

Pantheon Report

Generated at 2018-01-09 05:44:47 (UTC).

Data path: GCE London Ethernet (*remote*) → GCE Iowa Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

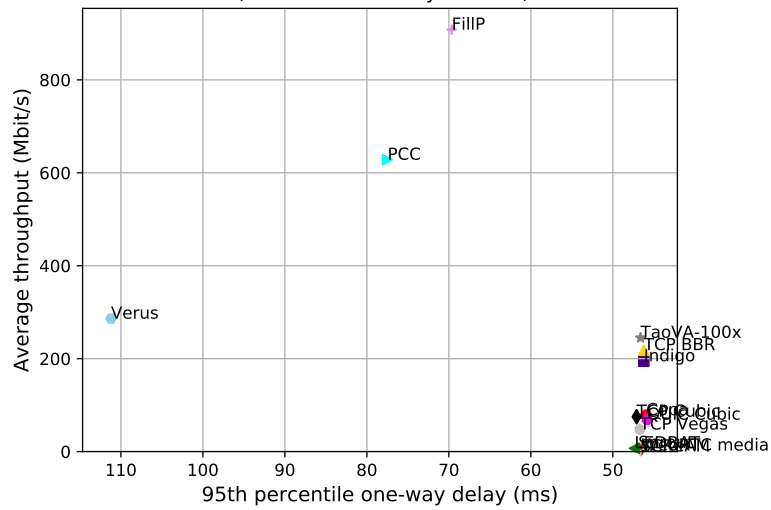
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

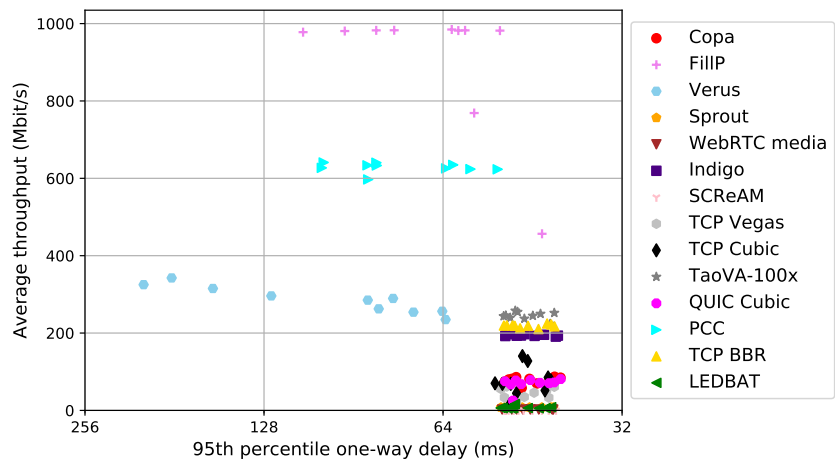
Git summary:

```
branch: master @ 56d1792c316a5efca3f2d21342905405fedffb48
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
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/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE London Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



test from GCE London Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	218.34	46.22	0.45
TCP Cubic	10	75.09	47.11	0.66
LEDBAT	10	7.06	47.36	0.78
PCC	10	628.00	77.48	0.66
QUIC Cubic	10	68.65	45.83	0.40
SCReAM	10	0.22	46.65	0.38
WebRTC media	9	2.33	46.53	0.45
Sprout	10	7.83	46.90	0.93
TaoVA-100x	10	244.83	46.62	0.41
TCP Vegas	10	47.48	46.71	0.38
Verus	10	286.11	111.22	0.85
Copa	10	78.42	45.93	0.30
FillP	10	908.02	69.66	0.46
Indigo	10	194.42	46.22	0.39

Run 1: Statistics of TCP BBR

Start at: 2018-01-09 00:49:12

End at: 2018-01-09 00:49:42

Below is generated by plot.py at 2018-01-09 04:49:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 217.21 Mbit/s

95th percentile per-packet one-way delay: 41.564 ms

Loss rate: 0.52%

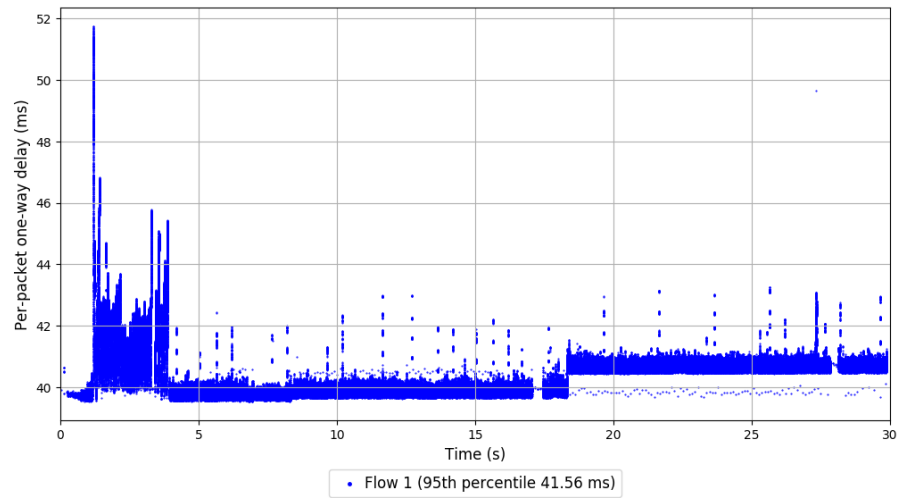
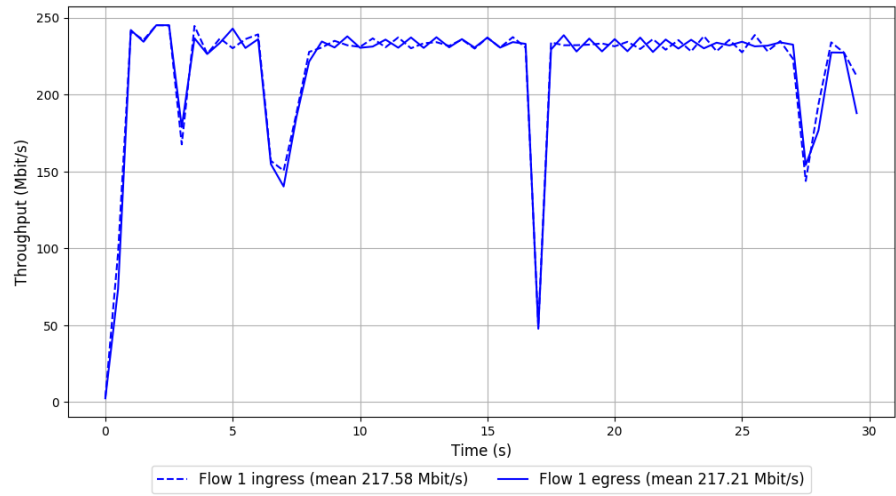
-- Flow 1:

Average throughput: 217.21 Mbit/s

95th percentile per-packet one-way delay: 41.564 ms

Loss rate: 0.52%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-09 01:00:35

End at: 2018-01-09 01:01:05

Below is generated by plot.py at 2018-01-09 04:49:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 222.30 Mbit/s

95th percentile per-packet one-way delay: 42.092 ms

Loss rate: 0.36%

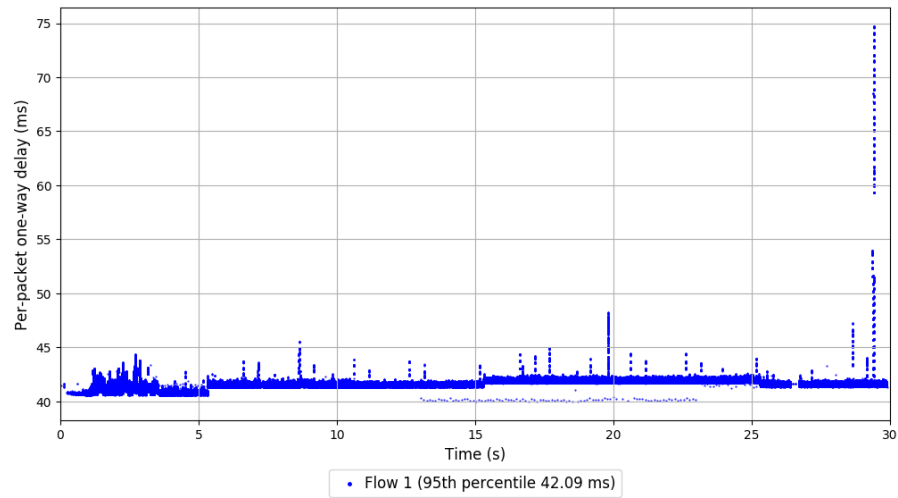
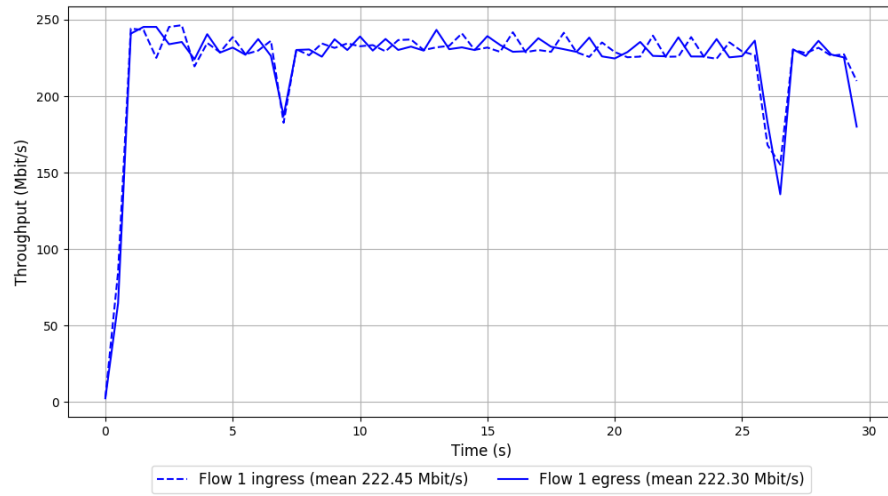
-- Flow 1:

Average throughput: 222.30 Mbit/s

95th percentile per-packet one-way delay: 42.092 ms

Loss rate: 0.36%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-09 01:12:05

End at: 2018-01-09 01:12:35

Below is generated by plot.py at 2018-01-09 04:49:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 224.71 Mbit/s

95th percentile per-packet one-way delay: 42.771 ms

Loss rate: 0.37%

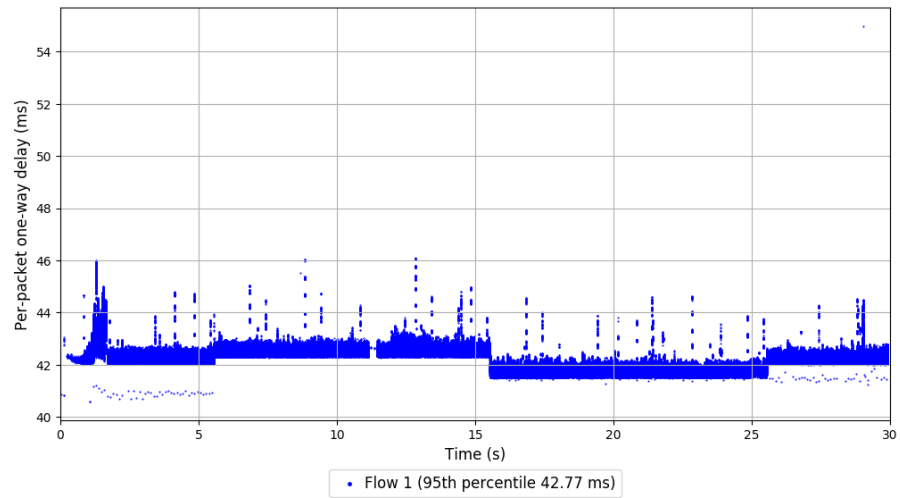
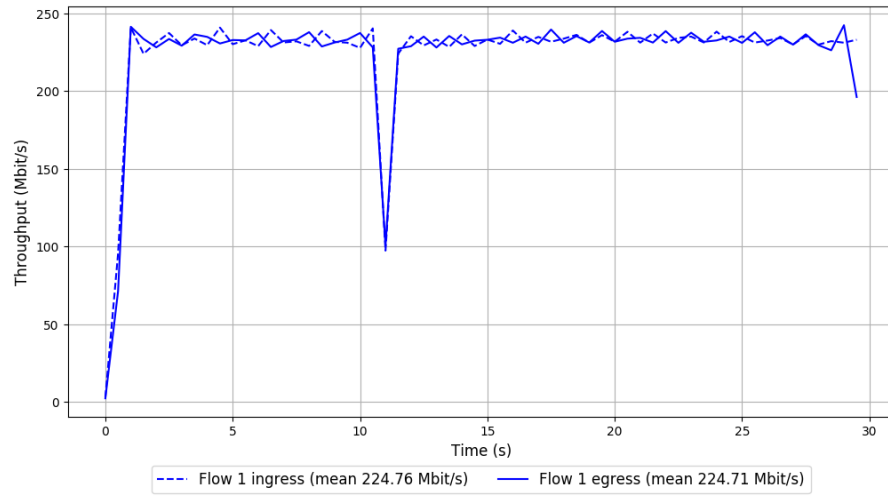
-- Flow 1:

Average throughput: 224.71 Mbit/s

95th percentile per-packet one-way delay: 42.771 ms

Loss rate: 0.37%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-01-09 01:23:51

End at: 2018-01-09 01:24:21

Below is generated by plot.py at 2018-01-09 04:49:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 210.41 Mbit/s

95th percentile per-packet one-way delay: 44.229 ms

Loss rate: 0.49%

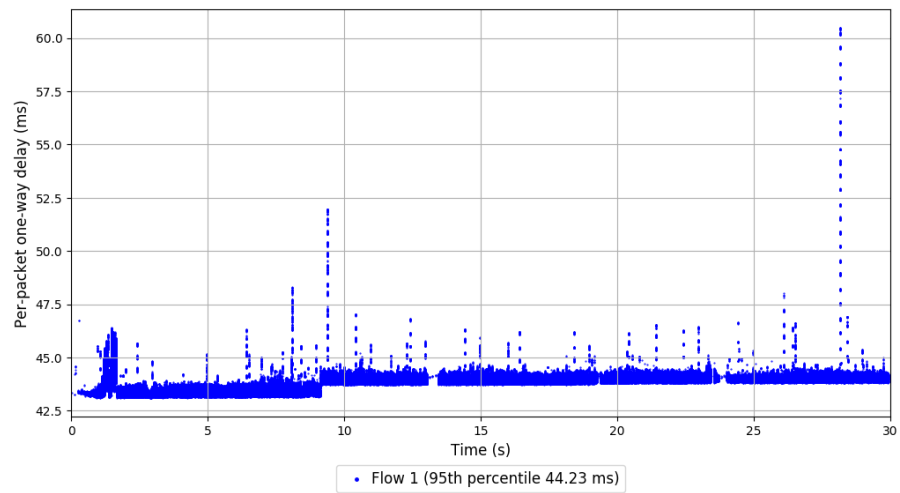
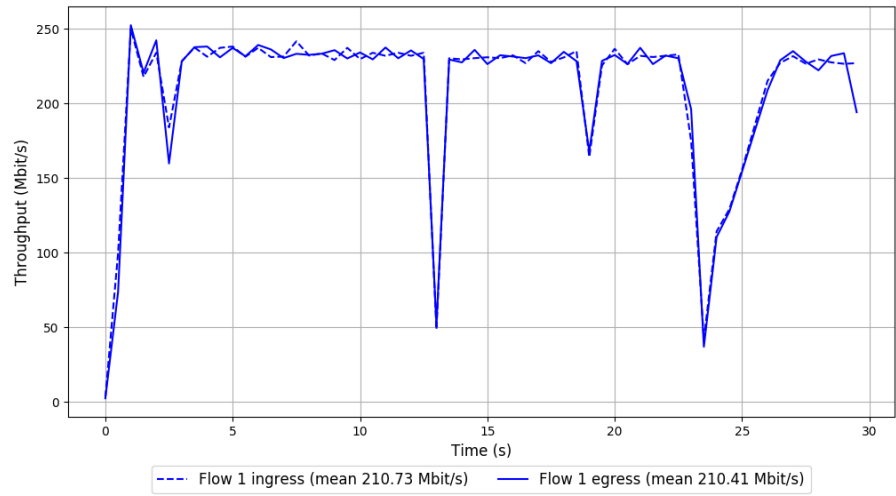
-- Flow 1:

Average throughput: 210.41 Mbit/s

95th percentile per-packet one-way delay: 44.229 ms

Loss rate: 0.49%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-09 01:35:33

End at: 2018-01-09 01:36:03

Below is generated by plot.py at 2018-01-09 04:49:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 218.53 Mbit/s

95th percentile per-packet one-way delay: 46.052 ms

Loss rate: 0.49%

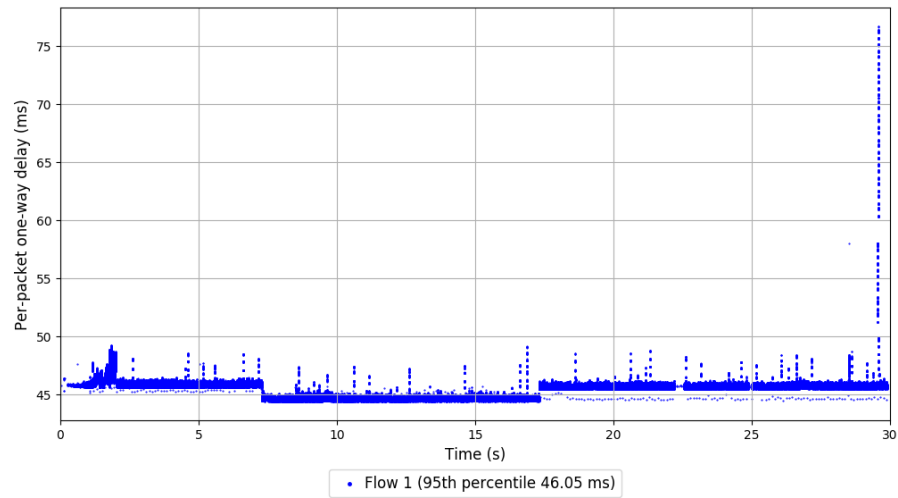
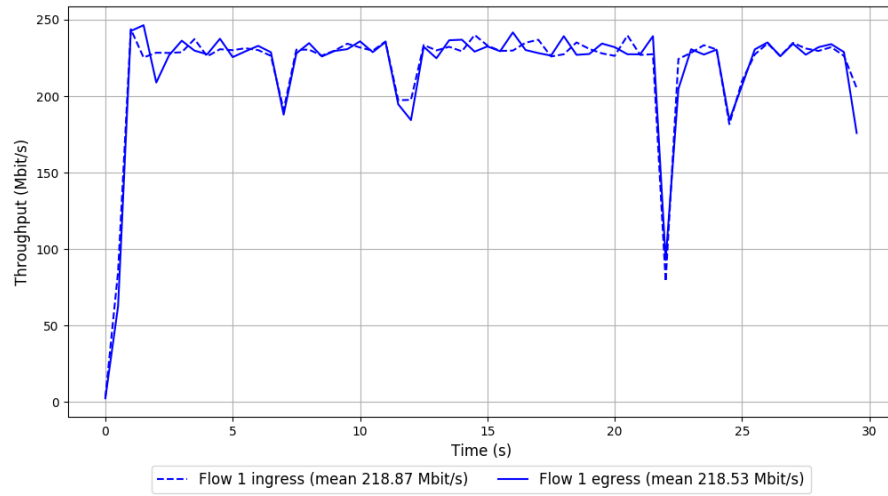
-- Flow 1:

Average throughput: 218.53 Mbit/s

95th percentile per-packet one-way delay: 46.052 ms

Loss rate: 0.49%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-01-09 01:47:20

End at: 2018-01-09 01:47:50

Below is generated by plot.py at 2018-01-09 04:49:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 212.44 Mbit/s

95th percentile per-packet one-way delay: 47.492 ms

Loss rate: 0.45%

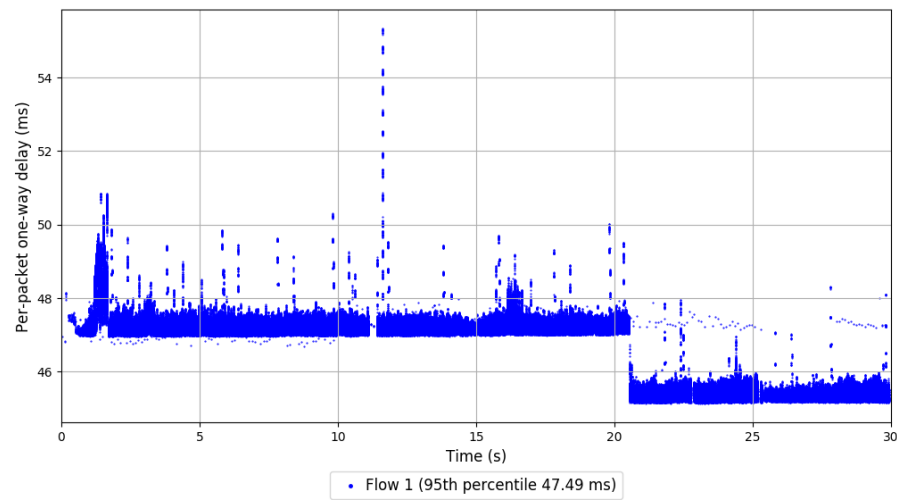
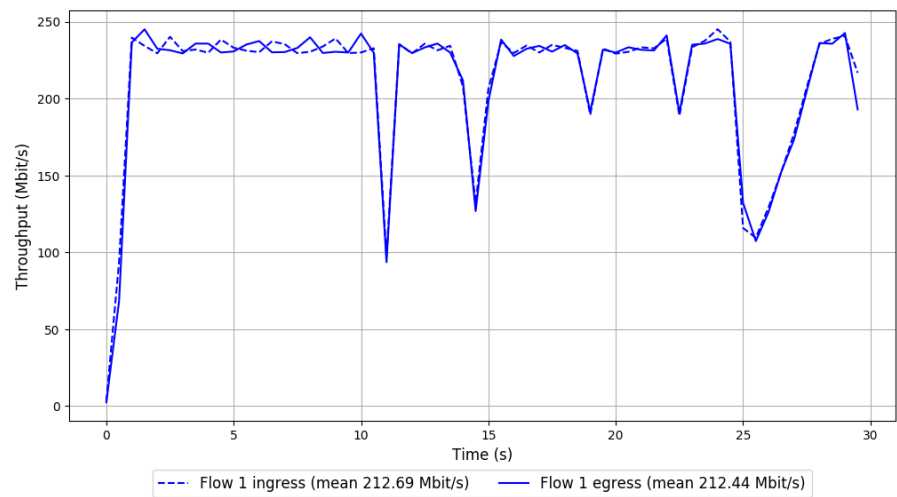
-- Flow 1:

Average throughput: 212.44 Mbit/s

95th percentile per-packet one-way delay: 47.492 ms

Loss rate: 0.45%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-01-09 01:58:54

End at: 2018-01-09 01:59:24

Below is generated by plot.py at 2018-01-09 04:49:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 218.61 Mbit/s

95th percentile per-packet one-way delay: 48.480 ms

Loss rate: 0.36%

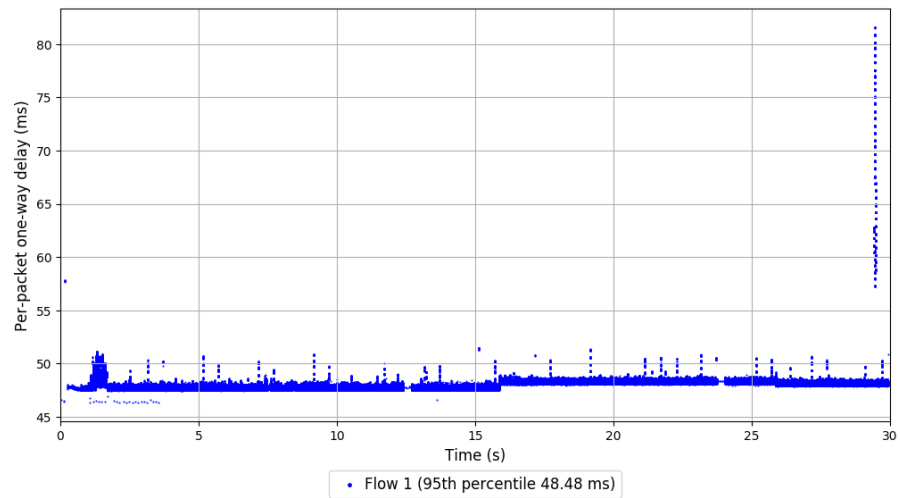
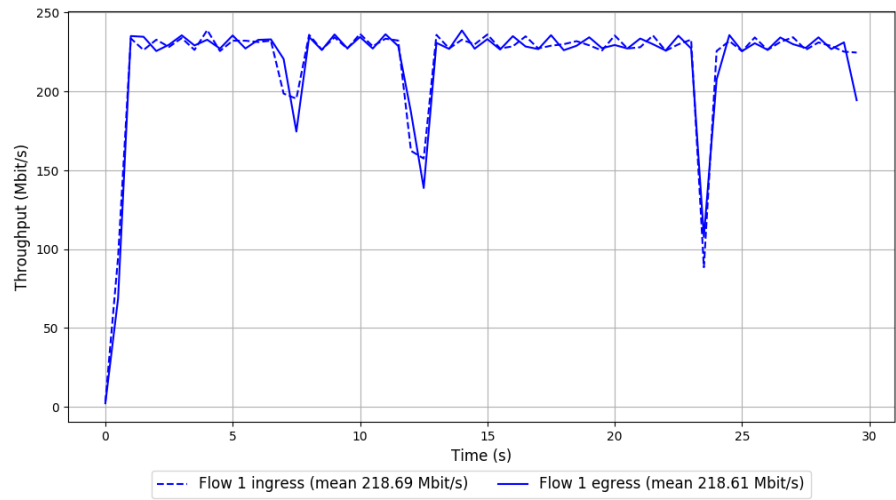
-- Flow 1:

Average throughput: 218.61 Mbit/s

95th percentile per-packet one-way delay: 48.480 ms

Loss rate: 0.36%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-01-09 02:10:42

End at: 2018-01-09 02:11:12

Below is generated by plot.py at 2018-01-09 04:49:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 219.86 Mbit/s

95th percentile per-packet one-way delay: 48.910 ms

Loss rate: 0.61%

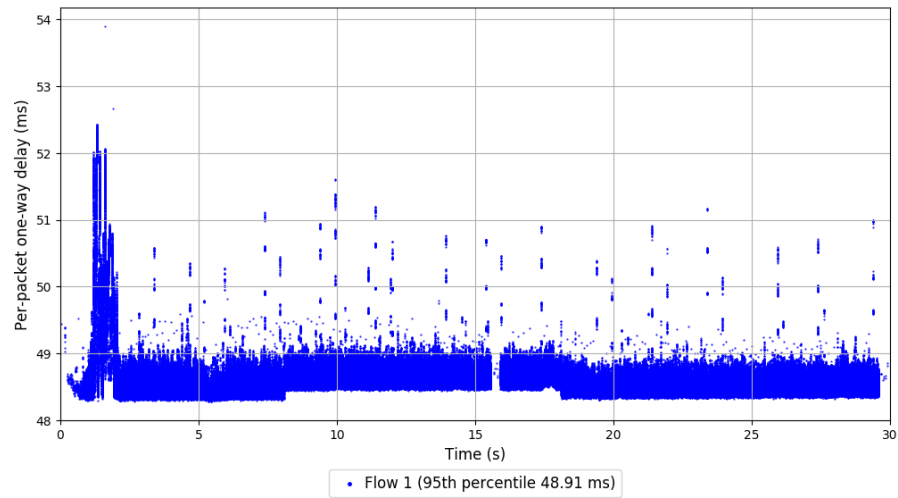
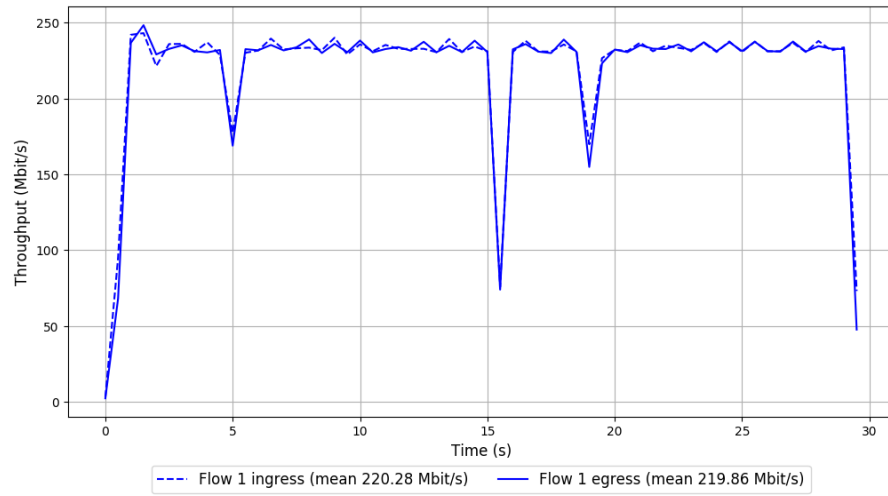
-- Flow 1:

Average throughput: 219.86 Mbit/s

95th percentile per-packet one-way delay: 48.910 ms

Loss rate: 0.61%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-09 02:22:24

End at: 2018-01-09 02:22:54

Below is generated by plot.py at 2018-01-09 04:52:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 219.83 Mbit/s

95th percentile per-packet one-way delay: 50.005 ms

Loss rate: 0.47%

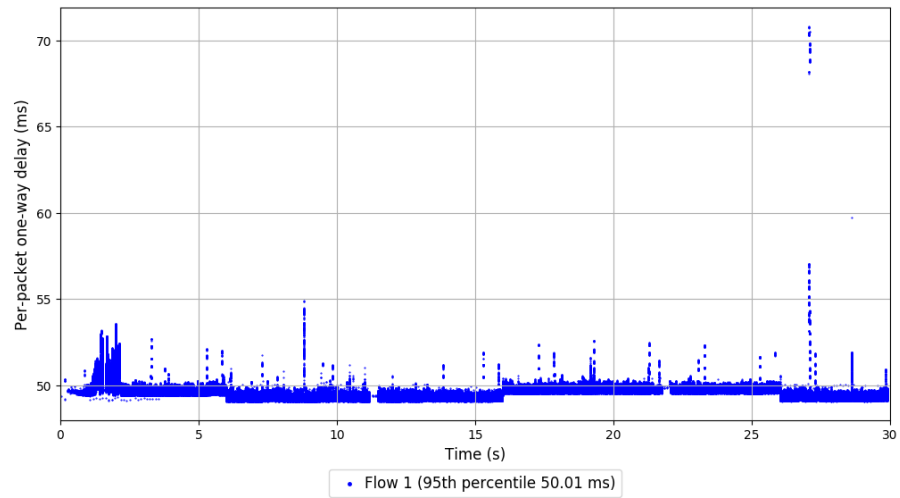
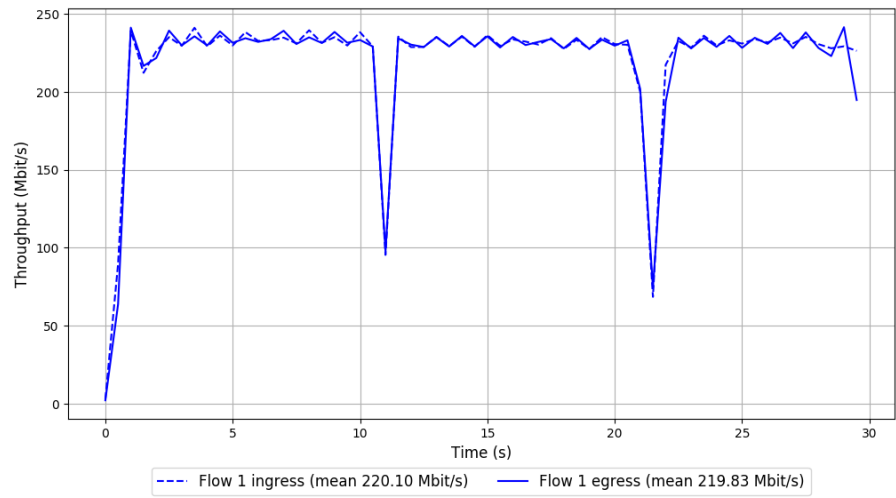
-- Flow 1:

Average throughput: 219.83 Mbit/s

95th percentile per-packet one-way delay: 50.005 ms

Loss rate: 0.47%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-09 02:34:07

End at: 2018-01-09 02:34:37

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 219.49 Mbit/s

95th percentile per-packet one-way delay: 50.570 ms

Loss rate: 0.37%

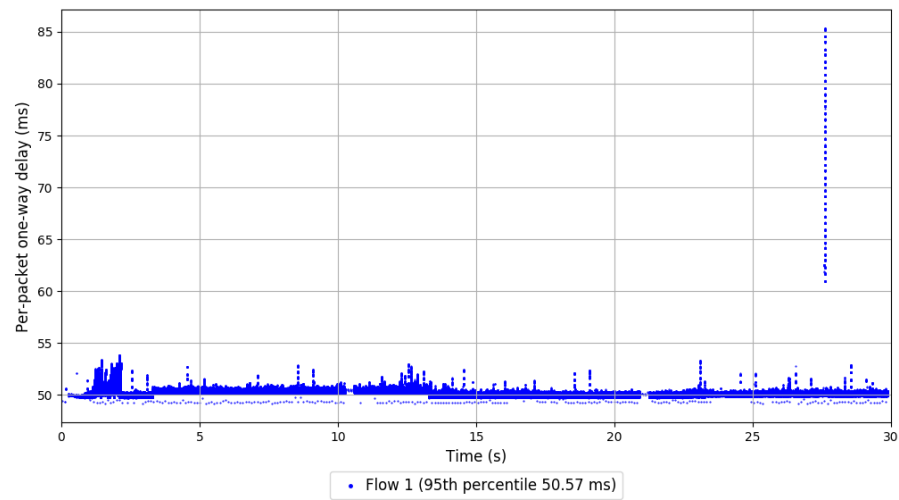
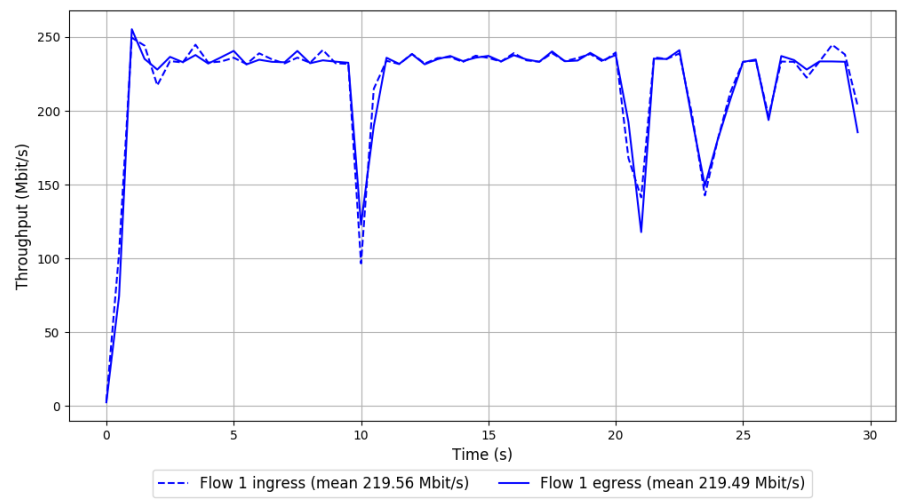
-- Flow 1:

Average throughput: 219.49 Mbit/s

95th percentile per-packet one-way delay: 50.570 ms

Loss rate: 0.37%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-09 00:52:59

End at: 2018-01-09 00:53:29

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.75 Mbit/s

95th percentile per-packet one-way delay: 42.160 ms

Loss rate: 0.78%

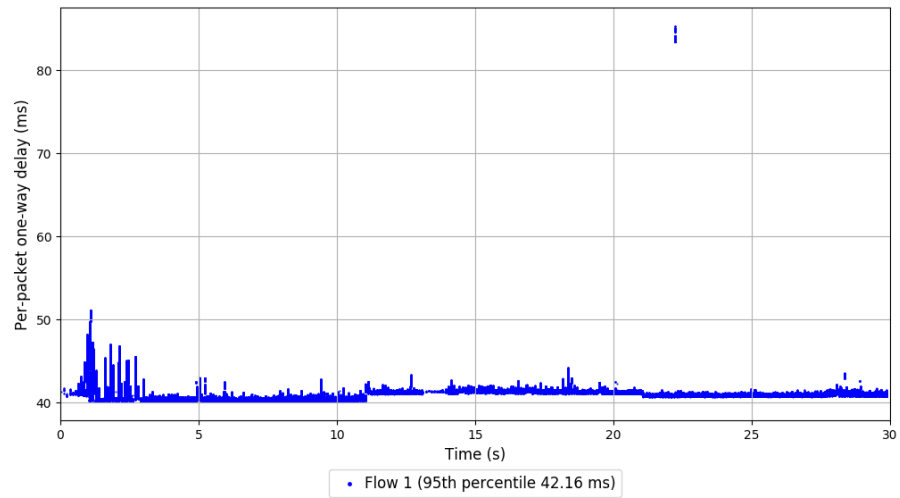
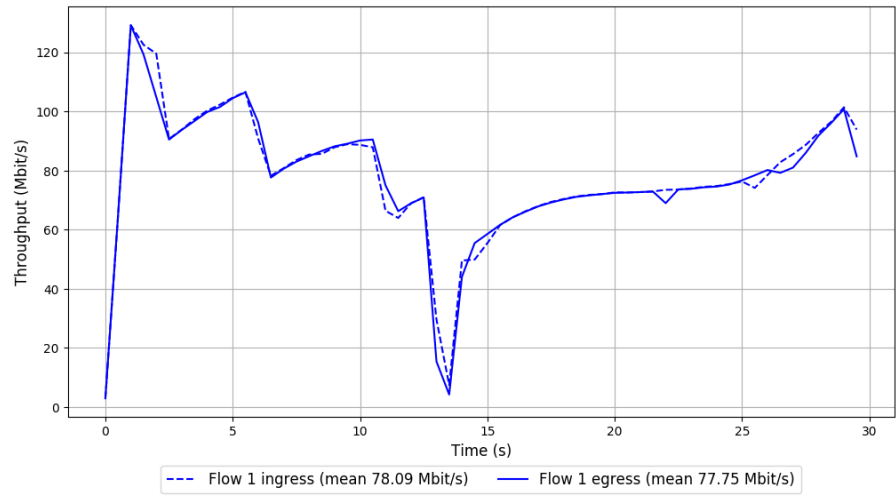
-- Flow 1:

Average throughput: 77.75 Mbit/s

95th percentile per-packet one-way delay: 42.160 ms

Loss rate: 0.78%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-09 01:04:31

End at: 2018-01-09 01:05:01

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.20 Mbit/s

95th percentile per-packet one-way delay: 42.615 ms

Loss rate: 0.70%

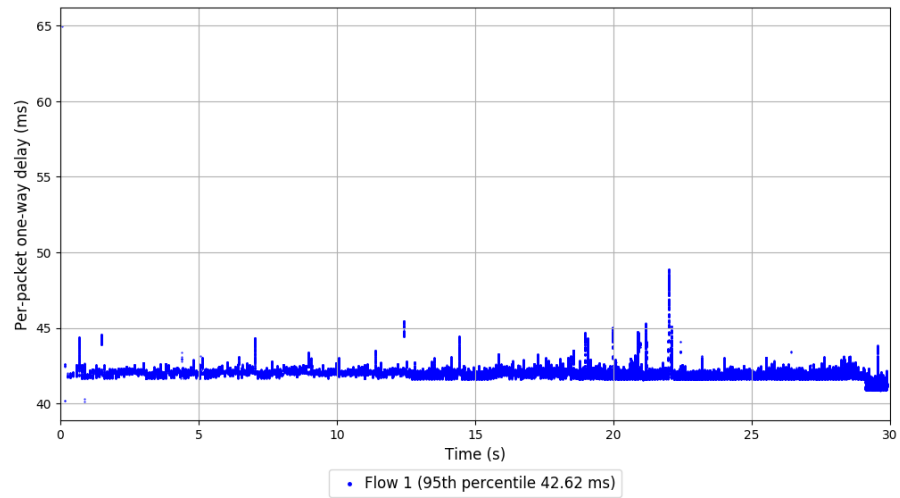
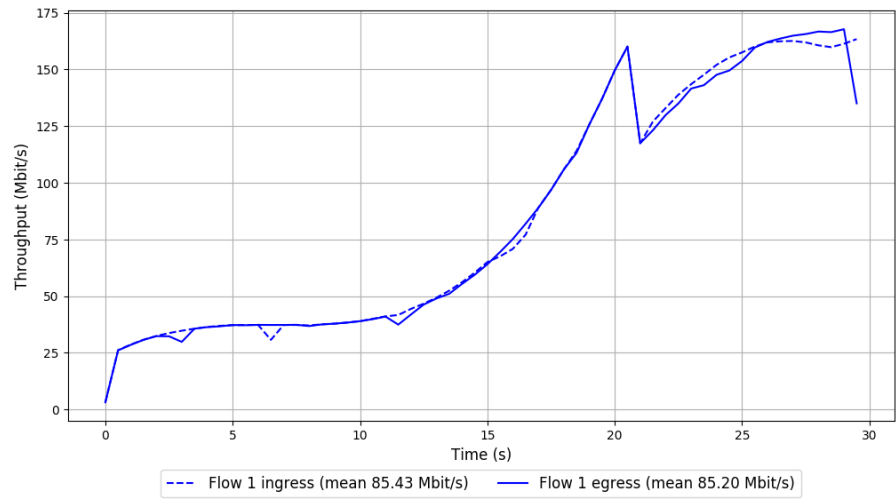
-- Flow 1:

Average throughput: 85.20 Mbit/s

95th percentile per-packet one-way delay: 42.615 ms

Loss rate: 0.70%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-09 01:16:09

End at: 2018-01-09 01:16:39

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.70 Mbit/s

95th percentile per-packet one-way delay: 43.137 ms

Loss rate: 0.62%

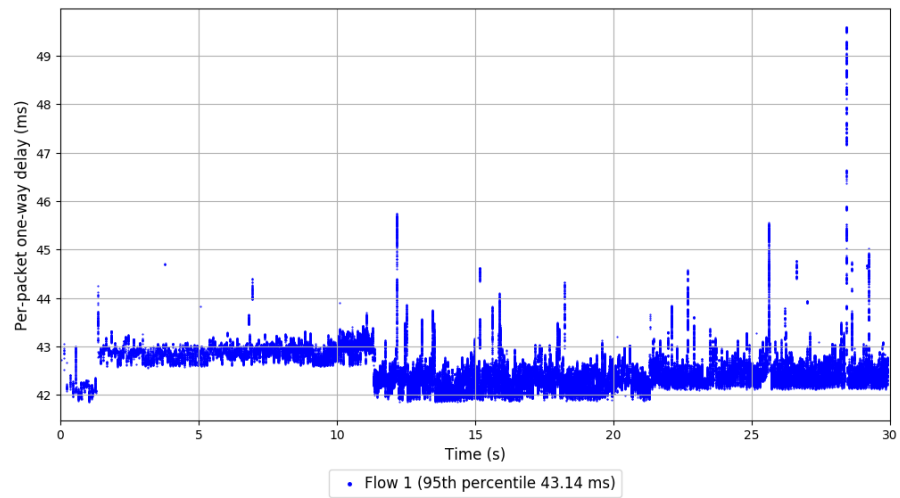
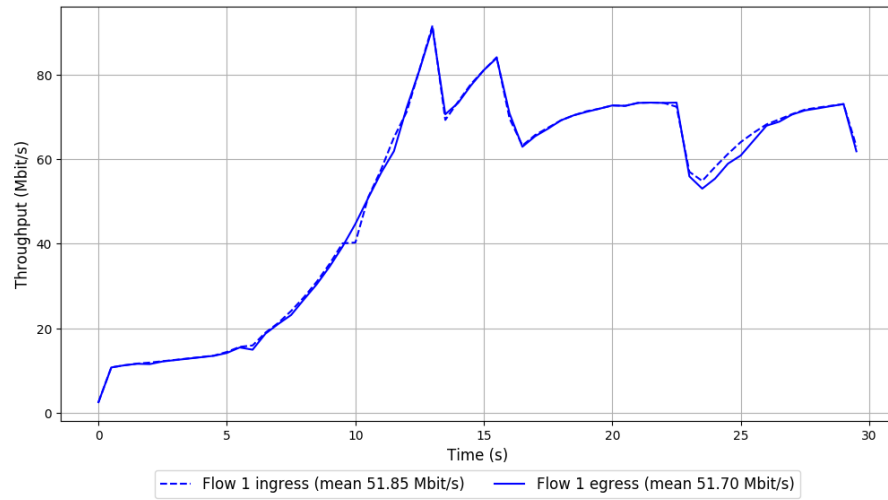
-- Flow 1:

Average throughput: 51.70 Mbit/s

95th percentile per-packet one-way delay: 43.137 ms

Loss rate: 0.62%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-01-09 01:27:53

End at: 2018-01-09 01:28:23

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 127.72 Mbit/s

95th percentile per-packet one-way delay: 46.101 ms

Loss rate: 0.20%

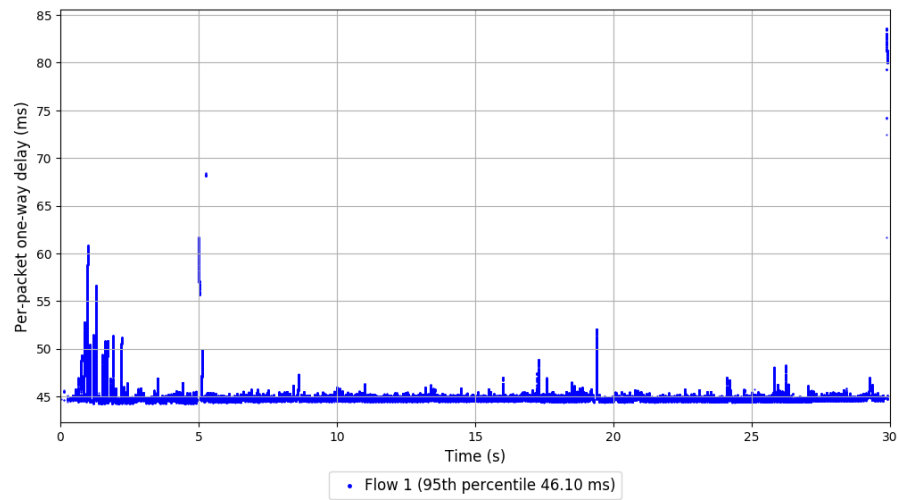
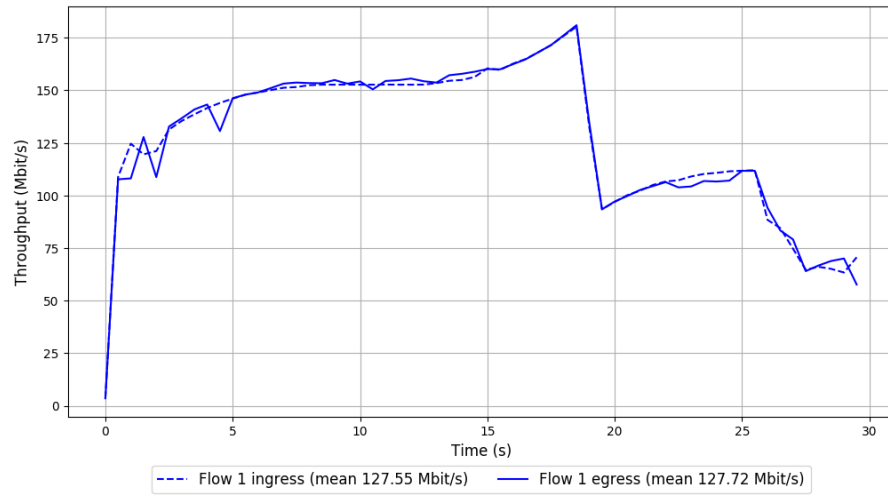
-- Flow 1:

Average throughput: 127.72 Mbit/s

95th percentile per-packet one-way delay: 46.101 ms

Loss rate: 0.20%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-09 01:39:38

End at: 2018-01-09 01:40:08

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 140.42 Mbit/s

95th percentile per-packet one-way delay: 47.064 ms

Loss rate: 0.28%

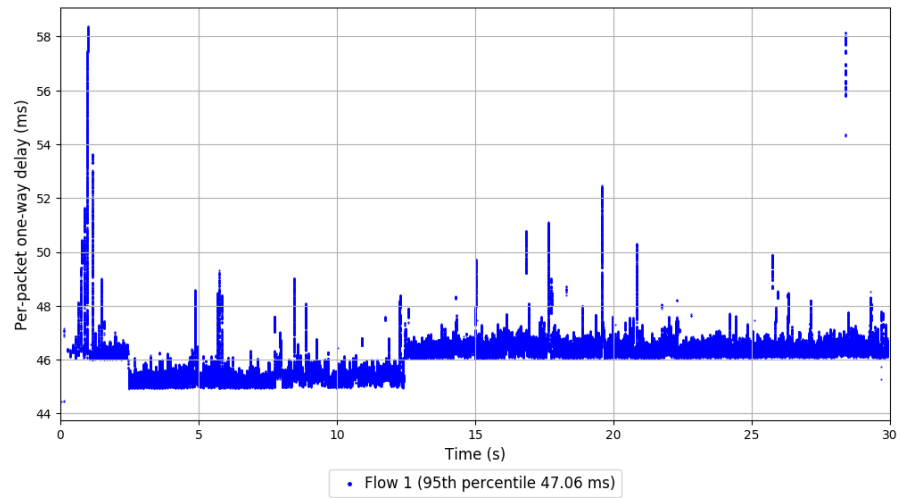
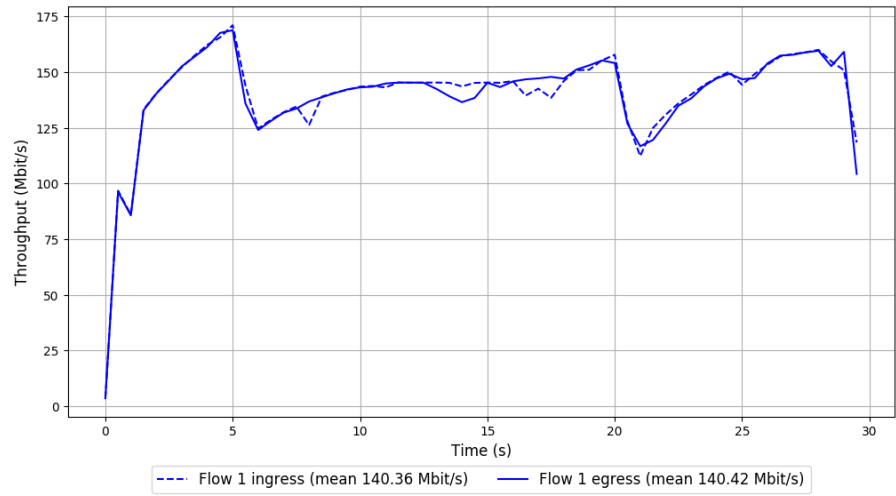
-- Flow 1:

Average throughput: 140.42 Mbit/s

95th percentile per-packet one-way delay: 47.064 ms

Loss rate: 0.28%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-01-09 01:51:20

End at: 2018-01-09 01:51:50

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 44.38 Mbit/s

95th percentile per-packet one-way delay: 48.162 ms

Loss rate: 0.64%

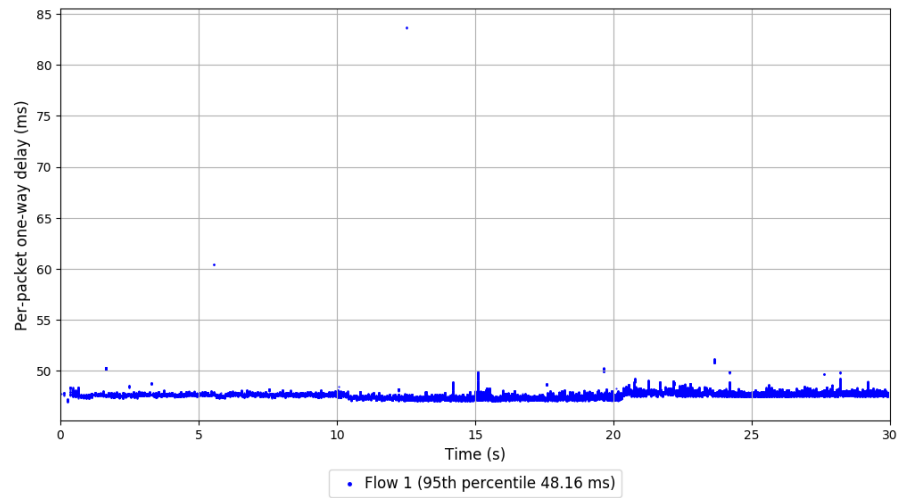
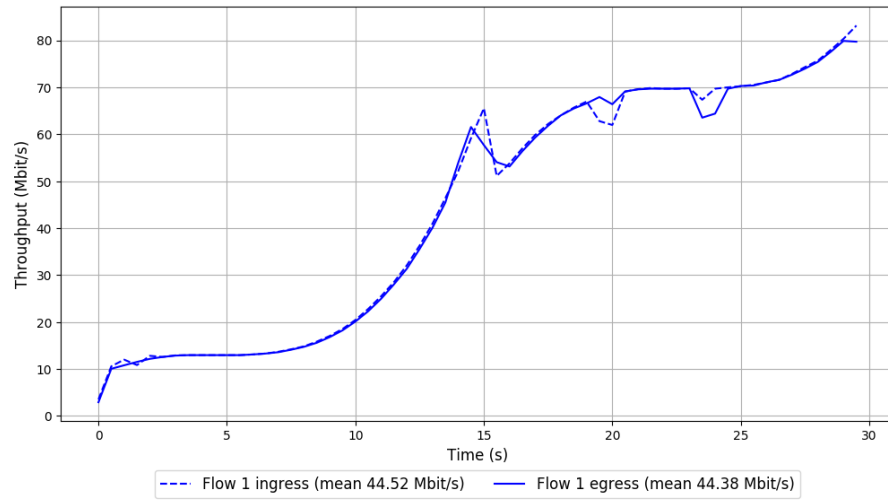
-- Flow 1:

Average throughput: 44.38 Mbit/s

95th percentile per-packet one-way delay: 48.162 ms

Loss rate: 0.64%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-01-09 02:03:00

End at: 2018-01-09 02:03:30

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.53 Mbit/s

95th percentile per-packet one-way delay: 49.229 ms

Loss rate: 0.98%

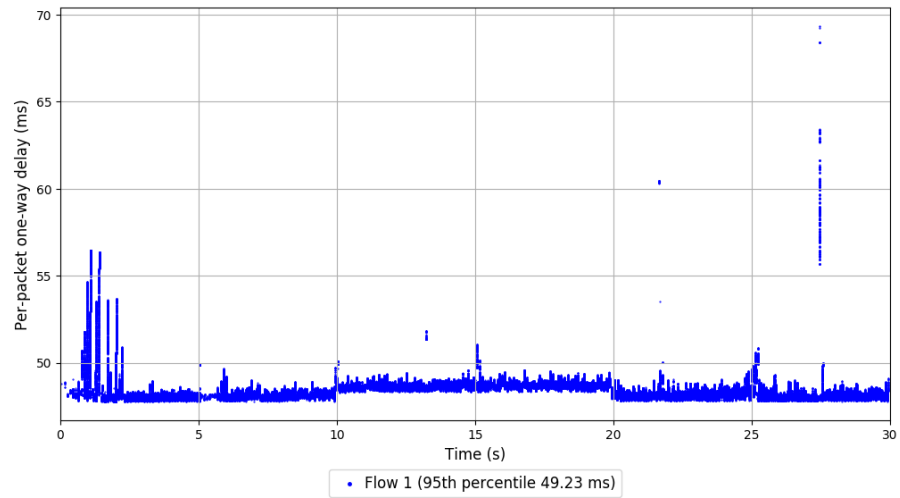
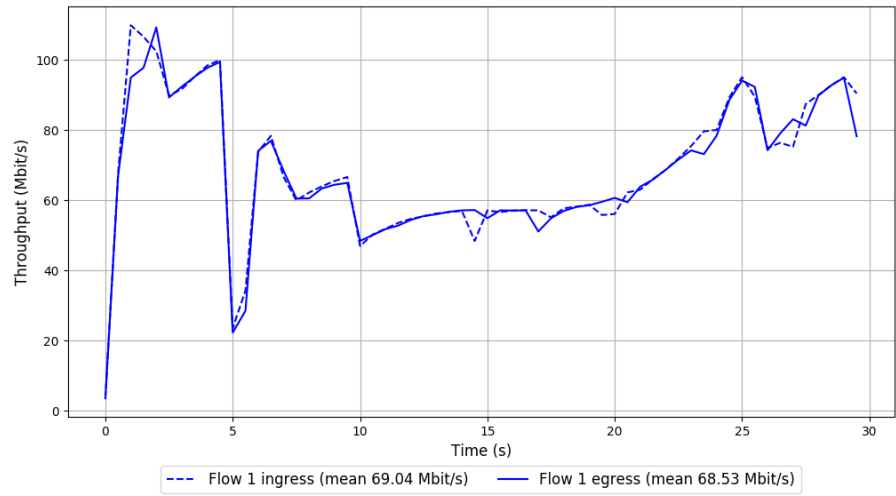
-- Flow 1:

Average throughput: 68.53 Mbit/s

95th percentile per-packet one-way delay: 49.229 ms

Loss rate: 0.98%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-01-09 02:14:44

End at: 2018-01-09 02:15:14

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 16.54 Mbit/s

95th percentile per-packet one-way delay: 49.398 ms

Loss rate: 1.72%

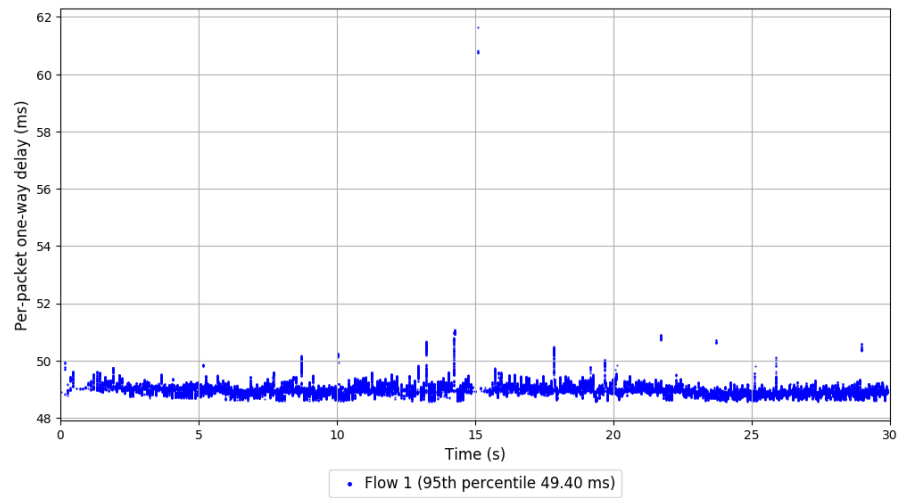
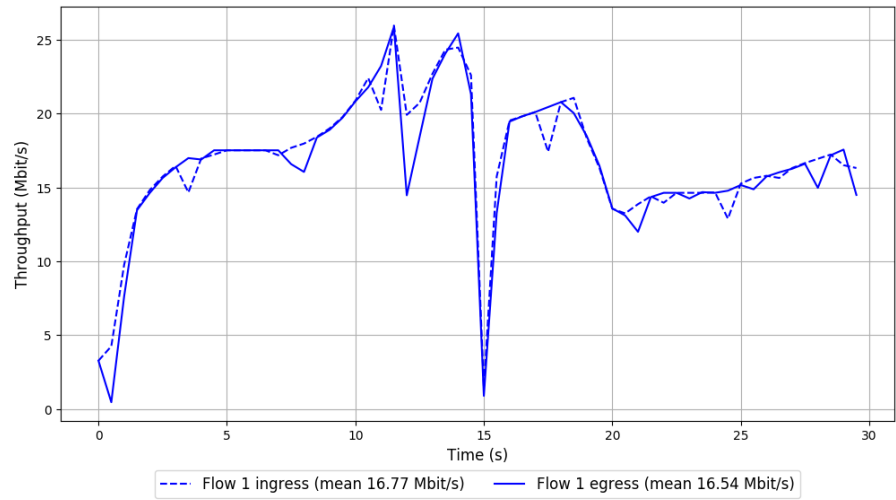
-- Flow 1:

Average throughput: 16.54 Mbit/s

95th percentile per-packet one-way delay: 49.398 ms

Loss rate: 1.72%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-01-09 02:26:27

End at: 2018-01-09 02:26:57

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.62 Mbit/s

95th percentile per-packet one-way delay: 50.859 ms

Loss rate: 0.26%

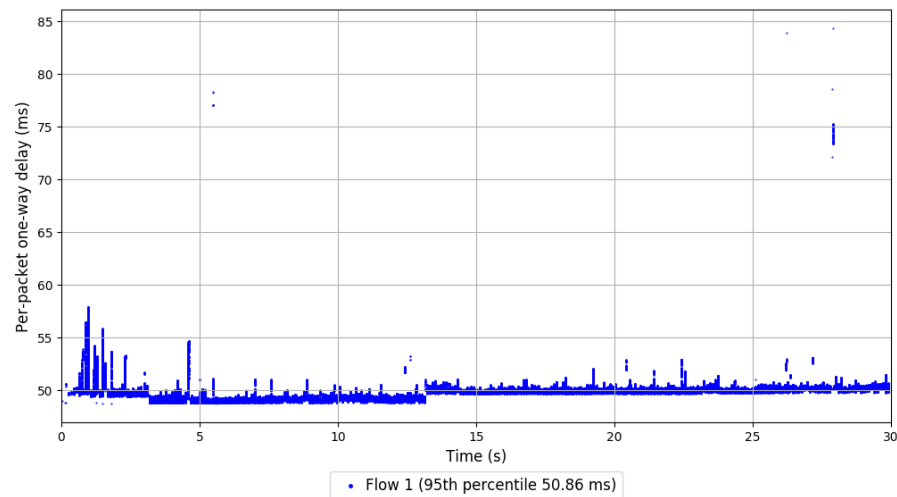
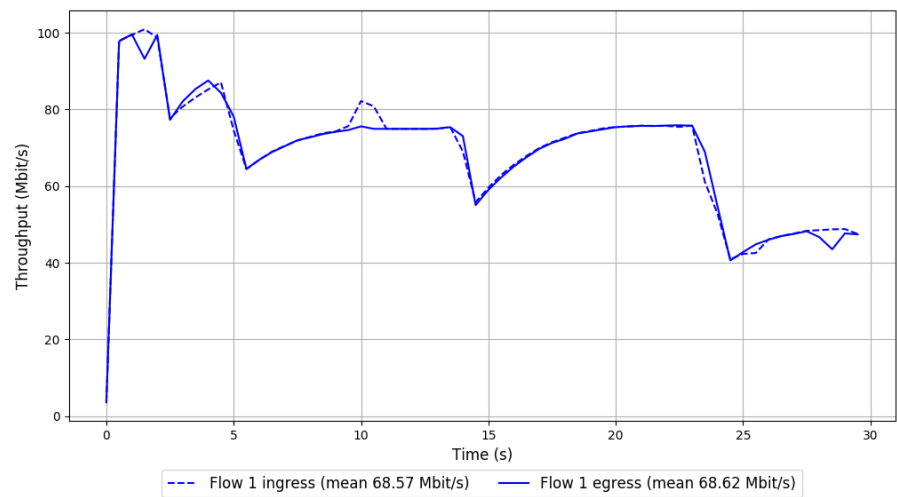
-- Flow 1:

Average throughput: 68.62 Mbit/s

95th percentile per-packet one-way delay: 50.859 ms

Loss rate: 0.26%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-09 02:38:12

End at: 2018-01-09 02:38:42

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.05 Mbit/s

95th percentile per-packet one-way delay: 52.333 ms

Loss rate: 0.44%

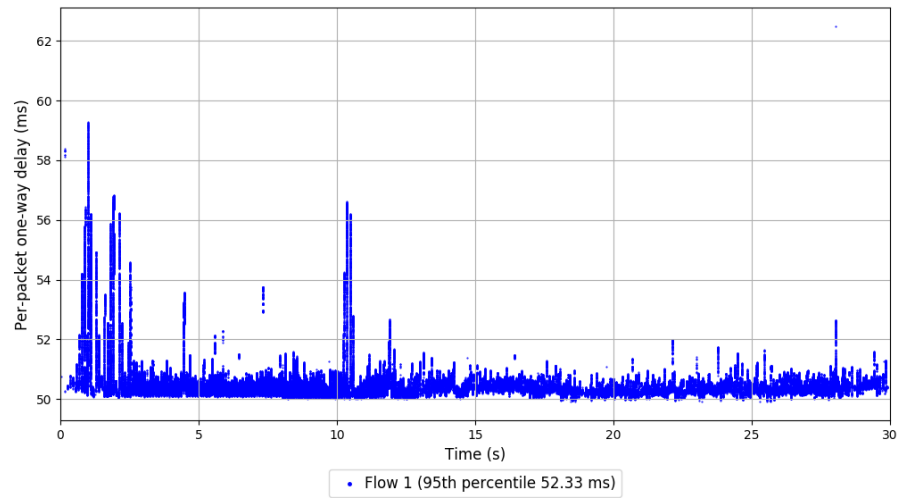
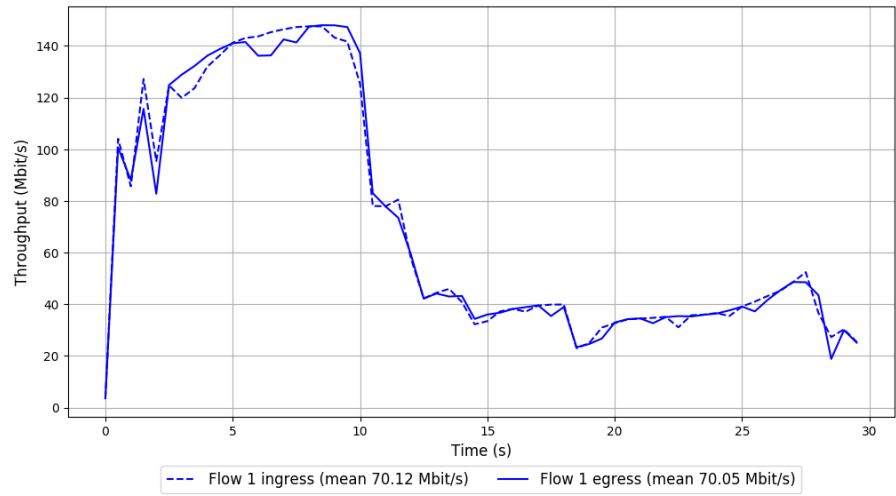
-- Flow 1:

Average throughput: 70.05 Mbit/s

95th percentile per-packet one-way delay: 52.333 ms

Loss rate: 0.44%

Run 10: Report of TCP Cubic — Data Link

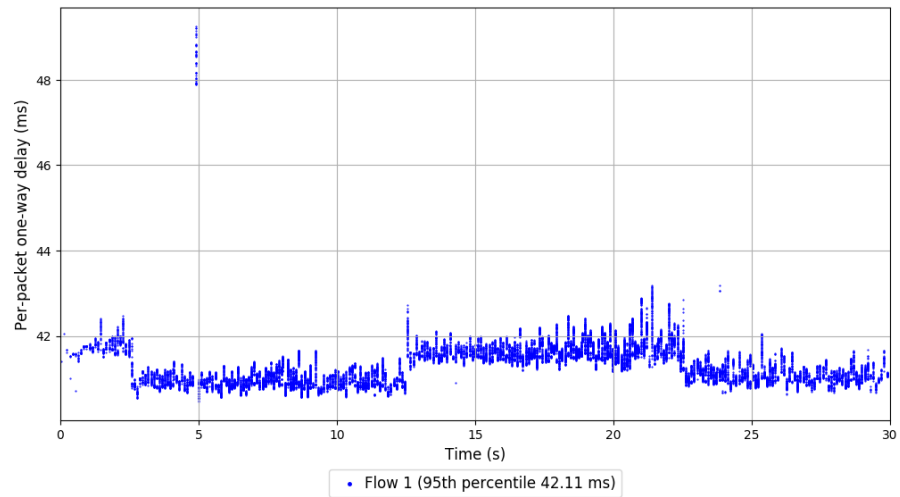
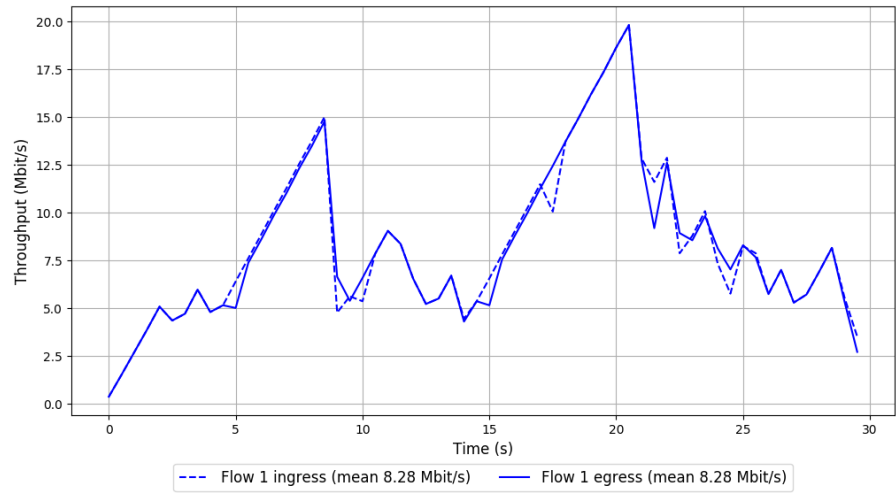


```
Run 1: Statistics of LEDBAT

Start at: 2018-01-09 00:58:58
End at: 2018-01-09 00:59:28

# Below is generated by plot.py at 2018-01-09 04:52:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 42.108 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 42.108 ms
Loss rate: 0.35%
```


Run 1: Report of LEDBAT — Data Link

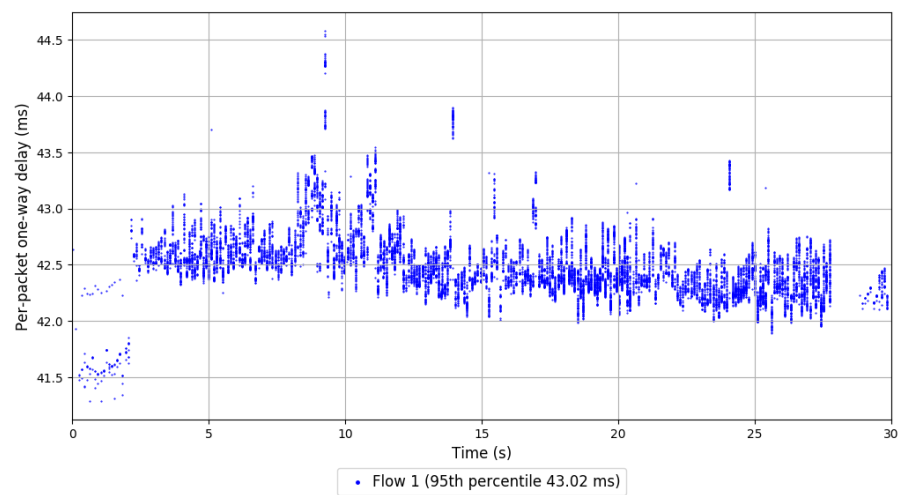
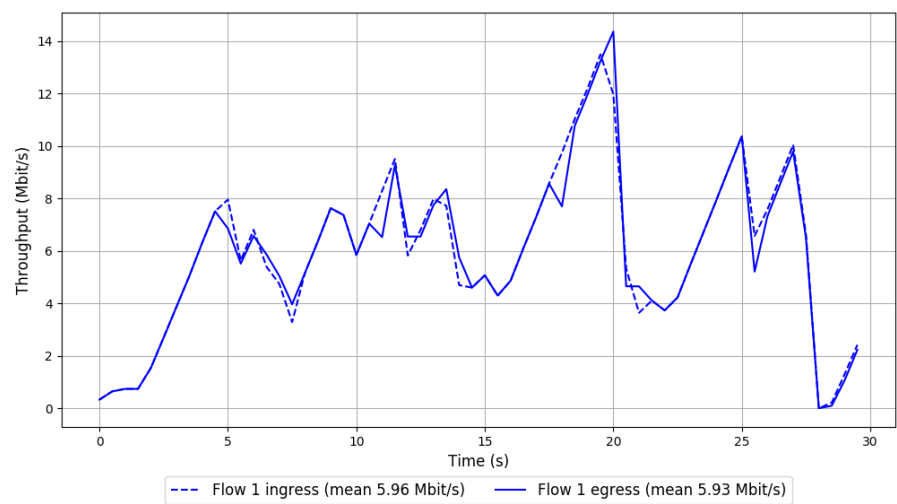


```
Run 2: Statistics of LEDBAT

Start at: 2018-01-09 01:10:28
End at: 2018-01-09 01:10:58

# Below is generated by plot.py at 2018-01-09 04:52:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.93 Mbit/s
95th percentile per-packet one-way delay: 43.024 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 5.93 Mbit/s
95th percentile per-packet one-way delay: 43.024 ms
Loss rate: 0.82%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-01-09 01:22:14

End at: 2018-01-09 01:22:44

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.36 Mbit/s

95th percentile per-packet one-way delay: 44.184 ms

Loss rate: 1.00%

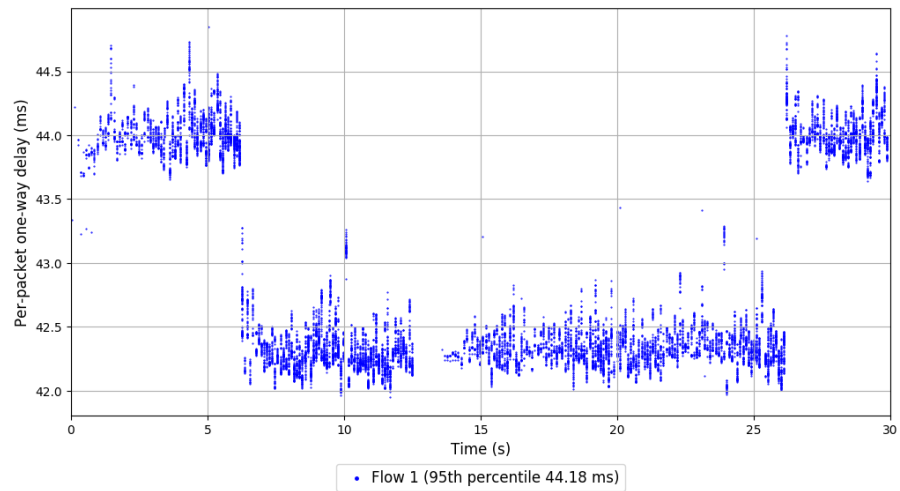
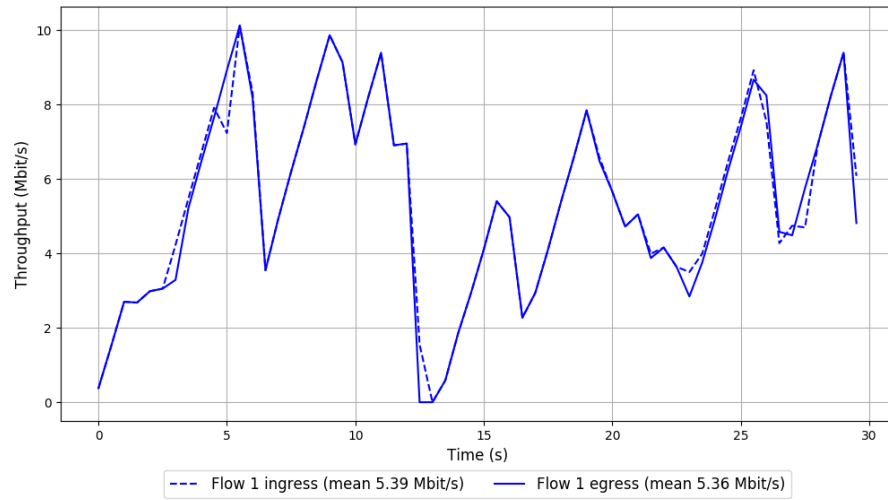
-- Flow 1:

Average throughput: 5.36 Mbit/s

95th percentile per-packet one-way delay: 44.184 ms

Loss rate: 1.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-01-09 01:33:56

End at: 2018-01-09 01:34:26

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.05 Mbit/s

95th percentile per-packet one-way delay: 46.098 ms

Loss rate: 0.75%

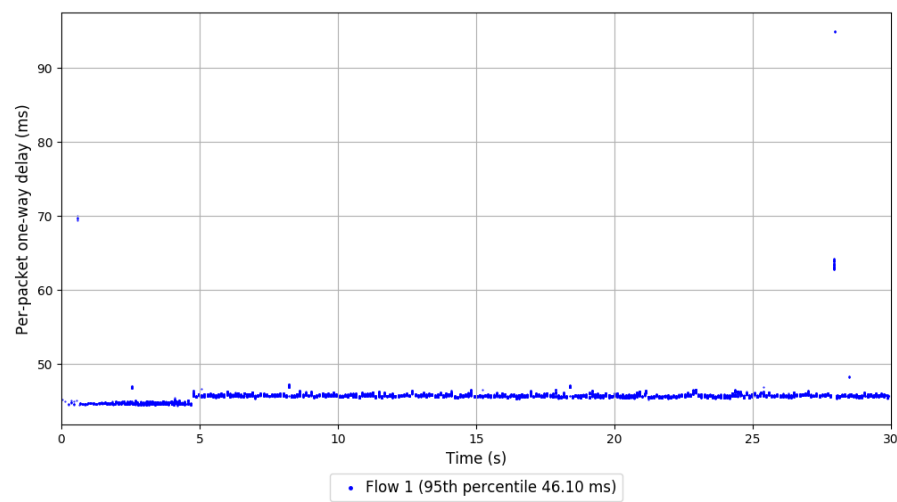
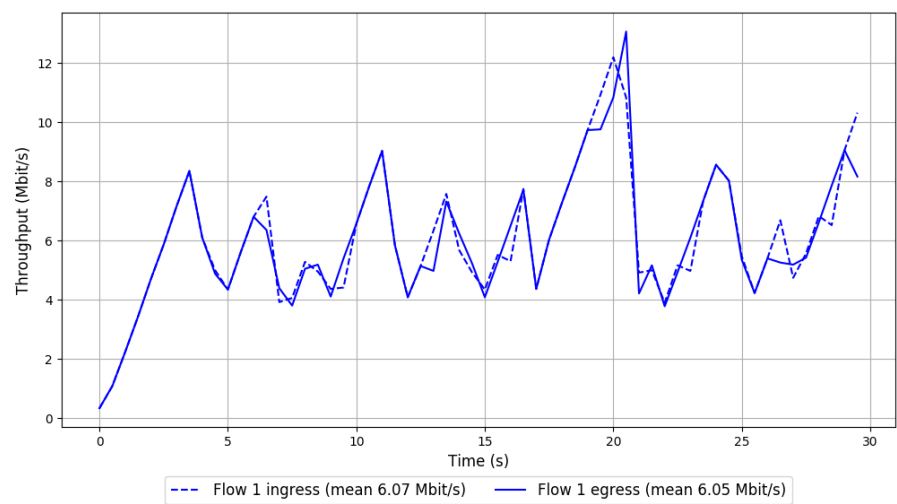
-- Flow 1:

Average throughput: 6.05 Mbit/s

95th percentile per-packet one-way delay: 46.098 ms

Loss rate: 0.75%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-01-09 01:45:42

End at: 2018-01-09 01:46:12

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 16.38 Mbit/s

95th percentile per-packet one-way delay: 48.467 ms

Loss rate: 0.38%

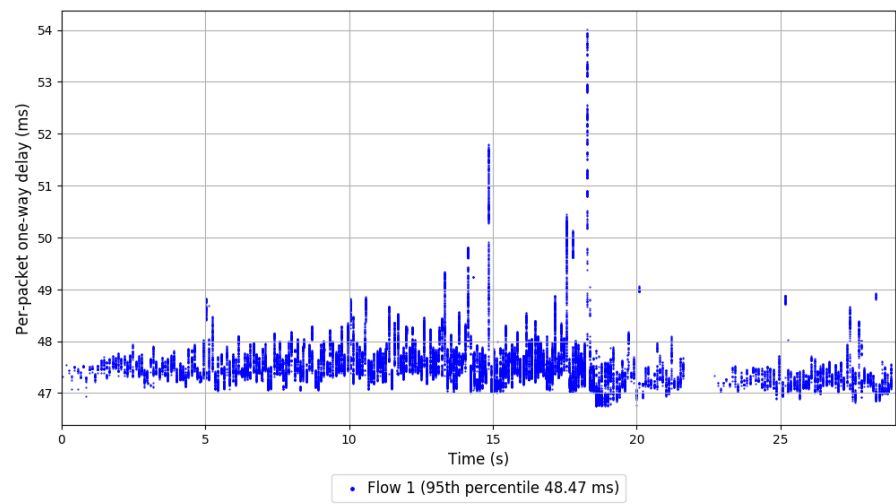
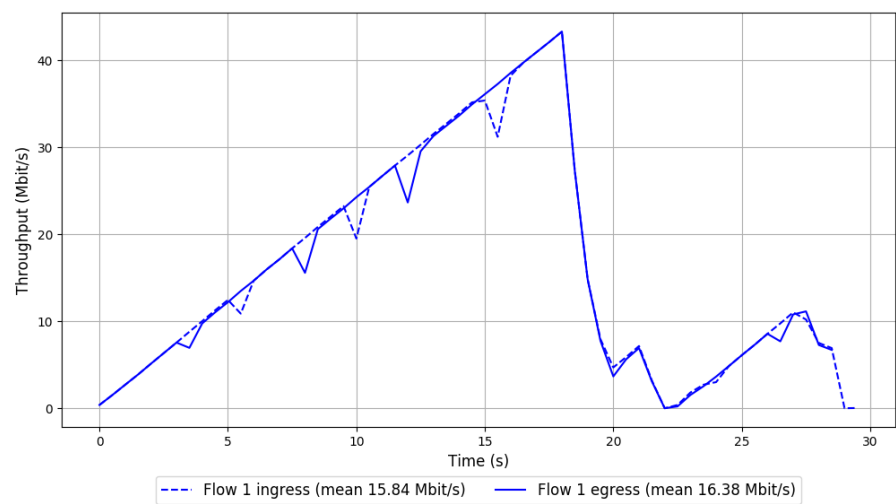
-- Flow 1:

Average throughput: 16.38 Mbit/s

95th percentile per-packet one-way delay: 48.467 ms

Loss rate: 0.38%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-09 01:57:17

End at: 2018-01-09 01:57:47

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.15 Mbit/s

95th percentile per-packet one-way delay: 48.752 ms

Loss rate: 0.48%

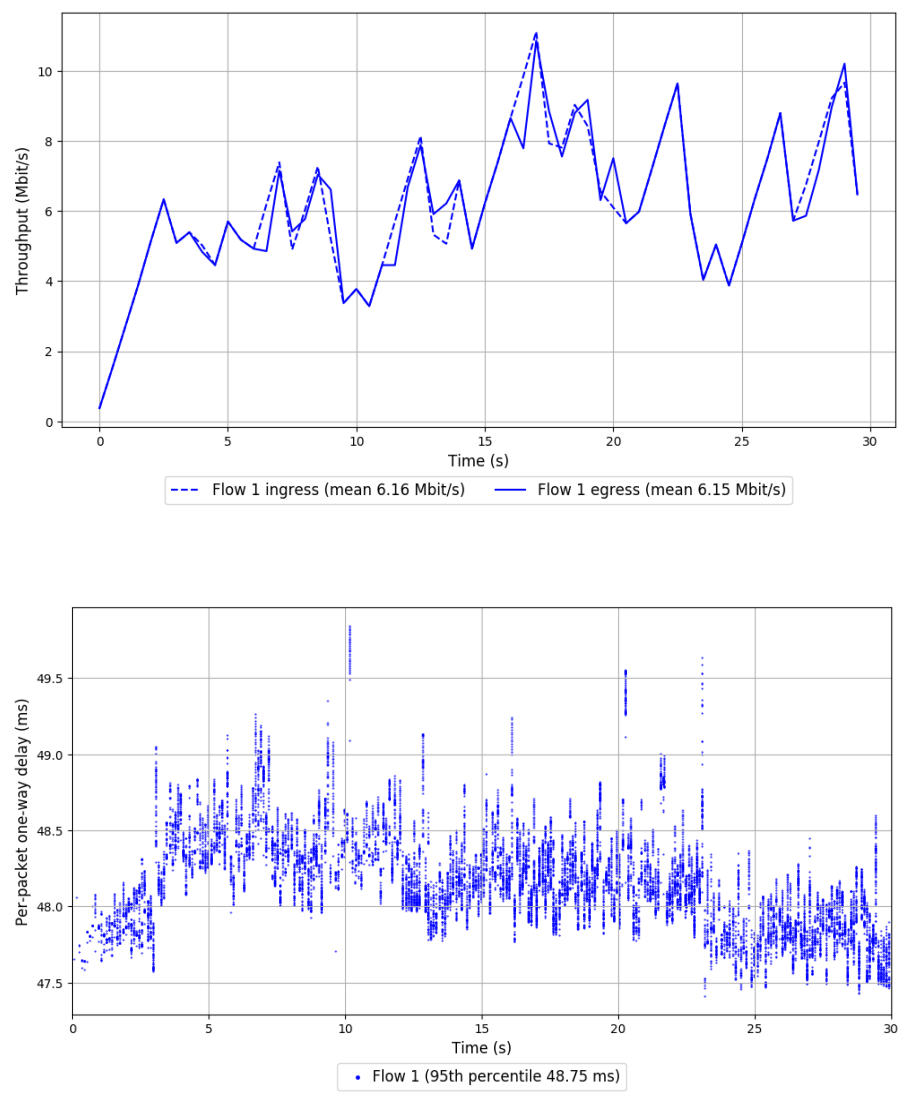
-- Flow 1:

Average throughput: 6.15 Mbit/s

95th percentile per-packet one-way delay: 48.752 ms

Loss rate: 0.48%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-09 02:09:05

End at: 2018-01-09 02:09:35

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.11 Mbit/s

95th percentile per-packet one-way delay: 49.108 ms

Loss rate: 1.13%

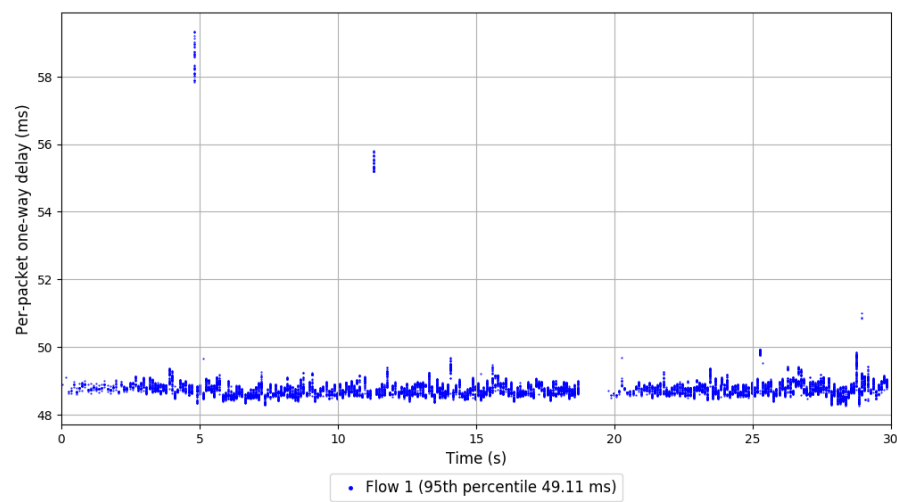
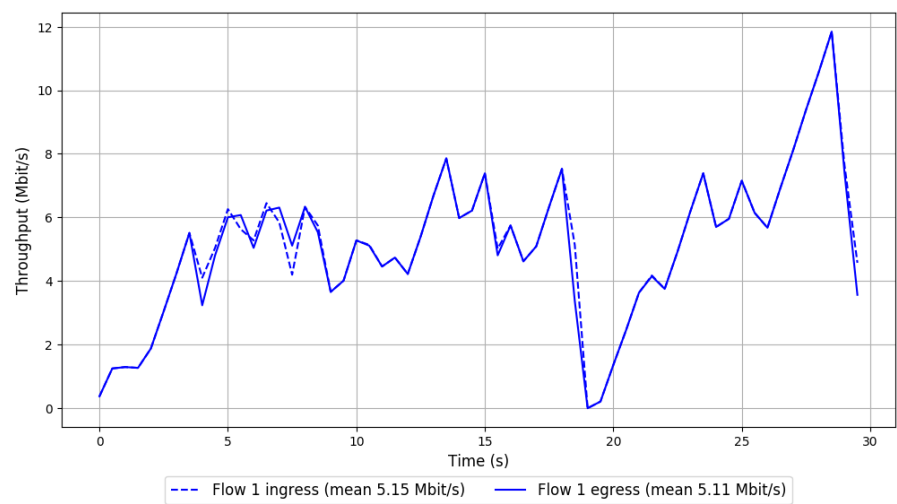
-- Flow 1:

Average throughput: 5.11 Mbit/s

95th percentile per-packet one-way delay: 49.108 ms

Loss rate: 1.13%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-09 02:20:47

End at: 2018-01-09 02:21:17

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.11 Mbit/s

95th percentile per-packet one-way delay: 49.865 ms

Loss rate: 1.01%

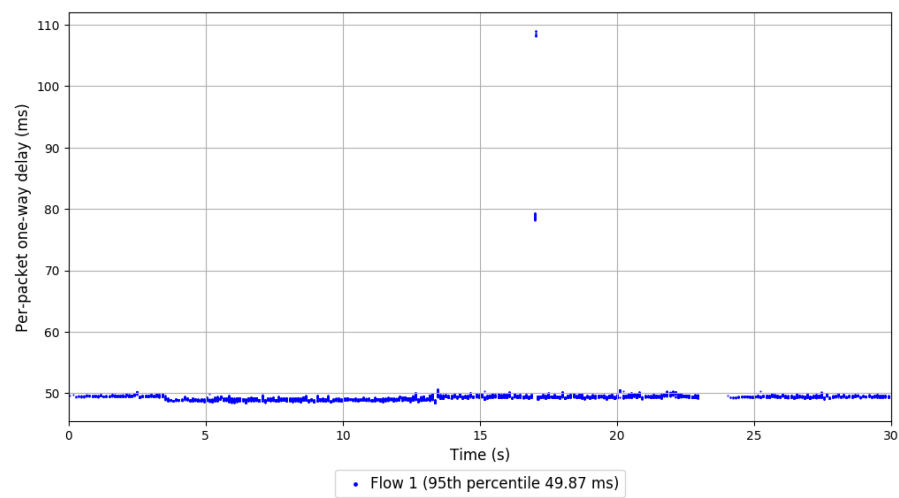
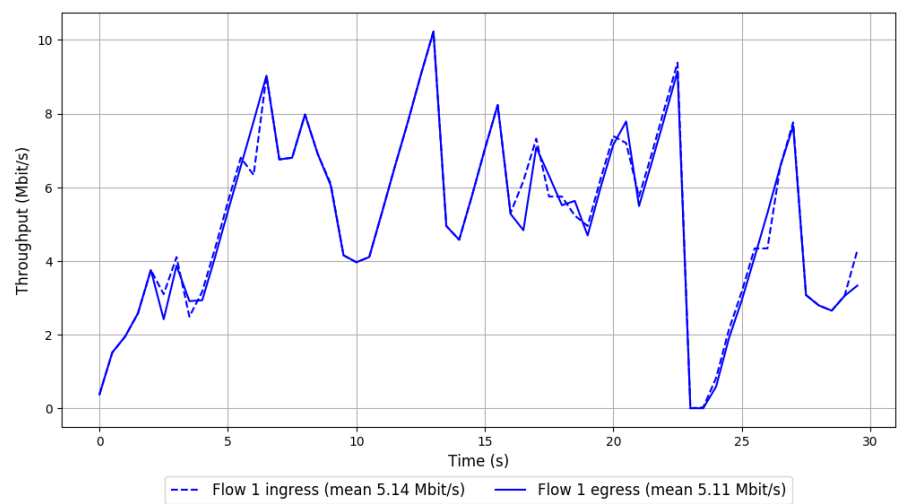
-- Flow 1:

Average throughput: 5.11 Mbit/s

95th percentile per-packet one-way delay: 49.865 ms

Loss rate: 1.01%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-09 02:32:30

End at: 2018-01-09 02:33:00

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.84 Mbit/s

95th percentile per-packet one-way delay: 50.772 ms

Loss rate: 1.39%

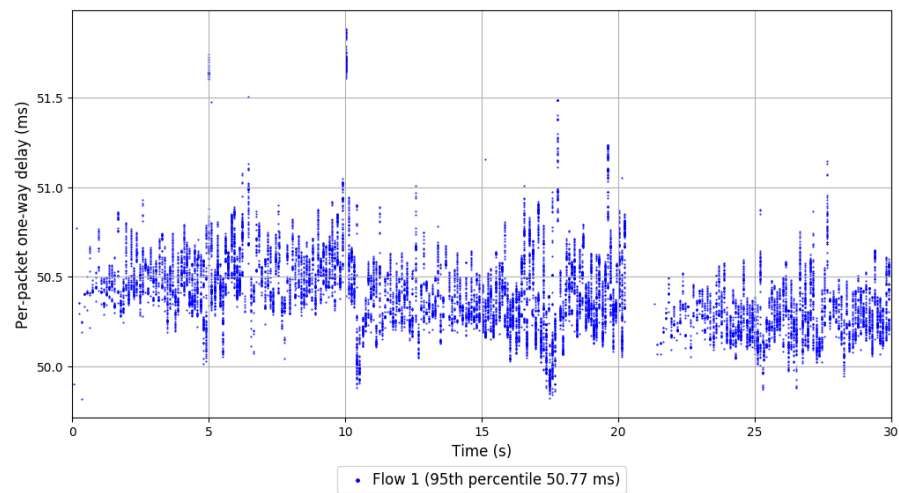
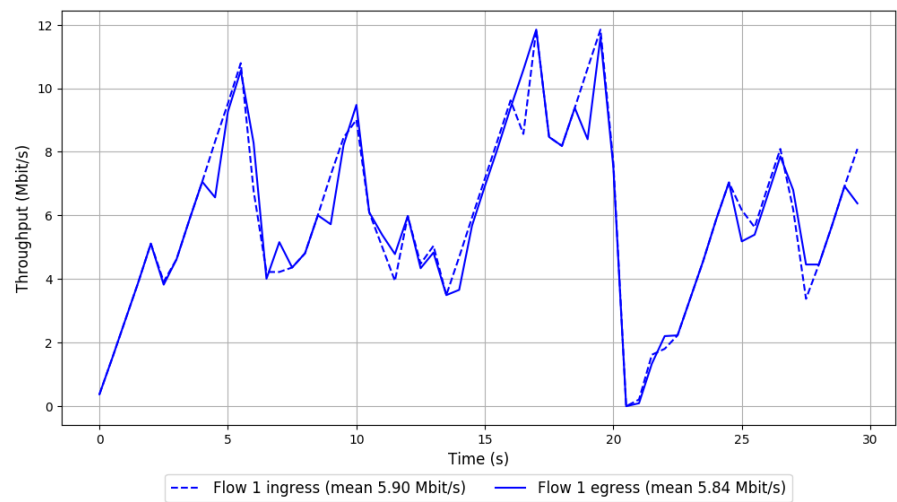
-- Flow 1:

Average throughput: 5.84 Mbit/s

95th percentile per-packet one-way delay: 50.772 ms

Loss rate: 1.39%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-01-09 02:44:13

End at: 2018-01-09 02:44:43

Below is generated by plot.py at 2018-01-09 04:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.38 Mbit/s

95th percentile per-packet one-way delay: 51.221 ms

Loss rate: 0.45%

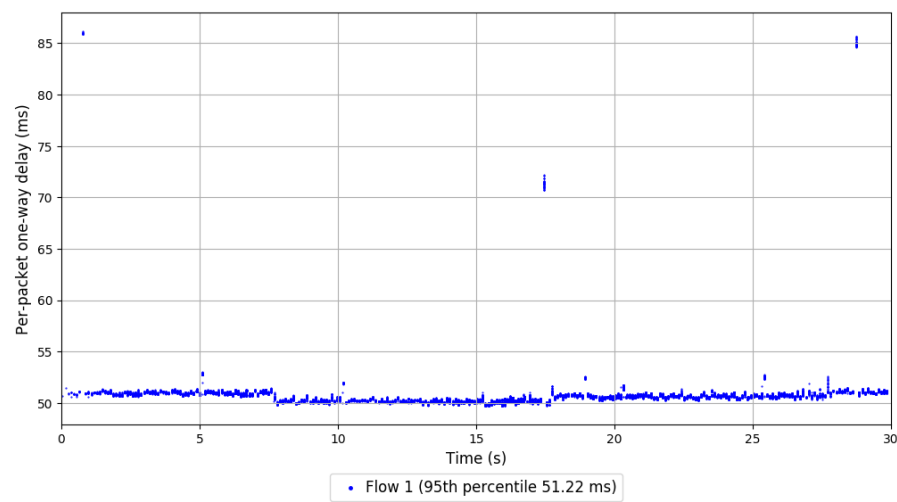
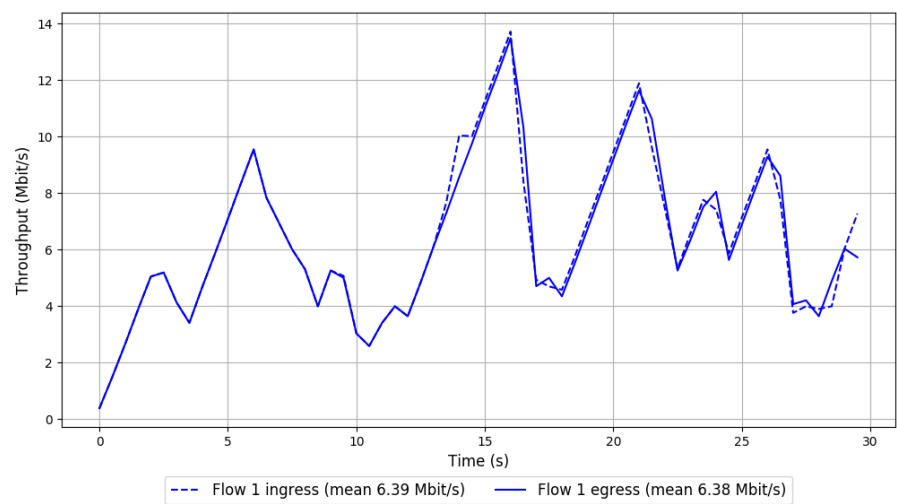
-- Flow 1:

Average throughput: 6.38 Mbit/s

95th percentile per-packet one-way delay: 51.221 ms

Loss rate: 0.45%

Run 10: Report of LEDBAT — Data Link

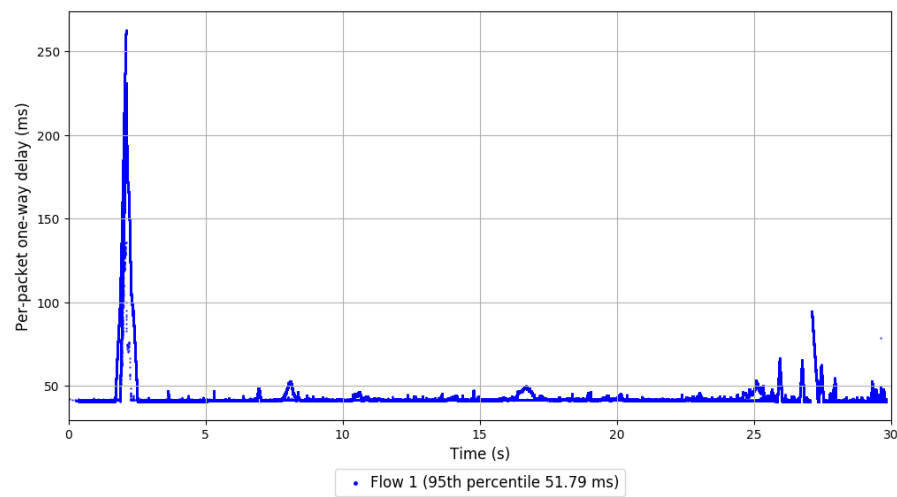
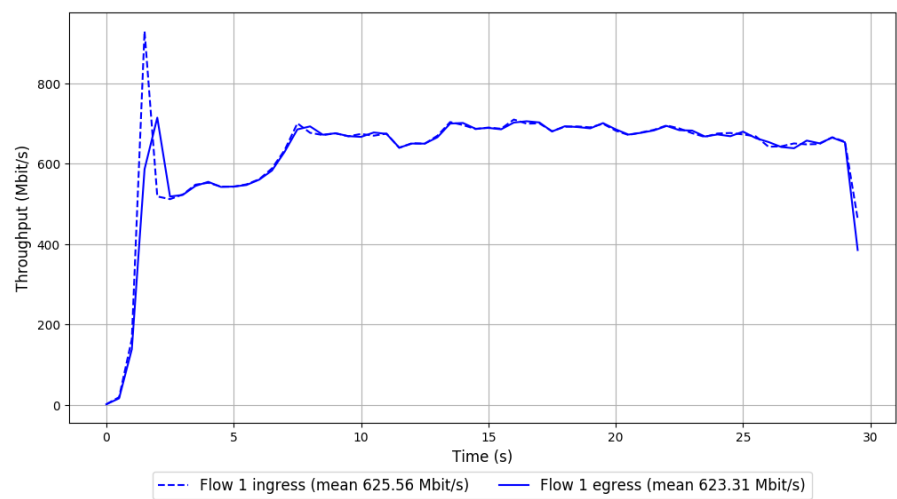


```
Run 1: Statistics of PCC

Start at: 2018-01-09 00:59:35
End at: 2018-01-09 01:00:05

# Below is generated by plot.py at 2018-01-09 05:01:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 623.31 Mbit/s
95th percentile per-packet one-way delay: 51.792 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 623.31 Mbit/s
95th percentile per-packet one-way delay: 51.792 ms
Loss rate: 0.70%
```

Run 1: Report of PCC — Data Link

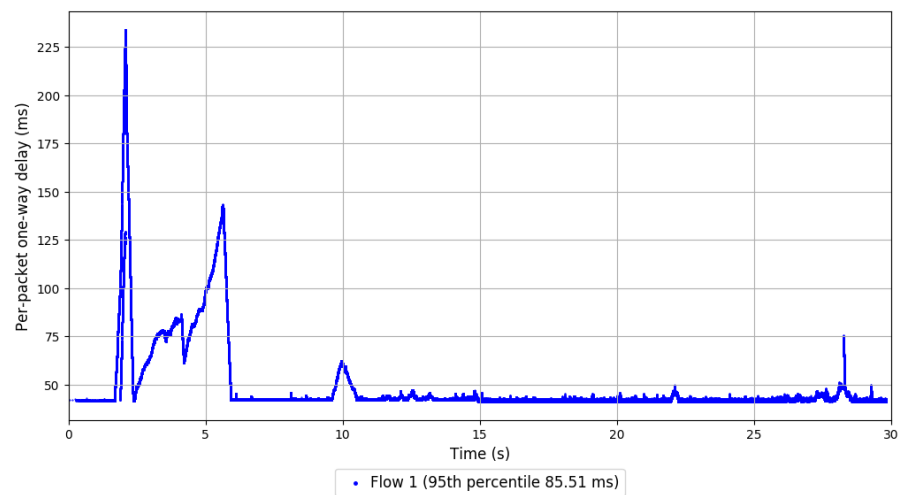
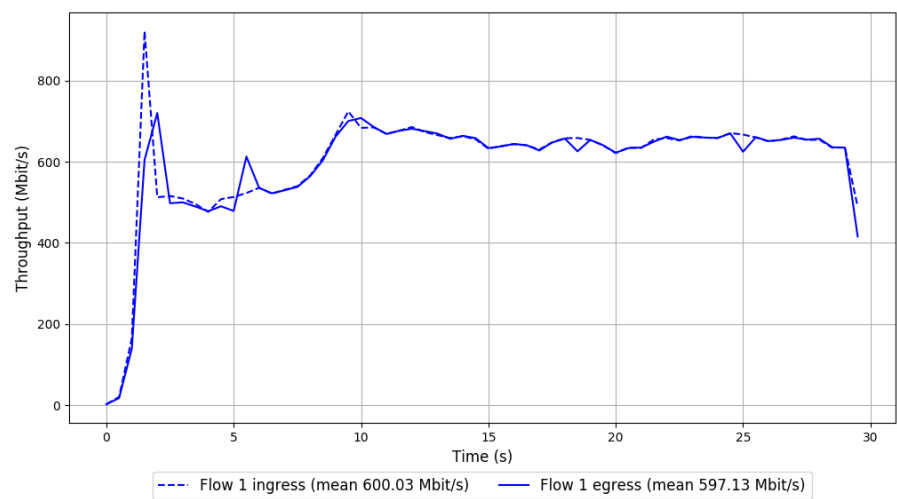


```
Run 2: Statistics of PCC

Start at: 2018-01-09 01:11:05
End at: 2018-01-09 01:11:35

# Below is generated by plot.py at 2018-01-09 05:01:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 597.13 Mbit/s
95th percentile per-packet one-way delay: 85.507 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 597.13 Mbit/s
95th percentile per-packet one-way delay: 85.507 ms
Loss rate: 0.82%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-01-09 01:22:51

End at: 2018-01-09 01:23:21

Below is generated by plot.py at 2018-01-09 05:01:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 623.83 Mbit/s

95th percentile per-packet one-way delay: 57.550 ms

Loss rate: 0.66%

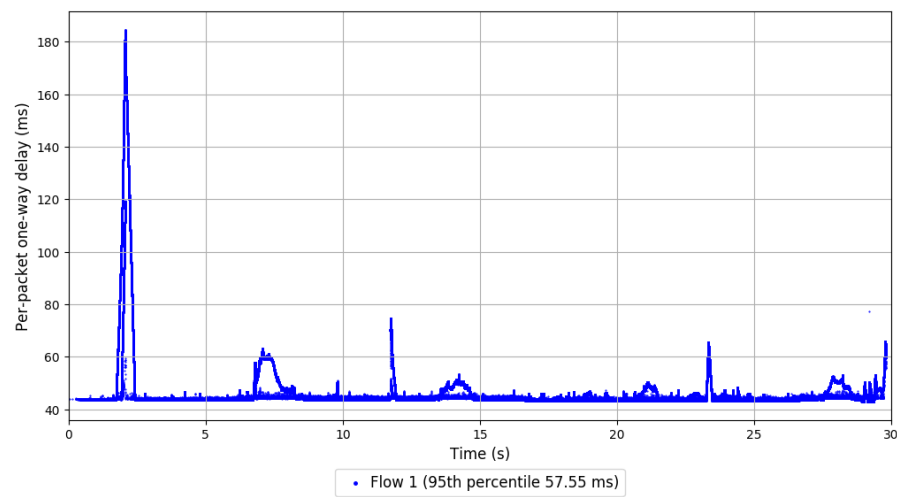
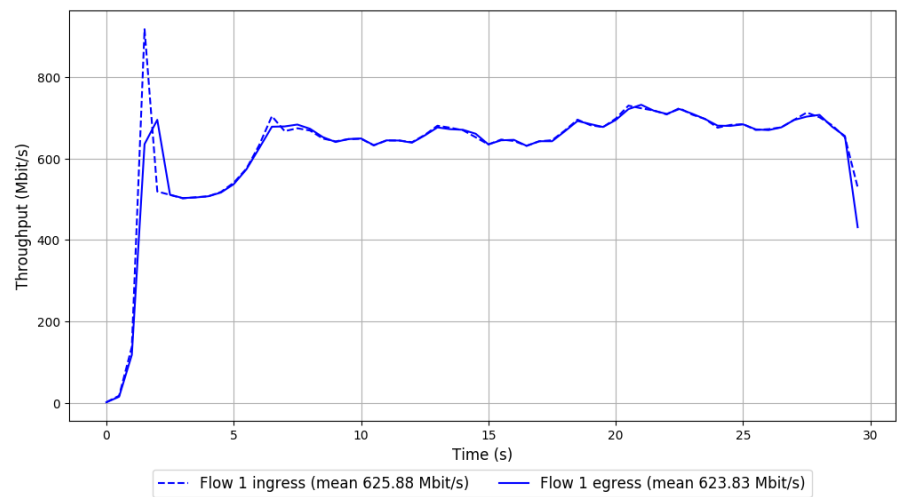
-- Flow 1:

Average throughput: 623.83 Mbit/s

95th percentile per-packet one-way delay: 57.550 ms

Loss rate: 0.66%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-01-09 01:34:33

End at: 2018-01-09 01:35:03

Below is generated by plot.py at 2018-01-09 05:01:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 633.60 Mbit/s

95th percentile per-packet one-way delay: 85.737 ms

Loss rate: 0.47%

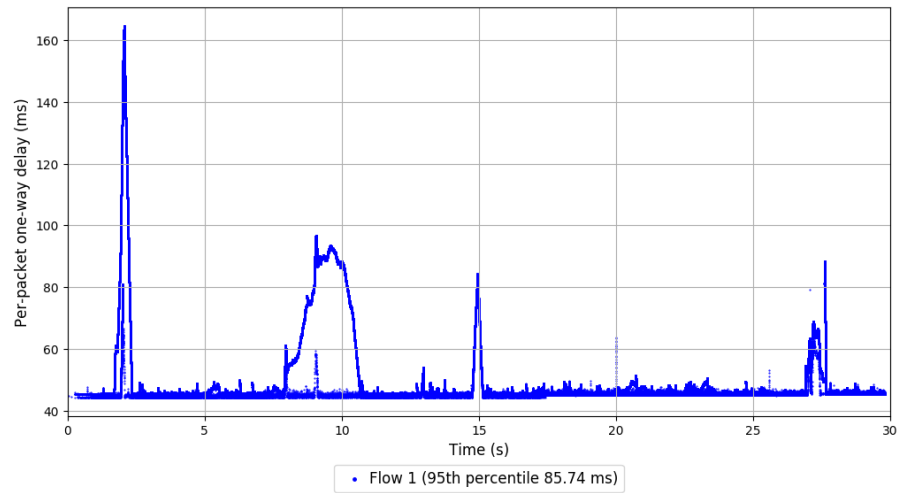
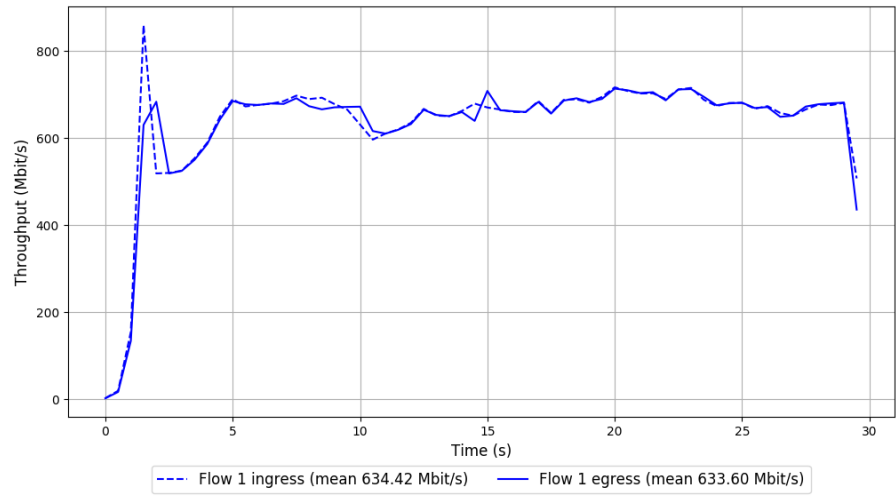
-- Flow 1:

Average throughput: 633.60 Mbit/s

95th percentile per-packet one-way delay: 85.737 ms

Loss rate: 0.47%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-01-09 01:46:20

End at: 2018-01-09 01:46:50

Below is generated by plot.py at 2018-01-09 05:01:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 625.72 Mbit/s

95th percentile per-packet one-way delay: 63.238 ms

Loss rate: 0.62%

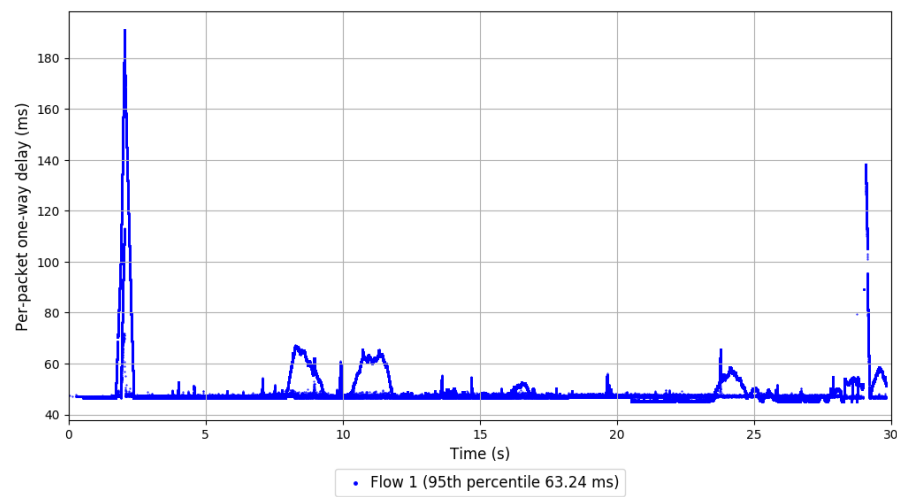
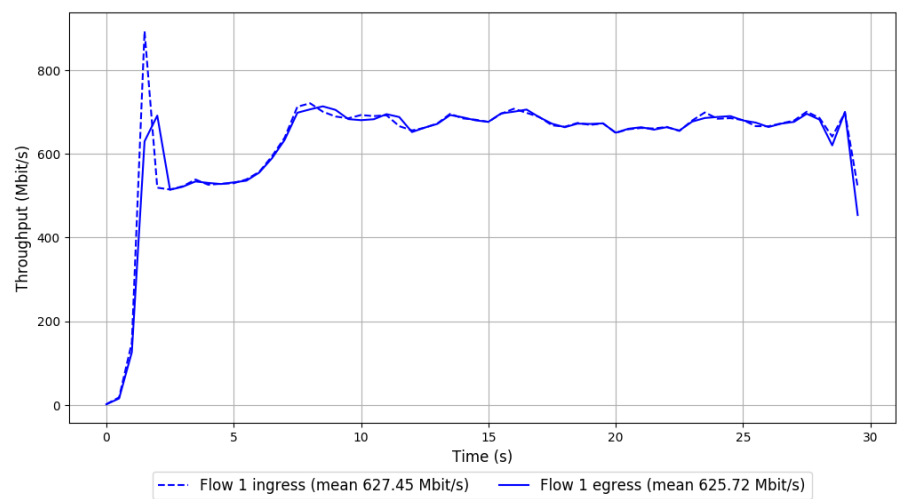
-- Flow 1:

Average throughput: 625.72 Mbit/s

95th percentile per-packet one-way delay: 63.238 ms

Loss rate: 0.62%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-01-09 01:57:54

End at: 2018-01-09 01:58:24

Below is generated by plot.py at 2018-01-09 05:01:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 634.84 Mbit/s

95th percentile per-packet one-way delay: 61.523 ms

Loss rate: 0.67%

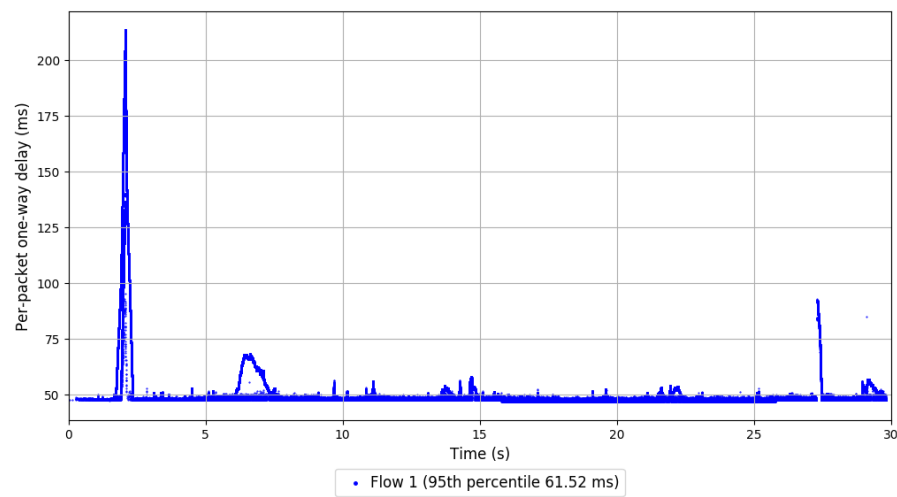
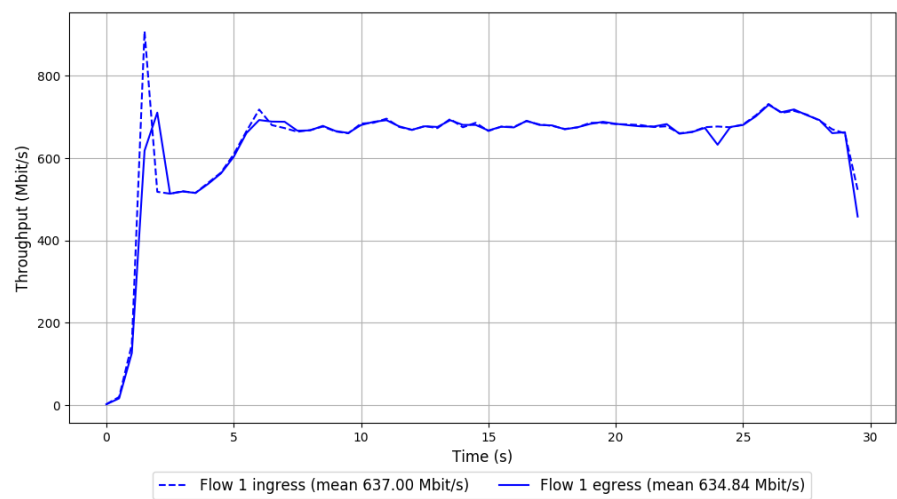
-- Flow 1:

Average throughput: 634.84 Mbit/s

95th percentile per-packet one-way delay: 61.523 ms

Loss rate: 0.67%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-01-09 02:09:42

End at: 2018-01-09 02:10:12

Below is generated by plot.py at 2018-01-09 05:02:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 633.15 Mbit/s

95th percentile per-packet one-way delay: 82.703 ms

Loss rate: 0.55%

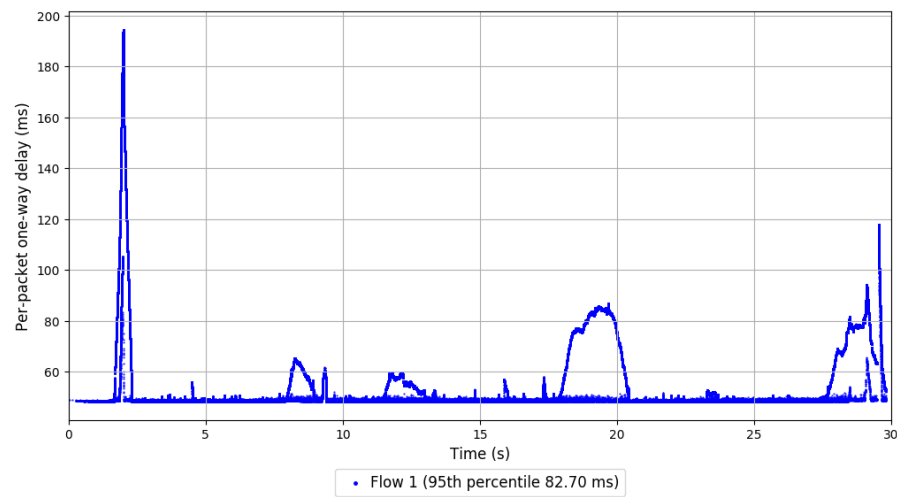
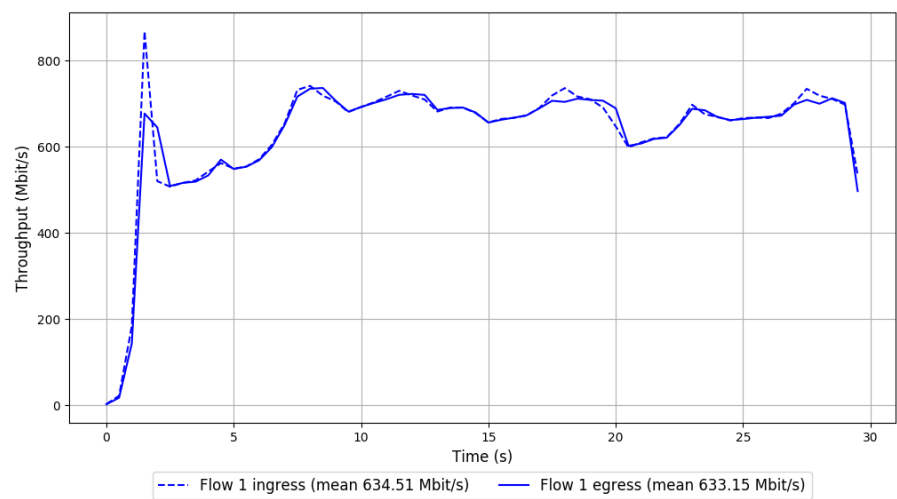
-- Flow 1:

Average throughput: 633.15 Mbit/s

95th percentile per-packet one-way delay: 82.703 ms

Loss rate: 0.55%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-09 02:21:24

End at: 2018-01-09 02:21:54

Below is generated by plot.py at 2018-01-09 05:03:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 640.99 Mbit/s

95th percentile per-packet one-way delay: 101.588 ms

Loss rate: 0.57%

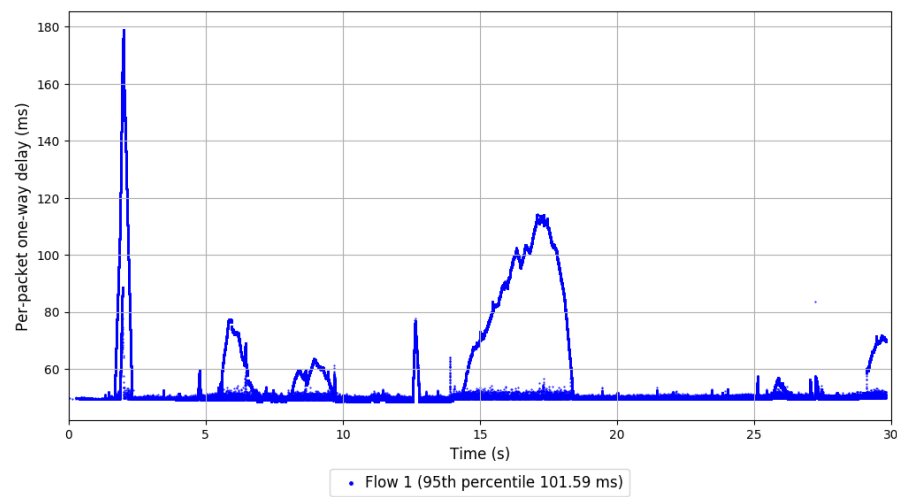
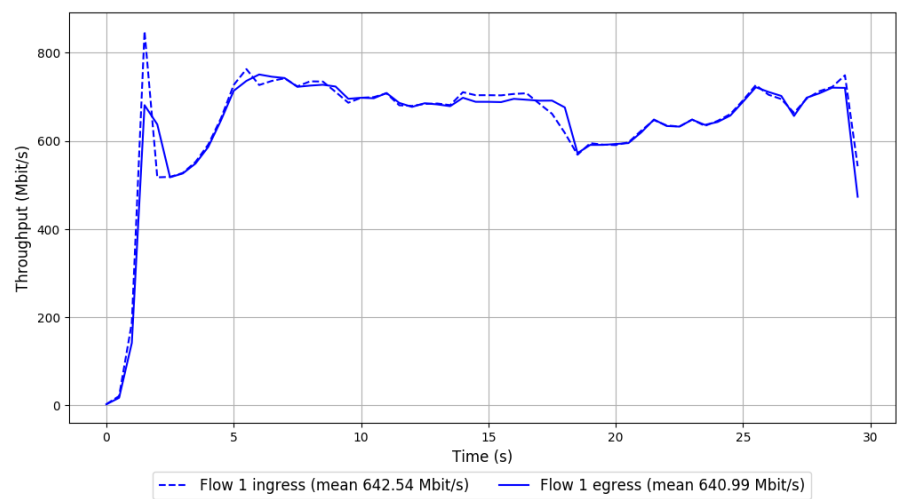
-- Flow 1:

Average throughput: 640.99 Mbit/s

95th percentile per-packet one-way delay: 101.588 ms

Loss rate: 0.57%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-01-09 02:33:07

End at: 2018-01-09 02:33:37

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 640.40 Mbit/s

95th percentile per-packet one-way delay: 82.822 ms

Loss rate: 0.78%

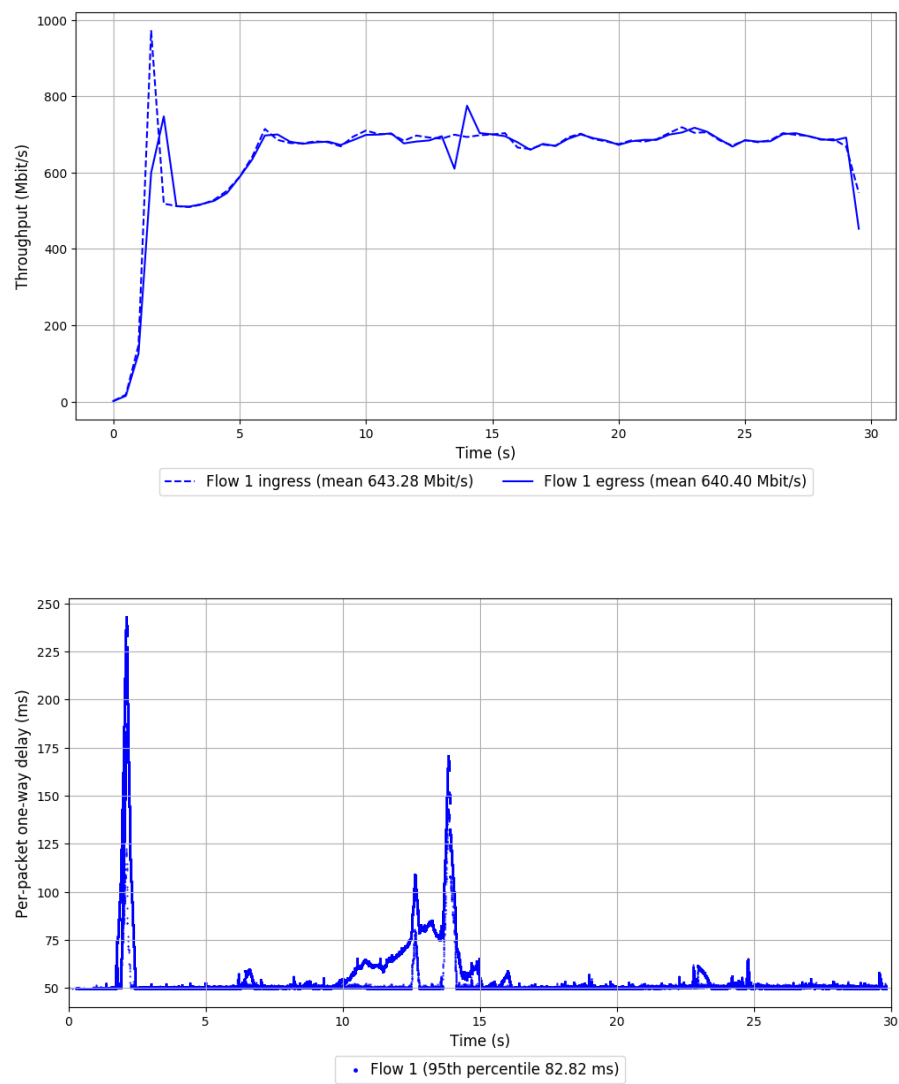
-- Flow 1:

Average throughput: 640.40 Mbit/s

95th percentile per-packet one-way delay: 82.822 ms

Loss rate: 0.78%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-01-09 02:44:50

End at: 2018-01-09 02:45:20

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 627.00 Mbit/s

95th percentile per-packet one-way delay: 102.328 ms

Loss rate: 0.75%

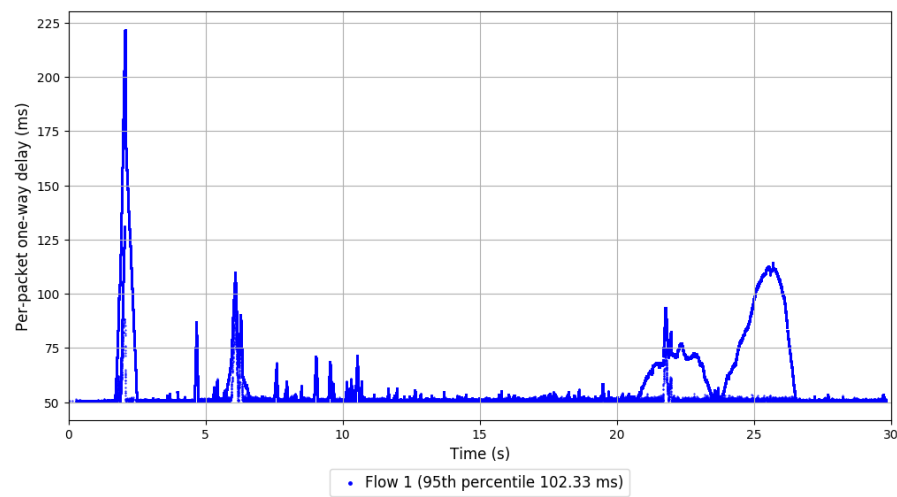
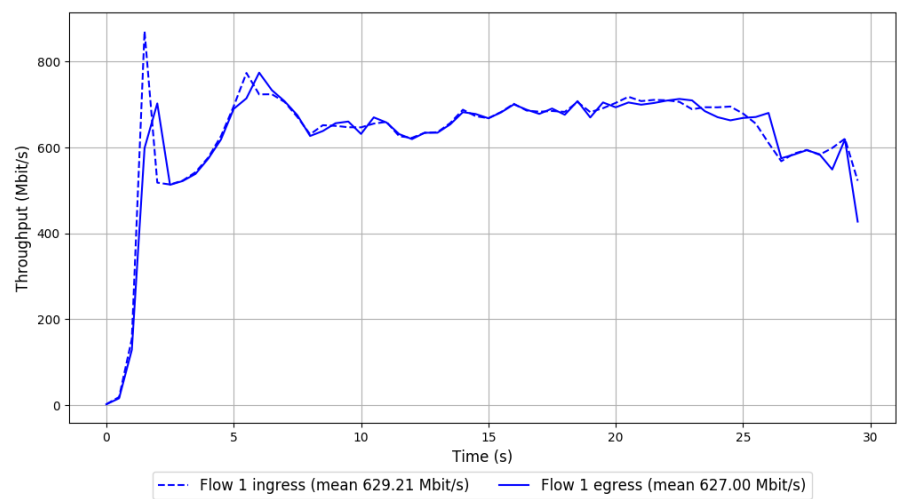
-- Flow 1:

Average throughput: 627.00 Mbit/s

95th percentile per-packet one-way delay: 102.328 ms

Loss rate: 0.75%

Run 10: Report of PCC — Data Link

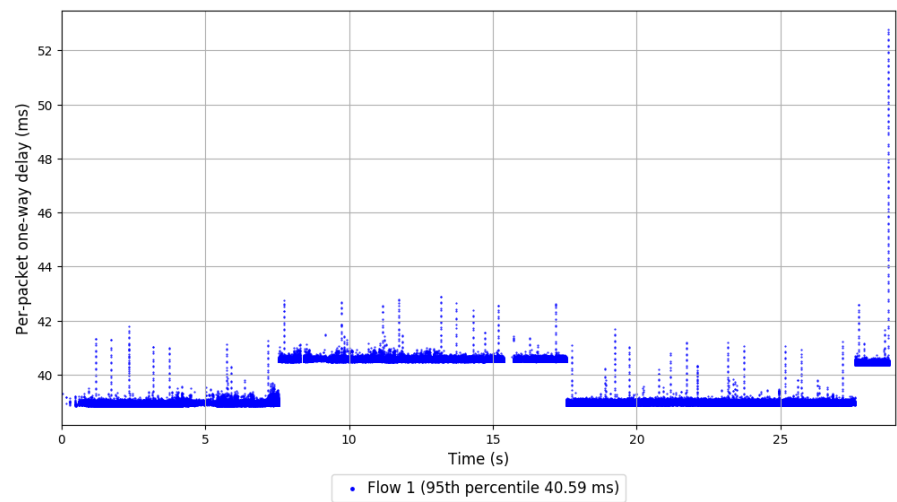
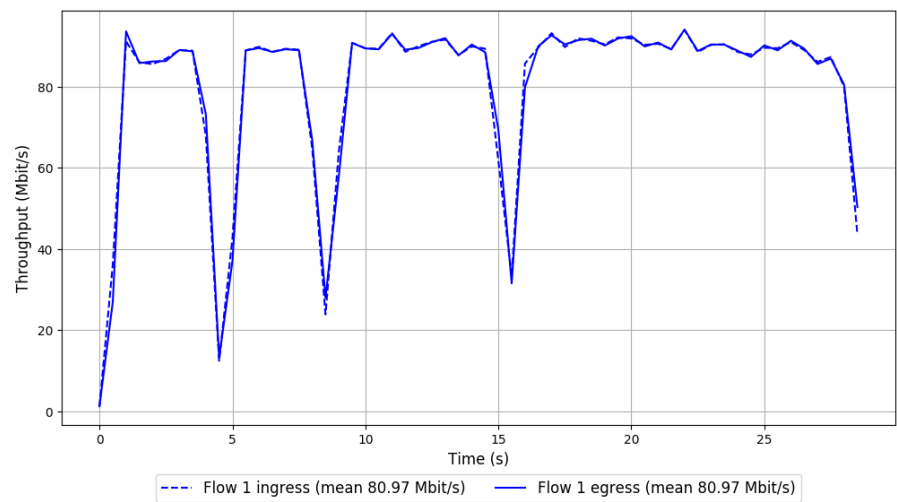


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-09 00:49:59
End at: 2018-01-09 00:50:29

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.97 Mbit/s
95th percentile per-packet one-way delay: 40.587 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.97 Mbit/s
95th percentile per-packet one-way delay: 40.587 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-01-09 01:01:22

End at: 2018-01-09 01:01:52

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.34 Mbit/s

95th percentile per-packet one-way delay: 41.617 ms

Loss rate: 0.43%

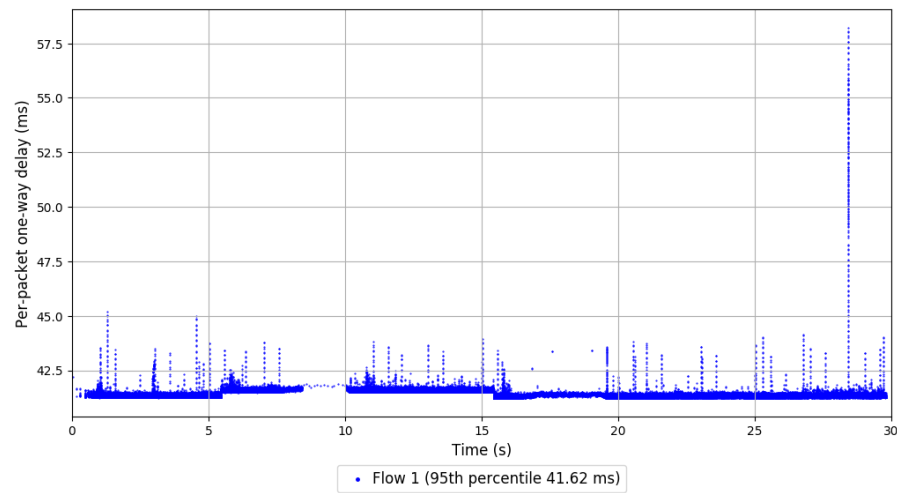
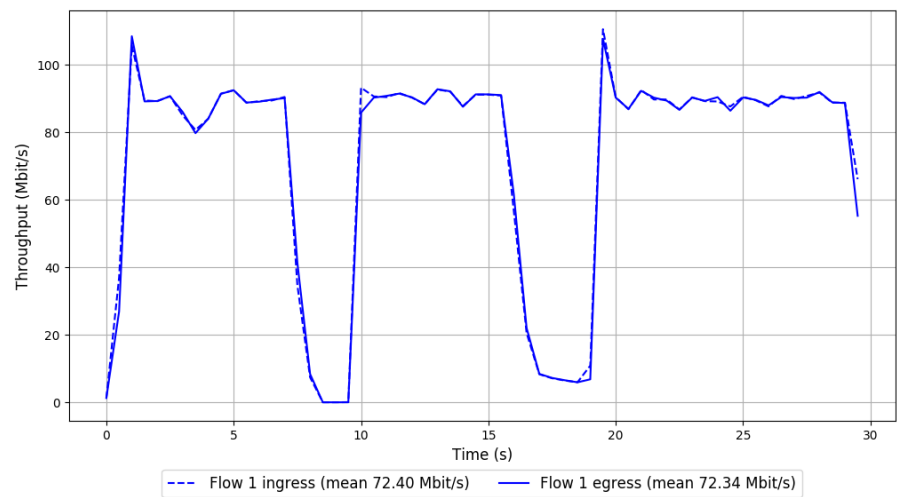
-- Flow 1:

Average throughput: 72.34 Mbit/s

95th percentile per-packet one-way delay: 41.617 ms

Loss rate: 0.43%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-09 01:12:53

End at: 2018-01-09 01:13:23

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.49 Mbit/s

95th percentile per-packet one-way delay: 42.443 ms

Loss rate: 0.46%

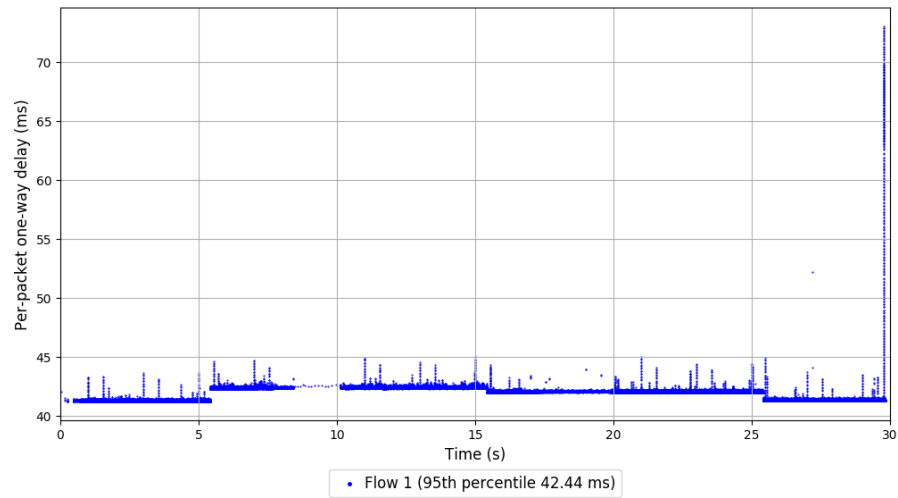
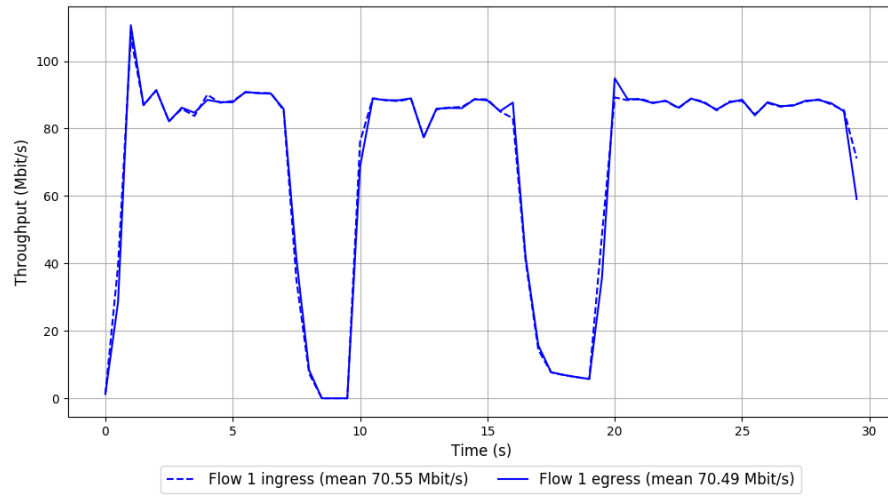
-- Flow 1:

Average throughput: 70.49 Mbit/s

95th percentile per-packet one-way delay: 42.443 ms

Loss rate: 0.46%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-09 01:24:38

End at: 2018-01-09 01:25:08

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.38 Mbit/s

95th percentile per-packet one-way delay: 43.978 ms

Loss rate: 0.46%

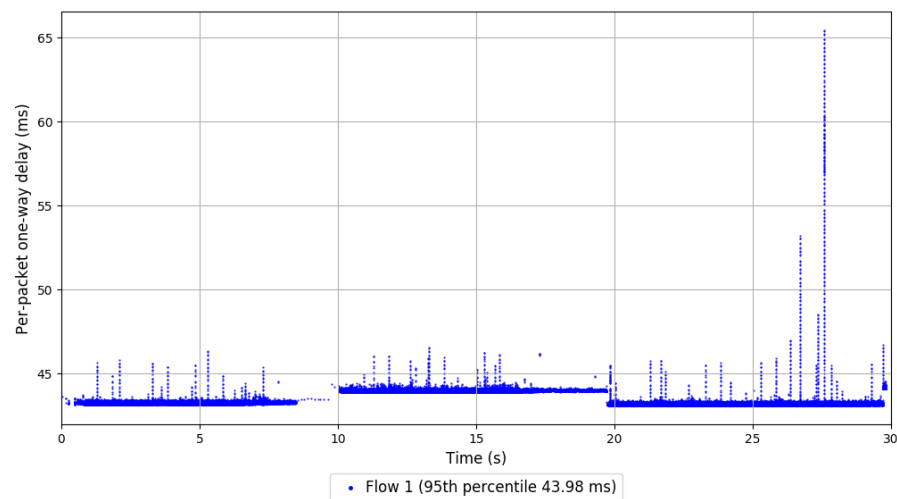
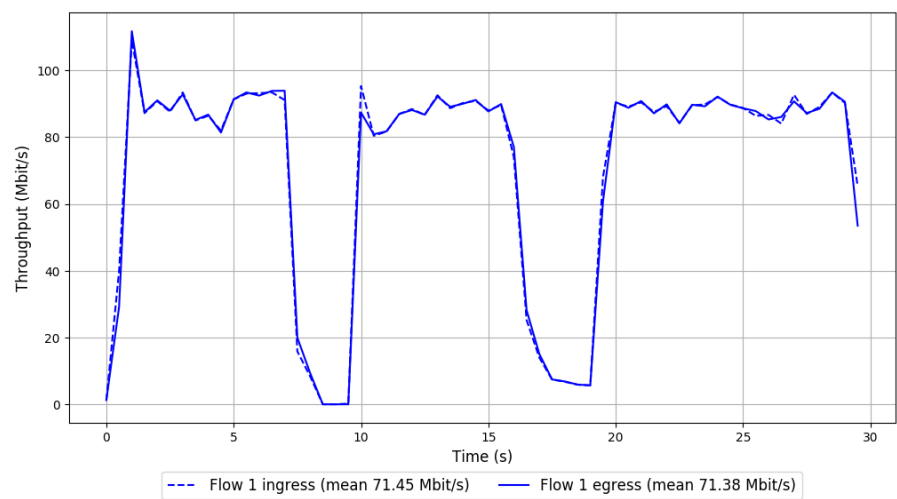
-- Flow 1:

Average throughput: 71.38 Mbit/s

95th percentile per-packet one-way delay: 43.978 ms

Loss rate: 0.46%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-09 01:36:21

End at: 2018-01-09 01:36:51

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.33 Mbit/s

95th percentile per-packet one-way delay: 45.626 ms

Loss rate: 0.19%

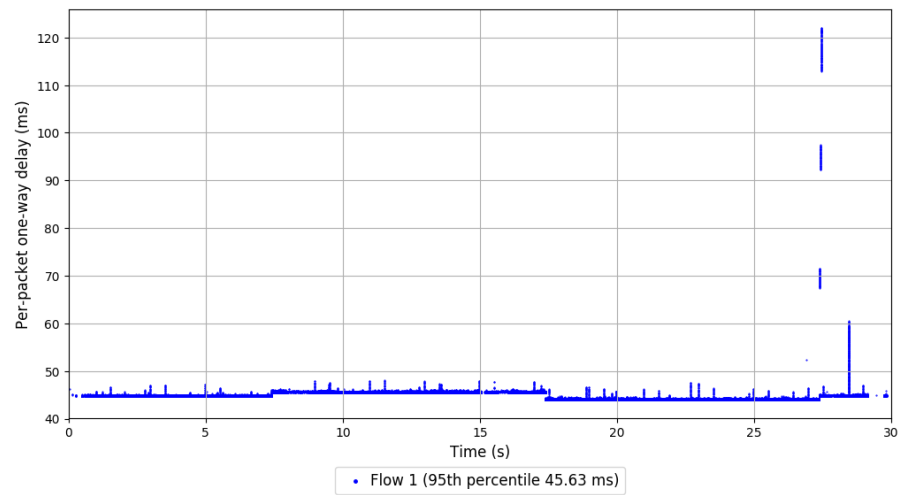
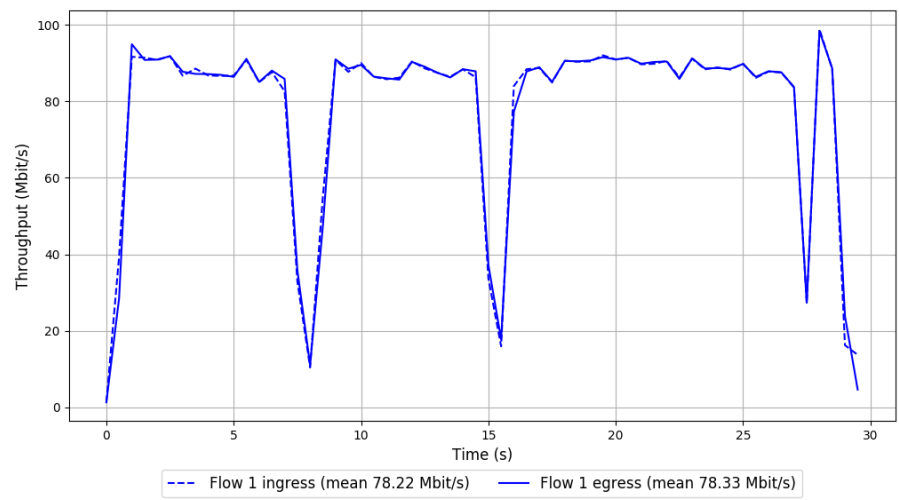
-- Flow 1:

Average throughput: 78.33 Mbit/s

95th percentile per-packet one-way delay: 45.626 ms

Loss rate: 0.19%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-09 01:48:07

End at: 2018-01-09 01:48:37

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.96 Mbit/s

95th percentile per-packet one-way delay: 47.301 ms

Loss rate: 0.43%

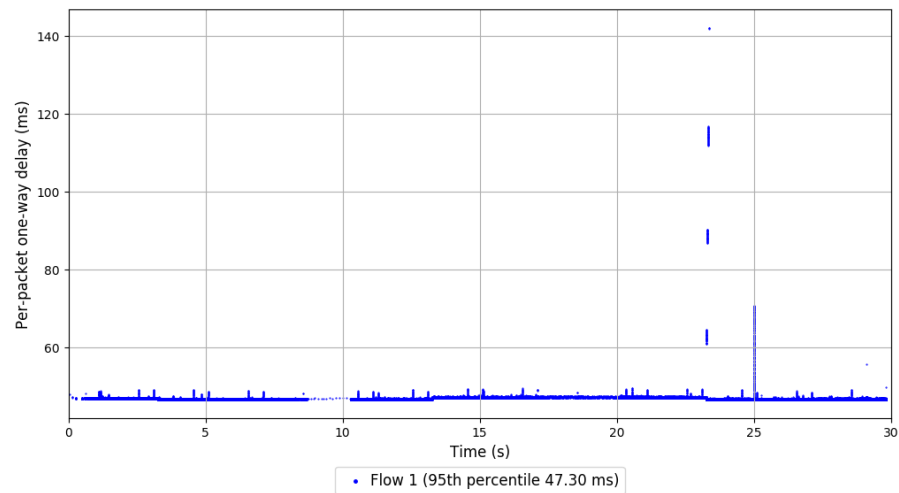
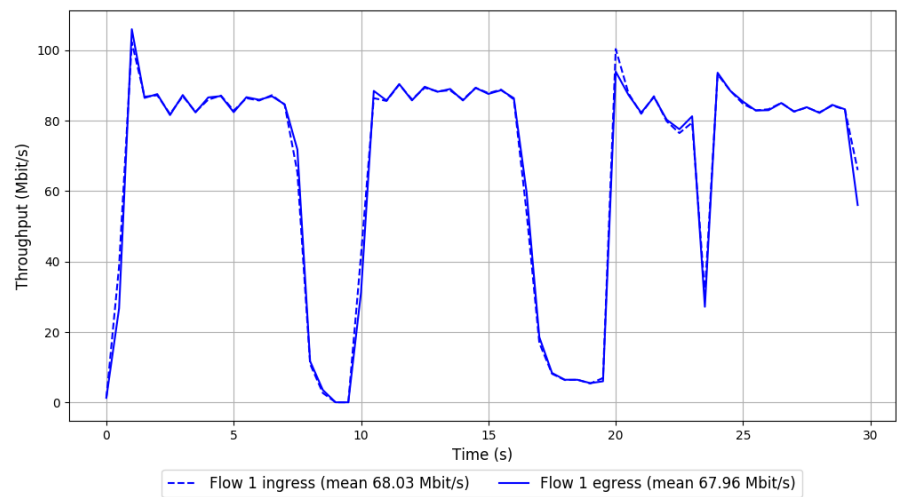
-- Flow 1:

Average throughput: 67.96 Mbit/s

95th percentile per-packet one-way delay: 47.301 ms

Loss rate: 0.43%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-01-09 01:59:42

End at: 2018-01-09 02:00:12

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.38 Mbit/s

95th percentile per-packet one-way delay: 48.290 ms

Loss rate: 0.35%

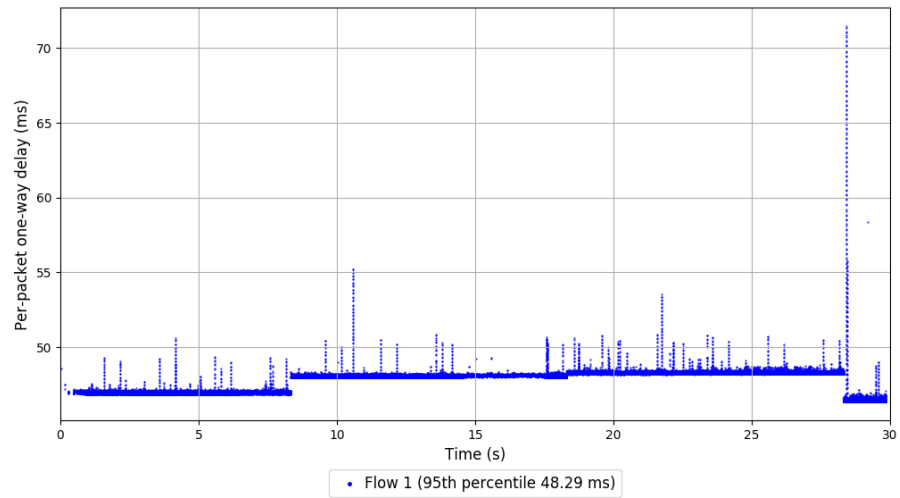
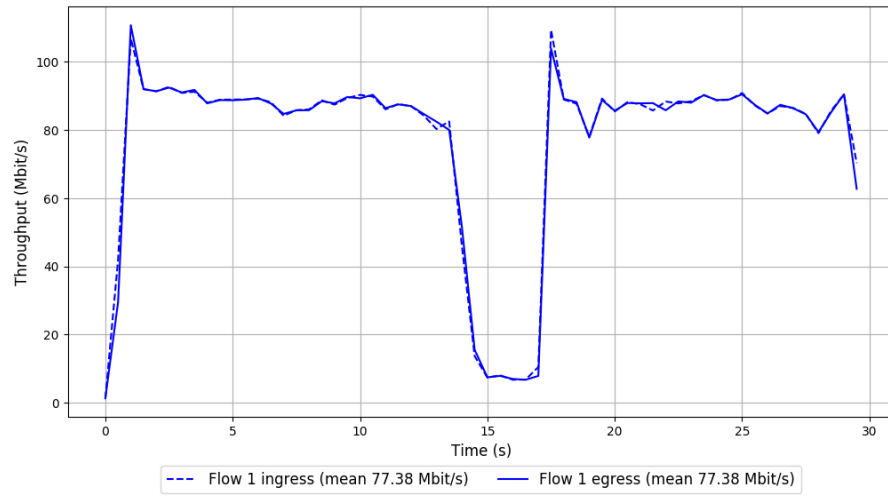
-- Flow 1:

Average throughput: 77.38 Mbit/s

95th percentile per-packet one-way delay: 48.290 ms

Loss rate: 0.35%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-09 02:11:30

End at: 2018-01-09 02:12:00

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 25.42 Mbit/s

95th percentile per-packet one-way delay: 48.812 ms

Loss rate: 0.73%

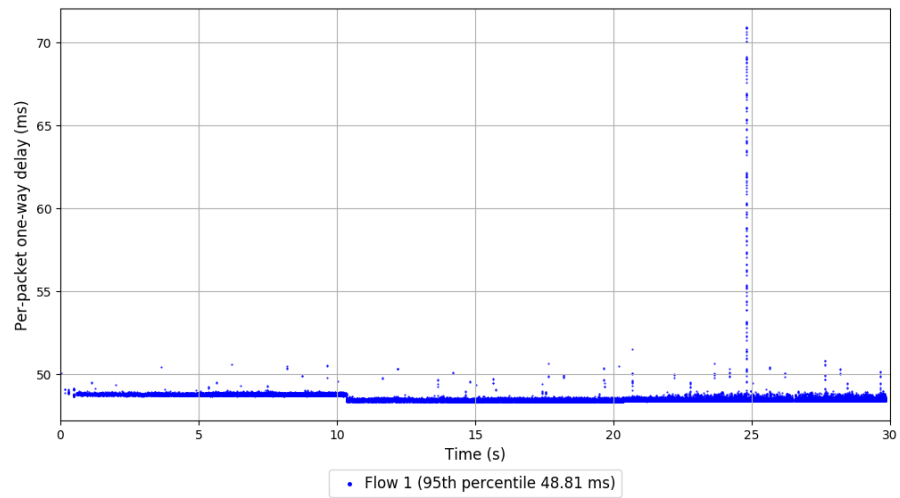
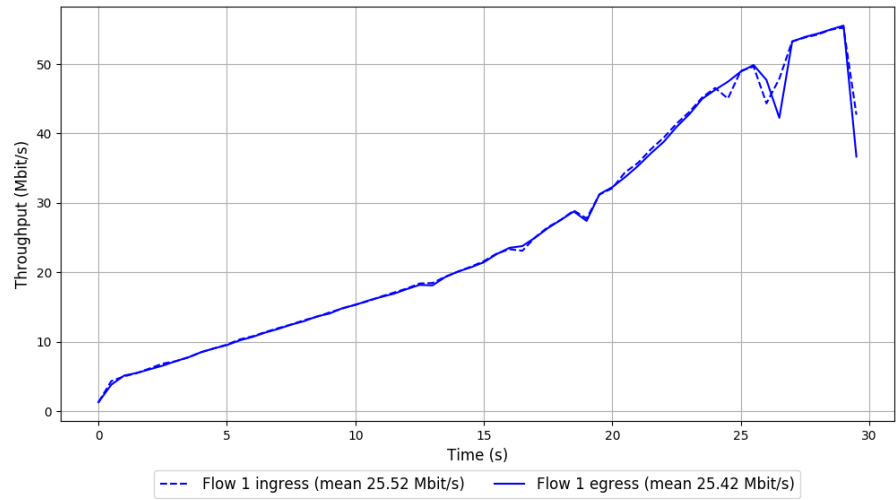
-- Flow 1:

Average throughput: 25.42 Mbit/s

95th percentile per-packet one-way delay: 48.812 ms

Loss rate: 0.73%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-01-09 02:23:12

End at: 2018-01-09 02:23:42

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.92 Mbit/s

95th percentile per-packet one-way delay: 49.250 ms

Loss rate: 0.44%

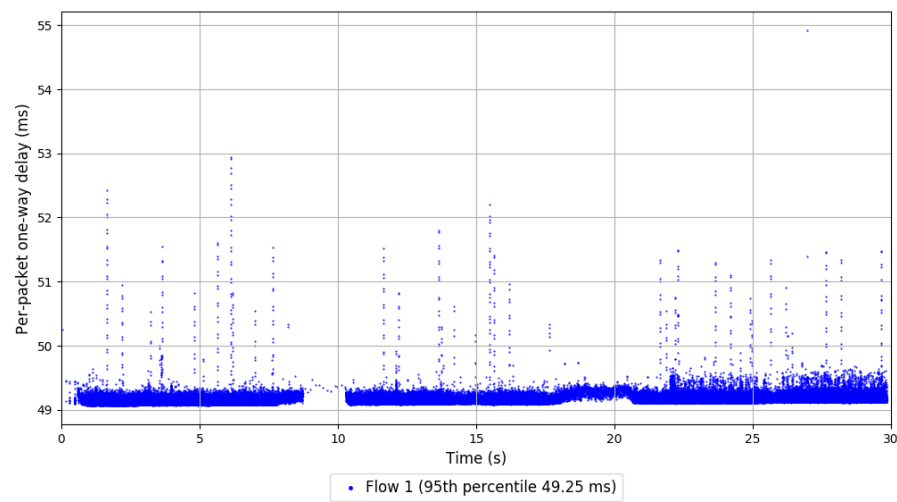
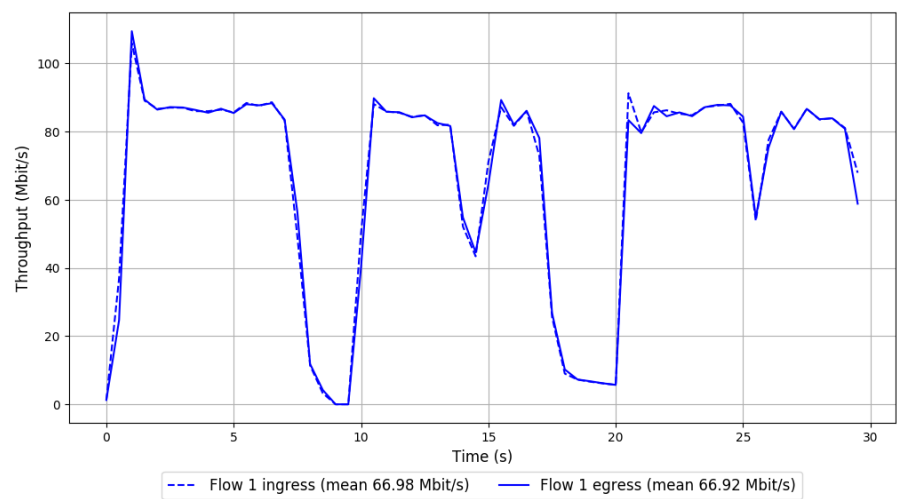
-- Flow 1:

Average throughput: 66.92 Mbit/s

95th percentile per-packet one-way delay: 49.250 ms

Loss rate: 0.44%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-01-09 02:34:55

End at: 2018-01-09 02:35:25

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.32 Mbit/s

95th percentile per-packet one-way delay: 50.347 ms

Loss rate: 0.48%

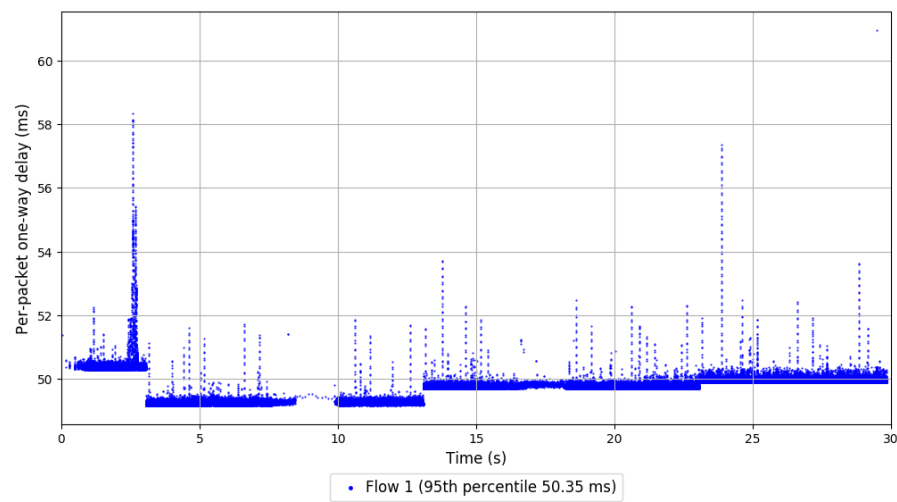
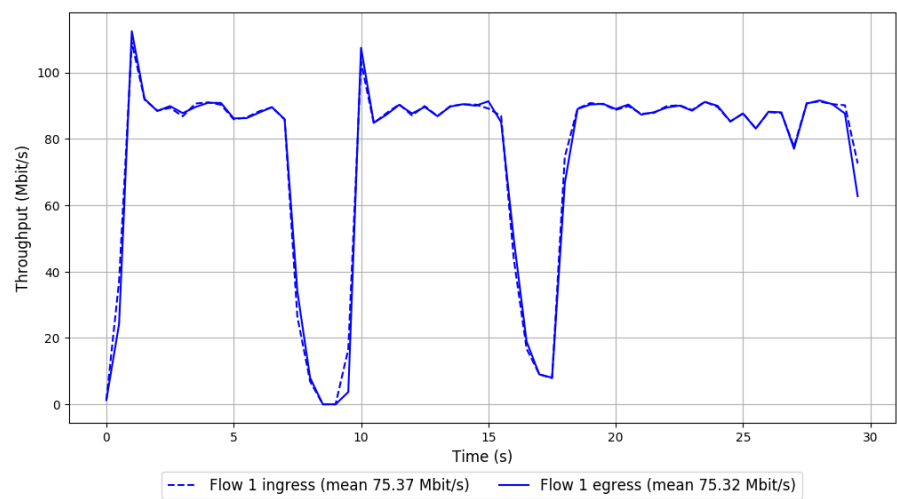
-- Flow 1:

Average throughput: 75.32 Mbit/s

95th percentile per-packet one-way delay: 50.347 ms

Loss rate: 0.48%

Run 10: Report of QUIC Cubic — Data Link

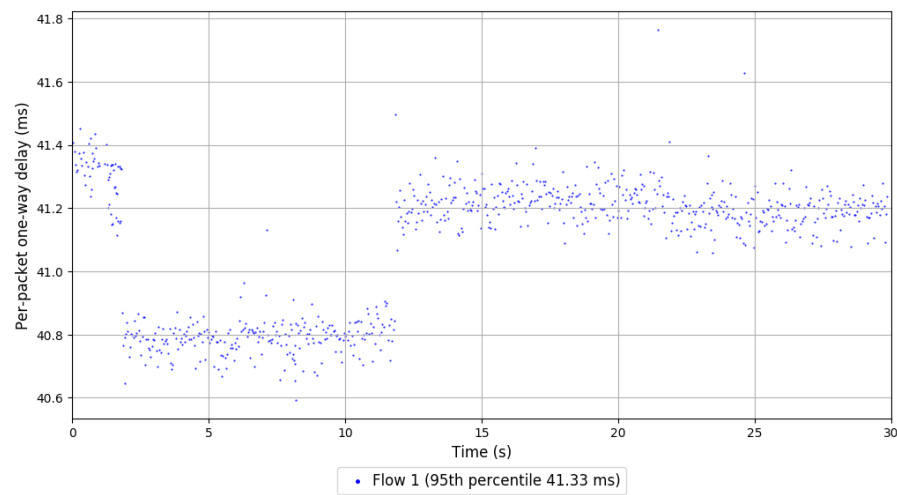
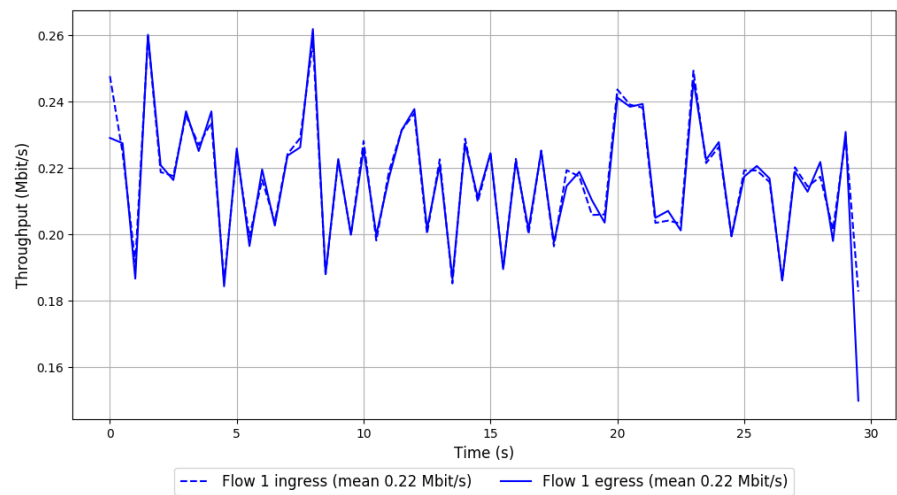


```
Run 1: Statistics of SCReAM

Start at: 2018-01-09 00:56:46
End at: 2018-01-09 00:57:16

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.332 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.332 ms
Loss rate: 0.38%
```

Run 1: Report of SReAM — Data Link

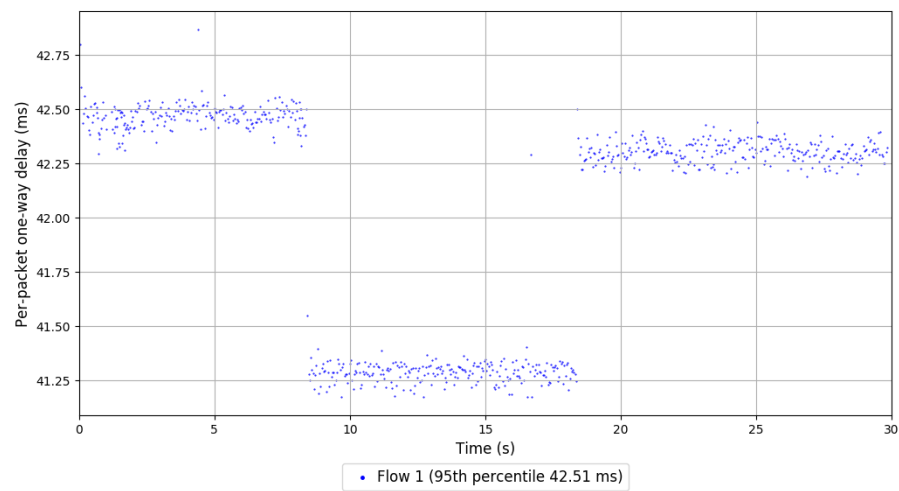
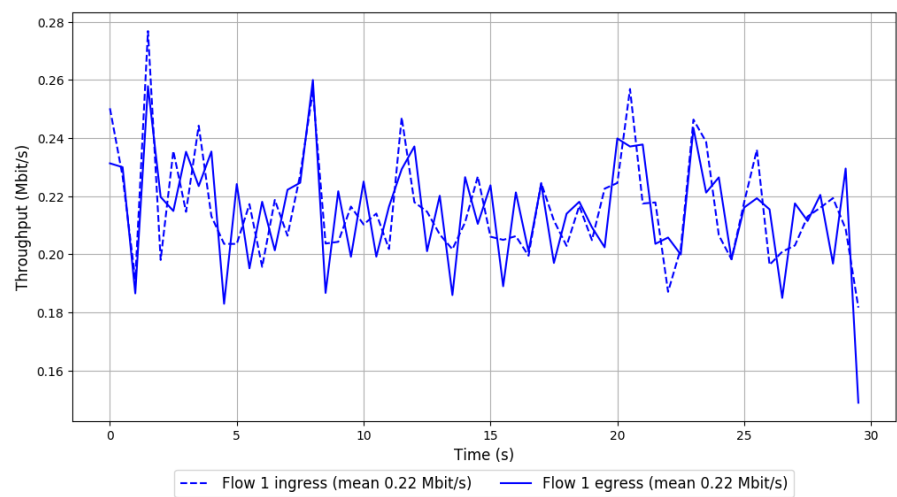


```
Run 2: Statistics of SCReAM

Start at: 2018-01-09 01:08:20
End at: 2018-01-09 01:08:50

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 42.511 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 42.511 ms
Loss rate: 0.38%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-01-09 01:20:03

End at: 2018-01-09 01:20:33

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 43.643 ms

Loss rate: 0.38%

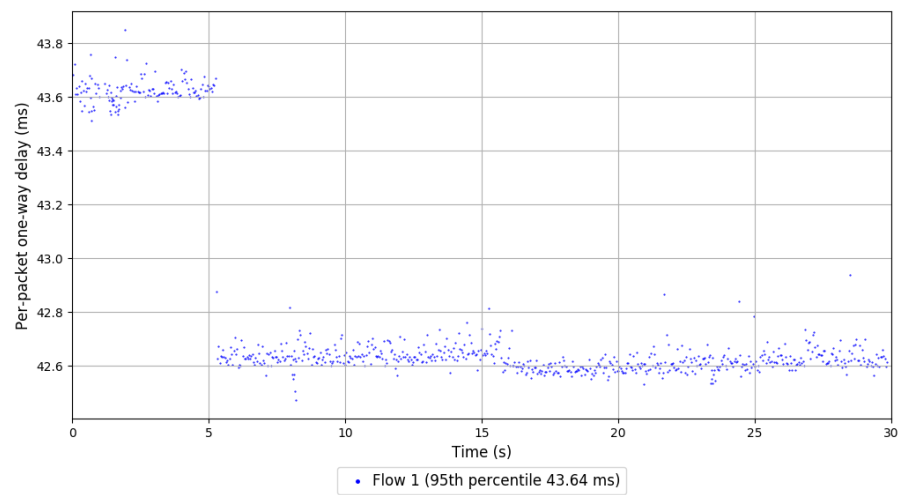
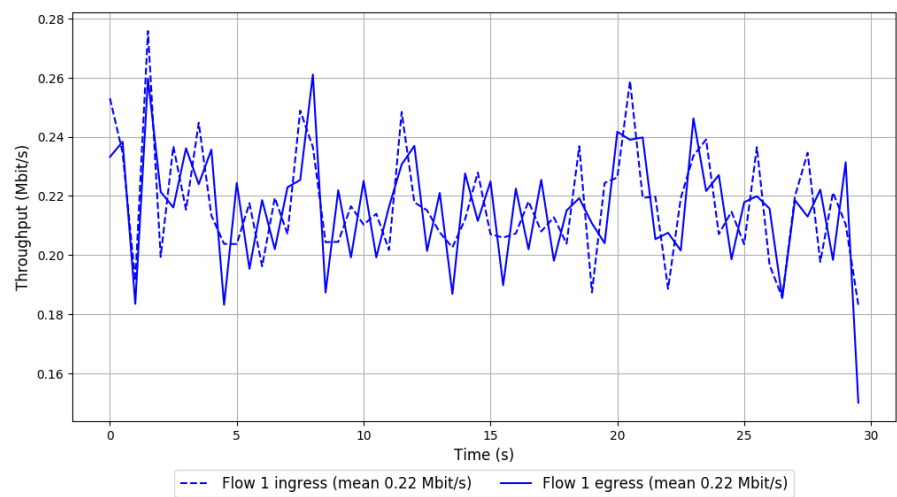
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 43.643 ms

Loss rate: 0.38%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-01-09 01:31:45

End at: 2018-01-09 01:32:15

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 45.271 ms

Loss rate: 0.38%

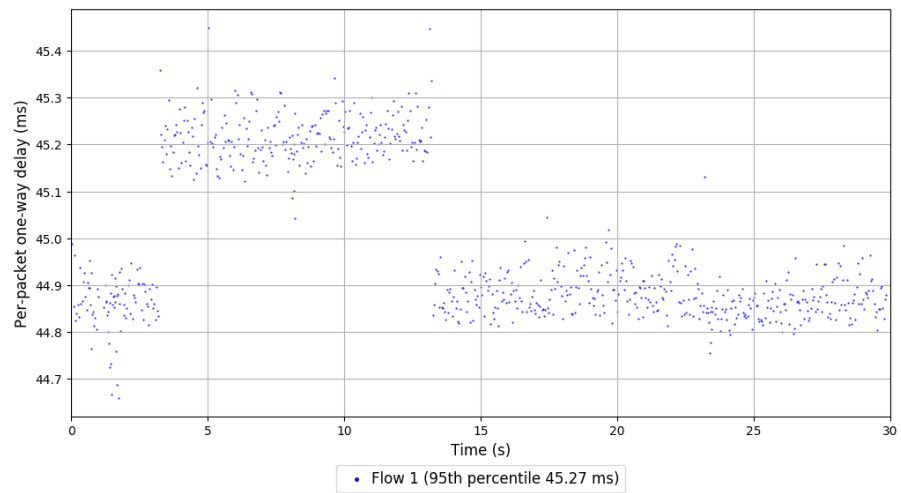
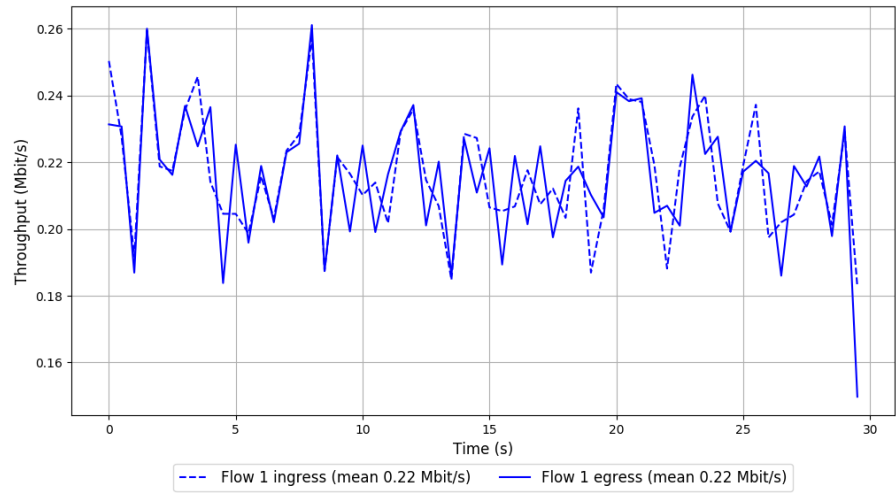
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 45.271 ms

Loss rate: 0.38%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-01-09 01:43:32

End at: 2018-01-09 01:44:02

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 46.866 ms

Loss rate: 0.38%

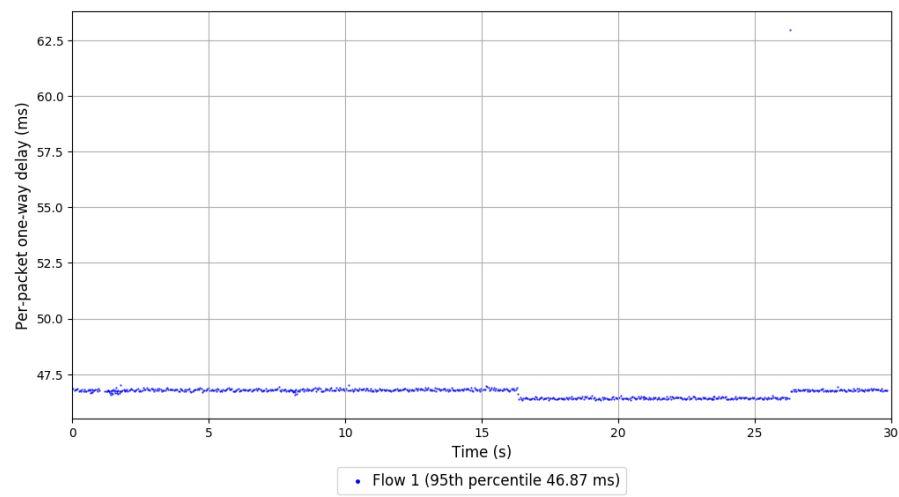
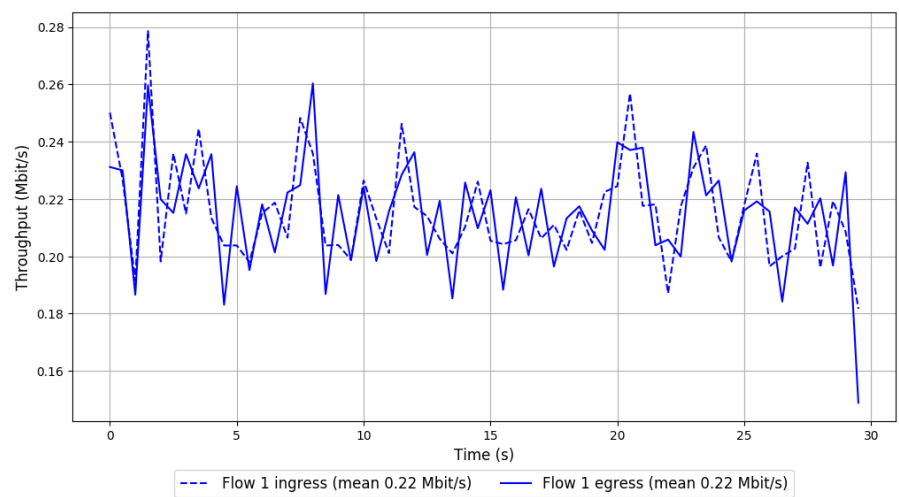
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 46.866 ms

Loss rate: 0.38%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-01-09 01:55:06

End at: 2018-01-09 01:55:36

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 47.805 ms

Loss rate: 0.38%

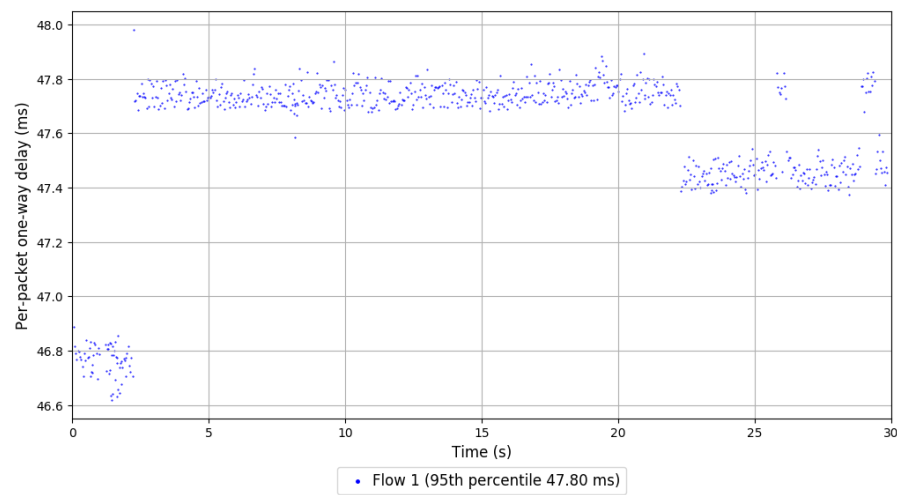
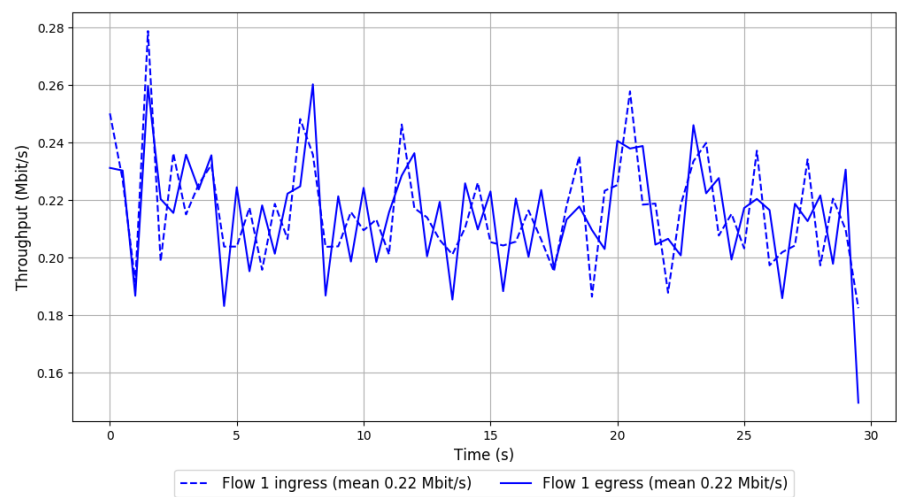
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 47.805 ms

Loss rate: 0.38%

Run 6: Report of SReAM — Data Link

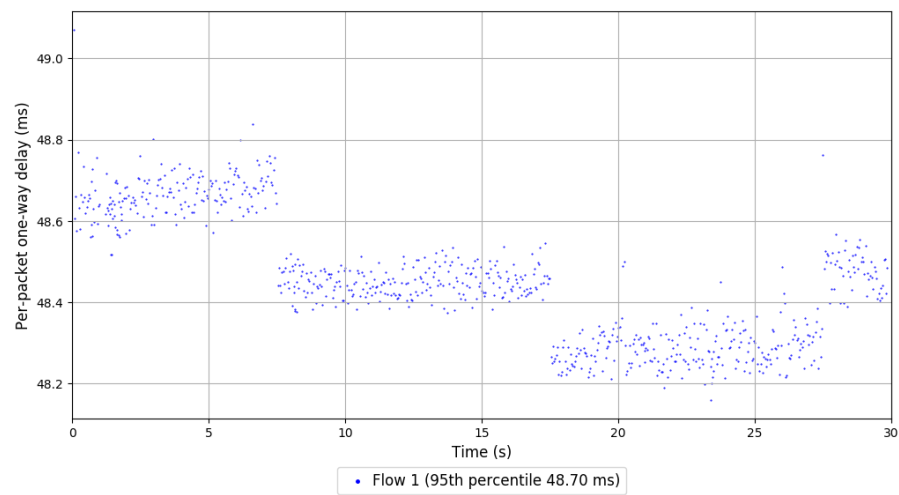
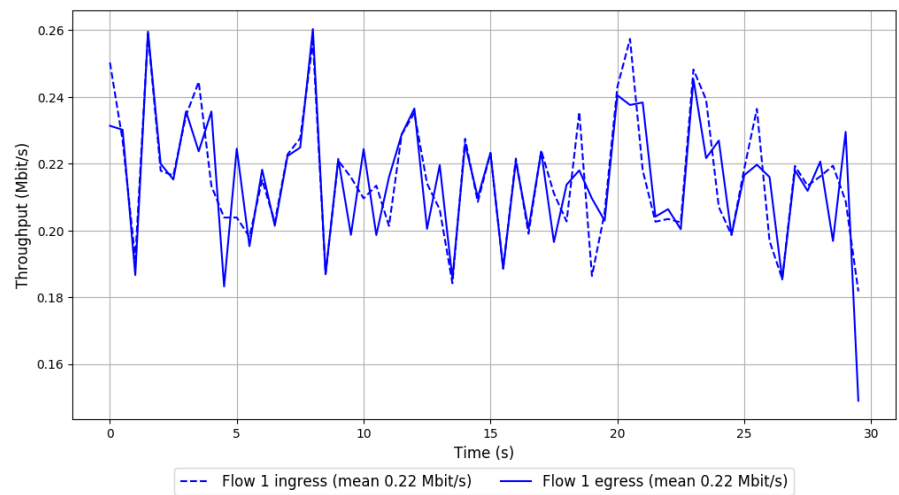


```
Run 7: Statistics of SCReAM

Start at: 2018-01-09 02:06:53
End at: 2018-01-09 02:07:23

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.705 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.705 ms
Loss rate: 0.38%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-01-09 02:18:36

End at: 2018-01-09 02:19:06

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.663 ms

Loss rate: 0.38%

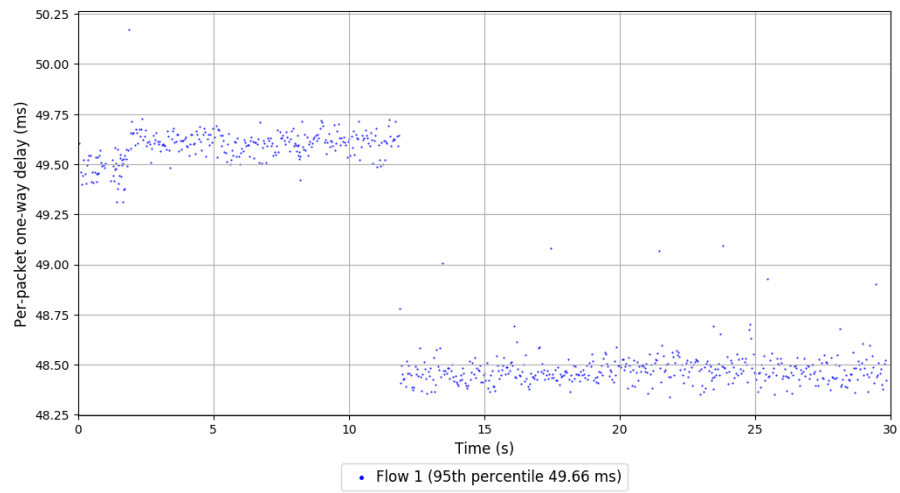
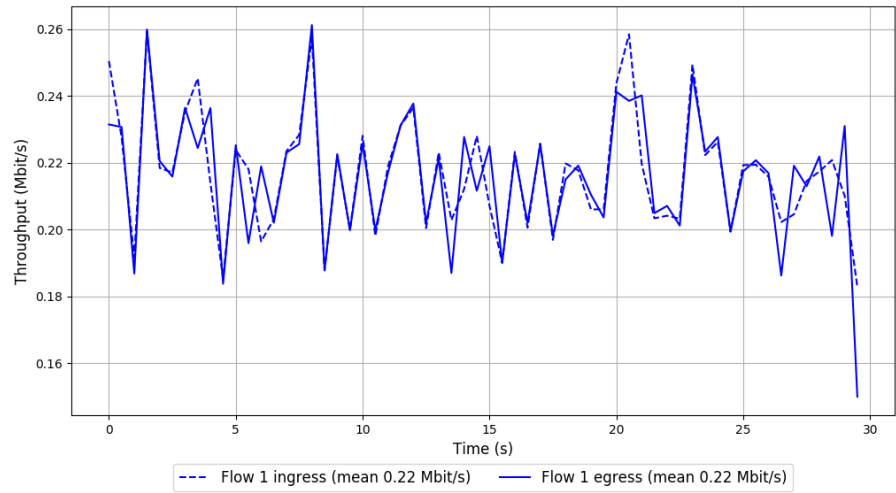
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.663 ms

Loss rate: 0.38%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-01-09 02:30:19

End at: 2018-01-09 02:30:49

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.230 ms

Loss rate: 0.38%

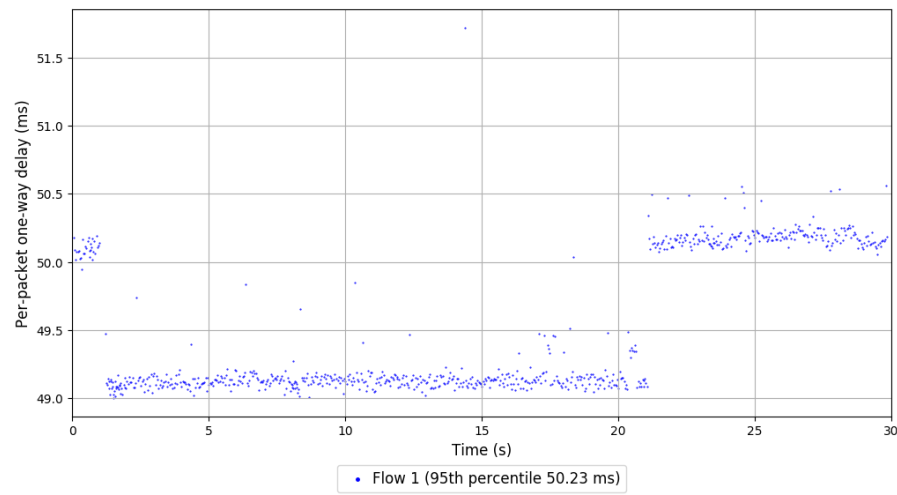
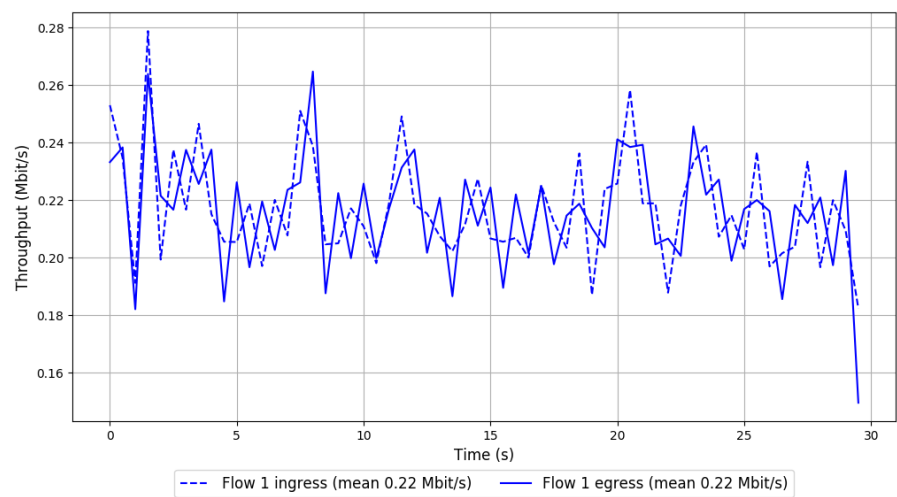
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.230 ms

Loss rate: 0.38%

Run 9: Report of SReAM — Data Link

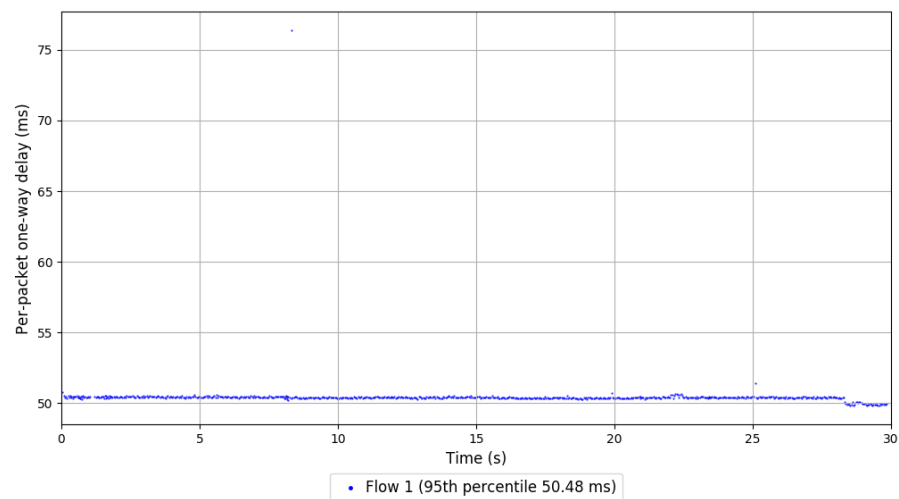
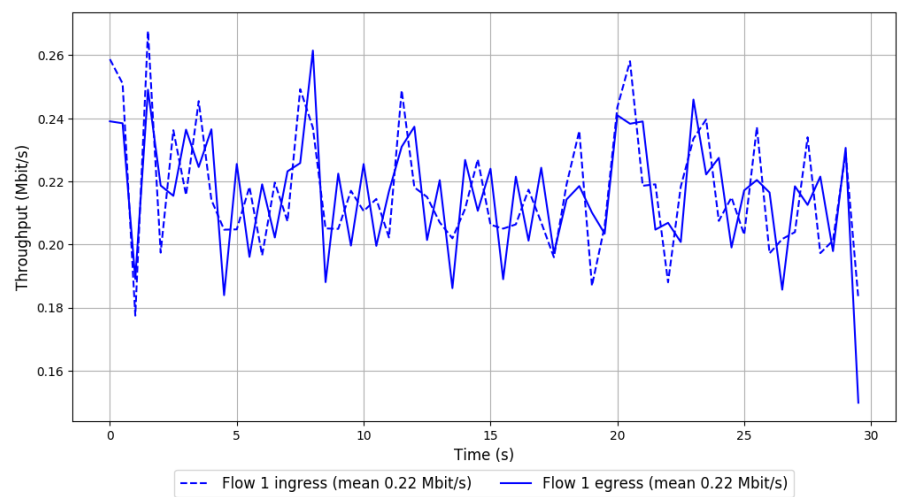


```
Run 10: Statistics of SReAM

Start at: 2018-01-09 02:42:02
End at: 2018-01-09 02:42:32

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.475 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.475 ms
Loss rate: 0.38%
```

Run 10: Report of SReAM — Data Link

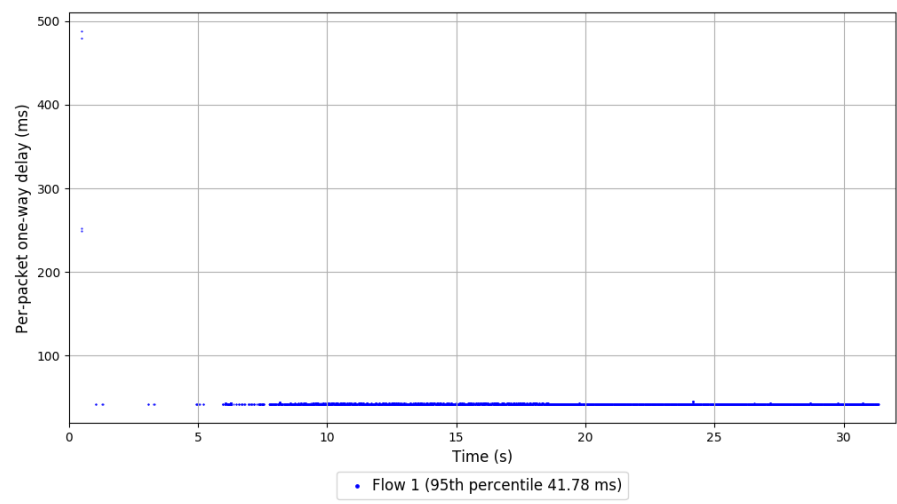
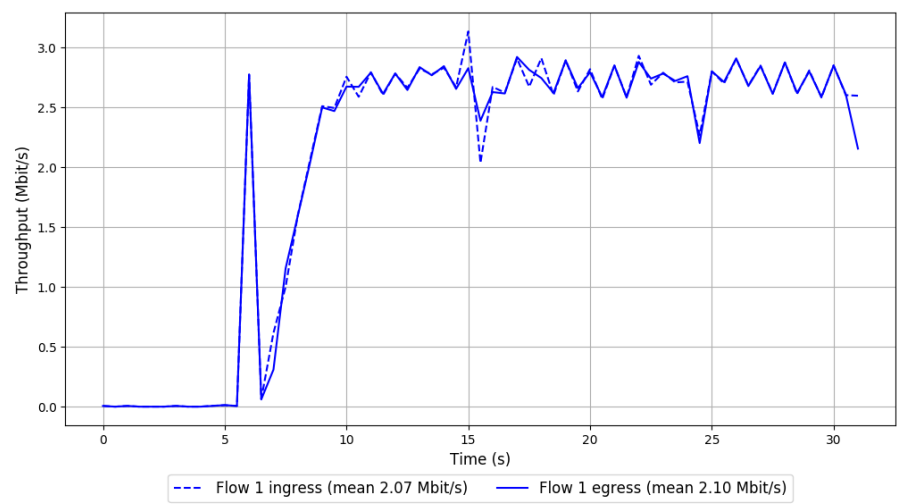


```
Run 1: Statistics of WebRTC media

Start at: 2018-01-09 00:58:21
End at: 2018-01-09 00:58:51

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 41.776 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 41.776 ms
Loss rate: 0.50%
```


Run 1: Report of WebRTC media — Data Link

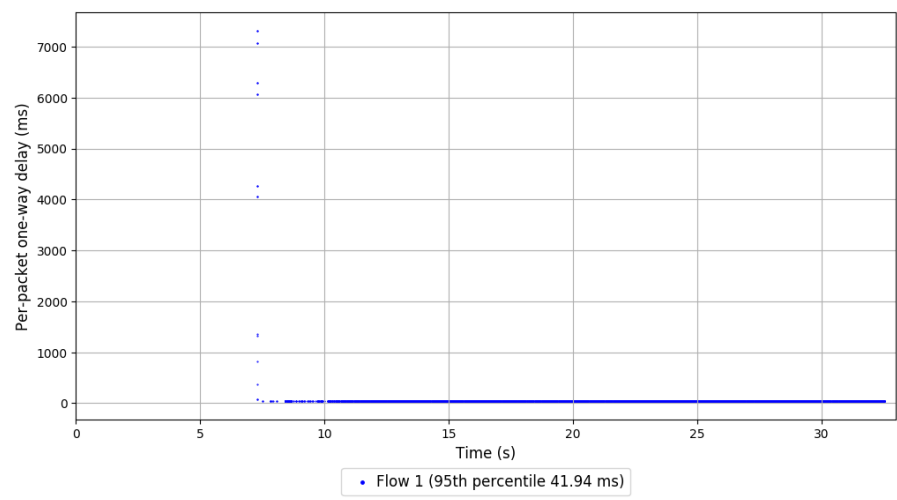
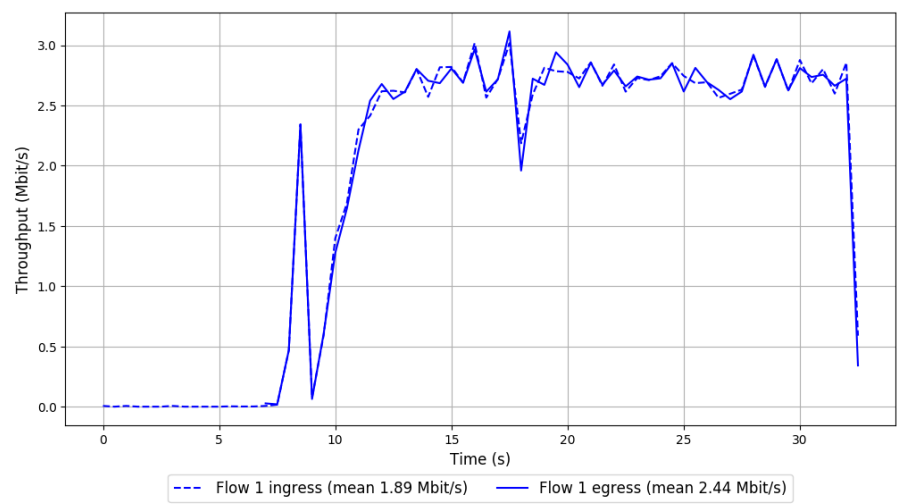


```
Run 2: Statistics of WebRTC media

Start at: 2018-01-09 01:09:51
End at: 2018-01-09 01:10:21

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 41.935 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 41.935 ms
Loss rate: 0.48%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-09 01:21:37

End at: 2018-01-09 01:22:07

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 44.181 ms

Loss rate: 0.55%

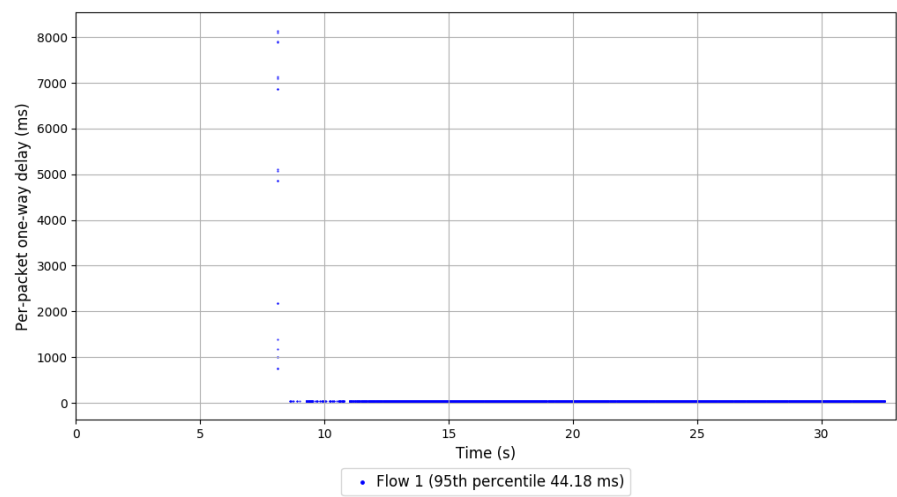
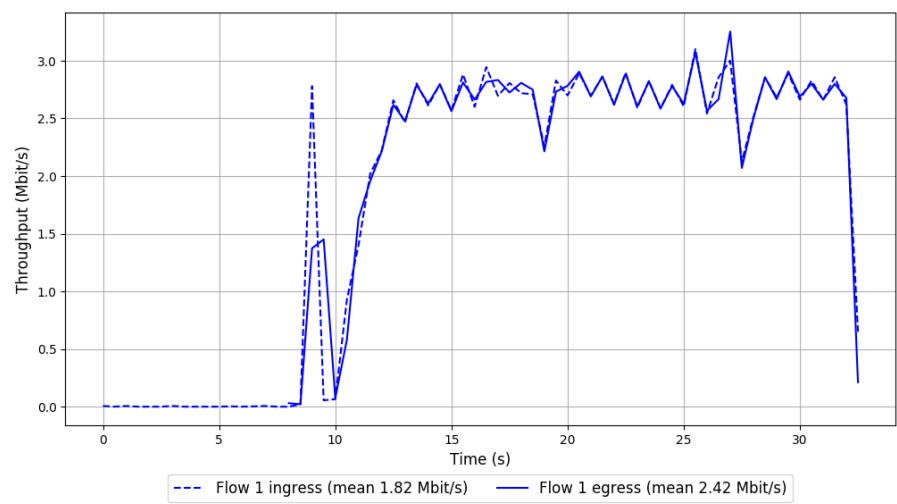
-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 44.181 ms

Loss rate: 0.55%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-09 01:33:19

End at: 2018-01-09 01:33:49

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 45.642 ms

Loss rate: 0.41%

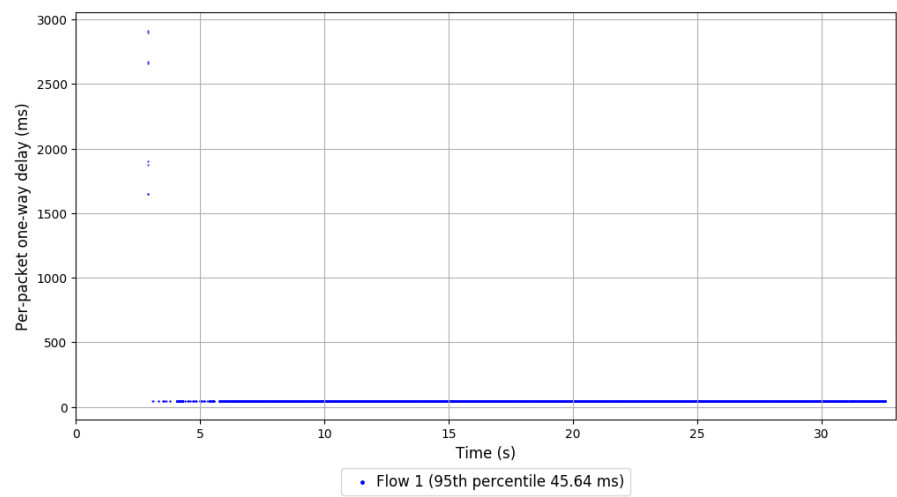
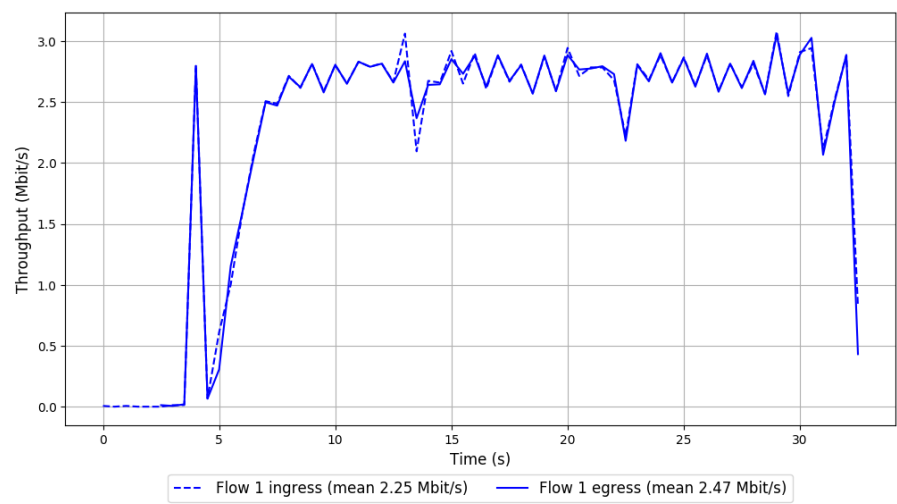
-- Flow 1:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 45.642 ms

Loss rate: 0.41%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-09 01:45:05

End at: 2018-01-09 01:45:35

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 46.995 ms

Loss rate: 0.46%

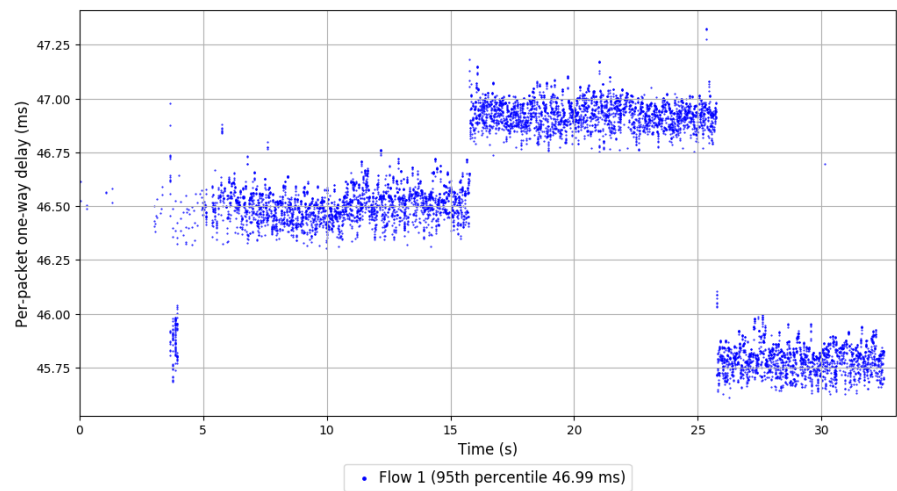
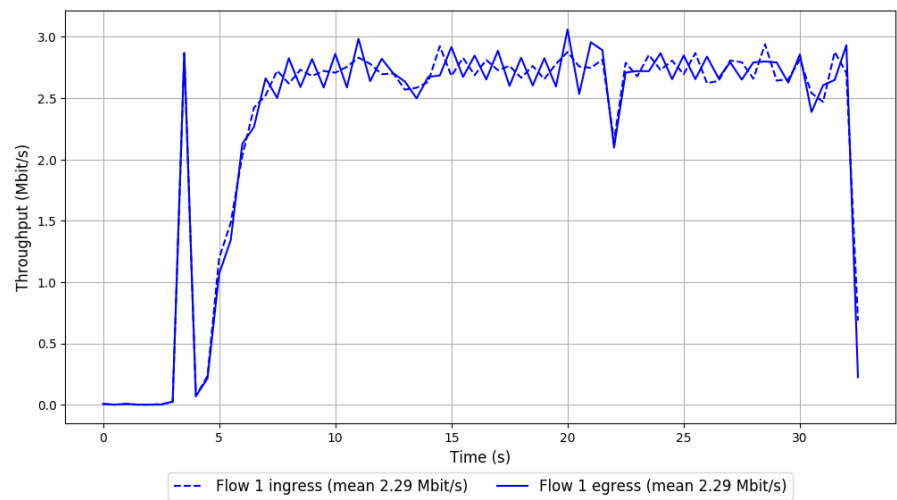
-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 46.995 ms

Loss rate: 0.46%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-09 01:56:40

End at: 2018-01-09 01:57:10

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 48.125 ms

Loss rate: 0.47%

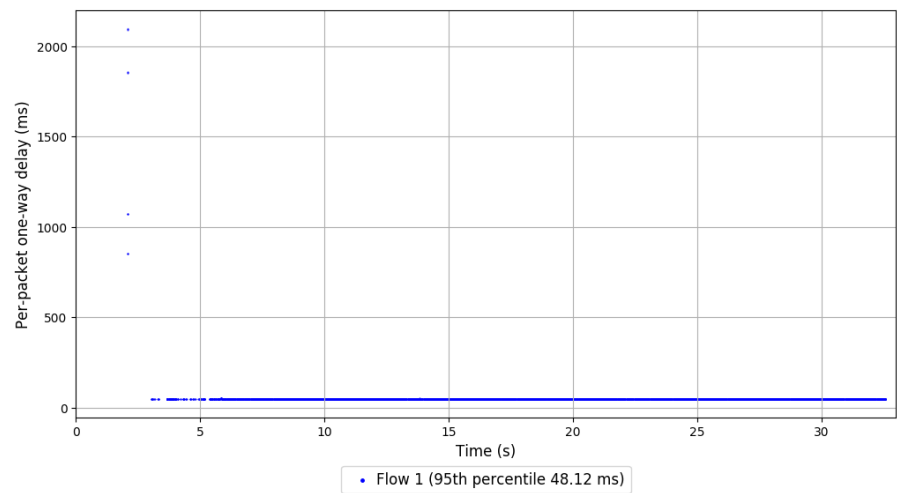
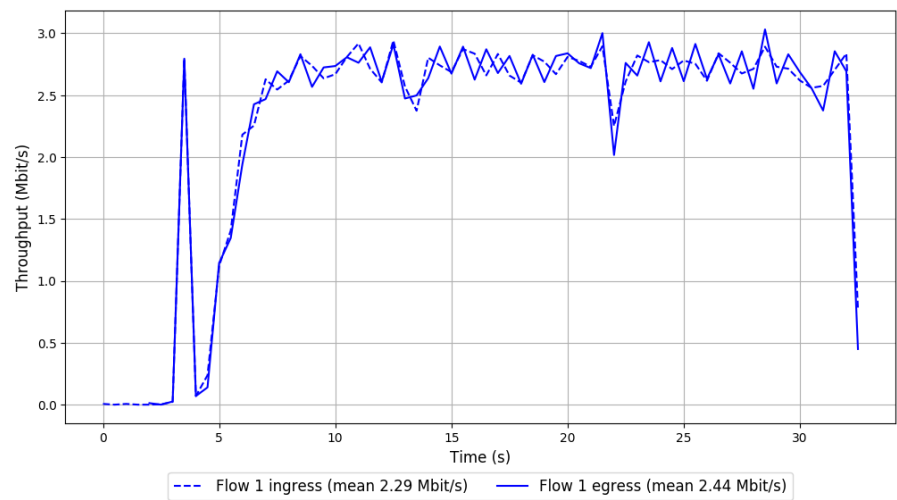
-- Flow 1:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 48.125 ms

Loss rate: 0.47%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-09 02:08:28

End at: 2018-01-09 02:08:58

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 49.030 ms

Loss rate: 0.44%

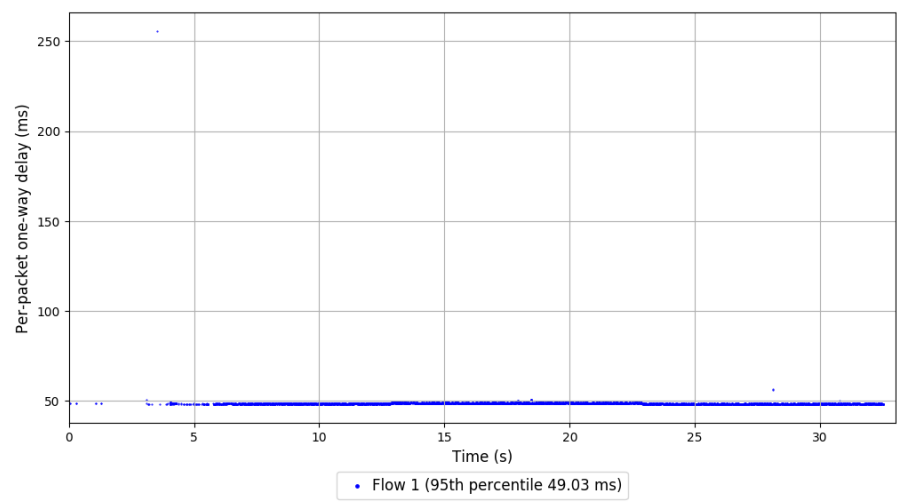
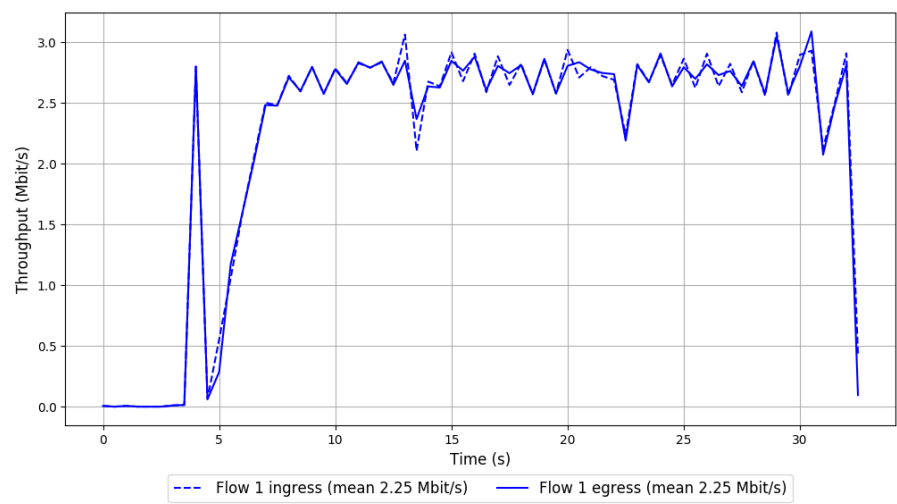
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 49.030 ms

Loss rate: 0.44%

Run 7: Report of WebRTC media — Data Link

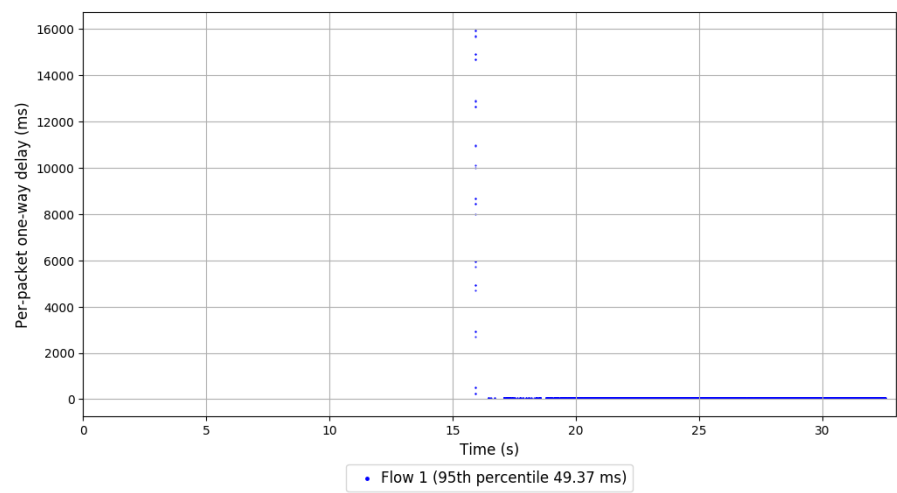
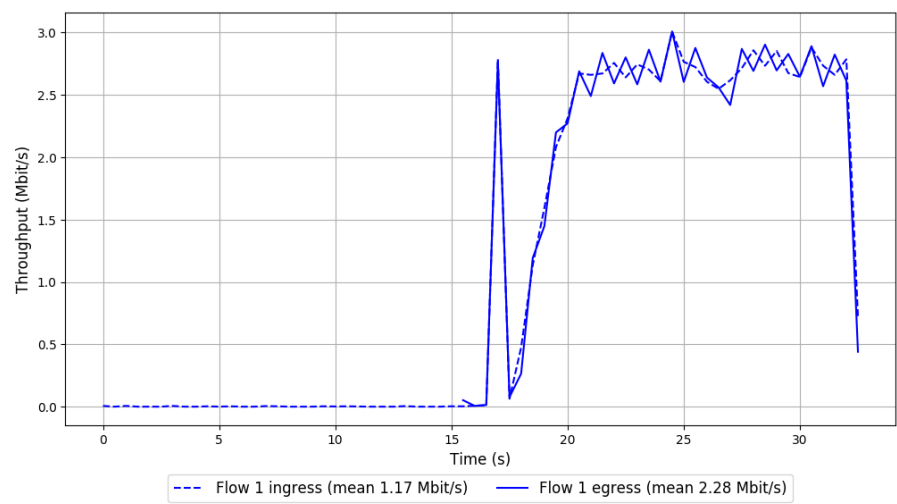


Run 8: Statistics of WebRTC media

Start at: 2018-01-09 02:20:10

End at: 2018-01-09 02:20:40

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-09 02:31:53

End at: 2018-01-09 02:32:23

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.192 ms

Loss rate: 0.41%

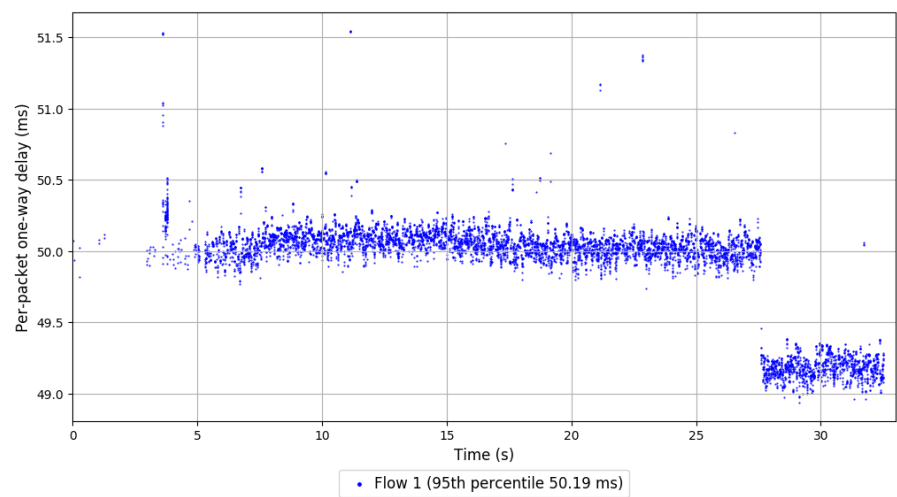
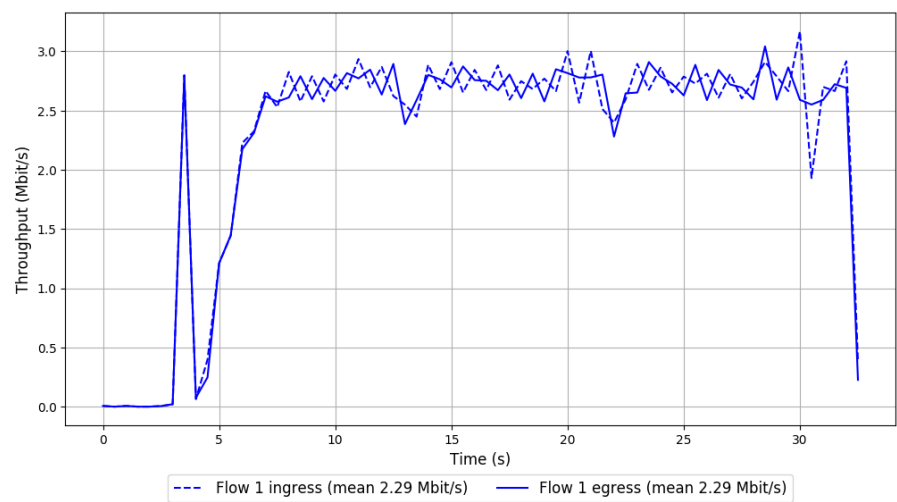
-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.192 ms

Loss rate: 0.41%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-09 02:43:36

End at: 2018-01-09 02:44:06

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.906 ms

Loss rate: 0.32%

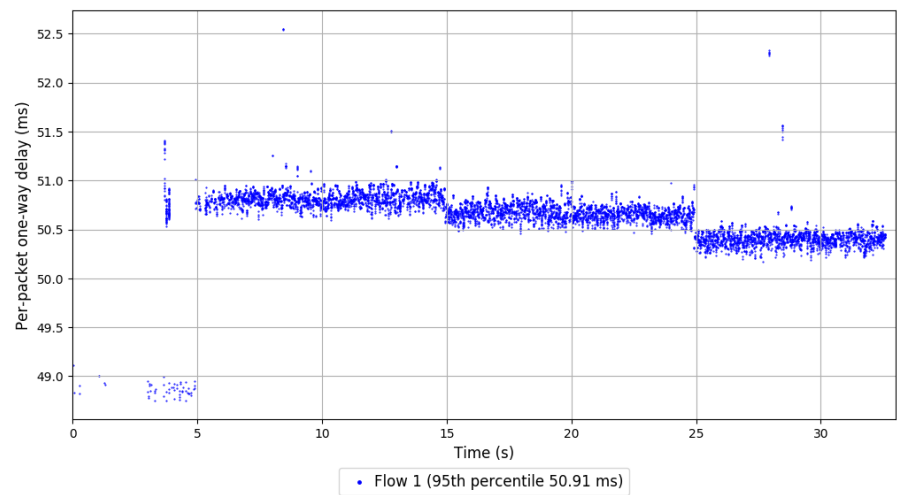
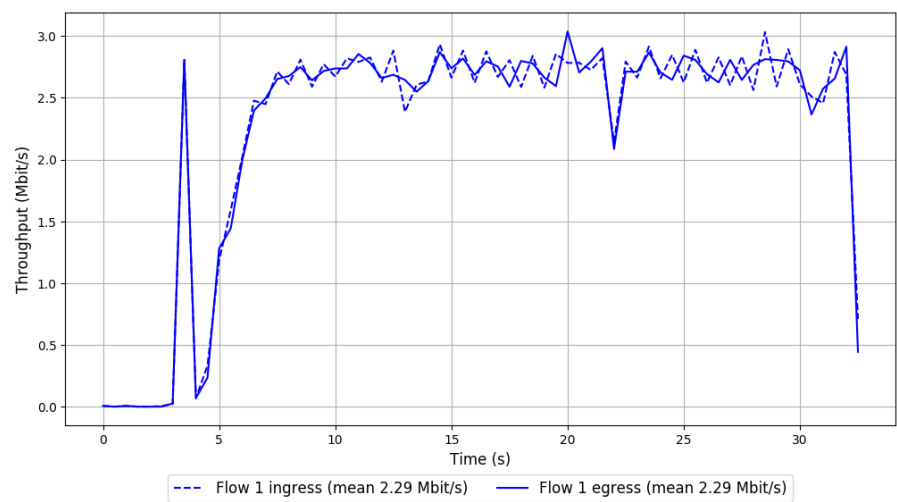
-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.906 ms

Loss rate: 0.32%

Run 10: Report of WebRTC media — Data Link

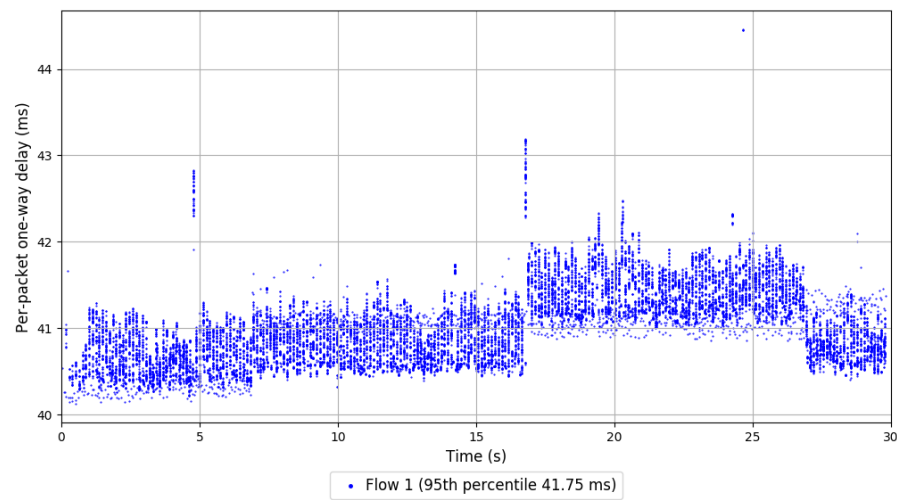
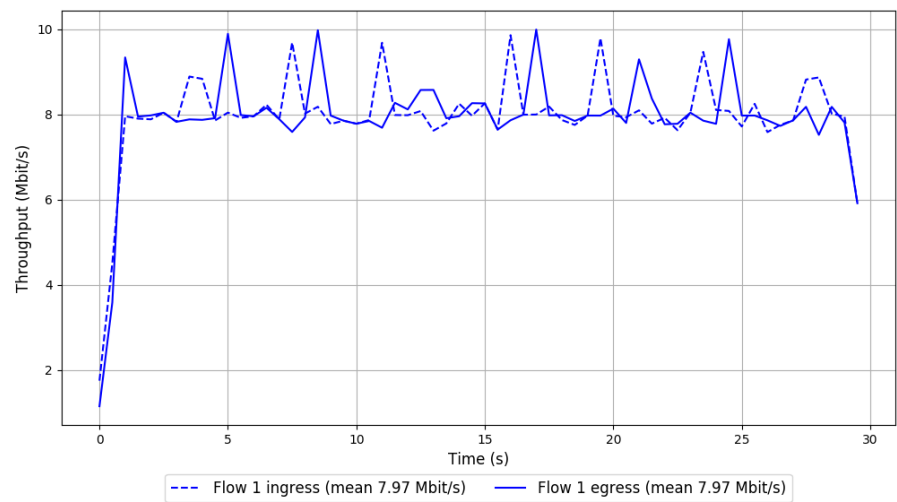


```
Run 1: Statistics of Sprout

Start at: 2018-01-09 00:54:33
End at: 2018-01-09 00:55:03

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.97 Mbit/s
95th percentile per-packet one-way delay: 41.749 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 7.97 Mbit/s
95th percentile per-packet one-way delay: 41.749 ms
Loss rate: 0.48%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-09 01:06:08

End at: 2018-01-09 01:06:38

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 42.130 ms

Loss rate: 0.89%

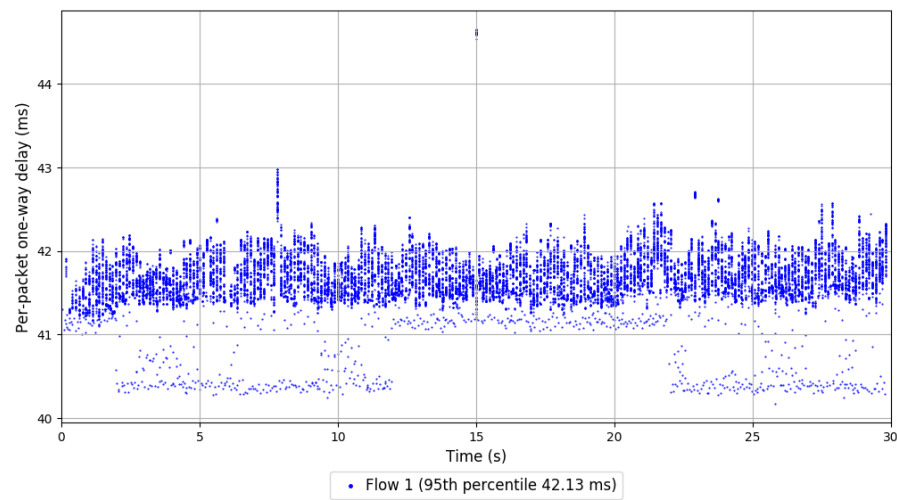
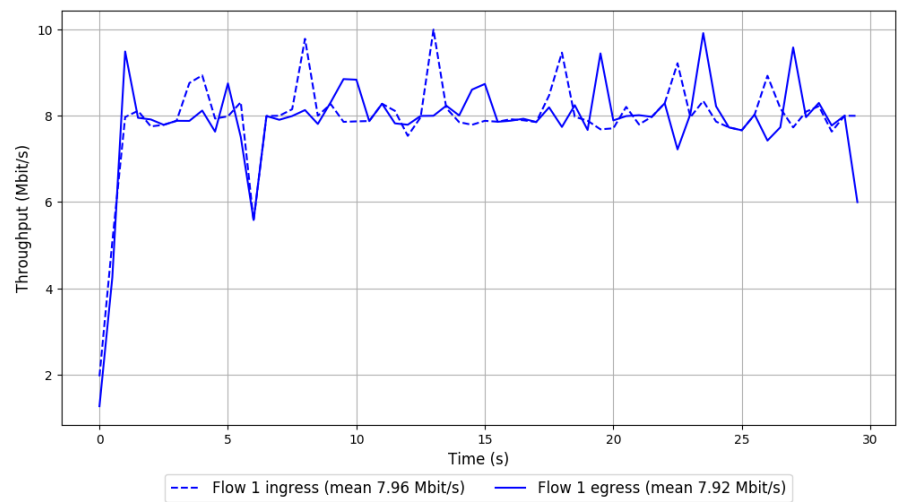
-- Flow 1:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 42.130 ms

Loss rate: 0.89%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-09 01:17:47

End at: 2018-01-09 01:18:17

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 43.651 ms

Loss rate: 0.78%

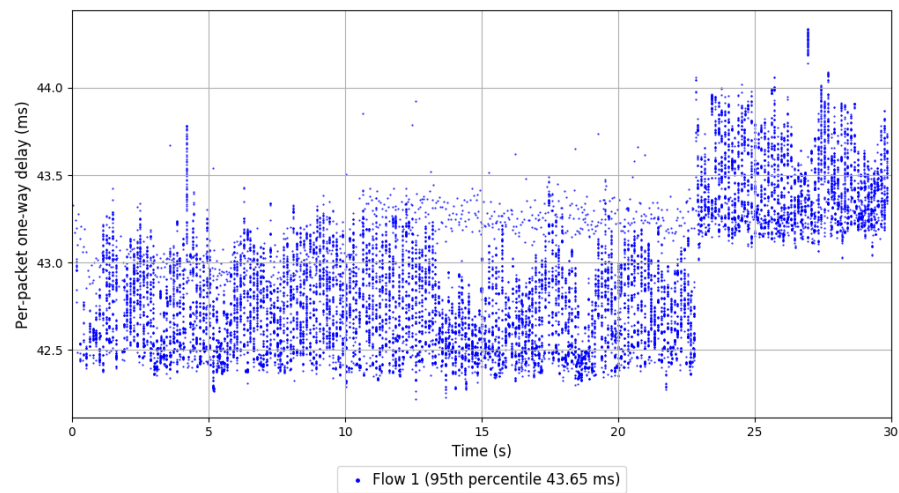
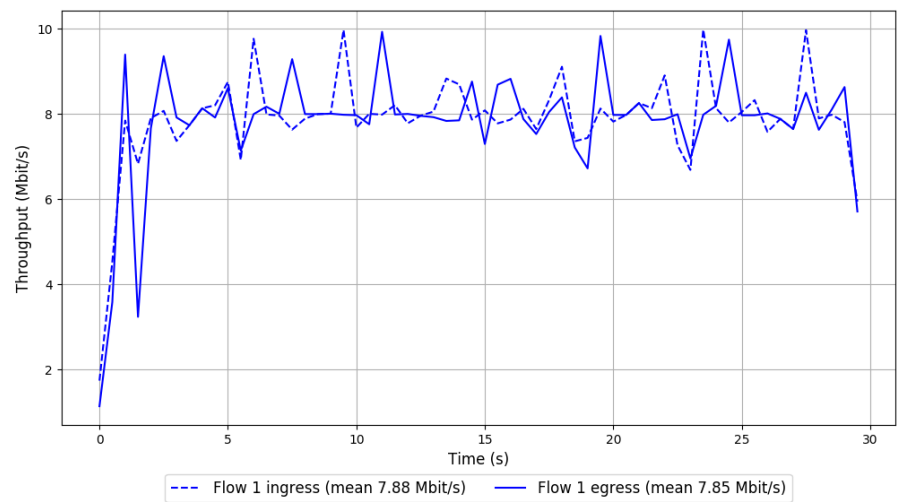
-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 43.651 ms

Loss rate: 0.78%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-09 01:29:30

End at: 2018-01-09 01:30:00

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 45.788 ms

Loss rate: 0.77%

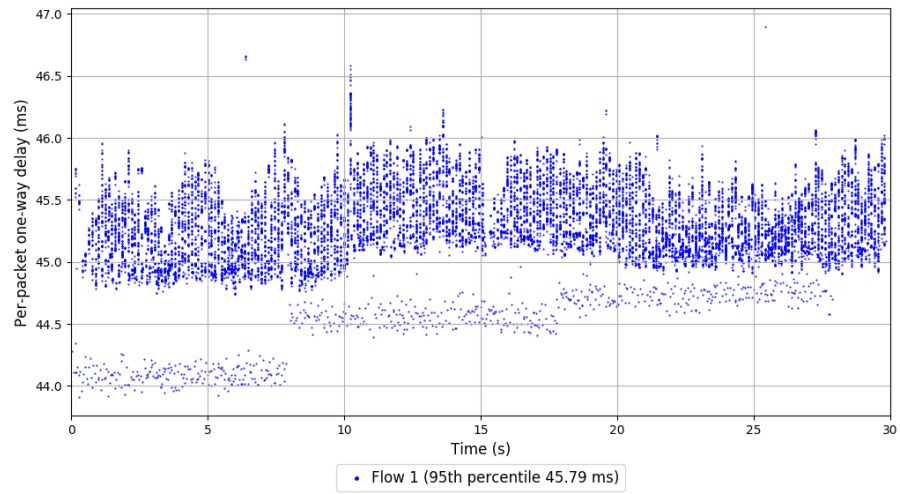
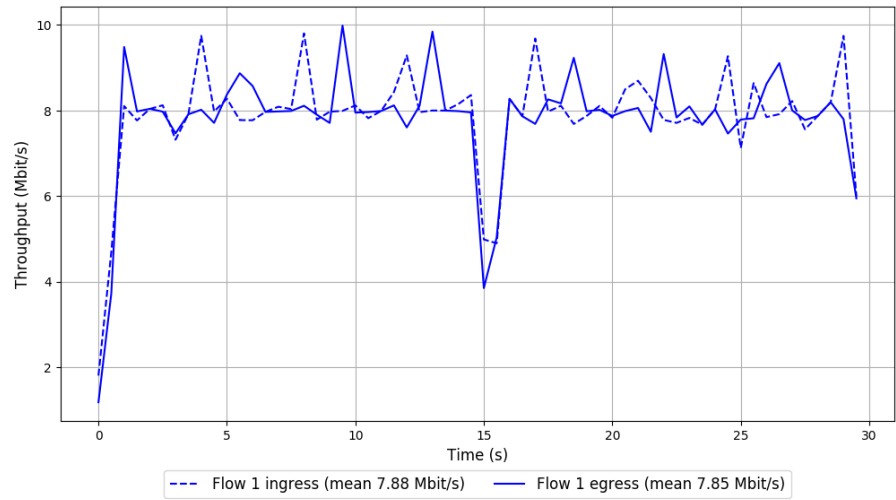
-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 45.788 ms

Loss rate: 0.77%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-01-09 01:41:17

End at: 2018-01-09 01:41:47

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 47.093 ms

Loss rate: 1.14%

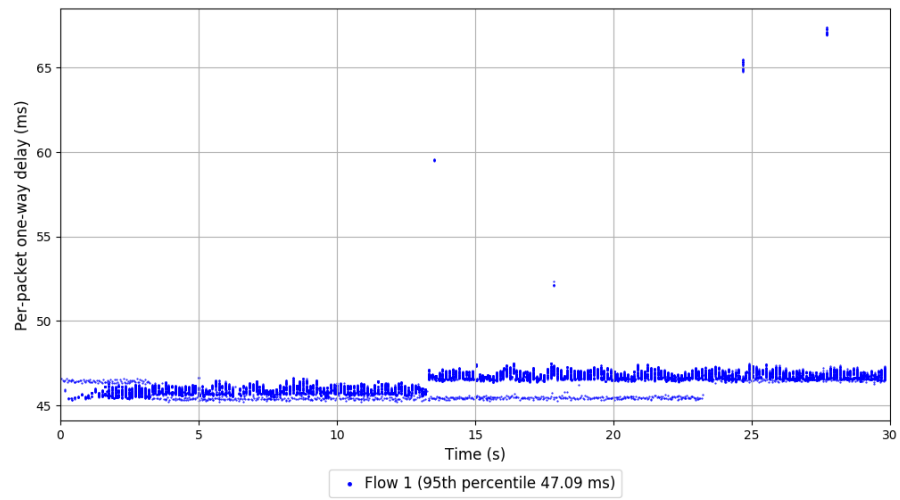
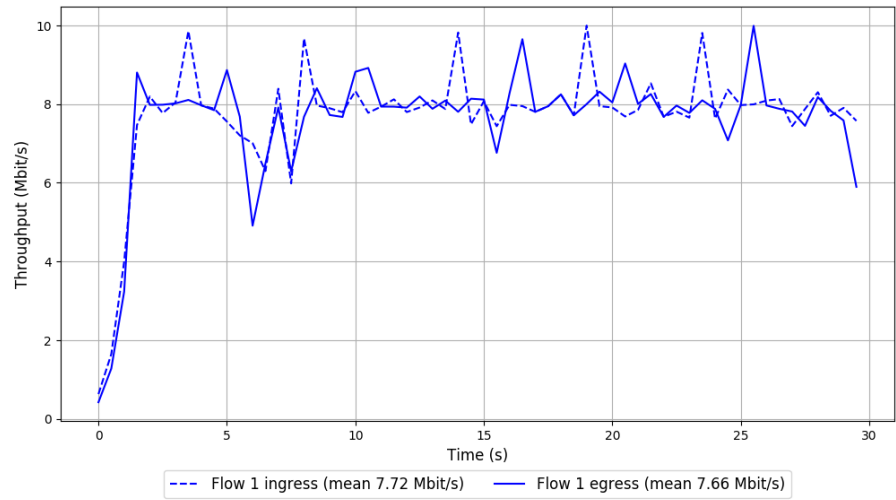
-- Flow 1:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 47.093 ms

Loss rate: 1.14%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-09 01:52:51

End at: 2018-01-09 01:53:21

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 48.146 ms

Loss rate: 1.43%

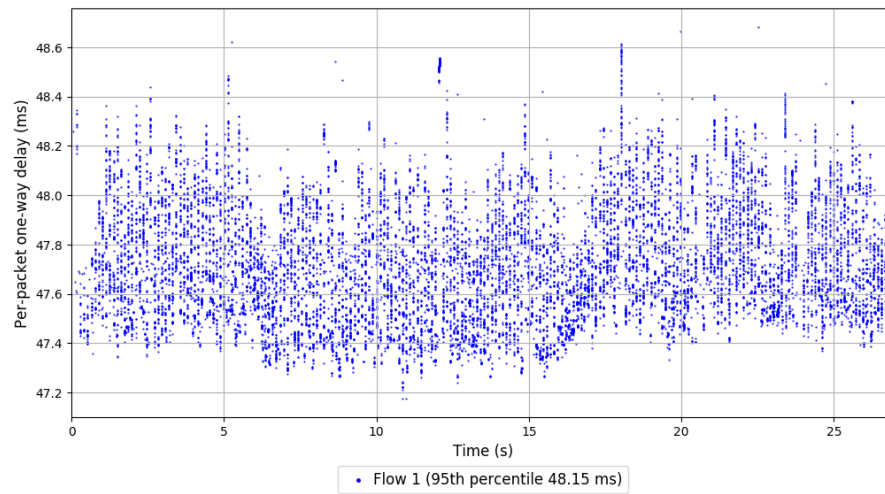
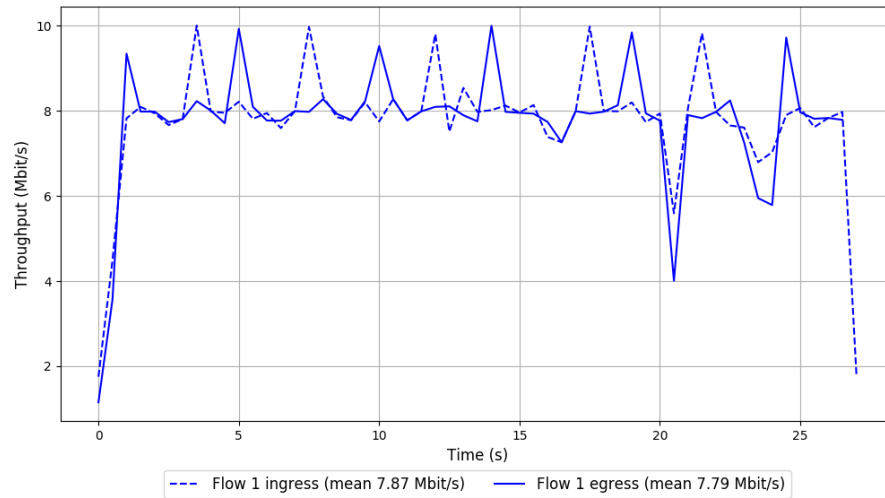
-- Flow 1:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 48.146 ms

Loss rate: 1.43%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-09 02:04:38

End at: 2018-01-09 02:05:08

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 49.179 ms

Loss rate: 0.91%

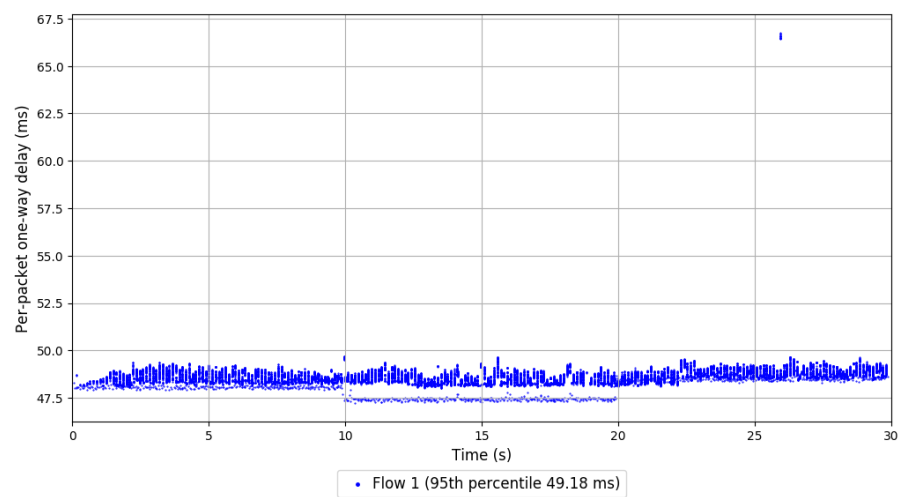
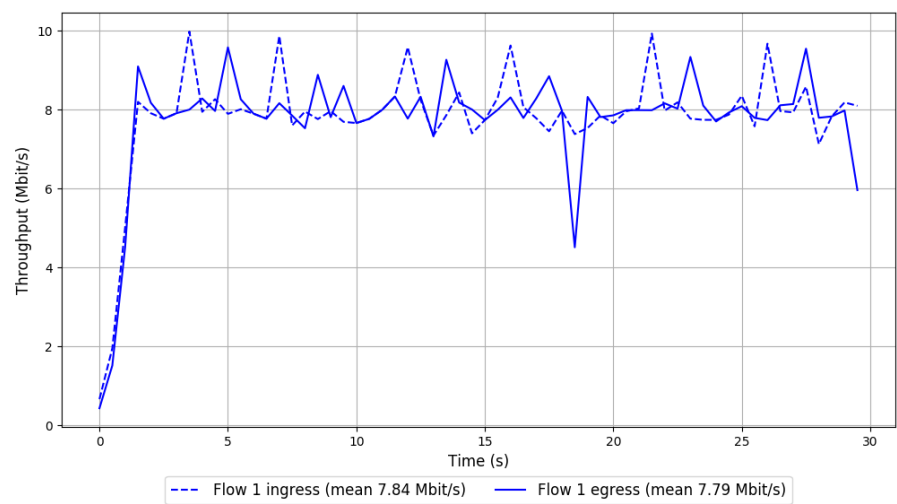
-- Flow 1:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 49.179 ms

Loss rate: 0.91%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-09 02:16:20

End at: 2018-01-09 02:16:50

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 49.655 ms

Loss rate: 0.92%

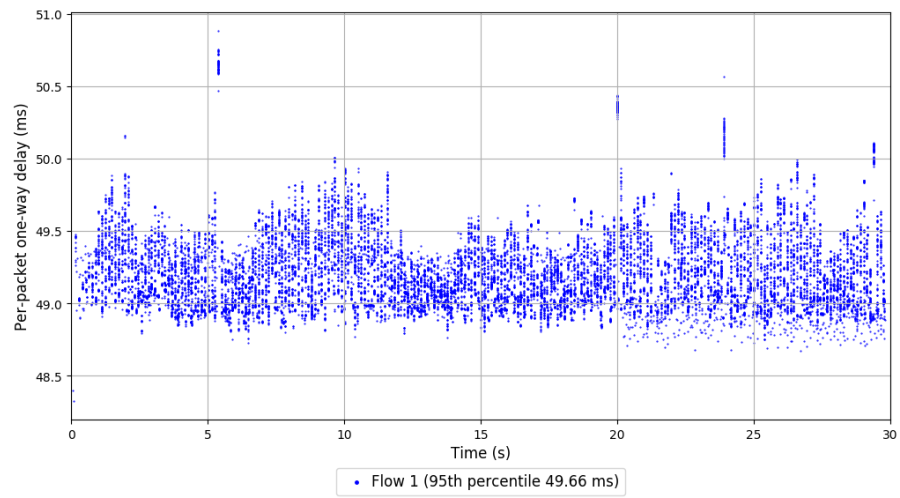
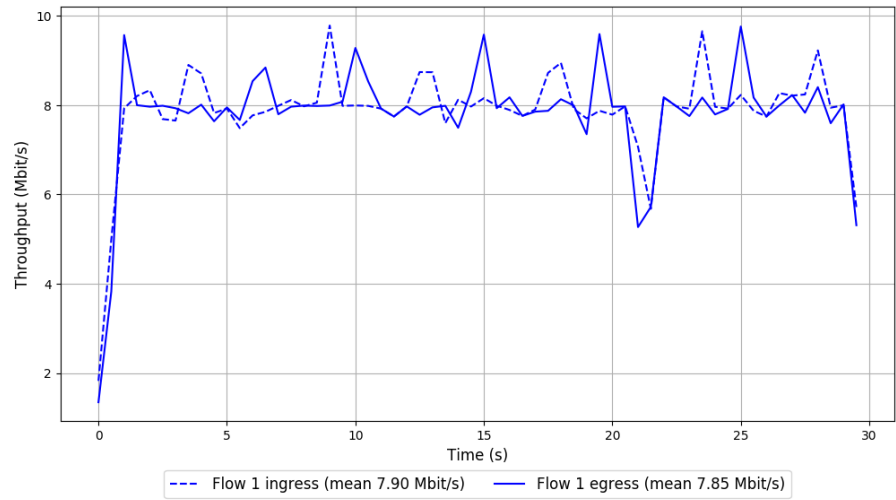
-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 49.655 ms

Loss rate: 0.92%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-01-09 02:28:03

End at: 2018-01-09 02:28:33

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 50.451 ms

Loss rate: 0.89%

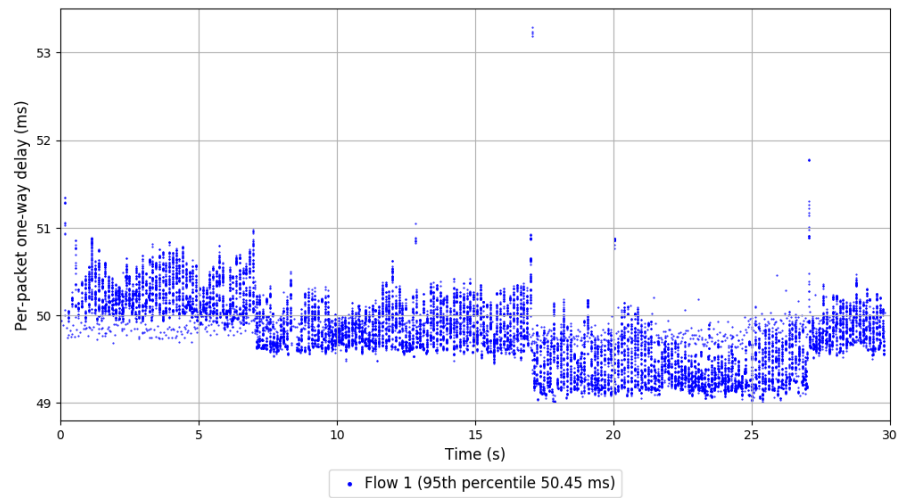
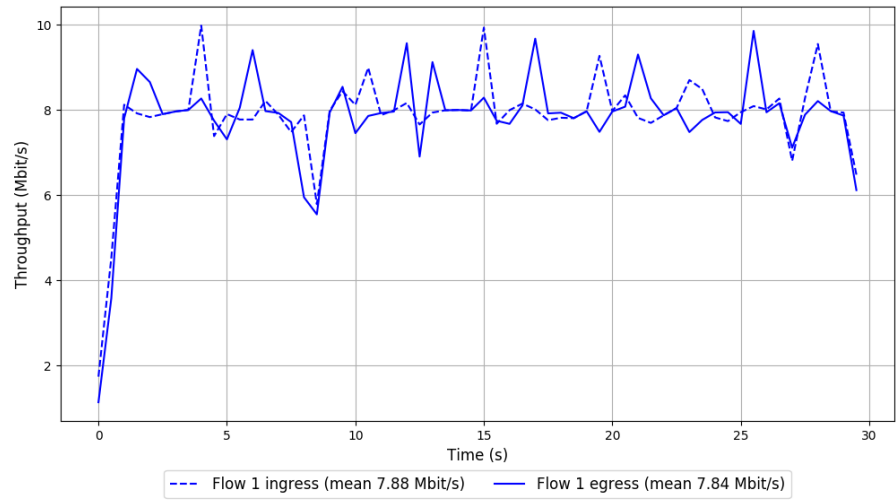
-- Flow 1:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 50.451 ms

Loss rate: 0.89%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-09 02:39:46

End at: 2018-01-09 02:40:16

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 51.147 ms

Loss rate: 1.12%

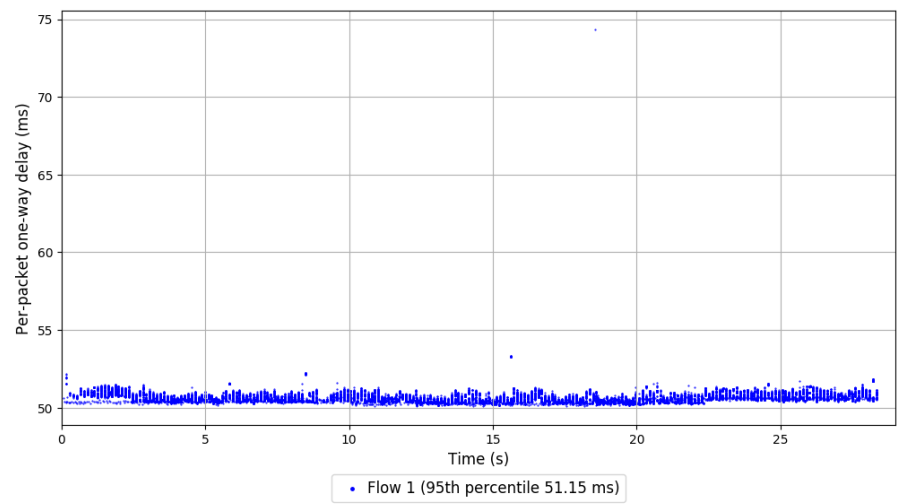
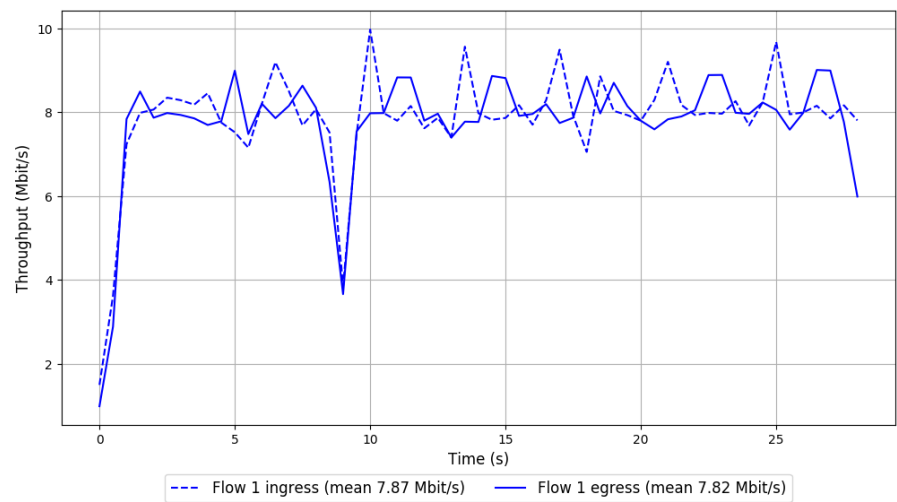
-- Flow 1:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 51.147 ms

Loss rate: 1.12%

Run 10: Report of Sprout — Data Link

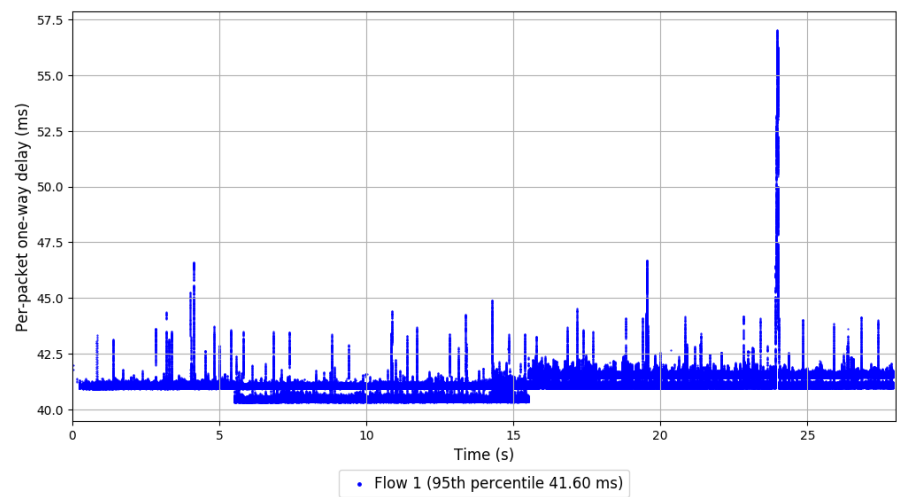
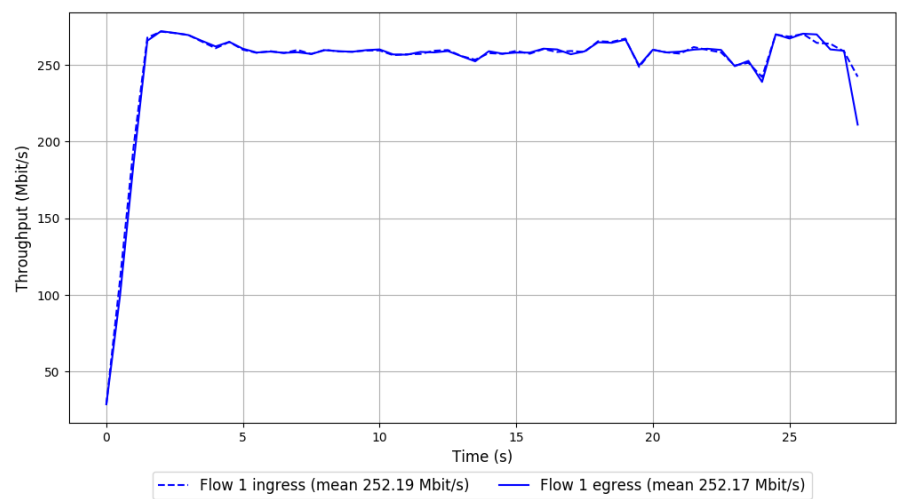


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-09 00:57:23
End at: 2018-01-09 00:57:53

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 252.17 Mbit/s
95th percentile per-packet one-way delay: 41.600 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 252.17 Mbit/s
95th percentile per-packet one-way delay: 41.600 ms
Loss rate: 0.37%
```


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

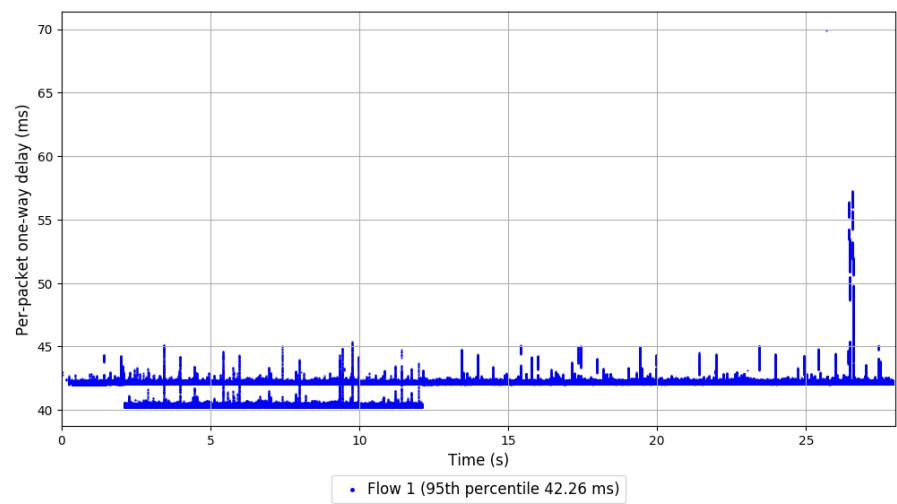
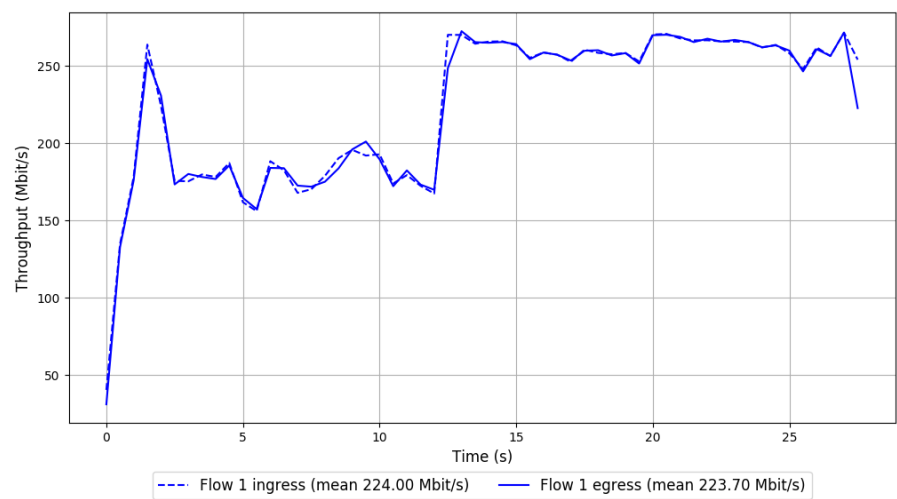


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-09 01:08:56
End at: 2018-01-09 01:09:26

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.70 Mbit/s
95th percentile per-packet one-way delay: 42.263 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 223.70 Mbit/s
95th percentile per-packet one-way delay: 42.263 ms
Loss rate: 0.49%
```

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

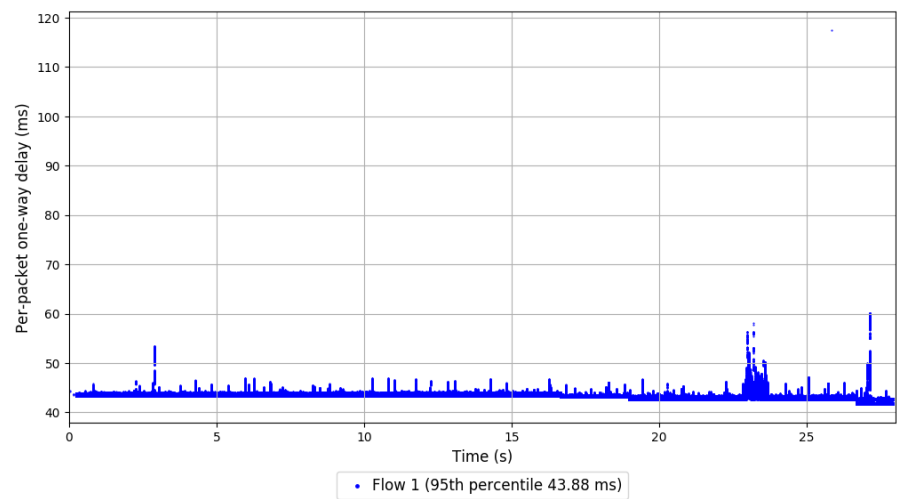
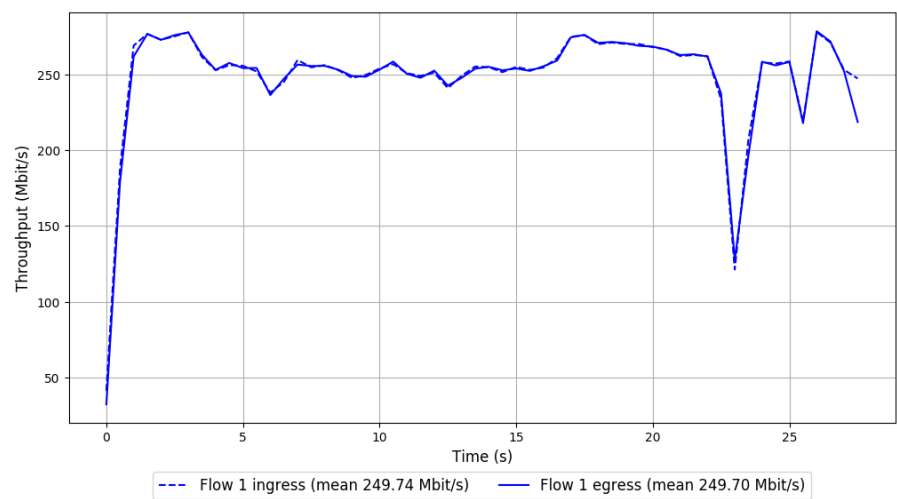


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-01-09 01:20:39
End at: 2018-01-09 01:21:09

# Below is generated by plot.py at 2018-01-09 05:11:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.70 Mbit/s
95th percentile per-packet one-way delay: 43.885 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 249.70 Mbit/s
95th percentile per-packet one-way delay: 43.885 ms
Loss rate: 0.38%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-01-09 01:32:21

End at: 2018-01-09 01:32:51

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 244.69 Mbit/s

95th percentile per-packet one-way delay: 45.212 ms

Loss rate: 0.37%

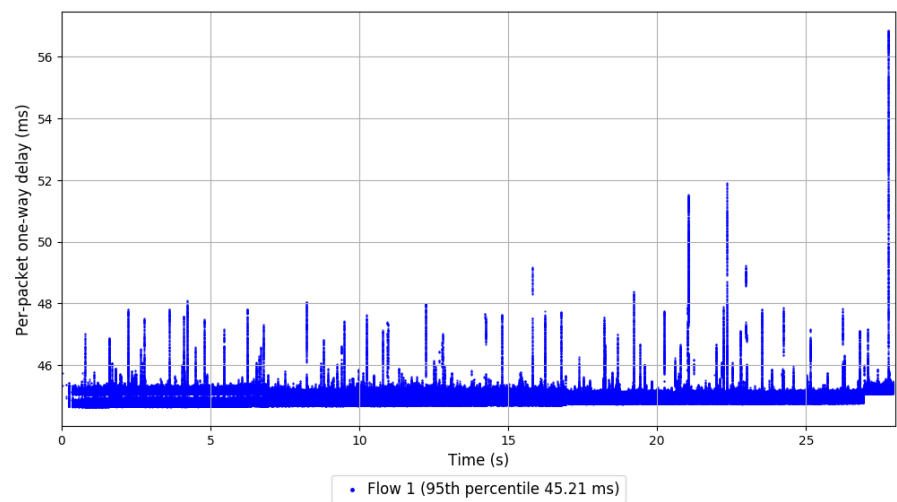
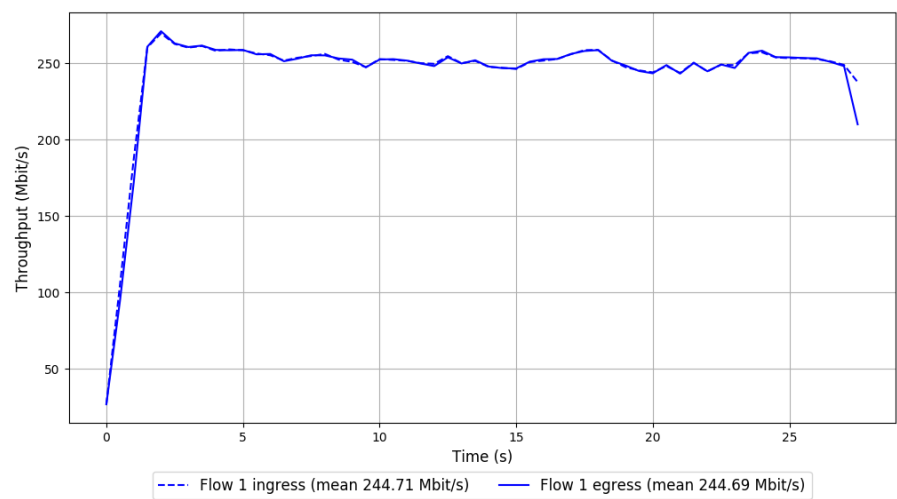
-- Flow 1:

Average throughput: 244.69 Mbit/s

95th percentile per-packet one-way delay: 45.212 ms

Loss rate: 0.37%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-09 01:44:08

End at: 2018-01-09 01:44:38

Below is generated by plot.py at 2018-01-09 05:11:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 237.11 Mbit/s

95th percentile per-packet one-way delay: 46.707 ms

Loss rate: 0.32%

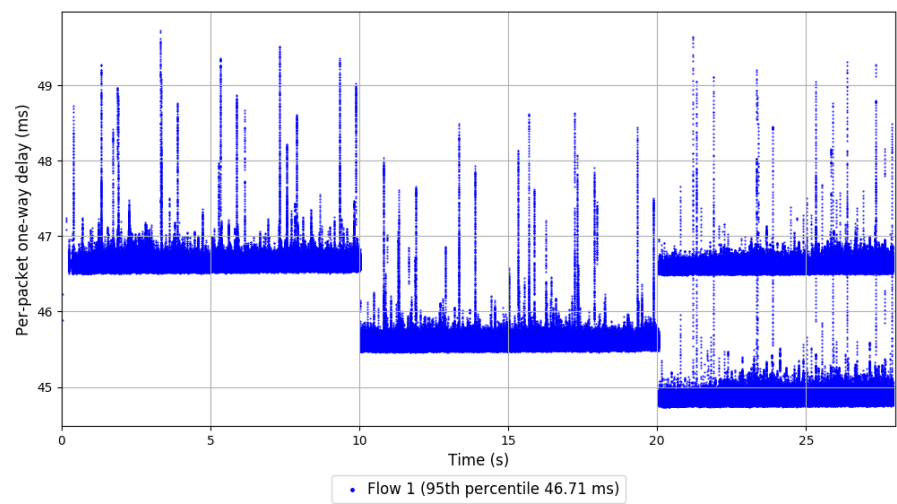
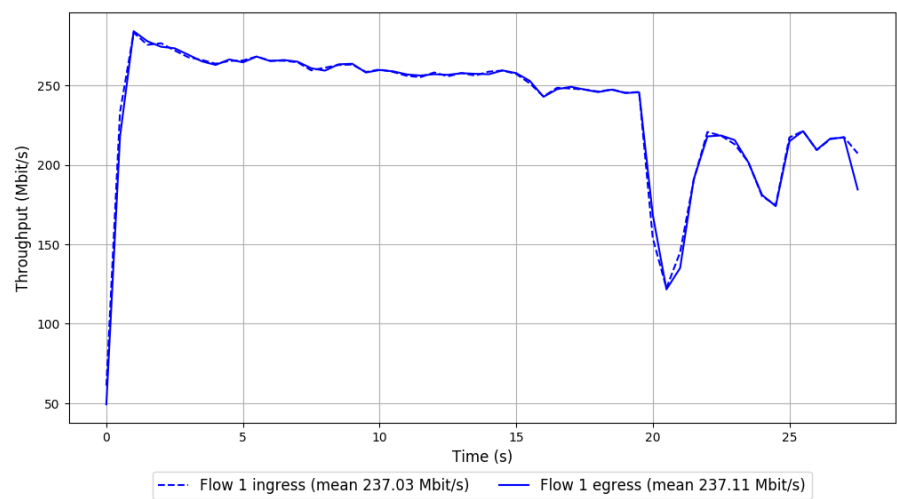
-- Flow 1:

Average throughput: 237.11 Mbit/s

95th percentile per-packet one-way delay: 46.707 ms

Loss rate: 0.32%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-01-09 01:55:42

End at: 2018-01-09 01:56:12

Below is generated by plot.py at 2018-01-09 05:11:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 254.67 Mbit/s

95th percentile per-packet one-way delay: 47.963 ms

Loss rate: 0.47%

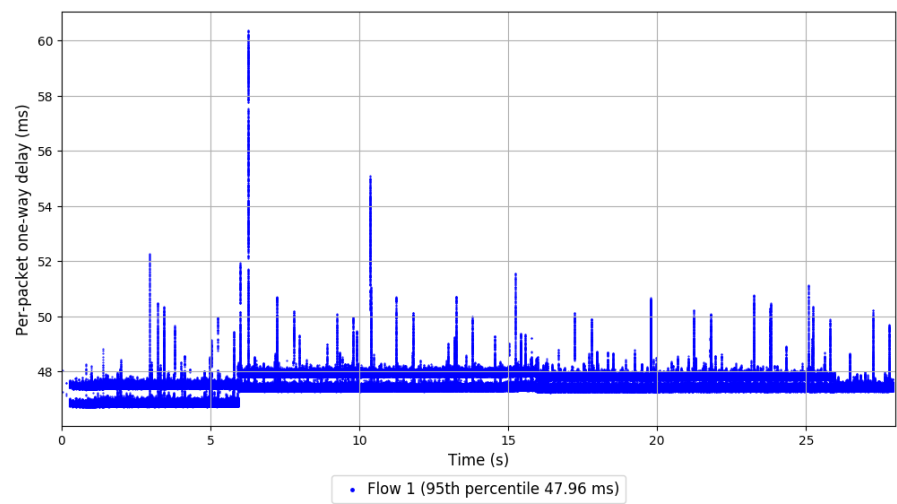
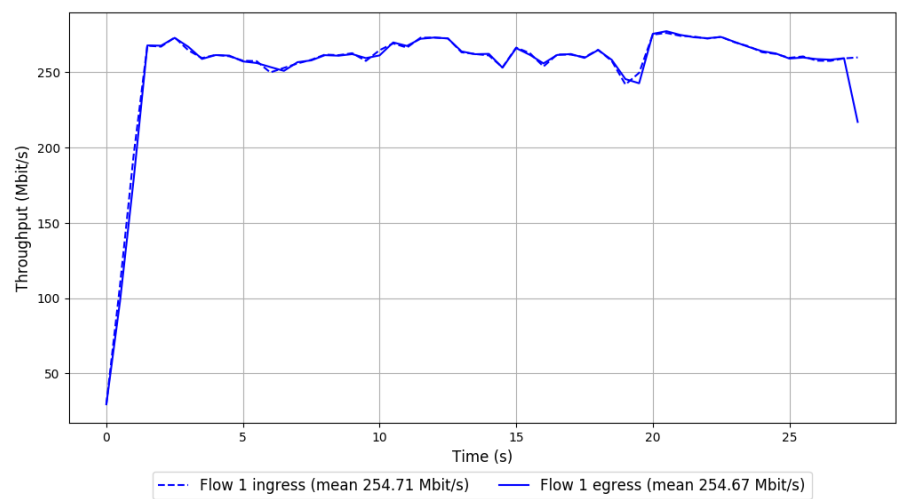
-- Flow 1:

Average throughput: 254.67 Mbit/s

95th percentile per-packet one-way delay: 47.963 ms

Loss rate: 0.47%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-01-09 02:07:29

End at: 2018-01-09 02:07:59

Below is generated by plot.py at 2018-01-09 05:17:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 257.74 Mbit/s

95th percentile per-packet one-way delay: 48.380 ms

Loss rate: 0.38%

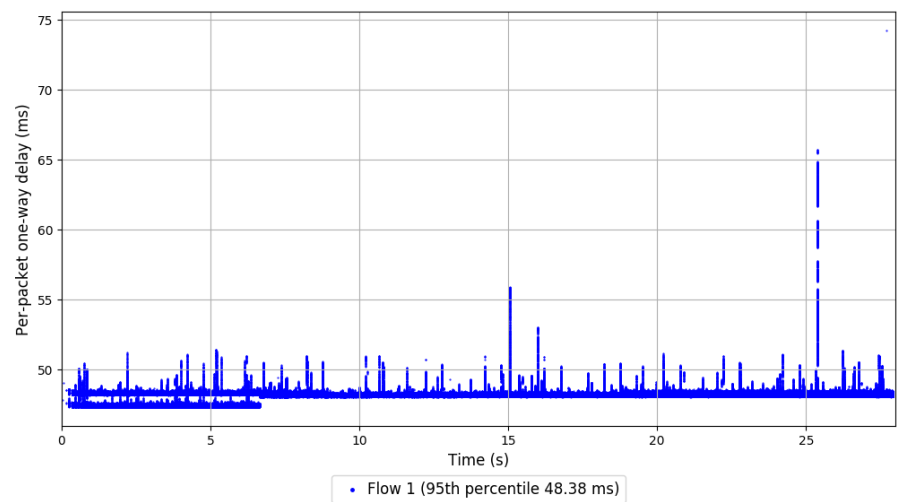
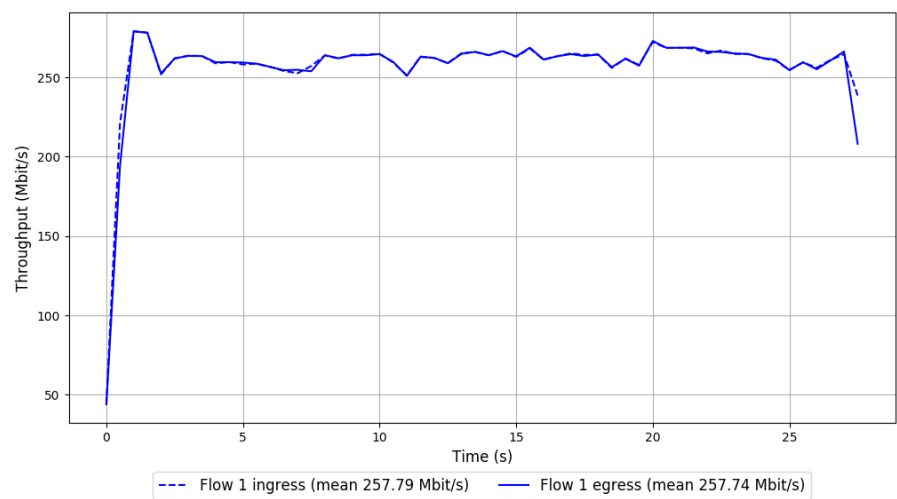
-- Flow 1:

Average throughput: 257.74 Mbit/s

95th percentile per-packet one-way delay: 48.380 ms

Loss rate: 0.38%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-09 02:19:13

End at: 2018-01-09 02:19:43

Below is generated by plot.py at 2018-01-09 05:17:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 239.59 Mbit/s

95th percentile per-packet one-way delay: 49.341 ms

Loss rate: 0.54%

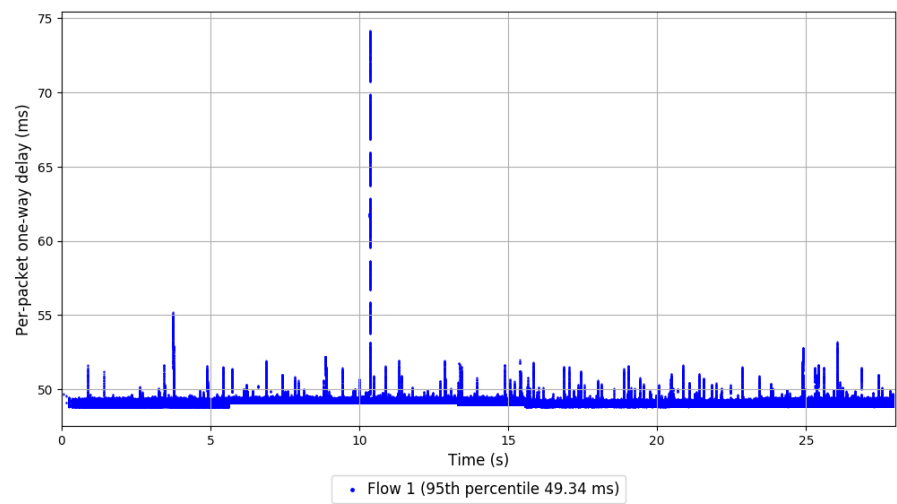
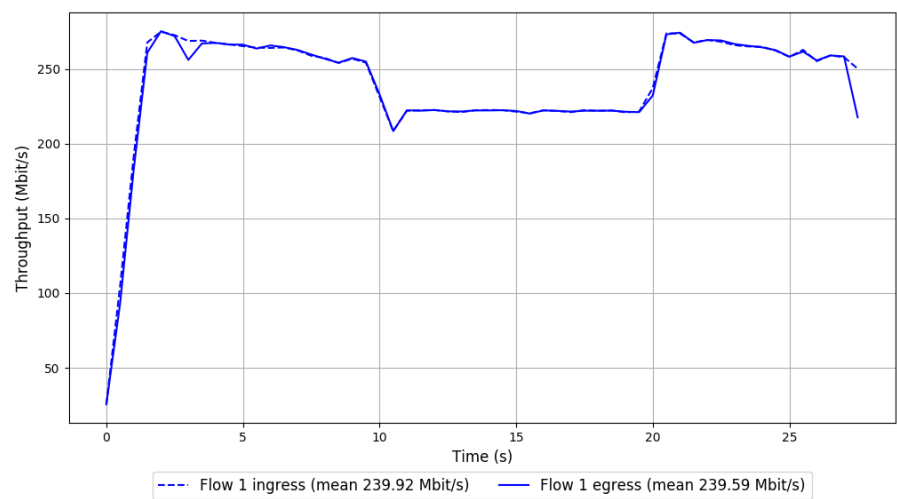
-- Flow 1:

Average throughput: 239.59 Mbit/s

95th percentile per-packet one-way delay: 49.341 ms

Loss rate: 0.54%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-01-09 02:30:56

End at: 2018-01-09 02:31:26

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 245.38 Mbit/s

95th percentile per-packet one-way delay: 50.197 ms

Loss rate: 0.40%

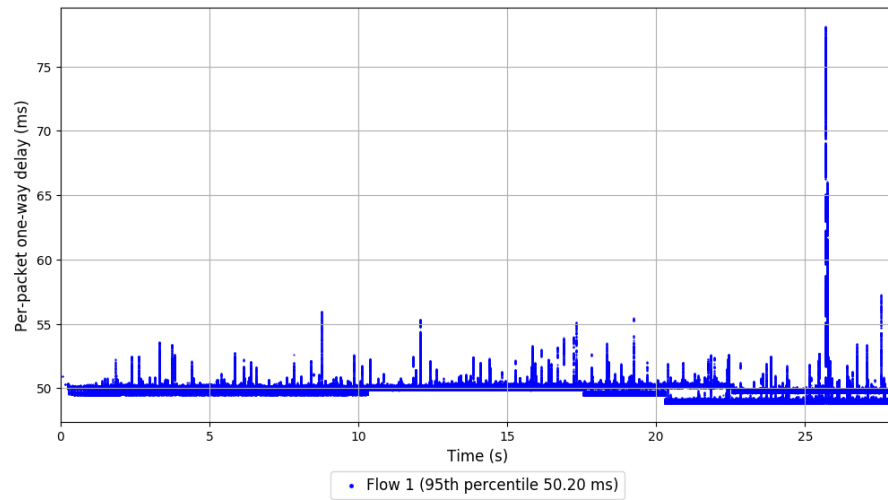
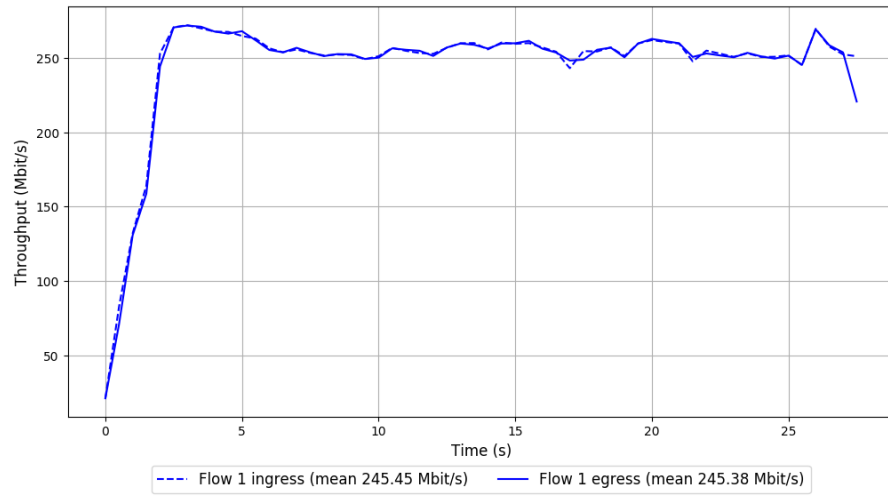
-- Flow 1:

Average throughput: 245.38 Mbit/s

95th percentile per-packet one-way delay: 50.197 ms

Loss rate: 0.40%

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

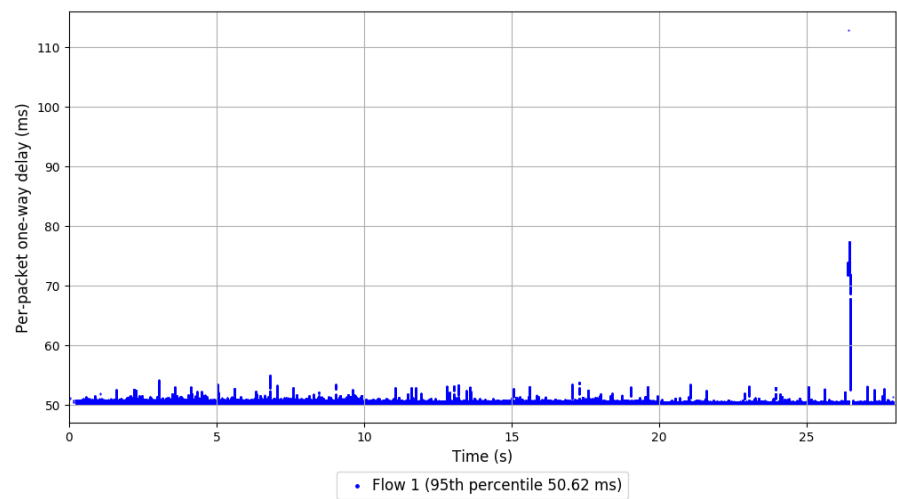
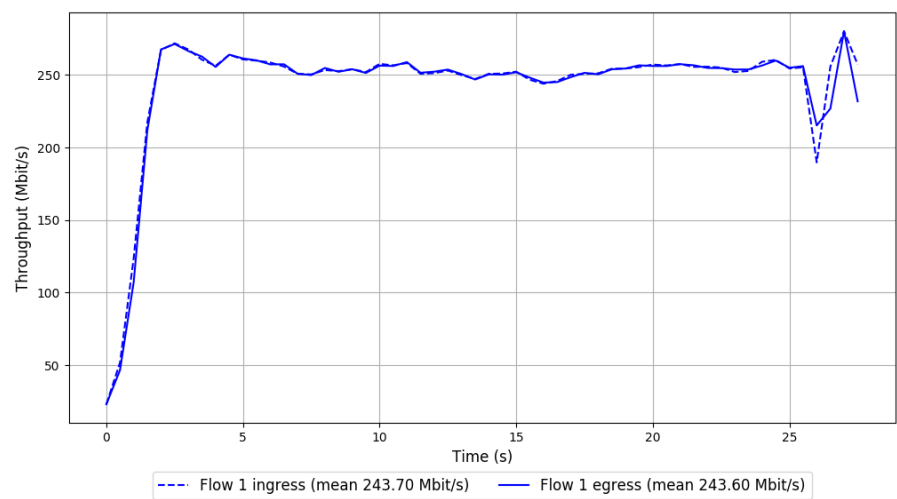


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-09 02:42:39
End at: 2018-01-09 02:43:09

# Below is generated by plot.py at 2018-01-09 05:17:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.60 Mbit/s
95th percentile per-packet one-way delay: 50.618 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 243.60 Mbit/s
95th percentile per-packet one-way delay: 50.618 ms
Loss rate: 0.40%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-09 00:51:25

End at: 2018-01-09 00:51:55

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.04 Mbit/s

95th percentile per-packet one-way delay: 41.608 ms

Loss rate: 0.29%

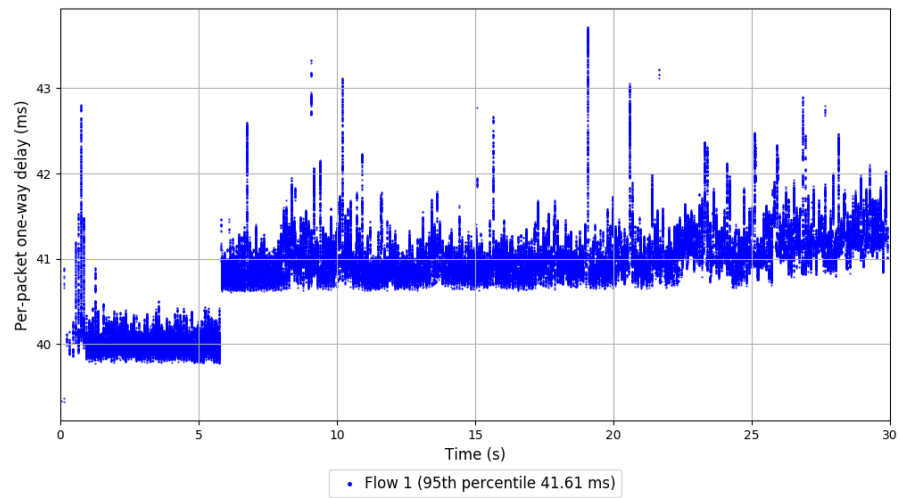
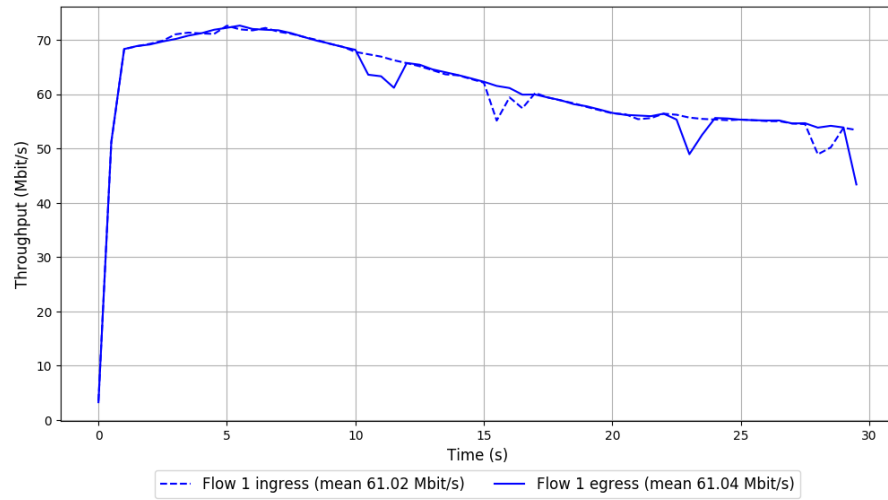
-- Flow 1:

Average throughput: 61.04 Mbit/s

95th percentile per-packet one-way delay: 41.608 ms

Loss rate: 0.29%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-01-09 01:02:47

End at: 2018-01-09 01:03:17

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 33.05 Mbit/s

95th percentile per-packet one-way delay: 42.495 ms

Loss rate: 0.45%

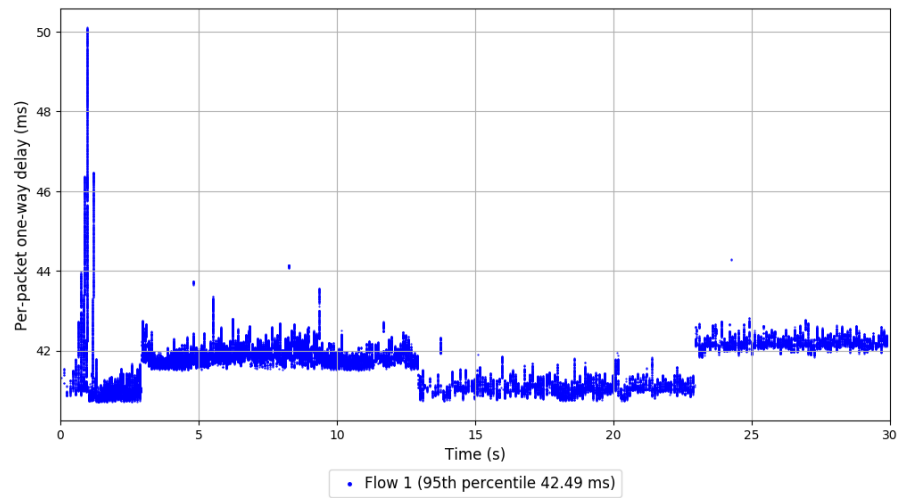
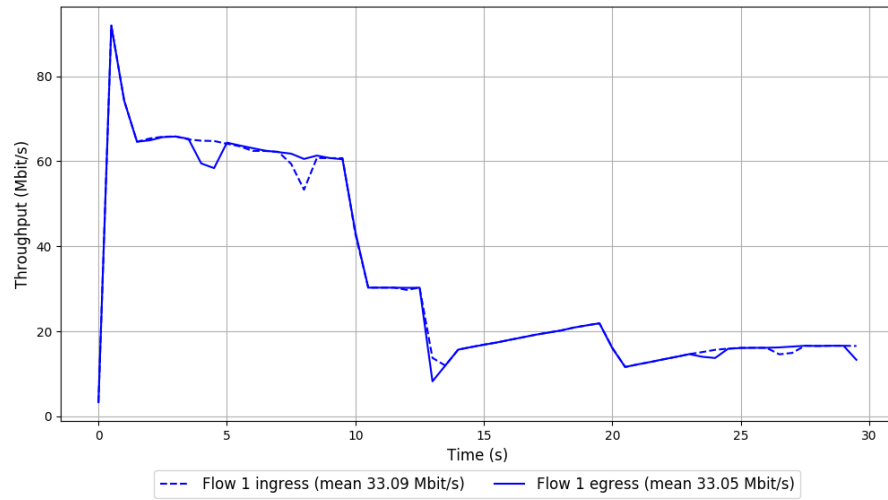
-- Flow 1:

Average throughput: 33.05 Mbit/s

95th percentile per-packet one-way delay: 42.495 ms

Loss rate: 0.45%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-09 01:14:17

End at: 2018-01-09 01:14:47

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.70 Mbit/s

95th percentile per-packet one-way delay: 42.870 ms

Loss rate: 0.70%

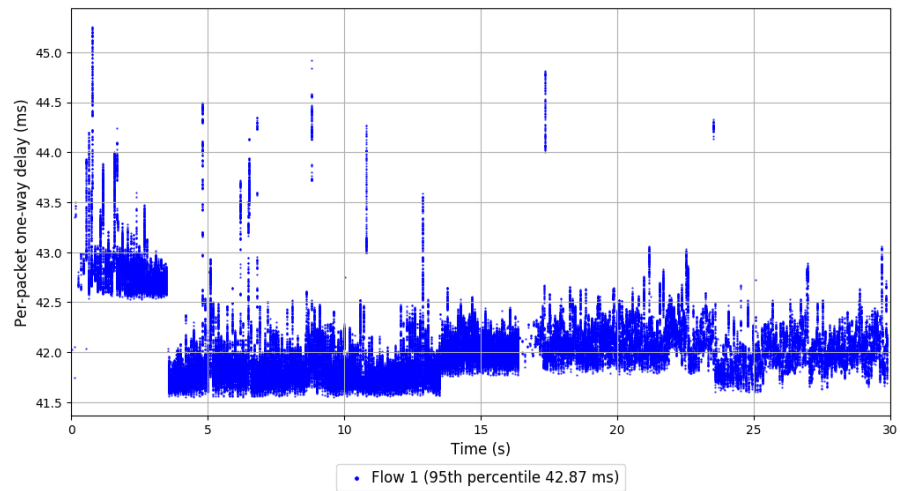
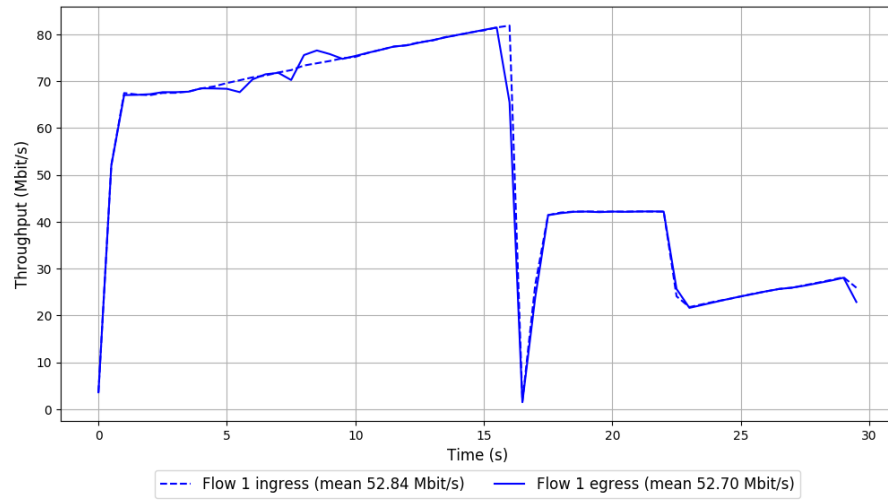
-- Flow 1:

Average throughput: 52.70 Mbit/s

95th percentile per-packet one-way delay: 42.870 ms

Loss rate: 0.70%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-01-09 01:26:02

End at: 2018-01-09 01:26:32

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 45.78 Mbit/s

95th percentile per-packet one-way delay: 44.989 ms

Loss rate: 0.30%

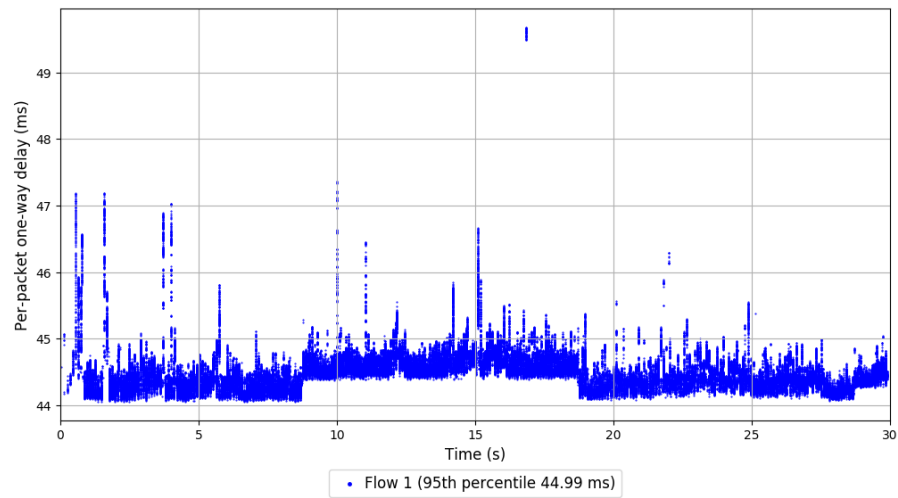
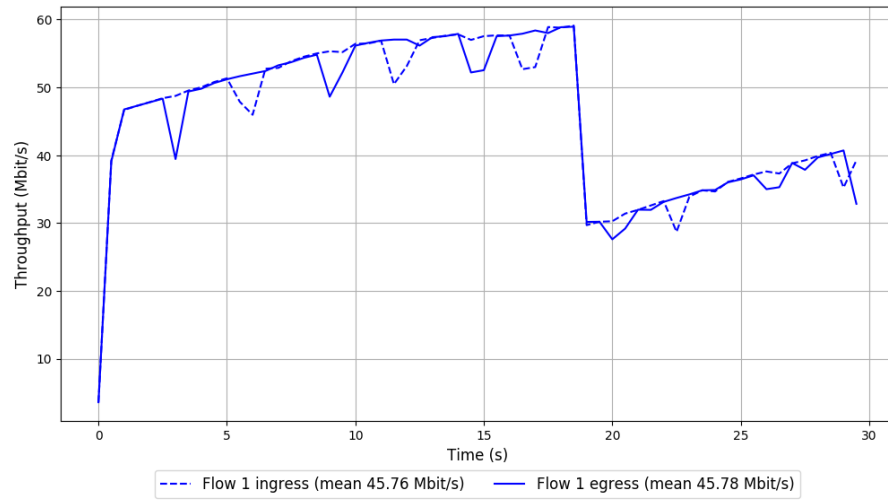
-- Flow 1:

Average throughput: 45.78 Mbit/s

95th percentile per-packet one-way delay: 44.989 ms

Loss rate: 0.30%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-09 01:37:45

End at: 2018-01-09 01:38:15

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 34.88 Mbit/s

95th percentile per-packet one-way delay: 46.734 ms

Loss rate: 0.30%

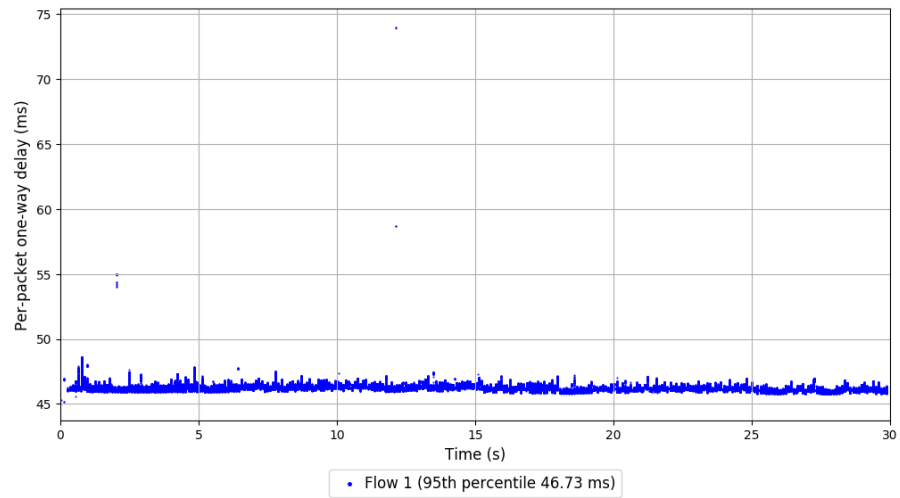
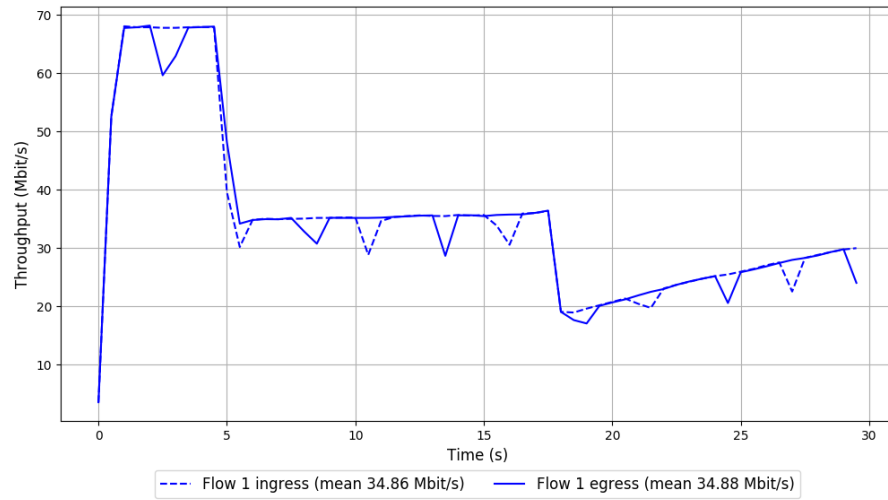
-- Flow 1:

Average throughput: 34.88 Mbit/s

95th percentile per-packet one-way delay: 46.734 ms

Loss rate: 0.30%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-09 01:49:29

End at: 2018-01-09 01:49:59

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.15 Mbit/s

95th percentile per-packet one-way delay: 48.151 ms

Loss rate: 0.96%

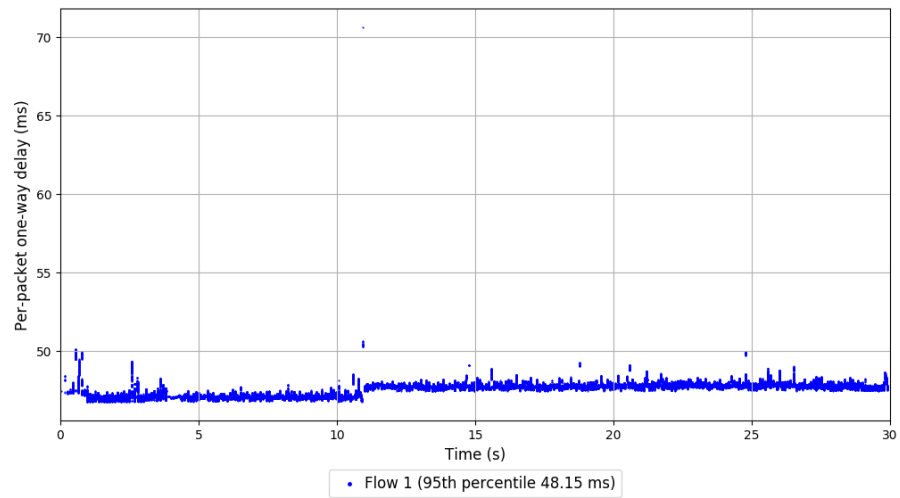
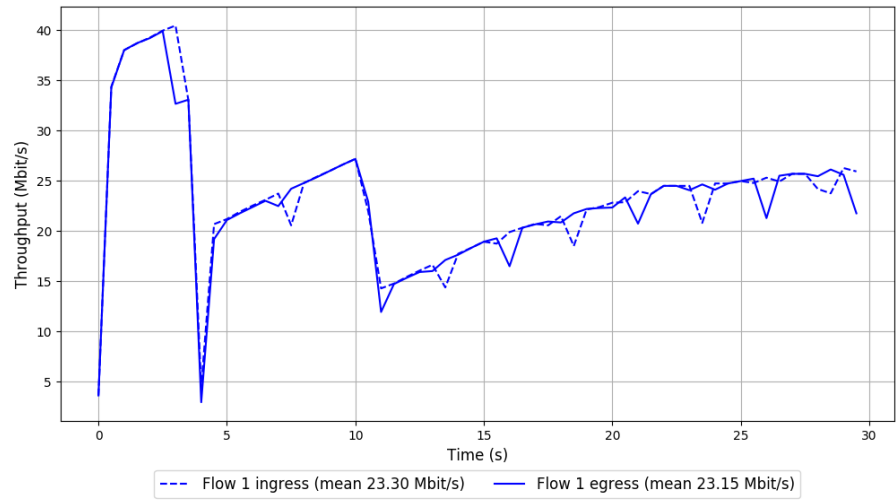
-- Flow 1:

Average throughput: 23.15 Mbit/s

95th percentile per-packet one-way delay: 48.151 ms

Loss rate: 0.96%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-01-09 02:01:07

End at: 2018-01-09 02:01:37

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.04 Mbit/s

95th percentile per-packet one-way delay: 48.666 ms

Loss rate: 0.27%

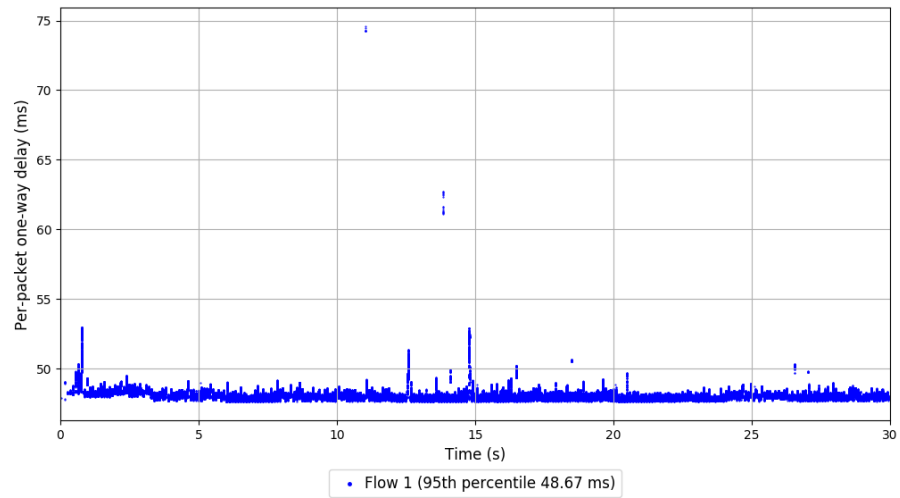
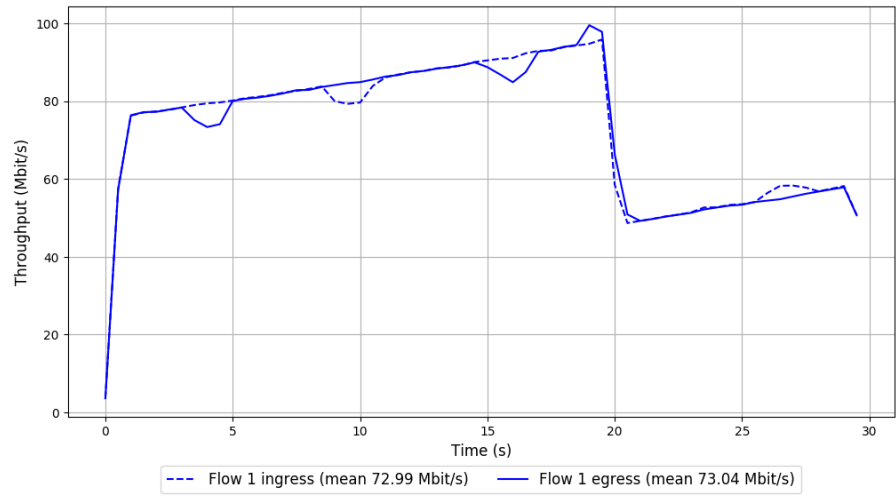
-- Flow 1:

Average throughput: 73.04 Mbit/s

95th percentile per-packet one-way delay: 48.666 ms

Loss rate: 0.27%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-01-09 02:12:52

End at: 2018-01-09 02:13:22

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.77 Mbit/s

95th percentile per-packet one-way delay: 49.992 ms

Loss rate: 0.15%

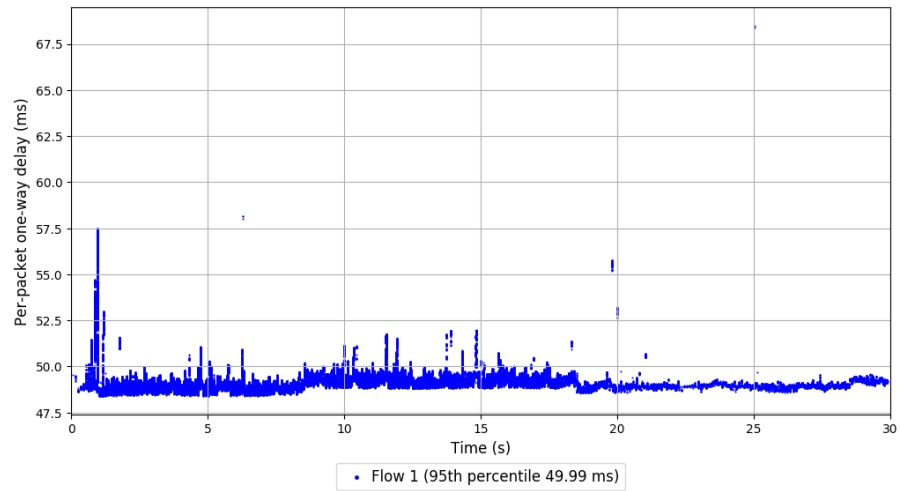
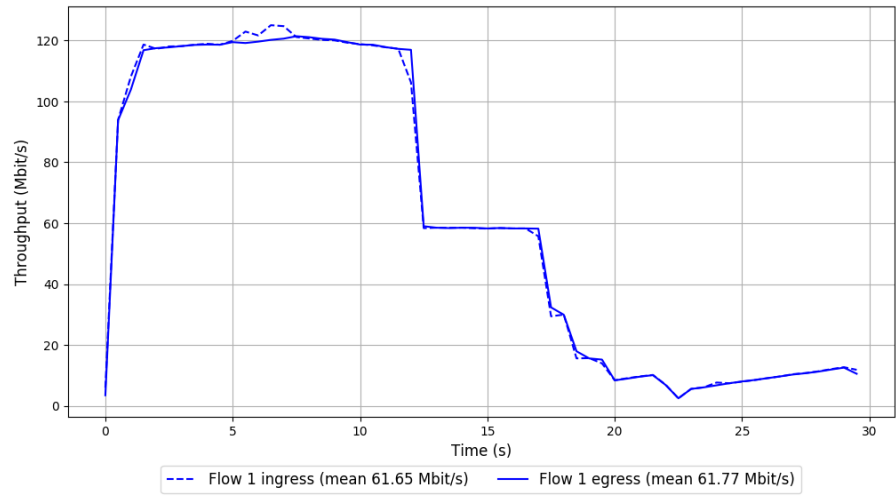
-- Flow 1:

Average throughput: 61.77 Mbit/s

95th percentile per-packet one-way delay: 49.992 ms

Loss rate: 0.15%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-09 02:24:36

End at: 2018-01-09 02:25:06

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 33.56 Mbit/s

95th percentile per-packet one-way delay: 50.466 ms

Loss rate: 0.34%

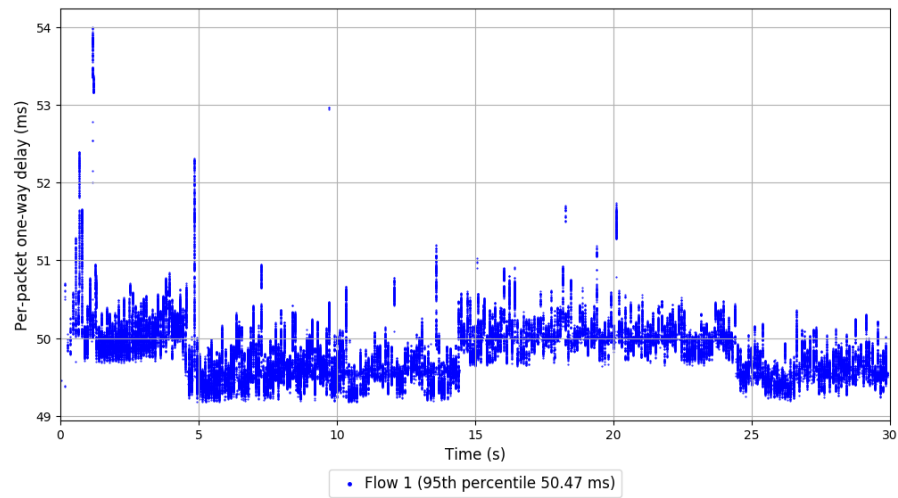
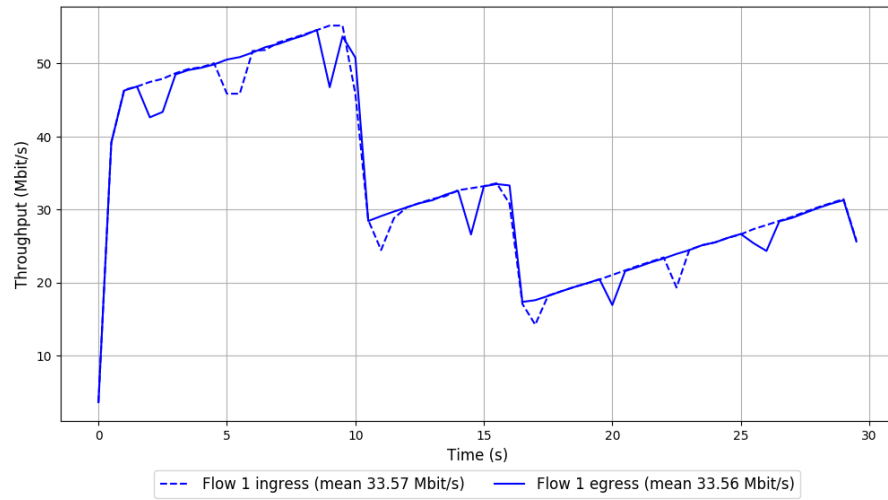
-- Flow 1:

Average throughput: 33.56 Mbit/s

95th percentile per-packet one-way delay: 50.466 ms

Loss rate: 0.34%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-01-09 02:36:19

End at: 2018-01-09 02:36:49

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.82 Mbit/s

95th percentile per-packet one-way delay: 51.175 ms

Loss rate: 0.08%

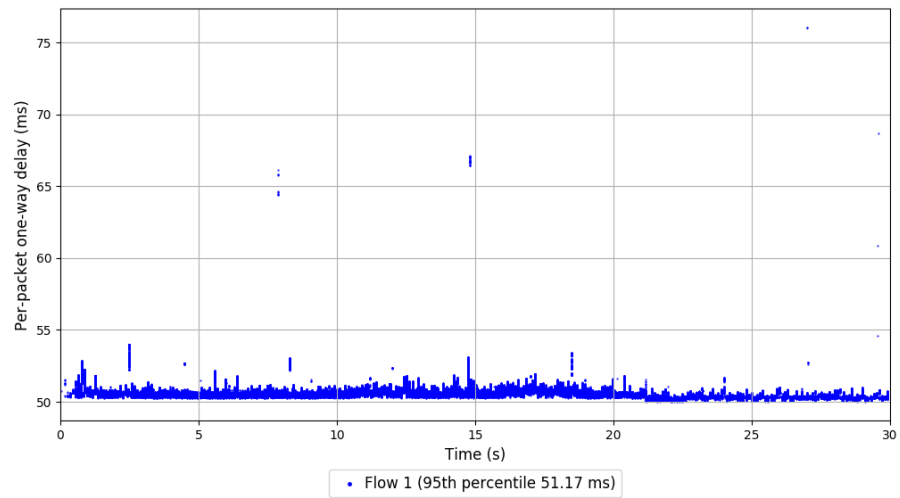
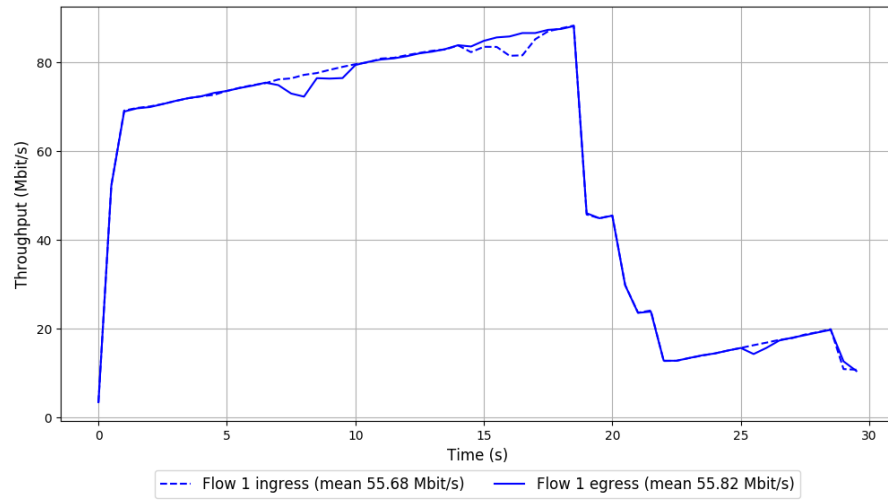
-- Flow 1:

Average throughput: 55.82 Mbit/s

95th percentile per-packet one-way delay: 51.175 ms

Loss rate: 0.08%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-01-09 00:53:40

End at: 2018-01-09 00:54:10

Below is generated by plot.py at 2018-01-09 05:17:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 253.98 Mbit/s

95th percentile per-packet one-way delay: 71.769 ms

Loss rate: 0.11%

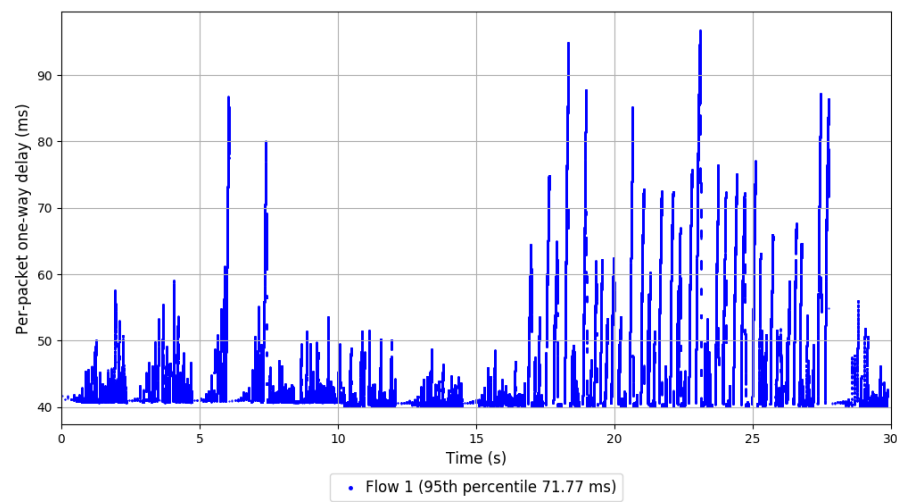
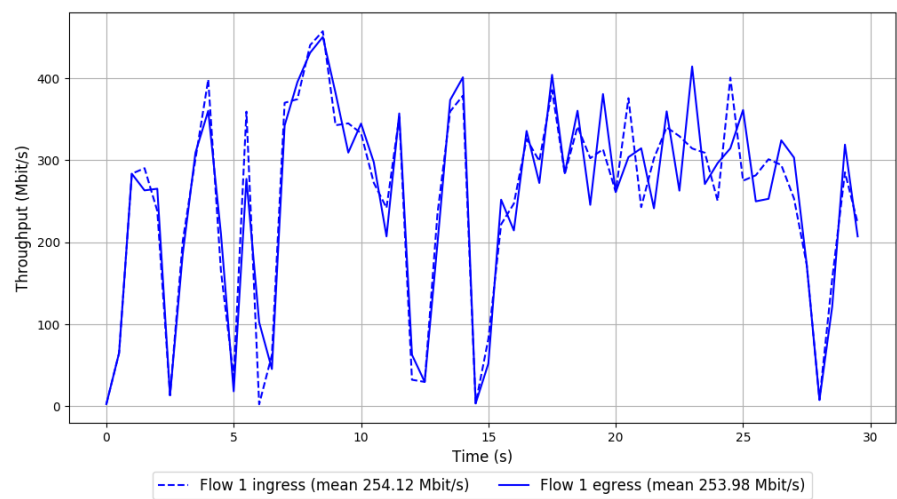
-- Flow 1:

Average throughput: 253.98 Mbit/s

95th percentile per-packet one-way delay: 71.769 ms

Loss rate: 0.11%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-01-09 01:05:12

End at: 2018-01-09 01:05:42

Below is generated by plot.py at 2018-01-09 05:17:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 296.03 Mbit/s

95th percentile per-packet one-way delay: 124.440 ms

Loss rate: 0.61%

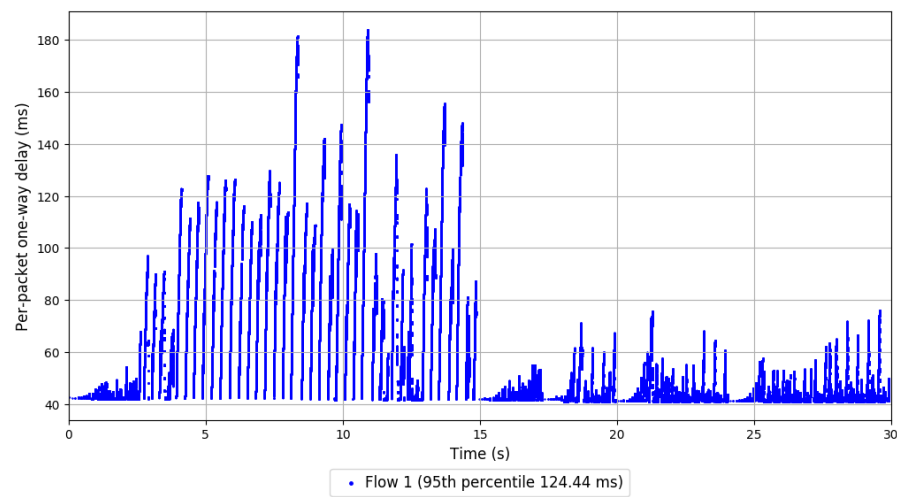
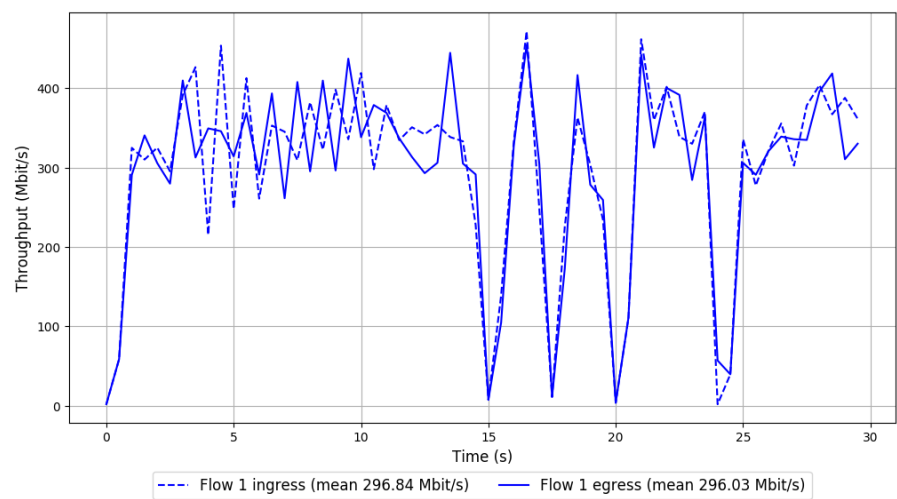
-- Flow 1:

Average throughput: 296.03 Mbit/s

95th percentile per-packet one-way delay: 124.440 ms

Loss rate: 0.61%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-09 01:16:48

End at: 2018-01-09 01:17:18

Below is generated by plot.py at 2018-01-09 05:18:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 342.49 Mbit/s

95th percentile per-packet one-way delay: 183.011 ms

Loss rate: 1.17%

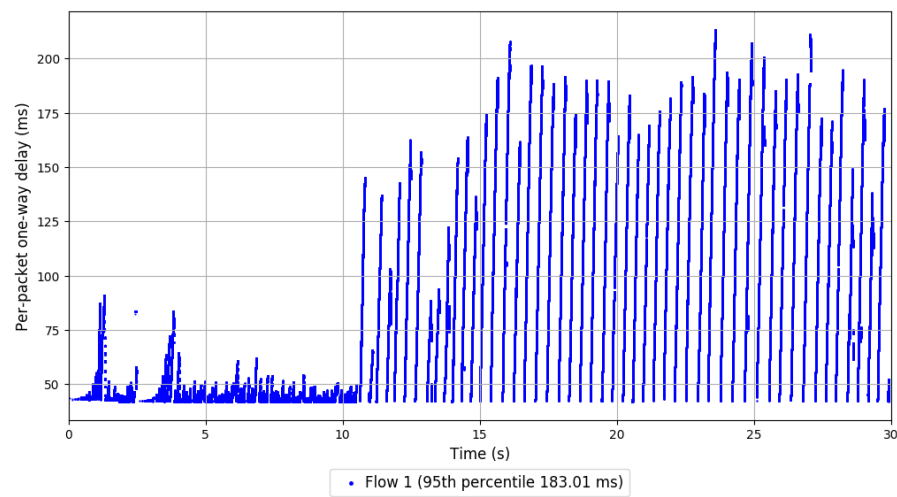
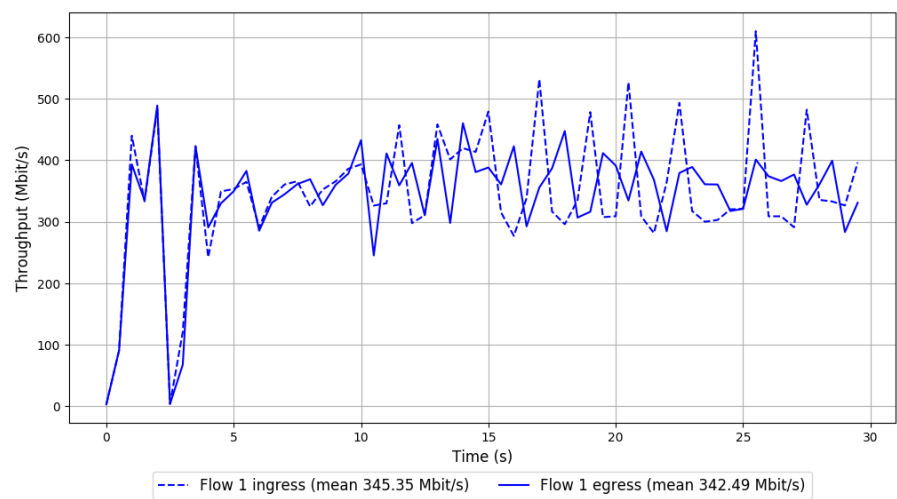
-- Flow 1:

Average throughput: 342.49 Mbit/s

95th percentile per-packet one-way delay: 183.011 ms

Loss rate: 1.17%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-09 01:28:36

End at: 2018-01-09 01:29:06

Below is generated by plot.py at 2018-01-09 05:18:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 262.59 Mbit/s

95th percentile per-packet one-way delay: 82.098 ms

Loss rate: 0.82%

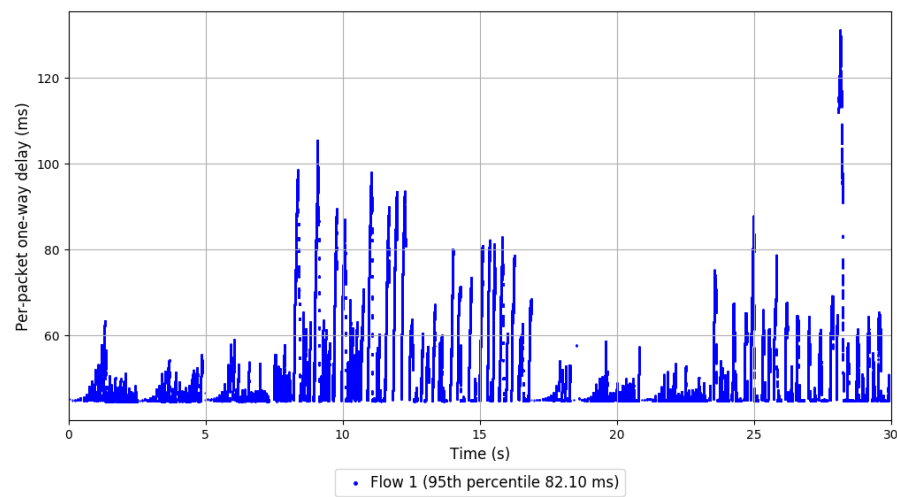
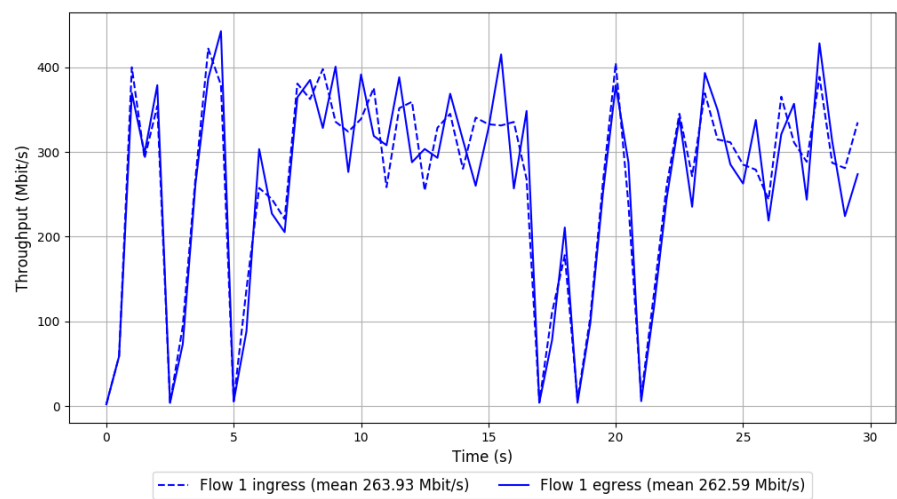
-- Flow 1:

Average throughput: 262.59 Mbit/s

95th percentile per-packet one-way delay: 82.098 ms

Loss rate: 0.82%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-09 01:40:21

End at: 2018-01-09 01:40:51

Below is generated by plot.py at 2018-01-09 05:21:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 289.48 Mbit/s

95th percentile per-packet one-way delay: 77.654 ms

Loss rate: 0.43%

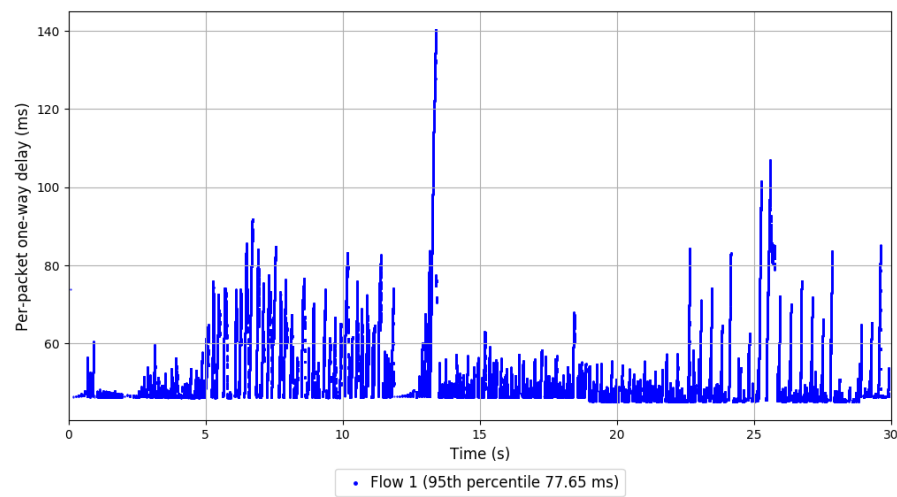
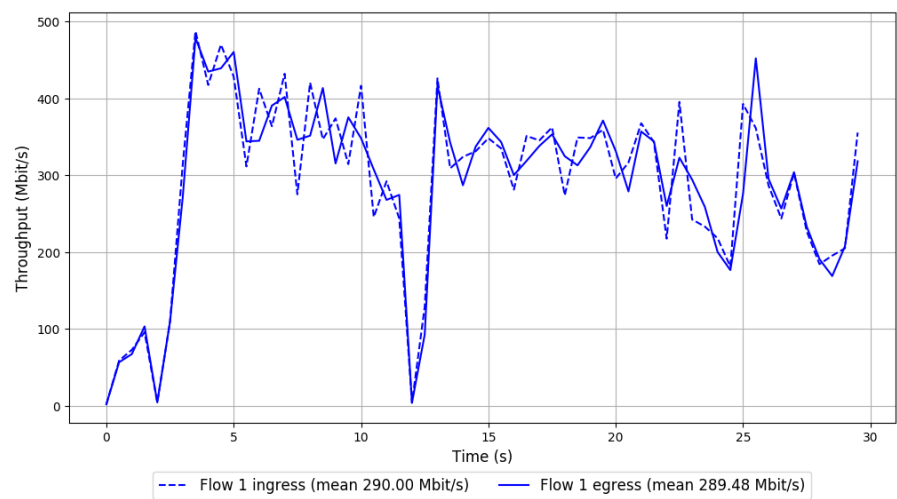
-- Flow 1:

Average throughput: 289.48 Mbit/s

95th percentile per-packet one-way delay: 77.654 ms

Loss rate: 0.43%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-09 01:51:59

End at: 2018-01-09 01:52:29

Below is generated by plot.py at 2018-01-09 05:21:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 234.79 Mbit/s

95th percentile per-packet one-way delay: 63.370 ms

Loss rate: 0.95%

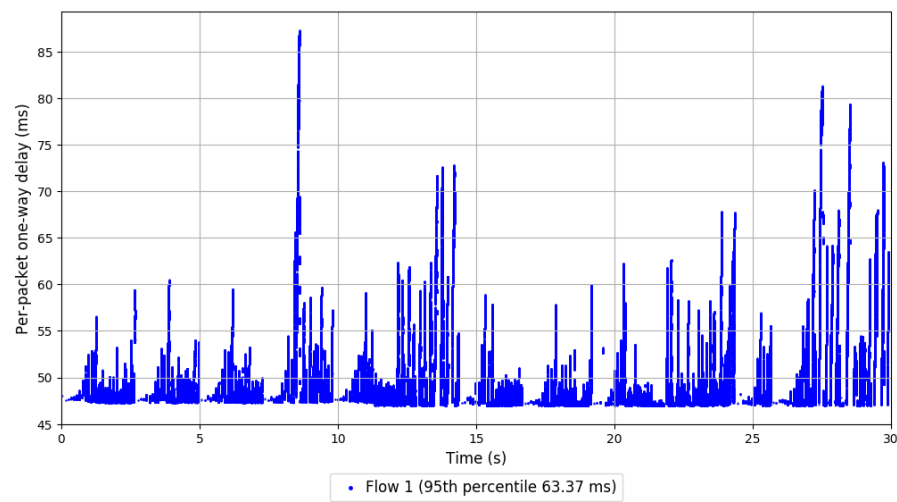
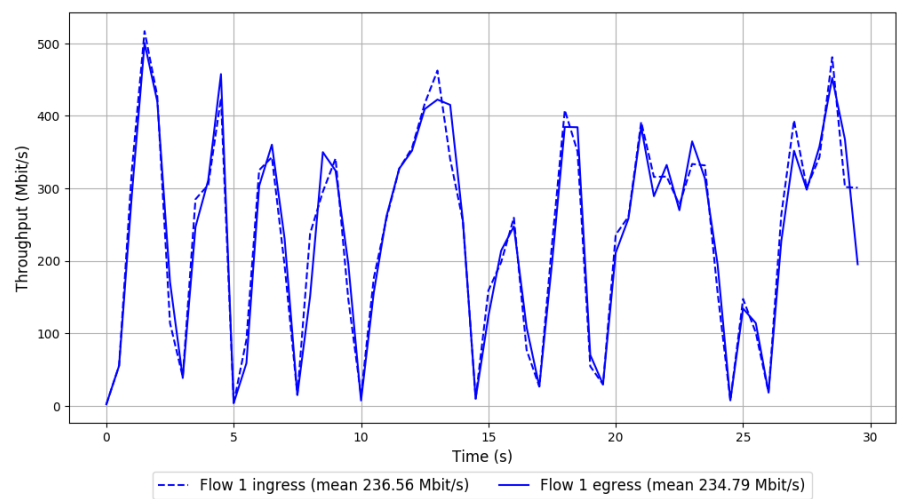
-- Flow 1:

Average throughput: 234.79 Mbit/s

95th percentile per-packet one-way delay: 63.370 ms

Loss rate: 0.95%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-01-09 02:03:41

End at: 2018-01-09 02:04:11

Below is generated by plot.py at 2018-01-09 05:21:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 315.21 Mbit/s

95th percentile per-packet one-way delay: 156.000 ms

Loss rate: 0.61%

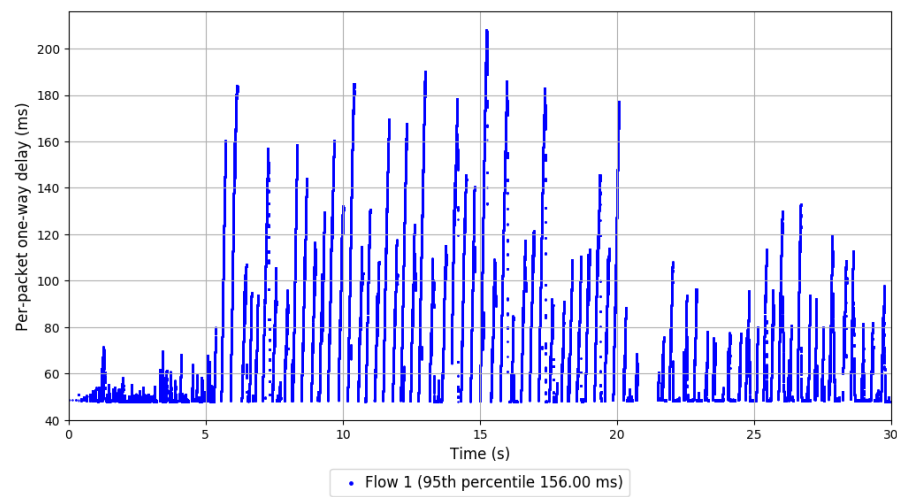
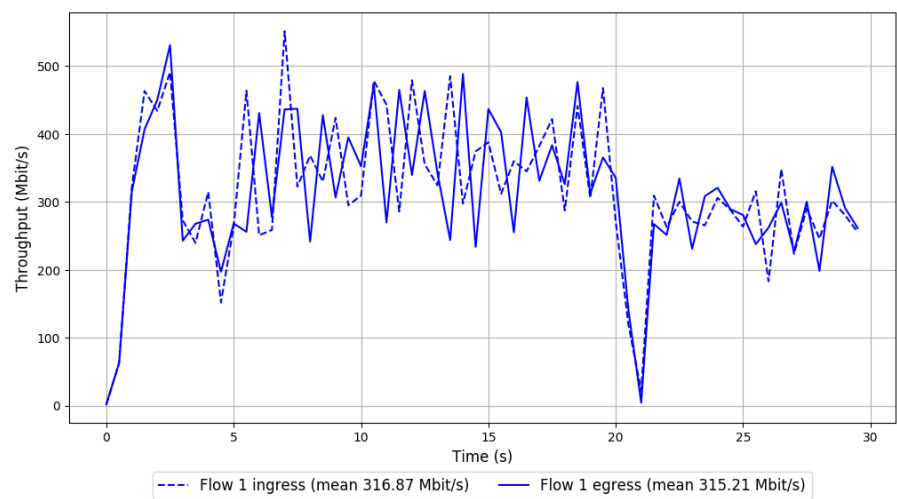
-- Flow 1:

Average throughput: 315.21 Mbit/s

95th percentile per-packet one-way delay: 156.000 ms

Loss rate: 0.61%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-09 02:15:22

End at: 2018-01-09 02:15:52

Below is generated by plot.py at 2018-01-09 05:21:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 325.09 Mbit/s

95th percentile per-packet one-way delay: 204.002 ms

Loss rate: 2.50%

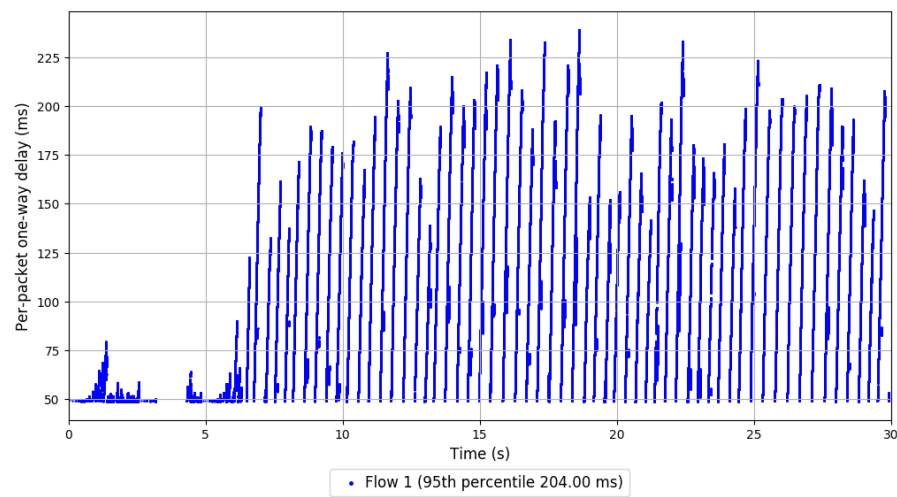
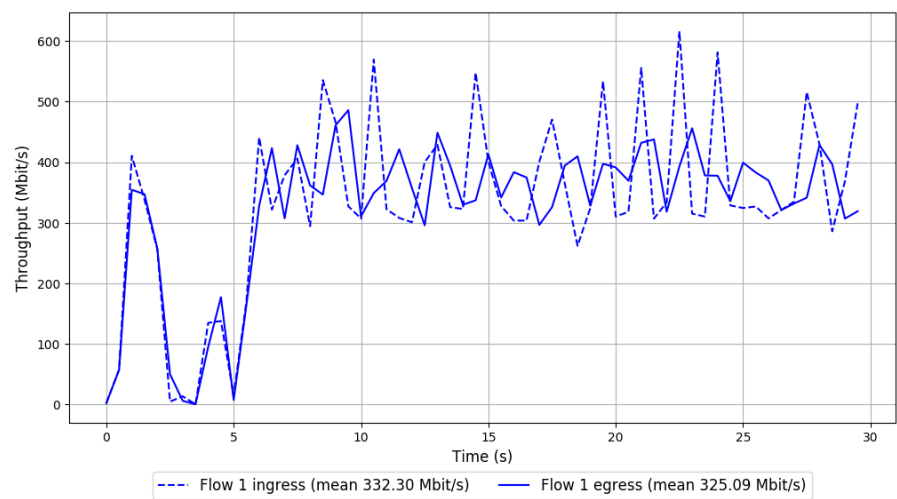
-- Flow 1:

Average throughput: 325.09 Mbit/s

95th percentile per-packet one-way delay: 204.002 ms

Loss rate: 2.50%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-09 02:27:08

End at: 2018-01-09 02:27:38

Below is generated by plot.py at 2018-01-09 05:21:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 285.07 Mbit/s

95th percentile per-packet one-way delay: 85.653 ms

Loss rate: 0.78%

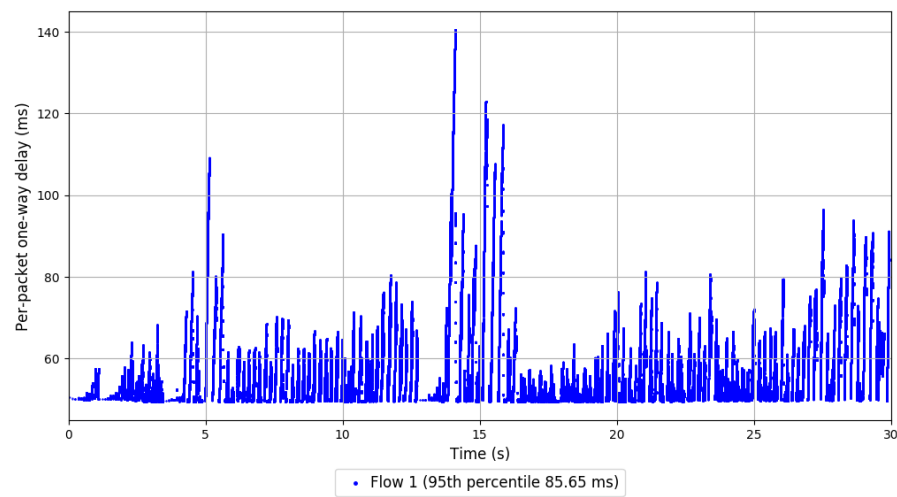
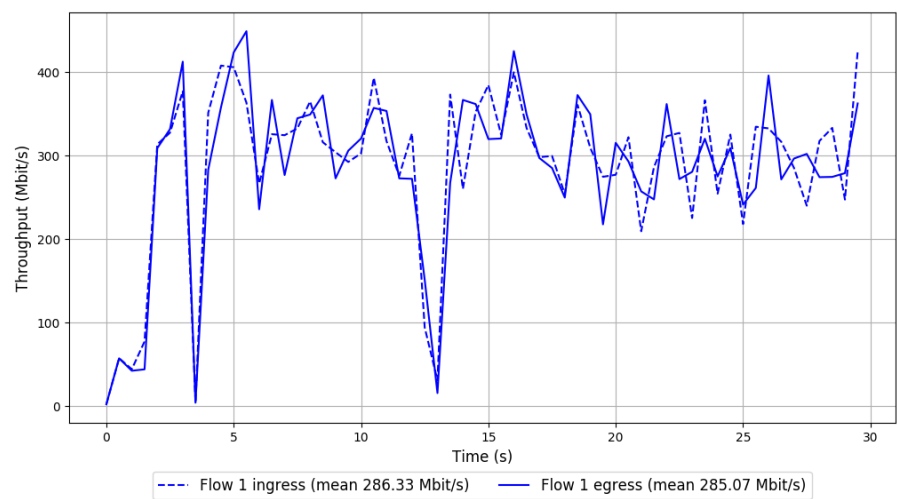
-- Flow 1:

Average throughput: 285.07 Mbit/s

95th percentile per-packet one-way delay: 85.653 ms

Loss rate: 0.78%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-09 02:38:53

End at: 2018-01-09 02:39:23

Below is generated by plot.py at 2018-01-09 05:21:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 256.34 Mbit/s

95th percentile per-packet one-way delay: 64.185 ms

Loss rate: 0.51%

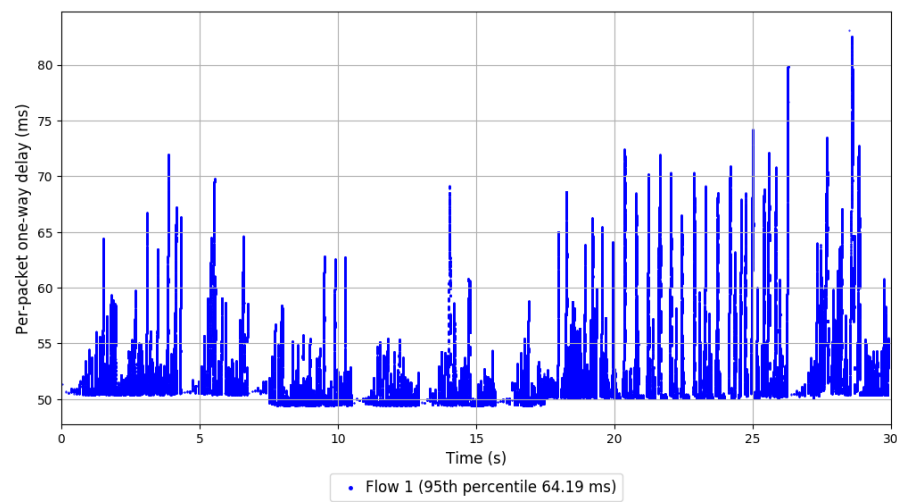
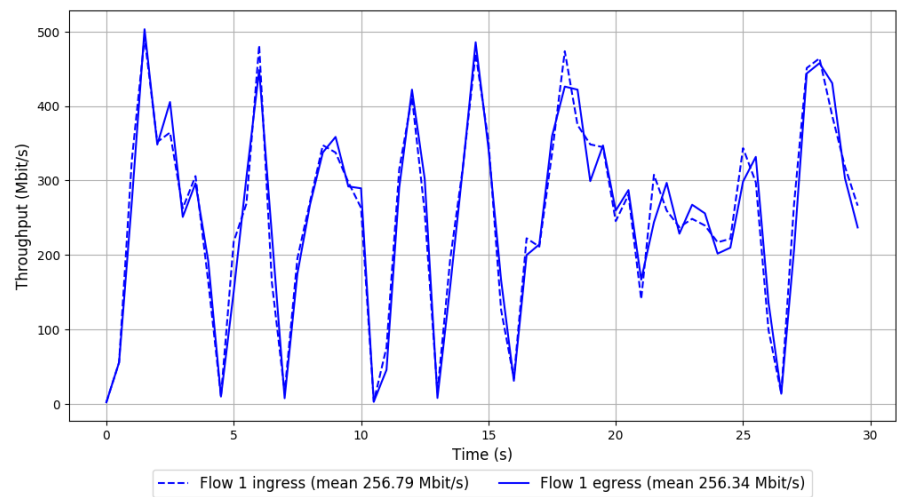
-- Flow 1:

Average throughput: 256.34 Mbit/s

95th percentile per-packet one-way delay: 64.185 ms

Loss rate: 0.51%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-09 00:50:40

End at: 2018-01-09 00:51:11

Below is generated by plot.py at 2018-01-09 05:21:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.67 Mbit/s

95th percentile per-packet one-way delay: 40.613 ms

Loss rate: 0.36%

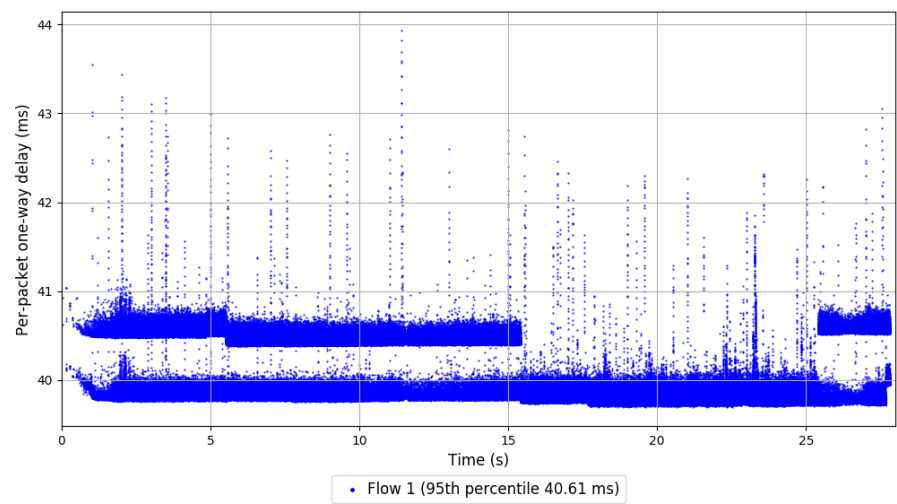
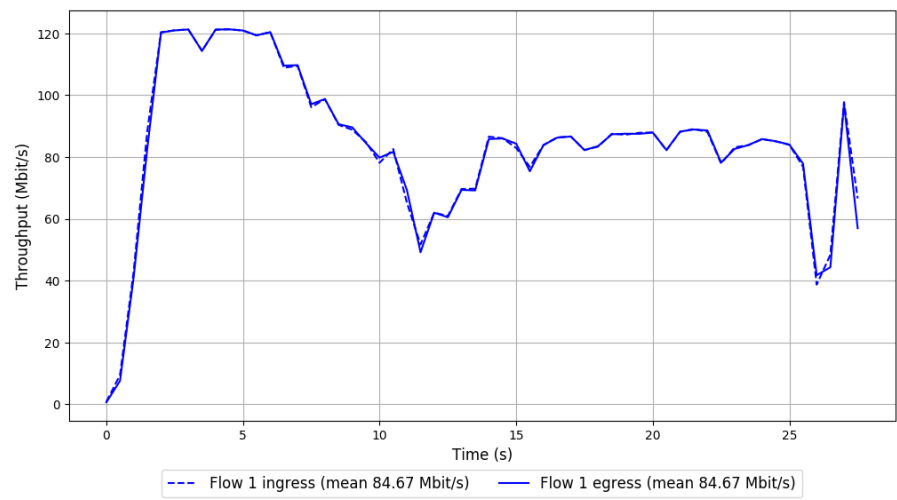
-- Flow 1:

Average throughput: 84.67 Mbit/s

95th percentile per-packet one-way delay: 40.613 ms

Loss rate: 0.36%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-09 01:02:03

End at: 2018-01-09 01:02:33

Below is generated by plot.py at 2018-01-09 05:21:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.08 Mbit/s

95th percentile per-packet one-way delay: 41.559 ms

Loss rate: 0.26%

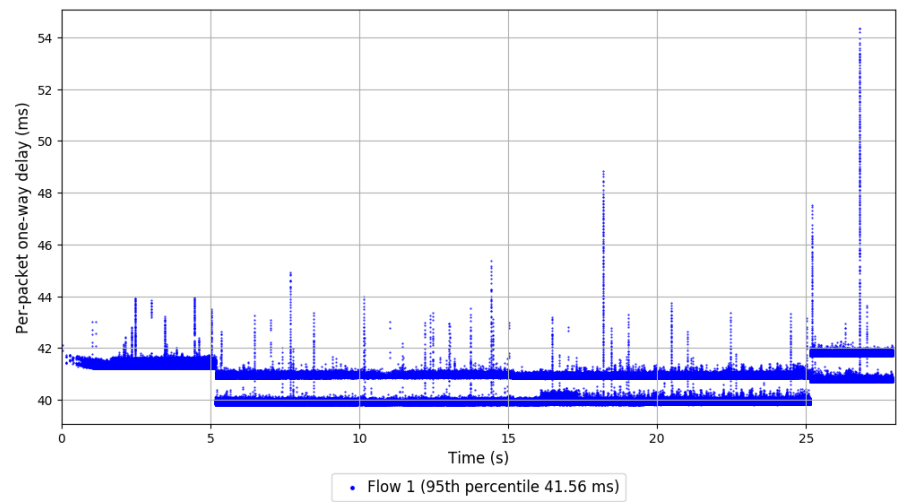
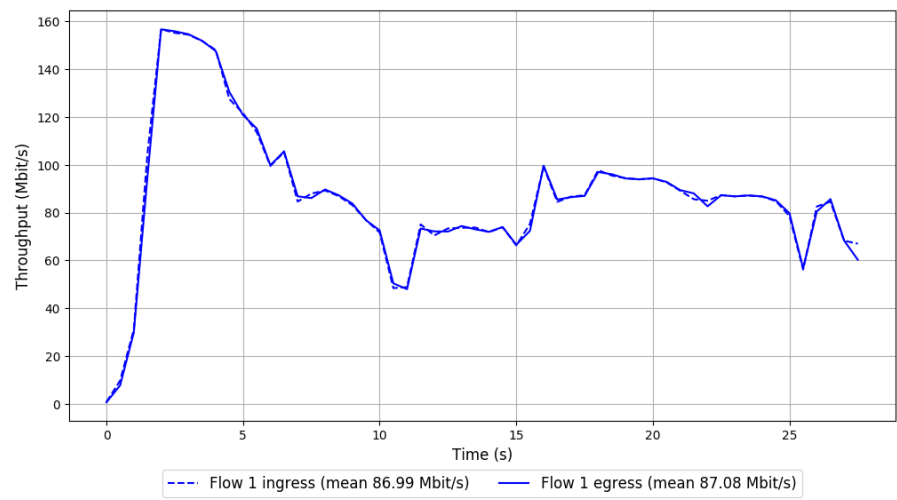
-- Flow 1:

Average throughput: 87.08 Mbit/s

95th percentile per-packet one-way delay: 41.559 ms

Loss rate: 0.26%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-09 01:13:33

End at: 2018-01-09 01:14:03

Below is generated by plot.py at 2018-01-09 05:22:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.14 Mbit/s

95th percentile per-packet one-way delay: 42.371 ms

Loss rate: 0.34%

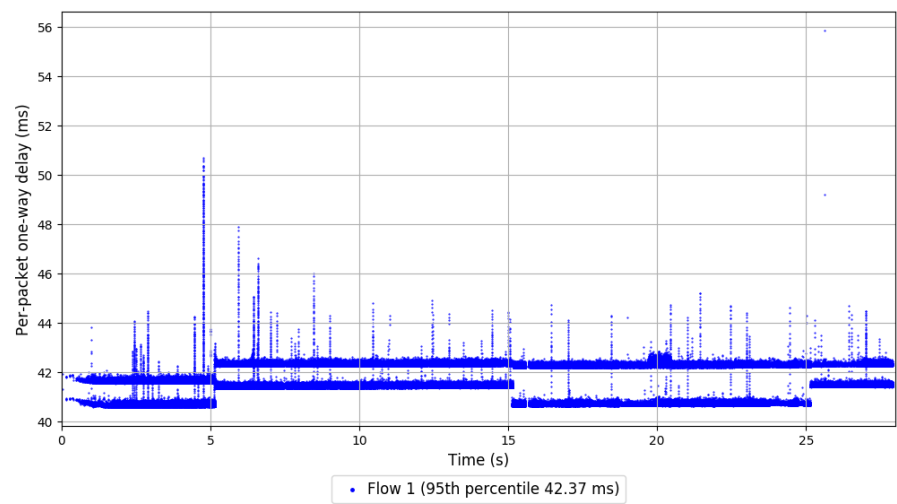
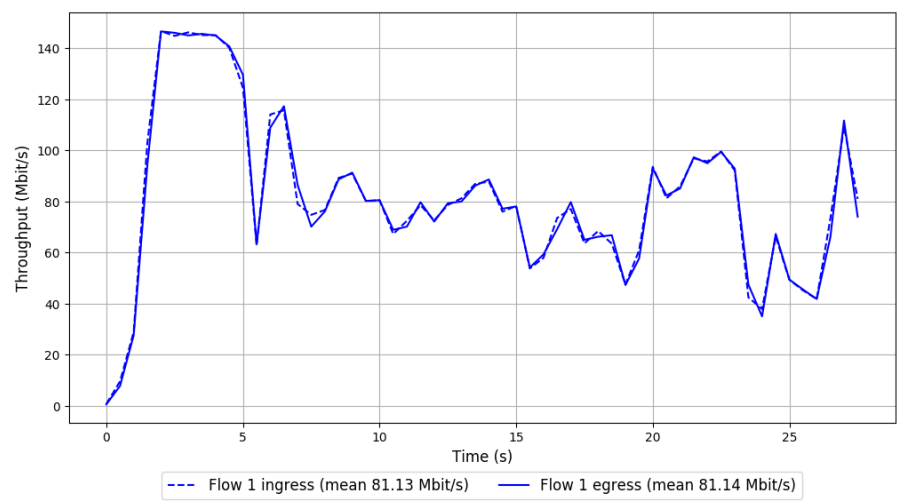
-- Flow 1:

Average throughput: 81.14 Mbit/s

95th percentile per-packet one-way delay: 42.371 ms

Loss rate: 0.34%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-09 01:25:19

End at: 2018-01-09 01:25:49

Below is generated by plot.py at 2018-01-09 05:22:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.64 Mbit/s

95th percentile per-packet one-way delay: 44.496 ms

Loss rate: 0.26%

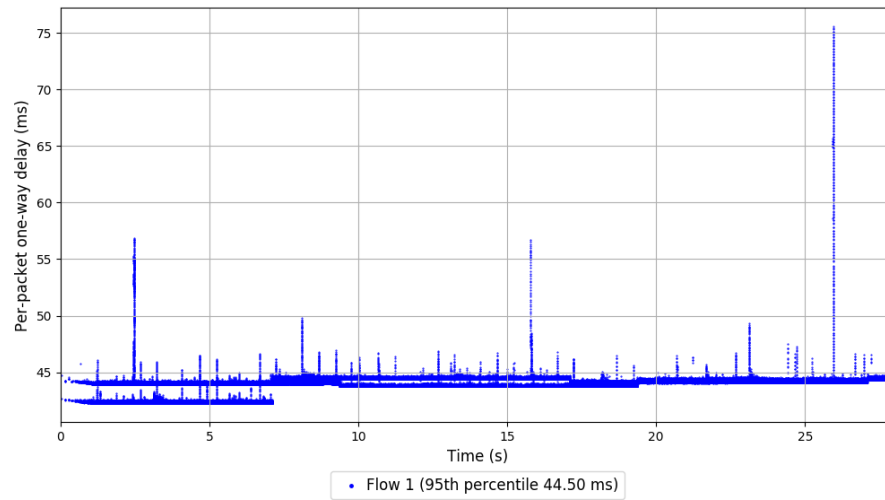
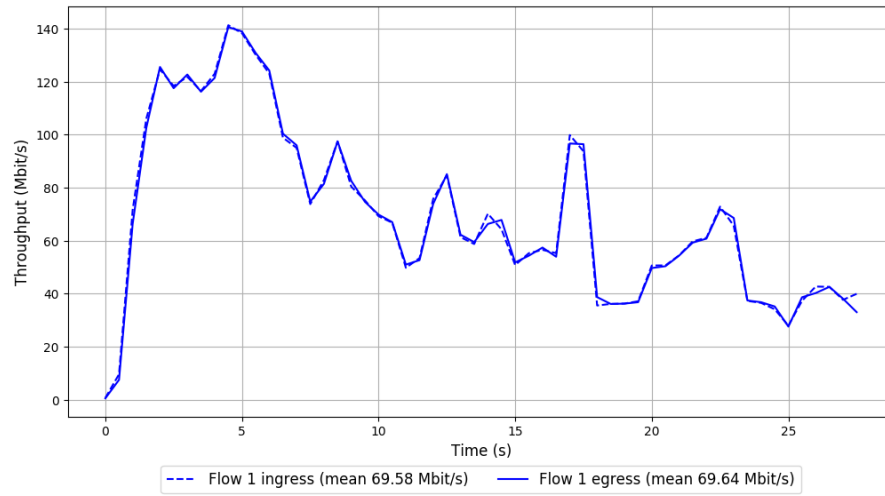
-- Flow 1:

Average throughput: 69.64 Mbit/s

95th percentile per-packet one-way delay: 44.496 ms

Loss rate: 0.26%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-09 01:37:01

End at: 2018-01-09 01:37:32

Below is generated by plot.py at 2018-01-09 05:23:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.53 Mbit/s

95th percentile per-packet one-way delay: 45.806 ms

Loss rate: 0.35%

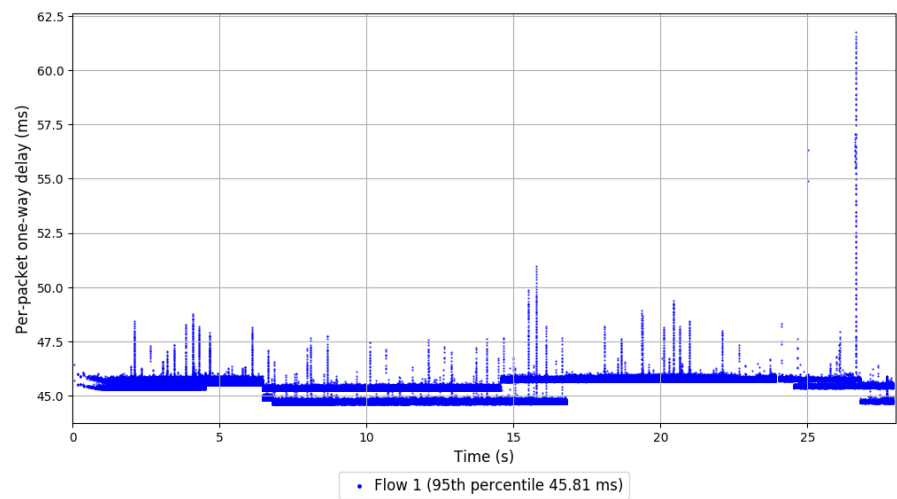
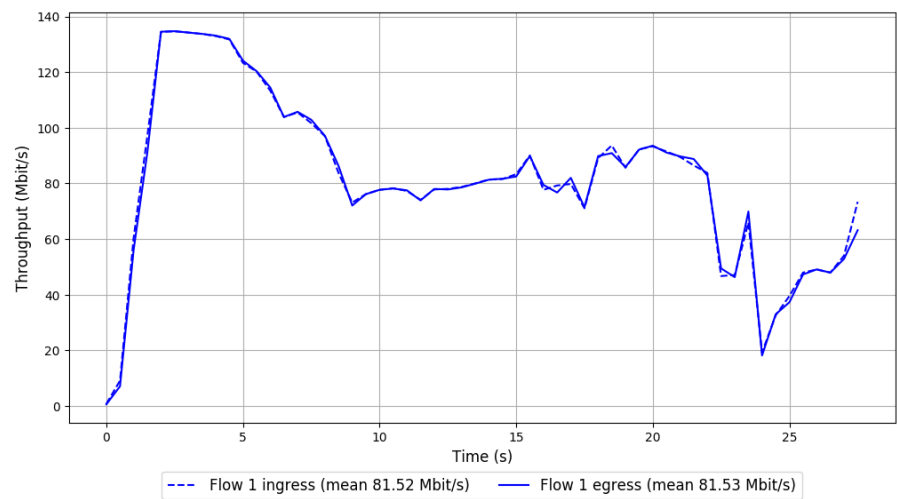
-- Flow 1:

Average throughput: 81.53 Mbit/s

95th percentile per-packet one-way delay: 45.806 ms

Loss rate: 0.35%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-09 01:48:47

End at: 2018-01-09 01:49:18

Below is generated by plot.py at 2018-01-09 05:23:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.14 Mbit/s

95th percentile per-packet one-way delay: 47.202 ms

Loss rate: 0.17%

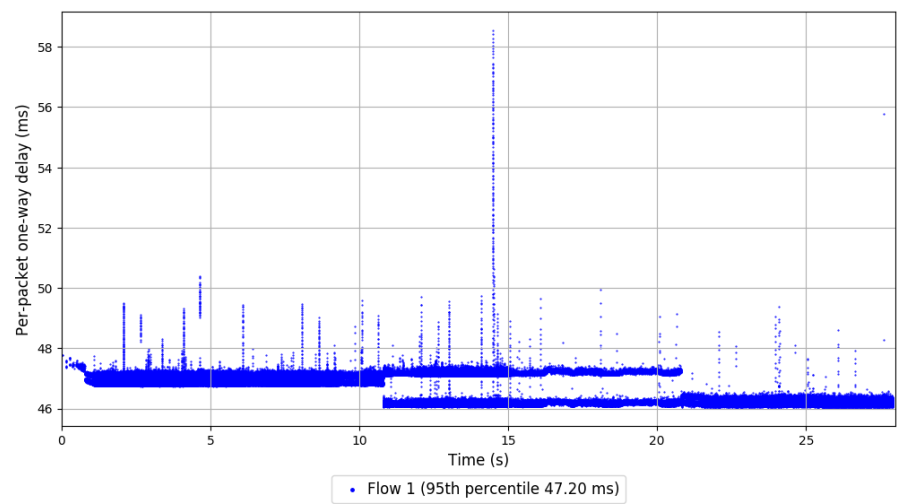
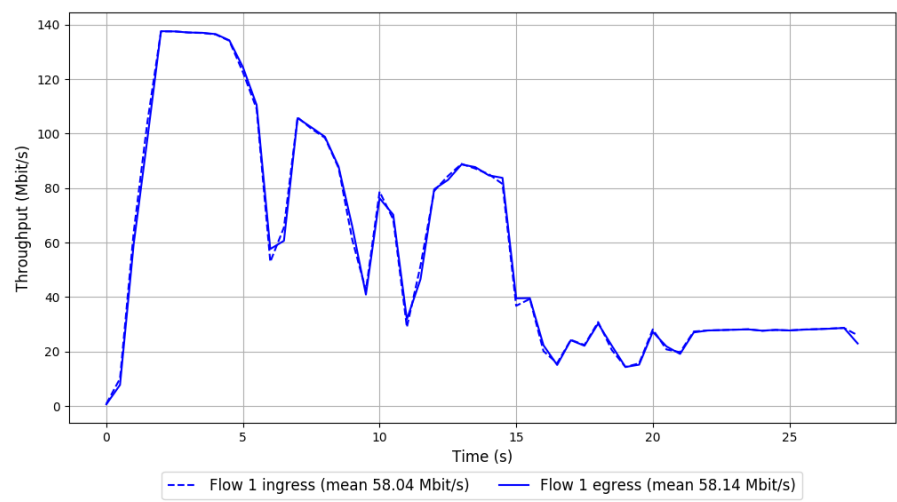
-- Flow 1:

Average throughput: 58.14 Mbit/s

95th percentile per-packet one-way delay: 47.202 ms

Loss rate: 0.17%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-09 02:00:23

End at: 2018-01-09 02:00:53

Below is generated by plot.py at 2018-01-09 05:23:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.01 Mbit/s

95th percentile per-packet one-way delay: 48.224 ms

Loss rate: 0.26%

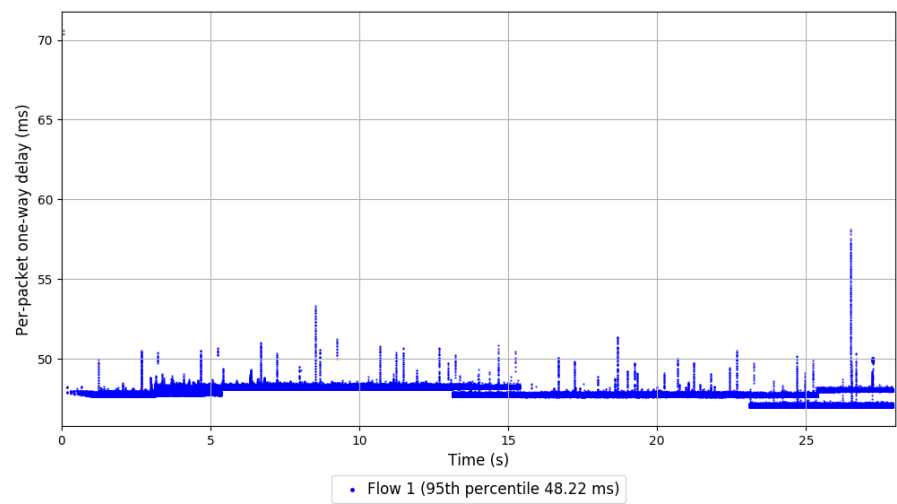
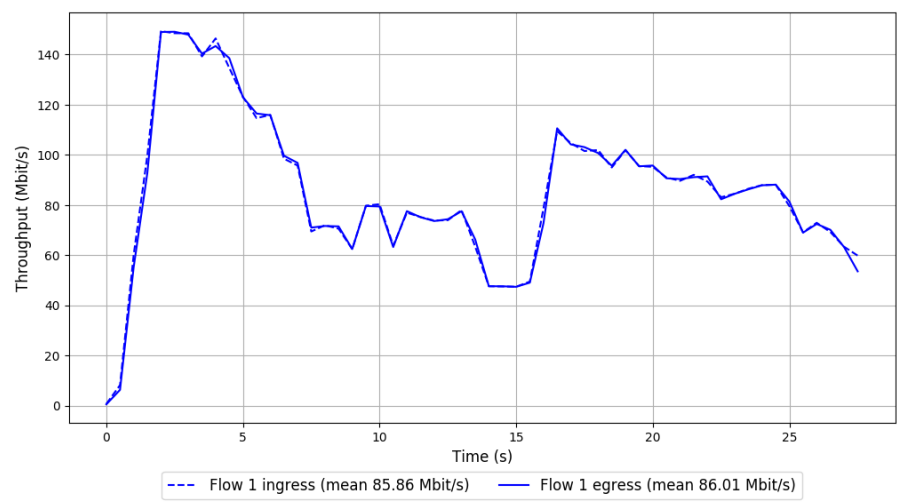
-- Flow 1:

Average throughput: 86.01 Mbit/s

95th percentile per-packet one-way delay: 48.224 ms

Loss rate: 0.26%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-09 02:12:08

End at: 2018-01-09 02:12:38

Below is generated by plot.py at 2018-01-09 05:23:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.65 Mbit/s

95th percentile per-packet one-way delay: 48.998 ms

Loss rate: 0.16%

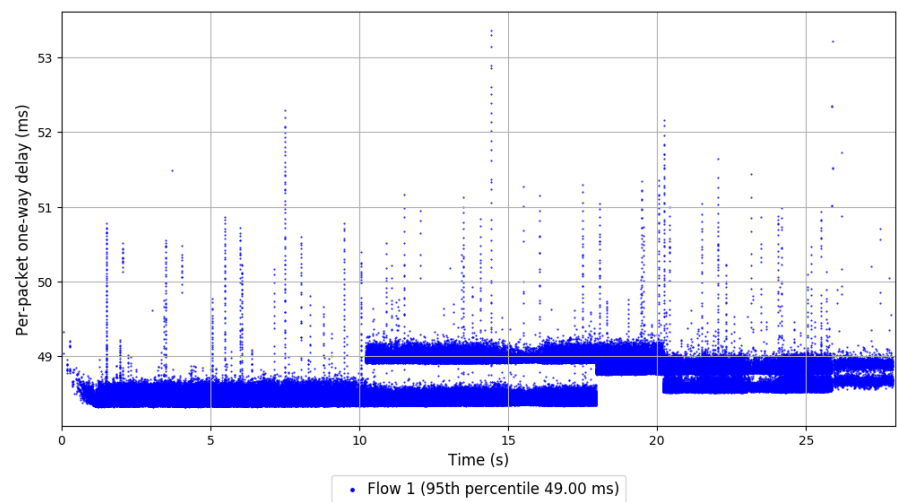
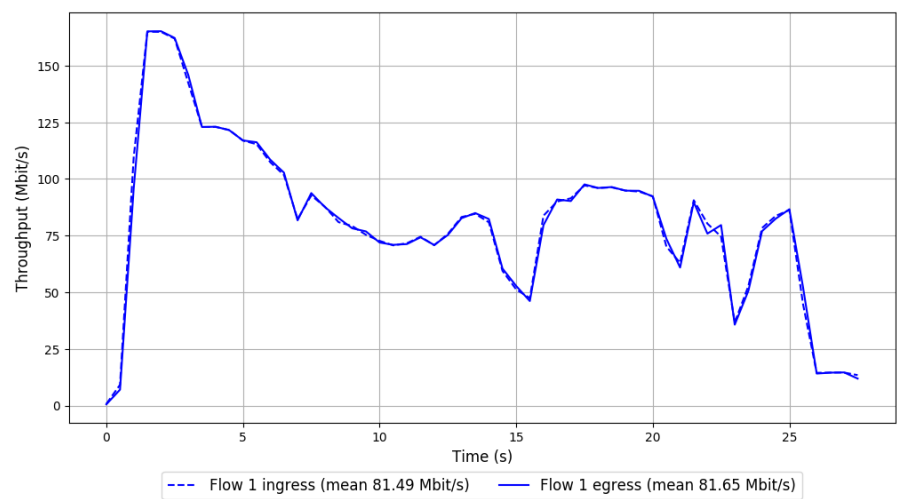
-- Flow 1:

Average throughput: 81.65 Mbit/s

95th percentile per-packet one-way delay: 48.998 ms

Loss rate: 0.16%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-09 02:23:52

End at: 2018-01-09 02:24:22

Below is generated by plot.py at 2018-01-09 05:23:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.89 Mbit/s

95th percentile per-packet one-way delay: 49.627 ms

Loss rate: 0.57%

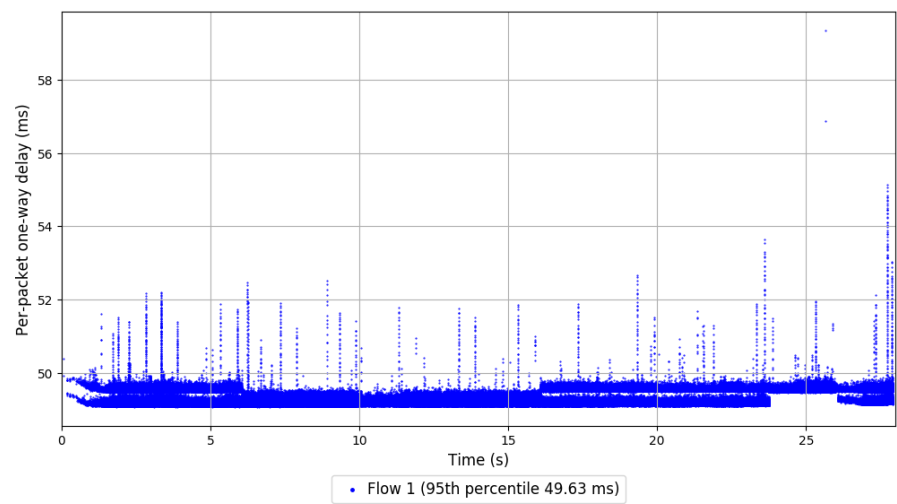
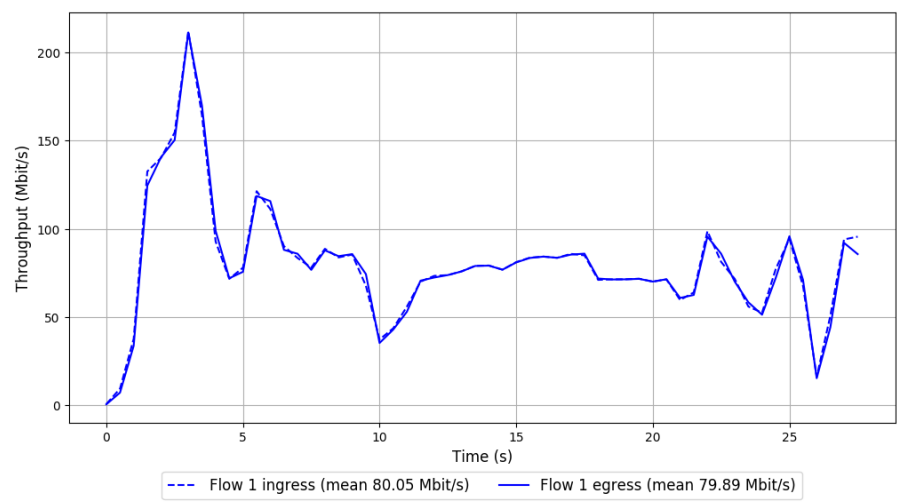
-- Flow 1:

Average throughput: 79.89 Mbit/s

95th percentile per-packet one-way delay: 49.627 ms

Loss rate: 0.57%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-09 02:35:36

End at: 2018-01-09 02:36:06

Below is generated by plot.py at 2018-01-09 05:23:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.41 Mbit/s

95th percentile per-packet one-way delay: 50.399 ms

Loss rate: 0.26%

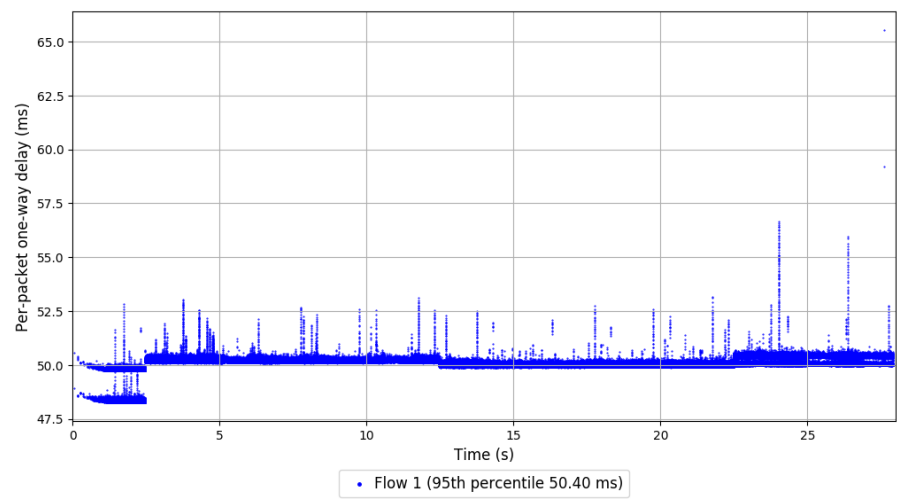
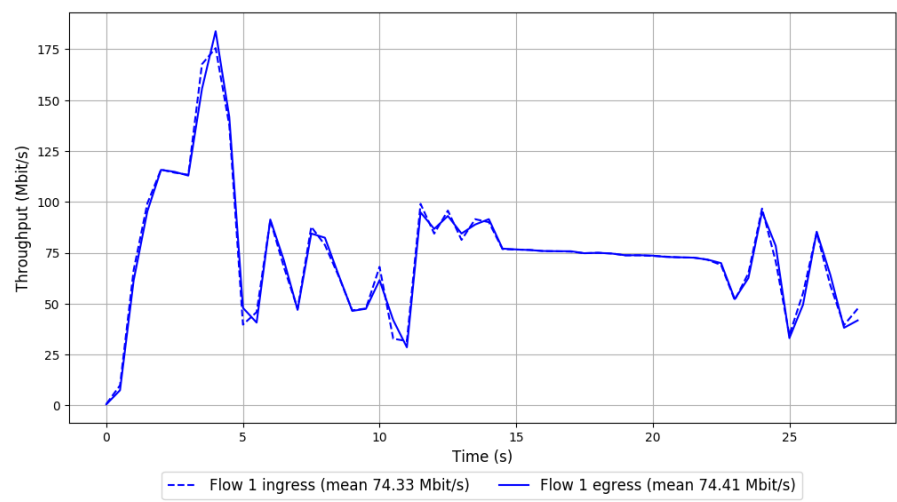
-- Flow 1:

Average throughput: 74.41 Mbit/s

95th percentile per-packet one-way delay: 50.399 ms

Loss rate: 0.26%

Run 10: Report of Copa — Data Link

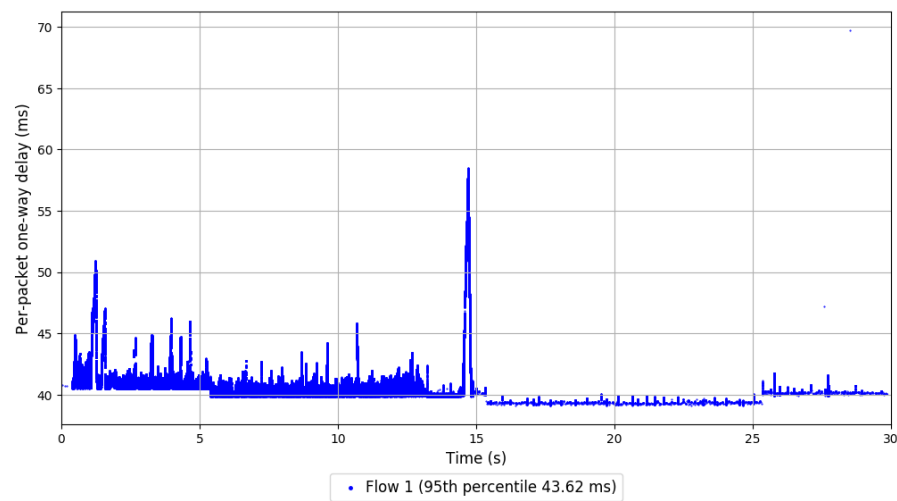
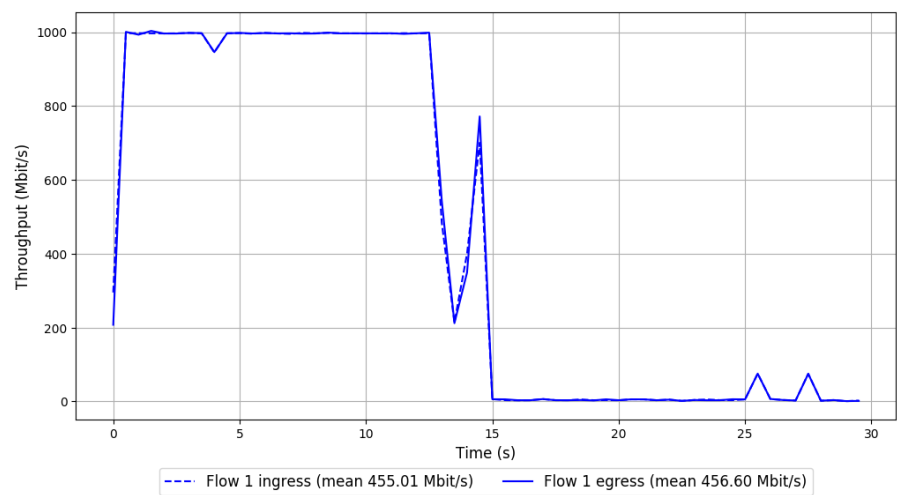


```
Run 1: Statistics of FillP

Start at: 2018-01-09 00:52:05
End at: 2018-01-09 00:52:35

# Below is generated by plot.py at 2018-01-09 05:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 456.60 Mbit/s
95th percentile per-packet one-way delay: 43.625 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 456.60 Mbit/s
95th percentile per-packet one-way delay: 43.625 ms
Loss rate: 0.00%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-01-09 01:03:26

End at: 2018-01-09 01:03:56

Below is generated by plot.py at 2018-01-09 05:36:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 768.78 Mbit/s

95th percentile per-packet one-way delay: 56.732 ms

Loss rate: 0.44%

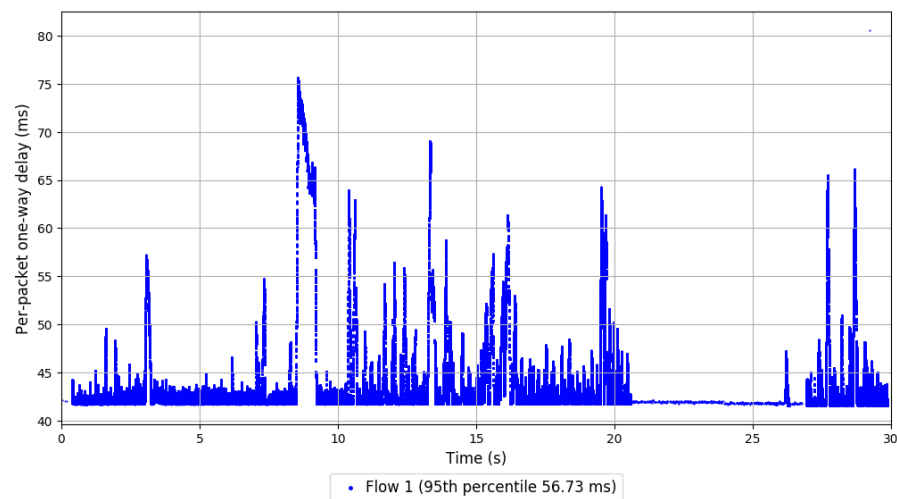
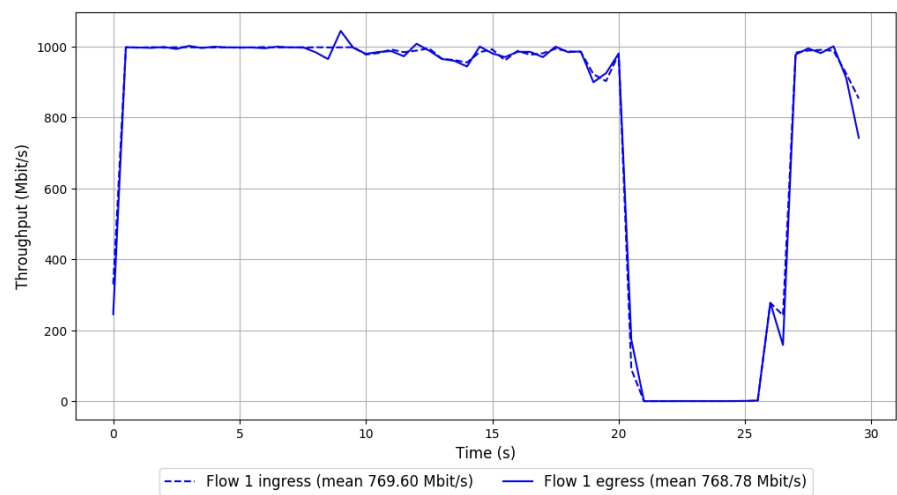
-- Flow 1:

Average throughput: 768.78 Mbit/s

95th percentile per-packet one-way delay: 56.732 ms

Loss rate: 0.44%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-09 01:14:57

End at: 2018-01-09 01:15:27

Below is generated by plot.py at 2018-01-09 05:38:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 982.50 Mbit/s

95th percentile per-packet one-way delay: 82.899 ms

Loss rate: 0.53%

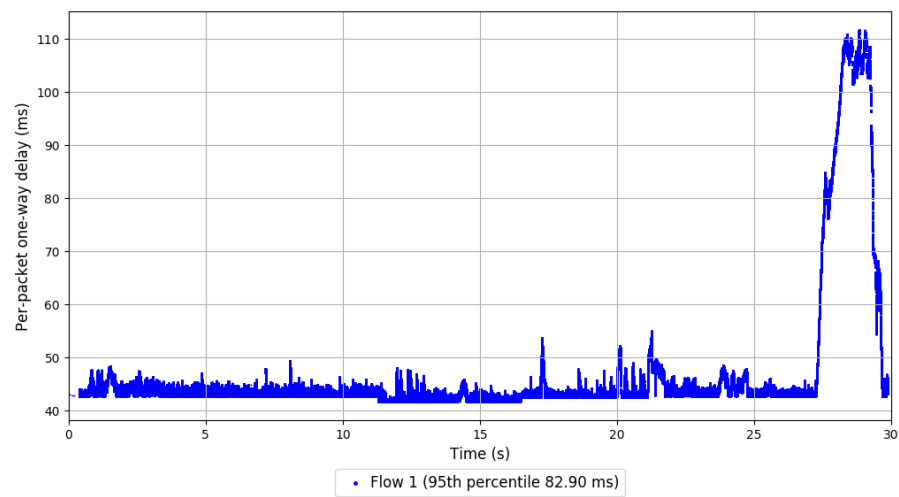
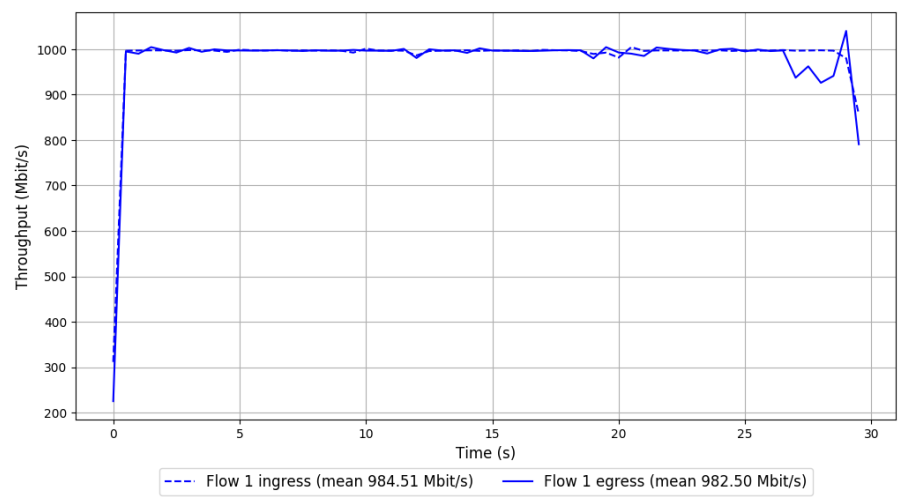
-- Flow 1:

Average throughput: 982.50 Mbit/s

95th percentile per-packet one-way delay: 82.899 ms

Loss rate: 0.53%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-09 01:26:41

End at: 2018-01-09 01:27:11

Below is generated by plot.py at 2018-01-09 05:38:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 981.85 Mbit/s

95th percentile per-packet one-way delay: 51.349 ms

Loss rate: 0.65%

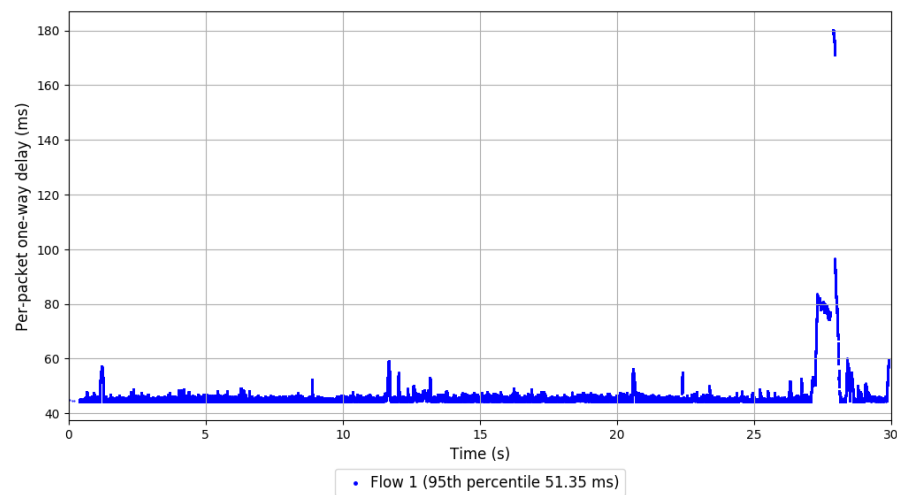
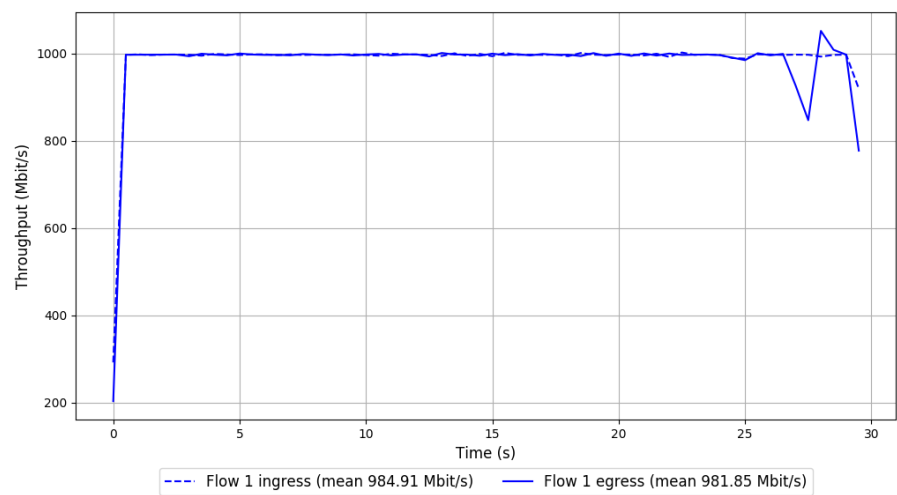
-- Flow 1:

Average throughput: 981.85 Mbit/s

95th percentile per-packet one-way delay: 51.349 ms

Loss rate: 0.65%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-09 01:38:24

End at: 2018-01-09 01:38:54

Below is generated by plot.py at 2018-01-09 05:38:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 982.48 Mbit/s

95th percentile per-packet one-way delay: 58.771 ms

Loss rate: 0.50%

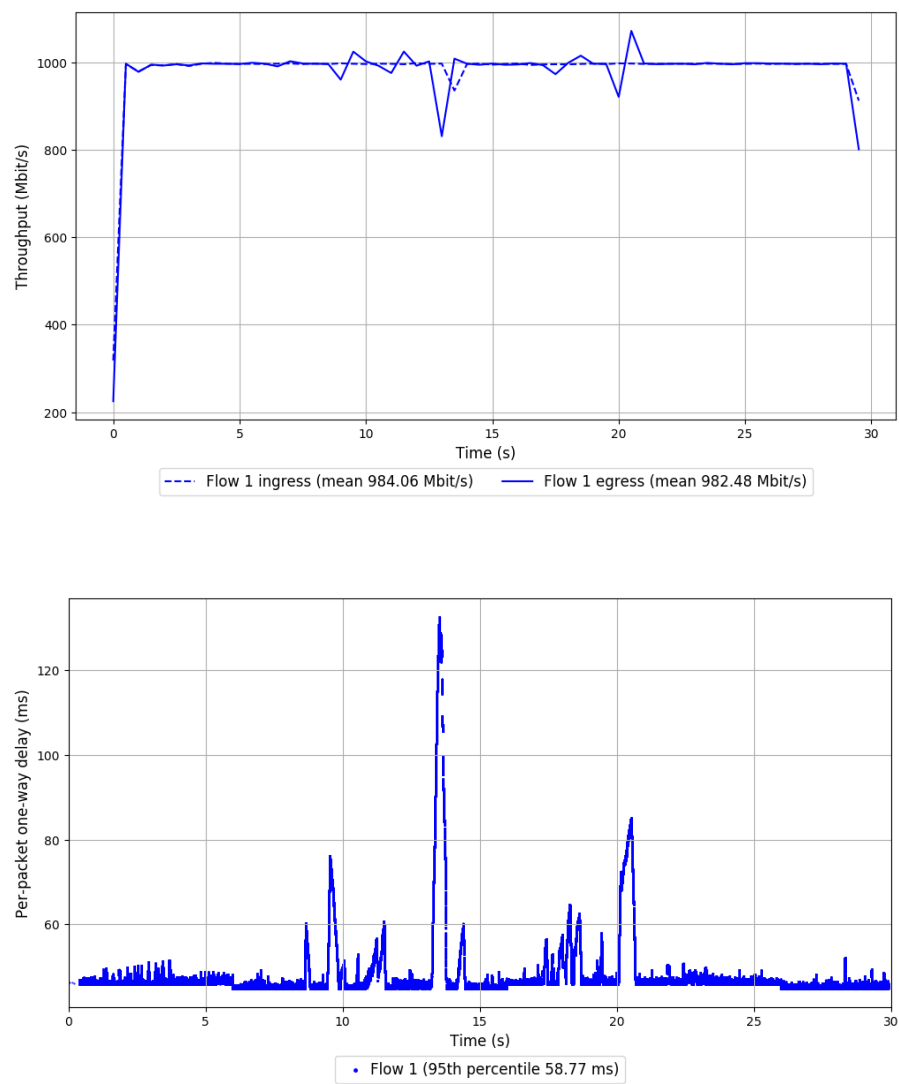
-- Flow 1:

Average throughput: 982.48 Mbit/s

95th percentile per-packet one-way delay: 58.771 ms

Loss rate: 0.50%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-09 01:50:08

End at: 2018-01-09 01:50:38

Below is generated by plot.py at 2018-01-09 05:38:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 977.87 Mbit/s

95th percentile per-packet one-way delay: 110.034 ms

Loss rate: 0.93%

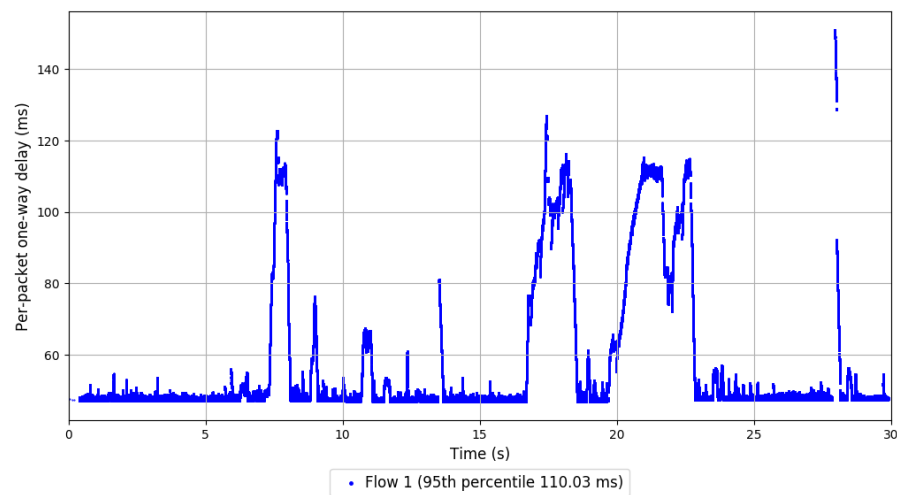
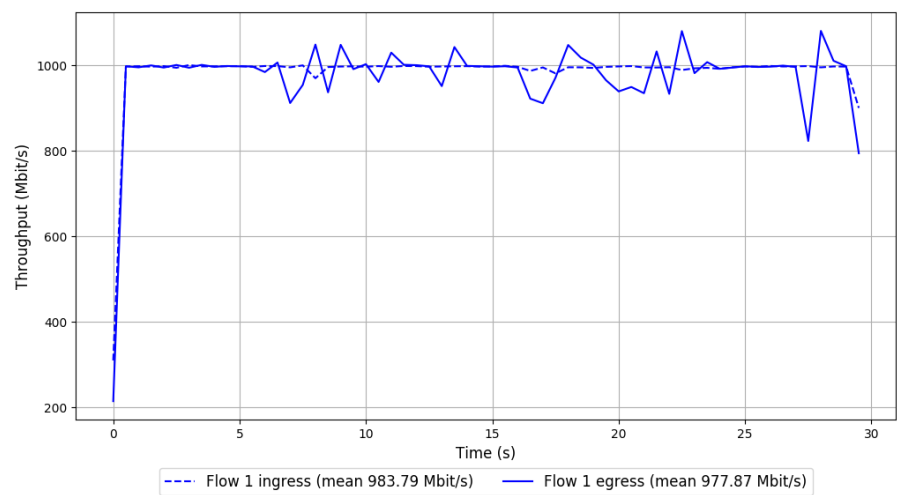
-- Flow 1:

Average throughput: 977.87 Mbit/s

95th percentile per-packet one-way delay: 110.034 ms

Loss rate: 0.93%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-09 02:01:48

End at: 2018-01-09 02:02:18

Below is generated by plot.py at 2018-01-09 05:38:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 980.74 Mbit/s

95th percentile per-packet one-way delay: 93.638 ms

Loss rate: 0.50%

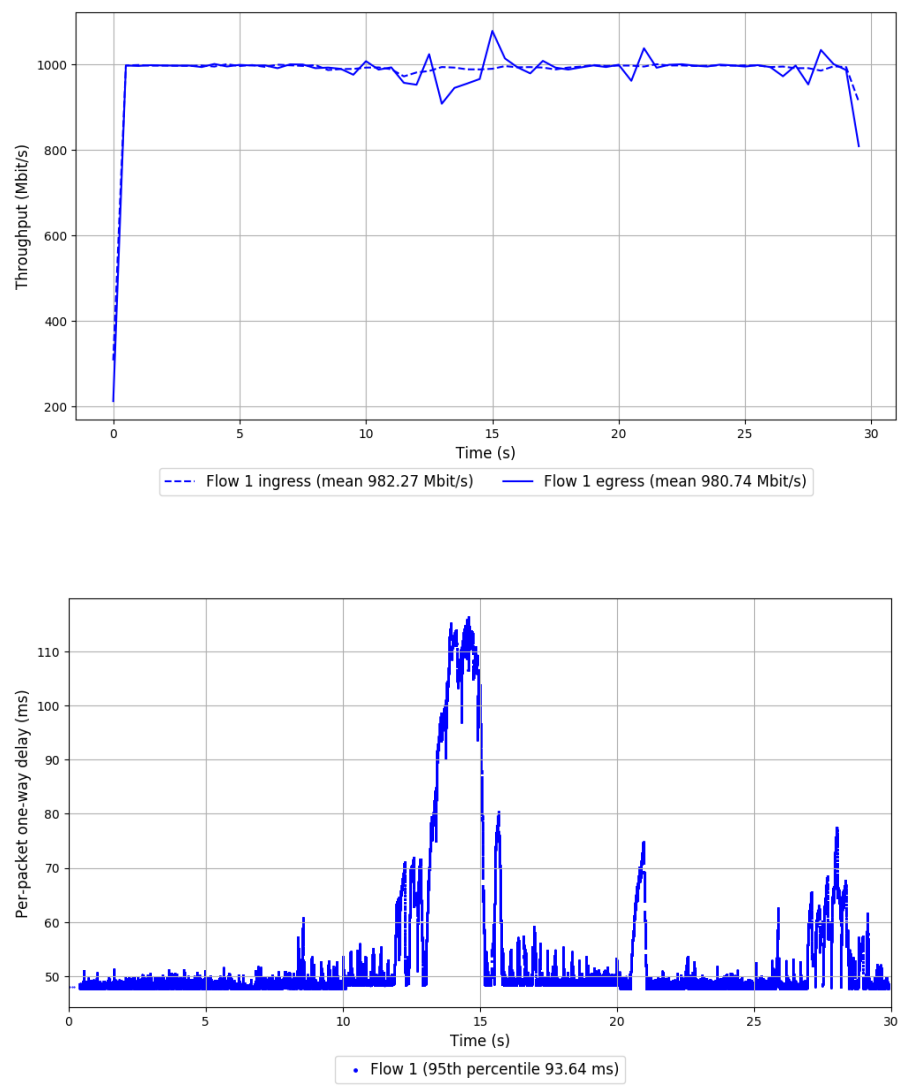
-- Flow 1:

Average throughput: 980.74 Mbit/s

95th percentile per-packet one-way delay: 93.638 ms

Loss rate: 0.50%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-09 02:13:32

End at: 2018-01-09 02:14:02

Below is generated by plot.py at 2018-01-09 05:39:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 981.93 Mbit/s

95th percentile per-packet one-way delay: 60.327 ms

Loss rate: 0.35%

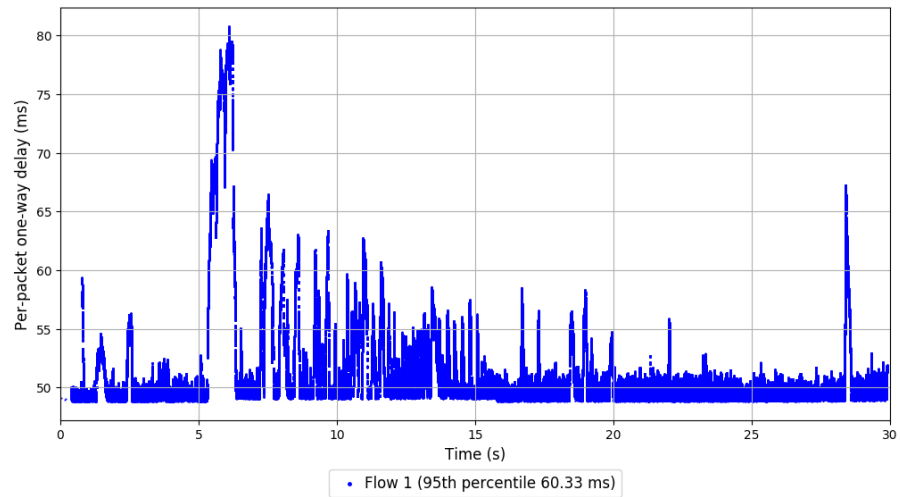
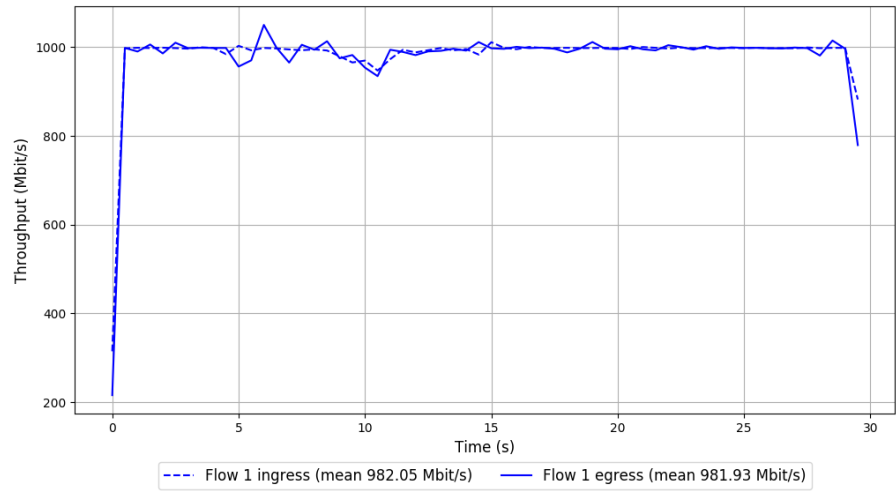
-- Flow 1:

Average throughput: 981.93 Mbit/s

95th percentile per-packet one-way delay: 60.327 ms

Loss rate: 0.35%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-01-09 02:25:15

End at: 2018-01-09 02:25:45

Below is generated by plot.py at 2018-01-09 05:44:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 984.70 Mbit/s

95th percentile per-packet one-way delay: 61.879 ms

Loss rate: 0.34%

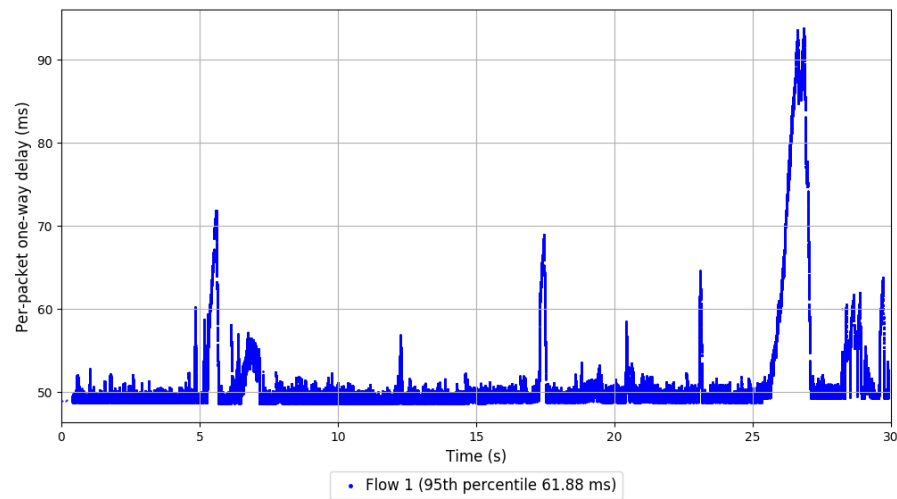
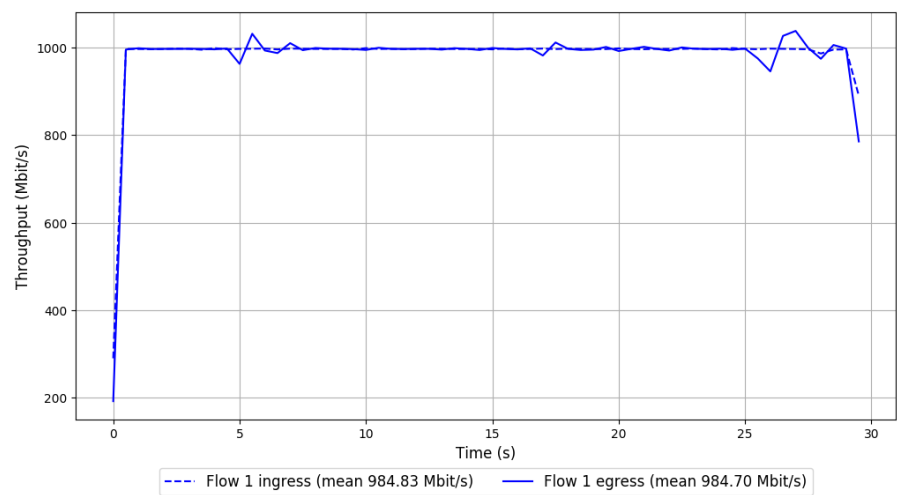
-- Flow 1:

Average throughput: 984.70 Mbit/s

95th percentile per-packet one-way delay: 61.879 ms

Loss rate: 0.34%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-01-09 02:36:59

End at: 2018-01-09 02:37:29

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 982.76 Mbit/s

95th percentile per-packet one-way delay: 77.328 ms

Loss rate: 0.37%

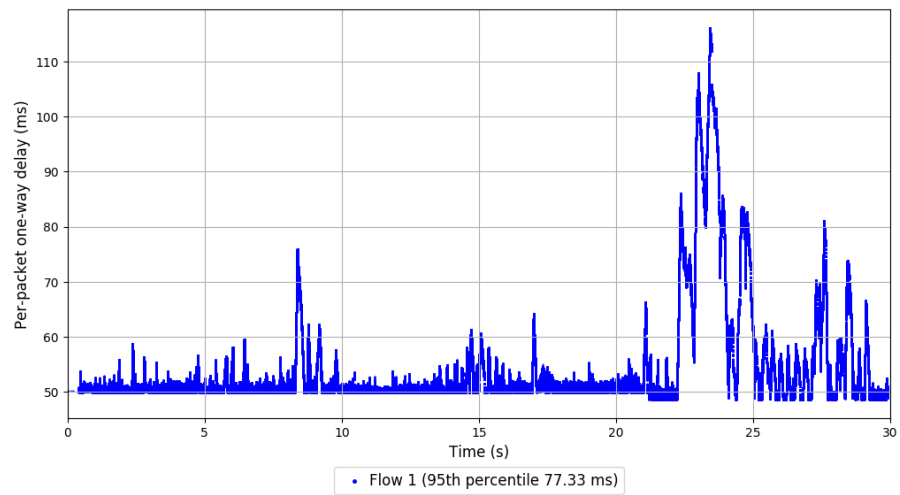
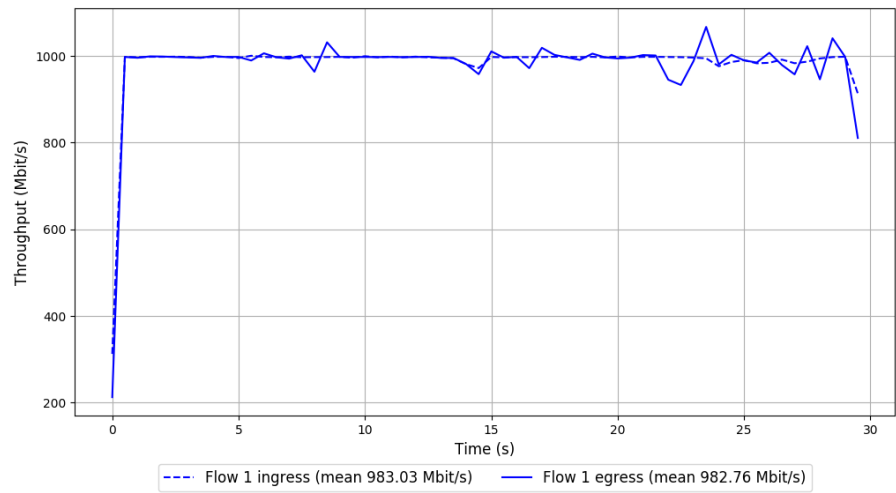
-- Flow 1:

Average throughput: 982.76 Mbit/s

95th percentile per-packet one-way delay: 77.328 ms

Loss rate: 0.37%

Run 10: Report of FillP — Data Link

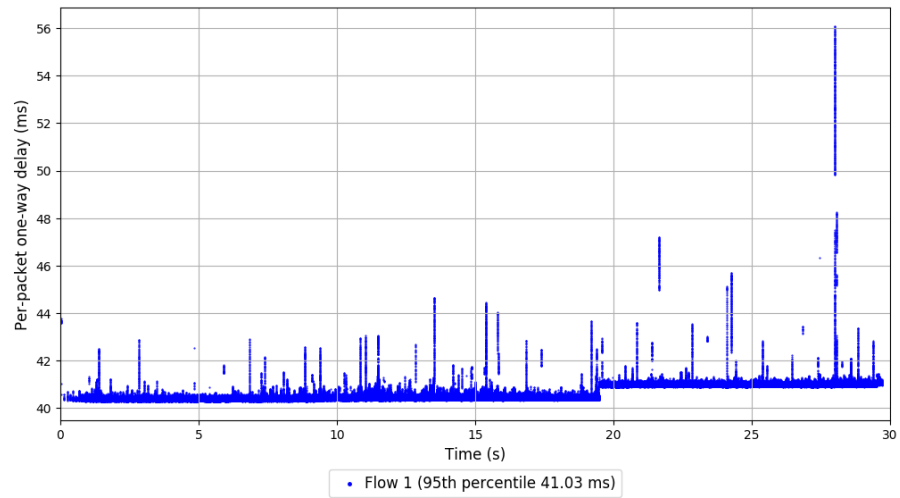
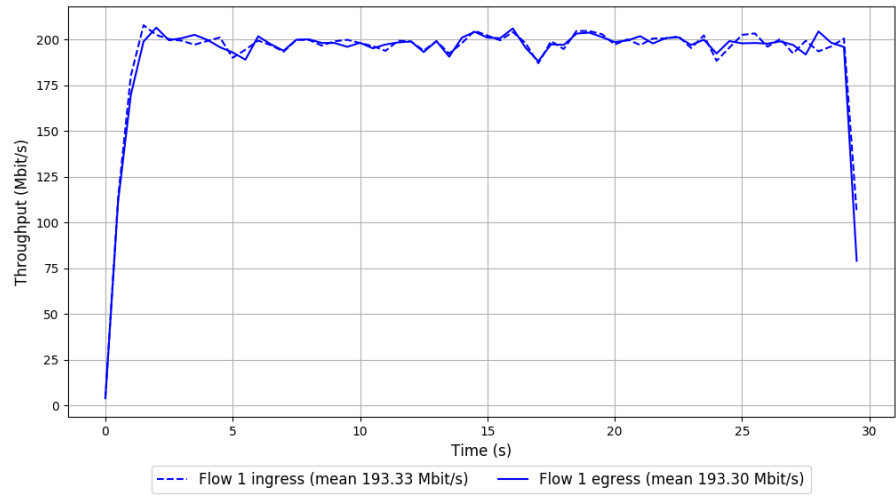


```
Run 1: Statistics of Indigo

Start at: 2018-01-09 00:55:11
End at: 2018-01-09 00:55:41

# Below is generated by plot.py at 2018-01-09 05:44:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.30 Mbit/s
95th percentile per-packet one-way delay: 41.033 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 193.30 Mbit/s
95th percentile per-packet one-way delay: 41.033 ms
Loss rate: 0.35%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-01-09 01:06:45

End at: 2018-01-09 01:07:15

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 190.73 Mbit/s

95th percentile per-packet one-way delay: 41.360 ms

Loss rate: 0.35%

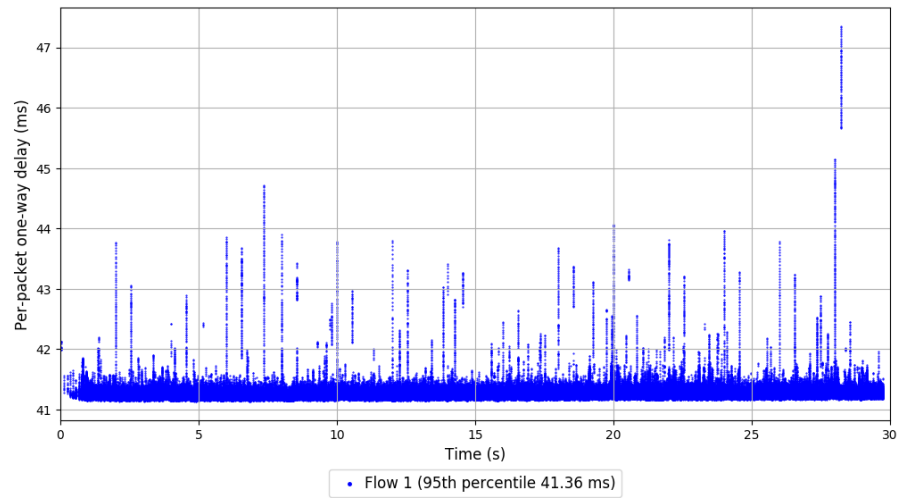
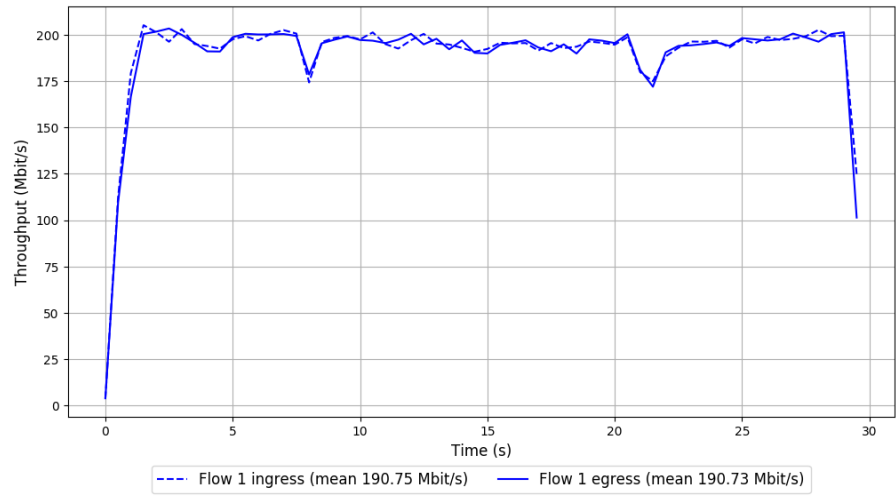
-- Flow 1:

Average throughput: 190.73 Mbit/s

95th percentile per-packet one-way delay: 41.360 ms

Loss rate: 0.35%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-01-09 01:18:25

End at: 2018-01-09 01:18:55

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 195.60 Mbit/s

95th percentile per-packet one-way delay: 43.292 ms

Loss rate: 0.36%

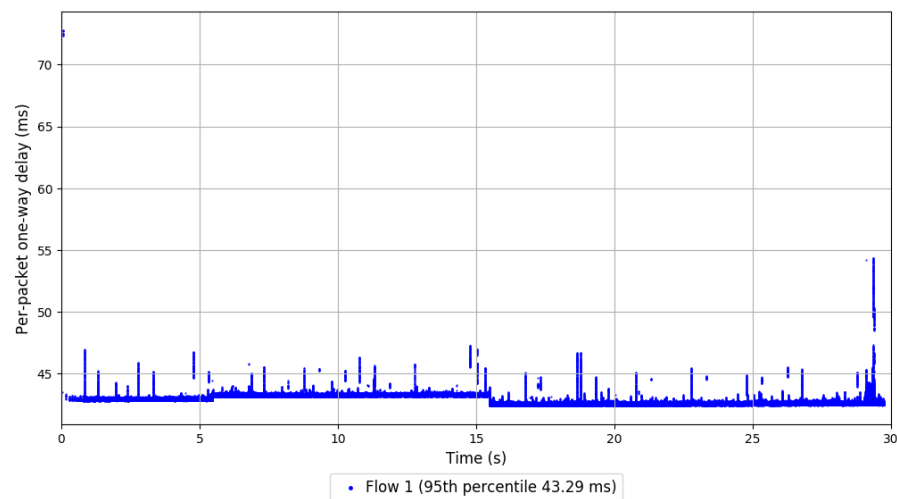
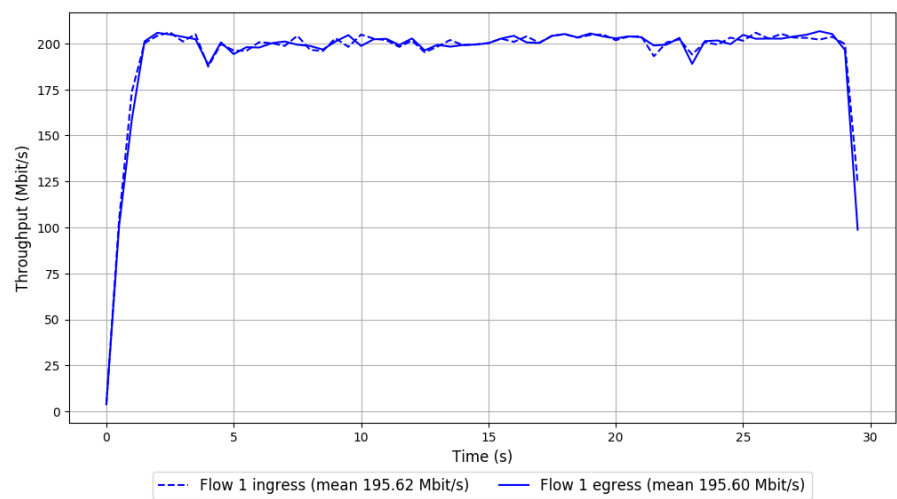
-- Flow 1:

Average throughput: 195.60 Mbit/s

95th percentile per-packet one-way delay: 43.292 ms

Loss rate: 0.36%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-01-09 01:30:07

End at: 2018-01-09 01:30:37

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.64 Mbit/s

95th percentile per-packet one-way delay: 44.899 ms

Loss rate: 0.58%

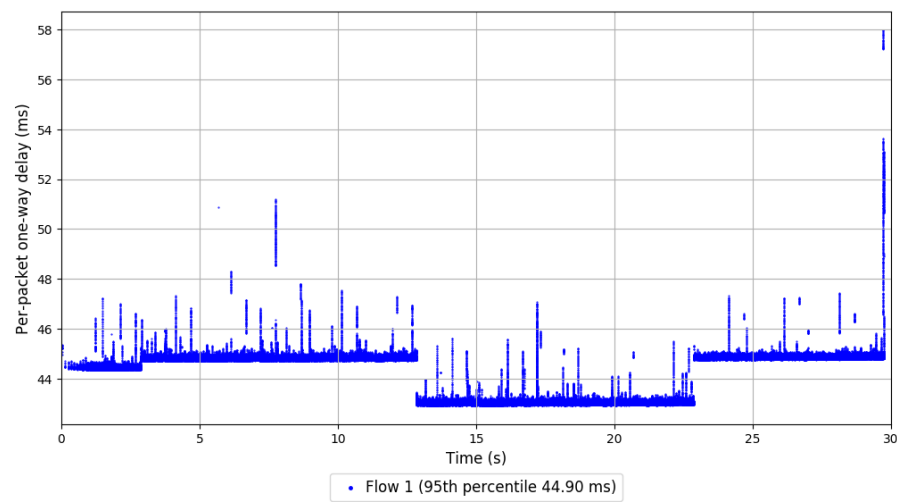
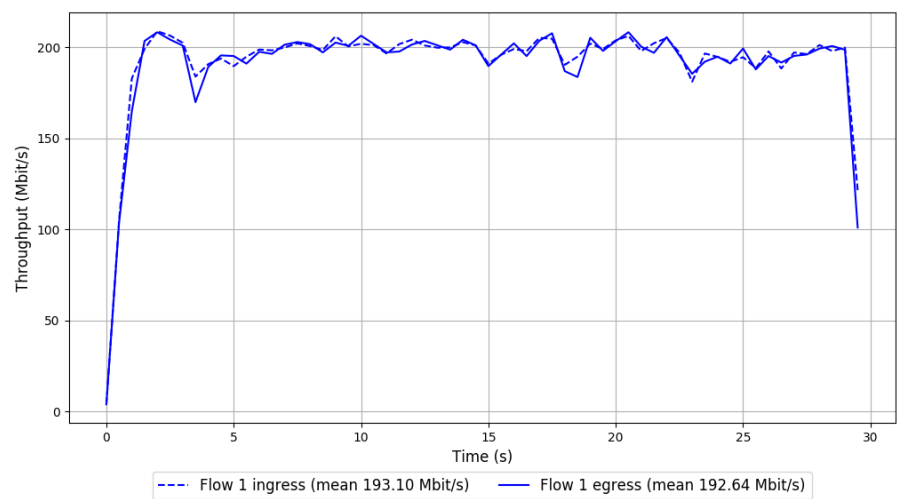
-- Flow 1:

Average throughput: 192.64 Mbit/s

95th percentile per-packet one-way delay: 44.899 ms

Loss rate: 0.58%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-01-09 01:41:54

End at: 2018-01-09 01:42:24

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 197.10 Mbit/s

95th percentile per-packet one-way delay: 46.698 ms

Loss rate: 0.35%

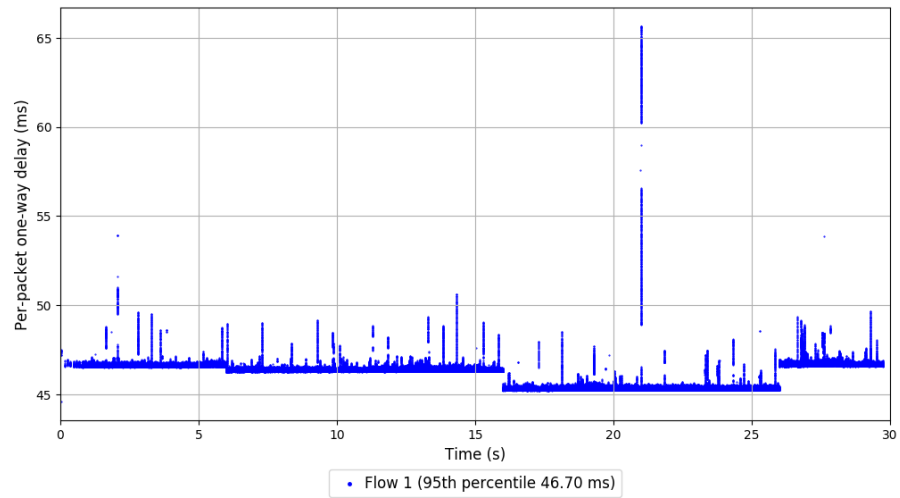
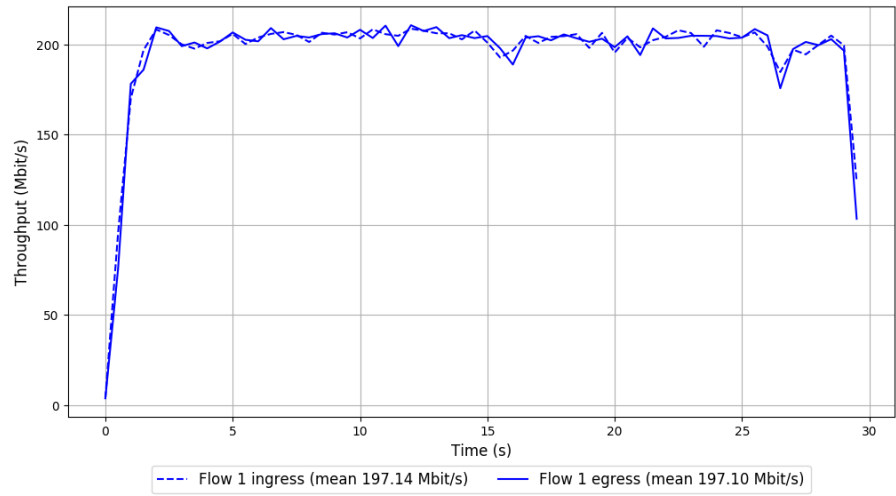
-- Flow 1:

Average throughput: 197.10 Mbit/s

95th percentile per-packet one-way delay: 46.698 ms

Loss rate: 0.35%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2018-01-09 01:53:28

End at: 2018-01-09 01:53:58

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 193.57 Mbit/s

95th percentile per-packet one-way delay: 47.338 ms

Loss rate: 0.34%

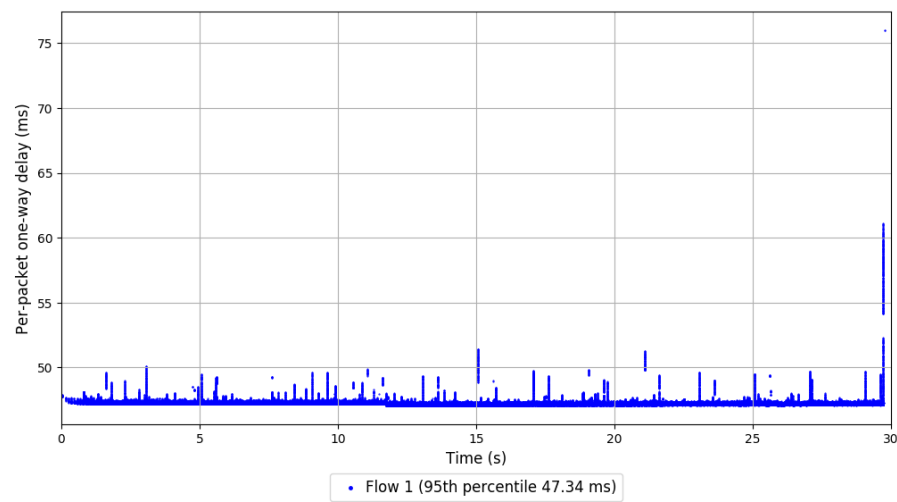
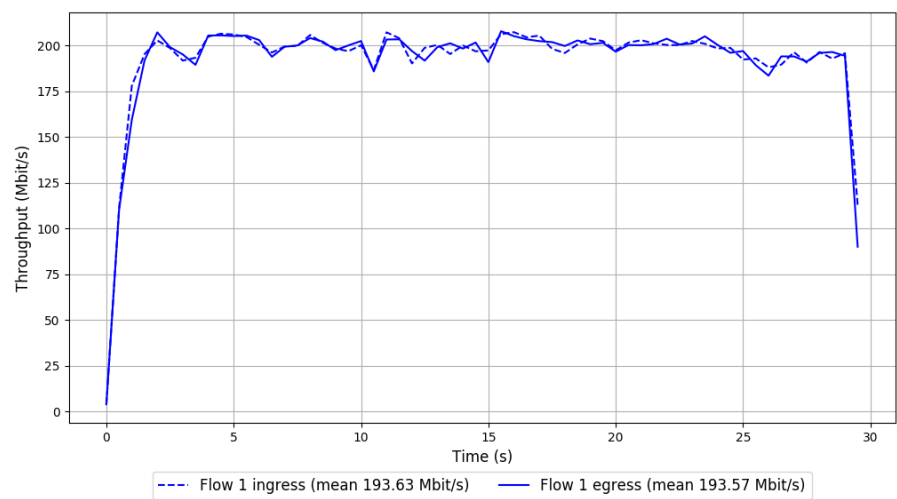
-- Flow 1:

Average throughput: 193.57 Mbit/s

95th percentile per-packet one-way delay: 47.338 ms

Loss rate: 0.34%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2018-01-09 02:05:15

End at: 2018-01-09 02:05:45

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 193.03 Mbit/s

95th percentile per-packet one-way delay: 48.114 ms

Loss rate: 0.49%

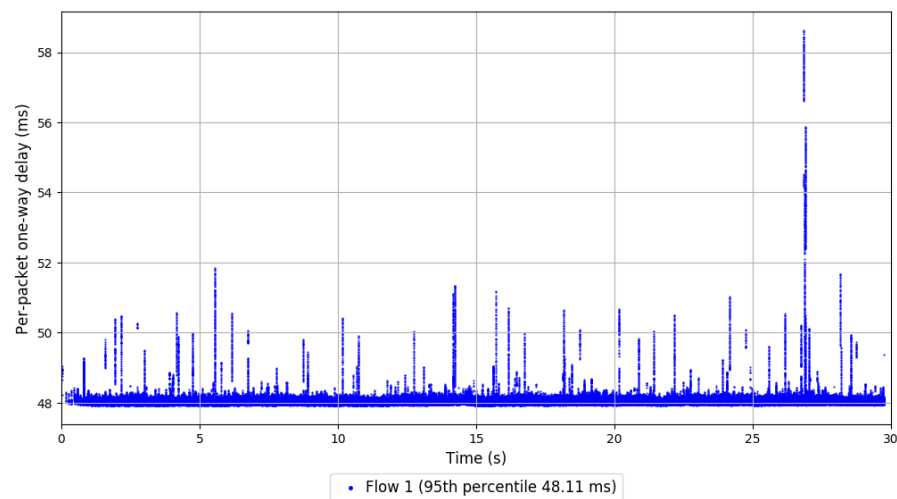
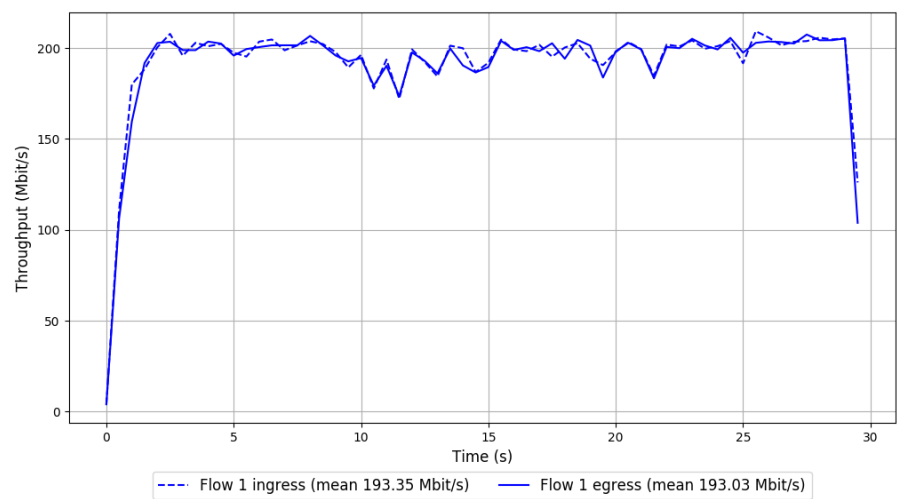
-- Flow 1:

Average throughput: 193.03 Mbit/s

95th percentile per-packet one-way delay: 48.114 ms

Loss rate: 0.49%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2018-01-09 02:16:57

End at: 2018-01-09 02:17:27

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 198.87 Mbit/s

95th percentile per-packet one-way delay: 49.216 ms

Loss rate: 0.34%

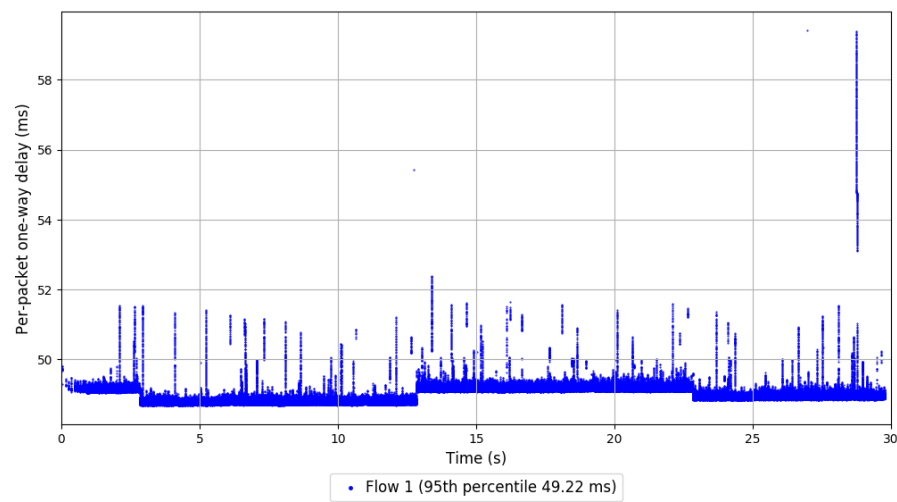
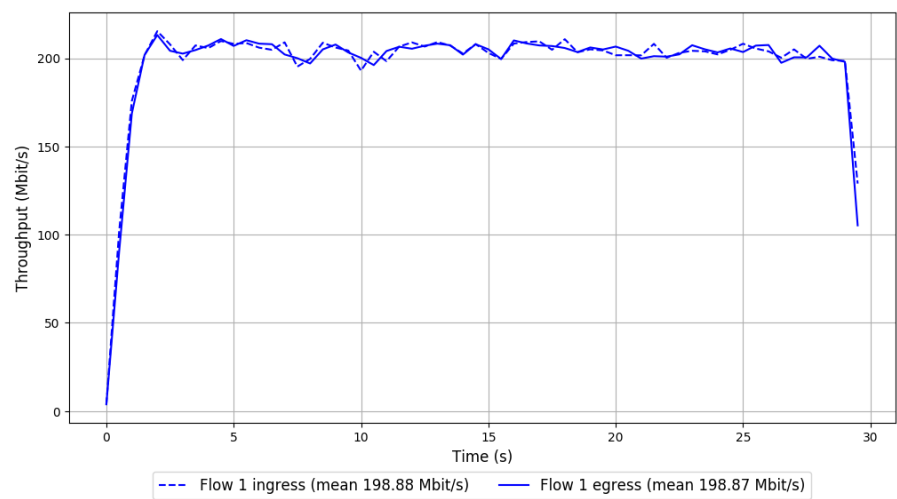
-- Flow 1:

Average throughput: 198.87 Mbit/s

95th percentile per-packet one-way delay: 49.216 ms

Loss rate: 0.34%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2018-01-09 02:28:41

End at: 2018-01-09 02:29:11

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 197.11 Mbit/s

95th percentile per-packet one-way delay: 49.978 ms

Loss rate: 0.35%

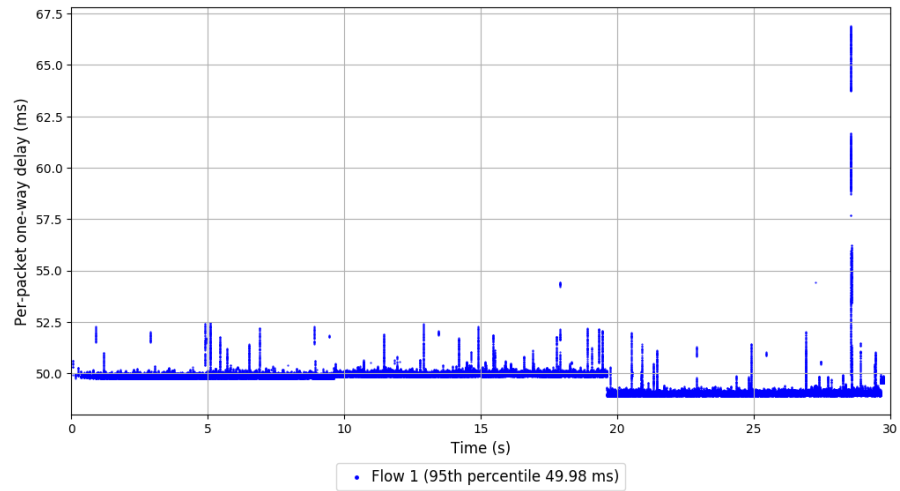
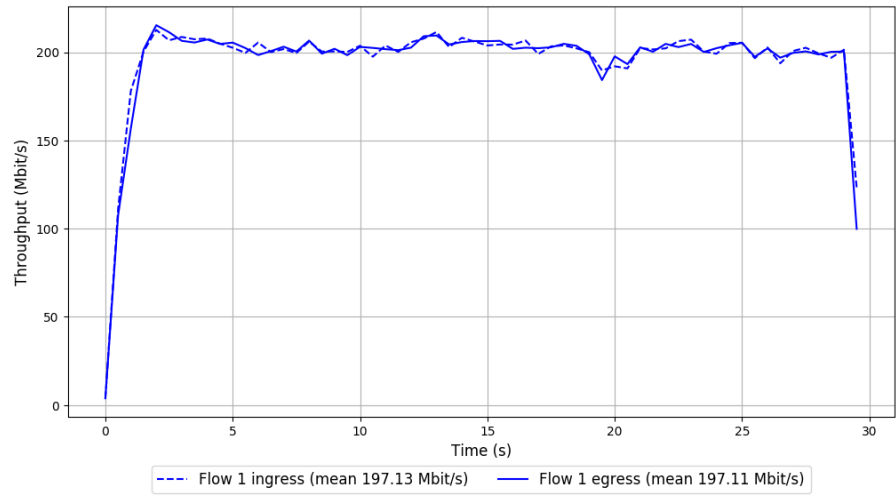
-- Flow 1:

Average throughput: 197.11 Mbit/s

95th percentile per-packet one-way delay: 49.978 ms

Loss rate: 0.35%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2018-01-09 02:40:24

End at: 2018-01-09 02:40:54

Below is generated by plot.py at 2018-01-09 05:44:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.28 Mbit/s

95th percentile per-packet one-way delay: 50.291 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 192.28 Mbit/s

95th percentile per-packet one-way delay: 50.291 ms

Loss rate: 0.34%

Run 10: Report of Indigo — Data Link

