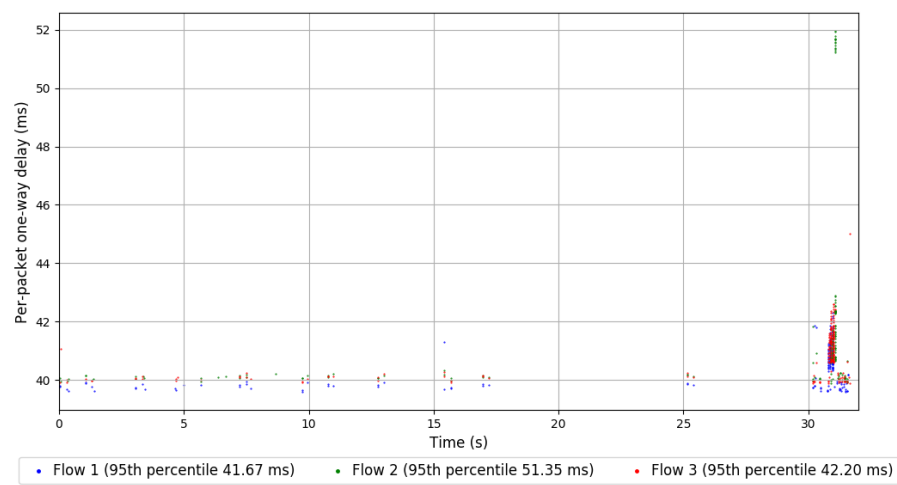
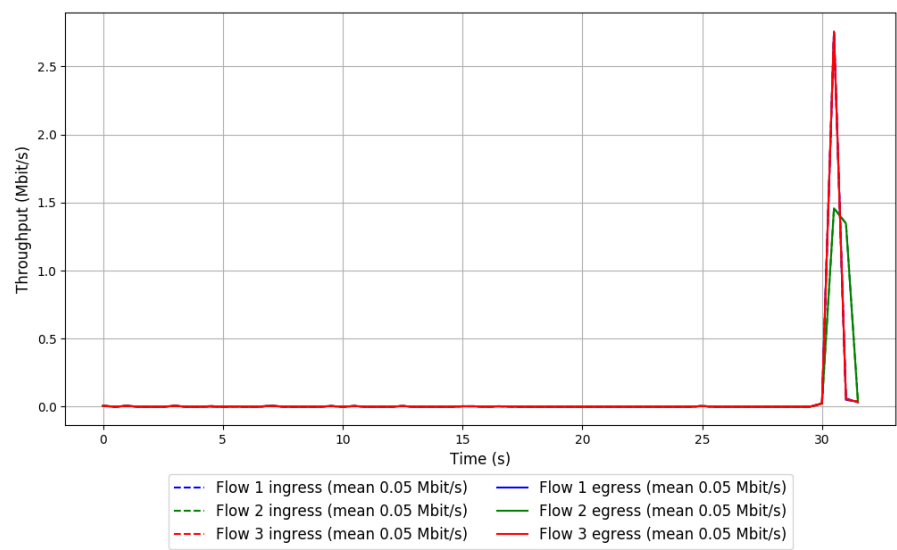


Run 1: Statistics of WebRTC media

Start at: 2018-01-16 23:03:01  
End at: 2018-01-16 23:03:31  
Local clock offset: -1.002 ms  
Remote clock offset: -6.878 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 42.364 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 41.666 ms  
Loss rate: 0.21%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 51.355 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 42.203 ms  
Loss rate: 0.16%

Run 1: Report of WebRTC media — Data Link

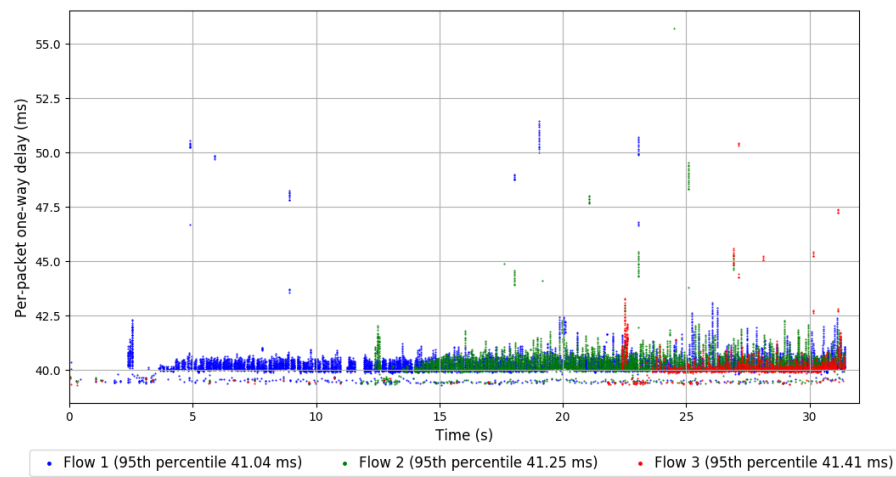
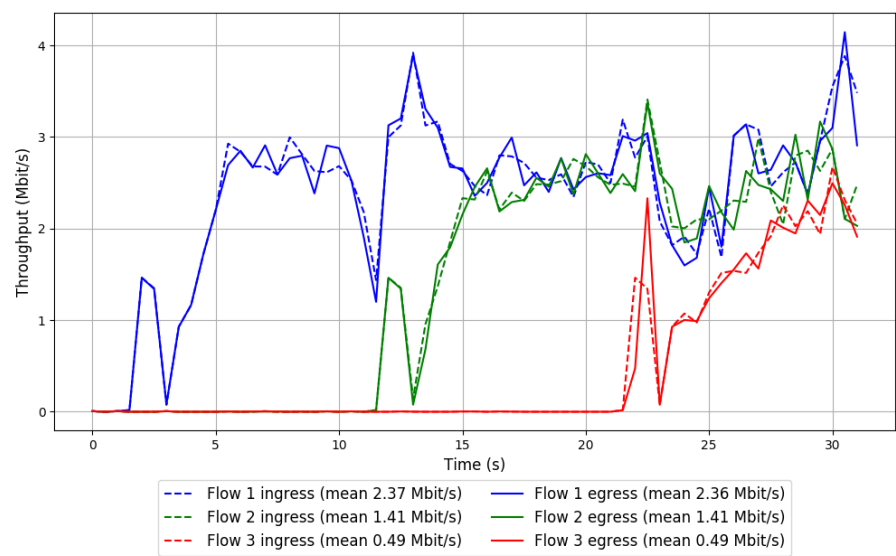


Run 2: Statistics of WebRTC media

Start at: 2018-01-16 23:25:43  
End at: 2018-01-16 23:26:13  
Local clock offset: -1.582 ms  
Remote clock offset: -5.687 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.25 Mbit/s  
95th percentile per-packet one-way delay: 41.159 ms  
Loss rate: 0.59%  
-- Flow 1:  
Average throughput: 2.36 Mbit/s  
95th percentile per-packet one-way delay: 41.038 ms  
Loss rate: 0.51%  
-- Flow 2:  
Average throughput: 1.41 Mbit/s  
95th percentile per-packet one-way delay: 41.248 ms  
Loss rate: 0.50%  
-- Flow 3:  
Average throughput: 0.49 Mbit/s  
95th percentile per-packet one-way delay: 41.409 ms  
Loss rate: 1.21%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

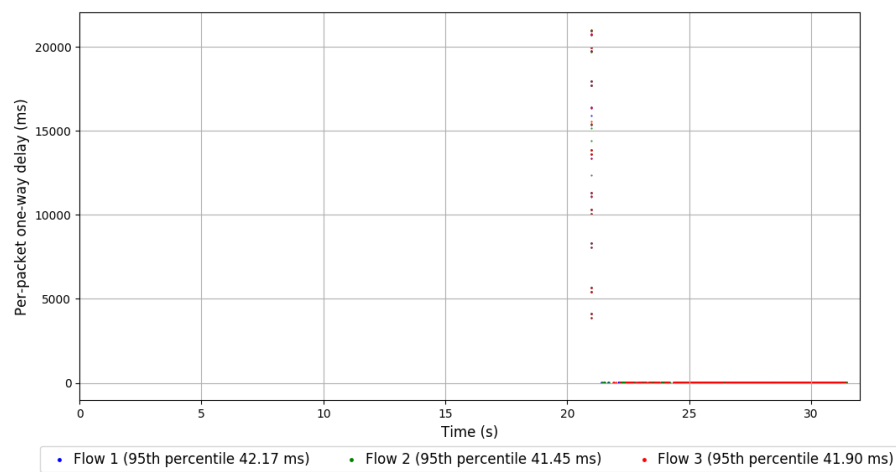
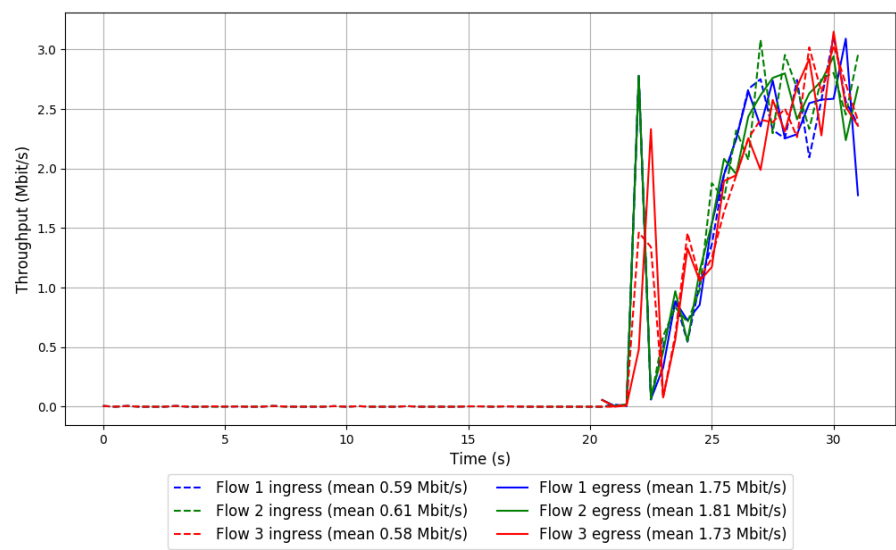
Start at: 2018-01-16 23:48:52

End at: 2018-01-16 23:49:22

Local clock offset: -1.184 ms

Remote clock offset: -5.028 ms

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-17 00:11:45

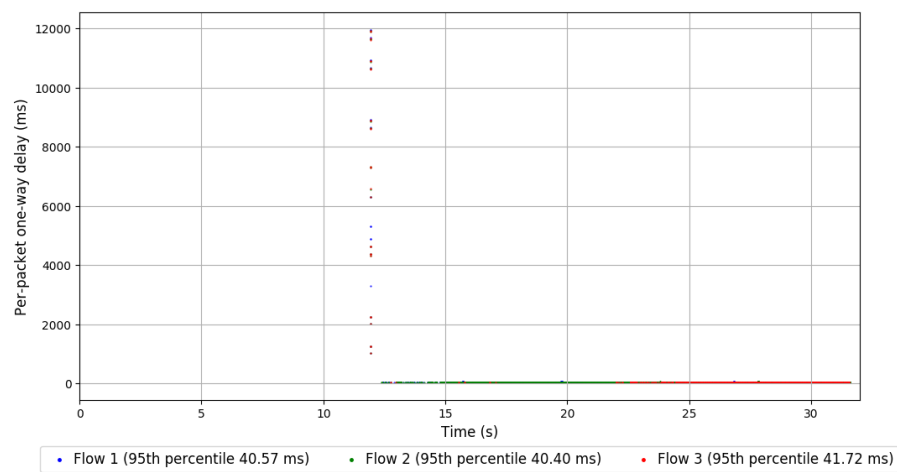
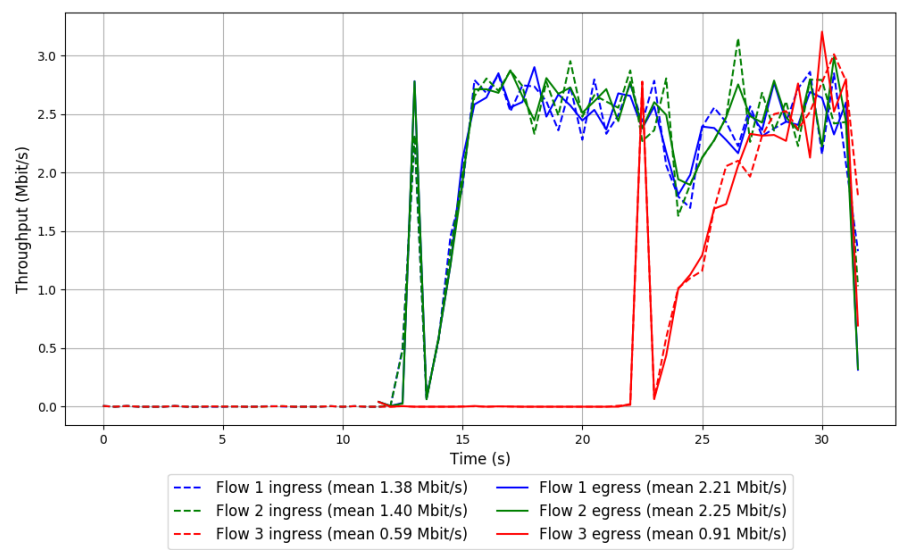
End at: 2018-01-17 00:12:15

Local clock offset: -2.09 ms

Remote clock offset: -6.083 ms



Run 4: Report of WebRTC media — Data Link

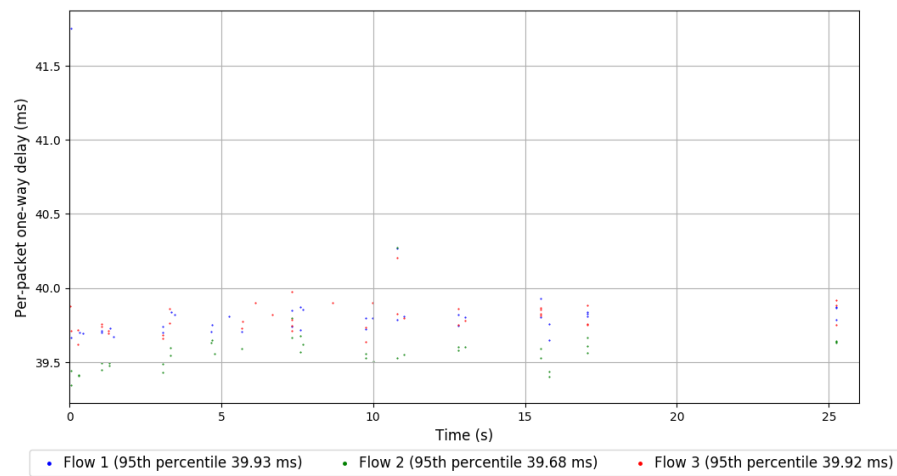
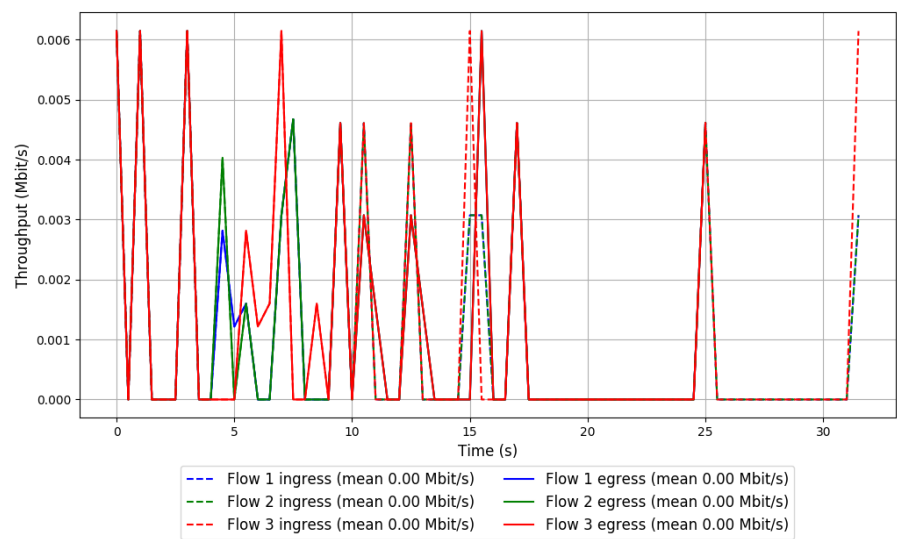


Run 5: Statistics of WebRTC media

Start at: 2018-01-17 00:34:54  
End at: 2018-01-17 00:35:24  
Local clock offset: -1.657 ms  
Remote clock offset: -6.573 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 39.919 ms  
Loss rate: 6.29%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 39.927 ms  
Loss rate: 4.80%  
-- Flow 2:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 39.677 ms  
Loss rate: 4.80%  
-- Flow 3:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 39.919 ms  
Loss rate: 9.15%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

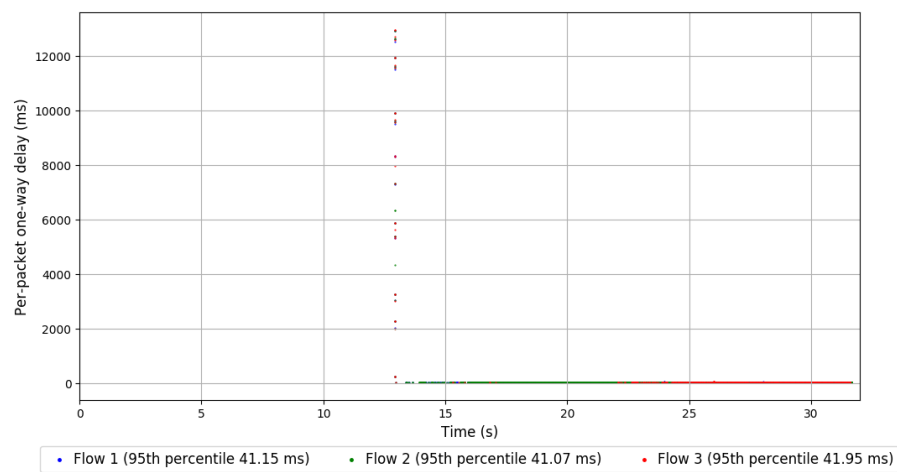
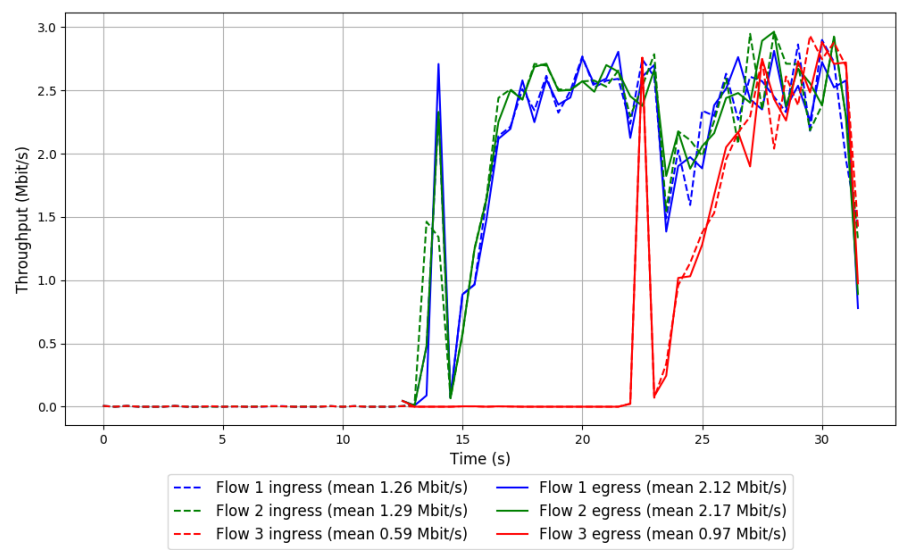
Start at: 2018-01-17 00:58:20

End at: 2018-01-17 00:58:50

Local clock offset: -1.696 ms

Remote clock offset: -6.08 ms

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

/home/ubuntu/pantheon\_data/2018-01-16T22-53-China-to-AWS-Korea-10-runs-3-flows/webrtc\_stats.

Run 7: Report of WebRTC media — Data Link

Figure is missing

Figure is missing

Run 8: Statistics of WebRTC media

Start at: 2018-01-17 01:44:55

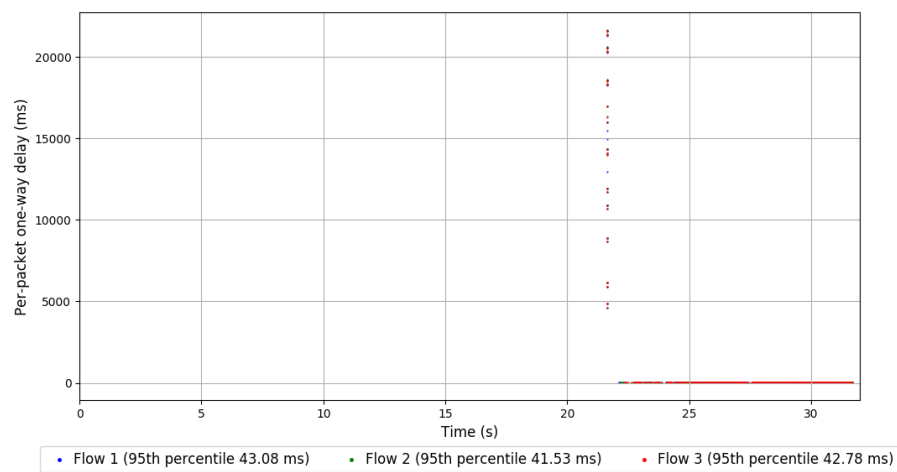
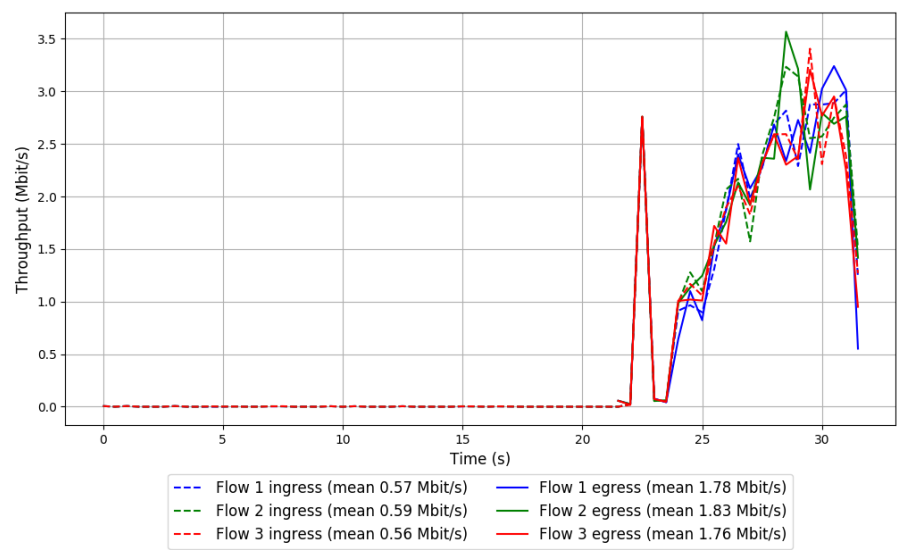
End at: 2018-01-17 01:45:25

Local clock offset: -1.676 ms

Remote clock offset: -6.115 ms



Run 8: Report of WebRTC media — Data Link

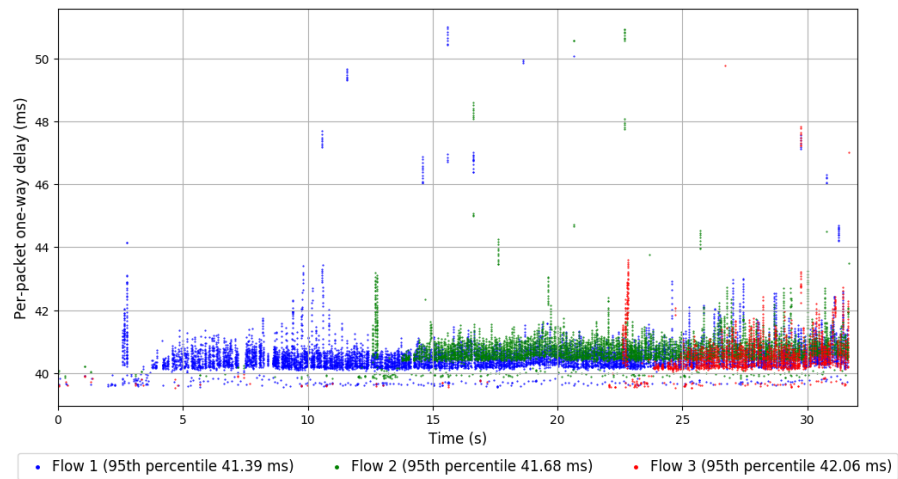
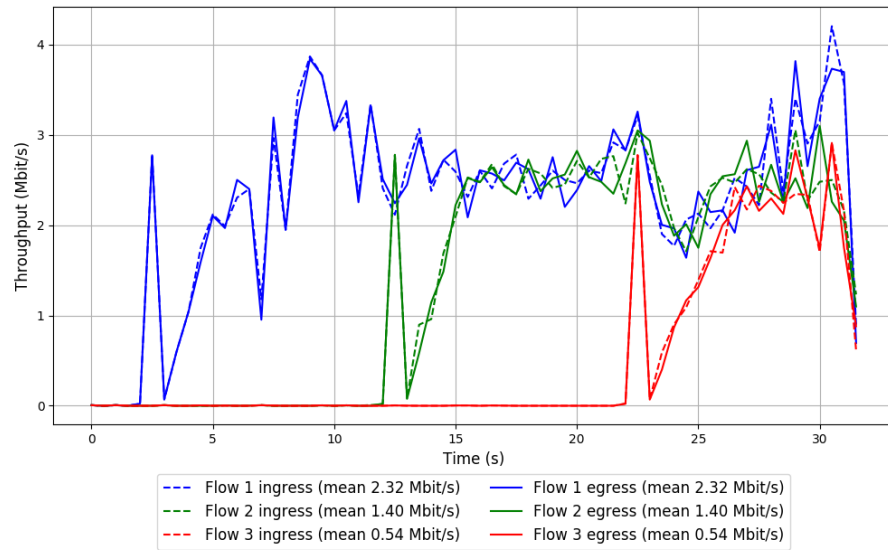


Run 9: Statistics of WebRTC media

Start at: 2018-01-17 02:08:04  
End at: 2018-01-17 02:08:34  
Local clock offset: -1.298 ms  
Remote clock offset: -6.056 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.25 Mbit/s  
95th percentile per-packet one-way delay: 41.603 ms  
Loss rate: 0.43%  
-- Flow 1:  
Average throughput: 2.32 Mbit/s  
95th percentile per-packet one-way delay: 41.386 ms  
Loss rate: 0.37%  
-- Flow 2:  
Average throughput: 1.40 Mbit/s  
95th percentile per-packet one-way delay: 41.676 ms  
Loss rate: 0.55%  
-- Flow 3:  
Average throughput: 0.54 Mbit/s  
95th percentile per-packet one-way delay: 42.058 ms  
Loss rate: 0.41%

### Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

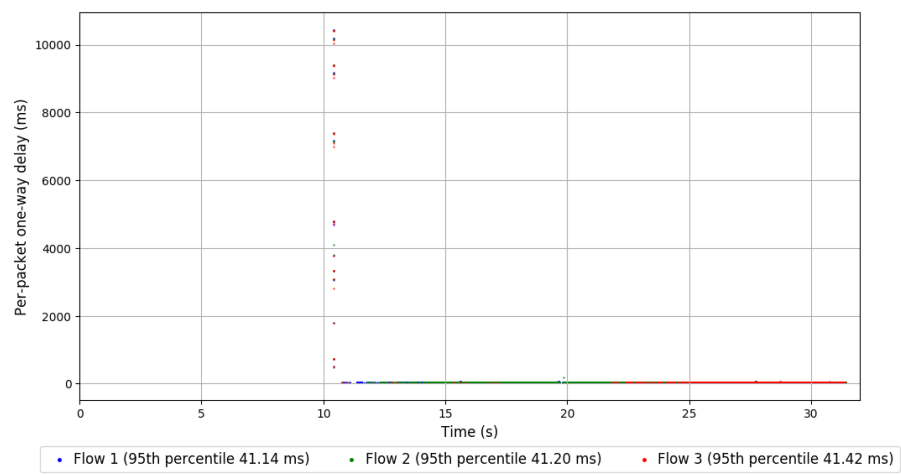
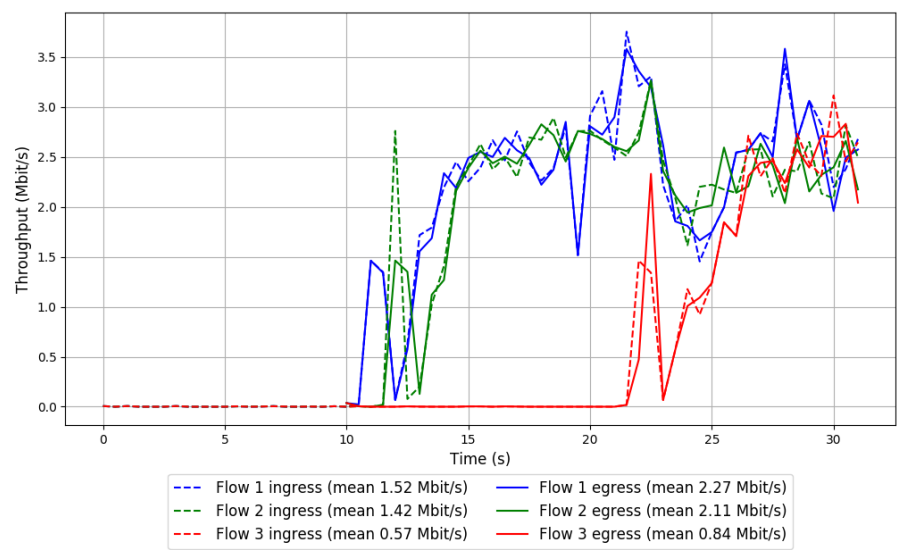
Start at: 2018-01-17 02:32:59

End at: 2018-01-17 02:33:29

Local clock offset: -0.922 ms

Remote clock offset: -5.307 ms

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-16 23:15:41

End at: 2018-01-16 23:16:11

Local clock offset: -1.83 ms

Remote clock offset: -6.2 ms

# Below is generated by plot.py at 2018-01-17 06:55:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 18.47 Mbit/s

95th percentile per-packet one-way delay: 46.176 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 9.38 Mbit/s

95th percentile per-packet one-way delay: 46.173 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 9.19 Mbit/s

95th percentile per-packet one-way delay: 46.301 ms

Loss rate: 0.43%

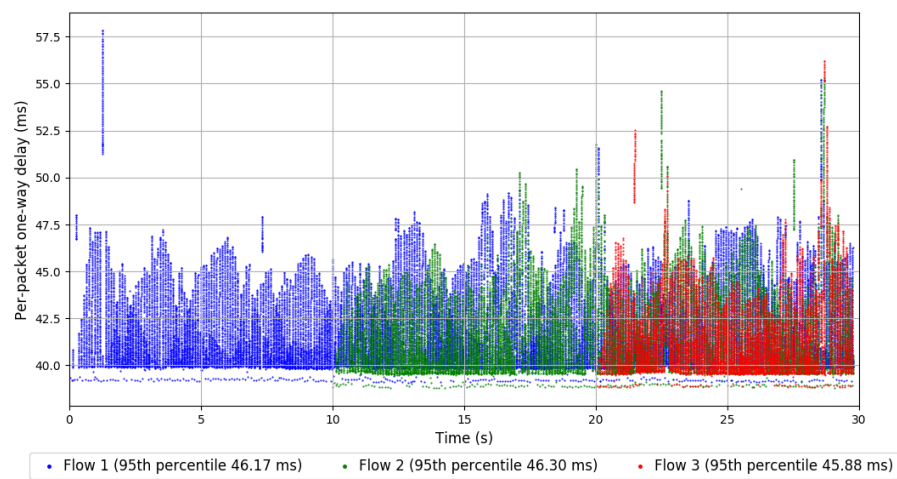
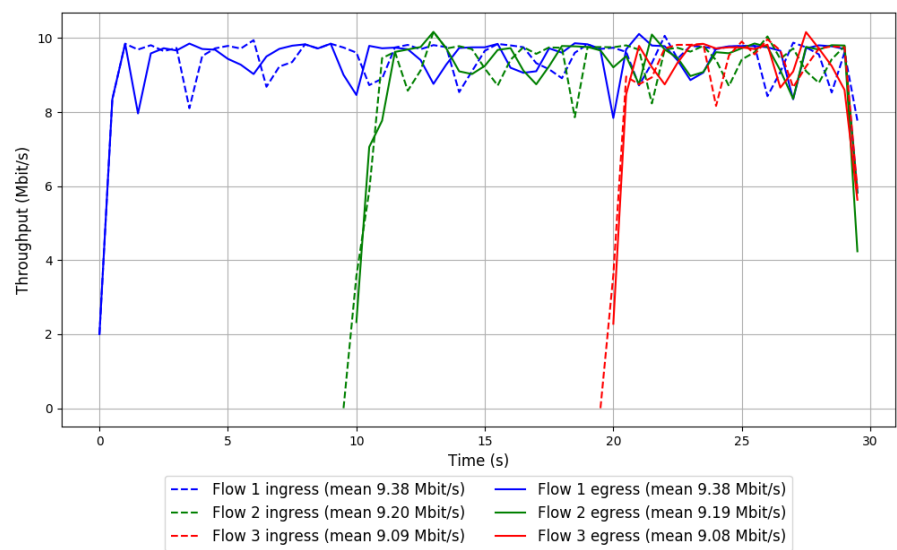
-- Flow 3:

Average throughput: 9.08 Mbit/s

95th percentile per-packet one-way delay: 45.876 ms

Loss rate: 1.10%

Run 1: Report of Sprout — Data Link



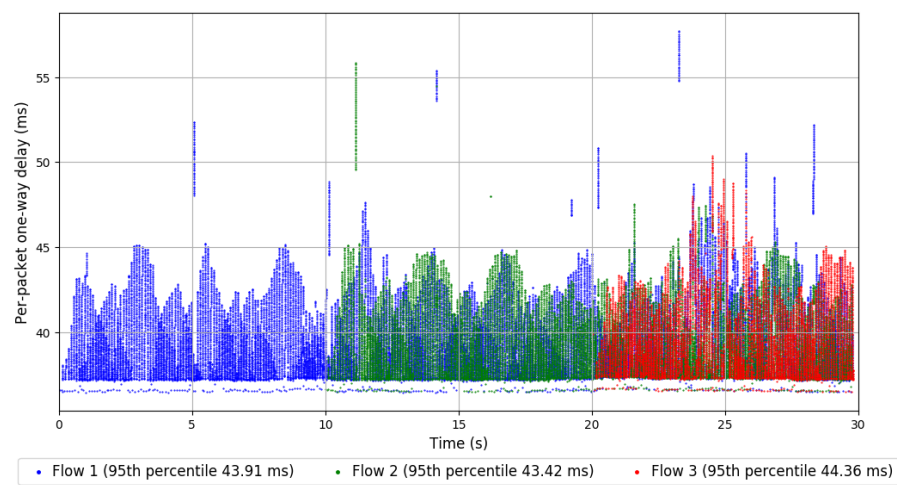
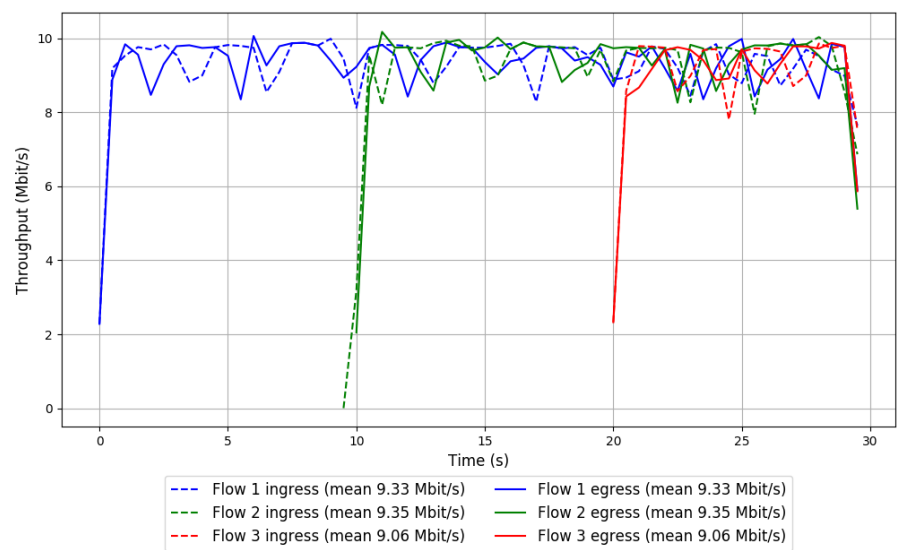
Run 2: Statistics of Sprout

Start at: 2018-01-16 23:38:23  
End at: 2018-01-16 23:38:53  
Local clock offset: -4.217 ms  
Remote clock offset: -5.255 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 18.50 Mbit/s  
95th percentile per-packet one-way delay: 43.815 ms  
Loss rate: 0.51%  
-- Flow 1:  
Average throughput: 9.33 Mbit/s  
95th percentile per-packet one-way delay: 43.912 ms  
Loss rate: 0.35%  
-- Flow 2:  
Average throughput: 9.35 Mbit/s  
95th percentile per-packet one-way delay: 43.424 ms  
Loss rate: 0.53%  
-- Flow 3:  
Average throughput: 9.06 Mbit/s  
95th percentile per-packet one-way delay: 44.364 ms  
Loss rate: 0.94%



Run 2: Report of Sprout — Data Link

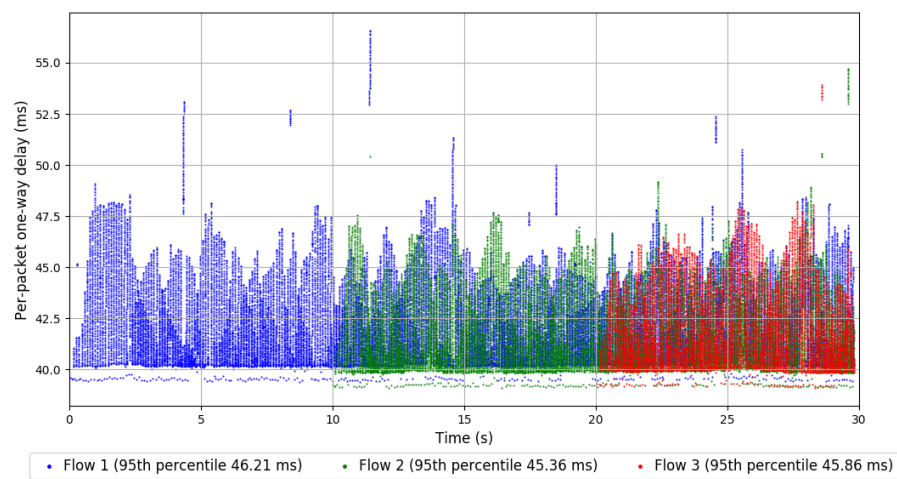
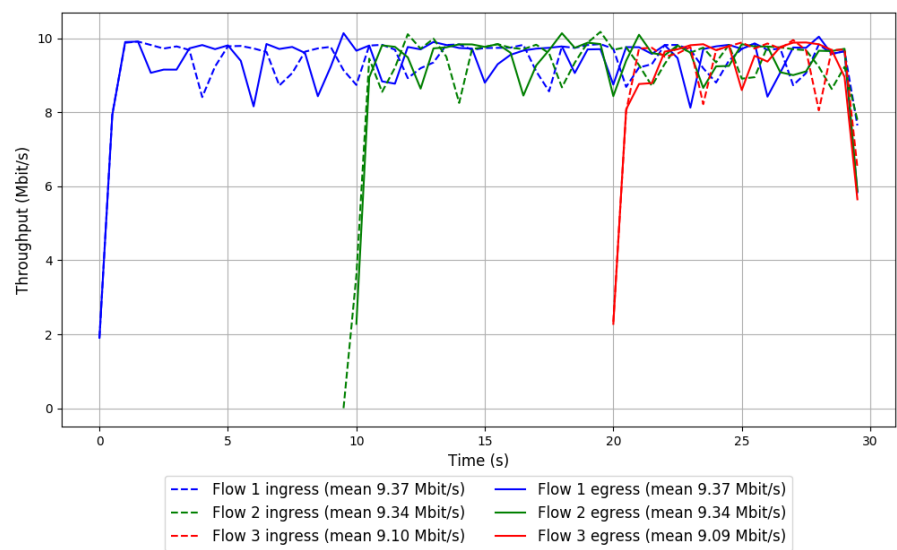


### Run 3: Statistics of Sprout

Start at: 2018-01-17 00:01:22  
End at: 2018-01-17 00:01:52  
Local clock offset: -1.627 ms  
Remote clock offset: -4.958 ms

```
# Below is generated by plot.py at 2018-01-17 06:55:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.56 Mbit/s
95th percentile per-packet one-way delay: 45.873 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 46.210 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 9.34 Mbit/s
95th percentile per-packet one-way delay: 45.356 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 45.856 ms
Loss rate: 0.89%
```

Run 3: Report of Sprout — Data Link

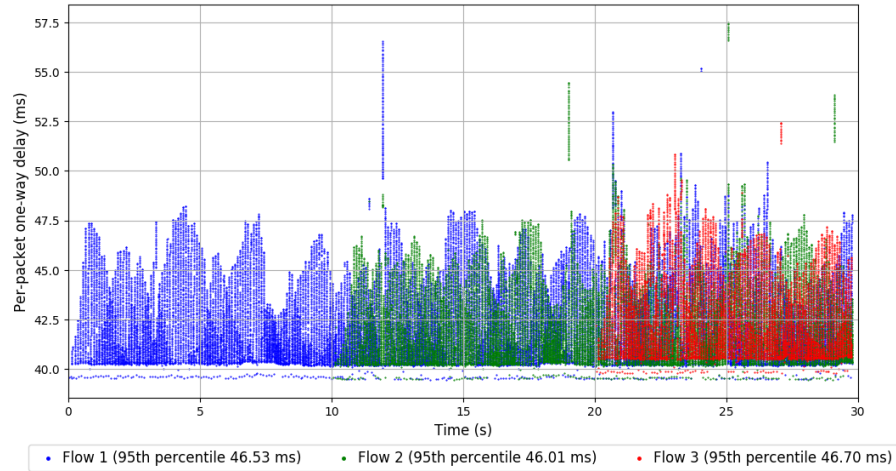
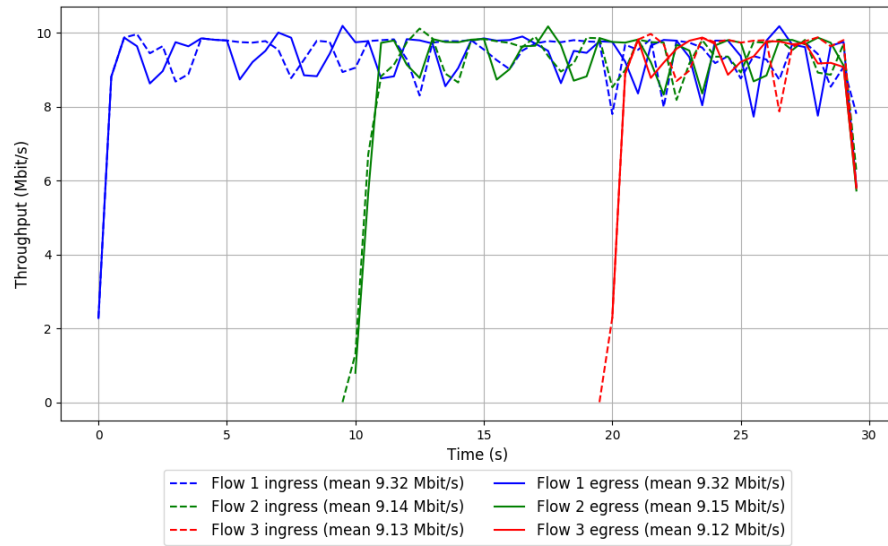


#### Run 4: Statistics of Sprout

Start at: 2018-01-17 00:24:41  
End at: 2018-01-17 00:25:11  
Local clock offset: -1.463 ms  
Remote clock offset: -6.787 ms

```
# Below is generated by plot.py at 2018-01-17 06:55:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.37 Mbit/s
95th percentile per-packet one-way delay: 46.420 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 46.528 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 9.15 Mbit/s
95th percentile per-packet one-way delay: 46.007 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 46.704 ms
Loss rate: 1.09%
```

#### Run 4: Report of Sprout — Data Link

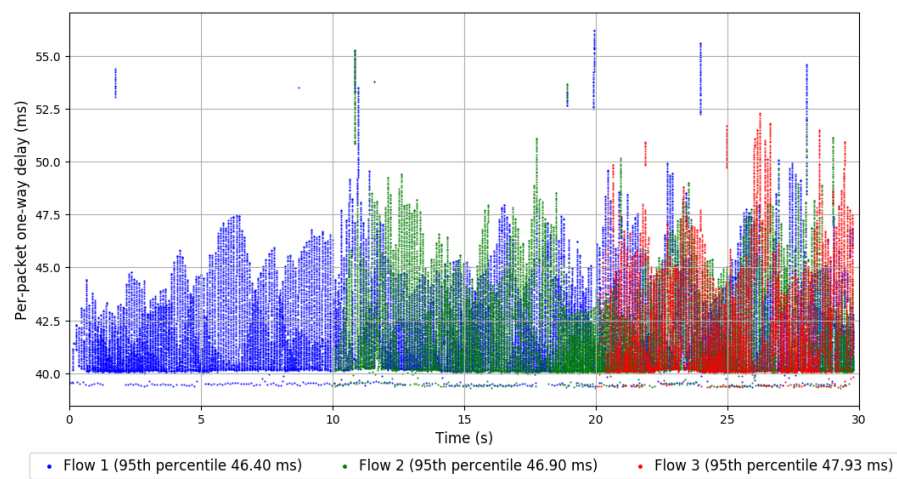
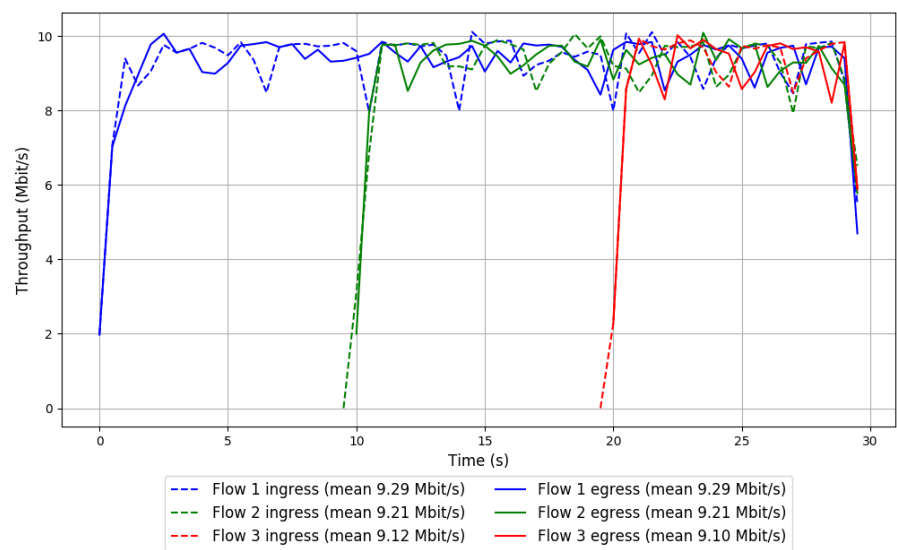


Run 5: Statistics of Sprout

Start at: 2018-01-17 00:47:35  
End at: 2018-01-17 00:48:05  
Local clock offset: -1.696 ms  
Remote clock offset: -6.289 ms

```
# Below is generated by plot.py at 2018-01-17 06:55:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.39 Mbit/s
95th percentile per-packet one-way delay: 46.833 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 9.29 Mbit/s
95th percentile per-packet one-way delay: 46.397 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 46.901 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 9.10 Mbit/s
95th percentile per-packet one-way delay: 47.931 ms
Loss rate: 1.09%
```

Run 5: Report of Sprout — Data Link



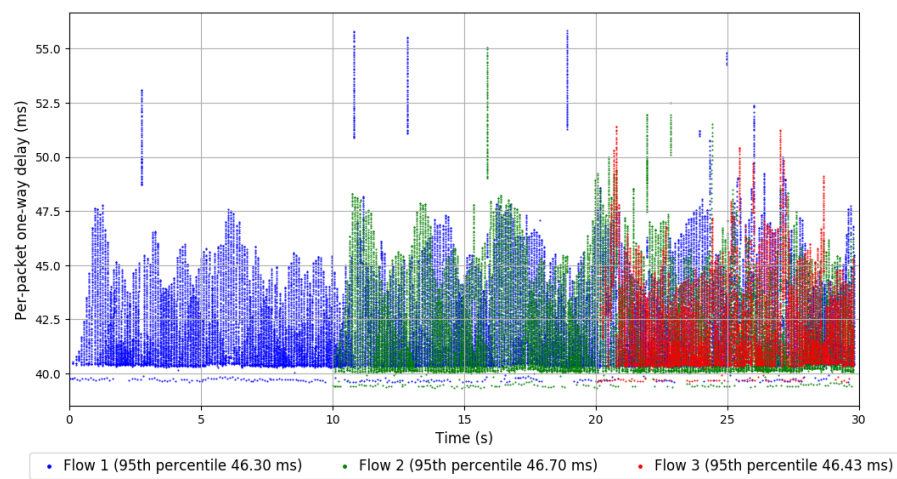
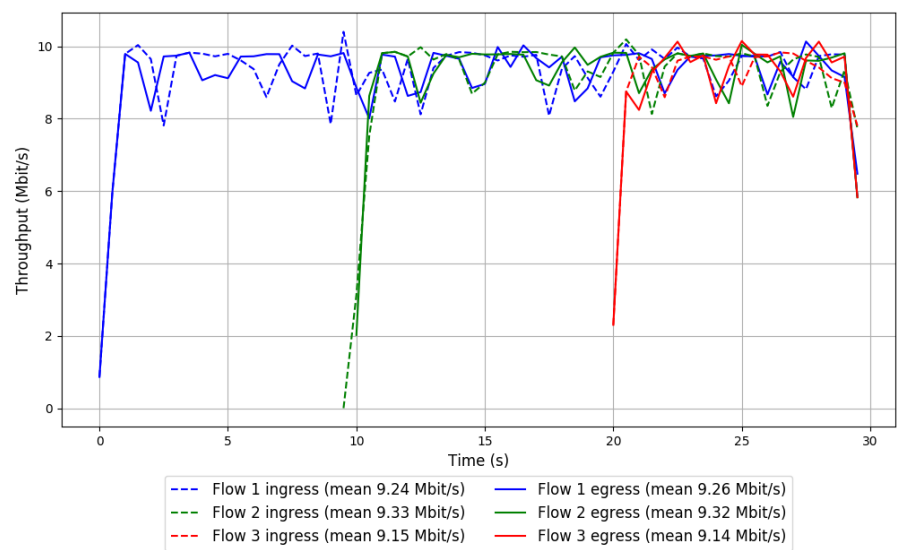
Run 6: Statistics of Sprout

Start at: 2018-01-17 01:10:54  
End at: 2018-01-17 01:11:24  
Local clock offset: -1.816 ms  
Remote clock offset: -5.658 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 18.44 Mbit/s  
95th percentile per-packet one-way delay: 46.455 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 9.26 Mbit/s  
95th percentile per-packet one-way delay: 46.302 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 9.32 Mbit/s  
95th percentile per-packet one-way delay: 46.696 ms  
Loss rate: 0.51%  
-- Flow 3:  
Average throughput: 9.14 Mbit/s  
95th percentile per-packet one-way delay: 46.427 ms  
Loss rate: 1.10%



Run 6: Report of Sprout — Data Link

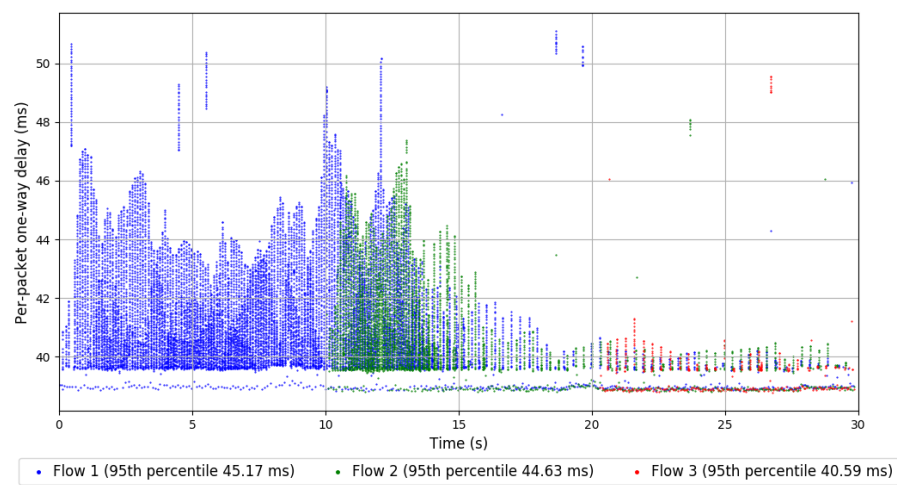
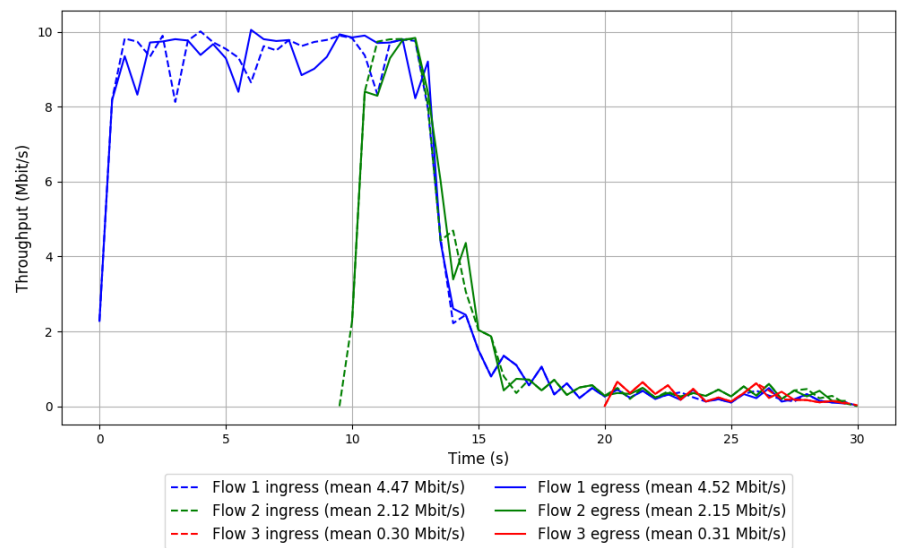


Run 7: Statistics of Sprout

Start at: 2018-01-17 01:34:21  
End at: 2018-01-17 01:34:51  
Local clock offset: -2.305 ms  
Remote clock offset: -6.035 ms

# Below is generated by plot.py at 2018-01-17 06:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 6.04 Mbit/s  
95th percentile per-packet one-way delay: 45.025 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 4.52 Mbit/s  
95th percentile per-packet one-way delay: 45.169 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 2.15 Mbit/s  
95th percentile per-packet one-way delay: 44.630 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 0.31 Mbit/s  
95th percentile per-packet one-way delay: 40.586 ms  
Loss rate: 0.86%

Run 7: Report of Sprout — Data Link

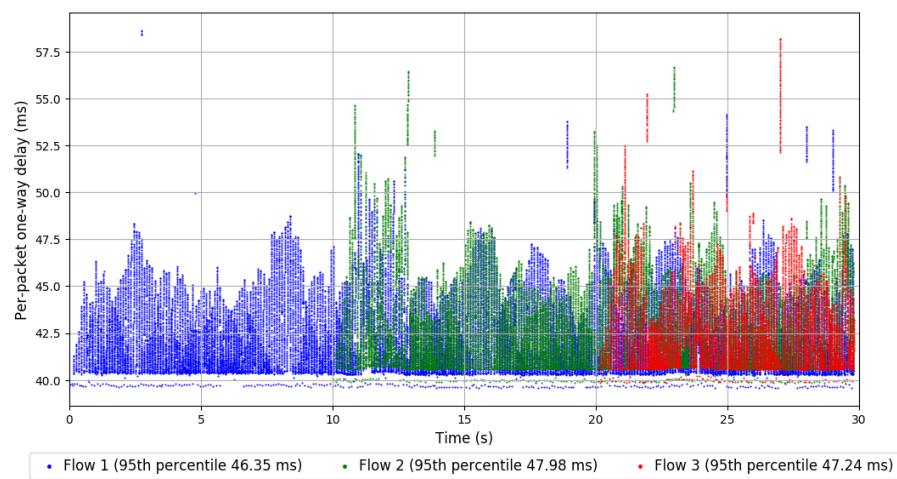
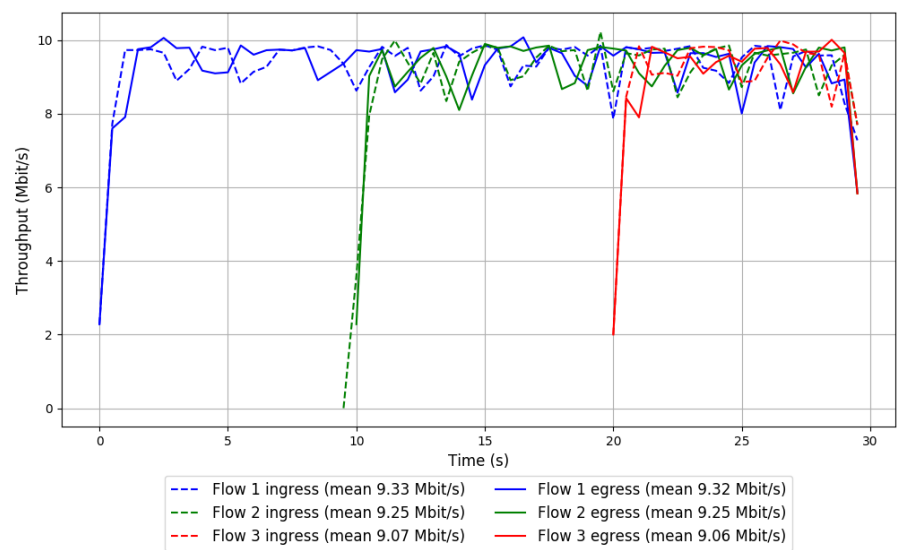


Run 8: Statistics of Sprout

Start at: 2018-01-17 01:57:50  
End at: 2018-01-17 01:58:20  
Local clock offset: -1.377 ms  
Remote clock offset: -6.156 ms

# Below is generated by plot.py at 2018-01-17 06:55:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 18.43 Mbit/s  
95th percentile per-packet one-way delay: 47.087 ms  
Loss rate: 0.52%  
-- Flow 1:  
Average throughput: 9.32 Mbit/s  
95th percentile per-packet one-way delay: 46.352 ms  
Loss rate: 0.35%  
-- Flow 2:  
Average throughput: 9.25 Mbit/s  
95th percentile per-packet one-way delay: 47.982 ms  
Loss rate: 0.51%  
-- Flow 3:  
Average throughput: 9.06 Mbit/s  
95th percentile per-packet one-way delay: 47.238 ms  
Loss rate: 1.05%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

/home/ubuntu/pantheon\_data/2018-01-16T22-53-China-to-AWS-Korea-10-runs-3-flows/sprout\_stats.

Run 9: Report of Sprout — Data Link

Figure is missing

Figure is missing

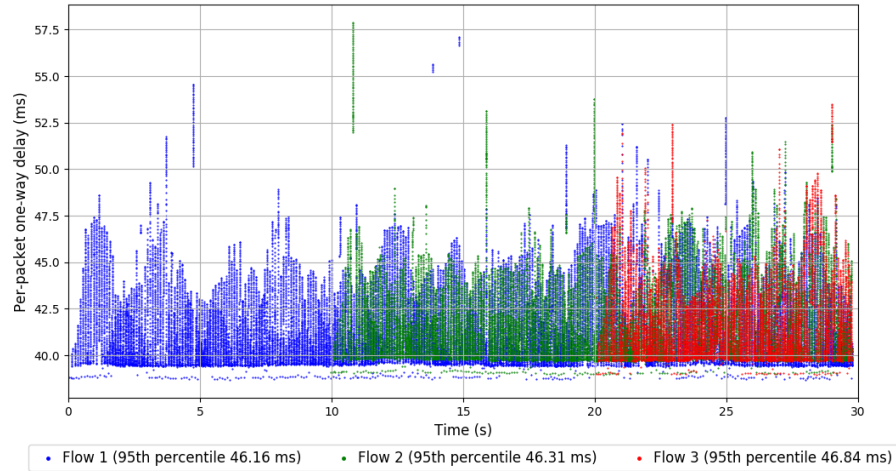
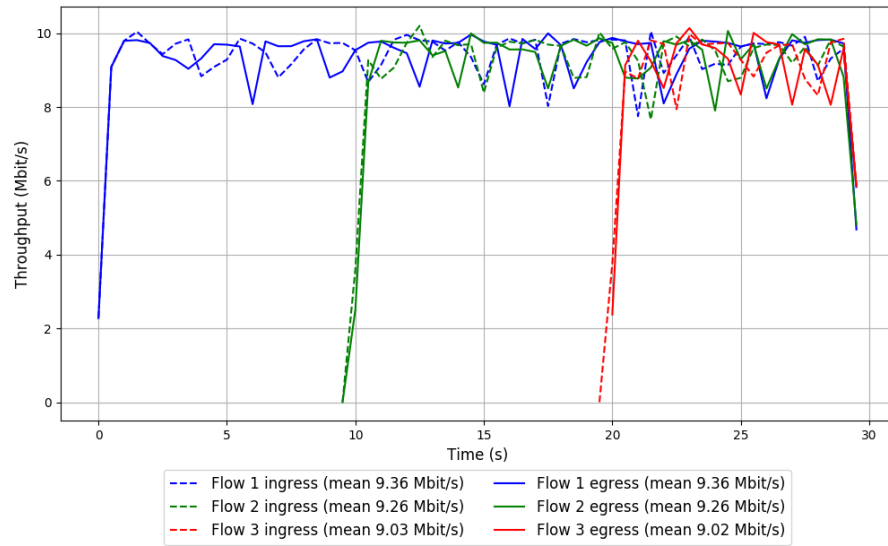
Run 10: Statistics of Sprout

Start at: 2018-01-17 02:45:46  
End at: 2018-01-17 02:46:16  
Local clock offset: -1.355 ms  
Remote clock offset: -4.805 ms

# Below is generated by plot.py at 2018-01-17 06:55:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 18.47 Mbit/s  
95th percentile per-packet one-way delay: 46.285 ms  
Loss rate: 0.46%  
-- Flow 1:  
Average throughput: 9.36 Mbit/s  
95th percentile per-packet one-way delay: 46.164 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 9.26 Mbit/s  
95th percentile per-packet one-way delay: 46.311 ms  
Loss rate: 0.49%  
-- Flow 3:  
Average throughput: 9.02 Mbit/s  
95th percentile per-packet one-way delay: 46.844 ms  
Loss rate: 1.11%



# Run 10: Report of Sprout — Data Link

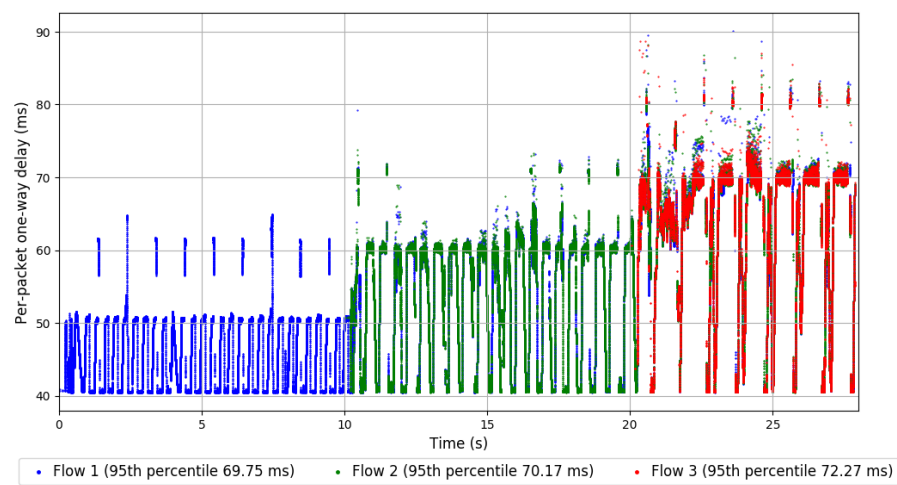
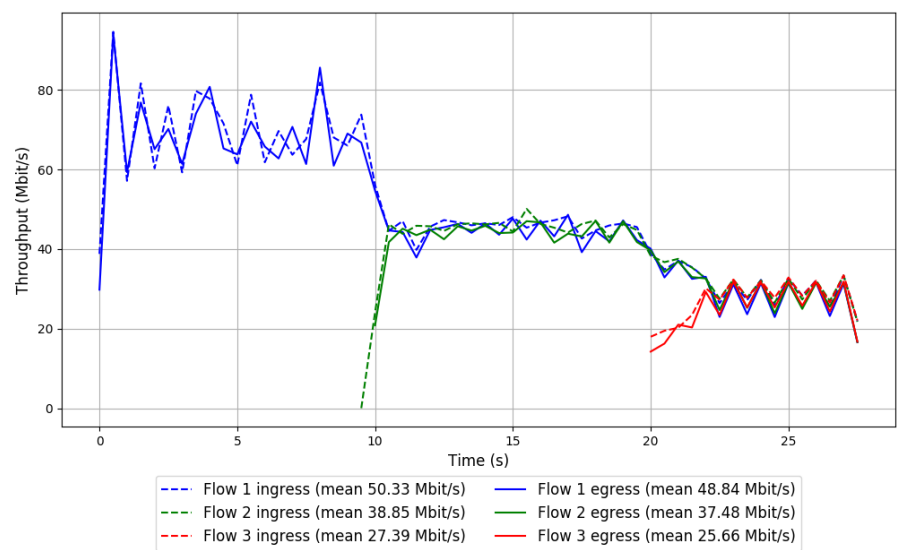


Run 1: Statistics of TaoVA-100x

Start at: 2018-01-16 22:59:11  
End at: 2018-01-16 22:59:41  
Local clock offset: -1.001 ms  
Remote clock offset: -7.083 ms

# Below is generated by plot.py at 2018-01-17 06:57:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.07 Mbit/s  
95th percentile per-packet one-way delay: 70.072 ms  
Loss rate: 3.90%  
-- Flow 1:  
Average throughput: 48.84 Mbit/s  
95th percentile per-packet one-way delay: 69.747 ms  
Loss rate: 3.27%  
-- Flow 2:  
Average throughput: 37.48 Mbit/s  
95th percentile per-packet one-way delay: 70.172 ms  
Loss rate: 4.03%  
-- Flow 3:  
Average throughput: 25.66 Mbit/s  
95th percentile per-packet one-way delay: 72.268 ms  
Loss rate: 7.59%

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

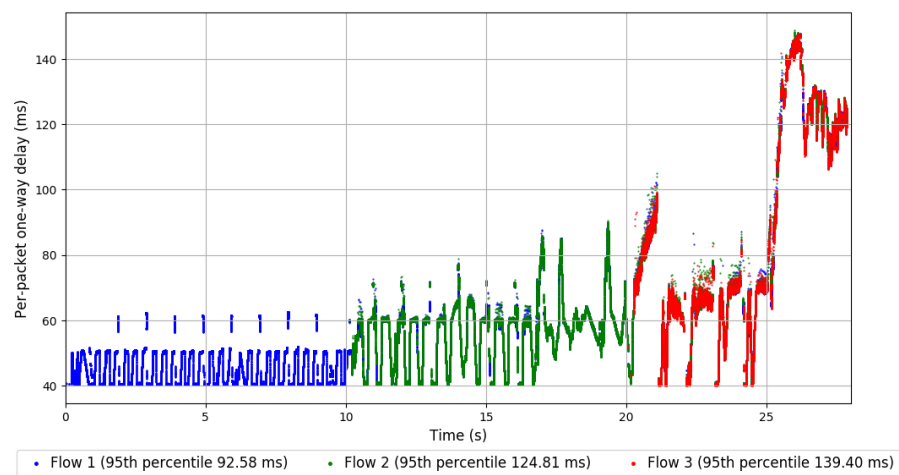
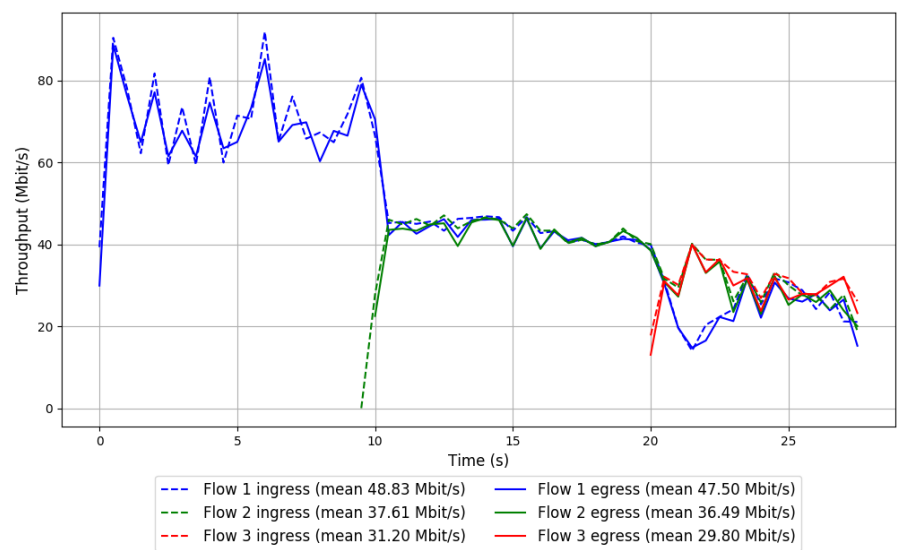


Run 2: Statistics of TaoVA-100x

Start at: 2018-01-16 23:21:55  
End at: 2018-01-16 23:22:25  
Local clock offset: -1.263 ms  
Remote clock offset: -5.927 ms

# Below is generated by plot.py at 2018-01-17 06:57:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.26 Mbit/s  
95th percentile per-packet one-way delay: 124.449 ms  
Loss rate: 3.35%  
-- Flow 1:  
Average throughput: 47.50 Mbit/s  
95th percentile per-packet one-way delay: 92.580 ms  
Loss rate: 2.87%  
-- Flow 2:  
Average throughput: 36.49 Mbit/s  
95th percentile per-packet one-way delay: 124.815 ms  
Loss rate: 3.47%  
-- Flow 3:  
Average throughput: 29.80 Mbit/s  
95th percentile per-packet one-way delay: 139.400 ms  
Loss rate: 5.65%

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

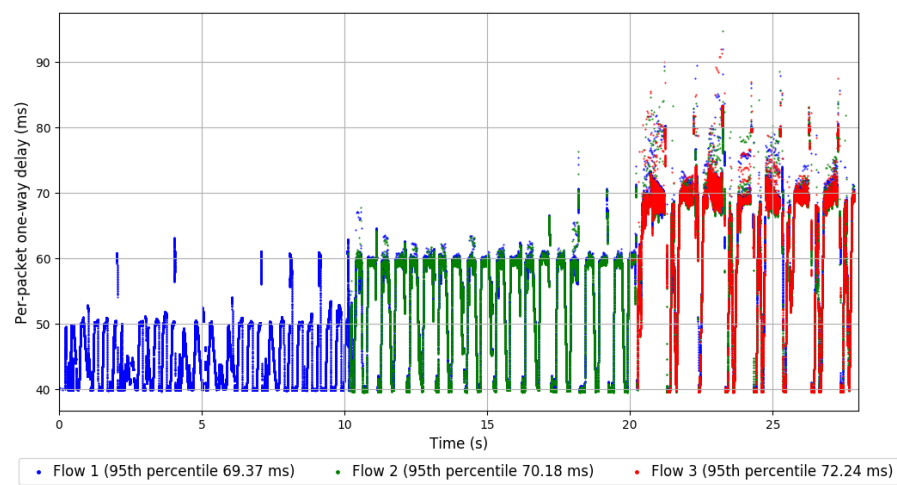
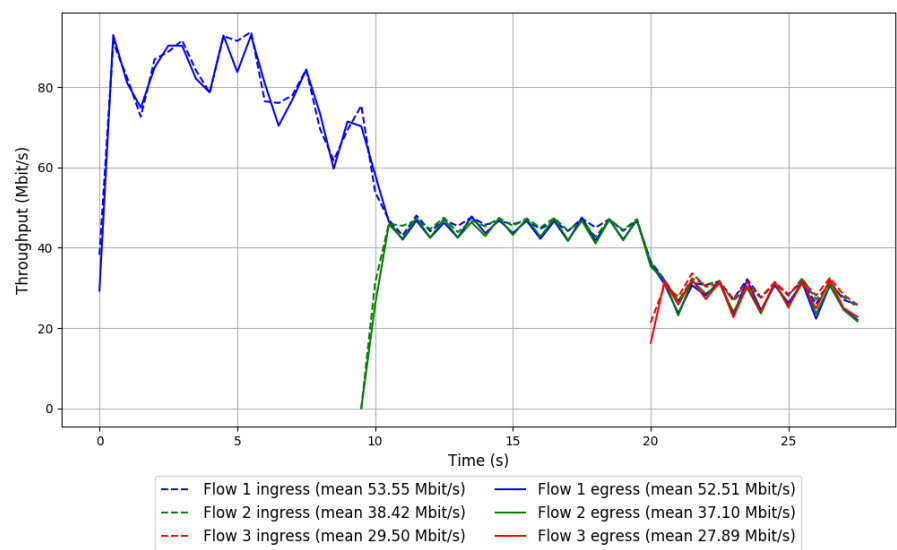


Run 3: Statistics of TaoVA-100x

Start at: 2018-01-16 23:44:54  
End at: 2018-01-16 23:45:24  
Local clock offset: -1.732 ms  
Remote clock offset: -5.036 ms

# Below is generated by plot.py at 2018-01-17 06:57:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.14 Mbit/s  
95th percentile per-packet one-way delay: 70.040 ms  
Loss rate: 3.23%  
-- Flow 1:  
Average throughput: 52.51 Mbit/s  
95th percentile per-packet one-way delay: 69.370 ms  
Loss rate: 2.30%  
-- Flow 2:  
Average throughput: 37.10 Mbit/s  
95th percentile per-packet one-way delay: 70.181 ms  
Loss rate: 3.99%  
-- Flow 3:  
Average throughput: 27.89 Mbit/s  
95th percentile per-packet one-way delay: 72.236 ms  
Loss rate: 6.90%

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



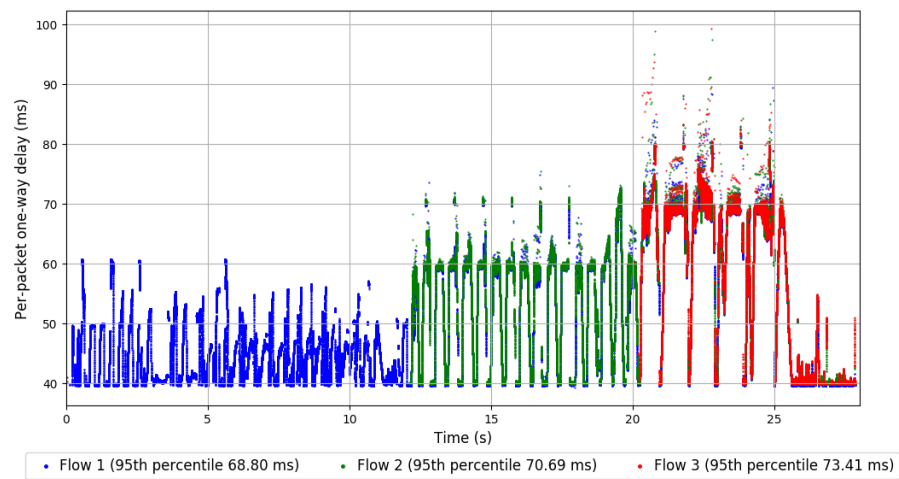
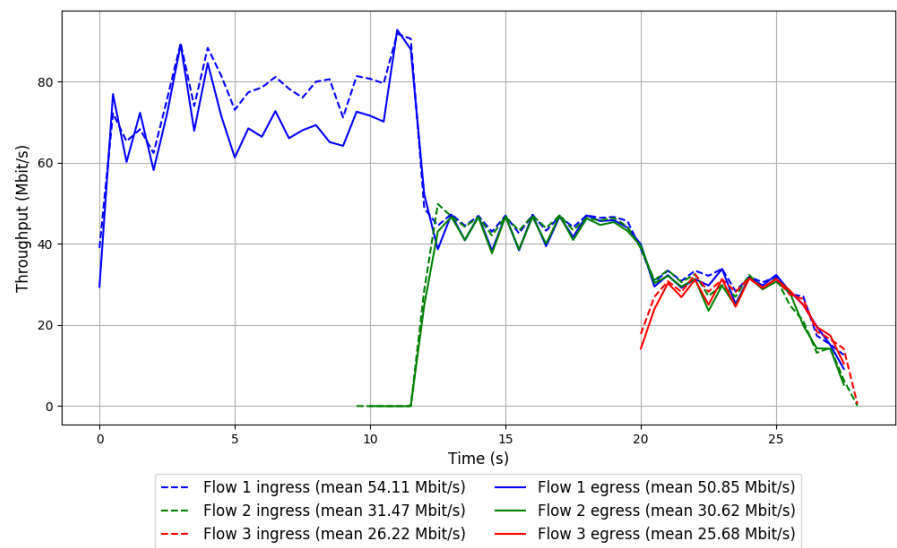
Run 4: Statistics of TaoVA-100x

Start at: 2018-01-17 00:07:38  
End at: 2018-01-17 00:08:08  
Local clock offset: -1.706 ms  
Remote clock offset: -5.623 ms

# Below is generated by plot.py at 2018-01-17 06:57:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.68 Mbit/s  
95th percentile per-packet one-way delay: 69.636 ms  
Loss rate: 5.63%  
-- Flow 1:  
Average throughput: 50.85 Mbit/s  
95th percentile per-packet one-way delay: 68.799 ms  
Loss rate: 6.47%  
-- Flow 2:  
Average throughput: 30.62 Mbit/s  
95th percentile per-packet one-way delay: 70.688 ms  
Loss rate: 3.77%  
-- Flow 3:  
Average throughput: 25.68 Mbit/s  
95th percentile per-packet one-way delay: 73.407 ms  
Loss rate: 4.62%



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

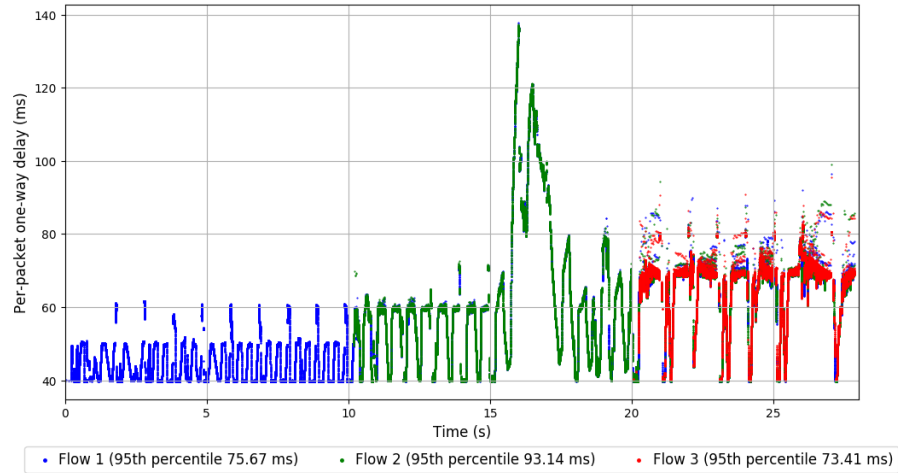
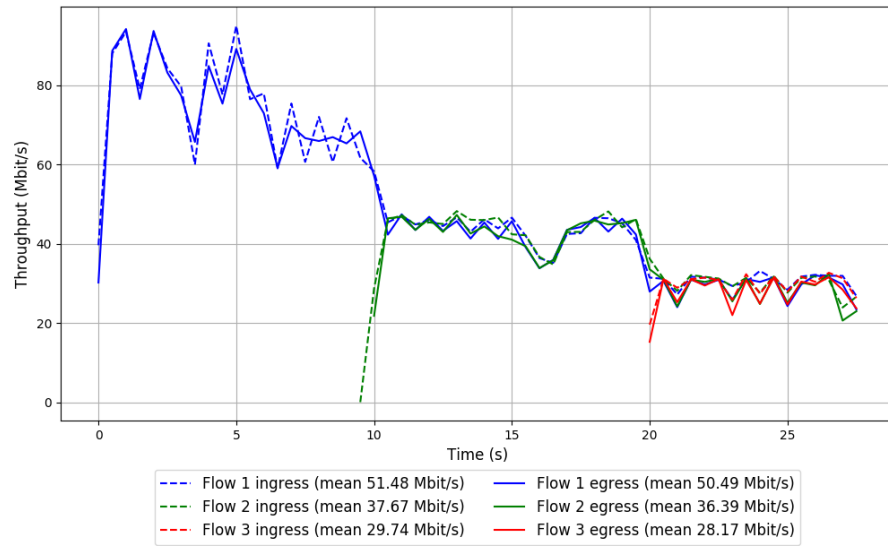


Run 5: Statistics of TaoVA-100x

Start at: 2018-01-17 00:31:06  
End at: 2018-01-17 00:31:36  
Local clock offset: -1.779 ms  
Remote clock offset: -6.635 ms

# Below is generated by plot.py at 2018-01-17 06:57:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.74 Mbit/s  
95th percentile per-packet one-way delay: 79.536 ms  
Loss rate: 3.18%  
-- Flow 1:  
Average throughput: 50.49 Mbit/s  
95th percentile per-packet one-way delay: 75.675 ms  
Loss rate: 2.29%  
-- Flow 2:  
Average throughput: 36.39 Mbit/s  
95th percentile per-packet one-way delay: 93.145 ms  
Loss rate: 3.97%  
-- Flow 3:  
Average throughput: 28.17 Mbit/s  
95th percentile per-packet one-way delay: 73.413 ms  
Loss rate: 6.34%

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

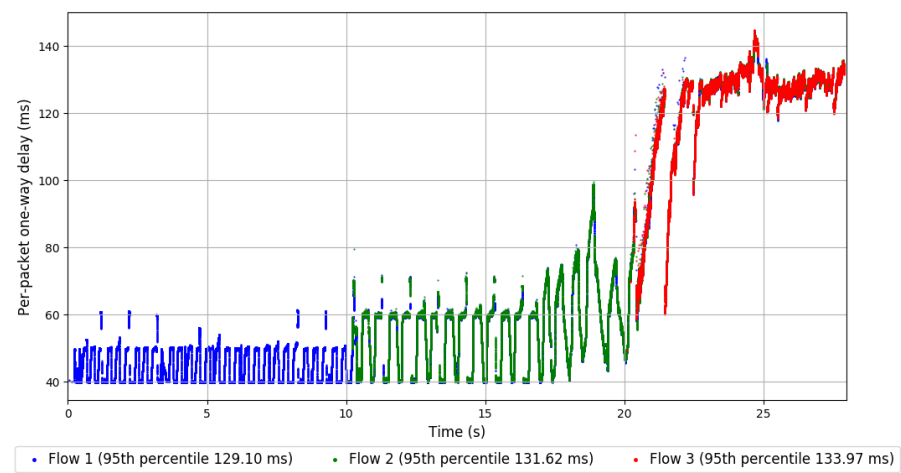
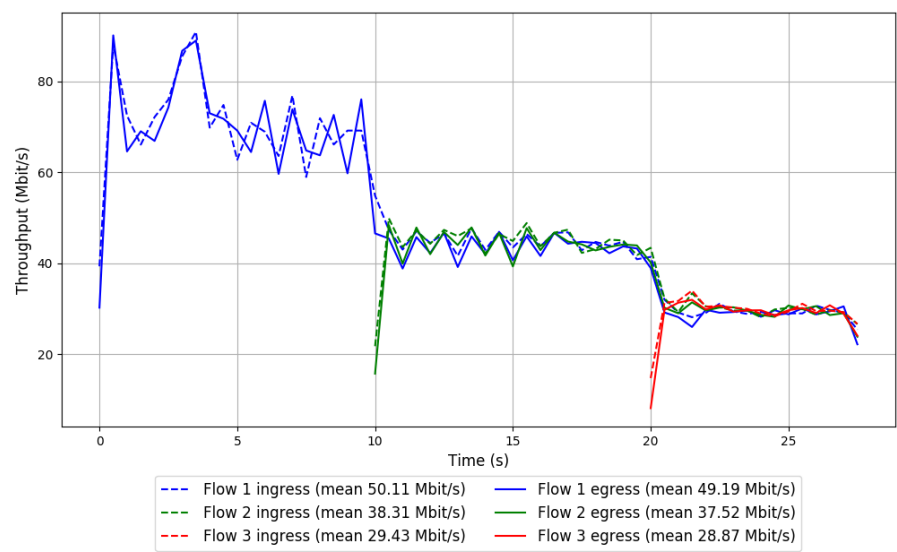


Run 6: Statistics of TaoVA-100x

Start at: 2018-01-17 00:54:23  
End at: 2018-01-17 00:54:53  
Local clock offset: -1.956 ms  
Remote clock offset: -6.156 ms

# Below is generated by plot.py at 2018-01-17 06:57:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.28 Mbit/s  
95th percentile per-packet one-way delay: 131.191 ms  
Loss rate: 2.35%  
-- Flow 1:  
Average throughput: 49.19 Mbit/s  
95th percentile per-packet one-way delay: 129.097 ms  
Loss rate: 2.14%  
-- Flow 2:  
Average throughput: 37.52 Mbit/s  
95th percentile per-packet one-way delay: 131.618 ms  
Loss rate: 2.53%  
-- Flow 3:  
Average throughput: 28.87 Mbit/s  
95th percentile per-packet one-way delay: 133.965 ms  
Loss rate: 3.04%

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

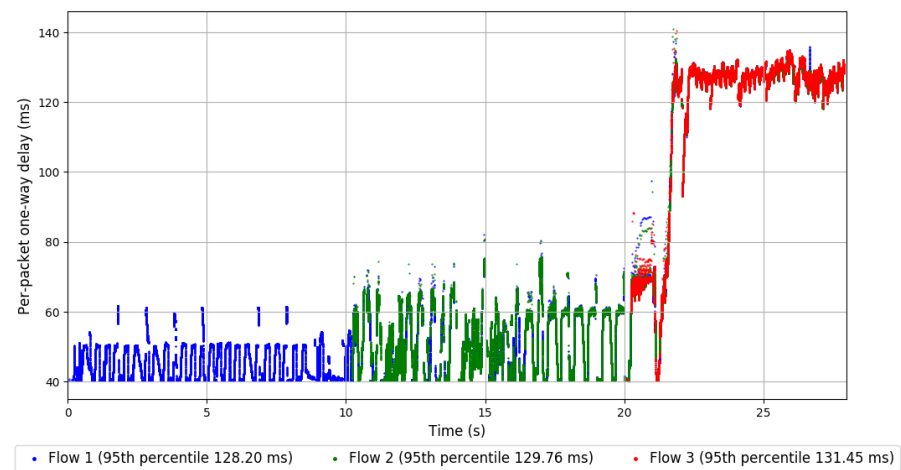
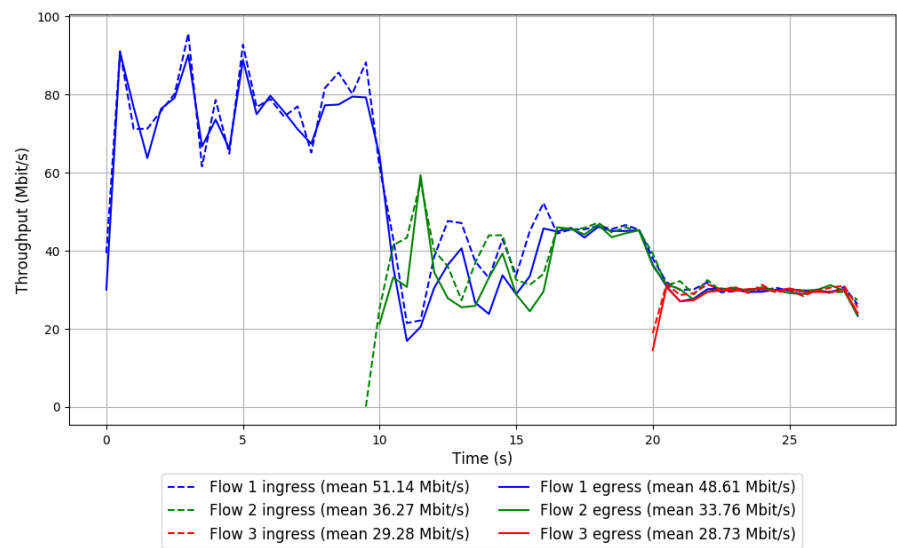


Run 7: Statistics of TaoVA-100x

Start at: 2018-01-17 01:17:40  
End at: 2018-01-17 01:18:10  
Local clock offset: -1.935 ms  
Remote clock offset: -5.789 ms

# Below is generated by plot.py at 2018-01-17 06:57:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.32 Mbit/s  
95th percentile per-packet one-way delay: 129.515 ms  
Loss rate: 5.61%  
-- Flow 1:  
Average throughput: 48.61 Mbit/s  
95th percentile per-packet one-way delay: 128.198 ms  
Loss rate: 5.23%  
-- Flow 2:  
Average throughput: 33.76 Mbit/s  
95th percentile per-packet one-way delay: 129.761 ms  
Loss rate: 7.40%  
-- Flow 3:  
Average throughput: 28.73 Mbit/s  
95th percentile per-packet one-way delay: 131.448 ms  
Loss rate: 2.96%

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



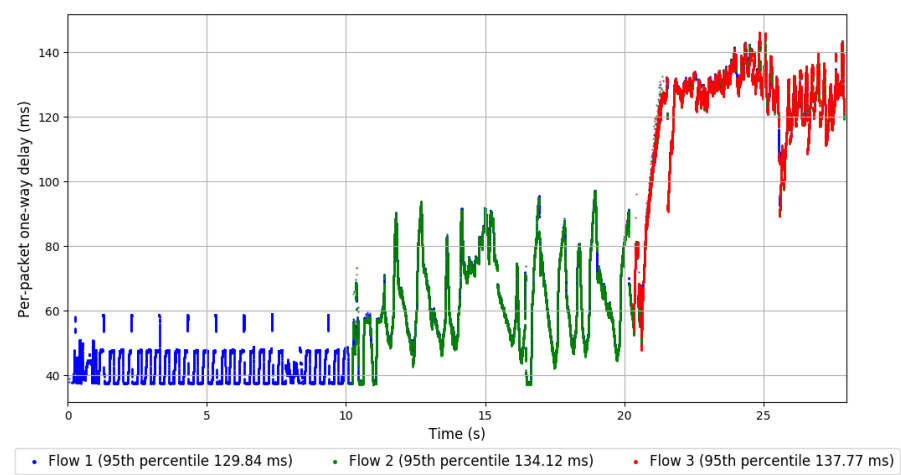
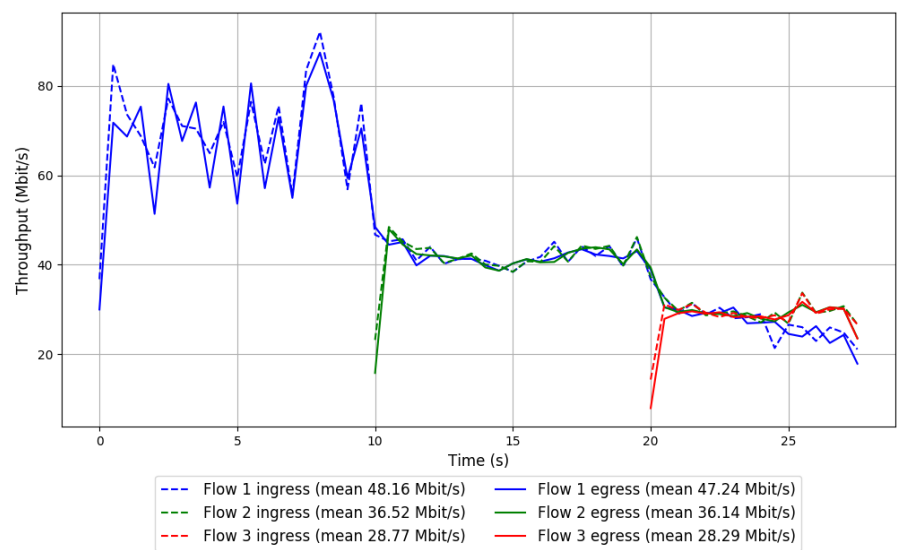
Run 8: Statistics of TaoVA-100x

Start at: 2018-01-17 01:40:56  
End at: 2018-01-17 01:41:26  
Local clock offset: -4.455 ms  
Remote clock offset: -6.117 ms

# Below is generated by plot.py at 2018-01-17 06:57:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.16 Mbit/s  
95th percentile per-packet one-way delay: 132.986 ms  
Loss rate: 2.21%  
-- Flow 1:  
Average throughput: 47.24 Mbit/s  
95th percentile per-packet one-way delay: 129.843 ms  
Loss rate: 2.32%  
-- Flow 2:  
Average throughput: 36.14 Mbit/s  
95th percentile per-packet one-way delay: 134.120 ms  
Loss rate: 1.58%  
-- Flow 3:  
Average throughput: 28.29 Mbit/s  
95th percentile per-packet one-way delay: 137.766 ms  
Loss rate: 3.40%



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



Run 9: Statistics of TaoVA-100x

Start at: 2018-01-17 02:04:08

End at: 2018-01-17 02:04:38

Local clock offset: -1.575 ms

Remote clock offset: -6.11 ms

# Below is generated by plot.py at 2018-01-17 06:59:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 83.32 Mbit/s

95th percentile per-packet one-way delay: 80.950 ms

Loss rate: 3.53%

-- Flow 1:

Average throughput: 54.52 Mbit/s

95th percentile per-packet one-way delay: 77.743 ms

Loss rate: 3.05%

-- Flow 2:

Average throughput: 29.41 Mbit/s

95th percentile per-packet one-way delay: 80.472 ms

Loss rate: 4.02%

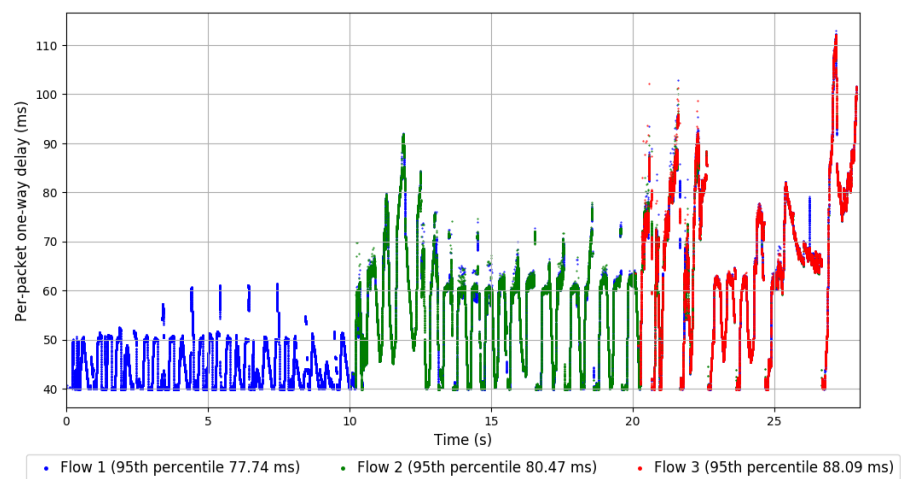
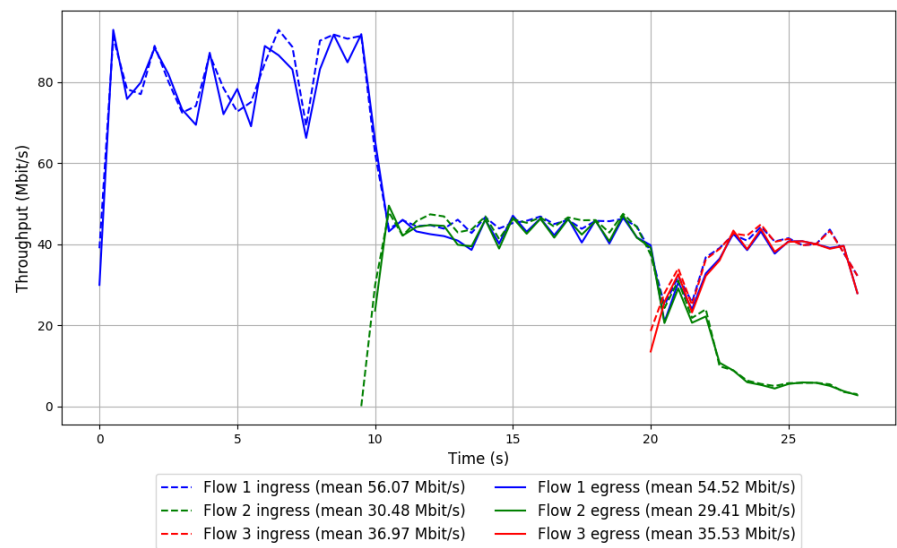
-- Flow 3:

Average throughput: 35.53 Mbit/s

95th percentile per-packet one-way delay: 88.095 ms

Loss rate: 5.19%

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

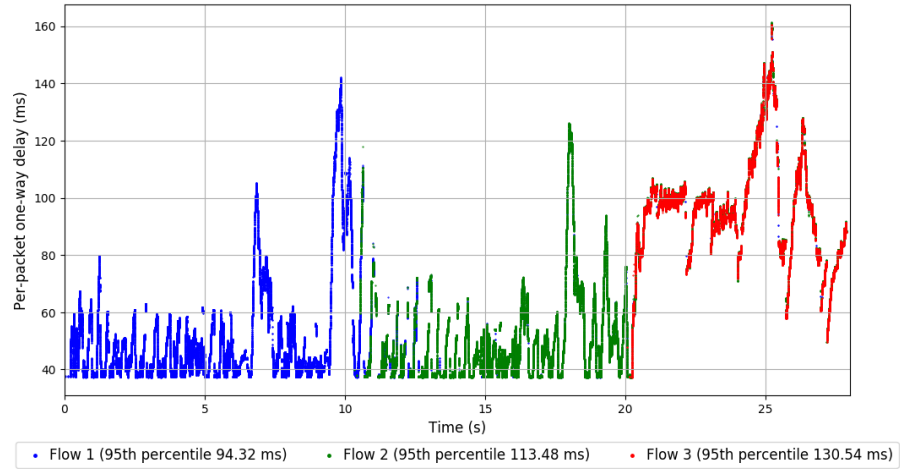
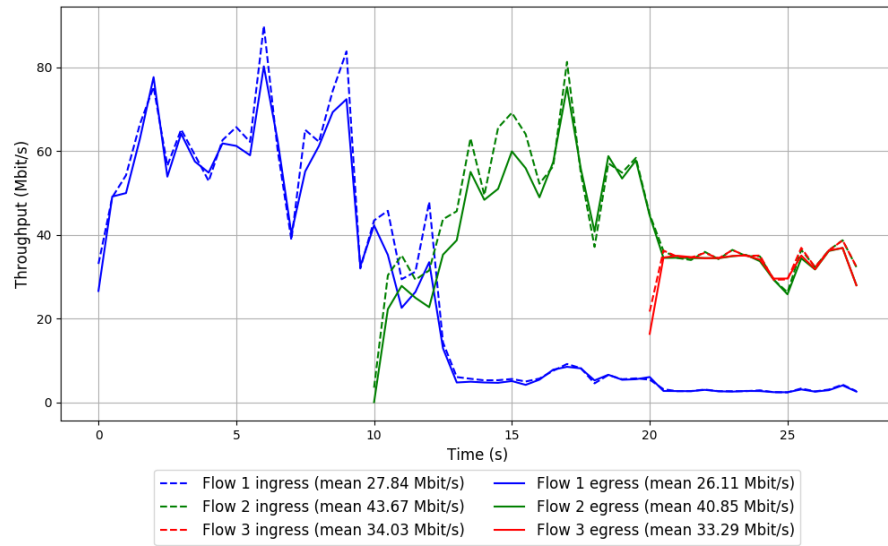


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-17 02:28:48
End at: 2018-01-17 02:29:18
Local clock offset: -4.015 ms
Remote clock offset: -5.476 ms

# Below is generated by plot.py at 2018-01-17 06:59:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.20 Mbit/s
95th percentile per-packet one-way delay: 111.676 ms
Loss rate: 6.21%
-- Flow 1:
Average throughput: 26.11 Mbit/s
95th percentile per-packet one-way delay: 94.324 ms
Loss rate: 6.48%
-- Flow 2:
Average throughput: 40.85 Mbit/s
95th percentile per-packet one-way delay: 113.476 ms
Loss rate: 6.92%
-- Flow 3:
Average throughput: 33.29 Mbit/s
95th percentile per-packet one-way delay: 130.542 ms
Loss rate: 3.38%
```

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

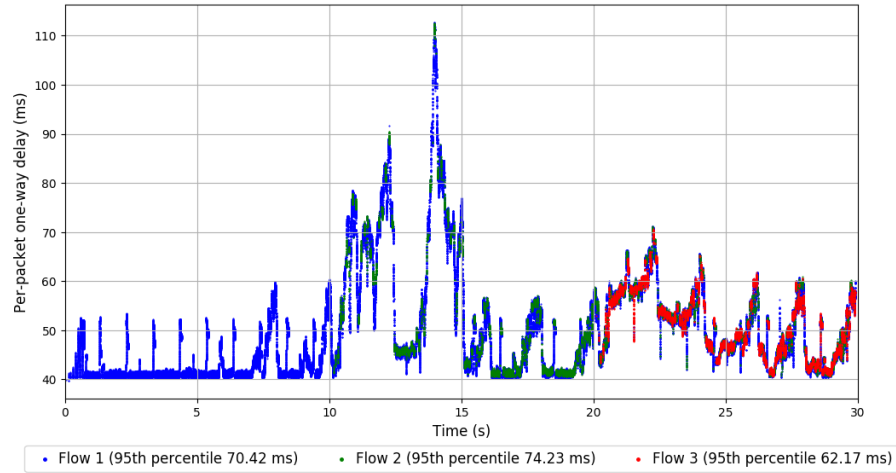
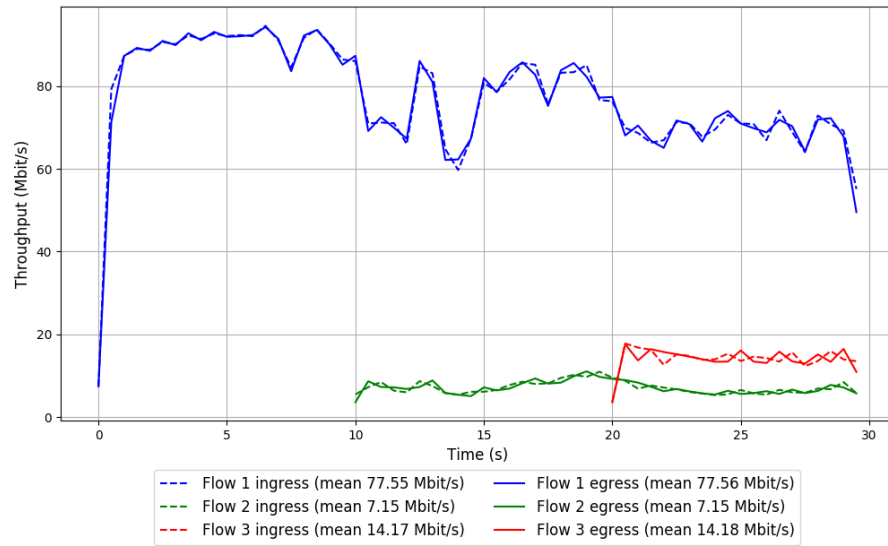


Run 1: Statistics of TCP Vegas

Start at: 2018-01-16 23:04:11  
End at: 2018-01-16 23:04:41  
Local clock offset: -0.988 ms  
Remote clock offset: -6.834 ms

# Below is generated by plot.py at 2018-01-17 06:59:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.96 Mbit/s  
95th percentile per-packet one-way delay: 70.274 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 77.56 Mbit/s  
95th percentile per-packet one-way delay: 70.421 ms  
Loss rate: 0.27%  
-- Flow 2:  
Average throughput: 7.15 Mbit/s  
95th percentile per-packet one-way delay: 74.235 ms  
Loss rate: 0.49%  
-- Flow 3:  
Average throughput: 14.18 Mbit/s  
95th percentile per-packet one-way delay: 62.172 ms  
Loss rate: 0.96%

# Run 1: Report of TCP Vegas — Data Link



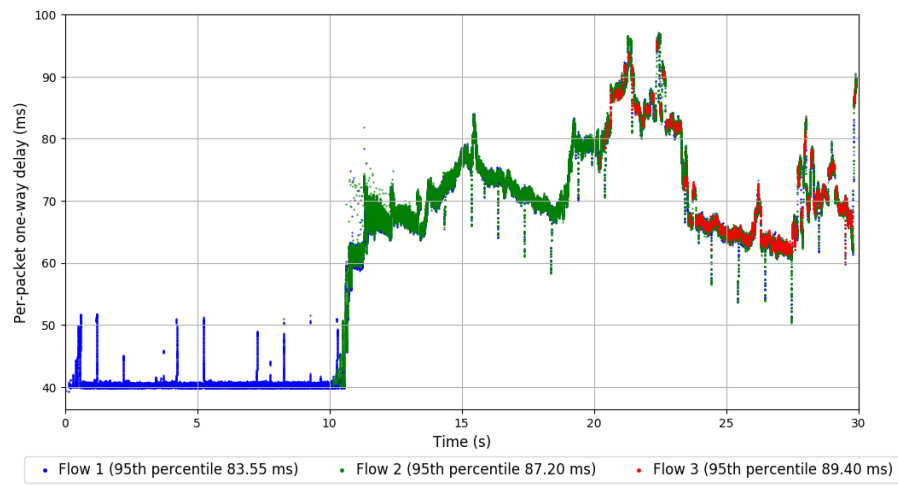
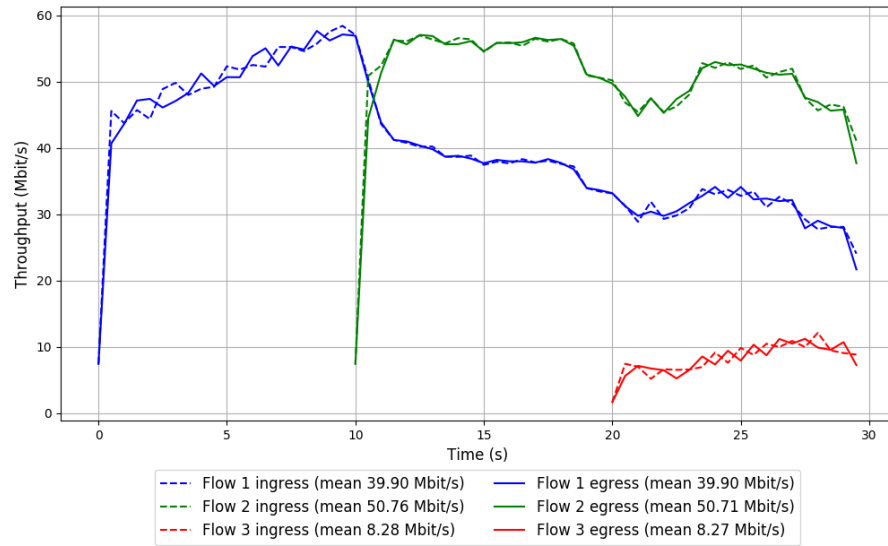
Run 2: Statistics of TCP Vegas

Start at: 2018-01-16 23:26:54  
End at: 2018-01-16 23:27:24  
Local clock offset: -1.455 ms  
Remote clock offset: -5.643 ms

# Below is generated by plot.py at 2018-01-17 06:59:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.33 Mbit/s  
95th percentile per-packet one-way delay: 86.000 ms  
Loss rate: 0.42%  
-- Flow 1:  
Average throughput: 39.90 Mbit/s  
95th percentile per-packet one-way delay: 83.549 ms  
Loss rate: 0.27%  
-- Flow 2:  
Average throughput: 50.71 Mbit/s  
95th percentile per-packet one-way delay: 87.203 ms  
Loss rate: 0.52%  
-- Flow 3:  
Average throughput: 8.27 Mbit/s  
95th percentile per-packet one-way delay: 89.400 ms  
Loss rate: 1.35%



## Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-16 23:50:02

End at: 2018-01-16 23:50:32

Local clock offset: -1.37 ms

Remote clock offset: -5.03 ms

# Below is generated by plot.py at 2018-01-17 06:59:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.17 Mbit/s

95th percentile per-packet one-way delay: 57.208 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 48.92 Mbit/s

95th percentile per-packet one-way delay: 55.769 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 36.19 Mbit/s

95th percentile per-packet one-way delay: 57.884 ms

Loss rate: 0.41%

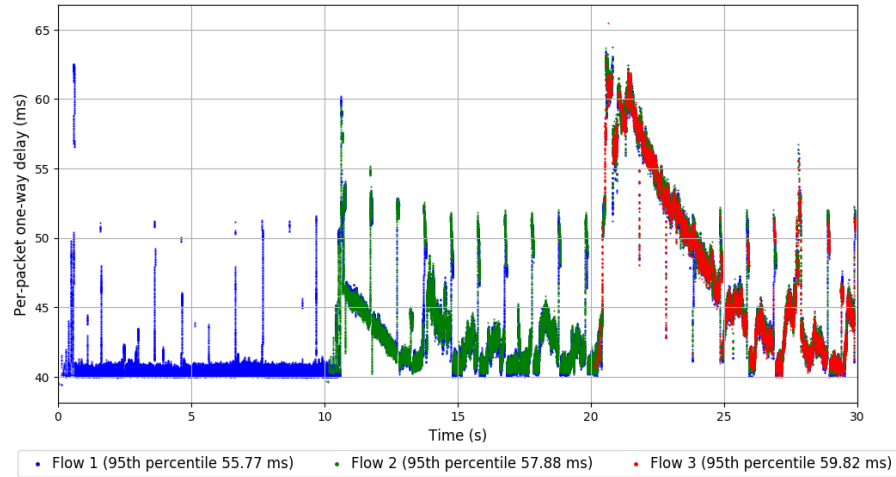
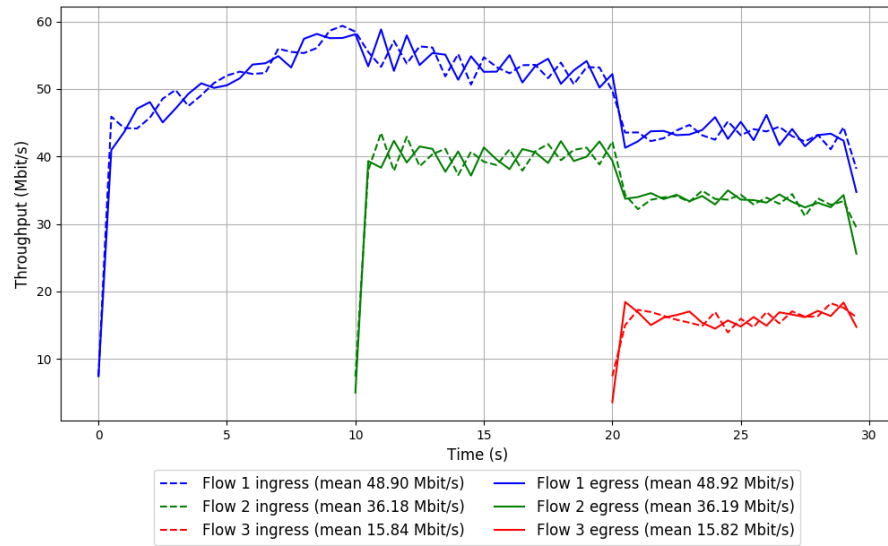
-- Flow 3:

Average throughput: 15.82 Mbit/s

95th percentile per-packet one-way delay: 59.822 ms

Loss rate: 1.02%

### Run 3: Report of TCP Vegas — Data Link

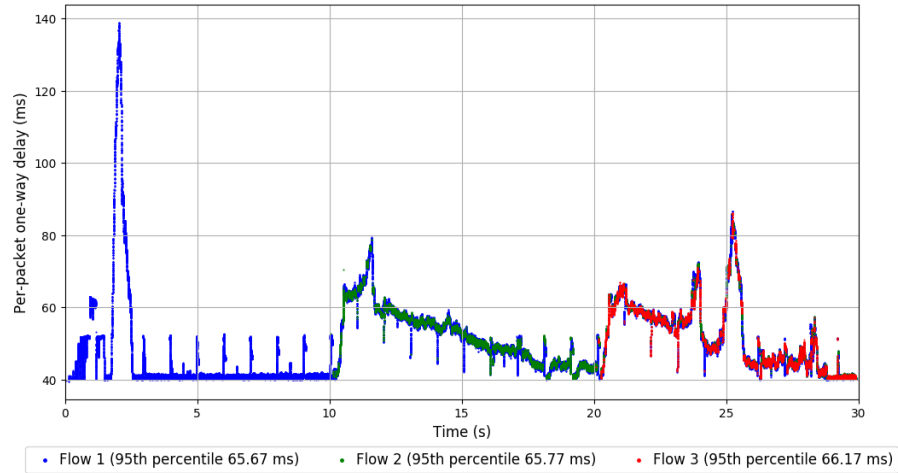
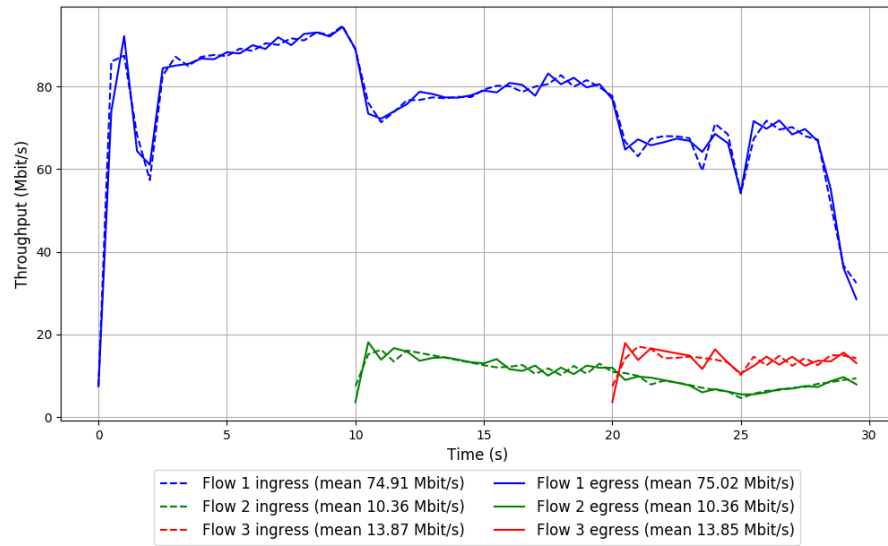


Run 4: Statistics of TCP Vegas

Start at: 2018-01-17 00:13:09  
End at: 2018-01-17 00:13:39  
Local clock offset: -1.367 ms  
Remote clock offset: -6.177 ms

# Below is generated by plot.py at 2018-01-17 06:59:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.46 Mbit/s  
95th percentile per-packet one-way delay: 65.732 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 75.02 Mbit/s  
95th percentile per-packet one-way delay: 65.668 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 10.36 Mbit/s  
95th percentile per-packet one-way delay: 65.769 ms  
Loss rate: 0.43%  
-- Flow 3:  
Average throughput: 13.85 Mbit/s  
95th percentile per-packet one-way delay: 66.171 ms  
Loss rate: 1.03%

#### Run 4: Report of TCP Vegas — Data Link

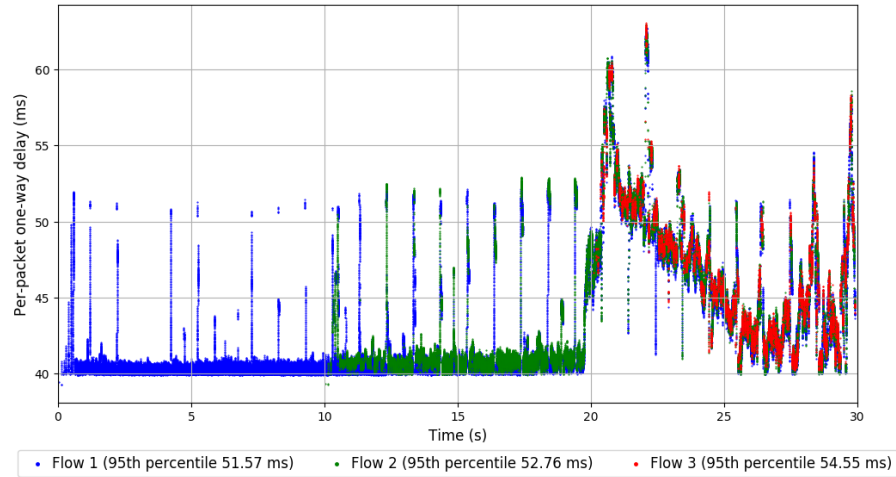
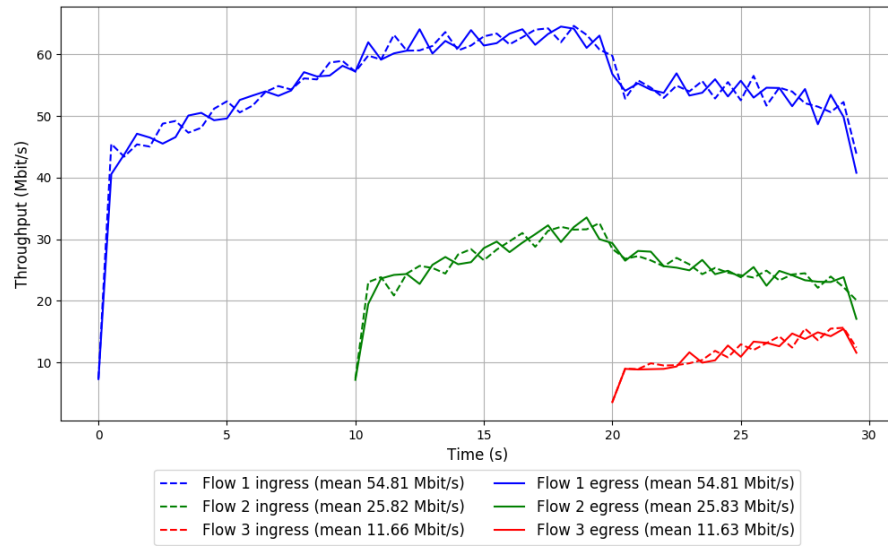


Run 5: Statistics of TCP Vegas

Start at: 2018-01-17 00:36:04  
End at: 2018-01-17 00:36:34  
Local clock offset: -1.696 ms  
Remote clock offset: -6.513 ms

# Below is generated by plot.py at 2018-01-17 06:59:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.80 Mbit/s  
95th percentile per-packet one-way delay: 52.040 ms  
Loss rate: 0.35%  
-- Flow 1:  
Average throughput: 54.81 Mbit/s  
95th percentile per-packet one-way delay: 51.568 ms  
Loss rate: 0.28%  
-- Flow 2:  
Average throughput: 25.83 Mbit/s  
95th percentile per-packet one-way delay: 52.759 ms  
Loss rate: 0.40%  
-- Flow 3:  
Average throughput: 11.63 Mbit/s  
95th percentile per-packet one-way delay: 54.549 ms  
Loss rate: 1.17%

# Run 5: Report of TCP Vegas — Data Link



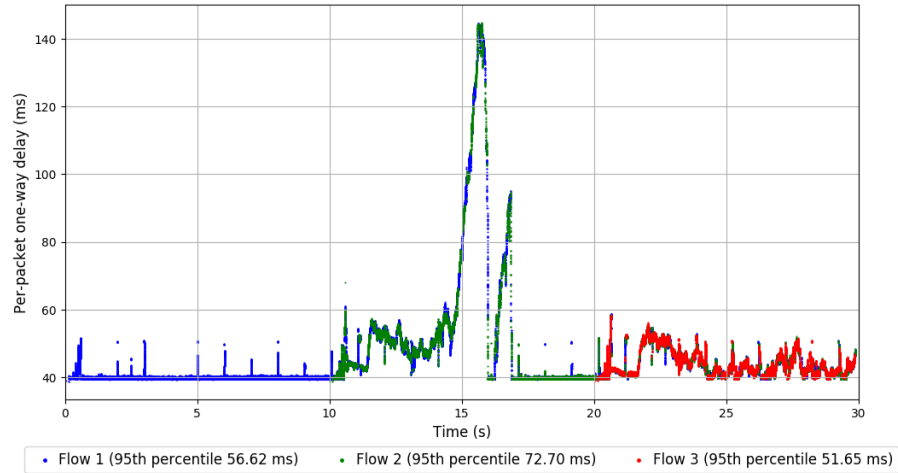
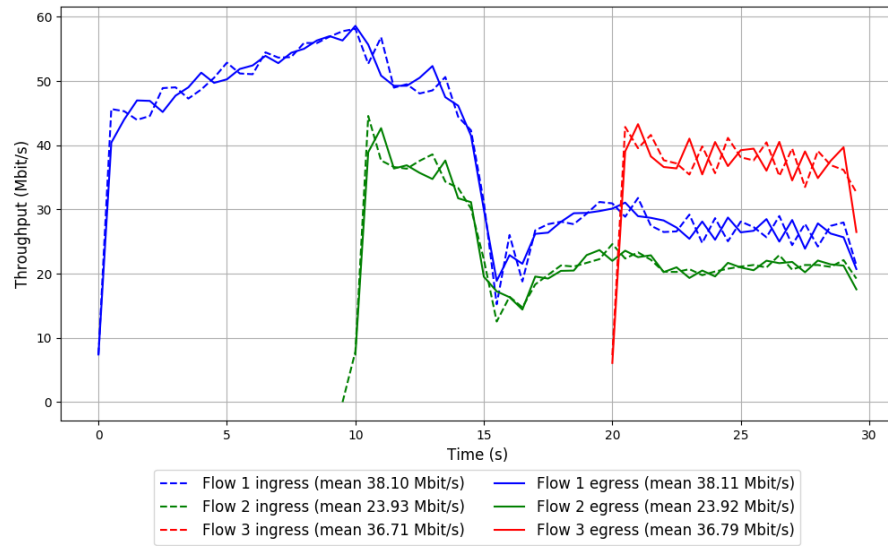
Run 6: Statistics of TCP Vegas

Start at: 2018-01-17 00:59:30  
End at: 2018-01-17 01:00:00  
Local clock offset: -2.388 ms  
Remote clock offset: -6.003 ms

# Below is generated by plot.py at 2018-01-17 06:59:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 66.12 Mbit/s  
95th percentile per-packet one-way delay: 56.483 ms  
Loss rate: 0.41%  
-- Flow 1:  
Average throughput: 38.11 Mbit/s  
95th percentile per-packet one-way delay: 56.622 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 23.92 Mbit/s  
95th percentile per-packet one-way delay: 72.697 ms  
Loss rate: 0.44%  
-- Flow 3:  
Average throughput: 36.79 Mbit/s  
95th percentile per-packet one-way delay: 51.653 ms  
Loss rate: 0.90%



# Run 6: Report of TCP Vegas — Data Link

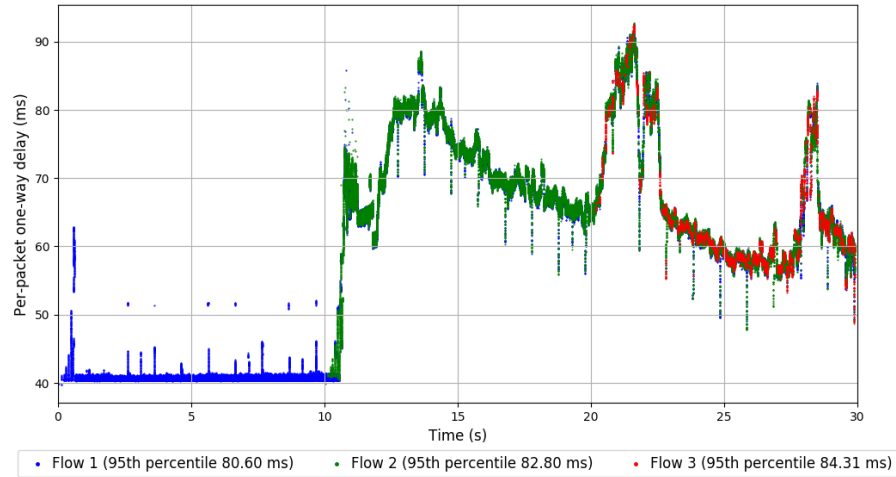
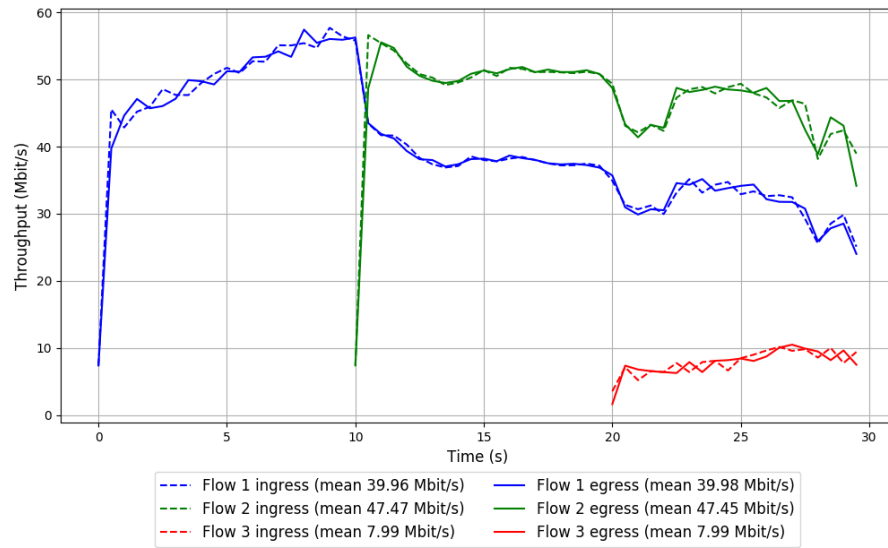


Run 7: Statistics of TCP Vegas

Start at: 2018-01-17 01:23:08  
End at: 2018-01-17 01:23:38  
Local clock offset: -1.849 ms  
Remote clock offset: -5.907 ms

# Below is generated by plot.py at 2018-01-17 06:59:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 74.14 Mbit/s  
95th percentile per-packet one-way delay: 81.606 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 39.98 Mbit/s  
95th percentile per-packet one-way delay: 80.598 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 47.45 Mbit/s  
95th percentile per-packet one-way delay: 82.802 ms  
Loss rate: 0.48%  
-- Flow 3:  
Average throughput: 7.99 Mbit/s  
95th percentile per-packet one-way delay: 84.313 ms  
Loss rate: 1.23%

# Run 7: Report of TCP Vegas — Data Link

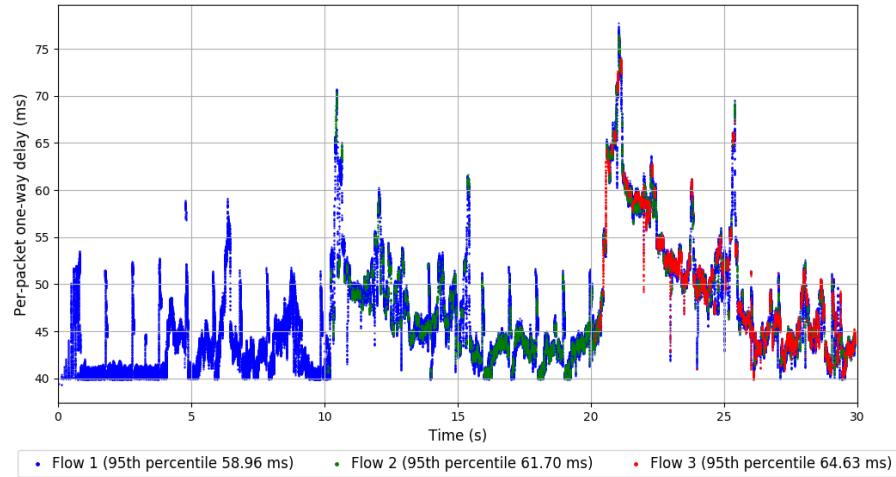
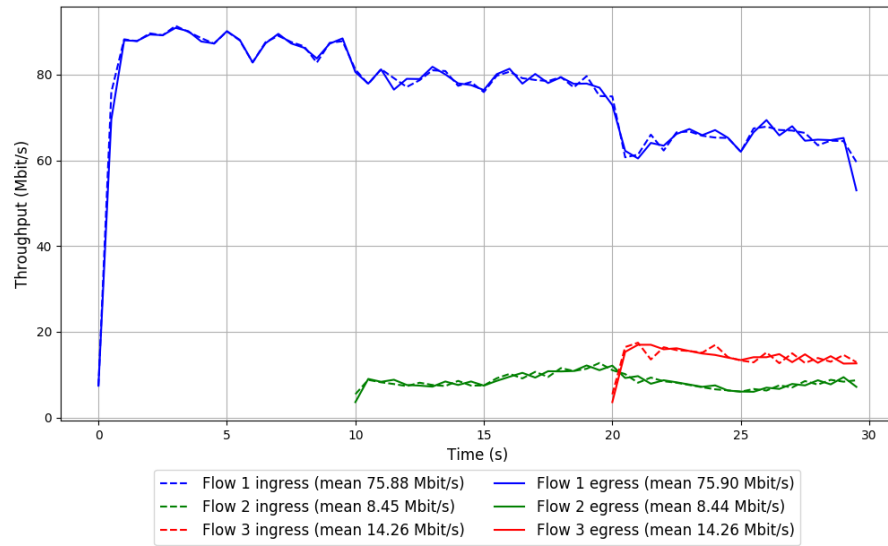


Run 8: Statistics of TCP Vegas

Start at: 2018-01-17 01:46:05  
End at: 2018-01-17 01:46:35  
Local clock offset: -1.757 ms  
Remote clock offset: -6.066 ms

```
# Below is generated by plot.py at 2018-01-17 06:59:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.20 Mbit/s
95th percentile per-packet one-way delay: 59.562 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 75.90 Mbit/s
95th percentile per-packet one-way delay: 58.961 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 8.44 Mbit/s
95th percentile per-packet one-way delay: 61.705 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 14.26 Mbit/s
95th percentile per-packet one-way delay: 64.633 ms
Loss rate: 0.90%
```

## Run 8: Report of TCP Vegas — Data Link

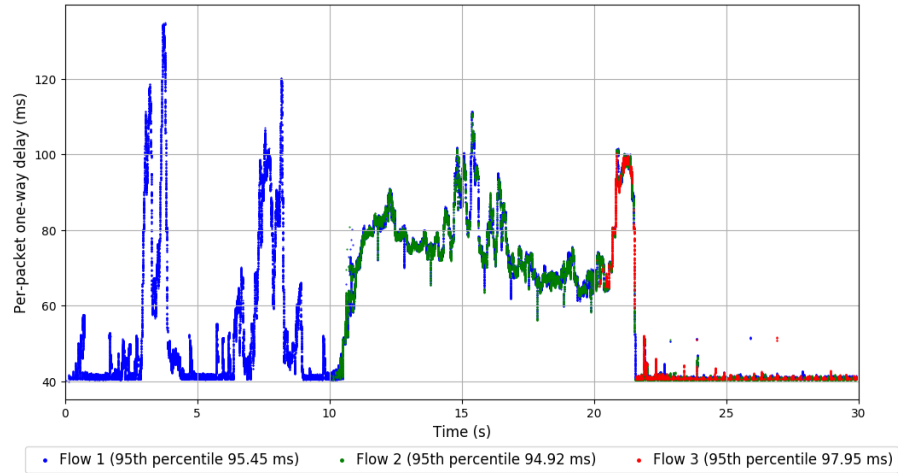
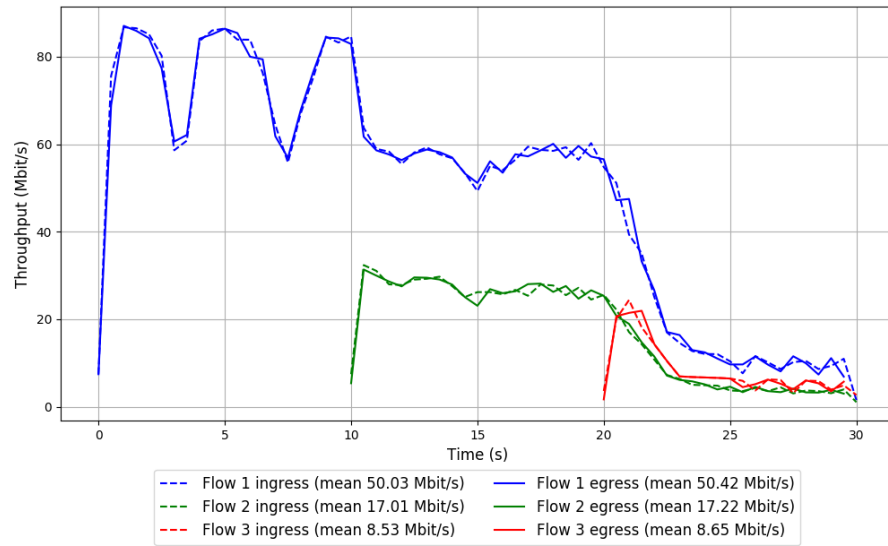


Run 9: Statistics of TCP Vegas

Start at: 2018-01-17 02:09:15  
End at: 2018-01-17 02:09:45  
Local clock offset: -1.19 ms  
Remote clock offset: -5.943 ms

# Below is generated by plot.py at 2018-01-17 06:59:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 64.69 Mbit/s  
95th percentile per-packet one-way delay: 95.837 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 50.42 Mbit/s  
95th percentile per-packet one-way delay: 95.452 ms  
Loss rate: 0.21%  
-- Flow 2:  
Average throughput: 17.22 Mbit/s  
95th percentile per-packet one-way delay: 94.917 ms  
Loss rate: 0.39%  
-- Flow 3:  
Average throughput: 8.65 Mbit/s  
95th percentile per-packet one-way delay: 97.953 ms  
Loss rate: 1.84%

## Run 9: Report of TCP Vegas — Data Link



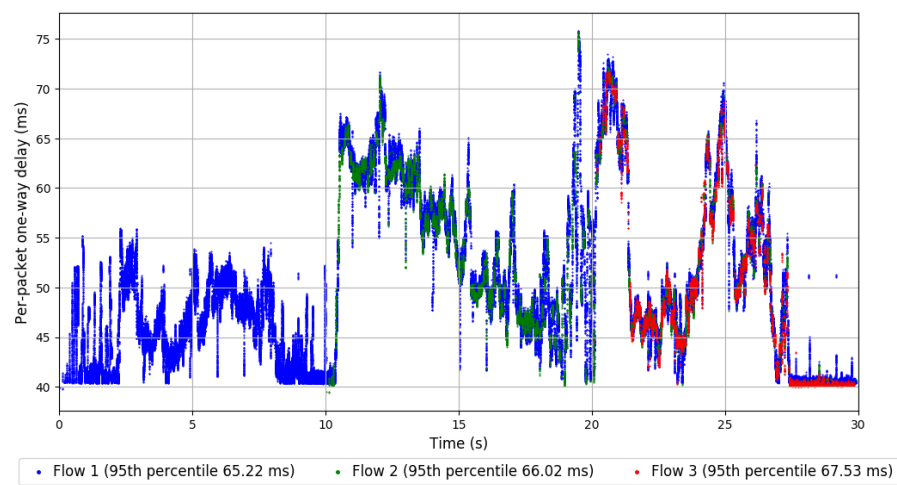
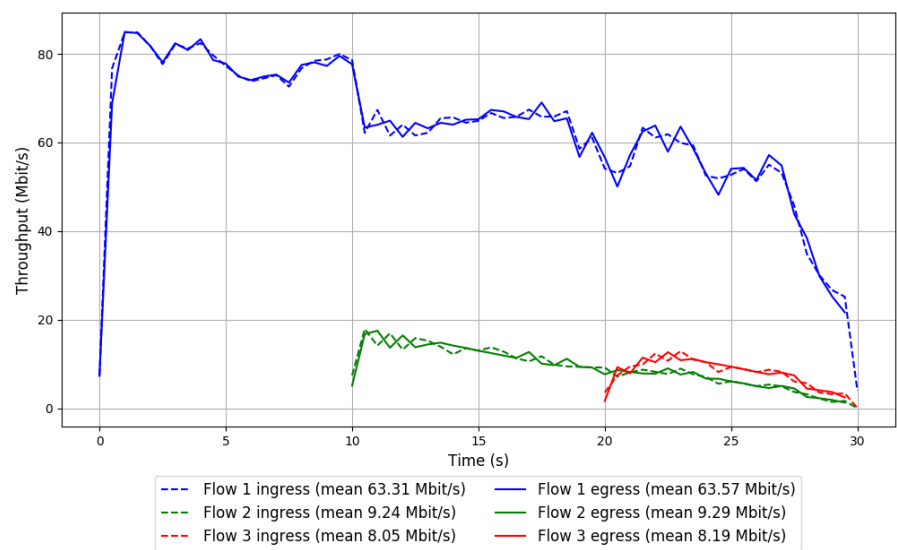
Run 10: Statistics of TCP Vegas

Start at: 2018-01-17 02:34:10  
End at: 2018-01-17 02:34:40  
Local clock offset: -0.871 ms  
Remote clock offset: -5.211 ms

# Below is generated by plot.py at 2018-01-17 06:59:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 72.43 Mbit/s  
95th percentile per-packet one-way delay: 65.464 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 63.57 Mbit/s  
95th percentile per-packet one-way delay: 65.218 ms  
Loss rate: 0.26%  
-- Flow 2:  
Average throughput: 9.29 Mbit/s  
95th percentile per-packet one-way delay: 66.015 ms  
Loss rate: 0.16%  
-- Flow 3:  
Average throughput: 8.19 Mbit/s  
95th percentile per-packet one-way delay: 67.531 ms  
Loss rate: 0.74%



Run 10: Report of TCP Vegas — Data Link

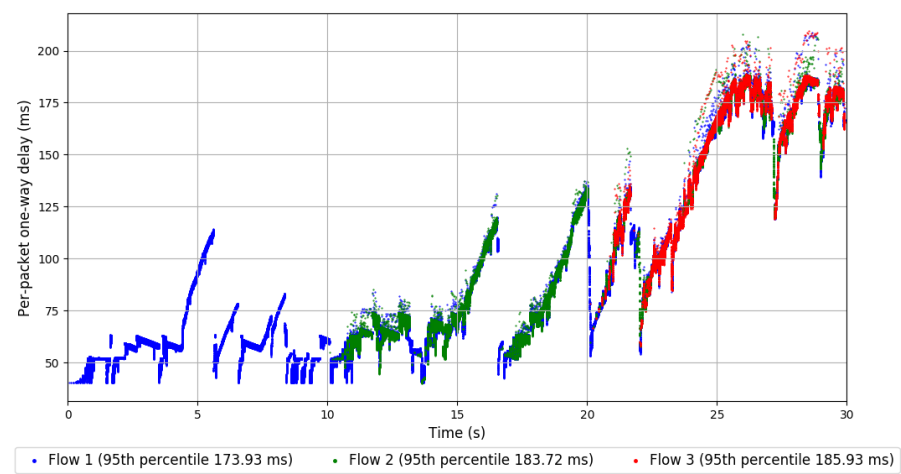
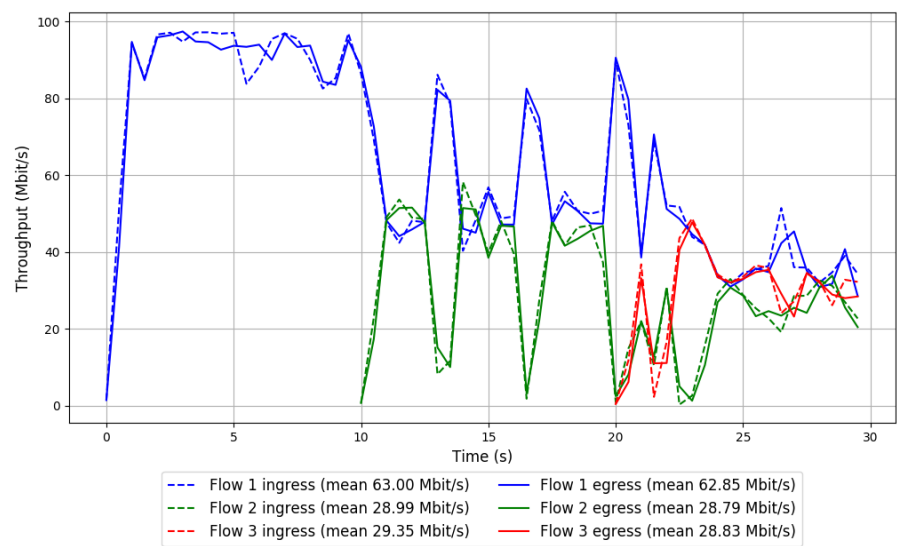


Run 1: Statistics of Verus

Start at: 2018-01-16 23:01:44  
End at: 2018-01-16 23:02:14  
Local clock offset: -1.361 ms  
Remote clock offset: -6.923 ms

# Below is generated by plot.py at 2018-01-17 07:00:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.38 Mbit/s  
95th percentile per-packet one-way delay: 181.295 ms  
Loss rate: 1.06%  
-- Flow 1:  
Average throughput: 62.85 Mbit/s  
95th percentile per-packet one-way delay: 173.925 ms  
Loss rate: 0.59%  
-- Flow 2:  
Average throughput: 28.79 Mbit/s  
95th percentile per-packet one-way delay: 183.725 ms  
Loss rate: 1.51%  
-- Flow 3:  
Average throughput: 28.83 Mbit/s  
95th percentile per-packet one-way delay: 185.934 ms  
Loss rate: 3.17%

Run 1: Report of Verus — Data Link

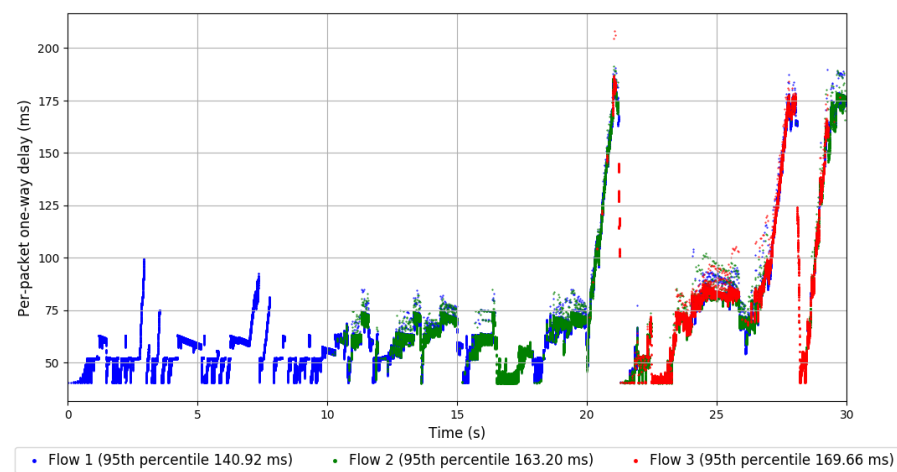
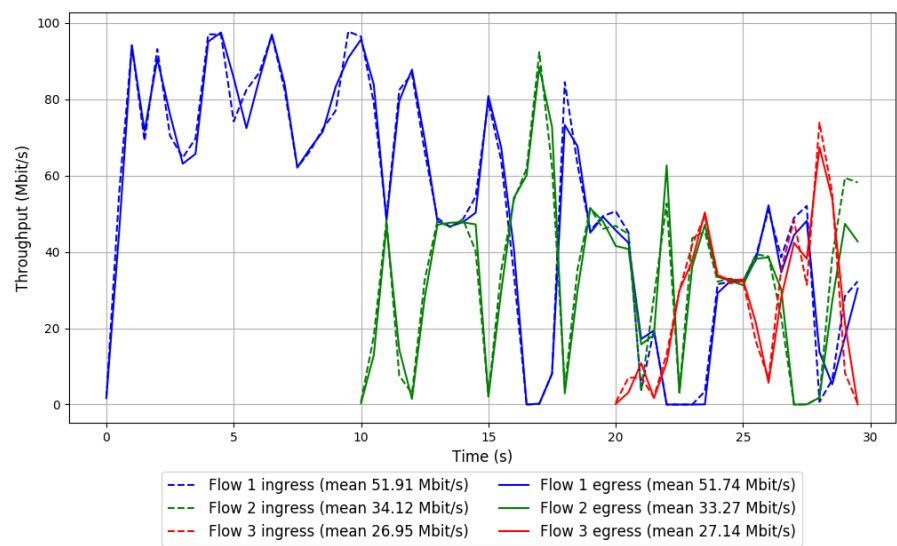


Run 2: Statistics of Verus

Start at: 2018-01-16 23:24:27  
End at: 2018-01-16 23:24:57  
Local clock offset: -1.214 ms  
Remote clock offset: -5.743 ms

# Below is generated by plot.py at 2018-01-17 07:00:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.57 Mbit/s  
95th percentile per-packet one-way delay: 159.575 ms  
Loss rate: 1.28%  
-- Flow 1:  
Average throughput: 51.74 Mbit/s  
95th percentile per-packet one-way delay: 140.923 ms  
Loss rate: 0.64%  
-- Flow 2:  
Average throughput: 33.27 Mbit/s  
95th percentile per-packet one-way delay: 163.202 ms  
Loss rate: 3.02%  
-- Flow 3:  
Average throughput: 27.14 Mbit/s  
95th percentile per-packet one-way delay: 169.655 ms  
Loss rate: 0.58%

Run 2: Report of Verus — Data Link

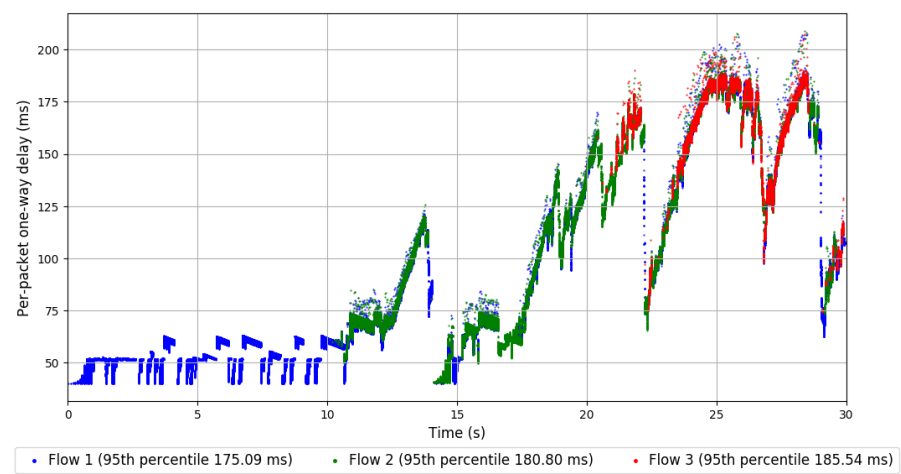
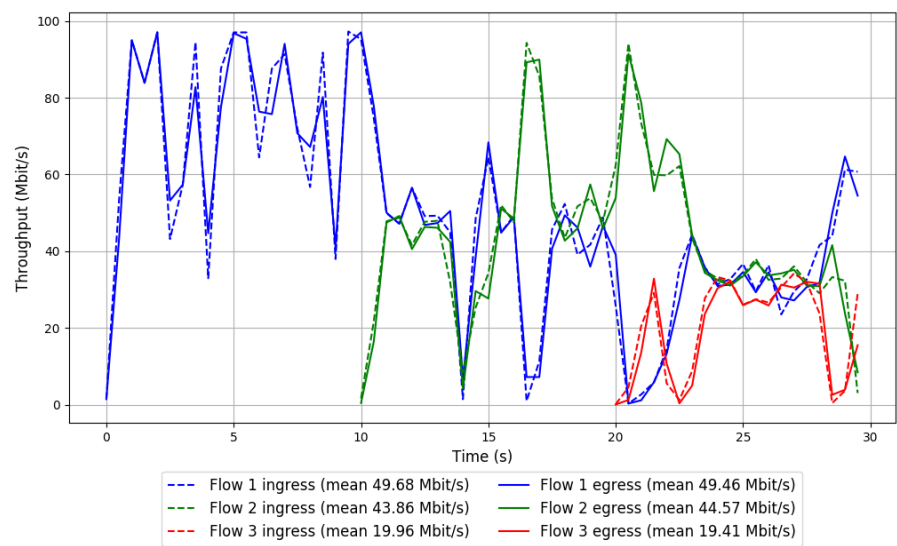


Run 3: Statistics of Verus

Start at: 2018-01-16 23:47:35  
End at: 2018-01-16 23:48:05  
Local clock offset: -1.371 ms  
Remote clock offset: -5.172 ms

# Below is generated by plot.py at 2018-01-17 07:00:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.86 Mbit/s  
95th percentile per-packet one-way delay: 181.053 ms  
Loss rate: 0.99%  
-- Flow 1:  
Average throughput: 49.46 Mbit/s  
95th percentile per-packet one-way delay: 175.090 ms  
Loss rate: 0.81%  
-- Flow 2:  
Average throughput: 44.57 Mbit/s  
95th percentile per-packet one-way delay: 180.799 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 19.41 Mbit/s  
95th percentile per-packet one-way delay: 185.543 ms  
Loss rate: 5.21%

Run 3: Report of Verus — Data Link



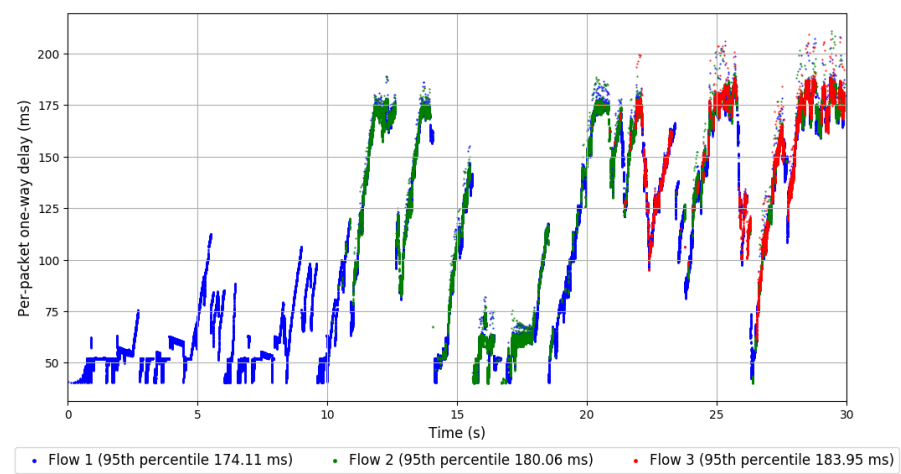
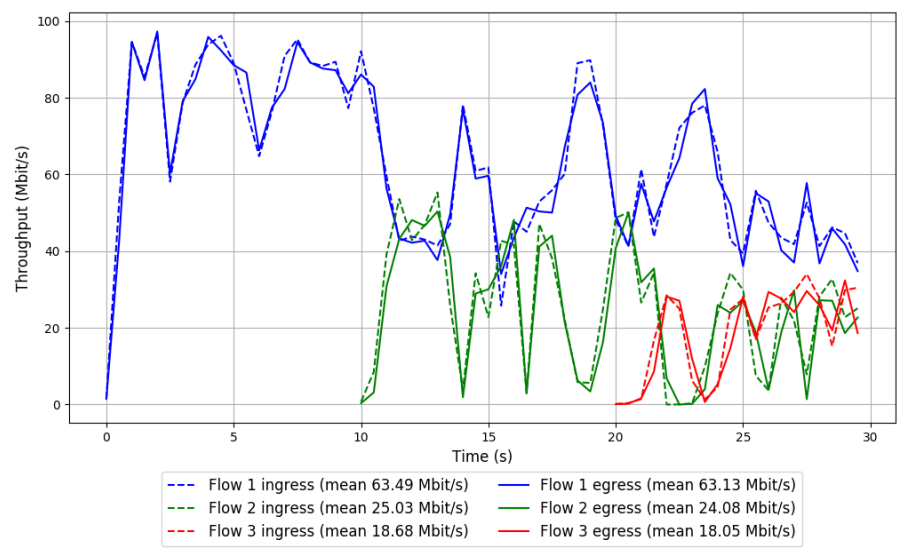
Run 4: Statistics of Verus

Start at: 2018-01-17 00:10:28  
End at: 2018-01-17 00:10:58  
Local clock offset: -1.32 ms  
Remote clock offset: -5.923 ms

# Below is generated by plot.py at 2018-01-17 07:00:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.98 Mbit/s  
95th percentile per-packet one-way delay: 177.387 ms  
Loss rate: 1.94%  
-- Flow 1:  
Average throughput: 63.13 Mbit/s  
95th percentile per-packet one-way delay: 174.111 ms  
Loss rate: 0.94%  
-- Flow 2:  
Average throughput: 24.08 Mbit/s  
95th percentile per-packet one-way delay: 180.055 ms  
Loss rate: 4.38%  
-- Flow 3:  
Average throughput: 18.05 Mbit/s  
95th percentile per-packet one-way delay: 183.947 ms  
Loss rate: 5.70%



Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-17 00:33:43

End at: 2018-01-17 00:34:13

Local clock offset: -1.806 ms

Remote clock offset: -6.56 ms

Run 5: Report of Verus — Data Link

Figure is missing

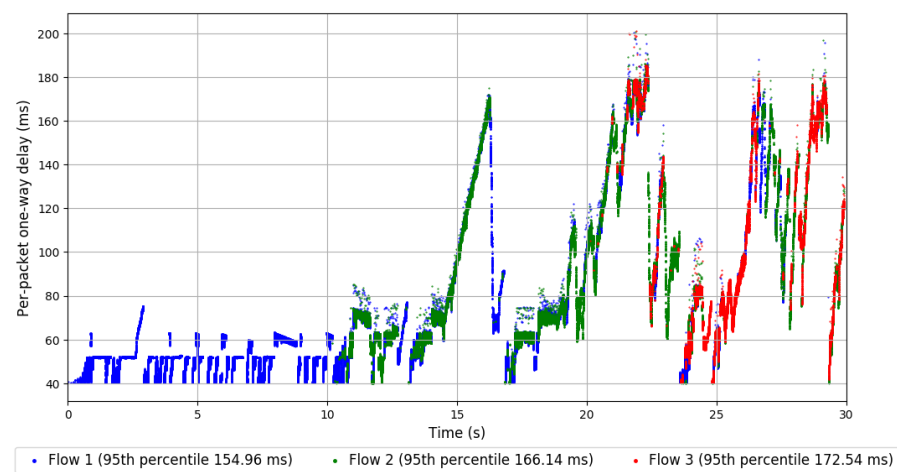
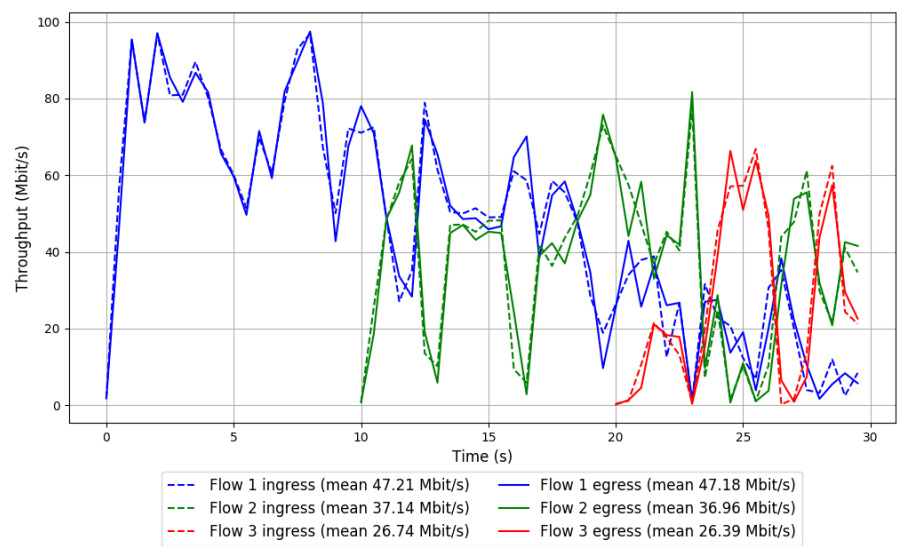
Figure is missing

Run 6: Statistics of Verus

Start at: 2018-01-17 00:57:03  
End at: 2018-01-17 00:57:33  
Local clock offset: -1.704 ms  
Remote clock offset: -6.106 ms

# Below is generated by plot.py at 2018-01-17 07:00:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.35 Mbit/s  
95th percentile per-packet one-way delay: 163.592 ms  
Loss rate: 0.81%  
-- Flow 1:  
Average throughput: 47.18 Mbit/s  
95th percentile per-packet one-way delay: 154.956 ms  
Loss rate: 0.35%  
-- Flow 2:  
Average throughput: 36.96 Mbit/s  
95th percentile per-packet one-way delay: 166.140 ms  
Loss rate: 0.99%  
-- Flow 3:  
Average throughput: 26.39 Mbit/s  
95th percentile per-packet one-way delay: 172.545 ms  
Loss rate: 2.77%

Run 6: Report of Verus — Data Link

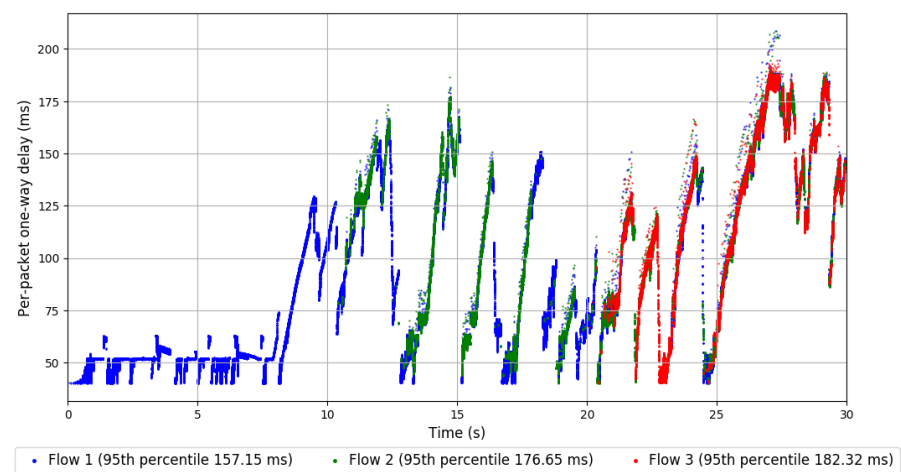
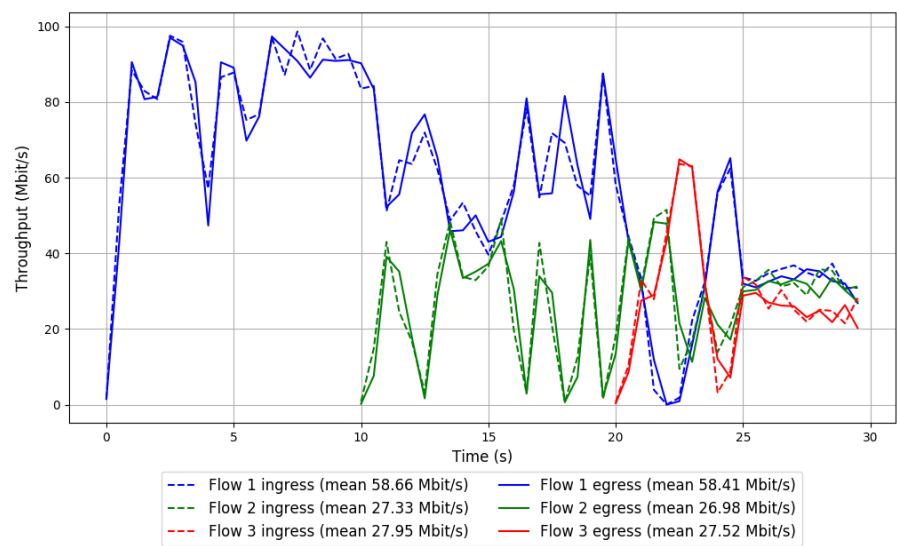


Run 7: Statistics of Verus

Start at: 2018-01-17 01:20:16  
End at: 2018-01-17 01:20:46  
Local clock offset: -1.815 ms  
Remote clock offset: -5.899 ms

# Below is generated by plot.py at 2018-01-17 07:01:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.34 Mbit/s  
95th percentile per-packet one-way delay: 169.257 ms  
Loss rate: 1.24%  
-- Flow 1:  
Average throughput: 58.41 Mbit/s  
95th percentile per-packet one-way delay: 157.148 ms  
Loss rate: 0.73%  
-- Flow 2:  
Average throughput: 26.98 Mbit/s  
95th percentile per-packet one-way delay: 176.646 ms  
Loss rate: 2.08%  
-- Flow 3:  
Average throughput: 27.52 Mbit/s  
95th percentile per-packet one-way delay: 182.319 ms  
Loss rate: 2.79%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-17 01:43:43

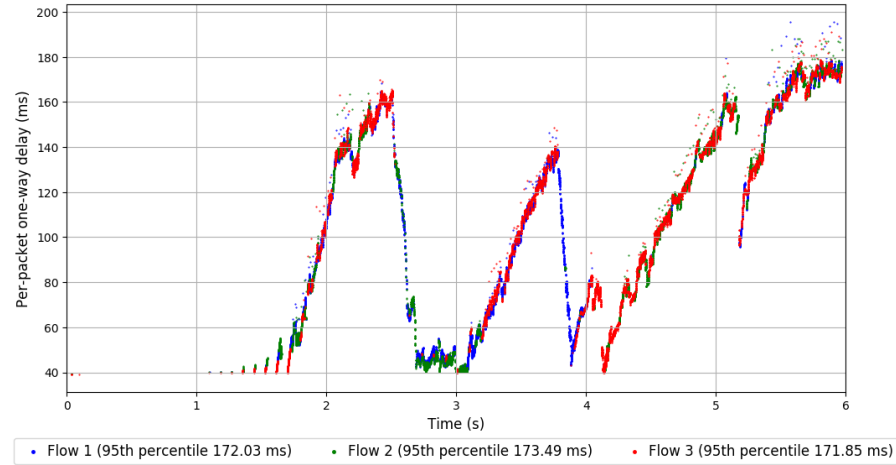
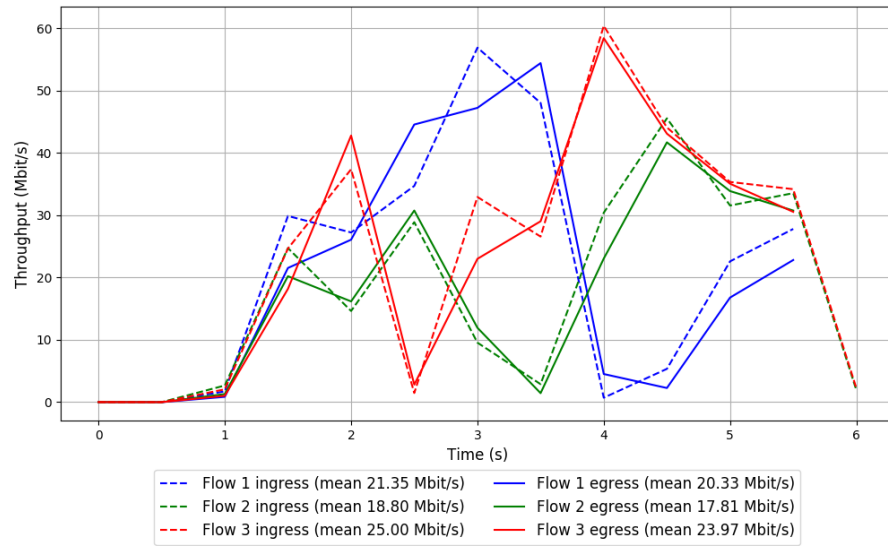
End at: 2018-01-17 01:44:13

Local clock offset: -1.941 ms

Remote clock offset: -6.103 ms



## Run 8: Report of Verus — Data Link

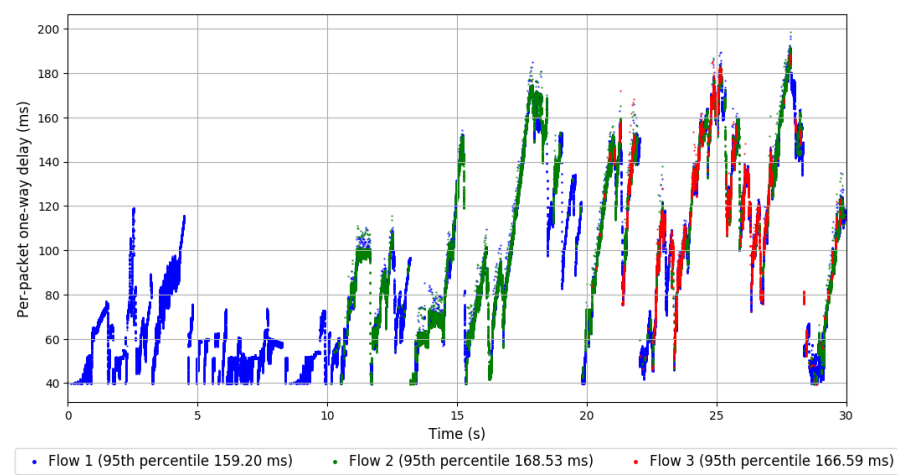
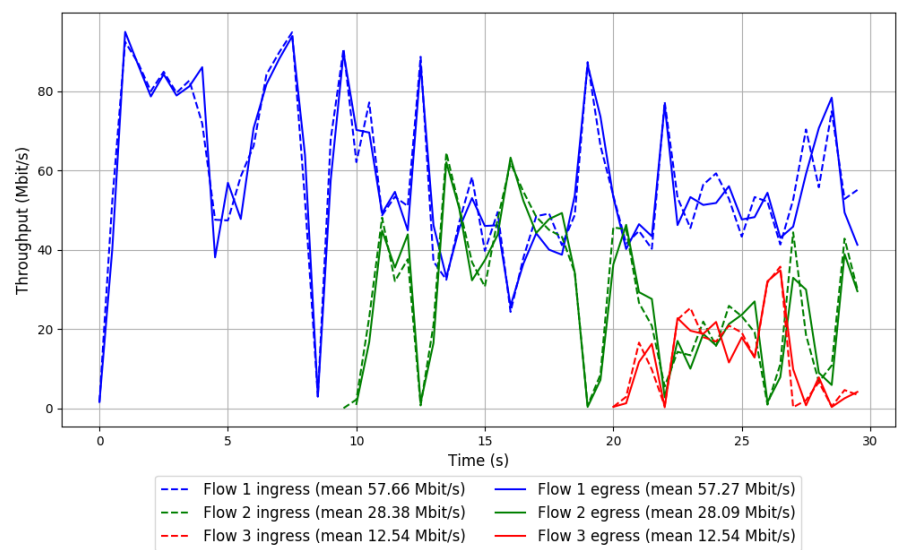


Run 9: Statistics of Verus

Start at: 2018-01-17 02:06:47  
End at: 2018-01-17 02:07:17  
Local clock offset: -2.068 ms  
Remote clock offset: -6.098 ms

# Below is generated by plot.py at 2018-01-17 07:01:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.05 Mbit/s  
95th percentile per-packet one-way delay: 163.621 ms  
Loss rate: 1.18%  
-- Flow 1:  
Average throughput: 57.27 Mbit/s  
95th percentile per-packet one-way delay: 159.196 ms  
Loss rate: 1.01%  
-- Flow 2:  
Average throughput: 28.09 Mbit/s  
95th percentile per-packet one-way delay: 168.534 ms  
Loss rate: 1.68%  
-- Flow 3:  
Average throughput: 12.54 Mbit/s  
95th percentile per-packet one-way delay: 166.592 ms  
Loss rate: 1.24%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-17 02:31:37

End at: 2018-01-17 02:32:07

Local clock offset: -1.659 ms

Remote clock offset: -5.34 ms

# Below is generated by plot.py at 2018-01-17 07:01:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.09 Mbit/s

95th percentile per-packet one-way delay: 171.088 ms

Loss rate: 2.18%

-- Flow 1:

Average throughput: 59.83 Mbit/s

95th percentile per-packet one-way delay: 167.030 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 26.15 Mbit/s

95th percentile per-packet one-way delay: 175.039 ms

Loss rate: 4.40%

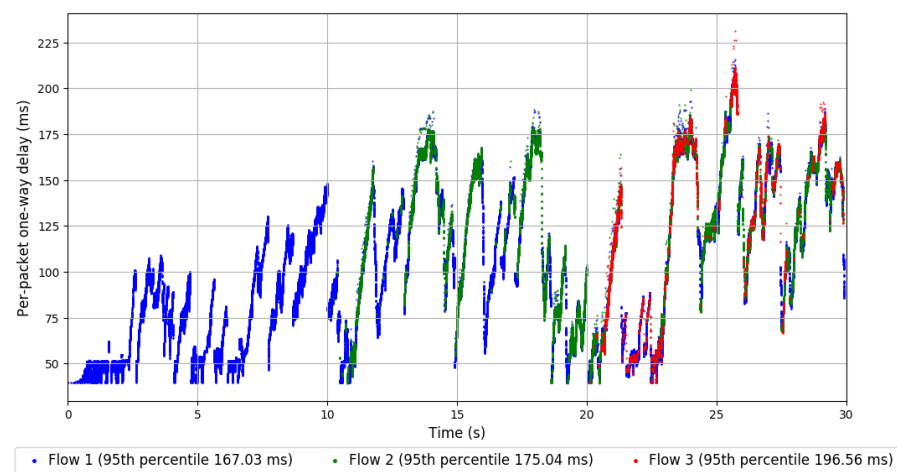
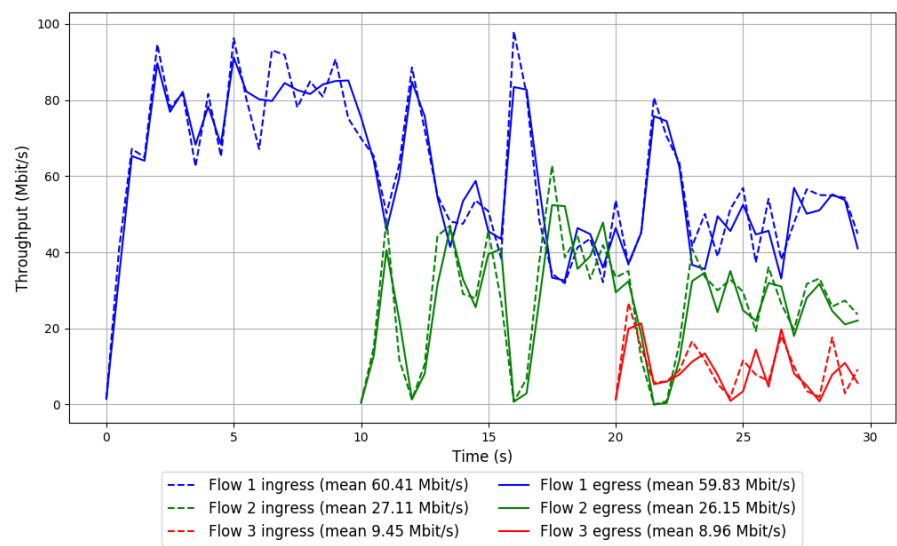
-- Flow 3:

Average throughput: 8.96 Mbit/s

95th percentile per-packet one-way delay: 196.564 ms

Loss rate: 6.55%

Run 10: Report of Verus — Data Link

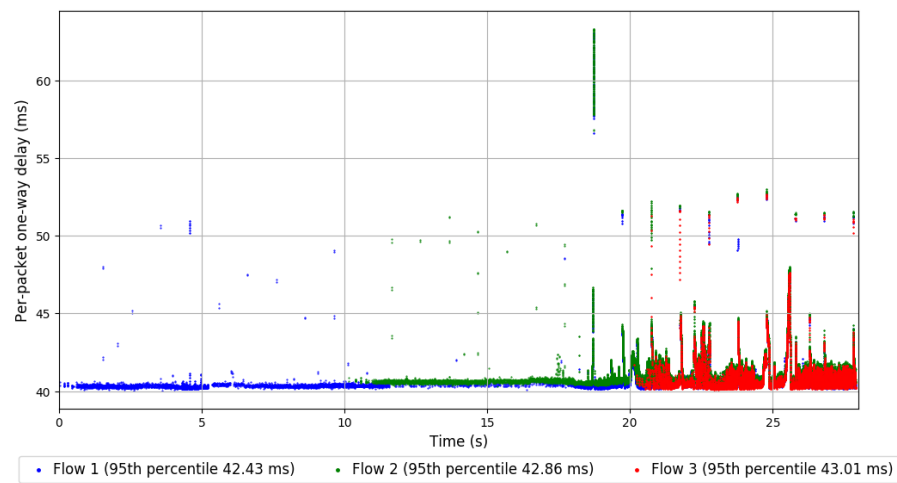
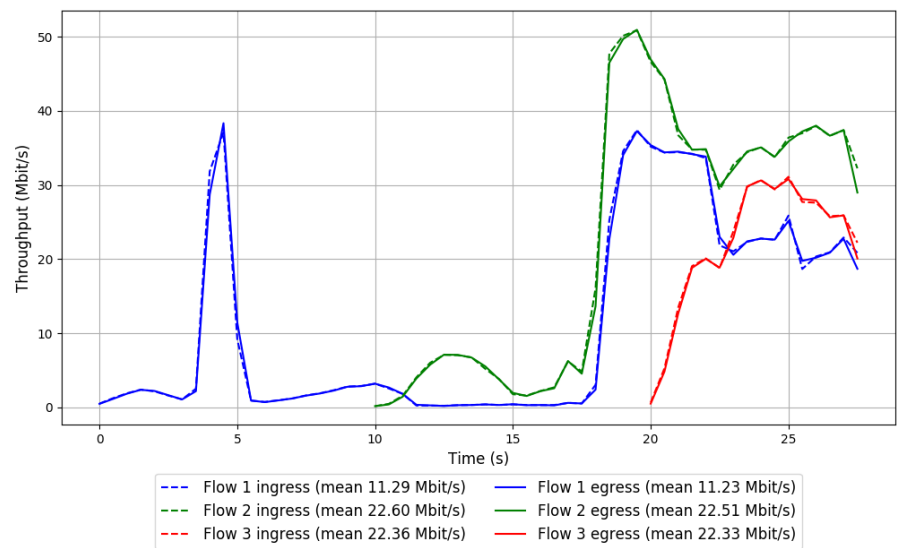


Run 1: Statistics of Copa

Start at: 2018-01-16 23:00:30  
End at: 2018-01-16 23:01:00  
Local clock offset: -1.08 ms  
Remote clock offset: -7.024 ms

# Below is generated by plot.py at 2018-01-17 07:01:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 31.80 Mbit/s  
95th percentile per-packet one-way delay: 42.746 ms  
Loss rate: 0.89%  
-- Flow 1:  
Average throughput: 11.23 Mbit/s  
95th percentile per-packet one-way delay: 42.428 ms  
Loss rate: 0.78%  
-- Flow 2:  
Average throughput: 22.51 Mbit/s  
95th percentile per-packet one-way delay: 42.861 ms  
Loss rate: 0.84%  
-- Flow 3:  
Average throughput: 22.33 Mbit/s  
95th percentile per-packet one-way delay: 43.008 ms  
Loss rate: 1.23%

Run 1: Report of Copa — Data Link



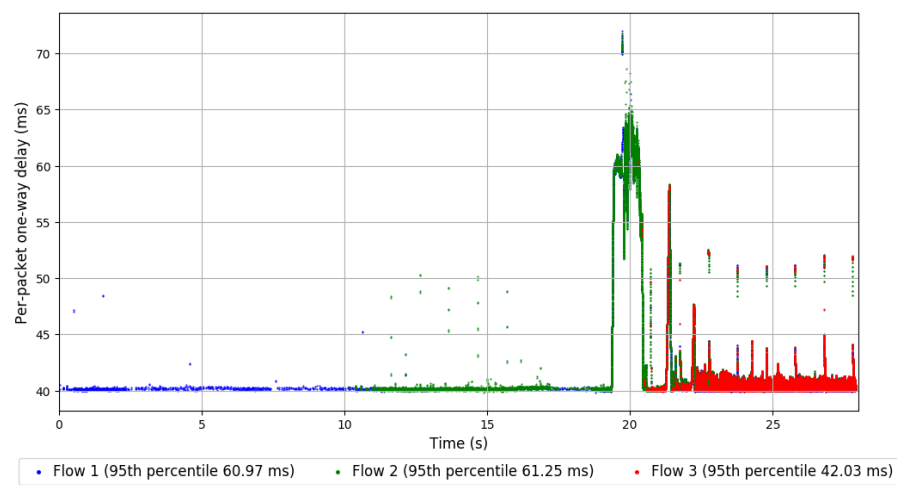
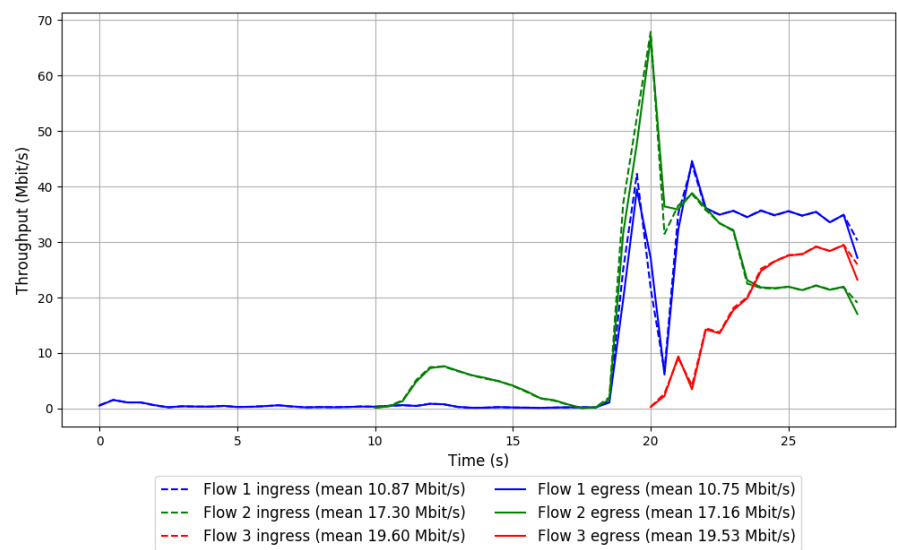
Run 2: Statistics of Copa

Start at: 2018-01-16 23:23:14  
End at: 2018-01-16 23:23:44  
Local clock offset: -1.523 ms  
Remote clock offset: -5.804 ms

# Below is generated by plot.py at 2018-01-17 07:01:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 27.02 Mbit/s  
95th percentile per-packet one-way delay: 60.583 ms  
Loss rate: 1.43%  
-- Flow 1:  
Average throughput: 10.75 Mbit/s  
95th percentile per-packet one-way delay: 60.968 ms  
Loss rate: 1.44%  
-- Flow 2:  
Average throughput: 17.16 Mbit/s  
95th percentile per-packet one-way delay: 61.253 ms  
Loss rate: 1.28%  
-- Flow 3:  
Average throughput: 19.53 Mbit/s  
95th percentile per-packet one-way delay: 42.033 ms  
Loss rate: 1.70%



Run 2: Report of Copa — Data Link

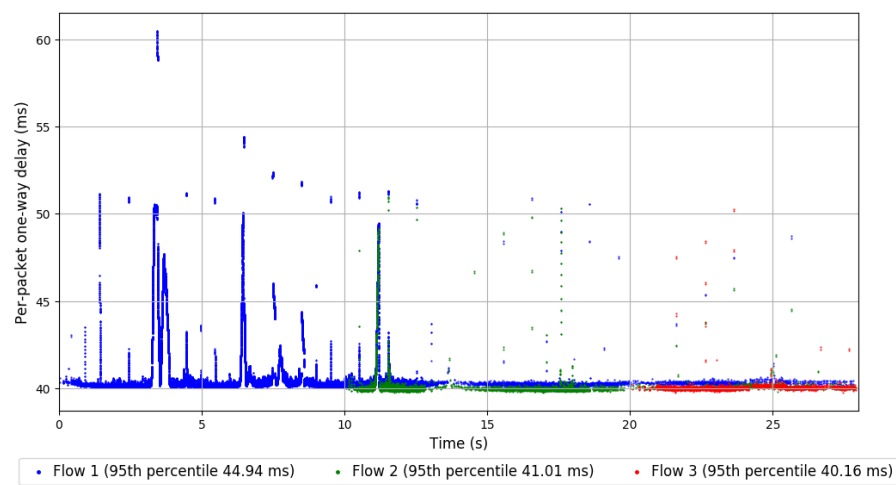
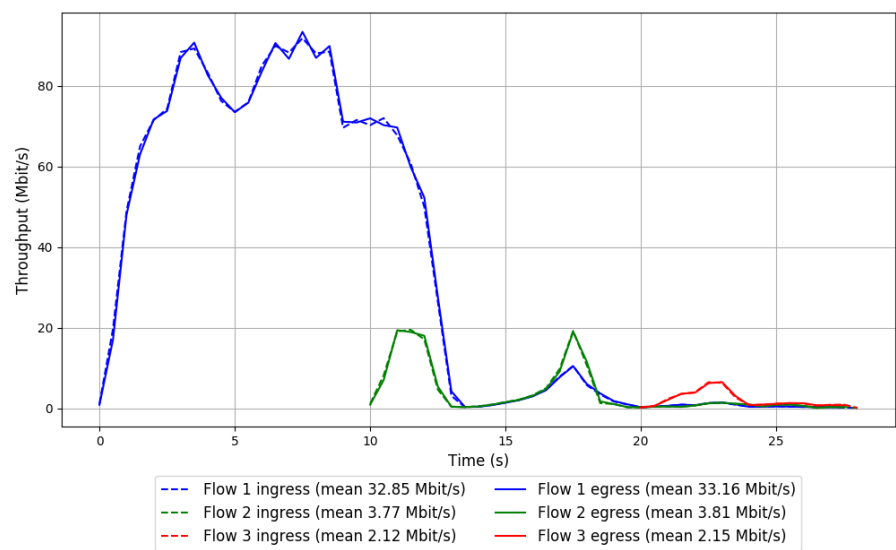


Run 3: Statistics of Copa

Start at: 2018-01-16 23:46:18  
End at: 2018-01-16 23:46:48  
Local clock offset: -1.485 ms  
Remote clock offset: -5.076 ms

# Below is generated by plot.py at 2018-01-17 07:01:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 36.11 Mbit/s  
95th percentile per-packet one-way delay: 44.745 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 33.16 Mbit/s  
95th percentile per-packet one-way delay: 44.944 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 3.81 Mbit/s  
95th percentile per-packet one-way delay: 41.014 ms  
Loss rate: 0.13%  
-- Flow 3:  
Average throughput: 2.15 Mbit/s  
95th percentile per-packet one-way delay: 40.165 ms  
Loss rate: 0.99%

Run 3: Report of Copa — Data Link

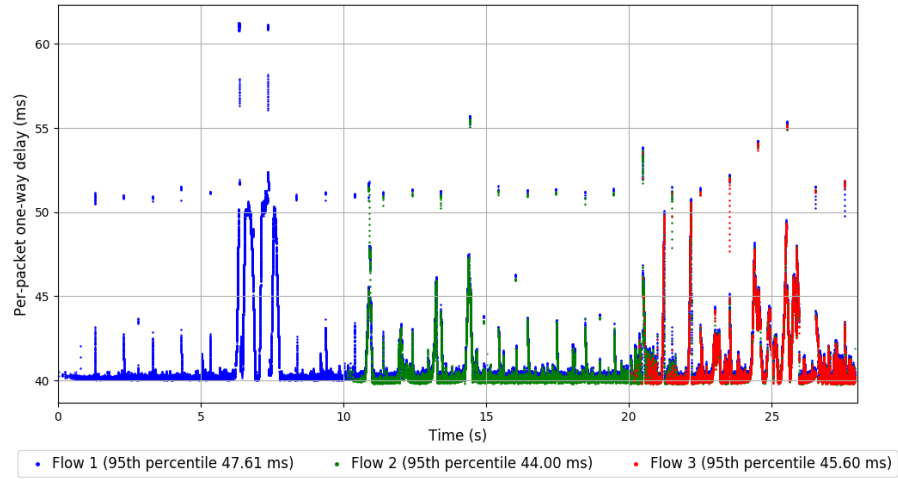
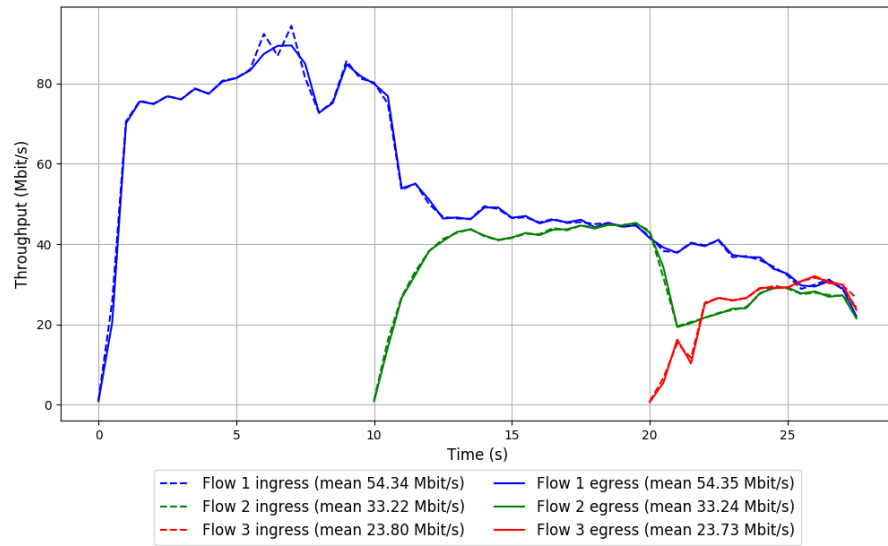


Run 4: Statistics of Copa

Start at: 2018-01-17 00:09:10  
End at: 2018-01-17 00:09:40  
Local clock offset: -1.592 ms  
Remote clock offset: -5.832 ms

# Below is generated by plot.py at 2018-01-17 07:02:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.31 Mbit/s  
95th percentile per-packet one-way delay: 45.865 ms  
Loss rate: 0.42%  
-- Flow 1:  
Average throughput: 54.35 Mbit/s  
95th percentile per-packet one-way delay: 47.608 ms  
Loss rate: 0.31%  
-- Flow 2:  
Average throughput: 33.24 Mbit/s  
95th percentile per-packet one-way delay: 44.003 ms  
Loss rate: 0.40%  
-- Flow 3:  
Average throughput: 23.73 Mbit/s  
95th percentile per-packet one-way delay: 45.605 ms  
Loss rate: 1.39%

# Run 4: Report of Copa — Data Link

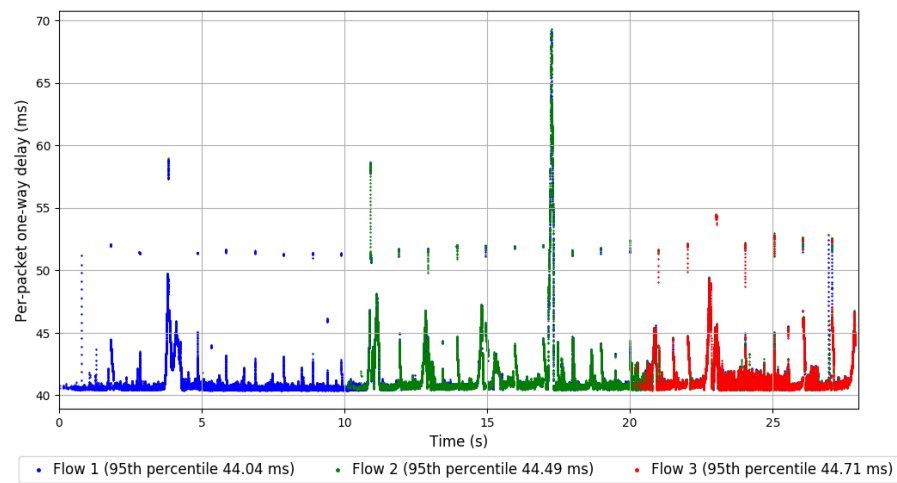
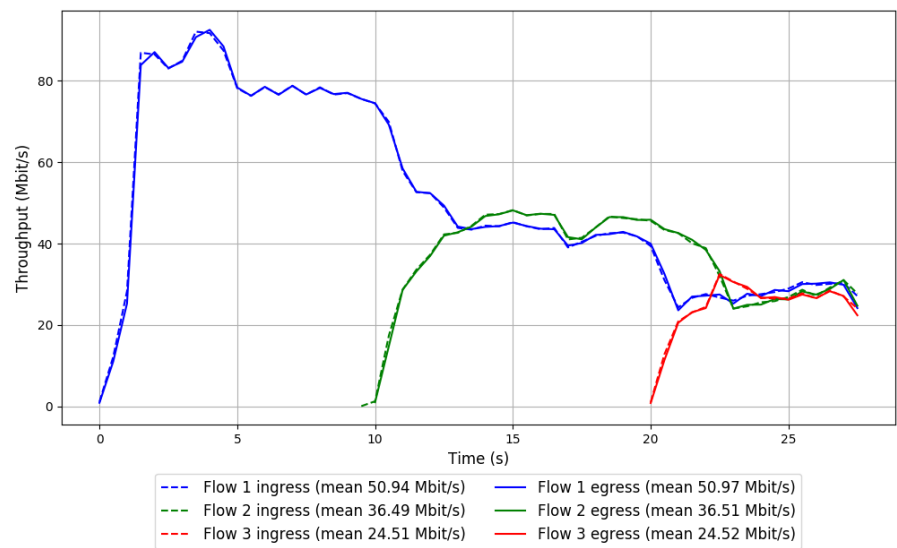


Run 5: Statistics of Copa

Start at: 2018-01-17 00:32:25  
End at: 2018-01-17 00:32:55  
Local clock offset: -1.509 ms  
Remote clock offset: -6.711 ms

# Below is generated by plot.py at 2018-01-17 07:02:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.26 Mbit/s  
95th percentile per-packet one-way delay: 44.244 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 50.97 Mbit/s  
95th percentile per-packet one-way delay: 44.041 ms  
Loss rate: 0.26%  
-- Flow 2:  
Average throughput: 36.51 Mbit/s  
95th percentile per-packet one-way delay: 44.486 ms  
Loss rate: 0.47%  
-- Flow 3:  
Average throughput: 24.52 Mbit/s  
95th percentile per-packet one-way delay: 44.712 ms  
Loss rate: 1.04%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-17 00:55:47

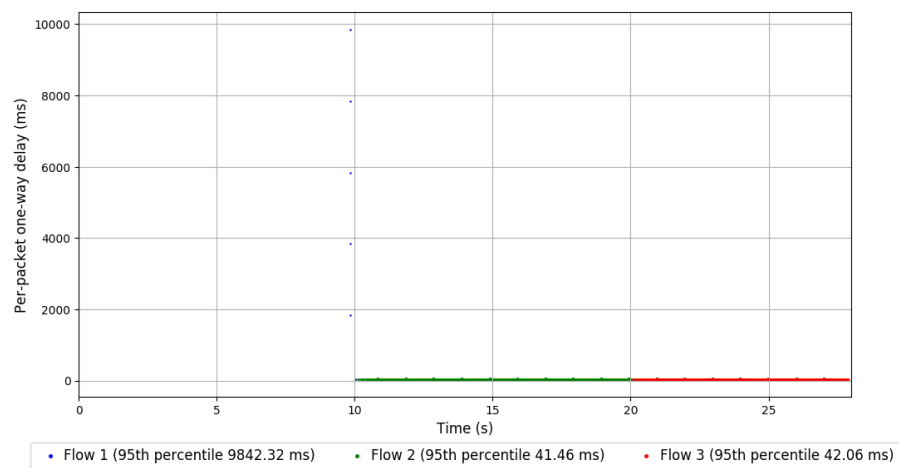
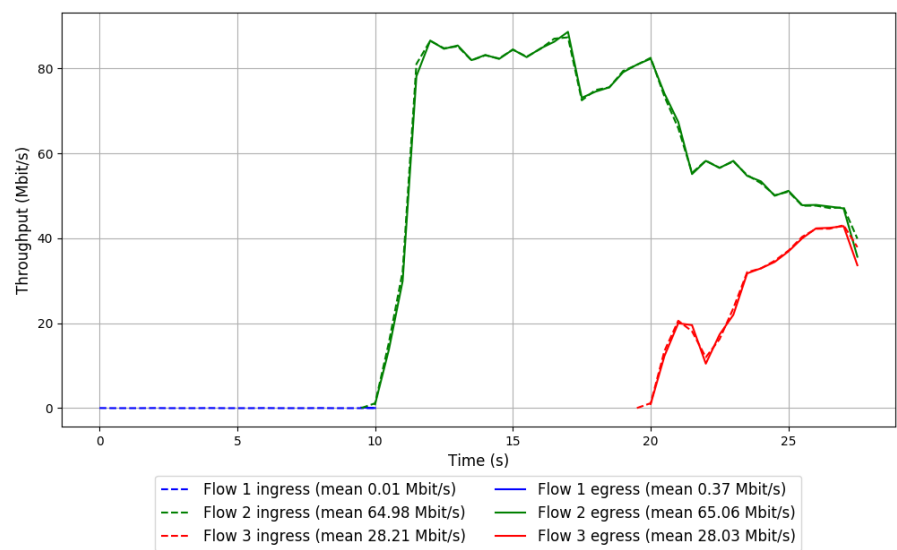
End at: 2018-01-17 00:56:17

Local clock offset: -1.501 ms

Remote clock offset: -6.188 ms



Run 6: Report of Copa — Data Link

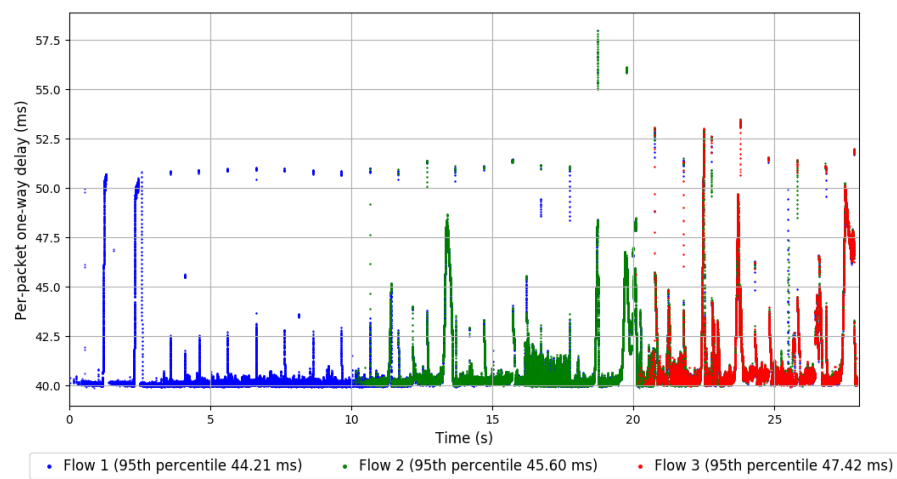
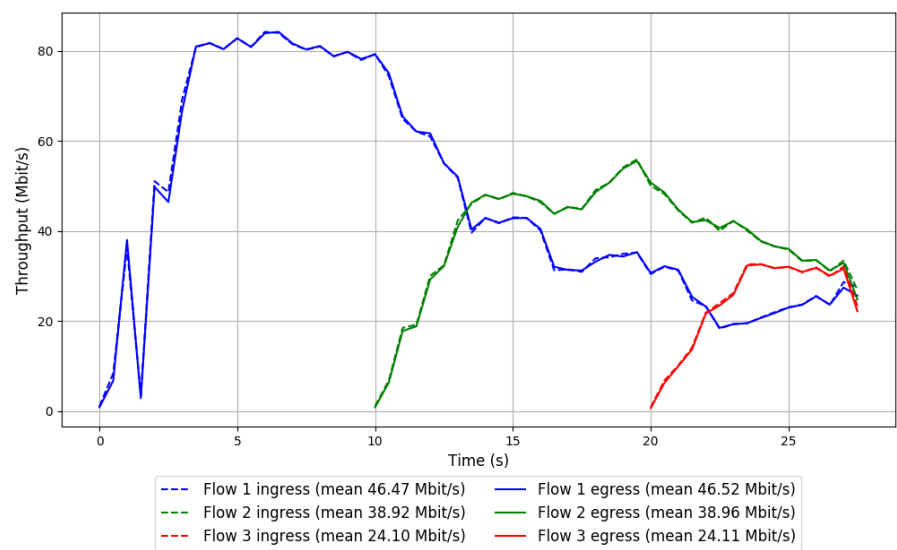


Run 7: Statistics of Copa

Start at: 2018-01-17 01:18:58  
End at: 2018-01-17 01:19:28  
Local clock offset: -2.134 ms  
Remote clock offset: -5.819 ms

# Below is generated by plot.py at 2018-01-17 07:02:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.25 Mbit/s  
95th percentile per-packet one-way delay: 45.232 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 46.52 Mbit/s  
95th percentile per-packet one-way delay: 44.209 ms  
Loss rate: 0.20%  
-- Flow 2:  
Average throughput: 38.96 Mbit/s  
95th percentile per-packet one-way delay: 45.604 ms  
Loss rate: 0.38%  
-- Flow 3:  
Average throughput: 24.11 Mbit/s  
95th percentile per-packet one-way delay: 47.423 ms  
Loss rate: 1.10%

Run 7: Report of Copa — Data Link

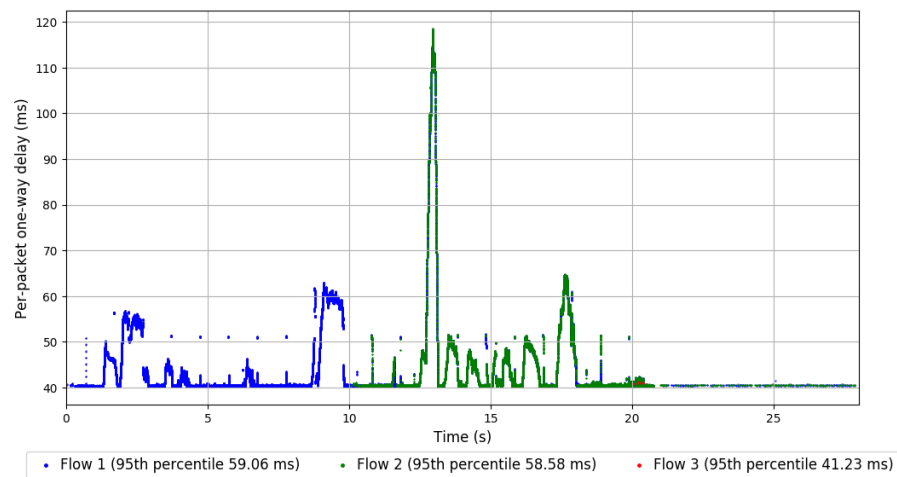
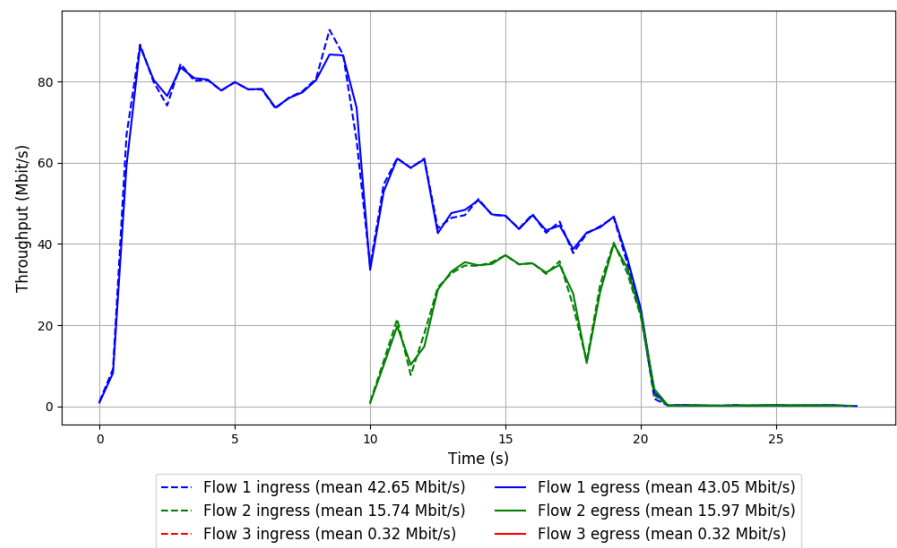


Run 8: Statistics of Copa

Start at: 2018-01-17 01:42:14  
End at: 2018-01-17 01:42:44  
Local clock offset: -1.425 ms  
Remote clock offset: -6.166 ms

```
# Below is generated by plot.py at 2018-01-17 07:02:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.27 Mbit/s
95th percentile per-packet one-way delay: 59.049 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 59.061 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 15.97 Mbit/s
95th percentile per-packet one-way delay: 58.580 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 41.227 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link

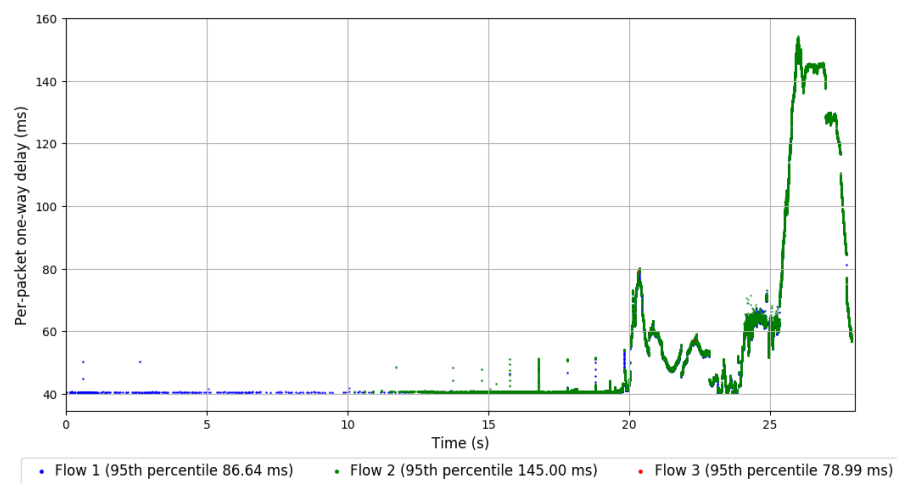
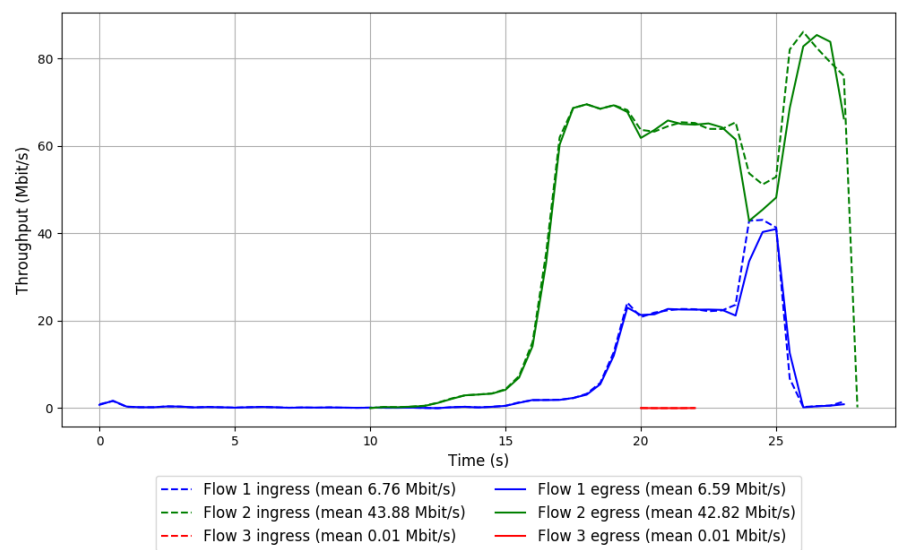


Run 9: Statistics of Copa

Start at: 2018-01-17 02:05:27  
End at: 2018-01-17 02:05:57  
Local clock offset: -1.234 ms  
Remote clock offset: -6.115 ms

# Below is generated by plot.py at 2018-01-17 07:02:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 33.71 Mbit/s  
95th percentile per-packet one-way delay: 144.847 ms  
Loss rate: 3.17%  
-- Flow 1:  
Average throughput: 6.59 Mbit/s  
95th percentile per-packet one-way delay: 86.637 ms  
Loss rate: 3.08%  
-- Flow 2:  
Average throughput: 42.82 Mbit/s  
95th percentile per-packet one-way delay: 144.999 ms  
Loss rate: 3.19%  
-- Flow 3:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 78.990 ms  
Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-17 02:30:05

End at: 2018-01-17 02:30:35

Local clock offset: -1.638 ms

Remote clock offset: -5.35 ms

# Below is generated by plot.py at 2018-01-17 07:02:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 24.87 Mbit/s

95th percentile per-packet one-way delay: 42.536 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 14.72 Mbit/s

95th percentile per-packet one-way delay: 42.063 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 11.79 Mbit/s

95th percentile per-packet one-way delay: 42.945 ms

Loss rate: 0.48%

-- Flow 3:

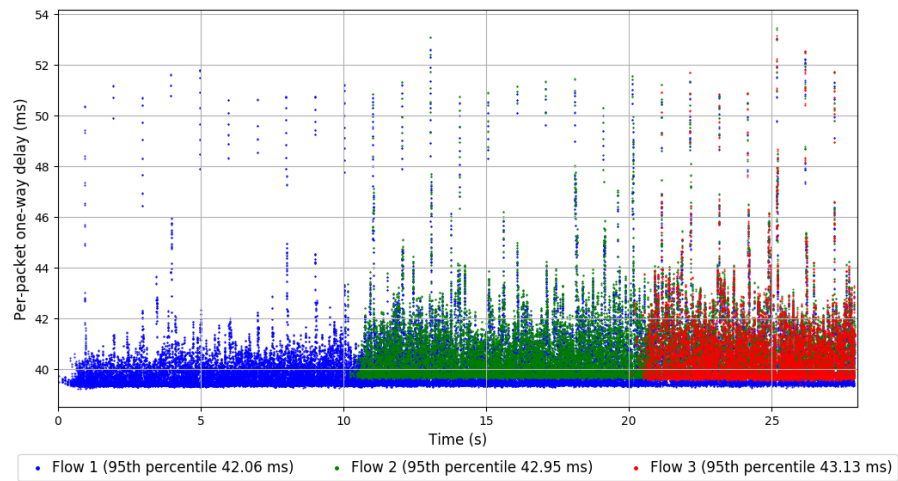
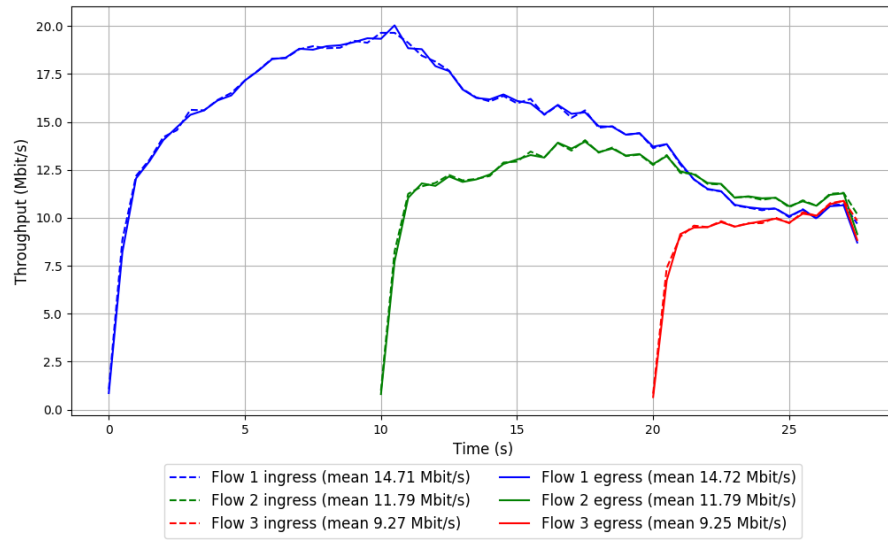
Average throughput: 9.25 Mbit/s

95th percentile per-packet one-way delay: 43.127 ms

Loss rate: 1.32%



## Run 10: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2018-01-16 22:54:05

End at: 2018-01-16 22:54:35

Local clock offset: -1.106 ms

Remote clock offset: -7.304 ms

Run 1: Report of FillP — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of FillP

Start at: 2018-01-16 23:16:53

End at: 2018-01-16 23:17:23

Local clock offset: -1.785 ms

Remote clock offset: -6.19 ms

Run 2: Report of FillP — Data Link

Figure is missing

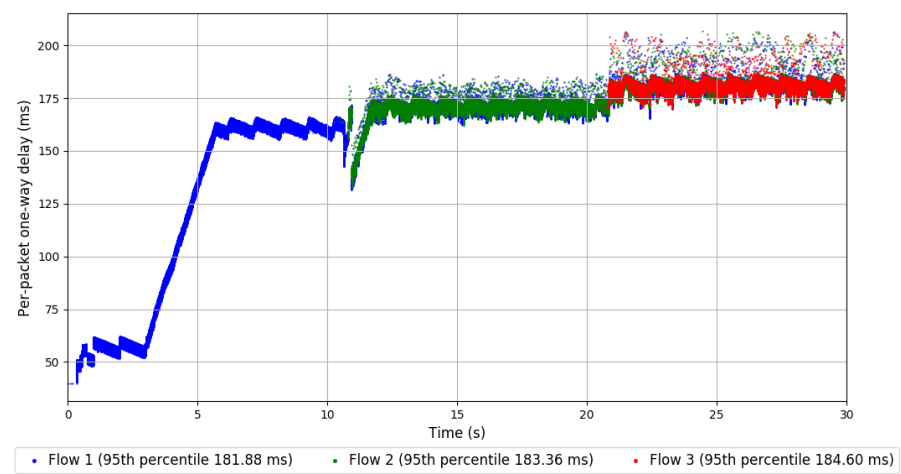
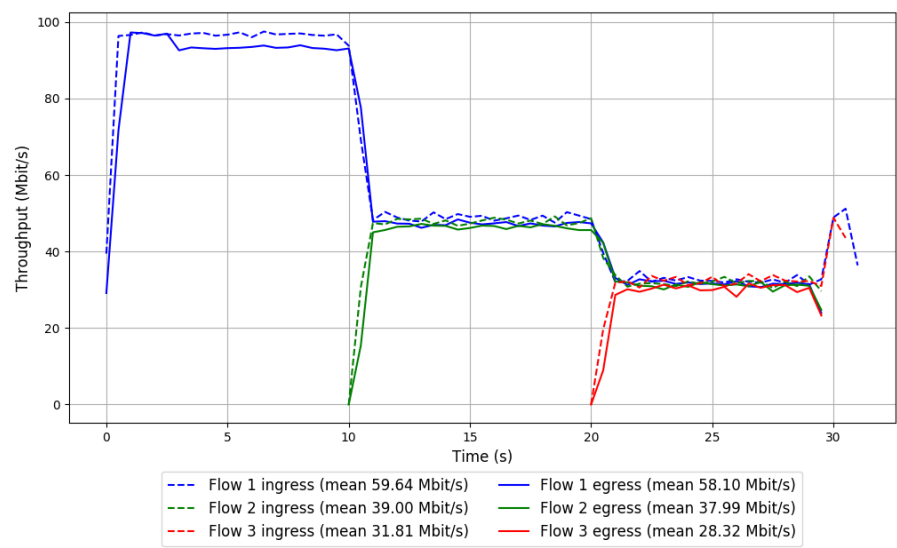
Figure is missing

Run 3: Statistics of FillP

Start at: 2018-01-16 23:39:35  
End at: 2018-01-16 23:40:05  
Local clock offset: -1.214 ms  
Remote clock offset: -5.214 ms

# Below is generated by plot.py at 2018-01-17 07:02:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.26 Mbit/s  
95th percentile per-packet one-way delay: 183.020 ms  
Loss rate: 7.84%  
-- Flow 1:  
Average throughput: 58.10 Mbit/s  
95th percentile per-packet one-way delay: 181.883 ms  
Loss rate: 7.07%  
-- Flow 2:  
Average throughput: 37.99 Mbit/s  
95th percentile per-packet one-way delay: 183.359 ms  
Loss rate: 3.78%  
-- Flow 3:  
Average throughput: 28.32 Mbit/s  
95th percentile per-packet one-way delay: 184.601 ms  
Loss rate: 21.08%

Run 3: Report of FillP — Data Link



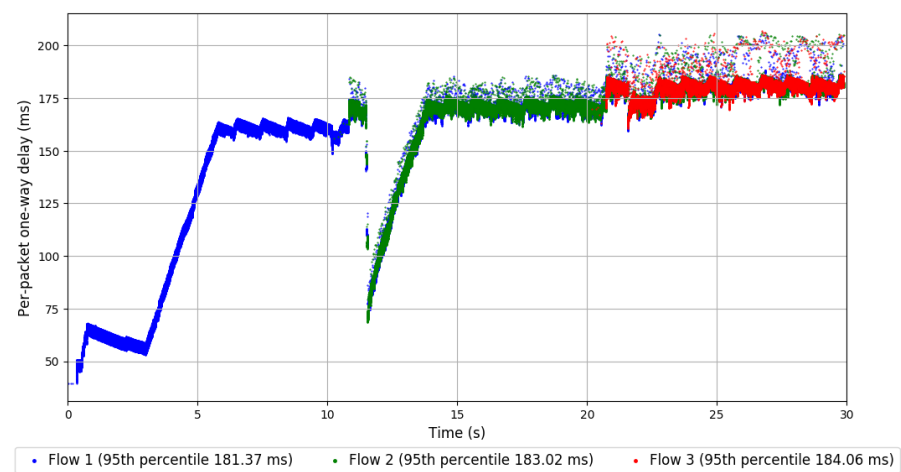
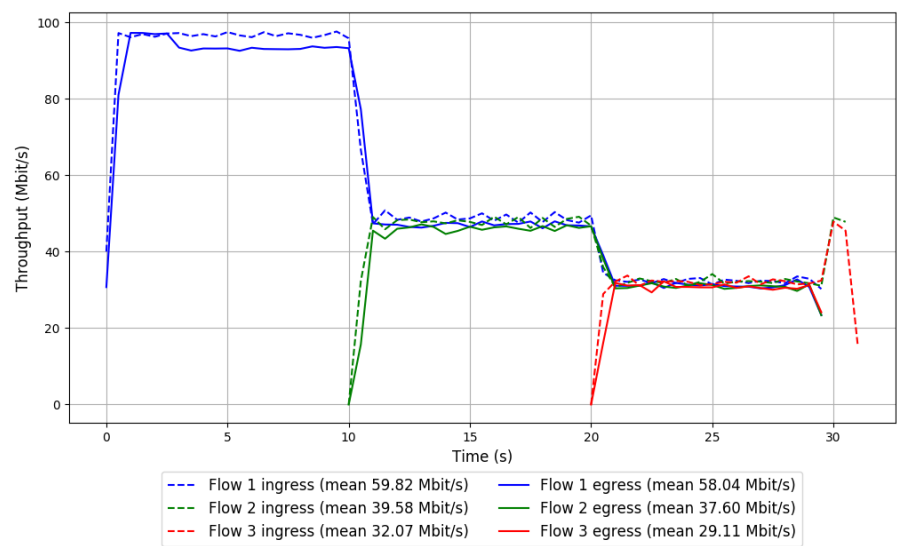
Run 4: Statistics of FillP

Start at: 2018-01-17 00:02:34  
End at: 2018-01-17 00:03:04  
Local clock offset: -1.497 ms  
Remote clock offset: -4.96 ms

# Below is generated by plot.py at 2018-01-17 07:03:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.21 Mbit/s  
95th percentile per-packet one-way delay: 182.563 ms  
Loss rate: 7.58%  
-- Flow 1:  
Average throughput: 58.04 Mbit/s  
95th percentile per-packet one-way delay: 181.373 ms  
Loss rate: 3.44%  
-- Flow 2:  
Average throughput: 37.60 Mbit/s  
95th percentile per-packet one-way delay: 183.023 ms  
Loss rate: 10.65%  
-- Flow 3:  
Average throughput: 29.11 Mbit/s  
95th percentile per-packet one-way delay: 184.055 ms  
Loss rate: 21.20%



Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-17 00:25:52

End at: 2018-01-17 00:26:22

Local clock offset: -1.776 ms

Remote clock offset: -6.739 ms

Run 5: Report of FillP — Data Link

Figure is missing

Figure is missing

Run 6: Statistics of FillP

Start at: 2018-01-17 00:48:47

End at: 2018-01-17 00:49:17

Local clock offset: -1.874 ms

Remote clock offset: -6.28 ms

Run 6: Report of FillP — Data Link

Figure is missing

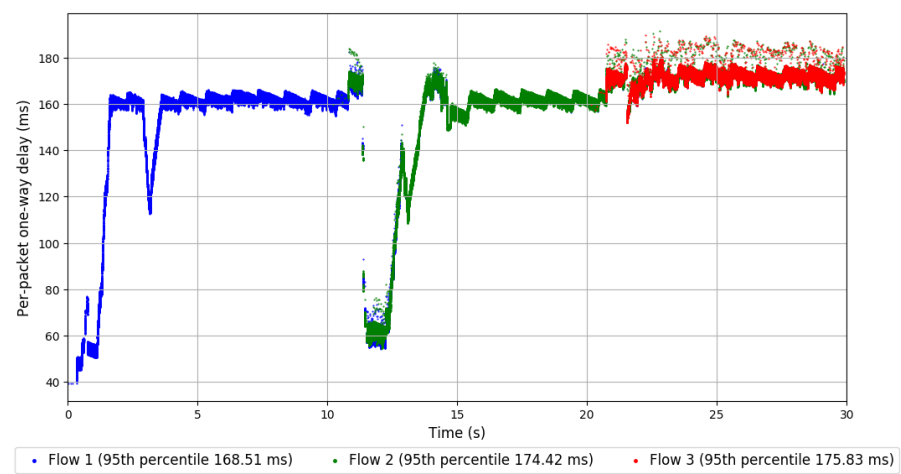
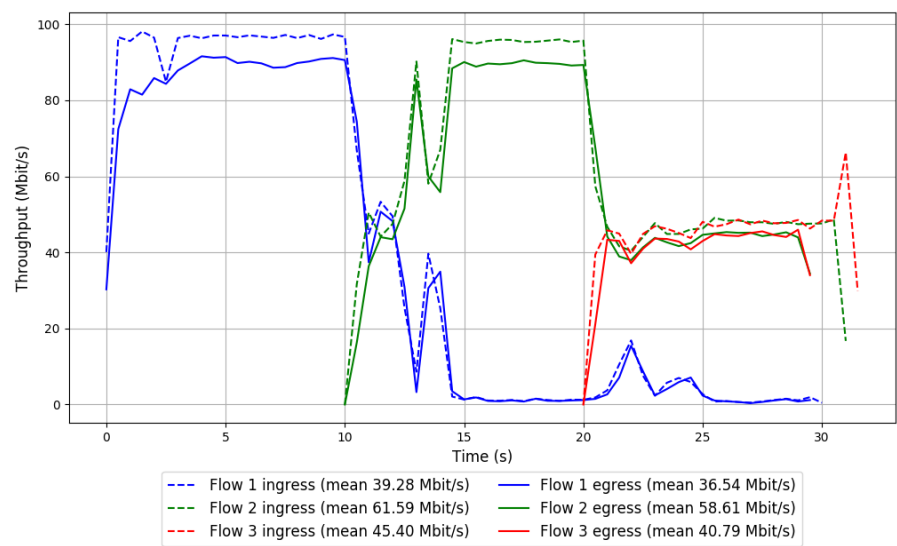
Figure is missing

Run 7: Statistics of FillP

Start at: 2018-01-17 01:12:07  
End at: 2018-01-17 01:12:37  
Local clock offset: -1.905 ms  
Remote clock offset: -5.694 ms

# Below is generated by plot.py at 2018-01-17 07:03:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.42 Mbit/s  
95th percentile per-packet one-way delay: 174.366 ms  
Loss rate: 12.51%  
-- Flow 1:  
Average throughput: 36.54 Mbit/s  
95th percentile per-packet one-way delay: 168.510 ms  
Loss rate: 7.87%  
-- Flow 2:  
Average throughput: 58.61 Mbit/s  
95th percentile per-packet one-way delay: 174.416 ms  
Loss rate: 11.32%  
-- Flow 3:  
Average throughput: 40.79 Mbit/s  
95th percentile per-packet one-way delay: 175.834 ms  
Loss rate: 25.71%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-17 01:35:37

End at: 2018-01-17 01:36:07

Local clock offset: -1.668 ms

Remote clock offset: -6.069 ms



Run 8: Report of FillP — Data Link

Figure is missing

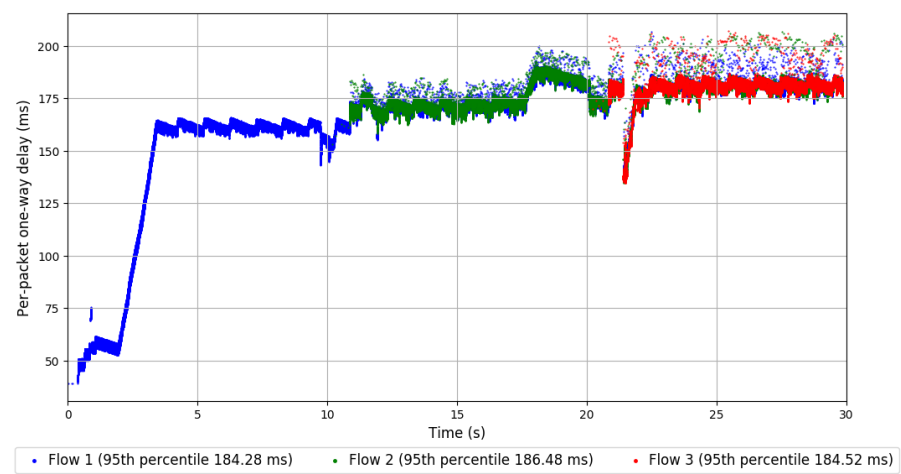
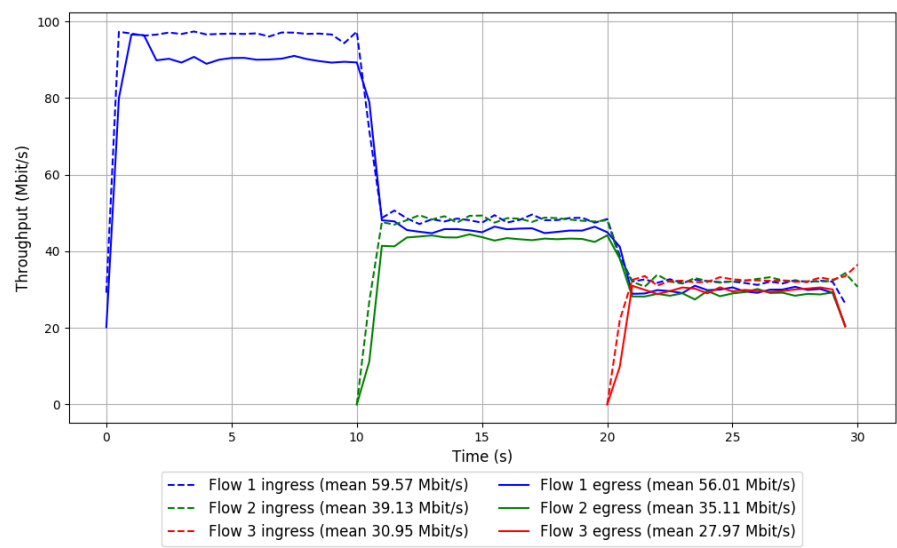
Figure is missing

Run 9: Statistics of FillP

Start at: 2018-01-17 01:59:03  
End at: 2018-01-17 01:59:33  
Local clock offset: -2.092 ms  
Remote clock offset: -6.146 ms

# Below is generated by plot.py at 2018-01-17 07:03:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.22 Mbit/s  
95th percentile per-packet one-way delay: 185.073 ms  
Loss rate: 9.38%  
-- Flow 1:  
Average throughput: 56.01 Mbit/s  
95th percentile per-packet one-way delay: 184.278 ms  
Loss rate: 6.33%  
-- Flow 2:  
Average throughput: 35.11 Mbit/s  
95th percentile per-packet one-way delay: 186.482 ms  
Loss rate: 13.48%  
-- Flow 3:  
Average throughput: 27.97 Mbit/s  
95th percentile per-packet one-way delay: 184.521 ms  
Loss rate: 16.13%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

/home/ubuntu/pantheon\_data/2018-01-16T22-53-China-to-AWS-Korea-10-runs-3-flows/fillp\_stats\_1

Run 10: Report of FillP — Data Link

Figure is missing

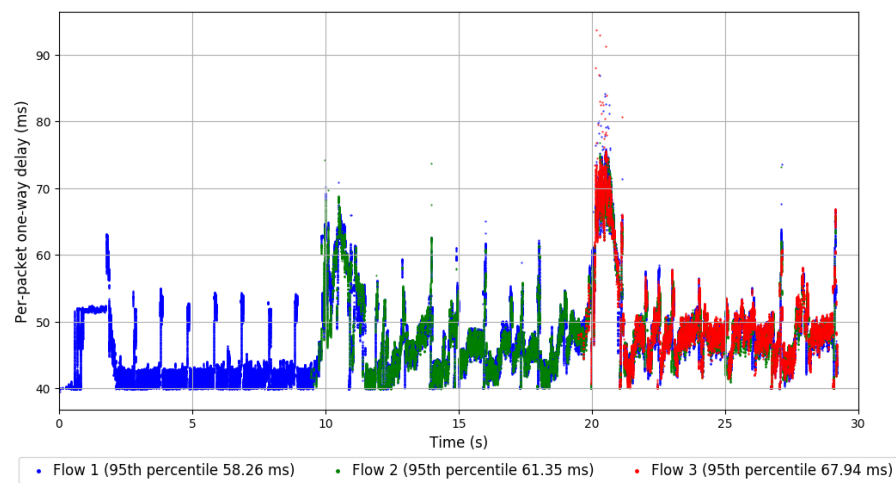
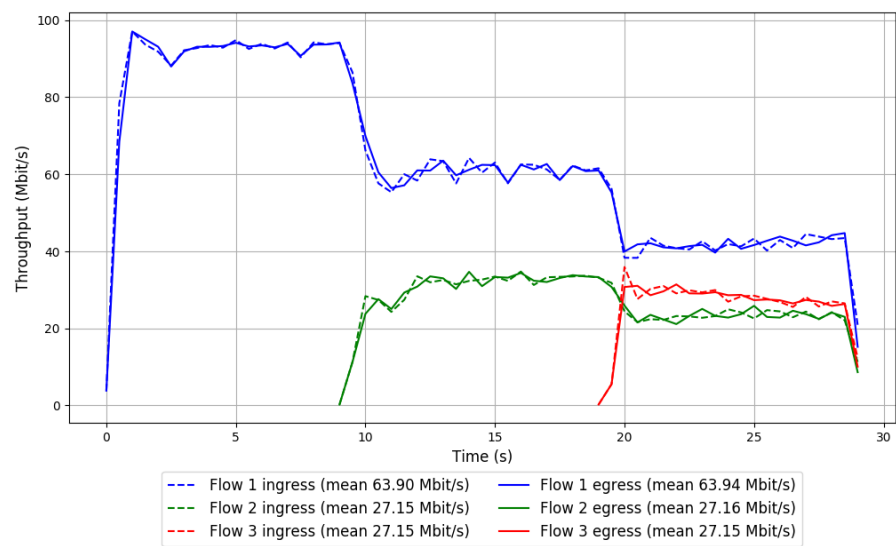
Figure is missing

```
Run 1: Statistics of Indigo

Start at: 2018-01-16 23:05:34
End at: 2018-01-16 23:06:04
Local clock offset: -1.293 ms
Remote clock offset: -6.725 ms

# Below is generated by plot.py at 2018-01-17 07:03:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.35 Mbit/s
95th percentile per-packet one-way delay: 59.835 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 63.94 Mbit/s
95th percentile per-packet one-way delay: 58.262 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 27.16 Mbit/s
95th percentile per-packet one-way delay: 61.352 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 27.15 Mbit/s
95th percentile per-packet one-way delay: 67.939 ms
Loss rate: 0.96%
```

Run 1: Report of Indigo — Data Link



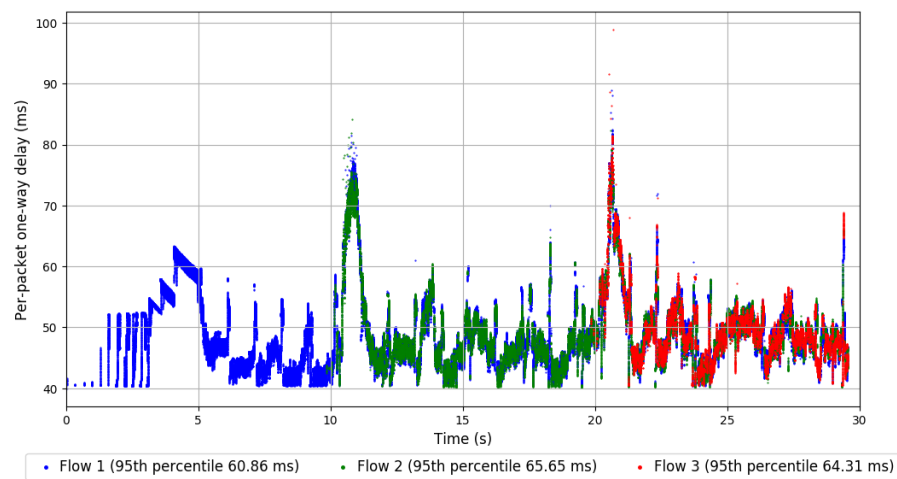
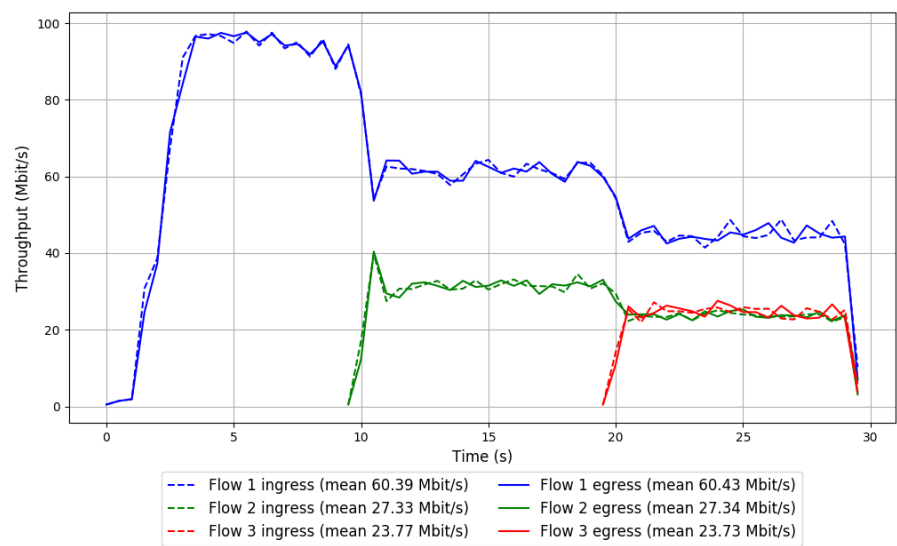
Run 2: Statistics of Indigo

Start at: 2018-01-16 23:28:15  
End at: 2018-01-16 23:28:45  
Local clock offset: -1.178 ms  
Remote clock offset: -5.544 ms

# Below is generated by plot.py at 2018-01-17 07:04:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.47 Mbit/s  
95th percentile per-packet one-way delay: 61.357 ms  
Loss rate: 0.34%  
-- Flow 1:  
Average throughput: 60.43 Mbit/s  
95th percentile per-packet one-way delay: 60.859 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 27.34 Mbit/s  
95th percentile per-packet one-way delay: 65.653 ms  
Loss rate: 0.42%  
-- Flow 3:  
Average throughput: 23.73 Mbit/s  
95th percentile per-packet one-way delay: 64.306 ms  
Loss rate: 0.96%



Run 2: Report of Indigo — Data Link

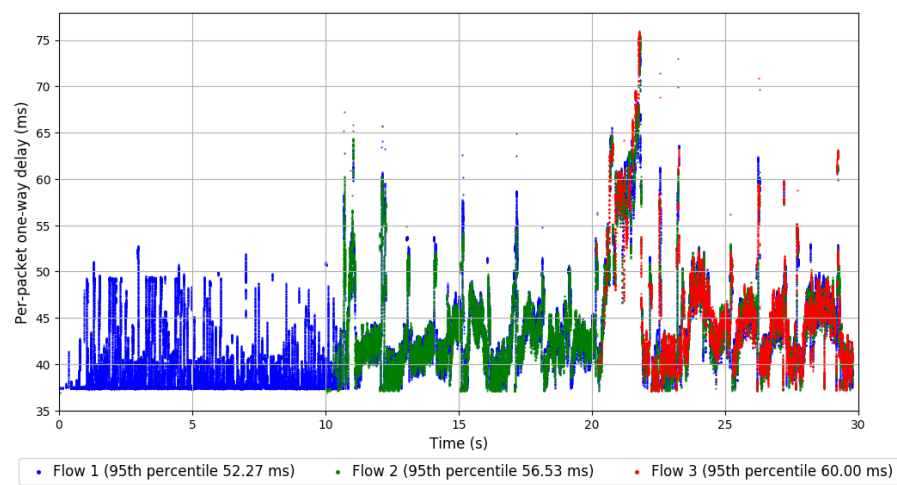
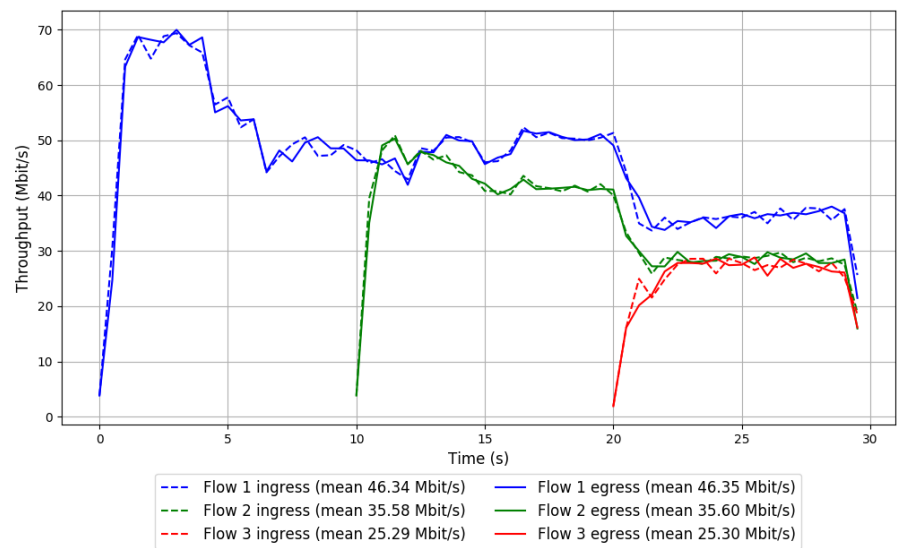


Run 3: Statistics of Indigo

Start at: 2018-01-16 23:51:18  
End at: 2018-01-16 23:51:48  
Local clock offset: -4.247 ms  
Remote clock offset: -5.026 ms

# Below is generated by plot.py at 2018-01-17 07:04:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.09 Mbit/s  
95th percentile per-packet one-way delay: 55.288 ms  
Loss rate: 0.36%  
-- Flow 1:  
Average throughput: 46.35 Mbit/s  
95th percentile per-packet one-way delay: 52.274 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 35.60 Mbit/s  
95th percentile per-packet one-way delay: 56.528 ms  
Loss rate: 0.36%  
-- Flow 3:  
Average throughput: 25.30 Mbit/s  
95th percentile per-packet one-way delay: 59.997 ms  
Loss rate: 0.97%

Run 3: Report of Indigo — Data Link

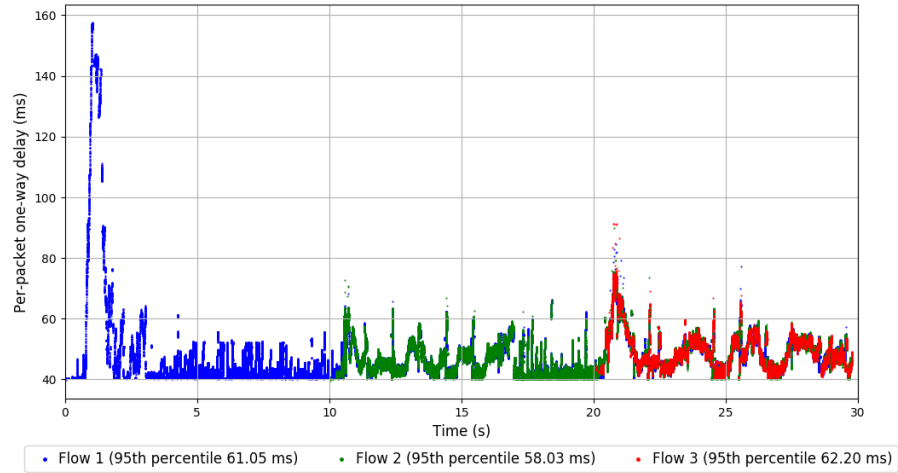
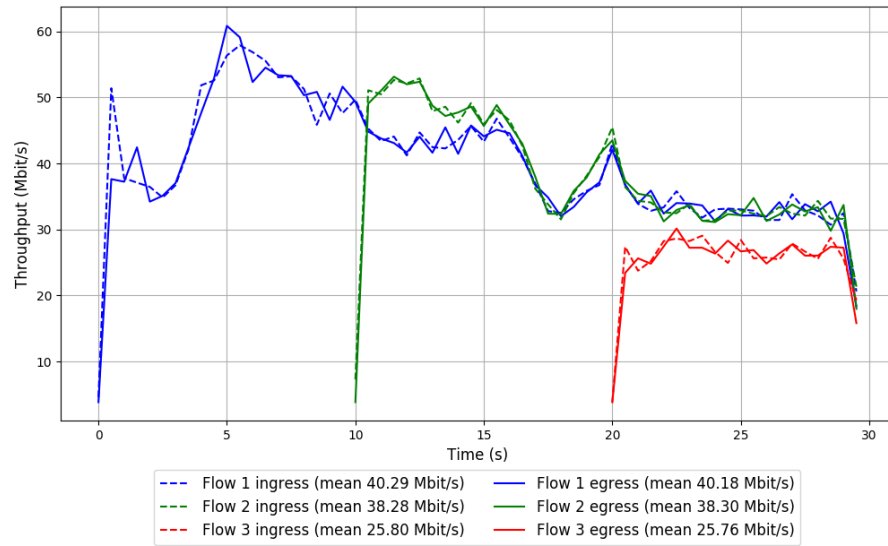


Run 4: Statistics of Indigo

Start at: 2018-01-17 00:14:24  
End at: 2018-01-17 00:14:54  
Local clock offset: -1.569 ms  
Remote clock offset: -6.296 ms

# Below is generated by plot.py at 2018-01-17 07:04:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.93 Mbit/s  
95th percentile per-packet one-way delay: 59.502 ms  
Loss rate: 0.56%  
-- Flow 1:  
Average throughput: 40.18 Mbit/s  
95th percentile per-packet one-way delay: 61.054 ms  
Loss rate: 0.57%  
-- Flow 2:  
Average throughput: 38.30 Mbit/s  
95th percentile per-packet one-way delay: 58.030 ms  
Loss rate: 0.39%  
-- Flow 3:  
Average throughput: 25.76 Mbit/s  
95th percentile per-packet one-way delay: 62.201 ms  
Loss rate: 1.06%

#### Run 4: Report of Indigo — Data Link

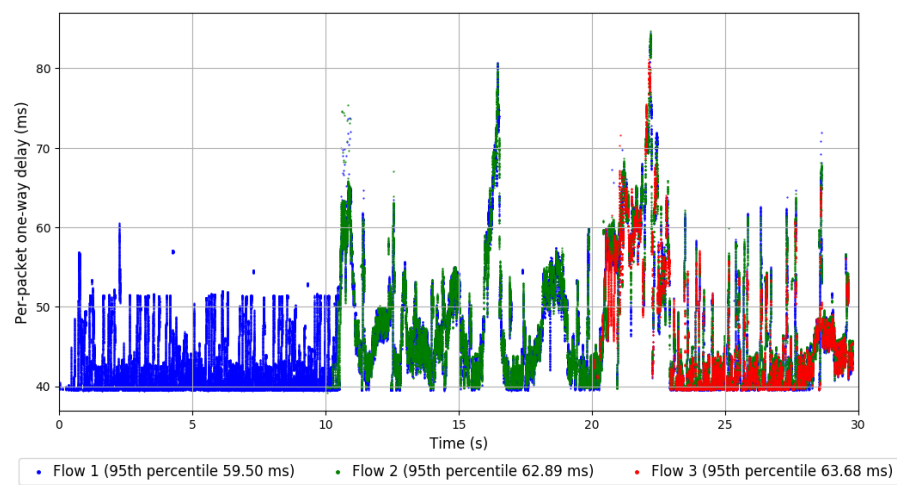
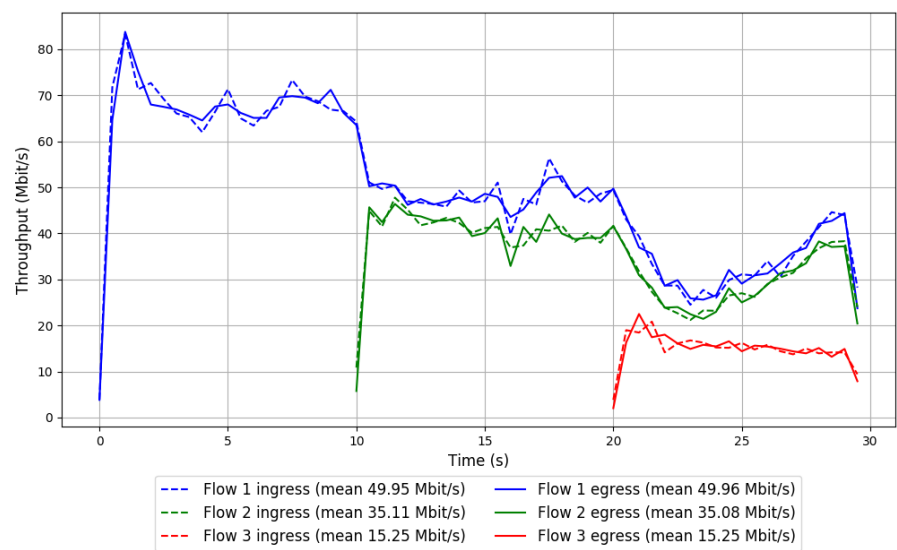


Run 5: Statistics of Indigo

Start at: 2018-01-17 00:37:19  
End at: 2018-01-17 00:37:49  
Local clock offset: -2.12 ms  
Remote clock offset: -6.524 ms

# Below is generated by plot.py at 2018-01-17 07:04:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.18 Mbit/s  
95th percentile per-packet one-way delay: 61.282 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 49.96 Mbit/s  
95th percentile per-packet one-way delay: 59.504 ms  
Loss rate: 0.27%  
-- Flow 2:  
Average throughput: 35.08 Mbit/s  
95th percentile per-packet one-way delay: 62.887 ms  
Loss rate: 0.51%  
-- Flow 3:  
Average throughput: 15.25 Mbit/s  
95th percentile per-packet one-way delay: 63.678 ms  
Loss rate: 0.82%

Run 5: Report of Indigo — Data Link



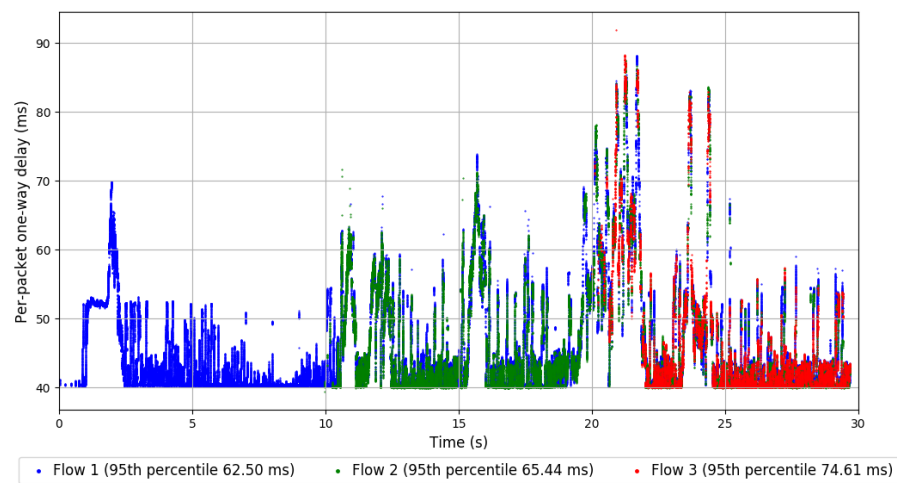
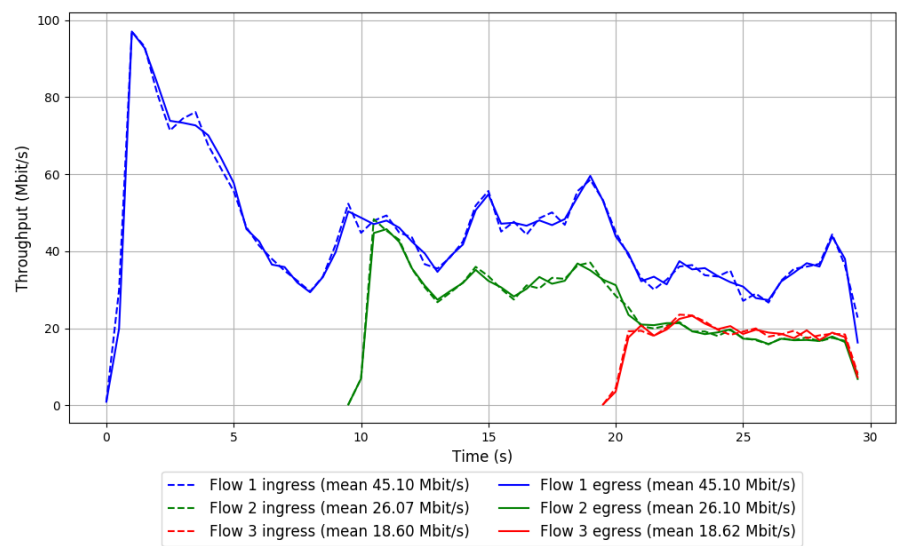
Run 6: Statistics of Indigo

Start at: 2018-01-17 01:00:51  
End at: 2018-01-17 01:01:21  
Local clock offset: -1.747 ms  
Remote clock offset: -5.951 ms

# Below is generated by plot.py at 2018-01-17 07:04:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.54 Mbit/s  
95th percentile per-packet one-way delay: 64.224 ms  
Loss rate: 0.35%  
-- Flow 1:  
Average throughput: 45.10 Mbit/s  
95th percentile per-packet one-way delay: 62.498 ms  
Loss rate: 0.30%  
-- Flow 2:  
Average throughput: 26.10 Mbit/s  
95th percentile per-packet one-way delay: 65.440 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 18.62 Mbit/s  
95th percentile per-packet one-way delay: 74.606 ms  
Loss rate: 0.91%



Run 6: Report of Indigo — Data Link

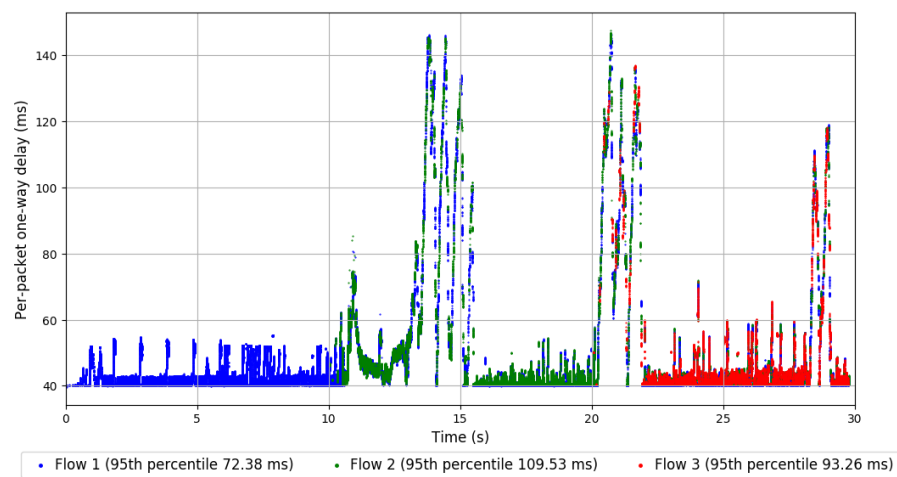
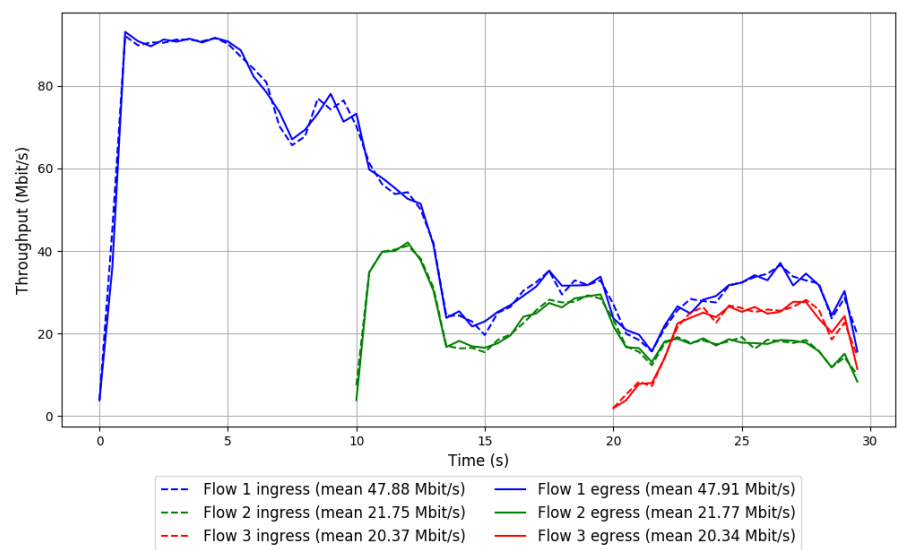


Run 7: Statistics of Indigo

Start at: 2018-01-17 01:24:22  
End at: 2018-01-17 01:24:52  
Local clock offset: -1.758 ms  
Remote clock offset: -5.895 ms

# Below is generated by plot.py at 2018-01-17 07:04:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.97 Mbit/s  
95th percentile per-packet one-way delay: 86.429 ms  
Loss rate: 0.34%  
-- Flow 1:  
Average throughput: 47.91 Mbit/s  
95th percentile per-packet one-way delay: 72.380 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 21.77 Mbit/s  
95th percentile per-packet one-way delay: 109.526 ms  
Loss rate: 0.37%  
-- Flow 3:  
Average throughput: 20.34 Mbit/s  
95th percentile per-packet one-way delay: 93.261 ms  
Loss rate: 1.08%

Run 7: Report of Indigo — Data Link

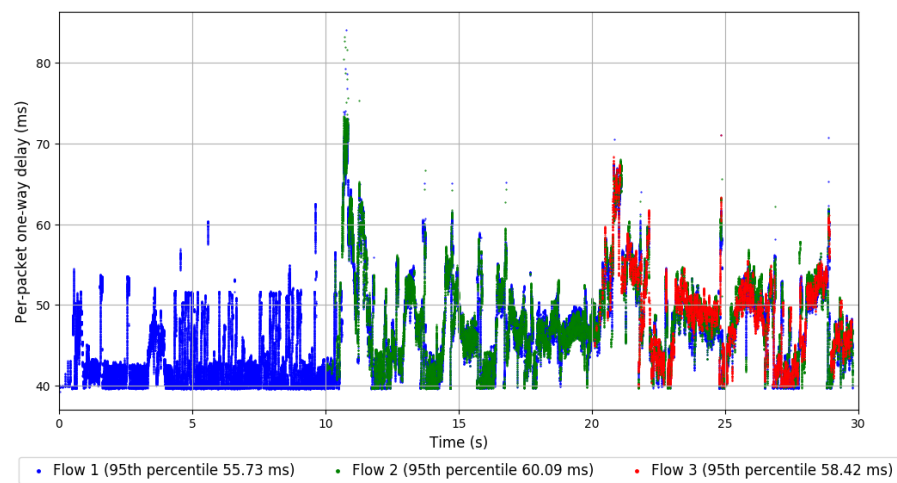
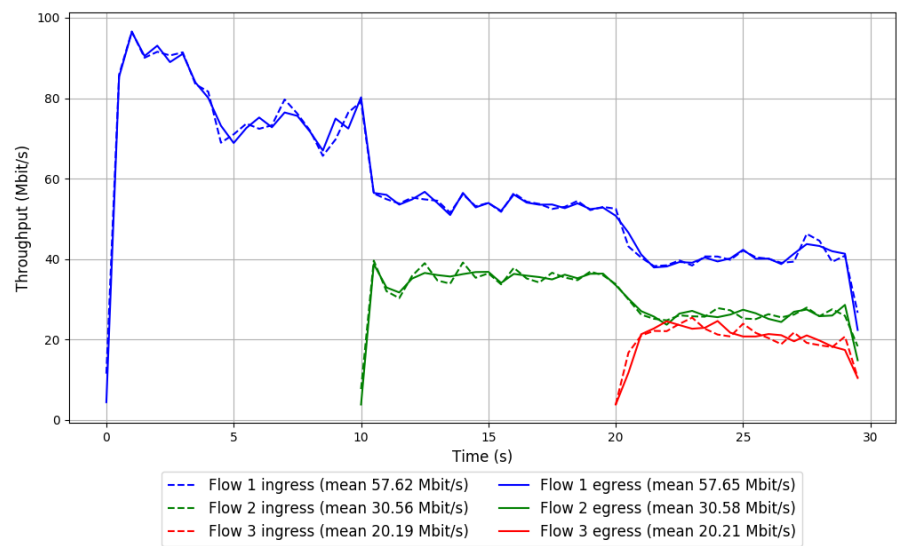


Run 8: Statistics of Indigo

Start at: 2018-01-17 01:47:36  
End at: 2018-01-17 01:48:06  
Local clock offset: -2.02 ms  
Remote clock offset: -6.111 ms

# Below is generated by plot.py at 2018-01-17 07:05:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.48 Mbit/s  
95th percentile per-packet one-way delay: 56.987 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 57.65 Mbit/s  
95th percentile per-packet one-way delay: 55.727 ms  
Loss rate: 0.22%  
-- Flow 2:  
Average throughput: 30.58 Mbit/s  
95th percentile per-packet one-way delay: 60.090 ms  
Loss rate: 0.41%  
-- Flow 3:  
Average throughput: 20.21 Mbit/s  
95th percentile per-packet one-way delay: 58.420 ms  
Loss rate: 0.88%

Run 8: Report of Indigo — Data Link

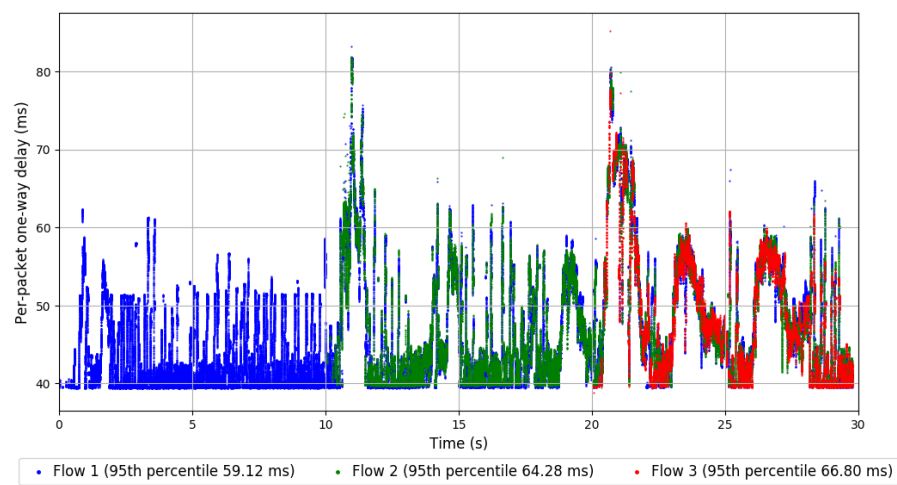
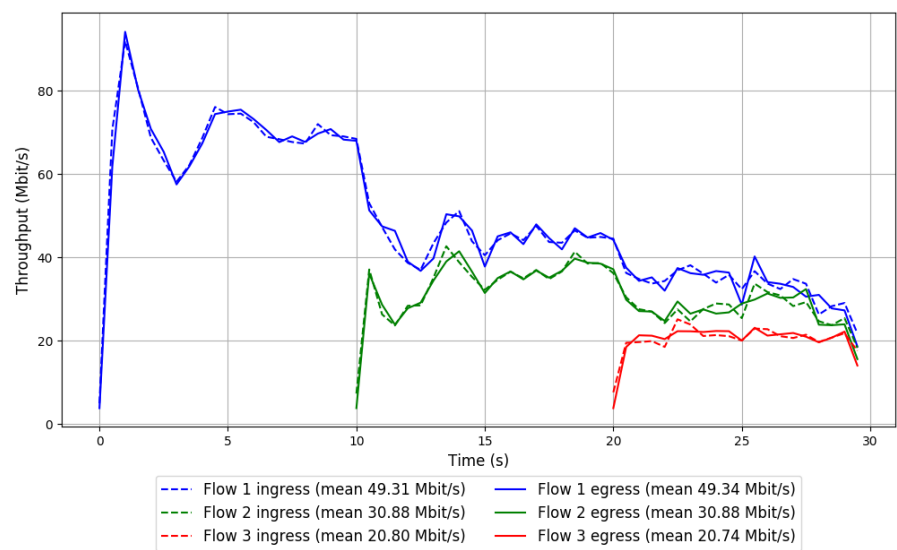


Run 9: Statistics of Indigo

Start at: 2018-01-17 02:10:40  
End at: 2018-01-17 02:11:10  
Local clock offset: -1.989 ms  
Remote clock offset: -5.835 ms

# Below is generated by plot.py at 2018-01-17 07:05:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.57 Mbit/s  
95th percentile per-packet one-way delay: 60.934 ms  
Loss rate: 0.37%  
-- Flow 1:  
Average throughput: 49.34 Mbit/s  
95th percentile per-packet one-way delay: 59.123 ms  
Loss rate: 0.22%  
-- Flow 2:  
Average throughput: 30.88 Mbit/s  
95th percentile per-packet one-way delay: 64.278 ms  
Loss rate: 0.45%  
-- Flow 3:  
Average throughput: 20.74 Mbit/s  
95th percentile per-packet one-way delay: 66.801 ms  
Loss rate: 1.18%

Run 9: Report of Indigo — Data Link



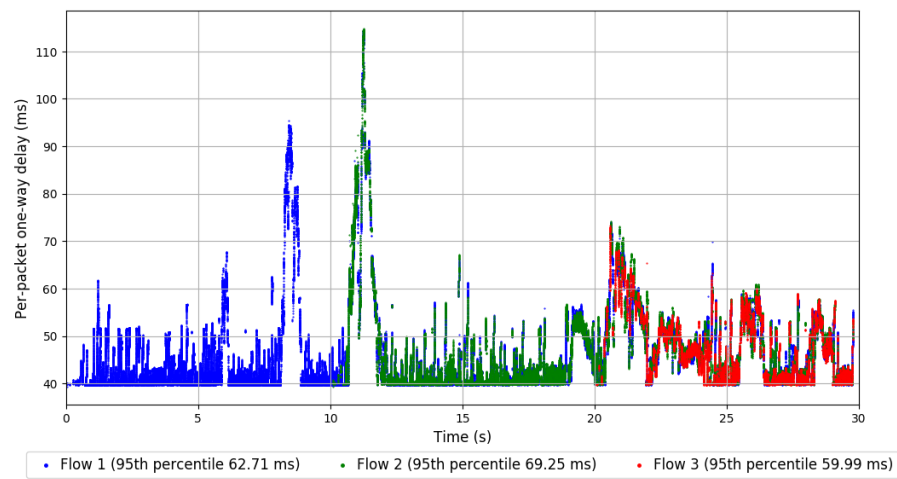
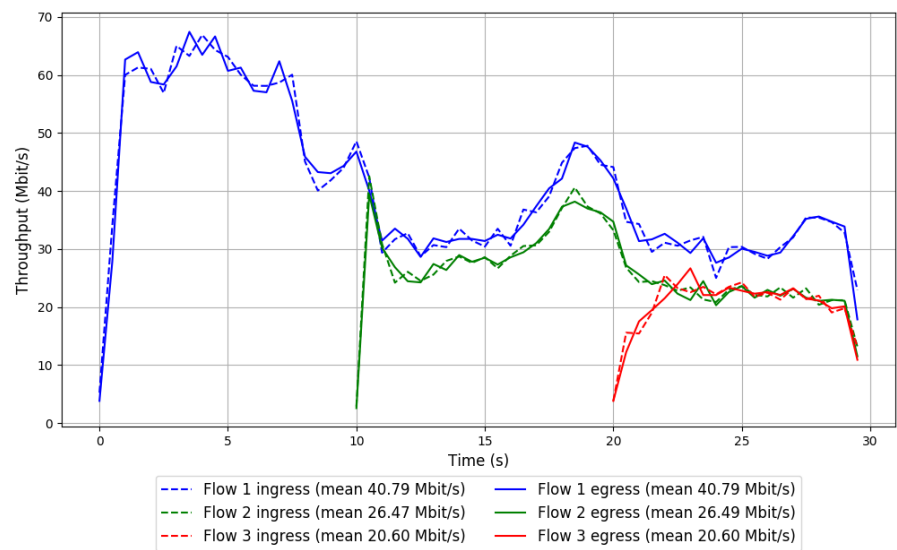
Run 10: Statistics of Indigo

Start at: 2018-01-17 02:35:38  
End at: 2018-01-17 02:36:08  
Local clock offset: -1.467 ms  
Remote clock offset: -5.182 ms

# Below is generated by plot.py at 2018-01-17 07:05:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.03 Mbit/s  
95th percentile per-packet one-way delay: 63.875 ms  
Loss rate: 0.37%  
-- Flow 1:  
Average throughput: 40.79 Mbit/s  
95th percentile per-packet one-way delay: 62.708 ms  
Loss rate: 0.29%  
-- Flow 2:  
Average throughput: 26.49 Mbit/s  
95th percentile per-packet one-way delay: 69.245 ms  
Loss rate: 0.37%  
-- Flow 3:  
Average throughput: 20.60 Mbit/s  
95th percentile per-packet one-way delay: 59.988 ms  
Loss rate: 0.89%



Run 10: Report of Indigo — Data Link



Run 1: Statistics of Vivace-latency

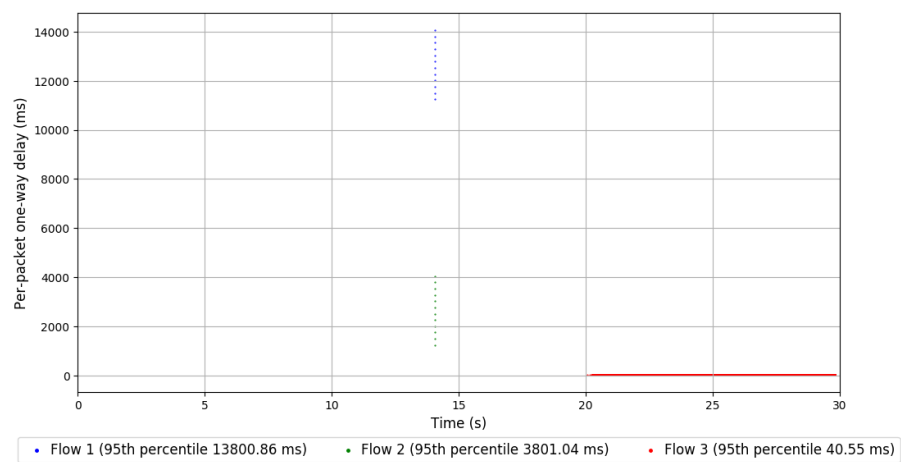
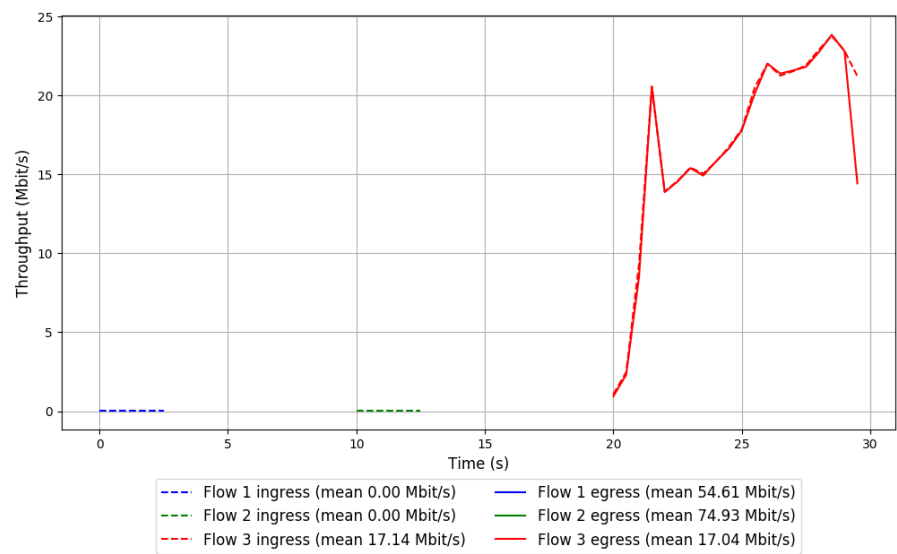
Start at: 2018-01-16 23:09:22

End at: 2018-01-16 23:09:52

Local clock offset: -1.247 ms

Remote clock offset: -6.536 ms

Run 1: Report of Vivace-latency — Data Link

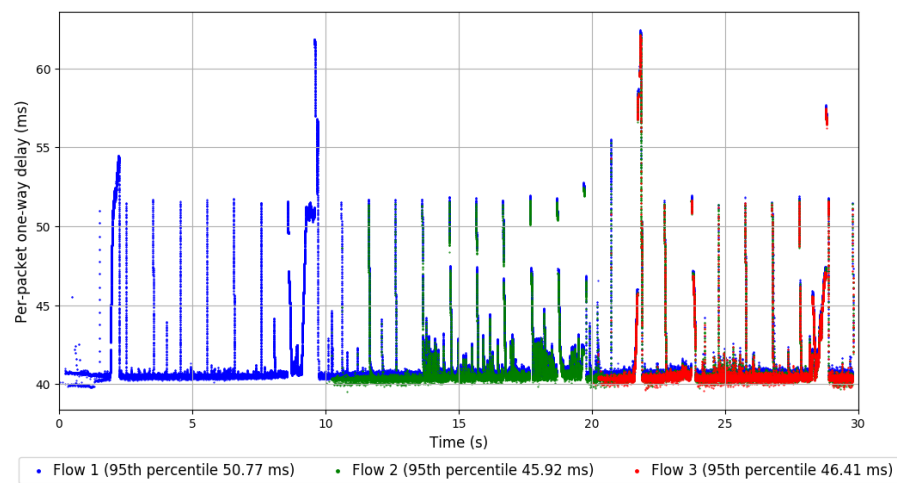
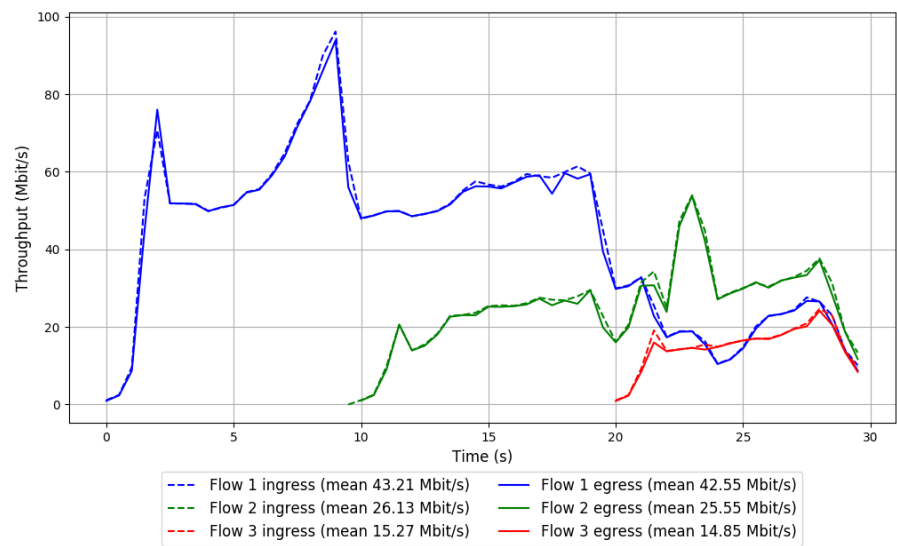


Run 2: Statistics of Vivace-latency

Start at: 2018-01-16 23:32:01  
End at: 2018-01-16 23:32:31  
Local clock offset: -1.066 ms  
Remote clock offset: -5.438 ms

# Below is generated by plot.py at 2018-01-17 07:06:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 64.39 Mbit/s  
95th percentile per-packet one-way delay: 49.758 ms  
Loss rate: 2.16%  
-- Flow 1:  
Average throughput: 42.55 Mbit/s  
95th percentile per-packet one-way delay: 50.771 ms  
Loss rate: 1.80%  
-- Flow 2:  
Average throughput: 25.55 Mbit/s  
95th percentile per-packet one-way delay: 45.923 ms  
Loss rate: 2.62%  
-- Flow 3:  
Average throughput: 14.85 Mbit/s  
95th percentile per-packet one-way delay: 46.411 ms  
Loss rate: 3.69%

Run 2: Report of Vivace-latency — Data Link

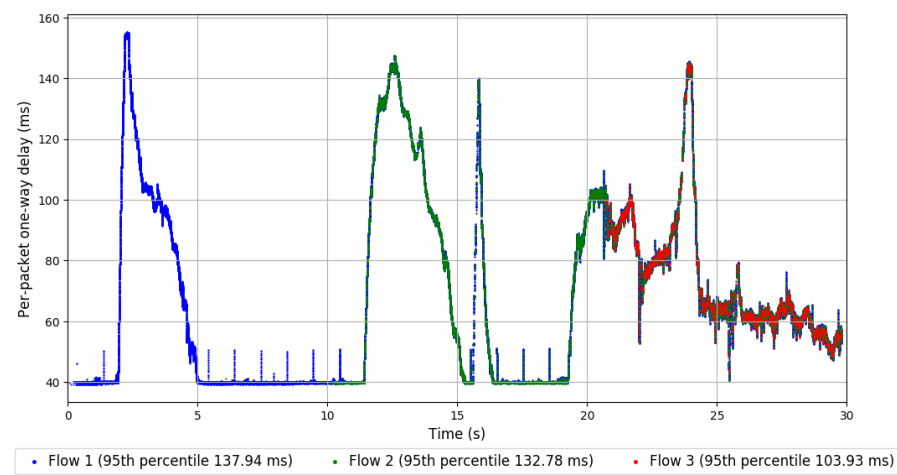
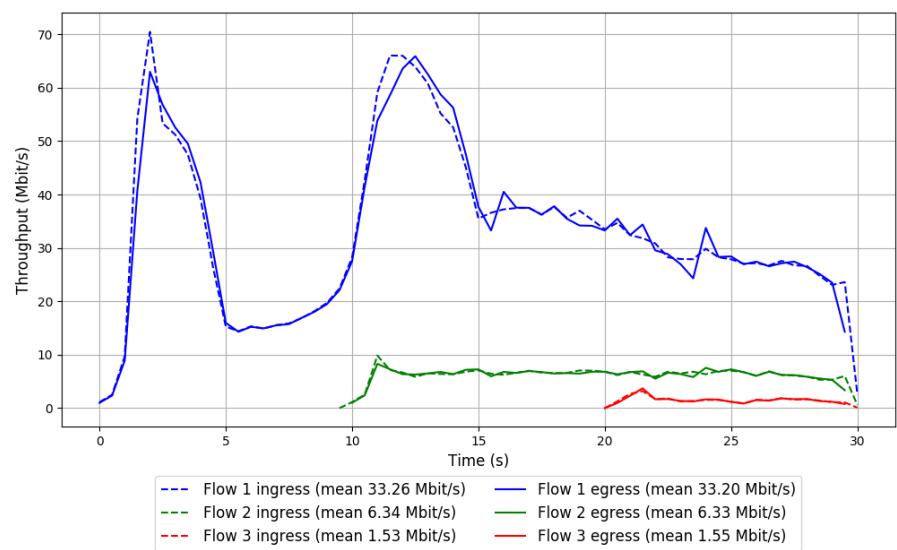


Run 3: Statistics of Vivace-latency

Start at: 2018-01-16 23:55:02  
End at: 2018-01-16 23:55:32  
Local clock offset: -1.51 ms  
Remote clock offset: -4.999 ms

# Below is generated by plot.py at 2018-01-17 07:06:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 37.90 Mbit/s  
95th percentile per-packet one-way delay: 137.051 ms  
Loss rate: 1.23%  
-- Flow 1:  
Average throughput: 33.20 Mbit/s  
95th percentile per-packet one-way delay: 137.942 ms  
Loss rate: 1.18%  
-- Flow 2:  
Average throughput: 6.33 Mbit/s  
95th percentile per-packet one-way delay: 132.777 ms  
Loss rate: 1.62%  
-- Flow 3:  
Average throughput: 1.55 Mbit/s  
95th percentile per-packet one-way delay: 103.926 ms  
Loss rate: 1.84%

Run 3: Report of Vivace-latency — Data Link



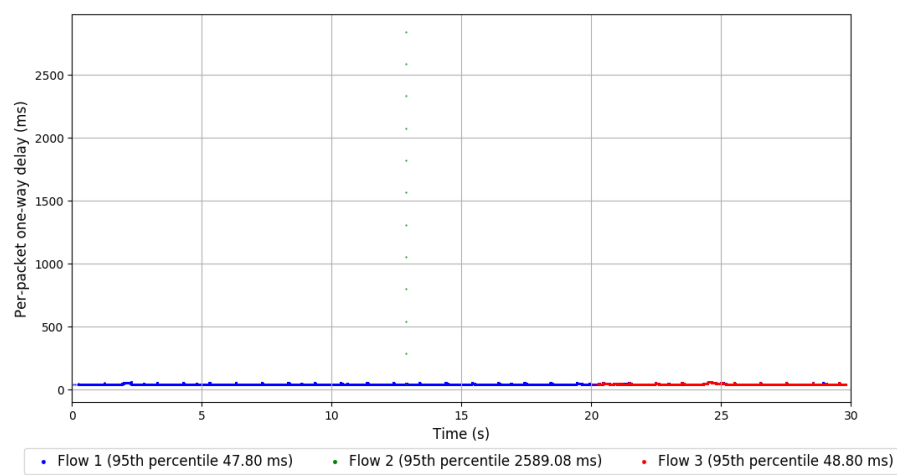
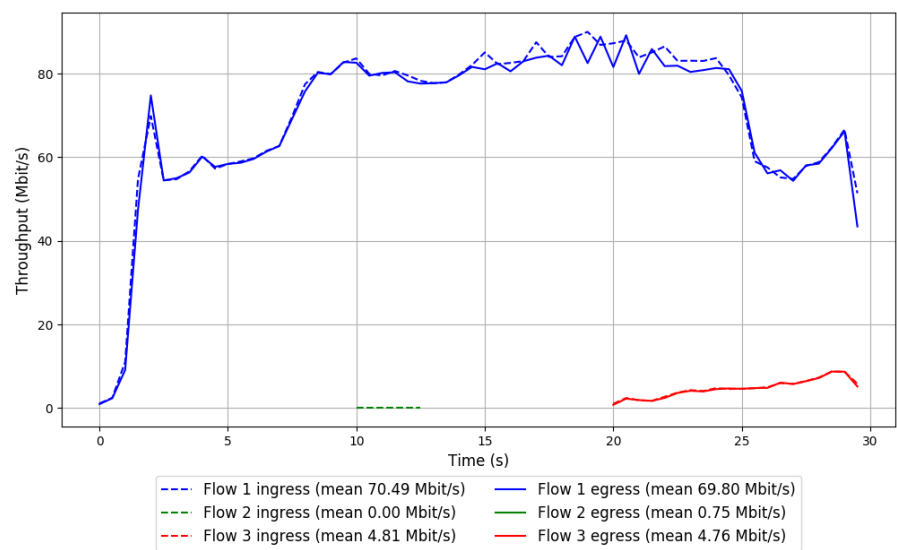
Run 4: Statistics of Vivace-latency

Start at: 2018-01-17 00:18:15  
End at: 2018-01-17 00:18:45  
Local clock offset: -1.491 ms  
Remote clock offset: -6.705 ms

# Below is generated by plot.py at 2018-01-17 07:06:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 71.36 Mbit/s  
95th percentile per-packet one-way delay: 47.824 ms  
Loss rate: 1.27%  
-- Flow 1:  
Average throughput: 69.80 Mbit/s  
95th percentile per-packet one-way delay: 47.802 ms  
Loss rate: 1.25%  
-- Flow 2:  
Average throughput: 0.75 Mbit/s  
95th percentile per-packet one-way delay: 2589.080 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 4.76 Mbit/s  
95th percentile per-packet one-way delay: 48.796 ms  
Loss rate: 2.03%



Run 4: Report of Vivace-latency — Data Link

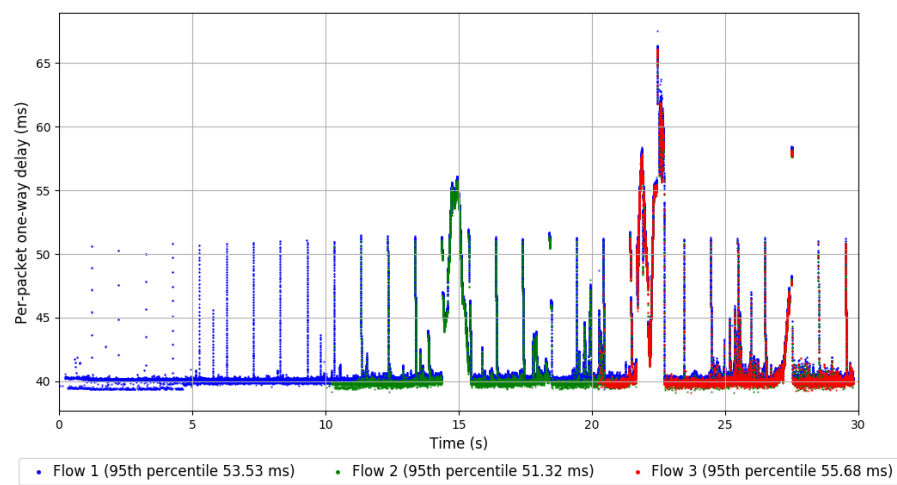
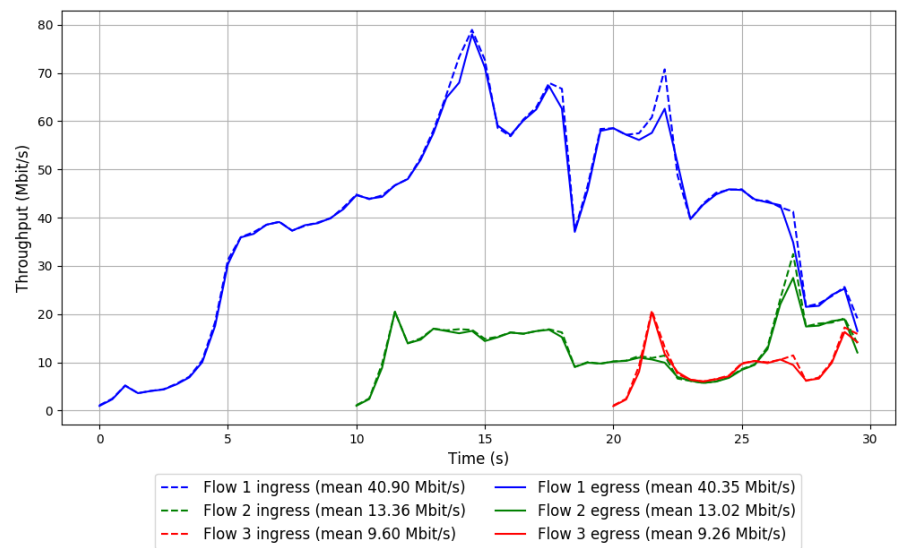


Run 5: Statistics of Vivace-latency

Start at: 2018-01-17 00:41:16  
End at: 2018-01-17 00:41:46  
Local clock offset: -1.882 ms  
Remote clock offset: -6.454 ms

# Below is generated by plot.py at 2018-01-17 07:06:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 52.02 Mbit/s  
95th percentile per-packet one-way delay: 53.639 ms  
Loss rate: 2.01%  
-- Flow 1:  
Average throughput: 40.35 Mbit/s  
95th percentile per-packet one-way delay: 53.528 ms  
Loss rate: 1.63%  
-- Flow 2:  
Average throughput: 13.02 Mbit/s  
95th percentile per-packet one-way delay: 51.317 ms  
Loss rate: 2.90%  
-- Flow 3:  
Average throughput: 9.26 Mbit/s  
95th percentile per-packet one-way delay: 55.683 ms  
Loss rate: 4.40%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-01-17 01:04:35

End at: 2018-01-17 01:05:05

Local clock offset: -1.936 ms

Remote clock offset: -5.88 ms

# Below is generated by plot.py at 2018-01-17 07:06:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.57 Mbit/s

95th percentile per-packet one-way delay: 40.367 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 40.389 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 40.099 ms

Loss rate: 0.00%

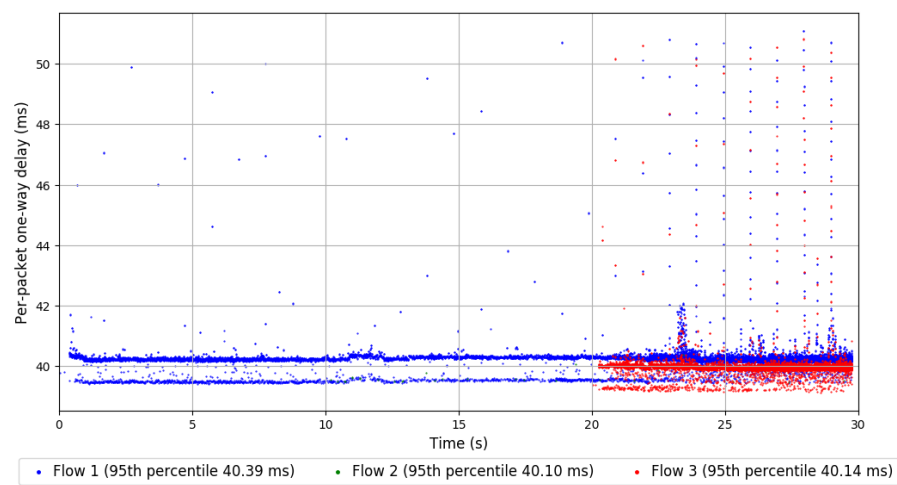
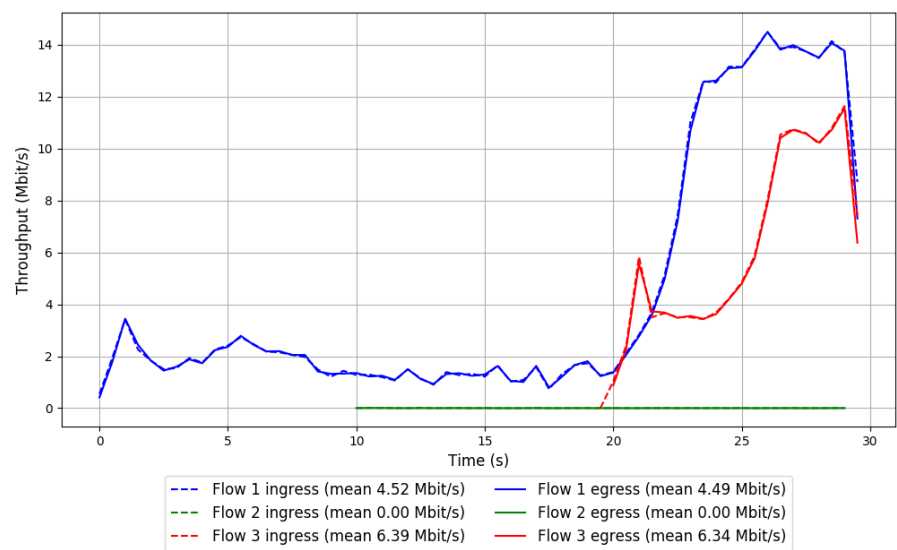
-- Flow 3:

Average throughput: 6.34 Mbit/s

95th percentile per-packet one-way delay: 40.136 ms

Loss rate: 1.60%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

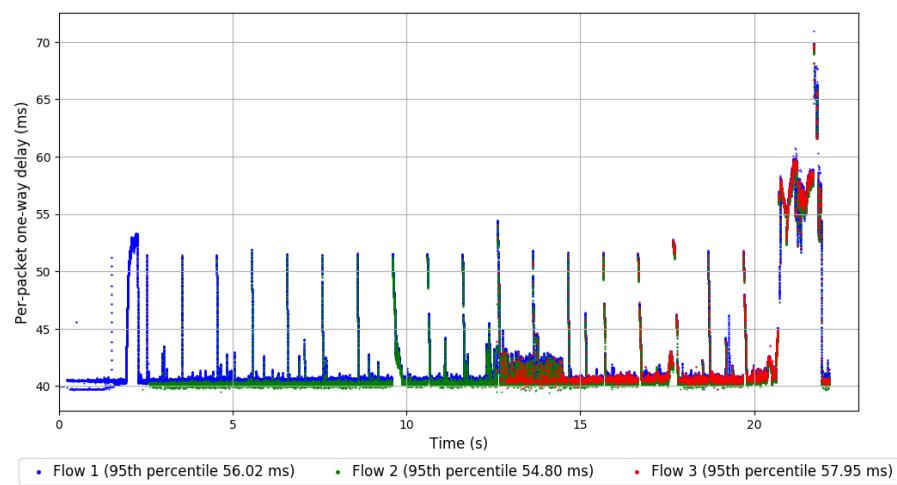
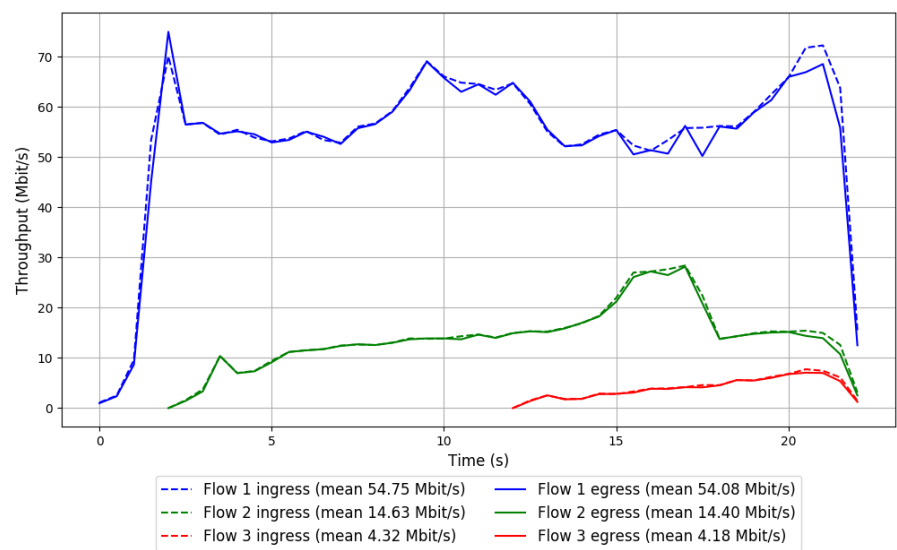
Start at: 2018-01-17 01:28:07

End at: 2018-01-17 01:28:37

Local clock offset: -1.685 ms

Remote clock offset: -5.999 ms

Run 7: Report of Vivace-latency — Data Link



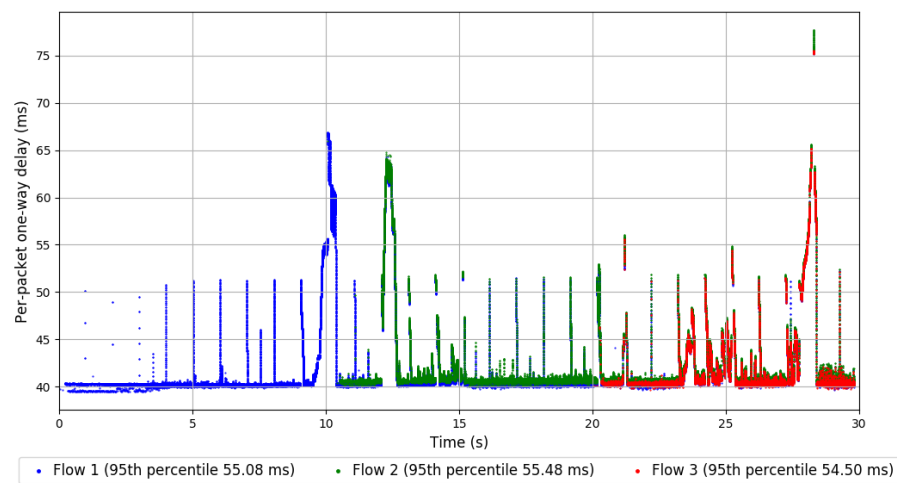
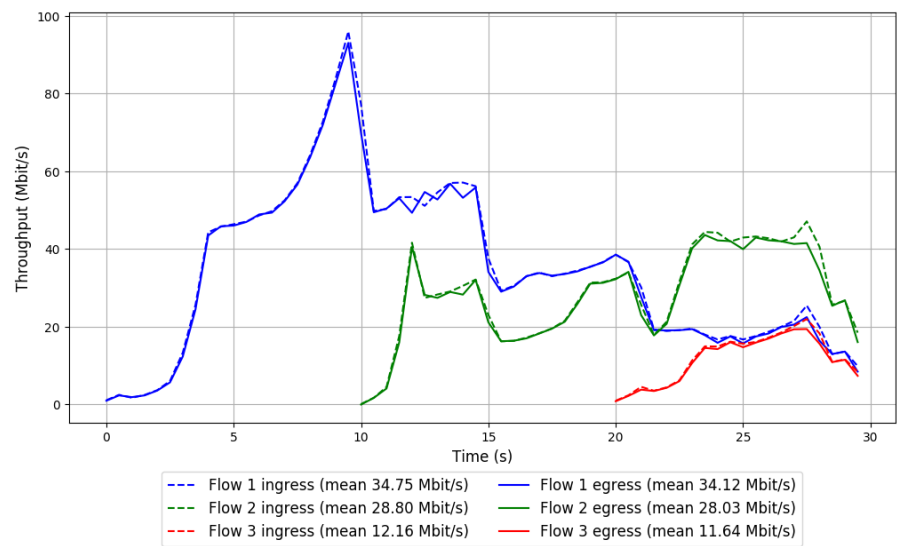
Run 8: Statistics of Vivace-latency

Start at: 2018-01-17 01:51:36  
End at: 2018-01-17 01:52:06  
Local clock offset: -1.353 ms  
Remote clock offset: -6.081 ms

# Below is generated by plot.py at 2018-01-17 07:06:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 56.50 Mbit/s  
95th percentile per-packet one-way delay: 55.096 ms  
Loss rate: 2.67%  
-- Flow 1:  
Average throughput: 34.12 Mbit/s  
95th percentile per-packet one-way delay: 55.080 ms  
Loss rate: 2.10%  
-- Flow 2:  
Average throughput: 28.03 Mbit/s  
95th percentile per-packet one-way delay: 55.481 ms  
Loss rate: 3.21%  
-- Flow 3:  
Average throughput: 11.64 Mbit/s  
95th percentile per-packet one-way delay: 54.503 ms  
Loss rate: 5.07%



Run 8: Report of Vivace-latency — Data Link

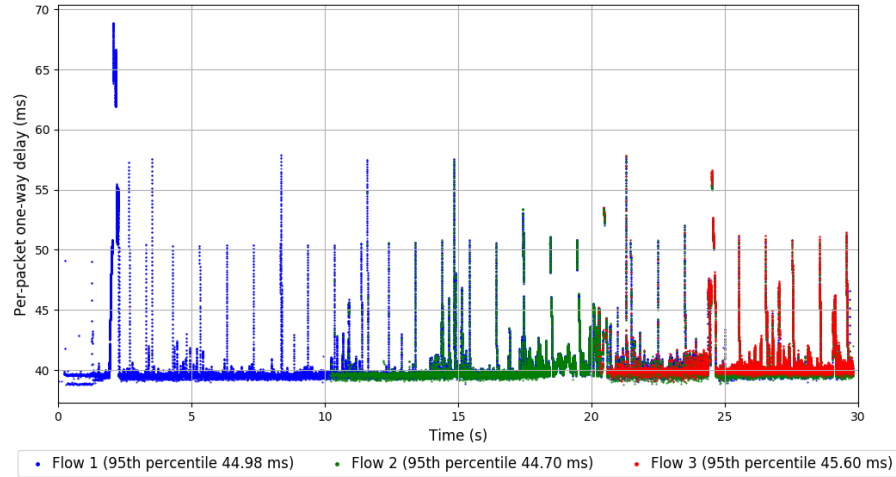
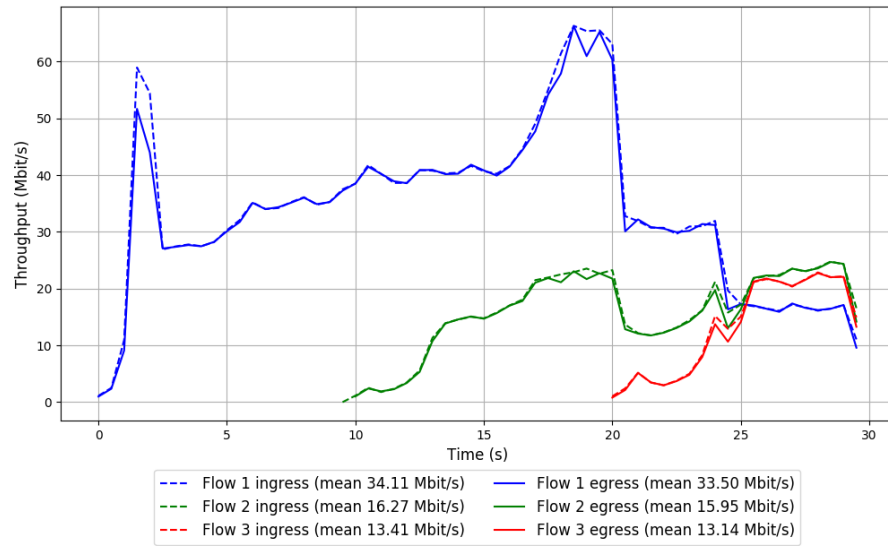


Run 9: Statistics of Vivace-latency

Start at: 2018-01-17 02:14:37  
End at: 2018-01-17 02:15:07  
Local clock offset: -1.897 ms  
Remote clock offset: -5.791 ms

# Below is generated by plot.py at 2018-01-17 07:06:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 48.38 Mbit/s  
95th percentile per-packet one-way delay: 44.957 ms  
Loss rate: 2.22%  
-- Flow 1:  
Average throughput: 33.50 Mbit/s  
95th percentile per-packet one-way delay: 44.983 ms  
Loss rate: 2.08%  
-- Flow 2:  
Average throughput: 15.95 Mbit/s  
95th percentile per-packet one-way delay: 44.699 ms  
Loss rate: 2.39%  
-- Flow 3:  
Average throughput: 13.14 Mbit/s  
95th percentile per-packet one-way delay: 45.604 ms  
Loss rate: 2.86%

# Run 9: Report of Vivace-latency — Data Link

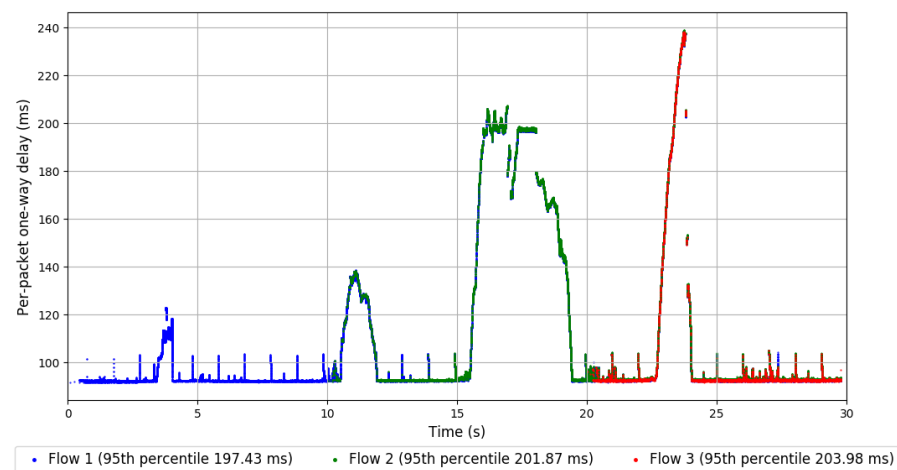
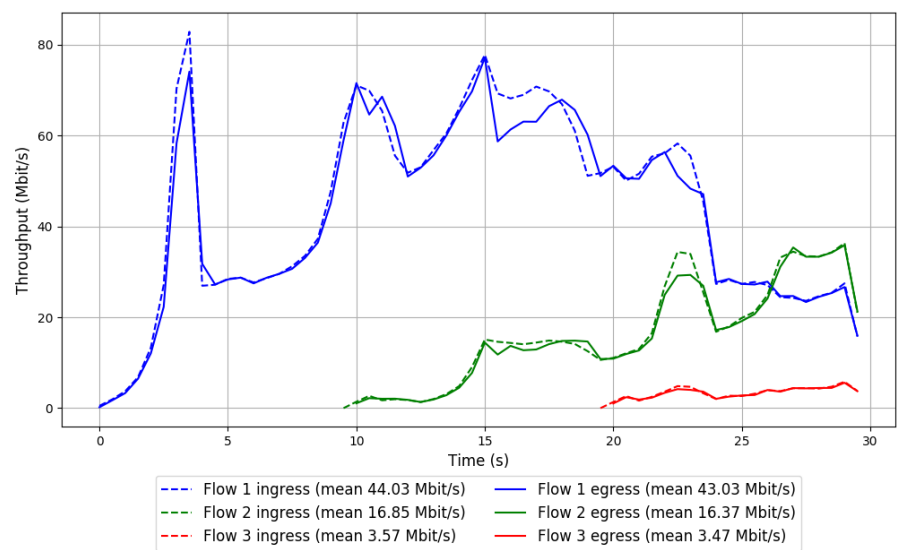


Run 10: Statistics of Vivace-latency

Start at: 2018-01-17 02:39:32  
End at: 2018-01-17 02:40:02  
Local clock offset: -1.088 ms  
Remote clock offset: -57.68 ms

# Below is generated by plot.py at 2018-01-17 07:06:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 55.06 Mbit/s  
95th percentile per-packet one-way delay: 197.676 ms  
Loss rate: 2.73%  
-- Flow 1:  
Average throughput: 43.03 Mbit/s  
95th percentile per-packet one-way delay: 197.429 ms  
Loss rate: 2.55%  
-- Flow 2:  
Average throughput: 16.37 Mbit/s  
95th percentile per-packet one-way delay: 201.872 ms  
Loss rate: 3.31%  
-- Flow 3:  
Average throughput: 3.47 Mbit/s  
95th percentile per-packet one-way delay: 203.980 ms  
Loss rate: 3.70%

Run 10: Report of Vivace-latency — Data Link

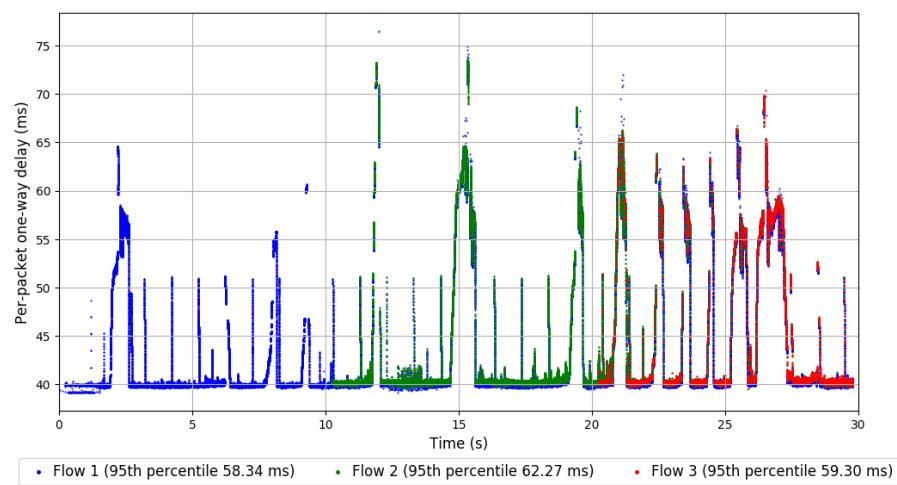
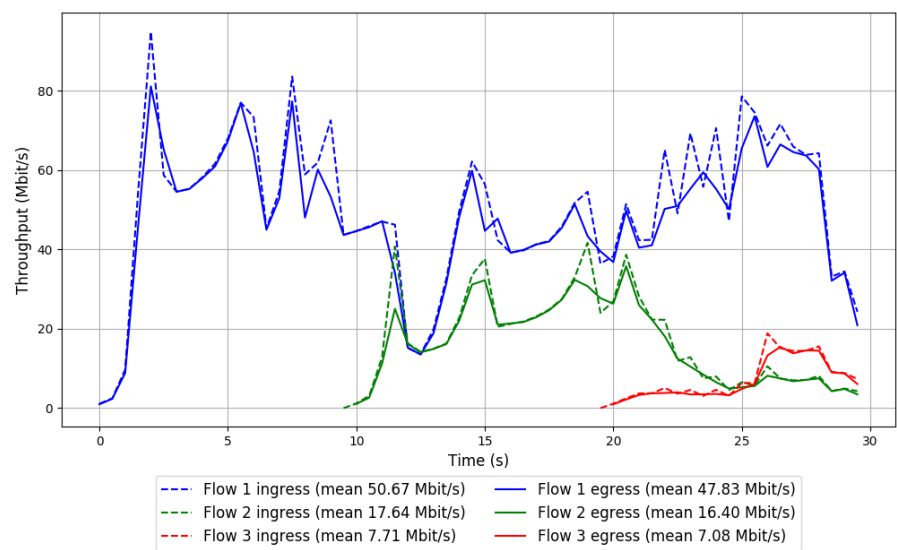


Run 1: Statistics of Vivace-loss

Start at: 2018-01-16 22:56:38  
End at: 2018-01-16 22:57:08  
Local clock offset: -1.382 ms  
Remote clock offset: -7.191 ms

# Below is generated by plot.py at 2018-01-17 07:07:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.05 Mbit/s  
95th percentile per-packet one-way delay: 59.473 ms  
Loss rate: 6.28%  
-- Flow 1:  
Average throughput: 47.83 Mbit/s  
95th percentile per-packet one-way delay: 58.338 ms  
Loss rate: 5.89%  
-- Flow 2:  
Average throughput: 16.40 Mbit/s  
95th percentile per-packet one-way delay: 62.266 ms  
Loss rate: 7.43%  
-- Flow 3:  
Average throughput: 7.08 Mbit/s  
95th percentile per-packet one-way delay: 59.296 ms  
Loss rate: 8.87%

Run 1: Report of Vivace-loss — Data Link



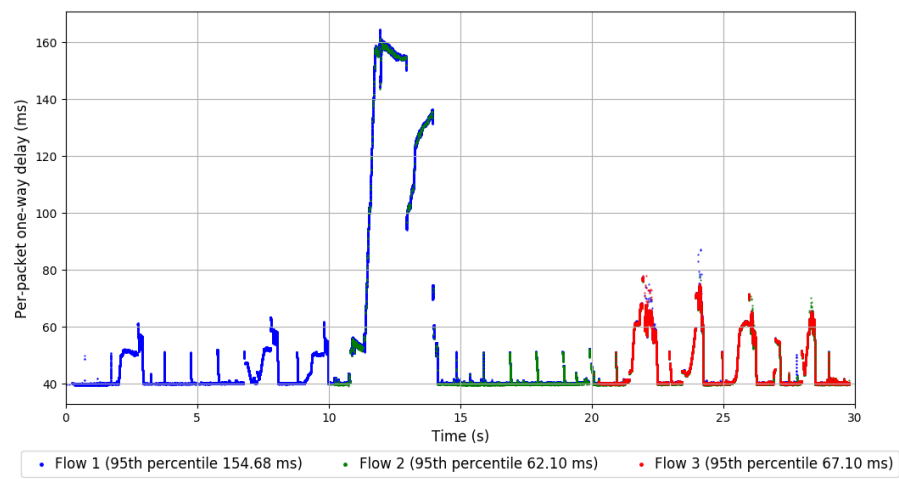
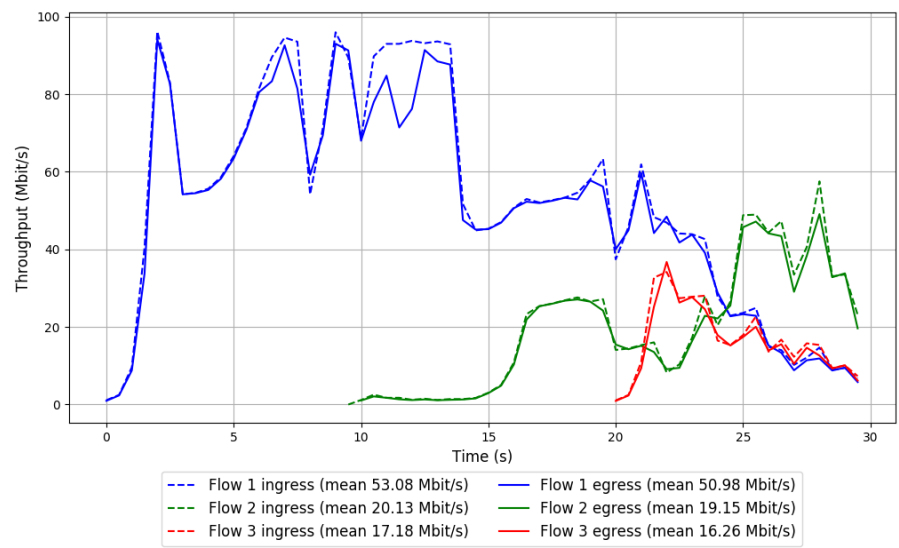
Run 2: Statistics of Vivace-loss

Start at: 2018-01-16 23:19:22  
End at: 2018-01-16 23:19:52  
Local clock offset: -1.441 ms  
Remote clock offset: -6.083 ms

# Below is generated by plot.py at 2018-01-17 07:07:48  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 69.02 Mbit/s  
95th percentile per-packet one-way delay: 135.445 ms  
Loss rate: 4.58%  
-- Flow 1:  
Average throughput: 50.98 Mbit/s  
95th percentile per-packet one-way delay: 154.677 ms  
Loss rate: 4.24%  
-- Flow 2:  
Average throughput: 19.15 Mbit/s  
95th percentile per-packet one-way delay: 62.104 ms  
Loss rate: 5.23%  
-- Flow 3:  
Average throughput: 16.26 Mbit/s  
95th percentile per-packet one-way delay: 67.101 ms  
Loss rate: 6.24%



Run 2: Report of Vivace-loss — Data Link

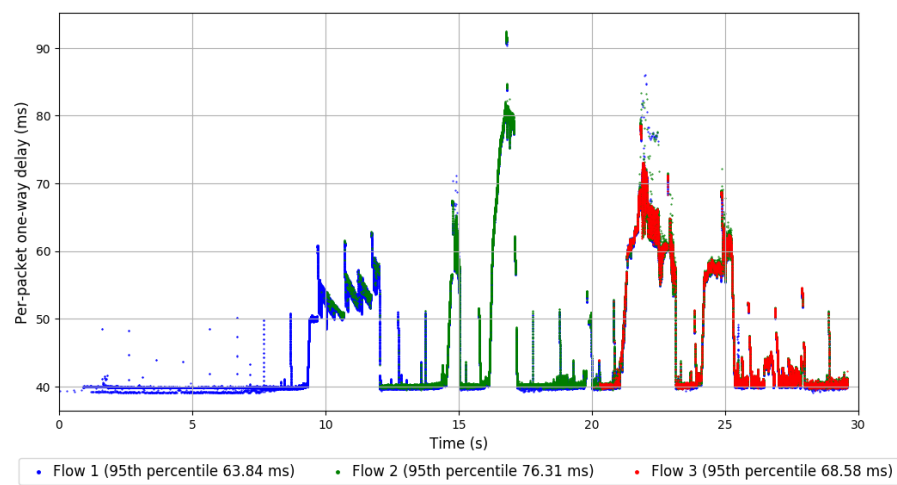
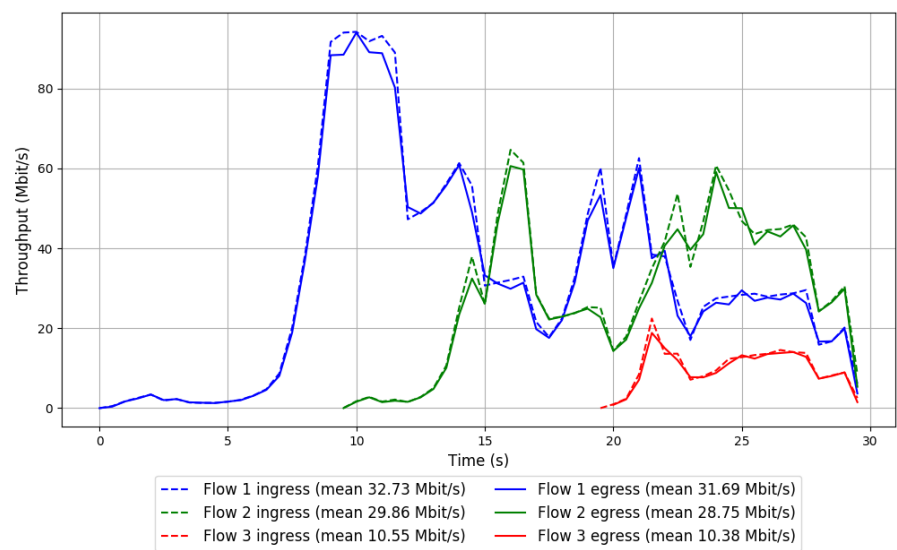


Run 3: Statistics of Vivace-loss

Start at: 2018-01-16 23:42:15  
End at: 2018-01-16 23:42:45  
Local clock offset: -1.481 ms  
Remote clock offset: -5.132 ms

# Below is generated by plot.py at 2018-01-17 07:07:48  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 54.25 Mbit/s  
95th percentile per-packet one-way delay: 68.113 ms  
Loss rate: 3.81%  
-- Flow 1:  
Average throughput: 31.69 Mbit/s  
95th percentile per-packet one-way delay: 63.839 ms  
Loss rate: 3.45%  
-- Flow 2:  
Average throughput: 28.75 Mbit/s  
95th percentile per-packet one-way delay: 76.312 ms  
Loss rate: 4.19%  
-- Flow 3:  
Average throughput: 10.38 Mbit/s  
95th percentile per-packet one-way delay: 68.575 ms  
Loss rate: 4.93%

Run 3: Report of Vivace-loss — Data Link

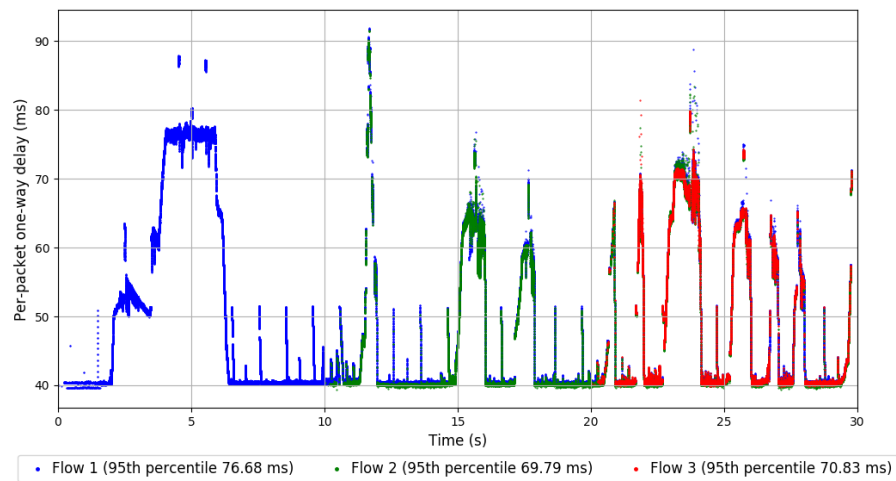
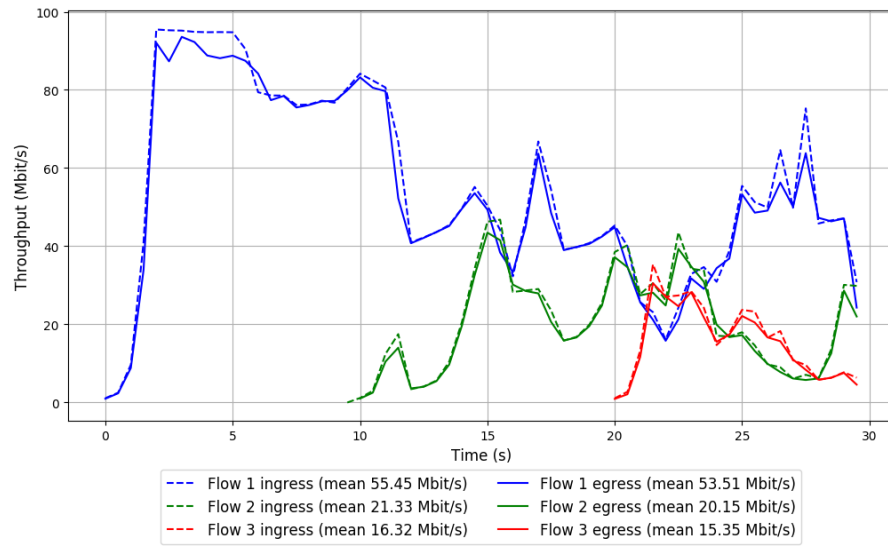


Run 4: Statistics of Vivace-loss

Start at: 2018-01-17 00:05:03  
End at: 2018-01-17 00:05:33  
Local clock offset: -1.424 ms  
Remote clock offset: -5.293 ms

# Below is generated by plot.py at 2018-01-17 07:08:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 71.91 Mbit/s  
95th percentile per-packet one-way delay: 76.537 ms  
Loss rate: 4.47%  
-- Flow 1:  
Average throughput: 53.51 Mbit/s  
95th percentile per-packet one-way delay: 76.677 ms  
Loss rate: 3.84%  
-- Flow 2:  
Average throughput: 20.15 Mbit/s  
95th percentile per-packet one-way delay: 69.792 ms  
Loss rate: 6.00%  
-- Flow 3:  
Average throughput: 15.35 Mbit/s  
95th percentile per-packet one-way delay: 70.826 ms  
Loss rate: 6.88%

#### Run 4: Report of Vivace-loss — Data Link

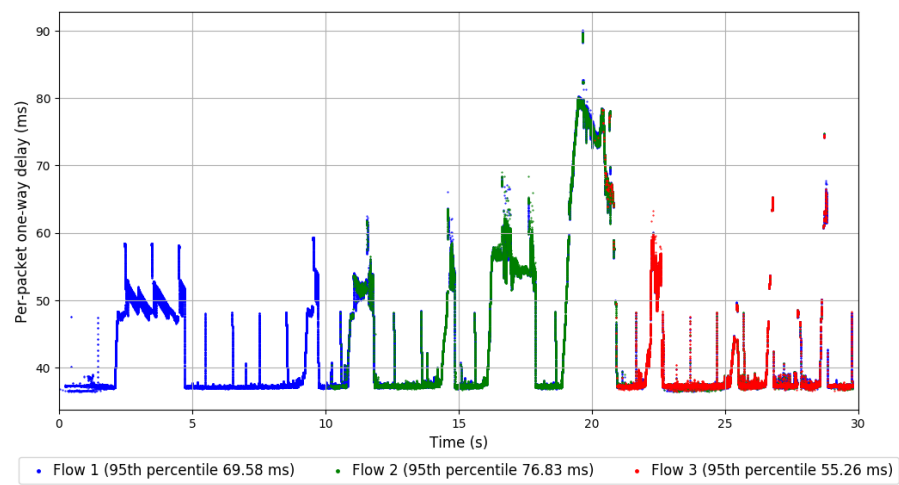
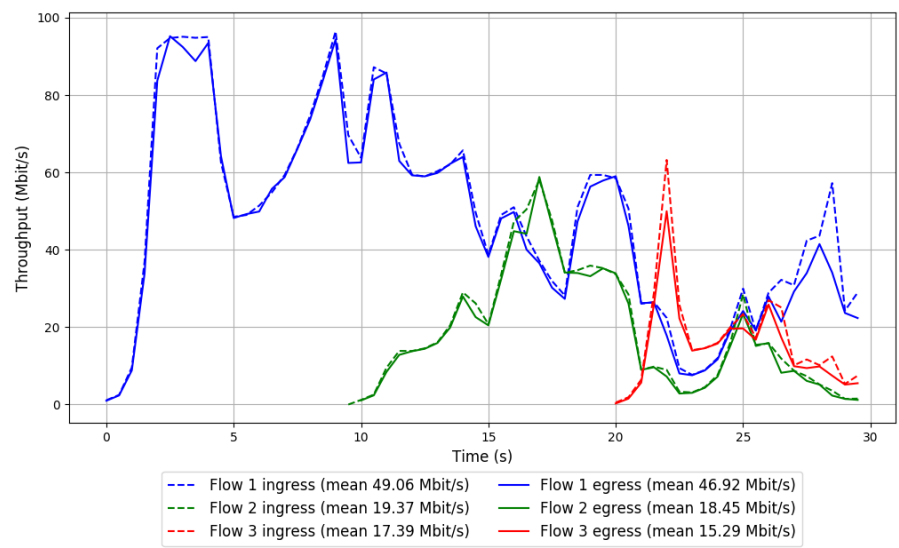


Run 5: Statistics of Vivace-loss

Start at: 2018-01-17 00:28:23  
End at: 2018-01-17 00:28:53  
Local clock offset: -4.443 ms  
Remote clock offset: -6.687 ms

# Below is generated by plot.py at 2018-01-17 07:08:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 64.16 Mbit/s  
95th percentile per-packet one-way delay: 73.600 ms  
Loss rate: 5.47%  
-- Flow 1:  
Average throughput: 46.92 Mbit/s  
95th percentile per-packet one-way delay: 69.580 ms  
Loss rate: 4.66%  
-- Flow 2:  
Average throughput: 18.45 Mbit/s  
95th percentile per-packet one-way delay: 76.833 ms  
Loss rate: 5.16%  
-- Flow 3:  
Average throughput: 15.29 Mbit/s  
95th percentile per-packet one-way delay: 55.257 ms  
Loss rate: 13.15%

Run 5: Report of Vivace-loss — Data Link



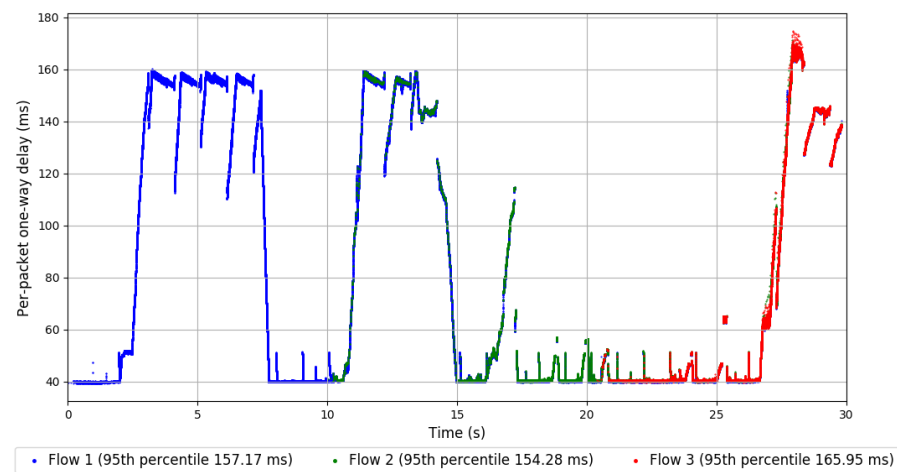
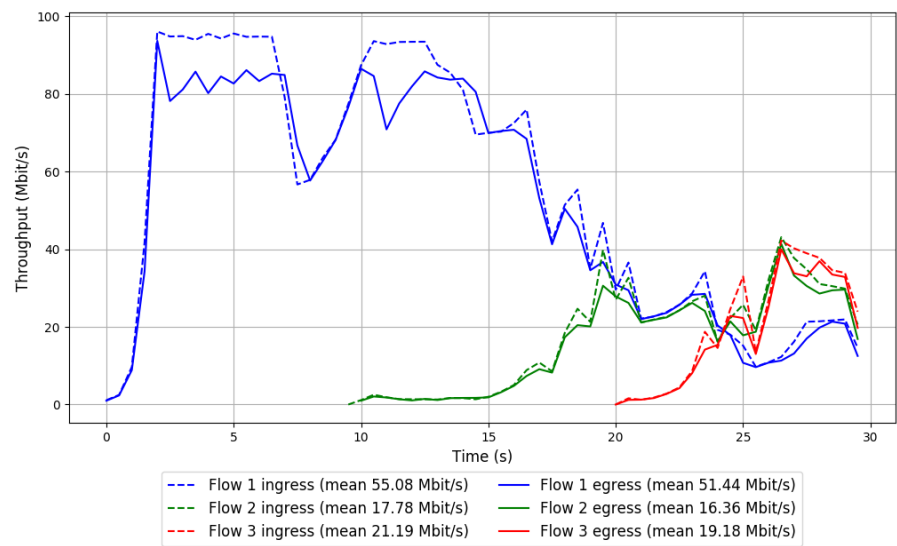
Run 6: Statistics of Vivace-loss

Start at: 2018-01-17 00:51:39  
End at: 2018-01-17 00:52:09  
Local clock offset: -1.765 ms  
Remote clock offset: -6.214 ms

# Below is generated by plot.py at 2018-01-17 07:08:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.39 Mbit/s  
95th percentile per-packet one-way delay: 157.271 ms  
Loss rate: 7.42%  
-- Flow 1:  
Average throughput: 51.44 Mbit/s  
95th percentile per-packet one-way delay: 157.168 ms  
Loss rate: 6.87%  
-- Flow 2:  
Average throughput: 16.36 Mbit/s  
95th percentile per-packet one-way delay: 154.275 ms  
Loss rate: 8.37%  
-- Flow 3:  
Average throughput: 19.18 Mbit/s  
95th percentile per-packet one-way delay: 165.953 ms  
Loss rate: 10.30%



Run 6: Report of Vivace-loss — Data Link

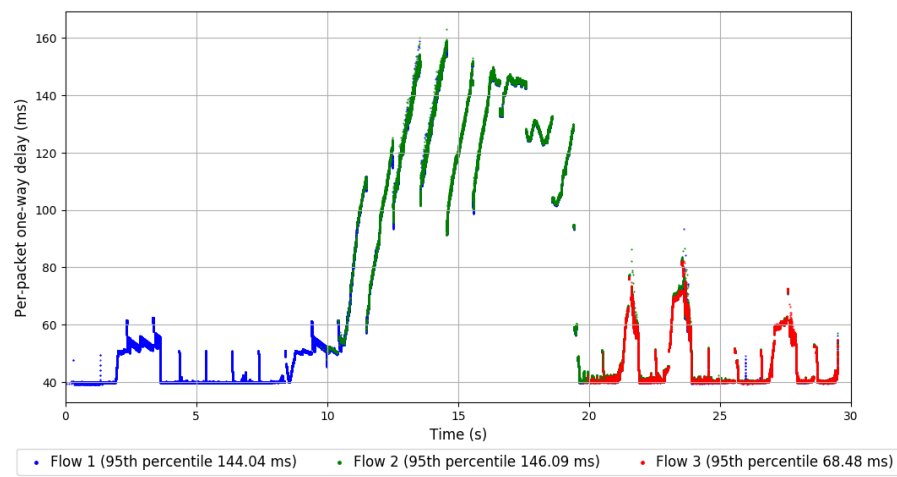
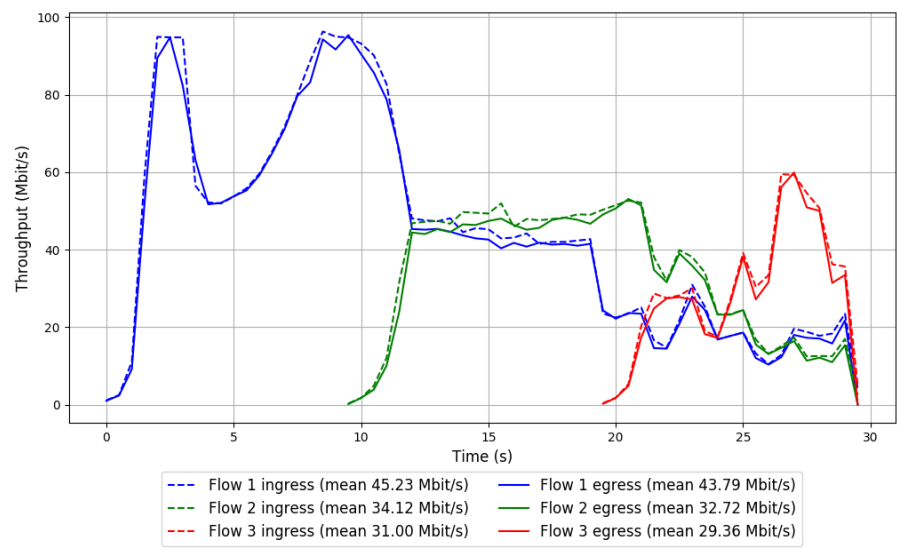


Run 7: Statistics of Vivace-loss

Start at: 2018-01-17 01:14:59  
End at: 2018-01-17 01:15:29  
Local clock offset: -1.876 ms  
Remote clock offset: -5.723 ms

# Below is generated by plot.py at 2018-01-17 07:08:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.42 Mbit/s  
95th percentile per-packet one-way delay: 144.545 ms  
Loss rate: 4.17%  
-- Flow 1:  
Average throughput: 43.79 Mbit/s  
95th percentile per-packet one-way delay: 144.040 ms  
Loss rate: 3.49%  
-- Flow 2:  
Average throughput: 32.72 Mbit/s  
95th percentile per-packet one-way delay: 146.093 ms  
Loss rate: 4.61%  
-- Flow 3:  
Average throughput: 29.36 Mbit/s  
95th percentile per-packet one-way delay: 68.479 ms  
Loss rate: 6.20%

Run 7: Report of Vivace-loss — Data Link

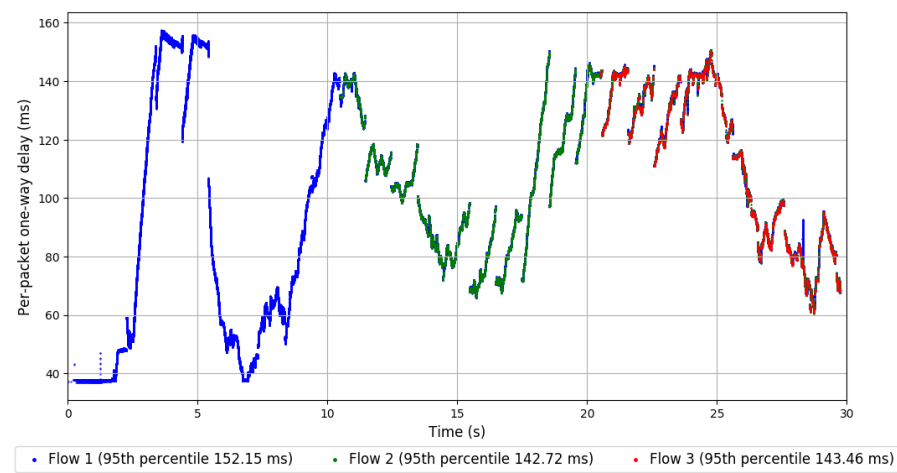
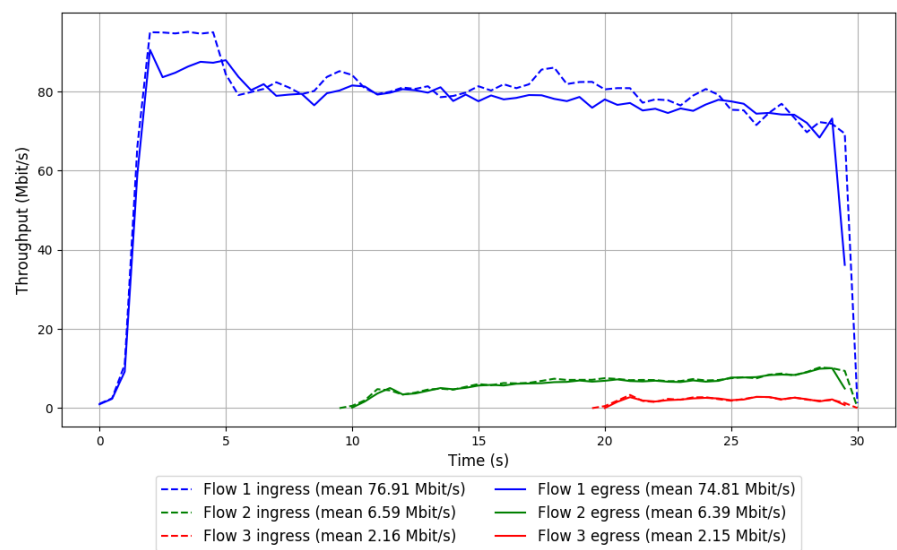


Run 8: Statistics of Vivace-loss

Start at: 2018-01-17 01:38:10  
End at: 2018-01-17 01:38:40  
Local clock offset: -4.372 ms  
Remote clock offset: -6.056 ms

# Below is generated by plot.py at 2018-01-17 07:08:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.73 Mbit/s  
95th percentile per-packet one-way delay: 151.907 ms  
Loss rate: 3.79%  
-- Flow 1:  
Average throughput: 74.81 Mbit/s  
95th percentile per-packet one-way delay: 152.152 ms  
Loss rate: 3.71%  
-- Flow 2:  
Average throughput: 6.39 Mbit/s  
95th percentile per-packet one-way delay: 142.718 ms  
Loss rate: 4.98%  
-- Flow 3:  
Average throughput: 2.15 Mbit/s  
95th percentile per-packet one-way delay: 143.456 ms  
Loss rate: 4.60%

Run 8: Report of Vivace-loss — Data Link

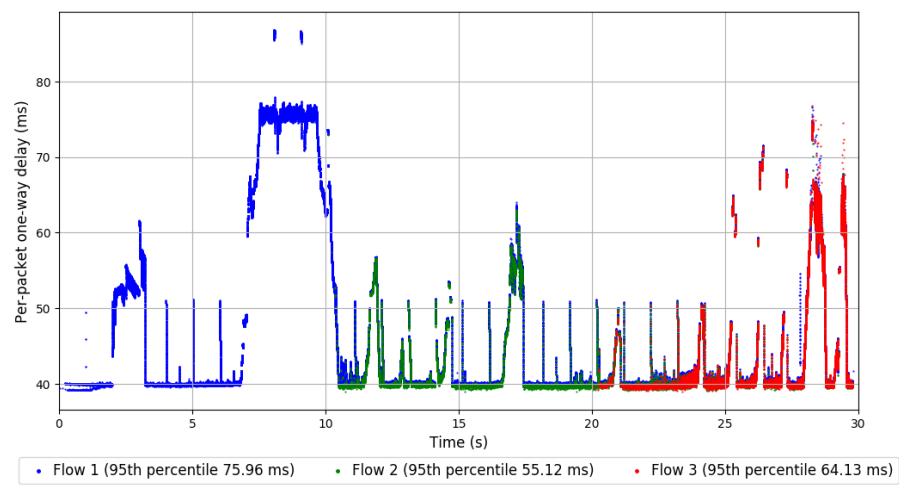
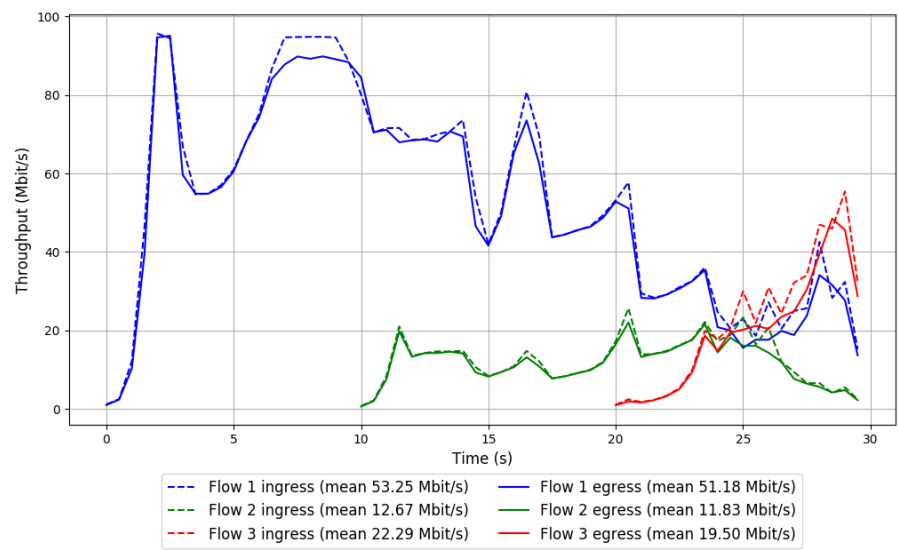


Run 9: Statistics of Vivace-loss

Start at: 2018-01-17 02:01:35  
End at: 2018-01-17 02:02:05  
Local clock offset: -1.929 ms  
Remote clock offset: -6.192 ms

# Below is generated by plot.py at 2018-01-17 07:09:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.39 Mbit/s  
95th percentile per-packet one-way delay: 75.844 ms  
Loss rate: 5.51%  
-- Flow 1:  
Average throughput: 51.18 Mbit/s  
95th percentile per-packet one-way delay: 75.959 ms  
Loss rate: 4.17%  
-- Flow 2:  
Average throughput: 11.83 Mbit/s  
95th percentile per-packet one-way delay: 55.124 ms  
Loss rate: 7.19%  
-- Flow 3:  
Average throughput: 19.50 Mbit/s  
95th percentile per-packet one-way delay: 64.130 ms  
Loss rate: 13.32%

Run 9: Report of Vivace-loss — Data Link



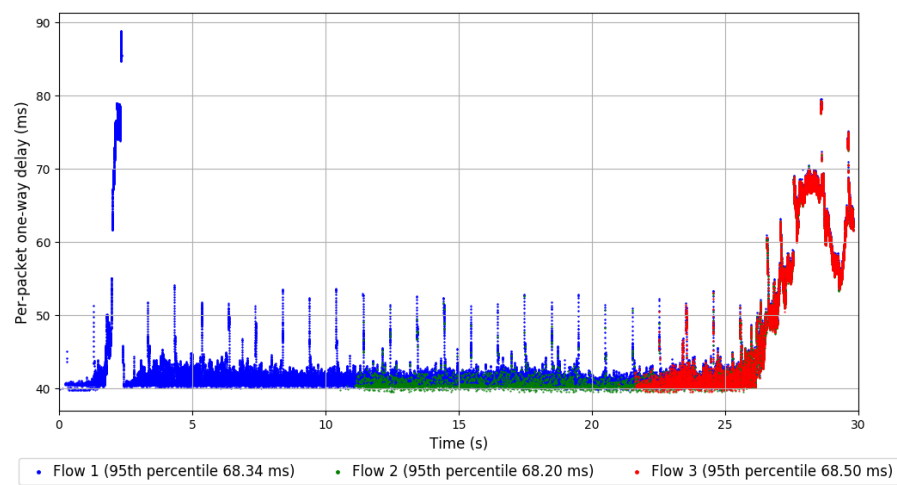
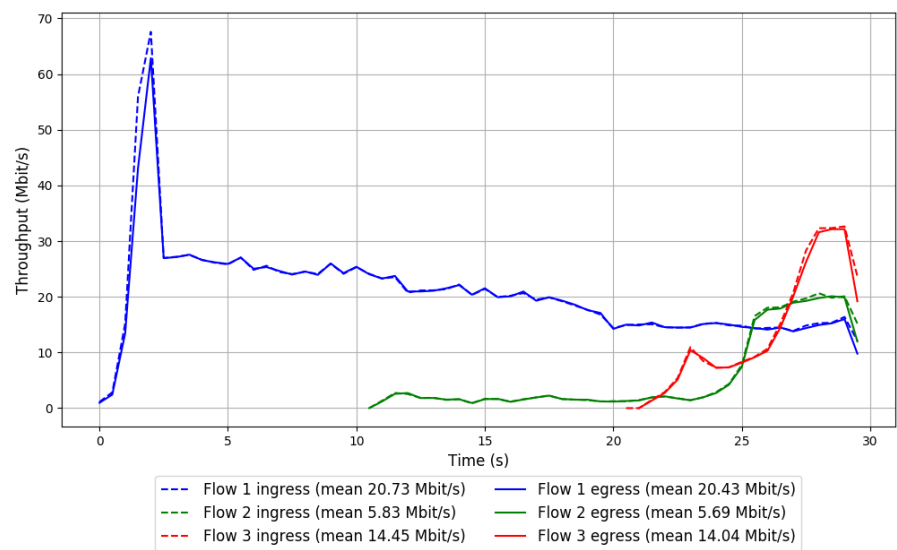
Run 10: Statistics of Vivace-loss

Start at: 2018-01-17 02:26:17  
End at: 2018-01-17 02:26:47  
Local clock offset: -0.939 ms  
Remote clock offset: -5.525 ms

# Below is generated by plot.py at 2018-01-17 07:09:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 28.24 Mbit/s  
95th percentile per-packet one-way delay: 68.360 ms  
Loss rate: 2.33%  
-- Flow 1:  
Average throughput: 20.43 Mbit/s  
95th percentile per-packet one-way delay: 68.342 ms  
Loss rate: 1.85%  
-- Flow 2:  
Average throughput: 5.69 Mbit/s  
95th percentile per-packet one-way delay: 68.204 ms  
Loss rate: 2.97%  
-- Flow 3:  
Average throughput: 14.04 Mbit/s  
95th percentile per-packet one-way delay: 68.498 ms  
Loss rate: 4.08%



Run 10: Report of Vivace-loss — Data Link

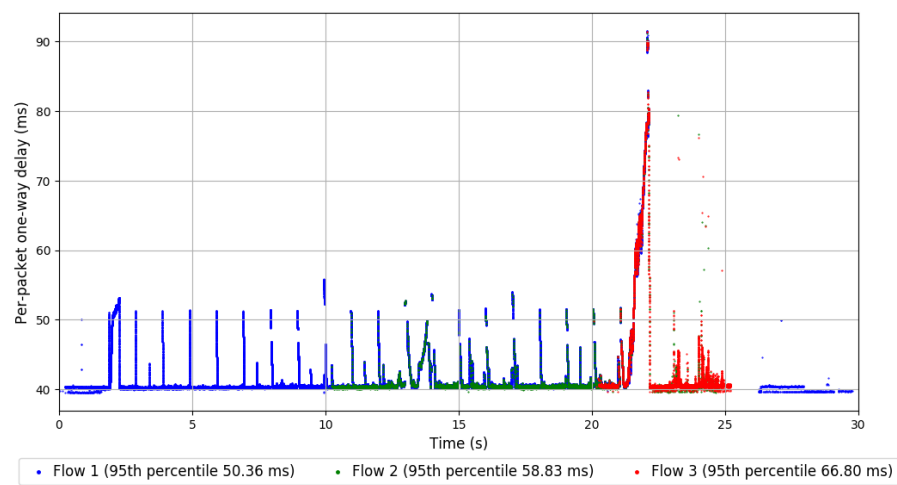
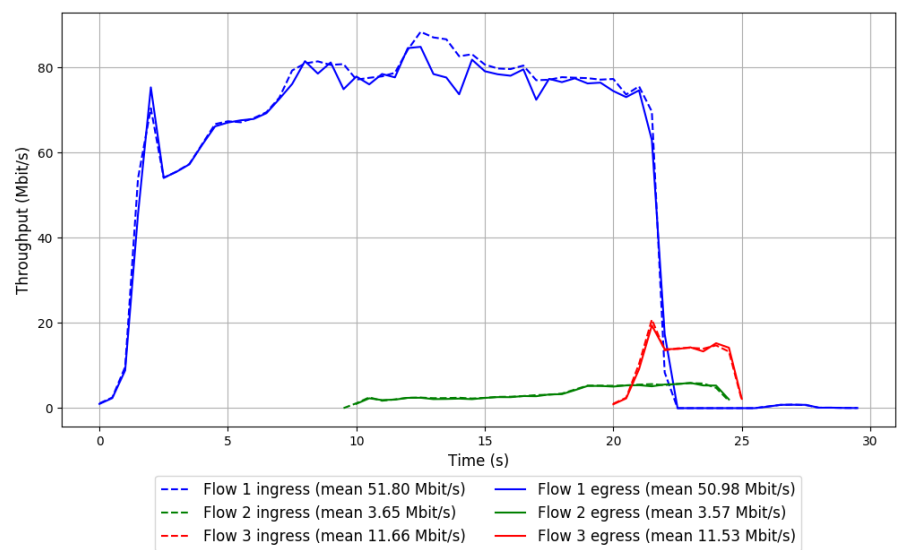


Run 1: Statistics of Vivace-LTE

Start at: 2018-01-16 22:55:20  
End at: 2018-01-16 22:55:50  
Local clock offset: -1.204 ms  
Remote clock offset: -7.241 ms

# Below is generated by plot.py at 2018-01-17 07:09:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 54.75 Mbit/s  
95th percentile per-packet one-way delay: 50.895 ms  
Loss rate: 2.04%  
-- Flow 1:  
Average throughput: 50.98 Mbit/s  
95th percentile per-packet one-way delay: 50.359 ms  
Loss rate: 2.07%  
-- Flow 2:  
Average throughput: 3.57 Mbit/s  
95th percentile per-packet one-way delay: 58.830 ms  
Loss rate: 2.02%  
-- Flow 3:  
Average throughput: 11.53 Mbit/s  
95th percentile per-packet one-way delay: 66.800 ms  
Loss rate: 1.33%

Run 1: Report of Vivace-LTE — Data Link

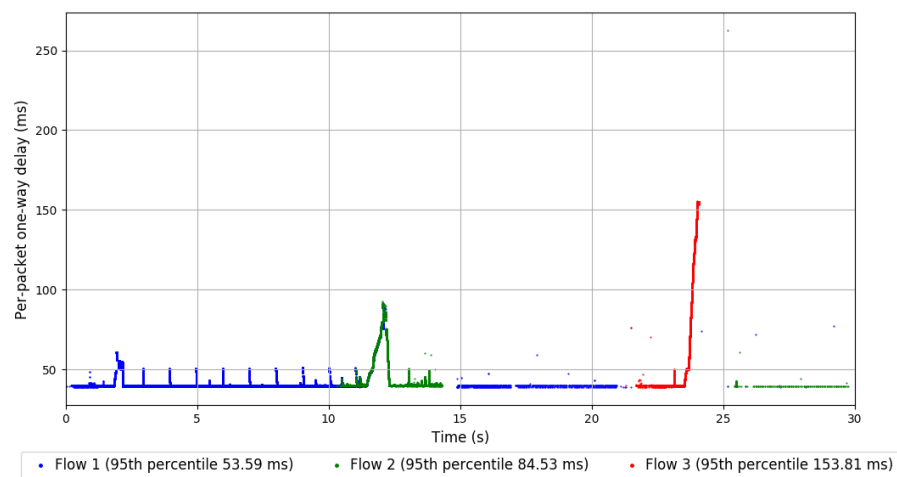
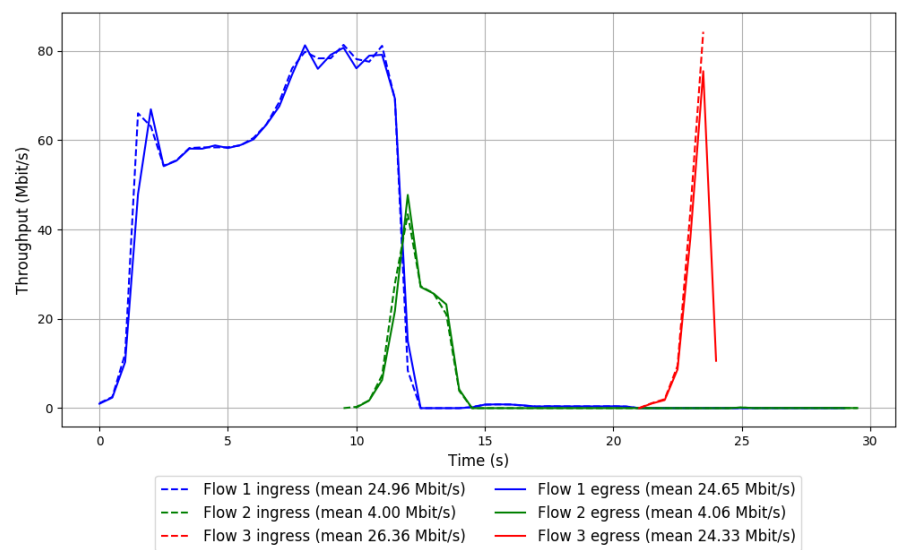


Run 2: Statistics of Vivace-LTE

Start at: 2018-01-16 23:18:07  
End at: 2018-01-16 23:18:37  
Local clock offset: -1.676 ms  
Remote clock offset: -6.084 ms

# Below is generated by plot.py at 2018-01-17 07:09:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 29.14 Mbit/s  
95th percentile per-packet one-way delay: 71.303 ms  
Loss rate: 1.26%  
-- Flow 1:  
Average throughput: 24.65 Mbit/s  
95th percentile per-packet one-way delay: 53.588 ms  
Loss rate: 1.11%  
-- Flow 2:  
Average throughput: 4.06 Mbit/s  
95th percentile per-packet one-way delay: 84.530 ms  
Loss rate: 0.44%  
-- Flow 3:  
Average throughput: 24.33 Mbit/s  
95th percentile per-packet one-way delay: 153.811 ms  
Loss rate: 3.77%

Run 2: Report of Vivace-LTE — Data Link

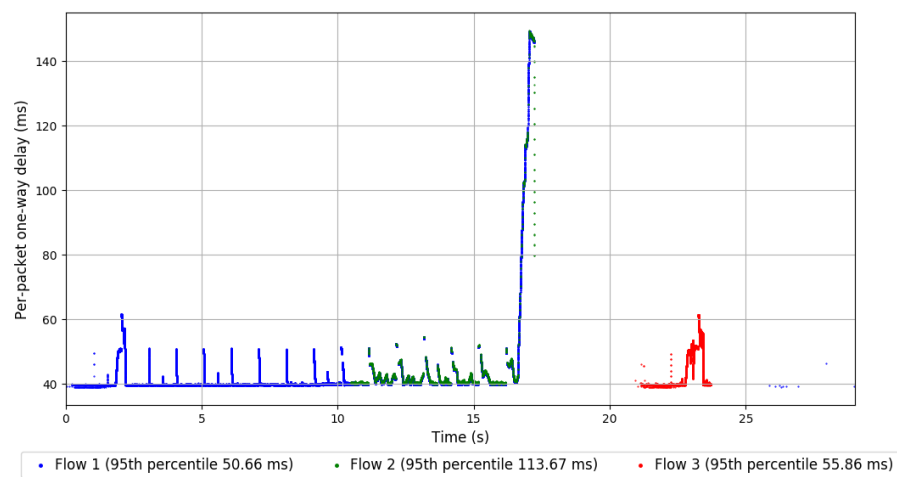
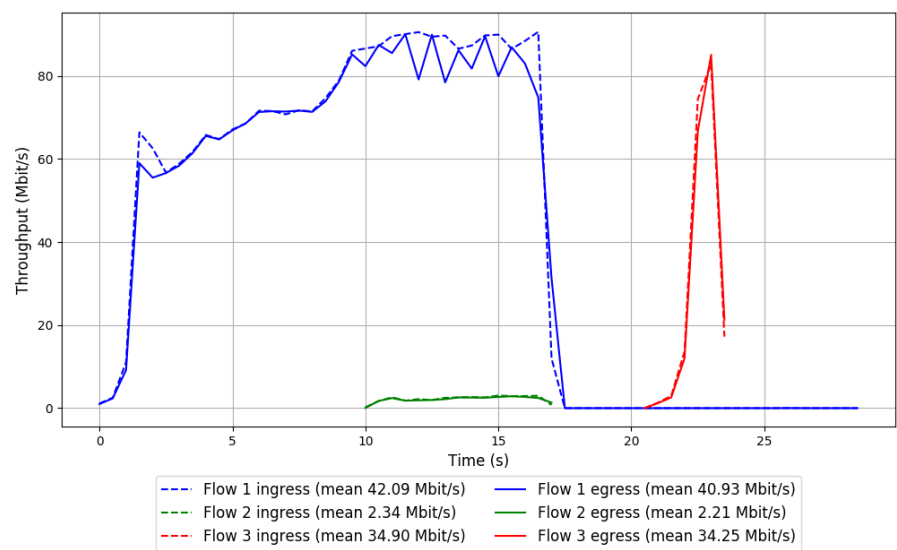


Run 3: Statistics of Vivace-LTE

Start at: 2018-01-16 23:40:52  
End at: 2018-01-16 23:41:22  
Local clock offset: -1.588 ms  
Remote clock offset: -5.219 ms

# Below is generated by plot.py at 2018-01-17 07:09:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 44.73 Mbit/s  
95th percentile per-packet one-way delay: 52.432 ms  
Loss rate: 2.74%  
-- Flow 1:  
Average throughput: 40.93 Mbit/s  
95th percentile per-packet one-way delay: 50.655 ms  
Loss rate: 2.77%  
-- Flow 2:  
Average throughput: 2.21 Mbit/s  
95th percentile per-packet one-way delay: 113.666 ms  
Loss rate: 4.96%  
-- Flow 3:  
Average throughput: 34.25 Mbit/s  
95th percentile per-packet one-way delay: 55.859 ms  
Loss rate: 1.91%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-01-17 00:03:52

End at: 2018-01-17 00:04:22

Local clock offset: -4.315 ms

Remote clock offset: -5.082 ms



Run 4: Report of Vivace-LTE — Data Link

Figure is missing

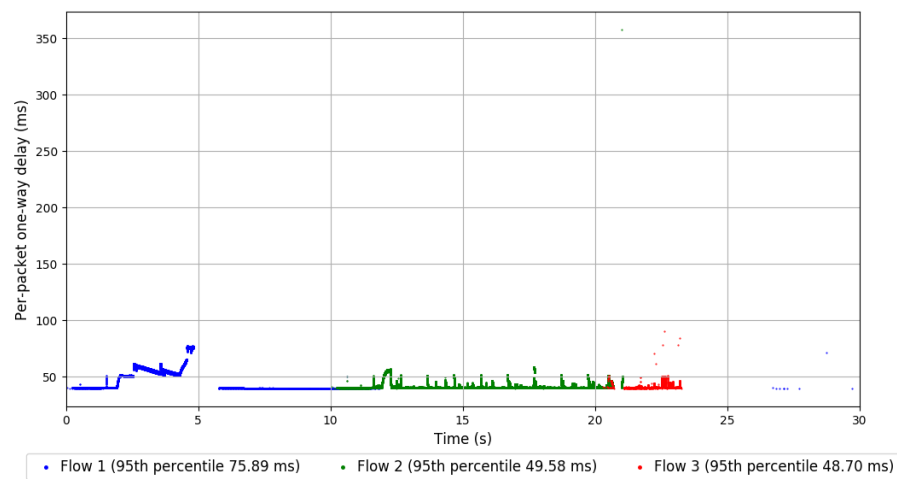
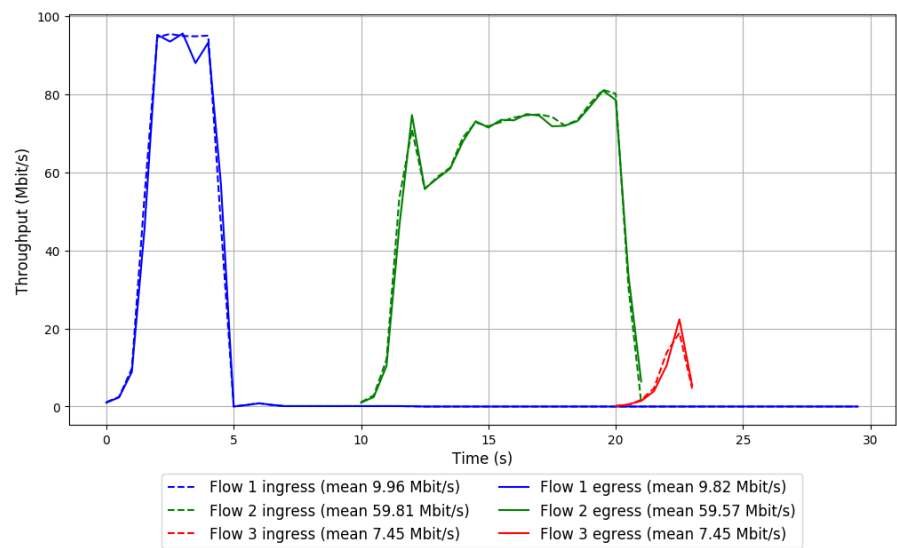
Figure is missing

Run 5: Statistics of Vivace-LTE

Start at: 2018-01-17 00:27:06  
End at: 2018-01-17 00:27:36  
Local clock offset: -1.547 ms  
Remote clock offset: -6.758 ms

# Below is generated by plot.py at 2018-01-17 07:09:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 32.65 Mbit/s  
95th percentile per-packet one-way delay: 59.275 ms  
Loss rate: 0.66%  
-- Flow 1:  
Average throughput: 9.82 Mbit/s  
95th percentile per-packet one-way delay: 75.892 ms  
Loss rate: 1.41%  
-- Flow 2:  
Average throughput: 59.57 Mbit/s  
95th percentile per-packet one-way delay: 49.578 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 7.45 Mbit/s  
95th percentile per-packet one-way delay: 48.704 ms  
Loss rate: 0.00%

Run 5: Report of Vivace-LTE — Data Link

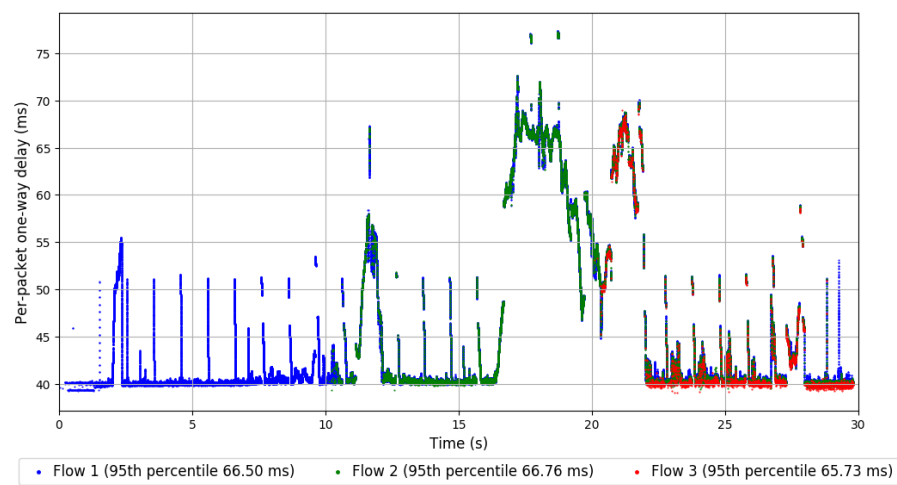
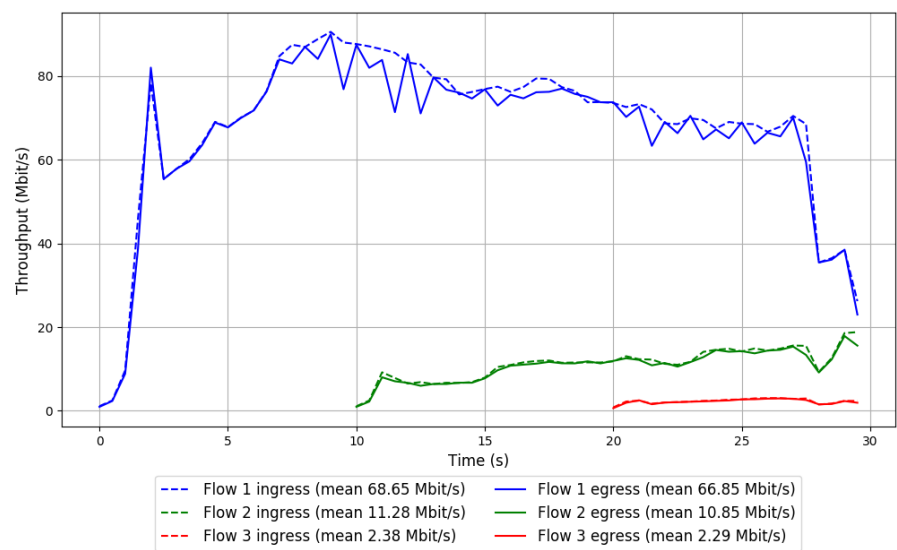


Run 6: Statistics of Vivace-LTE

Start at: 2018-01-17 00:50:20  
End at: 2018-01-17 00:50:50  
Local clock offset: -1.91 ms  
Remote clock offset: -6.209 ms

# Below is generated by plot.py at 2018-01-17 07:10:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 74.80 Mbit/s  
95th percentile per-packet one-way delay: 66.529 ms  
Loss rate: 3.04%  
-- Flow 1:  
Average throughput: 66.85 Mbit/s  
95th percentile per-packet one-way delay: 66.496 ms  
Loss rate: 2.89%  
-- Flow 2:  
Average throughput: 10.85 Mbit/s  
95th percentile per-packet one-way delay: 66.759 ms  
Loss rate: 4.20%  
-- Flow 3:  
Average throughput: 2.29 Mbit/s  
95th percentile per-packet one-way delay: 65.729 ms  
Loss rate: 4.71%

Run 6: Report of Vivace-LTE — Data Link

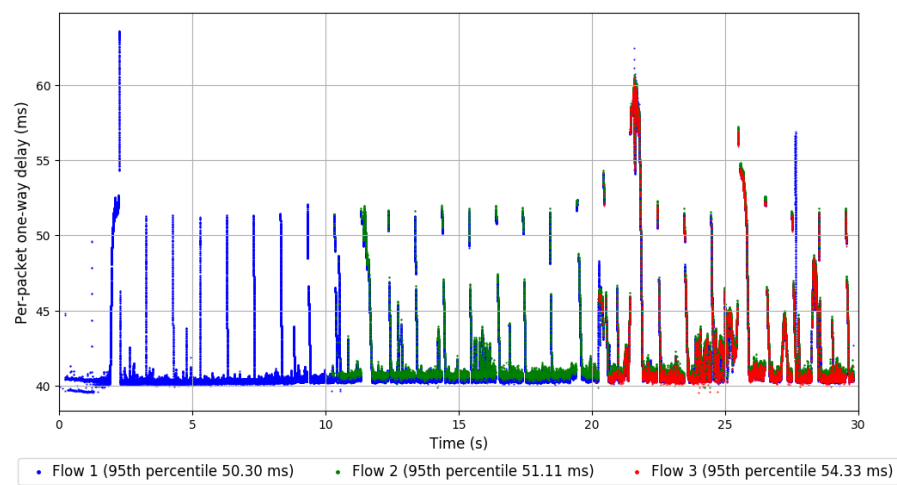
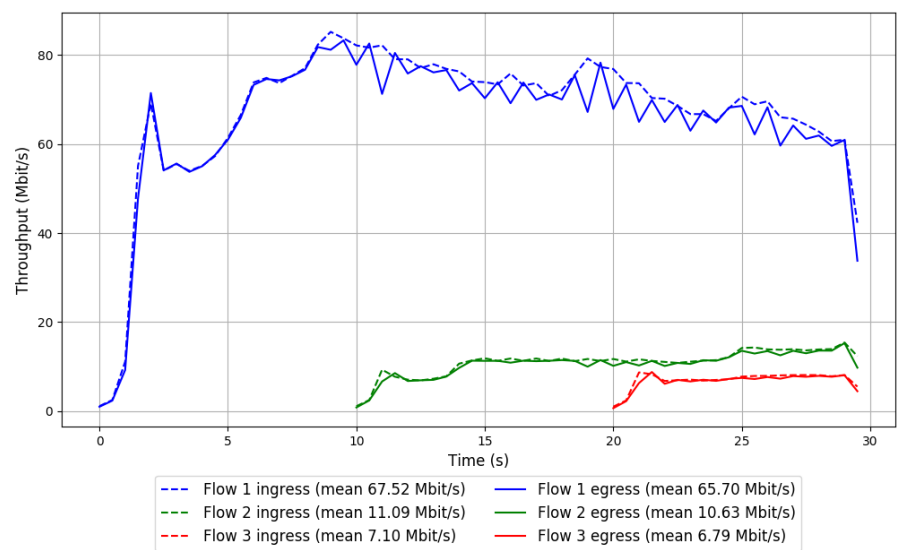


Run 7: Statistics of Vivace-LTE

Start at: 2018-01-17 01:13:40  
End at: 2018-01-17 01:14:10  
Local clock offset: -1.595 ms  
Remote clock offset: -5.735 ms

# Below is generated by plot.py at 2018-01-17 07:10:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 74.99 Mbit/s  
95th percentile per-packet one-way delay: 50.489 ms  
Loss rate: 3.20%  
-- Flow 1:  
Average throughput: 65.70 Mbit/s  
95th percentile per-packet one-way delay: 50.295 ms  
Loss rate: 2.99%  
-- Flow 2:  
Average throughput: 10.63 Mbit/s  
95th percentile per-packet one-way delay: 51.113 ms  
Loss rate: 4.55%  
-- Flow 3:  
Average throughput: 6.79 Mbit/s  
95th percentile per-packet one-way delay: 54.331 ms  
Loss rate: 5.14%

Run 7: Report of Vivace-LTE — Data Link



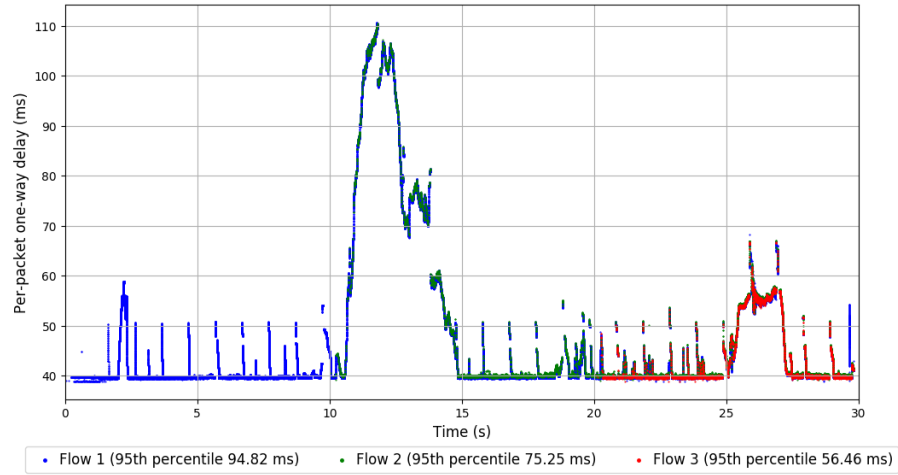
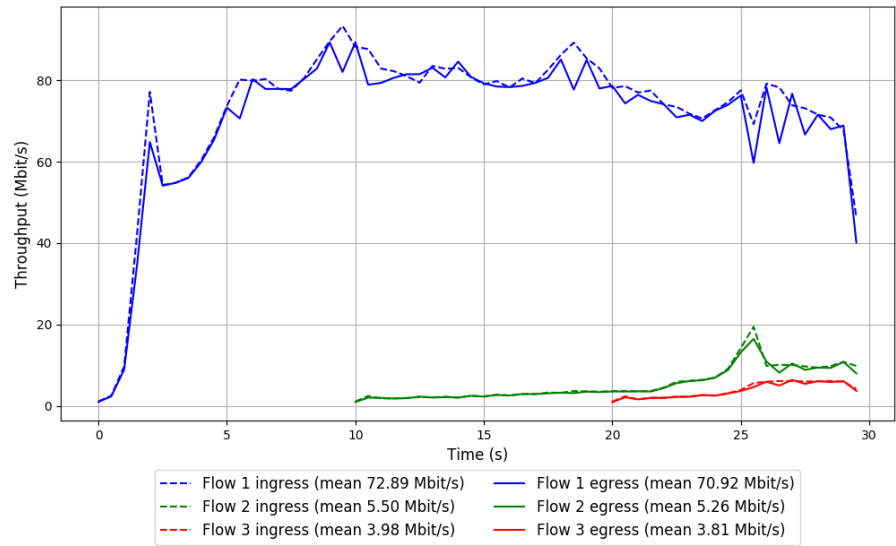
Run 8: Statistics of Vivace-LTE

Start at: 2018-01-17 01:36:52  
End at: 2018-01-17 01:37:22  
Local clock offset: -2.159 ms  
Remote clock offset: -6.064 ms

# Below is generated by plot.py at 2018-01-17 07:10:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.66 Mbit/s  
95th percentile per-packet one-way delay: 93.454 ms  
Loss rate: 3.10%  
-- Flow 1:  
Average throughput: 70.92 Mbit/s  
95th percentile per-packet one-way delay: 94.821 ms  
Loss rate: 2.98%  
-- Flow 2:  
Average throughput: 5.26 Mbit/s  
95th percentile per-packet one-way delay: 75.248 ms  
Loss rate: 4.80%  
-- Flow 3:  
Average throughput: 3.81 Mbit/s  
95th percentile per-packet one-way delay: 56.463 ms  
Loss rate: 5.09%



# Run 8: Report of Vivace-LTE — Data Link

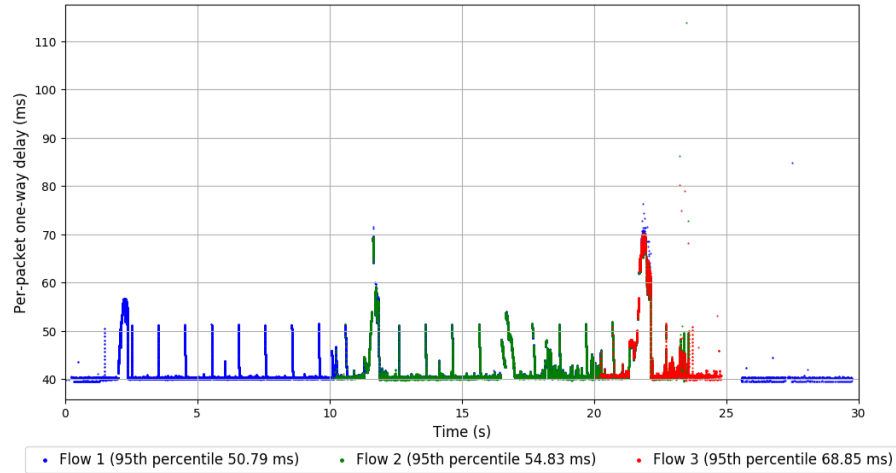
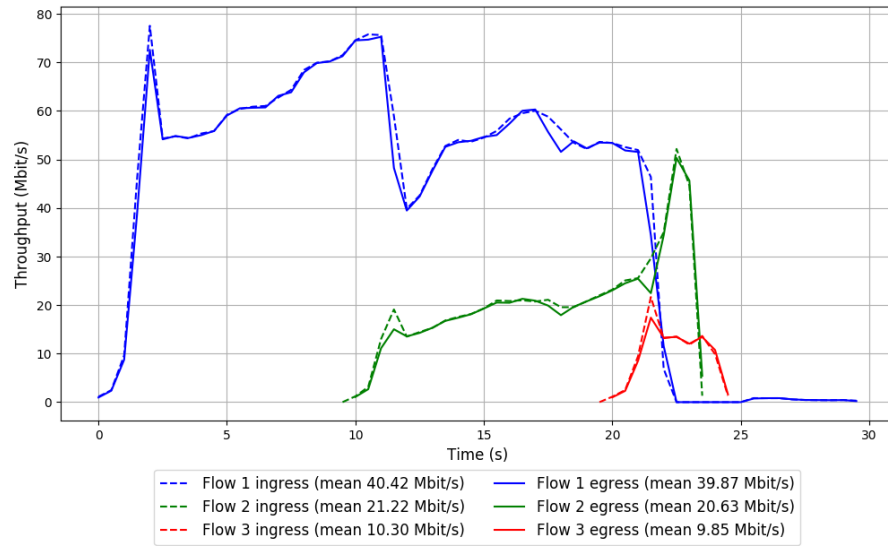


Run 9: Statistics of Vivace-LTE

Start at: 2018-01-17 02:00:19  
End at: 2018-01-17 02:00:49  
Local clock offset: -1.35 ms  
Remote clock offset: -6.162 ms

# Below is generated by plot.py at 2018-01-17 07:10:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 50.86 Mbit/s  
95th percentile per-packet one-way delay: 52.242 ms  
Loss rate: 2.12%  
-- Flow 1:  
Average throughput: 39.87 Mbit/s  
95th percentile per-packet one-way delay: 50.789 ms  
Loss rate: 1.89%  
-- Flow 2:  
Average throughput: 20.63 Mbit/s  
95th percentile per-packet one-way delay: 54.829 ms  
Loss rate: 2.72%  
-- Flow 3:  
Average throughput: 9.85 Mbit/s  
95th percentile per-packet one-way delay: 68.847 ms  
Loss rate: 4.41%

# Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-01-17 02:25:06

End at: 2018-01-17 02:25:36

Local clock offset: -3.967 ms

Remote clock offset: -5.571 ms

Run 10: Report of Vivace-LTE — Data Link

Figure is missing

Figure is missing