

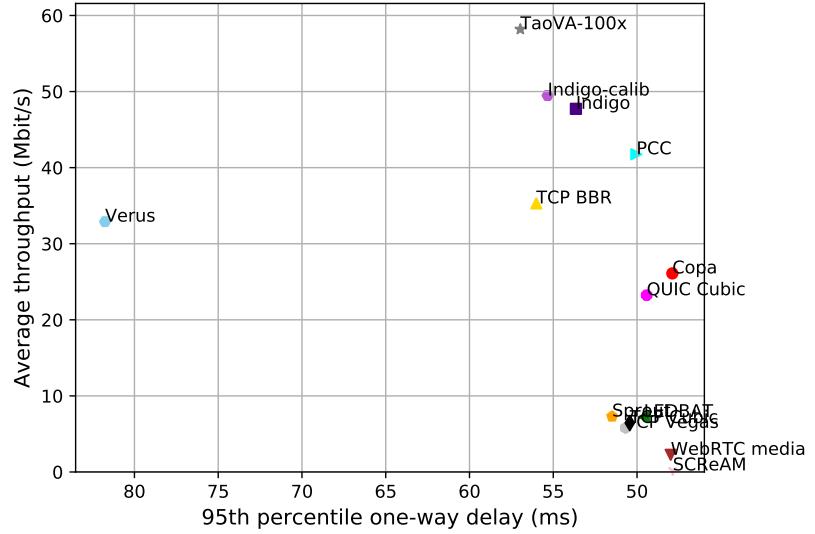
## Pantheon Report

Generated at 2017-12-05 16:03:20 (UTC).  
Data path: AWS Korea Ethernet (*local*) → China Ethernet (*remote*).  
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**).  
NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

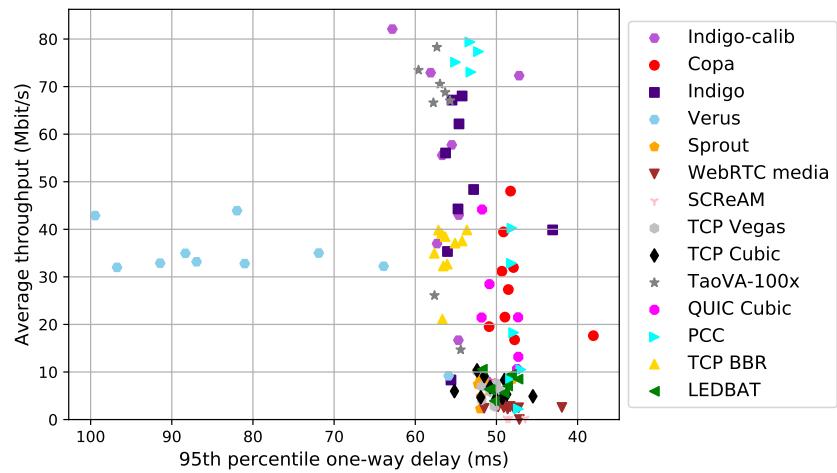
Git summary:

```
branch: indigos @ e3a57ad5ac5cfaca0e3f983c8dd4cc3509e0262
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ b5b7c38e8391001927dc41c6cfa2627d03dde737
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
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 @ f1a14bffe749737437f61b1eaeb30b267cde681
third_party/sprout @ 6f2efef6e088d91066a9f023df375eee2665089ce
  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 AWS Korea Ethernet to China Ethernet, 10 runs of 30s each per scheme  
(mean of all runs by scheme)



test from AWS Korea Ethernet to China Ethernet, 10 runs of 30s each per scheme



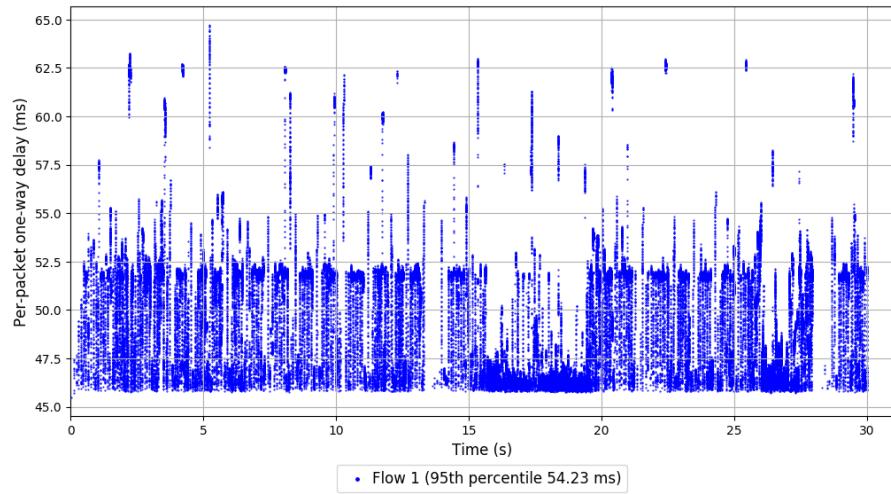
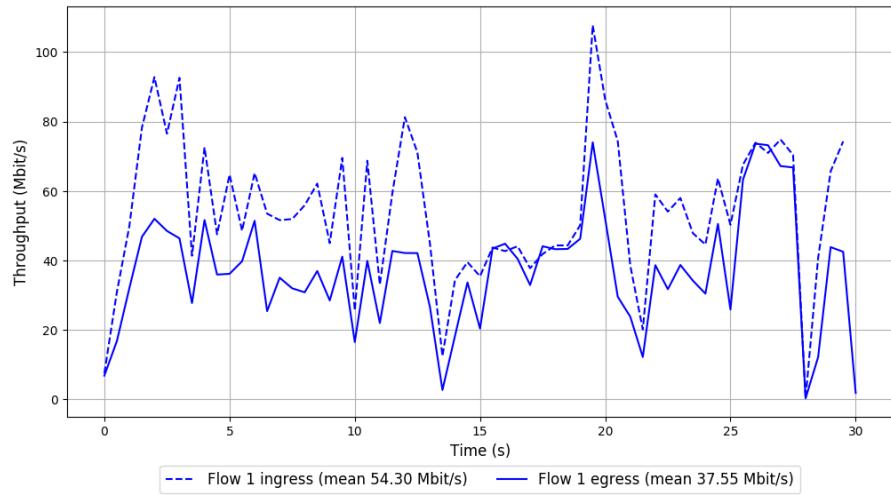
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	35.30	56.01	31.12
TCP Cubic	10	6.44	50.43	0.67
LEDBAT	8	7.22	49.60	0.43
PCC	10	41.76	50.04	0.60
QUIC Cubic	6	23.24	49.43	0.47
SCReAM	3	0.21	47.87	0.00
WebRTC media	10	2.26	47.99	0.09
Sprout	10	7.29	51.49	1.41
TaoVA-100x	8	58.19	56.96	5.94
TCP Vegas	9	5.80	50.68	0.84
Verus	10	32.91	81.76	69.43
Copa	10	26.10	47.89	0.29
Indigo	9	47.73	53.65	7.46
Indigo-calib	9	49.48	55.34	15.79

Run 1: Statistics of TCP BBR

```
Start at: 2017-12-05 12:38:42
End at: 2017-12-05 12:39:12
Local clock offset: 0.921 ms
Remote clock offset: -6.96 ms

# Below is generated by plot.py at 2017-12-05 15:55:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 54.228 ms
Loss rate: 30.83%
-- Flow 1:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 54.228 ms
Loss rate: 30.83%
```

## Run 1: Report of TCP BBR — Data Link

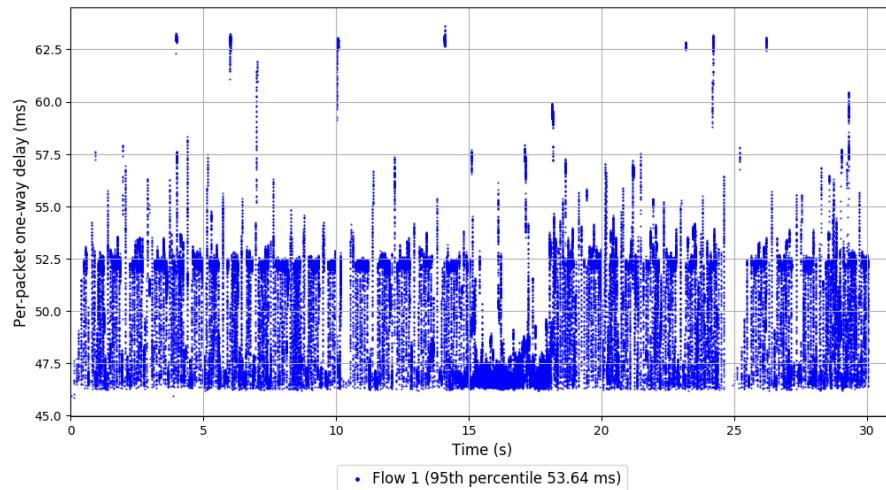
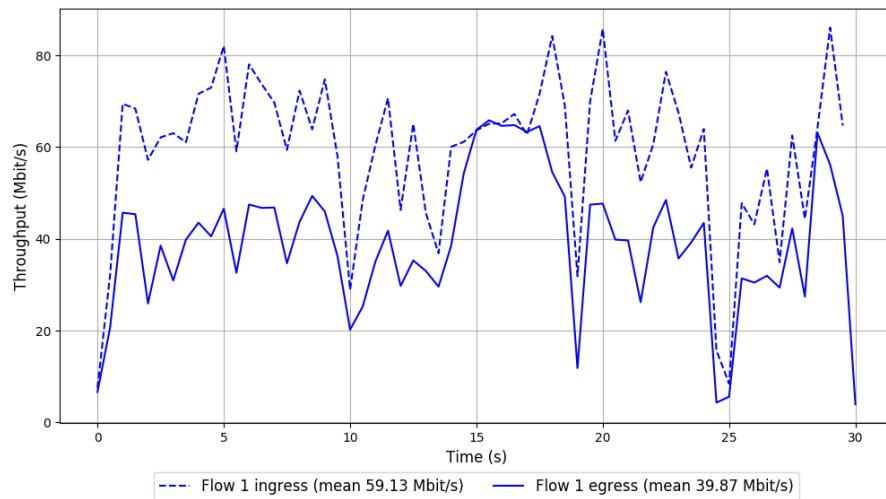


Run 2: Statistics of TCP BBR

```
Start at: 2017-12-05 12:58:48
End at: 2017-12-05 12:59:18
Local clock offset: 1.424 ms
Remote clock offset: -5.842 ms

# Below is generated by plot.py at 2017-12-05 15:55:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 53.640 ms
Loss rate: 32.56%
-- Flow 1:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 53.640 ms
Loss rate: 32.56%
```

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

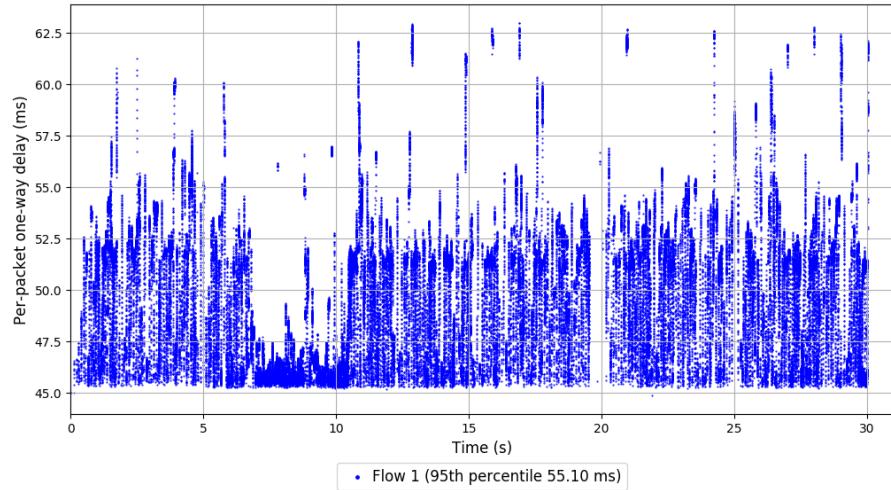
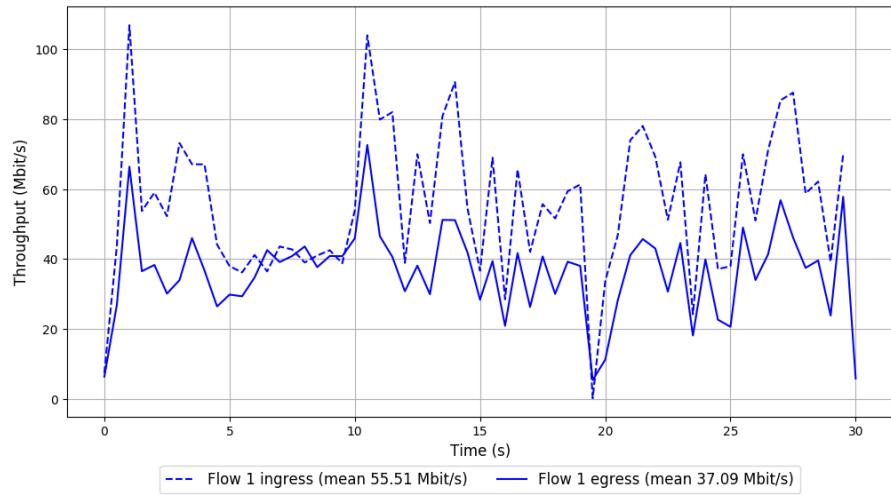


Run 3: Statistics of TCP BBR

```
Start at: 2017-12-05 13:15:37
End at: 2017-12-05 13:16:07
Local clock offset: 1.958 ms
Remote clock offset: -6.501 ms

# Below is generated by plot.py at 2017-12-05 15:55:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.09 Mbit/s
95th percentile per-packet one-way delay: 55.102 ms
Loss rate: 33.16%
-- Flow 1:
Average throughput: 37.09 Mbit/s
95th percentile per-packet one-way delay: 55.102 ms
Loss rate: 33.16%
```

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

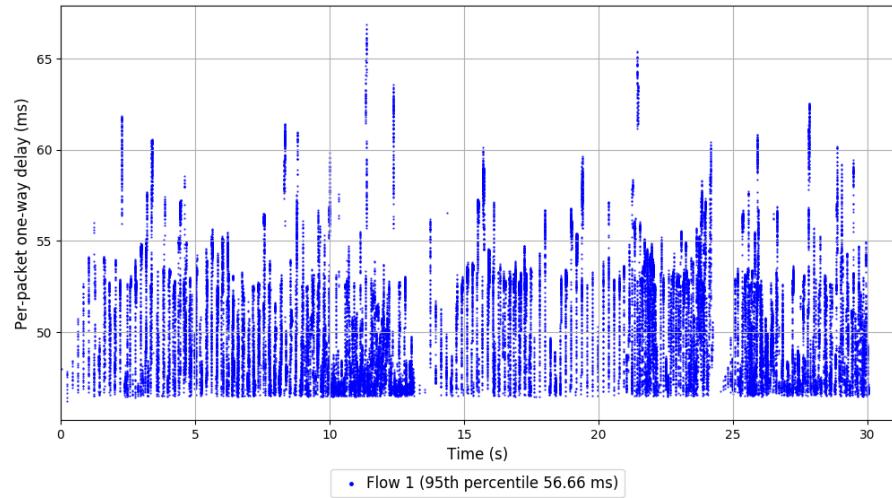
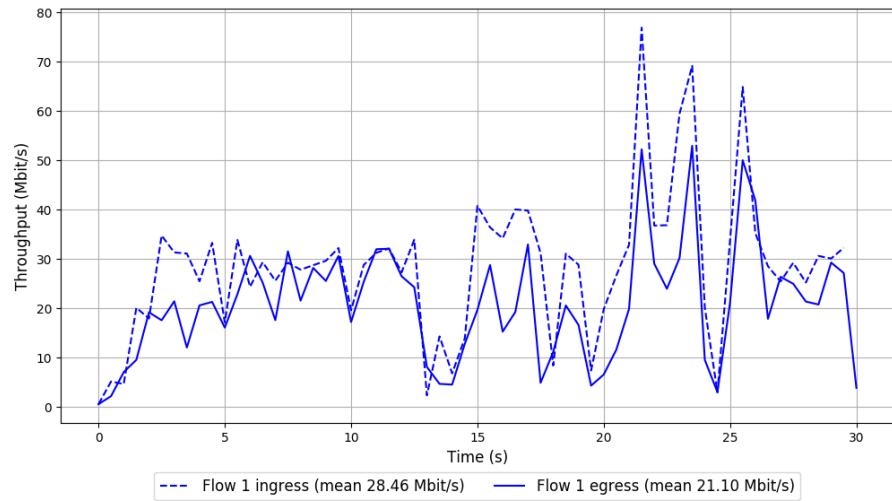


Run 4: Statistics of TCP BBR

```
Start at: 2017-12-05 13:35:54
End at: 2017-12-05 13:36:24
Local clock offset: 2.56 ms
Remote clock offset: -5.331 ms

# Below is generated by plot.py at 2017-12-05 15:55:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 56.661 ms
Loss rate: 25.86%
-- Flow 1:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 56.661 ms
Loss rate: 25.86%
```

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

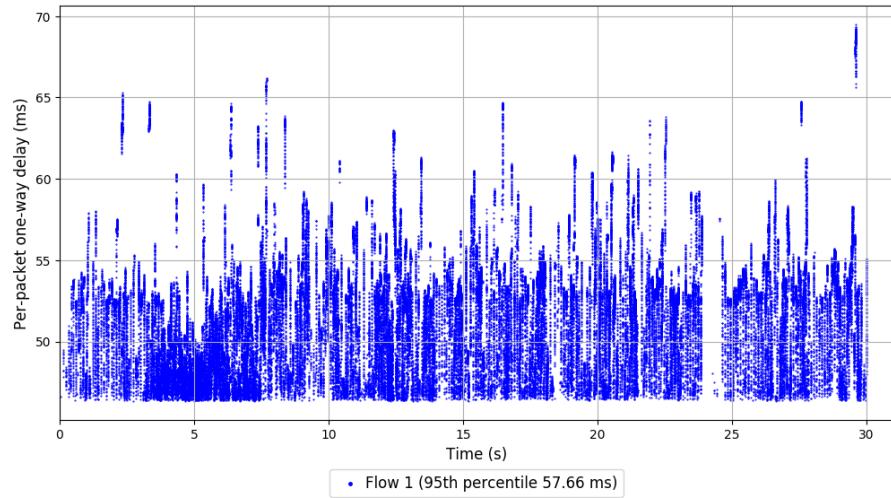
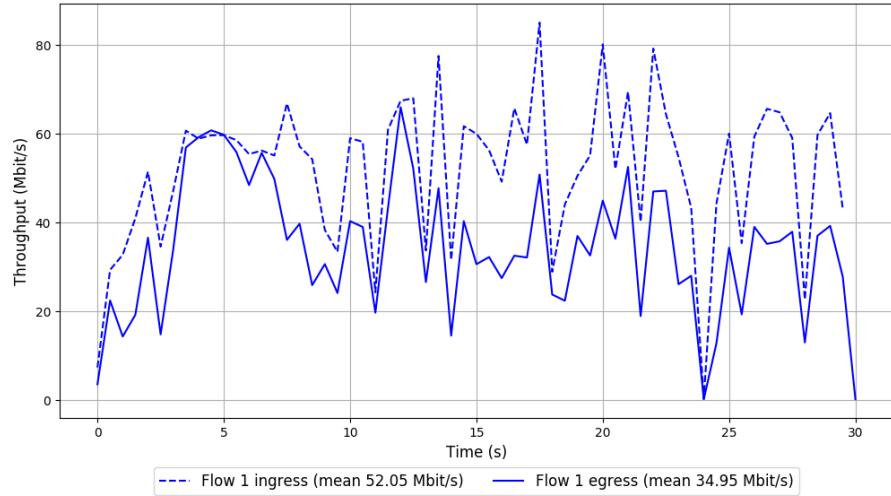


Run 5: Statistics of TCP BBR

```
Start at: 2017-12-05 13:54:21
End at: 2017-12-05 13:54:51
Local clock offset: 2.848 ms
Remote clock offset: -5.443 ms

# Below is generated by plot.py at 2017-12-05 15:55:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 57.656 ms
Loss rate: 32.84%
-- Flow 1:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 57.656 ms
Loss rate: 32.84%
```

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

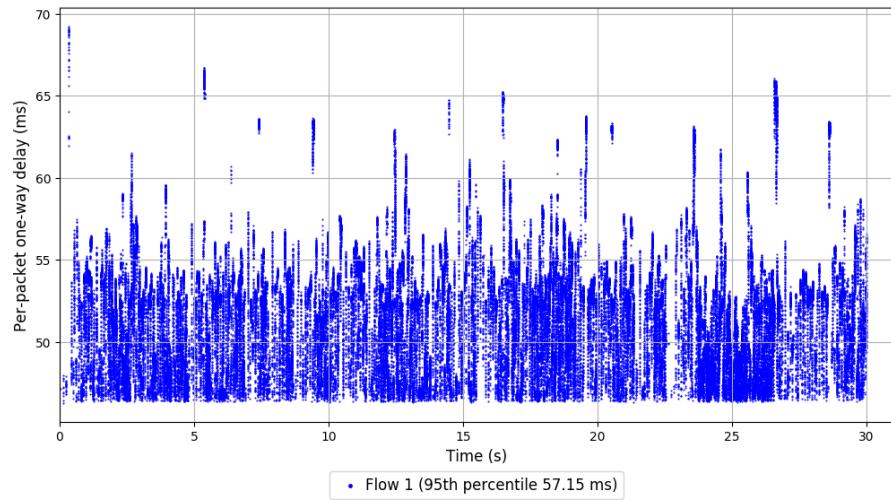
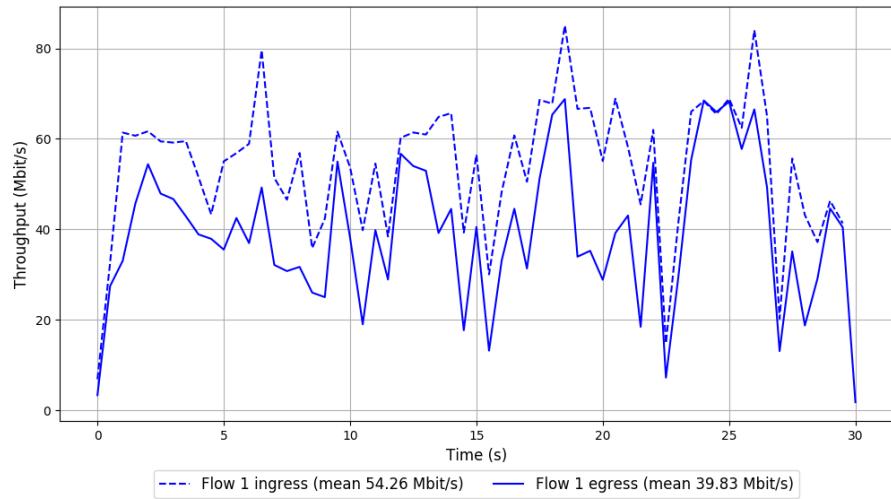


Run 6: Statistics of TCP BBR

```
Start at: 2017-12-05 14:12:45
End at: 2017-12-05 14:13:15
Local clock offset: 3.152 ms
Remote clock offset: -5.4 ms

# Below is generated by plot.py at 2017-12-05 15:55:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 57.147 ms
Loss rate: 26.59%
-- Flow 1:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 57.147 ms
Loss rate: 26.59%
```

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

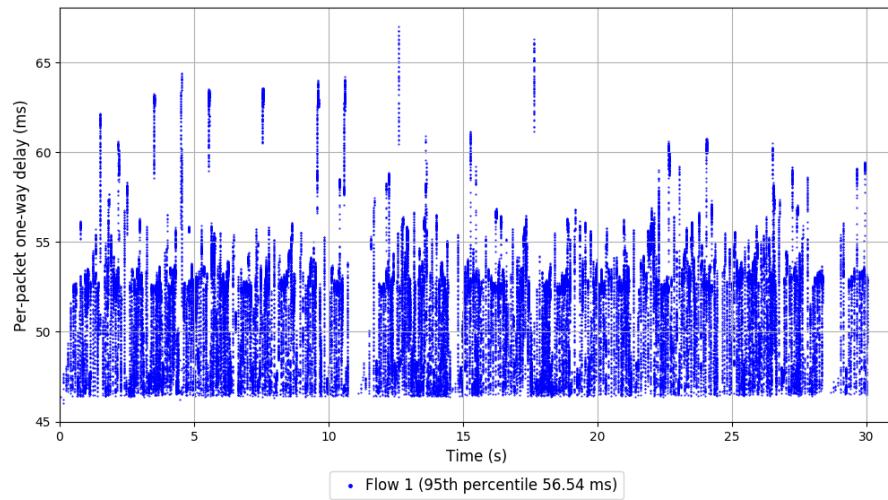
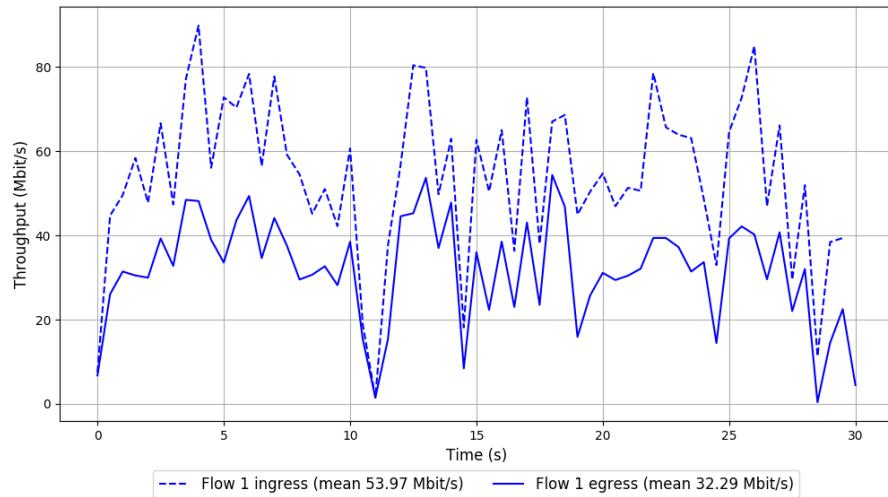


Run 7: Statistics of TCP BBR

```
Start at: 2017-12-05 14:34:11
End at: 2017-12-05 14:34:41
Local clock offset: 3.321 ms
Remote clock offset: -4.858 ms

# Below is generated by plot.py at 2017-12-05 15:55:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.29 Mbit/s
95th percentile per-packet one-way delay: 56.543 ms
Loss rate: 40.16%
-- Flow 1:
Average throughput: 32.29 Mbit/s
95th percentile per-packet one-way delay: 56.543 ms
Loss rate: 40.16%
```

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

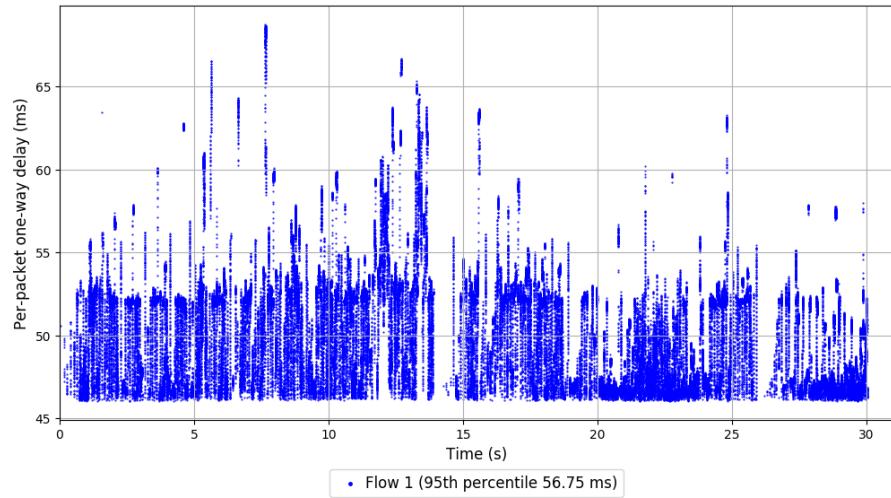
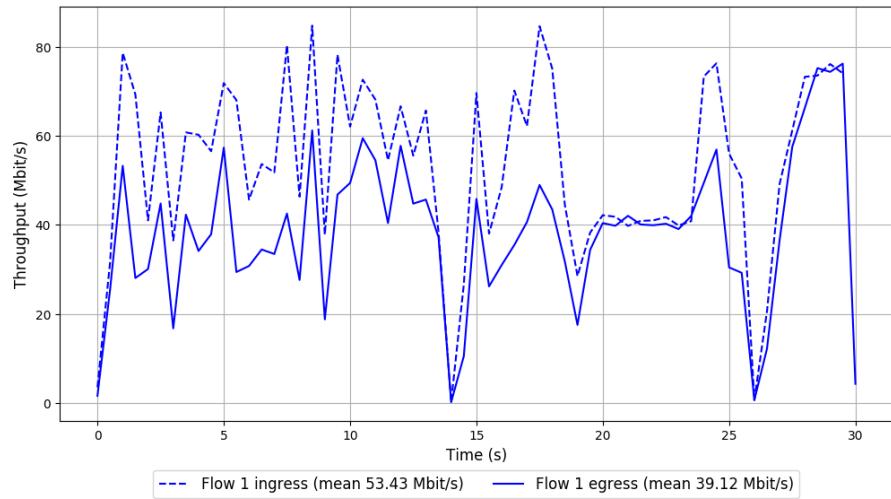


Run 8: Statistics of TCP BBR

```
Start at: 2017-12-05 14:51:29
End at: 2017-12-05 14:51:59
Local clock offset: 3.265 ms
Remote clock offset: -4.873 ms

# Below is generated by plot.py at 2017-12-05 15:55:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 56.753 ms
Loss rate: 26.80%
-- Flow 1:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 56.753 ms
Loss rate: 26.80%
```

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

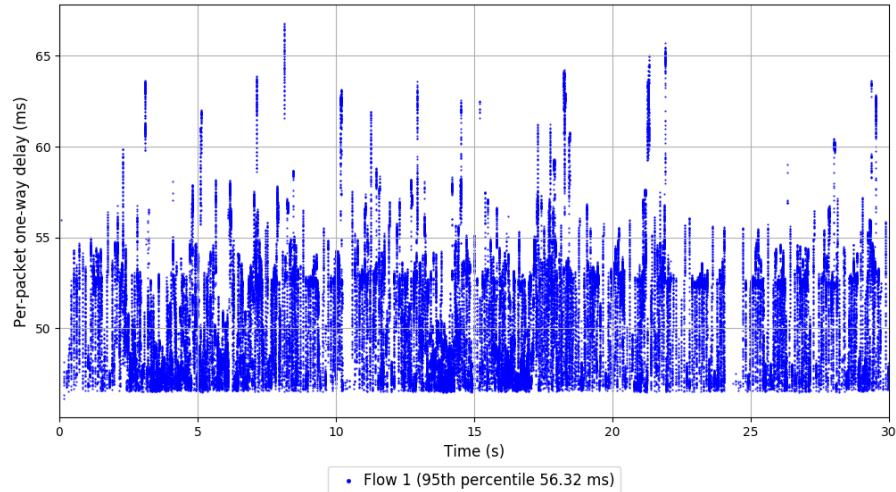
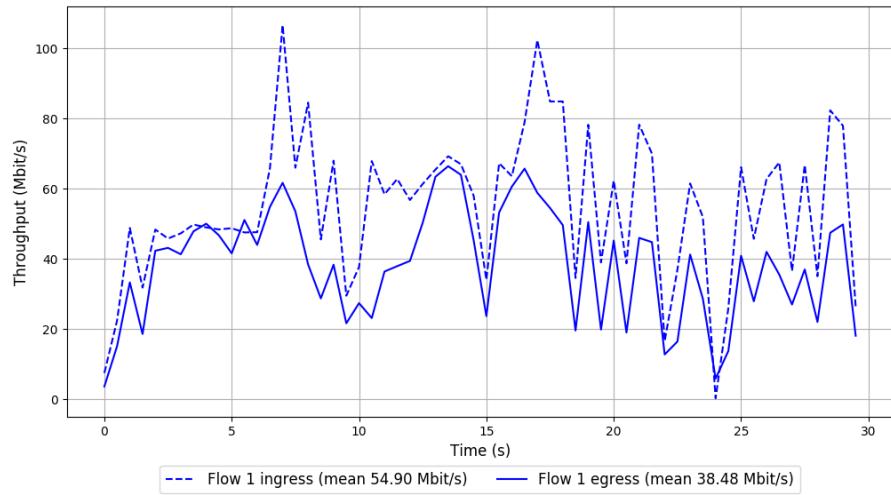


Run 9: Statistics of TCP BBR

```
Start at: 2017-12-05 15:10:07
End at: 2017-12-05 15:10:37
Local clock offset: 3.12 ms
Remote clock offset: -5.519 ms

# Below is generated by plot.py at 2017-12-05 15:55:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.48 Mbit/s
95th percentile per-packet one-way delay: 56.321 ms
Loss rate: 29.92%
-- Flow 1:
Average throughput: 38.48 Mbit/s
95th percentile per-packet one-way delay: 56.321 ms
Loss rate: 29.92%
```

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

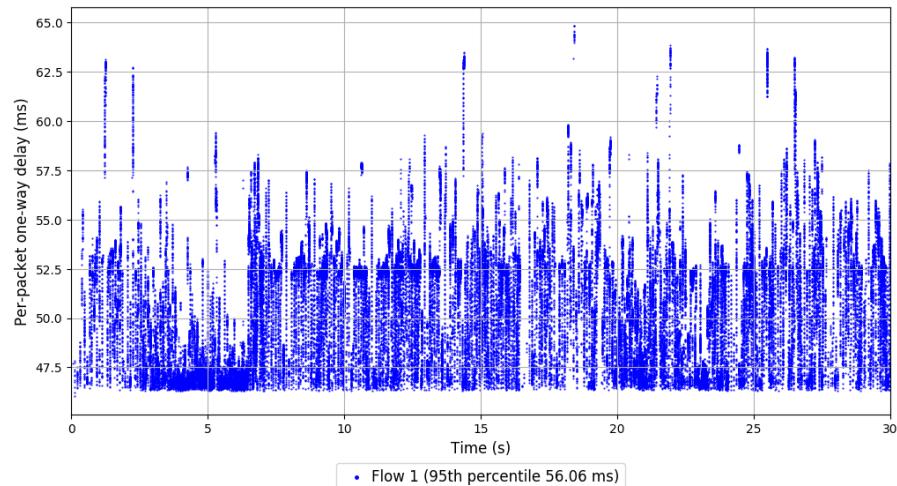
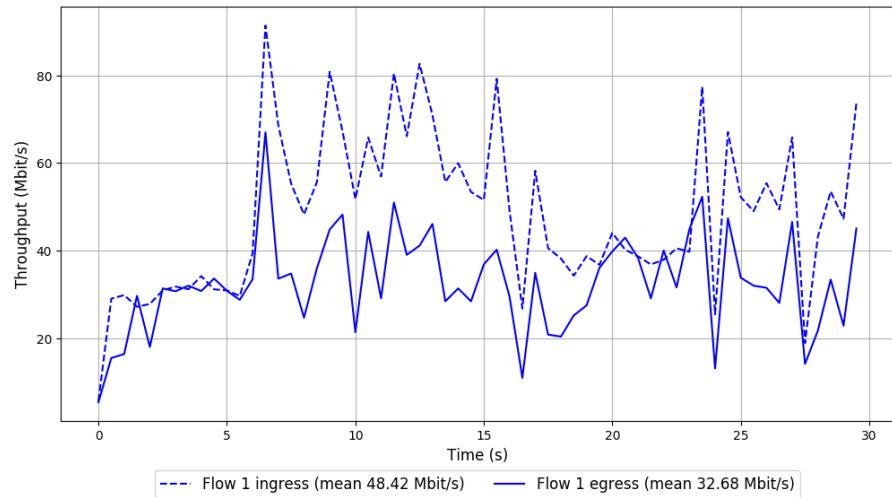


Run 10: Statistics of TCP BBR

```
Start at: 2017-12-05 15:27:21
End at: 2017-12-05 15:27:51
Local clock offset: 3.409 ms
Remote clock offset: -5.282 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.68 Mbit/s
95th percentile per-packet one-way delay: 56.059 ms
Loss rate: 32.51%
-- Flow 1:
Average throughput: 32.68 Mbit/s
95th percentile per-packet one-way delay: 56.059 ms
Loss rate: 32.51%
```

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

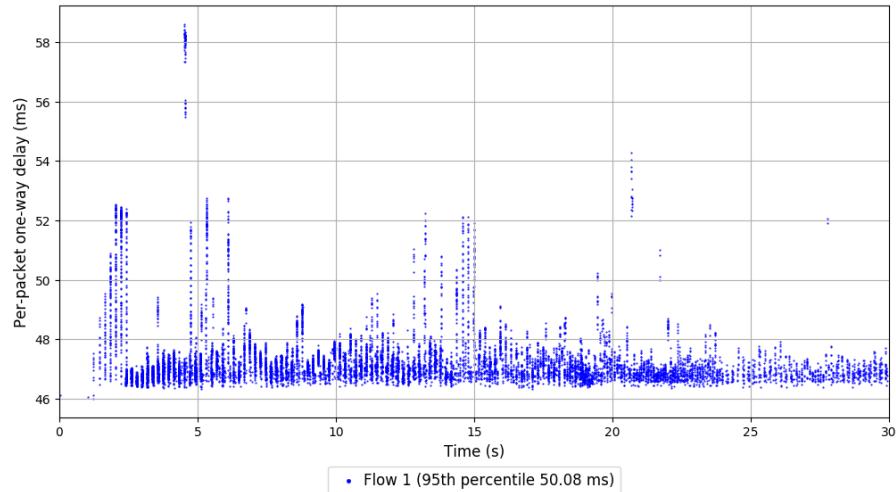
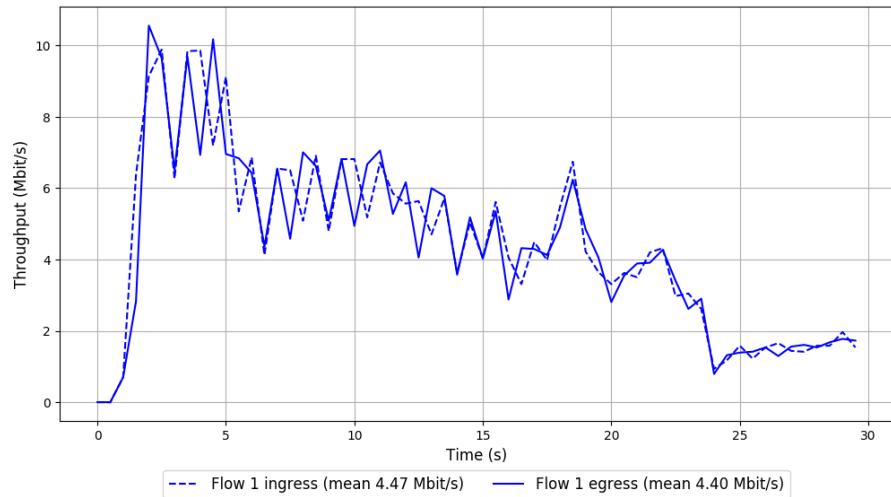


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2017-12-05 12:49:26
End at: 2017-12-05 12:49:56
Local clock offset: 1.011 ms
Remote clock offset: -6.104 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 50.076 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 50.076 ms
Loss rate: 1.50%
```

### Run 1: Report of TCP Cubic — Data Link

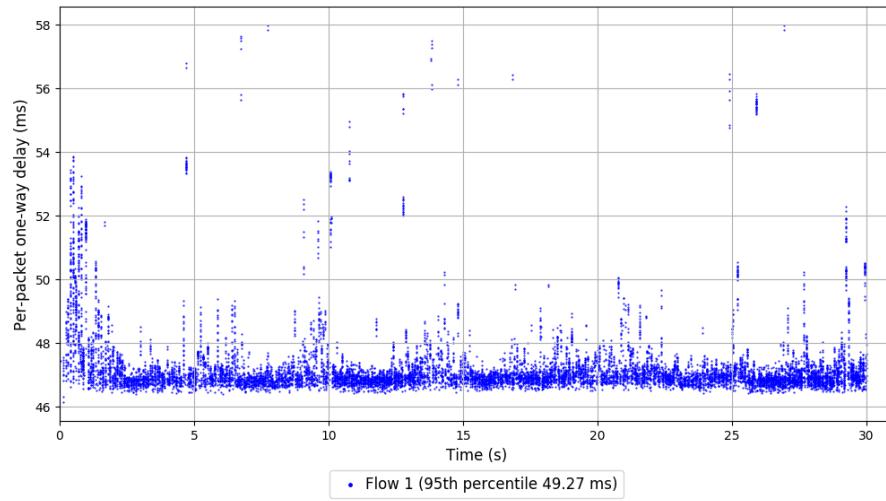
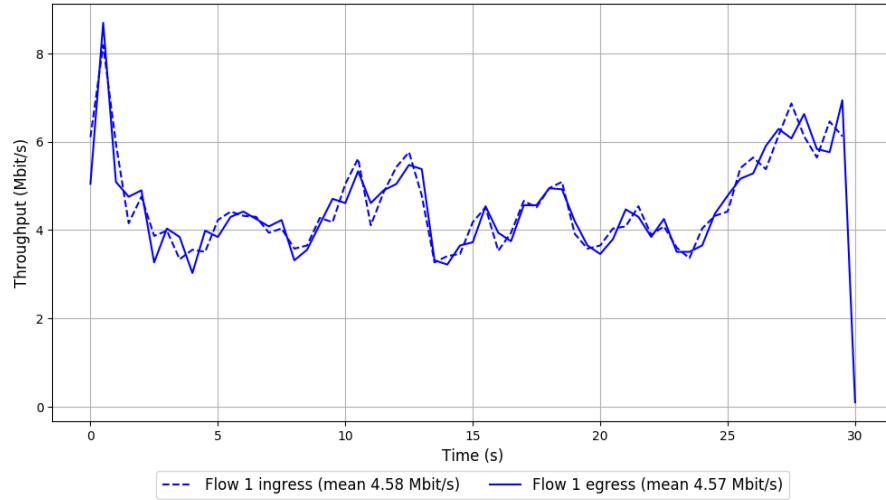


Run 2: Statistics of TCP Cubic

```
Start at: 2017-12-05 13:07:20
End at: 2017-12-05 13:07:50
Local clock offset: 1.705 ms
Remote clock offset: -5.731 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 49.265 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 49.265 ms
Loss rate: 0.38%
```

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

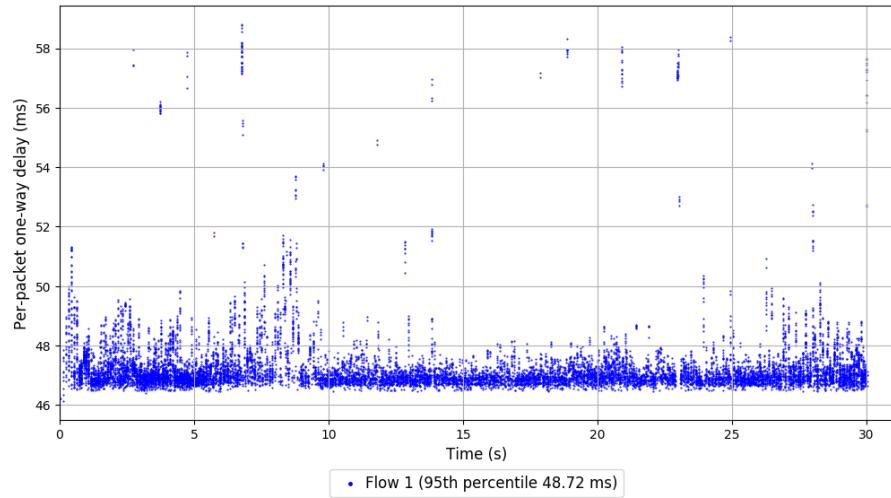
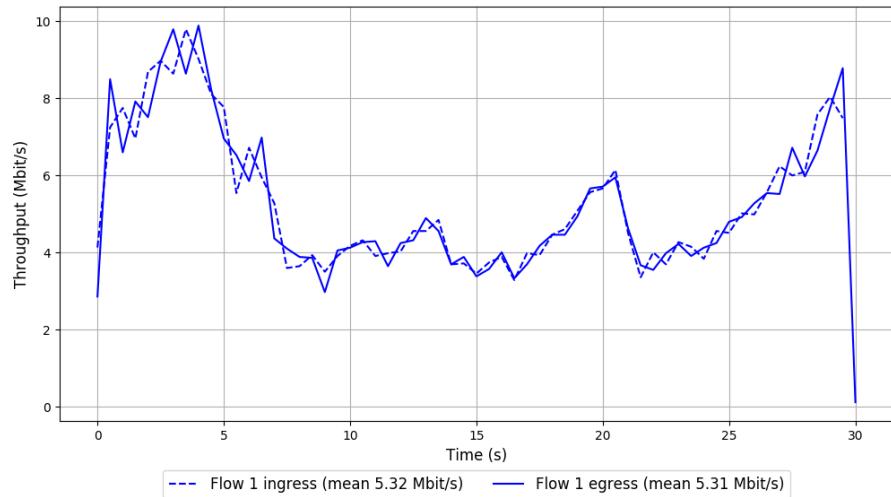


Run 3: Statistics of TCP Cubic

```
Start at: 2017-12-05 13:24:05
End at: 2017-12-05 13:24:35
Local clock offset: 2.214 ms
Remote clock offset: -5.479 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 48.723 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 48.723 ms
Loss rate: 0.17%
```

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

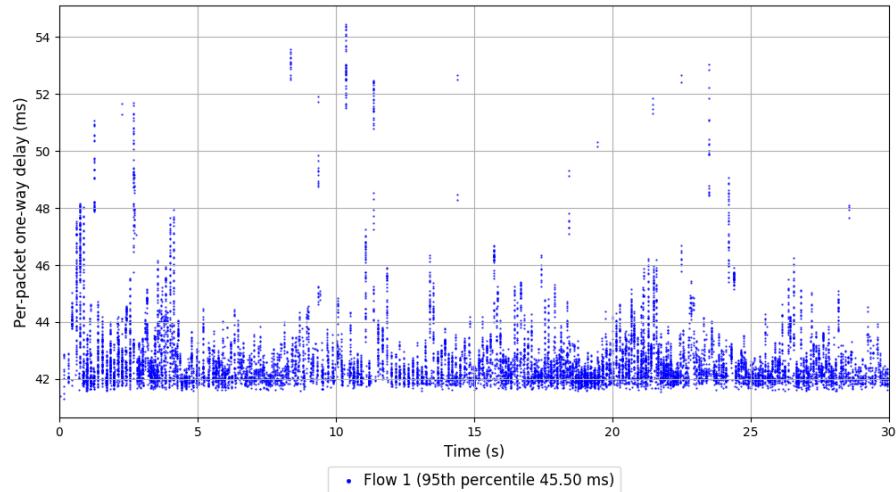
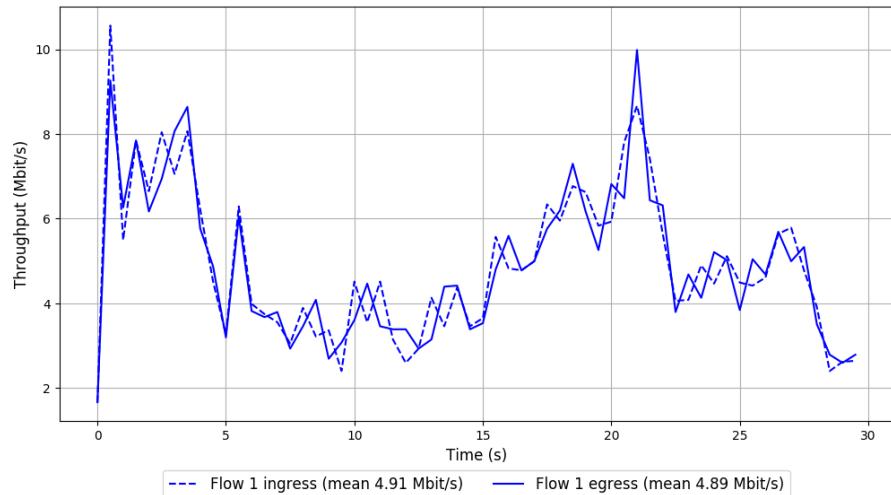


Run 4: Statistics of TCP Cubic

```
Start at: 2017-12-05 13:45:56
End at: 2017-12-05 13:46:26
Local clock offset: 2.735 ms
Remote clock offset: -9.951 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 45.504 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 45.504 ms
Loss rate: 0.32%
```

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

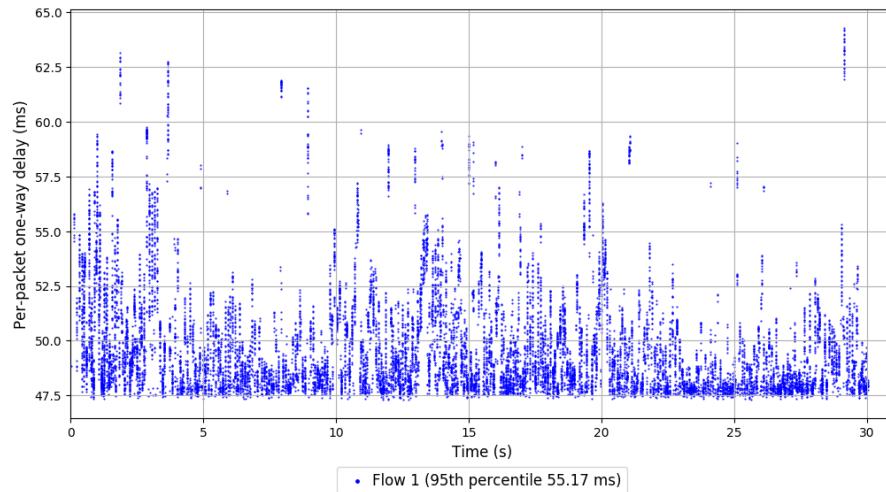
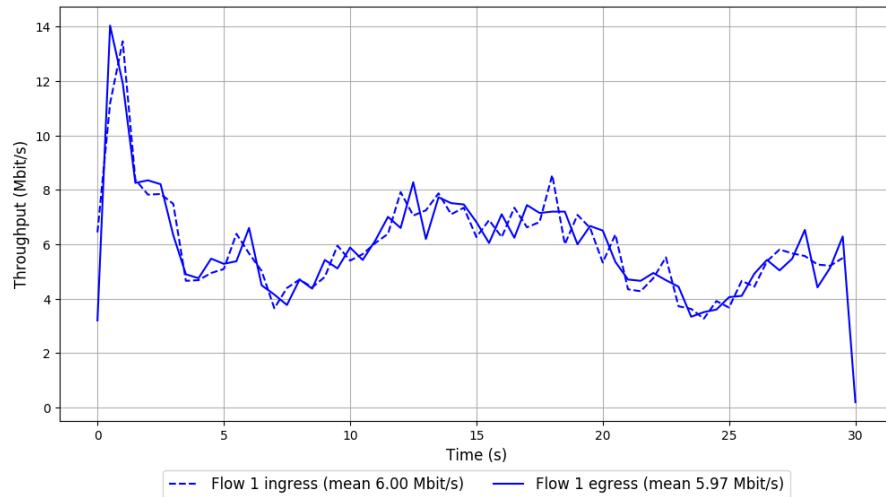


Run 5: Statistics of TCP Cubic

```
Start at: 2017-12-05 14:04:22
End at: 2017-12-05 14:04:52
Local clock offset: 2.983 ms
Remote clock offset: -4.218 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.97 Mbit/s
95th percentile per-packet one-way delay: 55.172 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 5.97 Mbit/s
95th percentile per-packet one-way delay: 55.172 ms
Loss rate: 0.43%
```

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

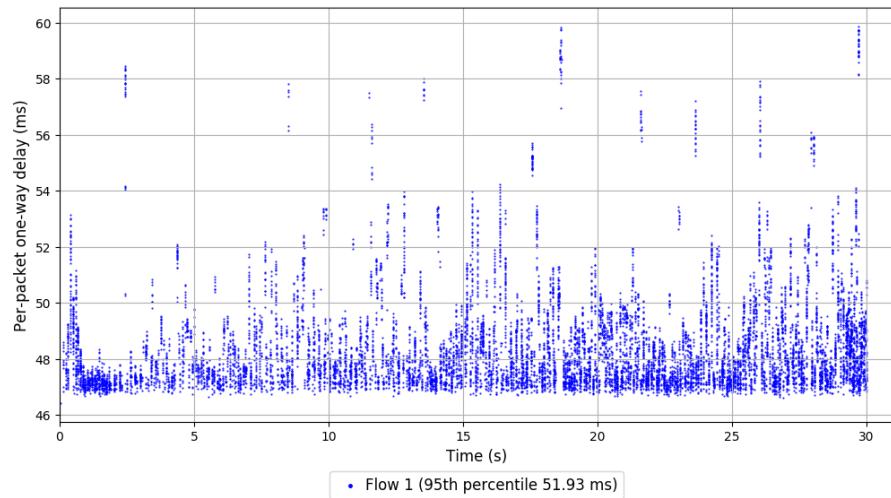
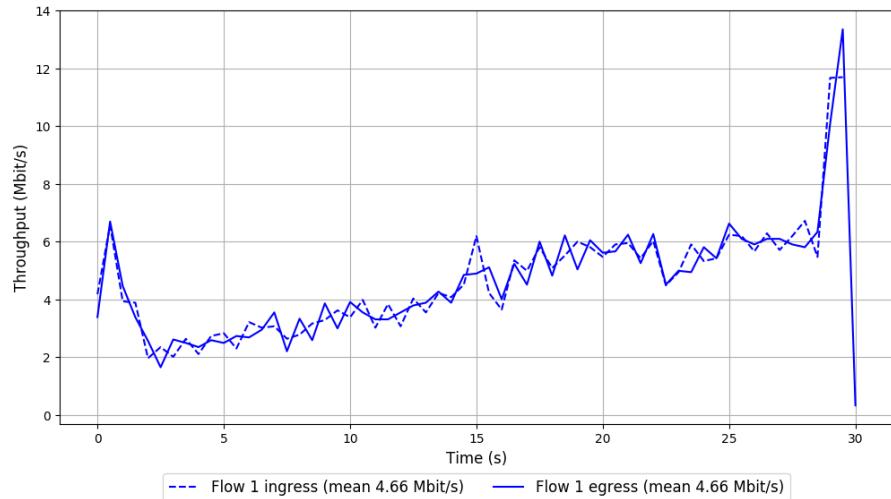


Run 6: Statistics of TCP Cubic

```
Start at: 2017-12-05 14:25:29
End at: 2017-12-05 14:25:59
Local clock offset: 3.114 ms
Remote clock offset: -4.919 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 51.929 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 51.929 ms
Loss rate: 0.07%
```

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

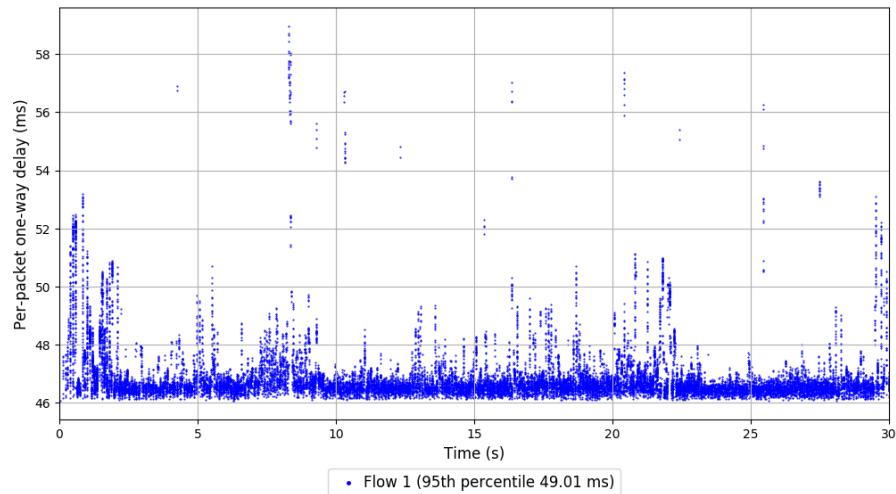
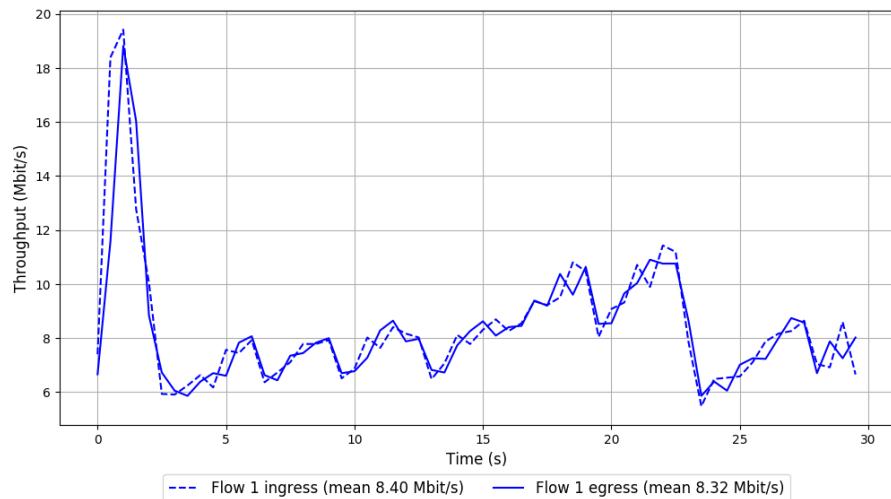


Run 7: Statistics of TCP Cubic

```
Start at: 2017-12-05 14:42:48
End at: 2017-12-05 14:43:18
Local clock offset: 3.288 ms
Remote clock offset: -4.685 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 49.011 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 49.011 ms
Loss rate: 1.03%
```

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

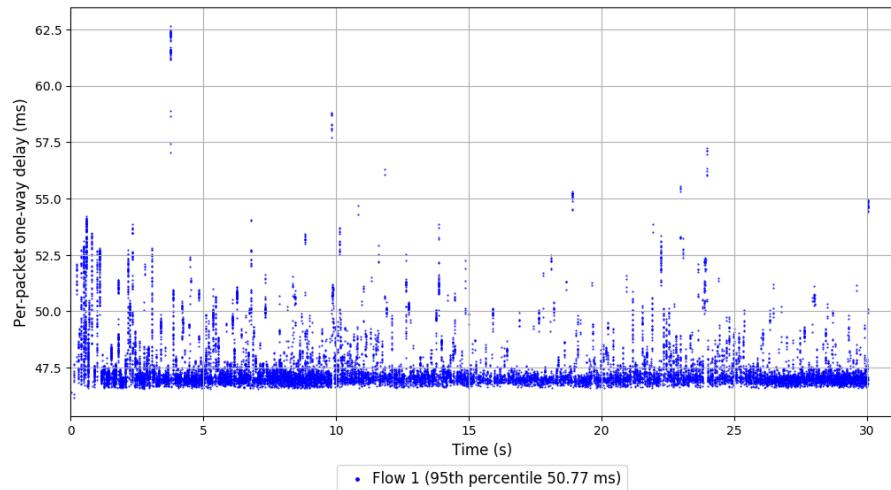
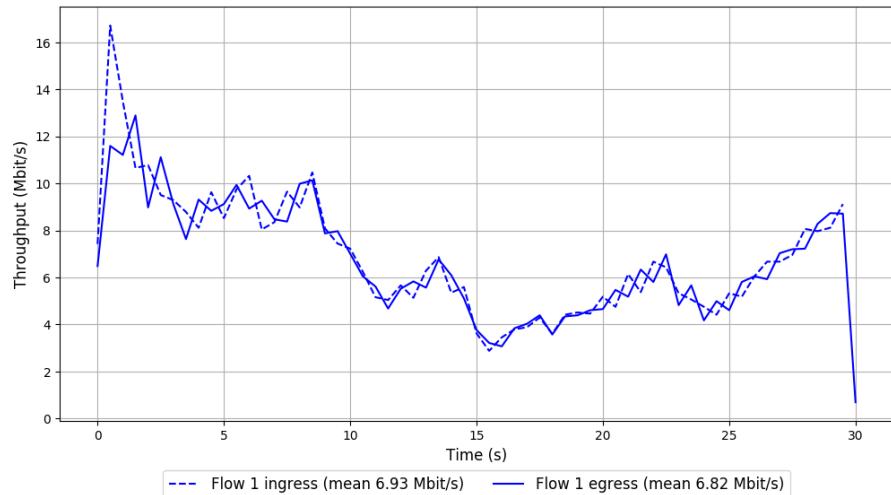


Run 8: Statistics of TCP Cubic

```
Start at: 2017-12-05 14:59:45
End at: 2017-12-05 15:00:15
Local clock offset: 3.187 ms
Remote clock offset: -5.078 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 50.766 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 50.766 ms
Loss rate: 1.59%
```

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

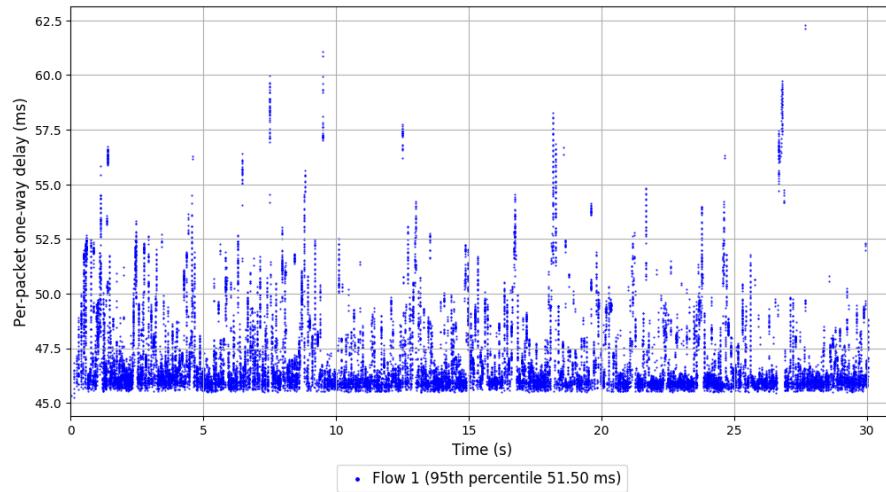
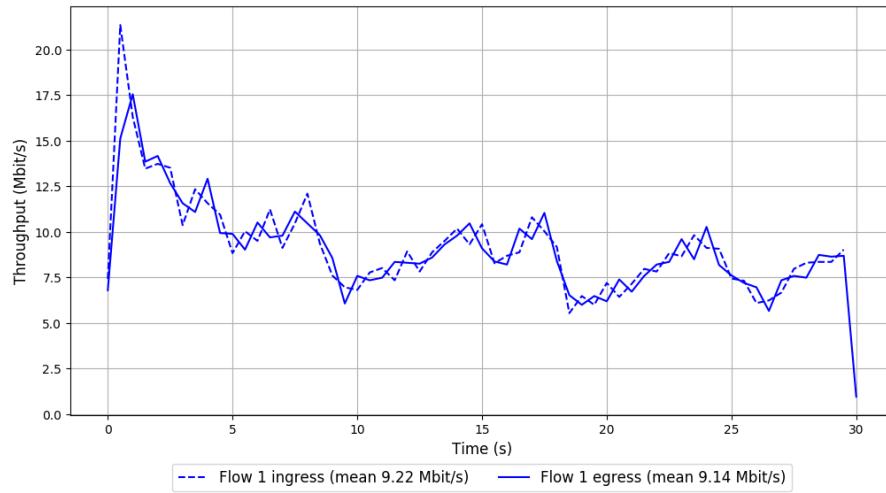


Run 9: Statistics of TCP Cubic

```
Start at: 2017-12-05 15:18:40
End at: 2017-12-05 15:19:10
Local clock offset: 3.267 ms
Remote clock offset: -6.077 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.14 Mbit/s
95th percentile per-packet one-way delay: 51.502 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 9.14 Mbit/s
95th percentile per-packet one-way delay: 51.502 ms
Loss rate: 0.91%
```

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

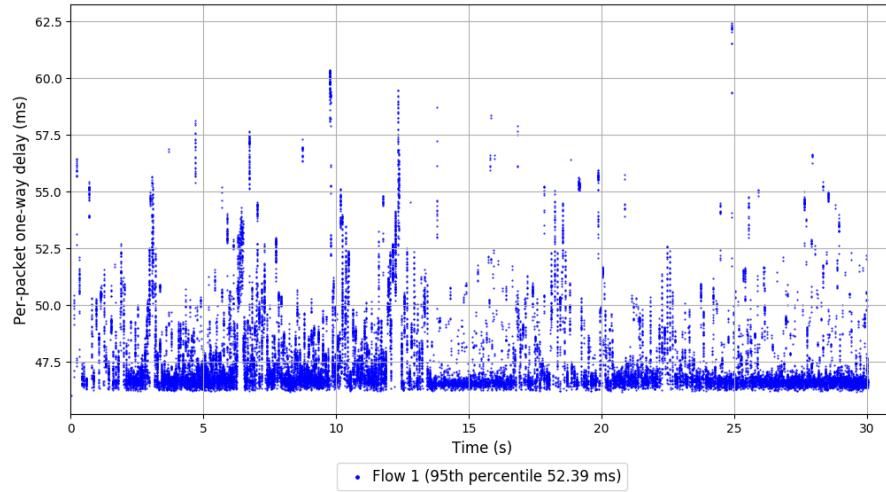
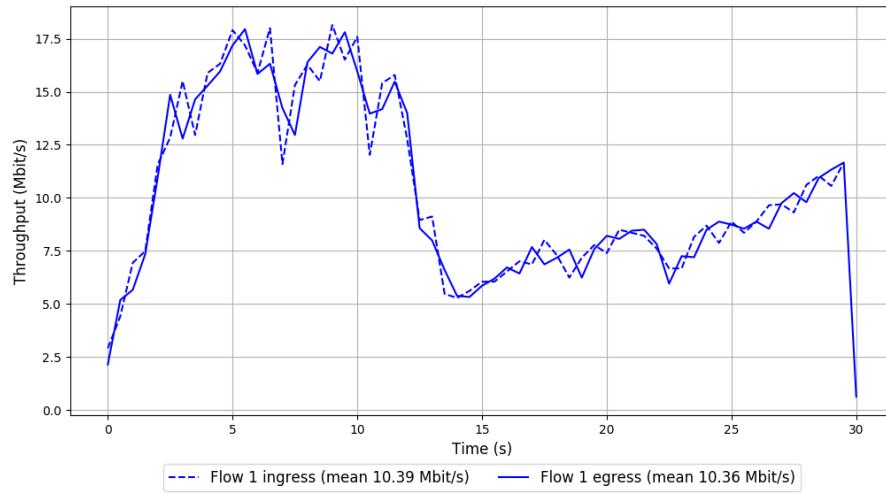


Run 10: Statistics of TCP Cubic

```
Start at: 2017-12-05 15:35:54
End at: 2017-12-05 15:36:24
Local clock offset: 3.334 ms
Remote clock offset: -4.985 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.36 Mbit/s
95th percentile per-packet one-way delay: 52.387 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 10.36 Mbit/s
95th percentile per-packet one-way delay: 52.387 ms
Loss rate: 0.30%
```

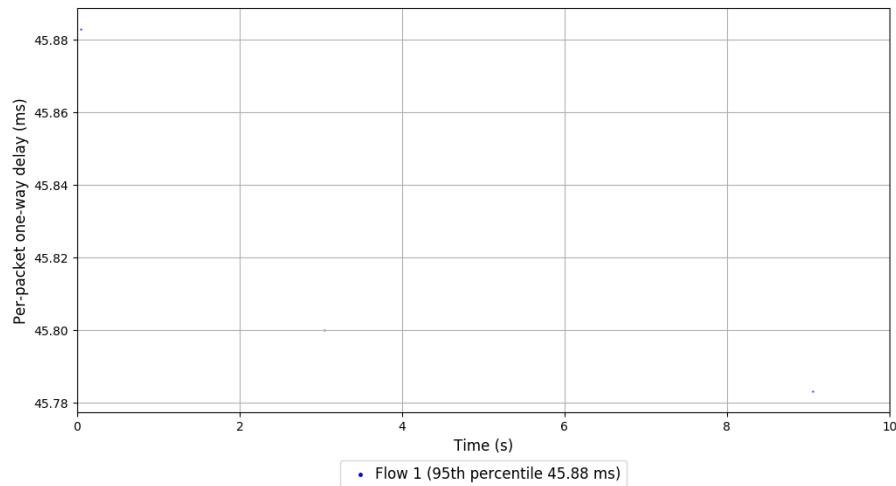
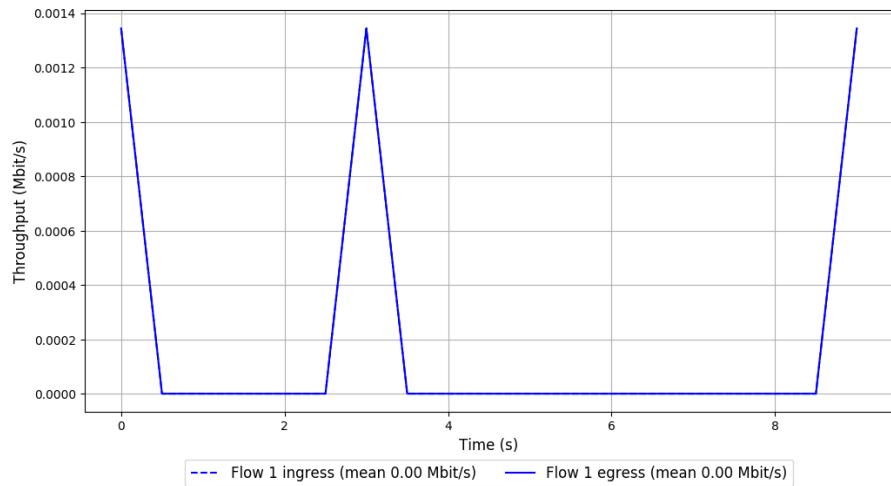
Run 10: Report of TCP Cubic — Data Link



Run 1: Statistics of LEDBAT

Start at: 2017-12-05 12:52:16  
End at: 2017-12-05 12:52:46  
Local clock offset: 1.211 ms  
Remote clock offset: -6.105 ms

## Run 1: Report of LEDBAT — Data Link

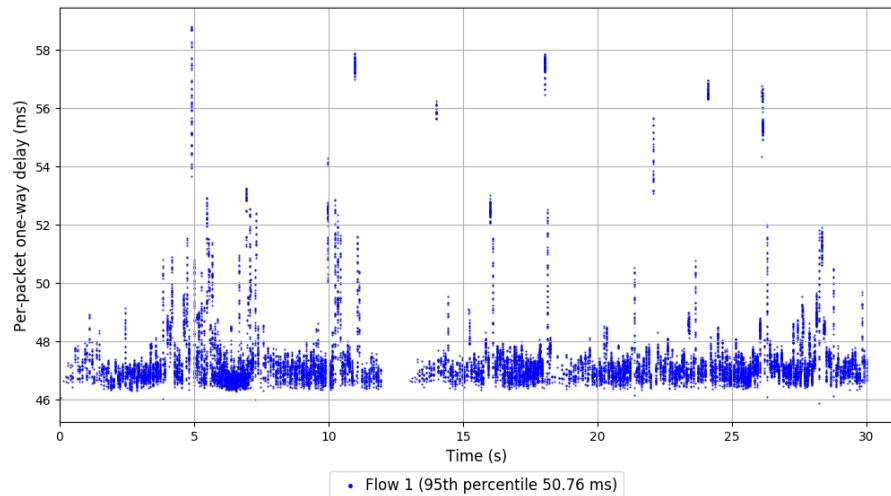
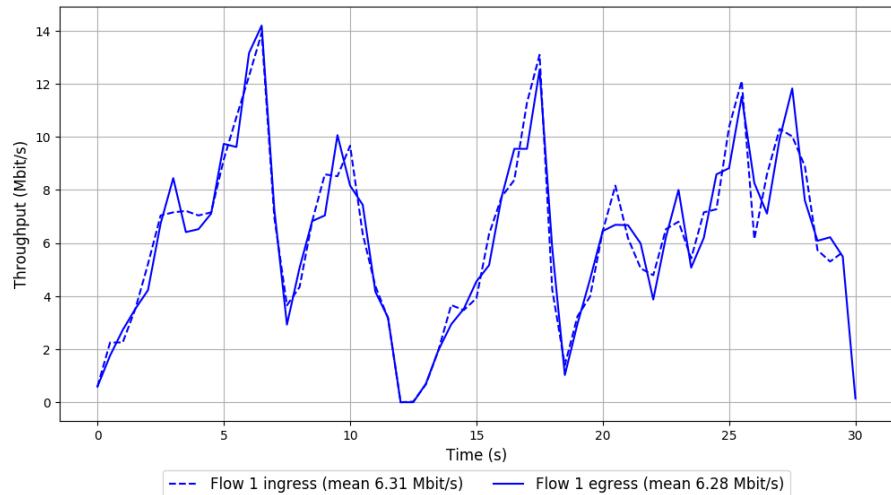


Run 2: Statistics of LEDBAT

```
Start at: 2017-12-05 13:09:43
End at: 2017-12-05 13:10:13
Local clock offset: 1.894 ms
Remote clock offset: -5.675 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 50.756 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 50.756 ms
Loss rate: 0.53%
```

## Run 2: Report of LEDBAT — Data Link

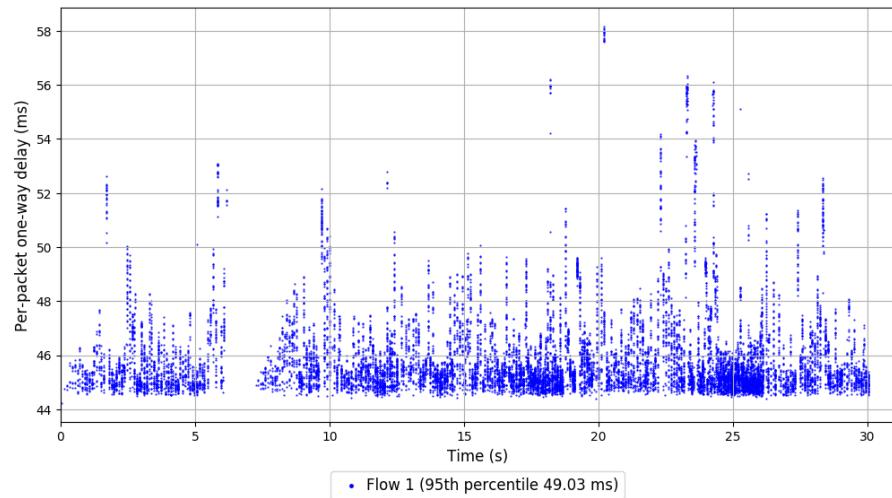
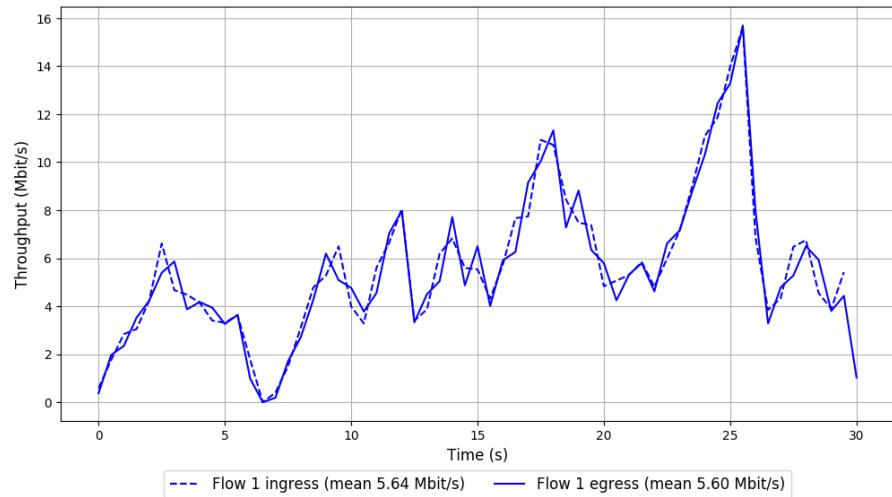


Run 3: Statistics of LEDBAT

```
Start at: 2017-12-05 13:26:35
End at: 2017-12-05 13:27:05
Local clock offset: 2.423 ms
Remote clock offset: -7.049 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.60 Mbit/s
95th percentile per-packet one-way delay: 49.029 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 5.60 Mbit/s
95th percentile per-packet one-way delay: 49.029 ms
Loss rate: 0.62%
```

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

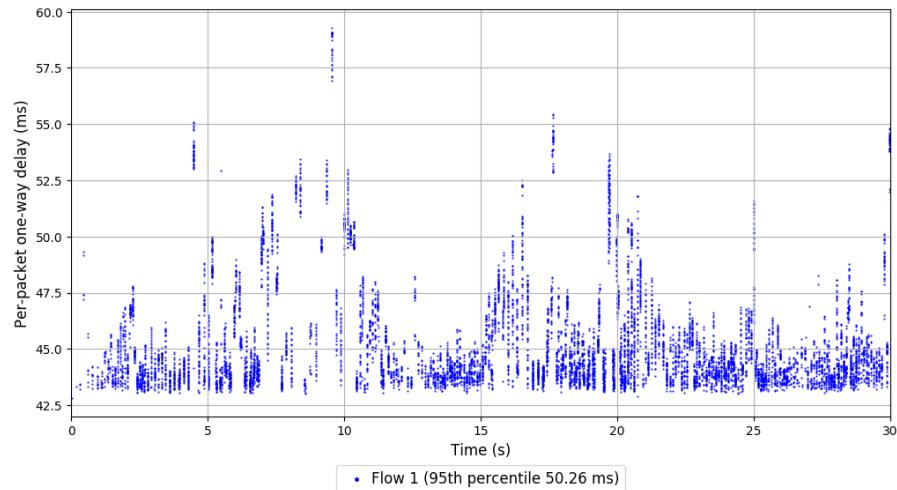
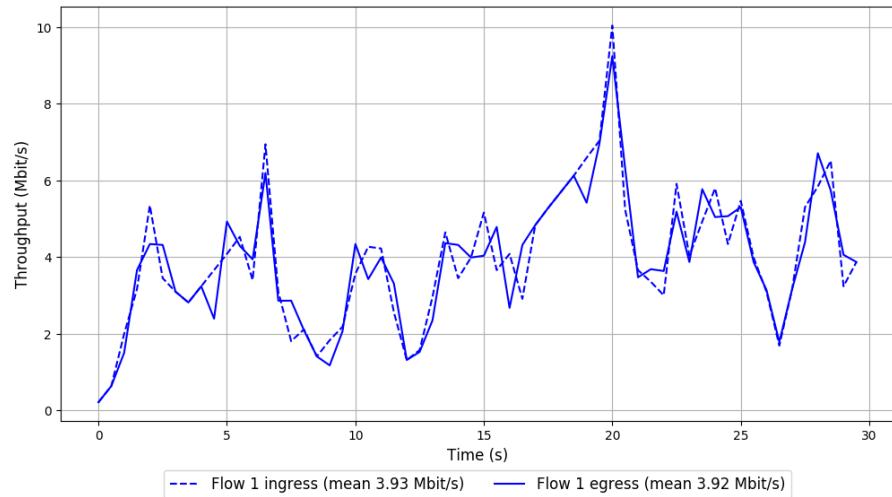


Run 4: Statistics of LEDBAT

```
Start at: 2017-12-05 13:48:20
End at: 2017-12-05 13:48:50
Local clock offset: 2.891 ms
Remote clock offset: -8.63 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 50.256 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 50.256 ms
Loss rate: 0.43%
```

## Run 4: Report of LEDBAT — Data Link

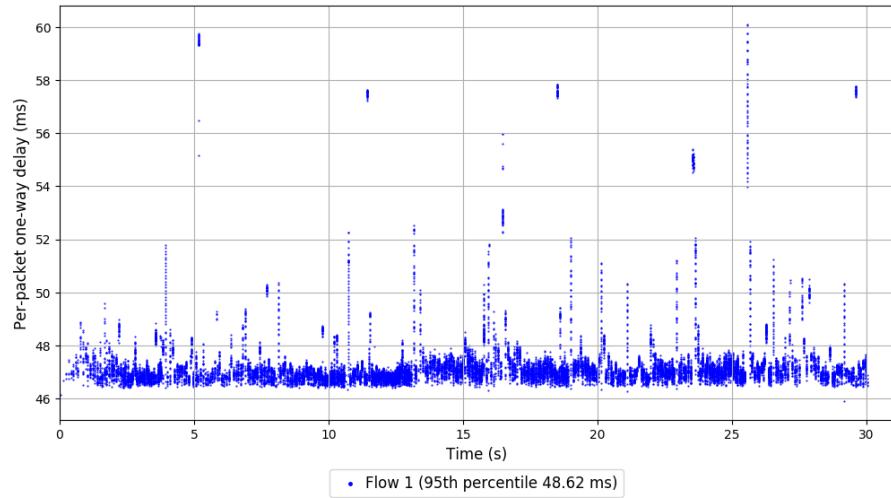
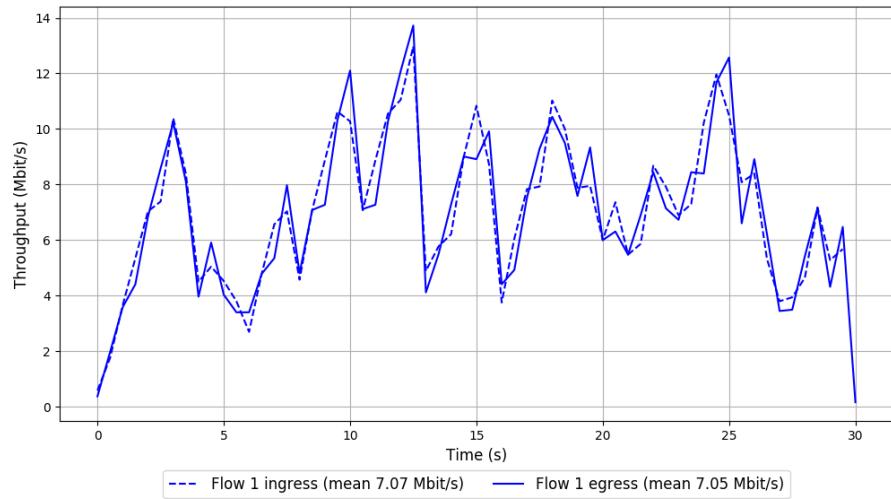


Run 5: Statistics of LEDBAT

```
Start at: 2017-12-05 14:06:52
End at: 2017-12-05 14:07:22
Local clock offset: 3.124 ms
Remote clock offset: -5.284 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 48.620 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 48.620 ms
Loss rate: 0.18%
```

## Run 5: Report of LEDBAT — Data Link

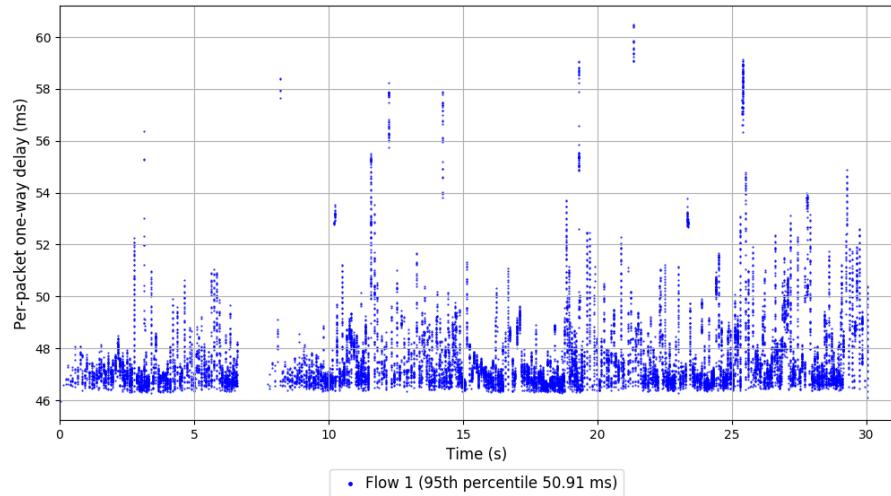
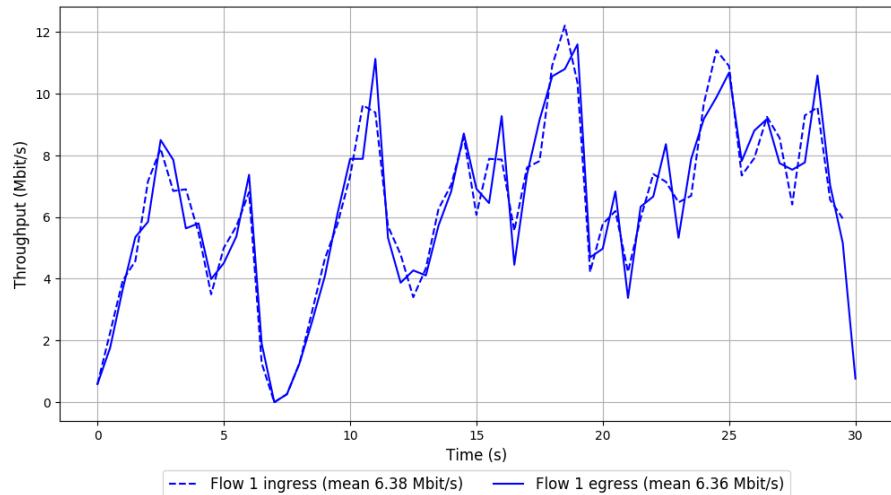


Run 6: Statistics of LEDBAT

```
Start at: 2017-12-05 14:28:13
End at: 2017-12-05 14:28:43
Local clock offset: 3.285 ms
Remote clock offset: -5.066 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 50.907 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 50.907 ms
Loss rate: 0.37%
```

Run 6: Report of LEDBAT — Data Link

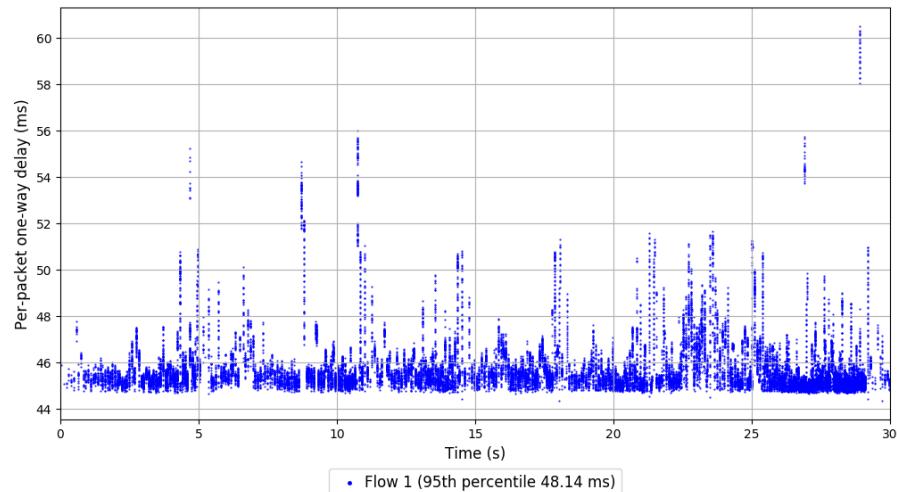
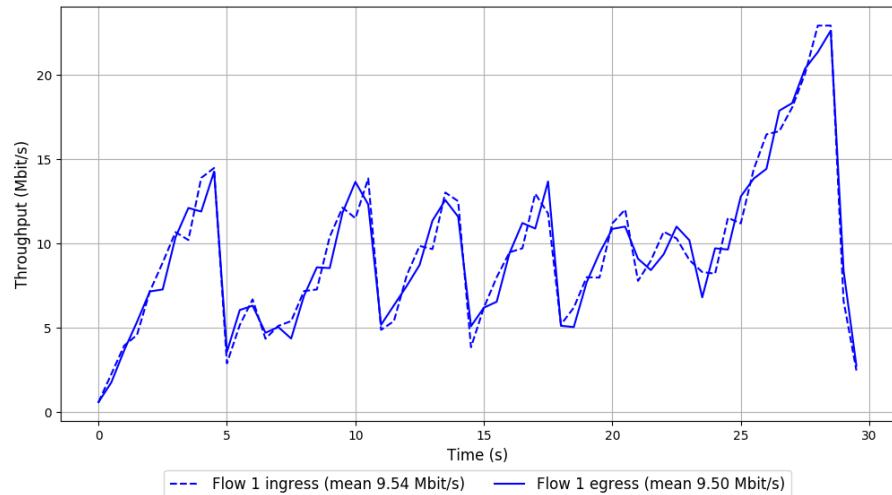


Run 7: Statistics of LEDBAT

```
Start at: 2017-12-05 14:45:18
End at: 2017-12-05 14:45:48
Local clock offset: 3.152 ms
Remote clock offset: -6.408 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 48.144 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 48.144 ms
Loss rate: 0.41%
```

## Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

/home/ubuntu/pantheon\_data/2017-12-05T12-36-AWS-Korea-to-China-10-runs/ledbat\_stats\_run8.log

Run 8: Report of LEDBAT — Data Link

Figure is missing

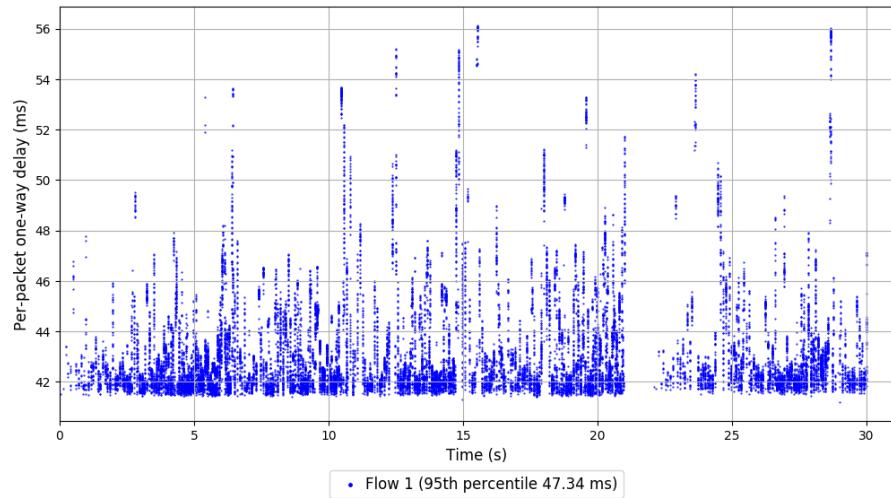
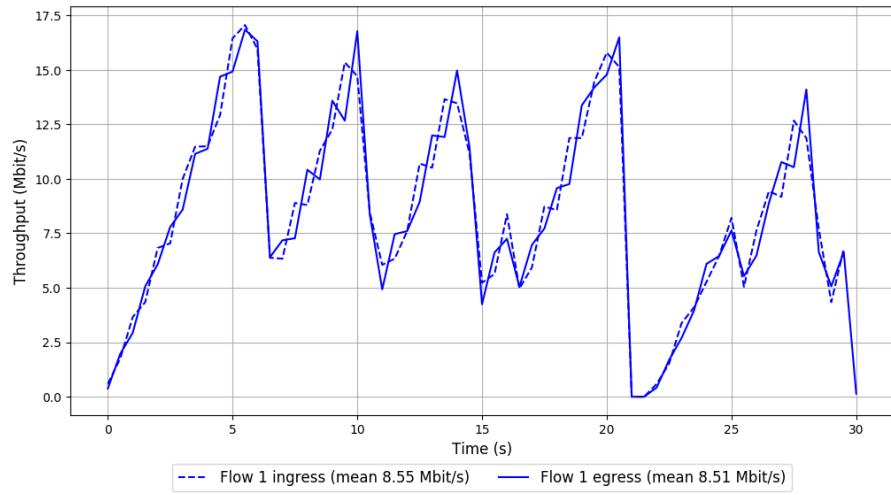
Figure is missing

Run 9: Statistics of LEDBAT

```
Start at: 2017-12-05 15:21:13
End at: 2017-12-05 15:21:43
Local clock offset: 3.262 ms
Remote clock offset: -10.407 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.51 Mbit/s
95th percentile per-packet one-way delay: 47.340 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 8.51 Mbit/s
95th percentile per-packet one-way delay: 47.340 ms
Loss rate: 0.49%
```

Run 9: Report of LEDBAT — Data Link

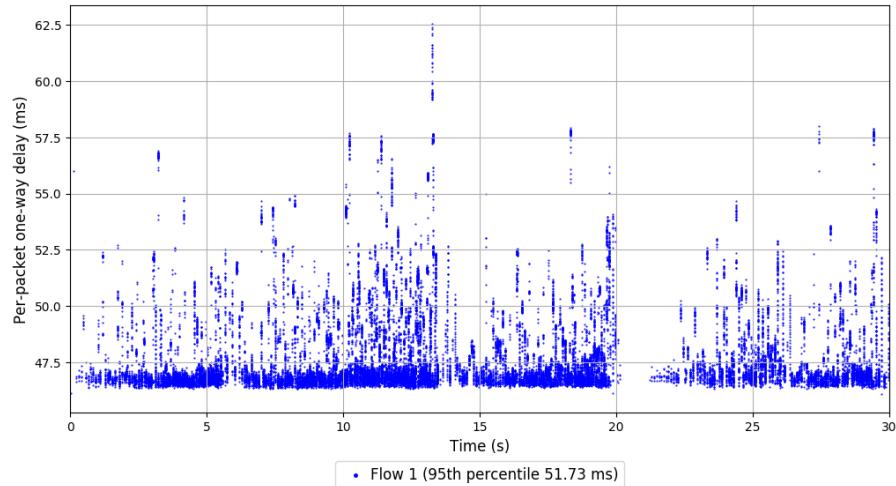
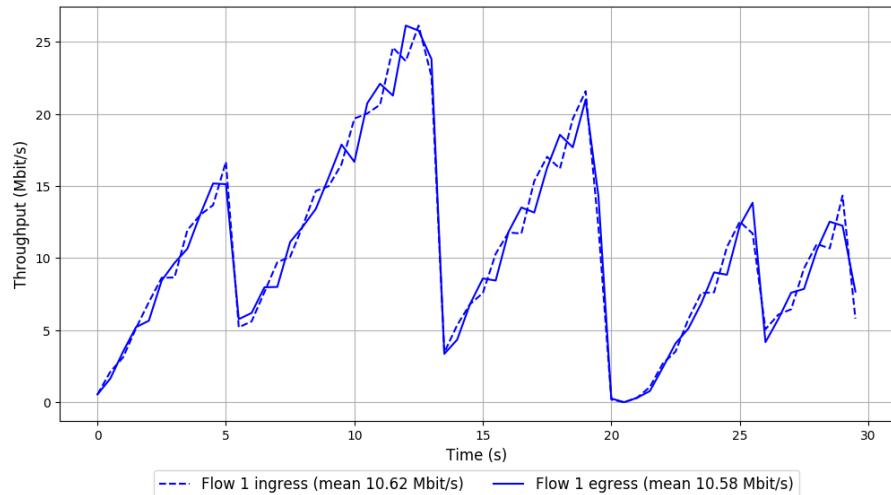


Run 10: Statistics of LEDBAT

```
Start at: 2017-12-05 15:38:23
End at: 2017-12-05 15:38:53
Local clock offset: 3.441 ms
Remote clock offset: -4.958 ms

# Below is generated by plot.py at 2017-12-05 15:55:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.58 Mbit/s
95th percentile per-packet one-way delay: 51.734 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 10.58 Mbit/s
95th percentile per-packet one-way delay: 51.734 ms
Loss rate: 0.40%
```

## Run 10: Report of LEDBAT — Data Link

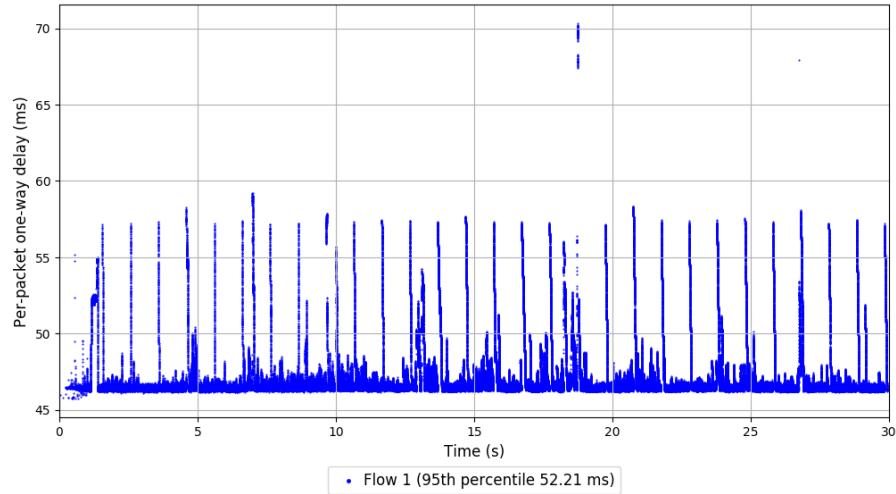
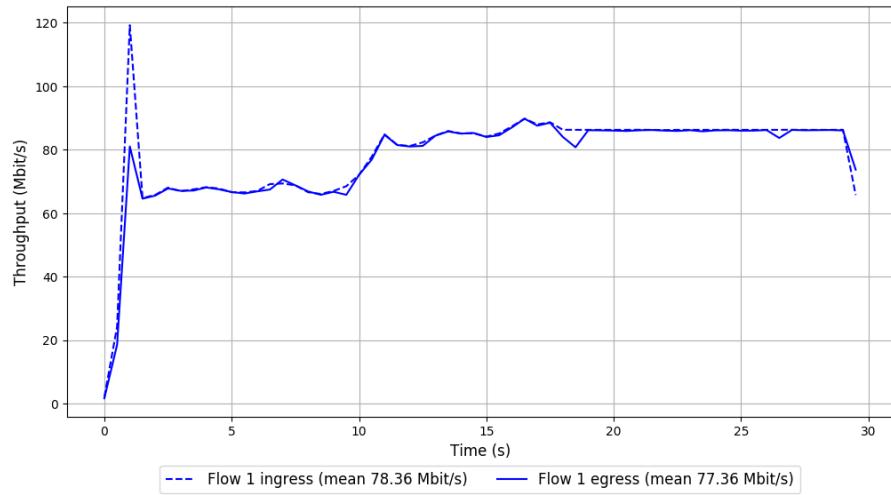


Run 1: Statistics of PCC

```
Start at: 2017-12-05 12:41:04
End at: 2017-12-05 12:41:34
Local clock offset: 0.886 ms
Remote clock offset: -6.489 ms

# Below is generated by plot.py at 2017-12-05 15:57:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.36 Mbit/s
95th percentile per-packet one-way delay: 52.211 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 77.36 Mbit/s
95th percentile per-packet one-way delay: 52.211 ms
Loss rate: 1.27%
```

### Run 1: Report of PCC — Data Link

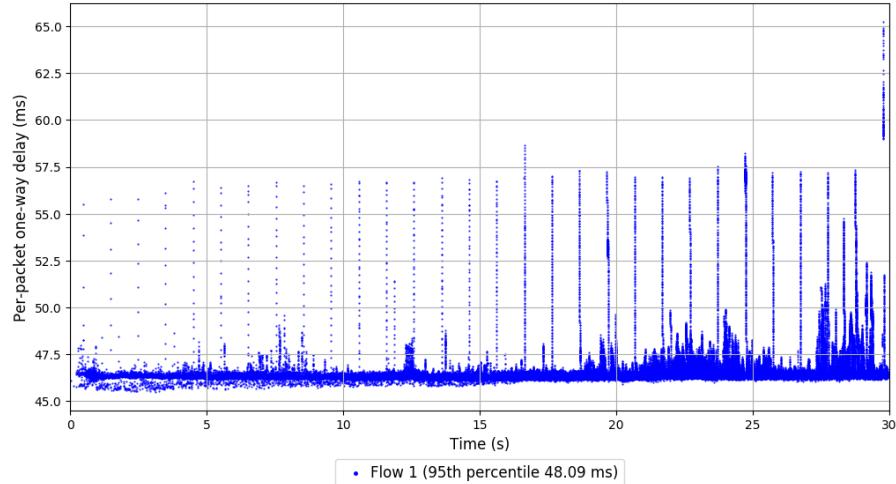
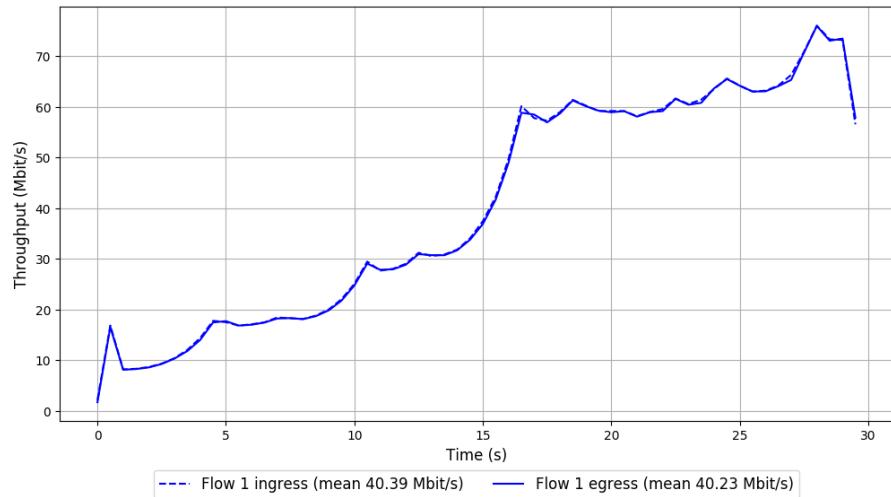


Run 2: Statistics of PCC

```
Start at: 2017-12-05 13:01:13
End at: 2017-12-05 13:01:43
Local clock offset: 1.538 ms
Remote clock offset: -5.818 ms

# Below is generated by plot.py at 2017-12-05 15:57:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 48.090 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 48.090 ms
Loss rate: 0.38%
```

## Run 2: Report of PCC — Data Link

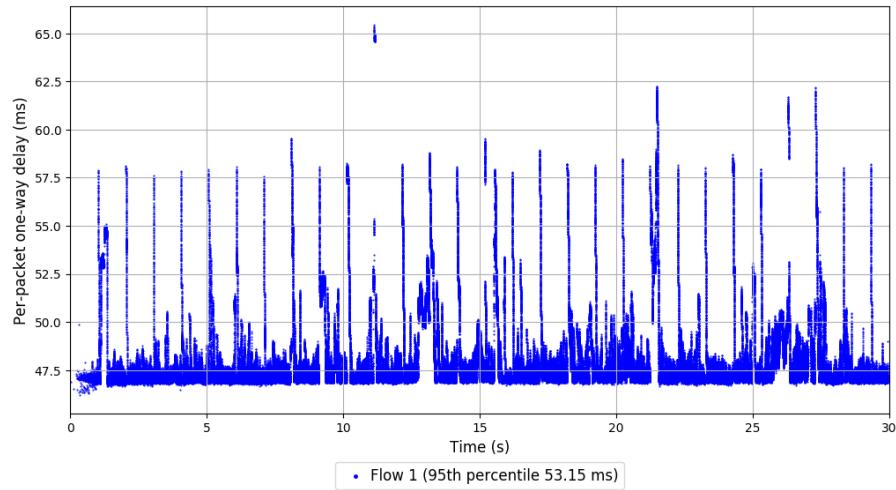
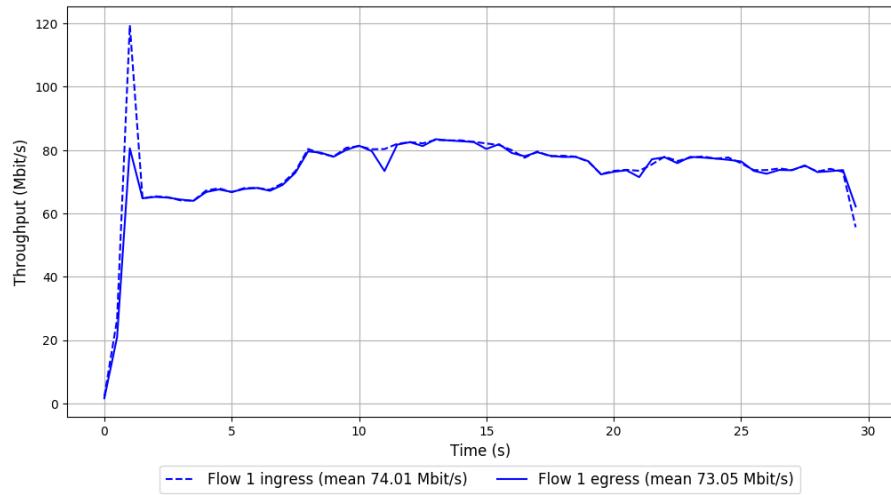


Run 3: Statistics of PCC

```
Start at: 2017-12-05 13:17:58
End at: 2017-12-05 13:18:28
Local clock offset: 1.981 ms
Remote clock offset: -5.284 ms

# Below is generated by plot.py at 2017-12-05 15:57:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.05 Mbit/s
95th percentile per-packet one-way delay: 53.154 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 73.05 Mbit/s
95th percentile per-packet one-way delay: 53.154 ms
Loss rate: 1.29%
```

### Run 3: Report of PCC — Data Link

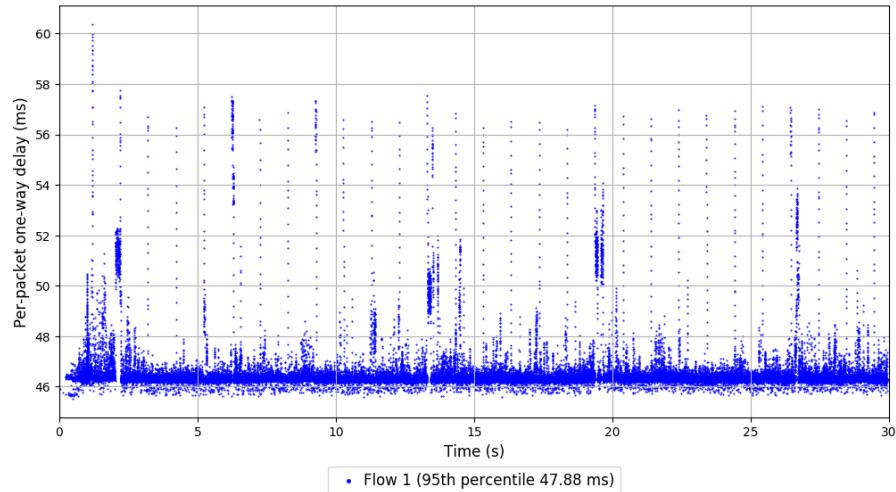
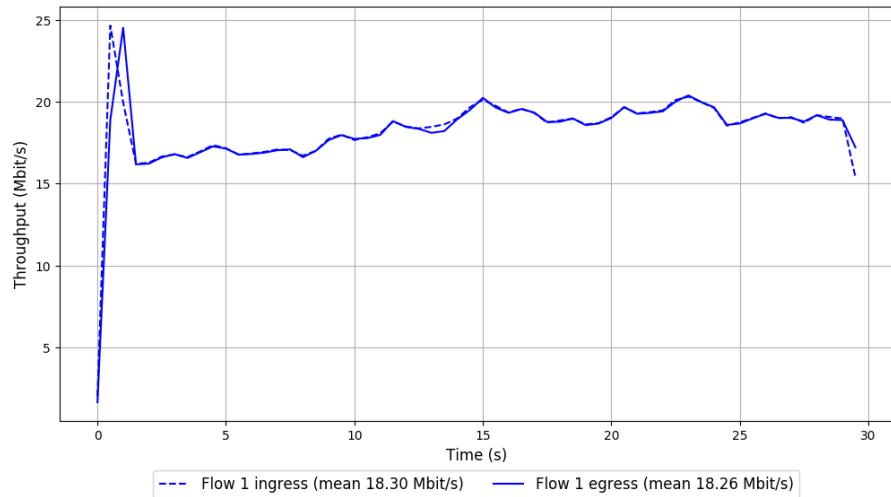


Run 4: Statistics of PCC

```
Start at: 2017-12-05 13:39:41
End at: 2017-12-05 13:40:11
Local clock offset: 2.654 ms
Remote clock offset: -5.376 ms

# Below is generated by plot.py at 2017-12-05 15:57:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 18.26 Mbit/s
95th percentile per-packet one-way delay: 47.881 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 18.26 Mbit/s
95th percentile per-packet one-way delay: 47.881 ms
Loss rate: 0.18%
```

## Run 4: Report of PCC — Data Link

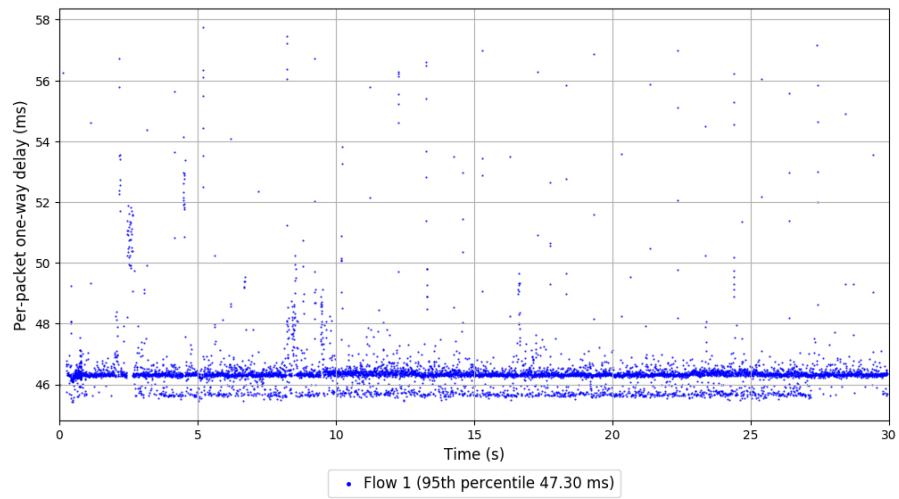
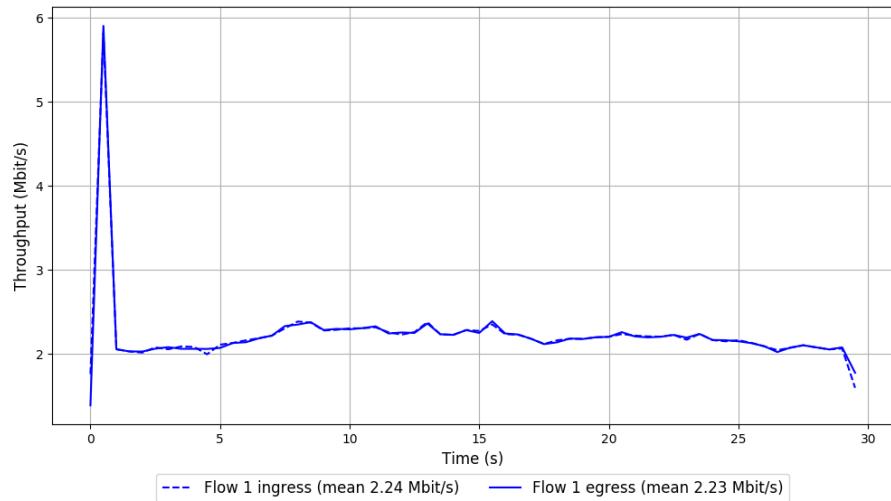


Run 5: Statistics of PCC

```
Start at: 2017-12-05 13:56:53
End at: 2017-12-05 13:57:24
Local clock offset: 3.044 ms
Remote clock offset: -5.285 ms

# Below is generated by plot.py at 2017-12-05 15:57:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 47.300 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 47.300 ms
Loss rate: 0.09%
```

## Run 5: Report of PCC — Data Link

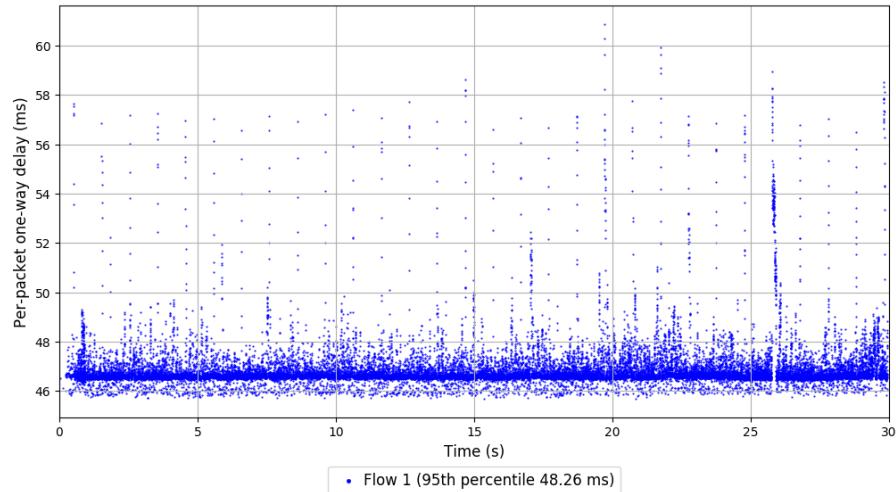
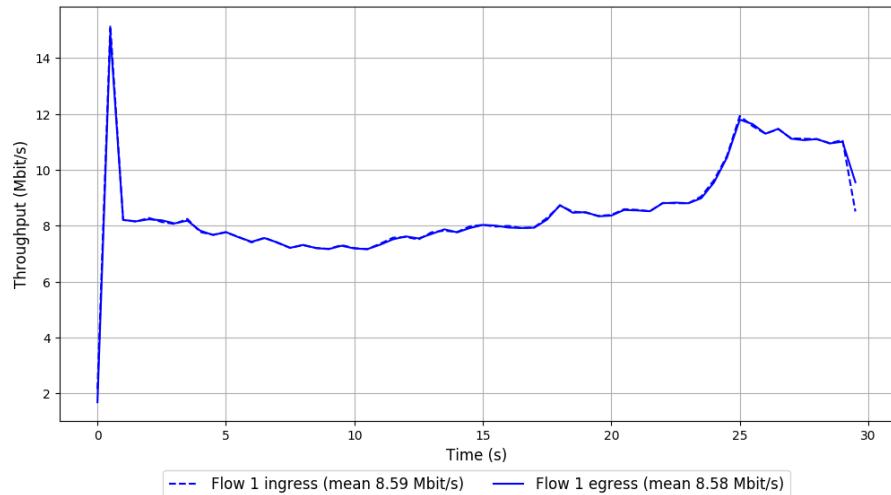


Run 6: Statistics of PCC

```
Start at: 2017-12-05 14:15:07
End at: 2017-12-05 14:15:37
Local clock offset: 3.1 ms
Remote clock offset: -5.388 ms

# Below is generated by plot.py at 2017-12-05 15:57:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 48.260 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 48.260 ms
Loss rate: 0.08%
```

## Run 6: Report of PCC — Data Link

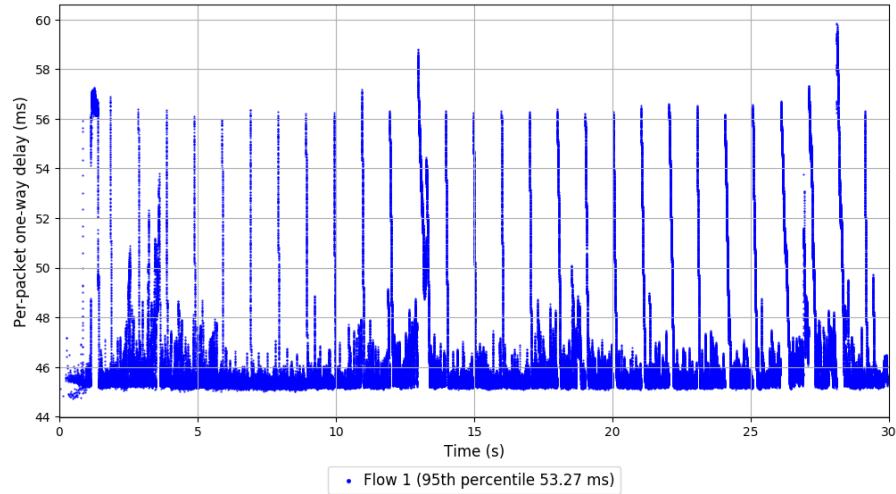
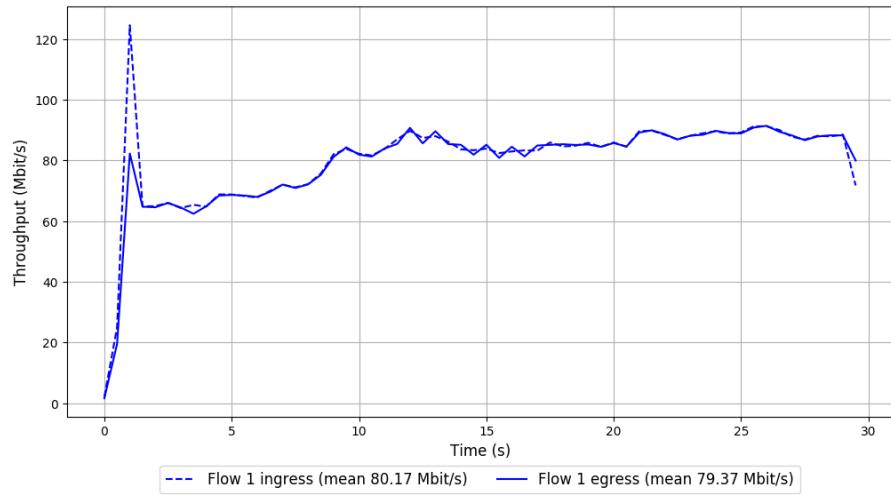


Run 7: Statistics of PCC

```
Start at: 2017-12-05 14:36:40
End at: 2017-12-05 14:37:10
Local clock offset: 3.299 ms
Remote clock offset: -5.819 ms

# Below is generated by plot.py at 2017-12-05 15:57:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.37 Mbit/s
95th percentile per-packet one-way delay: 53.275 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 79.37 Mbit/s
95th percentile per-packet one-way delay: 53.275 ms
Loss rate: 0.99%
```

### Run 7: Report of PCC — Data Link

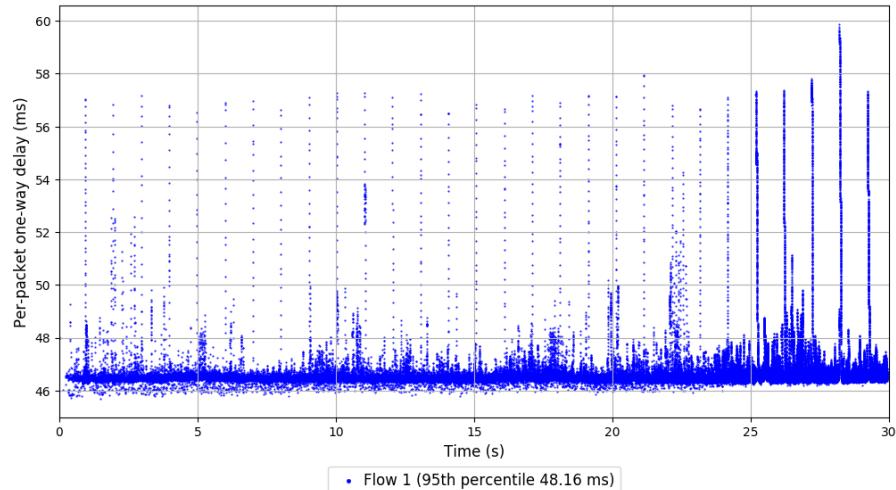
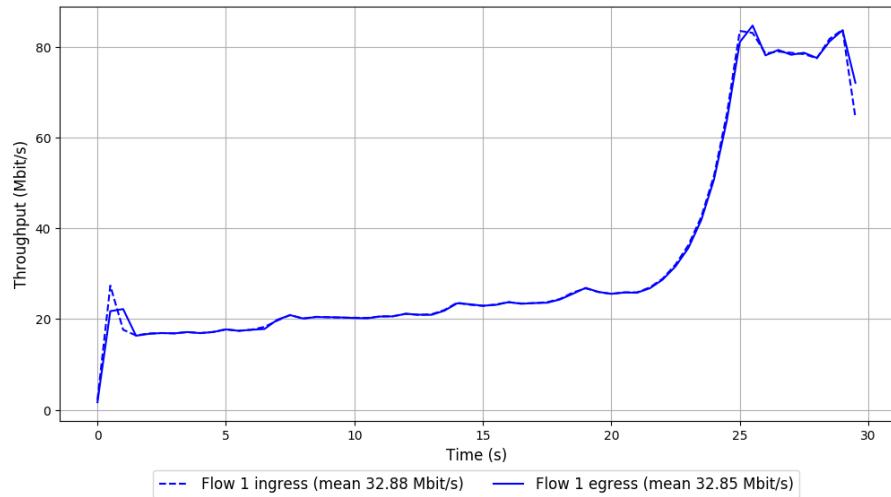


Run 8: Statistics of PCC

```
Start at: 2017-12-05 14:53:50
End at: 2017-12-05 14:54:20
Local clock offset: 3.142 ms
Remote clock offset: -4.899 ms

# Below is generated by plot.py at 2017-12-05 15:57:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.85 Mbit/s
95th percentile per-packet one-way delay: 48.165 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 32.85 Mbit/s
95th percentile per-packet one-way delay: 48.165 ms
Loss rate: 0.08%
```

## Run 8: Report of PCC — Data Link

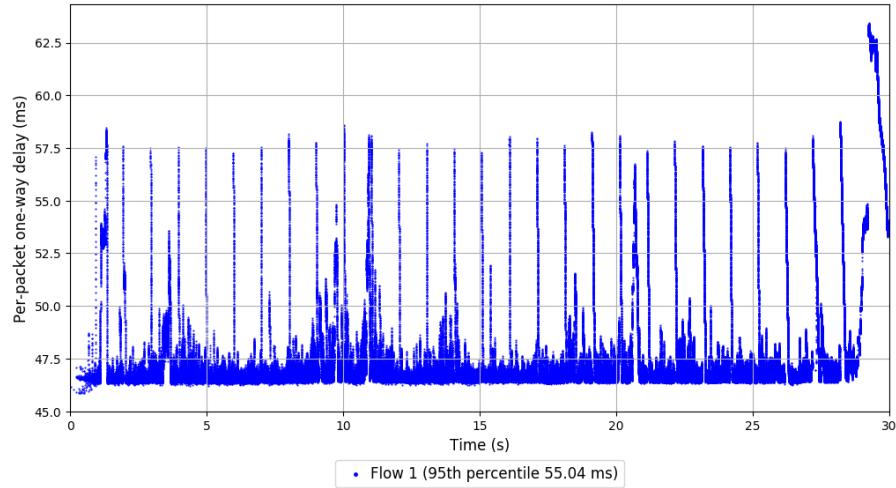
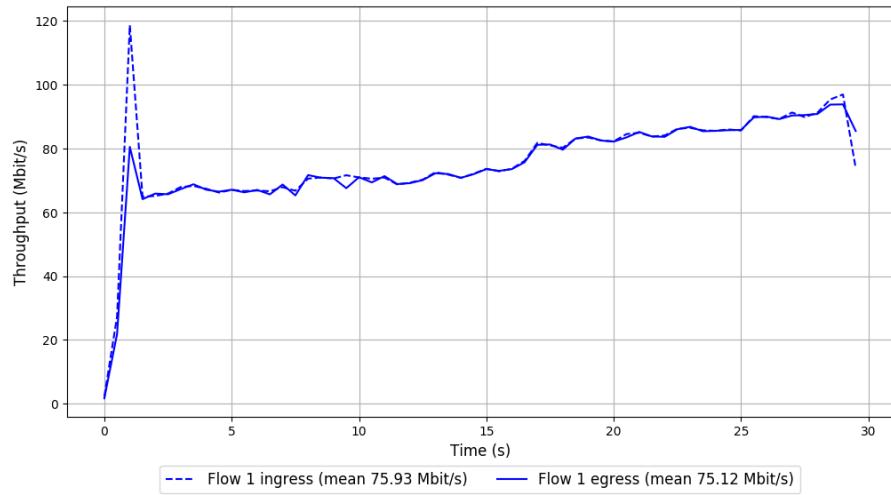


Run 9: Statistics of PCC

```
Start at: 2017-12-05 15:12:28
End at: 2017-12-05 15:12:58
Local clock offset: 3.339 ms
Remote clock offset: -5.484 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.12 Mbit/s
95th percentile per-packet one-way delay: 55.043 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 75.12 Mbit/s
95th percentile per-packet one-way delay: 55.043 ms
Loss rate: 1.04%
```

### Run 9: Report of PCC — Data Link

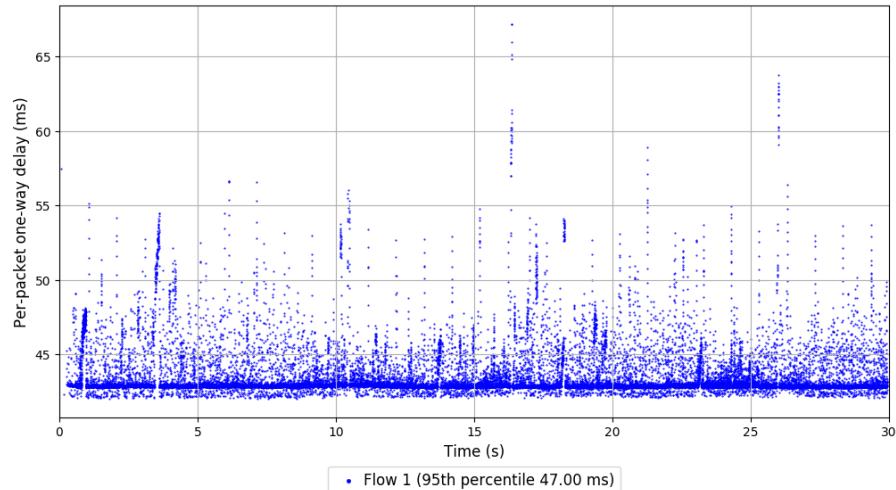
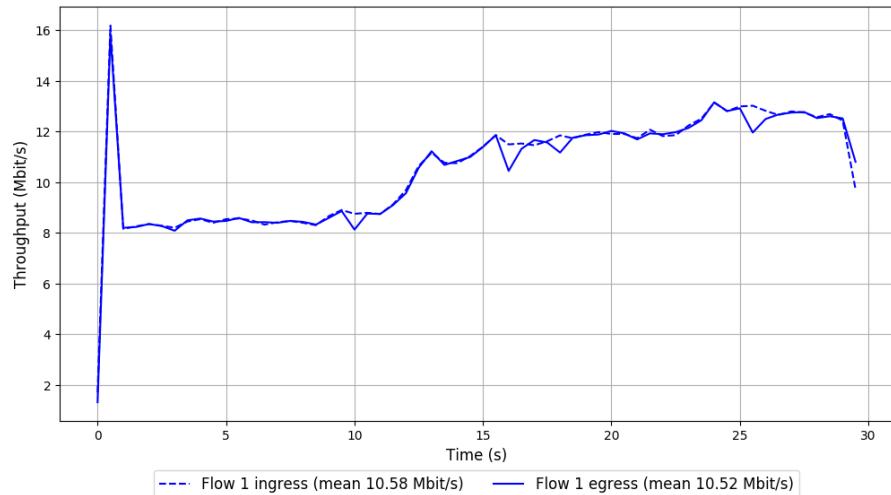


Run 10: Statistics of PCC

```
Start at: 2017-12-05 15:29:45
End at: 2017-12-05 15:30:15
Local clock offset: 3.163 ms
Remote clock offset: -9.107 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 46.998 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 46.998 ms
Loss rate: 0.63%
```

## Run 10: Report of PCC — Data Link

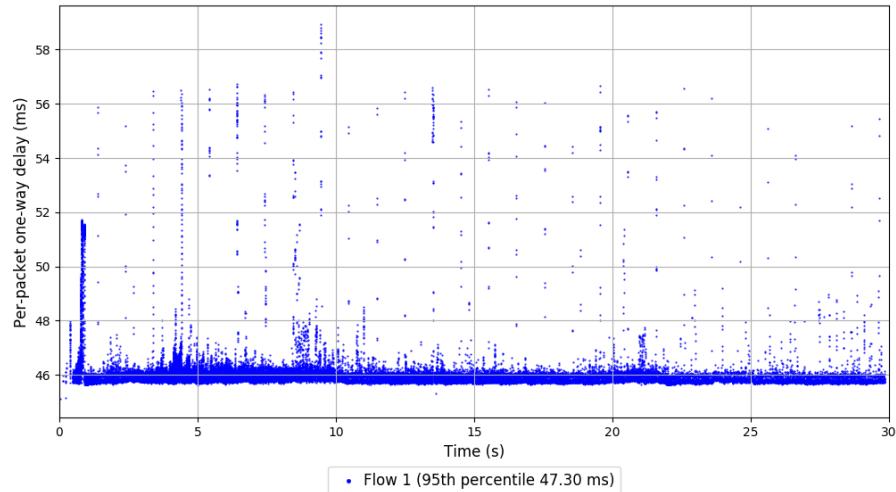
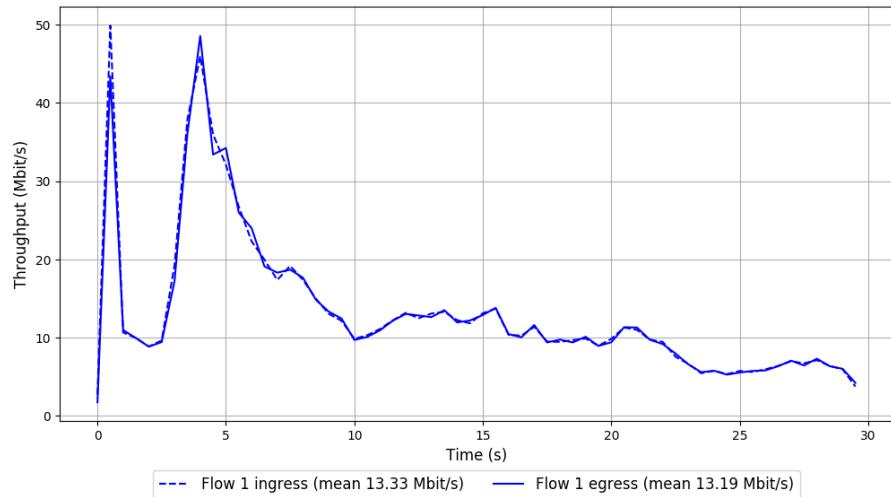


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2017-12-05 12:37:32
End at: 2017-12-05 12:38:02
Local clock offset: 0.922 ms
Remote clock offset: -7.316 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.19 Mbit/s
95th percentile per-packet one-way delay: 47.303 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 13.19 Mbit/s
95th percentile per-packet one-way delay: 47.303 ms
Loss rate: 1.02%
```

## Run 1: Report of QUIC Cubic — Data Link

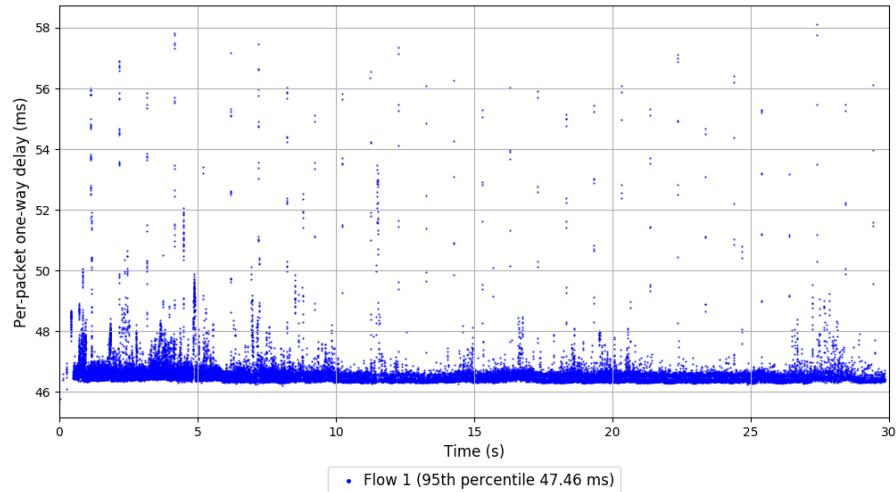
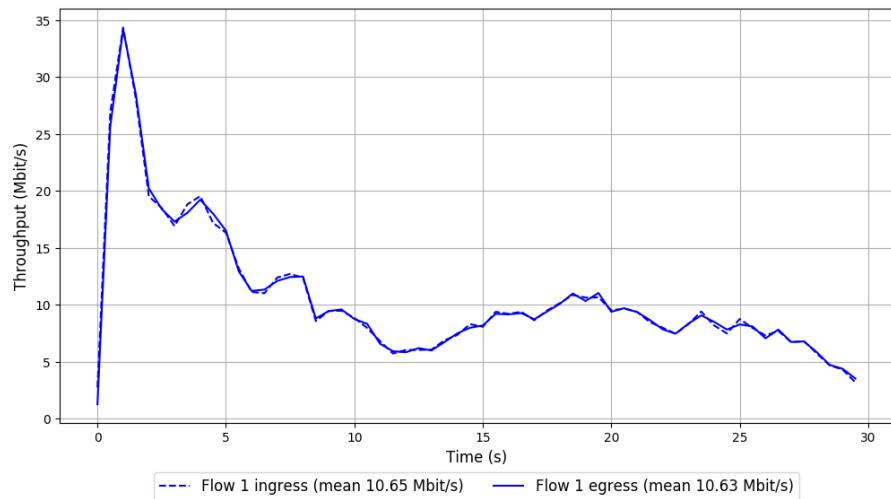


Run 2: Statistics of QUIC Cubic

```
Start at: 2017-12-05 12:57:38
End at: 2017-12-05 12:58:08
Local clock offset: 1.346 ms
Remote clock offset: -5.779 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.63 Mbit/s
95th percentile per-packet one-way delay: 47.464 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 10.63 Mbit/s
95th percentile per-packet one-way delay: 47.464 ms
Loss rate: 0.22%
```

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



Run 3: Statistics of QUIC Cubic

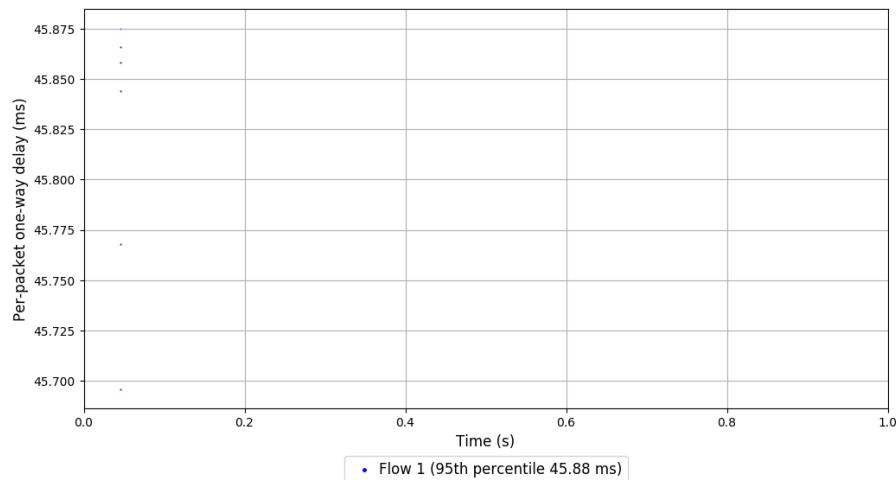
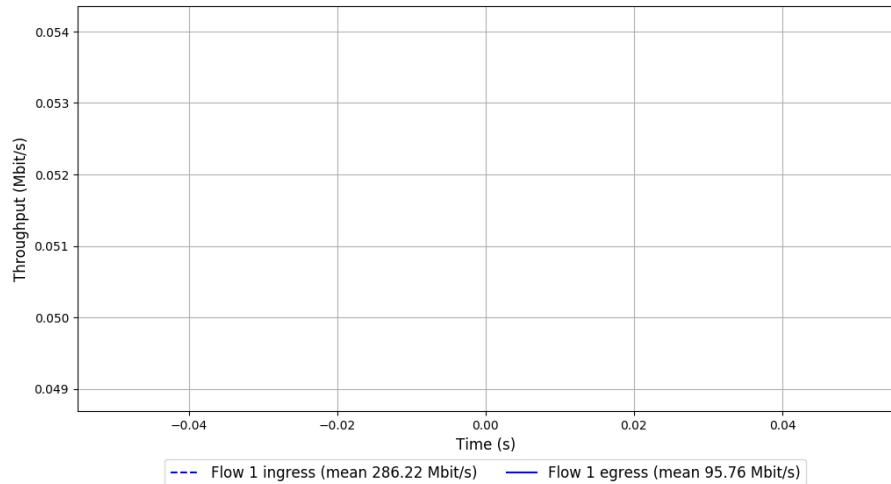
Start at: 2017-12-05 13:14:29

End at: 2017-12-05 13:14:59

Local clock offset: 1.926 ms

Remote clock offset: -5.947 ms

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

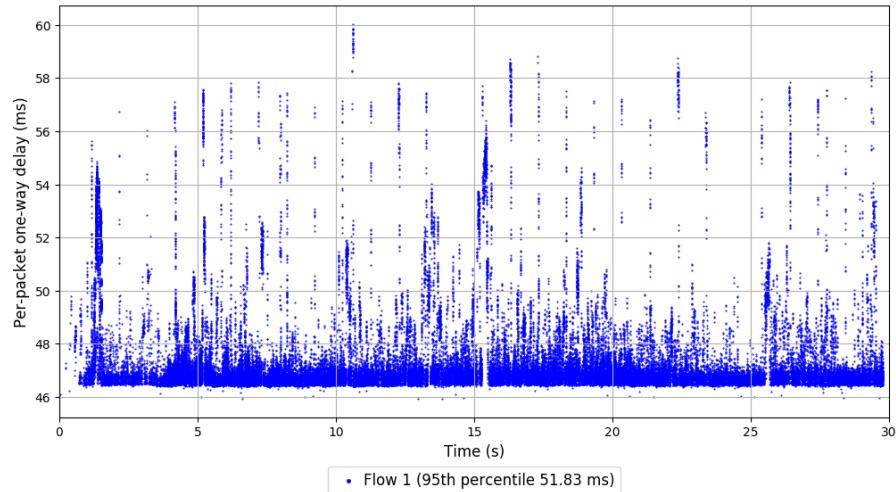
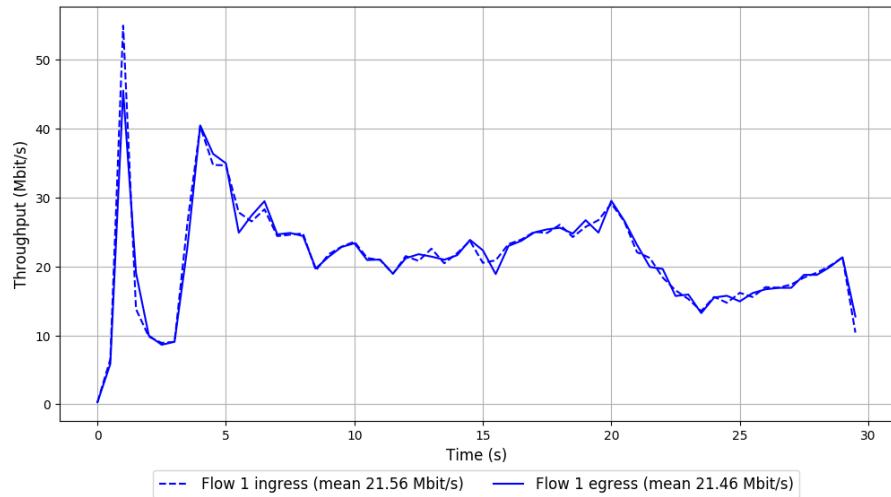


Run 4: Statistics of QUIC Cubic

```
Start at: 2017-12-05 13:33:57
End at: 2017-12-05 13:34:27
Local clock offset: 2.501 ms
Remote clock offset: -5.346 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.46 Mbit/s
95th percentile per-packet one-way delay: 51.829 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 21.46 Mbit/s
95th percentile per-packet one-way delay: 51.829 ms
Loss rate: 0.47%
```

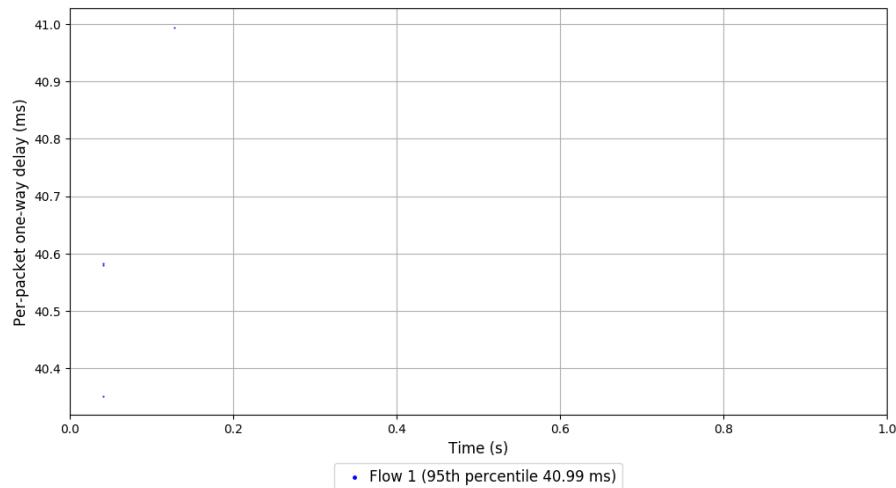
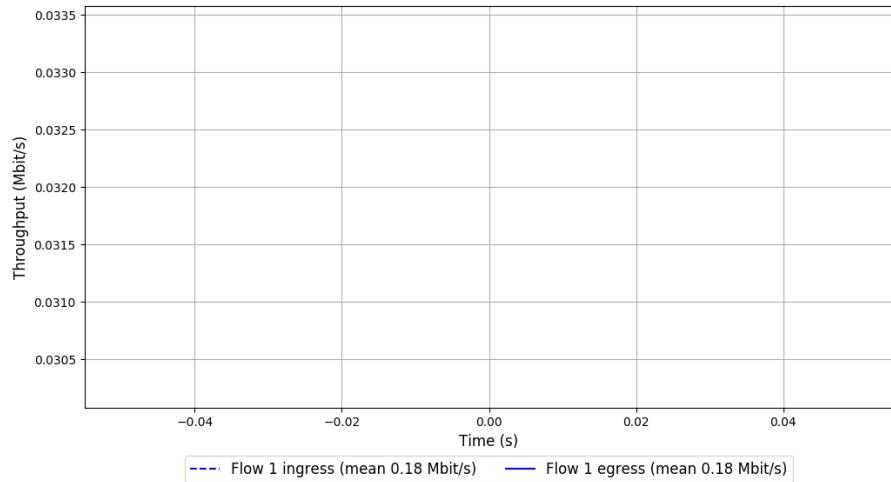
## Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-05 13:53:12  
End at: 2017-12-05 13:53:42  
Local clock offset: 2.867 ms  
Remote clock offset: -11.055 ms

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



Run 6: Statistics of QUIC Cubic

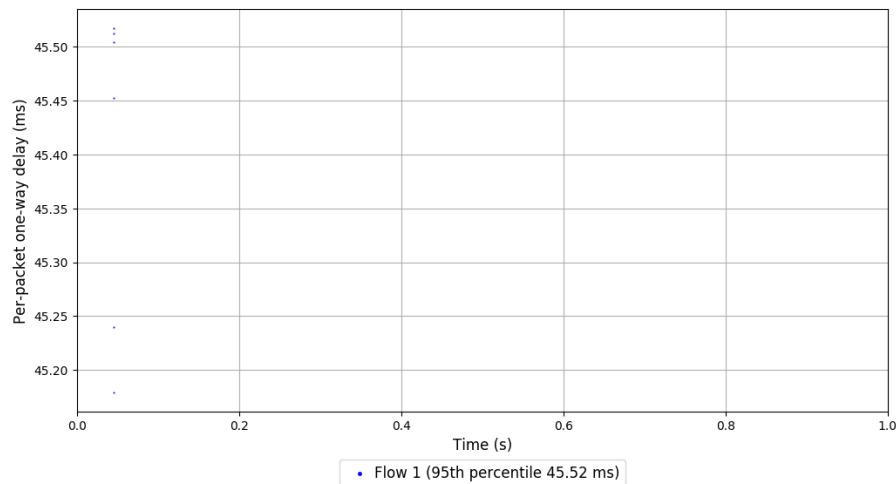
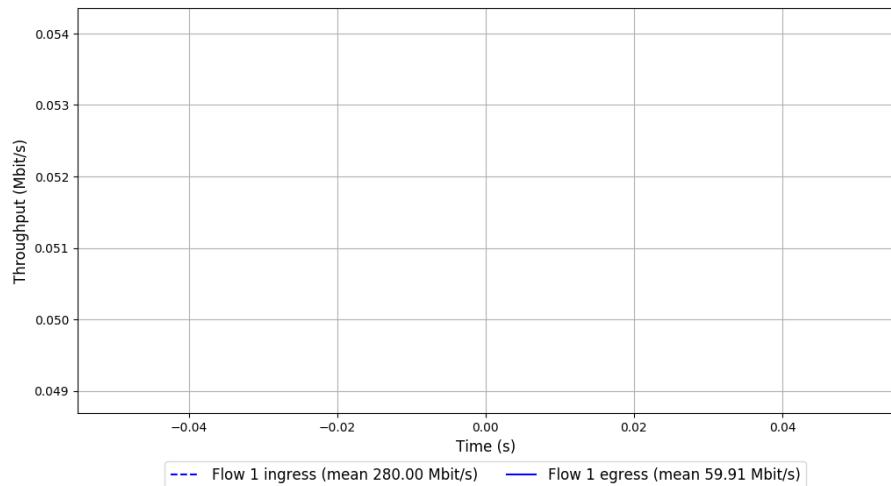
Start at: 2017-12-05 14:11:36

End at: 2017-12-05 14:12:06

Local clock offset: 3.09 ms

Remote clock offset: -6.251 ms

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



Run 7: Statistics of QUIC Cubic

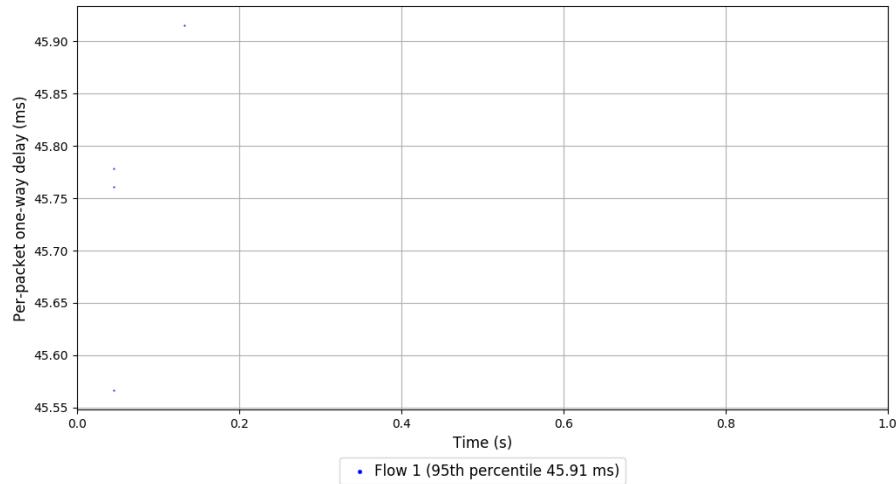
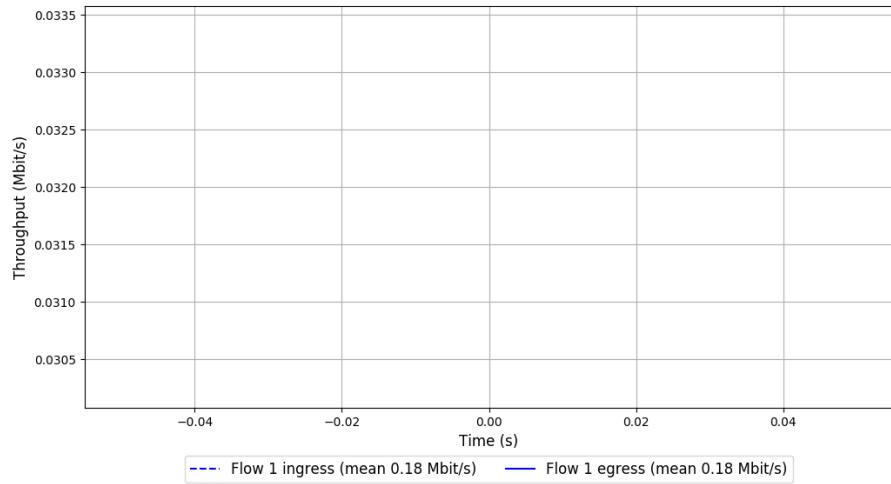
Start at: 2017-12-05 14:33:02

End at: 2017-12-05 14:33:32

Local clock offset: 3.312 ms

Remote clock offset: -5.098 ms

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

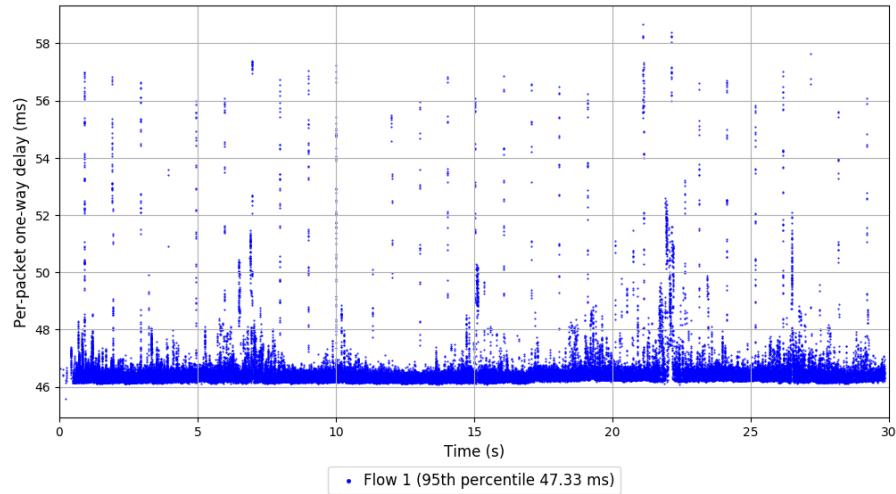
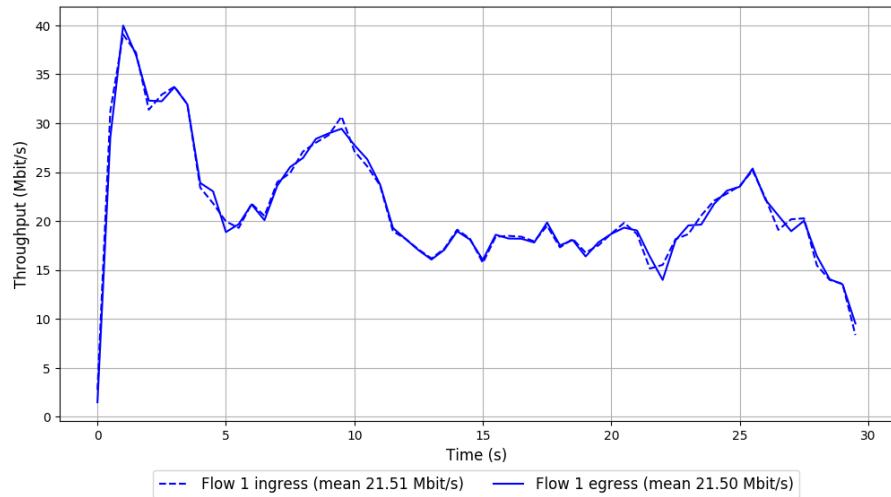


Run 8: Statistics of QUIC Cubic

```
Start at: 2017-12-05 14:50:18
End at: 2017-12-05 14:50:48
Local clock offset: 3.208 ms
Remote clock offset: -4.722 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.50 Mbit/s
95th percentile per-packet one-way delay: 47.328 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 21.50 Mbit/s
95th percentile per-packet one-way delay: 47.328 ms
Loss rate: 0.06%
```

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

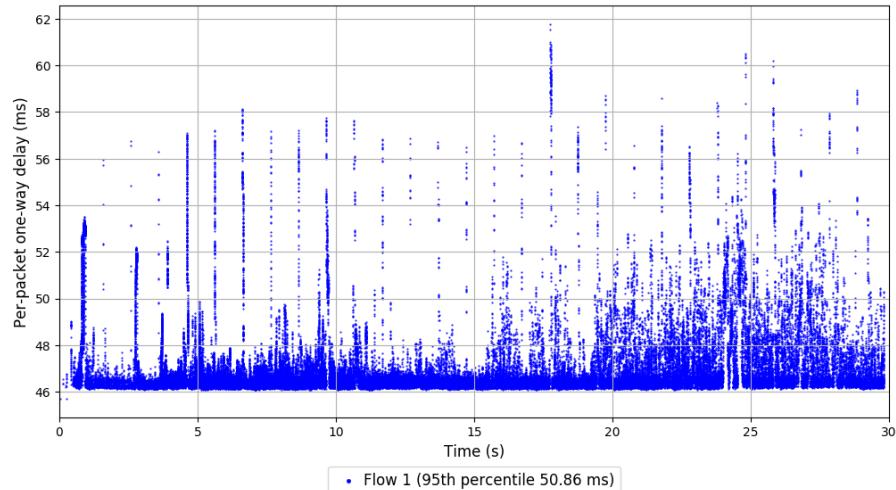
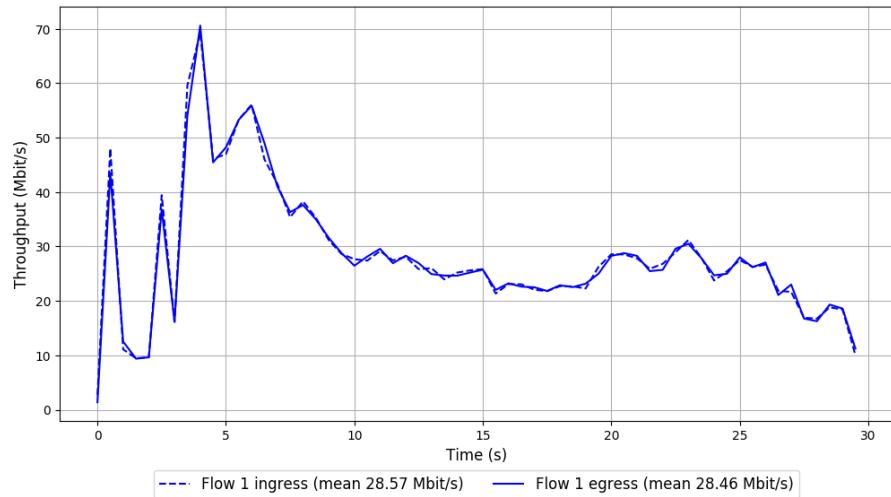


Run 9: Statistics of QUIC Cubic

```
Start at: 2017-12-05 15:08:57
End at: 2017-12-05 15:09:27
Local clock offset: 3.233 ms
Remote clock offset: -5.447 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.46 Mbit/s
95th percentile per-packet one-way delay: 50.860 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 28.46 Mbit/s
95th percentile per-packet one-way delay: 50.860 ms
Loss rate: 0.37%
```

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

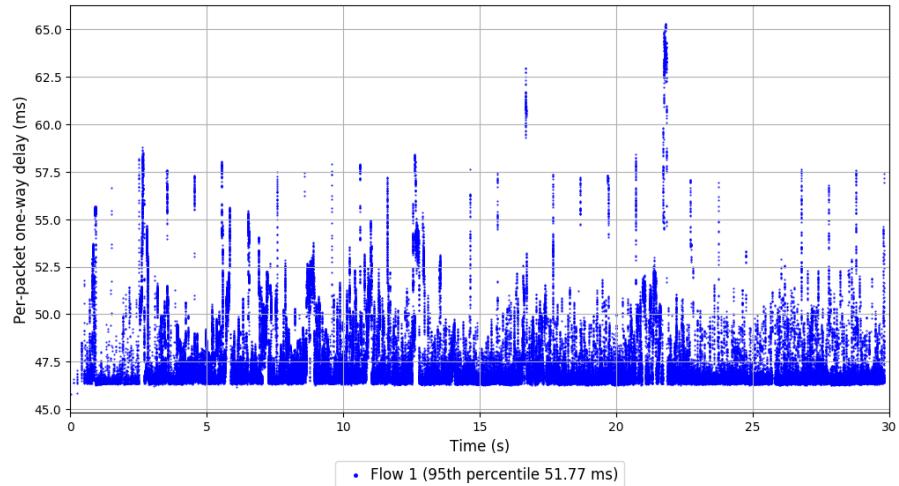
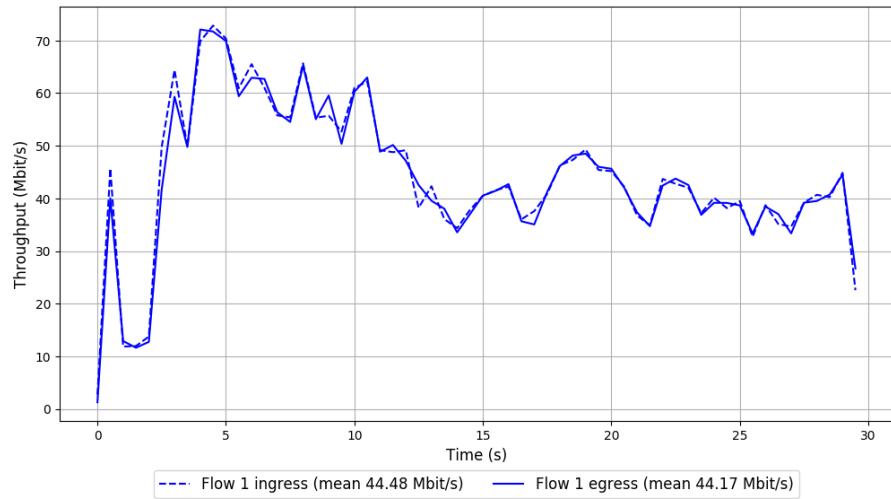


Run 10: Statistics of QUIC Cubic

```
Start at: 2017-12-05 15:26:07
End at: 2017-12-05 15:26:37
Local clock offset: 3.172 ms
Remote clock offset: -5.231 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.17 Mbit/s
95th percentile per-packet one-way delay: 51.768 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 44.17 Mbit/s
95th percentile per-packet one-way delay: 51.768 ms
Loss rate: 0.70%
```

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

/home/ubuntu/pantheon\_data/2017-12-05T12-36-AWS-Korea-to-China-10-runs/scream\_stats\_run1.log

Run 1: Report of SCReAM — Data Link

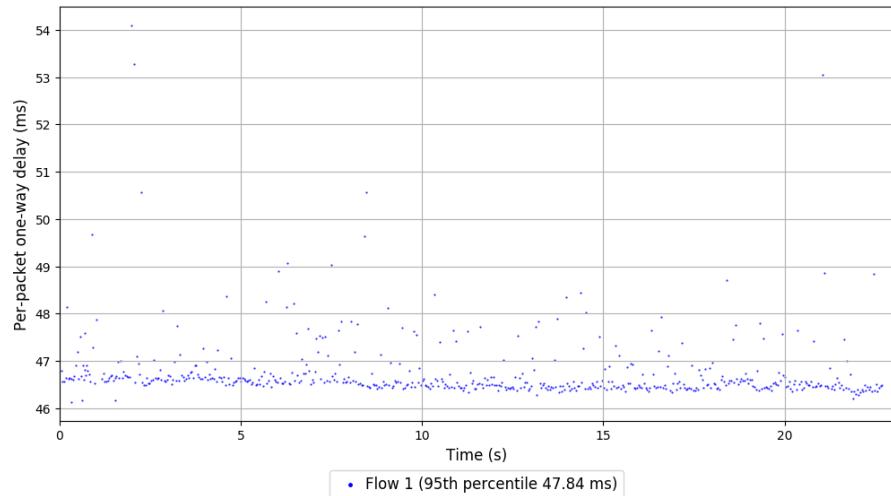
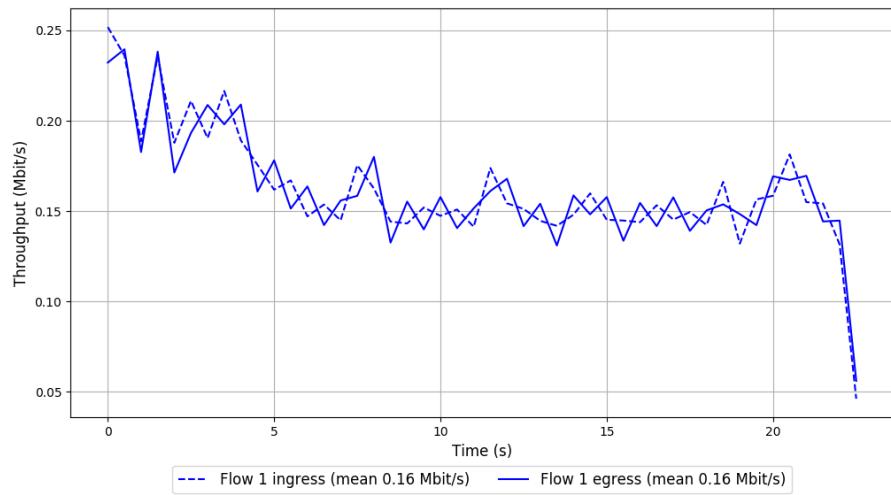
Figure is missing

Figure is missing

Run 2: Statistics of SCReAM

Start at: 2017-12-05 13:02:25  
End at: 2017-12-05 13:02:55  
Local clock offset: 1.408 ms  
Remote clock offset: -5.833 ms

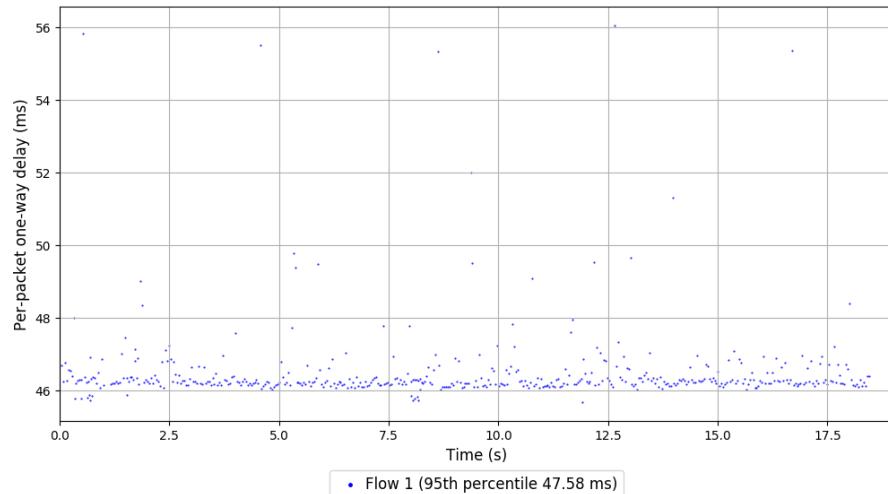
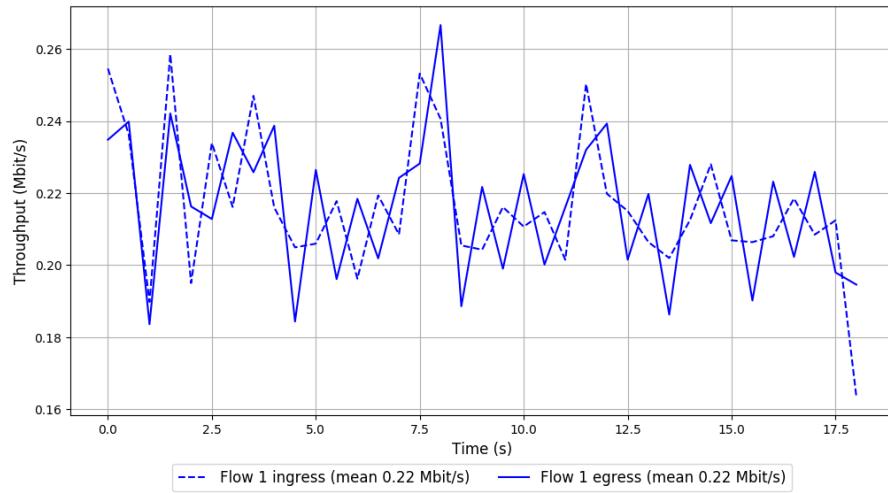
Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-12-05 13:19:10  
End at: 2017-12-05 13:19:40  
Local clock offset: 1.941 ms  
Remote clock offset: -5.754 ms

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

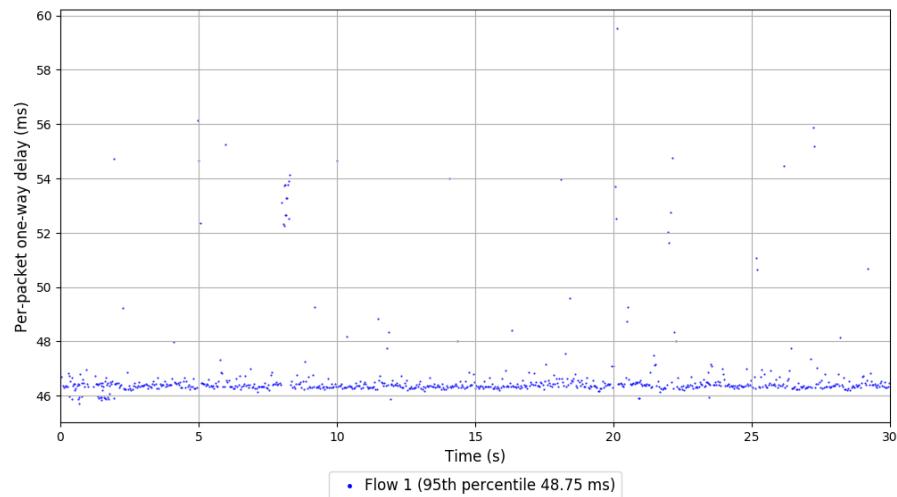
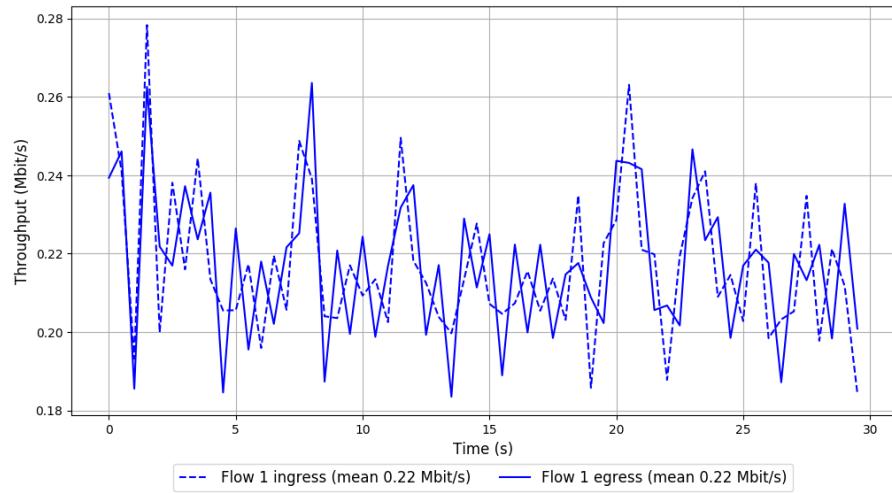


Run 4: Statistics of SCReAM

```
Start at: 2017-12-05 13:41:02
End at: 2017-12-05 13:41:32
Local clock offset: 2.664 ms
Remote clock offset: -5.515 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.751 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.751 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

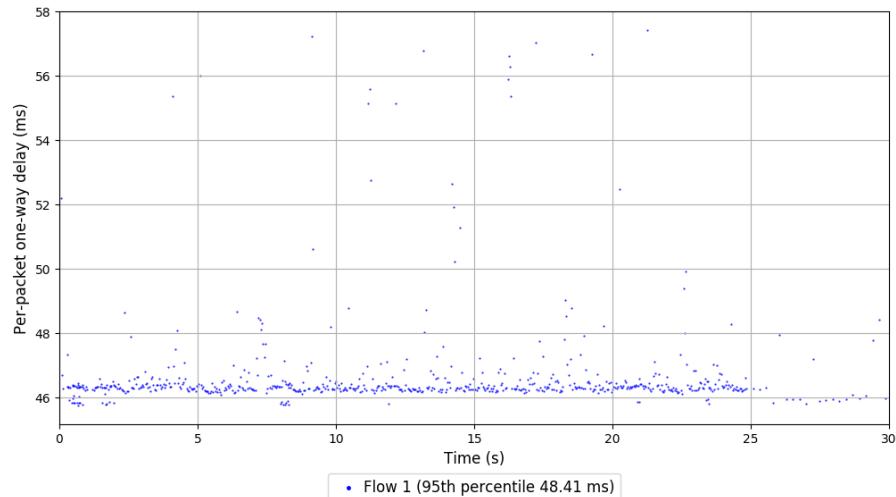
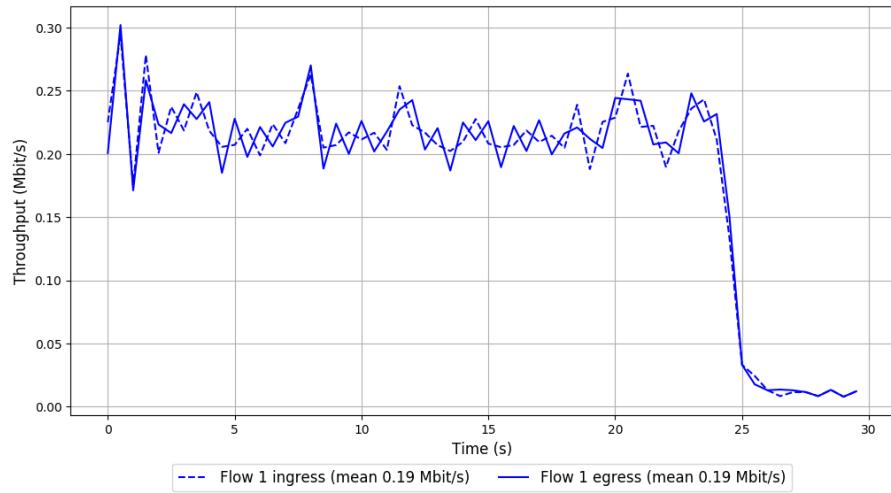


Run 5: Statistics of SCReAM

```
Start at: 2017-12-05 13:58:04
End at: 2017-12-05 13:58:34
Local clock offset: 2.877 ms
Remote clock offset: -5.308 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 48.405 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 48.405 ms
Loss rate: 0.00%
```

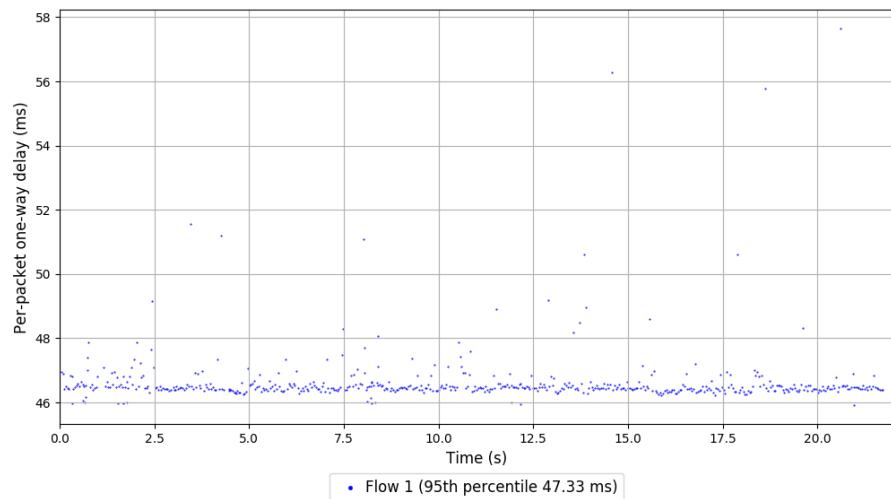
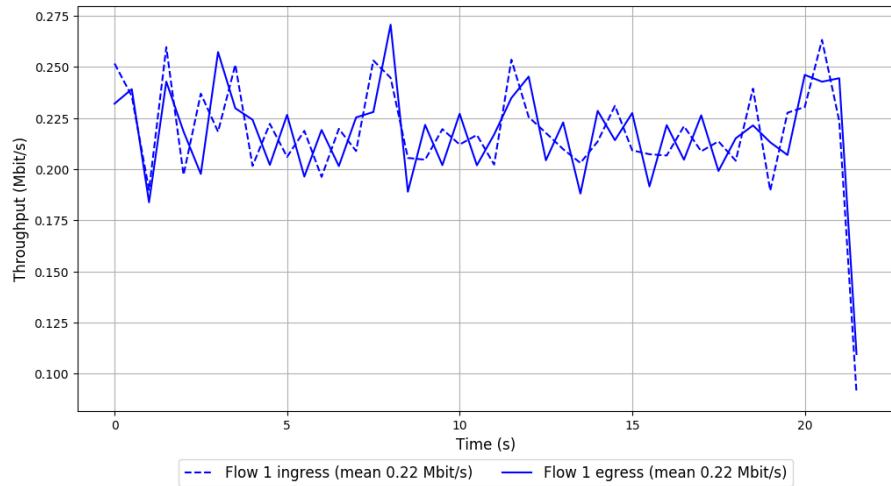
Run 5: Report of SCReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-12-05 14:16:20  
End at: 2017-12-05 14:16:50  
Local clock offset: 2.988 ms  
Remote clock offset: -5.225 ms

Run 6: Report of SCReAM — Data Link

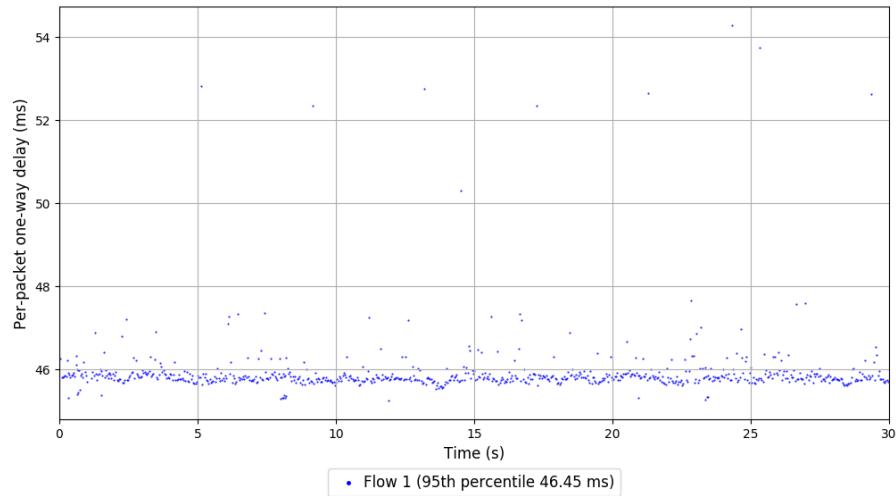
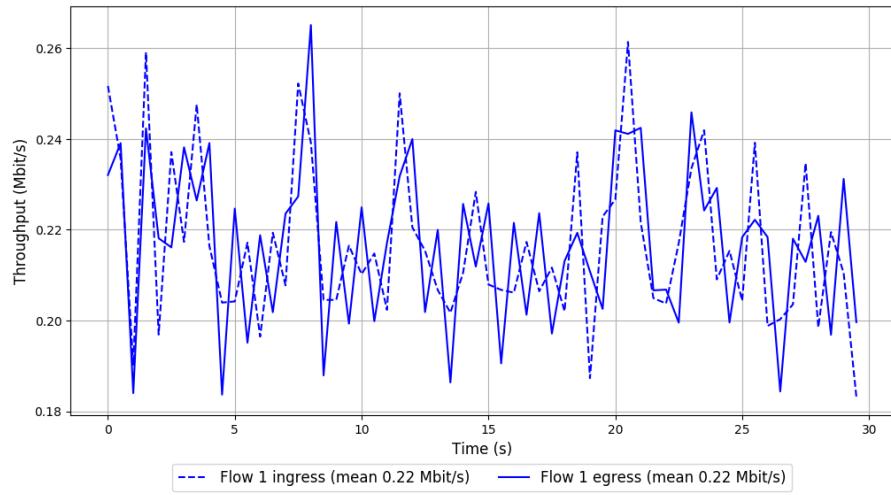


Run 7: Statistics of SCReAM

```
Start at: 2017-12-05 14:37:56
End at: 2017-12-05 14:38:26
Local clock offset: 3.407 ms
Remote clock offset: -5.094 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.445 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.445 ms
Loss rate: 0.00%
```

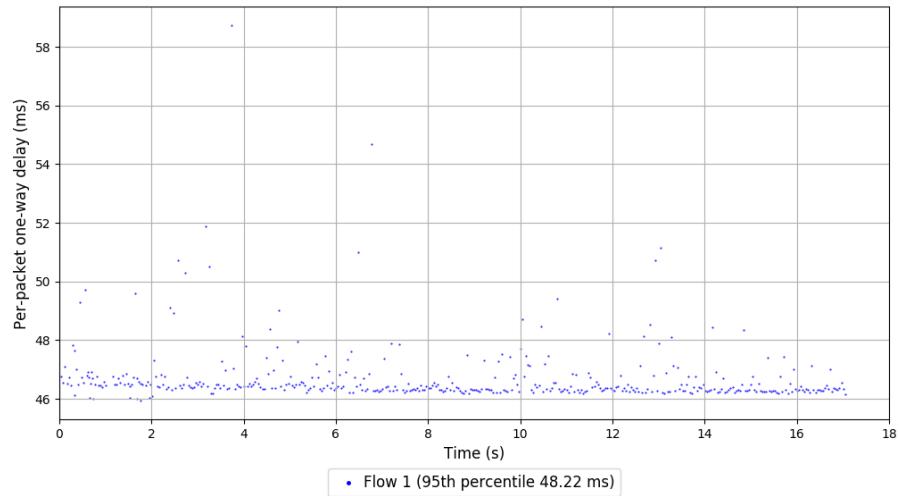
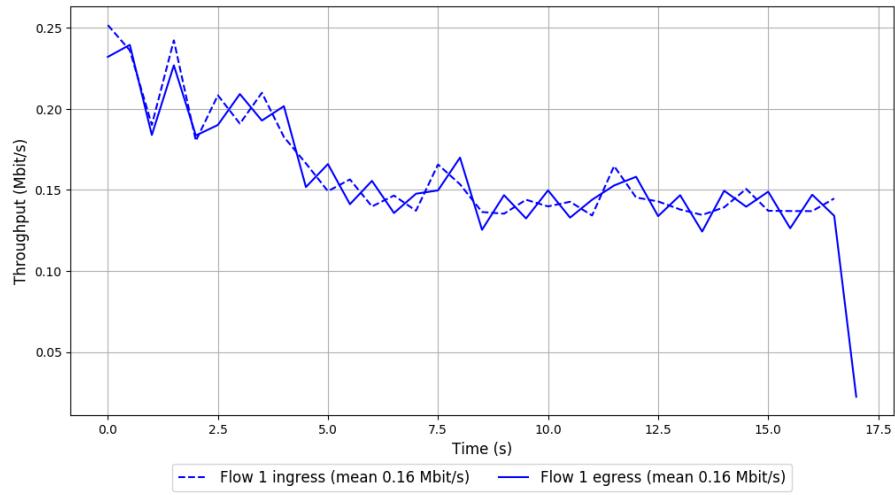
Run 7: Report of SCReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-12-05 14:55:00  
End at: 2017-12-05 14:55:30  
Local clock offset: 3.27 ms  
Remote clock offset: -4.963 ms

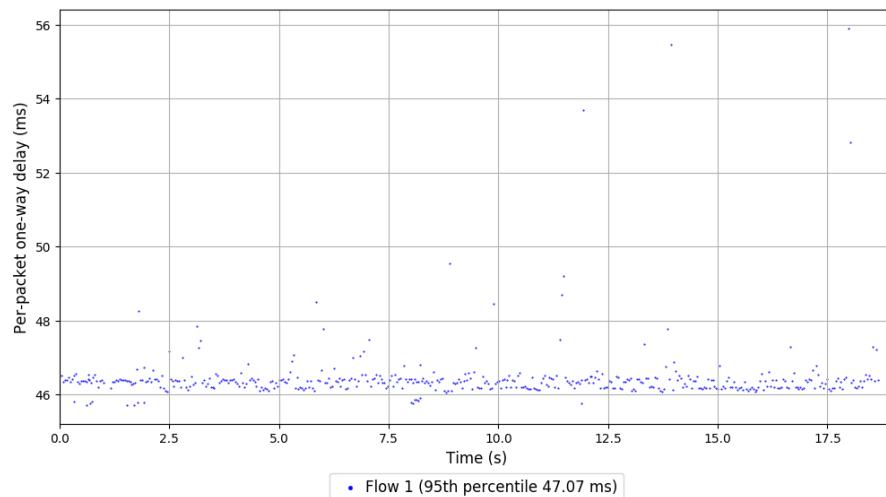
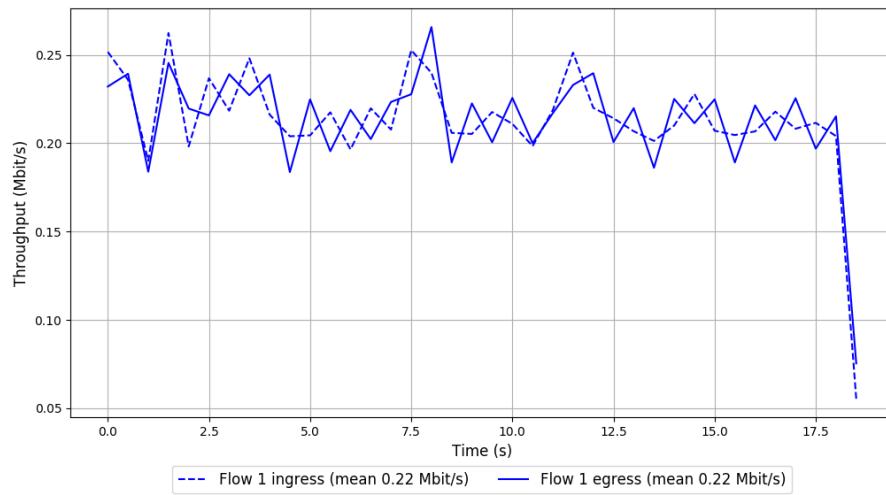
Run 8: Report of SCReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-12-05 15:13:39  
End at: 2017-12-05 15:14:09  
Local clock offset: 3.268 ms  
Remote clock offset: -5.437 ms

Run 9: Report of SCReAM — Data Link



Run 10: Statistics of SCReAM

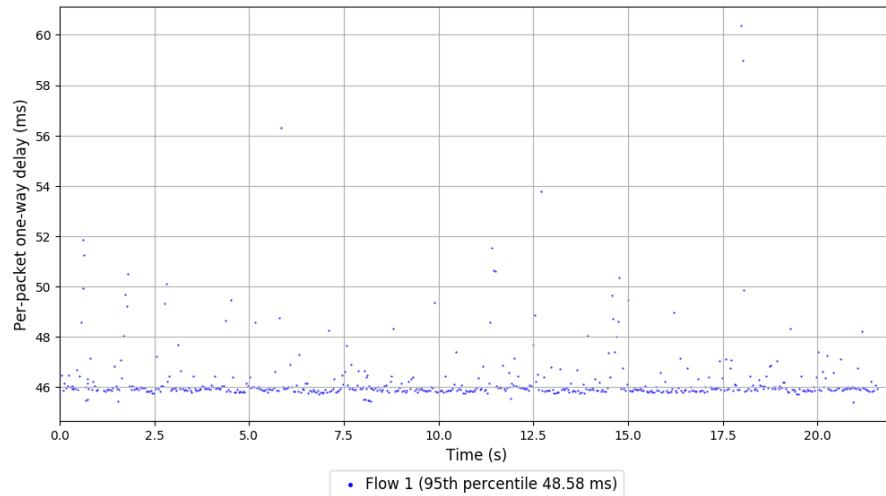
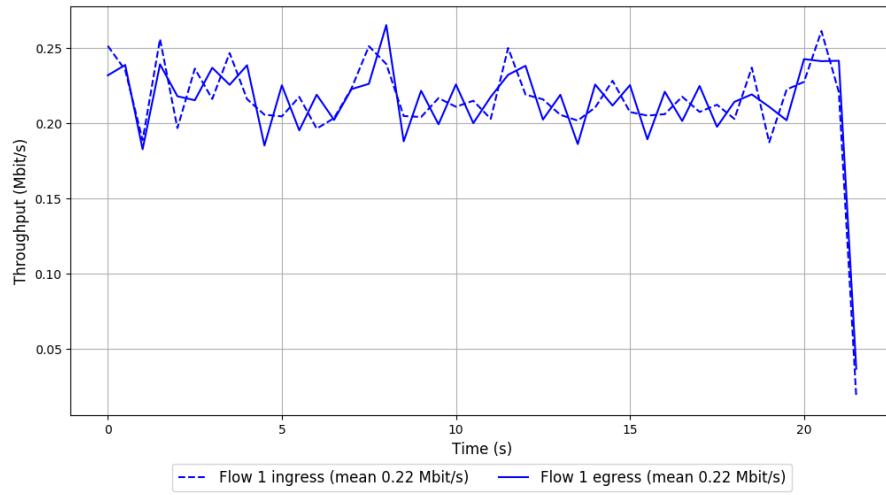
Start at: 2017-12-05 15:30:54

End at: 2017-12-05 15:31:24

Local clock offset: 3.198 ms

Remote clock offset: -5.611 ms

## Run 10: Report of SCReAM — Data Link

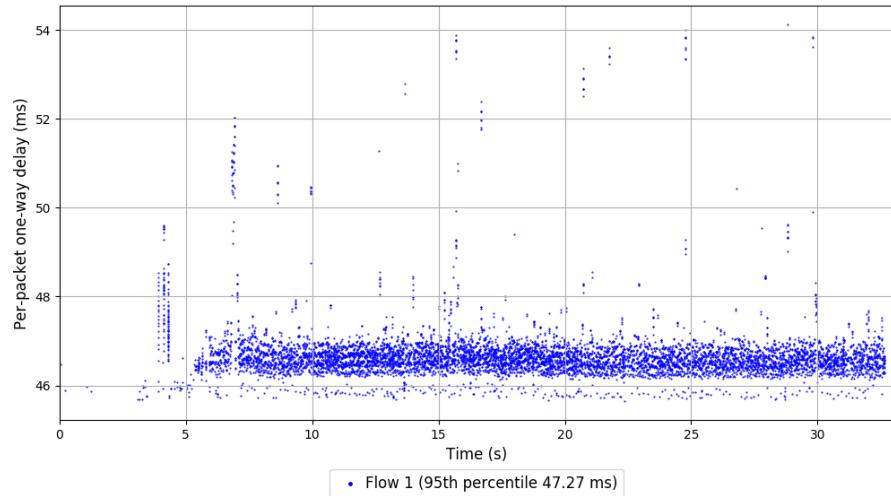
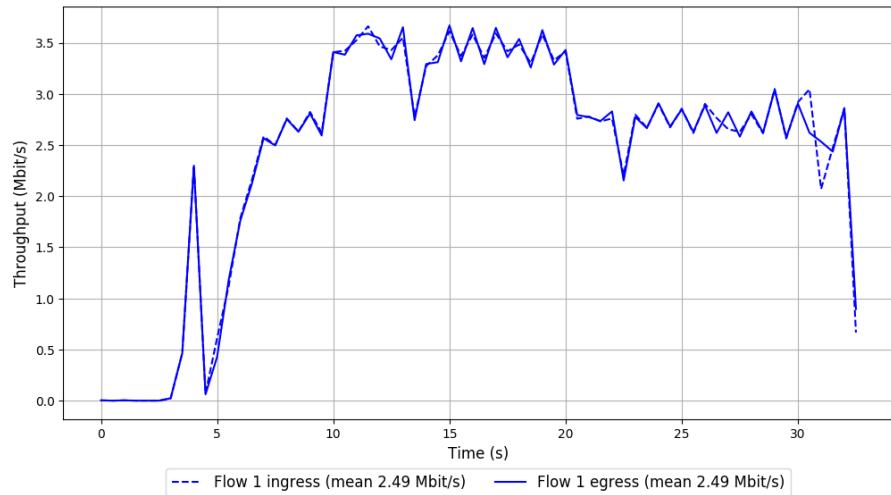


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-05 12:44:28
End at: 2017-12-05 12:44:58
Local clock offset: 0.795 ms
Remote clock offset: -6.399 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 47.266 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 47.266 ms
Loss rate: 0.02%
```

Run 1: Report of WebRTC media — Data Link

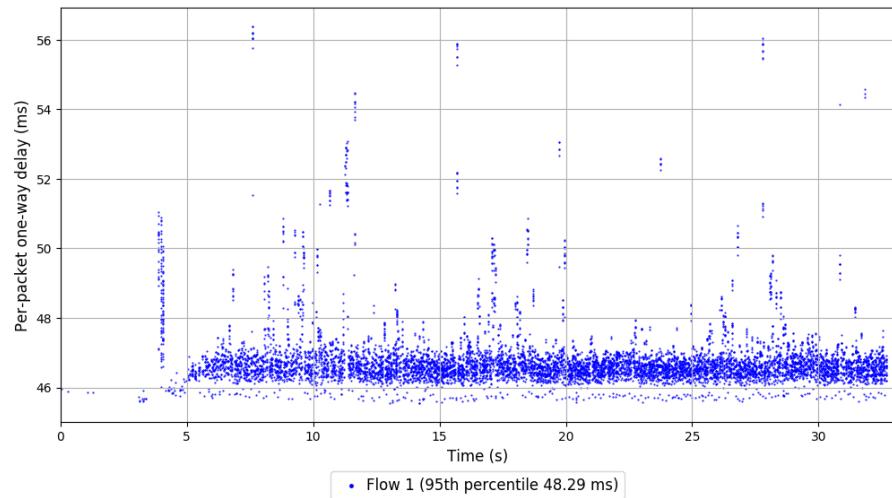
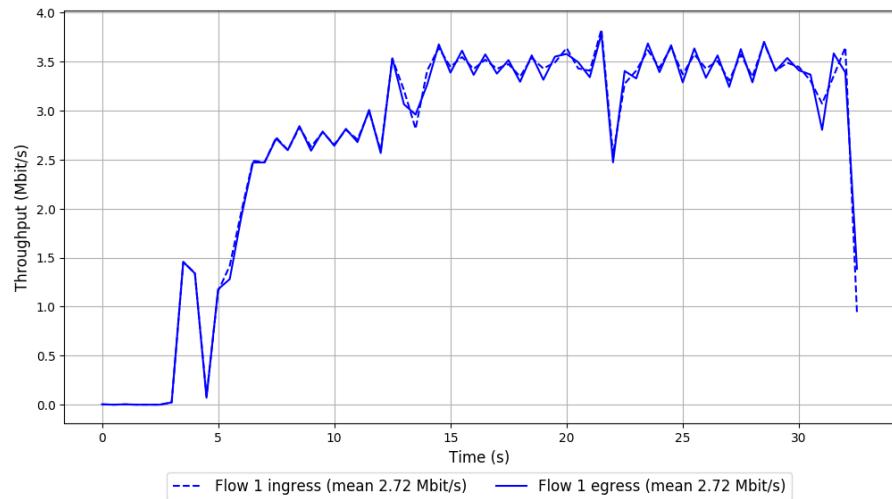


Run 2: Statistics of WebRTC media

```
Start at: 2017-12-05 13:03:33
End at: 2017-12-05 13:04:03
Local clock offset: 1.587 ms
Remote clock offset: -5.733 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 48.291 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 48.291 ms
Loss rate: 0.25%
```

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

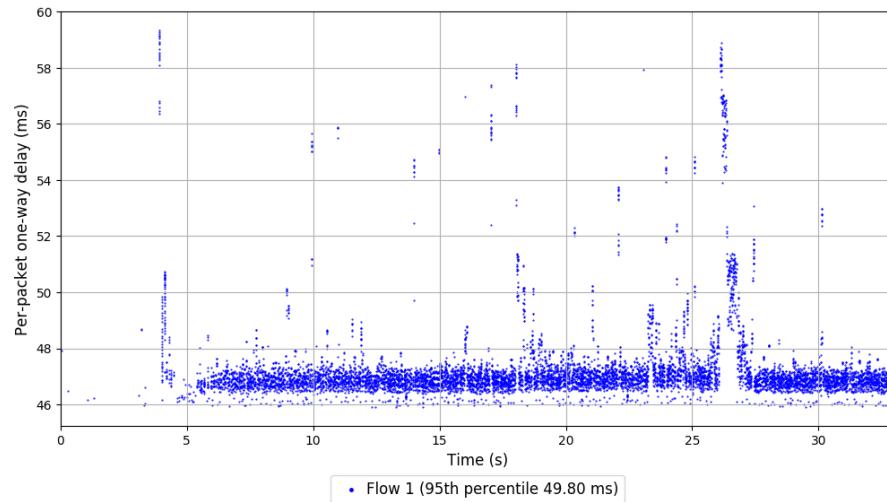
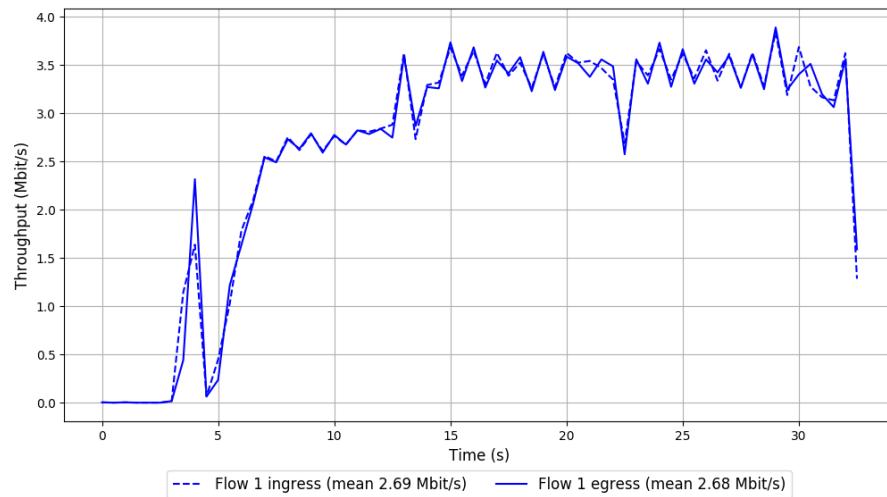


Run 3: Statistics of WebRTC media

```
Start at: 2017-12-05 13:20:19
End at: 2017-12-05 13:20:49
Local clock offset: 2.054 ms
Remote clock offset: -5.491 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 49.798 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 49.798 ms
Loss rate: 0.25%
```

Run 3: Report of WebRTC media — Data Link

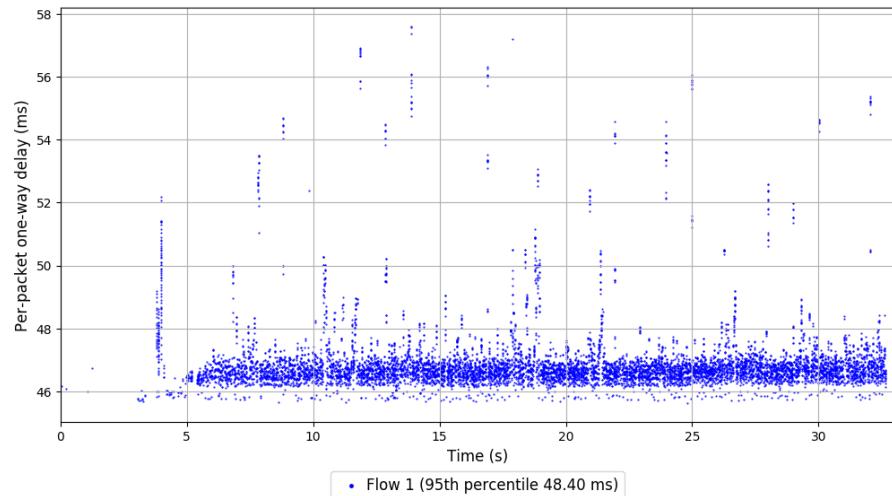
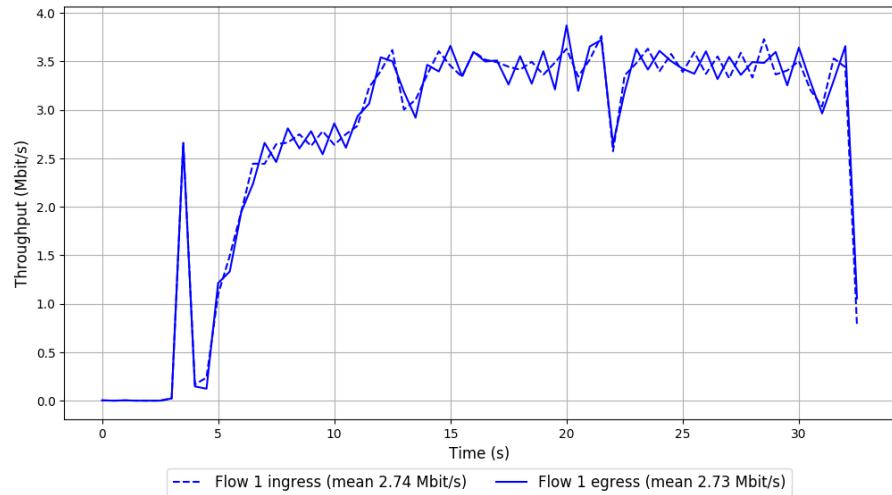


Run 4: Statistics of WebRTC media

```
Start at: 2017-12-05 13:42:11
End at: 2017-12-05 13:42:41
Local clock offset: 2.536 ms
Remote clock offset: -5.349 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 48.398 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 48.398 ms
Loss rate: 0.13%
```

Run 4: Report of WebRTC media — Data Link

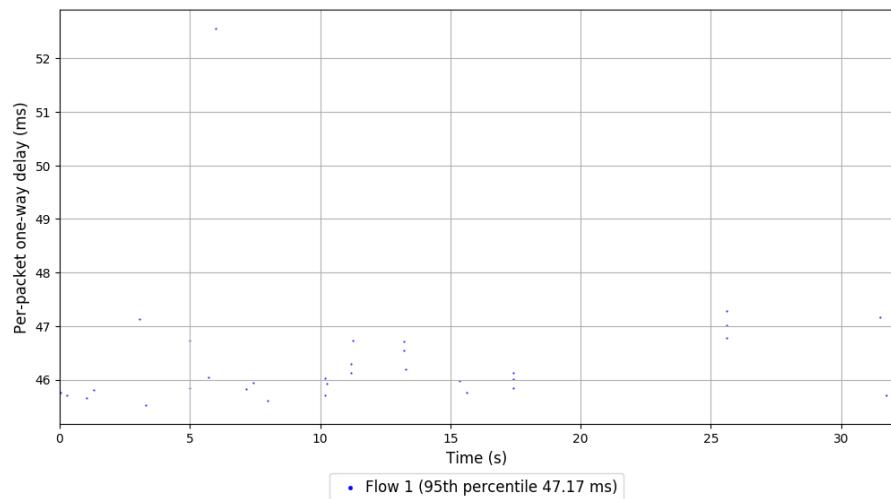
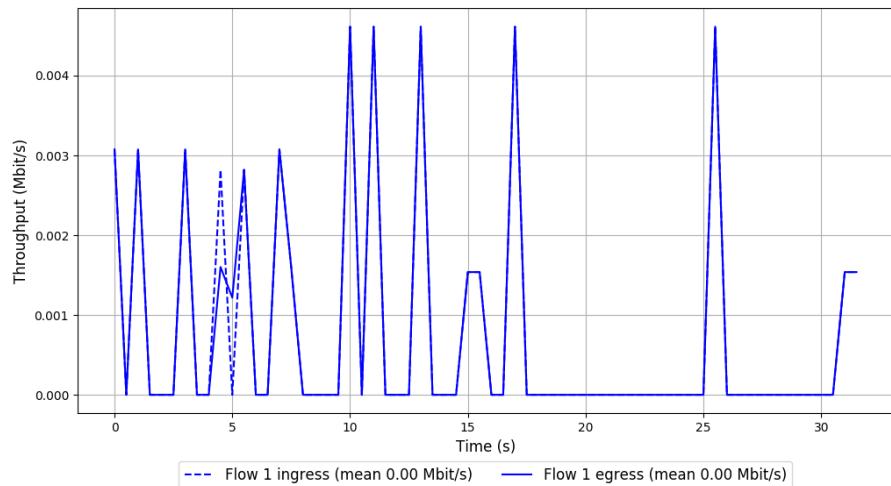


Run 5: Statistics of WebRTC media

```
Start at: 2017-12-05 13:59:52
End at: 2017-12-05 14:00:22
Local clock offset: 3.048 ms
Remote clock offset: -5.341 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 47.173 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 47.173 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

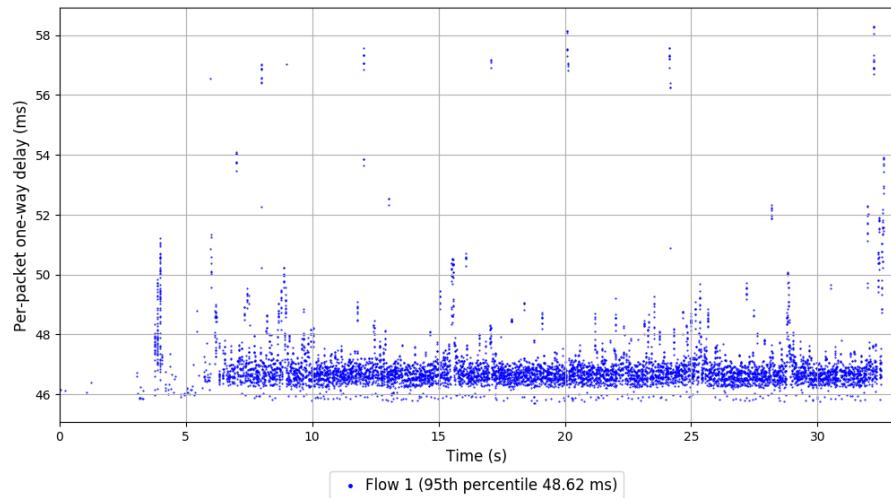
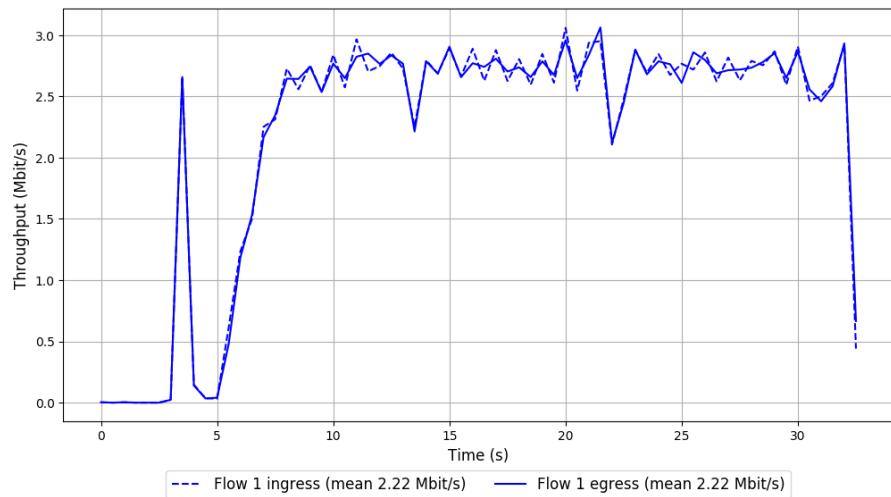


Run 6: Statistics of WebRTC media

```
Start at: 2017-12-05 14:17:39
End at: 2017-12-05 14:18:09
Local clock offset: 3.045 ms
Remote clock offset: -5.142 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 48.623 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 48.623 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link

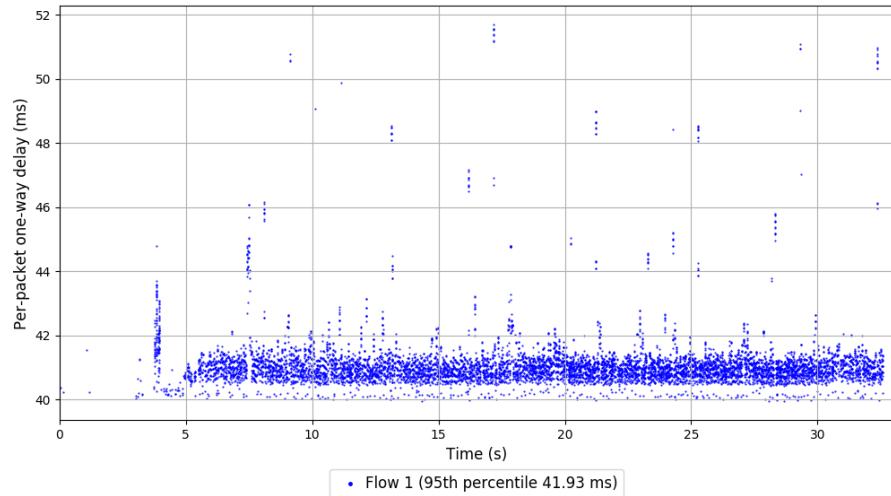
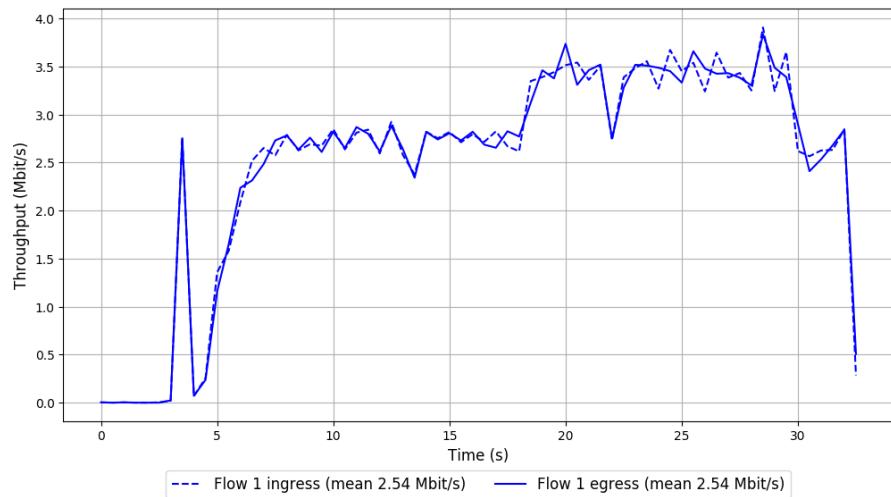


Run 7: Statistics of WebRTC media

```
Start at: 2017-12-05 14:39:04
End at: 2017-12-05 14:39:34
Local clock offset: 3.356 ms
Remote clock offset: -10.501 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 41.934 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 41.934 ms
Loss rate: 0.01%
```

Run 7: Report of WebRTC media — Data Link

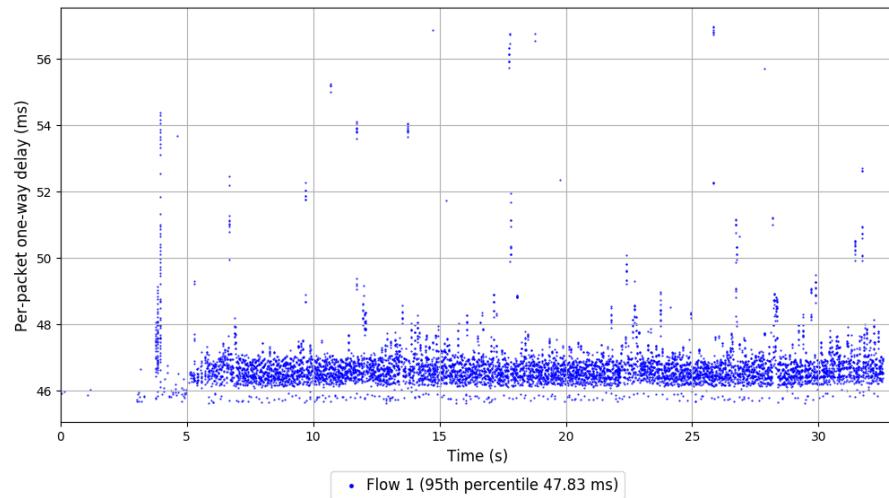
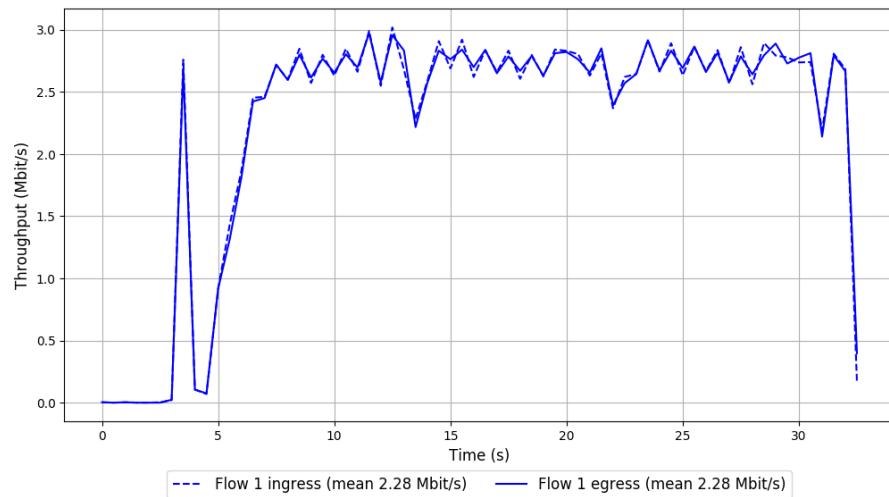


Run 8: Statistics of WebRTC media

```
Start at: 2017-12-05 14:56:08
End at: 2017-12-05 14:56:38
Local clock offset: 3.223 ms
Remote clock offset: -4.945 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 47.831 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 47.831 ms
Loss rate: 0.08%
```

Run 8: Report of WebRTC media — Data Link

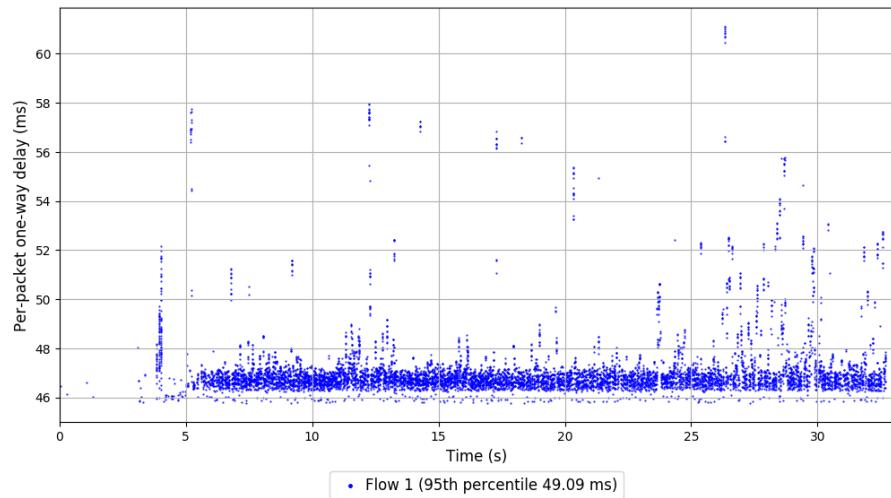
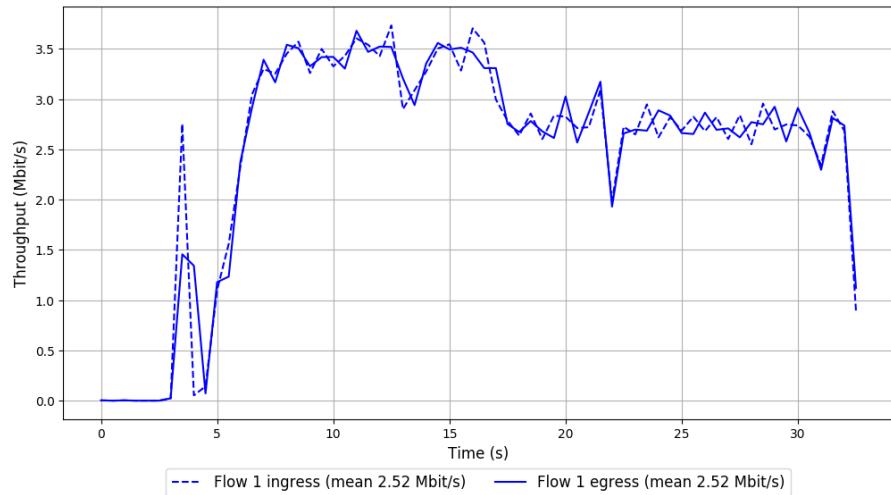


Run 9: Statistics of WebRTC media

```
Start at: 2017-12-05 15:14:48
End at: 2017-12-05 15:15:18
Local clock offset: 3.253 ms
Remote clock offset: -5.189 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 49.093 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 49.093 ms
Loss rate: 0.02%
```

Run 9: Report of WebRTC media — Data Link

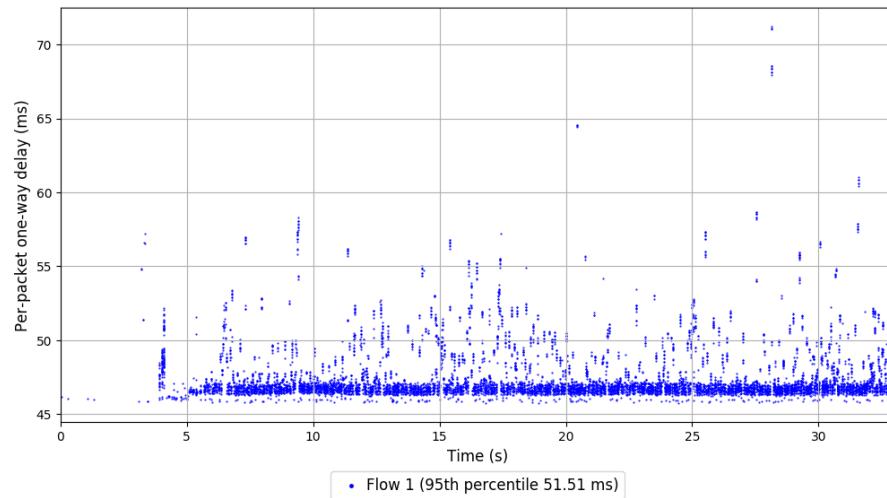
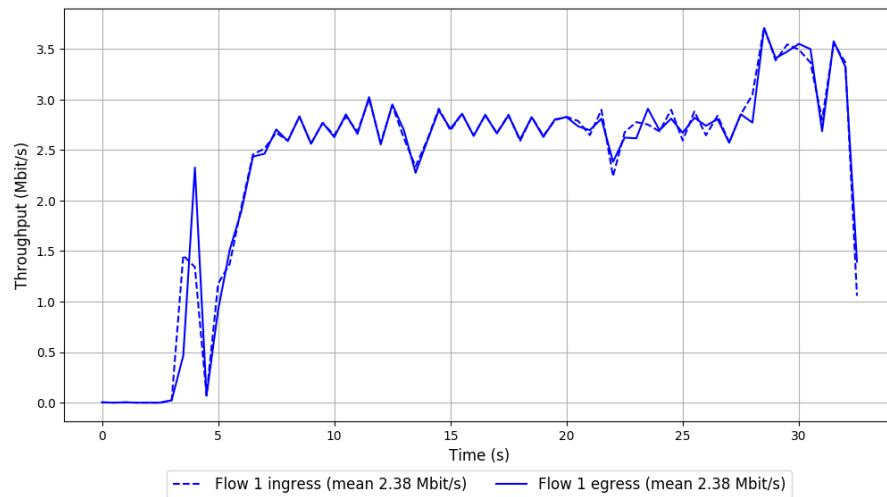


```
Run 10: Statistics of WebRTC media
```

```
Start at: 2017-12-05 15:32:03
End at: 2017-12-05 15:32:33
Local clock offset: 3.294 ms
Remote clock offset: -5.185 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 51.512 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 51.512 ms
Loss rate: 0.11%
```

Run 10: Report of WebRTC media — Data Link

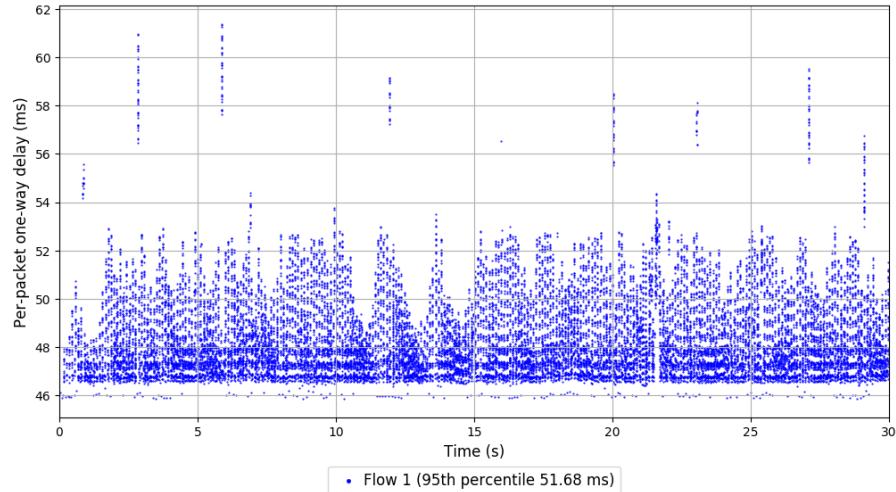
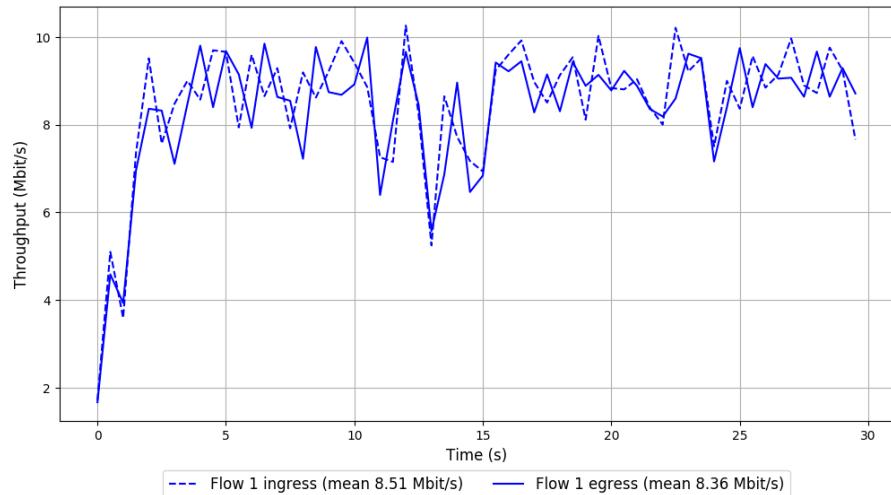


Run 1: Statistics of Sprout

```
Start at: 2017-12-05 12:39:55
End at: 2017-12-05 12:40:25
Local clock offset: 0.69 ms
Remote clock offset: -6.55 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.36 Mbit/s
95th percentile per-packet one-way delay: 51.679 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 8.36 Mbit/s
95th percentile per-packet one-way delay: 51.679 ms
Loss rate: 1.69%
```

Run 1: Report of Sprout — Data Link

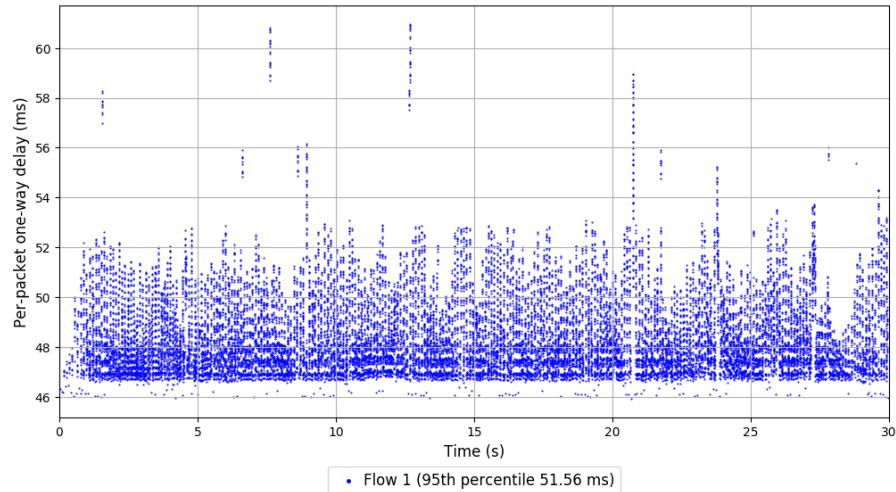
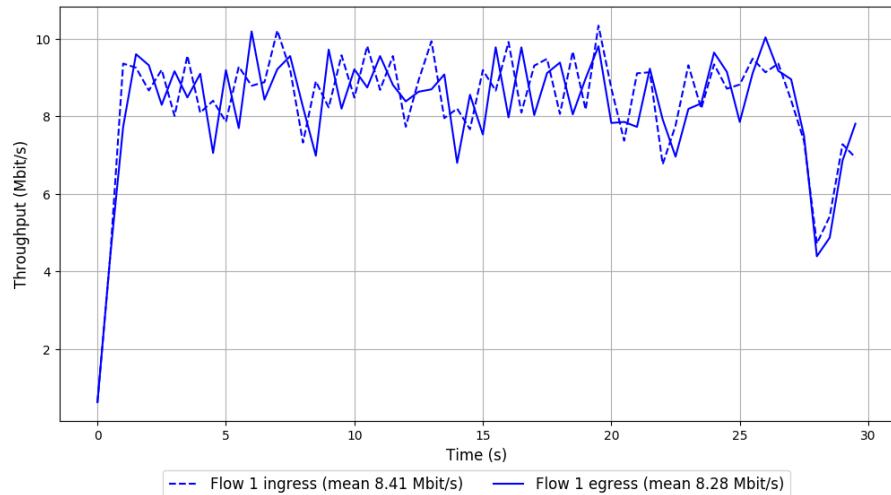


Run 2: Statistics of Sprout

```
Start at: 2017-12-05 13:00:03
End at: 2017-12-05 13:00:33
Local clock offset: 1.463 ms
Remote clock offset: -5.817 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 51.563 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 51.563 ms
Loss rate: 1.50%
```

## Run 2: Report of Sprout — Data Link

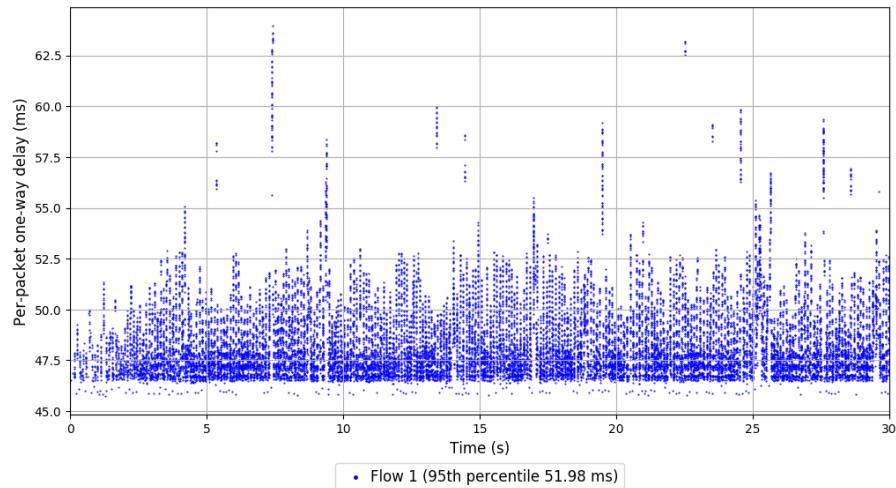
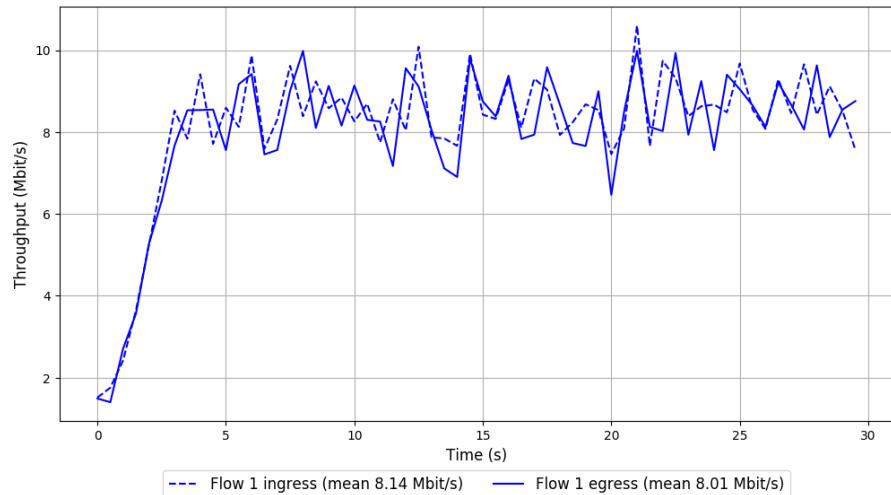


Run 3: Statistics of Sprout

```
Start at: 2017-12-05 13:16:50
End at: 2017-12-05 13:17:20
Local clock offset: 1.837 ms
Remote clock offset: -5.626 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 51.979 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 51.979 ms
Loss rate: 1.55%
```

Run 3: Report of Sprout — Data Link

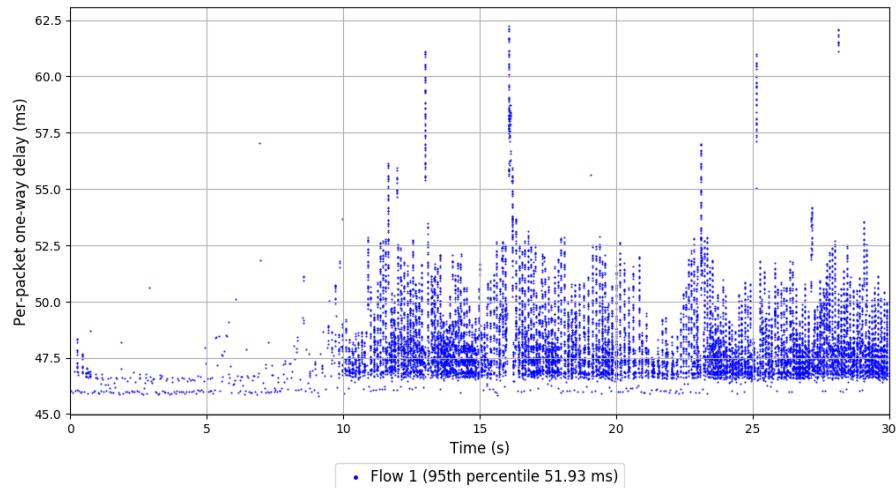
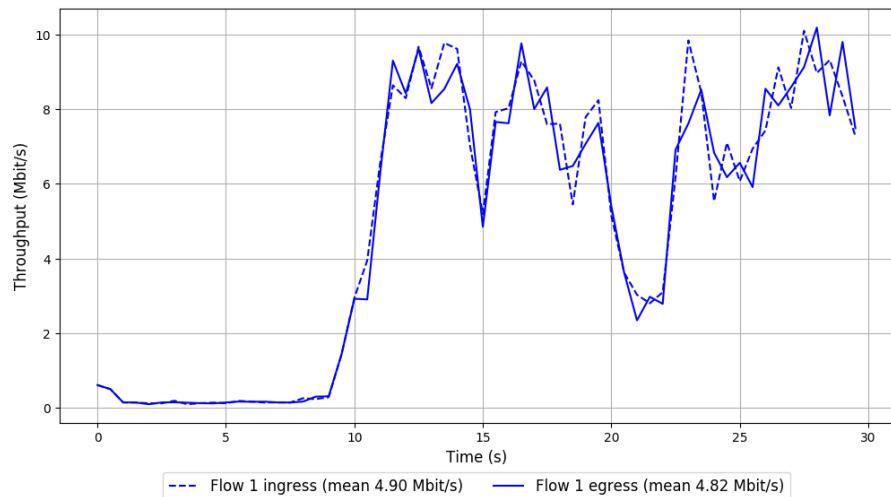


Run 4: Statistics of Sprout

```
Start at: 2017-12-05 13:38:30
End at: 2017-12-05 13:39:00
Local clock offset: 2.599 ms
Remote clock offset: -5.396 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 51.926 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 51.926 ms
Loss rate: 1.57%
```

## Run 4: Report of Sprout — Data Link

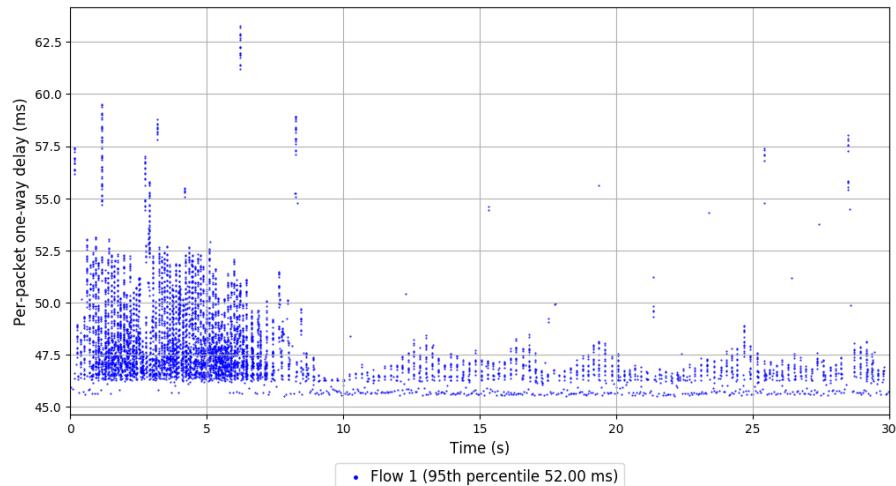
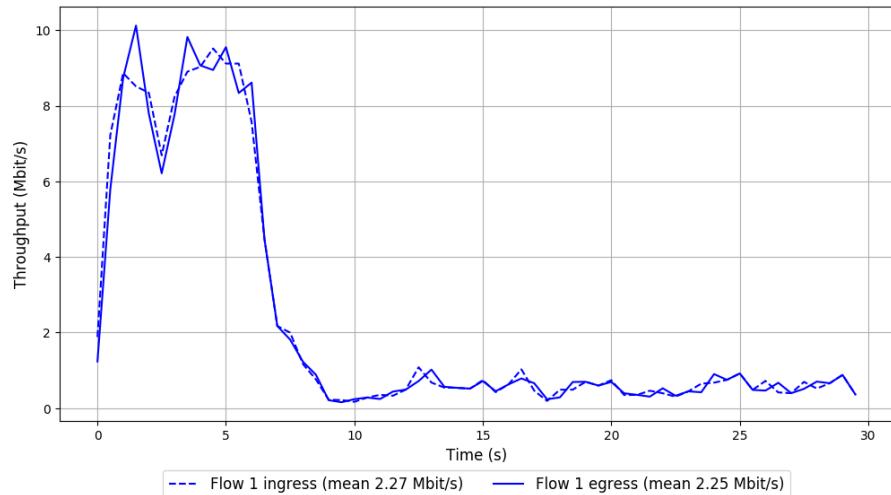


Run 5: Statistics of Sprout

```
Start at: 2017-12-05 13:55:37
End at: 2017-12-05 13:56:07
Local clock offset: 2.767 ms
Remote clock offset: -5.526 ms

# Below is generated by plot.py at 2017-12-05 15:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 52.001 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 52.001 ms
Loss rate: 0.74%
```

## Run 5: Report of Sprout — Data Link

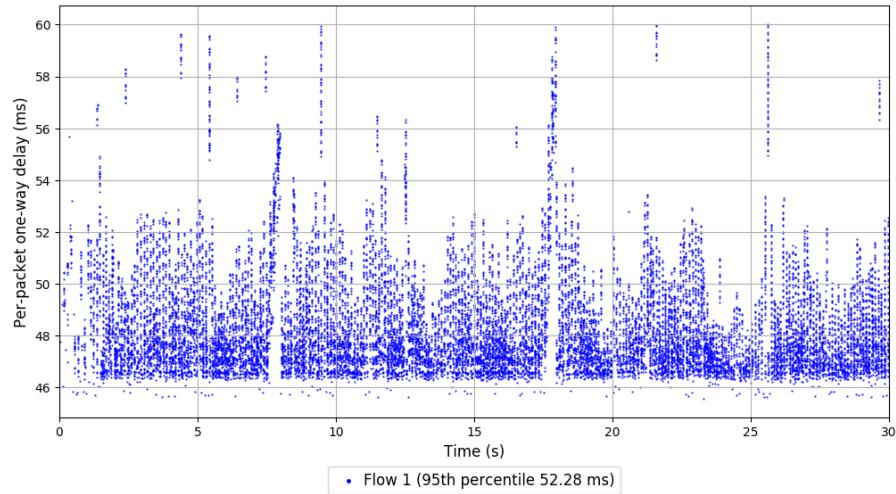
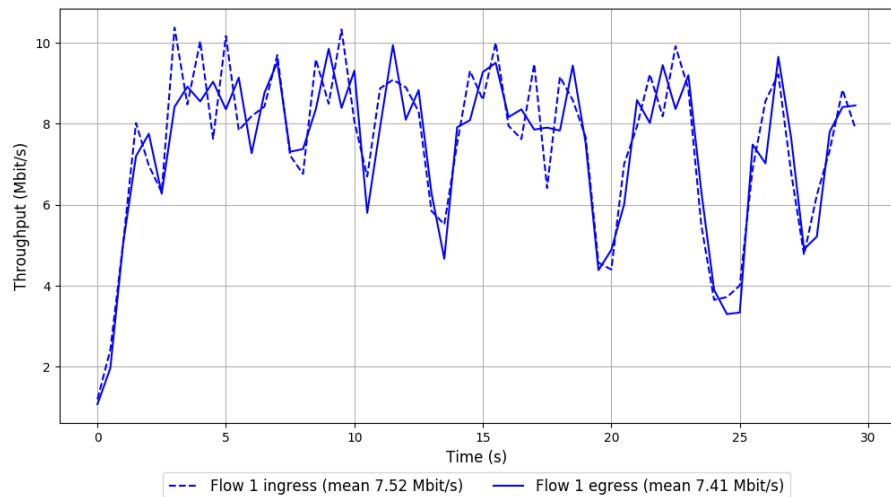


Run 6: Statistics of Sprout

```
Start at: 2017-12-05 14:13:57
End at: 2017-12-05 14:14:27
Local clock offset: 2.999 ms
Remote clock offset: -5.471 ms

# Below is generated by plot.py at 2017-12-05 15:57:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 52.277 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 52.277 ms
Loss rate: 1.46%
```

Run 6: Report of Sprout — Data Link

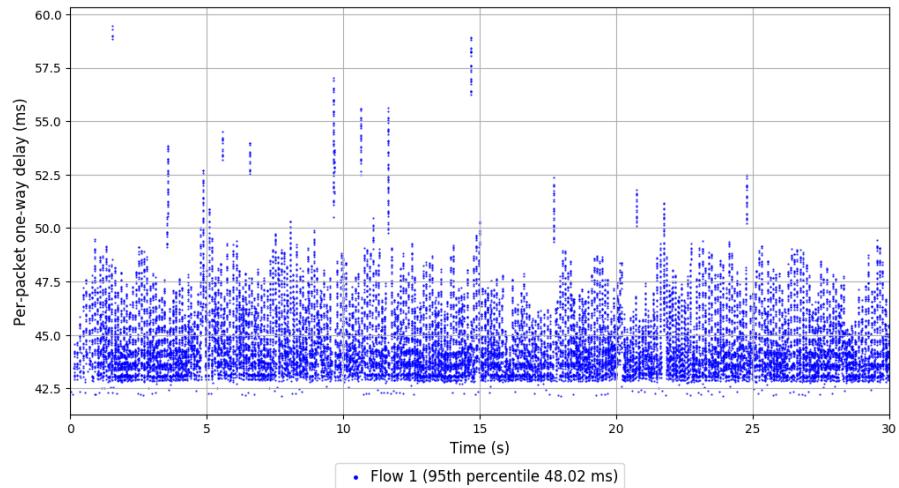
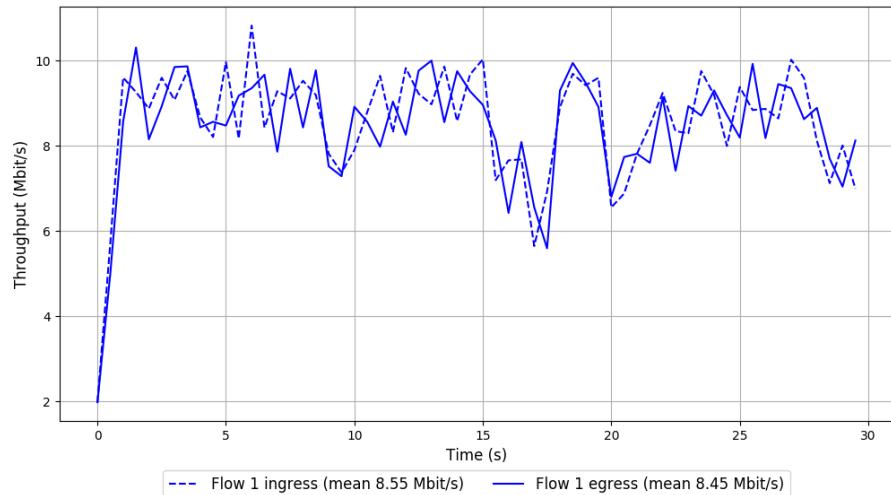


Run 7: Statistics of Sprout

```
Start at: 2017-12-05 14:35:31
End at: 2017-12-05 14:36:01
Local clock offset: 3.16 ms
Remote clock offset: -8.729 ms

# Below is generated by plot.py at 2017-12-05 15:57:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 48.025 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 48.025 ms
Loss rate: 1.17%
```

## Run 7: Report of Sprout — Data Link

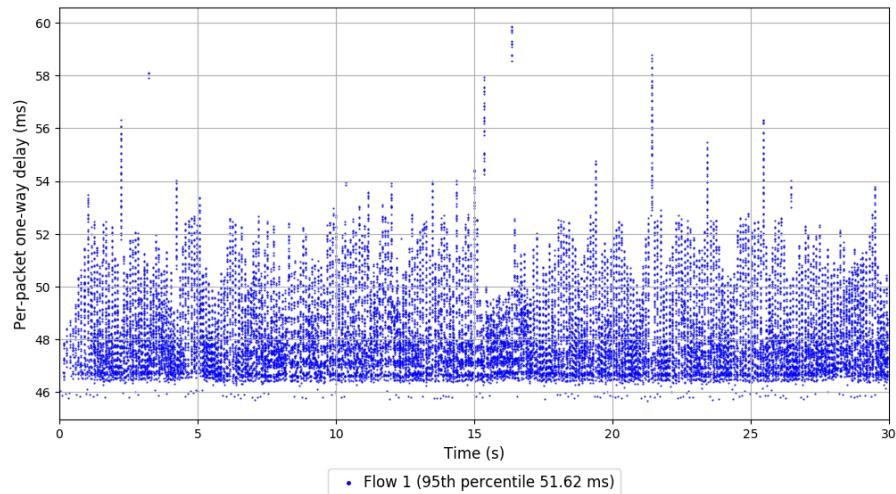
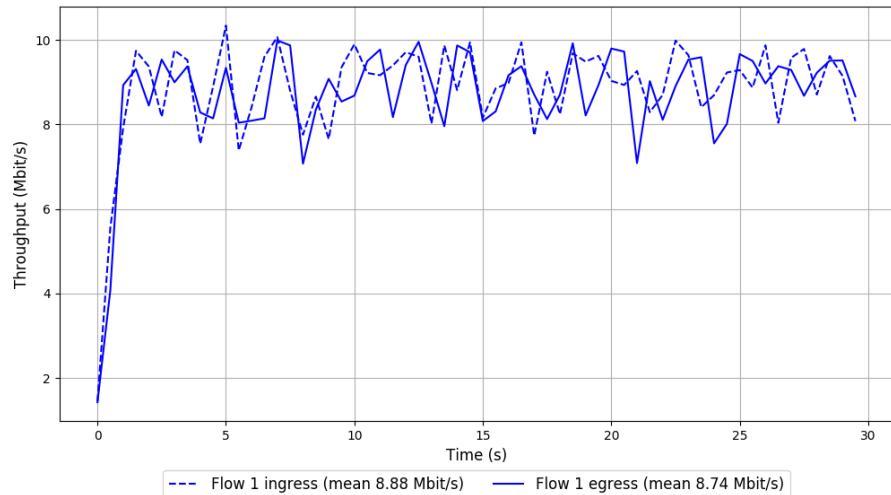


Run 8: Statistics of Sprout

```
Start at: 2017-12-05 14:52:41
End at: 2017-12-05 14:53:11
Local clock offset: 3.117 ms
Remote clock offset: -4.892 ms

# Below is generated by plot.py at 2017-12-05 15:57:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 51.618 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 51.618 ms
Loss rate: 1.59%
```

Run 8: Report of Sprout — Data Link

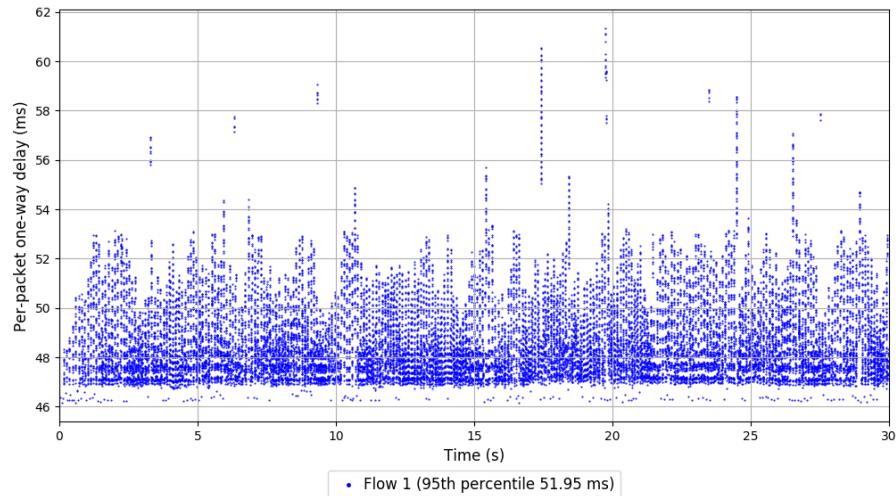
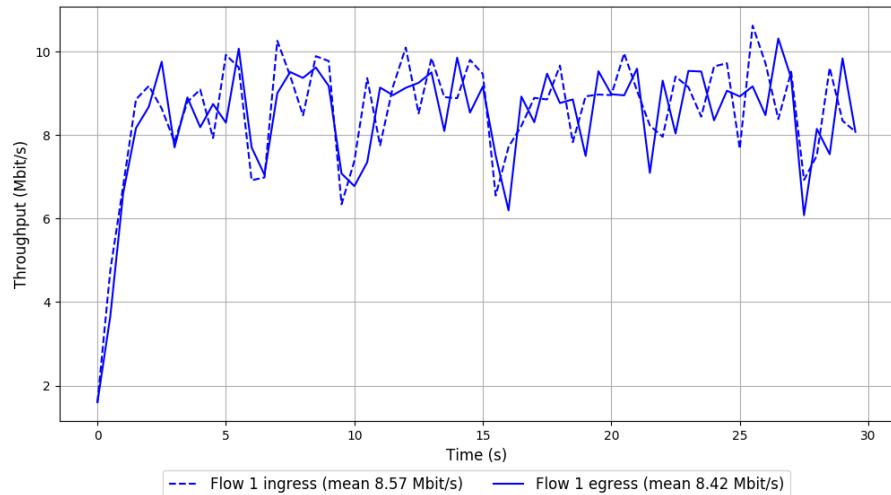


Run 9: Statistics of Sprout

```
Start at: 2017-12-05 15:11:19
End at: 2017-12-05 15:11:49
Local clock offset: 3.161 ms
Remote clock offset: -5.268 ms

# Below is generated by plot.py at 2017-12-05 15:57:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 51.945 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 51.945 ms
Loss rate: 1.70%
```

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

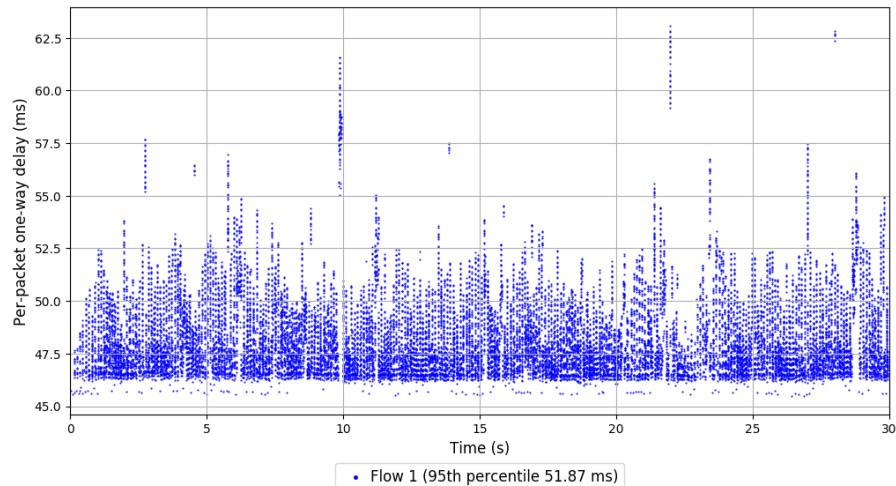
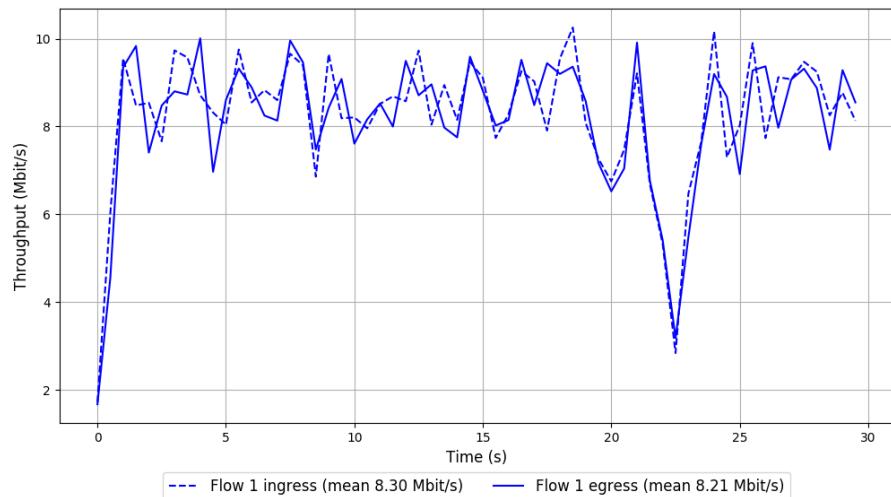


Run 10: Statistics of Sprout

```
Start at: 2017-12-05 15:28:35
End at: 2017-12-05 15:29:05
Local clock offset: 3.402 ms
Remote clock offset: -5.249 ms

# Below is generated by plot.py at 2017-12-05 15:57:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.21 Mbit/s
95th percentile per-packet one-way delay: 51.871 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 8.21 Mbit/s
95th percentile per-packet one-way delay: 51.871 ms
Loss rate: 1.09%
```

Run 10: Report of Sprout — Data Link

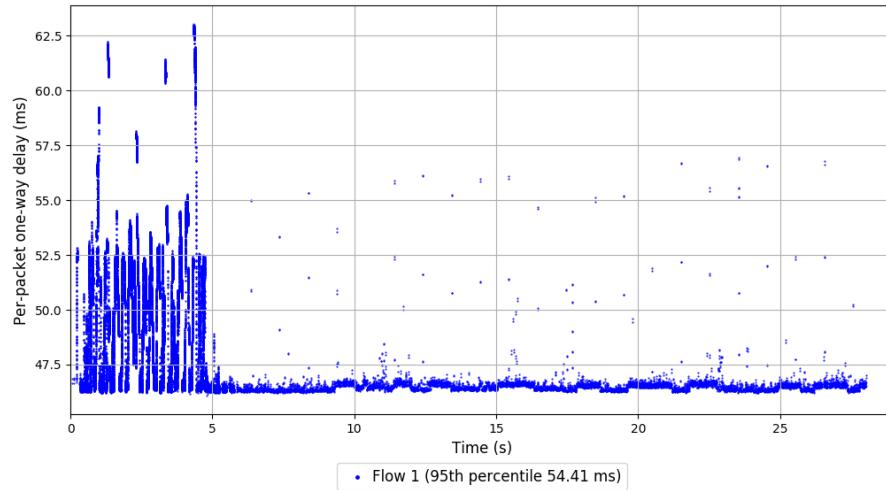
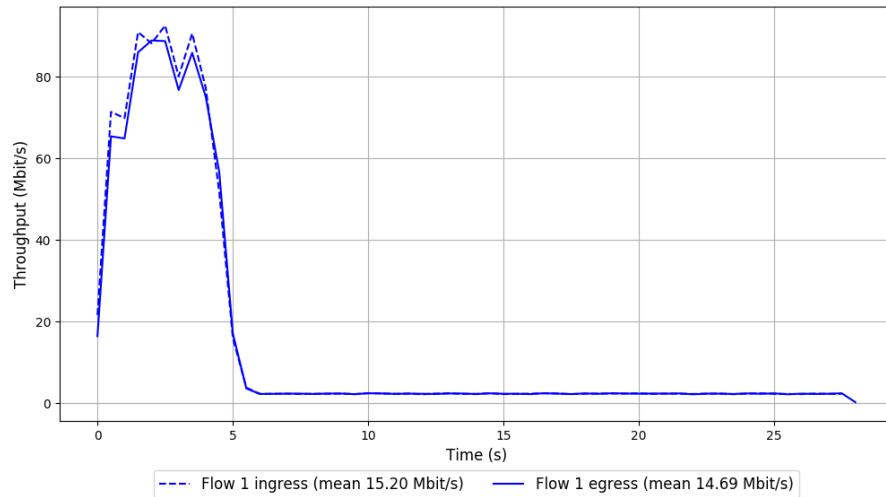


Run 1: Statistics of TaoVA-100x

```
Start at: 2017-12-05 12:47:23
End at: 2017-12-05 12:47:53
Local clock offset: 1.033 ms
Remote clock offset: -6.229 ms

# Below is generated by plot.py at 2017-12-05 15:57:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.69 Mbit/s
95th percentile per-packet one-way delay: 54.407 ms
Loss rate: 3.34%
-- Flow 1:
Average throughput: 14.69 Mbit/s
95th percentile per-packet one-way delay: 54.407 ms
Loss rate: 3.34%
```

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

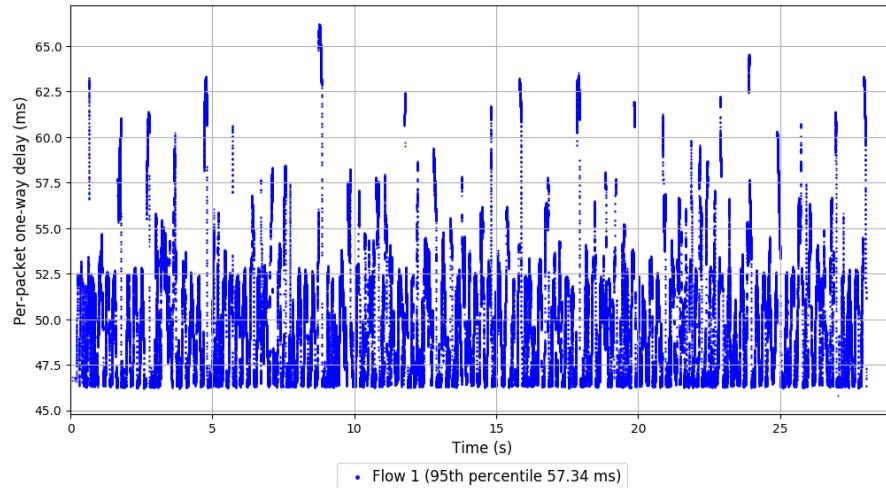
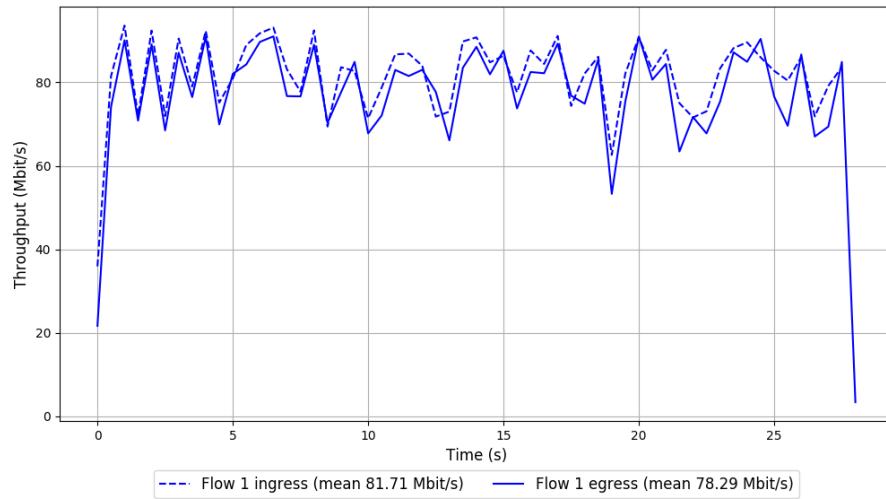


Run 2: Statistics of TaoVA-100x

```
Start at: 2017-12-05 13:05:55
End at: 2017-12-05 13:06:25
Local clock offset: 1.649 ms
Remote clock offset: -5.909 ms

# Below is generated by plot.py at 2017-12-05 15:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.29 Mbit/s
95th percentile per-packet one-way delay: 57.335 ms
Loss rate: 4.18%
-- Flow 1:
Average throughput: 78.29 Mbit/s
95th percentile per-packet one-way delay: 57.335 ms
Loss rate: 4.18%
```

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

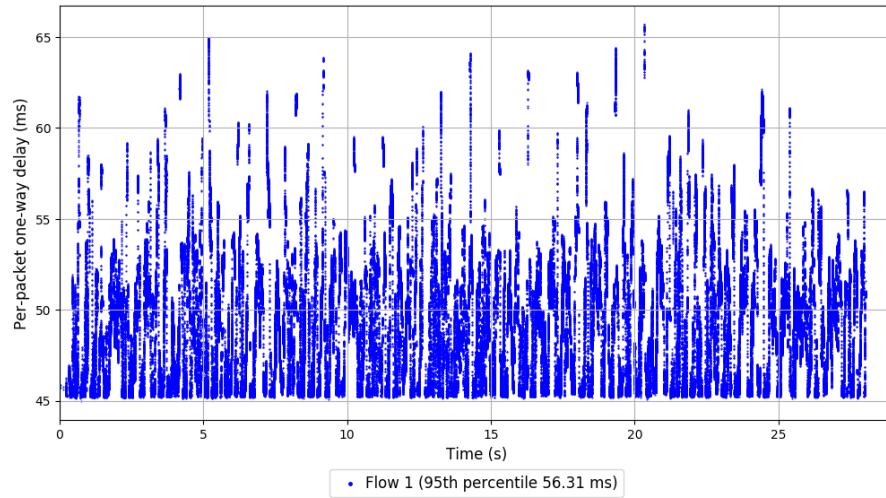
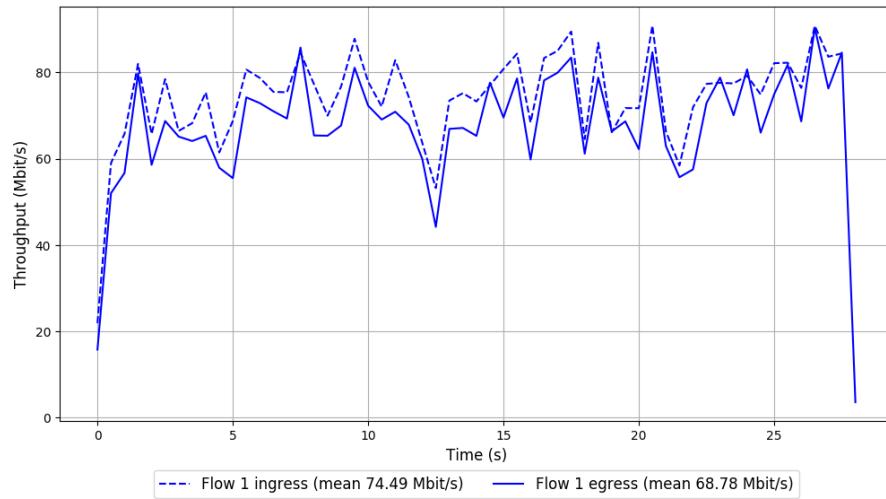


Run 3: Statistics of TaoVA-100x

```
Start at: 2017-12-05 13:22:42
End at: 2017-12-05 13:23:12
Local clock offset: 2.121 ms
Remote clock offset: -6.543 ms

# Below is generated by plot.py at 2017-12-05 15:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.78 Mbit/s
95th percentile per-packet one-way delay: 56.313 ms
Loss rate: 7.64%
-- Flow 1:
Average throughput: 68.78 Mbit/s
95th percentile per-packet one-way delay: 56.313 ms
Loss rate: 7.64%
```

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

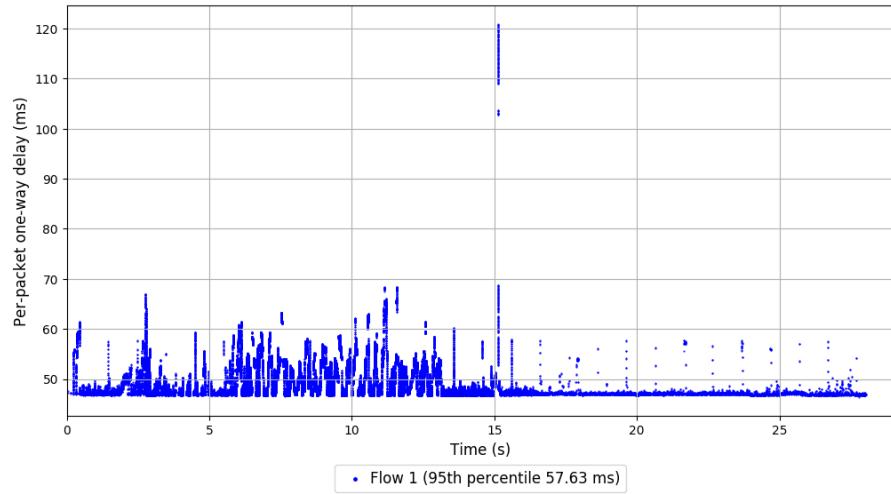
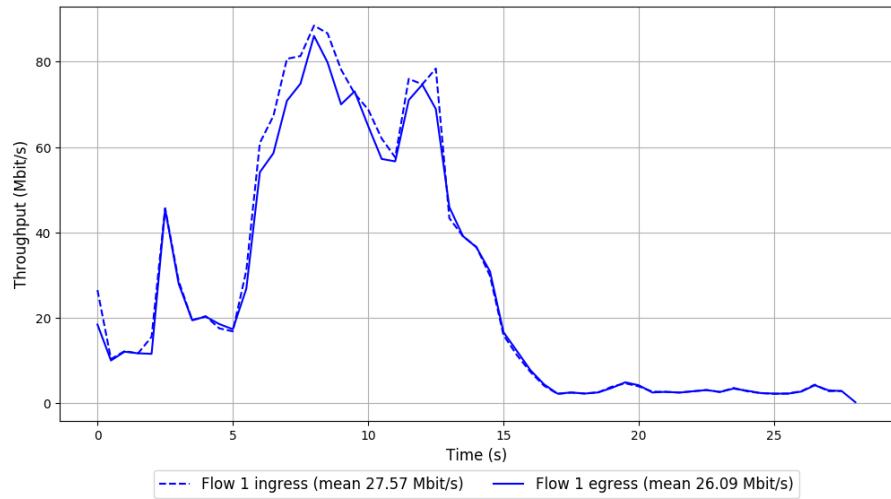


Run 4: Statistics of TaoVA-100x

```
Start at: 2017-12-05 13:44:34
End at: 2017-12-05 13:45:04
Local clock offset: 2.715 ms
Remote clock offset: -5.035 ms

# Below is generated by plot.py at 2017-12-05 15:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.09 Mbit/s
95th percentile per-packet one-way delay: 57.629 ms
Loss rate: 5.37%
-- Flow 1:
Average throughput: 26.09 Mbit/s
95th percentile per-packet one-way delay: 57.629 ms
Loss rate: 5.37%
```

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



Run 5: Statistics of TaoVA-100x

/home/ubuntu/pantheon\_data/2017-12-05T12-36-AWS-Korea-to-China-10-runs/taova\_stats\_run5.log

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

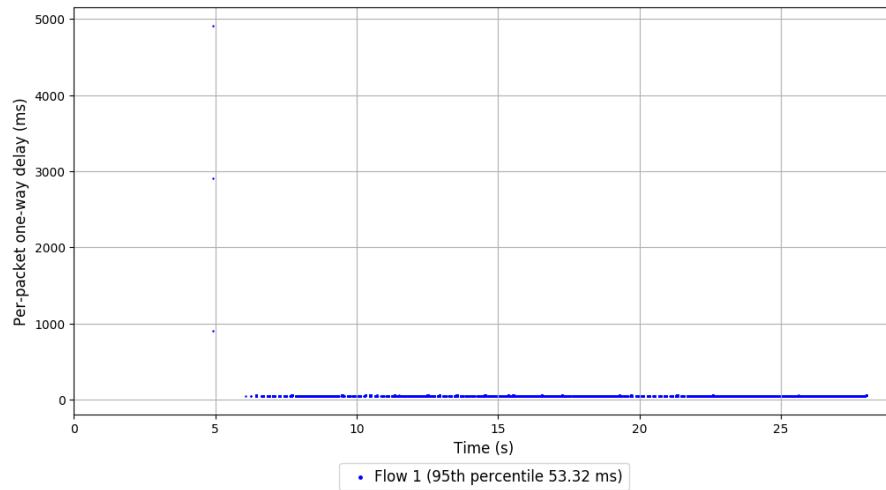
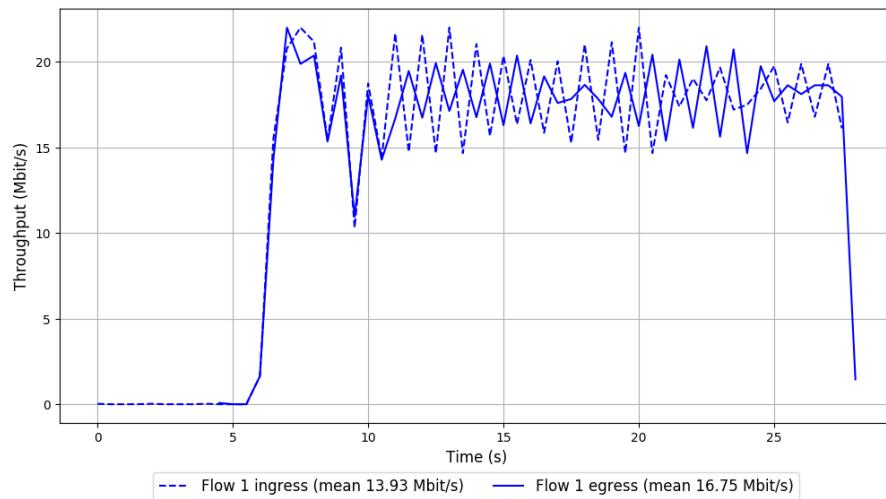
Figure is missing

Figure is missing

Run 6: Statistics of TaoVA-100x

Start at: 2017-12-05 14:23:40  
End at: 2017-12-05 14:24:10  
Local clock offset: 3.075 ms  
Remote clock offset: -5.094 ms

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

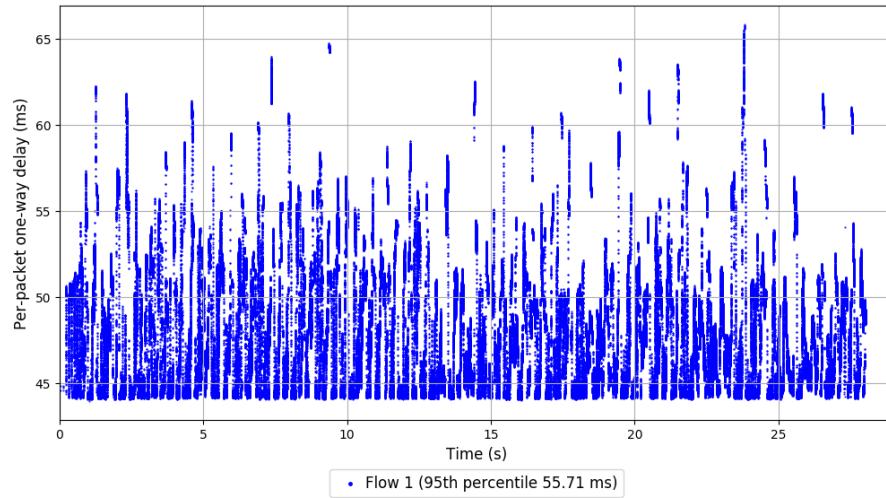
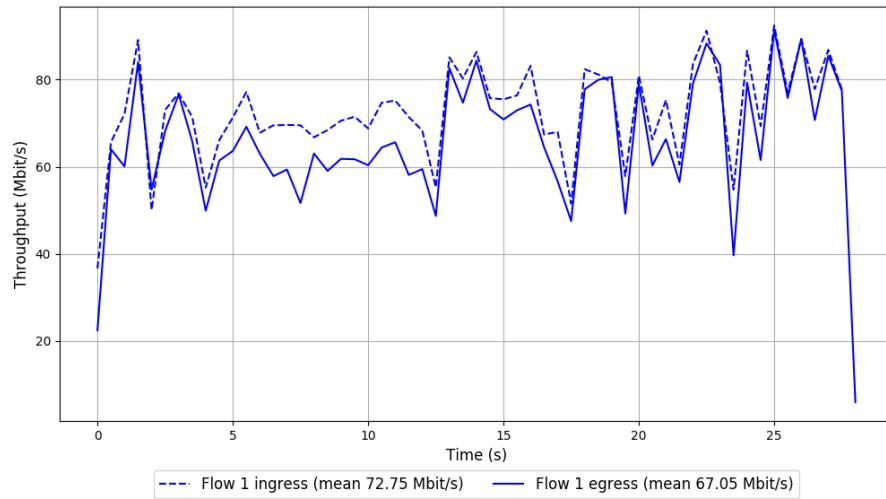


Run 7: Statistics of TaoVA-100x

```
Start at: 2017-12-05 14:41:30
End at: 2017-12-05 14:42:00
Local clock offset: 3.159 ms
Remote clock offset: -7.151 ms

# Below is generated by plot.py at 2017-12-05 15:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.05 Mbit/s
95th percentile per-packet one-way delay: 55.711 ms
Loss rate: 7.82%
-- Flow 1:
Average throughput: 67.05 Mbit/s
95th percentile per-packet one-way delay: 55.711 ms
Loss rate: 7.82%
```

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

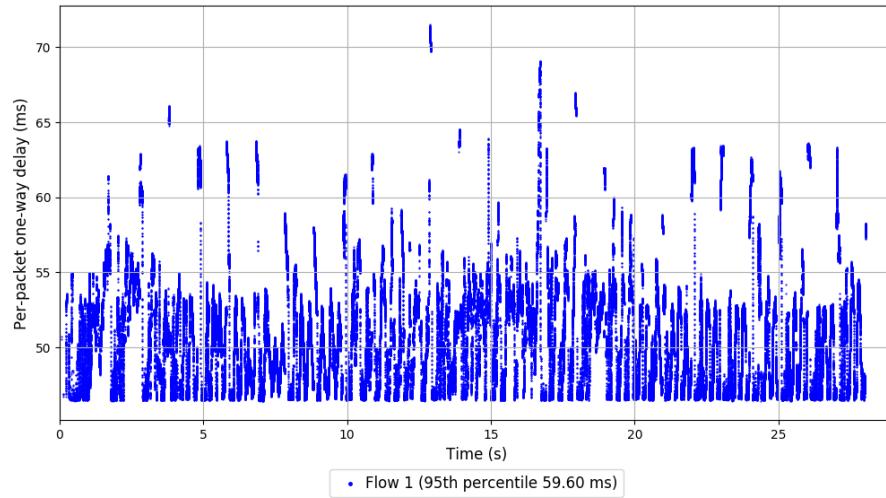
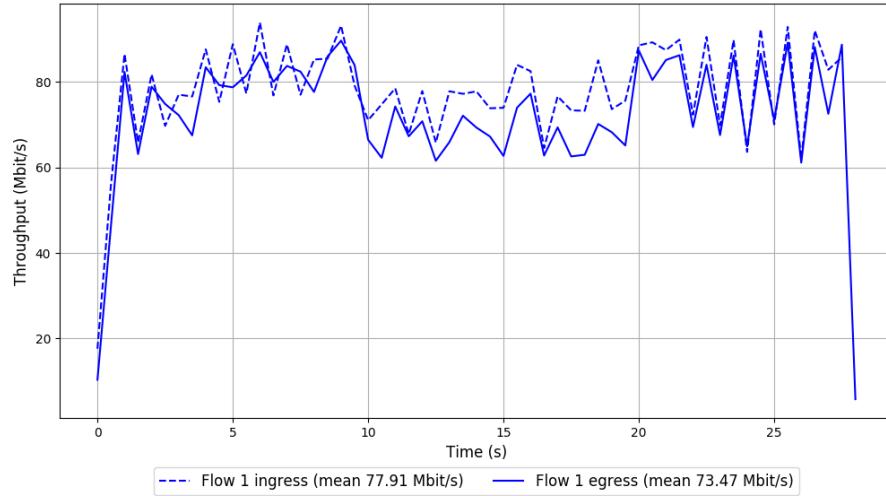


Run 8: Statistics of TaoVA-100x

```
Start at: 2017-12-05 14:58:29
End at: 2017-12-05 14:58:59
Local clock offset: 3.149 ms
Remote clock offset: -4.939 ms

# Below is generated by plot.py at 2017-12-05 15:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.47 Mbit/s
95th percentile per-packet one-way delay: 59.602 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 73.47 Mbit/s
95th percentile per-packet one-way delay: 59.602 ms
Loss rate: 5.68%
```

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

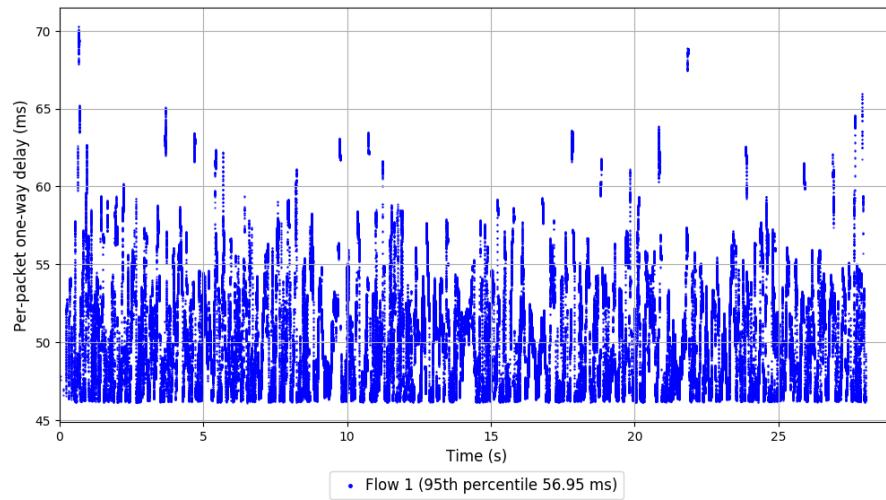
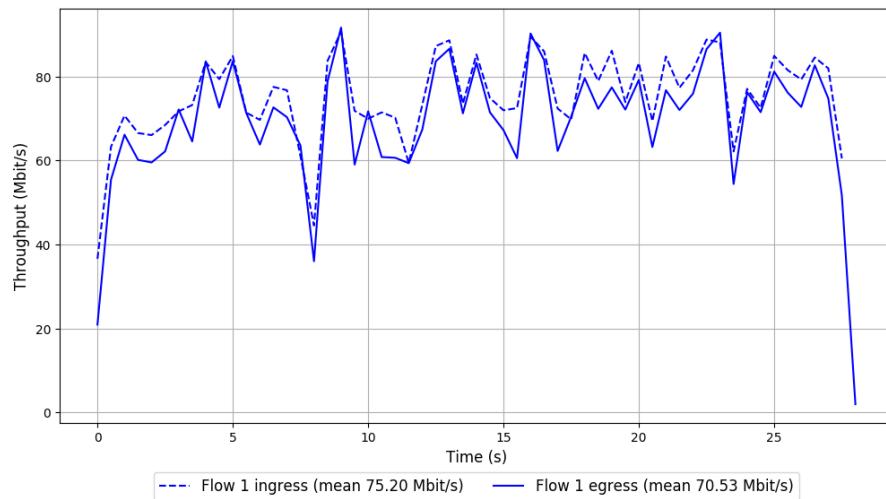


Run 9: Statistics of TaoVA-100x

```
Start at: 2017-12-05 15:17:12
End at: 2017-12-05 15:17:42
Local clock offset: 3.139 ms
Remote clock offset: -5.517 ms

# Below is generated by plot.py at 2017-12-05 15:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.53 Mbit/s
95th percentile per-packet one-way delay: 56.955 ms
Loss rate: 6.22%
-- Flow 1:
Average throughput: 70.53 Mbit/s
95th percentile per-packet one-way delay: 56.955 ms
Loss rate: 6.22%
```

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

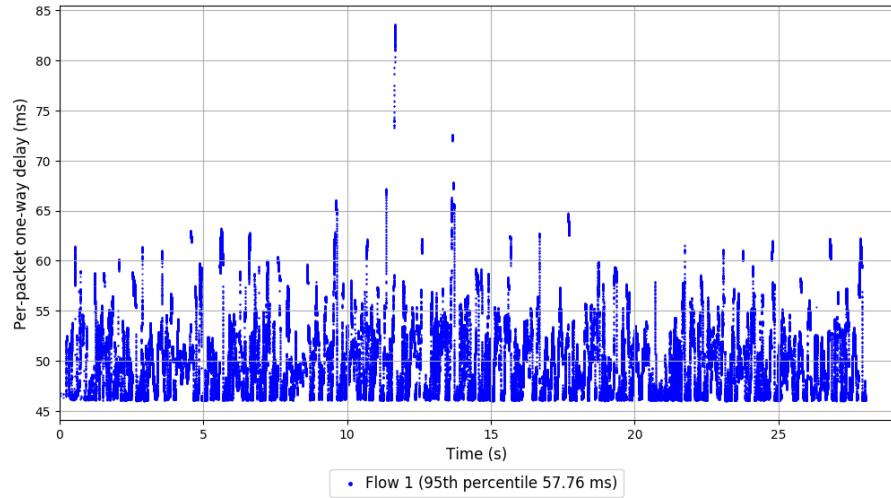
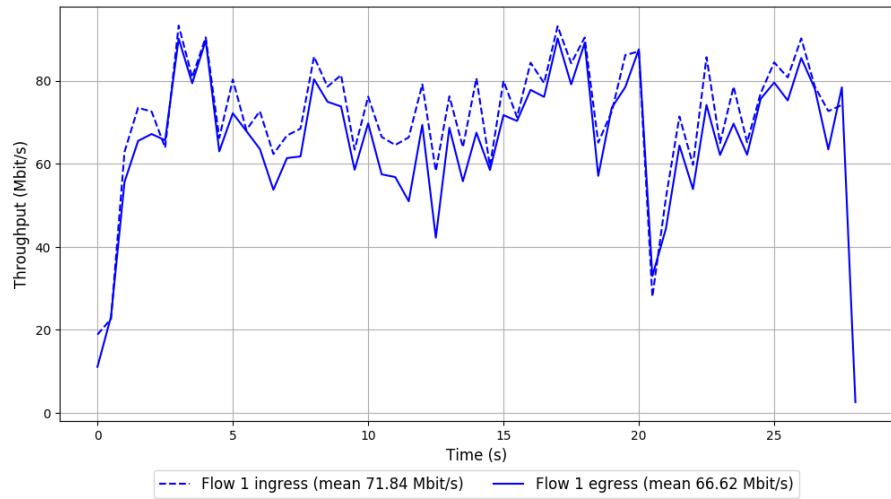


Run 10: Statistics of TaoVA-100x

```
Start at: 2017-12-05 15:34:30
End at: 2017-12-05 15:35:00
Local clock offset: 3.4 ms
Remote clock offset: -5.07 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.62 Mbit/s
95th percentile per-packet one-way delay: 57.764 ms
Loss rate: 7.27%
-- Flow 1:
Average throughput: 66.62 Mbit/s
95th percentile per-packet one-way delay: 57.764 ms
Loss rate: 7.27%
```

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

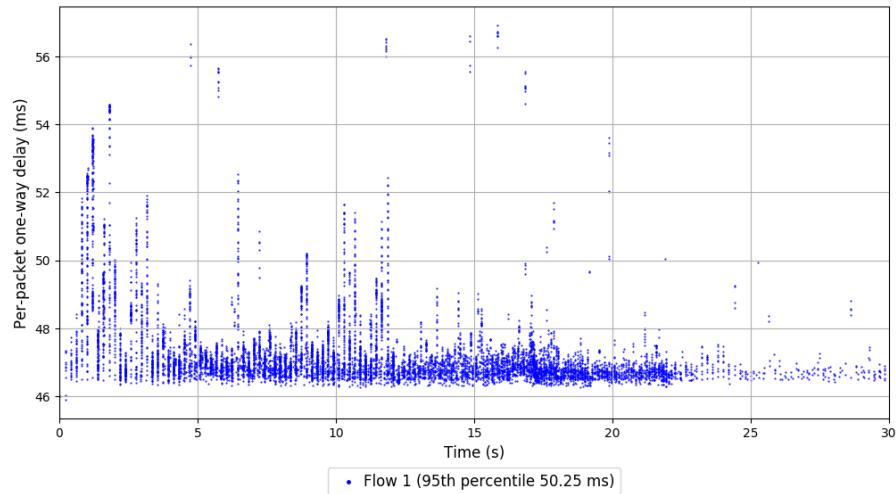
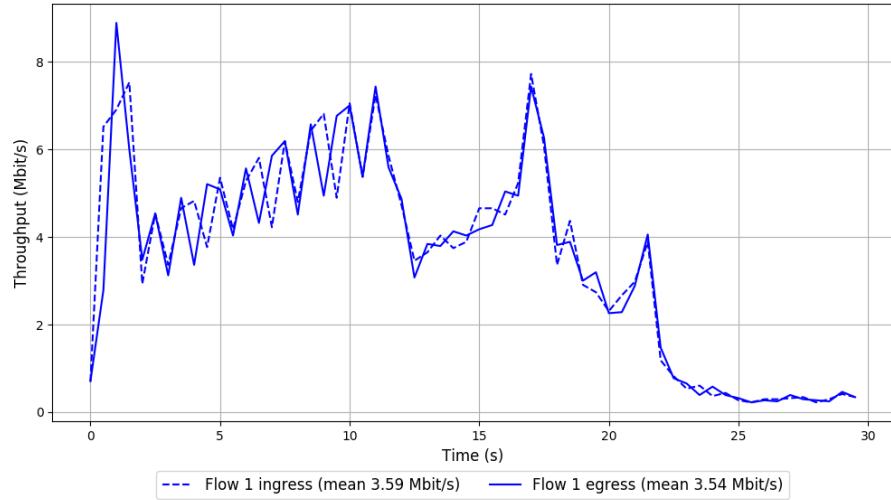


Run 1: Statistics of TCP Vegas

```
Start at: 2017-12-05 12:53:33
End at: 2017-12-05 12:54:03
Local clock offset: 1.41 ms
Remote clock offset: -6.042 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 50.248 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 50.248 ms
Loss rate: 1.38%
```

### Run 1: Report of TCP Vegas — Data Link

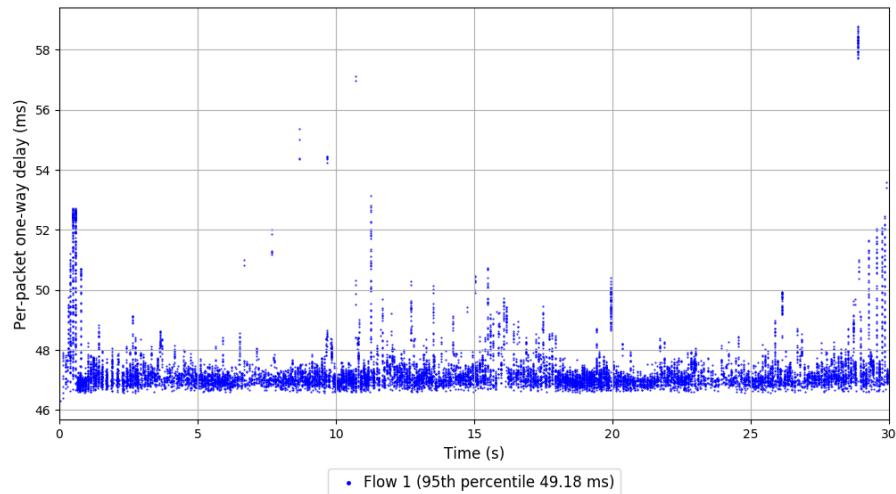
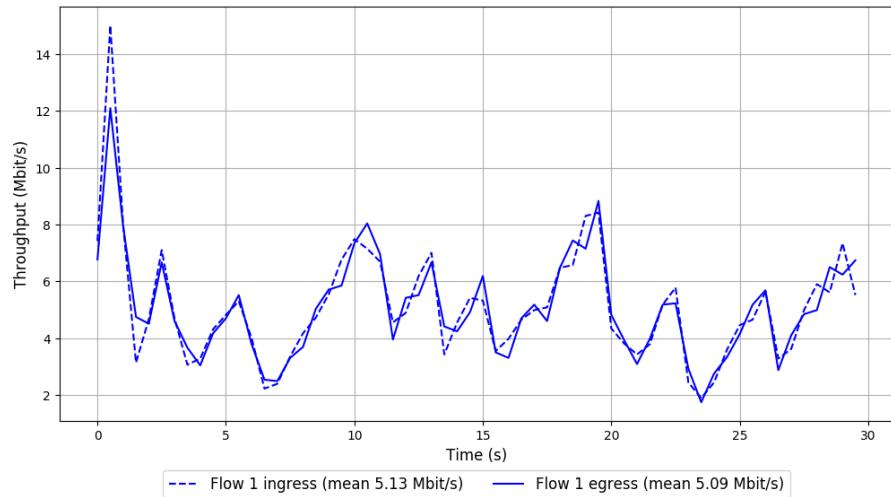


Run 2: Statistics of TCP Vegas

```
Start at: 2017-12-05 13:10:52
End at: 2017-12-05 13:11:22
Local clock offset: 1.805 ms
Remote clock offset: -5.54 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 49.179 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 49.179 ms
Loss rate: 0.80%
```

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

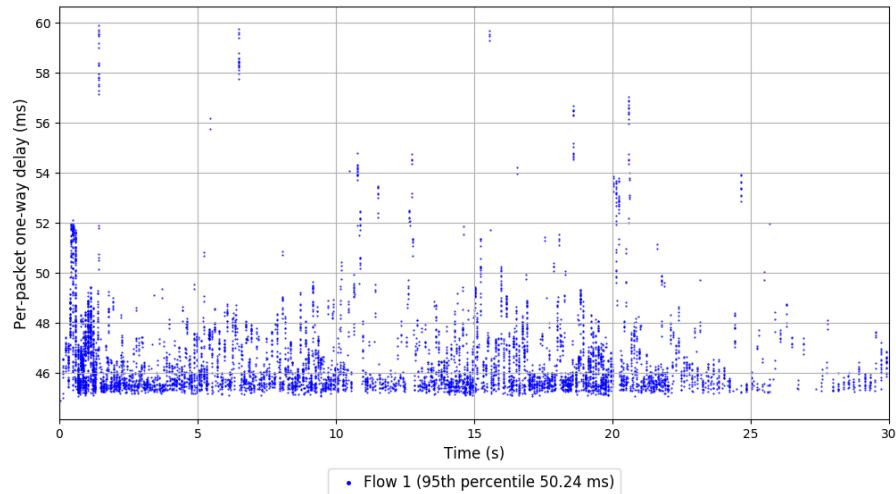
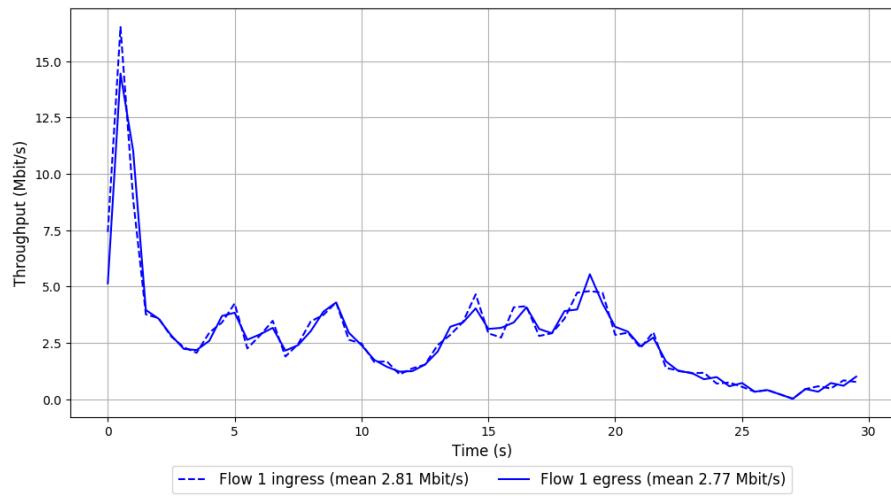


Run 3: Statistics of TCP Vegas

```
Start at: 2017-12-05 13:27:44
End at: 2017-12-05 13:28:14
Local clock offset: 2.482 ms
Remote clock offset: -6.428 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 50.242 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 50.242 ms
Loss rate: 1.33%
```

Run 3: Report of TCP Vegas — Data Link

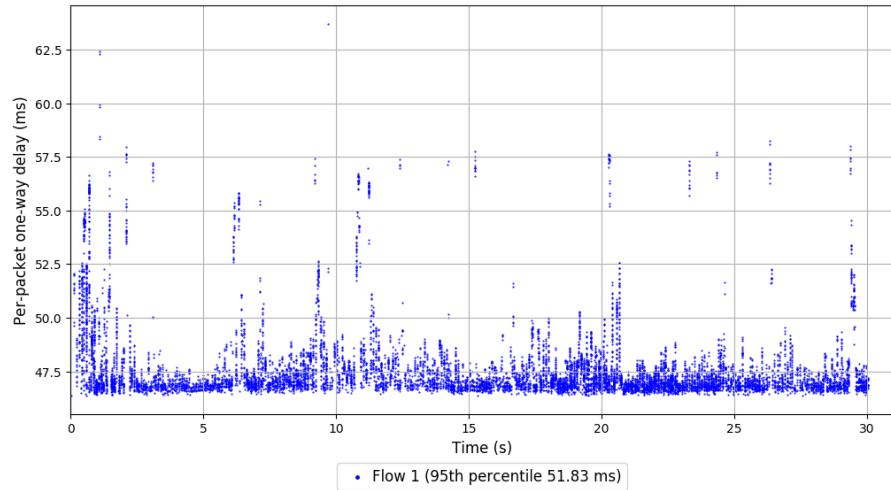
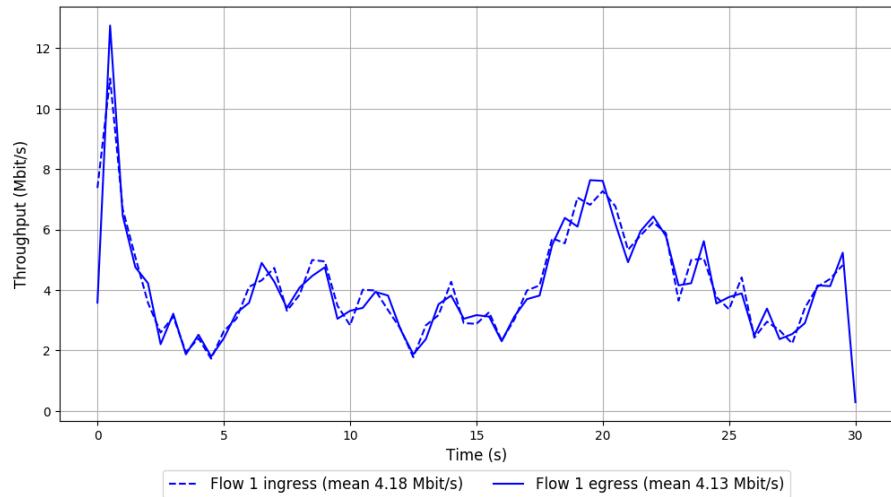


Run 4: Statistics of TCP Vegas

```
Start at: 2017-12-05 13:49:29
End at: 2017-12-05 13:49:59
Local clock offset: 2.795 ms
Remote clock offset: -5.095 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 51.829 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 51.829 ms
Loss rate: 1.29%
```

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

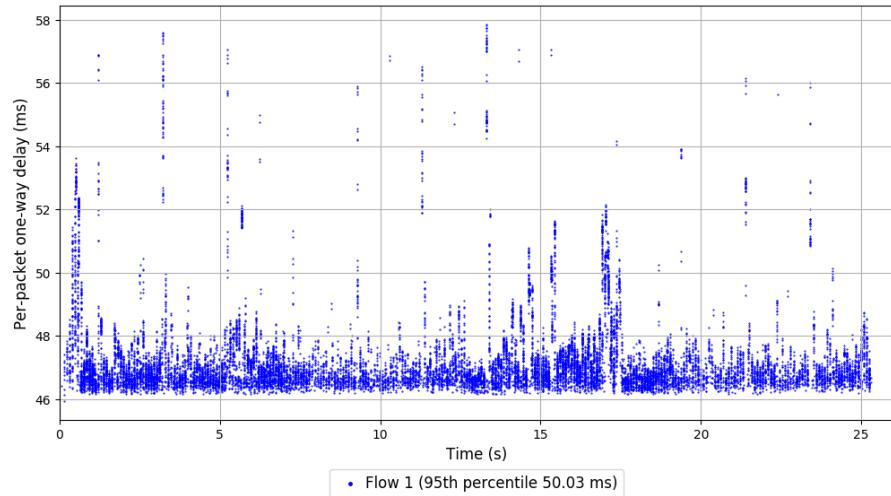
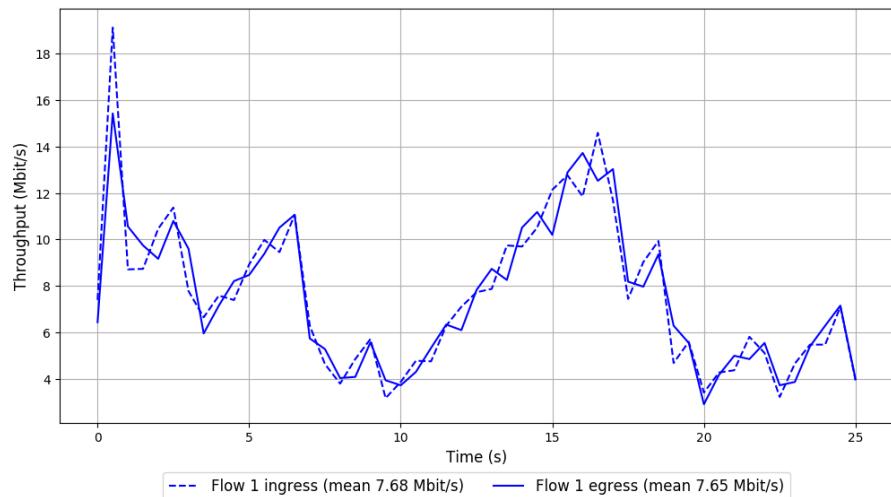


Run 5: Statistics of TCP Vegas

```
Start at: 2017-12-05 14:08:01
End at: 2017-12-05 14:08:32
Local clock offset: 3.171 ms
Remote clock offset: -5.529 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 50.034 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 50.034 ms
Loss rate: 0.51%
```

Run 5: Report of TCP Vegas — Data Link

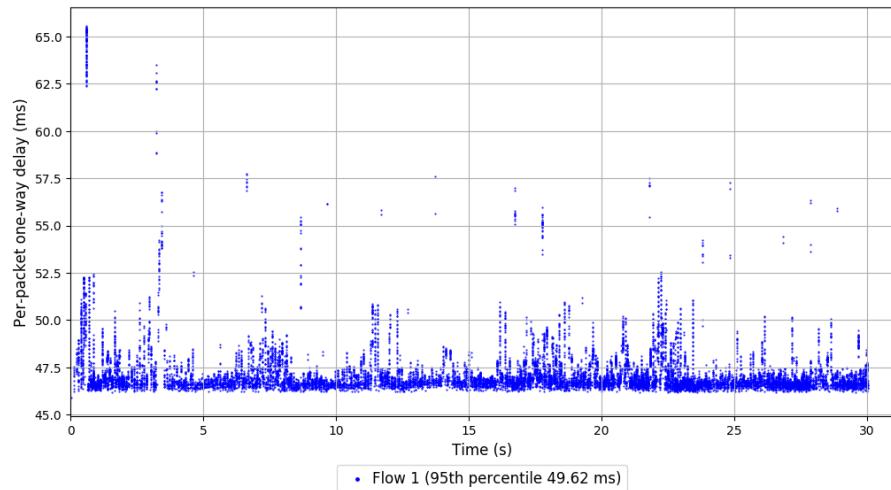
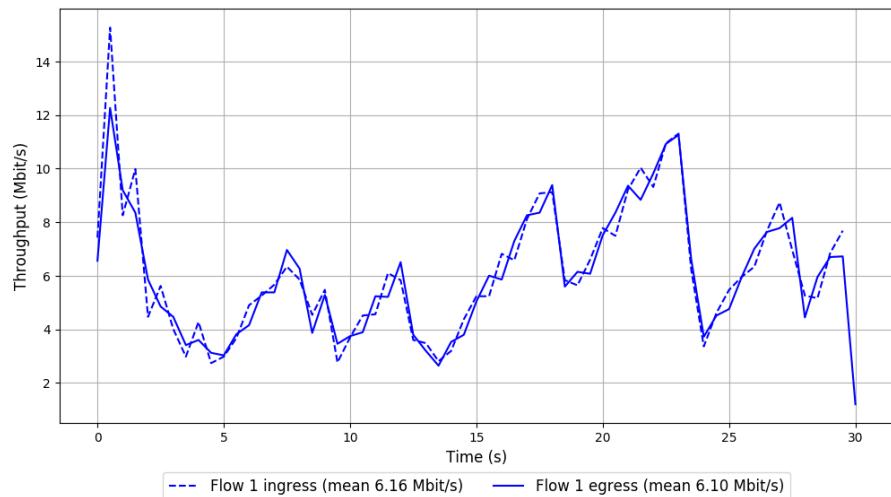


Run 6: Statistics of TCP Vegas

```
Start at: 2017-12-05 14:29:22
End at: 2017-12-05 14:29:52
Local clock offset: 3.288 ms
Remote clock offset: -4.927 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 49.625 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 49.625 ms
Loss rate: 0.87%
```

Run 6: Report of TCP Vegas — Data Link

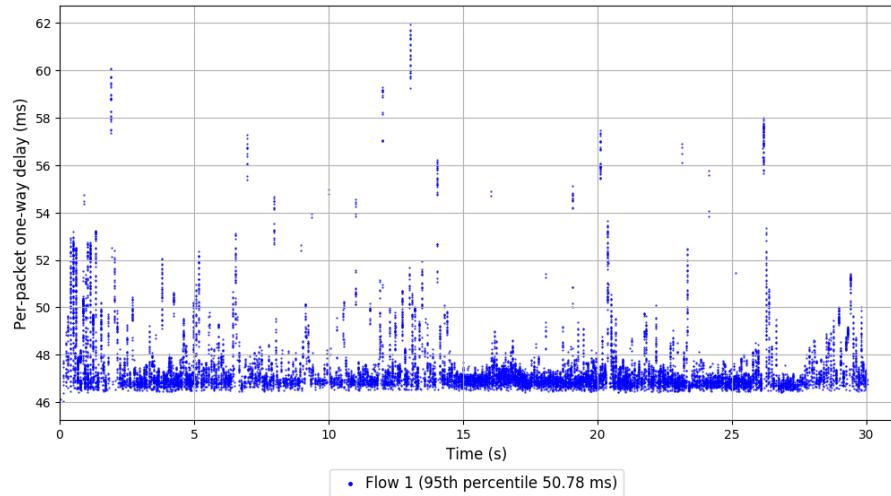
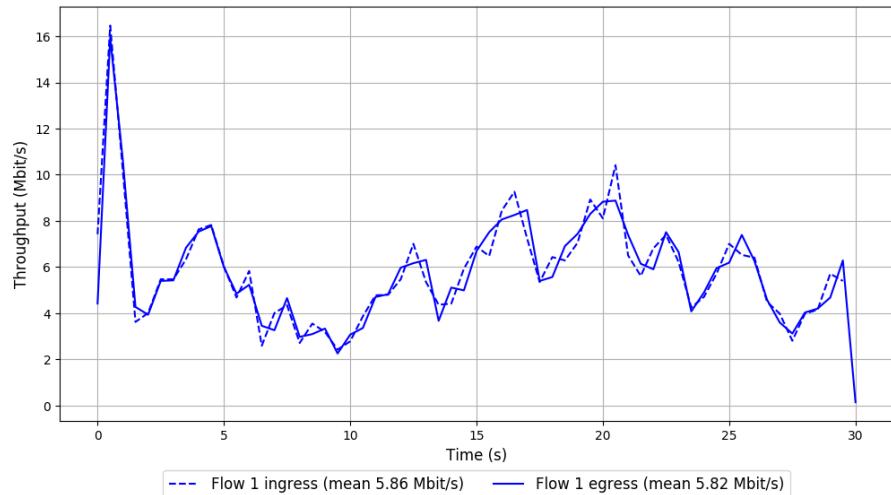


Run 7: Statistics of TCP Vegas

```
Start at: 2017-12-05 14:46:27
End at: 2017-12-05 14:46:57
Local clock offset: 3.251 ms
Remote clock offset: -4.604 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.82 Mbit/s
95th percentile per-packet one-way delay: 50.781 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 5.82 Mbit/s
95th percentile per-packet one-way delay: 50.781 ms
Loss rate: 0.66%
```

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



Run 8: Statistics of TCP Vegas

/home/ubuntu/pantheon\_data/2017-12-05T12-36-AWS-Korea-to-China-10-runs/vegas\_stats\_run8.log

Run 8: Report of TCP Vegas — Data Link

Figure is missing

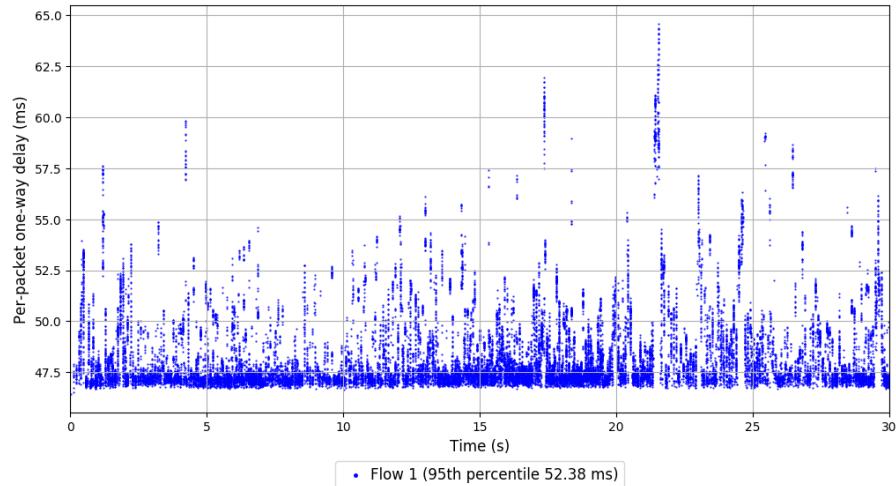
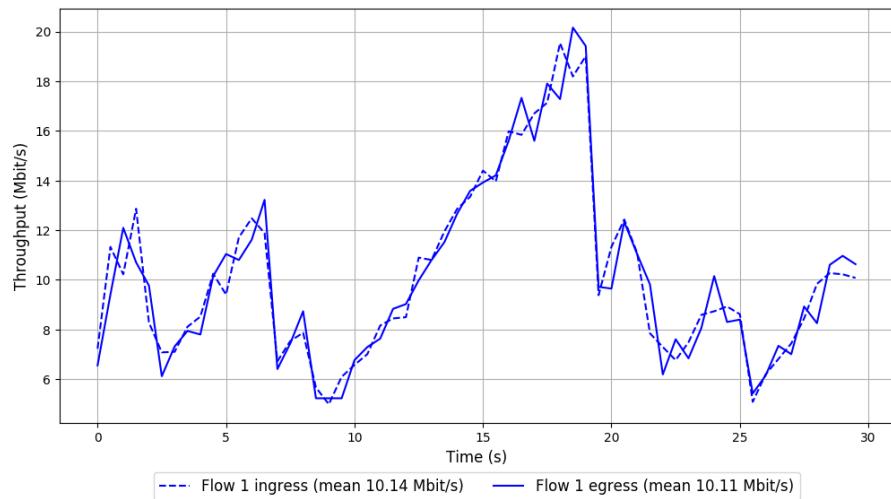
Figure is missing

Run 9: Statistics of TCP Vegas

```
Start at: 2017-12-05 15:22:23
End at: 2017-12-05 15:22:53
Local clock offset: 3.163 ms
Remote clock offset: -5.26 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.11 Mbit/s
95th percentile per-packet one-way delay: 52.380 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 10.11 Mbit/s
95th percentile per-packet one-way delay: 52.380 ms
Loss rate: 0.29%
```

Run 9: Report of TCP Vegas — Data Link

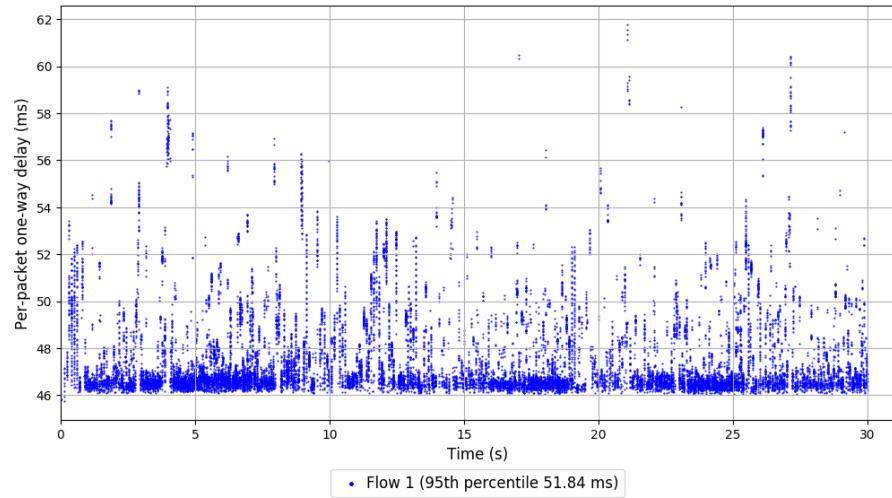
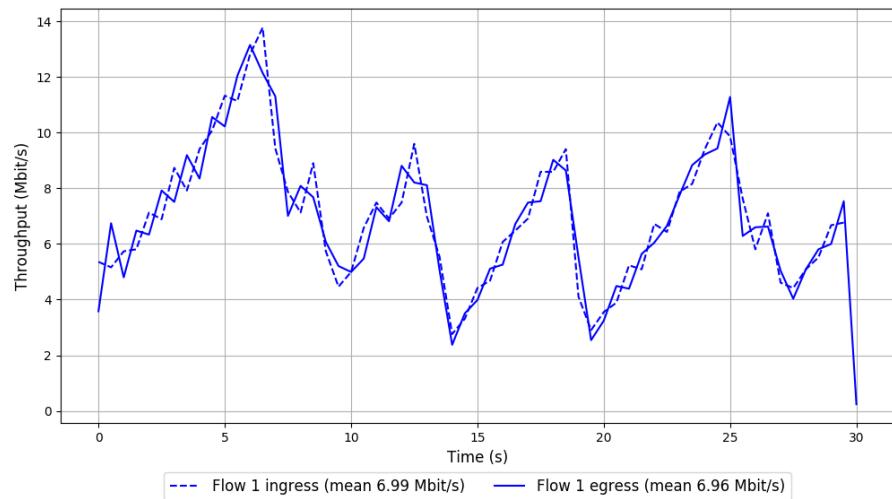


Run 10: Statistics of TCP Vegas

```
Start at: 2017-12-05 15:39:33
End at: 2017-12-05 15:40:03
Local clock offset: 3.211 ms
Remote clock offset: -5.44 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 51.837 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 51.837 ms
Loss rate: 0.41%
```

Run 10: Report of TCP Vegas — Data Link

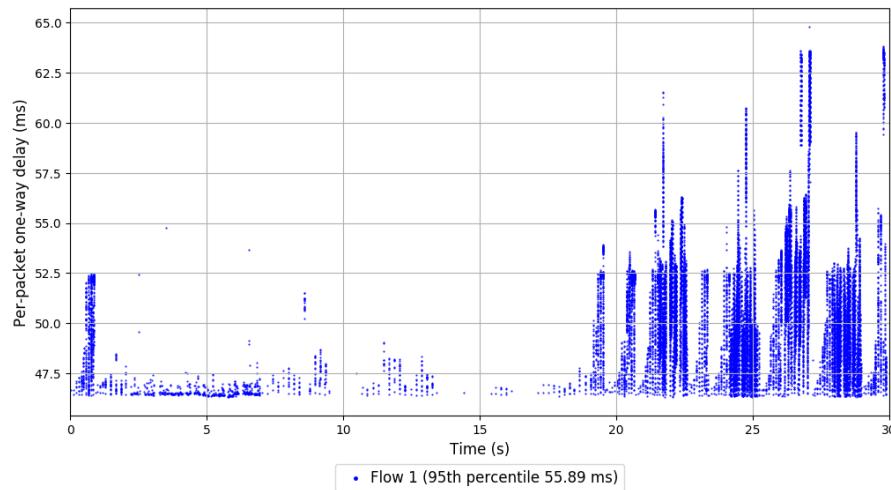
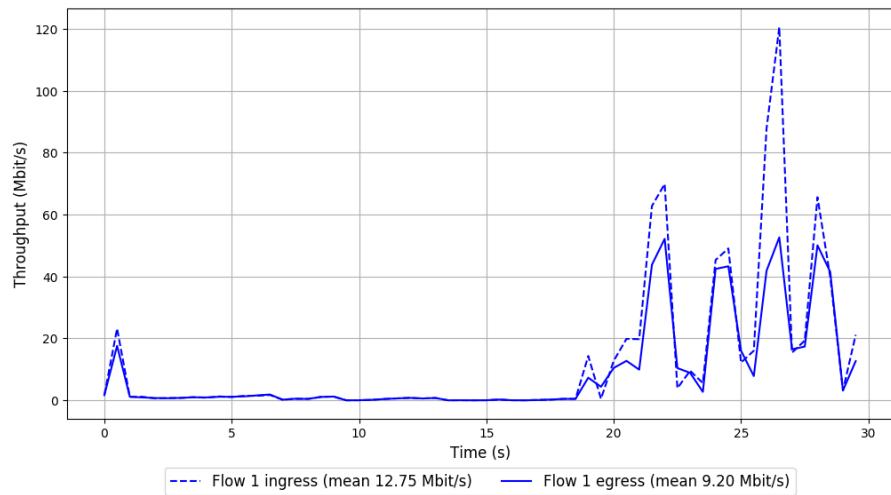


Run 1: Statistics of Verus

```
Start at: 2017-12-05 12:55:04
End at: 2017-12-05 12:55:34
Local clock offset: 1.442 ms
Remote clock offset: -5.956 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.20 Mbit/s
95th percentile per-packet one-way delay: 55.894 ms
Loss rate: 27.84%
-- Flow 1:
Average throughput: 9.20 Mbit/s
95th percentile per-packet one-way delay: 55.894 ms
Loss rate: 27.84%
```

### Run 1: Report of Verus — Data Link

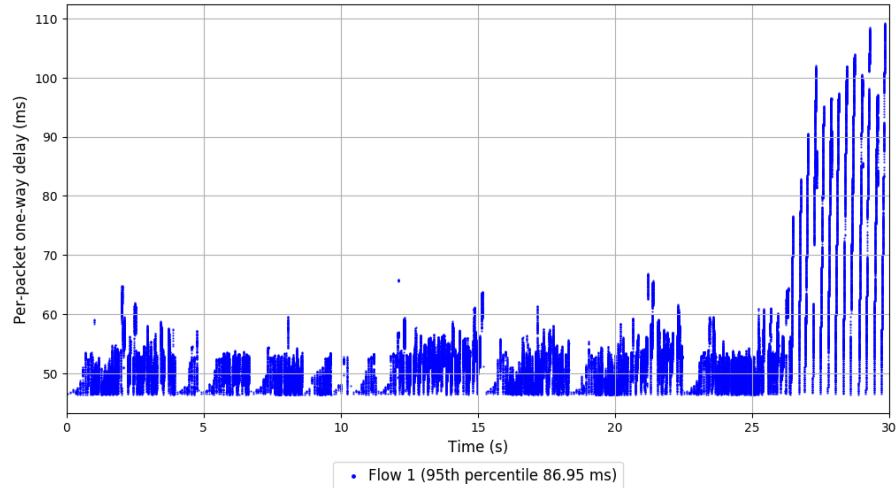
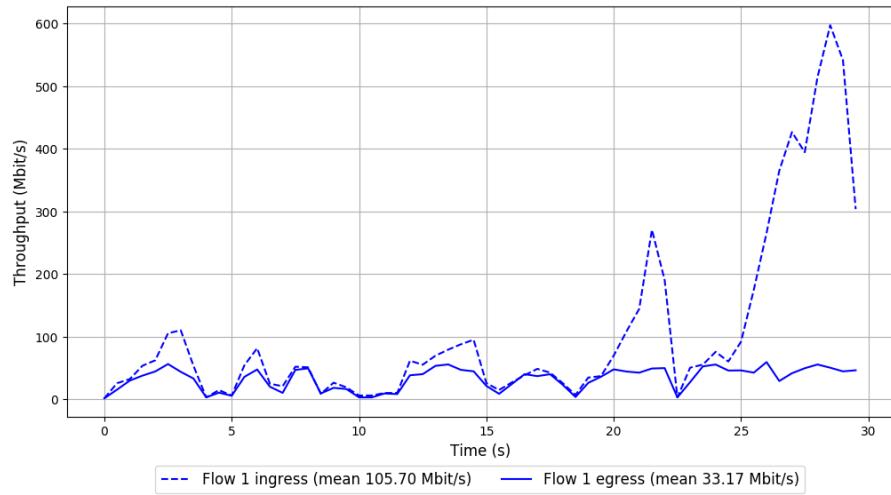


Run 2: Statistics of Verus

```
Start at: 2017-12-05 13:12:05
End at: 2017-12-05 13:12:35
Local clock offset: 1.836 ms
Remote clock offset: -5.696 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.17 Mbit/s
95th percentile per-packet one-way delay: 86.949 ms
Loss rate: 68.55%
-- Flow 1:
Average throughput: 33.17 Mbit/s
95th percentile per-packet one-way delay: 86.949 ms
Loss rate: 68.55%
```

## Run 2: Report of Verus — Data Link

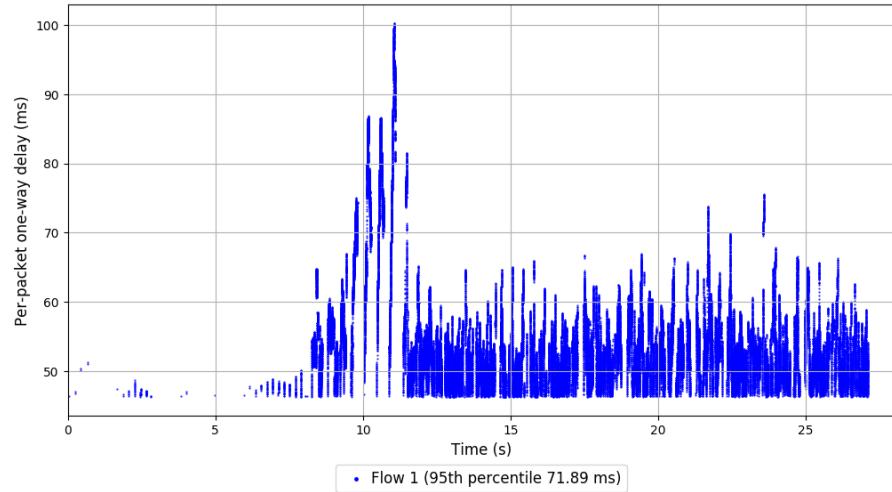
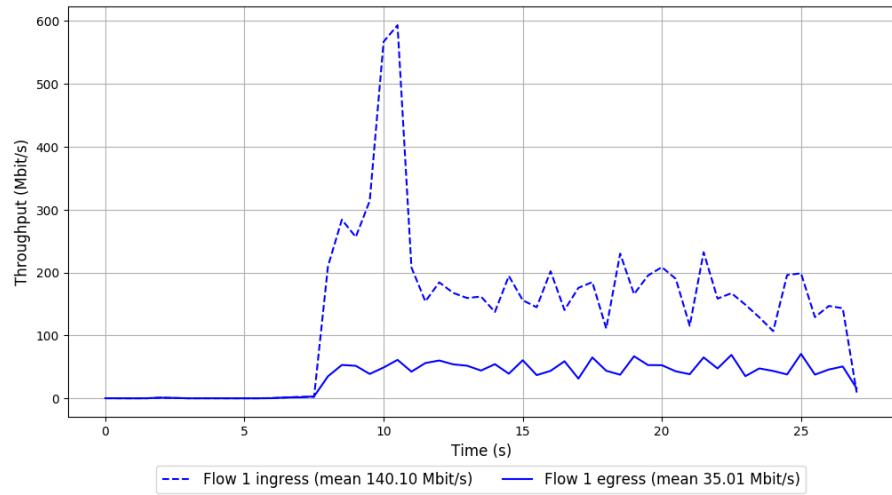


Run 3: Statistics of Verus

```
Start at: 2017-12-05 13:29:15
End at: 2017-12-05 13:29:45
Local clock offset: 2.483 ms
Remote clock offset: -5.241 ms

# Below is generated by plot.py at 2017-12-05 15:59:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.01 Mbit/s
95th percentile per-packet one-way delay: 71.891 ms
Loss rate: 75.01%
-- Flow 1:
Average throughput: 35.01 Mbit/s
95th percentile per-packet one-way delay: 71.891 ms
Loss rate: 75.01%
```

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

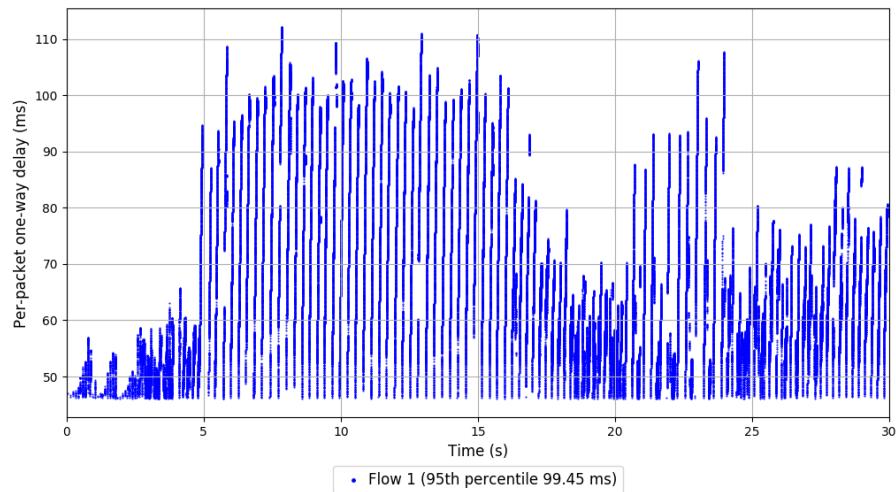
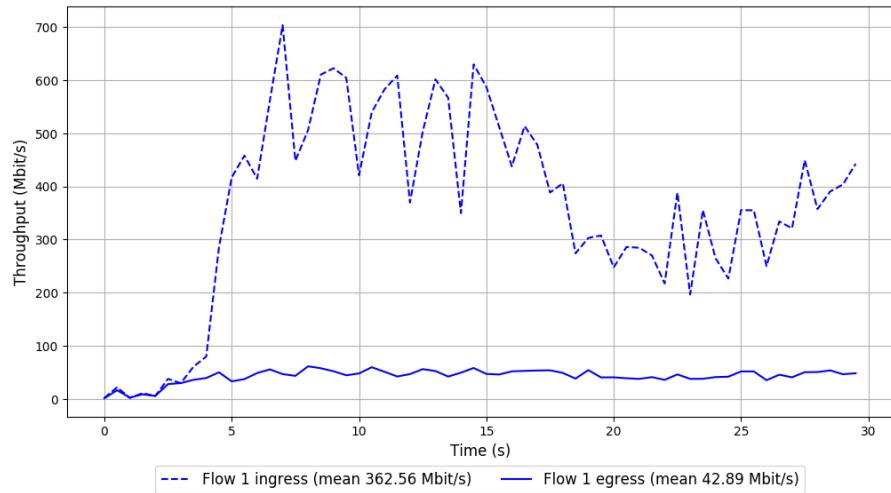


Run 4: Statistics of Verus

```
Start at: 2017-12-05 13:50:38
End at: 2017-12-05 13:51:08
Local clock offset: 2.7 ms
Remote clock offset: -5.87 ms

# Below is generated by plot.py at 2017-12-05 16:01:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.89 Mbit/s
95th percentile per-packet one-way delay: 99.451 ms
Loss rate: 88.16%
-- Flow 1:
Average throughput: 42.89 Mbit/s
95th percentile per-packet one-way delay: 99.451 ms
Loss rate: 88.16%
```

## Run 4: Report of Verus — Data Link

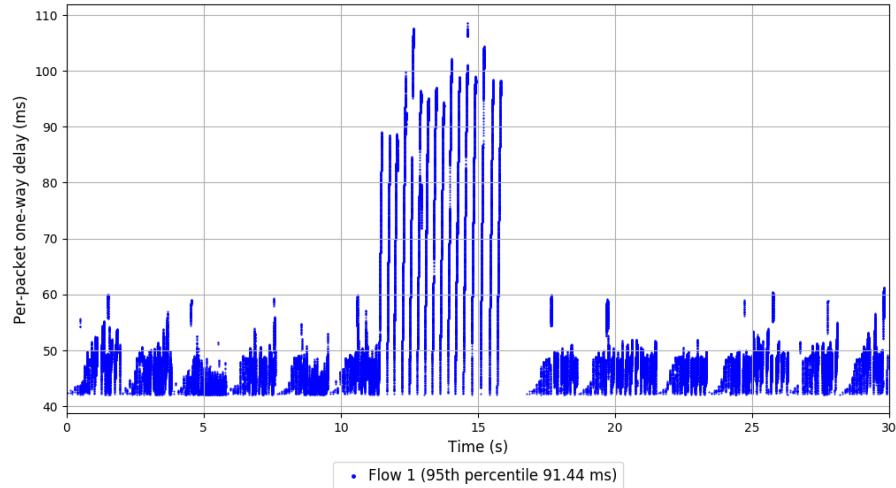
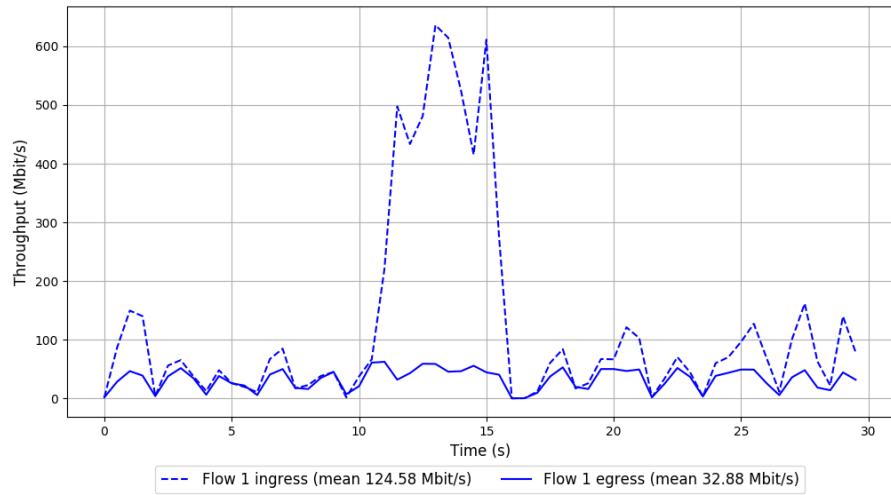


Run 5: Statistics of Verus

```
Start at: 2017-12-05 14:09:10
End at: 2017-12-05 14:09:40
Local clock offset: 3.012 ms
Remote clock offset: -9.527 ms

# Below is generated by plot.py at 2017-12-05 16:01:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.88 Mbit/s
95th percentile per-packet one-way delay: 91.435 ms
Loss rate: 73.60%
-- Flow 1:
Average throughput: 32.88 Mbit/s
95th percentile per-packet one-way delay: 91.435 ms
Loss rate: 73.60%
```

## Run 5: Report of Verus — Data Link

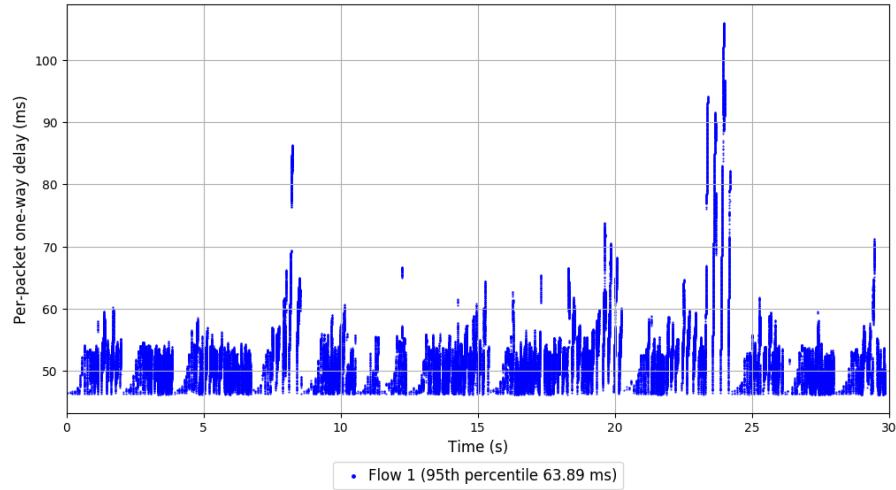
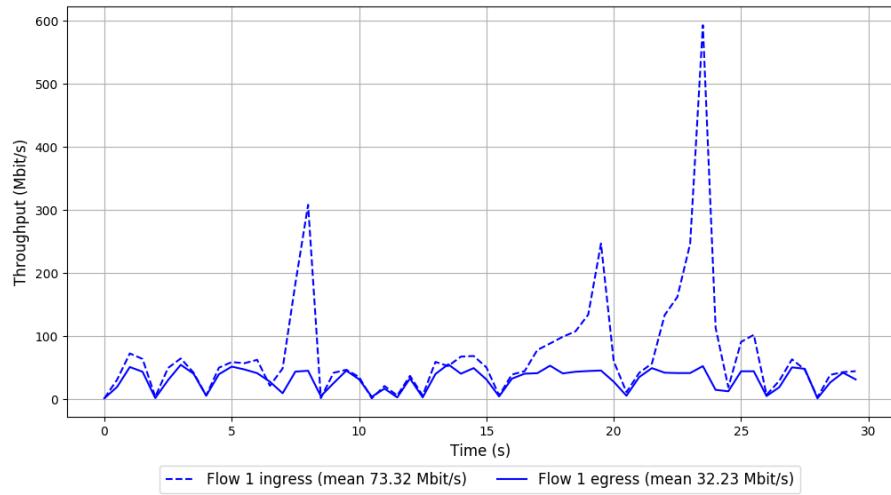


Run 6: Statistics of Verus

```
Start at: 2017-12-05 14:30:31
End at: 2017-12-05 14:31:02
Local clock offset: 3.293 ms
Remote clock offset: -4.897 ms

# Below is generated by plot.py at 2017-12-05 16:01:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.23 Mbit/s
95th percentile per-packet one-way delay: 63.893 ms
Loss rate: 56.04%
-- Flow 1:
Average throughput: 32.23 Mbit/s
95th percentile per-packet one-way delay: 63.893 ms
Loss rate: 56.04%
```

## Run 6: Report of Verus — Data Link

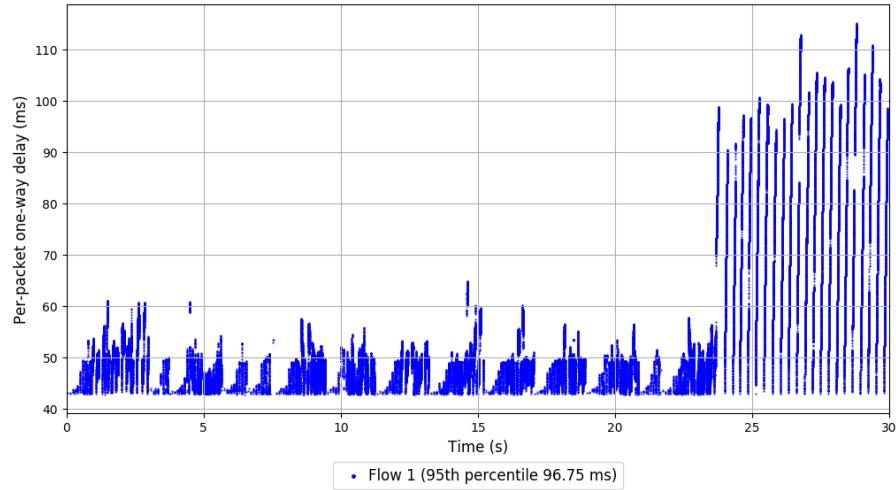
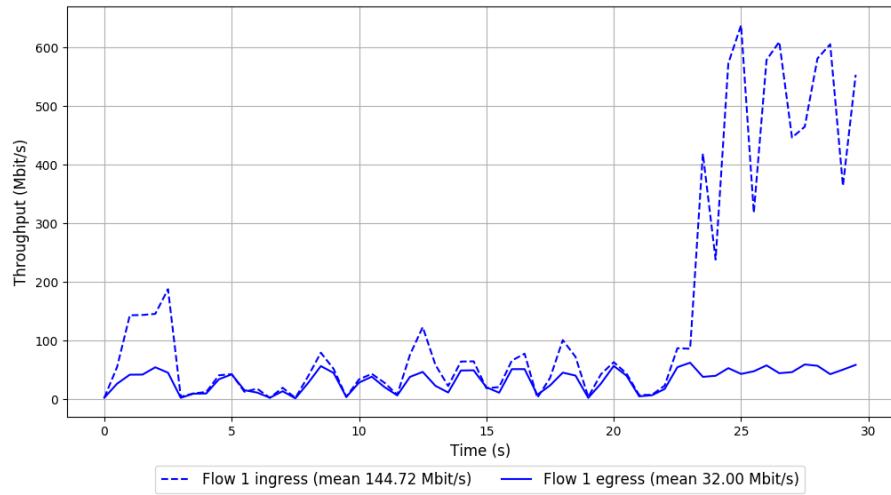


Run 7: Statistics of Verus

```
Start at: 2017-12-05 14:47:38
End at: 2017-12-05 14:48:08
Local clock offset: 3.133 ms
Remote clock offset: -8.271 ms

# Below is generated by plot.py at 2017-12-05 16:01:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.00 Mbit/s
95th percentile per-packet one-way delay: 96.745 ms
Loss rate: 77.85%
-- Flow 1:
Average throughput: 32.00 Mbit/s
95th percentile per-packet one-way delay: 96.745 ms
Loss rate: 77.85%
```

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

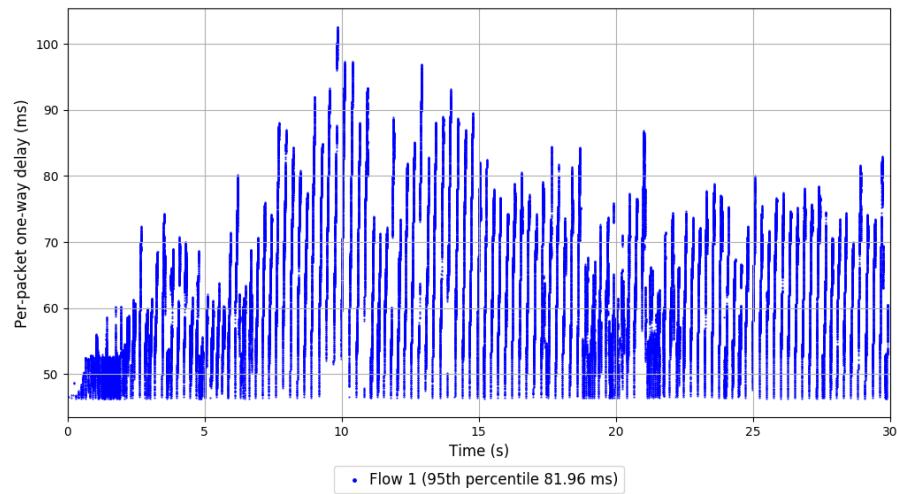
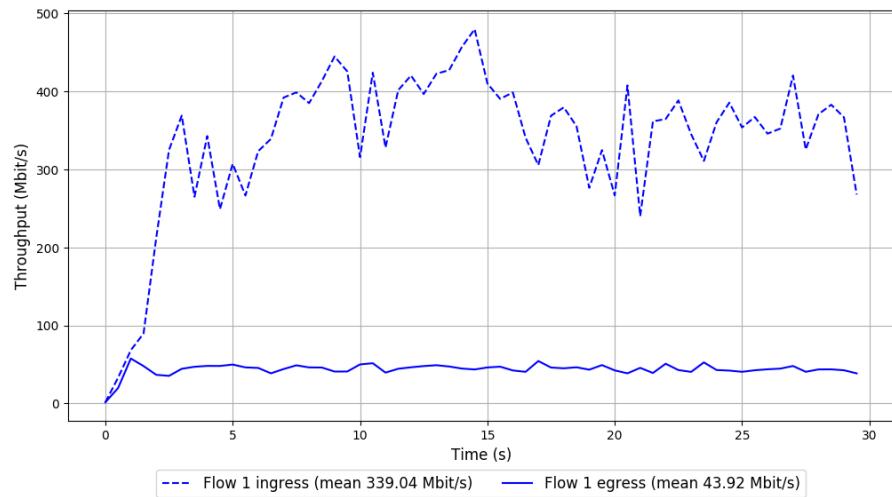


Run 8: Statistics of Verus

```
Start at: 2017-12-05 15:06:19
End at: 2017-12-05 15:06:49
Local clock offset: 3.255 ms
Remote clock offset: -5.588 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.92 Mbit/s
95th percentile per-packet one-way delay: 81.962 ms
Loss rate: 87.04%
-- Flow 1:
Average throughput: 43.92 Mbit/s
95th percentile per-packet one-way delay: 81.962 ms
Loss rate: 87.04%
```

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

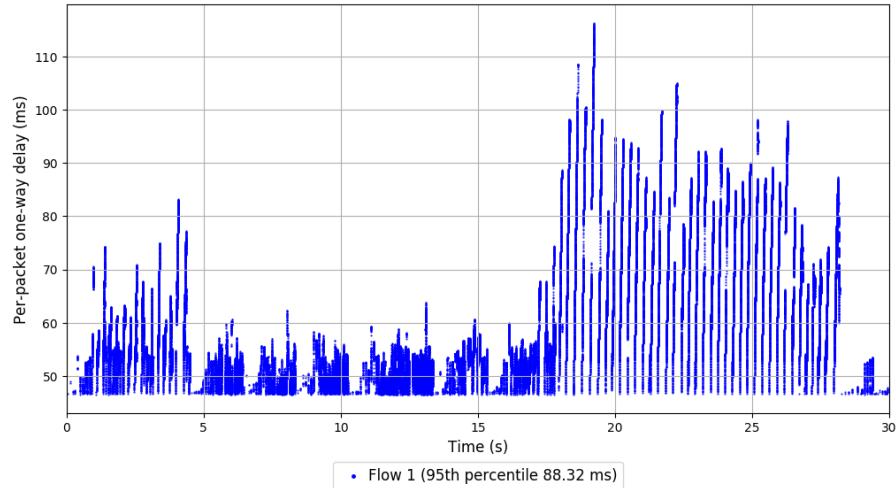
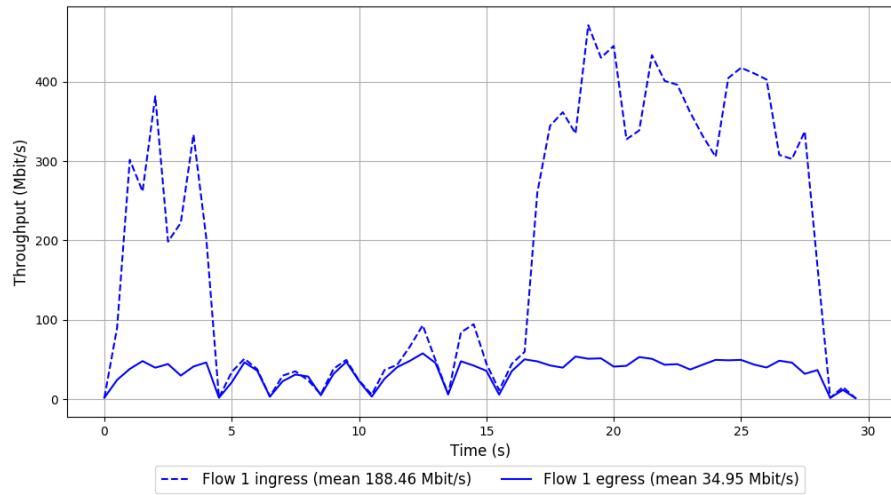


Run 9: Statistics of Verus

```
Start at: 2017-12-05 15:23:33
End at: 2017-12-05 15:24:03
Local clock offset: 3.18 ms
Remote clock offset: -5.399 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 88.318 ms
Loss rate: 81.45%
-- Flow 1:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 88.318 ms
Loss rate: 81.45%
```

Run 9: Report of Verus — Data Link

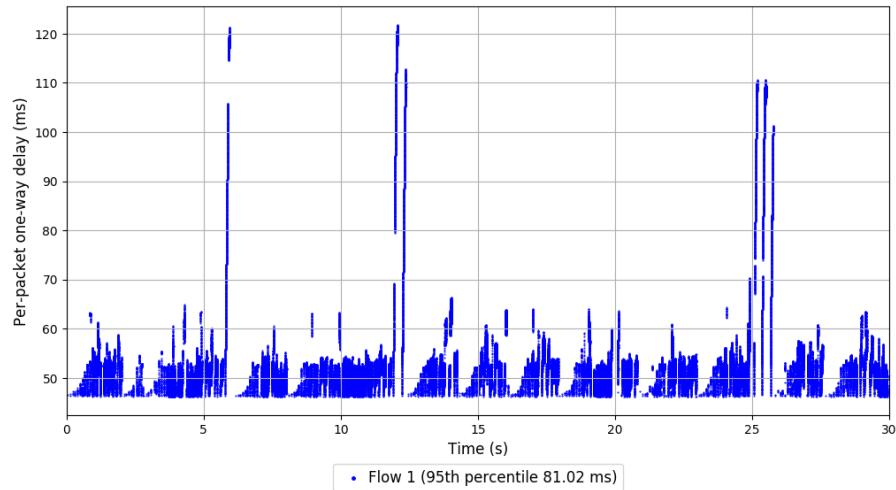
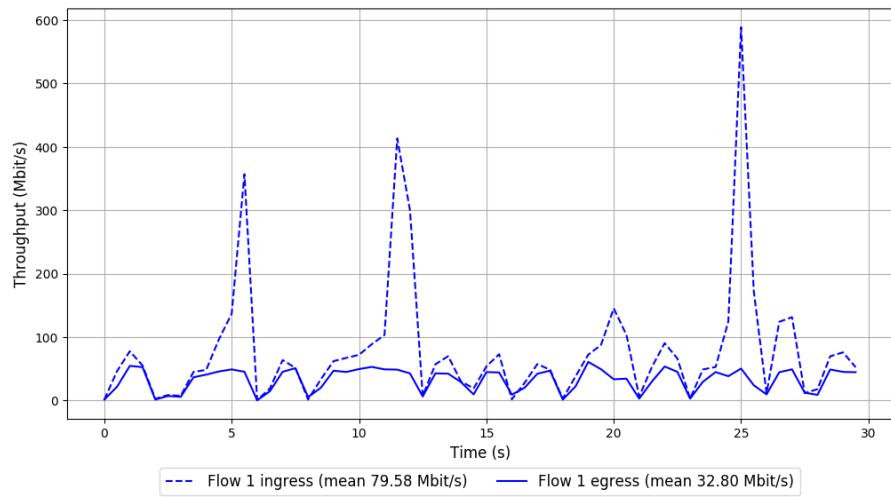


Run 10: Statistics of Verus

```
Start at: 2017-12-05 15:40:42
End at: 2017-12-05 15:41:12
Local clock offset: 3.317 ms
Remote clock offset: -4.912 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 81.016 ms
Loss rate: 58.78%
-- Flow 1:
Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 81.016 ms
Loss rate: 58.78%
```

Run 10: Report of Verus — Data Link

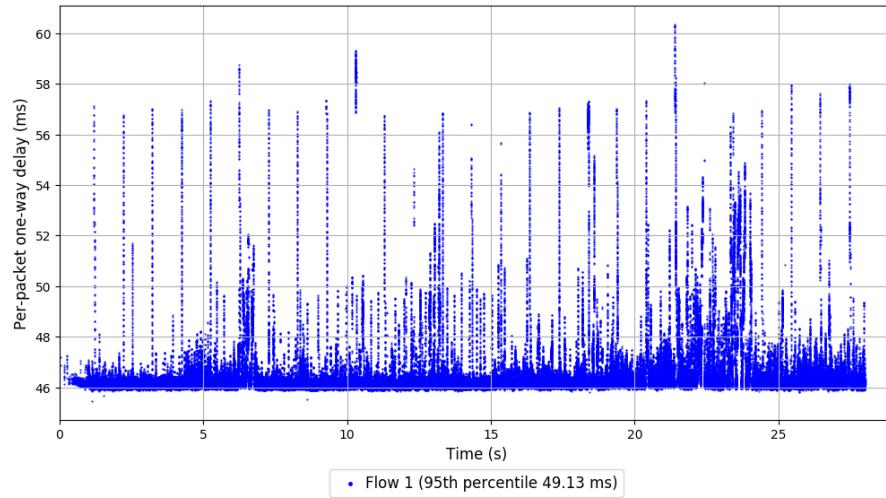
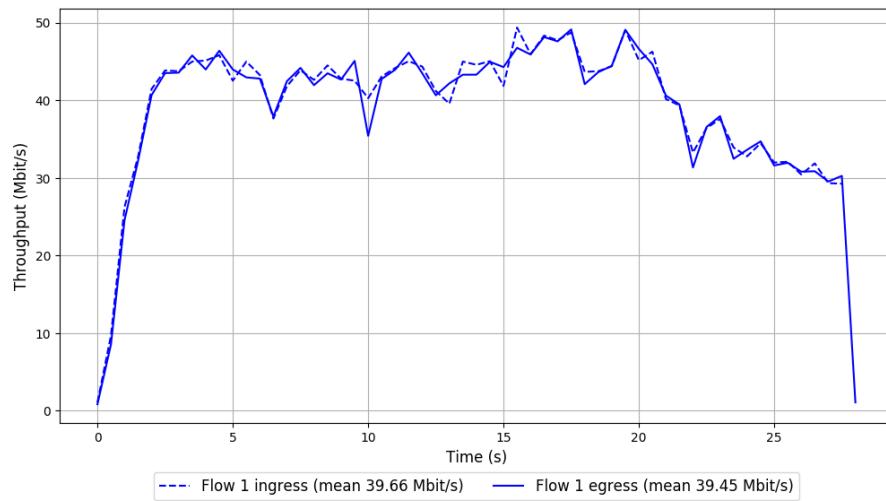


Run 1: Statistics of Copa

```
Start at: 2017-12-05 12:56:18
End at: 2017-12-05 12:56:48
Local clock offset: 1.449 ms
Remote clock offset: -6.149 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.45 Mbit/s
95th percentile per-packet one-way delay: 49.126 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 39.45 Mbit/s
95th percentile per-packet one-way delay: 49.126 ms
Loss rate: 0.54%
```

Run 1: Report of Copa — Data Link

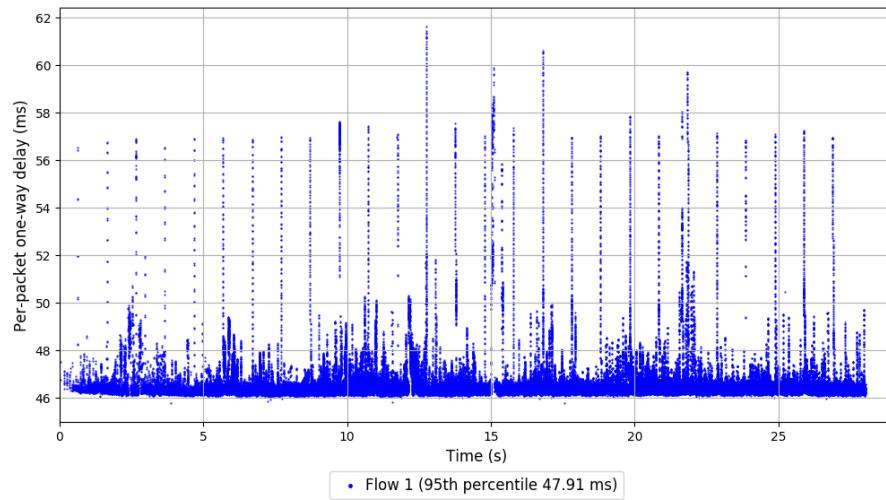
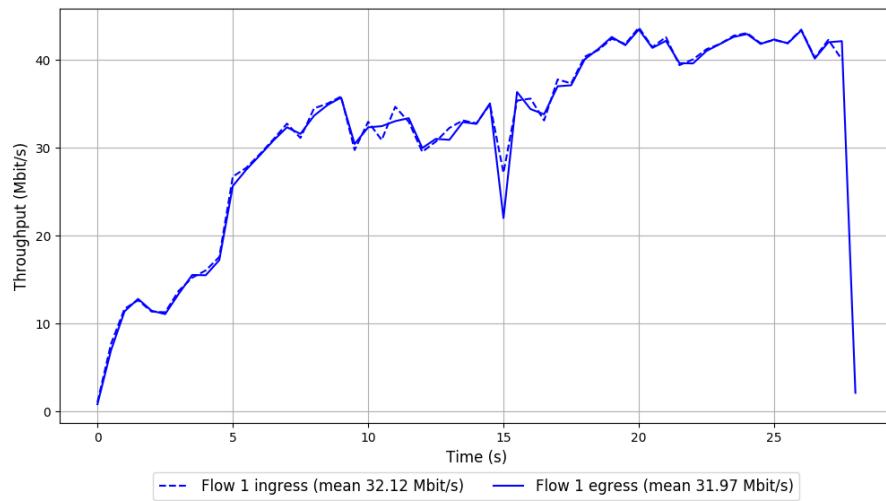


Run 2: Statistics of Copa

```
Start at: 2017-12-05 13:13:17
End at: 2017-12-05 13:13:47
Local clock offset: 2.024 ms
Remote clock offset: -5.832 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.97 Mbit/s
95th percentile per-packet one-way delay: 47.907 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 31.97 Mbit/s
95th percentile per-packet one-way delay: 47.907 ms
Loss rate: 0.48%
```

## Run 2: Report of Copa — Data Link

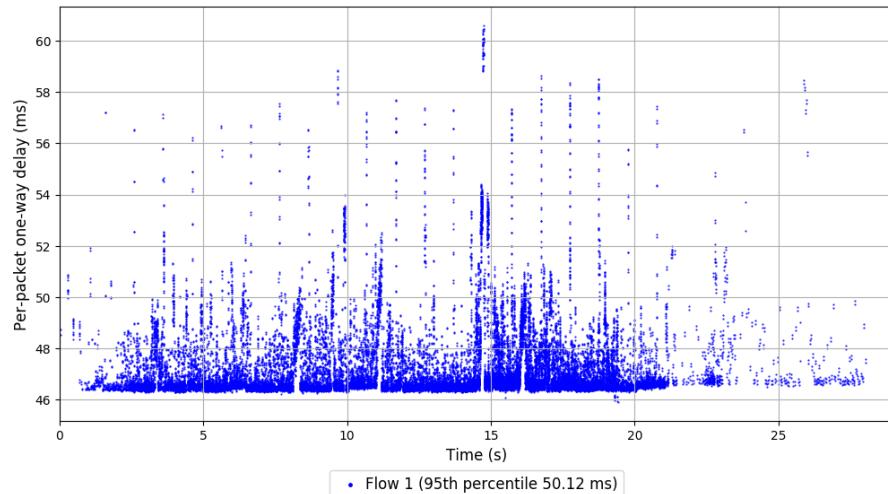
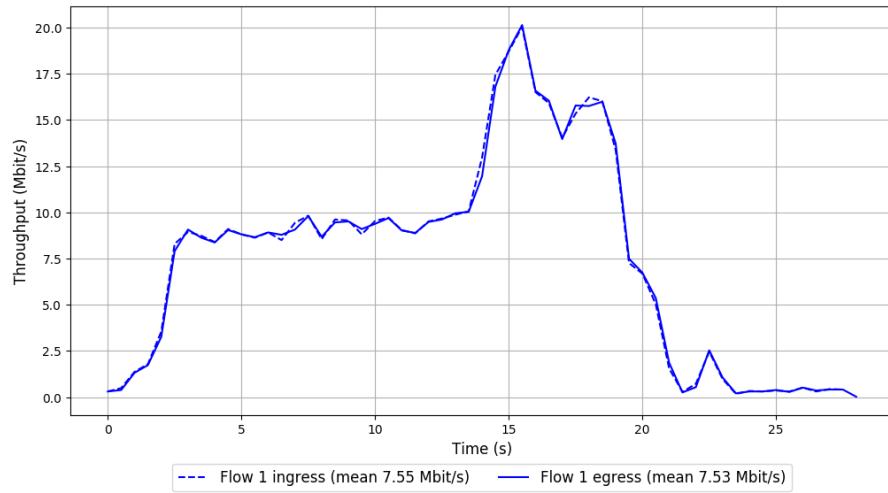


Run 3: Statistics of Copa

```
Start at: 2017-12-05 13:32:12
End at: 2017-12-05 13:32:43
Local clock offset: 2.362 ms
Remote clock offset: -5.369 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 50.115 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 50.115 ms
Loss rate: 0.27%
```

Run 3: Report of Copa — Data Link

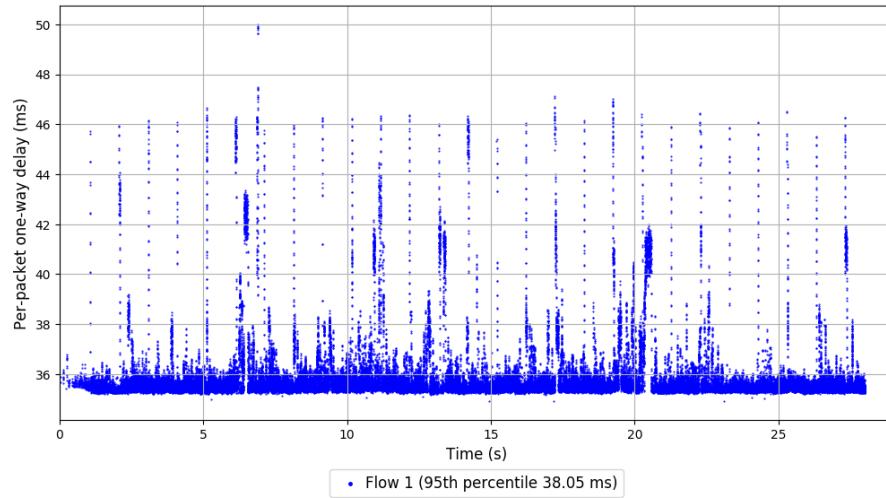
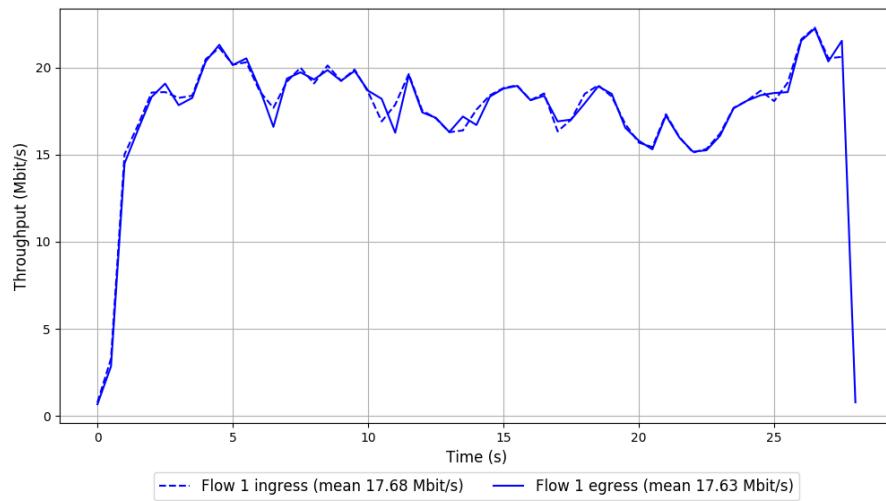


Run 4: Statistics of Copa

```
Start at: 2017-12-05 13:51:59
End at: 2017-12-05 13:52:29
Local clock offset: 2.984 ms
Remote clock offset: -16.386 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.63 Mbit/s
95th percentile per-packet one-way delay: 38.054 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 17.63 Mbit/s
95th percentile per-packet one-way delay: 38.054 ms
Loss rate: 0.27%
```

### Run 4: Report of Copa — Data Link

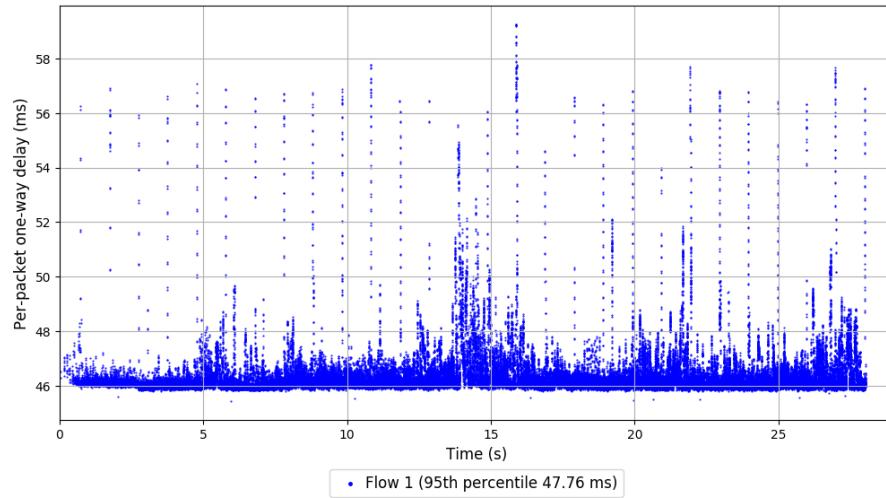
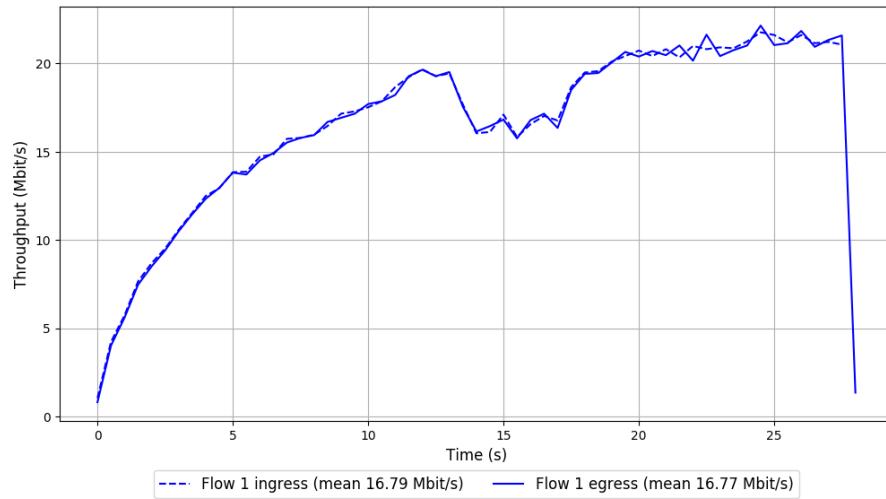


Run 5: Statistics of Copa

```
Start at: 2017-12-05 14:10:25
End at: 2017-12-05 14:10:55
Local clock offset: 3.216 ms
Remote clock offset: -5.523 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.77 Mbit/s
95th percentile per-packet one-way delay: 47.763 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 16.77 Mbit/s
95th percentile per-packet one-way delay: 47.763 ms
Loss rate: 0.14%
```

Run 5: Report of Copa — Data Link

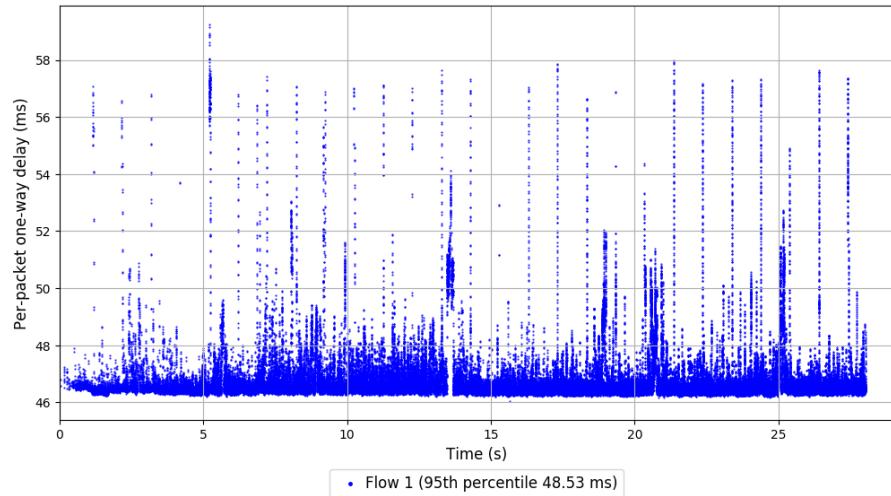
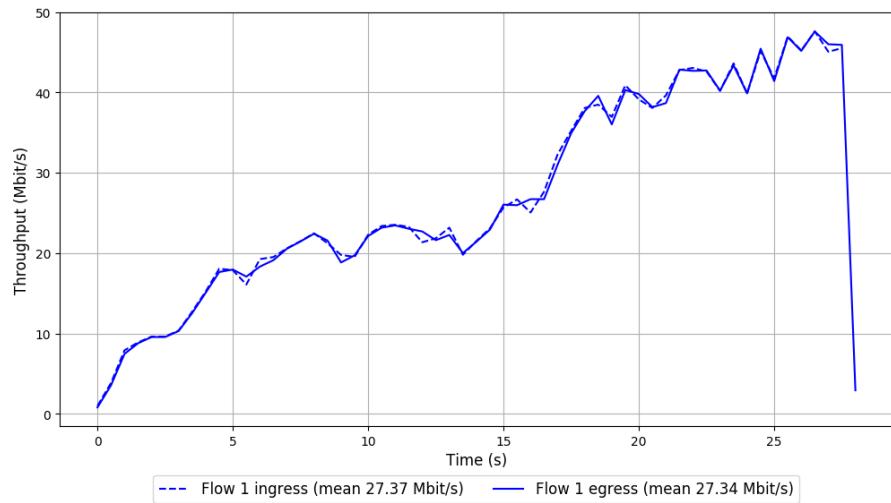


Run 6: Statistics of Copa

```
Start at: 2017-12-05 14:31:45
End at: 2017-12-05 14:32:15
Local clock offset: 3.391 ms
Remote clock offset: -4.975 ms

# Below is generated by plot.py at 2017-12-05 16:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.34 Mbit/s
95th percentile per-packet one-way delay: 48.530 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 27.34 Mbit/s
95th percentile per-packet one-way delay: 48.530 ms
Loss rate: 0.12%
```

## Run 6: Report of Copa — Data Link

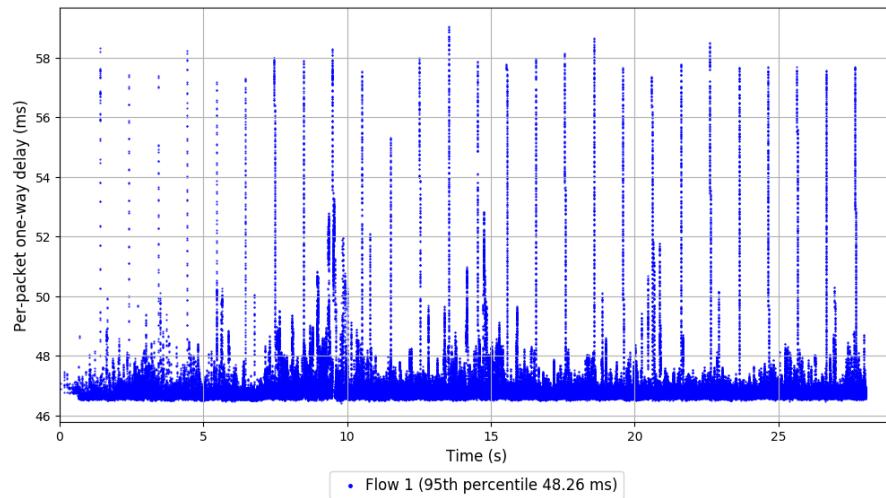
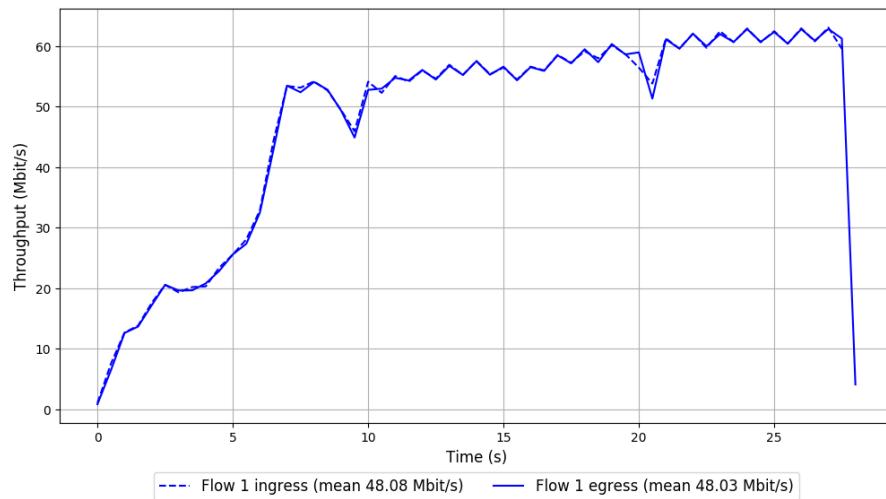


Run 7: Statistics of Copa

```
Start at: 2017-12-05 14:48:56
End at: 2017-12-05 14:49:26
Local clock offset: 3.221 ms
Remote clock offset: -4.561 ms

# Below is generated by plot.py at 2017-12-05 16:01:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.03 Mbit/s
95th percentile per-packet one-way delay: 48.259 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 48.03 Mbit/s
95th percentile per-packet one-way delay: 48.259 ms
Loss rate: 0.12%
```

### Run 7: Report of Copa — Data Link

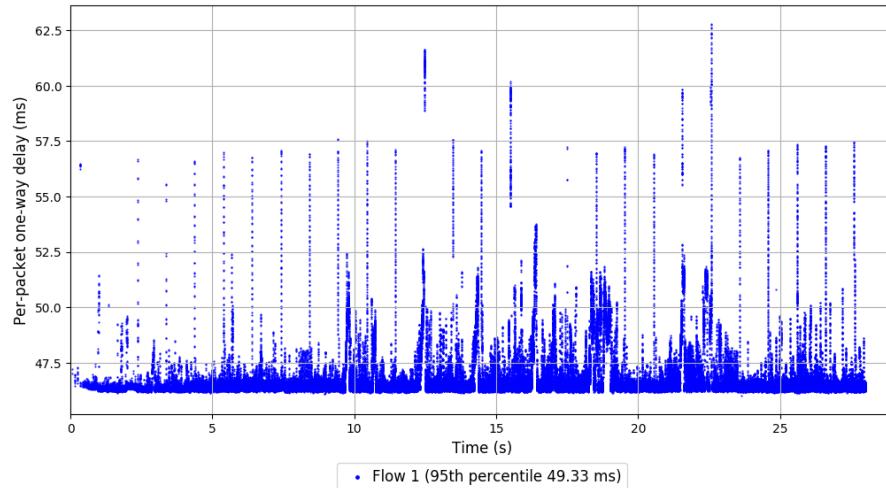
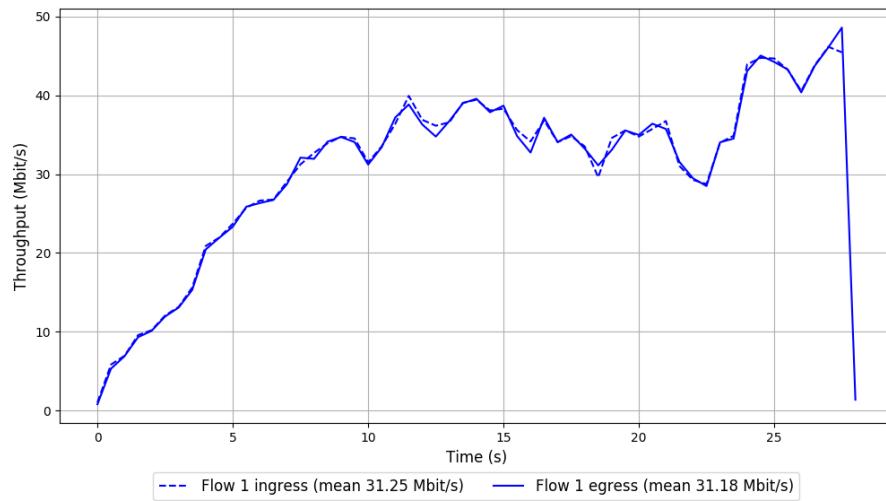


Run 8: Statistics of Copa

```
Start at: 2017-12-05 15:07:44
End at: 2017-12-05 15:08:15
Local clock offset: 3.252 ms
Remote clock offset: -5.409 ms

# Below is generated by plot.py at 2017-12-05 16:01:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.18 Mbit/s
95th percentile per-packet one-way delay: 49.325 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 31.18 Mbit/s
95th percentile per-packet one-way delay: 49.325 ms
Loss rate: 0.24%
```

### Run 8: Report of Copa — Data Link

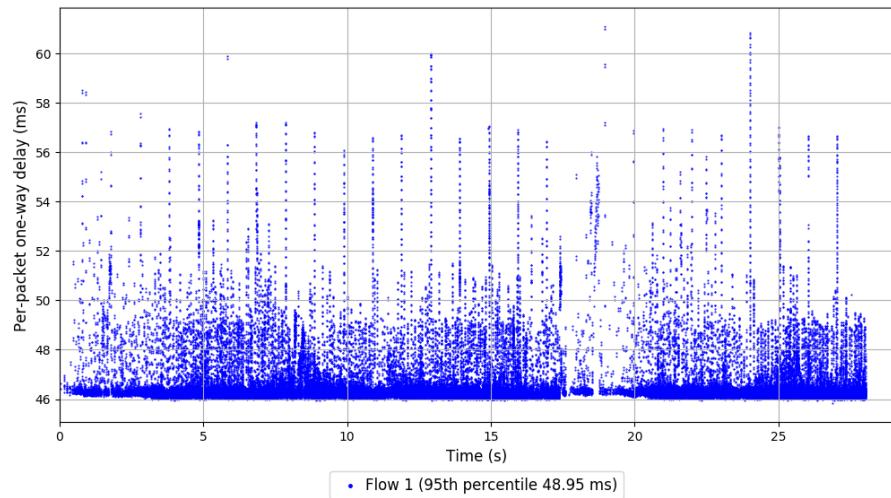
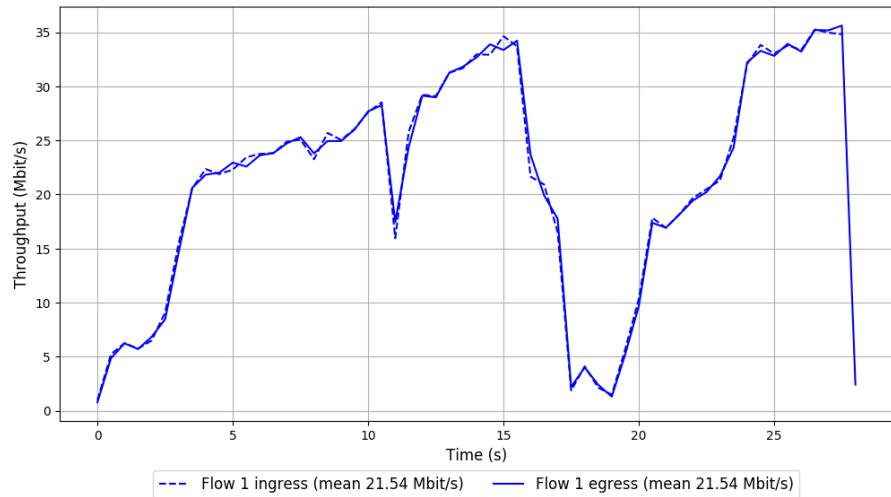


Run 9: Statistics of Copa

```
Start at: 2017-12-05 15:24:53
End at: 2017-12-05 15:25:23
Local clock offset: 3.41 ms
Remote clock offset: -5.38 ms

# Below is generated by plot.py at 2017-12-05 16:01:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.54 Mbit/s
95th percentile per-packet one-way delay: 48.953 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 21.54 Mbit/s
95th percentile per-packet one-way delay: 48.953 ms
Loss rate: 0.02%
```

### Run 9: Report of Copa — Data Link

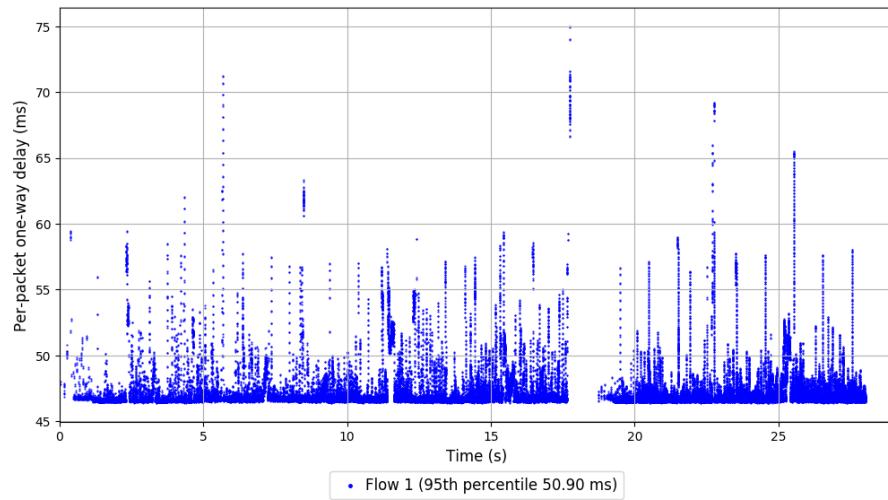
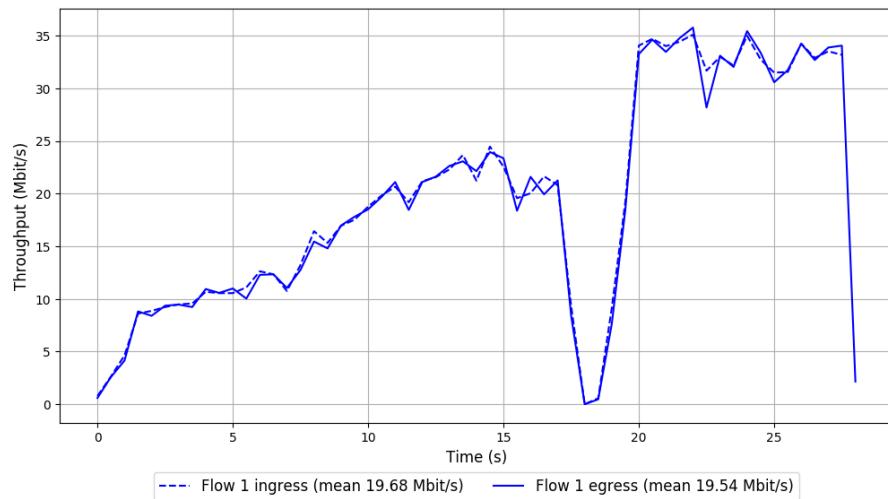


Run 10: Statistics of Copa

```
Start at: 2017-12-05 15:42:01
End at: 2017-12-05 15:42:31
Local clock offset: 3.346 ms
Remote clock offset: -4.625 ms

# Below is generated by plot.py at 2017-12-05 16:01:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.54 Mbit/s
95th percentile per-packet one-way delay: 50.899 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 19.54 Mbit/s
95th percentile per-packet one-way delay: 50.899 ms
Loss rate: 0.69%
```

Run 10: Report of Copa — Data Link

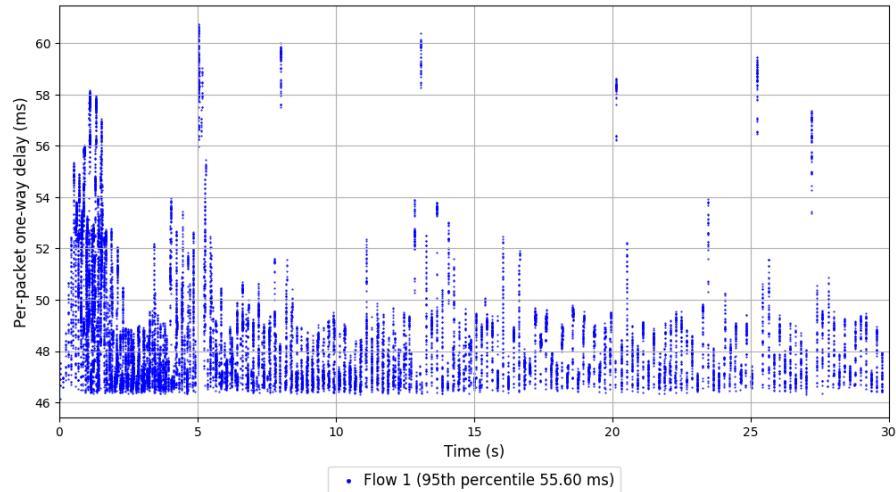
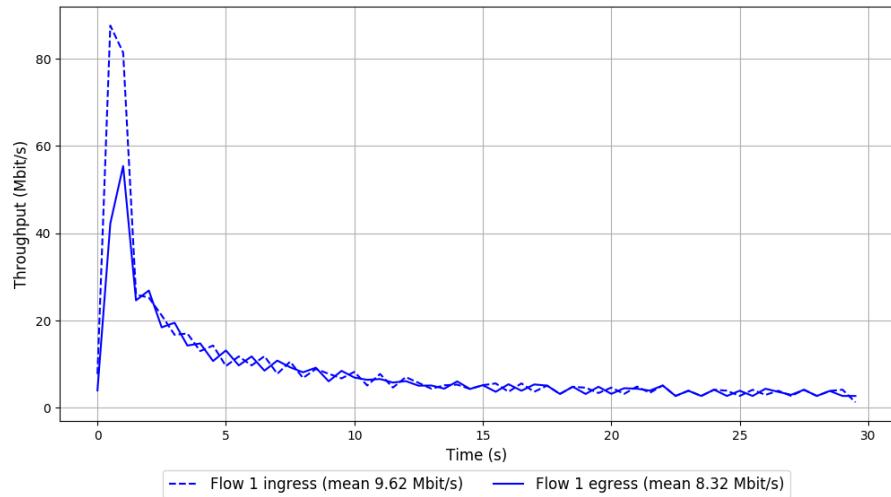


Run 1: Statistics of Indigo

```
Start at: 2017-12-05 12:50:59
End at: 2017-12-05 12:51:29
Local clock offset: 1.271 ms
Remote clock offset: -6.106 ms

# Below is generated by plot.py at 2017-12-05 16:01:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 55.601 ms
Loss rate: 13.49%
-- Flow 1:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 55.601 ms
Loss rate: 13.49%
```

Run 1: Report of Indigo — Data Link

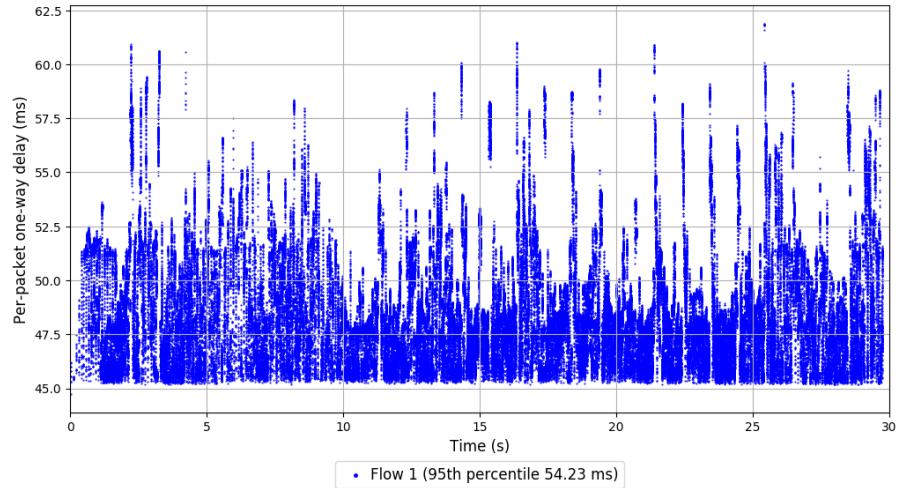
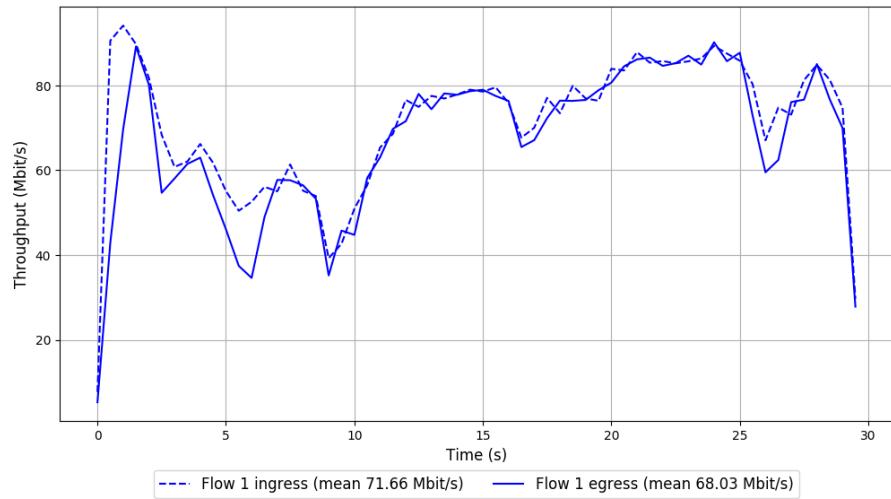


Run 2: Statistics of Indigo

```
Start at: 2017-12-05 13:08:28
End at: 2017-12-05 13:08:59
Local clock offset: 1.616 ms
Remote clock offset: -7.051 ms

# Below is generated by plot.py at 2017-12-05 16:02:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.03 Mbit/s
95th percentile per-packet one-way delay: 54.228 ms
Loss rate: 5.06%
-- Flow 1:
Average throughput: 68.03 Mbit/s
95th percentile per-packet one-way delay: 54.228 ms
Loss rate: 5.06%
```

Run 2: Report of Indigo — Data Link

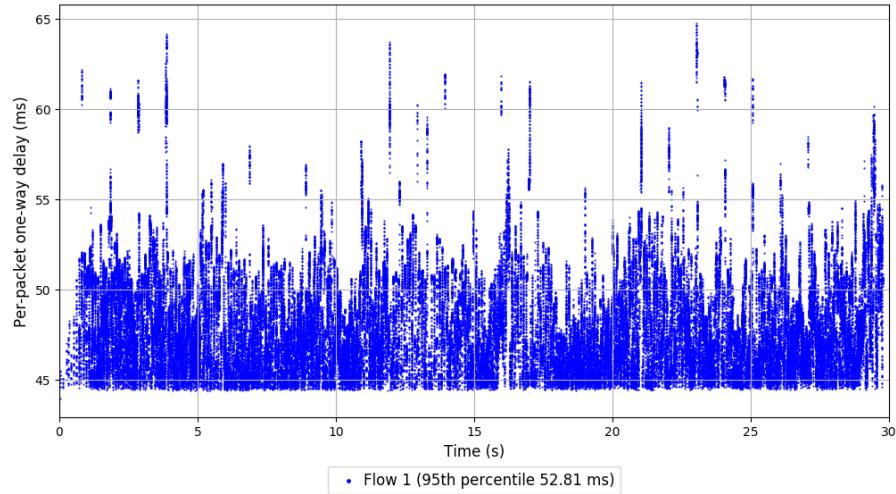
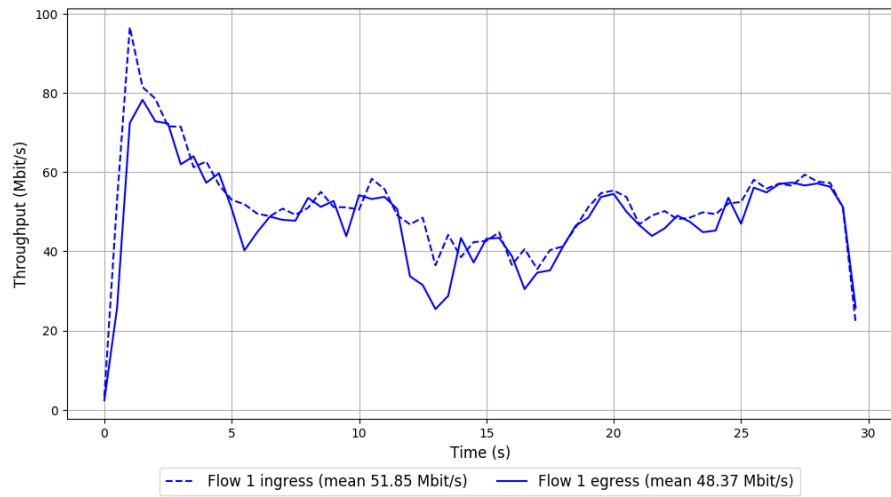


Run 3: Statistics of Indigo

```
Start at: 2017-12-05 13:25:14
End at: 2017-12-05 13:25:44
Local clock offset: 2.204 ms
Remote clock offset: -7.262 ms

# Below is generated by plot.py at 2017-12-05 16:02:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.37 Mbit/s
95th percentile per-packet one-way delay: 52.810 ms
Loss rate: 6.70%
-- Flow 1:
Average throughput: 48.37 Mbit/s
95th percentile per-packet one-way delay: 52.810 ms
Loss rate: 6.70%
```

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

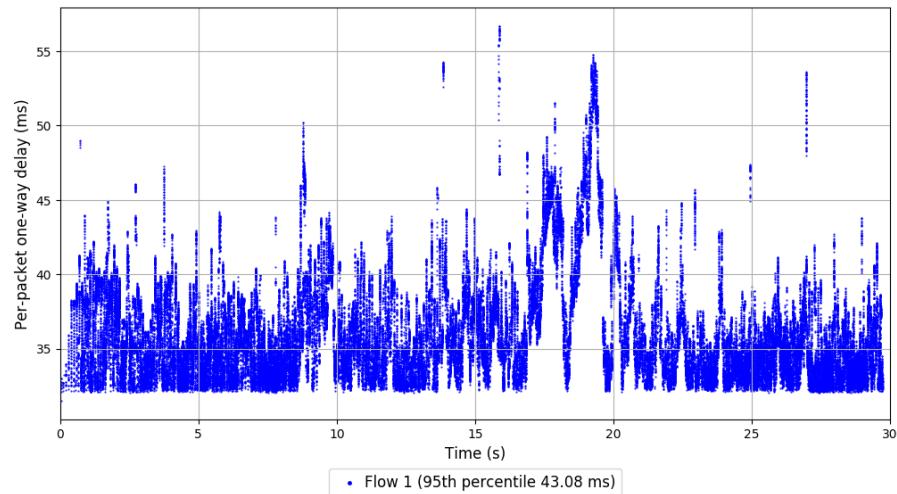
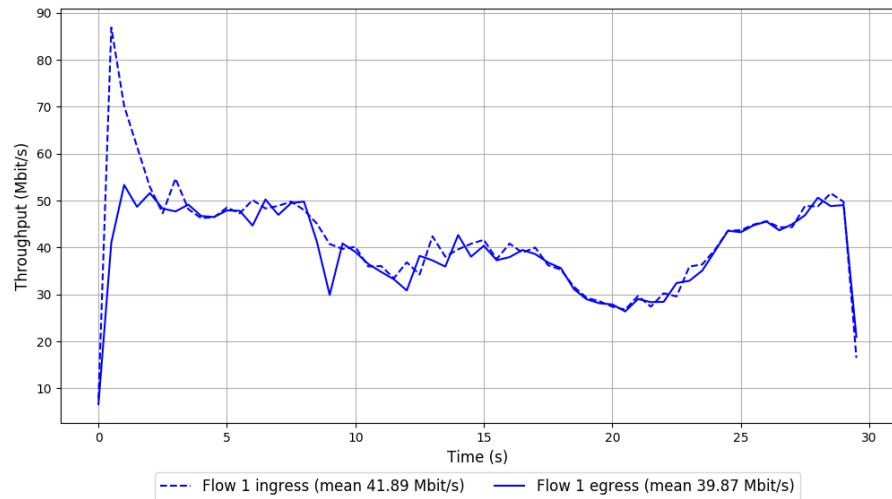


Run 4: Statistics of Indigo

```
Start at: 2017-12-05 13:47:05
End at: 2017-12-05 13:47:35
Local clock offset: 2.902 ms
Remote clock offset: -19.305 ms

# Below is generated by plot.py at 2017-12-05 16:02:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 43.075 ms
Loss rate: 4.80%
-- Flow 1:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 43.075 ms
Loss rate: 4.80%
```

## Run 4: Report of Indigo — Data Link

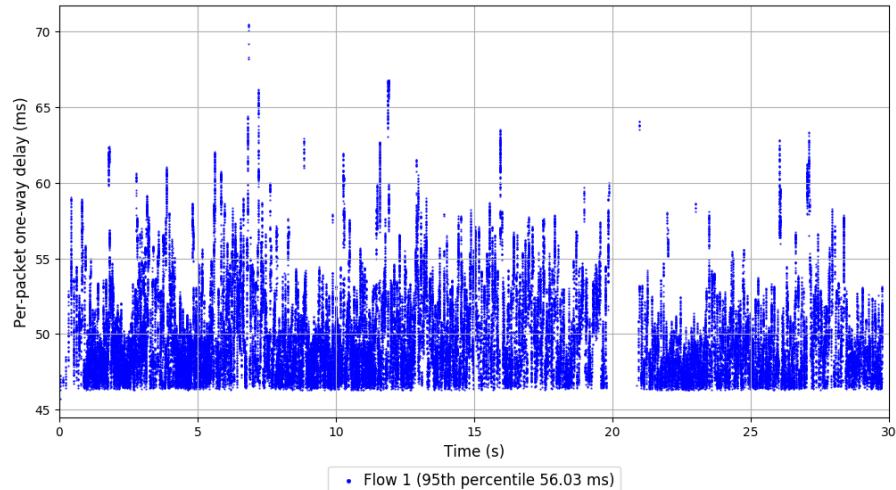
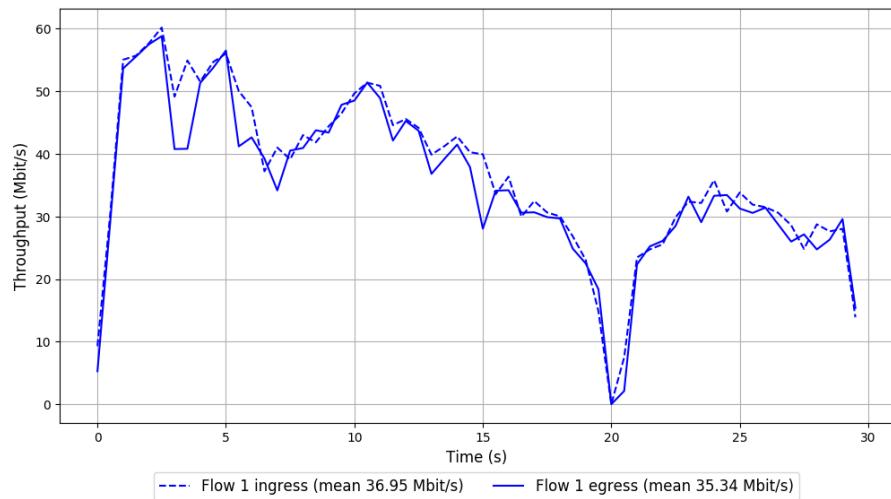


Run 5: Statistics of Indigo

```
Start at: 2017-12-05 14:05:35
End at: 2017-12-05 14:06:05
Local clock offset: 2.975 ms
Remote clock offset: -5.276 ms

# Below is generated by plot.py at 2017-12-05 16:02:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.34 Mbit/s
95th percentile per-packet one-way delay: 56.031 ms
Loss rate: 4.35%
-- Flow 1:
Average throughput: 35.34 Mbit/s
95th percentile per-packet one-way delay: 56.031 ms
Loss rate: 4.35%
```

Run 5: Report of Indigo — Data Link

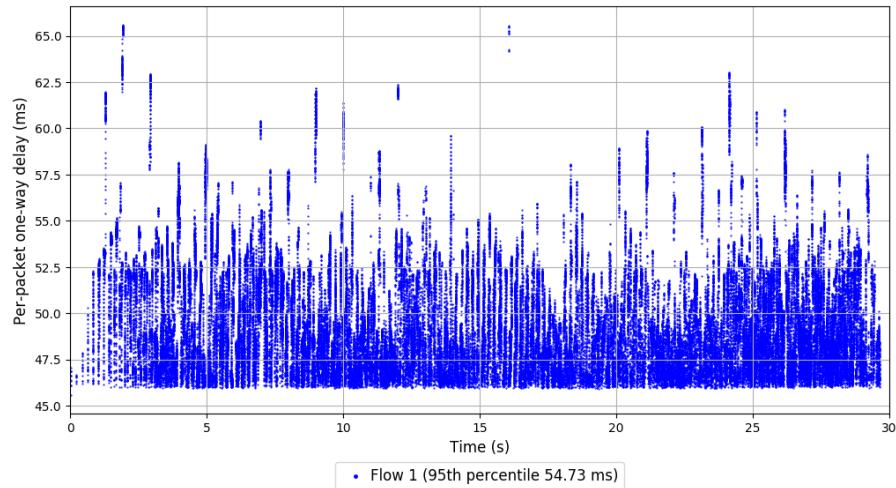
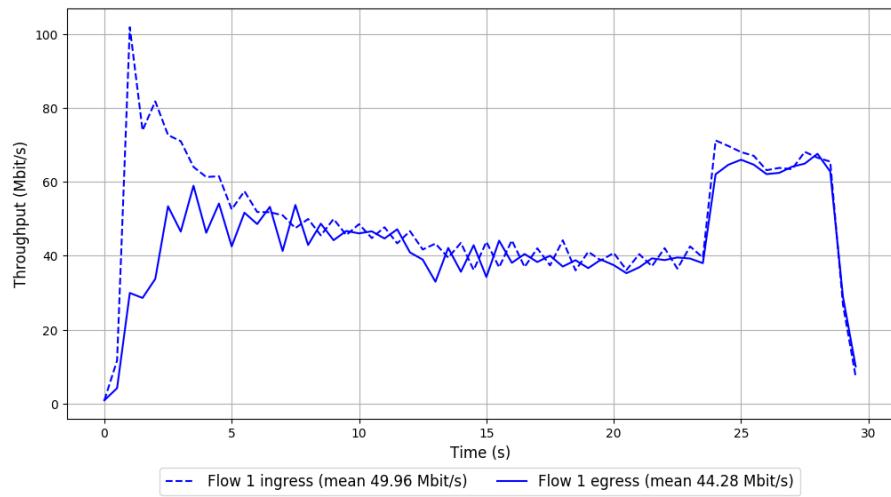


Run 6: Statistics of Indigo

```
Start at: 2017-12-05 14:26:44
End at: 2017-12-05 14:27:14
Local clock offset: 3.381 ms
Remote clock offset: -5.08 ms

# Below is generated by plot.py at 2017-12-05 16:02:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.28 Mbit/s
95th percentile per-packet one-way delay: 54.735 ms
Loss rate: 11.37%
-- Flow 1:
Average throughput: 44.28 Mbit/s
95th percentile per-packet one-way delay: 54.735 ms
Loss rate: 11.37%
```

Run 6: Report of Indigo — Data Link

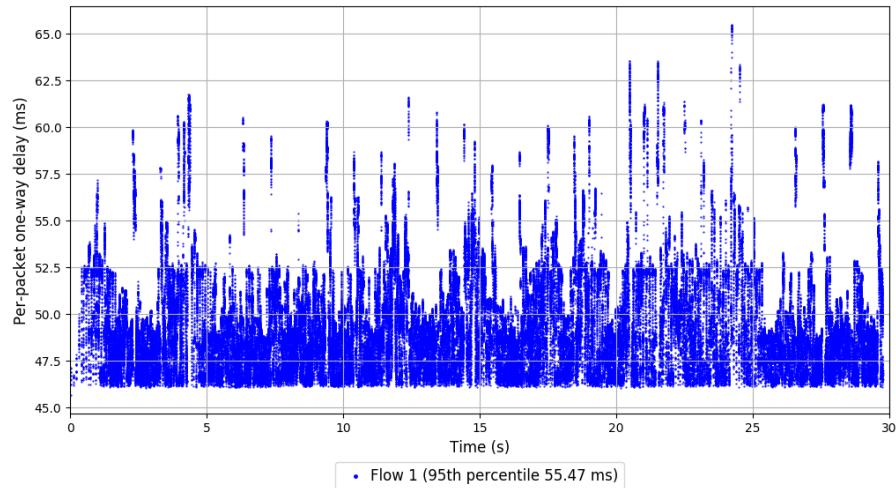
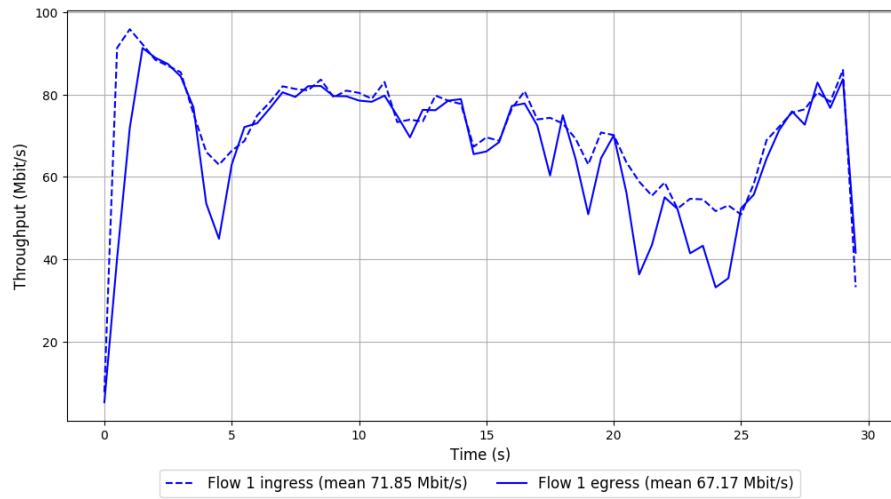


Run 7: Statistics of Indigo

```
Start at: 2017-12-05 14:43:57
End at: 2017-12-05 14:44:27
Local clock offset: 3.287 ms
Remote clock offset: -4.658 ms

# Below is generated by plot.py at 2017-12-05 16:02:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.17 Mbit/s
95th percentile per-packet one-way delay: 55.469 ms
Loss rate: 6.51%
-- Flow 1:
Average throughput: 67.17 Mbit/s
95th percentile per-packet one-way delay: 55.469 ms
Loss rate: 6.51%
```

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

/home/ubuntu/pantheon\_data/2017-12-05T12-36-AWS-Korea-to-China-10-runs/indigo\_stats\_run8.log

Run 8: Report of Indigo — Data Link

Figure is missing

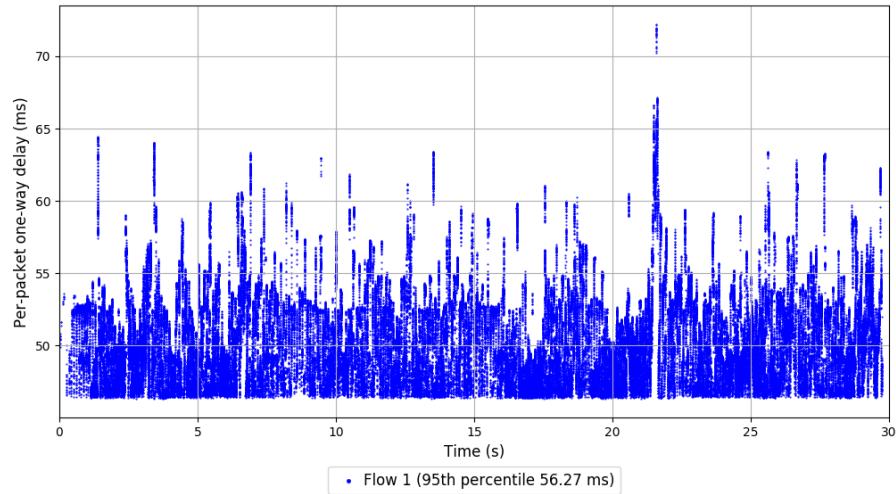
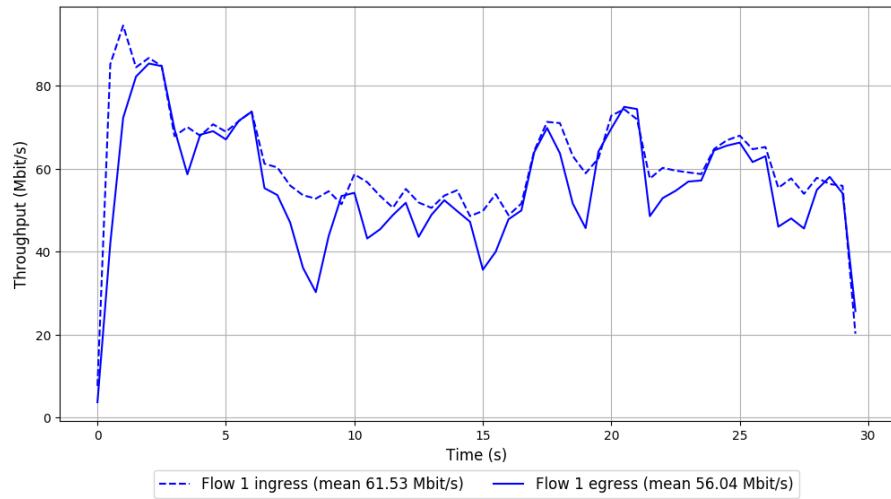
Figure is missing

Run 9: Statistics of Indigo

```
Start at: 2017-12-05 15:19:50
End at: 2017-12-05 15:20:20
Local clock offset: 3.123 ms
Remote clock offset: -5.353 ms

# Below is generated by plot.py at 2017-12-05 16:02:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 56.267 ms
Loss rate: 8.92%
-- Flow 1:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 56.267 ms
Loss rate: 8.92%
```

Run 9: Report of Indigo — Data Link

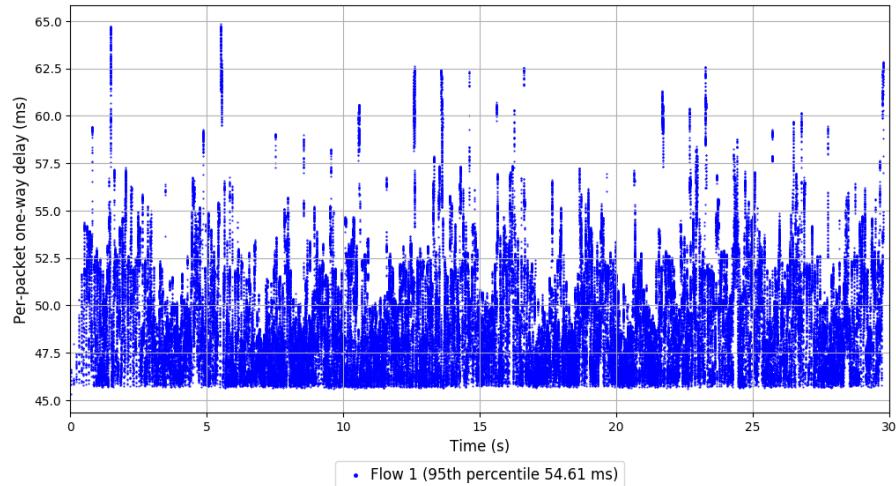
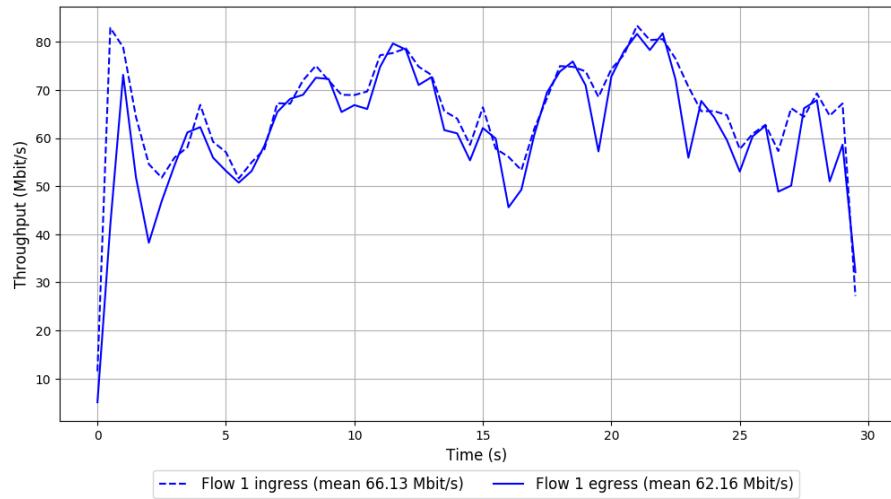


Run 10: Statistics of Indigo

```
Start at: 2017-12-05 15:37:04
End at: 2017-12-05 15:37:34
Local clock offset: 3.273 ms
Remote clock offset: -5.809 ms

# Below is generated by plot.py at 2017-12-05 16:02:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.16 Mbit/s
95th percentile per-packet one-way delay: 54.612 ms
Loss rate: 5.97%
-- Flow 1:
Average throughput: 62.16 Mbit/s
95th percentile per-packet one-way delay: 54.612 ms
Loss rate: 5.97%
```

Run 10: Report of Indigo — Data Link

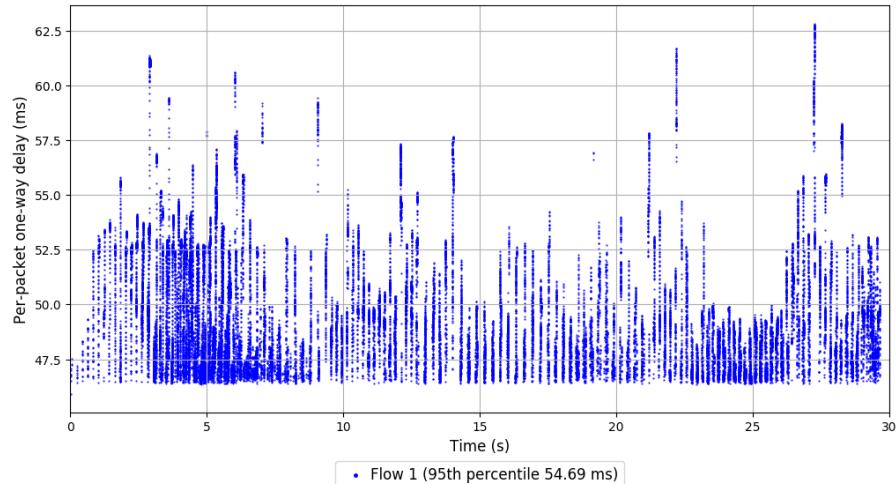
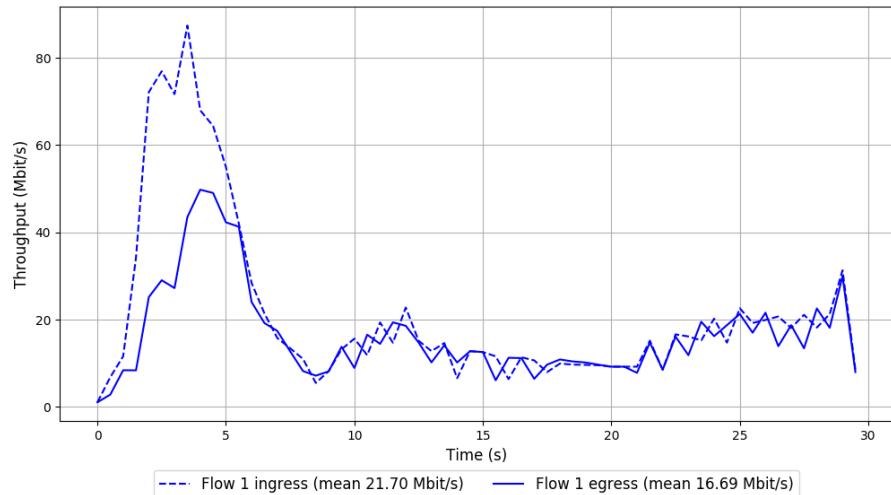


Run 1: Statistics of Indigo-calib

```
Start at: 2017-12-05 12:45:45
End at: 2017-12-05 12:46:15
Local clock offset: 0.976 ms
Remote clock offset: -6.391 ms

# Below is generated by plot.py at 2017-12-05 16:02:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.69 Mbit/s
95th percentile per-packet one-way delay: 54.687 ms
Loss rate: 23.06%
-- Flow 1:
Average throughput: 16.69 Mbit/s
95th percentile per-packet one-way delay: 54.687 ms
Loss rate: 23.06%
```

Run 1: Report of Indigo-calib — Data Link

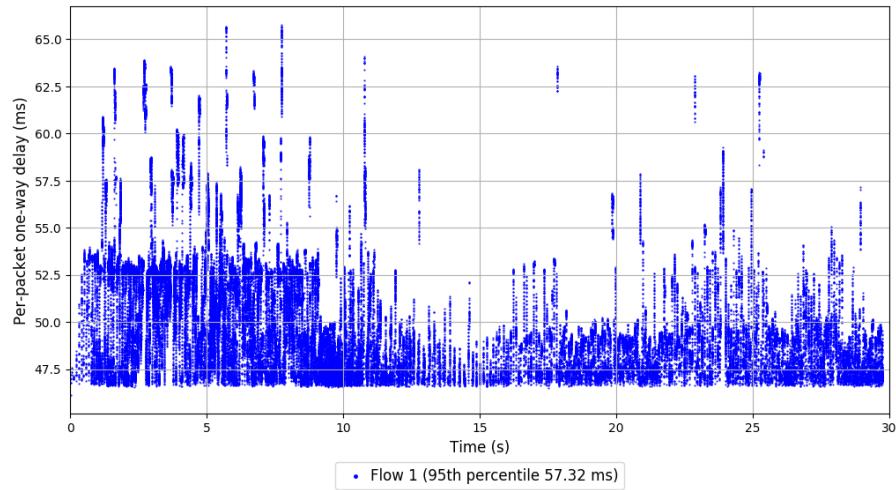
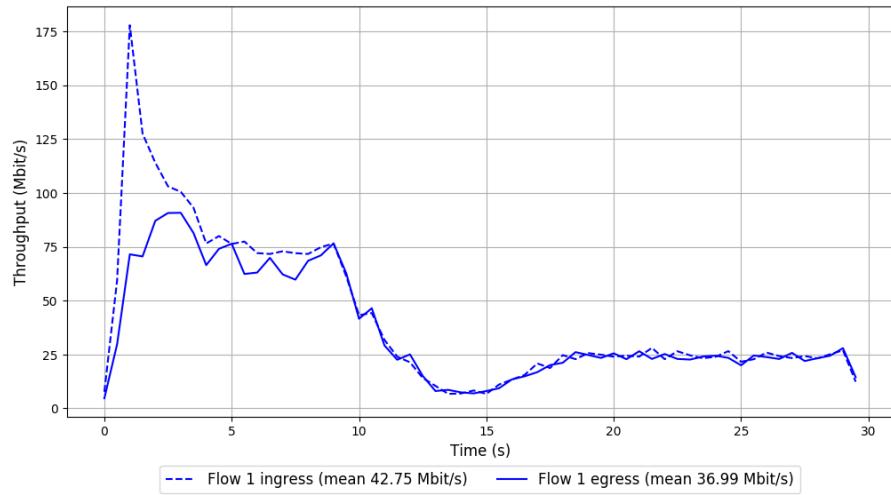


Run 2: Statistics of Indigo-calib

```
Start at: 2017-12-05 13:04:42
End at: 2017-12-05 13:05:12
Local clock offset: 1.506 ms
Remote clock offset: -5.748 ms

# Below is generated by plot.py at 2017-12-05 16:02:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 57.321 ms
Loss rate: 13.46%
-- Flow 1:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 57.321 ms
Loss rate: 13.46%
```

Run 2: Report of Indigo-calib — Data Link

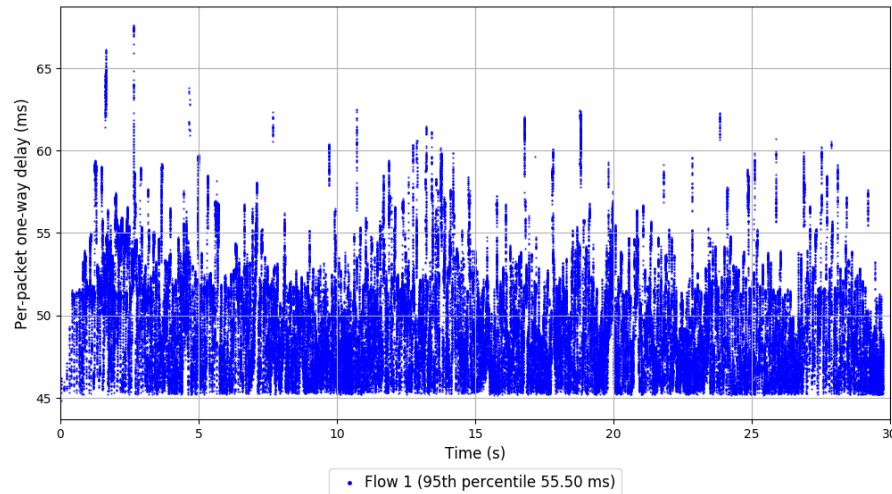
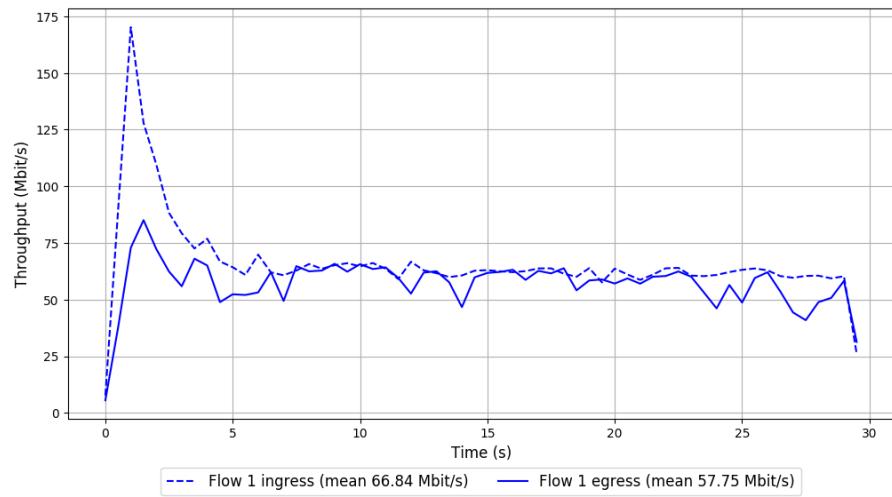


Run 3: Statistics of Indigo-calib

```
Start at: 2017-12-05 13:21:28
End at: 2017-12-05 13:21:58
Local clock offset: 2.109 ms
Remote clock offset: -6.558 ms

# Below is generated by plot.py at 2017-12-05 16:02:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.75 Mbit/s
95th percentile per-packet one-way delay: 55.500 ms
Loss rate: 13.60%
-- Flow 1:
Average throughput: 57.75 Mbit/s
95th percentile per-packet one-way delay: 55.500 ms
Loss rate: 13.60%
```

Run 3: Report of Indigo-calib — Data Link

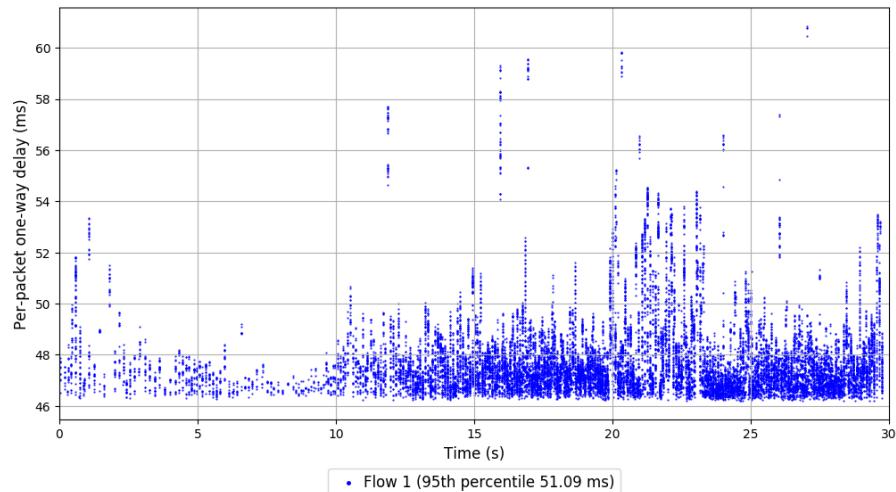
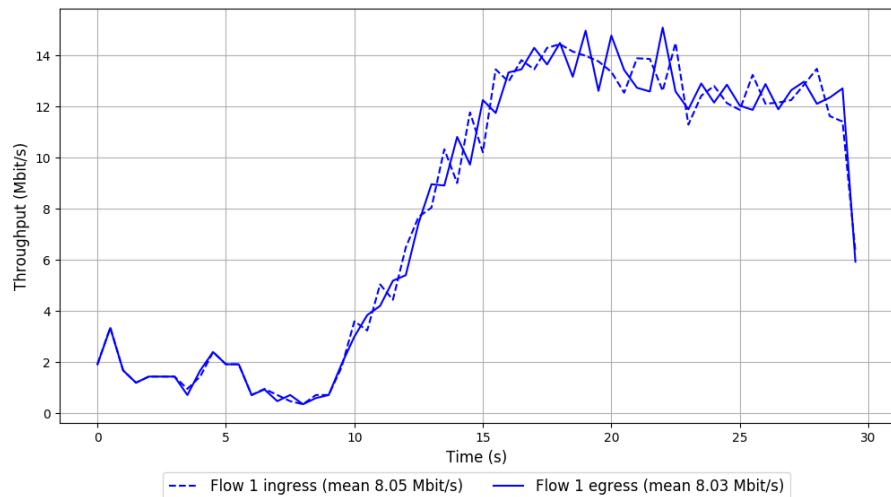


Run 4: Statistics of Indigo-calib

```
Start at: 2017-12-05 13:43:21
End at: 2017-12-05 13:43:51
Local clock offset: 2.81 ms
Remote clock offset: -5.218 ms

# Below is generated by plot.py at 2017-12-05 16:02:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 51.089 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 51.089 ms
Loss rate: 0.24%
```

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

/home/ubuntu/pantheon\_data/2017-12-05T12-36-AWS-Korea-to-China-10-runs/indigo\_no\_calibration

Run 5: Report of Indigo-calib — Data Link

Figure is missing

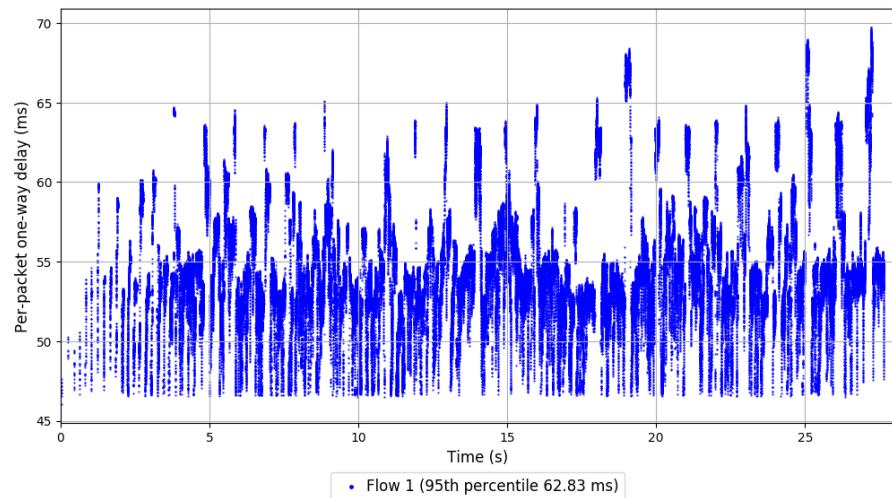
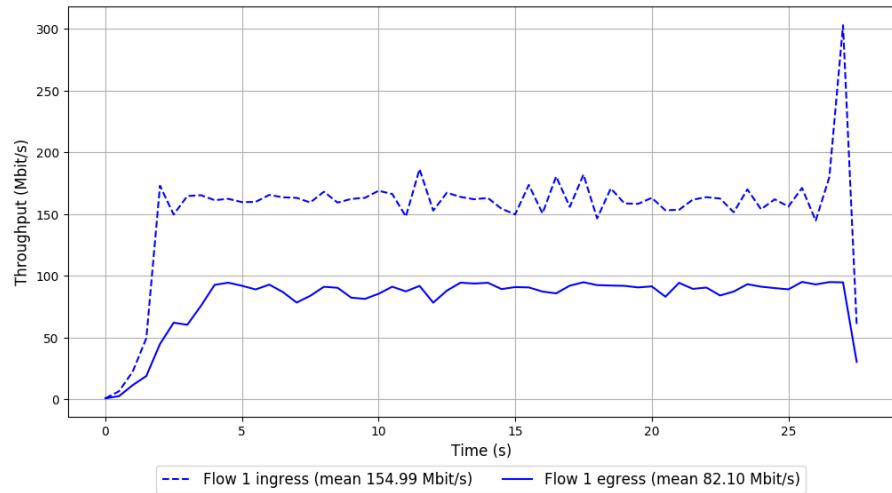
Figure is missing

Run 6: Statistics of Indigo-calib

```
Start at: 2017-12-05 14:18:52
End at: 2017-12-05 14:19:22
Local clock offset: 3.199 ms
Remote clock offset: -5.059 ms

# Below is generated by plot.py at 2017-12-05 16:03:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.10 Mbit/s
95th percentile per-packet one-way delay: 62.828 ms
Loss rate: 47.02%
-- Flow 1:
Average throughput: 82.10 Mbit/s
95th percentile per-packet one-way delay: 62.828 ms
Loss rate: 47.02%
```

Run 6: Report of Indigo-calib — Data Link

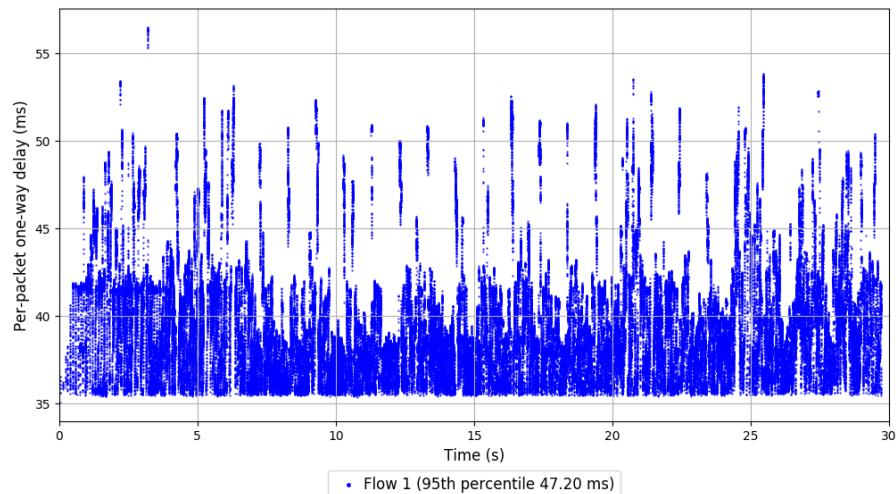
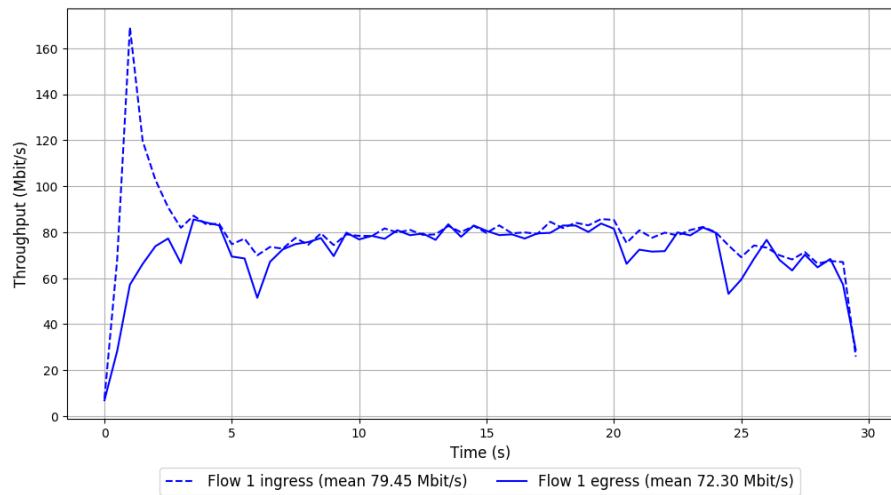


Run 7: Statistics of Indigo-calib

```
Start at: 2017-12-05 14:40:13
End at: 2017-12-05 14:40:43
Local clock offset: 3.288 ms
Remote clock offset: -15.678 ms

# Below is generated by plot.py at 2017-12-05 16:03:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.30 Mbit/s
95th percentile per-packet one-way delay: 47.198 ms
Loss rate: 8.99%
-- Flow 1:
Average throughput: 72.30 Mbit/s
95th percentile per-packet one-way delay: 47.198 ms
Loss rate: 8.99%
```

Run 7: Report of Indigo-calib — Data Link

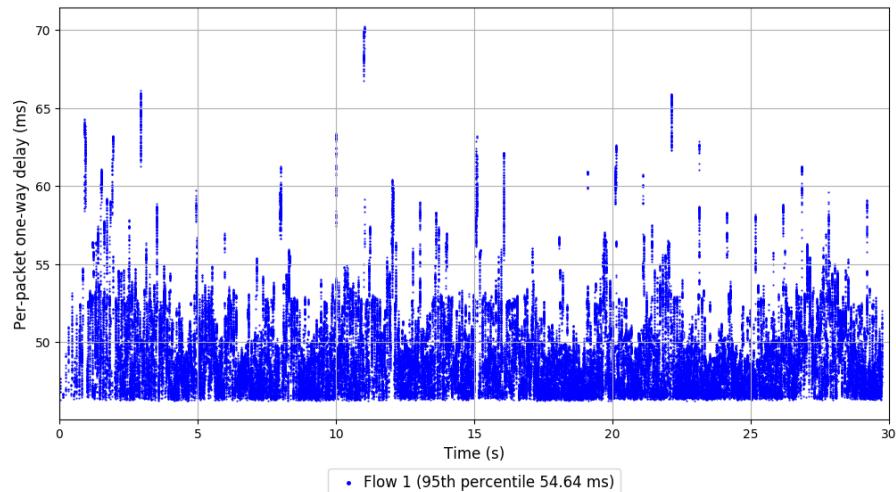
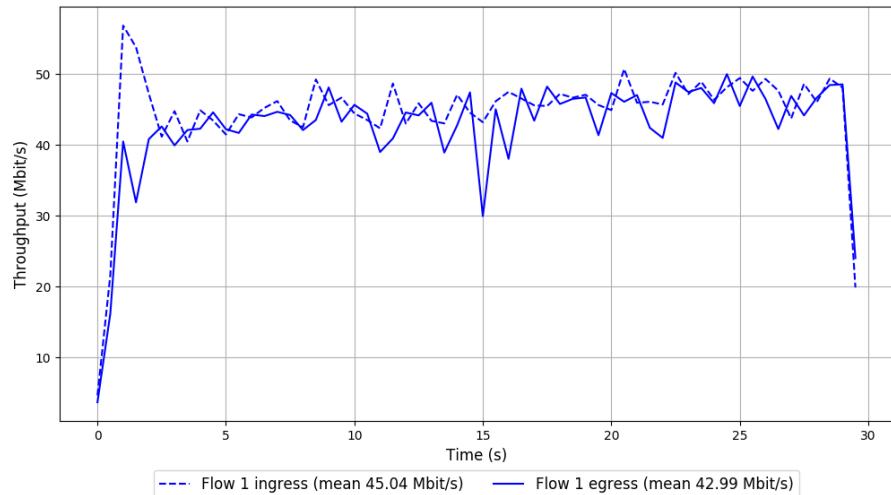


Run 8: Statistics of Indigo-calib

```
Start at: 2017-12-05 14:57:16
End at: 2017-12-05 14:57:46
Local clock offset: 3.092 ms
Remote clock offset: -5.111 ms

# Below is generated by plot.py at 2017-12-05 16:03:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.99 Mbit/s
95th percentile per-packet one-way delay: 54.636 ms
Loss rate: 4.55%
-- Flow 1:
Average throughput: 42.99 Mbit/s
95th percentile per-packet one-way delay: 54.636 ms
Loss rate: 4.55%
```

Run 8: Report of Indigo-calib — Data Link

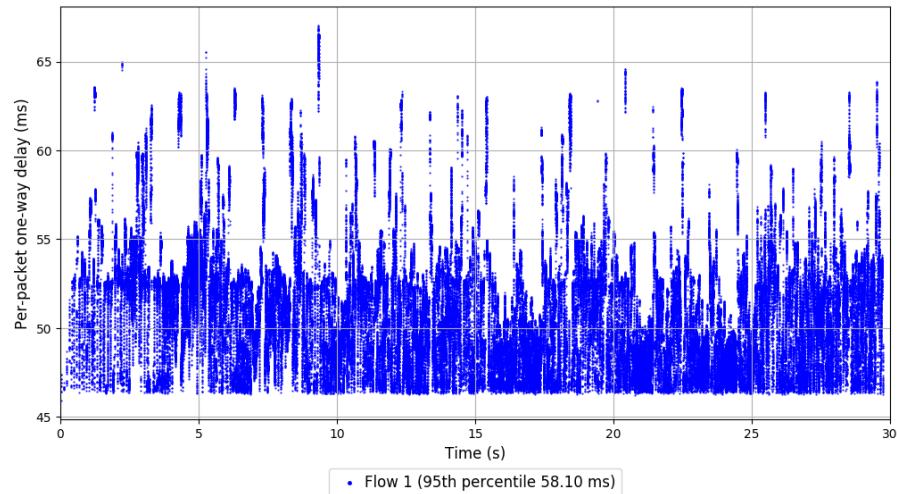
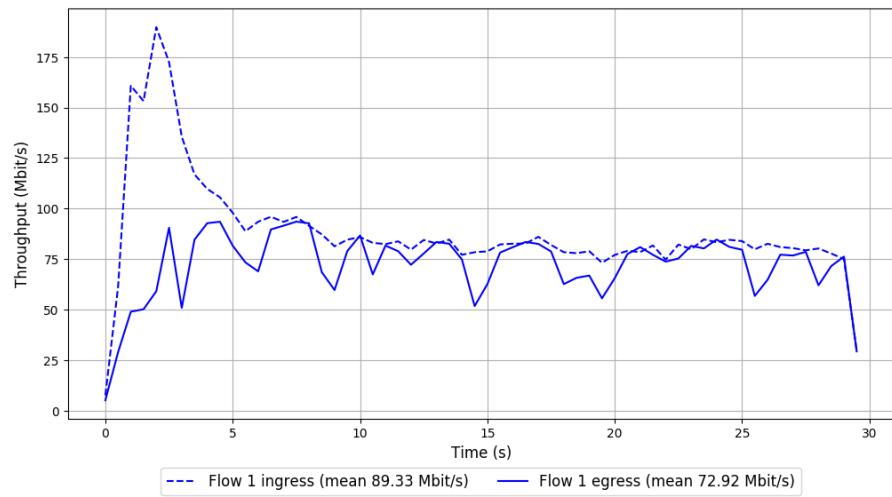


Run 9: Statistics of Indigo-calib

```
Start at: 2017-12-05 15:15:56
End at: 2017-12-05 15:16:26
Local clock offset: 3.222 ms
Remote clock offset: -5.339 ms

# Below is generated by plot.py at 2017-12-05 16:03:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.92 Mbit/s
95th percentile per-packet one-way delay: 58.103 ms
Loss rate: 18.37%
-- Flow 1:
Average throughput: 72.92 Mbit/s
95th percentile per-packet one-way delay: 58.103 ms
Loss rate: 18.37%
```

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

```
Start at: 2017-12-05 15:33:11
End at: 2017-12-05 15:38:41
Local clock offset: 3.255 ms
Remote clock offset: -5.954 ms

# Below is generated by plot.py at 2017-12-05 16:03:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.55 Mbit/s
95th percentile per-packet one-way delay: 56.678 ms
Loss rate: 12.82%
-- Flow 1:
Average throughput: 55.55 Mbit/s
95th percentile per-packet one-way delay: 56.678 ms
Loss rate: 12.82%
```

Run 10: Report of Indigo-calib — Data Link

