

Pantheon Report

Generated at 2018-03-20 10:30:02 (UTC).

Data path: Colombia ppp0 (*remote*) → AWS Brazil 2 Ethernet (*local*).

Repeated the test of 17 congestion control schemes 3 times.

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

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

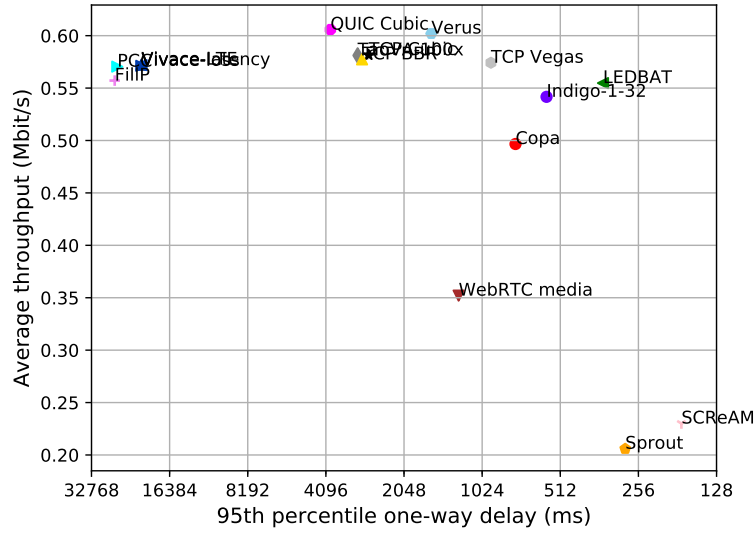
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

NTP offsets were measured against **gps.ntp.br** and have been applied to correct the timestamps in logs.

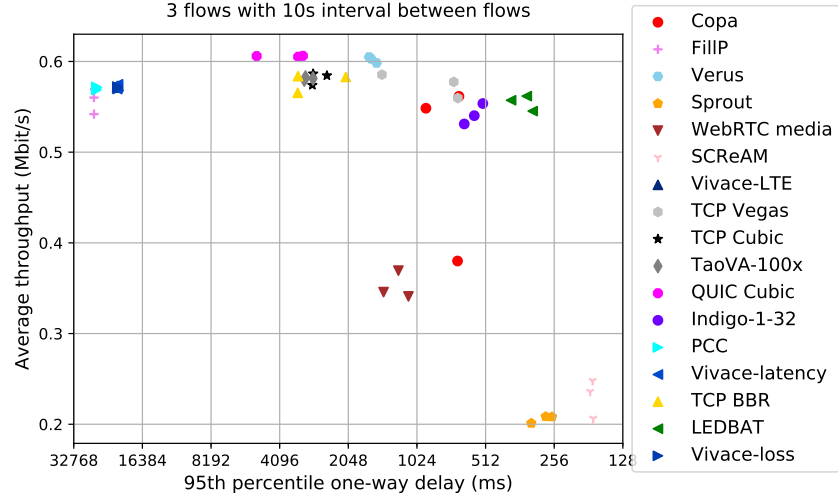
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eae30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	0.38	0.28	0.07	2887.07	2971.79	3073.84	2.93	12.45	39.62
TCP Cubic	3	0.41	0.26	0.06	2725.90	2905.90	2726.68	7.25	17.79	52.20
LEDBAT	3	0.27	0.32	0.24	313.74	357.24	373.90	0.80	1.65	5.51
PCC	3	0.57	0.00	N/A	26061.82	N/A	N/A	98.54	N/A	N/A
QUIC Cubic	3	0.52	0.13	0.02	3829.58	3973.58	4009.16	11.10	27.54	45.21
SCReAM	3	0.08	0.14	0.16	162.69	176.11	186.80	0.96	1.08	1.69
WebRTC media	3	0.15	0.13	0.08	1253.59	1234.68	1259.83	3.23	5.14	9.98
Sprout	3	0.10	0.11	0.11	446.13	249.83	269.50	1.65	1.90	4.89
TaoVA-100x	3	0.36	0.28	0.20	2558.04	3239.79	3128.24	4.94	10.96	23.75
TCP Vegas	3	0.33	0.22	0.32	934.00	927.24	927.90	1.26	2.85	7.91
Verus	3	0.59	0.02	0.02	1605.60	1586.19	1664.54	2.39	5.44	11.19
Copa	3	0.27	0.22	0.24	1168.60	578.39	863.74	2.24	20.35	16.02
FillP	3	0.56	0.00	N/A	26670.30	N/A	N/A	98.96	N/A	N/A
Indigo-1-32	3	0.29	0.24	0.29	453.36	624.24	690.58	1.57	1.62	4.97
Vivace-latency	3	0.57	0.00	N/A	21033.95	N/A	N/A	70.27	N/A	N/A
Vivace-loss	3	0.57	0.00	N/A	21061.18	N/A	N/A	89.26	N/A	N/A
Vivace-LTE	3	0.57	0.00	N/A	21041.64	N/A	N/A	70.50	N/A	N/A

Run 1: Statistics of TCP BBR

Start at: 2018-03-20 08:28:57

End at: 2018-03-20 08:29:27

Local clock offset: -8.012 ms

Remote clock offset: 5.324 ms

Below is generated by plot.py at 2018-03-20 10:29:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 3412.216 ms

Loss rate: 11.39%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 3381.878 ms

Loss rate: 2.83%

-- Flow 2:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 3447.454 ms

Loss rate: 24.23%

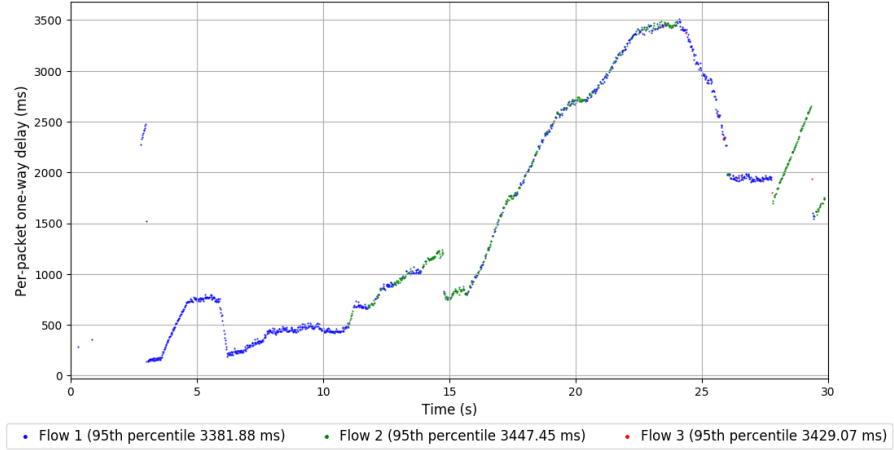
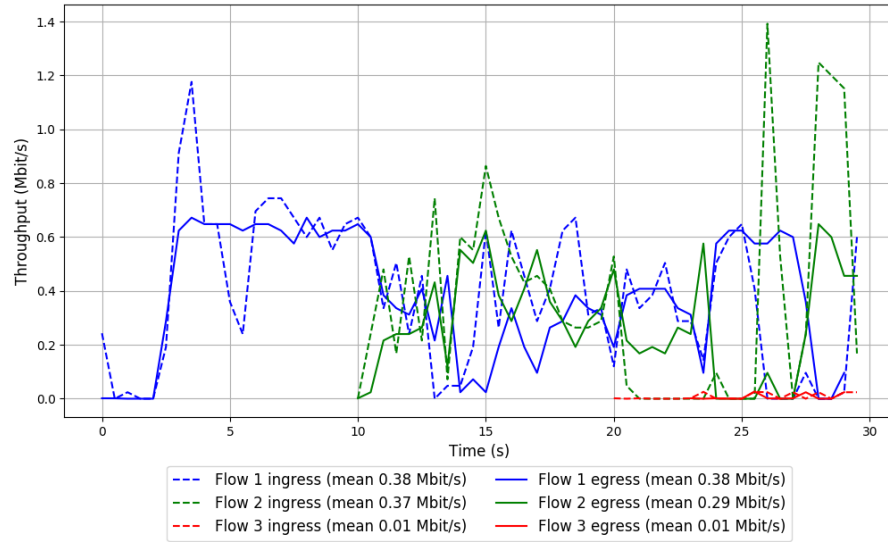
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 3429.074 ms

Loss rate: 54.29%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-20 08:51:36

End at: 2018-03-20 08:52:06

Local clock offset: -6.09 ms

Remote clock offset: 5.999 ms

Below is generated by plot.py at 2018-03-20 10:29:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 2099.888 ms

Loss rate: 7.72%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 1929.299 ms

Loss rate: 4.24%

-- Flow 2:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 2055.580 ms

Loss rate: 8.98%

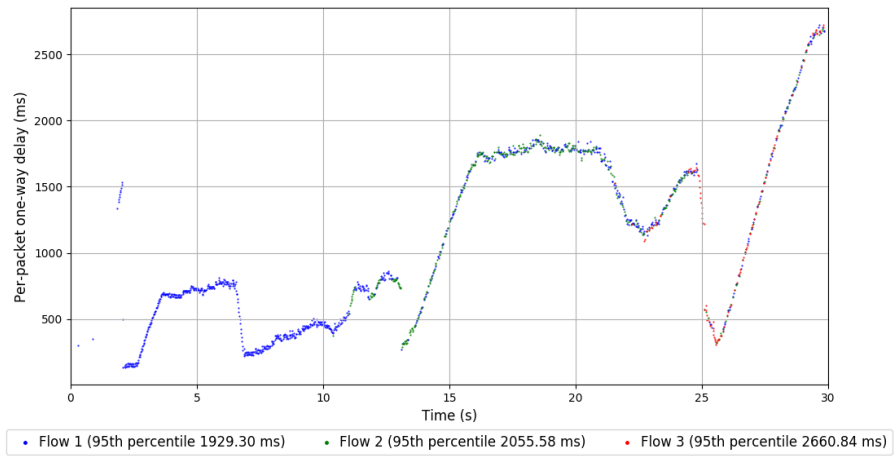
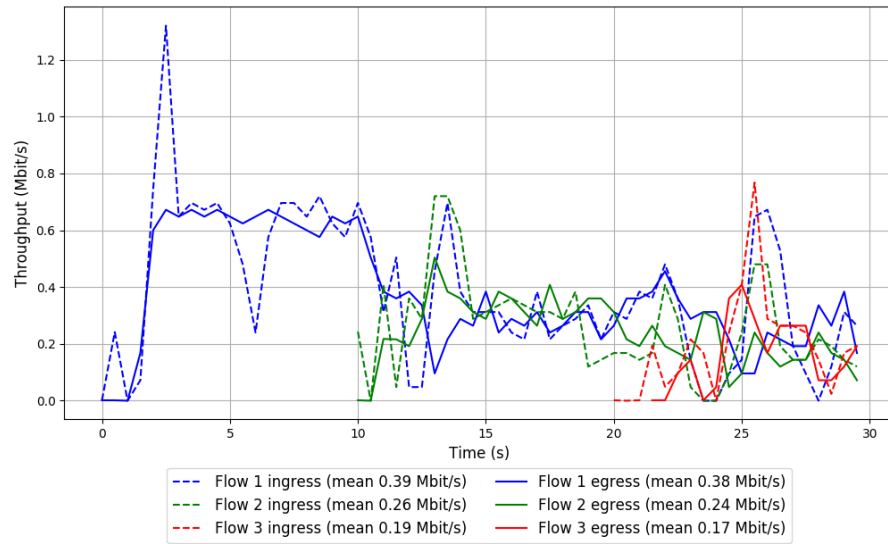
-- Flow 3:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 2660.840 ms

Loss rate: 25.79%

Run 2: Report of TCP BBR — Data Link

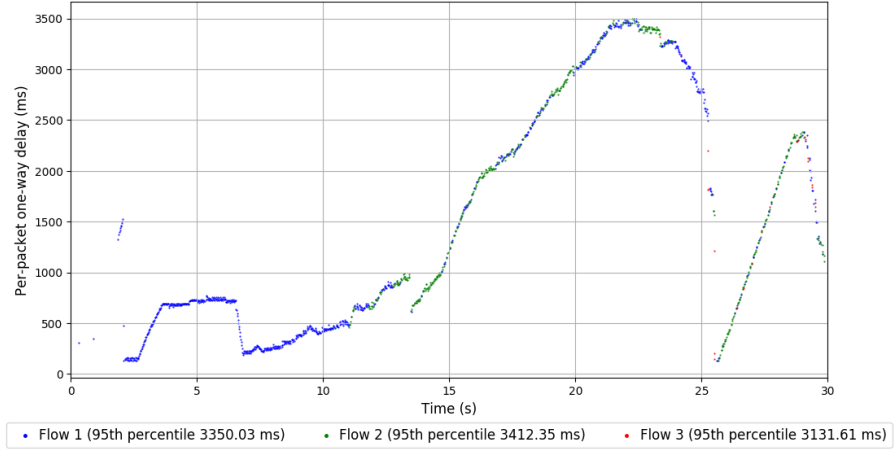
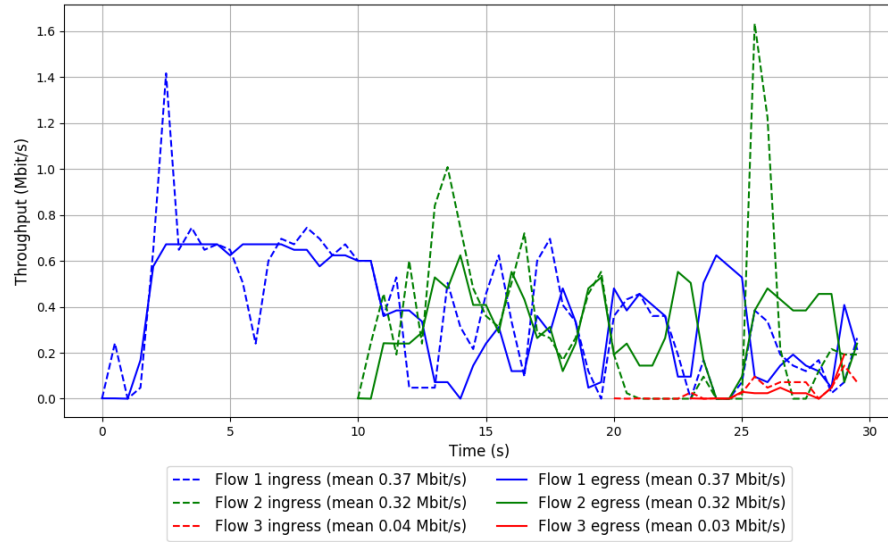


Run 3: Statistics of TCP BBR

Start at: 2018-03-20 09:14:16
End at: 2018-03-20 09:14:46
Local clock offset: -5.864 ms
Remote clock offset: 11.138 ms

Below is generated by plot.py at 2018-03-20 10:29:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 3402.441 ms
Loss rate: 3.30%
-- Flow 1:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 3350.026 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 3412.347 ms
Loss rate: 4.13%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 3131.607 ms
Loss rate: 38.78%

Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-20 08:13:50

End at: 2018-03-20 08:14:20

Local clock offset: -7.739 ms

Remote clock offset: 5.018 ms

Below is generated by plot.py at 2018-03-20 10:29:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 2541.941 ms

Loss rate: 8.98%

-- Flow 1:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 2511.365 ms

Loss rate: 5.15%

-- Flow 2:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 2652.706 ms

Loss rate: 11.63%

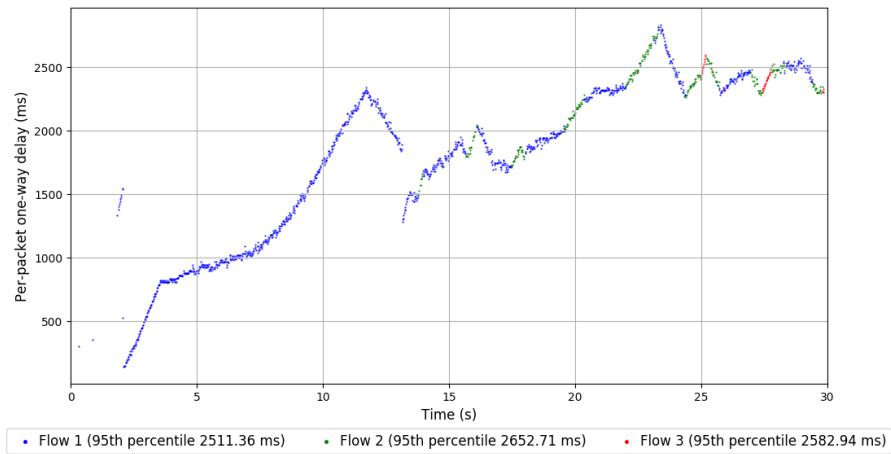
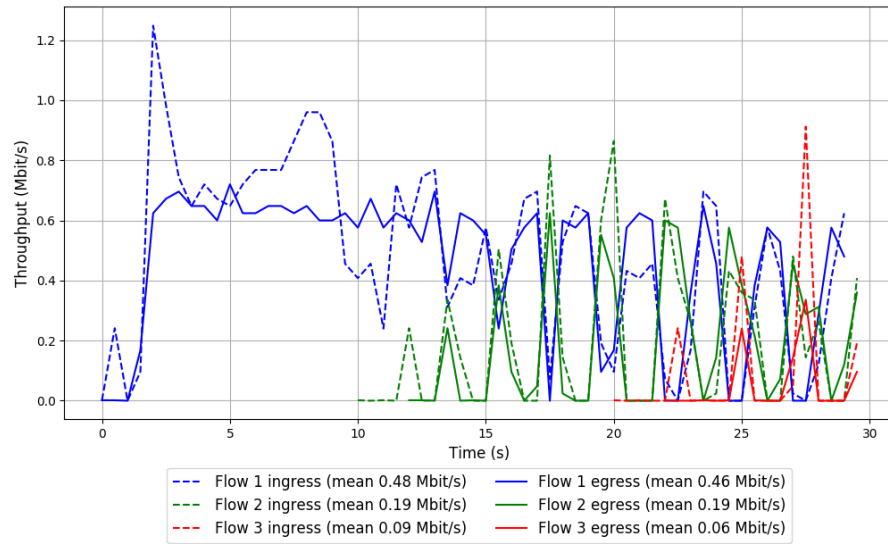
-- Flow 3:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 2582.942 ms

Loss rate: 56.23%

Run 1: Report of TCP Cubic — Data Link

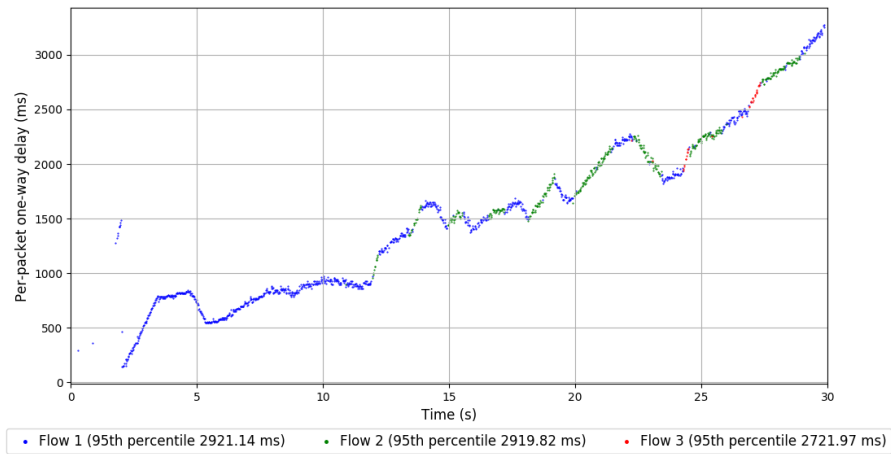
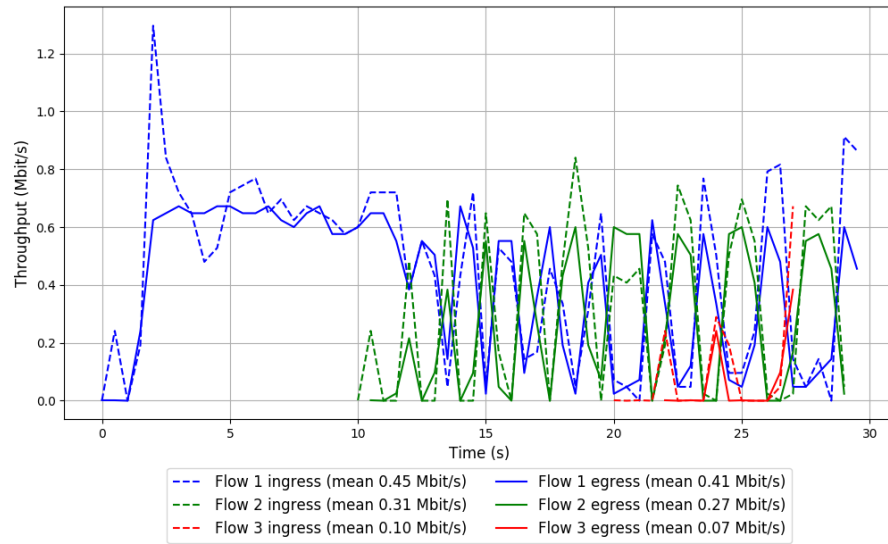


Run 2: Statistics of TCP Cubic

Start at: 2018-03-20 08:36:30
End at: 2018-03-20 08:37:00
Local clock offset: -7.533 ms
Remote clock offset: 11.114 ms

Below is generated by plot.py at 2018-03-20 10:29:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 2919.814 ms
Loss rate: 13.99%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 2921.135 ms
Loss rate: 10.63%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 2919.822 ms
Loss rate: 17.19%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 2721.971 ms
Loss rate: 49.75%

Run 2: Report of TCP Cubic — Data Link

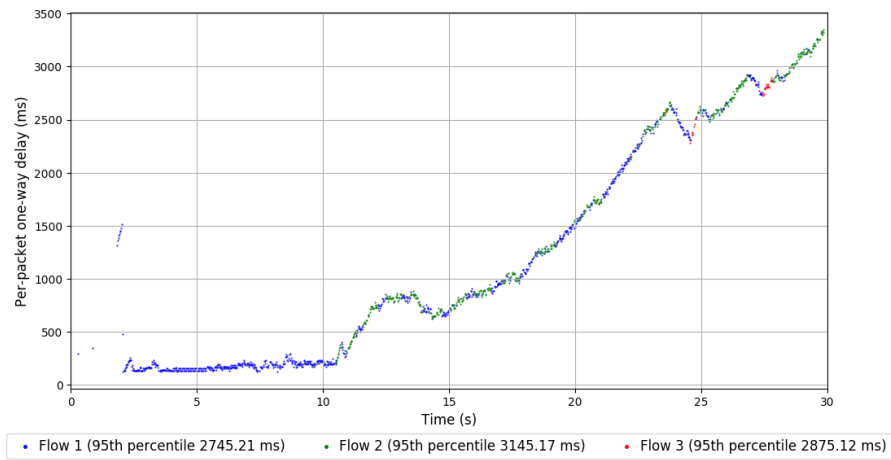
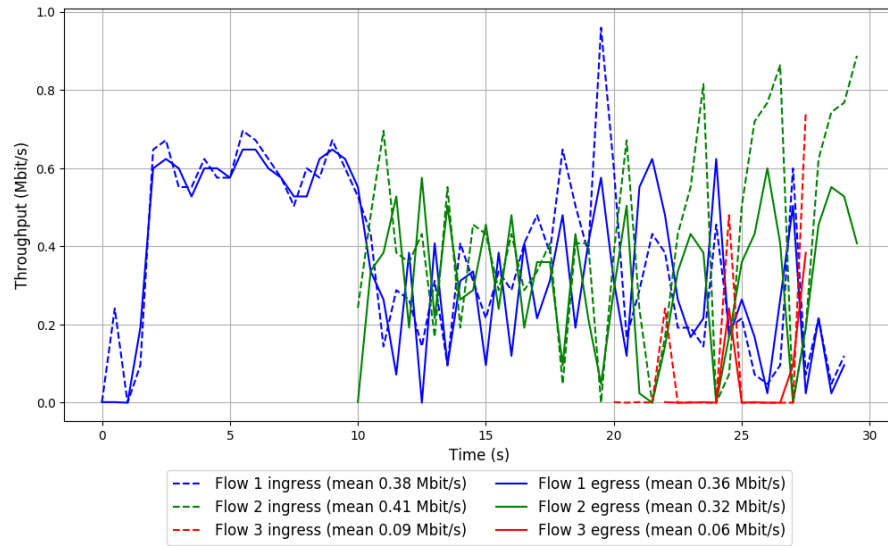


Run 3: Statistics of TCP Cubic

Start at: 2018-03-20 08:59:10
End at: 2018-03-20 08:59:40
Local clock offset: -5.954 ms
Remote clock offset: 10.769 ms

Below is generated by plot.py at 2018-03-20 10:29:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 2945.237 ms
Loss rate: 15.23%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 2745.208 ms
Loss rate: 5.96%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 3145.174 ms
Loss rate: 24.56%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 2875.118 ms
Loss rate: 50.62%

Run 3: Report of TCP Cubic — Data Link



Run 1: Statistics of LEDBAT

Start at: 2018-03-20 08:26:26

End at: 2018-03-20 08:26:56

Local clock offset: -7.879 ms

Remote clock offset: 5.153 ms

Below is generated by plot.py at 2018-03-20 10:29:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 318.271 ms

Loss rate: 2.07%

-- Flow 1:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 308.717 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 318.271 ms

Loss rate: 2.34%

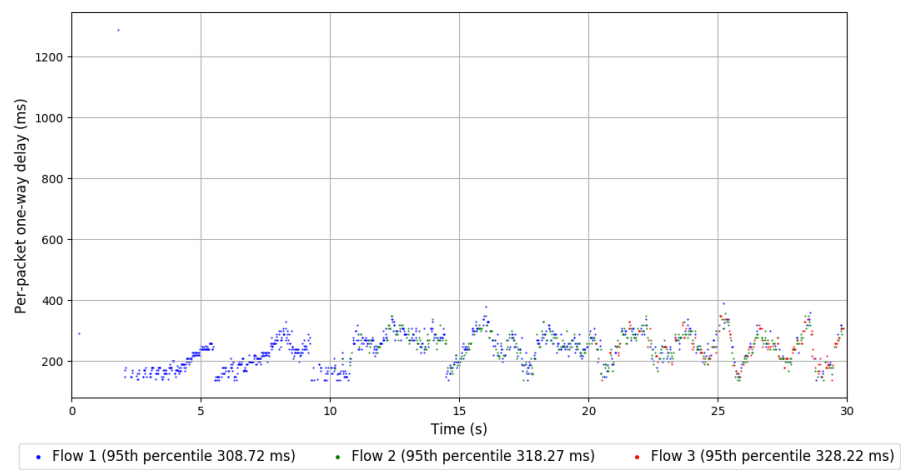
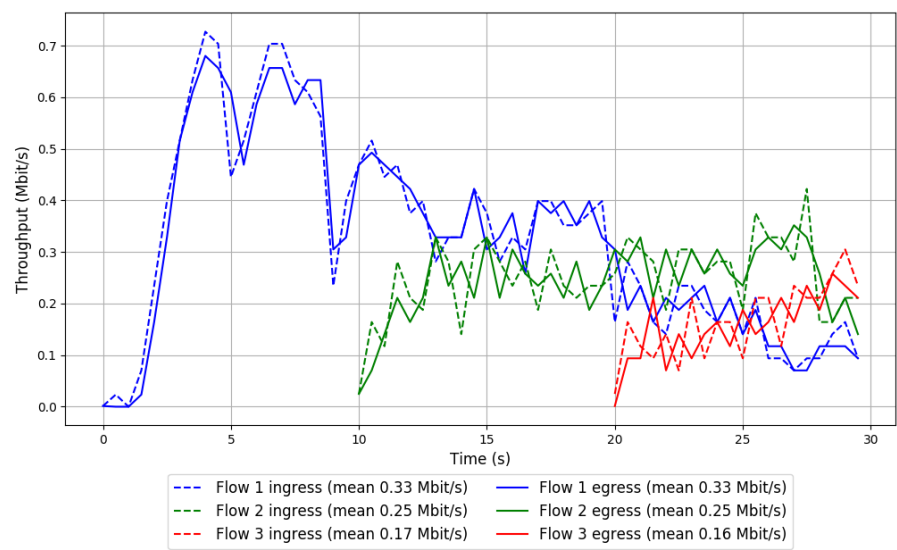
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 328.220 ms

Loss rate: 6.34%

Run 1: Report of LEDBAT — Data Link

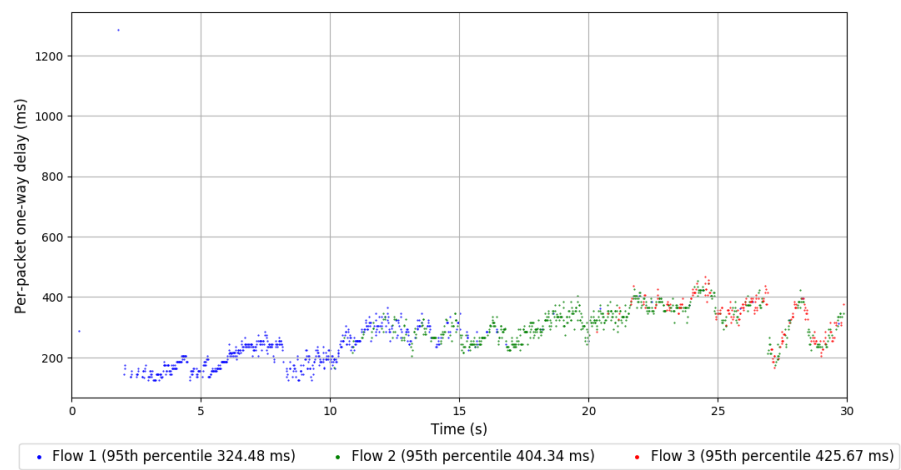
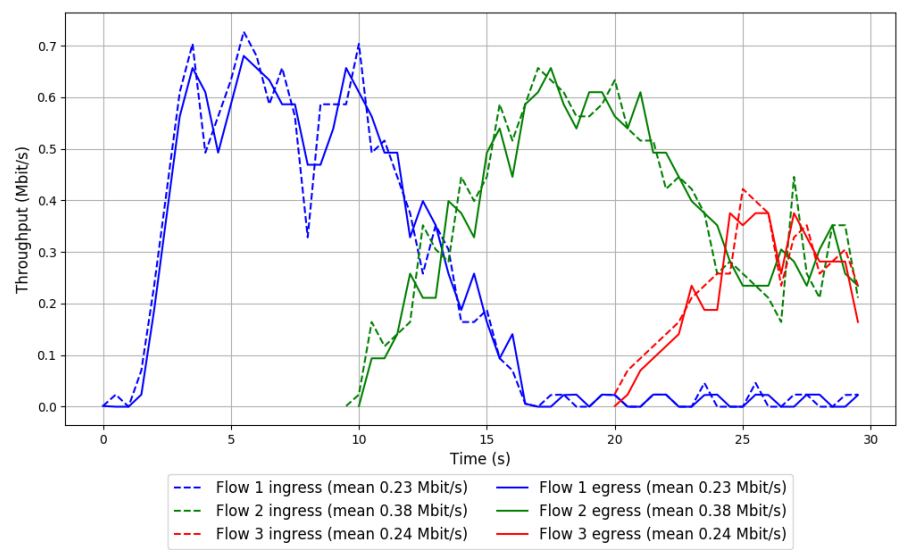


Run 2: Statistics of LEDBAT

Start at: 2018-03-20 08:49:05
End at: 2018-03-20 08:49:35
Local clock offset: -6.254 ms
Remote clock offset: 10.546 ms

Below is generated by plot.py at 2018-03-20 10:29:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 395.785 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 324.475 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 404.341 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 425.667 ms
Loss rate: 5.42%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-20 09:11:45

End at: 2018-03-20 09:12:15

Local clock offset: -5.874 ms

Remote clock offset: 6.314 ms

Below is generated by plot.py at 2018-03-20 10:29:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 337.790 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 308.022 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 349.096 ms

Loss rate: 1.07%

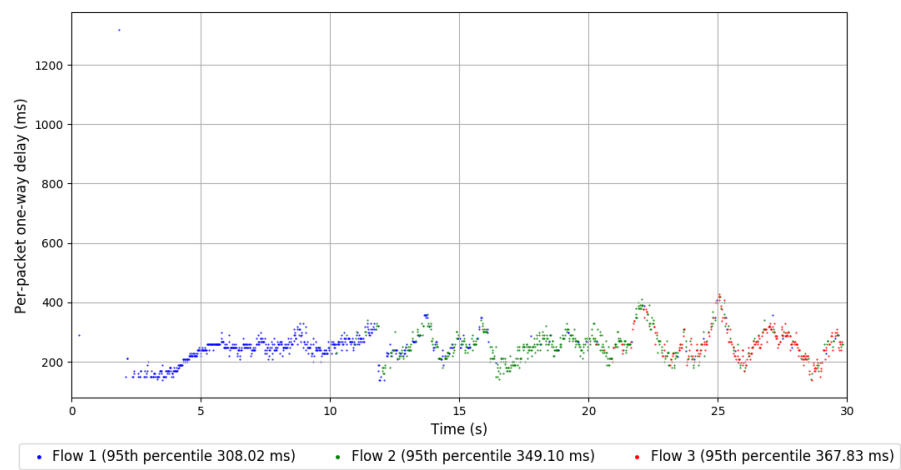
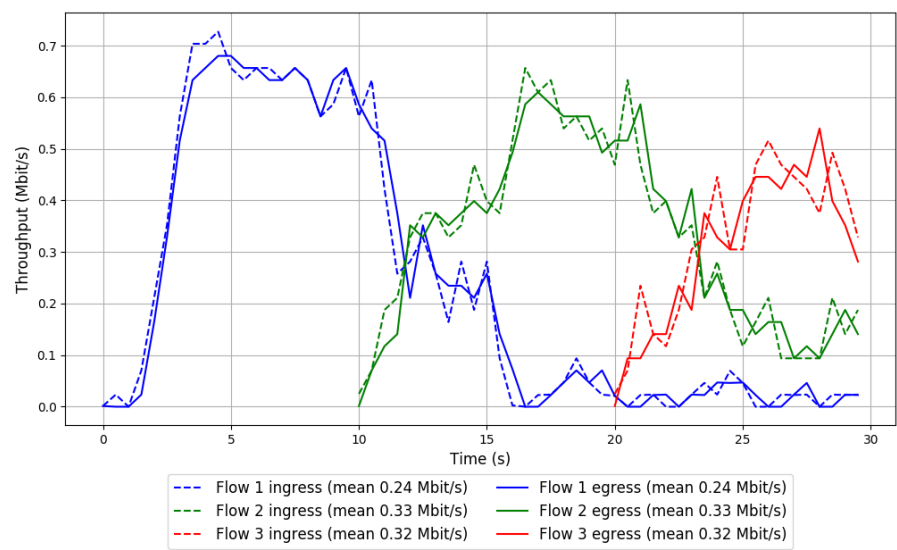
-- Flow 3:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 367.828 ms

Loss rate: 4.76%

Run 3: Report of LEDBAT — Data Link

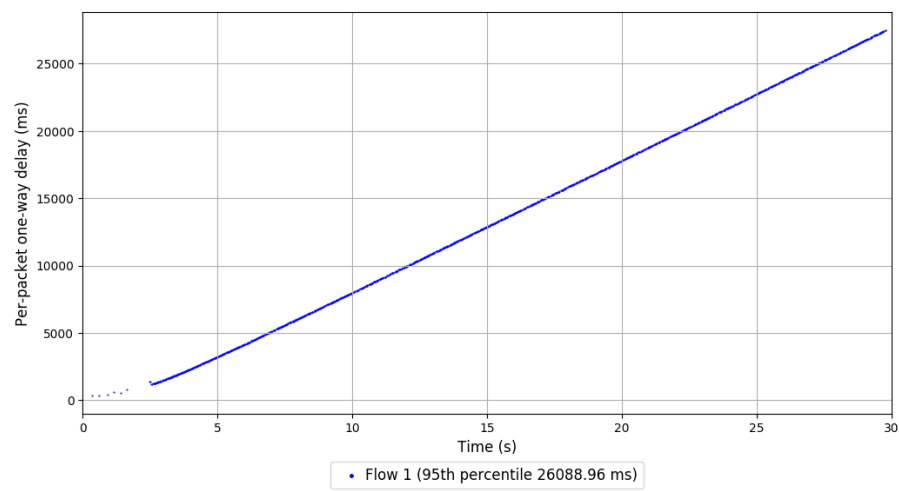
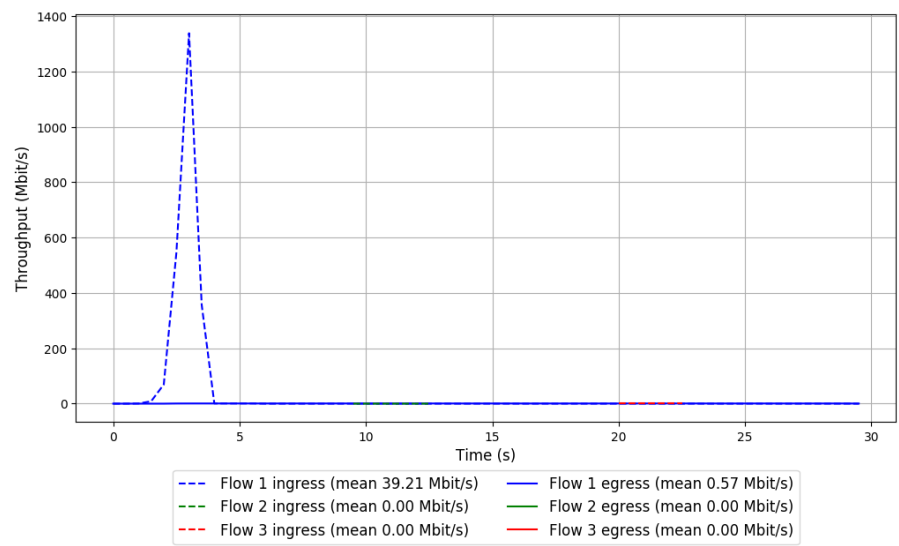


Run 1: Statistics of PCC

Start at: 2018-03-20 08:33:58
End at: 2018-03-20 08:34:28
Local clock offset: -8.147 ms
Remote clock offset: 10.226 ms

Below is generated by plot.py at 2018-03-20 10:29:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26088.961 ms
Loss rate: 98.56%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26088.961 ms
Loss rate: 98.56%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-20 08:56:37

End at: 2018-03-20 08:57:07

Local clock offset: -5.93 ms

Remote clock offset: 9.908 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 26063.166 ms

Loss rate: 98.53%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 26063.166 ms

Loss rate: 98.53%

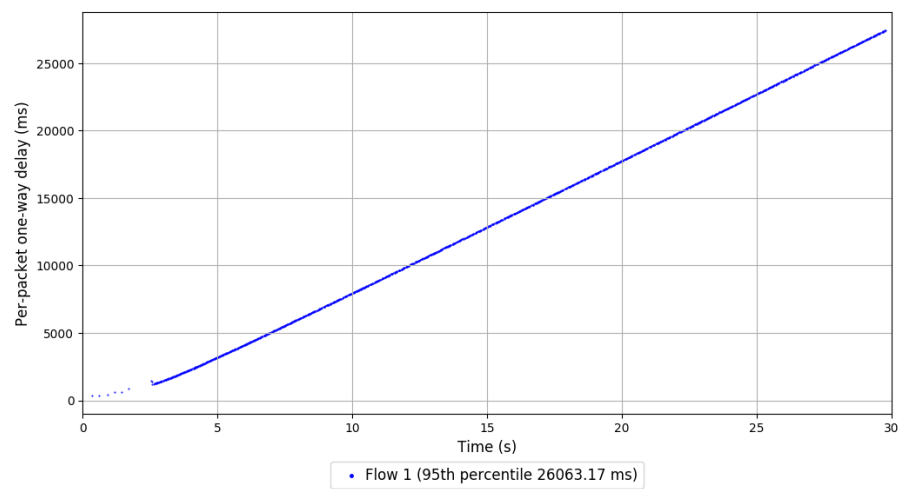
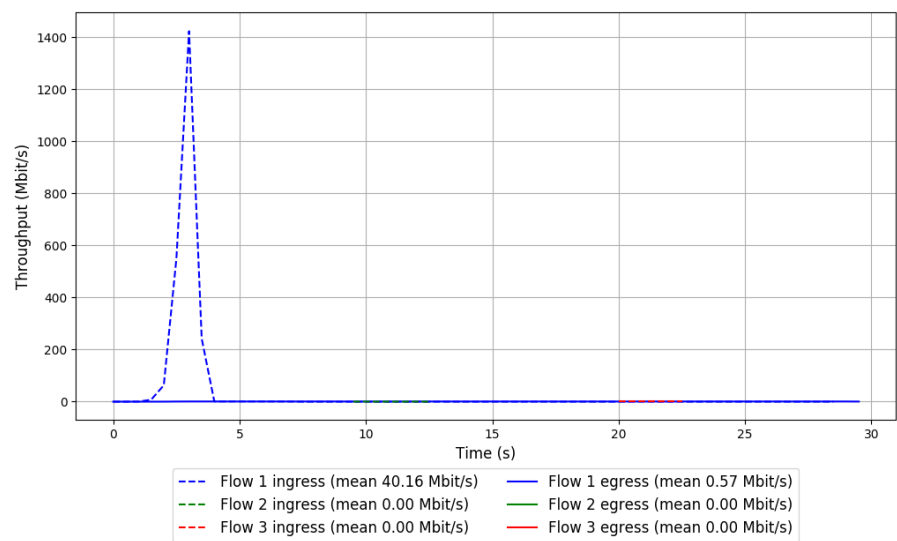
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 2: Report of PCC — Data Link

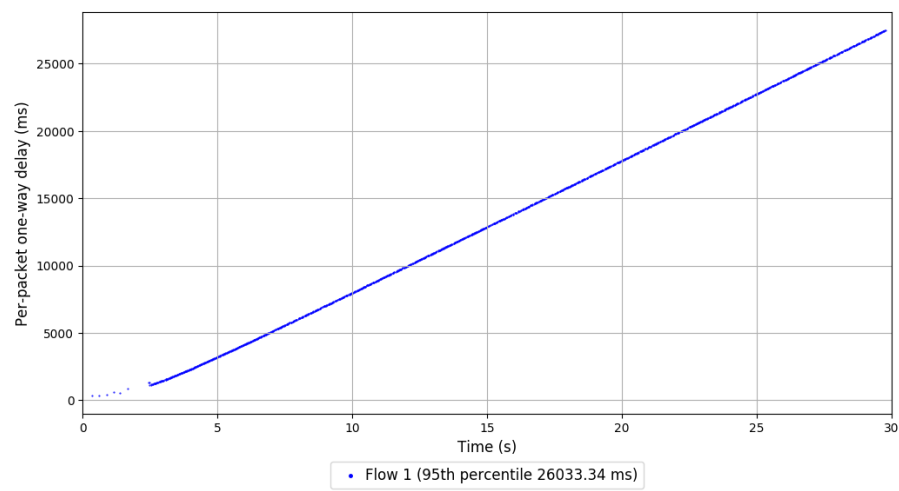
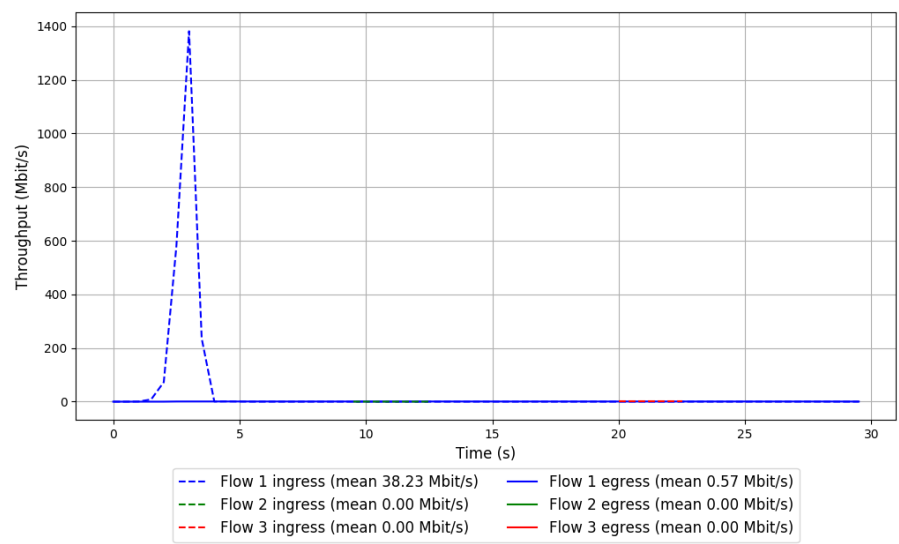


Run 3: Statistics of PCC

Start at: 2018-03-20 09:19:17
End at: 2018-03-20 09:19:47
Local clock offset: -5.91 ms
Remote clock offset: 10.294 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26033.343 ms
Loss rate: 98.53%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26033.343 ms
Loss rate: 98.53%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 3: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-03-20 08:27:41

End at: 2018-03-20 08:28:11

Local clock offset: -7.905 ms

Remote clock offset: 6.087 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 5168.304 ms

Loss rate: 15.85%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 5168.304 ms

Loss rate: 14.08%

-- Flow 2:

Average throughput: 0.07 Mbit/s

95th percentile per-packet one-way delay: 5154.639 ms

Loss rate: 34.73%

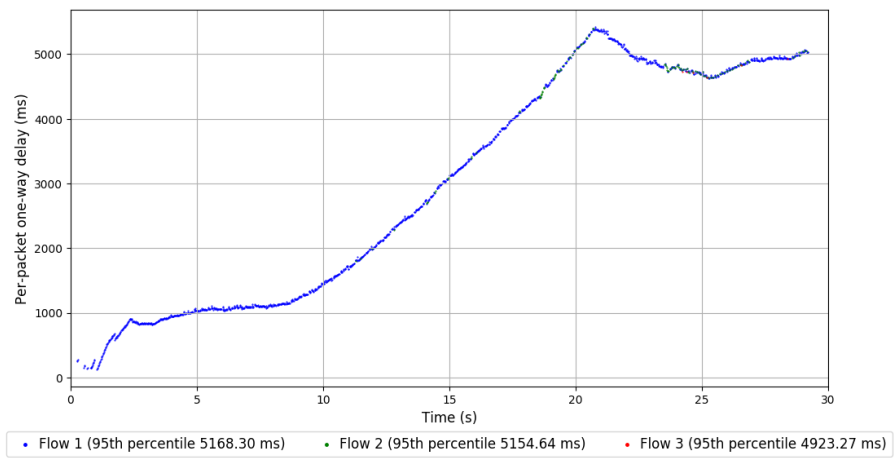
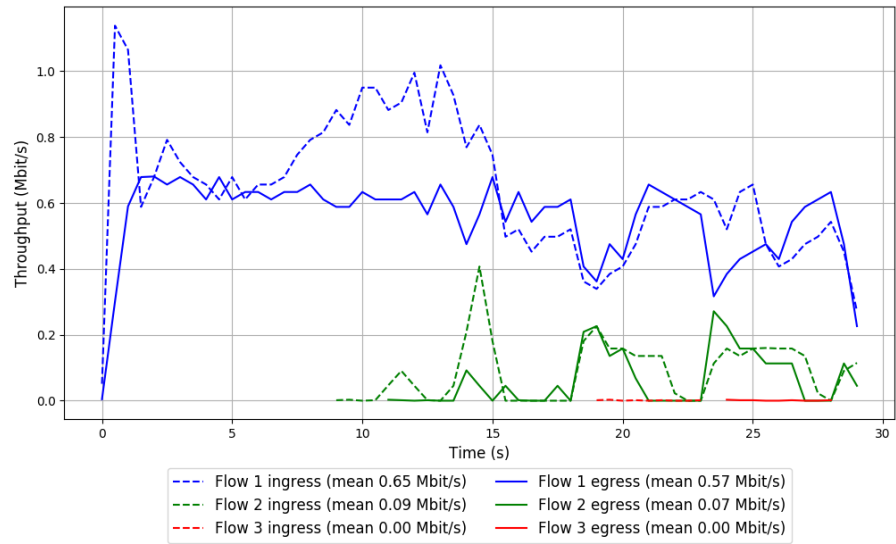
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 4923.272 ms

Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link

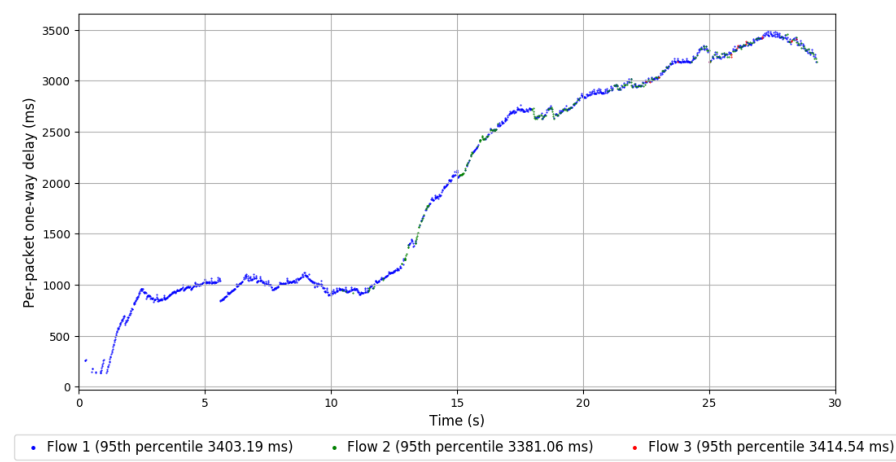
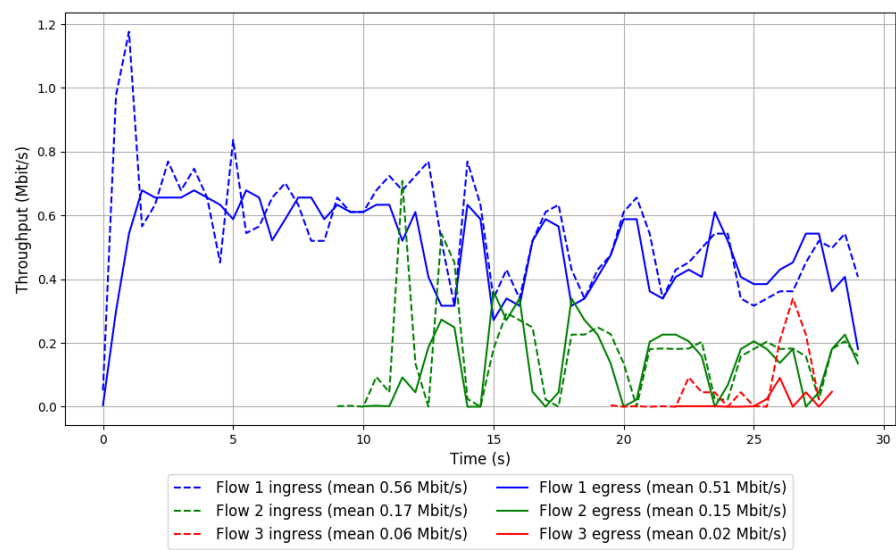


Run 2: Statistics of QUIC Cubic

Start at: 2018-03-20 08:50:21
End at: 2018-03-20 08:50:51
Local clock offset: -6.207 ms
Remote clock offset: 10.664 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 3397.090 ms
Loss rate: 13.17%
-- Flow 1:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 3403.186 ms
Loss rate: 10.04%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 3381.057 ms
Loss rate: 18.29%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 3414.537 ms
Loss rate: 79.25%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-20 09:13:00

End at: 2018-03-20 09:13:30

Local clock offset: -5.89 ms

Remote clock offset: 7.134 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 3241.170 ms

Loss rate: 15.14%

-- Flow 1:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 2917.248 ms

Loss rate: 9.19%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 3385.035 ms

Loss rate: 29.60%

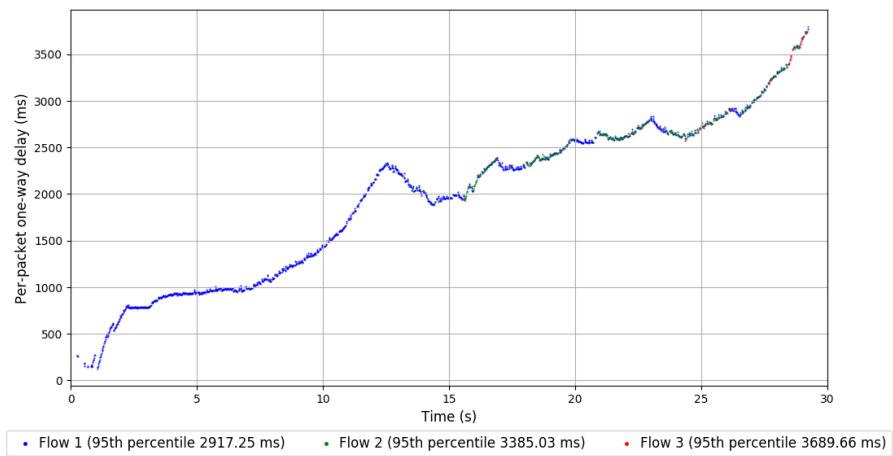
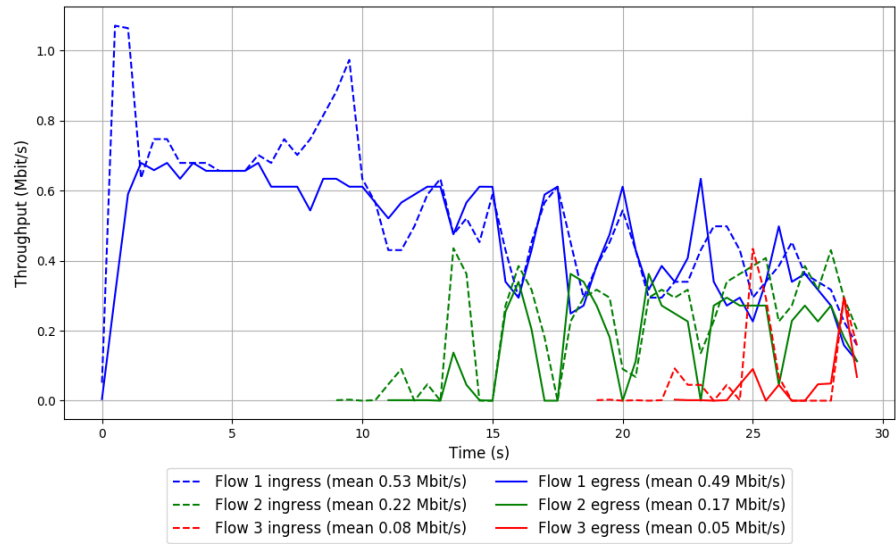
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3689.662 ms

Loss rate: 56.37%

Run 3: Report of QUIC Cubic — Data Link

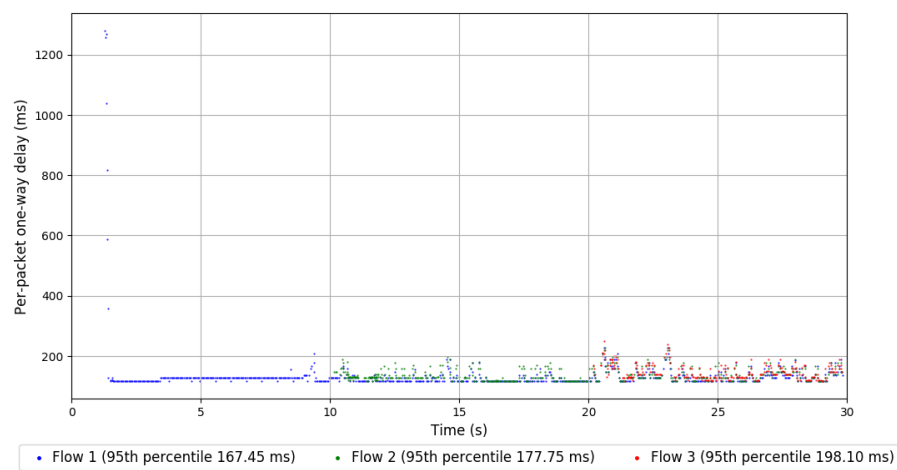
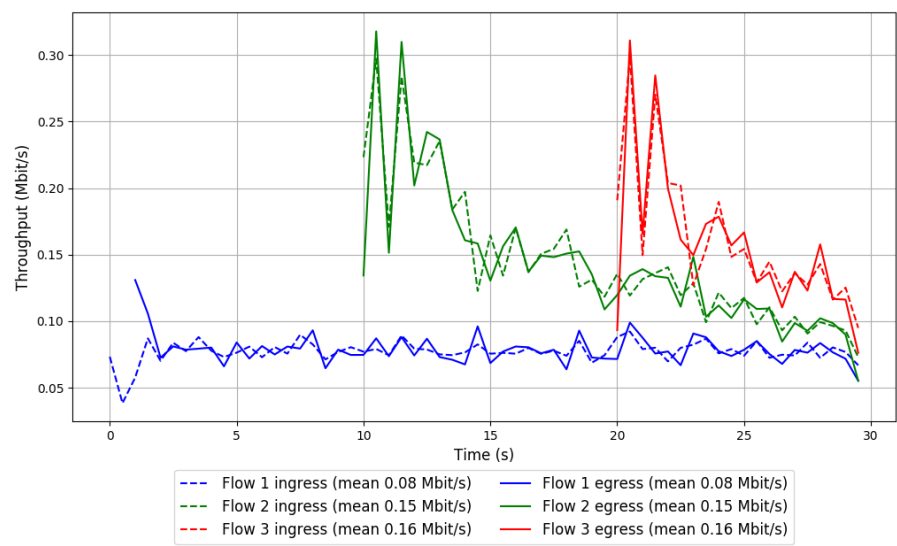


```
Run 1: Statistics of SCReAM

Start at: 2018-03-20 08:21:25
End at: 2018-03-20 08:21:55
Local clock offset: -7.82 ms
Remote clock offset: 5.847 ms

# Below is generated by plot.py at 2018-03-20 10:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 178.132 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 167.446 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 177.754 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 198.102 ms
Loss rate: 2.62%
```

Run 1: Report of SReAM — Data Link

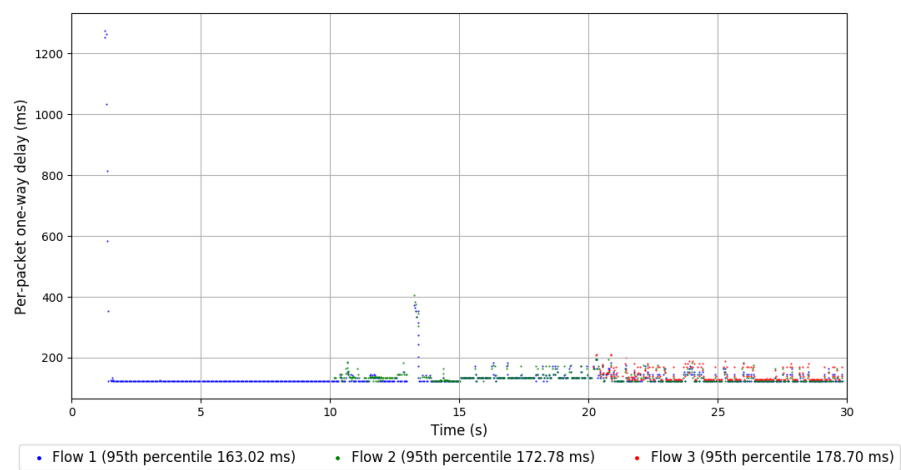
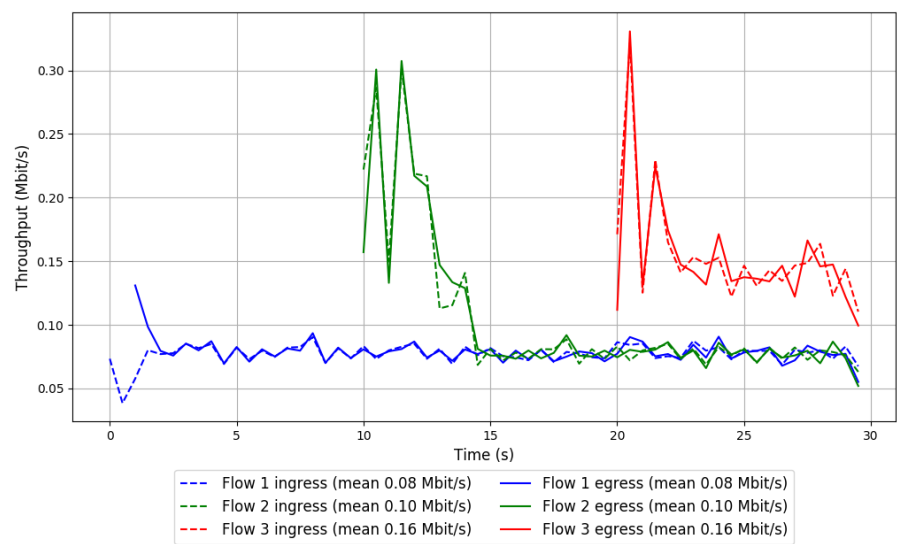


Run 2: Statistics of SCReAM

Start at: 2018-03-20 08:44:05
End at: 2018-03-20 08:44:35
Local clock offset: -6.55 ms
Remote clock offset: 5.817 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 172.746 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 163.020 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 172.779 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 178.701 ms
Loss rate: 2.10%

Run 2: Report of SReAM — Data Link

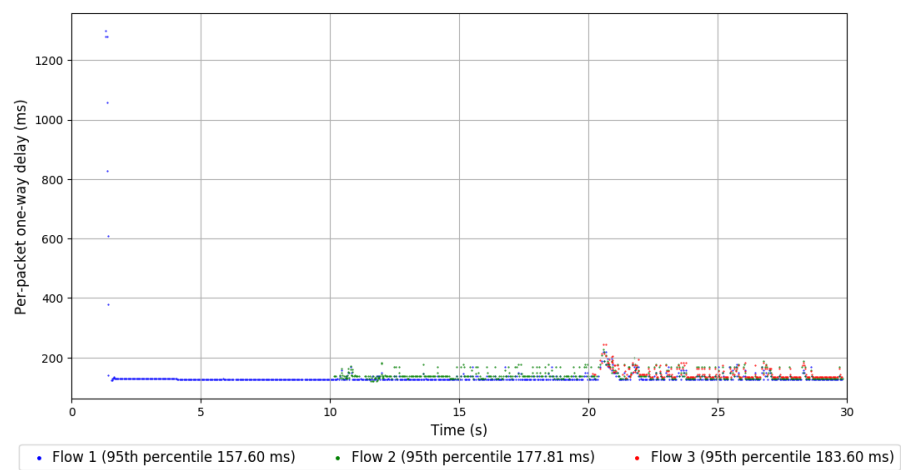
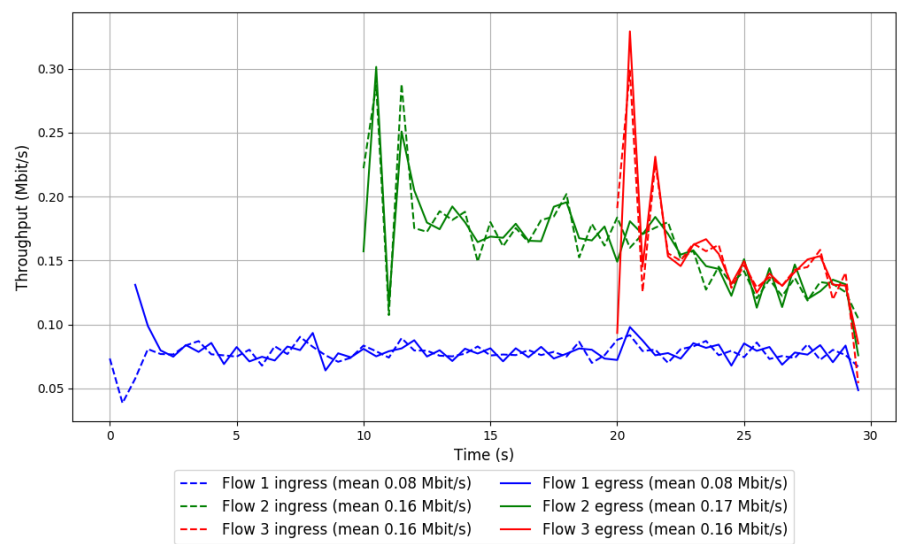


Run 3: Statistics of SCReAM

Start at: 2018-03-20 09:06:44
End at: 2018-03-20 09:07:14
Local clock offset: -5.816 ms
Remote clock offset: 6.16 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 173.672 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 157.598 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 177.806 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 183.601 ms
Loss rate: 0.35%

Run 3: Report of SReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-03-20 08:23:55

End at: 2018-03-20 08:24:25

Local clock offset: -7.781 ms

Remote clock offset: 9.014 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 1115.952 ms

Loss rate: 8.09%

-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1089.537 ms

Loss rate: 4.23%

-- Flow 2:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1142.010 ms

Loss rate: 4.59%

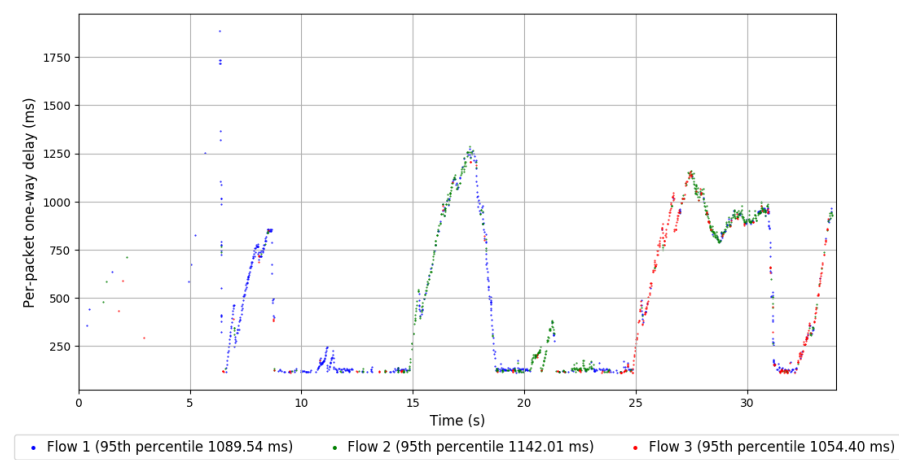
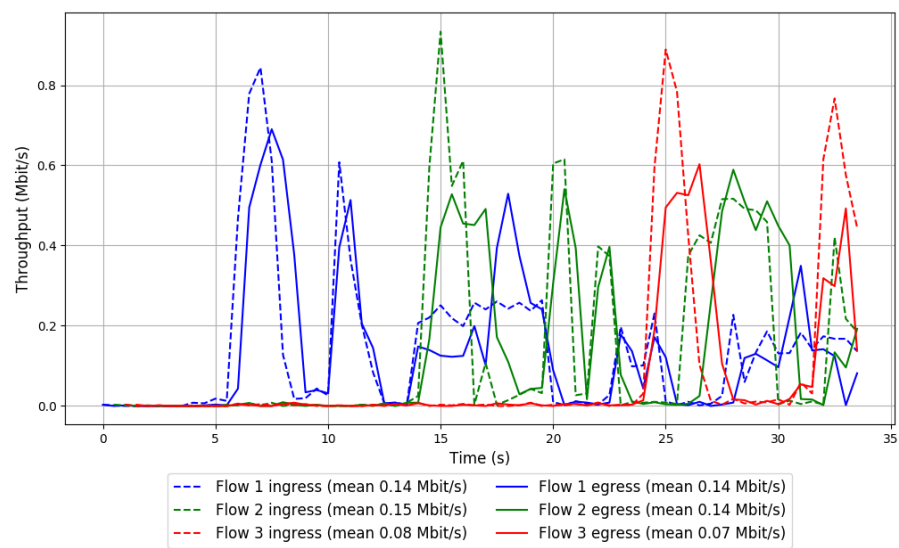
-- Flow 3:

Average throughput: 0.07 Mbit/s

95th percentile per-packet one-way delay: 1054.398 ms

Loss rate: 21.02%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-20 08:46:35

End at: 2018-03-20 08:47:05

Local clock offset: -6.43 ms

Remote clock offset: 6.576 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 1234.926 ms

Loss rate: 5.04%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 1254.243 ms

Loss rate: 1.81%

-- Flow 2:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 1234.926 ms

Loss rate: 7.59%

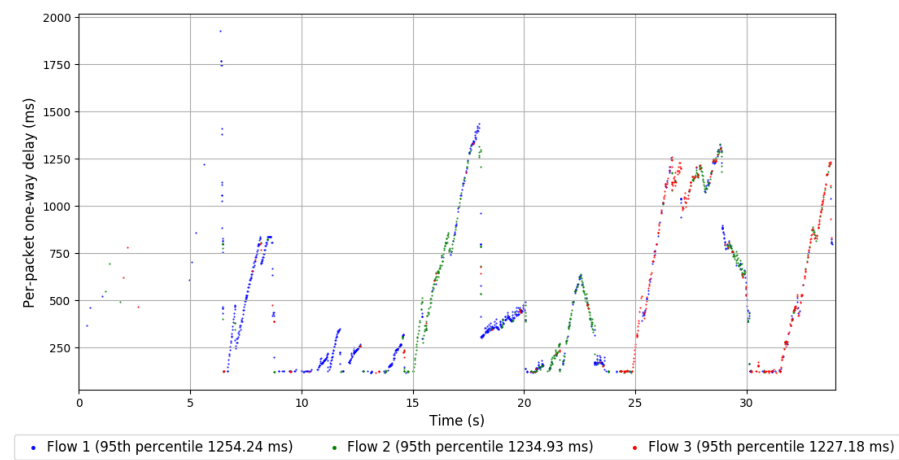
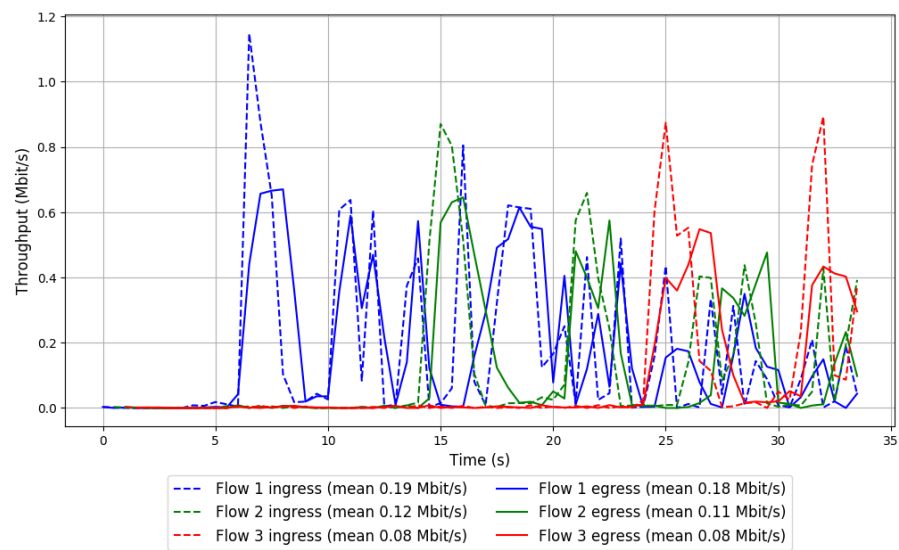
-- Flow 3:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 1227.177 ms

Loss rate: 8.73%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-20 09:09:15

End at: 2018-03-20 09:09:45

Local clock offset: -5.785 ms

Remote clock offset: 7.09 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 1434.660 ms

Loss rate: 2.74%

-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1416.984 ms

Loss rate: 3.65%

-- Flow 2:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 1327.095 ms

Loss rate: 3.23%

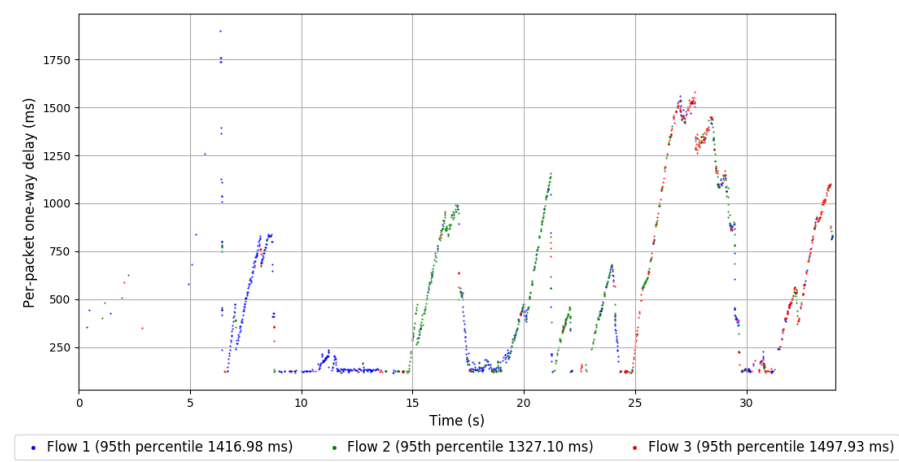
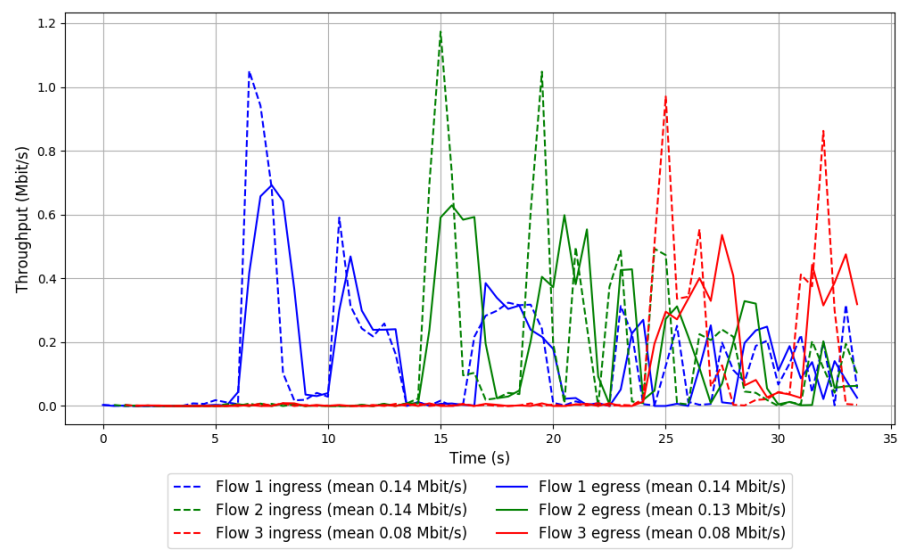
-- Flow 3:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 1497.926 ms

Loss rate: 0.19%

Run 3: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-03-20 08:32:42

End at: 2018-03-20 08:33:12

Local clock offset: -8.026 ms

Remote clock offset: 6.381 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 322.730 ms

Loss rate: 2.62%

-- Flow 1:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 639.047 ms

Loss rate: 1.93%

-- Flow 2:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 267.530 ms

Loss rate: 1.19%

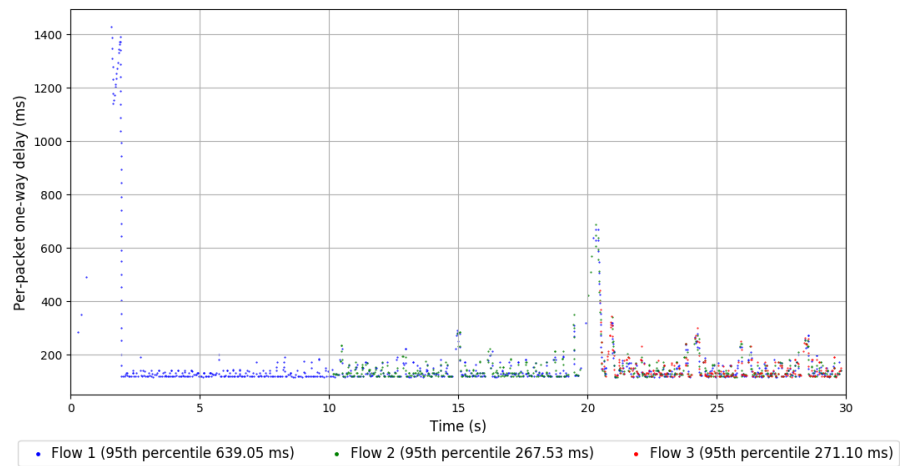
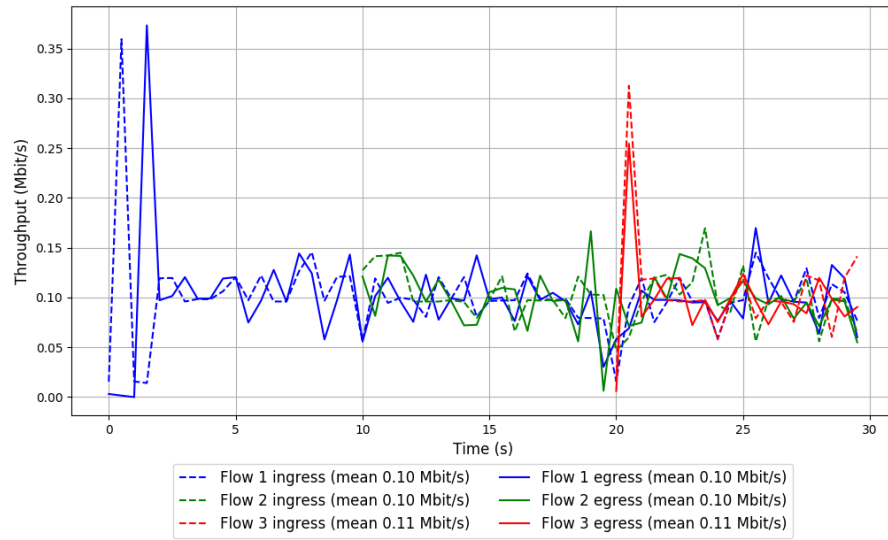
-- Flow 3:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 271.101 ms

Loss rate: 7.28%

Run 1: Report of Sprout — Data Link

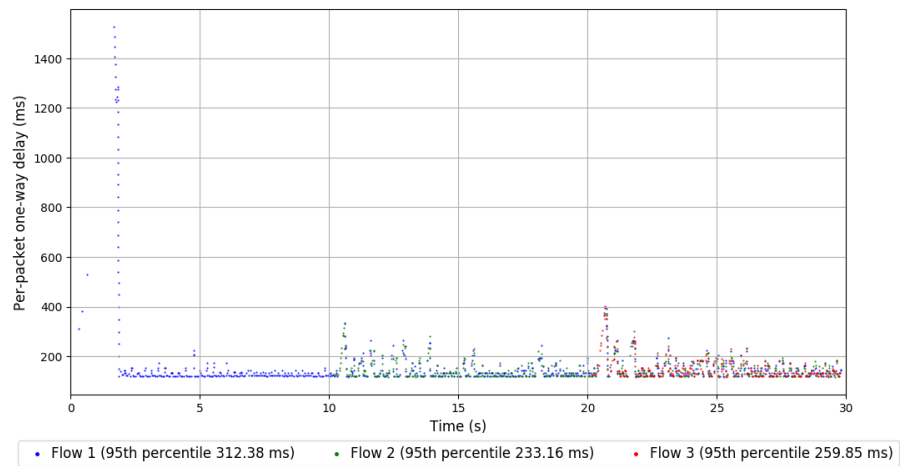
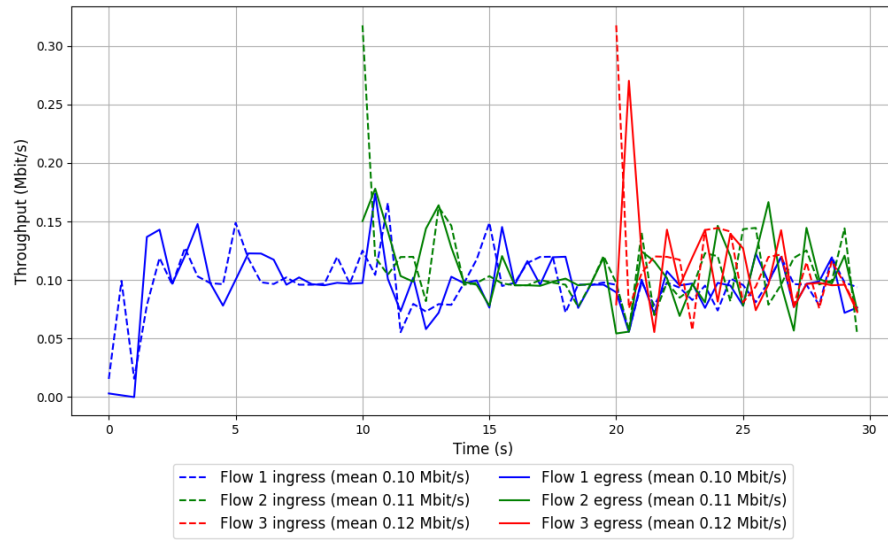


Run 2: Statistics of Sprout

Start at: 2018-03-20 08:55:22
End at: 2018-03-20 08:55:52
Local clock offset: -5.97 ms
Remote clock offset: 6.85 ms

```
# Below is generated by plot.py at 2018-03-20 10:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 261.806 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 312.385 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 233.163 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 259.854 ms
Loss rate: 3.99%
```


Run 2: Report of Sprout — Data Link

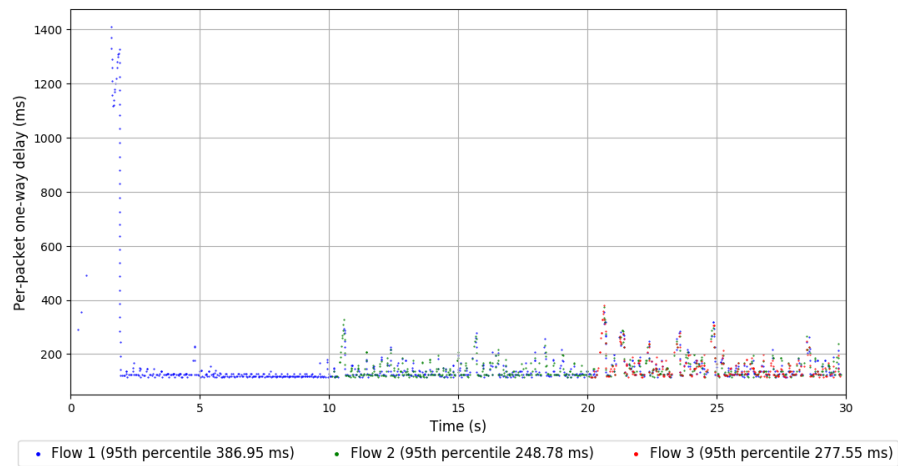
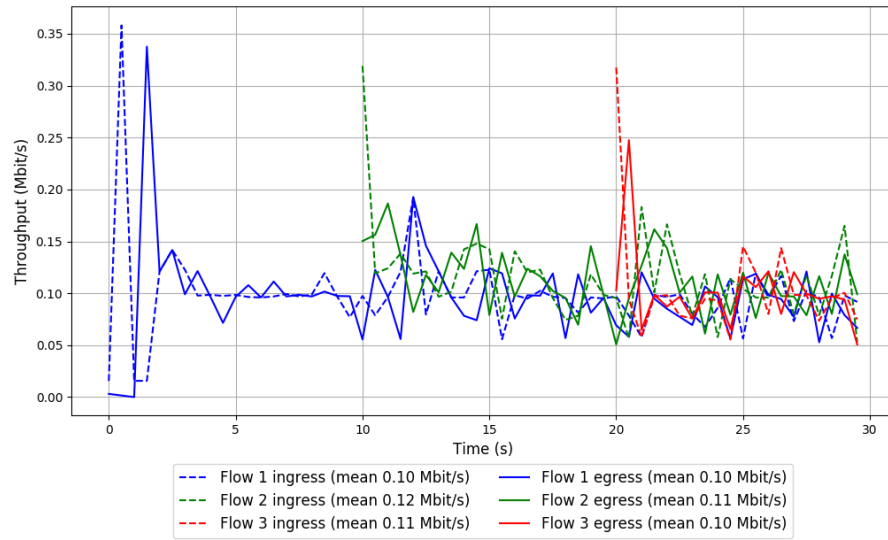


Run 3: Statistics of Sprout

Start at: 2018-03-20 09:18:02
End at: 2018-03-20 09:18:32
Local clock offset: -5.966 ms
Remote clock offset: 10.191 ms

```
# Below is generated by plot.py at 2018-03-20 10:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 278.984 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 386.948 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 248.785 ms
Loss rate: 2.44%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 277.545 ms
Loss rate: 3.41%
```

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-03-20 08:22:40

End at: 2018-03-20 08:23:10

Local clock offset: -7.848 ms

Remote clock offset: 4.984 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 3193.052 ms

Loss rate: 9.58%

-- Flow 1:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 2543.752 ms

Loss rate: 5.50%

-- Flow 2:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 3281.509 ms

Loss rate: 12.48%

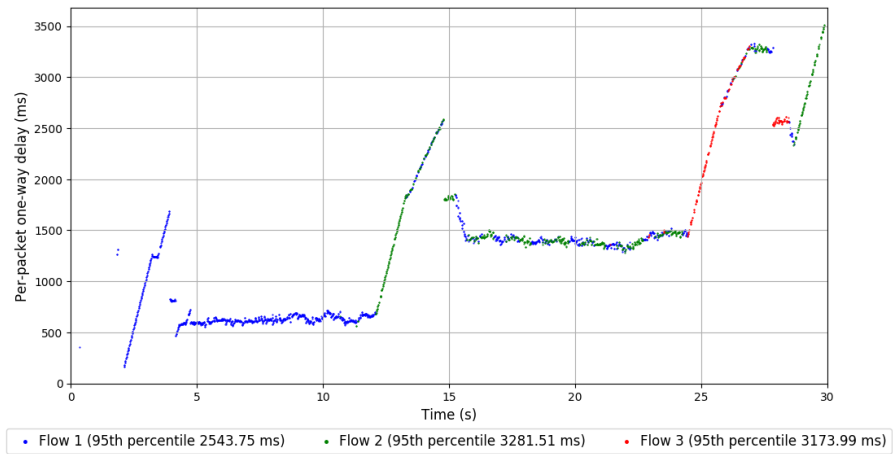
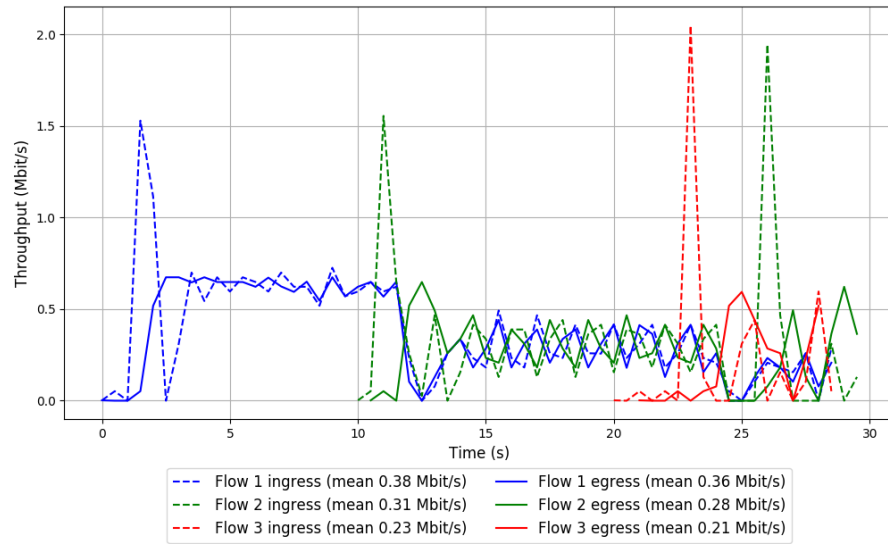
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 3173.990 ms

Loss rate: 23.06%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-03-20 08:45:20

End at: 2018-03-20 08:45:50

Local clock offset: -6.468 ms

Remote clock offset: 5.797 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 3155.621 ms

Loss rate: 8.85%

-- Flow 1:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 2555.912 ms

Loss rate: 4.44%

-- Flow 2:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 3353.854 ms

Loss rate: 12.06%

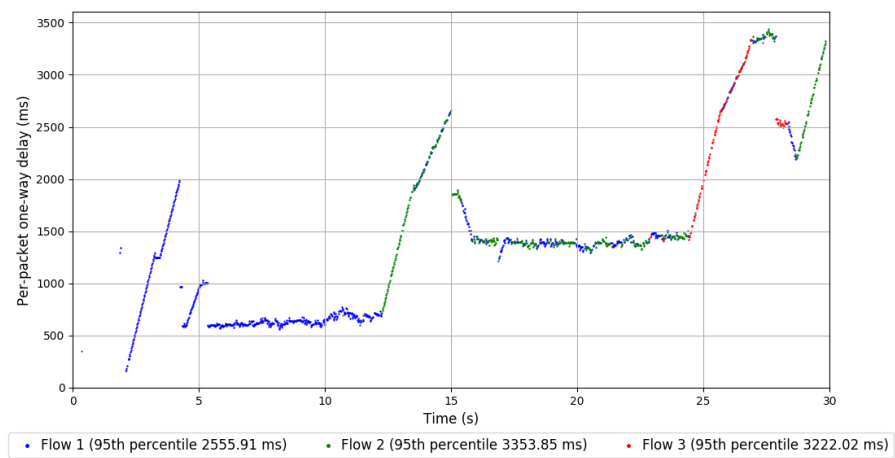
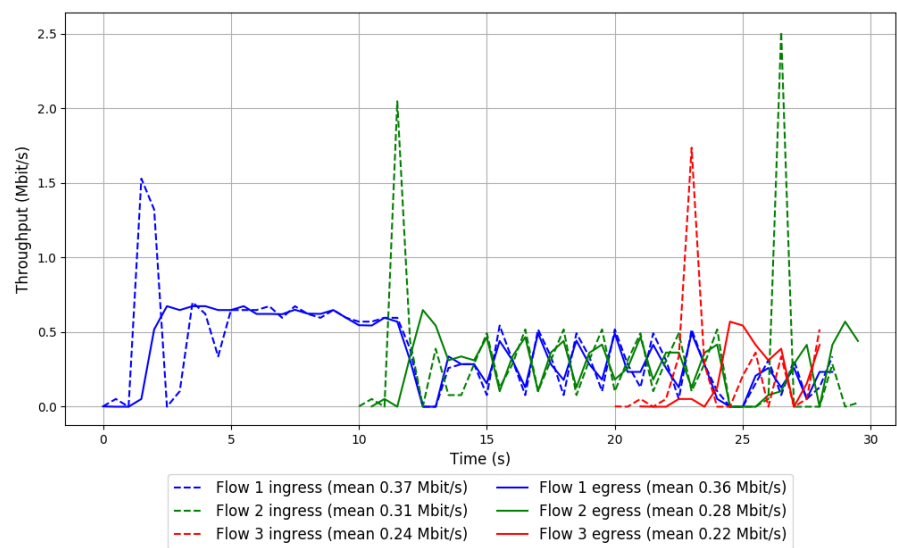
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3222.022 ms

Loss rate: 23.01%

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

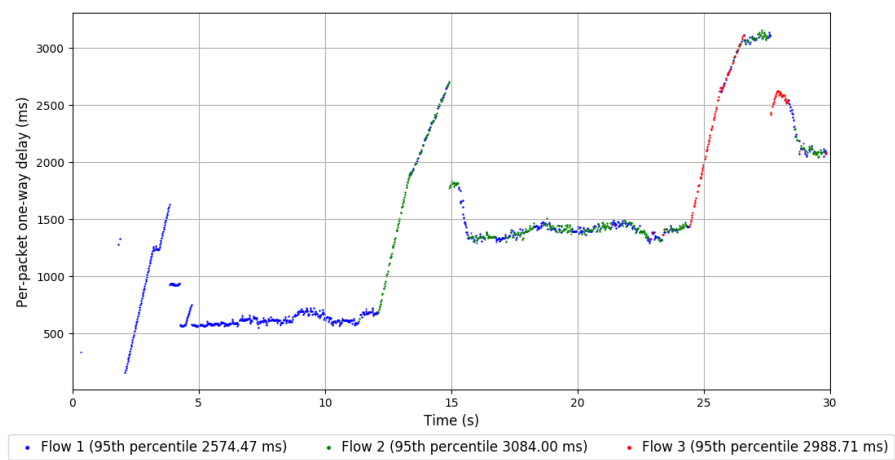
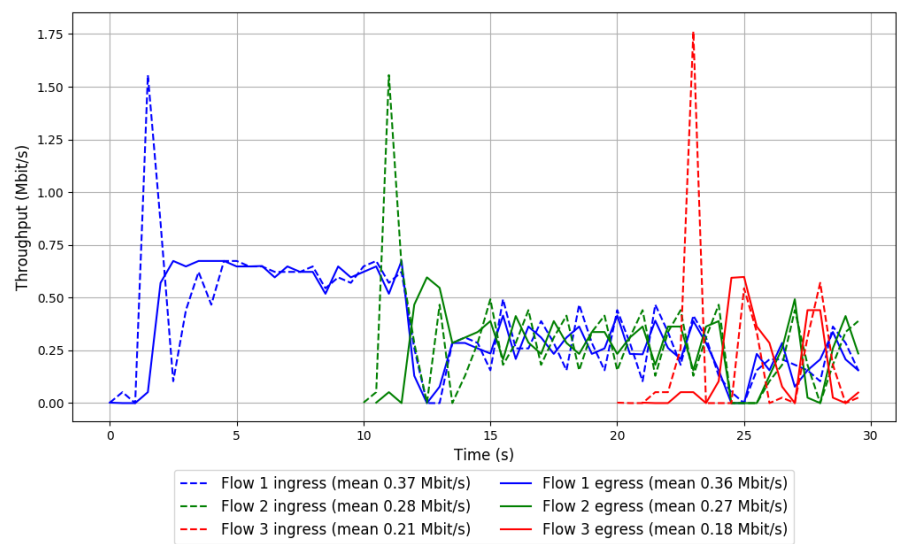


Run 3: Statistics of TaoVA-100x

Start at: 2018-03-20 09:07:59
End at: 2018-03-20 09:08:29
Local clock offset: -5.728 ms
Remote clock offset: 10.978 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 2924.110 ms
Loss rate: 8.16%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 2574.470 ms
Loss rate: 4.89%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 3083.996 ms
Loss rate: 8.33%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 2988.711 ms
Loss rate: 25.19%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-20 08:17:37

End at: 2018-03-20 08:18:07

Local clock offset: -7.737 ms

Remote clock offset: 9.358 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 1458.167 ms

Loss rate: 3.81%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 1428.104 ms

Loss rate: 1.31%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 1538.120 ms

Loss rate: 4.98%

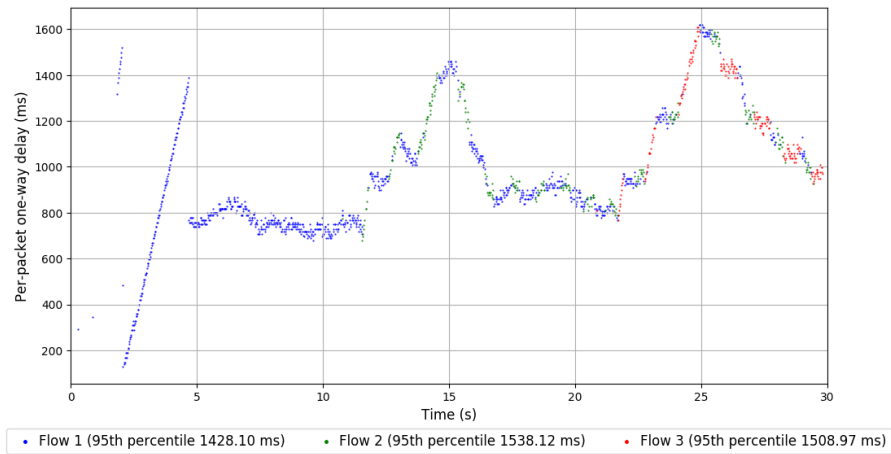
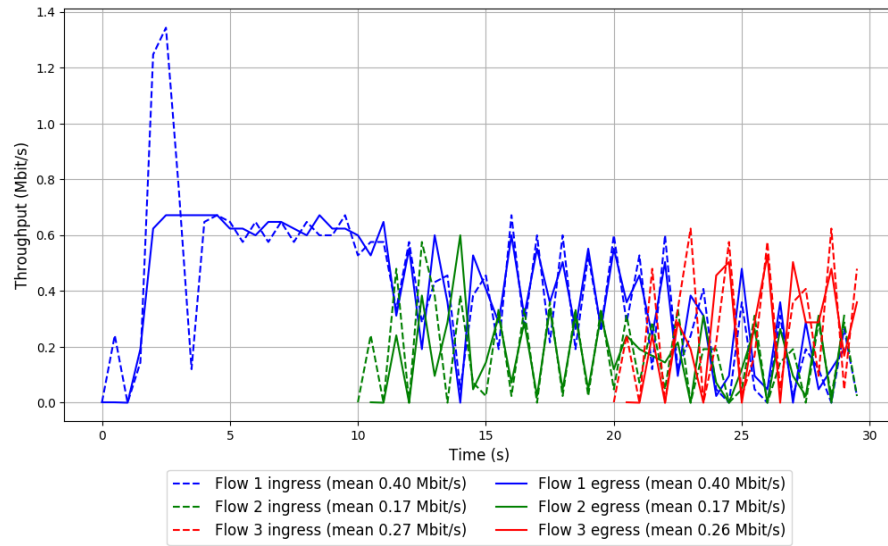
-- Flow 3:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 1508.967 ms

Loss rate: 13.57%

Run 1: Report of TCP Vegas — Data Link

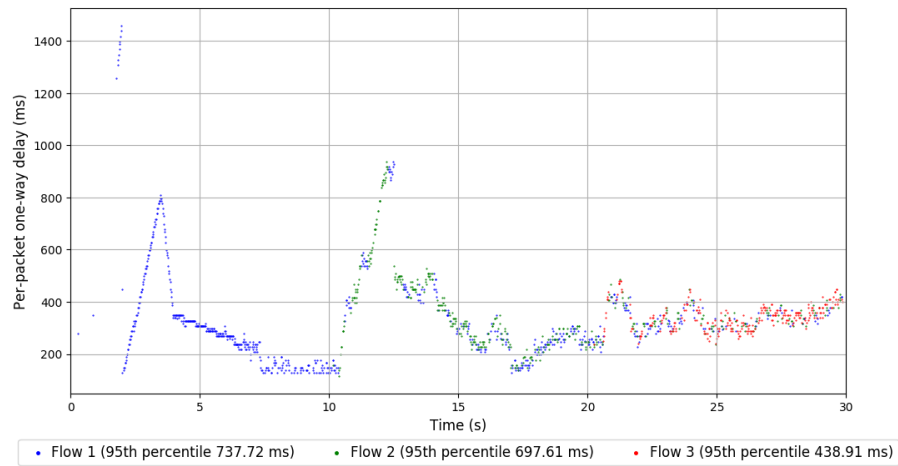
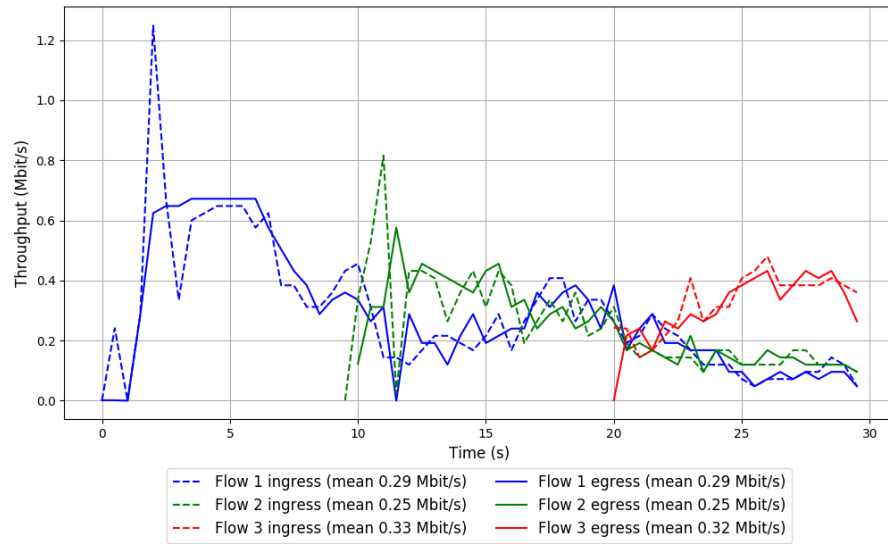


Run 2: Statistics of TCP Vegas

Start at: 2018-03-20 08:40:17
End at: 2018-03-20 08:40:47
Local clock offset: -6.952 ms
Remote clock offset: 10.308 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 677.602 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 737.723 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 697.614 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 438.911 ms
Loss rate: 6.20%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-20 09:02:56

End at: 2018-03-20 09:03:26

Local clock offset: -5.812 ms

Remote clock offset: 7.009 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 705.929 ms

Loss rate: 2.14%

-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 636.158 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 545.977 ms

Loss rate: 2.36%

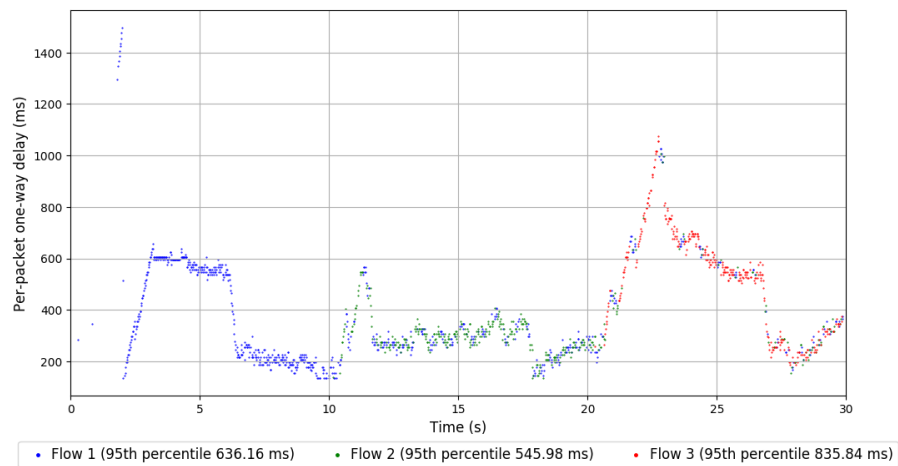
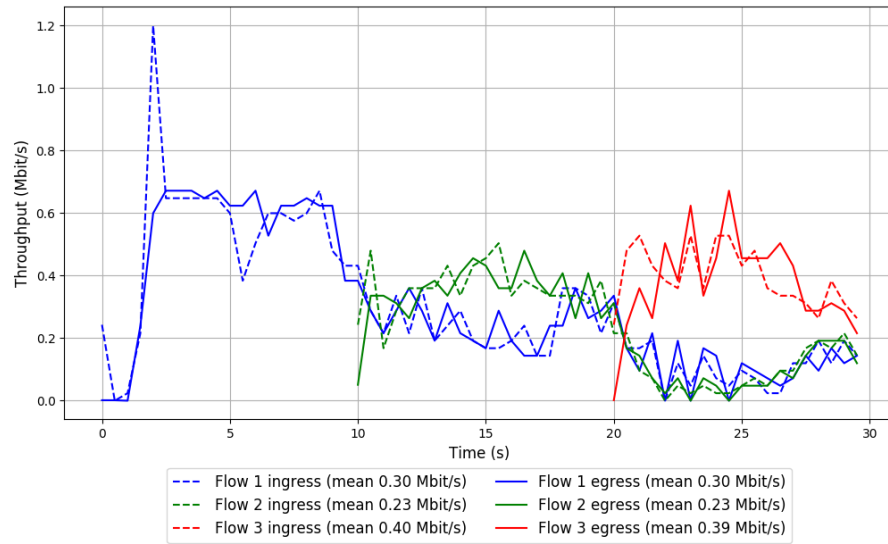
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 835.835 ms

Loss rate: 3.97%

Run 3: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-03-20 08:16:21

End at: 2018-03-20 08:16:51

Local clock offset: -7.773 ms

Remote clock offset: 4.565 ms

Below is generated by plot.py at 2018-03-20 10:29:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 1539.246 ms

Loss rate: 2.18%

-- Flow 1:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 1539.069 ms

Loss rate: 2.09%

-- Flow 2:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 1549.269 ms

Loss rate: 3.57%

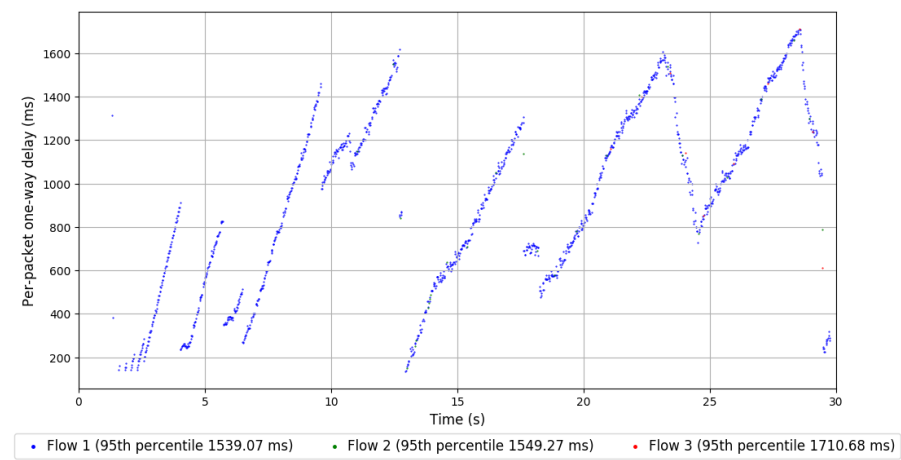
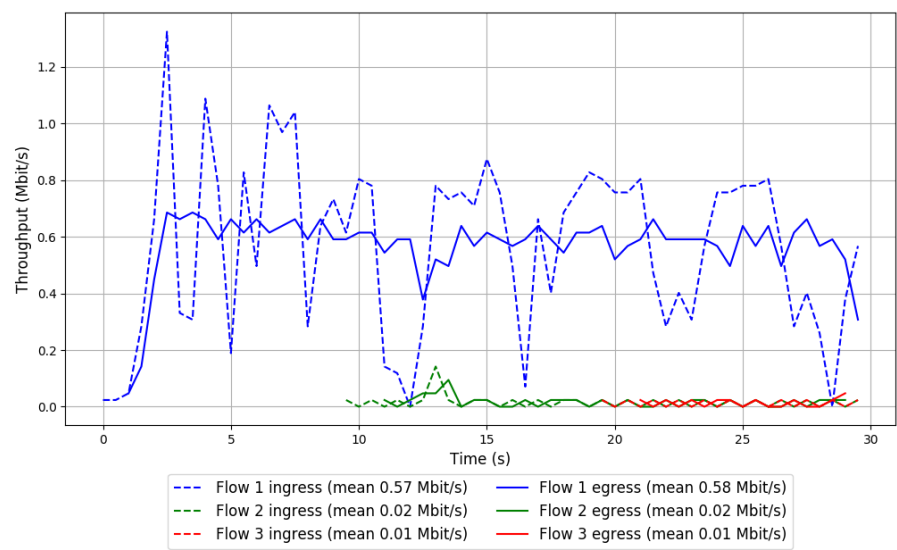
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 1710.682 ms

Loss rate: 9.09%

Run 1: Report of Verus — Data Link

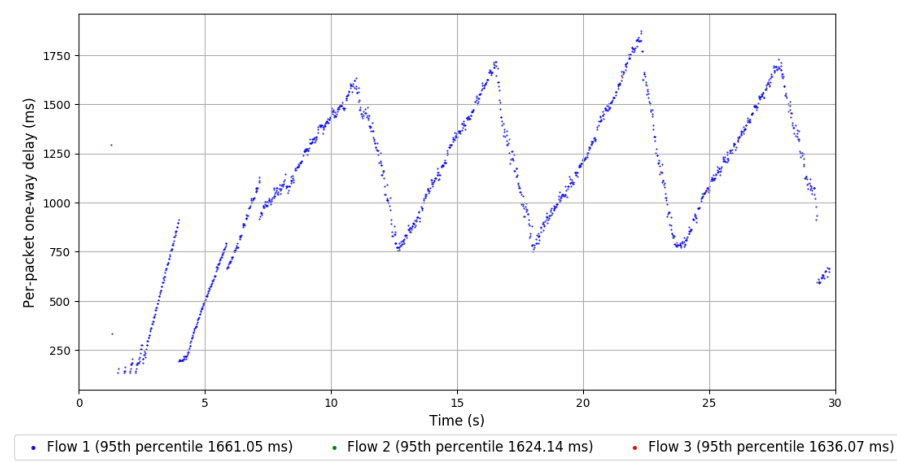
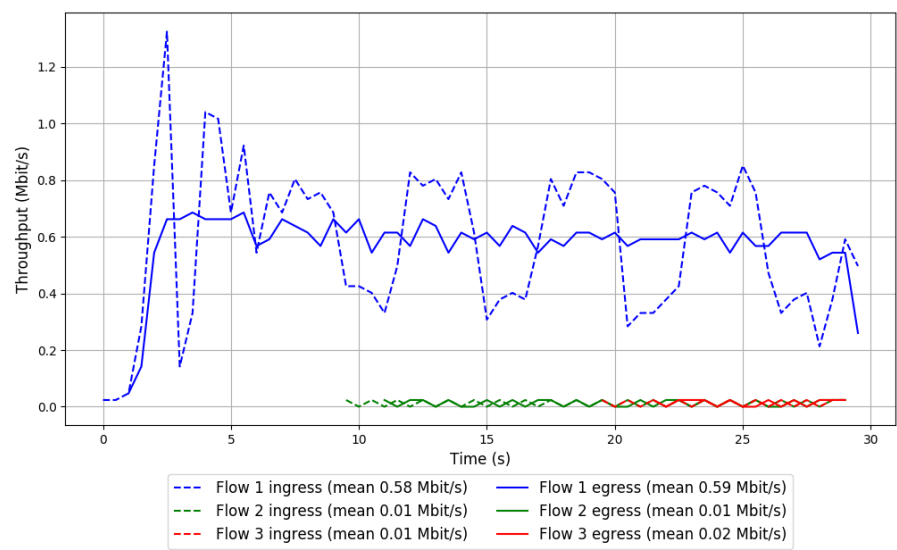


Run 2: Statistics of Verus

Start at: 2018-03-20 08:39:01
End at: 2018-03-20 08:39:31
Local clock offset: -7.167 ms
Remote clock offset: 9.553 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 1660.923 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1661.051 ms
Loss rate: 2.86%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1624.138 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1636.070 ms
Loss rate: 9.09%

Run 2: Report of Verus — Data Link

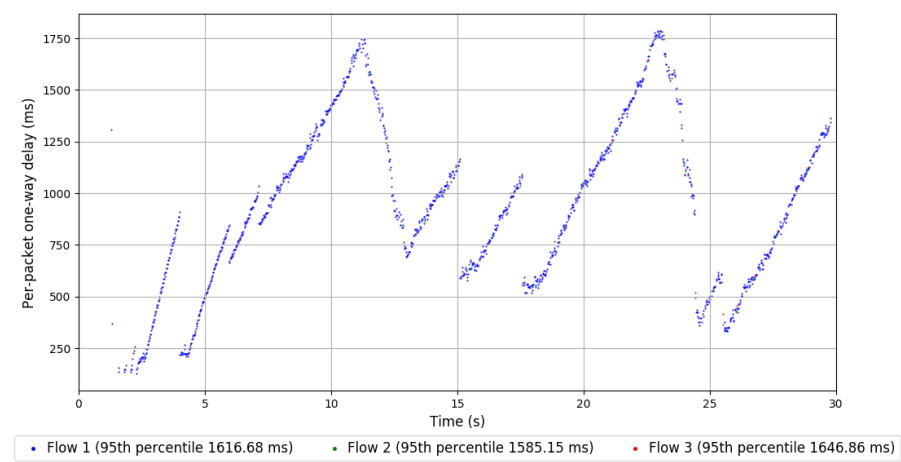
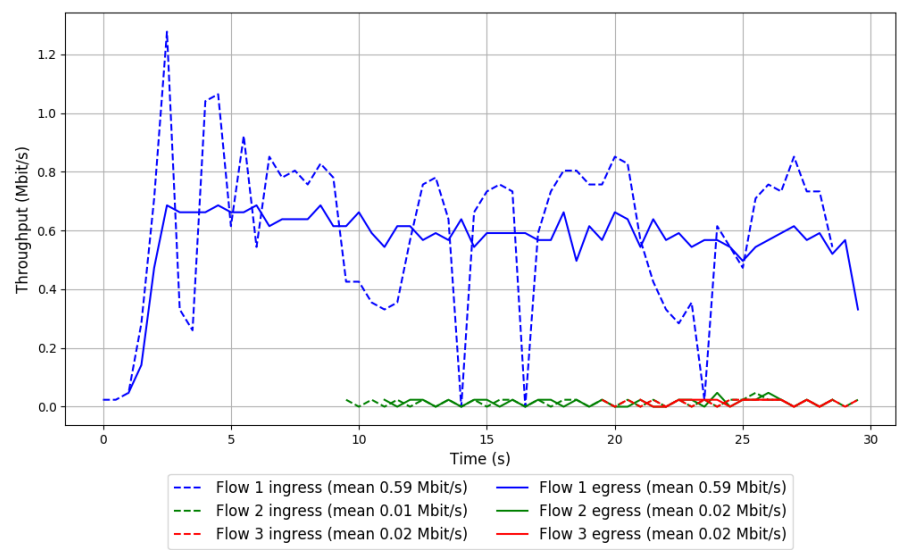


Run 3: Statistics of Verus

Start at: 2018-03-20 09:01:41
End at: 2018-03-20 09:02:11
Local clock offset: -5.839 ms
Remote clock offset: 11.601 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 1623.143 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1616.682 ms
Loss rate: 2.21%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1585.151 ms
Loss rate: 8.00%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1646.855 ms
Loss rate: 15.38%

Run 3: Report of Verus — Data Link

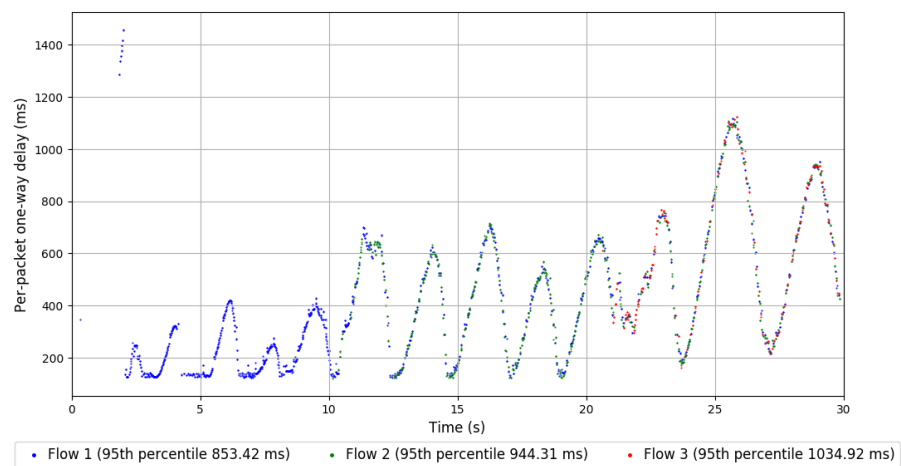
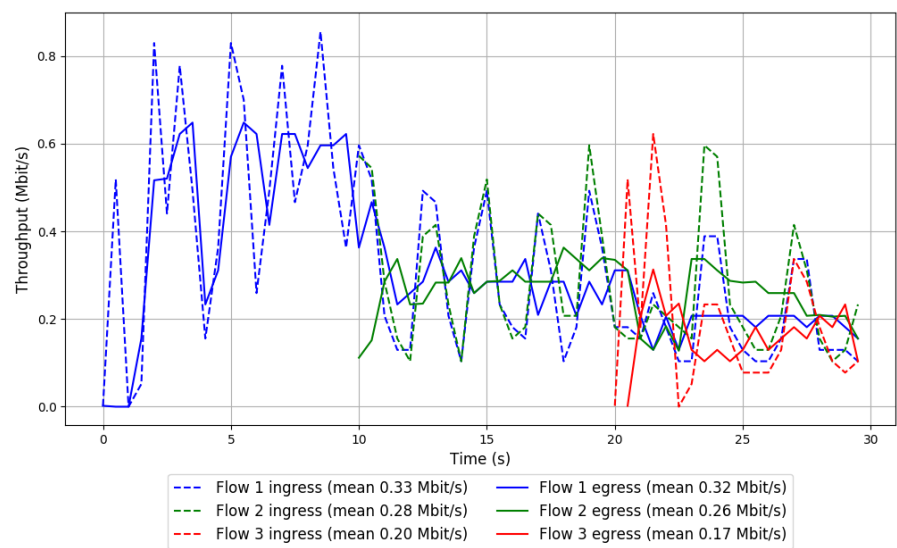


Run 1: Statistics of Copa

Start at: 2018-03-20 08:35:15
End at: 2018-03-20 08:35:45
Local clock offset: -7.923 ms
Remote clock offset: 10.362 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 935.292 ms
Loss rate: 6.29%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 853.424 ms
Loss rate: 3.33%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 944.309 ms
Loss rate: 6.68%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 1034.917 ms
Loss rate: 20.07%

Run 1: Report of Copa — Data Link

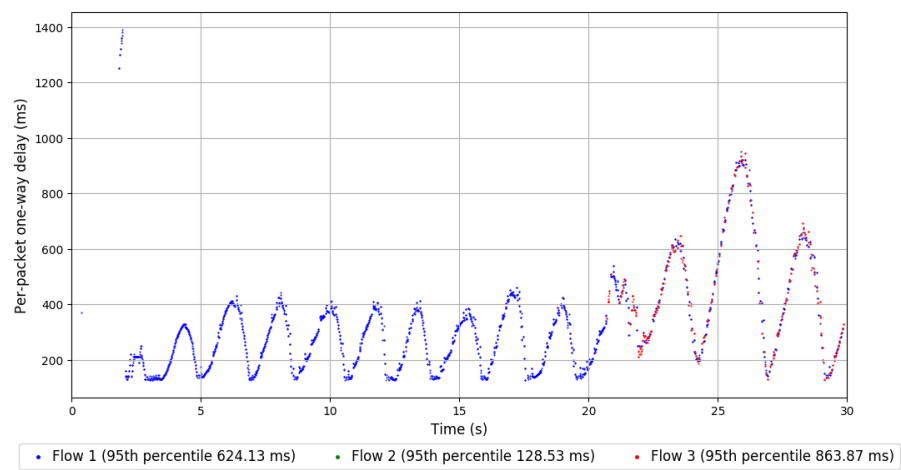
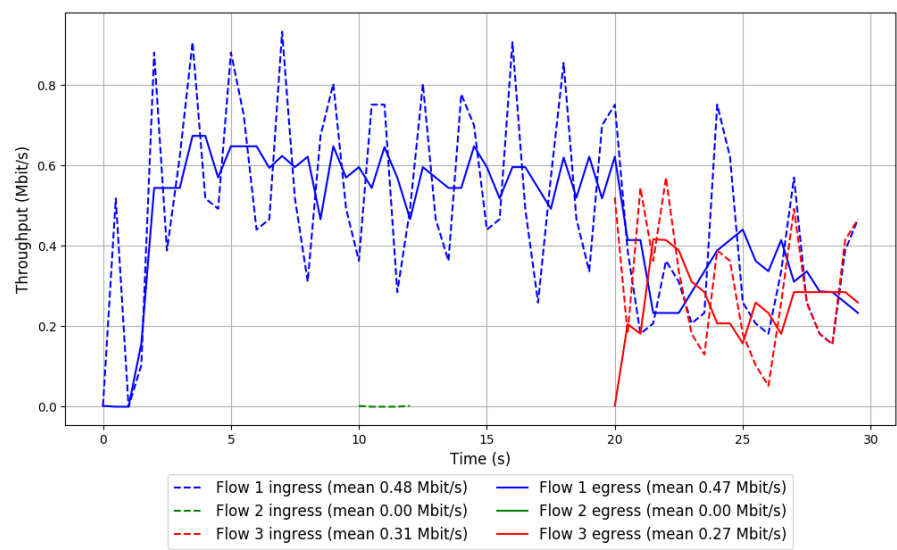


Run 2: Statistics of Copa

Start at: 2018-03-20 08:57:54
End at: 2018-03-20 08:58:24
Local clock offset: -5.882 ms
Remote clock offset: 6.845 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 670.063 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 624.135 ms
Loss rate: 3.39%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 128.529 ms
Loss rate: 50.00%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 863.865 ms
Loss rate: 16.42%

Run 2: Report of Copa — Data Link

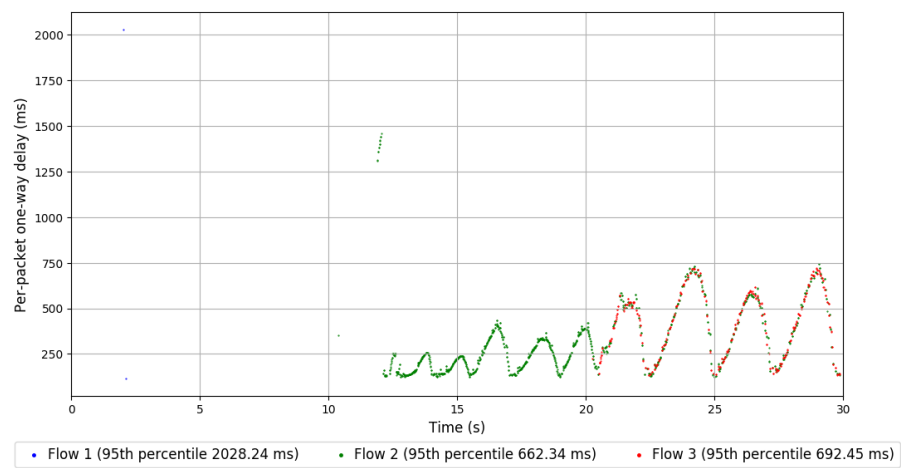
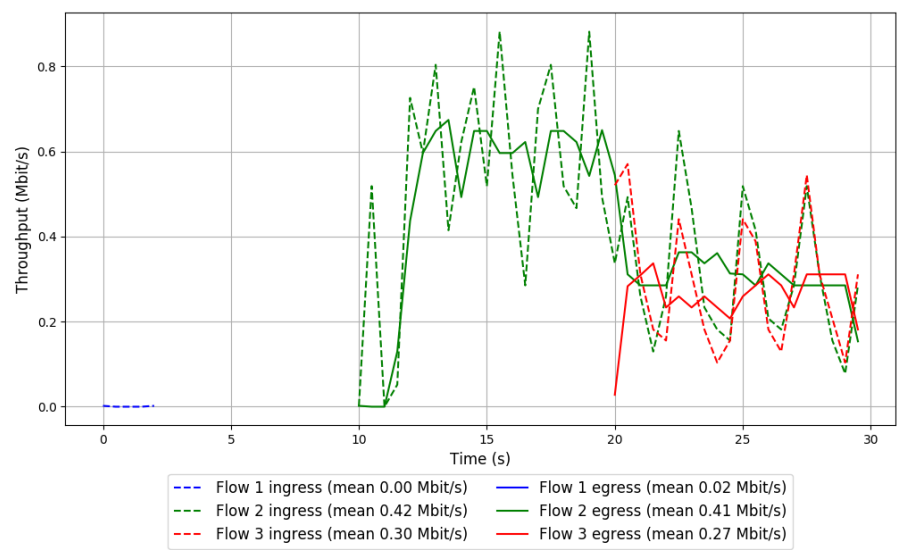


Run 3: Statistics of Copa

Start at: 2018-03-20 09:20:34
End at: 2018-03-20 09:21:04
Local clock offset: -5.924 ms
Remote clock offset: 12.021 ms

Below is generated by plot.py at 2018-03-20 10:29:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 679.634 ms
Loss rate: 6.25%
-- Flow 1:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 2028.244 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 662.343 ms
Loss rate: 4.38%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 692.452 ms
Loss rate: 11.57%

Run 3: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2018-03-20 08:20:08

End at: 2018-03-20 08:20:38

Local clock offset: -7.805 ms

Remote clock offset: 9.622 ms

Below is generated by plot.py at 2018-03-20 10:29:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 26567.830 ms

Loss rate: 98.88%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 26567.830 ms

Loss rate: 98.88%

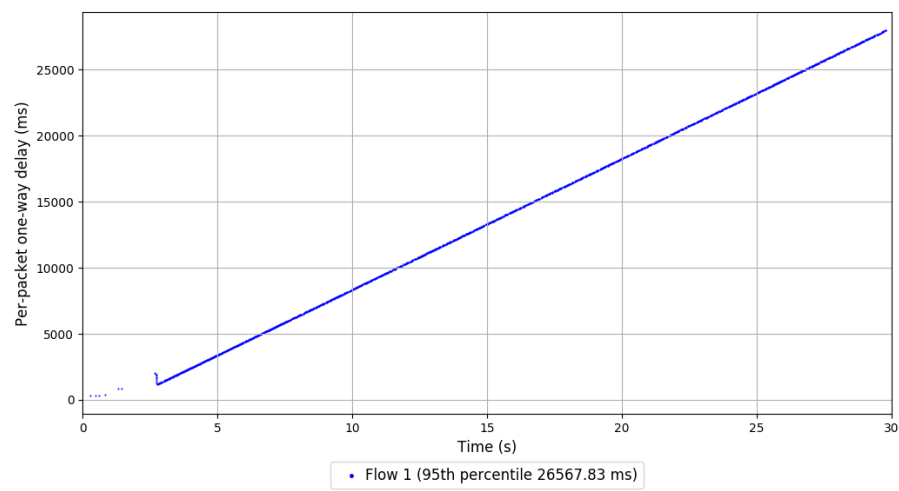
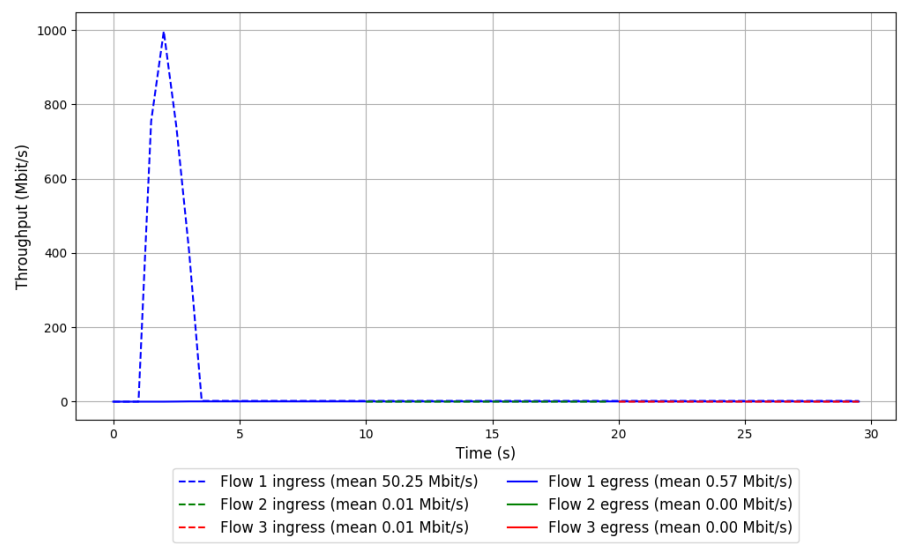
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-20 08:42:47

End at: 2018-03-20 08:43:17

Local clock offset: -6.699 ms

Remote clock offset: 10.43 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 26721.973 ms

Loss rate: 98.92%

-- Flow 1:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 26721.973 ms

Loss rate: 98.92%

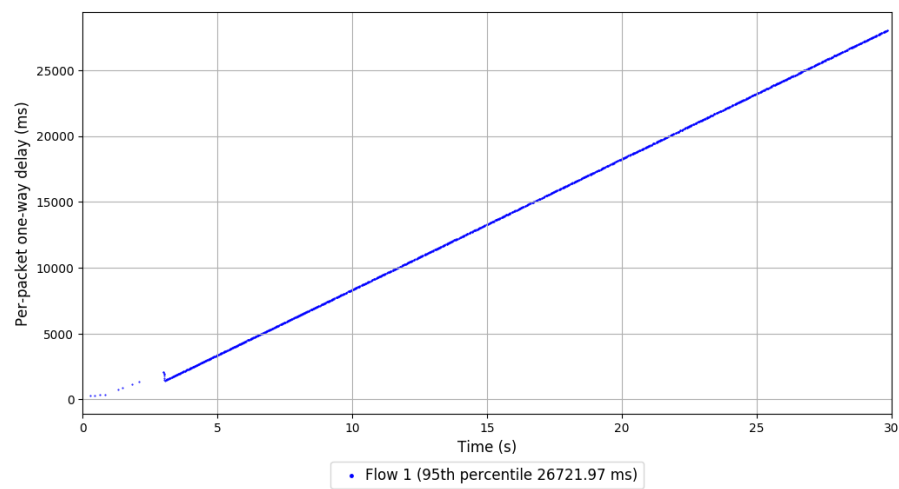
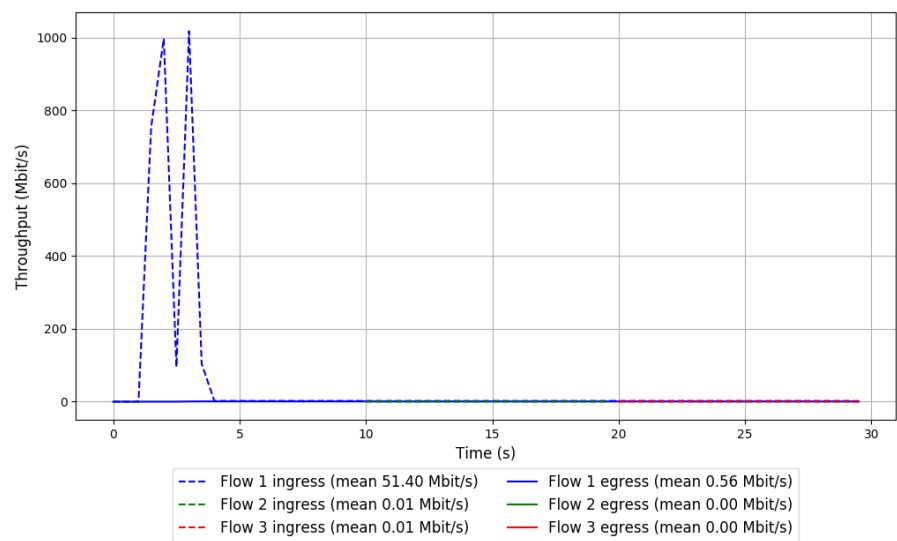
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-20 09:05:27

End at: 2018-03-20 09:05:57

Local clock offset: -5.765 ms

Remote clock offset: 10.85 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 26721.110 ms

Loss rate: 99.09%

-- Flow 1:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 26721.110 ms

Loss rate: 99.09%

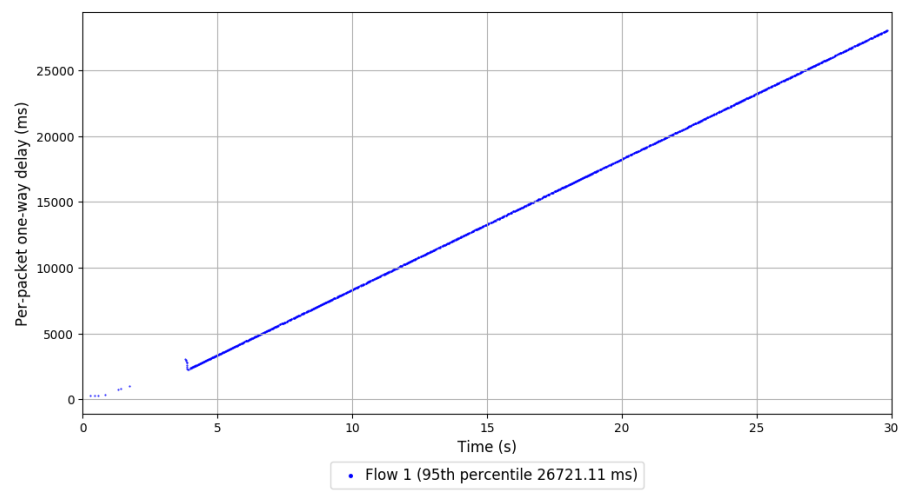
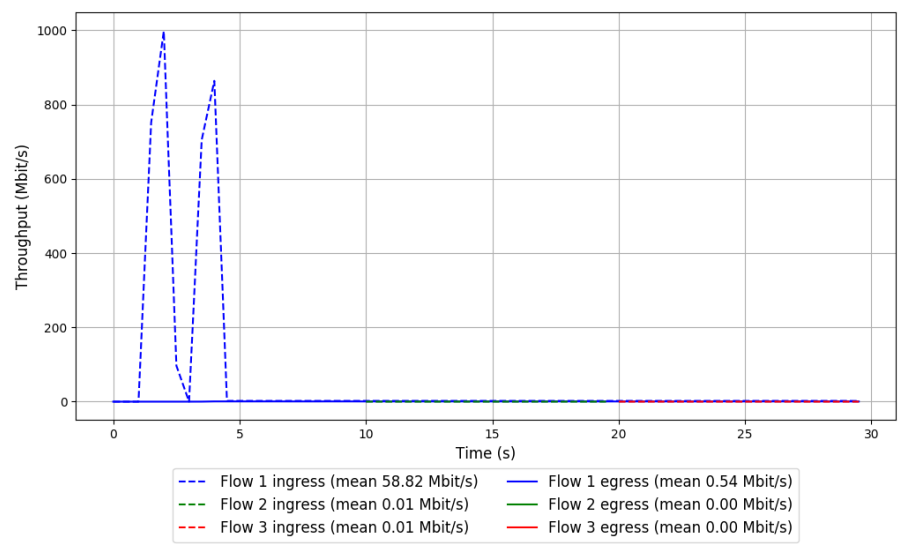
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 3: Report of FillP — Data Link



Run 1: Statistics of Indigo-1-32

Start at: 2018-03-20 08:25:11

End at: 2018-03-20 08:25:41

Local clock offset: -7.843 ms

Remote clock offset: 5.209 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 635.042 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 570.690 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 642.323 ms

Loss rate: 1.11%

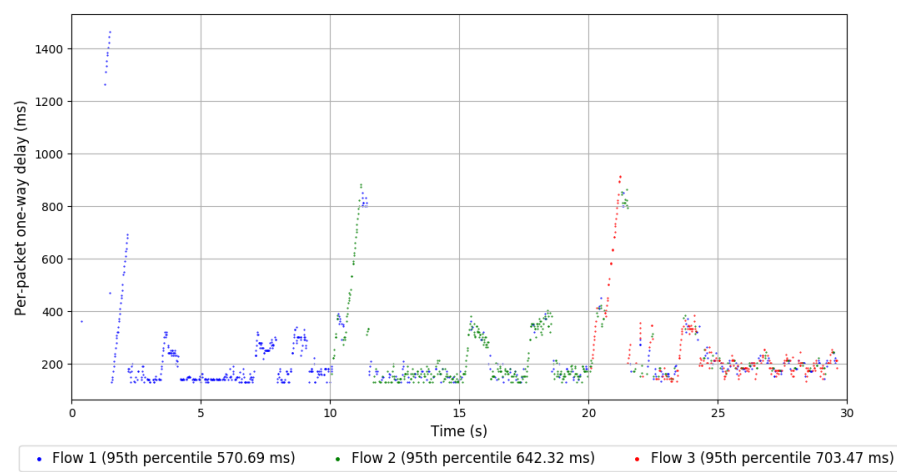
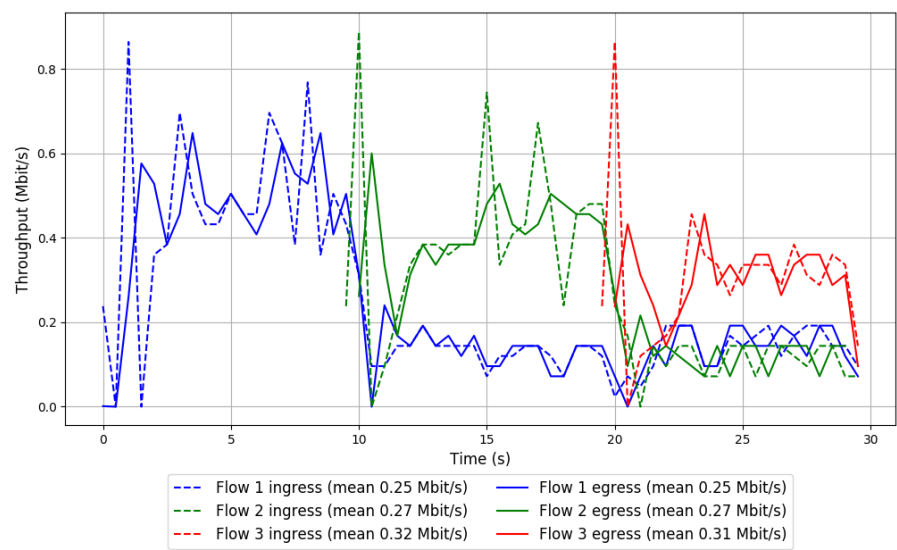
-- Flow 3:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 703.465 ms

Loss rate: 4.96%

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



Run 2: Statistics of Indigo-1-32

Start at: 2018-03-20 08:47:50

End at: 2018-03-20 08:48:20

Local clock offset: -6.26 ms

Remote clock offset: 5.949 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 573.932 ms

Loss rate: 2.37%

-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 403.158 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 582.668 ms

Loss rate: 3.23%

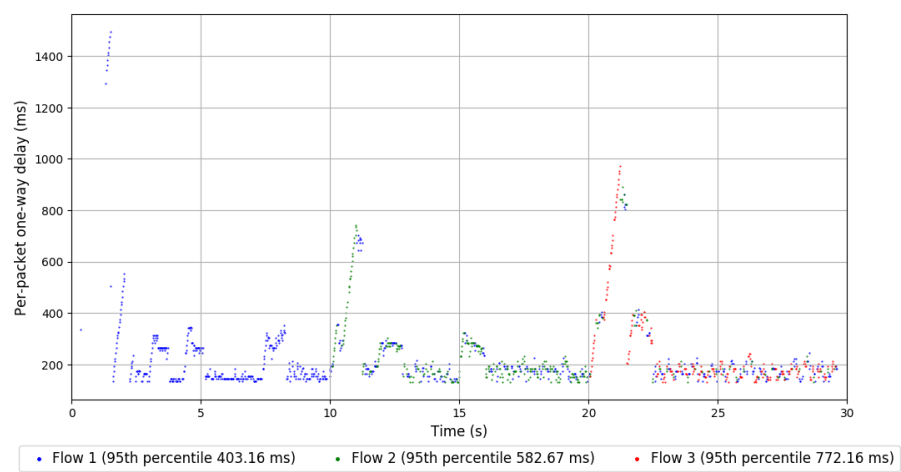
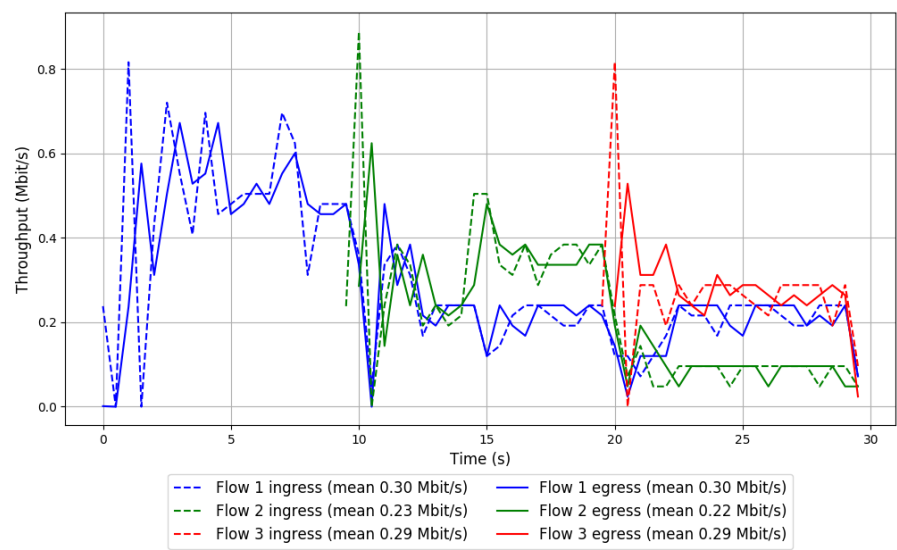
-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 772.163 ms

Loss rate: 2.97%

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

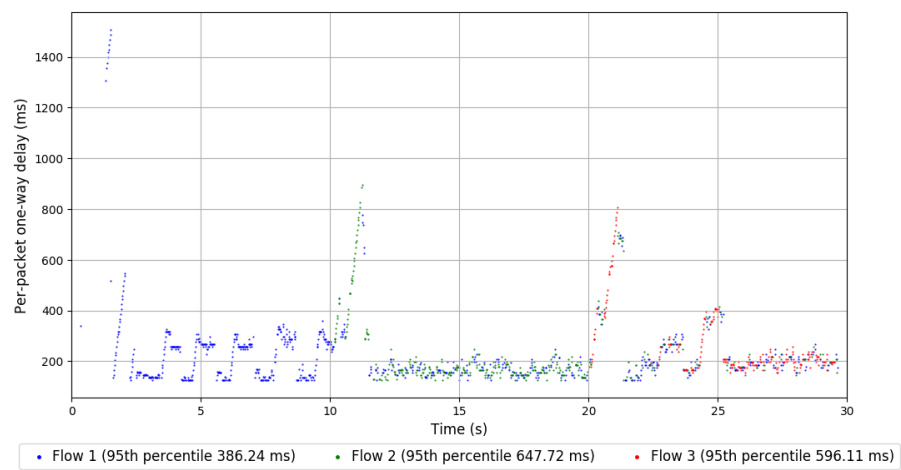
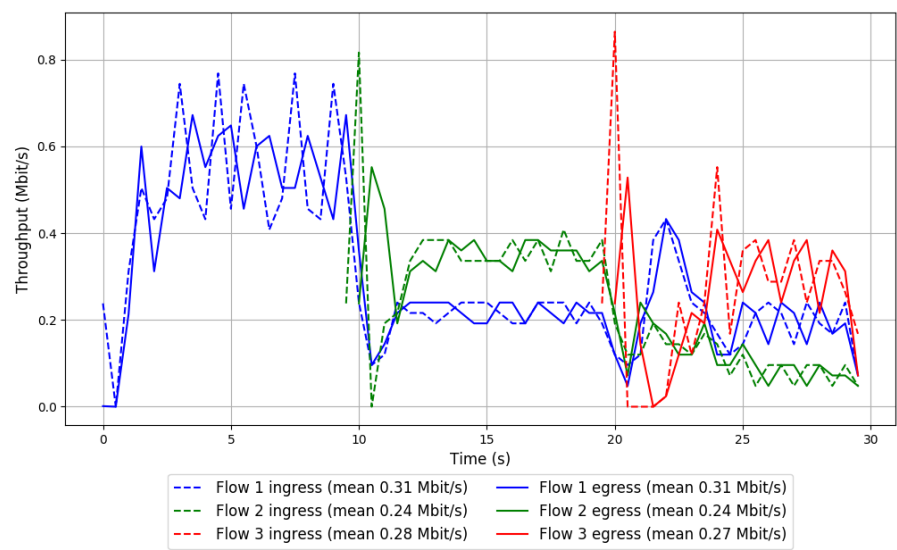


Run 3: Statistics of Indigo-1-32

Start at: 2018-03-20 09:10:30
End at: 2018-03-20 09:11:00
Local clock offset: -5.782 ms
Remote clock offset: 11.019 ms

Below is generated by plot.py at 2018-03-20 10:30:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 526.410 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 386.235 ms
Loss rate: 1.96%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 647.719 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 596.106 ms
Loss rate: 6.99%

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

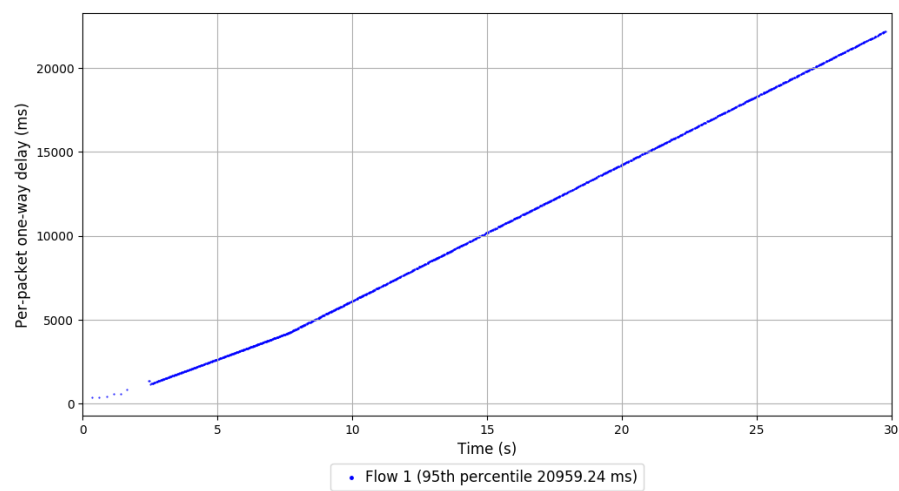
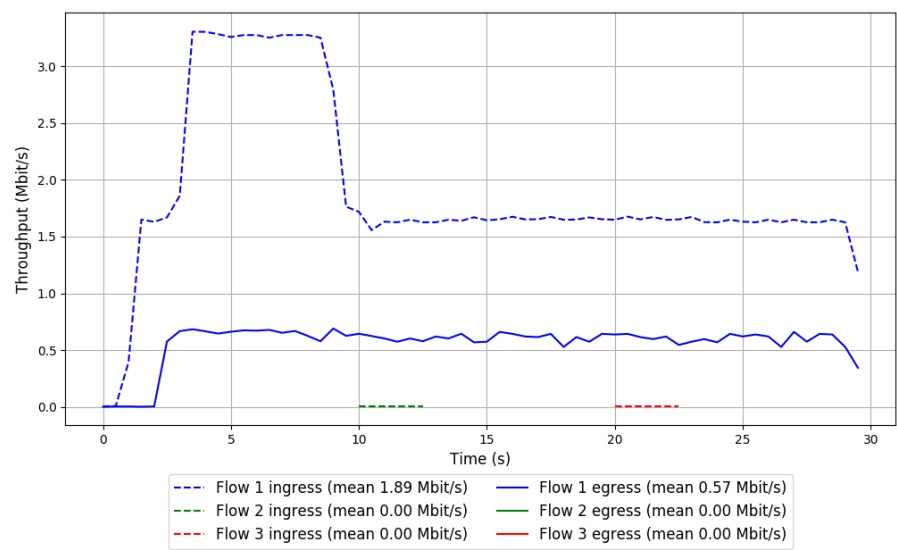


Run 1: Statistics of Vivace-latency

Start at: 2018-03-20 08:30:12
End at: 2018-03-20 08:30:42
Local clock offset: -7.988 ms
Remote clock offset: 10.191 ms

Below is generated by plot.py at 2018-03-20 10:30:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 20959.243 ms
Loss rate: 70.14%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 20959.243 ms
Loss rate: 70.13%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-20 08:52:51

End at: 2018-03-20 08:53:21

Local clock offset: -6.032 ms

Remote clock offset: 5.898 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21130.479 ms

Loss rate: 70.57%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21130.479 ms

Loss rate: 70.56%

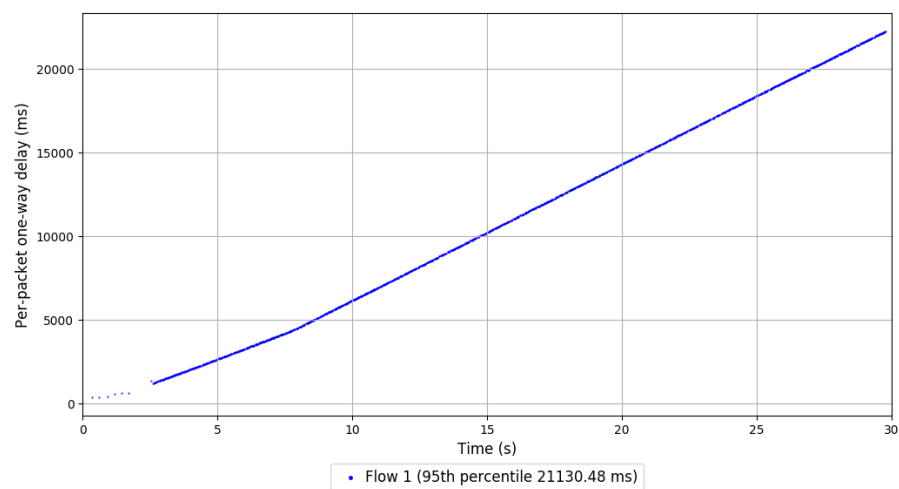
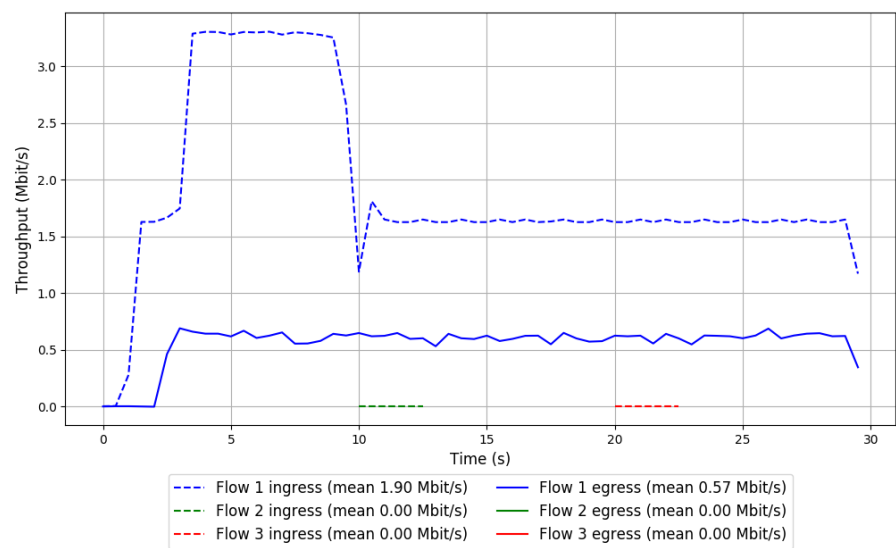
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-20 09:15:31

End at: 2018-03-20 09:16:01

Local clock offset: -5.877 ms

Remote clock offset: 6.342 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21012.134 ms

Loss rate: 70.12%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21012.134 ms

Loss rate: 70.11%

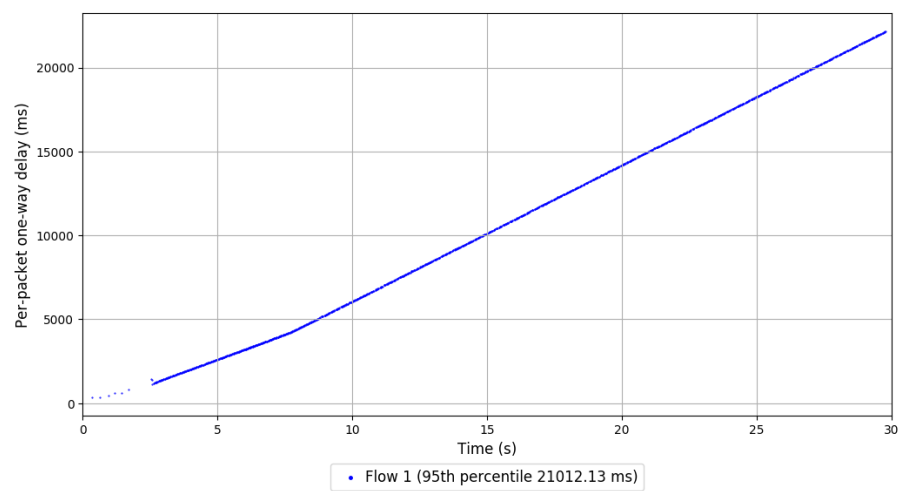
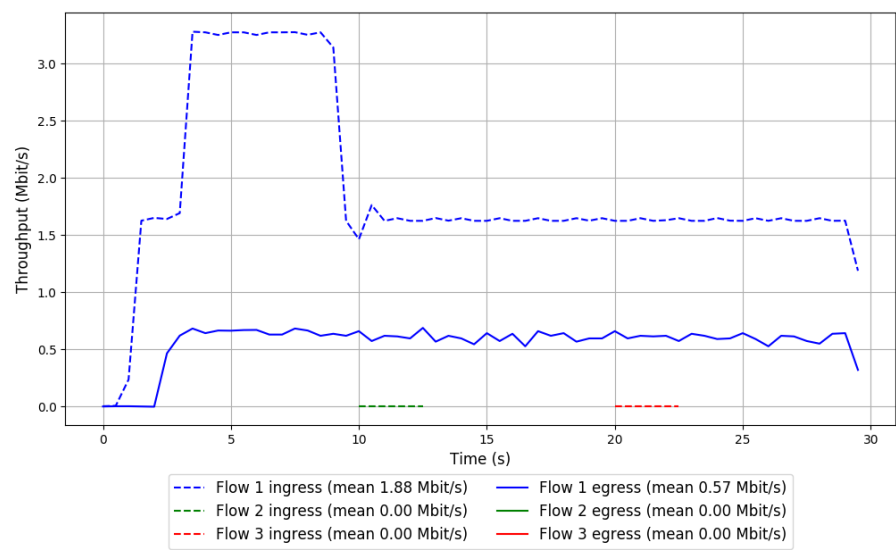
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 3: Report of Vivace-latency — Data Link



Run 1: Statistics of Vivace-loss

Start at: 2018-03-20 08:18:52

End at: 2018-03-20 08:19:22

Local clock offset: -7.738 ms

Remote clock offset: 4.698 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21099.653 ms

Loss rate: 89.28%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21099.653 ms

Loss rate: 89.27%

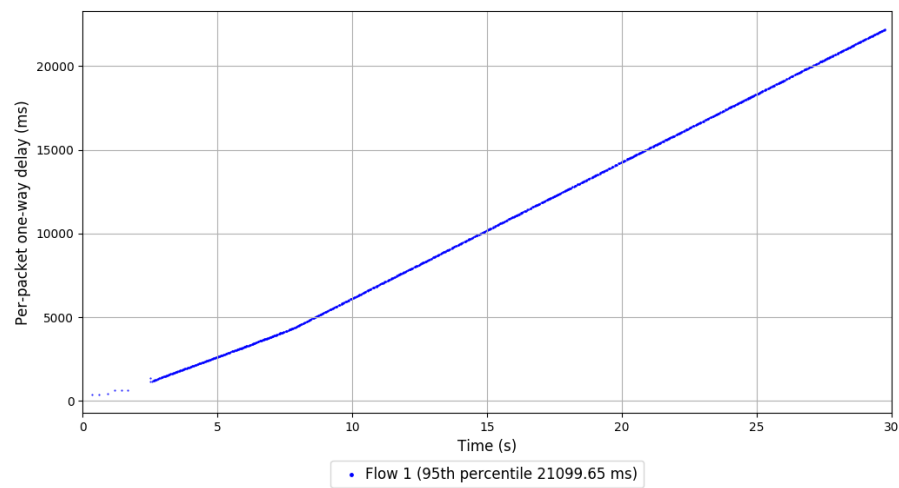
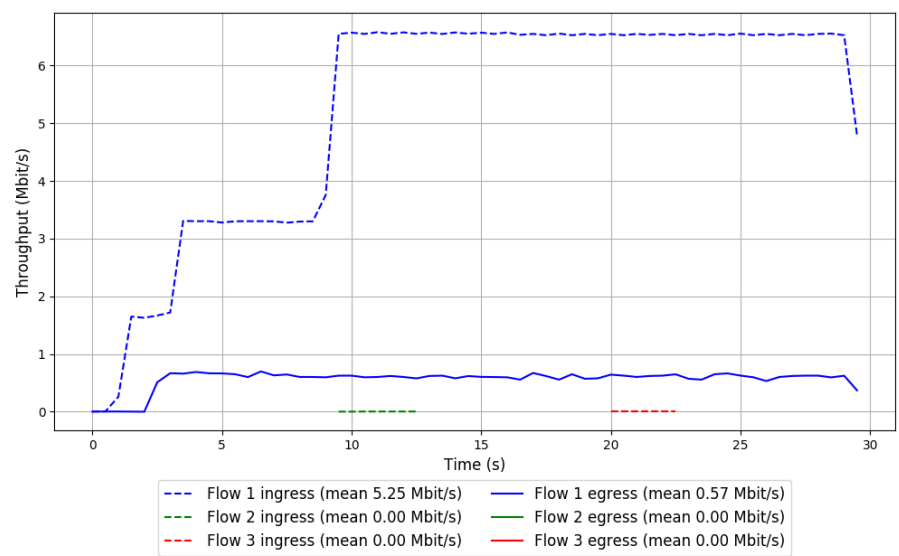
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 1: Report of Vivace-loss — Data Link

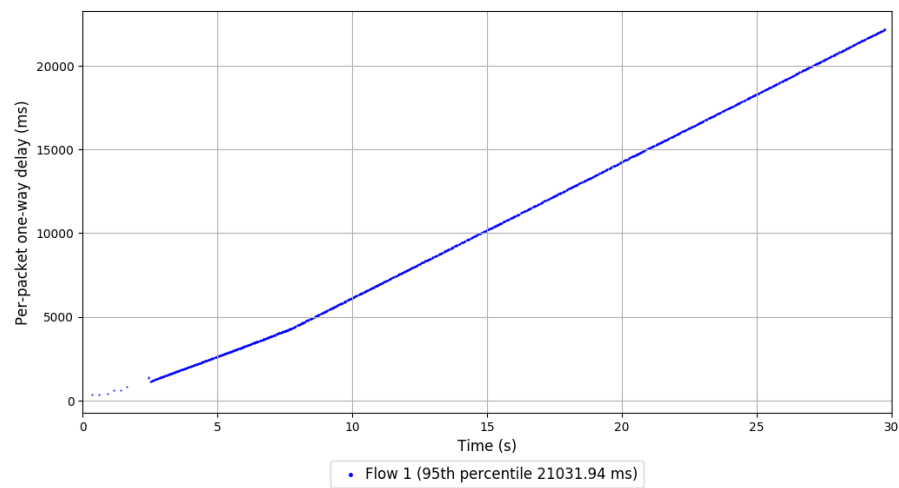
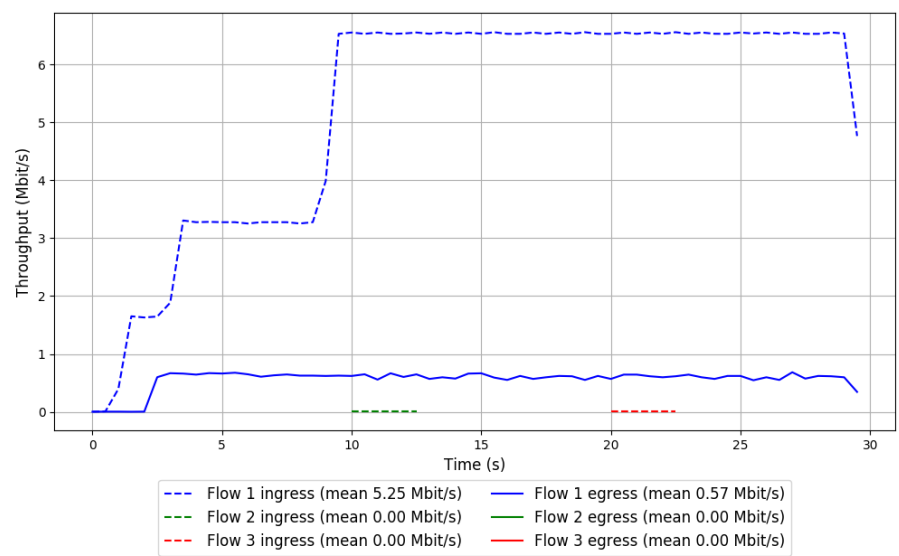


Run 2: Statistics of Vivace-loss

Start at: 2018-03-20 08:41:32
End at: 2018-03-20 08:42:02
Local clock offset: -6.829 ms
Remote clock offset: 11.262 ms

Below is generated by plot.py at 2018-03-20 10:30:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 21031.943 ms
Loss rate: 89.27%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 21031.943 ms
Loss rate: 89.27%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 2: Report of Vivace-loss — Data Link

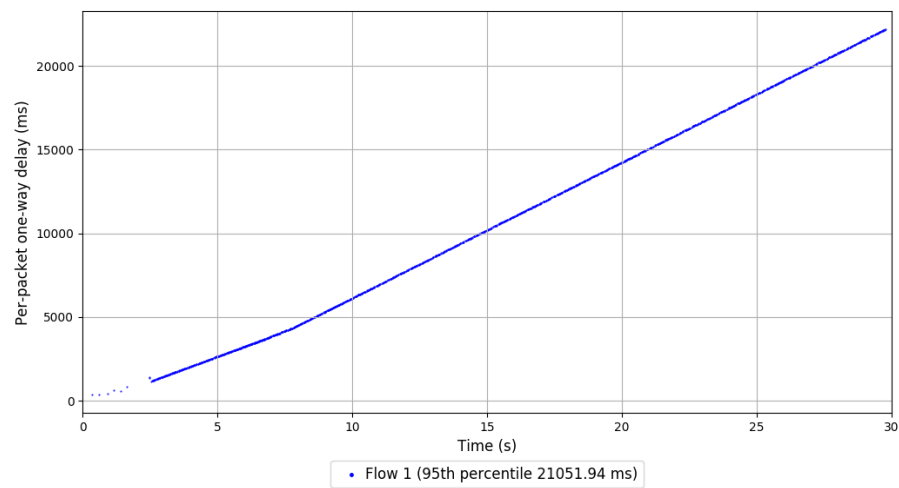
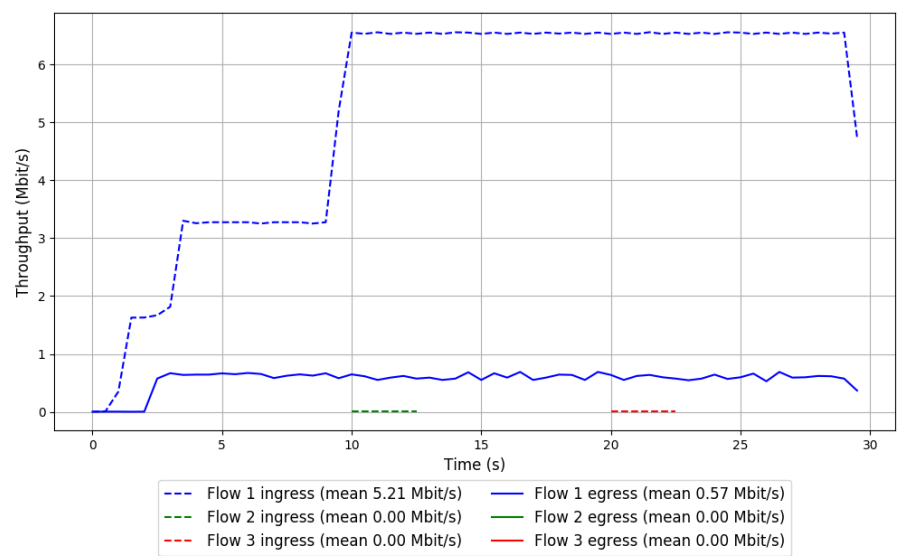


Run 3: Statistics of Vivace-loss

Start at: 2018-03-20 09:04:11
End at: 2018-03-20 09:04:41
Local clock offset: -5.789 ms
Remote clock offset: 10.849 ms

Below is generated by plot.py at 2018-03-20 10:30:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 21051.944 ms
Loss rate: 89.24%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 21051.944 ms
Loss rate: 89.24%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 3: Report of Vivace-loss — Data Link



Run 1: Statistics of Vivace-LTE

Start at: 2018-03-20 08:15:06

End at: 2018-03-20 08:15:36

Local clock offset: -7.735 ms

Remote clock offset: 5.089 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 20849.759 ms

Loss rate: 70.72%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 20849.759 ms

Loss rate: 70.71%

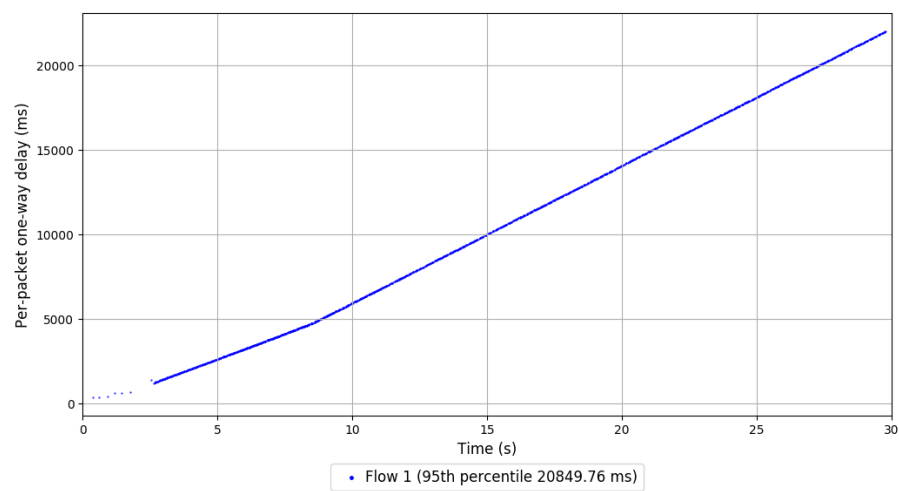
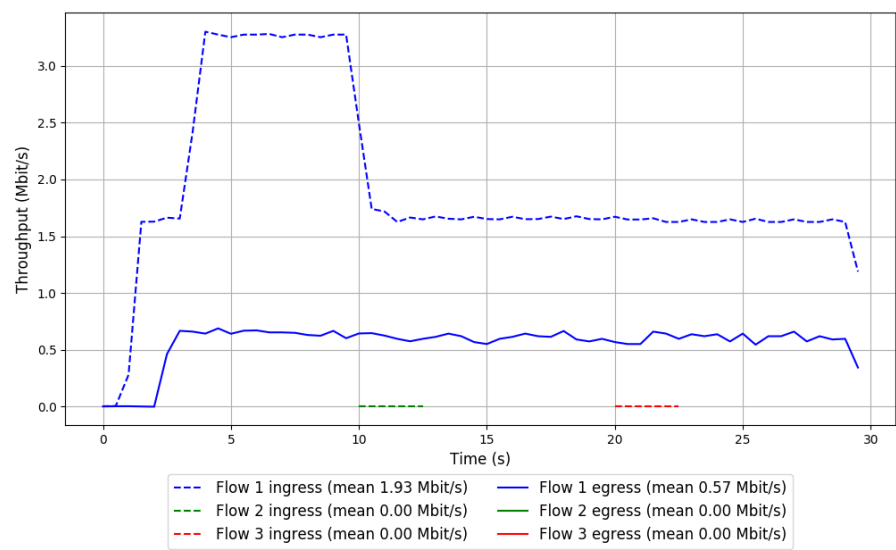
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-20 08:37:46

End at: 2018-03-20 08:38:16

Local clock offset: -7.355 ms

Remote clock offset: 6.515 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21161.594 ms

Loss rate: 70.23%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21161.594 ms

Loss rate: 70.22%

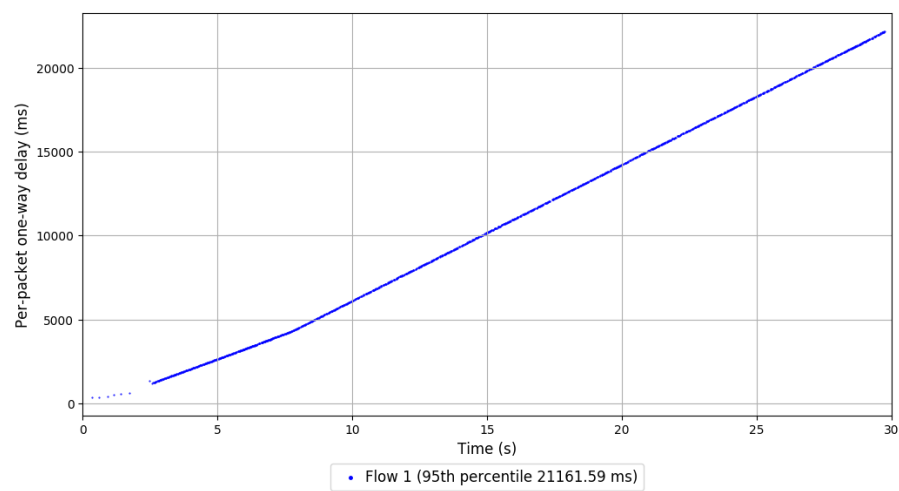
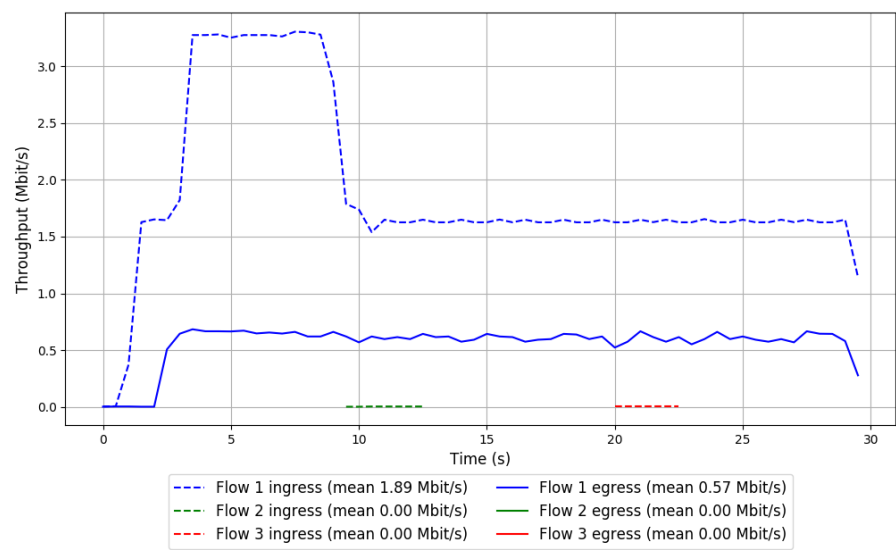
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-20 09:00:25

End at: 2018-03-20 09:00:55

Local clock offset: -5.859 ms

Remote clock offset: 6.022 ms

Below is generated by plot.py at 2018-03-20 10:30:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21113.556 ms

Loss rate: 70.59%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 21113.556 ms

Loss rate: 70.58%

-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 3: Report of Vivace-LTE — Data Link

