

## Pantheon Report

Generated at 2018-03-05 19:27:10 (UTC).

Tested in mahimahi: mm-delay 28 mm-loss uplink 0.0477 mm-link 0.57mbps-poisson.trace  
0.57mbps-poisson.trace --uplink-queue=droptail --uplink-queue-args=packets=14

Repeated the test of 17 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

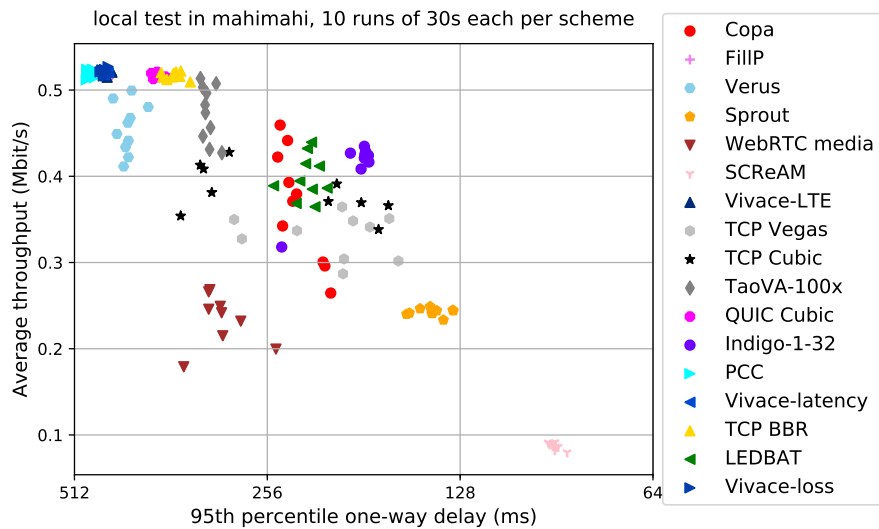
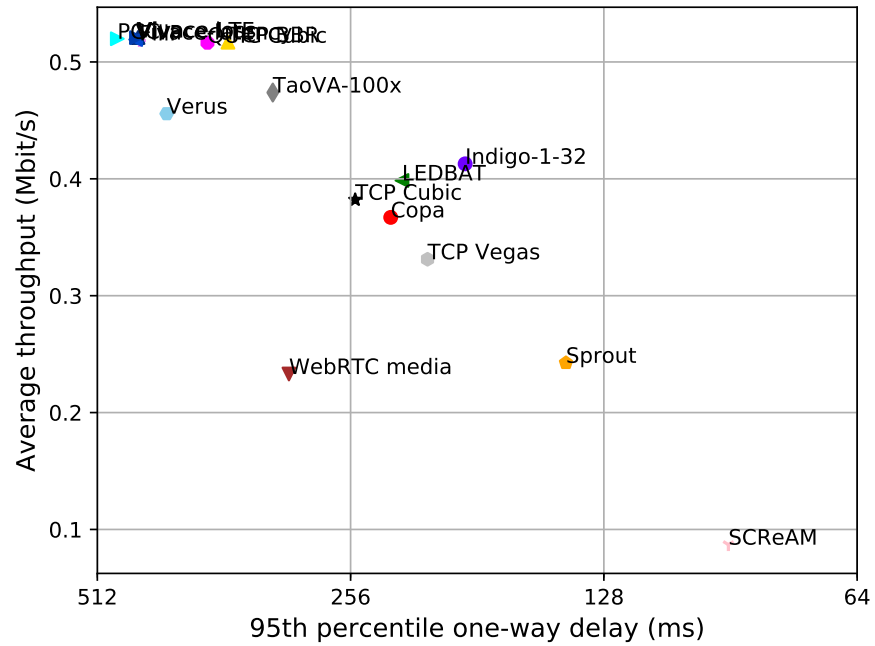
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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)



scheme	# runs	mean avg tput (Mbit/s)	mean 95th-%ile delay (ms)	mean loss rate (%)
		flow 1	flow 1	flow 1
TCP BBR	10	0.52	358.09	6.15
TCP Cubic	10	0.38	252.82	6.34
LEDBAT	10	0.40	222.44	5.29
PCC	10	0.52	484.73	84.92
QUIC Cubic	9	0.52	378.77	11.42
SCReAM	10	0.09	91.03	5.00
WebRTC media	9	0.23	303.06	12.77
Sprout	10	0.24	142.00	5.22
TaoVA-100x	10	0.47	316.74	65.81
TCP Vegas	10	0.33	207.40	5.53
Verus	10	0.45	423.47	28.29
Copa	10	0.37	229.38	11.93
FillP	10	0.52	456.27	97.15
Indigo-1-32	10	0.41	187.11	6.90
Vivace-latency	10	0.52	461.00	61.25
Vivace-loss	10	0.52	459.93	61.52
Vivace-LTE	10	0.52	458.05	61.43

Run 1: Statistics of TCP BBR

Start at: 2018-03-05 17:52:00

End at: 2018-03-05 17:52:30

# Below is generated by plot.py at 2018-03-05 19:24:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.7% utilization)

95th percentile per-packet one-way delay: 350.581 ms

Loss rate: 6.69%

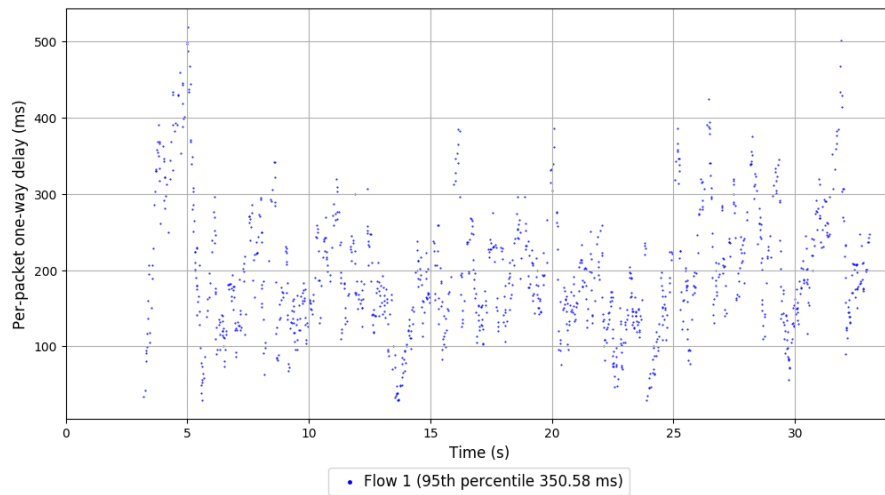
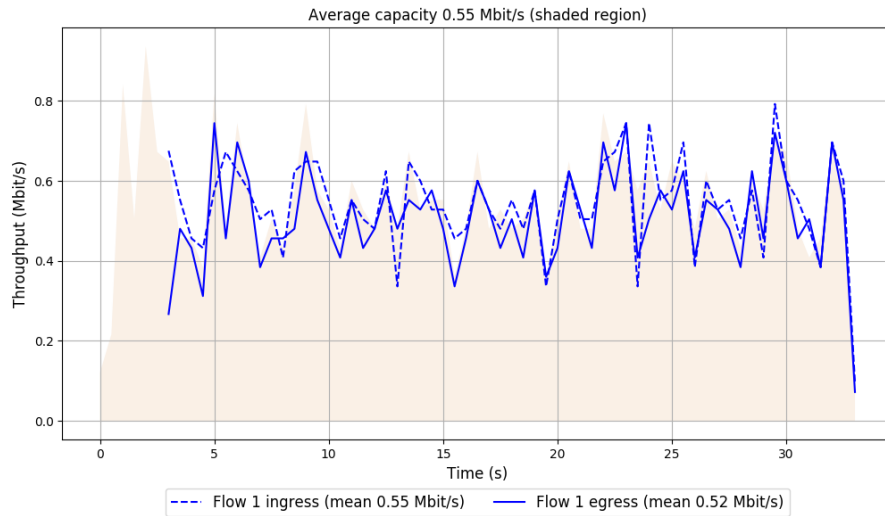
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 350.581 ms

Loss rate: 6.69%

# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-05 18:02:14

End at: 2018-03-05 18:02:44

# Below is generated by plot.py at 2018-03-05 19:24:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.3% utilization)

95th percentile per-packet one-way delay: 358.418 ms

Loss rate: 5.96%

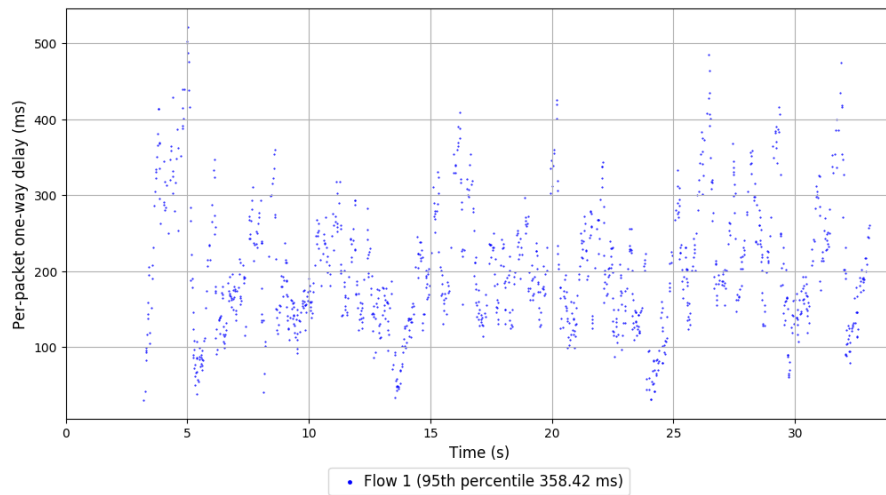
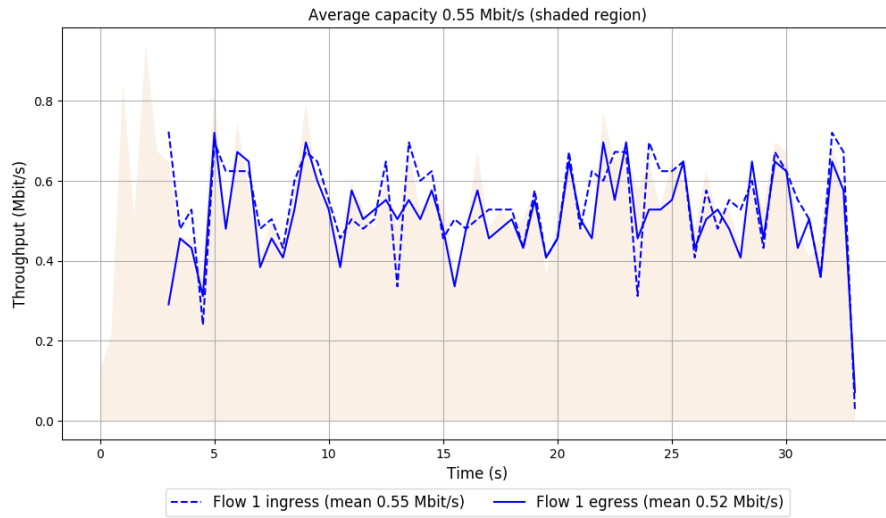
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 358.418 ms

Loss rate: 5.96%

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



Run 3: Statistics of TCP BBR

Start at: 2018-03-05 18:12:27

End at: 2018-03-05 18:12:57

# Below is generated by plot.py at 2018-03-05 19:24:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.4% utilization)

95th percentile per-packet one-way delay: 372.789 ms

Loss rate: 7.30%

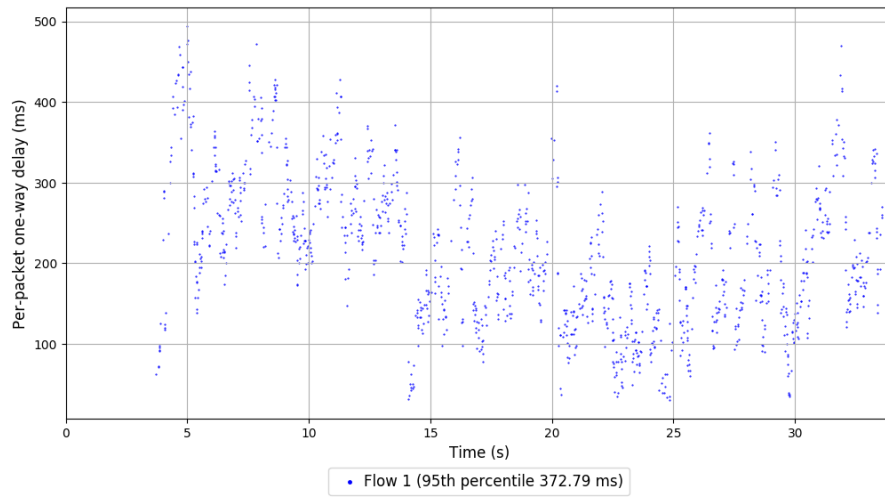
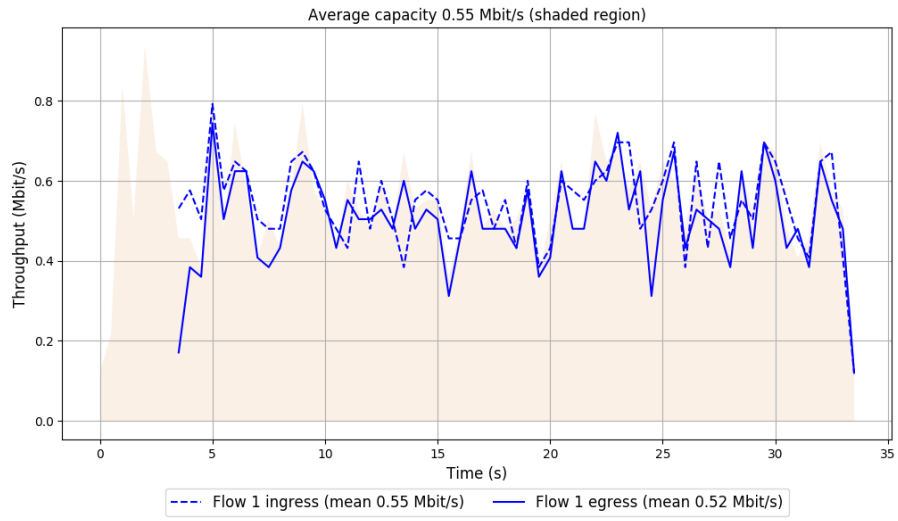
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 372.789 ms

Loss rate: 7.30%

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



Run 4: Statistics of TCP BBR

Start at: 2018-03-05 18:22:38

End at: 2018-03-05 18:23:08

# Below is generated by plot.py at 2018-03-05 19:24:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.5% utilization)

95th percentile per-packet one-way delay: 360.478 ms

Loss rate: 5.87%

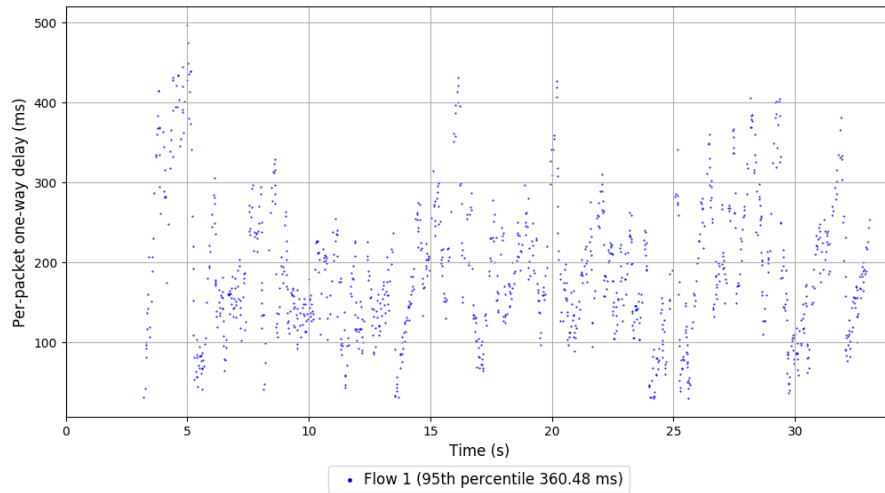
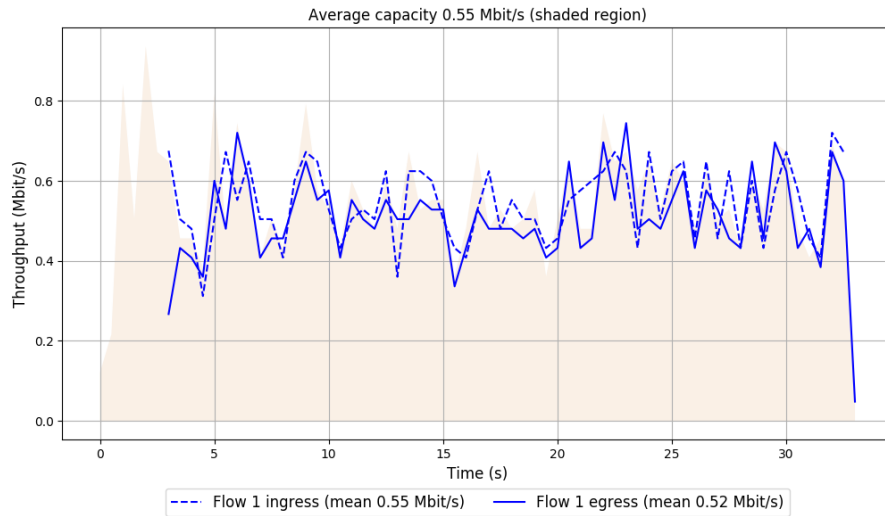
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 360.478 ms

Loss rate: 5.87%

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



Run 5: Statistics of TCP BBR

Start at: 2018-03-05 18:32:49

End at: 2018-03-05 18:33:19

# Below is generated by plot.py at 2018-03-05 19:24:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.8% utilization)

95th percentile per-packet one-way delay: 349.387 ms

Loss rate: 6.63%

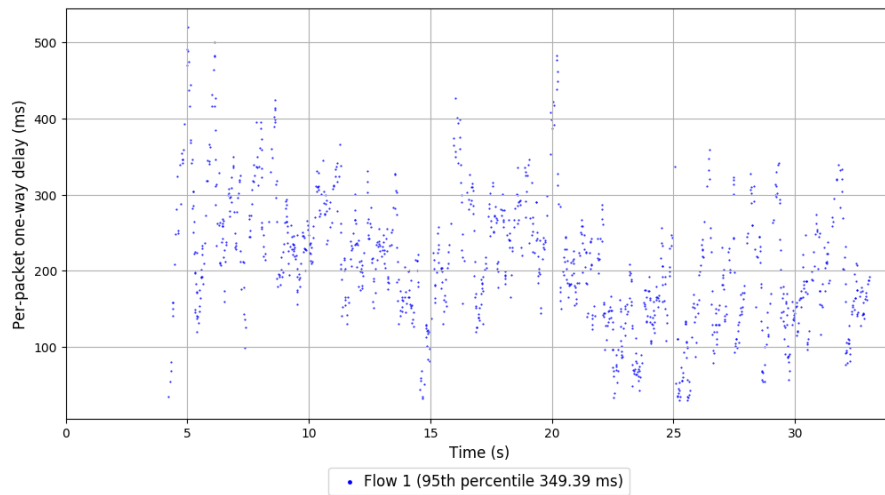
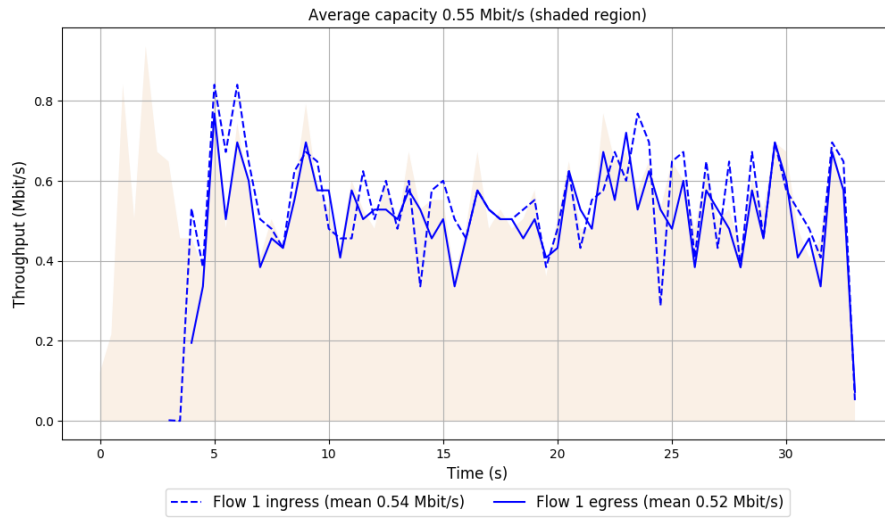
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 349.387 ms

Loss rate: 6.63%

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



Run 6: Statistics of TCP BBR

Start at: 2018-03-05 18:43:02

End at: 2018-03-05 18:43:32

# Below is generated by plot.py at 2018-03-05 19:24:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (93.0% utilization)

95th percentile per-packet one-way delay: 367.217 ms

Loss rate: 6.52%

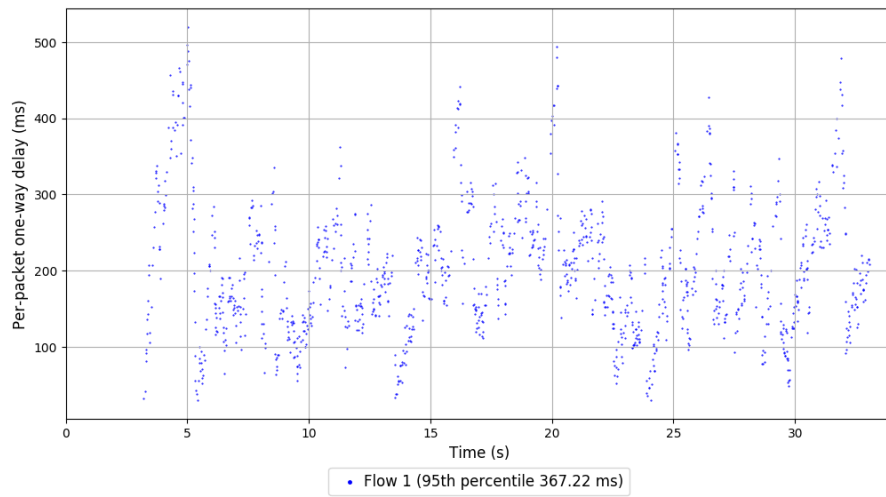
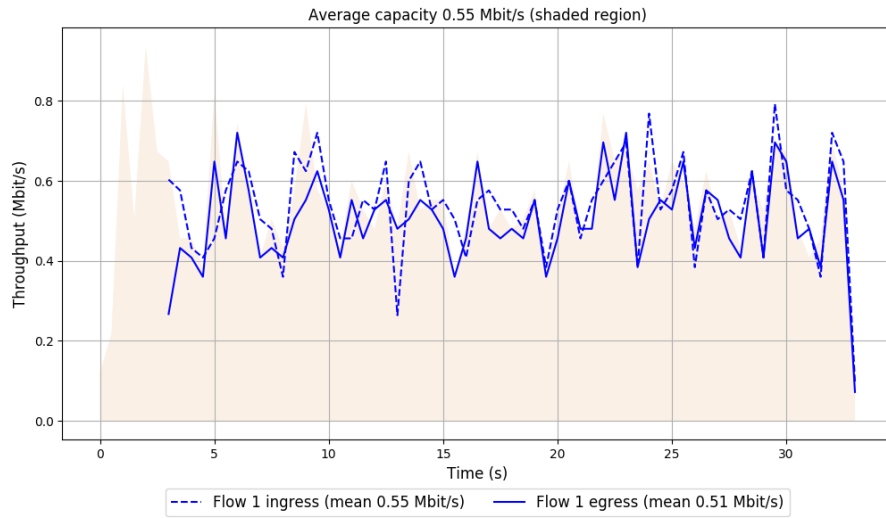
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 367.217 ms

Loss rate: 6.52%

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



Run 7: Statistics of TCP BBR

Start at: 2018-03-05 18:53:15

End at: 2018-03-05 18:53:45

# Below is generated by plot.py at 2018-03-05 19:24:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.4% utilization)

95th percentile per-packet one-way delay: 374.939 ms

Loss rate: 5.68%

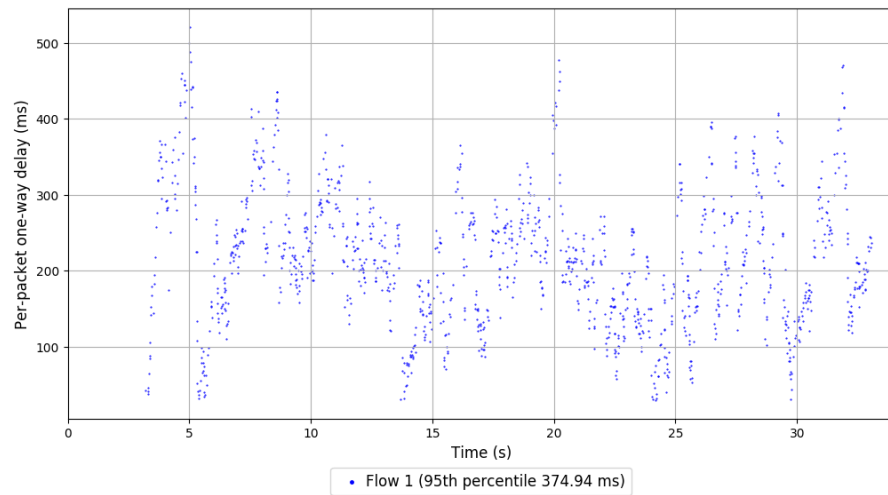
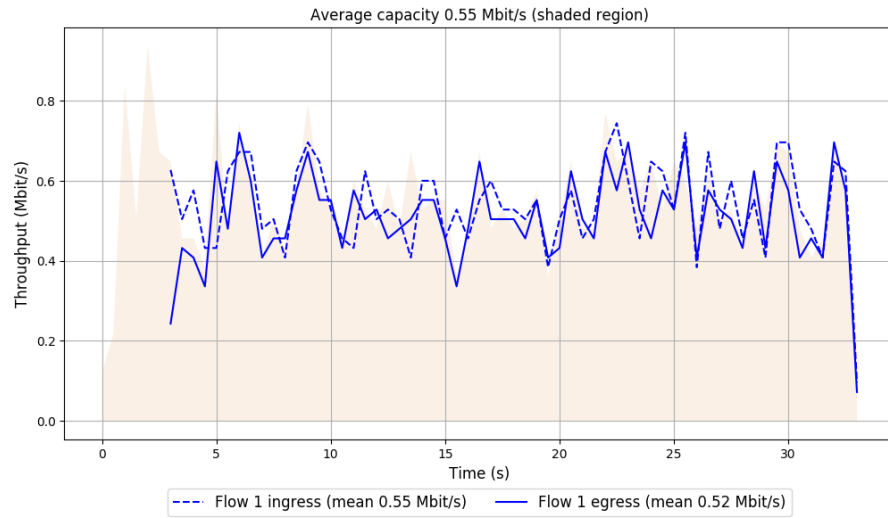
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 374.939 ms

Loss rate: 5.68%

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



Run 8: Statistics of TCP BBR

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

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

# Below is generated by plot.py at 2018-03-05 19:24:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.1% utilization)

95th percentile per-packet one-way delay: 354.121 ms

Loss rate: 5.36%

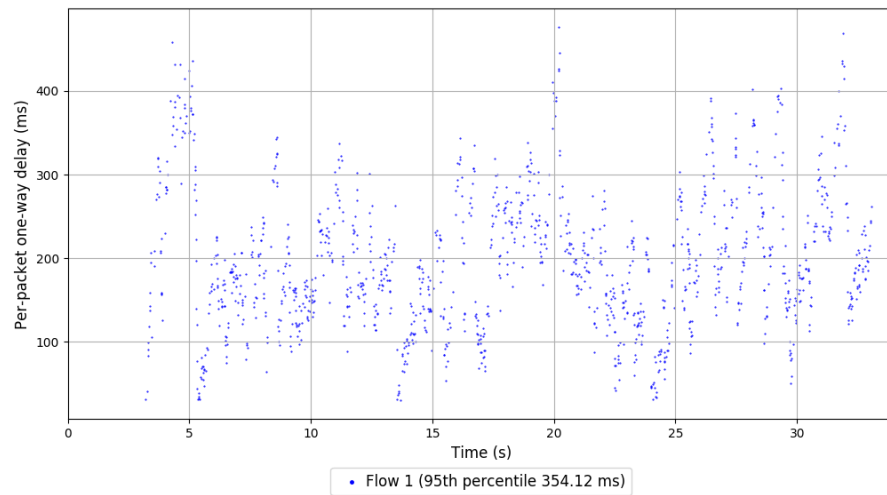
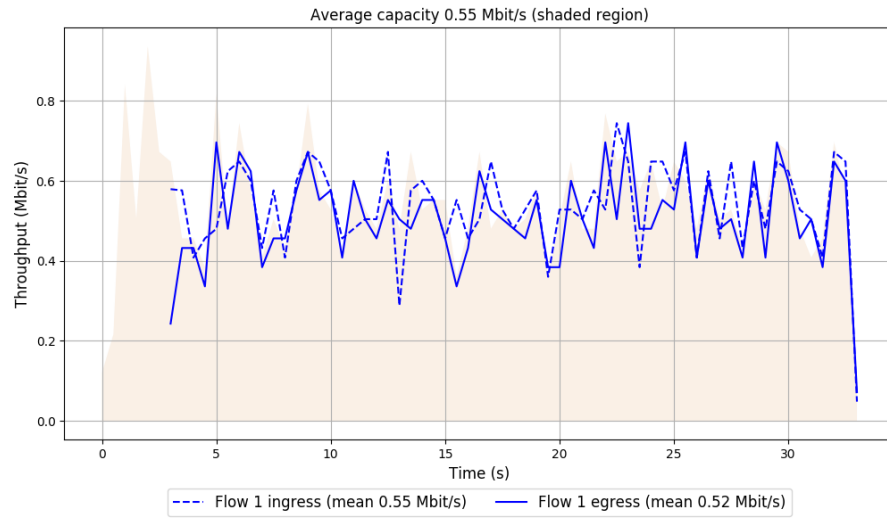
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 354.121 ms

Loss rate: 5.36%

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



Run 9: Statistics of TCP BBR

Start at: 2018-03-05 19:13:38

End at: 2018-03-05 19:14:08

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.6% utilization)

95th percentile per-packet one-way delay: 355.329 ms

Loss rate: 5.26%

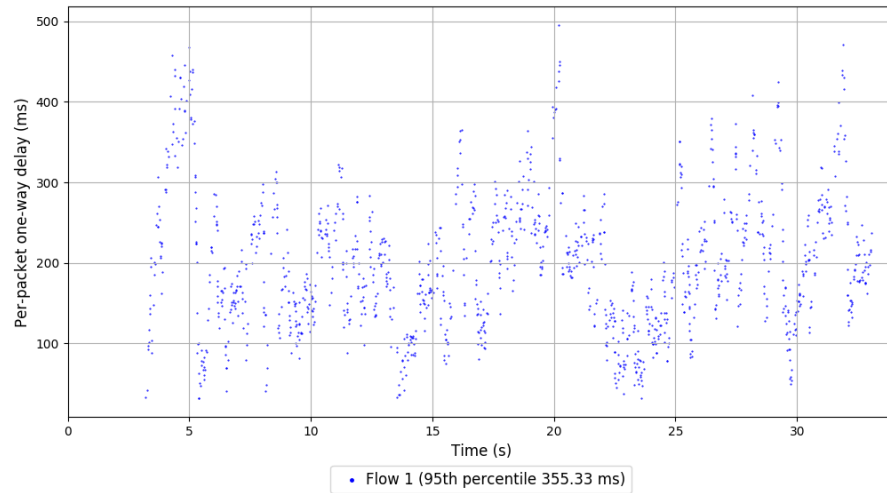
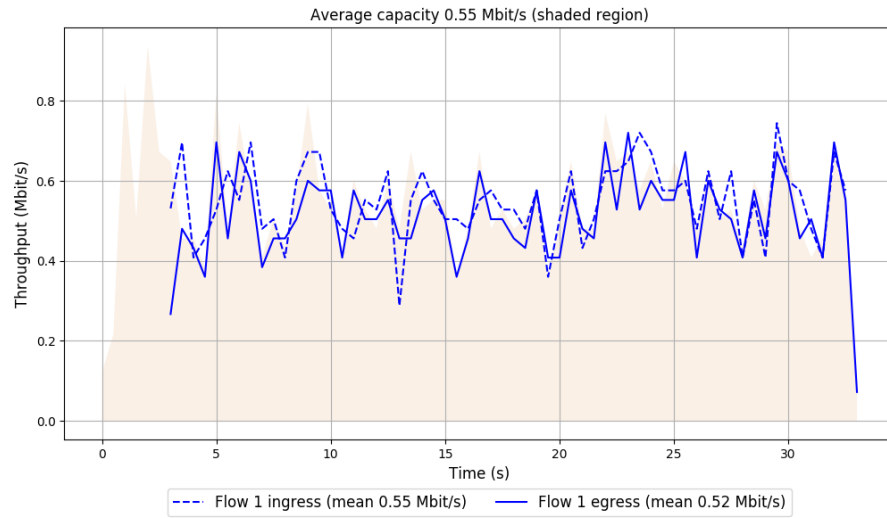
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 355.329 ms

Loss rate: 5.26%

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



Run 10: Statistics of TCP BBR

Start at: 2018-03-05 19:23:50

End at: 2018-03-05 19:24:20

# Below is generated by plot.py at 2018-03-05 19:24:40

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (92.5% utilization)

95th percentile per-packet one-way delay: 337.604 ms

Loss rate: 6.22%

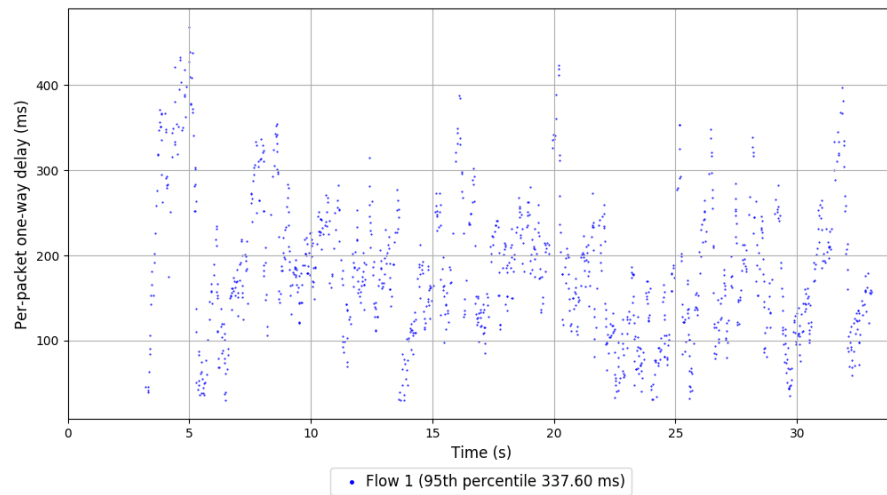
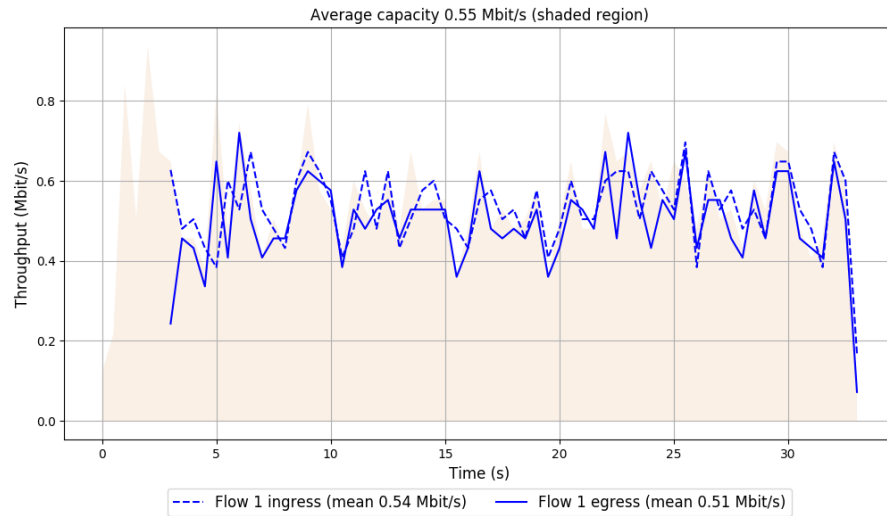
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 337.604 ms

Loss rate: 6.22%

### Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-05 17:49:44

End at: 2018-03-05 17:50:14

# Below is generated by plot.py at 2018-03-05 19:24:40

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.38 Mbit/s (69.2% utilization)

95th percentile per-packet one-way delay: 312.542 ms

Loss rate: 8.04%

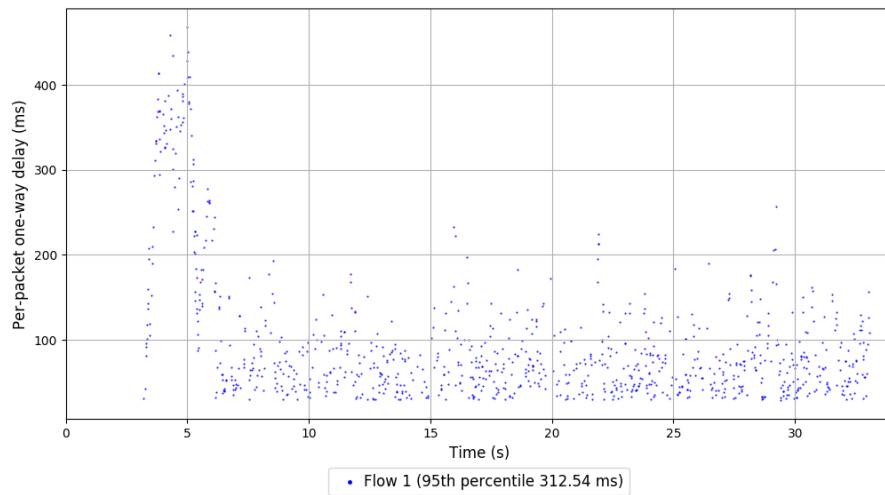
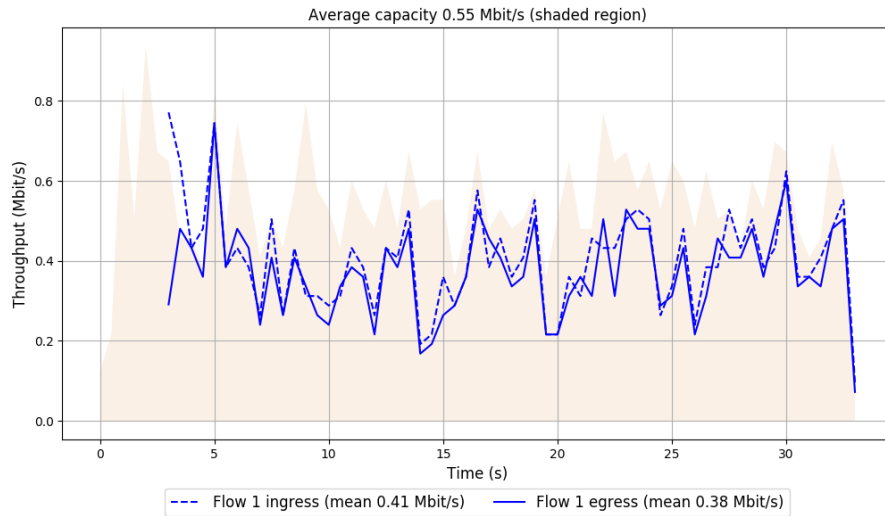
-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 312.542 ms

Loss rate: 8.04%

# Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-05 17:59:58

End at: 2018-03-05 18:00:28

# Below is generated by plot.py at 2018-03-05 19:24:41

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (77.7% utilization)

95th percentile per-packet one-way delay: 293.486 ms

Loss rate: 5.08%

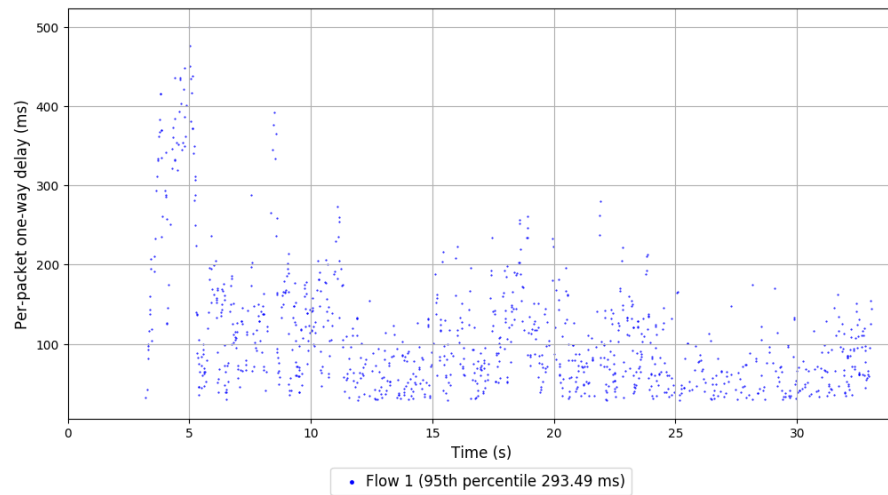
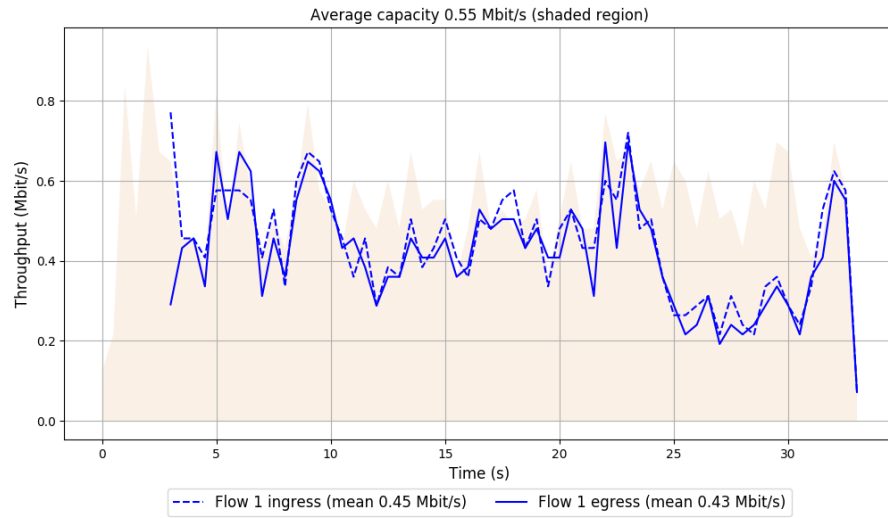
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 293.486 ms

Loss rate: 5.08%

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



Run 3: Statistics of TCP Cubic

Start at: 2018-03-05 18:10:11

End at: 2018-03-05 18:10:41

# Below is generated by plot.py at 2018-03-05 19:24:41

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.39 Mbit/s (71.0% utilization)

95th percentile per-packet one-way delay: 199.423 ms

Loss rate: 4.98%

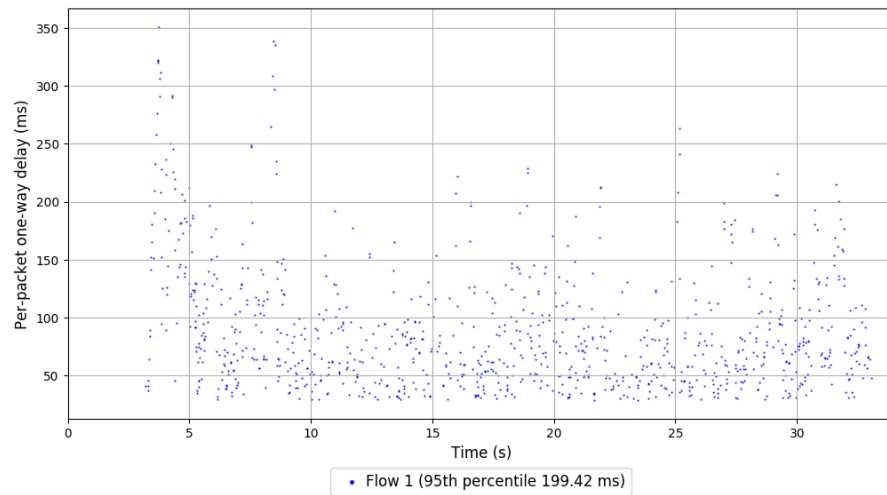
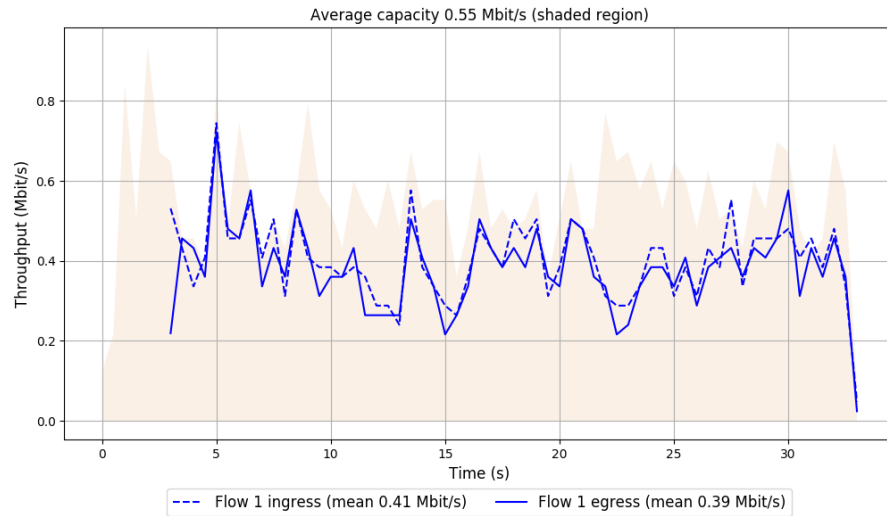
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 199.423 ms

Loss rate: 4.98%

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



Run 4: Statistics of TCP Cubic

Start at: 2018-03-05 18:20:22

End at: 2018-03-05 18:20:52

# Below is generated by plot.py at 2018-03-05 19:24:41

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.41 Mbit/s (74.2% utilization)

95th percentile per-packet one-way delay: 321.989 ms

Loss rate: 7.20%

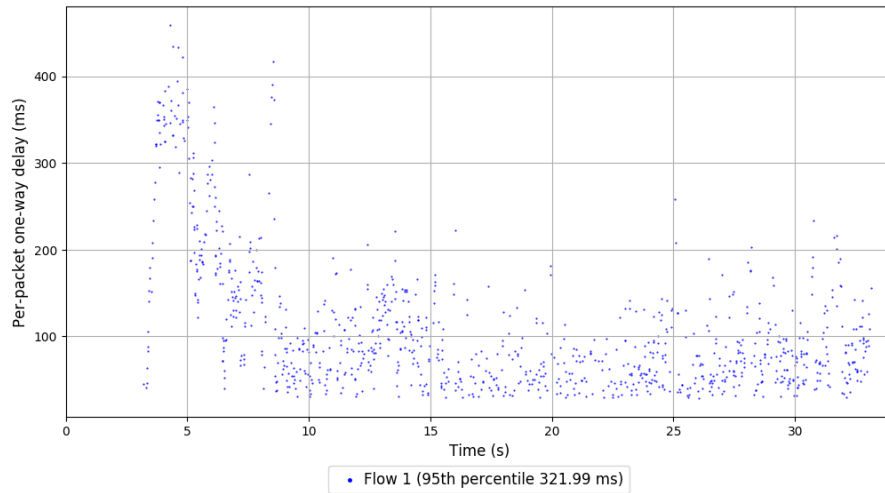
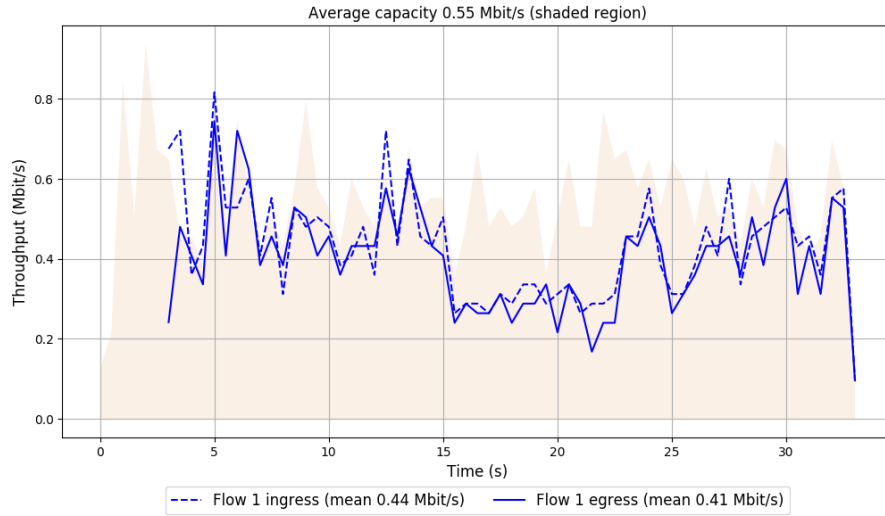
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 321.989 ms

Loss rate: 7.20%

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



Run 5: Statistics of TCP Cubic

Start at: 2018-03-05 18:30:33

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

# Below is generated by plot.py at 2018-03-05 19:24:41

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.34 Mbit/s (61.4% utilization)

95th percentile per-packet one-way delay: 171.635 ms

Loss rate: 6.75%

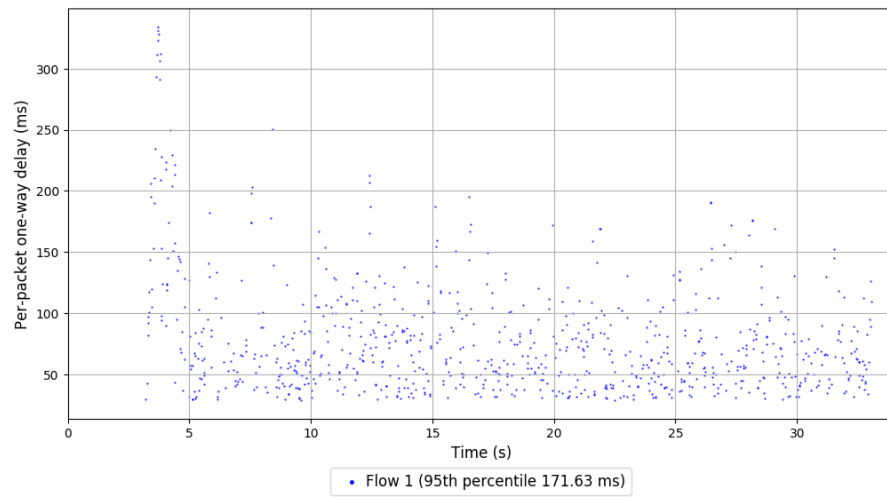
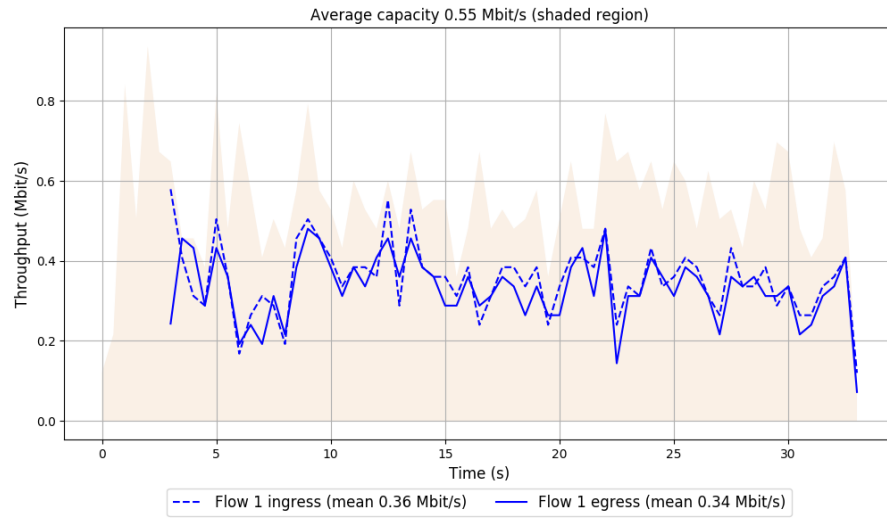
-- Flow 1:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 171.635 ms

Loss rate: 6.75%

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



Run 6: Statistics of TCP Cubic

Start at: 2018-03-05 18:40:46

End at: 2018-03-05 18:41:16

# Below is generated by plot.py at 2018-03-05 19:24:41

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.37 Mbit/s (67.3% utilization)

95th percentile per-packet one-way delay: 205.546 ms

Loss rate: 6.39%

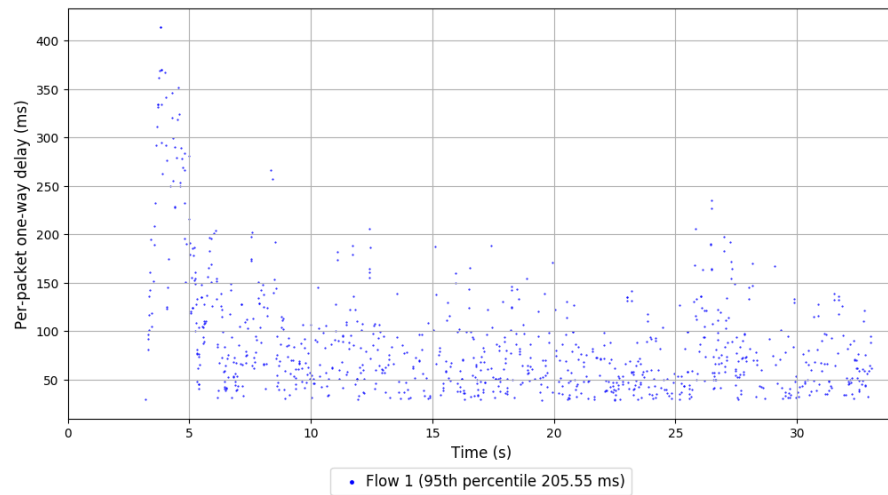
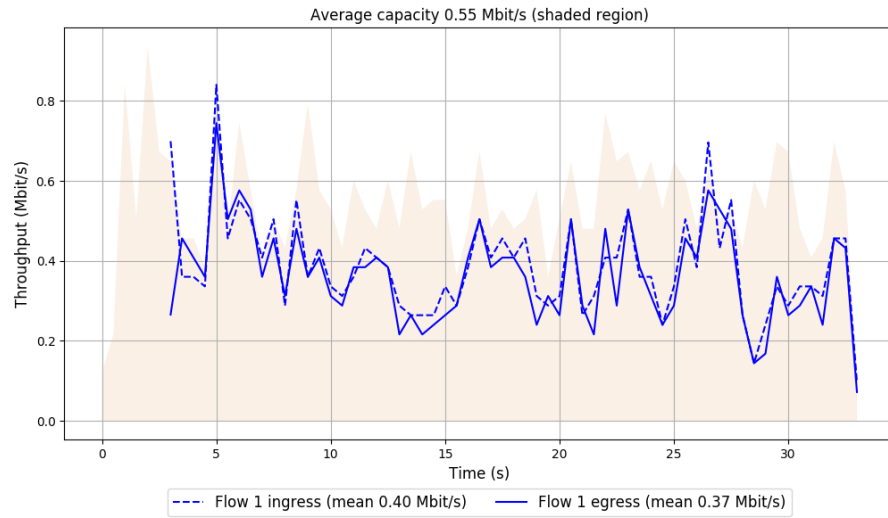
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 205.546 ms

Loss rate: 6.39%

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



Run 7: Statistics of TCP Cubic

Start at: 2018-03-05 18:51:00

End at: 2018-03-05 18:51:30

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.37 Mbit/s (67.1% utilization)

95th percentile per-packet one-way delay: 182.630 ms

Loss rate: 5.84%

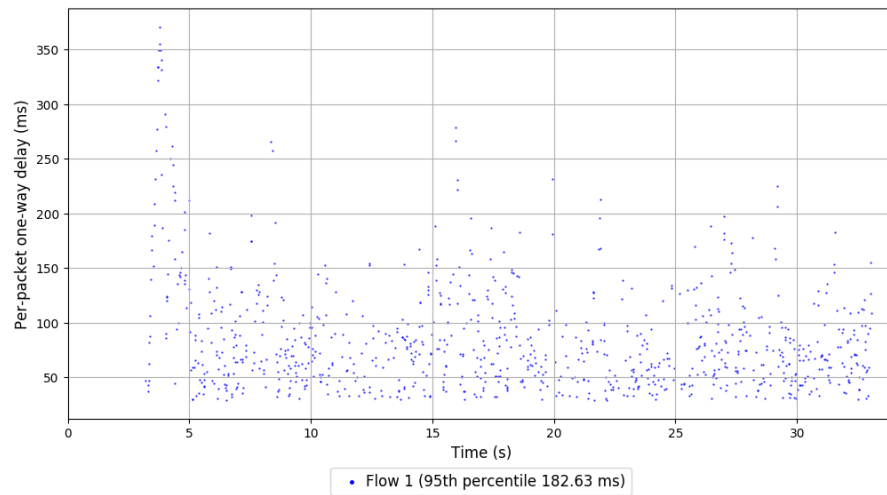
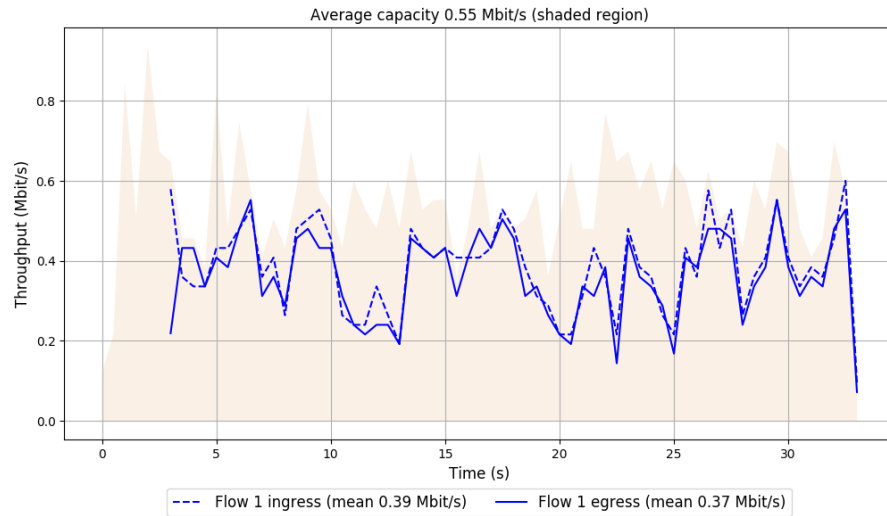
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 182.630 ms

Loss rate: 5.84%

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



Run 8: Statistics of TCP Cubic

Start at: 2018-03-05 19:01:11

End at: 2018-03-05 19:01:41

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.35 Mbit/s (64.3% utilization)

95th percentile per-packet one-way delay: 349.501 ms

Loss rate: 7.27%

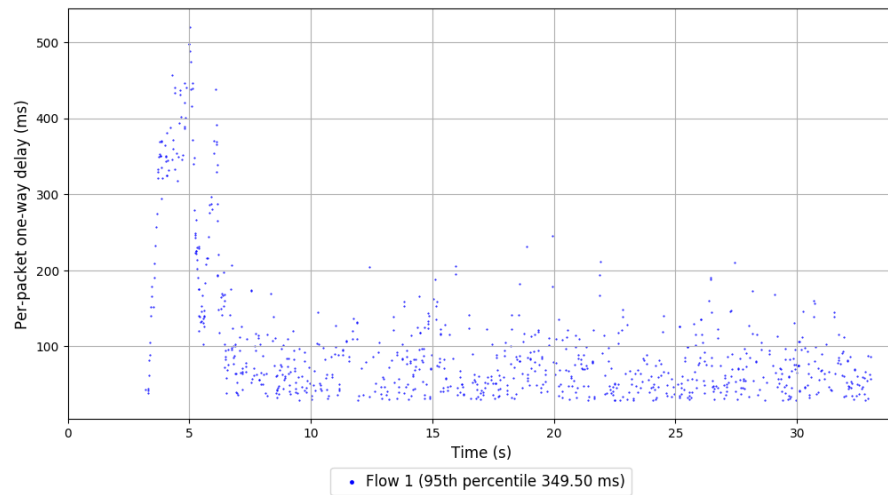
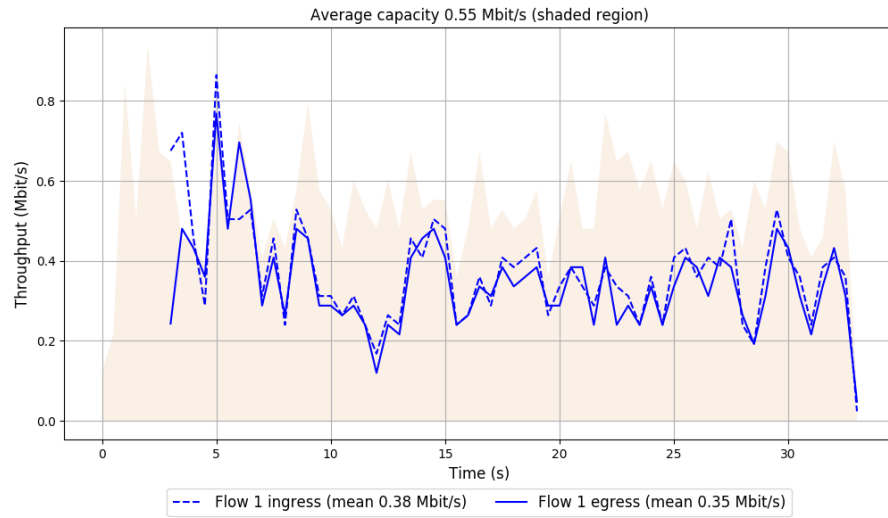
-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 349.501 ms

Loss rate: 7.27%

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



Run 9: Statistics of TCP Cubic

Start at: 2018-03-05 19:11:23

End at: 2018-03-05 19:11:53

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.41 Mbit/s (75.0% utilization)

95th percentile per-packet one-way delay: 325.789 ms

Loss rate: 5.78%

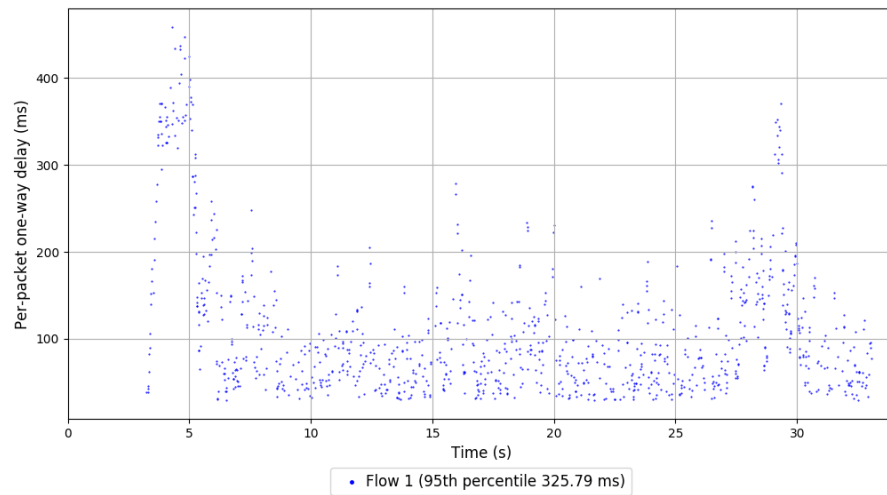
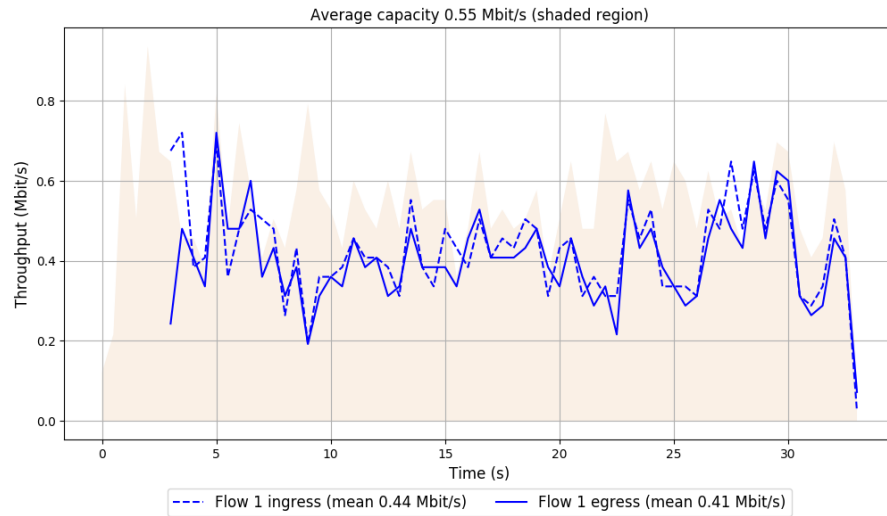
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 325.789 ms

Loss rate: 5.78%

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



Run 10: Statistics of TCP Cubic

Start at: 2018-03-05 19:21:34

End at: 2018-03-05 19:22:04

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.37 Mbit/s (66.4% utilization)

95th percentile per-packet one-way delay: 165.680 ms

Loss rate: 6.08%

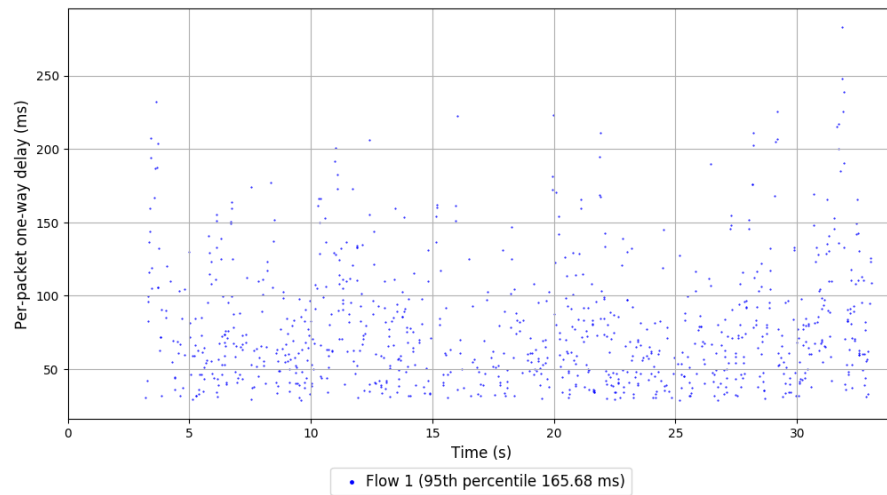
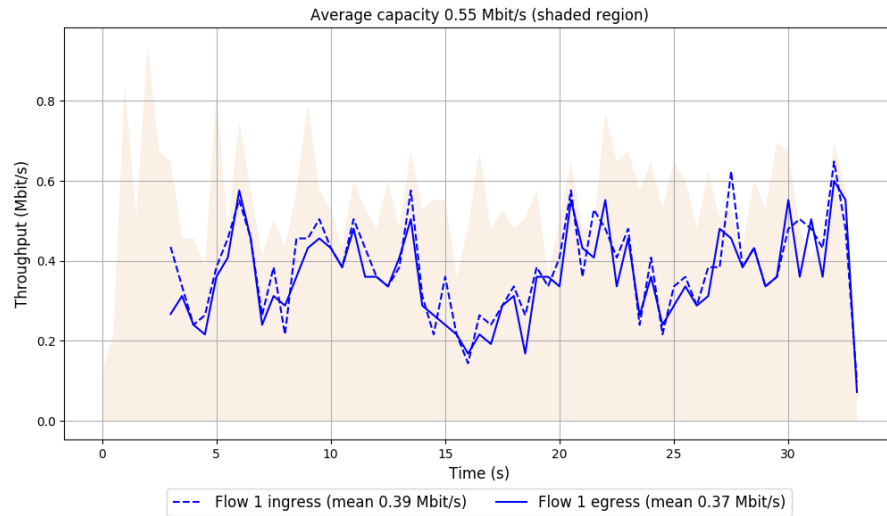
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 165.680 ms

Loss rate: 6.08%

### Run 10: Report of TCP Cubic — Data Link



Run 1: Statistics of LEDBAT

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 19:24:48

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.36 Mbit/s (66.2% utilization)

95th percentile per-packet one-way delay: 215.690 ms

Loss rate: 7.01%

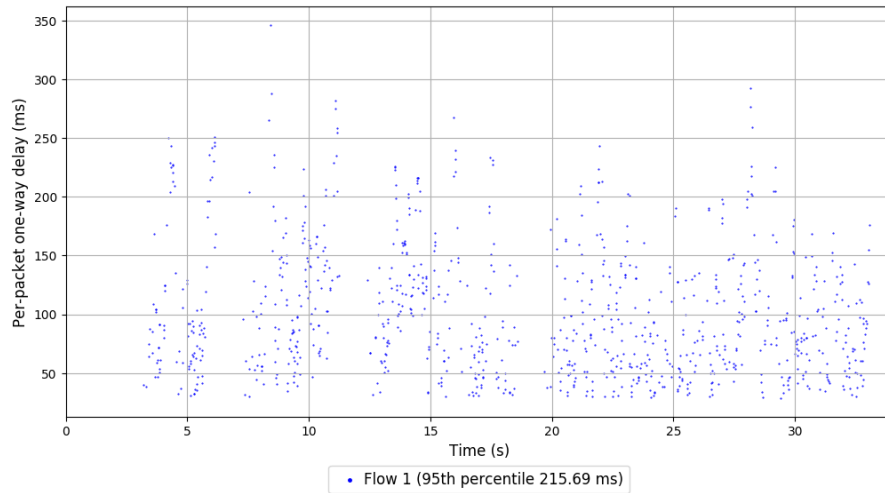
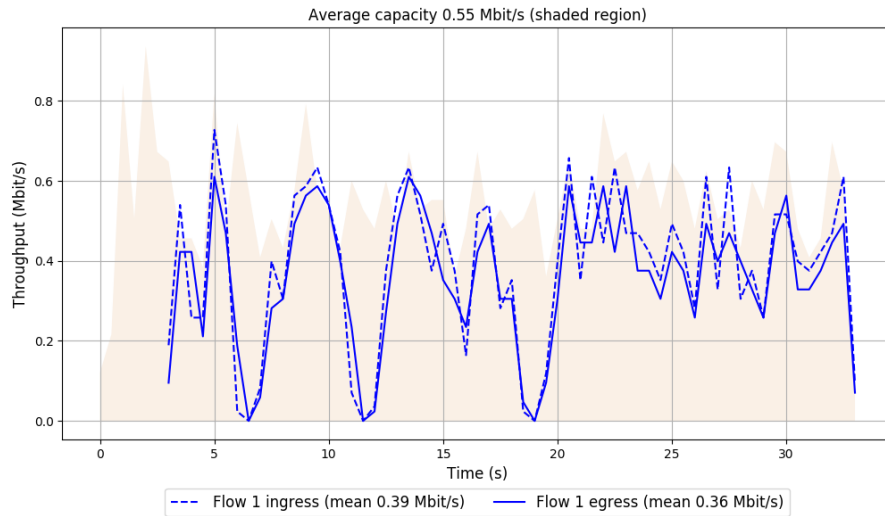
-- Flow 1:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 215.690 ms

Loss rate: 7.01%

# Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-03-05 17:53:42

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

# Below is generated by plot.py at 2018-03-05 19:24:48

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (78.5% utilization)

95th percentile per-packet one-way delay: 221.698 ms

Loss rate: 5.09%

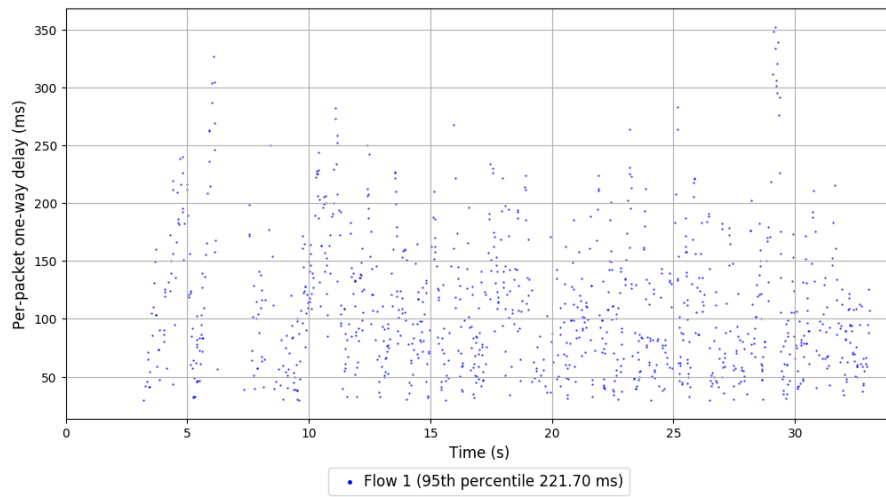
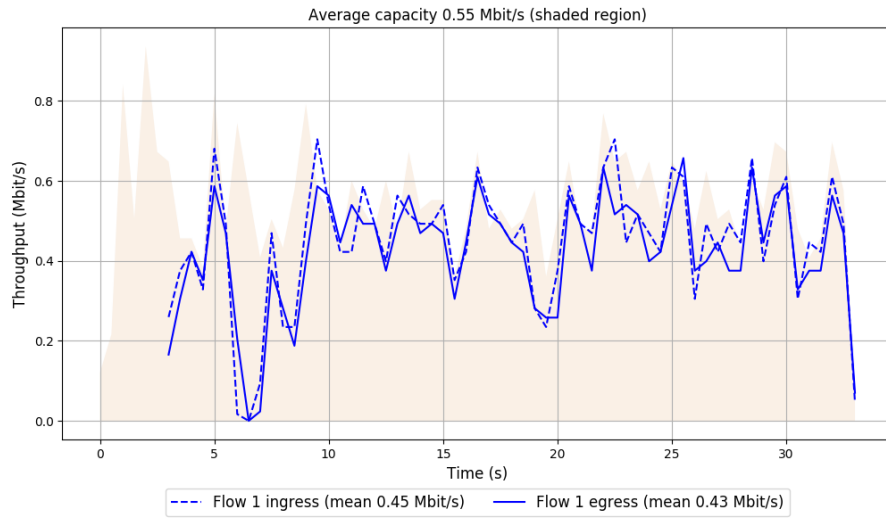
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 221.698 ms

Loss rate: 5.09%

## Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

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

End at: 2018-03-05 18:04:25

# Below is generated by plot.py at 2018-03-05 19:24:48

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.41 Mbit/s (74.7% utilization)

95th percentile per-packet one-way delay: 212.312 ms

Loss rate: 4.46%

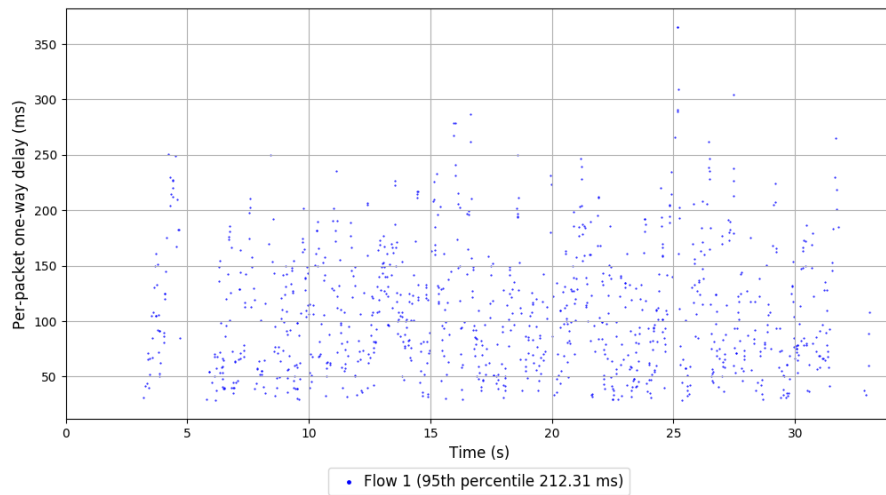
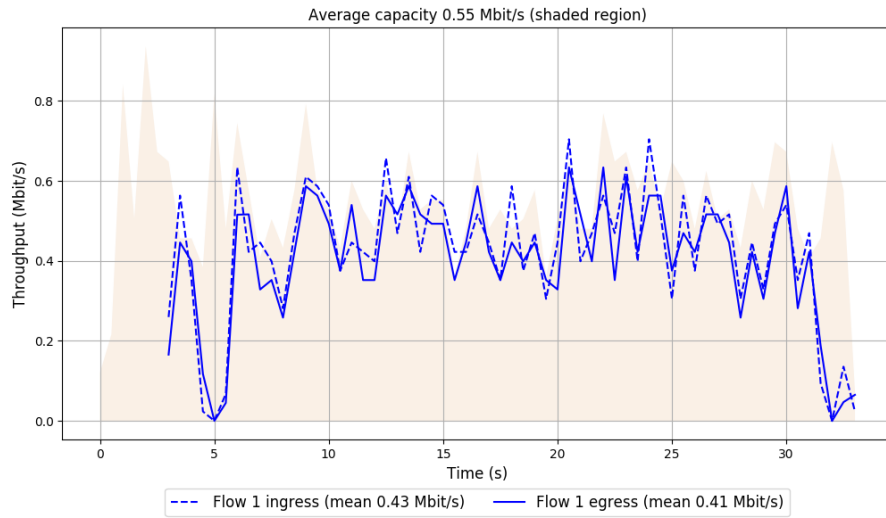
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 212.312 ms

Loss rate: 4.46%

### Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-05 18:14:09

End at: 2018-03-05 18:14:39

# Below is generated by plot.py at 2018-03-05 19:24:49

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.44 Mbit/s (79.8% utilization)

95th percentile per-packet one-way delay: 218.403 ms

Loss rate: 4.52%

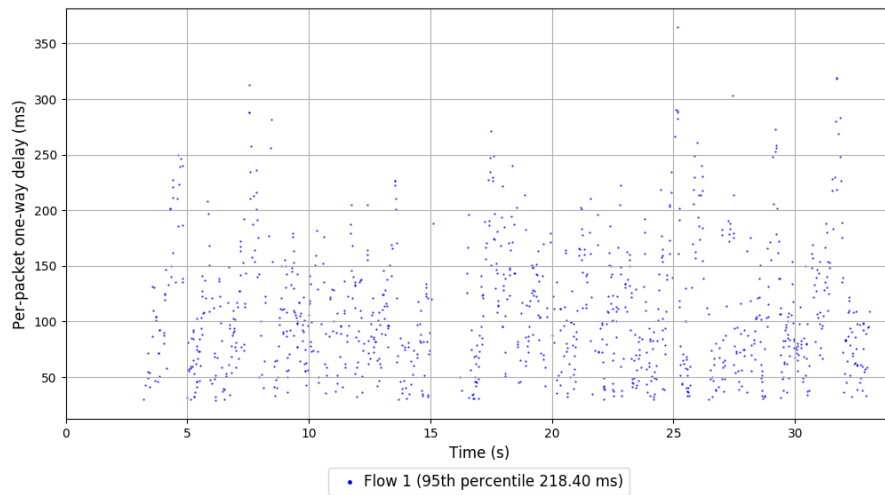
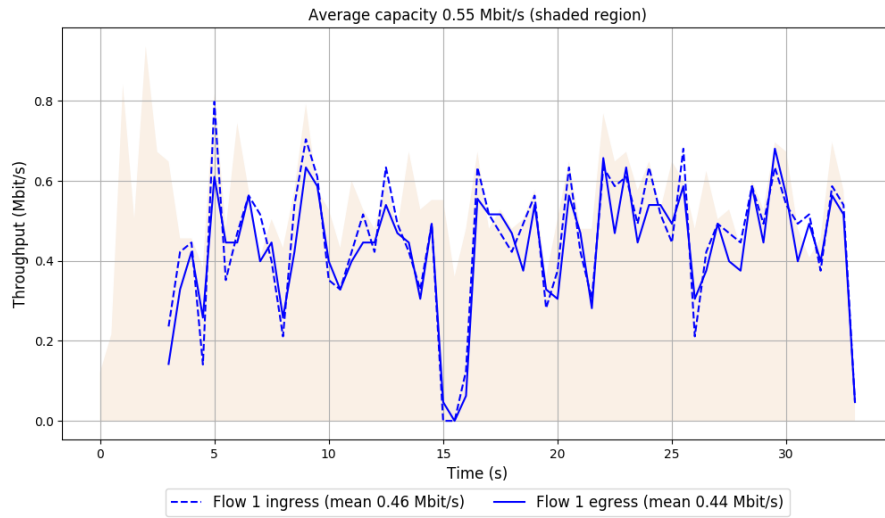
-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 218.403 ms

Loss rate: 4.52%

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



Run 5: Statistics of LEDBAT

Start at: 2018-03-05 18:24:20

End at: 2018-03-05 18:24:50

# Below is generated by plot.py at 2018-03-05 19:24:51

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.39 Mbit/s (70.1% utilization)

95th percentile per-packet one-way delay: 206.484 ms

Loss rate: 5.96%

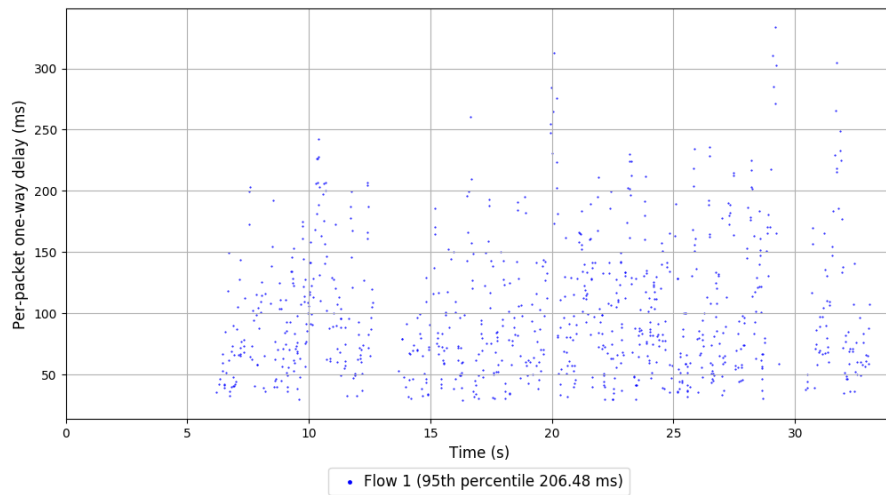
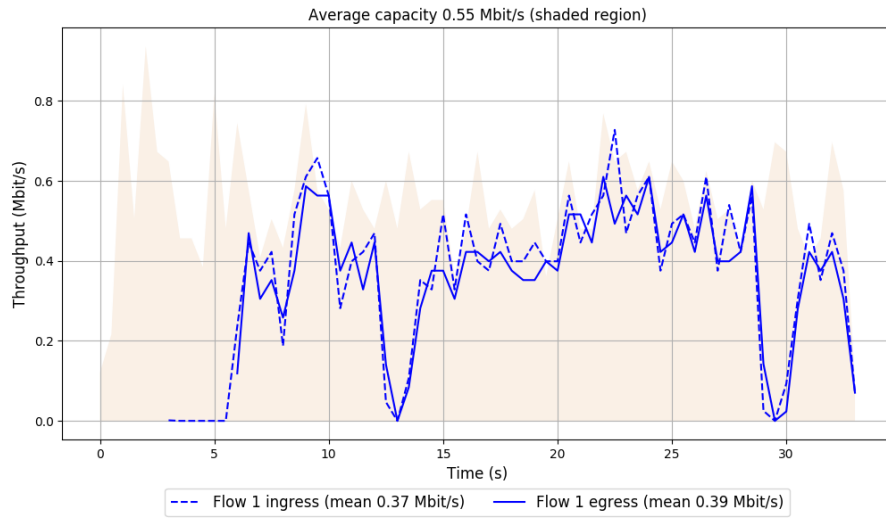
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 206.484 ms

Loss rate: 5.96%

## Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-05 18:34:31

End at: 2018-03-05 18:35:01

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.39 Mbit/s (69.9% utilization)

95th percentile per-packet one-way delay: 217.810 ms

Loss rate: 5.22%

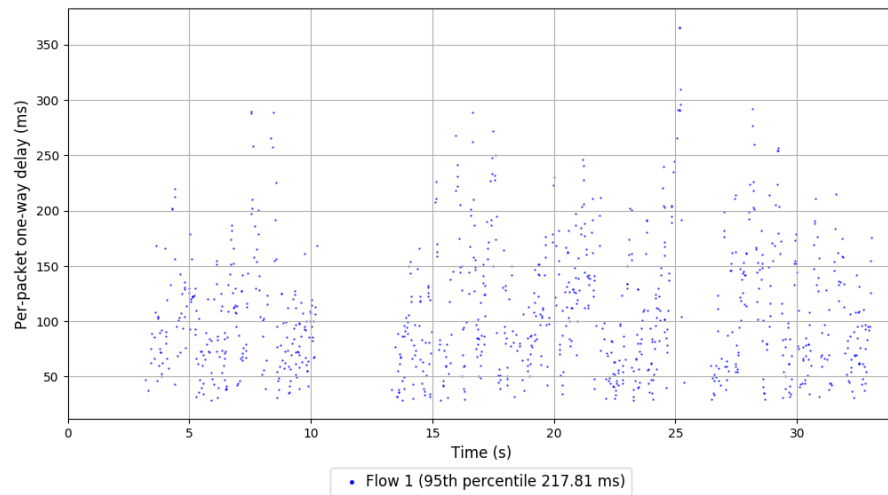
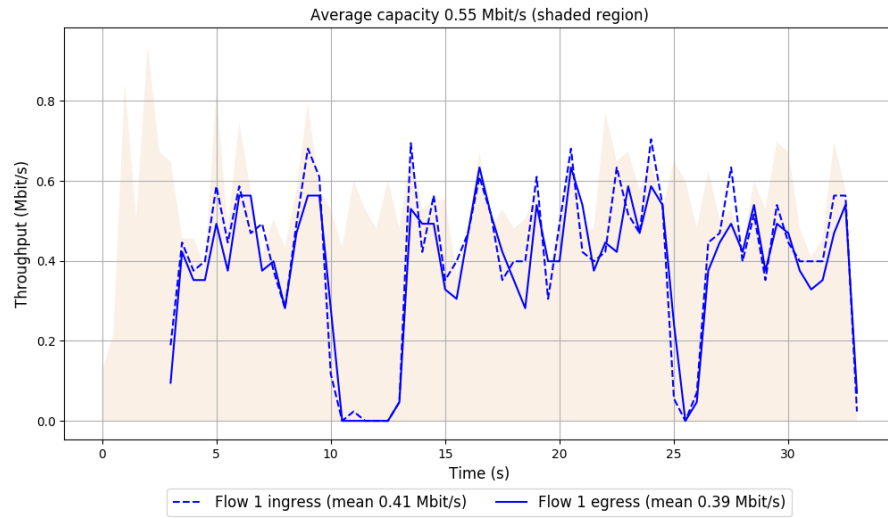
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 217.810 ms

Loss rate: 5.22%

## Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-05 18:44:45

End at: 2018-03-05 18:45:15

# Below is generated by plot.py at 2018-03-05 19:24:53

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.41 Mbit/s (75.3% utilization)

95th percentile per-packet one-way delay: 223.101 ms

Loss rate: 4.86%

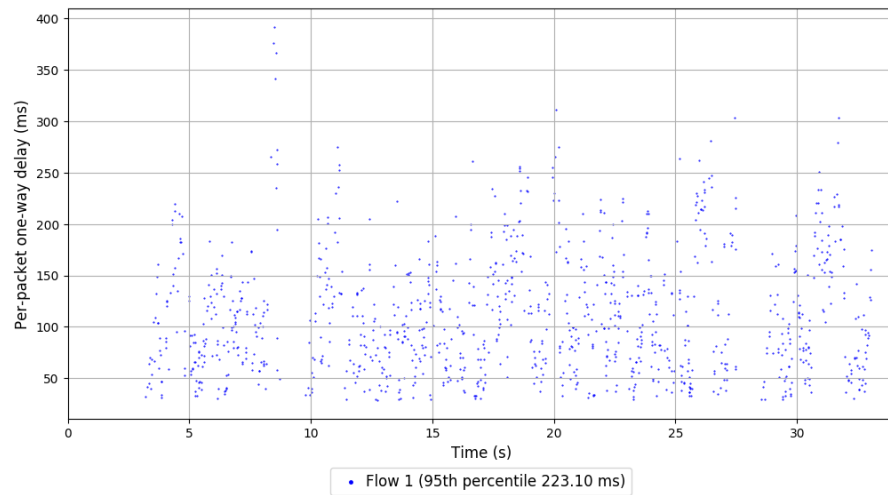
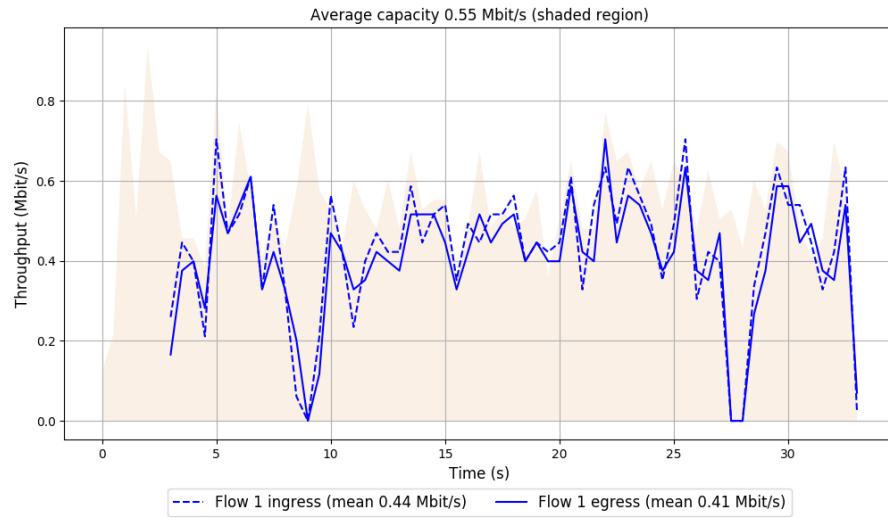
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 223.101 ms

Loss rate: 4.86%

## Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-05 18:54:58

End at: 2018-03-05 18:55:28

# Below is generated by plot.py at 2018-03-05 19:24:53

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.37 Mbit/s (66.9% utilization)

95th percentile per-packet one-way delay: 230.777 ms

Loss rate: 5.87%

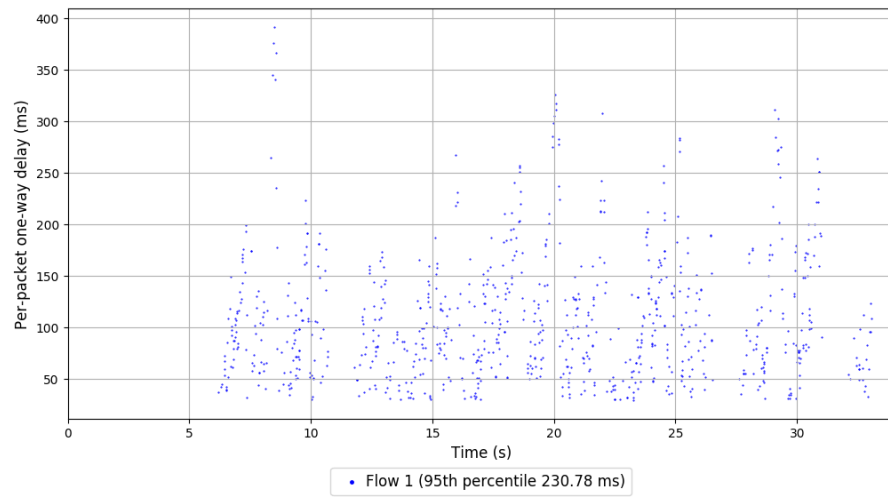
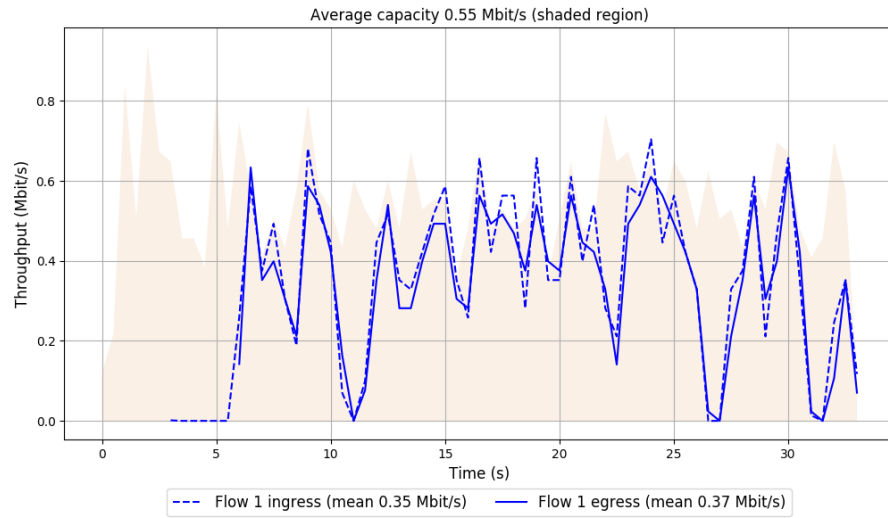
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 230.777 ms

Loss rate: 5.87%

## Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

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

End at: 2018-03-05 19:05:38

# Below is generated by plot.py at 2018-03-05 19:24:53

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.39 Mbit/s (70.6% utilization)

95th percentile per-packet one-way delay: 250.349 ms

Loss rate: 5.17%

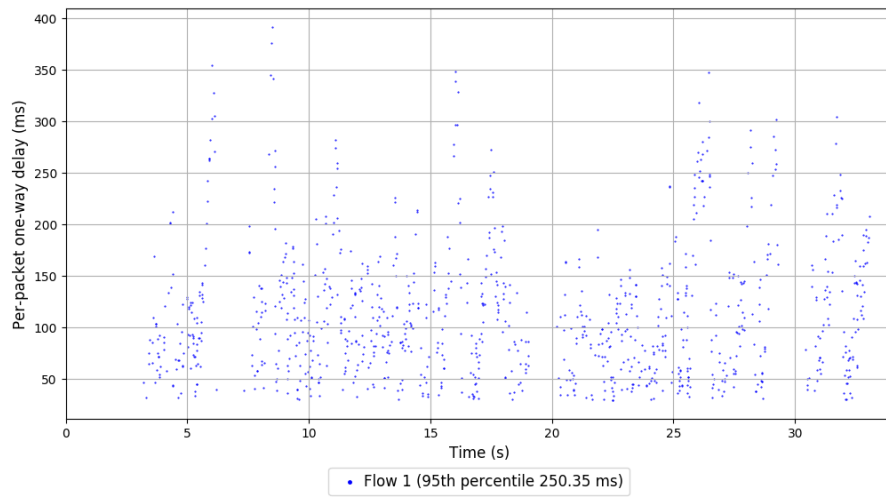
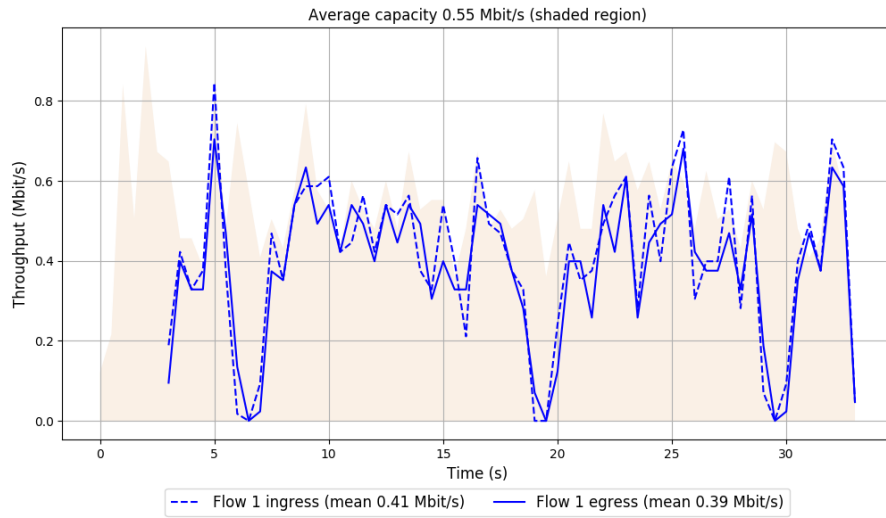
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 250.349 ms

Loss rate: 5.17%

### Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-05 19:15:20

End at: 2018-03-05 19:15:50

# Below is generated by plot.py at 2018-03-05 19:24:54

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.39 Mbit/s (71.6% utilization)

95th percentile per-packet one-way delay: 227.808 ms

Loss rate: 4.72%

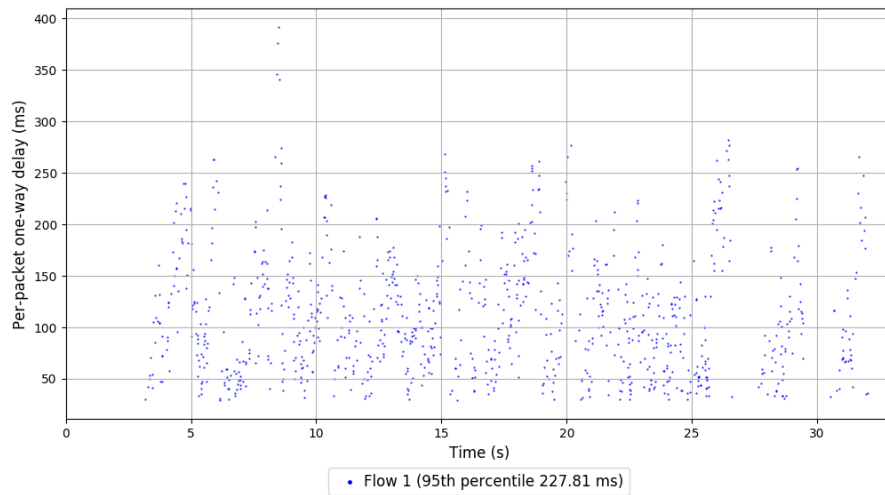
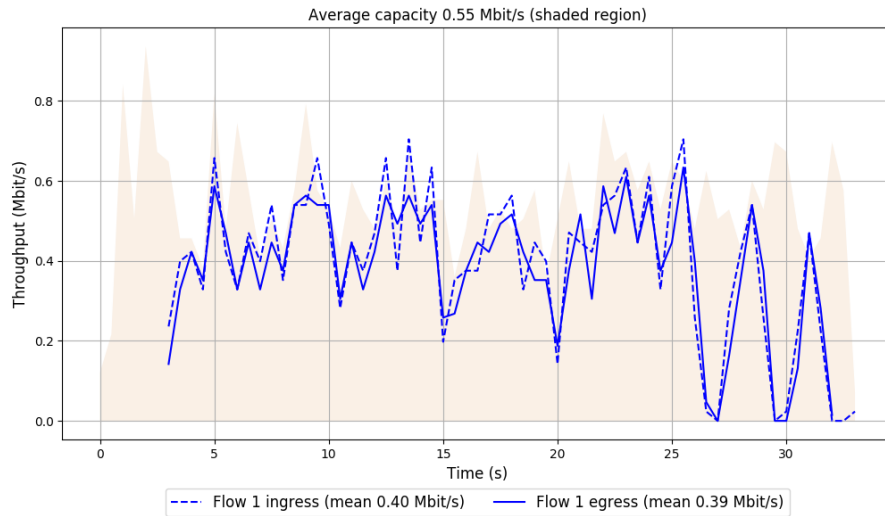
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 227.808 ms

Loss rate: 4.72%

### Run 10: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: 2018-03-05 17:48:37

End at: 2018-03-05 17:49:07

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.6% utilization)

95th percentile per-packet one-way delay: 487.384 ms

Loss rate: 84.31%

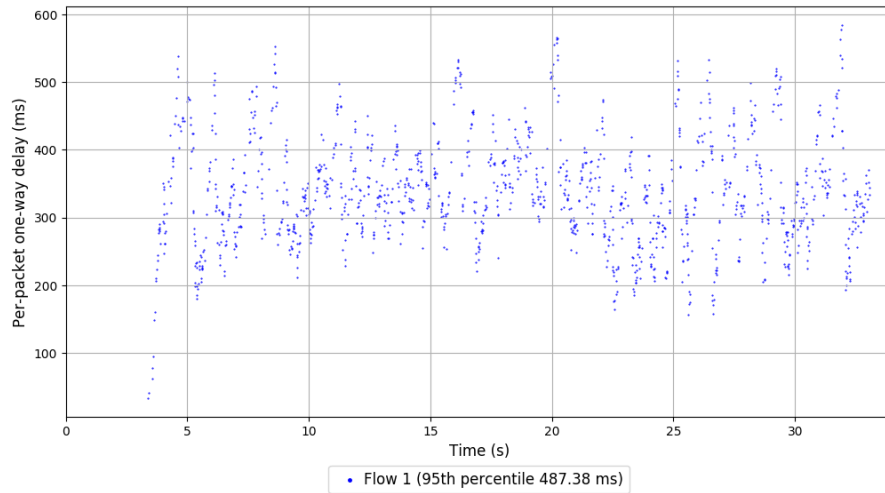
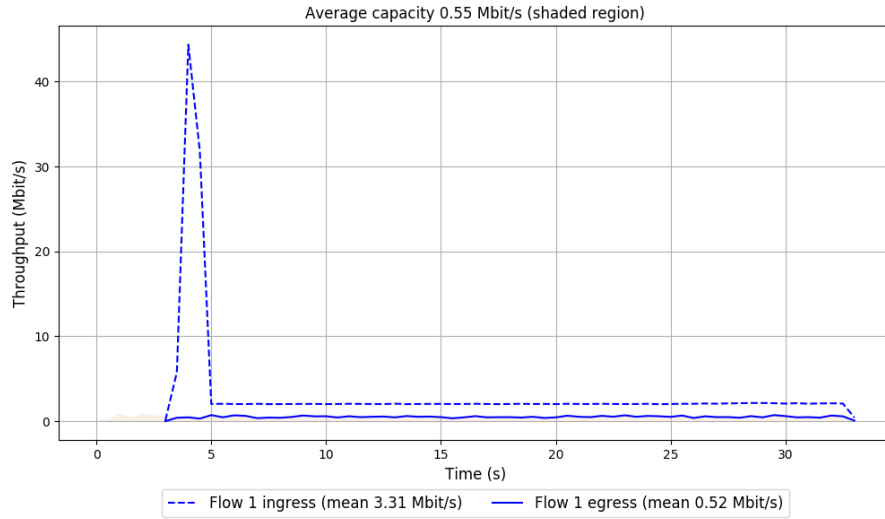
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 487.384 ms

Loss rate: 84.31%

# Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-05 17:58:50

End at: 2018-03-05 17:59:20

# Below is generated by plot.py at 2018-03-05 19:24:56

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (95.1% utilization)

95th percentile per-packet one-way delay: 480.377 ms

Loss rate: 84.08%

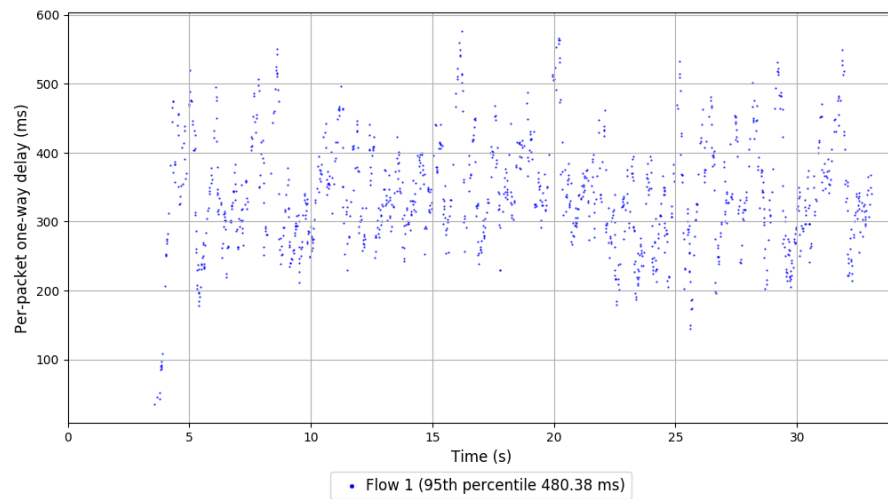
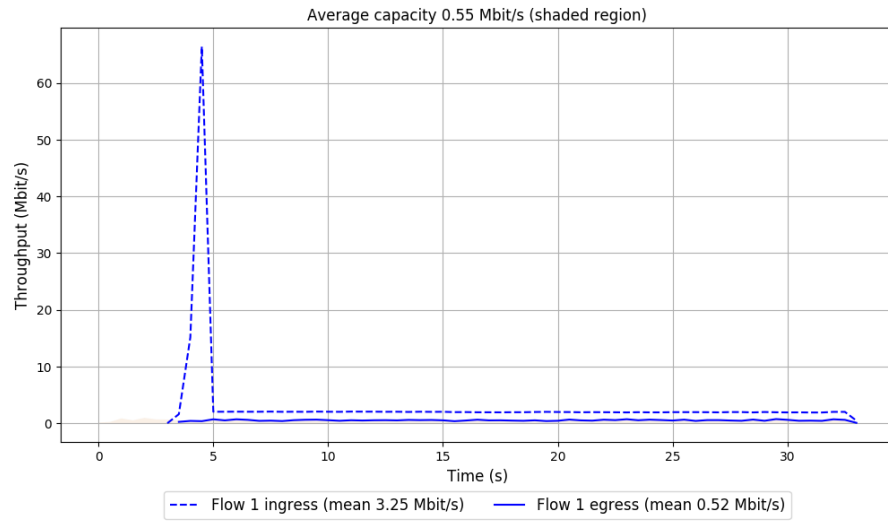
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 480.377 ms

Loss rate: 84.08%

## Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

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

End at: 2018-03-05 18:09:33

# Below is generated by plot.py at 2018-03-05 19:25:00

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (92.9% utilization)

95th percentile per-packet one-way delay: 490.718 ms

Loss rate: 90.22%

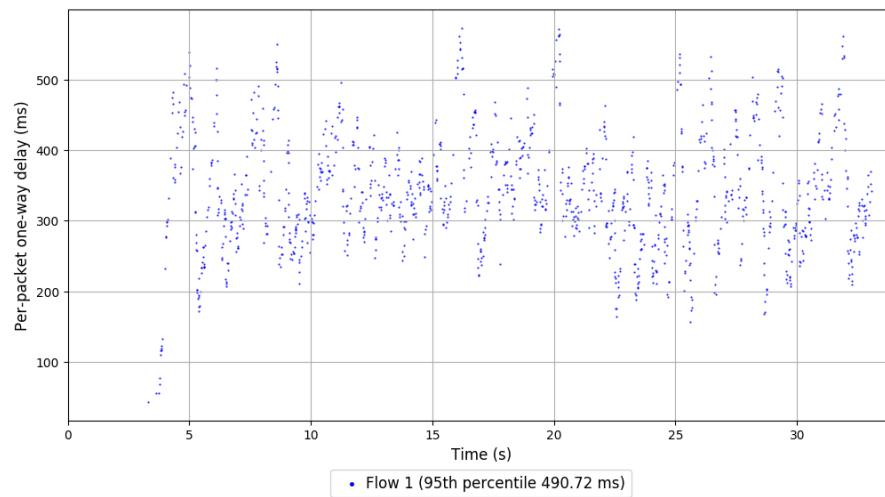
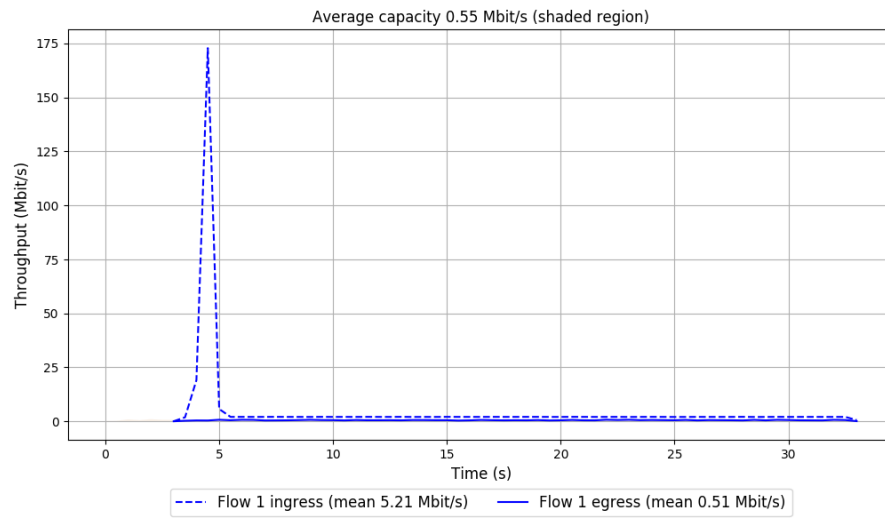
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 490.718 ms

Loss rate: 90.22%

### Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-05 18:19:14

End at: 2018-03-05 18:19:44

# Below is generated by plot.py at 2018-03-05 19:25:00

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.2% utilization)

95th percentile per-packet one-way delay: 488.081 ms

Loss rate: 84.23%

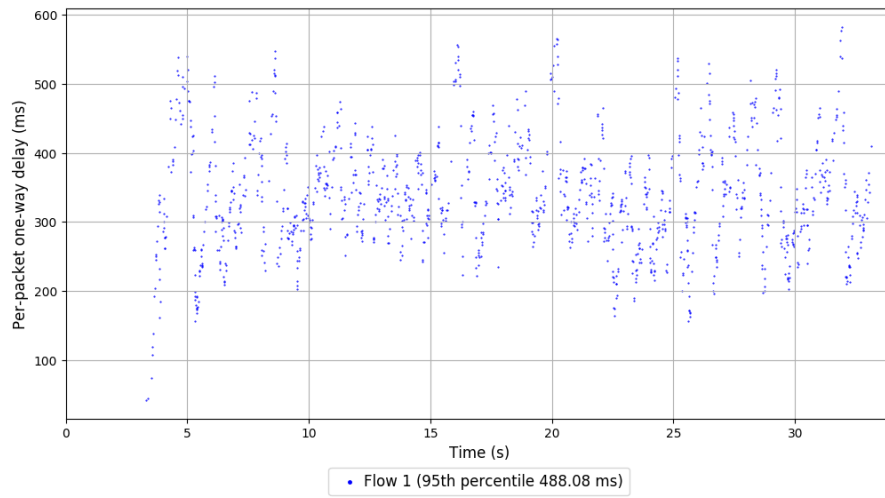
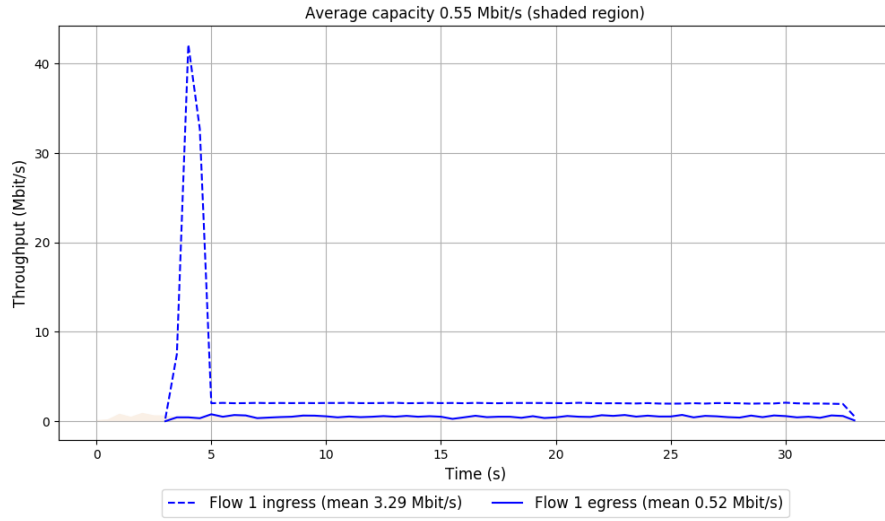
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 488.081 ms

Loss rate: 84.23%

### Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-05 18:29:26

End at: 2018-03-05 18:29:56

# Below is generated by plot.py at 2018-03-05 19:25:01

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (95.0% utilization)

95th percentile per-packet one-way delay: 477.639 ms

Loss rate: 83.69%

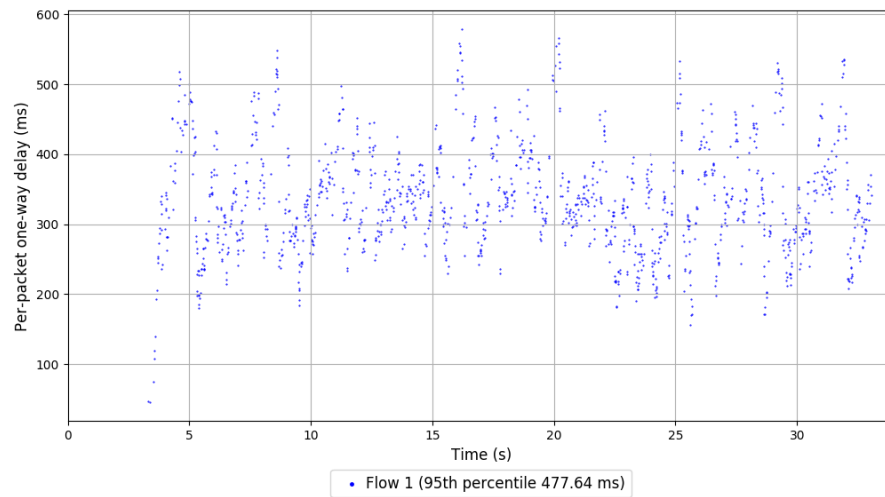
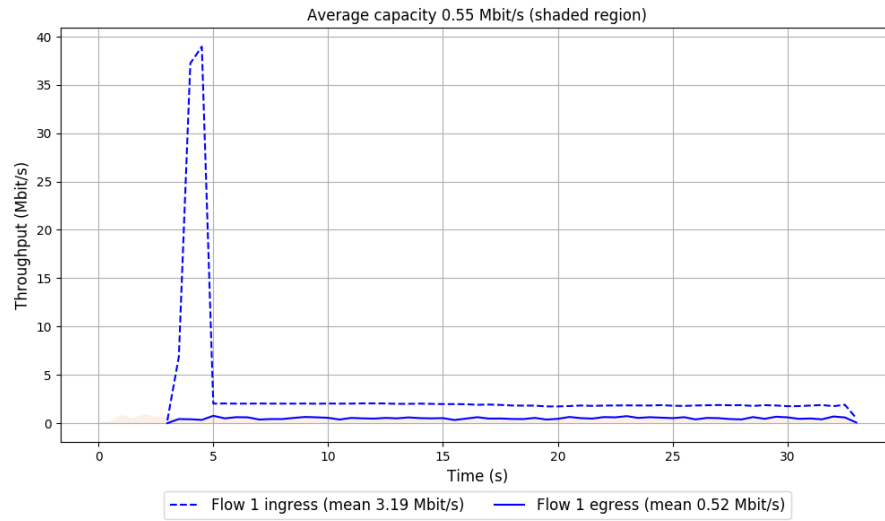
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 477.639 ms

Loss rate: 83.69%

## Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-05 18:39:38

End at: 2018-03-05 18:40:08

# Below is generated by plot.py at 2018-03-05 19:25:02

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (95.1% utilization)

95th percentile per-packet one-way delay: 489.757 ms

Loss rate: 85.66%

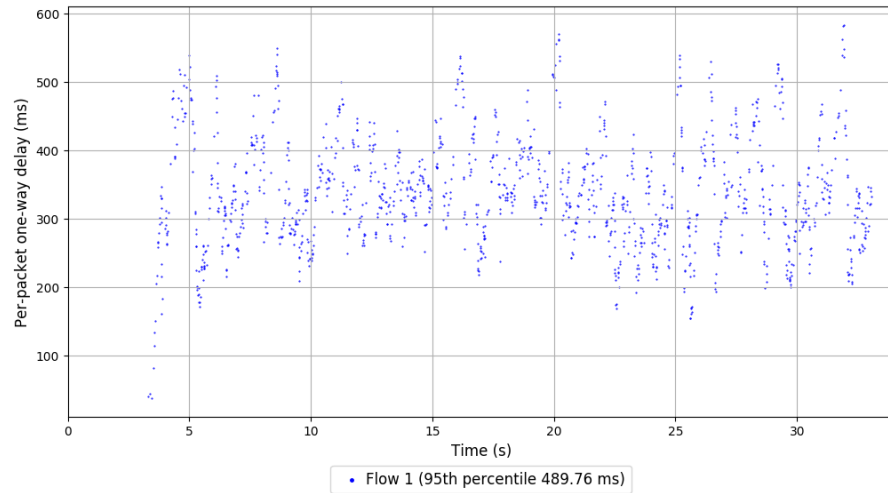
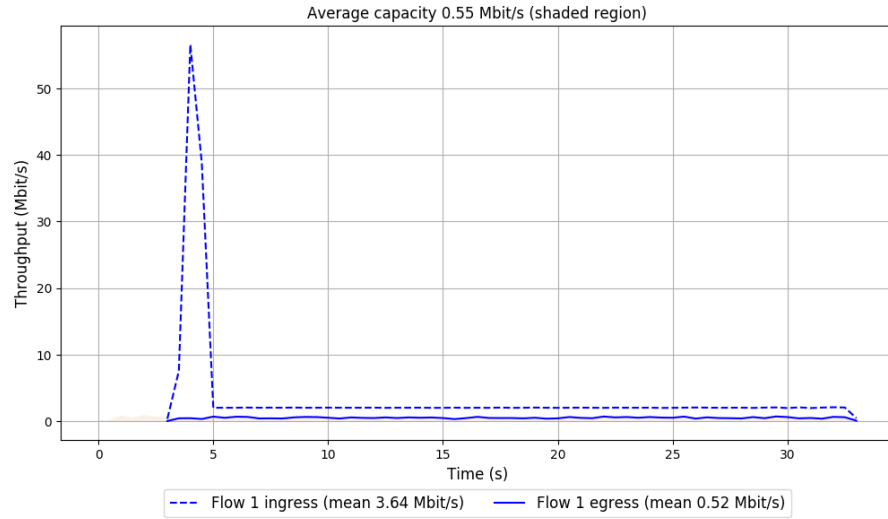
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 489.757 ms

Loss rate: 85.66%

## Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-05 18:49:52

End at: 2018-03-05 18:50:22

# Below is generated by plot.py at 2018-03-05 19:25:04

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.5% utilization)

95th percentile per-packet one-way delay: 485.071 ms

Loss rate: 88.21%

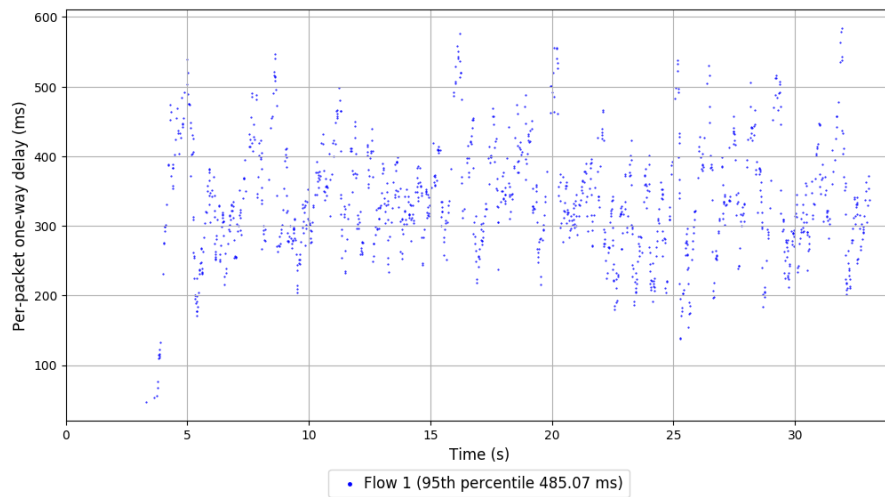
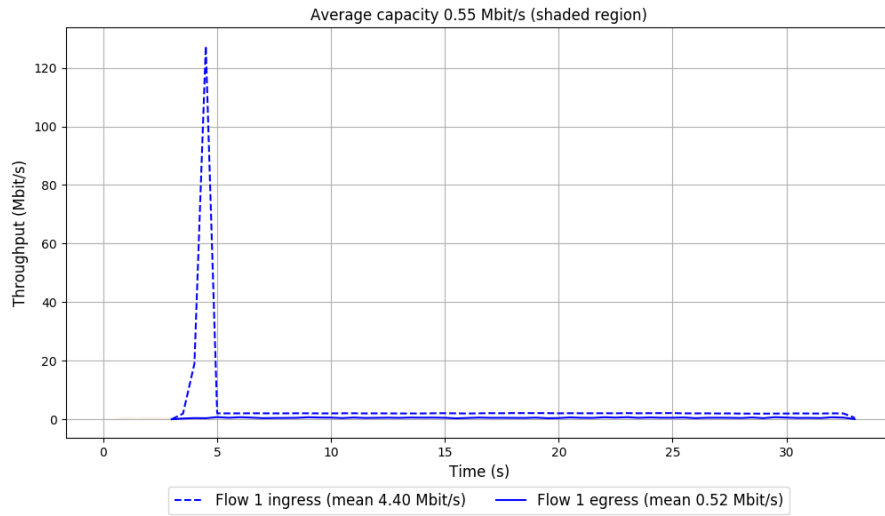
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 485.071 ms

Loss rate: 88.21%

# Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

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

End at: 2018-03-05 19:00:33

# Below is generated by plot.py at 2018-03-05 19:25:04

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.3% utilization)

95th percentile per-packet one-way delay: 481.919 ms

Loss rate: 82.00%

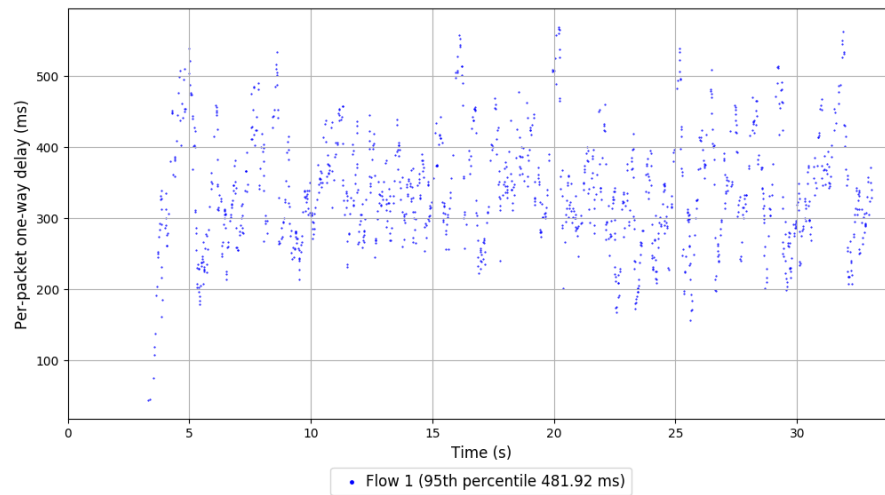
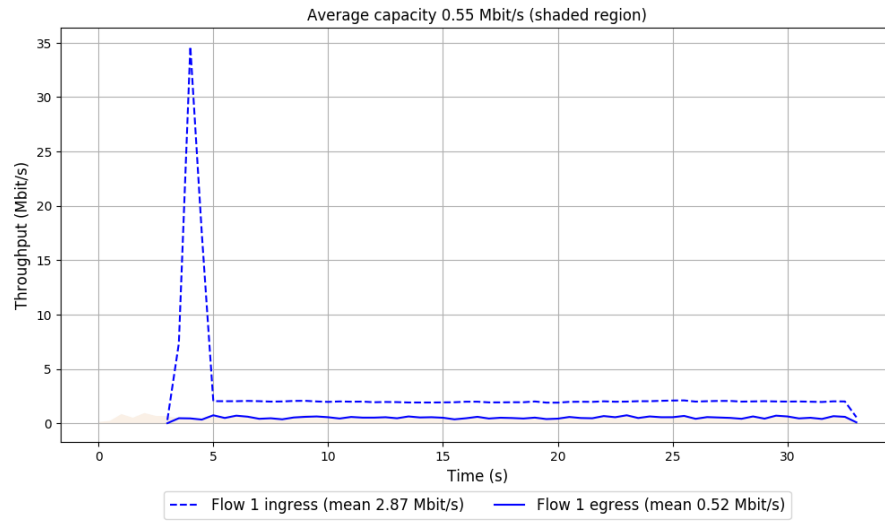
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 481.919 ms

Loss rate: 82.00%

## Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-05 19:10:15

End at: 2018-03-05 19:10:45

# Below is generated by plot.py at 2018-03-05 19:25:04

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.6% utilization)

95th percentile per-packet one-way delay: 489.444 ms

Loss rate: 82.46%

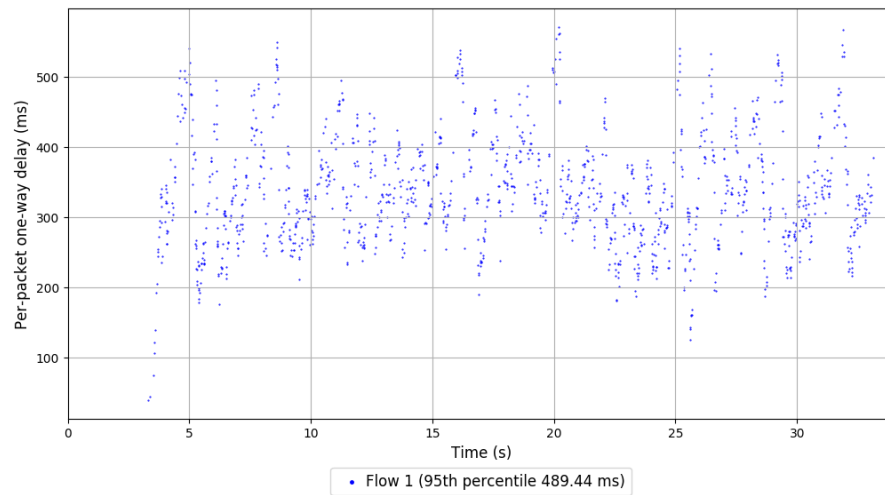
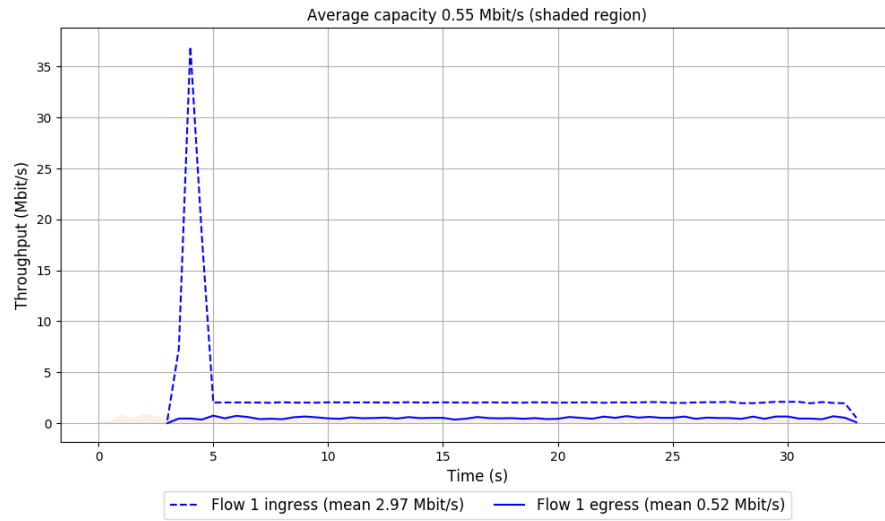
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 489.444 ms

Loss rate: 82.46%

## Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-03-05 19:20:25

End at: 2018-03-05 19:20:55

# Below is generated by plot.py at 2018-03-05 19:25:06

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (93.4% utilization)

95th percentile per-packet one-way delay: 476.885 ms

Loss rate: 84.37%

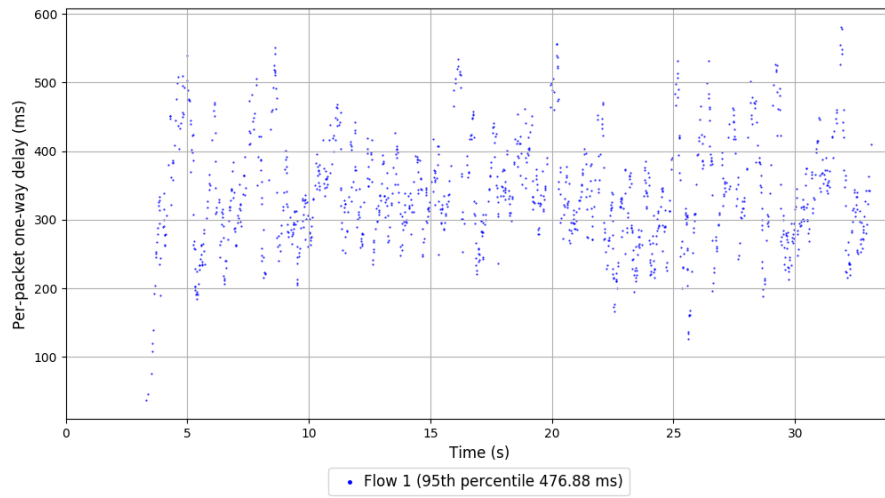
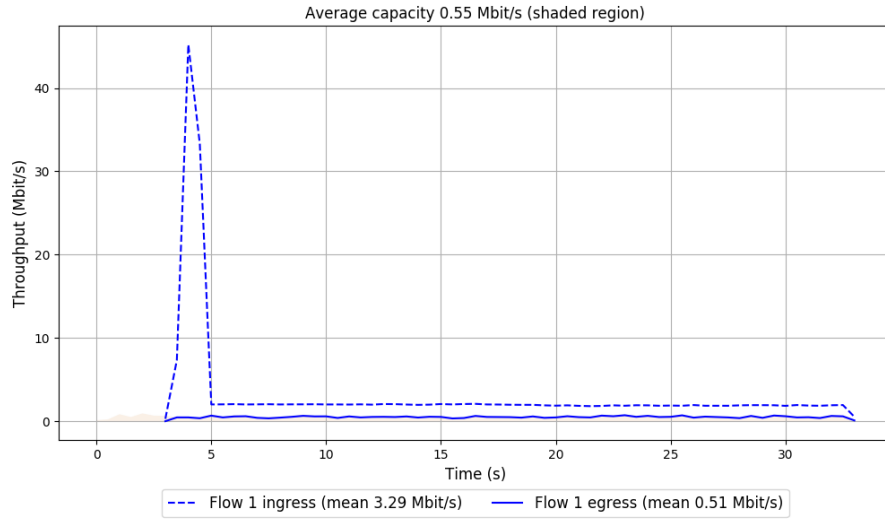
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 476.885 ms

Loss rate: 84.37%

# Run 10: Report of PCC — Data Link

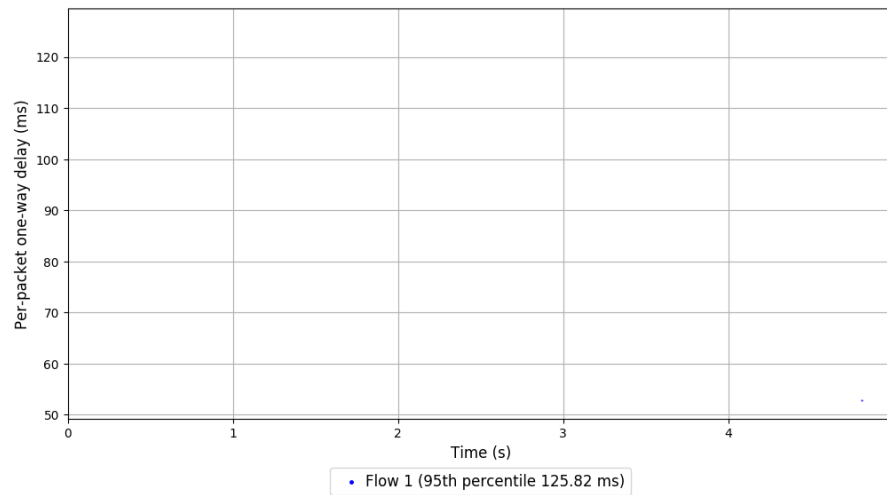
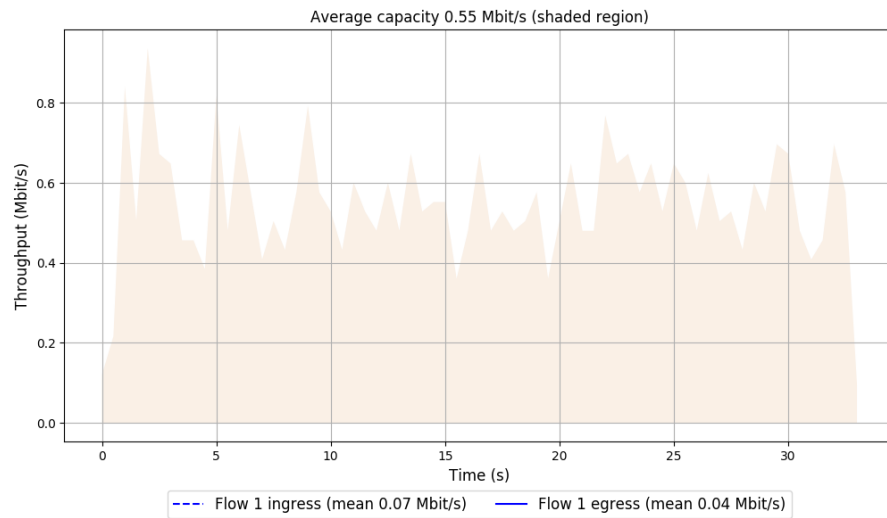


Run 1: Statistics of QUIC Cubic

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

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

# Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-05 17:53:08

End at: 2018-03-05 17:53:38

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (93.2% utilization)

95th percentile per-packet one-way delay: 365.716 ms

Loss rate: 9.36%

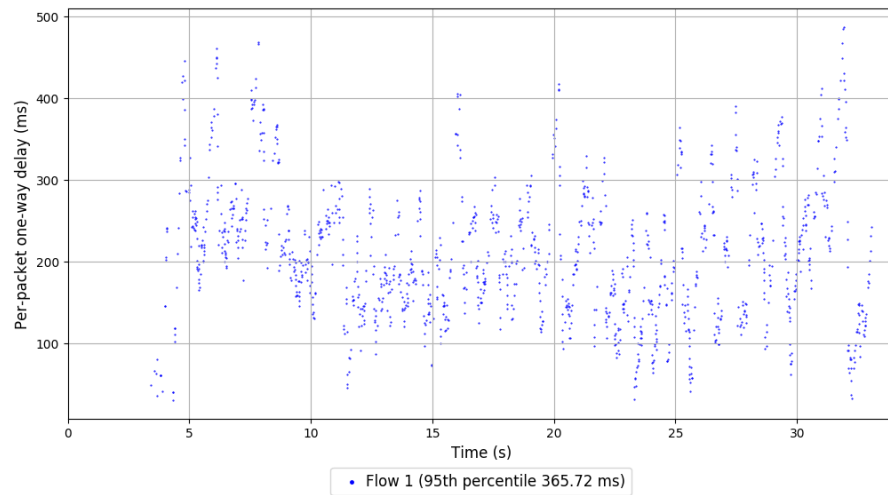
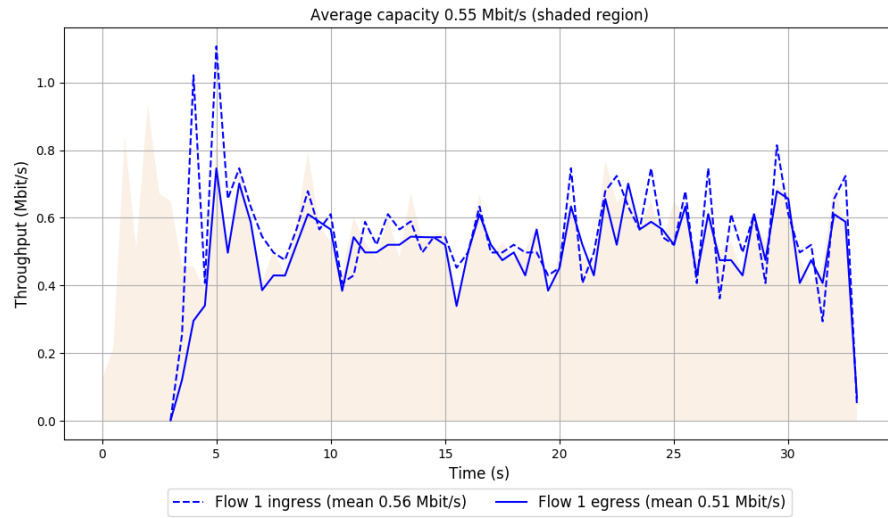
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 365.716 ms

Loss rate: 9.36%

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



Run 3: Statistics of QUIC Cubic

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

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

# Below is generated by plot.py at 2018-03-05 19:25:08

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (93.1% utilization)

95th percentile per-packet one-way delay: 385.774 ms

Loss rate: 15.17%

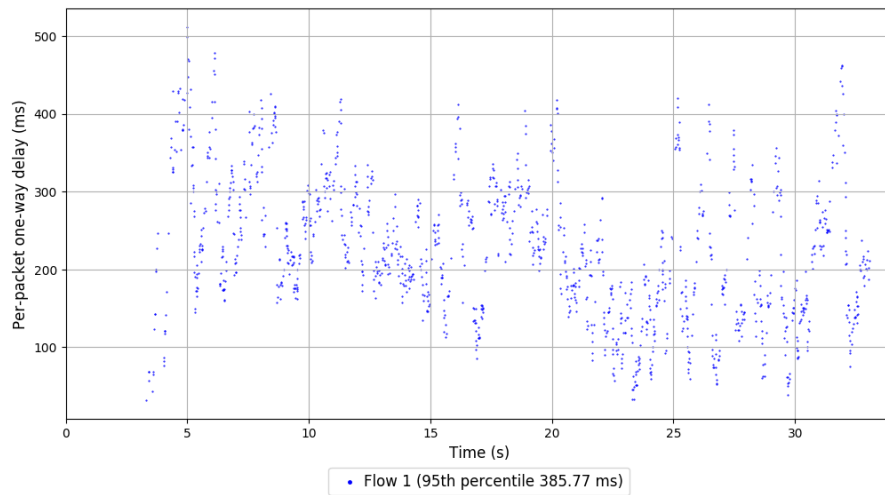
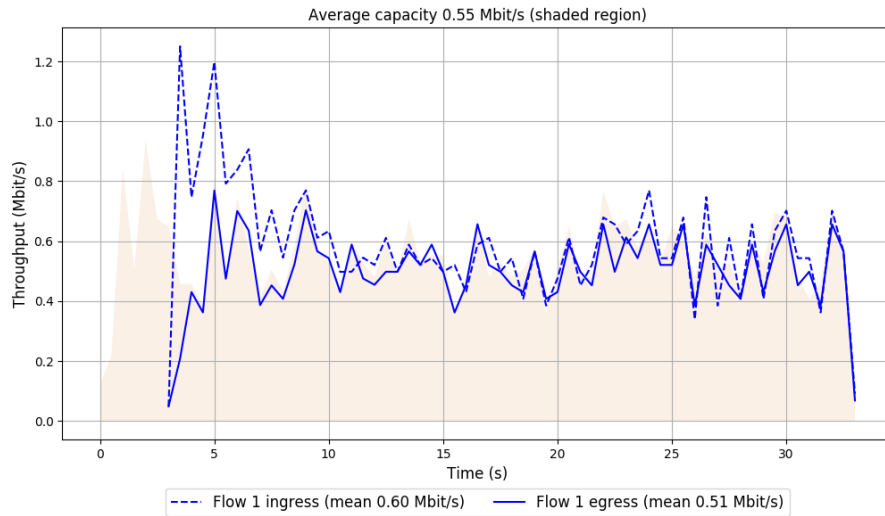
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 385.774 ms

Loss rate: 15.17%

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



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-05 18:13:35

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

# Below is generated by plot.py at 2018-03-05 19:25:09

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.7% utilization)

95th percentile per-packet one-way delay: 381.470 ms

Loss rate: 8.74%

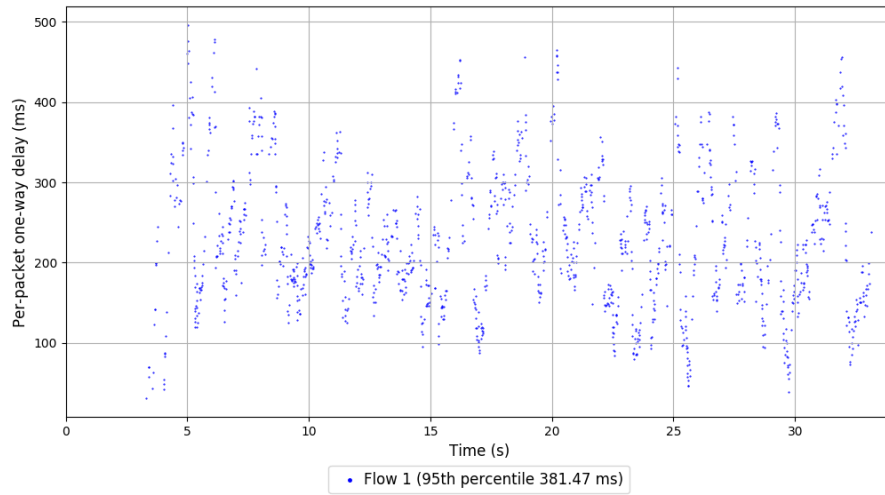
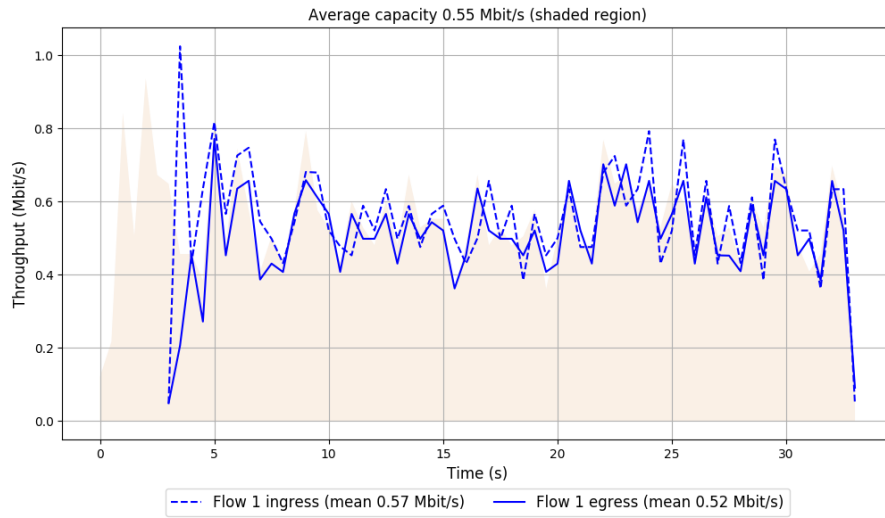
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 381.470 ms

Loss rate: 8.74%

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



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-05 18:23:46

End at: 2018-03-05 18:24:16

# Below is generated by plot.py at 2018-03-05 19:25:10

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.0% utilization)

95th percentile per-packet one-way delay: 381.529 ms

Loss rate: 14.25%

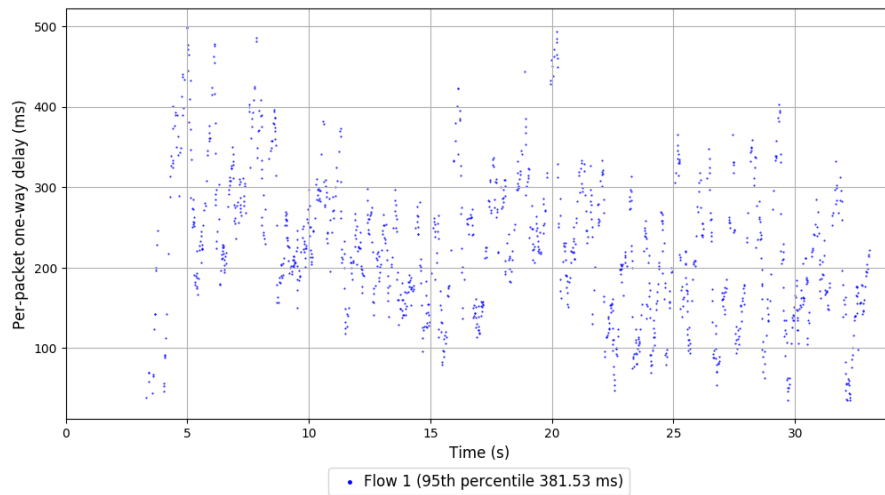
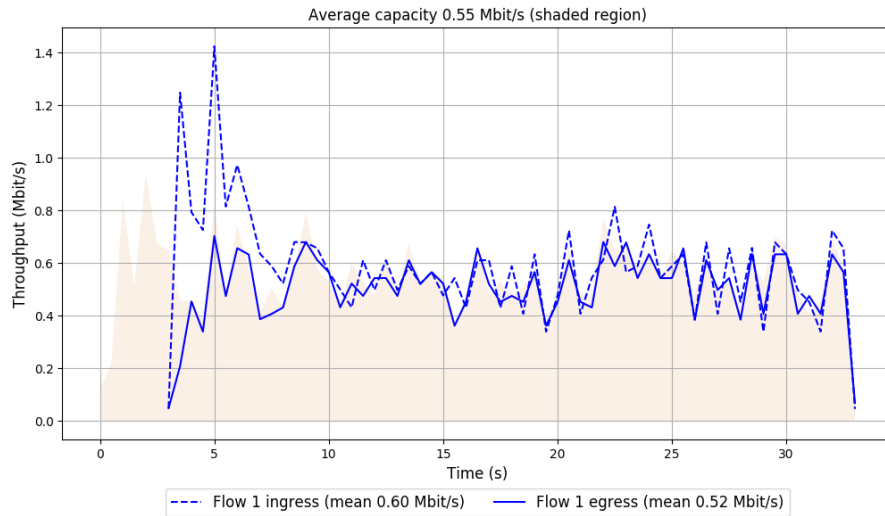
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 381.529 ms

Loss rate: 14.25%

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



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-05 18:33:57

End at: 2018-03-05 18:34:27

# Below is generated by plot.py at 2018-03-05 19:25:11

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (93.5% utilization)

95th percentile per-packet one-way delay: 378.712 ms

Loss rate: 15.39%

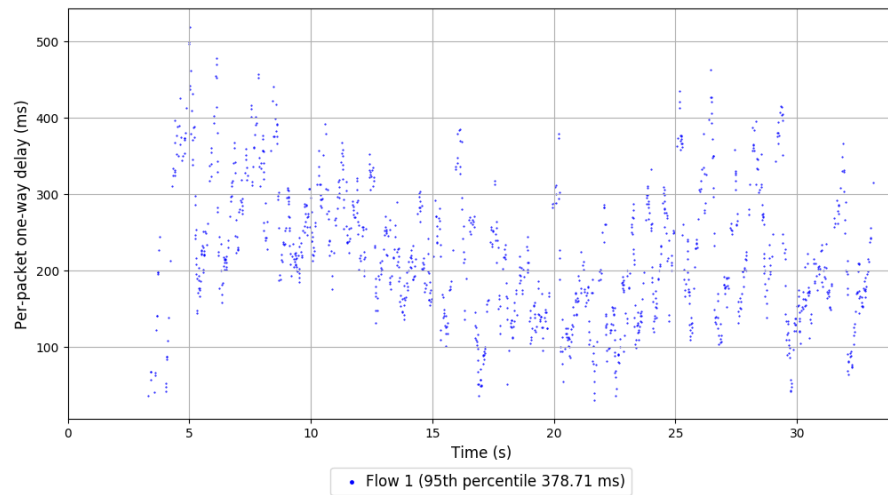
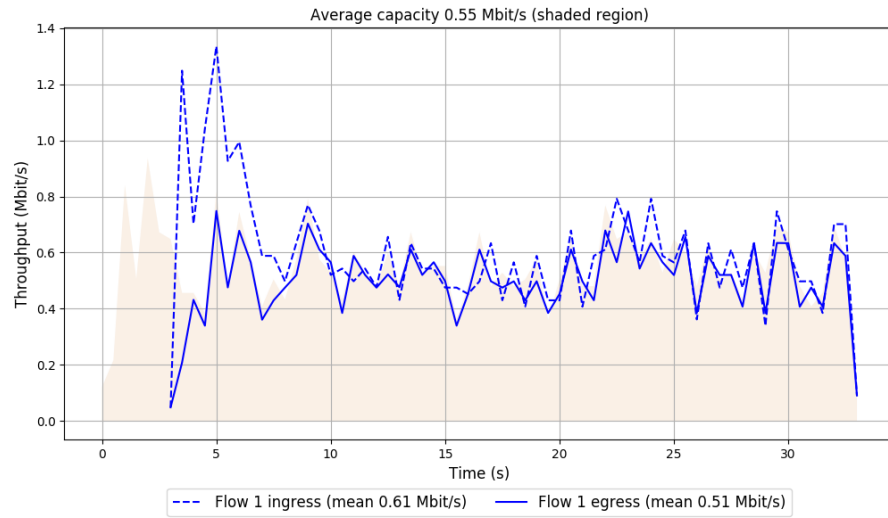
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 378.712 ms

Loss rate: 15.39%

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



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-05 18:44:11

End at: 2018-03-05 18:44:41

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.8% utilization)

95th percentile per-packet one-way delay: 377.472 ms

Loss rate: 9.40%

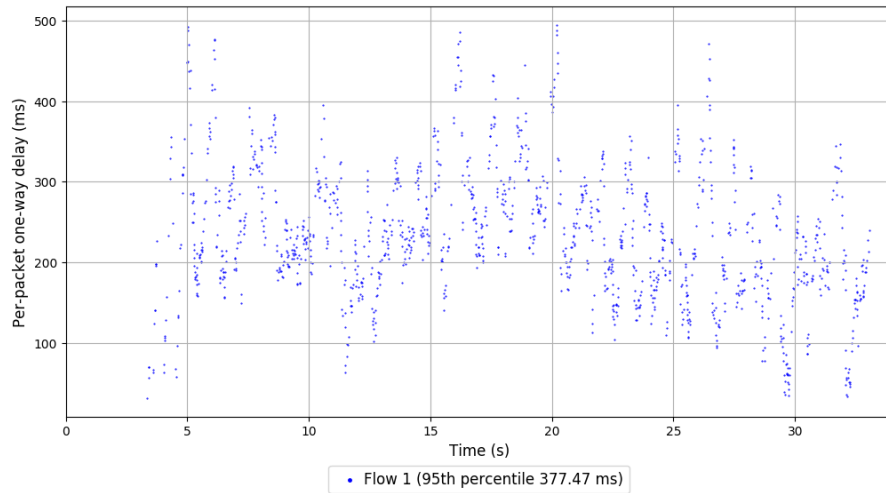
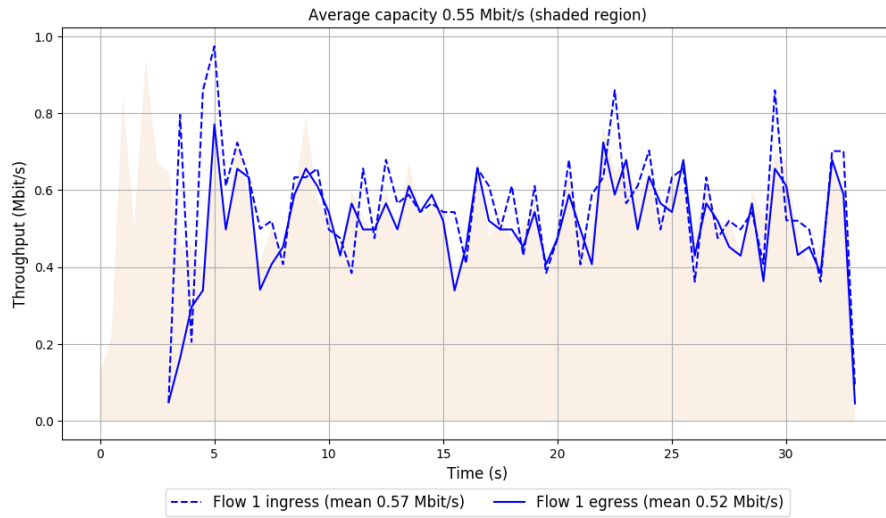
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 377.472 ms

Loss rate: 9.40%

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



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-05 18:54:23

End at: 2018-03-05 18:54:53

# Below is generated by plot.py at 2018-03-05 19:25:13

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.6% utilization)

95th percentile per-packet one-way delay: 369.337 ms

Loss rate: 10.02%

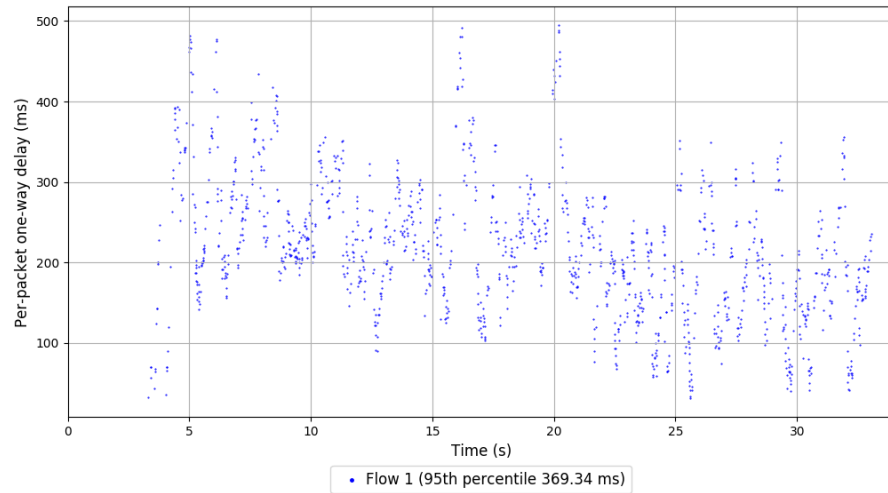
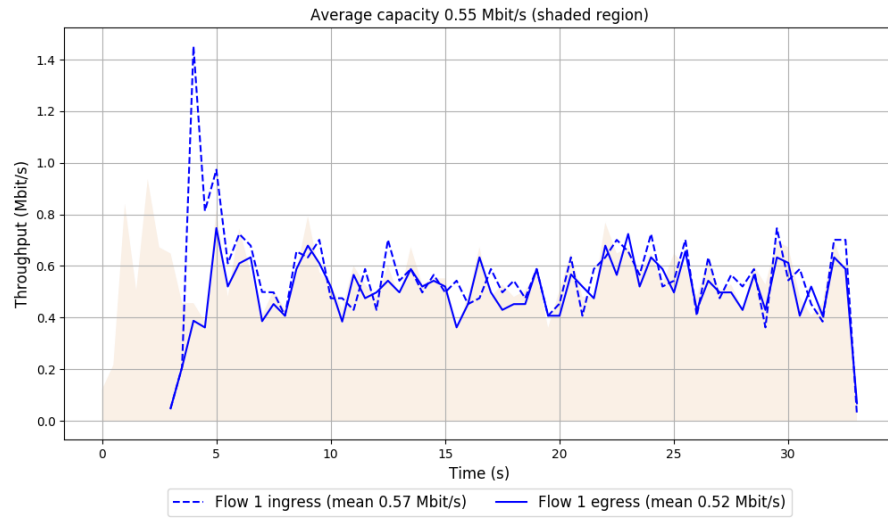
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 369.337 ms

Loss rate: 10.02%

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



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-05 19:04:34

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

# Below is generated by plot.py at 2018-03-05 19:25:13

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.6% utilization)

95th percentile per-packet one-way delay: 380.518 ms

Loss rate: 9.02%

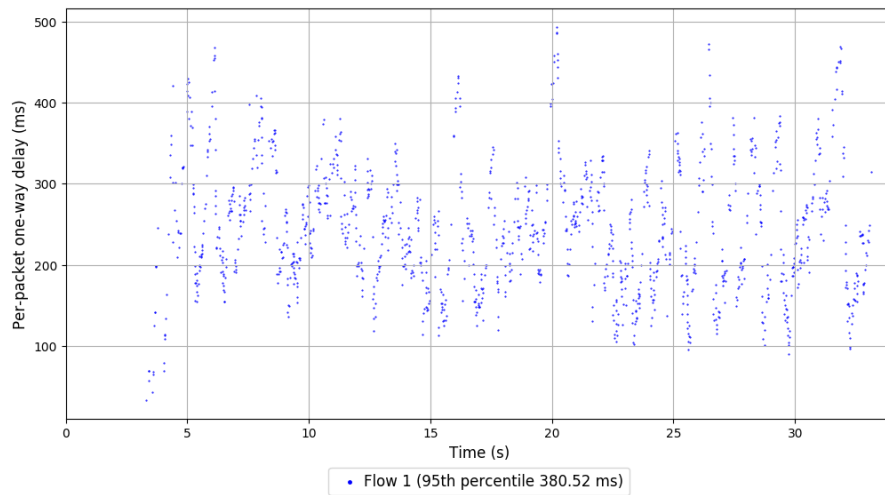
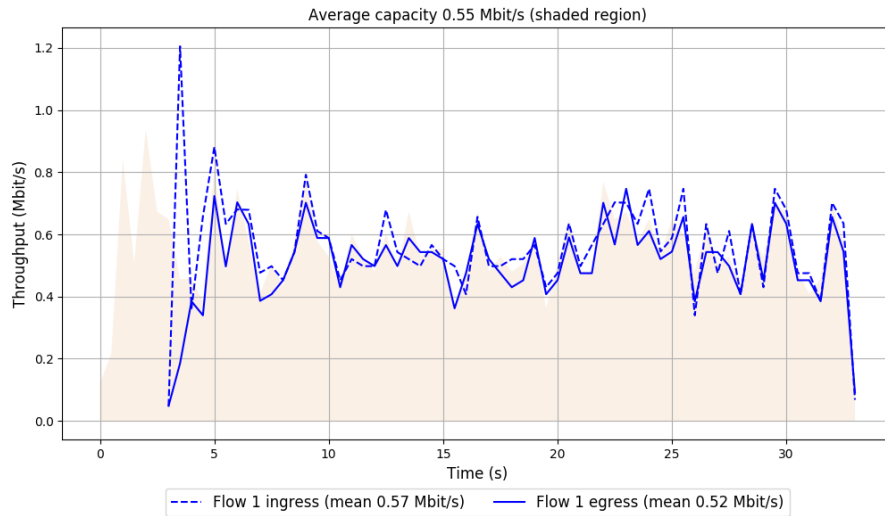
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 380.518 ms

Loss rate: 9.02%

### Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-03-05 19:14:46

End at: 2018-03-05 19:15:16

# Below is generated by plot.py at 2018-03-05 19:25:14

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.3% utilization)

95th percentile per-packet one-way delay: 388.395 ms

Loss rate: 11.42%

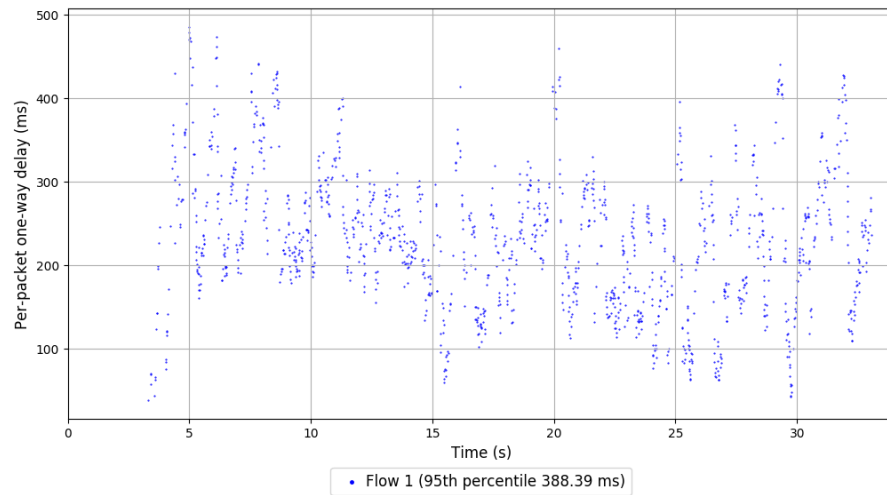
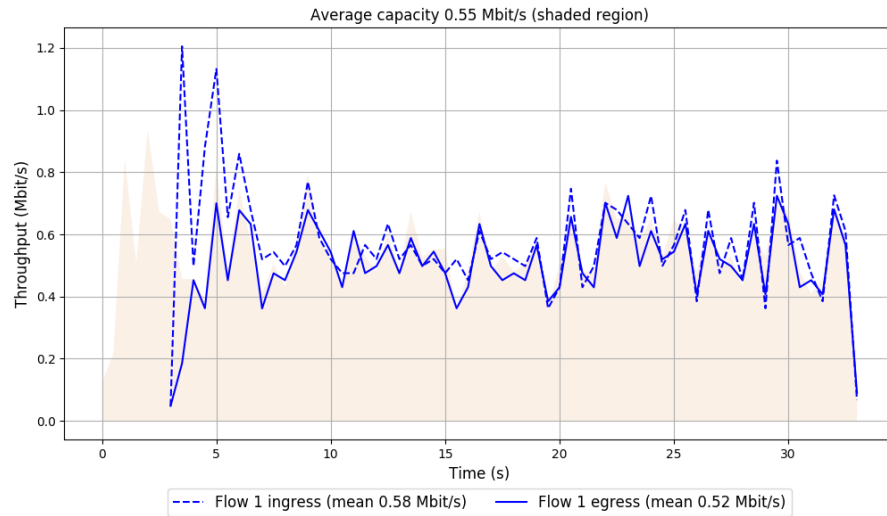
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 388.395 ms

Loss rate: 11.42%

### Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

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

End at: 2018-03-05 17:47:24

# Below is generated by plot.py at 2018-03-05 19:25:15

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.09 Mbit/s (16.6% utilization)

95th percentile per-packet one-way delay: 93.328 ms

Loss rate: 4.57%

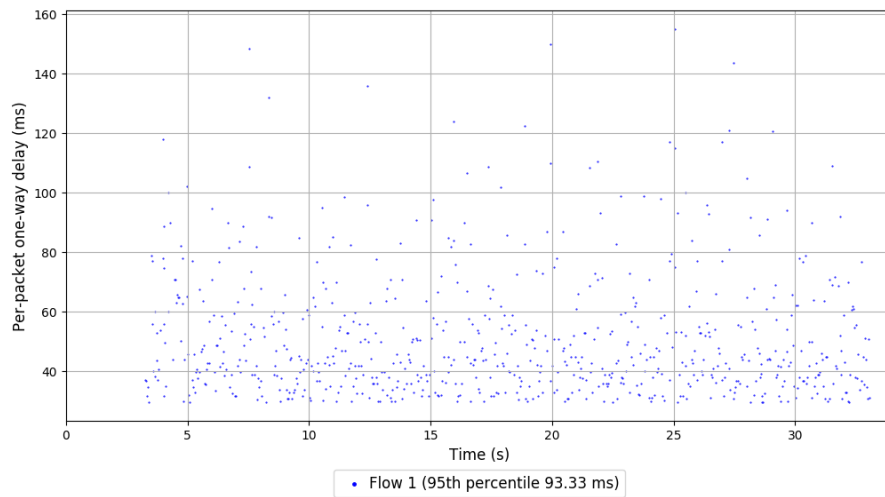
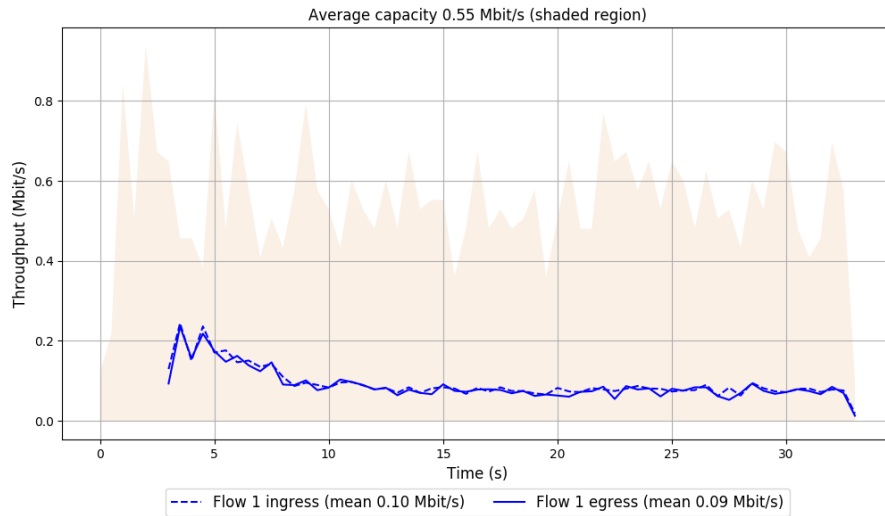
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 93.328 ms

Loss rate: 4.57%

# Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-03-05 17:57:08

End at: 2018-03-05 17:57:38

# Below is generated by plot.py at 2018-03-05 19:25:16

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.09 Mbit/s (15.8% utilization)

95th percentile per-packet one-way delay: 91.660 ms

Loss rate: 4.62%

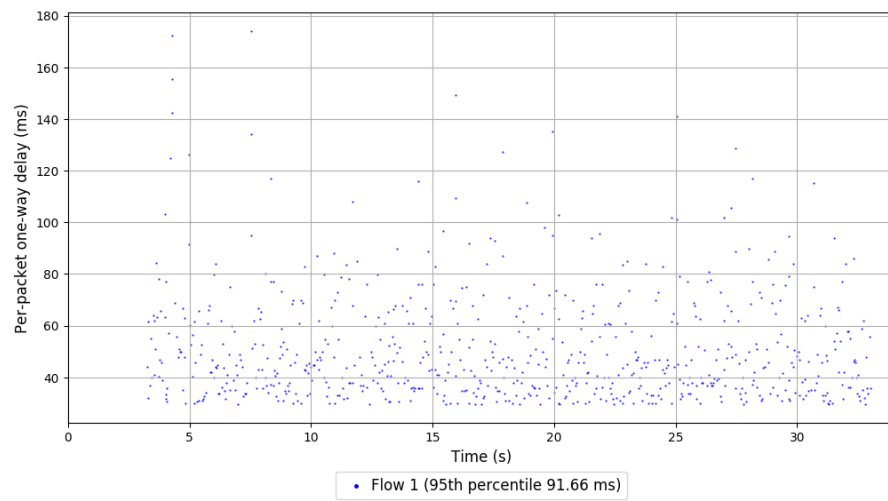
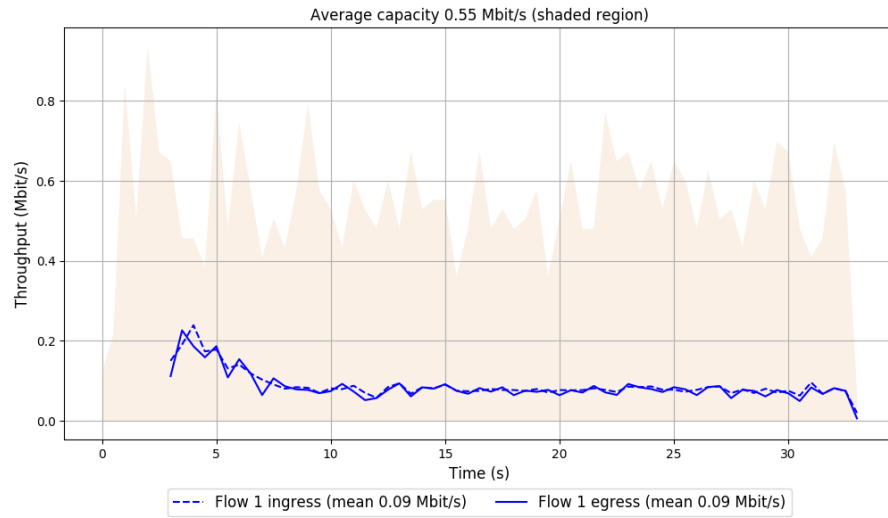
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 91.660 ms

Loss rate: 4.62%

## Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-03-05 18:07:21

End at: 2018-03-05 18:07:51

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.09 Mbit/s (15.6% utilization)

95th percentile per-packet one-way delay: 89.955 ms

Loss rate: 4.48%

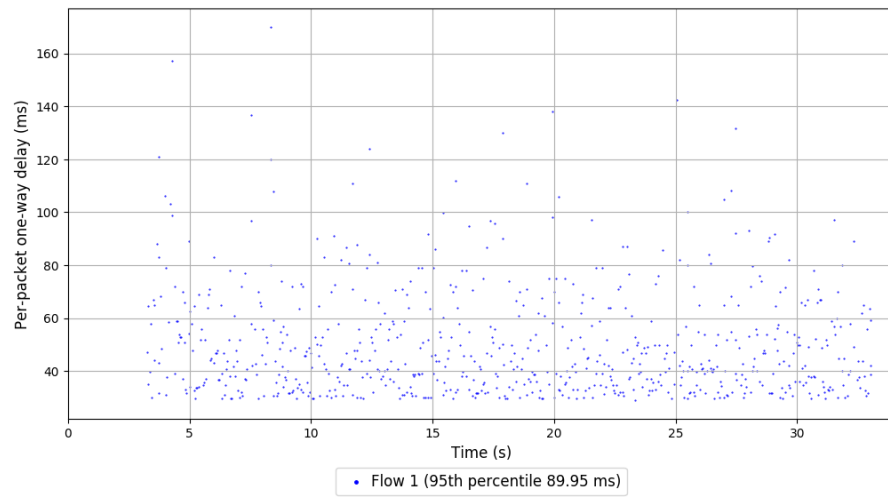
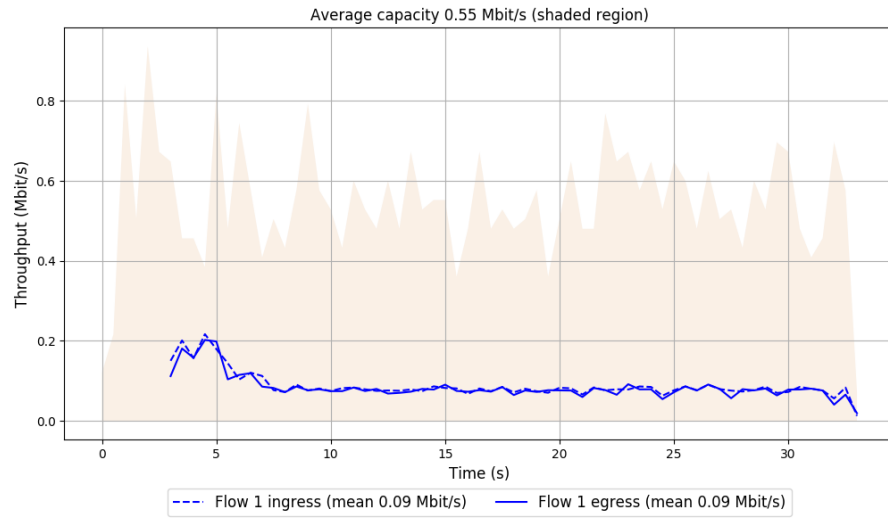
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 89.955 ms

Loss rate: 4.48%

### Run 3: Report of SCReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-03-05 18:17:33

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

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.09 Mbit/s (16.6% utilization)

95th percentile per-packet one-way delay: 90.960 ms

Loss rate: 4.81%

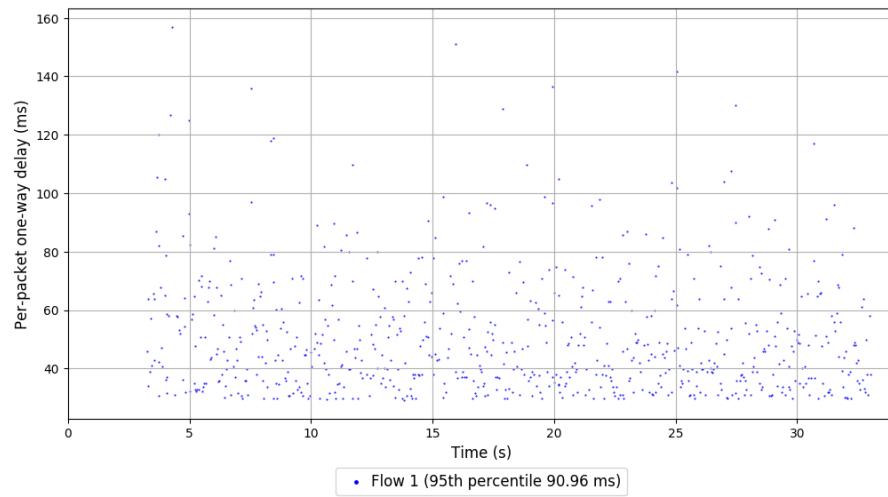
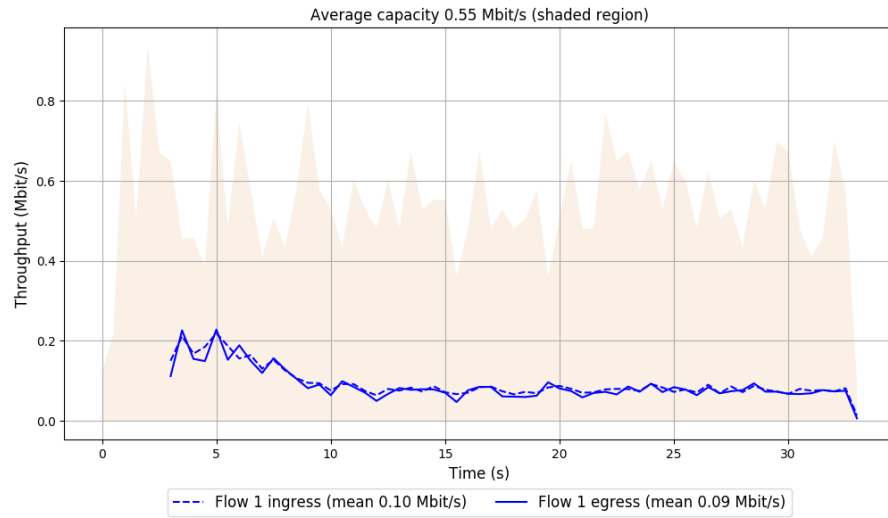
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 90.960 ms

Loss rate: 4.81%

## Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-03-05 18:27:44

End at: 2018-03-05 18:28:14

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.09 Mbit/s (15.7% utilization)

95th percentile per-packet one-way delay: 90.858 ms

Loss rate: 4.57%

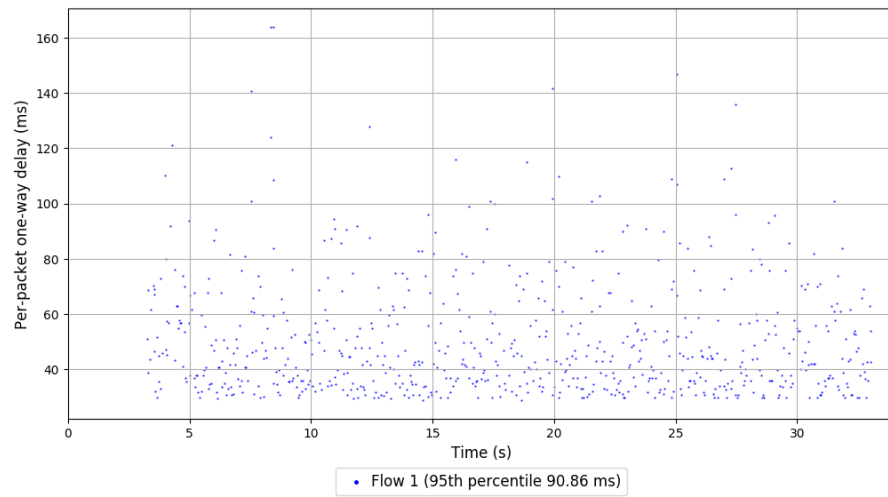
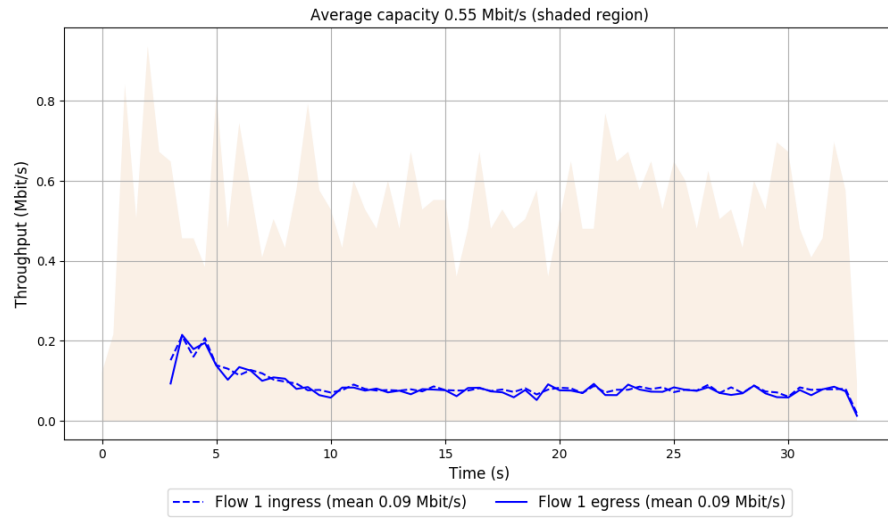
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 90.858 ms

Loss rate: 4.57%

## Run 5: Report of SCReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-03-05 18:37:56

End at: 2018-03-05 18:38:26

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.09 Mbit/s (15.6% utilization)

95th percentile per-packet one-way delay: 90.855 ms

Loss rate: 5.15%

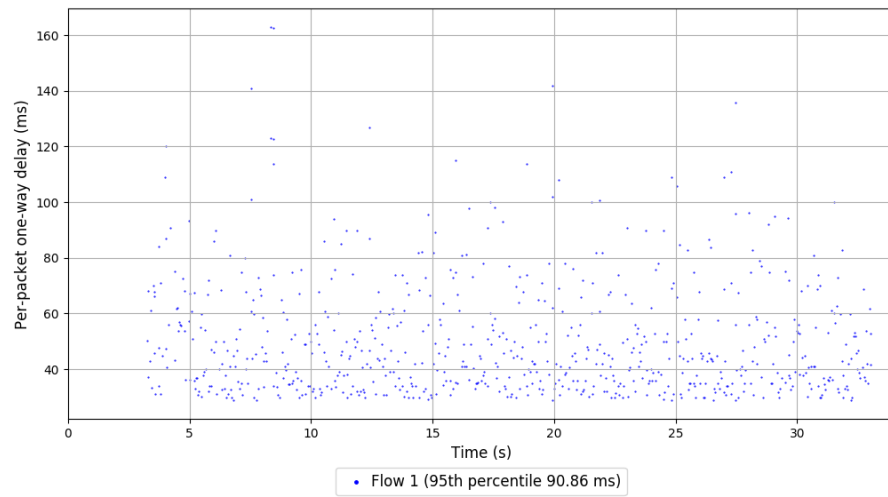
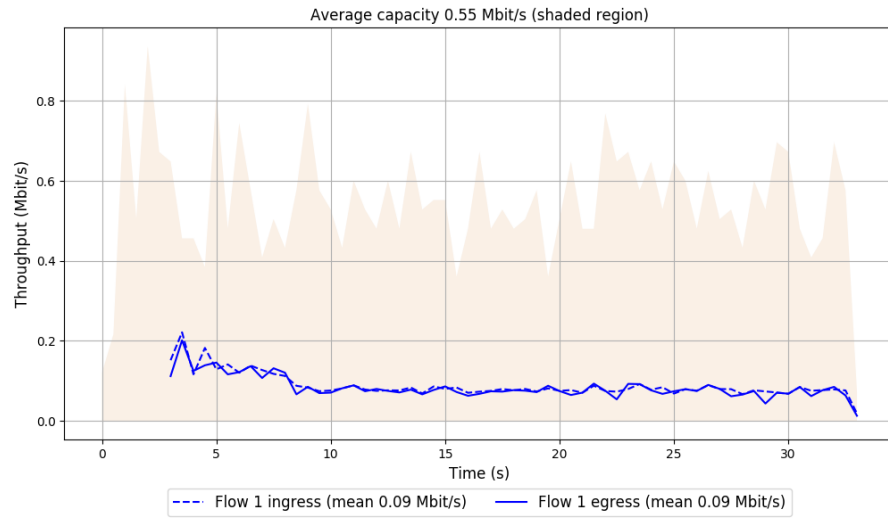
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 90.855 ms

Loss rate: 5.15%

## Run 6: Report of SCReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2018-03-05 18:48:10

End at: 2018-03-05 18:48:40

# Below is generated by plot.py at 2018-03-05 19:25:21

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.09 Mbit/s (16.5% utilization)

95th percentile per-packet one-way delay: 91.709 ms

Loss rate: 4.96%

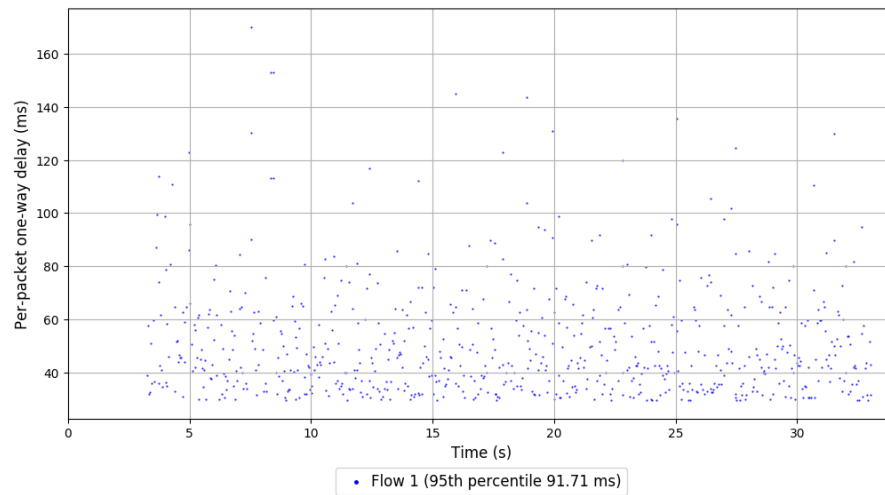
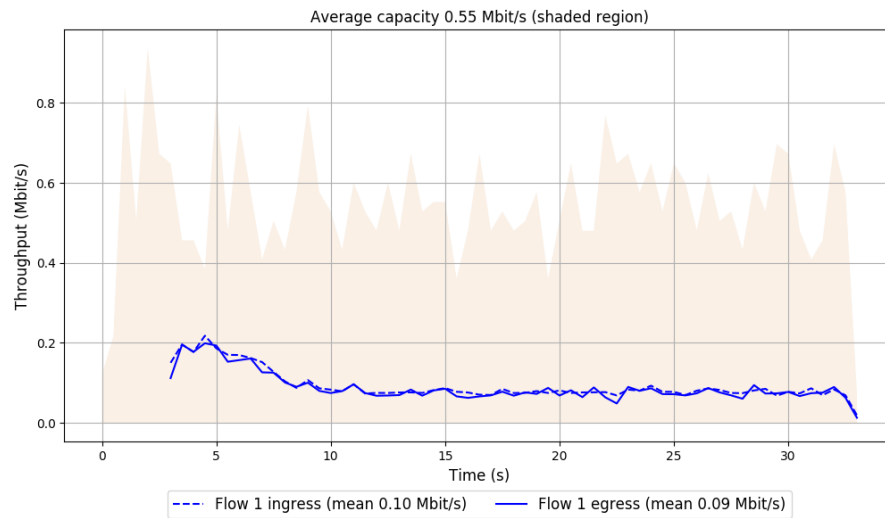
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 91.709 ms

Loss rate: 4.96%

## Run 7: Report of SCReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-03-05 18:58:21

End at: 2018-03-05 18:58:51

# Below is generated by plot.py at 2018-03-05 19:25:21

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.08 Mbit/s (14.5% utilization)

95th percentile per-packet one-way delay: 87.128 ms

Loss rate: 4.71%

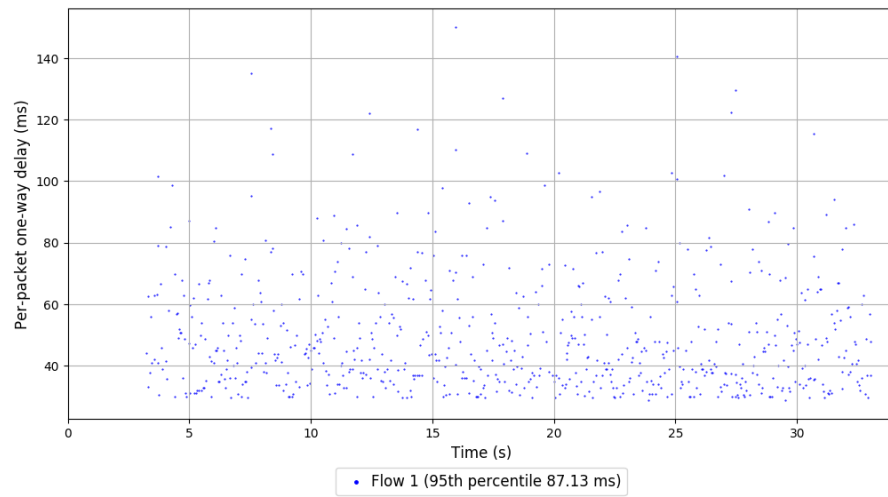
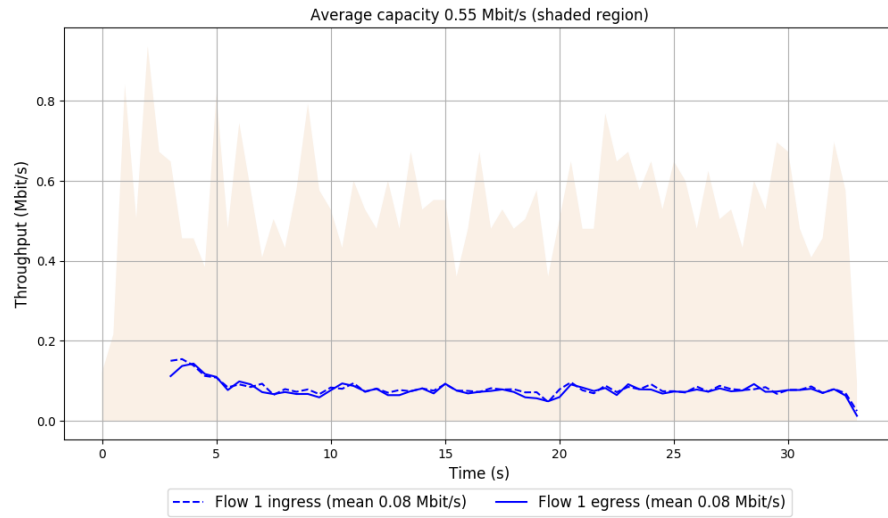
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 87.128 ms

Loss rate: 4.71%

## Run 8: Report of SCReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-03-05 19:08:33

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

# Below is generated by plot.py at 2018-03-05 19:25:21

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.08 Mbit/s (14.9% utilization)

95th percentile per-packet one-way delay: 91.073 ms

Loss rate: 5.96%

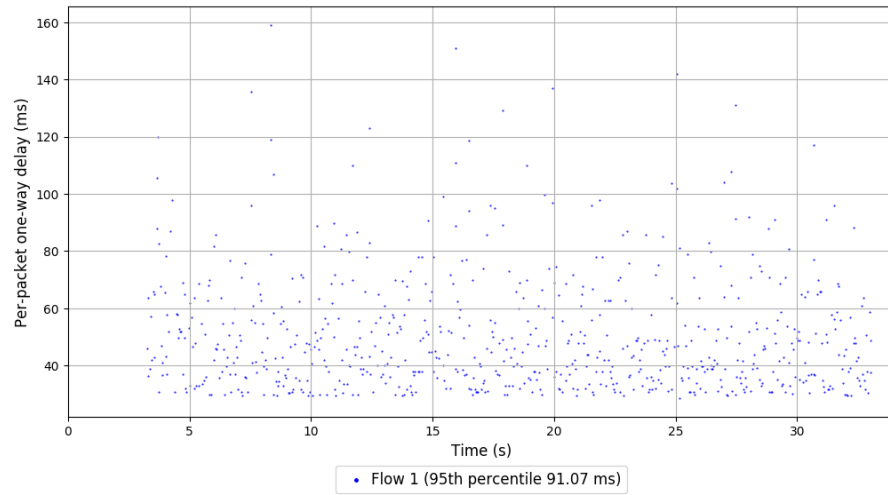
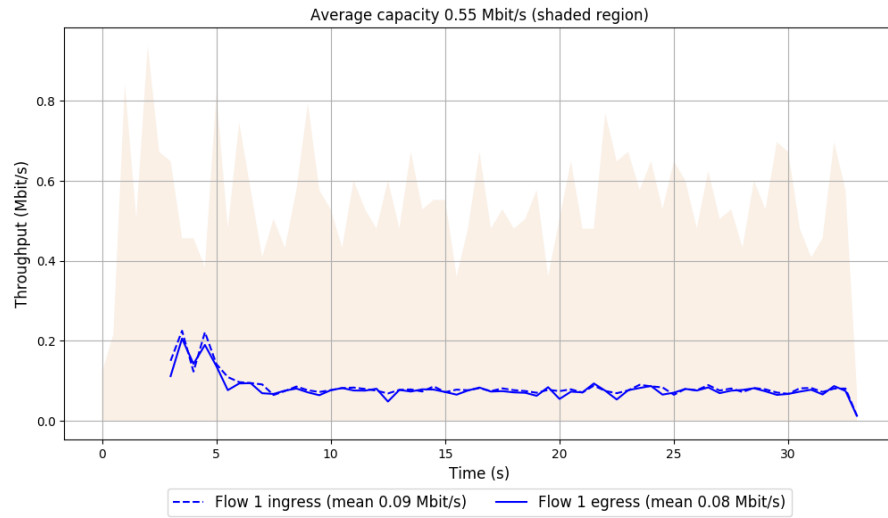
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 91.073 ms

Loss rate: 5.96%

## Run 9: Report of SCReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2018-03-05 19:18:44

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

# Below is generated by plot.py at 2018-03-05 19:25:22

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.09 Mbit/s (16.1% utilization)

95th percentile per-packet one-way delay: 92.820 ms

Loss rate: 6.18%

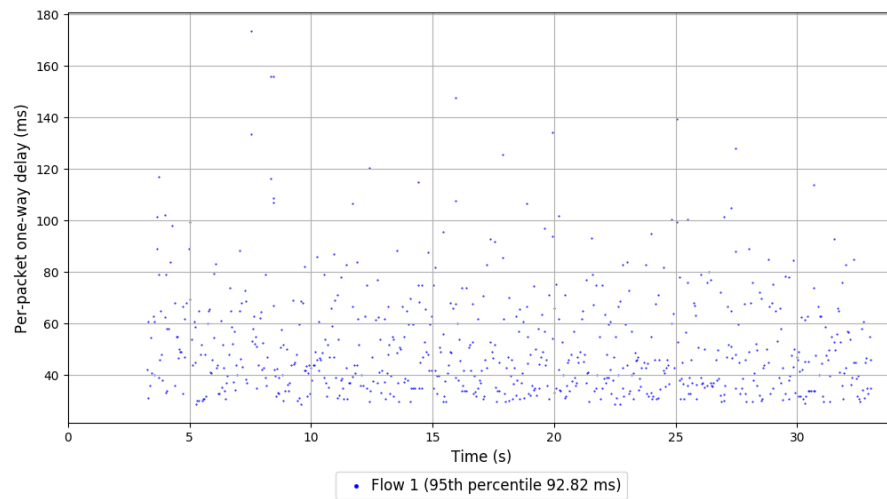
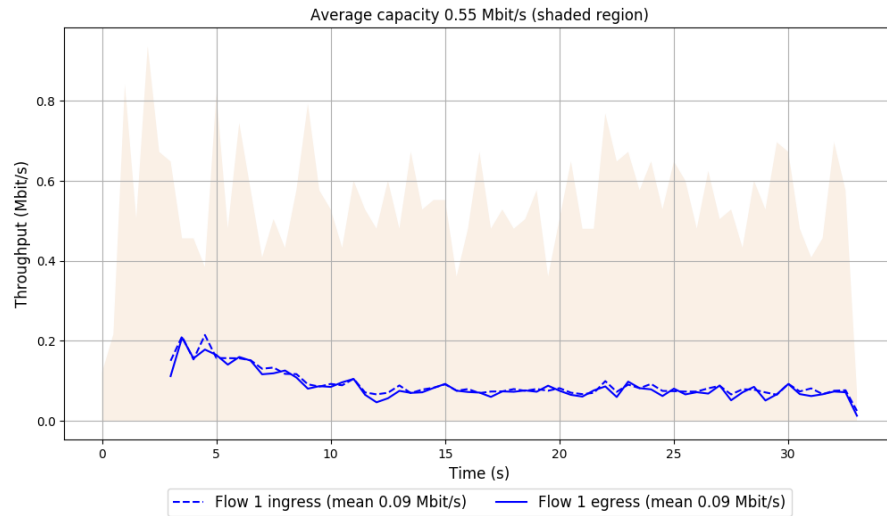
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 92.820 ms

Loss rate: 6.18%

# Run 10: Report of SCReAM — Data Link

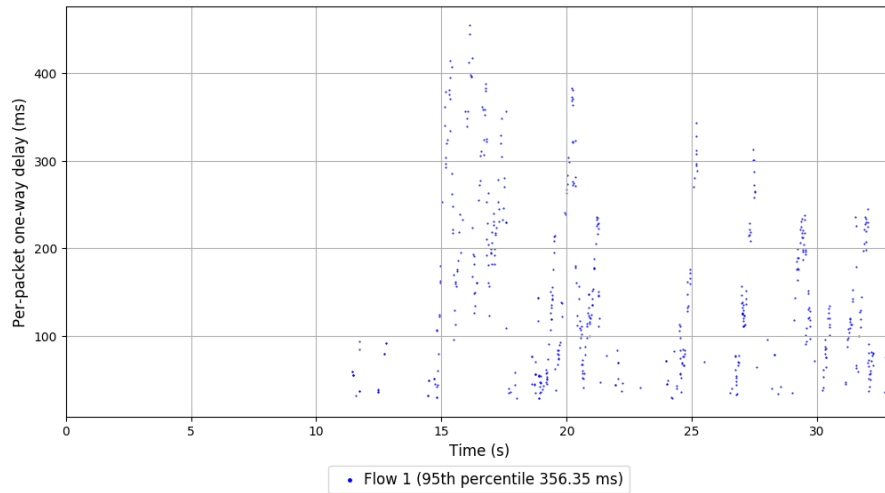
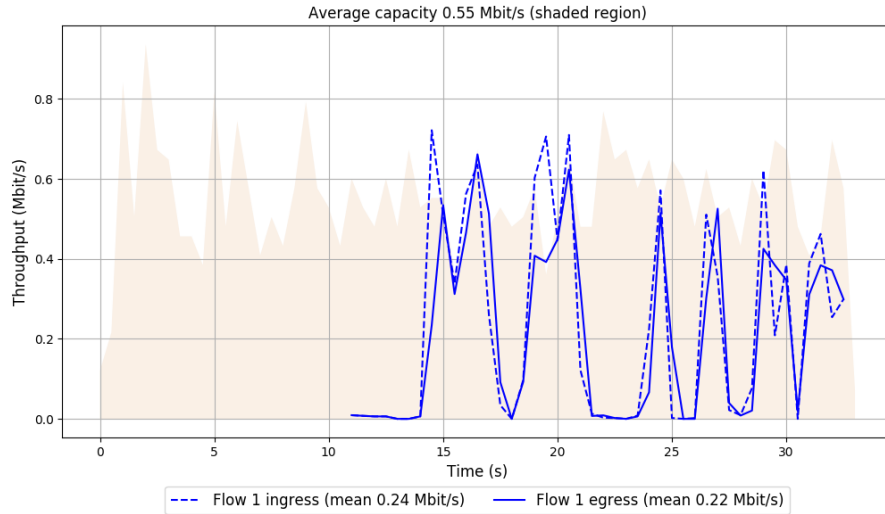


Run 1: Statistics of WebRTC media

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

End at: 2018-03-05 17:44:33

# Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-05 17:54:15

End at: 2018-03-05 17:54:45

# Below is generated by plot.py at 2018-03-05 19:25:24

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.24 Mbit/s (43.9% utilization)

95th percentile per-packet one-way delay: 301.704 ms

Loss rate: 9.09%

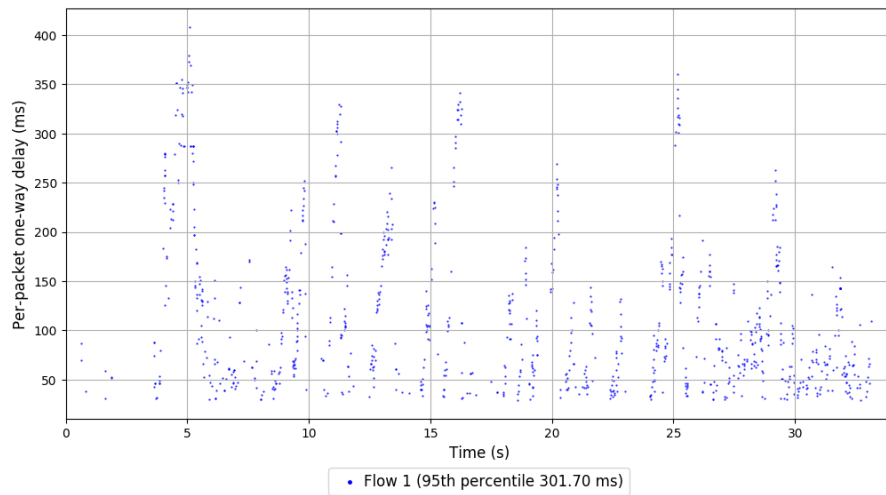
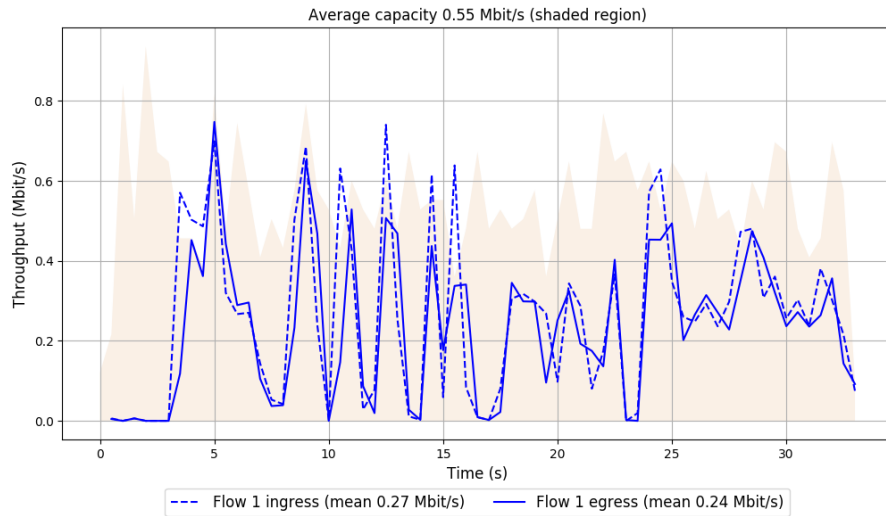
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 301.704 ms

Loss rate: 9.09%

## Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-05 18:04:29

End at: 2018-03-05 18:04:59

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.18 Mbit/s (32.5% utilization)

95th percentile per-packet one-way delay: 345.671 ms

Loss rate: 13.69%

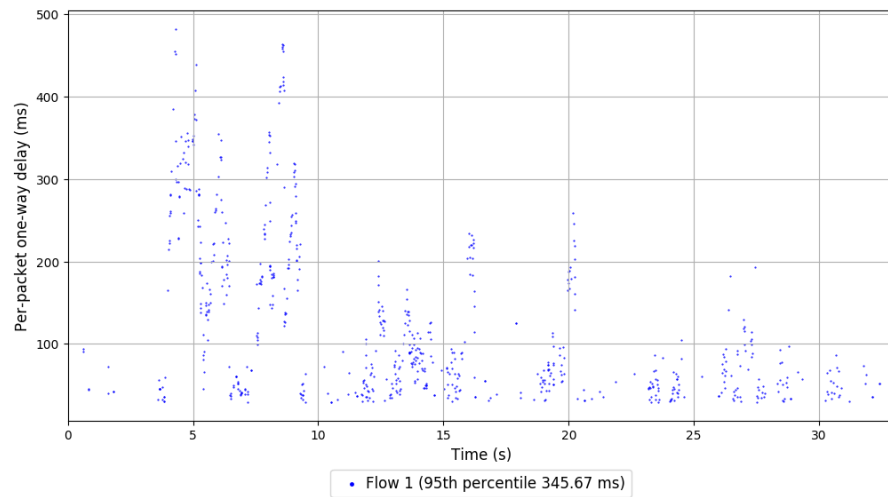
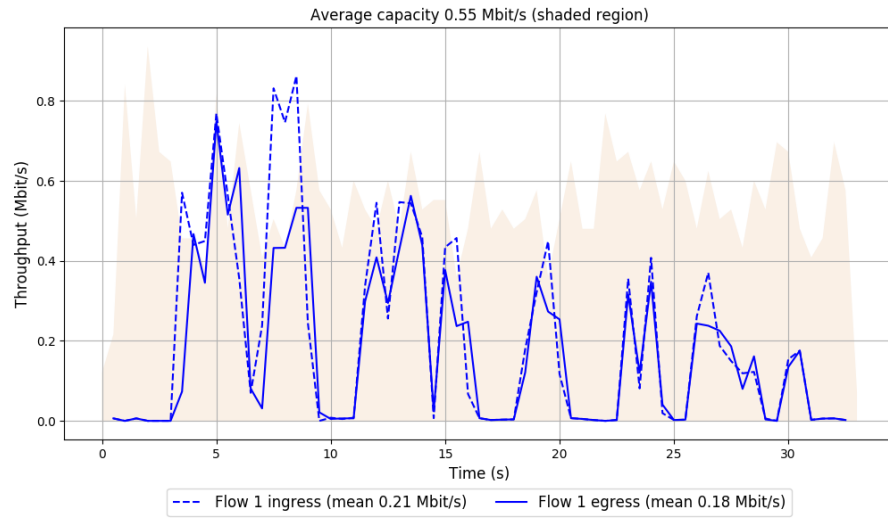
-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 345.671 ms

Loss rate: 13.69%

### Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-05 18:14:43

End at: 2018-03-05 18:15:13

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.20 Mbit/s (36.2% utilization)

95th percentile per-packet one-way delay: 248.195 ms

Loss rate: 8.66%

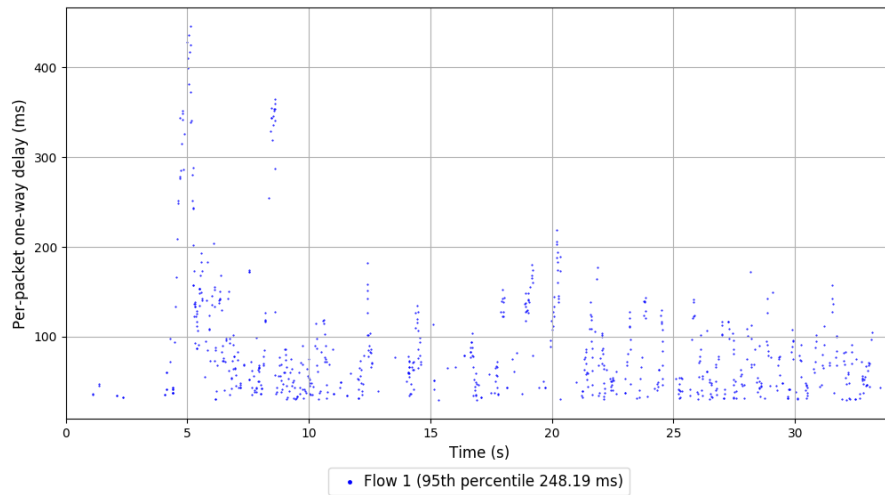
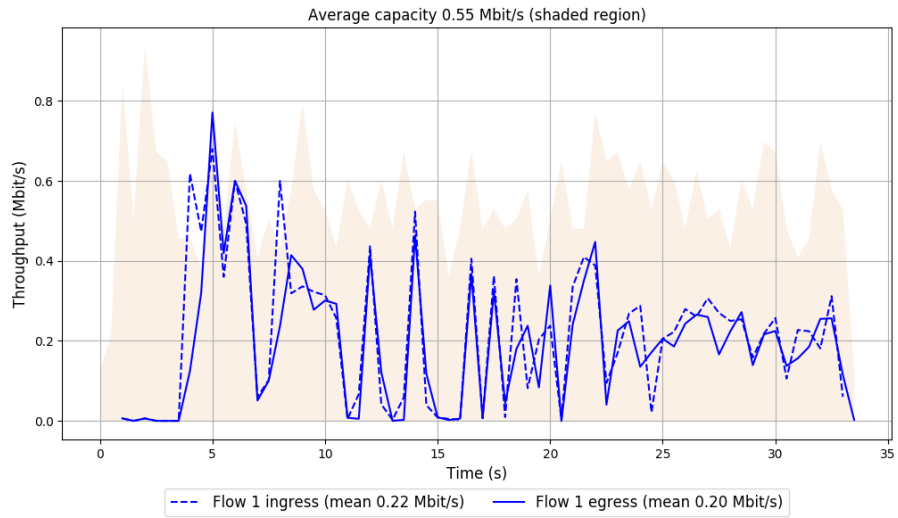
-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 248.195 ms

Loss rate: 8.66%

### Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-05 18:24:54

End at: 2018-03-05 18:25:24

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.27 Mbit/s (48.7% utilization)

95th percentile per-packet one-way delay: 314.709 ms

Loss rate: 17.99%

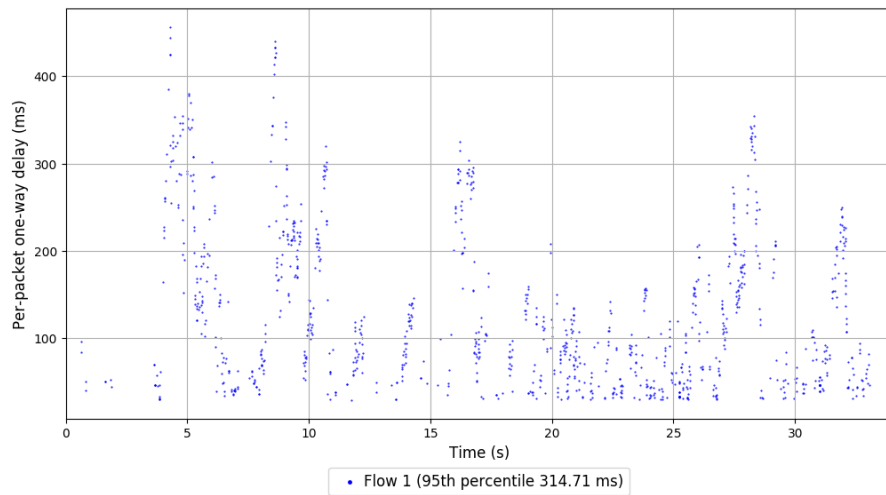
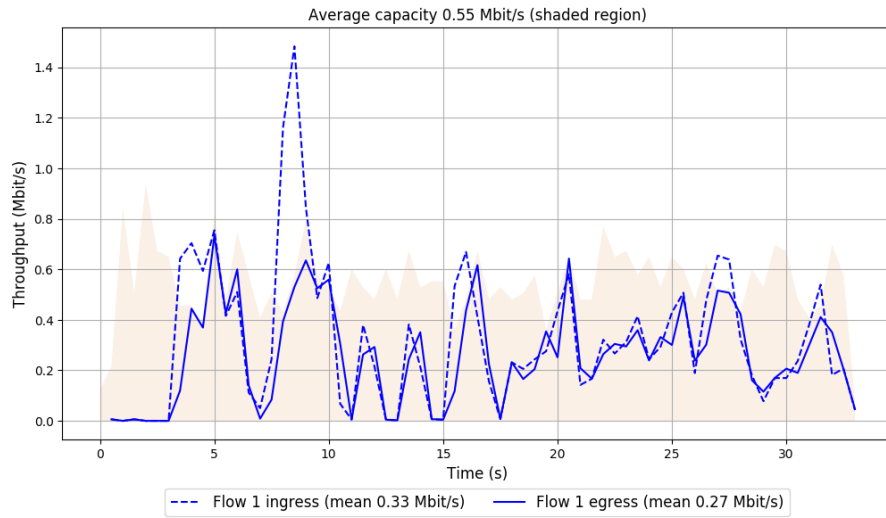
-- Flow 1:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 314.709 ms

Loss rate: 17.99%

## Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-05 18:35:04

End at: 2018-03-05 18:35:34

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.25 Mbit/s (44.6% utilization)

95th percentile per-packet one-way delay: 315.998 ms

Loss rate: 14.27%

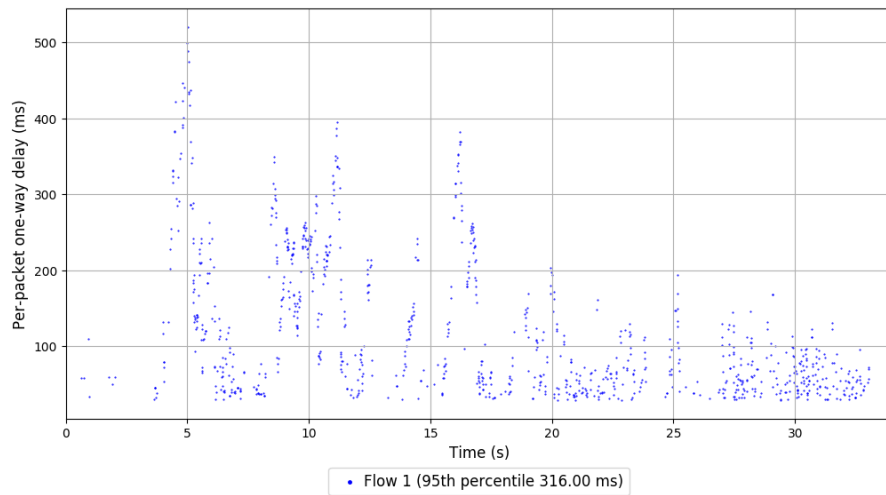
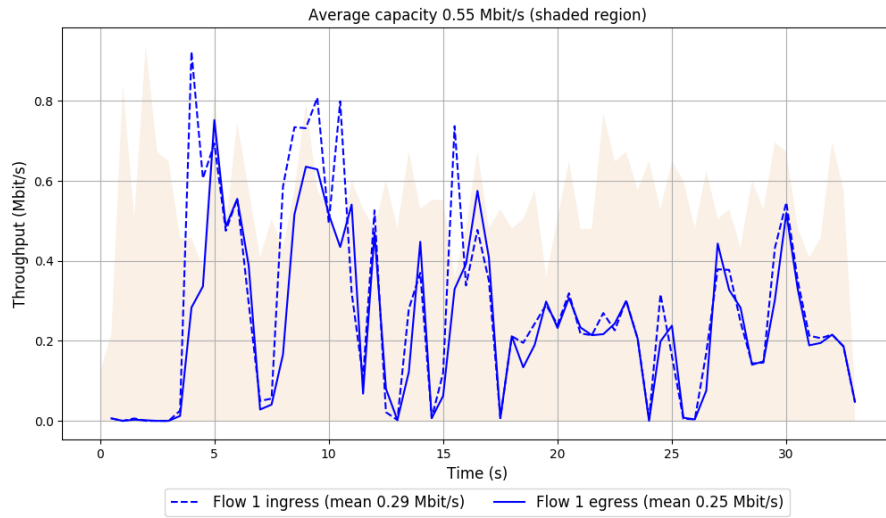
-- Flow 1:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 315.998 ms

Loss rate: 14.27%

## Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-05 18:45:19

End at: 2018-03-05 18:45:50

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.25 Mbit/s (45.2% utilization)

95th percentile per-packet one-way delay: 303.180 ms

Loss rate: 10.47%

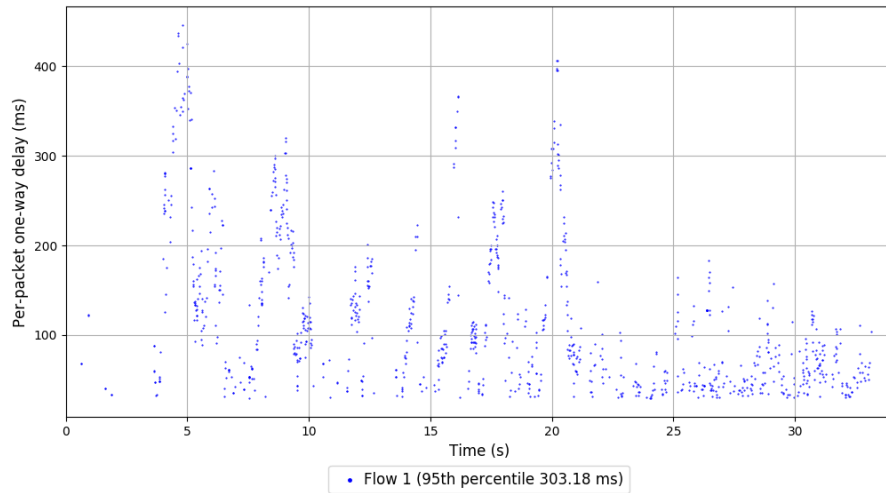
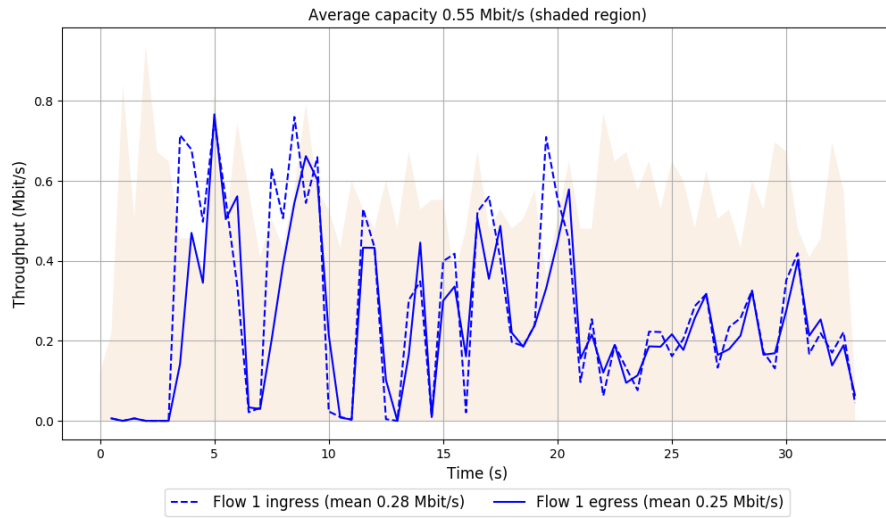
-- Flow 1:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 303.180 ms

Loss rate: 10.47%

## Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-05 18:55:32

End at: 2018-03-05 18:56:02

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.27 Mbit/s (48.3% utilization)

95th percentile per-packet one-way delay: 316.024 ms

Loss rate: 19.08%

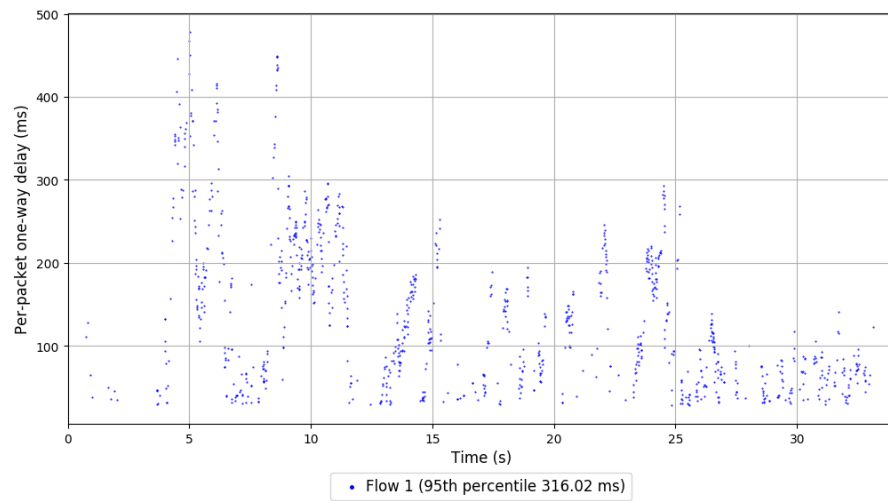
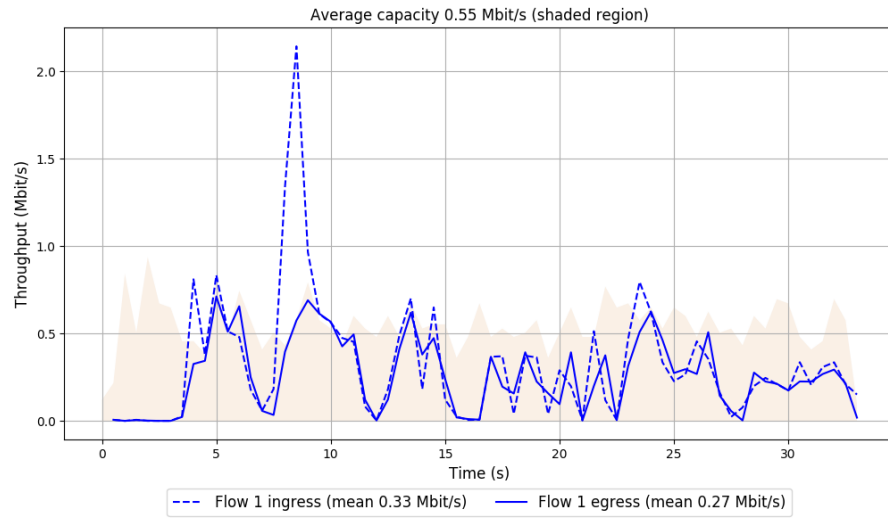
-- Flow 1:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 316.024 ms

Loss rate: 19.08%

## Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

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

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

# Below is generated by plot.py at 2018-03-05 19:25:30

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.21 Mbit/s (39.0% utilization)

95th percentile per-packet one-way delay: 300.478 ms

Loss rate: 11.91%

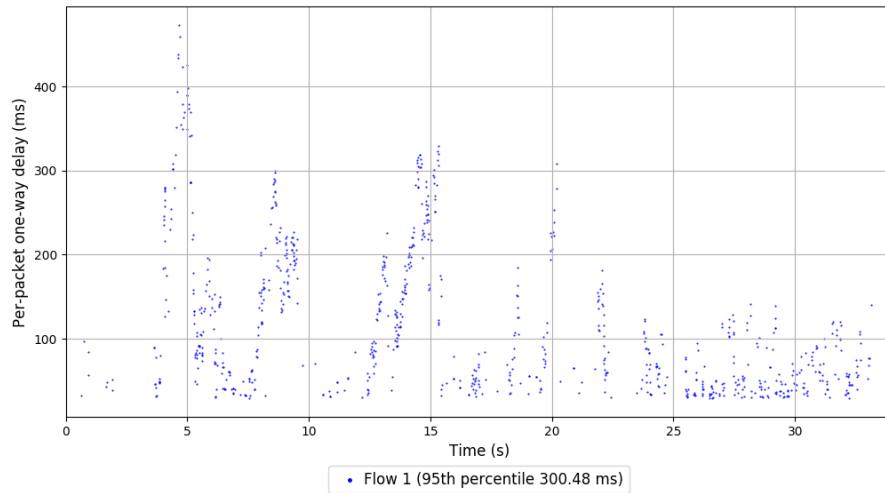
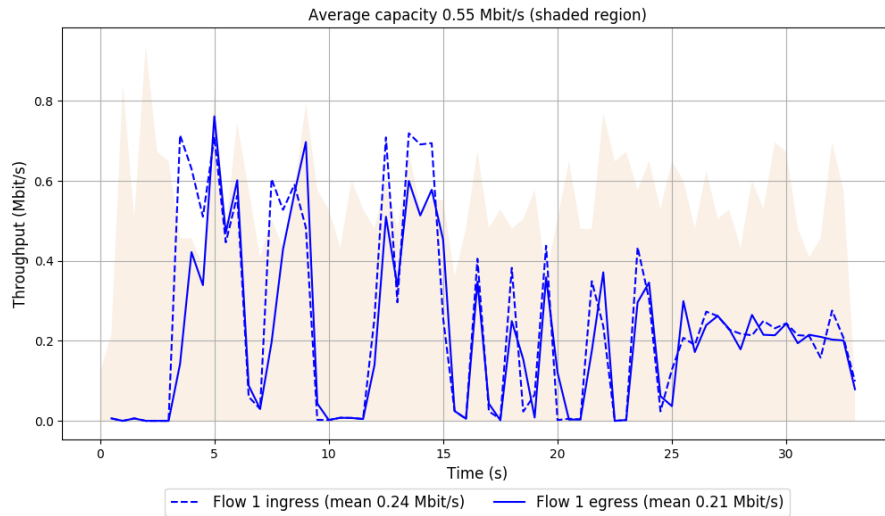
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 300.478 ms

Loss rate: 11.91%

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



Run 10: Statistics of WebRTC media

Start at: 2018-03-05 19:15:54

End at: 2018-03-05 19:16:24

# Below is generated by plot.py at 2018-03-05 19:25:30

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.23 Mbit/s (42.1% utilization)

95th percentile per-packet one-way delay: 281.618 ms

Loss rate: 9.76%

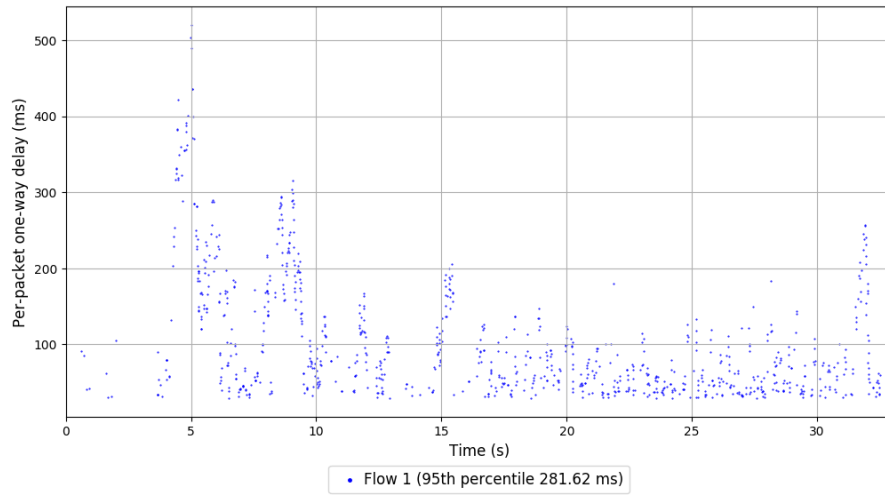
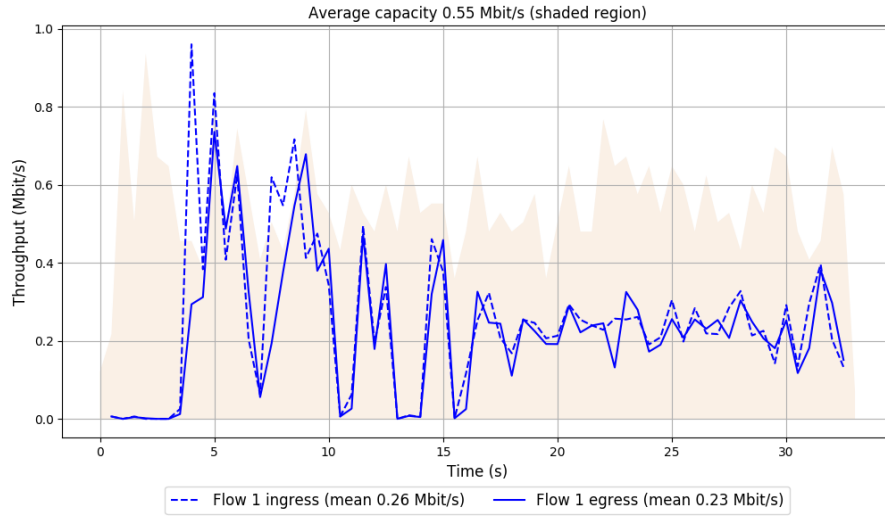
-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 281.618 ms

Loss rate: 9.76%

# Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-03-05 17:49:10

End at: 2018-03-05 17:49:41

# Below is generated by plot.py at 2018-03-05 19:25:32

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.23 Mbit/s (42.4% utilization)

95th percentile per-packet one-way delay: 135.926 ms

Loss rate: 5.75%

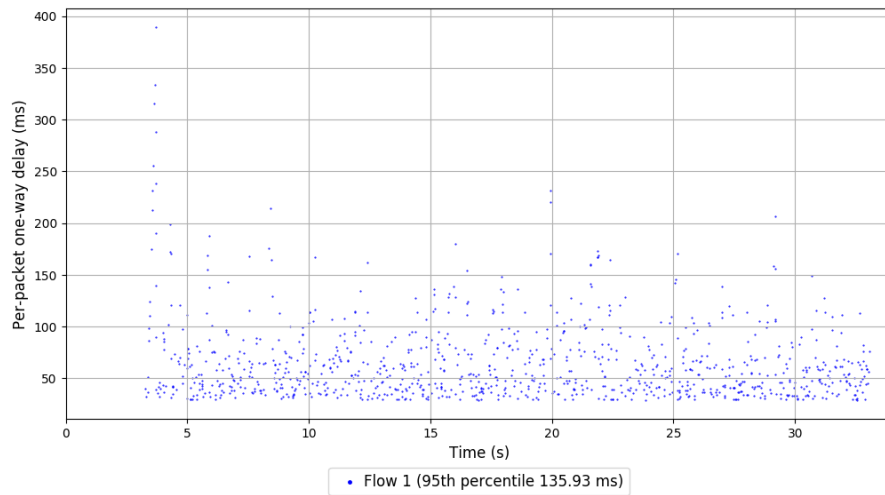
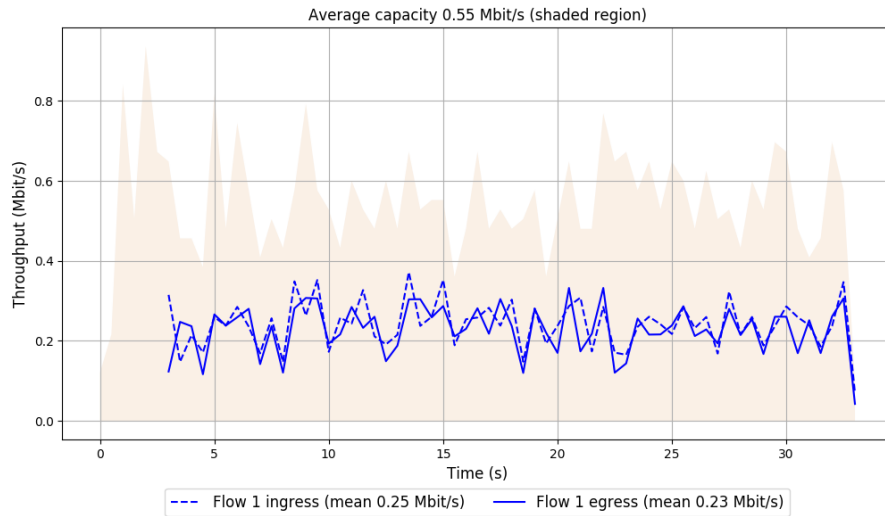
-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 135.926 ms

Loss rate: 5.75%

# Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-05 17:59:23

End at: 2018-03-05 17:59:53

# Below is generated by plot.py at 2018-03-05 19:25:33

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.25 Mbit/s (44.7% utilization)

95th percentile per-packet one-way delay: 147.812 ms

Loss rate: 6.18%

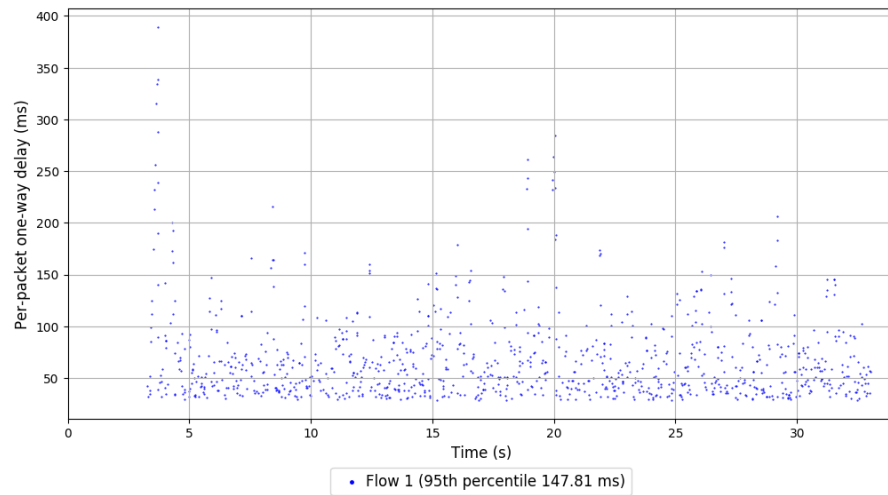
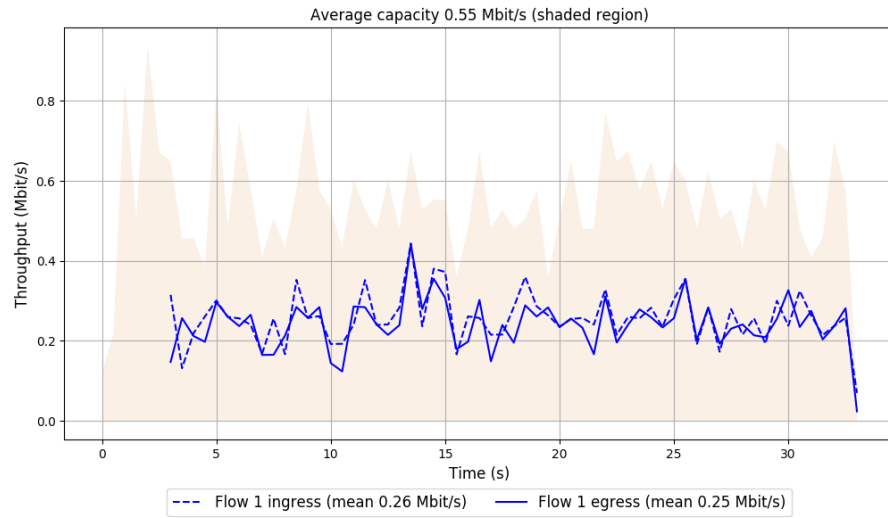
-- Flow 1:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 147.812 ms

Loss rate: 6.18%

## Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

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

End at: 2018-03-05 18:10:07

# Below is generated by plot.py at 2018-03-05 19:25:34

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.24 Mbit/s (44.3% utilization)

95th percentile per-packet one-way delay: 139.219 ms

Loss rate: 4.79%

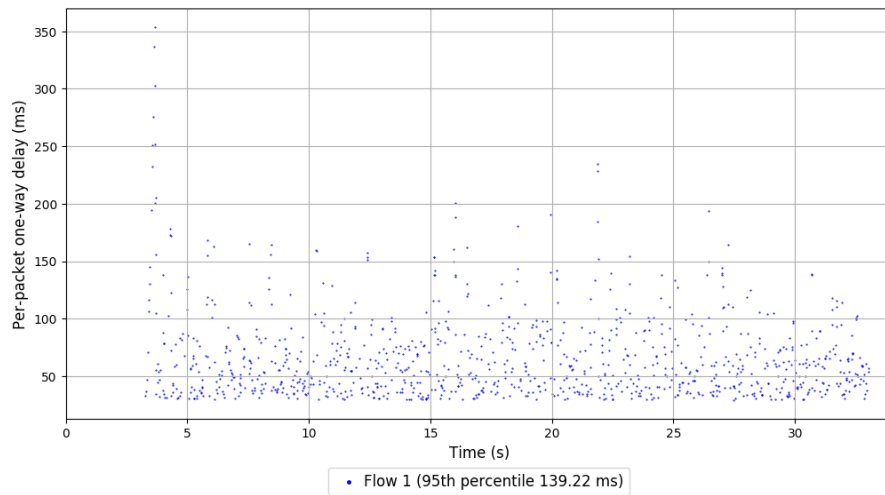
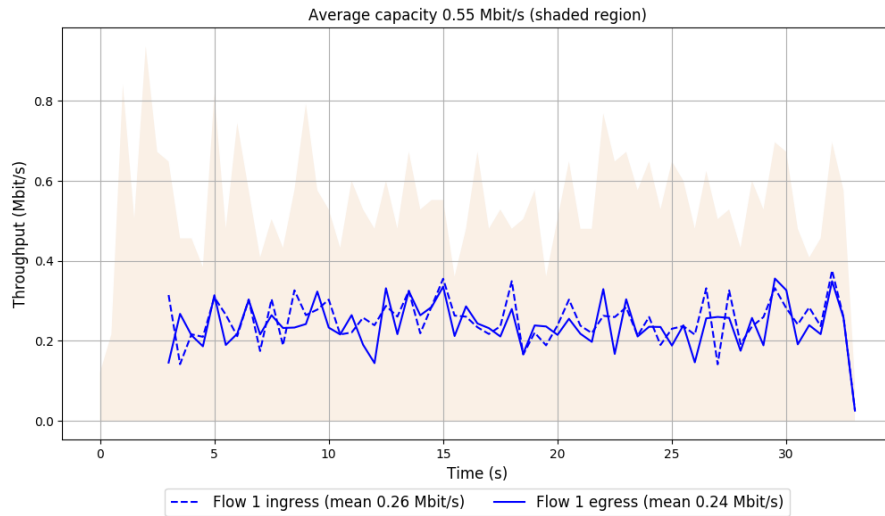
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 139.219 ms

Loss rate: 4.79%

### Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-05 18:19:48

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

# Below is generated by plot.py at 2018-03-05 19:25:35

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.24 Mbit/s (44.4% utilization)

95th percentile per-packet one-way delay: 131.440 ms

Loss rate: 4.56%

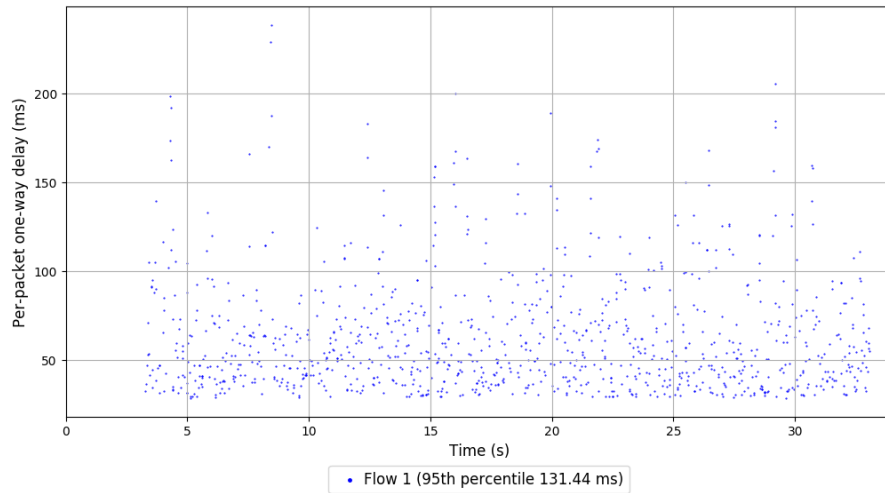
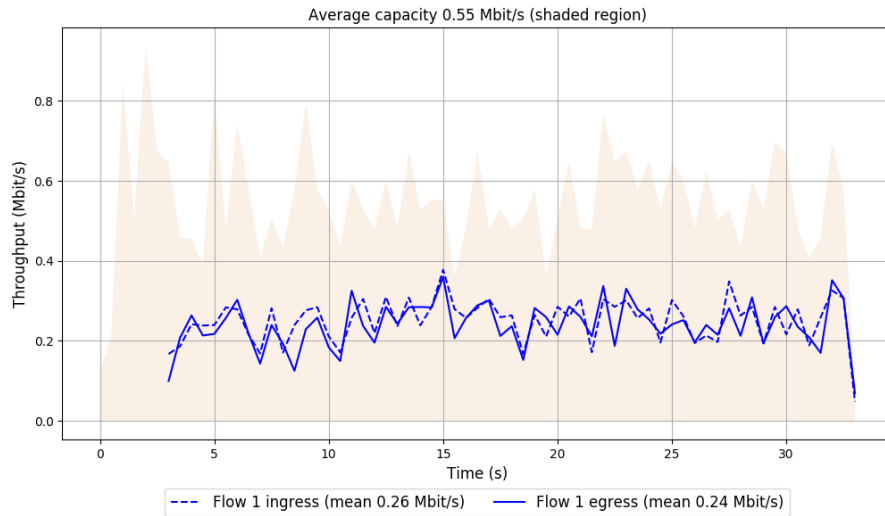
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 131.440 ms

Loss rate: 4.56%

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



Run 5: Statistics of Sprout

Start at: 2018-03-05 18:29:59

End at: 2018-03-05 18:30:29

# Below is generated by plot.py at 2018-03-05 19:25:36

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.24 Mbit/s (43.8% utilization)

95th percentile per-packet one-way delay: 141.767 ms

Loss rate: 5.41%

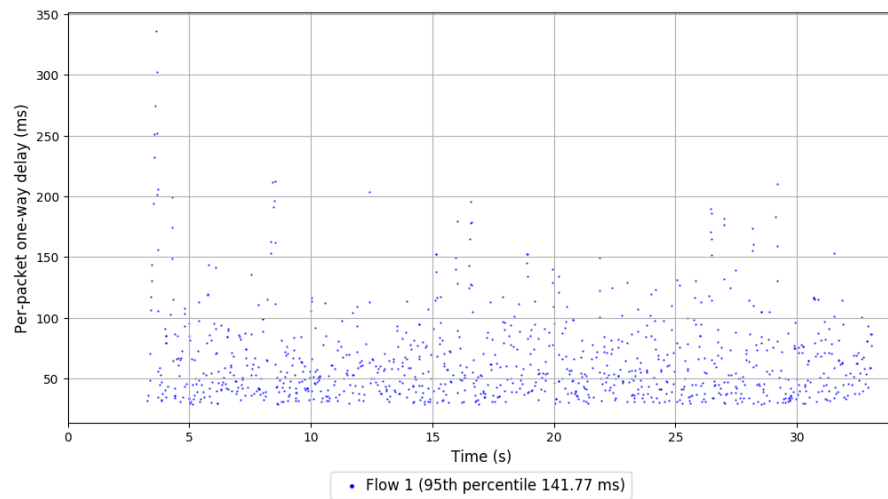
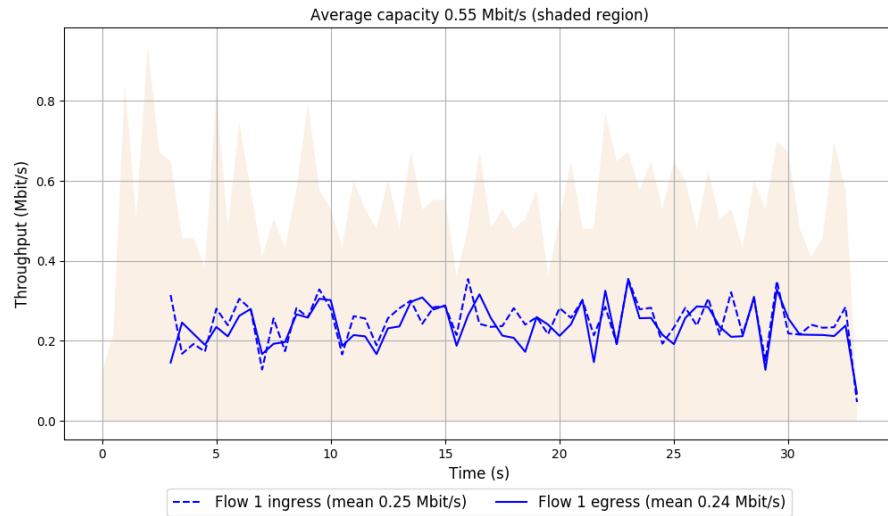
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 141.767 ms

Loss rate: 5.41%

## Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-05 18:40:12

End at: 2018-03-05 18:40:42

# Below is generated by plot.py at 2018-03-05 19:25:37

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.24 Mbit/s (43.7% utilization)

95th percentile per-packet one-way delay: 141.344 ms

Loss rate: 5.49%

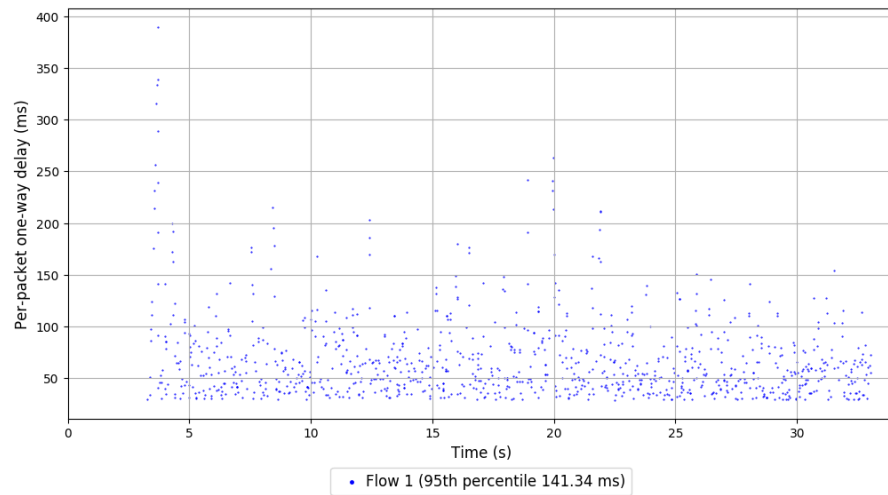
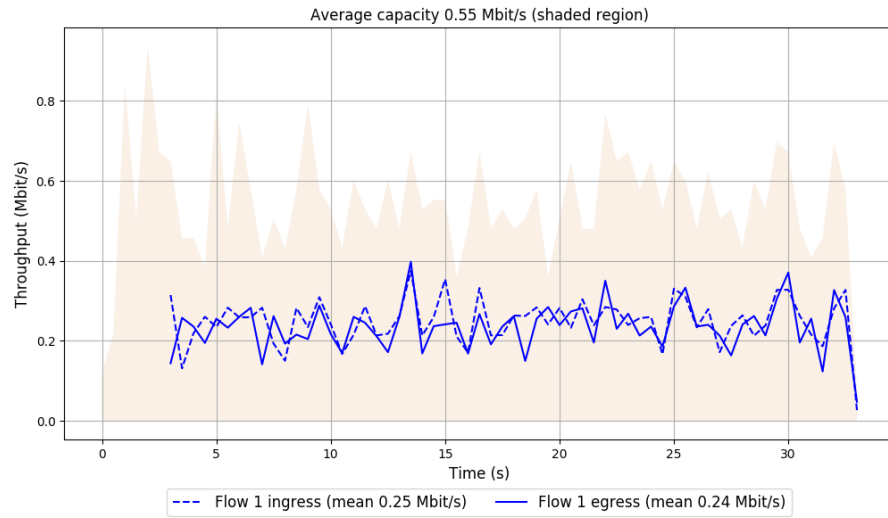
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 141.344 ms

Loss rate: 5.49%

## Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-05 18:50:26

End at: 2018-03-05 18:50:56

# Below is generated by plot.py at 2018-03-05 19:25:37

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.24 Mbit/s (43.8% utilization)

95th percentile per-packet one-way delay: 153.582 ms

Loss rate: 5.70%

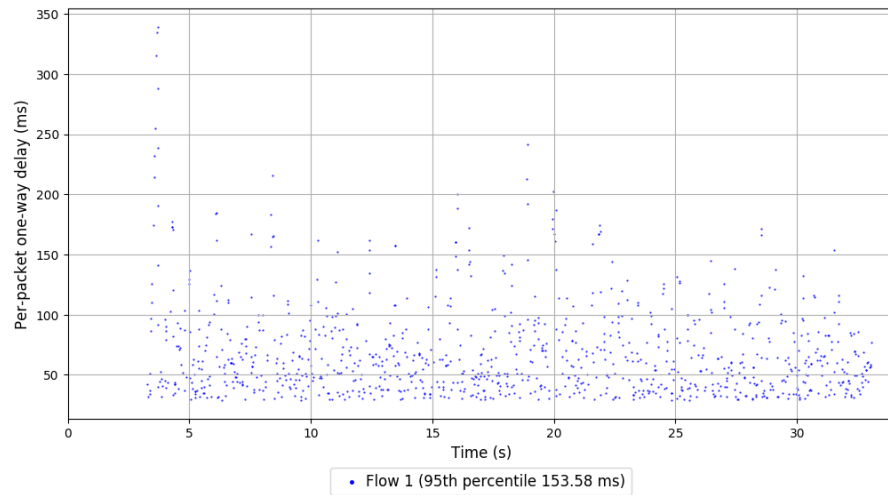
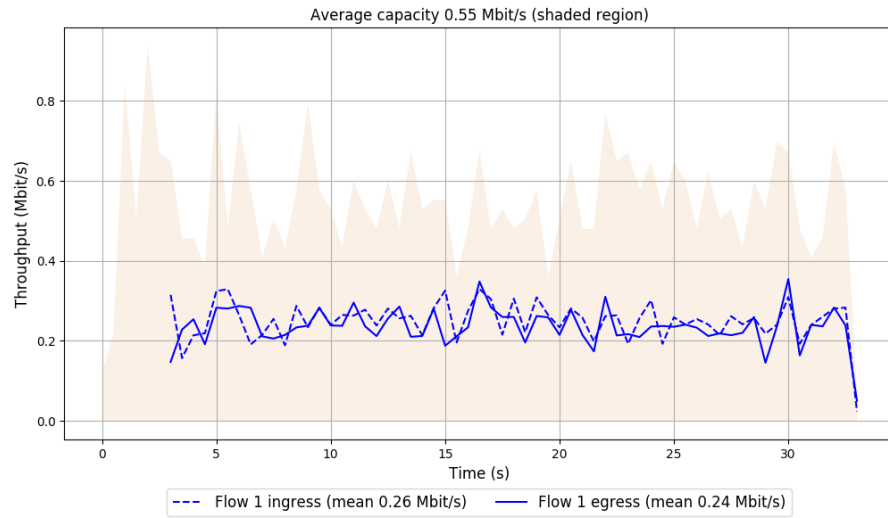
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 153.582 ms

Loss rate: 5.70%

## Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-05 19:00:37

End at: 2018-03-05 19:01:07

# Below is generated by plot.py at 2018-03-05 19:25:37

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.24 Mbit/s (44.3% utilization)

95th percentile per-packet one-way delay: 131.162 ms

Loss rate: 4.40%

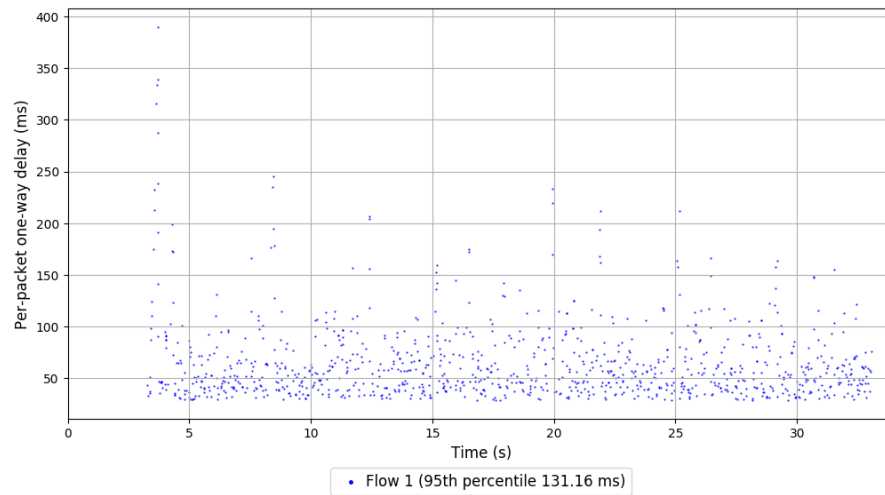
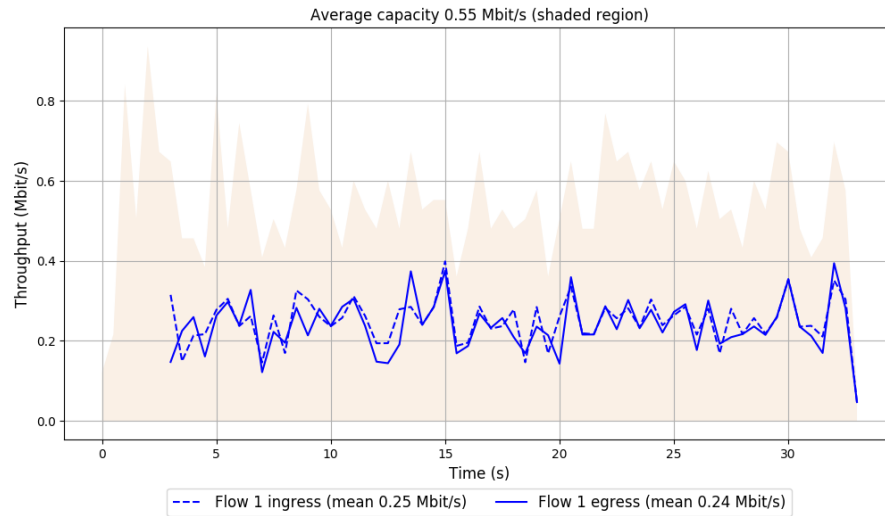
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 131.162 ms

Loss rate: 4.40%

## Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-05 19:10:49

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

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.25 Mbit/s (45.2% utilization)

95th percentile per-packet one-way delay: 142.559 ms

Loss rate: 4.49%

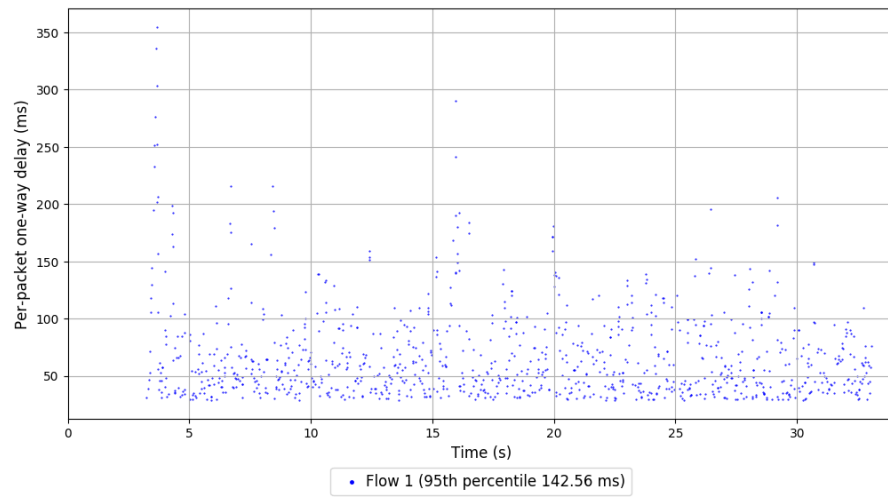
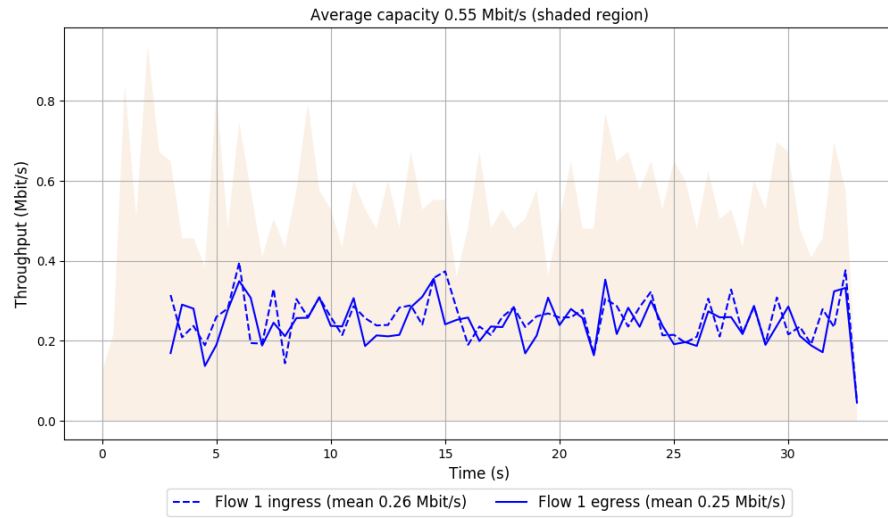
-- Flow 1:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 142.559 ms

Loss rate: 4.49%

## Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-05 19:21:00

End at: 2018-03-05 19:21:30

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.56 Mbit/s

Average throughput: 0.24 Mbit/s (43.2% utilization)

95th percentile per-packet one-way delay: 155.207 ms

Loss rate: 5.39%

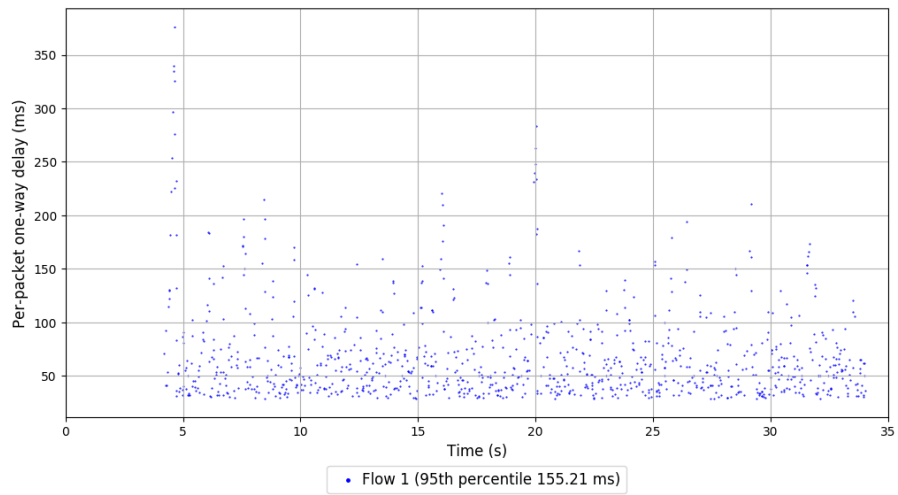
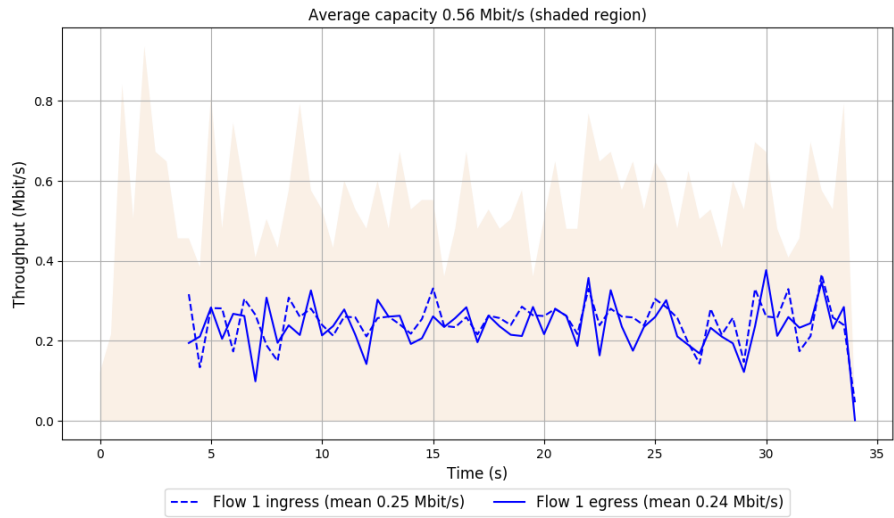
-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 155.207 ms

Loss rate: 5.39%

# Run 10: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-03-05 17:45:12

End at: 2018-03-05 17:45:42

# Below is generated by plot.py at 2018-03-05 19:25:40

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (77.0% utilization)

95th percentile per-packet one-way delay: 301.364 ms

Loss rate: 67.70%

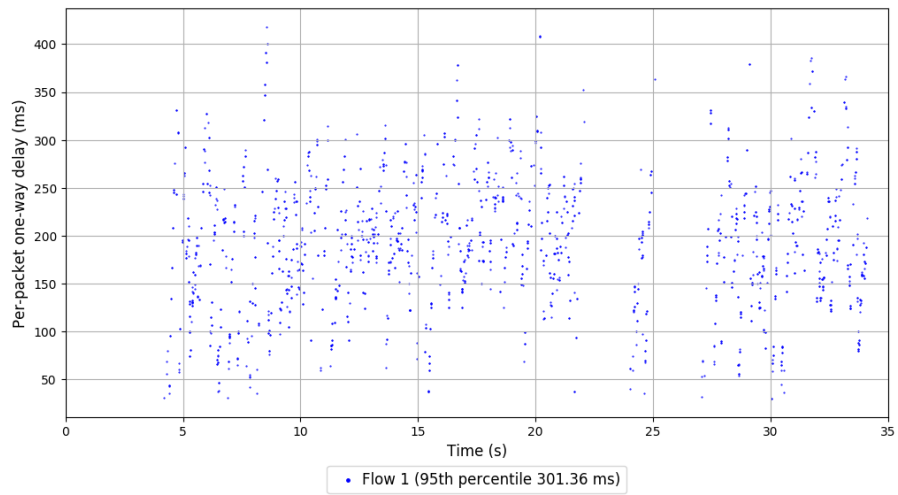
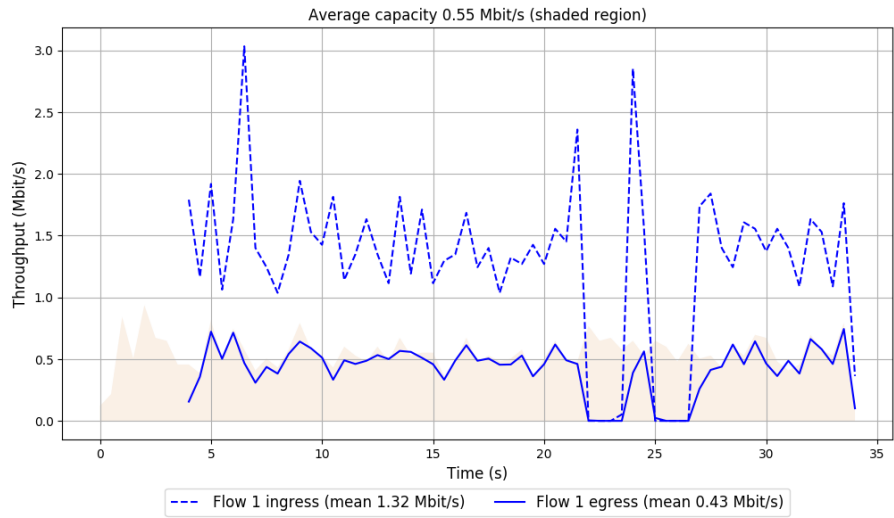
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 301.364 ms

Loss rate: 67.70%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-03-05 17:55:26

End at: 2018-03-05 17:55:56

# Below is generated by plot.py at 2018-03-05 19:25:42

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.48 Mbit/s (87.6% utilization)

95th percentile per-packet one-way delay: 320.200 ms

Loss rate: 65.32%

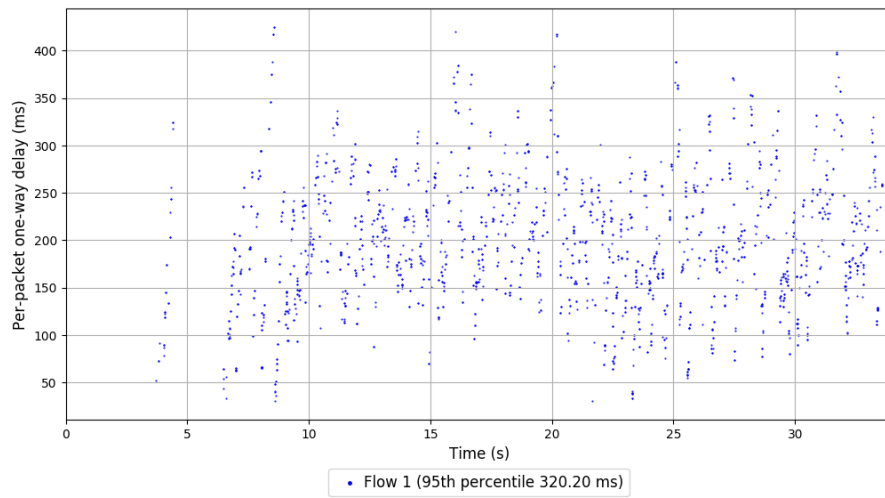
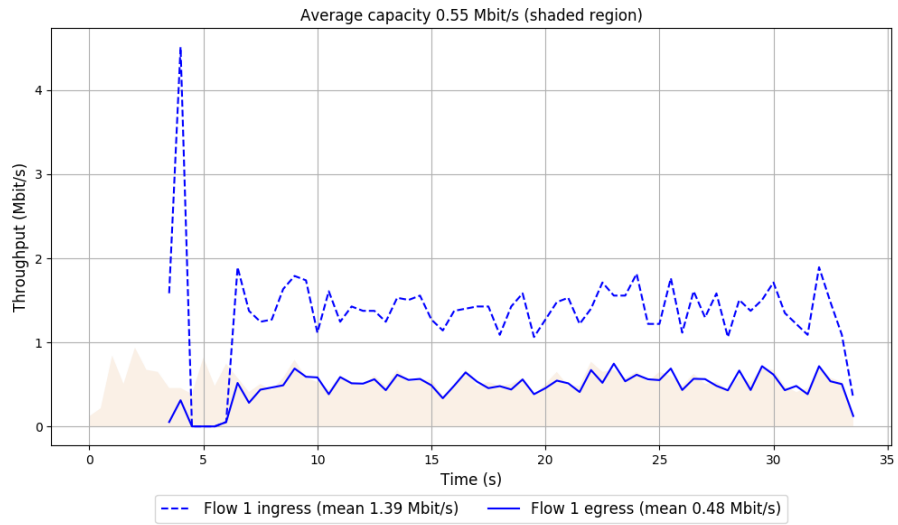
-- Flow 1:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 320.200 ms

Loss rate: 65.32%

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



Run 3: Statistics of TaoVA-100x

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

End at: 2018-03-05 18:06:09

# Below is generated by plot.py at 2018-03-05 19:25:44

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.47 Mbit/s (85.8% utilization)

95th percentile per-packet one-way delay: 319.740 ms

Loss rate: 64.88%

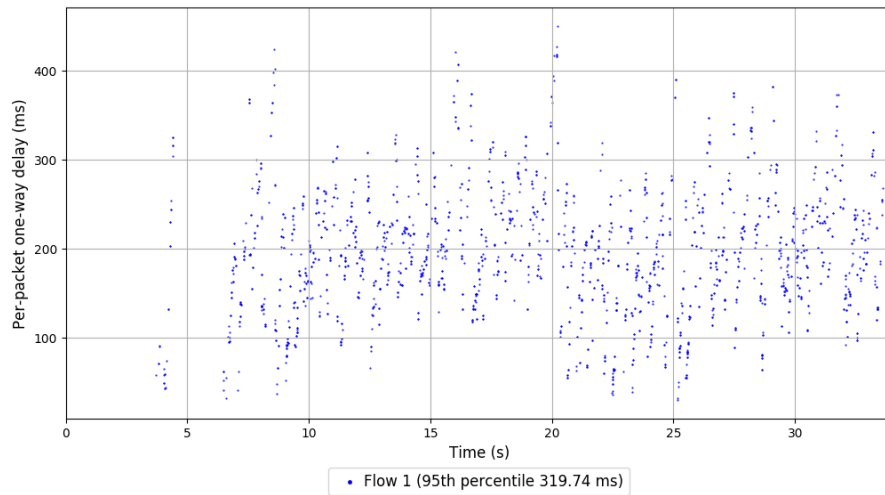
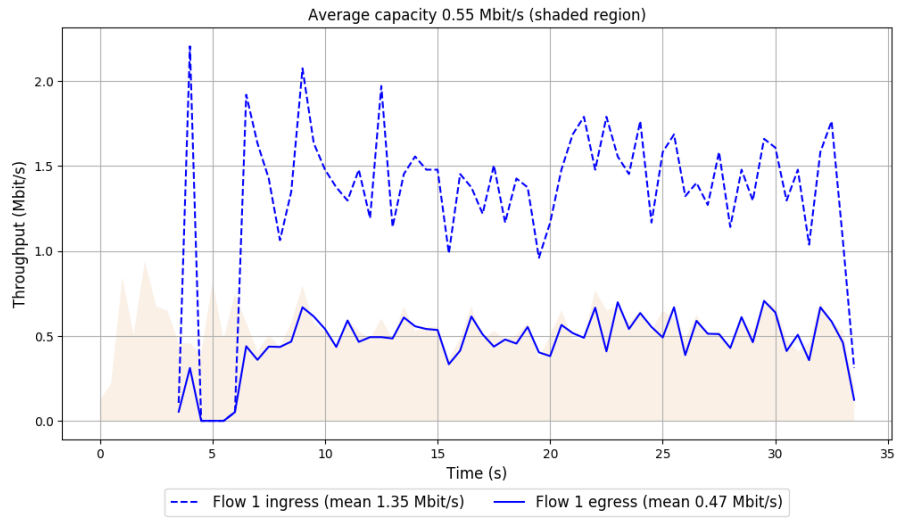
-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 319.740 ms

Loss rate: 64.88%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-05 18:15:51

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

# Below is generated by plot.py at 2018-03-05 19:25:45

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (92.1% utilization)

95th percentile per-packet one-way delay: 307.687 ms

Loss rate: 65.65%

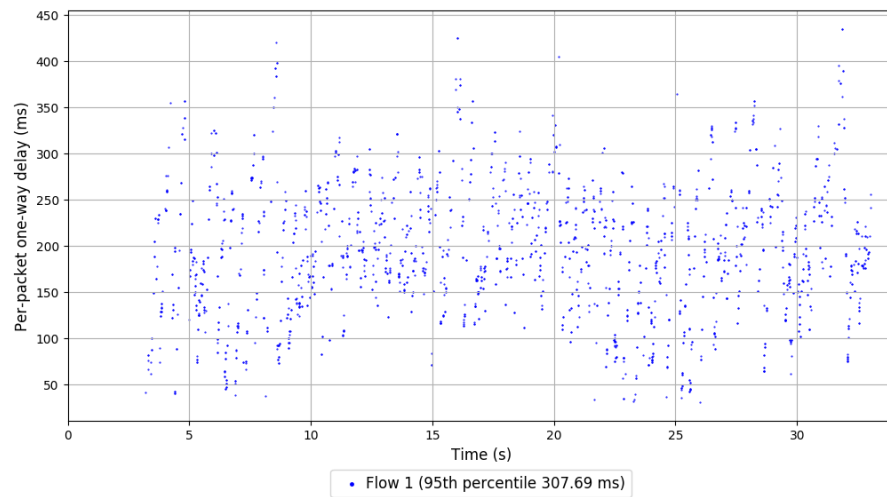
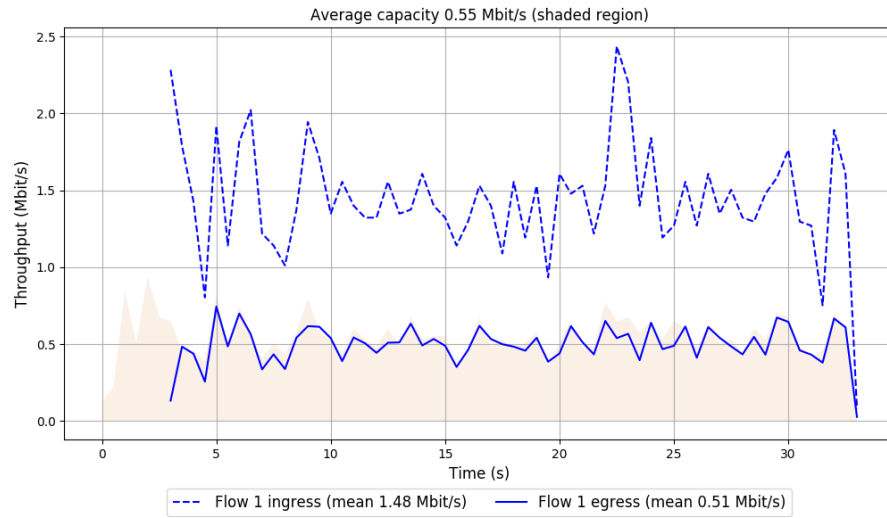
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 307.687 ms

Loss rate: 65.65%

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



Run 5: Statistics of TaoVA-100x

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

End at: 2018-03-05 18:26:33

# Below is generated by plot.py at 2018-03-05 19:25:45

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.46 Mbit/s (82.8% utilization)

95th percentile per-packet one-way delay: 313.952 ms

Loss rate: 65.86%

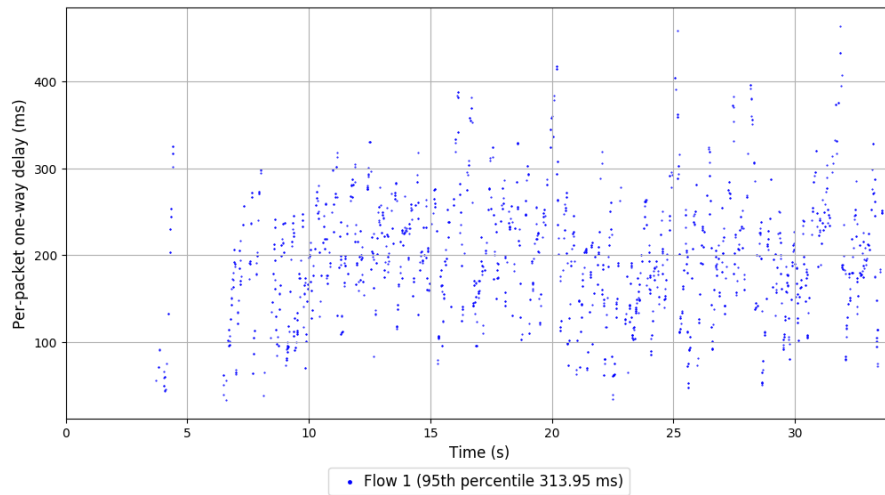
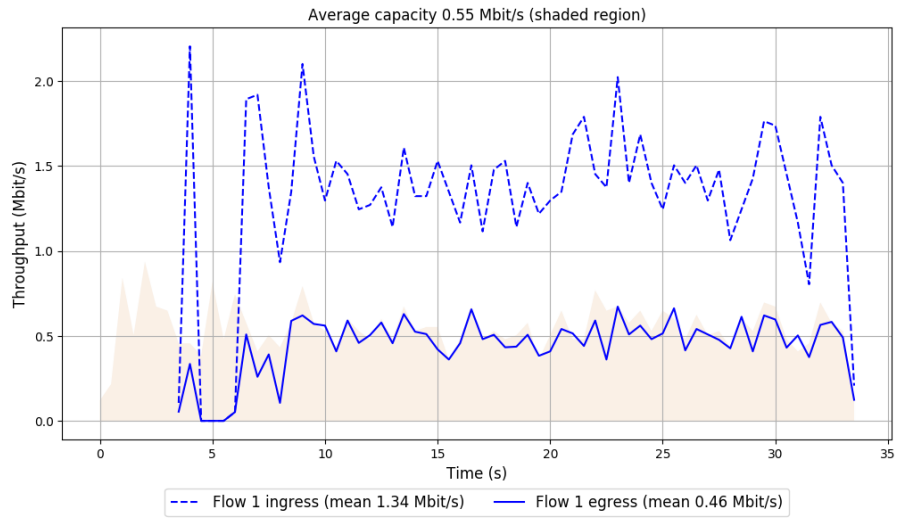
-- Flow 1:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 313.952 ms

Loss rate: 65.86%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-05 18:36:14

End at: 2018-03-05 18:36:44

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (93.2% utilization)

95th percentile per-packet one-way delay: 325.510 ms

Loss rate: 64.71%

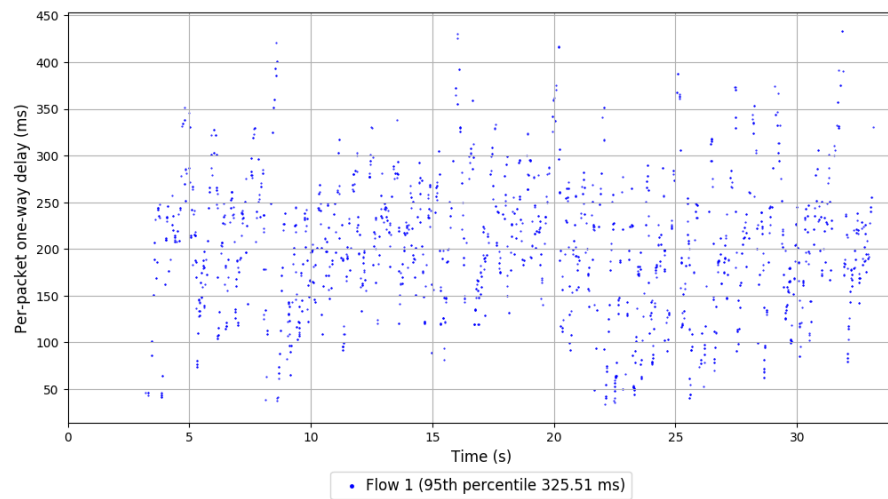
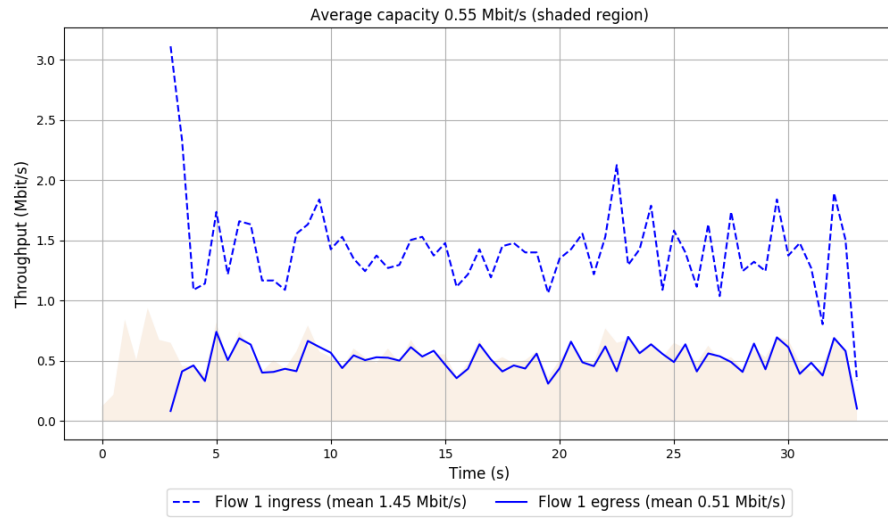
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 325.510 ms

Loss rate: 64.71%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-03-05 18:46:28

End at: 2018-03-05 18:46:58

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.45 Mbit/s (81.0% utilization)

95th percentile per-packet one-way delay: 322.617 ms

Loss rate: 64.79%

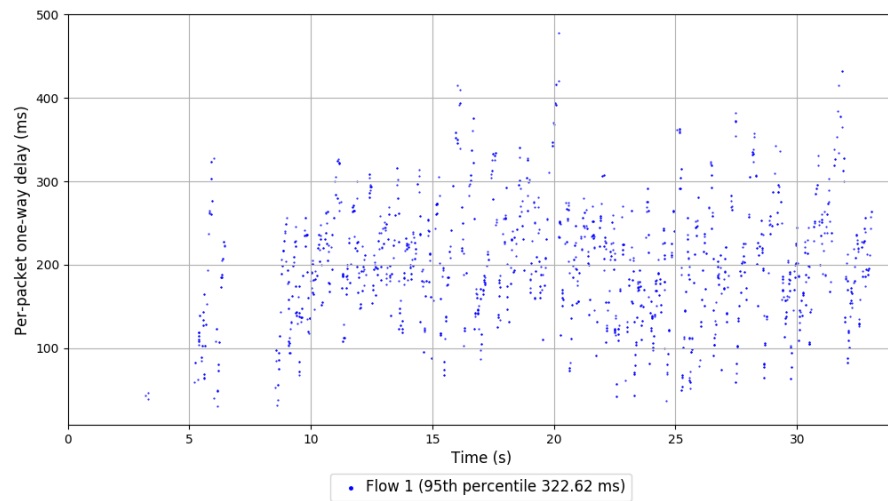
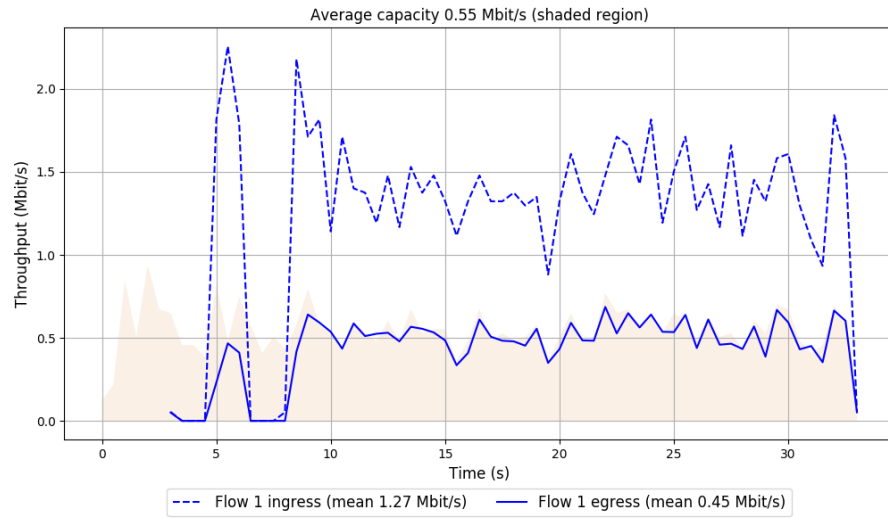
-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 322.617 ms

Loss rate: 64.79%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-05 18:56:40

End at: 2018-03-05 18:57:10

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (78.3% utilization)

95th percentile per-packet one-way delay: 314.997 ms

Loss rate: 67.13%

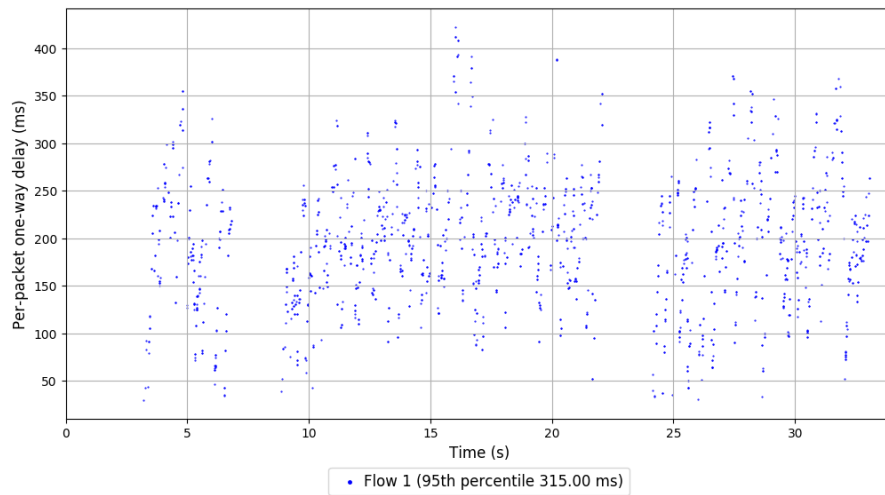
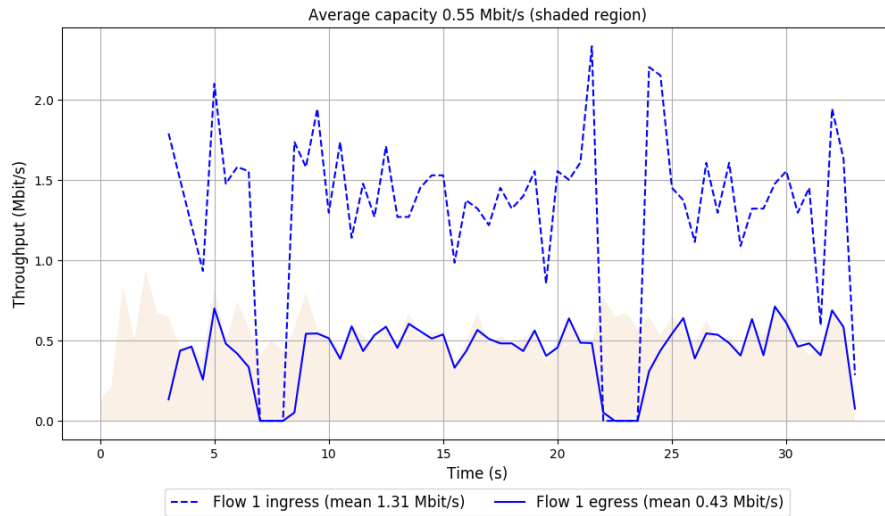
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 314.997 ms

Loss rate: 67.13%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-03-05 19:06:51

End at: 2018-03-05 19:07:21

# Below is generated by plot.py at 2018-03-05 19:25:51

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.50 Mbit/s (91.3% utilization)

95th percentile per-packet one-way delay: 322.926 ms

Loss rate: 65.51%

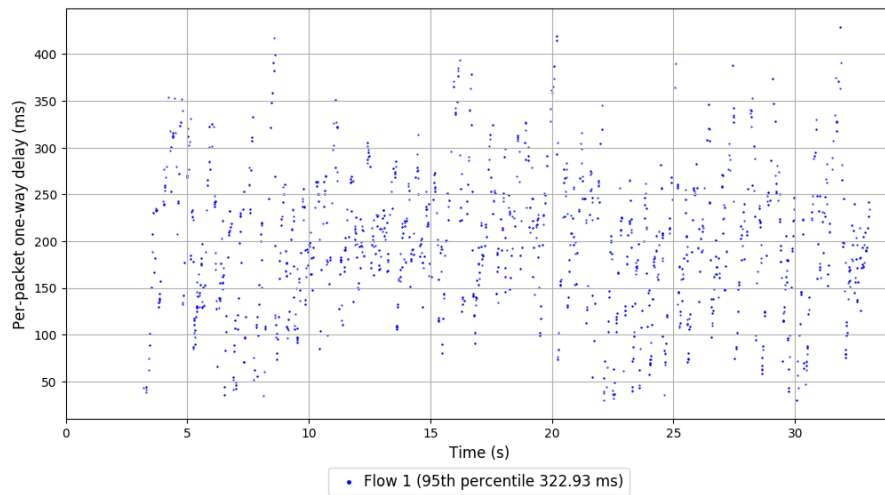
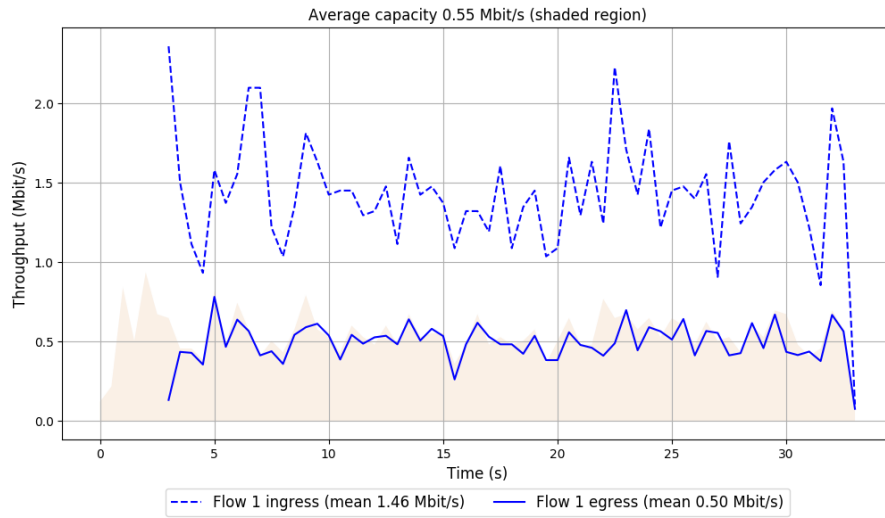
-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 322.926 ms

Loss rate: 65.51%

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



Run 10: Statistics of TaoVA-100x

Start at: 2018-03-05 19:17:02

End at: 2018-03-05 19:17:32

# Below is generated by plot.py at 2018-03-05 19:25:52

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.50 Mbit/s (90.1% utilization)

95th percentile per-packet one-way delay: 318.418 ms

Loss rate: 66.55%

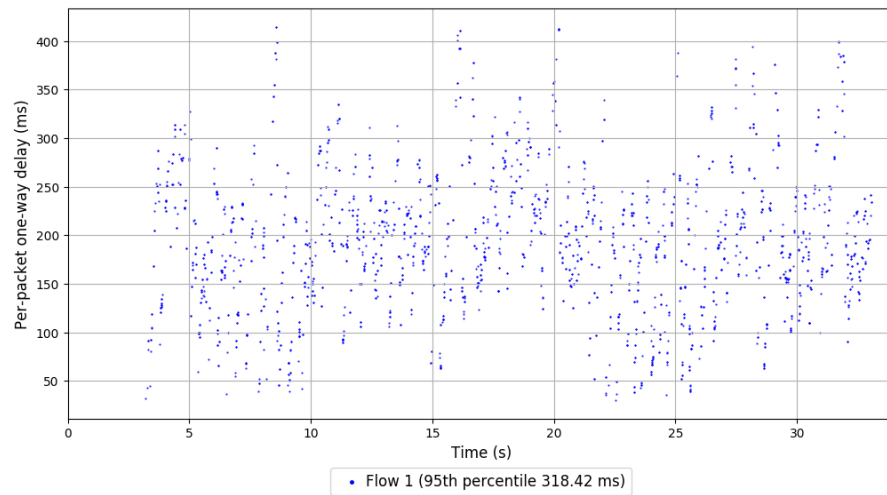
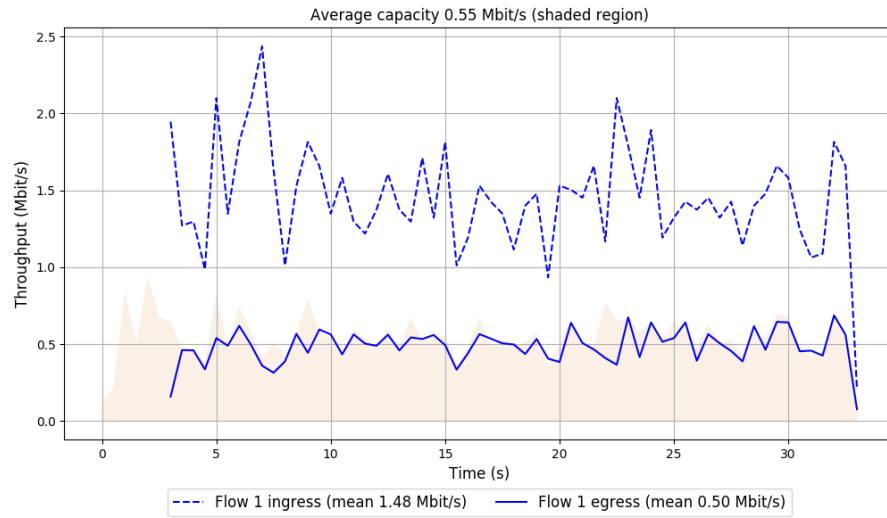
-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 318.418 ms

Loss rate: 66.55%

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



Run 1: Statistics of TCP Vegas

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

End at: 2018-03-05 17:48:33

# Below is generated by plot.py at 2018-03-05 19:25:52

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.36 Mbit/s (66.2% utilization)

95th percentile per-packet one-way delay: 195.648 ms

Loss rate: 4.43%

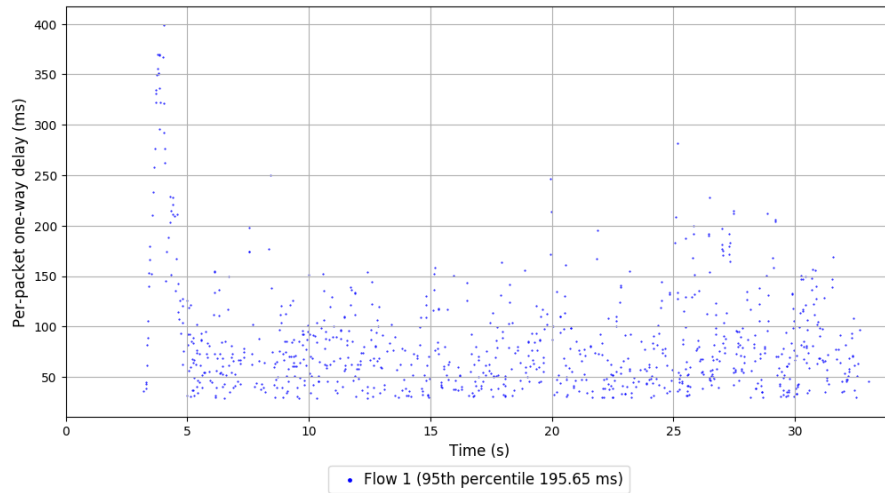
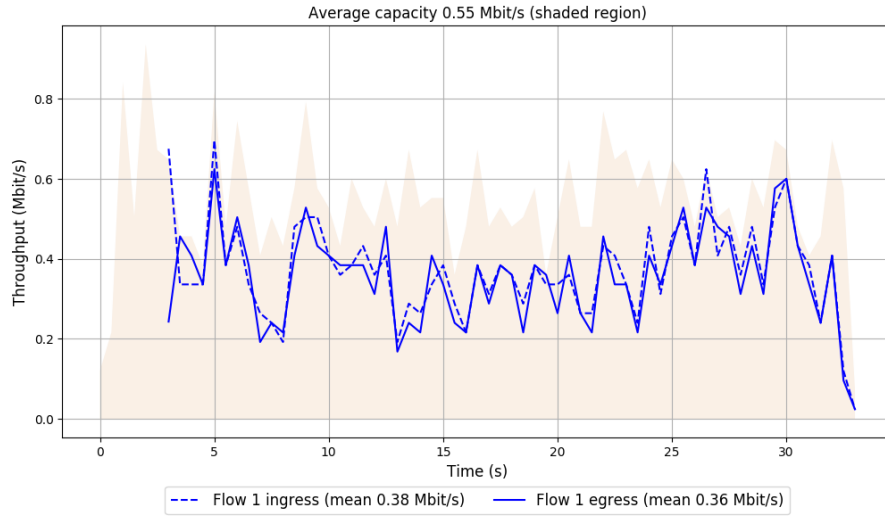
-- Flow 1:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 195.648 ms

Loss rate: 4.43%

# Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-05 17:58:16

End at: 2018-03-05 17:58:46

# Below is generated by plot.py at 2018-03-05 19:25:52

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.35 Mbit/s (63.7% utilization)

95th percentile per-packet one-way delay: 165.137 ms

Loss rate: 4.38%

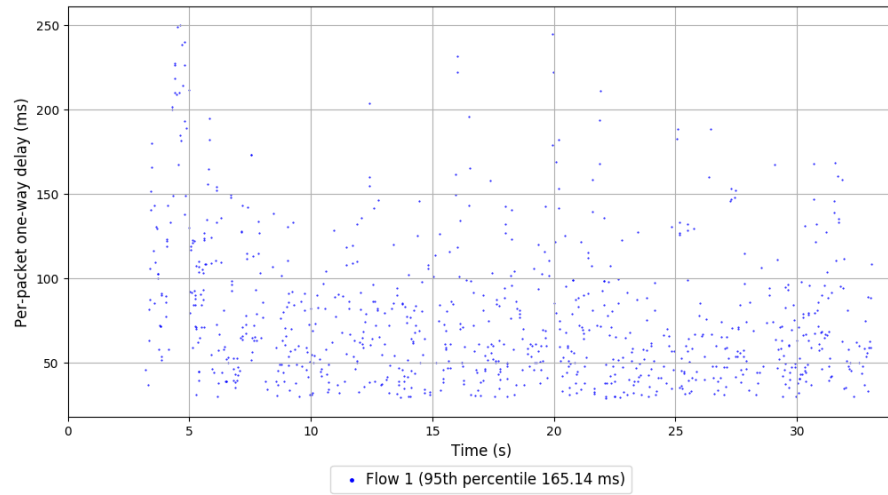
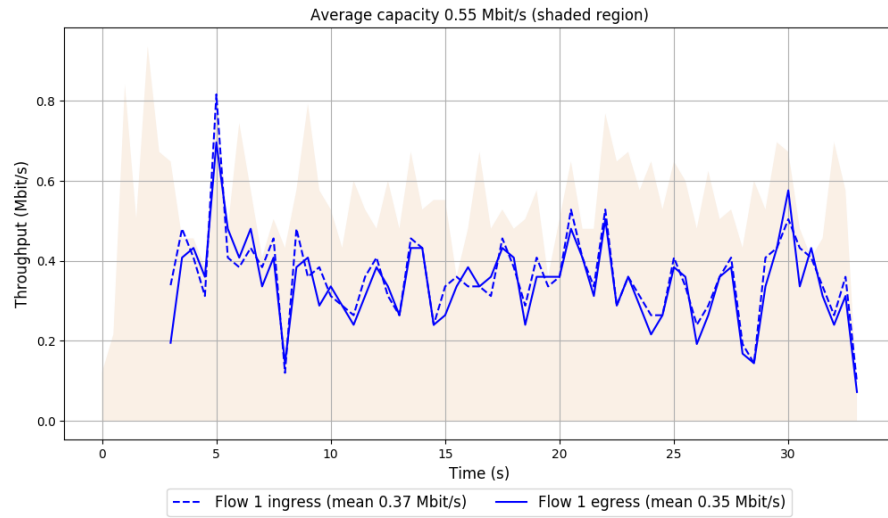
-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 165.137 ms

Loss rate: 4.38%

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



Run 3: Statistics of TCP Vegas

Start at: 2018-03-05 18:08:30

End at: 2018-03-05 18:09:00

# Below is generated by plot.py at 2018-03-05 19:25:52

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.35 Mbit/s (63.5% utilization)

95th percentile per-packet one-way delay: 288.412 ms

Loss rate: 6.04%

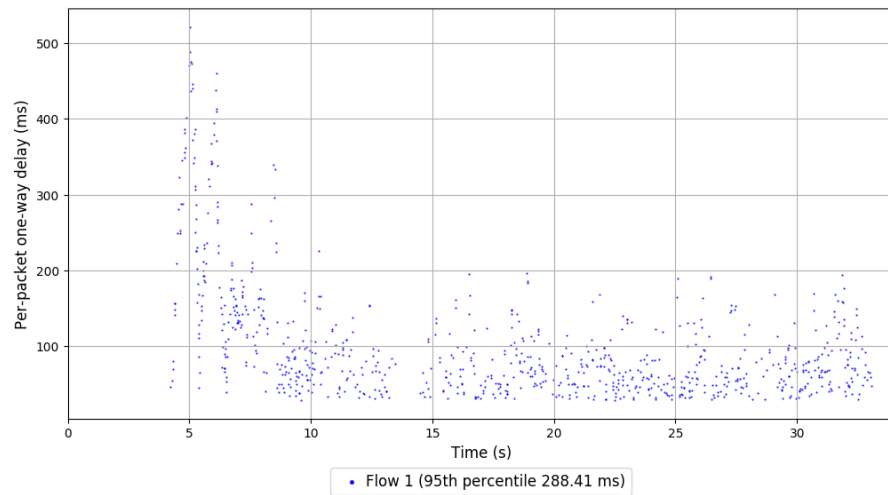
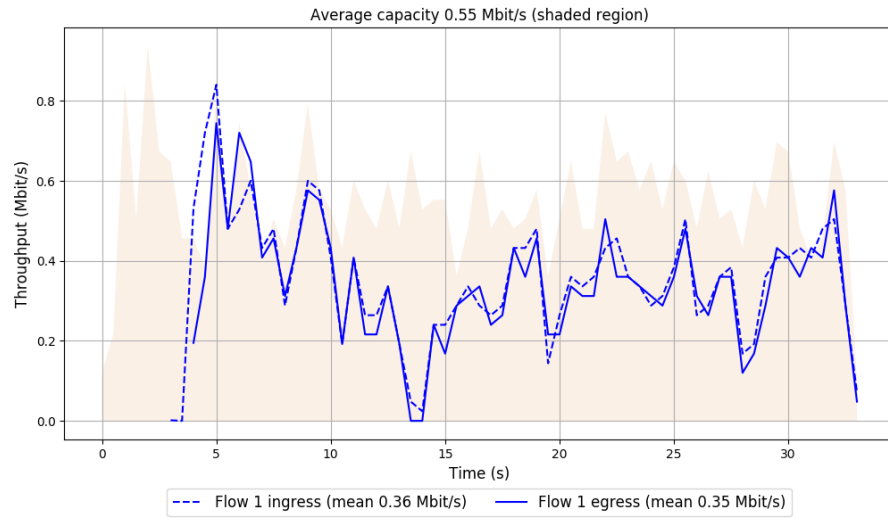
-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 288.412 ms

Loss rate: 6.04%

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



Run 4: Statistics of TCP Vegas

Start at: 2018-03-05 18:18:40

End at: 2018-03-05 18:19:10

# Below is generated by plot.py at 2018-03-05 19:25:52

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.34 Mbit/s (61.9% utilization)

95th percentile per-packet one-way delay: 177.017 ms

Loss rate: 4.71%

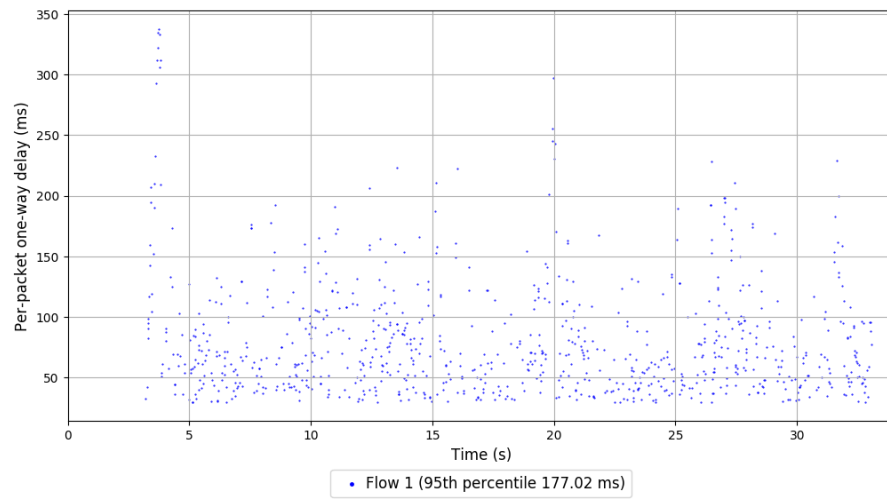
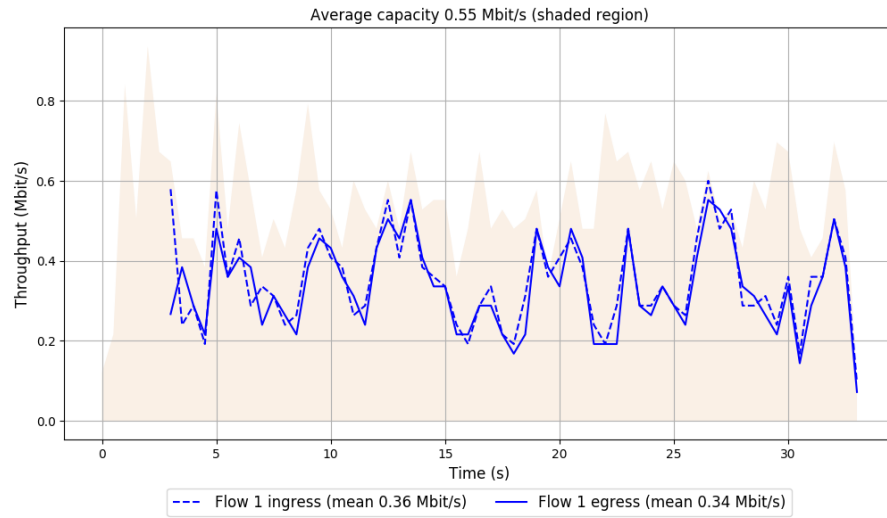
-- Flow 1:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 177.017 ms

Loss rate: 4.71%

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



Run 5: Statistics of TCP Vegas

Start at: 2018-03-05 18:28:52

End at: 2018-03-05 18:29:22

# Below is generated by plot.py at 2018-03-05 19:25:53

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.34 Mbit/s (61.2% utilization)

95th percentile per-packet one-way delay: 230.063 ms

Loss rate: 5.42%

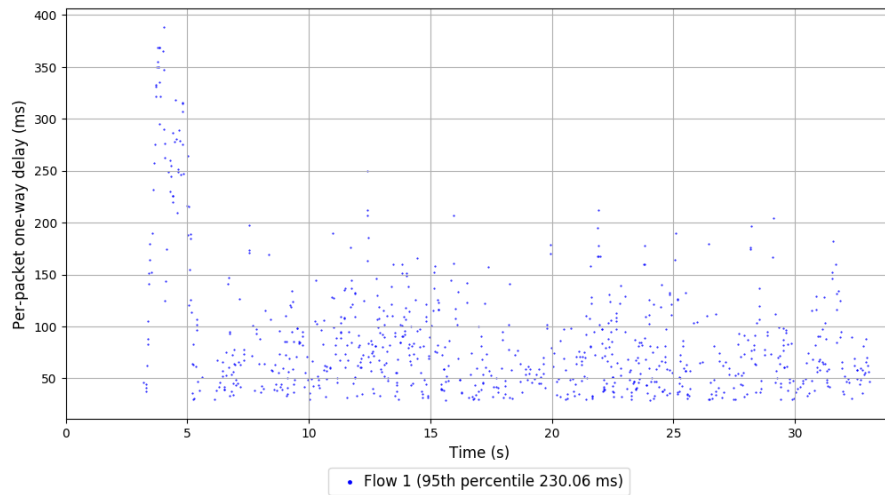
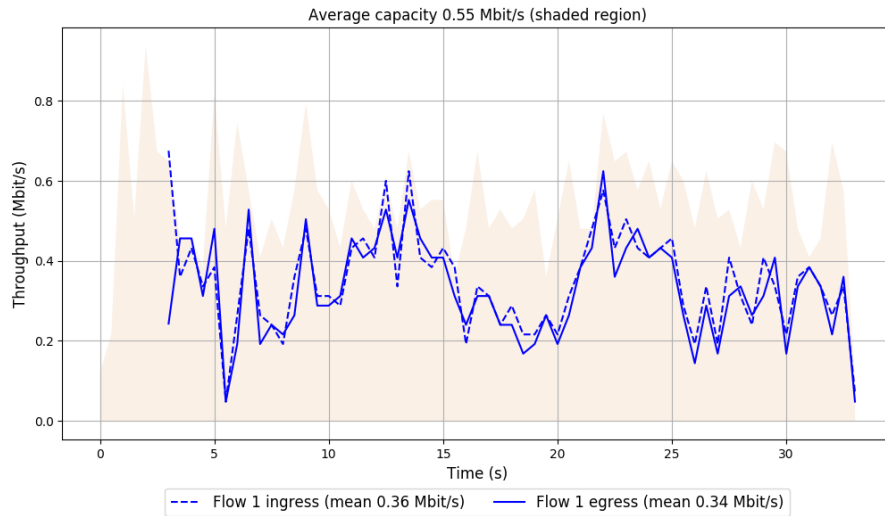
-- Flow 1:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 230.063 ms

Loss rate: 5.42%

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



Run 6: Statistics of TCP Vegas

Start at: 2018-03-05 18:39:04

End at: 2018-03-05 18:39:34

# Below is generated by plot.py at 2018-03-05 19:25:54

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.35 Mbit/s (63.2% utilization)

95th percentile per-packet one-way delay: 188.090 ms

Loss rate: 5.35%

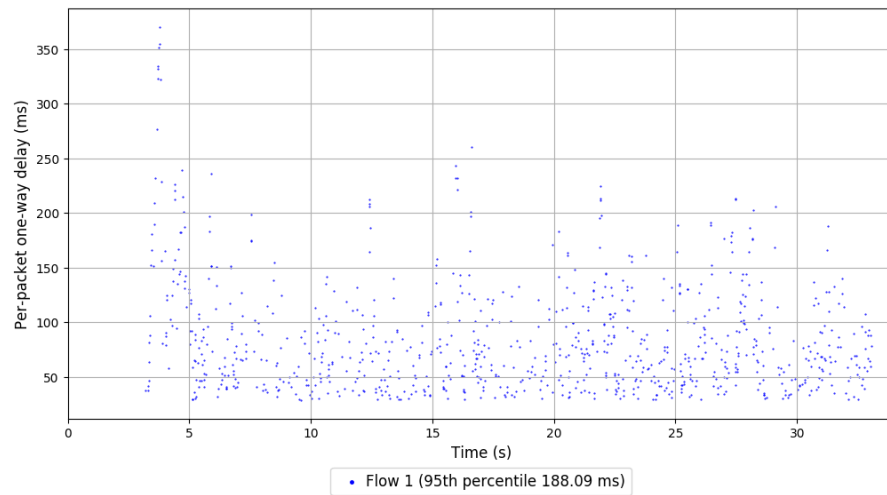
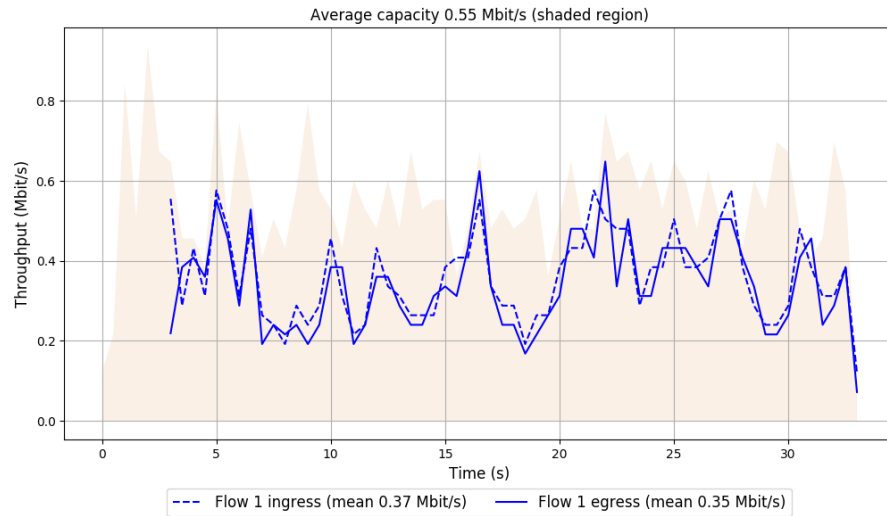
-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 188.090 ms

Loss rate: 5.35%

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



Run 7: Statistics of TCP Vegas

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

End at: 2018-03-05 18:49:48

# Below is generated by plot.py at 2018-03-05 19:25:56

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.30 Mbit/s (55.2% utilization)

95th percentile per-packet one-way delay: 194.353 ms

Loss rate: 5.84%

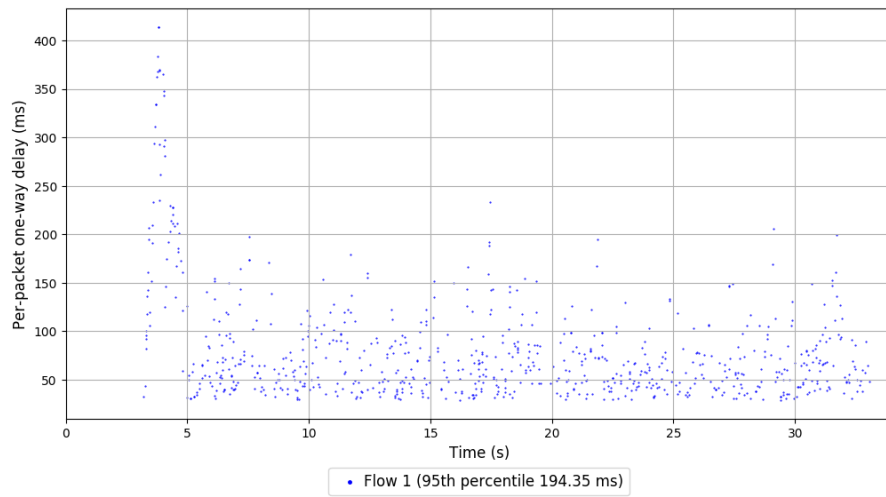
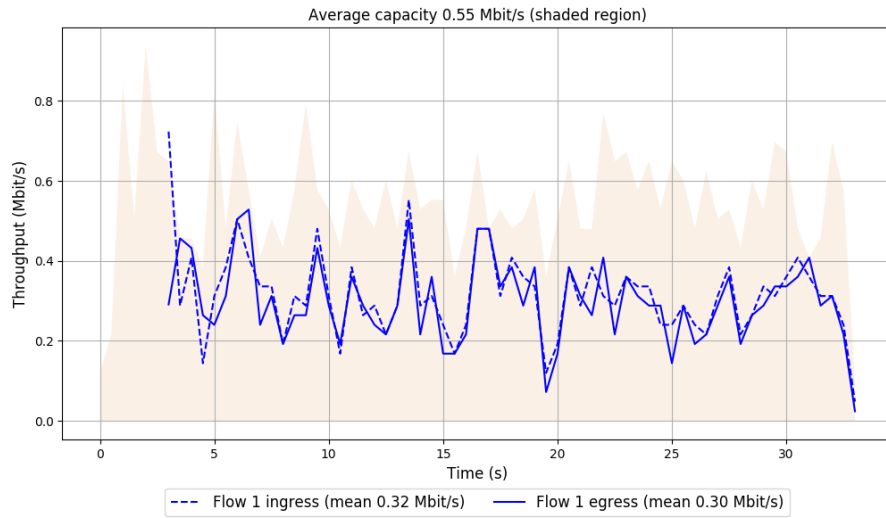
-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 194.353 ms

Loss rate: 5.84%

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



Run 8: Statistics of TCP Vegas

Start at: 2018-03-05 18:59:29

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

# Below is generated by plot.py at 2018-03-05 19:25:57

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.33 Mbit/s (59.4% utilization)

95th percentile per-packet one-way delay: 280.456 ms

Loss rate: 6.32%

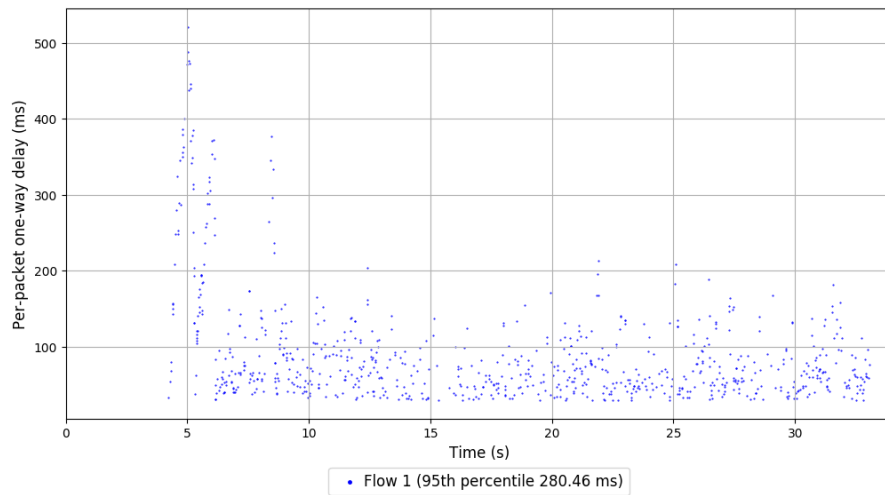
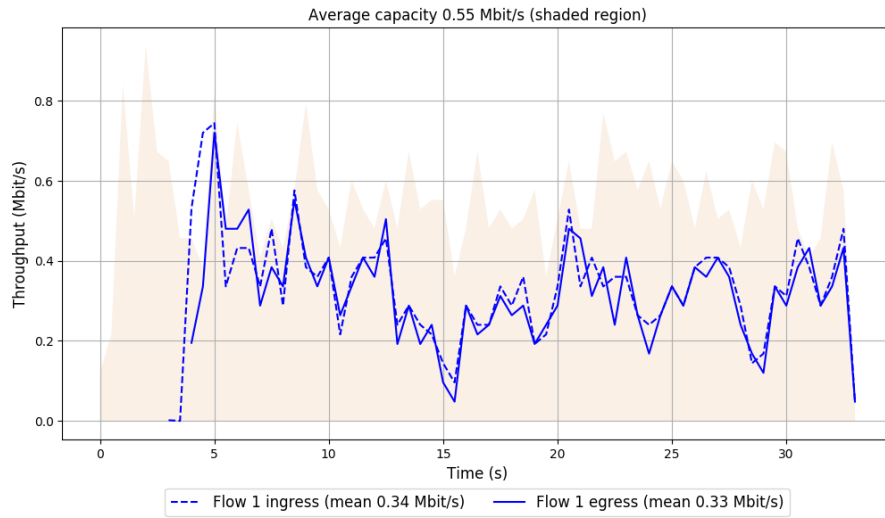
-- Flow 1:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 280.456 ms

Loss rate: 6.32%

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



Run 9: Statistics of TCP Vegas

Start at: 2018-03-05 19:09:41

End at: 2018-03-05 19:10:11

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.29 Mbit/s (52.1% utilization)

95th percentile per-packet one-way delay: 195.000 ms

Loss rate: 6.91%

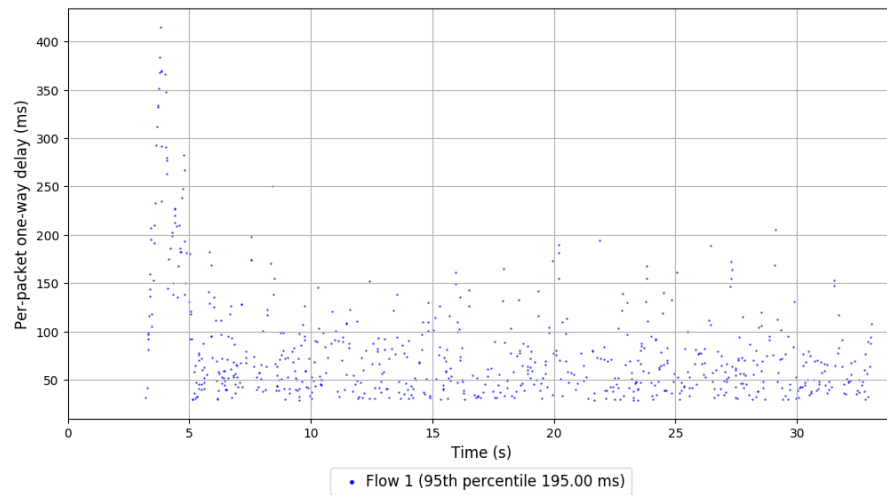
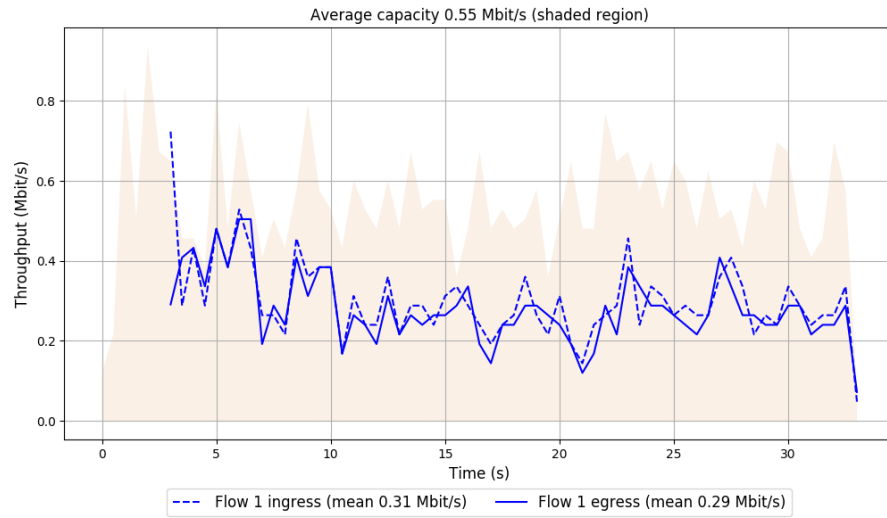
-- Flow 1:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 195.000 ms

Loss rate: 6.91%

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



Run 10: Statistics of TCP Vegas

Start at: 2018-03-05 19:19:51

End at: 2018-03-05 19:20:21

# Below is generated by plot.py at 2018-03-05 19:25:59

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.30 Mbit/s (54.8% utilization)

95th percentile per-packet one-way delay: 159.797 ms

Loss rate: 5.87%

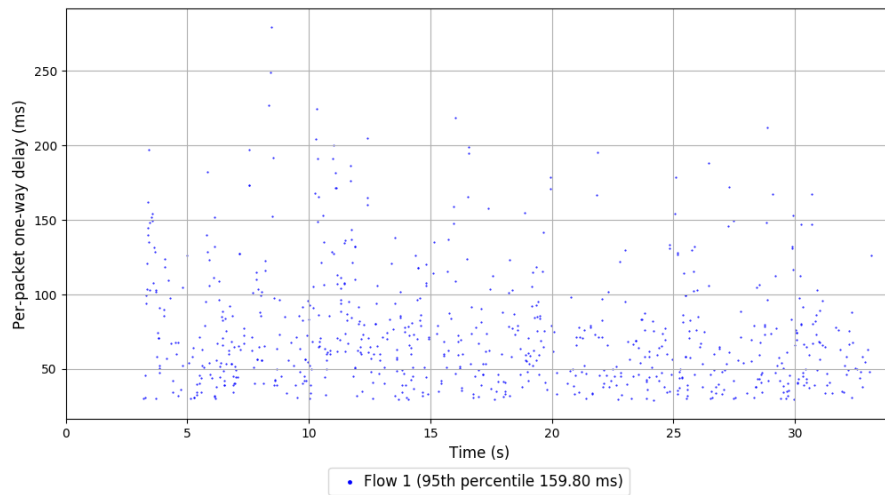
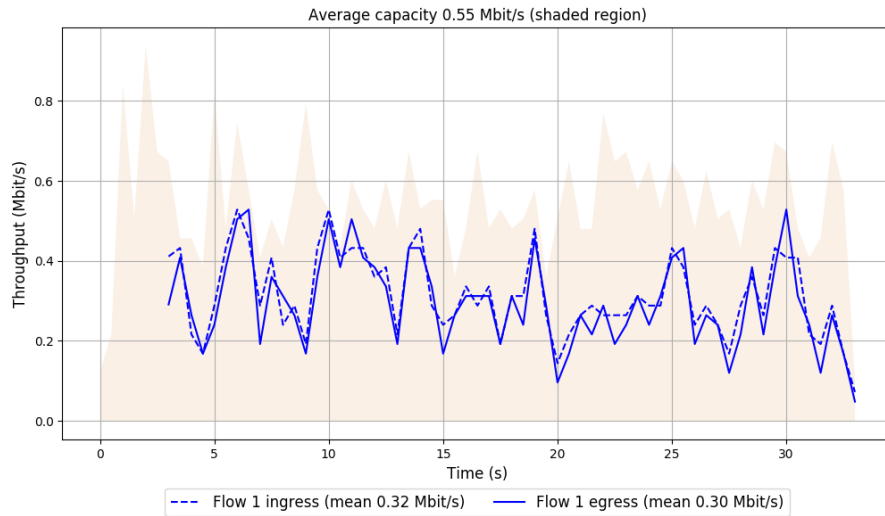
-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 159.797 ms

Loss rate: 5.87%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-03-05 17:51:26

End at: 2018-03-05 17:51:56

# Below is generated by plot.py at 2018-03-05 19:25:59

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.44 Mbit/s (80.1% utilization)

95th percentile per-packet one-way delay: 421.761 ms

Loss rate: 23.36%

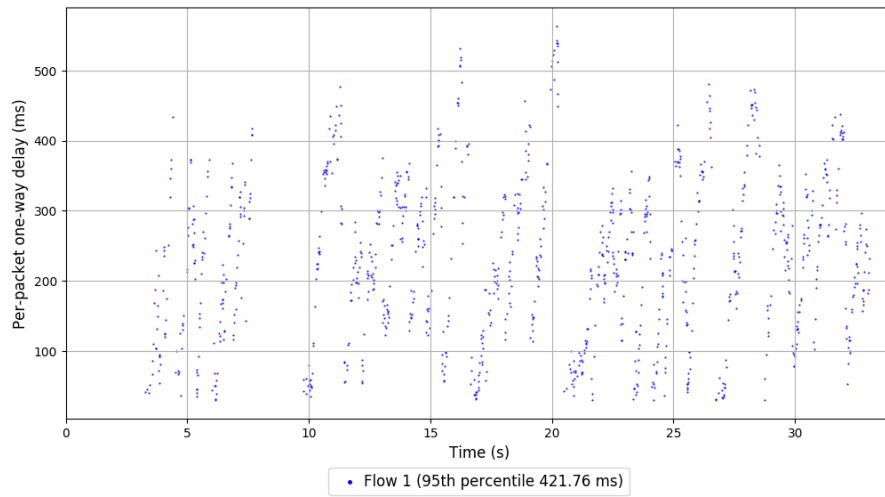
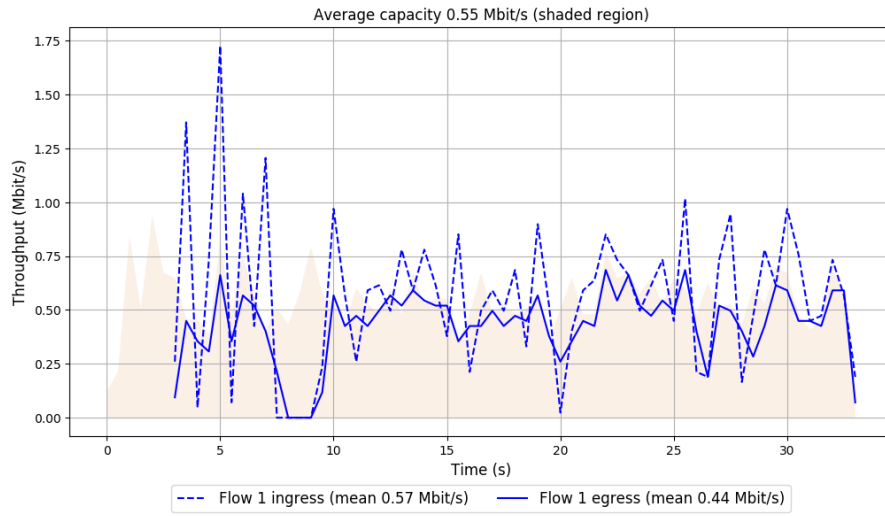
-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 421.761 ms

Loss rate: 23.36%

# Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-05 18:01:40

End at: 2018-03-05 18:02:10

# Below is generated by plot.py at 2018-03-05 19:26:00

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.41 Mbit/s (74.7% utilization)

95th percentile per-packet one-way delay: 428.967 ms

Loss rate: 32.75%

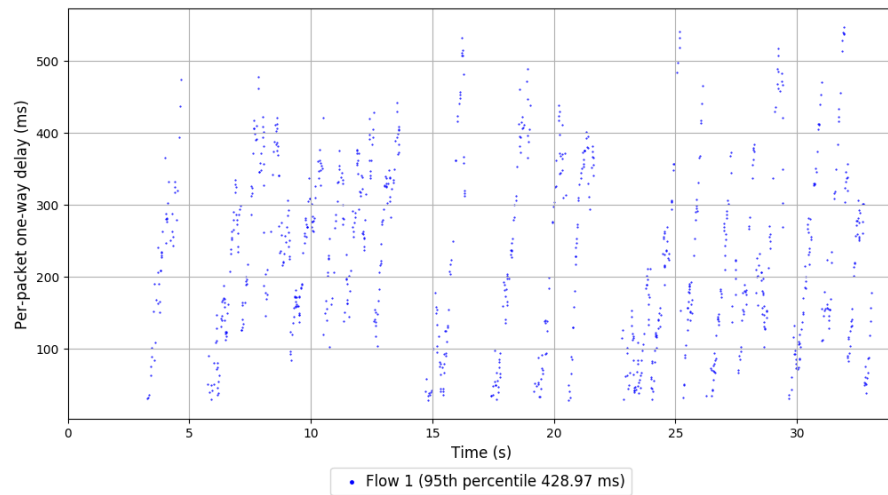
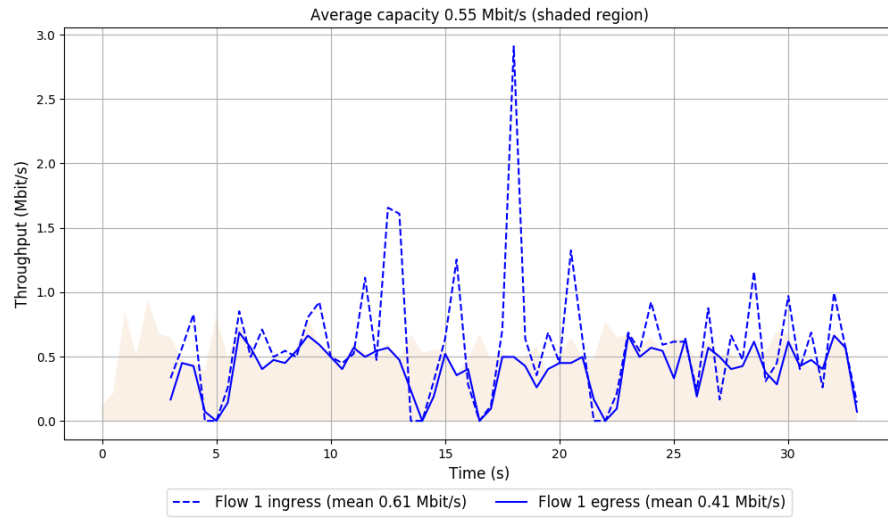
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 428.967 ms

Loss rate: 32.75%

## Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-05 18:11:53

End at: 2018-03-05 18:12:23

# Below is generated by plot.py at 2018-03-05 19:26:00

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.46 Mbit/s (83.9% utilization)

95th percentile per-packet one-way delay: 422.585 ms

Loss rate: 18.37%

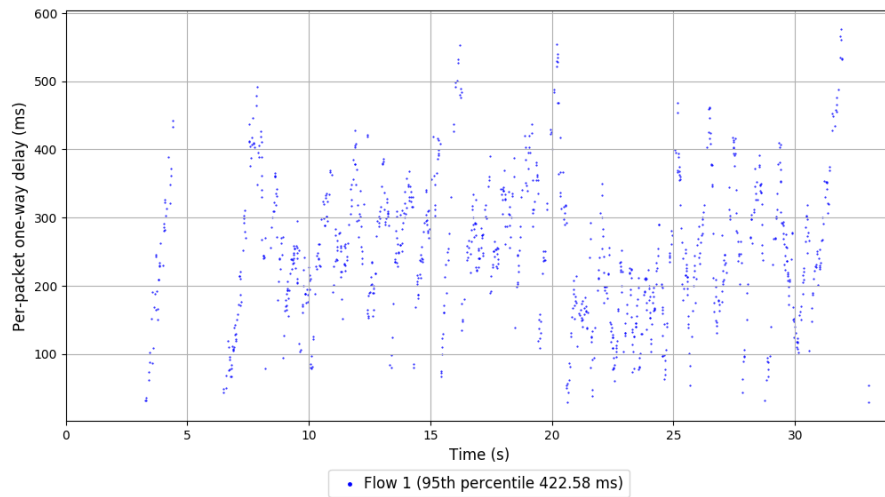
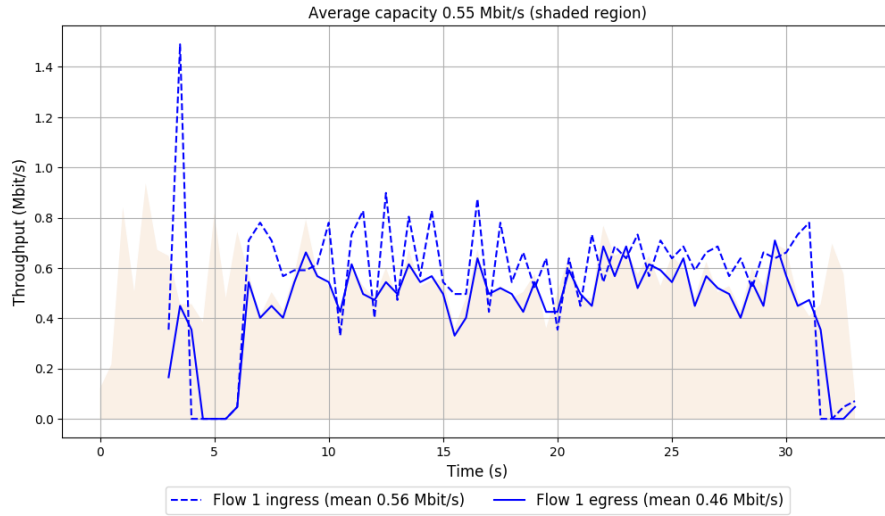
-- Flow 1:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 422.585 ms

Loss rate: 18.37%

### Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-05 18:22:04

End at: 2018-03-05 18:22:34

# Below is generated by plot.py at 2018-03-05 19:26:01

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (78.8% utilization)

95th percentile per-packet one-way delay: 426.019 ms

Loss rate: 24.34%

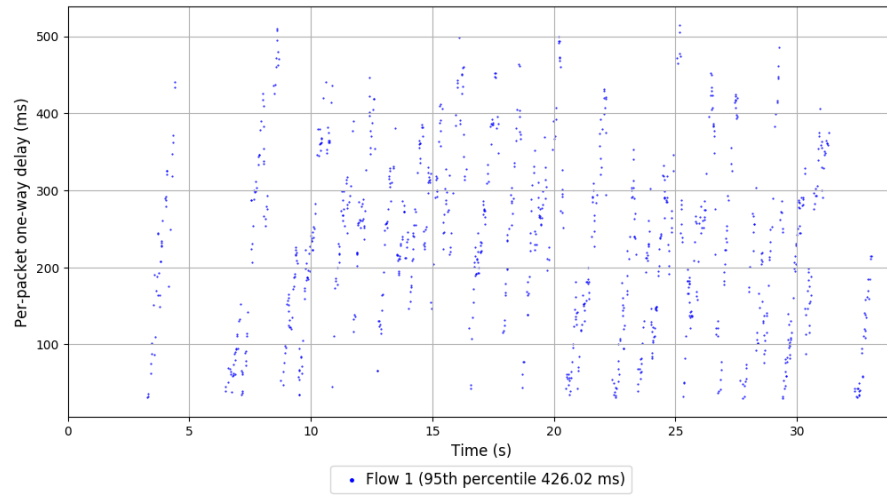
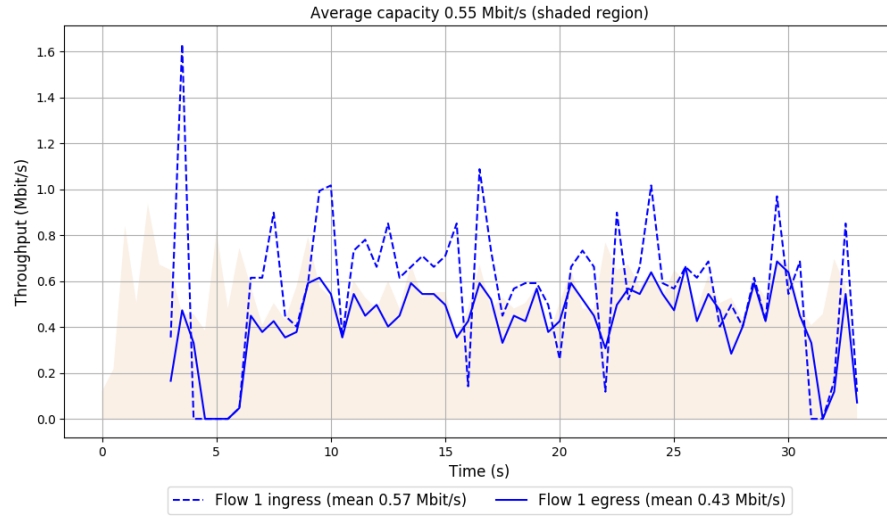
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 426.019 ms

Loss rate: 24.34%

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



Run 5: Statistics of Verus

Start at: 2018-03-05 18:32:15

End at: 2018-03-05 18:32:45

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.42 Mbit/s (76.6% utilization)

95th percentile per-packet one-way delay: 421.811 ms

Loss rate: 70.62%

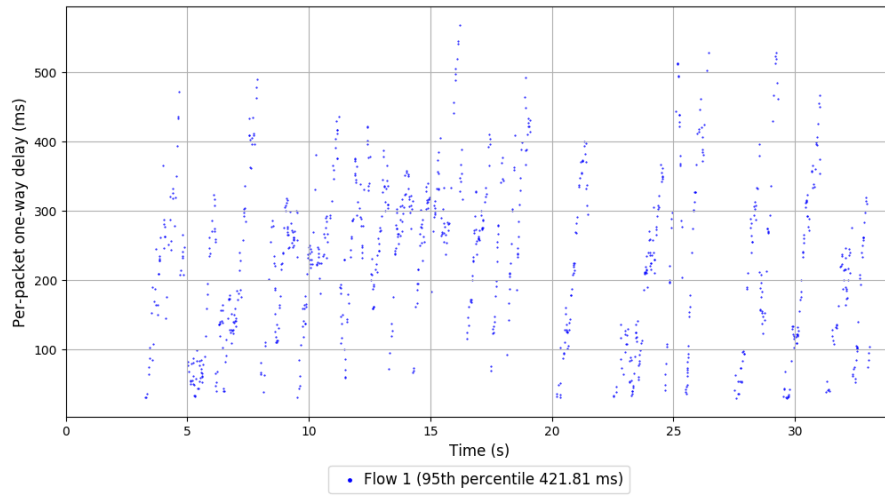
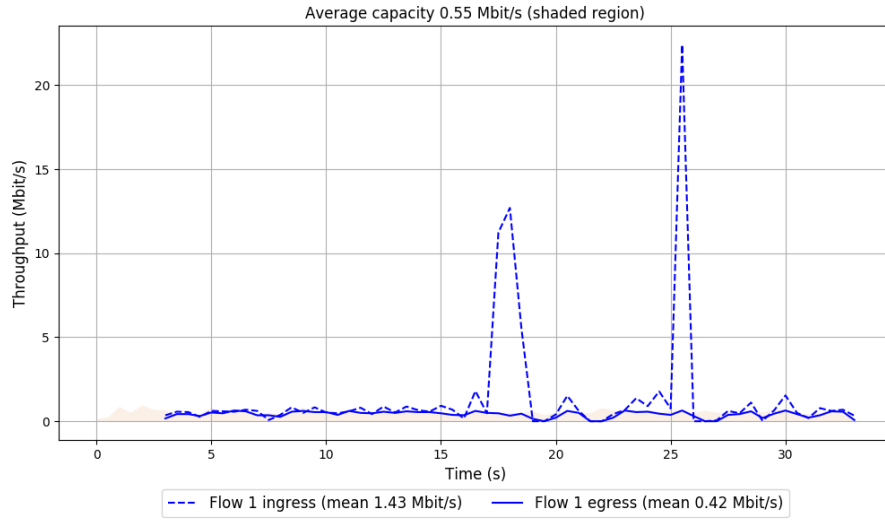
-- Flow 1:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 421.811 ms

Loss rate: 70.62%

### Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-05 18:42:29

End at: 2018-03-05 18:42:59

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.50 Mbit/s (90.7% utilization)

95th percentile per-packet one-way delay: 416.811 ms

Loss rate: 15.28%

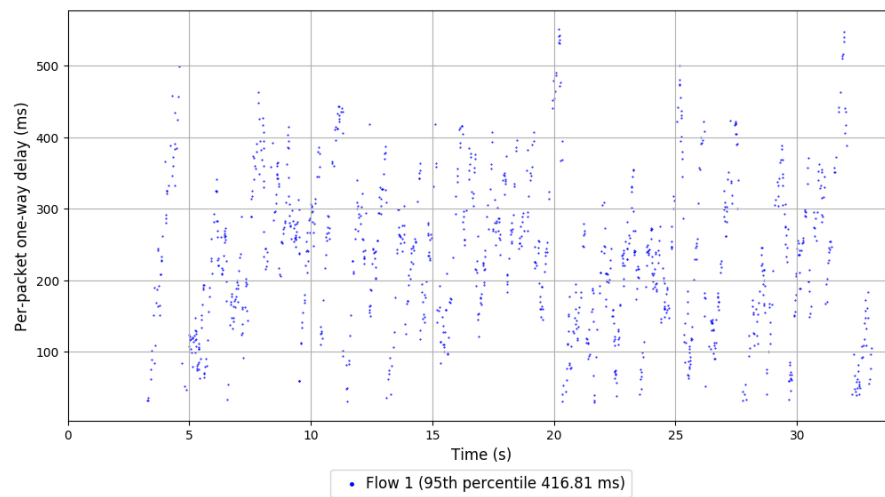
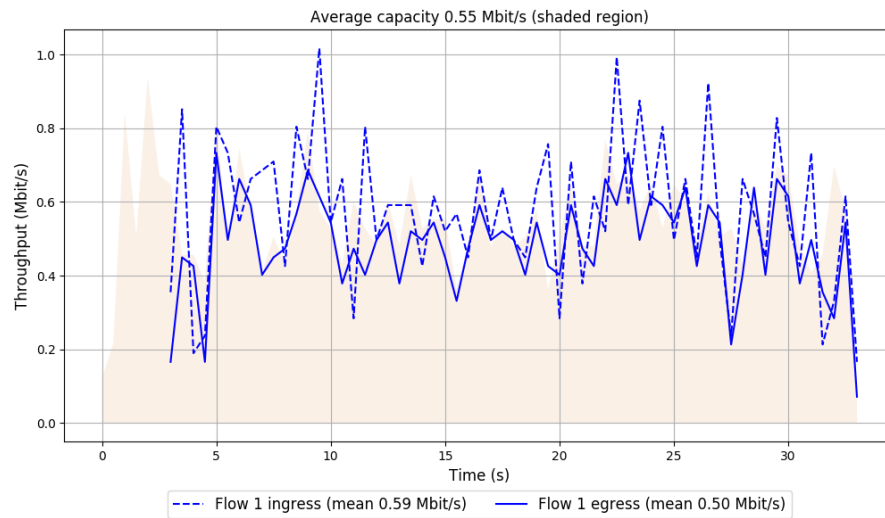
-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 416.811 ms

Loss rate: 15.28%

## Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-05 18:52:41

End at: 2018-03-05 18:53:11

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.49 Mbit/s (89.0% utilization)

95th percentile per-packet one-way delay: 445.584 ms

Loss rate: 43.12%

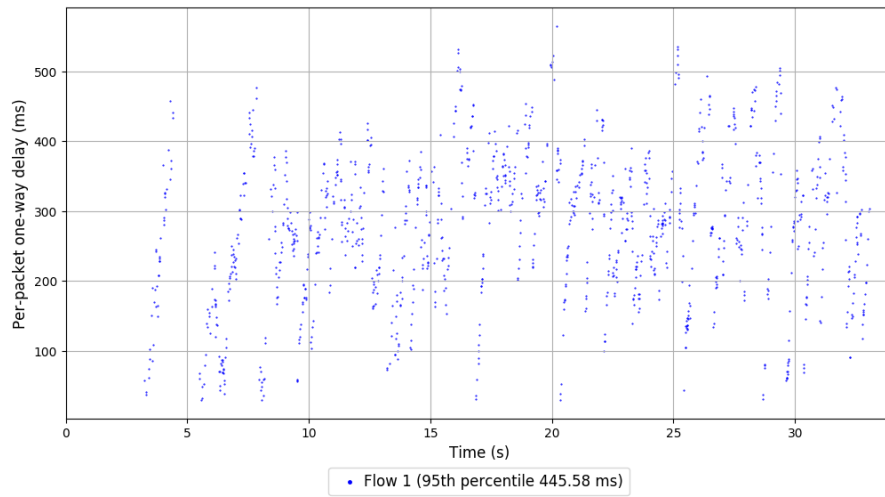
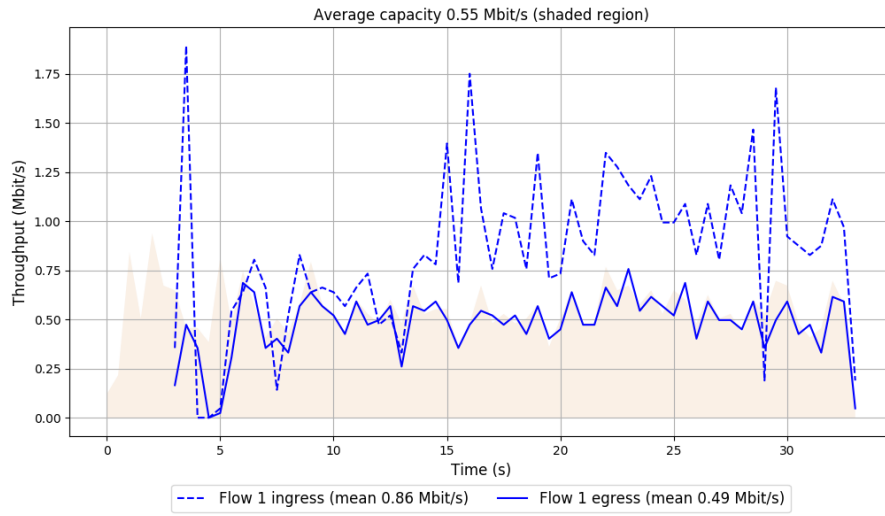
-- Flow 1:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 445.584 ms

Loss rate: 43.12%

### Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-05 19:02:52

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

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.45 Mbit/s (81.5% utilization)

95th percentile per-packet one-way delay: 439.484 ms

Loss rate: 22.62%

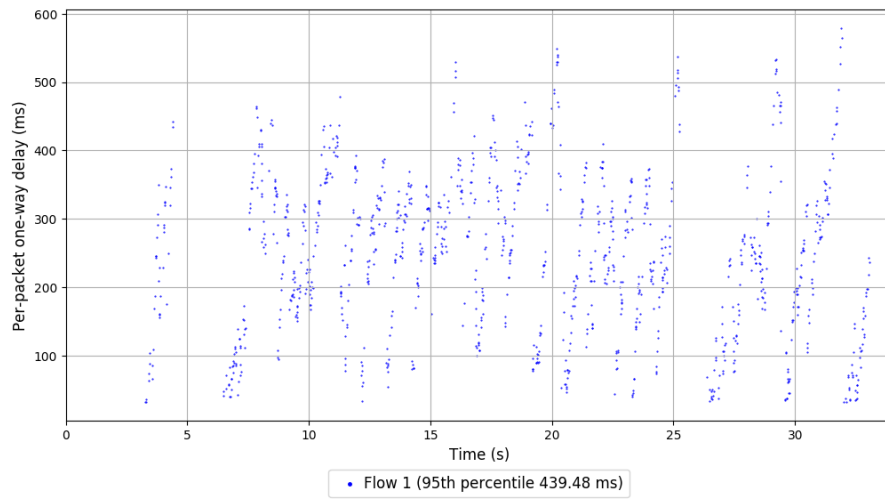
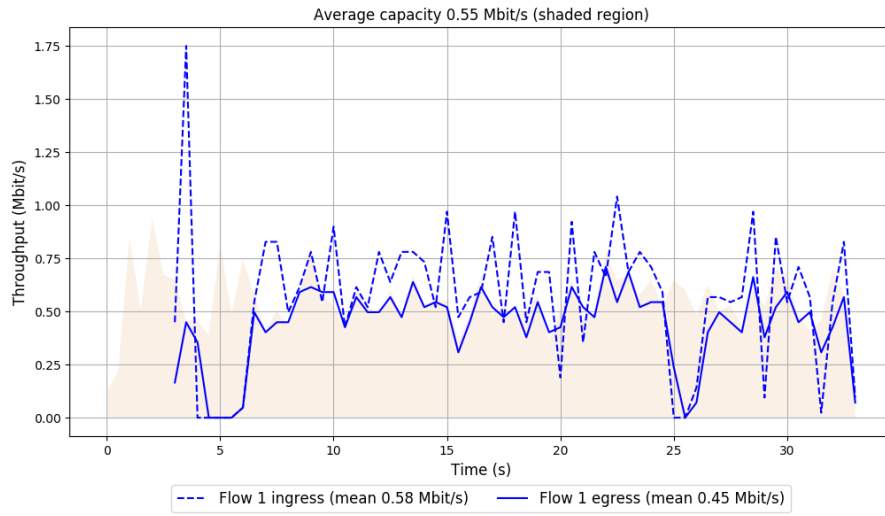
-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 439.484 ms

Loss rate: 22.62%

### Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-05 19:13:04

End at: 2018-03-05 19:13:34

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.47 Mbit/s (84.9% utilization)

95th percentile per-packet one-way delay: 418.943 ms

Loss rate: 17.51%

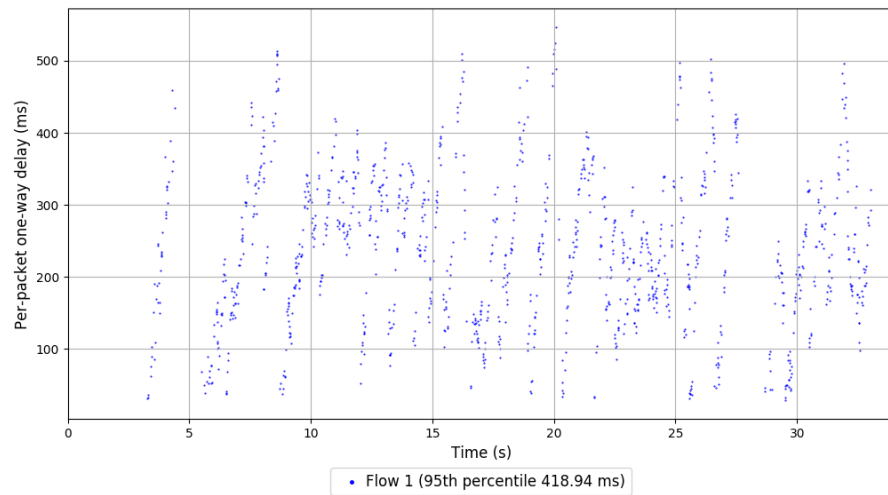
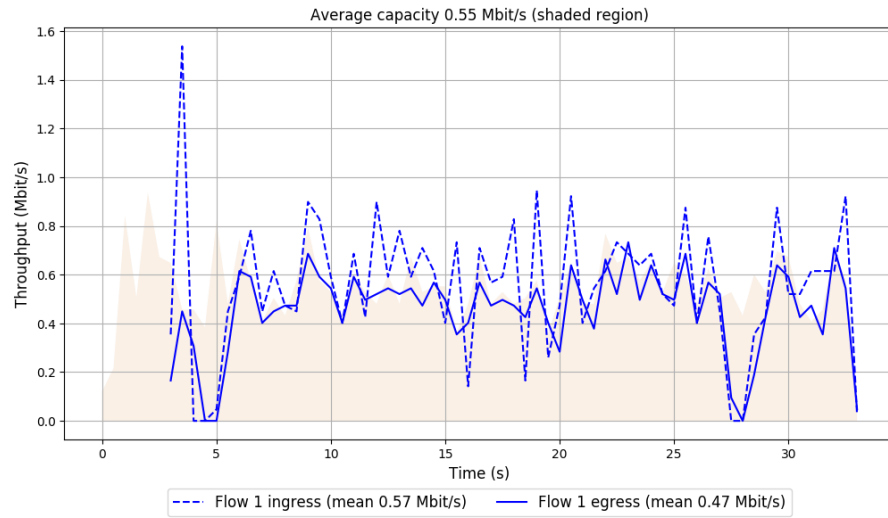
-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 418.943 ms

Loss rate: 17.51%

### Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-05 19:23:16

End at: 2018-03-05 19:23:46

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.48 Mbit/s (87.2% utilization)

95th percentile per-packet one-way delay: 392.772 ms

Loss rate: 14.90%

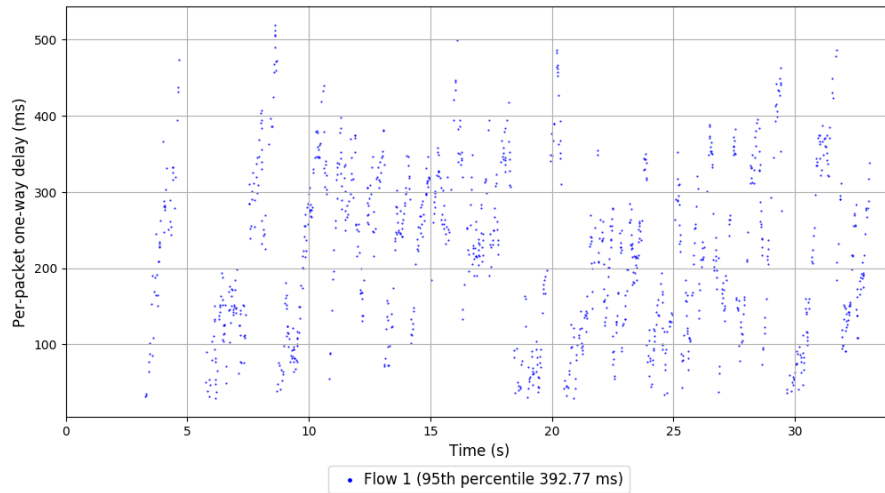
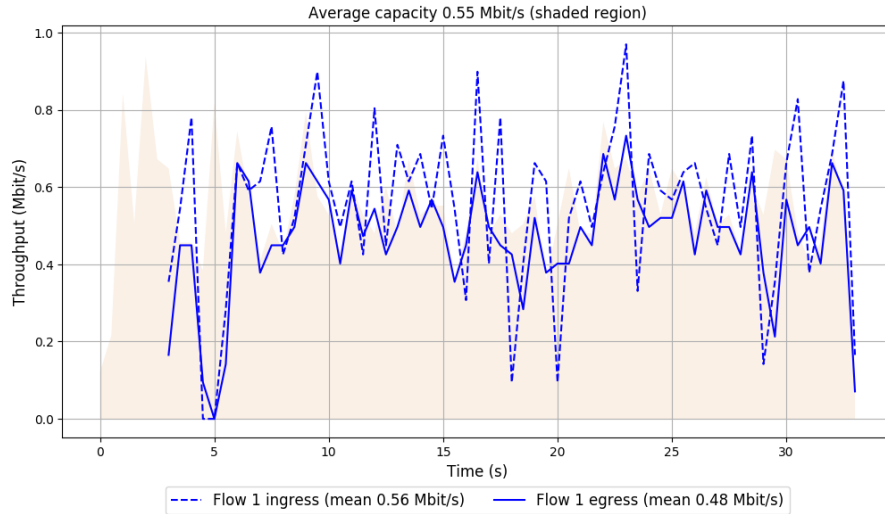
-- Flow 1:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 392.772 ms

Loss rate: 14.90%

# Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

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 19:26:08

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.34 Mbit/s (62.2% utilization)

95th percentile per-packet one-way delay: 242.290 ms

Loss rate: 12.96%

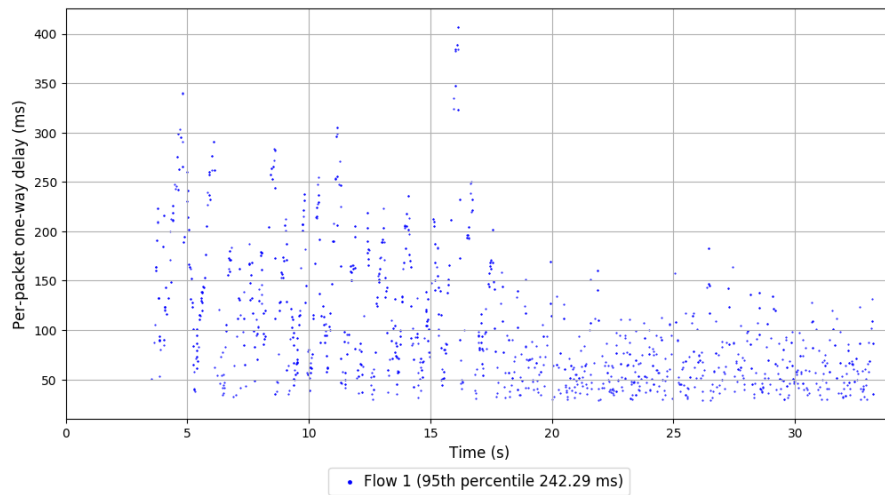
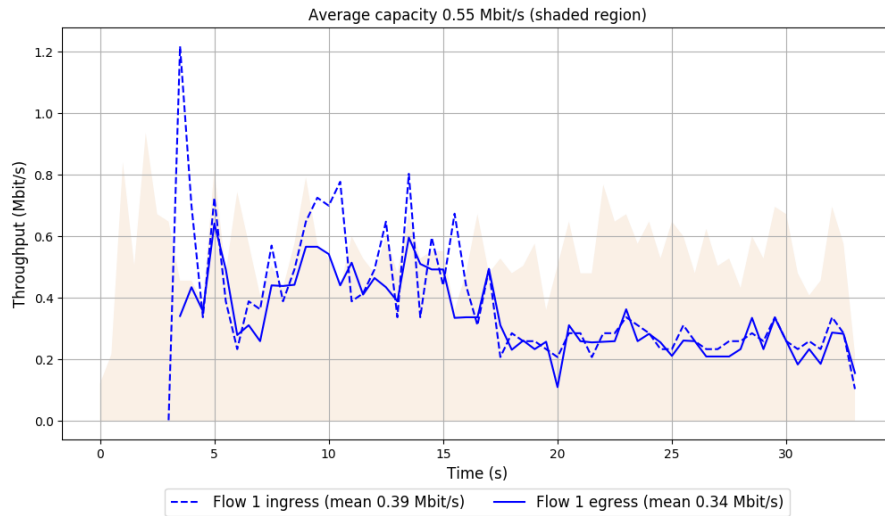
-- Flow 1:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 242.290 ms

Loss rate: 12.96%

# Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-05 17:52:34

End at: 2018-03-05 17:53:04

# Below is generated by plot.py at 2018-03-05 19:26:09

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.44 Mbit/s (80.2% utilization)

95th percentile per-packet one-way delay: 237.998 ms

Loss rate: 12.29%

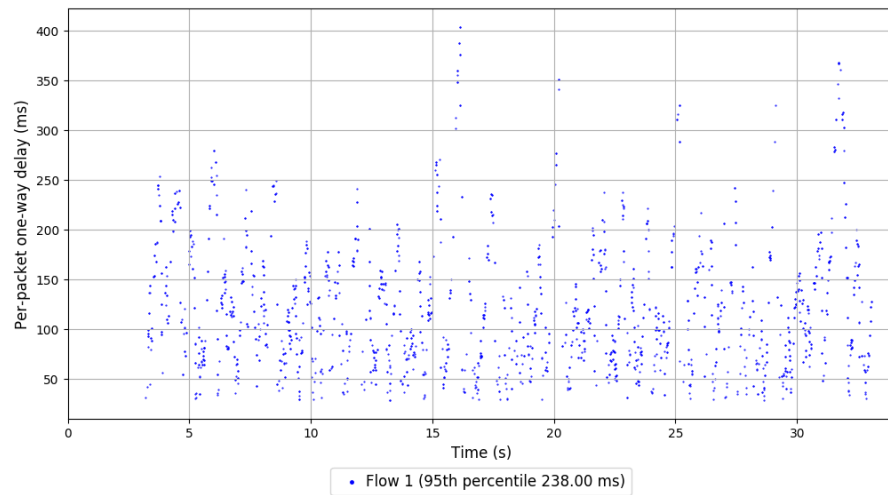
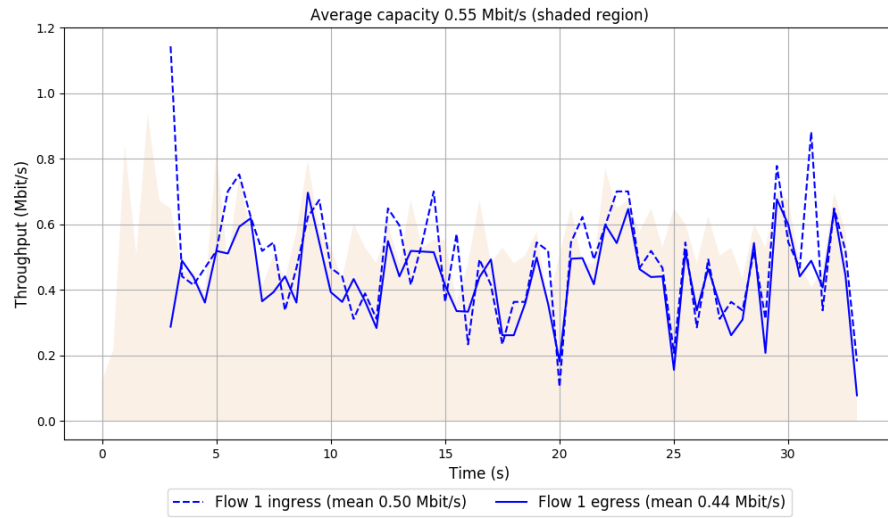
-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 237.998 ms

Loss rate: 12.29%

## Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-05 18:02:47

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

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.39 Mbit/s (71.3% utilization)

95th percentile per-packet one-way delay: 236.916 ms

Loss rate: 12.23%

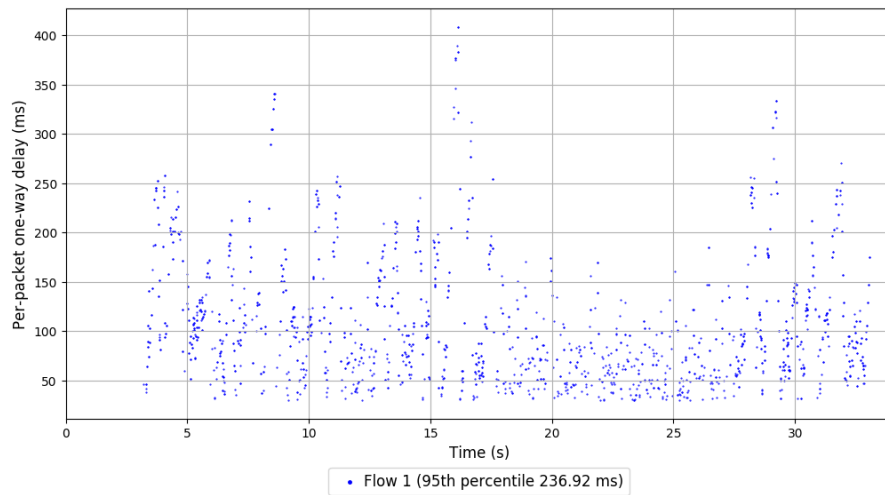
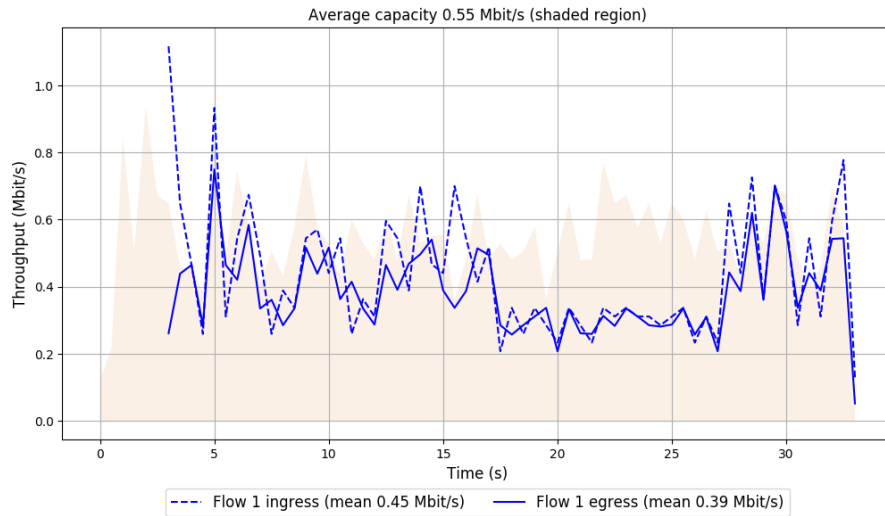
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 236.916 ms

Loss rate: 12.23%

### Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-05 18:13:01

End at: 2018-03-05 18:13:31

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.26 Mbit/s (48.0% utilization)

95th percentile per-packet one-way delay: 203.804 ms

Loss rate: 10.86%

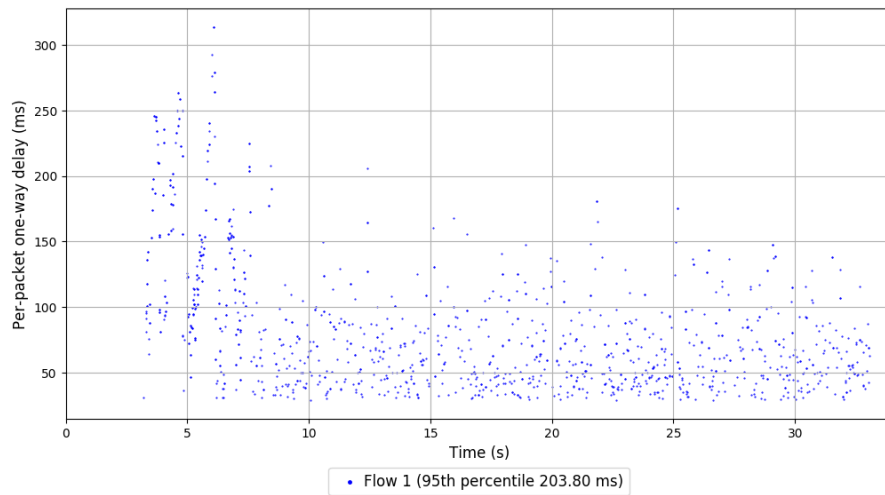
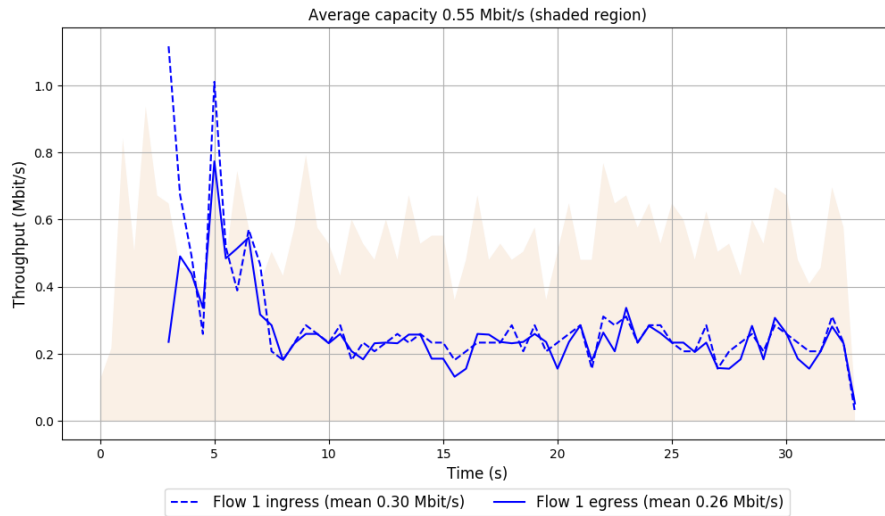
-- Flow 1:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 203.804 ms

Loss rate: 10.86%

### Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-05 18:23:12

End at: 2018-03-05 18:23:42

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.46 Mbit/s (83.4% utilization)

95th percentile per-packet one-way delay: 244.458 ms

Loss rate: 12.93%

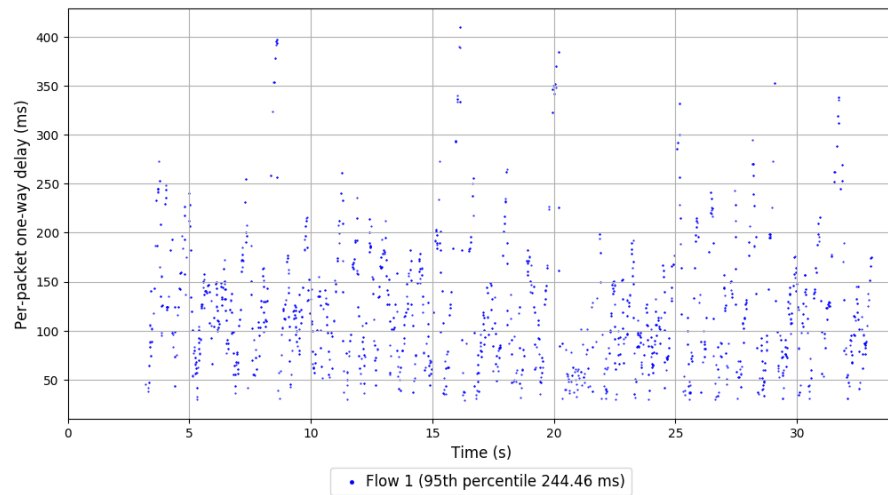
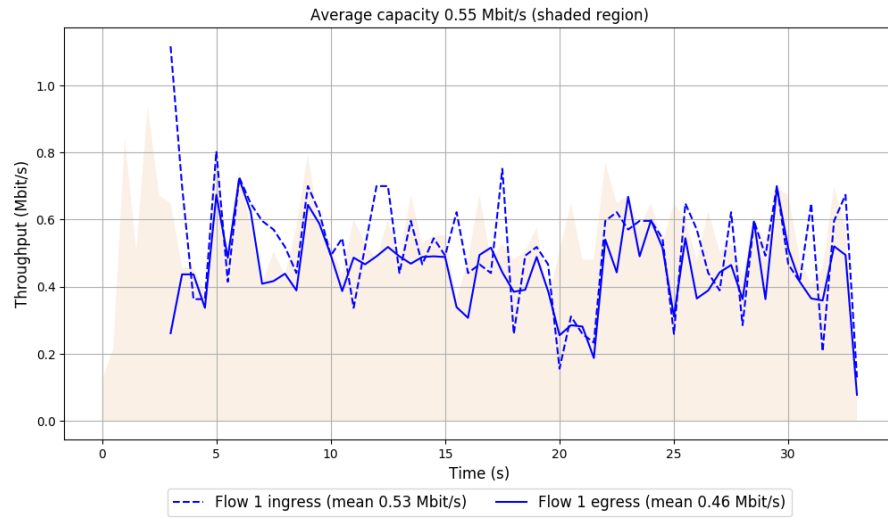
-- Flow 1:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 244.458 ms

Loss rate: 12.93%

## Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-05 18:33:23

End at: 2018-03-05 18:33:53

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.30 Mbit/s (53.7% utilization)

95th percentile per-packet one-way delay: 208.142 ms

Loss rate: 11.80%

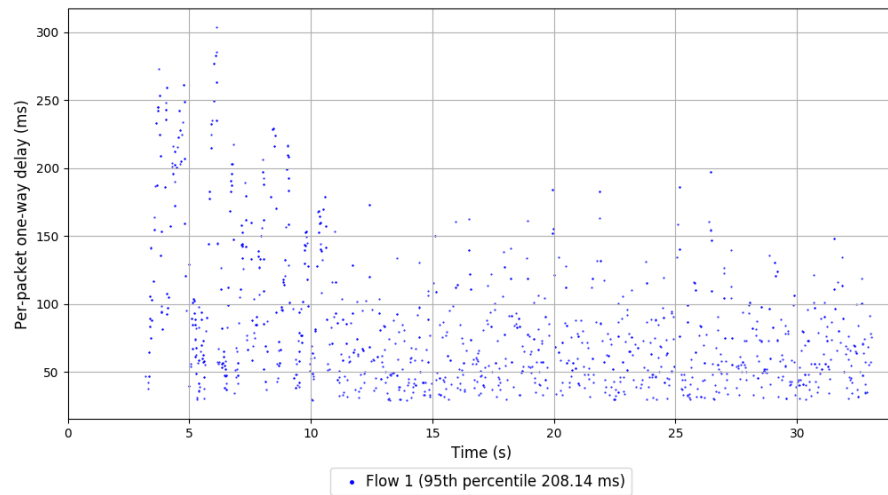
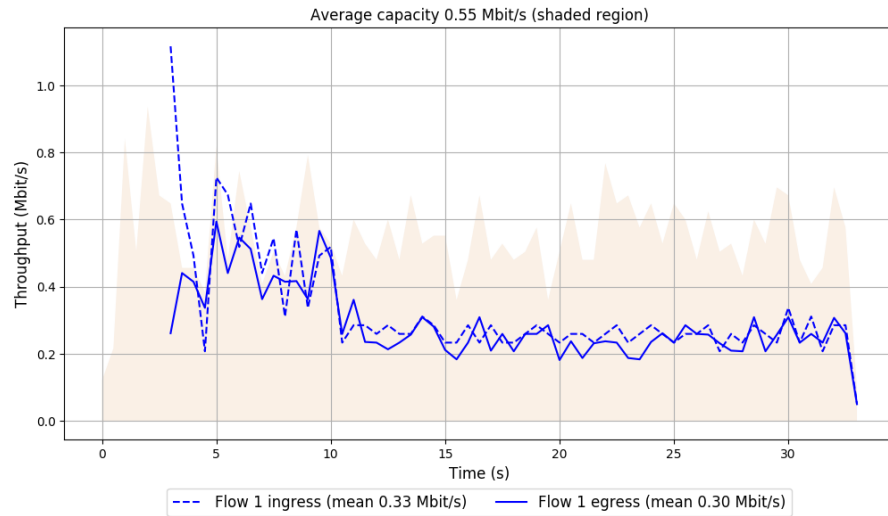
-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 208.142 ms

Loss rate: 11.80%

## Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-05 18:43:36

End at: 2018-03-05 18:44:06

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.38 Mbit/s (68.9% utilization)

95th percentile per-packet one-way delay: 230.413 ms

Loss rate: 11.99%

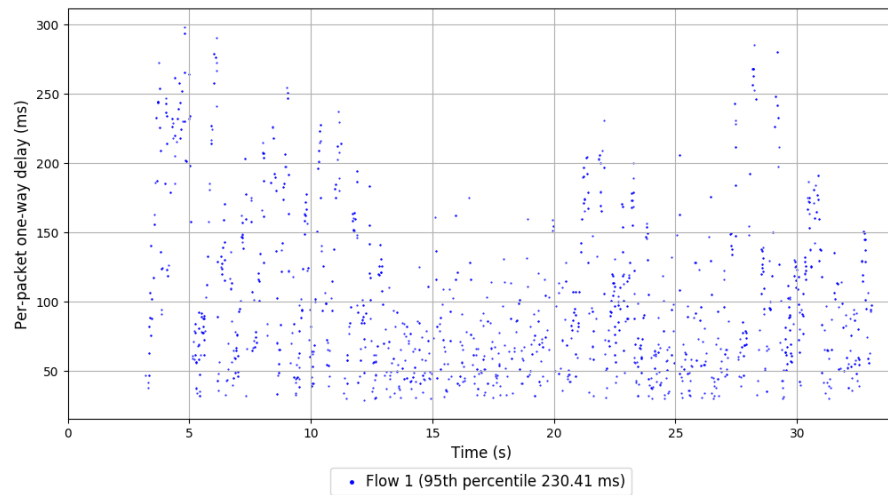
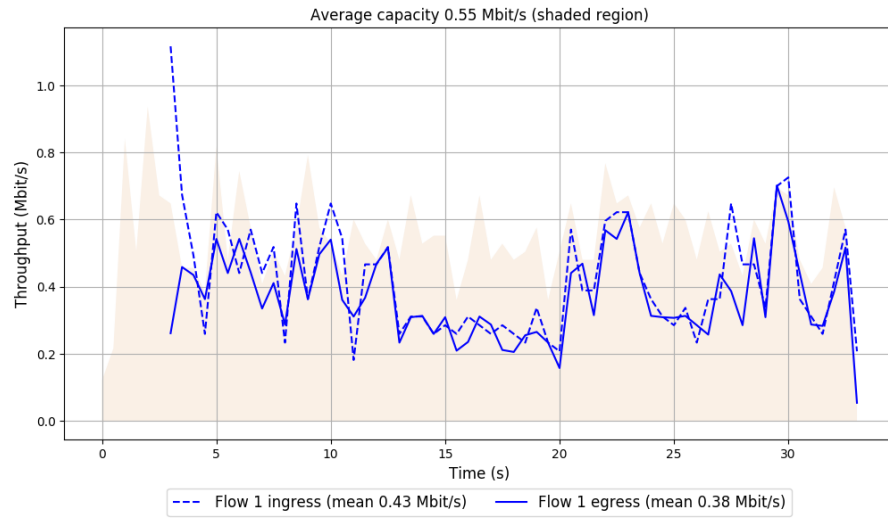
-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 230.413 ms

Loss rate: 11.99%

## Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-05 18:53:49

End at: 2018-03-05 18:54:19

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.37 Mbit/s (67.4% utilization)

95th percentile per-packet one-way delay: 233.635 ms

Loss rate: 10.23%

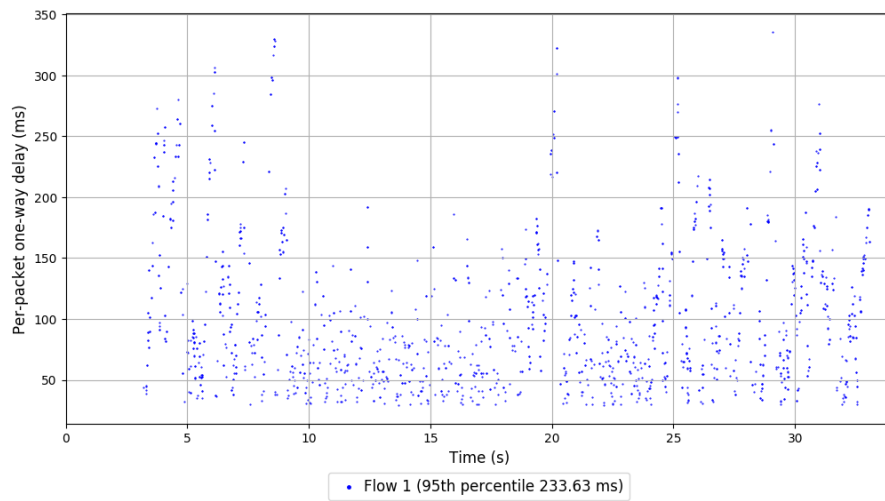
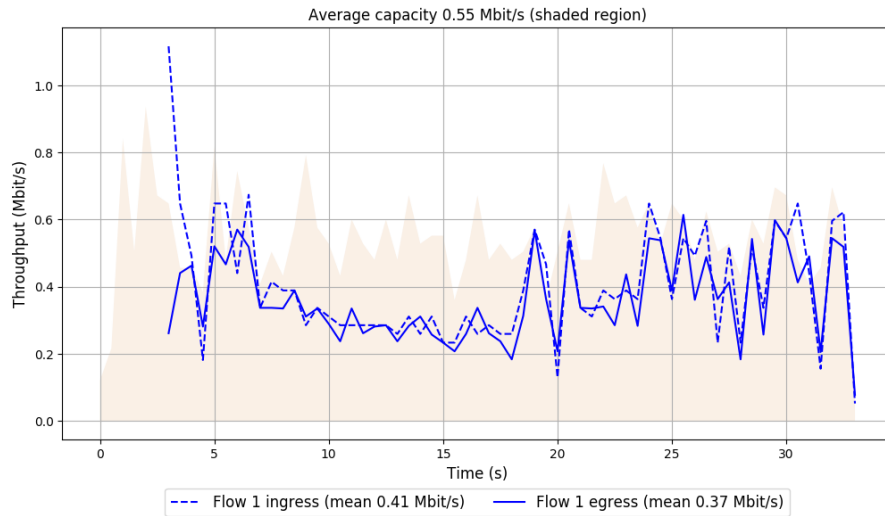
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 233.635 ms

Loss rate: 10.23%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-05 19:04:00

End at: 2018-03-05 19:04:30

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.30 Mbit/s (54.6% utilization)

95th percentile per-packet one-way delay: 209.557 ms

Loss rate: 10.58%

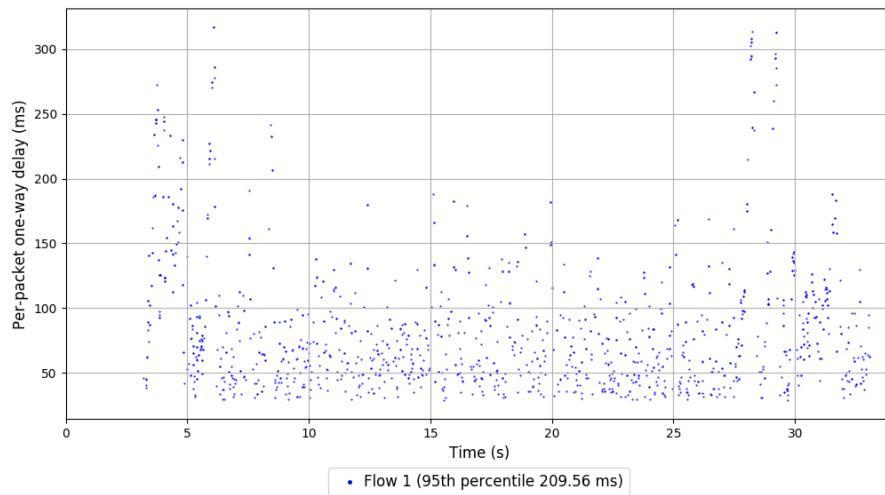
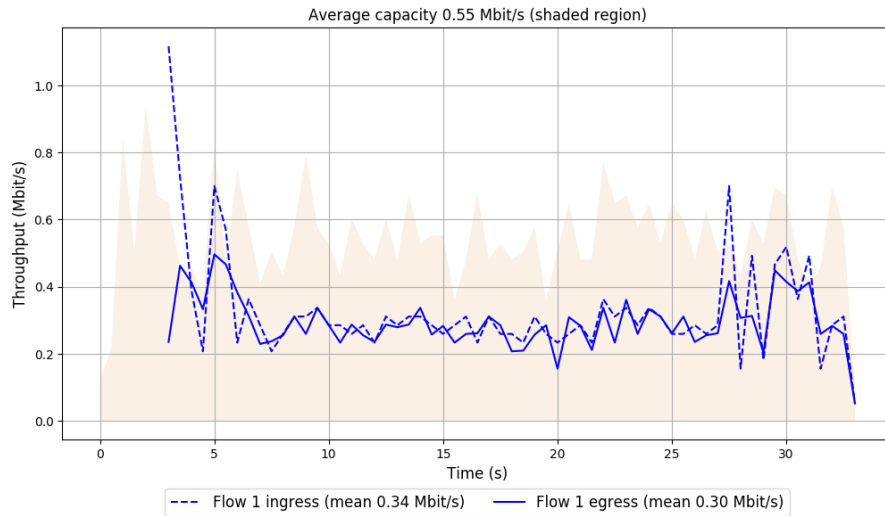
-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 209.557 ms

Loss rate: 10.58%

### Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-05 19:14:12

End at: 2018-03-05 19:14:42

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.42 Mbit/s (76.7% utilization)

95th percentile per-packet one-way delay: 246.627 ms

Loss rate: 13.47%

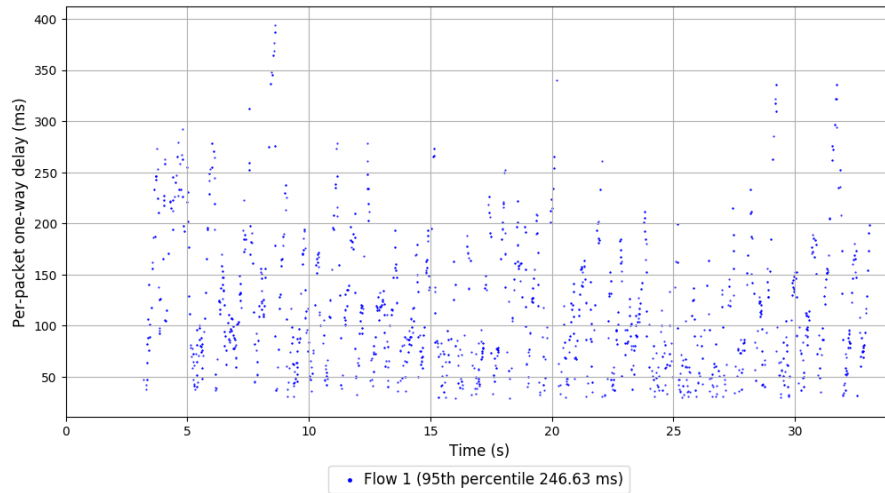
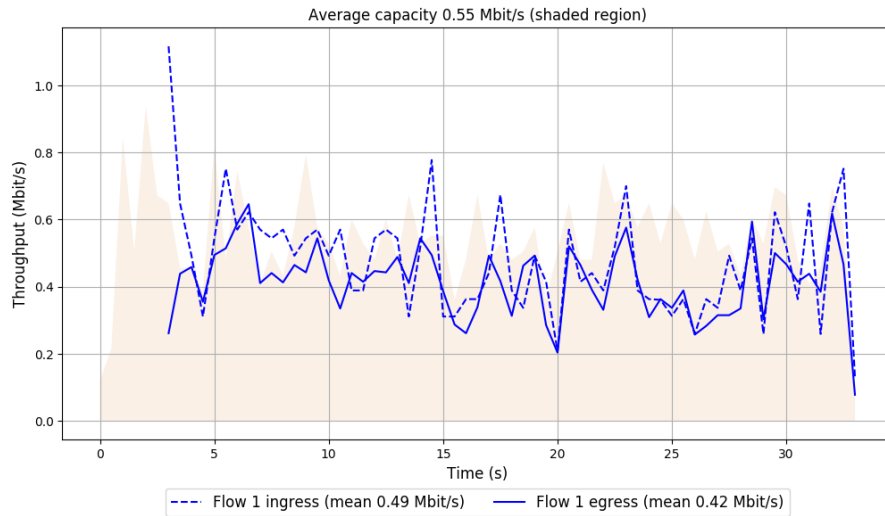
-- Flow 1:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 246.627 ms

Loss rate: 13.47%

# Run 10: Report of Copa — Data Link



Run 1: Statistics of FillP

Start at: 2018-03-05 17:50:52

End at: 2018-03-05 17:51:22

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

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (93.4% utilization)

95th percentile per-packet one-way delay: 458.481 ms

Loss rate: 96.84%

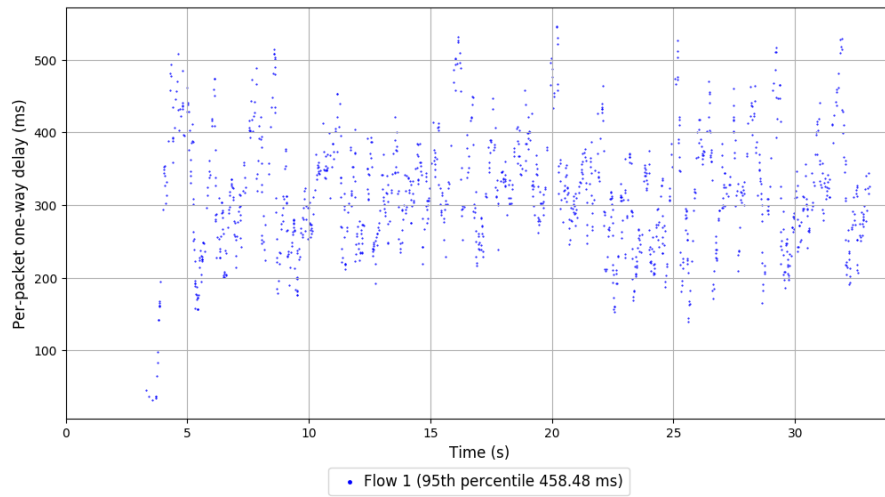
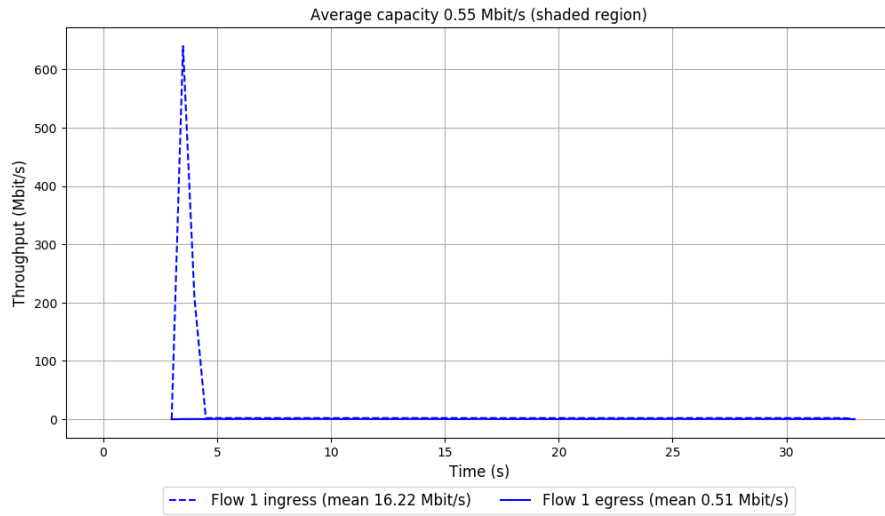
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 458.481 ms

Loss rate: 96.84%

# Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

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

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

# Below is generated by plot.py at 2018-03-05 19:26:28

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.4% utilization)

95th percentile per-packet one-way delay: 459.731 ms

Loss rate: 97.48%

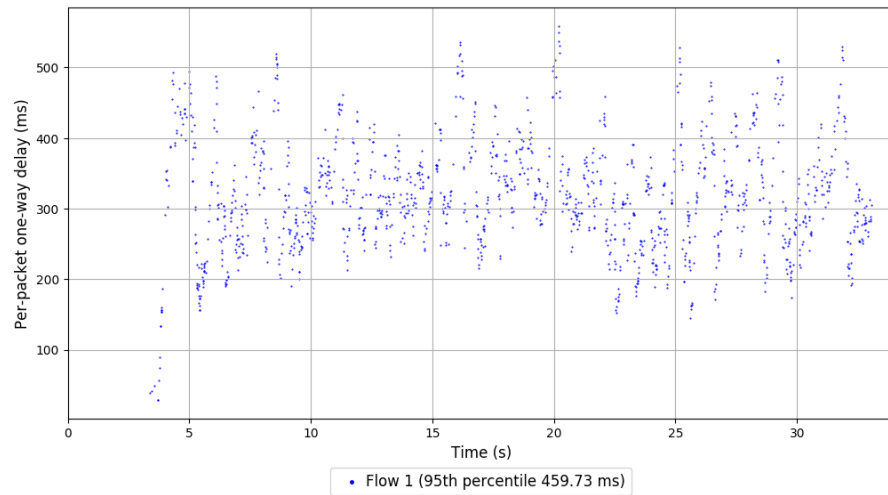
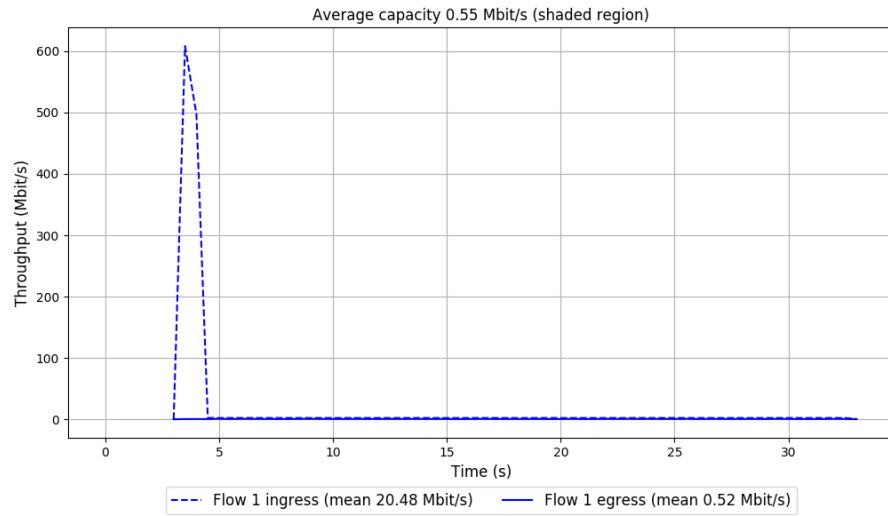
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 459.731 ms

Loss rate: 97.48%

## Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-05 18:11:19

End at: 2018-03-05 18:11:49

# Below is generated by plot.py at 2018-03-05 19:26:28

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.9% utilization)

95th percentile per-packet one-way delay: 454.045 ms

Loss rate: 97.48%

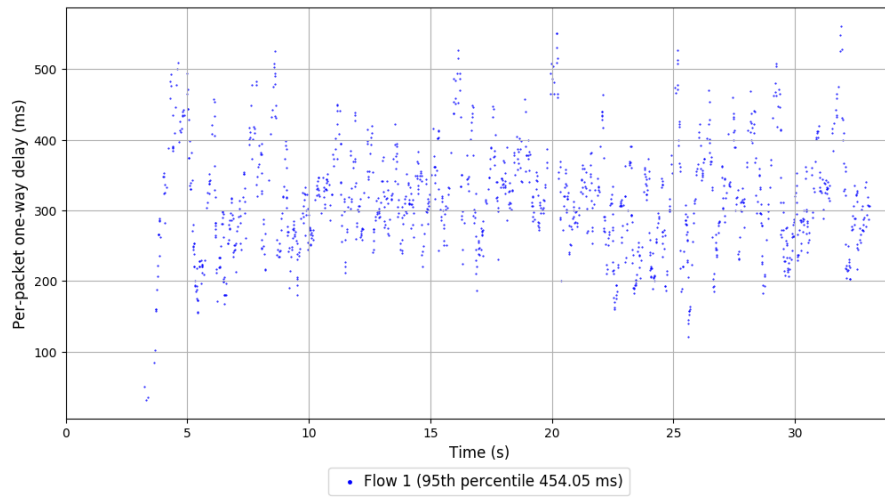
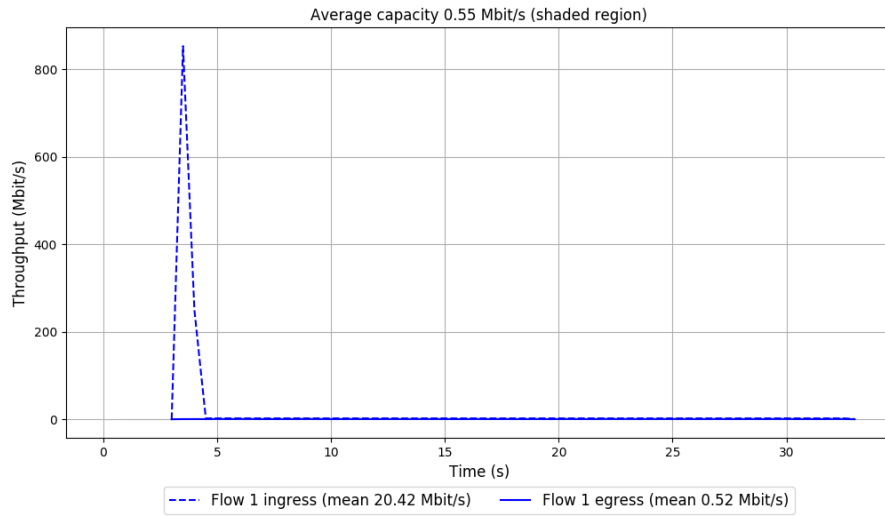
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 454.045 ms

Loss rate: 97.48%

### Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-05 18:21:30

End at: 2018-03-05 18:22:00

# Below is generated by plot.py at 2018-03-05 19:26:28

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.3% utilization)

95th percentile per-packet one-way delay: 454.494 ms

Loss rate: 96.61%

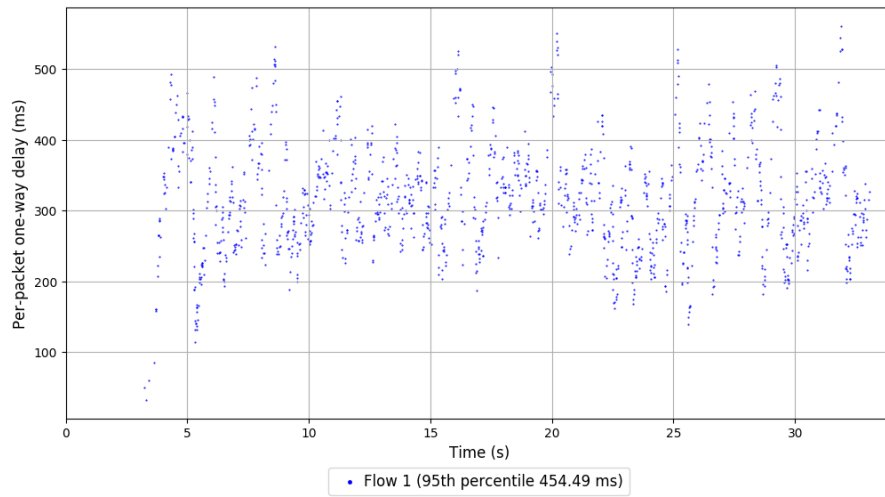
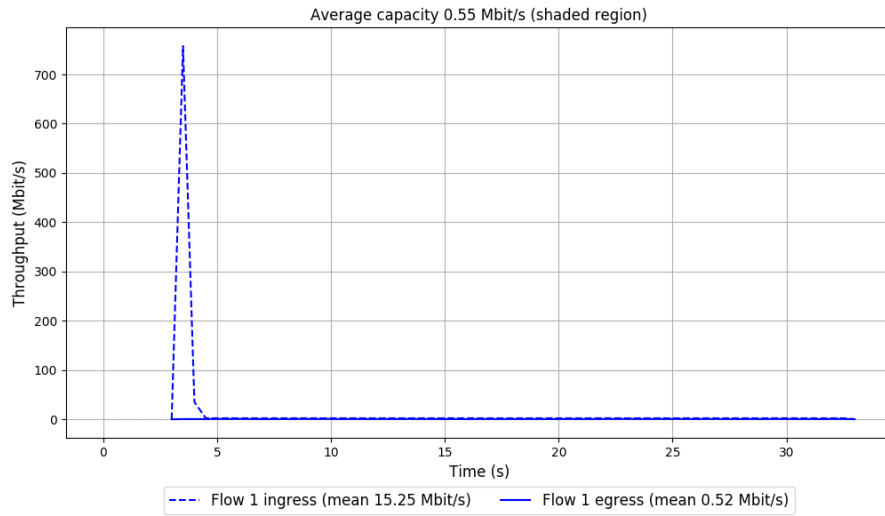
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 454.494 ms

Loss rate: 96.61%

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



Run 5: Statistics of FillP

Start at: 2018-03-05 18:31:41

End at: 2018-03-05 18:32:11

# Below is generated by plot.py at 2018-03-05 19:26:28

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.5% utilization)

95th percentile per-packet one-way delay: 458.351 ms

Loss rate: 97.17%

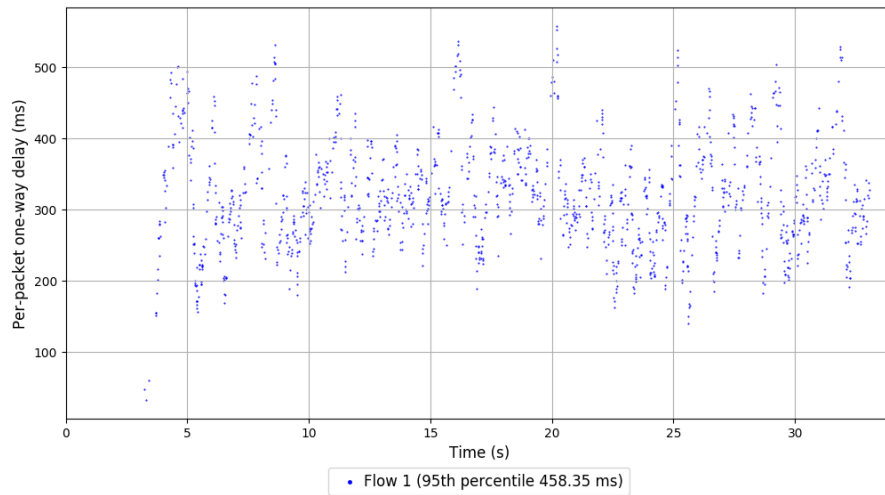
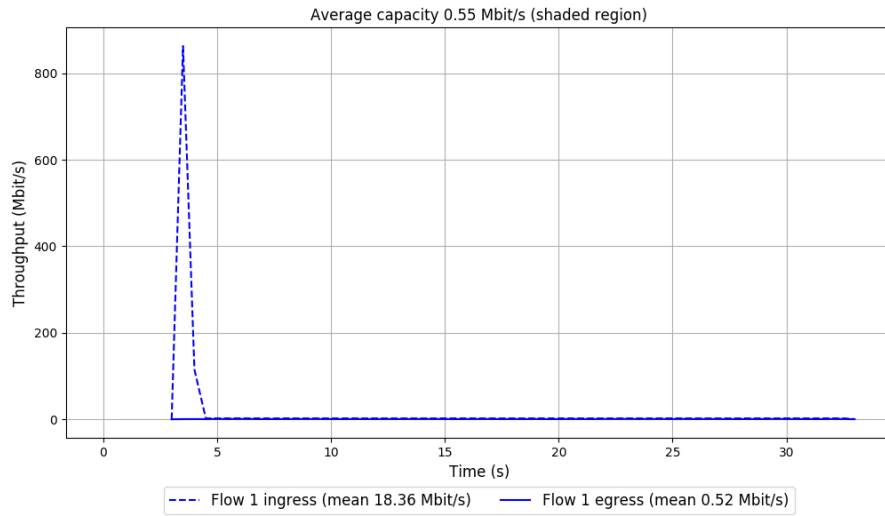
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 458.351 ms

Loss rate: 97.17%

### Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-05 18:41:54

End at: 2018-03-05 18:42:25

# Below is generated by plot.py at 2018-03-05 19:26:28

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.2% utilization)

95th percentile per-packet one-way delay: 457.623 ms

Loss rate: 96.93%

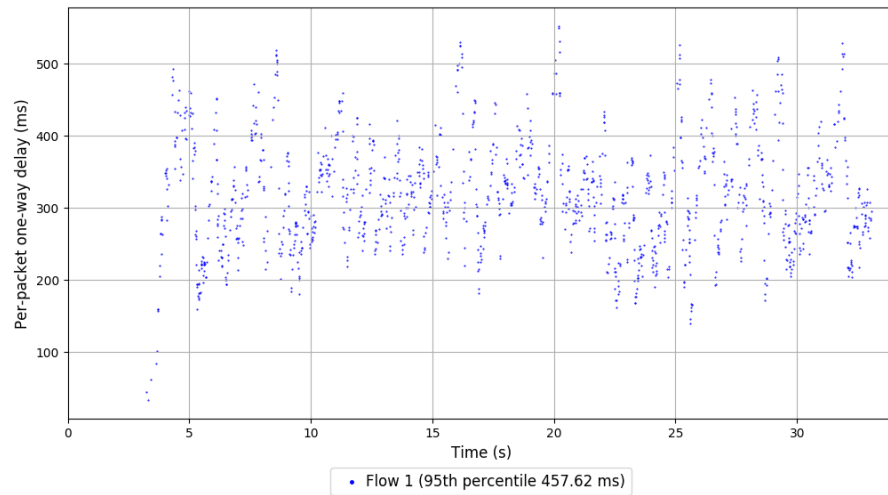
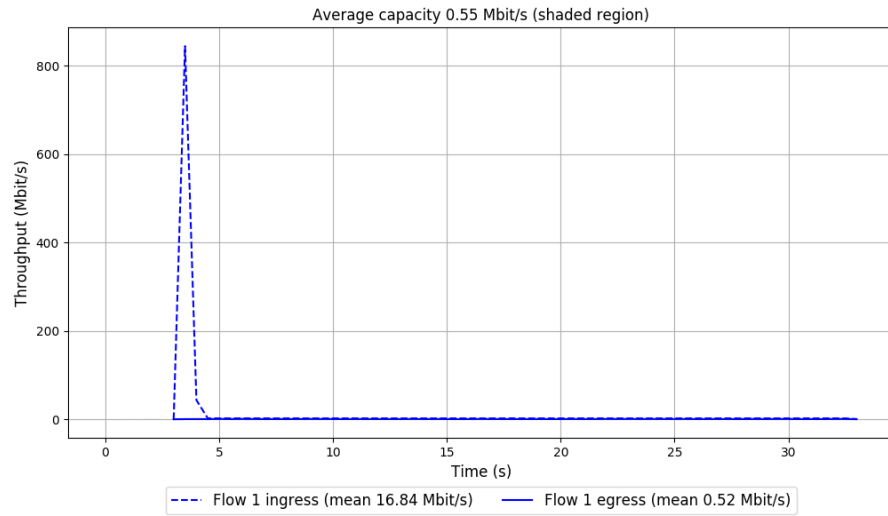
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 457.623 ms

Loss rate: 96.93%

## Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-05 18:52:07

End at: 2018-03-05 18:52:37

# Below is generated by plot.py at 2018-03-05 19:26:29

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.9% utilization)

95th percentile per-packet one-way delay: 447.489 ms

Loss rate: 97.44%

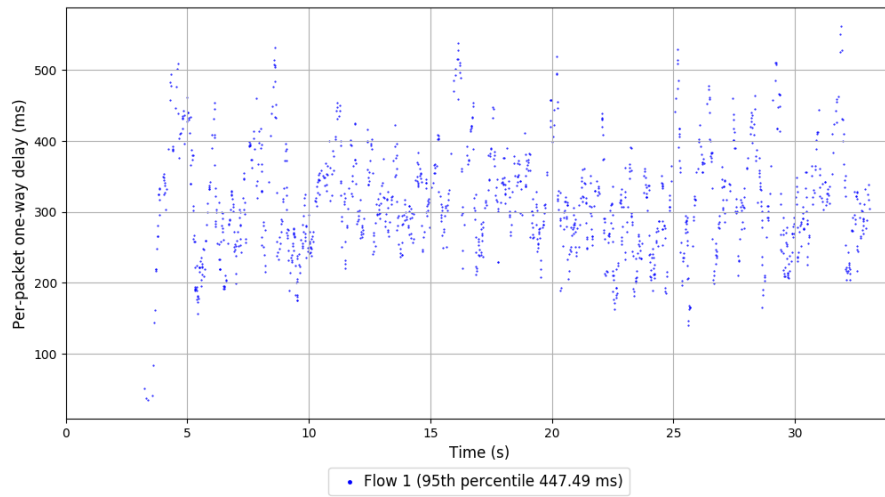
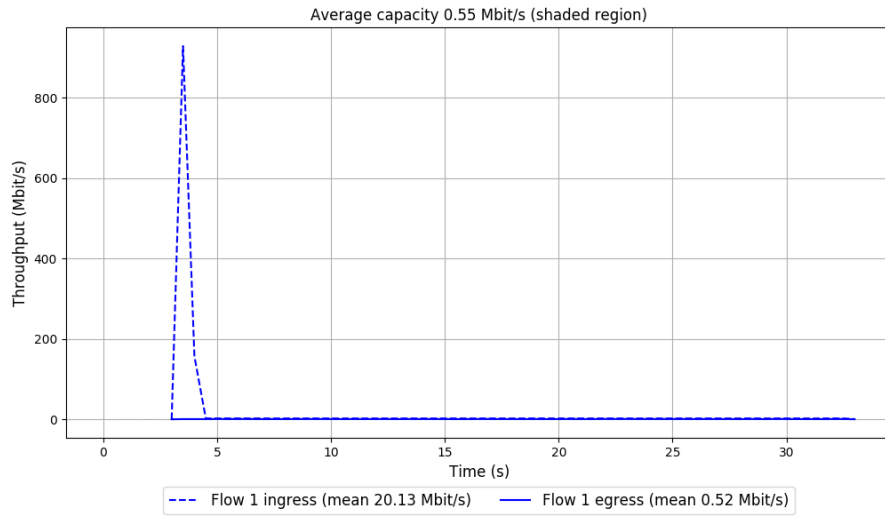
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 447.489 ms

Loss rate: 97.44%

### Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-05 19:02:18

End at: 2018-03-05 19:02:48

# Below is generated by plot.py at 2018-03-05 19:26:29

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.5% utilization)

95th percentile per-packet one-way delay: 458.012 ms

Loss rate: 97.26%

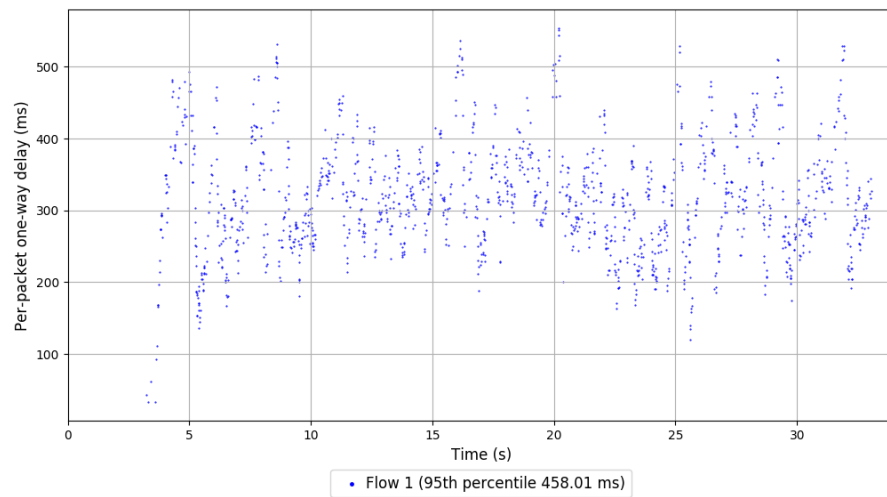
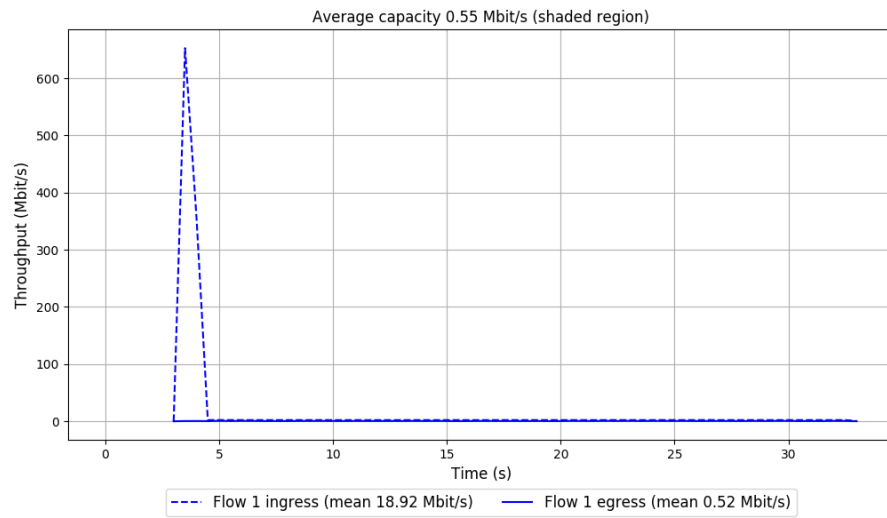
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 458.012 ms

Loss rate: 97.26%

### Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-05 19:12:30

End at: 2018-03-05 19:13:00

# Below is generated by plot.py at 2018-03-05 19:26:49

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.6% utilization)

95th percentile per-packet one-way delay: 456.885 ms

Loss rate: 97.20%

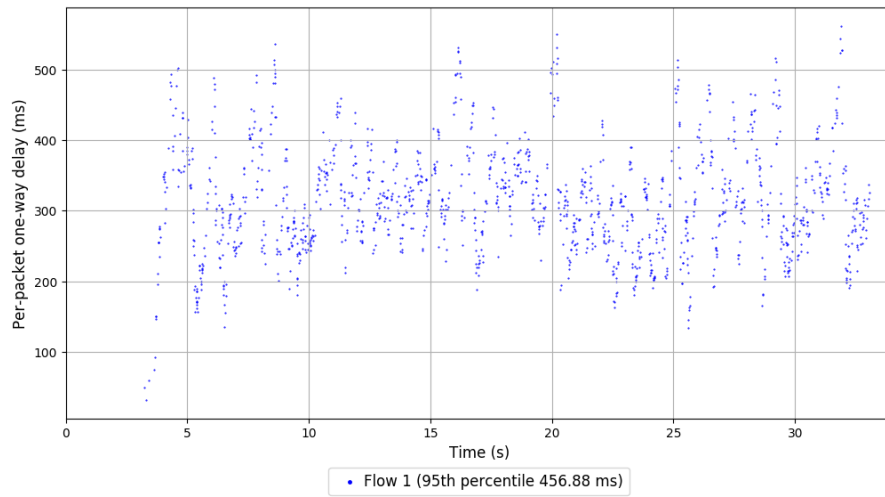
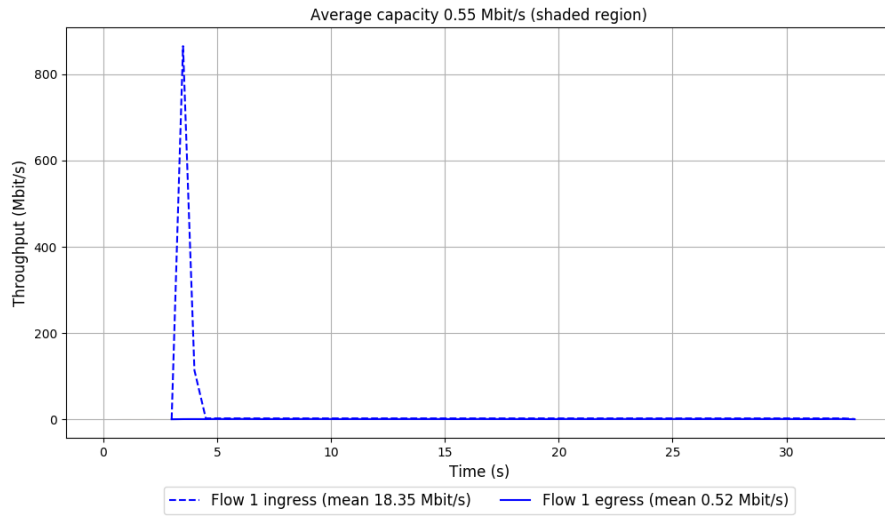
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 456.885 ms

Loss rate: 97.20%

### Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-03-05 19:22:42

End at: 2018-03-05 19:23:12

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.3% utilization)

95th percentile per-packet one-way delay: 457.544 ms

Loss rate: 97.12%

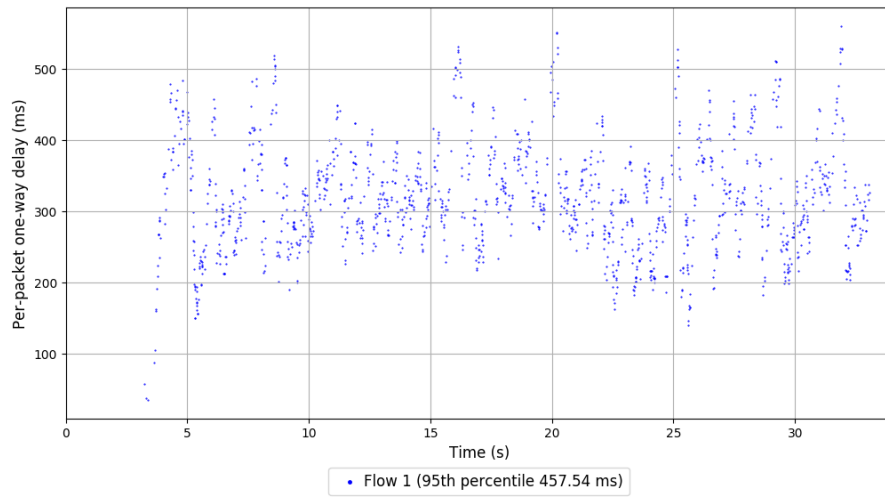
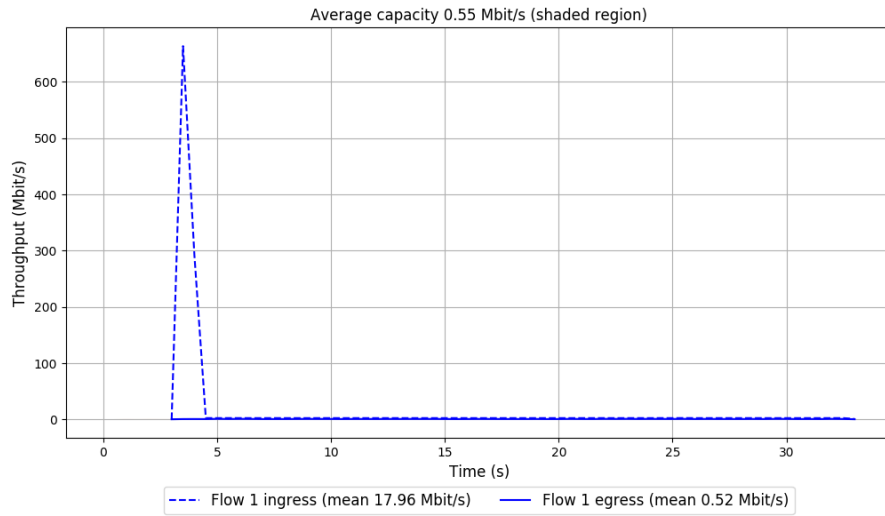
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 457.544 ms

Loss rate: 97.12%

# Run 10: Report of FillP — Data Link



Run 1: Statistics of Indigo-1-32

Start at: 2018-03-05 17:45:46

End at: 2018-03-05 17:46:16

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (77.8% utilization)

95th percentile per-packet one-way delay: 179.846 ms

Loss rate: 6.20%

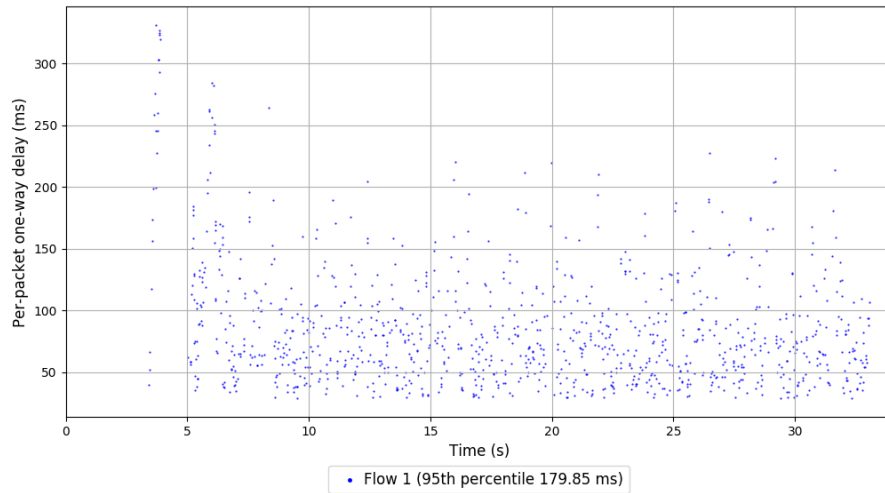
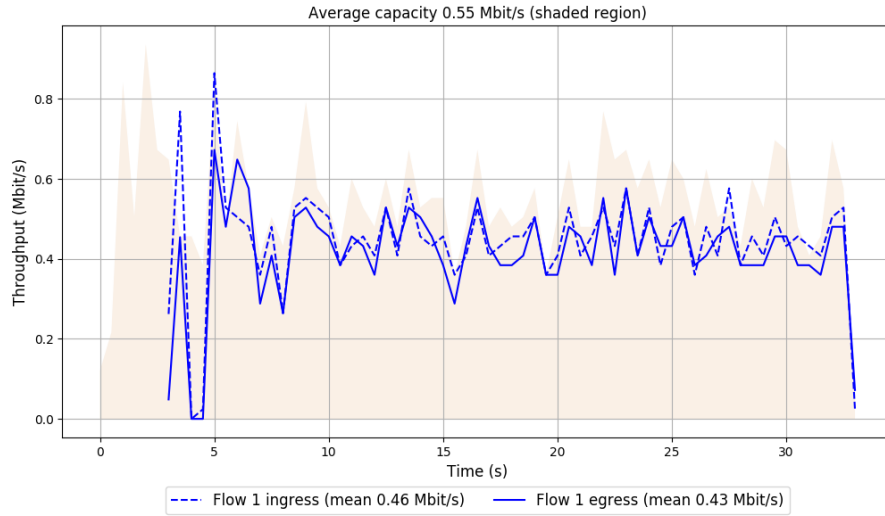
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 179.846 ms

Loss rate: 6.20%

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



Run 2: Statistics of Indigo-1-32

Start at: 2018-03-05 17:55:59

End at: 2018-03-05 17:56:29

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (77.2% utilization)

95th percentile per-packet one-way delay: 180.303 ms

Loss rate: 6.83%

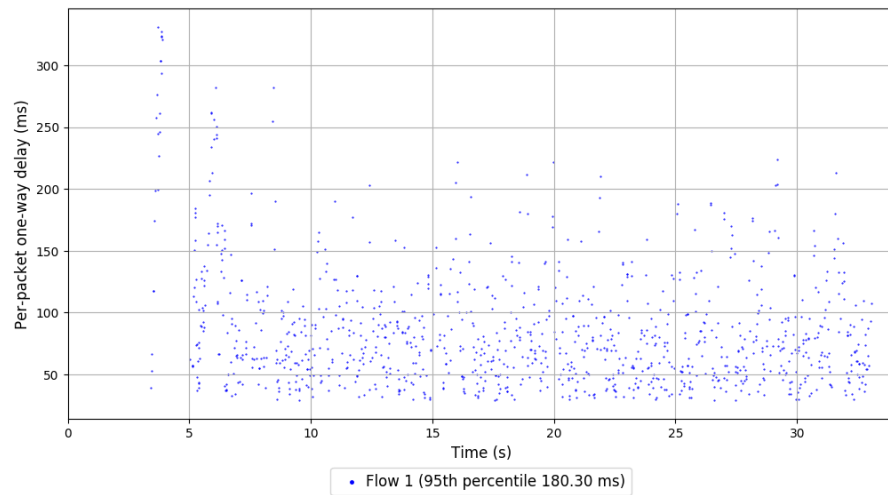
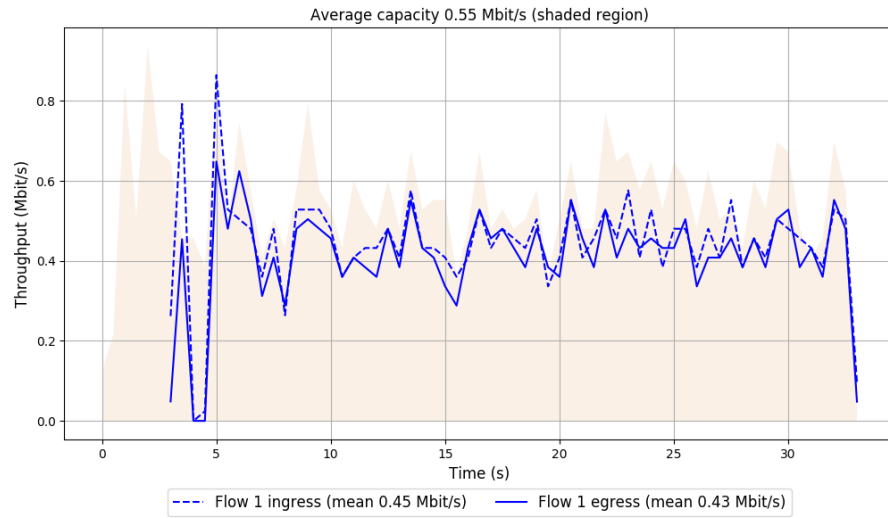
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 180.303 ms

Loss rate: 6.83%

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



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-05 18:06:13

End at: 2018-03-05 18:06:43

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.42 Mbit/s (75.6% utilization)

95th percentile per-packet one-way delay: 177.684 ms

Loss rate: 7.23%

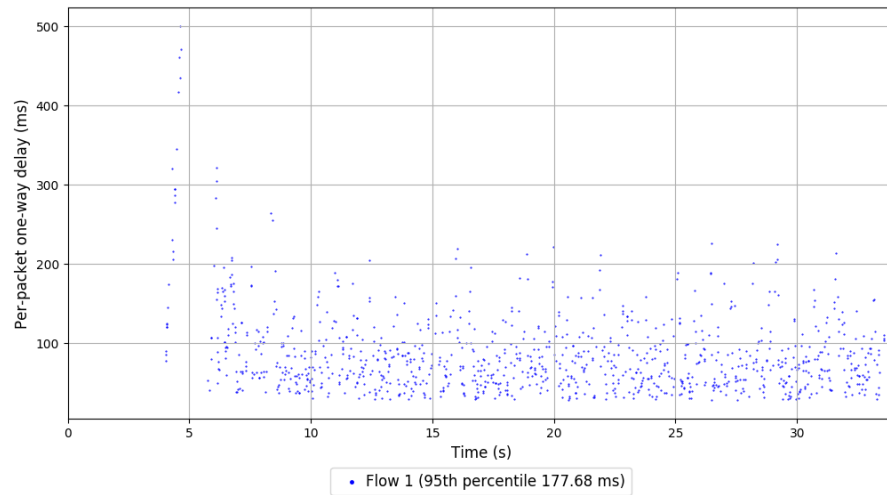
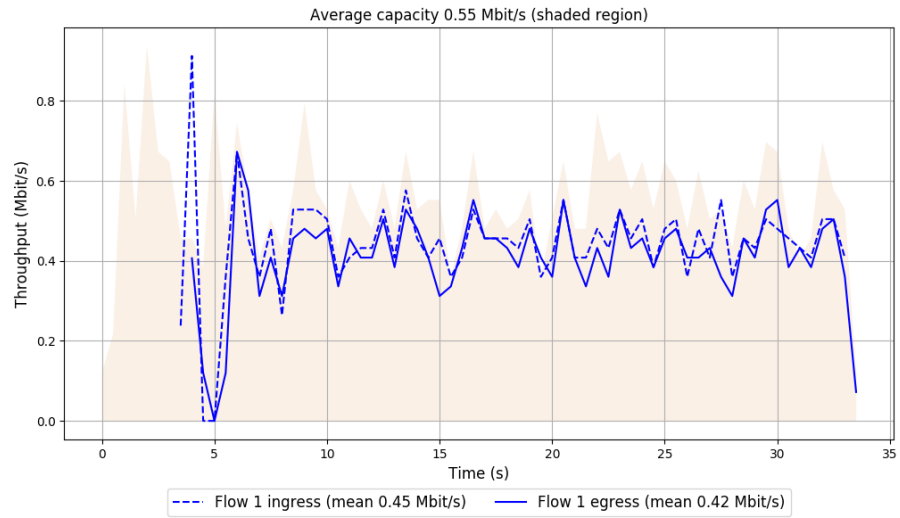
-- Flow 1:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 177.684 ms

Loss rate: 7.23%

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



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-05 18:16:25

End at: 2018-03-05 18:16:55

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (78.9% utilization)

95th percentile per-packet one-way delay: 180.603 ms

Loss rate: 6.04%

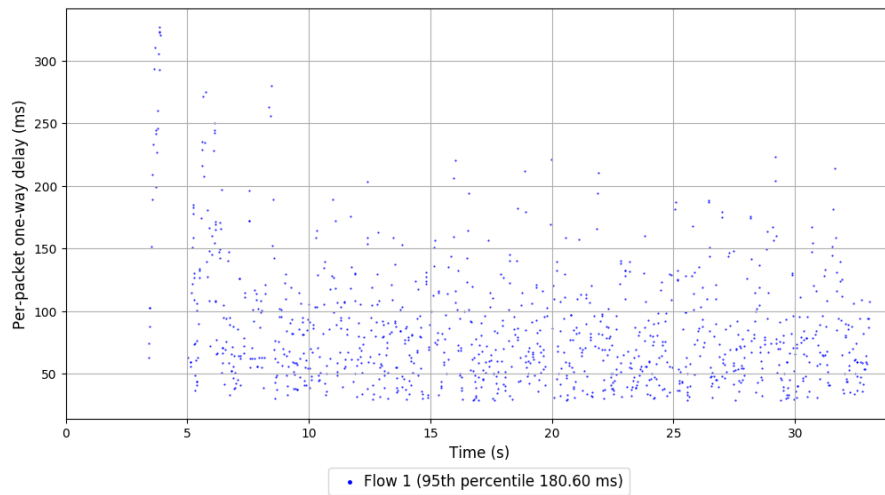
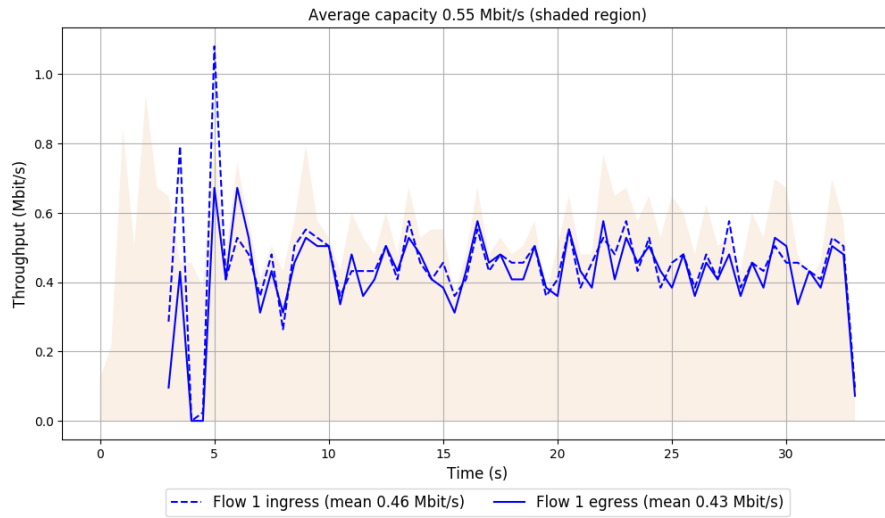
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 180.603 ms

Loss rate: 6.04%

### Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-05 18:26:36

End at: 2018-03-05 18:27:06

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.42 Mbit/s (77.0% utilization)

95th percentile per-packet one-way delay: 178.046 ms

Loss rate: 6.93%

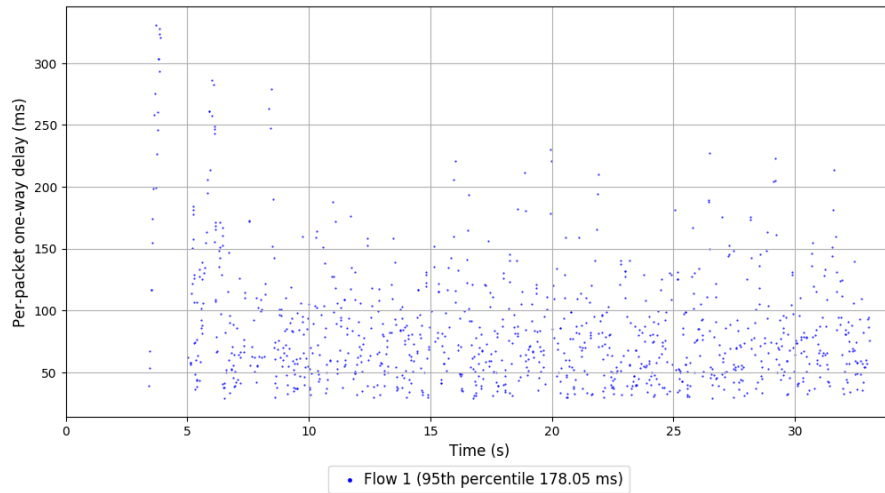
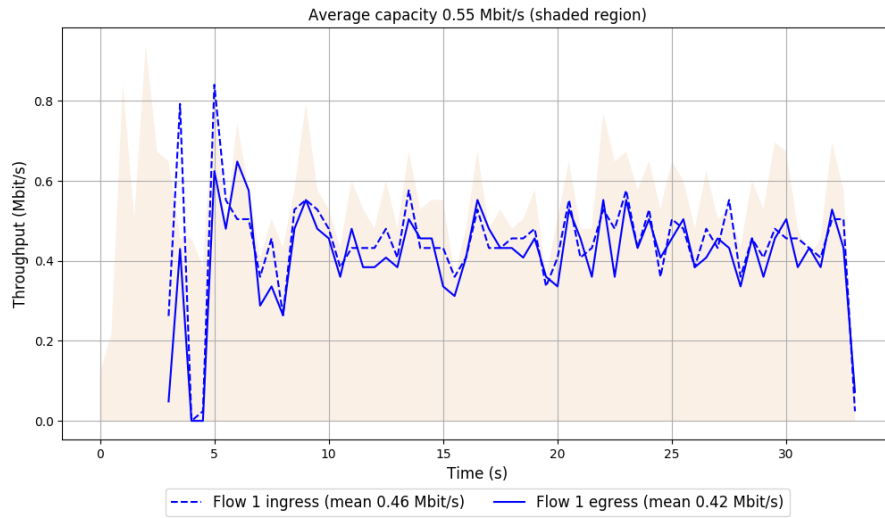
-- Flow 1:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 178.046 ms

Loss rate: 6.93%

### Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-05 18:36:48

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

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.32 Mbit/s (57.7% utilization)

95th percentile per-packet one-way delay: 243.086 ms

Loss rate: 8.08%

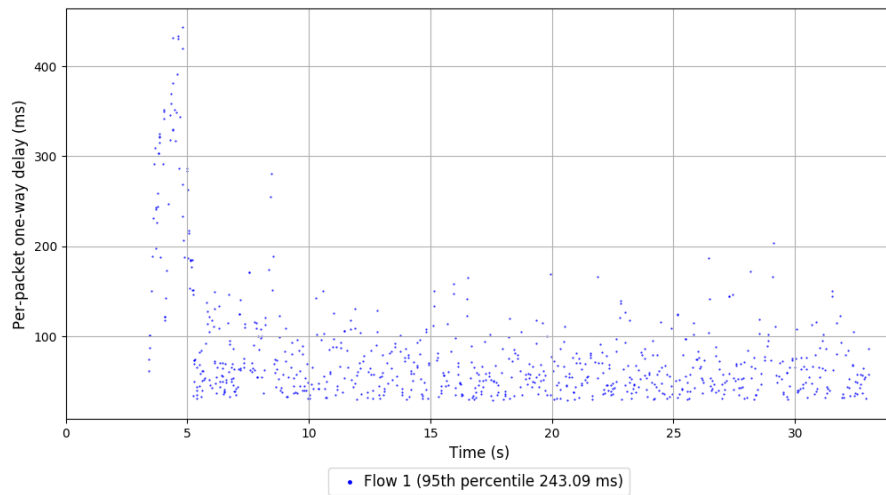
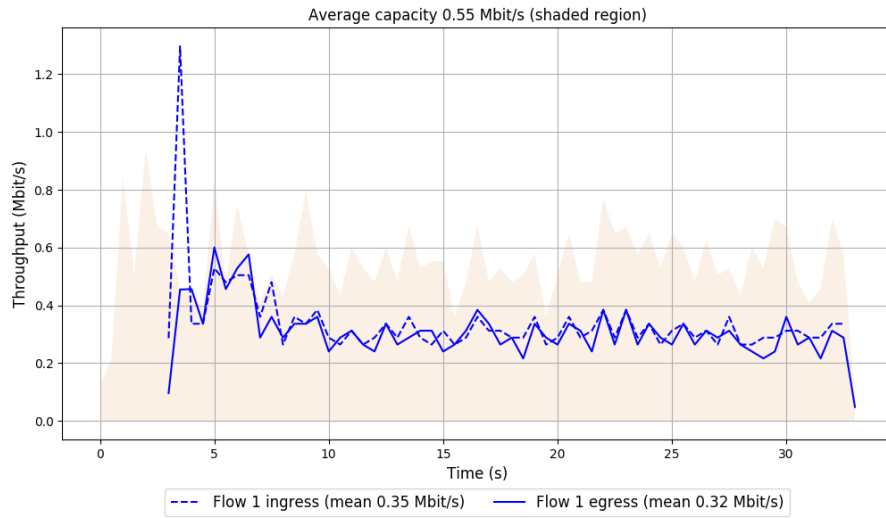
-- Flow 1:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 243.086 ms

Loss rate: 8.08%

## Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-05 18:47:02

End at: 2018-03-05 18:47:32

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.41 Mbit/s (74.2% utilization)

95th percentile per-packet one-way delay: 182.742 ms

Loss rate: 7.00%

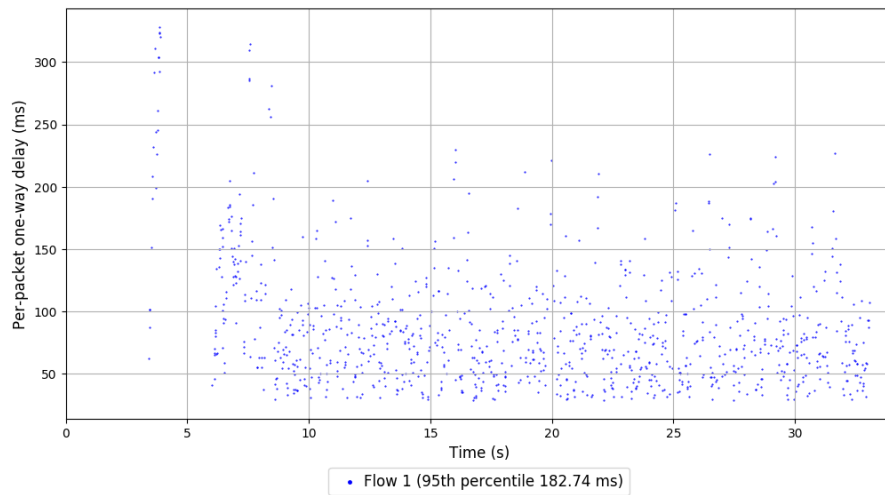
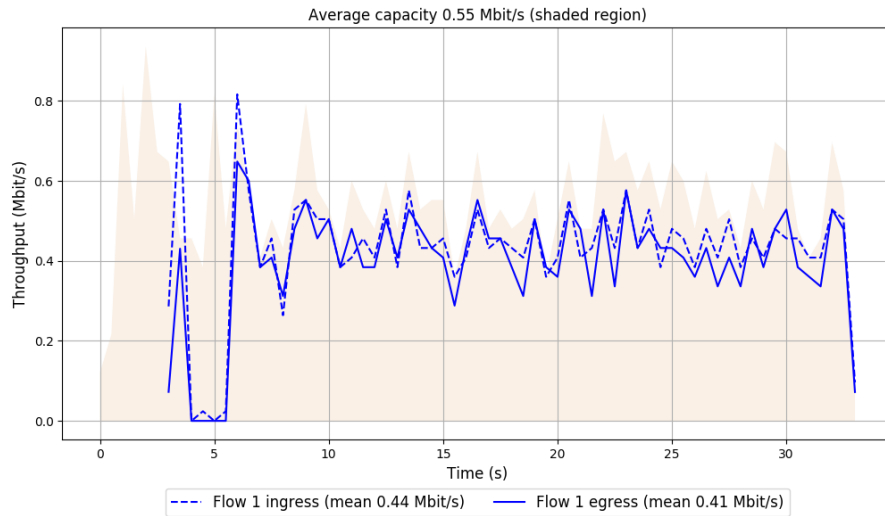
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 182.742 ms

Loss rate: 7.00%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-05 18:57:14

End at: 2018-03-05 18:57:44

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.42 Mbit/s (77.0% utilization)

95th percentile per-packet one-way delay: 178.253 ms

Loss rate: 6.84%

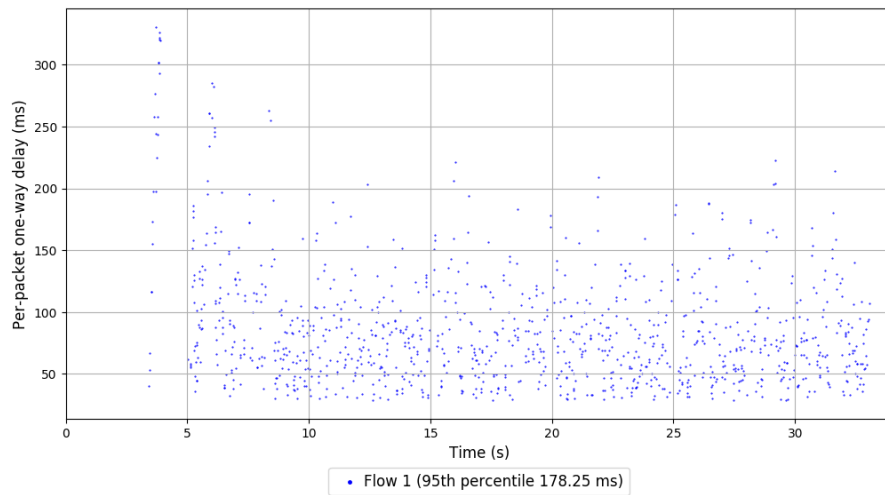
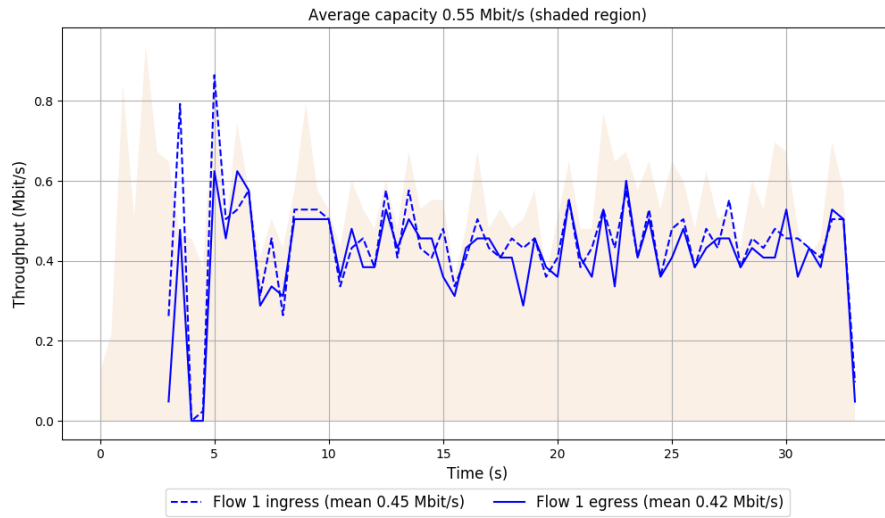
-- Flow 1:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 178.253 ms

Loss rate: 6.84%

# Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-05 19:07:25

End at: 2018-03-05 19:07:55

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.42 Mbit/s (76.5% utilization)

95th percentile per-packet one-way delay: 180.655 ms

Loss rate: 7.23%

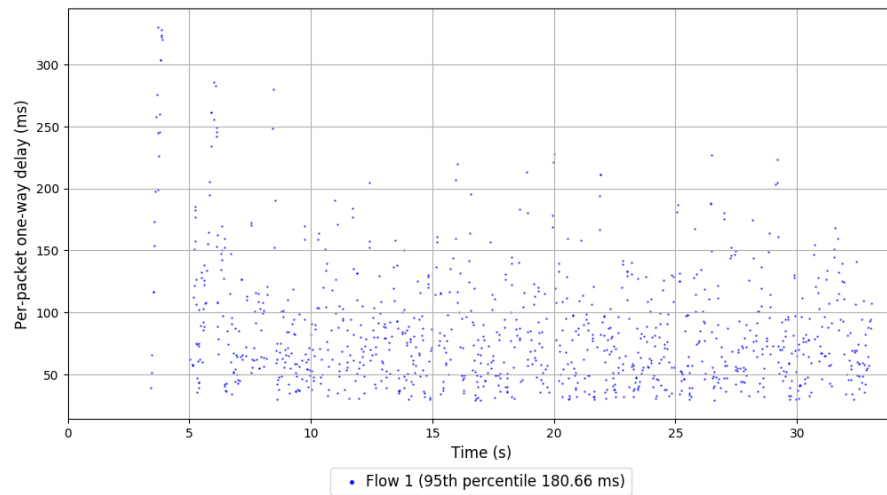
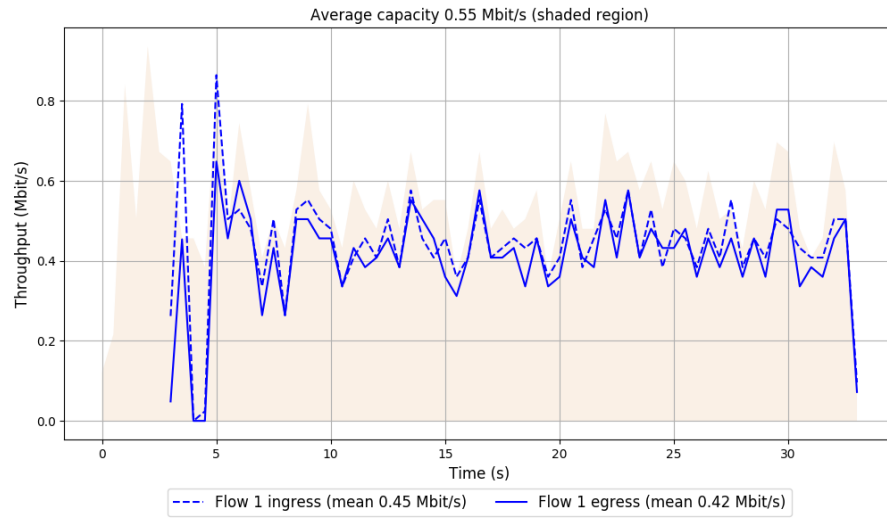
-- Flow 1:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 180.655 ms

Loss rate: 7.23%

### Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-05 19:17:36

End at: 2018-03-05 19:18:06

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.43 Mbit/s (77.5% utilization)

95th percentile per-packet one-way delay: 189.890 ms

Loss rate: 6.64%

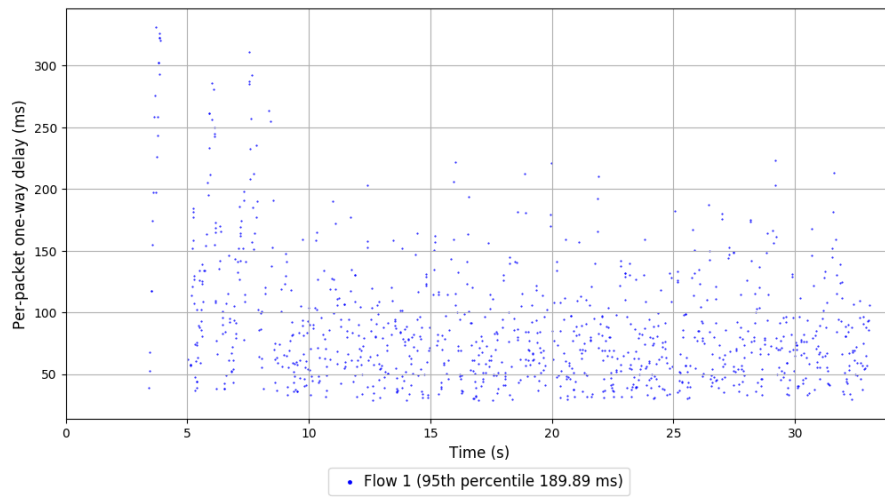
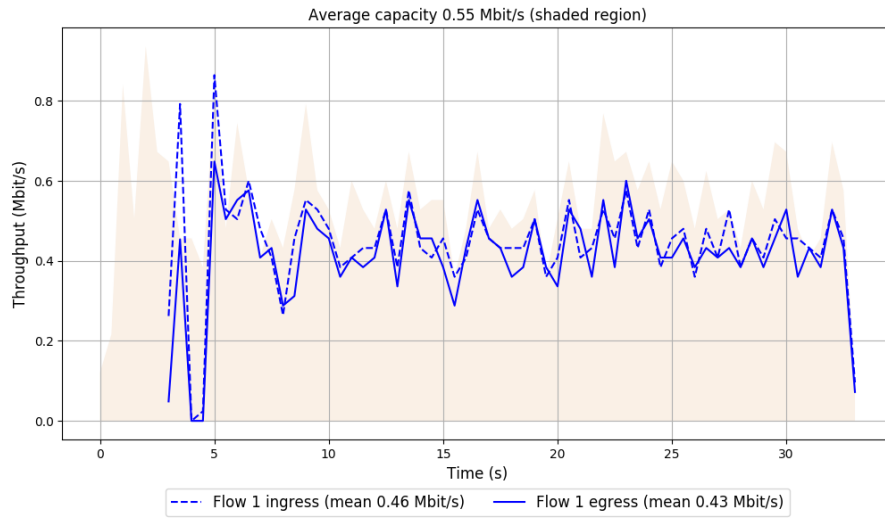
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 189.890 ms

Loss rate: 6.64%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-03-05 17:50:18

End at: 2018-03-05 17:50:48

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.3% utilization)

95th percentile per-packet one-way delay: 461.577 ms

Loss rate: 61.54%

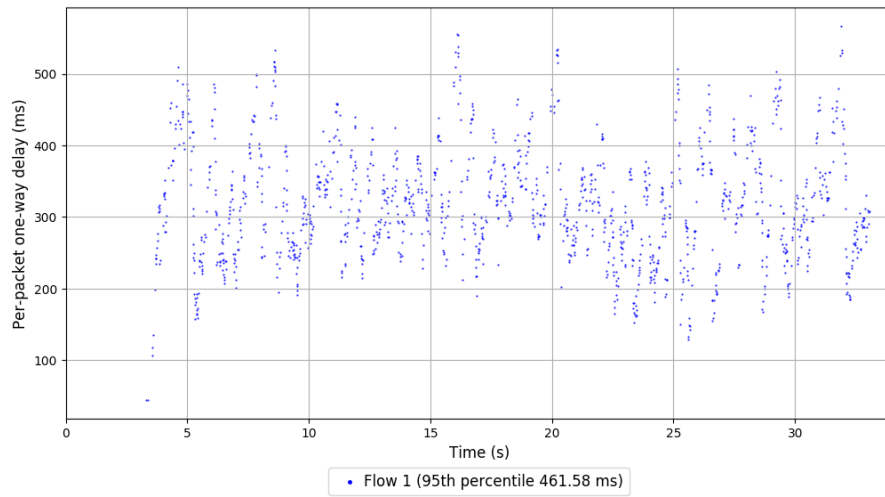
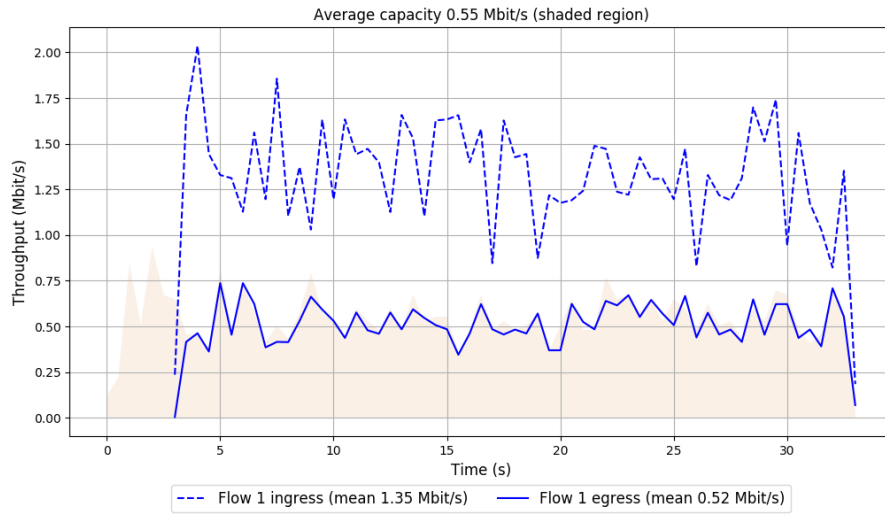
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 461.577 ms

Loss rate: 61.54%

# Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-05 18:00:32

End at: 2018-03-05 18:01:02

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.0% utilization)

95th percentile per-packet one-way delay: 460.441 ms

Loss rate: 61.36%

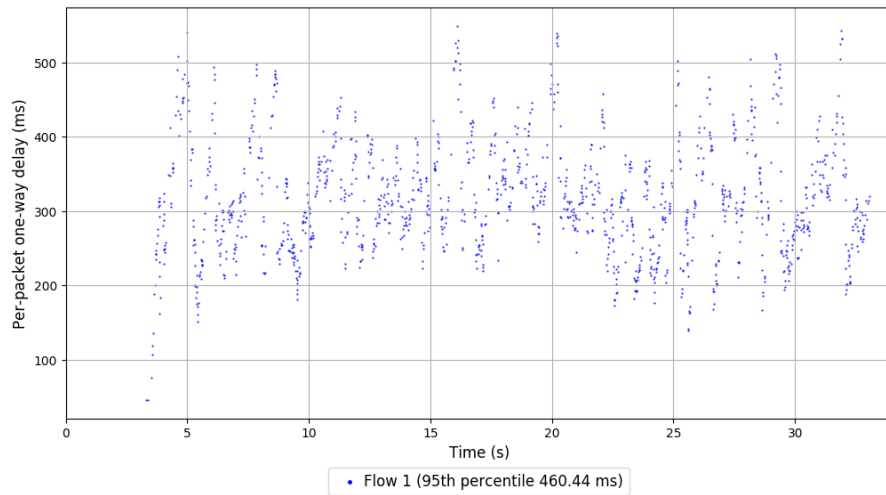
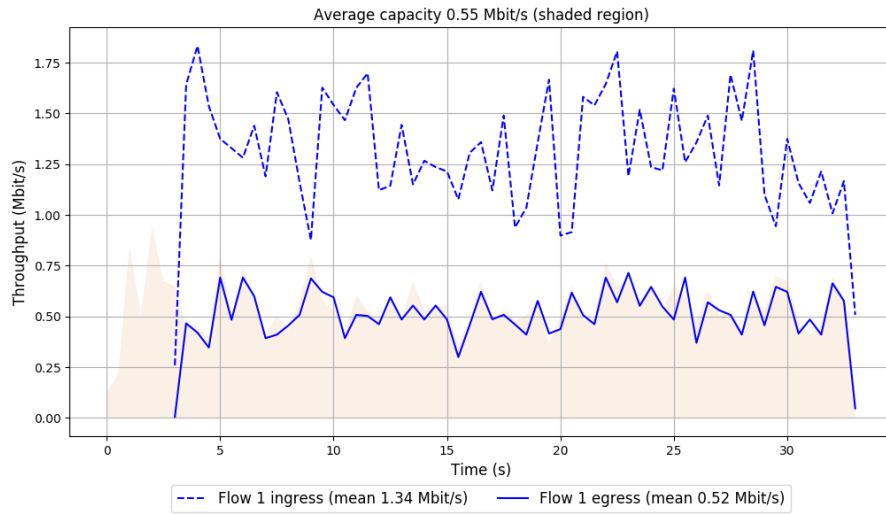
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 460.441 ms

Loss rate: 61.36%

## Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-05 18:10:45

End at: 2018-03-05 18:11:15

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.2% utilization)

95th percentile per-packet one-way delay: 464.610 ms

Loss rate: 60.65%

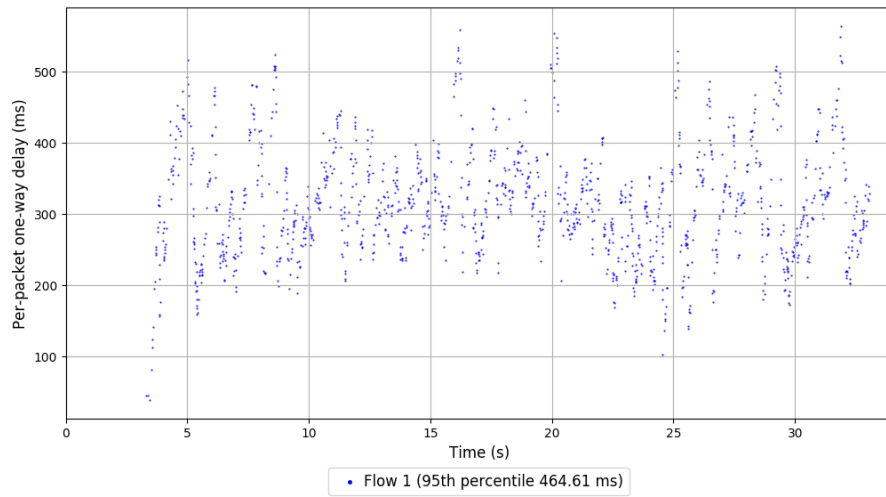
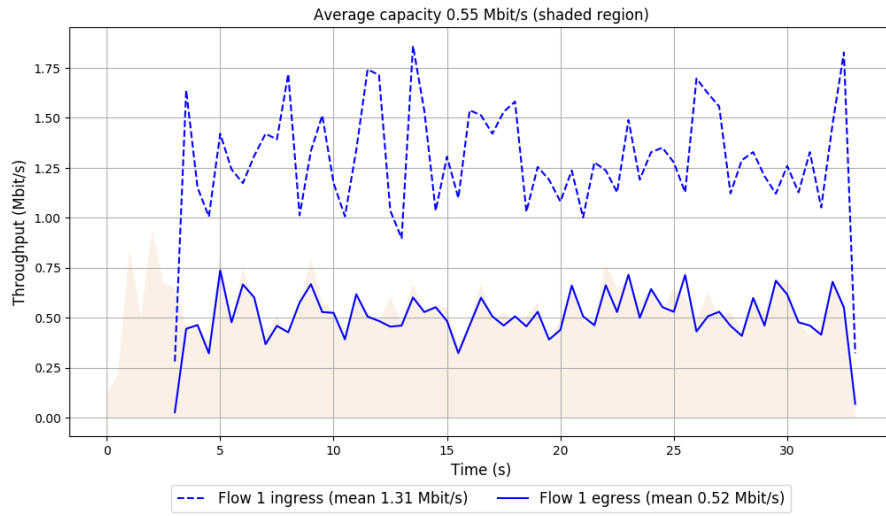
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 464.610 ms

Loss rate: 60.65%

### Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-05 18:20:56

End at: 2018-03-05 18:21:26

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.4% utilization)

95th percentile per-packet one-way delay: 453.426 ms

Loss rate: 61.24%

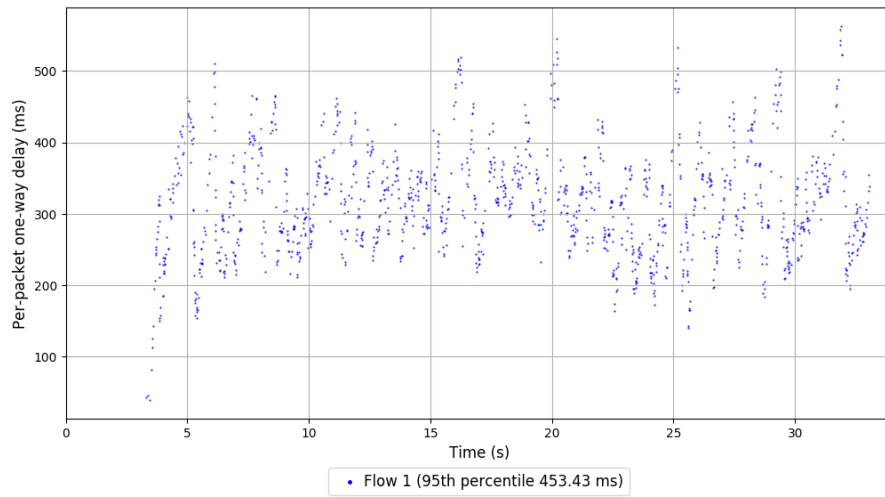
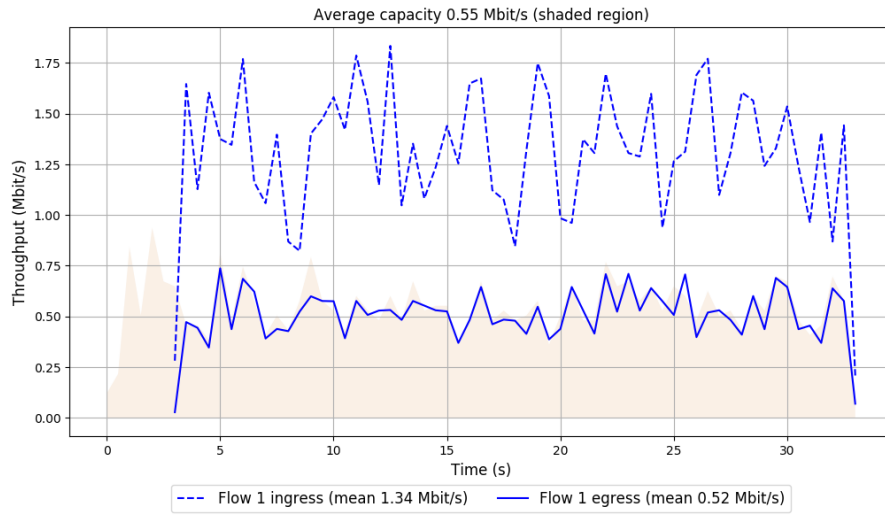
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 453.426 ms

Loss rate: 61.24%

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



Run 5: Statistics of Vivace-latency

Start at: 2018-03-05 18:31:07

End at: 2018-03-05 18:31:37

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.4% utilization)

95th percentile per-packet one-way delay: 458.945 ms

Loss rate: 61.84%

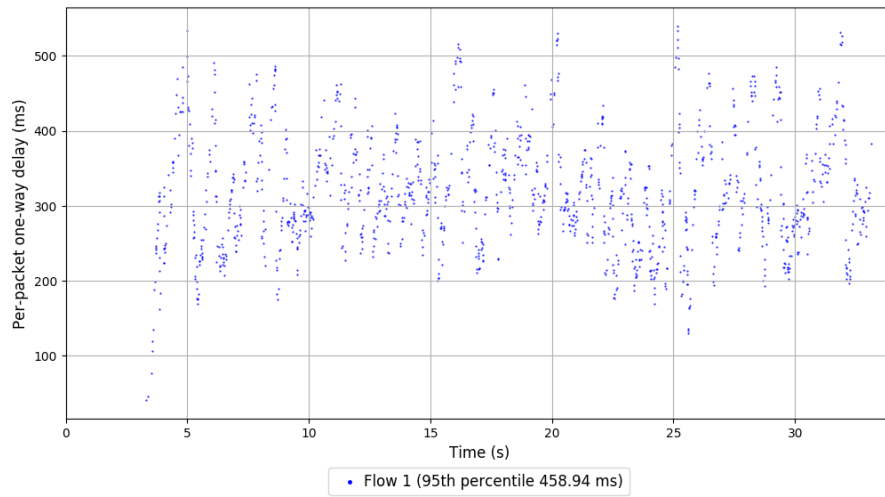
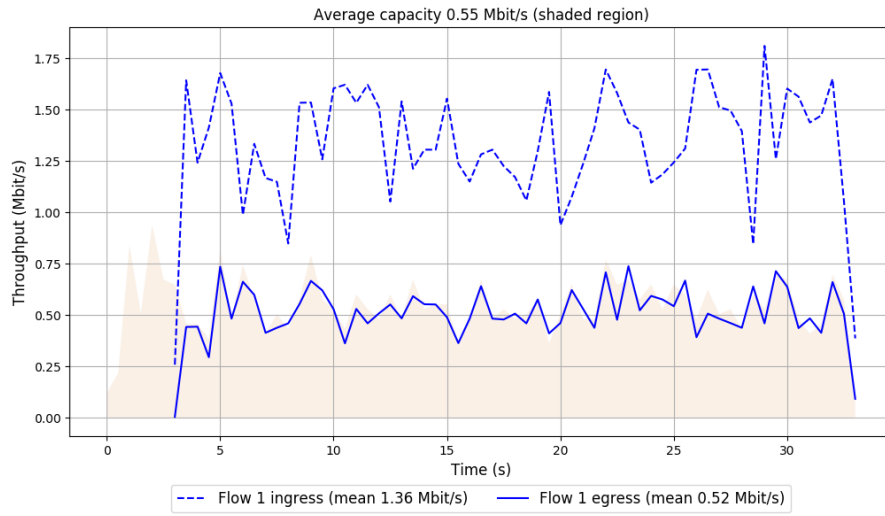
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 458.945 ms

Loss rate: 61.84%

### Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-05 18:41:20

End at: 2018-03-05 18:41:50

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.2% utilization)

95th percentile per-packet one-way delay: 459.942 ms

Loss rate: 61.45%

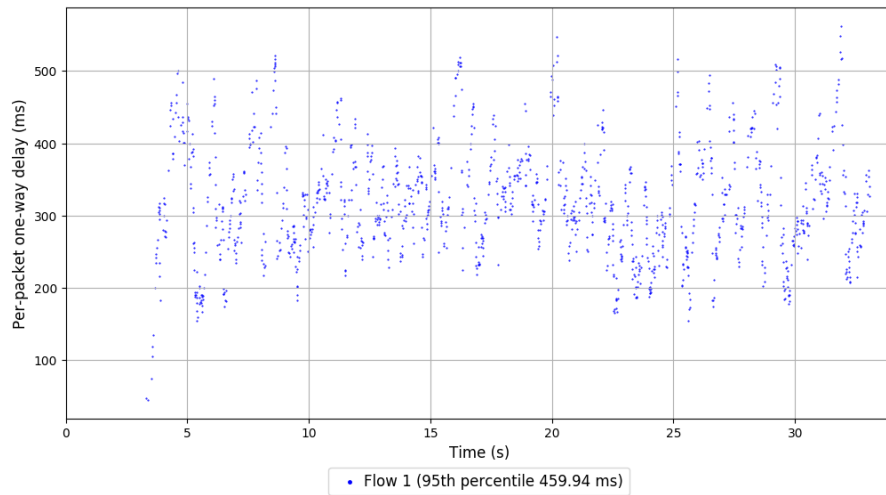
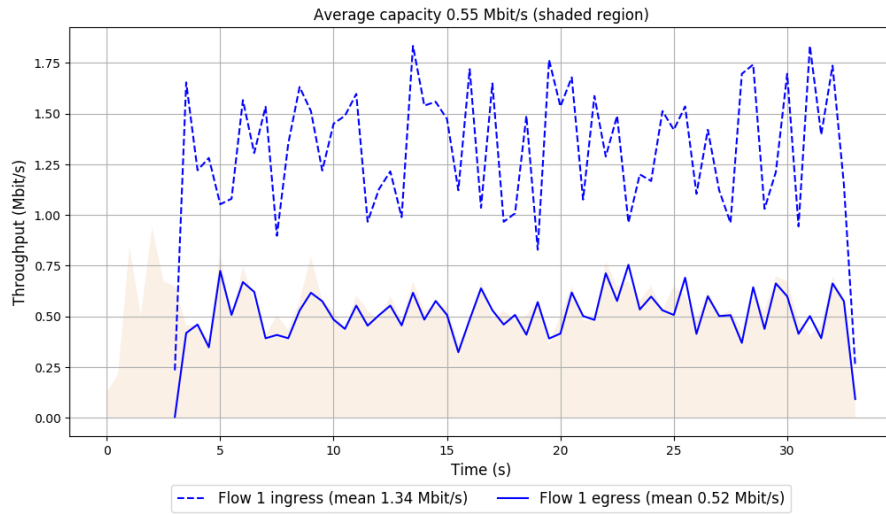
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 459.942 ms

Loss rate: 61.45%

## Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-05 18:51:33

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

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.0% utilization)

95th percentile per-packet one-way delay: 460.336 ms

Loss rate: 61.24%

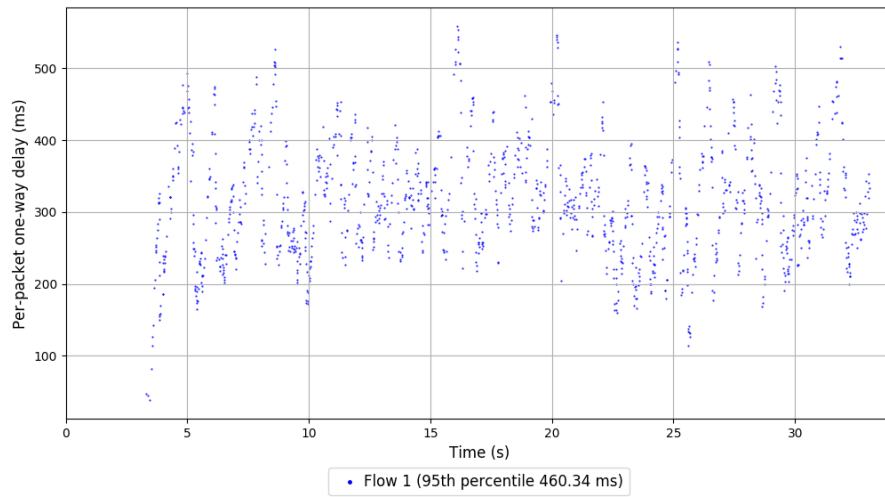
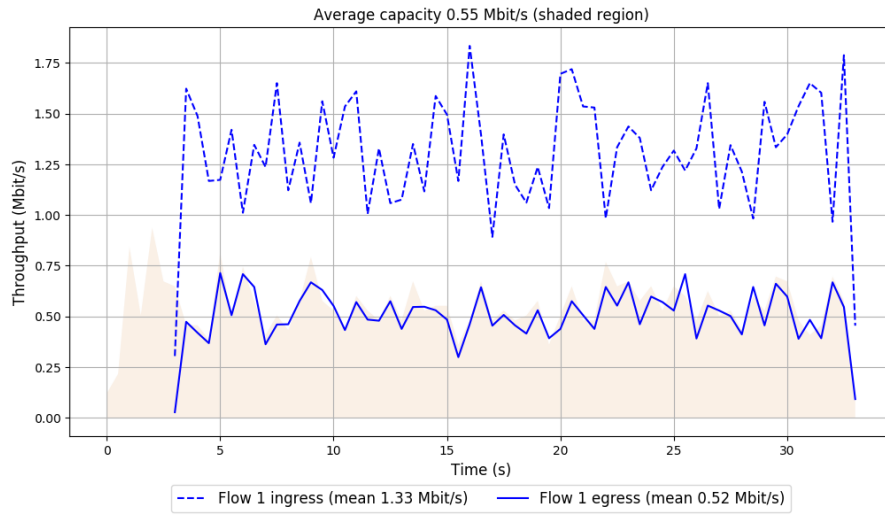
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 460.336 ms

Loss rate: 61.24%

### Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-05 19:01:44

End at: 2018-03-05 19:02:14

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.5% utilization)

95th percentile per-packet one-way delay: 466.598 ms

Loss rate: 61.36%

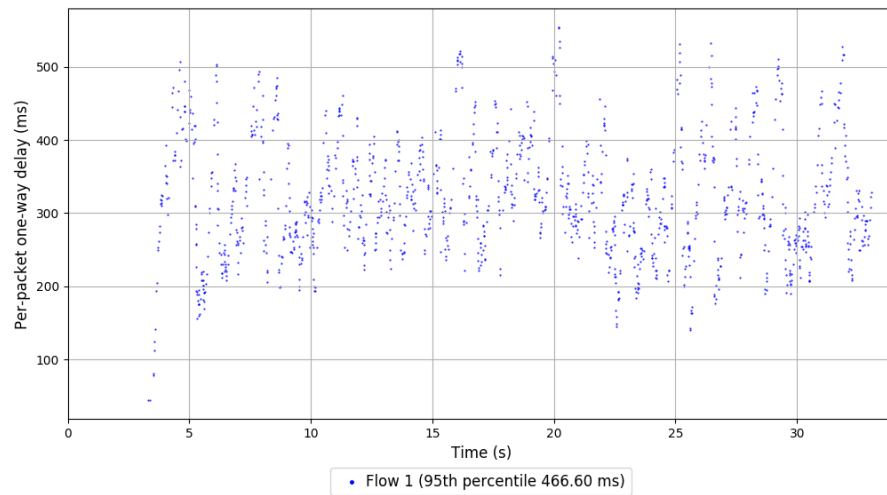
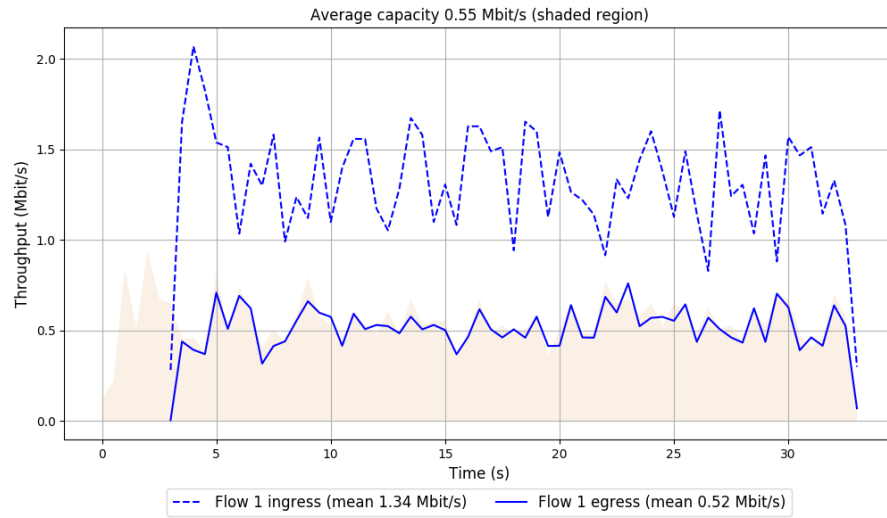
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 466.598 ms

Loss rate: 61.36%

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



Run 9: Statistics of Vivace-latency

Start at: 2018-03-05 19:11:56

End at: 2018-03-05 19:12:26

# Below is generated by plot.py at 2018-03-05 19:26:50

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.6% utilization)

95th percentile per-packet one-way delay: 461.375 ms

Loss rate: 60.99%

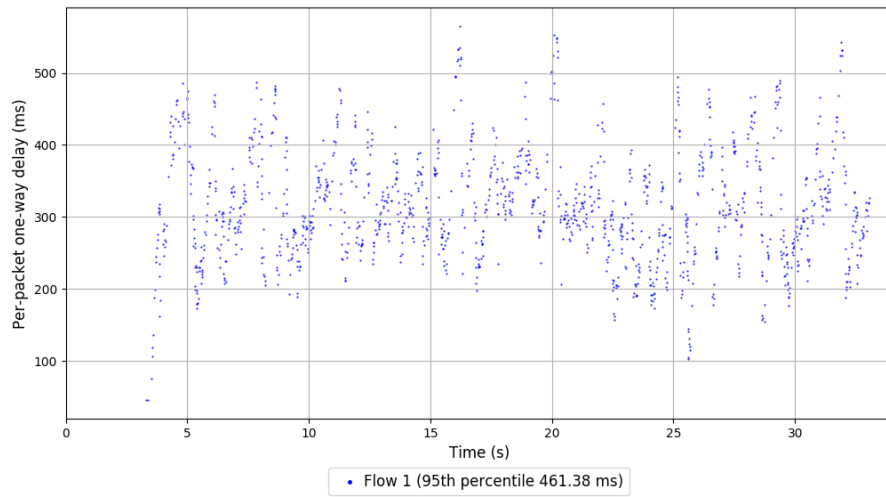
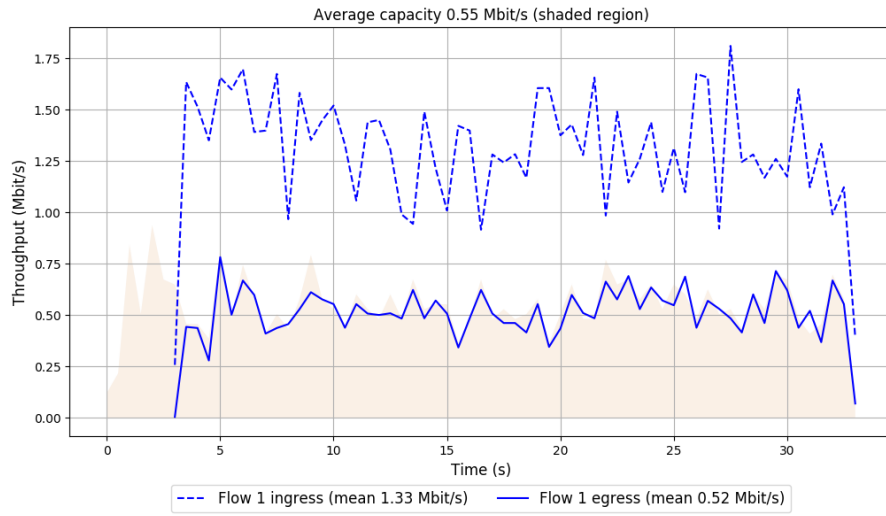
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 461.375 ms

Loss rate: 60.99%

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



Run 10: Statistics of Vivace-latency

Start at: 2018-03-05 19:22:08

End at: 2018-03-05 19:22:38

# Below is generated by plot.py at 2018-03-05 19:26:51

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.0% utilization)

95th percentile per-packet one-way delay: 462.716 ms

Loss rate: 60.88%

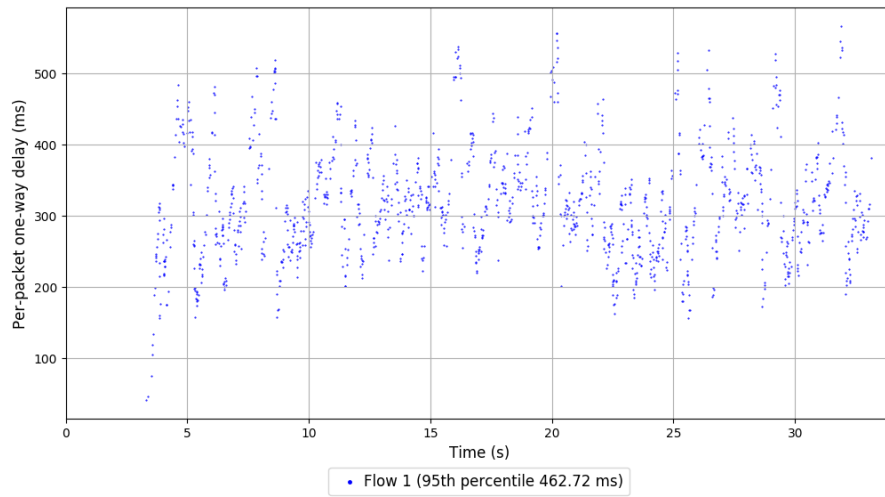
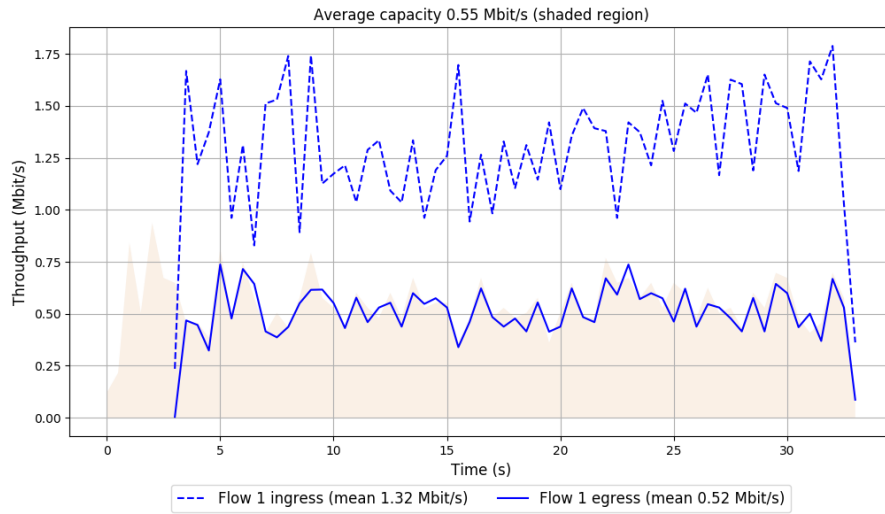
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 462.716 ms

Loss rate: 60.88%

Run 10: Report of Vivace-latency — Data Link



Run 1: Statistics of Vivace-loss

Start at: 2018-03-05 17:47:29

End at: 2018-03-05 17:47:59

# Below is generated by plot.py at 2018-03-05 19:26:51

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.1% utilization)

95th percentile per-packet one-way delay: 450.999 ms

Loss rate: 60.58%

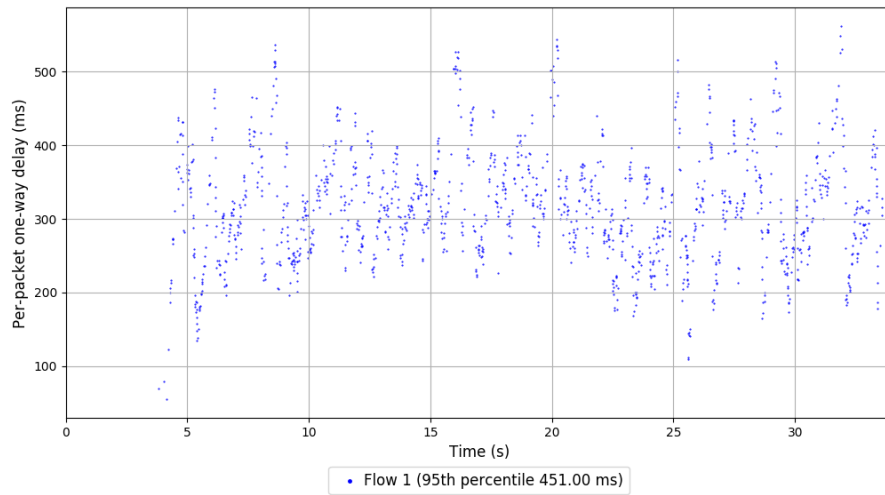
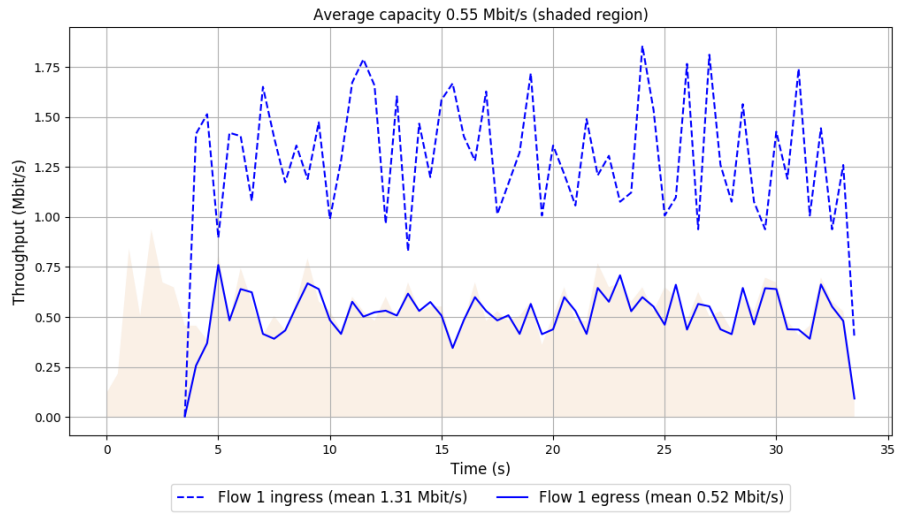
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 450.999 ms

Loss rate: 60.58%

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-03-05 17:57:42

End at: 2018-03-05 17:58:12

# Below is generated by plot.py at 2018-03-05 19:26:52

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.7% utilization)

95th percentile per-packet one-way delay: 457.637 ms

Loss rate: 60.93%

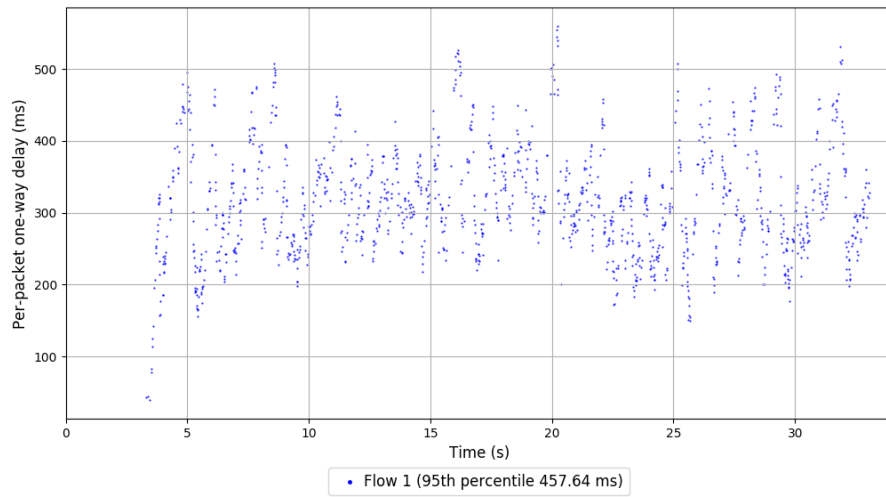
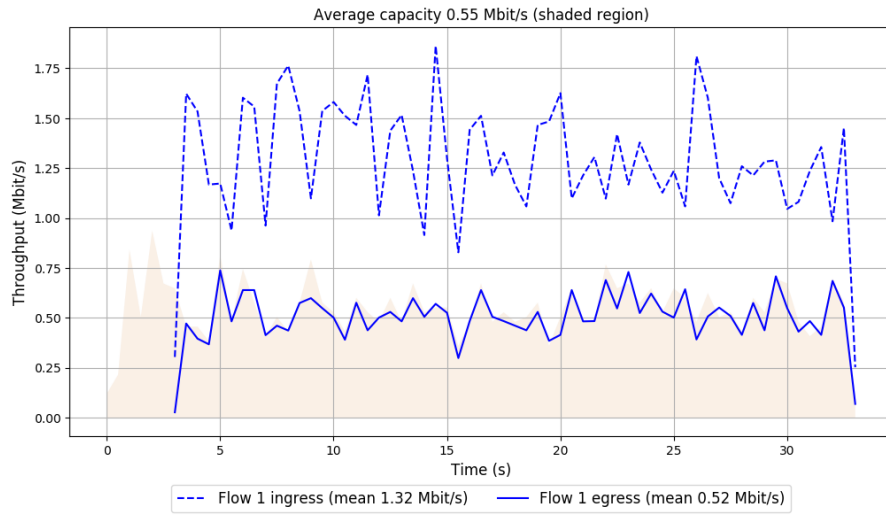
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 457.637 ms

Loss rate: 60.93%

## Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-05 18:07:55

End at: 2018-03-05 18:08:25

# Below is generated by plot.py at 2018-03-05 19:26:54

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.9% utilization)

95th percentile per-packet one-way delay: 459.660 ms

Loss rate: 61.60%

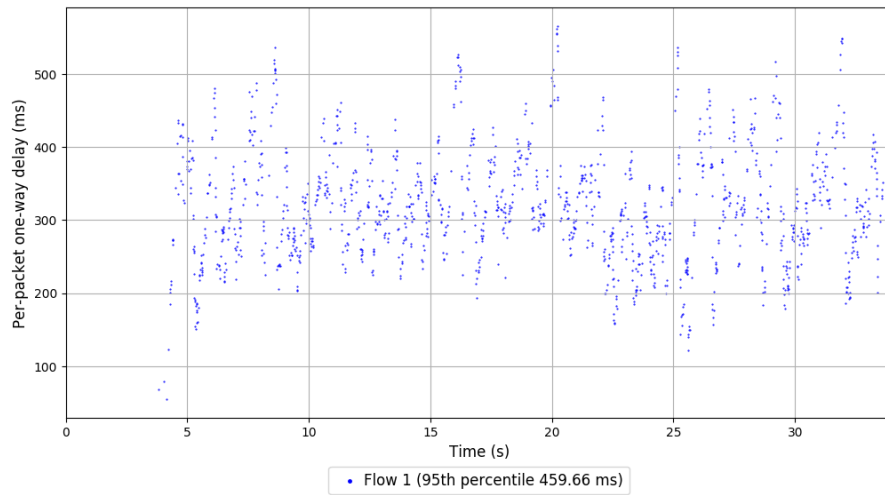
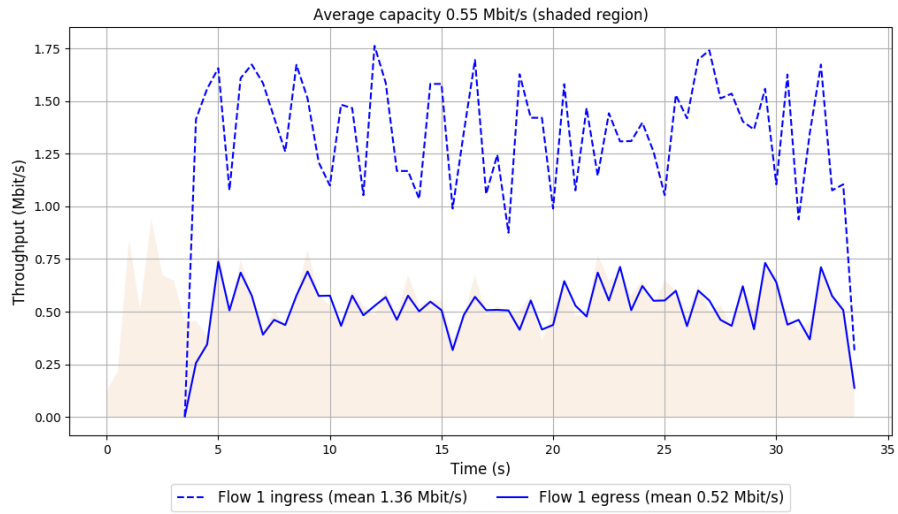
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 459.660 ms

Loss rate: 61.60%

### Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

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

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

# Below is generated by plot.py at 2018-03-05 19:26:56

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.6% utilization)

95th percentile per-packet one-way delay: 461.819 ms

Loss rate: 60.61%

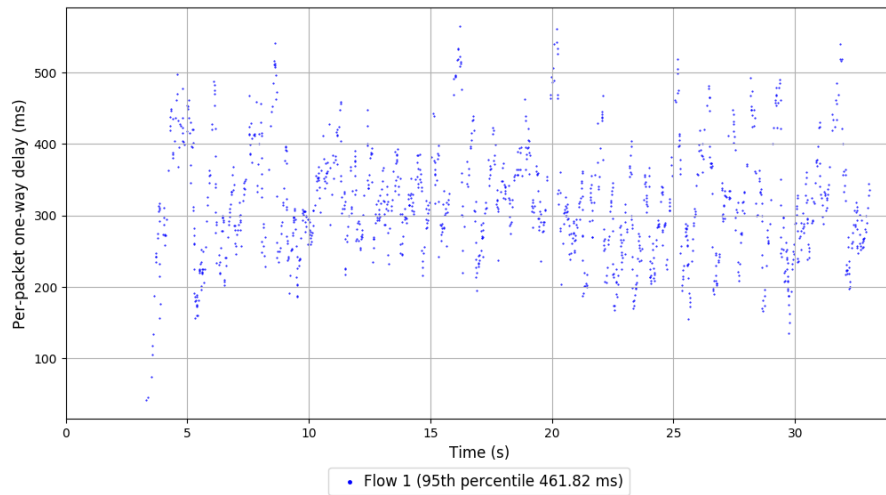
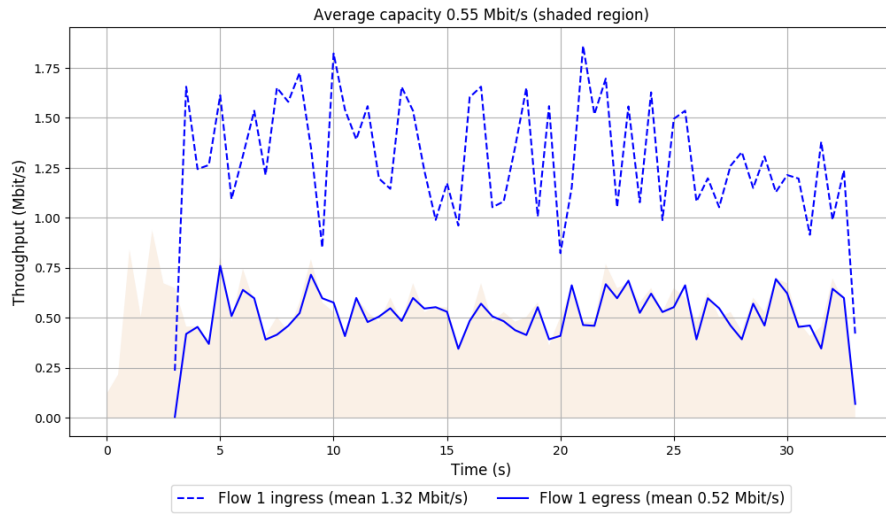
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 461.819 ms

Loss rate: 60.61%

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



Run 5: Statistics of Vivace-loss

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

End at: 2018-03-05 18:28:48

# Below is generated by plot.py at 2018-03-05 19:26:57

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.6% utilization)

95th percentile per-packet one-way delay: 467.001 ms

Loss rate: 61.92%

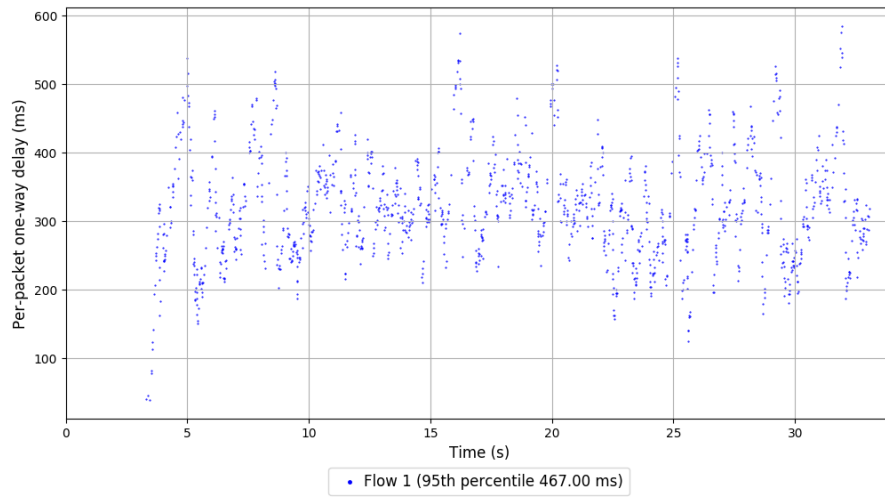
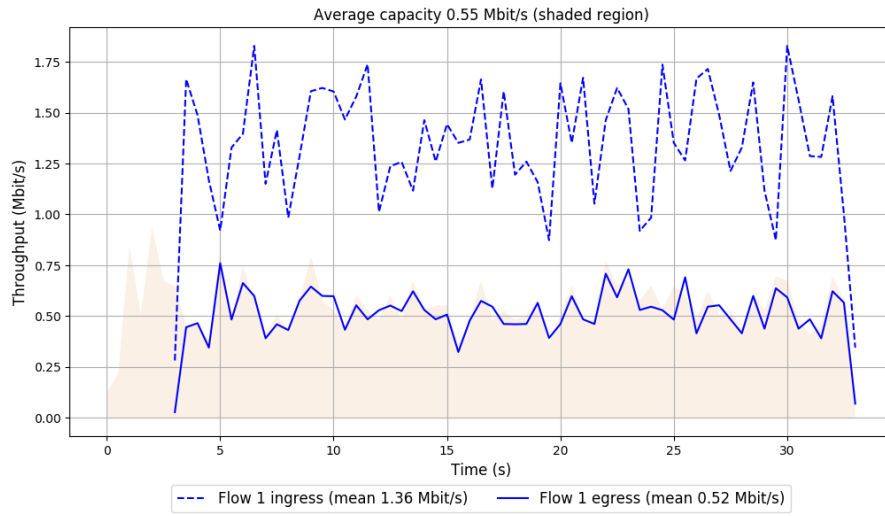
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 467.001 ms

Loss rate: 61.92%

### Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-05 18:38:31

End at: 2018-03-05 18:39:01

# Below is generated by plot.py at 2018-03-05 19:26:58

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.53 Mbit/s (95.5% utilization)

95th percentile per-packet one-way delay: 453.670 ms

Loss rate: 60.08%

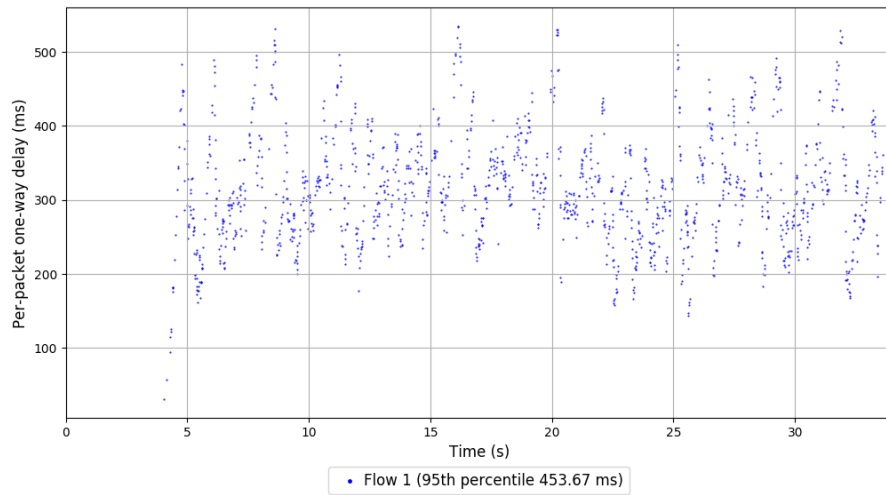
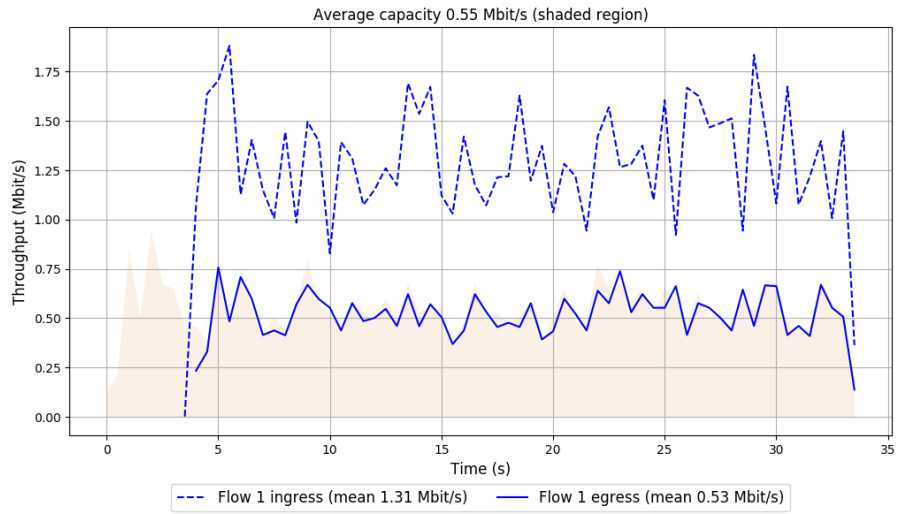
-- Flow 1:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 453.670 ms

Loss rate: 60.08%

### Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-05 18:48:44

End at: 2018-03-05 18:49:14

# Below is generated by plot.py at 2018-03-05 19:26:58

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (93.7% utilization)

95th percentile per-packet one-way delay: 461.609 ms

Loss rate: 62.78%

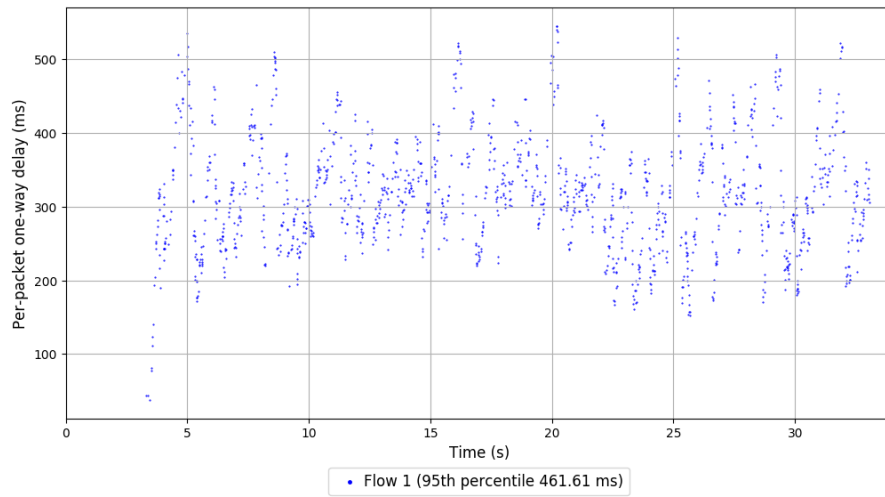
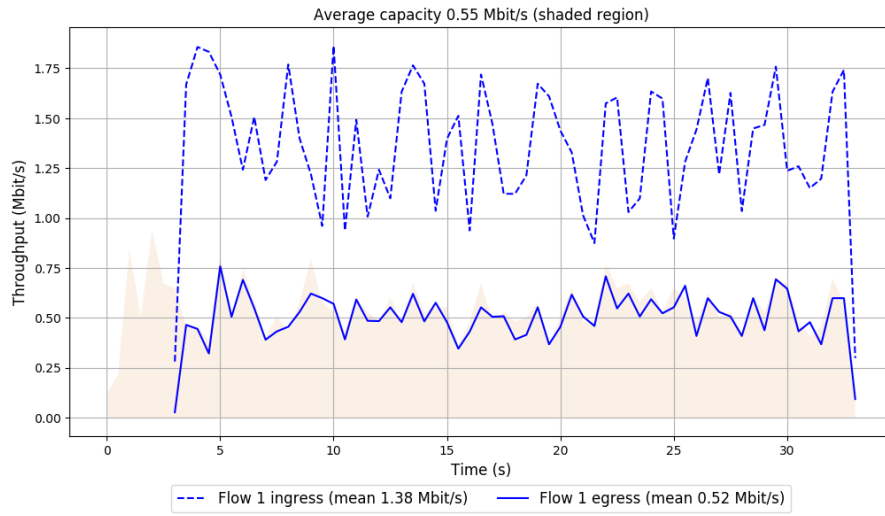
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 461.609 ms

Loss rate: 62.78%

### Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-05 18:58:55

End at: 2018-03-05 18:59:25

# Below is generated by plot.py at 2018-03-05 19:26:58

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.1% utilization)

95th percentile per-packet one-way delay: 459.133 ms

Loss rate: 62.22%

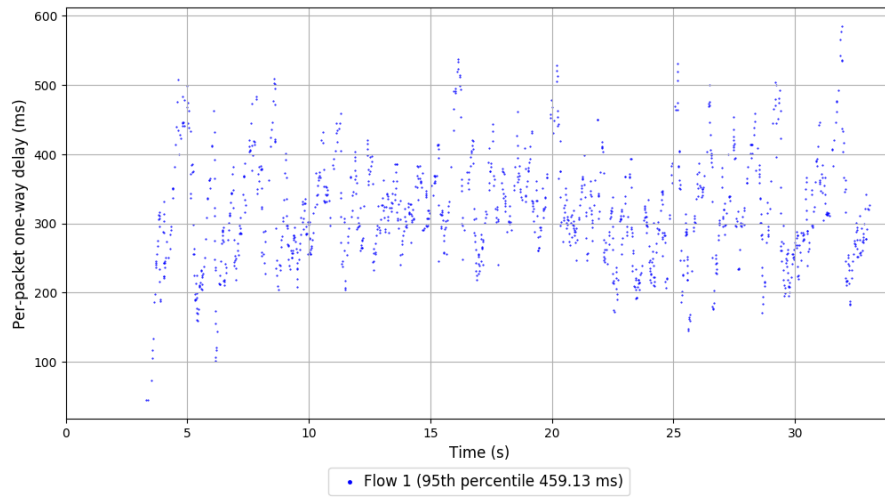
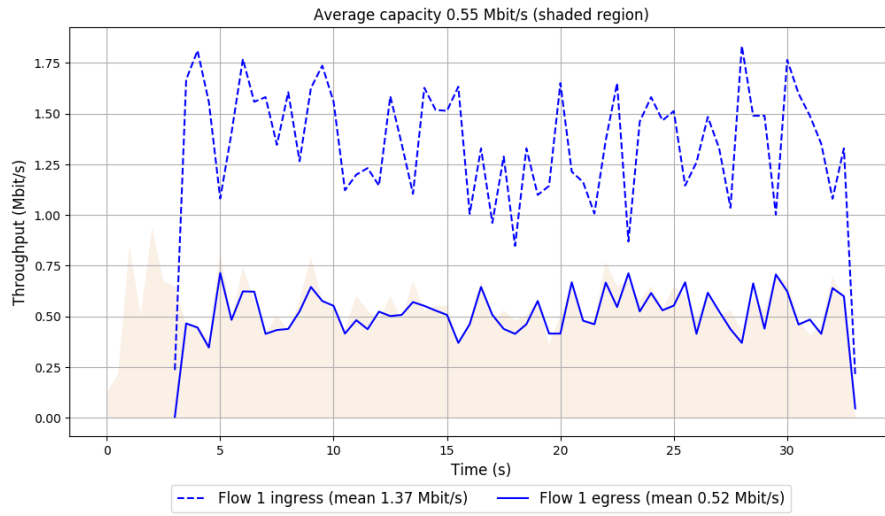
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 459.133 ms

Loss rate: 62.22%

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



Run 9: Statistics of Vivace-loss

Start at: 2018-03-05 19:09:07

End at: 2018-03-05 19:09:37

# Below is generated by plot.py at 2018-03-05 19:26:59

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (95.0% utilization)

95th percentile per-packet one-way delay: 463.983 ms

Loss rate: 62.78%

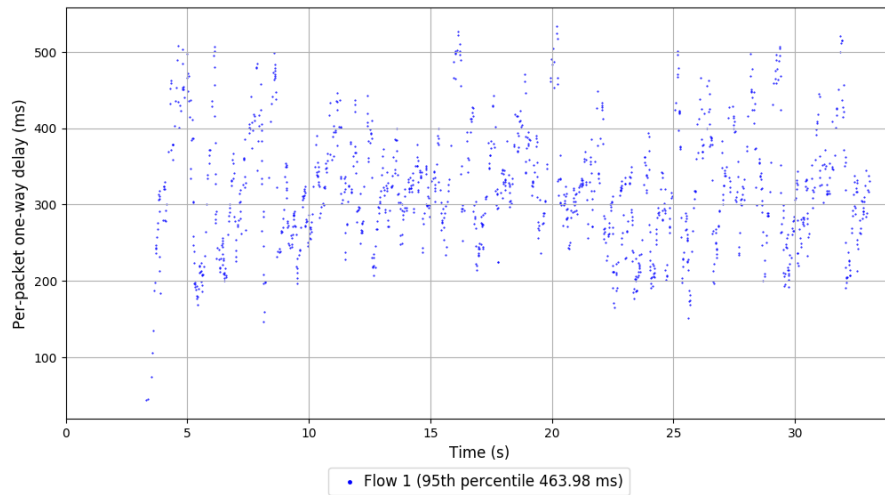
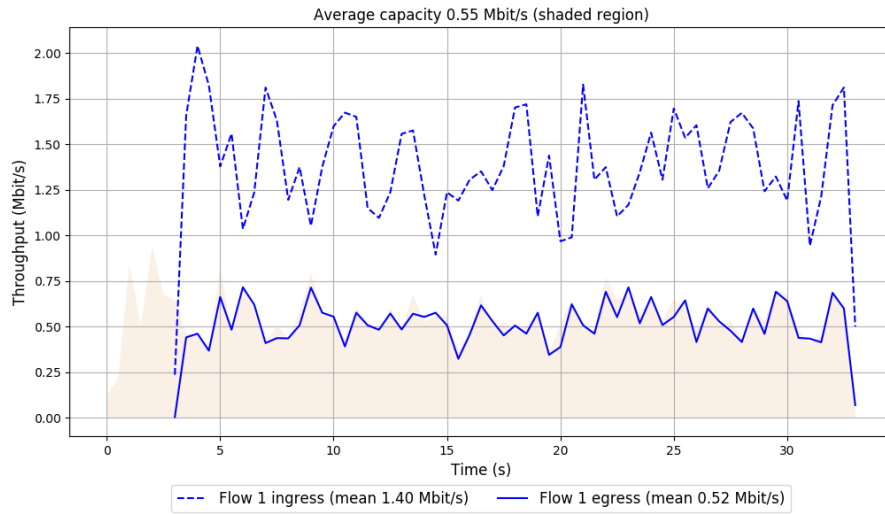
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 463.983 ms

Loss rate: 62.78%

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



Run 10: Statistics of Vivace-loss

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

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

# Below is generated by plot.py at 2018-03-05 19:27:00

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.7% utilization)

95th percentile per-packet one-way delay: 463.752 ms

Loss rate: 61.69%

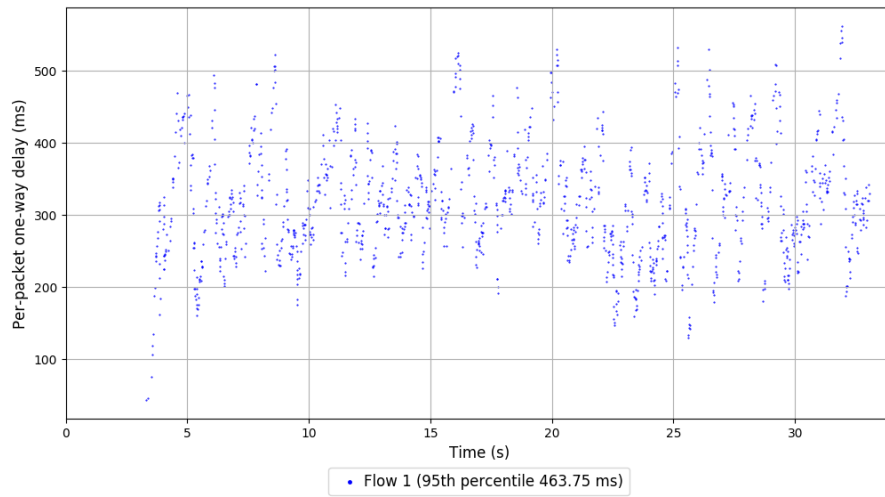
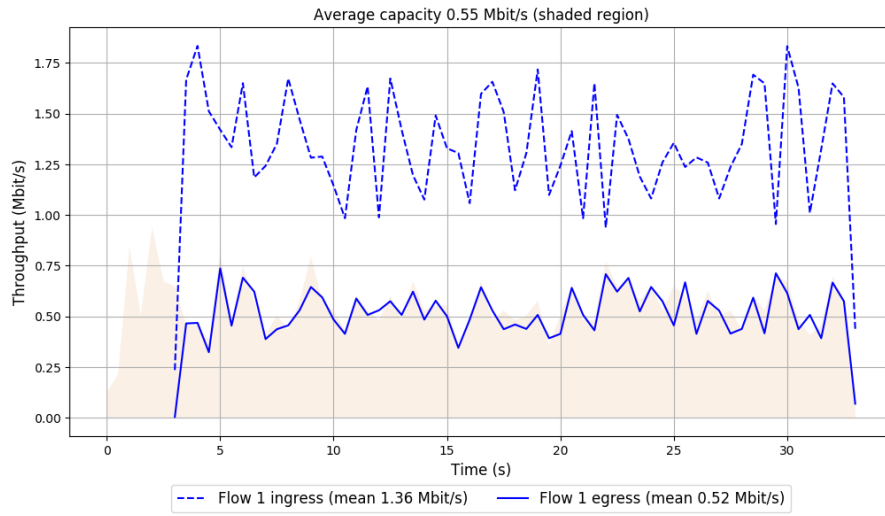
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 463.752 ms

Loss rate: 61.69%

Run 10: Report of Vivace-loss — Data Link



Run 1: Statistics of Vivace-LTE

Start at: 2018-03-05 17:46:20

End at: 2018-03-05 17:46:50

# Below is generated by plot.py at 2018-03-05 19:27:01

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.4% utilization)

95th percentile per-packet one-way delay: 466.443 ms

Loss rate: 61.08%

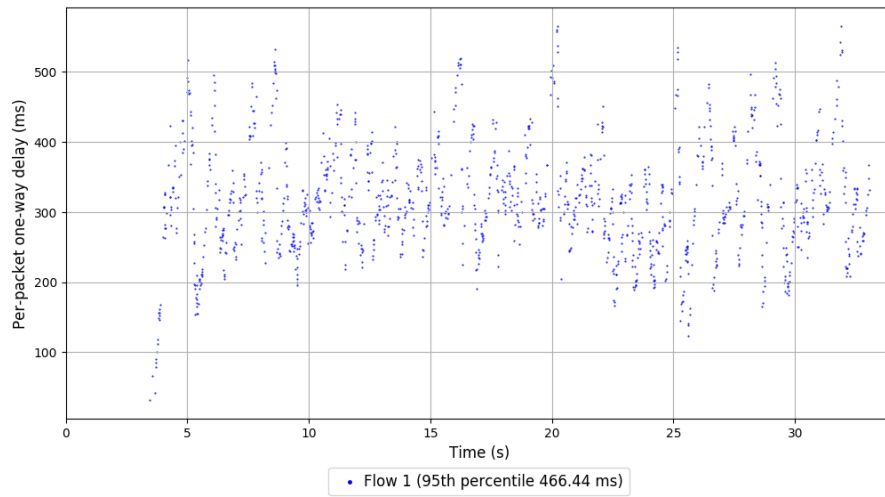
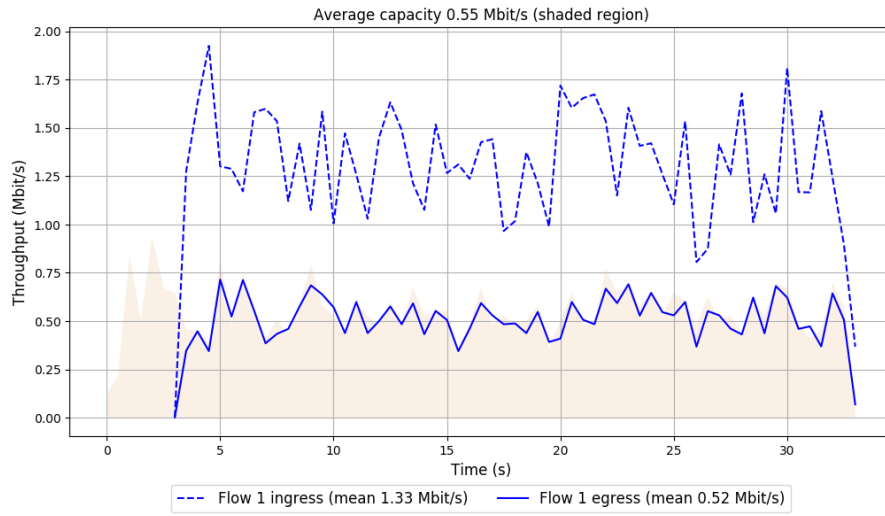
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 466.443 ms

Loss rate: 61.08%

# Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-05 17:56:34

End at: 2018-03-05 17:57:04

# Below is generated by plot.py at 2018-03-05 19:27:04

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.7% utilization)

95th percentile per-packet one-way delay: 463.581 ms

Loss rate: 61.70%

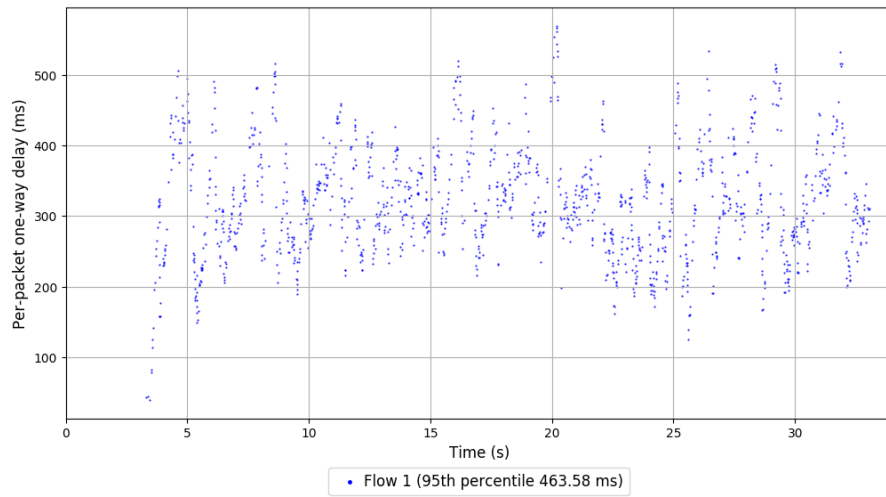
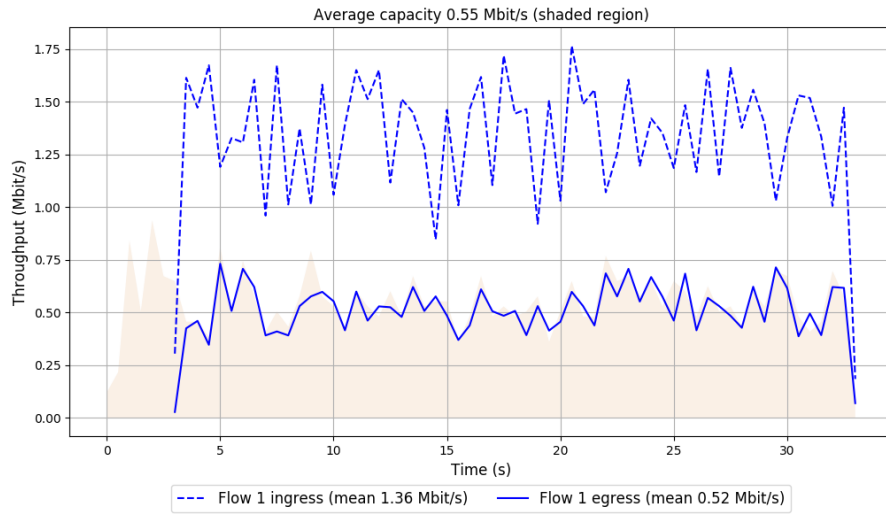
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 463.581 ms

Loss rate: 61.70%

## Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-05 18:06:47

End at: 2018-03-05 18:07:17

# Below is generated by plot.py at 2018-03-05 19:27:04

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.3% utilization)

95th percentile per-packet one-way delay: 460.584 ms

Loss rate: 61.07%

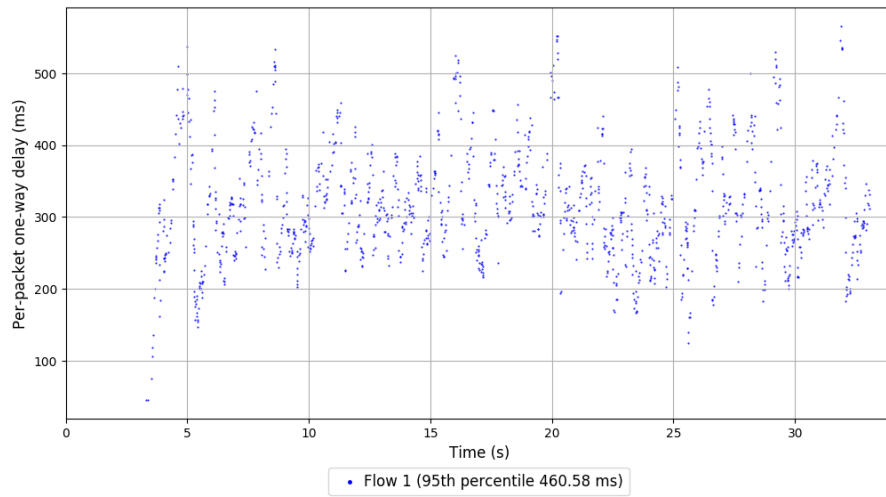
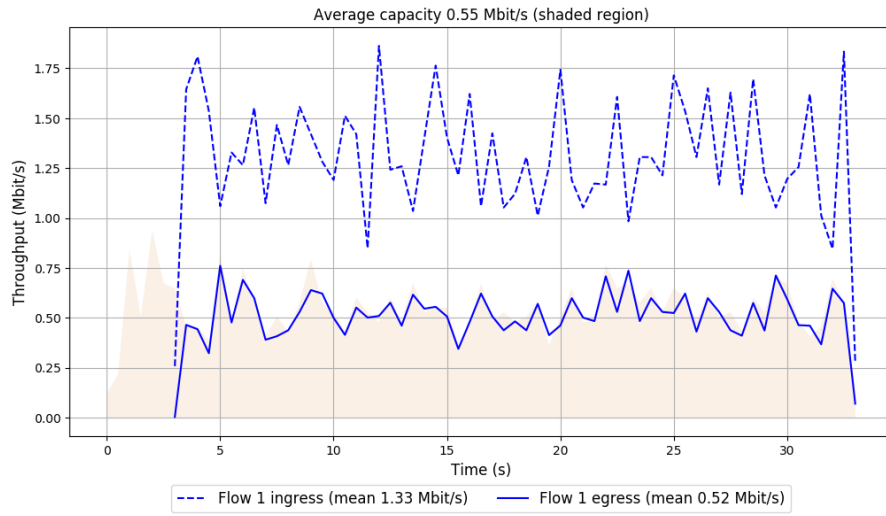
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 460.584 ms

Loss rate: 61.07%

### Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-05 18:16:59

End at: 2018-03-05 18:17:29

# Below is generated by plot.py at 2018-03-05 19:27:06

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.9% utilization)

95th percentile per-packet one-way delay: 464.723 ms

Loss rate: 62.18%

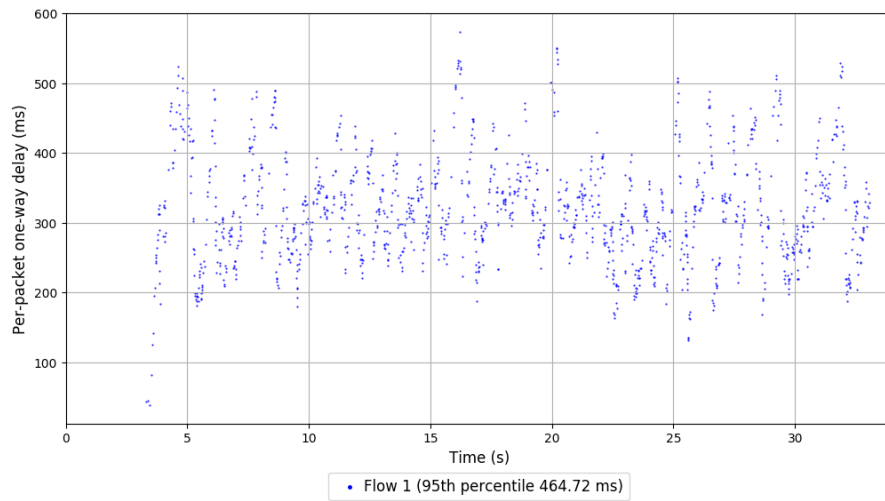
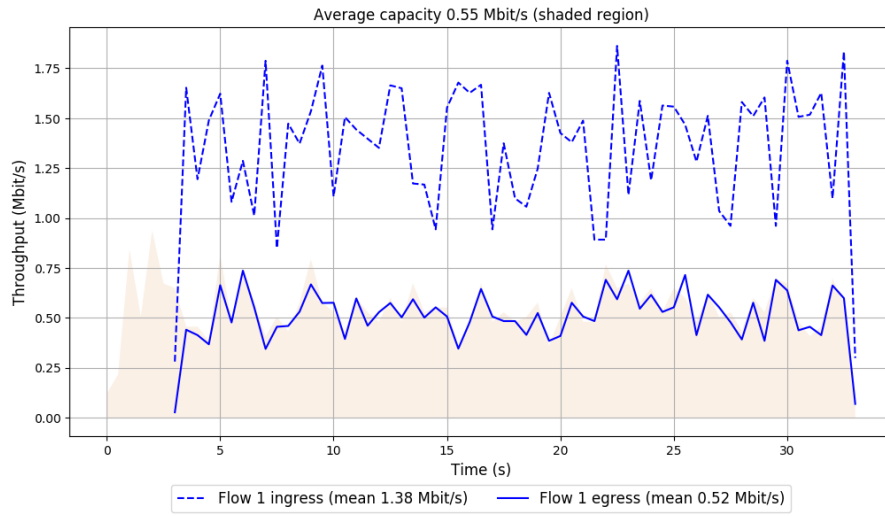
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 464.723 ms

Loss rate: 62.18%

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



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-05 18:27:10

End at: 2018-03-05 18:27:40

# Below is generated by plot.py at 2018-03-05 19:27:06

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.5% utilization)

95th percentile per-packet one-way delay: 447.382 ms

Loss rate: 59.93%

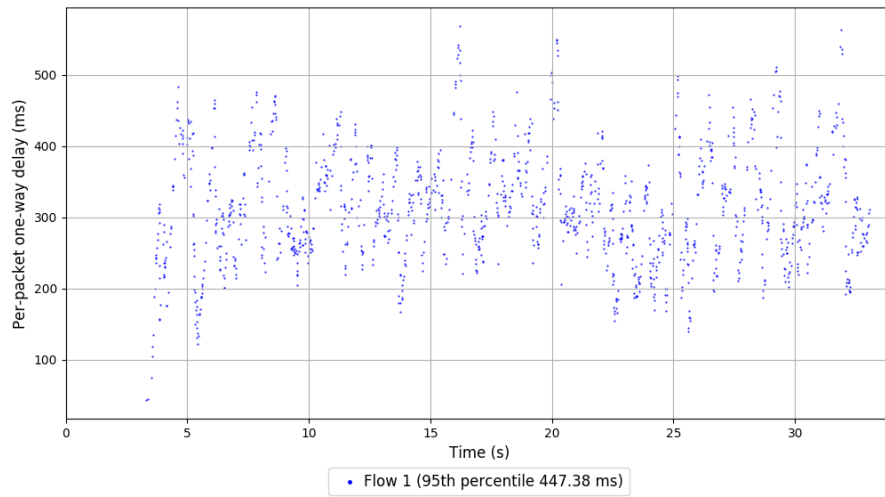
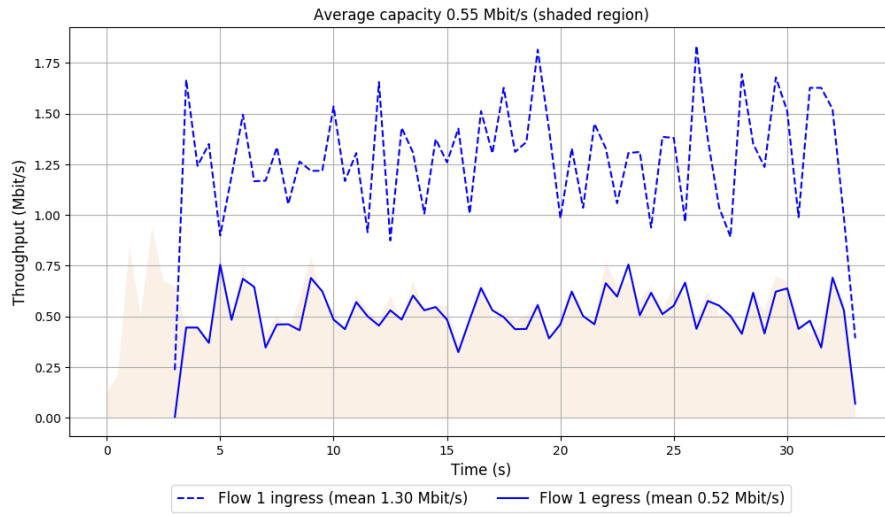
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 447.382 ms

Loss rate: 59.93%

### Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-05 18:37:22

End at: 2018-03-05 18:37:52

# Below is generated by plot.py at 2018-03-05 19:27:06

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (95.1% utilization)

95th percentile per-packet one-way delay: 454.452 ms

Loss rate: 61.94%

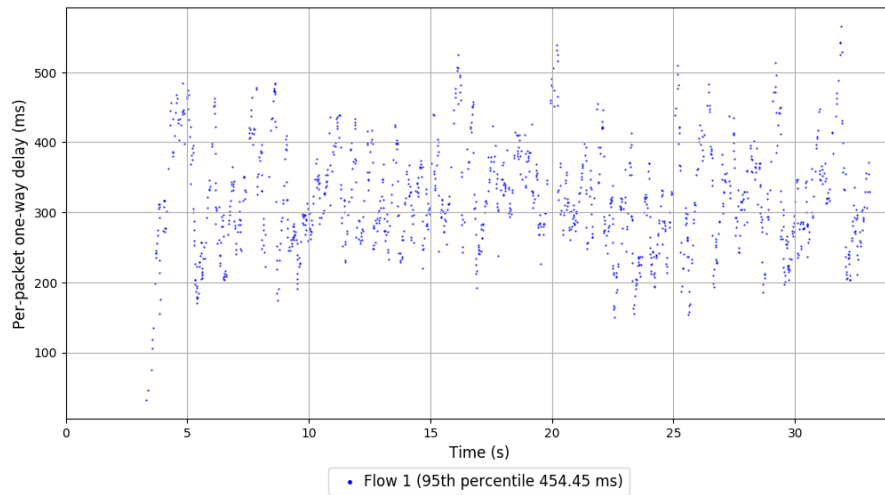
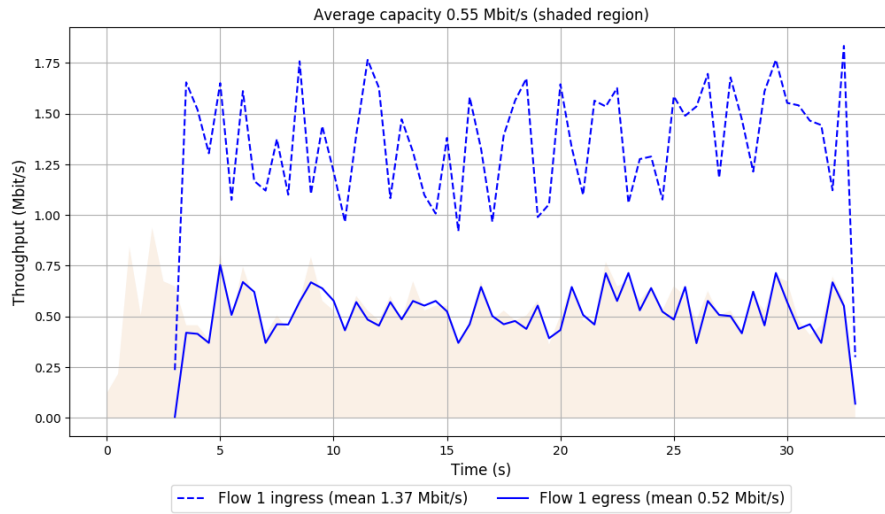
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 454.452 ms

Loss rate: 61.94%

### Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-05 18:47:37

End at: 2018-03-05 18:48:07

# Below is generated by plot.py at 2018-03-05 19:27:07

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.8% utilization)

95th percentile per-packet one-way delay: 448.477 ms

Loss rate: 61.90%

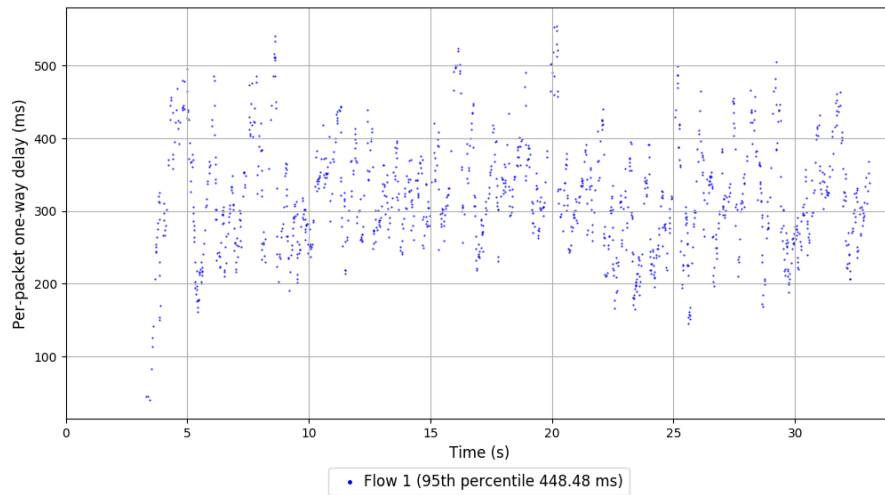
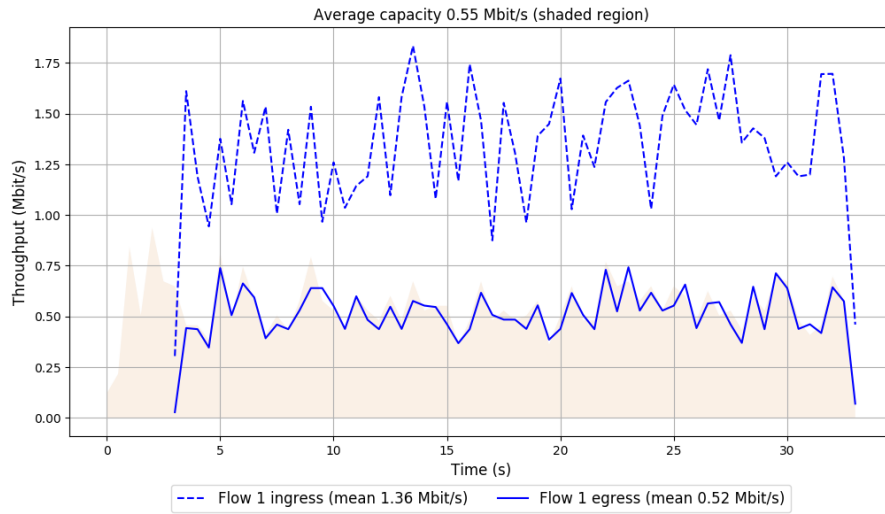
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 448.477 ms

Loss rate: 61.90%

### Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

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

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

# Below is generated by plot.py at 2018-03-05 19:27:07

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.8% utilization)

95th percentile per-packet one-way delay: 464.675 ms

Loss rate: 62.05%

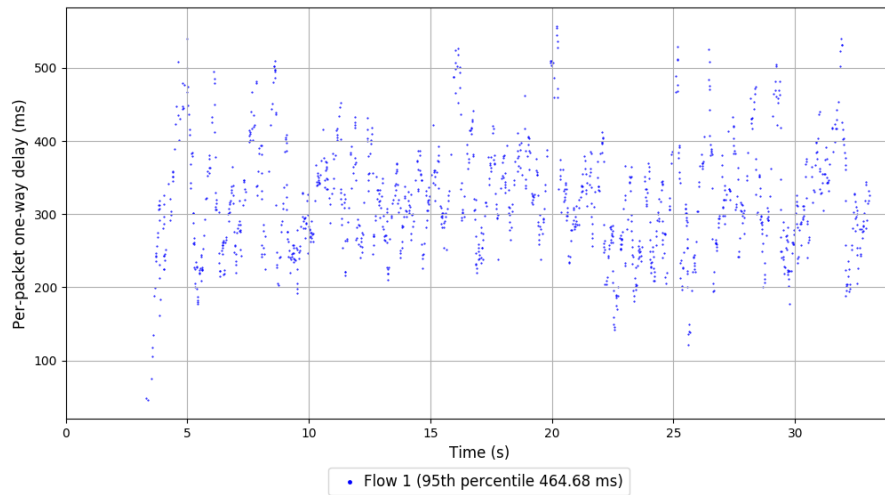
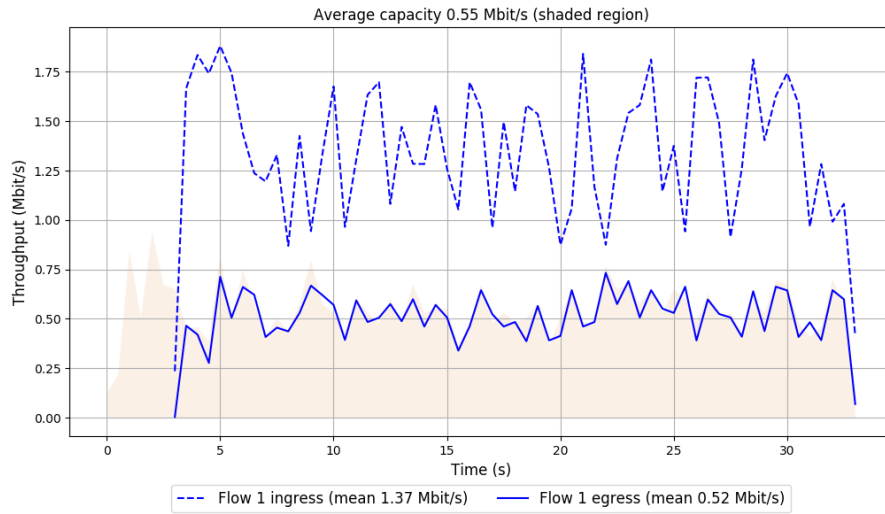
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 464.675 ms

Loss rate: 62.05%

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



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-05 19:07:59

End at: 2018-03-05 19:08:29

# Below is generated by plot.py at 2018-03-05 19:27:07

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.51 Mbit/s (93.5% utilization)

95th percentile per-packet one-way delay: 455.152 ms

Loss rate: 61.08%

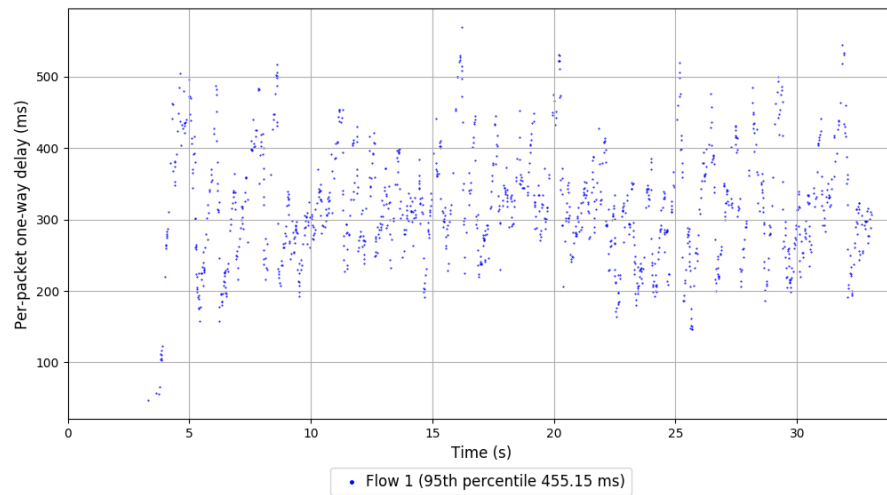
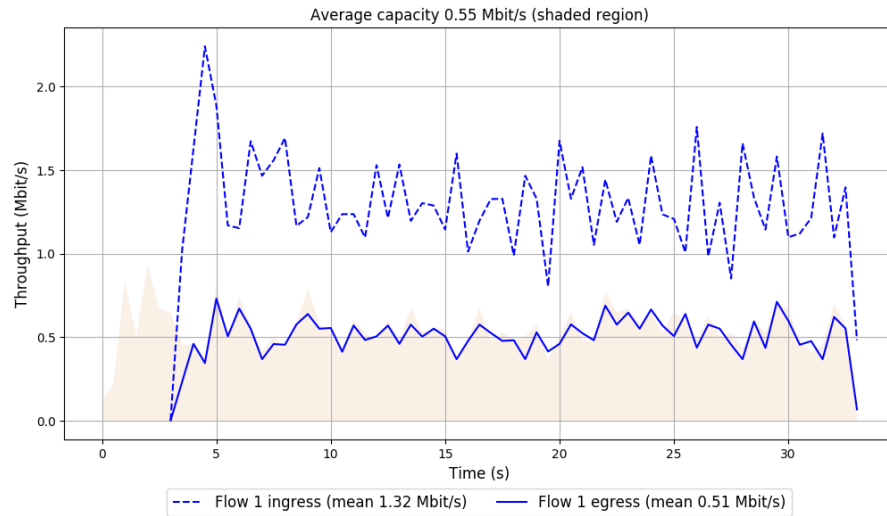
-- Flow 1:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 455.152 ms

Loss rate: 61.08%

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



Run 10: Statistics of Vivace-LTE

Start at: 2018-03-05 19:18:10

End at: 2018-03-05 19:18:40

# Below is generated by plot.py at 2018-03-05 19:27:07

# Datalink statistics

-- Total of 1 flow:

Average capacity: 0.55 Mbit/s

Average throughput: 0.52 Mbit/s (94.7% utilization)

95th percentile per-packet one-way delay: 455.059 ms

Loss rate: 61.35%

-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 455.059 ms

Loss rate: 61.35%

### Run 10: Report of Vivace-LTE — Data Link

