

Pantheon Report

Generated at 2018-02-19 20:56:02 (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).

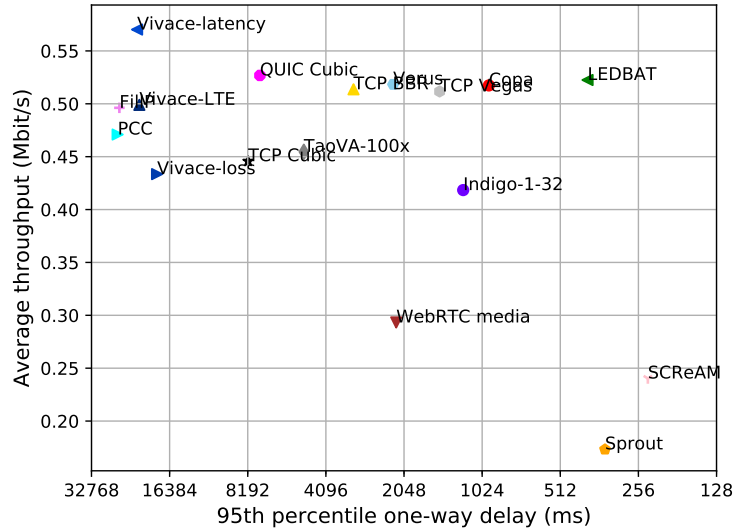
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

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

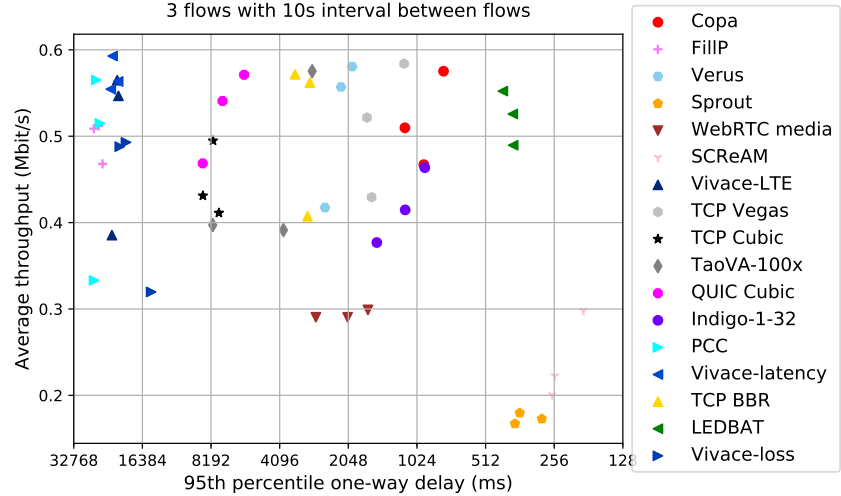
Git summary:

```
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



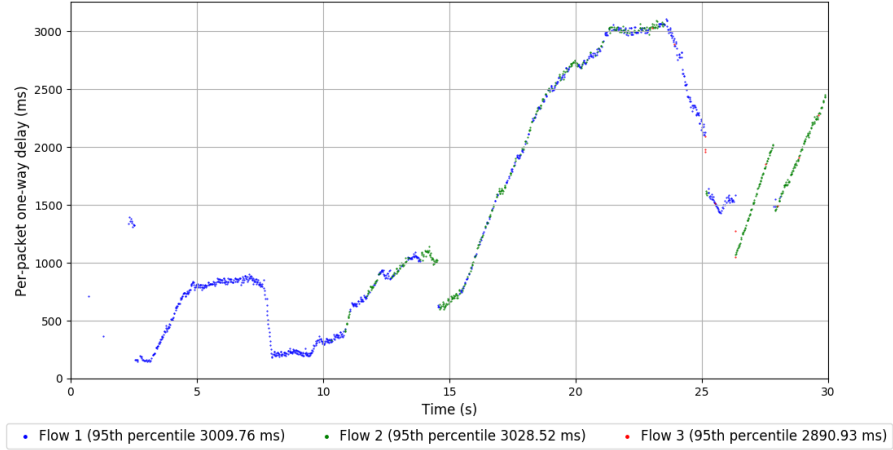
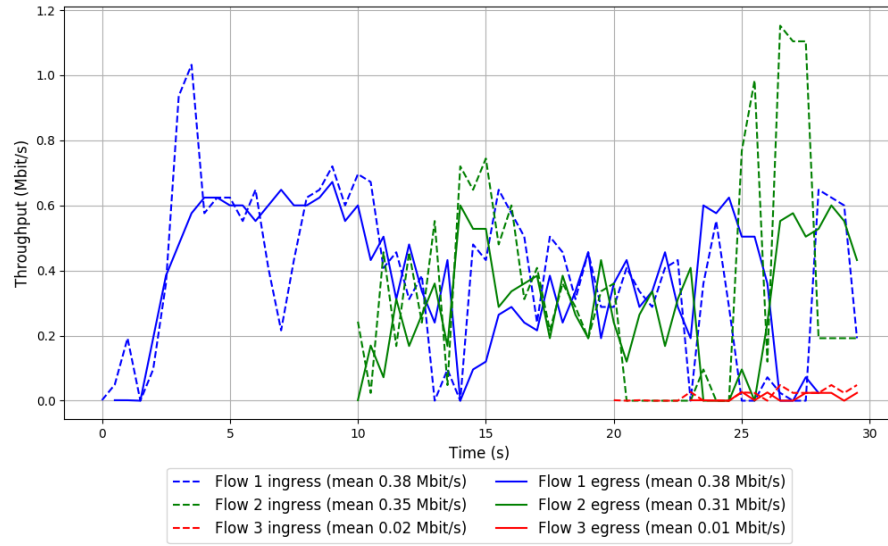
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	0.33	0.30	0.01	3210.90	3189.95	3081.93	6.65	14.90	54.33
TCP Cubic	3	0.43	0.03	0.00	8176.94	6706.77	8252.64	32.23	52.84	92.16
LEDBAT	3	0.26	0.31	0.20	358.21	411.57	421.57	0.14	1.82	5.48
PCC	3	0.47	0.00	N/A	25975.73	N/A	N/A	98.72	N/A	N/A
QUIC Cubic	3	0.49	0.06	9.92	7365.12	6332.57	7521.16	25.96	21.82	38.89
SCReAM	3	0.09	0.13	0.17	211.16	227.46	264.56	0.76	0.89	1.84
WebRTC media	3	0.14	0.12	0.06	2167.41	2152.28	2200.85	3.52	9.02	5.48
Sprout	3	0.08	0.09	0.09	601.09	284.74	303.52	1.66	2.67	2.95
TaoVA-100x	3	0.30	0.22	0.11	4877.36	5017.37	4597.92	5.71	24.33	47.24
TCP Vegas	3	0.25	0.26	0.30	1316.79	1322.93	1556.98	0.82	2.96	13.49
Verus	3	0.50	0.01	0.01	2258.62	2248.16	2035.76	4.32	7.48	14.45
Copa	3	0.30	0.27	0.15	893.67	984.60	1059.71	6.08	10.26	21.47
FillP	3	0.50	0.00	N/A	25586.09	N/A	N/A	98.73	N/A	N/A
Indigo-1-32	3	0.15	0.25	0.24	1645.68	490.08	632.88	5.94	2.83	5.78
Vivace-latency	3	0.57	0.00	N/A	21873.09	N/A	N/A	70.93	N/A	N/A
Vivace-loss	3	0.33	0.16	0.00	14291.95	15016.06	N/A	70.97	89.56	N/A
Vivace-LTE	3	0.50	0.00	N/A	21429.82	N/A	N/A	75.82	N/A	N/A

Run 1: Statistics of TCP BBR

Start at: 2018-02-19 18:48:49
End at: 2018-02-19 18:49:19
Local clock offset: -2.568 ms
Remote clock offset: -3.795 ms

Below is generated by plot.py at 2018-02-19 20:55:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 3018.265 ms
Loss rate: 11.47%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 3009.756 ms
Loss rate: 9.06%
-- Flow 2:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 3028.518 ms
Loss rate: 14.45%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 2890.934 ms
Loss rate: 52.36%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-02-19 19:11:24

End at: 2018-02-19 19:11:54

Local clock offset: -5.395 ms

Remote clock offset: 1.793 ms

Below is generated by plot.py at 2018-02-19 20:55:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 3091.526 ms

Loss rate: 15.78%

-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 3115.485 ms

Loss rate: 6.94%

-- Flow 2:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 3035.593 ms

Loss rate: 23.99%

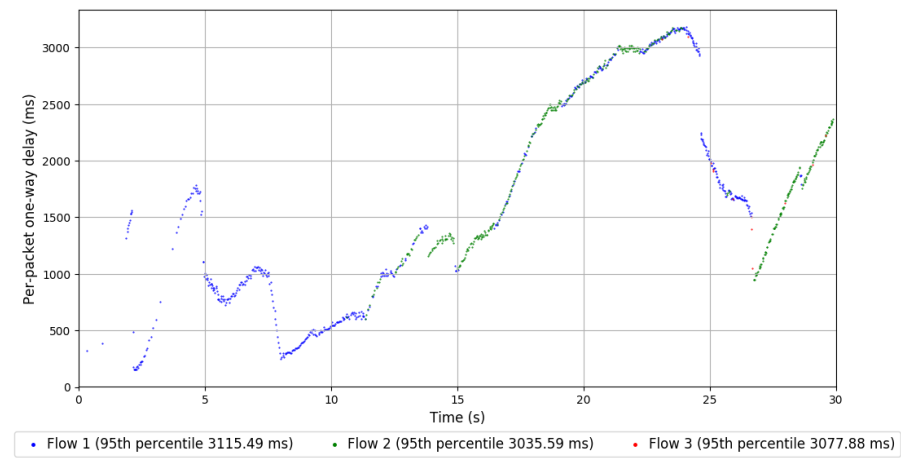
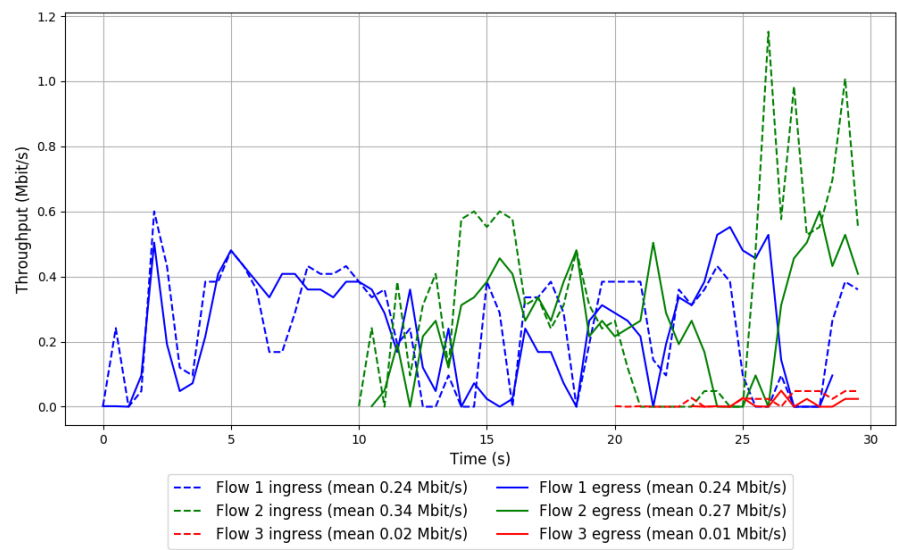
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 3077.877 ms

Loss rate: 58.56%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-02-19 19:34:10

End at: 2018-02-19 19:34:40

Local clock offset: -7.029 ms

Remote clock offset: 2.953 ms

Below is generated by plot.py at 2018-02-19 20:55:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 3507.407 ms

Loss rate: 5.31%

-- Flow 1:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 3507.454 ms

Loss rate: 3.95%

-- Flow 2:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 3505.732 ms

Loss rate: 6.25%

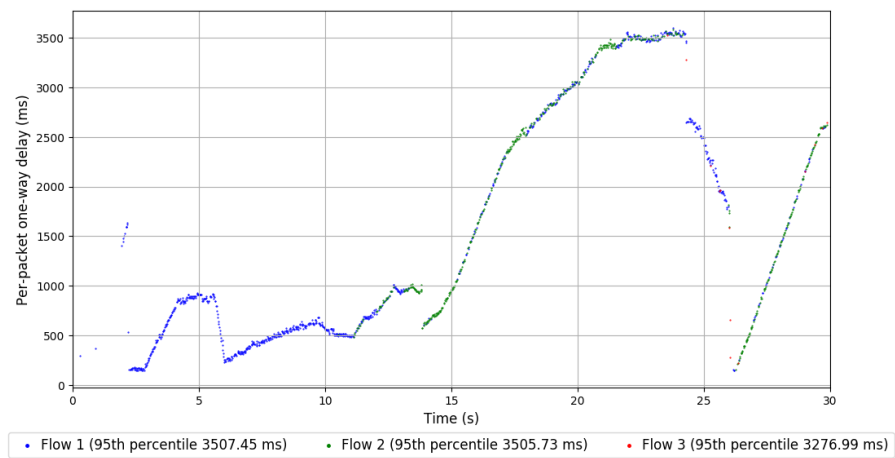
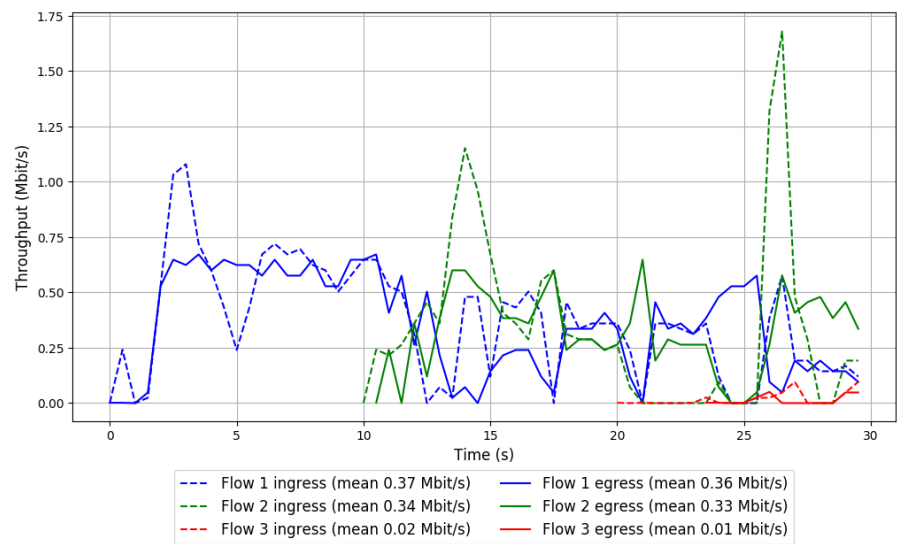
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 3276.994 ms

Loss rate: 52.06%

Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-02-19 19:01:20

End at: 2018-02-19 19:01:50

Local clock offset: -2.74 ms

Remote clock offset: 1.587 ms

Below is generated by plot.py at 2018-02-19 20:55:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 7565.114 ms

Loss rate: 33.02%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 7604.907 ms

Loss rate: 32.09%

-- Flow 2:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 7105.223 ms

Loss rate: 52.87%

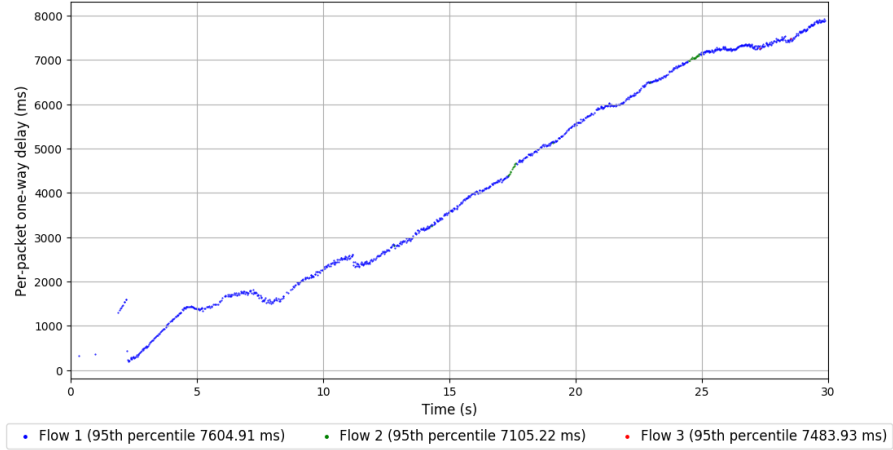
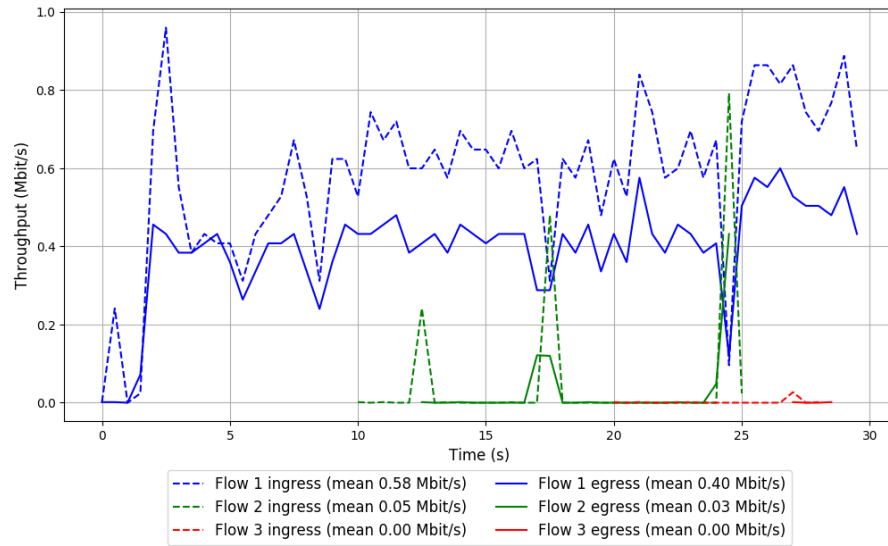
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 7483.932 ms

Loss rate: 90.68%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-02-19 19:24:06

End at: 2018-02-19 19:24:36

Local clock offset: -6.599 ms

Remote clock offset: 2.026 ms

Below is generated by plot.py at 2018-02-19 20:55:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 8031.431 ms

Loss rate: 33.86%

-- Flow 1:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 8031.431 ms

Loss rate: 33.12%

-- Flow 2:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 6170.141 ms

Loss rate: 52.83%

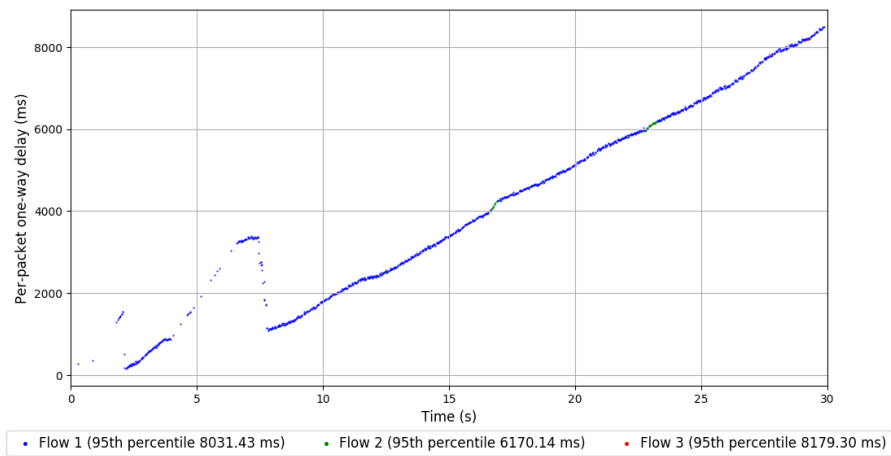
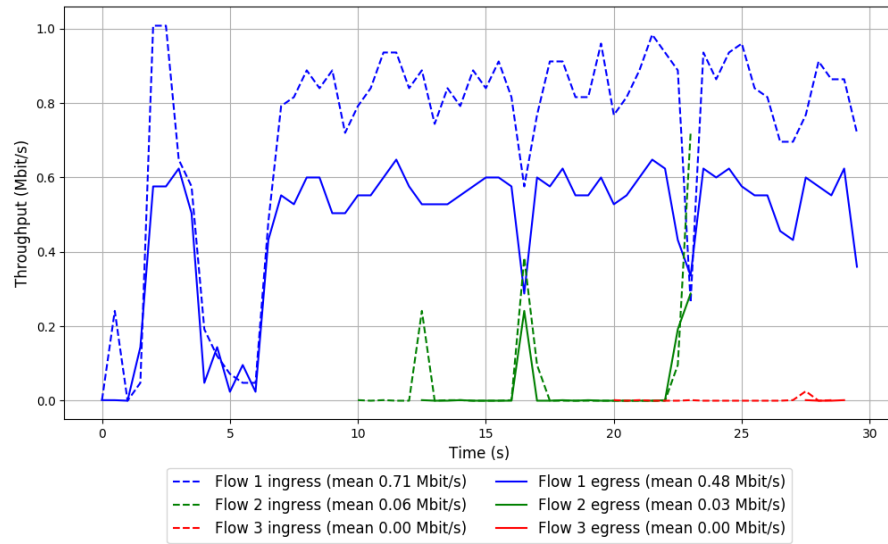
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 8179.299 ms

Loss rate: 90.68%

Run 2: Report of TCP Cubic — Data Link

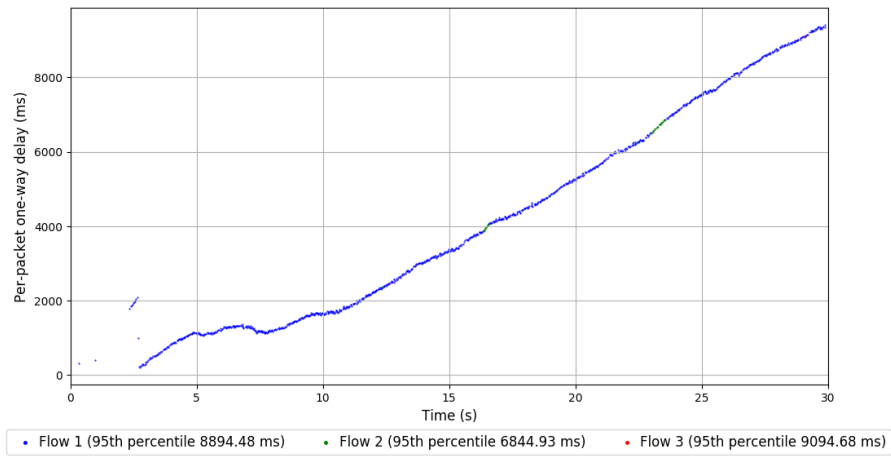
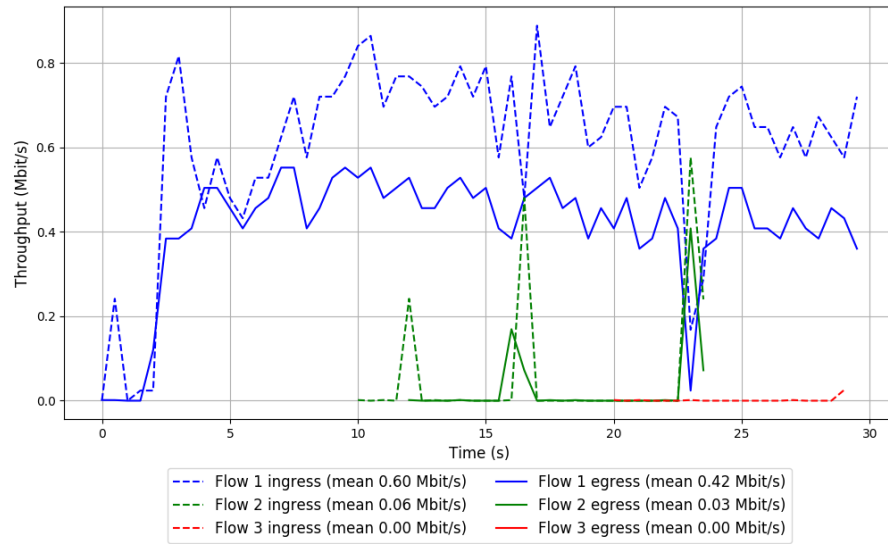


Run 3: Statistics of TCP Cubic

Start at: 2018-02-19 19:46:42
End at: 2018-02-19 19:47:12
Local clock offset: -5.787 ms
Remote clock offset: -3.328 ms

Below is generated by plot.py at 2018-02-19 20:55:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 8894.480 ms
Loss rate: 32.42%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 8894.480 ms
Loss rate: 31.49%
-- Flow 2:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 6844.934 ms
Loss rate: 52.83%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 9094.679 ms
Loss rate: 95.13%

Run 3: Report of TCP Cubic — Data Link

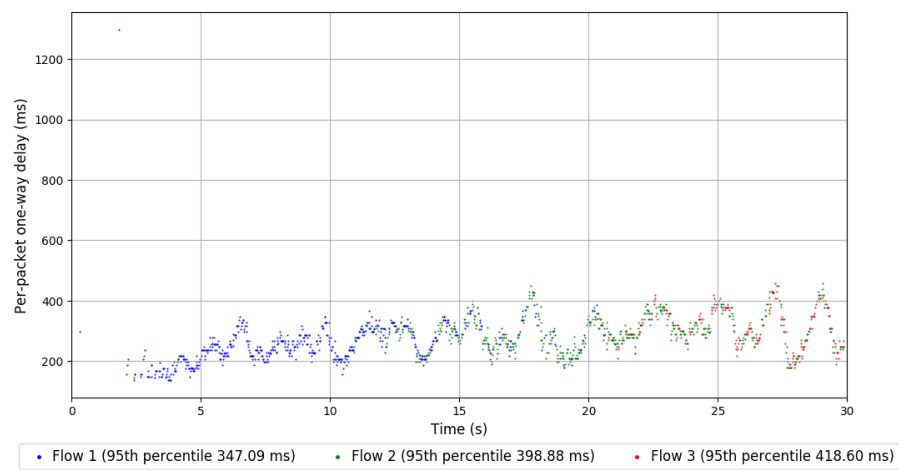
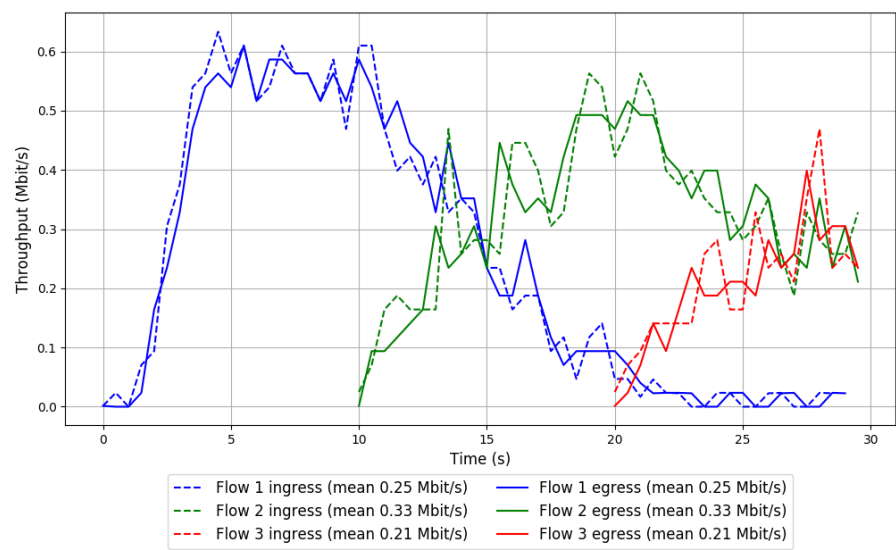


```
Run 1: Statistics of LEDBAT

Start at: 2018-02-19 18:55:03
End at: 2018-02-19 18:55:33
Local clock offset: -2.163 ms
Remote clock offset: 1.387 ms

# Below is generated by plot.py at 2018-02-19 20:55:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 388.890 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 347.086 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 398.884 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 418.600 ms
Loss rate: 4.47%
```


Run 1: Report of LEDBAT — Data Link

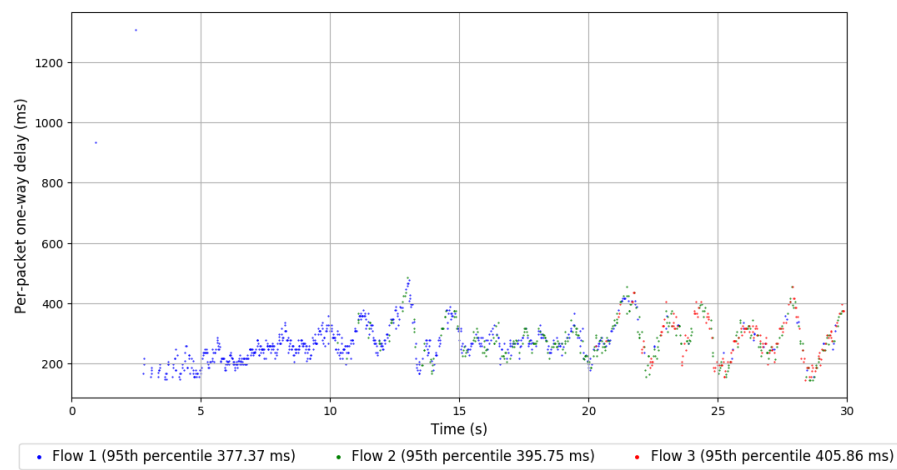
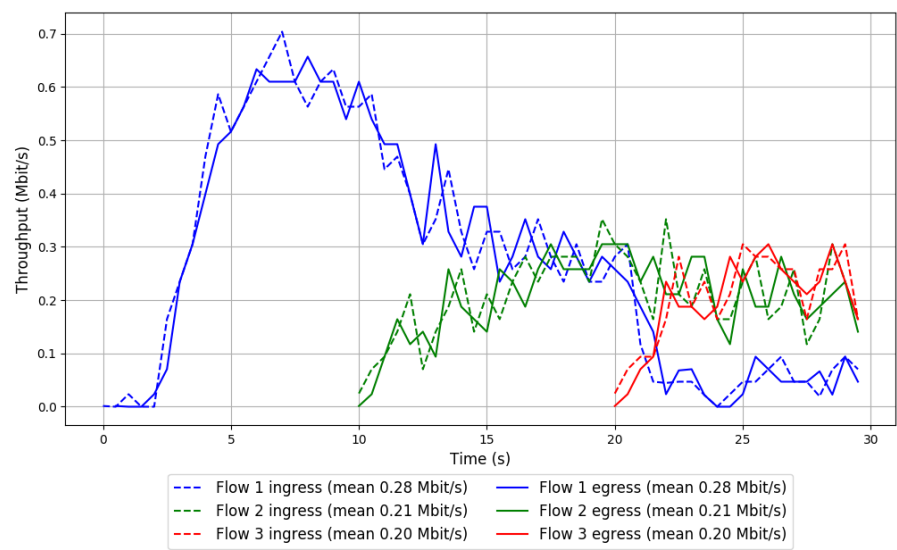


Run 2: Statistics of LEDBAT

Start at: 2018-02-19 19:17:41
End at: 2018-02-19 19:18:11
Local clock offset: -6.142 ms
Remote clock offset: -3.721 ms

Below is generated by plot.py at 2018-02-19 20:55:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 387.464 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 377.366 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 395.750 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 405.861 ms
Loss rate: 4.04%

Run 2: Report of LEDBAT — Data Link

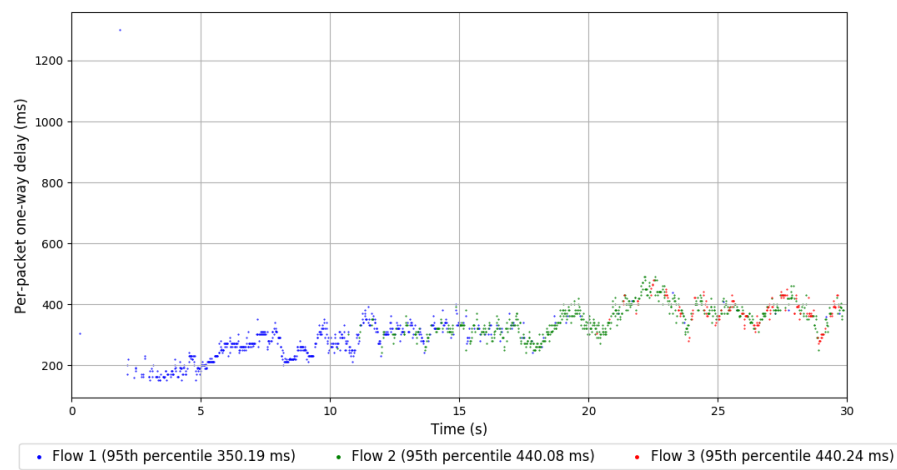
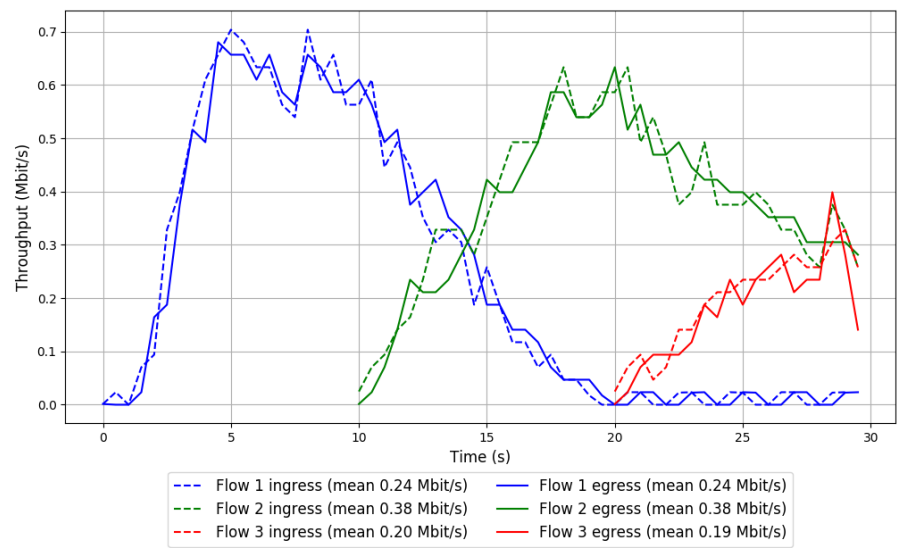


Run 3: Statistics of LEDBAT

Start at: 2018-02-19 19:40:27
End at: 2018-02-19 19:40:57
Local clock offset: -6.173 ms
Remote clock offset: -3.449 ms

Below is generated by plot.py at 2018-02-19 20:55:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 430.094 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 350.192 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 440.084 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 440.236 ms
Loss rate: 7.92%

Run 3: Report of LEDBAT — Data Link

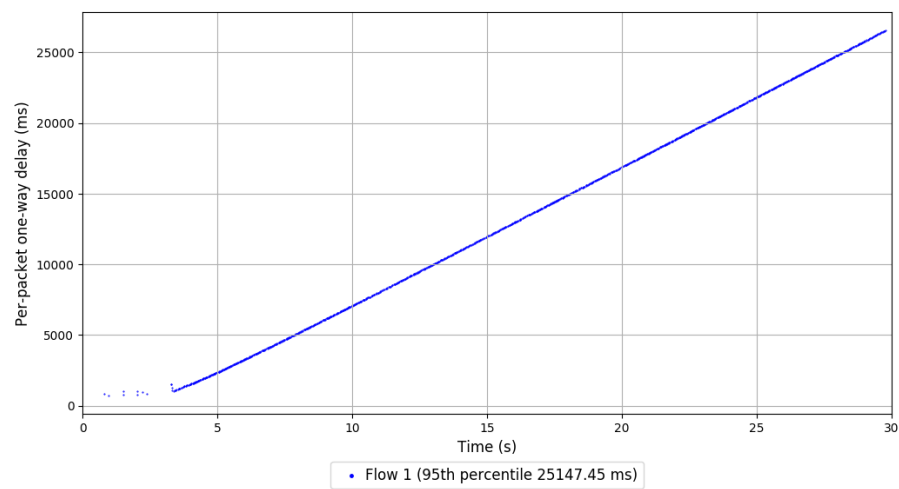
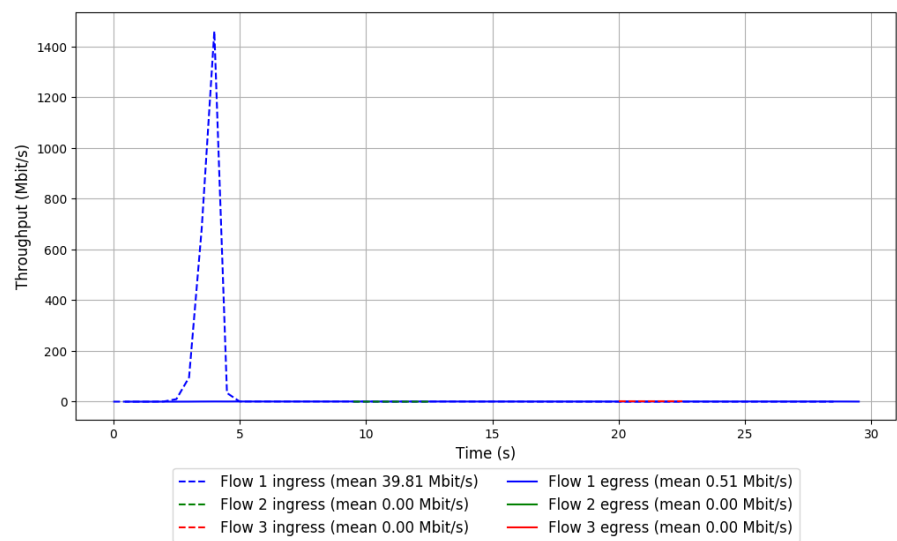


Run 1: Statistics of PCC

Start at: 2018-02-19 18:51:18
End at: 2018-02-19 18:51:48
Local clock offset: -2.406 ms
Remote clock offset: -4.442 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 25147.454 ms
Loss rate: 98.70%
-- Flow 1:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 25147.454 ms
Loss rate: 98.70%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 1: Report of PCC — Data Link

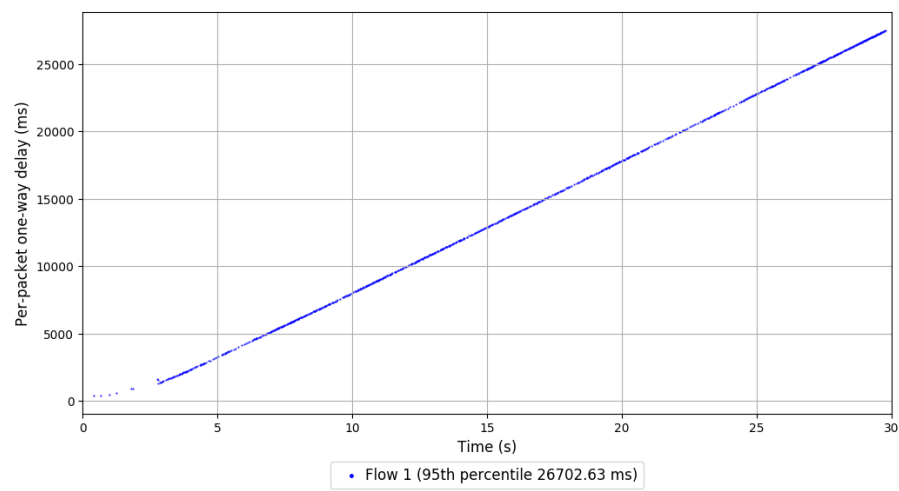
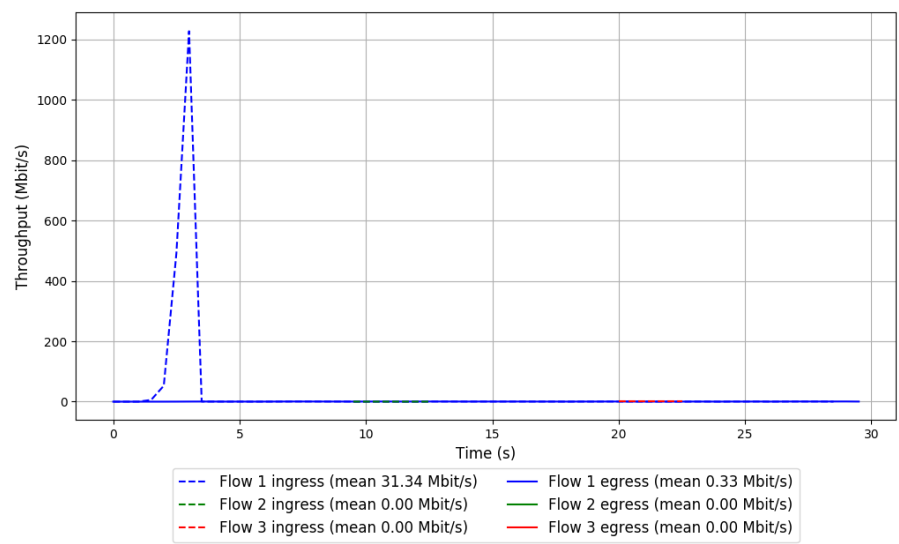


Run 2: Statistics of PCC

Start at: 2018-02-19 19:13:54
End at: 2018-02-19 19:14:24
Local clock offset: -5.766 ms
Remote clock offset: -3.875 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 26702.634 ms
Loss rate: 98.91%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 26702.634 ms
Loss rate: 98.91%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 2: Report of PCC — Data Link

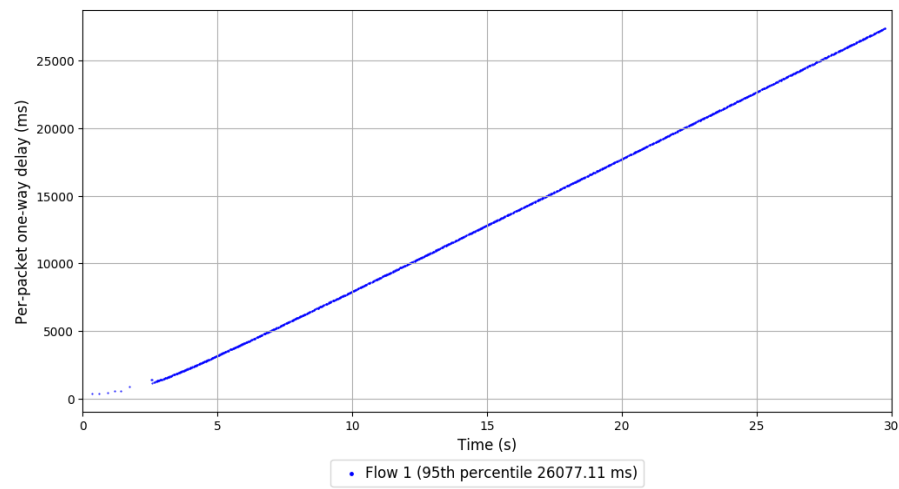
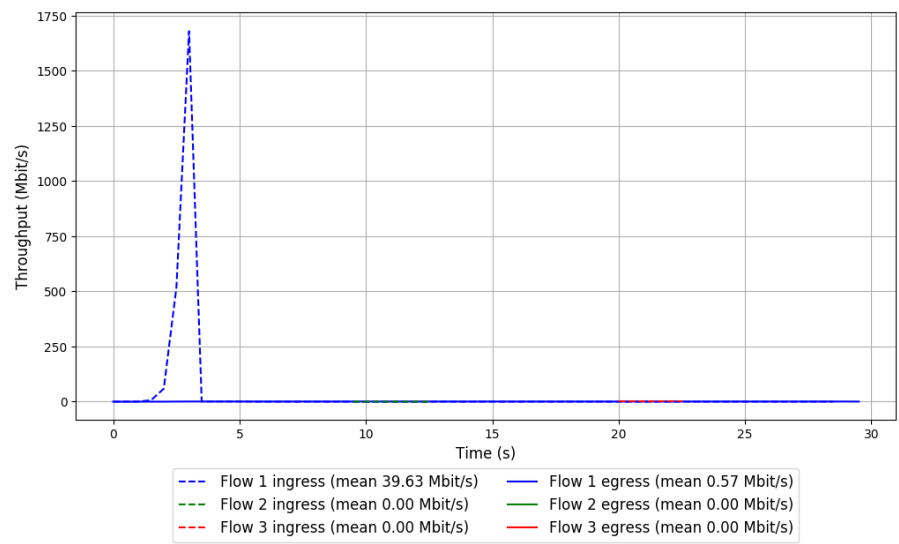


Run 3: Statistics of PCC

Start at: 2018-02-19 19:36:39
End at: 2018-02-19 19:37:09
Local clock offset: -6.576 ms
Remote clock offset: -2.658 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26077.107 ms
Loss rate: 98.54%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26077.107 ms
Loss rate: 98.54%
-- 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: 2018-02-19 18:42:34

End at: 2018-02-19 18:43:04

Local clock offset: -3.156 ms

Remote clock offset: 0.136 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 5867.171 ms

Loss rate: 22.12%

-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 5843.808 ms

Loss rate: 21.21%

-- Flow 2:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 6069.113 ms

Loss rate: 30.23%

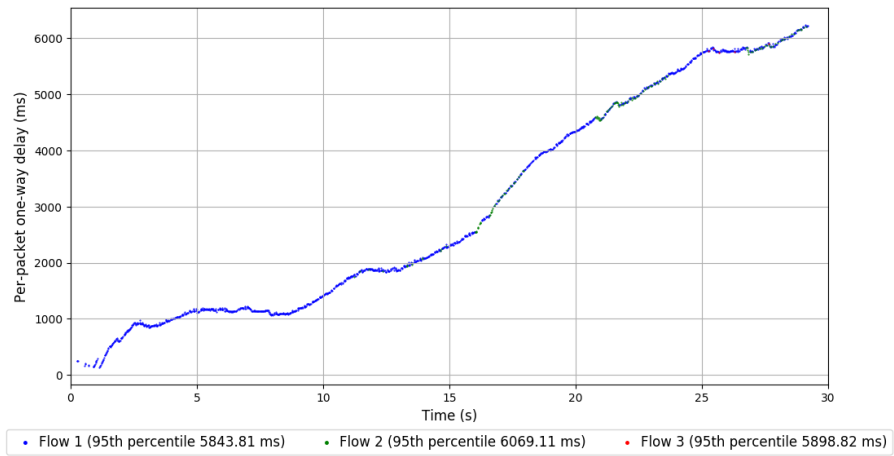
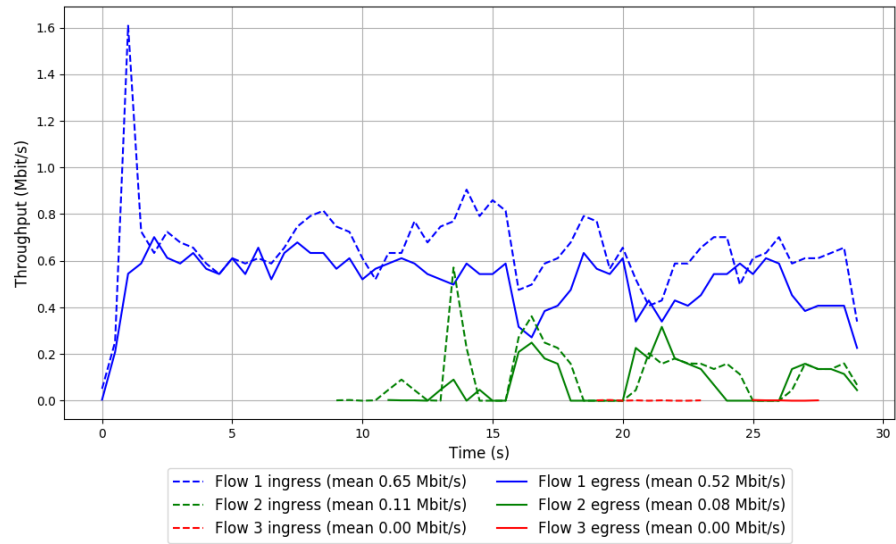
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 5898.818 ms

Loss rate: 16.67%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-02-19 19:05:07

End at: 2018-02-19 19:05:37

Local clock offset: -4.059 ms

Remote clock offset: -3.21 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 7293.791 ms

Loss rate: 27.98%

-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 7335.573 ms

Loss rate: 27.36%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 6951.512 ms

Loss rate: 35.24%

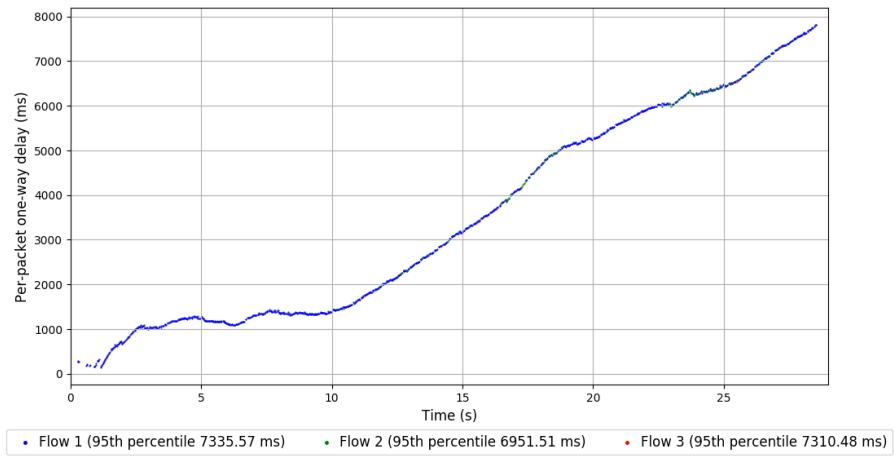
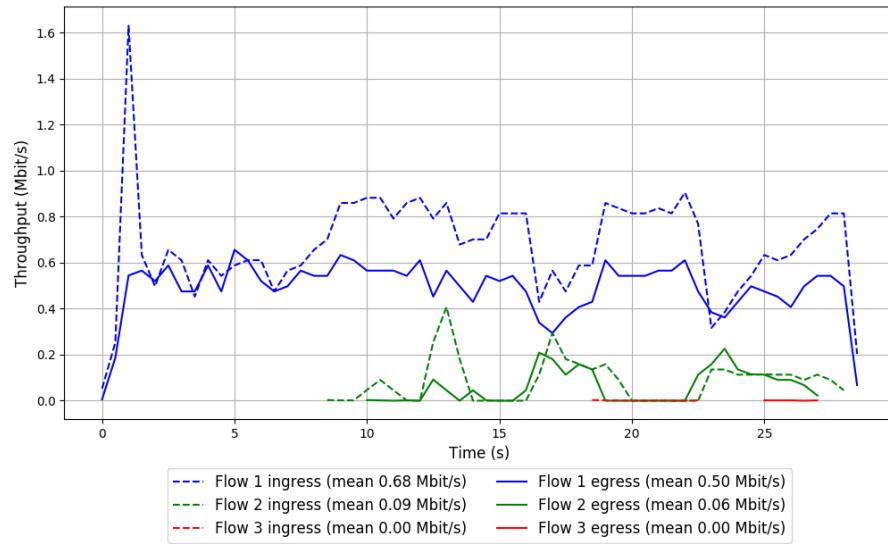
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 7310.485 ms

Loss rate: 33.33%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-02-19 19:27:53

End at: 2018-02-19 19:28:23

Local clock offset: -6.824 ms

Remote clock offset: 1.174 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 8907.624 ms

Loss rate: 28.53%

-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 8915.966 ms

Loss rate: 29.31%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 5977.074 ms

Loss rate: 0.00%

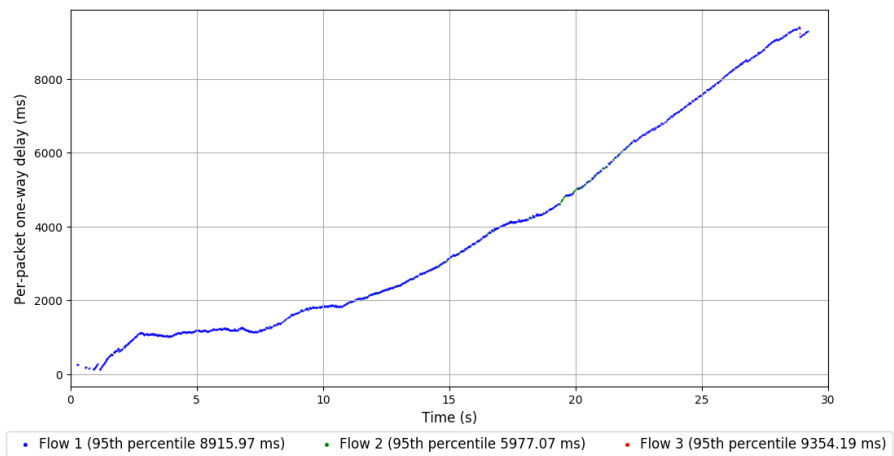
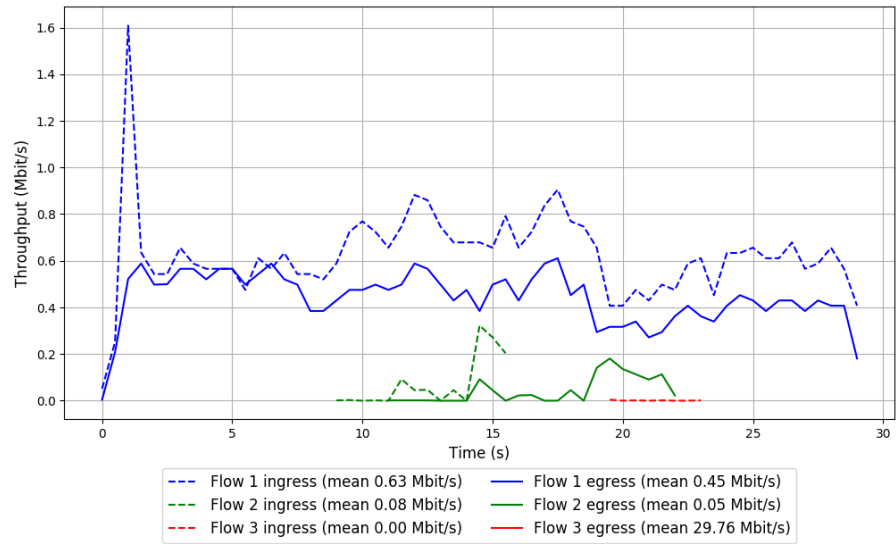
-- Flow 3:

Average throughput: 29.76 Mbit/s

95th percentile per-packet one-way delay: 9354.191 ms

Loss rate: 66.67%

Run 3: Report of QUIC Cubic — Data Link

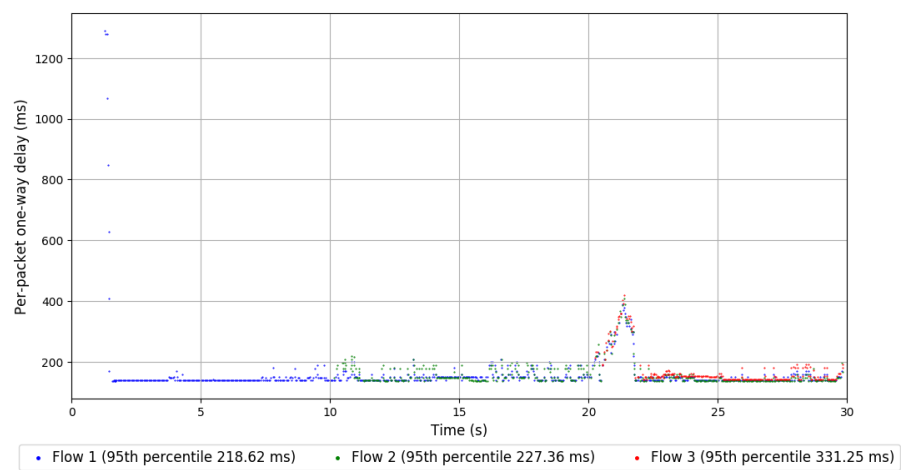
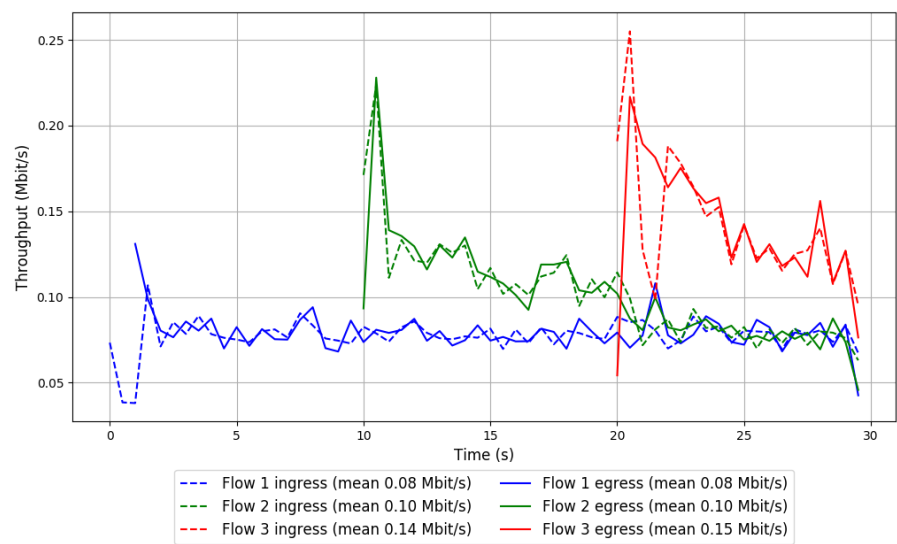


```
Run 1: Statistics of SCReAM

Start at: 2018-02-19 18:52:34
End at: 2018-02-19 18:53:04
Local clock offset: -2.297 ms
Remote clock offset: -4.36 ms

# Below is generated by plot.py at 2018-02-19 20:55:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 261.331 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 218.617 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 227.364 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 331.249 ms
Loss rate: 1.97%
```

Run 1: Report of SReAM — Data Link

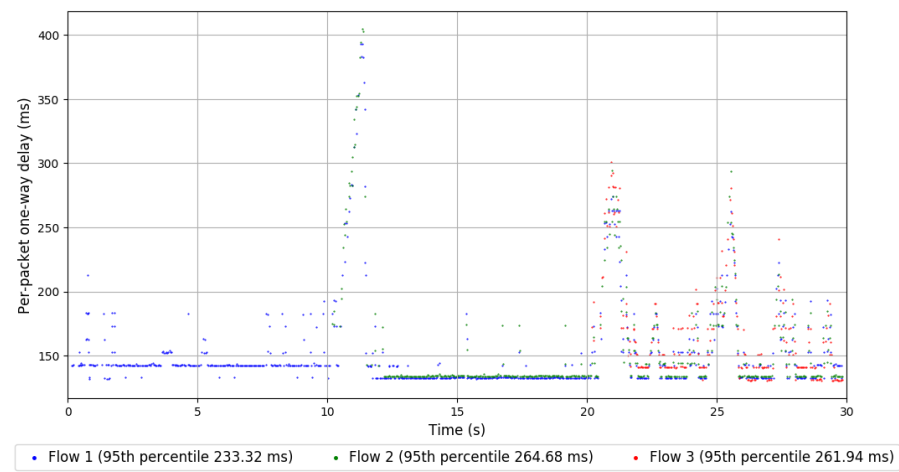
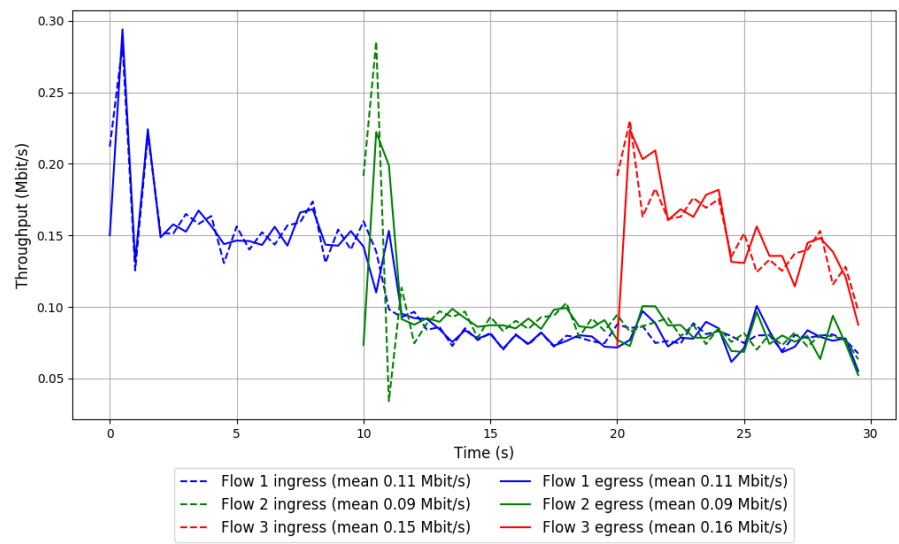


Run 2: Statistics of SCReAM

Start at: 2018-02-19 19:15:11
End at: 2018-02-19 19:15:41
Local clock offset: -5.917 ms
Remote clock offset: 1.85 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 254.430 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 233.323 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 264.682 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 261.943 ms
Loss rate: 1.56%

Run 2: Report of SReAM — Data Link

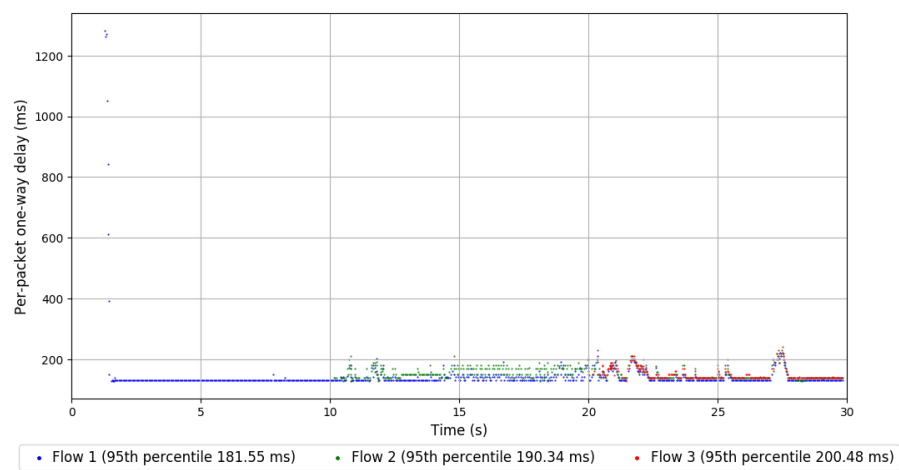
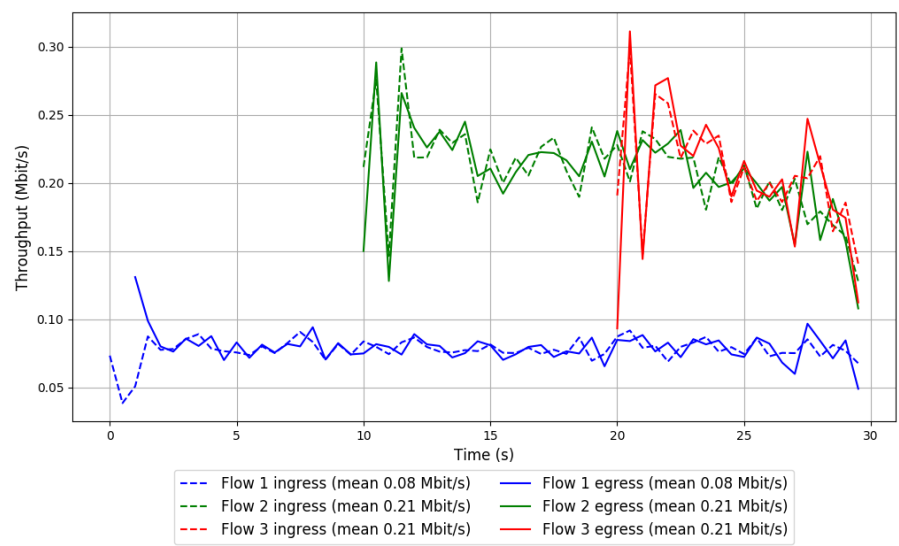


Run 3: Statistics of SCReAM

Start at: 2018-02-19 19:37:55
End at: 2018-02-19 19:38:25
Local clock offset: -6.423 ms
Remote clock offset: 1.352 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 190.551 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 181.548 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 190.339 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 200.476 ms
Loss rate: 2.00%

Run 3: Report of SCReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-02-19 18:46:18

End at: 2018-02-19 18:46:48

Local clock offset: -2.781 ms

Remote clock offset: 0.947 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 2842.273 ms

Loss rate: 14.85%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 2842.273 ms

Loss rate: 9.71%

-- Flow 2:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 2688.954 ms

Loss rate: 24.94%

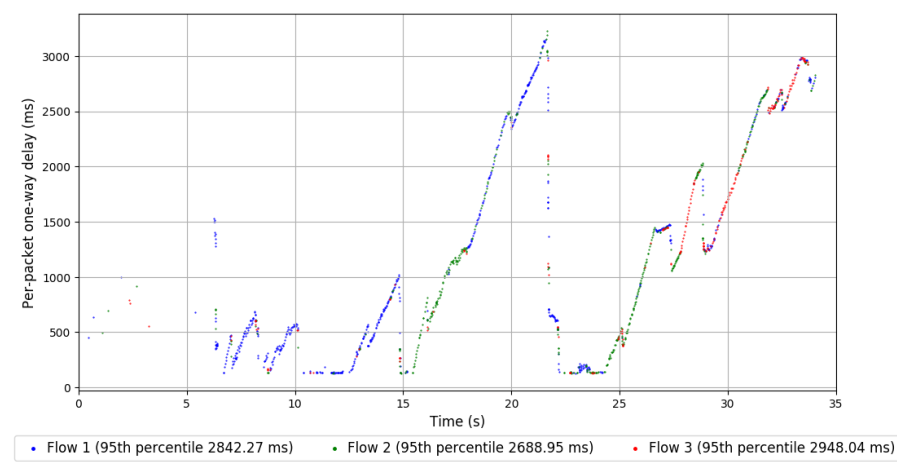
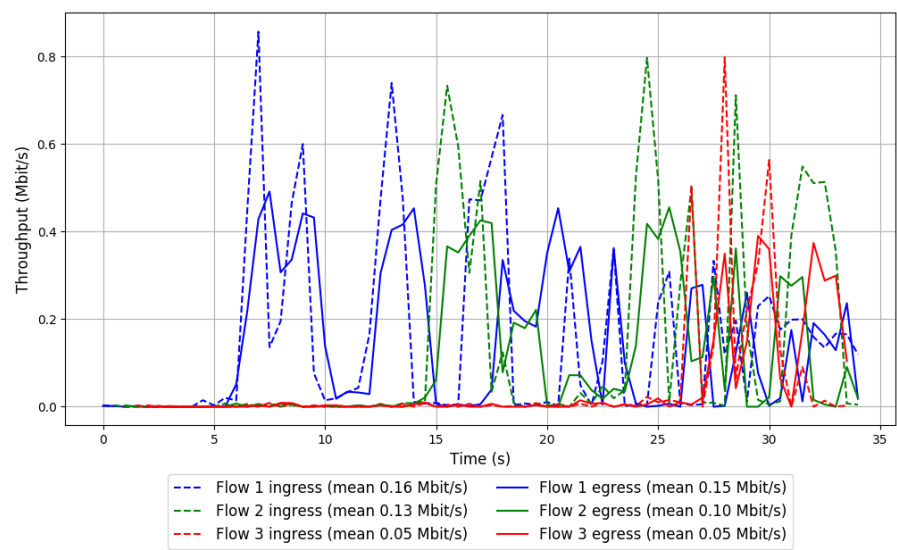
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 2948.044 ms

Loss rate: 3.57%

Run 1: Report of WebRTC media — Data Link

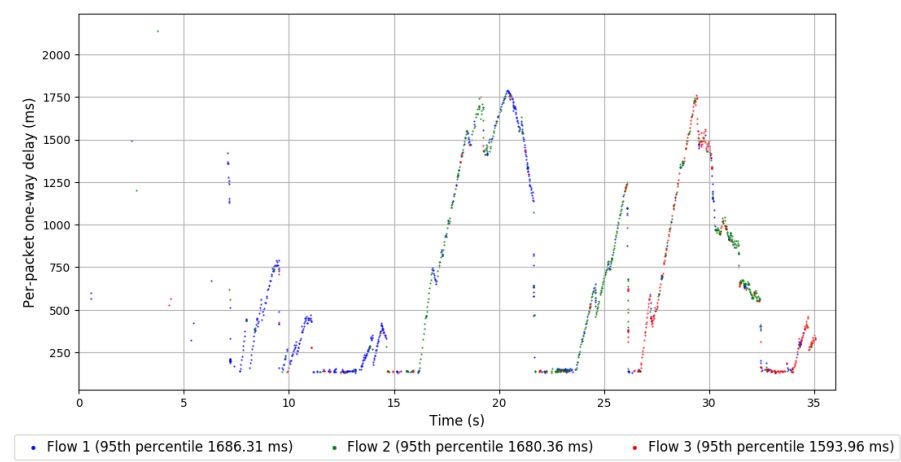
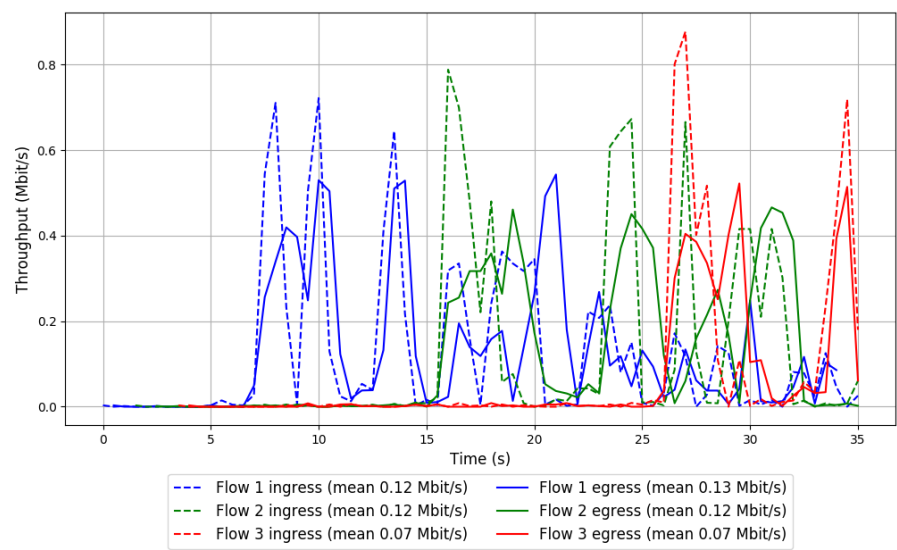


Run 2: Statistics of WebRTC media

Start at: 2018-02-19 19:08:55
End at: 2018-02-19 19:09:25
Local clock offset: -4.996 ms
Remote clock offset: -3.972 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 1679.620 ms
Loss rate: 3.45%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 1686.311 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 1680.361 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 1593.961 ms
Loss rate: 12.88%

Run 2: Report of WebRTC media — Data Link

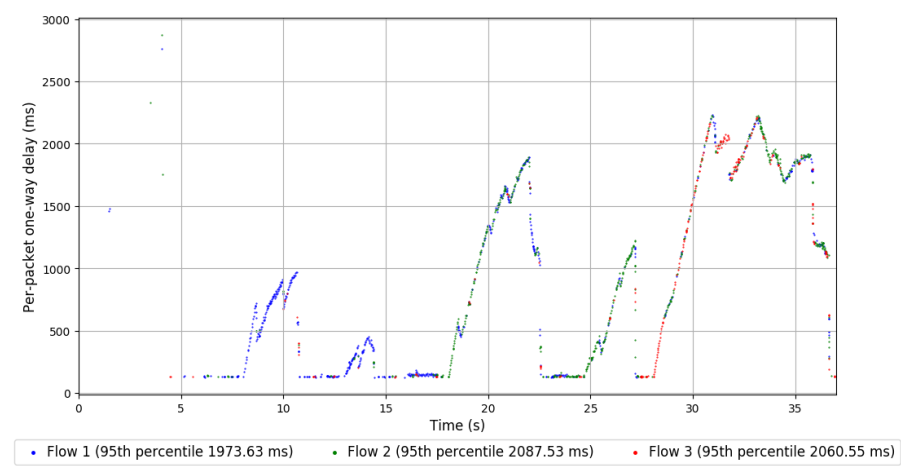
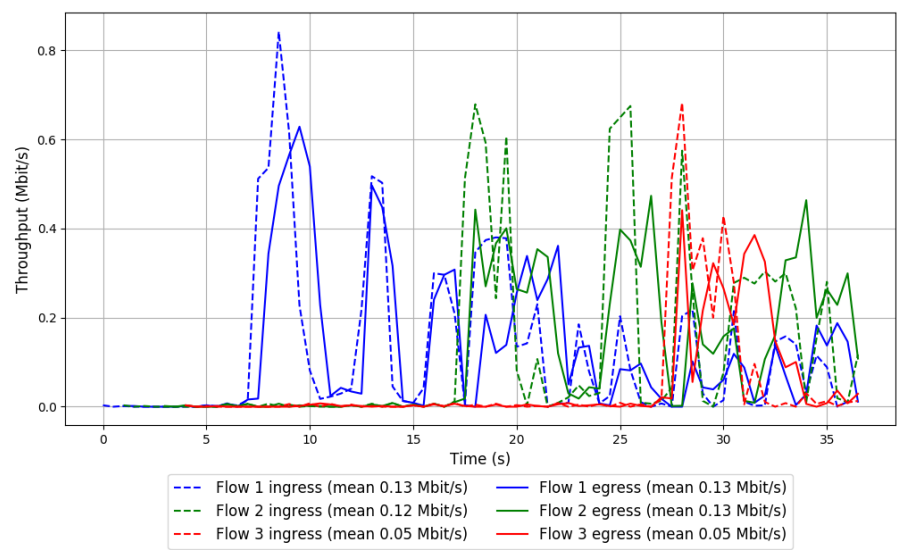


Run 3: Statistics of WebRTC media

Start at: 2018-02-19 19:31:40
End at: 2018-02-19 19:32:10
Local clock offset: -6.985 ms
Remote clock offset: 1.211 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 2062.238 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 1973.634 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 2087.525 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2060.550 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-02-19 18:43:48

End at: 2018-02-19 18:44:18

Local clock offset: -3.026 ms

Remote clock offset: 0.991 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 380.448 ms

Loss rate: 2.69%

-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 592.294 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 362.804 ms

Loss rate: 3.81%

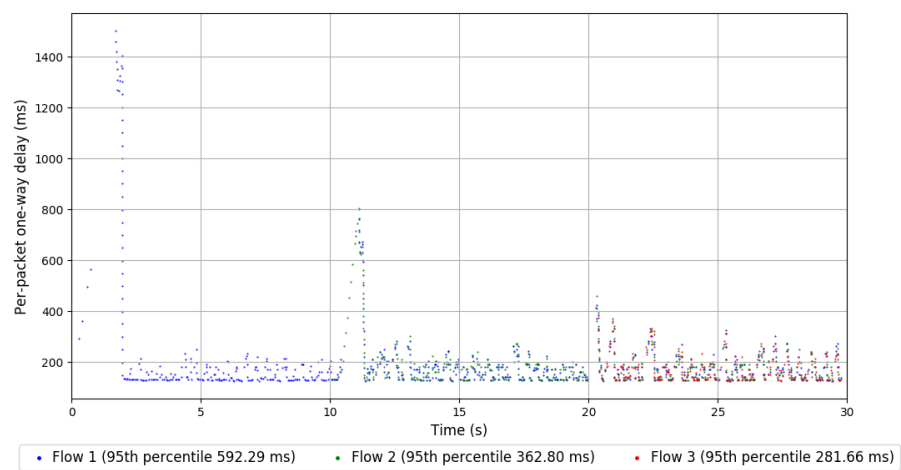
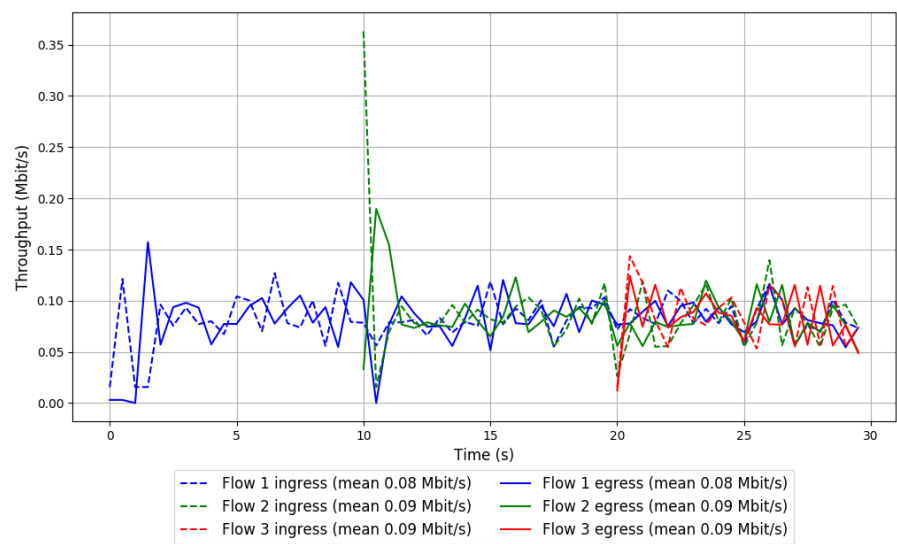
-- Flow 3:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 281.659 ms

Loss rate: 4.11%

Run 1: Report of Sprout — Data Link

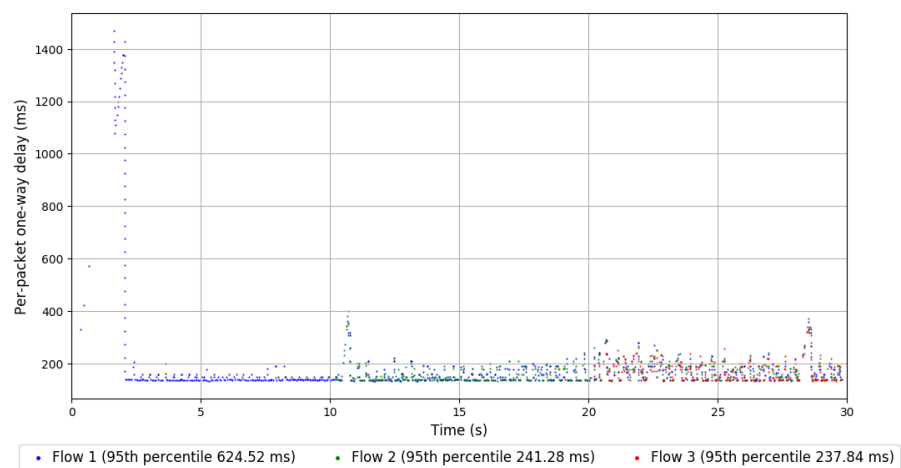
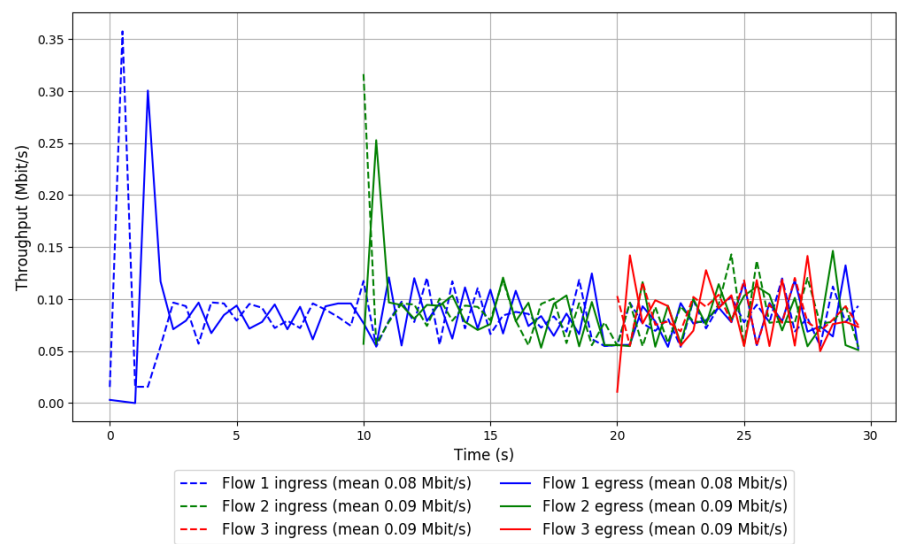


Run 2: Statistics of Sprout

Start at: 2018-02-19 19:06:22
End at: 2018-02-19 19:06:52
Local clock offset: -4.33 ms
Remote clock offset: -4.056 ms

```
# Below is generated by plot.py at 2018-02-19 20:55:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 290.204 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 624.520 ms
Loss rate: 2.07%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 241.280 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 237.838 ms
Loss rate: 2.58%
```


Run 2: Report of Sprout — Data Link

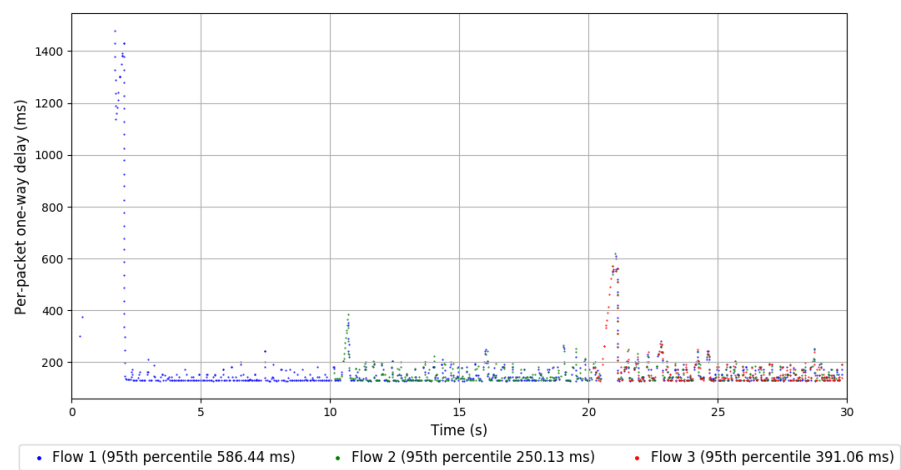
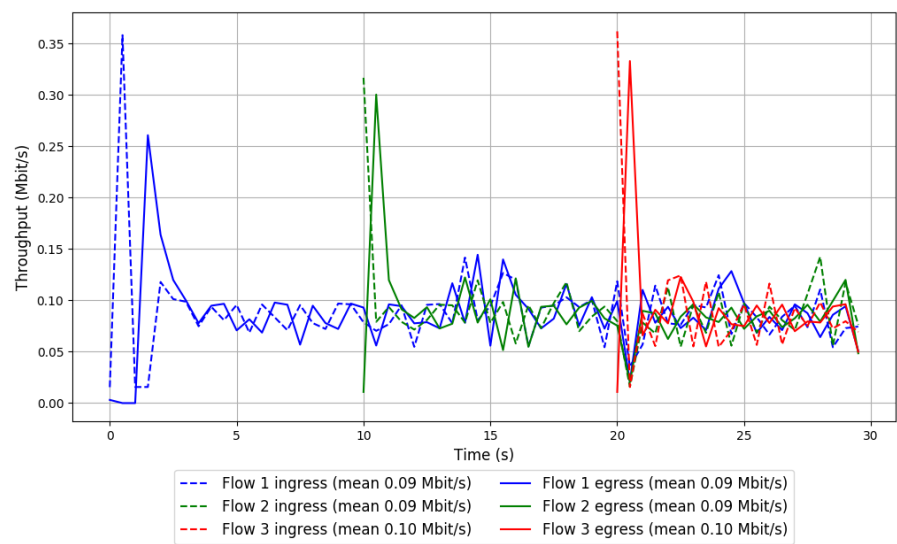


Run 3: Statistics of Sprout

Start at: 2018-02-19 19:29:08
End at: 2018-02-19 19:29:38
Local clock offset: -6.816 ms
Remote clock offset: 1.197 ms

```
# Below is generated by plot.py at 2018-02-19 20:55:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 362.625 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 586.443 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 250.132 ms
Loss rate: 2.43%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 391.055 ms
Loss rate: 2.16%
```

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-02-19 18:53:48

End at: 2018-02-19 18:54:18

Local clock offset: -2.218 ms

Remote clock offset: 0.464 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 3942.472 ms

Loss rate: 10.69%

-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 4060.937 ms

Loss rate: 6.74%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3843.090 ms

Loss rate: 11.21%

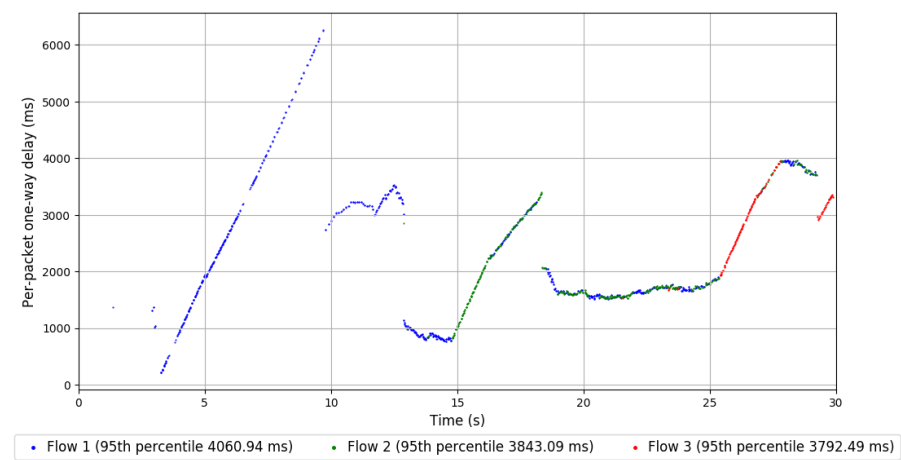
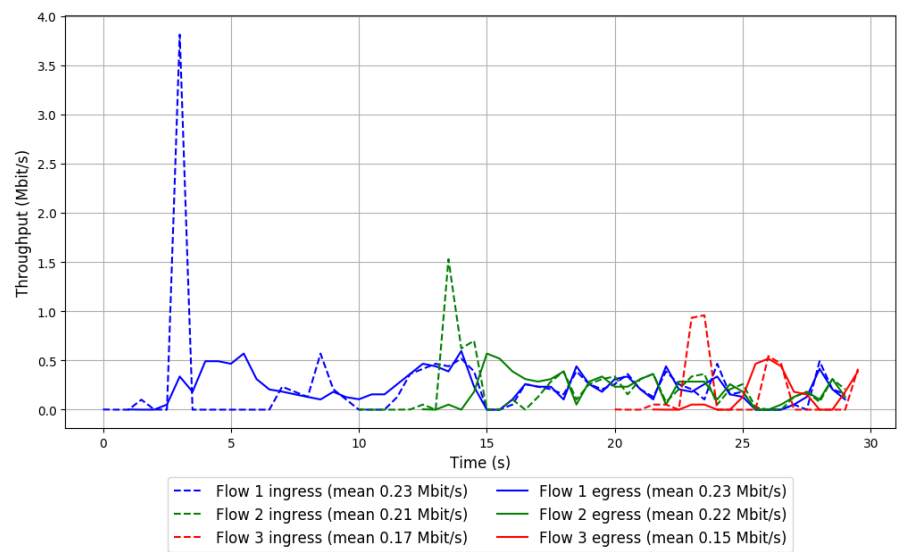
-- Flow 3:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 3792.493 ms

Loss rate: 24.99%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-02-19 19:16:26

End at: 2018-02-19 19:16:56

Local clock offset: -6.087 ms

Remote clock offset: 2.692 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 8053.048 ms

Loss rate: 25.82%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 7985.166 ms

Loss rate: 6.04%

-- Flow 2:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 8070.703 ms

Loss rate: 53.42%

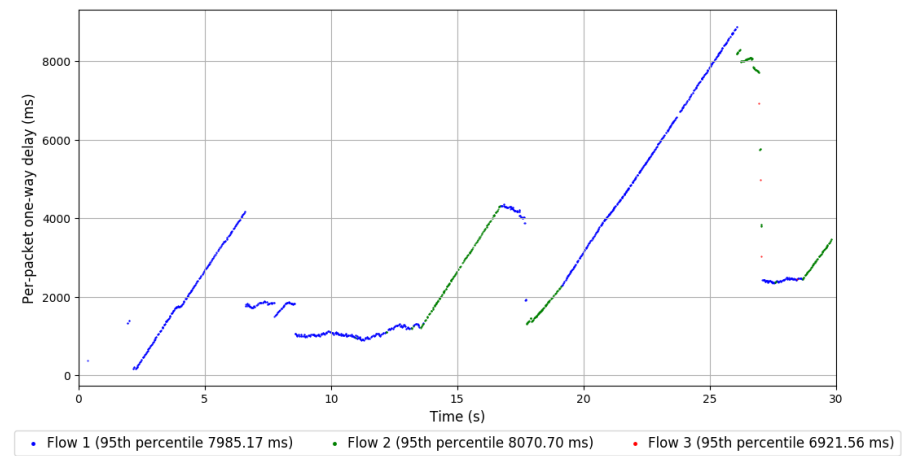
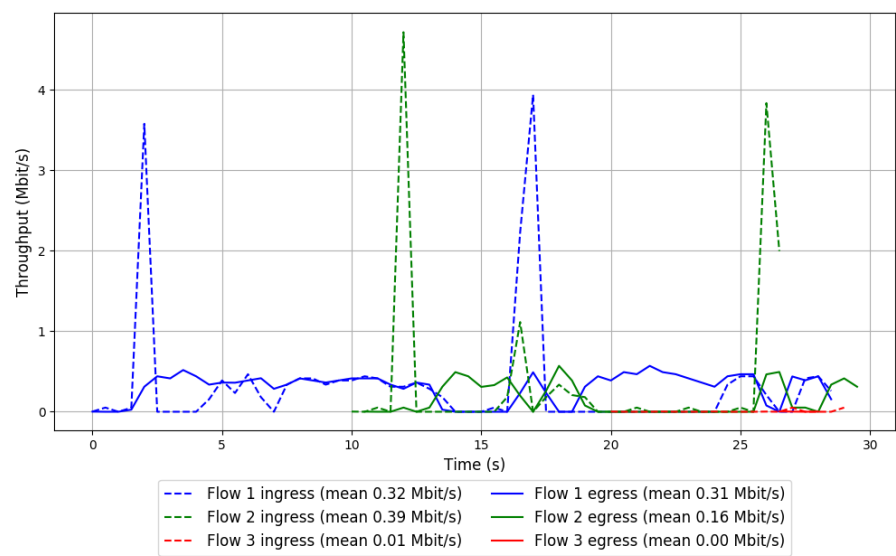
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 6921.556 ms

Loss rate: 92.68%

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

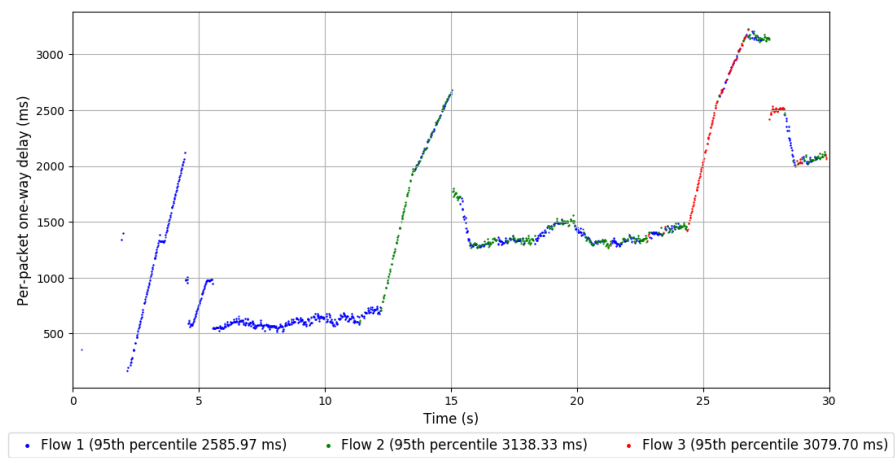
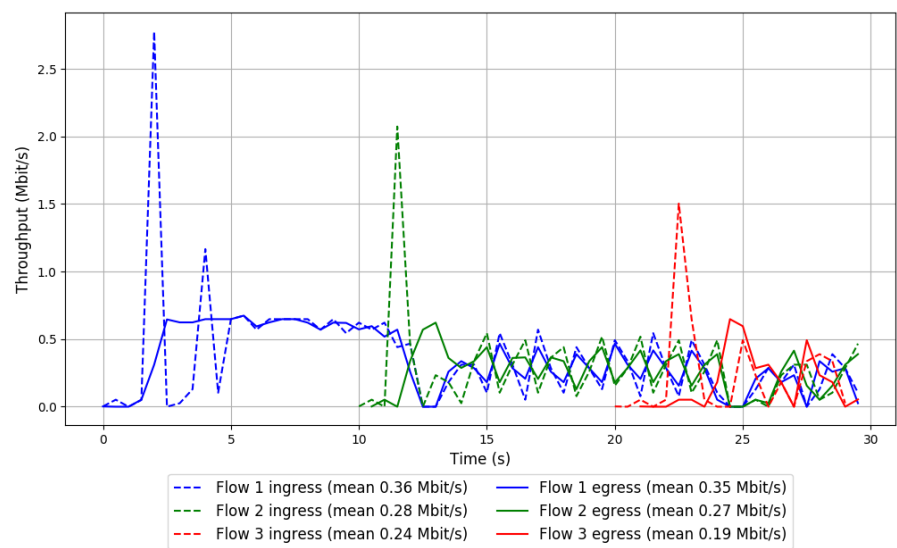


Run 3: Statistics of TaoVA-100x

Start at: 2018-02-19 19:39:12
End at: 2018-02-19 19:39:42
Local clock offset: -6.376 ms
Remote clock offset: -2.626 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 2949.925 ms
Loss rate: 7.86%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 2585.968 ms
Loss rate: 4.34%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 3138.328 ms
Loss rate: 8.37%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 3079.703 ms
Loss rate: 24.04%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-02-19 18:50:03

End at: 2018-02-19 18:50:33

Local clock offset: -2.492 ms

Remote clock offset: 1.116 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 1696.494 ms

Loss rate: 4.96%

-- Flow 1:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 1068.278 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 1346.511 ms

Loss rate: 2.48%

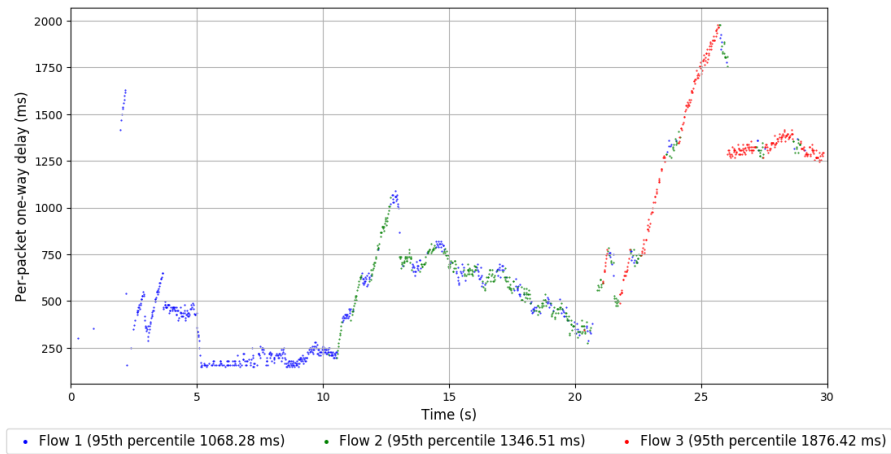
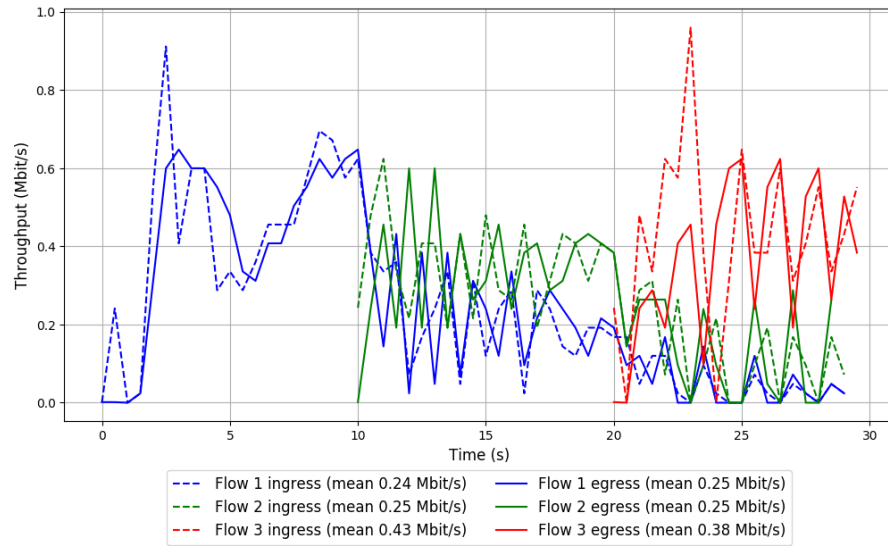
-- Flow 3:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 1876.421 ms

Loss rate: 14.64%

Run 1: Report of TCP Vegas — Data Link

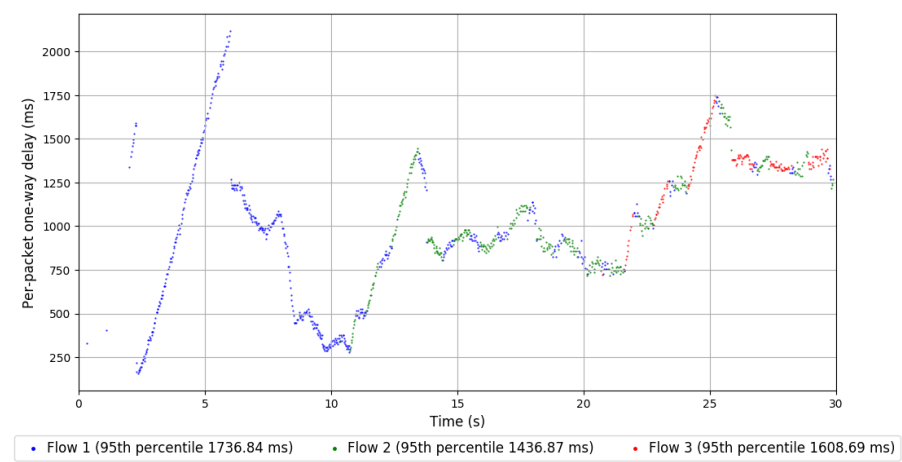
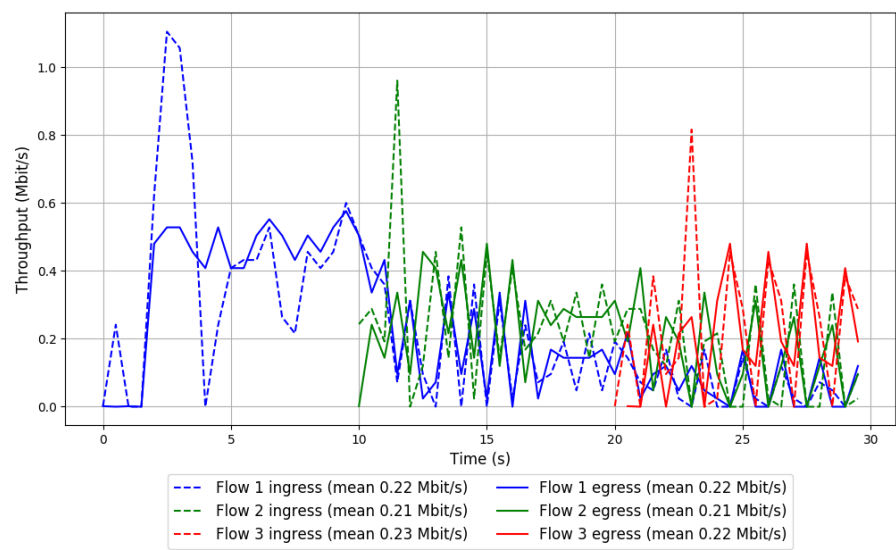


Run 2: Statistics of TCP Vegas

Start at: 2018-02-19 19:12:39
End at: 2018-02-19 19:13:09
Local clock offset: -5.56 ms
Remote clock offset: -3.031 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1618.454 ms
Loss rate: 4.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1736.841 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 1436.870 ms
Loss rate: 3.08%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1608.687 ms
Loss rate: 14.65%

Run 2: Report of TCP Vegas — Data Link

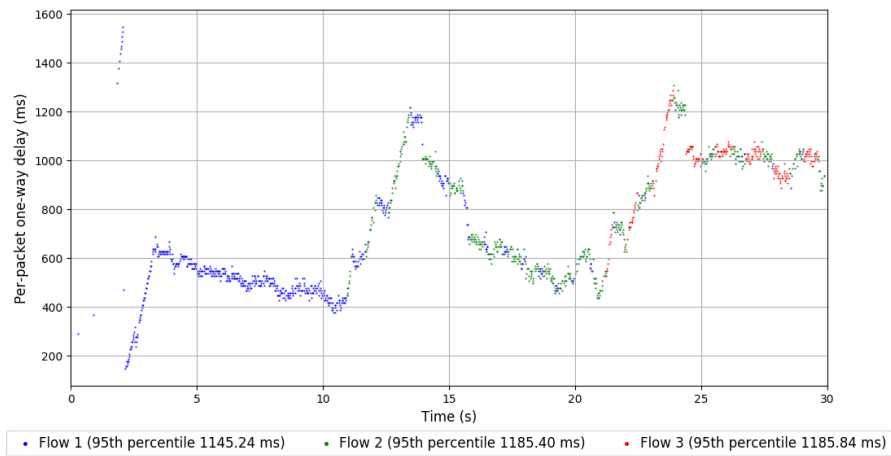
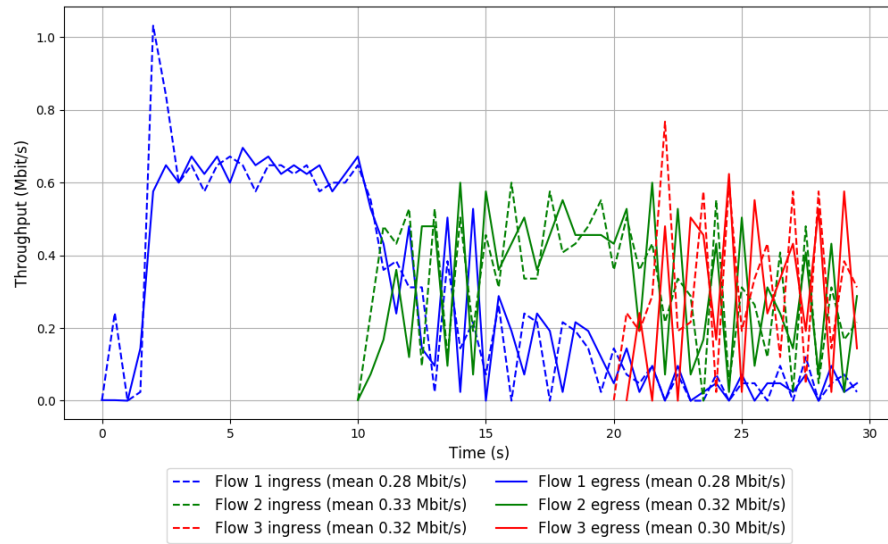


Run 3: Statistics of TCP Vegas

Start at: 2018-02-19 19:35:24
End at: 2018-02-19 19:35:54
Local clock offset: -6.804 ms
Remote clock offset: 2.971 ms

```
# Below is generated by plot.py at 2018-02-19 20:55:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1165.830 ms
Loss rate: 3.49%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 1145.238 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 1185.402 ms
Loss rate: 3.31%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 1185.844 ms
Loss rate: 11.19%
```

Run 3: Report of TCP Vegas — Data Link

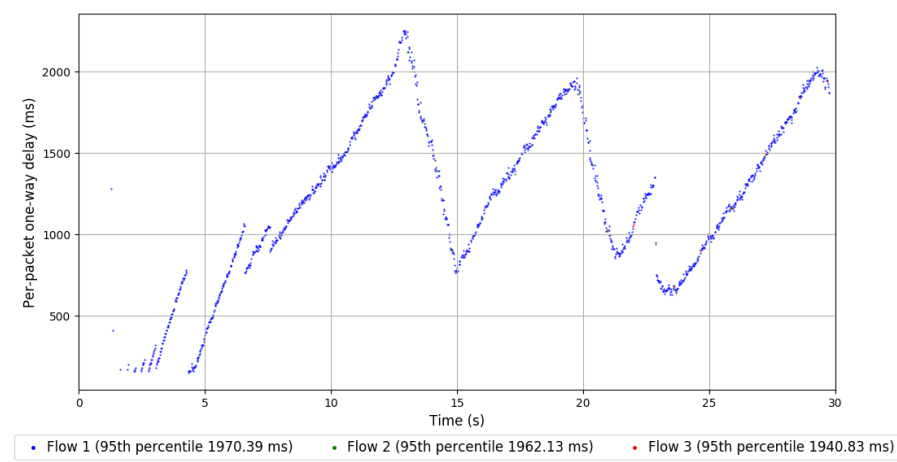
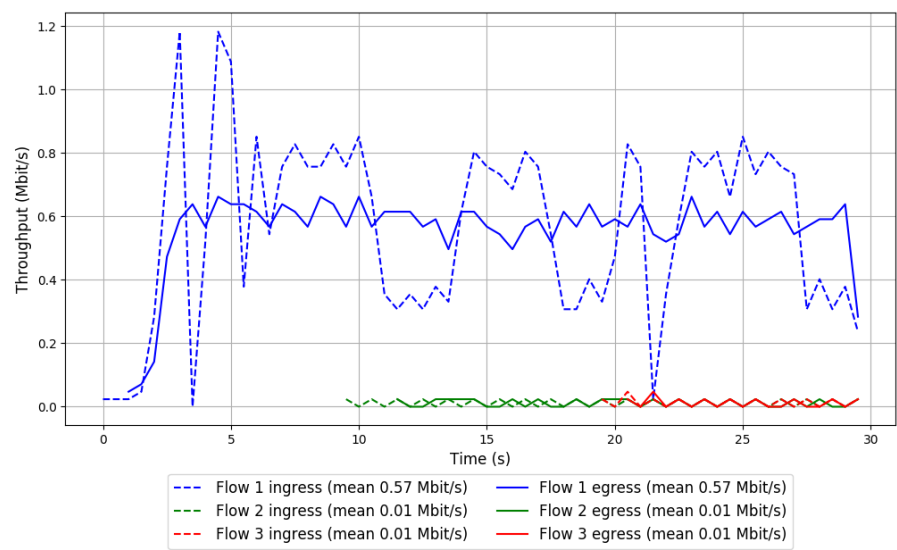


Run 1: Statistics of Verus

Start at: 2018-02-19 18:45:03
End at: 2018-02-19 18:45:33
Local clock offset: -2.897 ms
Remote clock offset: -3.865 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1969.807 ms
Loss rate: 4.25%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 1970.394 ms
Loss rate: 4.06%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1962.135 ms
Loss rate: 9.52%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1940.827 ms
Loss rate: 16.67%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-02-19 19:07:39

End at: 2018-02-19 19:08:09

Local clock offset: -4.675 ms

Remote clock offset: 0.861 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 2592.327 ms

Loss rate: 5.74%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 2582.233 ms

Loss rate: 5.50%

-- Flow 2:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 2607.911 ms

Loss rate: 8.57%

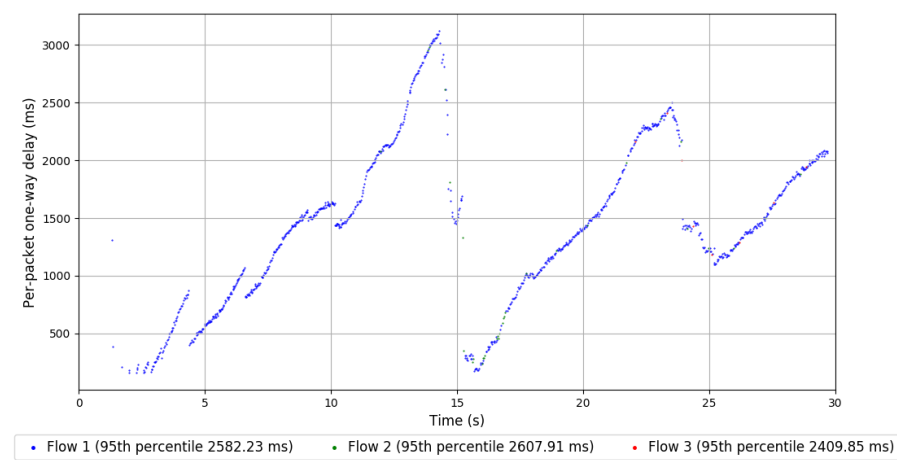
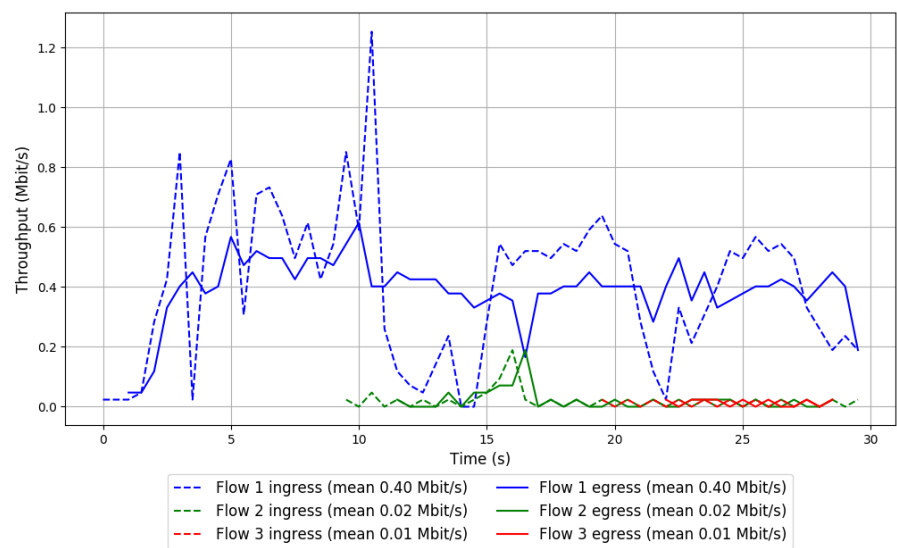
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 2409.850 ms

Loss rate: 20.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-02-19 19:30:22

End at: 2018-02-19 19:30:52

Local clock offset: -6.889 ms

Remote clock offset: -2.81 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 2204.912 ms

Loss rate: 3.47%

-- Flow 1:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 2223.228 ms

Loss rate: 3.41%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 2174.437 ms

Loss rate: 4.35%

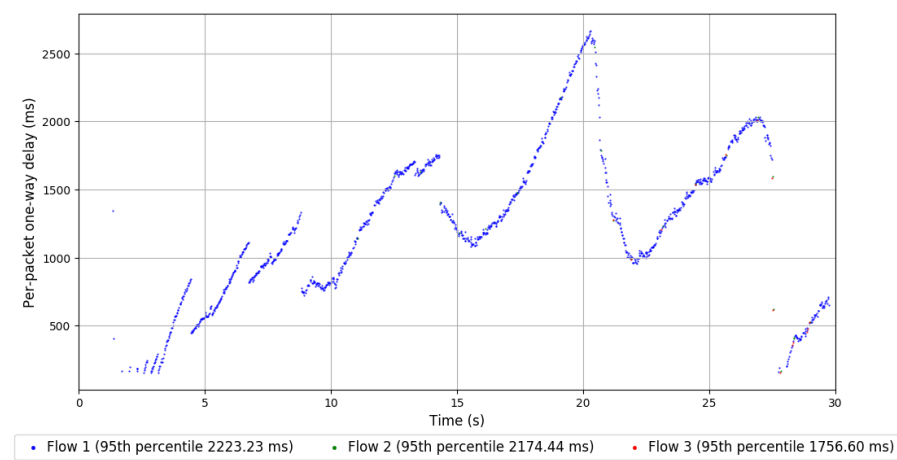
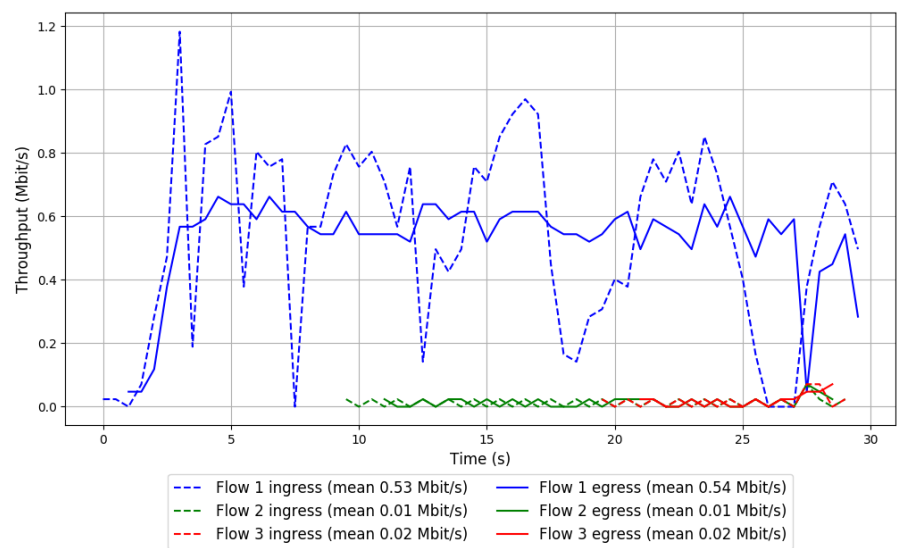
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 1756.600 ms

Loss rate: 6.67%

Run 3: Report of Verus — Data Link

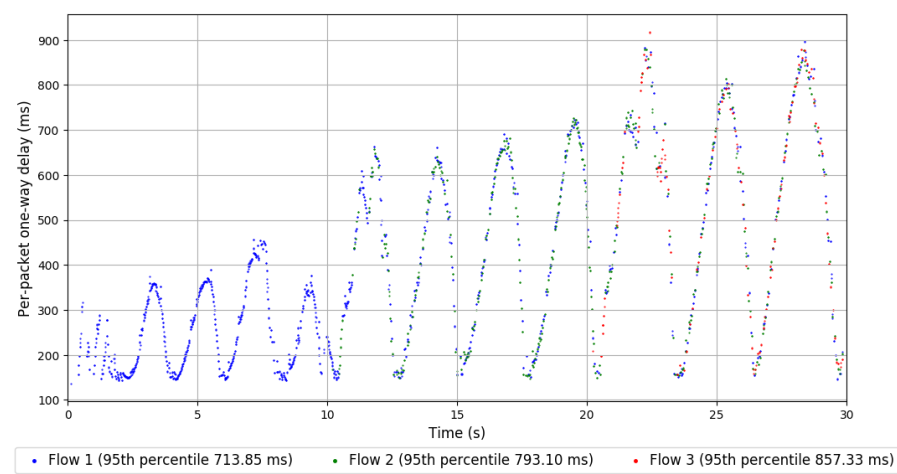
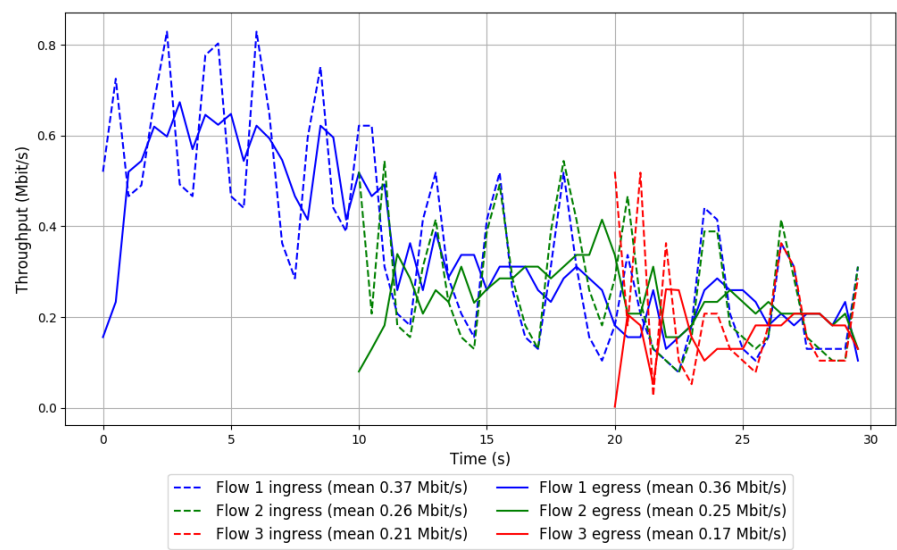


Run 1: Statistics of Copa

Start at: 2018-02-19 19:00:05
End at: 2018-02-19 19:00:35
Local clock offset: -2.128 ms
Remote clock offset: -4.218 ms

Below is generated by plot.py at 2018-02-19 20:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 782.848 ms
Loss rate: 6.65%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 713.845 ms
Loss rate: 3.76%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 793.096 ms
Loss rate: 7.41%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 857.334 ms
Loss rate: 20.24%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-02-19 19:22:49

End at: 2018-02-19 19:23:19

Local clock offset: -6.517 ms

Remote clock offset: 2.008 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 955.067 ms

Loss rate: 10.01%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 849.201 ms

Loss rate: 7.06%

-- Flow 2:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 1003.958 ms

Loss rate: 10.92%

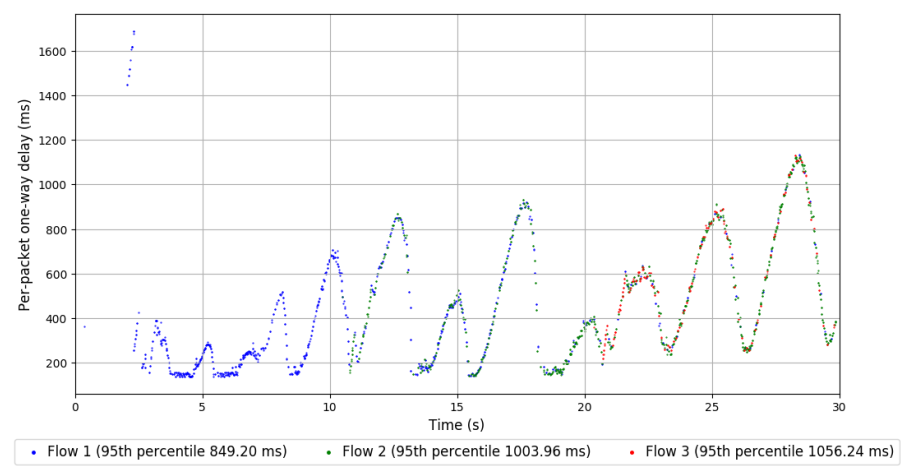
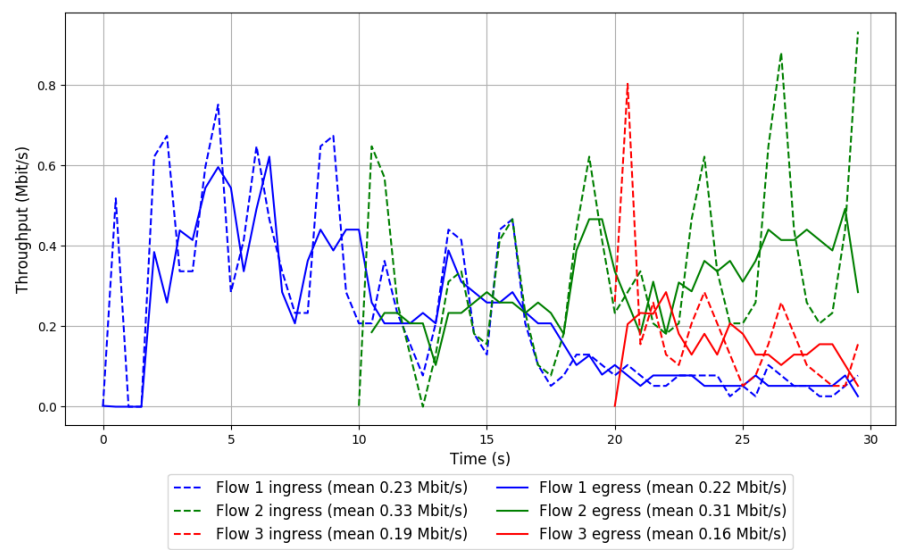
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 1056.241 ms

Loss rate: 17.58%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-02-19 19:45:27

End at: 2018-02-19 19:45:57

Local clock offset: -5.861 ms

Remote clock offset: 1.582 ms

Below is generated by plot.py at 2018-02-19 20:55:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 1156.502 ms

Loss rate: 10.84%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 1117.954 ms

Loss rate: 7.43%

-- Flow 2:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 1156.746 ms

Loss rate: 12.44%

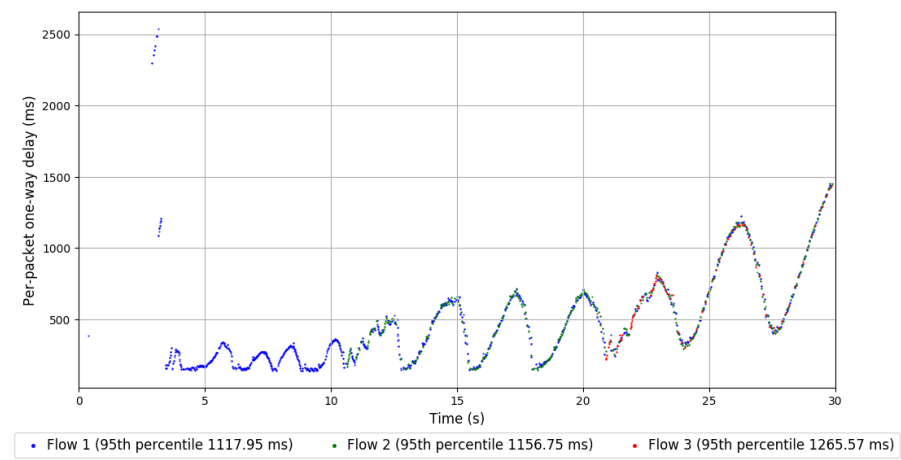
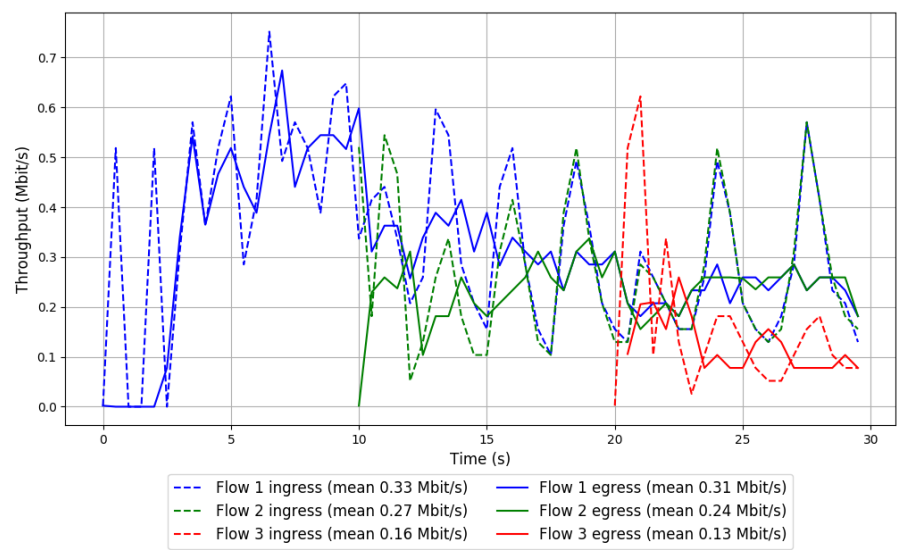
-- Flow 3:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 1265.566 ms

Loss rate: 26.60%

Run 3: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2018-02-19 18:58:49

End at: 2018-02-19 18:59:19

Local clock offset: -2.008 ms

Remote clock offset: 1.466 ms

Below is generated by plot.py at 2018-02-19 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 26765.088 ms

Loss rate: 99.16%

-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 26765.088 ms

Loss rate: 99.16%

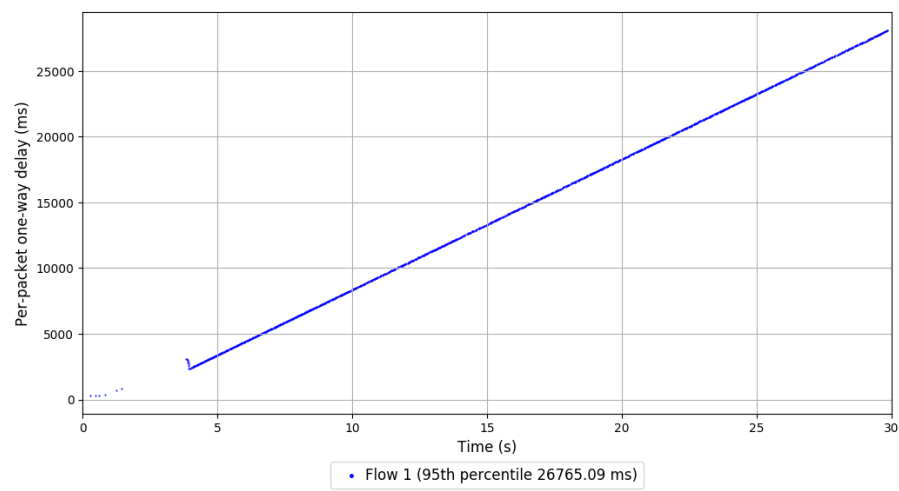
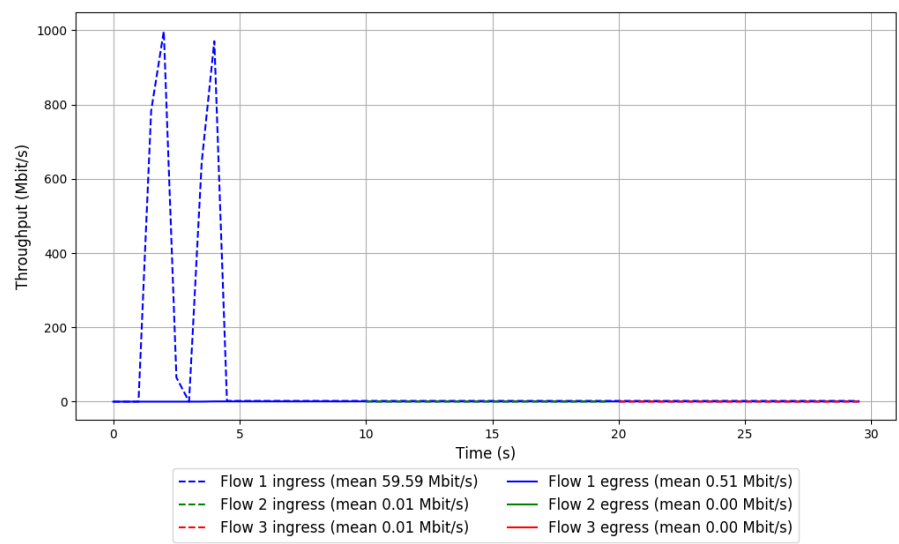
-- Flow 2:

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: 2018-02-19 19:21:32

End at: 2018-02-19 19:22:02

Local clock offset: -6.416 ms

Remote clock offset: 1.051 ms

Below is generated by plot.py at 2018-02-19 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 24502.515 ms

Loss rate: 98.58%

-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 24502.515 ms

Loss rate: 98.58%

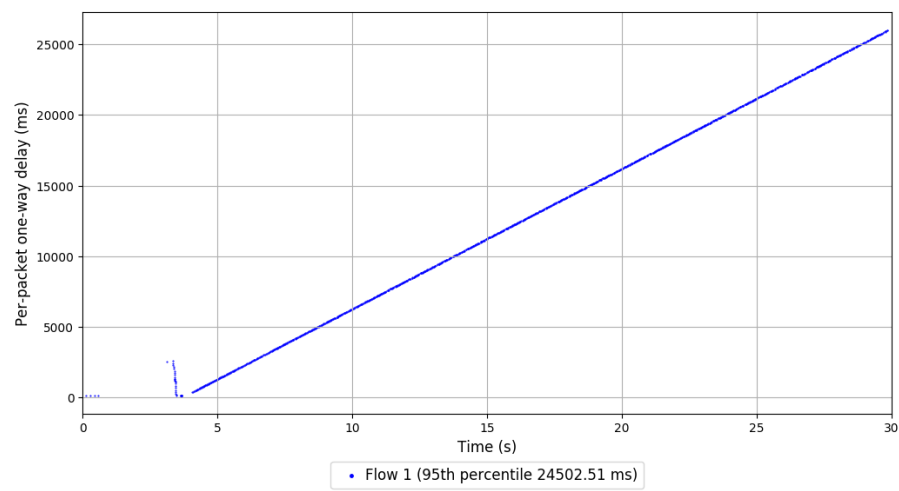
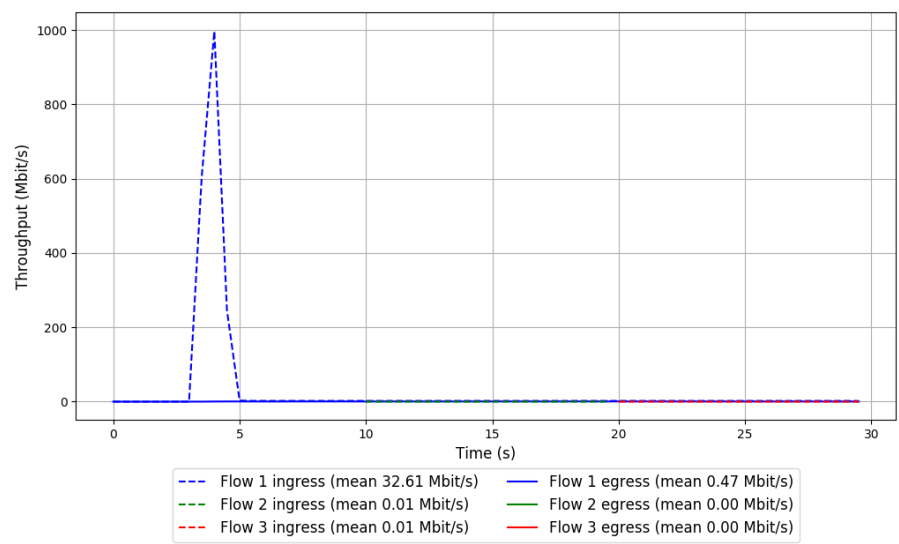
-- Flow 2:

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: 2018-02-19 19:44:10

End at: 2018-02-19 19:44:40

Local clock offset: -5.998 ms

Remote clock offset: -3.36 ms

Below is generated by plot.py at 2018-02-19 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 25490.675 ms

Loss rate: 98.45%

-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 25490.675 ms

Loss rate: 98.45%

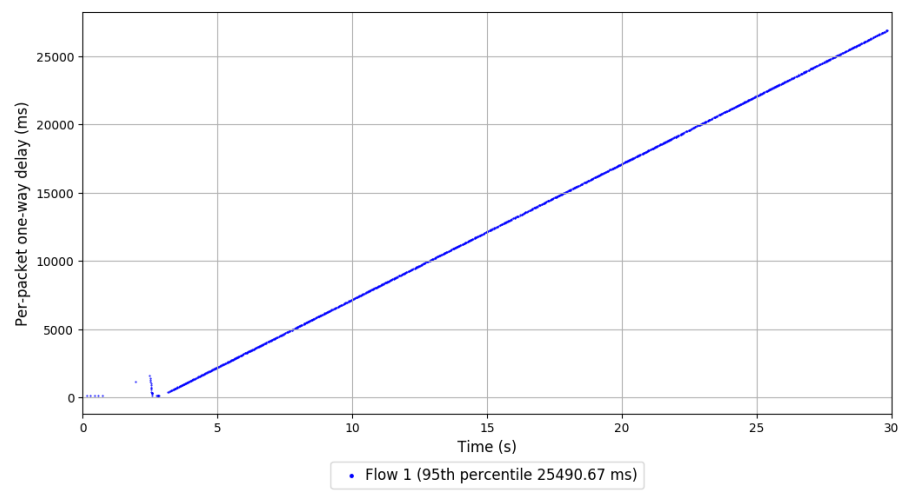
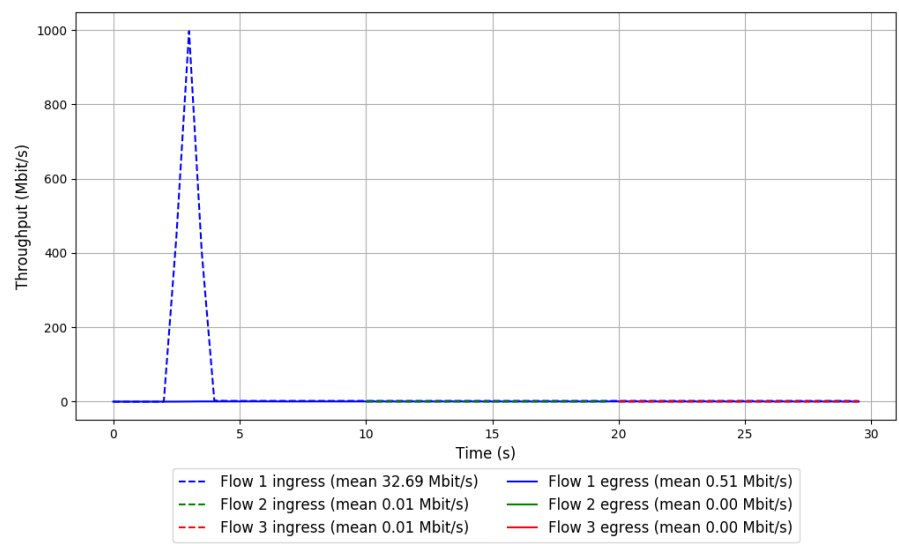
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 3: Report of FillP — Data Link

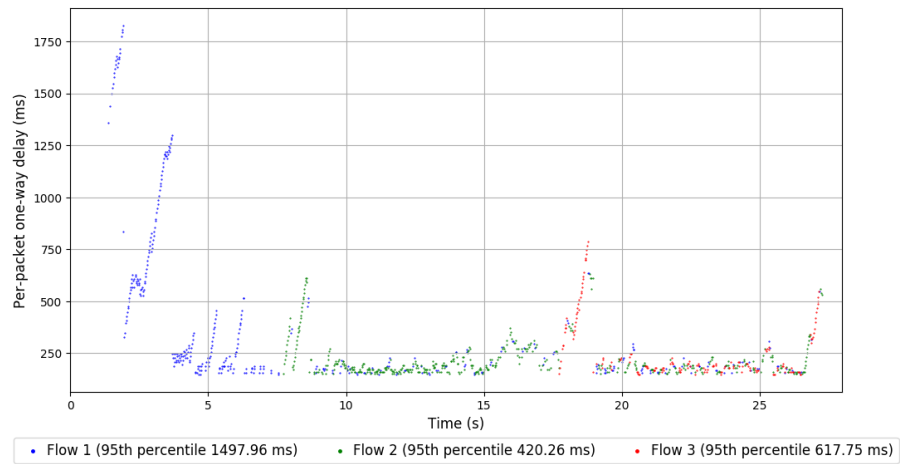
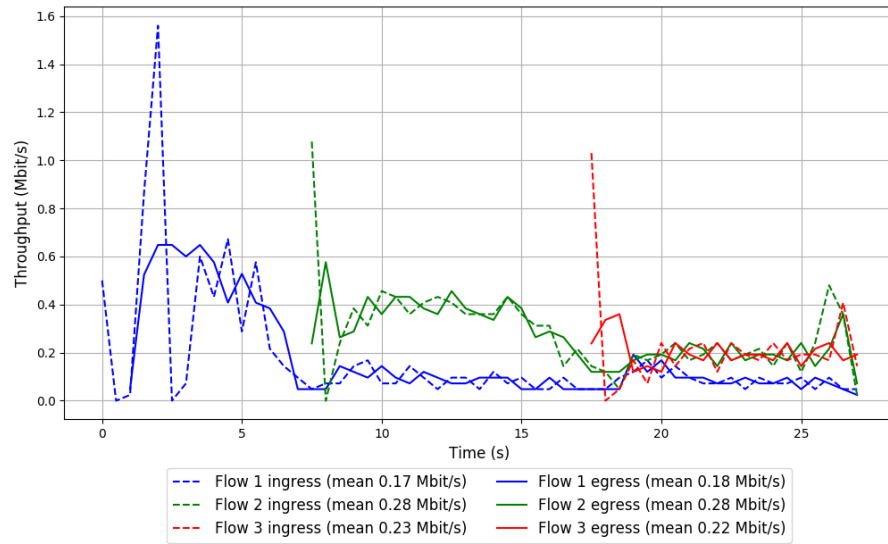


Run 1: Statistics of Indigo-1-32

Start at: 2018-02-19 18:41:19
End at: 2018-02-19 18:41:49
Local clock offset: -3.36 ms
Remote clock offset: -3.917 ms

Below is generated by plot.py at 2018-02-19 20:56:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 945.908 ms
Loss rate: 4.21%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 1497.957 ms
Loss rate: 3.05%
-- Flow 2:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 420.264 ms
Loss rate: 4.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 617.752 ms
Loss rate: 7.11%

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

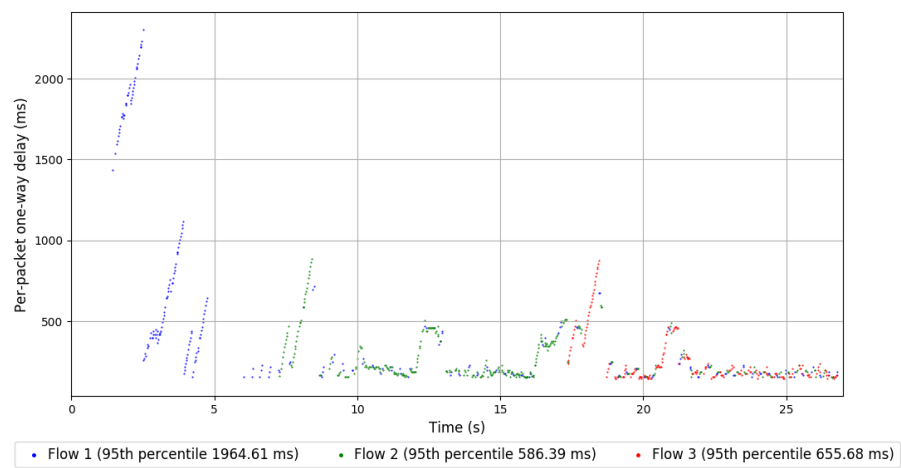
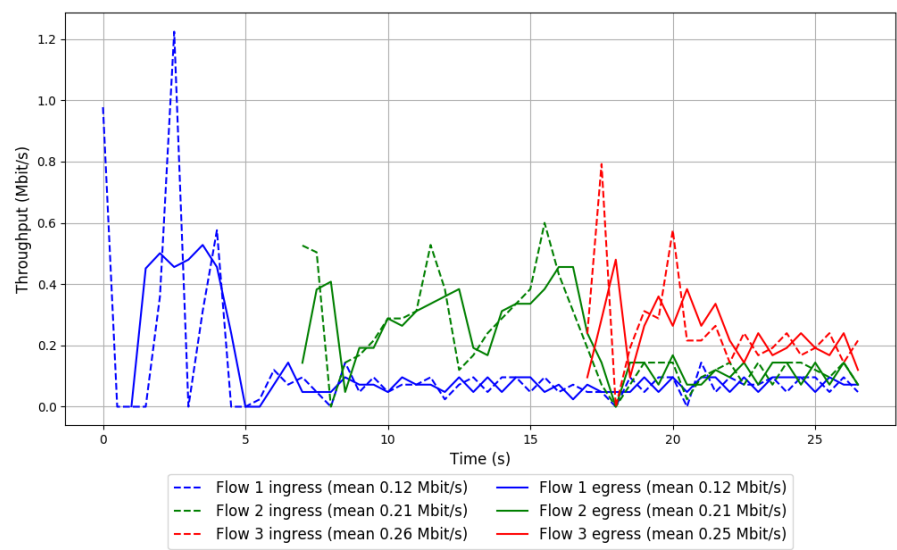


Run 2: Statistics of Indigo-1-32

Start at: 2018-02-19 19:03:52
End at: 2018-02-19 19:04:22
Local clock offset: -3.63 ms
Remote clock offset: -4.096 ms

Below is generated by plot.py at 2018-02-19 20:56:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 1535.647 ms
Loss rate: 3.98%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 1964.613 ms
Loss rate: 5.19%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 586.386 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 655.683 ms
Loss rate: 5.72%

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



Run 3: Statistics of Indigo-1-32

Start at: 2018-02-19 19:26:36

End at: 2018-02-19 19:27:06

Local clock offset: -6.796 ms

Remote clock offset: 2.025 ms

Below is generated by plot.py at 2018-02-19 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 1153.374 ms

Loss rate: 5.46%

-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1474.479 ms

Loss rate: 9.57%

-- Flow 2:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 463.603 ms

Loss rate: 2.45%

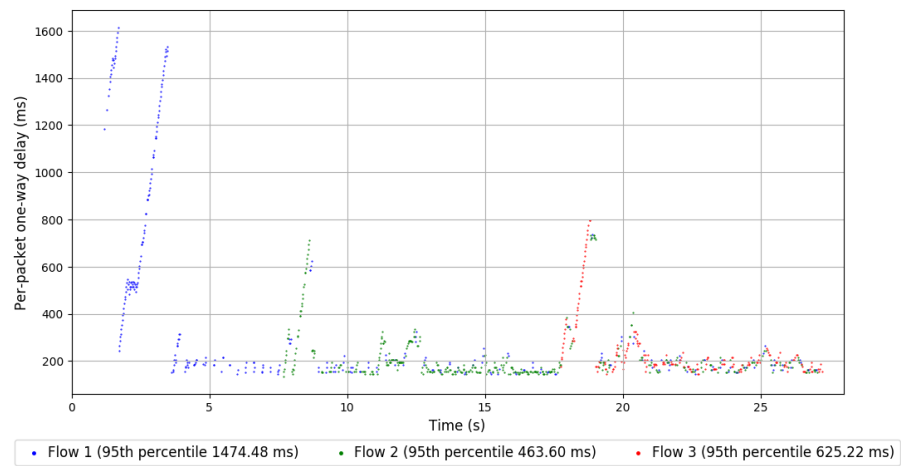
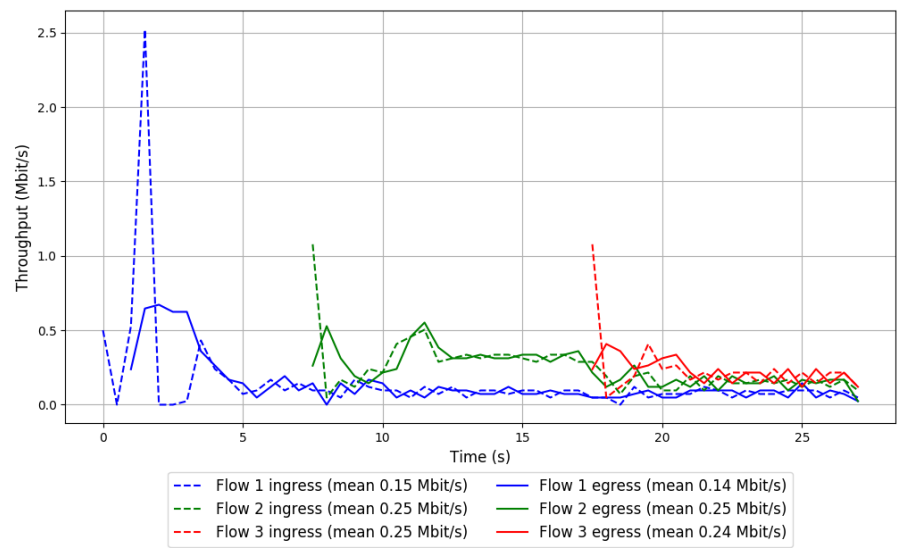
-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 625.218 ms

Loss rate: 4.52%

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

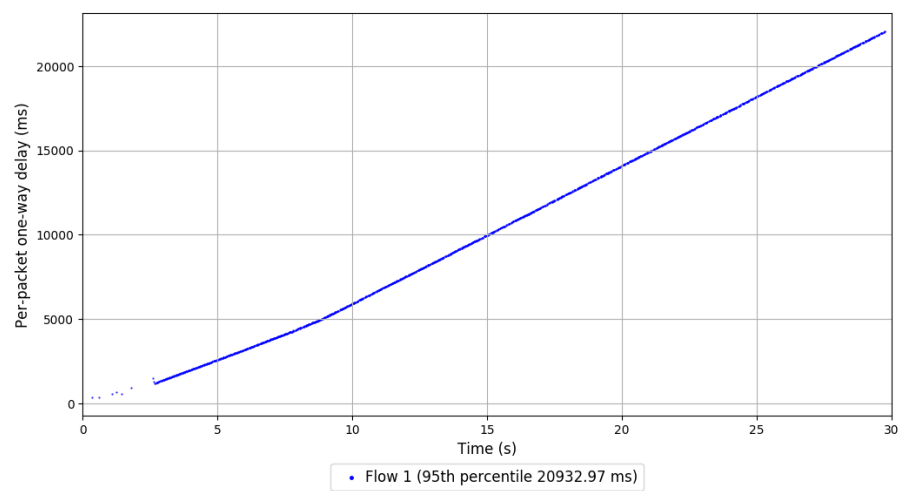
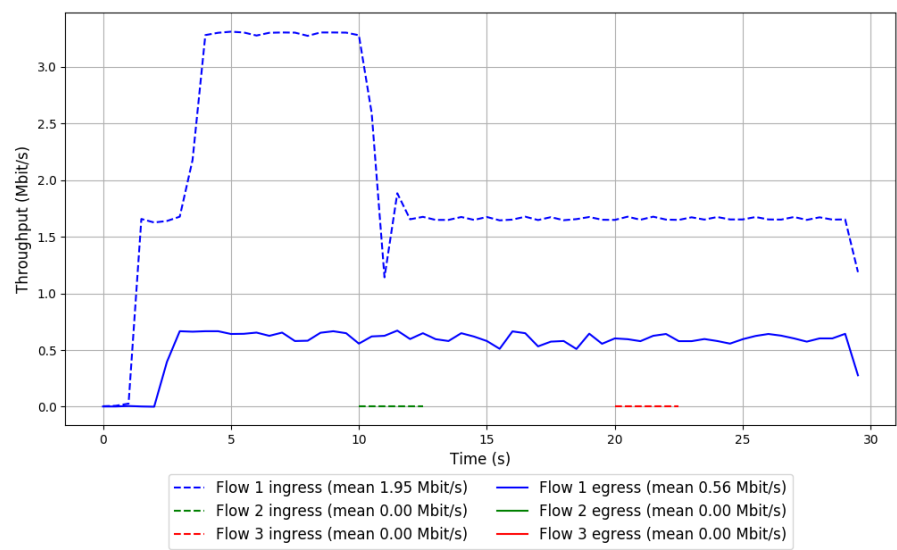


Run 1: Statistics of Vivace-latency

Start at: 2018-02-19 18:57:33
End at: 2018-02-19 18:58:03
Local clock offset: -2.022 ms
Remote clock offset: -3.369 ms

Below is generated by plot.py at 2018-02-19 20:56:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 20932.970 ms
Loss rate: 71.60%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 20932.970 ms
Loss rate: 71.59%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 1: Report of Vivace-latency — Data Link

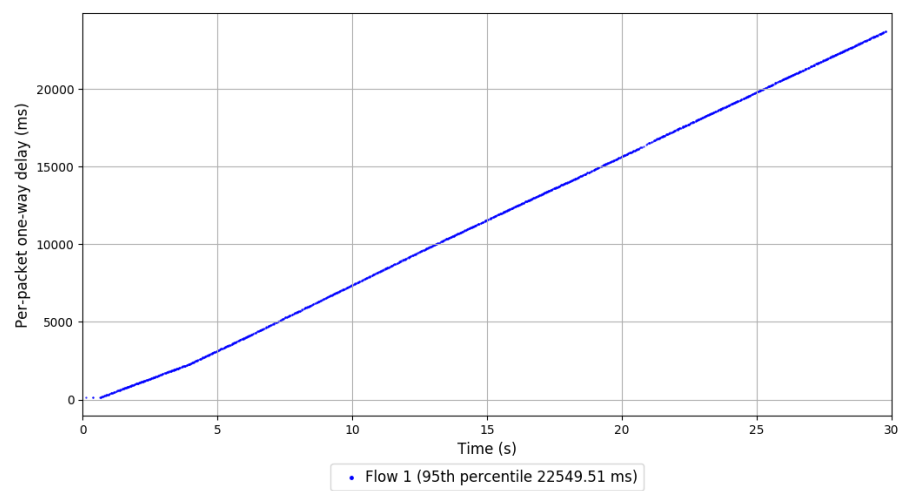
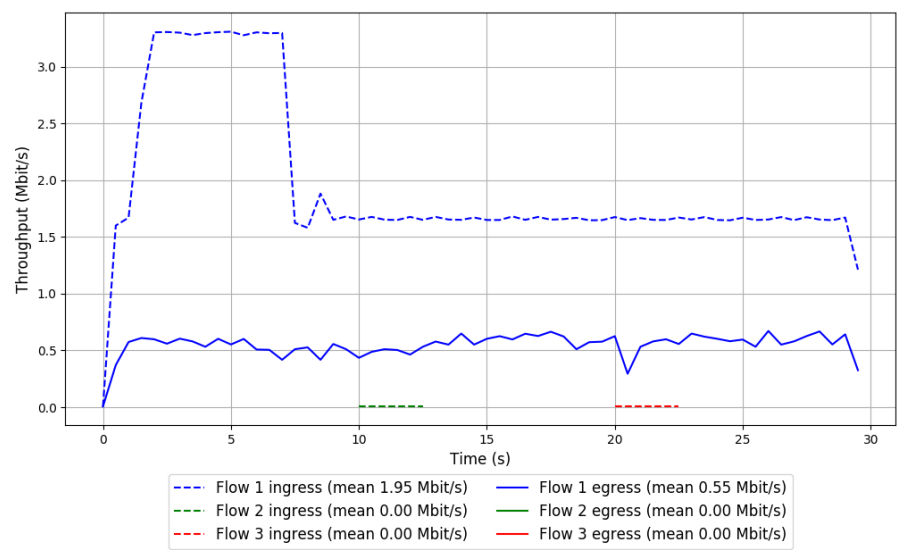


Run 2: Statistics of Vivace-latency

Start at: 2018-02-19 19:20:18
End at: 2018-02-19 19:20:48
Local clock offset: -6.333 ms
Remote clock offset: -3.839 ms

Below is generated by plot.py at 2018-02-19 20:56:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 22549.510 ms
Loss rate: 71.84%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 22549.510 ms
Loss rate: 71.83%
-- 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: 2018-02-19 19:42:56

End at: 2018-02-19 19:43:26

Local clock offset: -6.047 ms

Remote clock offset: -2.61 ms

Below is generated by plot.py at 2018-02-19 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 22136.783 ms

Loss rate: 69.38%

-- Flow 1:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 22136.783 ms

Loss rate: 69.36%

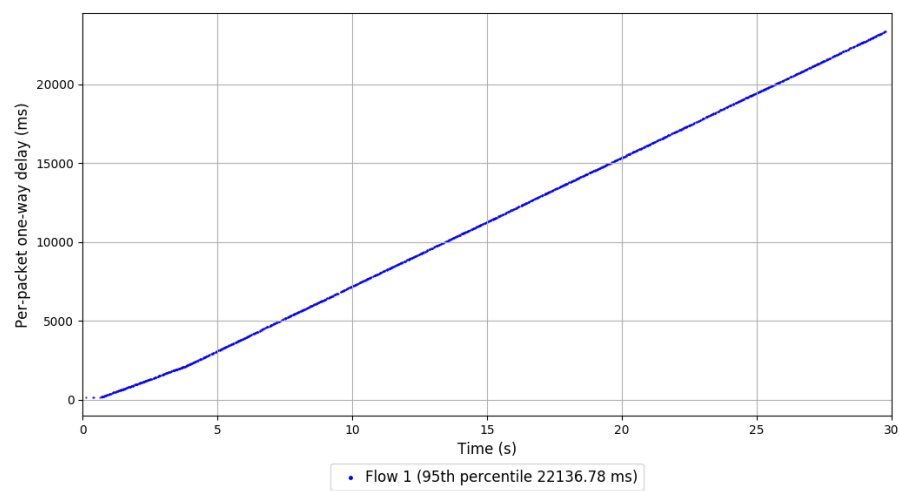
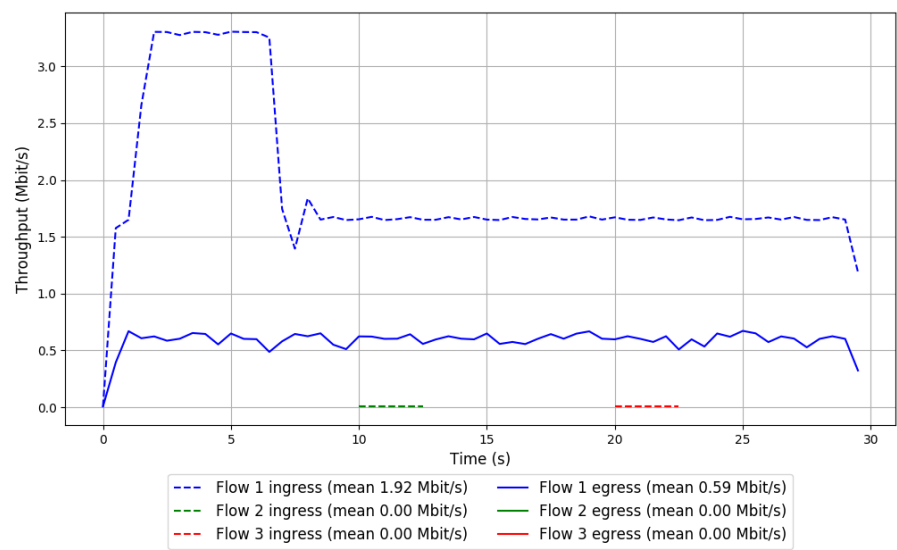
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 3: Report of Vivace-latency — Data Link

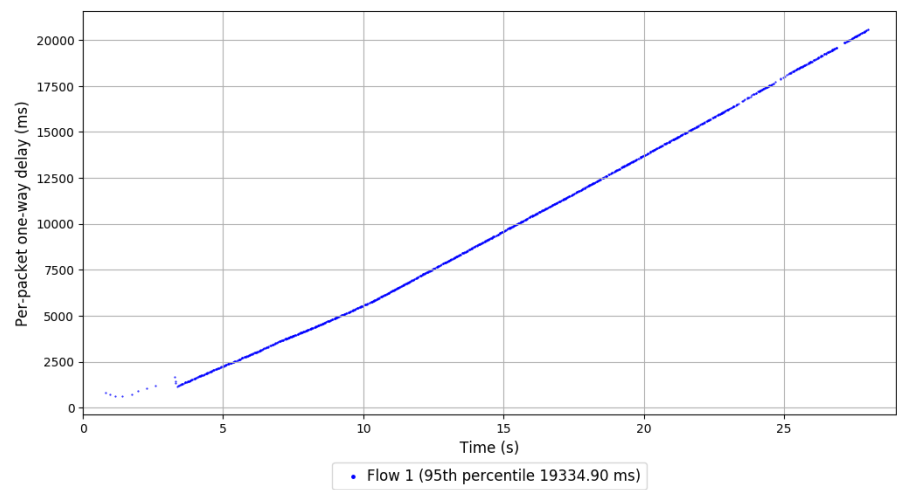
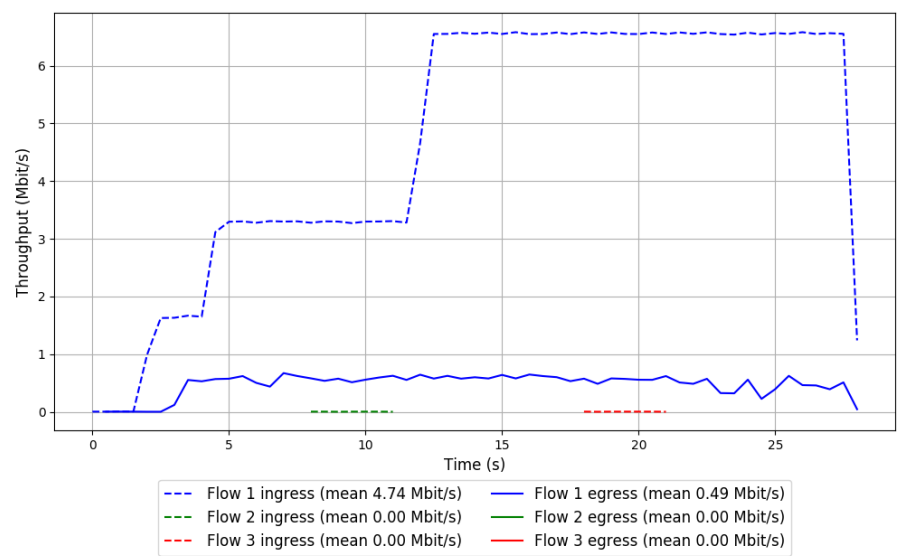


Run 1: Statistics of Vivace-loss

Start at: 2018-02-19 18:40:05
End at: 2018-02-19 18:40:35
Local clock offset: -3.54 ms
Remote clock offset: -3.861 ms

Below is generated by plot.py at 2018-02-19 20:56:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 19334.895 ms
Loss rate: 89.92%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 19334.895 ms
Loss rate: 89.92%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 1: Report of Vivace-loss — Data Link

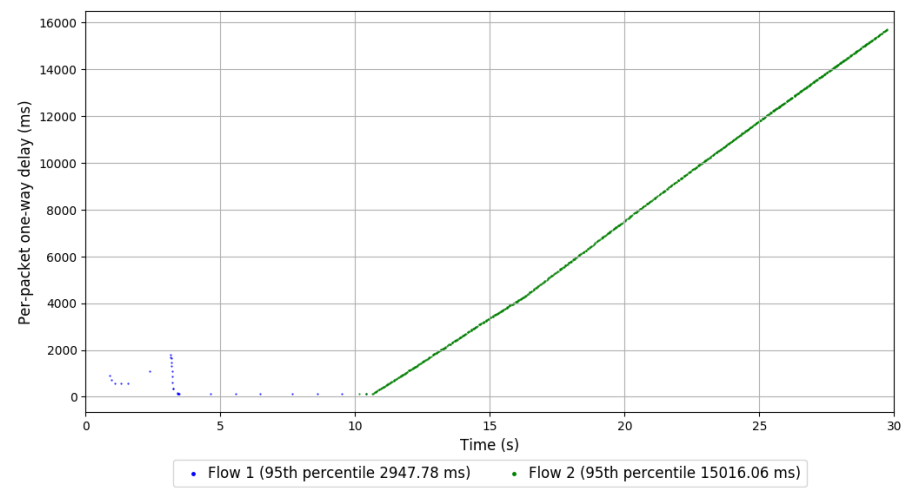
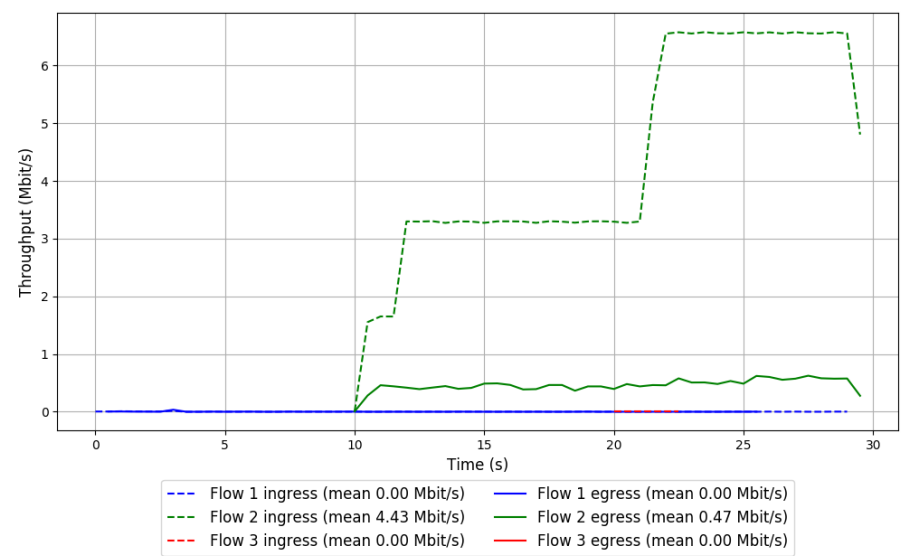


Run 2: Statistics of Vivace-loss

Start at: 2018-02-19 19:02:35
End at: 2018-02-19 19:03:05
Local clock offset: -3.157 ms
Remote clock offset: -3.192 ms

Below is generated by plot.py at 2018-02-19 20:56:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 15000.363 ms
Loss rate: 89.53%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2947.777 ms
Loss rate: 32.83%
-- Flow 2:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 15016.057 ms
Loss rate: 89.56%
-- Flow 3:
Average throughput: 0.00 Mbit/s

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-02-19 19:25:22

End at: 2018-02-19 19:25:52

Local clock offset: -6.639 ms

Remote clock offset: 1.253 ms

Below is generated by plot.py at 2018-02-19 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 20593.170 ms

Loss rate: 90.16%

-- Flow 1:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 20593.170 ms

Loss rate: 90.15%

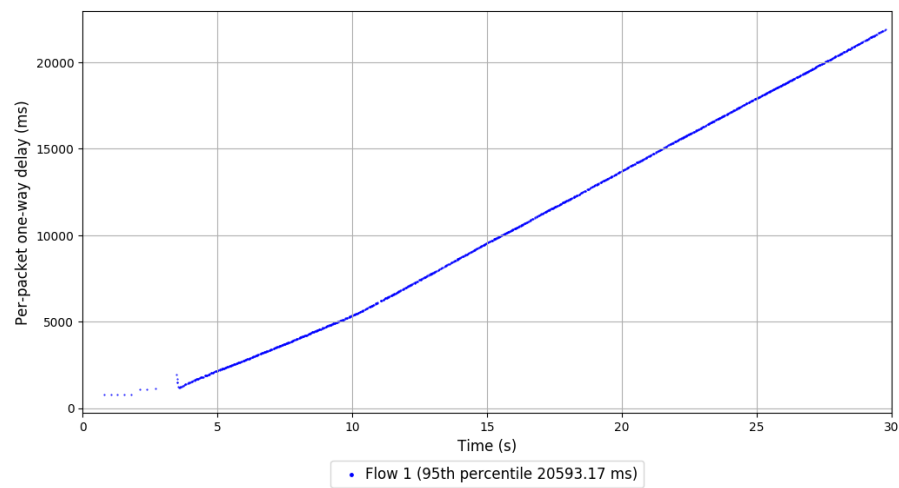
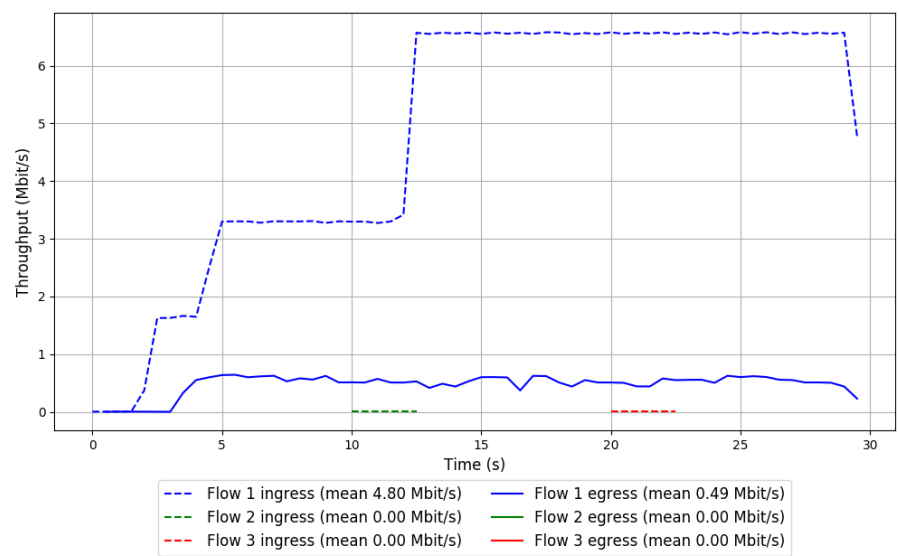
-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 3: Report of Vivace-loss — Data Link

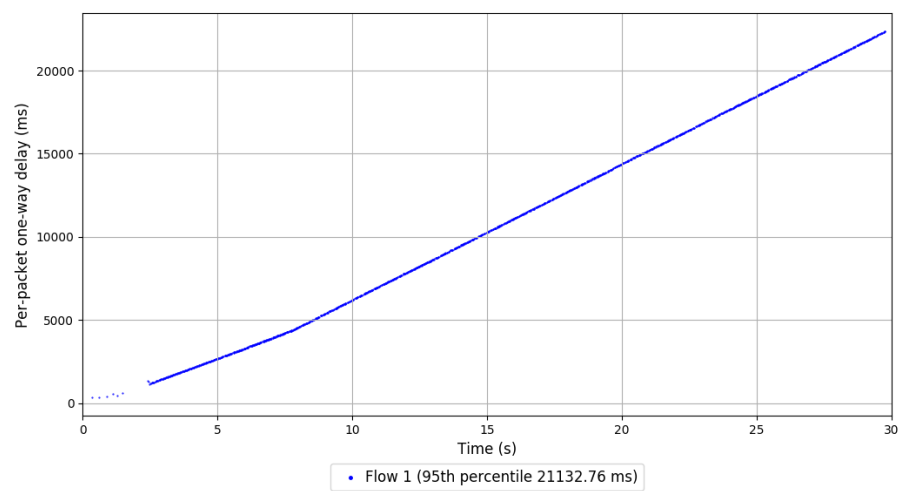
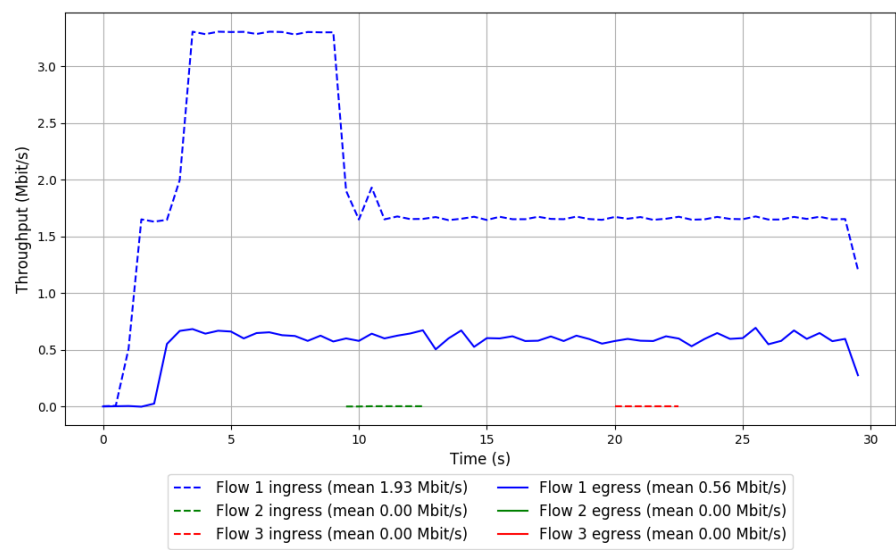


Run 1: Statistics of Vivace-LTE

Start at: 2018-02-19 18:56:18
End at: 2018-02-19 18:56:48
Local clock offset: -2.09 ms
Remote clock offset: -3.421 ms

Below is generated by plot.py at 2018-02-19 20:56:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21132.764 ms
Loss rate: 71.14%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21132.764 ms
Loss rate: 71.13%
-- 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: 2018-02-19 19:18:55

End at: 2018-02-19 19:19:25

Local clock offset: -6.244 ms

Remote clock offset: 1.856 ms

Below is generated by plot.py at 2018-02-19 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 22290.789 ms

Loss rate: 83.62%

-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 22290.789 ms

Loss rate: 83.61%

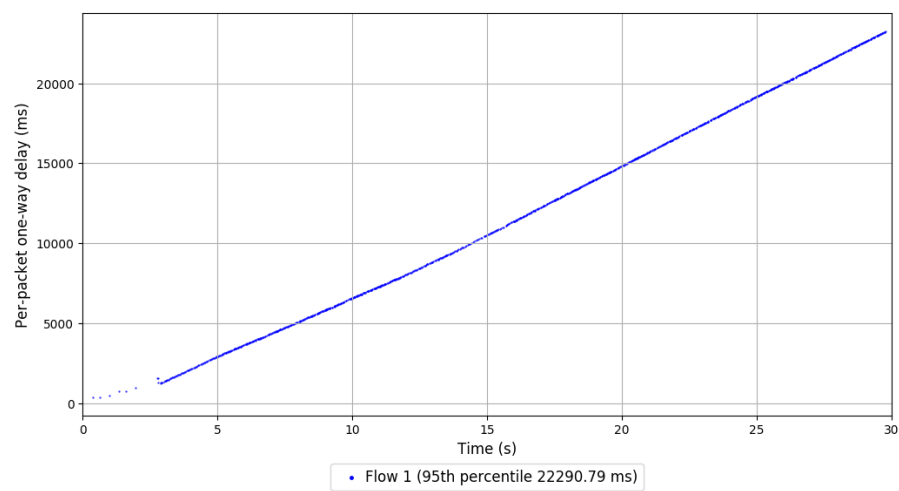
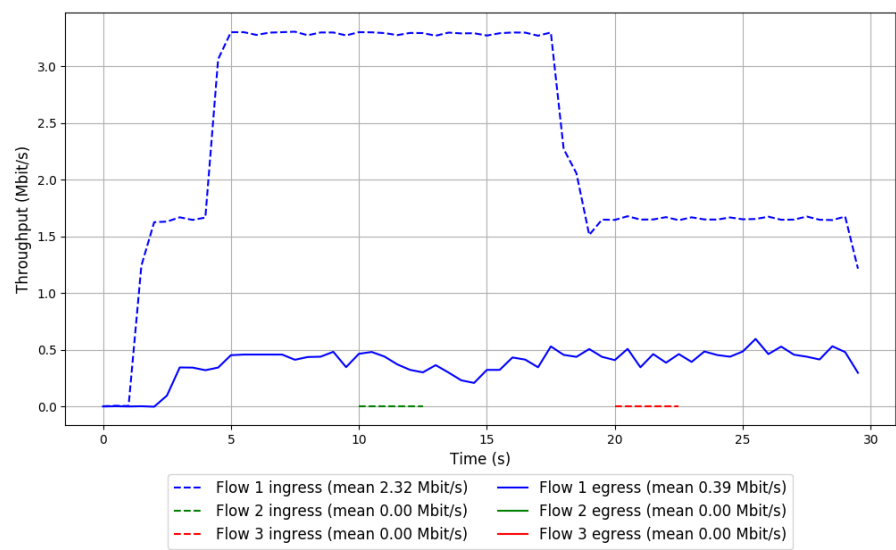
-- Flow 2:

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: 2018-02-19 19:41:42

End at: 2018-02-19 19:42:12

Local clock offset: -6.125 ms

Remote clock offset: 2.33 ms

Below is generated by plot.py at 2018-02-19 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 20865.916 ms

Loss rate: 72.74%

-- Flow 1:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 20865.916 ms

Loss rate: 72.73%

-- Flow 2:

Average throughput: 0.00 Mbit/s

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 3: Report of Vivace-LTE — Data Link

