

Pantheon Report

Generated at 2018-03-20 17:32:51 (UTC).

Tested in mahimahi: mm-delay 10 mm-link 12mbps.trace 12mbps.trace
--uplink-queue=droptail --uplink-queue-args=packets=1 --downlink-queue=droptail
--downlink-queue-args=packets=1

Repeated the test of 17 congestion control schemes 10 times.

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

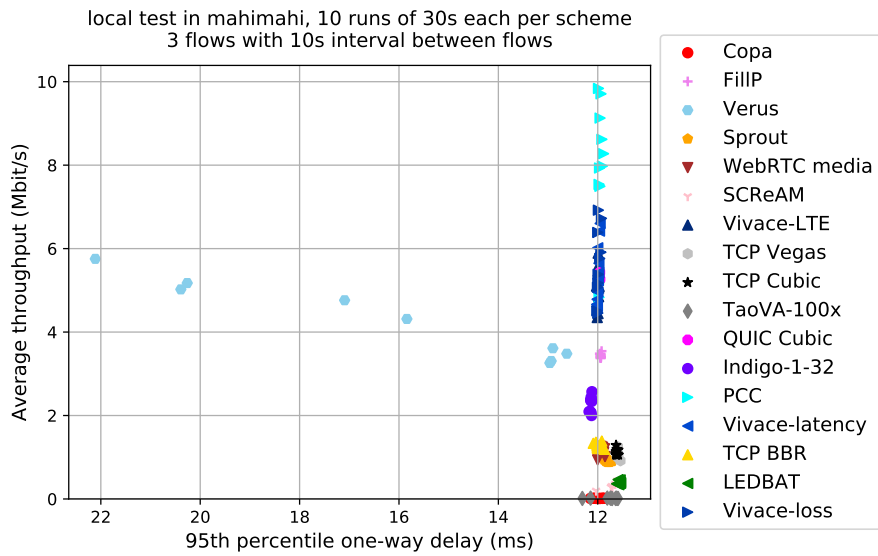
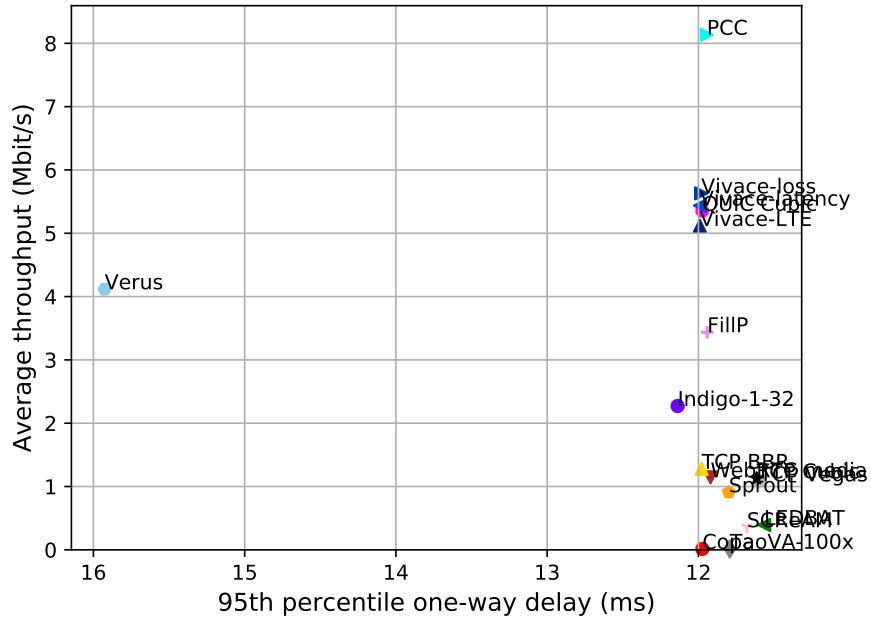
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5ce90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecd9c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

local test in mahimahi, 10 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	0.62	0.59	0.80	11.98	11.98	12.02	34.98	34.63	46.60
TCP Cubic	10	0.59	0.55	0.52	11.59	11.62	11.69	23.09	24.52	26.19
LEDBAT	10	0.20	0.22	0.20	11.55	11.57	11.59	49.08	49.17	50.38
PCC	10	7.11	0.99	1.15	11.92	12.16	12.17	9.07	37.36	35.50
QUIC Cubic	10	3.04	2.45	2.12	11.96	11.99	12.01	12.83	16.88	21.17
SCReAM	10	0.20	0.16	0.18	11.65	11.69	11.57	1.89	6.88	0.13
WebRTC media	10	0.58	0.40	0.17	11.87	11.93	12.07	34.95	41.71	55.53
Sprout	10	0.46	0.46	0.45	11.72	11.83	11.88	10.85	11.37	13.25
TaoVA-100x	10	0.01	0.01	0.01	11.67	11.76	11.69	56.06	56.97	55.09
TCP Vegas	10	0.59	0.49	0.51	11.58	11.60	11.63	22.41	25.57	26.24
Verus	10	2.56	2.28	0.25	15.00	16.81	13.06	98.09	98.00	74.58
Copa	10	0.01	0.01	0.01	11.91	12.00	11.89	94.23	94.33	90.47
FillP	10	1.69	1.68	1.92	11.94	11.94	11.93	76.14	84.79	91.74
Indigo-1-32	10	1.15	1.16	1.09	12.15	12.14	12.13	95.43	95.36	95.62
Vivace-latency	10	4.14	1.36	1.23	11.97	12.05	12.03	4.27	15.21	12.38
Vivace-loss	10	4.73	0.80	1.13	11.96	12.01	12.07	2.89	20.50	13.84
Vivace-LTE	10	3.79	1.46	1.07	11.97	12.05	12.01	3.42	13.89	13.40

Run 1: Statistics of TCP BBR

Start at: 2018-03-20 15:45:38

End at: 2018-03-20 15:46:08

Below is generated by plot.py at 2018-03-20 17:26:35

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.29 Mbit/s (10.7% utilization)

95th percentile per-packet one-way delay: 12.019 ms

Loss rate: 39.08%

-- Flow 1:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 11.888 ms

Loss rate: 30.96%

-- Flow 2:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 12.181 ms

Loss rate: 39.82%

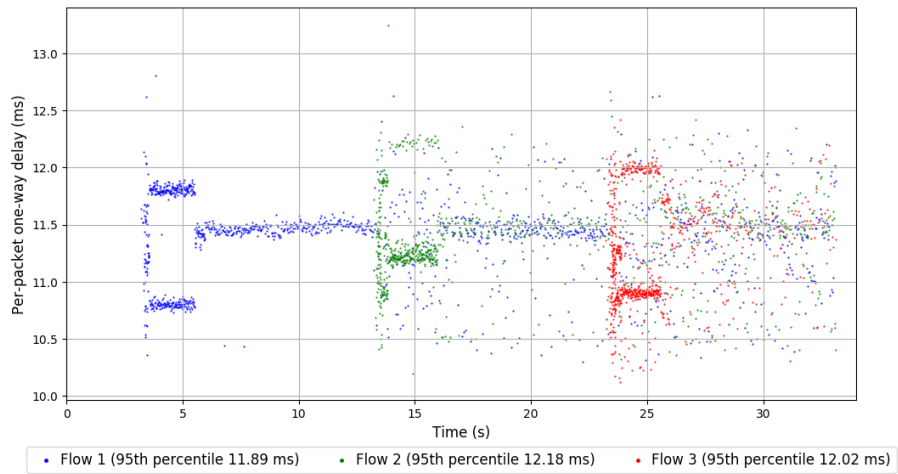
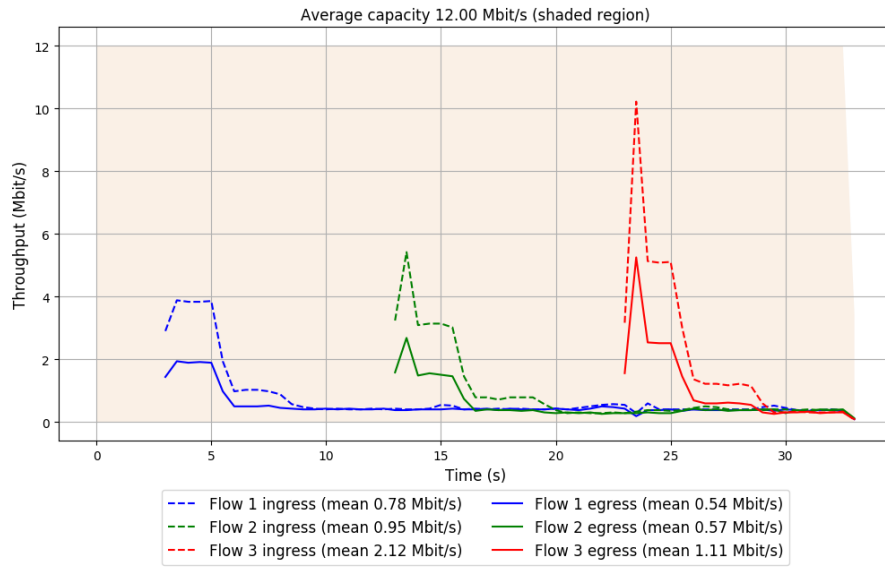
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 12.019 ms

Loss rate: 47.46%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-20 15:55:55

End at: 2018-03-20 15:56:25

Below is generated by plot.py at 2018-03-20 17:26:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.28 Mbit/s (10.7% utilization)

95th percentile per-packet one-way delay: 11.964 ms

Loss rate: 37.67%

-- Flow 1:

Average throughput: 0.72 Mbit/s

95th percentile per-packet one-way delay: 11.937 ms

Loss rate: 36.81%

-- Flow 2:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 11.922 ms

Loss rate: 33.78%

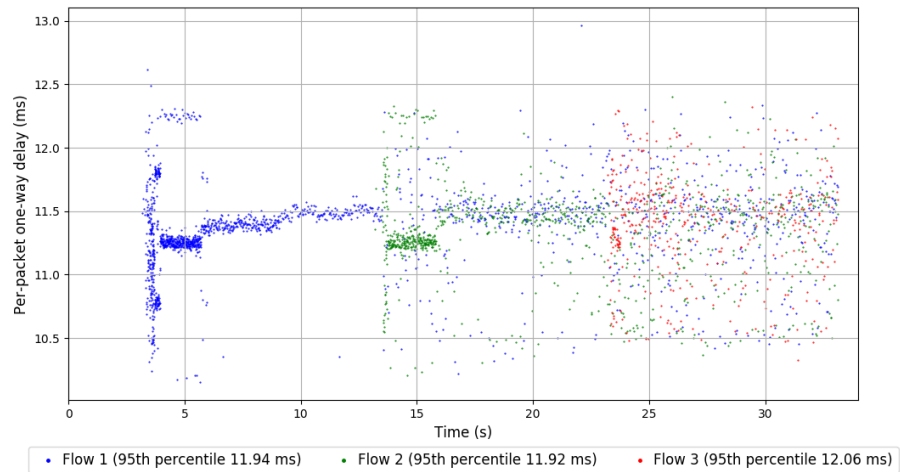
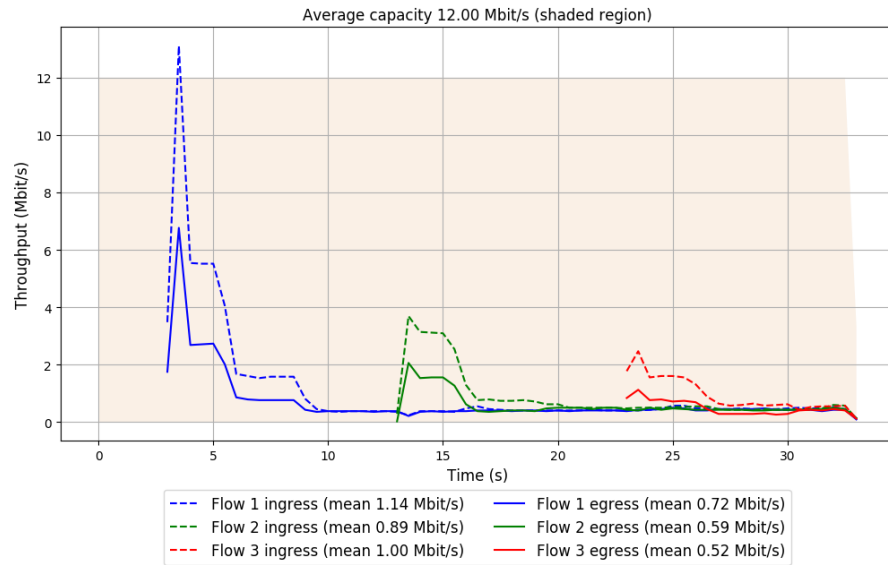
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 12.064 ms

Loss rate: 47.57%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-20 16:06:18

End at: 2018-03-20 16:06:48

Below is generated by plot.py at 2018-03-20 17:26:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.24 Mbit/s (10.3% utilization)

95th percentile per-packet one-way delay: 12.013 ms

Loss rate: 38.31%

-- Flow 1:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 12.108 ms

Loss rate: 32.36%

-- Flow 2:

Average throughput: 0.72 Mbit/s

95th percentile per-packet one-way delay: 11.926 ms

Loss rate: 41.95%

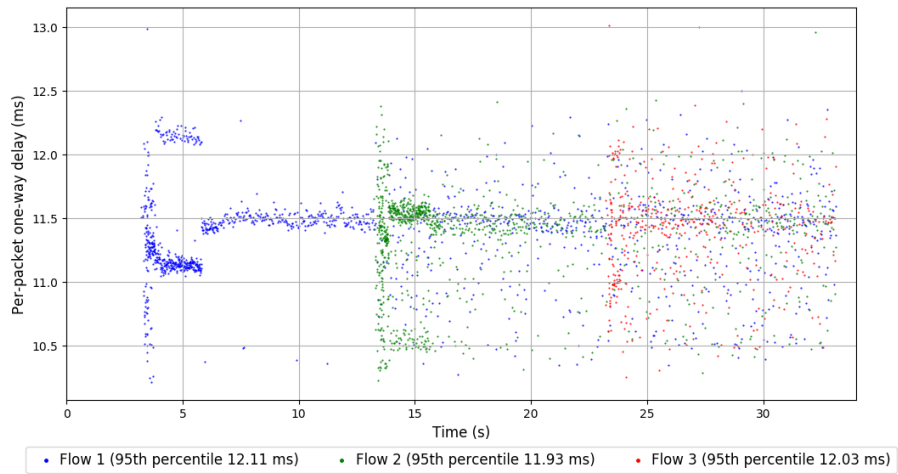
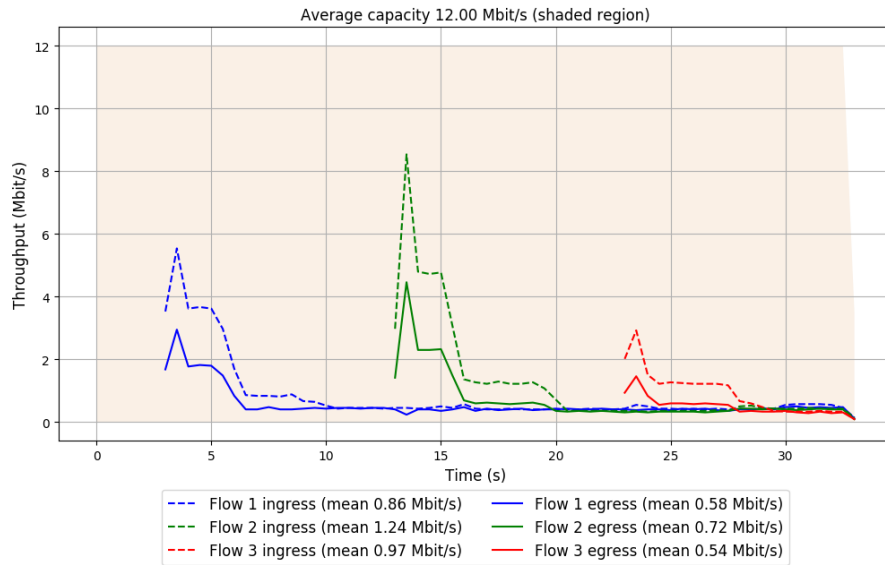
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 12.029 ms

Loss rate: 44.77%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-20 16:16:36

End at: 2018-03-20 16:17:06

Below is generated by plot.py at 2018-03-20 17:26:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.21 Mbit/s (10.1% utilization)

95th percentile per-packet one-way delay: 12.007 ms

Loss rate: 38.46%

-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 12.163 ms

Loss rate: 32.50%

-- Flow 2:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 11.934 ms

Loss rate: 38.84%

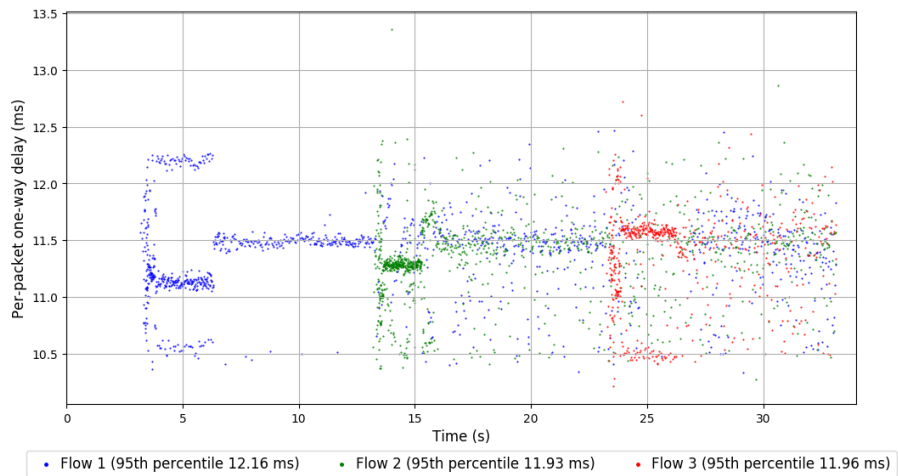
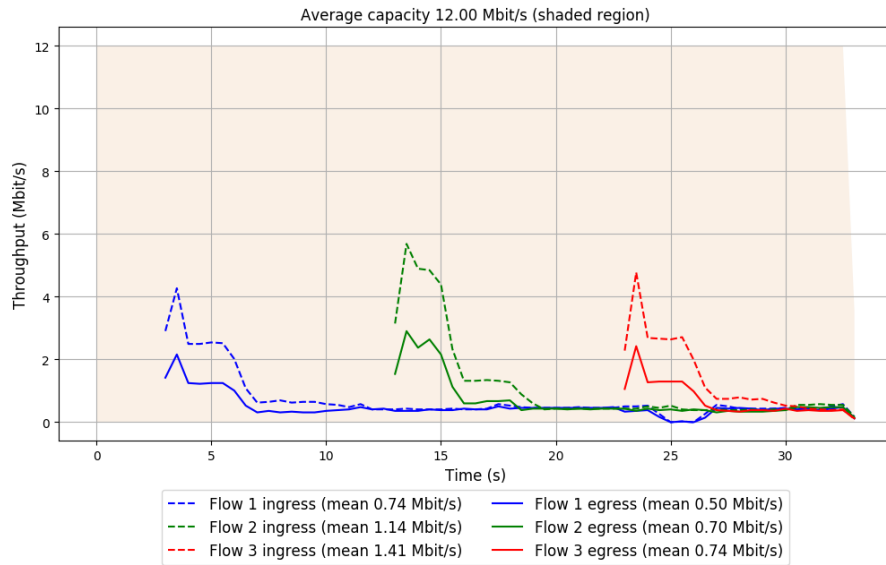
-- Flow 3:

Average throughput: 0.74 Mbit/s

95th percentile per-packet one-way delay: 11.964 ms

Loss rate: 47.25%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-20 16:26:58

End at: 2018-03-20 16:27:28

Below is generated by plot.py at 2018-03-20 17:26:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.24 Mbit/s (10.3% utilization)

95th percentile per-packet one-way delay: 11.970 ms

Loss rate: 38.19%

-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 11.989 ms

Loss rate: 33.12%

-- Flow 2:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 11.956 ms

Loss rate: 36.66%

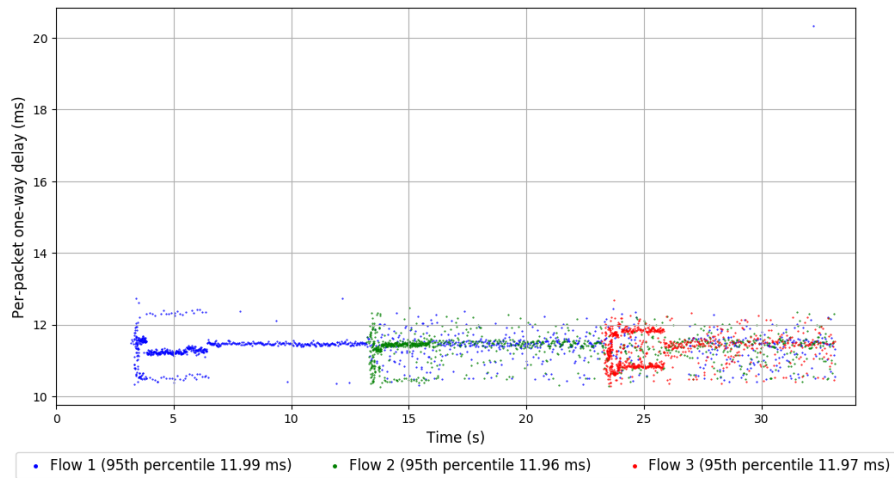
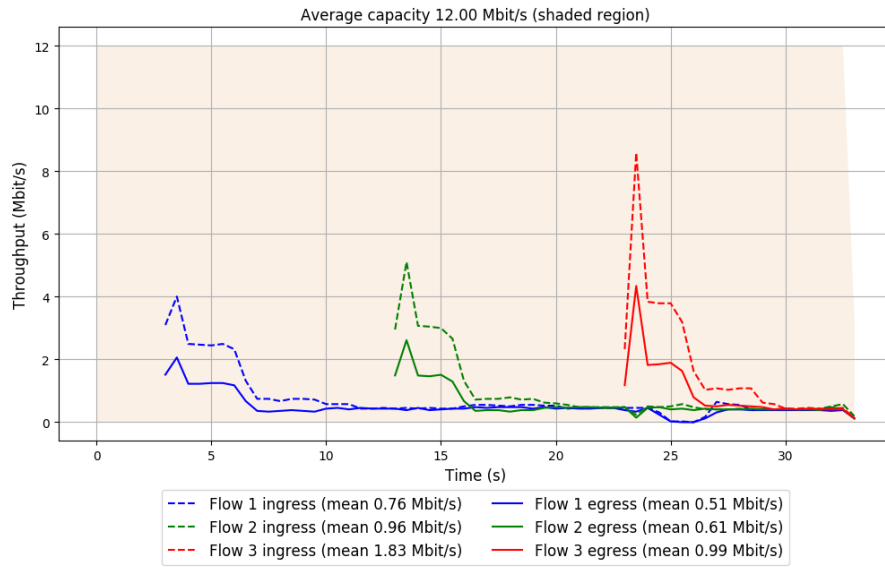
-- Flow 3:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 11.973 ms

Loss rate: 46.11%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-20 16:37:20

End at: 2018-03-20 16:37:50

Below is generated by plot.py at 2018-03-20 17:26:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.39 Mbit/s (11.6% utilization)

95th percentile per-packet one-way delay: 11.919 ms

Loss rate: 39.31%

-- Flow 1:

Average throughput: 0.72 Mbit/s

95th percentile per-packet one-way delay: 11.855 ms

Loss rate: 36.33%

-- Flow 2:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 11.932 ms

Loss rate: 29.68%

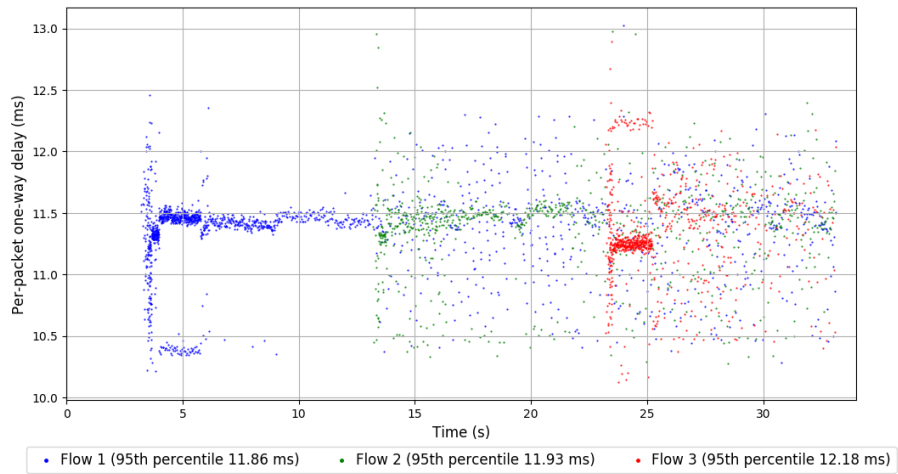
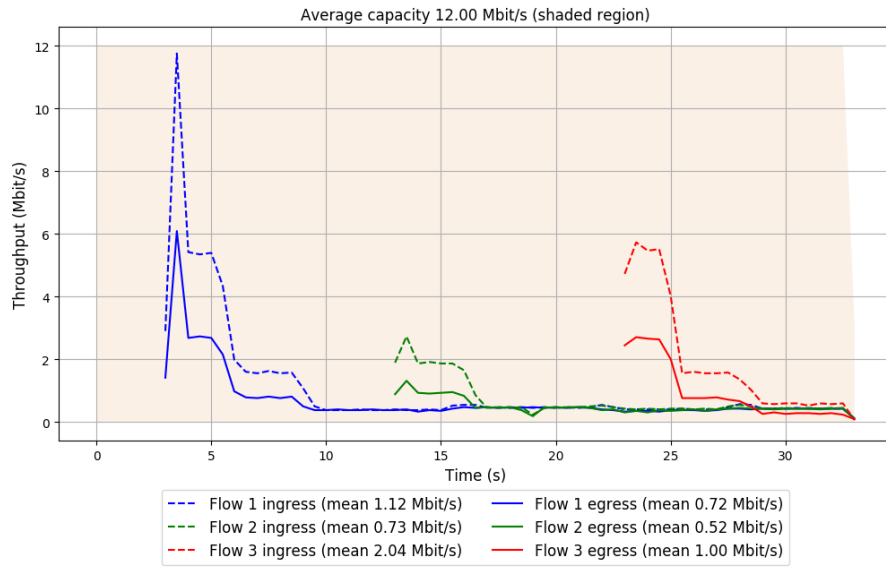
-- Flow 3:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 12.175 ms

Loss rate: 51.18%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-20 16:47:36

End at: 2018-03-20 16:48:06

Below is generated by plot.py at 2018-03-20 17:26:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.33 Mbit/s (11.1% utilization)

95th percentile per-packet one-way delay: 12.090 ms

Loss rate: 38.41%

-- Flow 1:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 12.136 ms

Loss rate: 36.99%

-- Flow 2:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 12.018 ms

Loss rate: 30.13%

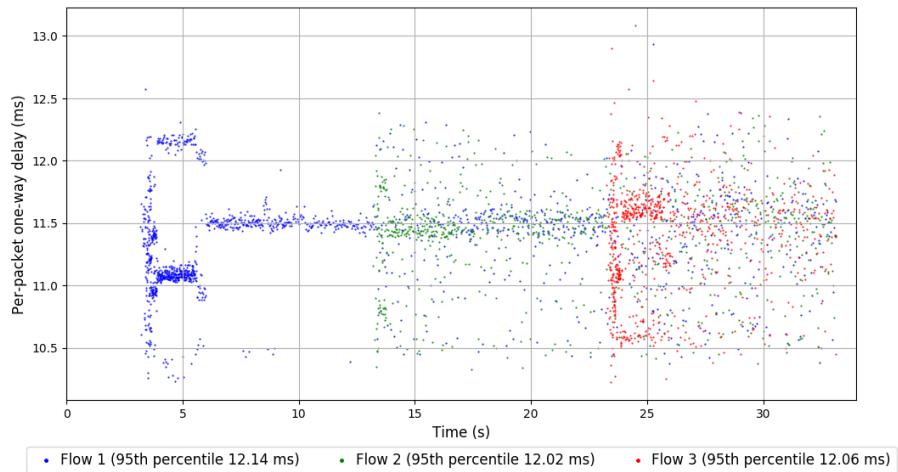
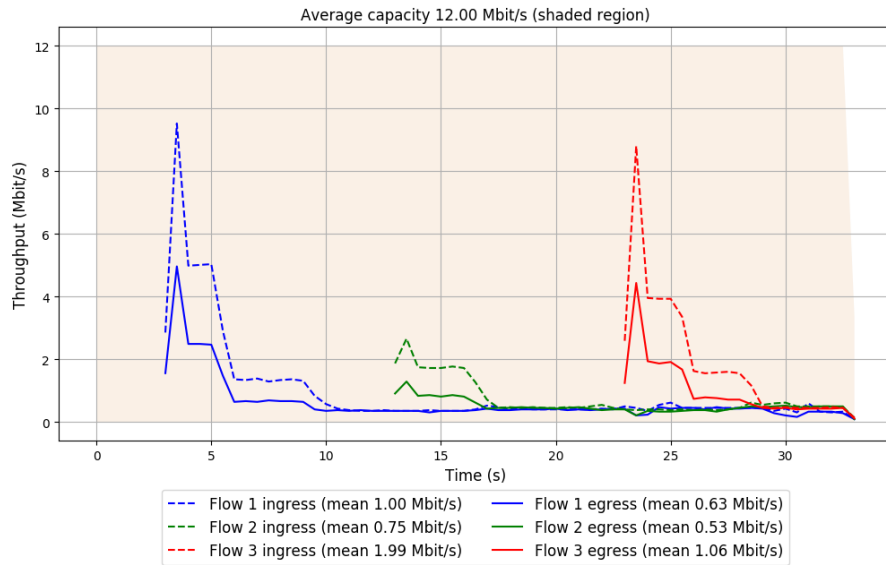
-- Flow 3:

Average throughput: 1.06 Mbit/s

95th percentile per-packet one-way delay: 12.056 ms

Loss rate: 46.85%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-20 16:57:58

End at: 2018-03-20 16:58:28

Below is generated by plot.py at 2018-03-20 17:26:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.26 Mbit/s (10.5% utilization)

95th percentile per-packet one-way delay: 11.901 ms

Loss rate: 36.57%

-- Flow 1:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 11.806 ms

Loss rate: 38.28%

-- Flow 2:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 11.978 ms

Loss rate: 29.57%

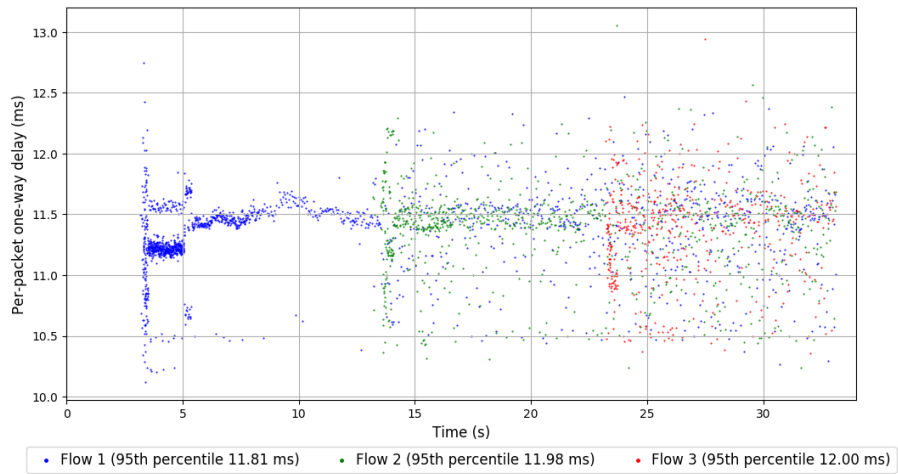
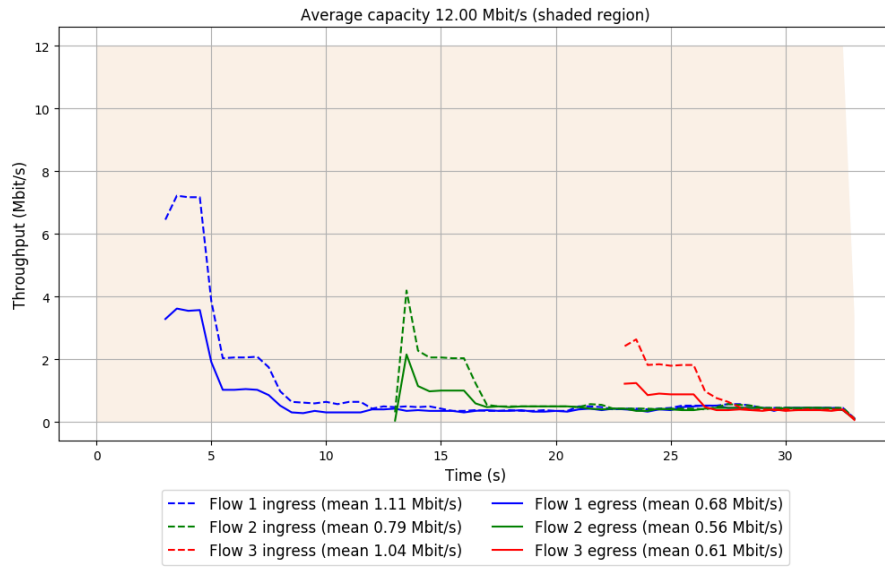
-- Flow 3:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 11.996 ms

Loss rate: 41.78%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-20 17:08:16

End at: 2018-03-20 17:08:46

Below is generated by plot.py at 2018-03-20 17:26:45

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.36 Mbit/s (11.3% utilization)

95th percentile per-packet one-way delay: 12.038 ms

Loss rate: 37.57%

-- Flow 1:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 12.117 ms

Loss rate: 36.28%

-- Flow 2:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 11.925 ms

Loss rate: 32.38%

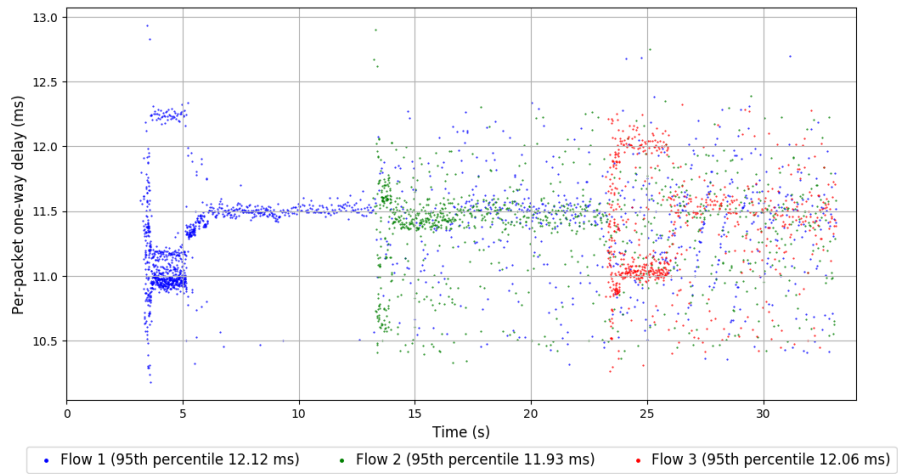
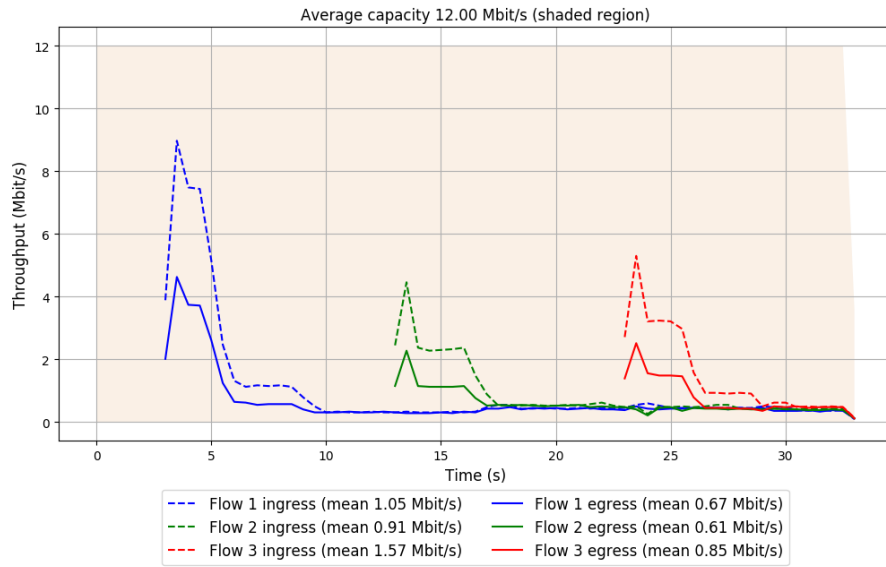
-- Flow 3:

Average throughput: 0.85 Mbit/s

95th percentile per-packet one-way delay: 12.061 ms

Loss rate: 46.19%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-20 17:18:34

End at: 2018-03-20 17:19:04

Below is generated by plot.py at 2018-03-20 17:26:46

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.19 Mbit/s (9.9% utilization)

95th percentile per-packet one-way delay: 11.865 ms

Loss rate: 37.62%

-- Flow 1:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 11.811 ms

Loss rate: 36.19%

-- Flow 2:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.990 ms

Loss rate: 33.53%

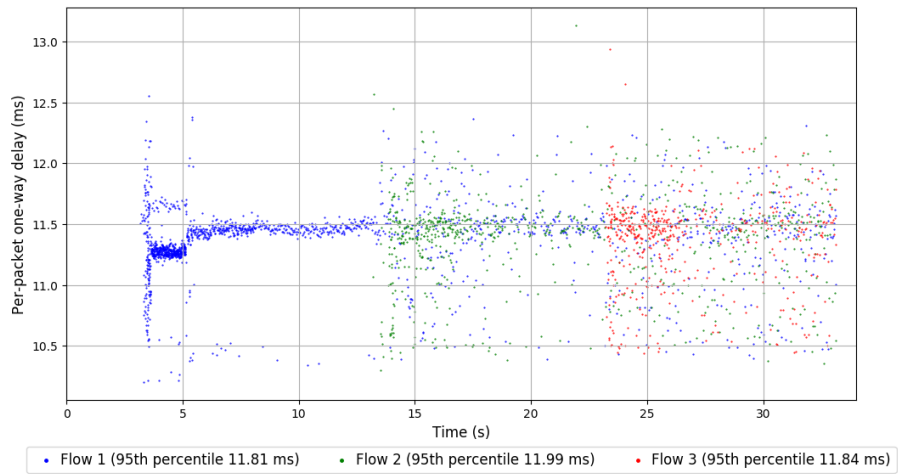
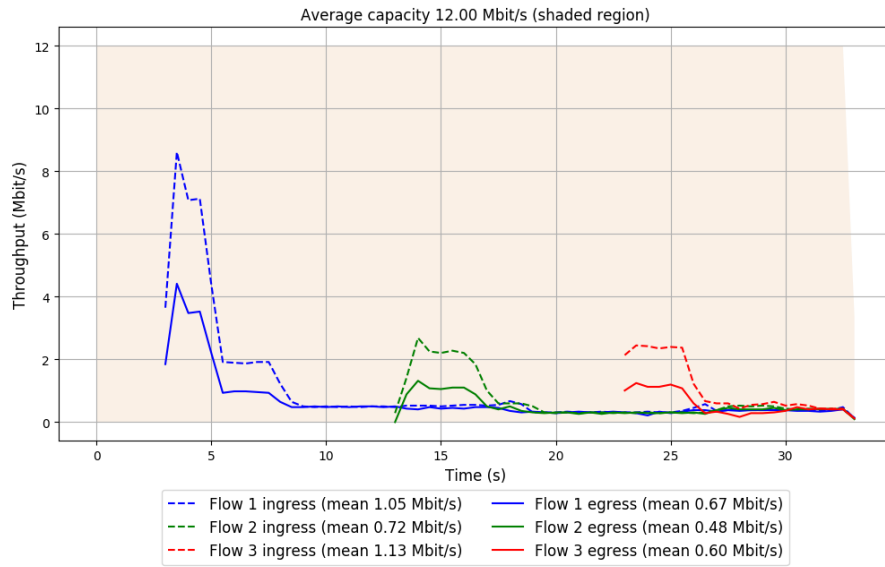
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 11.844 ms

Loss rate: 46.85%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-20 15:51:57

End at: 2018-03-20 15:52:27

Below is generated by plot.py at 2018-03-20 17:26:46

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.06 Mbit/s (8.8% utilization)

95th percentile per-packet one-way delay: 11.582 ms

Loss rate: 25.90%

-- Flow 1:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 11.579 ms

Loss rate: 24.90%

-- Flow 2:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 11.580 ms

Loss rate: 26.38%

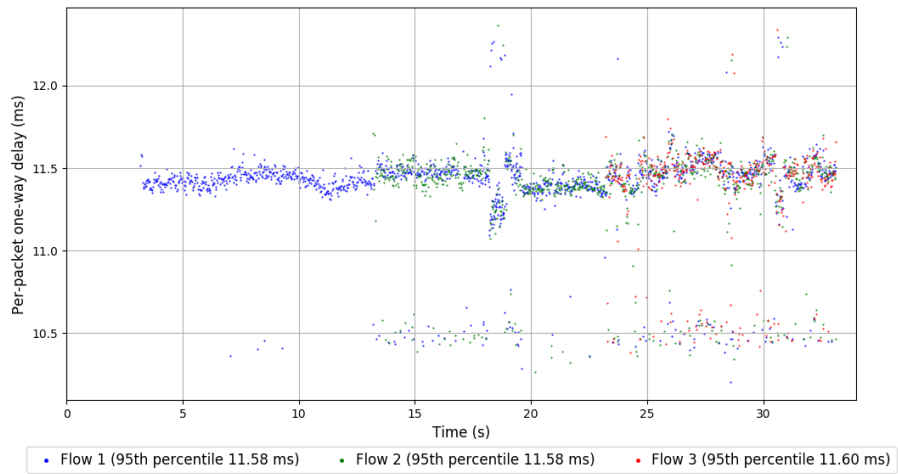
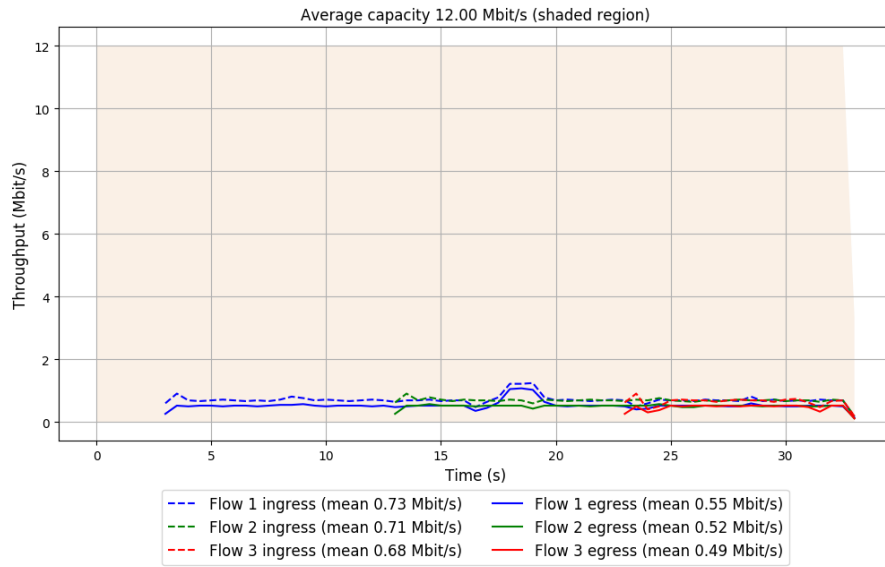
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 11.603 ms

Loss rate: 28.11%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-20 16:02:20

End at: 2018-03-20 16:02:50

Below is generated by plot.py at 2018-03-20 17:26:46

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.08 Mbit/s (9.0% utilization)

95th percentile per-packet one-way delay: 11.604 ms

Loss rate: 25.07%

-- Flow 1:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 11.587 ms

Loss rate: 24.42%

-- Flow 2:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 11.604 ms

Loss rate: 25.27%

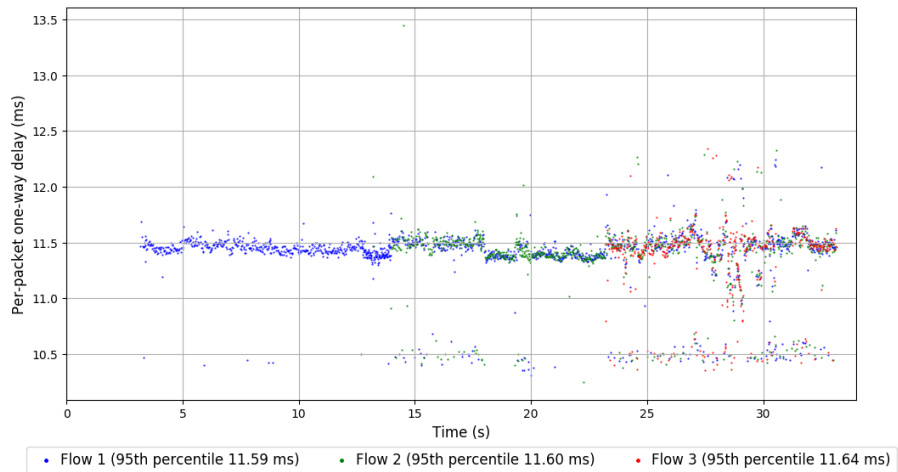
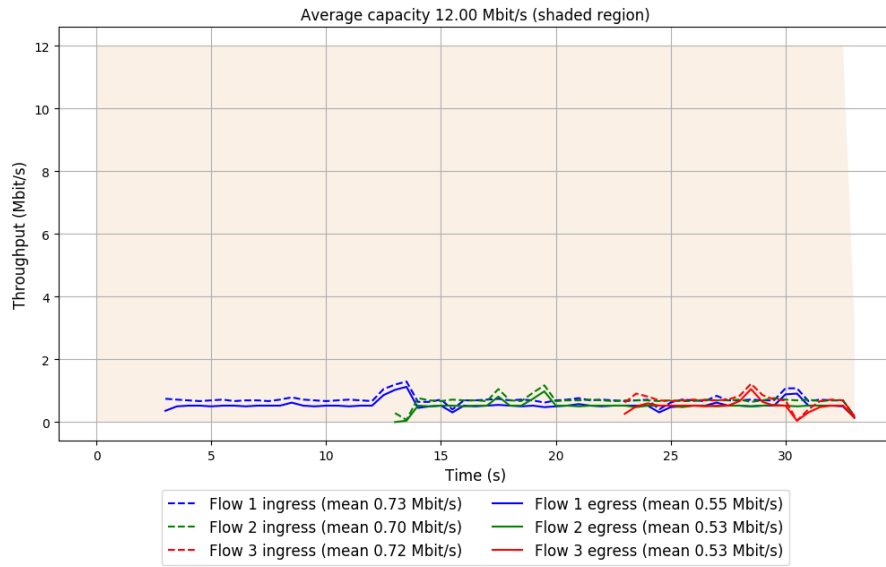
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 11.645 ms

Loss rate: 26.63%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-20 16:12:38

End at: 2018-03-20 16:13:08

Below is generated by plot.py at 2018-03-20 17:26:46

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.09 Mbit/s (9.1% utilization)

95th percentile per-packet one-way delay: 11.639 ms

Loss rate: 24.25%

-- Flow 1:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 11.585 ms

Loss rate: 23.54%

-- Flow 2:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 11.666 ms

Loss rate: 23.73%

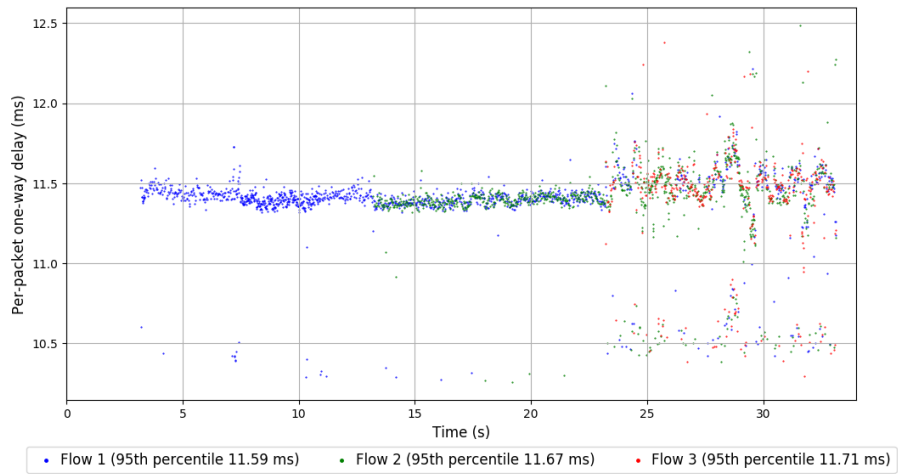
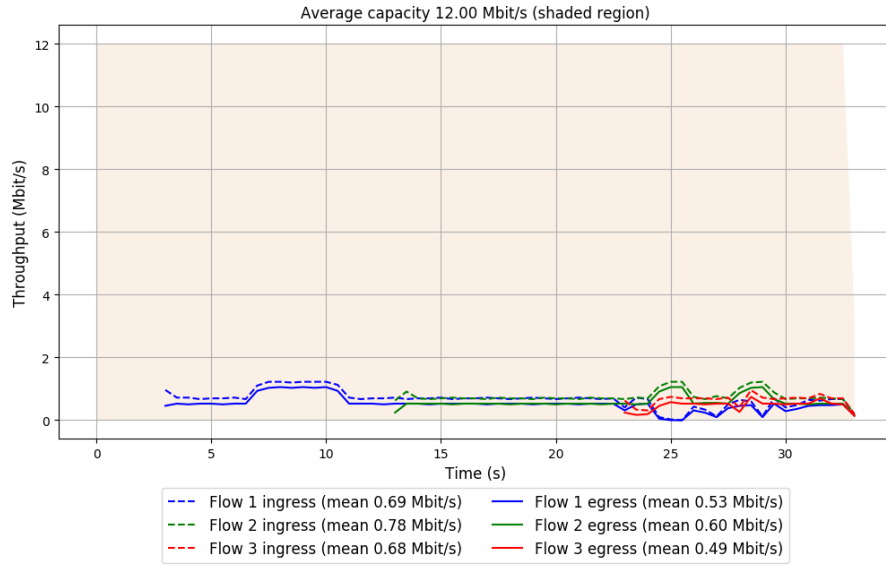
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 11.709 ms

Loss rate: 27.62%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-20 16:23:01

End at: 2018-03-20 16:23:31

Below is generated by plot.py at 2018-03-20 17:26:46

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.18 Mbit/s (9.8% utilization)

95th percentile per-packet one-way delay: 11.590 ms

Loss rate: 22.90%

-- Flow 1:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 11.567 ms

Loss rate: 22.08%

-- Flow 2:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 11.581 ms

Loss rate: 23.32%

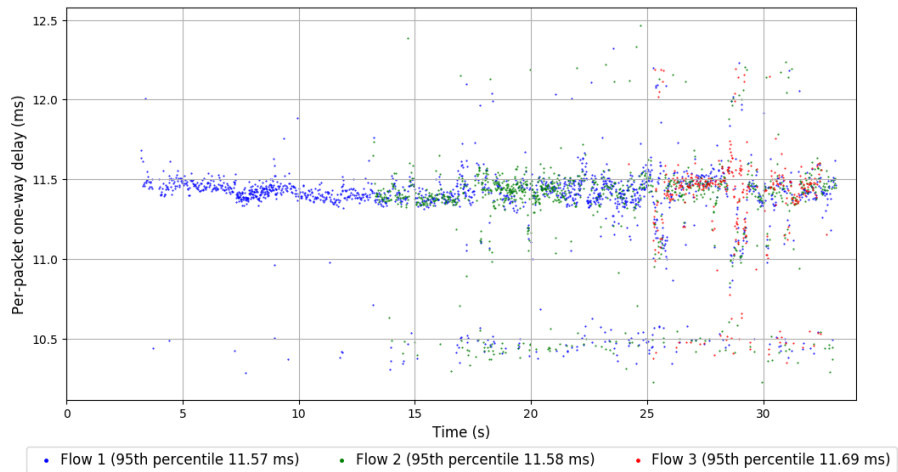
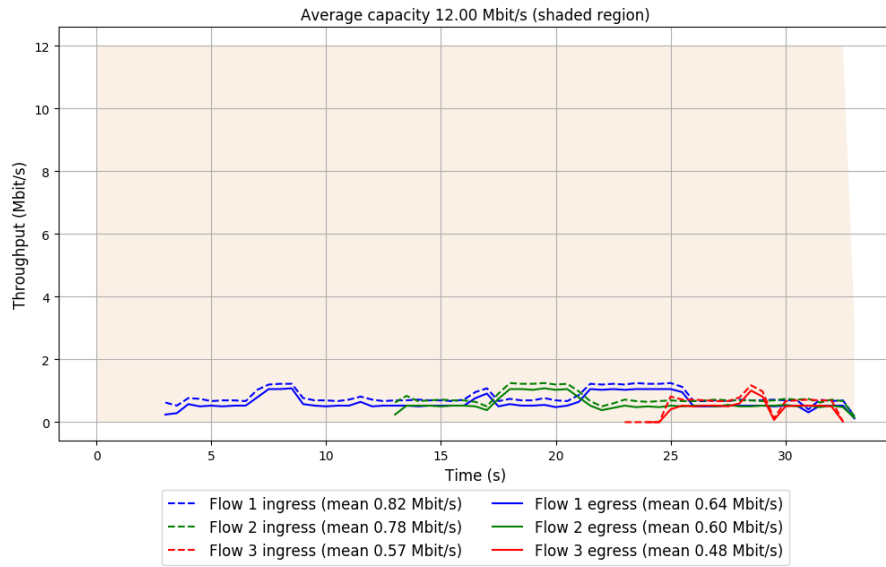
-- Flow 3:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.693 ms

Loss rate: 25.39%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-20 16:33:22

End at: 2018-03-20 16:33:52

Below is generated by plot.py at 2018-03-20 17:26:47

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.14 Mbit/s (9.5% utilization)

95th percentile per-packet one-way delay: 11.631 ms

Loss rate: 24.41%

-- Flow 1:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 11.605 ms

Loss rate: 24.43%

-- Flow 2:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 11.635 ms

Loss rate: 24.67%

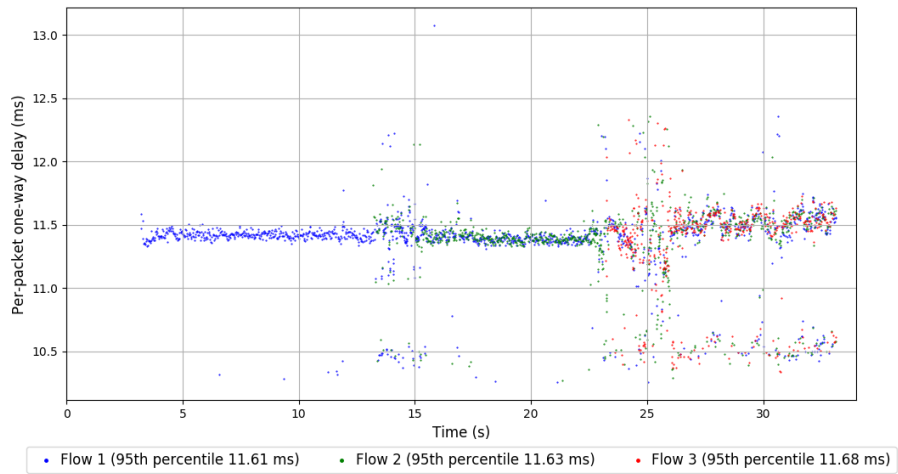
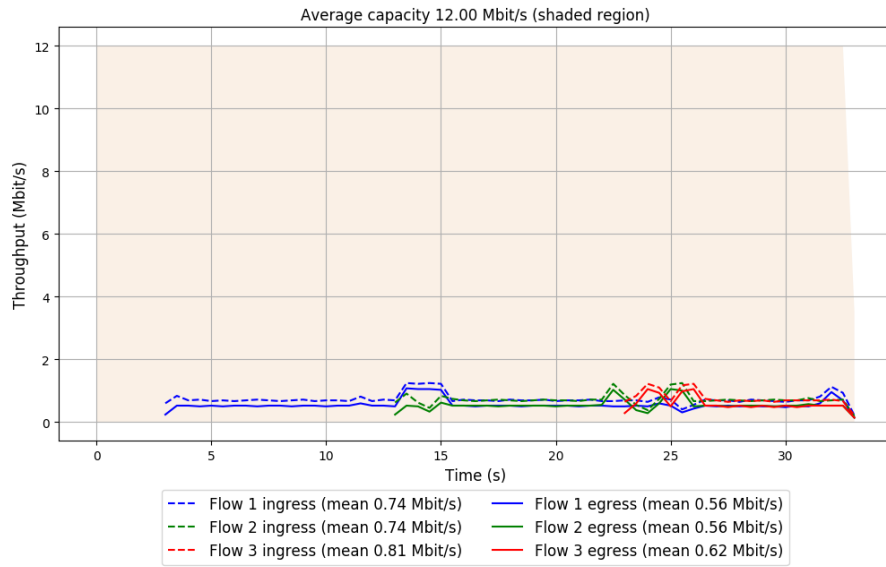
-- Flow 3:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 11.675 ms

Loss rate: 23.88%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-20 16:43:38

End at: 2018-03-20 16:44:08

Below is generated by plot.py at 2018-03-20 17:26:47

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.05 Mbit/s (8.8% utilization)

95th percentile per-packet one-way delay: 11.618 ms

Loss rate: 25.10%

-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 11.595 ms

Loss rate: 25.80%

-- Flow 2:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 11.608 ms

Loss rate: 23.52%

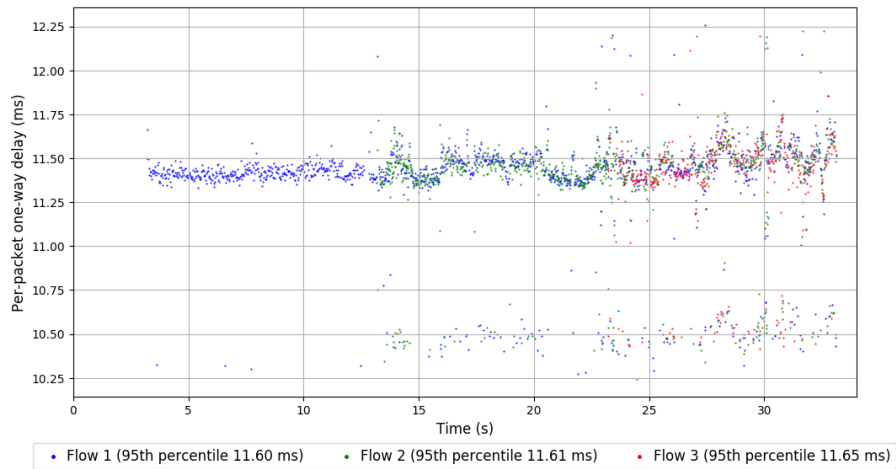
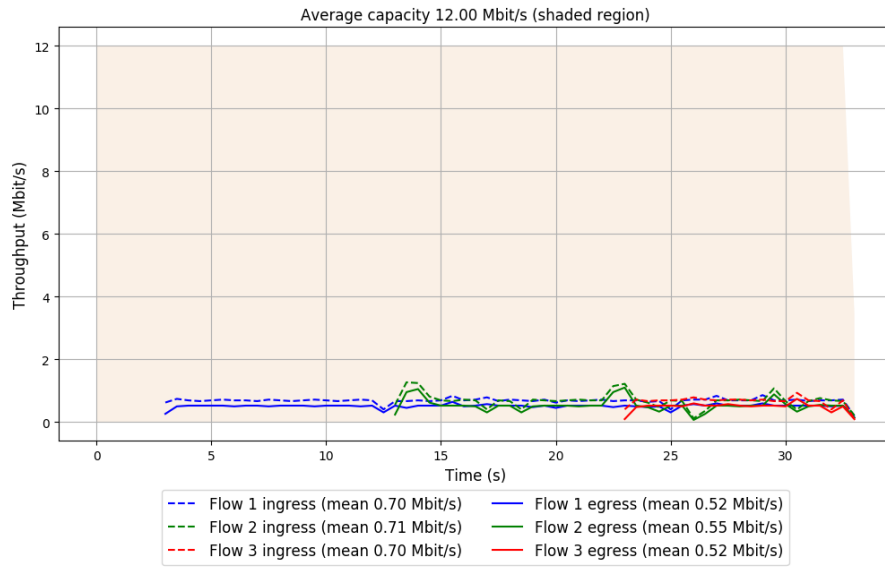
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 11.653 ms

Loss rate: 26.21%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-20 16:54:00

End at: 2018-03-20 16:54:30

Below is generated by plot.py at 2018-03-20 17:26:55

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.19 Mbit/s (9.9% utilization)

95th percentile per-packet one-way delay: 11.615 ms

Loss rate: 22.83%

-- Flow 1:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 11.595 ms

Loss rate: 21.70%

-- Flow 2:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 11.625 ms

Loss rate: 22.92%

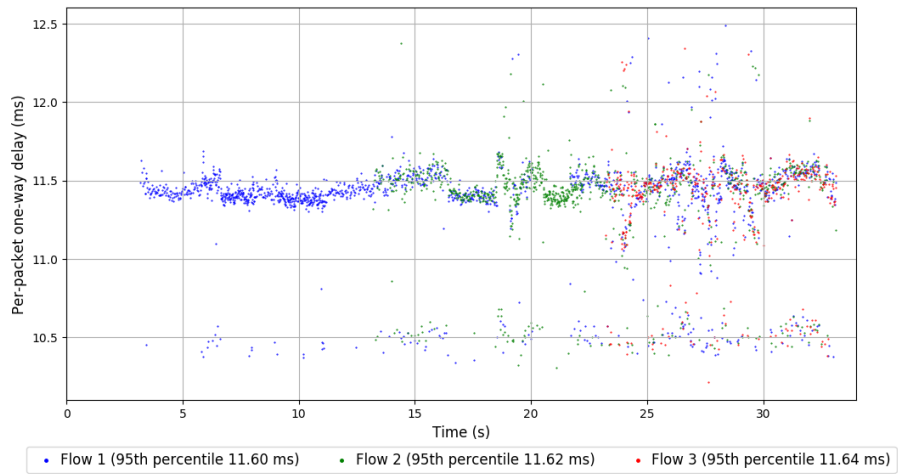
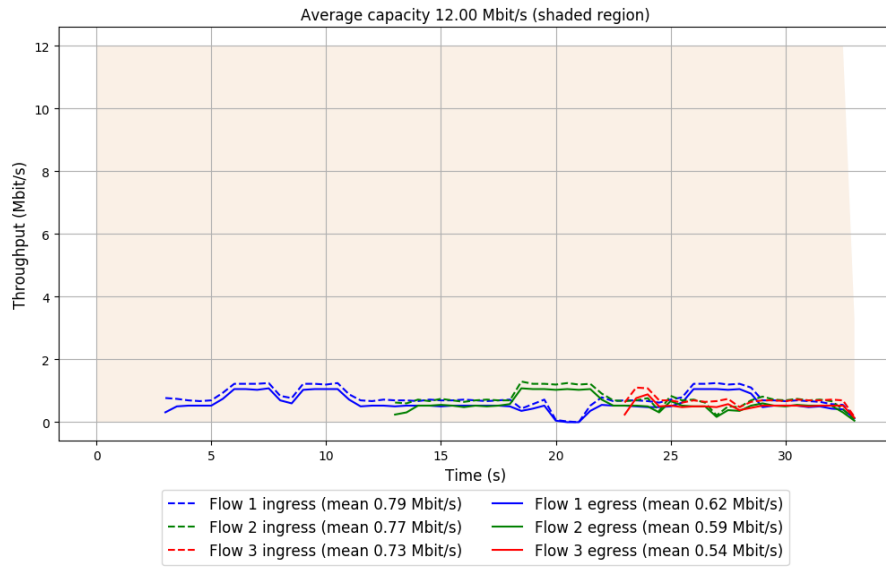
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 11.639 ms

Loss rate: 26.36%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-03-20 17:04:19

End at: 2018-03-20 17:04:49

Below is generated by plot.py at 2018-03-20 17:26:56

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.05 Mbit/s (8.8% utilization)

95th percentile per-packet one-way delay: 11.637 ms

Loss rate: 24.80%

-- Flow 1:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 11.635 ms

Loss rate: 23.94%

-- Flow 2:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 11.625 ms

Loss rate: 25.73%

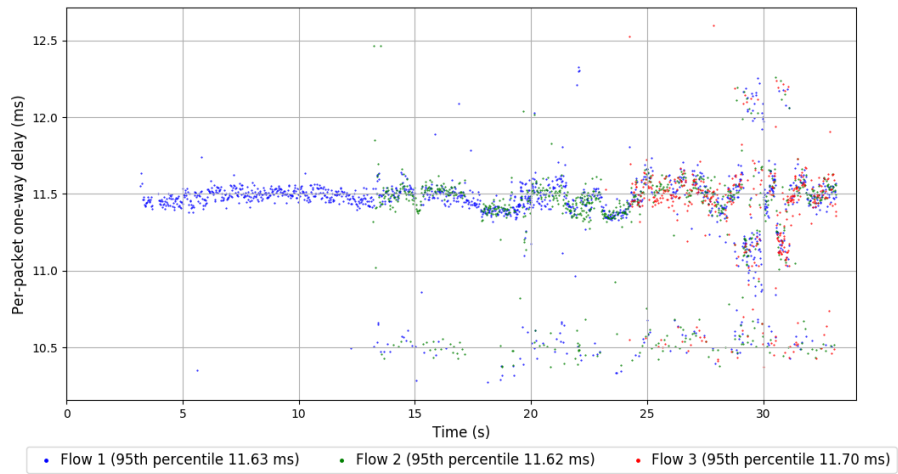
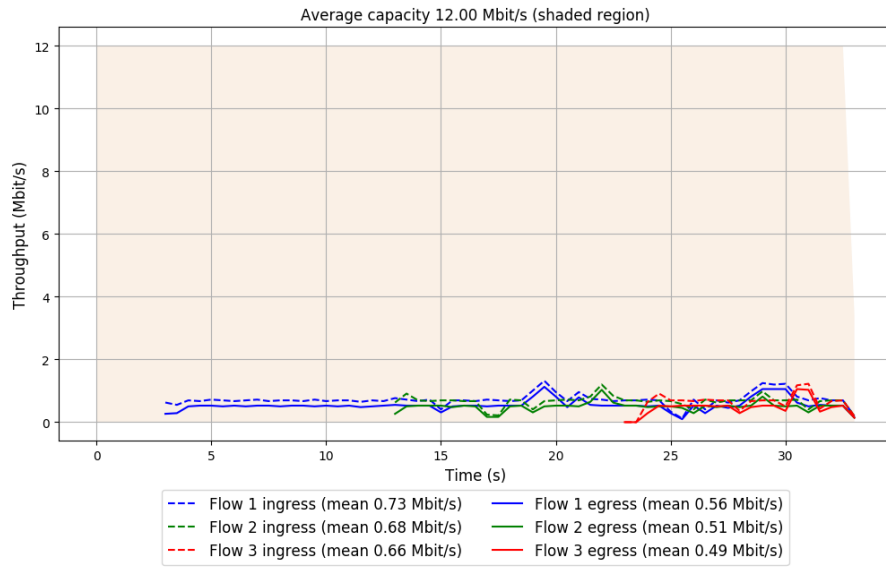
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 11.699 ms

Loss rate: 25.74%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-20 17:14:36

End at: 2018-03-20 17:15:06

Below is generated by plot.py at 2018-03-20 17:26:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.17 Mbit/s (9.7% utilization)

95th percentile per-packet one-way delay: 11.600 ms

Loss rate: 22.89%

-- Flow 1:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 11.579 ms

Loss rate: 21.30%

-- Flow 2:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 11.600 ms

Loss rate: 23.54%

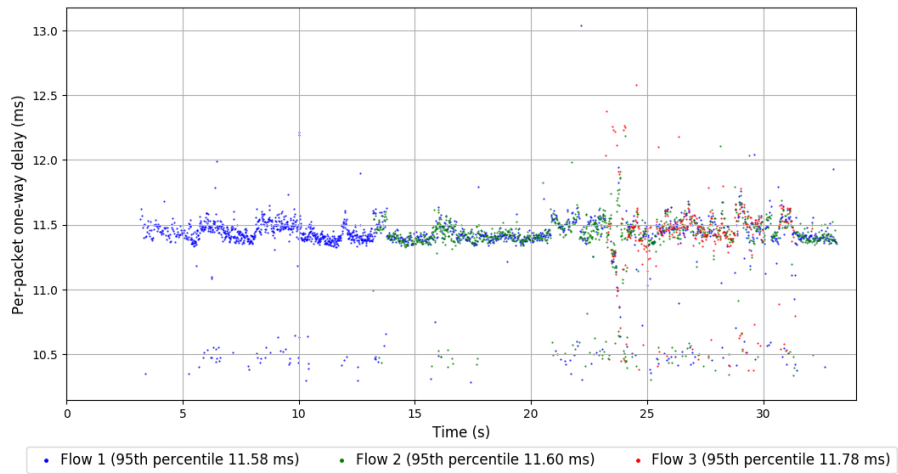
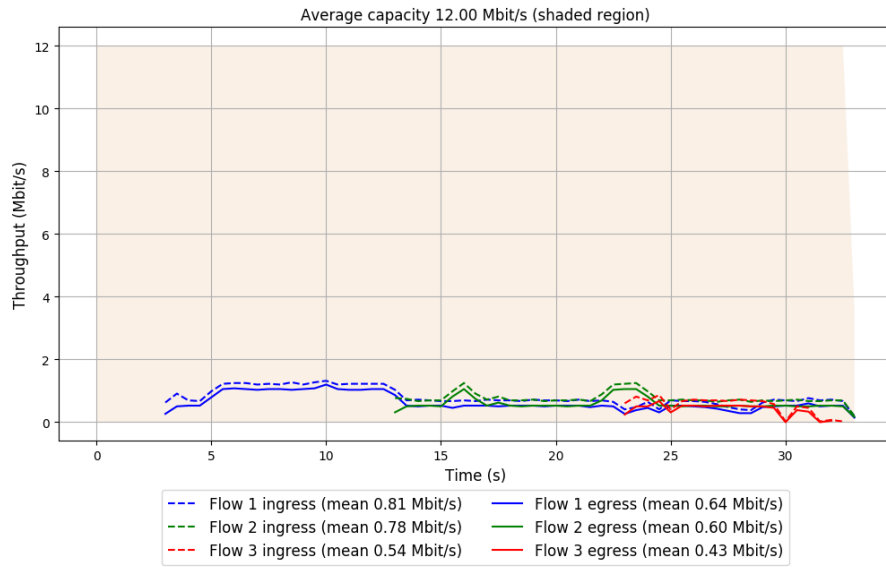
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 11.778 ms

Loss rate: 28.27%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-20 17:24:55

End at: 2018-03-20 17:25:25

Below is generated by plot.py at 2018-03-20 17:26:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.29 Mbit/s (10.7% utilization)

95th percentile per-packet one-way delay: 11.631 ms

Loss rate: 21.45%

-- Flow 1:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 11.610 ms

Loss rate: 18.74%

-- Flow 2:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.640 ms

Loss rate: 26.15%

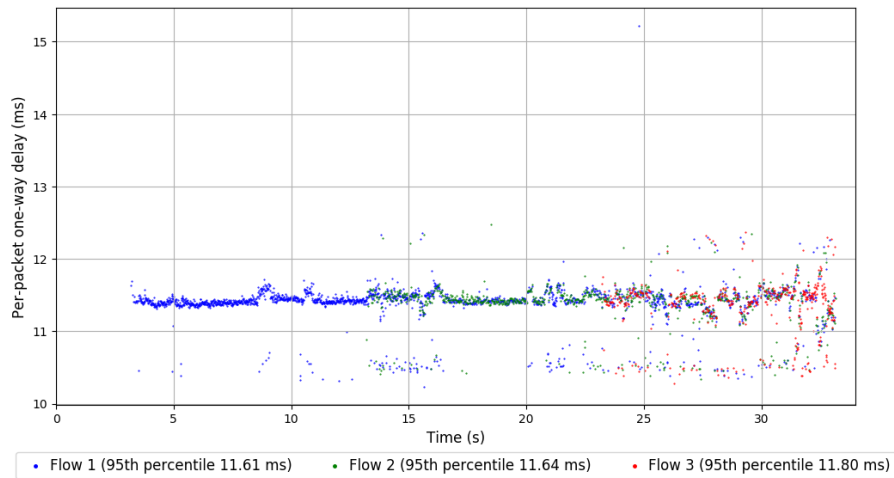
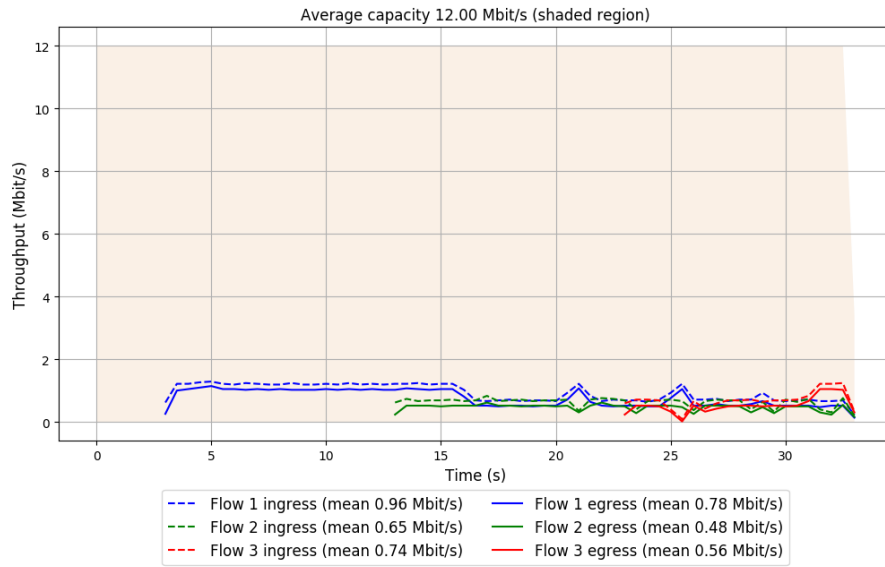
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 11.801 ms

Loss rate: 23.69%

Run 10: Report of TCP Cubic — Data Link



Run 1: Statistics of LEDBAT

Start at: 2018-03-20 15:49:41

End at: 2018-03-20 15:50:11

Below is generated by plot.py at 2018-03-20 17:26:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.40 Mbit/s (3.3% utilization)

95th percentile per-packet one-way delay: 11.542 ms

Loss rate: 50.72%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.533 ms

Loss rate: 50.14%

-- Flow 2:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 11.542 ms

Loss rate: 51.44%

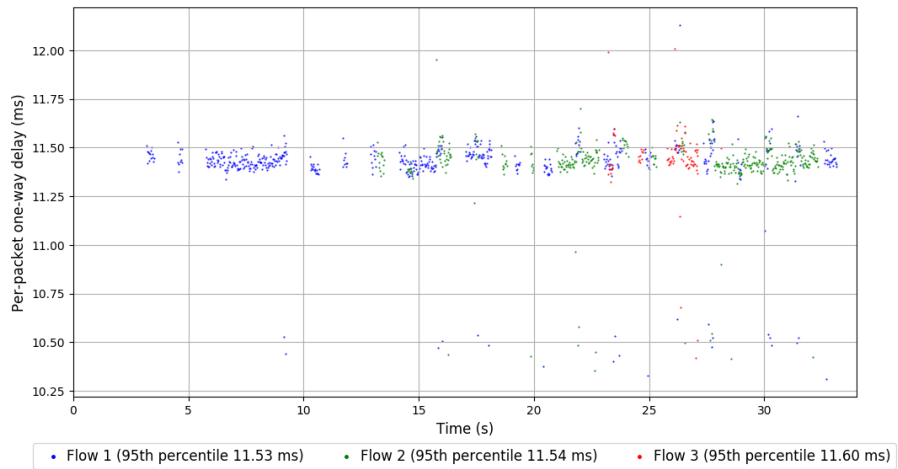
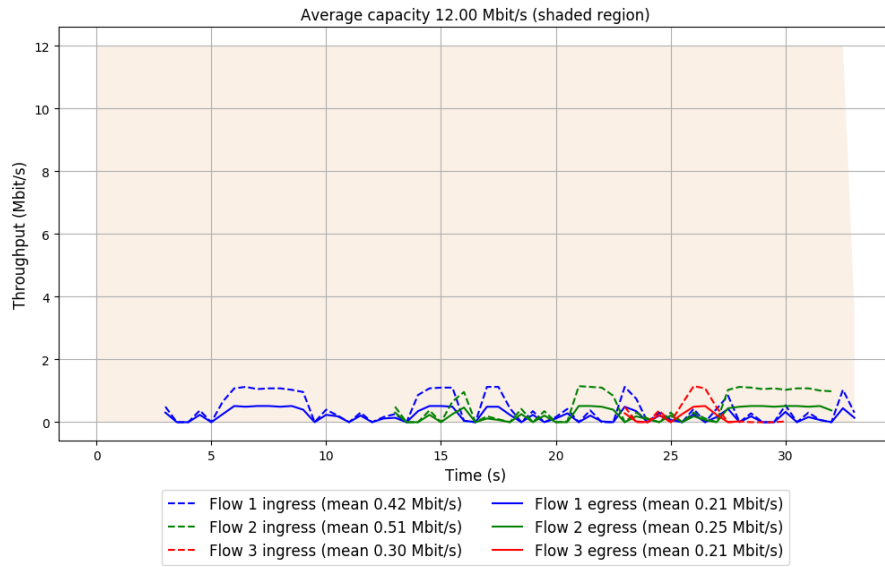
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.597 ms

Loss rate: 50.82%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-03-20 16:00:04

End at: 2018-03-20 16:00:34

Below is generated by plot.py at 2018-03-20 17:26:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.38 Mbit/s (3.1% utilization)

95th percentile per-packet one-way delay: 11.551 ms

Loss rate: 48.94%

-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 11.539 ms

Loss rate: 48.44%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 11.574 ms

Loss rate: 48.27%

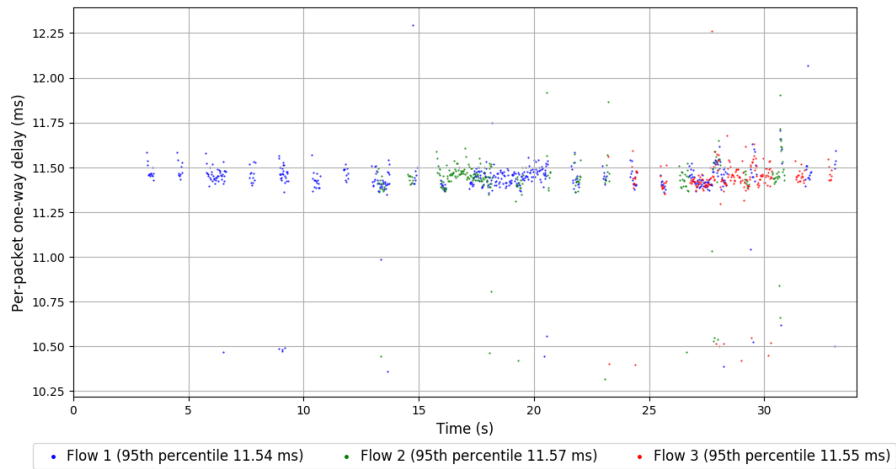
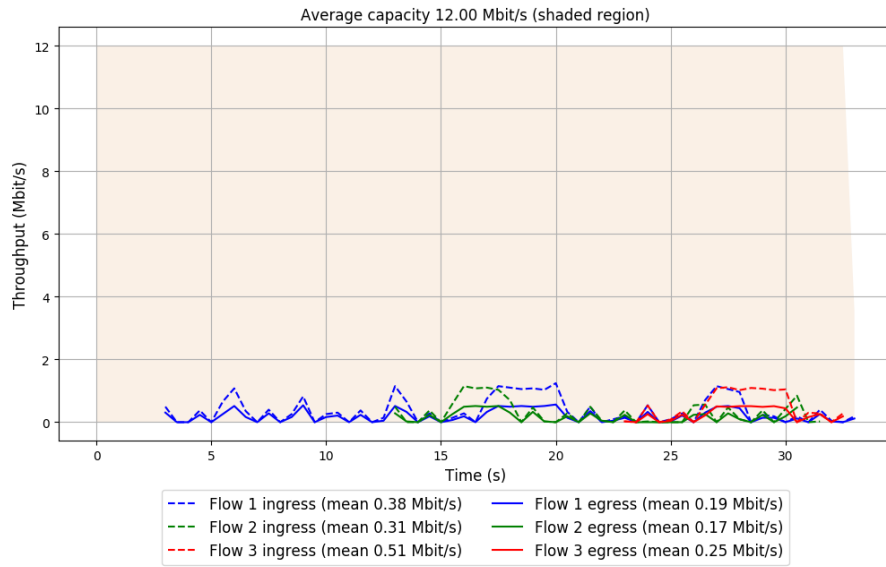
-- Flow 3:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 11.551 ms

Loss rate: 50.88%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-20 16:10:22

End at: 2018-03-20 16:10:52

Below is generated by plot.py at 2018-03-20 17:26:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.34 Mbit/s (2.8% utilization)

95th percentile per-packet one-way delay: 11.576 ms

Loss rate: 47.49%

-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 11.557 ms

Loss rate: 48.84%

-- Flow 2:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 11.582 ms

Loss rate: 42.92%

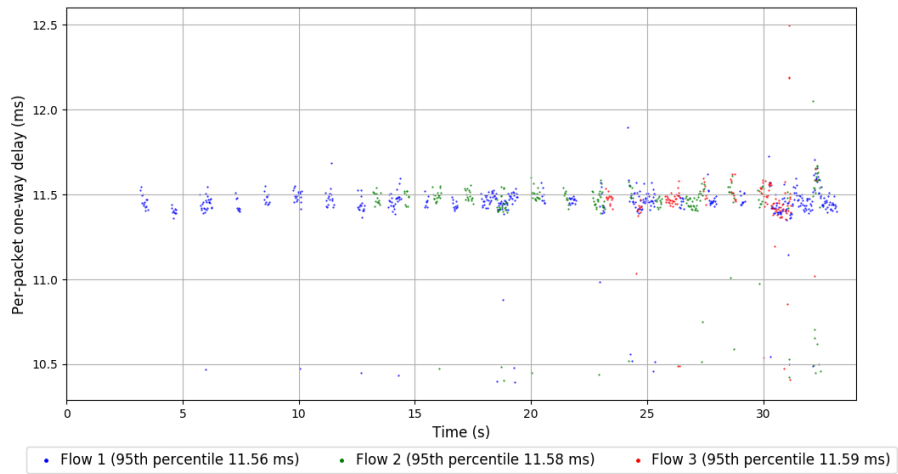
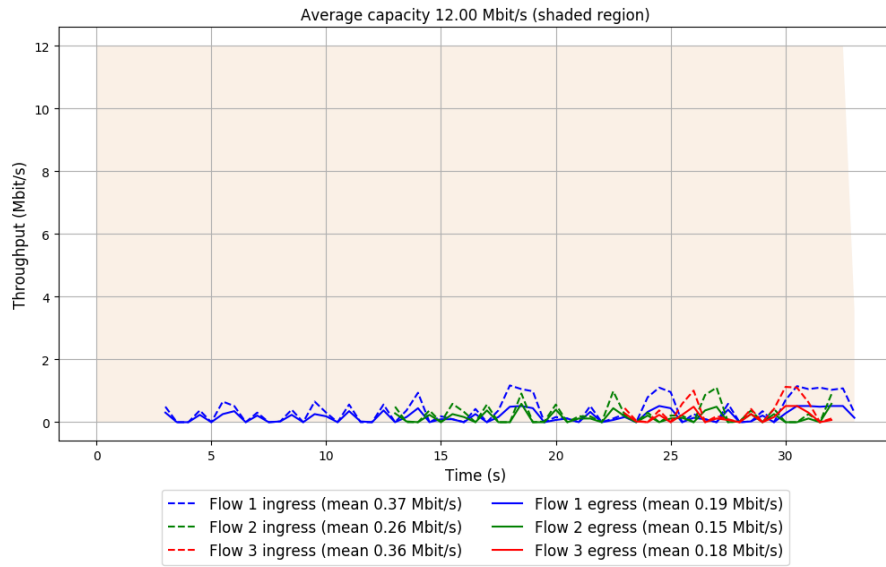
-- Flow 3:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 11.589 ms

Loss rate: 49.99%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-20 16:20:44

End at: 2018-03-20 16:21:14

Below is generated by plot.py at 2018-03-20 17:26:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.38 Mbit/s (3.1% utilization)

95th percentile per-packet one-way delay: 11.540 ms

Loss rate: 49.94%

-- Flow 1:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 11.536 ms

Loss rate: 48.29%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.541 ms

Loss rate: 51.72%

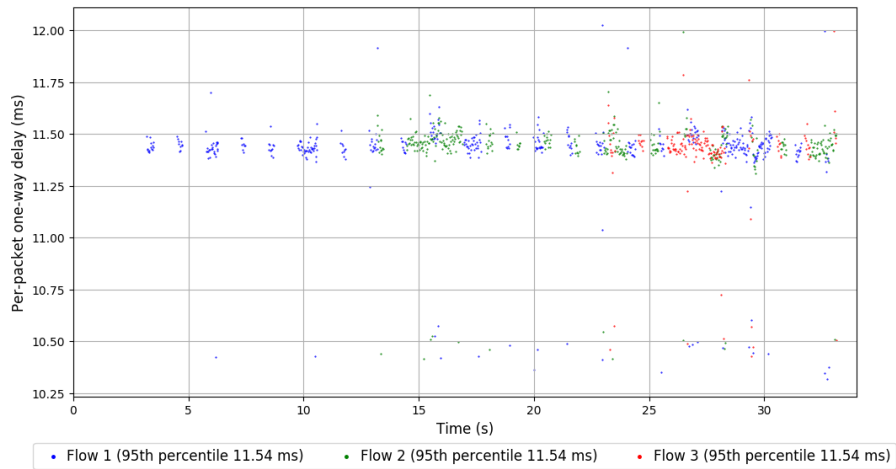
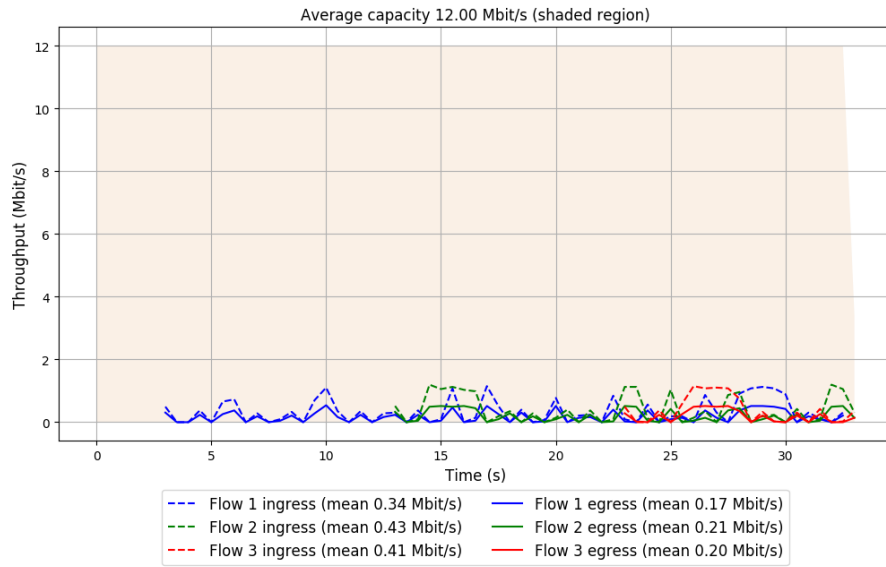
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 11.539 ms

Loss rate: 50.28%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-20 16:31:06

End at: 2018-03-20 16:31:36

Below is generated by plot.py at 2018-03-20 17:27:04

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.39 Mbit/s (3.3% utilization)

95th percentile per-packet one-way delay: 11.565 ms

Loss rate: 49.13%

-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 11.545 ms

Loss rate: 48.80%

-- Flow 2:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 11.564 ms

Loss rate: 48.97%

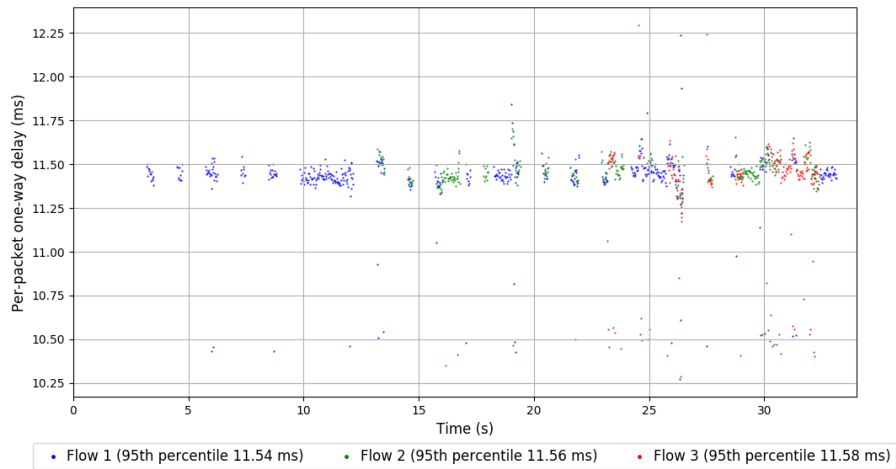
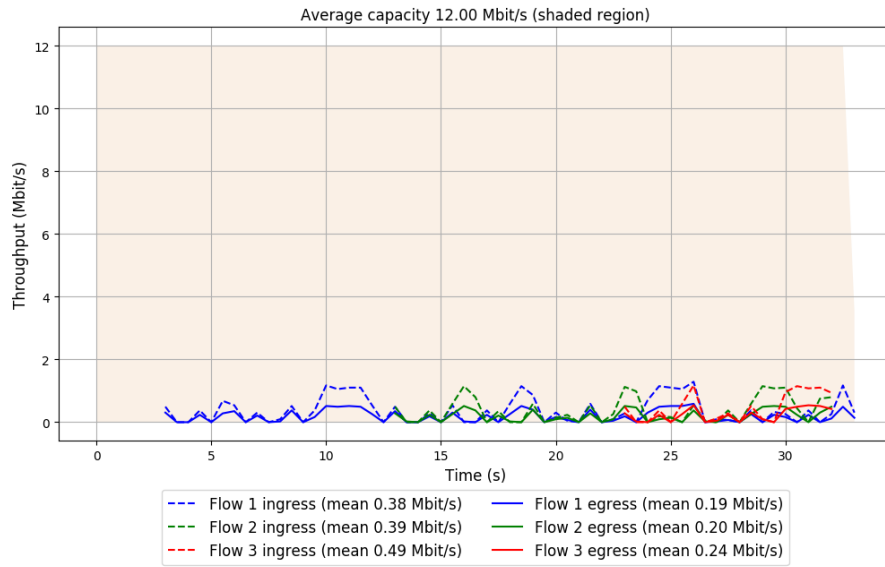
-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 11.584 ms

Loss rate: 50.26%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-20 16:41:22

End at: 2018-03-20 16:41:52

Below is generated by plot.py at 2018-03-20 17:27:05

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.46 Mbit/s (3.8% utilization)

95th percentile per-packet one-way delay: 11.550 ms

Loss rate: 50.69%

-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 11.535 ms

Loss rate: 49.17%

-- Flow 2:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 11.538 ms

Loss rate: 51.73%

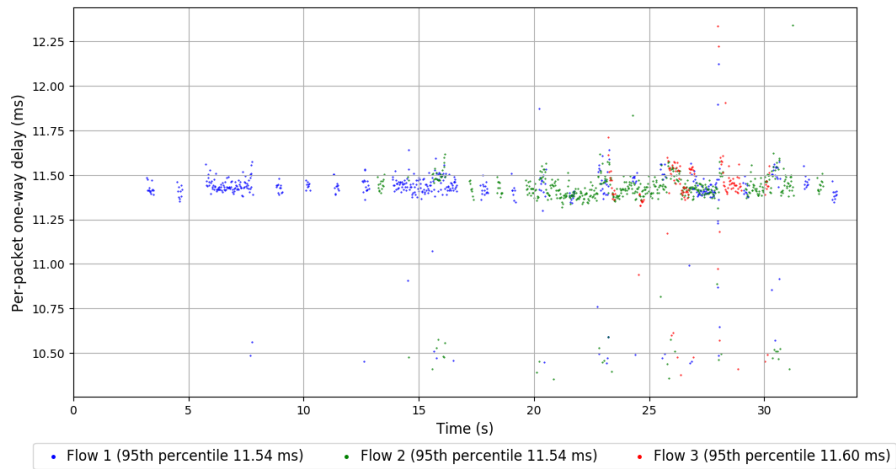
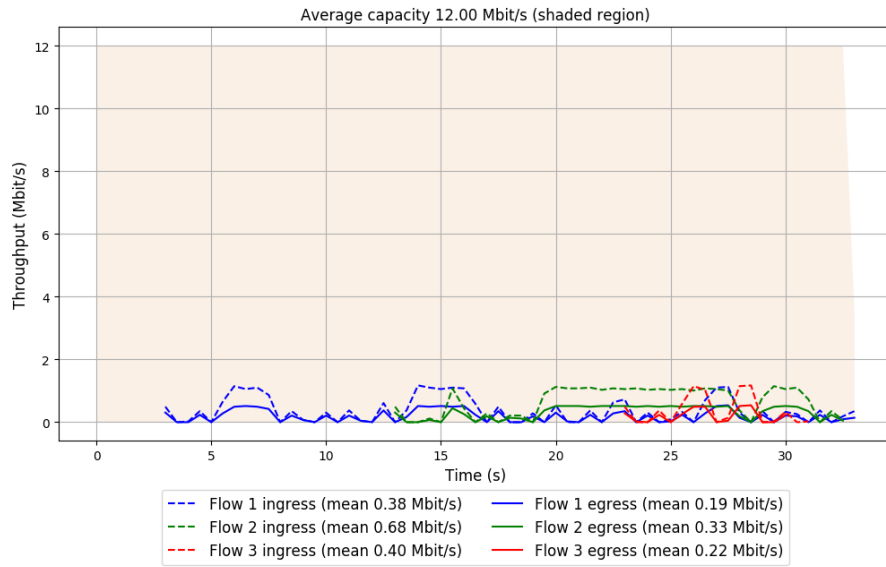
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.596 ms

Loss rate: 51.80%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-20 16:51:44

End at: 2018-03-20 16:52:14

Below is generated by plot.py at 2018-03-20 17:27:06

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.39 Mbit/s (3.2% utilization)

95th percentile per-packet one-way delay: 11.556 ms

Loss rate: 48.73%

-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 11.557 ms

Loss rate: 48.90%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 11.554 ms

Loss rate: 47.71%

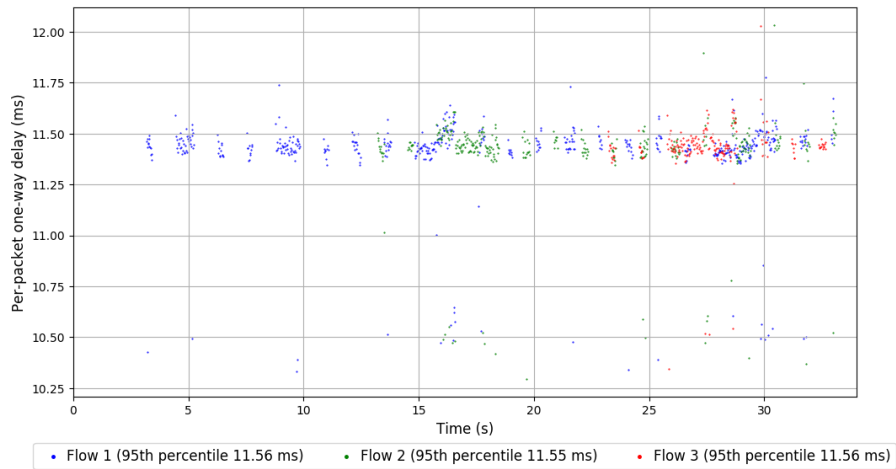
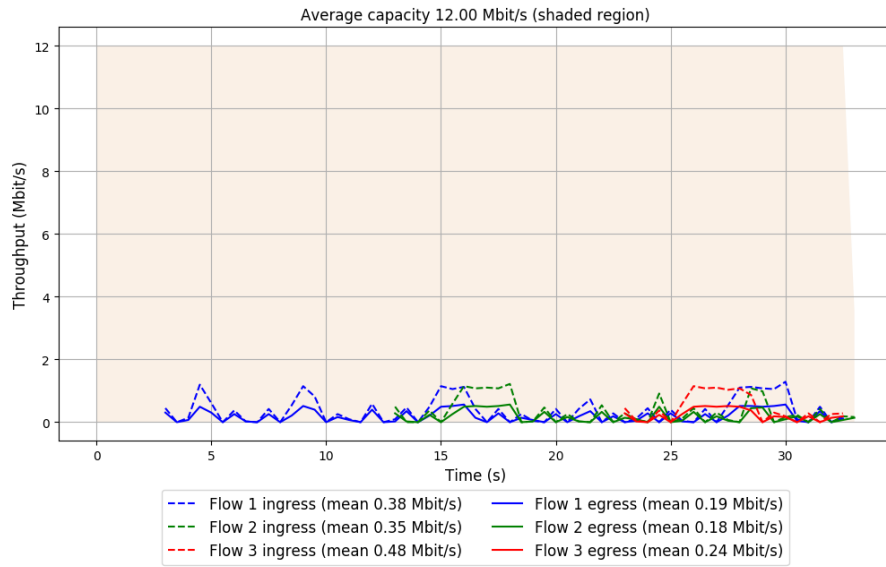
-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 11.561 ms

Loss rate: 49.86%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-20 17:02:02

End at: 2018-03-20 17:02:32

Below is generated by plot.py at 2018-03-20 17:27:06

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.37 Mbit/s (3.1% utilization)

95th percentile per-packet one-way delay: 11.565 ms

Loss rate: 48.68%

-- Flow 1:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 11.553 ms

Loss rate: 47.70%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.565 ms

Loss rate: 49.06%

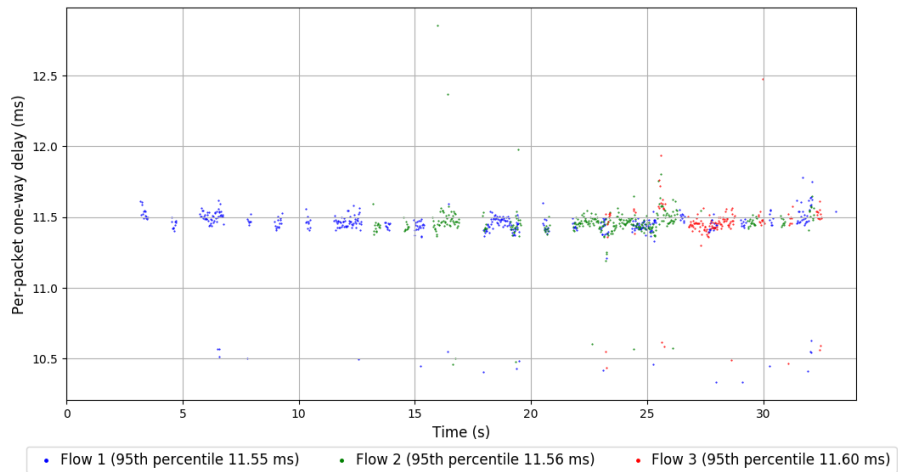
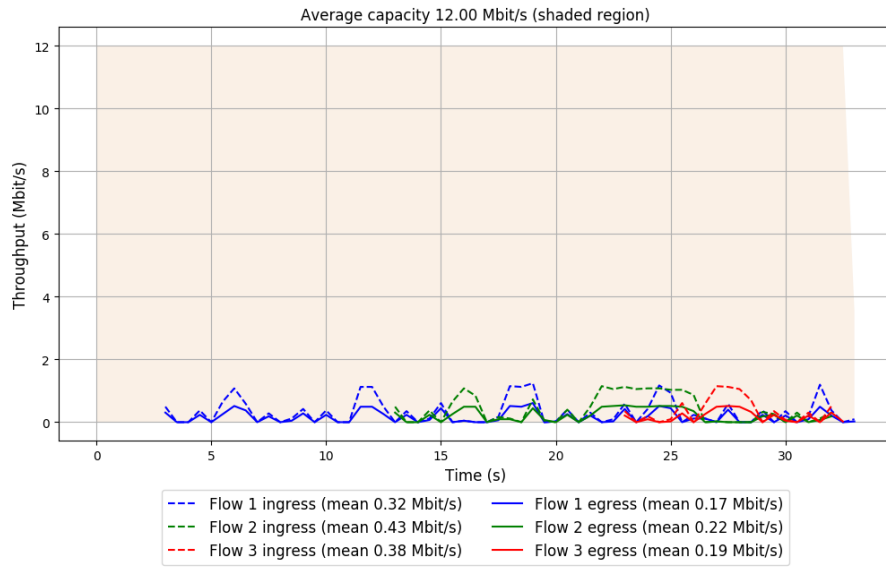
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 11.595 ms

Loss rate: 50.49%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-20 17:12:19

End at: 2018-03-20 17:12:49

Below is generated by plot.py at 2018-03-20 17:27:06

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.46 Mbit/s (3.9% utilization)

95th percentile per-packet one-way delay: 11.591 ms

Loss rate: 50.92%

-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 11.563 ms

Loss rate: 50.58%

-- Flow 2:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 11.607 ms

Loss rate: 51.45%

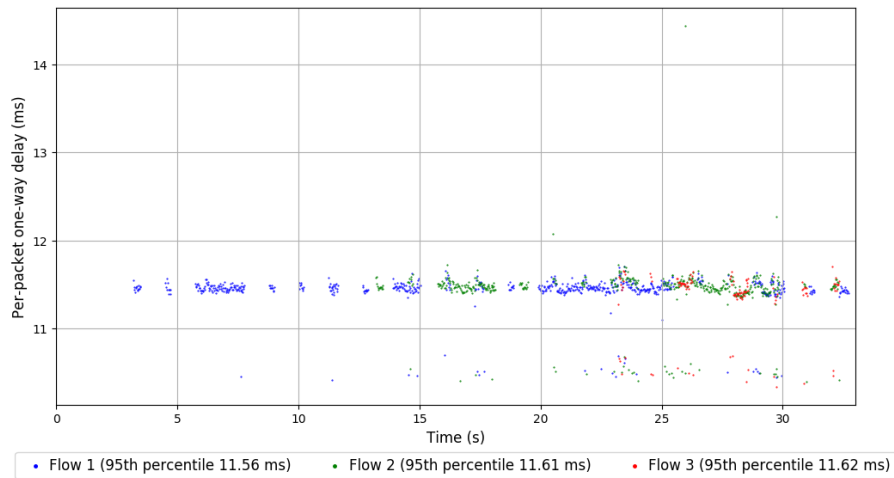
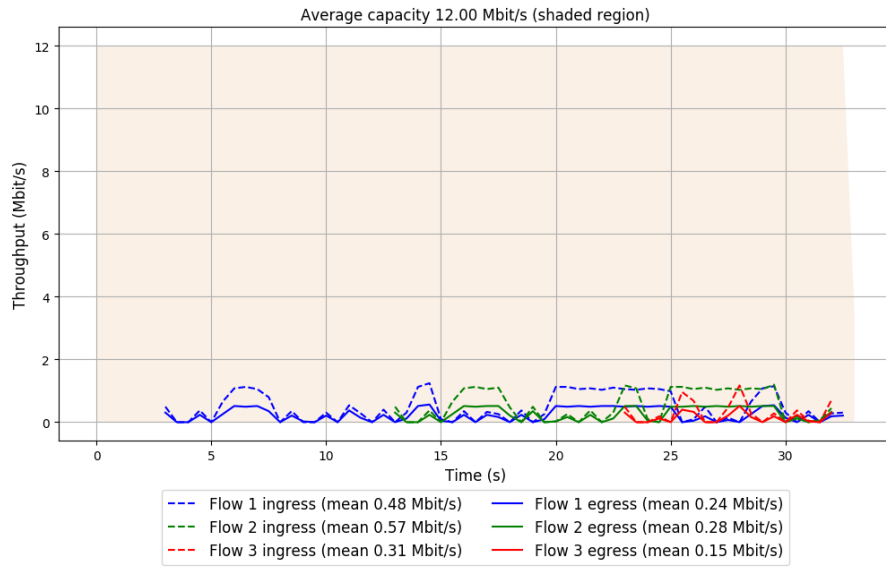
-- Flow 3:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 11.616 ms

Loss rate: 50.61%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-20 17:22:39

End at: 2018-03-20 17:23:09

Below is generated by plot.py at 2018-03-20 17:27:06

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.36 Mbit/s (3.0% utilization)

95th percentile per-packet one-way delay: 11.622 ms

Loss rate: 49.34%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.563 ms

Loss rate: 49.95%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 11.642 ms

Loss rate: 48.42%

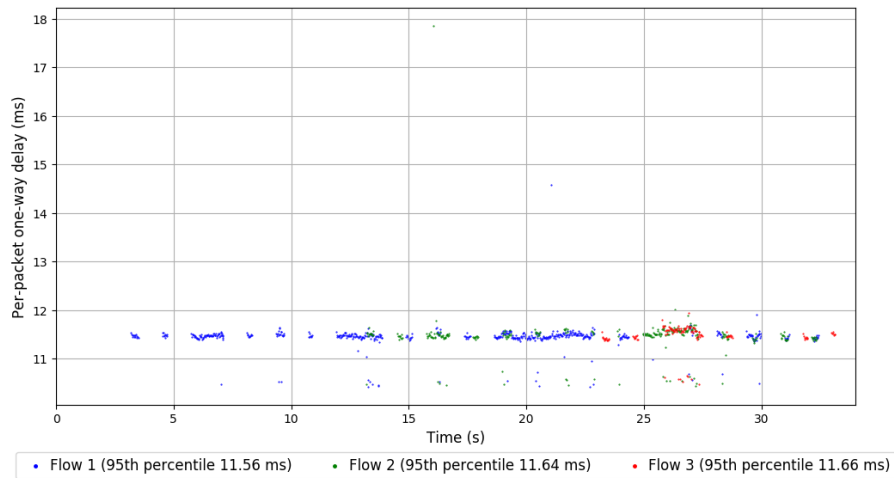
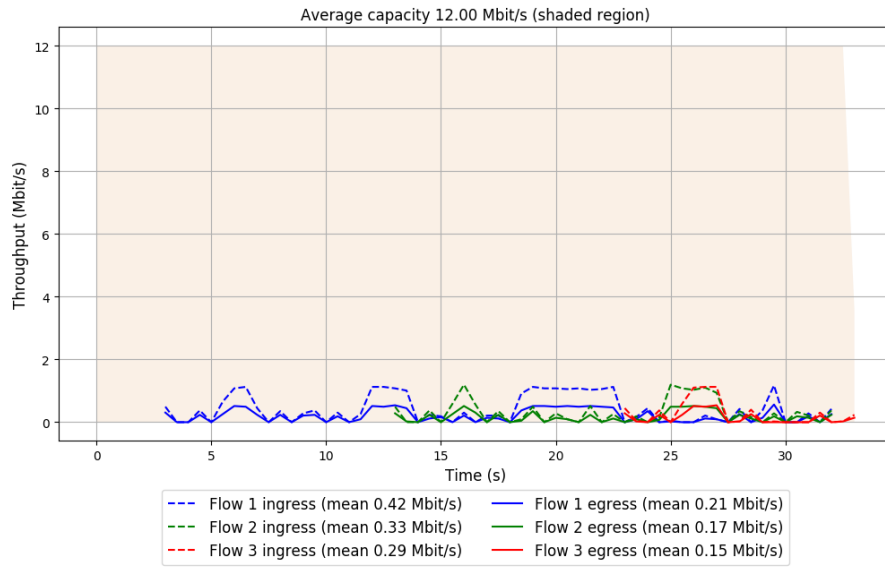
-- Flow 3:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 11.657 ms

Loss rate: 48.78%

Run 10: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: 2018-03-20 15:50:14

End at: 2018-03-20 15:50:44

Below is generated by plot.py at 2018-03-20 17:27:16

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 9.84 Mbit/s (82.0% utilization)

95th percentile per-packet one-way delay: 11.985 ms

Loss rate: 8.13%

-- Flow 1:

Average throughput: 9.45 Mbit/s

95th percentile per-packet one-way delay: 11.975 ms

Loss rate: 5.91%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 12.115 ms

Loss rate: 47.96%

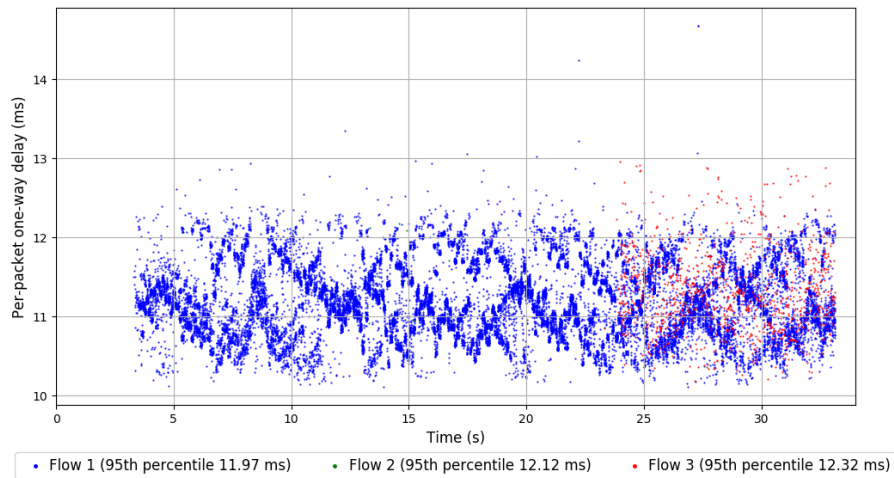
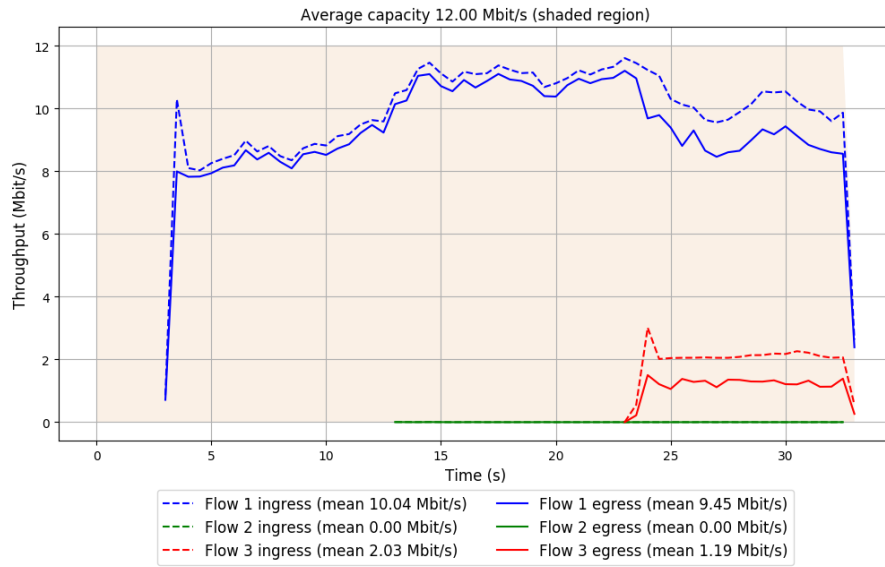
-- Flow 3:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 12.323 ms

Loss rate: 41.40%

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-20 16:00:38

End at: 2018-03-20 16:01:08

Below is generated by plot.py at 2018-03-20 17:27:16

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 7.49 Mbit/s (62.4% utilization)

95th percentile per-packet one-way delay: 11.956 ms

Loss rate: 14.47%

-- Flow 1:

Average throughput: 6.24 Mbit/s

95th percentile per-packet one-way delay: 11.934 ms

Loss rate: 9.94%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 12.088 ms

Loss rate: 30.04%

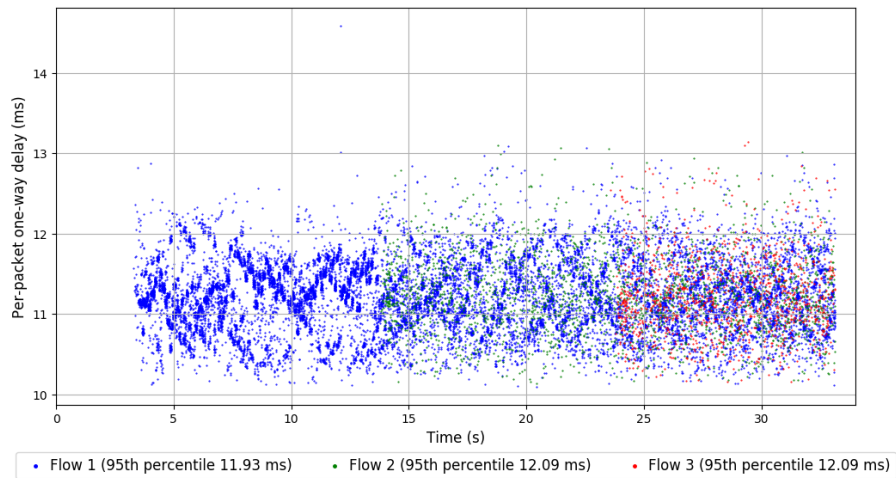
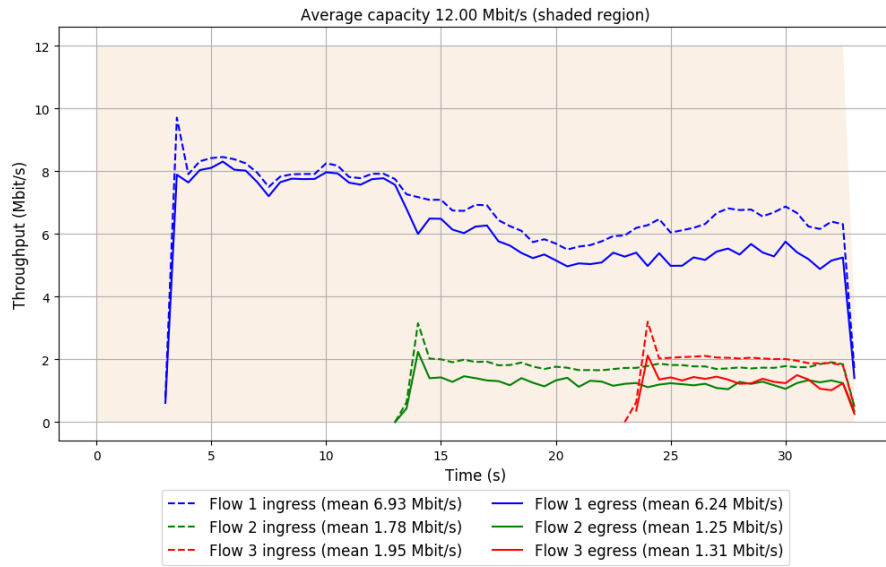
-- Flow 3:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 12.087 ms

Loss rate: 34.63%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-20 16:10:56

End at: 2018-03-20 16:11:26

Below is generated by plot.py at 2018-03-20 17:27:24

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 7.54 Mbit/s (62.8% utilization)

95th percentile per-packet one-way delay: 11.973 ms

Loss rate: 15.68%

-- Flow 1:

Average throughput: 6.28 Mbit/s

95th percentile per-packet one-way delay: 11.951 ms

Loss rate: 10.56%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 12.097 ms

Loss rate: 33.60%

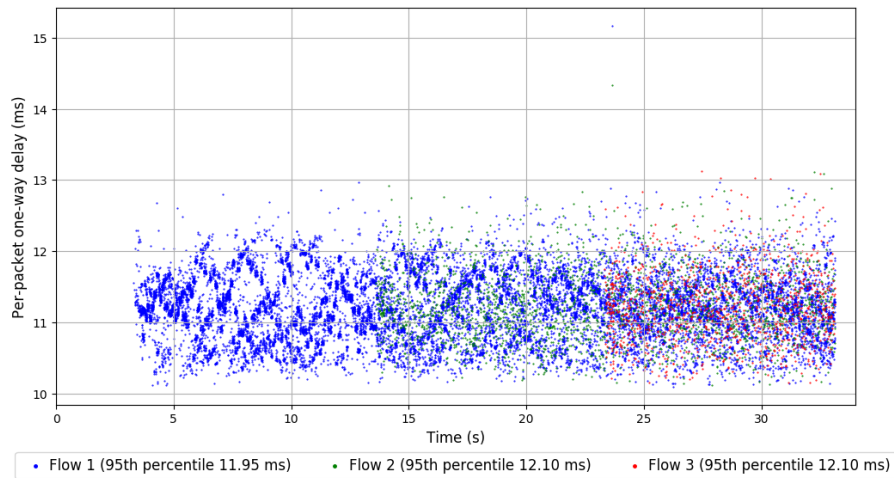
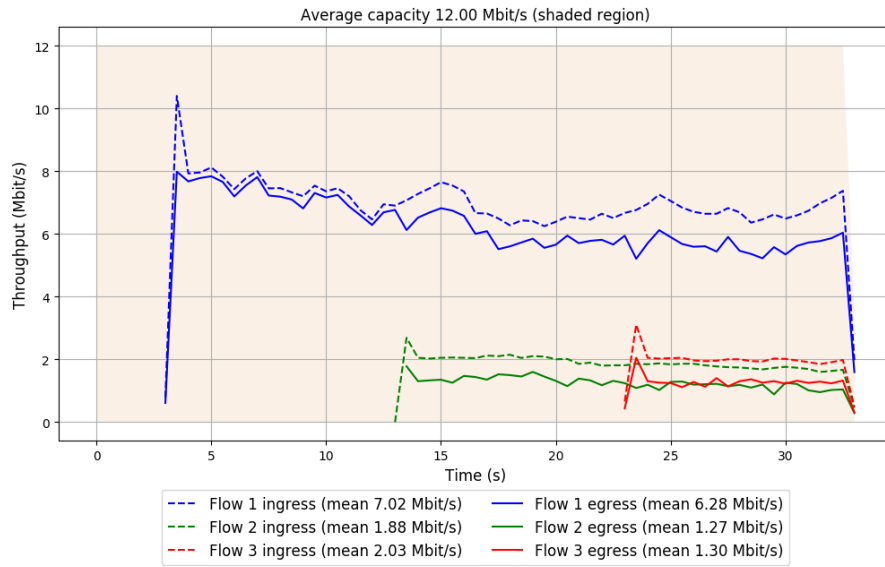
-- Flow 3:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 12.095 ms

Loss rate: 35.81%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-20 16:21:18

End at: 2018-03-20 16:21:48

Below is generated by plot.py at 2018-03-20 17:27:27

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 8.62 Mbit/s (71.8% utilization)

95th percentile per-packet one-way delay: 11.916 ms

Loss rate: 15.53%

-- Flow 1:

Average throughput: 7.45 Mbit/s

95th percentile per-packet one-way delay: 11.874 ms

Loss rate: 10.56%

-- Flow 2:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 12.180 ms

Loss rate: 37.33%

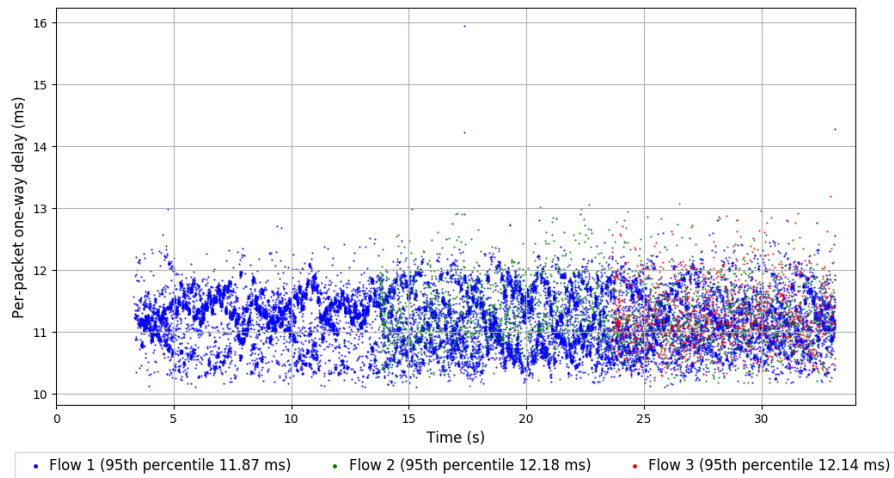
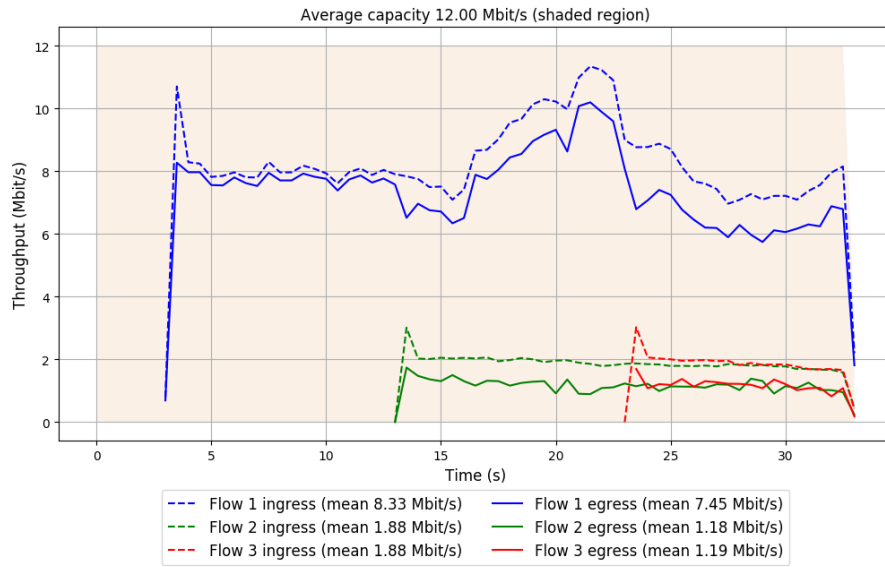
-- Flow 3:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 12.145 ms

Loss rate: 38.39%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-20 16:31:39

End at: 2018-03-20 16:32:09

Below is generated by plot.py at 2018-03-20 17:27:27

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 7.93 Mbit/s (66.1% utilization)

95th percentile per-packet one-way delay: 11.964 ms

Loss rate: 14.66%

-- Flow 1:

Average throughput: 6.69 Mbit/s

95th percentile per-packet one-way delay: 11.937 ms

Loss rate: 9.84%

-- Flow 2:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 12.095 ms

Loss rate: 33.38%

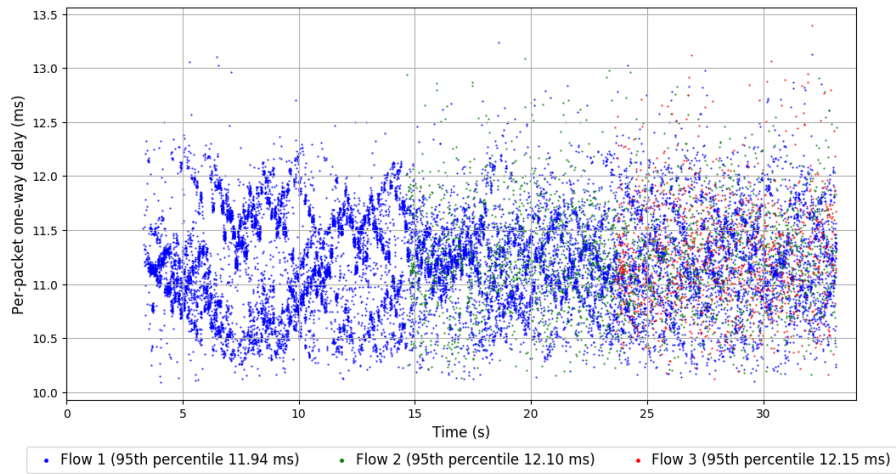
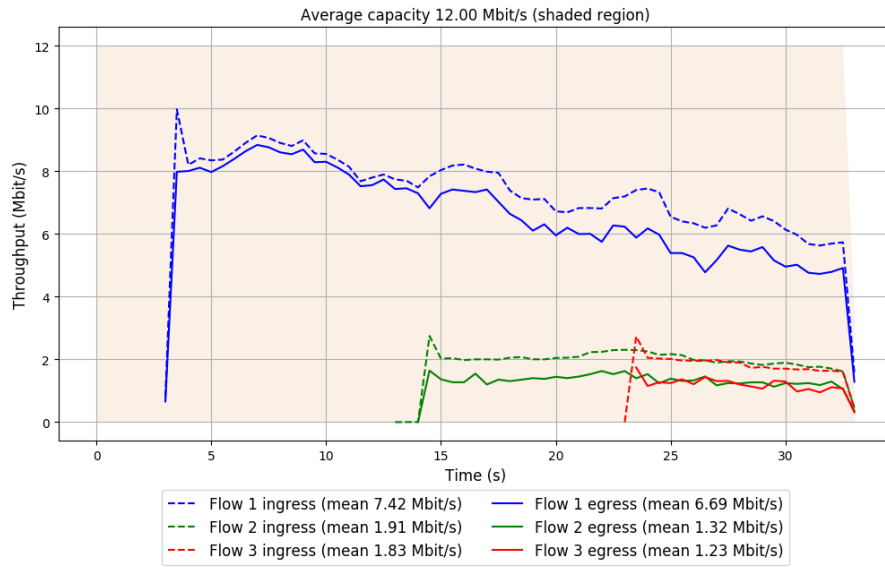
-- Flow 3:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 12.149 ms

Loss rate: 34.64%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-20 16:41:56

End at: 2018-03-20 16:42:26

Below is generated by plot.py at 2018-03-20 17:27:27

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 7.98 Mbit/s (66.5% utilization)

95th percentile per-packet one-way delay: 11.906 ms

Loss rate: 15.39%

-- Flow 1:

Average throughput: 6.71 Mbit/s

95th percentile per-packet one-way delay: 11.883 ms

Loss rate: 10.39%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 12.060 ms

Loss rate: 35.01%

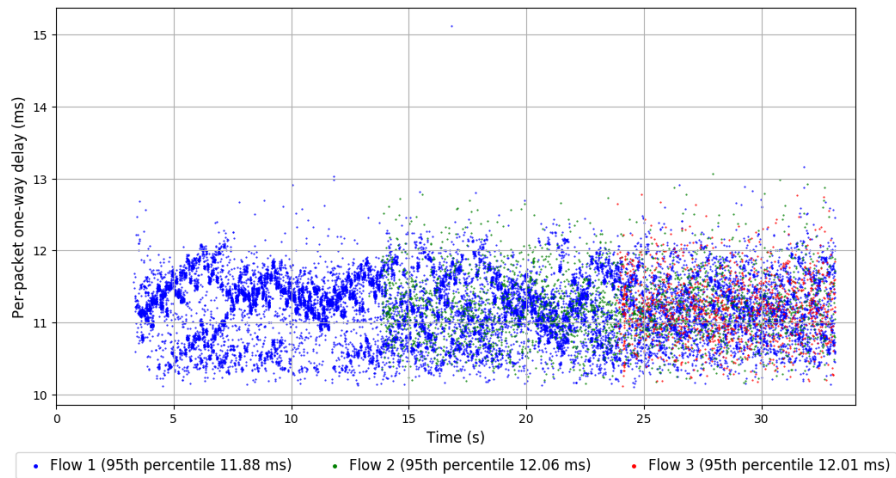
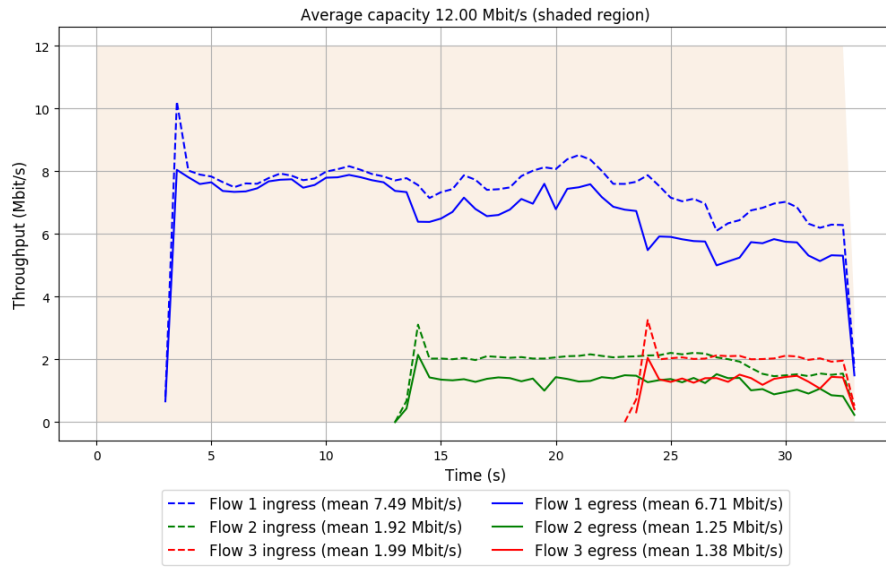
-- Flow 3:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 12.005 ms

Loss rate: 34.11%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-20 16:52:18

End at: 2018-03-20 16:52:48

Below is generated by plot.py at 2018-03-20 17:27:28

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 9.71 Mbit/s (80.9% utilization)

95th percentile per-packet one-way delay: 11.934 ms

Loss rate: 3.24%

-- Flow 1:

Average throughput: 9.71 Mbit/s

95th percentile per-packet one-way delay: 11.933 ms

Loss rate: 3.23%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 12.426 ms

Loss rate: 60.34%

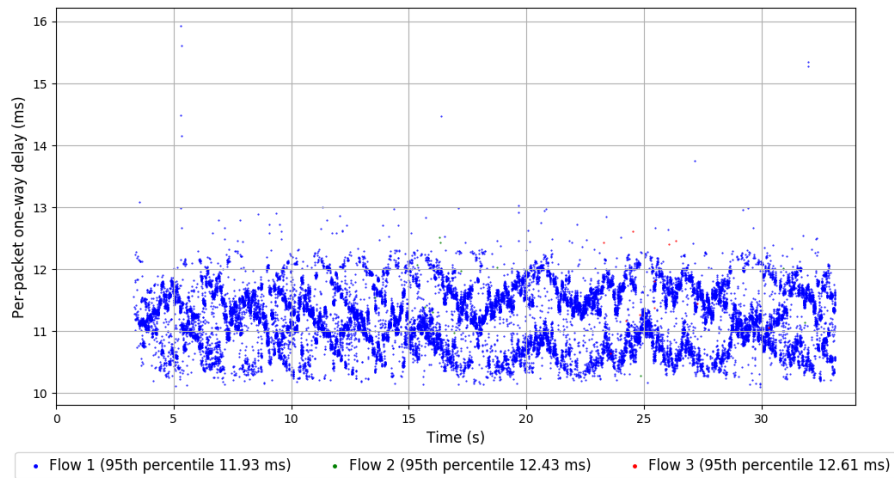
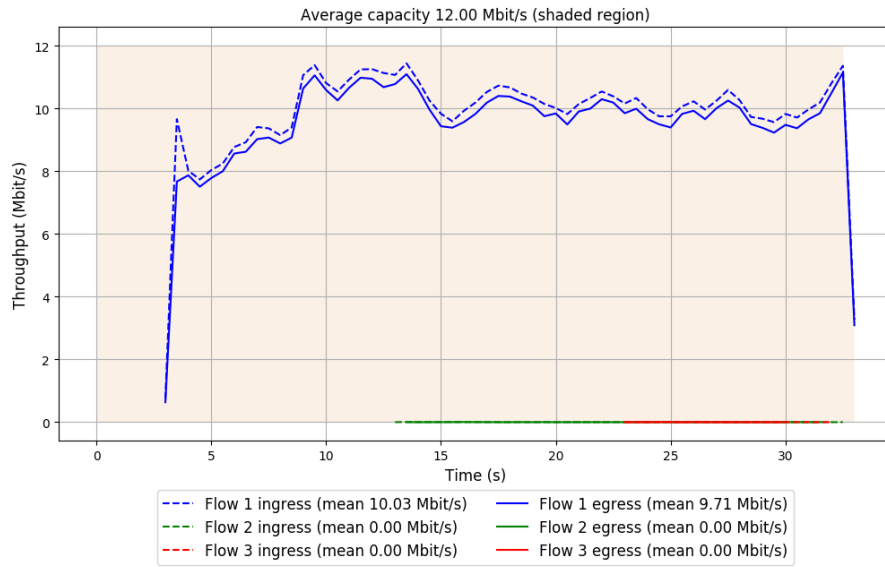
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 12.607 ms

Loss rate: 35.95%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-20 17:02:36

End at: 2018-03-20 17:03:06

Below is generated by plot.py at 2018-03-20 17:27:28

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 8.27 Mbit/s (69.0% utilization)

95th percentile per-packet one-way delay: 11.883 ms

Loss rate: 16.08%

-- Flow 1:

Average throughput: 7.03 Mbit/s

95th percentile per-packet one-way delay: 11.832 ms

Loss rate: 11.08%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 12.199 ms

Loss rate: 35.61%

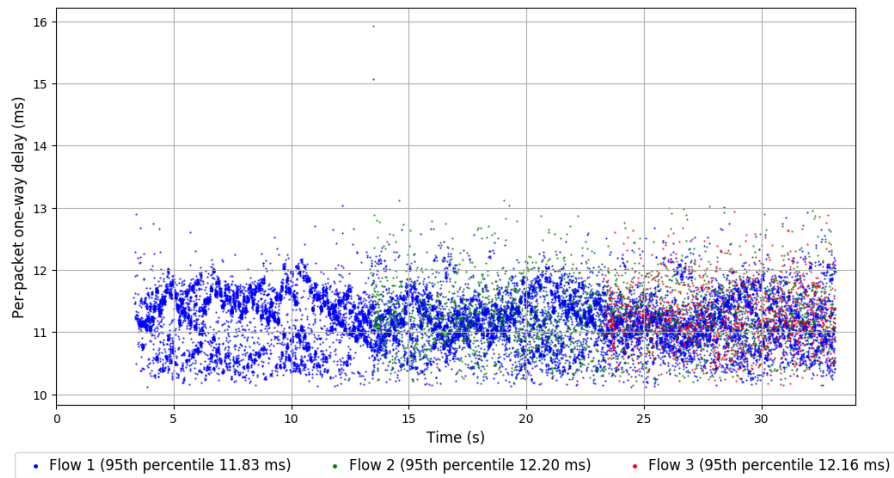
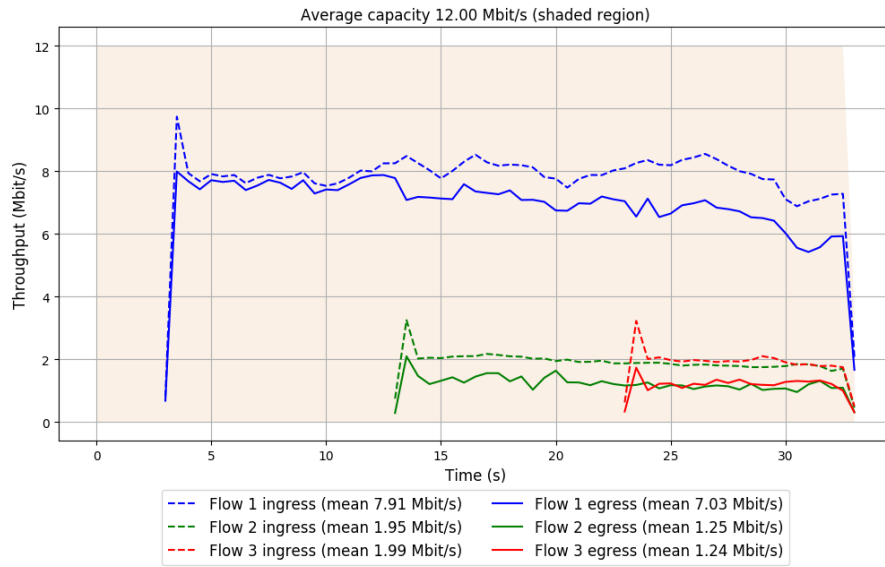
-- Flow 3:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 12.162 ms

Loss rate: 37.76%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-20 17:12:53

End at: 2018-03-20 17:13:23

Below is generated by plot.py at 2018-03-20 17:27:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 9.13 Mbit/s (76.1% utilization)

95th percentile per-packet one-way delay: 11.953 ms

Loss rate: 14.56%

-- Flow 1:

Average throughput: 8.16 Mbit/s

95th percentile per-packet one-way delay: 11.921 ms

Loss rate: 9.80%

-- Flow 2:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 12.318 ms

Loss rate: 41.02%

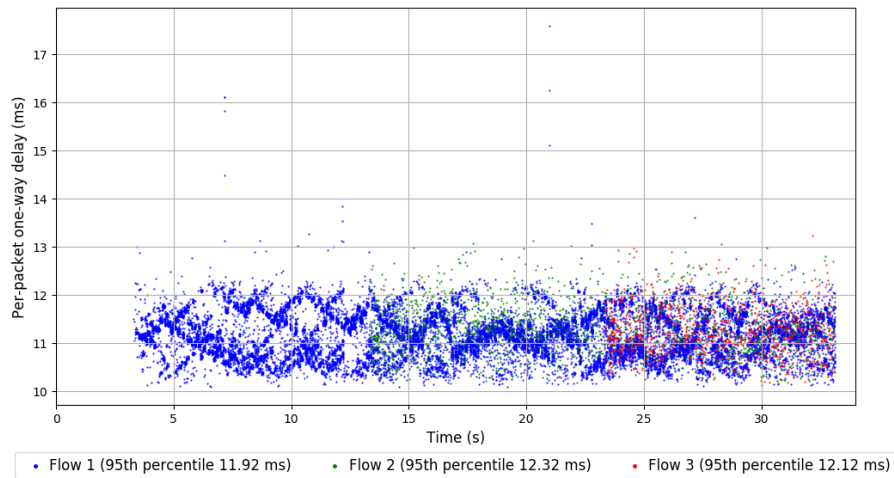
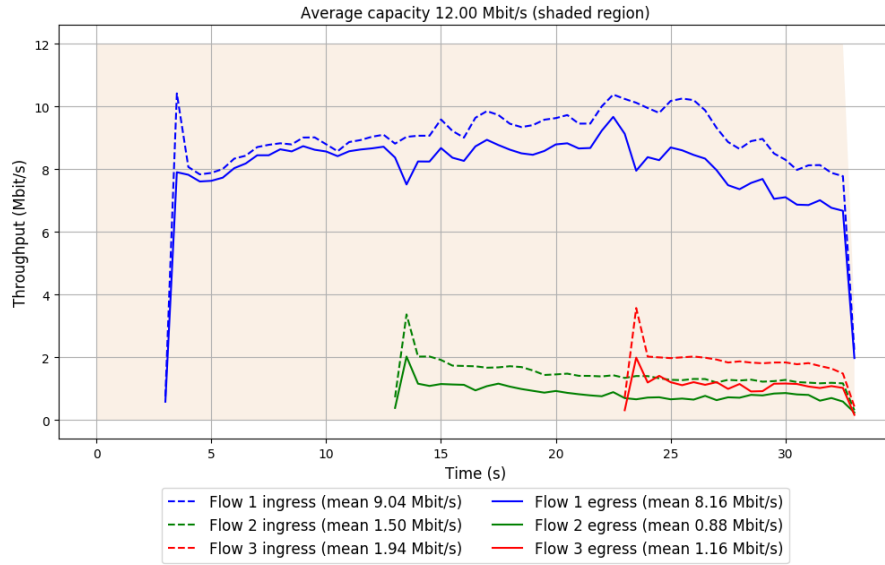
-- Flow 3:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 12.115 ms

Loss rate: 40.69%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-03-20 17:23:13

End at: 2018-03-20 17:23:43

Below is generated by plot.py at 2018-03-20 17:27:36

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.83 Mbit/s (40.3% utilization)

95th percentile per-packet one-way delay: 11.973 ms

Loss rate: 12.87%

-- Flow 1:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 11.955 ms

Loss rate: 9.35%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 12.008 ms

Loss rate: 19.35%

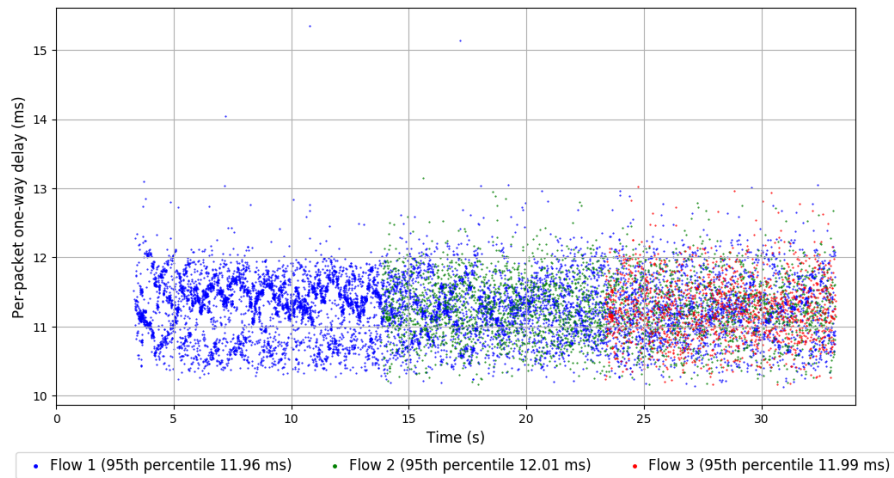
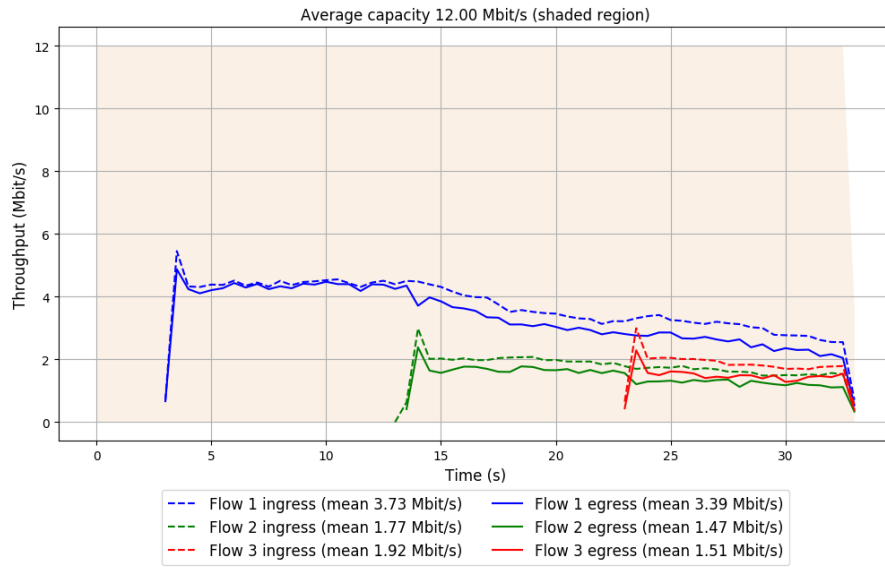
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 11.987 ms

Loss rate: 21.58%

Run 10: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-03-20 15:42:48

End at: 2018-03-20 15:43:18

Below is generated by plot.py at 2018-03-20 17:27:40

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.41 Mbit/s (45.1% utilization)

95th percentile per-packet one-way delay: 11.983 ms

Loss rate: 15.07%

-- Flow 1:

Average throughput: 3.08 Mbit/s

95th percentile per-packet one-way delay: 11.978 ms

Loss rate: 12.59%

-- Flow 2:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 11.987 ms

Loss rate: 16.42%

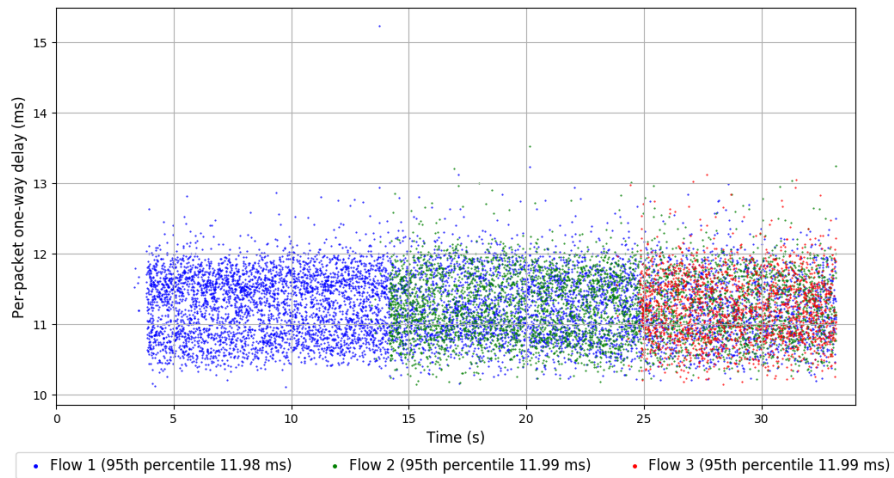
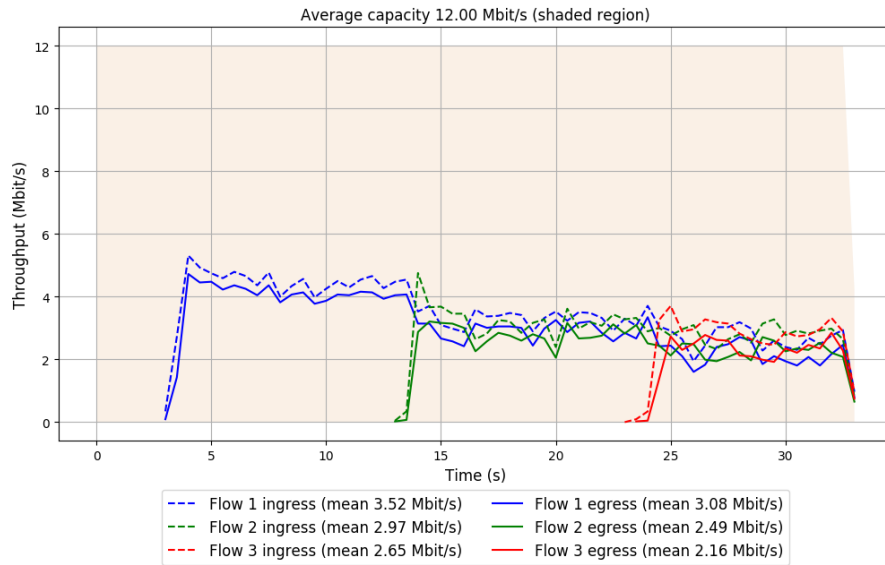
-- Flow 3:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 11.990 ms

Loss rate: 22.04%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-20 15:53:05

End at: 2018-03-20 15:53:35

Below is generated by plot.py at 2018-03-20 17:27:43

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.43 Mbit/s (45.3% utilization)

95th percentile per-packet one-way delay: 11.958 ms

Loss rate: 15.28%

-- Flow 1:

Average throughput: 3.03 Mbit/s

95th percentile per-packet one-way delay: 11.935 ms

Loss rate: 12.78%

-- Flow 2:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 11.980 ms

Loss rate: 17.21%

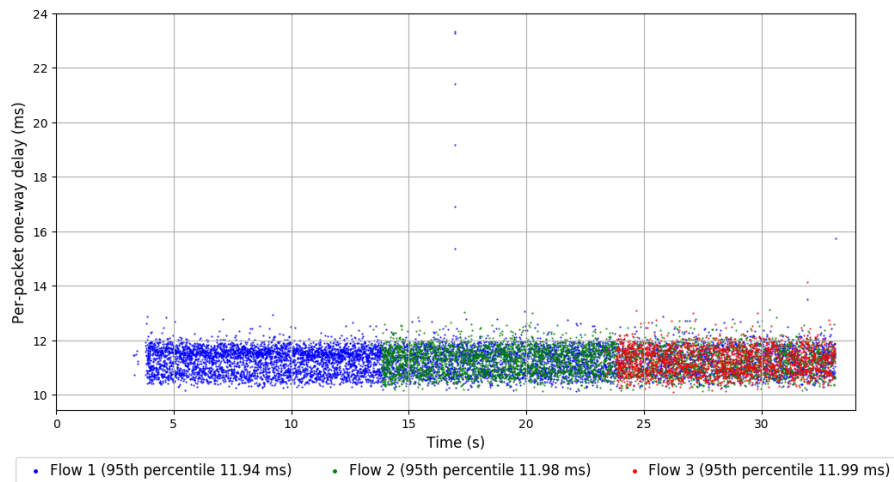
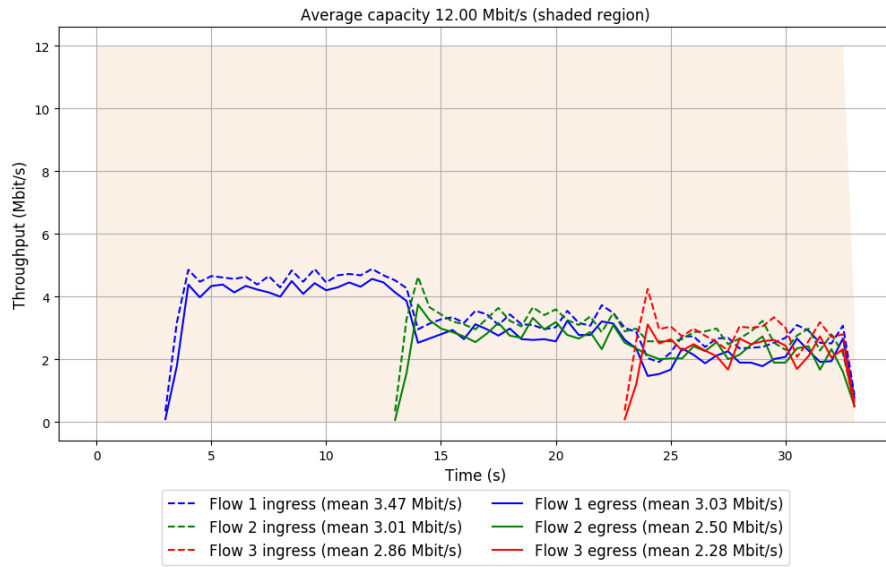
-- Flow 3:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 11.995 ms

Loss rate: 20.38%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-20 16:03:28

End at: 2018-03-20 16:03:58

Below is generated by plot.py at 2018-03-20 17:27:43

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.39 Mbit/s (44.9% utilization)

95th percentile per-packet one-way delay: 11.977 ms

Loss rate: 15.48%

-- Flow 1:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 11.947 ms

Loss rate: 13.67%

-- Flow 2:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 12.017 ms

Loss rate: 16.48%

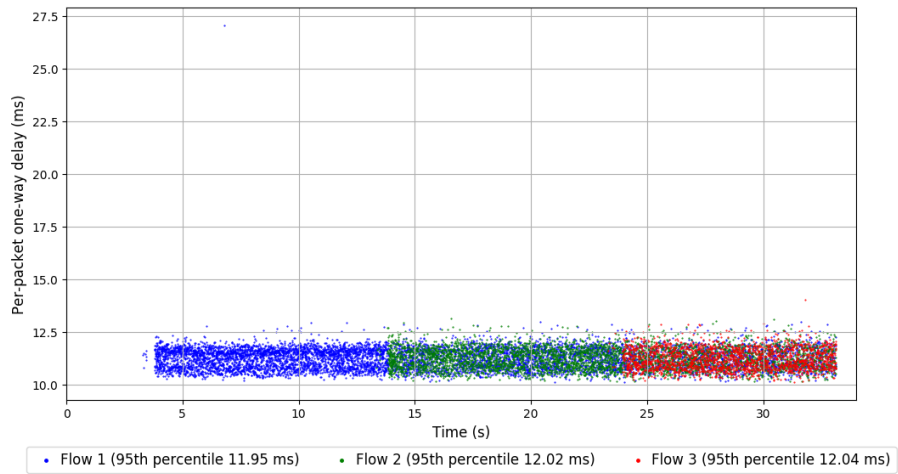
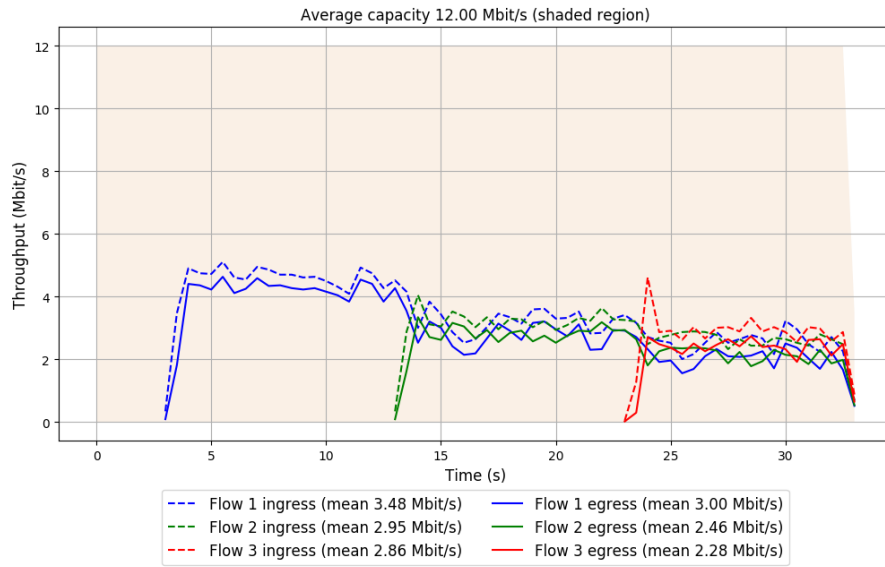
-- Flow 3:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 12.036 ms

Loss rate: 20.13%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-20 16:13:46

End at: 2018-03-20 16:14:16

Below is generated by plot.py at 2018-03-20 17:27:44

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.34 Mbit/s (44.5% utilization)

95th percentile per-packet one-way delay: 11.985 ms

Loss rate: 15.04%

-- Flow 1:

Average throughput: 2.99 Mbit/s

95th percentile per-packet one-way delay: 11.970 ms

Loss rate: 12.73%

-- Flow 2:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 11.994 ms

Loss rate: 16.64%

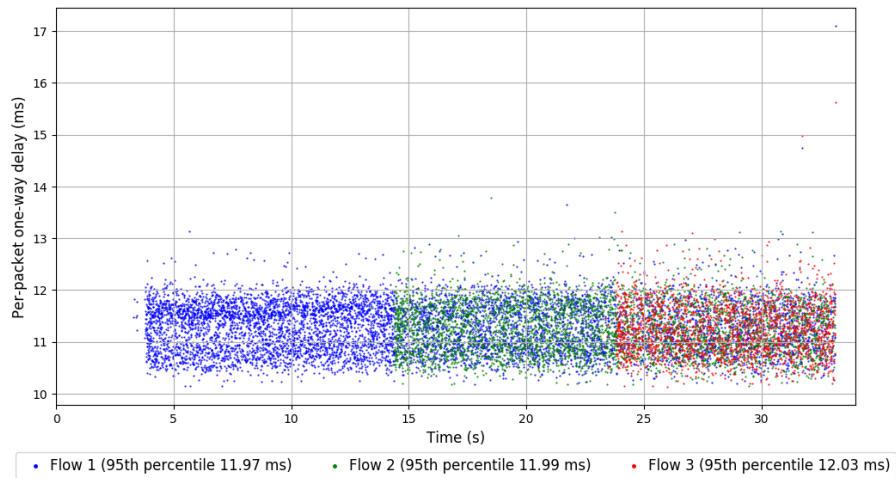
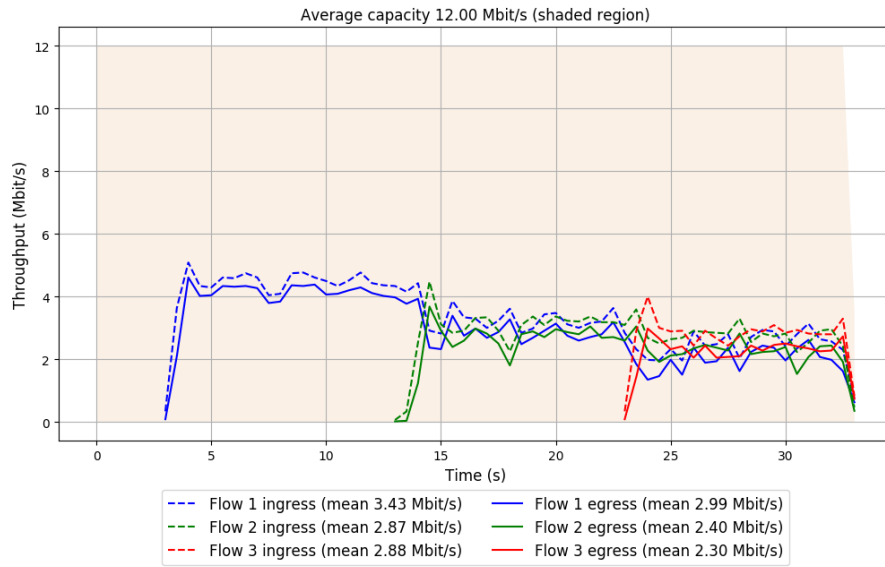
-- Flow 3:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 12.026 ms

Loss rate: 20.19%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-20 16:24:08

End at: 2018-03-20 16:24:38

Below is generated by plot.py at 2018-03-20 17:27:44

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.39 Mbit/s (44.9% utilization)

95th percentile per-packet one-way delay: 11.972 ms

Loss rate: 15.25%

-- Flow 1:

Average throughput: 3.02 Mbit/s

95th percentile per-packet one-way delay: 11.953 ms

Loss rate: 12.62%

-- Flow 2:

Average throughput: 2.54 Mbit/s

95th percentile per-packet one-way delay: 11.991 ms

Loss rate: 17.02%

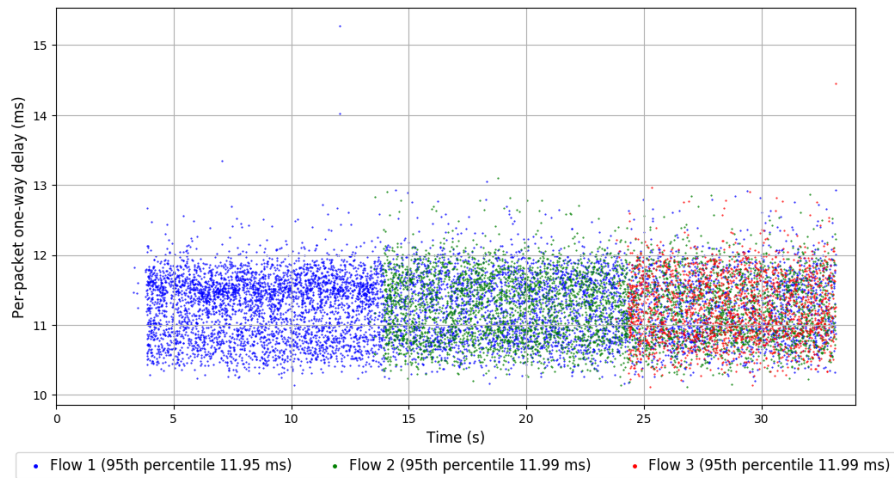
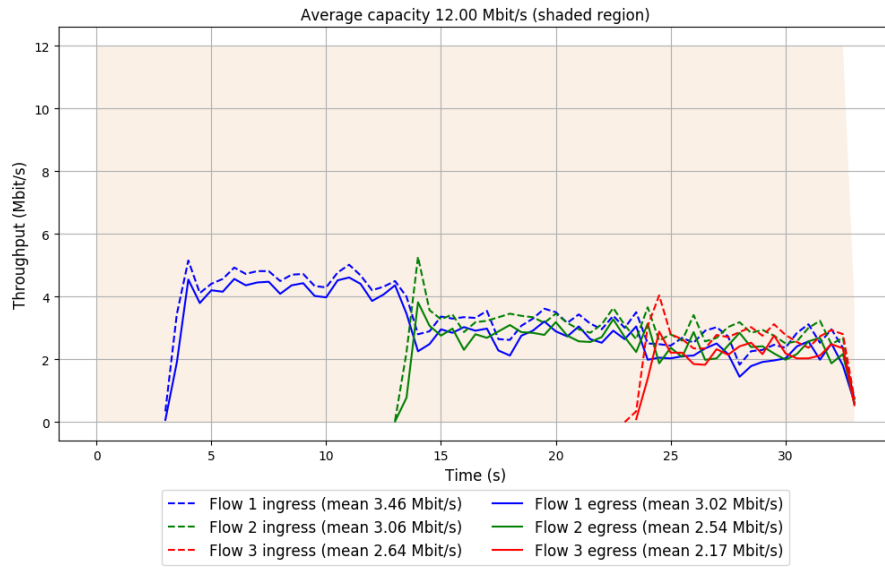
-- Flow 3:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 11.995 ms

Loss rate: 21.63%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-20 16:34:30

End at: 2018-03-20 16:35:00

Below is generated by plot.py at 2018-03-20 17:27:45

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.27 Mbit/s (43.9% utilization)

95th percentile per-packet one-way delay: 11.954 ms

Loss rate: 14.89%

-- Flow 1:

Average throughput: 3.08 Mbit/s

95th percentile per-packet one-way delay: 11.938 ms

Loss rate: 12.37%

-- Flow 2:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 11.969 ms

Loss rate: 16.64%

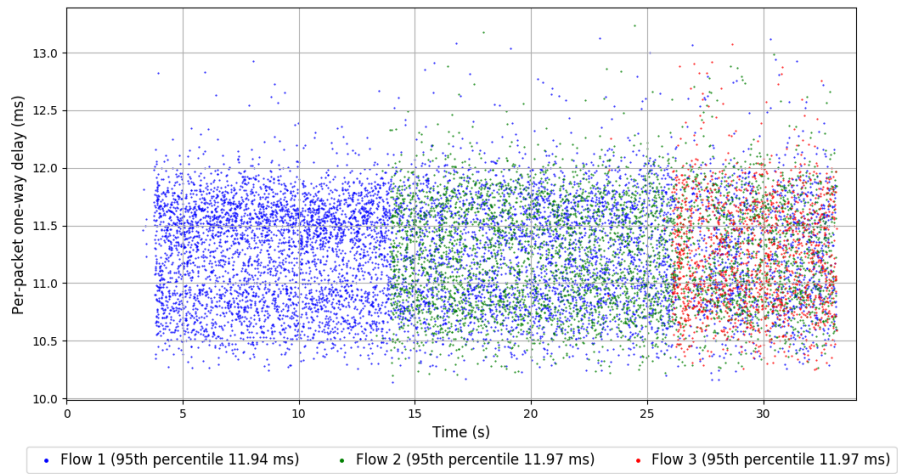
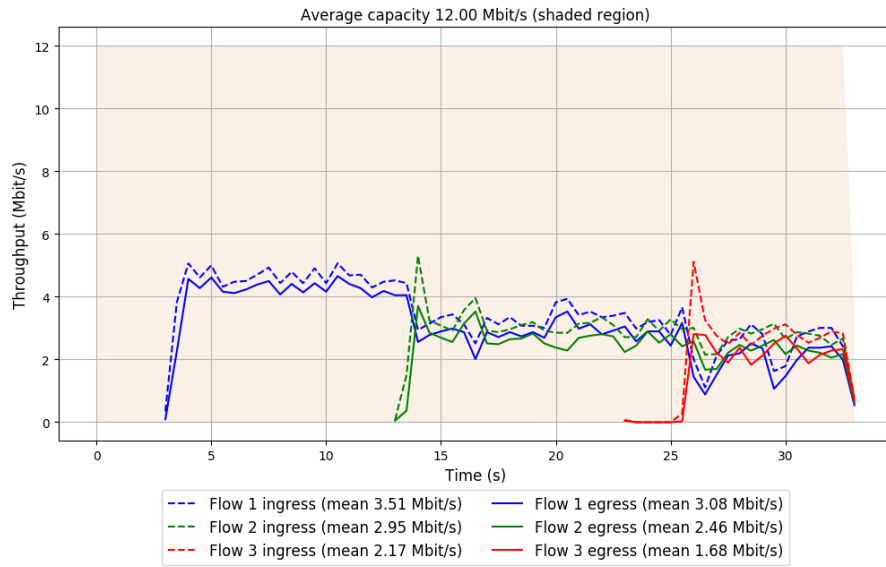
-- Flow 3:

Average throughput: 1.68 Mbit/s

95th percentile per-packet one-way delay: 11.974 ms

Loss rate: 22.48%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-20 16:44:46

End at: 2018-03-20 16:45:16

Below is generated by plot.py at 2018-03-20 17:27:54

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.32 Mbit/s (44.3% utilization)

95th percentile per-packet one-way delay: 11.988 ms

Loss rate: 15.15%

-- Flow 1:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 11.956 ms

Loss rate: 12.94%

-- Flow 2:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 12.033 ms

Loss rate: 16.88%

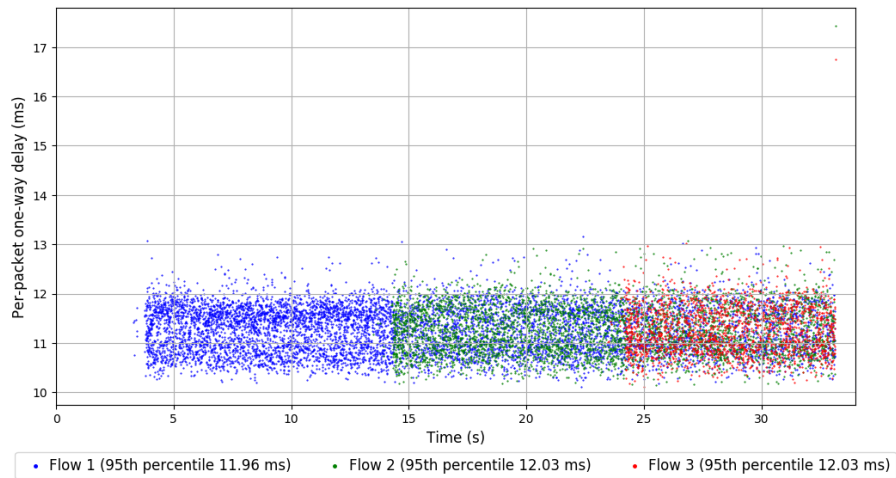
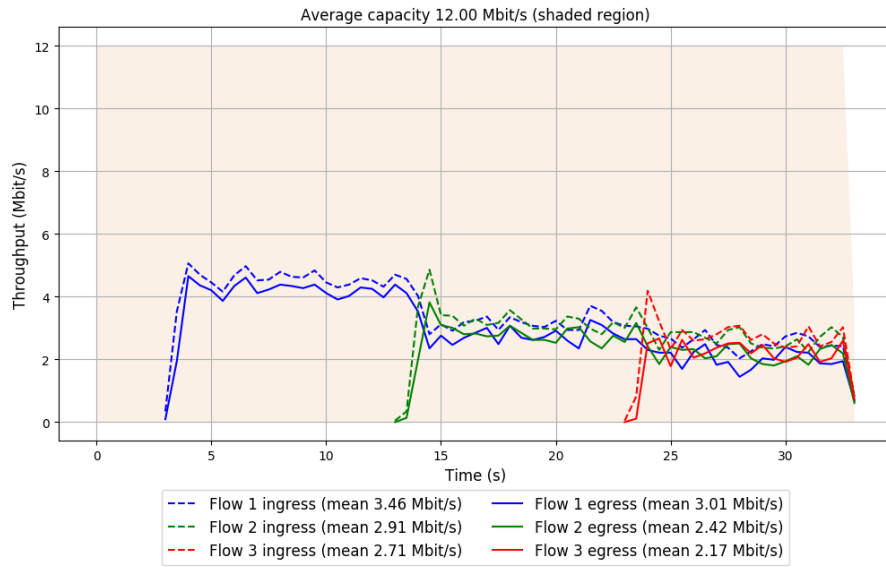
-- Flow 3:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 12.033 ms

Loss rate: 20.03%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-20 16:55:08

End at: 2018-03-20 16:55:38

Below is generated by plot.py at 2018-03-20 17:27:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.33 Mbit/s (44.4% utilization)

95th percentile per-packet one-way delay: 11.976 ms

Loss rate: 14.73%

-- Flow 1:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 11.965 ms

Loss rate: 11.99%

-- Flow 2:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 11.978 ms

Loss rate: 16.95%

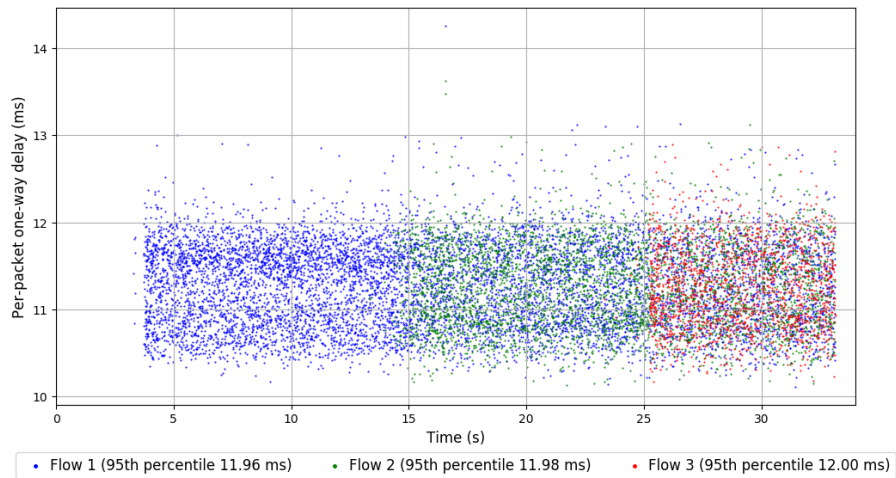
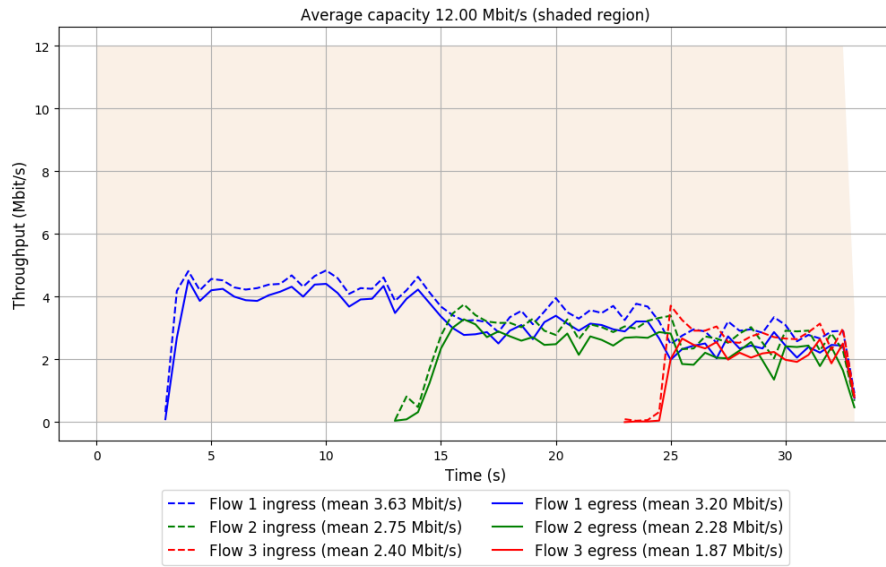
-- Flow 3:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 12.004 ms

Loss rate: 22.24%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-20 17:05:27

End at: 2018-03-20 17:05:57

Below is generated by plot.py at 2018-03-20 17:27:59

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.31 Mbit/s (44.3% utilization)

95th percentile per-packet one-way delay: 11.982 ms

Loss rate: 15.74%

-- Flow 1:

Average throughput: 2.97 Mbit/s

95th percentile per-packet one-way delay: 11.971 ms

Loss rate: 13.52%

-- Flow 2:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 11.998 ms

Loss rate: 16.84%

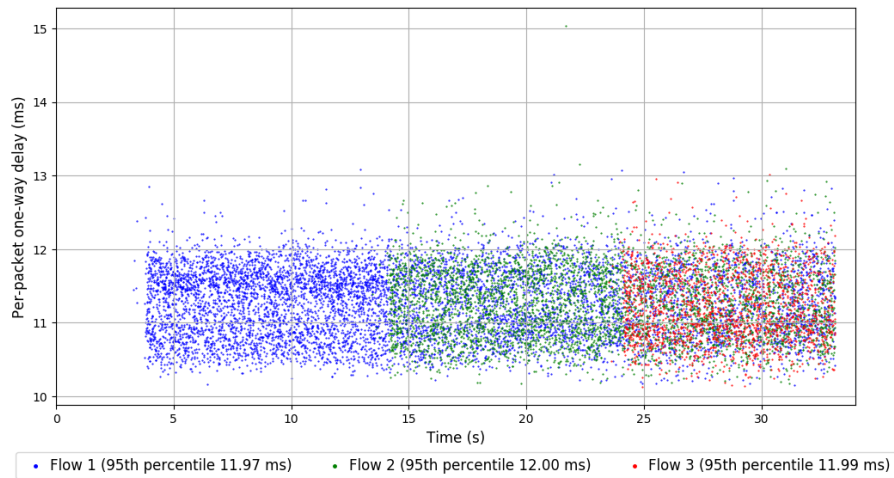
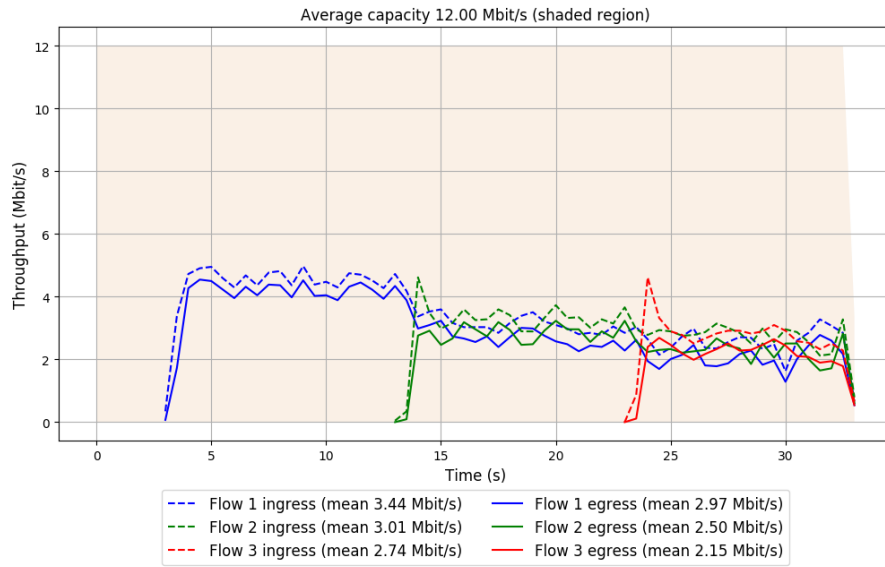
-- Flow 3:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 11.995 ms

Loss rate: 21.88%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-03-20 17:15:44

End at: 2018-03-20 17:16:14

Below is generated by plot.py at 2018-03-20 17:28:00

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.36 Mbit/s (44.6% utilization)

95th percentile per-packet one-way delay: 11.977 ms

Loss rate: 15.57%

-- Flow 1:

Average throughput: 3.03 Mbit/s

95th percentile per-packet one-way delay: 11.958 ms

Loss rate: 13.06%

-- Flow 2:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 11.997 ms

Loss rate: 17.70%

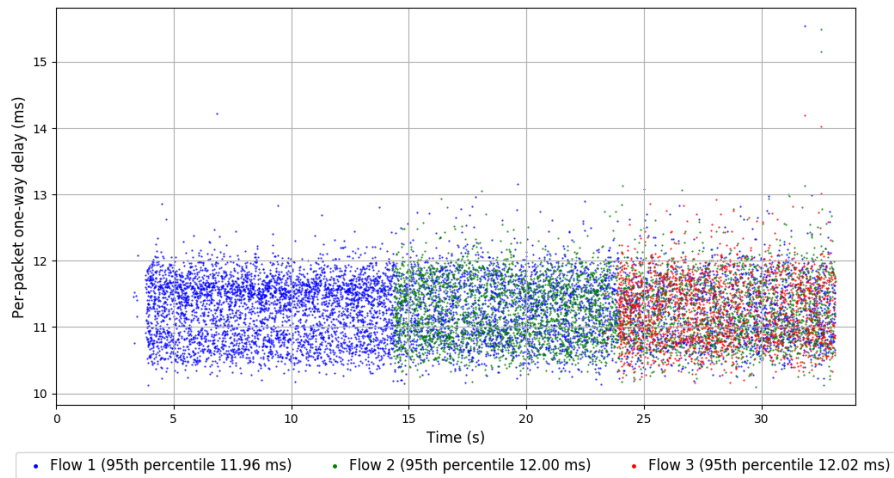
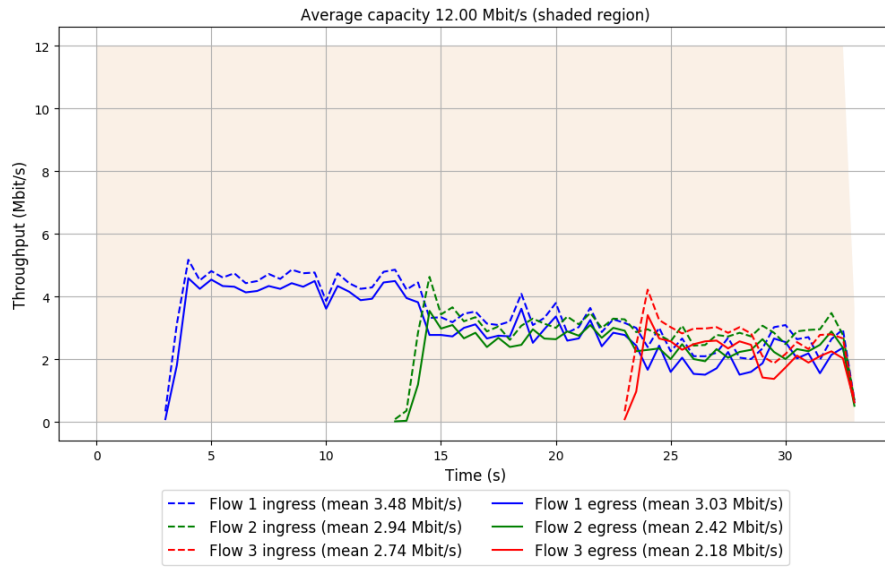
-- Flow 3:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 12.015 ms

Loss rate: 20.69%

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2018-03-20 15:51:23

End at: 2018-03-20 15:51:53

Below is generated by plot.py at 2018-03-20 17:28:00

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.31 Mbit/s (2.6% utilization)

95th percentile per-packet one-way delay: 11.715 ms

Loss rate: 4.43%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.762 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 11.571 ms

Loss rate: 40.07%

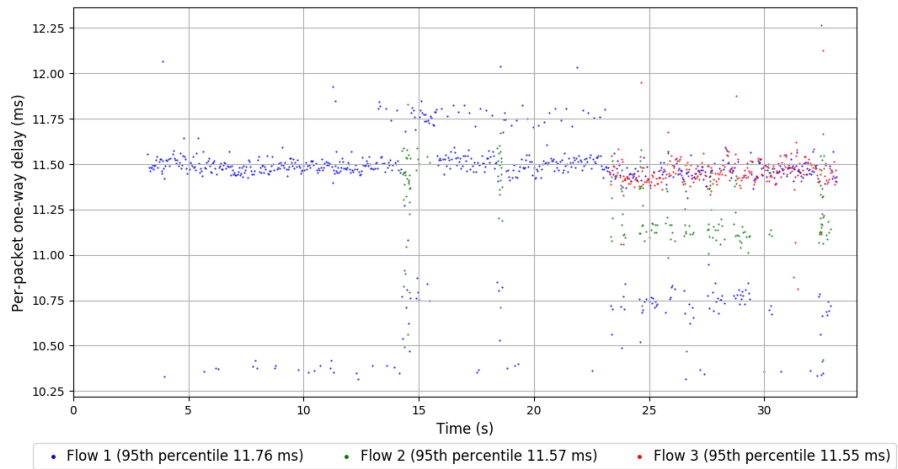
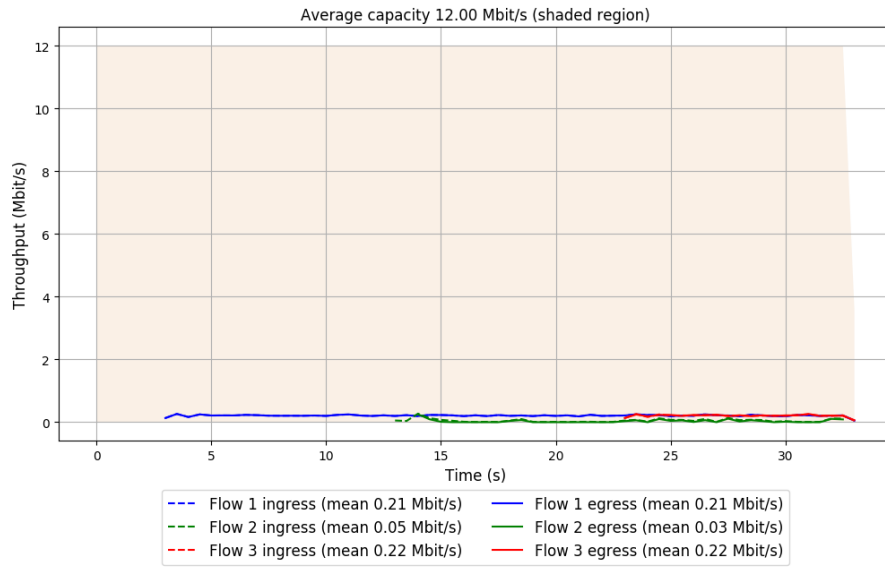
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.551 ms

Loss rate: 0.00%

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-03-20 16:01:46

End at: 2018-03-20 16:02:16

Below is generated by plot.py at 2018-03-20 17:28:00

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.43 Mbit/s (3.6% utilization)

95th percentile per-packet one-way delay: 11.557 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.573 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.486 ms

Loss rate: 0.00%

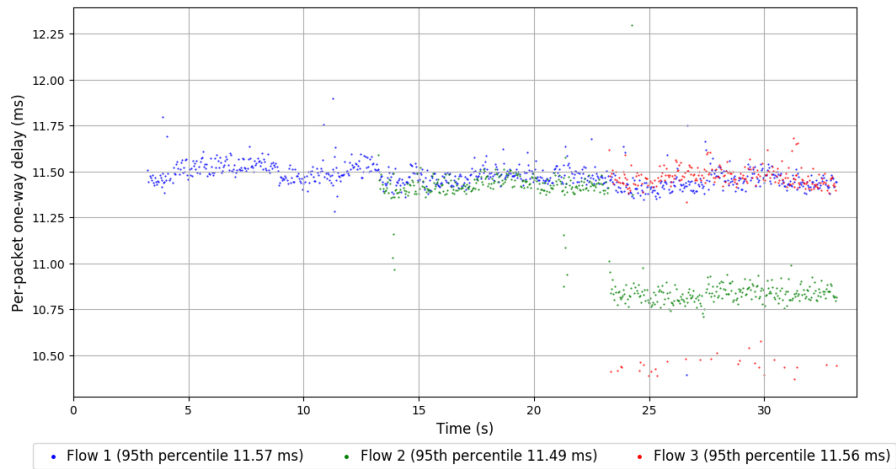
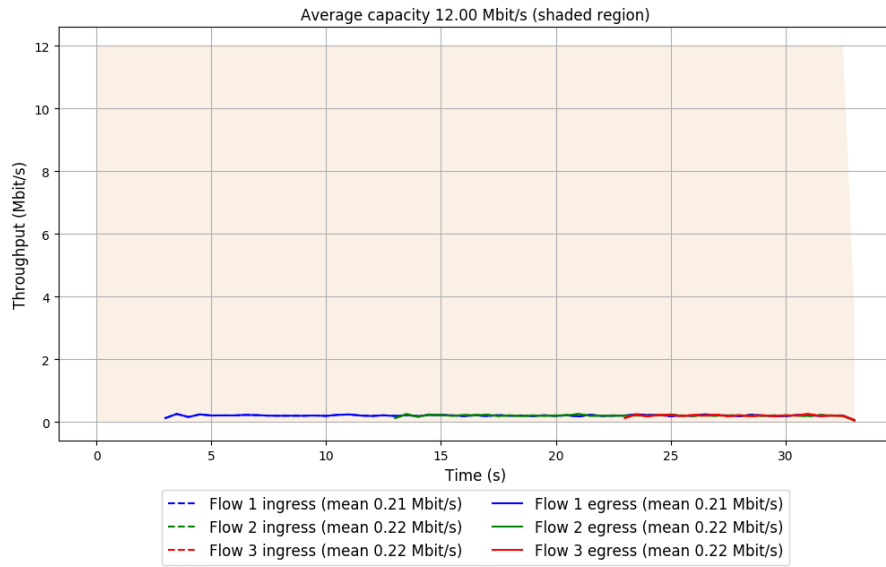
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.556 ms

Loss rate: 0.00%

Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-03-20 16:12:04

End at: 2018-03-20 16:12:34

Below is generated by plot.py at 2018-03-20 17:28:00

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.43 Mbit/s (3.6% utilization)

95th percentile per-packet one-way delay: 11.615 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.543 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.646 ms

Loss rate: 0.00%

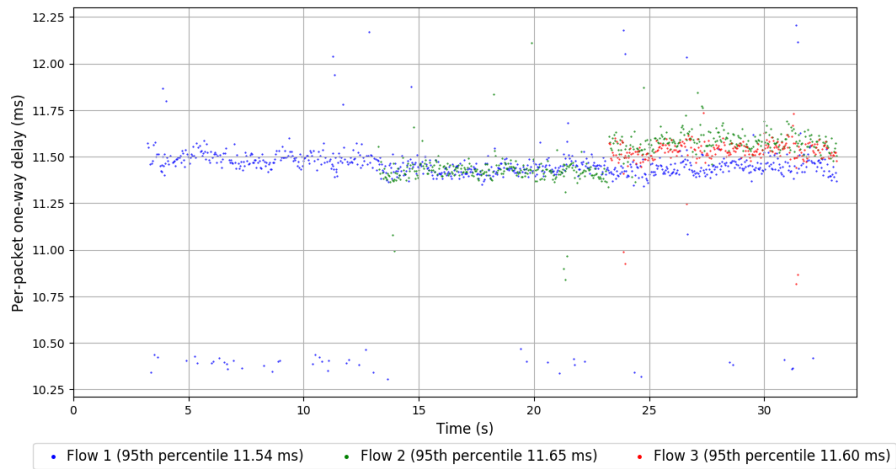
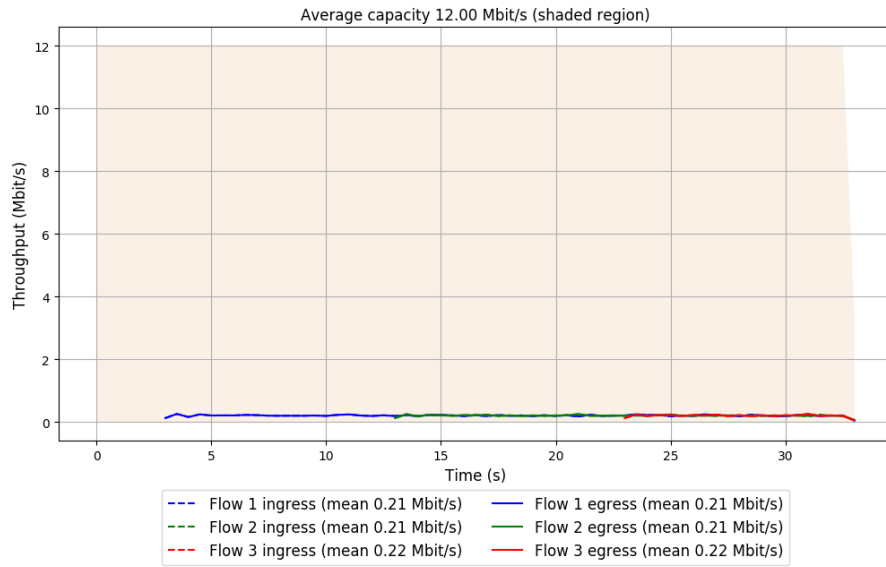
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.597 ms

Loss rate: 0.00%

Run 3: Report of SCReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-03-20 16:22:27

End at: 2018-03-20 16:22:57

Below is generated by plot.py at 2018-03-20 17:28:00

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.43 Mbit/s (3.6% utilization)

95th percentile per-packet one-way delay: 11.608 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.541 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.561 ms

Loss rate: 0.00%

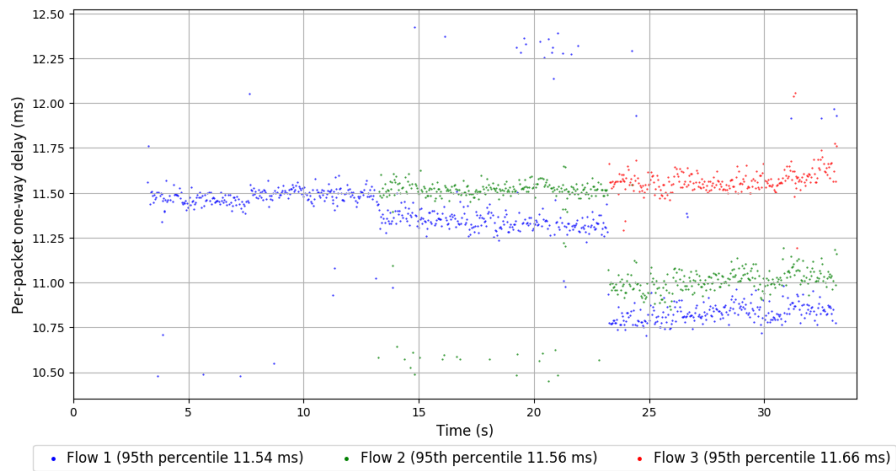
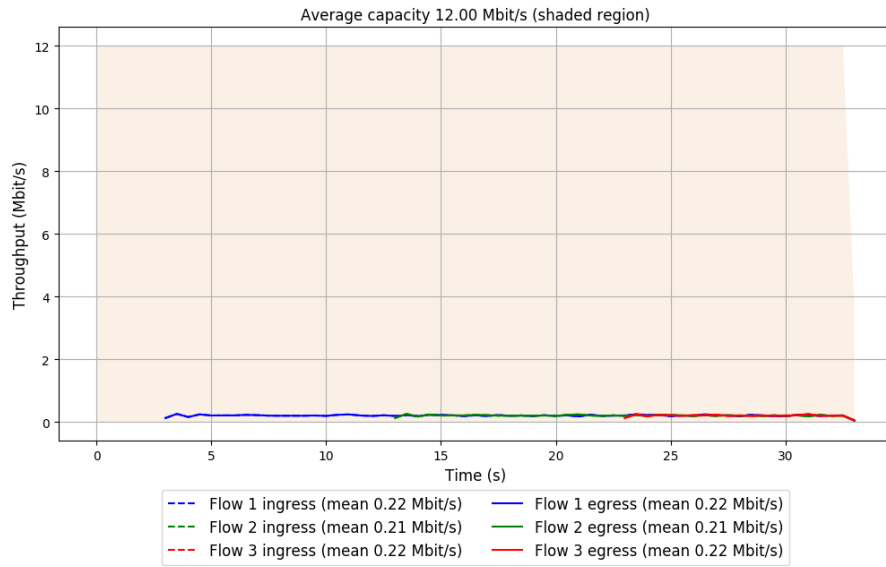
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.664 ms

Loss rate: 0.00%

Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-03-20 16:32:48

End at: 2018-03-20 16:33:18

Below is generated by plot.py at 2018-03-20 17:28:01

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.20 Mbit/s (1.6% utilization)

95th percentile per-packet one-way delay: 12.034 ms

Loss rate: 8.84%

-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 12.009 ms

Loss rate: 8.26%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 12.070 ms

Loss rate: 21.63%

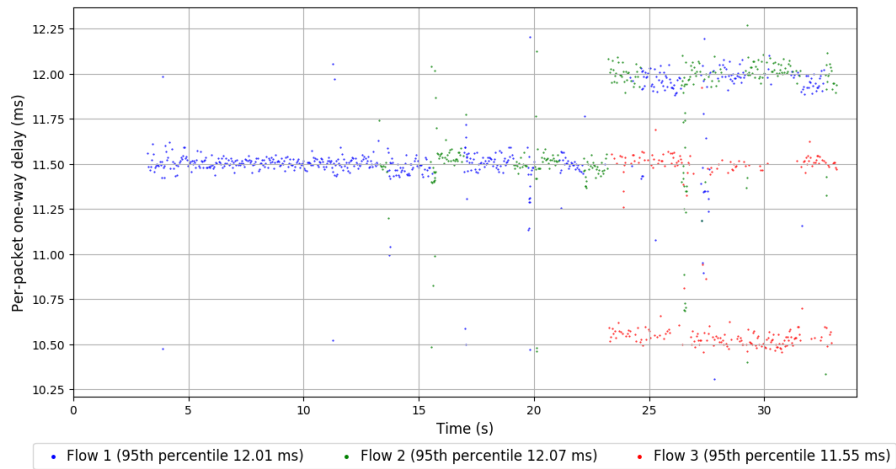
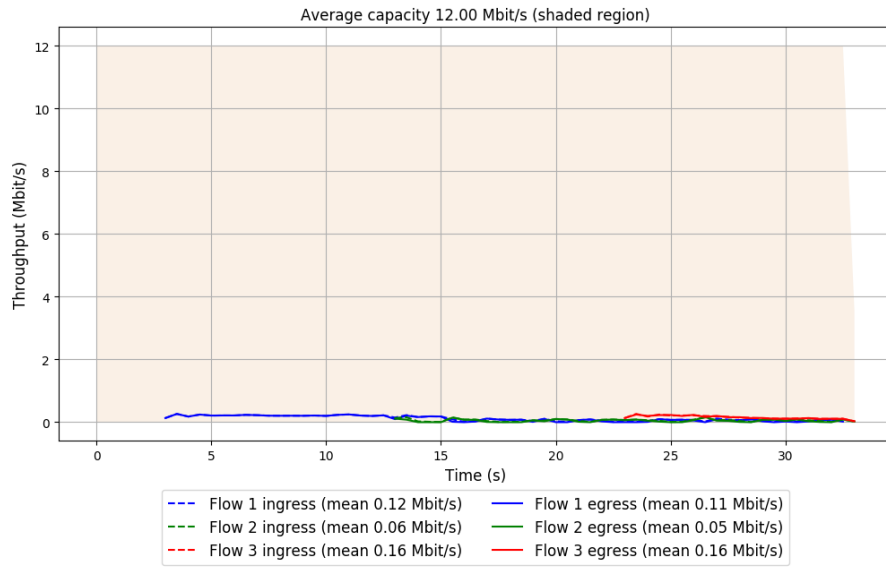
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 11.551 ms

Loss rate: 0.55%

Run 5: Report of SCReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-03-20 16:43:05

End at: 2018-03-20 16:43:35

Below is generated by plot.py at 2018-03-20 17:28:05

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.43 Mbit/s (3.6% utilization)

95th percentile per-packet one-way delay: 11.595 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.612 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.559 ms

Loss rate: 0.00%

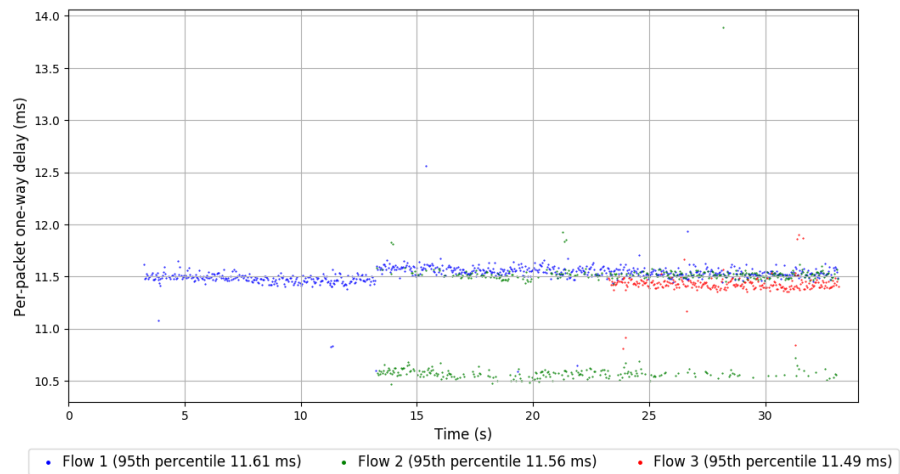
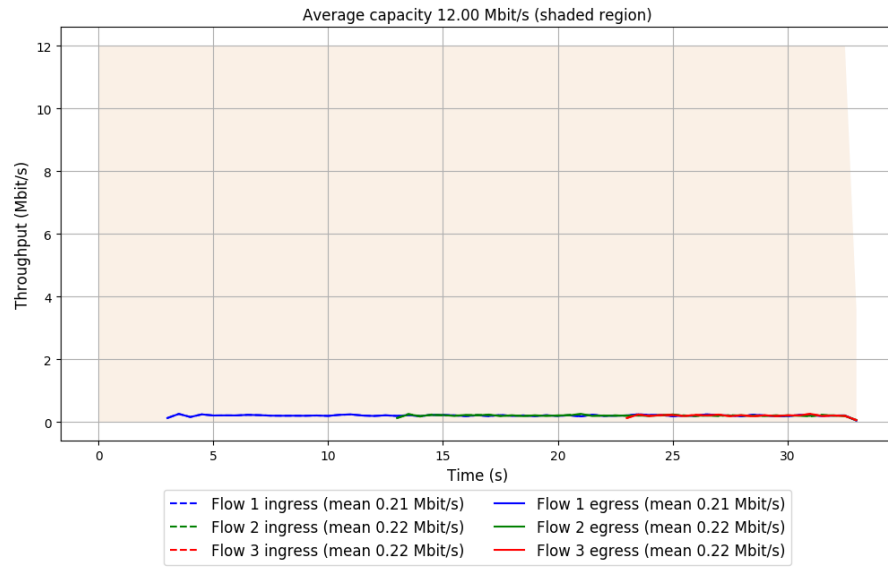
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.493 ms

Loss rate: 0.00%

Run 6: Report of SCReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2018-03-20 16:53:27

End at: 2018-03-20 16:53:57

Below is generated by plot.py at 2018-03-20 17:28:05

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.29 Mbit/s (2.4% utilization)

95th percentile per-packet one-way delay: 11.735 ms

Loss rate: 3.07%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.813 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.00 Mbit/s

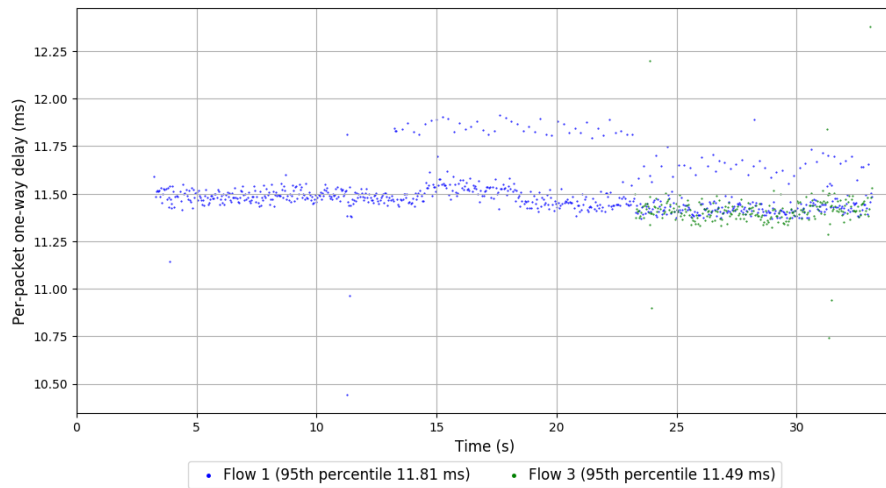
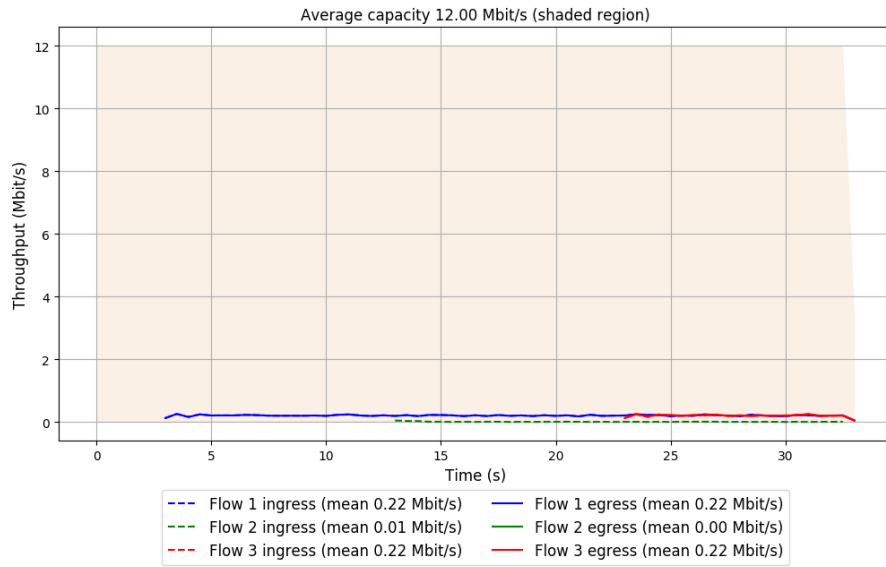
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.494 ms

Loss rate: 0.00%

Run 7: Report of SCReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-03-20 17:03:45

End at: 2018-03-20 17:04:15

Below is generated by plot.py at 2018-03-20 17:28:05

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.27 Mbit/s (2.3% utilization)

95th percentile per-packet one-way delay: 11.709 ms

Loss rate: 3.22%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.519 ms

Loss rate: 10.49%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.747 ms

Loss rate: 0.19%

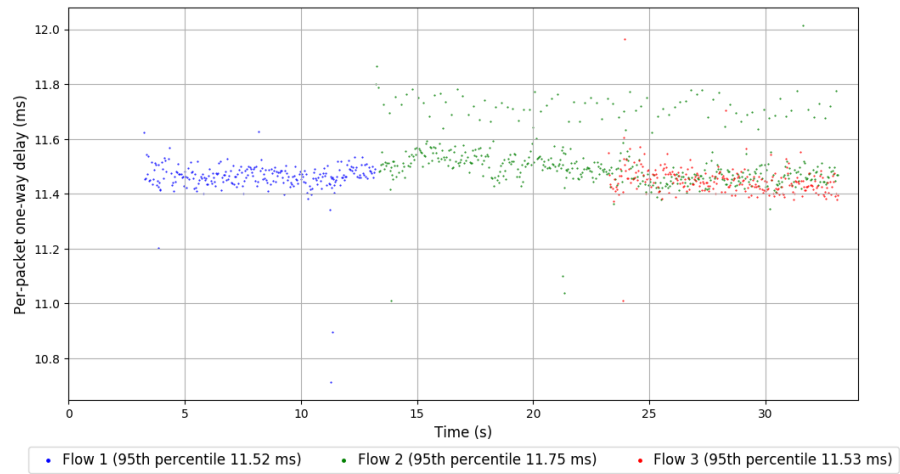
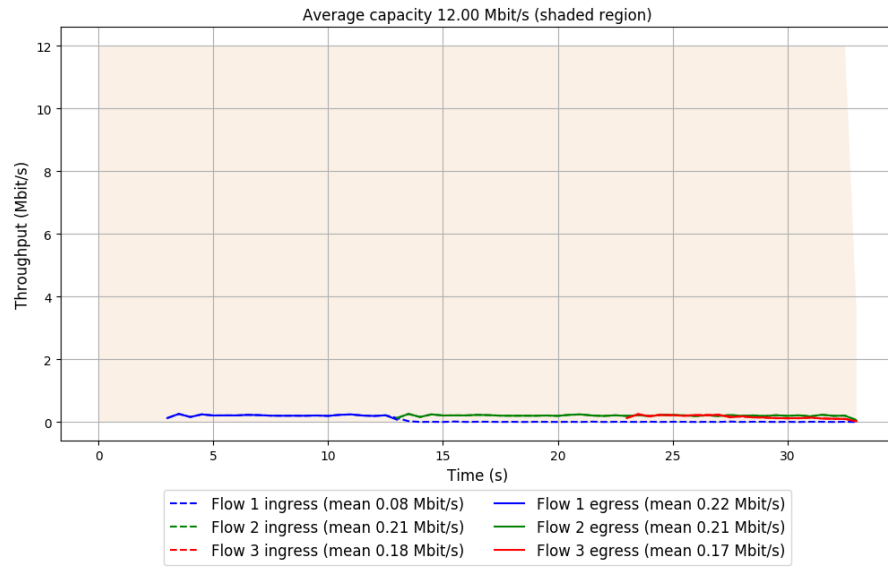
-- Flow 3:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 11.529 ms

Loss rate: 0.50%

Run 8: Report of SCReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-03-20 17:14:02

End at: 2018-03-20 17:14:32

Below is generated by plot.py at 2018-03-20 17:28:06

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.36 Mbit/s (3.0% utilization)

95th percentile per-packet one-way delay: 11.651 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.578 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

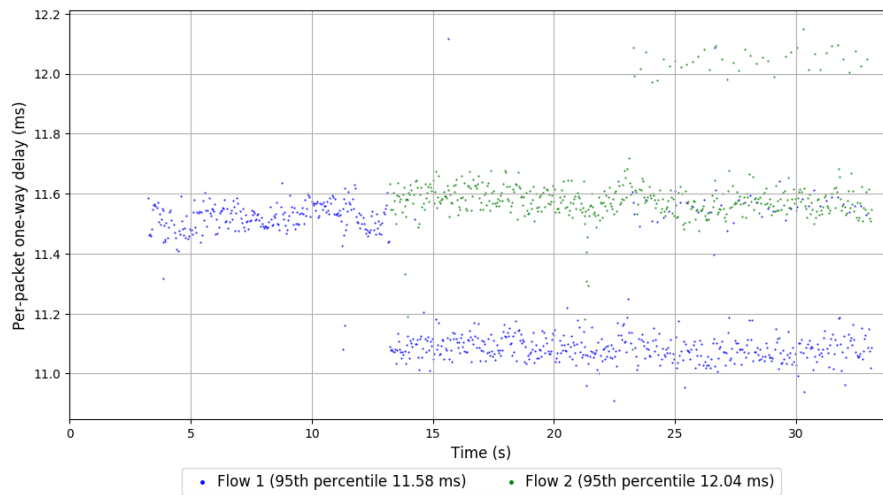
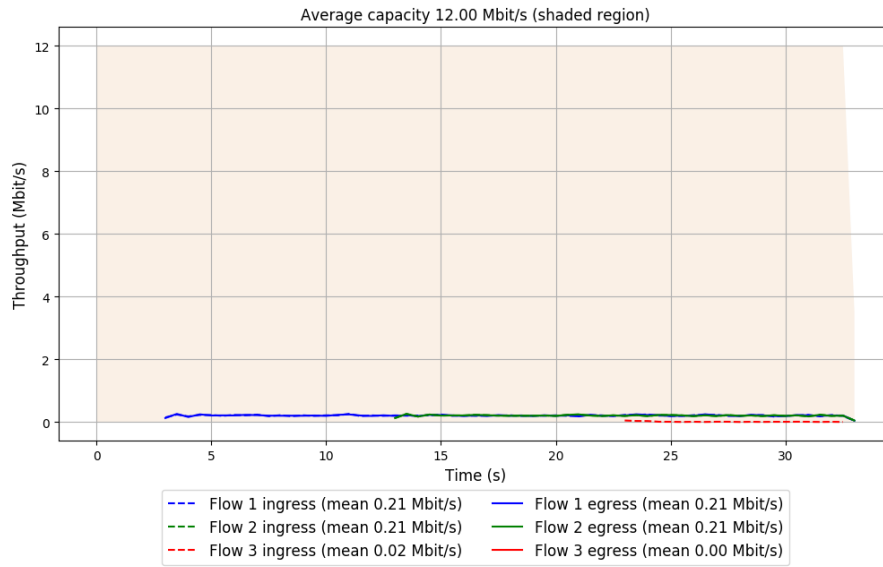
95th percentile per-packet one-way delay: 12.035 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.00 Mbit/s

Run 9: Report of SCReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2018-03-20 17:24:21

End at: 2018-03-20 17:24:51

Below is generated by plot.py at 2018-03-20 17:28:08

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.43 Mbit/s (3.6% utilization)

95th percentile per-packet one-way delay: 11.575 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.566 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.541 ms

Loss rate: 0.00%

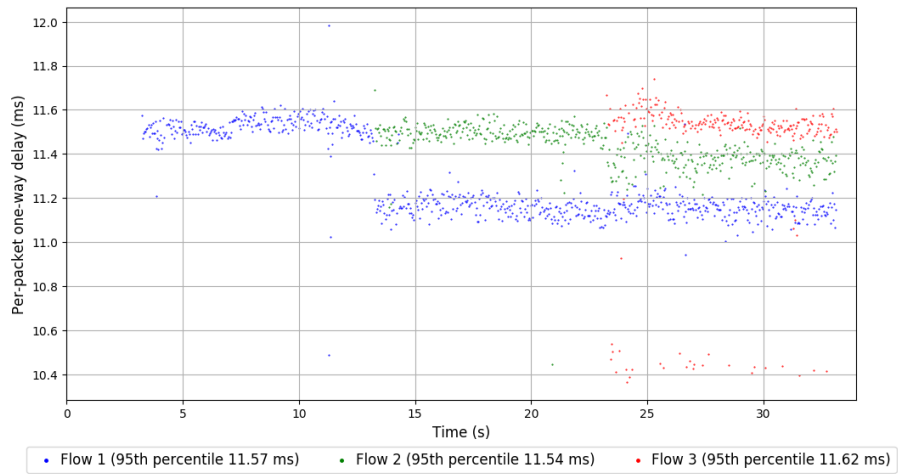
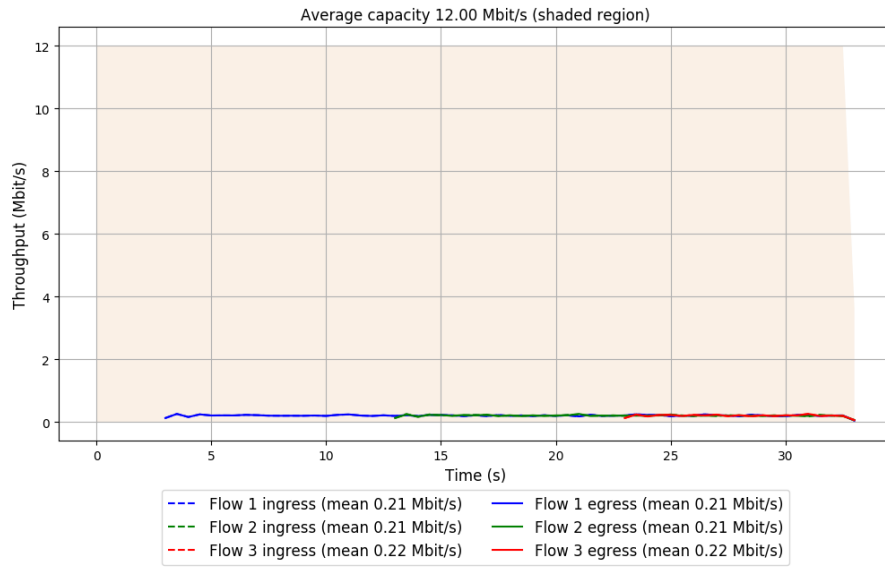
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.624 ms

Loss rate: 0.00%

Run 10: Report of SCReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-03-20 15:47:58

End at: 2018-03-20 15:48:29

Below is generated by plot.py at 2018-03-20 17:28:10

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.20 Mbit/s (10.0% utilization)

95th percentile per-packet one-way delay: 11.865 ms

Loss rate: 35.89%

-- Flow 1:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 11.836 ms

Loss rate: 31.32%

-- Flow 2:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 11.842 ms

Loss rate: 38.41%

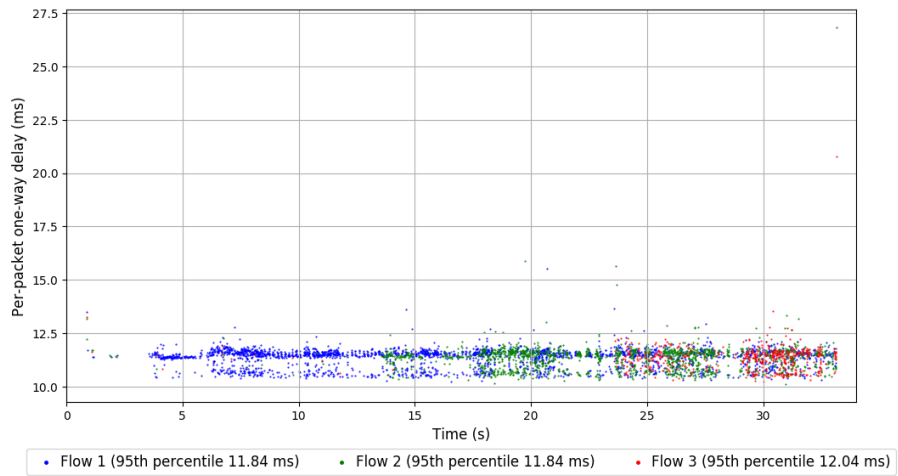
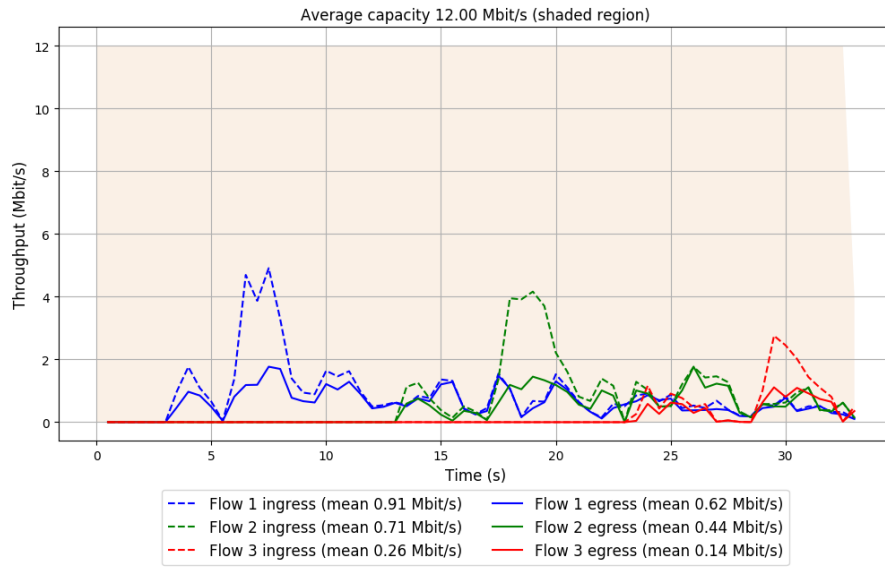
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 12.038 ms

Loss rate: 44.91%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-20 15:58:21

End at: 2018-03-20 15:58:51

Below is generated by plot.py at 2018-03-20 17:28:12

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.15 Mbit/s (9.6% utilization)

95th percentile per-packet one-way delay: 11.925 ms

Loss rate: 40.38%

-- Flow 1:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 11.881 ms

Loss rate: 38.60%

-- Flow 2:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 11.927 ms

Loss rate: 26.63%

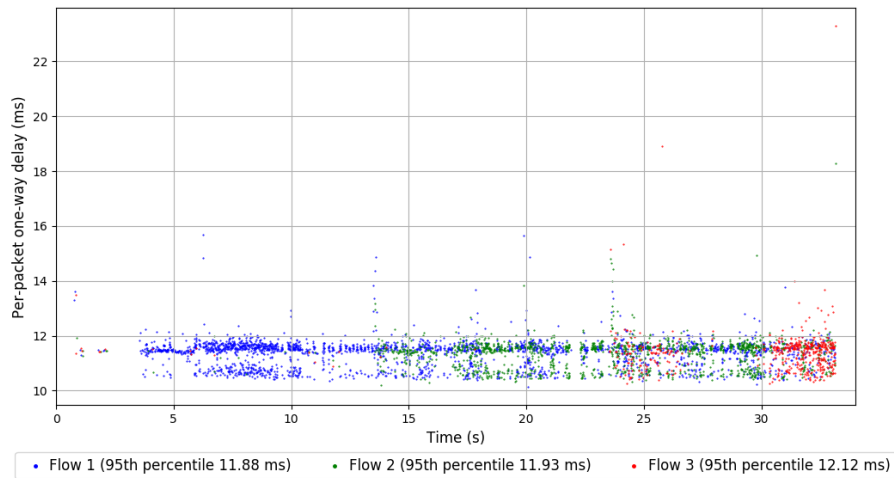
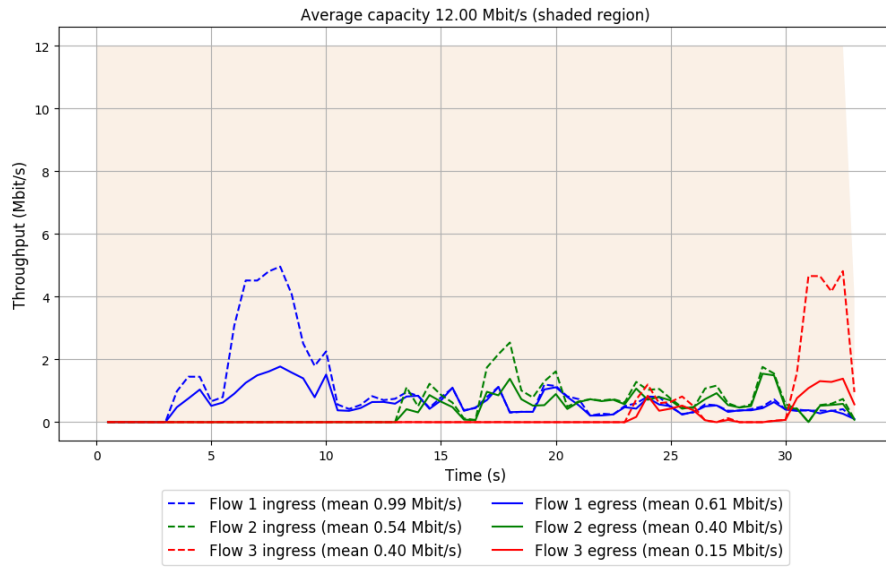
-- Flow 3:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 12.124 ms

Loss rate: 63.50%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-20 16:08:39

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

Below is generated by plot.py at 2018-03-20 17:28:16

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.24 Mbit/s (10.3% utilization)

95th percentile per-packet one-way delay: 11.959 ms

Loss rate: 52.82%

-- Flow 1:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 11.879 ms

Loss rate: 45.70%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 11.990 ms

Loss rate: 49.17%

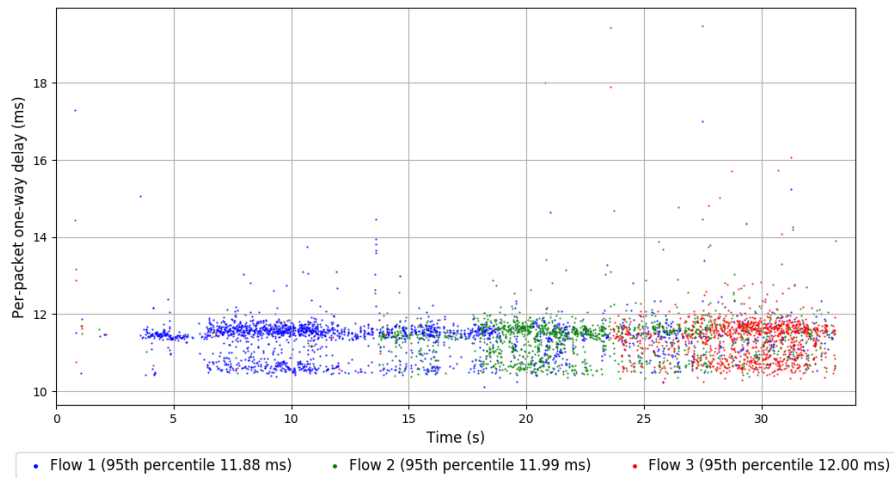
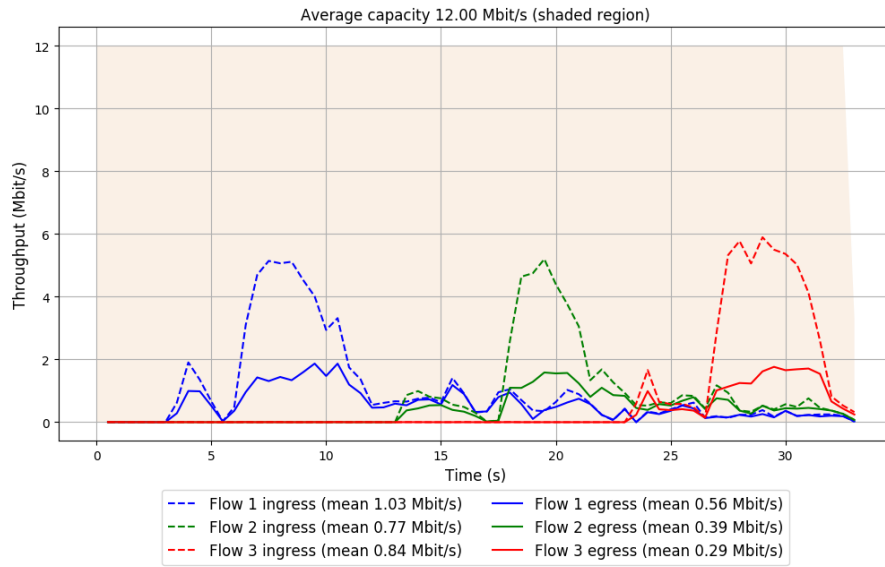
-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 12.002 ms

Loss rate: 64.95%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-20 16:19:02

End at: 2018-03-20 16:19:32

Below is generated by plot.py at 2018-03-20 17:28:17

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.14 Mbit/s (9.5% utilization)

95th percentile per-packet one-way delay: 11.912 ms

Loss rate: 44.83%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 11.852 ms

Loss rate: 39.89%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 11.950 ms

Loss rate: 45.34%

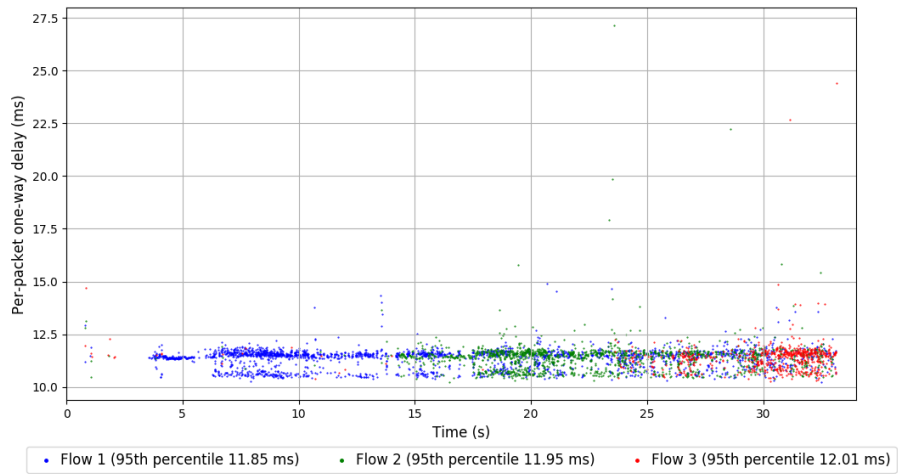
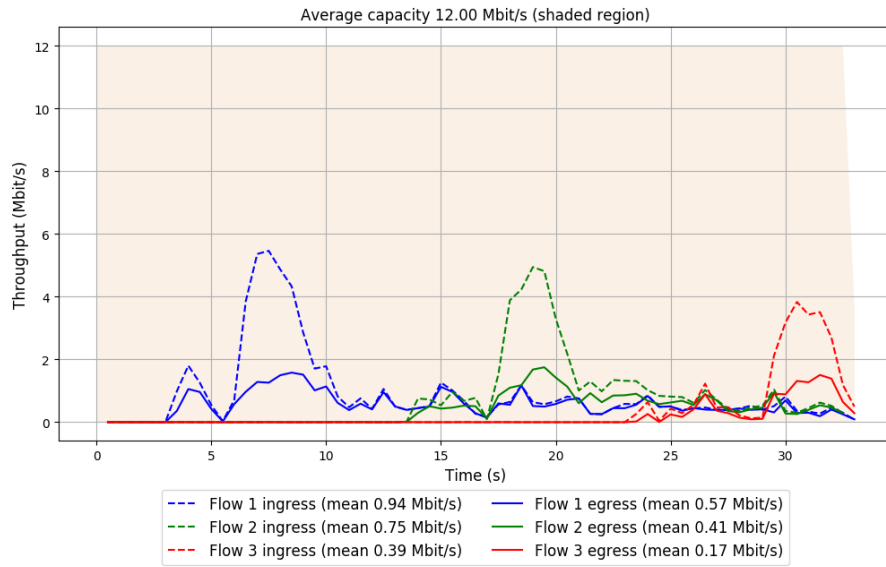
-- Flow 3:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 12.009 ms

Loss rate: 55.71%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-20 16:29:23

End at: 2018-03-20 16:29:53

Below is generated by plot.py at 2018-03-20 17:28:17

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.02 Mbit/s (8.5% utilization)

95th percentile per-packet one-way delay: 11.854 ms

Loss rate: 43.16%

-- Flow 1:

Average throughput: 0.66 Mbit/s

95th percentile per-packet one-way delay: 11.843 ms

Loss rate: 43.45%

-- Flow 2:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 11.797 ms

Loss rate: 32.76%

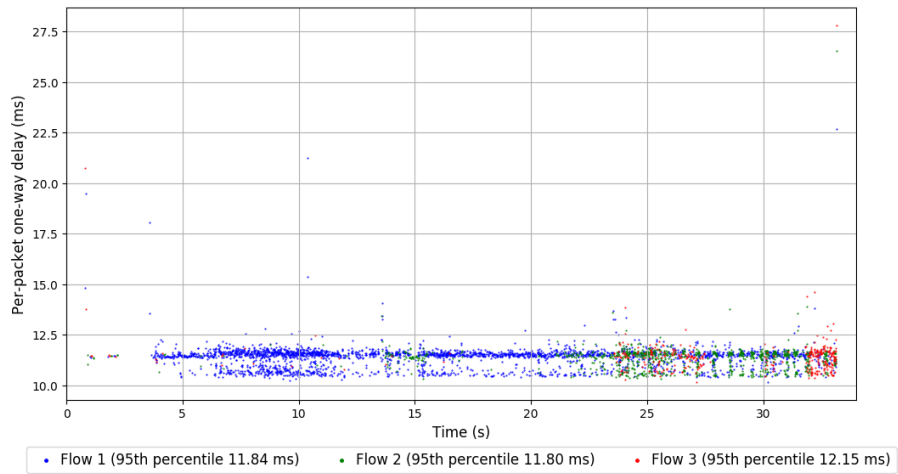
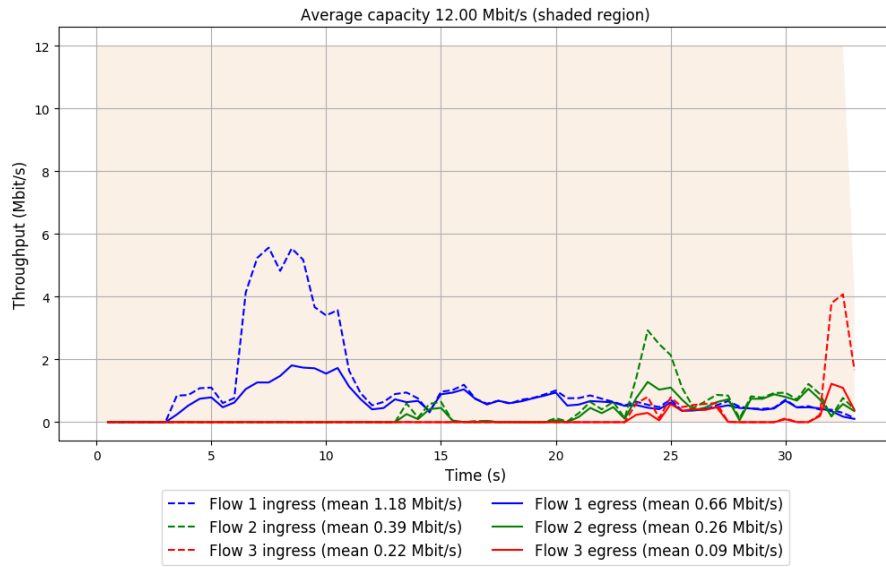
-- Flow 3:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 12.155 ms

Loss rate: 59.64%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-20 16:39:40

End at: 2018-03-20 16:40:10

Below is generated by plot.py at 2018-03-20 17:28:18

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.14 Mbit/s (9.5% utilization)

95th percentile per-packet one-way delay: 11.967 ms

Loss rate: 47.44%

-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 11.877 ms

Loss rate: 31.50%

-- Flow 2:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 11.976 ms

Loss rate: 54.92%

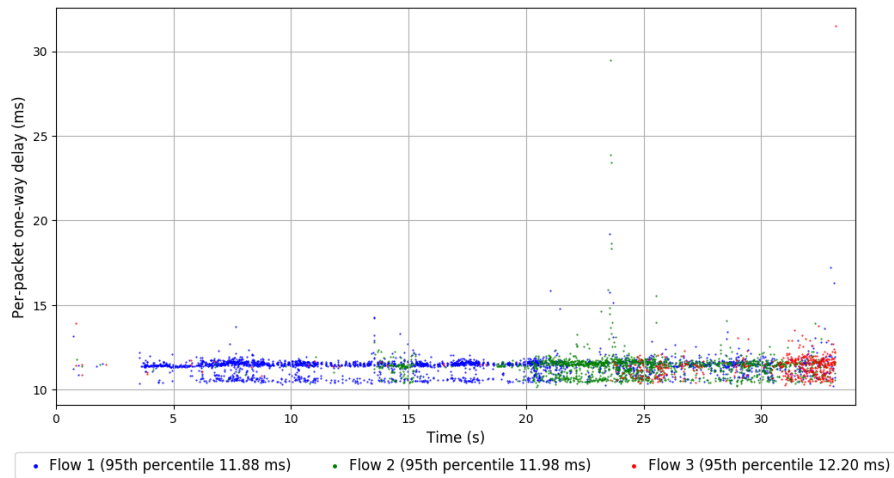
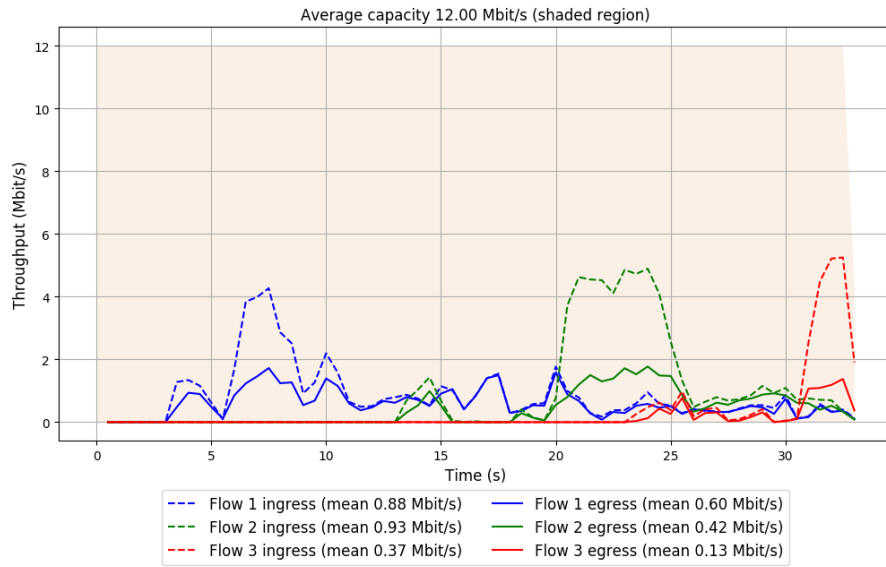
-- Flow 3:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 12.195 ms

Loss rate: 66.41%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-20 16:50:02

End at: 2018-03-20 16:50:32

Below is generated by plot.py at 2018-03-20 17:28:20

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.26 Mbit/s (10.5% utilization)

95th percentile per-packet one-way delay: 11.933 ms

Loss rate: 50.13%

-- Flow 1:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 11.868 ms

Loss rate: 42.73%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 11.988 ms

Loss rate: 49.98%

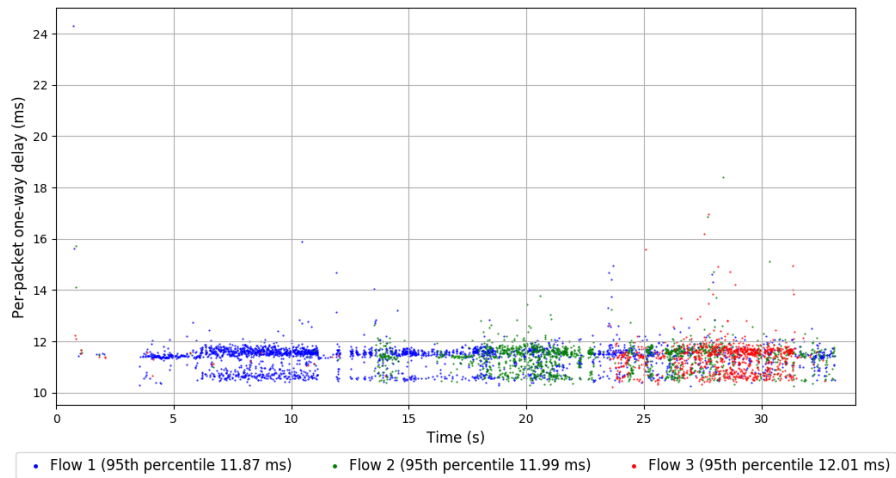
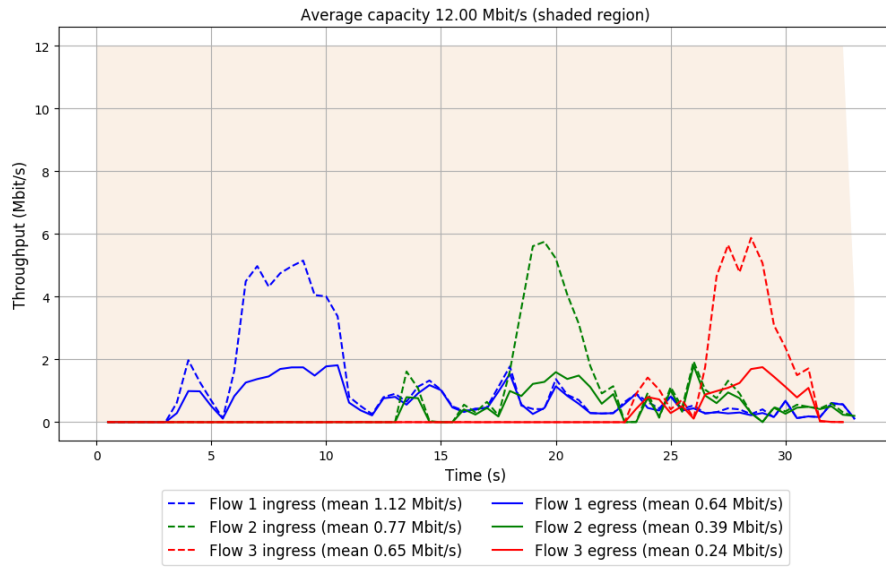
-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 12.012 ms

Loss rate: 63.39%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-20 17:00:20

End at: 2018-03-20 17:00:50

Below is generated by plot.py at 2018-03-20 17:28:20

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.11 Mbit/s (9.3% utilization)

95th percentile per-packet one-way delay: 11.881 ms

Loss rate: 31.53%

-- Flow 1:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 11.875 ms

Loss rate: 31.42%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 11.851 ms

Loss rate: 31.64%

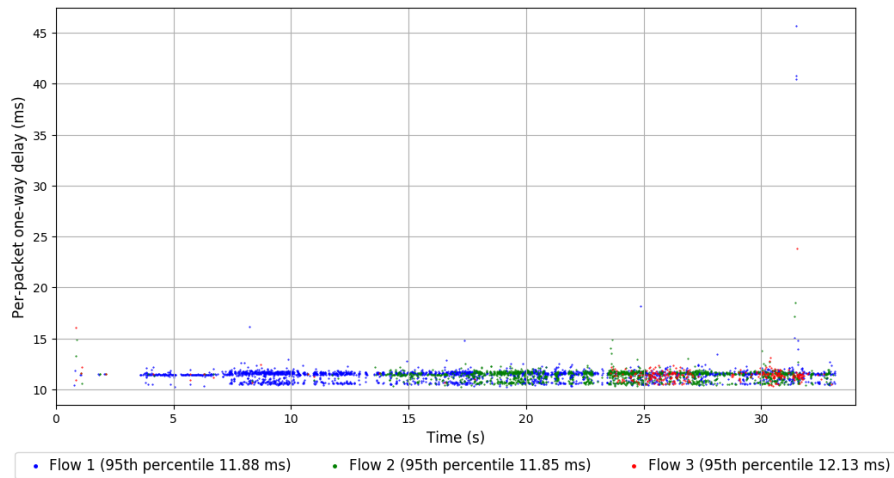
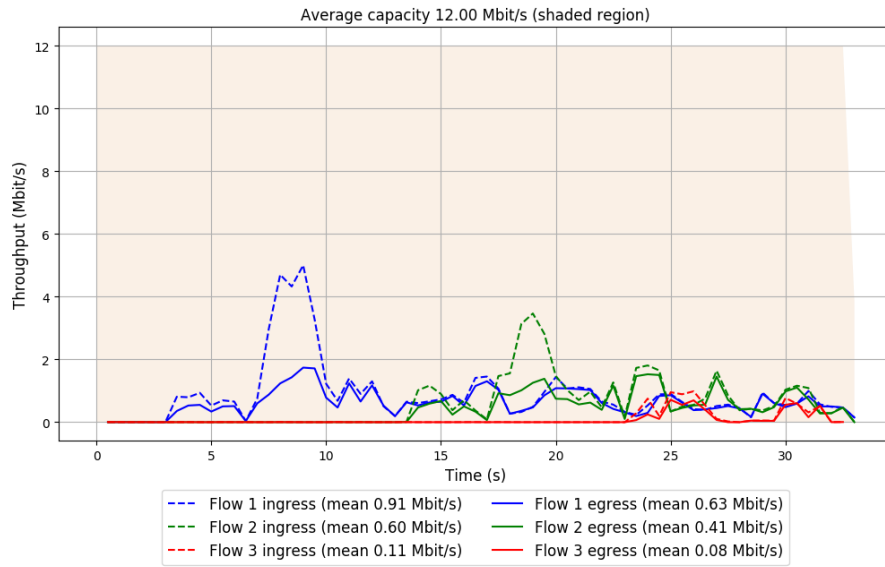
-- Flow 3:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 12.134 ms

Loss rate: 31.81%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-20 17:10:37

End at: 2018-03-20 17:11:07

Below is generated by plot.py at 2018-03-20 17:28:23

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.94 Mbit/s (7.8% utilization)

95th percentile per-packet one-way delay: 12.003 ms

Loss rate: 35.71%

-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 11.904 ms

Loss rate: 12.40%

-- Flow 2:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 12.008 ms

Loss rate: 44.93%

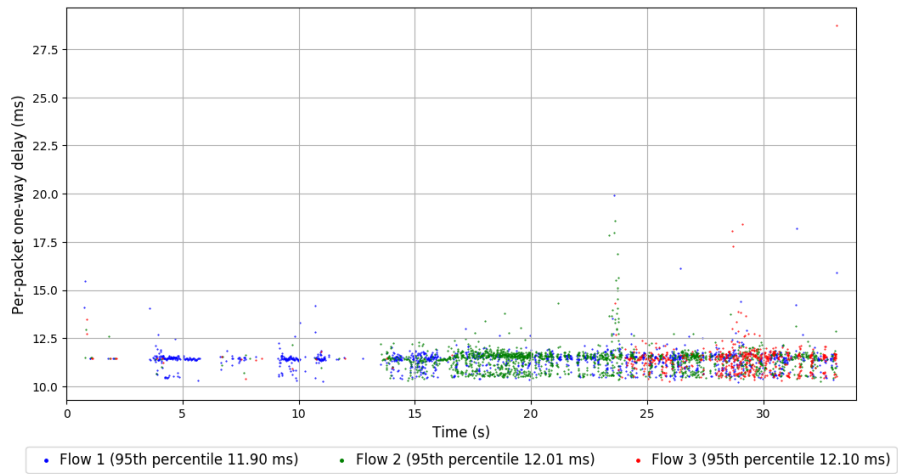
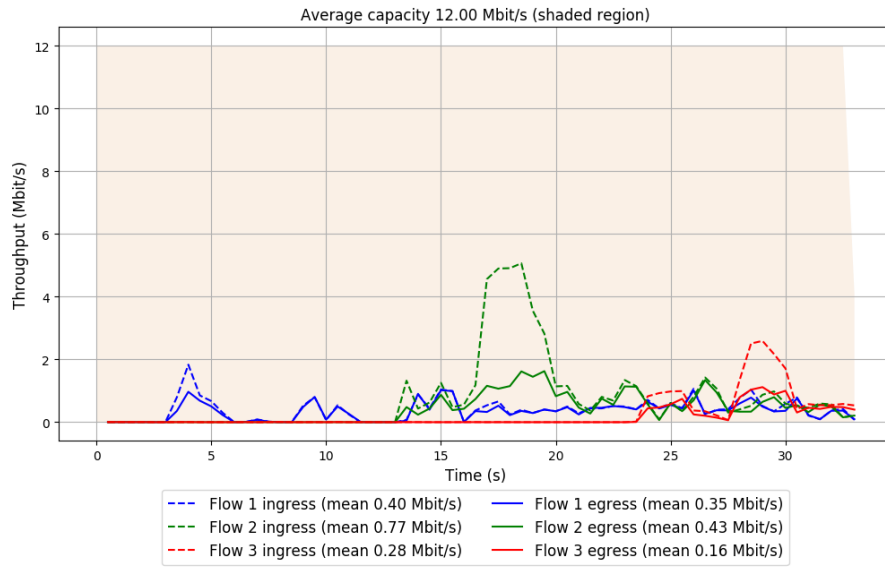
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 12.104 ms

Loss rate: 43.65%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-20 17:20:57

End at: 2018-03-20 17:21:27

Below is generated by plot.py at 2018-03-20 17:28:27

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.24 Mbit/s (10.3% utilization)

95th percentile per-packet one-way delay: 11.903 ms

Loss rate: 43.65%

-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 11.854 ms

Loss rate: 32.48%

-- Flow 2:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 11.986 ms

Loss rate: 43.28%

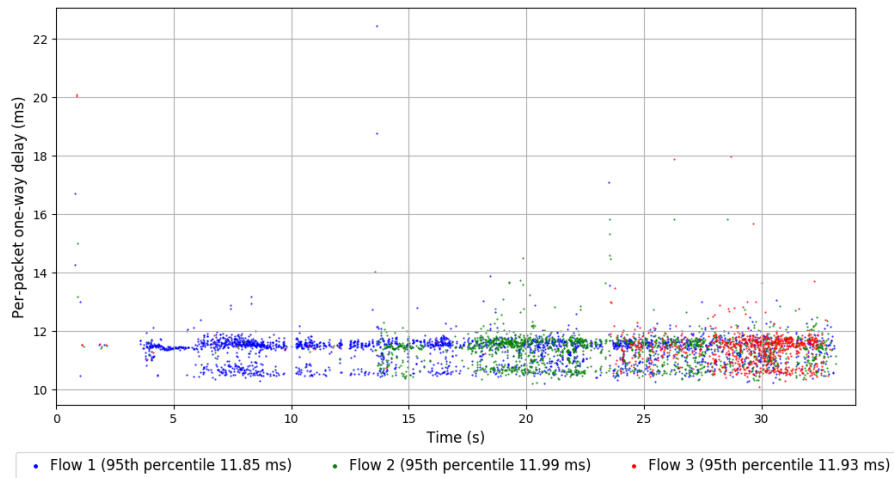
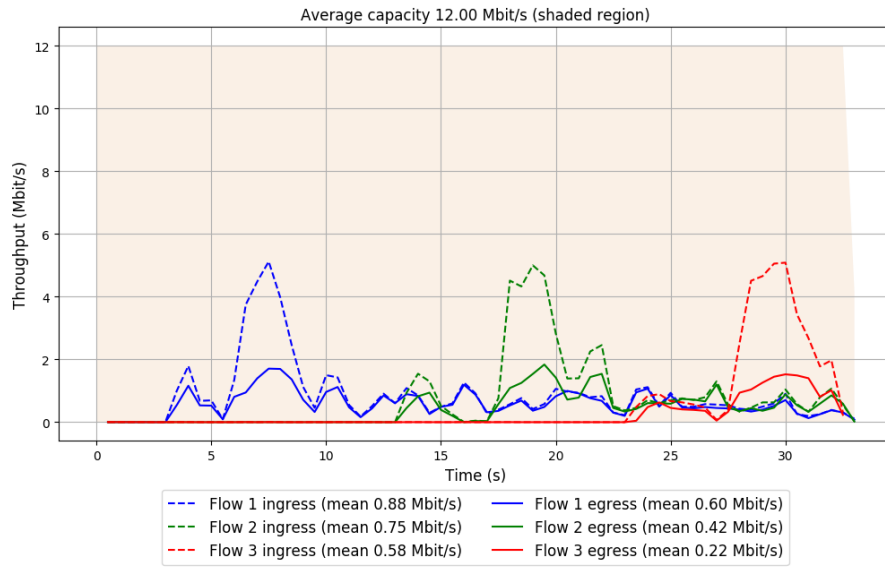
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.932 ms

Loss rate: 61.29%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-03-20 15:43:22

End at: 2018-03-20 15:43:52

Below is generated by plot.py at 2018-03-20 17:28:27

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.89 Mbit/s (7.4% utilization)

95th percentile per-packet one-way delay: 11.819 ms

Loss rate: 12.67%

-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 11.732 ms

Loss rate: 13.17%

-- Flow 2:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.775 ms

Loss rate: 9.54%

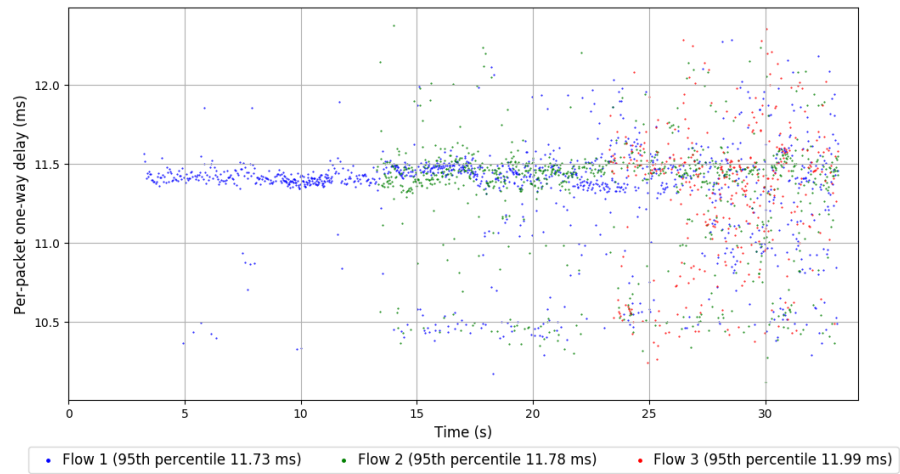
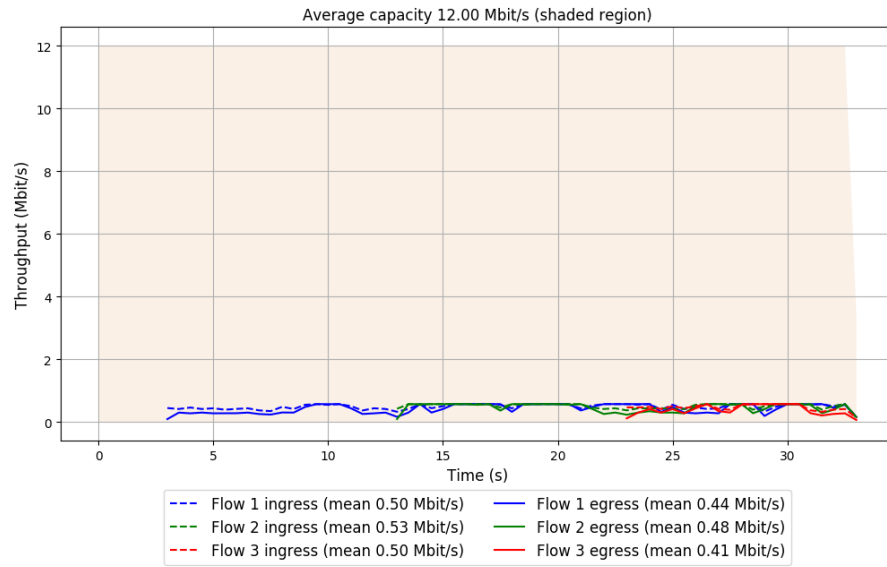
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 11.987 ms

Loss rate: 17.85%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-20 15:53:39

End at: 2018-03-20 15:54:09

Below is generated by plot.py at 2018-03-20 17:28:28

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.90 Mbit/s (7.5% utilization)

95th percentile per-packet one-way delay: 11.710 ms

Loss rate: 11.70%

-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 11.634 ms

Loss rate: 13.15%

-- Flow 2:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.753 ms

Loss rate: 9.15%

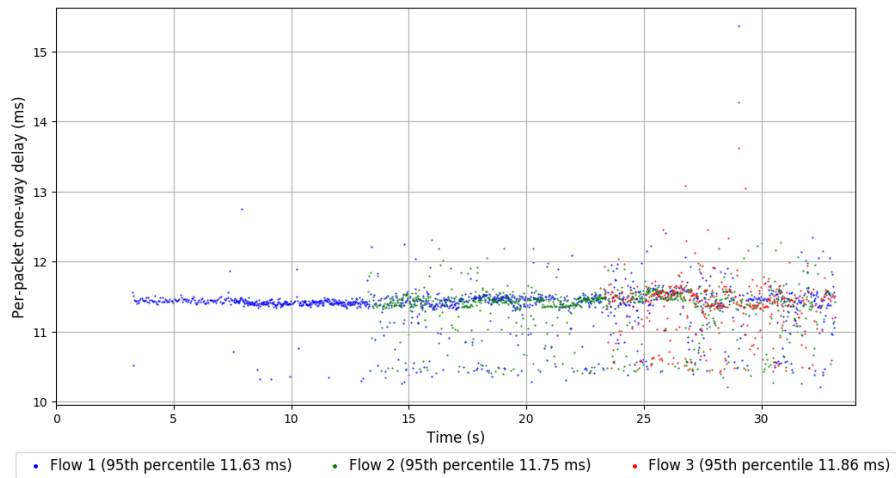
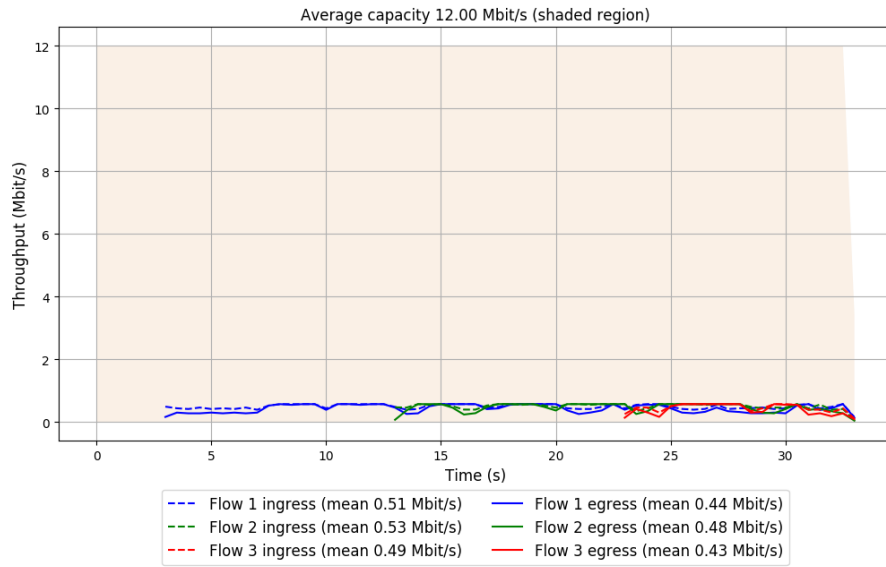
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 11.862 ms

Loss rate: 12.68%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-20 16:04:02

End at: 2018-03-20 16:04:32

Below is generated by plot.py at 2018-03-20 17:28:29

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.88 Mbit/s (7.3% utilization)

95th percentile per-packet one-way delay: 11.761 ms

Loss rate: 12.90%

-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 11.682 ms

Loss rate: 13.01%

-- Flow 2:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 11.813 ms

Loss rate: 11.35%

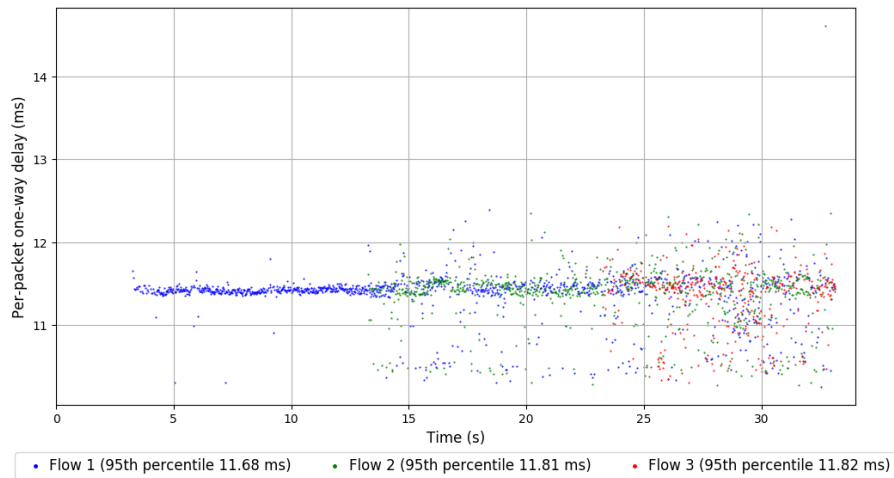
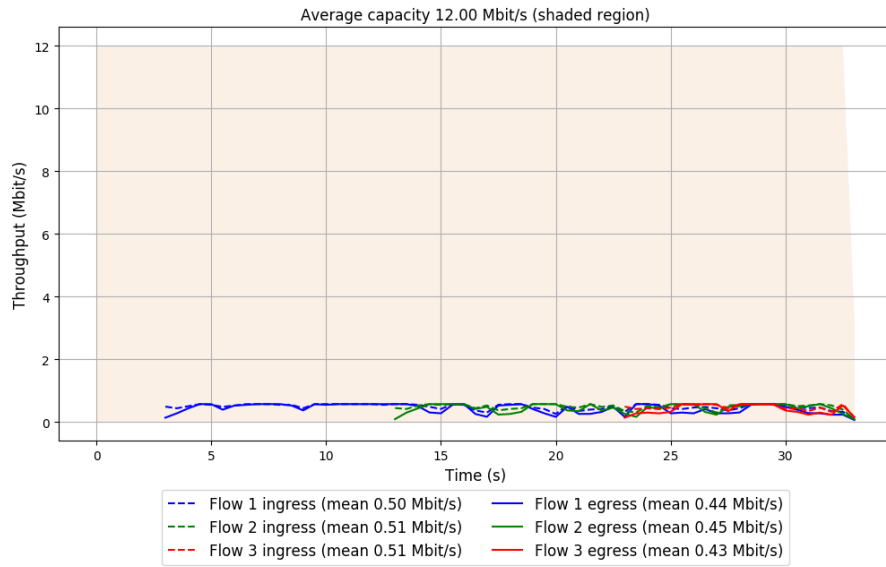
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 11.820 ms

Loss rate: 15.74%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-20 16:14:20

End at: 2018-03-20 16:14:50

Below is generated by plot.py at 2018-03-20 17:28:29

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.90 Mbit/s (7.5% utilization)

95th percentile per-packet one-way delay: 11.781 ms

Loss rate: 11.29%

-- Flow 1:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.720 ms

Loss rate: 8.42%

-- Flow 2:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 11.842 ms

Loss rate: 13.97%

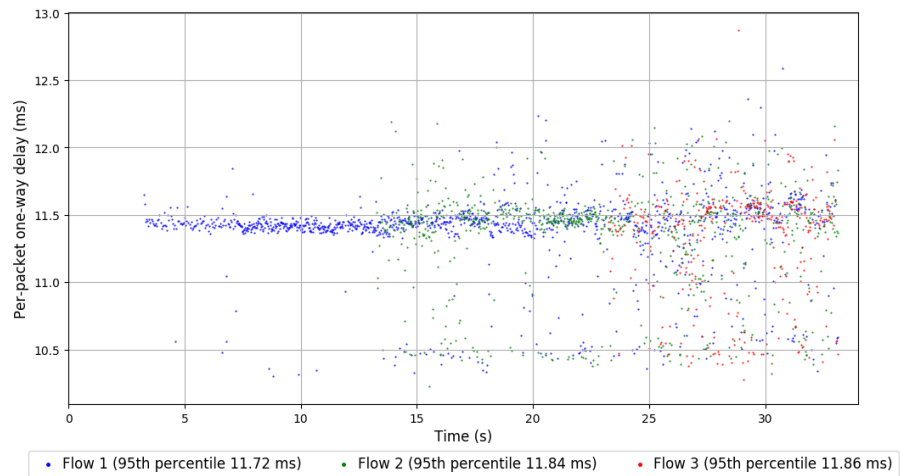
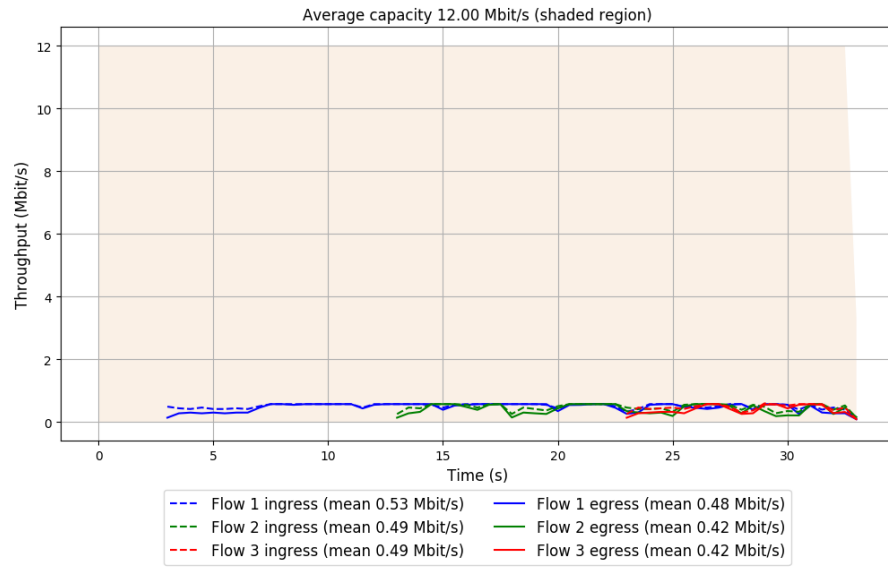
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 11.856 ms

Loss rate: 15.21%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-03-20 16:24:42

End at: 2018-03-20 16:25:12

Below is generated by plot.py at 2018-03-20 17:28:31

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.94 Mbit/s (7.8% utilization)

95th percentile per-packet one-way delay: 11.872 ms

Loss rate: 10.20%

-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 11.718 ms

Loss rate: 11.40%

-- Flow 2:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 11.895 ms

Loss rate: 8.78%

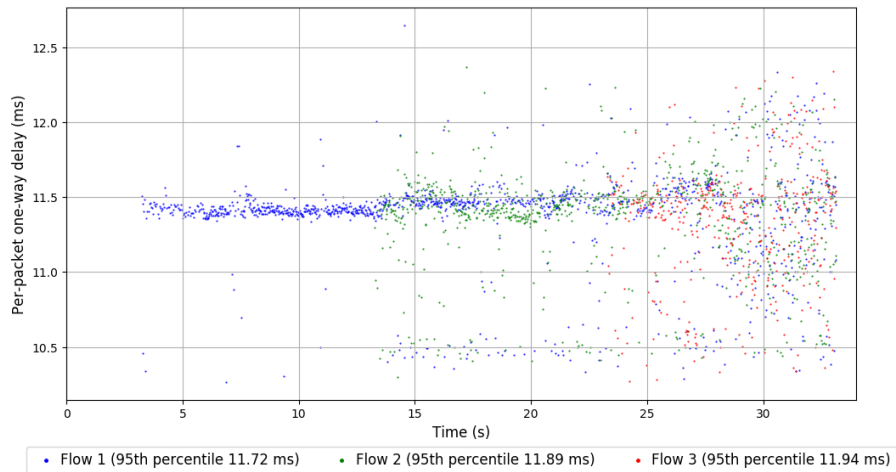
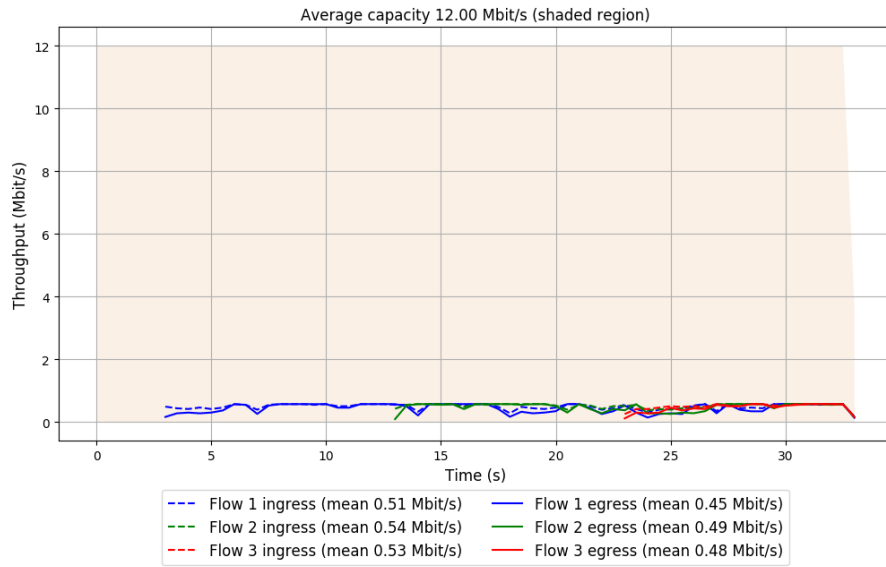
-- Flow 3:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.938 ms

Loss rate: 9.59%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-20 16:35:04

End at: 2018-03-20 16:35:34

Below is generated by plot.py at 2018-03-20 17:28:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.88 Mbit/s (7.3% utilization)

95th percentile per-packet one-way delay: 11.799 ms

Loss rate: 12.93%

-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 11.761 ms

Loss rate: 9.57%

-- Flow 2:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 11.816 ms

Loss rate: 14.42%

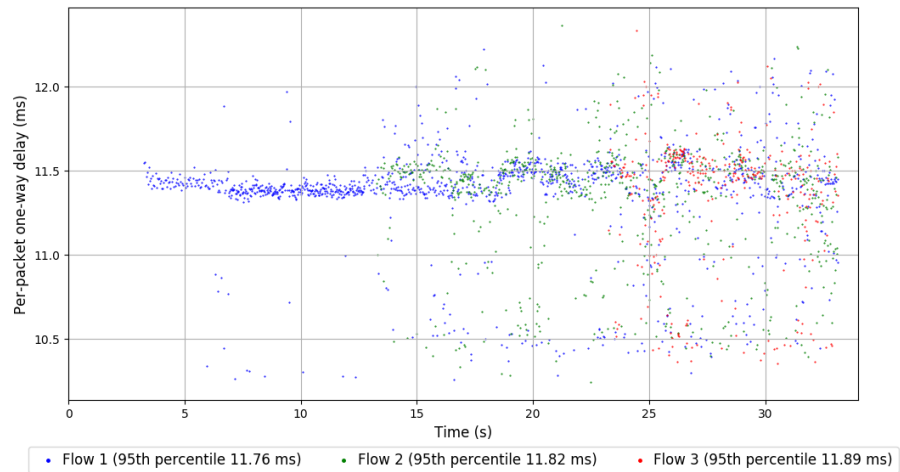
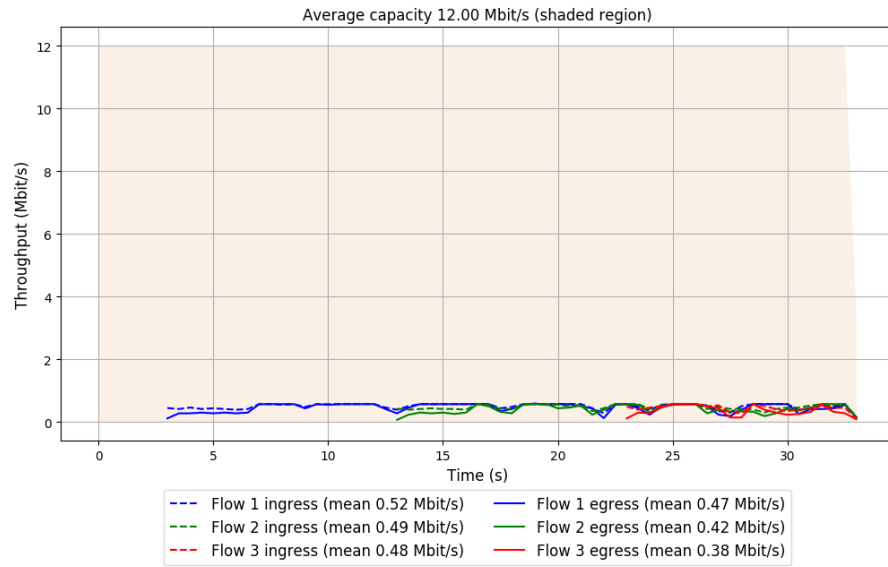
-- Flow 3:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 11.895 ms

Loss rate: 20.90%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-20 16:45:20

End at: 2018-03-20 16:45:50

Below is generated by plot.py at 2018-03-20 17:28:34

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.98 Mbit/s (8.2% utilization)

95th percentile per-packet one-way delay: 11.827 ms

Loss rate: 7.39%

-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 11.742 ms

Loss rate: 9.01%

-- Flow 2:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 11.827 ms

Loss rate: 6.41%

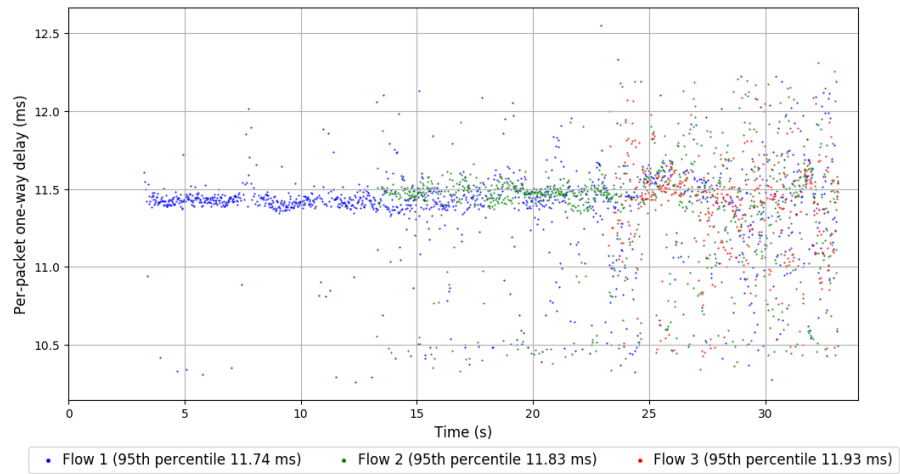
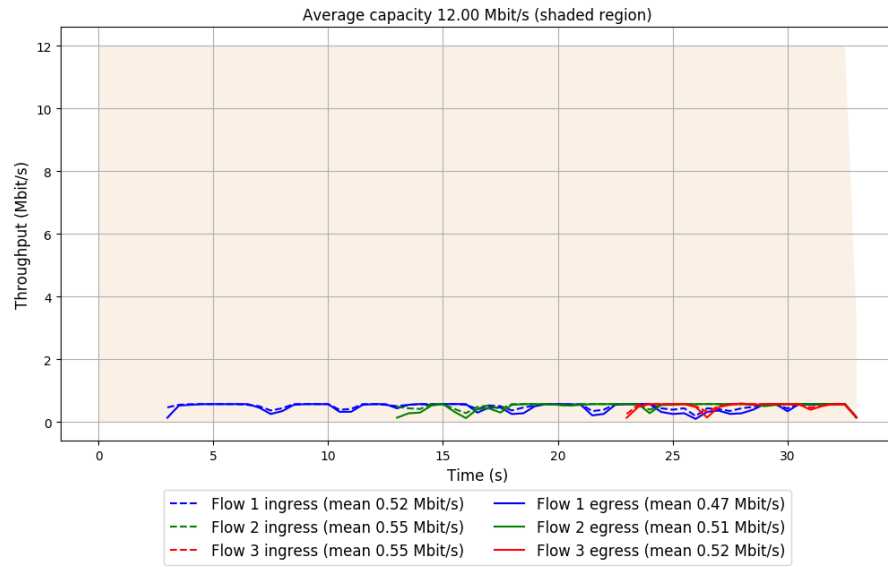
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 11.928 ms

Loss rate: 4.73%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-20 16:55:42

End at: 2018-03-20 16:56:12

Below is generated by plot.py at 2018-03-20 17:28:40

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.91 Mbit/s (7.6% utilization)

95th percentile per-packet one-way delay: 11.772 ms

Loss rate: 11.07%

-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 11.685 ms

Loss rate: 9.17%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 11.847 ms

Loss rate: 16.42%

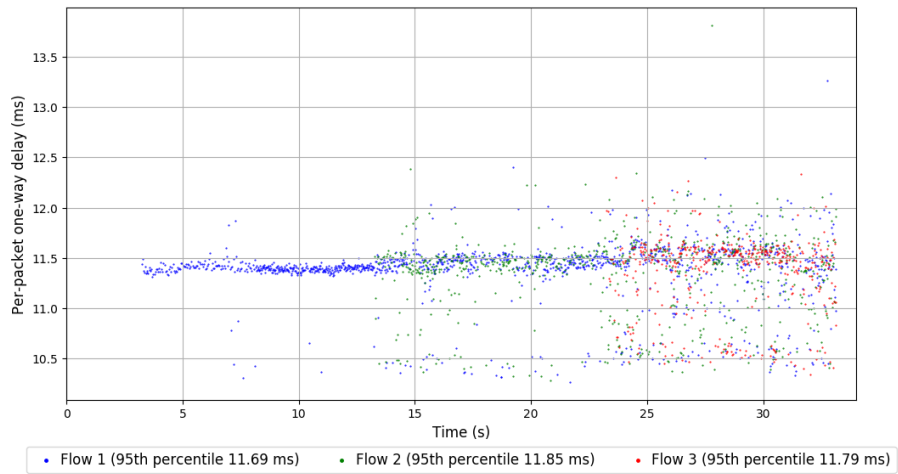
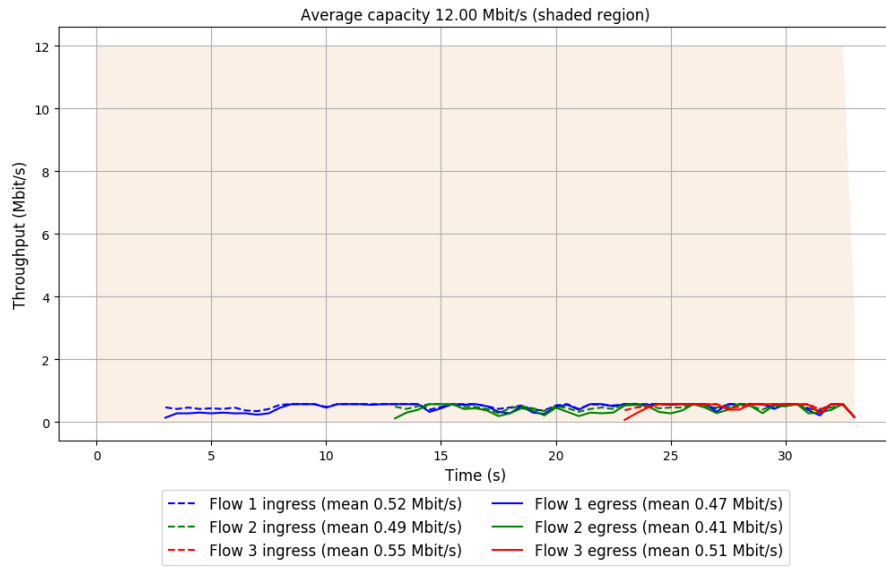
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 11.793 ms

Loss rate: 7.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-20 17:06:01

End at: 2018-03-20 17:06:31

Below is generated by plot.py at 2018-03-20 17:28:40

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.91 Mbit/s (7.6% utilization)

95th percentile per-packet one-way delay: 11.808 ms

Loss rate: 11.25%

-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 11.676 ms

Loss rate: 9.35%

-- Flow 2:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.915 ms

Loss rate: 9.03%

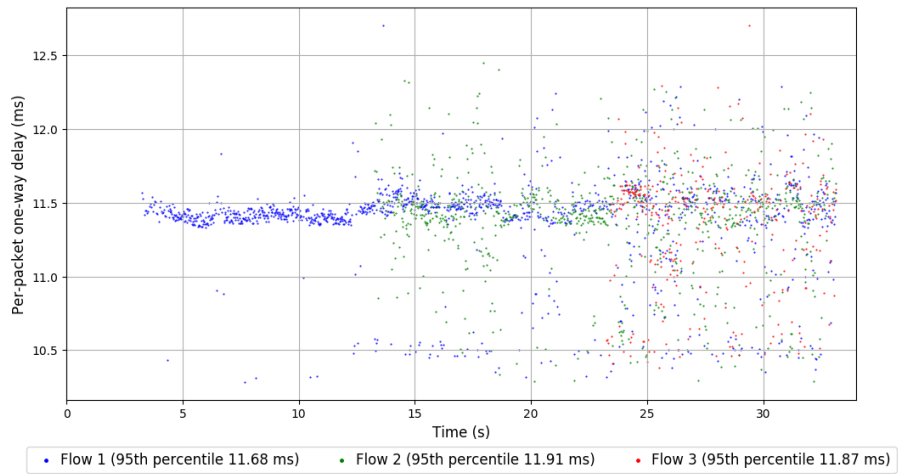
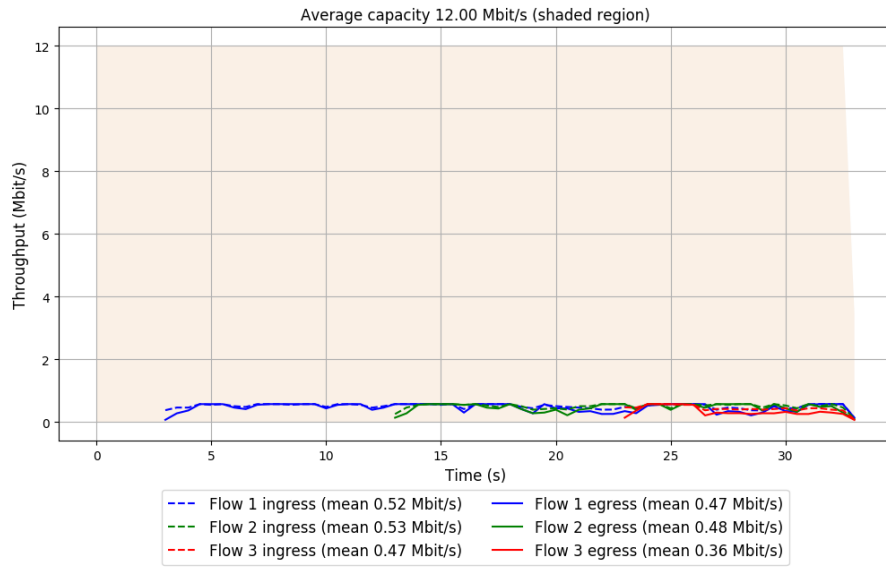
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 11.873 ms

Loss rate: 22.73%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-20 17:16:18

End at: 2018-03-20 17:16:48

Below is generated by plot.py at 2018-03-20 17:28:42

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.90 Mbit/s (7.5% utilization)

95th percentile per-packet one-way delay: 11.839 ms

Loss rate: 11.86%

-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 11.815 ms

Loss rate: 12.26%

-- Flow 2:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 11.836 ms

Loss rate: 14.59%

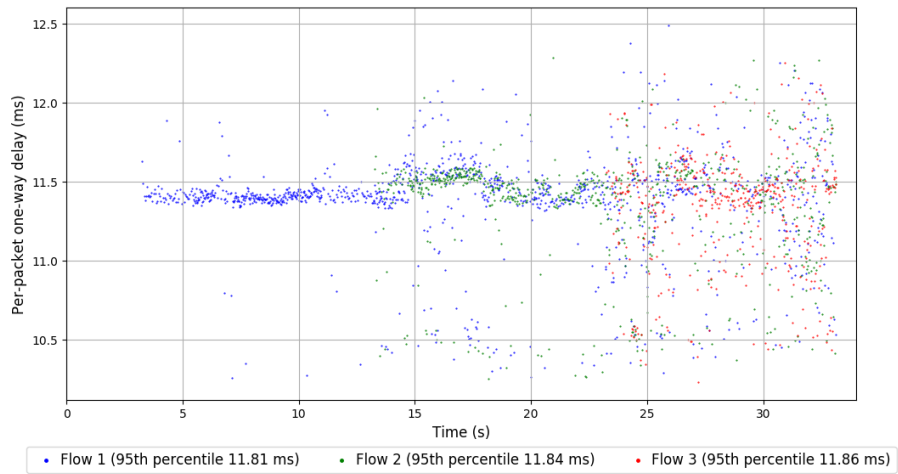
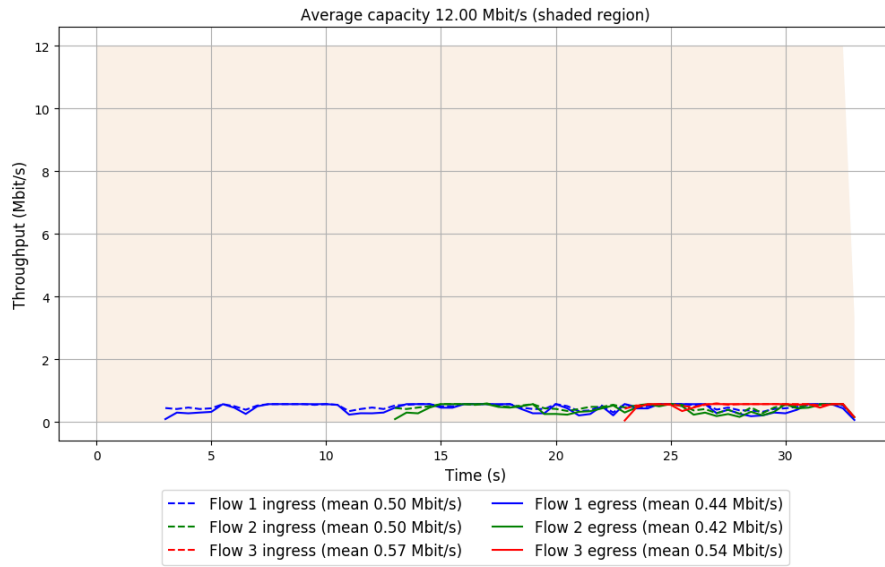
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 11.860 ms

Loss rate: 6.02%

Run 10: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-03-20 15:44:30

End at: 2018-03-20 15:45:00

Below is generated by plot.py at 2018-03-20 17:28:42

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.2% utilization)

95th percentile per-packet one-way delay: 11.807 ms

Loss rate: 62.56%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.807 ms

Loss rate: 65.62%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.541 ms

Loss rate: 53.62%

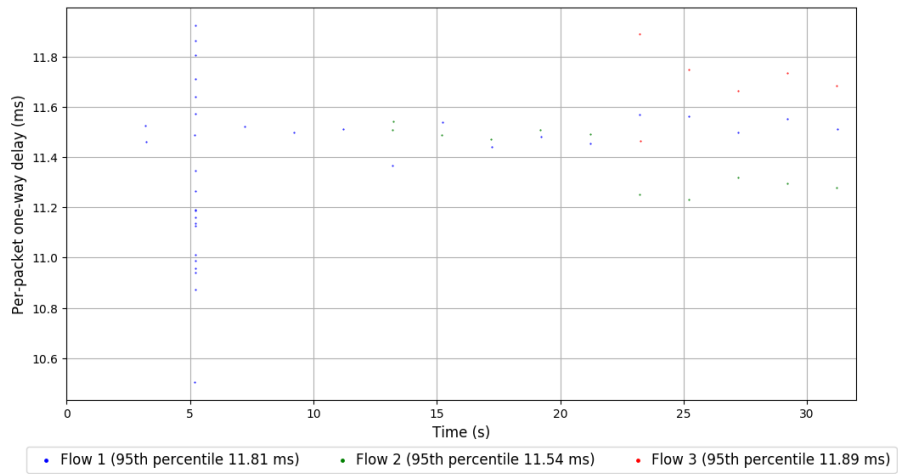
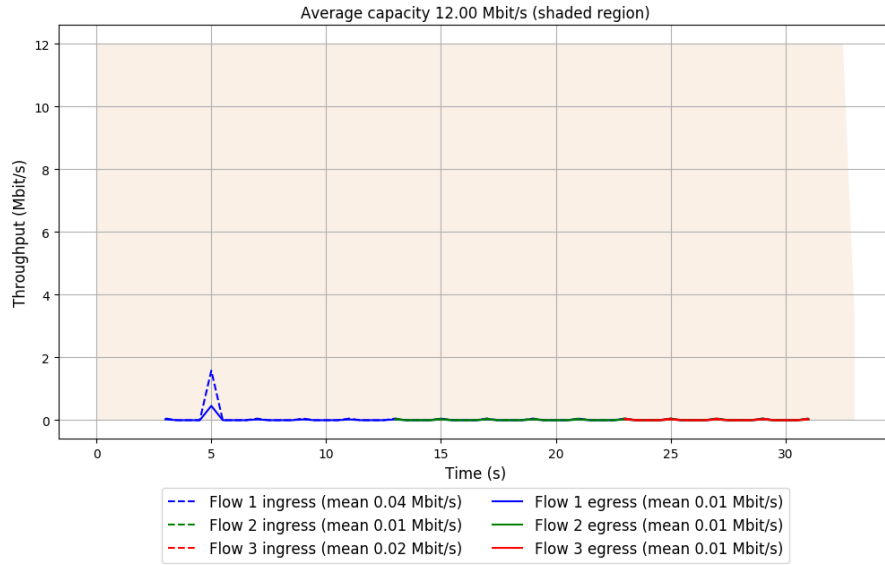
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.889 ms

Loss rate: 53.41%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-03-20 15:54:47

End at: 2018-03-20 15:55:17

Below is generated by plot.py at 2018-03-20 17:28:42

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 12.310 ms

Loss rate: 53.62%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.567 ms

Loss rate: 53.69%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.353 ms

Loss rate: 53.62%

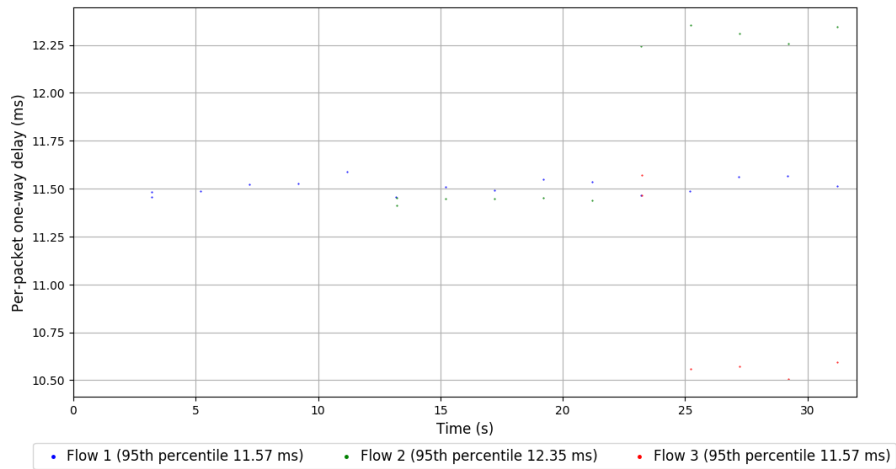
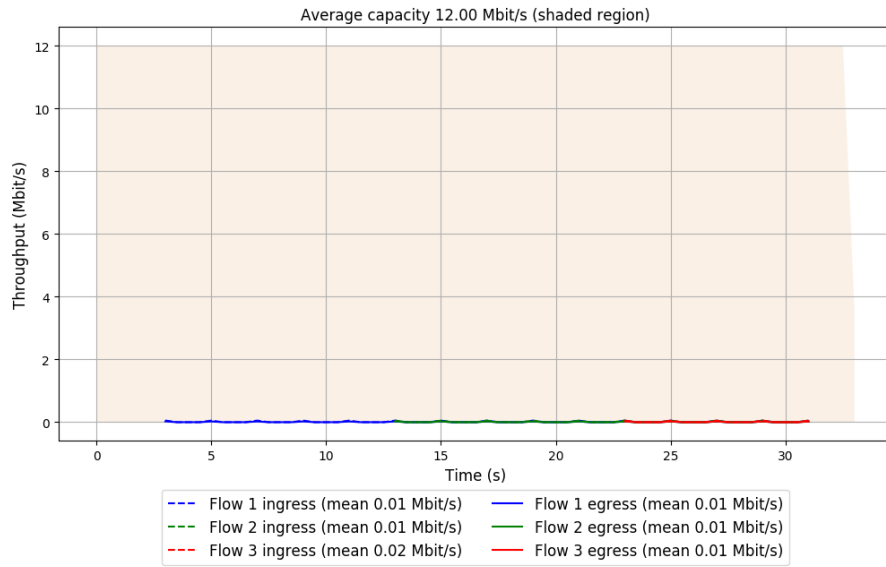
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.571 ms

Loss rate: 53.41%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-03-20 16:05:10

End at: 2018-03-20 16:05:40

Below is generated by plot.py at 2018-03-20 17:28:42

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.2% utilization)

95th percentile per-packet one-way delay: 11.732 ms

Loss rate: 64.69%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.628 ms

Loss rate: 53.69%

-- Flow 2:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 11.957 ms

Loss rate: 70.32%

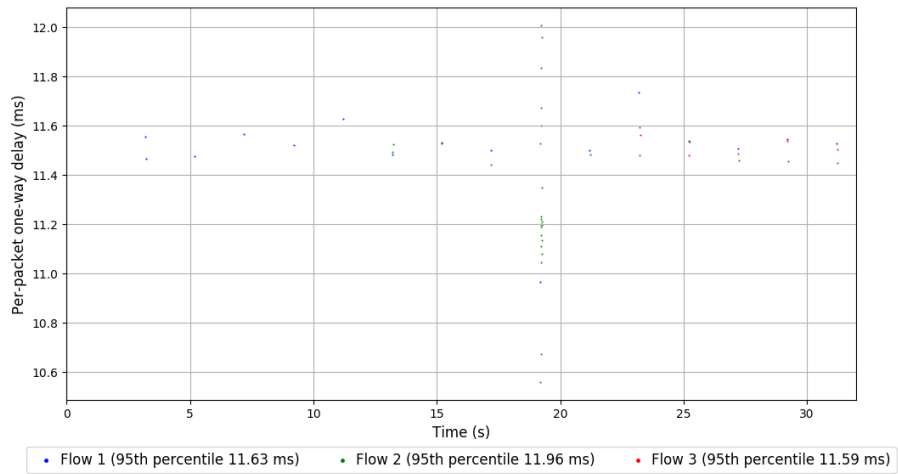
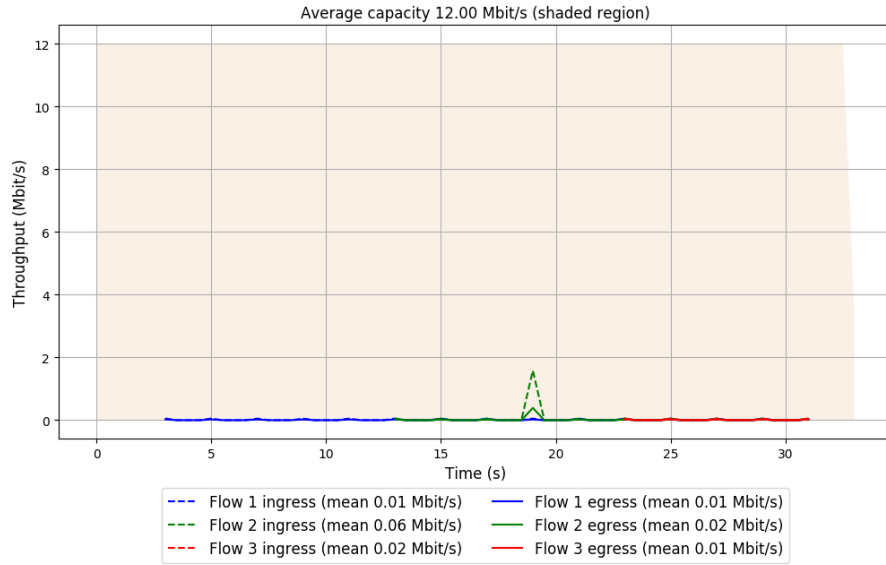
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.593 ms

Loss rate: 53.41%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-20 16:15:28

End at: 2018-03-20 16:15:58

Below is generated by plot.py at 2018-03-20 17:28:42

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.641 ms

Loss rate: 53.59%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.542 ms

Loss rate: 53.69%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.749 ms

Loss rate: 53.53%

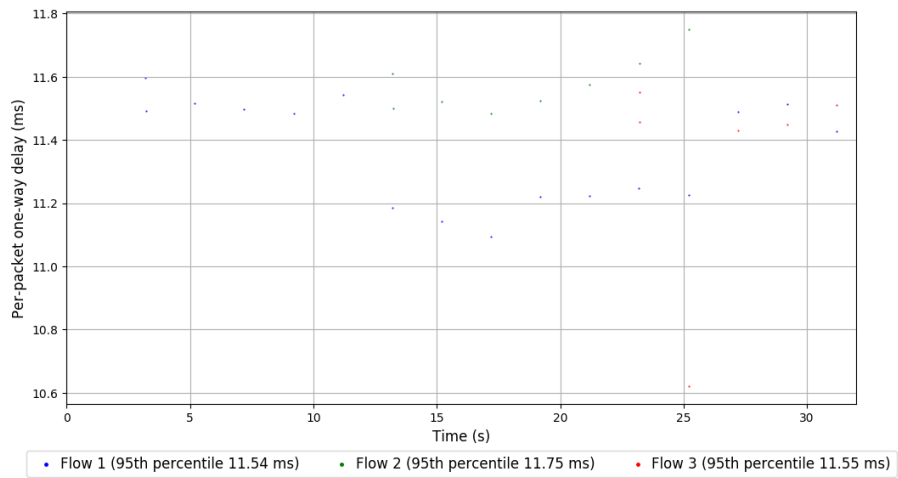
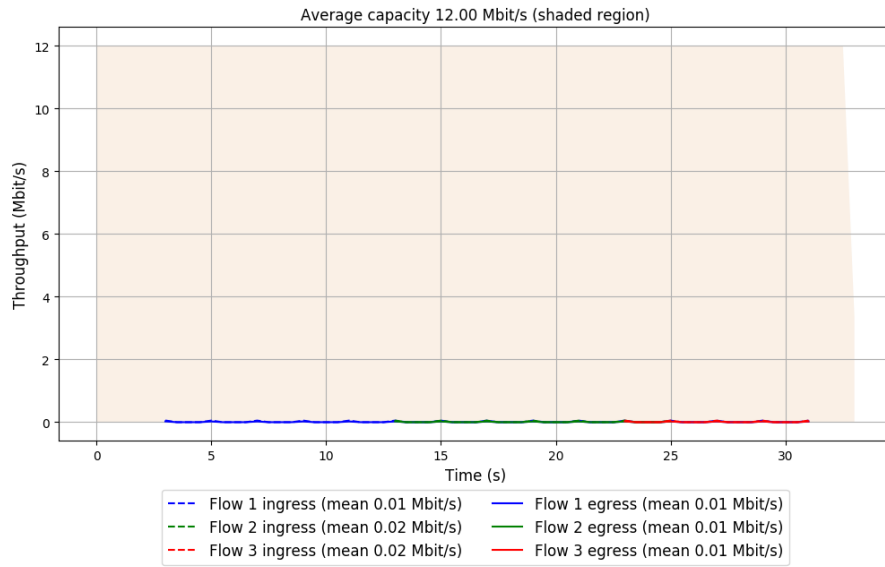
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.552 ms

Loss rate: 53.41%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-20 16:25:50

End at: 2018-03-20 16:26:20

Below is generated by plot.py at 2018-03-20 17:28:44

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.611 ms

Loss rate: 53.67%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.935 ms

Loss rate: 53.69%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.611 ms

Loss rate: 53.79%

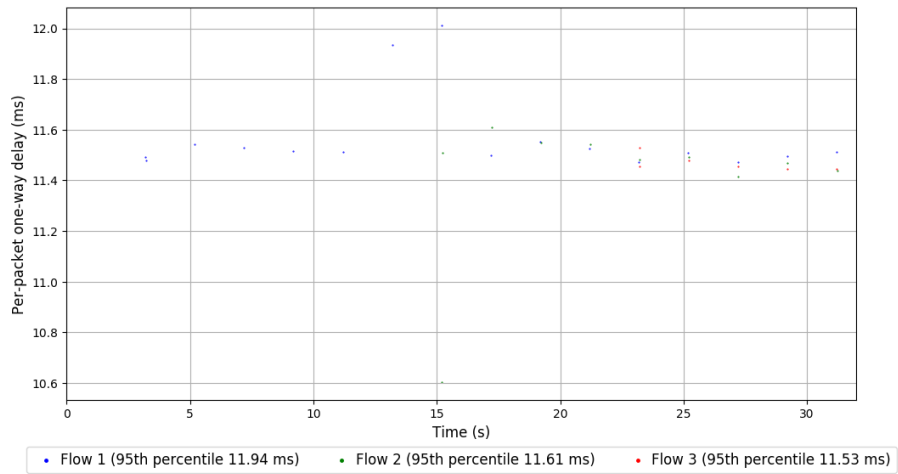
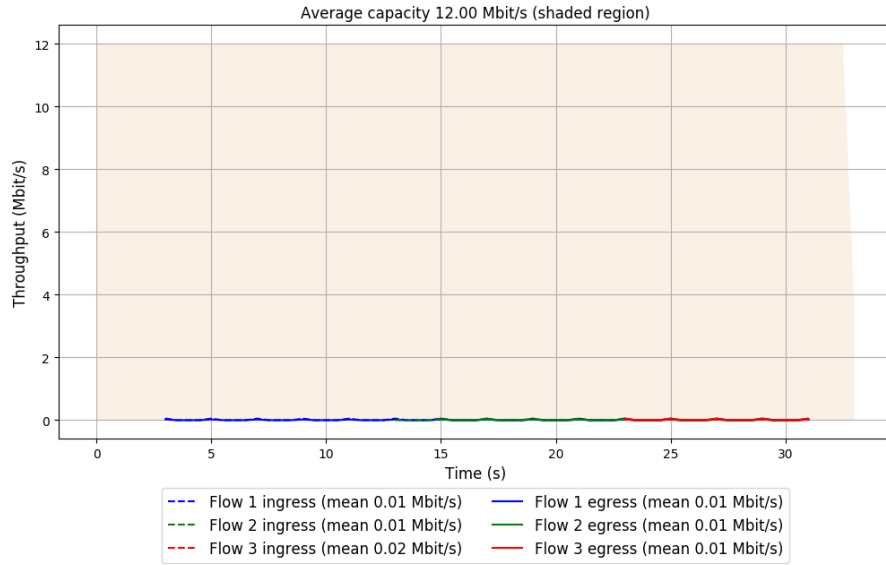
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.528 ms

Loss rate: 53.41%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-20 16:36:12

End at: 2018-03-20 16:36:42

Below is generated by plot.py at 2018-03-20 17:28:47

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.592 ms

Loss rate: 53.62%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.538 ms

Loss rate: 53.69%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.610 ms

Loss rate: 53.62%

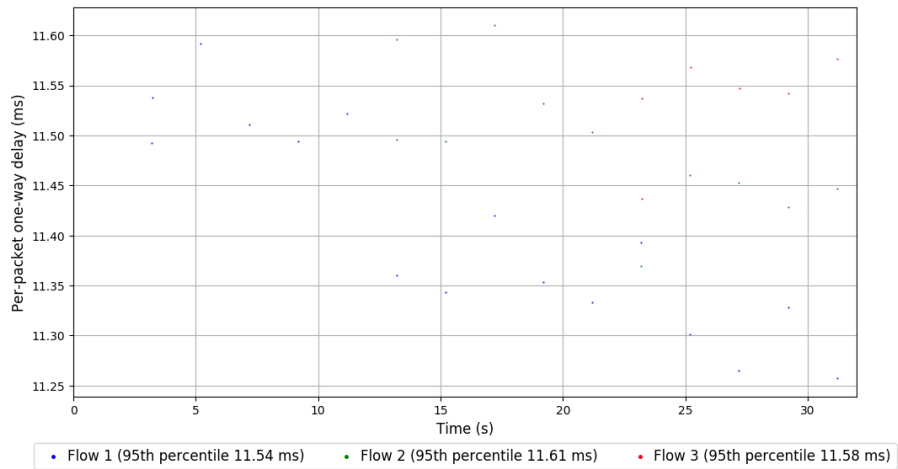
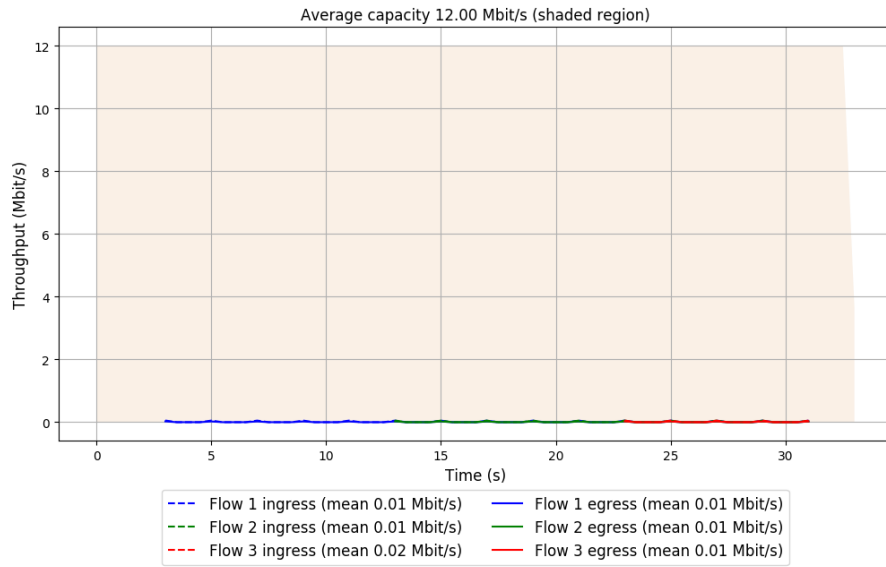
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.577 ms

Loss rate: 53.41%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-03-20 16:46:28

End at: 2018-03-20 16:46:58

Below is generated by plot.py at 2018-03-20 17:28:50

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.2% utilization)

95th percentile per-packet one-way delay: 11.629 ms

Loss rate: 63.27%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.530 ms

Loss rate: 53.69%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.590 ms

Loss rate: 53.62%

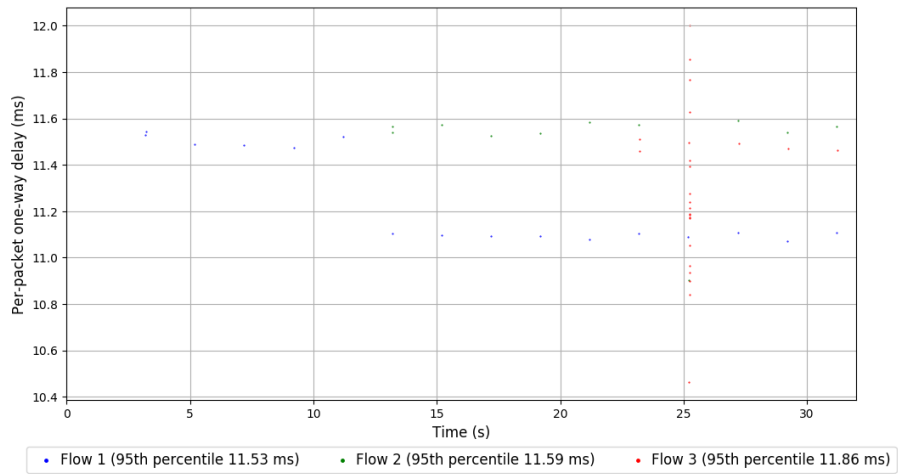
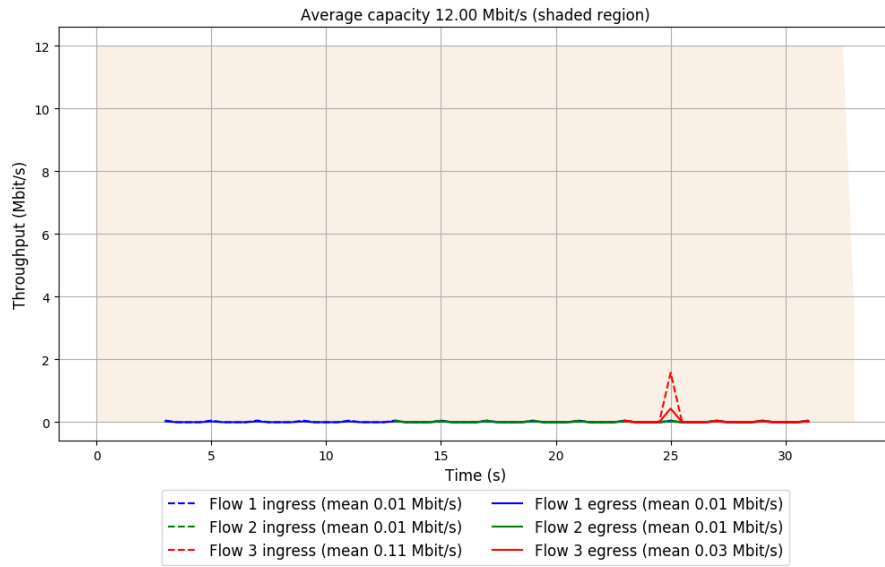
-- Flow 3:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 11.855 ms

Loss rate: 70.25%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-20 16:56:50

End at: 2018-03-20 16:57:20

Below is generated by plot.py at 2018-03-20 17:28:50

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.2% utilization)

95th percentile per-packet one-way delay: 11.744 ms

Loss rate: 62.68%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.665 ms

Loss rate: 53.59%

-- Flow 2:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 11.744 ms

Loss rate: 65.94%

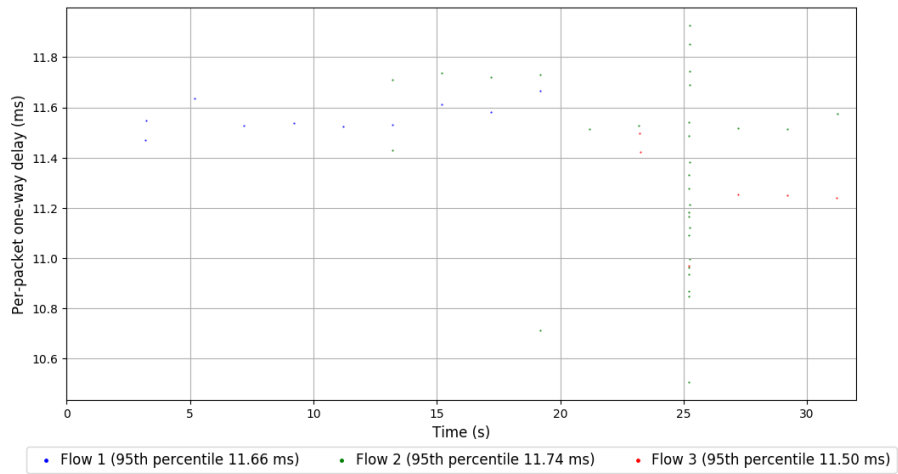
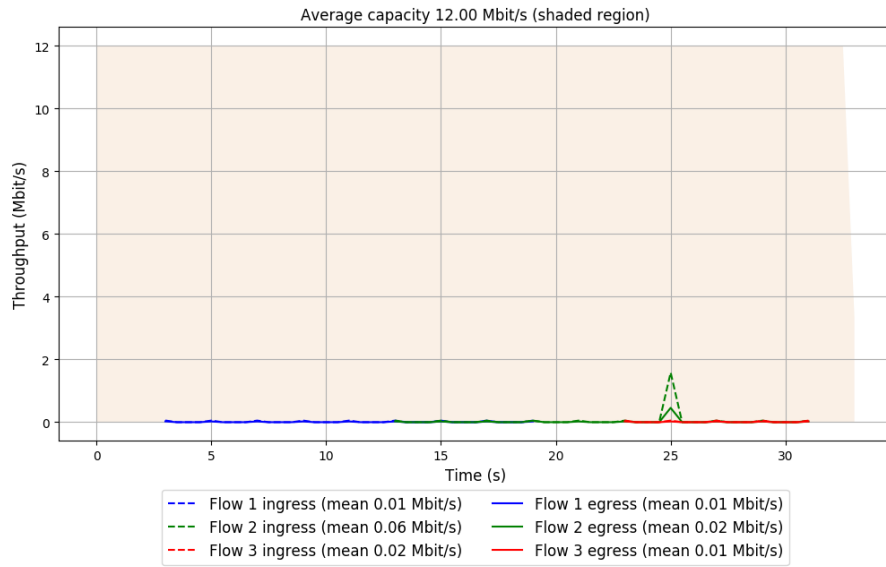
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.497 ms

Loss rate: 53.41%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-03-20 17:07:09

End at: 2018-03-20 17:07:39

Below is generated by plot.py at 2018-03-20 17:28:50

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.710 ms

Loss rate: 53.42%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.710 ms

Loss rate: 53.43%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.662 ms

Loss rate: 53.41%

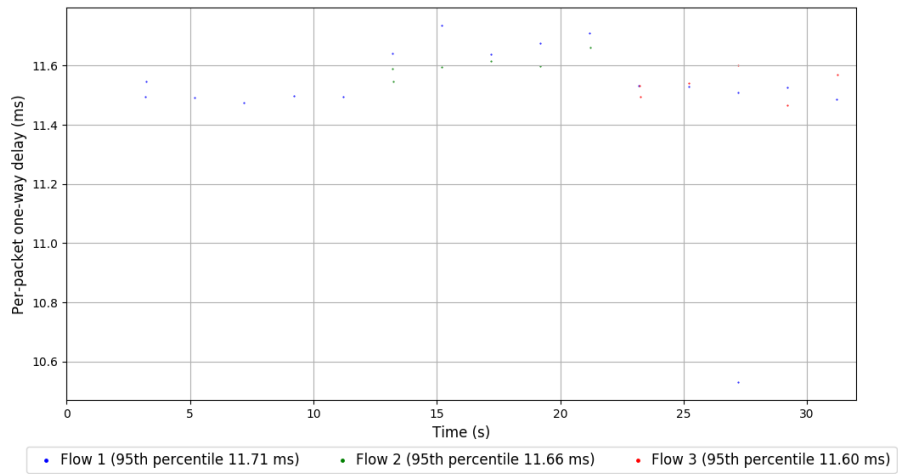
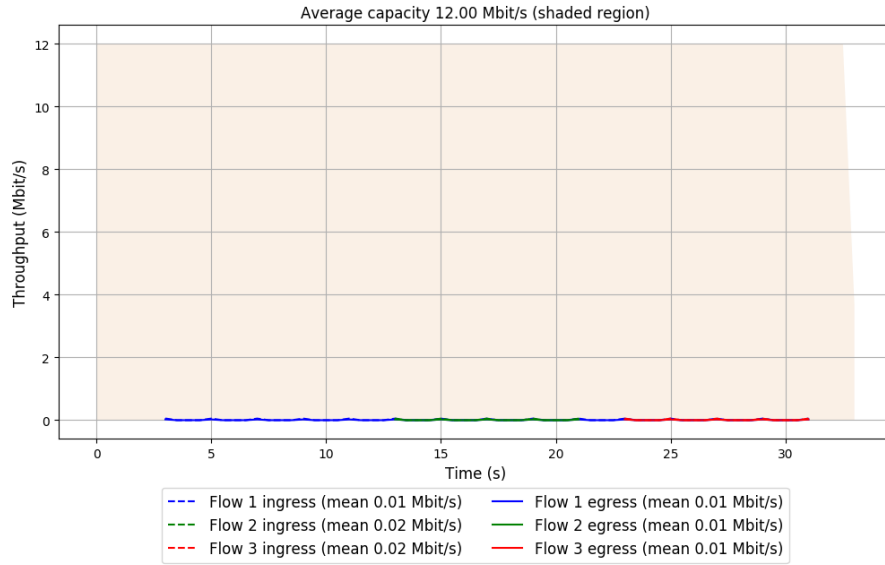
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.601 ms

Loss rate: 53.41%

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



Run 10: Statistics of TaoVA-100x

Start at: 2018-03-20 17:17:26

End at: 2018-03-20 17:17:56

Below is generated by plot.py at 2018-03-20 17:28:51

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.2% utilization)

95th percentile per-packet one-way delay: 12.145 ms

Loss rate: 63.51%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.770 ms

Loss rate: 65.83%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.739 ms

Loss rate: 58.21%

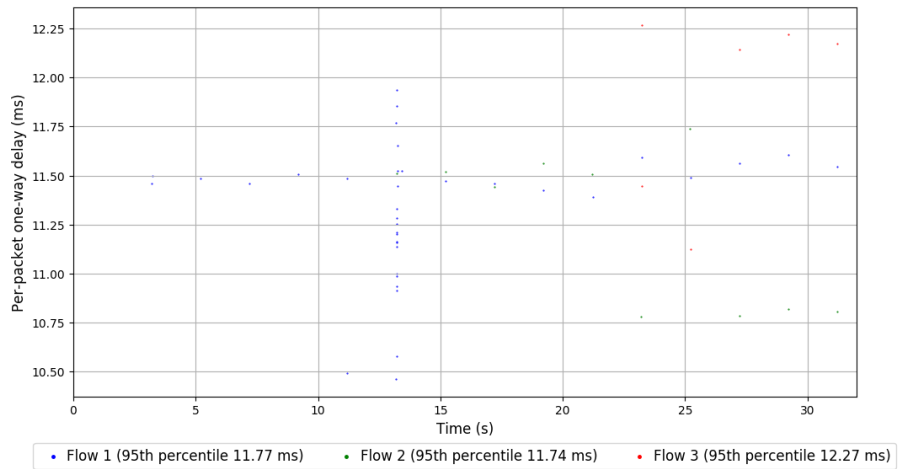
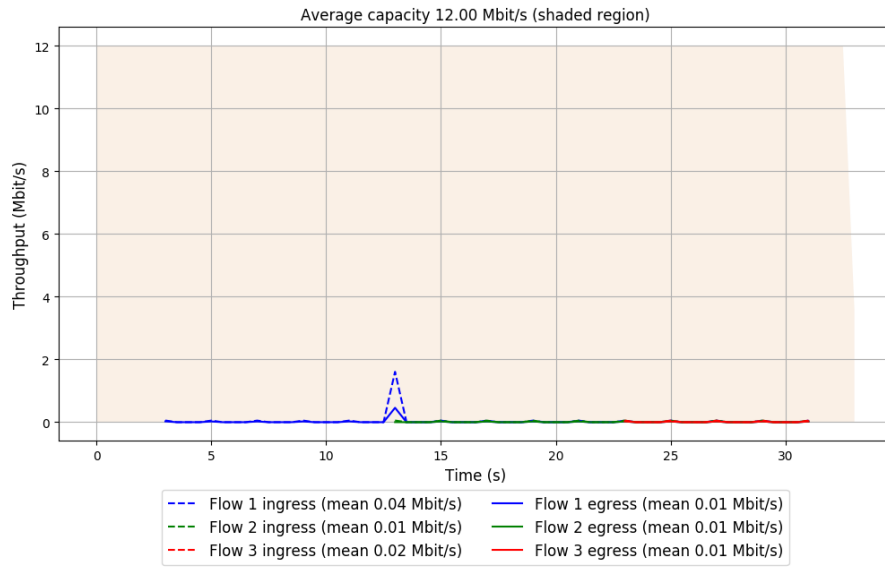
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.266 ms

Loss rate: 53.41%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-20 15:52:31

End at: 2018-03-20 15:53:01

Below is generated by plot.py at 2018-03-20 17:28:53

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.98 Mbit/s (8.2% utilization)

95th percentile per-packet one-way delay: 11.584 ms

Loss rate: 25.90%

-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 11.555 ms

Loss rate: 25.33%

-- Flow 2:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 11.587 ms

Loss rate: 26.01%

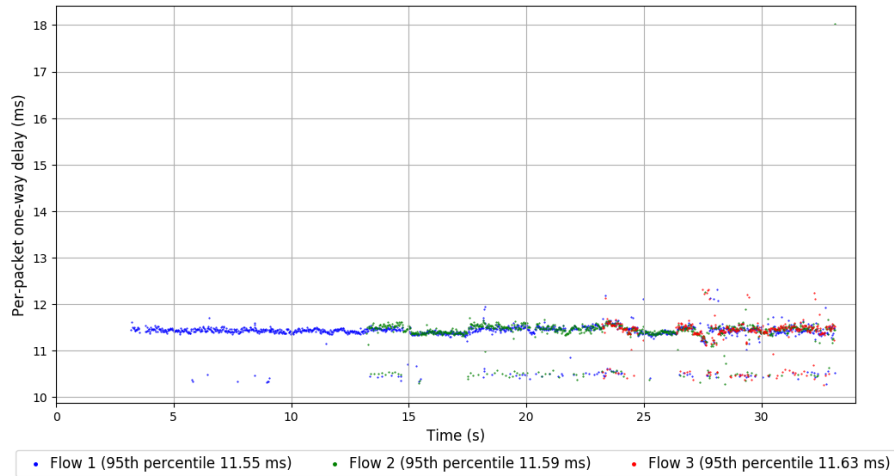
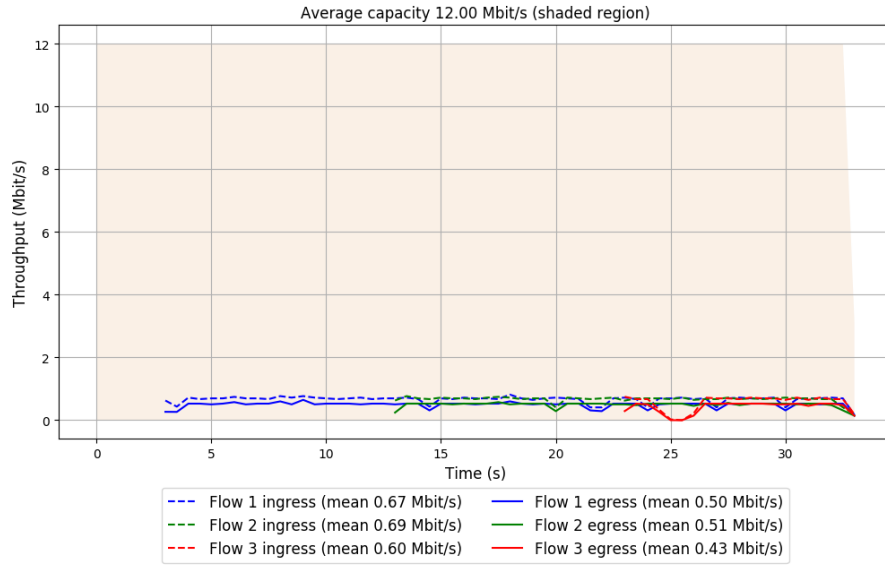
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 11.626 ms

Loss rate: 27.58%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-20 16:02:54

End at: 2018-03-20 16:03:24

Below is generated by plot.py at 2018-03-20 17:28:53

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.04 Mbit/s (8.7% utilization)

95th percentile per-packet one-way delay: 11.599 ms

Loss rate: 25.39%

-- Flow 1:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 11.587 ms

Loss rate: 24.71%

-- Flow 2:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 11.599 ms

Loss rate: 26.06%

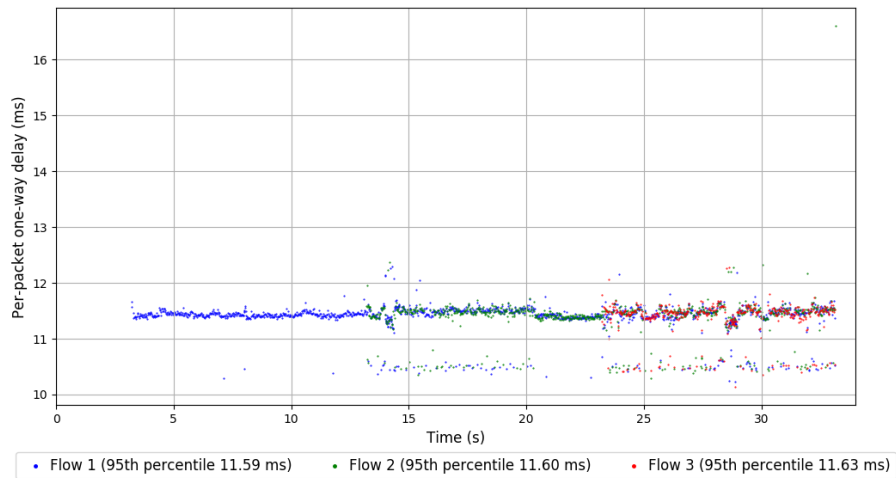
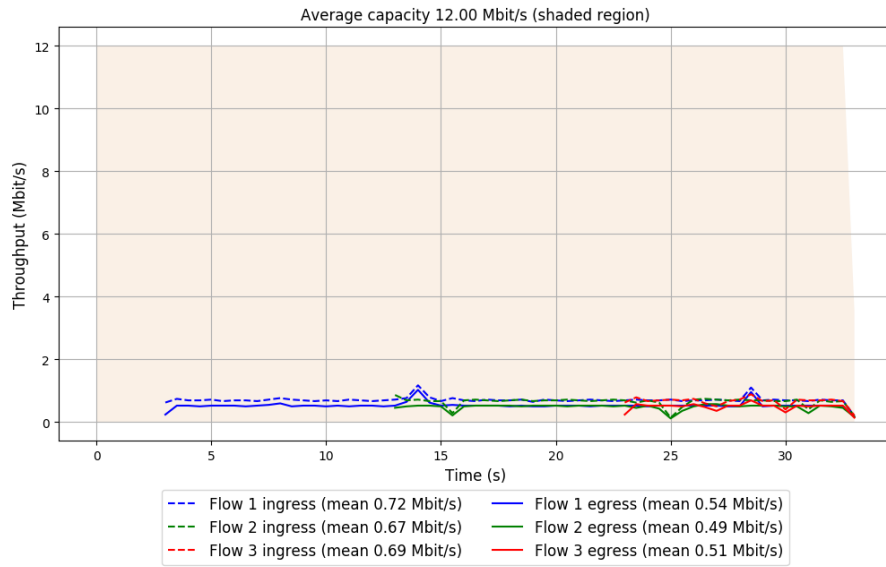
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 11.626 ms

Loss rate: 26.21%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-20 16:13:12

End at: 2018-03-20 16:13:42

Below is generated by plot.py at 2018-03-20 17:28:55

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.06 Mbit/s (8.9% utilization)

95th percentile per-packet one-way delay: 11.601 ms

Loss rate: 24.01%

-- Flow 1:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 11.569 ms

Loss rate: 23.48%

-- Flow 2:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 11.612 ms

Loss rate: 24.23%

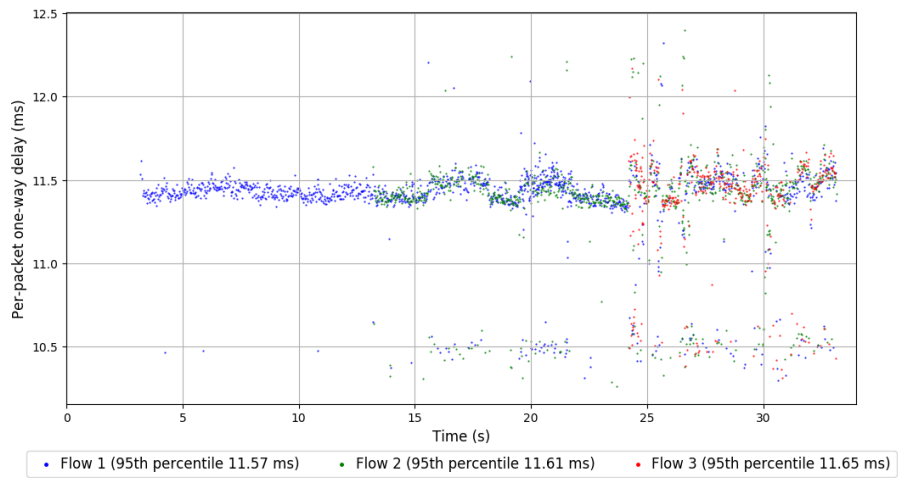
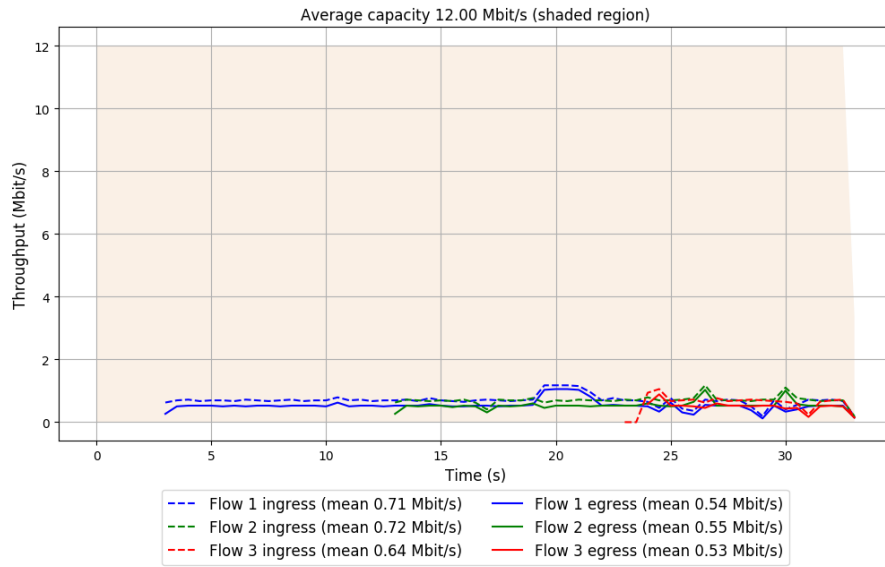
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 11.649 ms

Loss rate: 25.29%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-03-20 16:23:34

End at: 2018-03-20 16:24:04

Below is generated by plot.py at 2018-03-20 17:28:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.92 Mbit/s (7.6% utilization)

95th percentile per-packet one-way delay: 11.543 ms

Loss rate: 25.29%

-- Flow 1:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 11.548 ms

Loss rate: 24.28%

-- Flow 2:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 11.514 ms

Loss rate: 27.07%

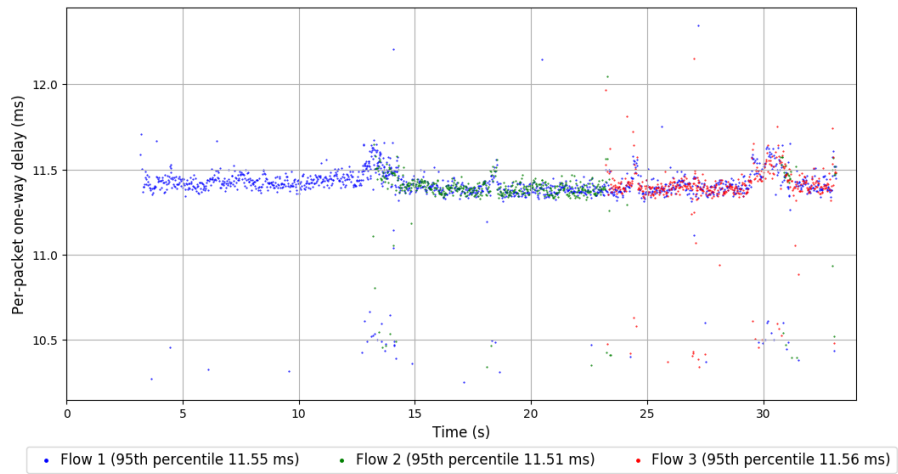
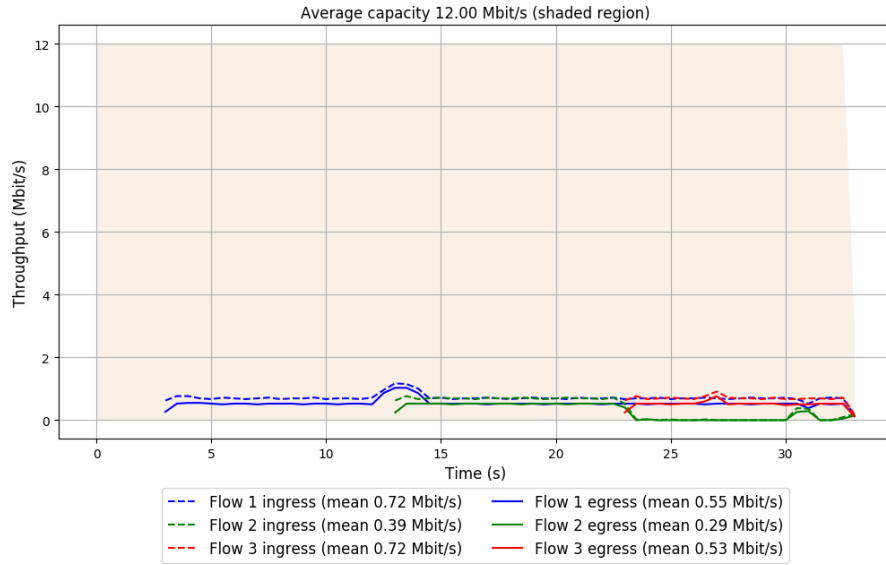
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 11.557 ms

Loss rate: 26.42%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-20 16:33:56

End at: 2018-03-20 16:34:26

Below is generated by plot.py at 2018-03-20 17:29:01

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.09 Mbit/s (9.1% utilization)

95th percentile per-packet one-way delay: 11.604 ms

Loss rate: 24.14%

-- Flow 1:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 11.582 ms

Loss rate: 23.70%

-- Flow 2:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 11.614 ms

Loss rate: 23.63%

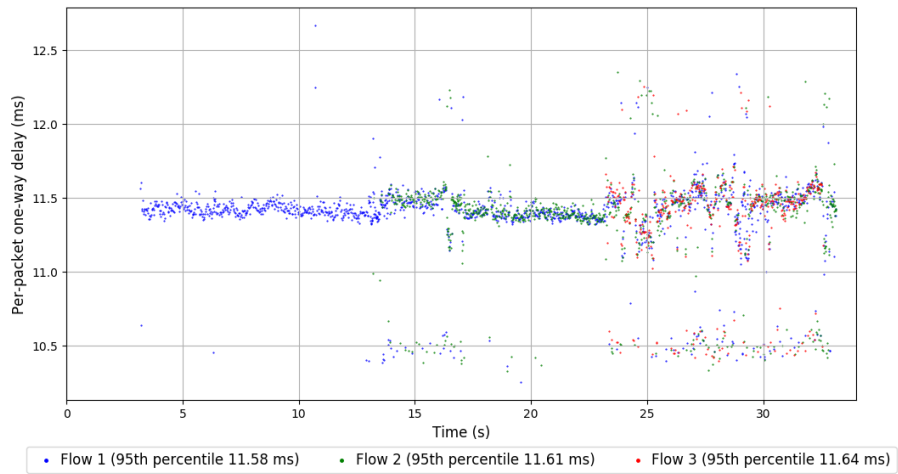
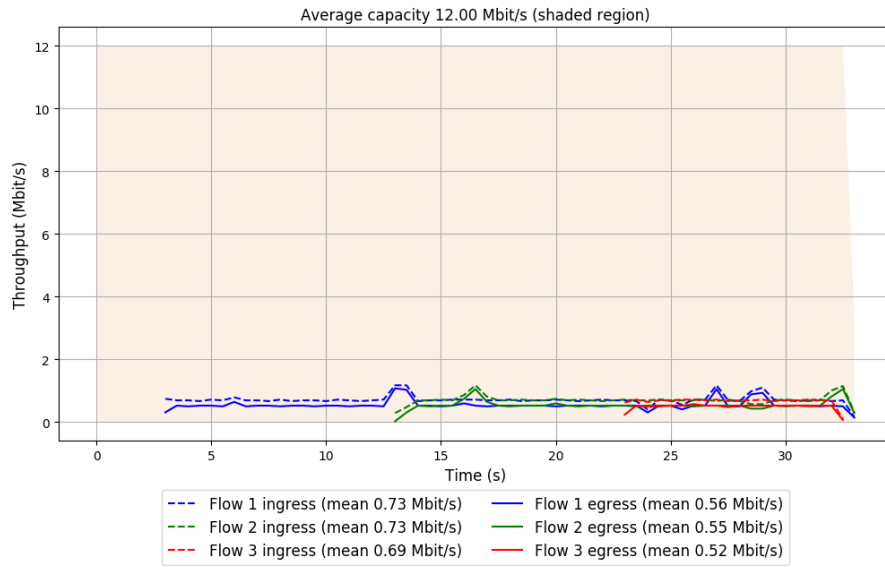
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 11.638 ms

Loss rate: 26.71%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-20 16:44:12

End at: 2018-03-20 16:44:42

Below is generated by plot.py at 2018-03-20 17:29:02

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.03 Mbit/s (8.5% utilization)

95th percentile per-packet one-way delay: 11.620 ms

Loss rate: 24.81%

-- Flow 1:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 11.618 ms

Loss rate: 23.42%

-- Flow 2:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 11.613 ms

Loss rate: 26.00%

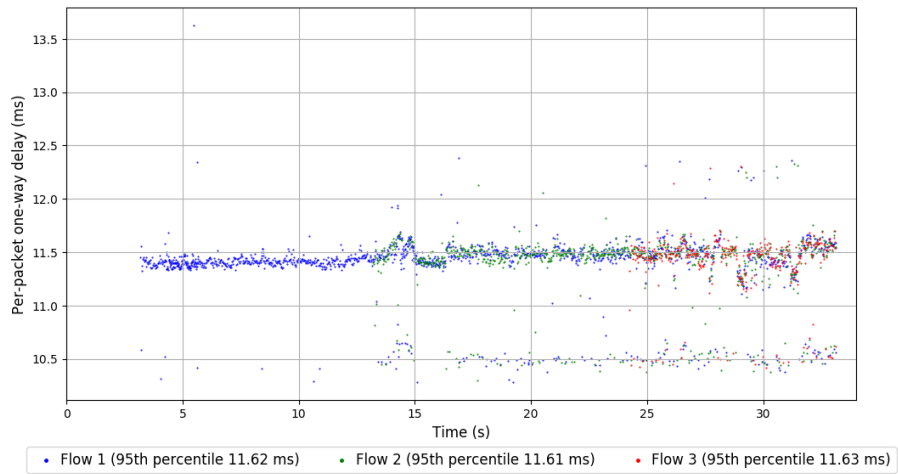
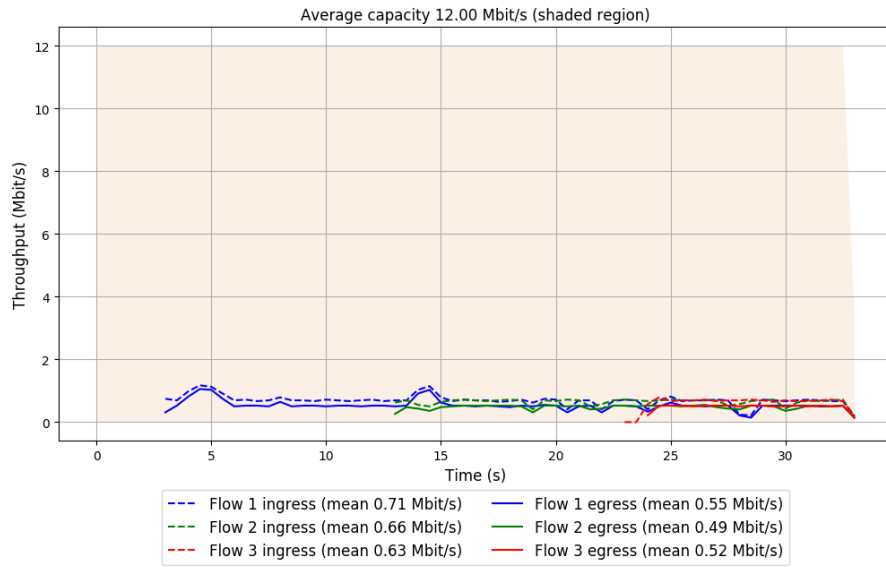
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 11.627 ms

Loss rate: 27.05%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-20 16:54:34

End at: 2018-03-20 16:55:04

Below is generated by plot.py at 2018-03-20 17:29:02

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.18 Mbit/s (9.8% utilization)

95th percentile per-packet one-way delay: 11.616 ms

Loss rate: 22.47%

-- Flow 1:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 11.602 ms

Loss rate: 19.30%

-- Flow 2:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 11.607 ms

Loss rate: 26.08%

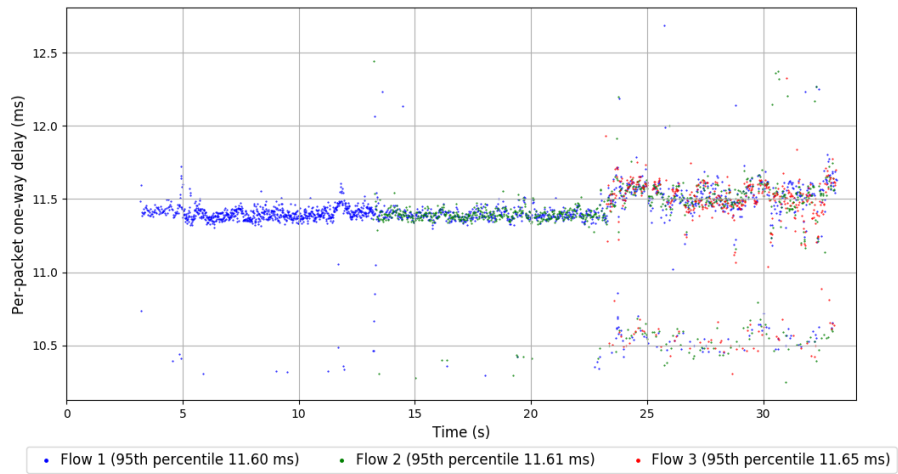
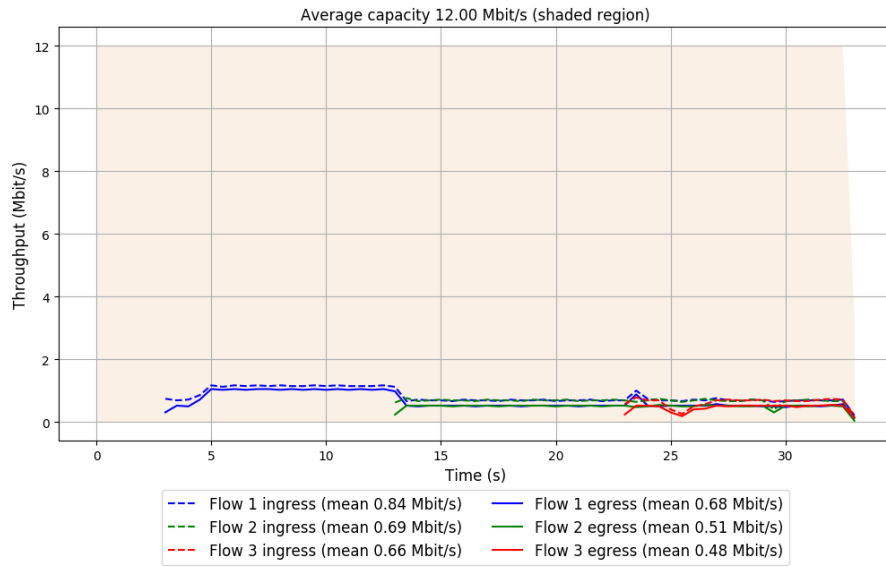
-- Flow 3:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 11.651 ms

Loss rate: 27.05%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-20 17:04:53

End at: 2018-03-20 17:05:23

Below is generated by plot.py at 2018-03-20 17:29:03

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.22 Mbit/s (10.2% utilization)

95th percentile per-packet one-way delay: 11.606 ms

Loss rate: 21.28%

-- Flow 1:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 11.595 ms

Loss rate: 17.90%

-- Flow 2:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 11.607 ms

Loss rate: 25.45%

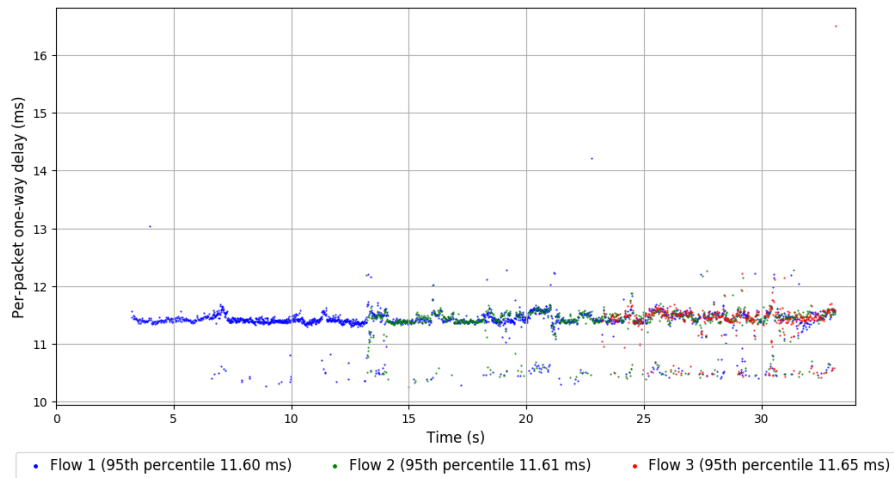
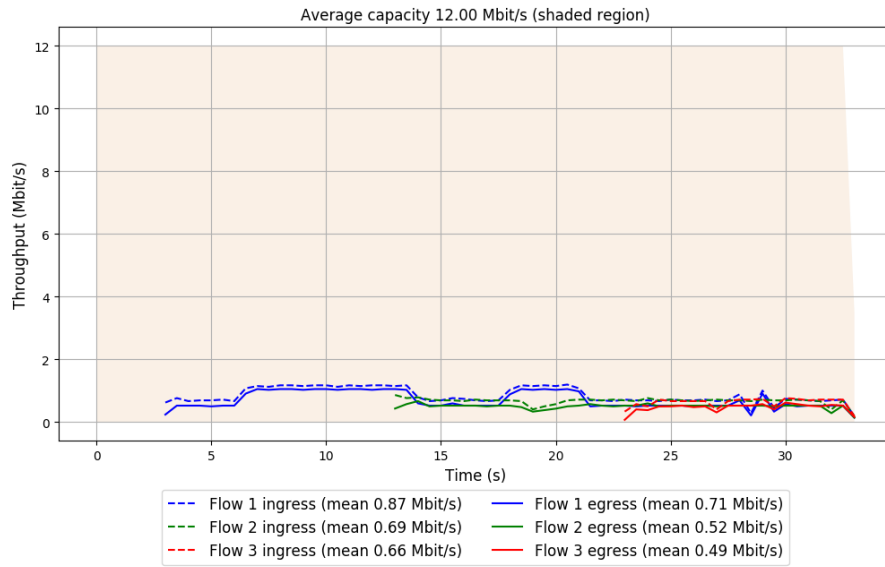
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 11.655 ms

Loss rate: 25.91%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-20 17:15:10

End at: 2018-03-20 17:15:40

Below is generated by plot.py at 2018-03-20 17:29:05

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.25 Mbit/s (10.4% utilization)

95th percentile per-packet one-way delay: 11.594 ms

Loss rate: 20.66%

-- Flow 1:

Average throughput: 0.74 Mbit/s

95th percentile per-packet one-way delay: 11.564 ms

Loss rate: 17.12%

-- Flow 2:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 11.608 ms

Loss rate: 25.15%

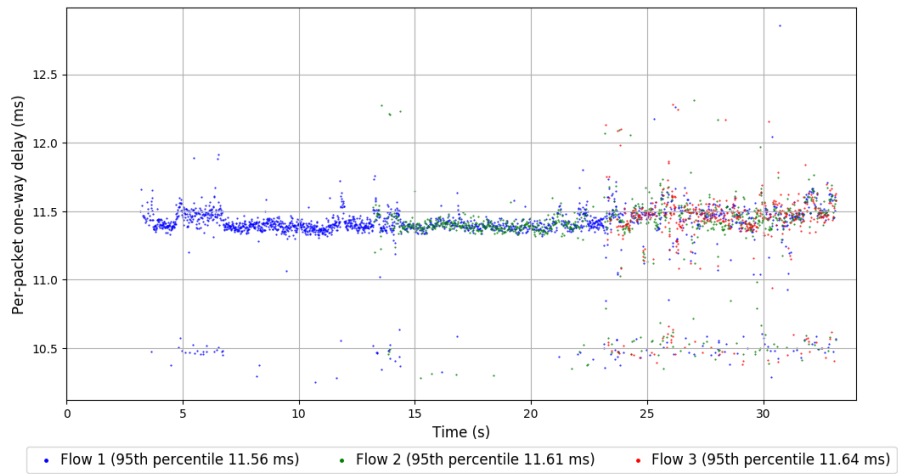
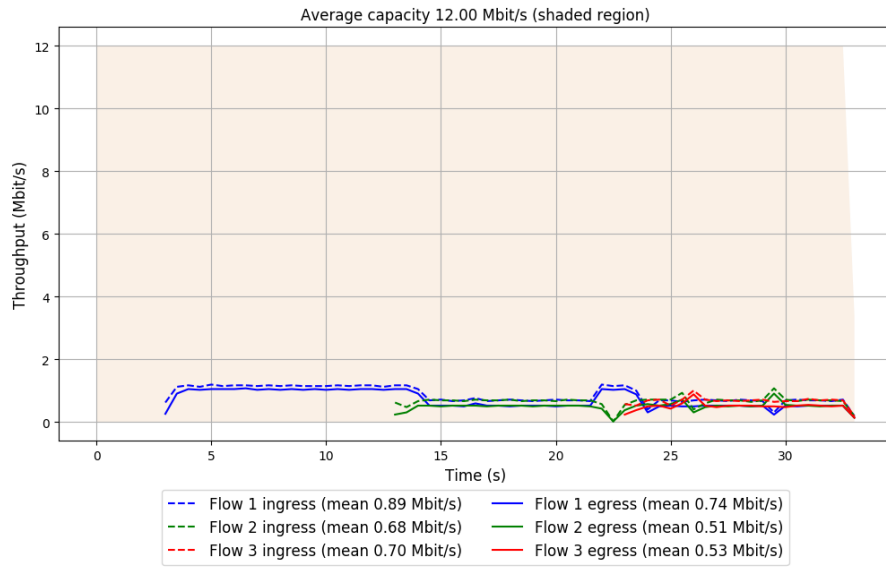
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 11.639 ms

Loss rate: 25.38%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-20 17:25:29

End at: 2018-03-20 17:25:59

Below is generated by plot.py at 2018-03-20 17:29:05

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 1.05 Mbit/s (8.7% utilization)

95th percentile per-packet one-way delay: 11.598 ms

Loss rate: 25.25%

-- Flow 1:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 11.574 ms

Loss rate: 24.91%

-- Flow 2:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 11.600 ms

Loss rate: 26.04%

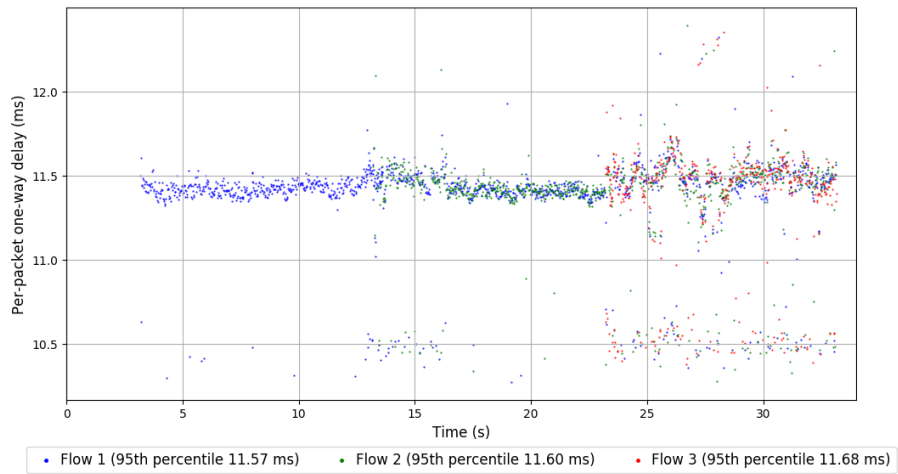
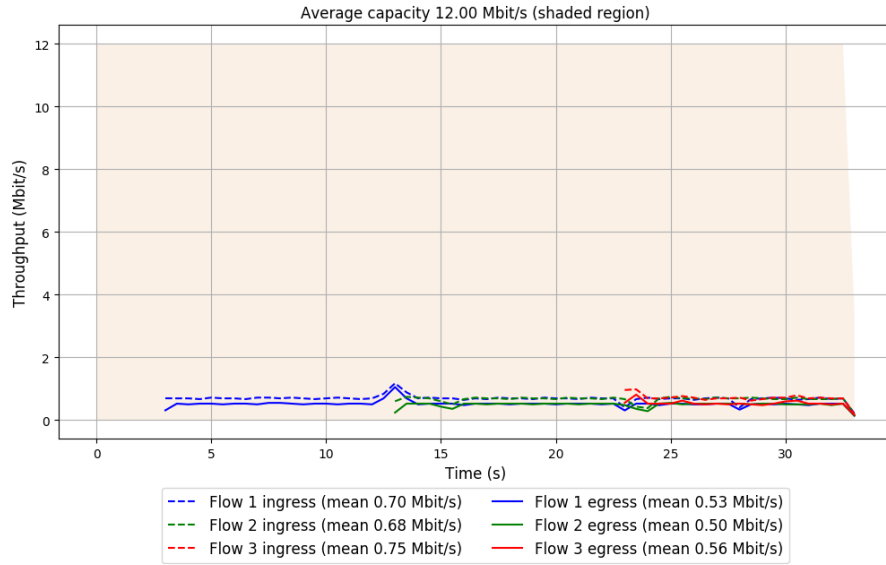
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 11.675 ms

Loss rate: 24.75%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-03-20 15:47:22

End at: 2018-03-20 15:47:52

Below is generated by plot.py at 2018-03-20 17:29:46

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.31 Mbit/s (27.6% utilization)

95th percentile per-packet one-way delay: 12.937 ms

Loss rate: 97.90%

-- Flow 1:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 12.805 ms

Loss rate: 98.09%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 13.258 ms

Loss rate: 97.14%

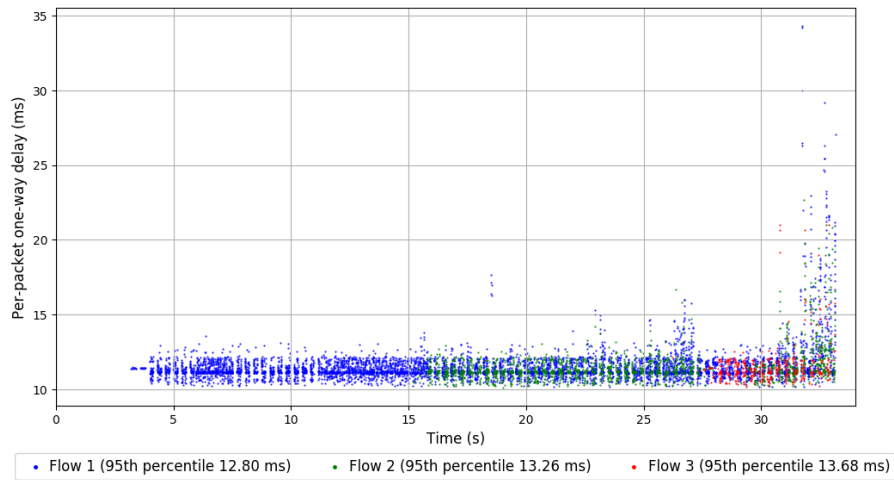
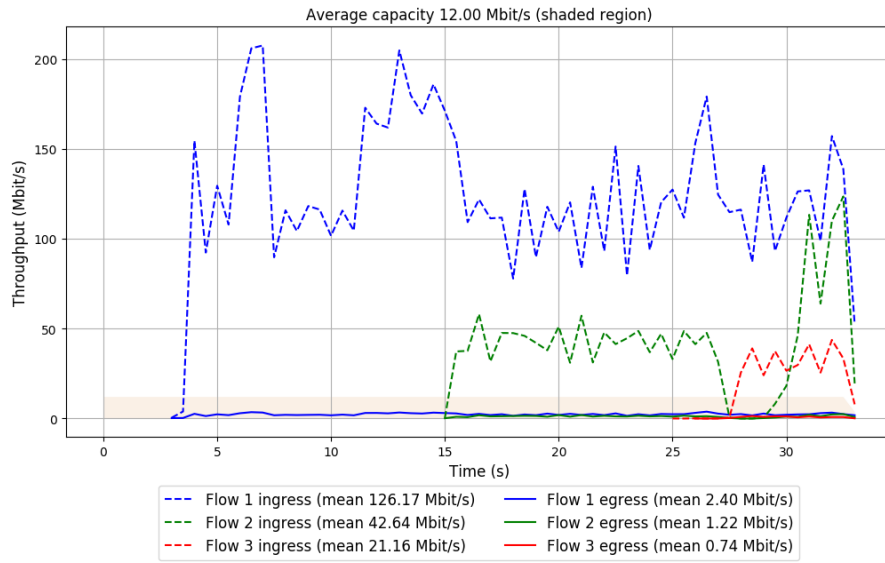
-- Flow 3:

Average throughput: 0.74 Mbit/s

95th percentile per-packet one-way delay: 13.682 ms

Loss rate: 96.96%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-20 15:57:39

End at: 2018-03-20 15:58:09

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.75 Mbit/s (48.0% utilization)

95th percentile per-packet one-way delay: 22.111 ms

Loss rate: 98.83%

-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 19.000 ms

Loss rate: 98.67%

-- Flow 2:

Average throughput: 5.92 Mbit/s

95th percentile per-packet one-way delay: 23.075 ms

Loss rate: 98.89%

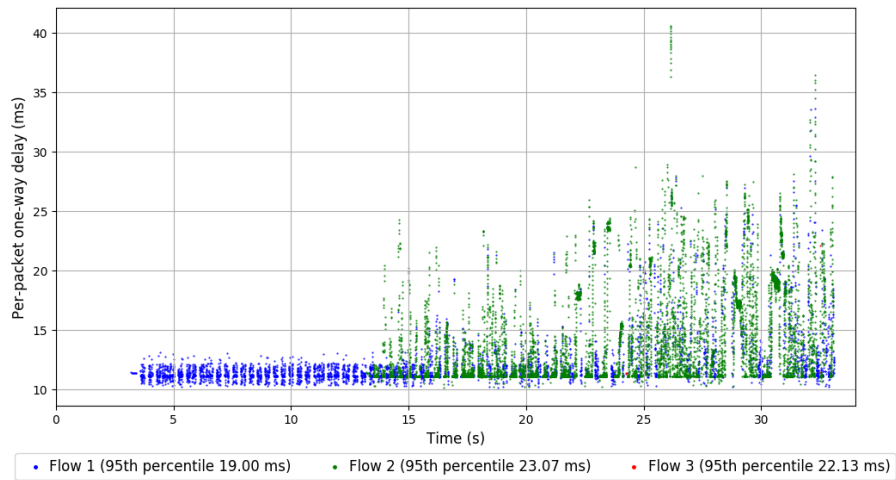
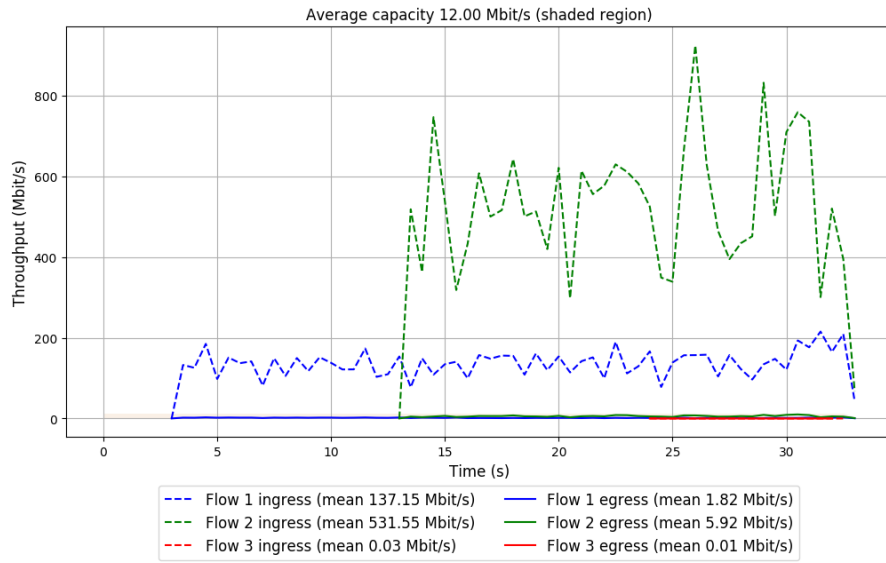
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 22.127 ms

Loss rate: 76.19%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

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

End at: 2018-03-20 16:08:33

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.48 Mbit/s (29.0% utilization)

95th percentile per-packet one-way delay: 12.623 ms

Loss rate: 97.71%

-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 12.622 ms

Loss rate: 97.71%

-- Flow 2:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 12.649 ms

Loss rate: 97.73%

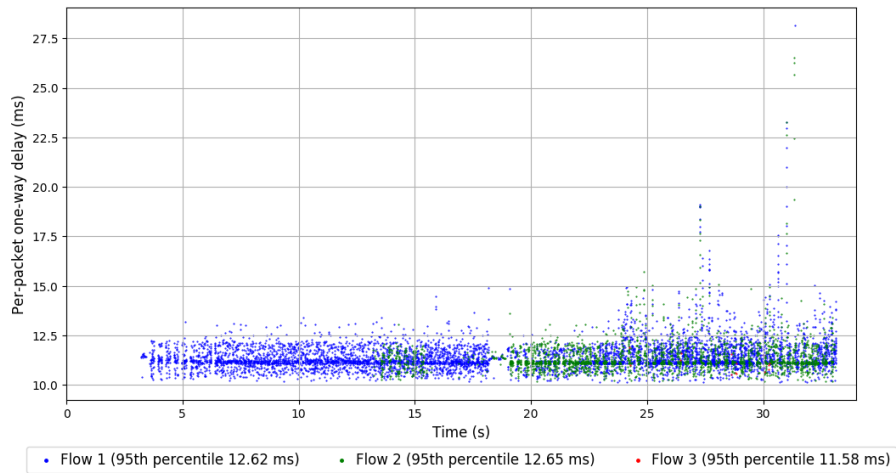
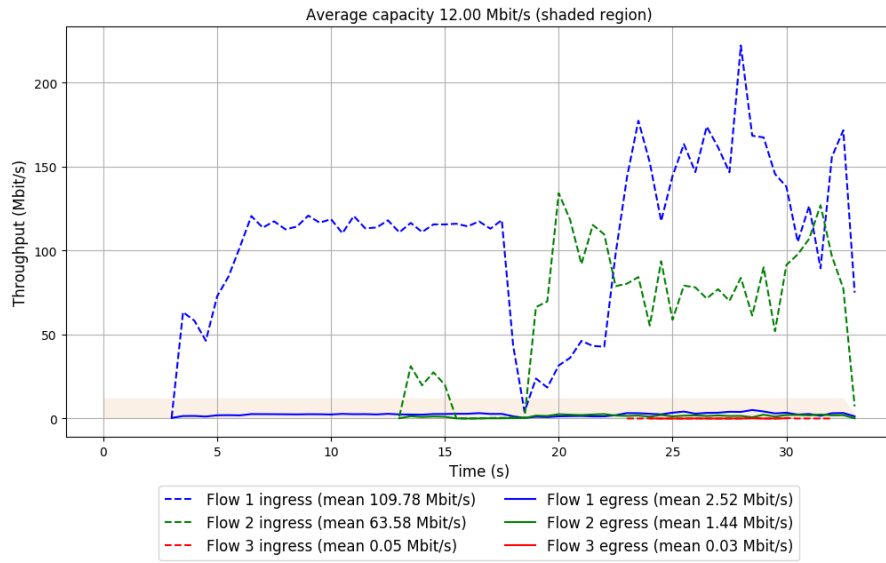
-- Flow 3:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 11.580 ms

Loss rate: 65.85%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-20 16:18:21

End at: 2018-03-20 16:18:51

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.02 Mbit/s (41.9% utilization)

95th percentile per-packet one-way delay: 20.390 ms

Loss rate: 98.76%

-- Flow 1:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 19.163 ms

Loss rate: 98.72%

-- Flow 2:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 22.621 ms

Loss rate: 98.88%

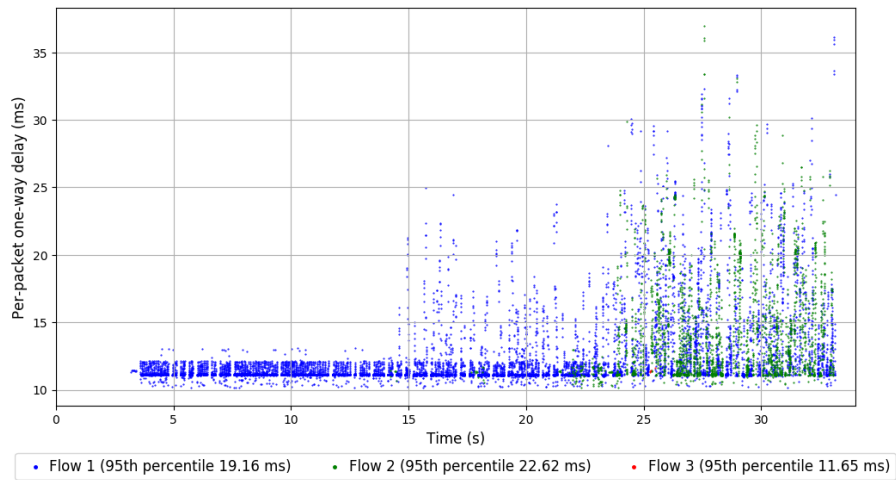
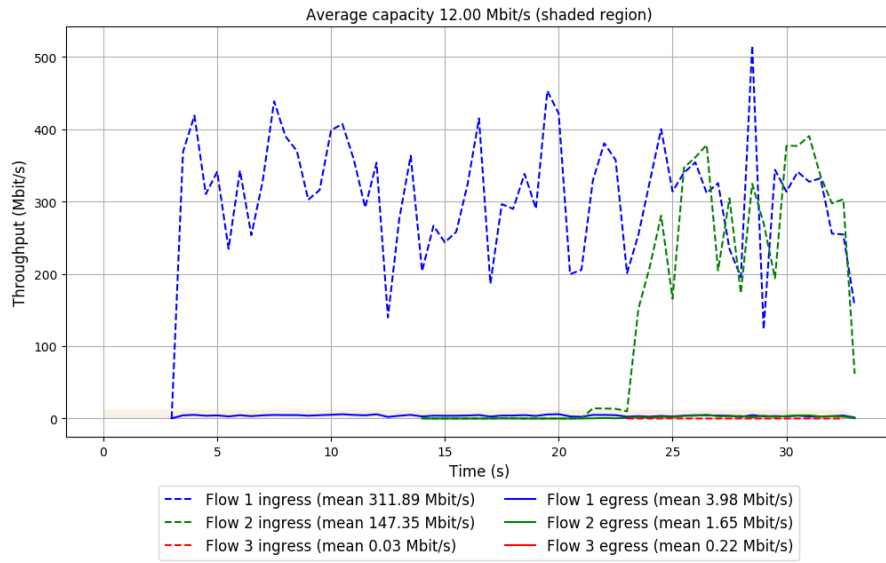
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 11.648 ms

Loss rate: 80.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-20 16:28:43

End at: 2018-03-20 16:29:13

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.17 Mbit/s (43.1% utilization)

95th percentile per-packet one-way delay: 20.261 ms

Loss rate: 98.68%

-- Flow 1:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 18.653 ms

Loss rate: 98.70%

-- Flow 2:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 22.841 ms

Loss rate: 98.63%

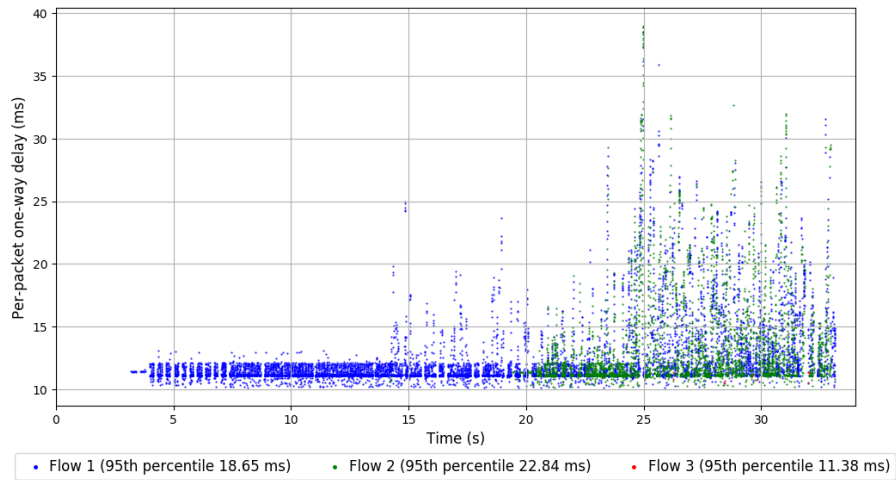
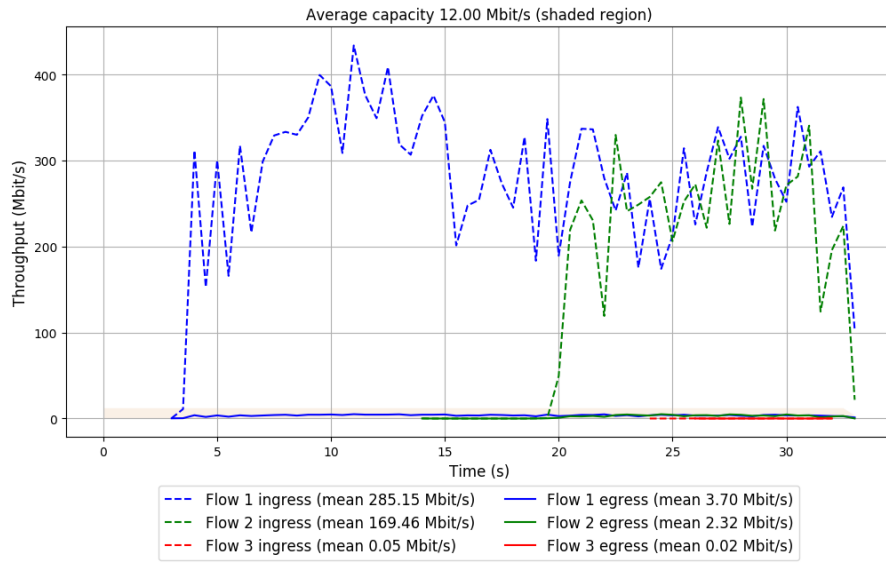
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 11.385 ms

Loss rate: 70.97%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-20 16:39:04

End at: 2018-03-20 16:39:34

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.47 Mbit/s (20.6% utilization)

95th percentile per-packet one-way delay: 12.134 ms

Loss rate: 97.25%

-- Flow 1:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 12.191 ms

Loss rate: 97.63%

-- Flow 2:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 12.057 ms

Loss rate: 96.28%

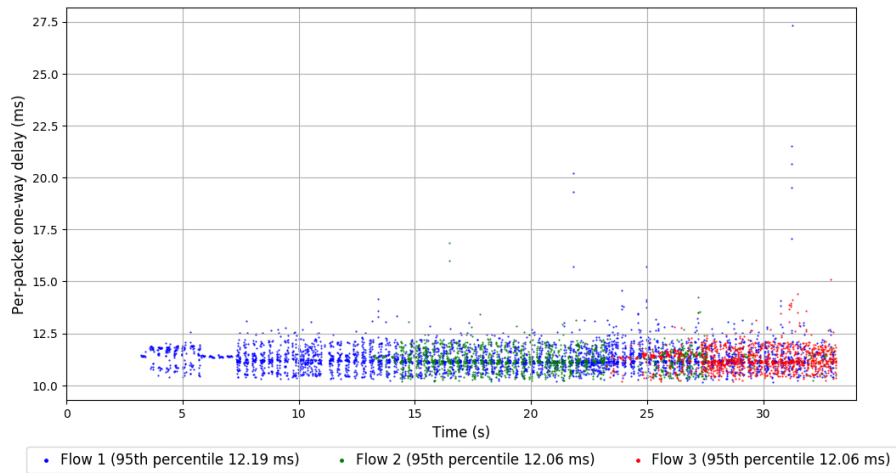
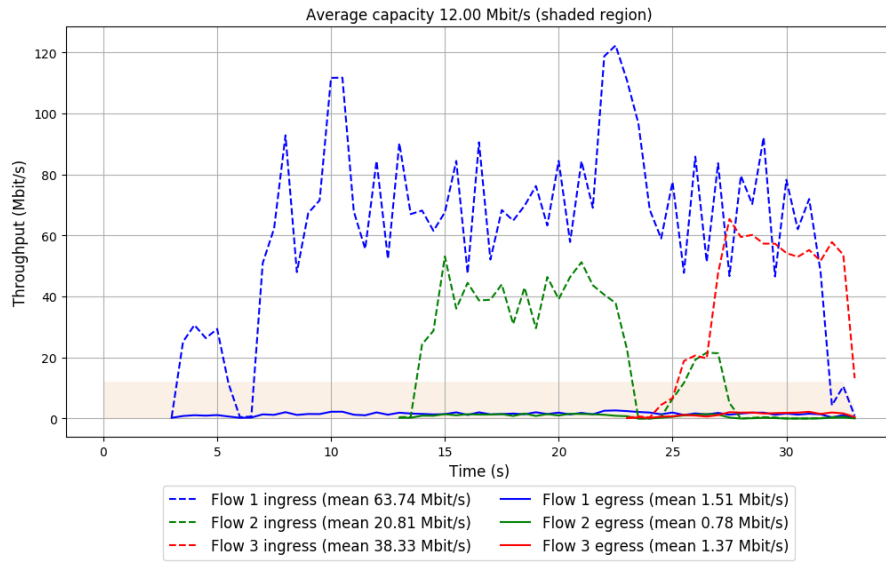
-- Flow 3:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 12.061 ms

Loss rate: 96.42%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-20 16:49:21

End at: 2018-03-20 16:49:51

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.76 Mbit/s (39.7% utilization)

95th percentile per-packet one-way delay: 17.094 ms

Loss rate: 98.70%

-- Flow 1:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 16.927 ms

Loss rate: 98.74%

-- Flow 2:

Average throughput: 0.91 Mbit/s

95th percentile per-packet one-way delay: 18.469 ms

Loss rate: 98.33%

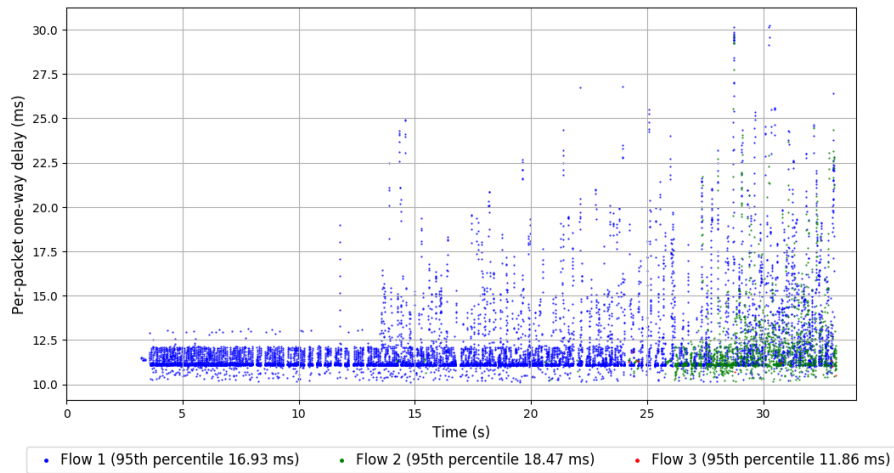
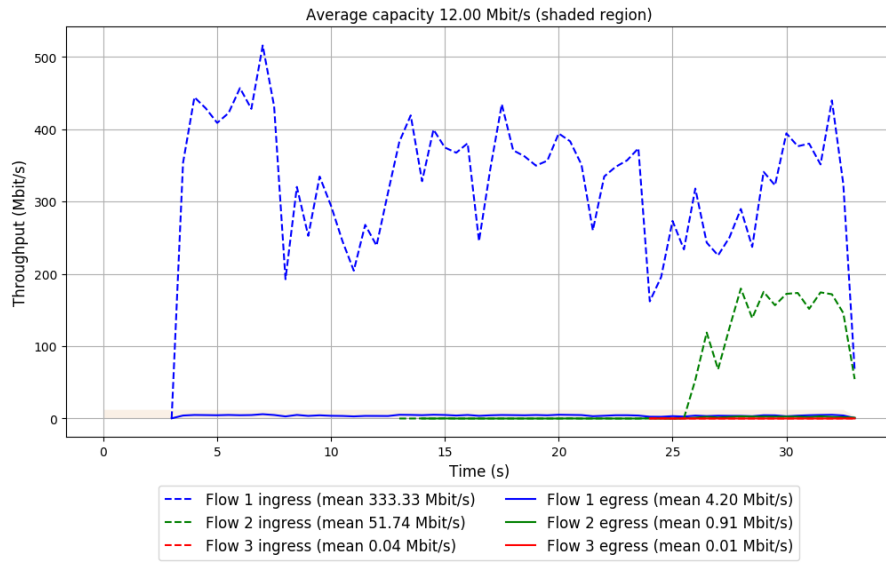
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.864 ms

Loss rate: 67.86%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-20 16:59:43

End at: 2018-03-20 17:00:13

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.61 Mbit/s (30.1% utilization)

95th percentile per-packet one-way delay: 12.903 ms

Loss rate: 97.76%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 12.396 ms

Loss rate: 97.41%

-- Flow 2:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 13.459 ms

Loss rate: 98.11%

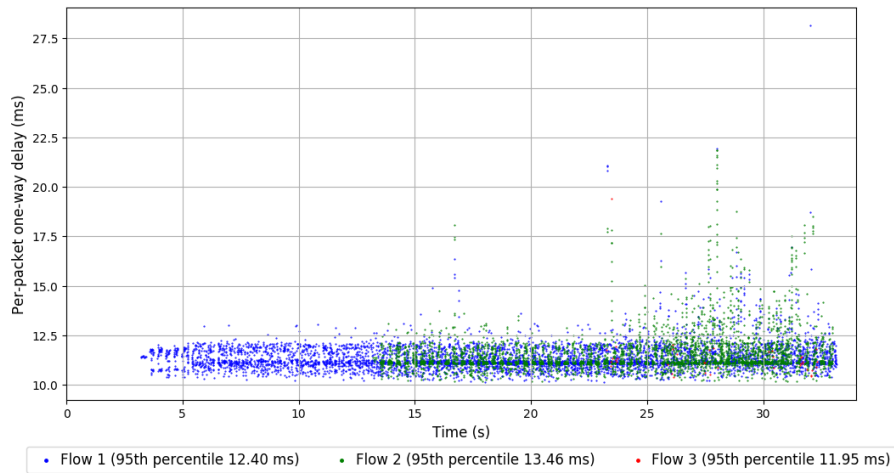
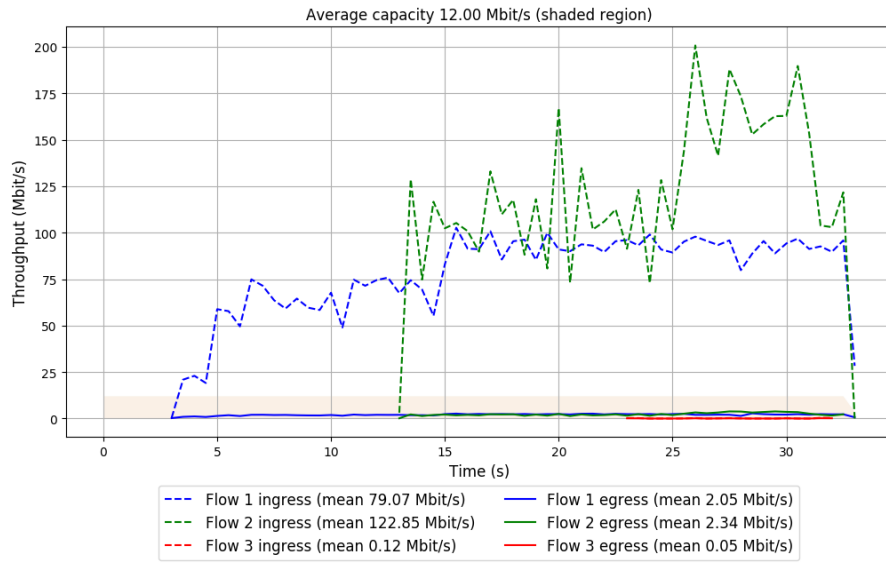
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 11.953 ms

Loss rate: 58.95%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-20 17:10:01

End at: 2018-03-20 17:10:31

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.26 Mbit/s (27.2% utilization)

95th percentile per-packet one-way delay: 12.964 ms

Loss rate: 97.41%

-- Flow 1:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 13.106 ms

Loss rate: 97.36%

-- Flow 2:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 12.825 ms

Loss rate: 97.48%

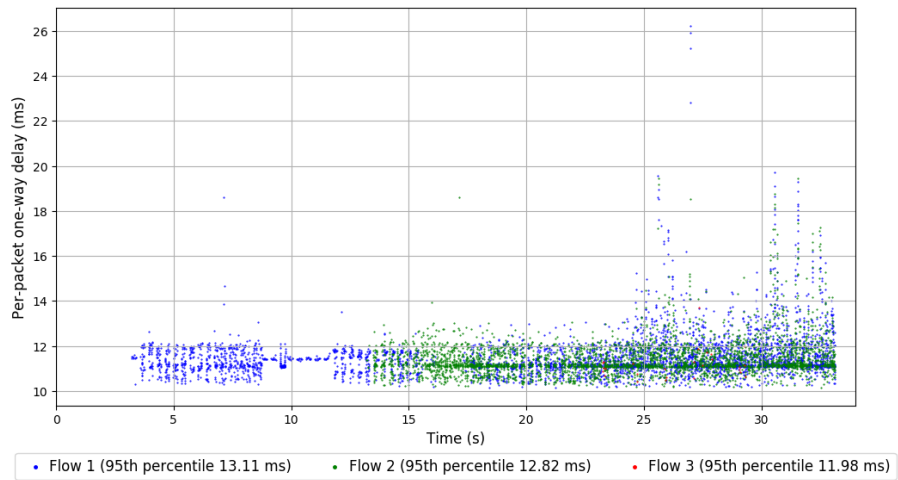
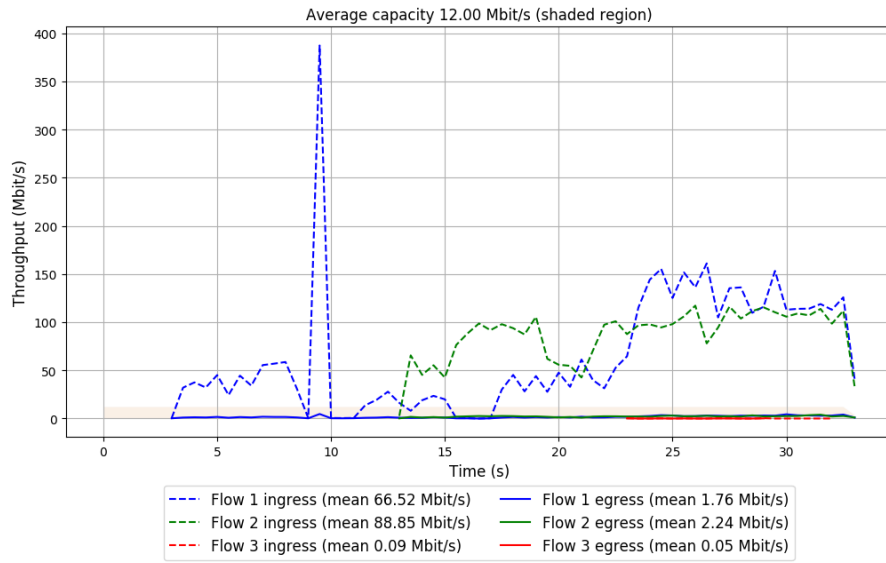
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 11.984 ms

Loss rate: 63.38%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-20 17:20:18

End at: 2018-03-20 17:20:48

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.31 Mbit/s (35.9% utilization)

95th percentile per-packet one-way delay: 15.841 ms

Loss rate: 98.32%

-- Flow 1:

Average throughput: 1.67 Mbit/s

95th percentile per-packet one-way delay: 13.159 ms

Loss rate: 97.83%

-- Flow 2:

Average throughput: 3.97 Mbit/s

95th percentile per-packet one-way delay: 16.820 ms

Loss rate: 98.53%

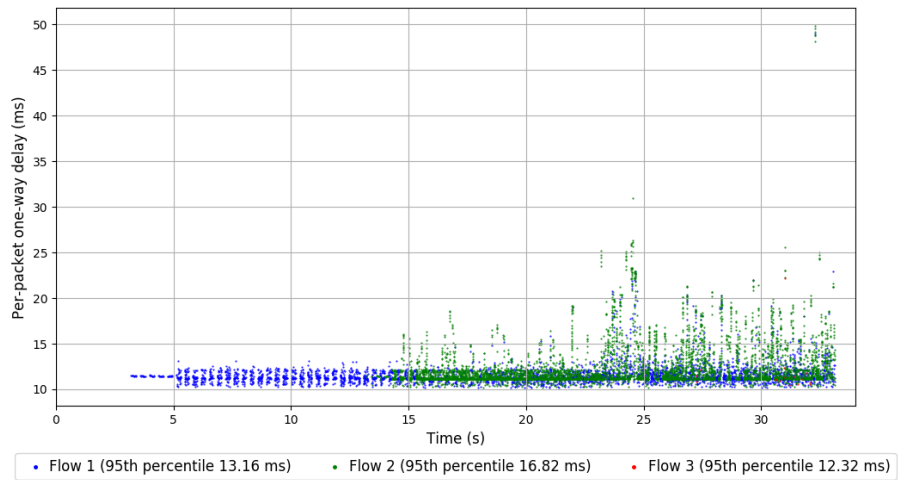
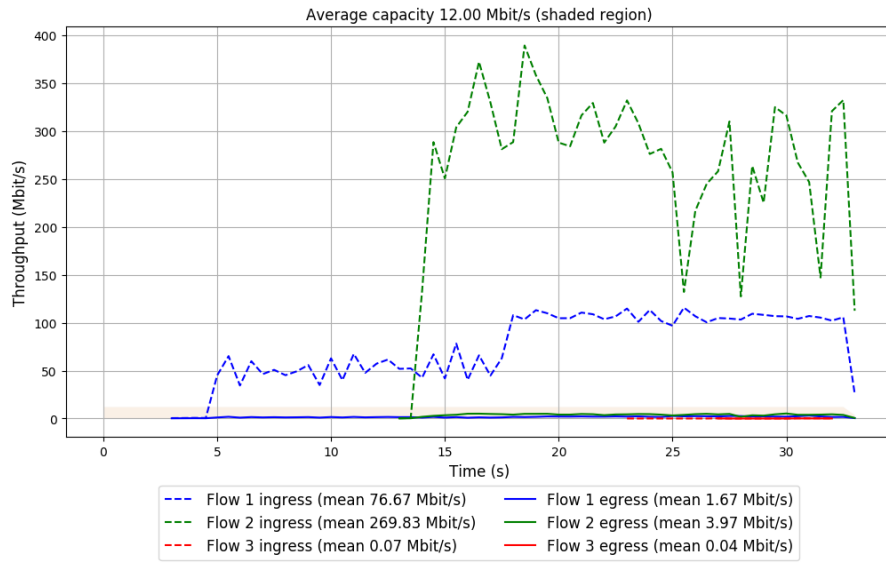
-- Flow 3:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 12.325 ms

Loss rate: 69.23%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-03-20 15:48:32

End at: 2018-03-20 15:49:02

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 12.029 ms

Loss rate: 95.35%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.923 ms

Loss rate: 95.36%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.724 ms

Loss rate: 95.35%

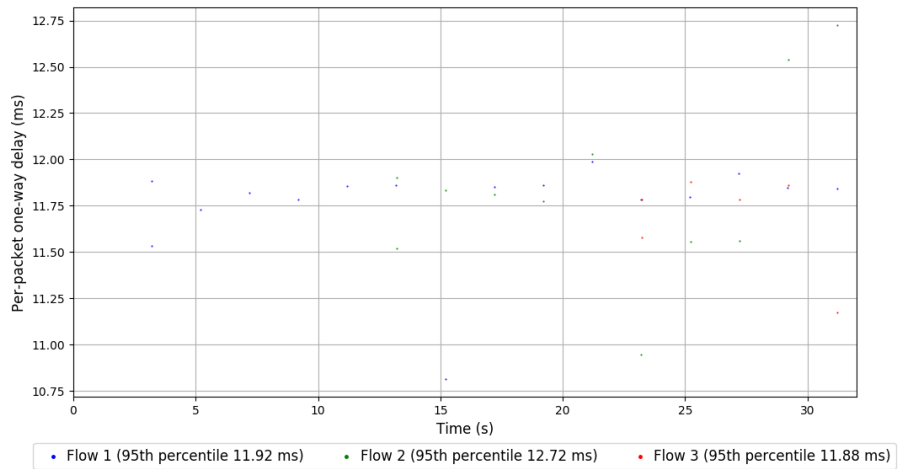
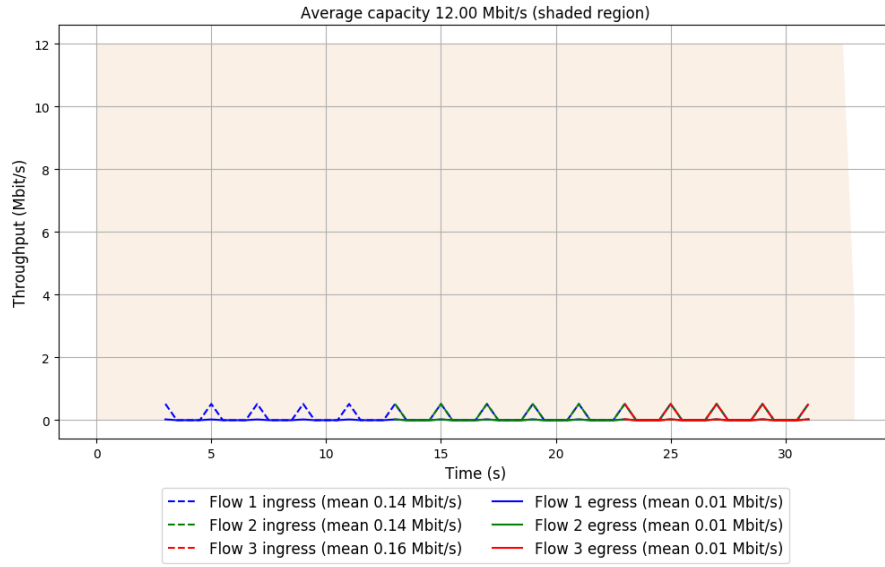
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.880 ms

Loss rate: 95.31%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-20 15:58:55

End at: 2018-03-20 15:59:25

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 12.080 ms

Loss rate: 94.37%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.900 ms

Loss rate: 95.36%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.719 ms

Loss rate: 92.42%

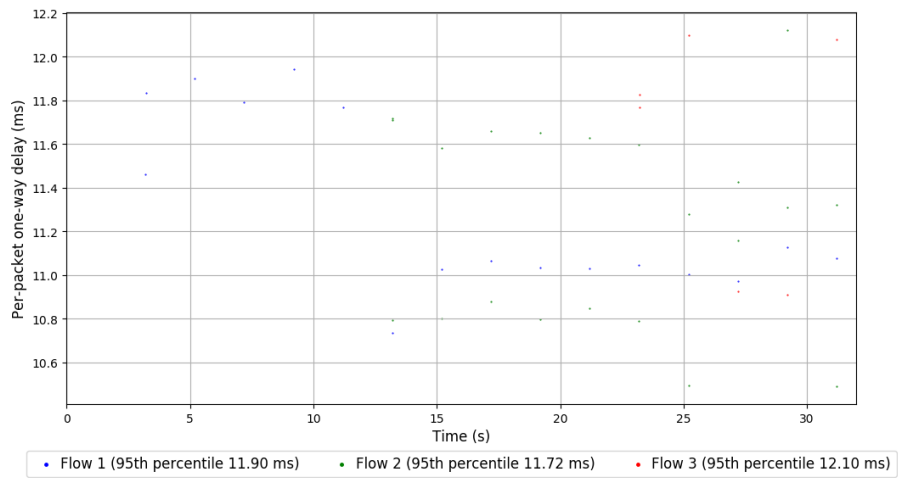
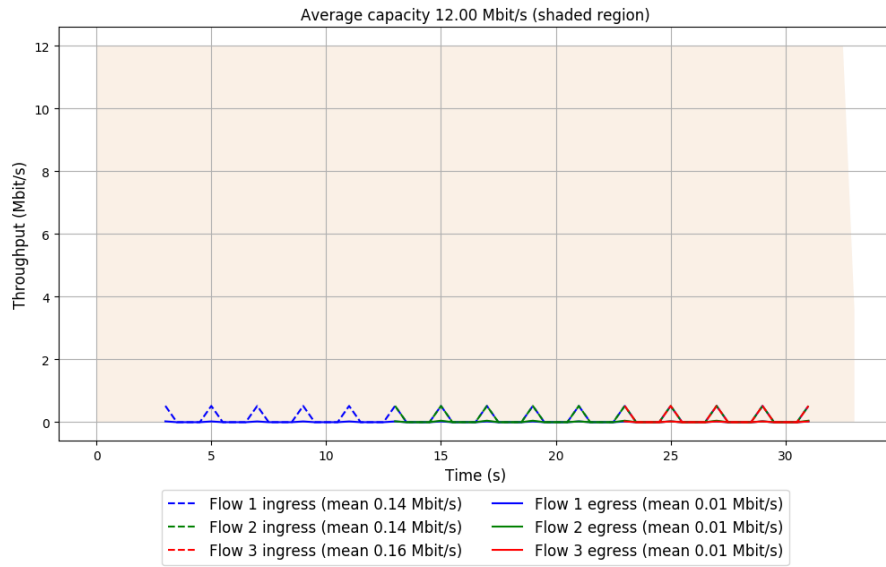
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.097 ms

Loss rate: 95.31%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-20 16:09:13

End at: 2018-03-20 16:09:43

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.904 ms

Loss rate: 93.75%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.939 ms

Loss rate: 94.40%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.870 ms

Loss rate: 92.98%

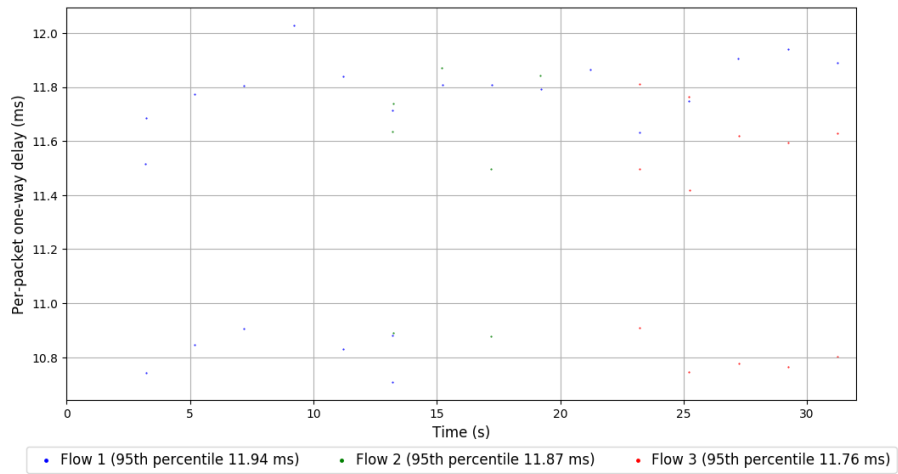
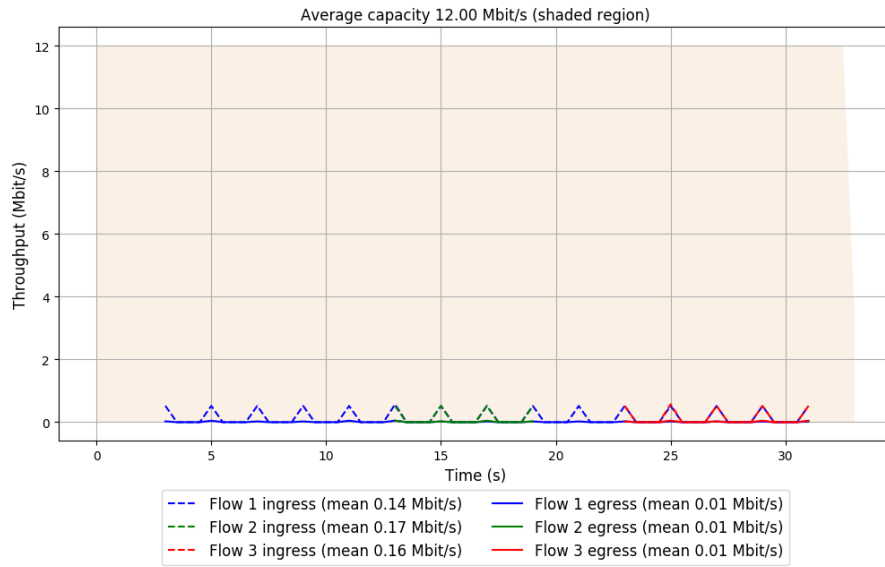
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.763 ms

Loss rate: 92.46%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-20 16:19:36

End at: 2018-03-20 16:20:06

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 12.076 ms

Loss rate: 94.31%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.049 ms

Loss rate: 93.64%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.100 ms

Loss rate: 95.35%

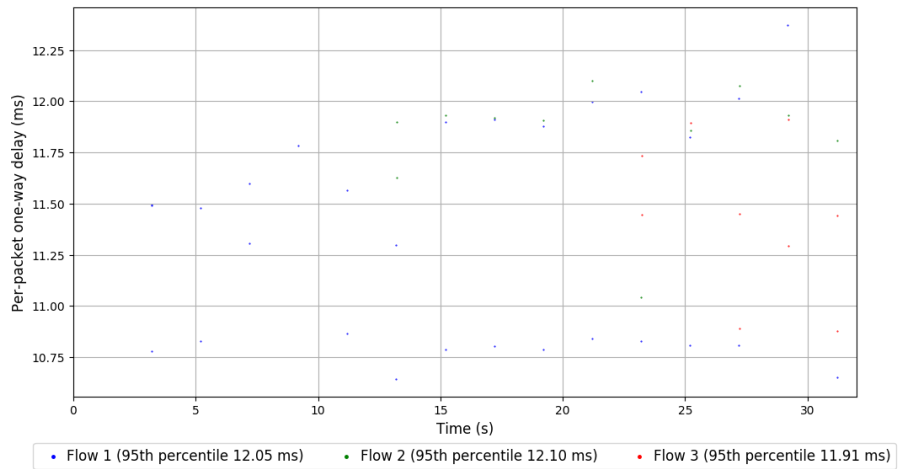
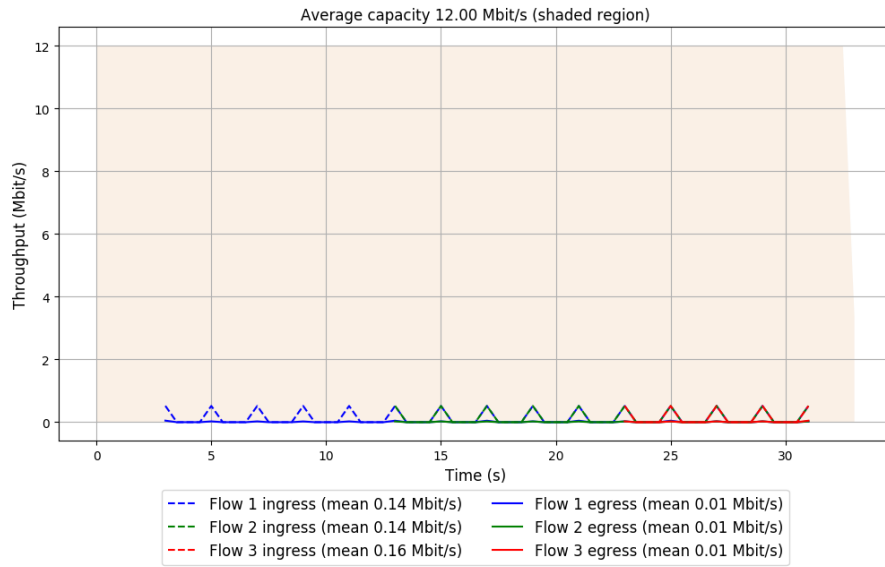
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.913 ms

Loss rate: 94.23%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-20 16:29:57

End at: 2018-03-20 16:30:27

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.901 ms

Loss rate: 93.36%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.800 ms

Loss rate: 92.15%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.838 ms

Loss rate: 94.81%

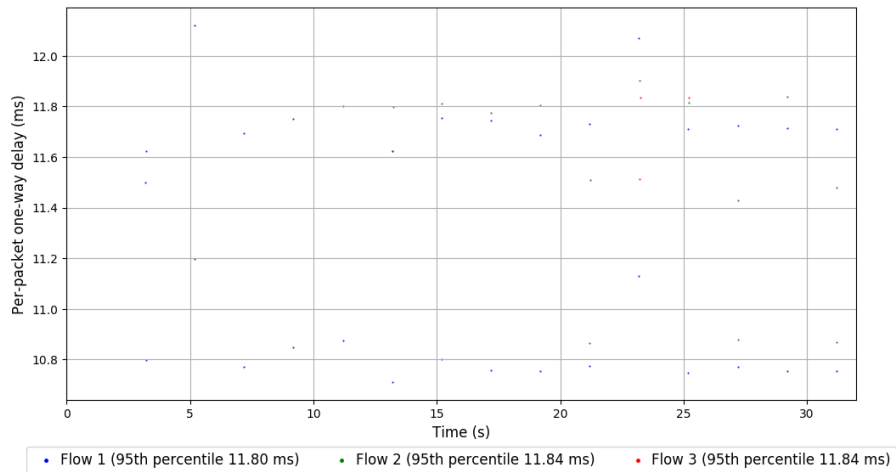
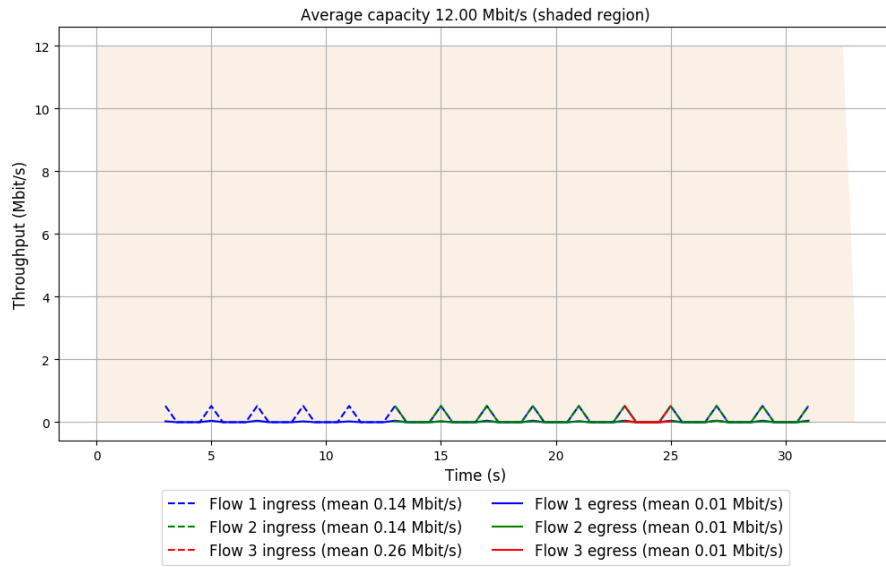
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.835 ms

Loss rate: 95.19%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-20 16:40:13

End at: 2018-03-20 16:40:43

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.950 ms

Loss rate: 95.31%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.925 ms

Loss rate: 95.28%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.948 ms

Loss rate: 95.35%

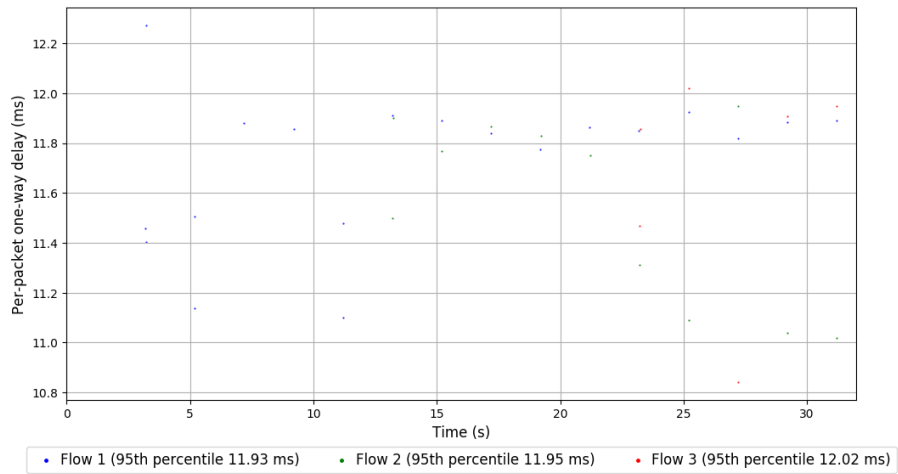
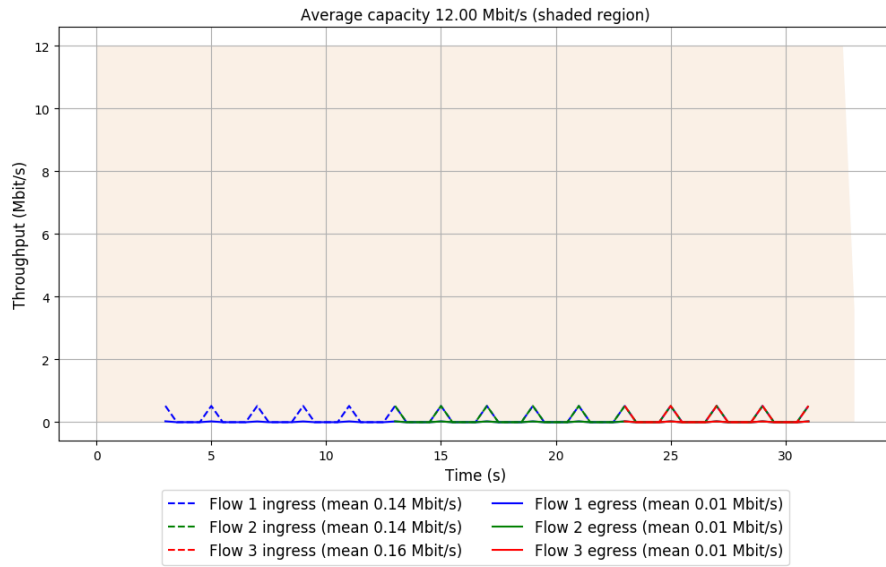
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.019 ms

Loss rate: 95.31%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-20 16:50:35

End at: 2018-03-20 16:51:05

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.964 ms

Loss rate: 95.47%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.061 ms

Loss rate: 95.36%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.875 ms

Loss rate: 95.27%

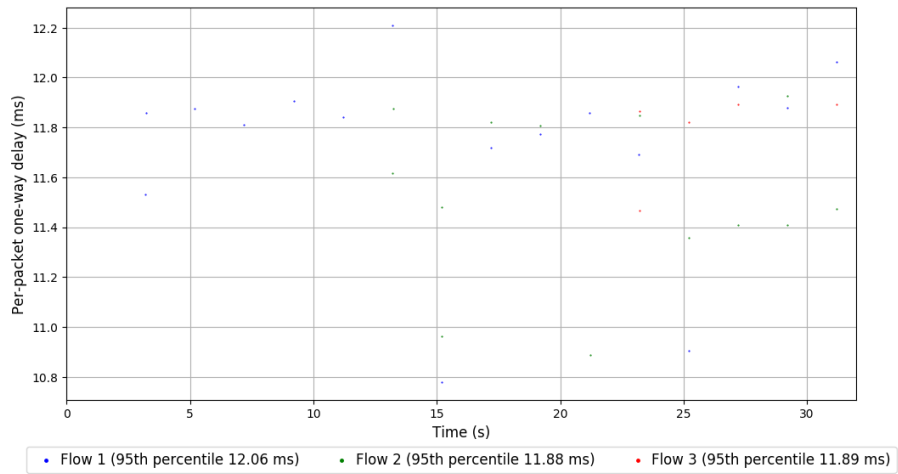
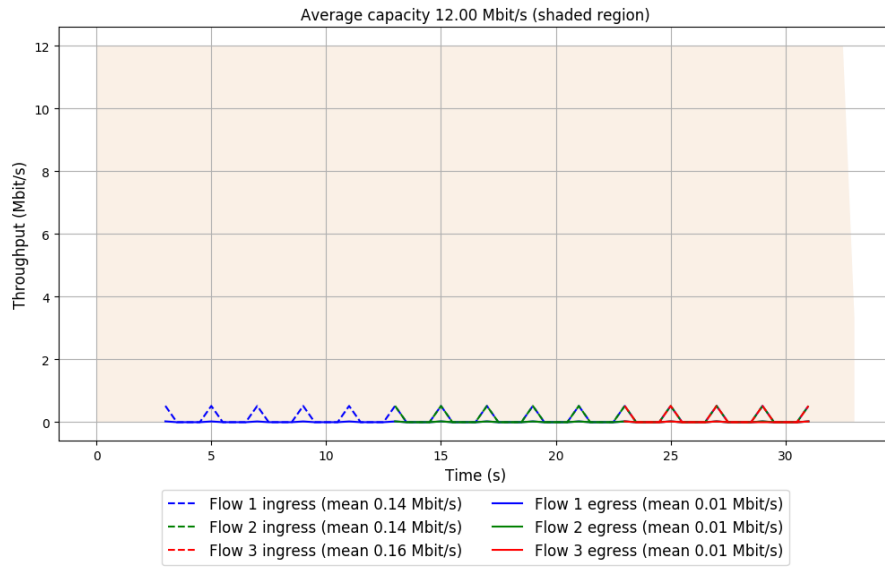
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.894 ms

Loss rate: 96.23%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-20 17:00:54

End at: 2018-03-20 17:01:24

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.01 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 12.150 ms

Loss rate: 95.31%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.948 ms

Loss rate: 95.28%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.329 ms

Loss rate: 95.35%

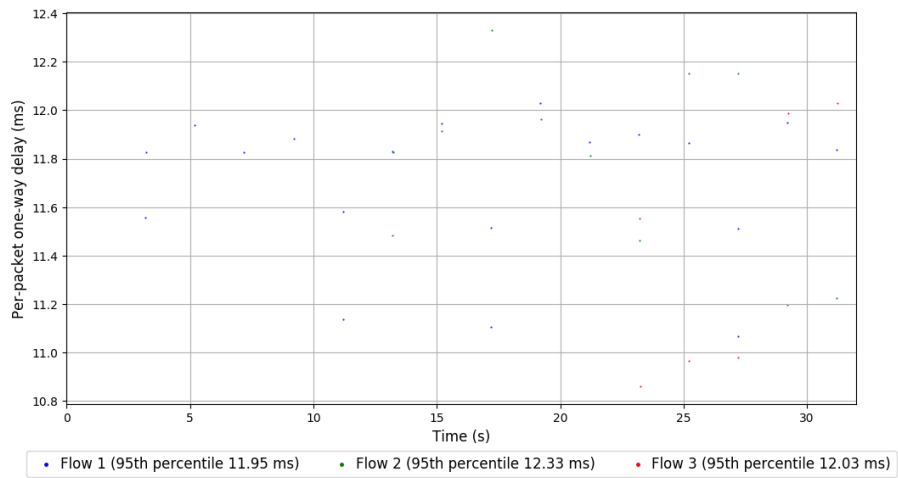
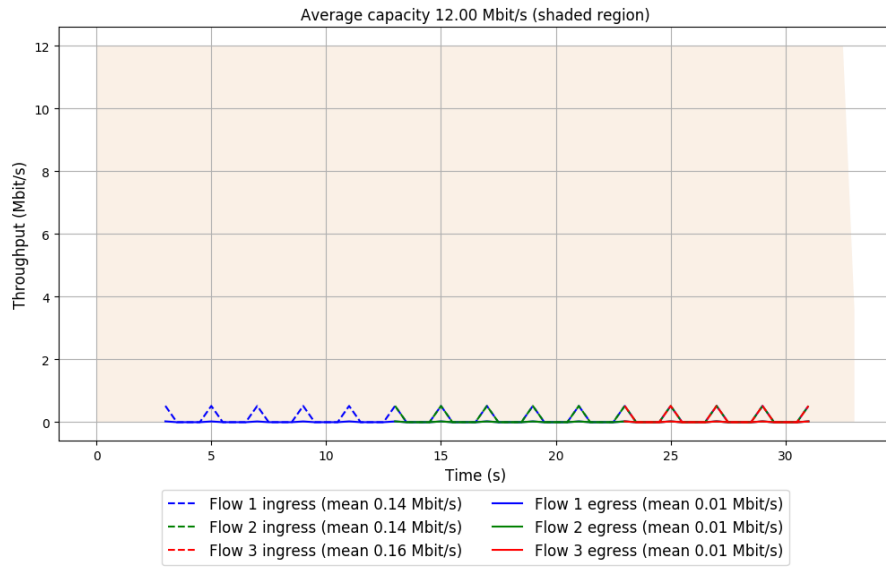
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 12.030 ms

Loss rate: 95.31%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-20 17:11:11

End at: 2018-03-20 17:11:41

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.869 ms

Loss rate: 93.87%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.762 ms

Loss rate: 92.72%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.868 ms

Loss rate: 94.88%

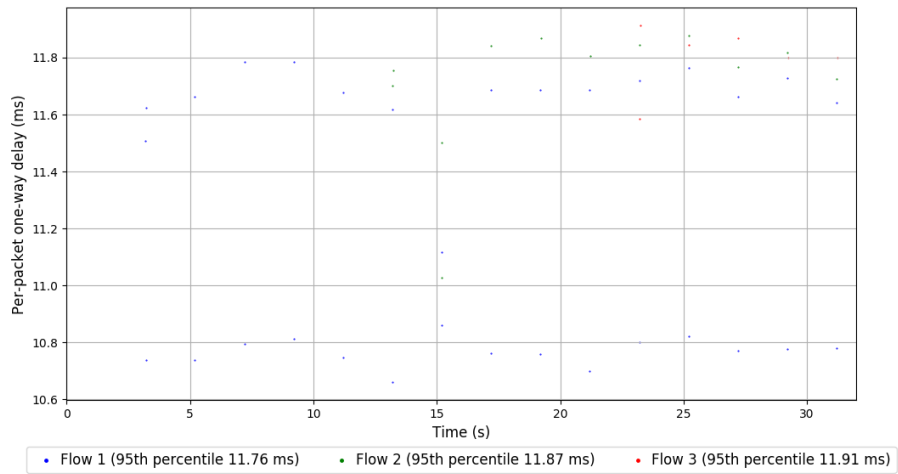
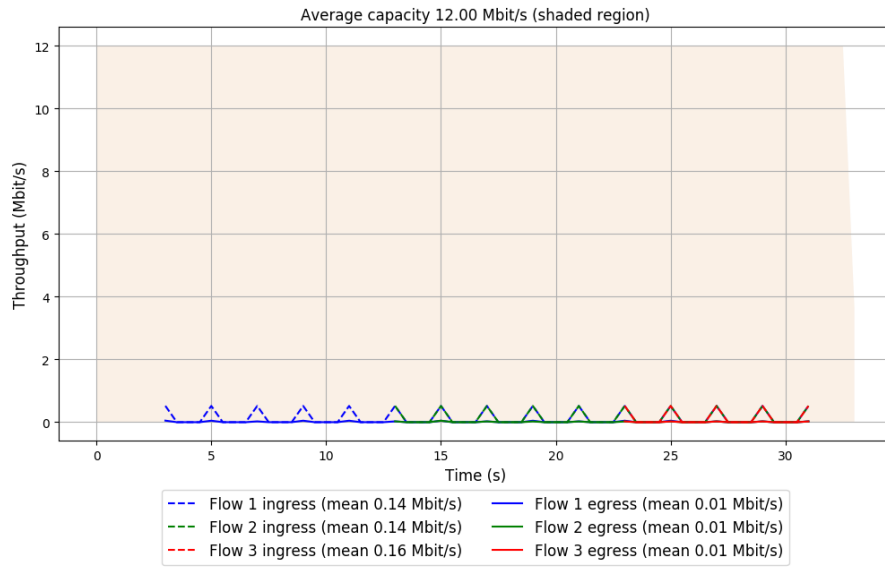
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.911 ms

Loss rate: 95.31%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-20 17:21:30

End at: 2018-03-20 17:22:00

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 0.02 Mbit/s (0.1% utilization)

95th percentile per-packet one-way delay: 11.813 ms

Loss rate: 92.26%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.813 ms

Loss rate: 92.74%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 11.764 ms

Loss rate: 91.58%

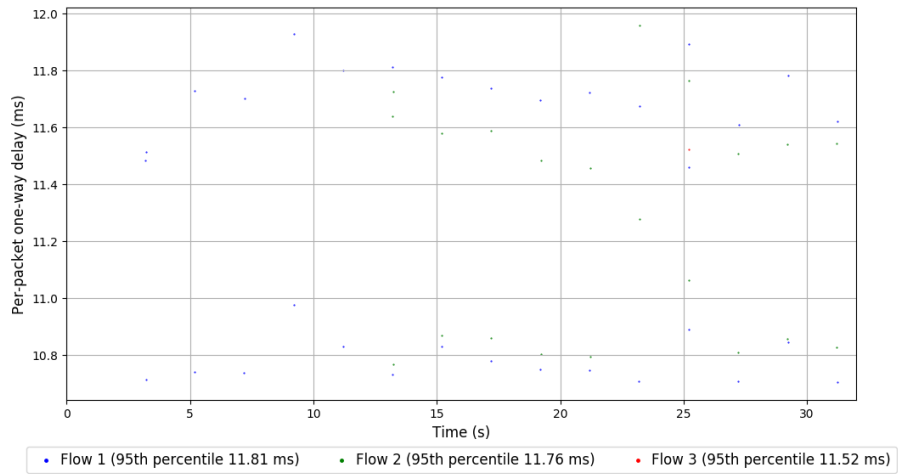
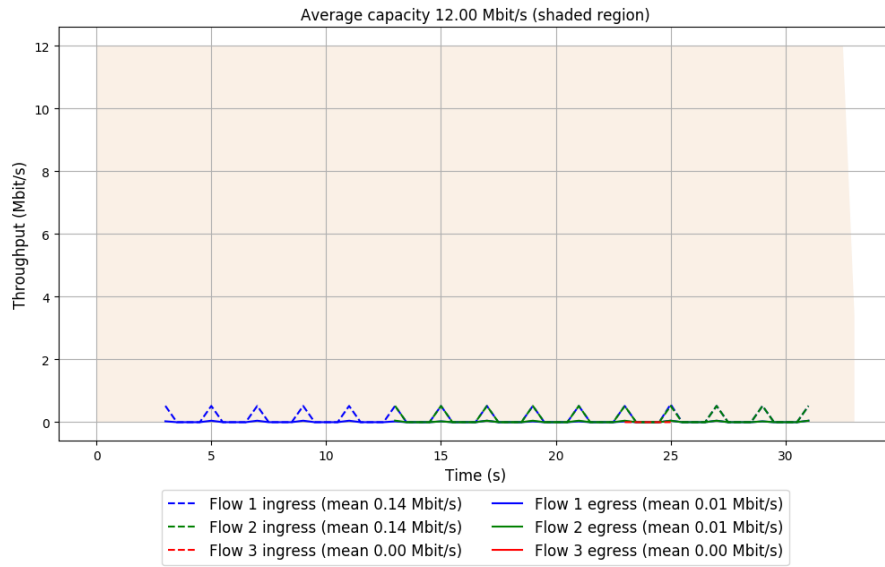
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 11.523 ms

Loss rate: 50.00%

Run 10: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2018-03-20 15:49:06

End at: 2018-03-20 15:49:36

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.39 Mbit/s (28.3% utilization)

95th percentile per-packet one-way delay: 11.938 ms

Loss rate: 84.74%

-- Flow 1:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 11.938 ms

Loss rate: 81.50%

-- Flow 2:

Average throughput: 1.59 Mbit/s

95th percentile per-packet one-way delay: 11.938 ms

Loss rate: 77.68%

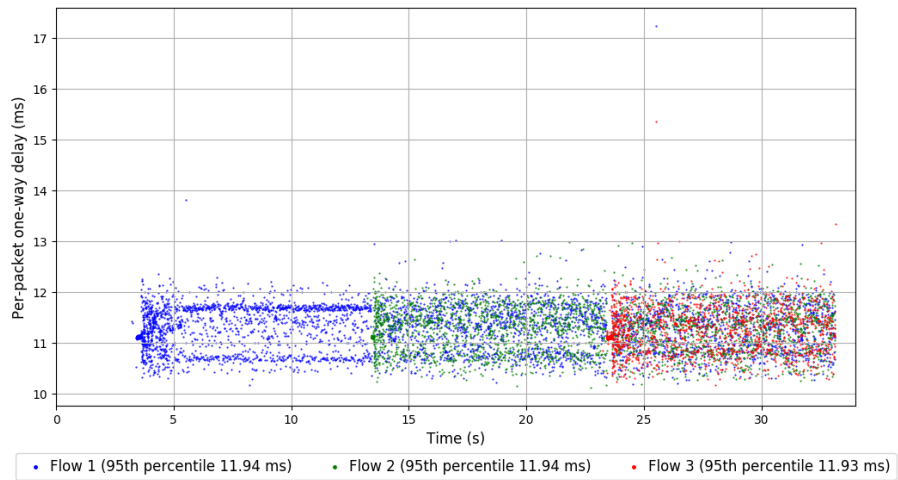
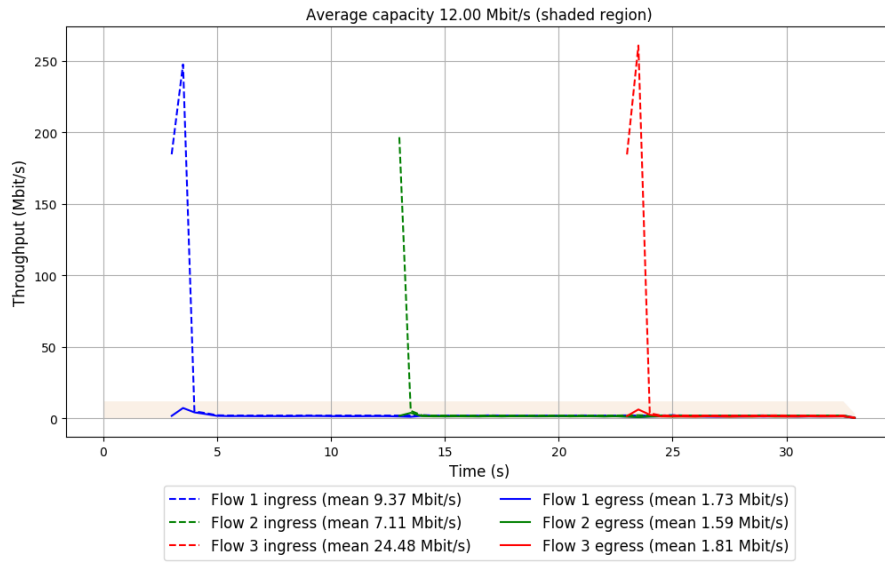
-- Flow 3:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 11.930 ms

Loss rate: 92.59%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-20 15:59:29

End at: 2018-03-20 15:59:59

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.46 Mbit/s (28.8% utilization)

95th percentile per-packet one-way delay: 11.943 ms

Loss rate: 89.72%

-- Flow 1:

Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 11.936 ms

Loss rate: 89.00%

-- Flow 2:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 11.955 ms

Loss rate: 84.38%

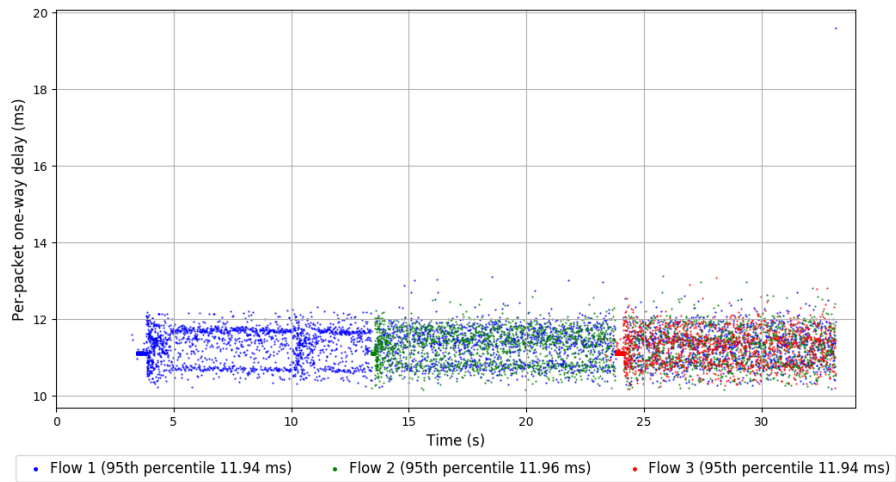
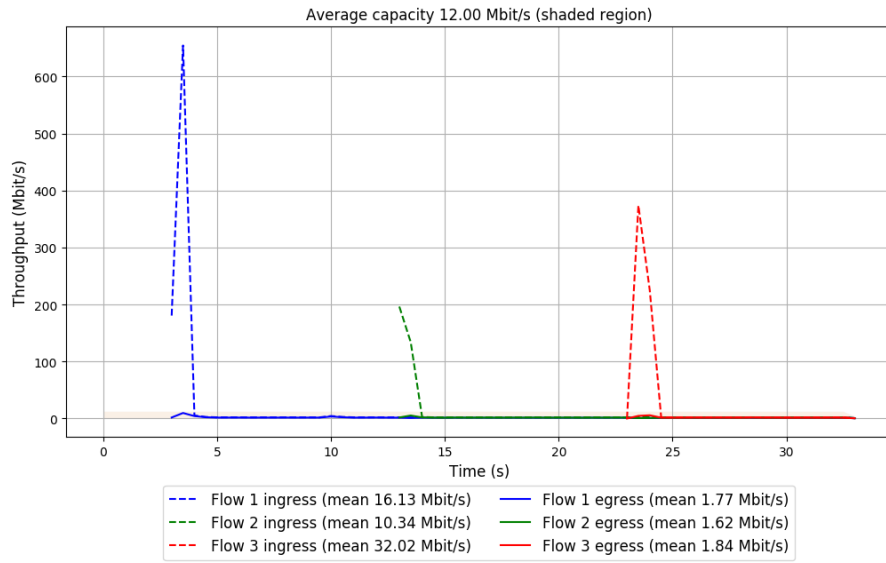
-- Flow 3:

Average throughput: 1.84 Mbit/s

95th percentile per-packet one-way delay: 11.936 ms

Loss rate: 94.27%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-20 16:09:47

End at: 2018-03-20 16:10:17

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.40 Mbit/s (28.3% utilization)

95th percentile per-packet one-way delay: 11.940 ms

Loss rate: 86.62%

-- Flow 1:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 11.933 ms

Loss rate: 86.41%

-- Flow 2:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 11.944 ms

Loss rate: 81.21%

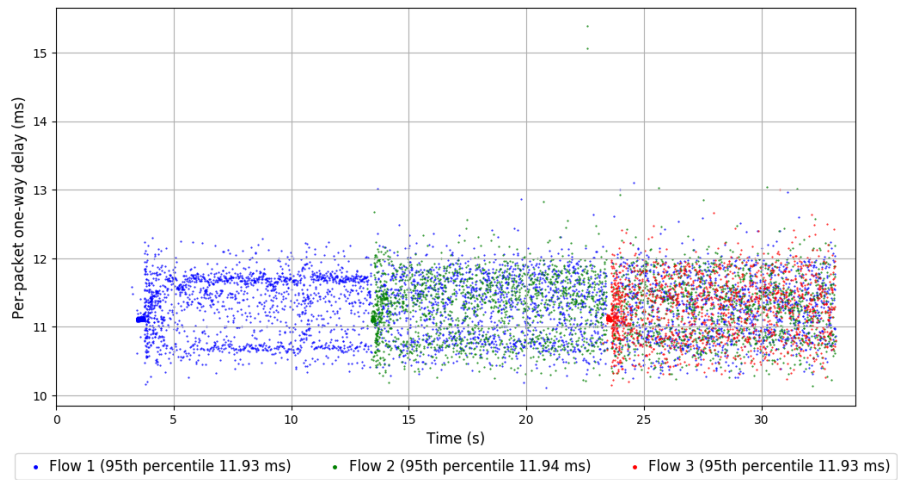
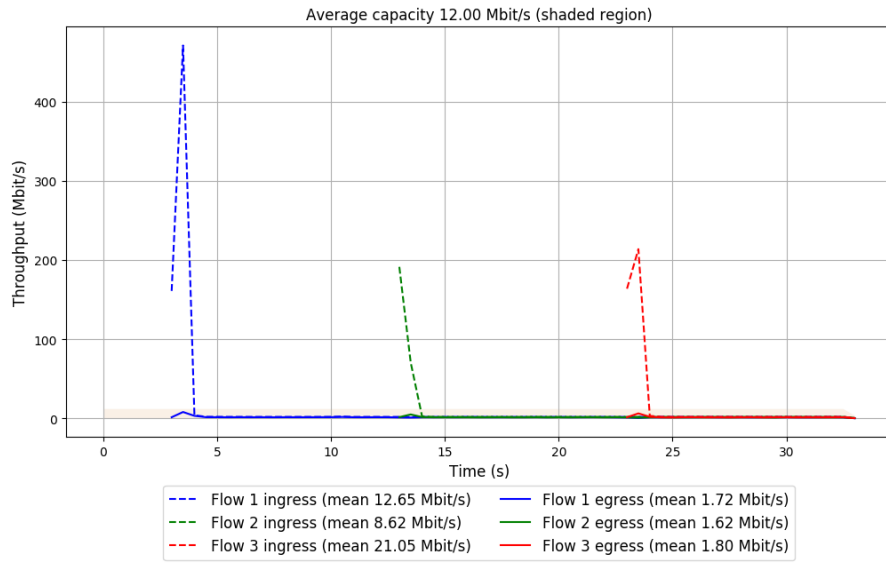
-- Flow 3:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 11.932 ms

Loss rate: 91.44%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-20 16:20:10

End at: 2018-03-20 16:20:40

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.47 Mbit/s (28.9% utilization)

95th percentile per-packet one-way delay: 11.942 ms

Loss rate: 82.14%

-- Flow 1:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 11.933 ms

Loss rate: 68.28%

-- Flow 2:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 11.947 ms

Loss rate: 89.74%

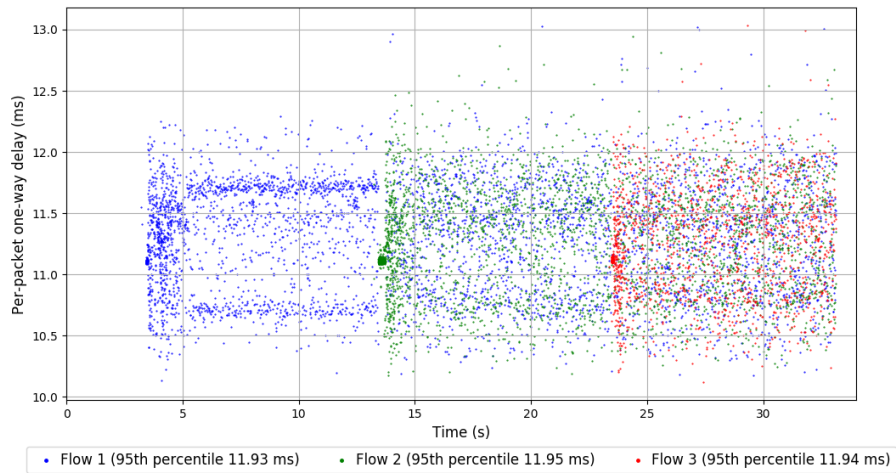
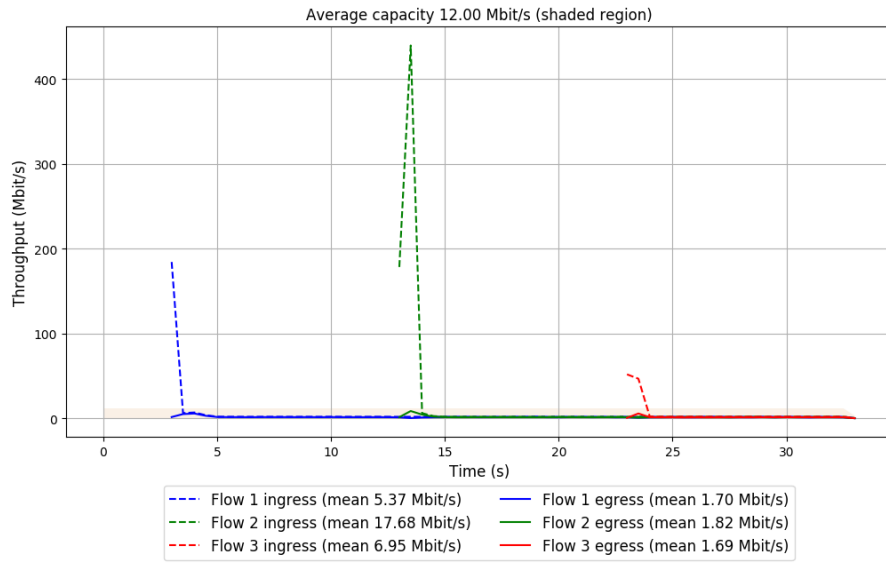
-- Flow 3:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 11.939 ms

Loss rate: 75.64%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-20 16:30:31

End at: 2018-03-20 16:31:01

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.41 Mbit/s (28.4% utilization)

95th percentile per-packet one-way delay: 11.935 ms

Loss rate: 88.28%

-- Flow 1:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 11.938 ms

Loss rate: 62.24%

-- Flow 2:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 11.925 ms

Loss rate: 93.24%

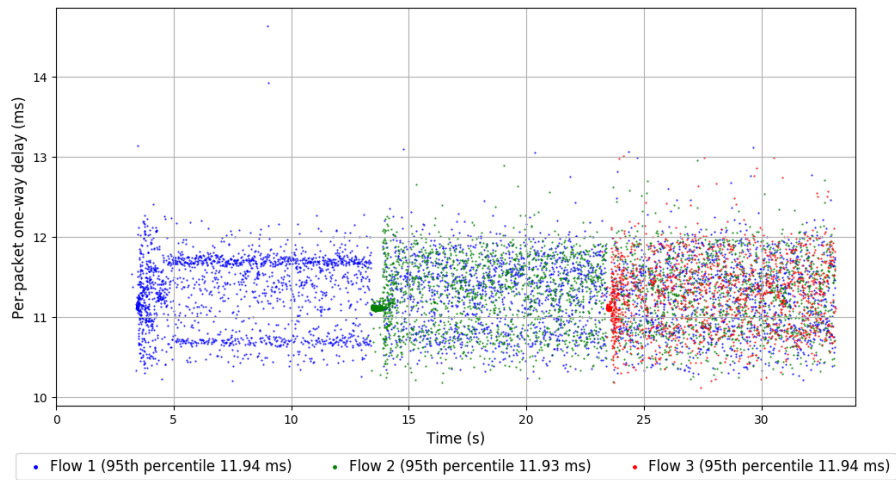
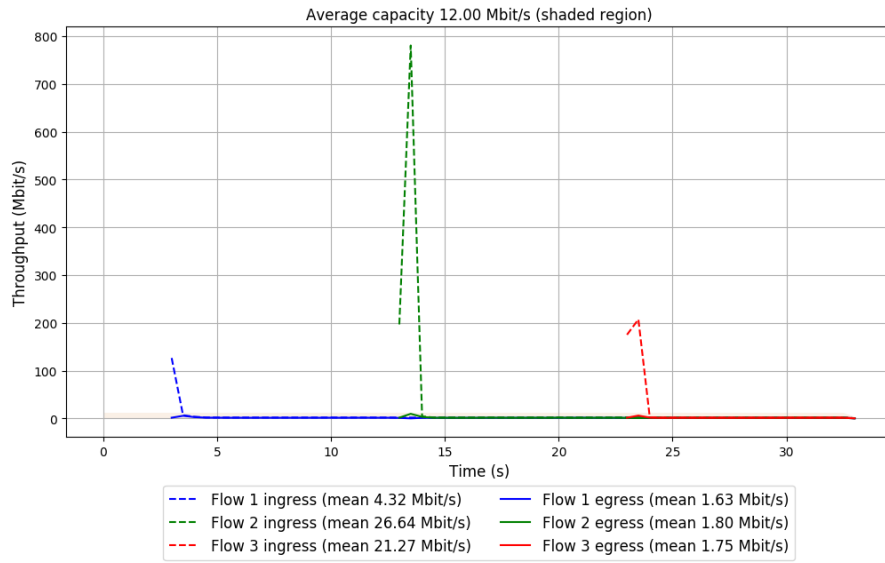
-- Flow 3:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 11.943 ms

Loss rate: 91.78%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-20 16:40:47

End at: 2018-03-20 16:41:17

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.54 Mbit/s (29.5% utilization)

95th percentile per-packet one-way delay: 11.923 ms

Loss rate: 93.23%

-- Flow 1:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 11.930 ms

Loss rate: 78.20%

-- Flow 2:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 11.936 ms

Loss rate: 91.46%

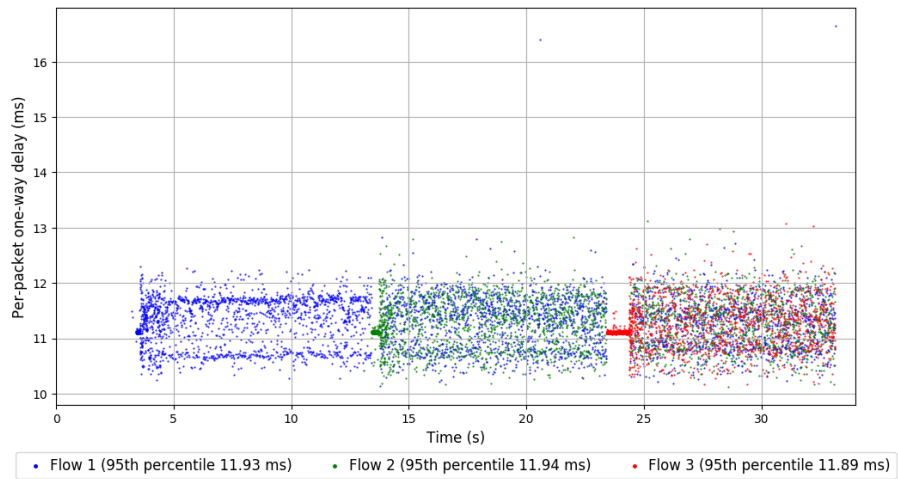
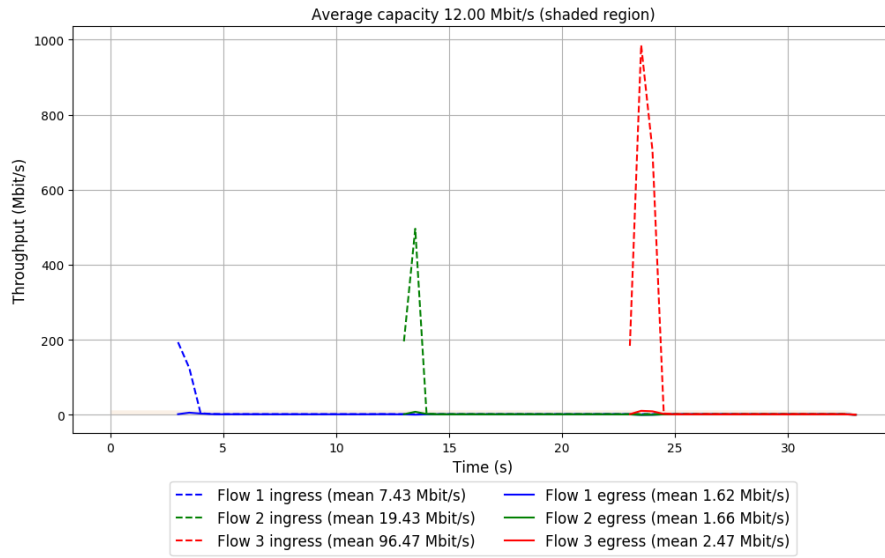
-- Flow 3:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 11.894 ms

Loss rate: 97.44%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-20 16:51:09

End at: 2018-03-20 16:51:39

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.38 Mbit/s (28.1% utilization)

95th percentile per-packet one-way delay: 11.943 ms

Loss rate: 88.25%

-- Flow 1:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 11.964 ms

Loss rate: 62.16%

-- Flow 2:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 11.920 ms

Loss rate: 91.70%

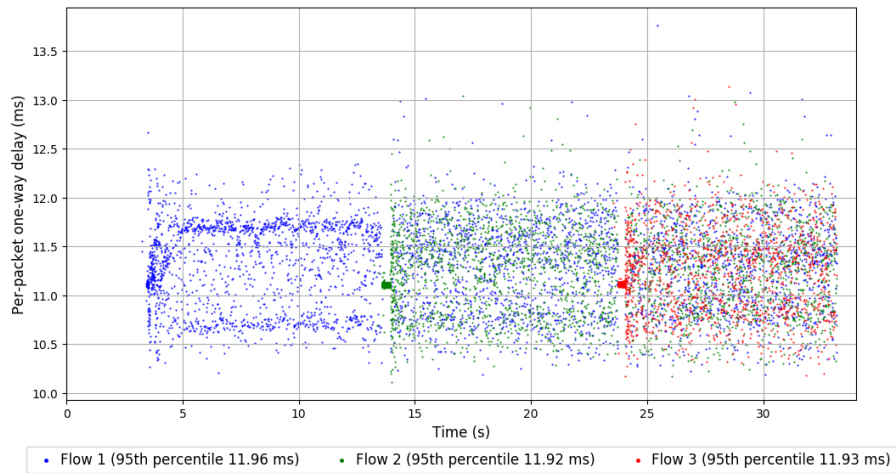
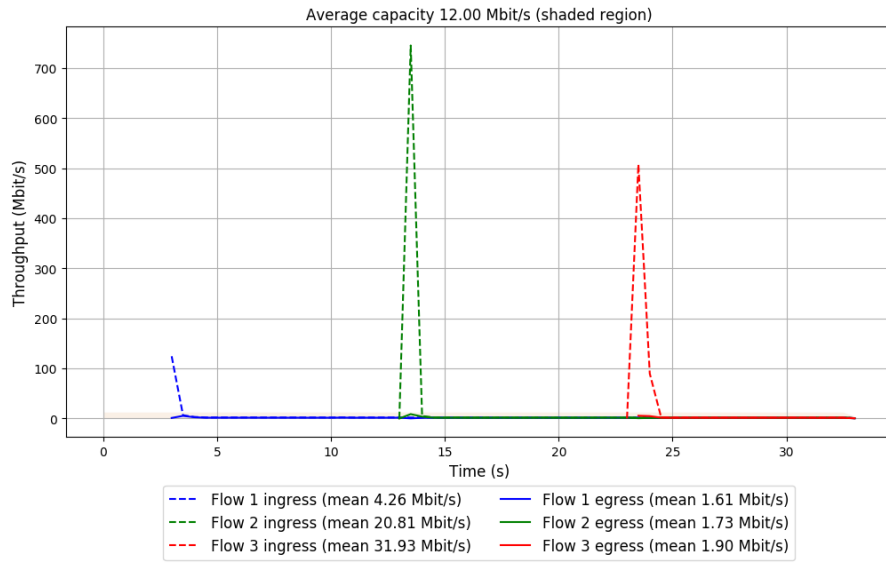
-- Flow 3:

Average throughput: 1.90 Mbit/s

95th percentile per-packet one-way delay: 11.929 ms

Loss rate: 94.25%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-20 17:01:28

End at: 2018-03-20 17:01:58

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.48 Mbit/s (29.0% utilization)

95th percentile per-packet one-way delay: 11.959 ms

Loss rate: 88.34%

-- Flow 1:

Average throughput: 1.68 Mbit/s

95th percentile per-packet one-way delay: 11.963 ms

Loss rate: 74.31%

-- Flow 2:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 11.969 ms

Loss rate: 77.95%

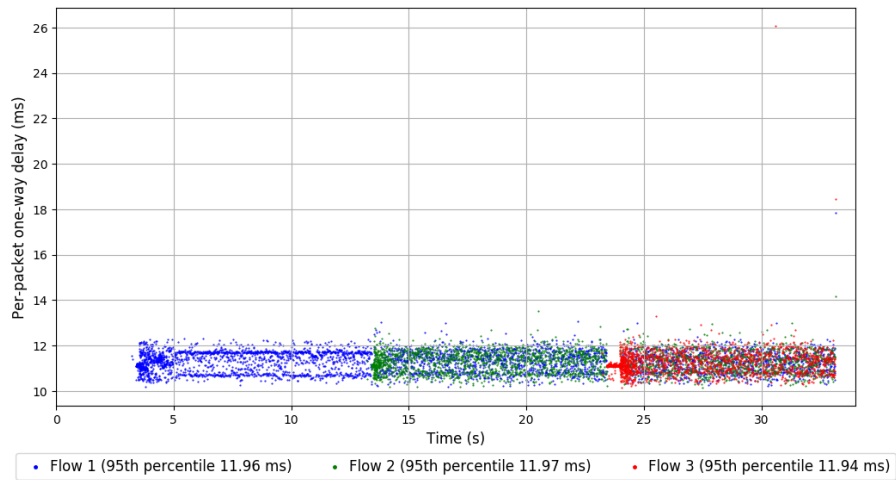
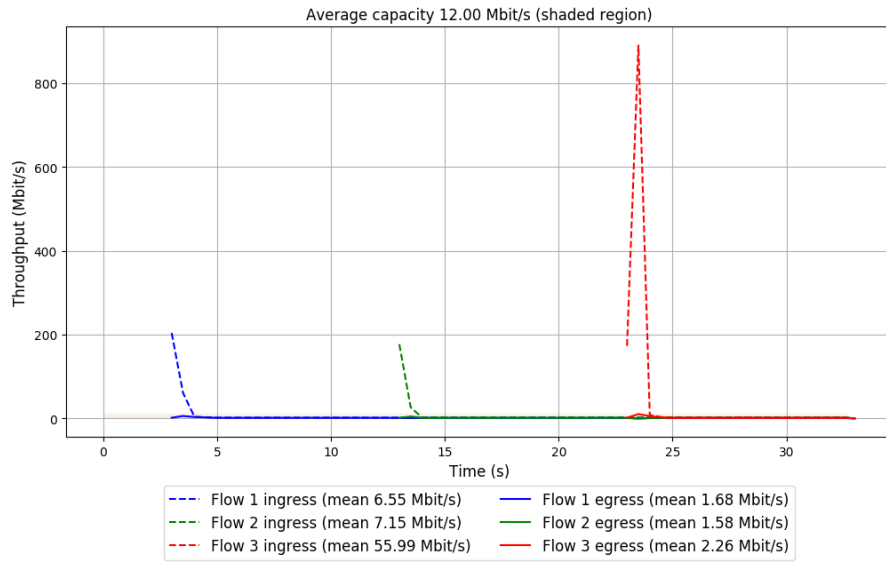
-- Flow 3:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 11.939 ms

Loss rate: 95.96%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-20 17:11:45

End at: 2018-03-20 17:12:15

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.44 Mbit/s (28.7% utilization)

95th percentile per-packet one-way delay: 11.948 ms

Loss rate: 87.81%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 11.937 ms

Loss rate: 89.40%

-- Flow 2:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 11.961 ms

Loss rate: 83.00%

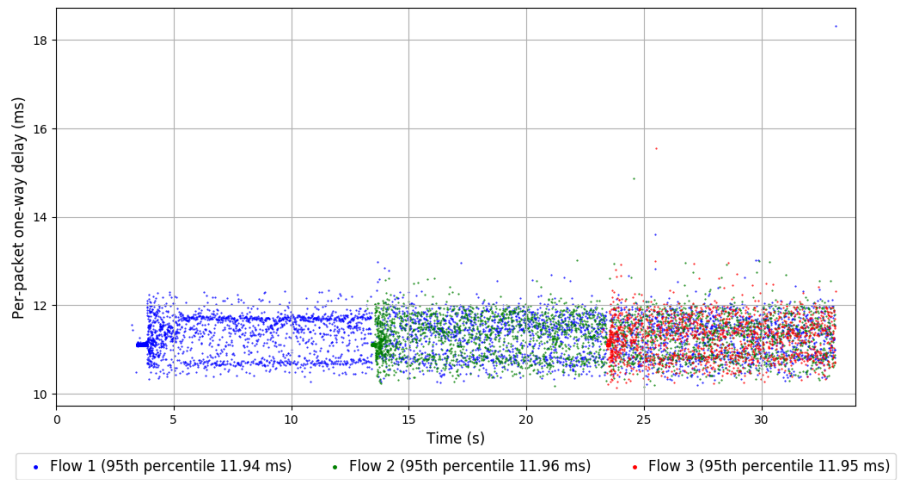
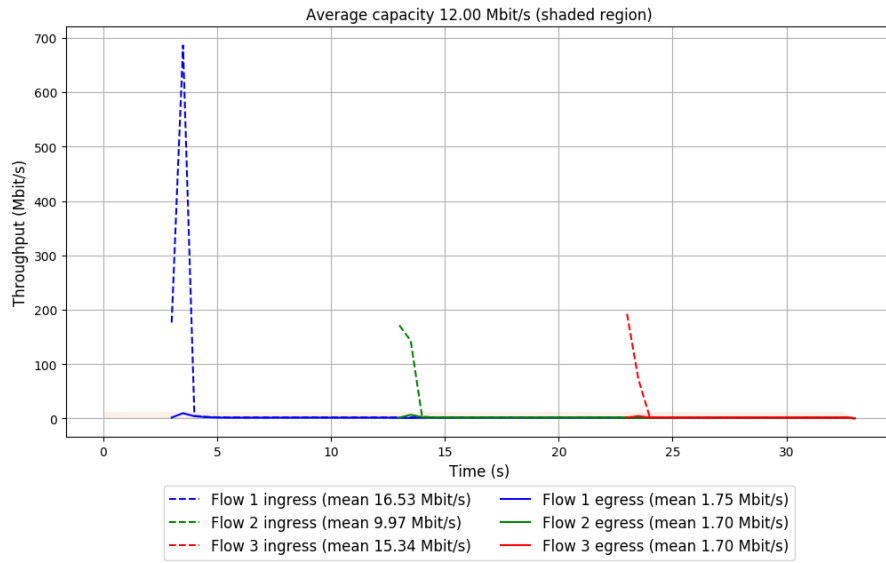
-- Flow 3:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 11.952 ms

Loss rate: 88.94%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-03-20 17:22:04

End at: 2018-03-20 17:22:34

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 3.40 Mbit/s (28.3% utilization)

95th percentile per-packet one-way delay: 11.949 ms

Loss rate: 85.85%

-- Flow 1:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 11.951 ms

Loss rate: 69.88%

-- Flow 2:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 11.954 ms

Loss rate: 77.55%

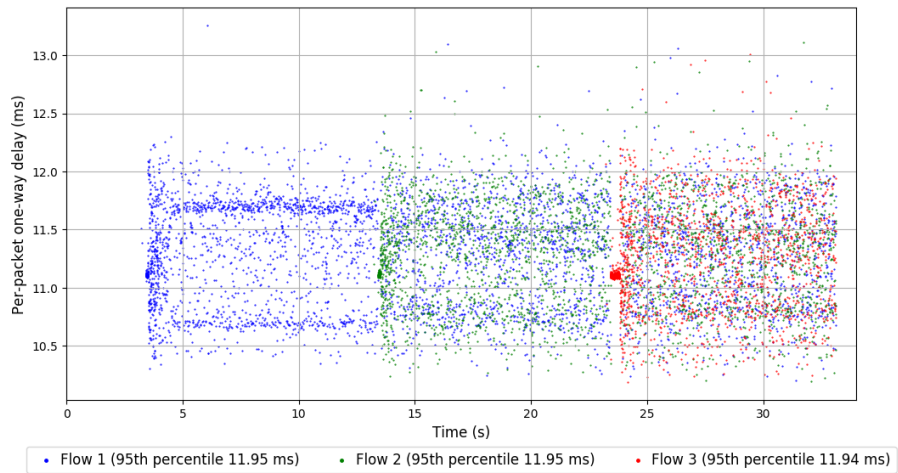
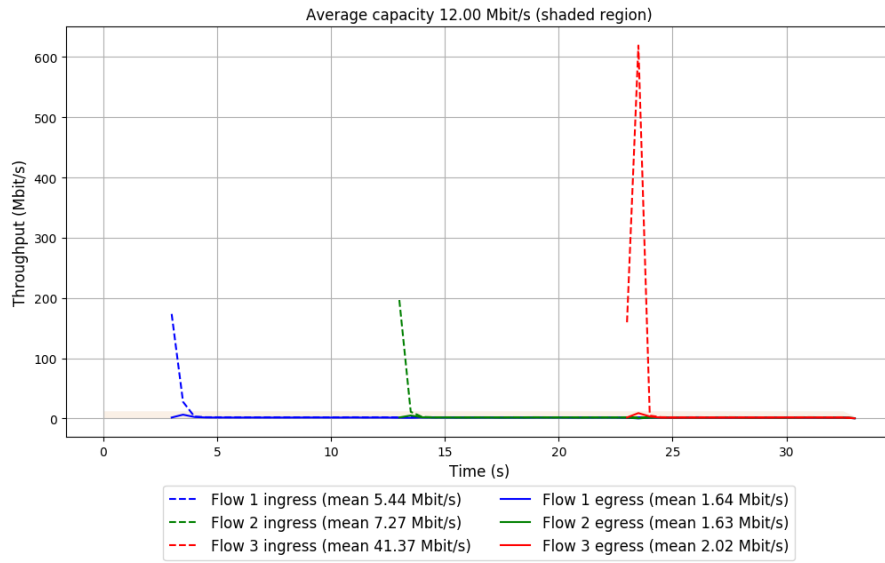
-- Flow 3:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 11.936 ms

Loss rate: 95.12%

Run 10: Report of FillP — Data Link



Run 1: Statistics of Indigo-1-32

Start at: 2018-03-20 15:50:49

End at: 2018-03-20 15:51:19

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.39 Mbit/s (19.9% utilization)

95th percentile per-packet one-way delay: 12.135 ms

Loss rate: 95.32%

-- Flow 1:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 12.169 ms

Loss rate: 95.08%

-- Flow 2:

Average throughput: 1.17 Mbit/s

95th percentile per-packet one-way delay: 12.125 ms

Loss rate: 95.49%

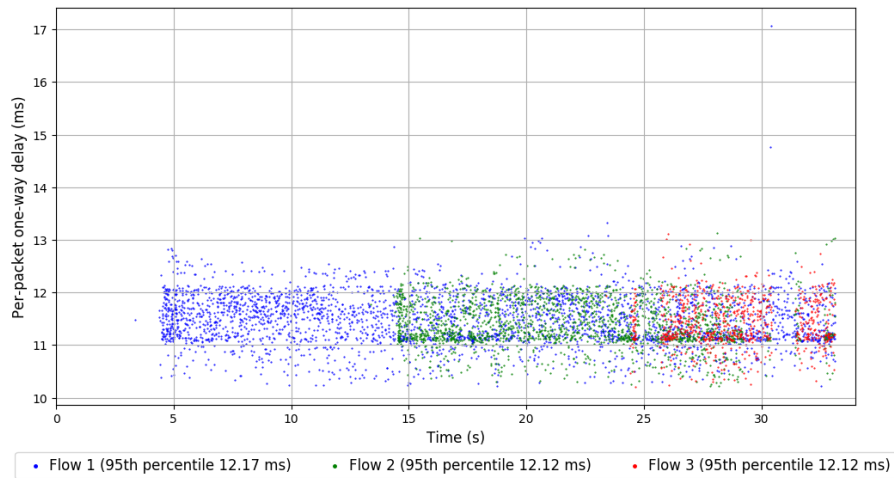
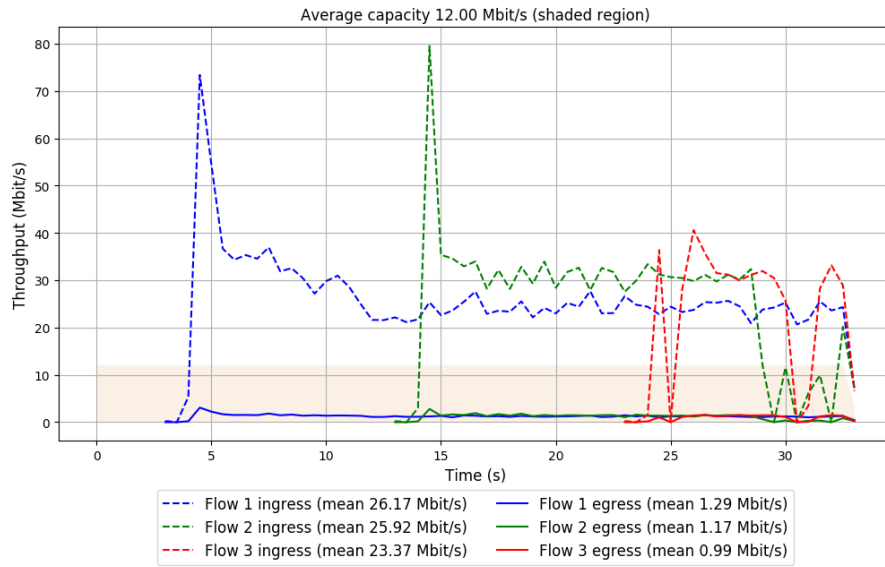
-- Flow 3:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 12.120 ms

Loss rate: 95.79%

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



Run 2: Statistics of Indigo-1-32

Start at: 2018-03-20 16:01:12

End at: 2018-03-20 16:01:42

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.07 Mbit/s (17.3% utilization)

95th percentile per-packet one-way delay: 12.135 ms

Loss rate: 95.48%

-- Flow 1:

Average throughput: 1.03 Mbit/s

95th percentile per-packet one-way delay: 12.158 ms

Loss rate: 95.46%

-- Flow 2:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 12.125 ms

Loss rate: 95.51%

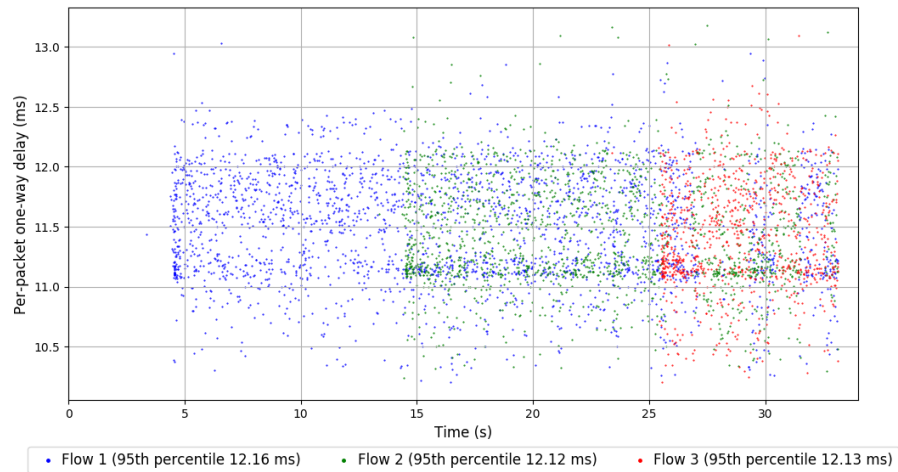
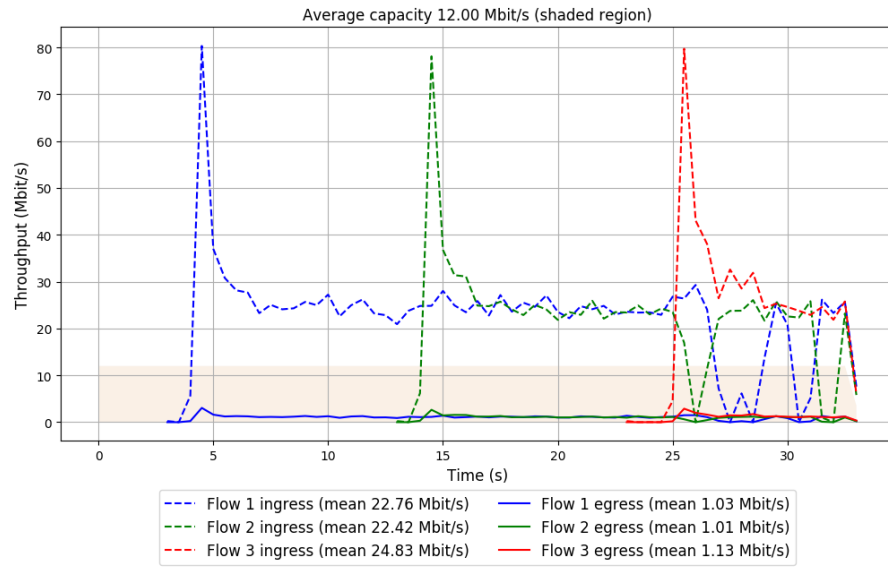
-- Flow 3:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 12.128 ms

Loss rate: 95.45%

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



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-20 16:11:30

End at: 2018-03-20 16:12:00

Below is generated by plot.py at 2018-03-20 17:31:32

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.38 Mbit/s (19.8% utilization)

95th percentile per-packet one-way delay: 12.142 ms

Loss rate: 95.62%

-- Flow 1:

Average throughput: 1.17 Mbit/s

95th percentile per-packet one-way delay: 12.147 ms

Loss rate: 95.58%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 12.141 ms

Loss rate: 95.64%

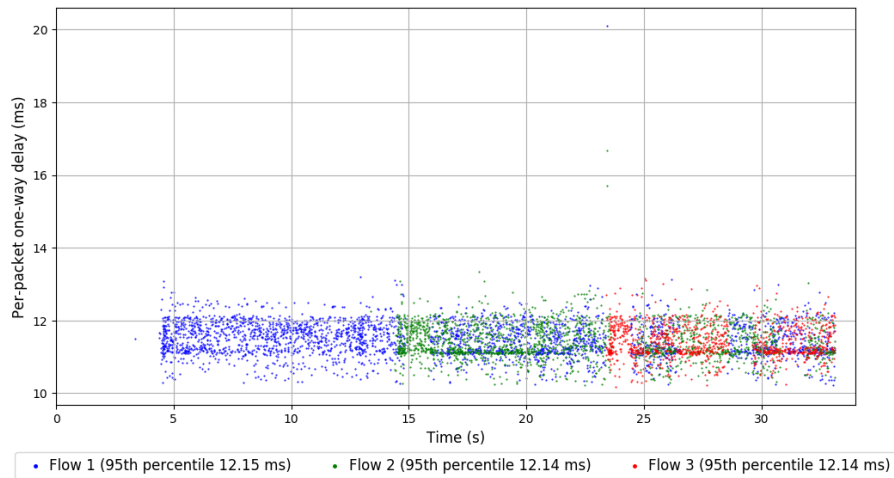
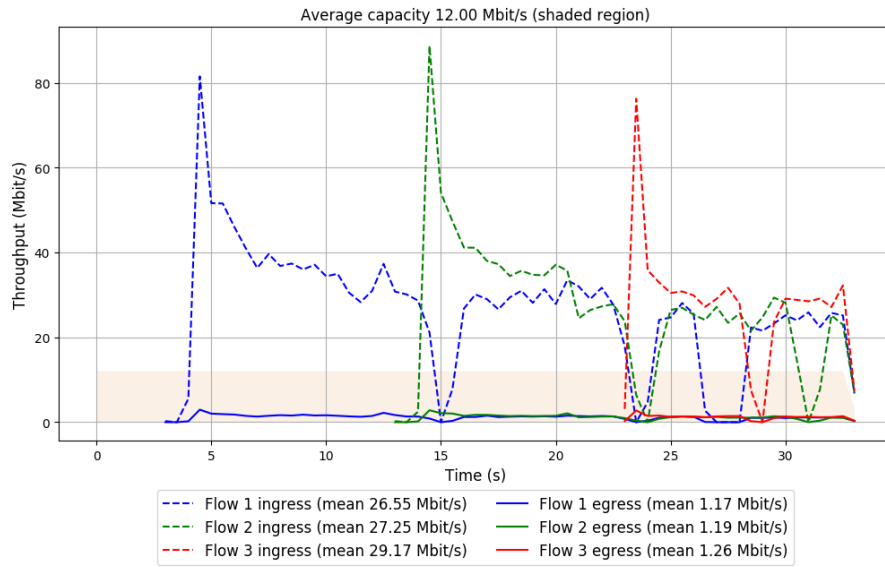
-- Flow 3:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 12.141 ms

Loss rate: 95.67%

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



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-20 16:21:52

End at: 2018-03-20 16:22:22

Below is generated by plot.py at 2018-03-20 17:31:38

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.35 Mbit/s (19.6% utilization)

95th percentile per-packet one-way delay: 12.138 ms

Loss rate: 95.55%

-- Flow 1:

Average throughput: 1.21 Mbit/s

95th percentile per-packet one-way delay: 12.133 ms

Loss rate: 95.68%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 12.136 ms

Loss rate: 95.42%

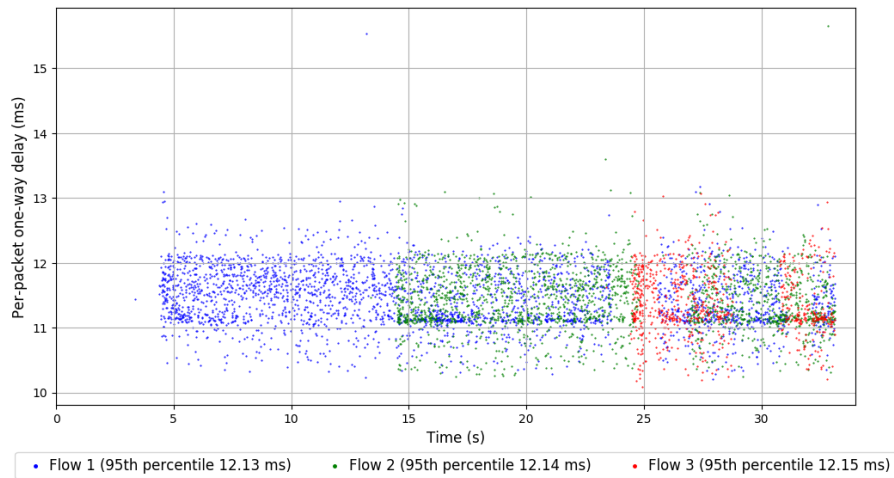
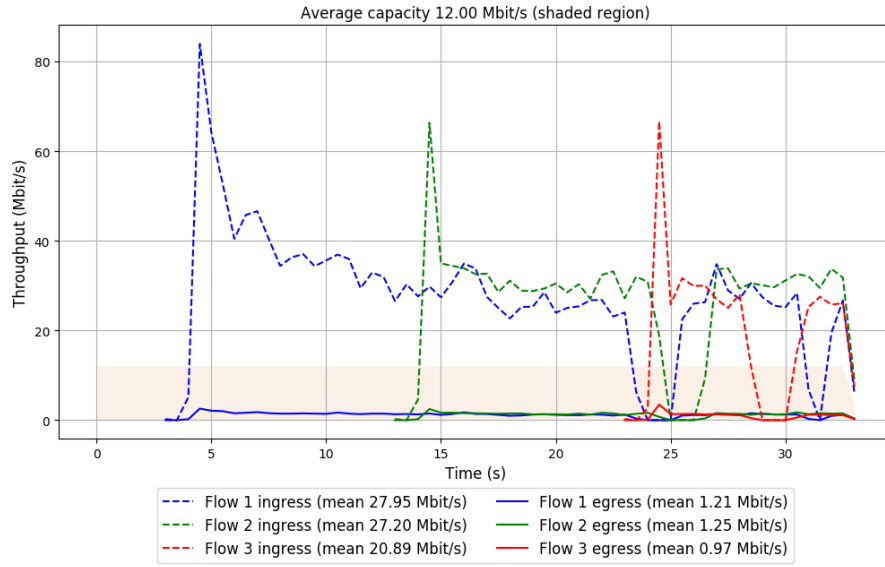
-- Flow 3:

Average throughput: 0.97 Mbit/s

95th percentile per-packet one-way delay: 12.153 ms

Loss rate: 95.37%

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



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-20 16:32:14

End at: 2018-03-20 16:32:44

Below is generated by plot.py at 2018-03-20 17:31:38

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.09 Mbit/s (17.4% utilization)

95th percentile per-packet one-way delay: 12.175 ms

Loss rate: 95.36%

-- Flow 1:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 12.189 ms

Loss rate: 95.28%

-- Flow 2:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 12.200 ms

Loss rate: 95.31%

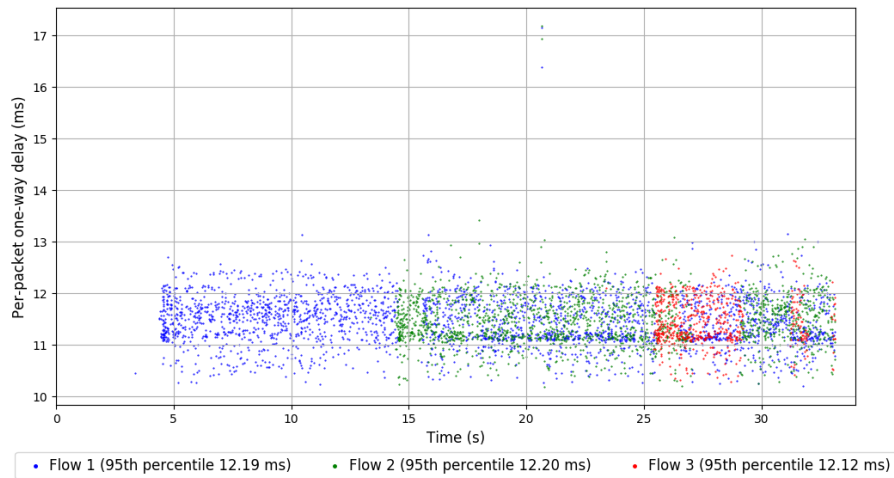
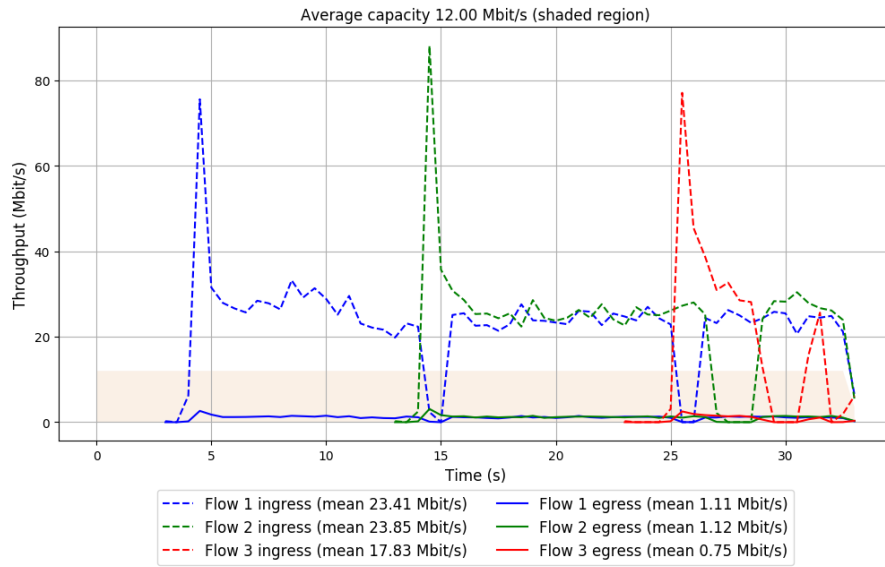
-- Flow 3:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 12.124 ms

Loss rate: 95.78%

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



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-20 16:42:30

End at: 2018-03-20 16:43:00

Below is generated by plot.py at 2018-03-20 17:31:38

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.00 Mbit/s (16.7% utilization)

95th percentile per-packet one-way delay: 12.125 ms

Loss rate: 95.13%

-- Flow 1:

Average throughput: 0.91 Mbit/s

95th percentile per-packet one-way delay: 12.125 ms

Loss rate: 94.81%

-- Flow 2:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 12.126 ms

Loss rate: 95.34%

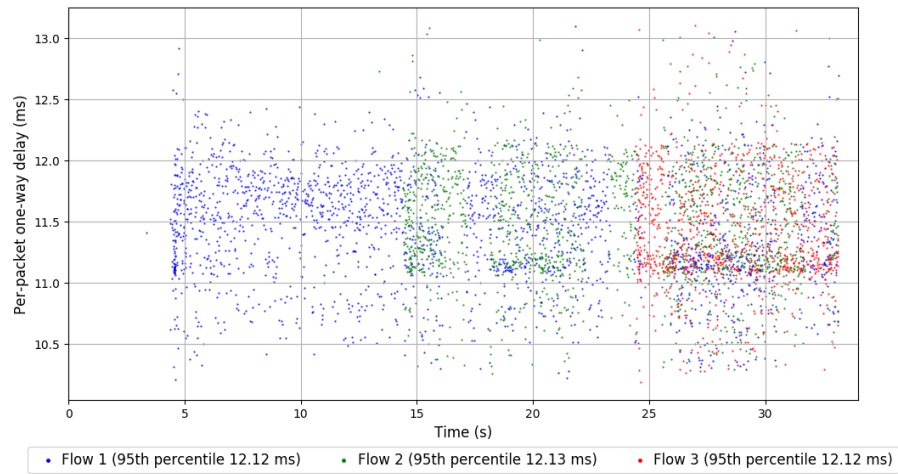
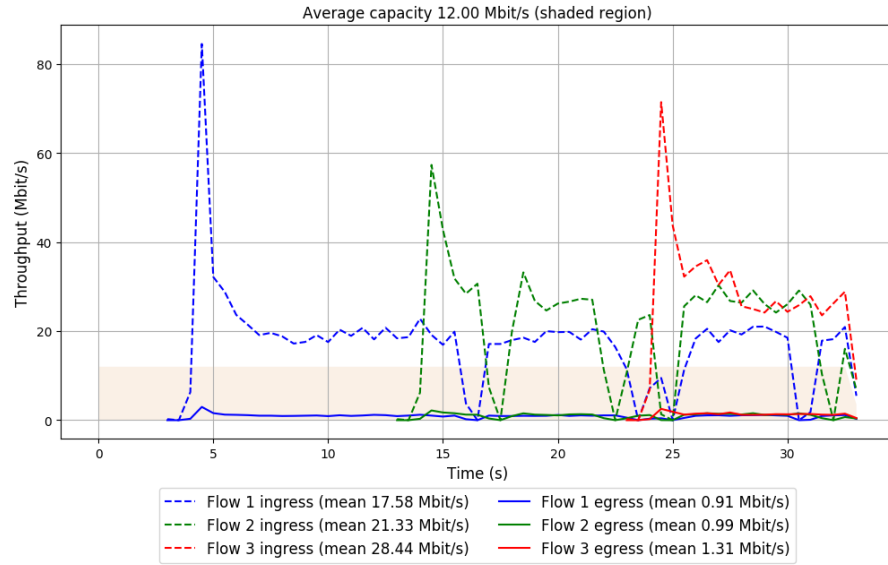
-- Flow 3:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 12.121 ms

Loss rate: 95.42%

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



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-20 16:52:52

End at: 2018-03-20 16:53:22

Below is generated by plot.py at 2018-03-20 17:31:47

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.44 Mbit/s (20.3% utilization)

95th percentile per-packet one-way delay: 12.131 ms

Loss rate: 95.55%

-- Flow 1:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 12.129 ms

Loss rate: 95.65%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 12.137 ms

Loss rate: 95.22%

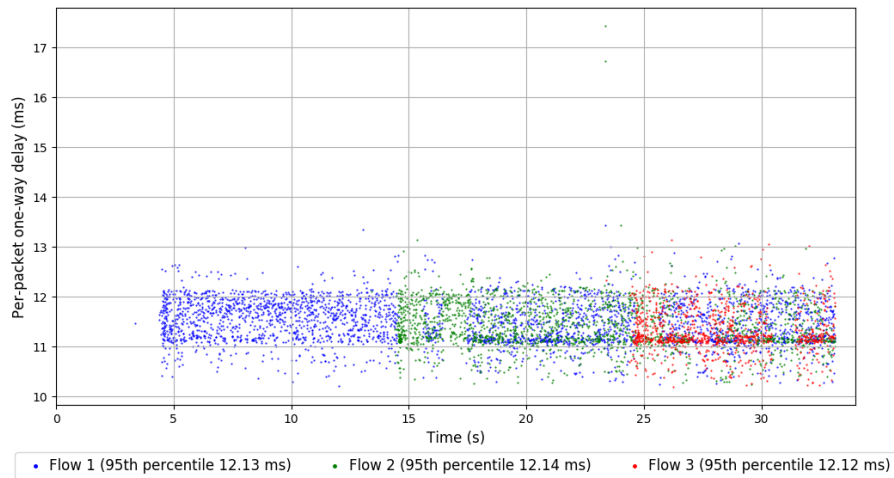
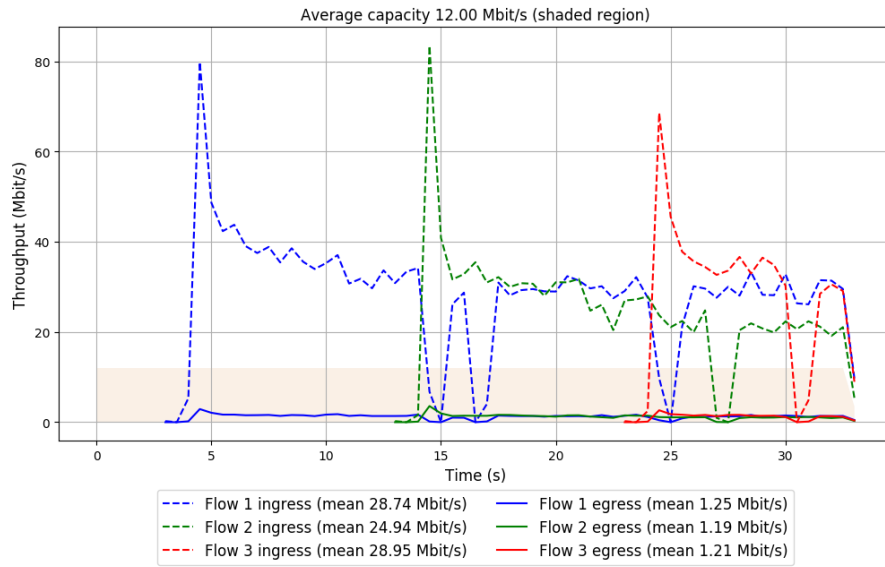
-- Flow 3:

Average throughput: 1.21 Mbit/s

95th percentile per-packet one-way delay: 12.121 ms

Loss rate: 95.81%

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



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-20 17:03:10

End at: 2018-03-20 17:03:40

Below is generated by plot.py at 2018-03-20 17:31:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.57 Mbit/s (21.4% utilization)

95th percentile per-packet one-way delay: 12.117 ms

Loss rate: 95.65%

-- Flow 1:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 12.114 ms

Loss rate: 95.89%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 12.118 ms

Loss rate: 95.23%

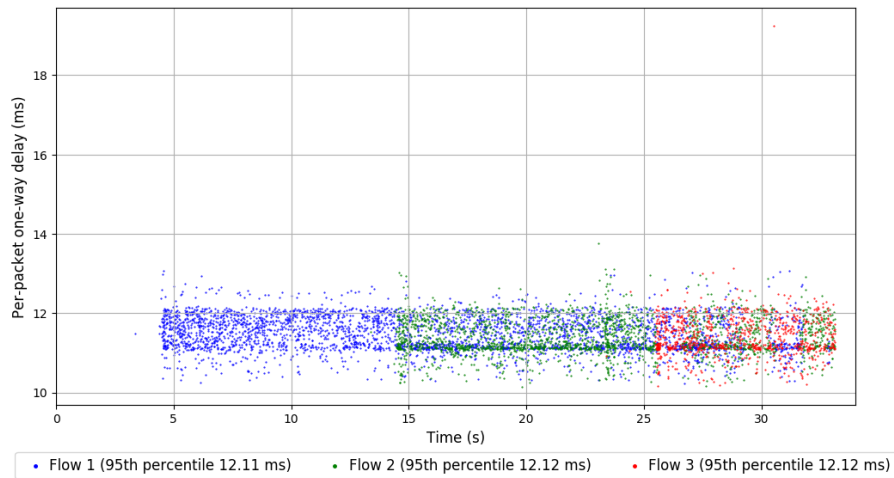
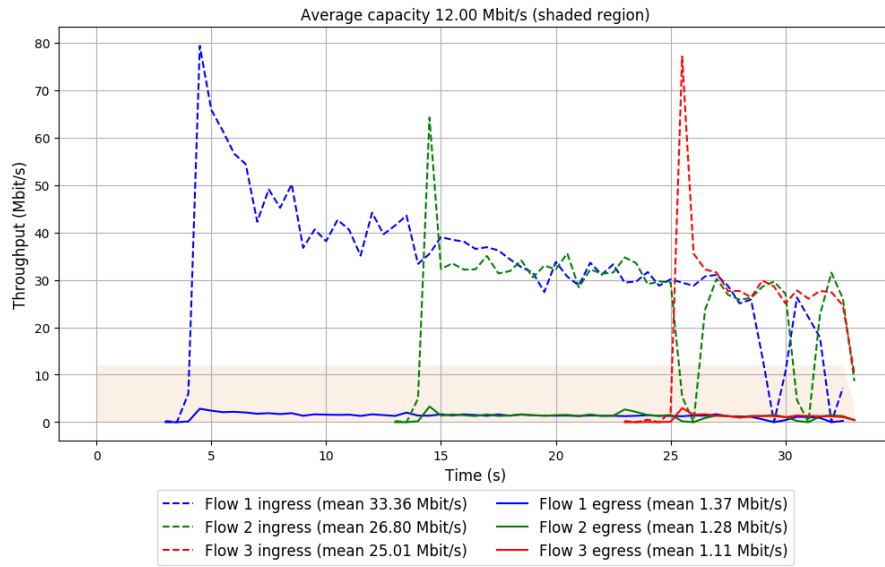
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 12.119 ms

Loss rate: 95.58%

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



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-20 17:13:27

End at: 2018-03-20 17:13:57

Below is generated by plot.py at 2018-03-20 17:31:57

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.34 Mbit/s (19.5% utilization)

95th percentile per-packet one-way delay: 12.121 ms

Loss rate: 95.42%

-- Flow 1:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 12.133 ms

Loss rate: 95.55%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 12.117 ms

Loss rate: 95.16%

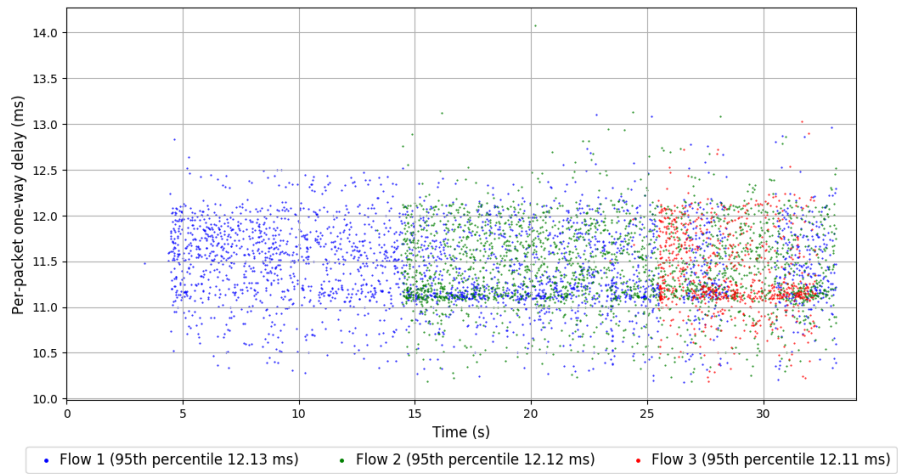
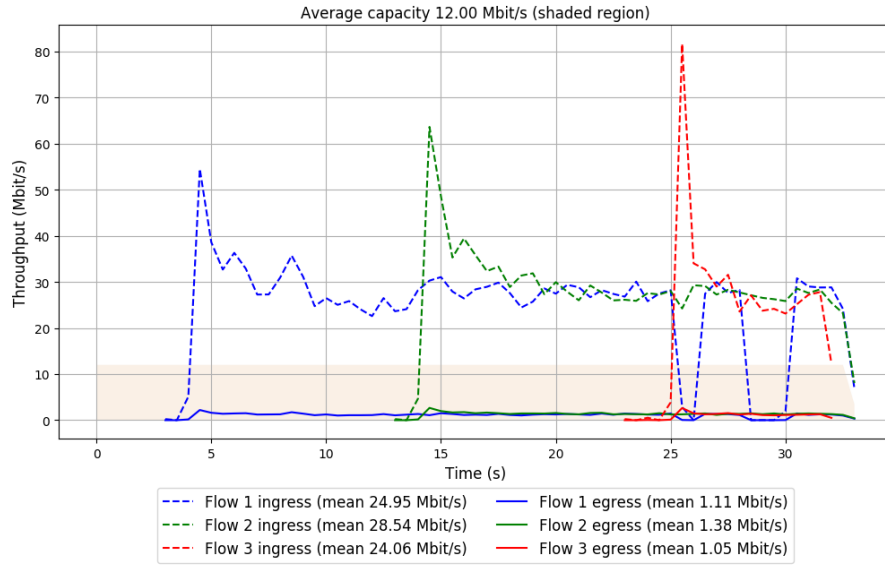
-- Flow 3:

Average throughput: 1.05 Mbit/s

95th percentile per-packet one-way delay: 12.107 ms

Loss rate: 95.65%

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



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-20 17:23:47

End at: 2018-03-20 17:24:17

Below is generated by plot.py at 2018-03-20 17:31:59

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 2.10 Mbit/s (17.5% utilization)

95th percentile per-packet one-way delay: 12.155 ms

Loss rate: 95.40%

-- Flow 1:

Average throughput: 1.05 Mbit/s

95th percentile per-packet one-way delay: 12.155 ms

Loss rate: 95.34%

-- Flow 2:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 12.127 ms

Loss rate: 95.30%

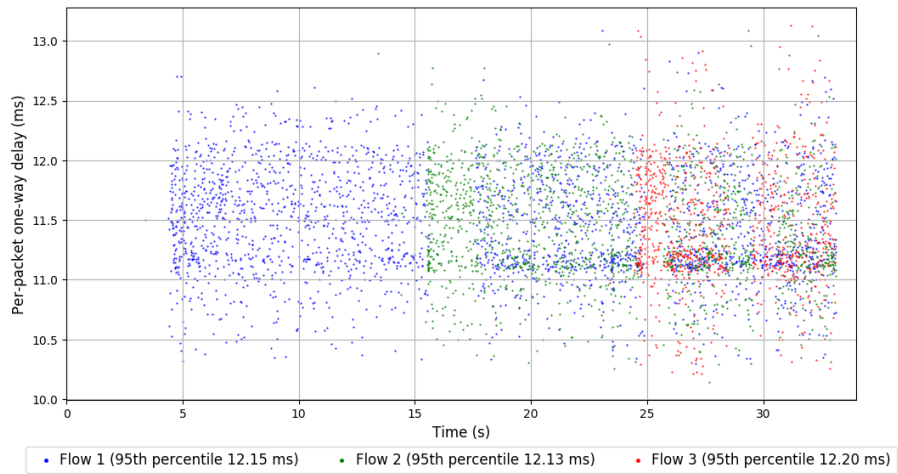
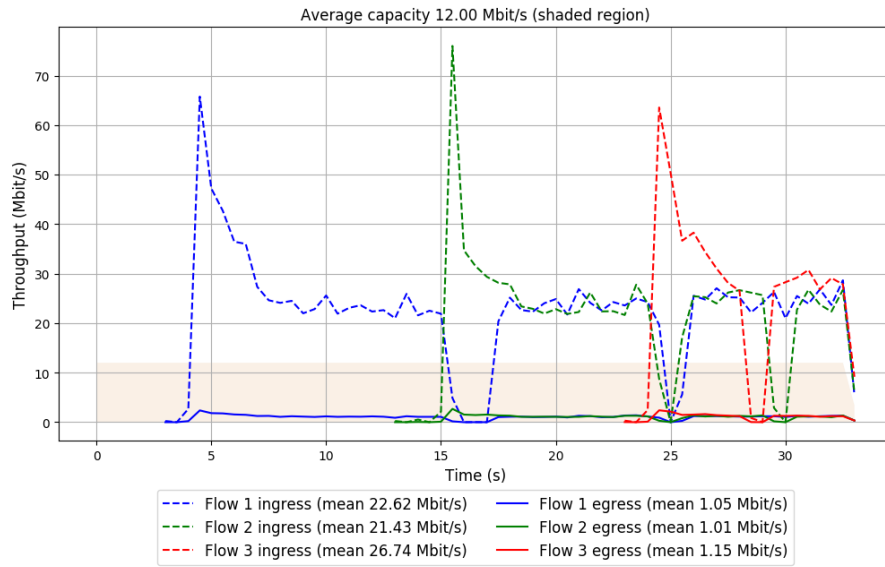
-- Flow 3:

Average throughput: 1.15 Mbit/s

95th percentile per-packet one-way delay: 12.201 ms

Loss rate: 95.72%

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



Run 1: Statistics of Vivace-latency

Start at: 2018-03-20 15:45:03

End at: 2018-03-20 15:45:33

Below is generated by plot.py at 2018-03-20 17:31:59

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 6.42 Mbit/s (53.5% utilization)

95th percentile per-packet one-way delay: 11.965 ms

Loss rate: 7.46%

-- Flow 1:

Average throughput: 5.77 Mbit/s

95th percentile per-packet one-way delay: 11.954 ms

Loss rate: 5.28%

-- Flow 2:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 12.044 ms

Loss rate: 23.08%

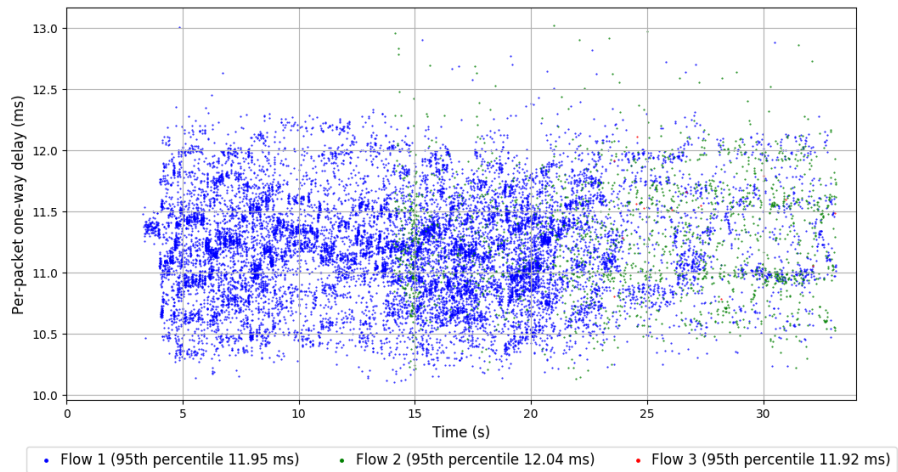
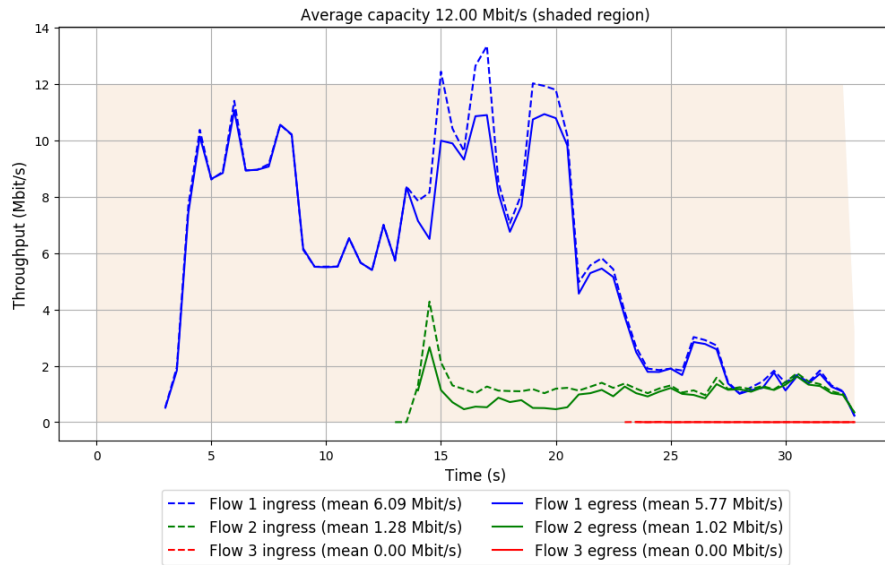
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 11.916 ms

Loss rate: 22.74%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-20 15:55:20

End at: 2018-03-20 15:55:50

Below is generated by plot.py at 2018-03-20 17:31:59

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 6.60 Mbit/s (55.0% utilization)

95th percentile per-packet one-way delay: 11.953 ms

Loss rate: 7.35%

-- Flow 1:

Average throughput: 5.58 Mbit/s

95th percentile per-packet one-way delay: 11.925 ms

Loss rate: 4.37%

-- Flow 2:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 12.116 ms

Loss rate: 27.57%

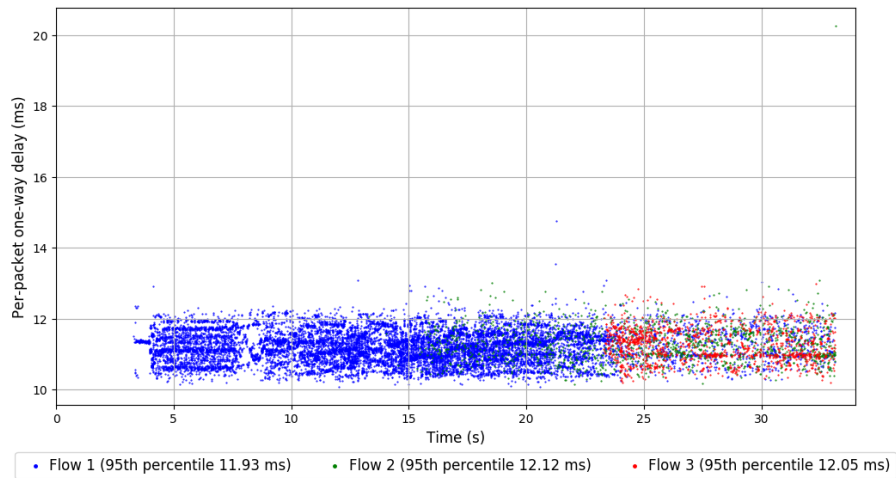
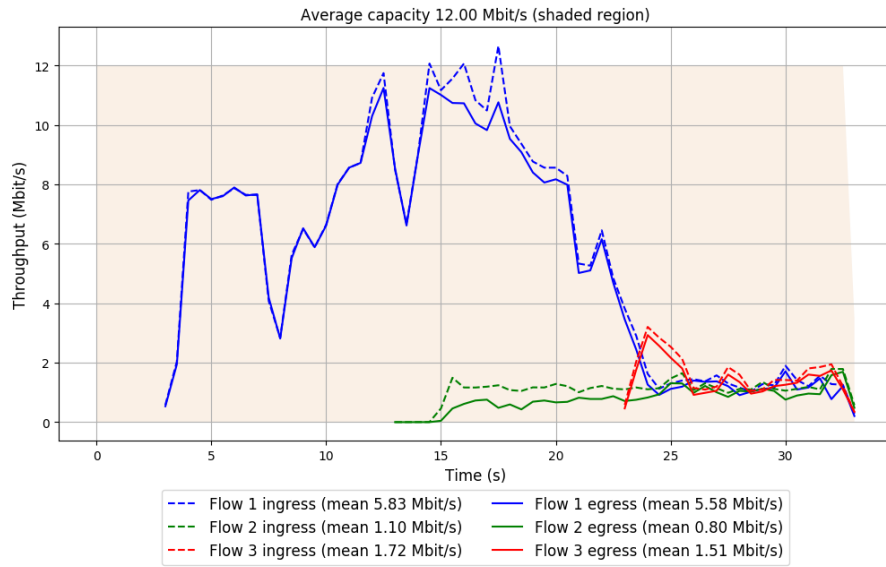
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 12.054 ms

Loss rate: 11.92%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-20 16:05:44

End at: 2018-03-20 16:06:14

Below is generated by plot.py at 2018-03-20 17:31:59

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.96 Mbit/s (41.3% utilization)

95th percentile per-packet one-way delay: 11.997 ms

Loss rate: 6.24%

-- Flow 1:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 11.957 ms

Loss rate: 4.34%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 12.062 ms

Loss rate: 10.68%

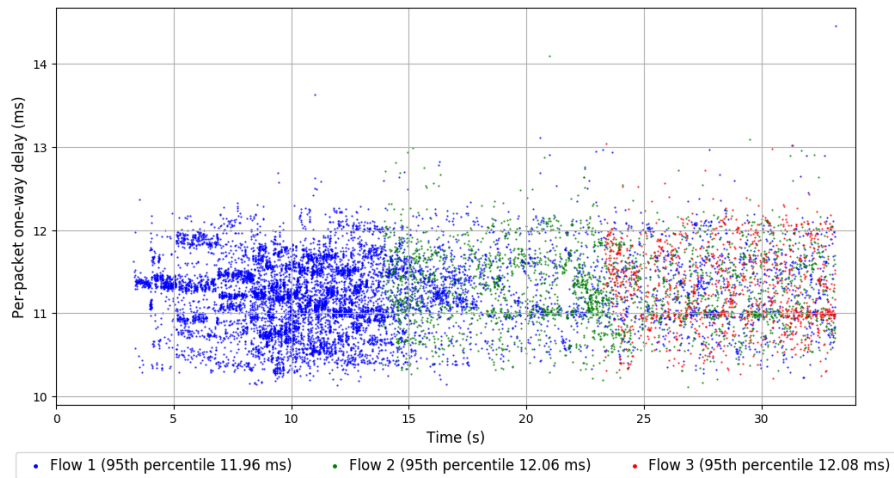
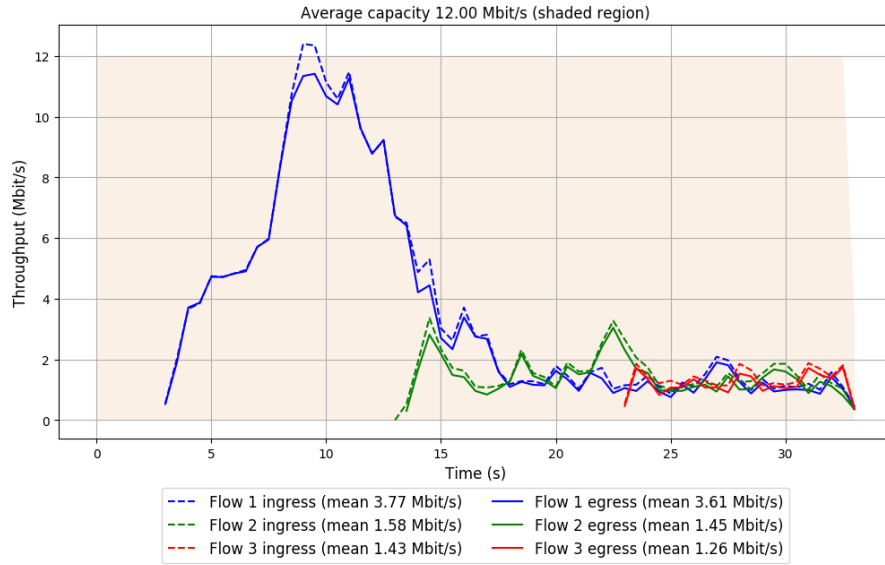
-- Flow 3:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 12.078 ms

Loss rate: 11.54%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-20 16:16:02

End at: 2018-03-20 16:16:32

Below is generated by plot.py at 2018-03-20 17:31:59

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.78 Mbit/s (39.9% utilization)

95th percentile per-packet one-way delay: 12.014 ms

Loss rate: 6.94%

-- Flow 1:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 11.987 ms

Loss rate: 3.84%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 12.060 ms

Loss rate: 15.39%

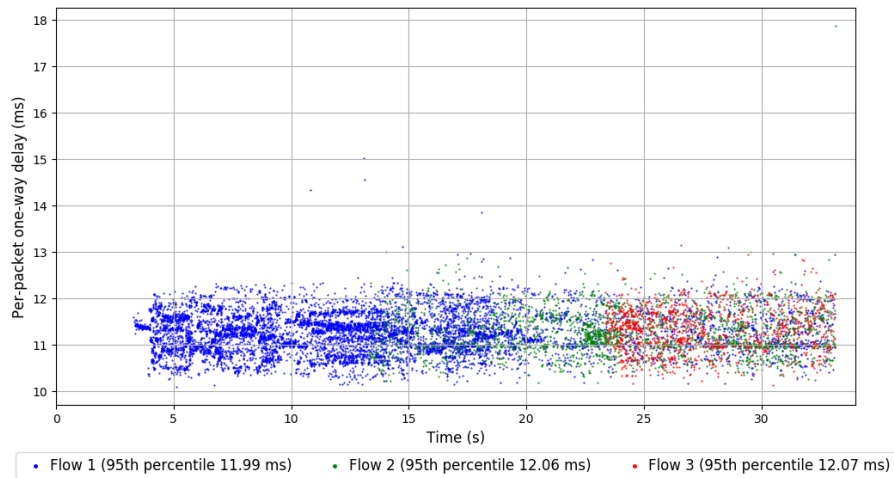
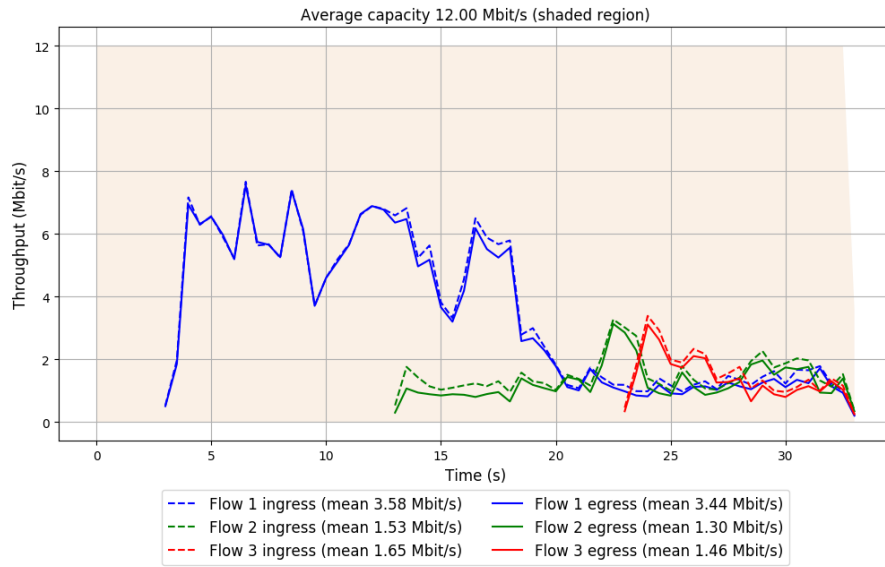
-- Flow 3:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 12.071 ms

Loss rate: 11.53%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-03-20 16:26:24

End at: 2018-03-20 16:26:54

Below is generated by plot.py at 2018-03-20 17:32:02

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.61 Mbit/s (38.4% utilization)

95th percentile per-packet one-way delay: 12.008 ms

Loss rate: 5.04%

-- Flow 1:

Average throughput: 3.49 Mbit/s

95th percentile per-packet one-way delay: 11.989 ms

Loss rate: 3.13%

-- Flow 2:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 12.050 ms

Loss rate: 11.21%

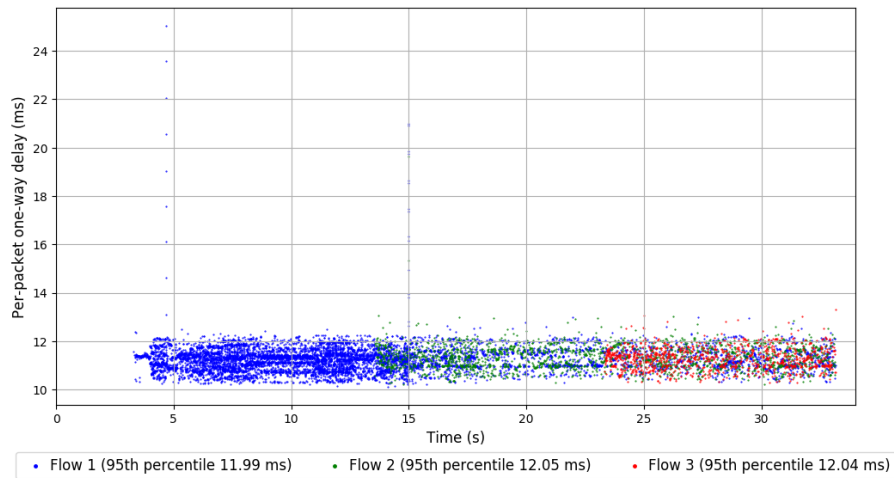
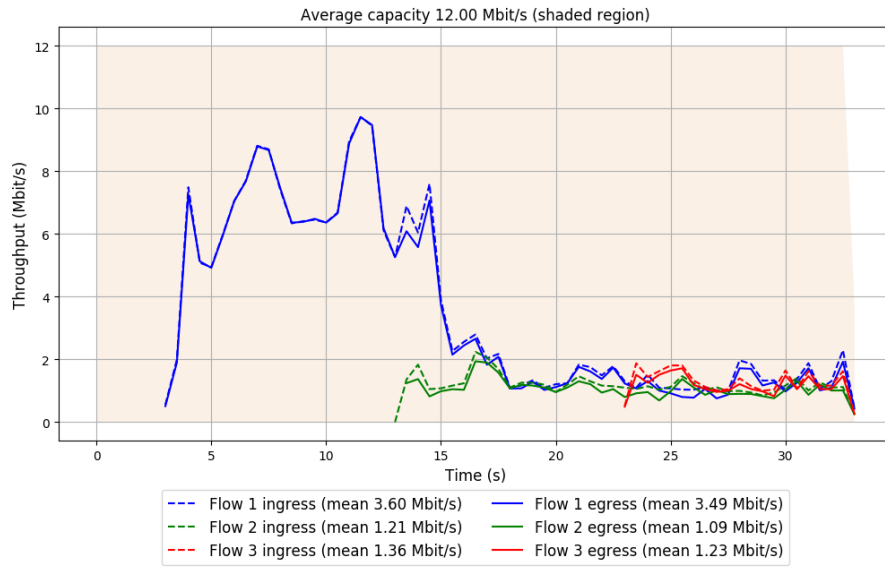
-- Flow 3:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 12.036 ms

Loss rate: 9.26%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-20 16:36:45

End at: 2018-03-20 16:37:16

Below is generated by plot.py at 2018-03-20 17:32:03

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.66 Mbit/s (38.8% utilization)

95th percentile per-packet one-way delay: 12.023 ms

Loss rate: 6.27%

-- Flow 1:

Average throughput: 3.48 Mbit/s

95th percentile per-packet one-way delay: 12.006 ms

Loss rate: 3.14%

-- Flow 2:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 12.069 ms

Loss rate: 15.28%

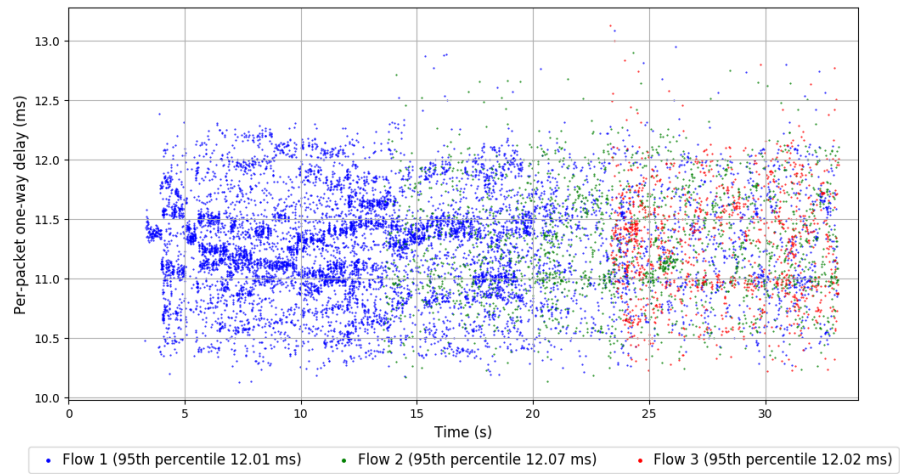
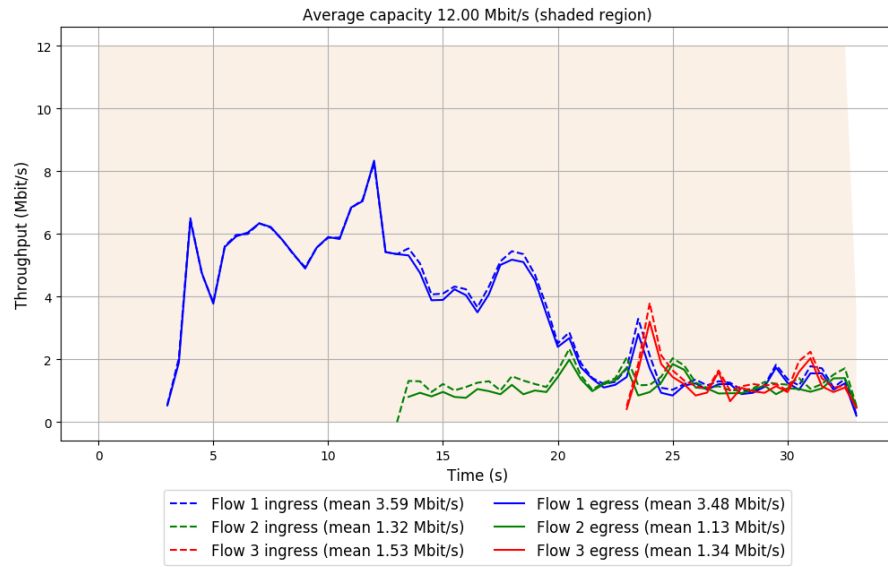
-- Flow 3:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 12.020 ms

Loss rate: 12.94%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-20 16:47:02

End at: 2018-03-20 16:47:32

Below is generated by plot.py at 2018-03-20 17:32:07

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.65 Mbit/s (47.1% utilization)

95th percentile per-packet one-way delay: 11.978 ms

Loss rate: 6.11%

-- Flow 1:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 11.941 ms

Loss rate: 4.12%

-- Flow 2:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 12.059 ms

Loss rate: 13.65%

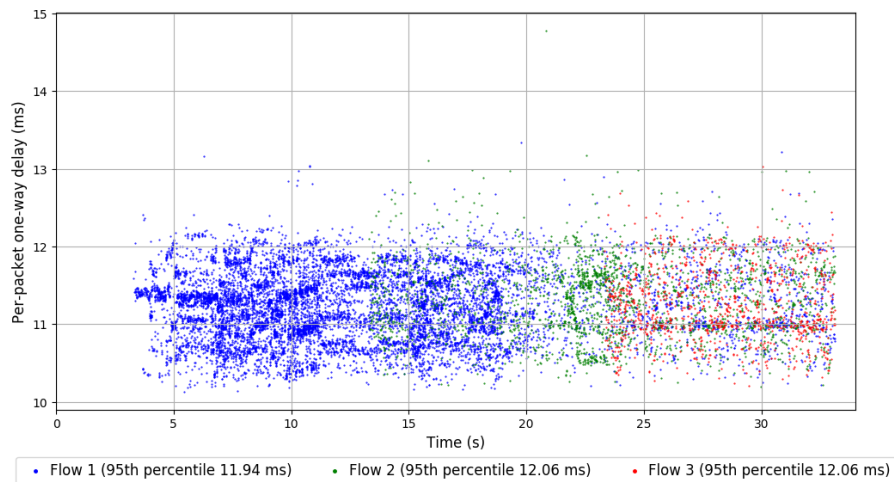
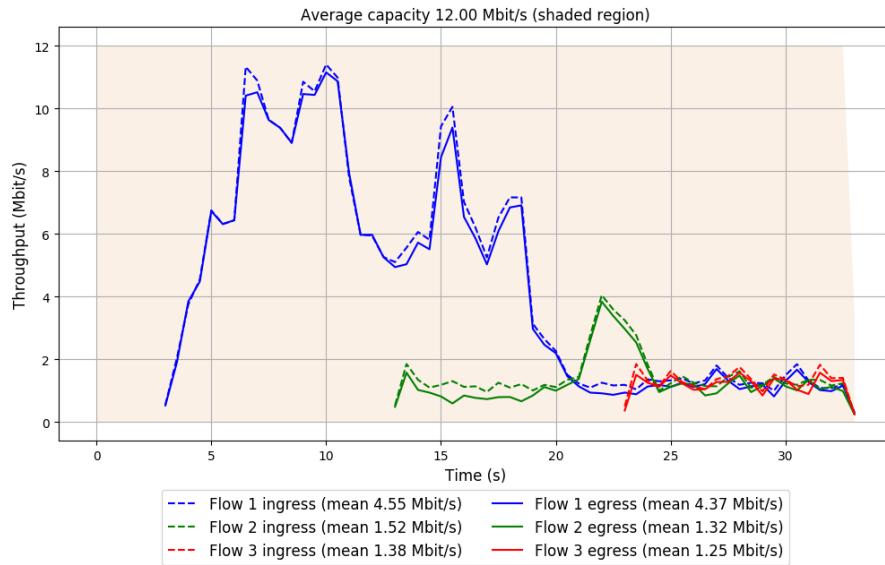
-- Flow 3:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 12.057 ms

Loss rate: 9.26%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-20 16:57:24

End at: 2018-03-20 16:57:54

Below is generated by plot.py at 2018-03-20 17:32:08

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 6.02 Mbit/s (50.2% utilization)

95th percentile per-packet one-way delay: 12.000 ms

Loss rate: 7.15%

-- Flow 1:

Average throughput: 3.76 Mbit/s

95th percentile per-packet one-way delay: 11.992 ms

Loss rate: 5.53%

-- Flow 2:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 12.016 ms

Loss rate: 9.32%

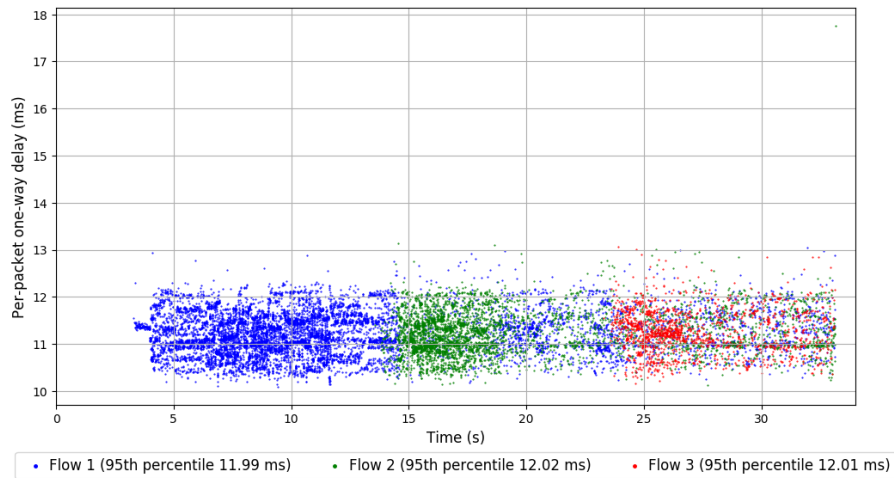
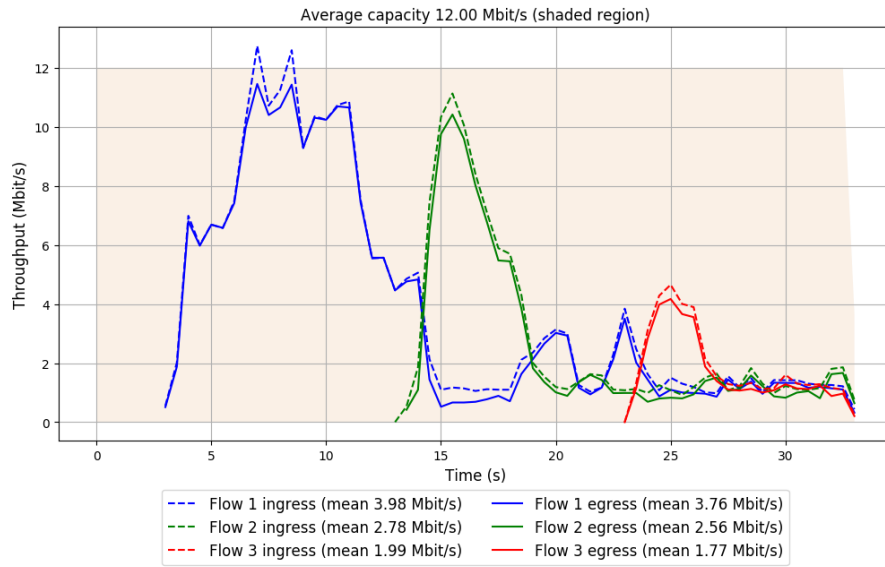
-- Flow 3:

Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 12.005 ms

Loss rate: 10.78%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-20 17:07:42

End at: 2018-03-20 17:08:12

Below is generated by plot.py at 2018-03-20 17:32:08

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.23 Mbit/s (43.6% utilization)

95th percentile per-packet one-way delay: 11.987 ms

Loss rate: 6.50%

-- Flow 1:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 11.952 ms

Loss rate: 3.78%

-- Flow 2:

Average throughput: 1.03 Mbit/s

95th percentile per-packet one-way delay: 12.076 ms

Loss rate: 17.73%

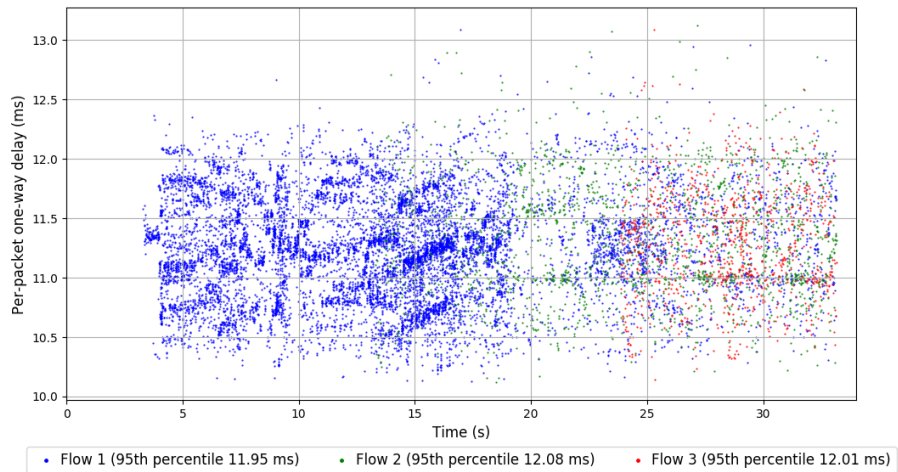
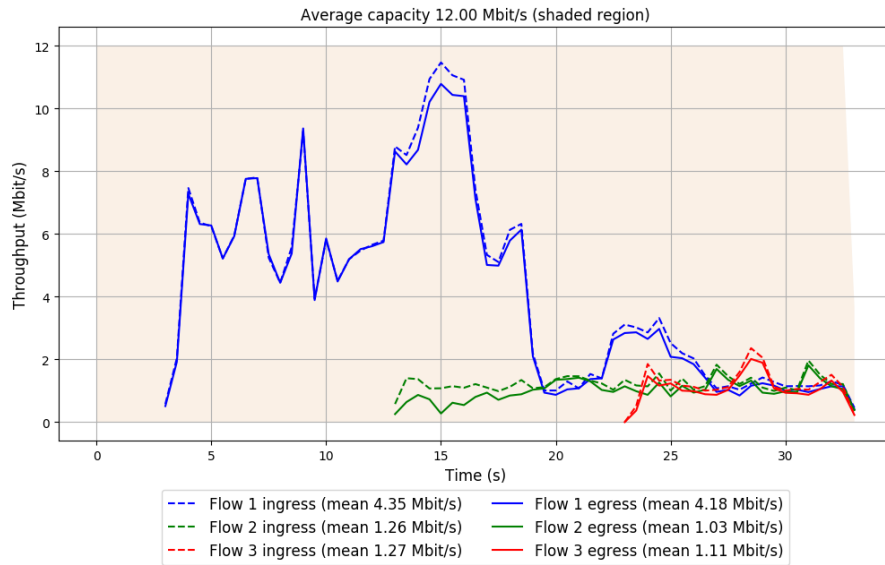
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 12.006 ms

Loss rate: 12.36%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-20 17:17:59

End at: 2018-03-20 17:18:29

Below is generated by plot.py at 2018-03-20 17:32:12

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.42 Mbit/s (45.2% utilization)

95th percentile per-packet one-way delay: 11.978 ms

Loss rate: 6.44%

-- Flow 1:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 11.955 ms

Loss rate: 5.19%

-- Flow 2:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 11.976 ms

Loss rate: 8.15%

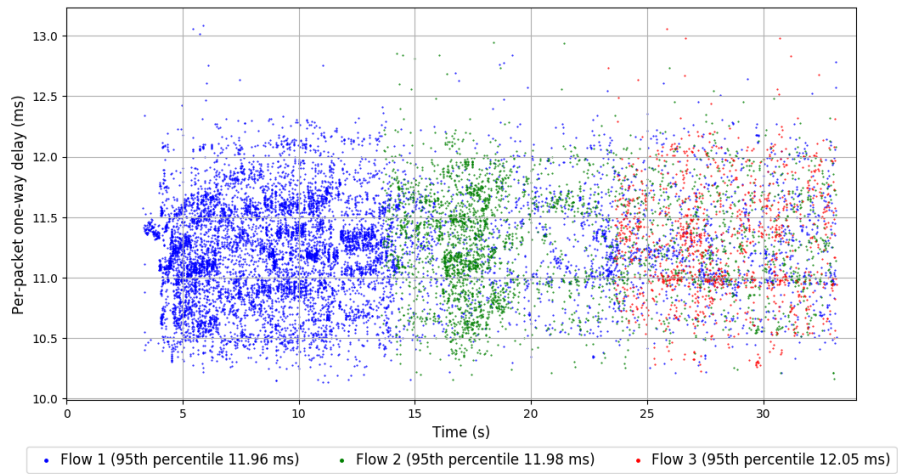
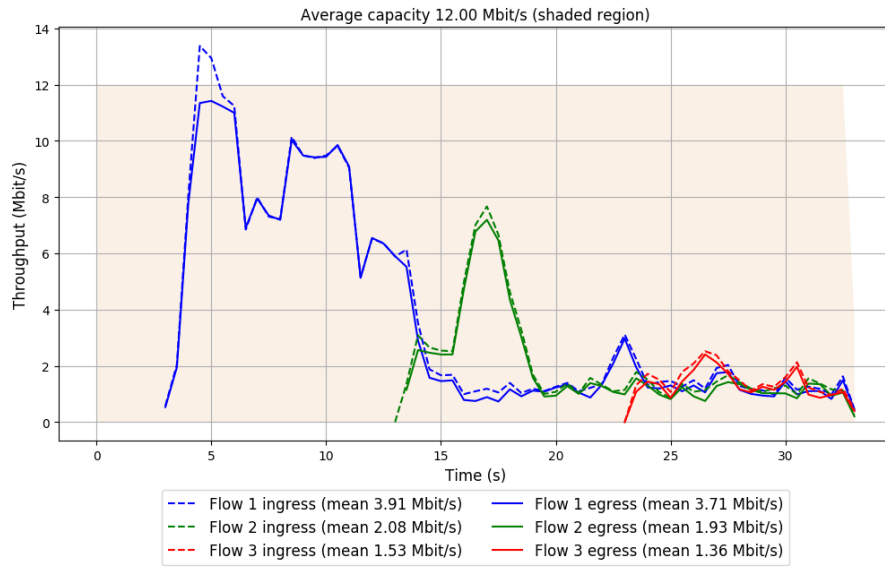
-- Flow 3:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 12.053 ms

Loss rate: 11.50%

Run 10: Report of Vivace-latency — Data Link



Run 1: Statistics of Vivace-loss

Start at: 2018-03-20 15:46:11

End at: 2018-03-20 15:46:41

Below is generated by plot.py at 2018-03-20 17:32:17

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 6.39 Mbit/s (53.2% utilization)

95th percentile per-packet one-way delay: 12.000 ms

Loss rate: 5.73%

-- Flow 1:

Average throughput: 5.37 Mbit/s

95th percentile per-packet one-way delay: 11.970 ms

Loss rate: 3.34%

-- Flow 2:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 12.060 ms

Loss rate: 19.59%

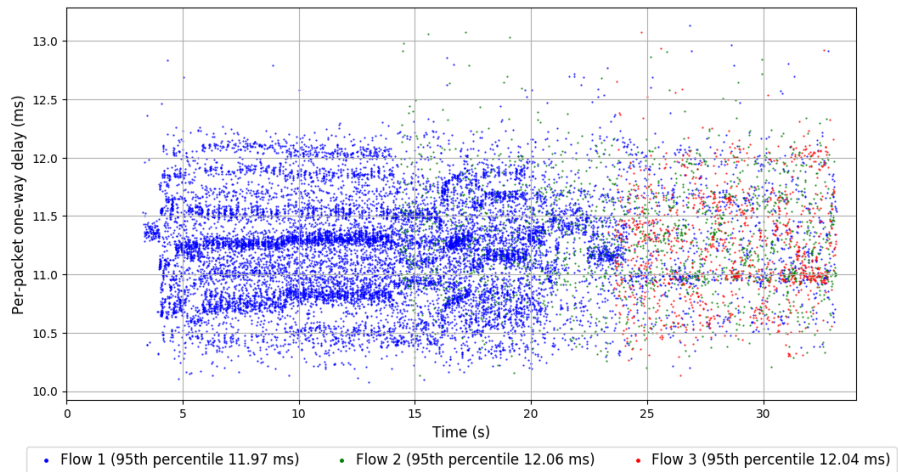
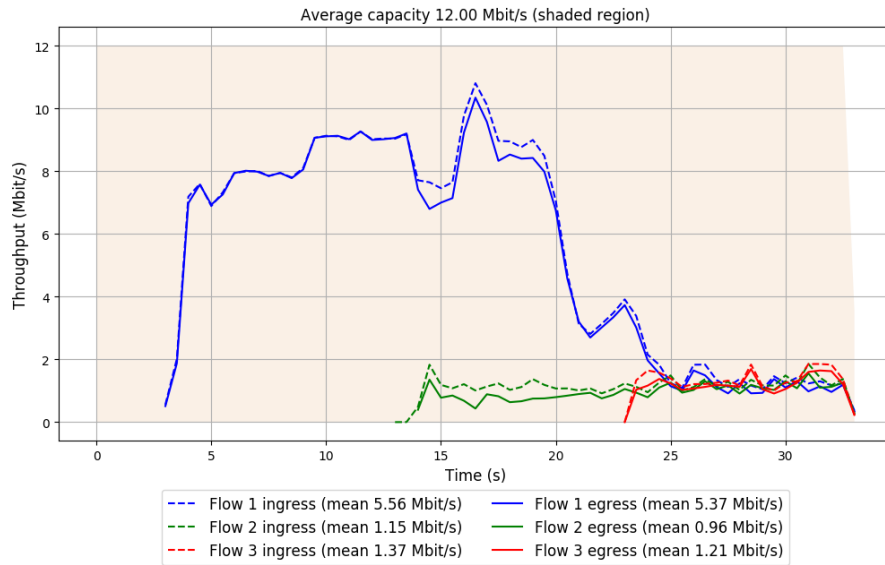
-- Flow 3:

Average throughput: 1.21 Mbit/s

95th percentile per-packet one-way delay: 12.042 ms

Loss rate: 11.67%

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-03-20 15:56:28

End at: 2018-03-20 15:56:58

Below is generated by plot.py at 2018-03-20 17:32:17

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.51 Mbit/s (37.6% utilization)

95th percentile per-packet one-way delay: 12.018 ms

Loss rate: 5.08%

-- Flow 1:

Average throughput: 3.31 Mbit/s

95th percentile per-packet one-way delay: 11.979 ms

Loss rate: 2.89%

-- Flow 2:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 12.079 ms

Loss rate: 11.12%

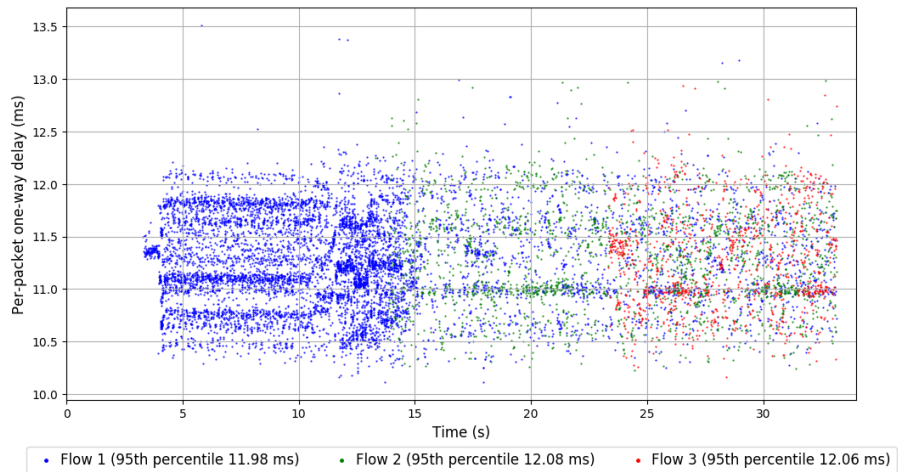
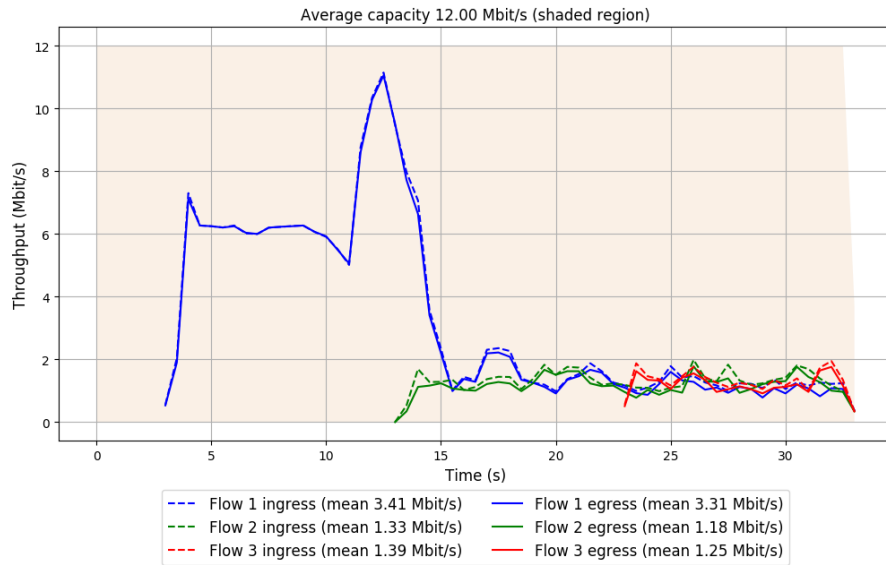
-- Flow 3:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 12.060 ms

Loss rate: 9.76%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-20 16:06:52

End at: 2018-03-20 16:07:22

Below is generated by plot.py at 2018-03-20 17:32:20

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.38 Mbit/s (44.8% utilization)

95th percentile per-packet one-way delay: 11.993 ms

Loss rate: 6.05%

-- Flow 1:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 11.947 ms

Loss rate: 3.50%

-- Flow 2:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 12.088 ms

Loss rate: 16.17%

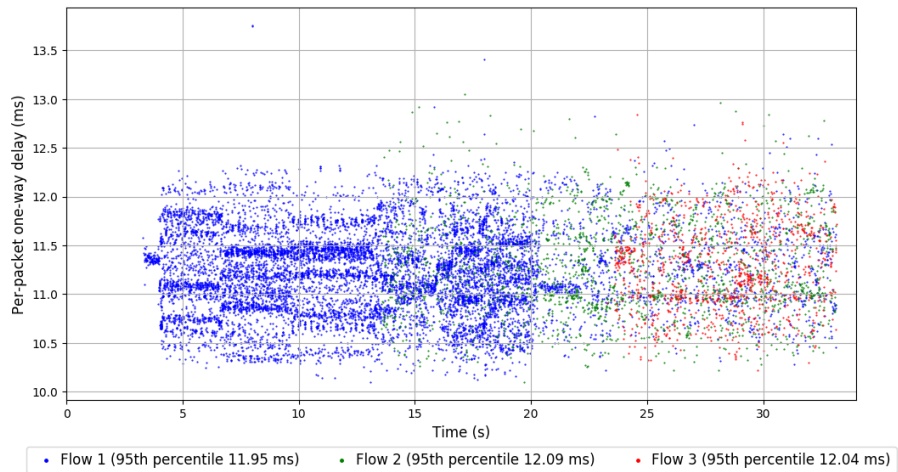
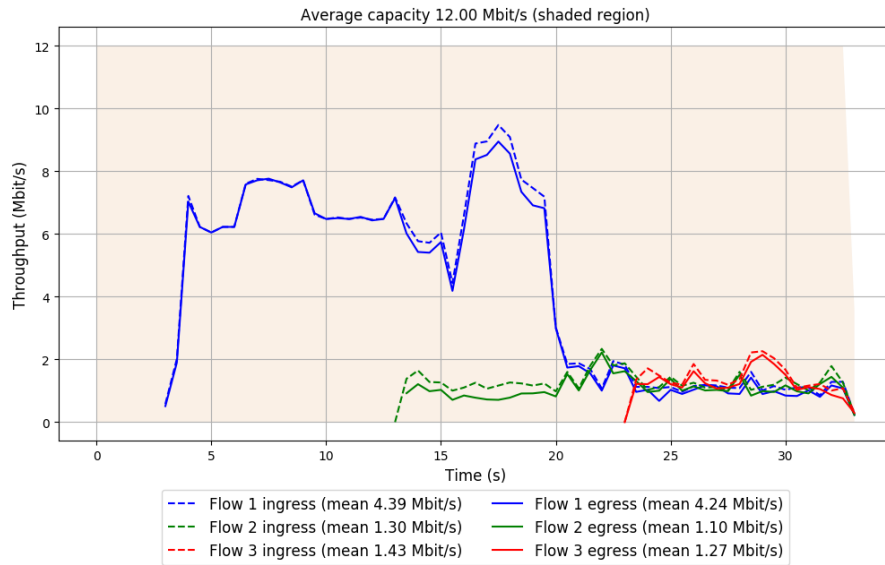
-- Flow 3:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 12.038 ms

Loss rate: 11.30%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-20 16:17:10

End at: 2018-03-20 16:17:40

Below is generated by plot.py at 2018-03-20 17:32:24

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 6.92 Mbit/s (57.7% utilization)

95th percentile per-packet one-way delay: 11.987 ms

Loss rate: 6.67%

-- Flow 1:

Average throughput: 5.99 Mbit/s

95th percentile per-packet one-way delay: 11.964 ms

Loss rate: 3.77%

-- Flow 2:

Average throughput: 0.91 Mbit/s

95th percentile per-packet one-way delay: 12.112 ms

Loss rate: 25.17%

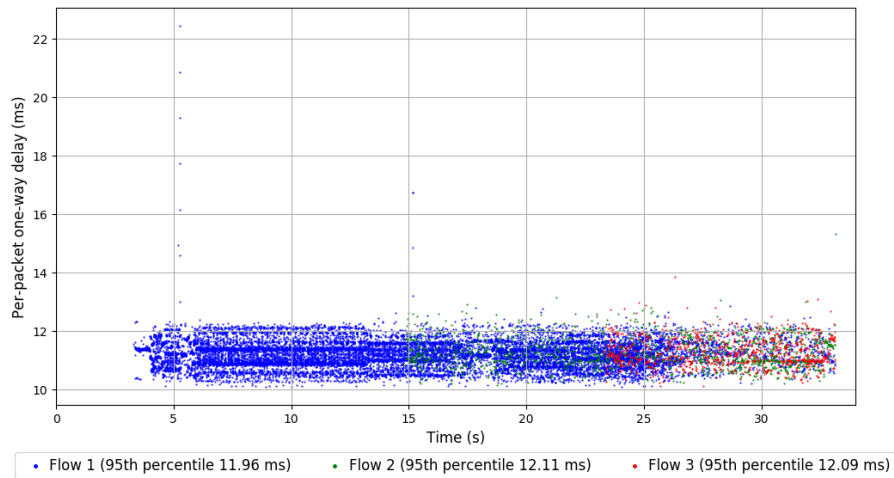
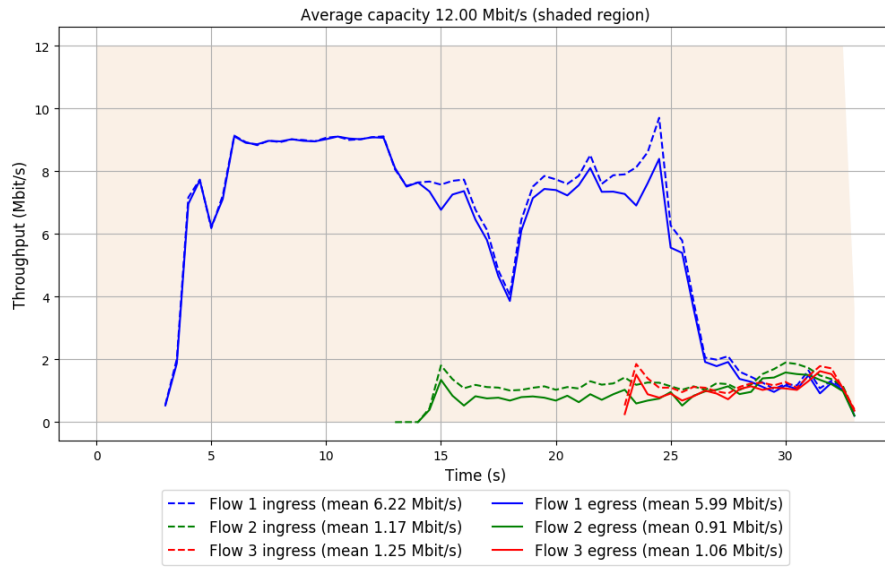
-- Flow 3:

Average throughput: 1.06 Mbit/s

95th percentile per-packet one-way delay: 12.088 ms

Loss rate: 15.40%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-20 16:27:32

End at: 2018-03-20 16:28:02

Below is generated by plot.py at 2018-03-20 17:32:24

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.07 Mbit/s (42.3% utilization)

95th percentile per-packet one-way delay: 12.005 ms

Loss rate: 5.78%

-- Flow 1:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 11.991 ms

Loss rate: 3.26%

-- Flow 2:

Average throughput: 1.05 Mbit/s

95th percentile per-packet one-way delay: 12.052 ms

Loss rate: 15.95%

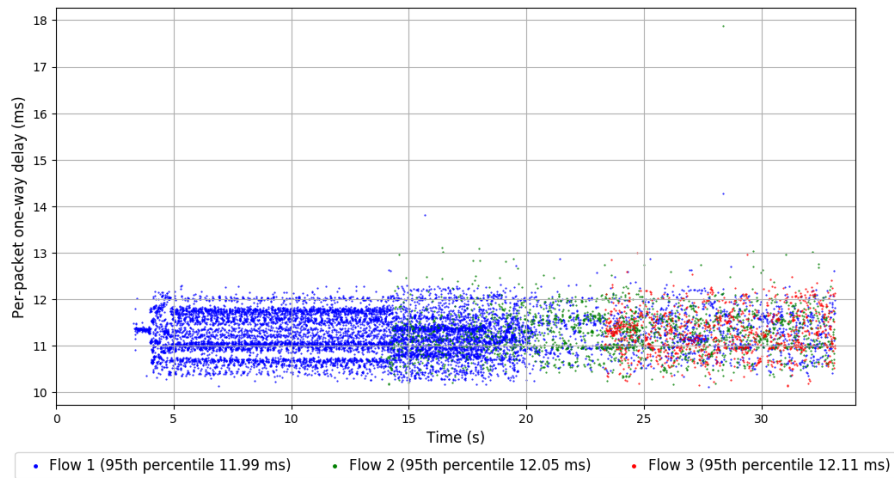
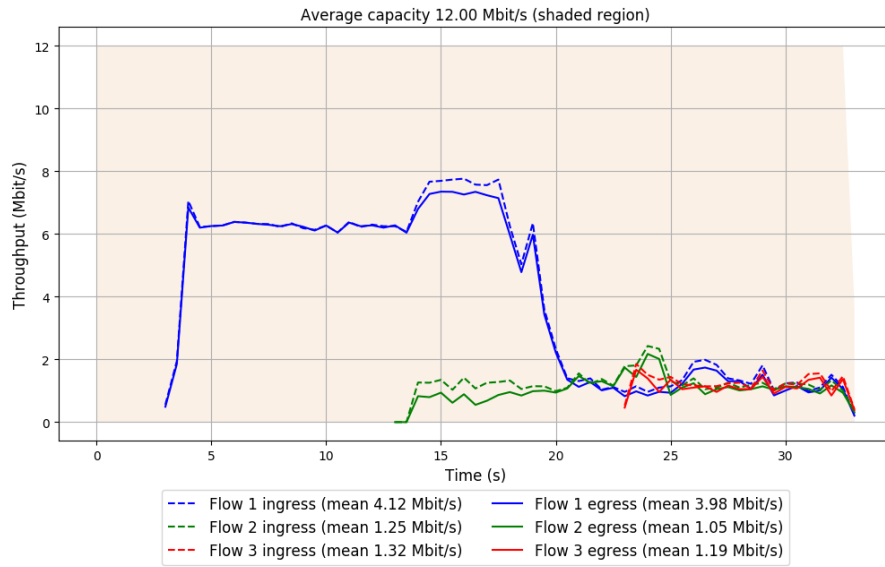
-- Flow 3:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 12.110 ms

Loss rate: 10.23%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-20 16:37:53

End at: 2018-03-20 16:38:23

Below is generated by plot.py at 2018-03-20 17:32:28

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 6.72 Mbit/s (56.0% utilization)

95th percentile per-packet one-way delay: 11.925 ms

Loss rate: 3.03%

-- Flow 1:

Average throughput: 6.44 Mbit/s

95th percentile per-packet one-way delay: 11.916 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 11.693 ms

Loss rate: 33.23%

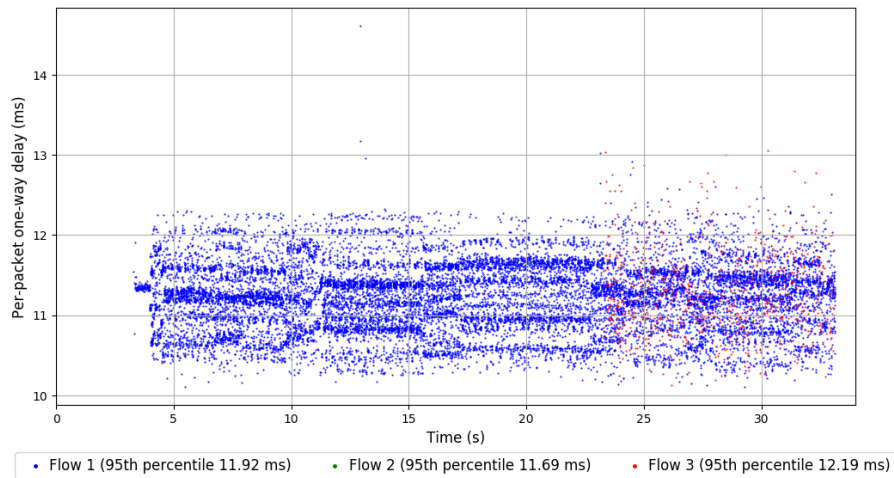
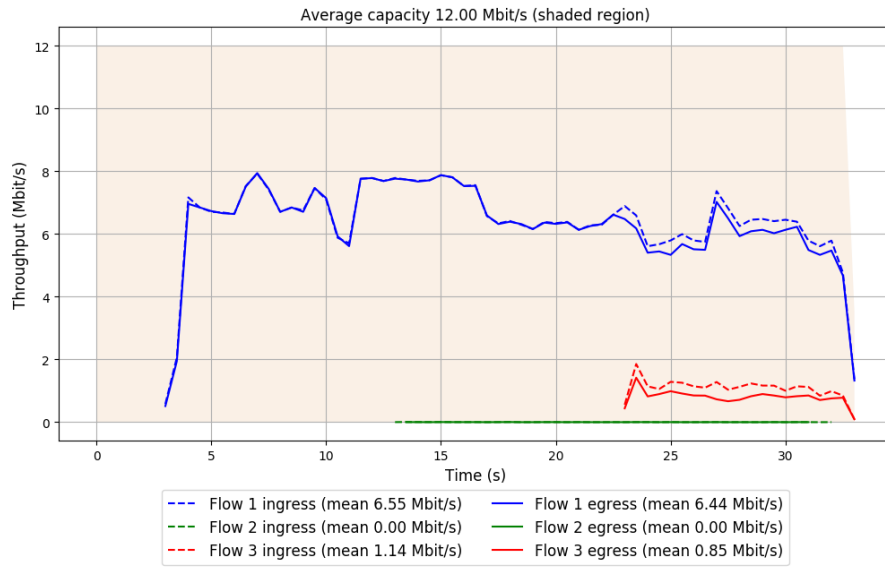
-- Flow 3:

Average throughput: 0.85 Mbit/s

95th percentile per-packet one-way delay: 12.188 ms

Loss rate: 25.76%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-20 16:48:10

End at: 2018-03-20 16:48:40

Below is generated by plot.py at 2018-03-20 17:32:28

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.46 Mbit/s (37.1% utilization)

95th percentile per-packet one-way delay: 11.998 ms

Loss rate: 6.01%

-- Flow 1:

Average throughput: 2.98 Mbit/s

95th percentile per-packet one-way delay: 11.988 ms

Loss rate: 3.84%

-- Flow 2:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 12.001 ms

Loss rate: 9.36%

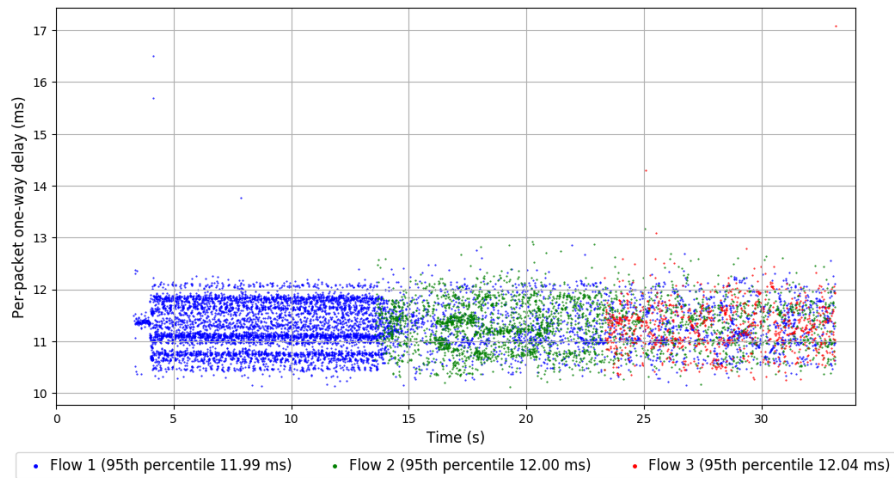
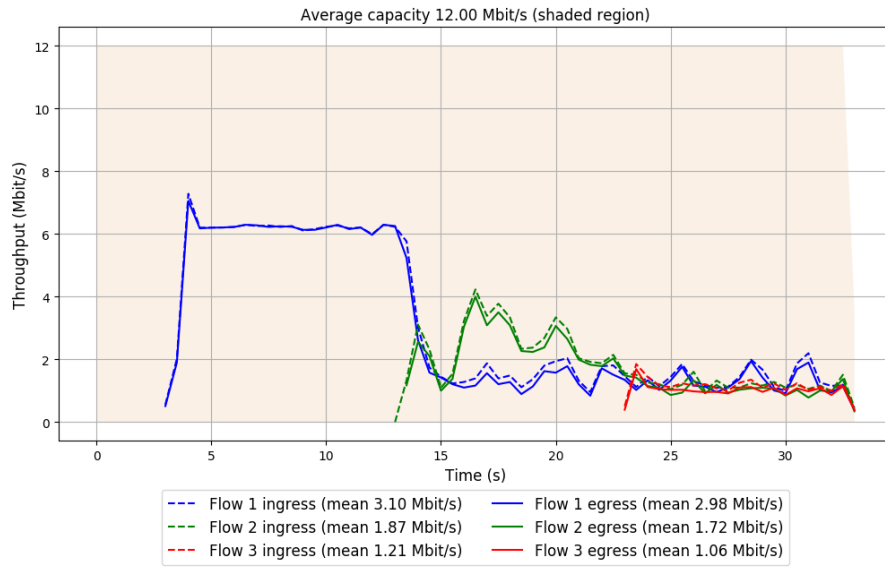
-- Flow 3:

Average throughput: 1.06 Mbit/s

95th percentile per-packet one-way delay: 12.045 ms

Loss rate: 12.44%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-20 16:58:32

End at: 2018-03-20 16:59:02

Below is generated by plot.py at 2018-03-20 17:32:30

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.91 Mbit/s (49.3% utilization)

95th percentile per-packet one-way delay: 11.936 ms

Loss rate: 2.11%

-- Flow 1:

Average throughput: 5.52 Mbit/s

95th percentile per-packet one-way delay: 11.916 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 11.792 ms

Loss rate: 34.52%

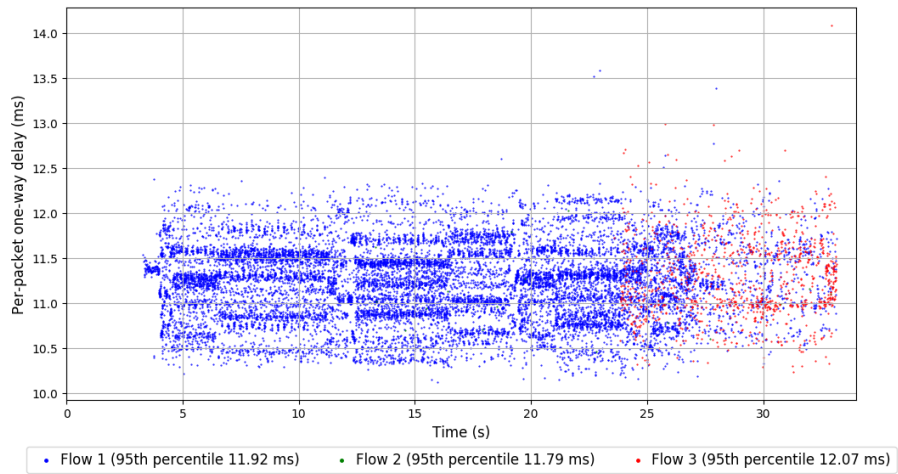
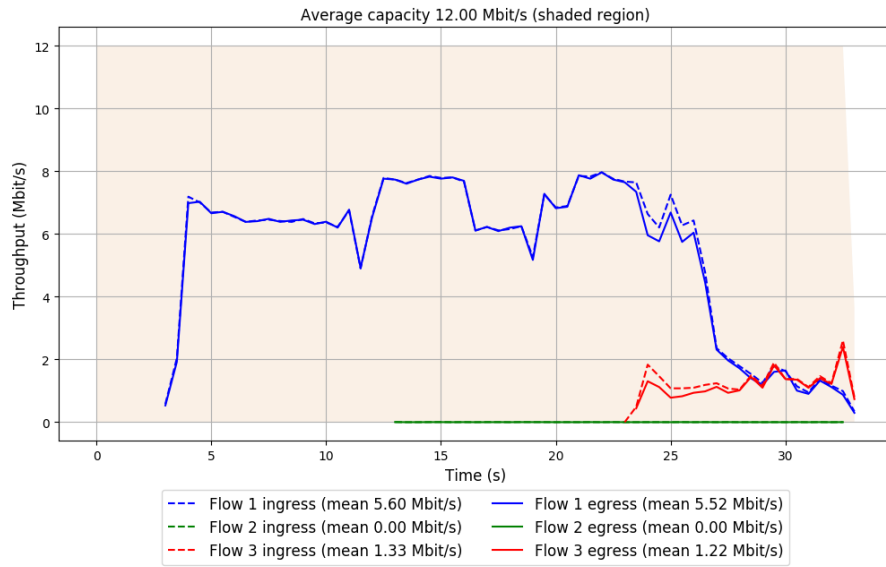
-- Flow 3:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 12.069 ms

Loss rate: 10.46%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-20 17:08:50

End at: 2018-03-20 17:09:20

Below is generated by plot.py at 2018-03-20 17:32:33

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.17 Mbit/s (43.1% utilization)

95th percentile per-packet one-way delay: 11.996 ms

Loss rate: 6.29%

-- Flow 1:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 11.980 ms

Loss rate: 3.50%

-- Flow 2:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 12.096 ms

Loss rate: 15.95%

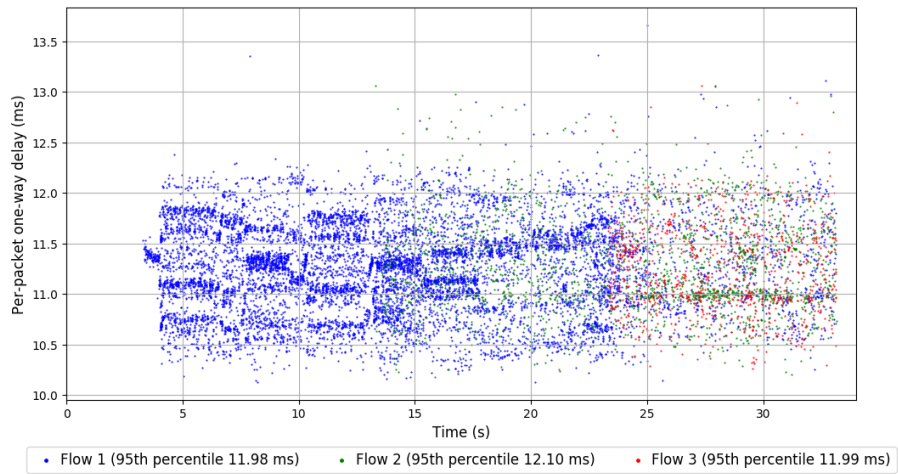
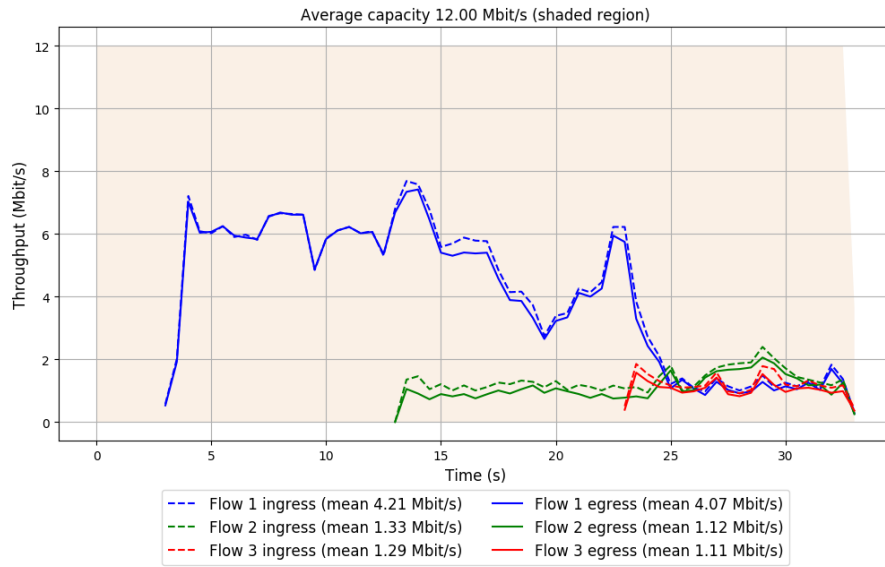
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 11.986 ms

Loss rate: 13.90%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-20 17:19:07

End at: 2018-03-20 17:19:37

Below is generated by plot.py at 2018-03-20 17:32:34

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.76 Mbit/s (48.0% utilization)

95th percentile per-packet one-way delay: 11.960 ms

Loss rate: 2.82%

-- Flow 1:

Average throughput: 5.41 Mbit/s

95th percentile per-packet one-way delay: 11.935 ms

Loss rate: 1.65%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 12.113 ms

Loss rate: 23.91%

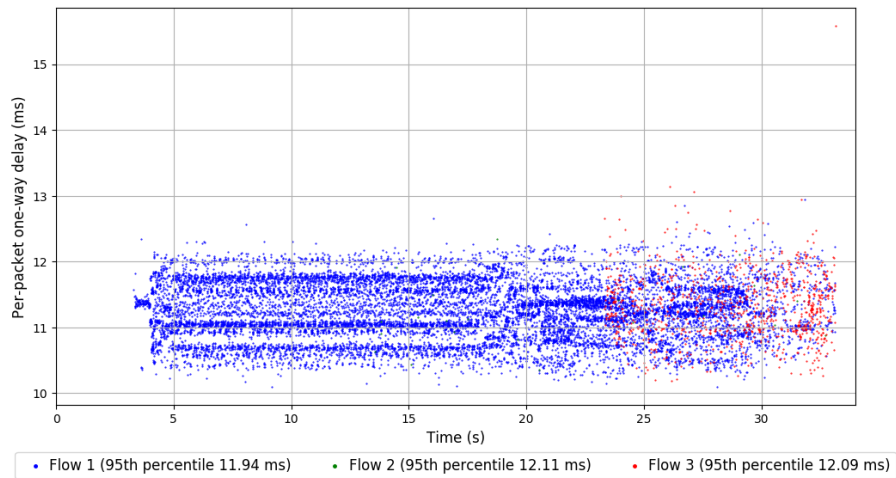
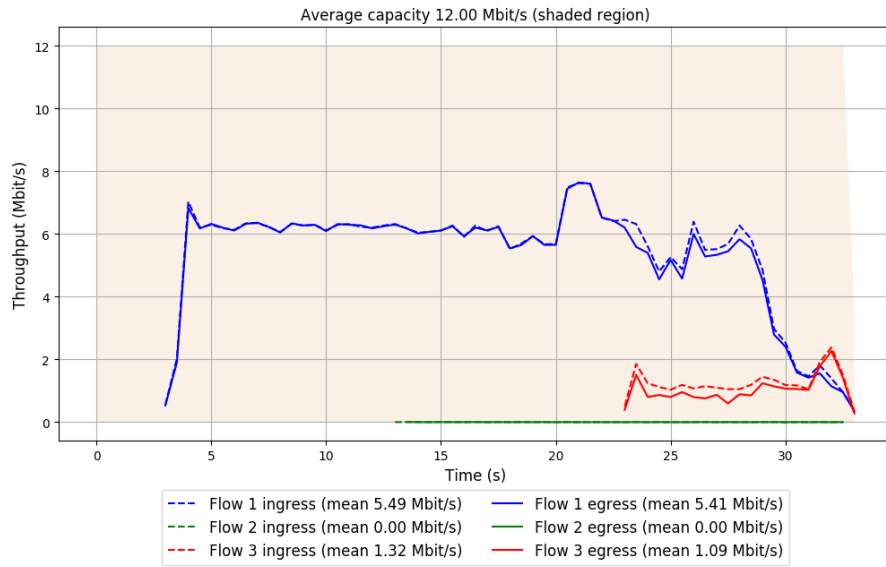
-- Flow 3:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 12.085 ms

Loss rate: 17.51%

Run 10: Report of Vivace-loss — Data Link



Run 1: Statistics of Vivace-LTE

Start at: 2018-03-20 15:43:56

End at: 2018-03-20 15:44:26

Below is generated by plot.py at 2018-03-20 17:32:35

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.35 Mbit/s (36.2% utilization)

95th percentile per-packet one-way delay: 12.010 ms

Loss rate: 5.36%

-- Flow 1:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 12.000 ms

Loss rate: 3.18%

-- Flow 2:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 12.057 ms

Loss rate: 10.63%

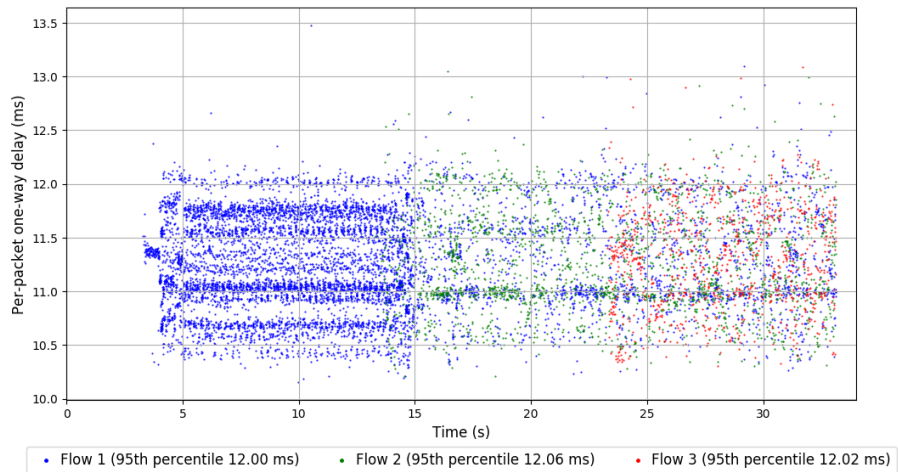
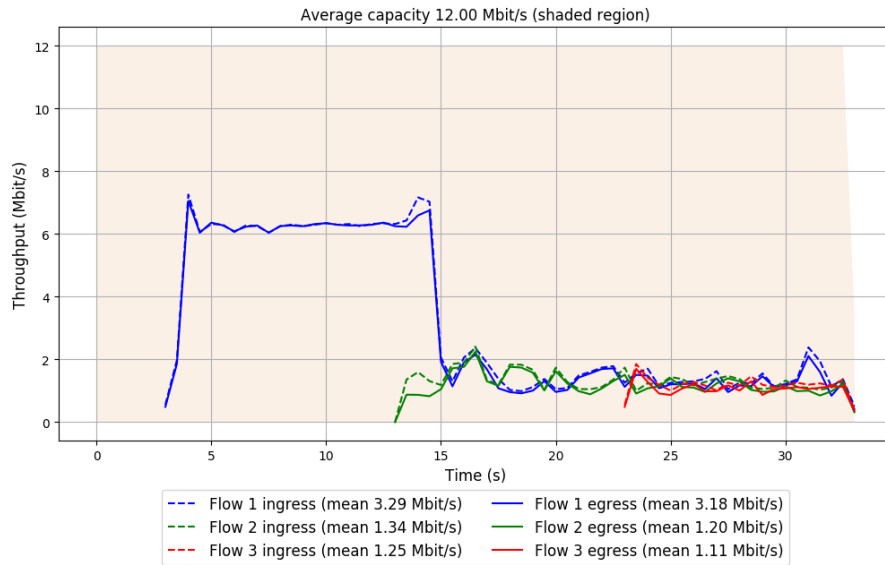
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 12.016 ms

Loss rate: 11.22%

Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-20 15:54:13

End at: 2018-03-20 15:54:43

Below is generated by plot.py at 2018-03-20 17:32:39

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.44 Mbit/s (37.0% utilization)

95th percentile per-packet one-way delay: 11.994 ms

Loss rate: 5.22%

-- Flow 1:

Average throughput: 3.06 Mbit/s

95th percentile per-packet one-way delay: 11.983 ms

Loss rate: 3.29%

-- Flow 2:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 12.027 ms

Loss rate: 8.54%

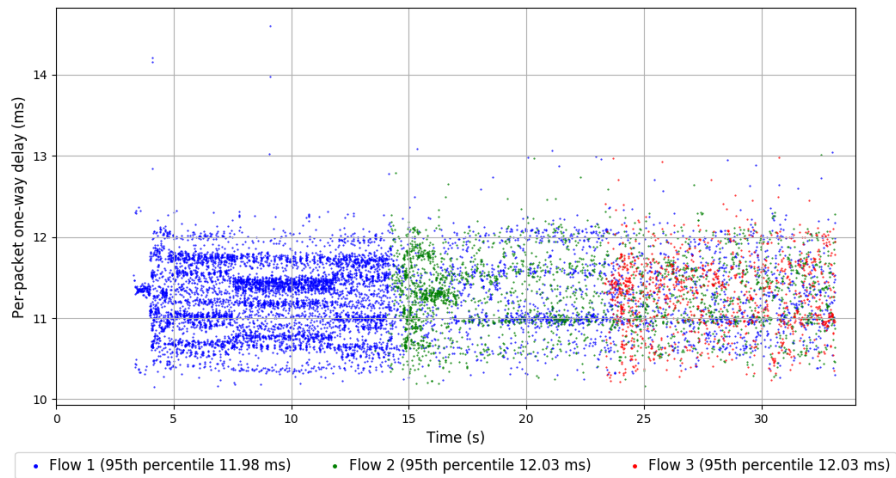
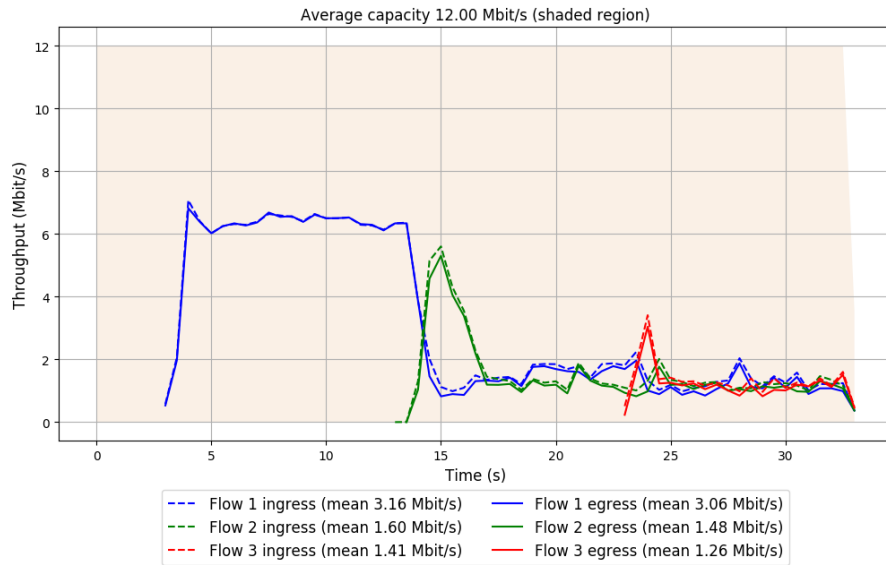
-- Flow 3:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 12.034 ms

Loss rate: 10.70%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-20 16:04:36

End at: 2018-03-20 16:05:06

Below is generated by plot.py at 2018-03-20 17:32:40

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.09 Mbit/s (42.4% utilization)

95th percentile per-packet one-way delay: 11.972 ms

Loss rate: 5.84%

-- Flow 1:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 11.928 ms

Loss rate: 3.47%

-- Flow 2:

Average throughput: 0.93 Mbit/s

95th percentile per-packet one-way delay: 12.054 ms

Loss rate: 17.31%

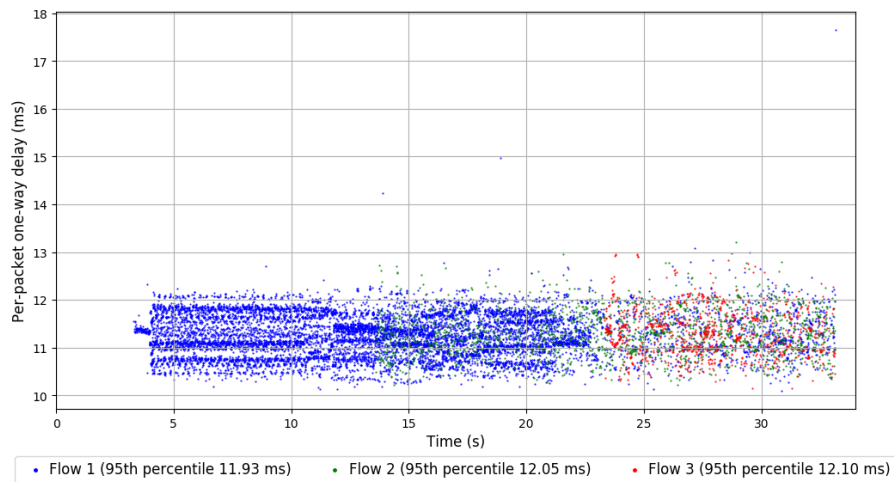
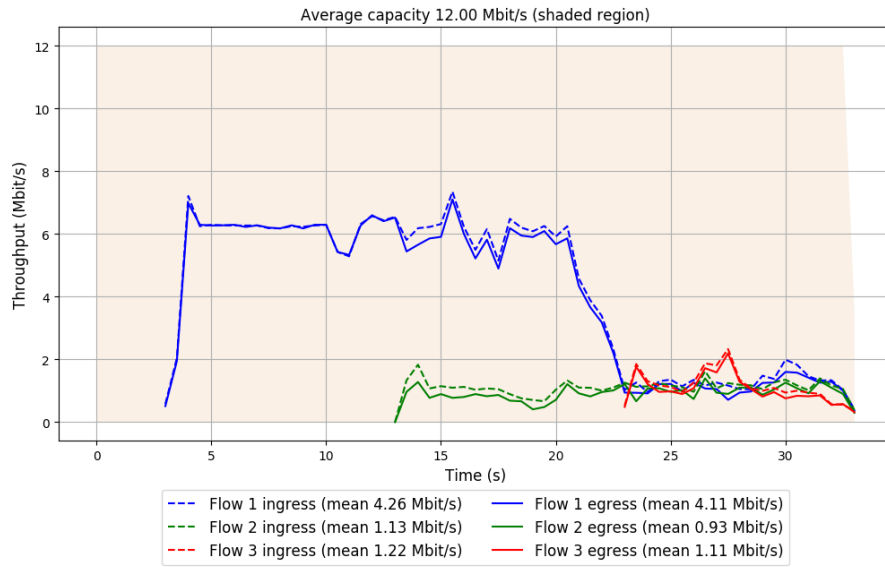
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 12.102 ms

Loss rate: 9.58%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-20 16:14:54

End at: 2018-03-20 16:15:24

Below is generated by plot.py at 2018-03-20 17:32:41

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.30 Mbit/s (44.2% utilization)

95th percentile per-packet one-way delay: 11.979 ms

Loss rate: 6.09%

-- Flow 1:

Average throughput: 4.15 Mbit/s

95th percentile per-packet one-way delay: 11.963 ms

Loss rate: 3.12%

-- Flow 2:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 12.046 ms

Loss rate: 18.47%

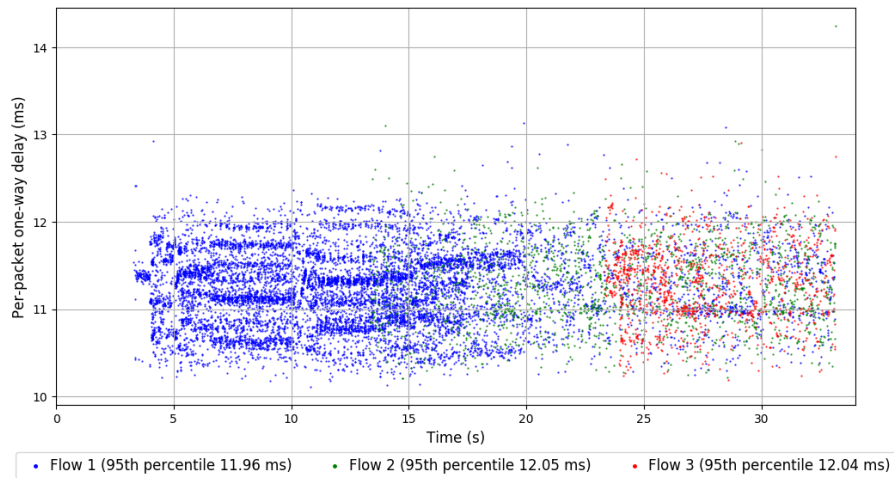
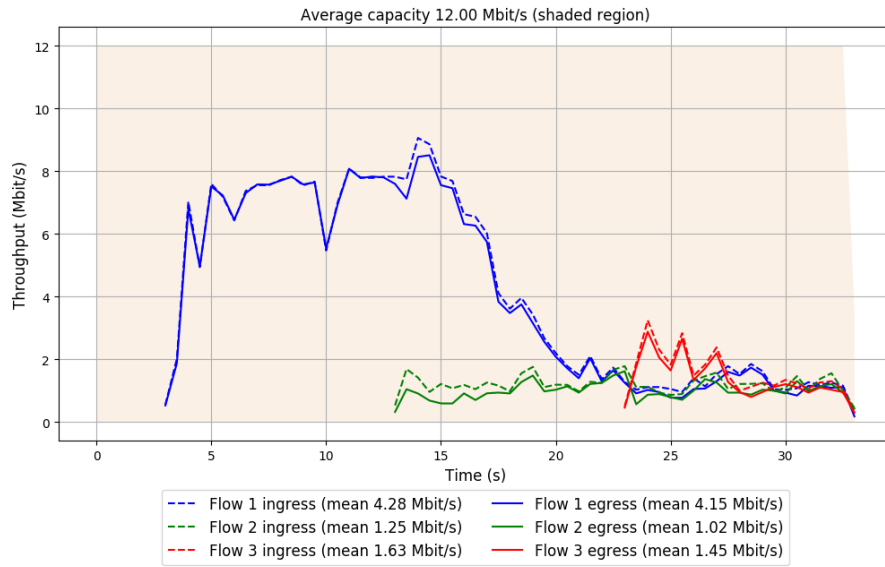
-- Flow 3:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 12.036 ms

Loss rate: 10.69%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-20 16:25:16

End at: 2018-03-20 16:25:46

Below is generated by plot.py at 2018-03-20 17:32:44

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.61 Mbit/s (46.8% utilization)

95th percentile per-packet one-way delay: 11.979 ms

Loss rate: 6.06%

-- Flow 1:

Average throughput: 4.60 Mbit/s

95th percentile per-packet one-way delay: 11.954 ms

Loss rate: 3.33%

-- Flow 2:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 12.057 ms

Loss rate: 18.21%

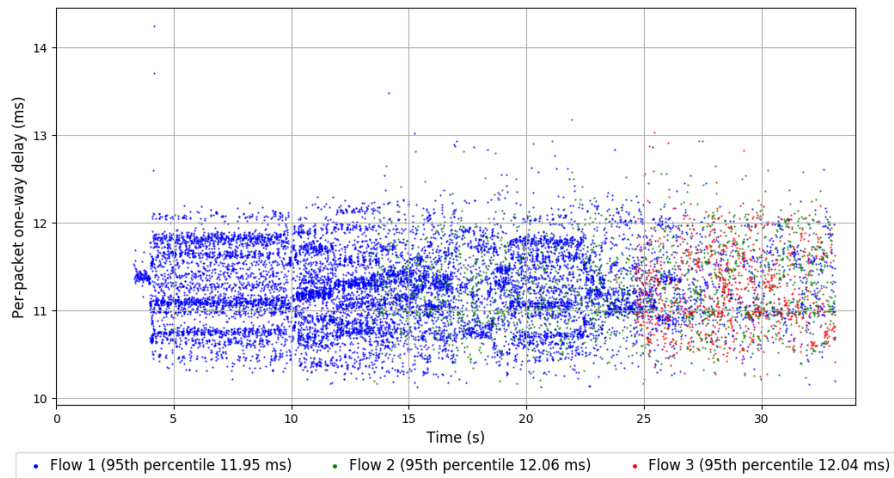
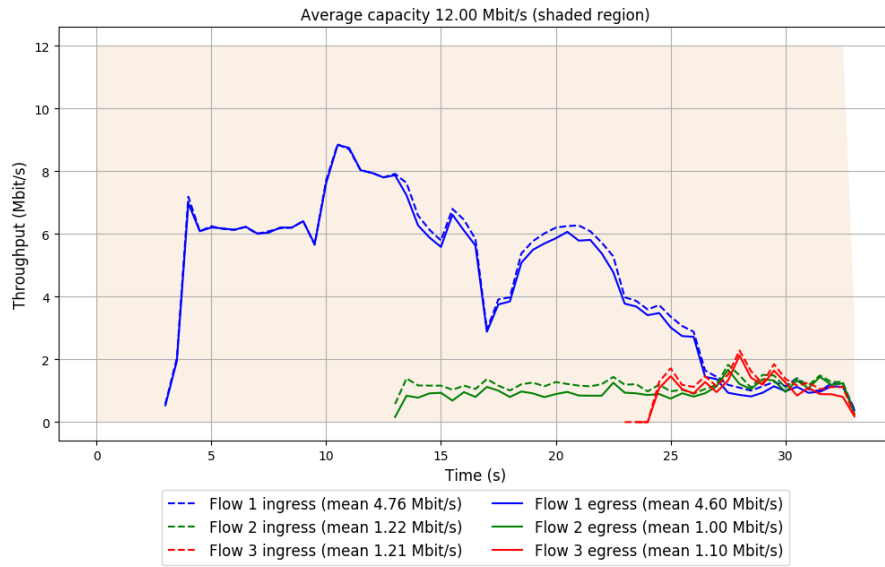
-- Flow 3:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 12.038 ms

Loss rate: 13.92%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-20 16:35:38

End at: 2018-03-20 16:36:08

Below is generated by plot.py at 2018-03-20 17:32:45

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 4.85 Mbit/s (40.4% utilization)

95th percentile per-packet one-way delay: 11.983 ms

Loss rate: 5.48%

-- Flow 1:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 11.947 ms

Loss rate: 3.19%

-- Flow 2:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 12.060 ms

Loss rate: 12.99%

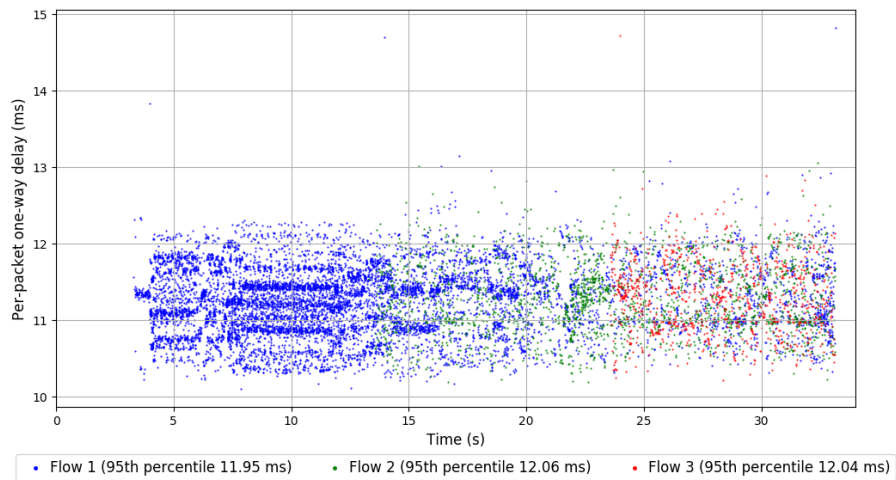
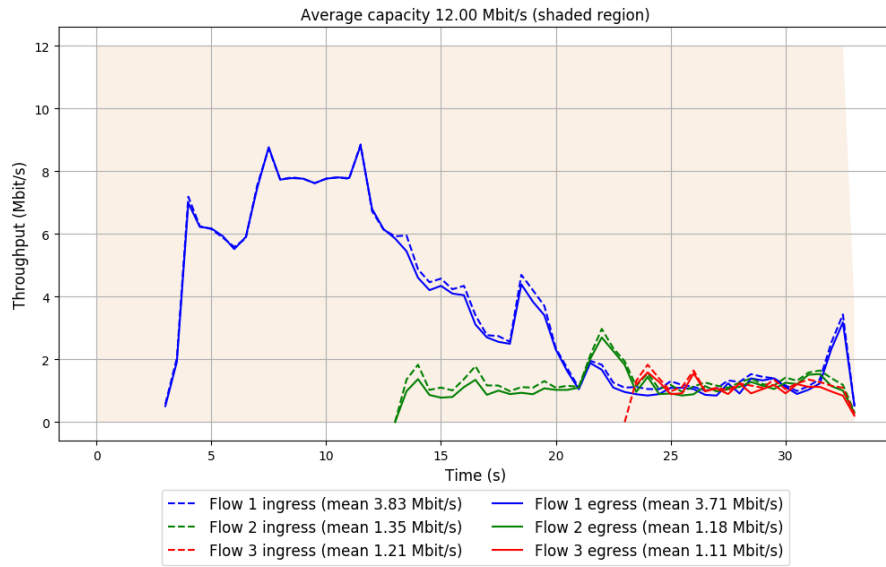
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 12.041 ms

Loss rate: 10.56%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-20 16:45:54

End at: 2018-03-20 16:46:24

Below is generated by plot.py at 2018-03-20 17:32:48

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.89 Mbit/s (49.1% utilization)

95th percentile per-packet one-way delay: 11.992 ms

Loss rate: 4.71%

-- Flow 1:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 12.008 ms

Loss rate: 4.76%

-- Flow 2:

Average throughput: 4.67 Mbit/s

95th percentile per-packet one-way delay: 11.948 ms

Loss rate: 4.65%

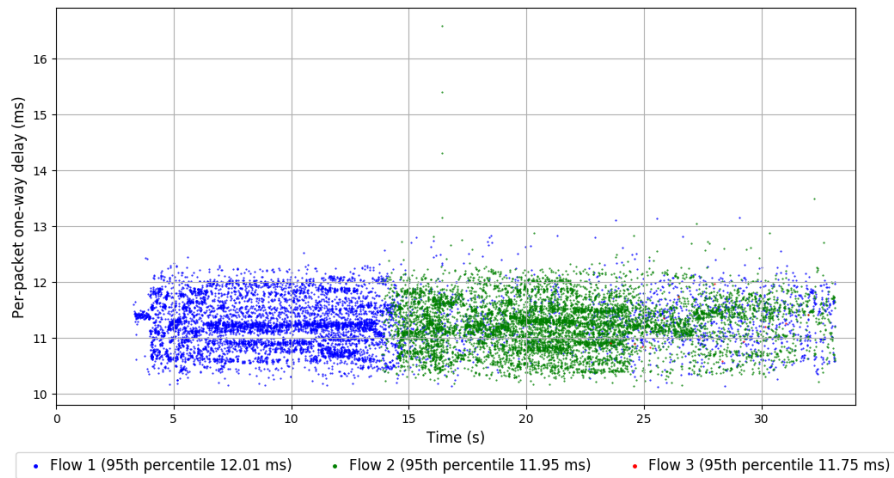
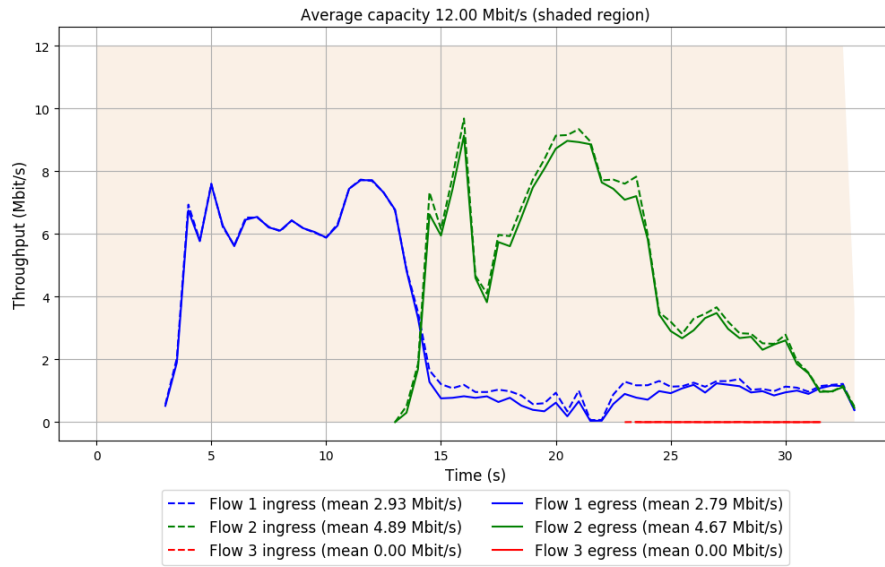
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 11.746 ms

Loss rate: 34.88%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-20 16:56:16

End at: 2018-03-20 16:56:46

Below is generated by plot.py at 2018-03-20 17:32:49

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.46 Mbit/s (45.5% utilization)

95th percentile per-packet one-way delay: 11.993 ms

Loss rate: 6.24%

-- Flow 1:

Average throughput: 4.44 Mbit/s

95th percentile per-packet one-way delay: 11.976 ms

Loss rate: 3.45%

-- Flow 2:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 12.076 ms

Loss rate: 19.79%

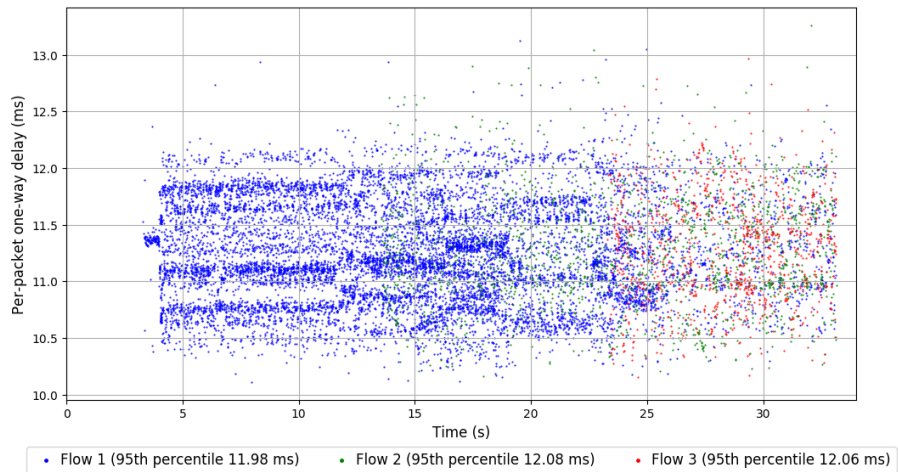
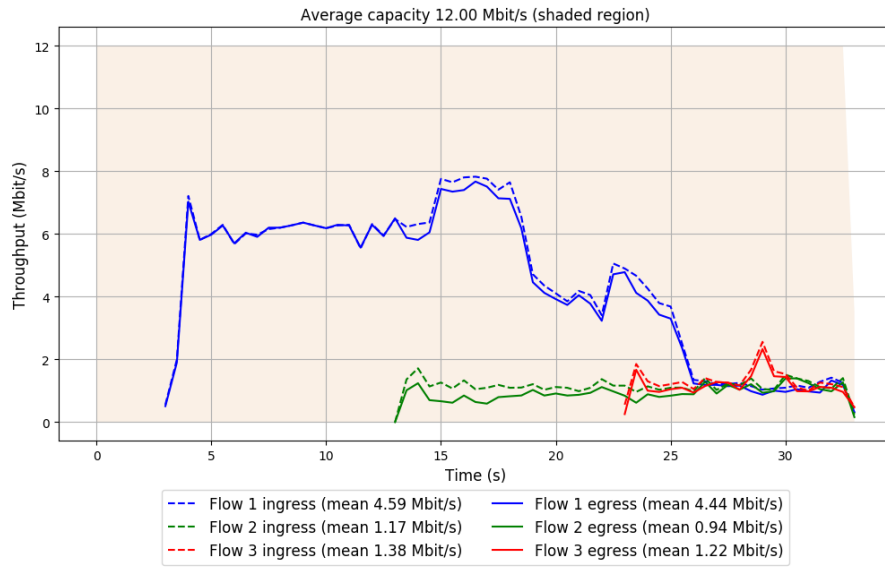
-- Flow 3:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 12.061 ms

Loss rate: 11.27%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-20 17:06:34

End at: 2018-03-20 17:07:04

Below is generated by plot.py at 2018-03-20 17:32:49

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.10 Mbit/s (42.5% utilization)

95th percentile per-packet one-way delay: 12.025 ms

Loss rate: 5.62%

-- Flow 1:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 12.002 ms

Loss rate: 3.11%

-- Flow 2:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 12.099 ms

Loss rate: 14.64%

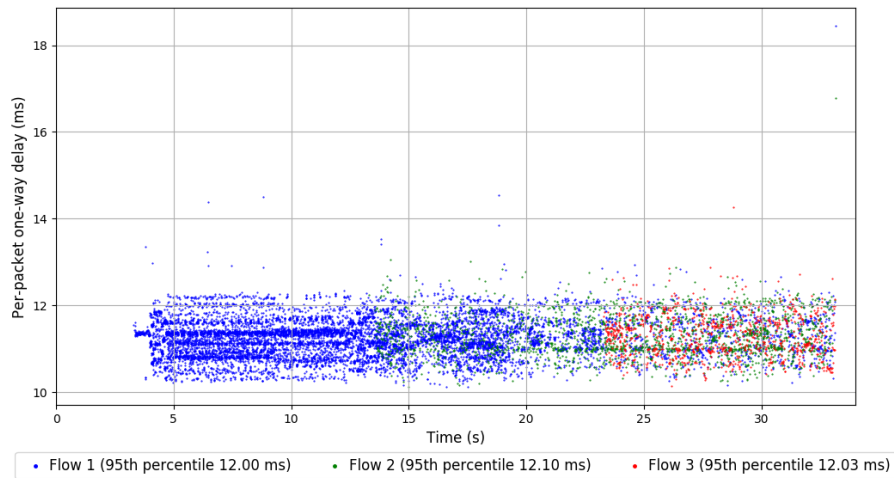
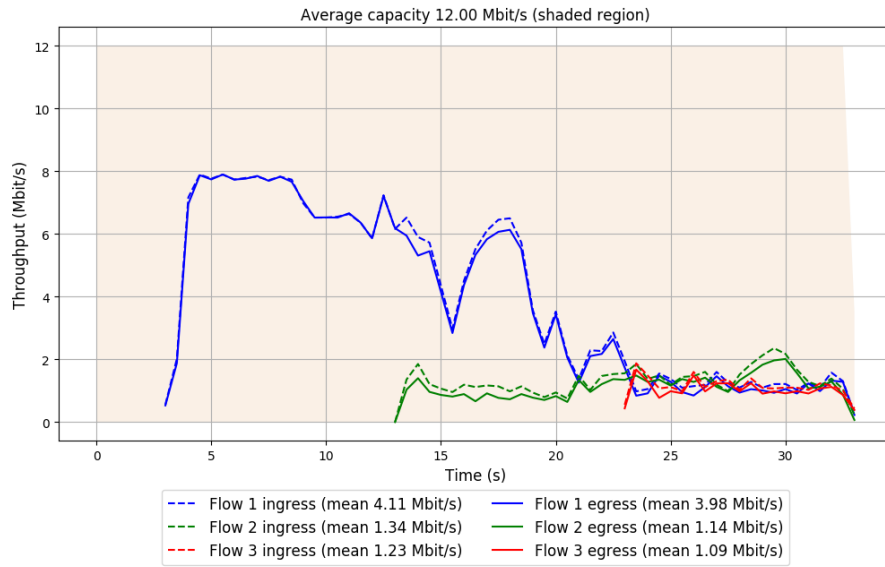
-- Flow 3:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 12.032 ms

Loss rate: 11.23%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-03-20 17:16:51

End at: 2018-03-20 17:17:21

Below is generated by plot.py at 2018-03-20 17:32:50

Datalink statistics

-- Total of 3 flows:

Average capacity: 12.00 Mbit/s

Average throughput: 5.06 Mbit/s (42.1% utilization)

95th percentile per-packet one-way delay: 11.982 ms

Loss rate: 5.49%

-- Flow 1:

Average throughput: 3.92 Mbit/s

95th percentile per-packet one-way delay: 11.937 ms

Loss rate: 3.32%

-- Flow 2:

Average throughput: 1.07 Mbit/s

95th percentile per-packet one-way delay: 12.108 ms

Loss rate: 13.66%

-- Flow 3:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 11.998 ms

Loss rate: 9.96%

Run 10: Report of Vivace-LTE — Data Link

