

Pantheon Report

Generated at 2018-03-05 19:27:33 (UTC).

Tested in mahimahi: mm-delay 88 mm-link 2.64mbps-poisson.trace 2.64mbps-poisson.trace
--uplink-queue=droptail --uplink-queue-args=packets=130

Repeated the test of 17 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

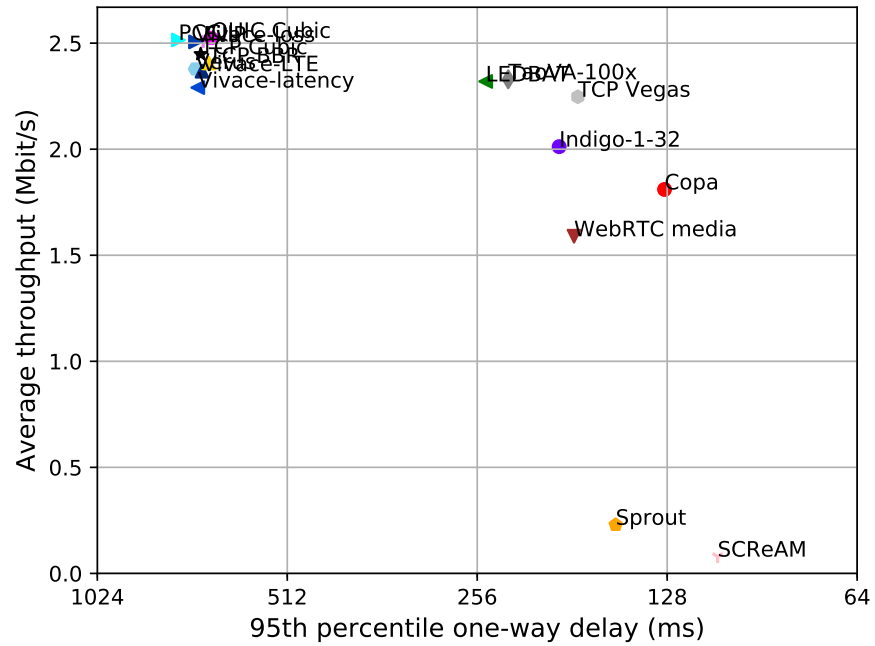
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

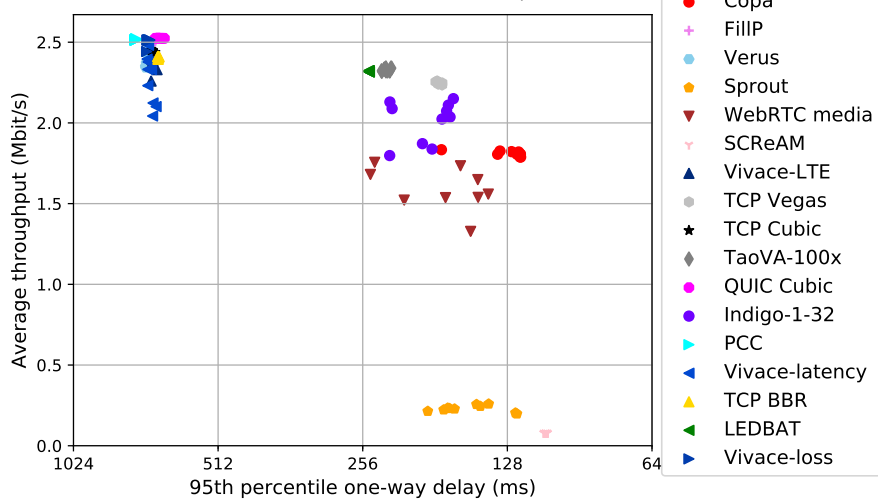
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

local test in mahimahi, 10 runs of 30s each per scheme
(mean of all runs by scheme)



local test in mahimahi, 10 runs of 30s each per scheme



scheme	# runs	mean avg tput (Mbit/s)	mean 95th-%ile delay (ms)	mean loss rate (%)
		flow 1	flow 1	flow 1
TCP BBR	10	2.41	681.88	2.14
TCP Cubic	10	2.45	702.15	2.97
LEDBAT	10	2.32	248.25	0.68
PCC	10	2.51	761.56	85.87
QUIC Cubic	9	2.52	675.57	3.72
SCReAM	10	0.08	106.50	0.27
WebRTC media	9	1.59	179.82	0.39
Sprout	10	0.23	154.48	0.24
TaoVA-100x	10	2.33	228.61	1.17
TCP Vegas	10	2.25	177.34	0.44
Verus	10	2.38	716.59	8.78
Copa	10	1.81	129.24	0.36
FillP	10	2.51	695.87	93.99
Indigo-1-32	10	2.01	189.85	0.37
Vivace-latency	10	2.29	709.83	17.27
Vivace-loss	10	2.50	715.54	22.15
Vivace-LTE	10	2.37	698.85	12.88

Run 1: Statistics of TCP BBR

Start at: 2018-03-05 17:42:55

End at: 2018-03-05 17:43:25

Below is generated by plot.py at 2018-03-05 19:24:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (106.1% utilization)

95th percentile per-packet one-way delay: 680.304 ms

Loss rate: 2.28%

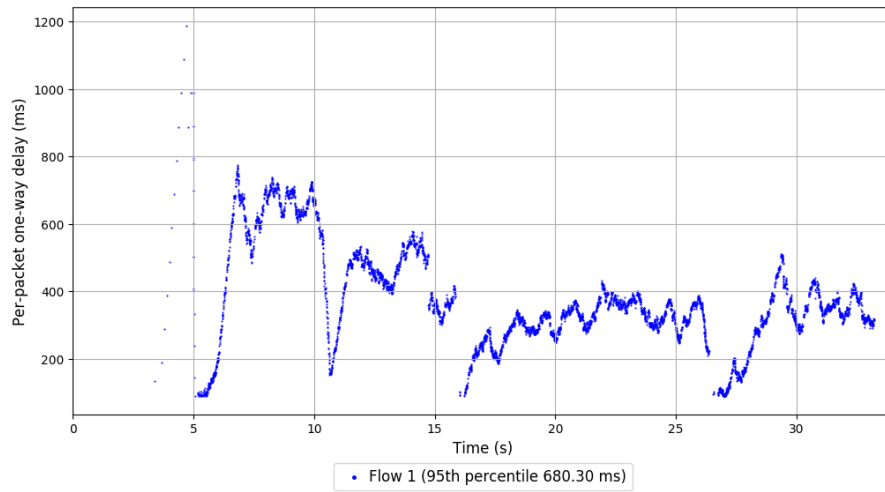
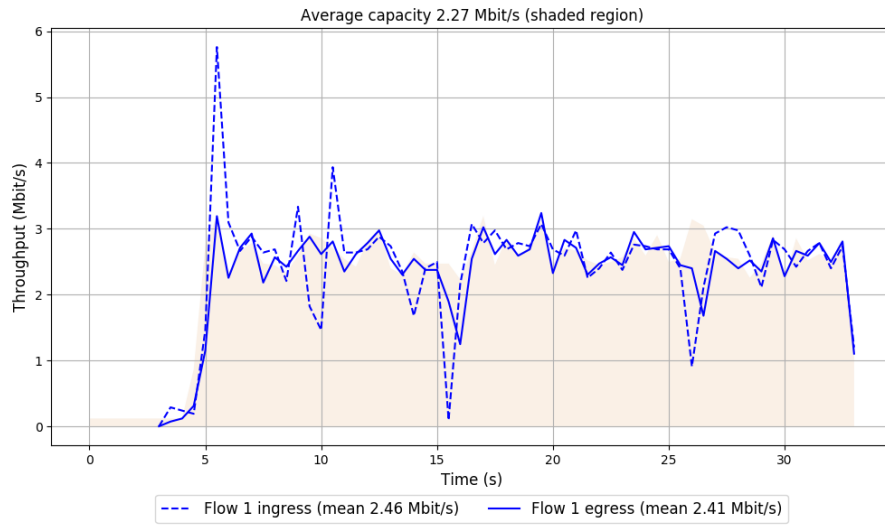
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 680.304 ms

Loss rate: 2.28%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-05 17:53:05

End at: 2018-03-05 17:53:35

Below is generated by plot.py at 2018-03-05 19:24:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.39 Mbit/s (105.4% utilization)

95th percentile per-packet one-way delay: 682.432 ms

Loss rate: 2.14%

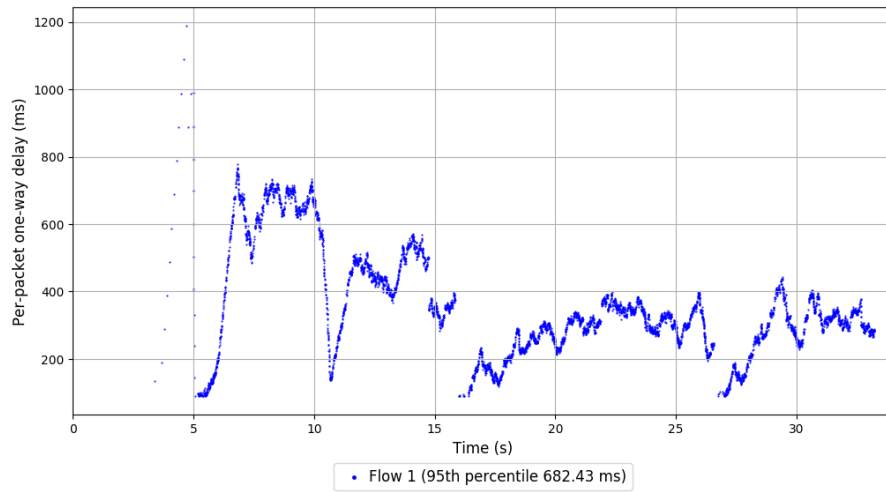
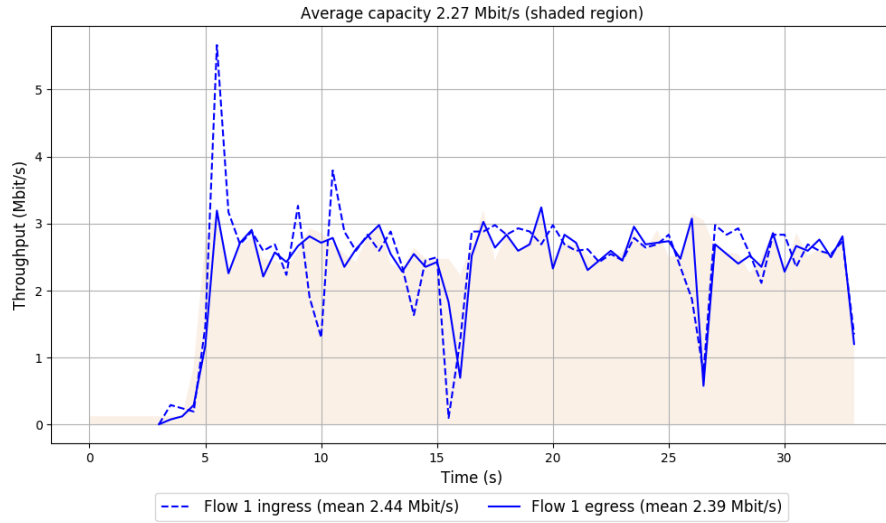
-- Flow 1:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 682.432 ms

Loss rate: 2.14%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-05 18:03:15

End at: 2018-03-05 18:03:45

Below is generated by plot.py at 2018-03-05 19:24:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (106.1% utilization)

95th percentile per-packet one-way delay: 681.955 ms

Loss rate: 2.00%

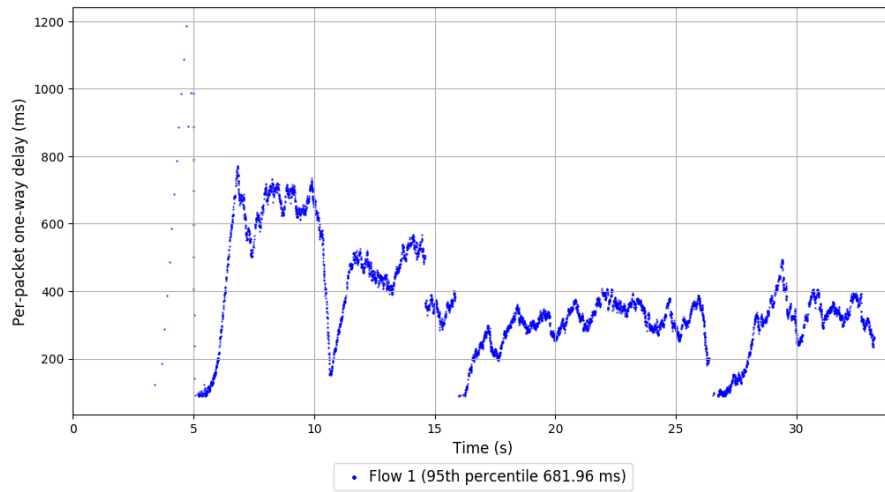
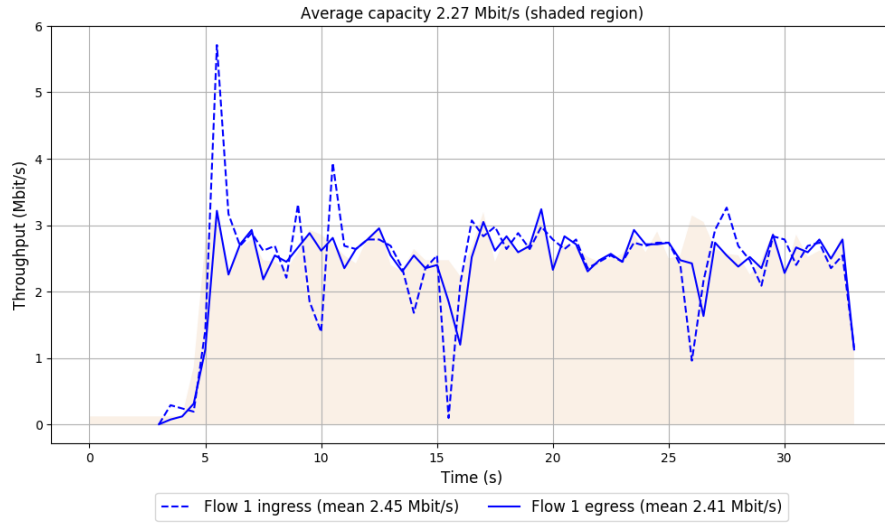
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 681.955 ms

Loss rate: 2.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-05 18:13:25

End at: 2018-03-05 18:13:55

Below is generated by plot.py at 2018-03-05 19:24:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (106.1% utilization)

95th percentile per-packet one-way delay: 682.453 ms

Loss rate: 2.16%

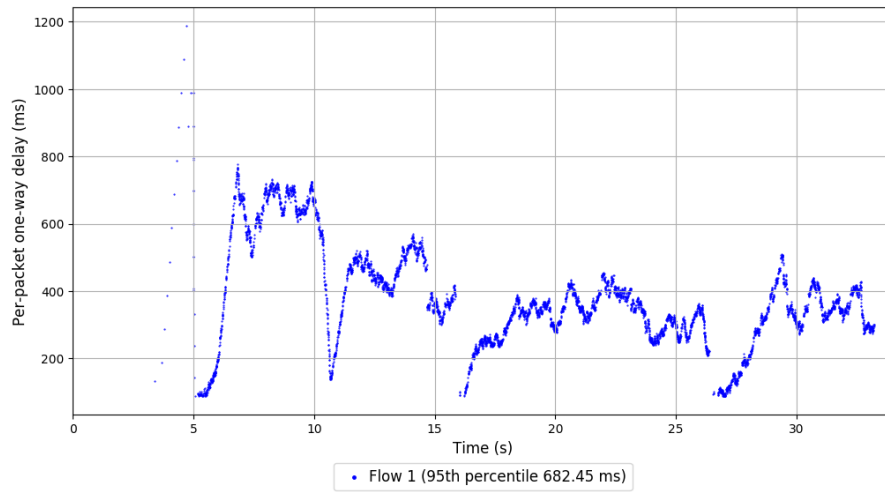
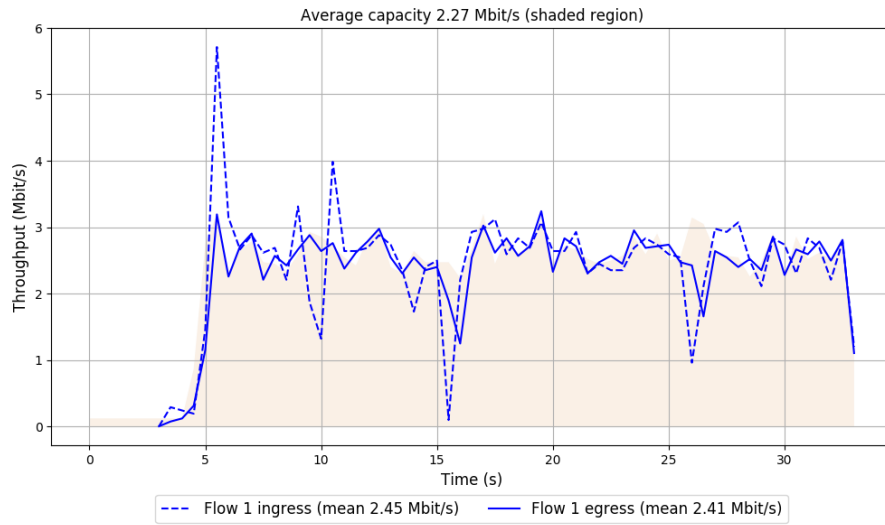
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 682.453 ms

Loss rate: 2.16%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-05 18:23:35

End at: 2018-03-05 18:24:05

Below is generated by plot.py at 2018-03-05 19:24:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (106.1% utilization)

95th percentile per-packet one-way delay: 679.693 ms

Loss rate: 2.17%

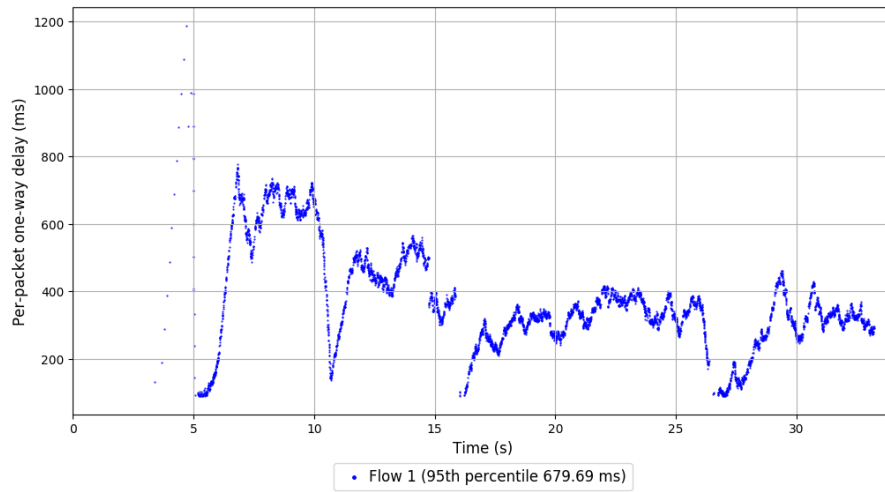
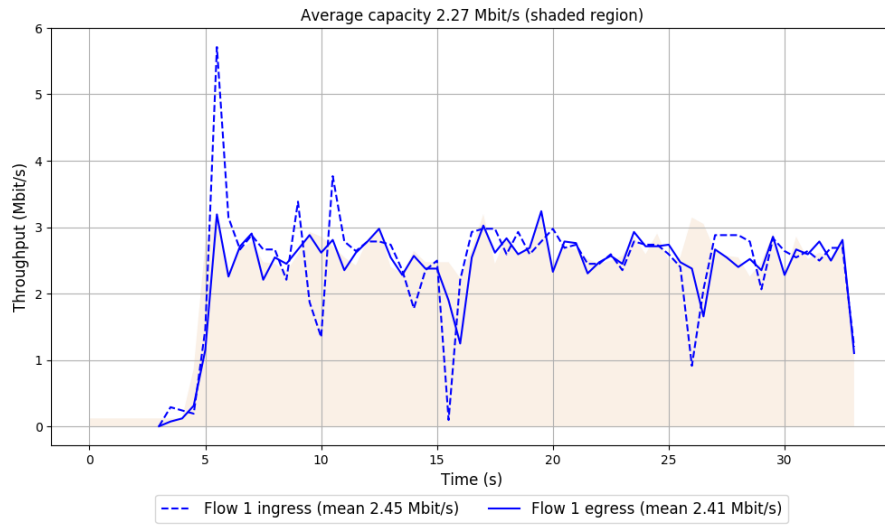
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 679.693 ms

Loss rate: 2.17%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-05 18:33:45

End at: 2018-03-05 18:34:15

Below is generated by plot.py at 2018-03-05 19:24:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (106.2% utilization)

95th percentile per-packet one-way delay: 682.501 ms

Loss rate: 2.14%

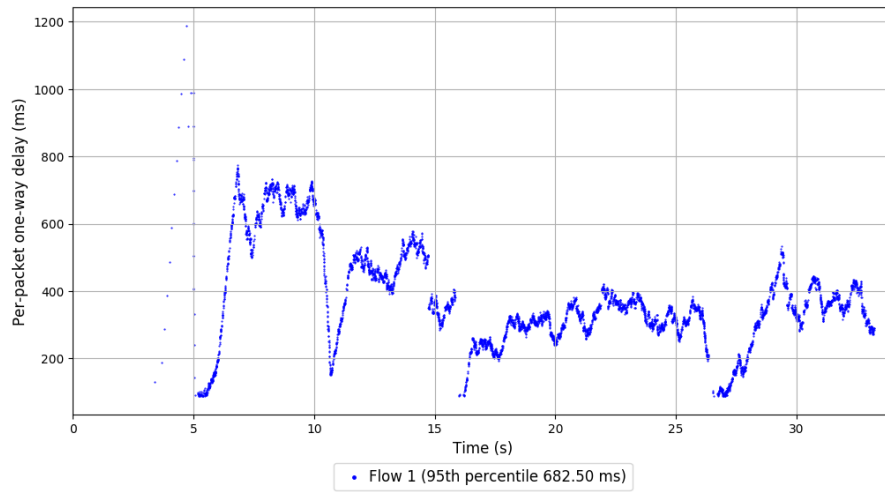
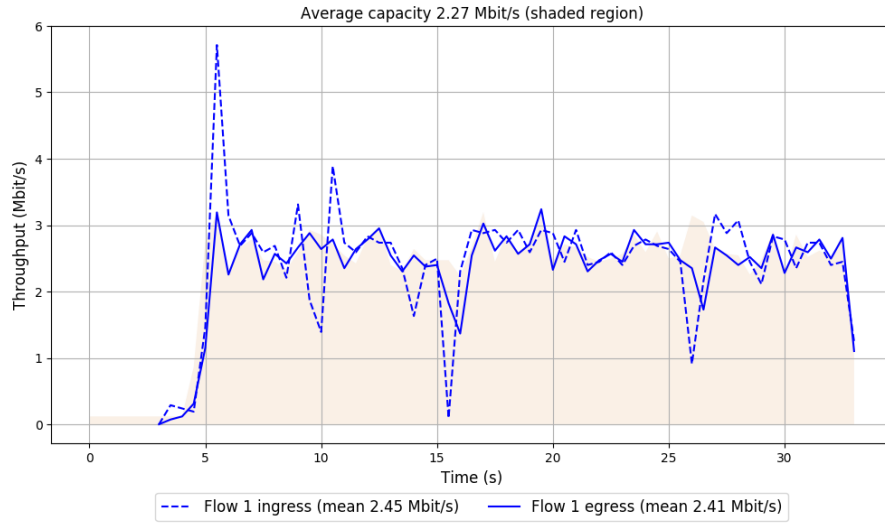
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 682.501 ms

Loss rate: 2.14%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-05 18:43:55

End at: 2018-03-05 18:44:25

Below is generated by plot.py at 2018-03-05 19:24:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.40 Mbit/s (105.4% utilization)

95th percentile per-packet one-way delay: 682.814 ms

Loss rate: 2.09%

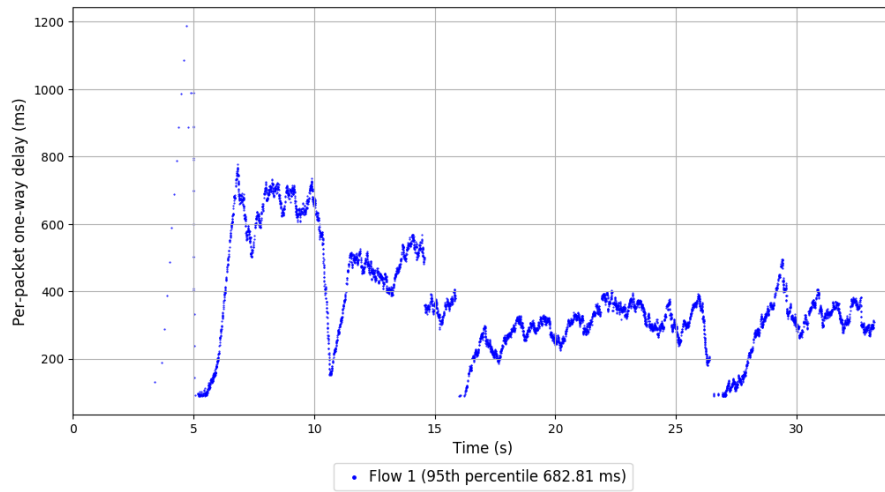
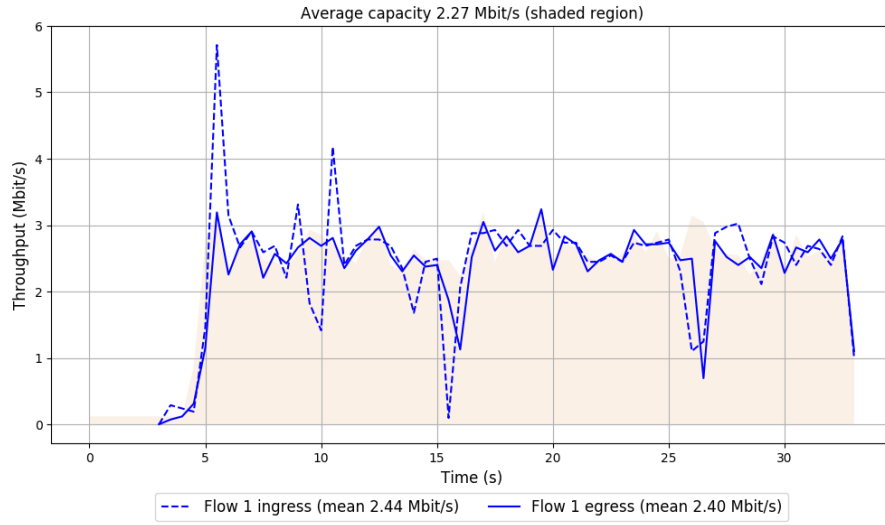
-- Flow 1:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 682.814 ms

Loss rate: 2.09%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-05 18:54:05

End at: 2018-03-05 18:54:35

Below is generated by plot.py at 2018-03-05 19:24:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (105.9% utilization)

95th percentile per-packet one-way delay: 682.337 ms

Loss rate: 2.21%

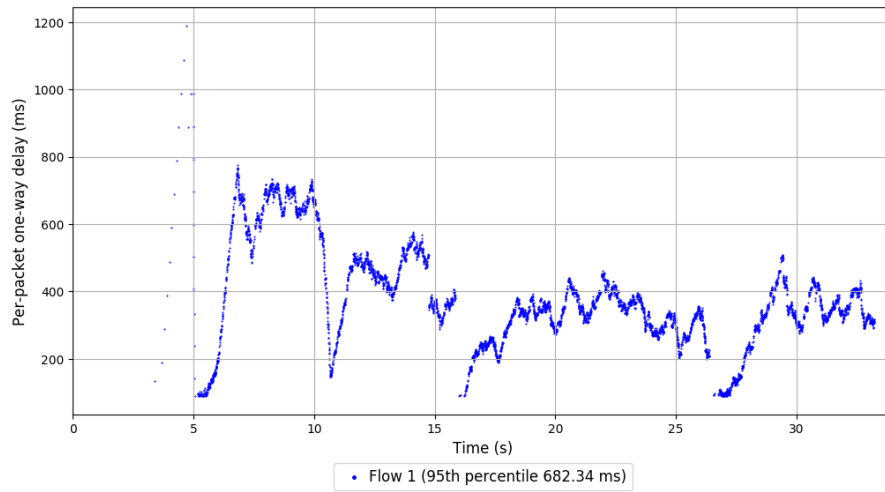
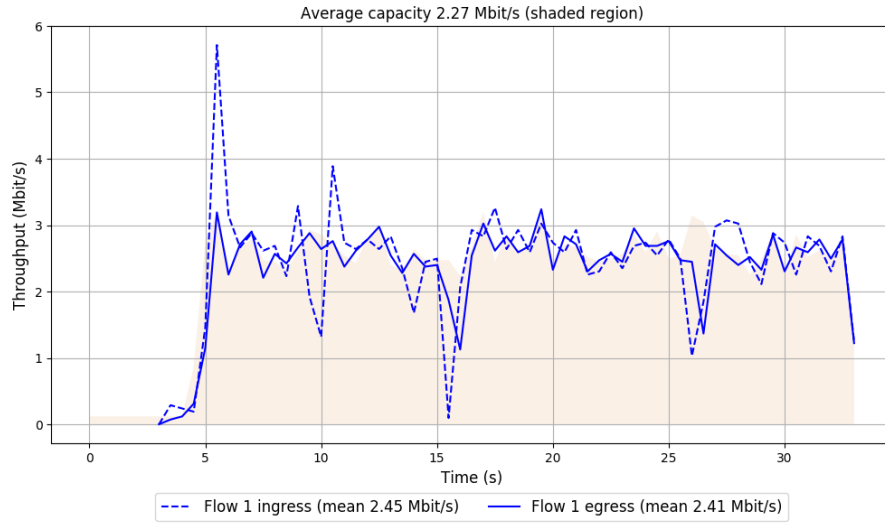
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 682.337 ms

Loss rate: 2.21%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-05 19:04:15

End at: 2018-03-05 19:04:45

Below is generated by plot.py at 2018-03-05 19:24:28

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (106.2% utilization)

95th percentile per-packet one-way delay: 683.505 ms

Loss rate: 2.09%

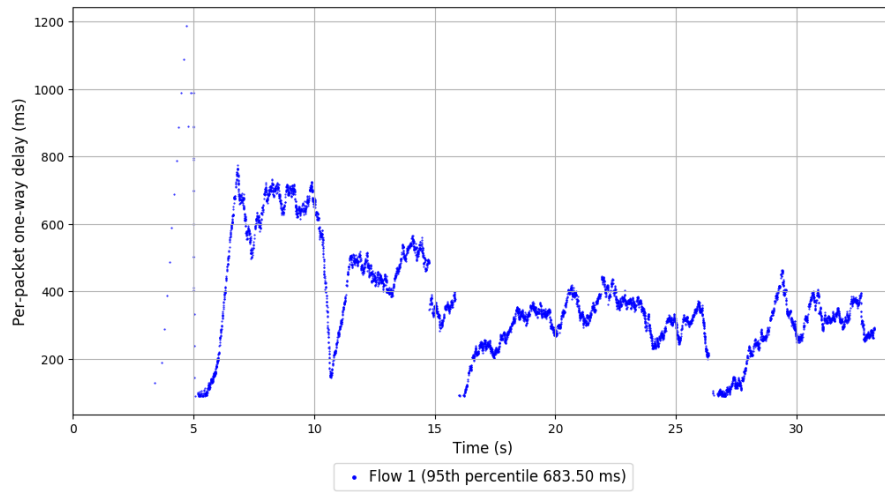
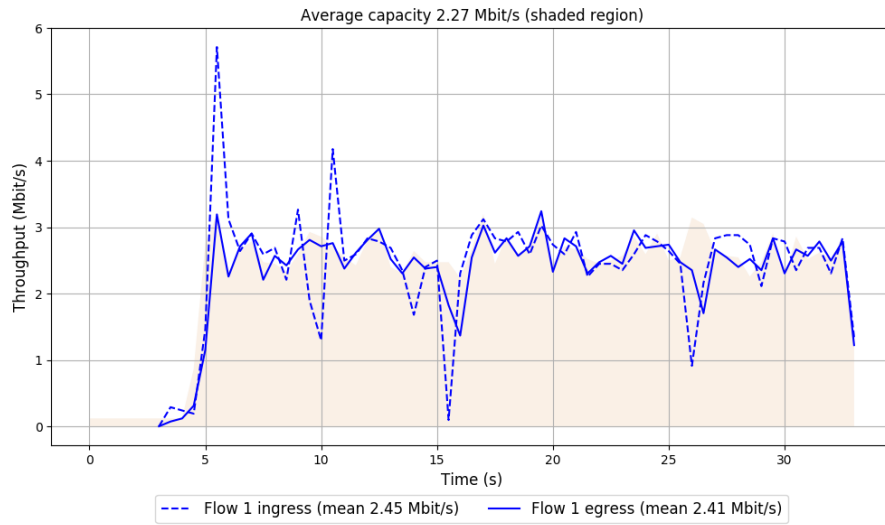
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 683.505 ms

Loss rate: 2.09%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-05 19:14:25

End at: 2018-03-05 19:14:55

Below is generated by plot.py at 2018-03-05 19:24:28

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (105.9% utilization)

95th percentile per-packet one-way delay: 680.774 ms

Loss rate: 2.08%

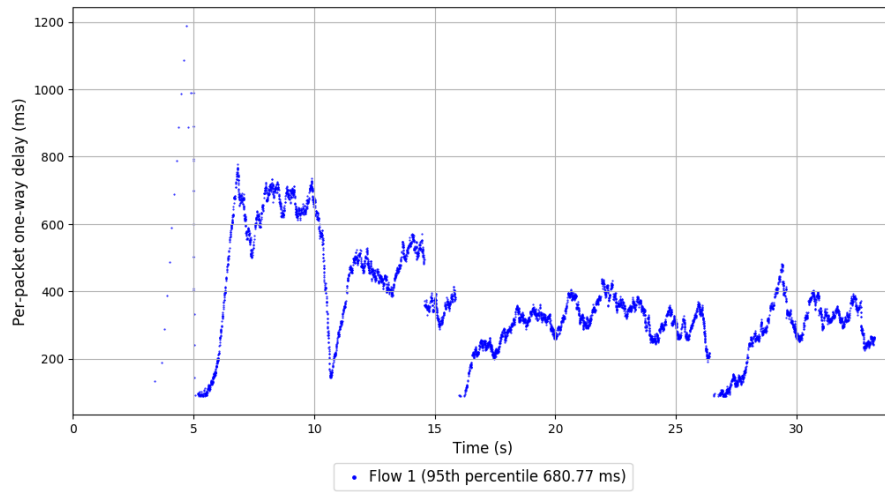
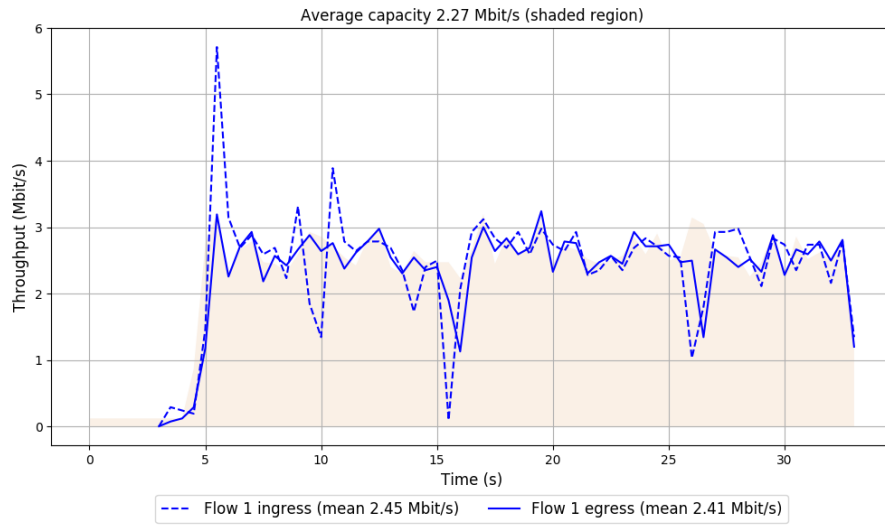
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 680.774 ms

Loss rate: 2.08%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-05 17:45:11

End at: 2018-03-05 17:45:41

Below is generated by plot.py at 2018-03-05 19:24:29

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.8% utilization)

95th percentile per-packet one-way delay: 705.188 ms

Loss rate: 2.98%

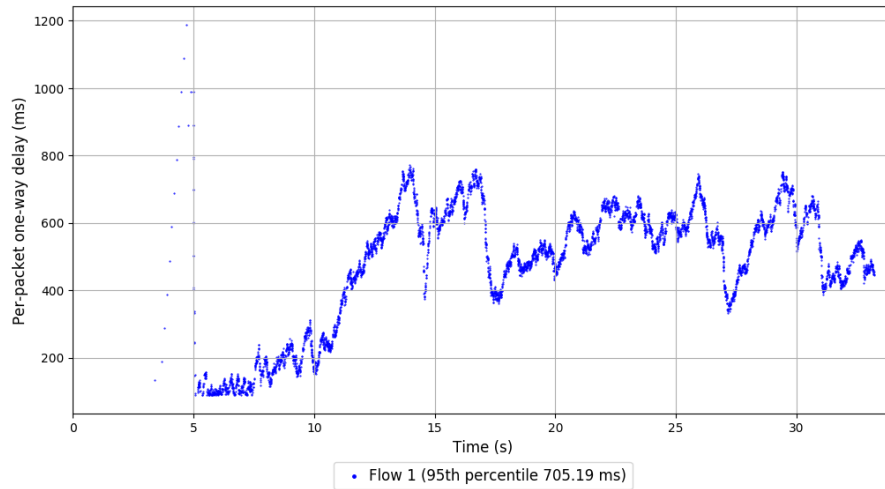
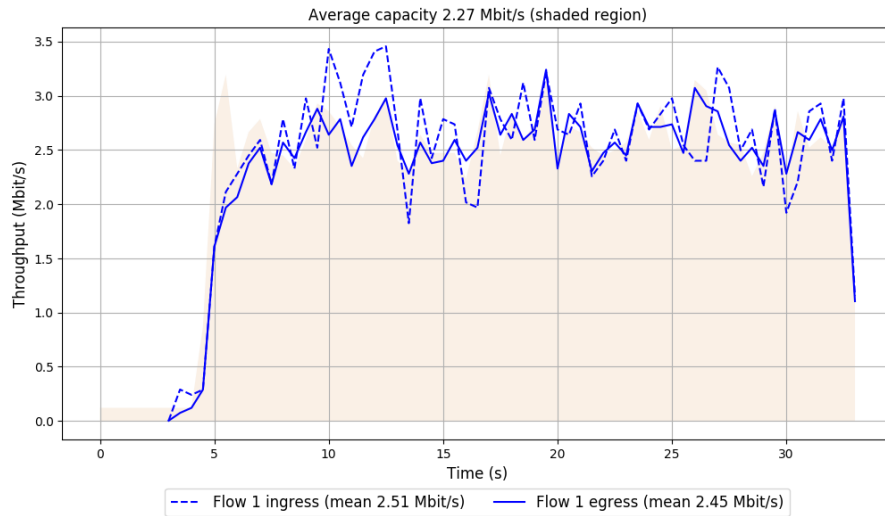
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 705.188 ms

Loss rate: 2.98%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-05 17:55:21

End at: 2018-03-05 17:55:51

Below is generated by plot.py at 2018-03-05 19:24:29

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.7% utilization)

95th percentile per-packet one-way delay: 700.317 ms

Loss rate: 2.81%

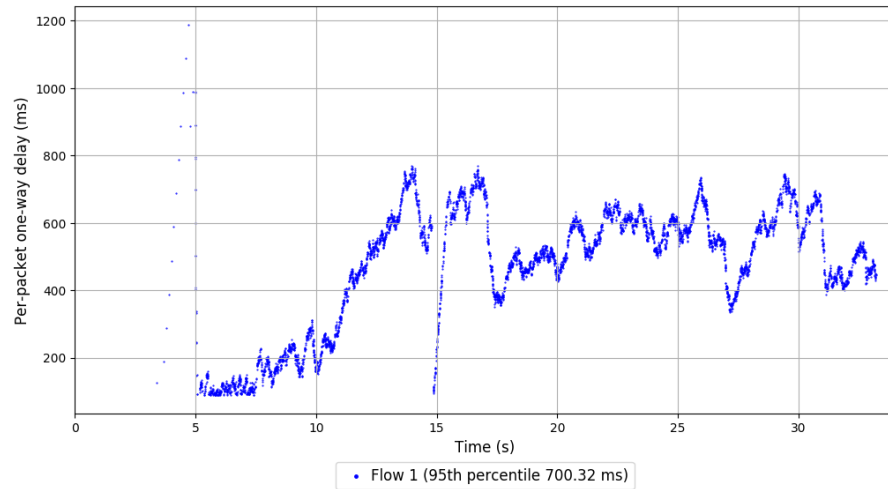
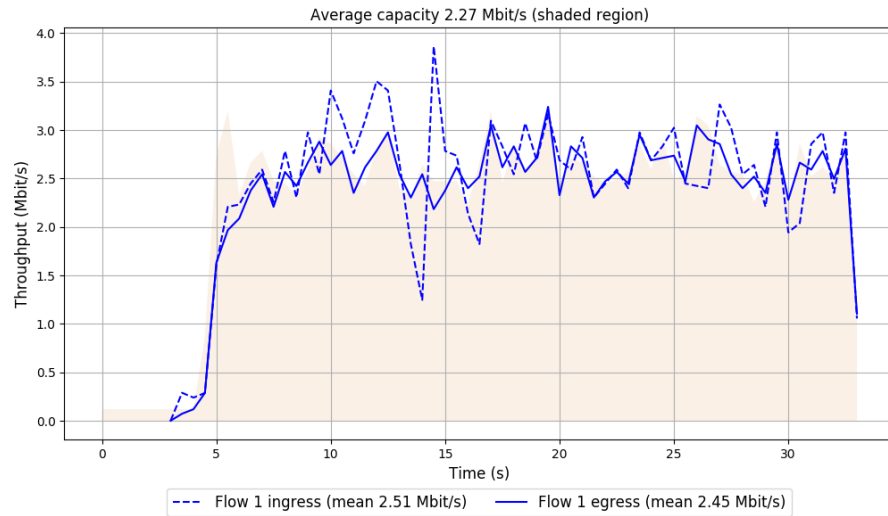
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 700.317 ms

Loss rate: 2.81%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-05 18:05:31

End at: 2018-03-05 18:06:01

Below is generated by plot.py at 2018-03-05 19:24:30

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.44 Mbit/s (107.3% utilization)

95th percentile per-packet one-way delay: 692.713 ms

Loss rate: 3.43%

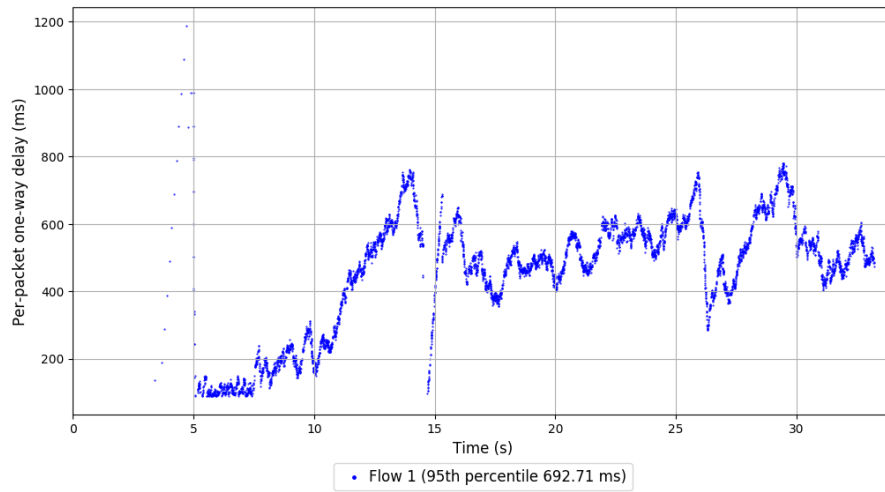
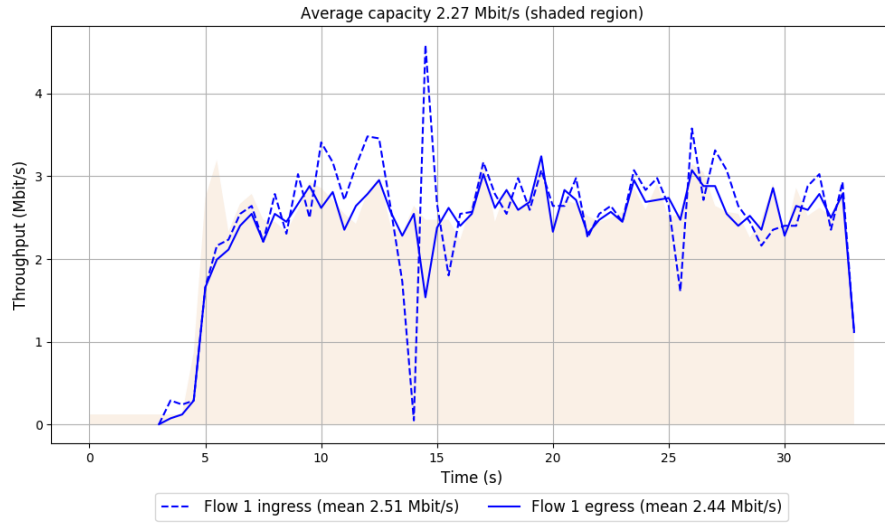
-- Flow 1:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 692.713 ms

Loss rate: 3.43%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-05 18:15:42

End at: 2018-03-05 18:16:12

Below is generated by plot.py at 2018-03-05 19:24:30

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.9% utilization)

95th percentile per-packet one-way delay: 706.149 ms

Loss rate: 2.95%

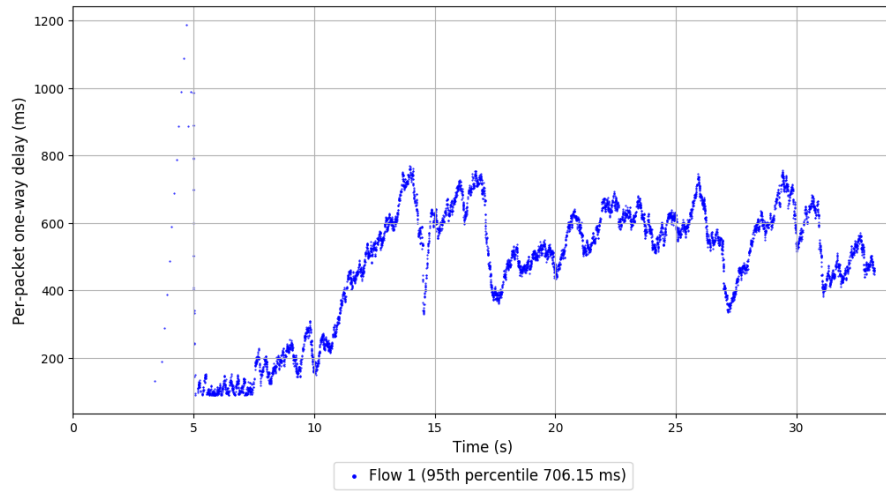
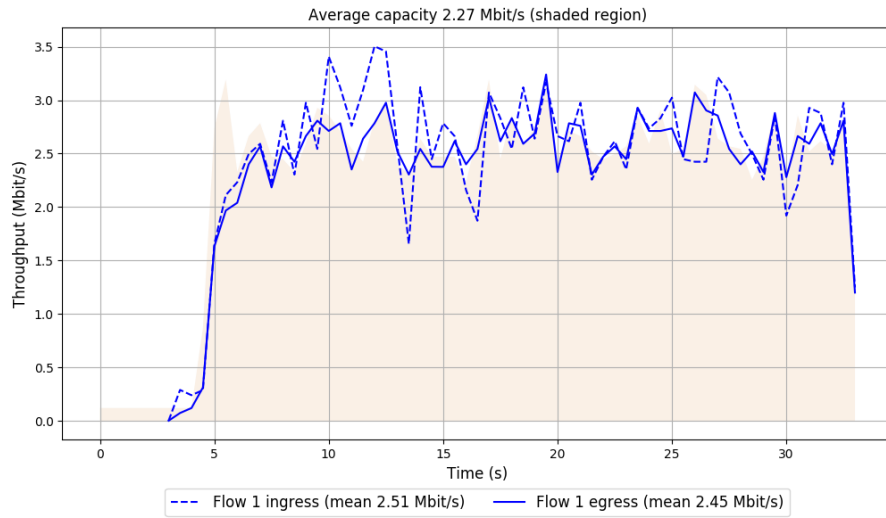
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 706.149 ms

Loss rate: 2.95%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-05 18:25:52

End at: 2018-03-05 18:26:22

Below is generated by plot.py at 2018-03-05 19:24:30

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.7% utilization)

95th percentile per-packet one-way delay: 701.313 ms

Loss rate: 2.78%

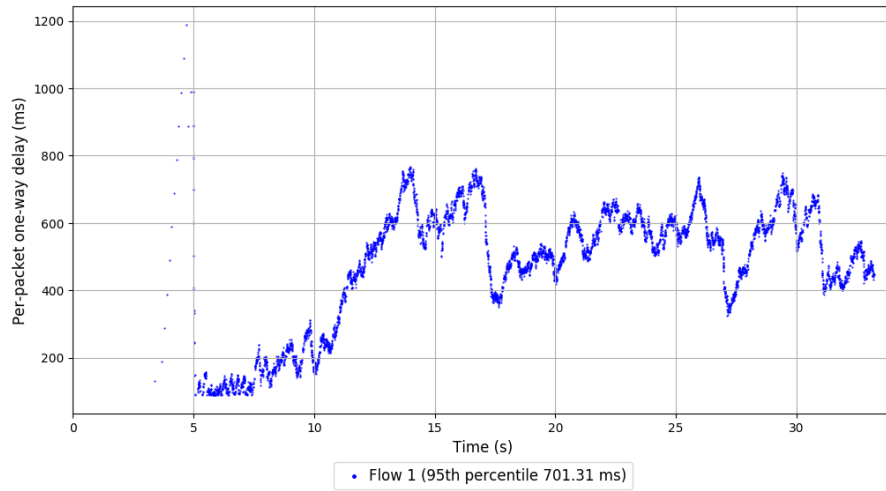
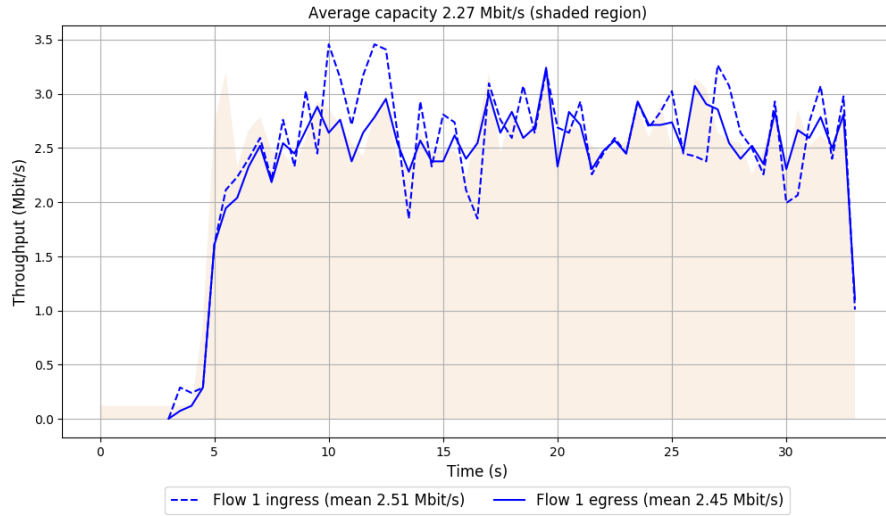
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 701.313 ms

Loss rate: 2.78%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-05 18:36:01

End at: 2018-03-05 18:36:31

Below is generated by plot.py at 2018-03-05 19:24:30

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.8% utilization)

95th percentile per-packet one-way delay: 704.358 ms

Loss rate: 2.93%

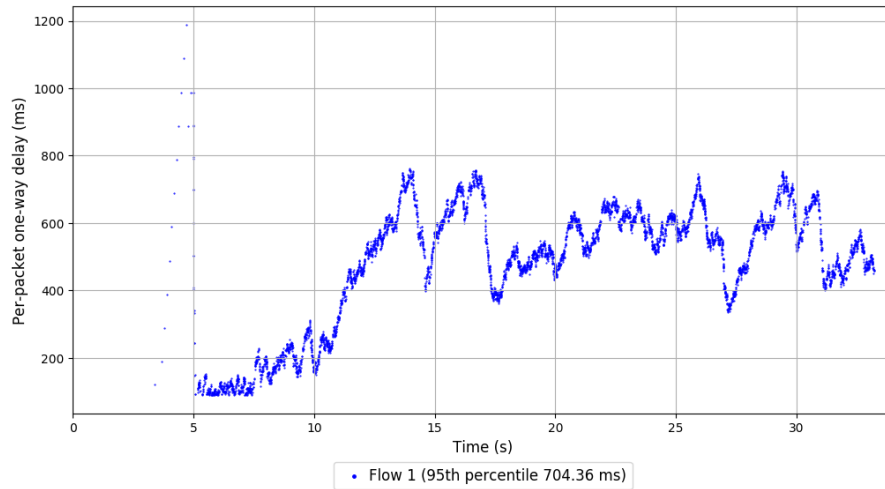
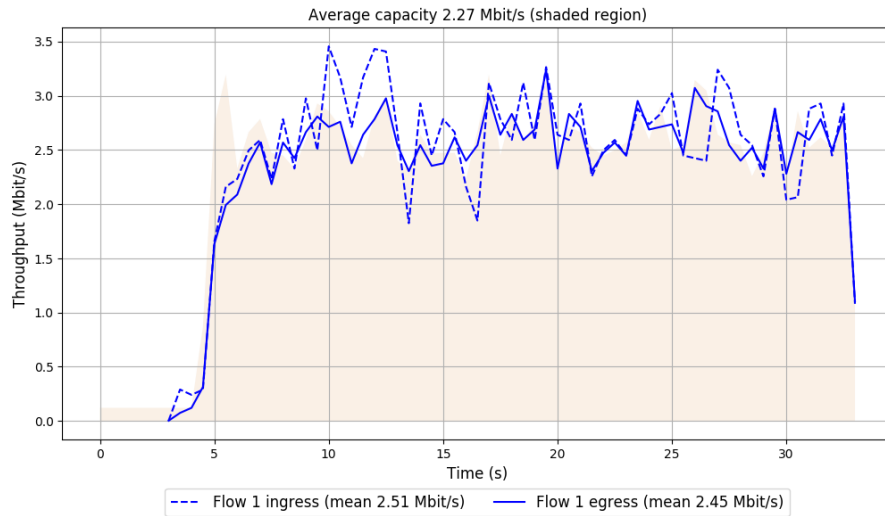
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 704.358 ms

Loss rate: 2.93%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-05 18:46:11

End at: 2018-03-05 18:46:41

Below is generated by plot.py at 2018-03-05 19:24:37

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.9% utilization)

95th percentile per-packet one-way delay: 703.305 ms

Loss rate: 2.90%

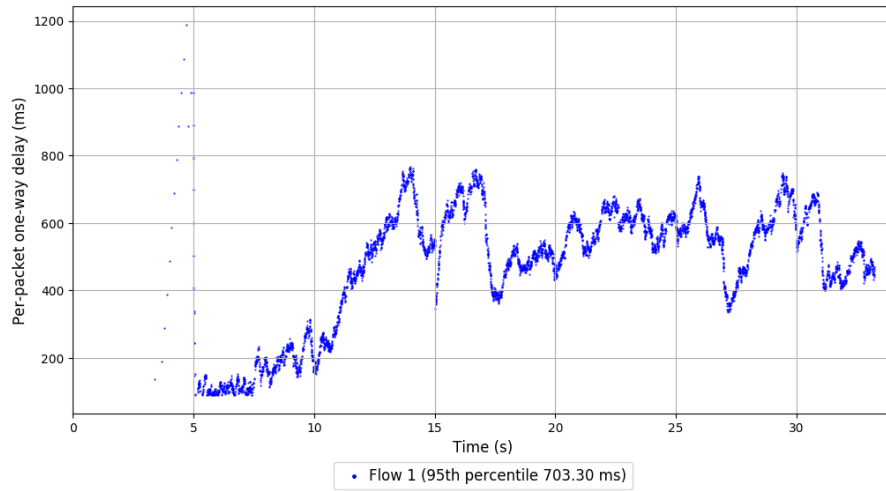
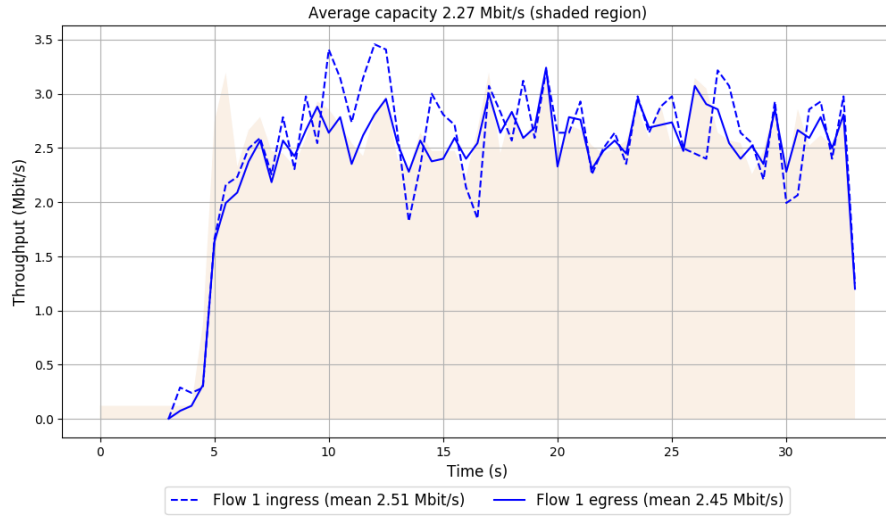
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 703.305 ms

Loss rate: 2.90%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-03-05 18:56:21

End at: 2018-03-05 18:56:51

Below is generated by plot.py at 2018-03-05 19:24:37

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.8% utilization)

95th percentile per-packet one-way delay: 702.073 ms

Loss rate: 2.98%

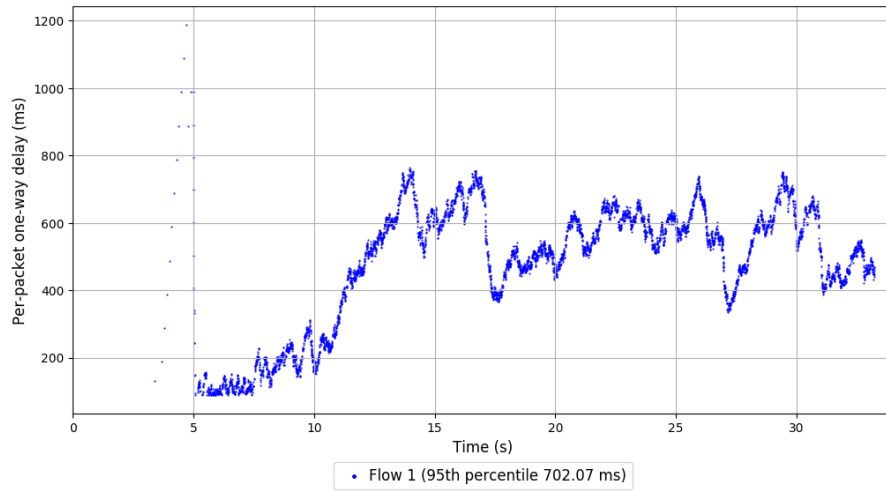
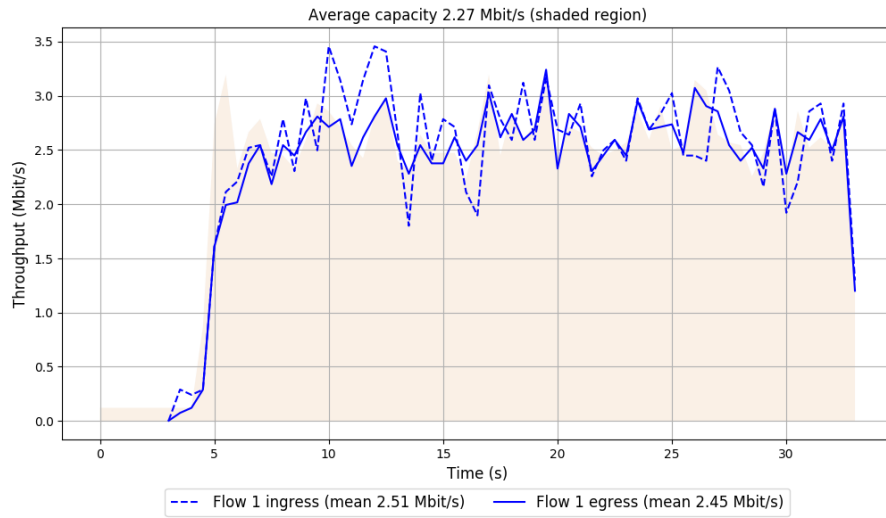
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 702.073 ms

Loss rate: 2.98%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-05 19:06:32

End at: 2018-03-05 19:07:02

Below is generated by plot.py at 2018-03-05 19:24:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.9% utilization)

95th percentile per-packet one-way delay: 702.115 ms

Loss rate: 2.87%

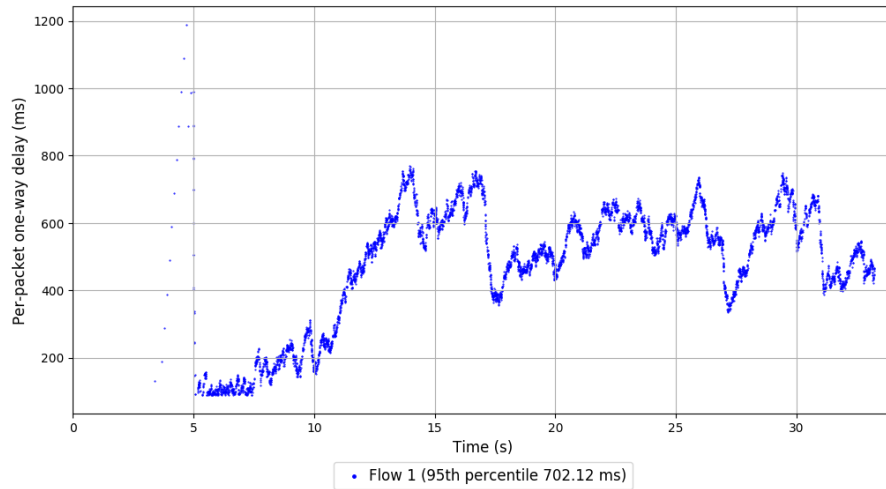
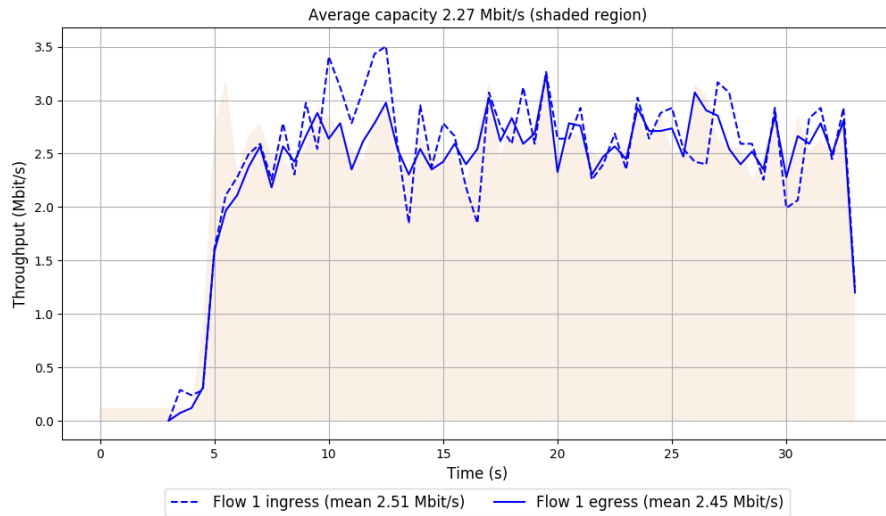
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 702.115 ms

Loss rate: 2.87%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-05 19:16:42

End at: 2018-03-05 19:17:12

Below is generated by plot.py at 2018-03-05 19:24:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.45 Mbit/s (107.8% utilization)

95th percentile per-packet one-way delay: 703.969 ms

Loss rate: 3.07%

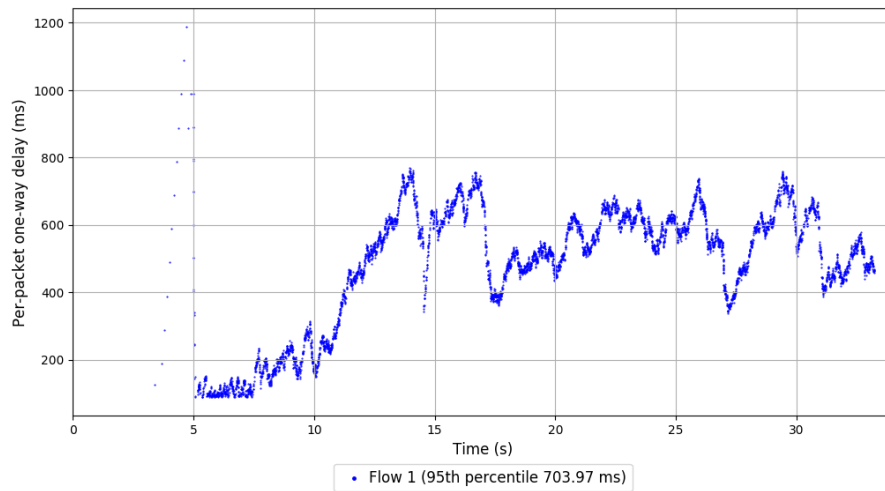
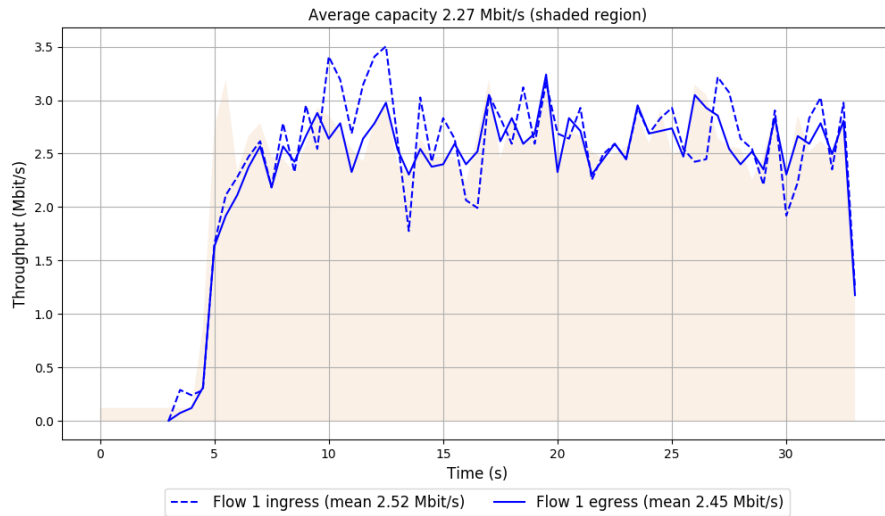
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 703.969 ms

Loss rate: 3.07%

Run 10: Report of TCP Cubic — Data Link



Run 1: Statistics of LEDBAT

Start at: 2018-03-05 17:49:08

End at: 2018-03-05 17:49:38

Below is generated by plot.py at 2018-03-05 19:24:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.1% utilization)

95th percentile per-packet one-way delay: 248.565 ms

Loss rate: 0.64%

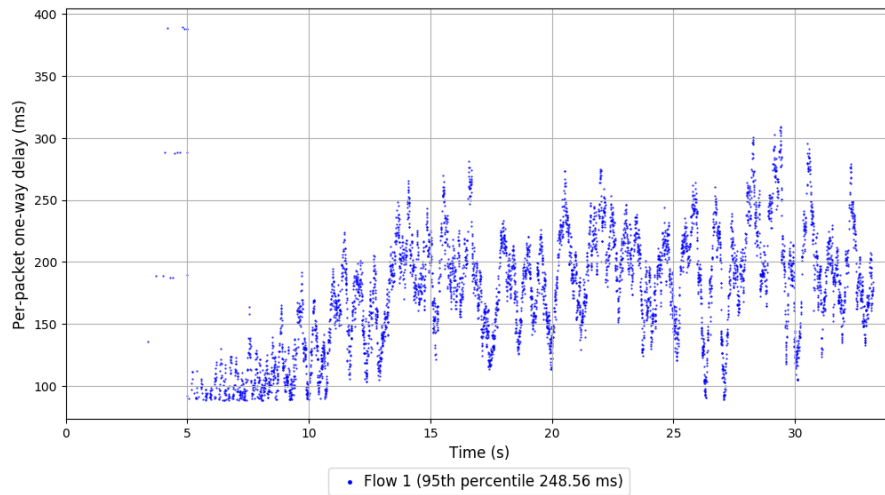
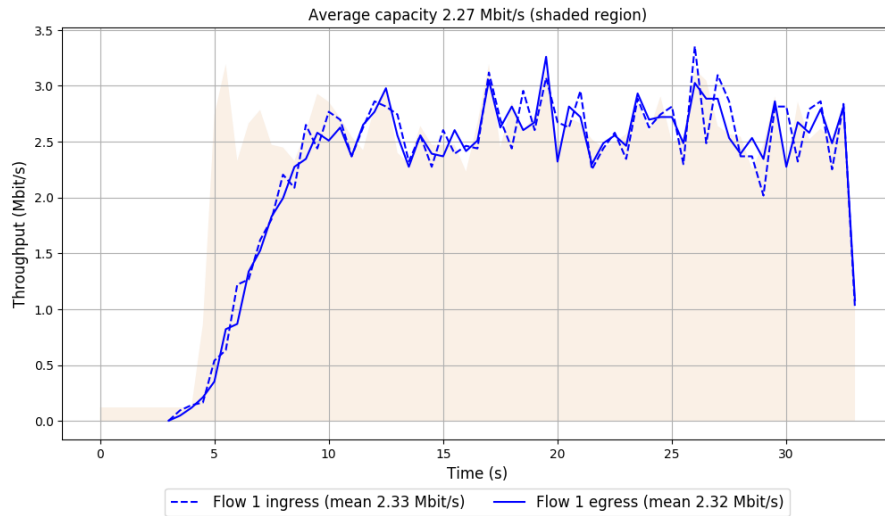
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.565 ms

Loss rate: 0.64%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-03-05 17:59:18

End at: 2018-03-05 17:59:48

Below is generated by plot.py at 2018-03-05 19:24:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.0% utilization)

95th percentile per-packet one-way delay: 248.330 ms

Loss rate: 0.71%

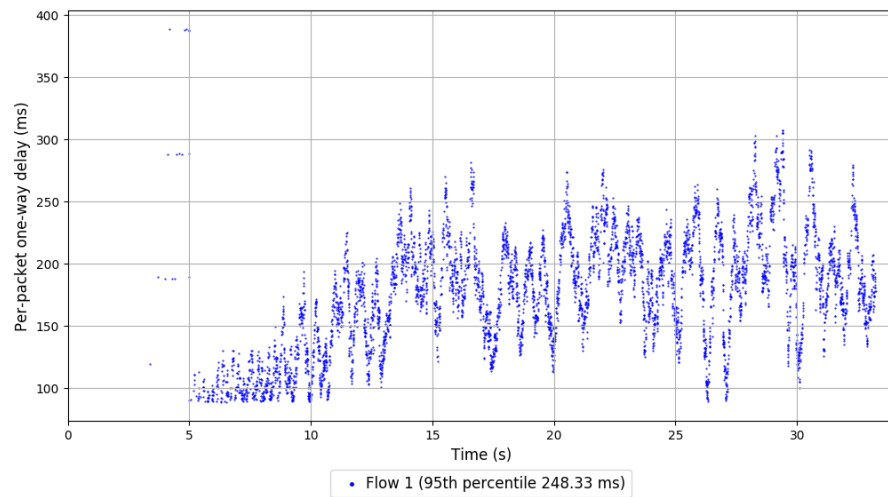
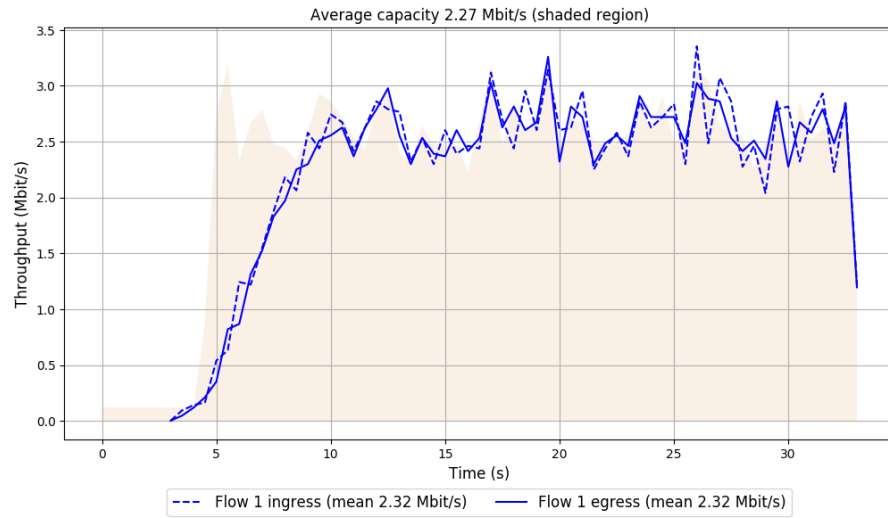
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.330 ms

Loss rate: 0.71%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-05 18:09:28

End at: 2018-03-05 18:09:58

Below is generated by plot.py at 2018-03-05 19:24:39

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (101.9% utilization)

95th percentile per-packet one-way delay: 248.086 ms

Loss rate: 0.67%

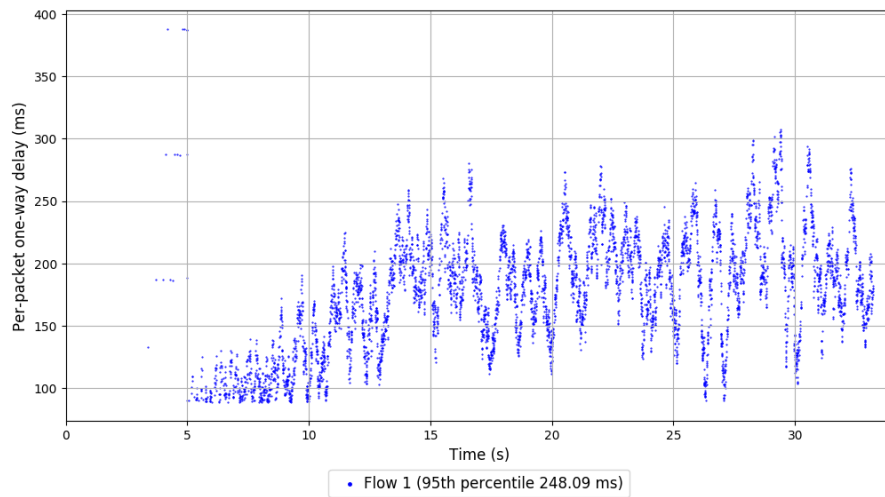
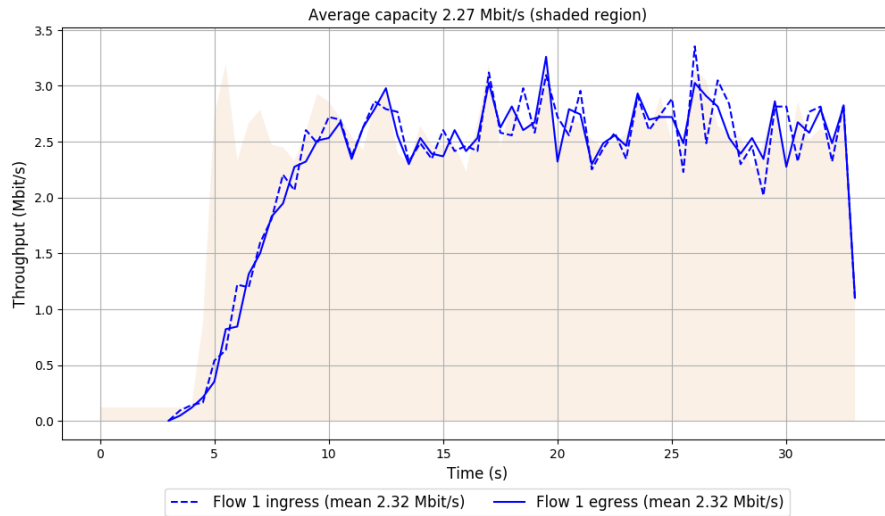
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.086 ms

Loss rate: 0.67%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-05 18:19:38

End at: 2018-03-05 18:20:08

Below is generated by plot.py at 2018-03-05 19:24:39

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.0% utilization)

95th percentile per-packet one-way delay: 248.418 ms

Loss rate: 0.62%

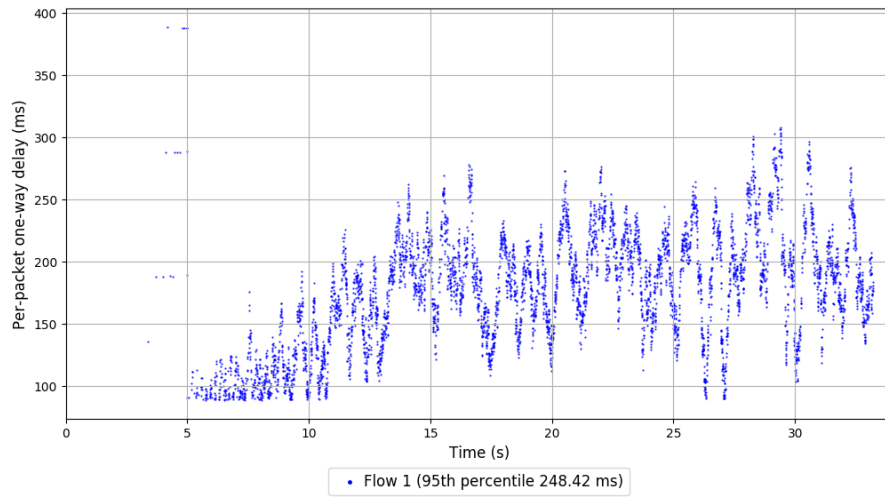
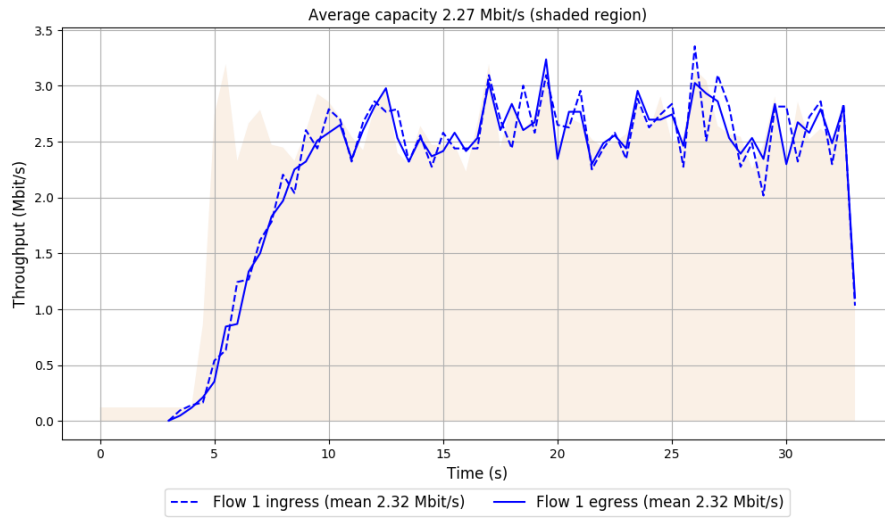
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.418 ms

Loss rate: 0.62%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-05 18:29:48

End at: 2018-03-05 18:30:18

Below is generated by plot.py at 2018-03-05 19:24:45

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.2% utilization)

95th percentile per-packet one-way delay: 248.141 ms

Loss rate: 0.69%

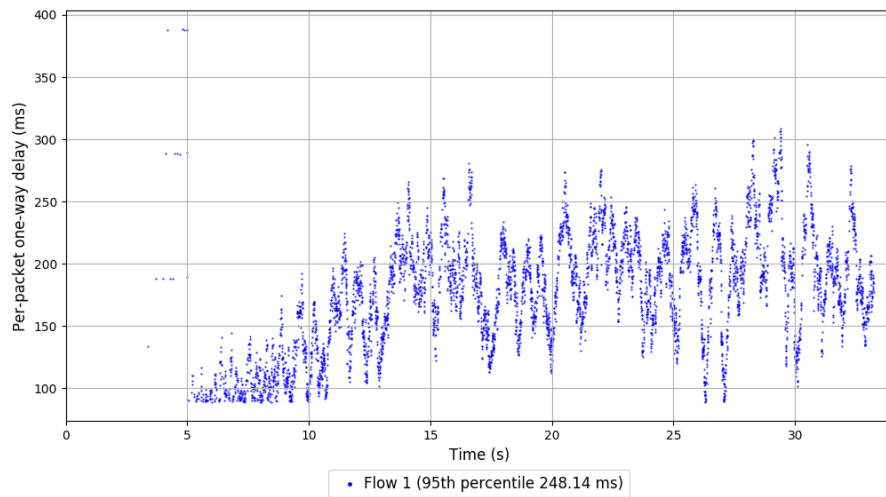
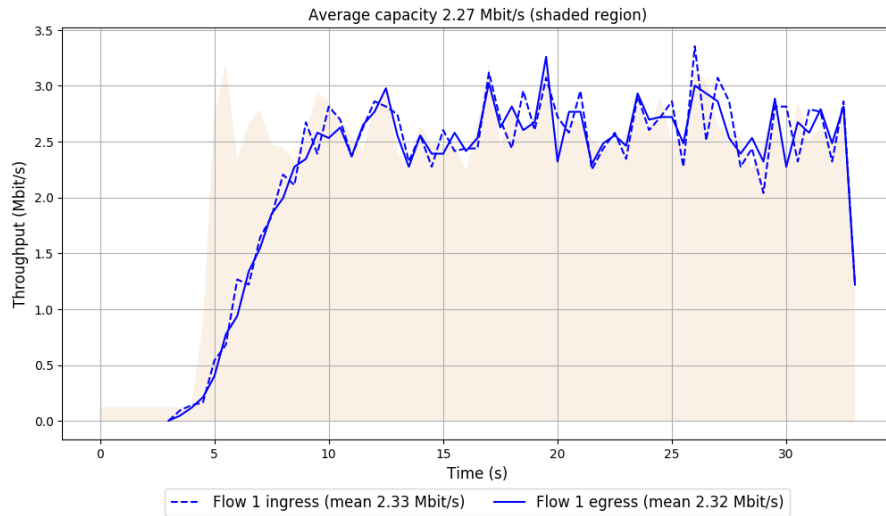
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.141 ms

Loss rate: 0.69%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-05 18:39:58

End at: 2018-03-05 18:40:28

Below is generated by plot.py at 2018-03-05 19:24:45

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.0% utilization)

95th percentile per-packet one-way delay: 248.152 ms

Loss rate: 0.62%

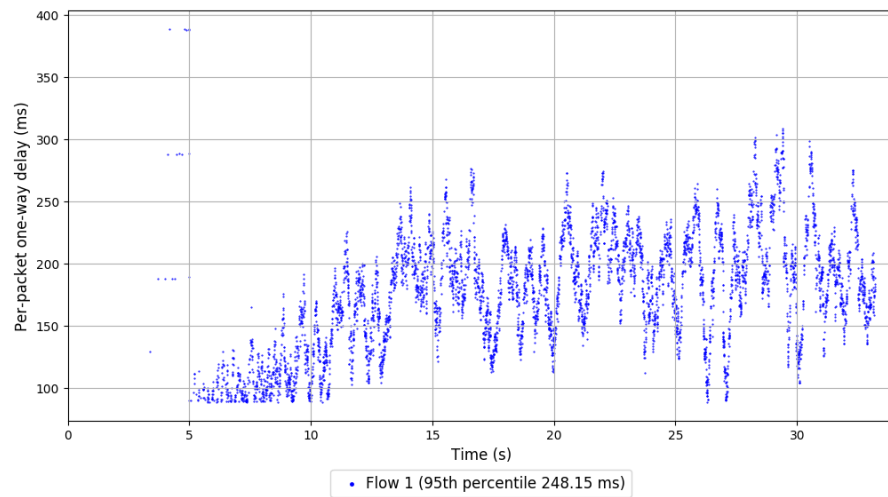
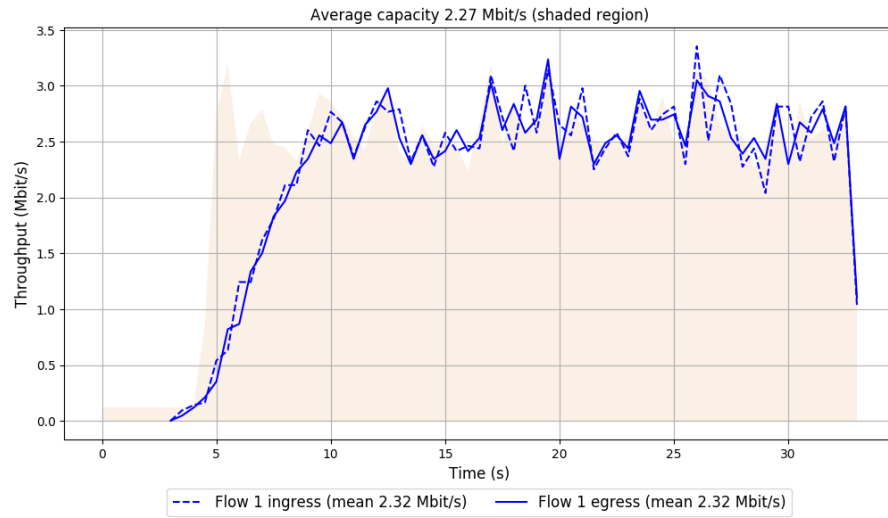
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.152 ms

Loss rate: 0.62%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-05 18:50:08

End at: 2018-03-05 18:50:38

Below is generated by plot.py at 2018-03-05 19:24:46

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.2% utilization)

95th percentile per-packet one-way delay: 248.242 ms

Loss rate: 0.71%

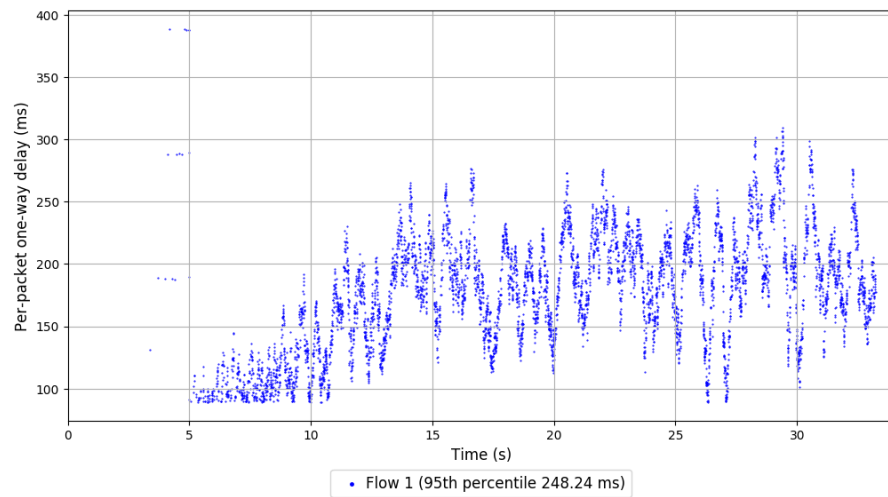
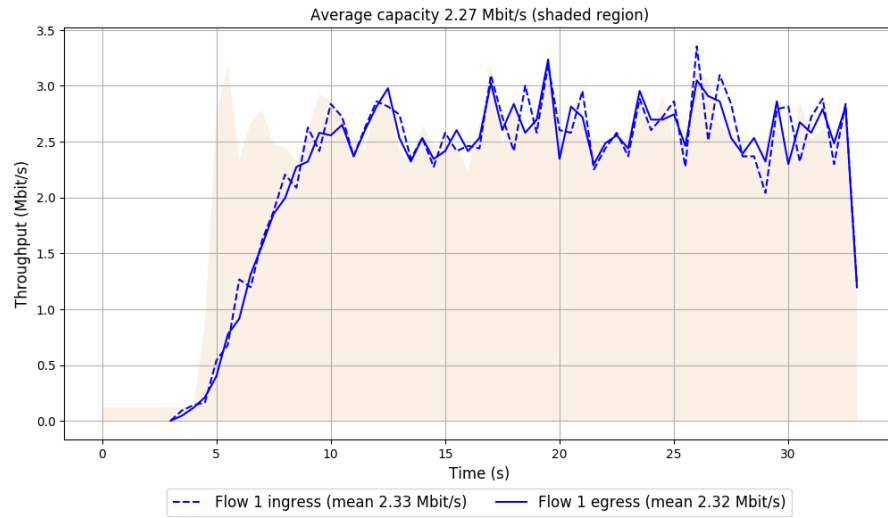
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.242 ms

Loss rate: 0.71%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-05 19:00:18

End at: 2018-03-05 19:00:48

Below is generated by plot.py at 2018-03-05 19:24:46

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.0% utilization)

95th percentile per-packet one-way delay: 247.912 ms

Loss rate: 0.69%

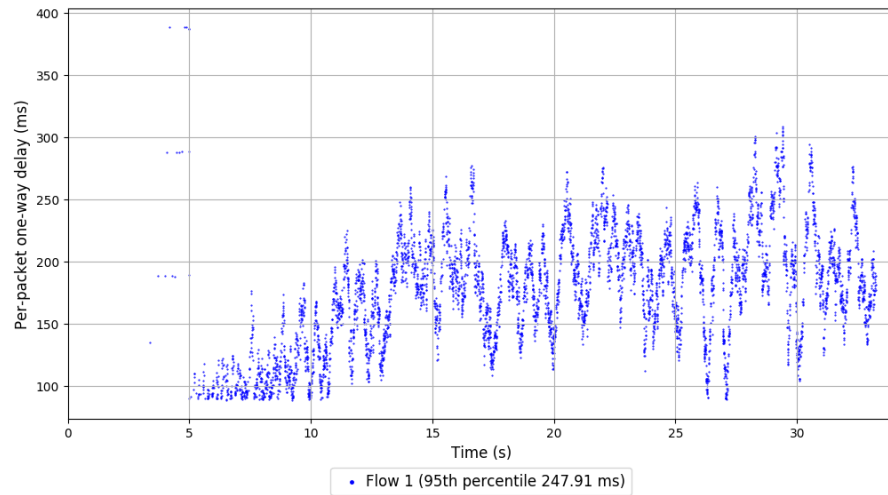
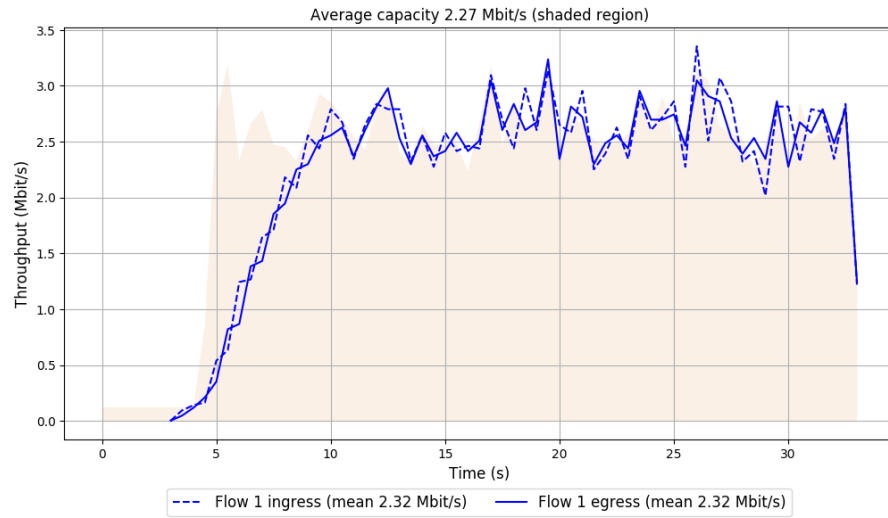
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 247.912 ms

Loss rate: 0.69%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-05 19:10:28

End at: 2018-03-05 19:10:58

Below is generated by plot.py at 2018-03-05 19:24:46

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.2% utilization)

95th percentile per-packet one-way delay: 248.171 ms

Loss rate: 0.71%

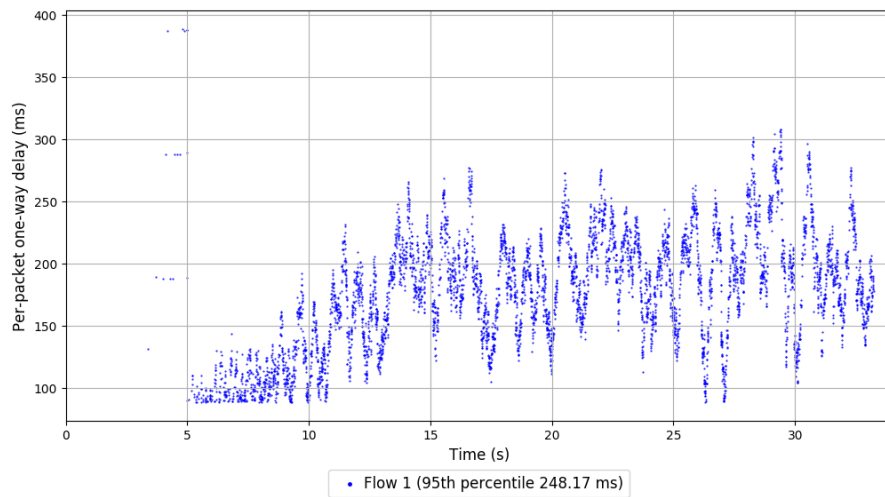
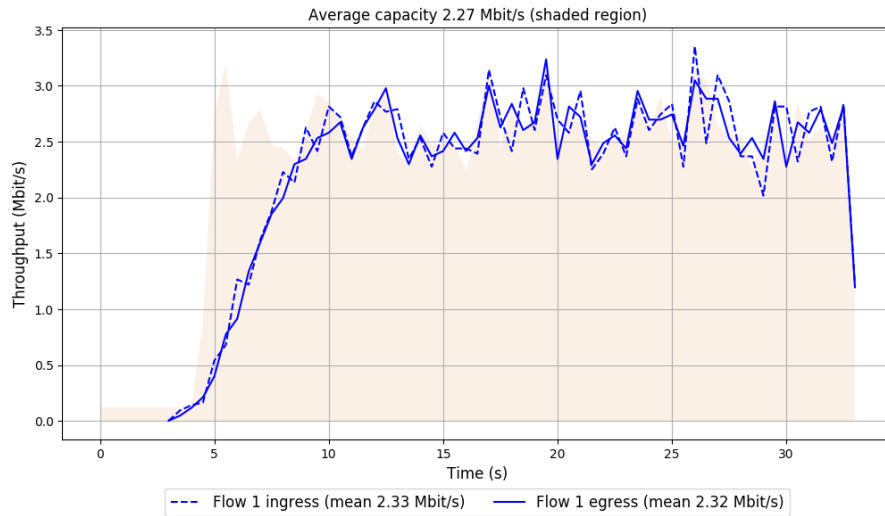
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.171 ms

Loss rate: 0.71%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-05 19:20:39

End at: 2018-03-05 19:21:09

Below is generated by plot.py at 2018-03-05 19:24:47

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.3% utilization)

95th percentile per-packet one-way delay: 248.533 ms

Loss rate: 0.71%

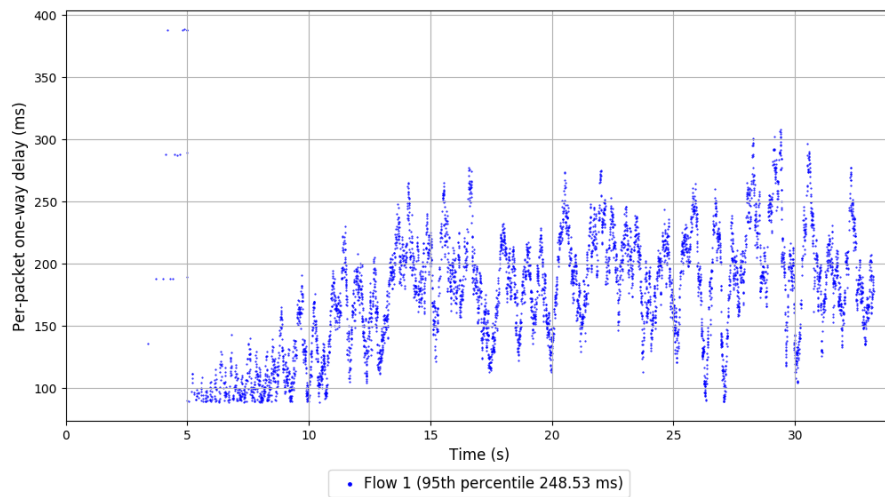
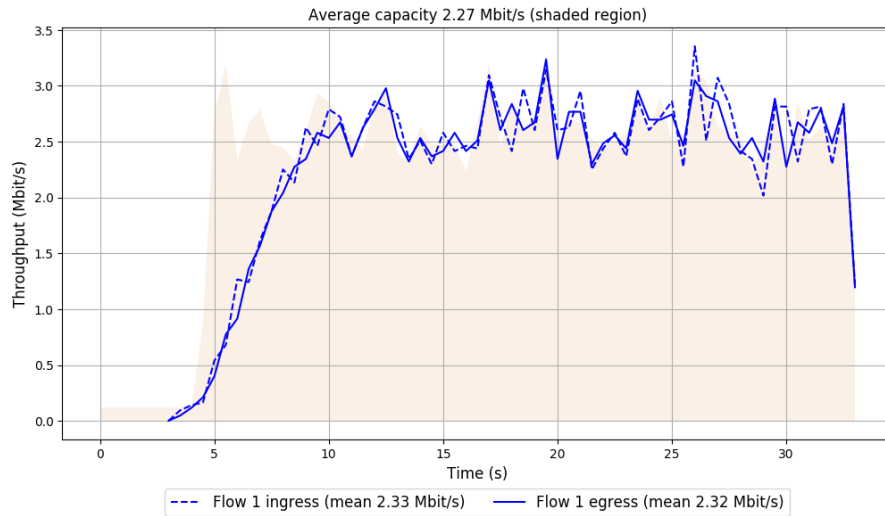
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 248.533 ms

Loss rate: 0.71%

Run 10: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: 2018-03-05 17:44:02

End at: 2018-03-05 17:44:32

Below is generated by plot.py at 2018-03-05 19:24:50

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.0% utilization)

95th percentile per-packet one-way delay: 759.989 ms

Loss rate: 83.49%

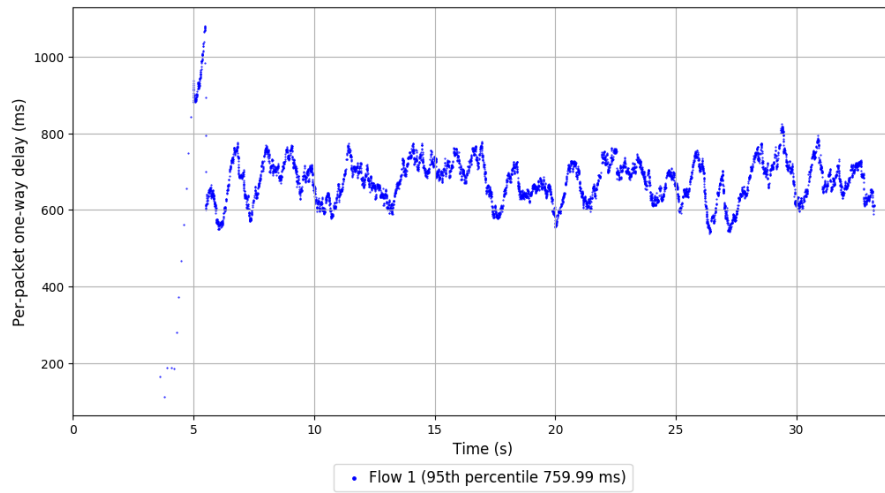
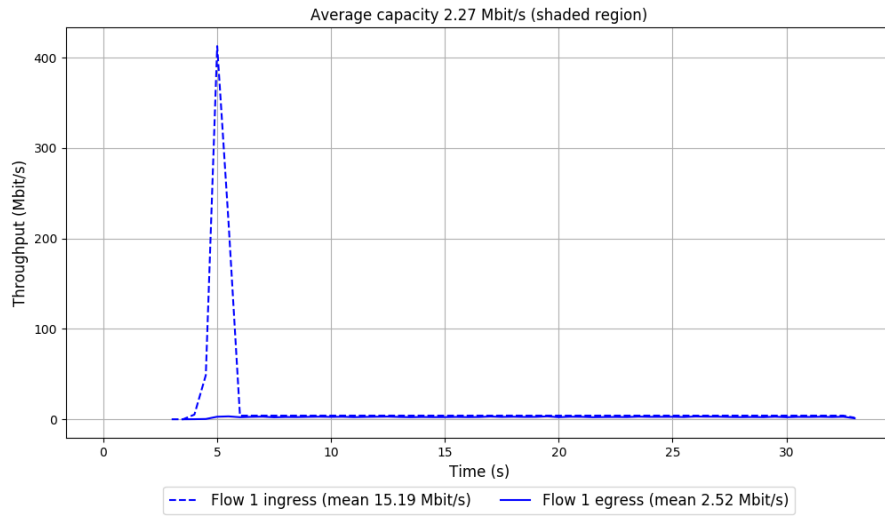
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 759.989 ms

Loss rate: 83.49%

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-05 17:54:12

End at: 2018-03-05 17:54:42

Below is generated by plot.py at 2018-03-05 19:24:52

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 762.655 ms

Loss rate: 87.84%

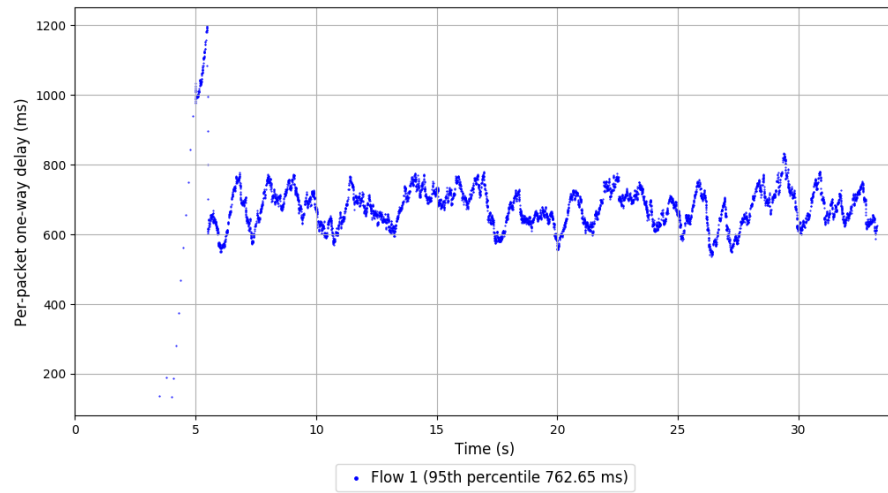
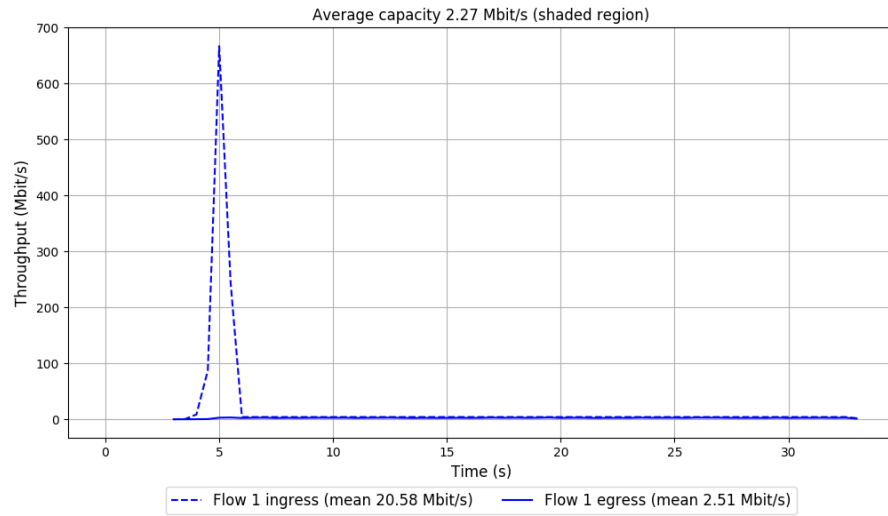
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 762.655 ms

Loss rate: 87.84%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-05 18:04:23

End at: 2018-03-05 18:04:53

Below is generated by plot.py at 2018-03-05 19:24:55

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 763.001 ms

Loss rate: 84.88%

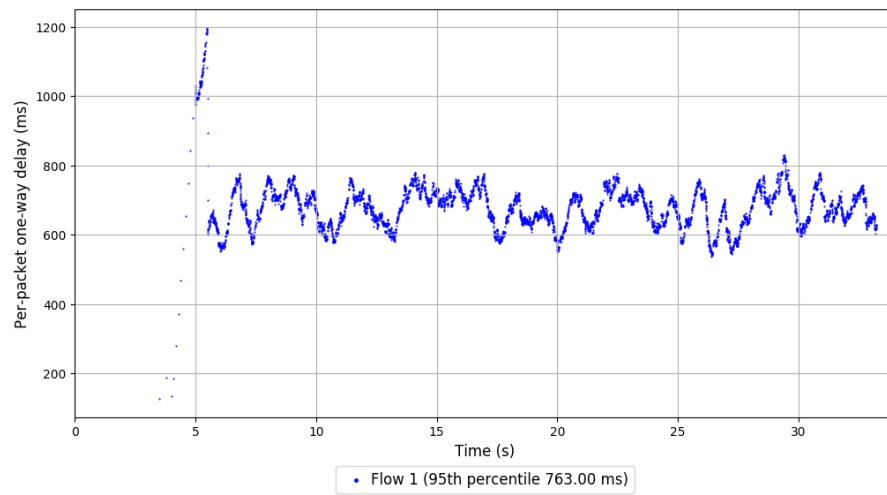
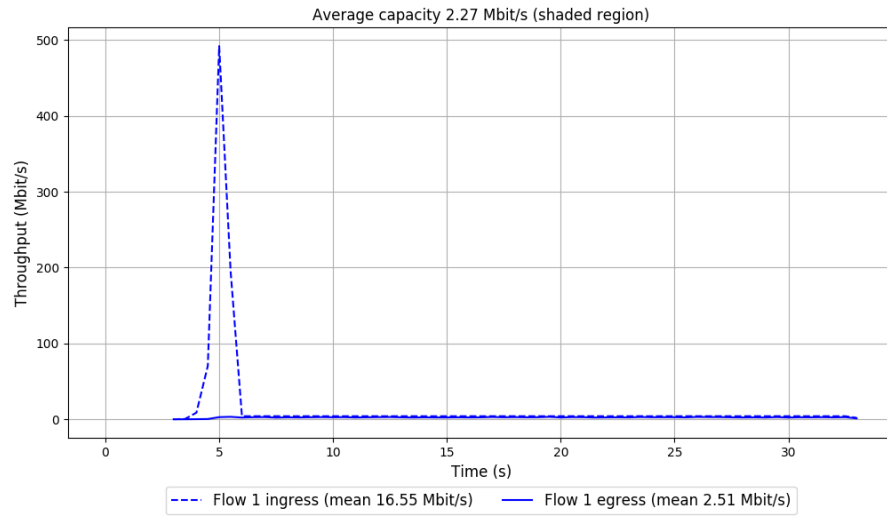
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 763.001 ms

Loss rate: 84.88%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-05 18:14:33

End at: 2018-03-05 18:15:03

Below is generated by plot.py at 2018-03-05 19:24:57

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.7% utilization)

95th percentile per-packet one-way delay: 762.146 ms

Loss rate: 85.38%

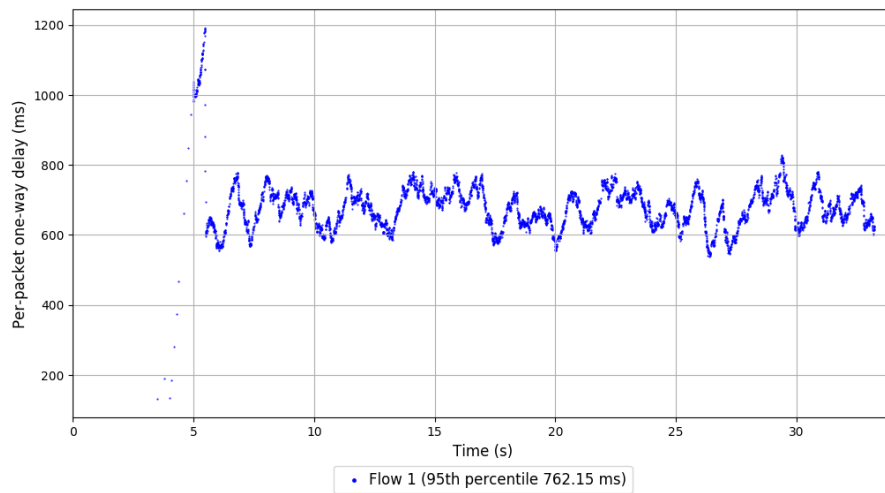
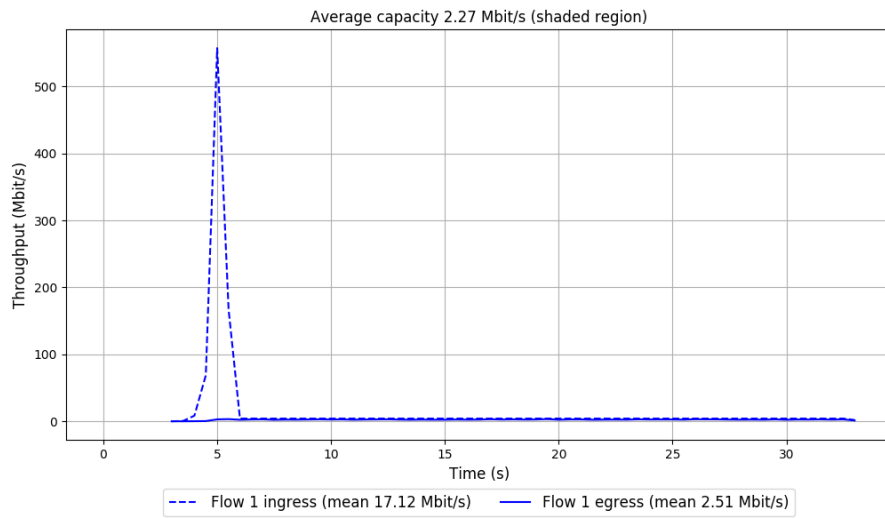
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 762.146 ms

Loss rate: 85.38%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-05 18:24:43

End at: 2018-03-05 18:25:13

Below is generated by plot.py at 2018-03-05 19:24:57

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 761.721 ms

Loss rate: 85.90%

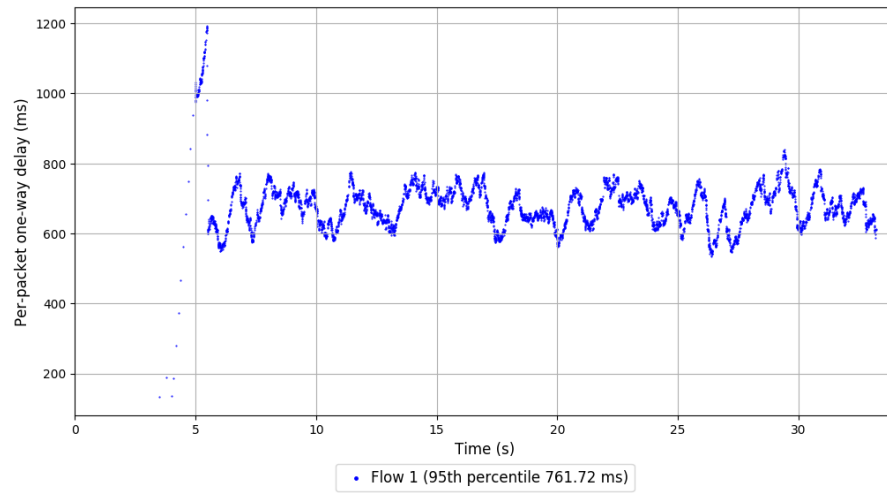
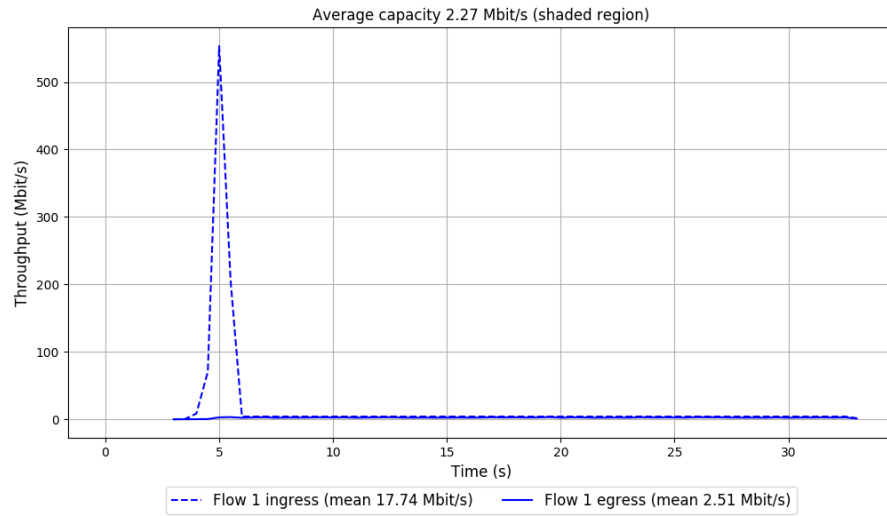
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 761.721 ms

Loss rate: 85.90%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-05 18:34:53

End at: 2018-03-05 18:35:23

Below is generated by plot.py at 2018-03-05 19:24:59

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.7% utilization)

95th percentile per-packet one-way delay: 759.985 ms

Loss rate: 86.22%

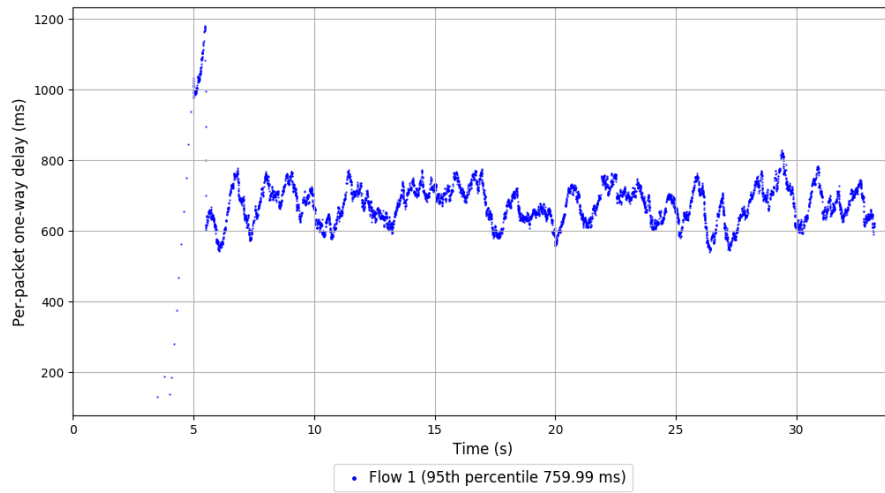
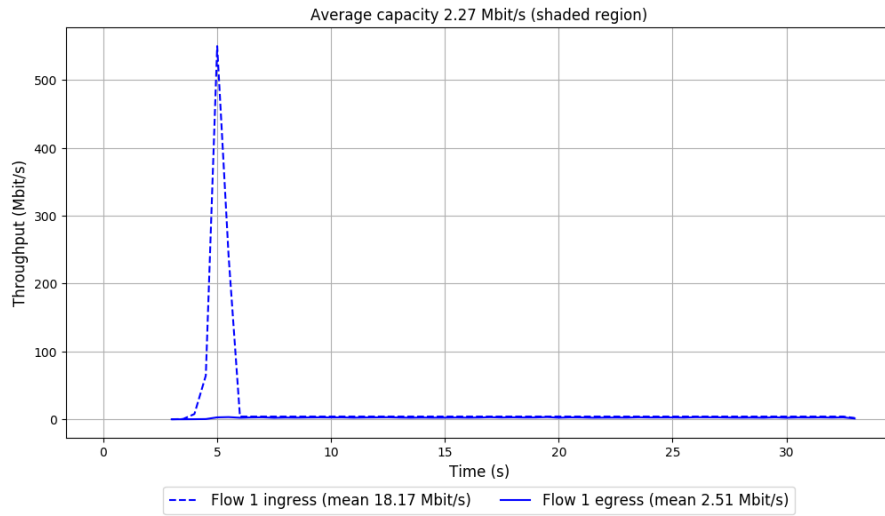
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 759.985 ms

Loss rate: 86.22%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-05 18:45:03

End at: 2018-03-05 18:45:33

Below is generated by plot.py at 2018-03-05 19:24:59

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.7% utilization)

95th percentile per-packet one-way delay: 761.168 ms

Loss rate: 86.28%

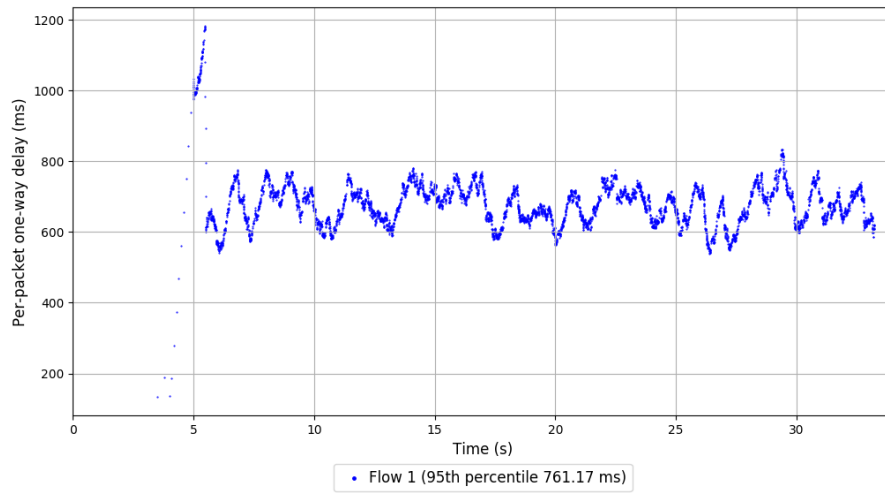
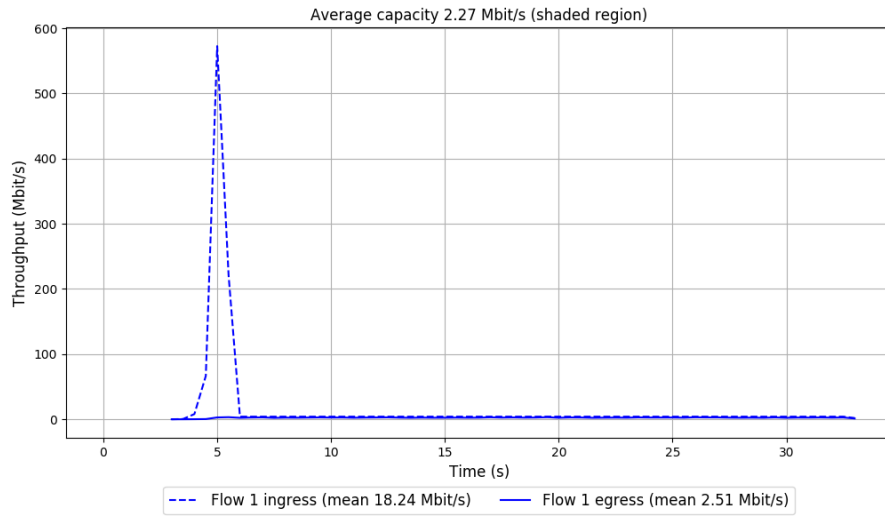
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 761.168 ms

Loss rate: 86.28%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-05 18:55:13

End at: 2018-03-05 18:55:43

Below is generated by plot.py at 2018-03-05 19:24:59

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.7% utilization)

95th percentile per-packet one-way delay: 762.427 ms

Loss rate: 85.83%

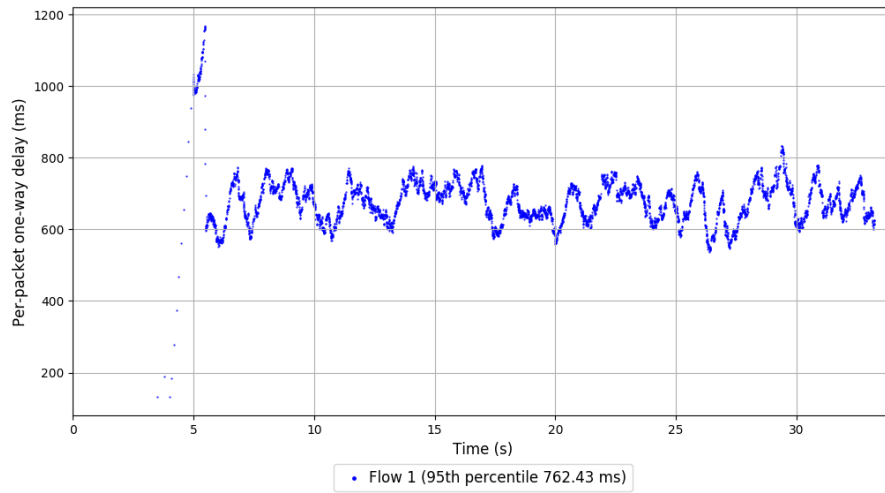
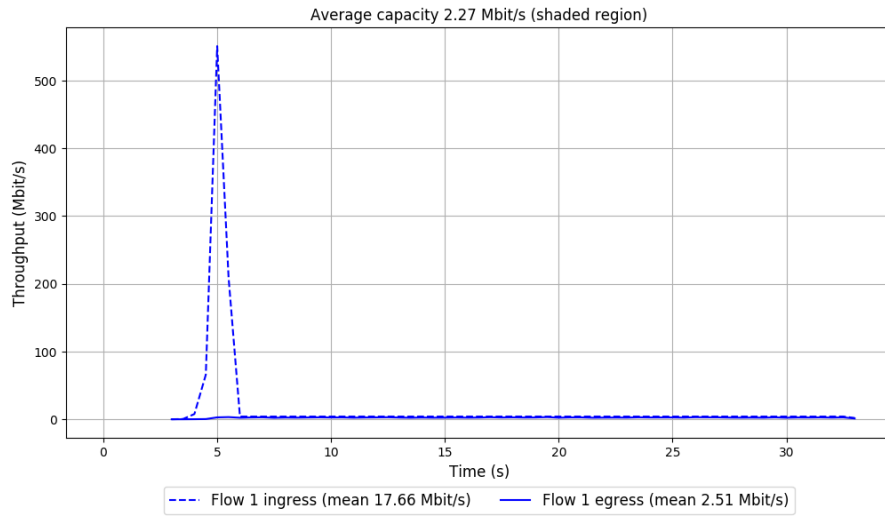
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 762.427 ms

Loss rate: 85.83%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-05 19:05:23

End at: 2018-03-05 19:05:53

Below is generated by plot.py at 2018-03-05 19:25:07

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.7% utilization)

95th percentile per-packet one-way delay: 762.032 ms

Loss rate: 86.39%

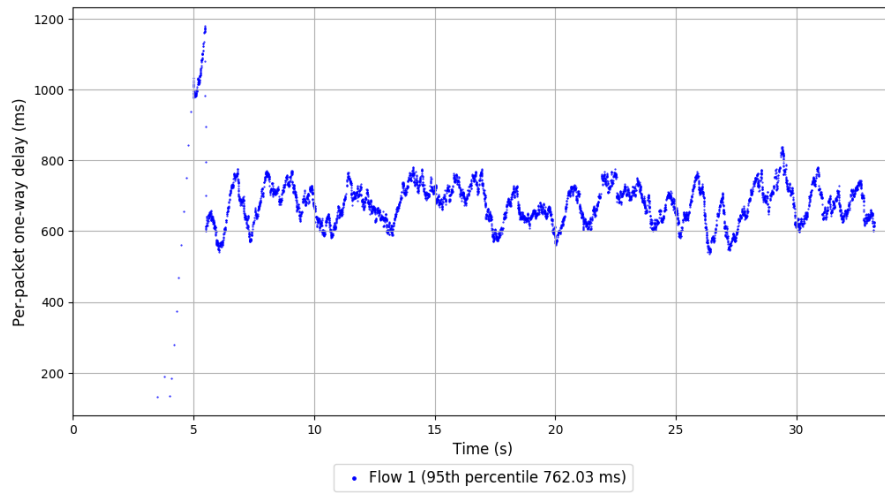
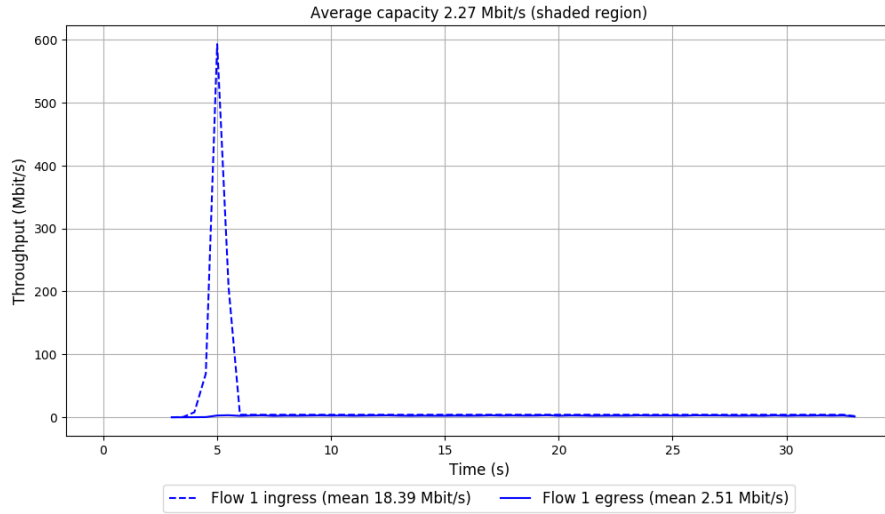
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 762.032 ms

Loss rate: 86.39%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-03-05 19:15:33

End at: 2018-03-05 19:16:03

Below is generated by plot.py at 2018-03-05 19:25:12

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 760.483 ms

Loss rate: 86.46%

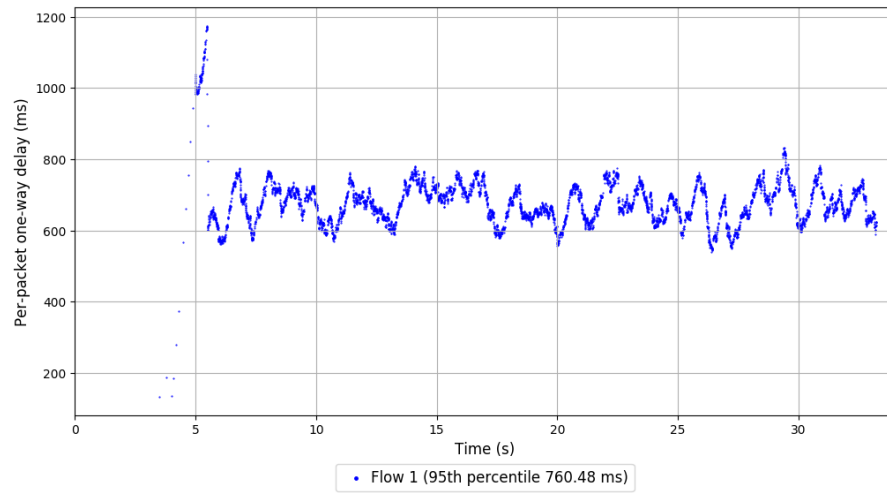
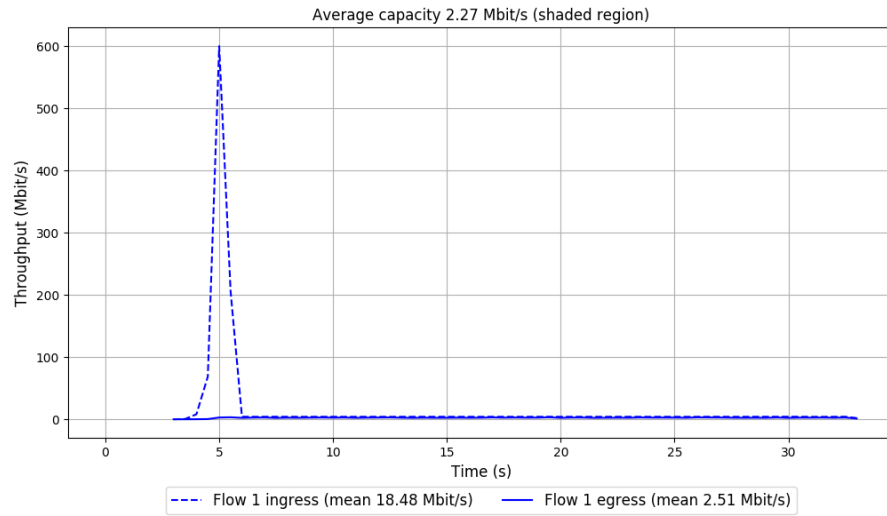
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 760.483 ms

Loss rate: 86.46%

Run 10: Report of PCC — Data Link

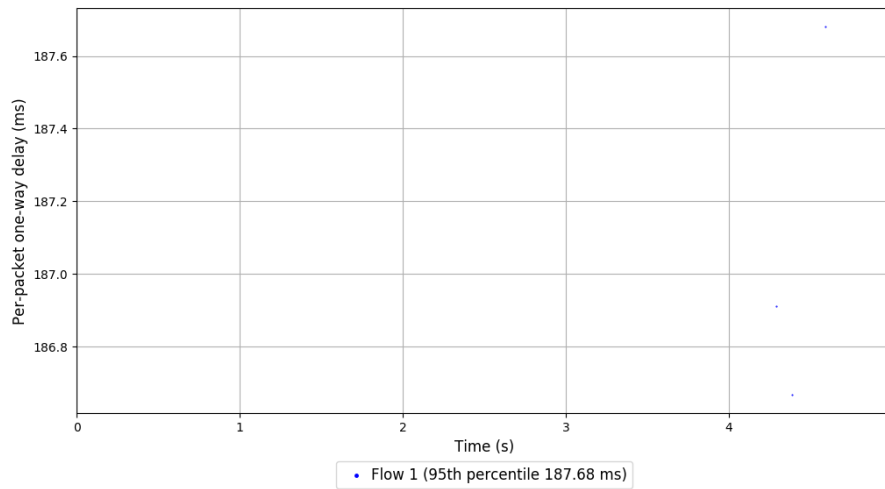
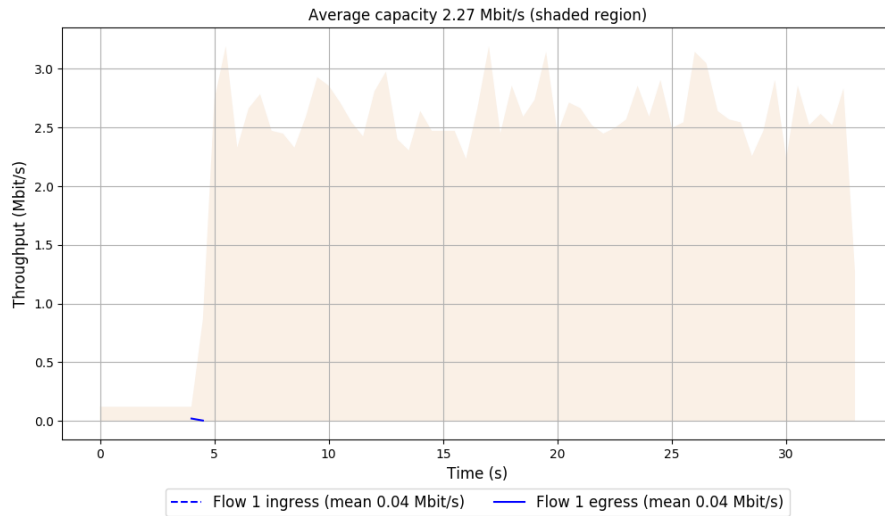


Run 1: Statistics of QUIC Cubic

Start at: 2018-03-05 17:51:57

End at: 2018-03-05 17:52:27

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-05 18:02:07

End at: 2018-03-05 18:02:37

Below is generated by plot.py at 2018-03-05 19:25:12

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.53 Mbit/s (111.2% utilization)

95th percentile per-packet one-way delay: 682.810 ms

Loss rate: 4.24%

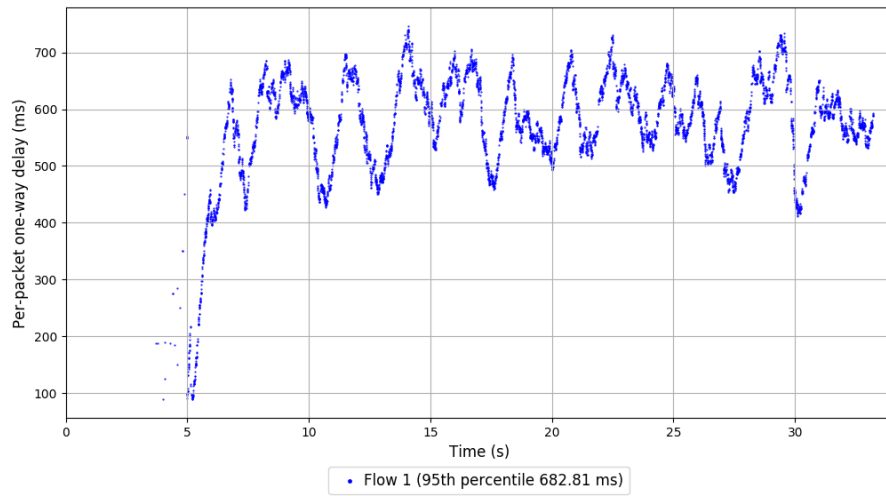
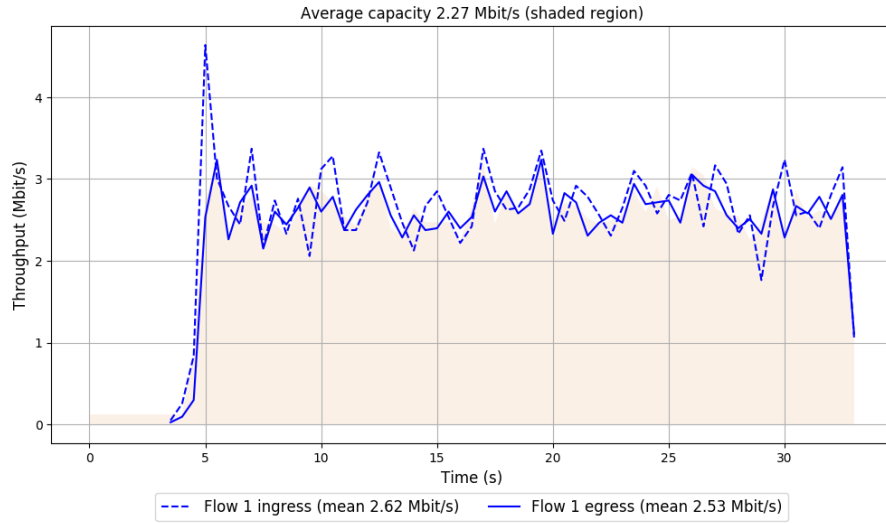
-- Flow 1:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 682.810 ms

Loss rate: 4.24%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-05 18:12:17

End at: 2018-03-05 18:12:47

Below is generated by plot.py at 2018-03-05 19:25:12

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.1% utilization)

95th percentile per-packet one-way delay: 662.036 ms

Loss rate: 3.19%

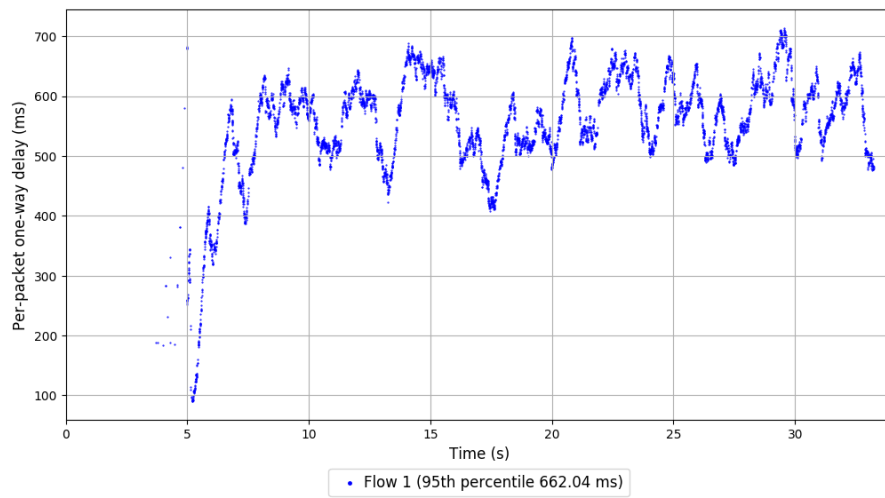
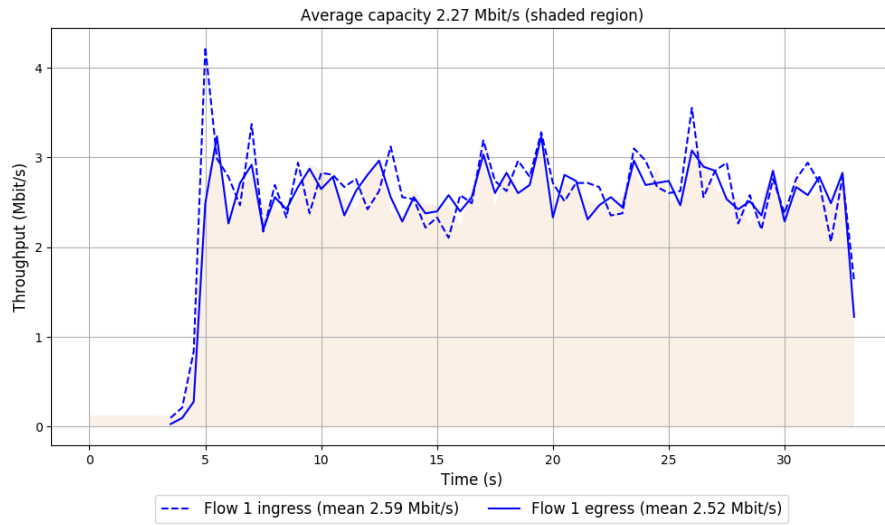
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 662.036 ms

Loss rate: 3.19%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-05 18:22:27

End at: 2018-03-05 18:22:57

Below is generated by plot.py at 2018-03-05 19:25:12

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.1% utilization)

95th percentile per-packet one-way delay: 687.586 ms

Loss rate: 4.10%

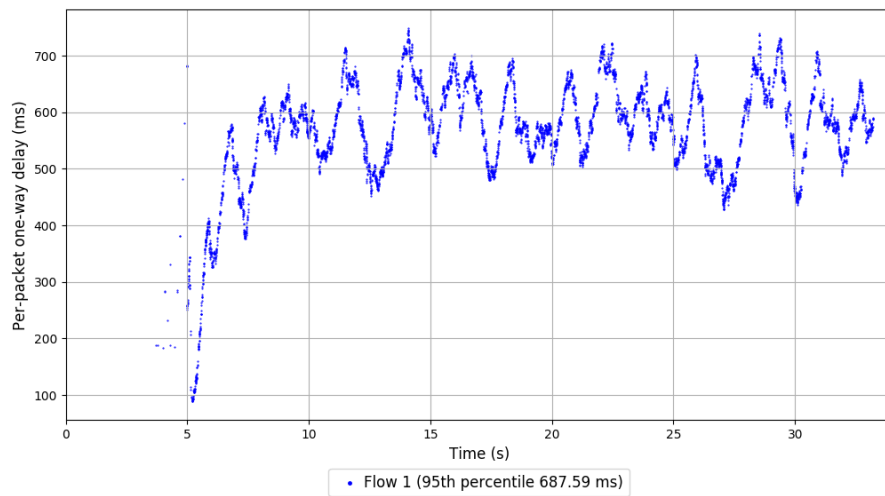
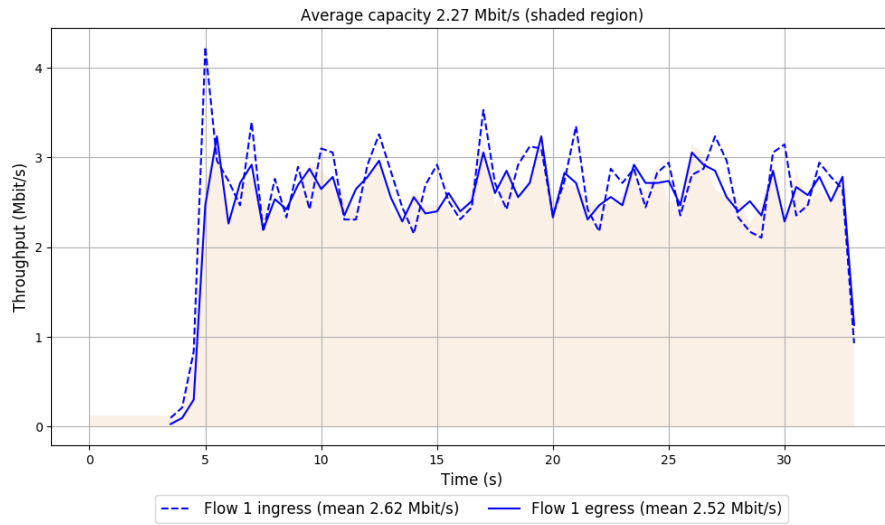
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 687.586 ms

Loss rate: 4.10%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-05 18:32:38

End at: 2018-03-05 18:33:08

Below is generated by plot.py at 2018-03-05 19:25:12

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.1% utilization)

95th percentile per-packet one-way delay: 670.545 ms

Loss rate: 3.07%

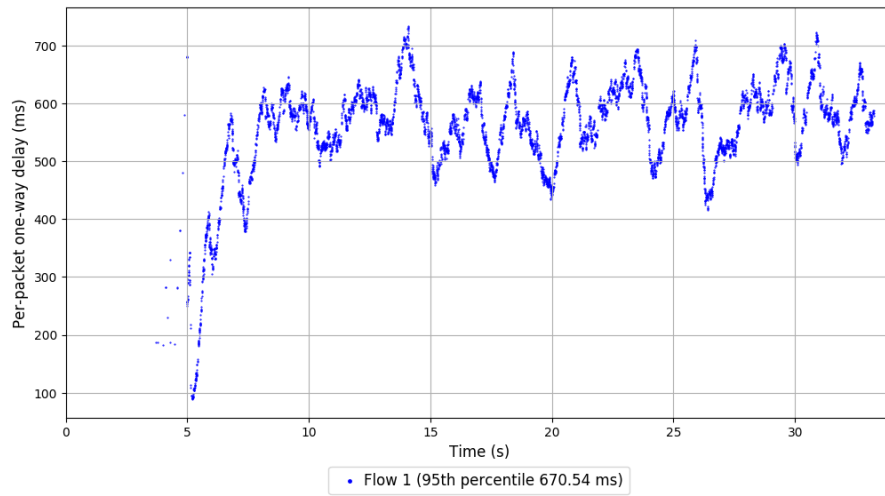
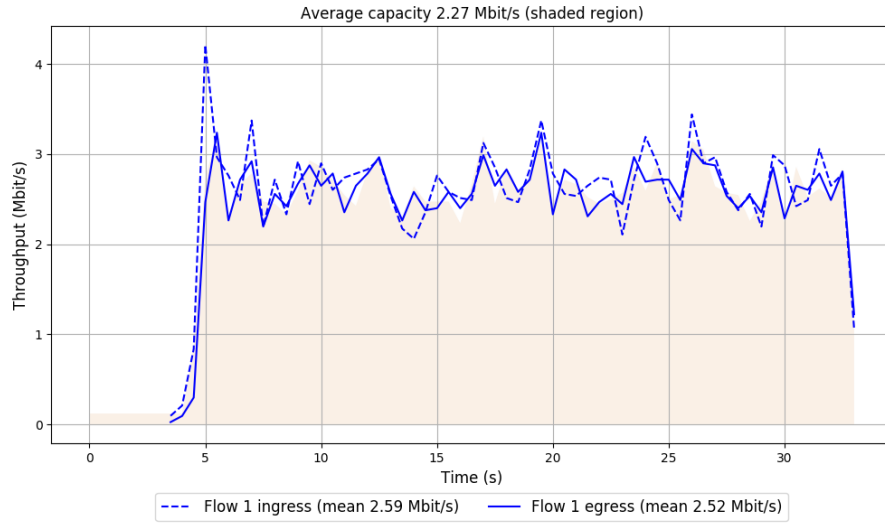
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 670.545 ms

Loss rate: 3.07%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-05 18:42:48

End at: 2018-03-05 18:43:18

Below is generated by plot.py at 2018-03-05 19:25:12

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.1% utilization)

95th percentile per-packet one-way delay: 666.638 ms

Loss rate: 3.40%

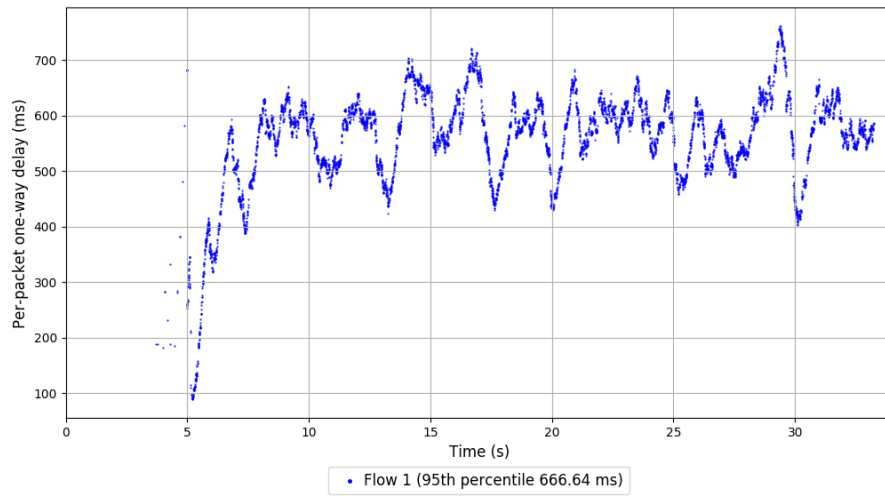
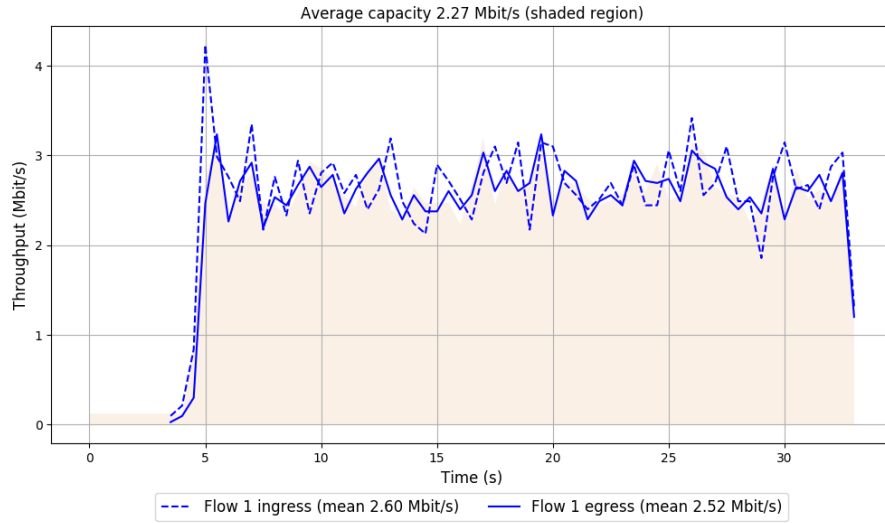
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 666.638 ms

Loss rate: 3.40%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-05 18:52:58

End at: 2018-03-05 18:53:28

Below is generated by plot.py at 2018-03-05 19:25:12

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.1% utilization)

95th percentile per-packet one-way delay: 678.583 ms

Loss rate: 3.04%

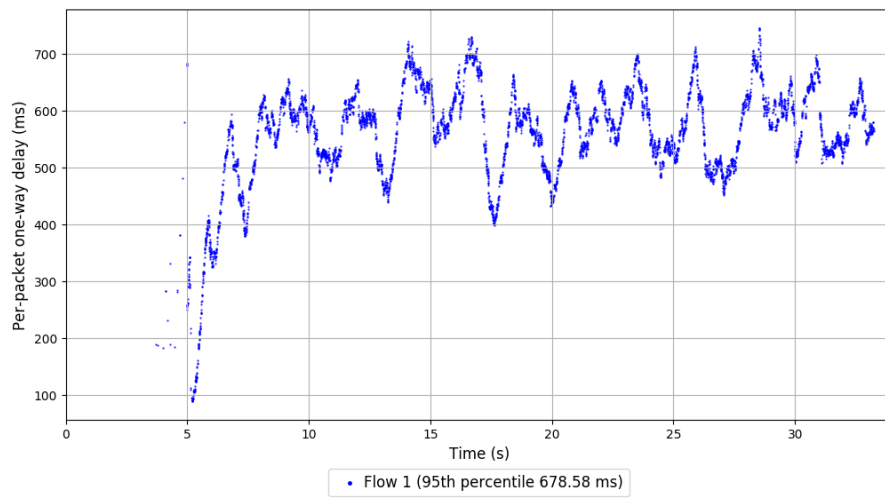
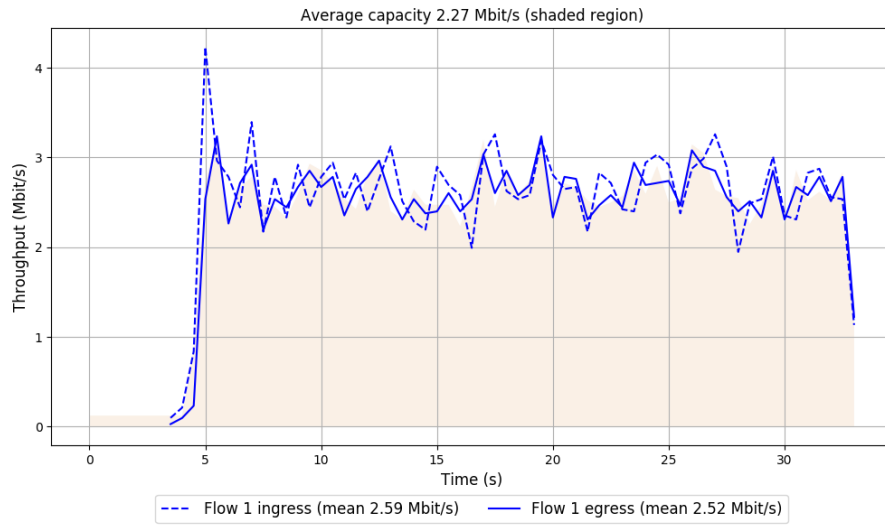
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 678.583 ms

Loss rate: 3.04%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-05 19:03:07

End at: 2018-03-05 19:03:37

Below is generated by plot.py at 2018-03-05 19:25:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.1% utilization)

95th percentile per-packet one-way delay: 674.741 ms

Loss rate: 3.36%

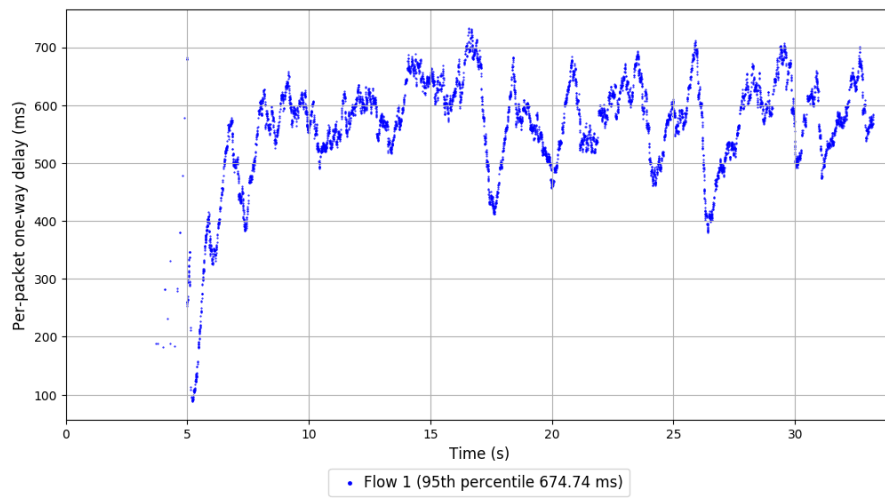
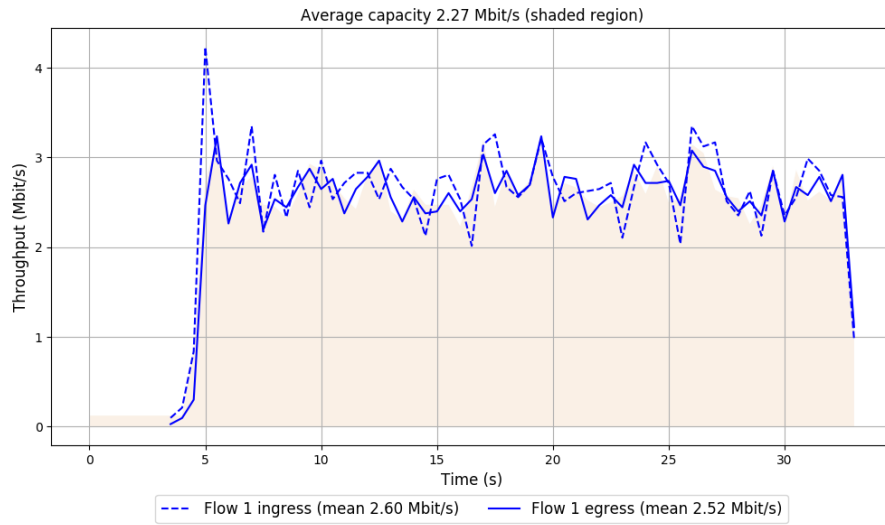
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 674.741 ms

Loss rate: 3.36%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-05 19:13:18

End at: 2018-03-05 19:13:48

Below is generated by plot.py at 2018-03-05 19:25:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.1% utilization)

95th percentile per-packet one-way delay: 664.654 ms

Loss rate: 2.97%

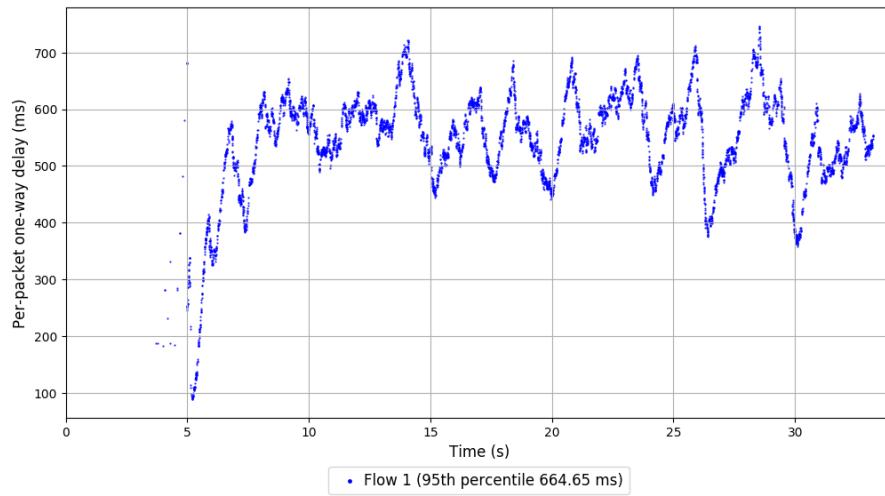
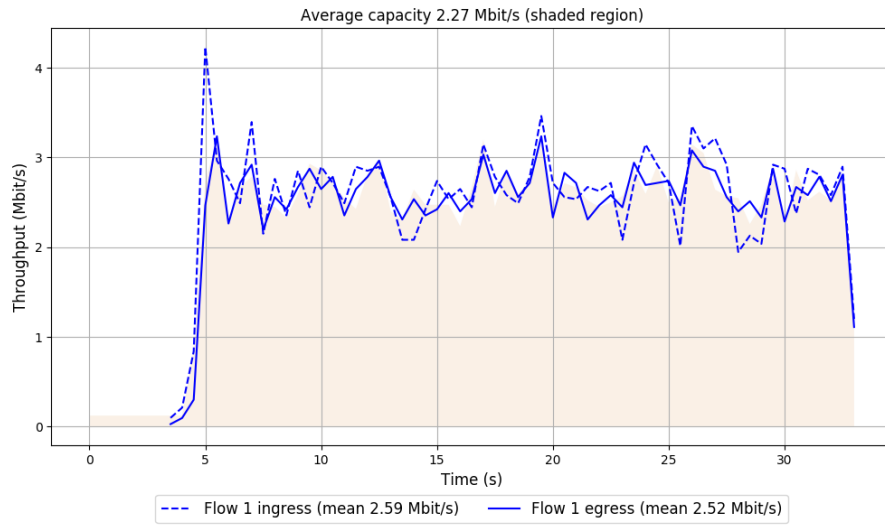
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 664.654 ms

Loss rate: 2.97%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-03-05 19:23:28

End at: 2018-03-05 19:23:58

Below is generated by plot.py at 2018-03-05 19:25:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.1% utilization)

95th percentile per-packet one-way delay: 692.509 ms

Loss rate: 6.14%

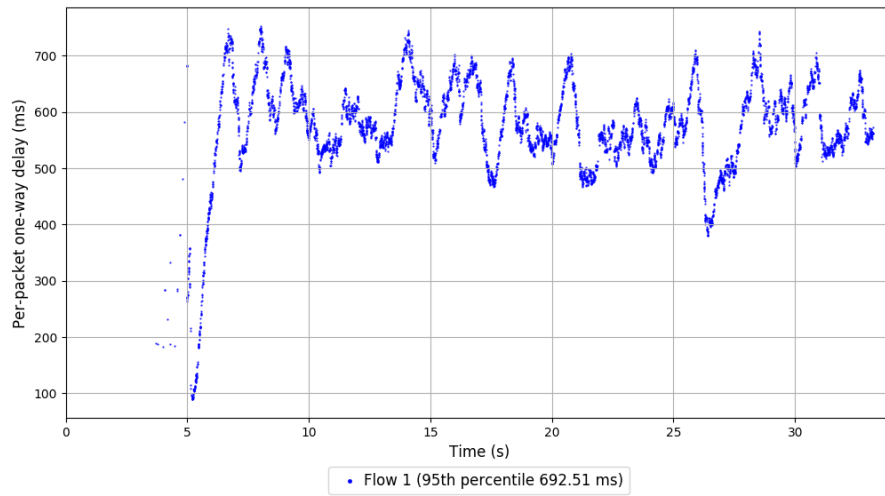
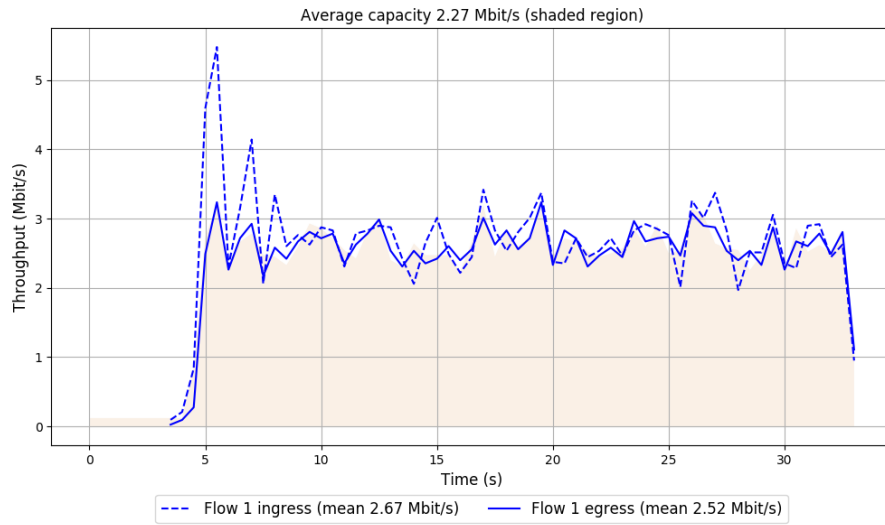
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 692.509 ms

Loss rate: 6.14%

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2018-03-05 17:46:19

End at: 2018-03-05 17:46:49

Below is generated by plot.py at 2018-03-05 19:25:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 106.442 ms

Loss rate: 0.25%

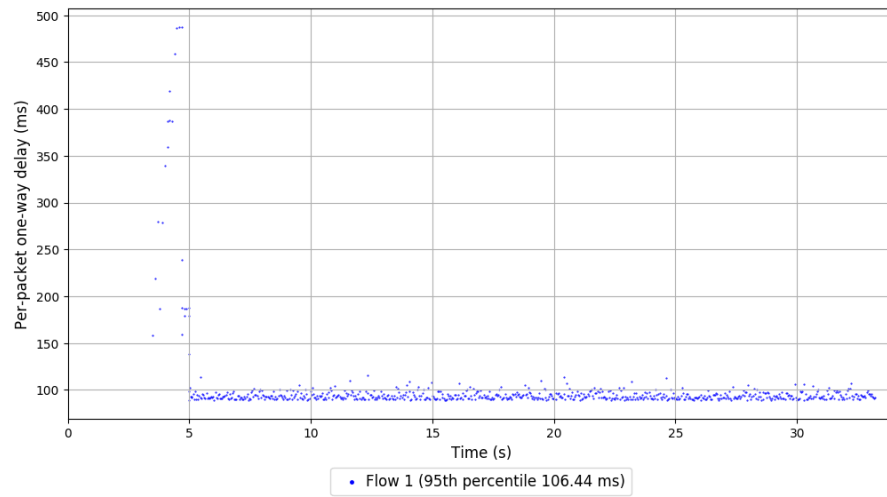
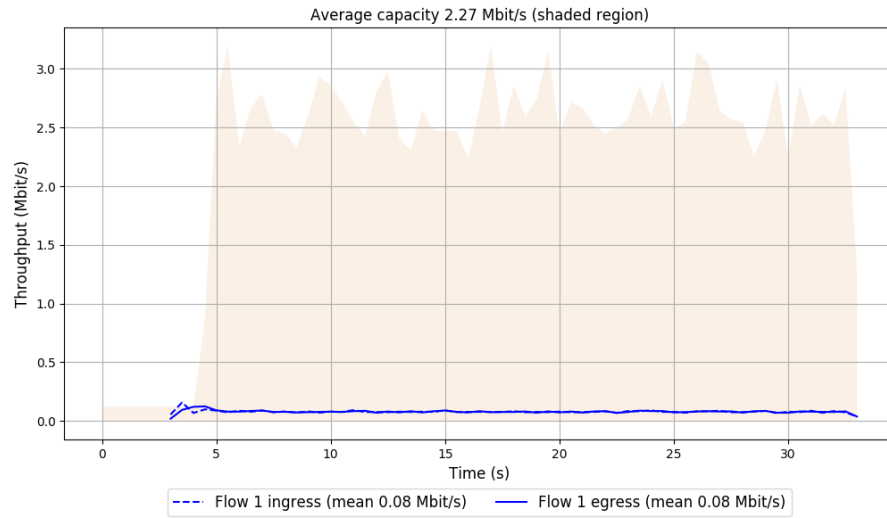
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 106.442 ms

Loss rate: 0.25%

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-03-05 17:56:28

End at: 2018-03-05 17:56:59

Below is generated by plot.py at 2018-03-05 19:25:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 106.666 ms

Loss rate: 0.38%

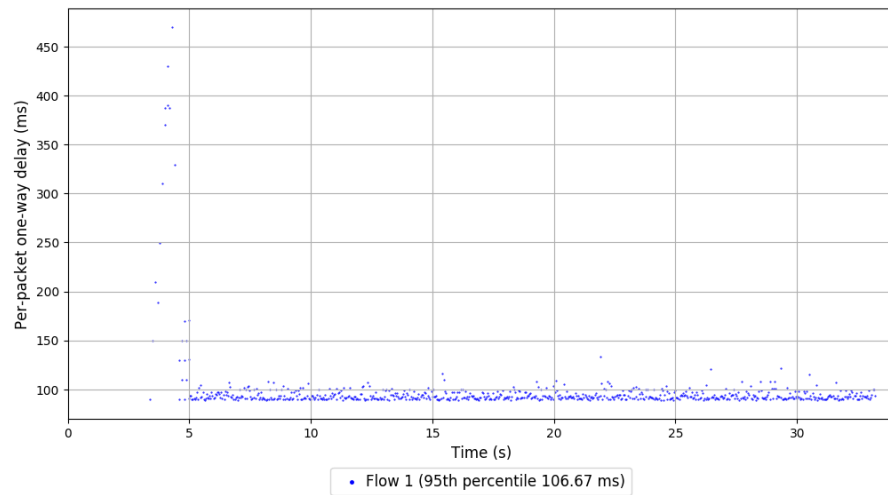
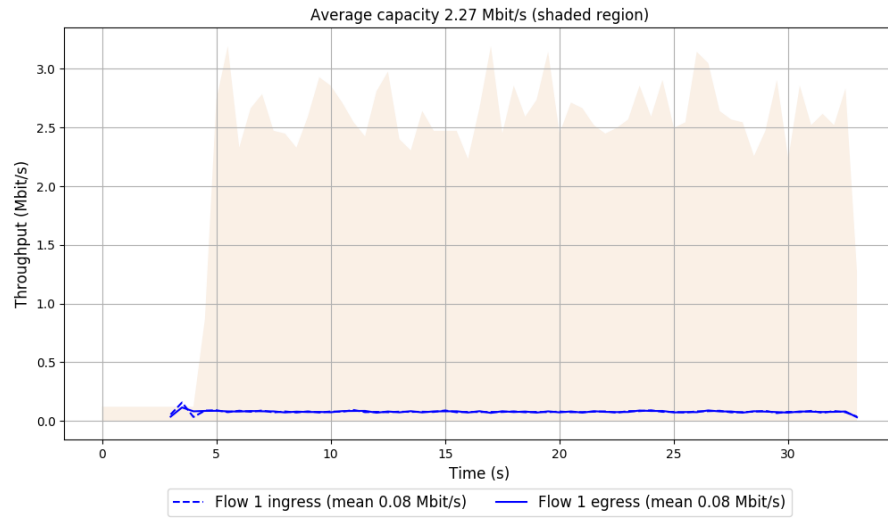
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 106.666 ms

Loss rate: 0.38%

Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-03-05 18:06:39

End at: 2018-03-05 18:07:09

Below is generated by plot.py at 2018-03-05 19:25:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 106.707 ms

Loss rate: 0.25%

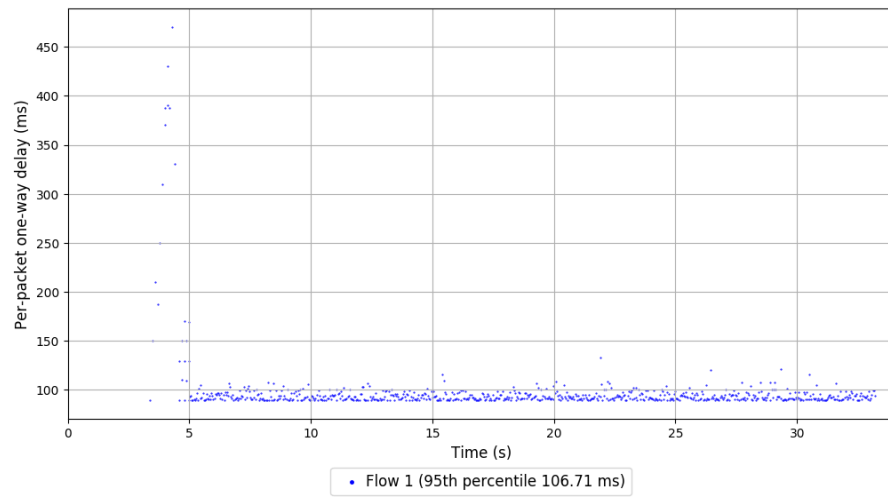
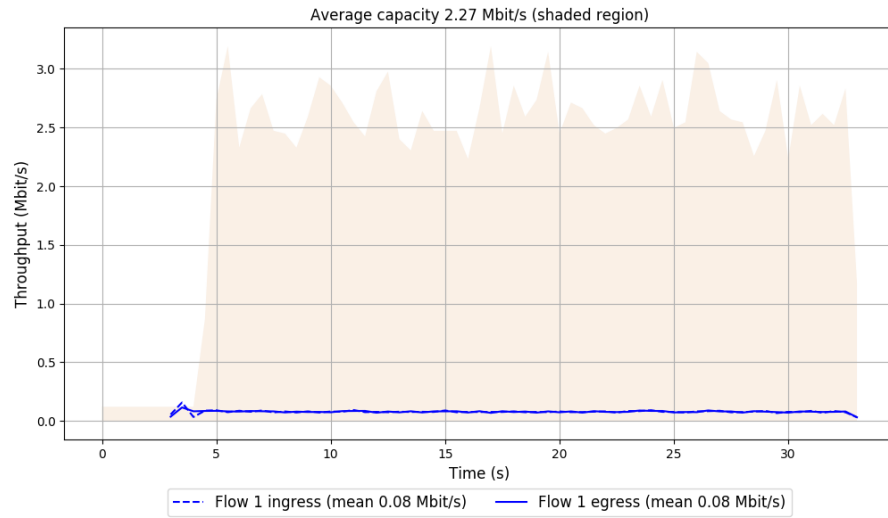
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 106.707 ms

Loss rate: 0.25%

Run 3: Report of SCReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-03-05 18:16:49

End at: 2018-03-05 18:17:19

Below is generated by plot.py at 2018-03-05 19:25:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 105.531 ms

Loss rate: 0.26%

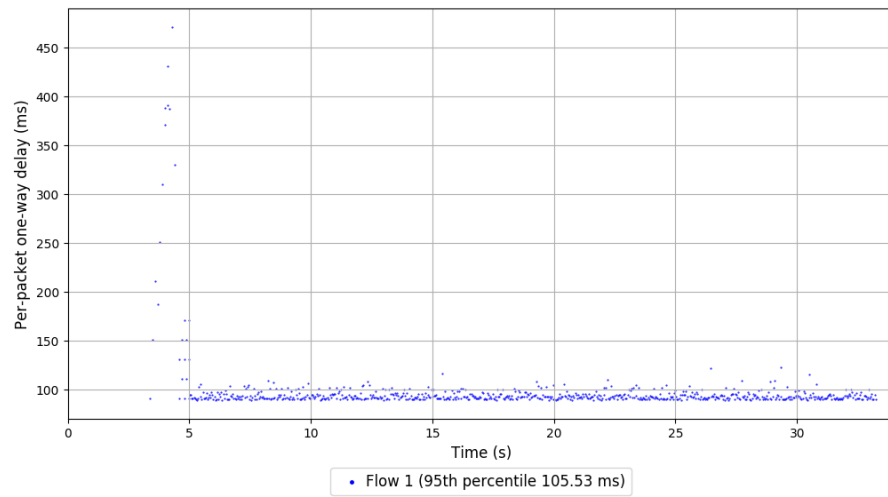
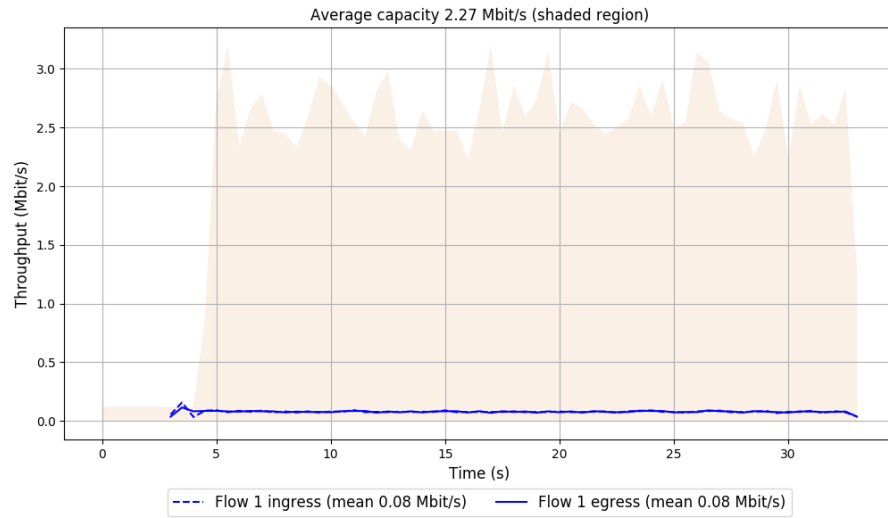
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 105.531 ms

Loss rate: 0.26%

Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-03-05 18:26:59

End at: 2018-03-05 18:27:29

Below is generated by plot.py at 2018-03-05 19:25:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 106.586 ms

Loss rate: 0.25%

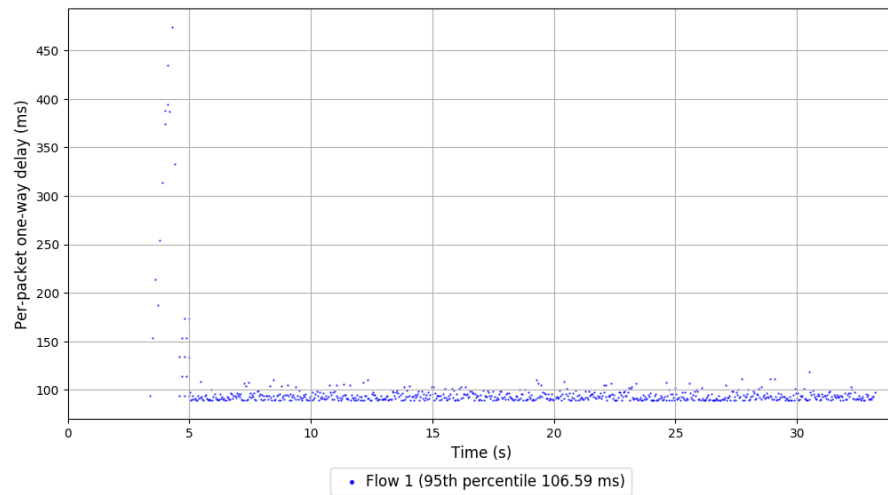
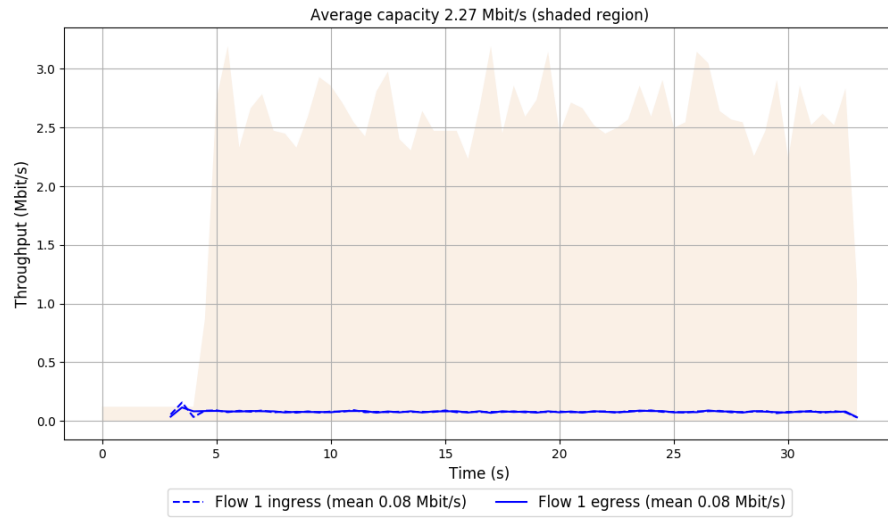
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 106.586 ms

Loss rate: 0.25%

Run 5: Report of SCReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-03-05 18:37:09

End at: 2018-03-05 18:37:39

Below is generated by plot.py at 2018-03-05 19:25:18

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 105.754 ms

Loss rate: 0.26%

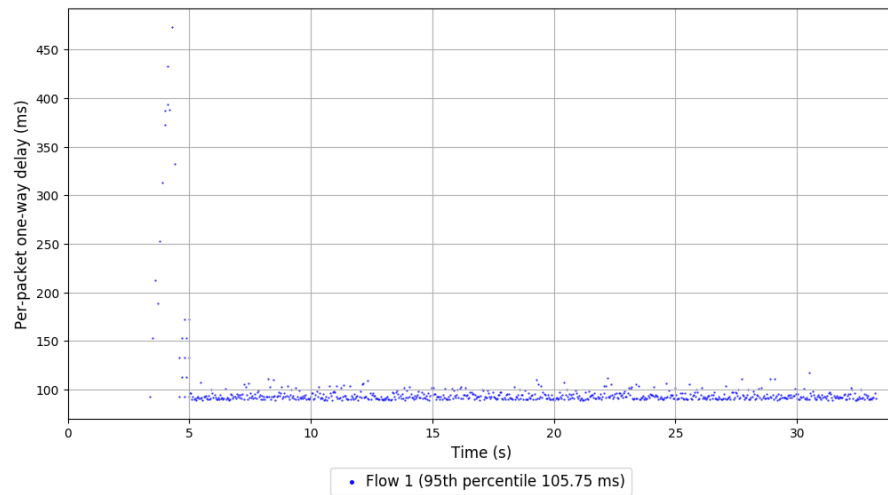
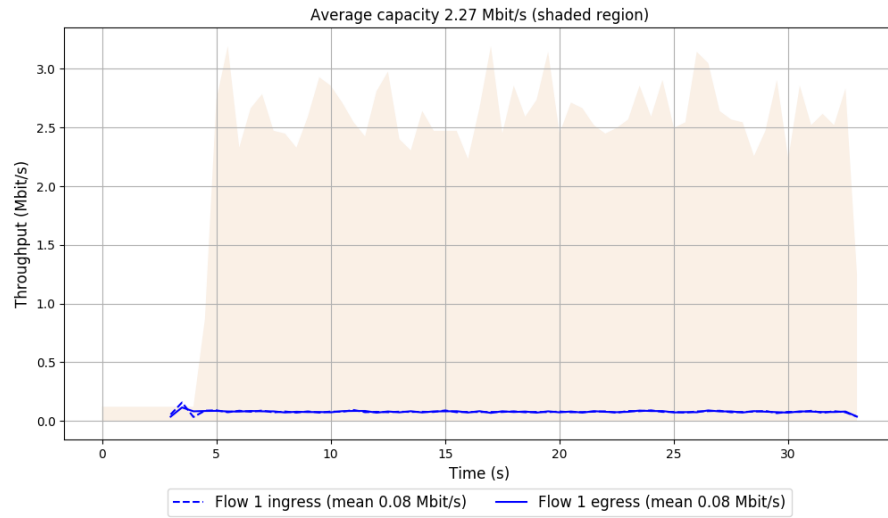
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 105.754 ms

Loss rate: 0.26%

Run 6: Report of SCReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2018-03-05 18:47:19

End at: 2018-03-05 18:47:49

Below is generated by plot.py at 2018-03-05 19:25:19

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 105.680 ms

Loss rate: 0.25%

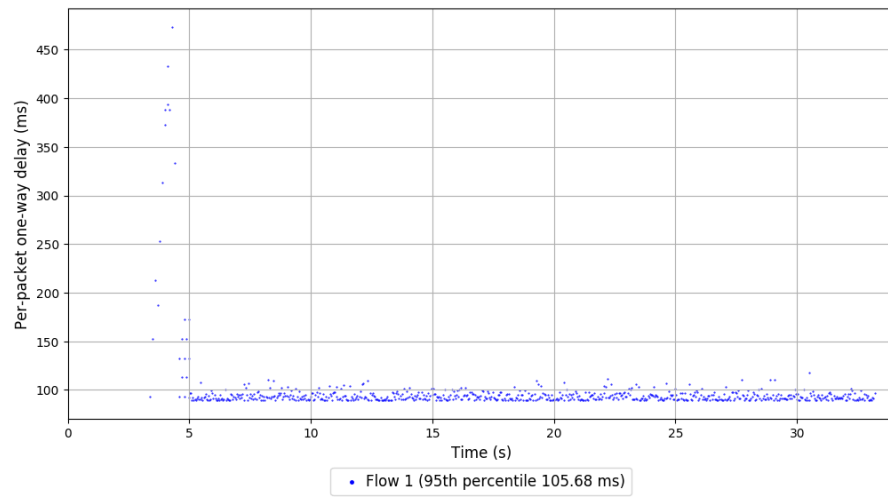
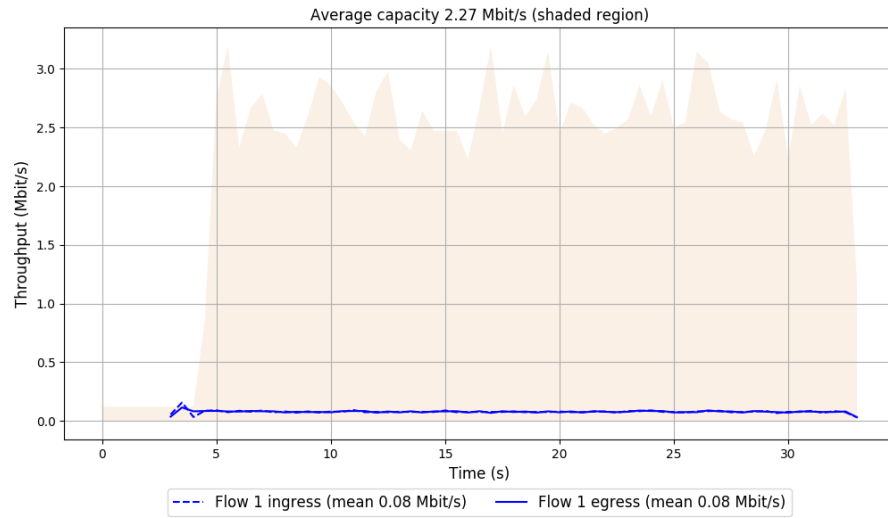
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 105.680 ms

Loss rate: 0.25%

Run 7: Report of SCReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-03-05 18:57:29

End at: 2018-03-05 18:57:59

Below is generated by plot.py at 2018-03-05 19:25:19

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 107.521 ms

Loss rate: 0.25%

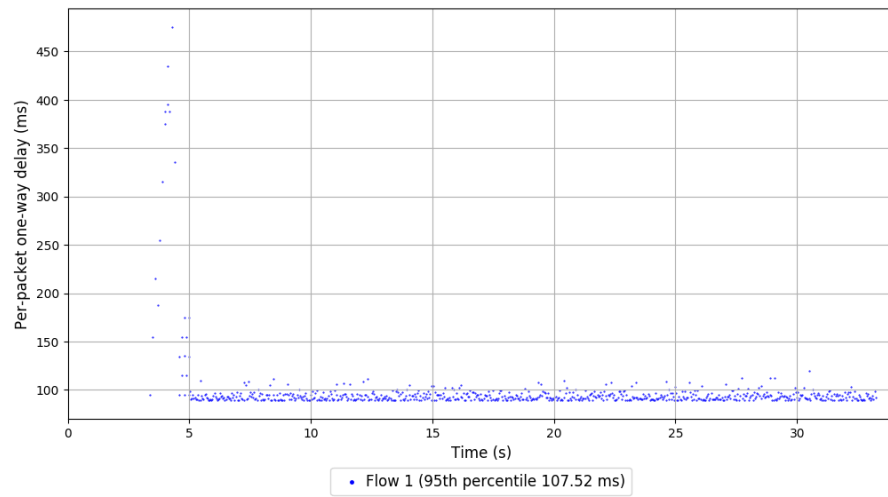
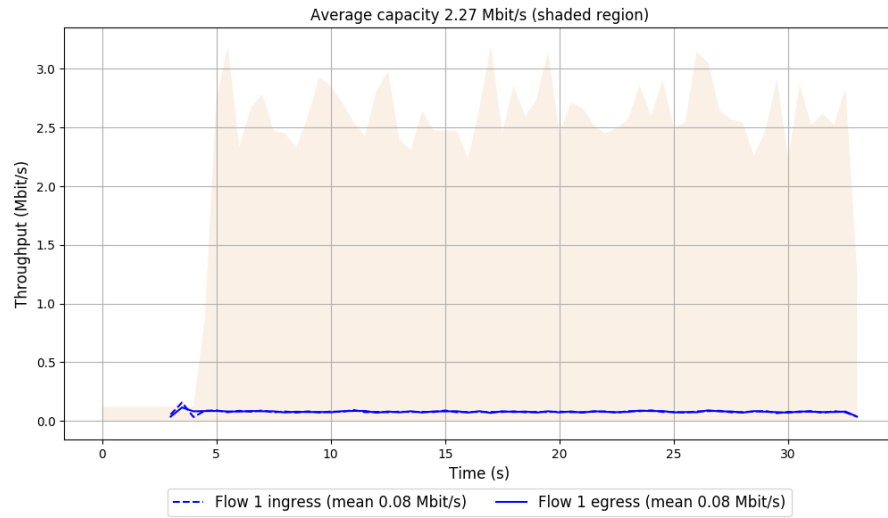
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 107.521 ms

Loss rate: 0.25%

Run 8: Report of SCReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-03-05 19:07:39

End at: 2018-03-05 19:08:09

Below is generated by plot.py at 2018-03-05 19:25:19

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 106.530 ms

Loss rate: 0.25%

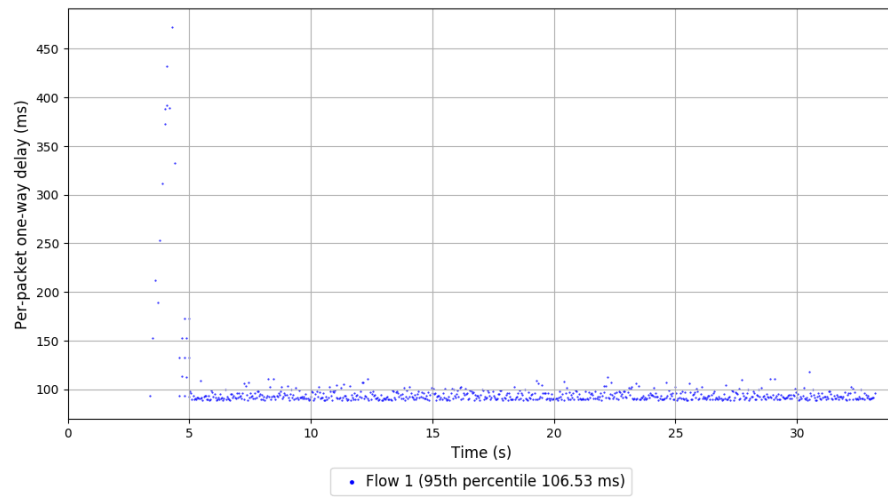
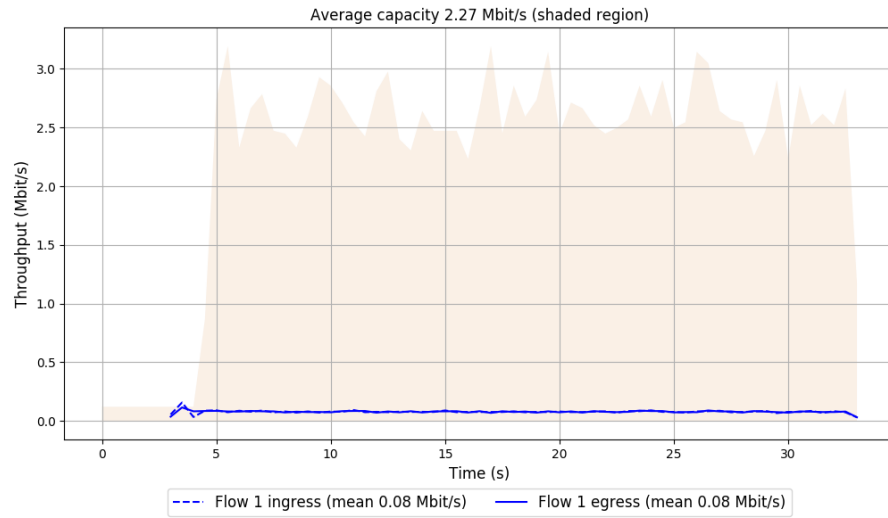
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 106.530 ms

Loss rate: 0.25%

Run 9: Report of SCReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2018-03-05 19:17:49

End at: 2018-03-05 19:18:19

Below is generated by plot.py at 2018-03-05 19:25:20

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.08 Mbit/s (3.5% utilization)

95th percentile per-packet one-way delay: 107.543 ms

Loss rate: 0.25%

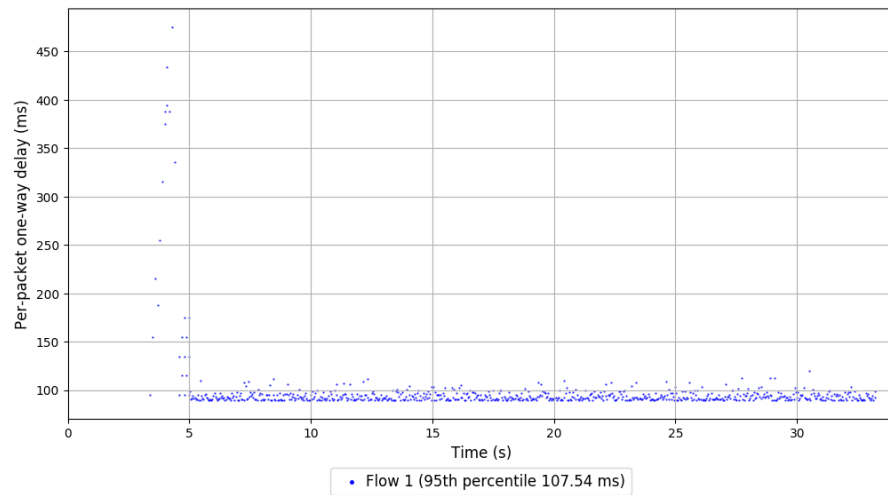
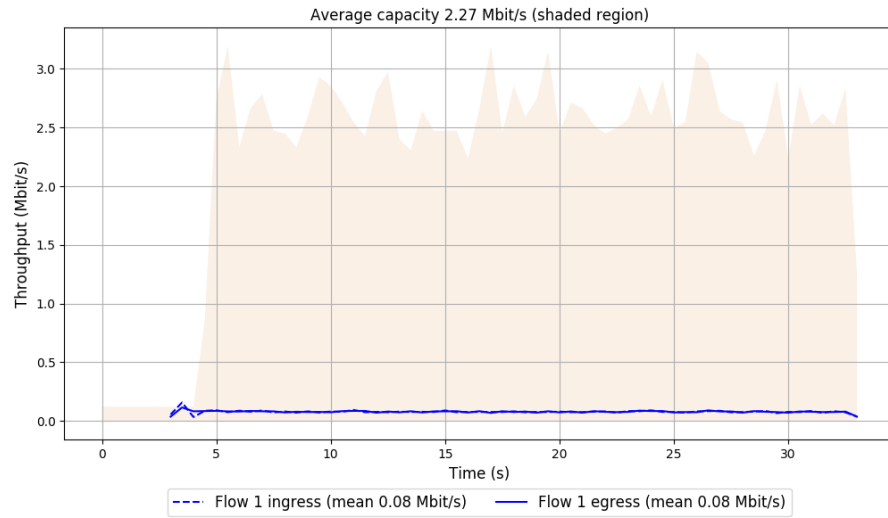
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 107.543 ms

Loss rate: 0.25%

Run 10: Report of SCReAM — Data Link

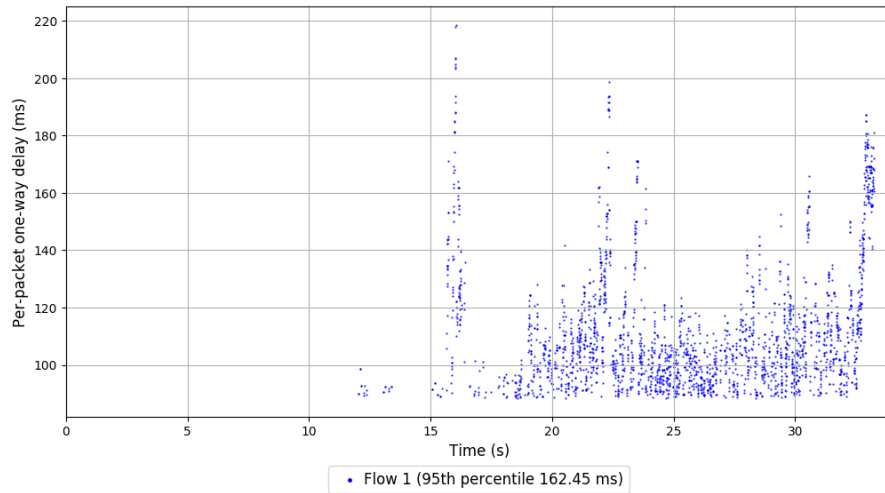
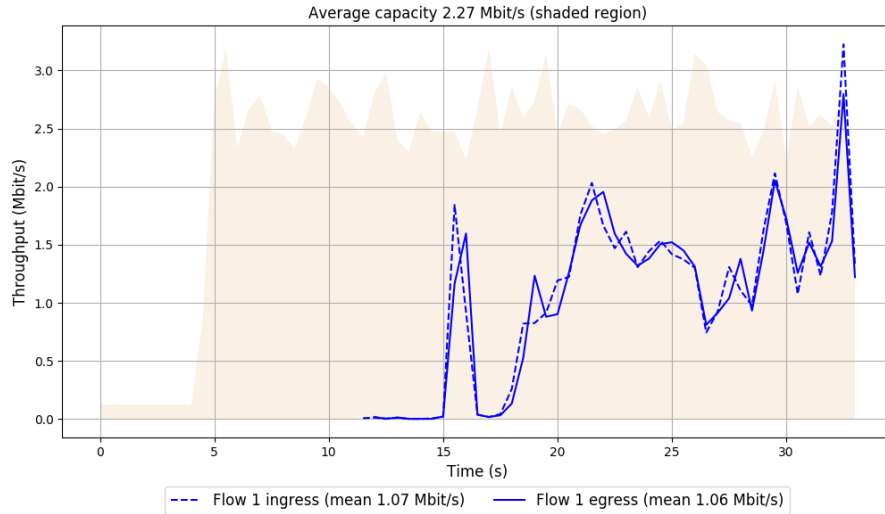


Run 1: Statistics of WebRTC media

Start at: 2018-03-05 17:50:15

End at: 2018-03-05 17:50:45

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-05 18:00:26

End at: 2018-03-05 18:00:56

Below is generated by plot.py at 2018-03-05 19:25:27

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.68 Mbit/s (74.0% utilization)

95th percentile per-packet one-way delay: 246.724 ms

Loss rate: 0.38%

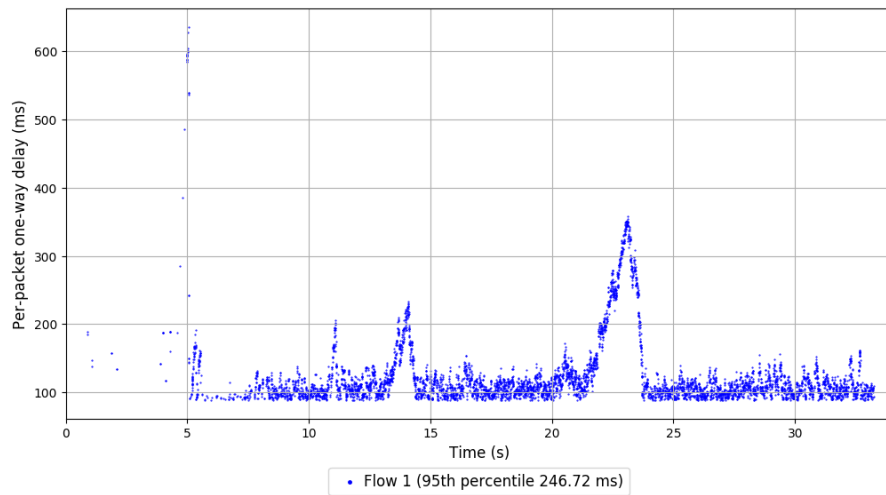
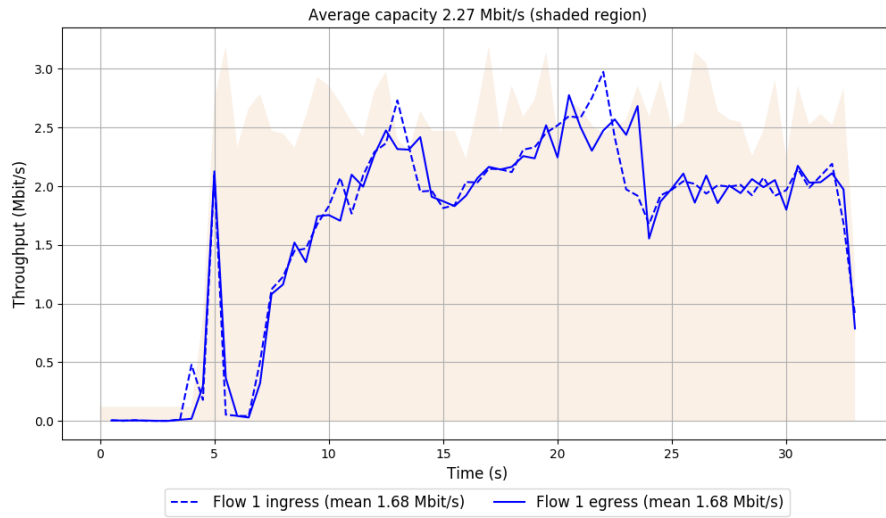
-- Flow 1:

Average throughput: 1.68 Mbit/s

95th percentile per-packet one-way delay: 246.724 ms

Loss rate: 0.38%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-05 18:10:36

End at: 2018-03-05 18:11:06

Below is generated by plot.py at 2018-03-05 19:25:27

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.52 Mbit/s (67.0% utilization)

95th percentile per-packet one-way delay: 209.843 ms

Loss rate: 0.46%

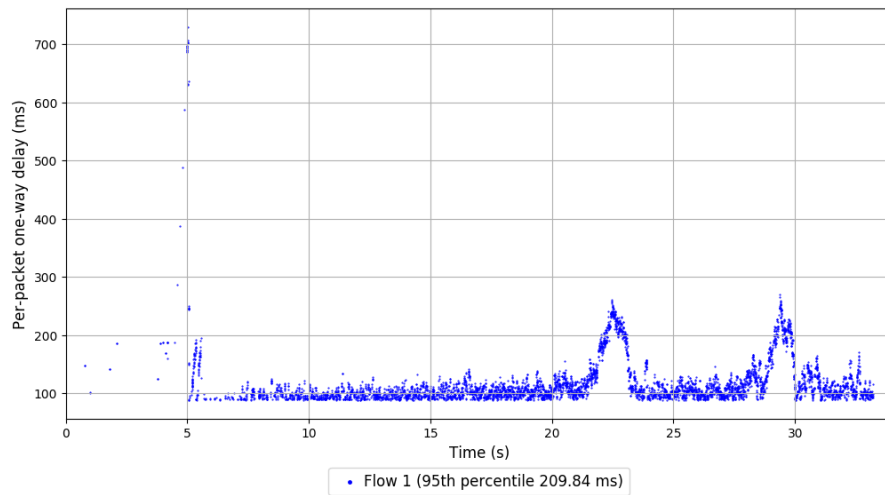
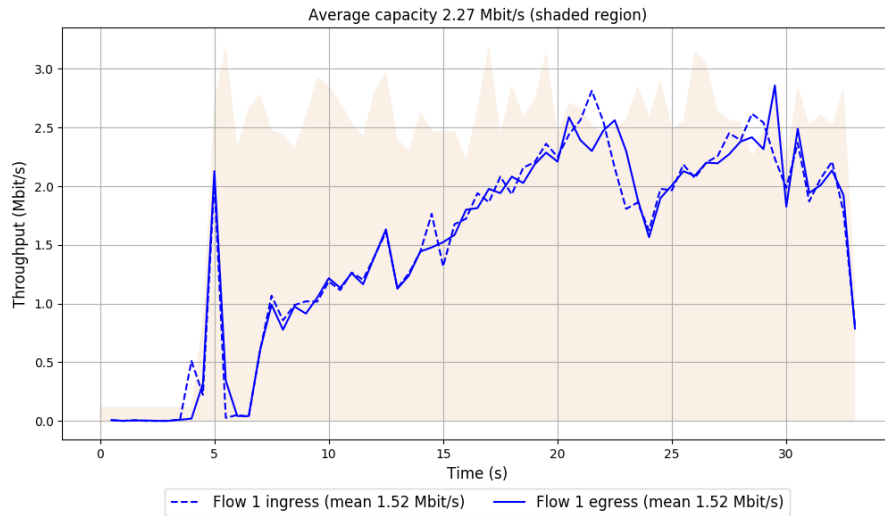
-- Flow 1:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 209.843 ms

Loss rate: 0.46%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-05 18:20:46

End at: 2018-03-05 18:21:16

Below is generated by plot.py at 2018-03-05 19:25:27

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.54 Mbit/s (67.7% utilization)

95th percentile per-packet one-way delay: 172.167 ms

Loss rate: 0.44%

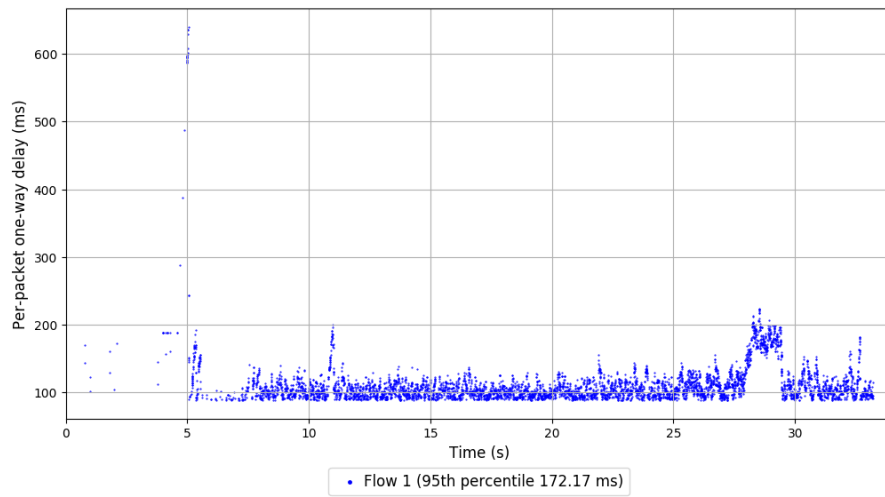
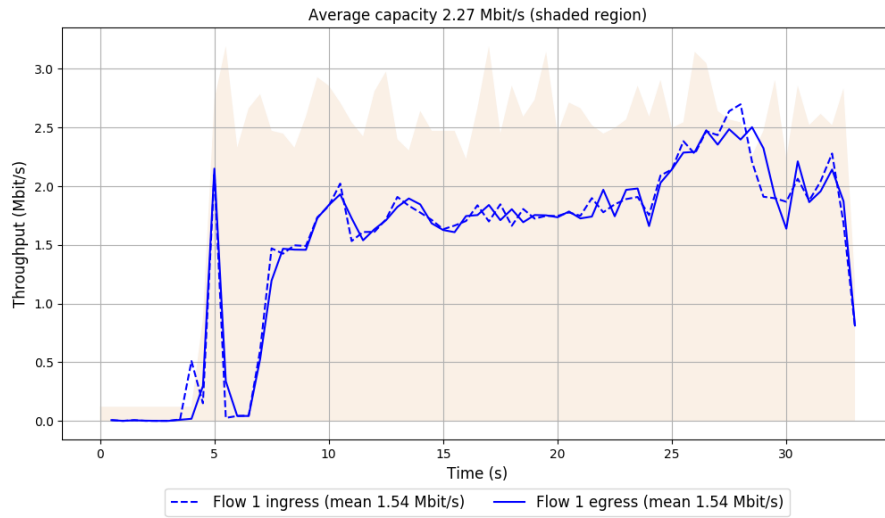
-- Flow 1:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 172.167 ms

Loss rate: 0.44%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-05 18:30:56

End at: 2018-03-05 18:31:26

Below is generated by plot.py at 2018-03-05 19:25:27

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.54 Mbit/s (67.7% utilization)

95th percentile per-packet one-way delay: 147.255 ms

Loss rate: 0.44%

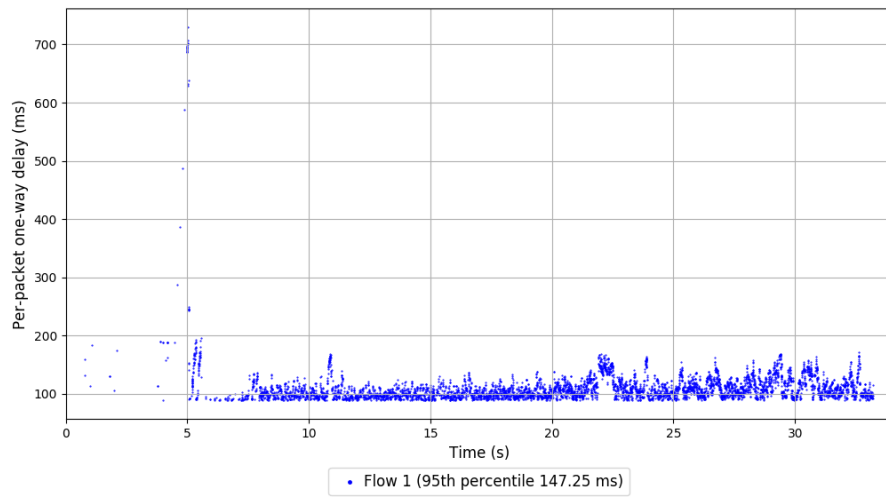
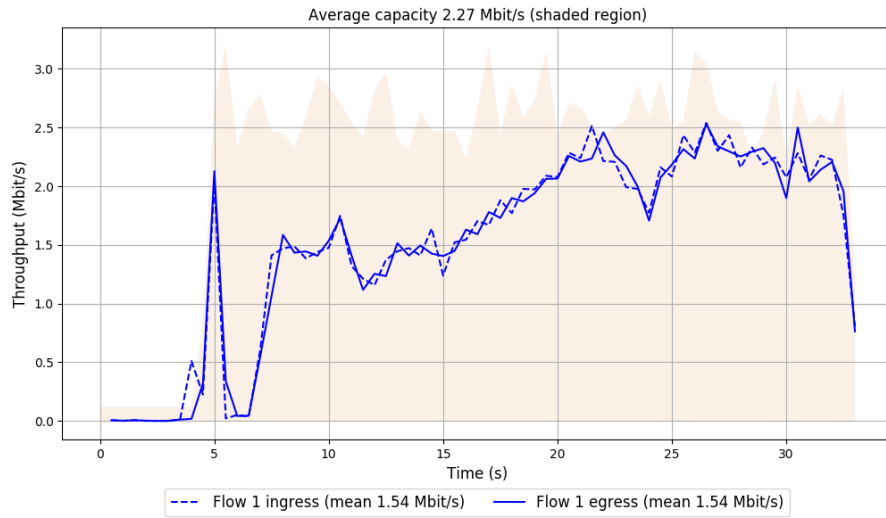
-- Flow 1:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 147.255 ms

Loss rate: 0.44%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-05 18:41:06

End at: 2018-03-05 18:41:36

Below is generated by plot.py at 2018-03-05 19:25:28

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.76 Mbit/s (77.3% utilization)

95th percentile per-packet one-way delay: 241.767 ms

Loss rate: 0.36%

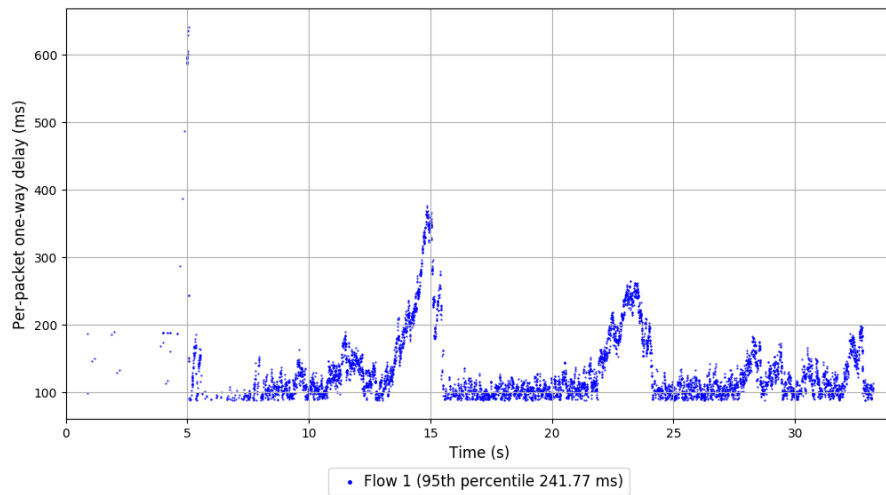
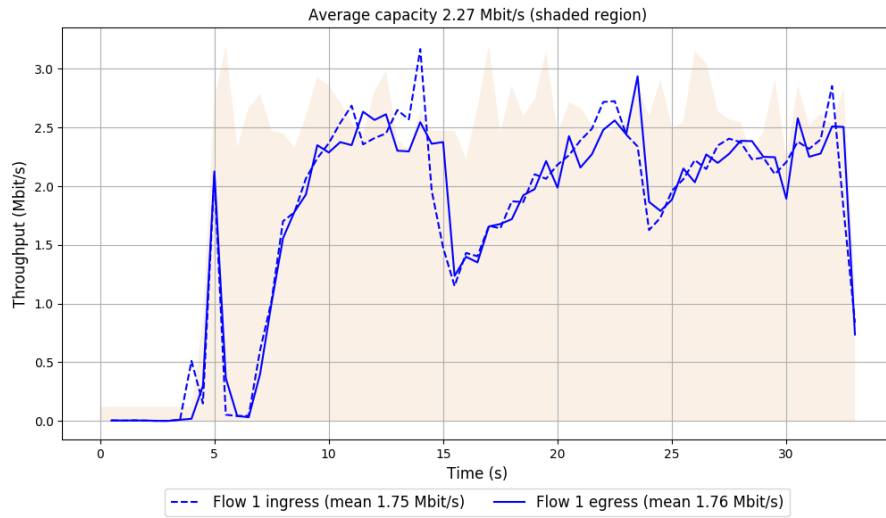
-- Flow 1:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 241.767 ms

Loss rate: 0.36%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-05 18:51:16

End at: 2018-03-05 18:51:46

Below is generated by plot.py at 2018-03-05 19:25:28

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.65 Mbit/s (72.6% utilization)

95th percentile per-packet one-way delay: 147.482 ms

Loss rate: 0.37%

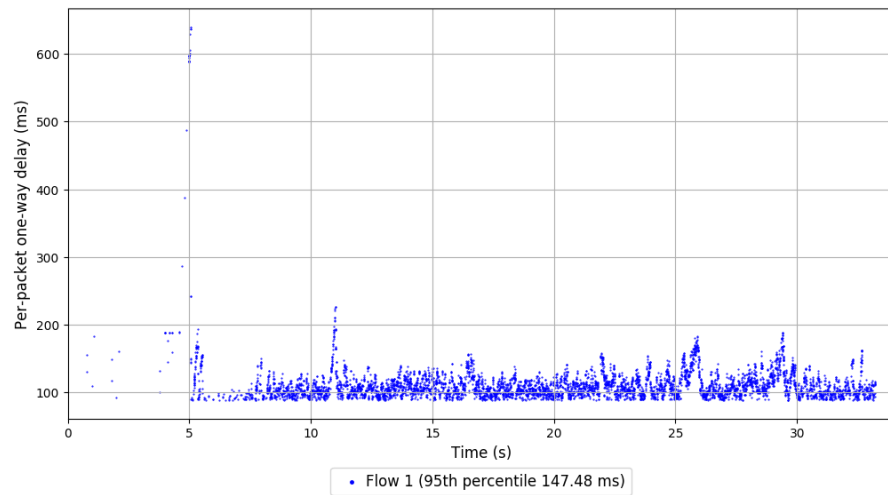
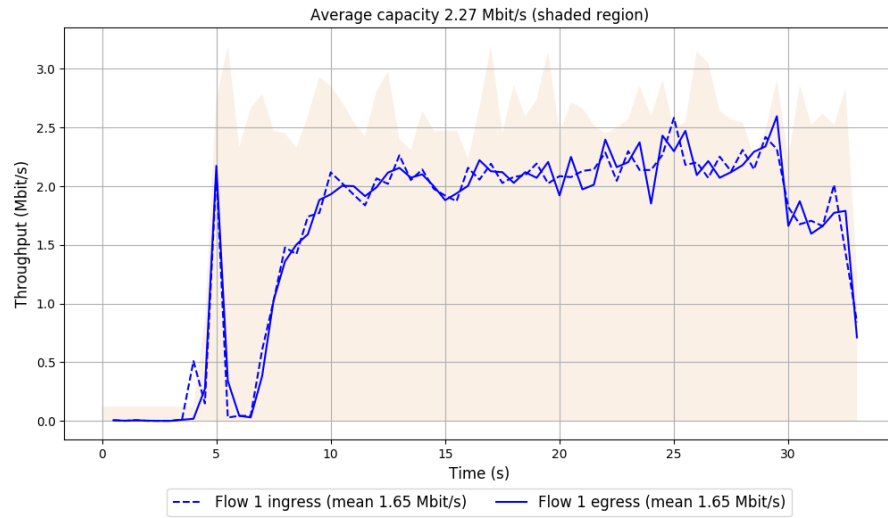
-- Flow 1:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 147.482 ms

Loss rate: 0.37%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-05 19:01:26

End at: 2018-03-05 19:01:56

Below is generated by plot.py at 2018-03-05 19:25:29

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.56 Mbit/s (68.6% utilization)

95th percentile per-packet one-way delay: 140.237 ms

Loss rate: 0.34%

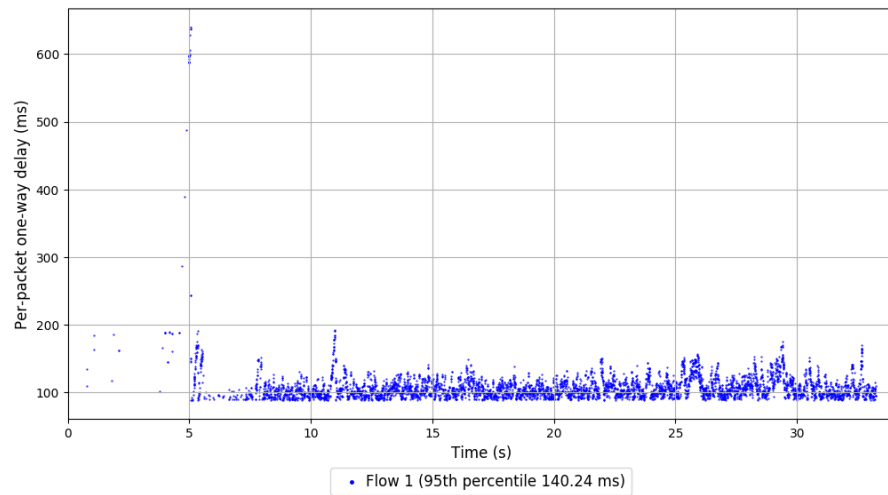
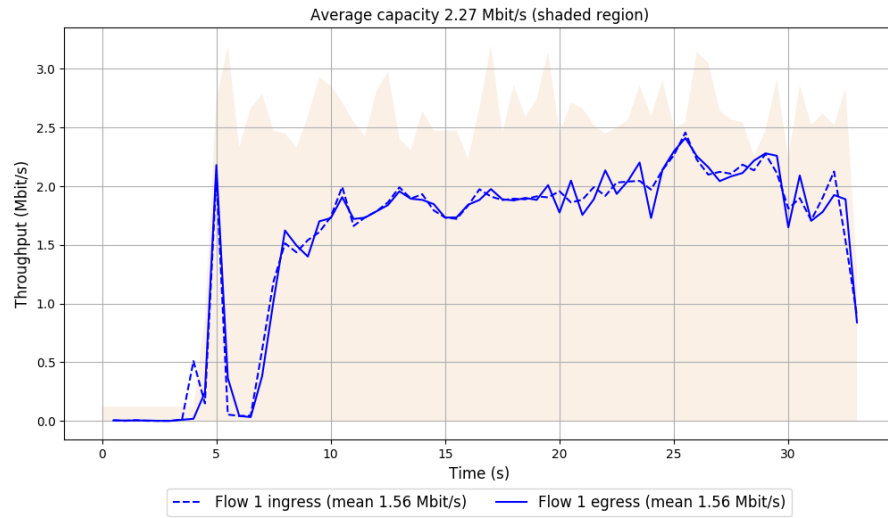
-- Flow 1:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 140.237 ms

Loss rate: 0.34%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-05 19:11:36

End at: 2018-03-05 19:12:06

Below is generated by plot.py at 2018-03-05 19:25:31

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.33 Mbit/s (58.5% utilization)

95th percentile per-packet one-way delay: 152.647 ms

Loss rate: 0.49%

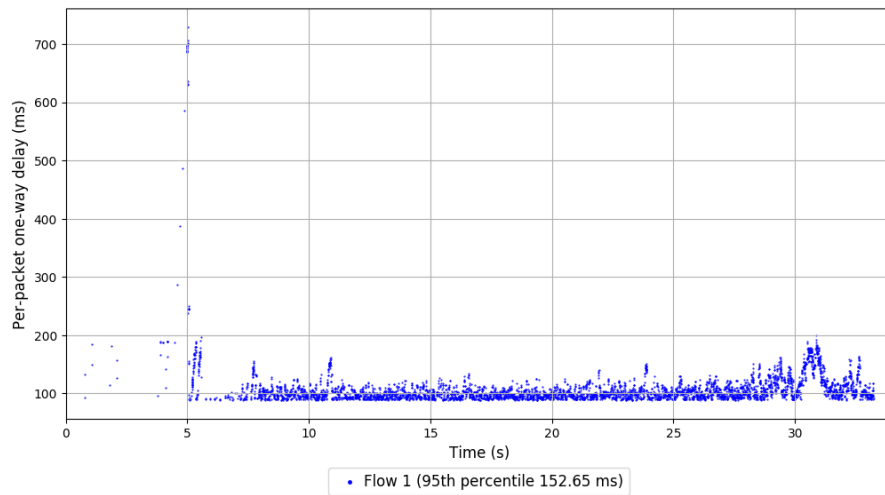
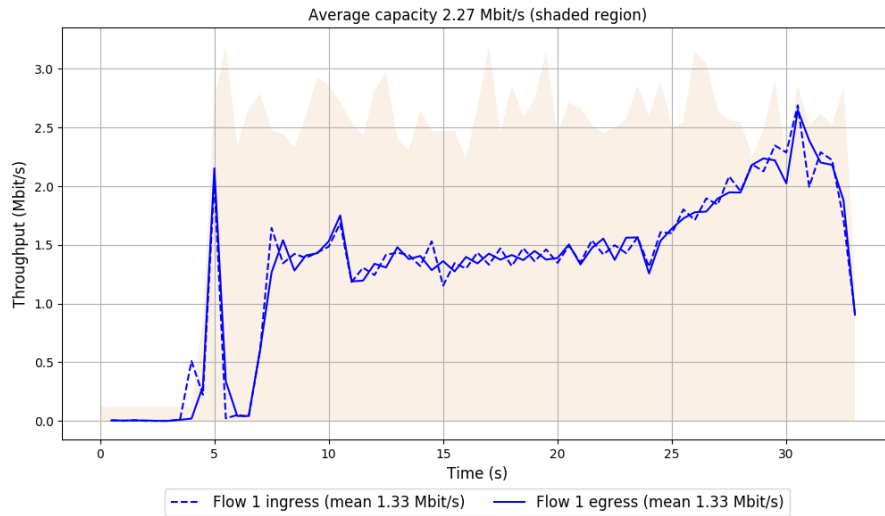
-- Flow 1:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 152.647 ms

Loss rate: 0.49%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-05 19:21:46

End at: 2018-03-05 19:22:16

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.73 Mbit/s (76.3% utilization)

95th percentile per-packet one-way delay: 160.246 ms

Loss rate: 0.24%

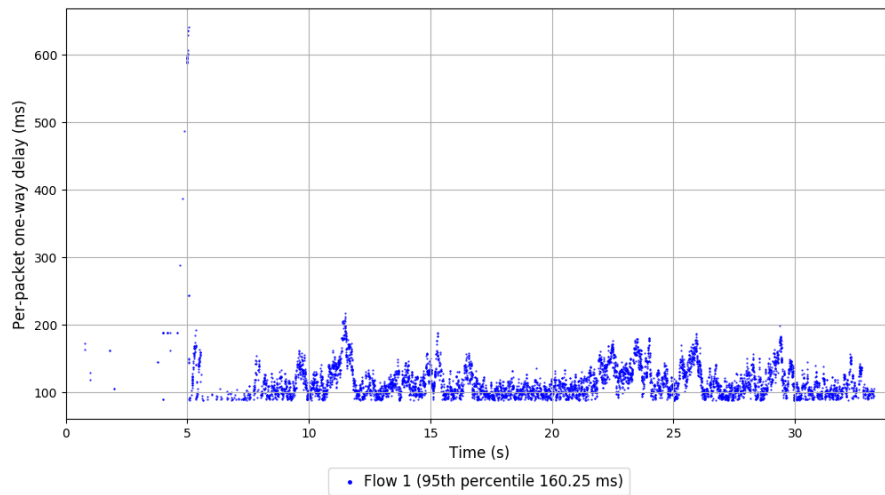
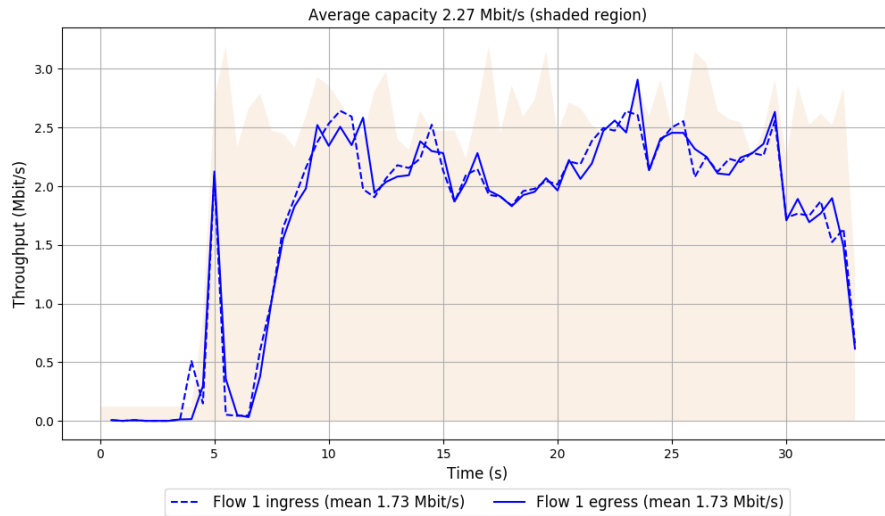
-- Flow 1:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 160.246 ms

Loss rate: 0.24%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-03-05 17:42:21

End at: 2018-03-05 17:42:51

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.23 Mbit/s (10.3% utilization)

95th percentile per-packet one-way delay: 170.389 ms

Loss rate: 0.34%

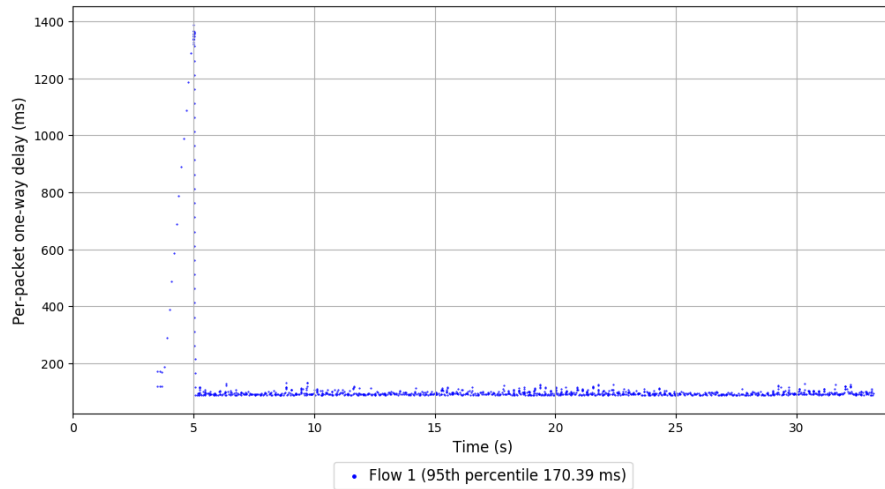
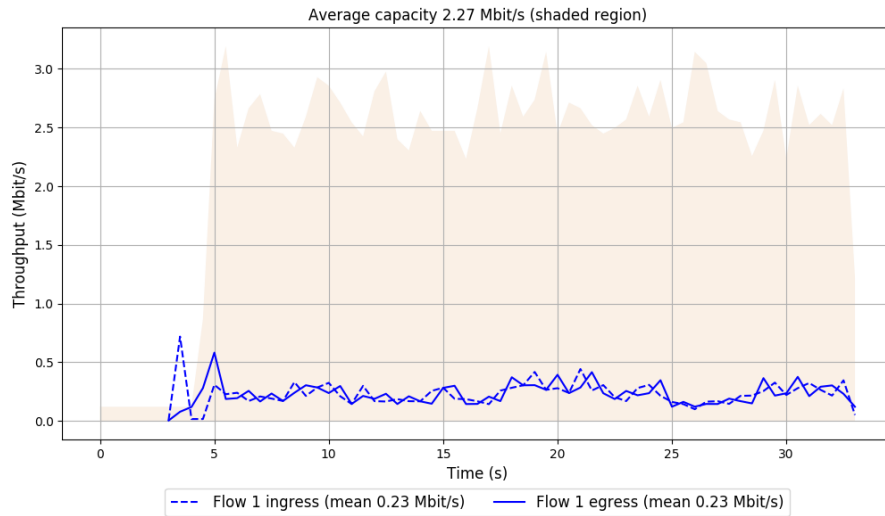
-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 170.389 ms

Loss rate: 0.34%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-05 17:52:31

End at: 2018-03-05 17:53:01

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.23 Mbit/s (10.2% utilization)

95th percentile per-packet one-way delay: 168.907 ms

Loss rate: 0.02%

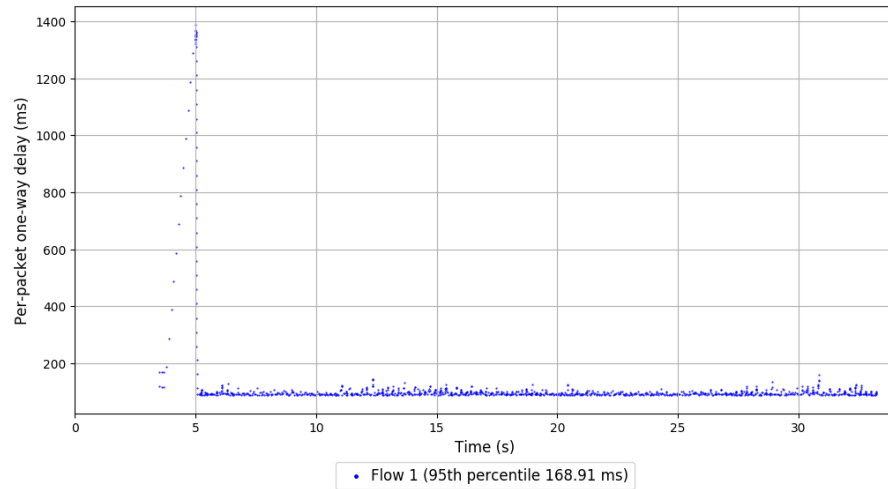
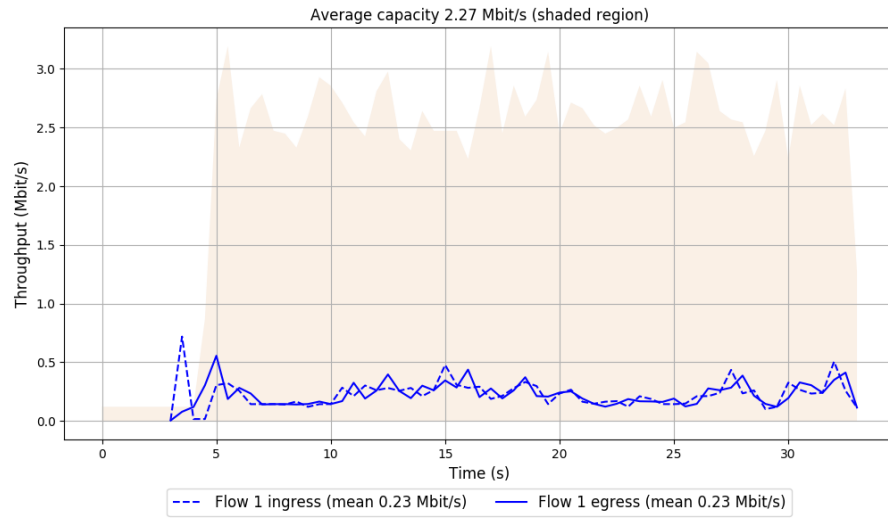
-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 168.907 ms

Loss rate: 0.02%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-05 18:02:41

End at: 2018-03-05 18:03:11

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.23 Mbit/s (10.1% utilization)

95th percentile per-packet one-way delay: 164.873 ms

Loss rate: 0.01%

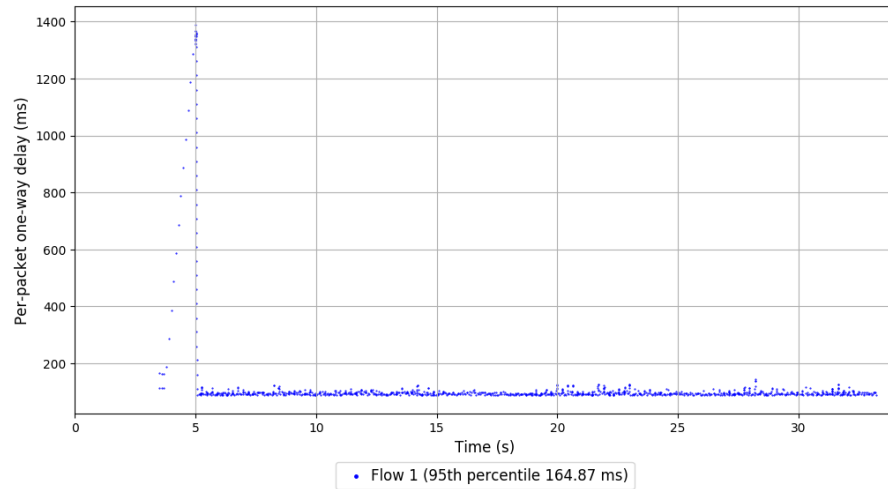
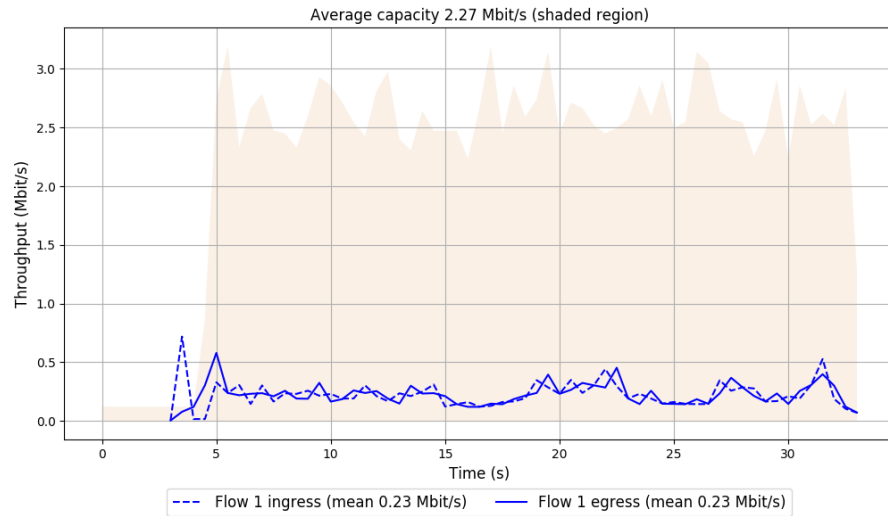
-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 164.873 ms

Loss rate: 0.01%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-05 18:12:51

End at: 2018-03-05 18:13:21

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.20 Mbit/s (8.7% utilization)

95th percentile per-packet one-way delay: 122.289 ms

Loss rate: 0.76%

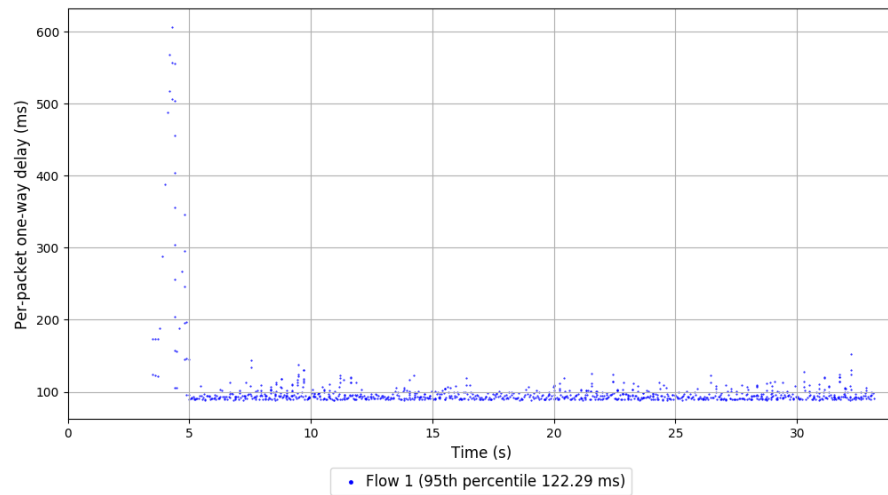
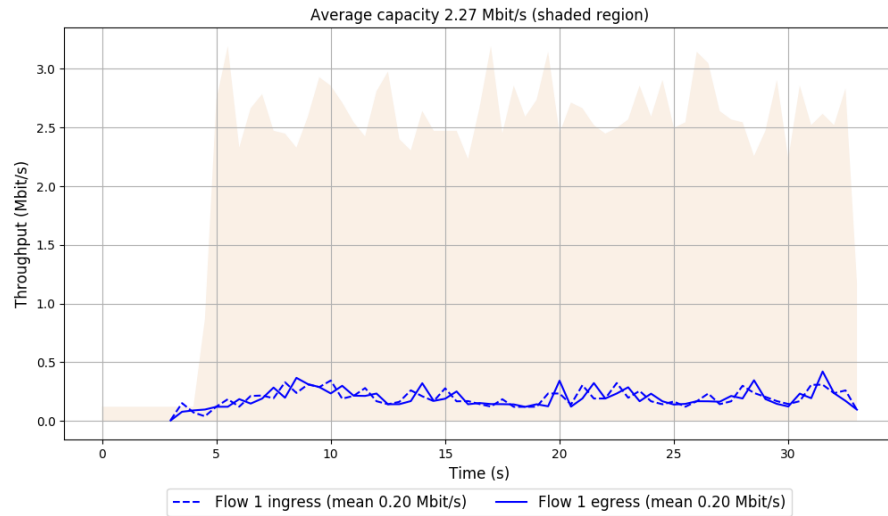
-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 122.289 ms

Loss rate: 0.76%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-03-05 18:23:01

End at: 2018-03-05 18:23:31

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.24 Mbit/s (10.8% utilization)

95th percentile per-packet one-way delay: 145.714 ms

Loss rate: 0.62%

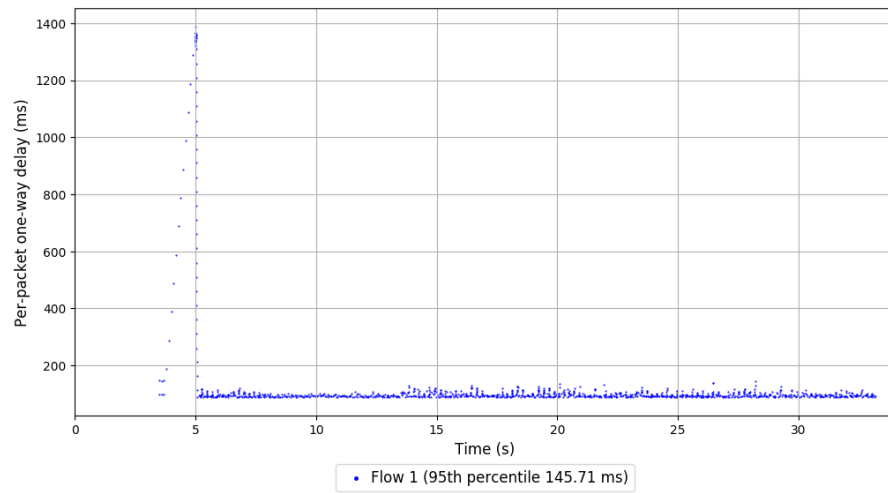
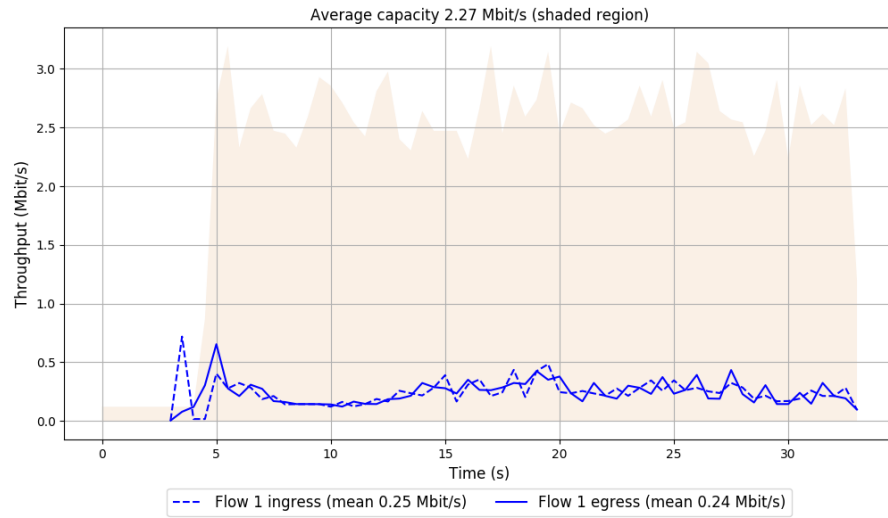
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 145.714 ms

Loss rate: 0.62%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-05 18:33:11

End at: 2018-03-05 18:33:41

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.20 Mbit/s (9.0% utilization)

95th percentile per-packet one-way delay: 123.123 ms

Loss rate: 0.03%

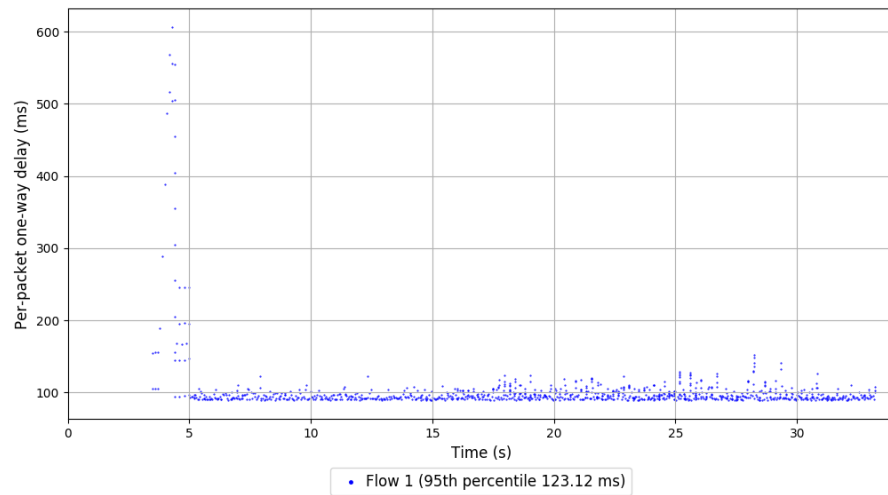
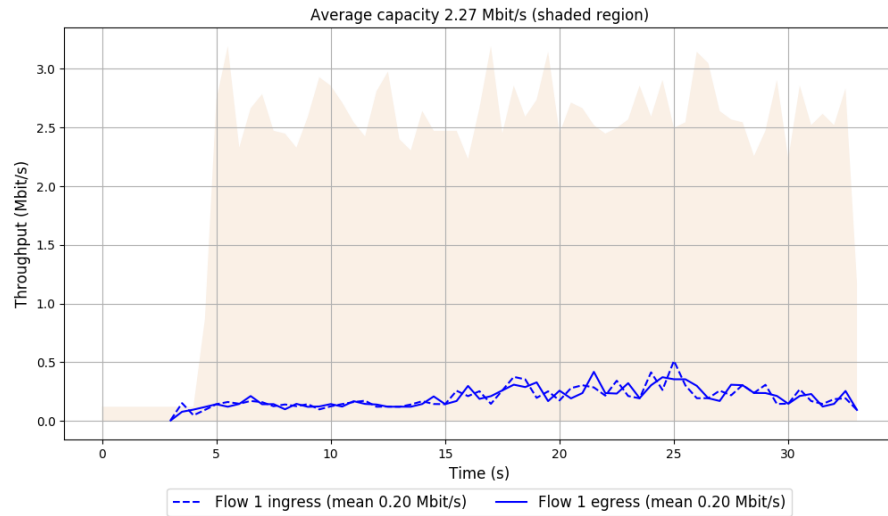
-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 123.123 ms

Loss rate: 0.03%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-05 18:43:21

End at: 2018-03-05 18:43:52

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.26 Mbit/s (11.3% utilization)

95th percentile per-packet one-way delay: 148.384 ms

Loss rate: 0.16%

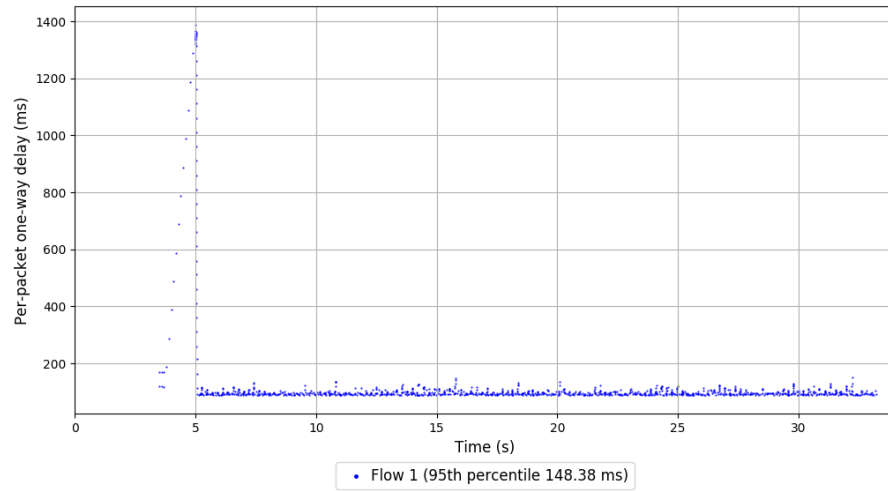
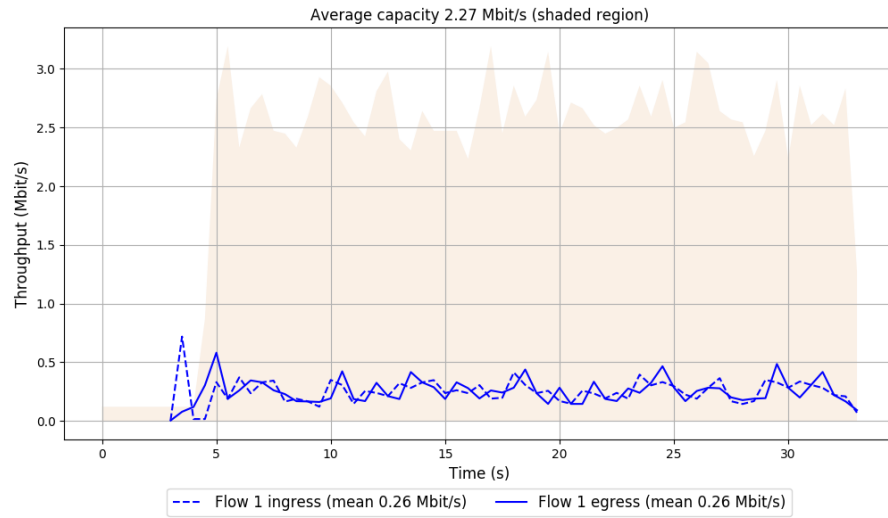
-- Flow 1:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 148.384 ms

Loss rate: 0.16%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-05 18:53:31

End at: 2018-03-05 18:54:01

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.21 Mbit/s (9.4% utilization)

95th percentile per-packet one-way delay: 187.442 ms

Loss rate: 0.03%

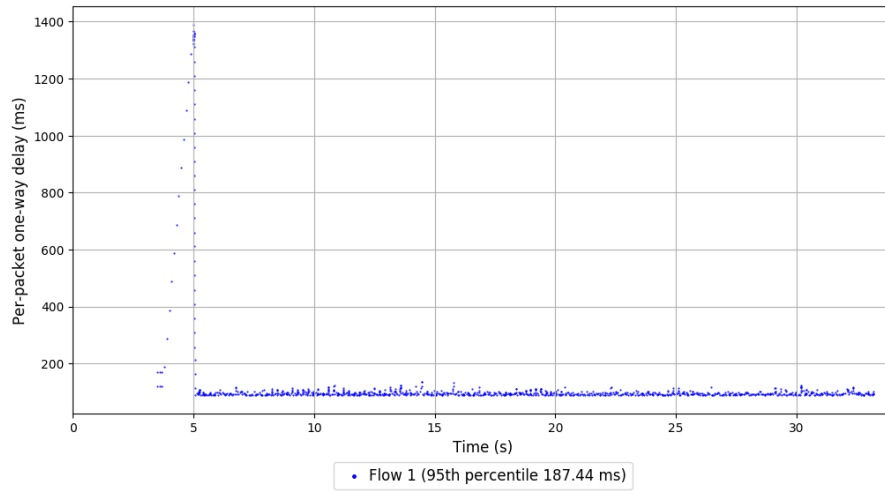
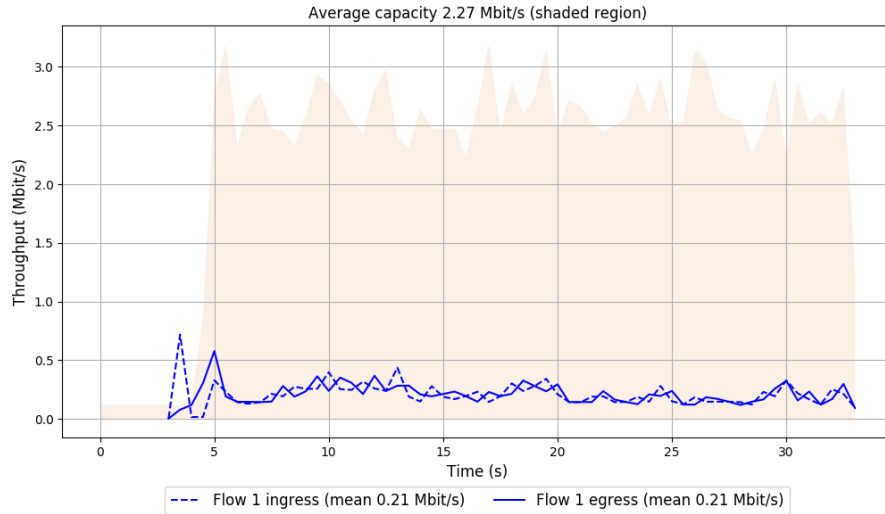
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 187.442 ms

Loss rate: 0.03%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-05 19:03:41

End at: 2018-03-05 19:04:11

Below is generated by plot.py at 2018-03-05 19:25:38

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.22 Mbit/s (9.8% utilization)

95th percentile per-packet one-way delay: 173.660 ms

Loss rate: 0.32%

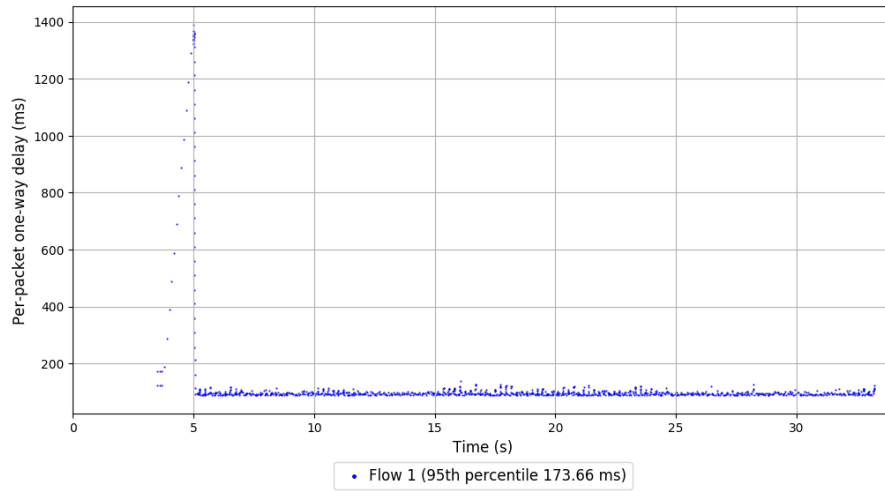
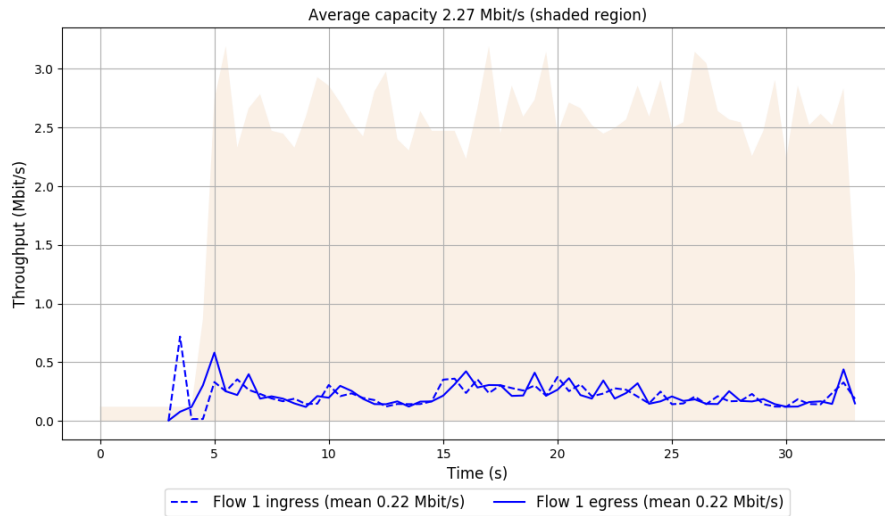
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 173.660 ms

Loss rate: 0.32%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-05 19:13:52

End at: 2018-03-05 19:14:22

Below is generated by plot.py at 2018-03-05 19:25:39

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 0.26 Mbit/s (11.4% utilization)

95th percentile per-packet one-way delay: 140.016 ms

Loss rate: 0.13%

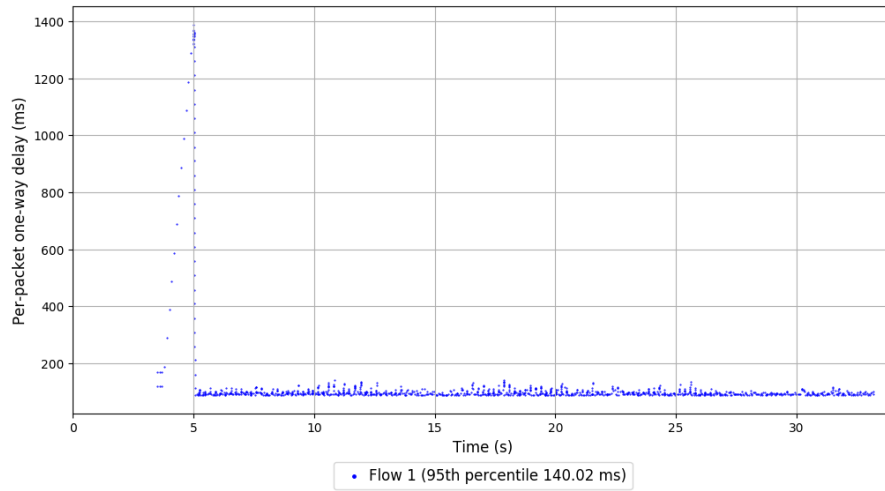
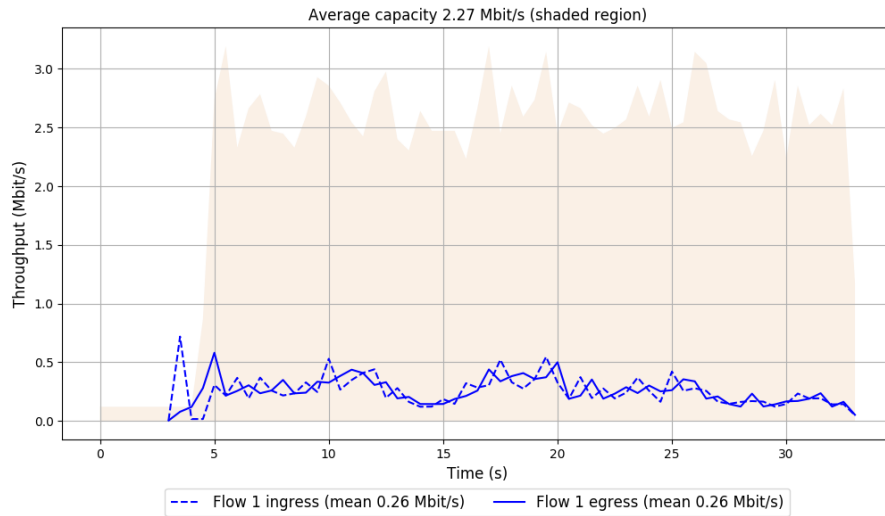
-- Flow 1:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 140.016 ms

Loss rate: 0.13%

Run 10: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-03-05 17:47:26

End at: 2018-03-05 17:47:56

Below is generated by plot.py at 2018-03-05 19:25:46

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.34 Mbit/s (102.8% utilization)

95th percentile per-packet one-way delay: 230.254 ms

Loss rate: 1.11%

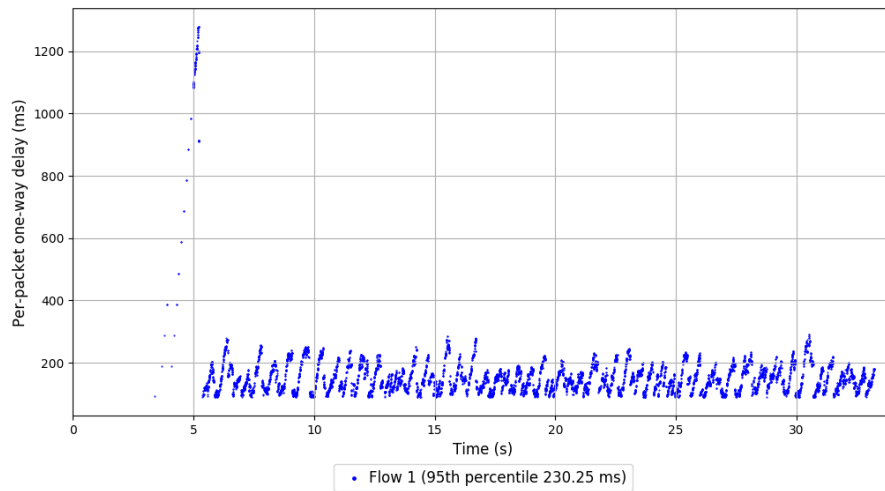
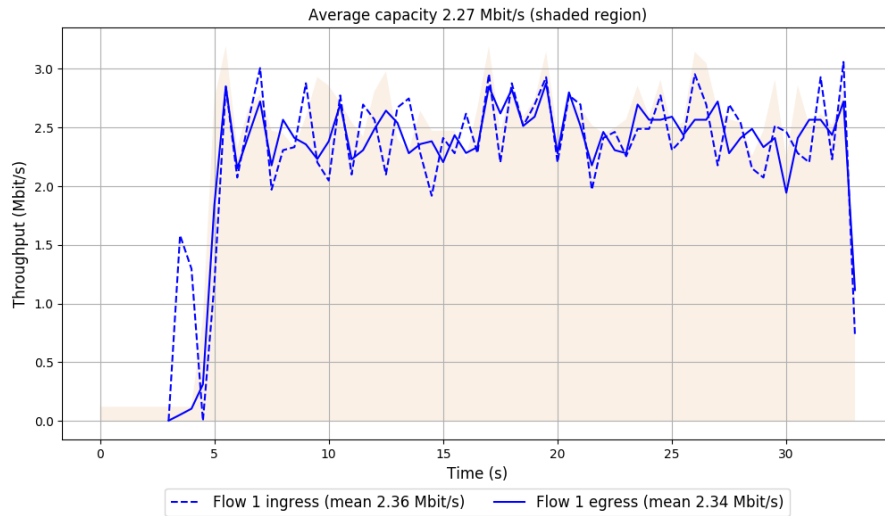
-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 230.254 ms

Loss rate: 1.11%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-03-05 17:57:36

End at: 2018-03-05 17:58:06

Below is generated by plot.py at 2018-03-05 19:25:46

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.34 Mbit/s (103.0% utilization)

95th percentile per-packet one-way delay: 222.982 ms

Loss rate: 1.19%

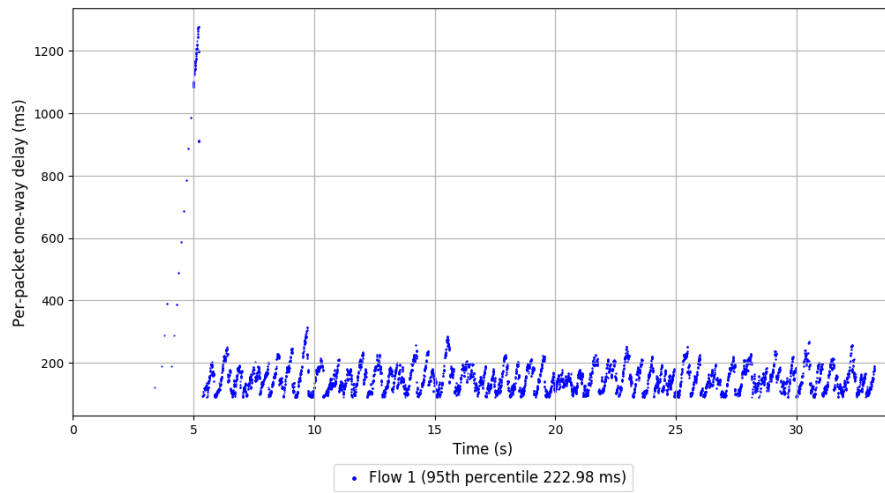
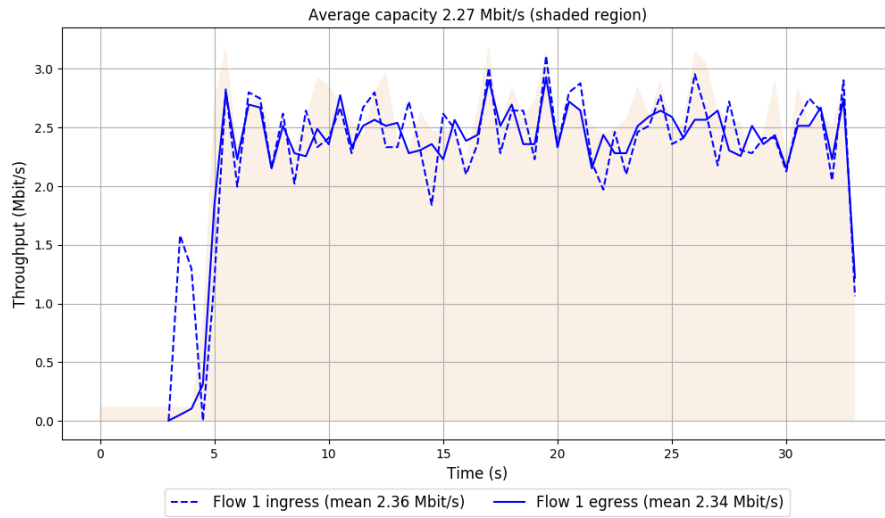
-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 222.982 ms

Loss rate: 1.19%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-03-05 18:07:47

End at: 2018-03-05 18:08:17

Below is generated by plot.py at 2018-03-05 19:25:47

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.2% utilization)

95th percentile per-packet one-way delay: 224.936 ms

Loss rate: 1.11%

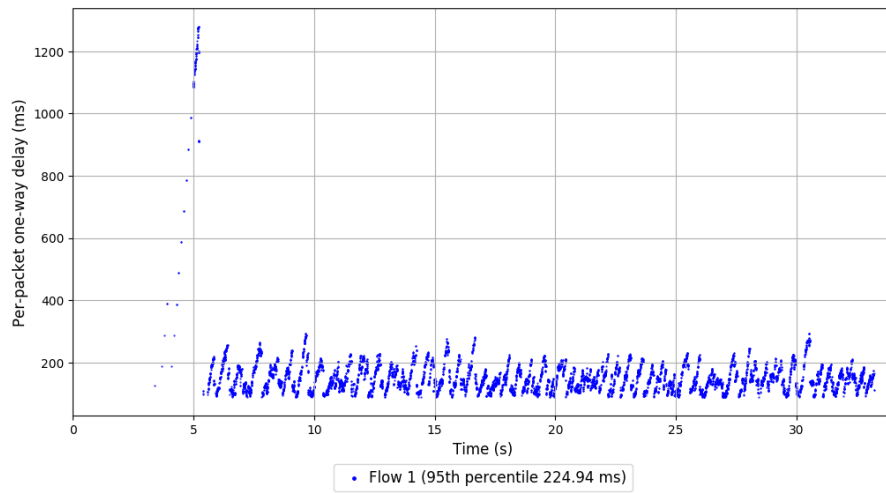
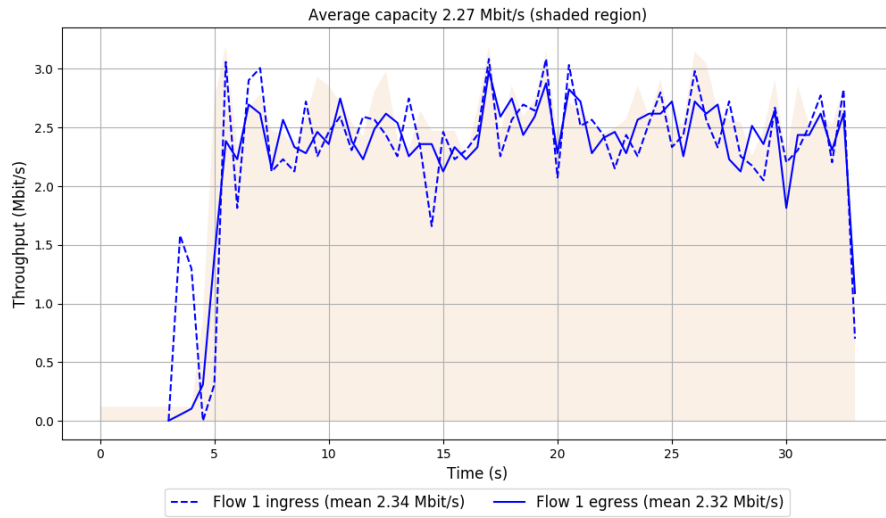
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 224.936 ms

Loss rate: 1.11%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-05 18:17:57

End at: 2018-03-05 18:18:27

Below is generated by plot.py at 2018-03-05 19:25:48

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.2% utilization)

95th percentile per-packet one-way delay: 233.910 ms

Loss rate: 1.26%

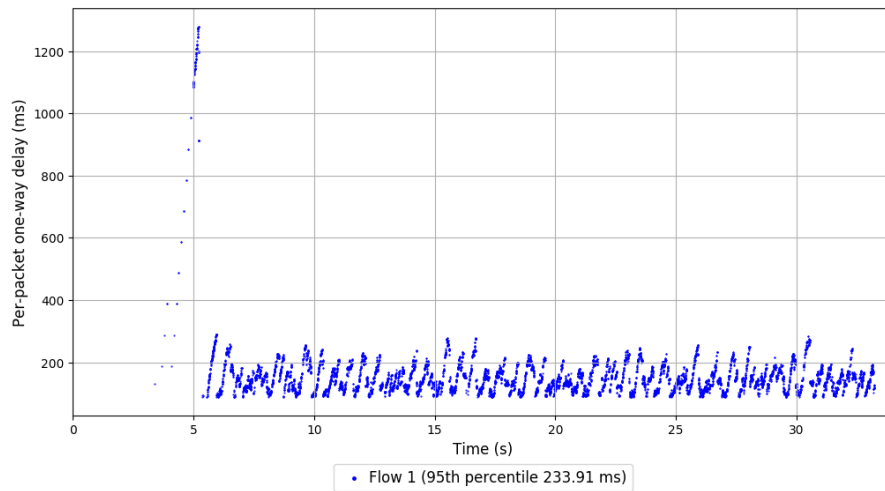
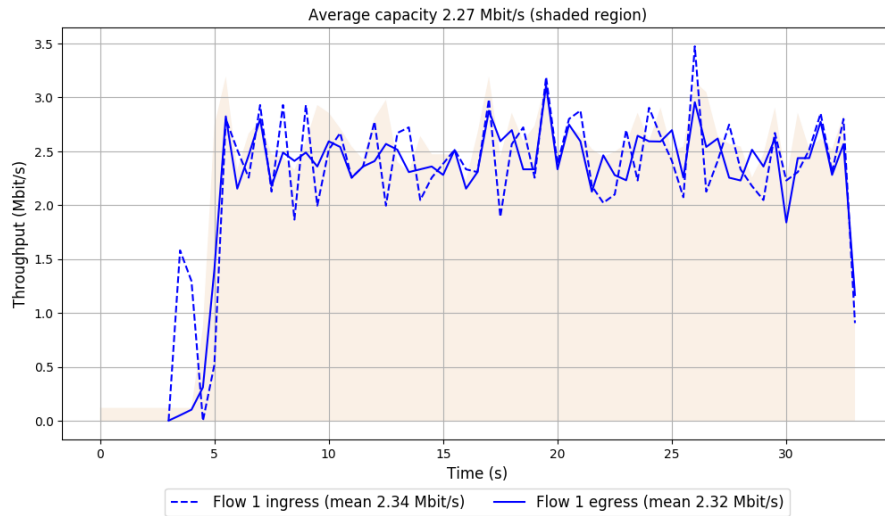
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 233.910 ms

Loss rate: 1.26%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-05 18:28:07

End at: 2018-03-05 18:28:37

Below is generated by plot.py at 2018-03-05 19:25:48

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.34 Mbit/s (103.0% utilization)

95th percentile per-packet one-way delay: 223.724 ms

Loss rate: 1.21%

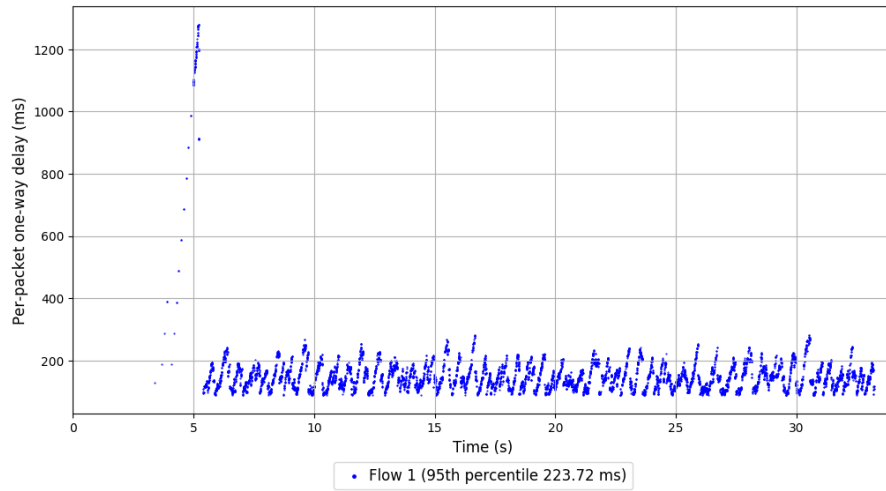
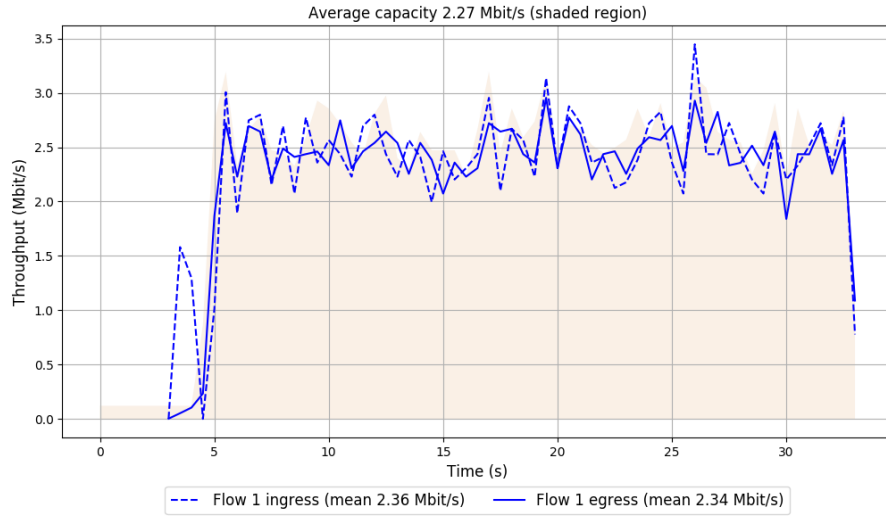
-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 223.724 ms

Loss rate: 1.21%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-05 18:38:17

End at: 2018-03-05 18:38:47

Below is generated by plot.py at 2018-03-05 19:25:49

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.2% utilization)

95th percentile per-packet one-way delay: 229.035 ms

Loss rate: 1.13%

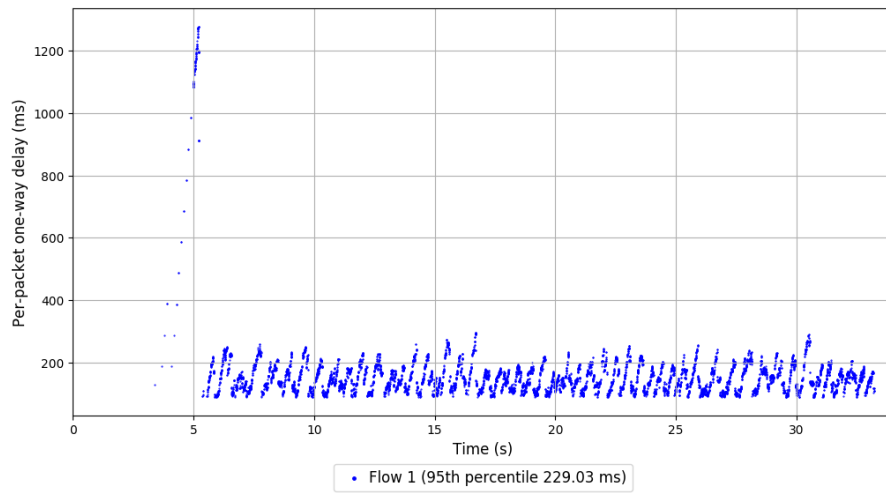
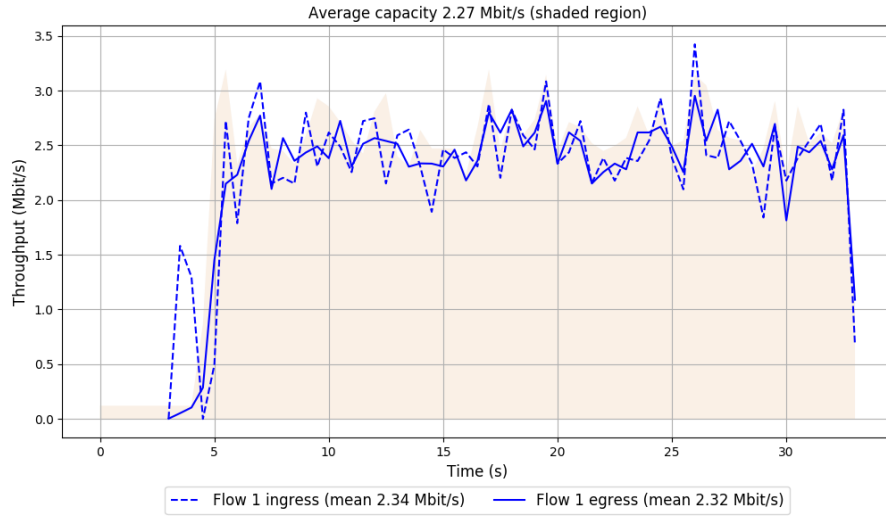
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 229.035 ms

Loss rate: 1.13%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-03-05 18:48:27

End at: 2018-03-05 18:48:57

Below is generated by plot.py at 2018-03-05 19:25:49

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.34 Mbit/s (103.0% utilization)

95th percentile per-packet one-way delay: 229.109 ms

Loss rate: 1.18%

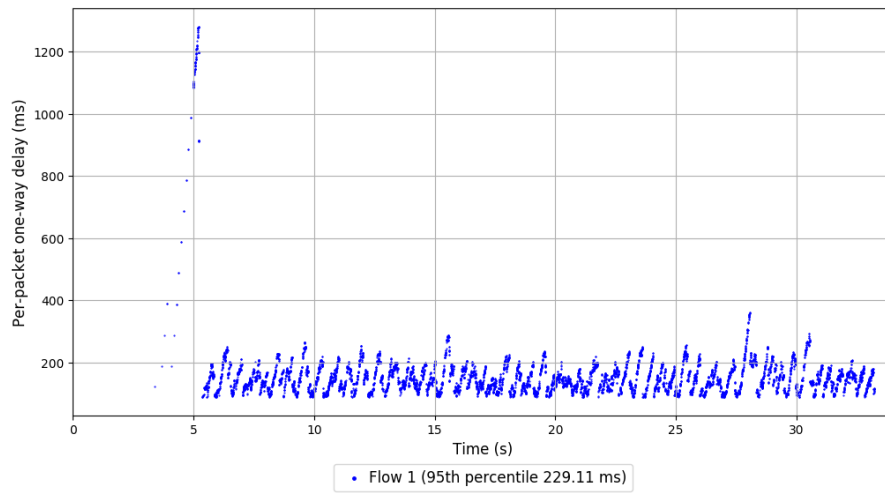
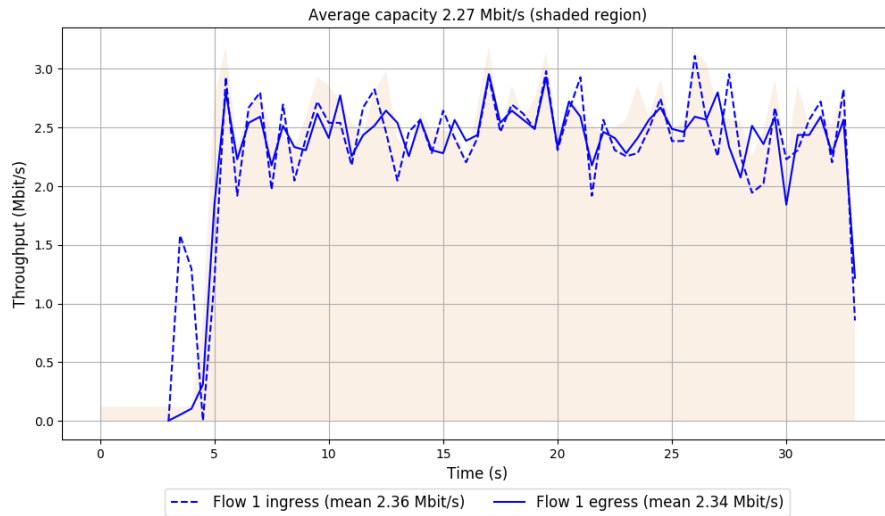
-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 229.109 ms

Loss rate: 1.18%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-05 18:58:37

End at: 2018-03-05 18:59:07

Below is generated by plot.py at 2018-03-05 19:25:50

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.1% utilization)

95th percentile per-packet one-way delay: 233.658 ms

Loss rate: 1.13%

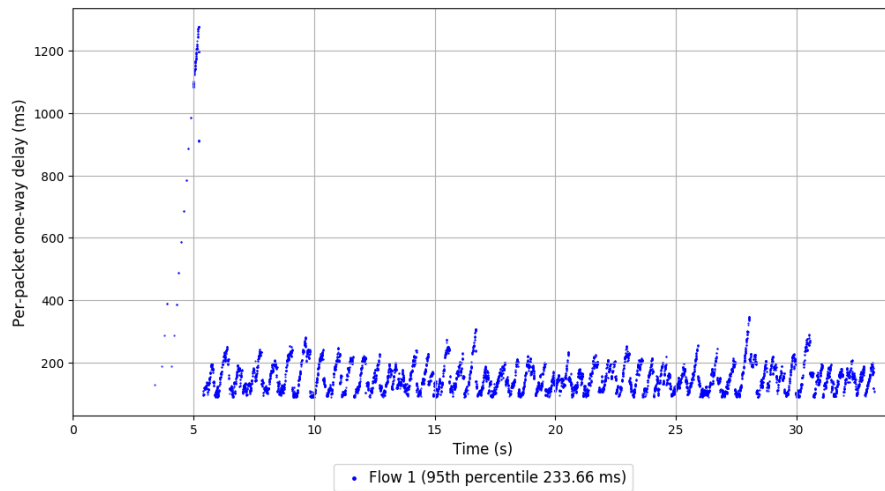
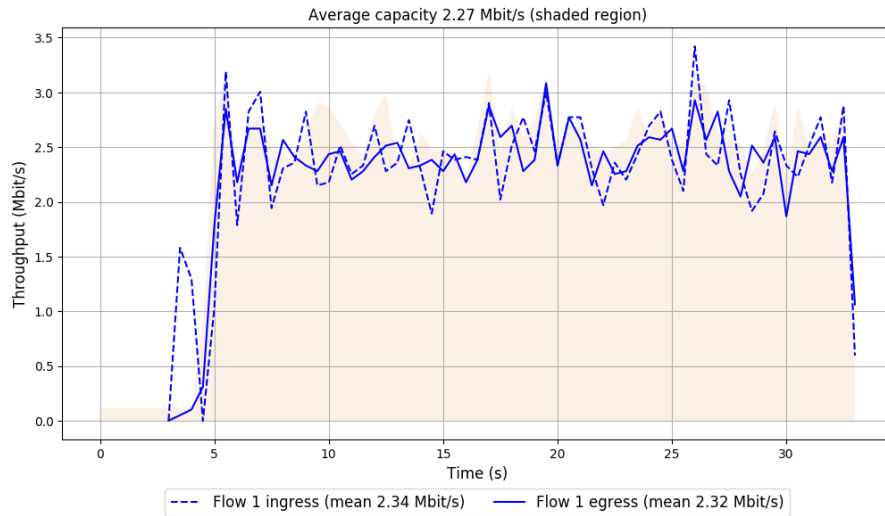
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 233.658 ms

Loss rate: 1.13%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-03-05 19:08:47

End at: 2018-03-05 19:09:17

Below is generated by plot.py at 2018-03-05 19:25:58

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.32 Mbit/s (102.2% utilization)

95th percentile per-packet one-way delay: 227.328 ms

Loss rate: 1.24%

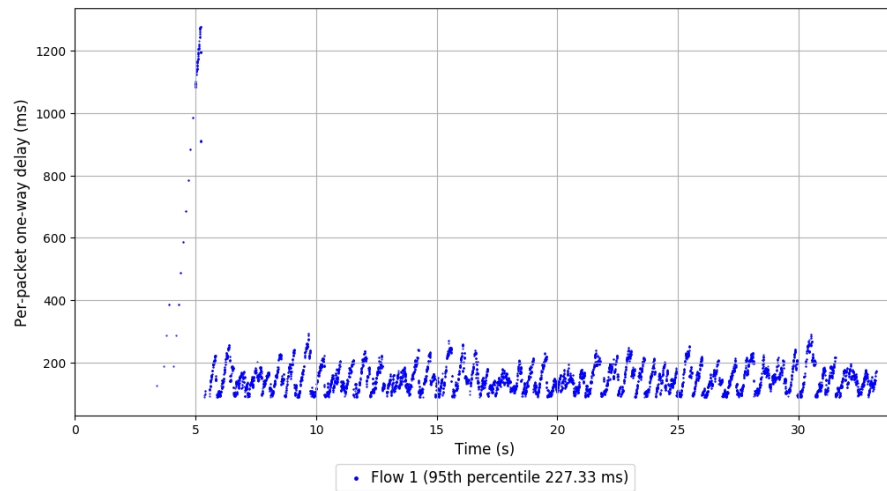
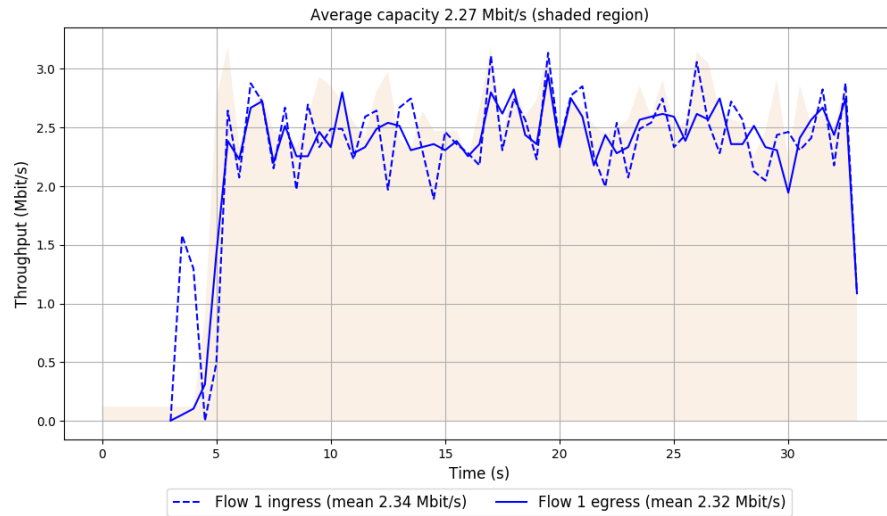
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 227.328 ms

Loss rate: 1.24%

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



Run 10: Statistics of TaoVA-100x

Start at: 2018-03-05 19:18:57

End at: 2018-03-05 19:19:27

Below is generated by plot.py at 2018-03-05 19:25:58

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.33 Mbit/s (102.6% utilization)

95th percentile per-packet one-way delay: 231.144 ms

Loss rate: 1.12%

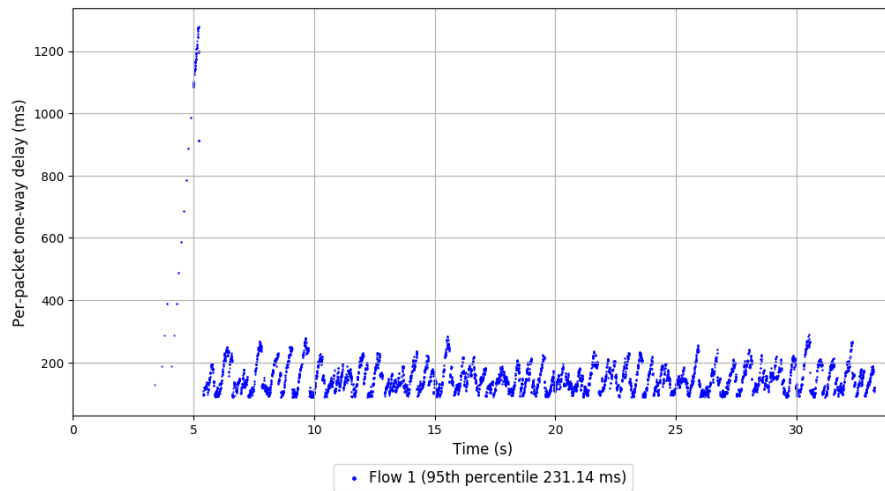
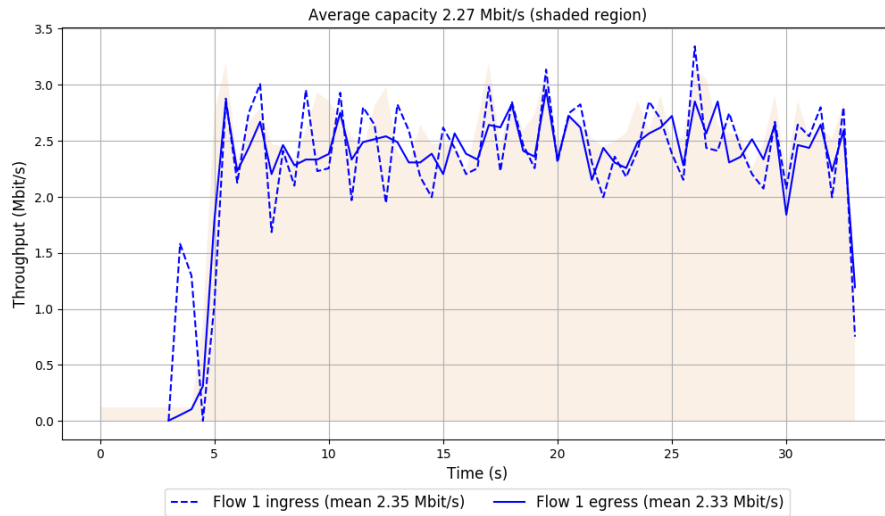
-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 231.144 ms

Loss rate: 1.12%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-05 17:48:34

End at: 2018-03-05 17:49:04

Below is generated by plot.py at 2018-03-05 19:25:58

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.24 Mbit/s (98.6% utilization)

95th percentile per-packet one-way delay: 178.289 ms

Loss rate: 0.41%

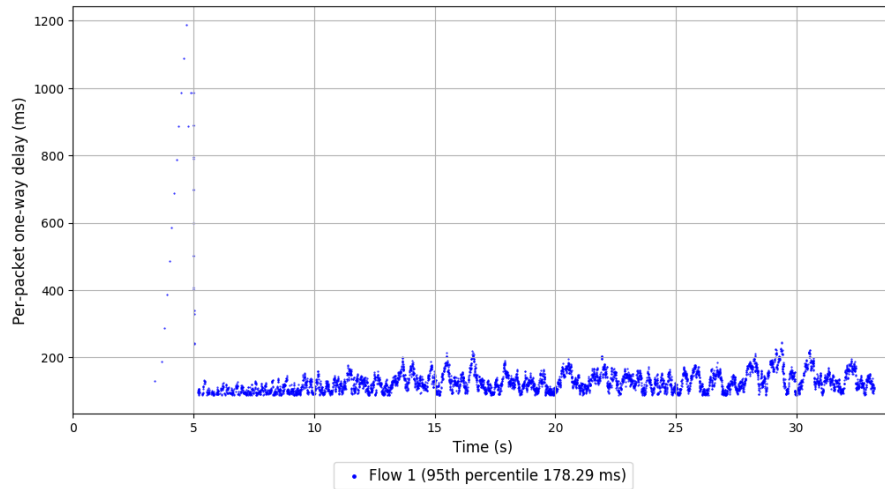
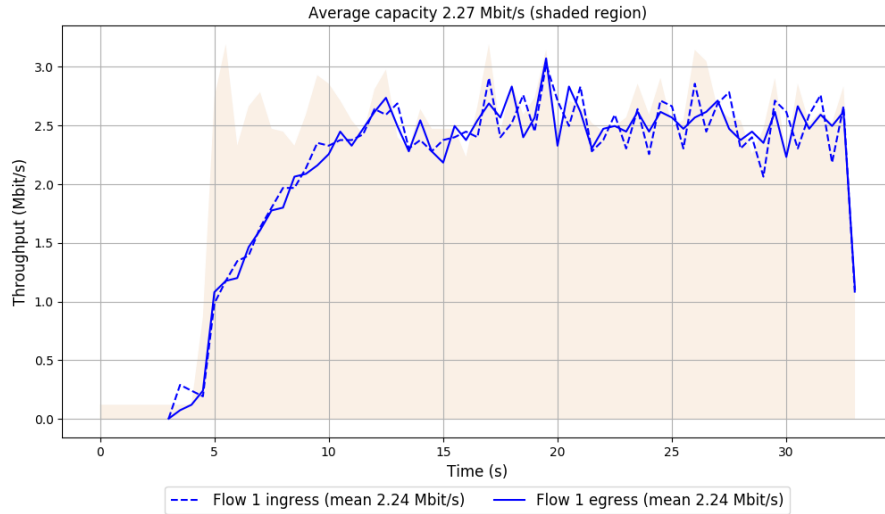
-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 178.289 ms

Loss rate: 0.41%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-05 17:58:44

End at: 2018-03-05 17:59:14

Below is generated by plot.py at 2018-03-05 19:25:58

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.24 Mbit/s (98.6% utilization)

95th percentile per-packet one-way delay: 175.337 ms

Loss rate: 0.43%

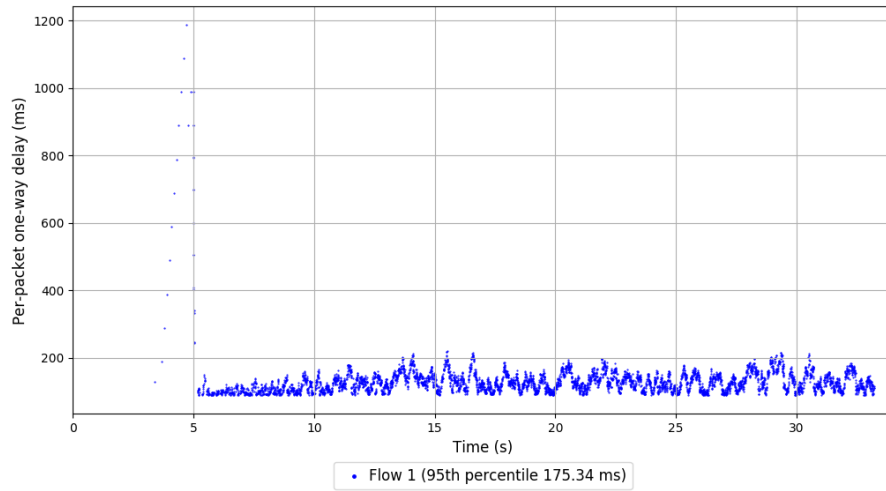
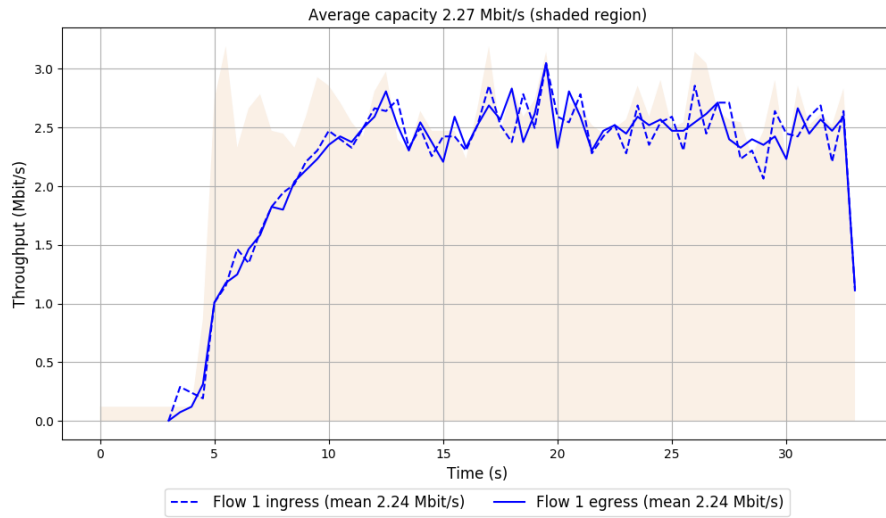
-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 175.337 ms

Loss rate: 0.43%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-05 18:08:54

End at: 2018-03-05 18:09:24

Below is generated by plot.py at 2018-03-05 19:25:58

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.26 Mbit/s (99.5% utilization)

95th percentile per-packet one-way delay: 179.197 ms

Loss rate: 0.46%

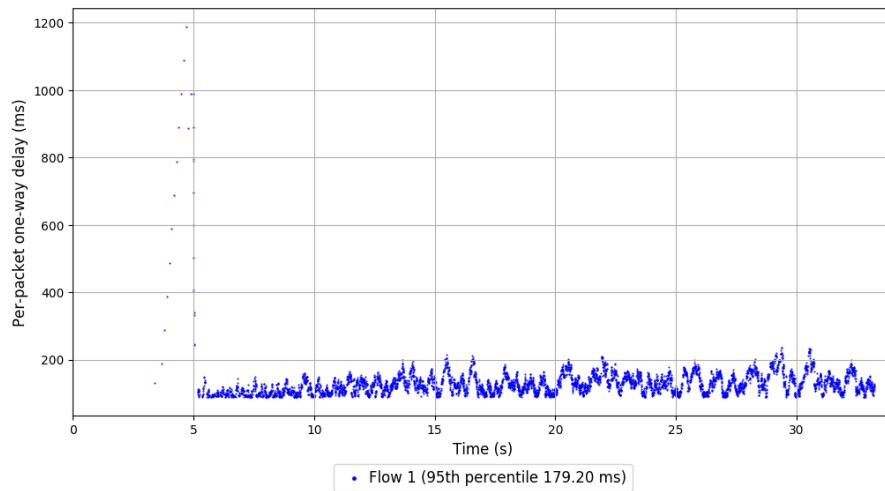
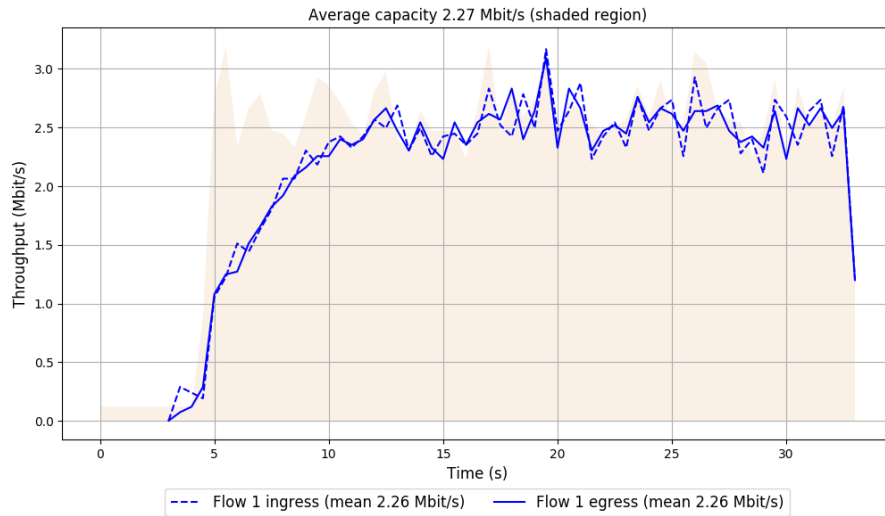
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 179.197 ms

Loss rate: 0.46%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-03-05 18:19:04

End at: 2018-03-05 18:19:35

Below is generated by plot.py at 2018-03-05 19:25:58

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.23 Mbit/s (98.3% utilization)

95th percentile per-packet one-way delay: 174.993 ms

Loss rate: 0.39%

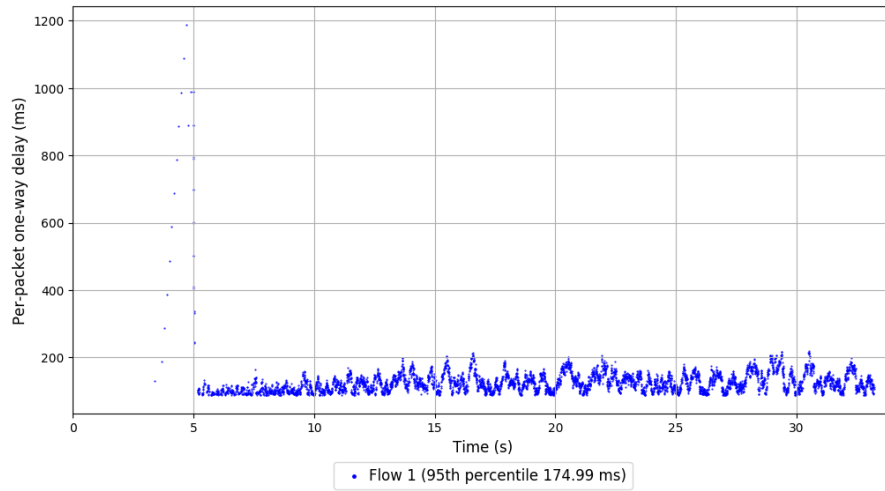
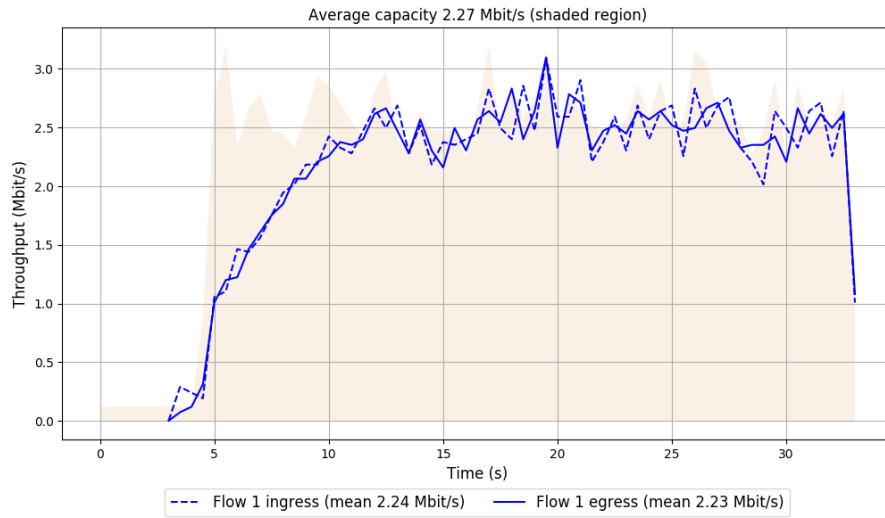
-- Flow 1:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 174.993 ms

Loss rate: 0.39%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-05 18:29:15

End at: 2018-03-05 18:29:45

Below is generated by plot.py at 2018-03-05 19:25:58

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.24 Mbit/s (98.8% utilization)

95th percentile per-packet one-way delay: 176.619 ms

Loss rate: 0.45%

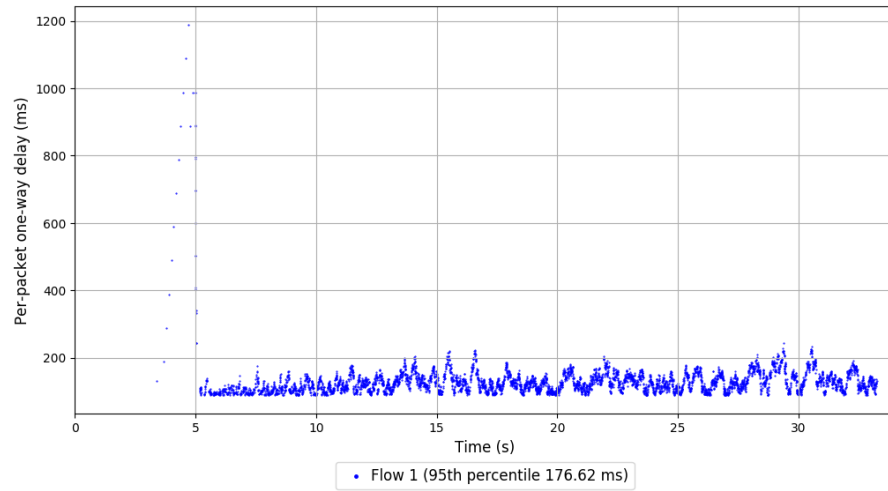
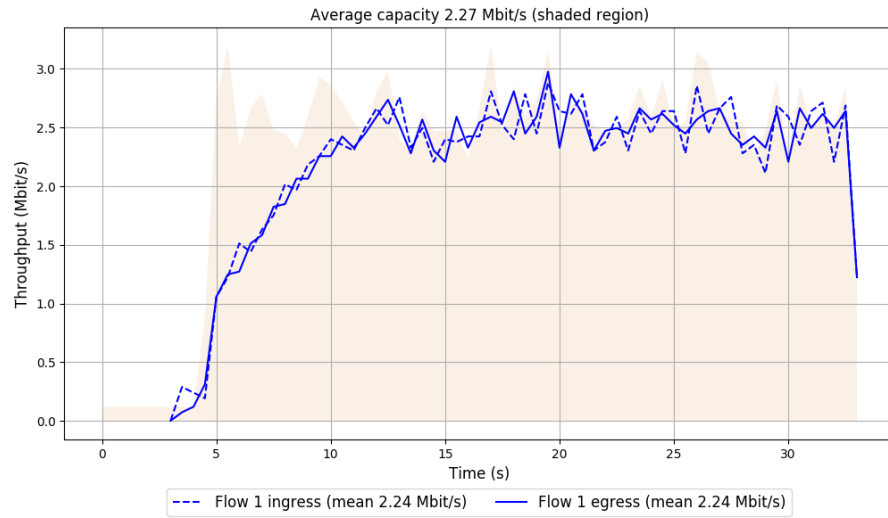
-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 176.619 ms

Loss rate: 0.45%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-05 18:39:25

End at: 2018-03-05 18:39:55

Below is generated by plot.py at 2018-03-05 19:25:58

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.25 Mbit/s (99.1% utilization)

95th percentile per-packet one-way delay: 178.018 ms

Loss rate: 0.43%

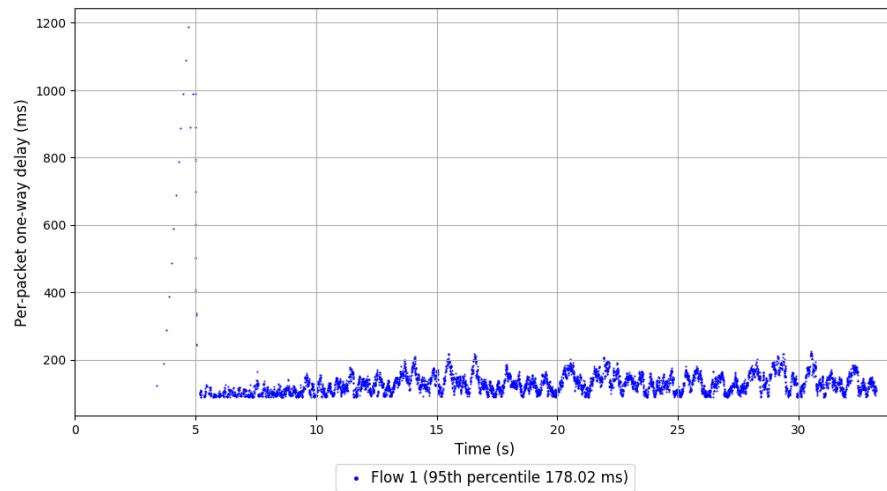
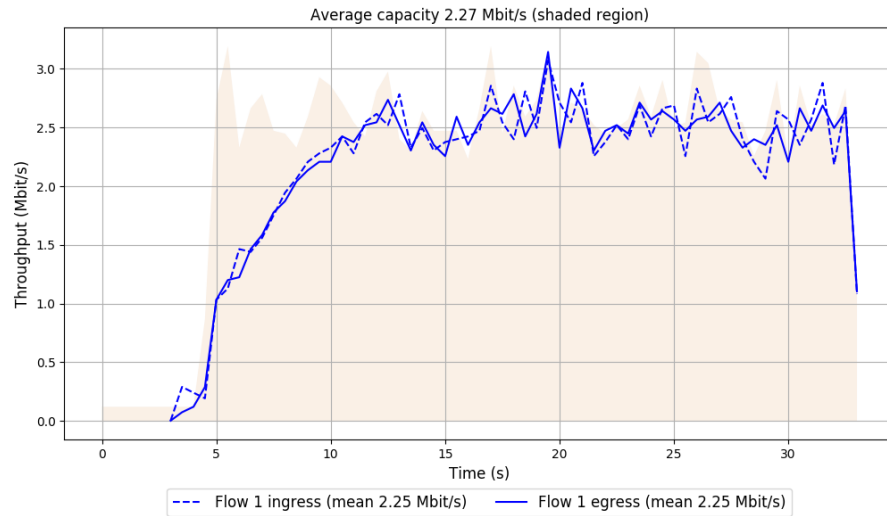
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 178.018 ms

Loss rate: 0.43%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-05 18:49:35

End at: 2018-03-05 18:50:05

Below is generated by plot.py at 2018-03-05 19:26:02

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.24 Mbit/s (98.8% utilization)

95th percentile per-packet one-way delay: 176.084 ms

Loss rate: 0.46%

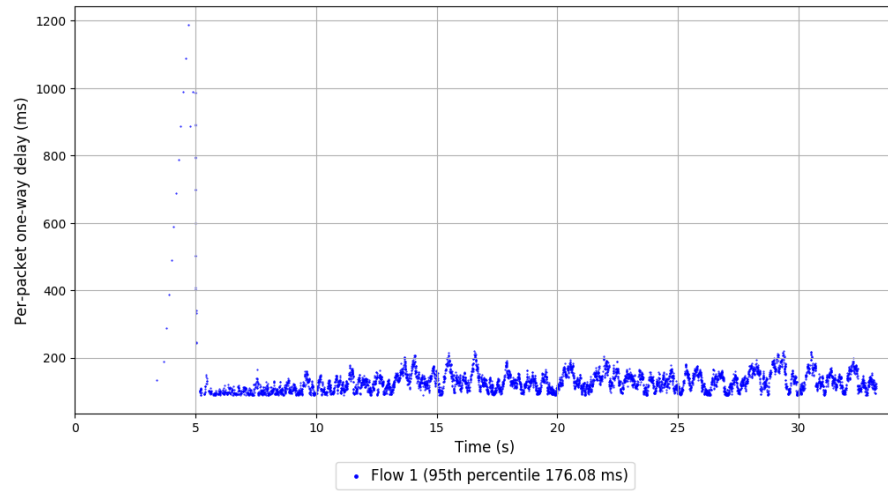
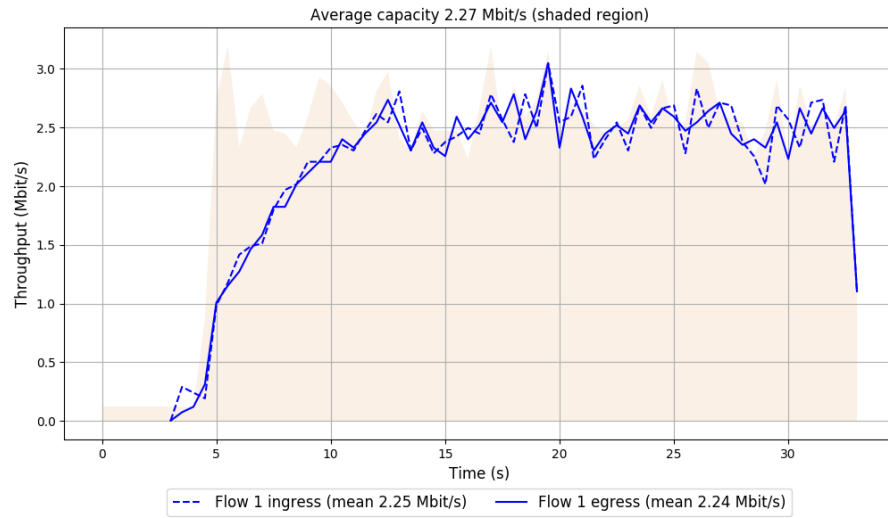
-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 176.084 ms

Loss rate: 0.46%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-05 18:59:44

End at: 2018-03-05 19:00:14

Below is generated by plot.py at 2018-03-05 19:26:03

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.25 Mbit/s (99.2% utilization)

95th percentile per-packet one-way delay: 179.392 ms

Loss rate: 0.41%

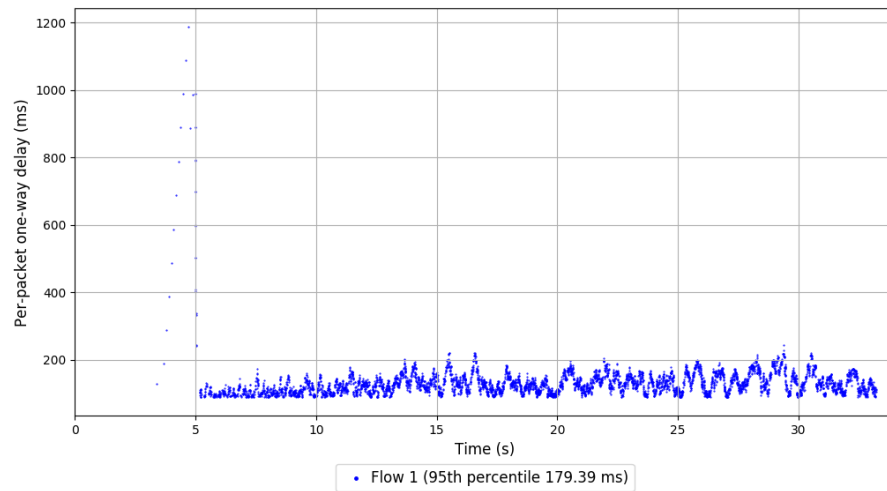
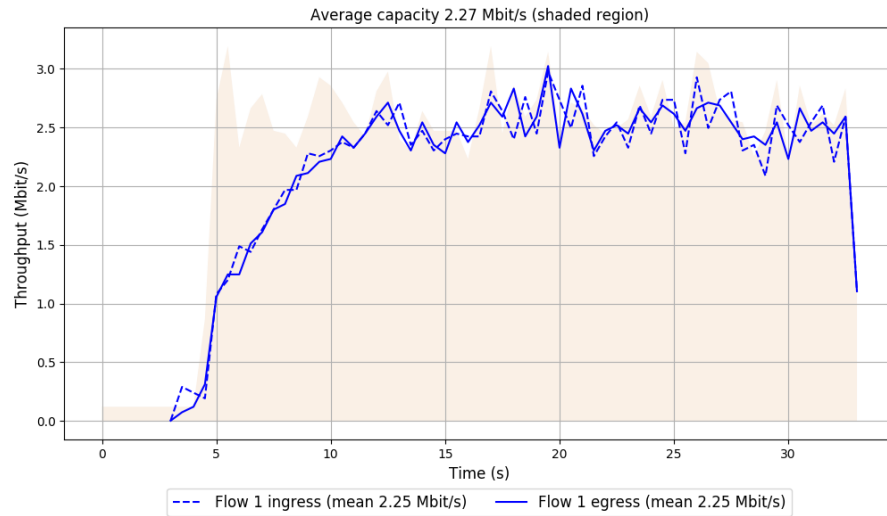
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 179.392 ms

Loss rate: 0.41%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-05 19:09:55

End at: 2018-03-05 19:10:25

Below is generated by plot.py at 2018-03-05 19:26:04

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.25 Mbit/s (99.2% utilization)

95th percentile per-packet one-way delay: 180.653 ms

Loss rate: 0.48%

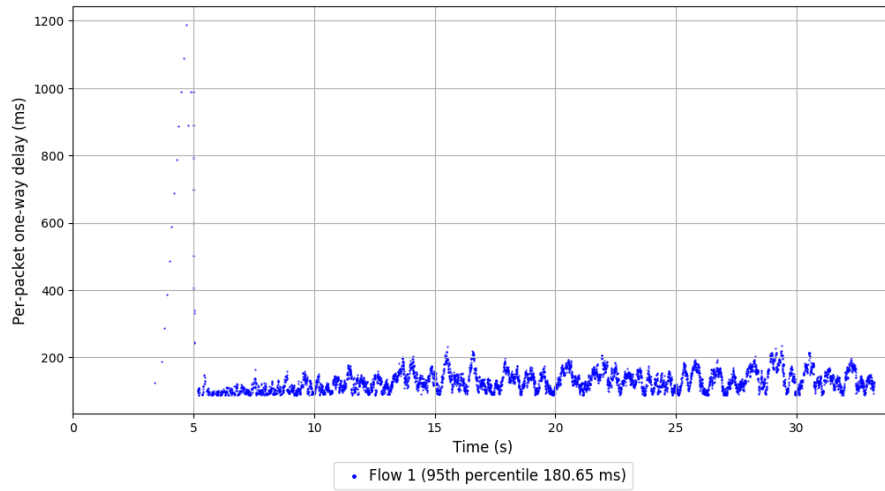
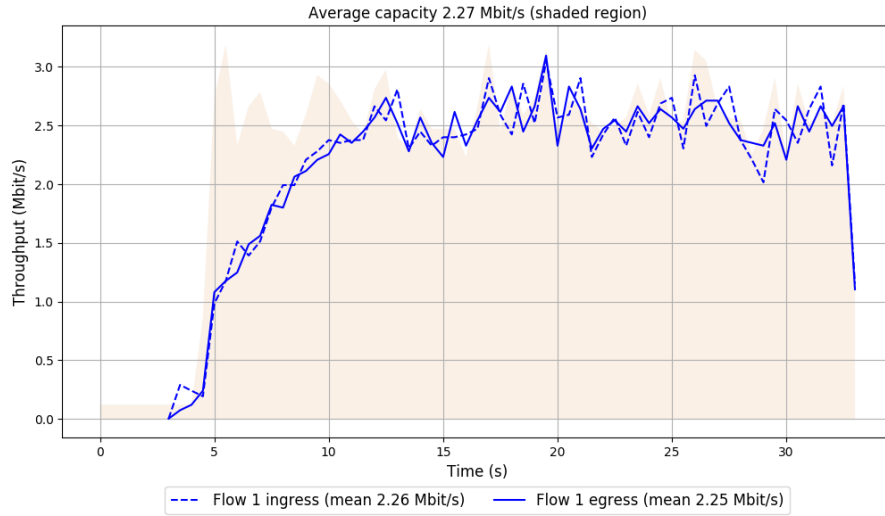
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 180.653 ms

Loss rate: 0.48%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-05 19:20:05

End at: 2018-03-05 19:20:35

Below is generated by plot.py at 2018-03-05 19:26:04

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.25 Mbit/s (98.9% utilization)

95th percentile per-packet one-way delay: 174.809 ms

Loss rate: 0.45%

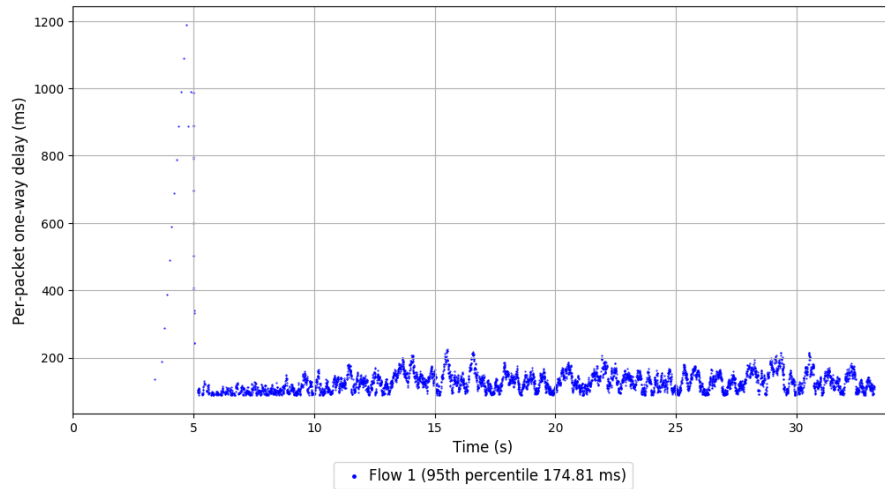
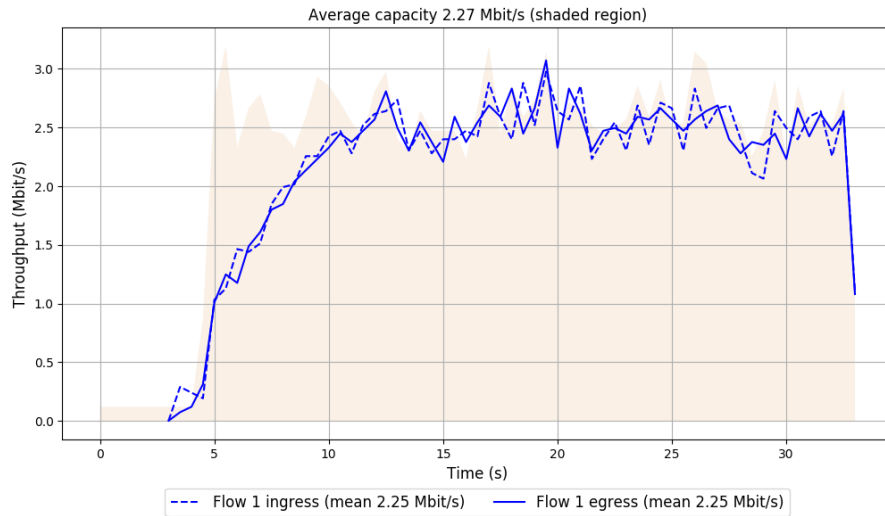
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 174.809 ms

Loss rate: 0.45%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-03-05 17:51:23

End at: 2018-03-05 17:51:53

Below is generated by plot.py at 2018-03-05 19:26:06

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.38 Mbit/s (104.7% utilization)

95th percentile per-packet one-way delay: 707.740 ms

Loss rate: 10.64%

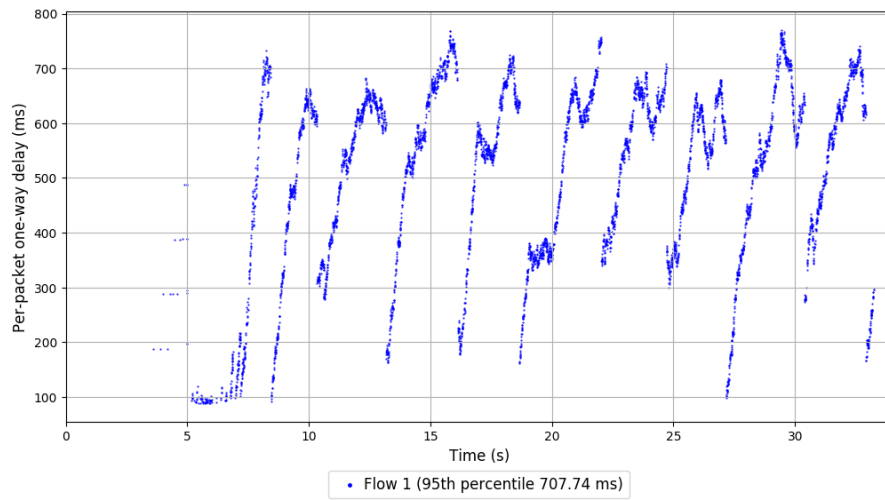
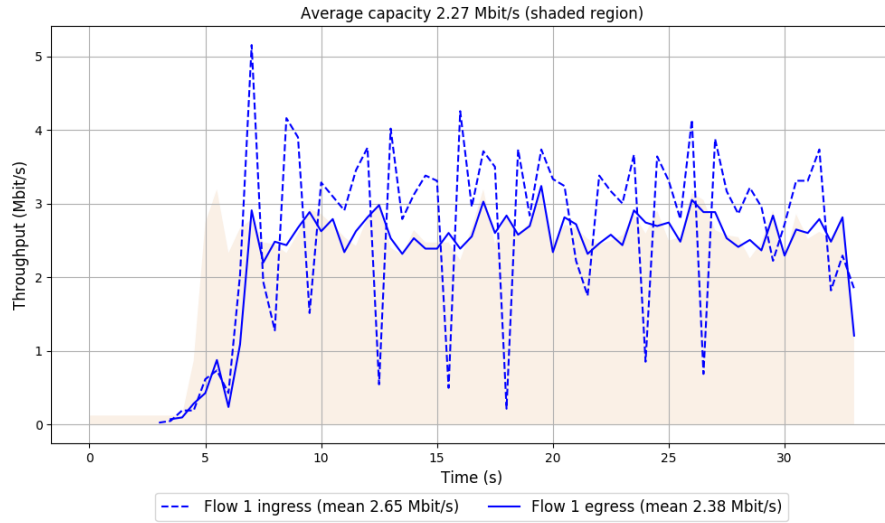
-- Flow 1:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 707.740 ms

Loss rate: 10.64%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-05 18:01:33

End at: 2018-03-05 18:02:03

Below is generated by plot.py at 2018-03-05 19:26:06

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.42 Mbit/s (106.6% utilization)

95th percentile per-packet one-way delay: 716.575 ms

Loss rate: 9.23%

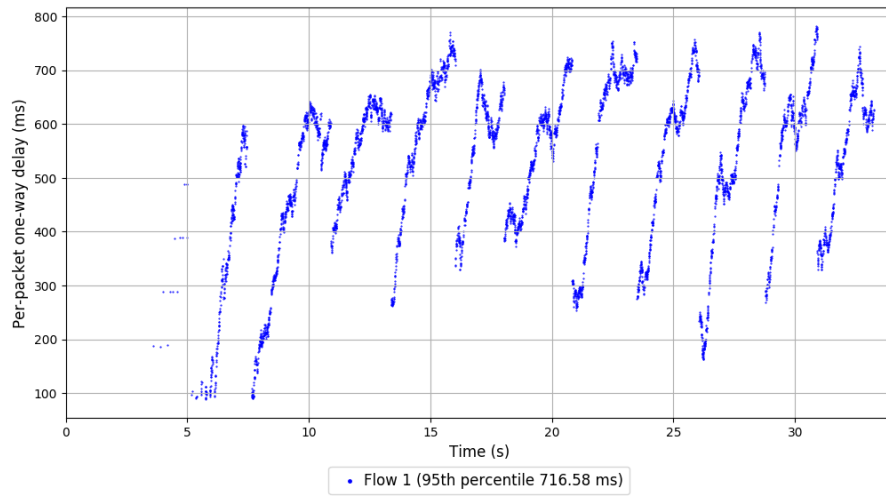
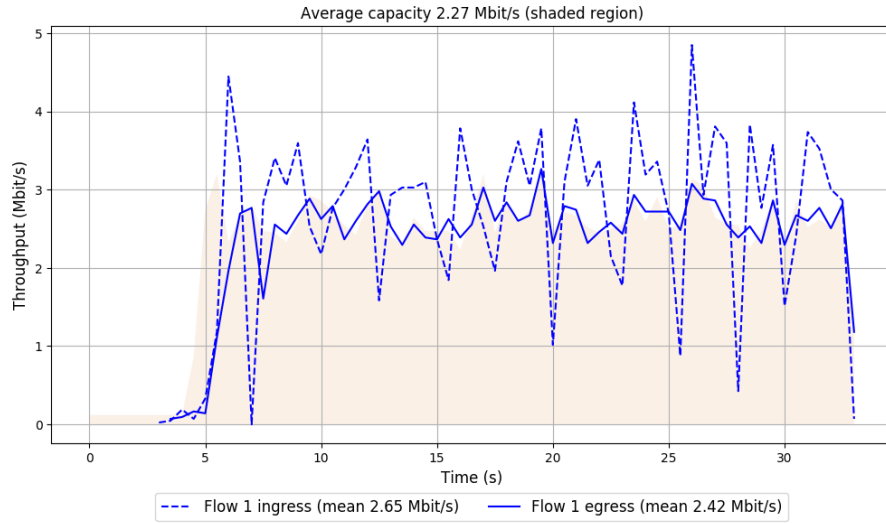
-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 716.575 ms

Loss rate: 9.23%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-05 18:11:43

End at: 2018-03-05 18:12:14

Below is generated by plot.py at 2018-03-05 19:26:07

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.38 Mbit/s (104.6% utilization)

95th percentile per-packet one-way delay: 714.482 ms

Loss rate: 8.52%

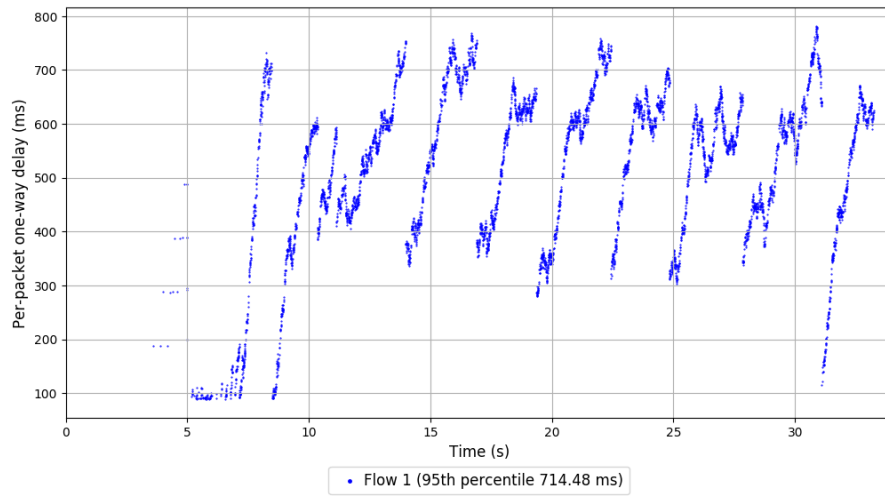
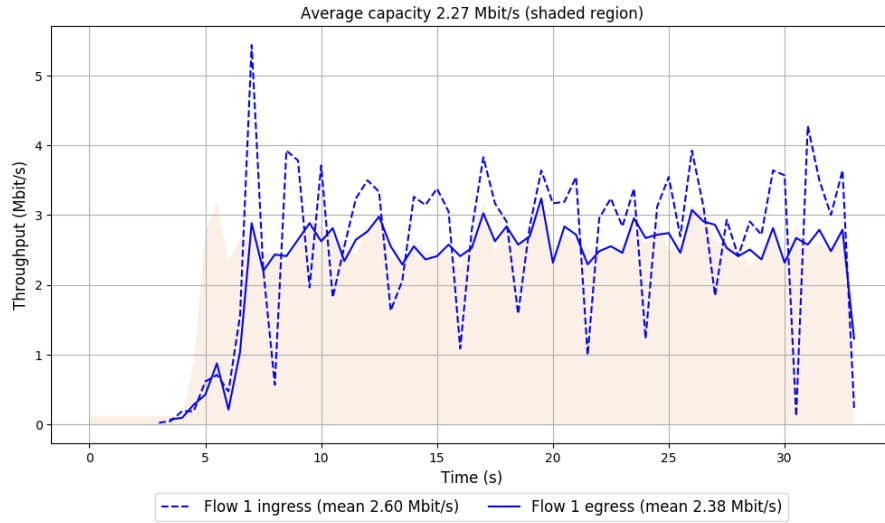
-- Flow 1:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 714.482 ms

Loss rate: 8.52%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-05 18:21:54

End at: 2018-03-05 18:22:24

Below is generated by plot.py at 2018-03-05 19:26:07

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.34 Mbit/s (103.1% utilization)

95th percentile per-packet one-way delay: 724.206 ms

Loss rate: 8.25%

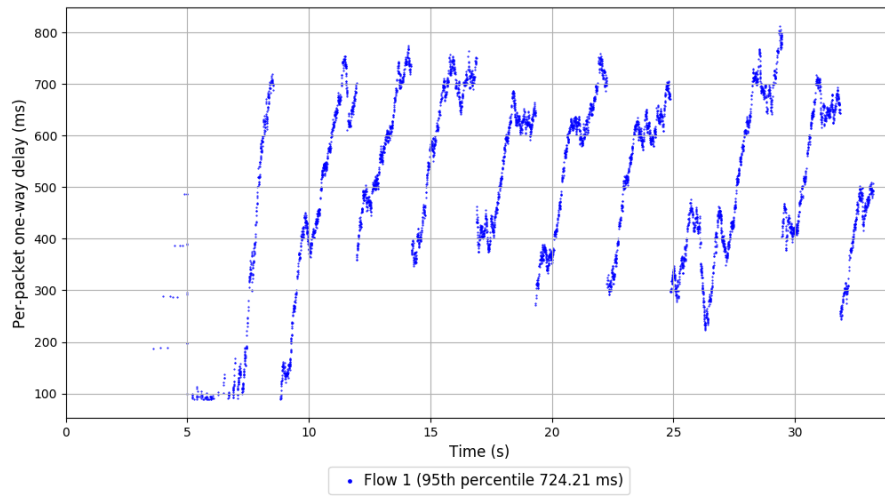
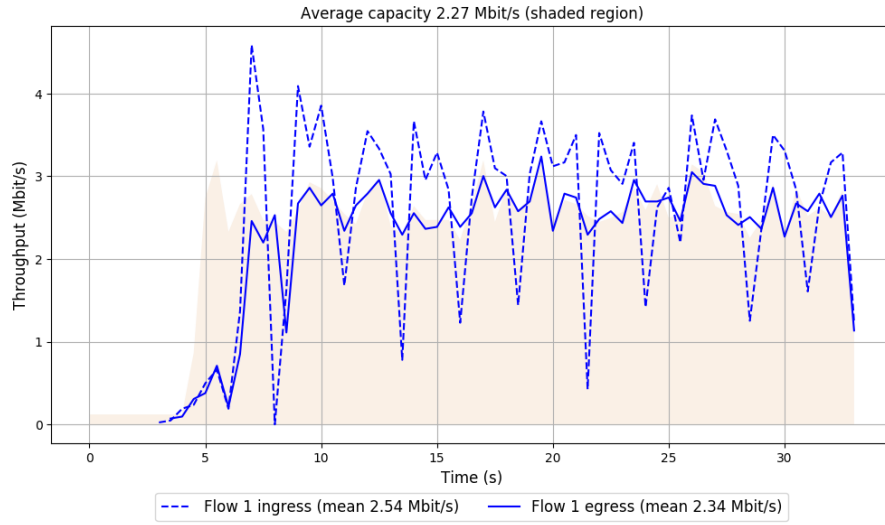
-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 724.206 ms

Loss rate: 8.25%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-05 18:32:04

End at: 2018-03-05 18:32:34

Below is generated by plot.py at 2018-03-05 19:26:11

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.36 Mbit/s (103.9% utilization)

95th percentile per-packet one-way delay: 713.188 ms

Loss rate: 9.31%

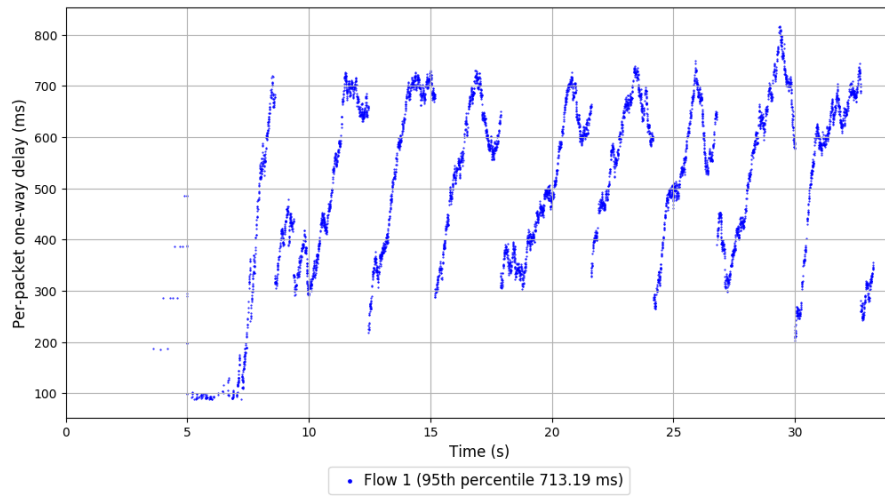
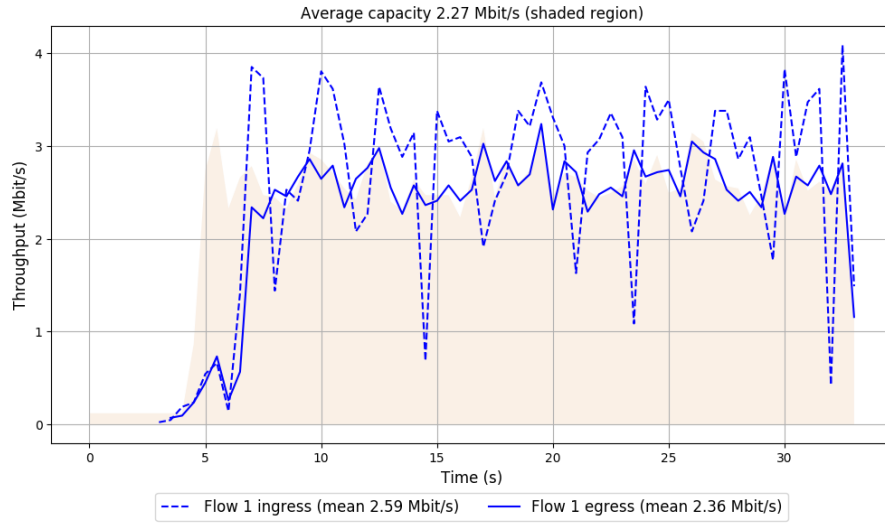
-- Flow 1:

Average throughput: 2.36 Mbit/s

95th percentile per-packet one-way delay: 713.188 ms

Loss rate: 9.31%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-05 18:42:14

End at: 2018-03-05 18:42:44

Below is generated by plot.py at 2018-03-05 19:26:11

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.35 Mbit/s (103.6% utilization)

95th percentile per-packet one-way delay: 725.040 ms

Loss rate: 9.09%

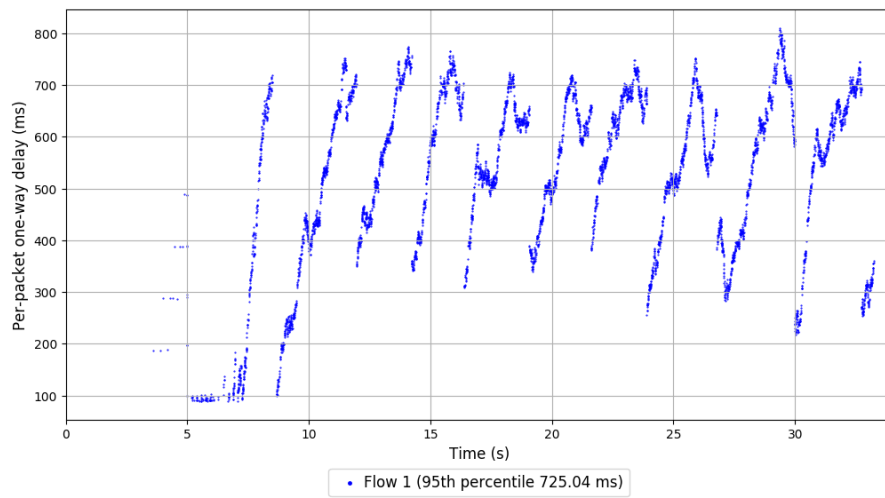
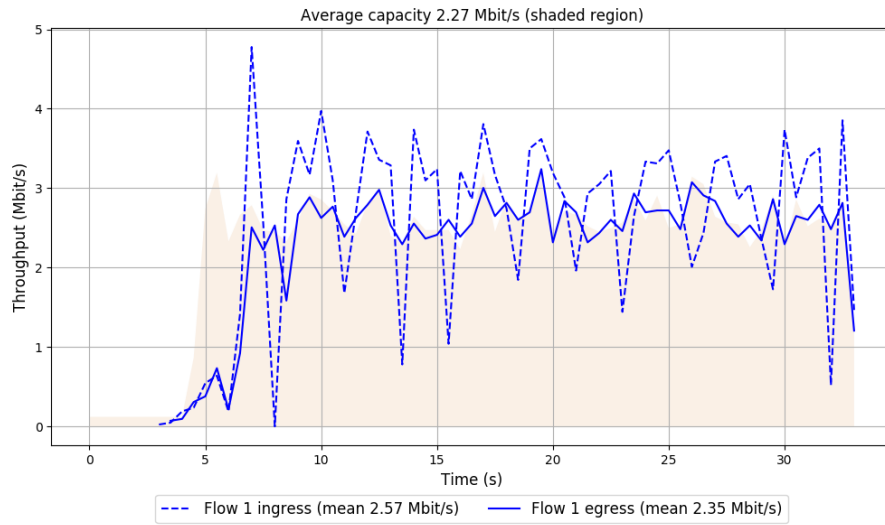
-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 725.040 ms

Loss rate: 9.09%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-05 18:52:24

End at: 2018-03-05 18:52:54

Below is generated by plot.py at 2018-03-05 19:26:12

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.38 Mbit/s (104.6% utilization)

95th percentile per-packet one-way delay: 722.120 ms

Loss rate: 8.53%

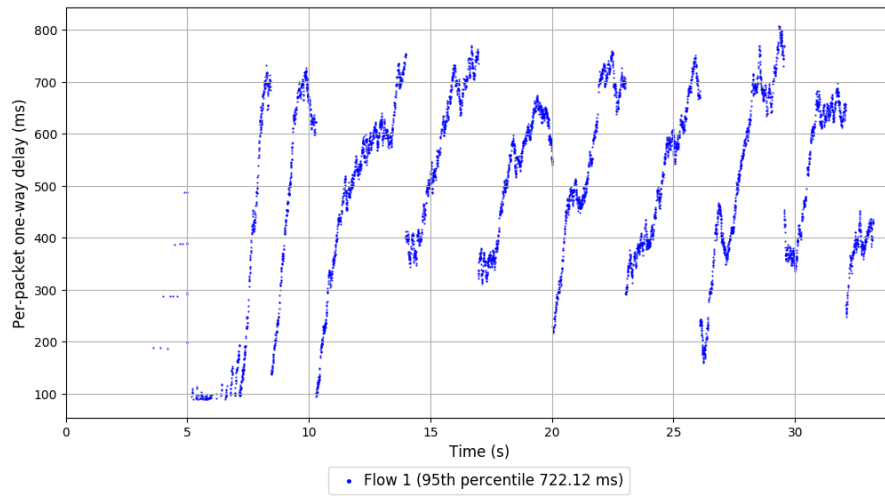
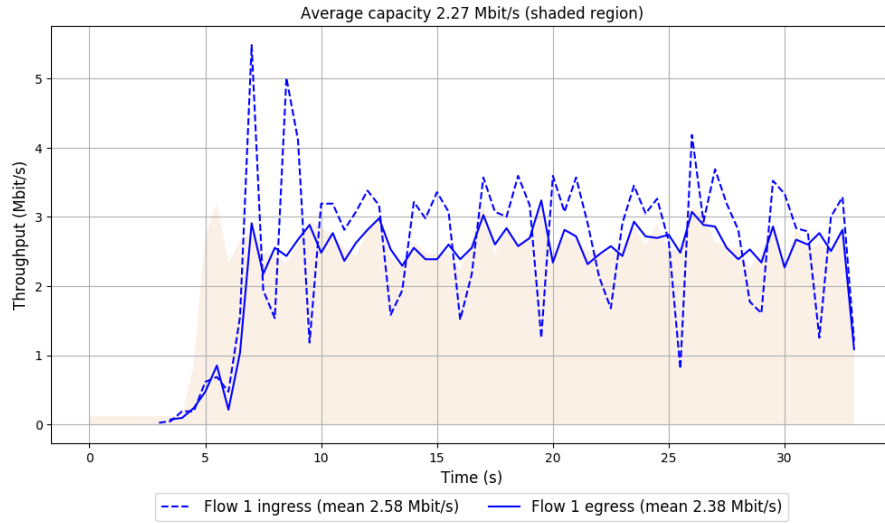
-- Flow 1:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 722.120 ms

Loss rate: 8.53%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-05 19:02:34

End at: 2018-03-05 19:03:04

Below is generated by plot.py at 2018-03-05 19:26:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.35 Mbit/s (103.6% utilization)

95th percentile per-packet one-way delay: 710.588 ms

Loss rate: 6.92%

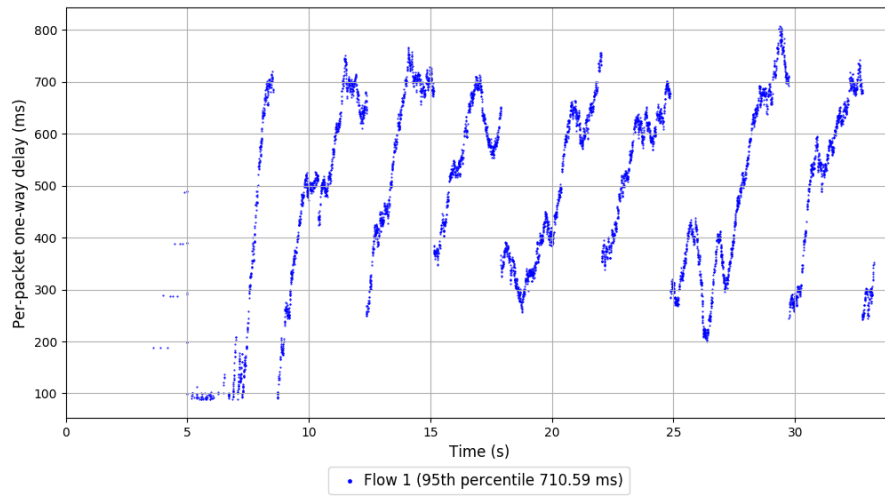
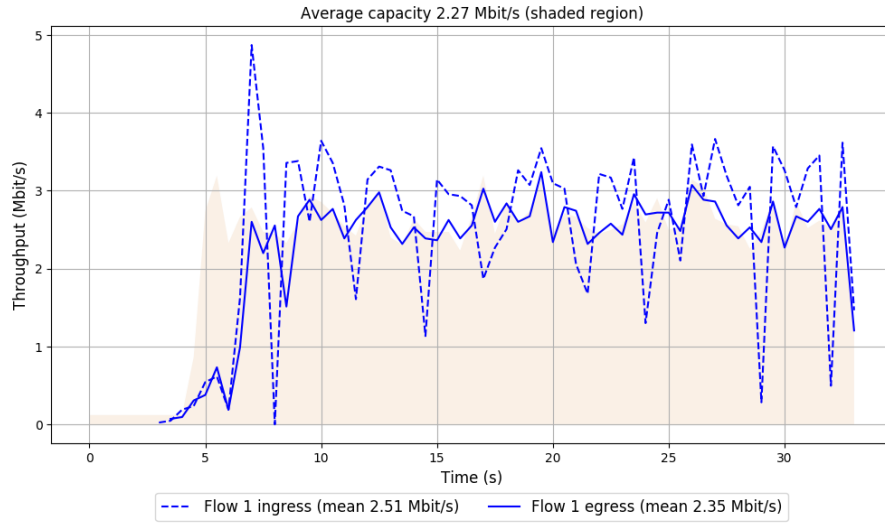
-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 710.588 ms

Loss rate: 6.92%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-05 19:12:44

End at: 2018-03-05 19:13:14

Below is generated by plot.py at 2018-03-05 19:26:14

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.44 Mbit/s (107.5% utilization)

95th percentile per-packet one-way delay: 712.827 ms

Loss rate: 9.81%

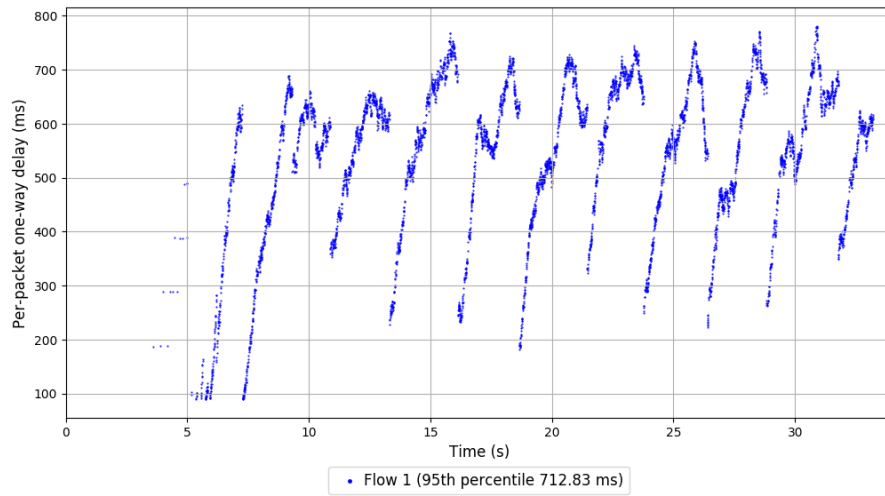
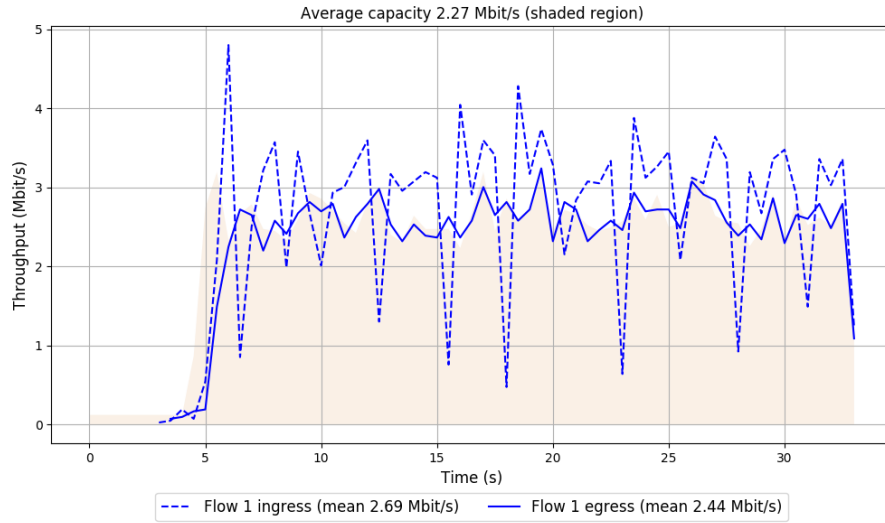
-- Flow 1:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 712.827 ms

Loss rate: 9.81%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-05 19:22:54

End at: 2018-03-05 19:23:24

Below is generated by plot.py at 2018-03-05 19:26:15

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.37 Mbit/s (104.4% utilization)

95th percentile per-packet one-way delay: 719.136 ms

Loss rate: 7.46%

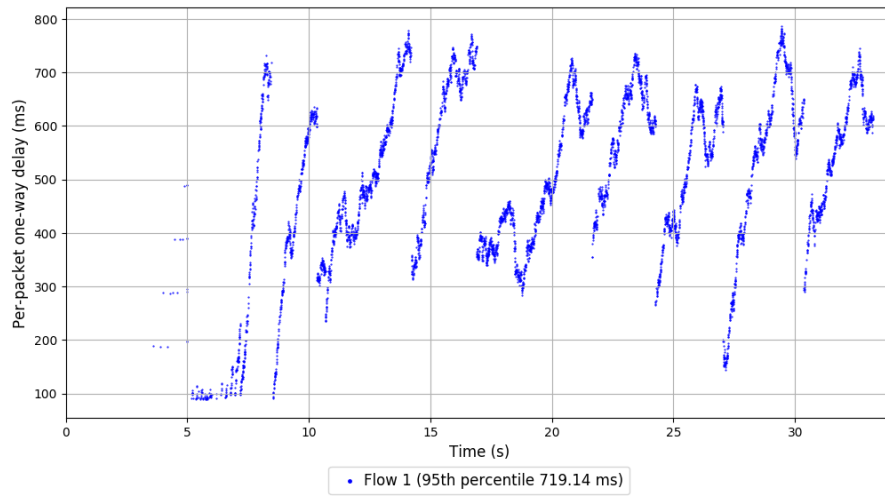
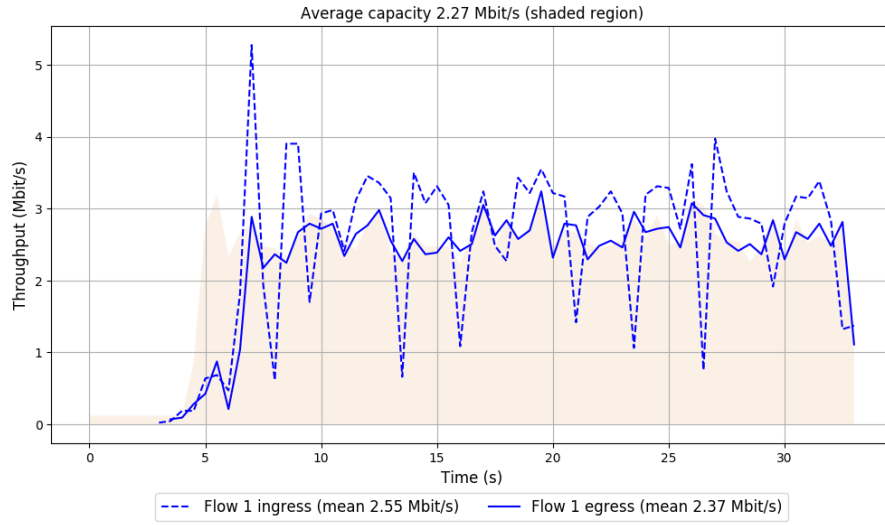
-- Flow 1:

Average throughput: 2.37 Mbit/s

95th percentile per-packet one-way delay: 719.136 ms

Loss rate: 7.46%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-03-05 17:46:52

End at: 2018-03-05 17:47:22

Below is generated by plot.py at 2018-03-05 19:26:16

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.82 Mbit/s (80.1% utilization)

95th percentile per-packet one-way delay: 121.293 ms

Loss rate: 0.38%

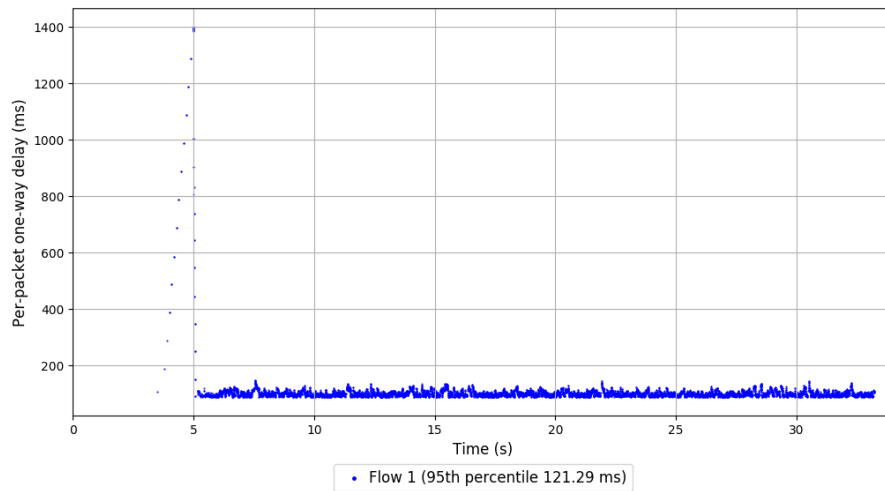
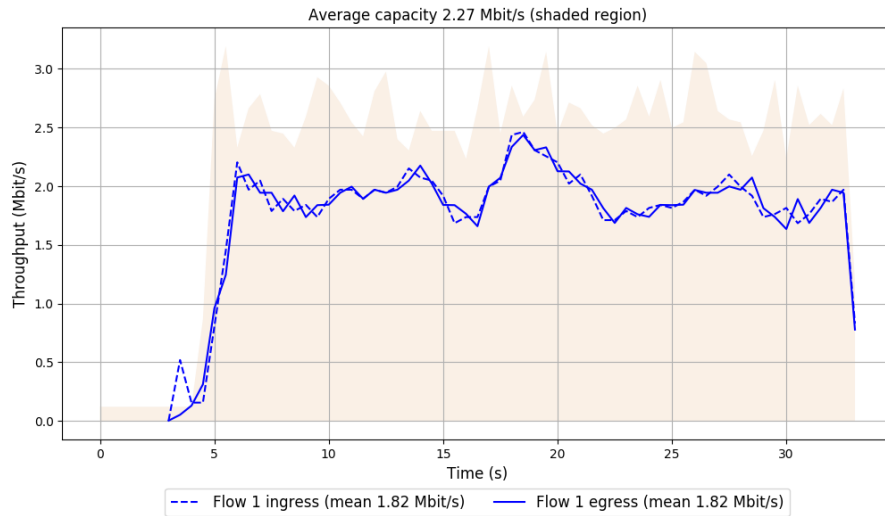
-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 121.293 ms

Loss rate: 0.38%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-05 17:57:02

End at: 2018-03-05 17:57:32

Below is generated by plot.py at 2018-03-05 19:26:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.79 Mbit/s (78.8% utilization)

95th percentile per-packet one-way delay: 120.465 ms

Loss rate: 0.36%

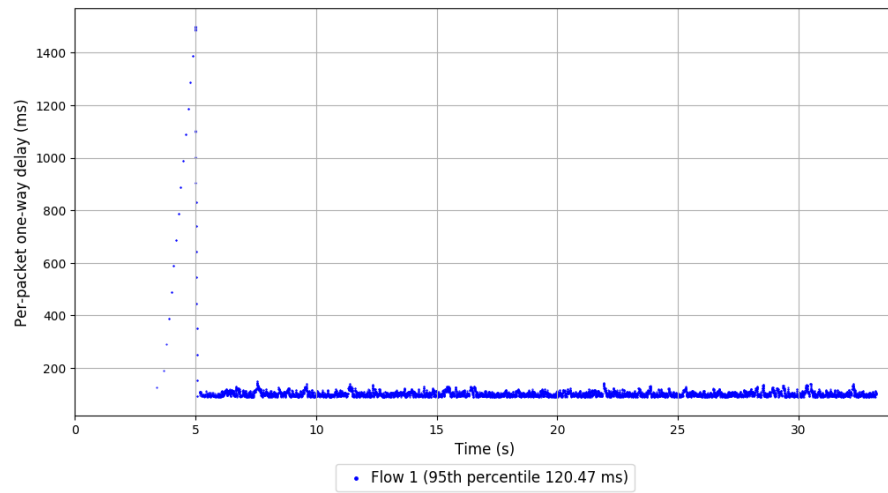
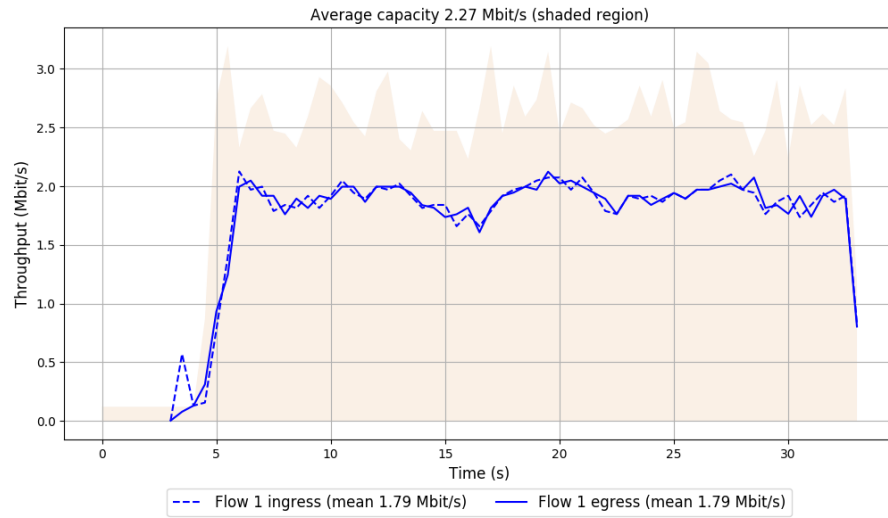
-- Flow 1:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 120.465 ms

Loss rate: 0.36%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-05 18:07:13

End at: 2018-03-05 18:07:43

Below is generated by plot.py at 2018-03-05 19:26:20

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.81 Mbit/s (79.5% utilization)

95th percentile per-packet one-way delay: 134.116 ms

Loss rate: 0.36%

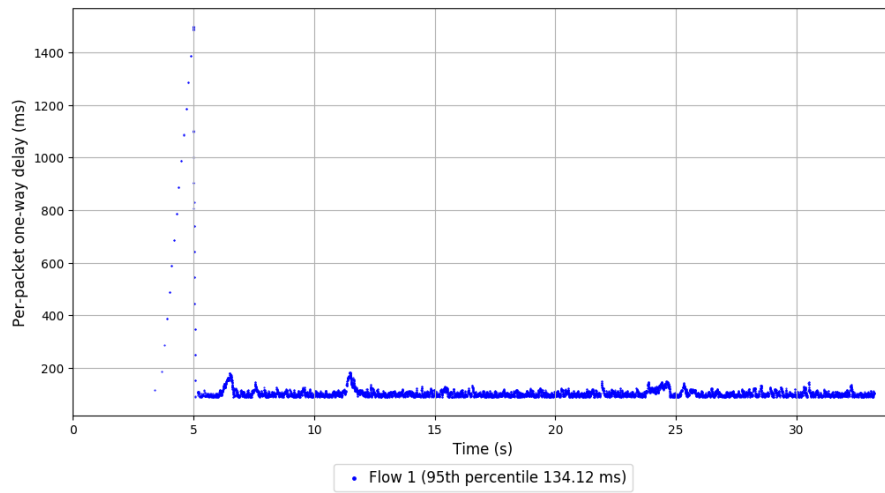
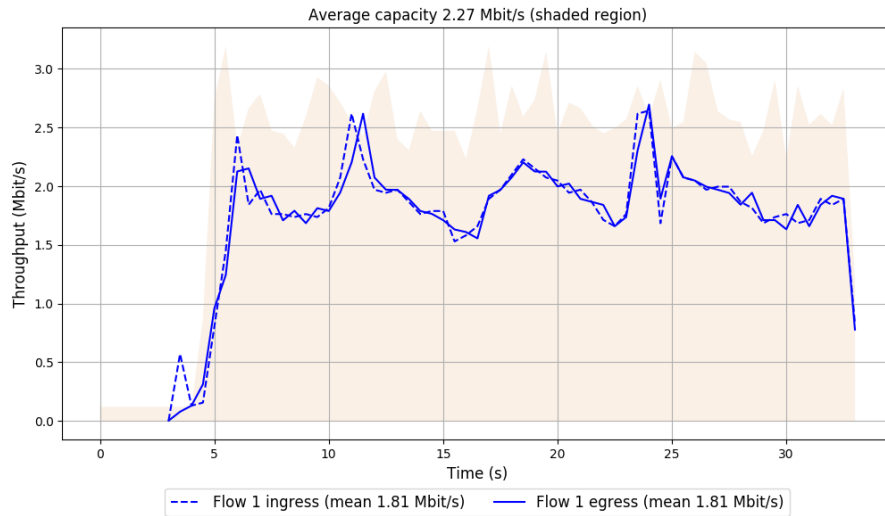
-- Flow 1:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 134.116 ms

Loss rate: 0.36%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-05 18:17:23

End at: 2018-03-05 18:17:53

Below is generated by plot.py at 2018-03-05 19:26:21

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.81 Mbit/s (79.4% utilization)

95th percentile per-packet one-way delay: 120.273 ms

Loss rate: 0.34%

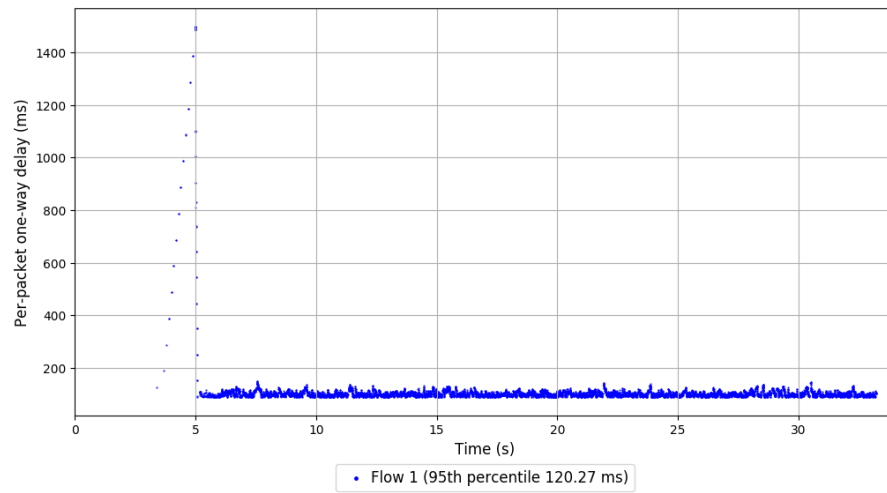
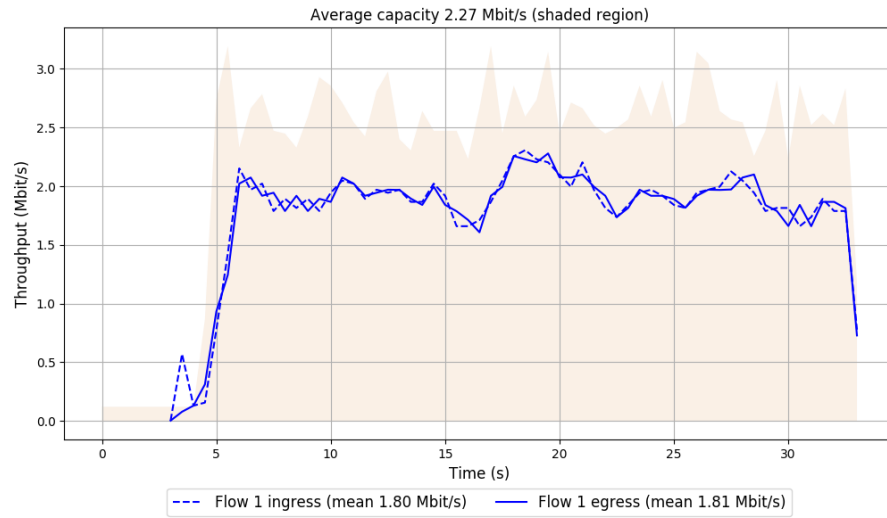
-- Flow 1:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 120.273 ms

Loss rate: 0.34%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-05 18:27:33

End at: 2018-03-05 18:28:03

Below is generated by plot.py at 2018-03-05 19:26:22

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.81 Mbit/s (79.5% utilization)

95th percentile per-packet one-way delay: 120.253 ms

Loss rate: 0.38%

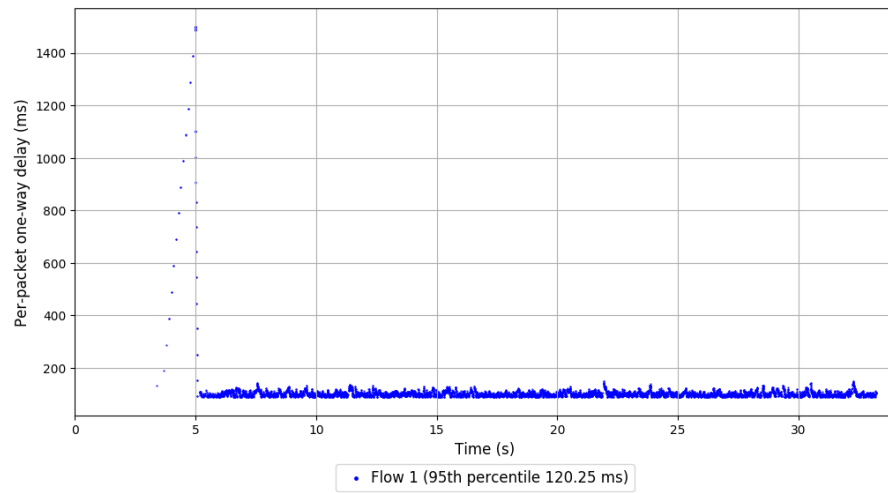
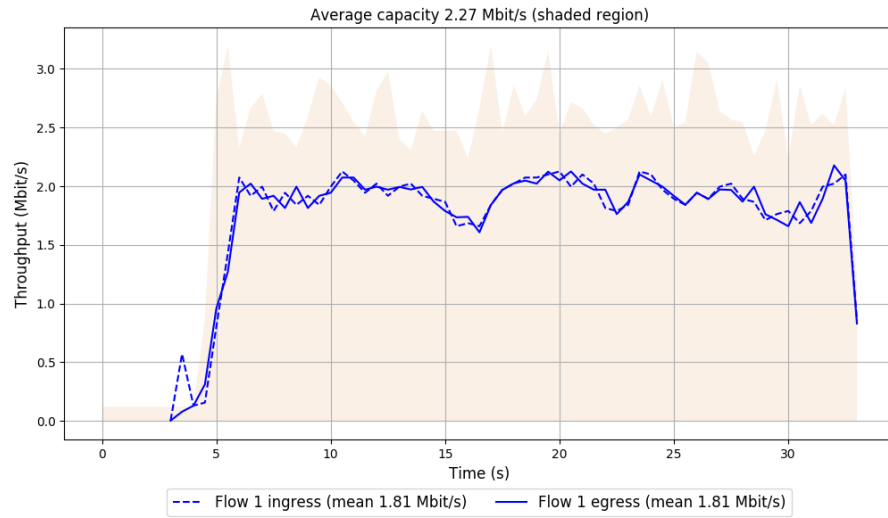
-- Flow 1:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 120.253 ms

Loss rate: 0.38%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-05 18:37:43

End at: 2018-03-05 18:38:13

Below is generated by plot.py at 2018-03-05 19:26:23

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.79 Mbit/s (78.7% utilization)

95th percentile per-packet one-way delay: 120.119 ms

Loss rate: 0.36%

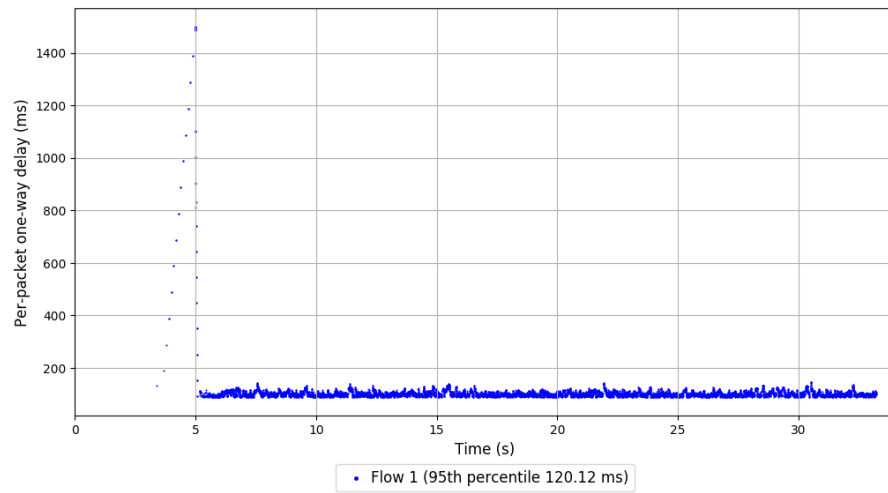
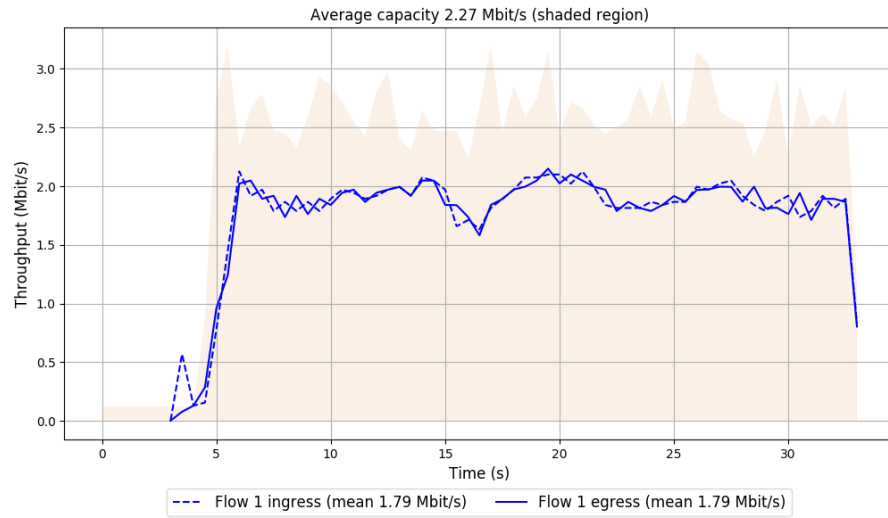
-- Flow 1:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 120.119 ms

Loss rate: 0.36%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-05 18:47:53

End at: 2018-03-05 18:48:23

Below is generated by plot.py at 2018-03-05 19:26:23

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.83 Mbit/s (80.4% utilization)

95th percentile per-packet one-way delay: 132.632 ms

Loss rate: 0.36%

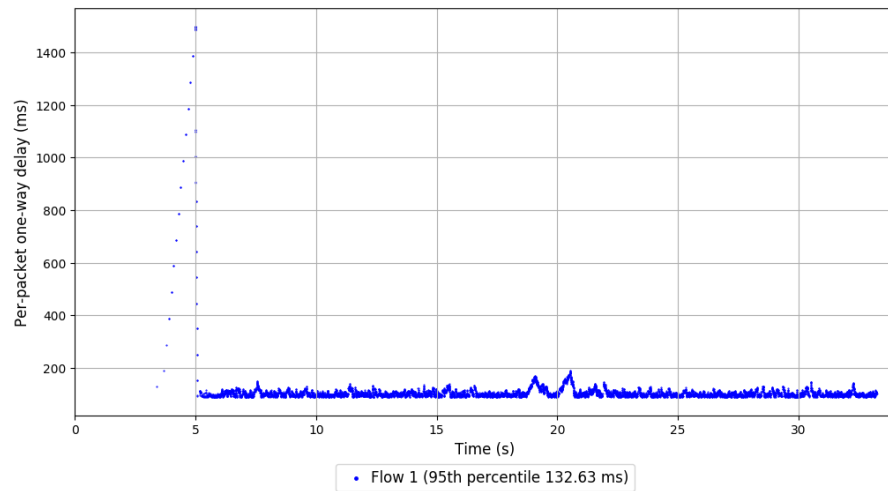
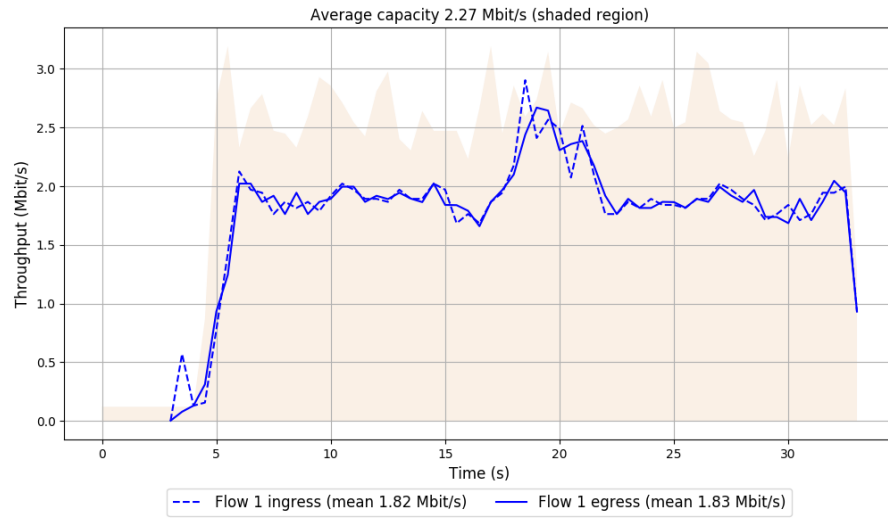
-- Flow 1:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 132.632 ms

Loss rate: 0.36%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-05 18:58:03

End at: 2018-03-05 18:58:33

Below is generated by plot.py at 2018-03-05 19:26:25

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.81 Mbit/s (79.5% utilization)

95th percentile per-packet one-way delay: 122.226 ms

Loss rate: 0.34%

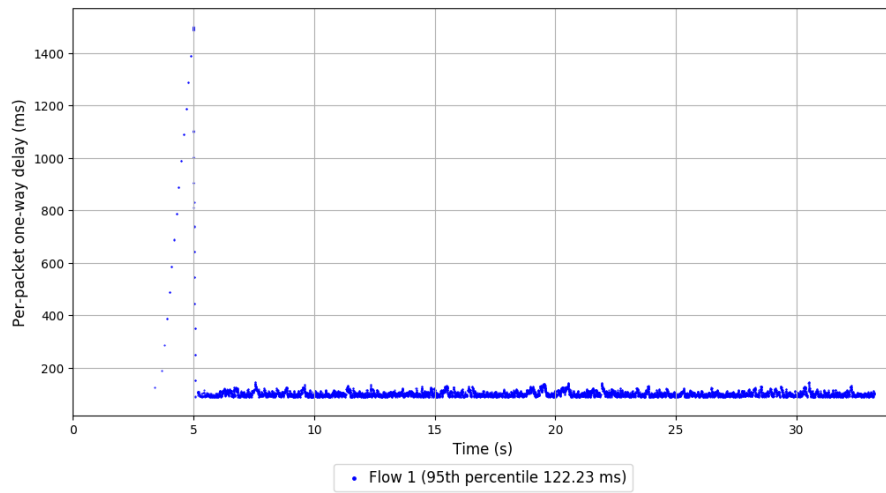
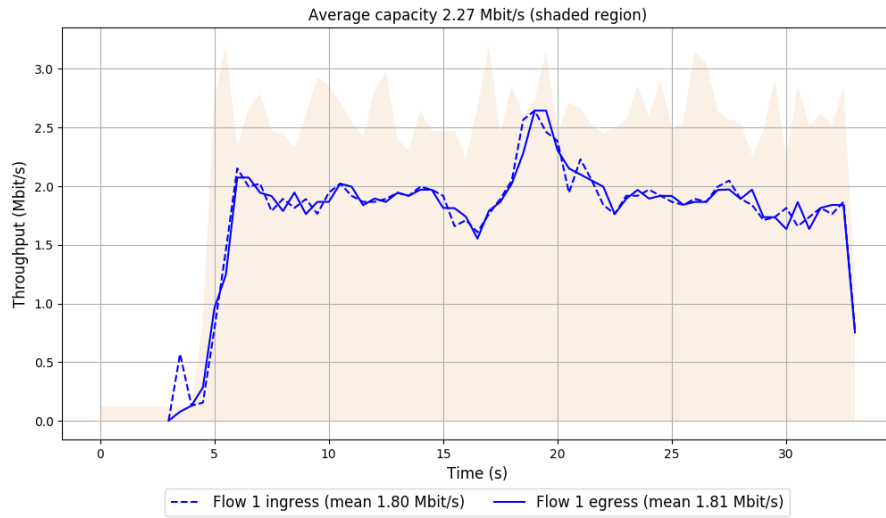
-- Flow 1:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 122.226 ms

Loss rate: 0.34%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-05 19:08:13

End at: 2018-03-05 19:08:43

Below is generated by plot.py at 2018-03-05 19:26:26

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.83 Mbit/s (80.7% utilization)

95th percentile per-packet one-way delay: 175.566 ms

Loss rate: 0.35%

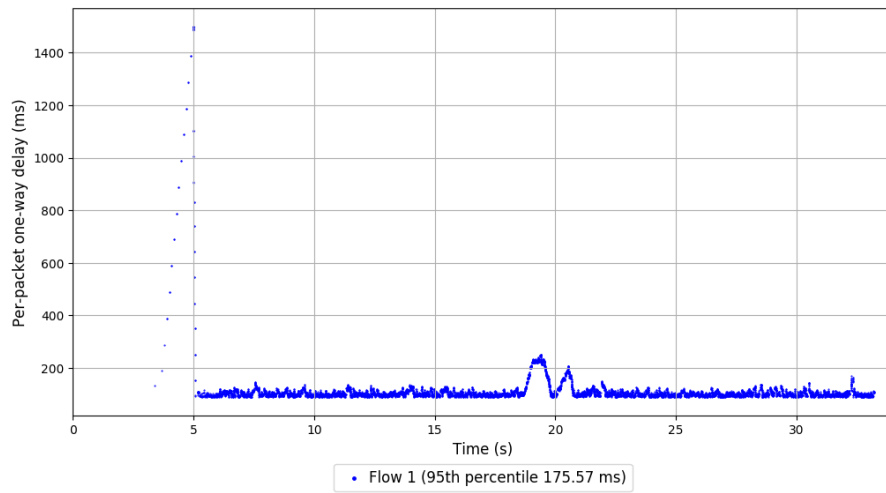
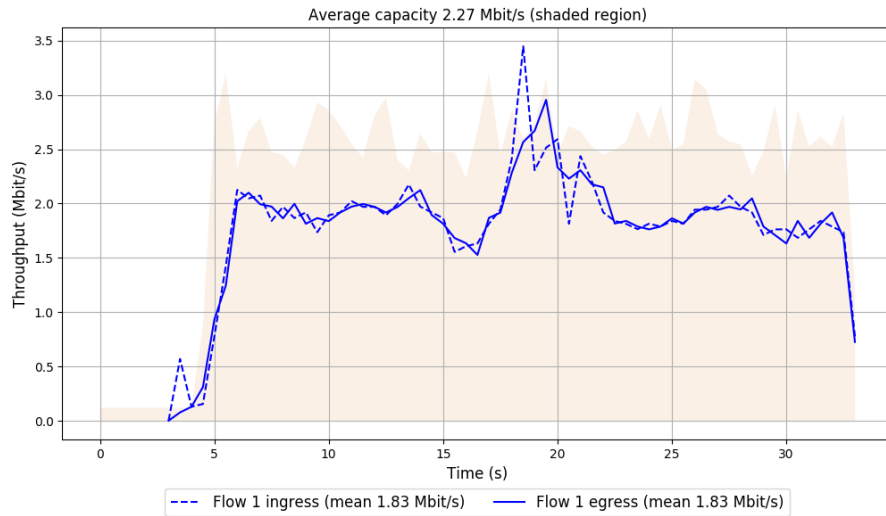
-- Flow 1:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 175.566 ms

Loss rate: 0.35%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-05 19:18:23

End at: 2018-03-05 19:18:53

Below is generated by plot.py at 2018-03-05 19:26:26

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.82 Mbit/s (80.2% utilization)

95th percentile per-packet one-way delay: 125.484 ms

Loss rate: 0.38%

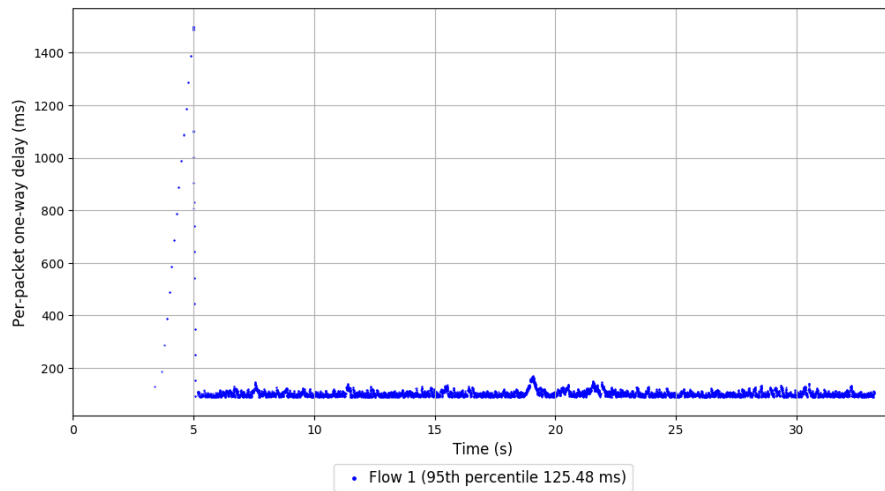
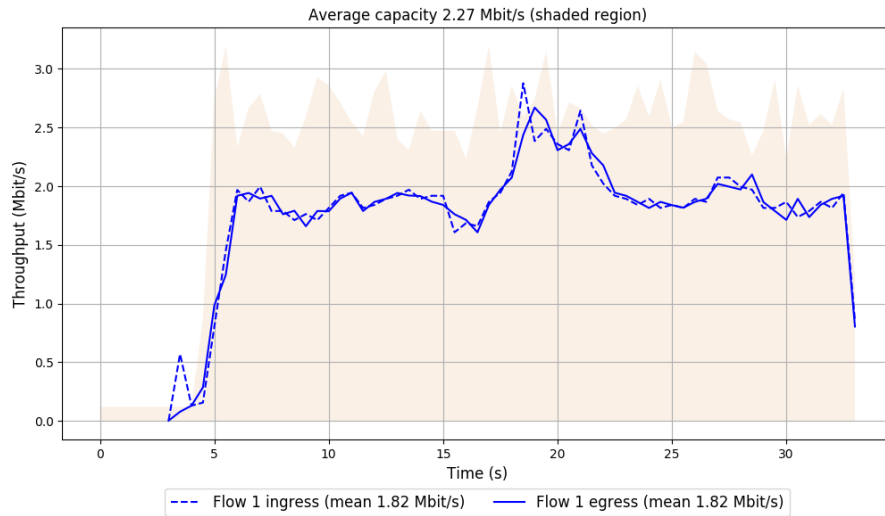
-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 125.484 ms

Loss rate: 0.38%

Run 10: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2018-03-05 17:44:36

End at: 2018-03-05 17:45:06

Below is generated by plot.py at 2018-03-05 19:26:35

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.52 Mbit/s (111.0% utilization)

95th percentile per-packet one-way delay: 694.456 ms

Loss rate: 92.93%

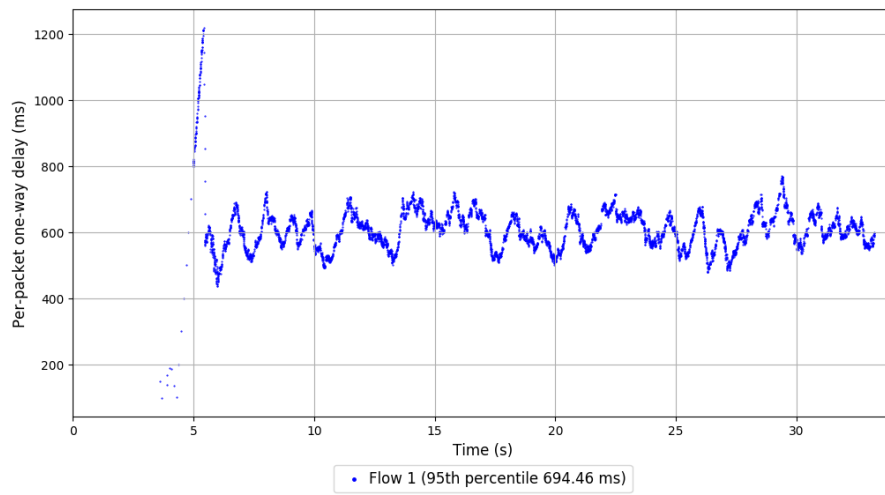
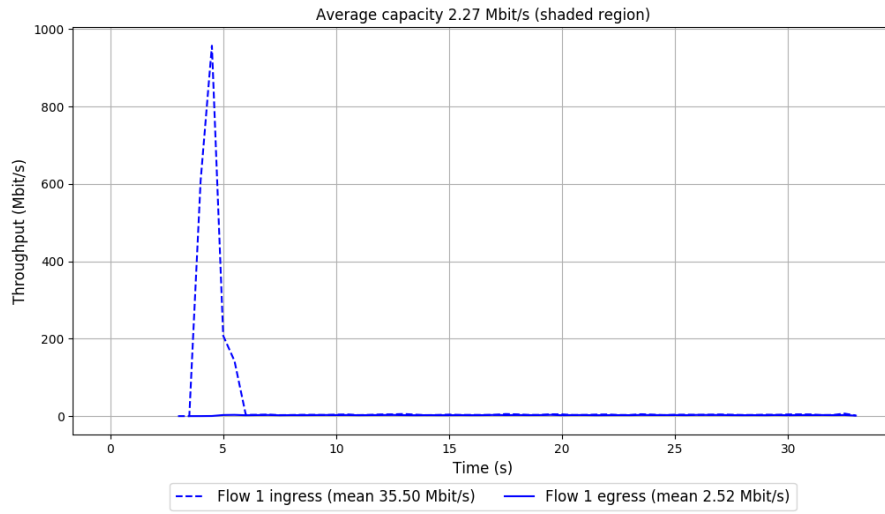
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 694.456 ms

Loss rate: 92.93%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-05 17:54:46

End at: 2018-03-05 17:55:16

Below is generated by plot.py at 2018-03-05 19:26:36

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.50 Mbit/s (110.2% utilization)

95th percentile per-packet one-way delay: 694.967 ms

Loss rate: 92.96%

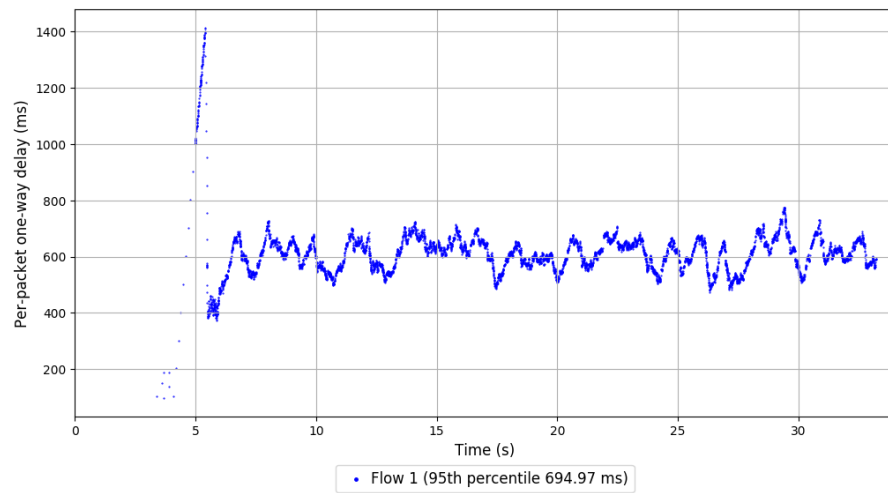
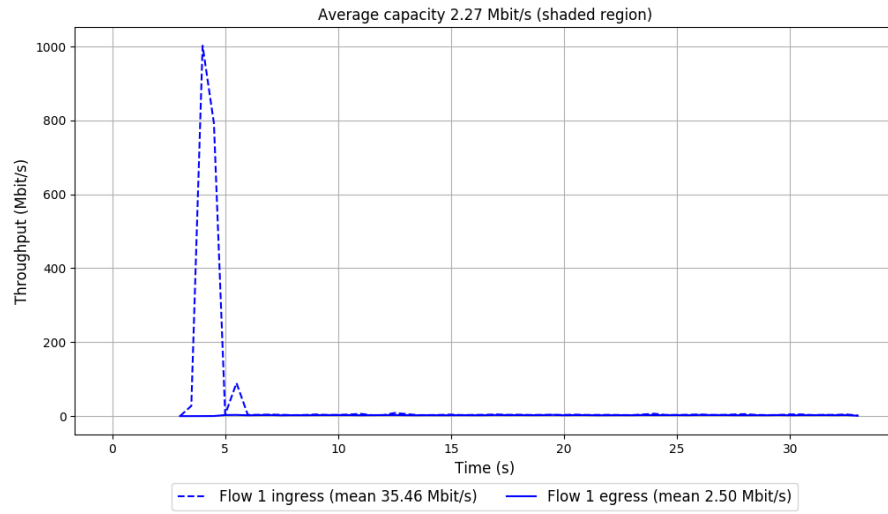
-- Flow 1:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 694.967 ms

Loss rate: 92.96%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-05 18:04:57

End at: 2018-03-05 18:05:27

Below is generated by plot.py at 2018-03-05 19:26:43

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.3% utilization)

95th percentile per-packet one-way delay: 699.358 ms

Loss rate: 94.86%

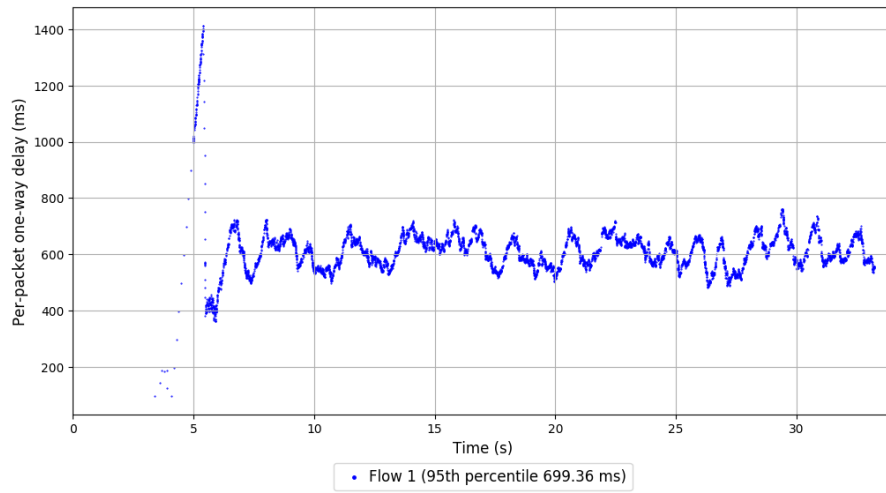
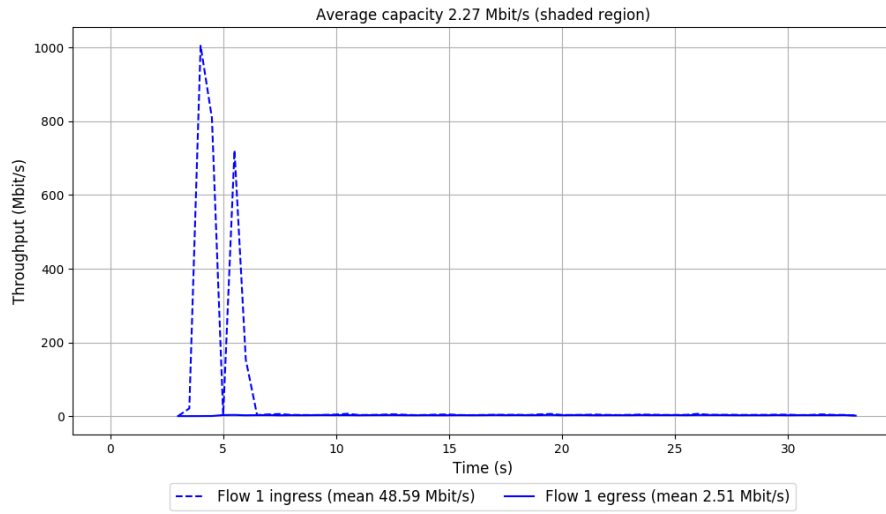
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 699.358 ms

Loss rate: 94.86%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-05 18:15:07

End at: 2018-03-05 18:15:37

Below is generated by plot.py at 2018-03-05 19:26:46

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.50 Mbit/s (110.3% utilization)

95th percentile per-packet one-way delay: 697.701 ms

Loss rate: 95.13%

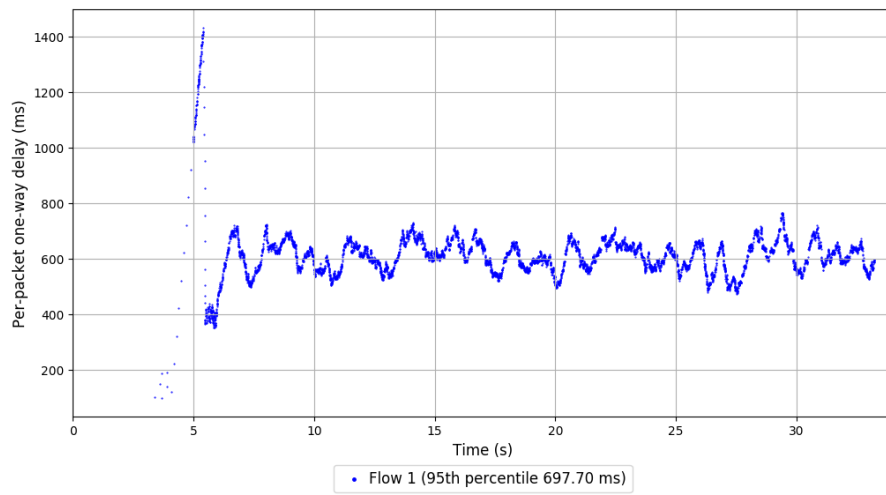
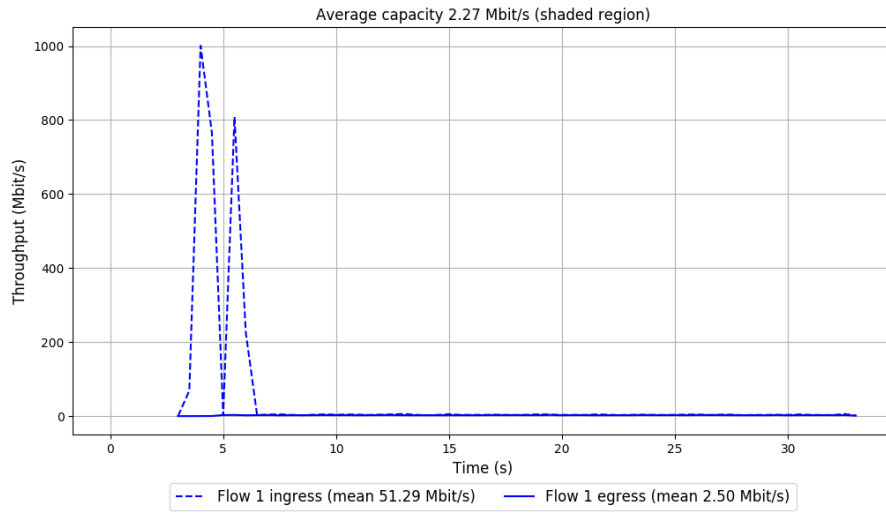
-- Flow 1:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 697.701 ms

Loss rate: 95.13%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-05 18:25:17

End at: 2018-03-05 18:25:47

Below is generated by plot.py at 2018-03-05 19:26:47

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.2% utilization)

95th percentile per-packet one-way delay: 697.884 ms

Loss rate: 95.12%

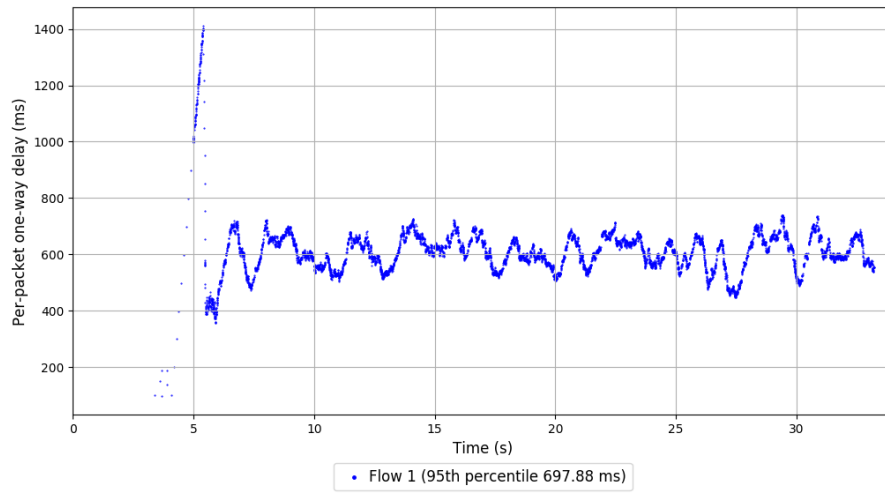
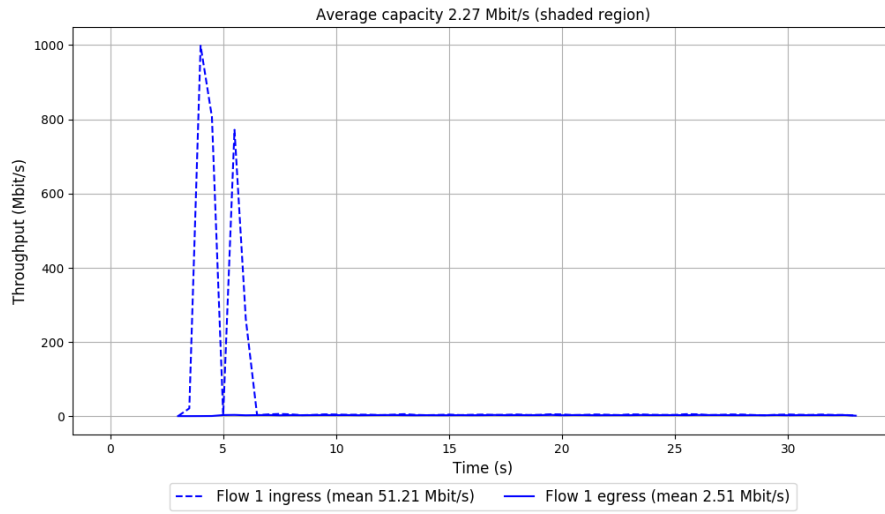
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 697.884 ms

Loss rate: 95.12%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-05 18:35:27

End at: 2018-03-05 18:35:57

Below is generated by plot.py at 2018-03-05 19:26:47

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 691.866 ms

Loss rate: 93.03%

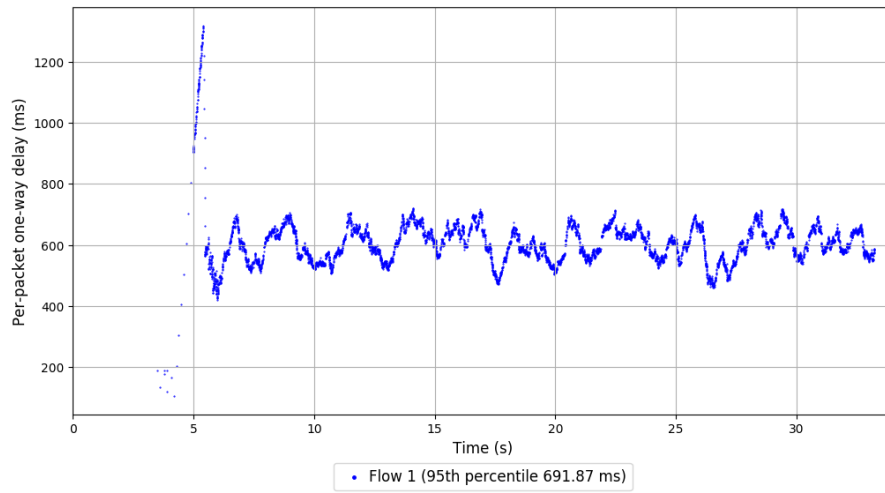
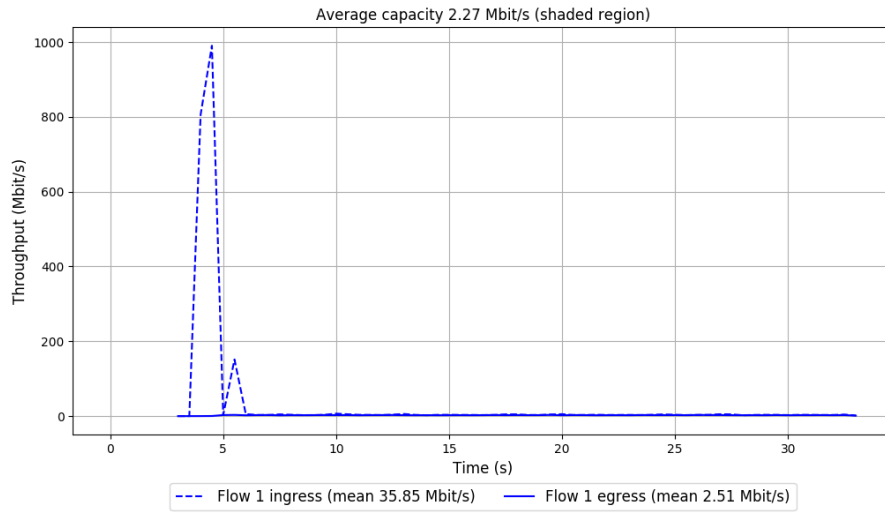
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 691.866 ms

Loss rate: 93.03%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-05 18:45:37

End at: 2018-03-05 18:46:07

Below is generated by plot.py at 2018-03-05 19:26:47

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.3% utilization)

95th percentile per-packet one-way delay: 696.953 ms

Loss rate: 92.98%

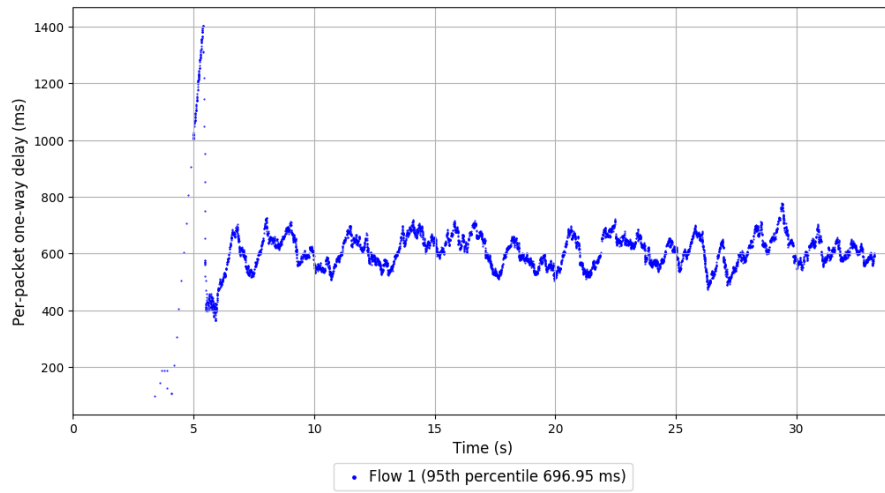
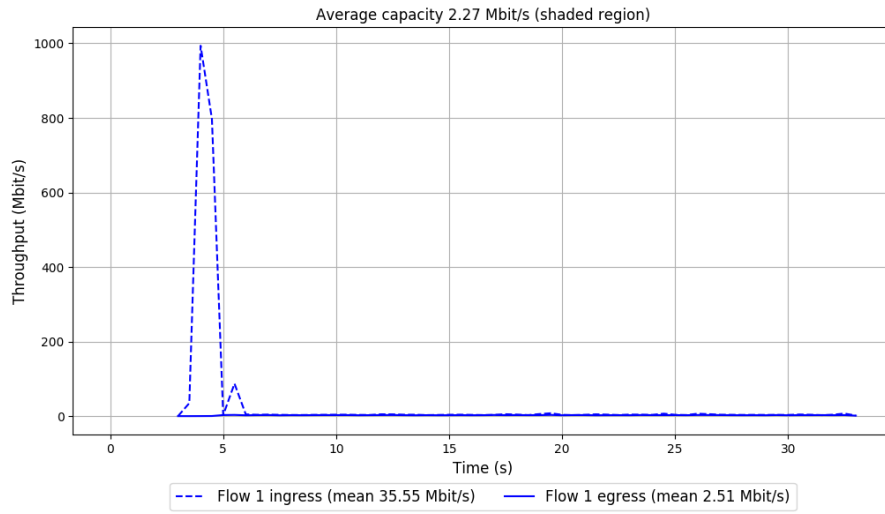
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 696.953 ms

Loss rate: 92.98%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-05 18:55:47

End at: 2018-03-05 18:56:17

Below is generated by plot.py at 2018-03-05 19:26:47

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.50 Mbit/s (110.3% utilization)

95th percentile per-packet one-way delay: 692.340 ms

Loss rate: 92.87%

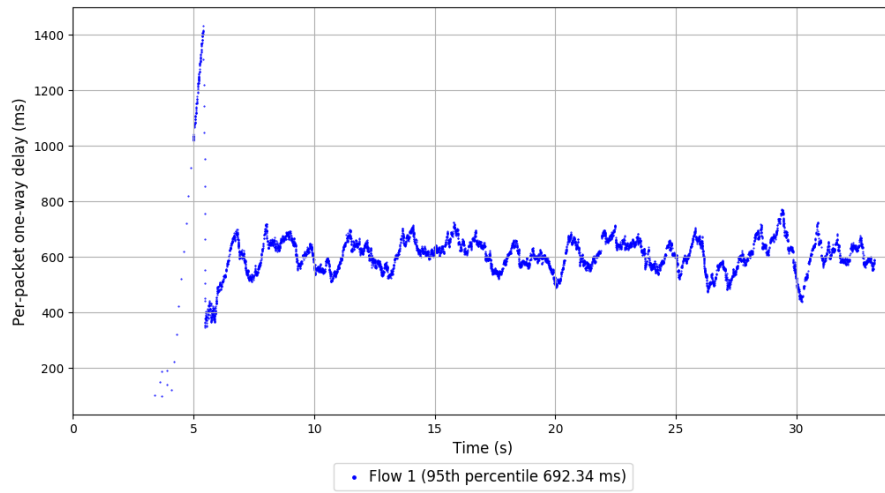
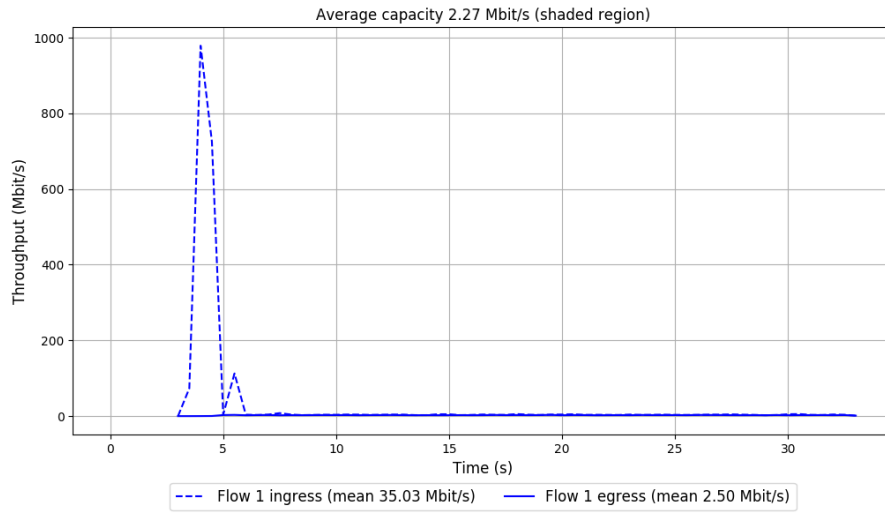
-- Flow 1:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 692.340 ms

Loss rate: 92.87%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-05 19:05:57

End at: 2018-03-05 19:06:27

Below is generated by plot.py at 2018-03-05 19:27:10

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.50 Mbit/s (110.2% utilization)

95th percentile per-packet one-way delay: 696.336 ms

Loss rate: 94.78%

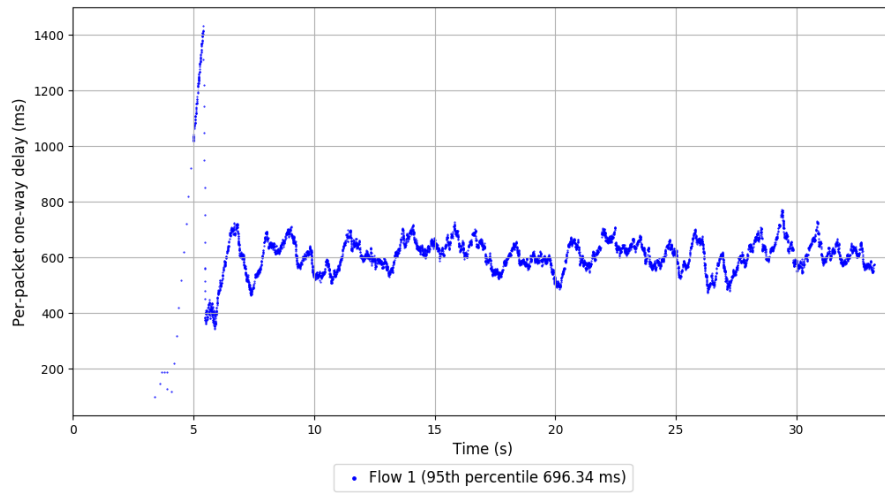
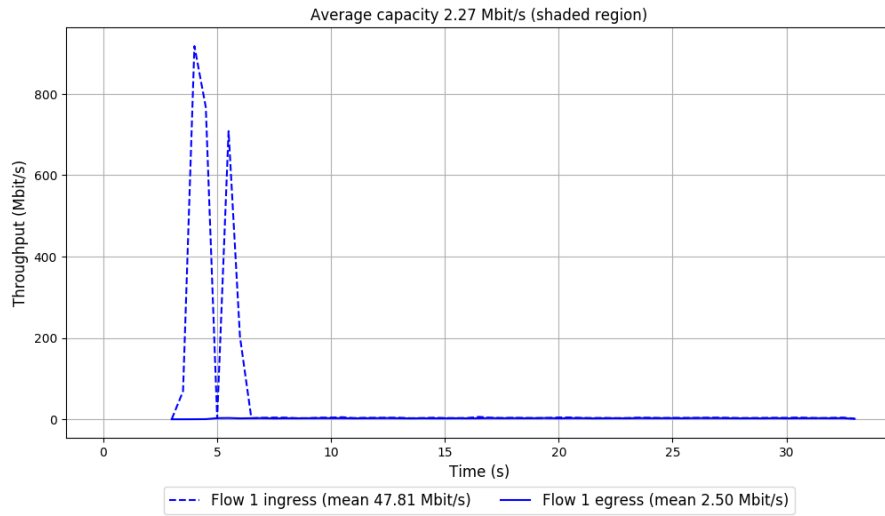
-- Flow 1:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 696.336 ms

Loss rate: 94.78%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-03-05 19:16:07

End at: 2018-03-05 19:16:37

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.3% utilization)

95th percentile per-packet one-way delay: 696.822 ms

Loss rate: 95.20%

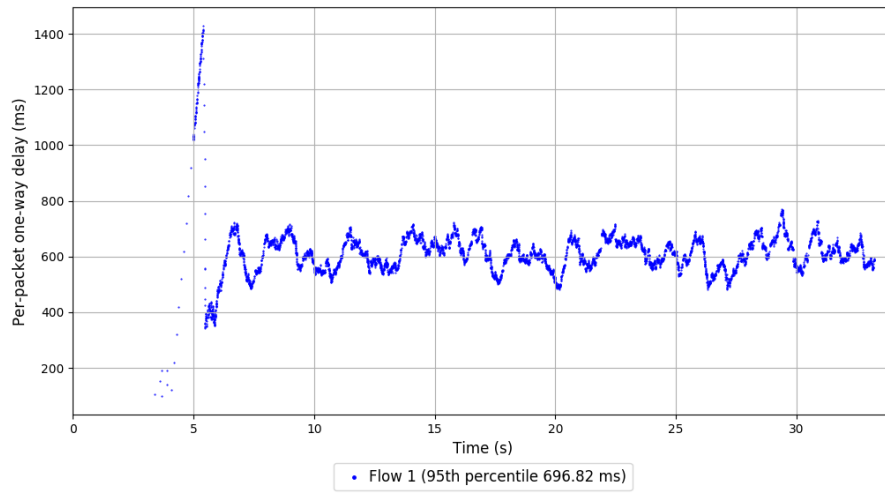
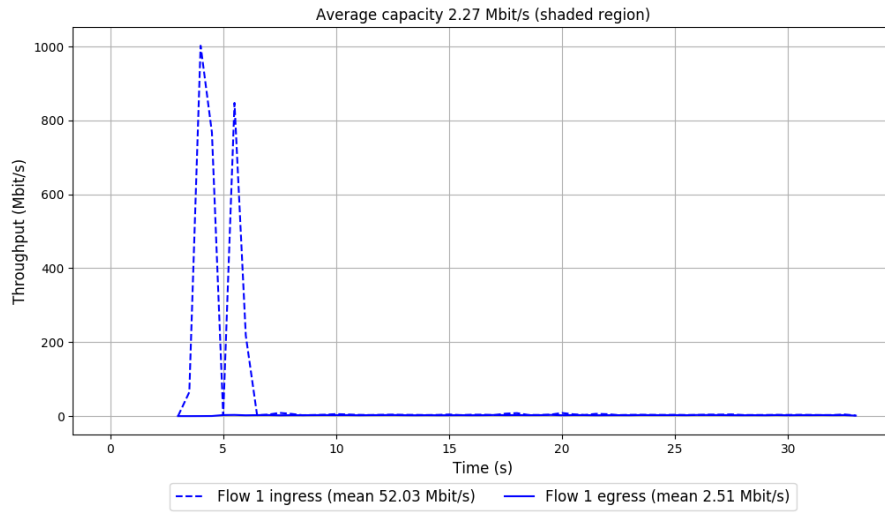
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 696.822 ms

Loss rate: 95.20%

Run 10: Report of FillP — Data Link



Run 1: Statistics of Indigo-1-32

Start at: 2018-03-05 17:50:49

End at: 2018-03-05 17:51:19

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.13 Mbit/s (93.7% utilization)

95th percentile per-packet one-way delay: 224.755 ms

Loss rate: 0.32%

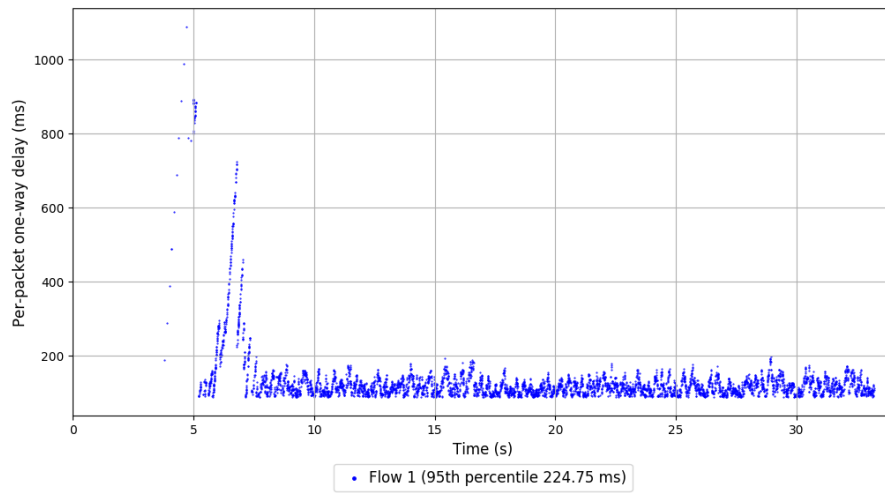
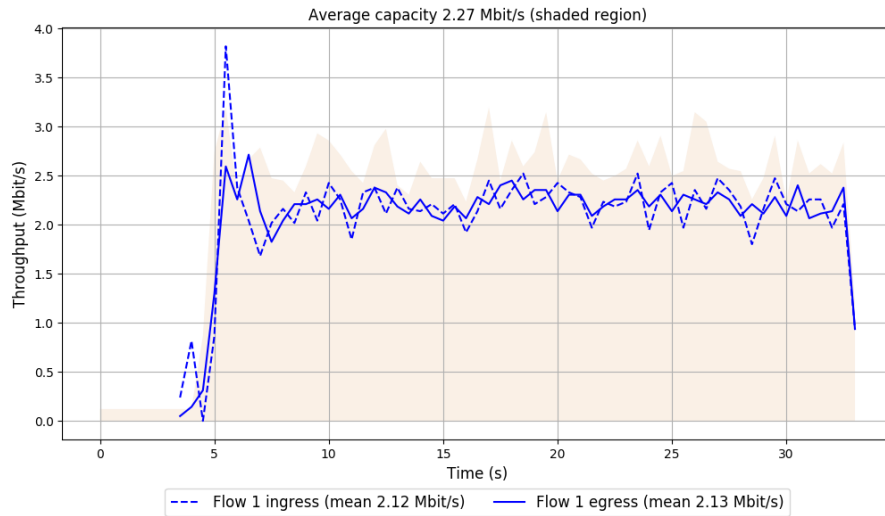
-- Flow 1:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 224.755 ms

Loss rate: 0.32%

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



Run 2: Statistics of Indigo-1-32

Start at: 2018-03-05 18:00:59

End at: 2018-03-05 18:01:29

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.02 Mbit/s (89.1% utilization)

95th percentile per-packet one-way delay: 175.094 ms

Loss rate: 0.38%

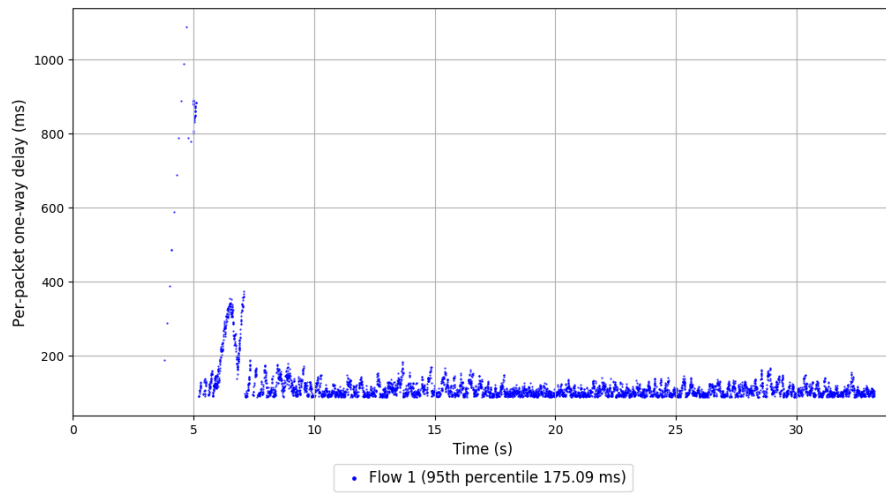
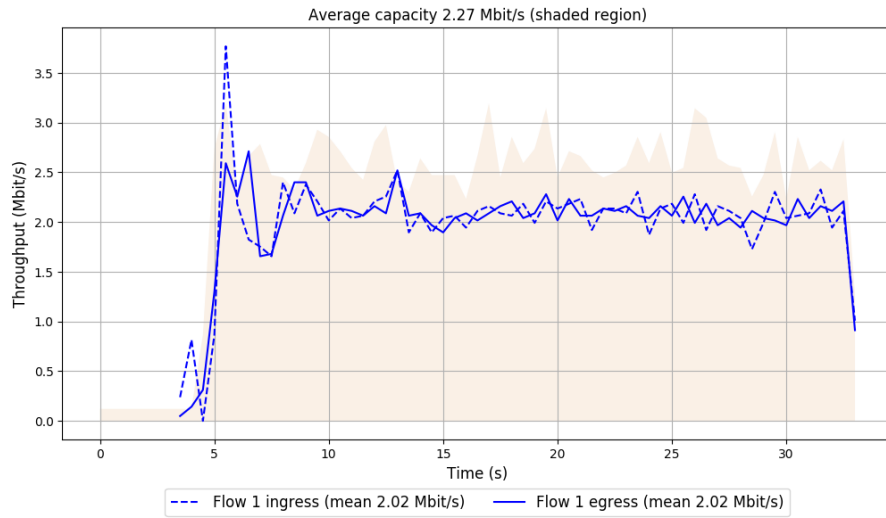
-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 175.094 ms

Loss rate: 0.38%

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



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-05 18:11:10

End at: 2018-03-05 18:11:40

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.80 Mbit/s (79.1% utilization)

95th percentile per-packet one-way delay: 224.993 ms

Loss rate: 0.38%

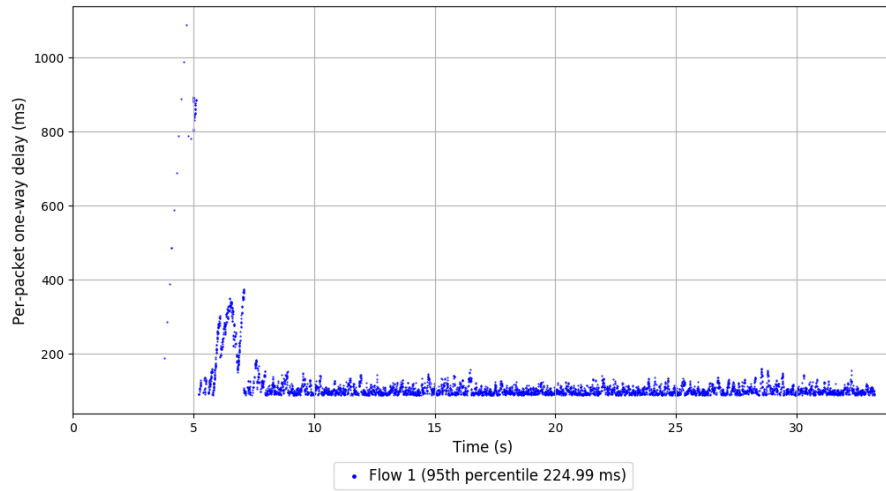
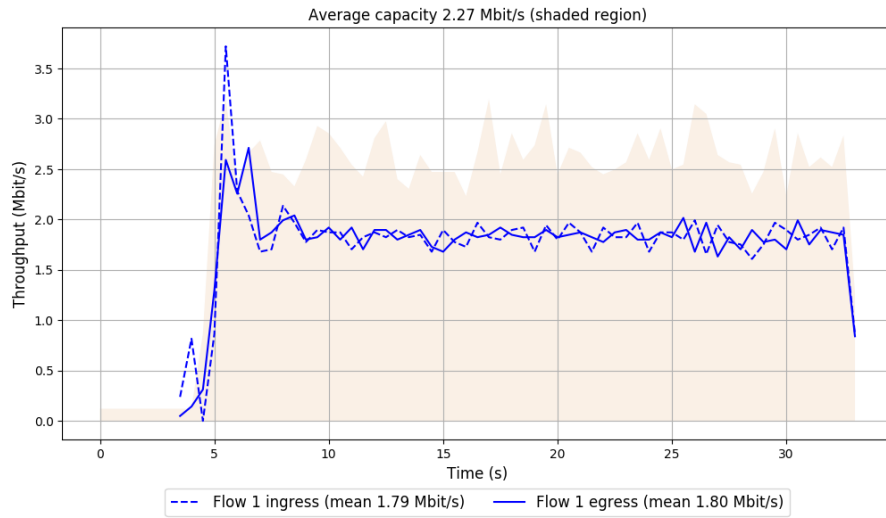
-- Flow 1:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 224.993 ms

Loss rate: 0.38%

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



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-05 18:21:20

End at: 2018-03-05 18:21:50

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.11 Mbit/s (92.9% utilization)

95th percentile per-packet one-way delay: 169.840 ms

Loss rate: 0.48%

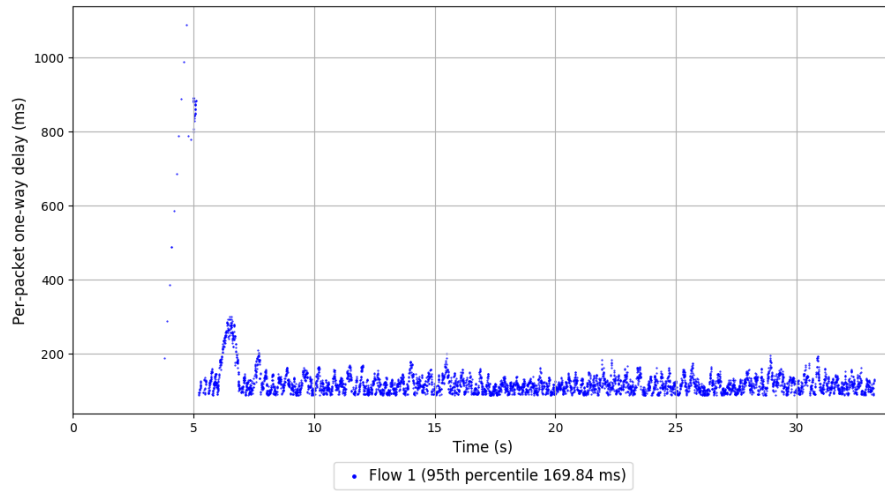
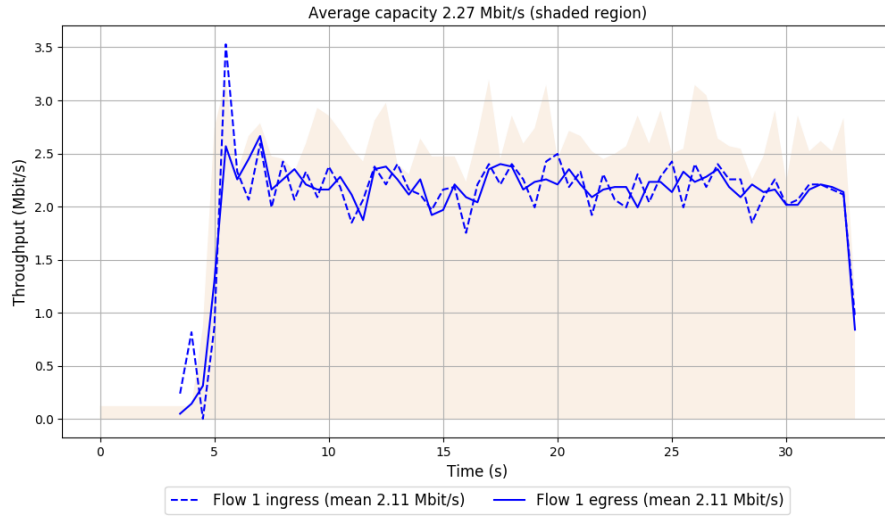
-- Flow 1:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 169.840 ms

Loss rate: 0.48%

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



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-05 18:31:30

End at: 2018-03-05 18:32:00

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.87 Mbit/s (82.4% utilization)

95th percentile per-packet one-way delay: 192.294 ms

Loss rate: 0.39%

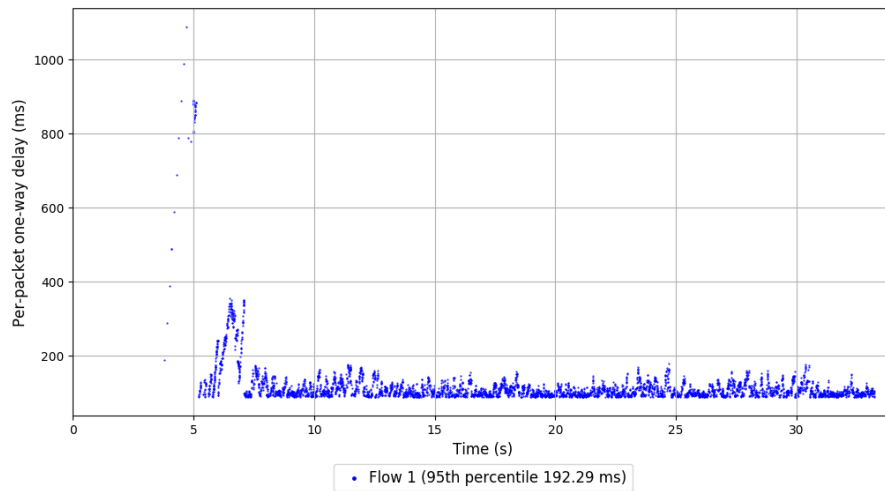
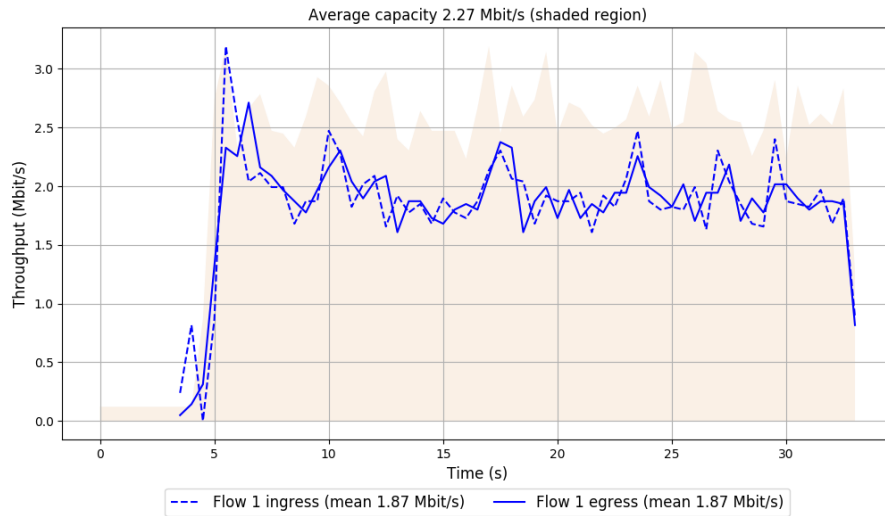
-- Flow 1:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 192.294 ms

Loss rate: 0.39%

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



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-05 18:41:40

End at: 2018-03-05 18:42:10

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.09 Mbit/s (91.9% utilization)

95th percentile per-packet one-way delay: 222.375 ms

Loss rate: 0.35%

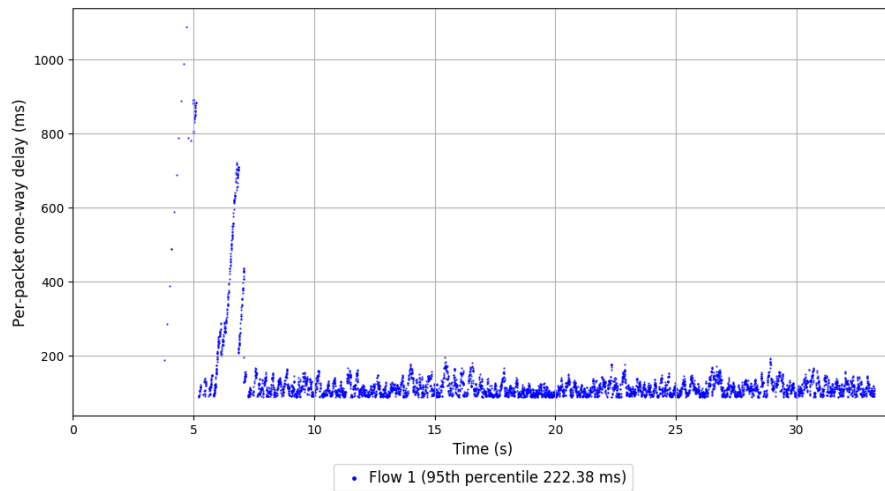
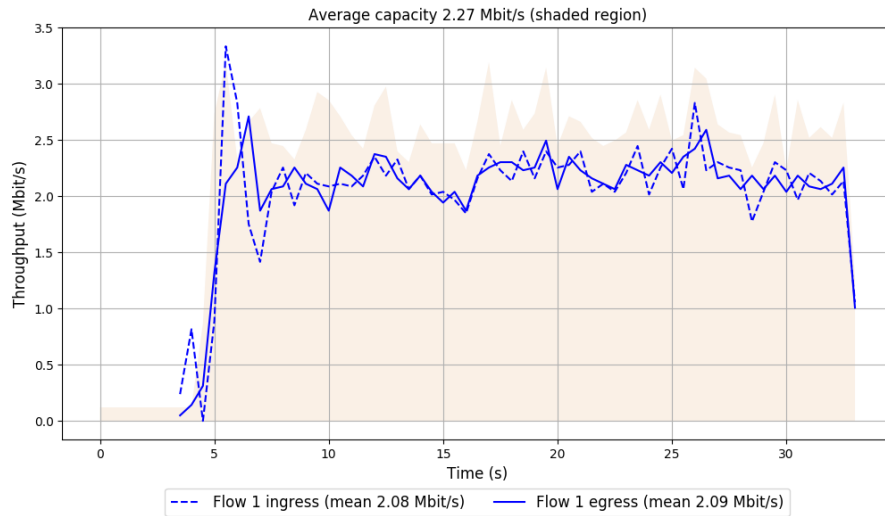
-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 222.375 ms

Loss rate: 0.35%

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



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-05 18:51:50

End at: 2018-03-05 18:52:20

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.15 Mbit/s (94.6% utilization)

95th percentile per-packet one-way delay: 165.809 ms

Loss rate: 0.43%

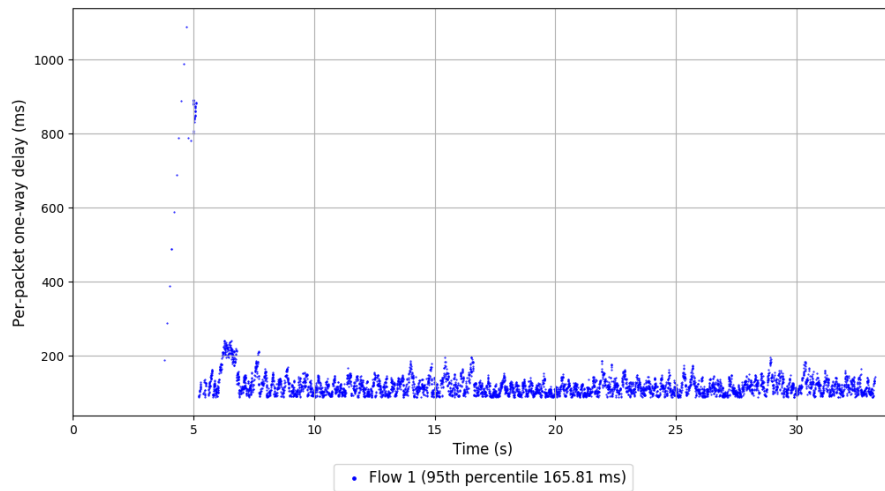
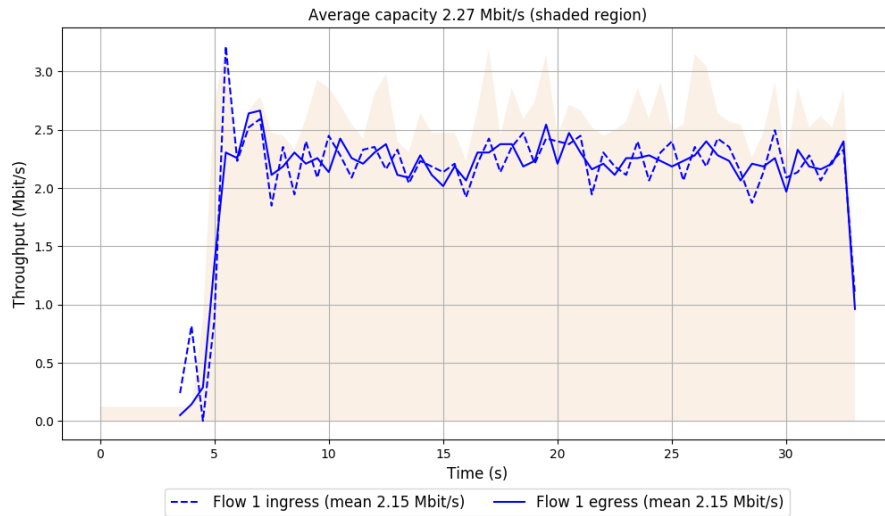
-- Flow 1:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 165.809 ms

Loss rate: 0.43%

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



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-05 19:02:00

End at: 2018-03-05 19:02:30

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.07 Mbit/s (91.2% utilization)

95th percentile per-packet one-way delay: 171.282 ms

Loss rate: 0.33%

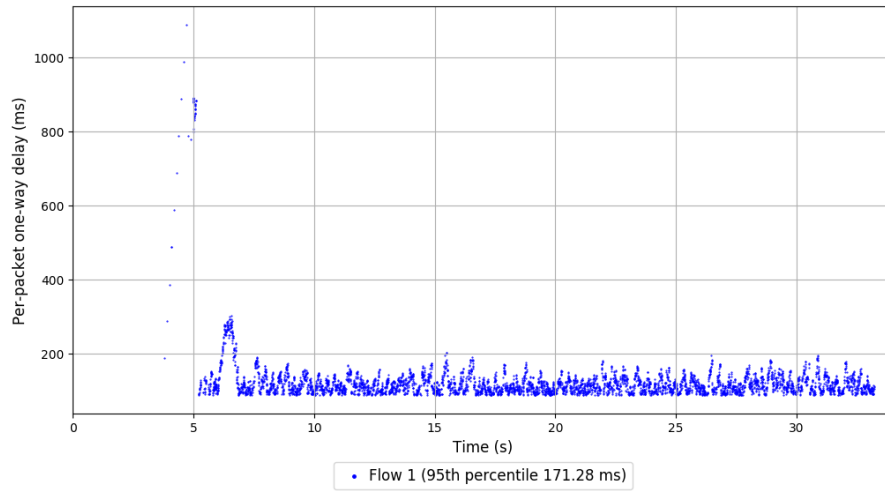
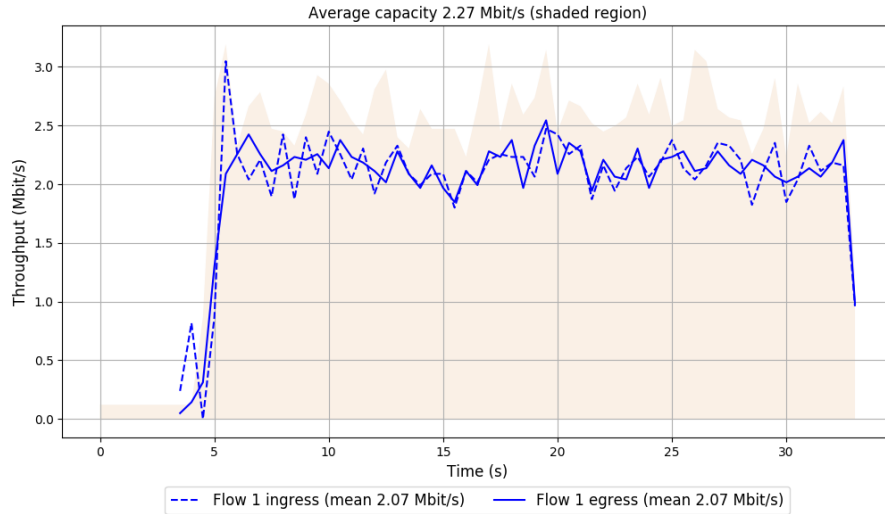
-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 171.282 ms

Loss rate: 0.33%

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



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-05 19:12:10

End at: 2018-03-05 19:12:40

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 1.84 Mbit/s (80.9% utilization)

95th percentile per-packet one-way delay: 183.619 ms

Loss rate: 0.29%

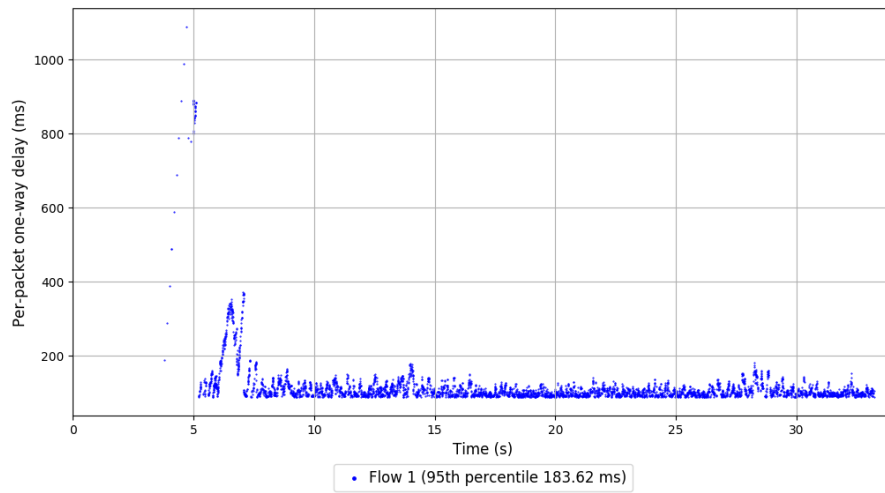
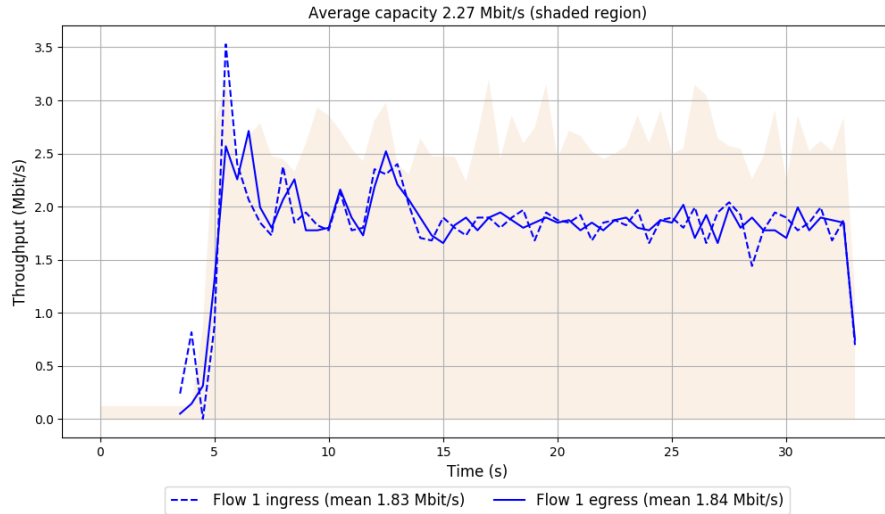
-- Flow 1:

Average throughput: 1.84 Mbit/s

95th percentile per-packet one-way delay: 183.619 ms

Loss rate: 0.29%

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



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-05 19:22:20

End at: 2018-03-05 19:22:50

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.04 Mbit/s (89.6% utilization)

95th percentile per-packet one-way delay: 168.460 ms

Loss rate: 0.38%

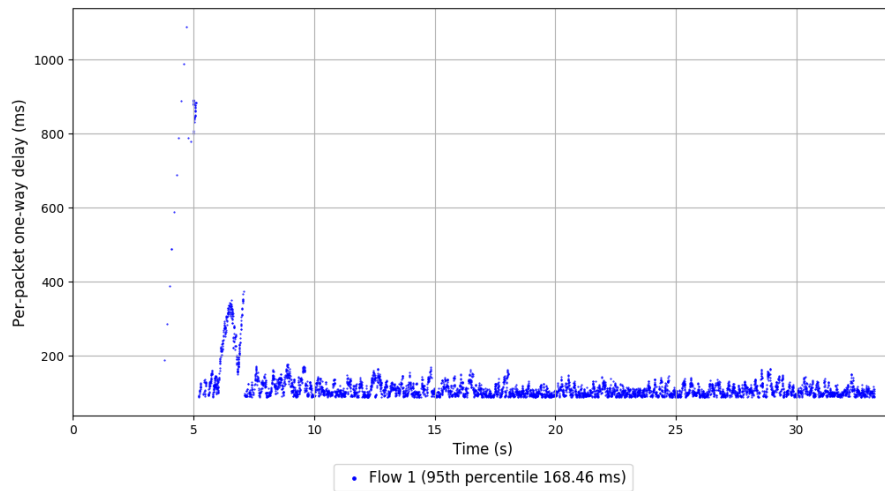
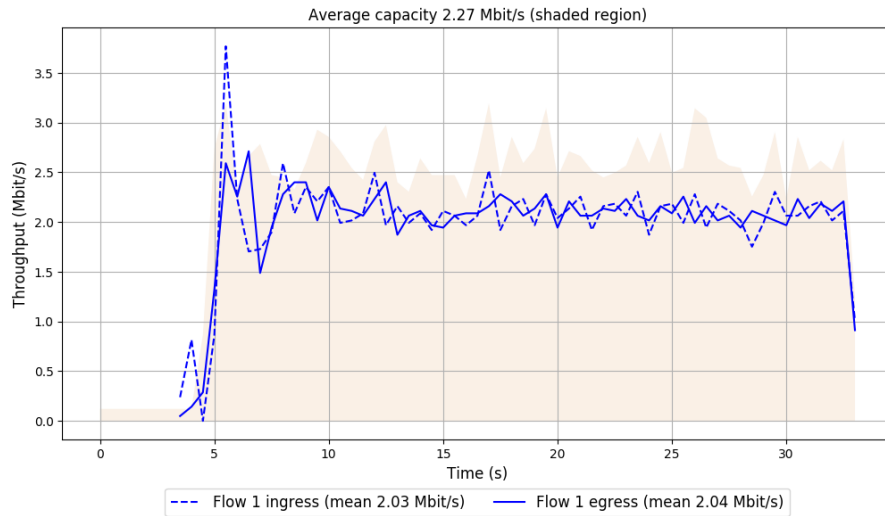
-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 168.460 ms

Loss rate: 0.38%

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



Run 1: Statistics of Vivace-latency

Start at: 2018-03-05 17:48:00

End at: 2018-03-05 17:48:30

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.38 Mbit/s (104.6% utilization)

95th percentile per-packet one-way delay: 716.246 ms

Loss rate: 17.83%

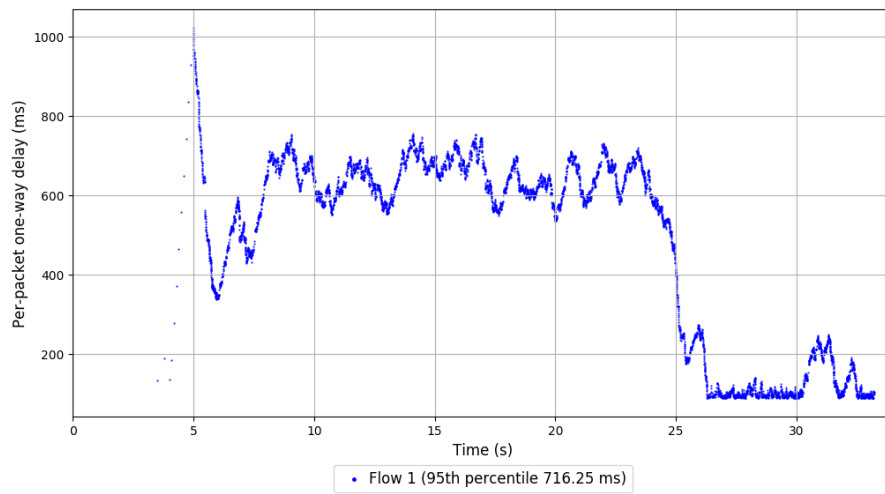
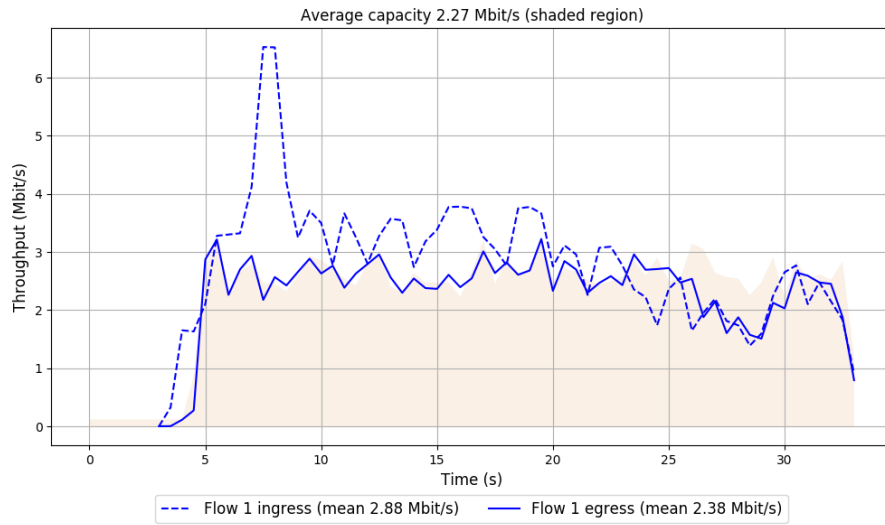
-- Flow 1:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 716.246 ms

Loss rate: 17.83%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-05 17:58:10

End at: 2018-03-05 17:58:40

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.12 Mbit/s (93.5% utilization)

95th percentile per-packet one-way delay: 699.501 ms

Loss rate: 13.54%

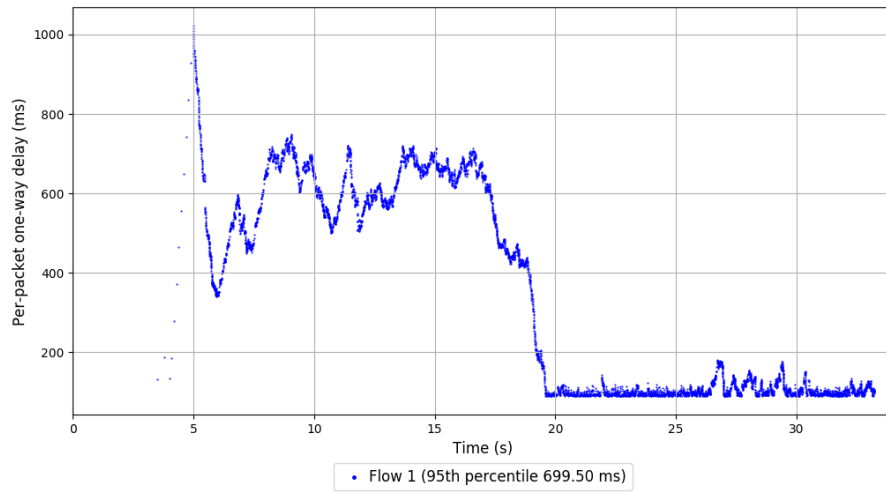
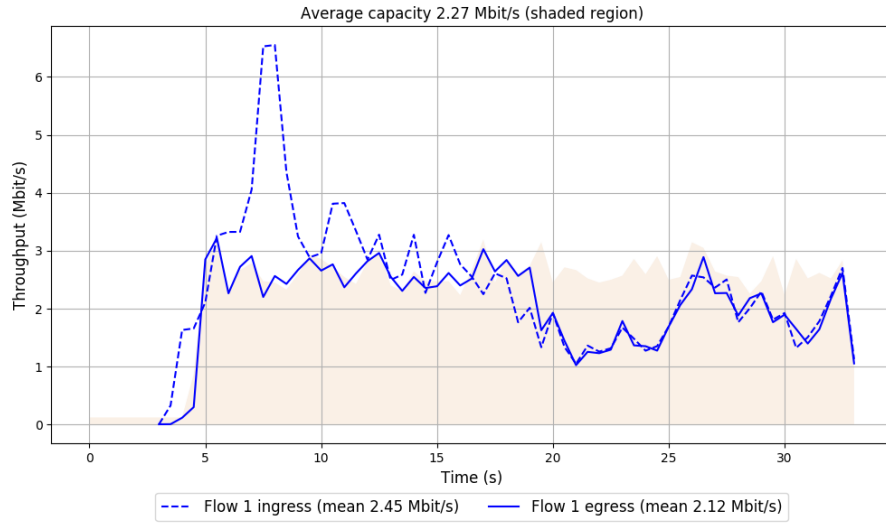
-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 699.501 ms

Loss rate: 13.54%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-05 18:08:20

End at: 2018-03-05 18:08:51

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.49 Mbit/s (109.6% utilization)

95th percentile per-packet one-way delay: 719.226 ms

Loss rate: 19.35%

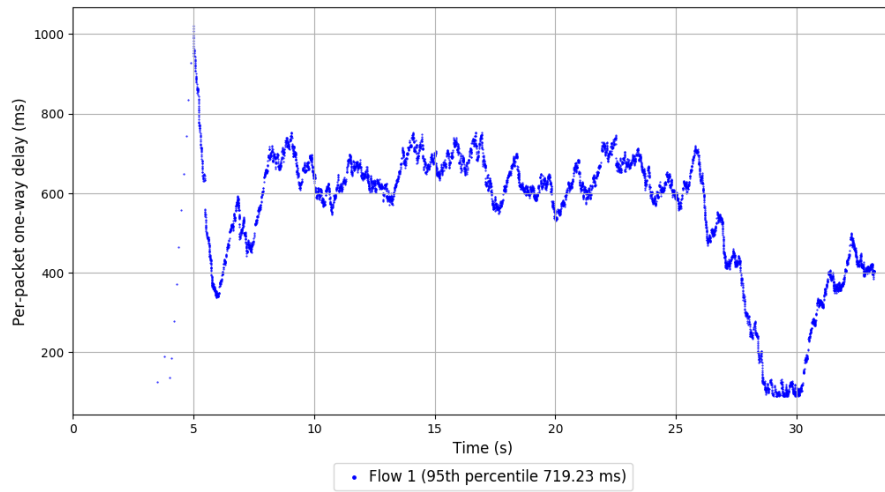
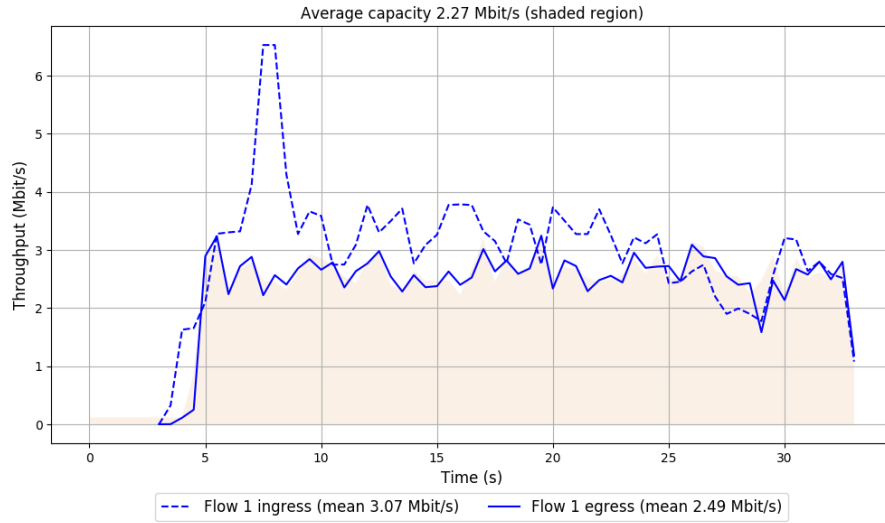
-- Flow 1:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 719.226 ms

Loss rate: 19.35%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-05 18:18:31

End at: 2018-03-05 18:19:01

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.33 Mbit/s (102.6% utilization)

95th percentile per-packet one-way delay: 704.593 ms

Loss rate: 14.85%

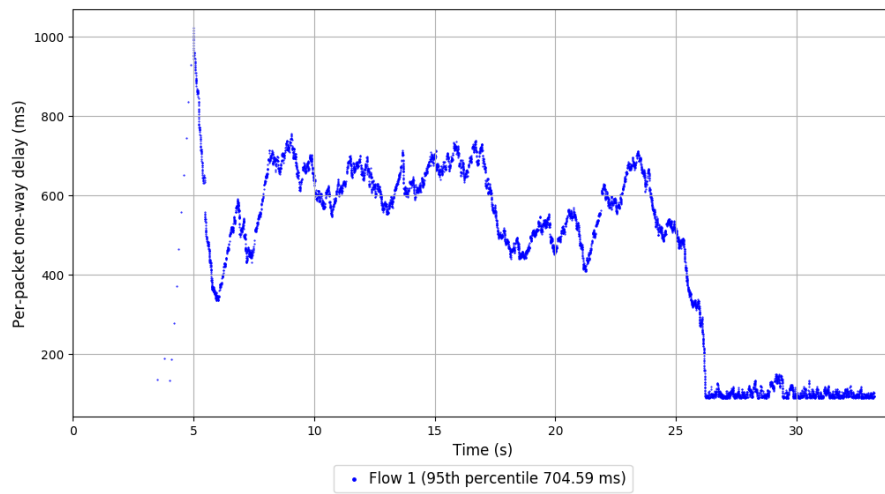
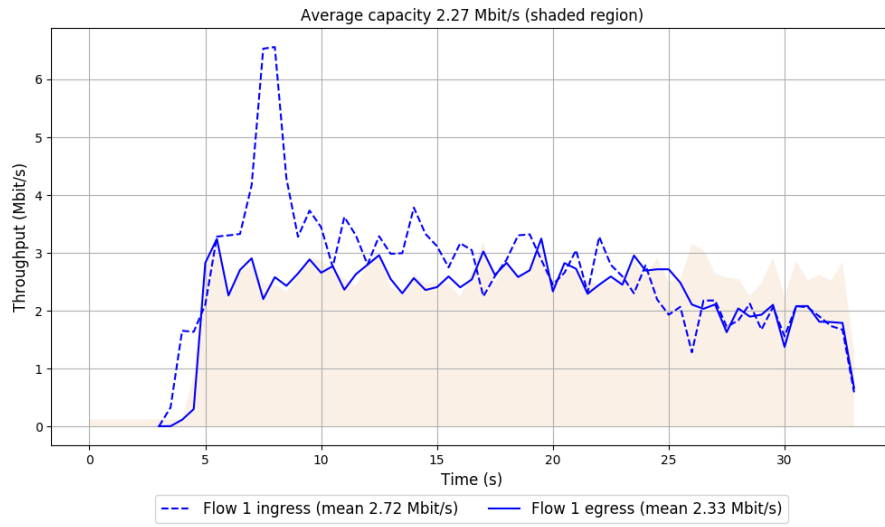
-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 704.593 ms

Loss rate: 14.85%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-03-05 18:28:41

End at: 2018-03-05 18:29:11

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.40 Mbit/s (105.4% utilization)

95th percentile per-packet one-way delay: 719.680 ms

Loss rate: 23.50%

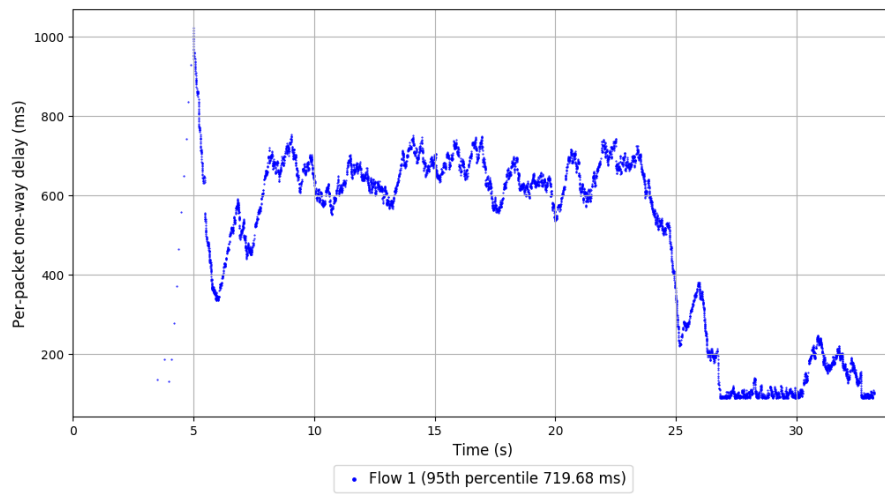
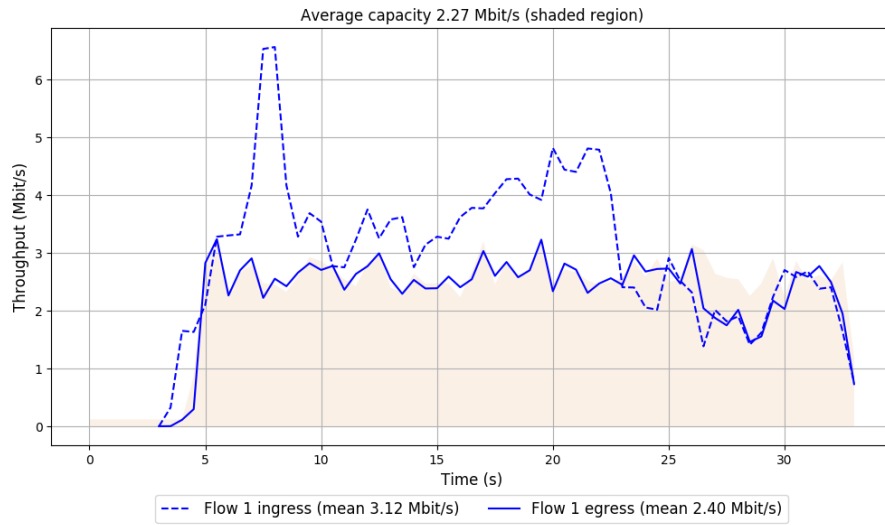
-- Flow 1:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 719.680 ms

Loss rate: 23.50%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-05 18:38:51

End at: 2018-03-05 18:39:21

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.48 Mbit/s (109.2% utilization)

95th percentile per-packet one-way delay: 714.600 ms

Loss rate: 18.48%

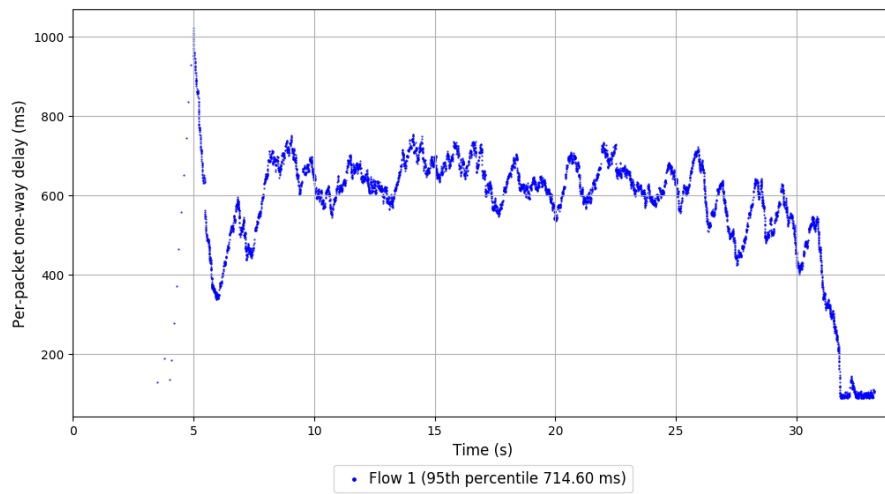
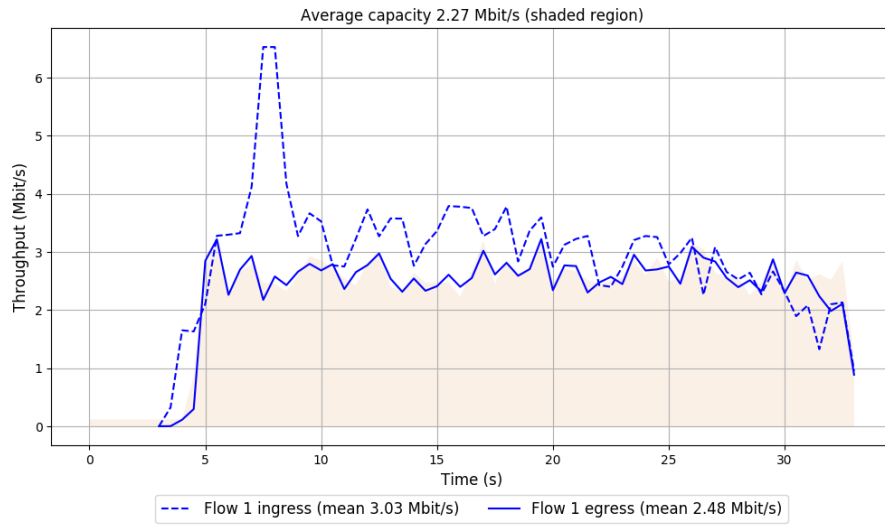
-- Flow 1:

Average throughput: 2.48 Mbit/s

95th percentile per-packet one-way delay: 714.600 ms

Loss rate: 18.48%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-05 18:49:01

End at: 2018-03-05 18:49:31

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.33 Mbit/s (102.6% utilization)

95th percentile per-packet one-way delay: 717.114 ms

Loss rate: 18.20%

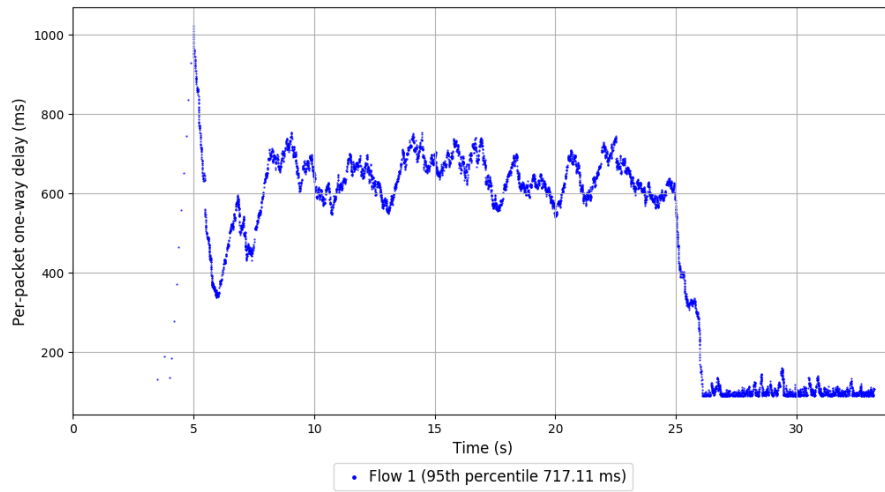
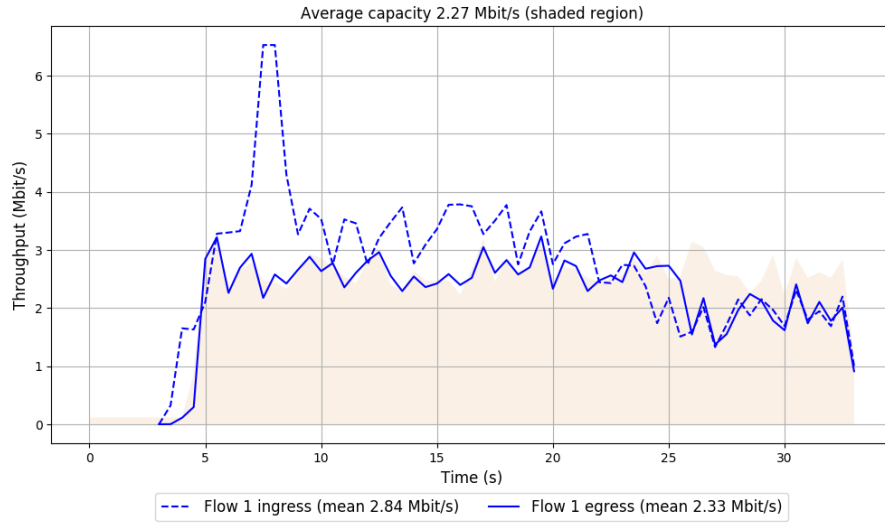
-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 717.114 ms

Loss rate: 18.20%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-05 18:59:11

End at: 2018-03-05 18:59:41

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.04 Mbit/s (89.9% utilization)

95th percentile per-packet one-way delay: 700.890 ms

Loss rate: 14.54%

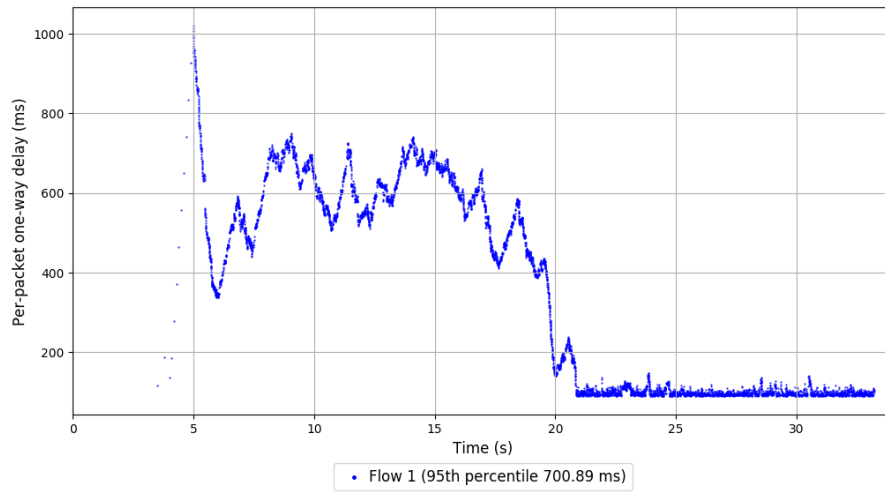
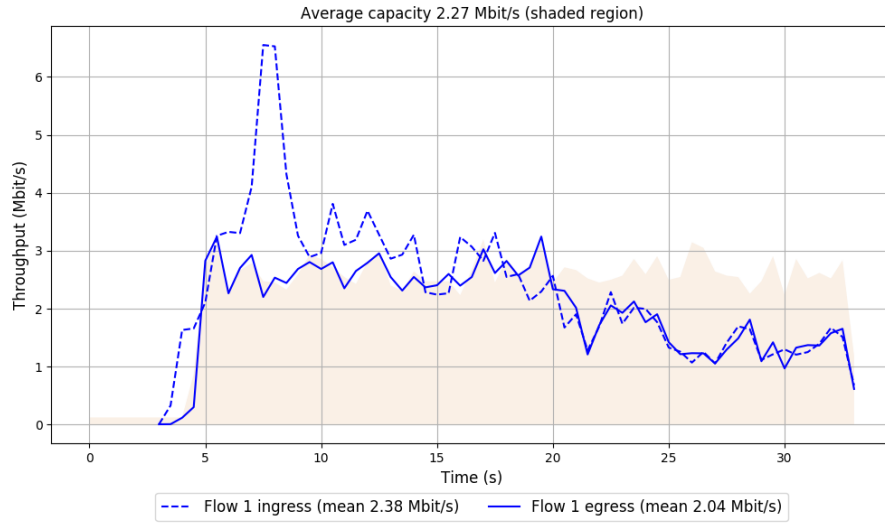
-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 700.890 ms

Loss rate: 14.54%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-05 19:09:21

End at: 2018-03-05 19:09:51

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.10 Mbit/s (92.5% utilization)

95th percentile per-packet one-way delay: 689.259 ms

Loss rate: 13.68%

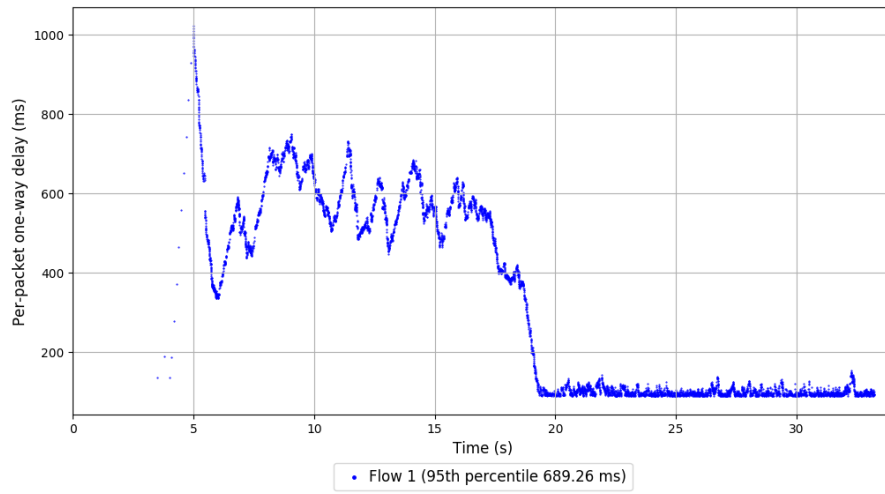
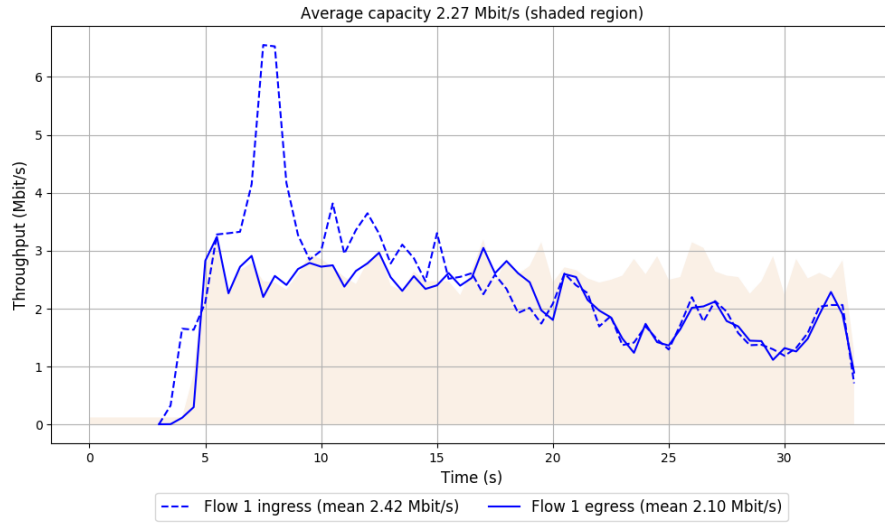
-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 689.259 ms

Loss rate: 13.68%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-05 19:19:31

End at: 2018-03-05 19:20:01

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.23 Mbit/s (98.2% utilization)

95th percentile per-packet one-way delay: 717.155 ms

Loss rate: 18.74%

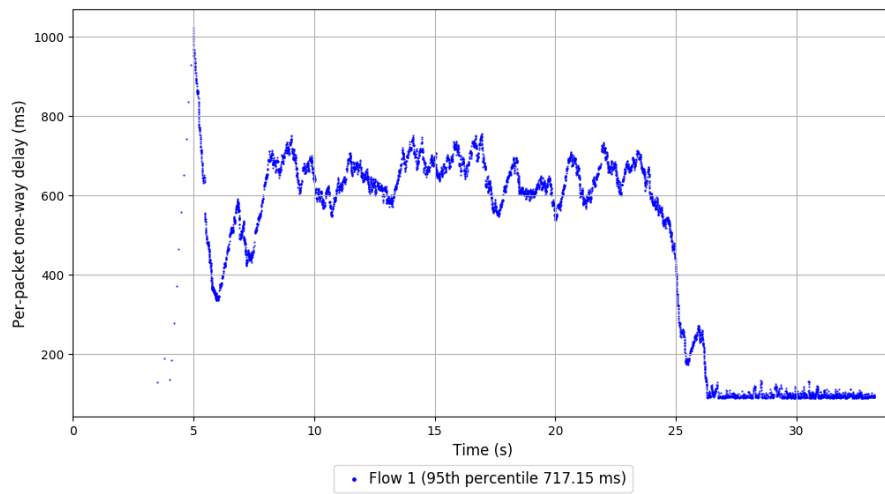
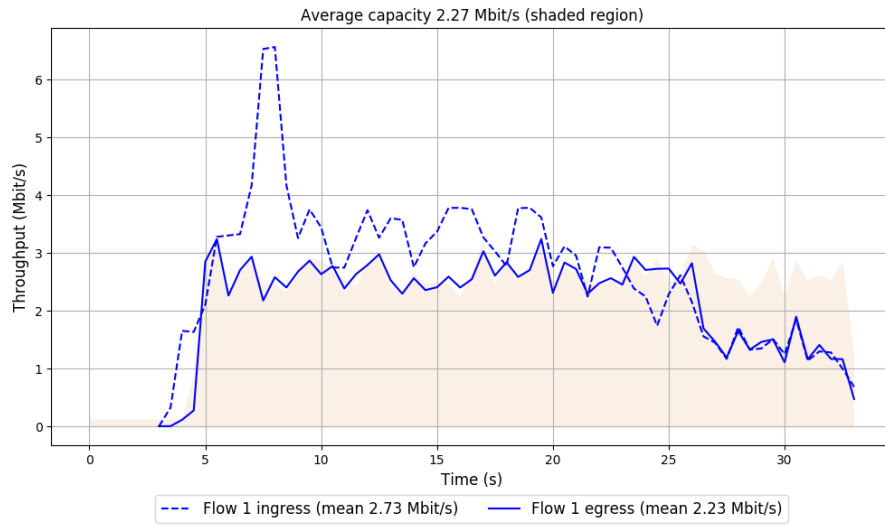
-- Flow 1:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 717.155 ms

Loss rate: 18.74%

Run 10: Report of Vivace-latency — Data Link



Run 1: Statistics of Vivace-loss

Start at: 2018-03-05 17:43:29

End at: 2018-03-05 17:43:59

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.44 Mbit/s (107.5% utilization)

95th percentile per-packet one-way delay: 721.081 ms

Loss rate: 27.28%

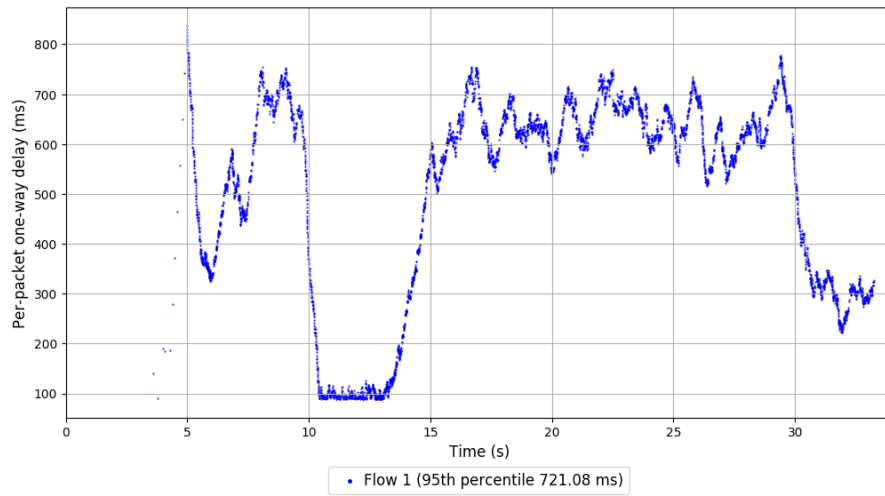
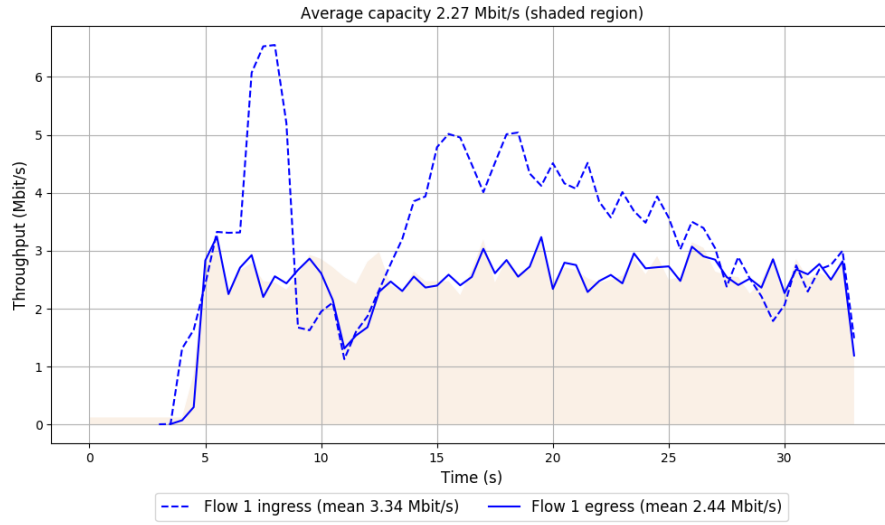
-- Flow 1:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 721.081 ms

Loss rate: 27.28%

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-03-05 17:53:38

End at: 2018-03-05 17:54:08

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 716.449 ms

Loss rate: 22.78%

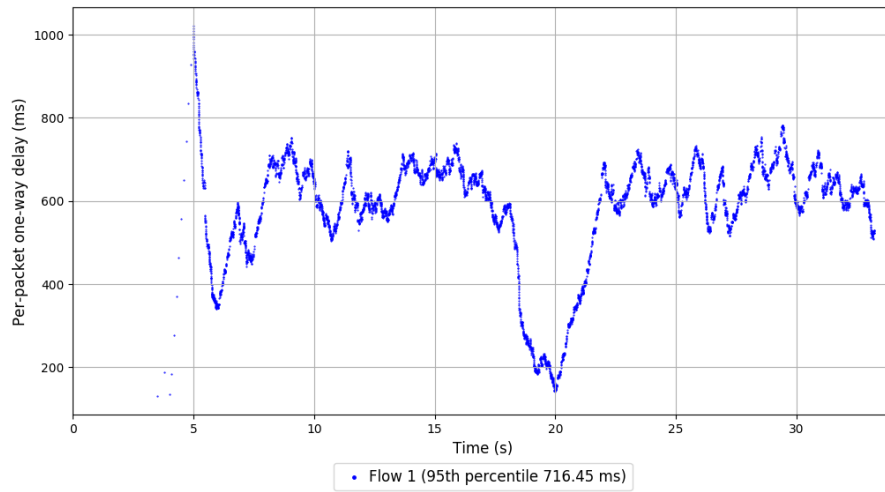
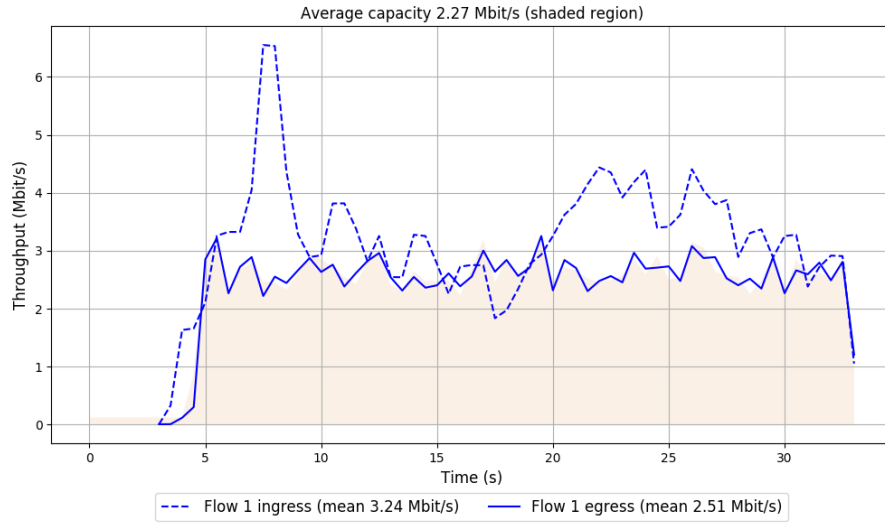
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 716.449 ms

Loss rate: 22.78%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-05 18:03:49

End at: 2018-03-05 18:04:19

Below is generated by plot.py at 2018-03-05 19:27:13

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 715.937 ms

Loss rate: 22.99%

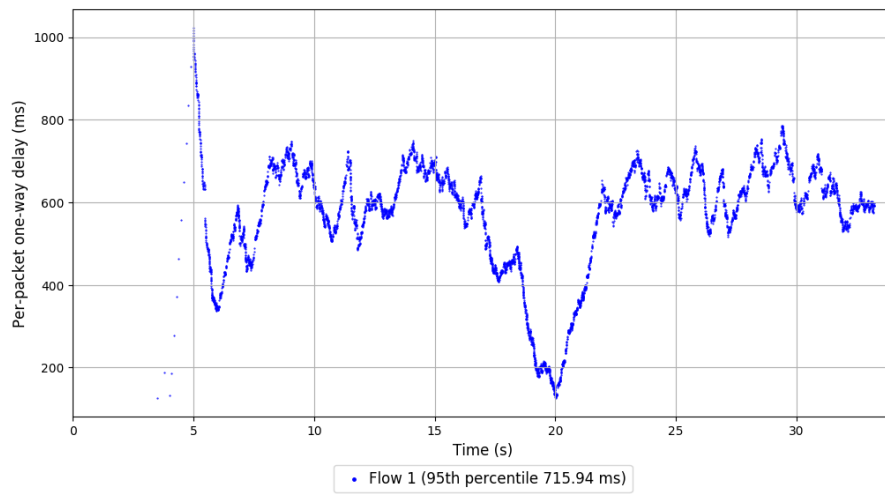
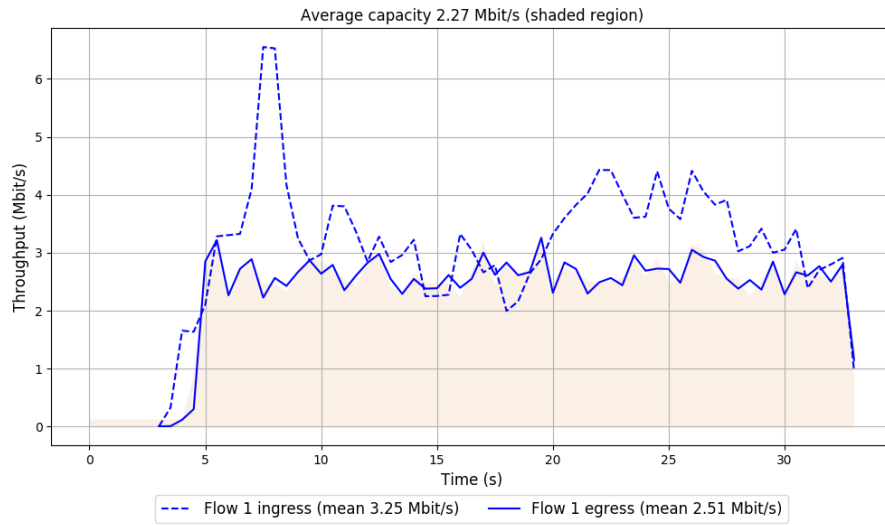
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 715.937 ms

Loss rate: 22.99%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-05 18:13:59

End at: 2018-03-05 18:14:29

Below is generated by plot.py at 2018-03-05 19:27:15

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 718.063 ms

Loss rate: 22.75%

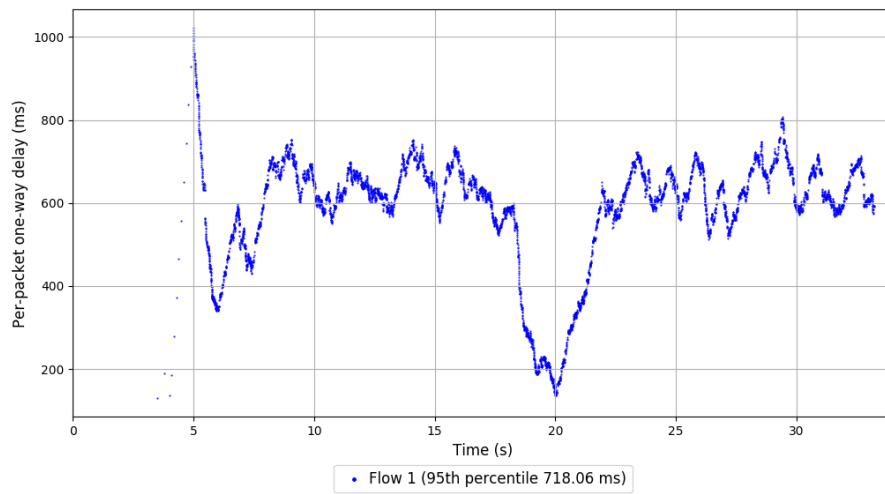
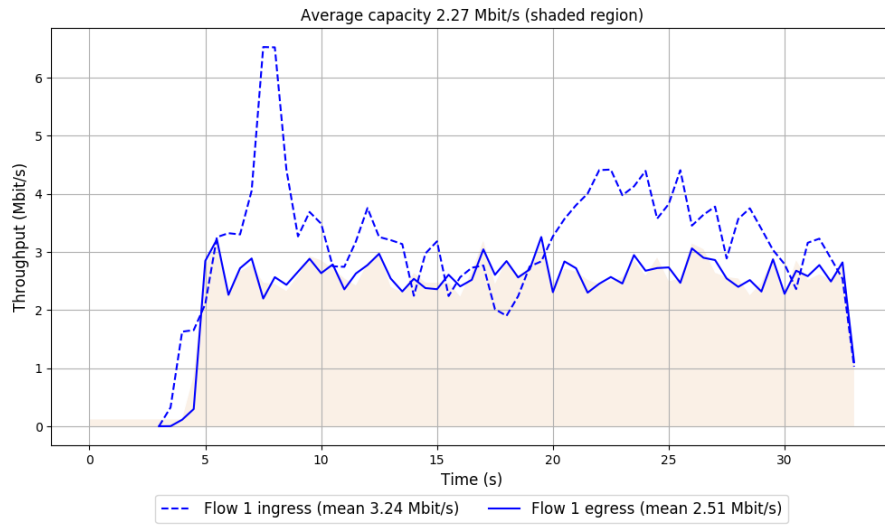
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 718.063 ms

Loss rate: 22.75%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-05 18:24:09

End at: 2018-03-05 18:24:39

Below is generated by plot.py at 2018-03-05 19:27:17

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 715.315 ms

Loss rate: 17.49%

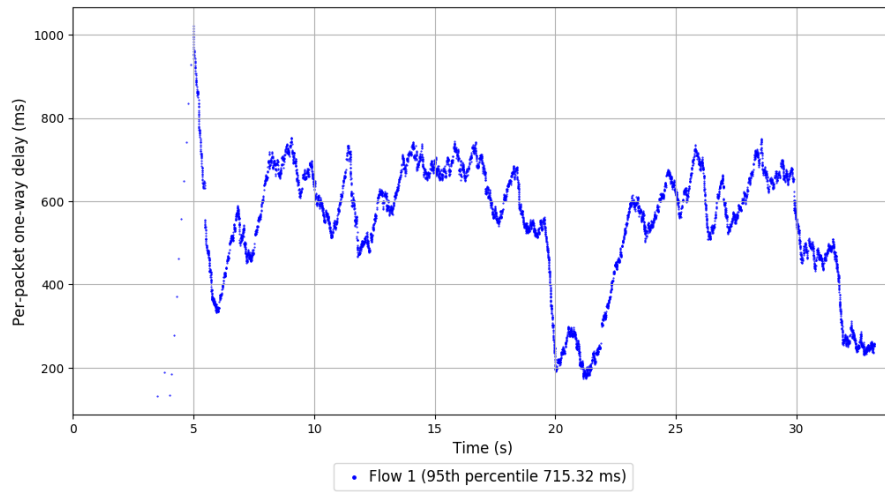
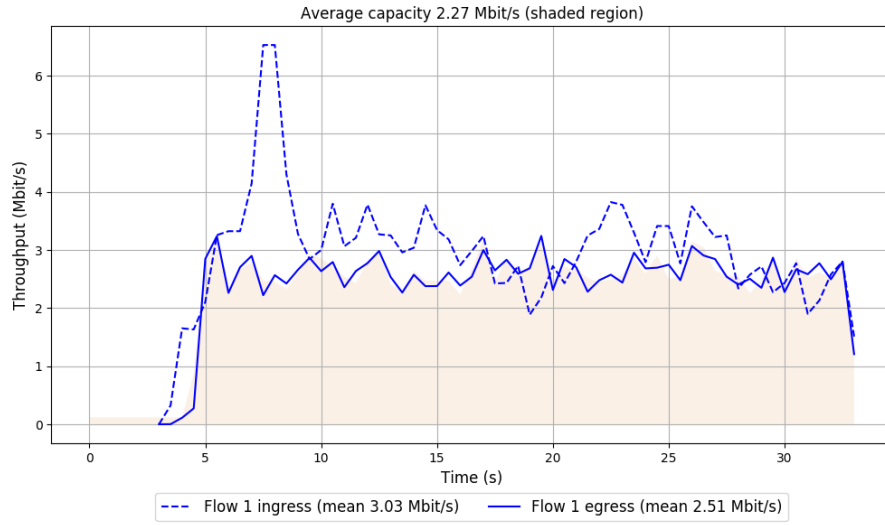
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 715.315 ms

Loss rate: 17.49%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-05 18:34:19

End at: 2018-03-05 18:34:49

Below is generated by plot.py at 2018-03-05 19:27:18

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 709.770 ms

Loss rate: 21.50%

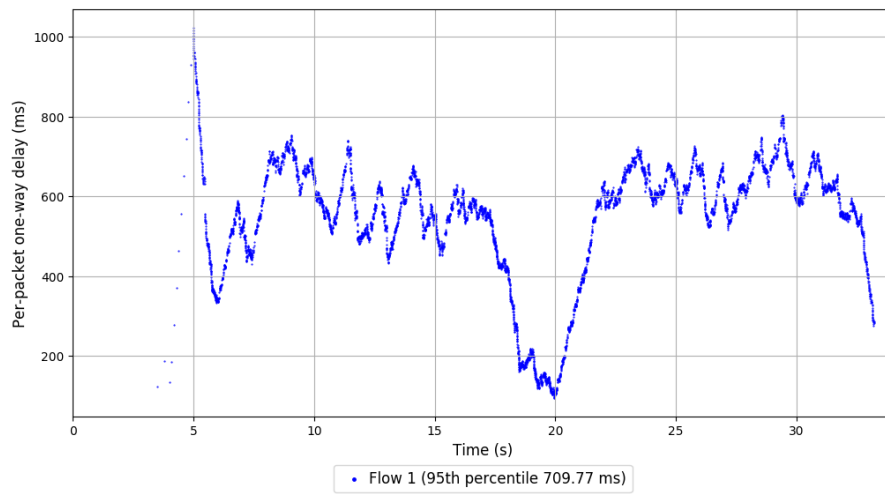
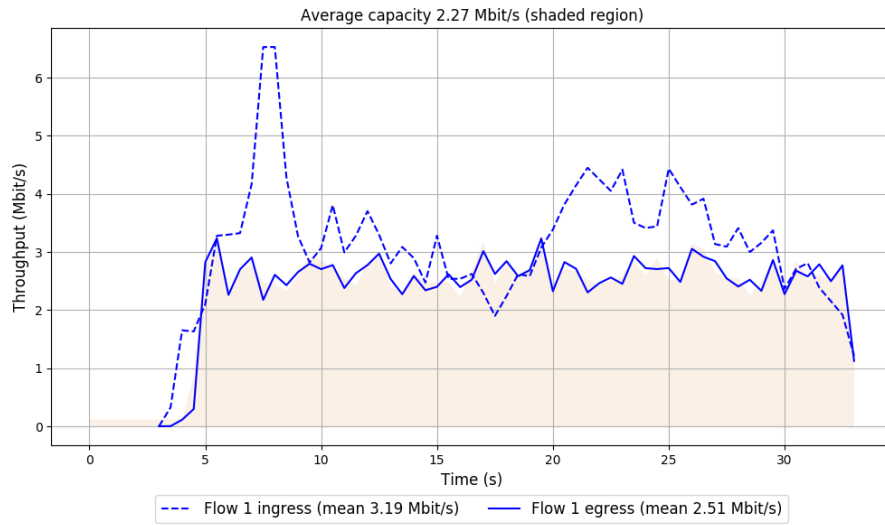
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 709.770 ms

Loss rate: 21.50%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-05 18:44:29

End at: 2018-03-05 18:44:59

Below is generated by plot.py at 2018-03-05 19:27:18

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 711.876 ms

Loss rate: 18.31%

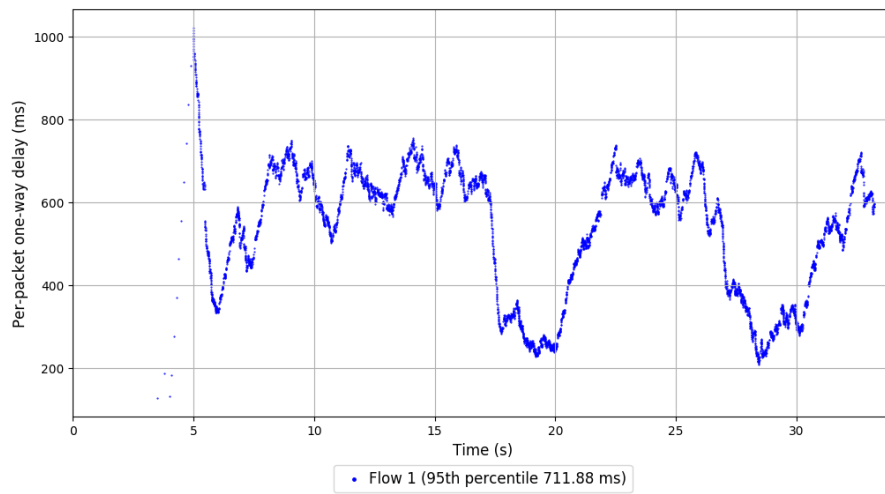
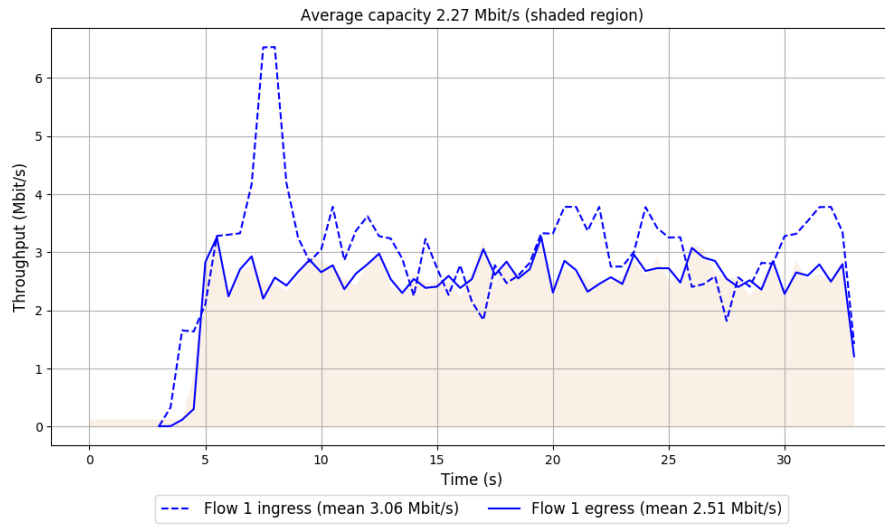
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 711.876 ms

Loss rate: 18.31%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-05 18:54:39

End at: 2018-03-05 18:55:09

Below is generated by plot.py at 2018-03-05 19:27:19

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.5% utilization)

95th percentile per-packet one-way delay: 713.233 ms

Loss rate: 23.15%

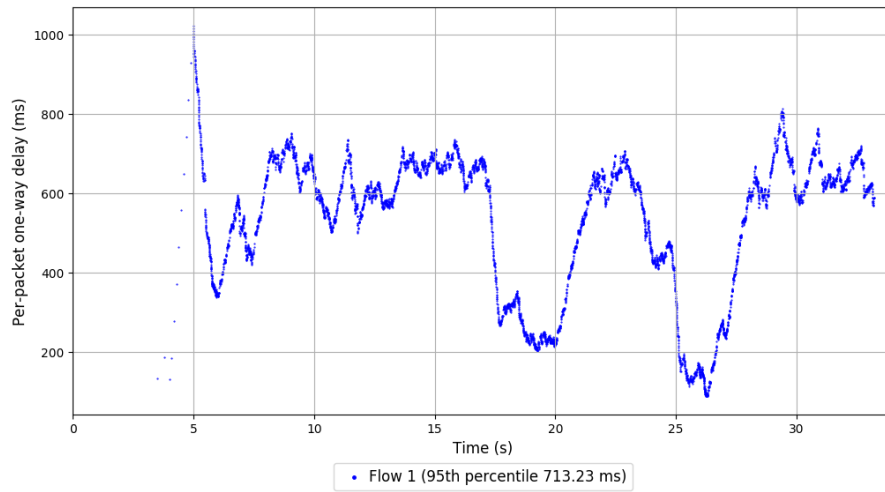
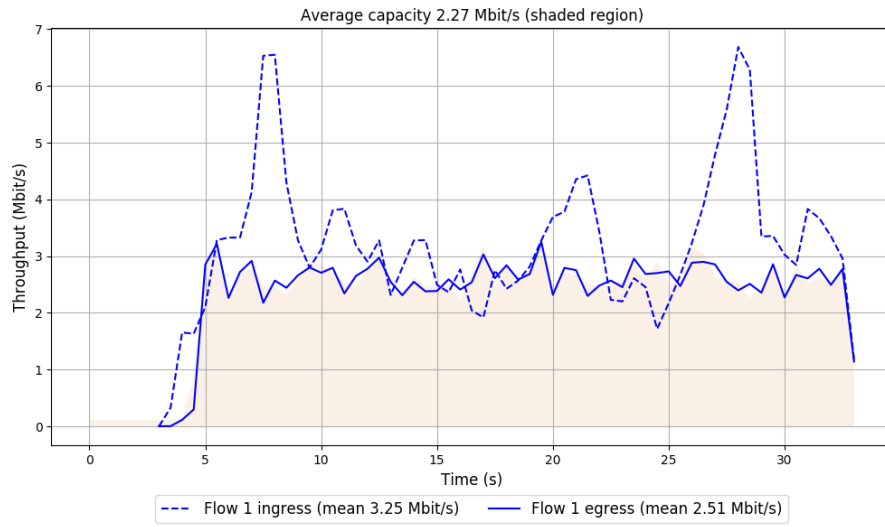
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 713.233 ms

Loss rate: 23.15%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-05 19:04:49

End at: 2018-03-05 19:05:19

Below is generated by plot.py at 2018-03-05 19:27:20

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 713.306 ms

Loss rate: 22.49%

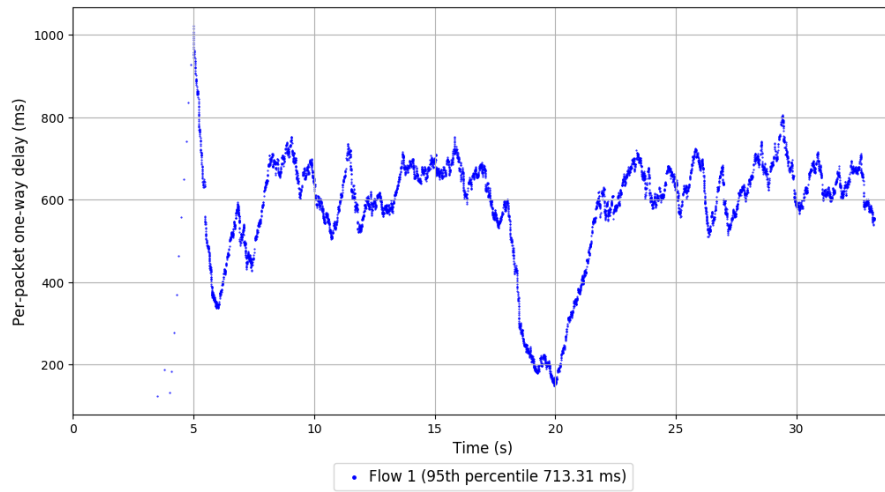
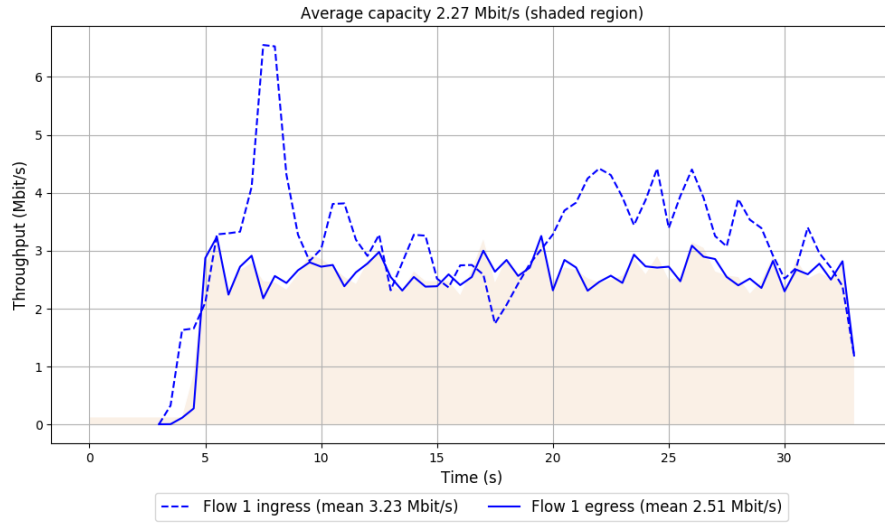
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 713.306 ms

Loss rate: 22.49%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-05 19:14:59

End at: 2018-03-05 19:15:29

Below is generated by plot.py at 2018-03-05 19:27:22

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.51 Mbit/s (110.6% utilization)

95th percentile per-packet one-way delay: 720.381 ms

Loss rate: 22.71%

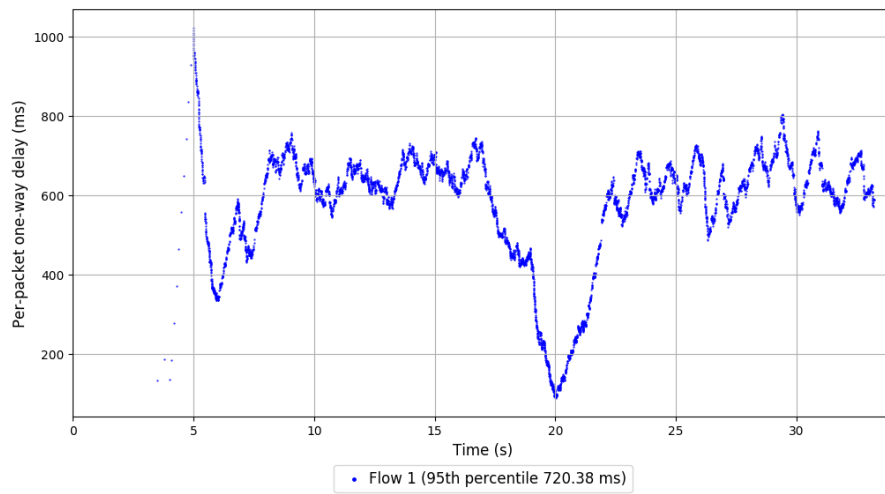
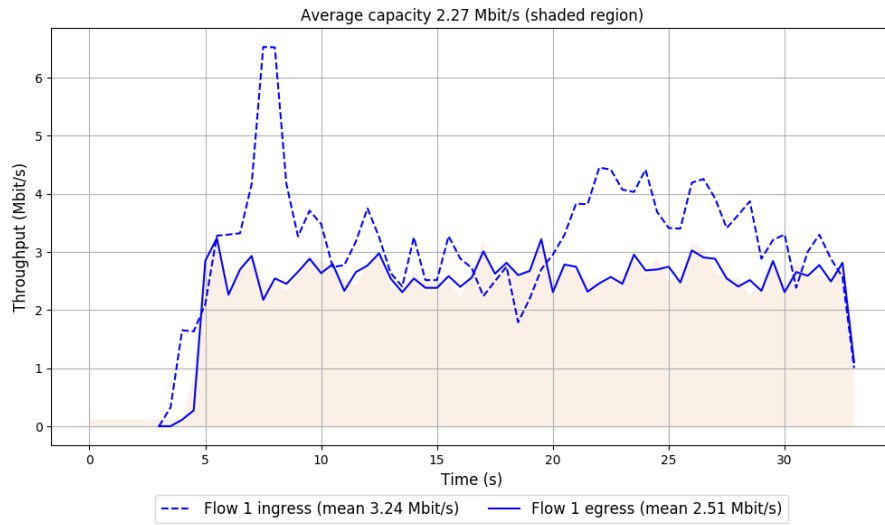
-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 720.381 ms

Loss rate: 22.71%

Run 10: Report of Vivace-loss — Data Link



Run 1: Statistics of Vivace-LTE

Start at: 2018-03-05 17:49:42

End at: 2018-03-05 17:50:12

Below is generated by plot.py at 2018-03-05 19:27:23

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.39 Mbit/s (105.3% utilization)

95th percentile per-packet one-way delay: 703.283 ms

Loss rate: 12.41%

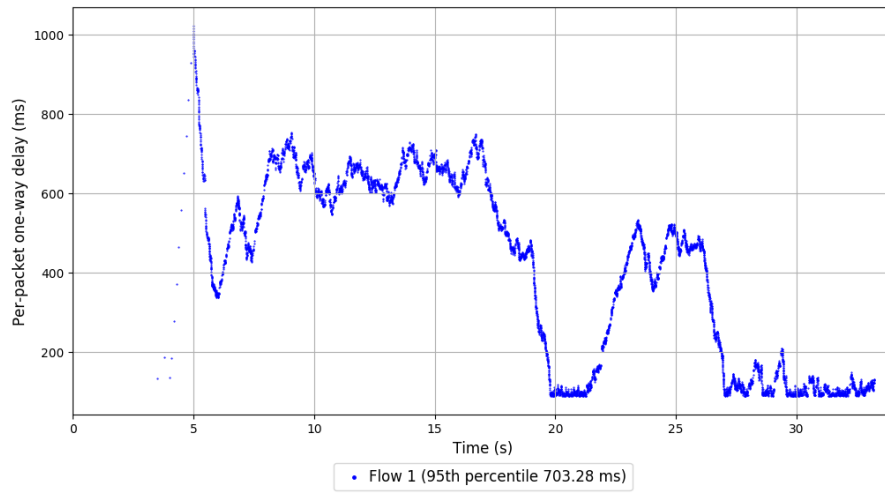
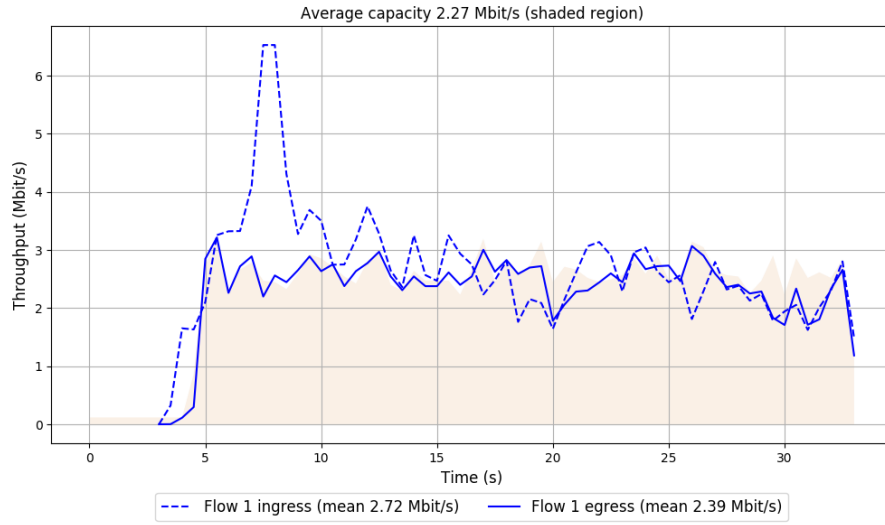
-- Flow 1:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 703.283 ms

Loss rate: 12.41%

Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-05 17:59:52

End at: 2018-03-05 18:00:22

Below is generated by plot.py at 2018-03-05 19:27:23

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.35 Mbit/s (103.5% utilization)

95th percentile per-packet one-way delay: 706.012 ms

Loss rate: 12.83%

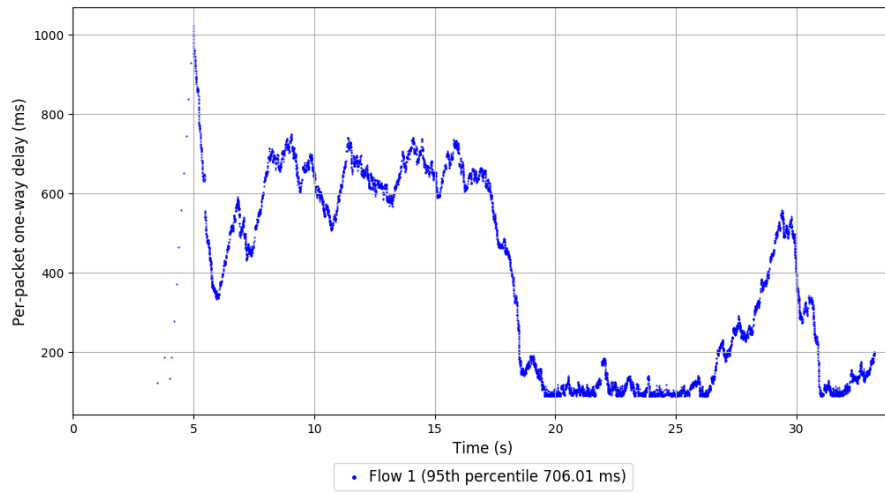
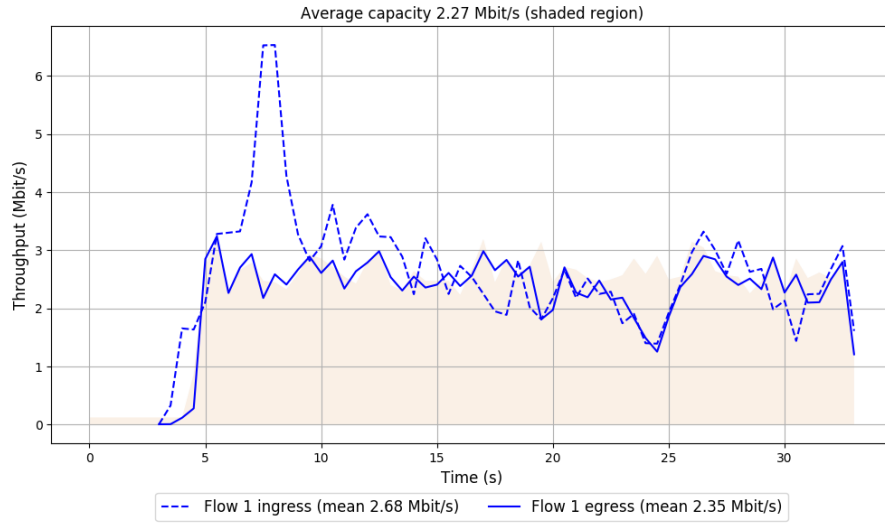
-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 706.012 ms

Loss rate: 12.83%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-05 18:10:02

End at: 2018-03-05 18:10:32

Below is generated by plot.py at 2018-03-05 19:27:26

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.43 Mbit/s (106.8% utilization)

95th percentile per-packet one-way delay: 693.778 ms

Loss rate: 12.08%

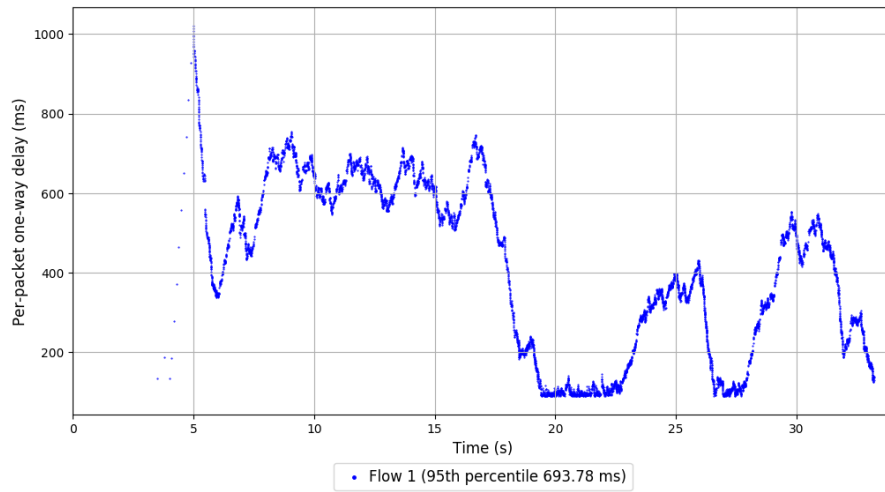
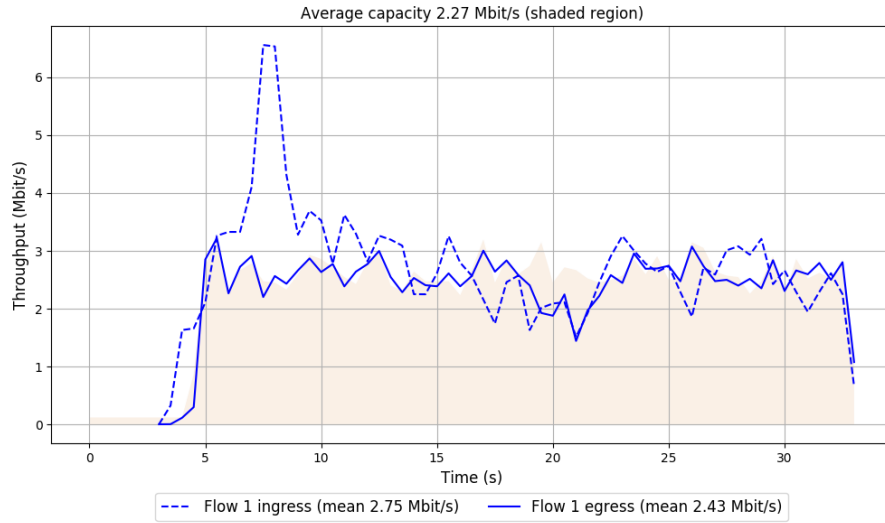
-- Flow 1:

Average throughput: 2.43 Mbit/s

95th percentile per-packet one-way delay: 693.778 ms

Loss rate: 12.08%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-05 18:20:12

End at: 2018-03-05 18:20:42

Below is generated by plot.py at 2018-03-05 19:27:27

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.33 Mbit/s (102.5% utilization)

95th percentile per-packet one-way delay: 685.925 ms

Loss rate: 12.50%

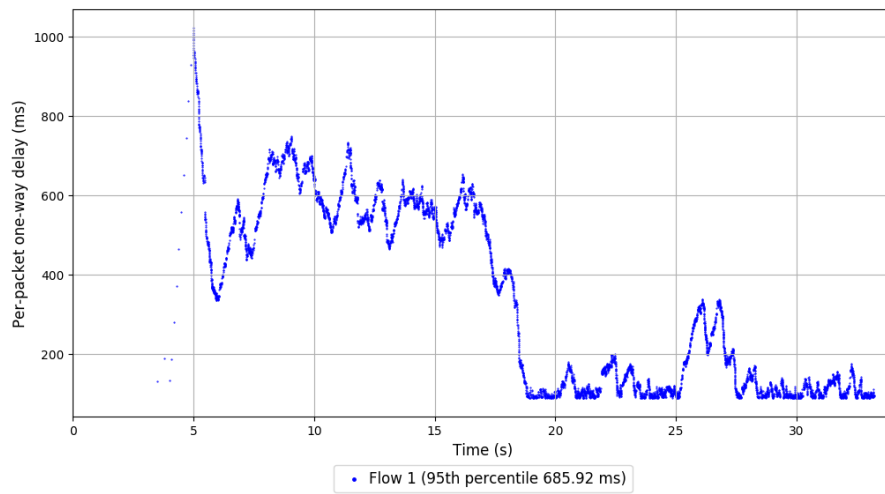
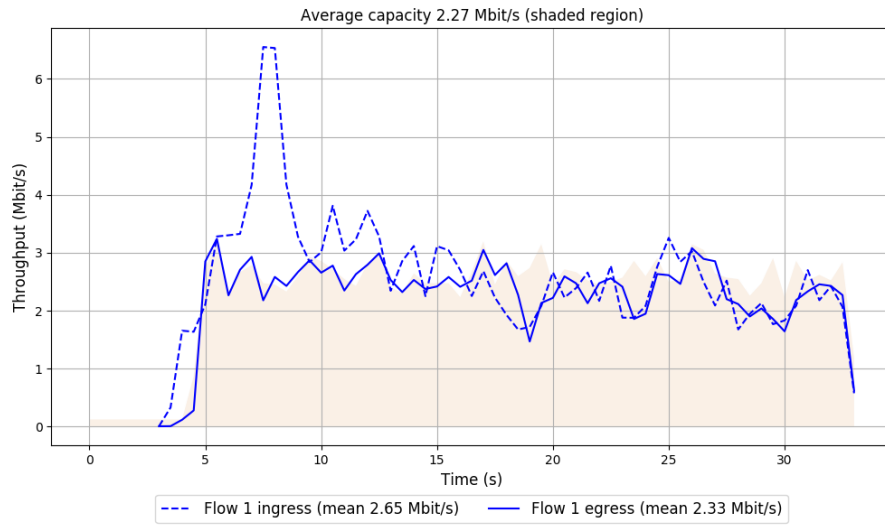
-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 685.925 ms

Loss rate: 12.50%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-05 18:30:22

End at: 2018-03-05 18:30:52

Below is generated by plot.py at 2018-03-05 19:27:27

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.36 Mbit/s (103.9% utilization)

95th percentile per-packet one-way delay: 704.238 ms

Loss rate: 13.12%

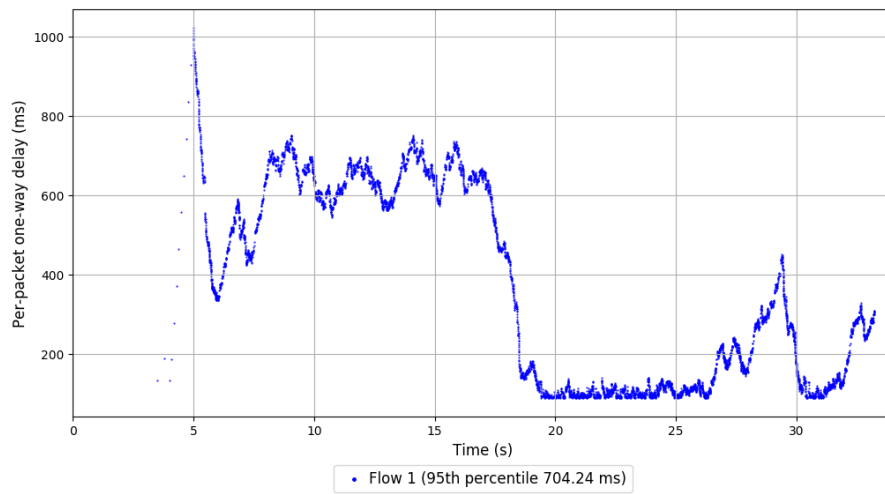
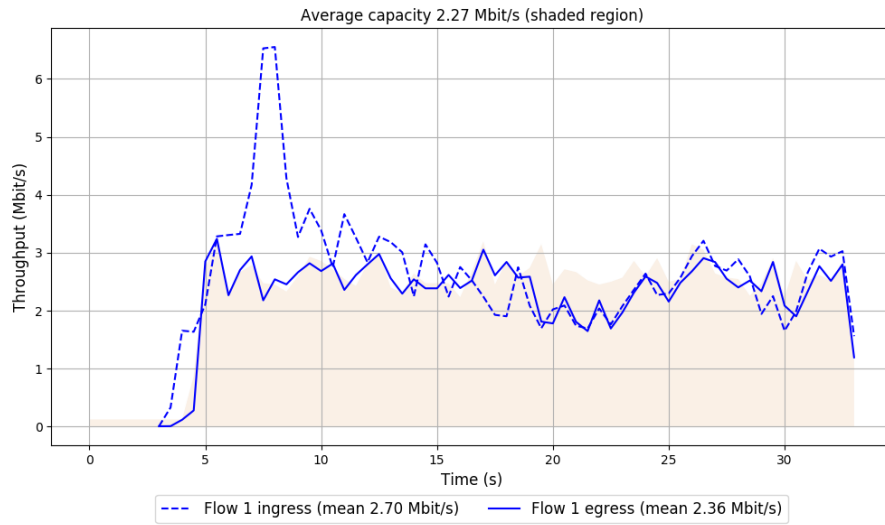
-- Flow 1:

Average throughput: 2.36 Mbit/s

95th percentile per-packet one-way delay: 704.238 ms

Loss rate: 13.12%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-05 18:40:32

End at: 2018-03-05 18:41:02

Below is generated by plot.py at 2018-03-05 19:27:28

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.38 Mbit/s (104.9% utilization)

95th percentile per-packet one-way delay: 700.185 ms

Loss rate: 12.58%

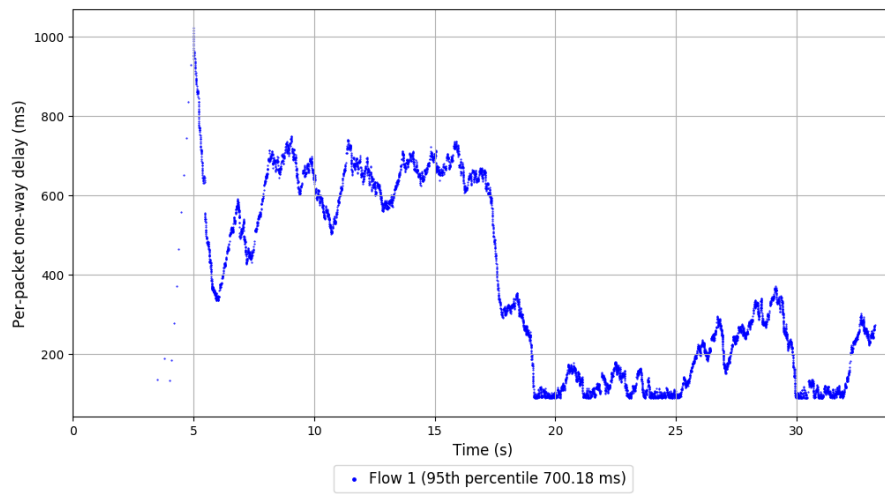
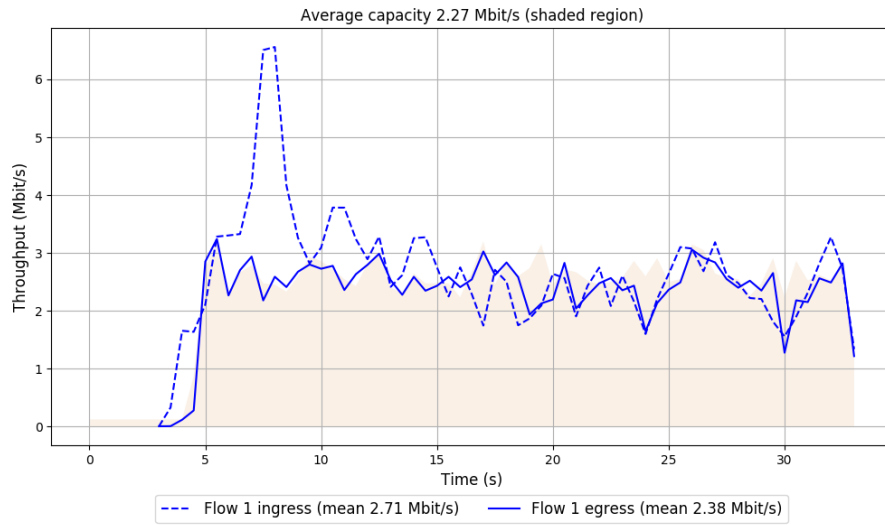
-- Flow 1:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 700.185 ms

Loss rate: 12.58%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-05 18:50:42

End at: 2018-03-05 18:51:12

Below is generated by plot.py at 2018-03-05 19:27:29

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.26 Mbit/s (99.4% utilization)

95th percentile per-packet one-way delay: 705.763 ms

Loss rate: 12.88%

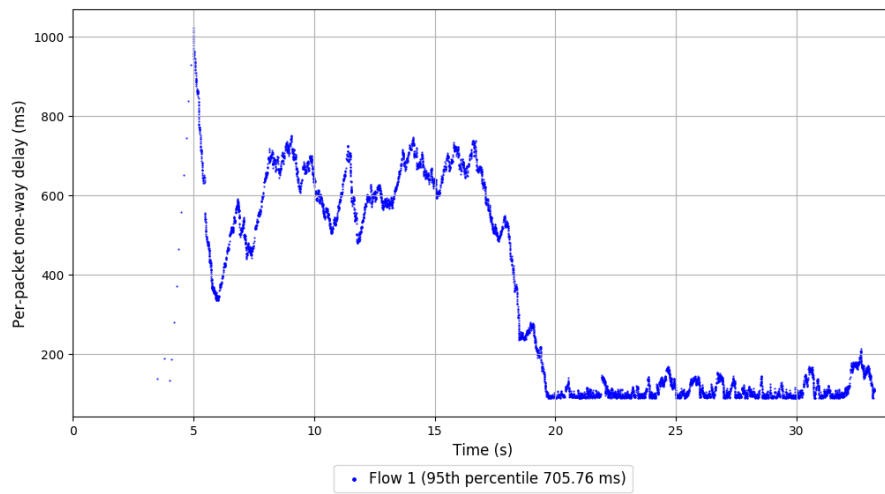
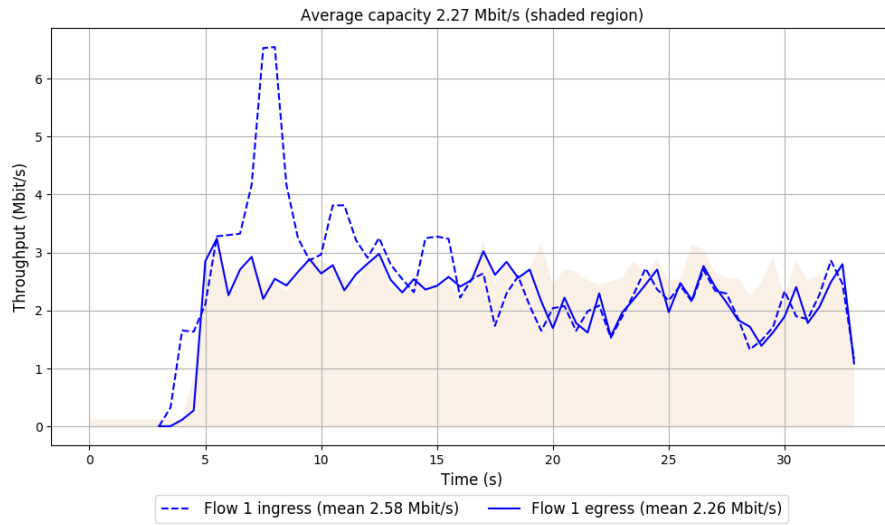
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 705.763 ms

Loss rate: 12.88%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-05 19:00:52

End at: 2018-03-05 19:01:22

Below is generated by plot.py at 2018-03-05 19:27:30

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.41 Mbit/s (106.0% utilization)

95th percentile per-packet one-way delay: 693.833 ms

Loss rate: 15.34%

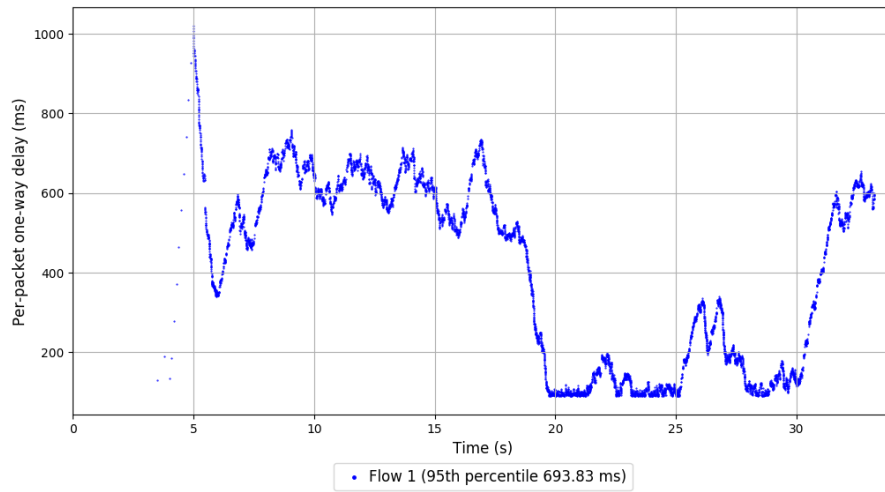
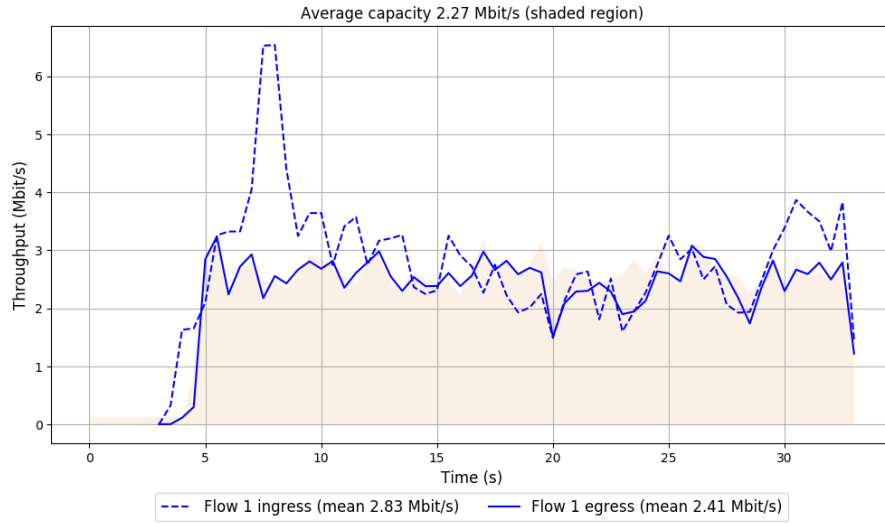
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 693.833 ms

Loss rate: 15.34%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-05 19:11:02

End at: 2018-03-05 19:11:32

Below is generated by plot.py at 2018-03-05 19:27:30

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.42 Mbit/s (106.6% utilization)

95th percentile per-packet one-way delay: 699.148 ms

Loss rate: 12.69%

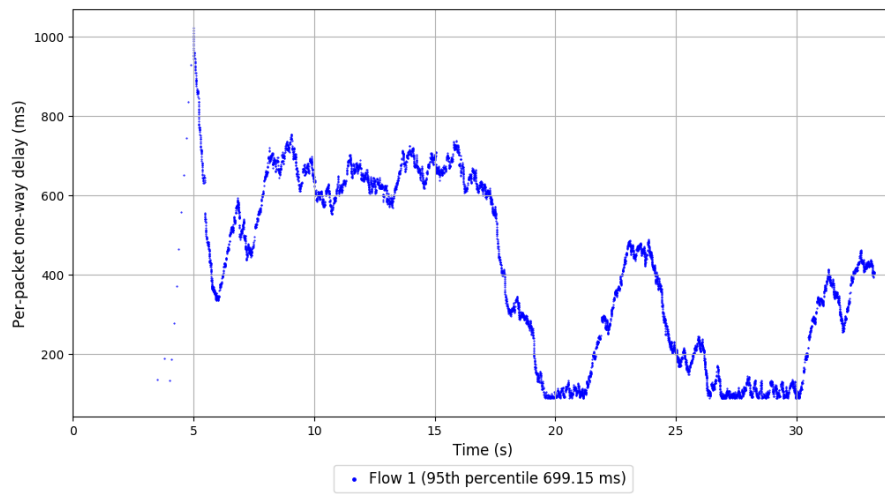
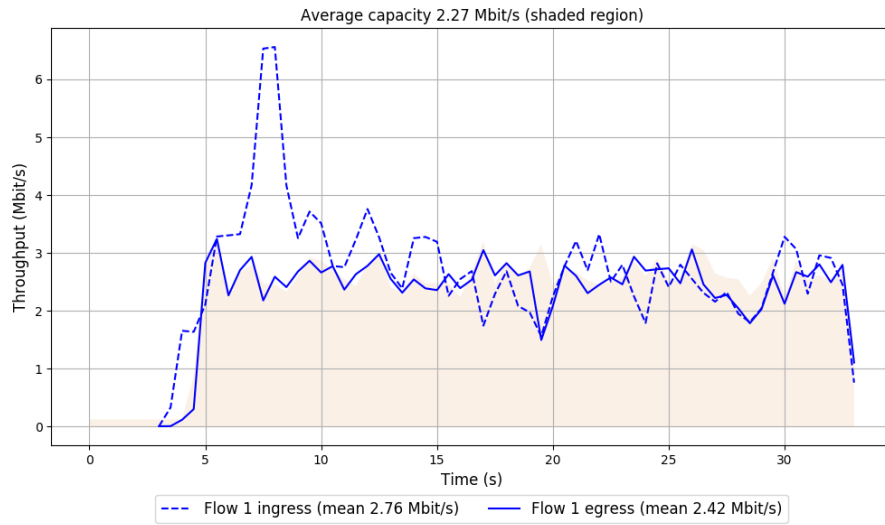
-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 699.148 ms

Loss rate: 12.69%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-03-05 19:21:12

End at: 2018-03-05 19:21:42

Below is generated by plot.py at 2018-03-05 19:27:30

Datalink statistics

-- Total of 1 flow:

Average capacity: 2.27 Mbit/s

Average throughput: 2.34 Mbit/s (103.2% utilization)

95th percentile per-packet one-way delay: 696.326 ms

Loss rate: 12.41%

-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 696.326 ms

Loss rate: 12.41%

Run 10: Report of Vivace-LTE — Data Link

