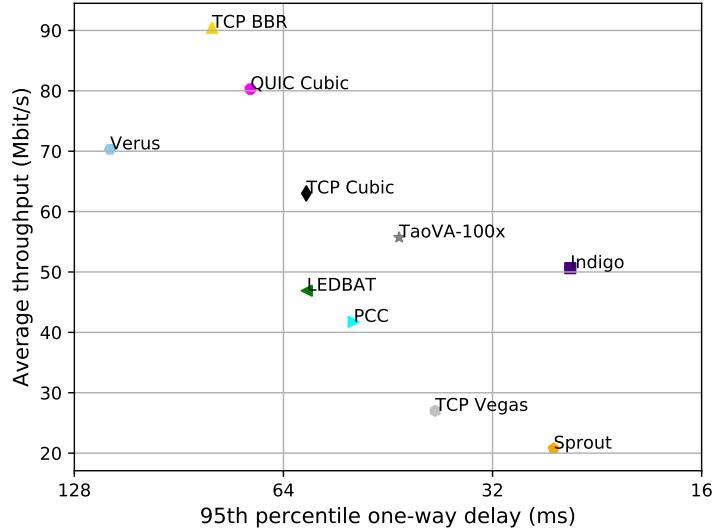


Pantheon Report

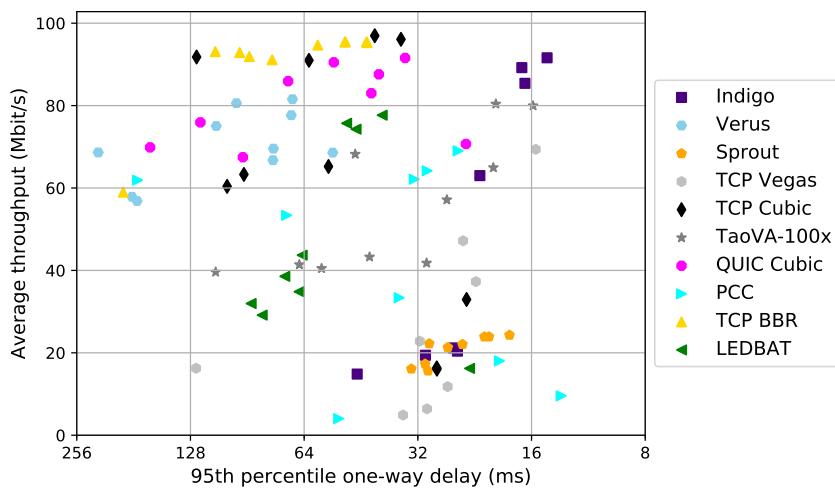
Generated at 2017-09-18 13:30:36 (UTC).
Data path: AWS India 1 Ethernet (*local*) → India Ethernet (*remote*).
Repeated the test of 10 congestion control schemes 10 times.
Each test lasted for 30 seconds running 1 flow.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).
NTP offsets were measured against **nets.org.sg** and have been applied to correct the timestamps in logs.

```
Git summary:  
branch: master @ 57453dc11f8da93a2e03eea75289fea01b816298  
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50  
  M datagrump/sender.cc  
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366  
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55  
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681  
  M datagrump/sender.cc  
third_party/libutp @ b3465b942e2826f2b179aab4a906ce6bb7cf3cf  
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 @ f1a14bffe749737437f61b1eaeeb30b267cde681  
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce  
  M src/examples/cellsim.cc  
  M src/examples/sproutbt2.cc  
  M src/network/sproutconn.cc  
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494  
  M src/verus.hpp  
  M tools/plot.py  
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from AWS India 1 Ethernet to India Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS India 1 Ethernet to India Ethernet, 10 runs of 30s each per scheme



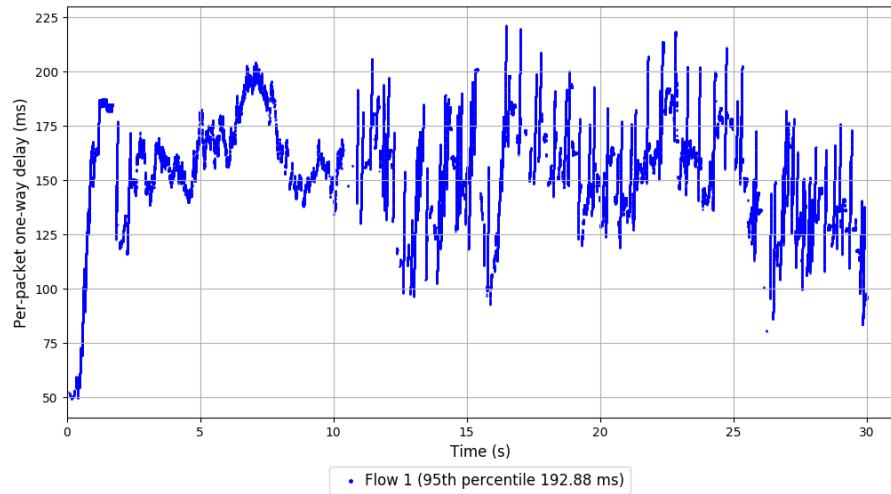
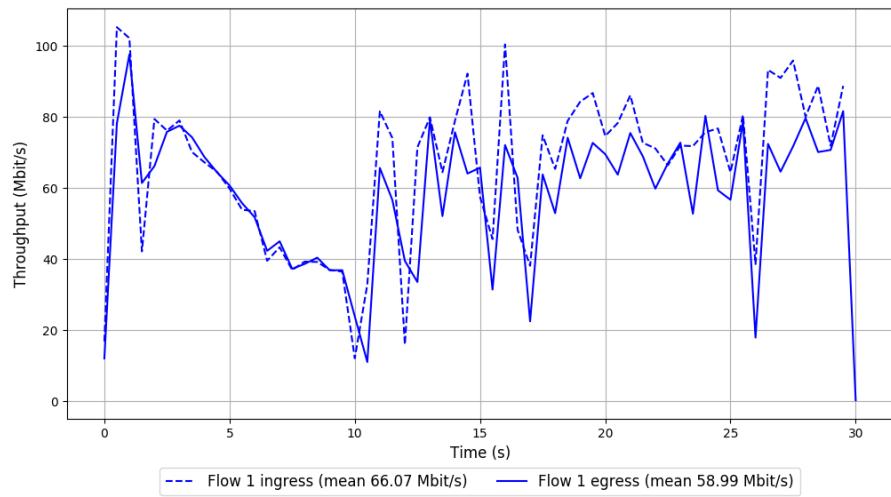
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	90.44	81.08	4.66
TCP Cubic	10	63.01	59.33	0.32
Indigo	8	50.63	24.73	0.25
LEDBAT	9	46.89	59.24	0.18
PCC	9	41.74	50.71	0.55
QUIC Cubic	9	80.28	71.41	0.48
Sprout	9	20.75	26.14	0.58
TaoVA-100x	10	55.73	43.62	0.19
TCP Vegas	8	27.00	38.70	0.13
Verus	10	70.31	113.71	26.00

Run 1: Statistics of TCP BBR

```
Start at: 2017-09-18 10:44:35
End at: 2017-09-18 10:45:05
Local clock offset: 1.284 ms
Remote clock offset: -4.411 ms

# Below is generated by plot.py at 2017-09-18 13:20:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.99 Mbit/s
95th percentile per-packet one-way delay: 192.879 ms
Loss rate: 10.76%
-- Flow 1:
Average throughput: 58.99 Mbit/s
95th percentile per-packet one-way delay: 192.879 ms
Loss rate: 10.76%
```

Run 1: Report of TCP BBR — Data Link

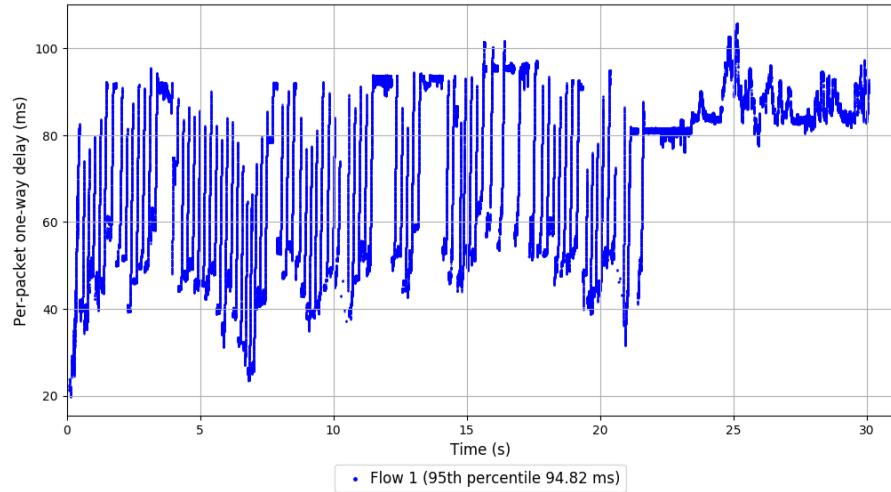
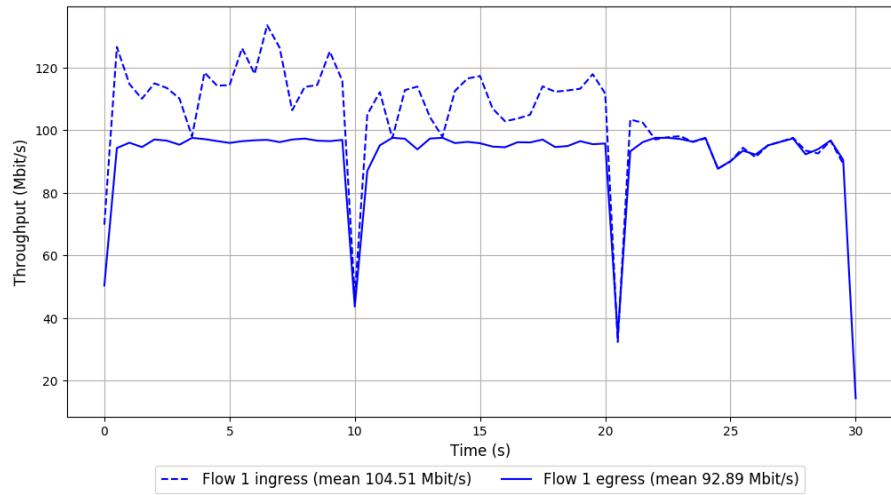


Run 2: Statistics of TCP BBR

```
Start at: 2017-09-18 10:59:07
End at: 2017-09-18 10:59:37
Local clock offset: 0.039 ms
Remote clock offset: -4.356 ms

# Below is generated by plot.py at 2017-09-18 13:21:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.89 Mbit/s
95th percentile per-packet one-way delay: 94.822 ms
Loss rate: 10.91%
-- Flow 1:
Average throughput: 92.89 Mbit/s
95th percentile per-packet one-way delay: 94.822 ms
Loss rate: 10.91%
```

Run 2: Report of TCP BBR — Data Link

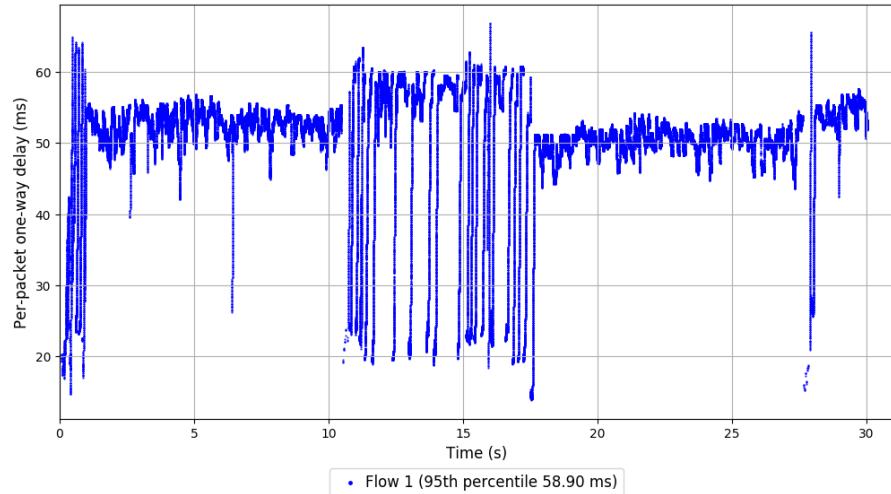
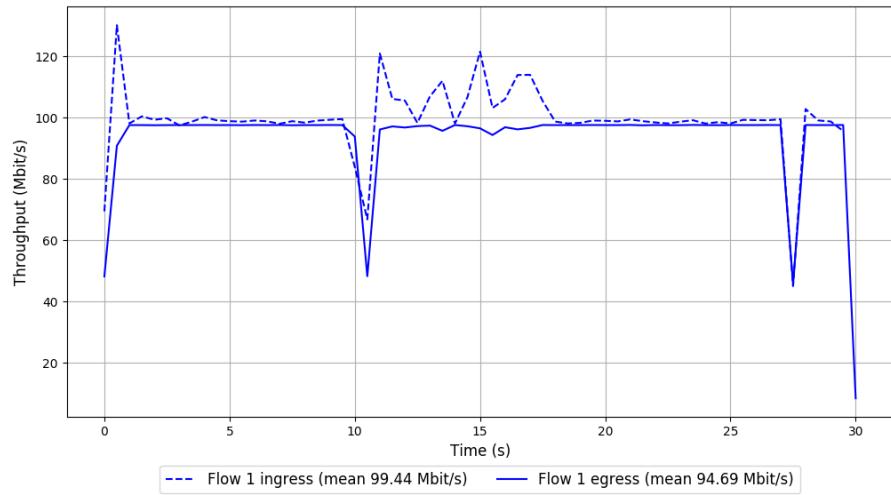


Run 3: Statistics of TCP BBR

```
Start at: 2017-09-18 11:13:38
End at: 2017-09-18 11:14:08
Local clock offset: 3.302 ms
Remote clock offset: -3.823 ms

# Below is generated by plot.py at 2017-09-18 13:21:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.69 Mbit/s
95th percentile per-packet one-way delay: 58.899 ms
Loss rate: 4.67%
-- Flow 1:
Average throughput: 94.69 Mbit/s
95th percentile per-packet one-way delay: 58.899 ms
Loss rate: 4.67%
```

Run 3: Report of TCP BBR — Data Link

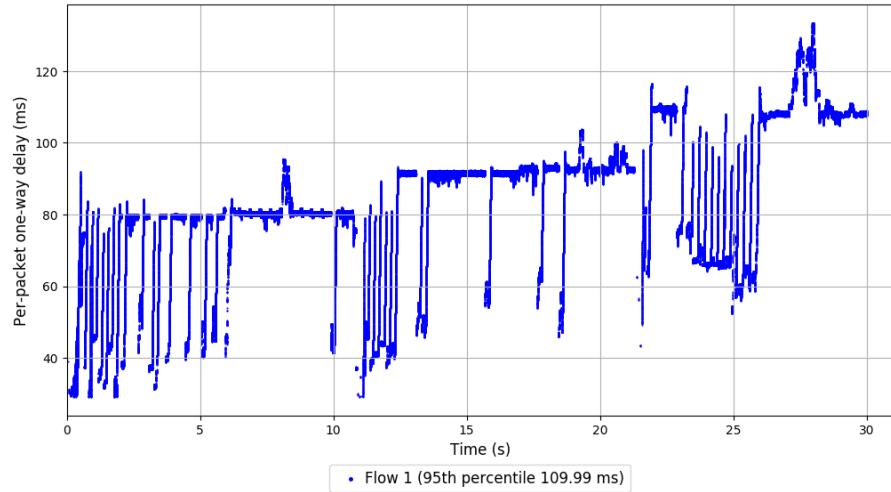
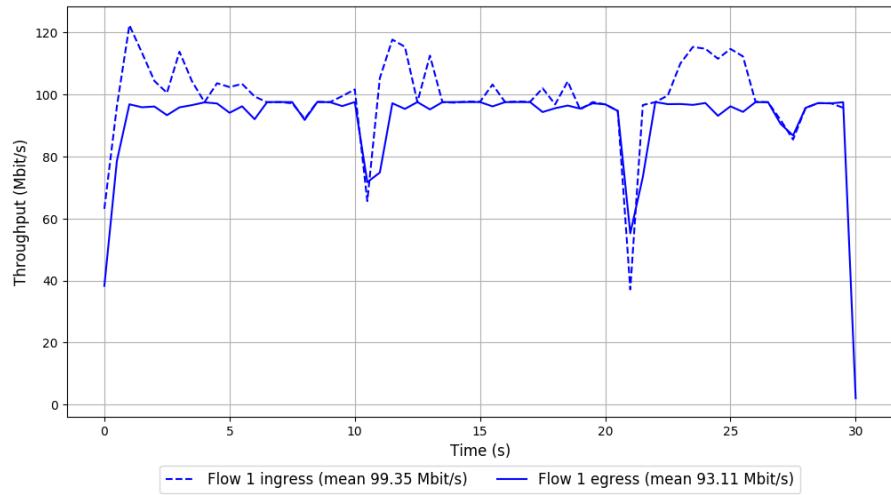


Run 4: Statistics of TCP BBR

```
Start at: 2017-09-18 11:27:51
End at: 2017-09-18 11:28:21
Local clock offset: 1.938 ms
Remote clock offset: -3.347 ms

# Below is generated by plot.py at 2017-09-18 13:21:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.11 Mbit/s
95th percentile per-packet one-way delay: 109.991 ms
Loss rate: 6.34%
-- Flow 1:
Average throughput: 93.11 Mbit/s
95th percentile per-packet one-way delay: 109.991 ms
Loss rate: 6.34%
```

Run 4: Report of TCP BBR — Data Link

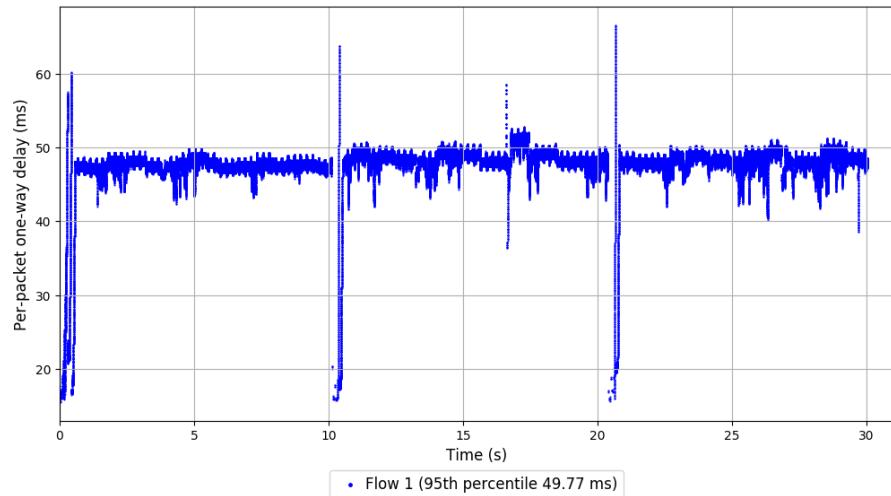
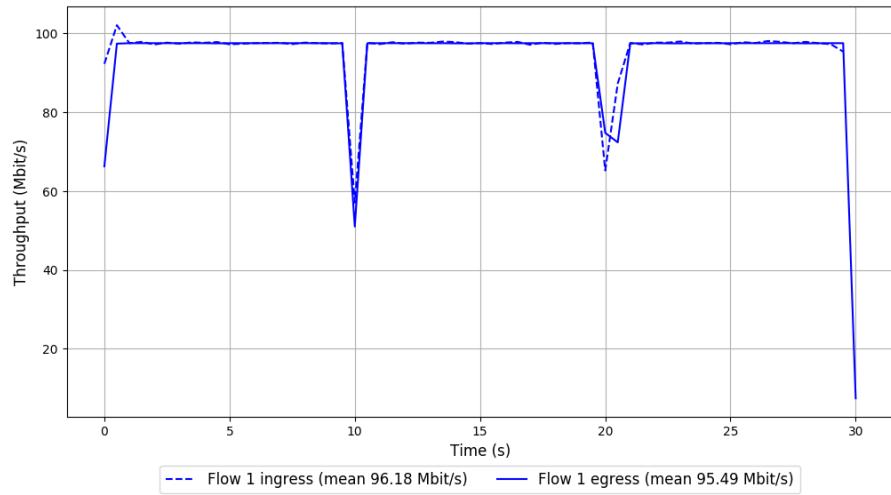


Run 5: Statistics of TCP BBR

```
Start at: 2017-09-18 11:42:03
End at: 2017-09-18 11:42:33
Local clock offset: -3.284 ms
Remote clock offset: -2.655 ms

# Below is generated by plot.py at 2017-09-18 13:21:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 49.771 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 49.771 ms
Loss rate: 0.61%
```

Run 5: Report of TCP BBR — Data Link

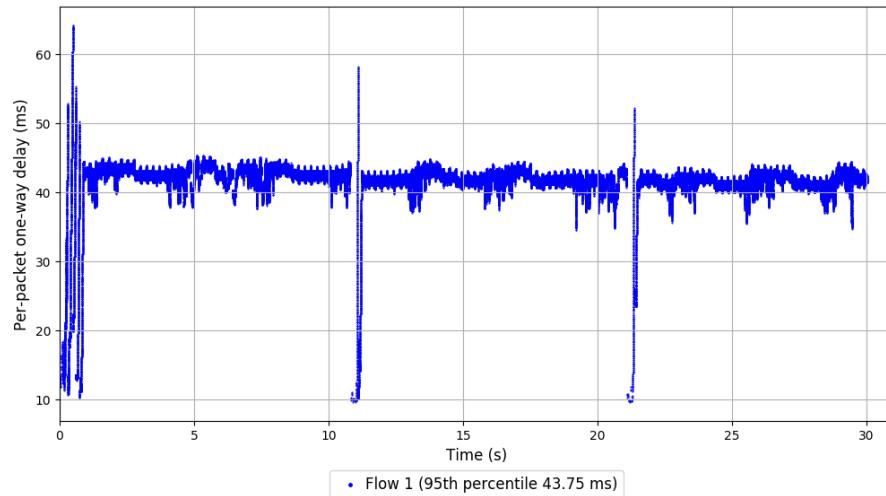
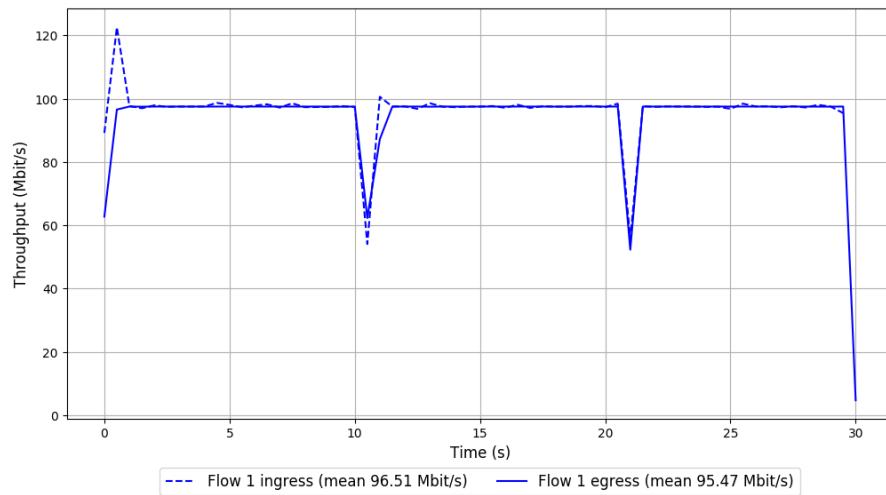


Run 6: Statistics of TCP BBR

```
Start at: 2017-09-18 11:58:14
End at: 2017-09-18 11:58:44
Local clock offset: 2.294 ms
Remote clock offset: -3.257 ms

# Below is generated by plot.py at 2017-09-18 13:21:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.47 Mbit/s
95th percentile per-packet one-way delay: 43.749 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 95.47 Mbit/s
95th percentile per-packet one-way delay: 43.749 ms
Loss rate: 1.01%
```

Run 6: Report of TCP BBR — Data Link

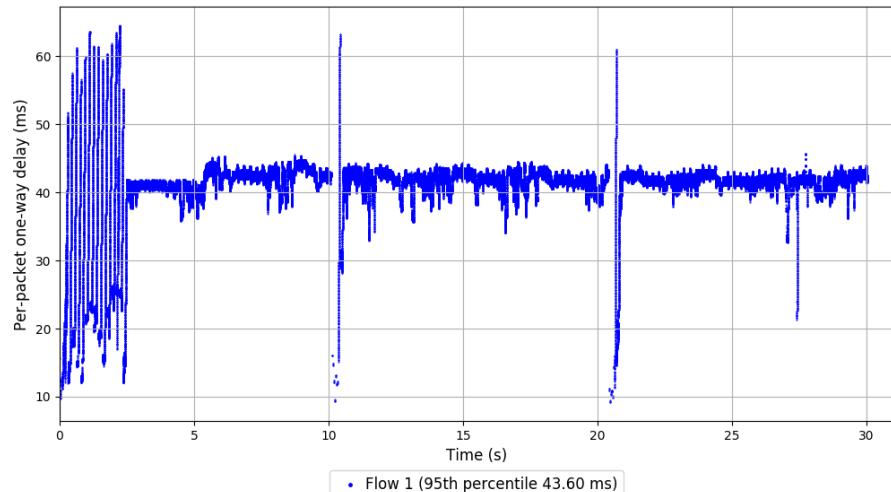
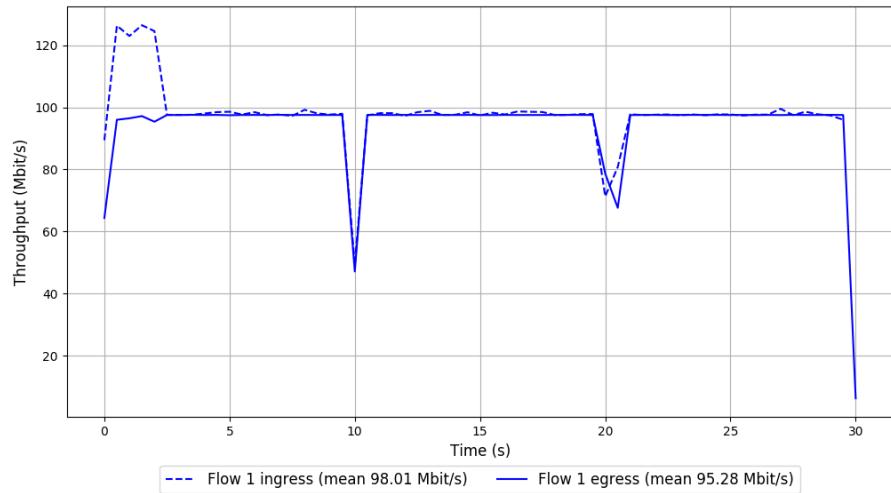


Run 7: Statistics of TCP BBR

```
Start at: 2017-09-18 12:11:52
End at: 2017-09-18 12:12:22
Local clock offset: 2.904 ms
Remote clock offset: -3.619 ms

# Below is generated by plot.py at 2017-09-18 13:21:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.28 Mbit/s
95th percentile per-packet one-way delay: 43.598 ms
Loss rate: 2.70%
-- Flow 1:
Average throughput: 95.28 Mbit/s
95th percentile per-packet one-way delay: 43.598 ms
Loss rate: 2.70%
```

Run 7: Report of TCP BBR — Data Link

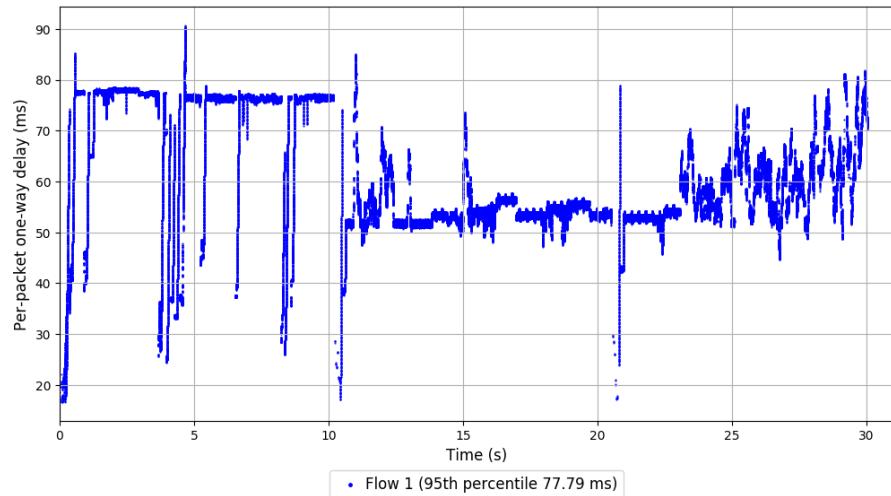
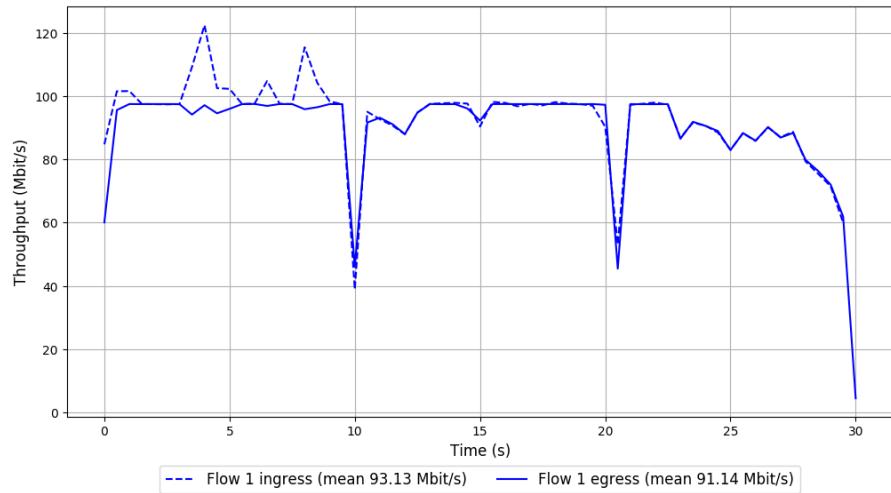


Run 8: Statistics of TCP BBR

```
Start at: 2017-09-18 12:34:09
End at: 2017-09-18 12:34:39
Local clock offset: -0.609 ms
Remote clock offset: -2.953 ms

# Below is generated by plot.py at 2017-09-18 13:21:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.14 Mbit/s
95th percentile per-packet one-way delay: 77.790 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 91.14 Mbit/s
95th percentile per-packet one-way delay: 77.790 ms
Loss rate: 2.05%
```

Run 8: Report of TCP BBR — Data Link

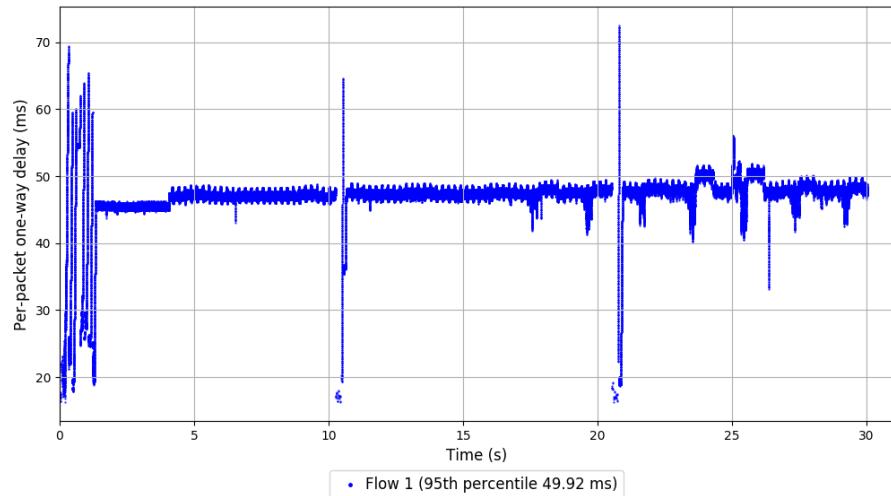
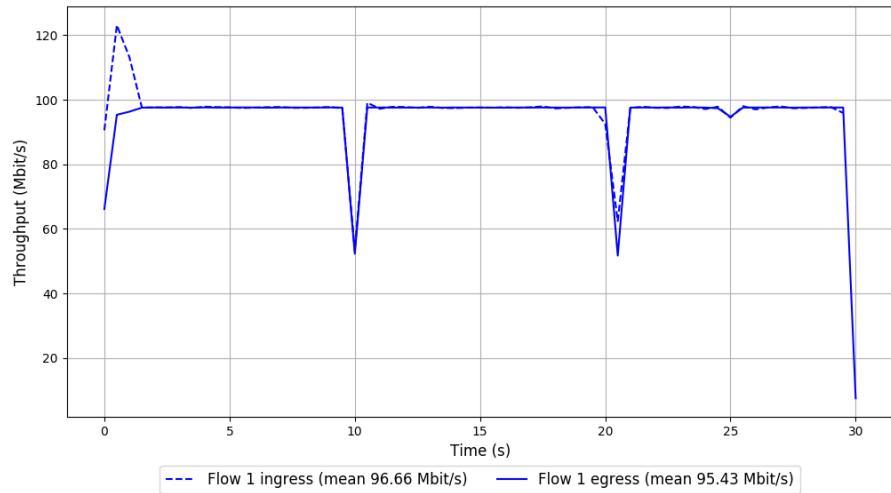


Run 9: Statistics of TCP BBR

```
Start at: 2017-09-18 12:46:33
End at: 2017-09-18 12:47:03
Local clock offset: -4.633 ms
Remote clock offset: -3.894 ms

# Below is generated by plot.py at 2017-09-18 13:21:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 49.923 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 49.923 ms
Loss rate: 1.18%
```

Run 9: Report of TCP BBR — Data Link

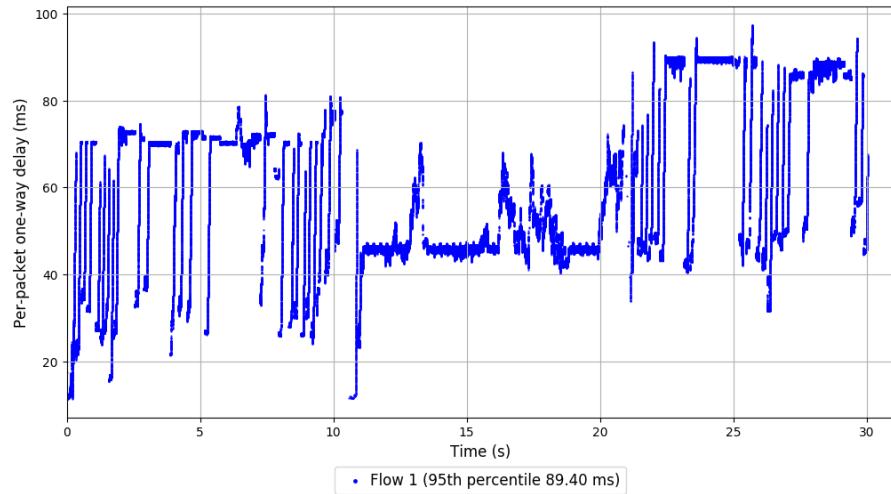
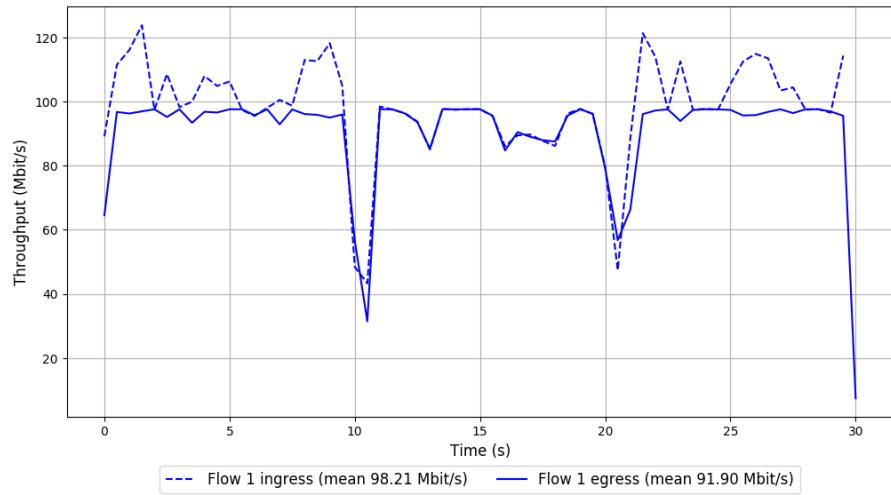


```
Run 10: Statistics of TCP BBR
```

```
Start at: 2017-09-18 12:59:28
End at: 2017-09-18 12:59:58
Local clock offset: 2.564 ms
Remote clock offset: -4.179 ms

# Below is generated by plot.py at 2017-09-18 13:22:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 89.404 ms
Loss rate: 6.33%
-- Flow 1:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 89.404 ms
Loss rate: 6.33%
```

Run 10: Report of TCP BBR — Data Link

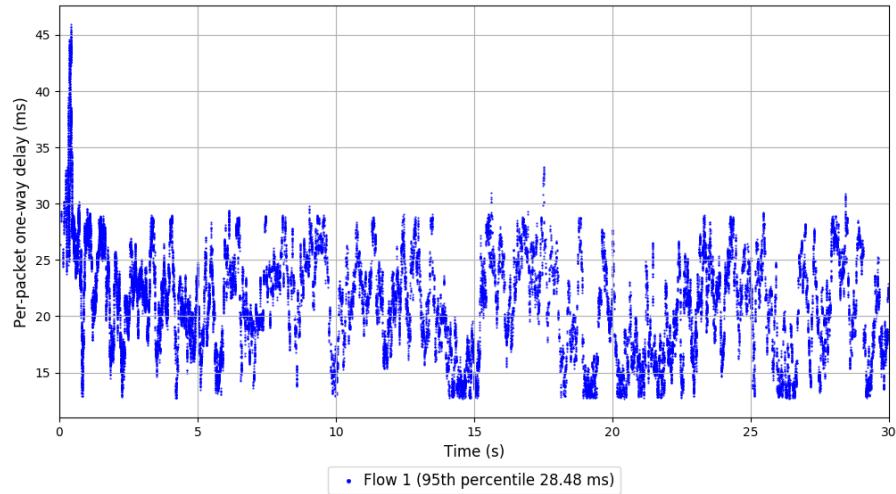
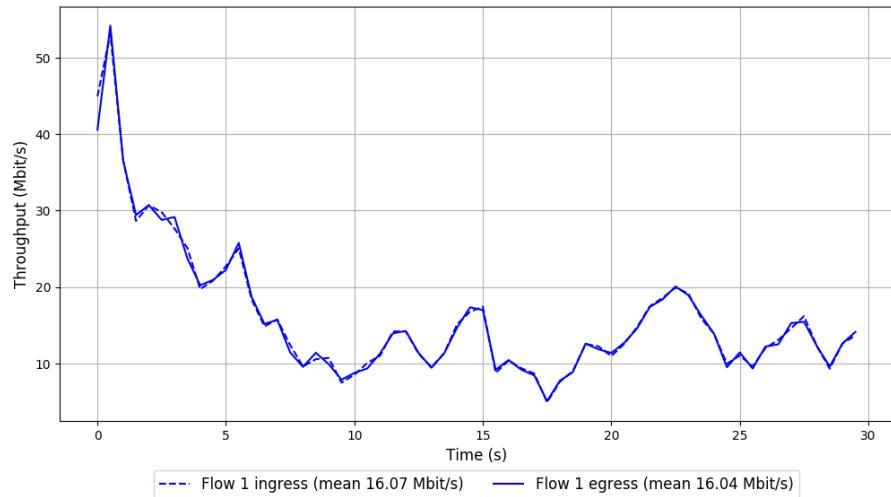


```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-18 10:38:03
End at: 2017-09-18 10:38:33
Local clock offset: 1.594 ms
Remote clock offset: -6.312 ms

# Below is generated by plot.py at 2017-09-18 13:22:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.04 Mbit/s
95th percentile per-packet one-way delay: 28.483 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 16.04 Mbit/s
95th percentile per-packet one-way delay: 28.483 ms
Loss rate: 0.31%
```

Run 1: Report of TCP Cubic — Data Link

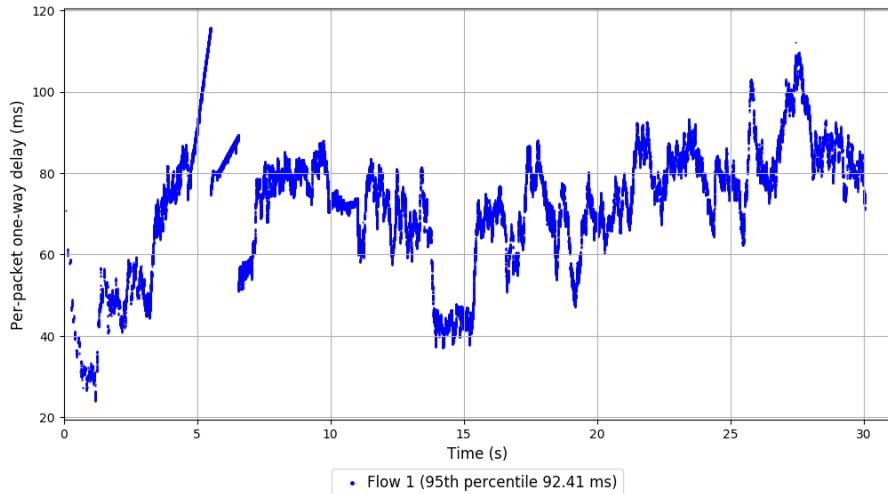
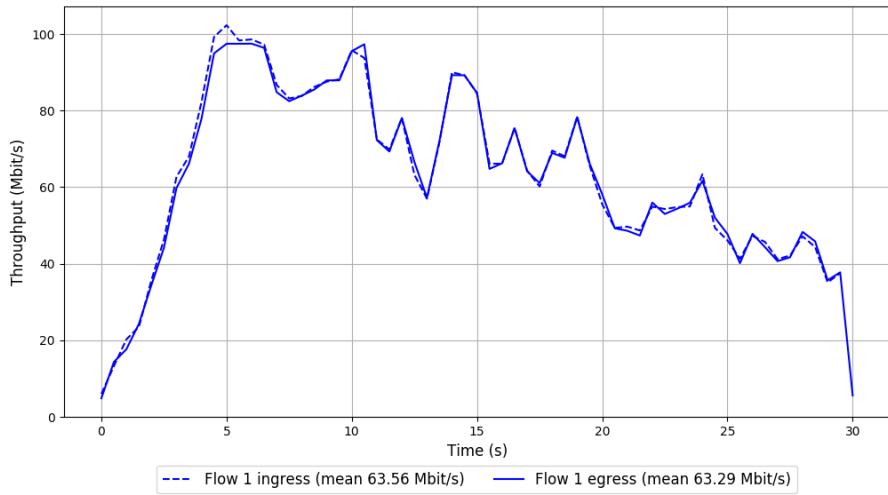


Run 2: Statistics of TCP Cubic

```
Start at: 2017-09-18 10:51:48
End at: 2017-09-18 10:52:18
Local clock offset: 2.012 ms
Remote clock offset: -4.222 ms

# Below is generated by plot.py at 2017-09-18 13:22:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.29 Mbit/s
95th percentile per-packet one-way delay: 92.412 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 63.29 Mbit/s
95th percentile per-packet one-way delay: 92.412 ms
Loss rate: 0.42%
```

Run 2: Report of TCP Cubic — Data Link

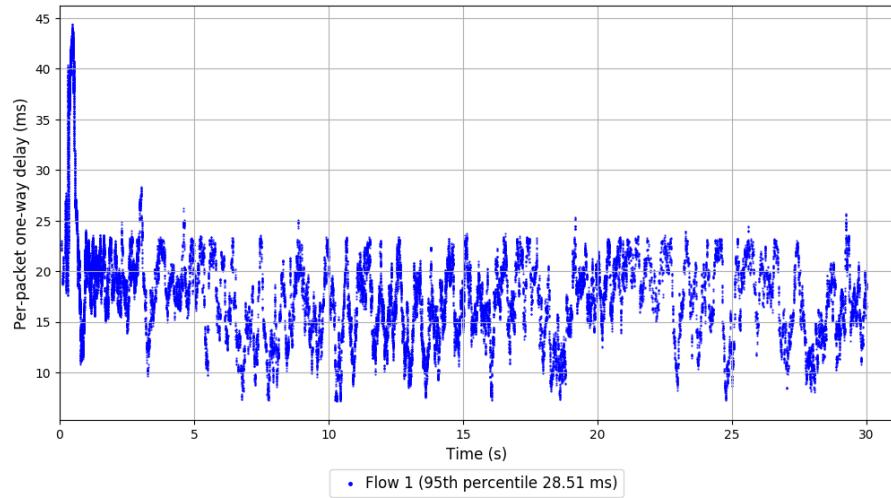
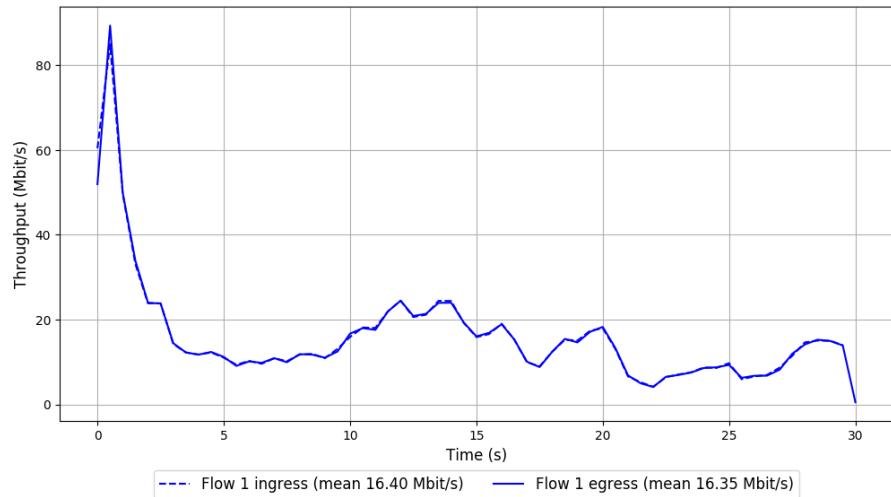


Run 3: Statistics of TCP Cubic

```
Start at: 2017-09-18 11:06:14
End at: 2017-09-18 11:06:44
Local clock offset: 3.904 ms
Remote clock offset: -4.055 ms

# Below is generated by plot.py at 2017-09-18 13:22:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.35 Mbit/s
95th percentile per-packet one-way delay: 28.514 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 16.35 Mbit/s
95th percentile per-packet one-way delay: 28.514 ms
Loss rate: 0.34%
```

Run 3: Report of TCP Cubic — Data Link

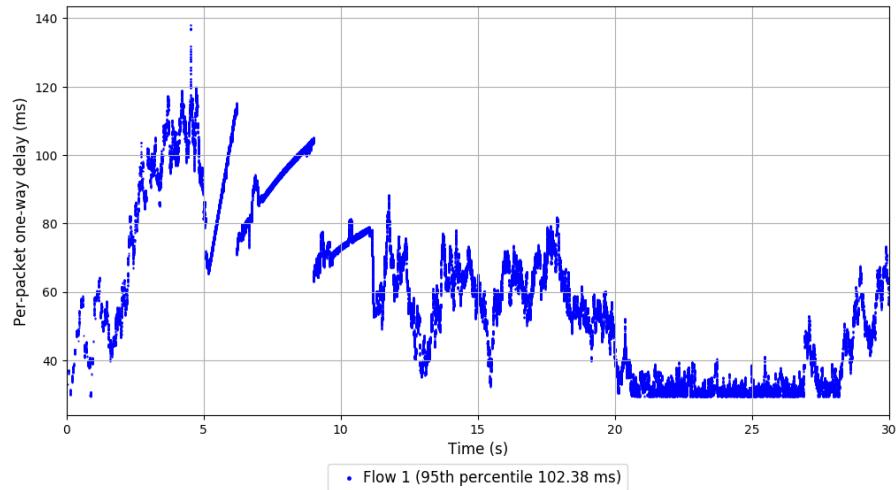
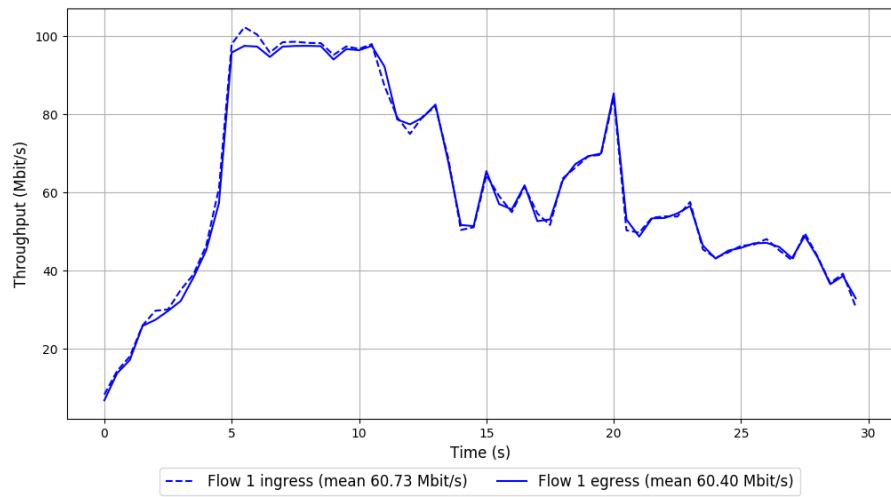


Run 4: Statistics of TCP Cubic

```
Start at: 2017-09-18 11:21:05
End at: 2017-09-18 11:21:35
Local clock offset: 0.694 ms
Remote clock offset: -4.352 ms

# Below is generated by plot.py at 2017-09-18 13:22:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.40 Mbit/s
95th percentile per-packet one-way delay: 102.377 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 60.40 Mbit/s
95th percentile per-packet one-way delay: 102.377 ms
Loss rate: 0.56%
```

Run 4: Report of TCP Cubic — Data Link

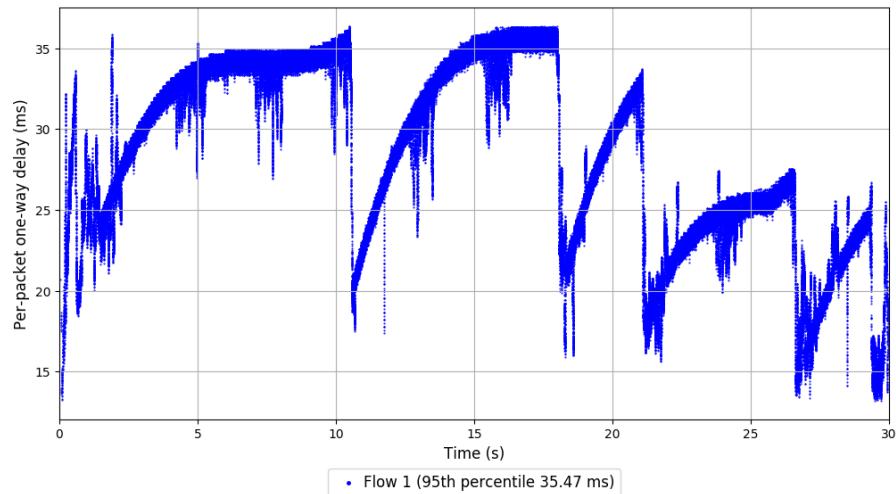
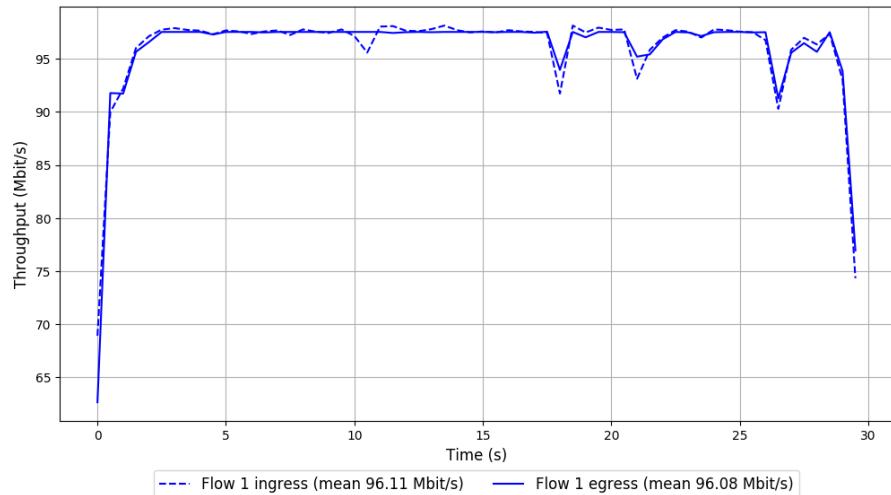


Run 5: Statistics of TCP Cubic

```
Start at: 2017-09-18 11:35:09
End at: 2017-09-18 11:35:39
Local clock offset: -0.294 ms
Remote clock offset: -1.971 ms

# Below is generated by plot.py at 2017-09-18 13:22:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.08 Mbit/s
95th percentile per-packet one-way delay: 35.469 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 96.08 Mbit/s
95th percentile per-packet one-way delay: 35.469 ms
Loss rate: 0.04%
```

Run 5: Report of TCP Cubic — Data Link

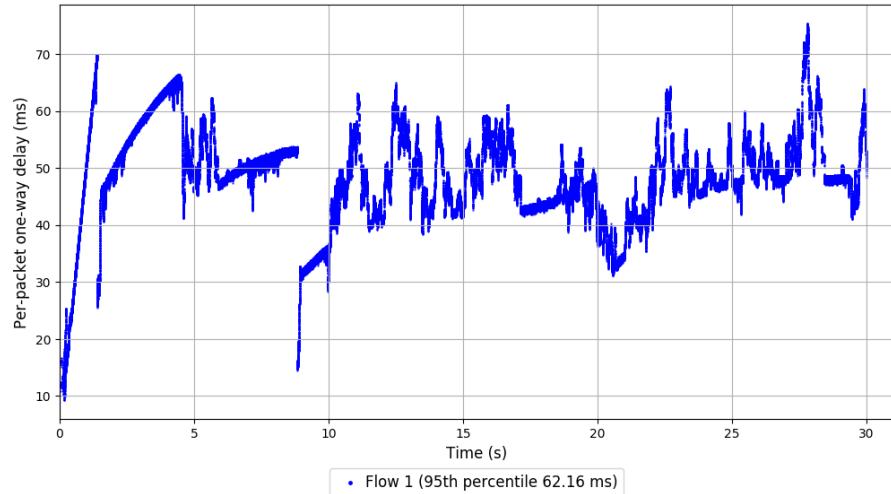
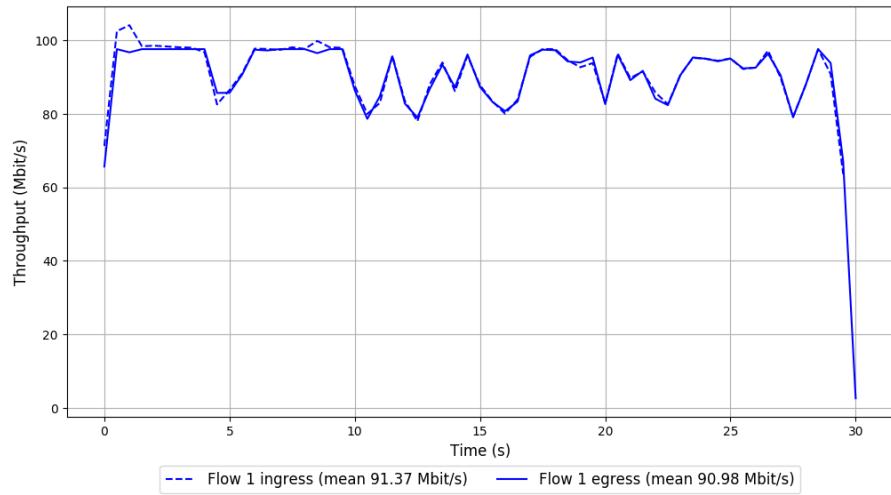


Run 6: Statistics of TCP Cubic

```
Start at: 2017-09-18 11:50:37
End at: 2017-09-18 11:51:07
Local clock offset: 2.147 ms
Remote clock offset: -3.245 ms

# Below is generated by plot.py at 2017-09-18 13:22:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.98 Mbit/s
95th percentile per-packet one-way delay: 62.160 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 90.98 Mbit/s
95th percentile per-packet one-way delay: 62.160 ms
Loss rate: 0.31%
```

Run 6: Report of TCP Cubic — Data Link

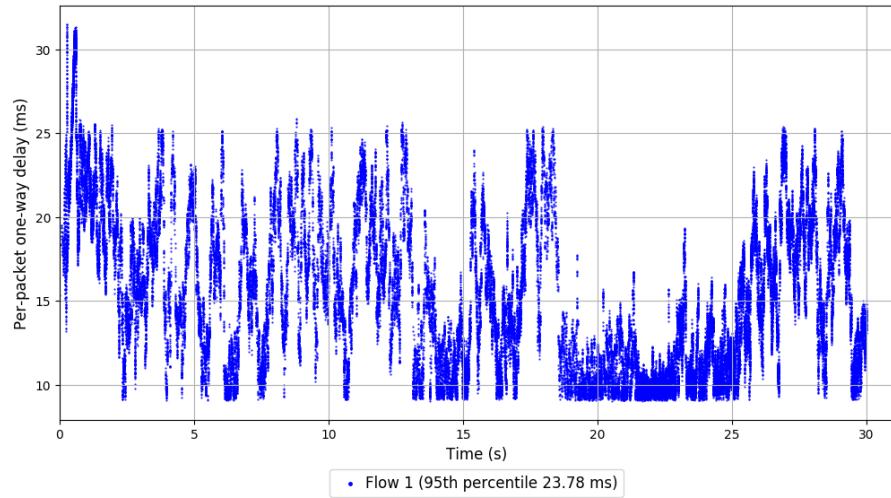
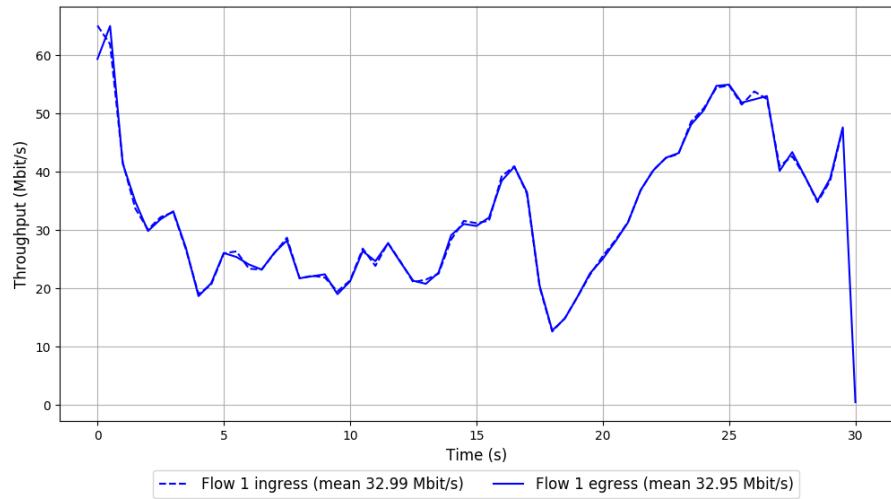


Run 7: Statistics of TCP Cubic

```
Start at: 2017-09-18 12:05:11
End at: 2017-09-18 12:05:41
Local clock offset: 2.667 ms
Remote clock offset: -3.589 ms

# Below is generated by plot.py at 2017-09-18 13:22:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.95 Mbit/s
95th percentile per-packet one-way delay: 23.776 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 32.95 Mbit/s
95th percentile per-packet one-way delay: 23.776 ms
Loss rate: 0.13%
```

Run 7: Report of TCP Cubic — Data Link

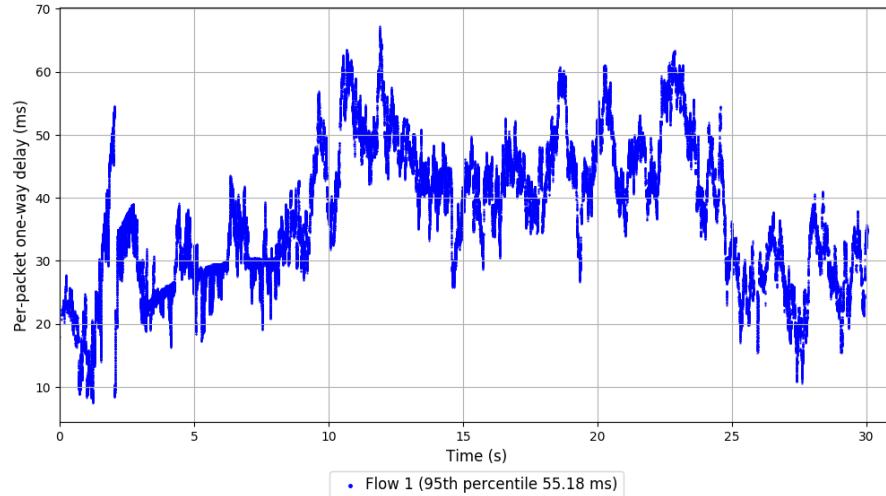
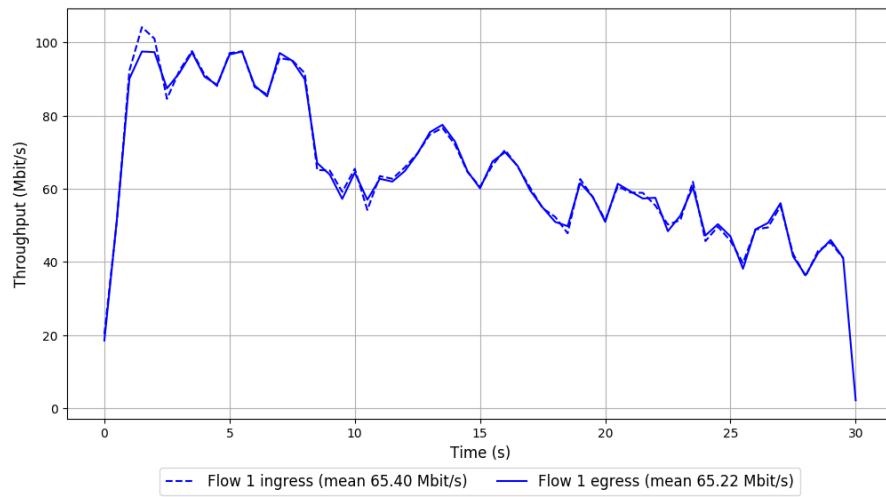


Run 8: Statistics of TCP Cubic

```
Start at: 2017-09-18 12:19:59
End at: 2017-09-18 12:20:29
Local clock offset: 3.257 ms
Remote clock offset: -4.171 ms

# Below is generated by plot.py at 2017-09-18 13:22:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.22 Mbit/s
95th percentile per-packet one-way delay: 55.183 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 65.22 Mbit/s
95th percentile per-packet one-way delay: 55.183 ms
Loss rate: 0.22%
```

Run 8: Report of TCP Cubic — Data Link

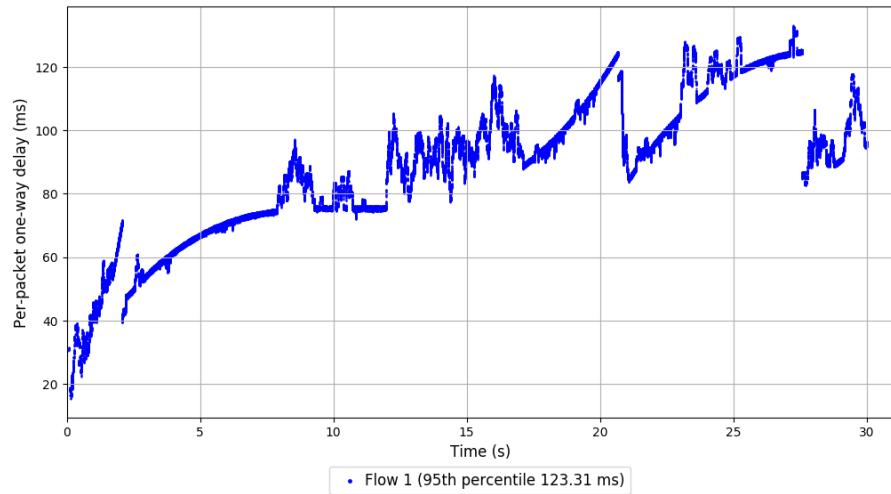
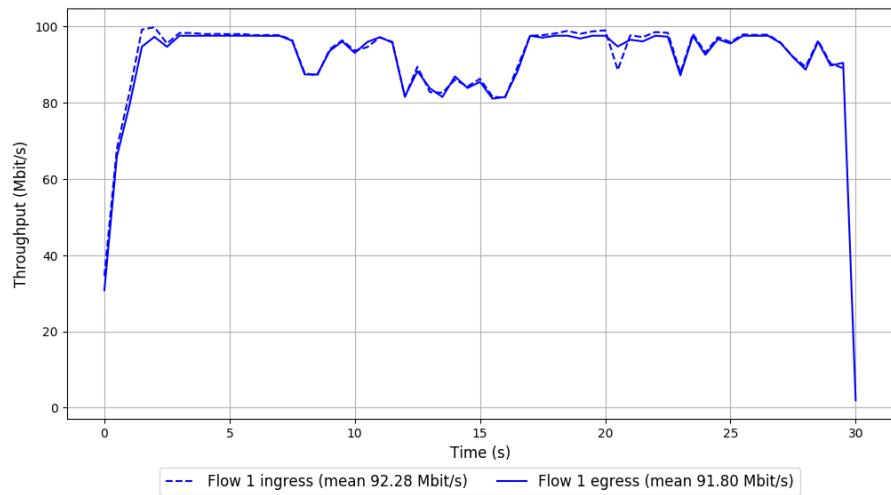


Run 9: Statistics of TCP Cubic

```
Start at: 2017-09-18 12:40:18
End at: 2017-09-18 12:40:48
Local clock offset: 0.306 ms
Remote clock offset: -4.143 ms

# Below is generated by plot.py at 2017-09-18 13:23:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.80 Mbit/s
95th percentile per-packet one-way delay: 123.311 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 91.80 Mbit/s
95th percentile per-packet one-way delay: 123.311 ms
Loss rate: 0.56%
```

Run 9: Report of TCP Cubic — Data Link

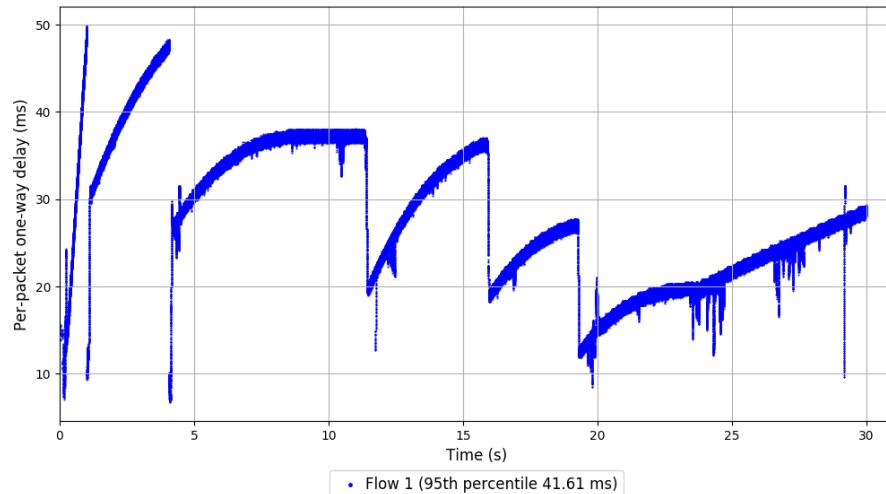
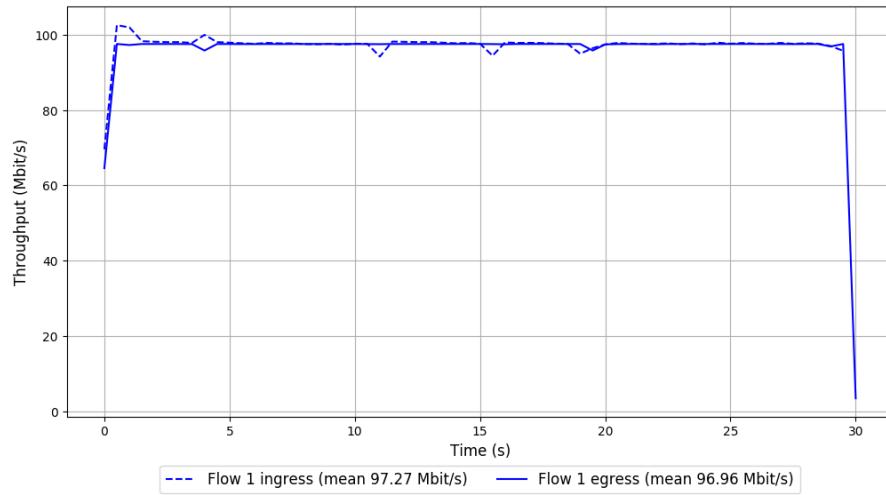


Run 10: Statistics of TCP Cubic

```
Start at: 2017-09-18 12:53:01
End at: 2017-09-18 12:53:31
Local clock offset: 4.464 ms
Remote clock offset: -4.302 ms

# Below is generated by plot.py at 2017-09-18 13:23:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.96 Mbit/s
95th percentile per-packet one-way delay: 41.614 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 96.96 Mbit/s
95th percentile per-packet one-way delay: 41.614 ms
Loss rate: 0.28%
```

Run 10: Report of TCP Cubic — Data Link



Run 1: Statistics of Indigo

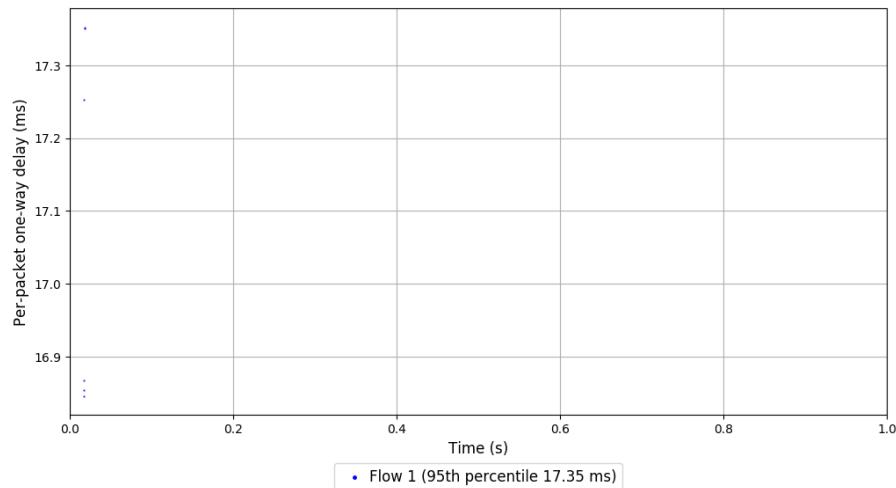
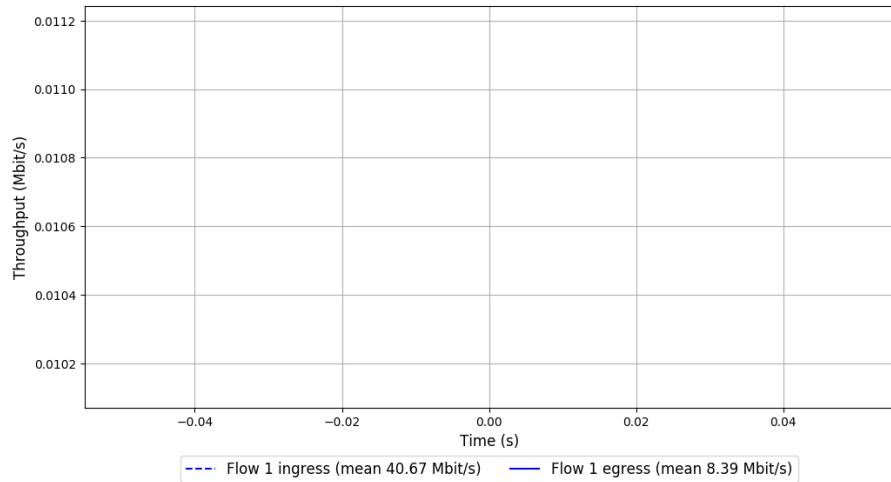
Start at: 2017-09-18 10:35:36

End at: 2017-09-18 10:36:06

Local clock offset: -0.169 ms

Remote clock offset: -4.712 ms

Run 1: Report of Indigo — Data Link

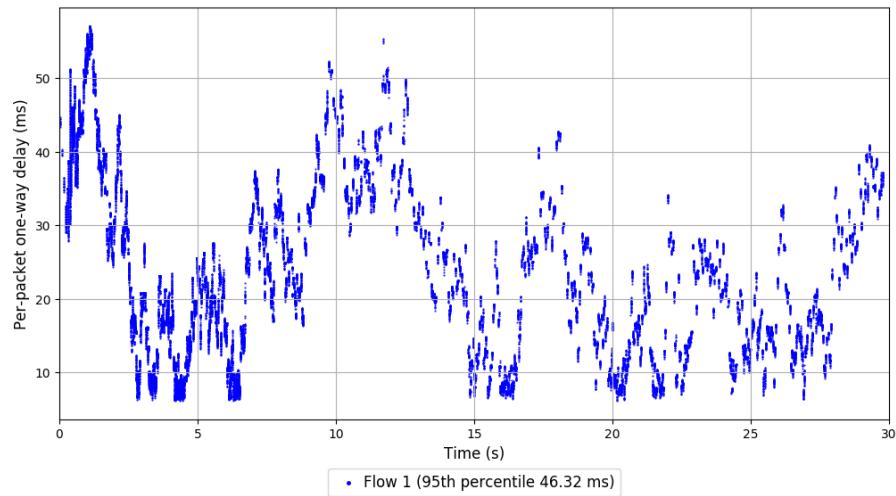
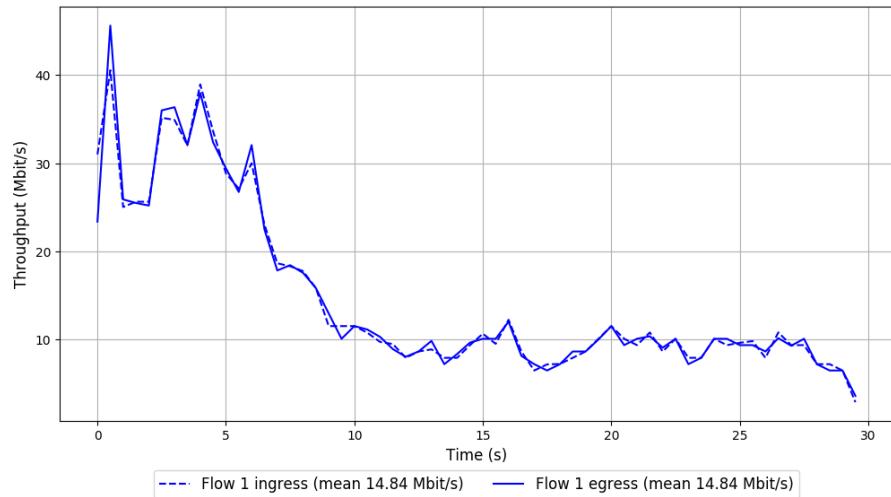


Run 2: Statistics of Indigo

```
Start at: 2017-09-18 10:49:01
End at: 2017-09-18 10:49:31
Local clock offset: 3.808 ms
Remote clock offset: -4.471 ms

# Below is generated by plot.py at 2017-09-18 13:23:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.84 Mbit/s
95th percentile per-packet one-way delay: 46.316 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 14.84 Mbit/s
95th percentile per-packet one-way delay: 46.316 ms
Loss rate: 0.01%
```

Run 2: Report of Indigo — Data Link

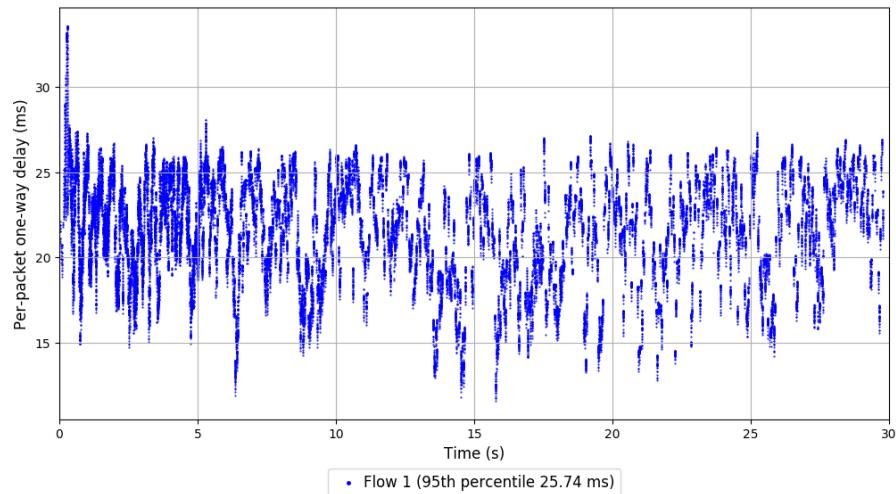
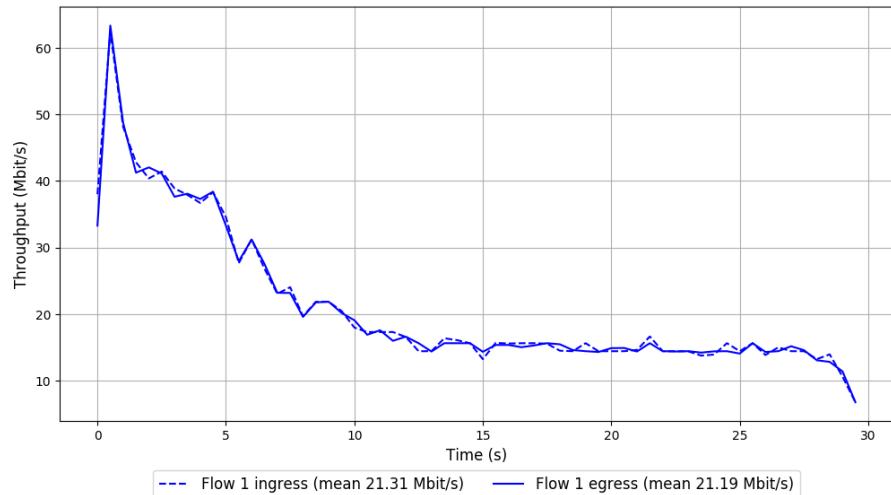


Run 3: Statistics of Indigo

```
Start at: 2017-09-18 11:03:37
End at: 2017-09-18 11:04:07
Local clock offset: 1.925 ms
Remote clock offset: -3.887 ms

# Below is generated by plot.py at 2017-09-18 13:23:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.19 Mbit/s
95th percentile per-packet one-way delay: 25.741 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 21.19 Mbit/s
95th percentile per-packet one-way delay: 25.741 ms
Loss rate: 0.54%
```

Run 3: Report of Indigo — Data Link

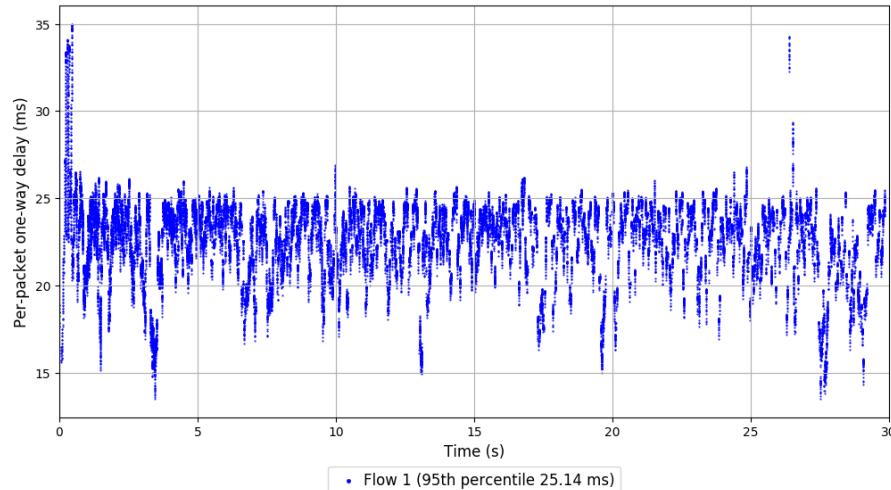
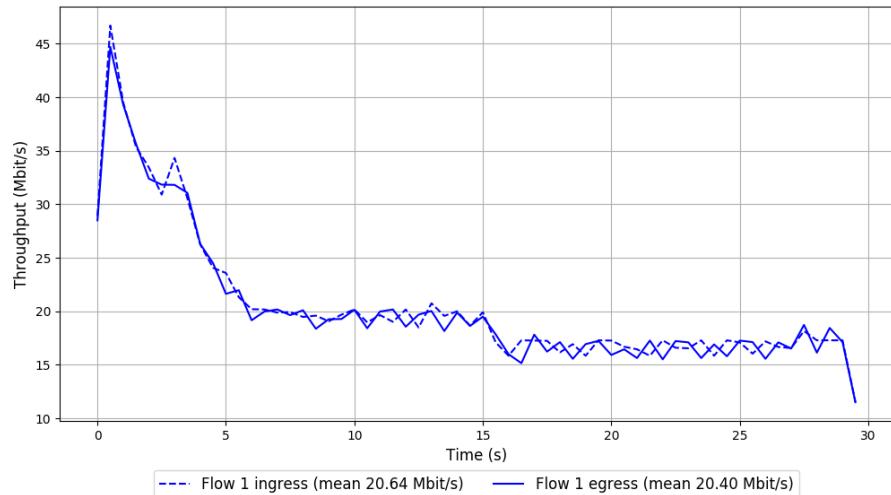


Run 4: Statistics of Indigo

```
Start at: 2017-09-18 11:18:18
End at: 2017-09-18 11:18:48
Local clock offset: 3.225 ms
Remote clock offset: -3.222 ms

# Below is generated by plot.py at 2017-09-18 13:23:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.40 Mbit/s
95th percentile per-packet one-way delay: 25.139 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 20.40 Mbit/s
95th percentile per-packet one-way delay: 25.139 ms
Loss rate: 1.13%
```

Run 4: Report of Indigo — Data Link

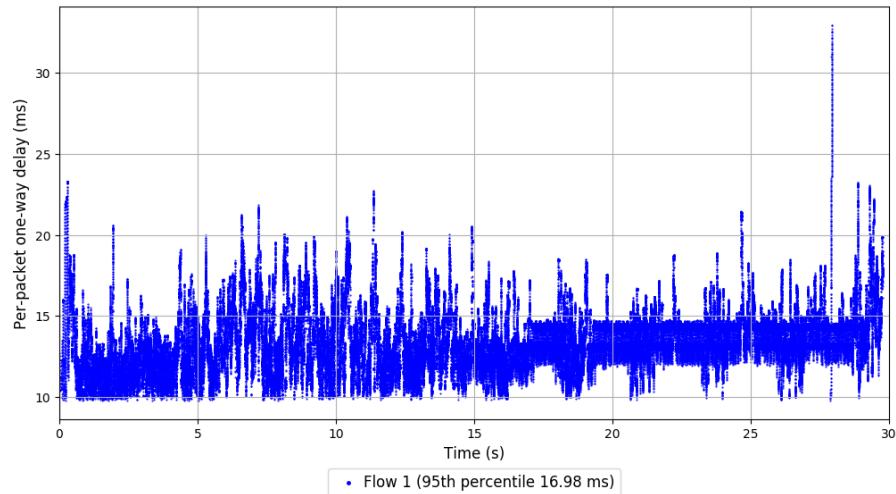
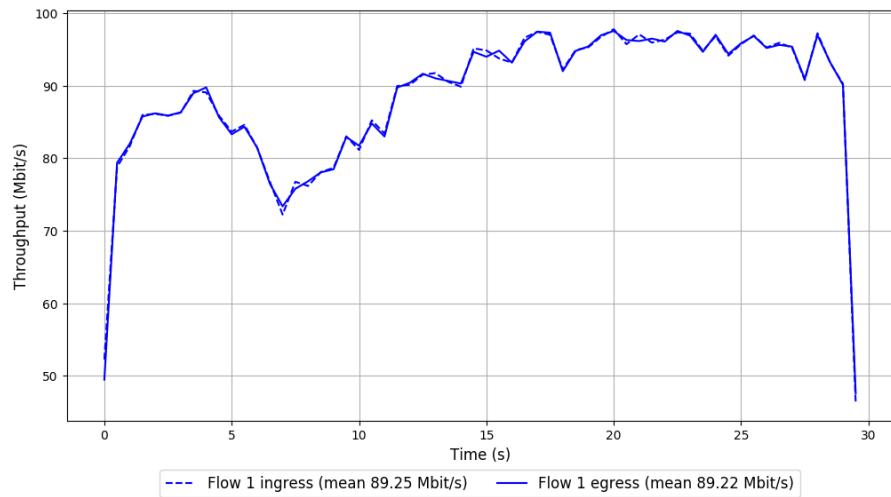


Run 5: Statistics of Indigo

```
Start at: 2017-09-18 11:32:00
End at: 2017-09-18 11:32:30
Local clock offset: 2.375 ms
Remote clock offset: -2.684 ms

# Below is generated by plot.py at 2017-09-18 13:23:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.22 Mbit/s
95th percentile per-packet one-way delay: 16.976 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 89.22 Mbit/s
95th percentile per-packet one-way delay: 16.976 ms
Loss rate: 0.04%
```

Run 5: Report of Indigo — Data Link

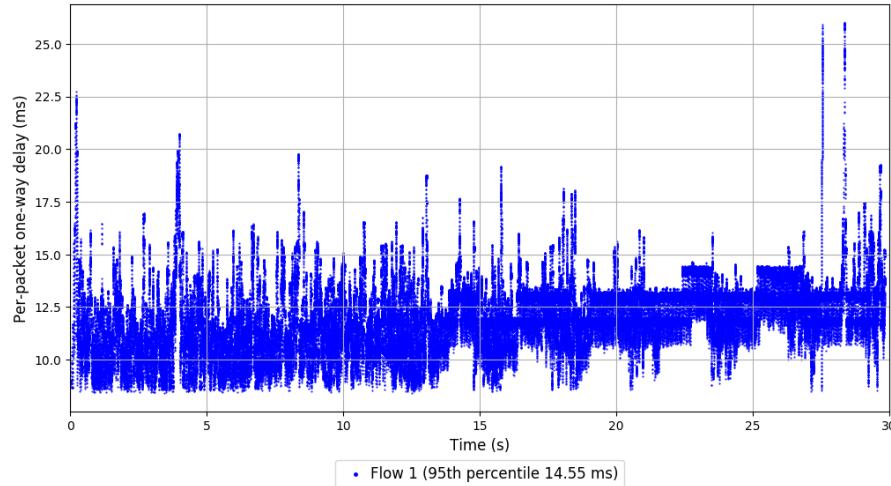
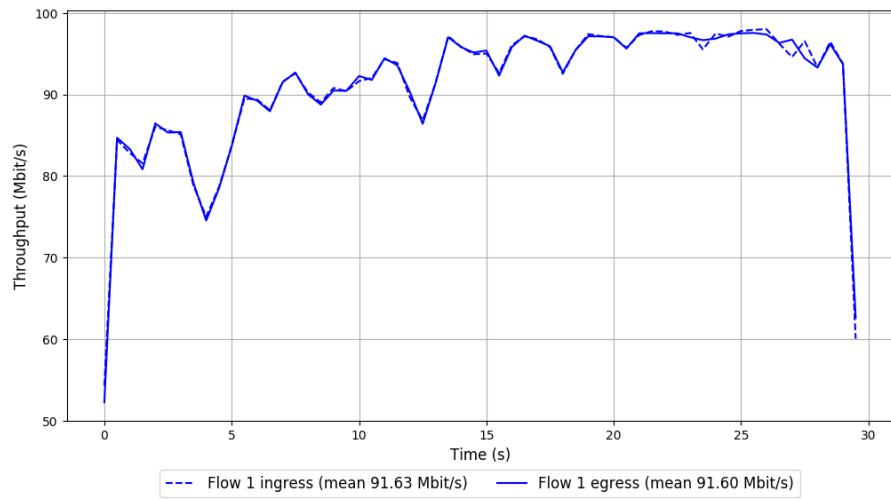


Run 6: Statistics of Indigo

```
Start at: 2017-09-18 11:46:36
End at: 2017-09-18 11:47:06
Local clock offset: 3.785 ms
Remote clock offset: -2.794 ms

# Below is generated by plot.py at 2017-09-18 13:23:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.60 Mbit/s
95th percentile per-packet one-way delay: 14.553 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 91.60 Mbit/s
95th percentile per-packet one-way delay: 14.553 ms
Loss rate: 0.02%
```

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-09-18 12:02:51
End at: 2017-09-18 12:03:21
Local clock offset: 2.173 ms
Remote clock offset: -3.442 ms

Run 7: Report of Indigo — Data Link

Figure is missing

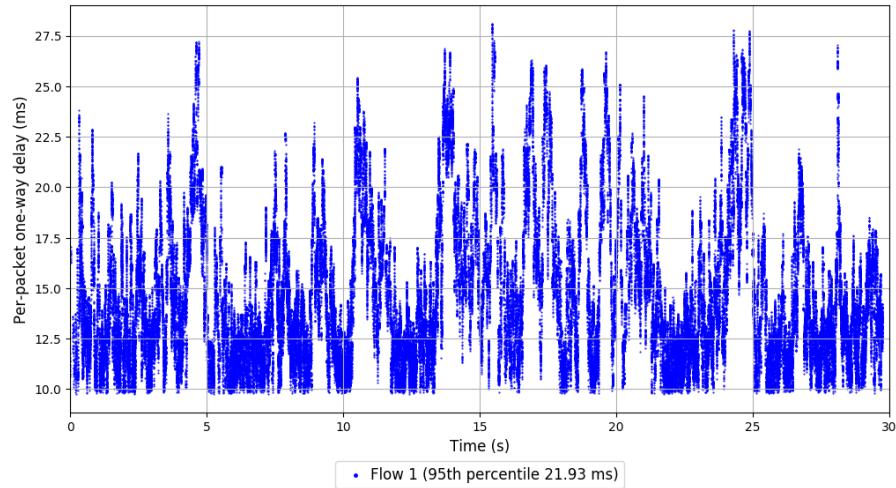
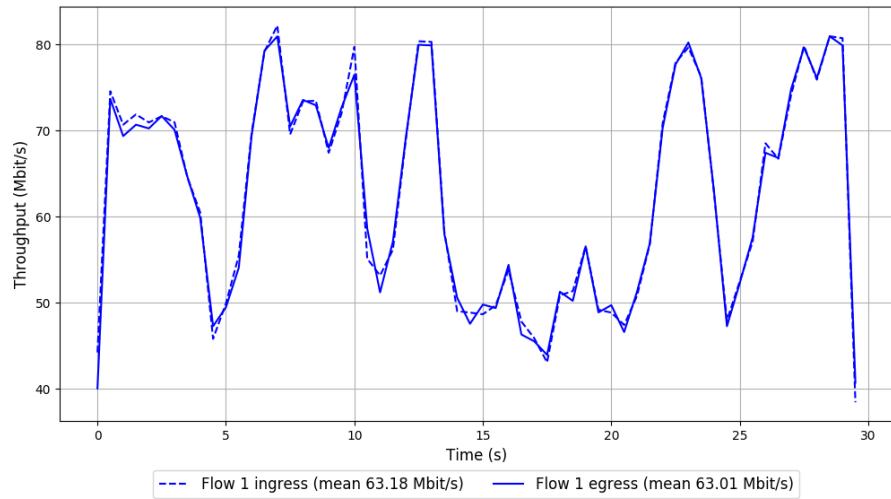
Figure is missing

Run 8: Statistics of Indigo

```
Start at: 2017-09-18 12:16:45
End at: 2017-09-18 12:17:15
Local clock offset: 2.701 ms
Remote clock offset: -3.218 ms

# Below is generated by plot.py at 2017-09-18 13:23:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.01 Mbit/s
95th percentile per-packet one-way delay: 21.927 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 63.01 Mbit/s
95th percentile per-packet one-way delay: 21.927 ms
Loss rate: 0.28%
```

Run 8: Report of Indigo — Data Link

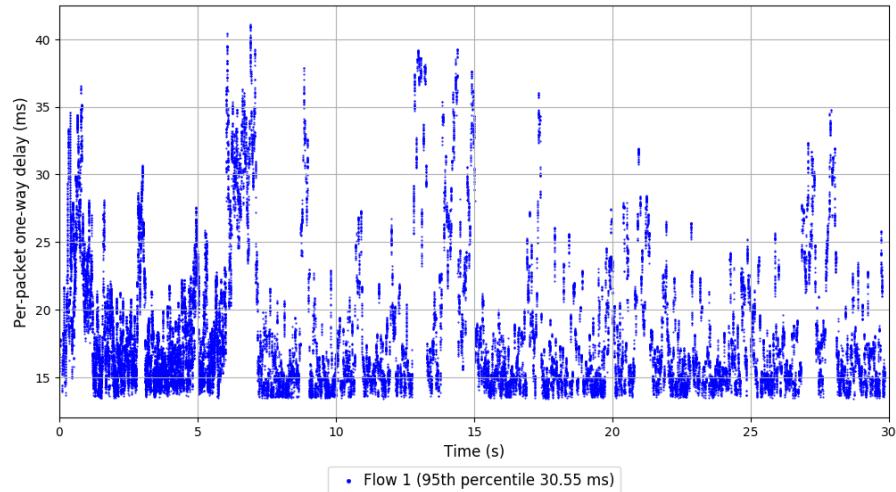
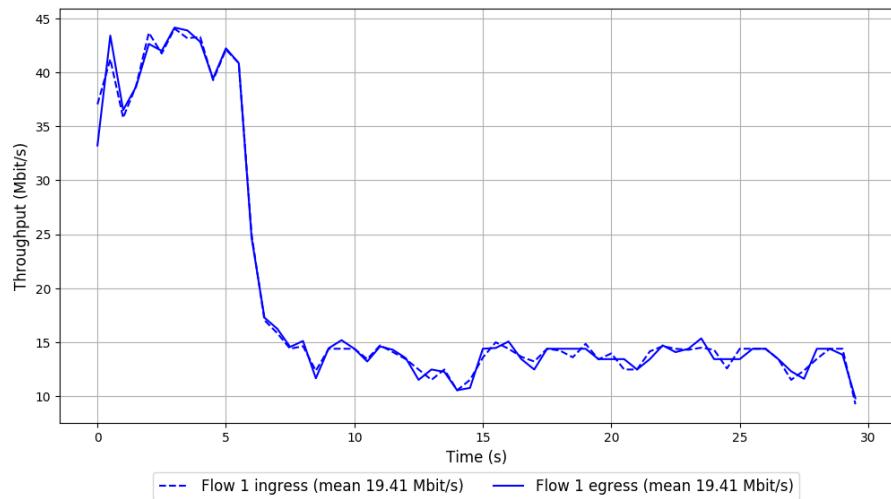


Run 9: Statistics of Indigo

```
Start at: 2017-09-18 12:37:49
End at: 2017-09-18 12:38:19
Local clock offset: 0.533 ms
Remote clock offset: -3.842 ms

# Below is generated by plot.py at 2017-09-18 13:23:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.41 Mbit/s
95th percentile per-packet one-way delay: 30.545 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 19.41 Mbit/s
95th percentile per-packet one-way delay: 30.545 ms
Loss rate: 0.00%
```

Run 9: Report of Indigo — Data Link

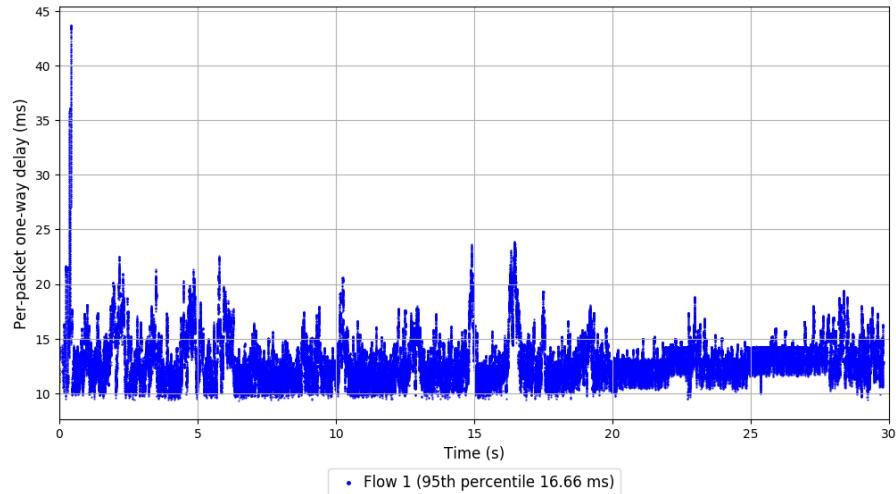
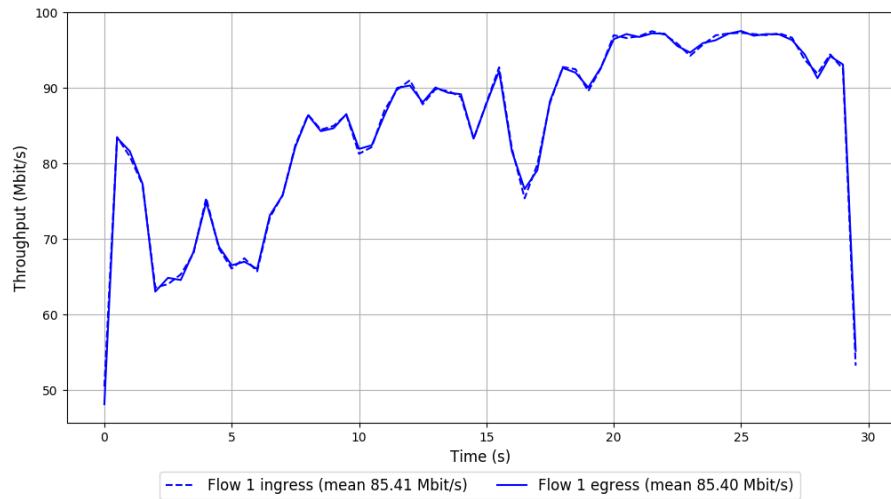


Run 10: Statistics of Indigo

```
Start at: 2017-09-18 12:50:21
End at: 2017-09-18 12:50:51
Local clock offset: 4.445 ms
Remote clock offset: -3.496 ms

# Below is generated by plot.py at 2017-09-18 13:23:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.40 Mbit/s
95th percentile per-packet one-way delay: 16.657 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 85.40 Mbit/s
95th percentile per-packet one-way delay: 16.657 ms
Loss rate: 0.01%
```

Run 10: Report of Indigo — Data Link

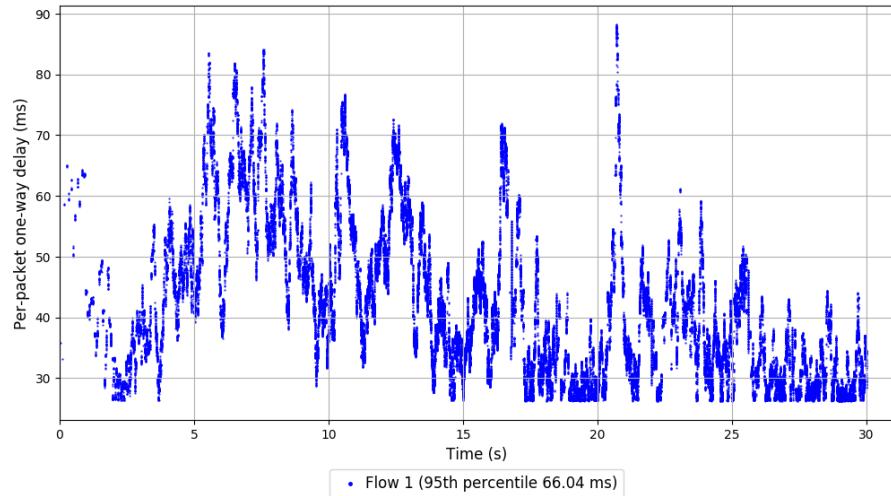
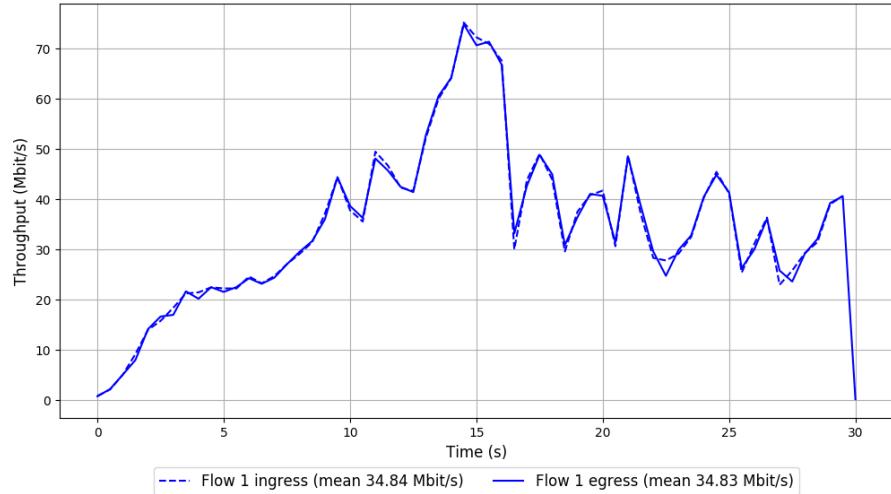


```
Run 1: Statistics of LEDBAT

Start at: 2017-09-18 10:36:42
End at: 2017-09-18 10:37:12
Local clock offset: 3.76 ms
Remote clock offset: -4.84 ms

# Below is generated by plot.py at 2017-09-18 13:23:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.83 Mbit/s
95th percentile per-packet one-way delay: 66.039 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 34.83 Mbit/s
95th percentile per-packet one-way delay: 66.039 ms
Loss rate: 0.08%
```

Run 1: Report of LEDBAT — Data Link

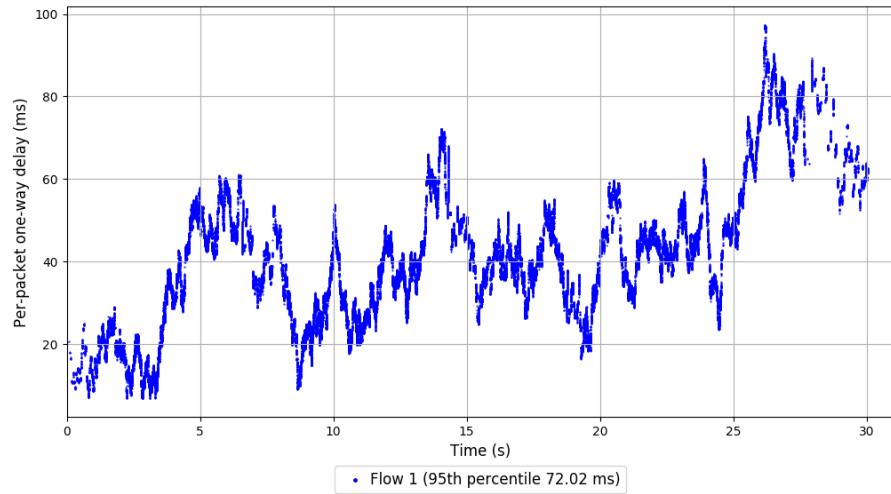
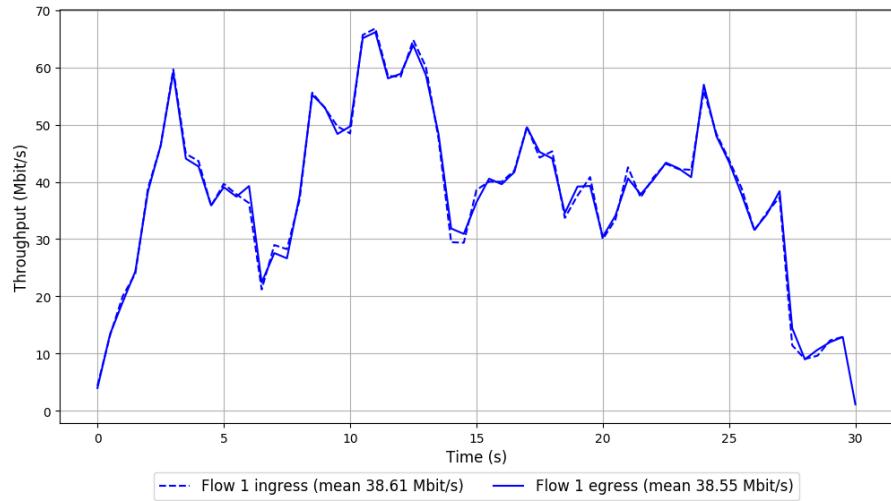


Run 2: Statistics of LEDBAT

```
Start at: 2017-09-18 10:50:14
End at: 2017-09-18 10:50:44
Local clock offset: 3.328 ms
Remote clock offset: -4.32 ms

# Below is generated by plot.py at 2017-09-18 13:23:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 72.017 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 72.017 ms
Loss rate: 0.01%
```

Run 2: Report of LEDBAT — Data Link

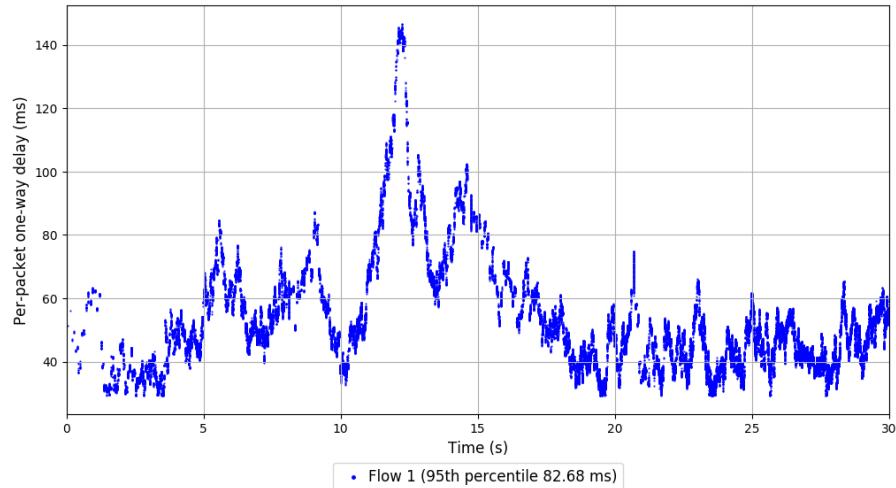
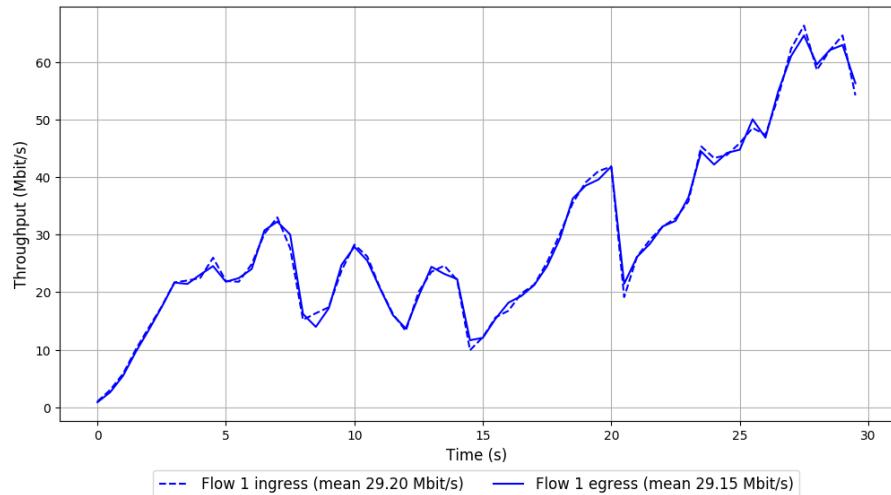


```
Run 3: Statistics of LEDBAT
```

```
Start at: 2017-09-18 11:04:52
End at: 2017-09-18 11:05:22
Local clock offset: 1.771 ms
Remote clock offset: -3.746 ms

# Below is generated by plot.py at 2017-09-18 13:23:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.15 Mbit/s
95th percentile per-packet one-way delay: 82.676 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 29.15 Mbit/s
95th percentile per-packet one-way delay: 82.676 ms
Loss rate: 0.29%
```

Run 3: Report of LEDBAT — Data Link

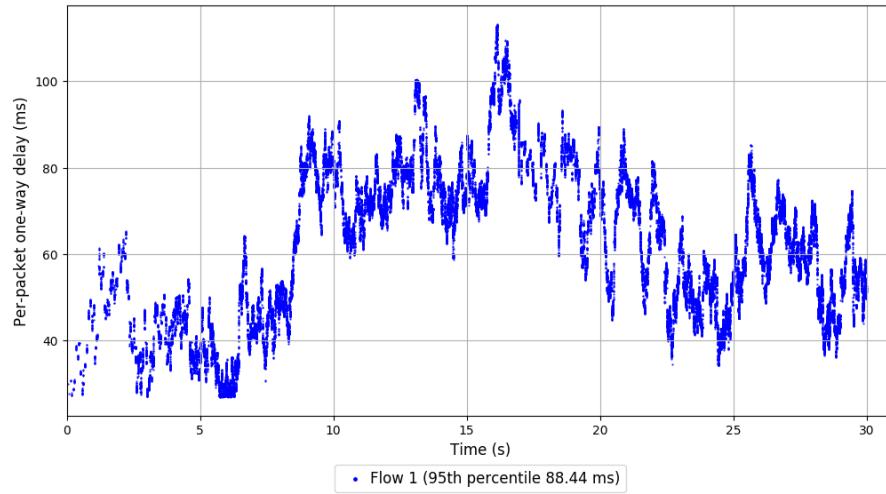
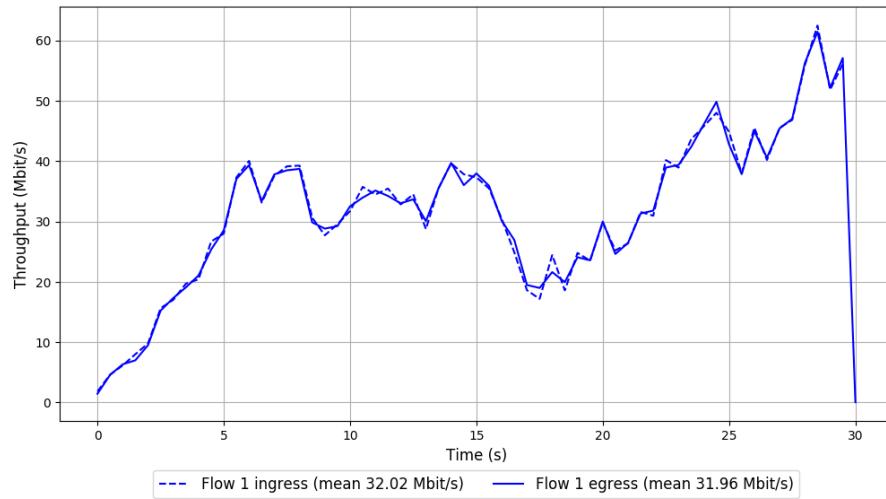


```
Run 4: Statistics of LEDBAT
```

```
Start at: 2017-09-18 11:19:44
End at: 2017-09-18 11:20:14
Local clock offset: 3.215 ms
Remote clock offset: -4.372 ms

# Below is generated by plot.py at 2017-09-18 13:23:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 88.436 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 88.436 ms
Loss rate: 0.24%
```

Run 4: Report of LEDBAT — Data Link

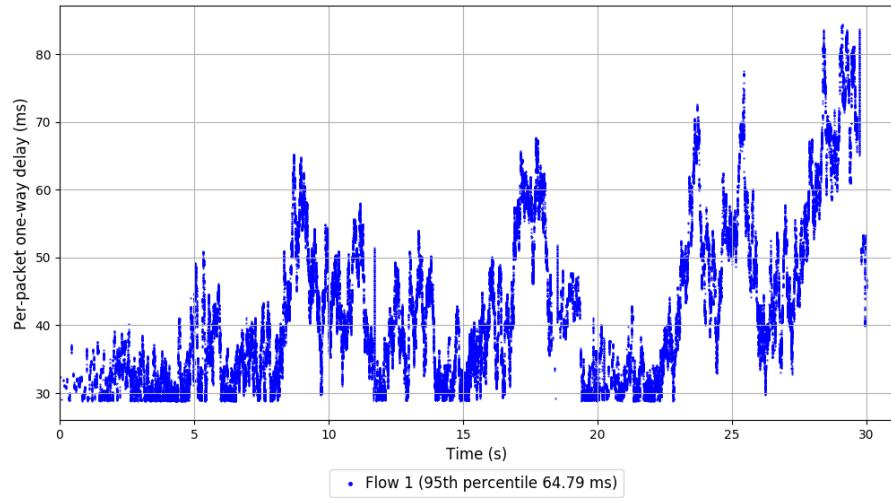
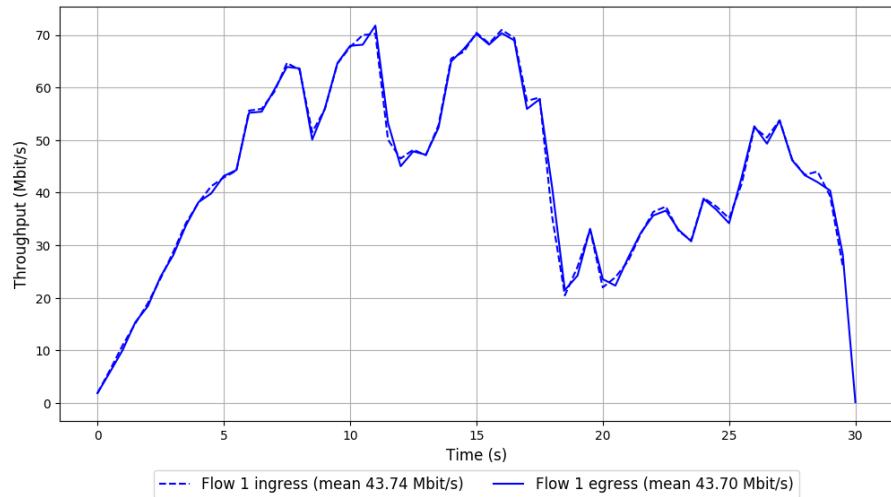


Run 5: Statistics of LEDBAT

```
Start at: 2017-09-18 11:33:36
End at: 2017-09-18 11:34:06
Local clock offset: 2.795 ms
Remote clock offset: -2.693 ms

# Below is generated by plot.py at 2017-09-18 13:24:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.70 Mbit/s
95th percentile per-packet one-way delay: 64.792 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 43.70 Mbit/s
95th percentile per-packet one-way delay: 64.792 ms
Loss rate: 0.14%
```

Run 5: Report of LEDBAT — Data Link

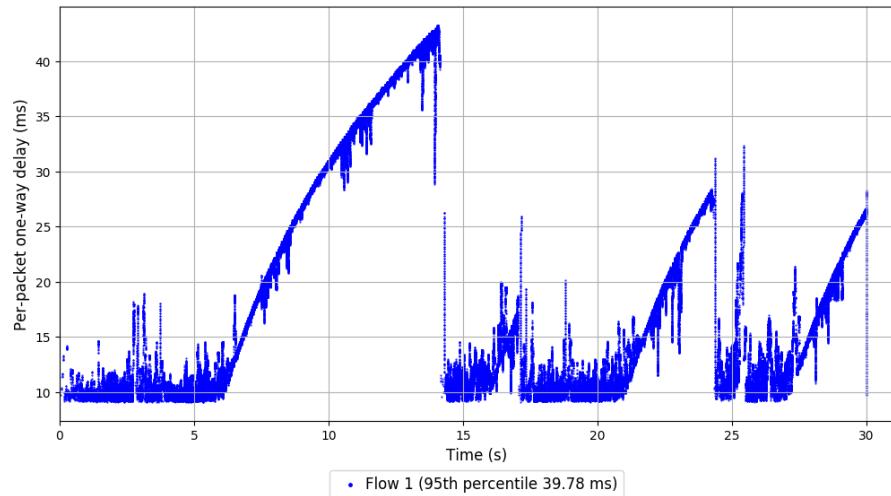
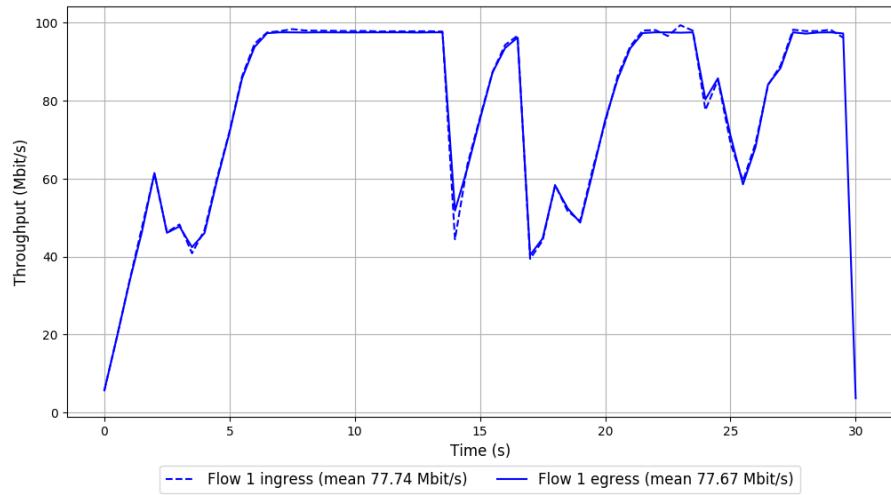


Run 6: Statistics of LEDBAT

```
Start at: 2017-09-18 11:48:37
End at: 2017-09-18 11:49:07
Local clock offset: 2.57 ms
Remote clock offset: -3.245 ms

# Below is generated by plot.py at 2017-09-18 13:24:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.67 Mbit/s
95th percentile per-packet one-way delay: 39.777 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 77.67 Mbit/s
95th percentile per-packet one-way delay: 39.777 ms
Loss rate: 0.04%
```

Run 6: Report of LEDBAT — Data Link

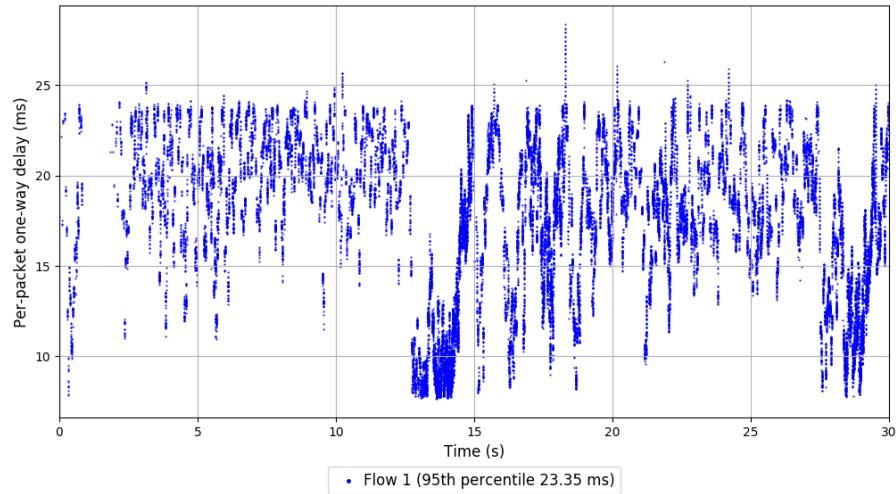
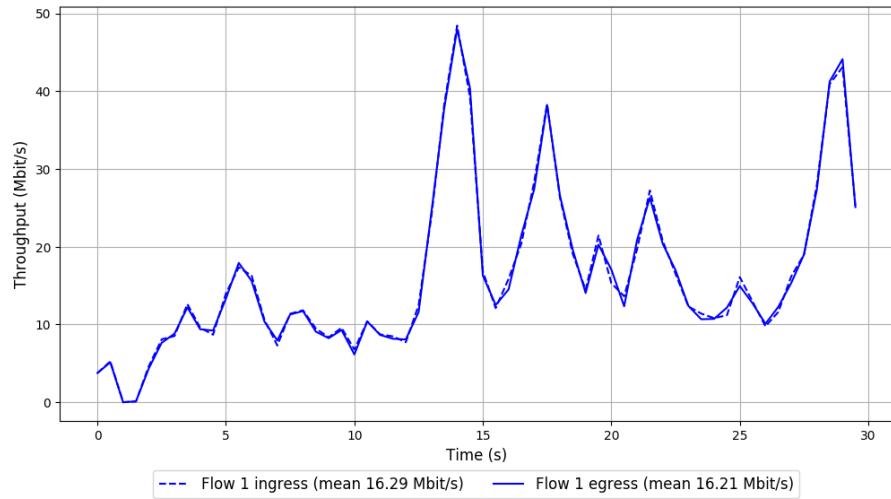


Run 7: Statistics of LEDBAT

```
Start at: 2017-09-18 12:03:57
End at: 2017-09-18 12:04:27
Local clock offset: 3.855 ms
Remote clock offset: -3.745 ms

# Below is generated by plot.py at 2017-09-18 13:24:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.21 Mbit/s
95th percentile per-packet one-way delay: 23.349 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 16.21 Mbit/s
95th percentile per-packet one-way delay: 23.349 ms
Loss rate: 0.47%
```

Run 7: Report of LEDBAT — Data Link

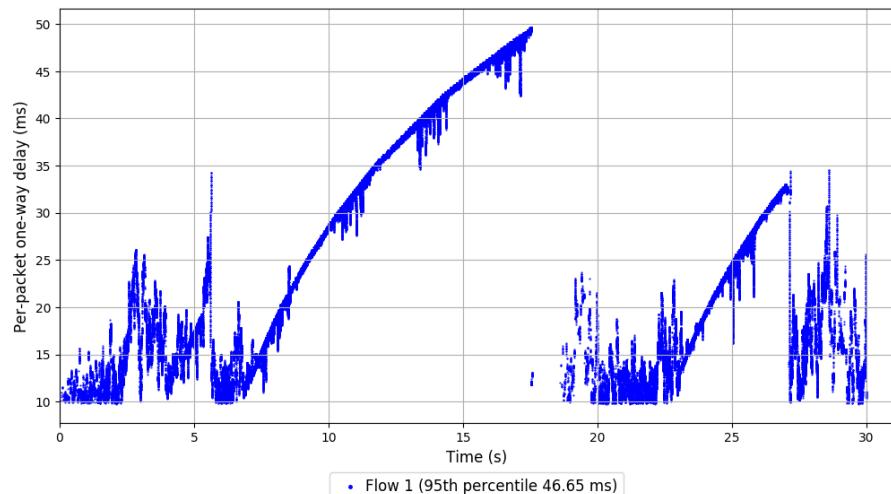
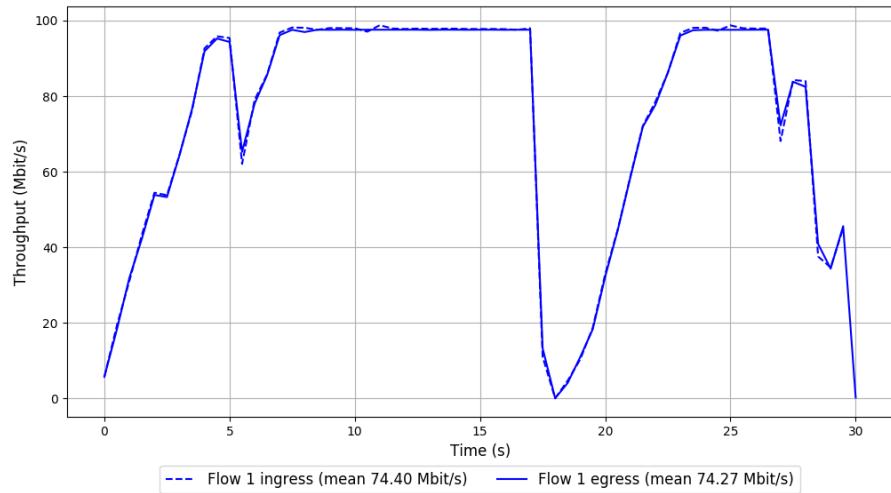


Run 8: Statistics of LEDBAT

```
Start at: 2017-09-18 12:18:14
End at: 2017-09-18 12:18:44
Local clock offset: 2.6 ms
Remote clock offset: -3.35 ms

# Below is generated by plot.py at 2017-09-18 13:24:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.27 Mbit/s
95th percentile per-packet one-way delay: 46.648 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 74.27 Mbit/s
95th percentile per-packet one-way delay: 46.648 ms
Loss rate: 0.18%
```

Run 8: Report of LEDBAT — Data Link

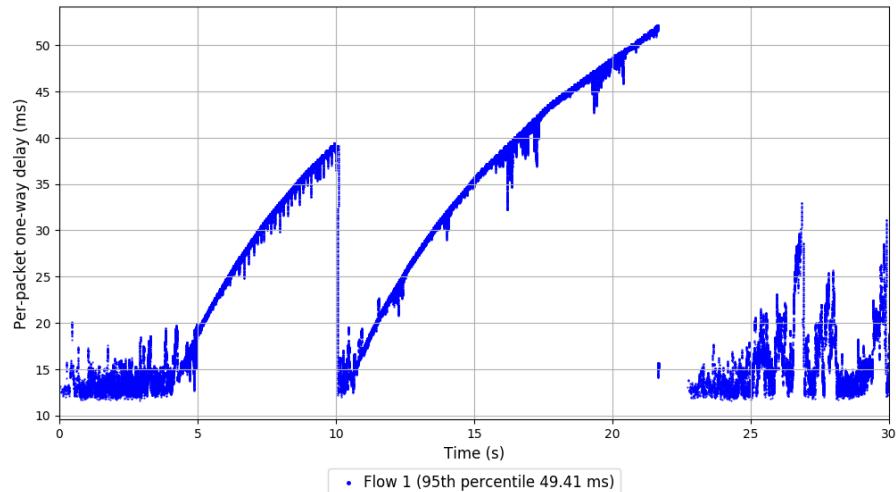
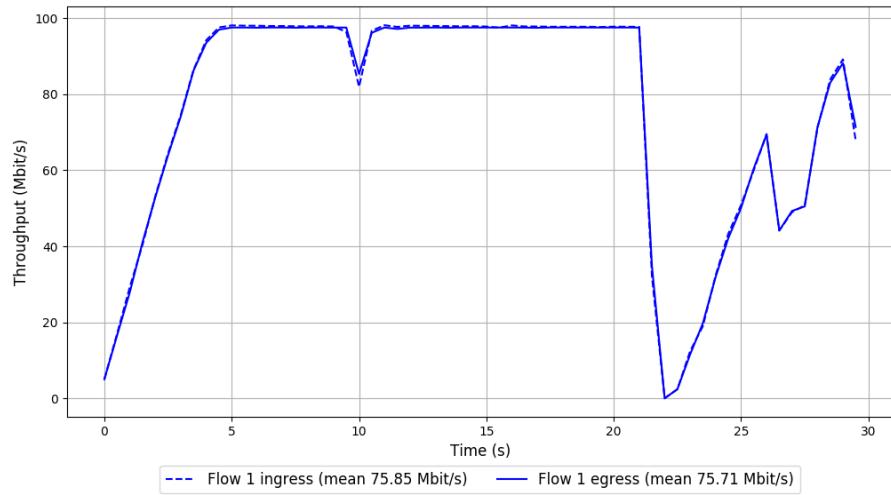


Run 9: Statistics of LEDBAT

```
Start at: 2017-09-18 12:38:58
End at: 2017-09-18 12:39:28
Local clock offset: 2.27 ms
Remote clock offset: -3.533 ms

# Below is generated by plot.py at 2017-09-18 13:24:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.71 Mbit/s
95th percentile per-packet one-way delay: 49.410 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 75.71 Mbit/s
95th percentile per-packet one-way delay: 49.410 ms
Loss rate: 0.17%
```

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

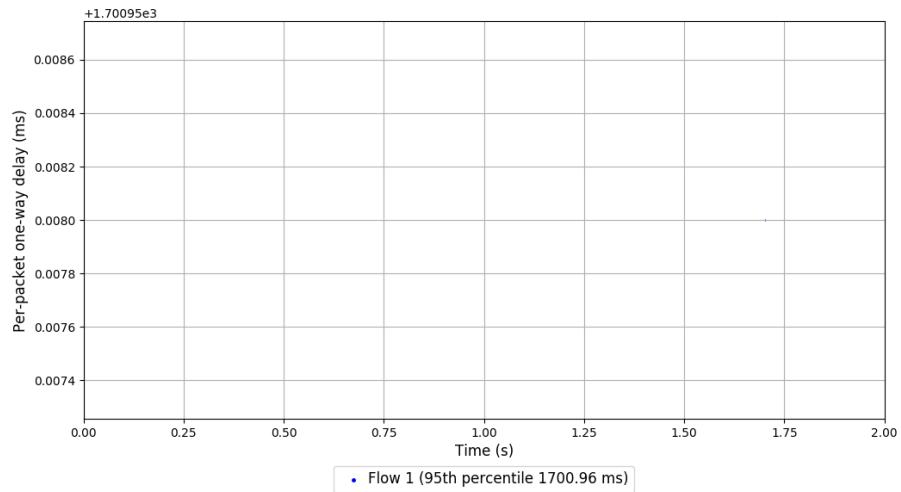
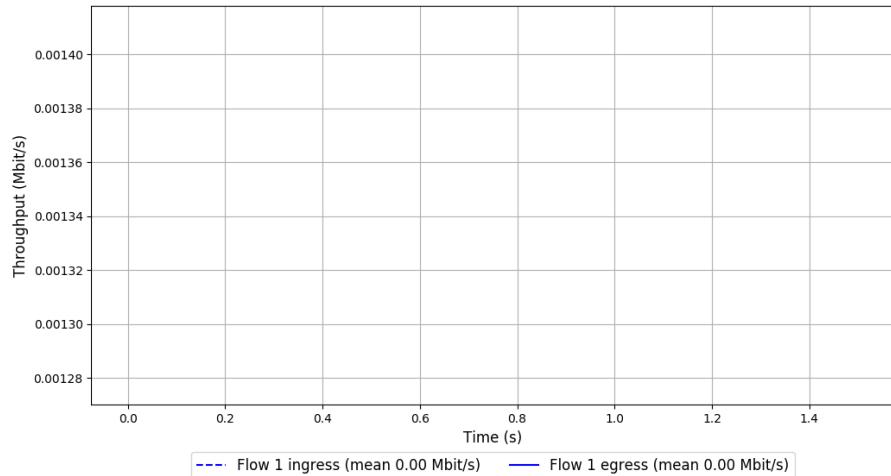
Start at: 2017-09-18 12:51:55

End at: 2017-09-18 12:52:25

Local clock offset: 1.516 ms

Remote clock offset: -4.291 ms

Run 10: Report of LEDBAT — Data Link

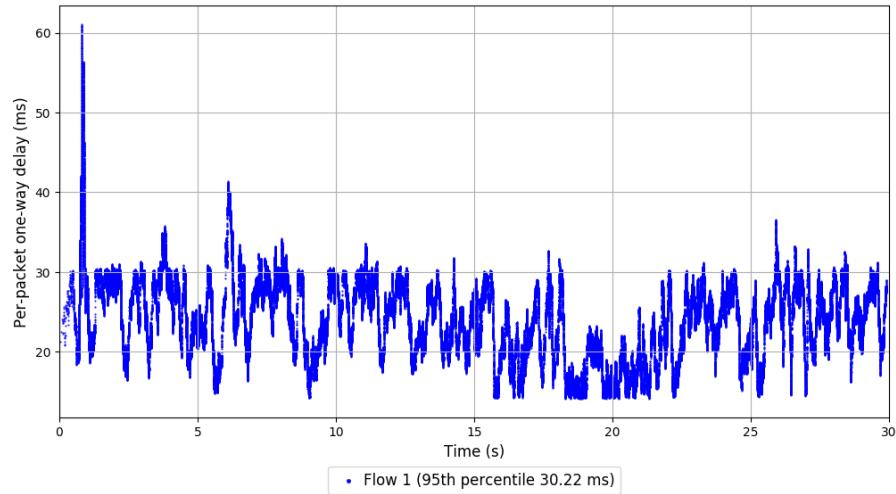
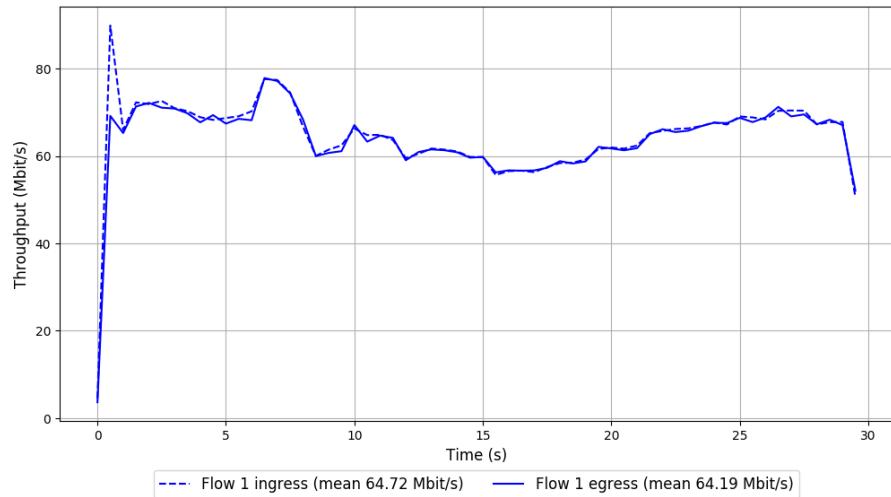


Run 1: Statistics of PCC

```
Start at: 2017-09-18 10:40:38
End at: 2017-09-18 10:41:08
Local clock offset: 1.924 ms
Remote clock offset: -4.586 ms

# Below is generated by plot.py at 2017-09-18 13:24:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.19 Mbit/s
95th percentile per-packet one-way delay: 30.220 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 64.19 Mbit/s
95th percentile per-packet one-way delay: 30.220 ms
Loss rate: 0.84%
```

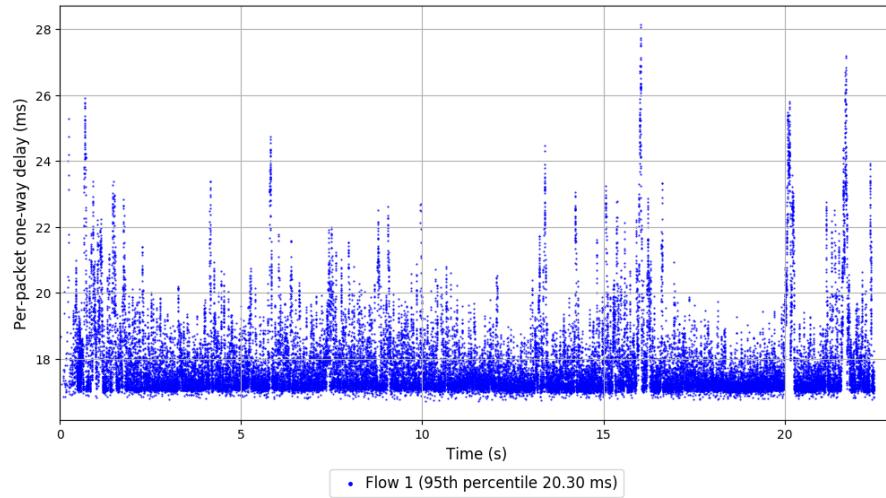
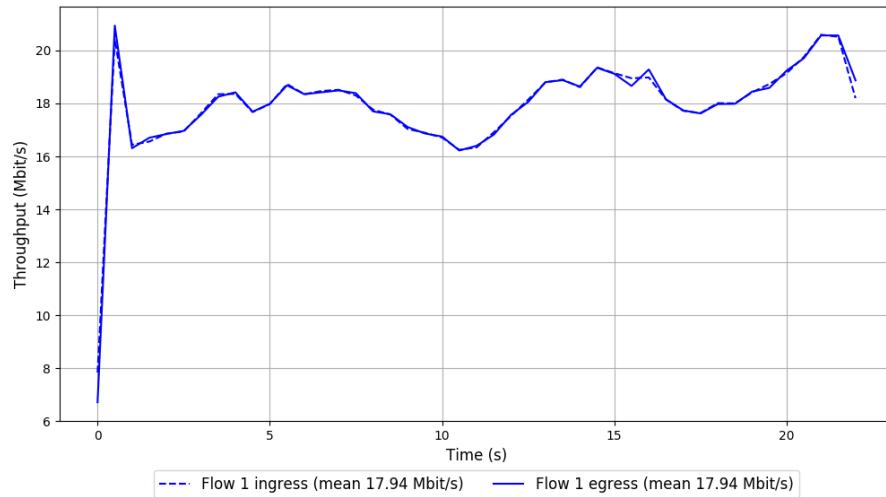
Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-09-18 10:55:25
End at: 2017-09-18 10:55:55
Local clock offset: 0.476 ms
Remote clock offset: -3.269 ms

Run 2: Report of PCC — Data Link

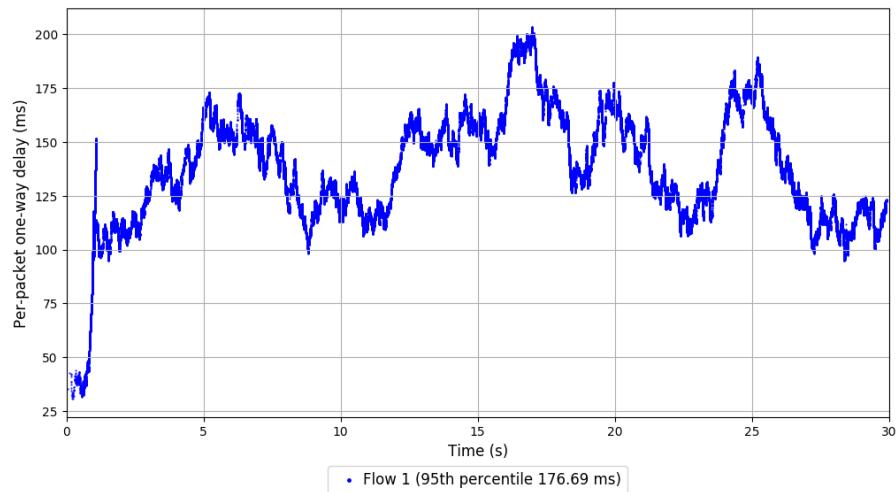
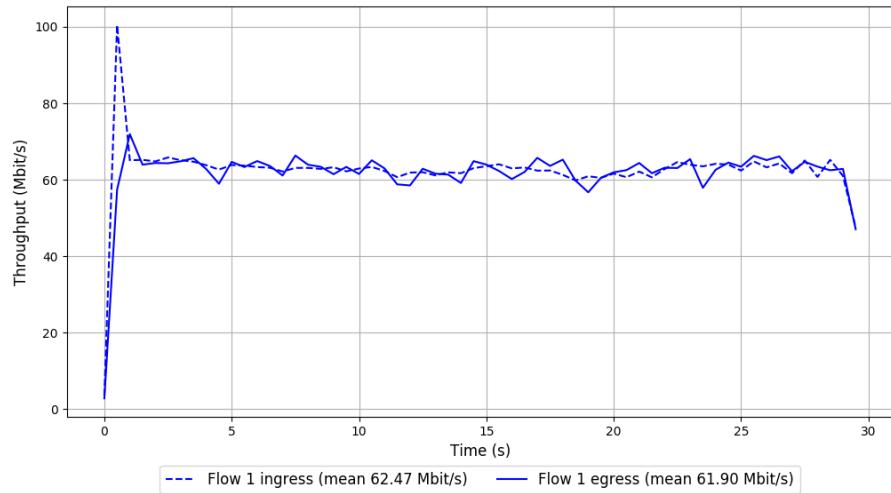


Run 3: Statistics of PCC

```
Start at: 2017-09-18 11:09:32
End at: 2017-09-18 11:10:02
Local clock offset: 0.288 ms
Remote clock offset: -4.383 ms

# Below is generated by plot.py at 2017-09-18 13:24:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.90 Mbit/s
95th percentile per-packet one-way delay: 176.692 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 61.90 Mbit/s
95th percentile per-packet one-way delay: 176.692 ms
Loss rate: 0.99%
```

Run 3: Report of PCC — Data Link

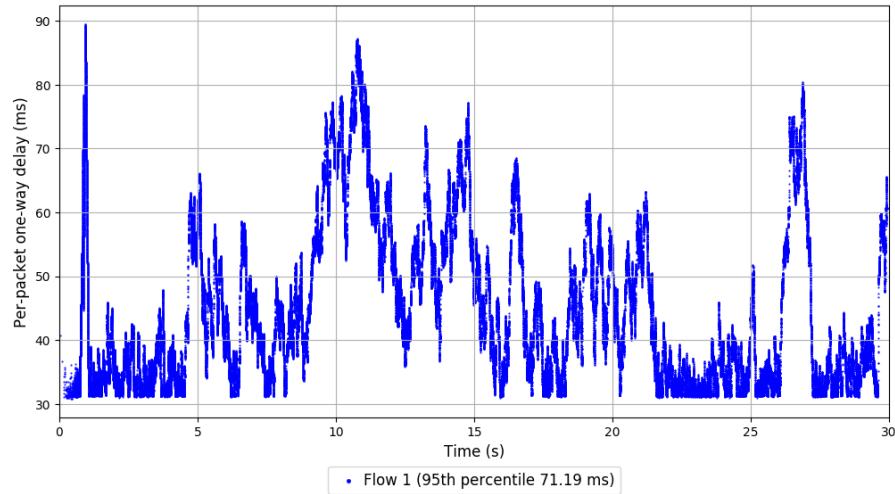
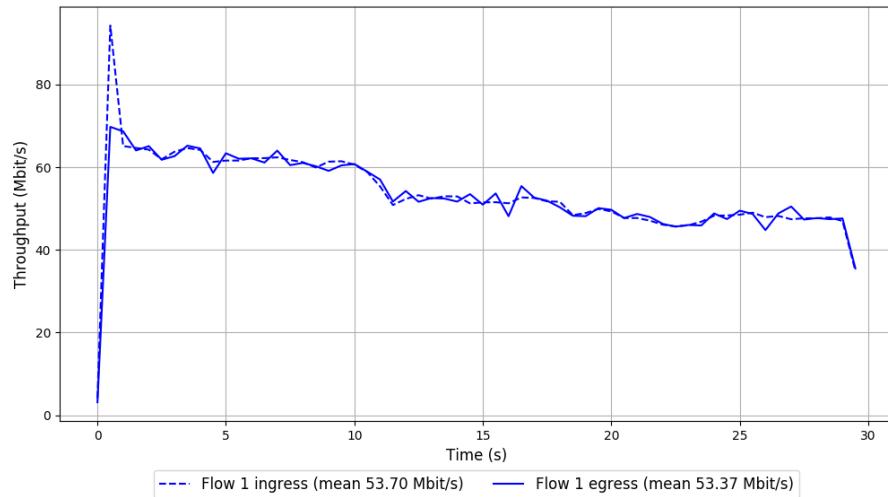


Run 4: Statistics of PCC

```
Start at: 2017-09-18 11:23:49
End at: 2017-09-18 11:24:19
Local clock offset: 0.405 ms
Remote clock offset: -2.913 ms

# Below is generated by plot.py at 2017-09-18 13:24:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 71.194 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 71.194 ms
Loss rate: 0.63%
```

Run 4: Report of PCC — Data Link

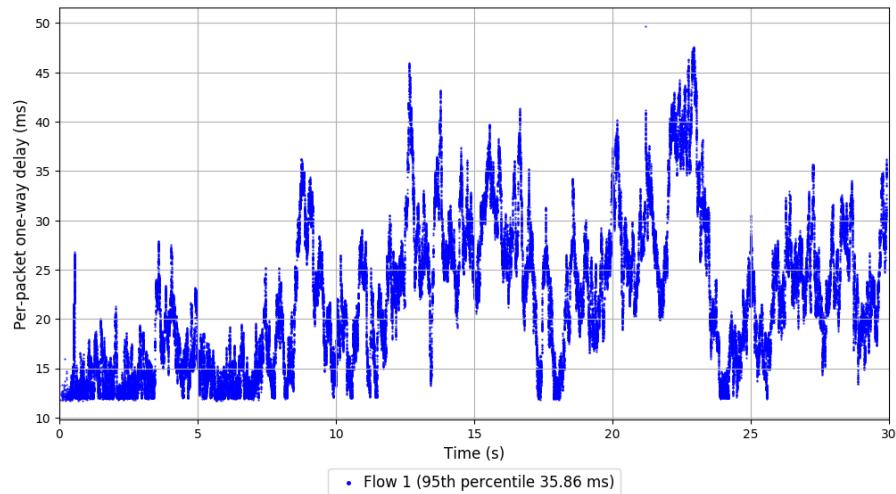
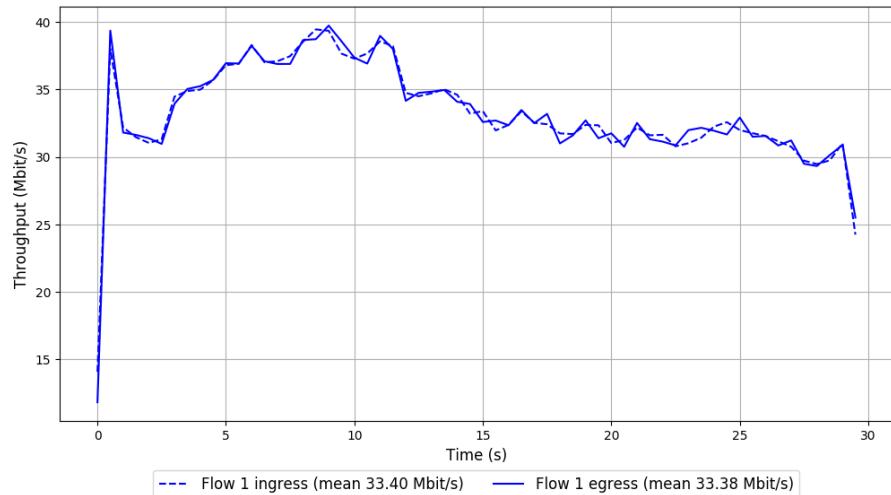


Run 5: Statistics of PCC

```
Start at: 2017-09-18 11:38:35
End at: 2017-09-18 11:39:05
Local clock offset: -0.236 ms
Remote clock offset: -2.17 ms

# Below is generated by plot.py at 2017-09-18 13:24:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 35.862 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 35.862 ms
Loss rate: 0.00%
```

Run 5: Report of PCC — Data Link

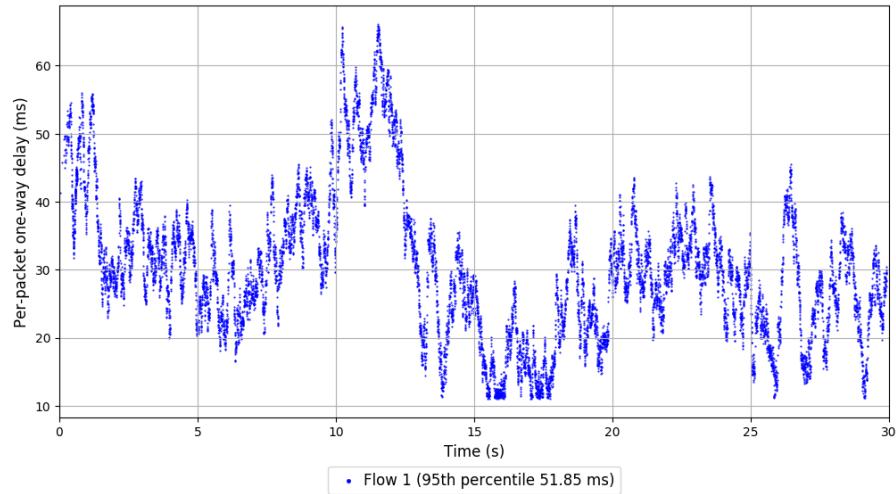
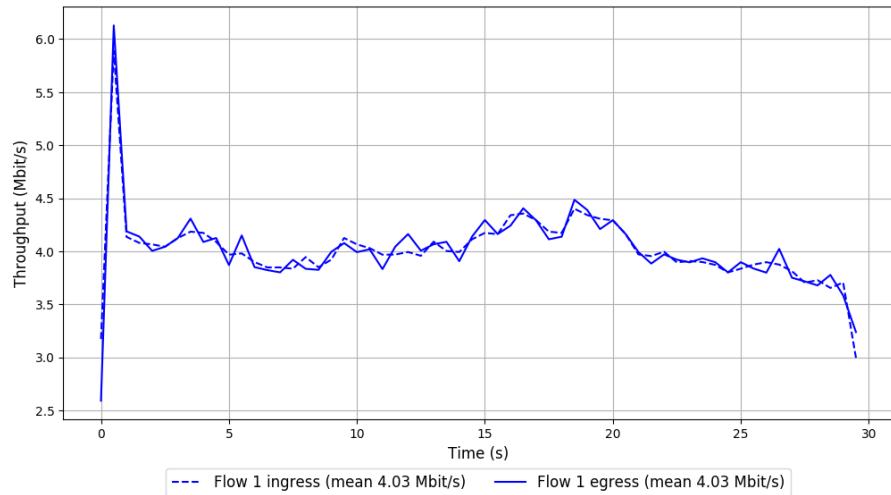


Run 6: Statistics of PCC

```
Start at: 2017-09-18 11:54:02
End at: 2017-09-18 11:54:32
Local clock offset: -0.035 ms
Remote clock offset: -3.117 ms

# Below is generated by plot.py at 2017-09-18 13:24:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 51.854 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 51.854 ms
Loss rate: 0.00%
```

Run 6: Report of PCC — Data Link

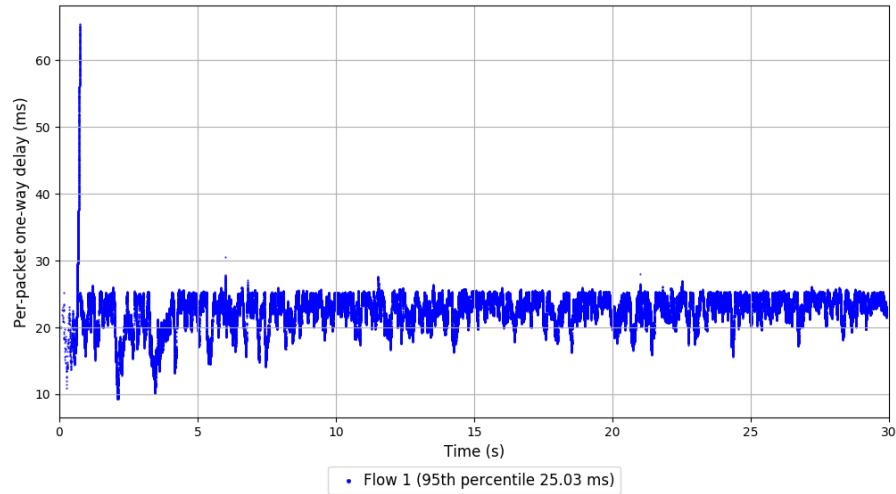
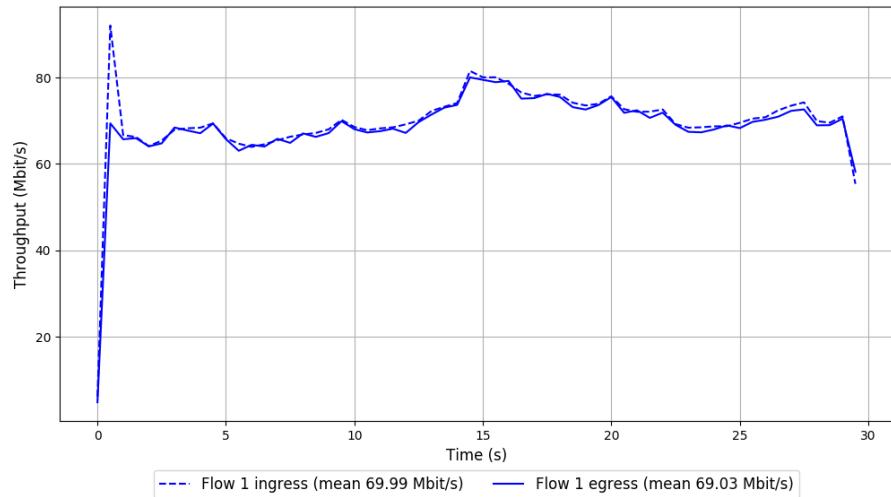


Run 7: Statistics of PCC

```
Start at: 2017-09-18 12:07:37
End at: 2017-09-18 12:08:07
Local clock offset: 3.051 ms
Remote clock offset: -3.203 ms

# Below is generated by plot.py at 2017-09-18 13:25:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.03 Mbit/s
95th percentile per-packet one-way delay: 25.031 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 69.03 Mbit/s
95th percentile per-packet one-way delay: 25.031 ms
Loss rate: 1.36%
```

Run 7: Report of PCC — Data Link

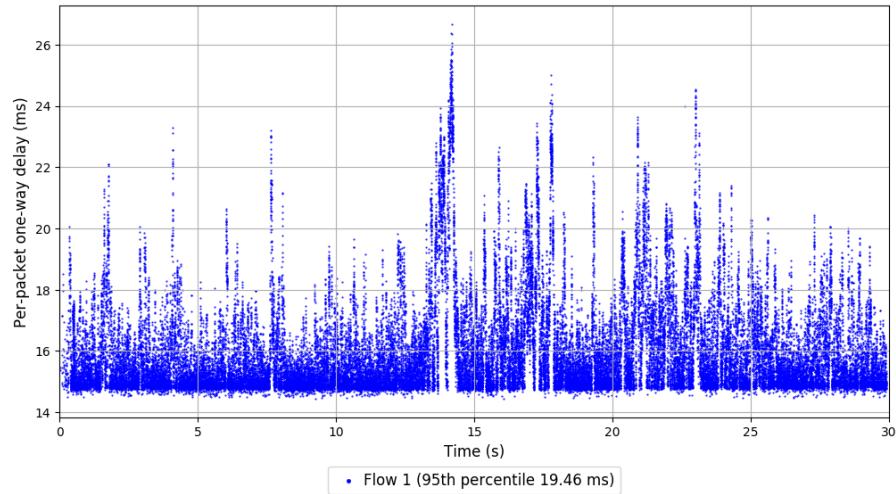
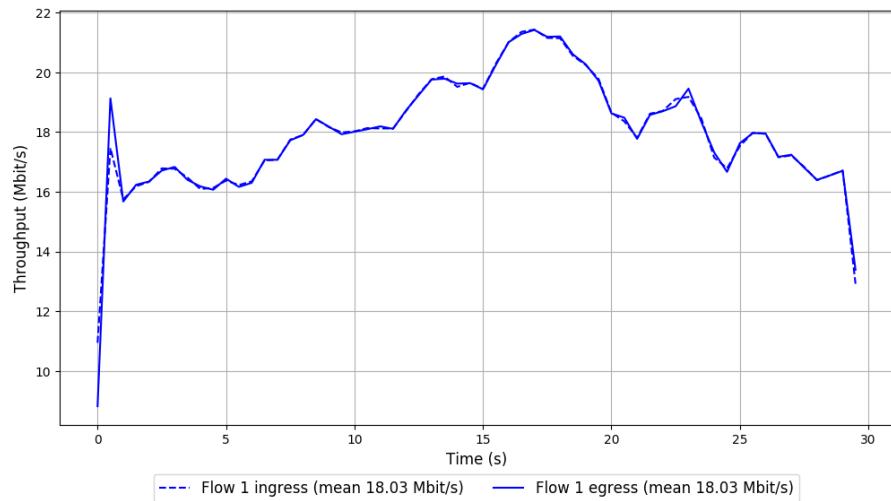


Run 8: Statistics of PCC

```
Start at: 2017-09-18 12:30:36
End at: 2017-09-18 12:31:07
Local clock offset: -0.401 ms
Remote clock offset: -2.699 ms

# Below is generated by plot.py at 2017-09-18 13:25:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 18.03 Mbit/s
95th percentile per-packet one-way delay: 19.459 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 18.03 Mbit/s
95th percentile per-packet one-way delay: 19.459 ms
Loss rate: 0.01%
```

Run 8: Report of PCC — Data Link

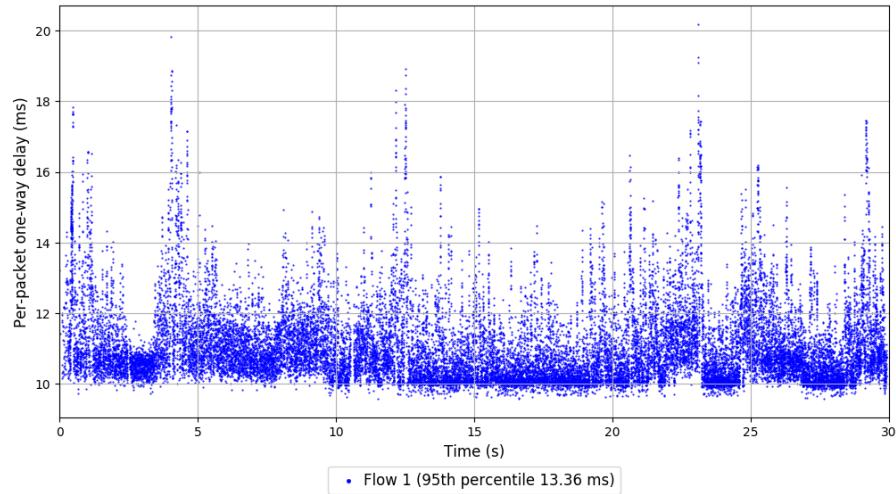
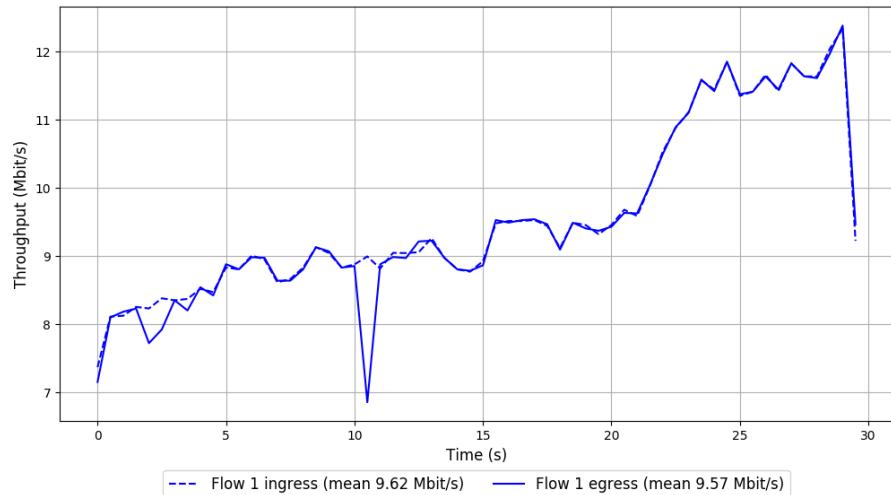


Run 9: Statistics of PCC

```
Start at: 2017-09-18 12:43:05
End at: 2017-09-18 12:43:35
Local clock offset: 3.397 ms
Remote clock offset: -3.685 ms

# Below is generated by plot.py at 2017-09-18 13:25:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 13.358 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 13.358 ms
Loss rate: 0.57%
```

Run 9: Report of PCC — Data Link

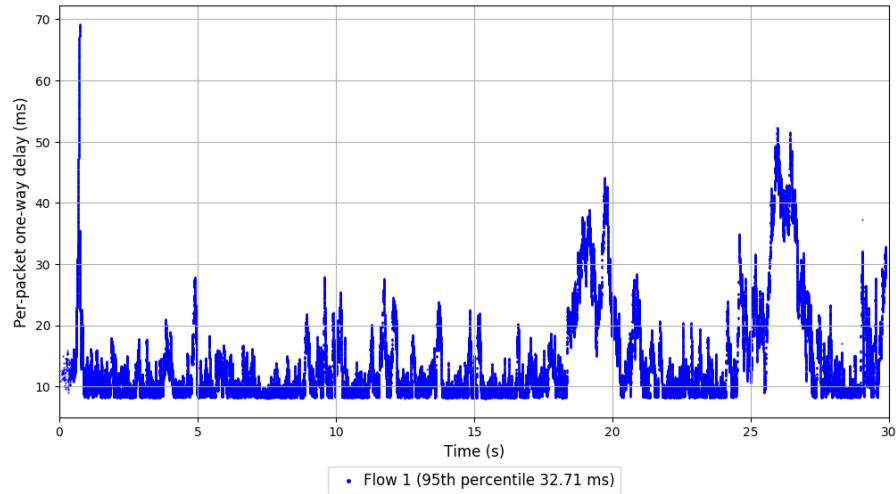
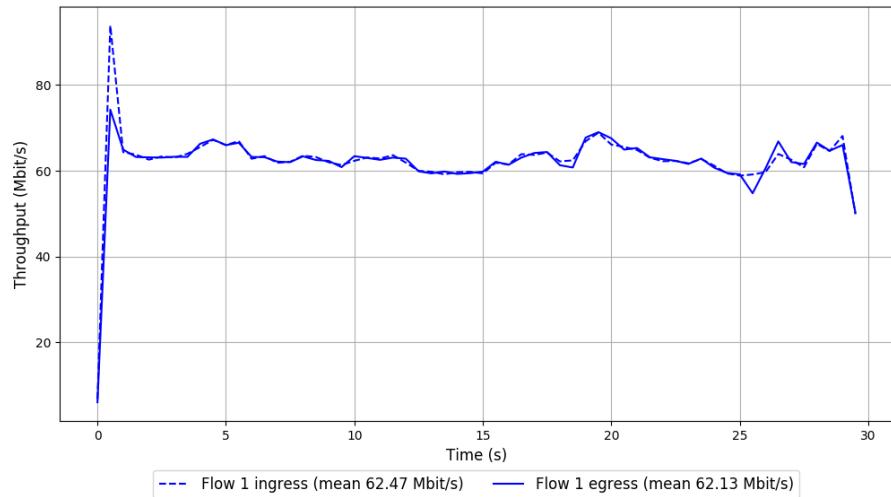


Run 10: Statistics of PCC

```
Start at: 2017-09-18 12:55:40
End at: 2017-09-18 12:56:10
Local clock offset: 0.368 ms
Remote clock offset: -9.953 ms

# Below is generated by plot.py at 2017-09-18 13:25:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.13 Mbit/s
95th percentile per-packet one-way delay: 32.712 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 62.13 Mbit/s
95th percentile per-packet one-way delay: 32.712 ms
Loss rate: 0.57%
```

Run 10: Report of PCC — Data Link

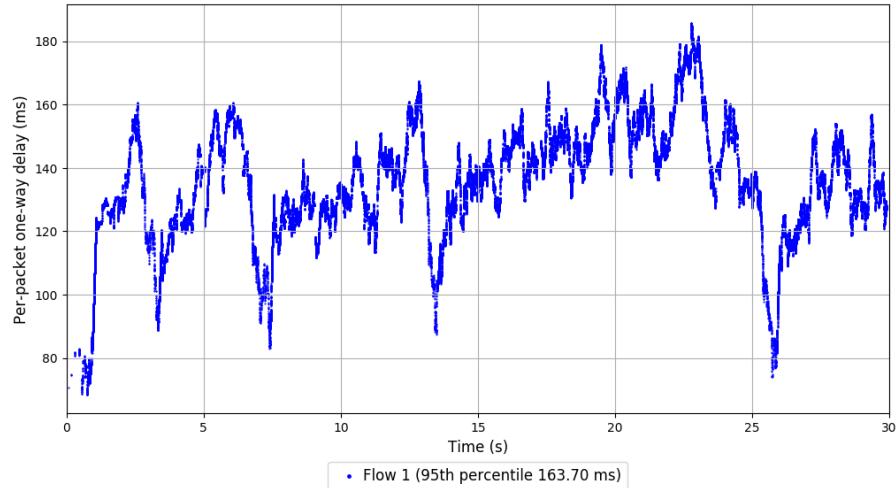
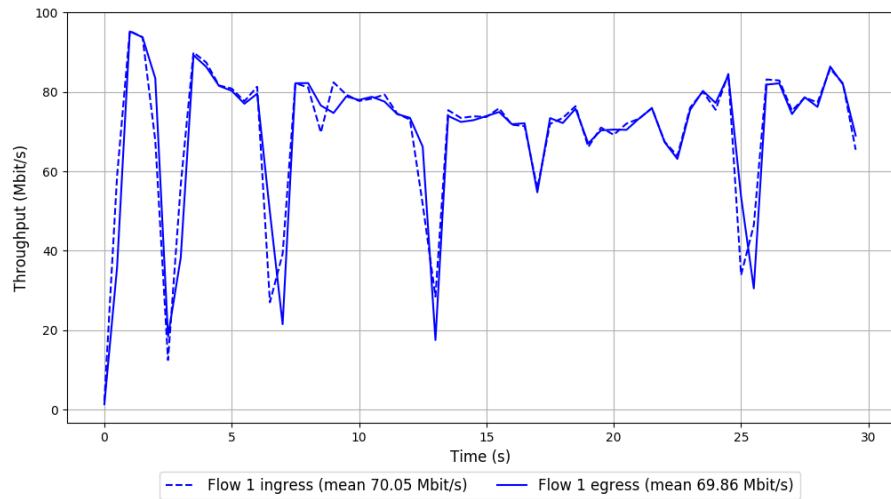


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-18 10:41:57
End at: 2017-09-18 10:42:27
Local clock offset: 4.02 ms
Remote clock offset: -4.294 ms

# Below is generated by plot.py at 2017-09-18 13:25:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.86 Mbit/s
95th percentile per-packet one-way delay: 163.700 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 69.86 Mbit/s
95th percentile per-packet one-way delay: 163.700 ms
Loss rate: 0.45%
```

Run 1: Report of QUIC Cubic — Data Link

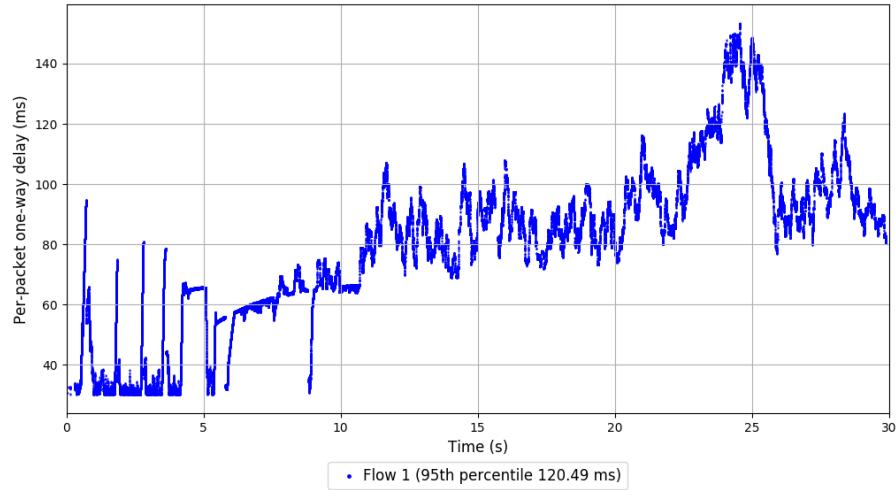
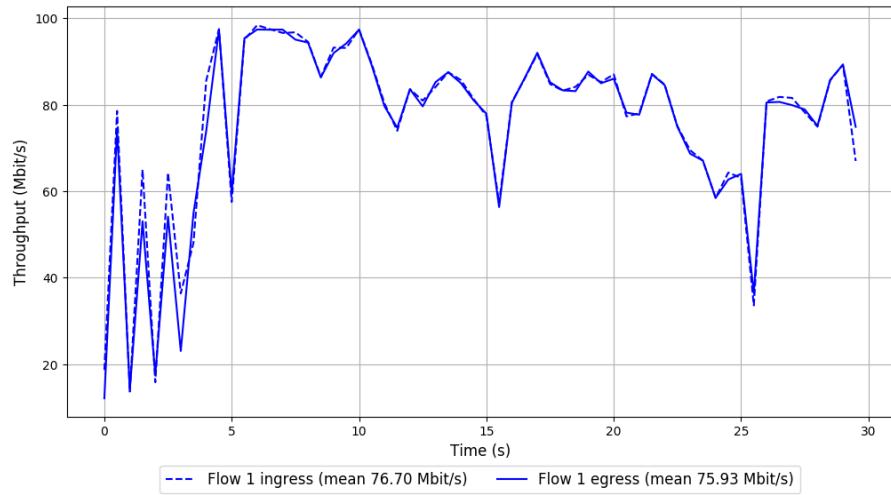


Run 2: Statistics of QUIC Cubic

```
Start at: 2017-09-18 10:56:36
End at: 2017-09-18 10:57:06
Local clock offset: 0.083 ms
Remote clock offset: -4.575 ms

# Below is generated by plot.py at 2017-09-18 13:26:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.93 Mbit/s
95th percentile per-packet one-way delay: 120.487 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 75.93 Mbit/s
95th percentile per-packet one-way delay: 120.487 ms
Loss rate: 0.97%
```

Run 2: Report of QUIC Cubic — Data Link

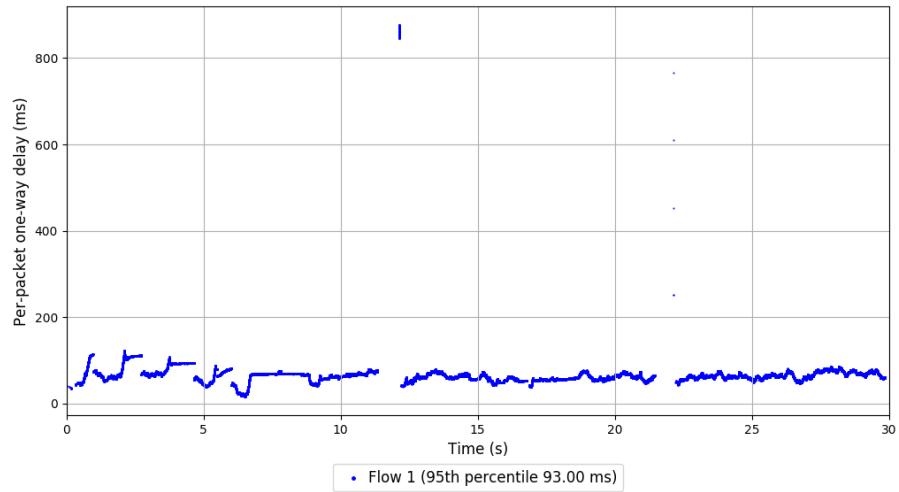
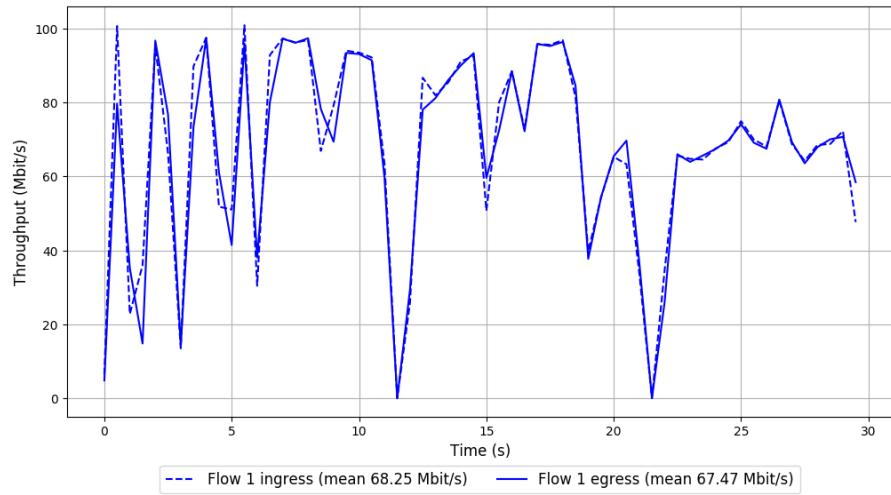


Run 3: Statistics of QUIC Cubic

```
Start at: 2017-09-18 11:10:52
End at: 2017-09-18 11:11:22
Local clock offset: 2.031 ms
Remote clock offset: -4.22 ms

# Below is generated by plot.py at 2017-09-18 13:26:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.47 Mbit/s
95th percentile per-packet one-way delay: 92.995 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 67.47 Mbit/s
95th percentile per-packet one-way delay: 92.995 ms
Loss rate: 1.09%
```

Run 3: Report of QUIC Cubic — Data Link

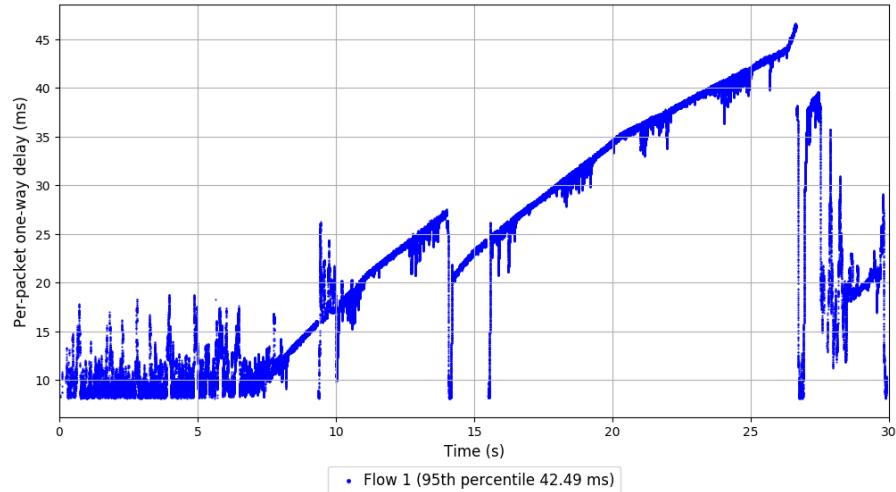
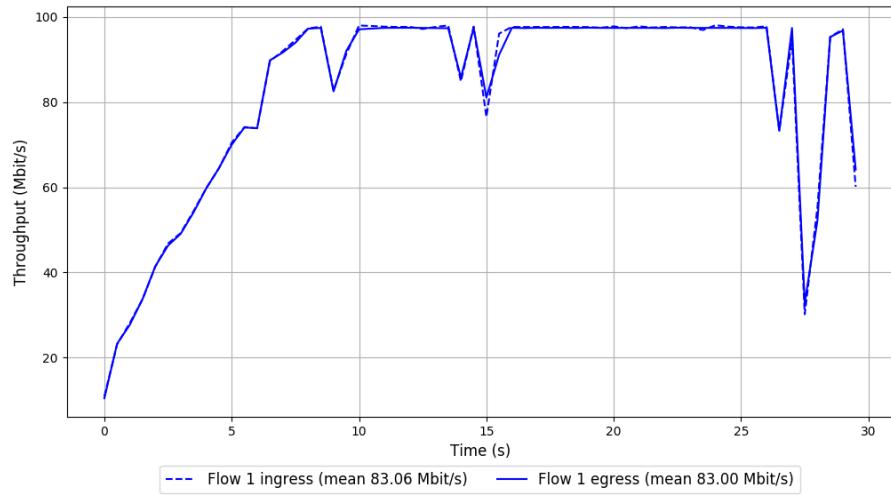


Run 4: Statistics of QUIC Cubic

```
Start at: 2017-09-18 11:25:02
End at: 2017-09-18 11:25:32
Local clock offset: 2.764 ms
Remote clock offset: -3.863 ms

# Below is generated by plot.py at 2017-09-18 13:26:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.00 Mbit/s
95th percentile per-packet one-way delay: 42.490 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 83.00 Mbit/s
95th percentile per-packet one-way delay: 42.490 ms
Loss rate: 0.07%
```

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-18 11:39:50

End at: 2017-09-18 11:40:20

Local clock offset: 4.33 ms

Remote clock offset: -1.899 ms

Run 5: Report of QUIC Cubic — Data Link

Figure is missing

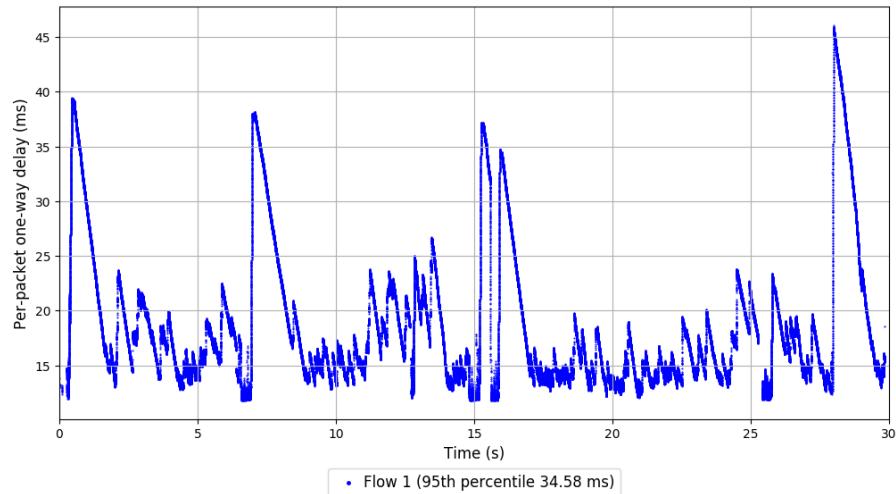
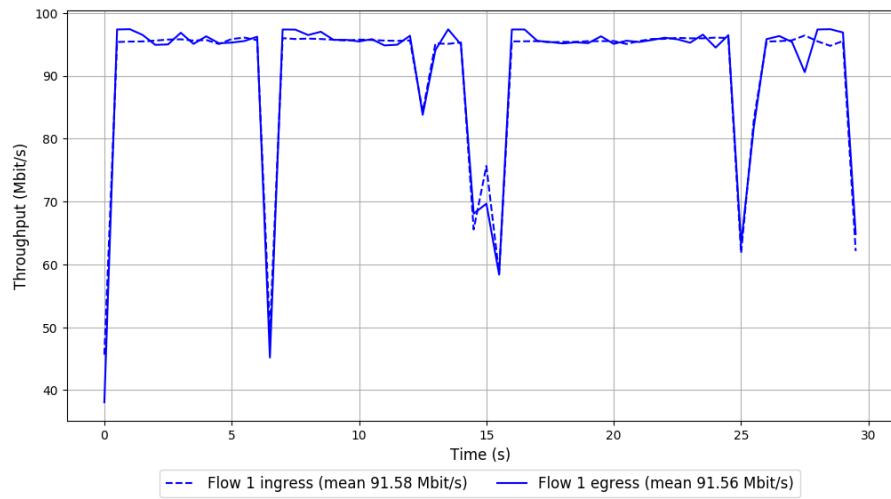
Figure is missing

Run 6: Statistics of QUIC Cubic

```
Start at: 2017-09-18 11:55:08
End at: 2017-09-18 11:55:38
Local clock offset: 0.483 ms
Remote clock offset: -2.709 ms

# Below is generated by plot.py at 2017-09-18 13:26:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.56 Mbit/s
95th percentile per-packet one-way delay: 34.581 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 91.56 Mbit/s
95th percentile per-packet one-way delay: 34.581 ms
Loss rate: 0.00%
```

Run 6: Report of QUIC Cubic — Data Link

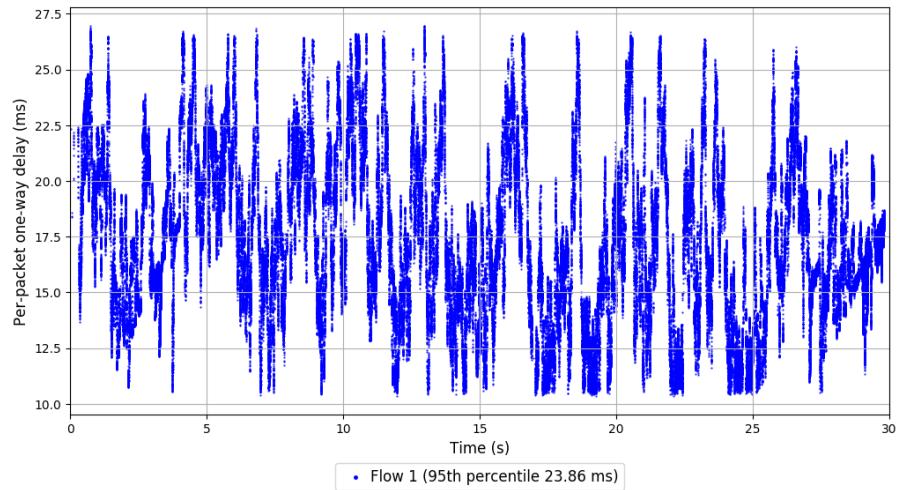
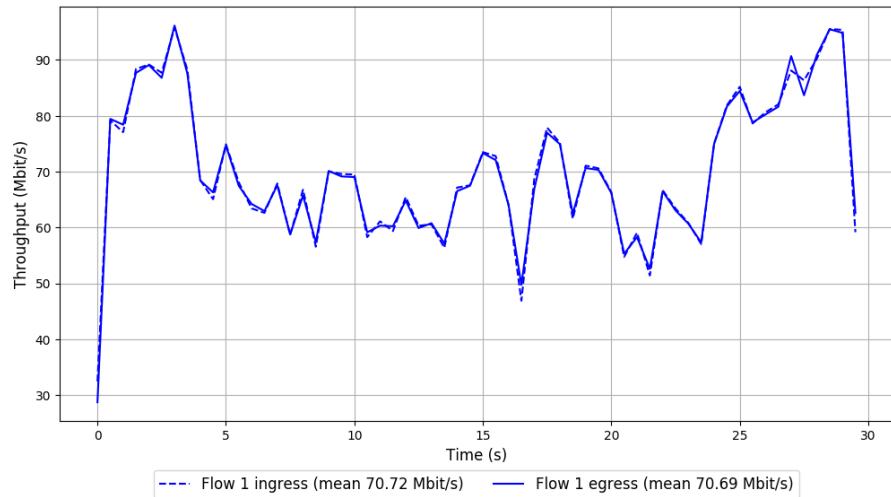


Run 7: Statistics of QUIC Cubic

```
Start at: 2017-09-18 12:09:10
End at: 2017-09-18 12:09:40
Local clock offset: 1.932 ms
Remote clock offset: -3.082 ms

# Below is generated by plot.py at 2017-09-18 13:26:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.69 Mbit/s
95th percentile per-packet one-way delay: 23.862 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 70.69 Mbit/s
95th percentile per-packet one-way delay: 23.862 ms
Loss rate: 0.06%
```

Run 7: Report of QUIC Cubic — Data Link

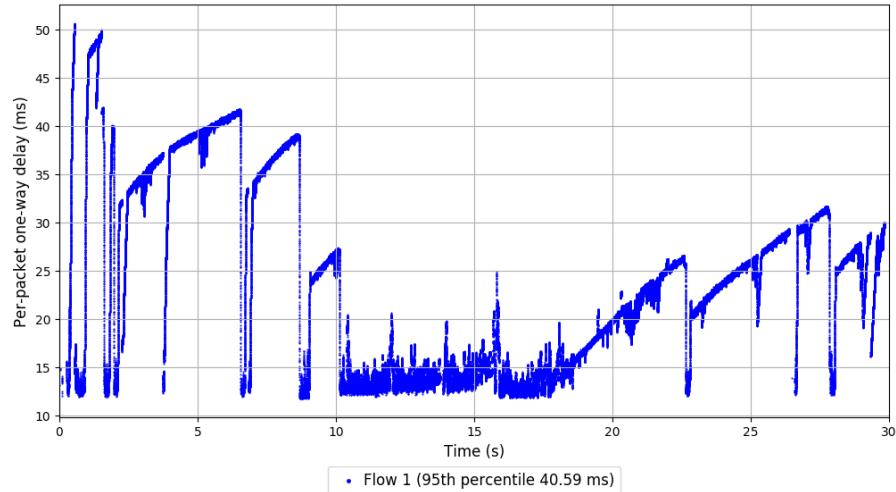
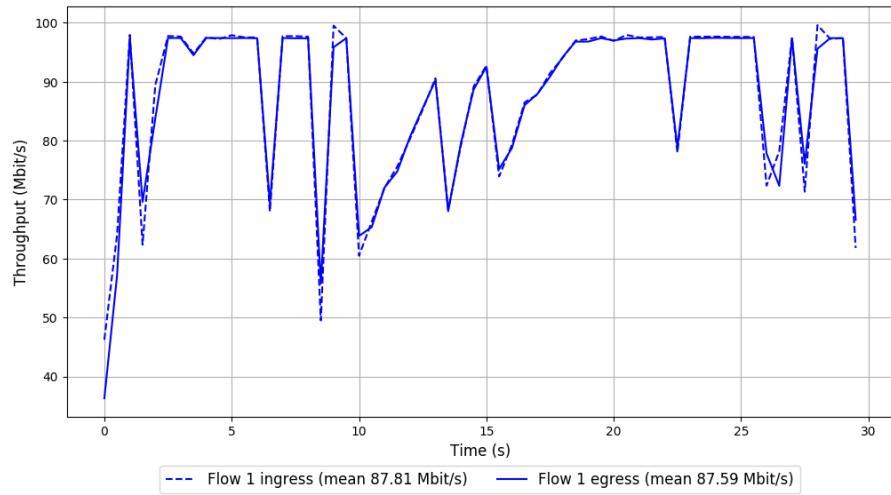


Run 8: Statistics of QUIC Cubic

```
Start at: 2017-09-18 12:31:43
End at: 2017-09-18 12:32:13
Local clock offset: 1.904 ms
Remote clock offset: -3.329 ms

# Below is generated by plot.py at 2017-09-18 13:26:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 40.590 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 40.590 ms
Loss rate: 0.20%
```

Run 8: Report of QUIC Cubic — Data Link

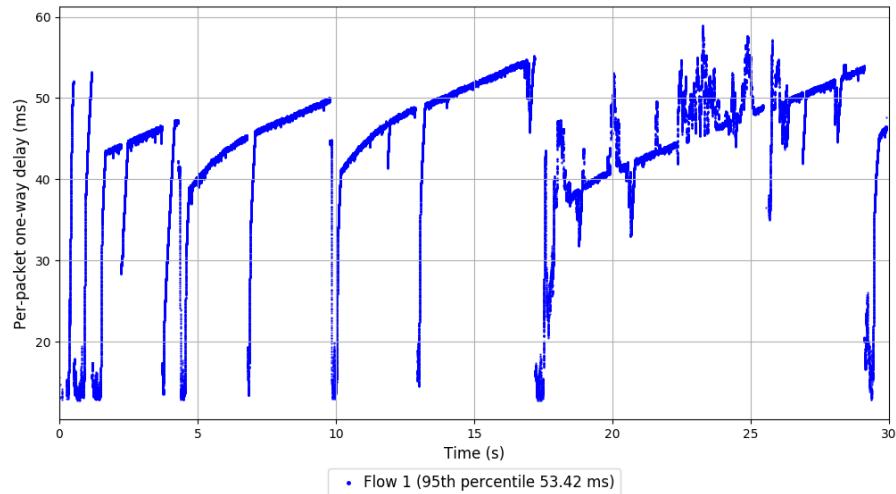
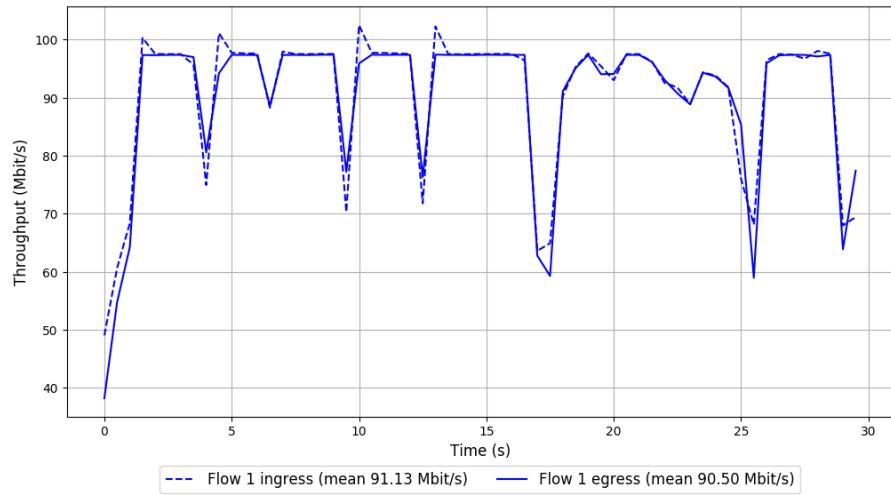


Run 9: Statistics of QUIC Cubic

```
Start at: 2017-09-18 12:44:11
End at: 2017-09-18 12:44:41
Local clock offset: -1.771 ms
Remote clock offset: -4.22 ms

# Below is generated by plot.py at 2017-09-18 13:27:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.50 Mbit/s
95th percentile per-packet one-way delay: 53.420 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 90.50 Mbit/s
95th percentile per-packet one-way delay: 53.420 ms
Loss rate: 0.58%
```

Run 9: Report of QUIC Cubic — Data Link

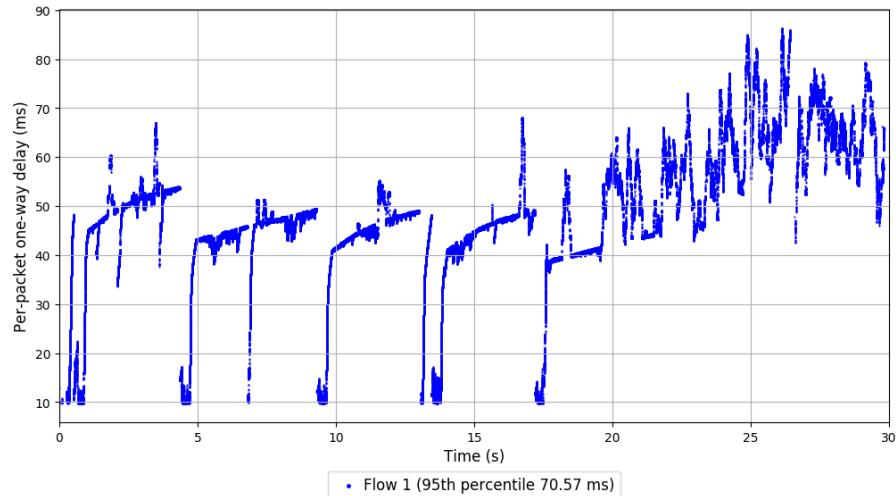
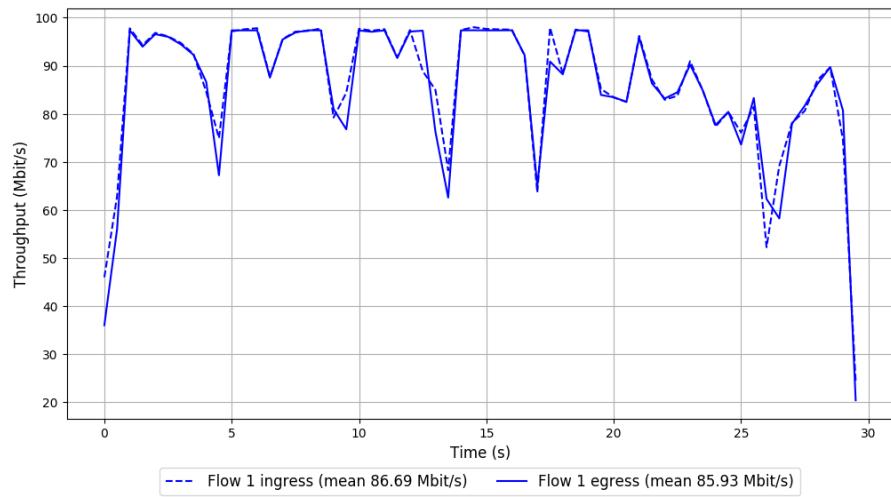


Run 10: Statistics of QUIC Cubic

```
Start at: 2017-09-18 12:56:56
End at: 2017-09-18 12:57:26
Local clock offset: 4.146 ms
Remote clock offset: -4.122 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.93 Mbit/s
95th percentile per-packet one-way delay: 70.570 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 85.93 Mbit/s
95th percentile per-packet one-way delay: 70.570 ms
Loss rate: 0.89%
```

Run 10: Report of QUIC Cubic — Data Link

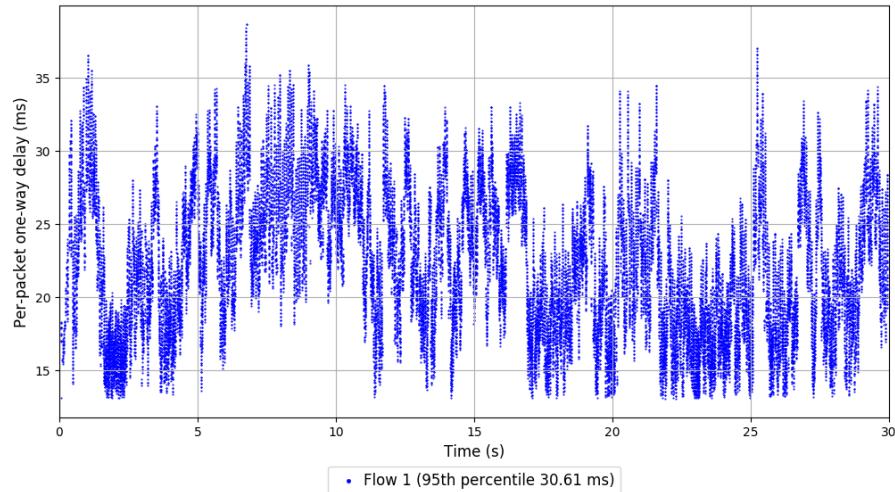
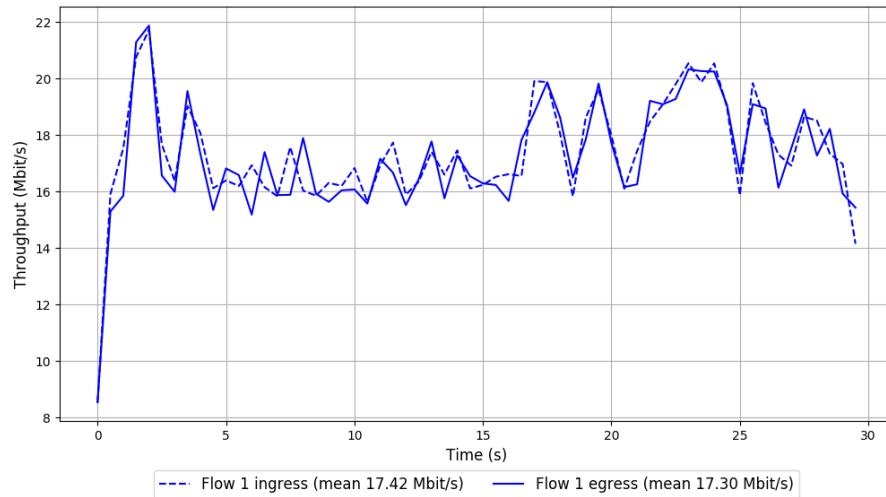


Run 1: Statistics of Sprout

```
Start at: 2017-09-18 10:34:26
End at: 2017-09-18 10:34:56
Local clock offset: 2.811 ms
Remote clock offset: -4.765 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.30 Mbit/s
95th percentile per-packet one-way delay: 30.608 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 17.30 Mbit/s
95th percentile per-packet one-way delay: 30.608 ms
Loss rate: 0.76%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

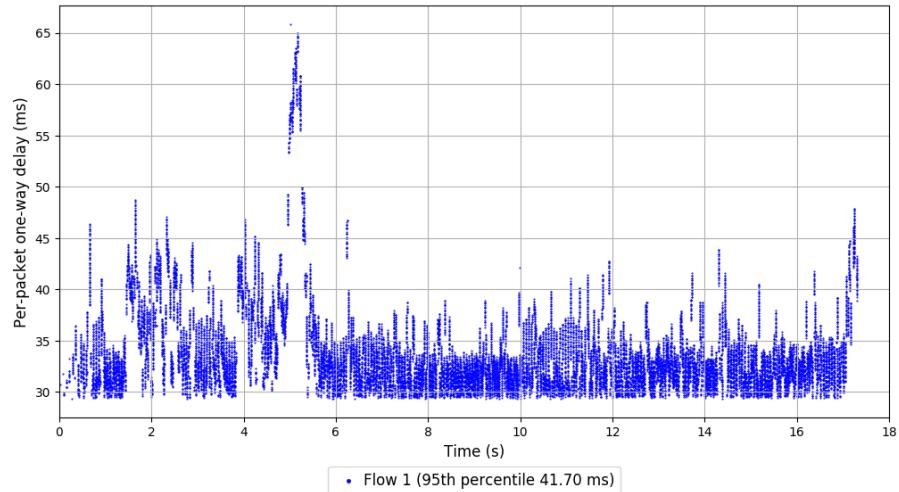
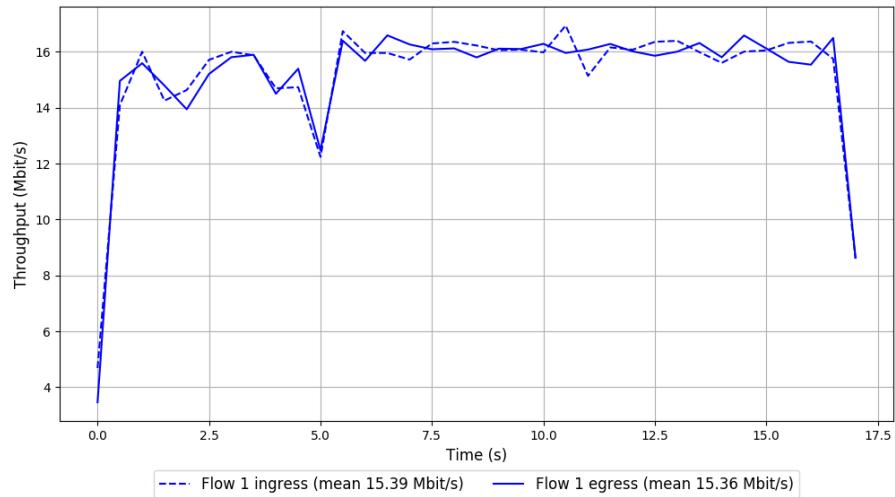
Start at: 2017-09-18 10:47:53

End at: 2017-09-18 10:48:23

Local clock offset: 0.867 ms

Remote clock offset: -4.69 ms

Run 2: Report of Sprout — Data Link

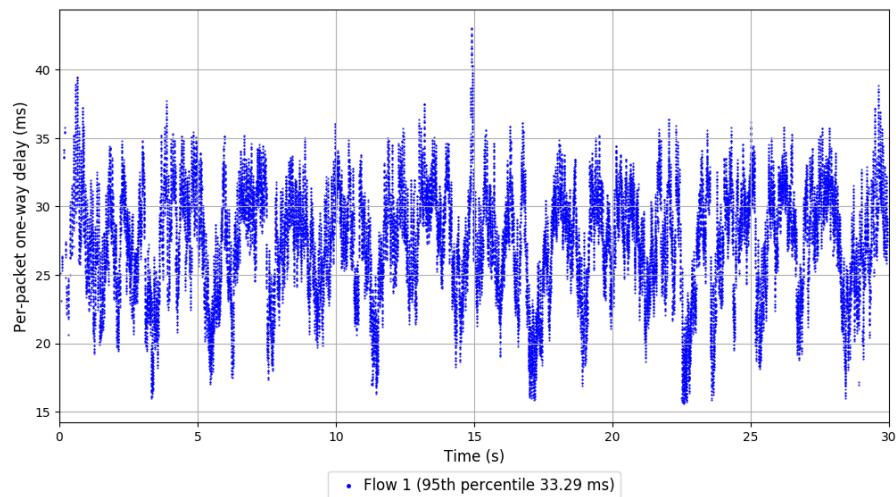
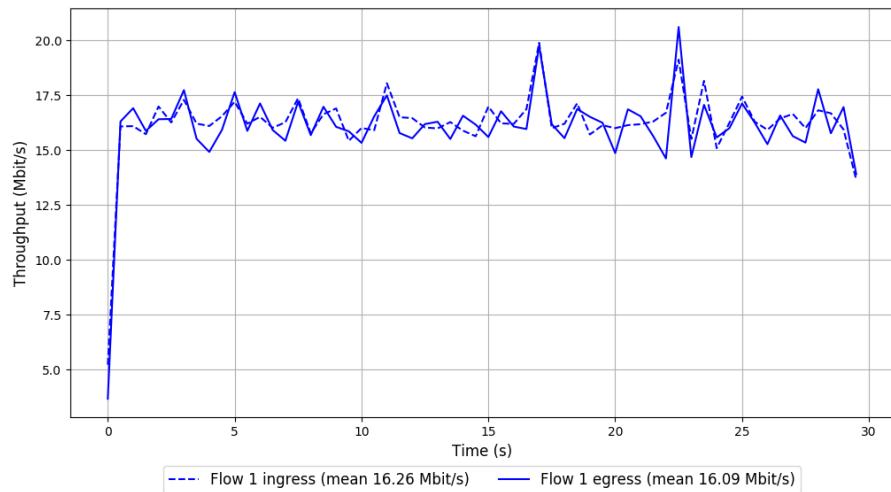


Run 3: Statistics of Sprout

```
Start at: 2017-09-18 11:02:22
End at: 2017-09-18 11:02:52
Local clock offset: 0.237 ms
Remote clock offset: -4.691 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.09 Mbit/s
95th percentile per-packet one-way delay: 33.290 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 16.09 Mbit/s
95th percentile per-packet one-way delay: 33.290 ms
Loss rate: 1.10%
```

Run 3: Report of Sprout — Data Link

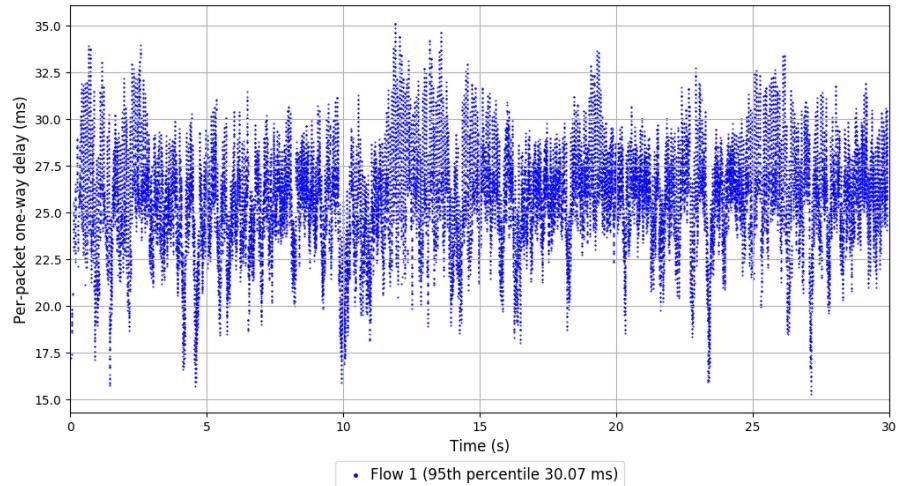
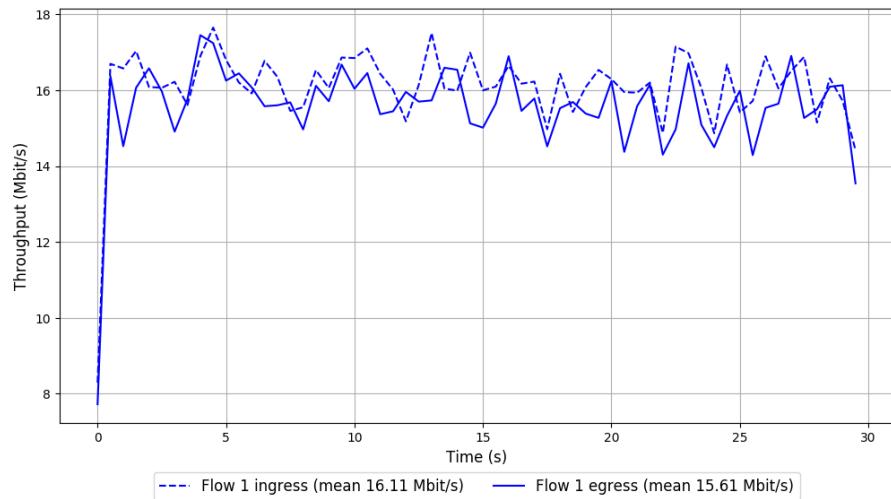


Run 4: Statistics of Sprout

```
Start at: 2017-09-18 11:17:09
End at: 2017-09-18 11:17:39
Local clock offset: 1.472 ms
Remote clock offset: -3.108 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.61 Mbit/s
95th percentile per-packet one-way delay: 30.066 ms
Loss rate: 3.17%
-- Flow 1:
Average throughput: 15.61 Mbit/s
95th percentile per-packet one-way delay: 30.066 ms
Loss rate: 3.17%
```

Run 4: Report of Sprout — Data Link

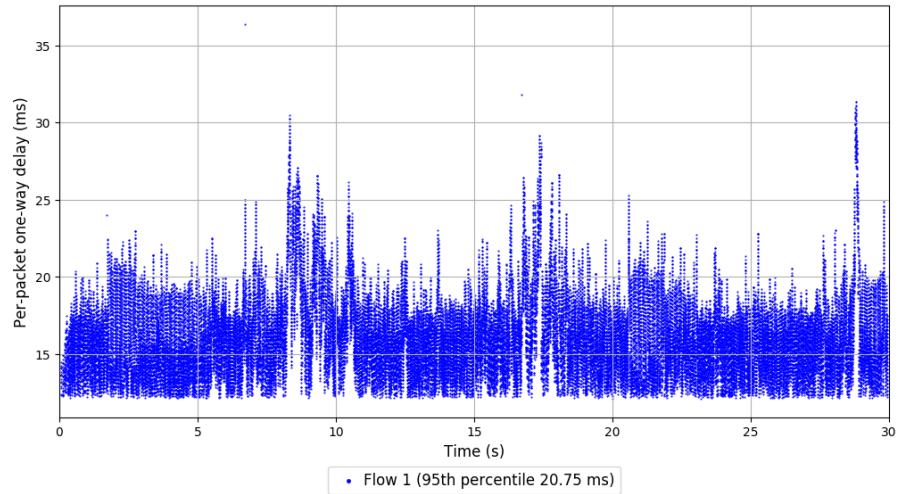
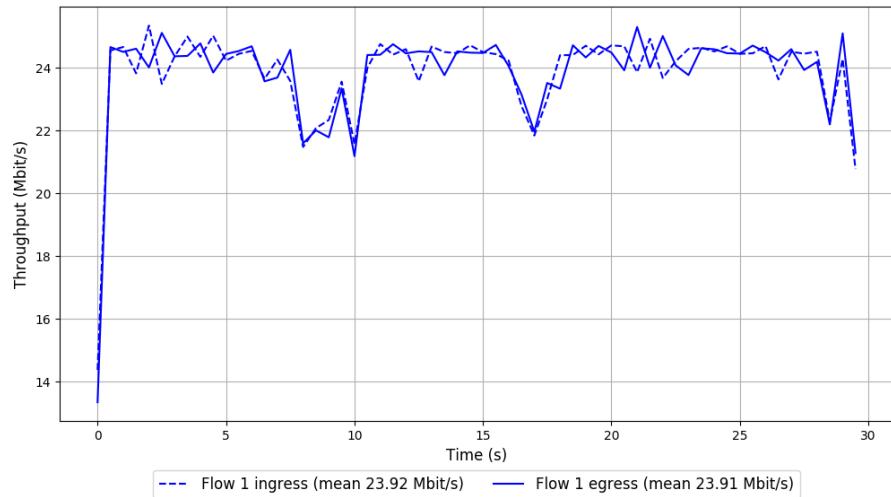


Run 5: Statistics of Sprout

```
Start at: 2017-09-18 11:30:48
End at: 2017-09-18 11:31:18
Local clock offset: 0.07 ms
Remote clock offset: -2.549 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.91 Mbit/s
95th percentile per-packet one-way delay: 20.745 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 23.91 Mbit/s
95th percentile per-packet one-way delay: 20.745 ms
Loss rate: 0.03%
```

Run 5: Report of Sprout — Data Link

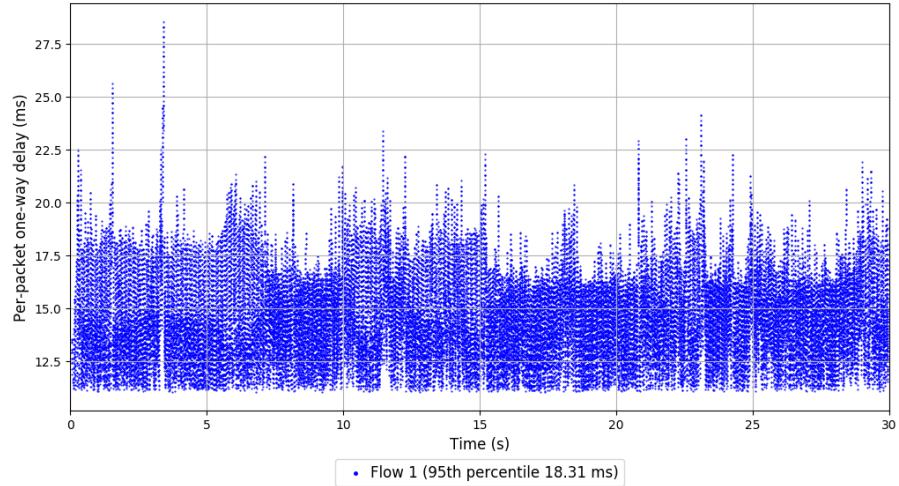
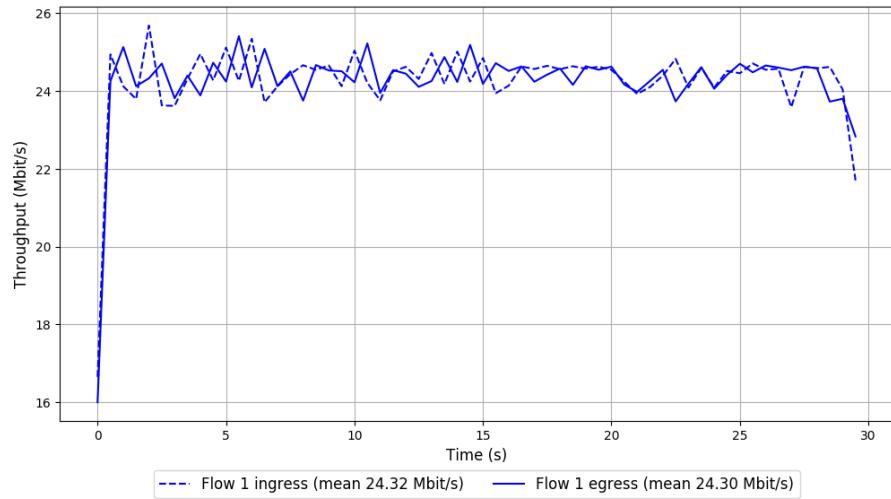


Run 6: Statistics of Sprout

```
Start at: 2017-09-18 11:45:23
End at: 2017-09-18 11:45:53
Local clock offset: 1.687 ms
Remote clock offset: -2.26 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.30 Mbit/s
95th percentile per-packet one-way delay: 18.306 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 24.30 Mbit/s
95th percentile per-packet one-way delay: 18.306 ms
Loss rate: 0.05%
```

Run 6: Report of Sprout — Data Link

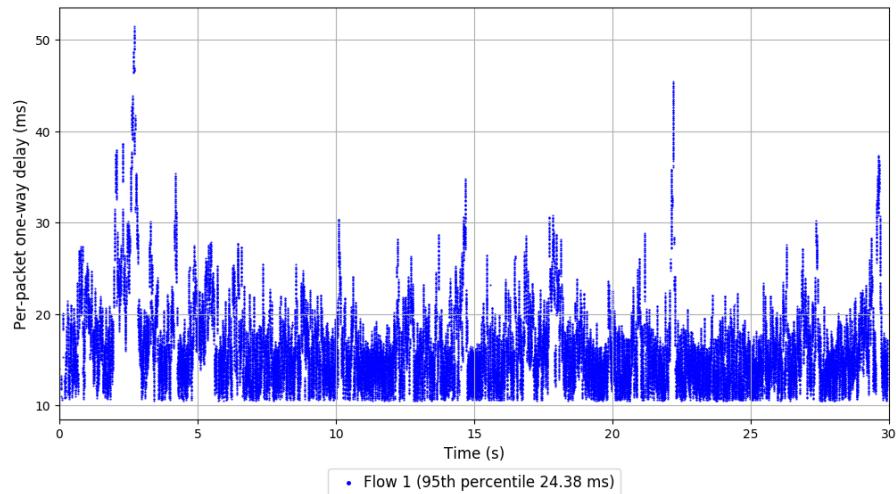
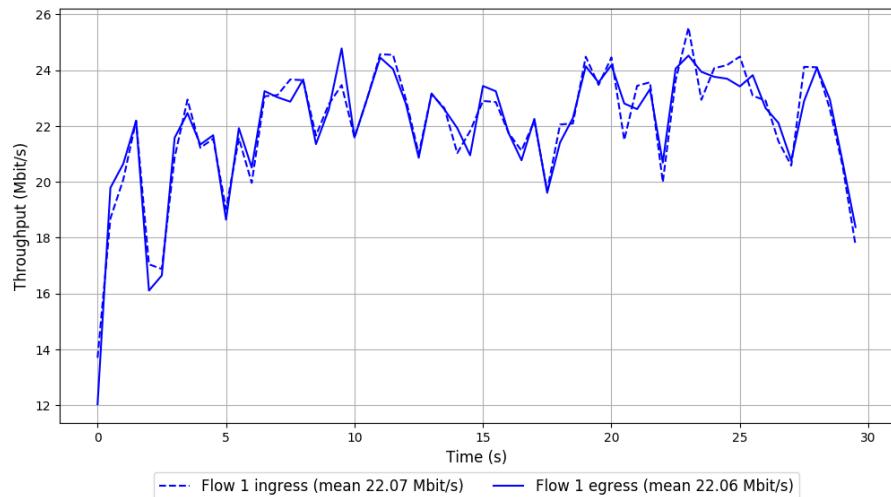


Run 7: Statistics of Sprout

```
Start at: 2017-09-18 12:01:39
End at: 2017-09-18 12:02:09
Local clock offset: 3.77 ms
Remote clock offset: -2.812 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.06 Mbit/s
95th percentile per-packet one-way delay: 24.378 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 22.06 Mbit/s
95th percentile per-packet one-way delay: 24.378 ms
Loss rate: 0.05%
```

Run 7: Report of Sprout — Data Link

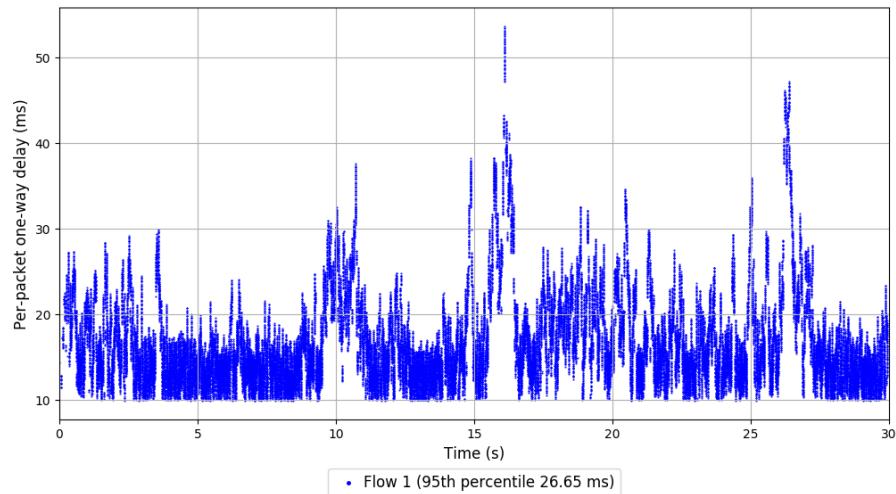
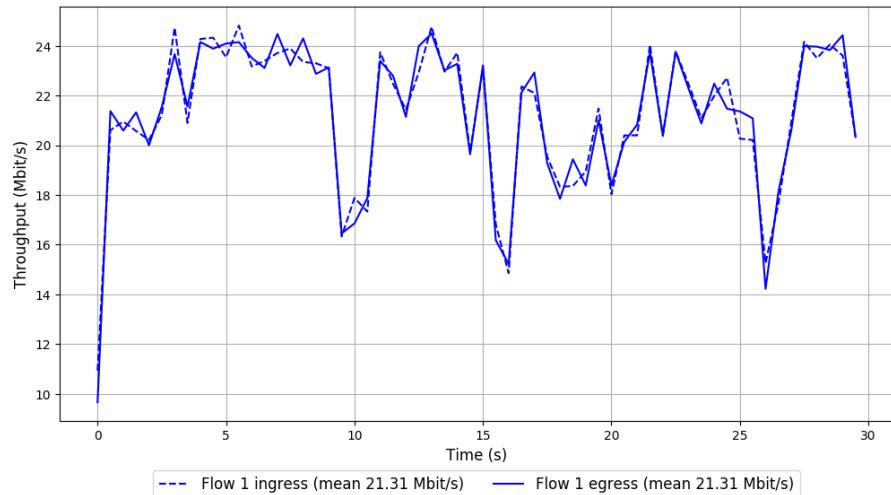


Run 8: Statistics of Sprout

```
Start at: 2017-09-18 12:15:32
End at: 2017-09-18 12:16:02
Local clock offset: 3.534 ms
Remote clock offset: -3.956 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 26.649 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 26.649 ms
Loss rate: 0.00%
```

Run 8: Report of Sprout — Data Link

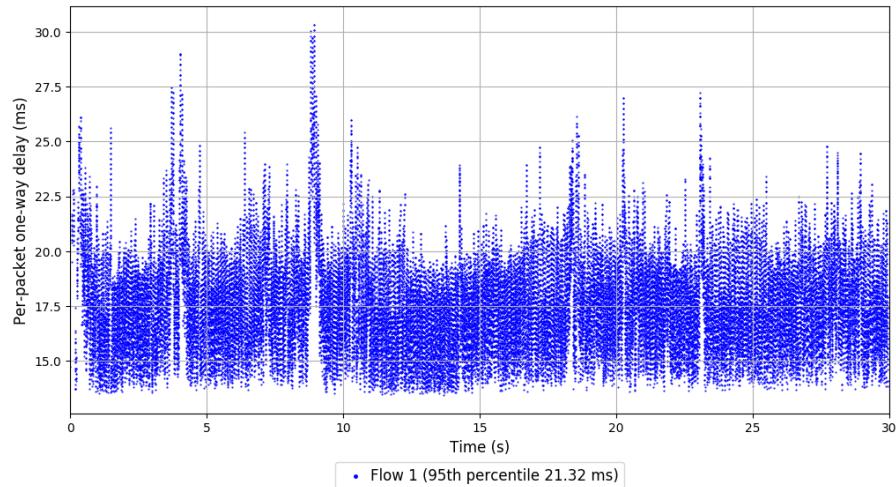
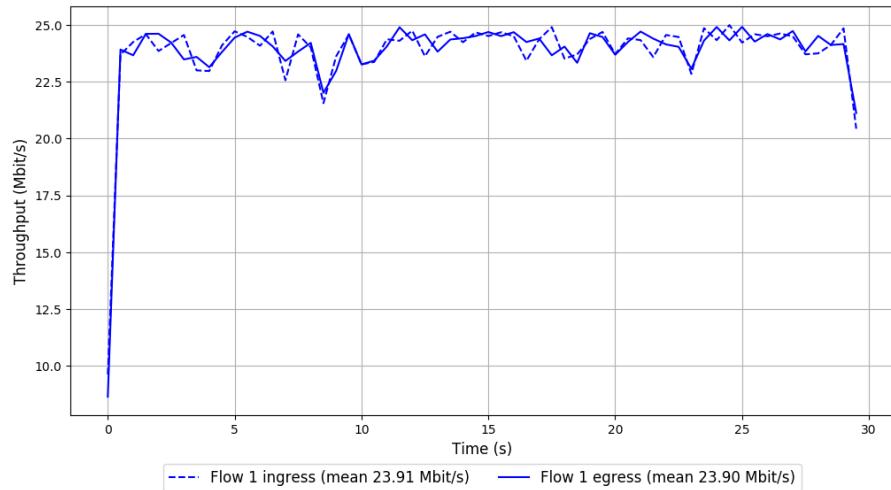


Run 9: Statistics of Sprout

```
Start at: 2017-09-18 12:36:43
End at: 2017-09-18 12:37:13
Local clock offset: 0.153 ms
Remote clock offset: -3.614 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.90 Mbit/s
95th percentile per-packet one-way delay: 21.325 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 23.90 Mbit/s
95th percentile per-packet one-way delay: 21.325 ms
Loss rate: 0.02%
```

Run 9: Report of Sprout — Data Link

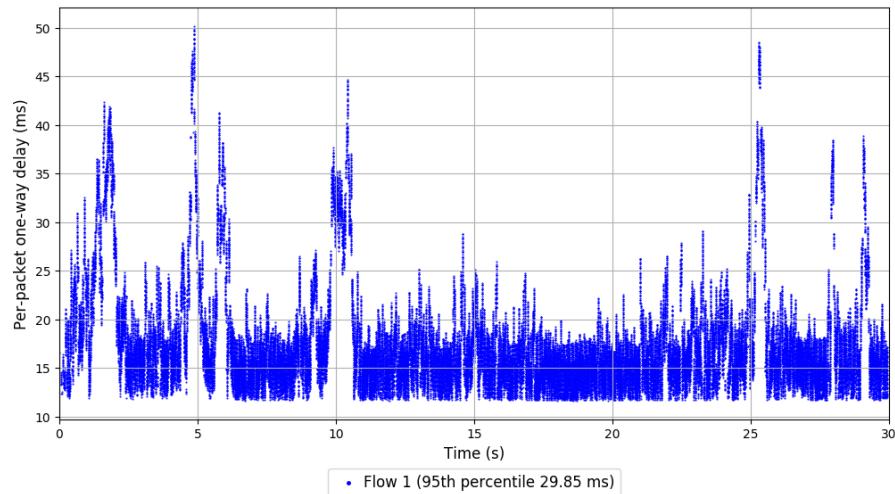
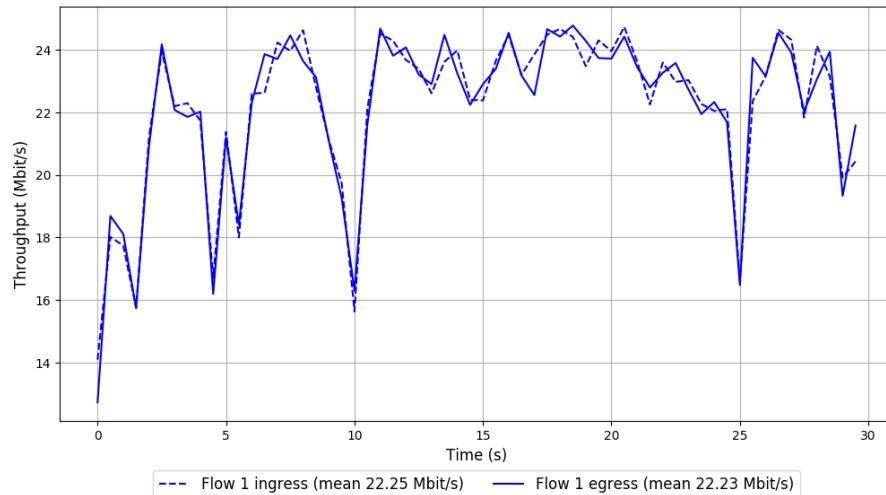


Run 10: Statistics of Sprout

```
Start at: 2017-09-18 12:49:14
End at: 2017-09-18 12:49:44
Local clock offset: 2.731 ms
Remote clock offset: -3.65 ms

# Below is generated by plot.py at 2017-09-18 13:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.23 Mbit/s
95th percentile per-packet one-way delay: 29.854 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 22.23 Mbit/s
95th percentile per-packet one-way delay: 29.854 ms
Loss rate: 0.06%
```

Run 10: Report of Sprout — Data Link

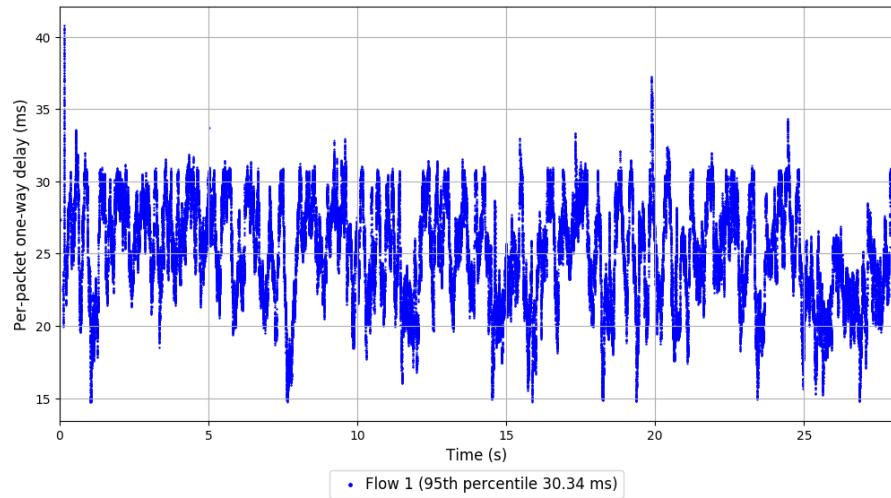
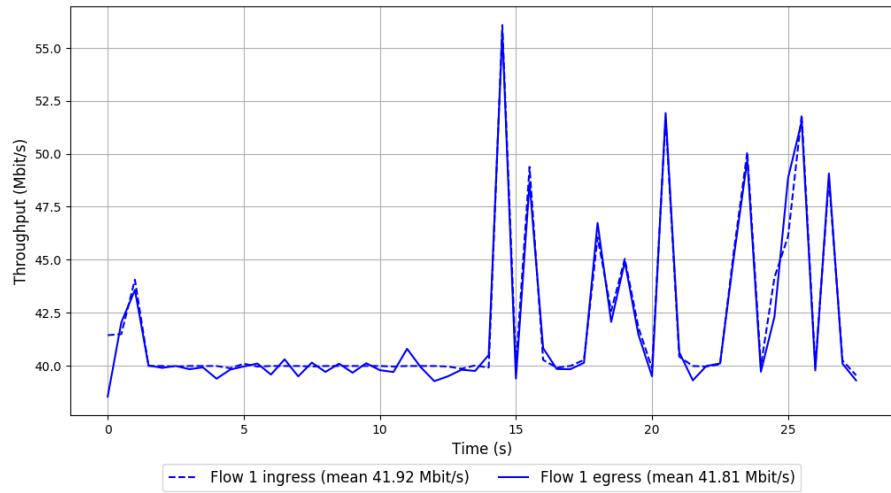


Run 1: Statistics of TaoVA-100x

```
Start at: 2017-09-18 10:39:16
End at: 2017-09-18 10:39:46
Local clock offset: 1.65 ms
Remote clock offset: -4.42 ms

# Below is generated by plot.py at 2017-09-18 13:27:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.81 Mbit/s
95th percentile per-packet one-way delay: 30.341 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 41.81 Mbit/s
95th percentile per-packet one-way delay: 30.341 ms
Loss rate: 0.34%
```

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

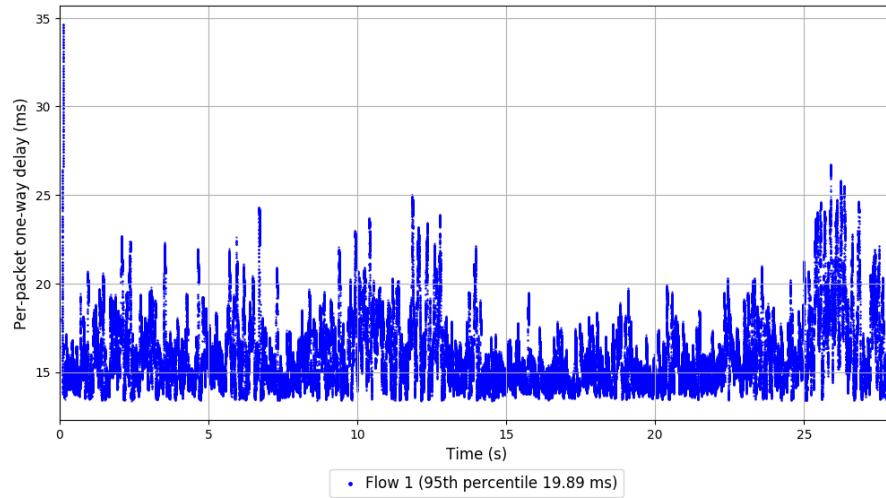
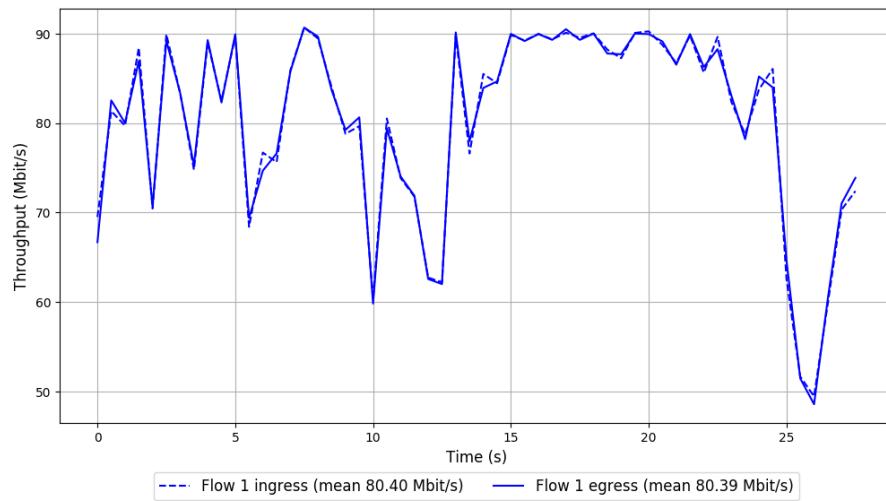


Run 2: Statistics of TaoVA-100x

```
Start at: 2017-09-18 10:53:34
End at: 2017-09-18 10:54:04
Local clock offset: 3.172 ms
Remote clock offset: -4.038 ms

# Below is generated by plot.py at 2017-09-18 13:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.39 Mbit/s
95th percentile per-packet one-way delay: 19.891 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.39 Mbit/s
95th percentile per-packet one-way delay: 19.891 ms
Loss rate: 0.00%
```

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

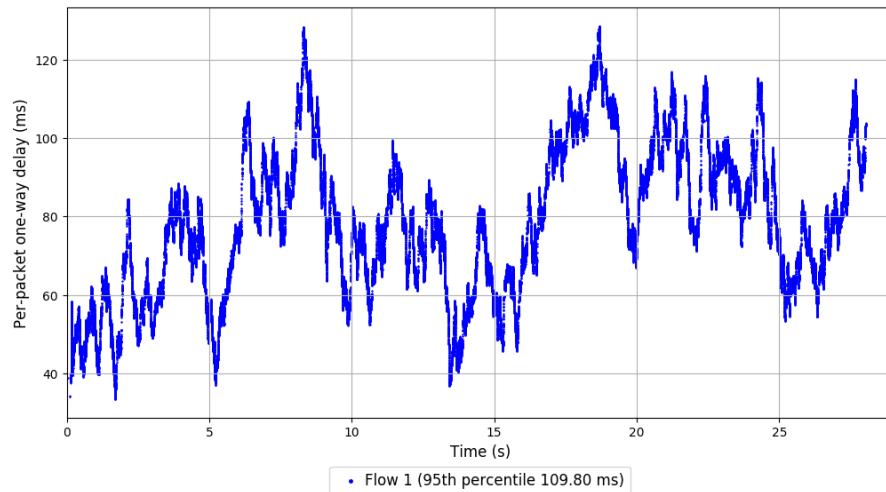
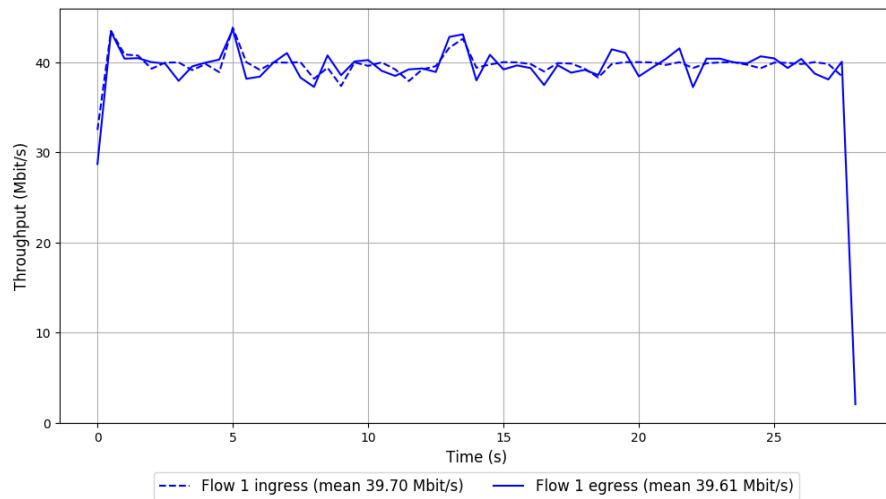


Run 3: Statistics of TaoVA-100x

```
Start at: 2017-09-18 11:07:28
End at: 2017-09-18 11:07:58
Local clock offset: 0.518 ms
Remote clock offset: -4.294 ms

# Below is generated by plot.py at 2017-09-18 13:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.61 Mbit/s
95th percentile per-packet one-way delay: 109.795 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 39.61 Mbit/s
95th percentile per-packet one-way delay: 109.795 ms
Loss rate: 0.21%
```

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

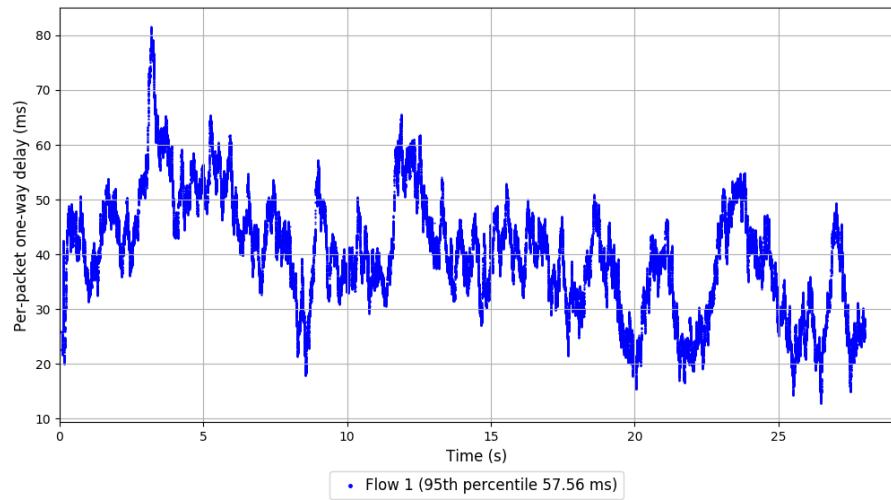
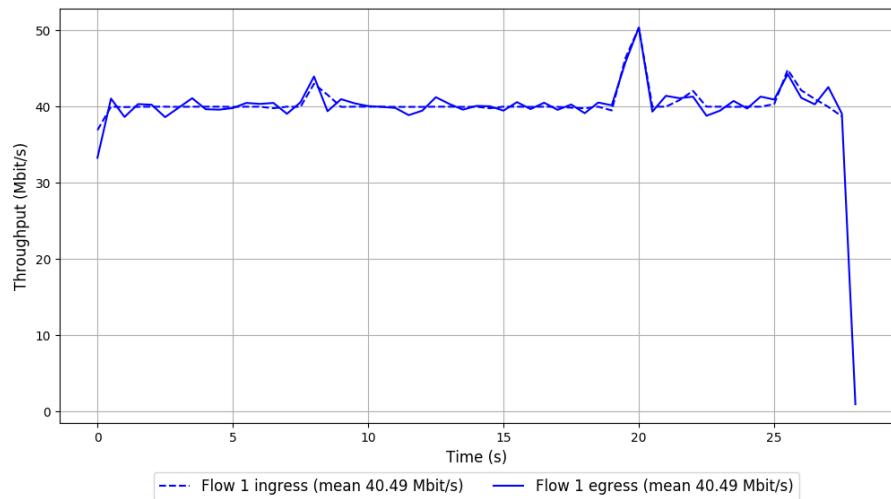


Run 4: Statistics of TaoVA-100x

```
Start at: 2017-09-18 11:22:24
End at: 2017-09-18 11:22:54
Local clock offset: 0.38 ms
Remote clock offset: -3.359 ms

# Below is generated by plot.py at 2017-09-18 13:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.49 Mbit/s
95th percentile per-packet one-way delay: 57.556 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.49 Mbit/s
95th percentile per-packet one-way delay: 57.556 ms
Loss rate: 0.00%
```

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

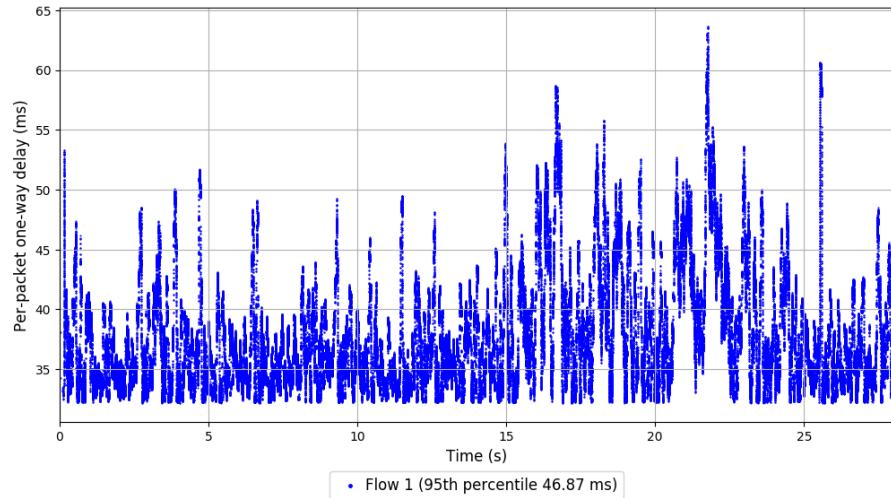
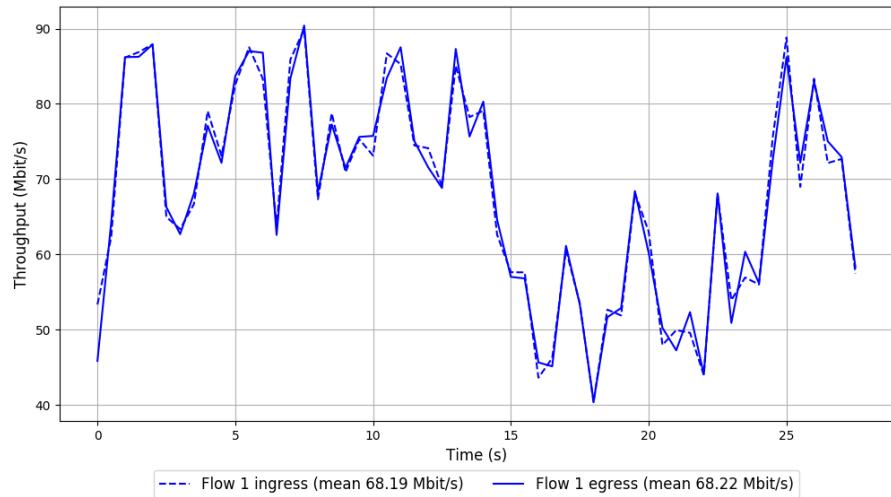


Run 5: Statistics of TaoVA-100x

```
Start at: 2017-09-18 11:36:47
End at: 2017-09-18 11:37:17
Local clock offset: -0.249 ms
Remote clock offset: -2.382 ms

# Below is generated by plot.py at 2017-09-18 13:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.22 Mbit/s
95th percentile per-packet one-way delay: 46.873 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 68.22 Mbit/s
95th percentile per-packet one-way delay: 46.873 ms
Loss rate: 0.05%
```

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

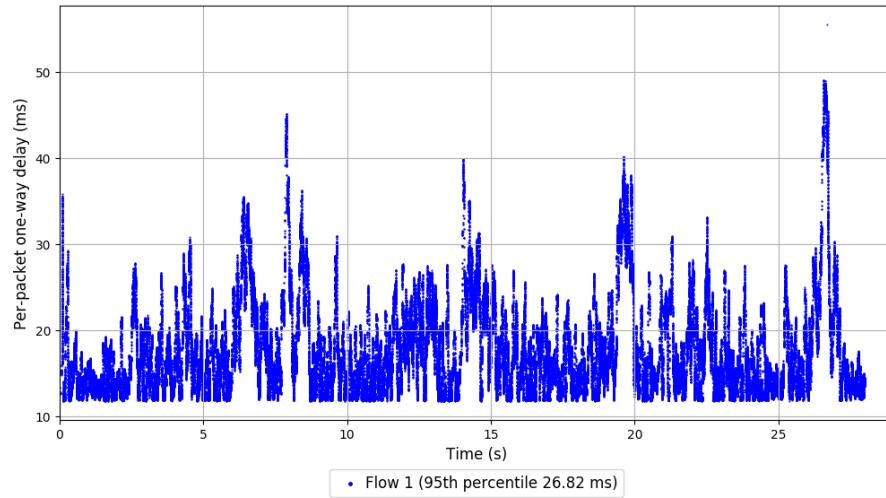
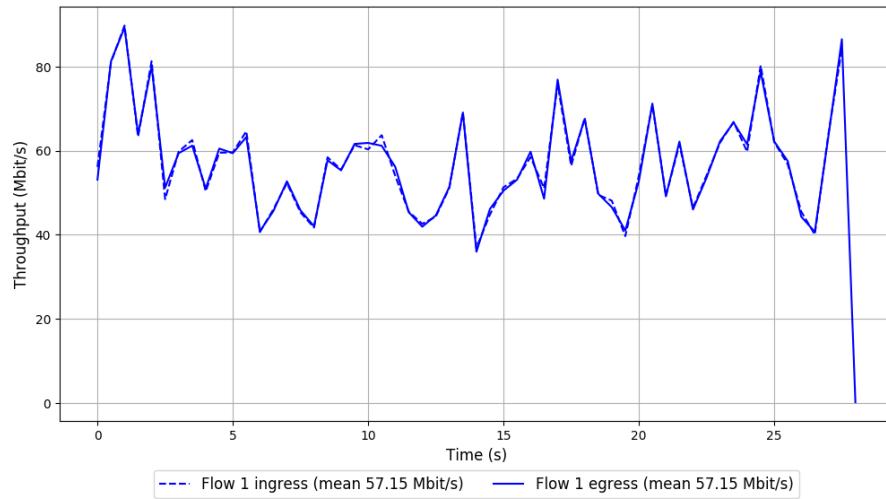


Run 6: Statistics of TaoVA-100x

```
Start at: 2017-09-18 11:52:13
End at: 2017-09-18 11:52:43
Local clock offset: 1.383 ms
Remote clock offset: -3.676 ms

# Below is generated by plot.py at 2017-09-18 13:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 26.815 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 26.815 ms
Loss rate: 0.00%
```

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

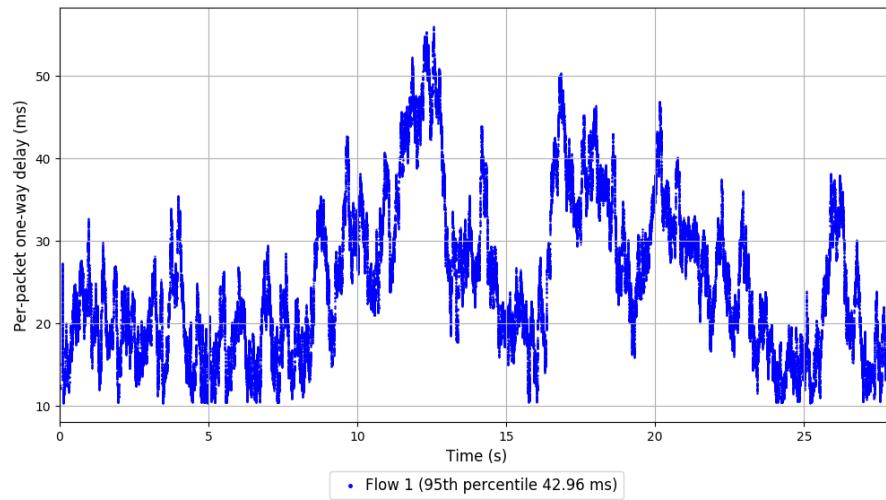
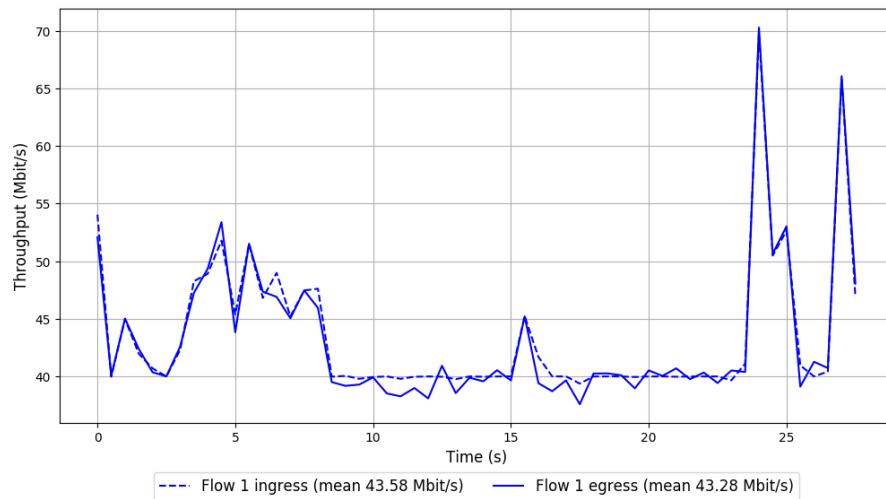


Run 7: Statistics of TaoVA-100x

```
Start at: 2017-09-18 12:06:23
End at: 2017-09-18 12:06:53
Local clock offset: 0.833 ms
Remote clock offset: -3.203 ms

# Below is generated by plot.py at 2017-09-18 13:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.28 Mbit/s
95th percentile per-packet one-way delay: 42.960 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 43.28 Mbit/s
95th percentile per-packet one-way delay: 42.960 ms
Loss rate: 0.69%
```

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

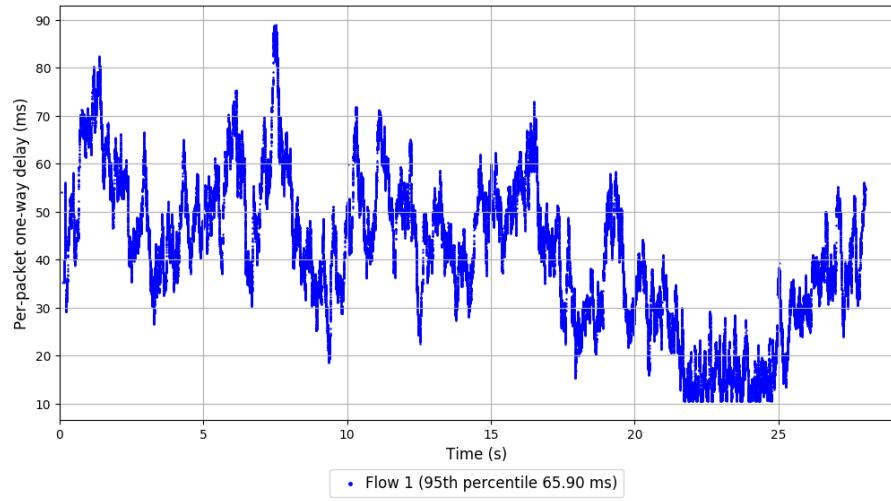
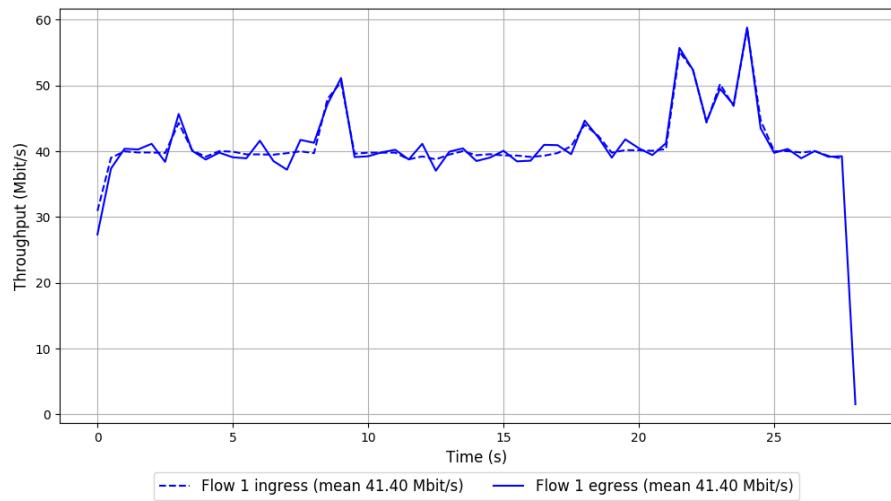


Run 8: Statistics of TaoVA-100x

```
Start at: 2017-09-18 12:27:15
End at: 2017-09-18 12:27:45
Local clock offset: 2.703 ms
Remote clock offset: -4.371 ms

# Below is generated by plot.py at 2017-09-18 13:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.40 Mbit/s
95th percentile per-packet one-way delay: 65.902 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 41.40 Mbit/s
95th percentile per-packet one-way delay: 65.902 ms
Loss rate: 0.07%
```

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

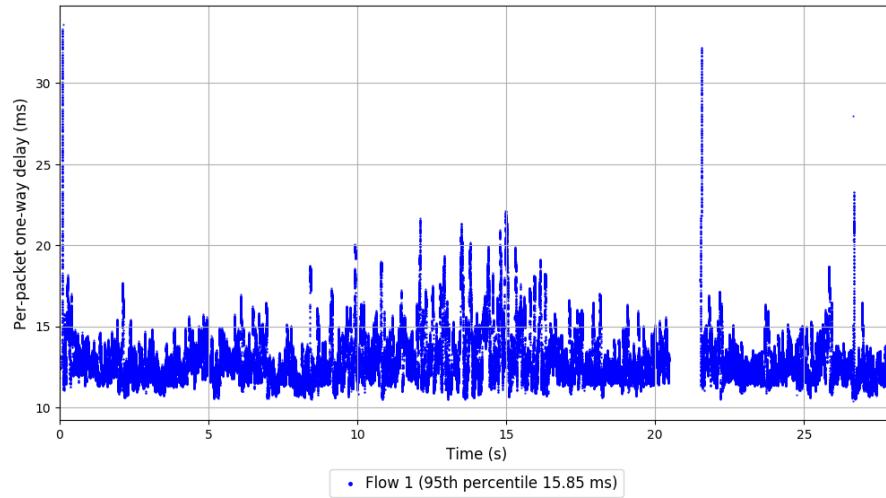
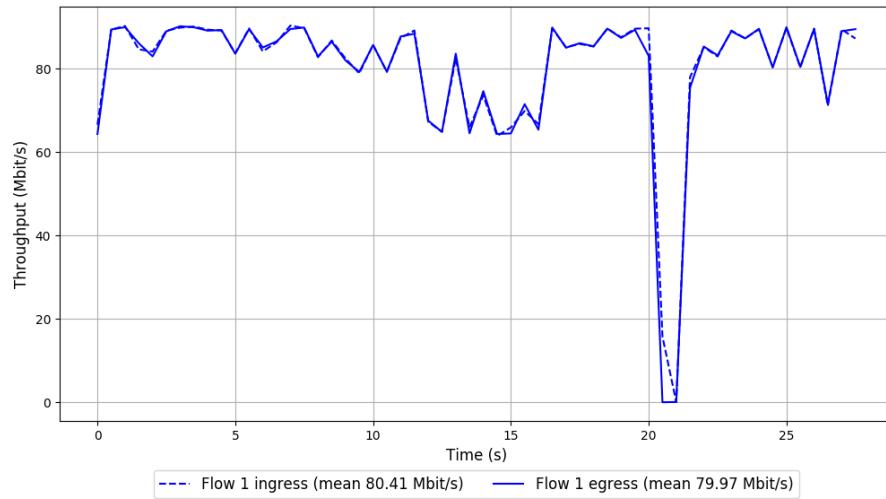


Run 9: Statistics of TaoVA-100x

```
Start at: 2017-09-18 12:41:44
End at: 2017-09-18 12:42:14
Local clock offset: 3.045 ms
Remote clock offset: -3.436 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.97 Mbit/s
95th percentile per-packet one-way delay: 15.851 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 79.97 Mbit/s
95th percentile per-packet one-way delay: 15.851 ms
Loss rate: 0.55%
```

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

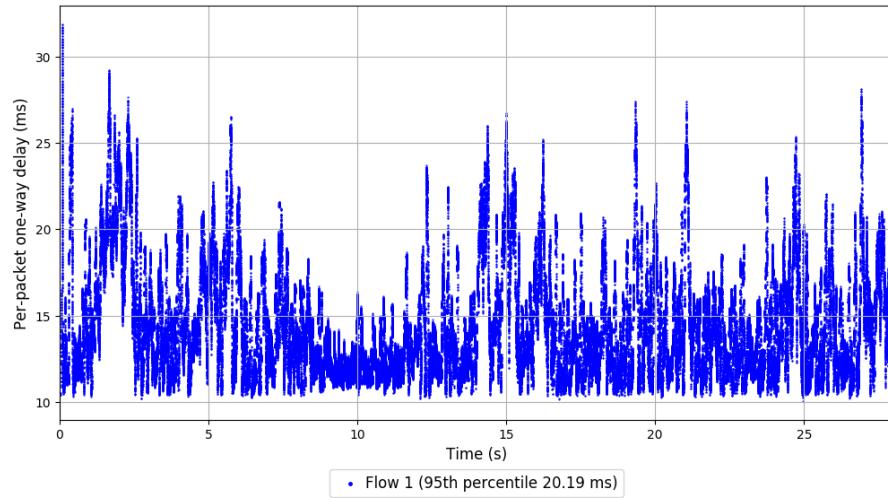
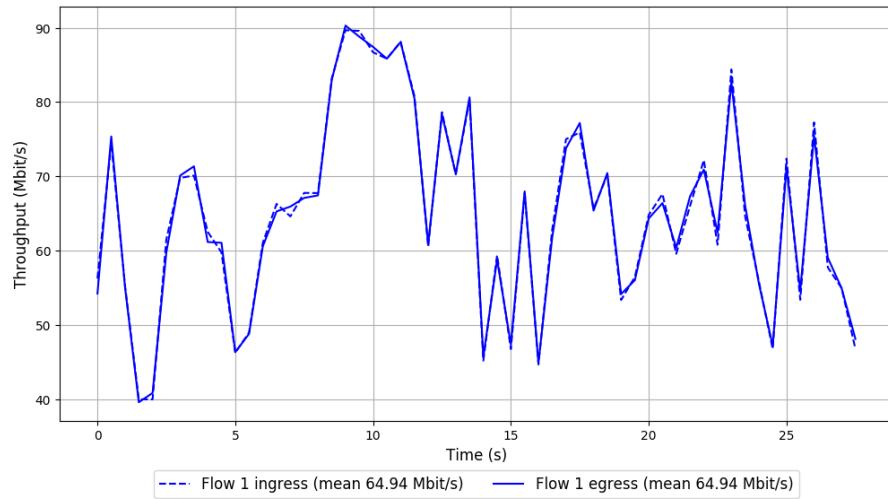


Run 10: Statistics of TaoVA-100x

```
Start at: 2017-09-18 12:54:20
End at: 2017-09-18 12:54:50
Local clock offset: 1.529 ms
Remote clock offset: -3.652 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.94 Mbit/s
95th percentile per-packet one-way delay: 20.193 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.94 Mbit/s
95th percentile per-packet one-way delay: 20.193 ms
Loss rate: 0.00%
```

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

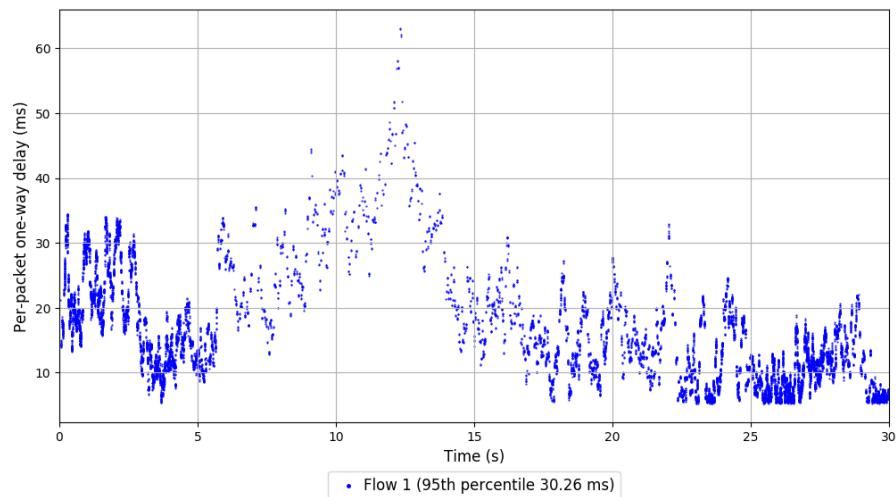
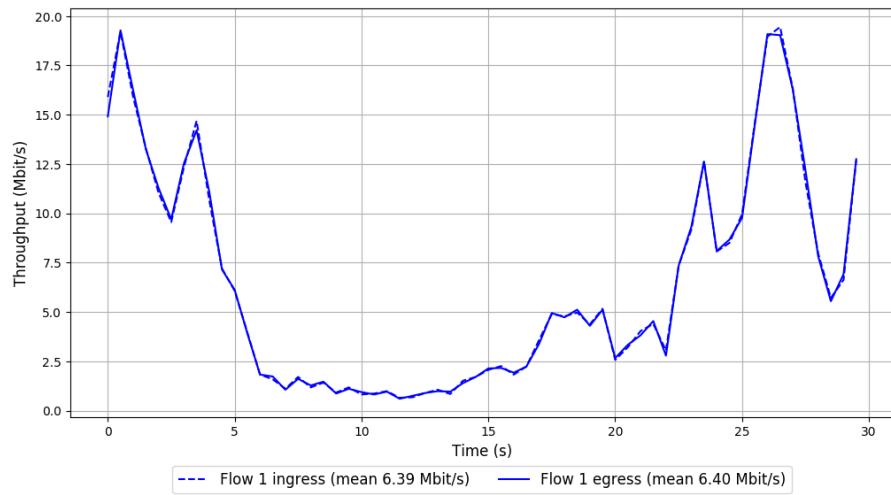


Run 1: Statistics of TCP Vegas

```
Start at: 2017-09-18 10:43:27
End at: 2017-09-18 10:43:57
Local clock offset: 3.471 ms
Remote clock offset: -5.615 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 30.257 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 30.257 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link

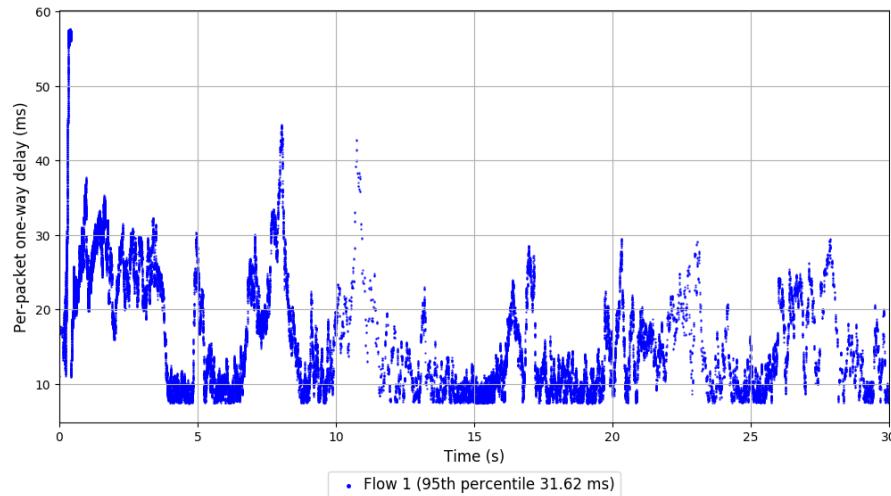
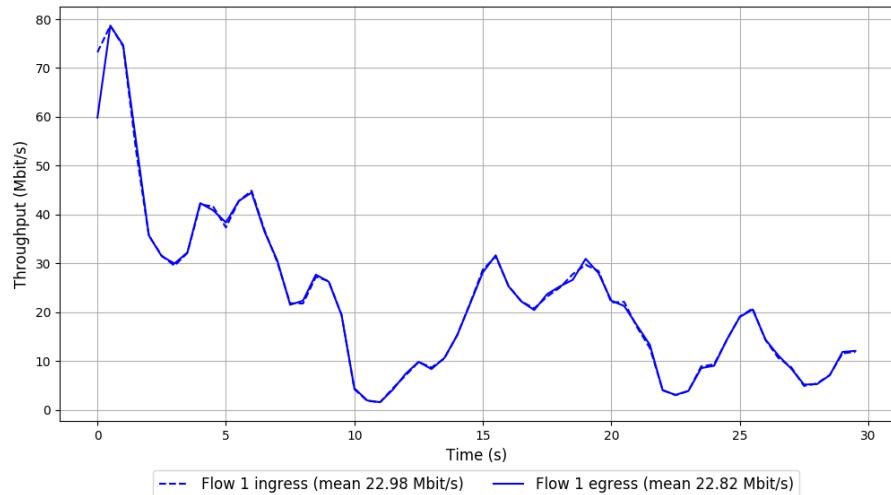


Run 2: Statistics of TCP Vegas

```
Start at: 2017-09-18 10:57:56
End at: 2017-09-18 10:58:26
Local clock offset: 2.514 ms
Remote clock offset: -4.347 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.82 Mbit/s
95th percentile per-packet one-way delay: 31.617 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 22.82 Mbit/s
95th percentile per-packet one-way delay: 31.617 ms
Loss rate: 0.71%
```

Run 2: Report of TCP Vegas — Data Link

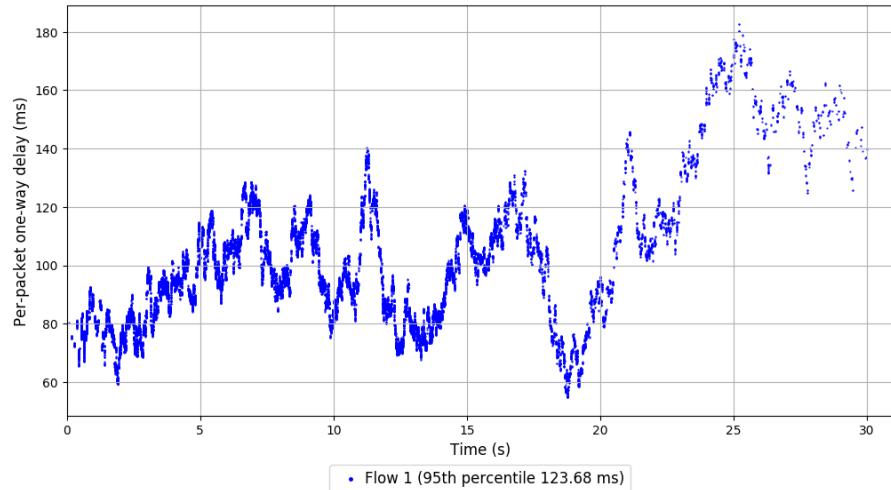
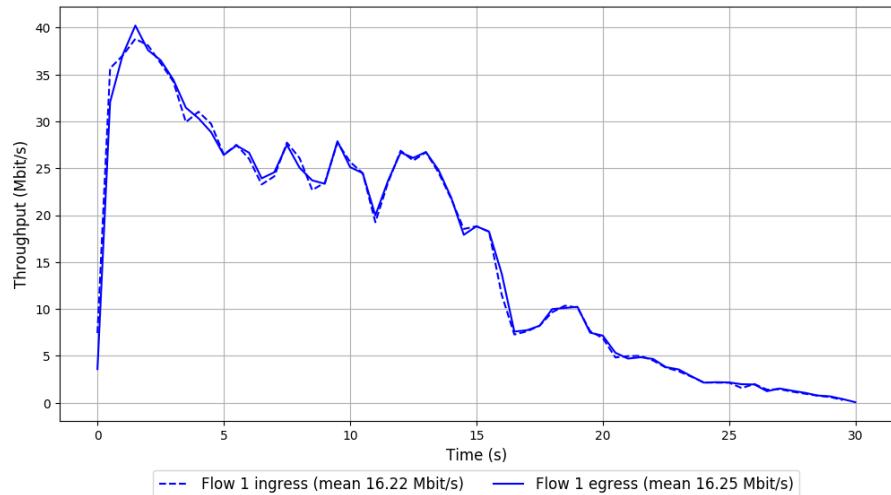


Run 3: Statistics of TCP Vegas

```
Start at: 2017-09-18 11:12:20
End at: 2017-09-18 11:12:50
Local clock offset: 1.62 ms
Remote clock offset: -3.579 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.25 Mbit/s
95th percentile per-packet one-way delay: 123.676 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 16.25 Mbit/s
95th percentile per-packet one-way delay: 123.676 ms
Loss rate: 0.01%
```

Run 3: Report of TCP Vegas — Data Link

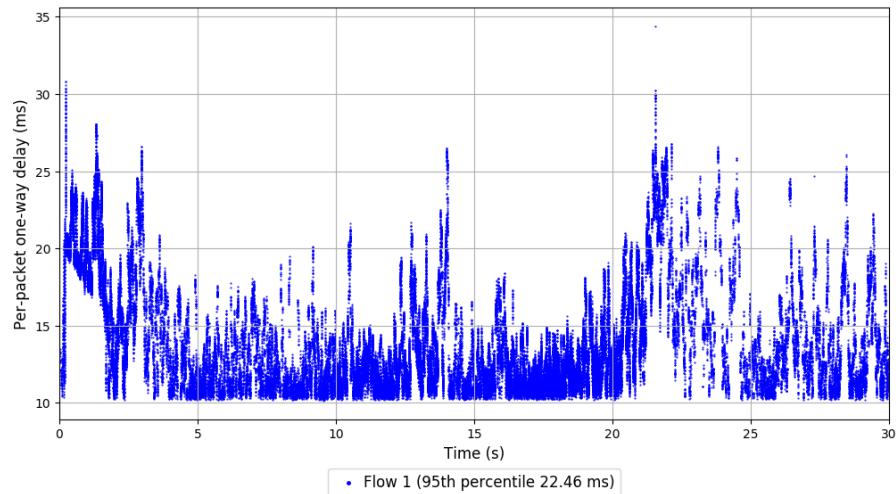
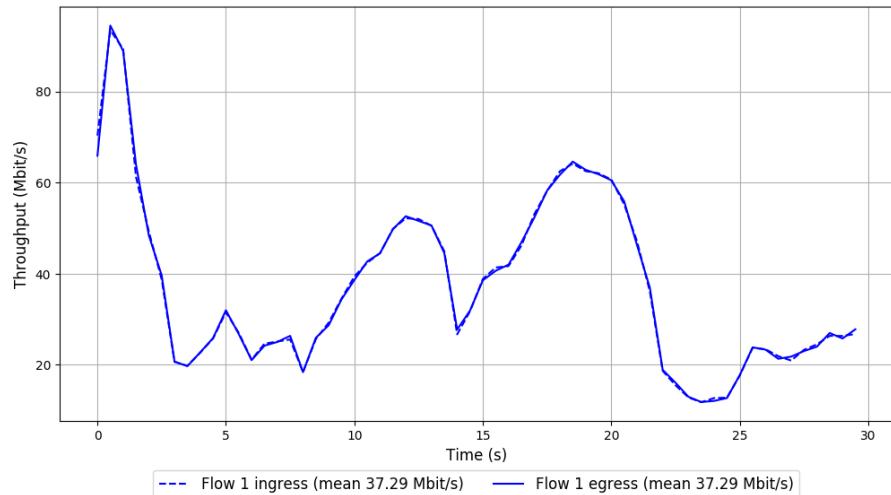


Run 4: Statistics of TCP Vegas

```
Start at: 2017-09-18 11:26:33
End at: 2017-09-18 11:27:03
Local clock offset: 1.722 ms
Remote clock offset: -2.846 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.29 Mbit/s
95th percentile per-packet one-way delay: 22.464 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 37.29 Mbit/s
95th percentile per-packet one-way delay: 22.464 ms
Loss rate: 0.01%
```

Run 4: Report of TCP Vegas — Data Link

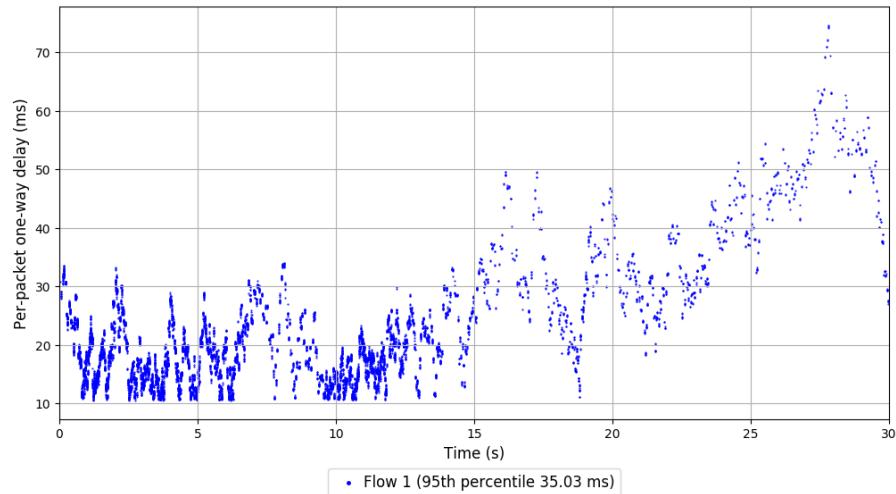
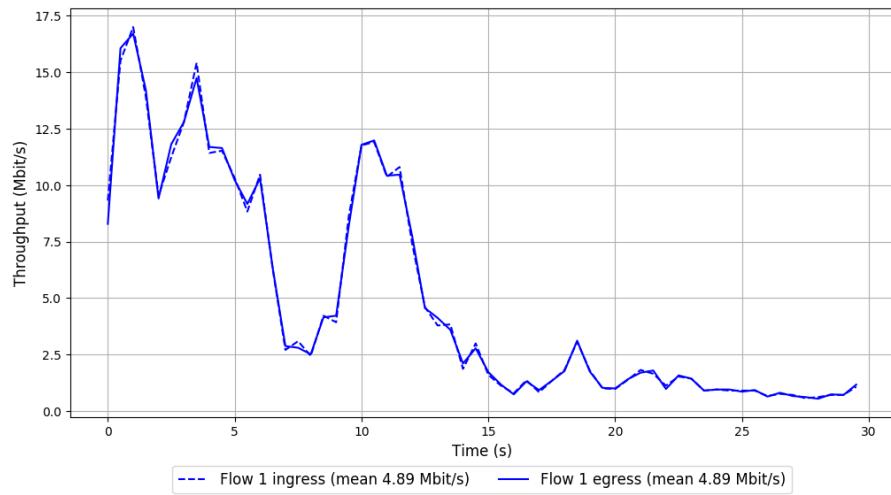


Run 5: Statistics of TCP Vegas

```
Start at: 2017-09-18 11:40:54
End at: 2017-09-18 11:41:24
Local clock offset: -0.056 ms
Remote clock offset: -3.437 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 35.026 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 35.026 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Vegas — Data Link

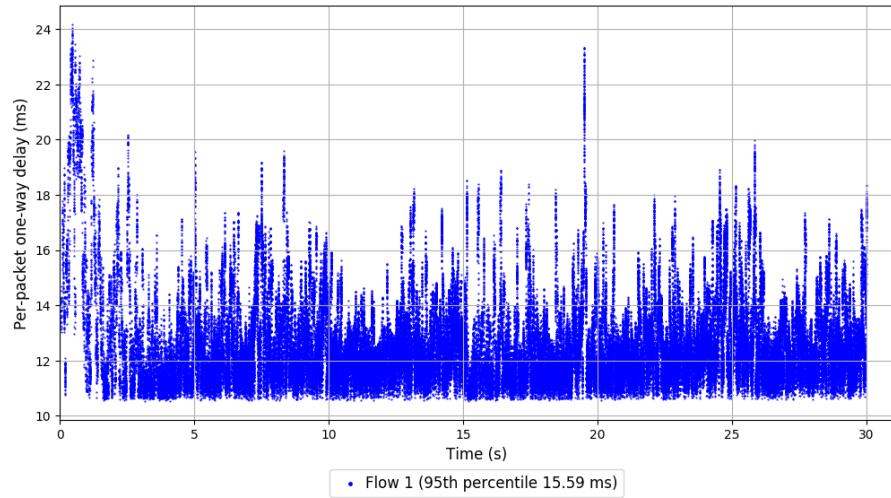
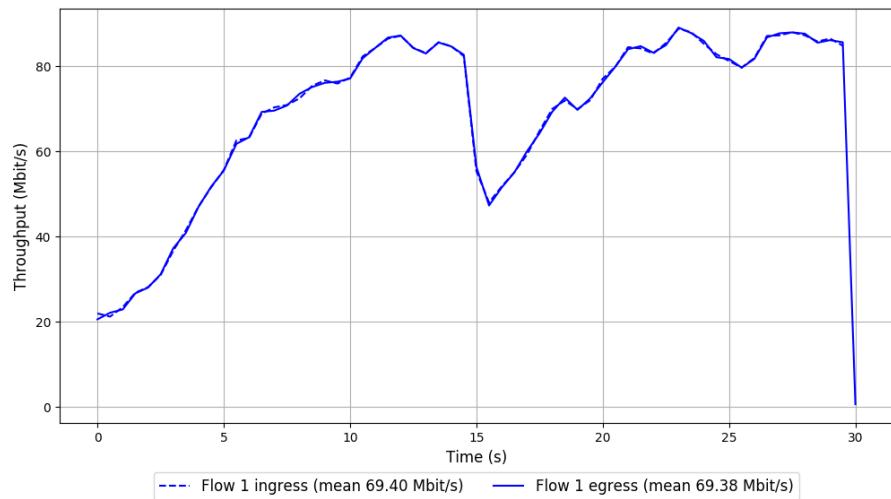


Run 6: Statistics of TCP Vegas

```
Start at: 2017-09-18 11:56:34
End at: 2017-09-18 11:57:04
Local clock offset: 1.5 ms
Remote clock offset: -3.158 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.38 Mbit/s
95th percentile per-packet one-way delay: 15.593 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 69.38 Mbit/s
95th percentile per-packet one-way delay: 15.593 ms
Loss rate: 0.03%
```

Run 6: Report of TCP Vegas — Data Link

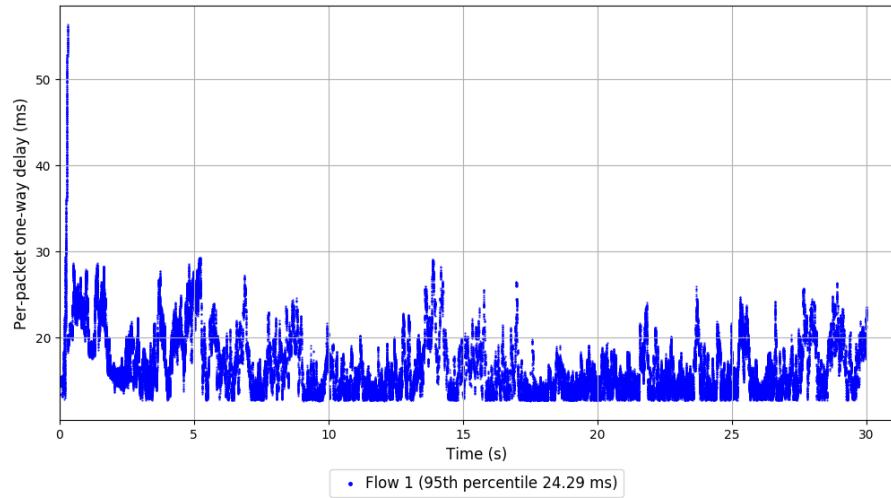
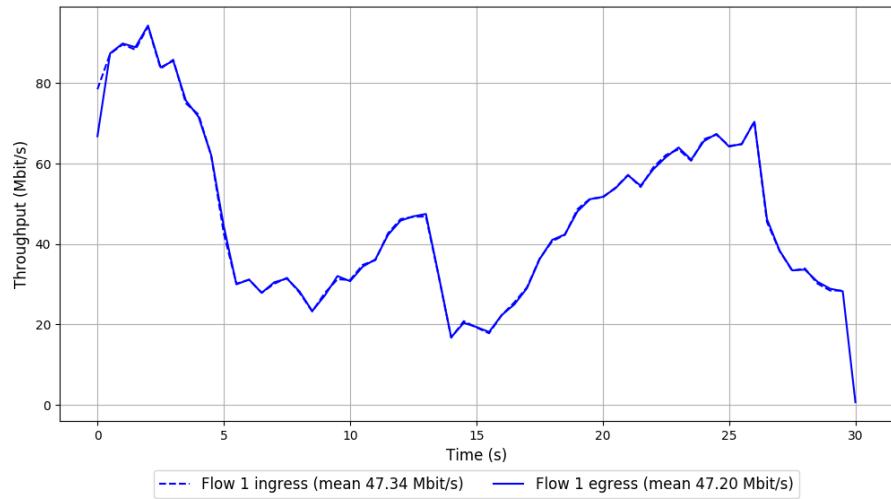


Run 7: Statistics of TCP Vegas

```
Start at: 2017-09-18 12:10:36
End at: 2017-09-18 12:11:06
Local clock offset: 0.187 ms
Remote clock offset: -2.531 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.20 Mbit/s
95th percentile per-packet one-way delay: 24.292 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 47.20 Mbit/s
95th percentile per-packet one-way delay: 24.292 ms
Loss rate: 0.28%
```

Run 7: Report of TCP Vegas — Data Link

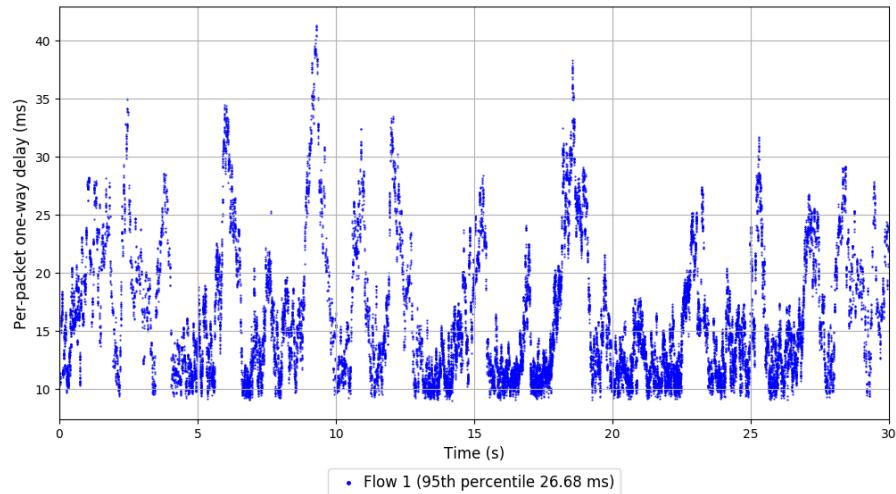
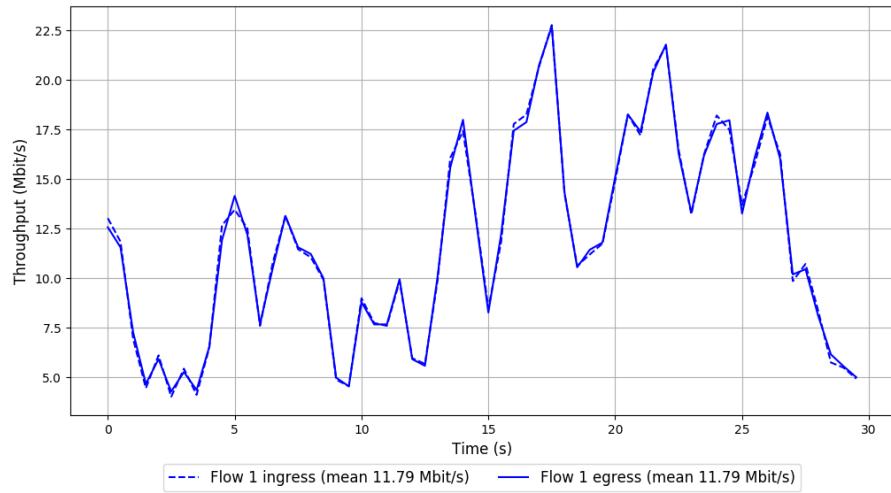


Run 8: Statistics of TCP Vegas

```
Start at: 2017-09-18 12:33:02
End at: 2017-09-18 12:33:32
Local clock offset: 2.145 ms
Remote clock offset: -3.848 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 26.684 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 26.684 ms
Loss rate: 0.00%
```

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

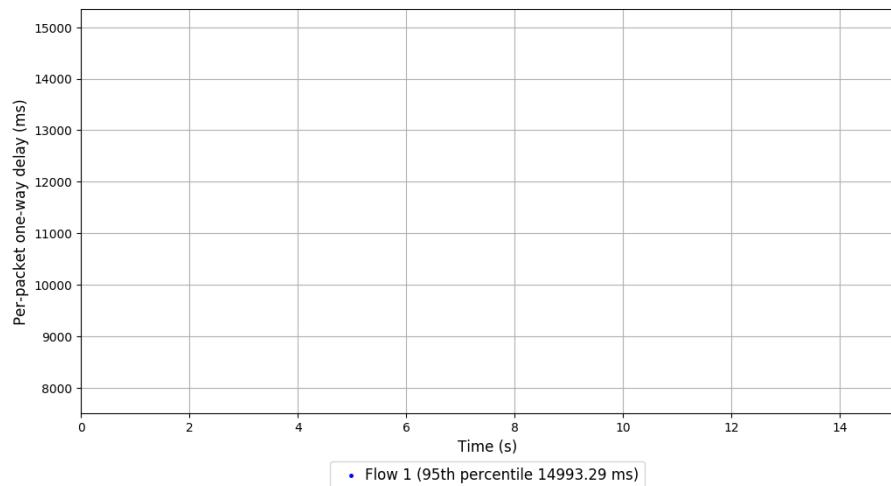
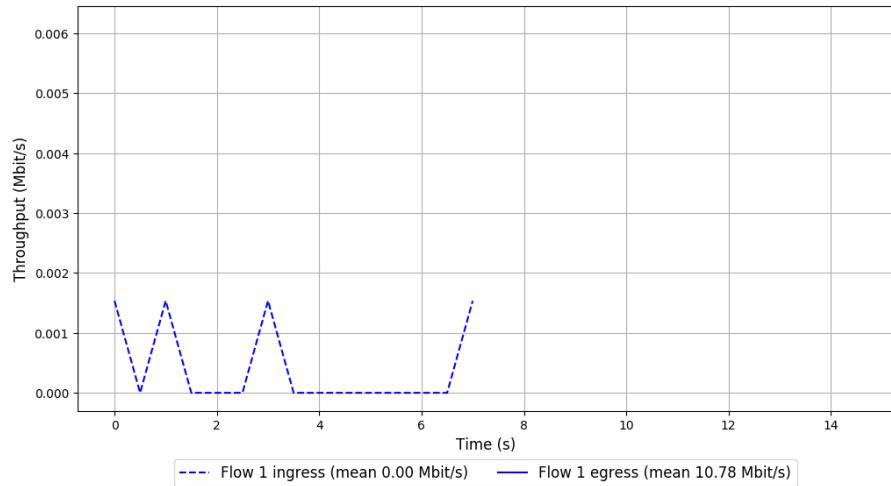
Start at: 2017-09-18 12:45:27

End at: 2017-09-18 12:45:57

Local clock offset: -4.406 ms

Remote clock offset: -4.14 ms

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

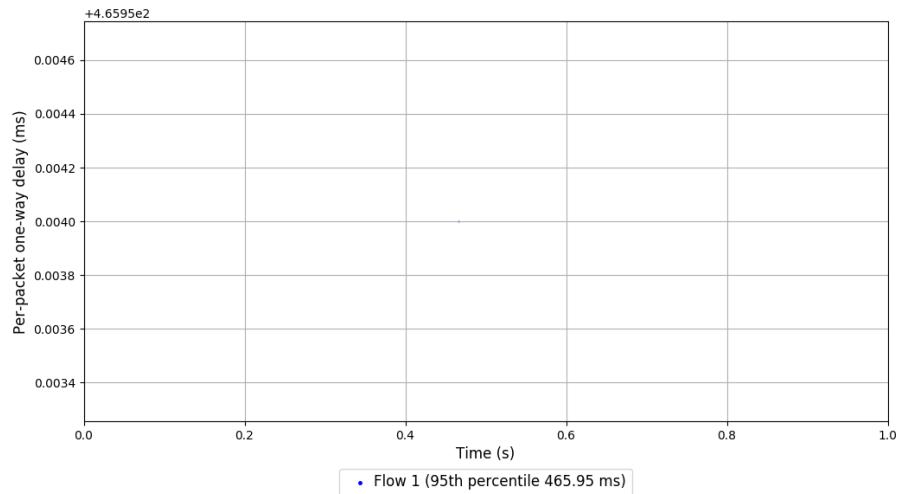
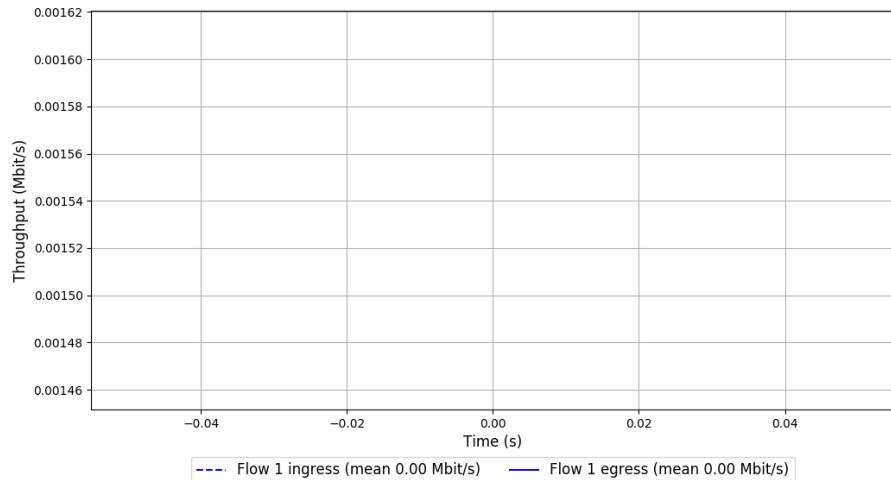
Start at: 2017-09-18 12:58:22

End at: 2017-09-18 12:58:52

Local clock offset: 1.212 ms

Remote clock offset: -4.063 ms

Run 10: Report of TCP Vegas — Data Link

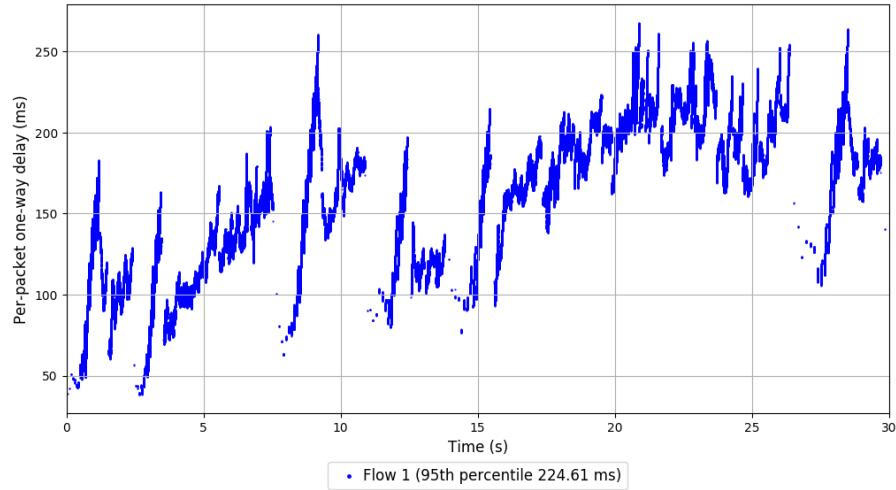
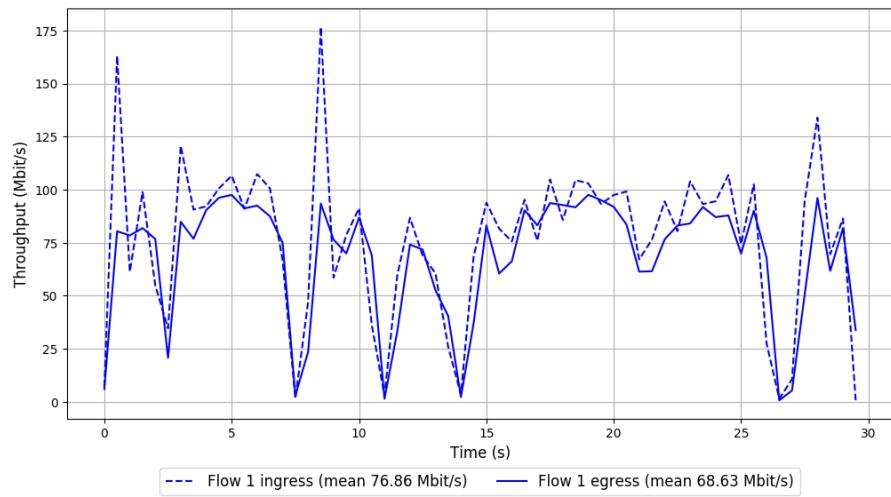


Run 1: Statistics of Verus

```
Start at: 2017-09-18 10:46:13
End at: 2017-09-18 10:46:43
Local clock offset: -0.208 ms
Remote clock offset: -4.113 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.63 Mbit/s
95th percentile per-packet one-way delay: 224.609 ms
Loss rate: 10.88%
-- Flow 1:
Average throughput: 68.63 Mbit/s
95th percentile per-packet one-way delay: 224.609 ms
Loss rate: 10.88%
```

Run 1: Report of Verus — Data Link

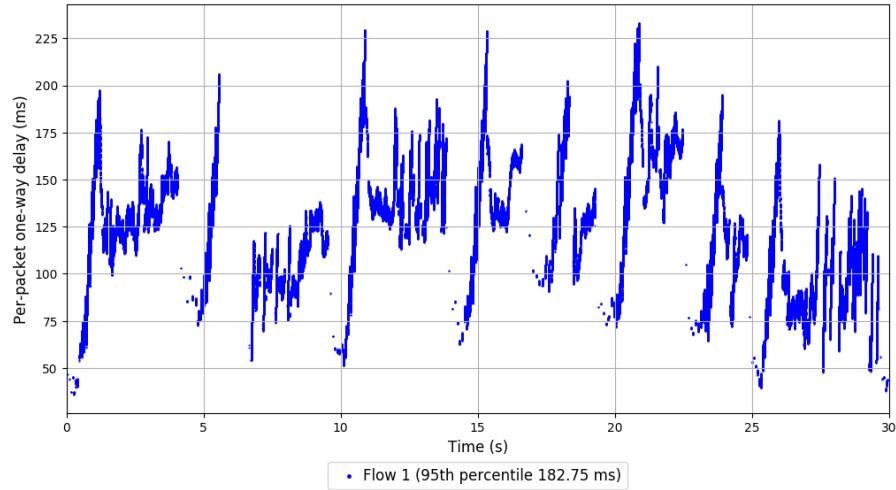
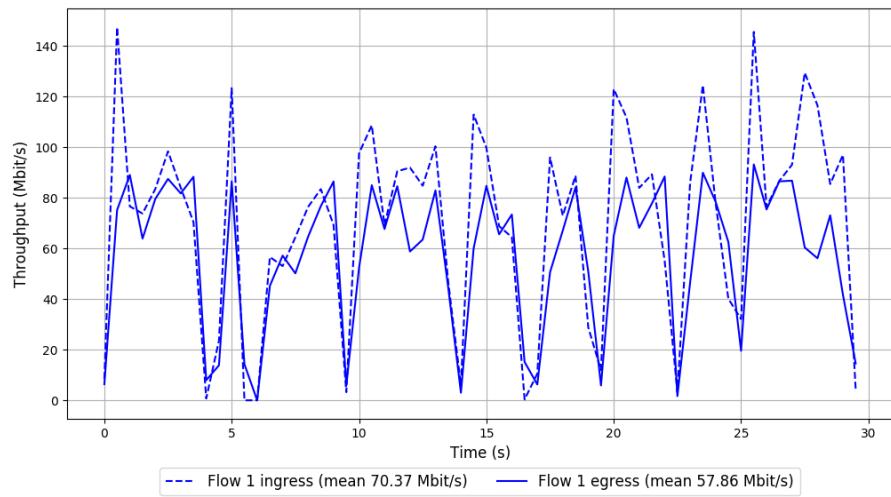


Run 2: Statistics of Verus

```
Start at: 2017-09-18 11:00:45
End at: 2017-09-18 11:01:15
Local clock offset: 0.427 ms
Remote clock offset: -4.647 ms

# Below is generated by plot.py at 2017-09-18 13:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.86 Mbit/s
95th percentile per-packet one-way delay: 182.753 ms
Loss rate: 17.79%
-- Flow 1:
Average throughput: 57.86 Mbit/s
95th percentile per-packet one-way delay: 182.753 ms
Loss rate: 17.79%
```

Run 2: Report of Verus — Data Link

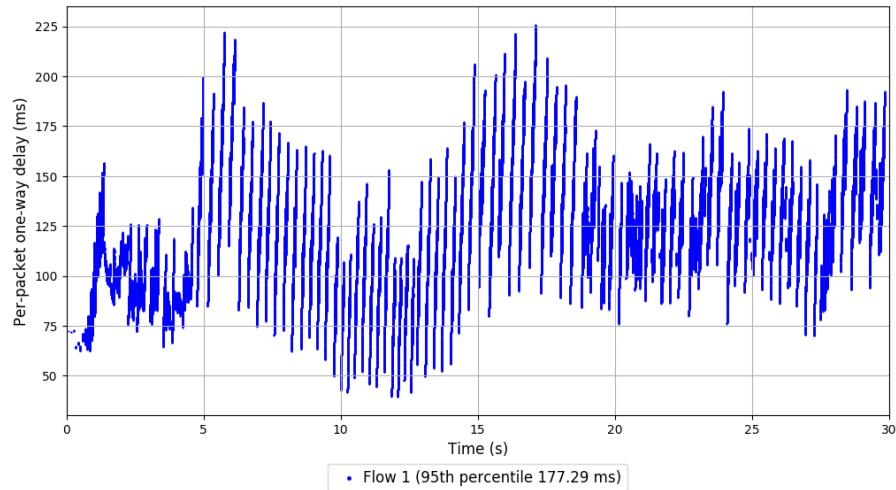
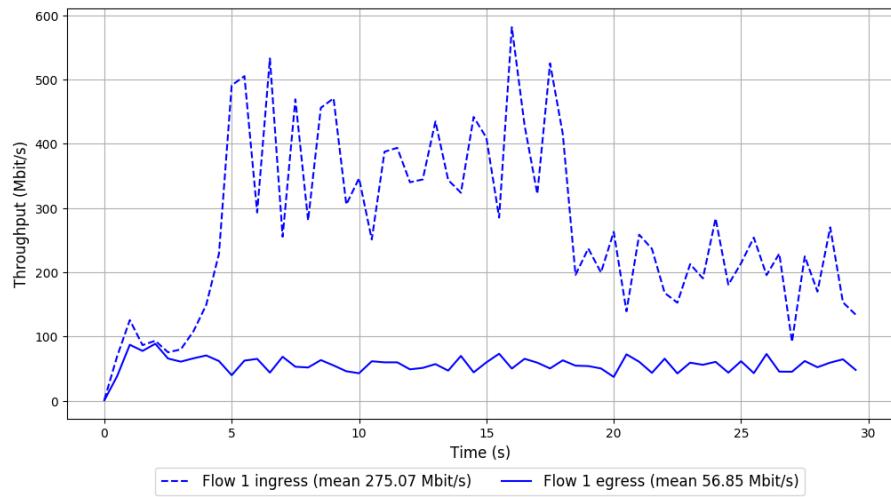


Run 3: Statistics of Verus

```
Start at: 2017-09-18 11:15:21
End at: 2017-09-18 11:15:51
Local clock offset: 2.115 ms
Remote clock offset: -3.312 ms

# Below is generated by plot.py at 2017-09-18 13:30:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 177.287 ms
Loss rate: 79.25%
-- Flow 1:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 177.287 ms
Loss rate: 79.25%
```

Run 3: Report of Verus — Data Link

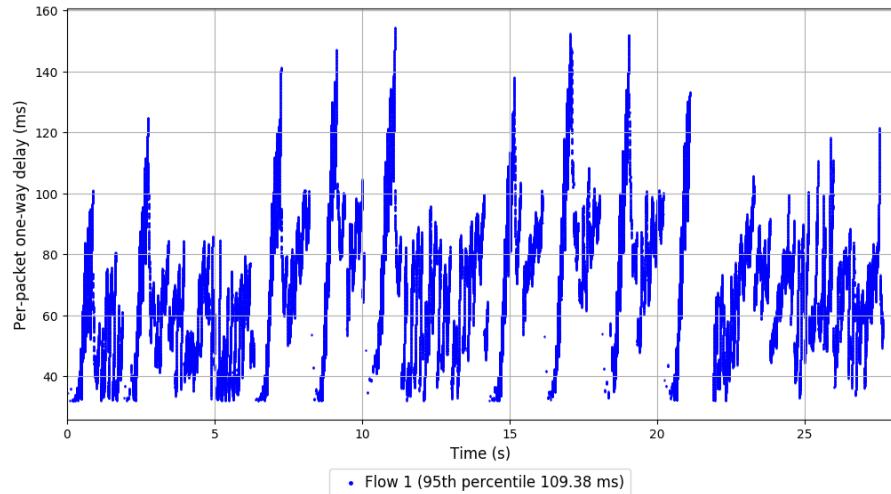
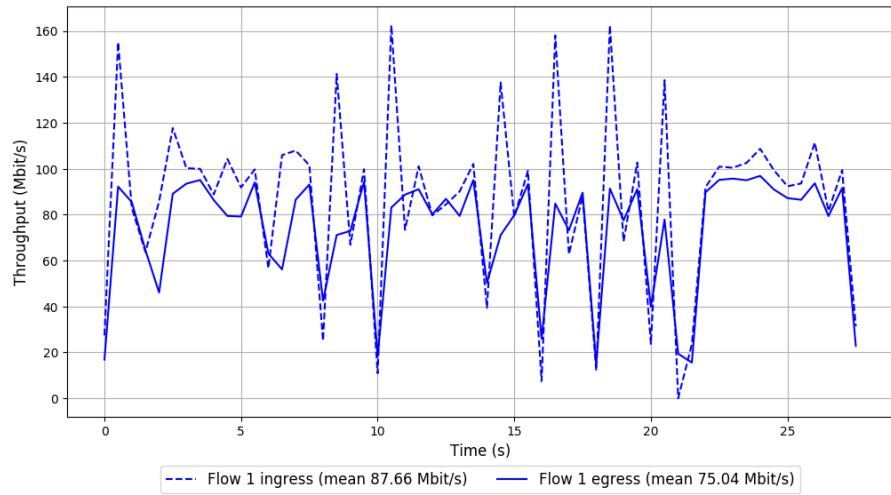


Run 4: Statistics of Verus

```
Start at: 2017-09-18 11:29:23
End at: 2017-09-18 11:29:53
Local clock offset: -0.029 ms
Remote clock offset: -2.631 ms

# Below is generated by plot.py at 2017-09-18 13:30:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.04 Mbit/s
95th percentile per-packet one-way delay: 109.378 ms
Loss rate: 14.43%
-- Flow 1:
Average throughput: 75.04 Mbit/s
95th percentile per-packet one-way delay: 109.378 ms
Loss rate: 14.43%
```

Run 4: Report of Verus — Data Link

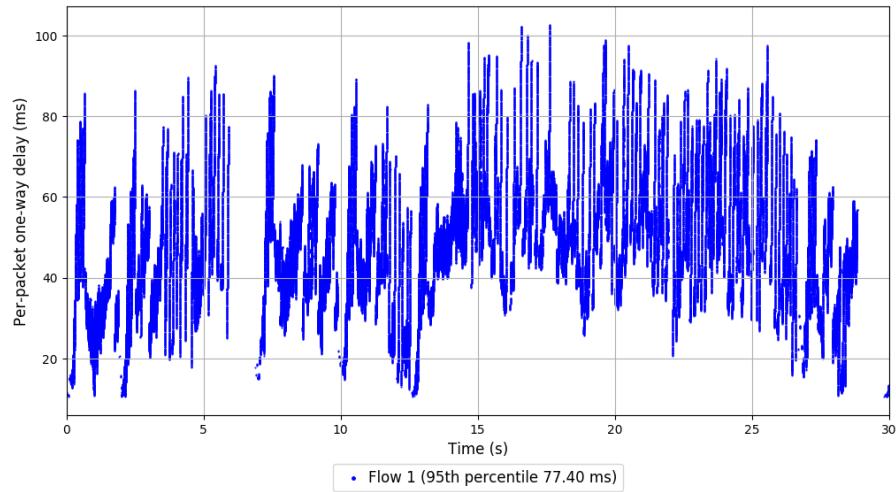
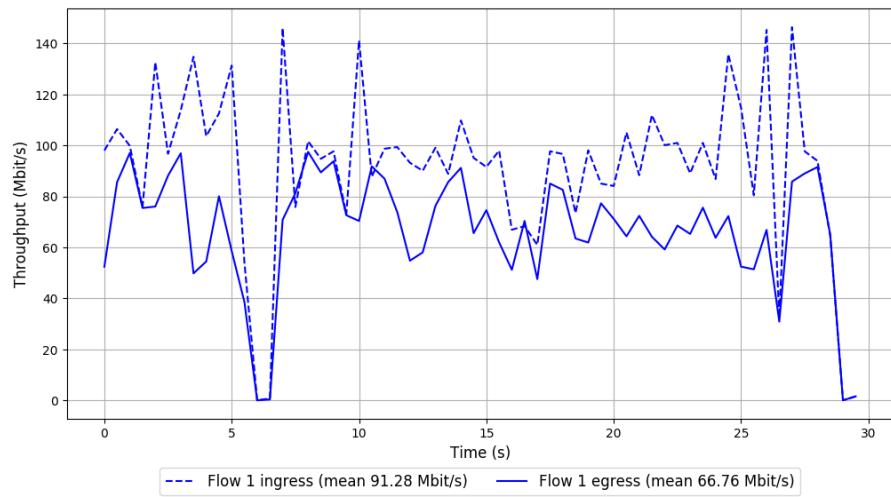


Run 5: Statistics of Verus

```
Start at: 2017-09-18 11:43:42
End at: 2017-09-18 11:44:12
Local clock offset: 0.815 ms
Remote clock offset: -2.734 ms

# Below is generated by plot.py at 2017-09-18 13:30:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.76 Mbit/s
95th percentile per-packet one-way delay: 77.403 ms
Loss rate: 26.85%
-- Flow 1:
Average throughput: 66.76 Mbit/s
95th percentile per-packet one-way delay: 77.403 ms
Loss rate: 26.85%
```

Run 5: Report of Verus — Data Link

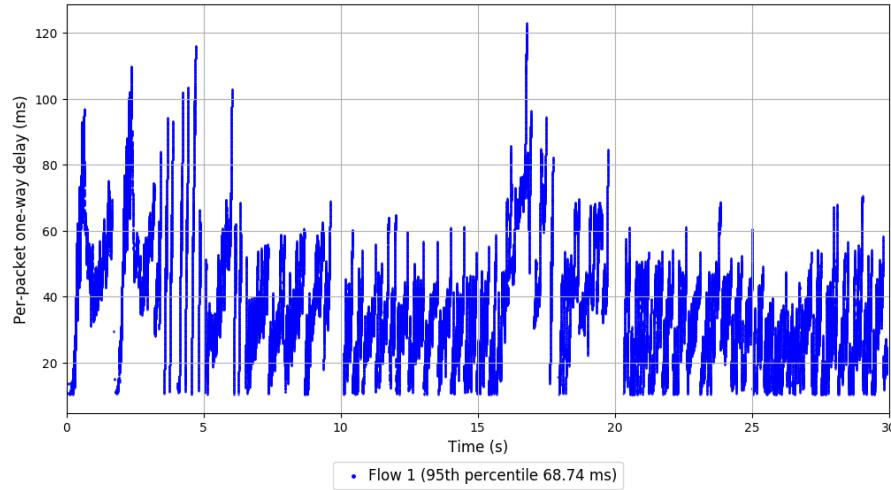
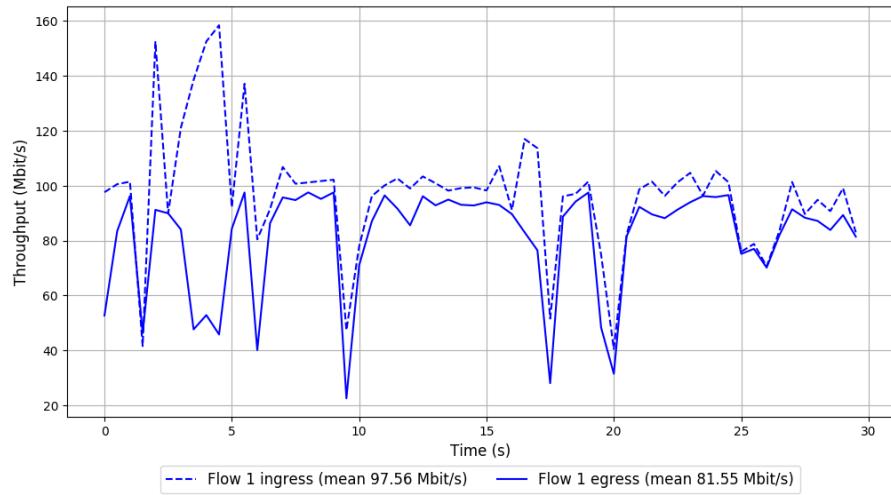


Run 6: Statistics of Verus

```
Start at: 2017-09-18 11:59:52
End at: 2017-09-18 12:00:22
Local clock offset: 3.304 ms
Remote clock offset: -3.445 ms

# Below is generated by plot.py at 2017-09-18 13:30:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.55 Mbit/s
95th percentile per-packet one-way delay: 68.738 ms
Loss rate: 16.38%
-- Flow 1:
Average throughput: 81.55 Mbit/s
95th percentile per-packet one-way delay: 68.738 ms
Loss rate: 16.38%
```

Run 6: Report of Verus — Data Link

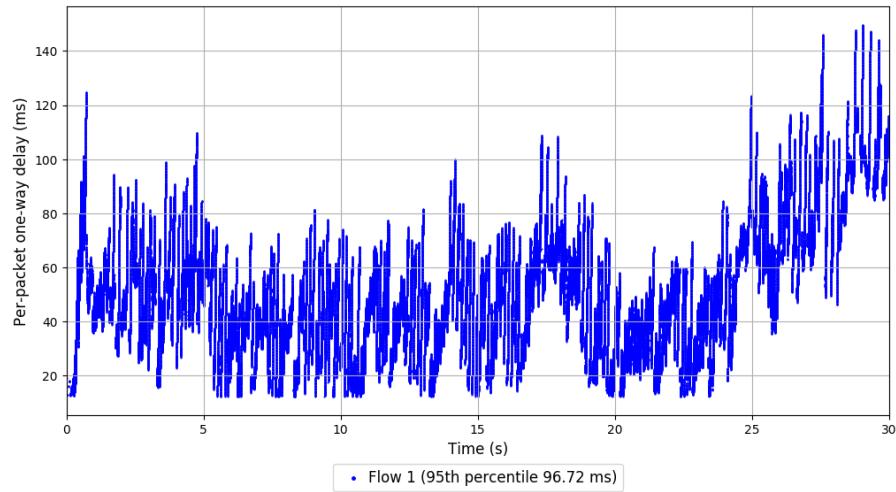
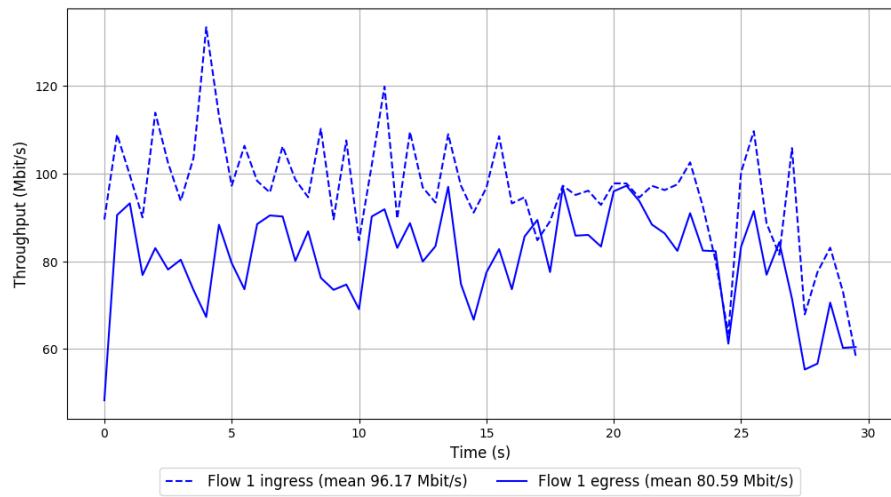


Run 7: Statistics of Verus

```
Start at: 2017-09-18 12:13:29
End at: 2017-09-18 12:13:59
Local clock offset: 2.759 ms
Remote clock offset: -2.445 ms

# Below is generated by plot.py at 2017-09-18 13:30:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.59 Mbit/s
95th percentile per-packet one-way delay: 96.717 ms
Loss rate: 16.19%
-- Flow 1:
Average throughput: 80.59 Mbit/s
95th percentile per-packet one-way delay: 96.717 ms
Loss rate: 16.19%
```

Run 7: Report of Verus — Data Link

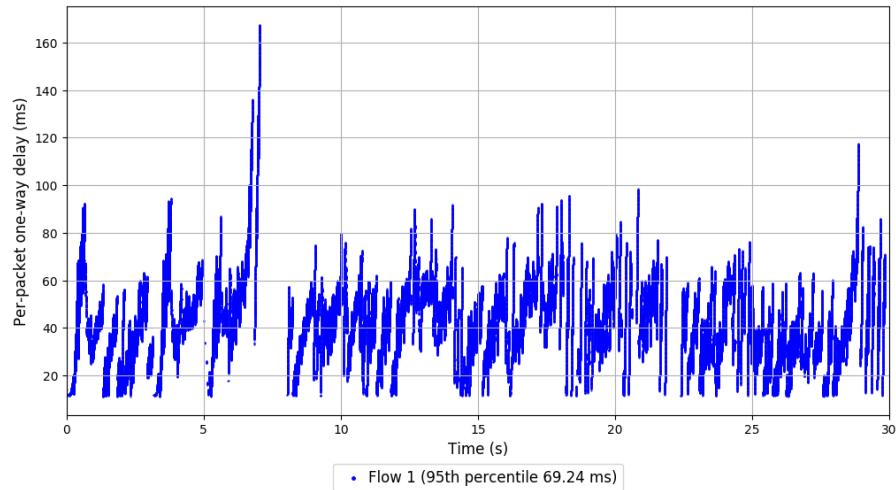
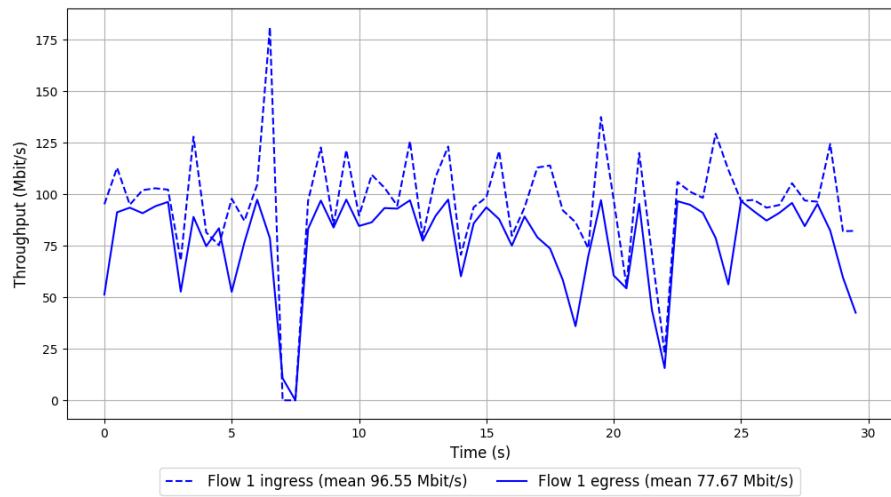


Run 8: Statistics of Verus

```
Start at: 2017-09-18 12:35:25
End at: 2017-09-18 12:35:55
Local clock offset: 3.001 ms
Remote clock offset: -3.819 ms

# Below is generated by plot.py at 2017-09-18 13:30:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.67 Mbit/s
95th percentile per-packet one-way delay: 69.237 ms
Loss rate: 19.41%
-- Flow 1:
Average throughput: 77.67 Mbit/s
95th percentile per-packet one-way delay: 69.237 ms
Loss rate: 19.41%
```

Run 8: Report of Verus — Data Link

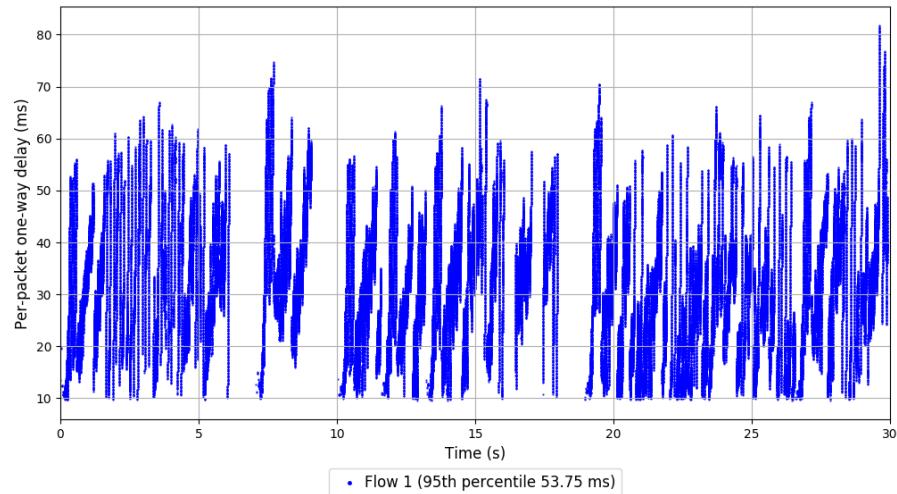
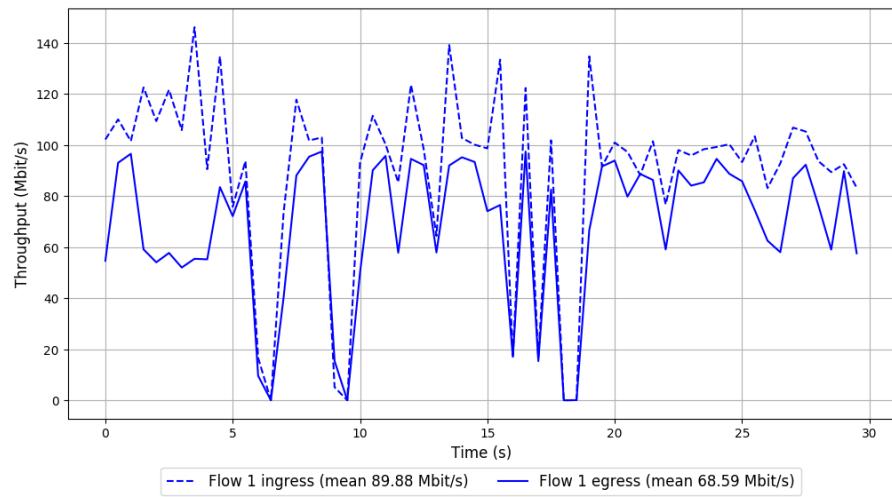


Run 9: Statistics of Verus

```
Start at: 2017-09-18 12:47:50
End at: 2017-09-18 12:48:20
Local clock offset: 3.16 ms
Remote clock offset: -2.717 ms

# Below is generated by plot.py at 2017-09-18 13:30:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.59 Mbit/s
95th percentile per-packet one-way delay: 53.749 ms
Loss rate: 23.62%
-- Flow 1:
Average throughput: 68.59 Mbit/s
95th percentile per-packet one-way delay: 53.749 ms
Loss rate: 23.62%
```

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

```
Start at: 2017-09-18 13:01:00
End at: 2017-09-18 13:01:30
Local clock offset: 3.377 ms
Remote clock offset: -2.397 ms

# Below is generated by plot.py at 2017-09-18 13:30:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.56 Mbit/s
95th percentile per-packet one-way delay: 77.184 ms
Loss rate: 35.17%
-- Flow 1:
Average throughput: 69.56 Mbit/s
95th percentile per-packet one-way delay: 77.184 ms
Loss rate: 35.17%
```

Run 10: Report of Verus — Data Link

