

Pantheon Report

Generated at 2018-09-07 21:33:09 (UTC).
Data path: Mexico on `em1` (*remote*) → AWS California 2 on `ens5` (*local*).
Repeated the test of 18 congestion control schemes 5 times.
Each test lasted for 30 seconds running 1 flow.
NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

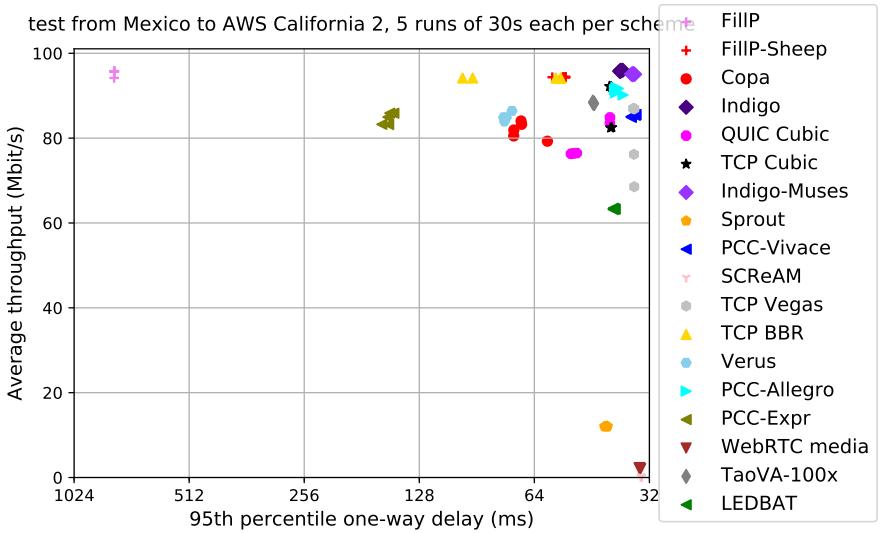
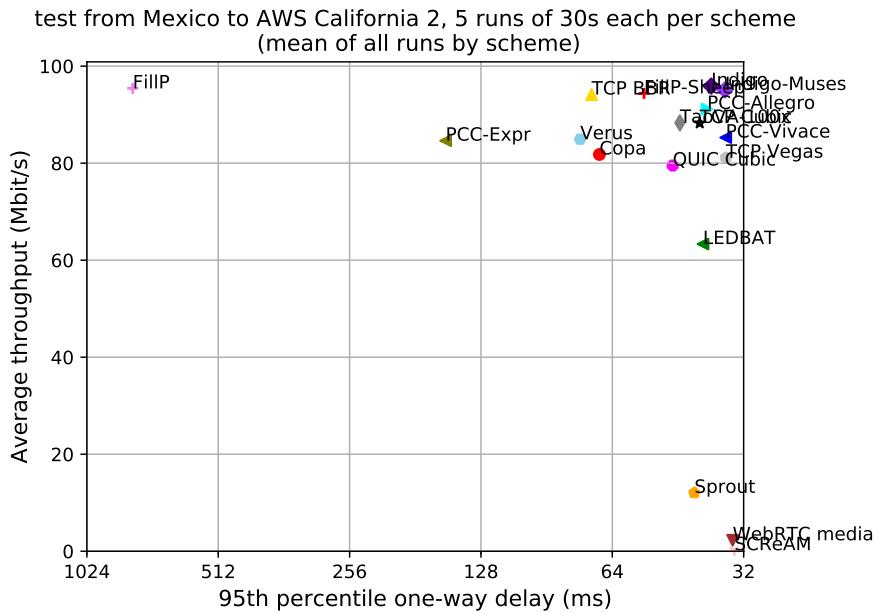
System info:

```
Linux 4.15.0-1020-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 536870912 536870912 536870912
```

Git summary:

```
branch: muses @ e0a9b05ad97d268013b7cc9a9c95637b593a1b4c
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 7631aea3923a3598767c87765ae5103aca0678d3
third_party/pantheon-tunnel @ cbfce6db5ff5740dafe1771f813cd646339e1952
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851



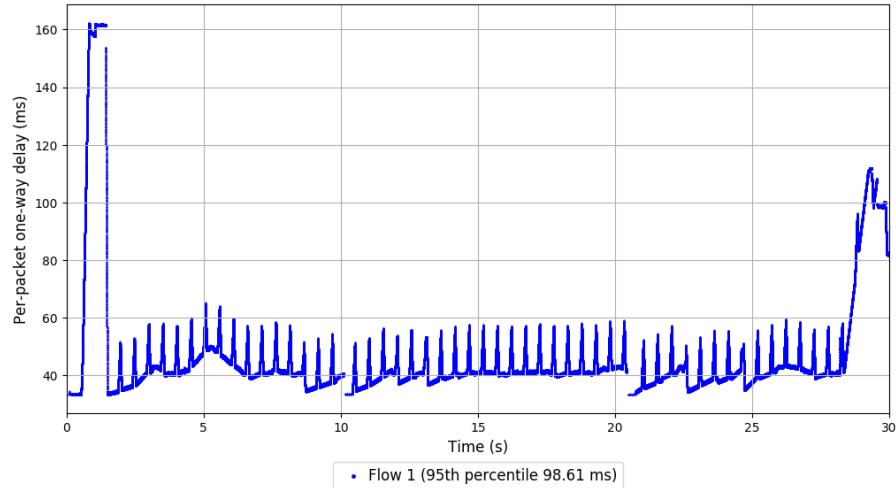
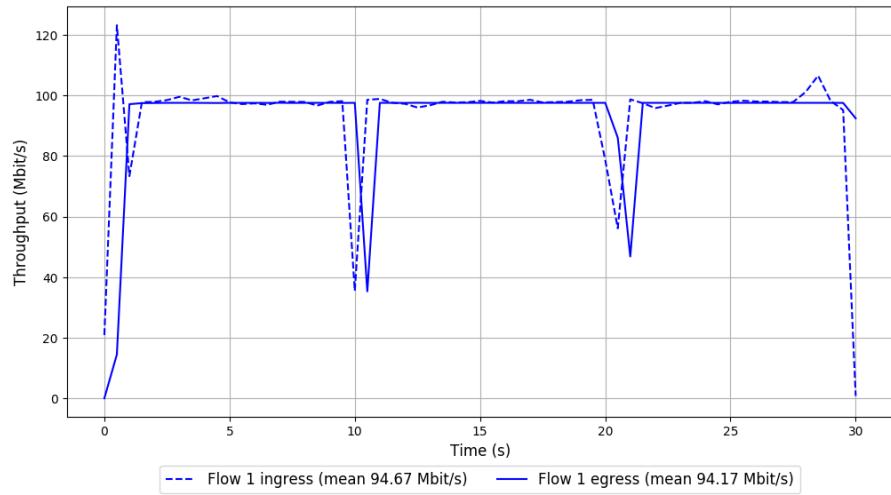
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	94.14	71.38	0.63
Copa	5	81.80	68.51	0.23
TCP Cubic	5	88.26	40.36	0.23
FillP	5	95.41	804.06	4.01
FillP-Sheep	5	94.38	54.15	0.81
Indigo	5	95.89	37.98	0.23
LEDBAT	5	63.32	39.67	0.20
Indigo-Muses	5	95.08	35.32	0.24
PCC-Allegro	5	91.17	38.80	0.25
PCC-Expr	5	84.63	154.26	0.30
QUIC Cubic	5	79.51	46.54	0.28
SCReAM	5	0.21	33.60	0.23
Sprout	5	12.03	41.50	0.18
TaoVA-100x	5	88.30	44.81	0.24
TCP Vegas	5	81.12	35.14	0.28
Verus	5	84.94	75.84	0.42
PCC-Vivace	5	85.28	35.18	0.24
WebRTC media	5	2.26	33.92	0.24

Run 1: Statistics of TCP BBR

```
Start at: 2018-09-07 19:24:41
End at: 2018-09-07 19:25:11
Local clock offset: -3.125 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2018-09-07 21:22:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.17 Mbit/s
95th percentile per-packet one-way delay: 98.608 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 94.17 Mbit/s
95th percentile per-packet one-way delay: 98.608 ms
Loss rate: 0.74%
```

Run 1: Report of TCP BBR — Data Link

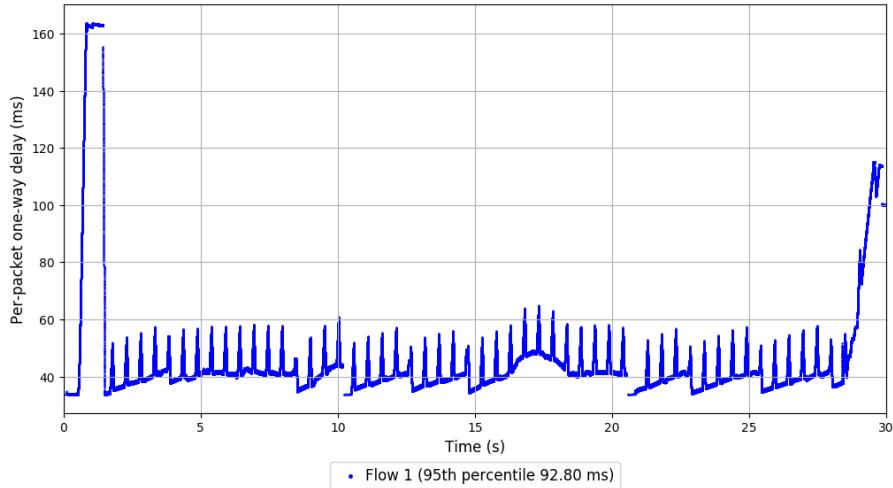
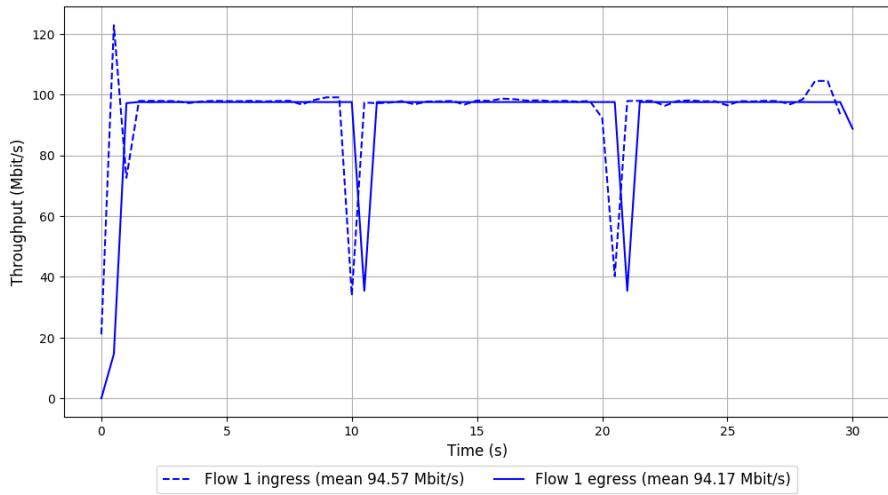


Run 2: Statistics of TCP BBR

```
Start at: 2018-09-07 19:48:32
End at: 2018-09-07 19:49:02
Local clock offset: -2.663 ms
Remote clock offset: 0.092 ms

# Below is generated by plot.py at 2018-09-07 21:22:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.17 Mbit/s
95th percentile per-packet one-way delay: 92.804 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 94.17 Mbit/s
95th percentile per-packet one-way delay: 92.804 ms
Loss rate: 0.64%
```

Run 2: Report of TCP BBR — Data Link

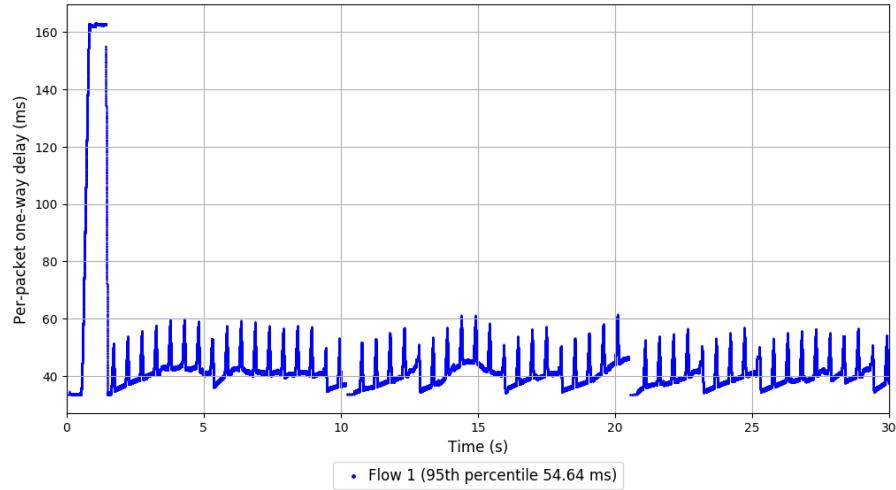
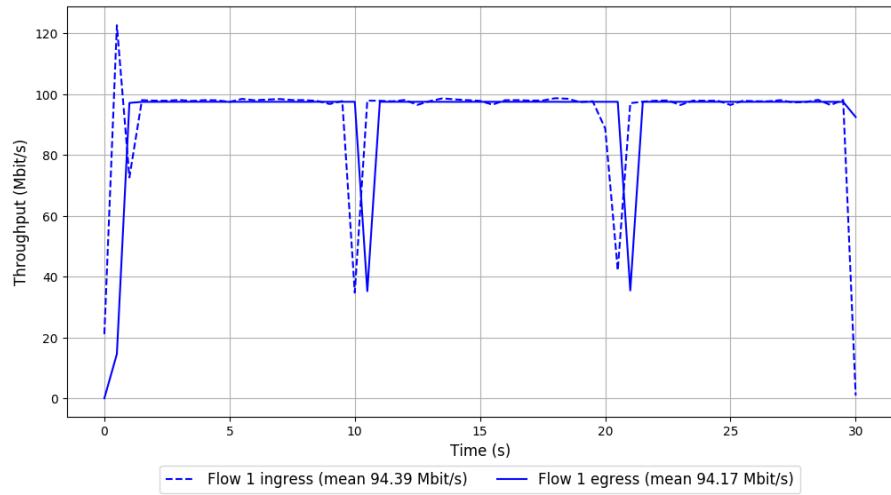


Run 3: Statistics of TCP BBR

```
Start at: 2018-09-07 20:12:26
End at: 2018-09-07 20:12:56
Local clock offset: -2.682 ms
Remote clock offset: 0.766 ms

# Below is generated by plot.py at 2018-09-07 21:22:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.17 Mbit/s
95th percentile per-packet one-way delay: 54.642 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 94.17 Mbit/s
95th percentile per-packet one-way delay: 54.642 ms
Loss rate: 0.45%
```

Run 3: Report of TCP BBR — Data Link

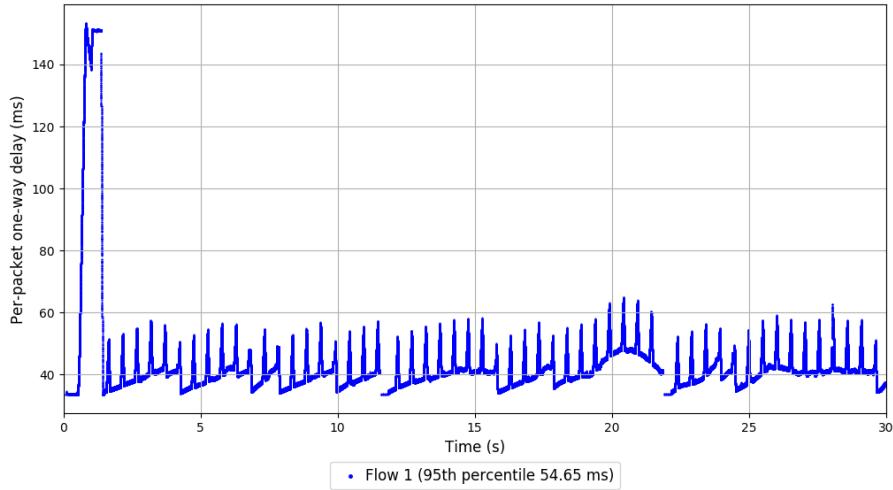
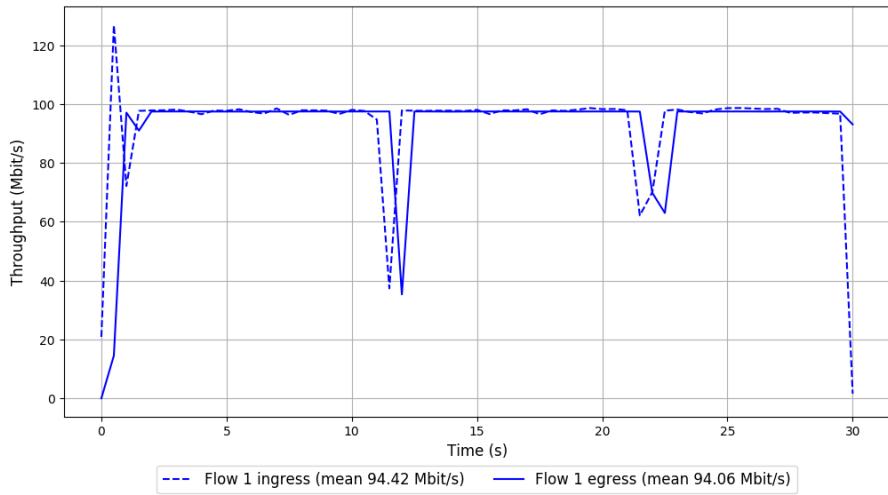


Run 4: Statistics of TCP BBR

```
Start at: 2018-09-07 20:36:18
End at: 2018-09-07 20:36:48
Local clock offset: 0.387 ms
Remote clock offset: 1.206 ms

# Below is generated by plot.py at 2018-09-07 21:22:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.06 Mbit/s
95th percentile per-packet one-way delay: 54.645 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 94.06 Mbit/s
95th percentile per-packet one-way delay: 54.645 ms
Loss rate: 0.59%
```

Run 4: Report of TCP BBR — Data Link

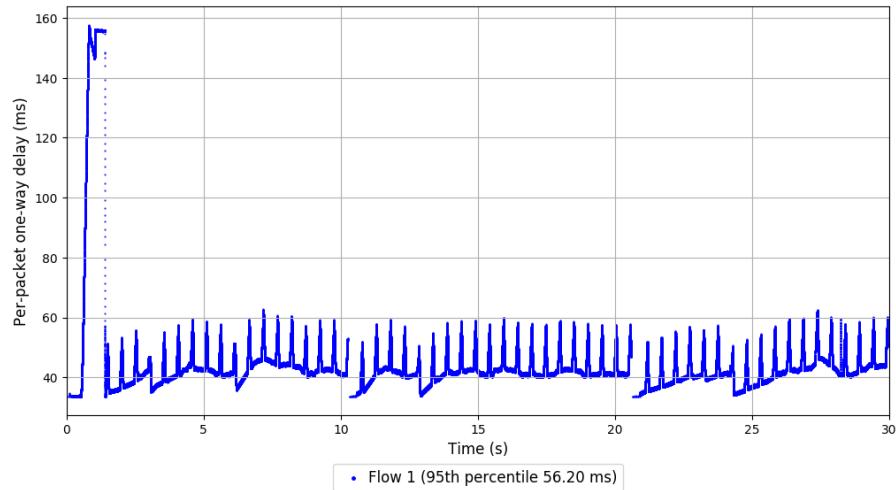
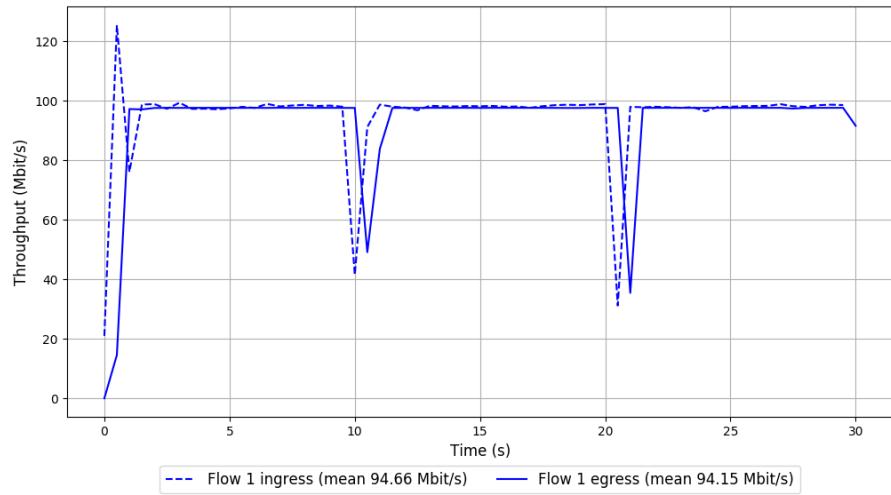


Run 5: Statistics of TCP BBR

```
Start at: 2018-09-07 21:00:12
End at: 2018-09-07 21:00:42
Local clock offset: 0.27 ms
Remote clock offset: 1.037 ms

# Below is generated by plot.py at 2018-09-07 21:22:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.15 Mbit/s
95th percentile per-packet one-way delay: 56.197 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 94.15 Mbit/s
95th percentile per-packet one-way delay: 56.197 ms
Loss rate: 0.75%
```

Run 5: Report of TCP BBR — Data Link

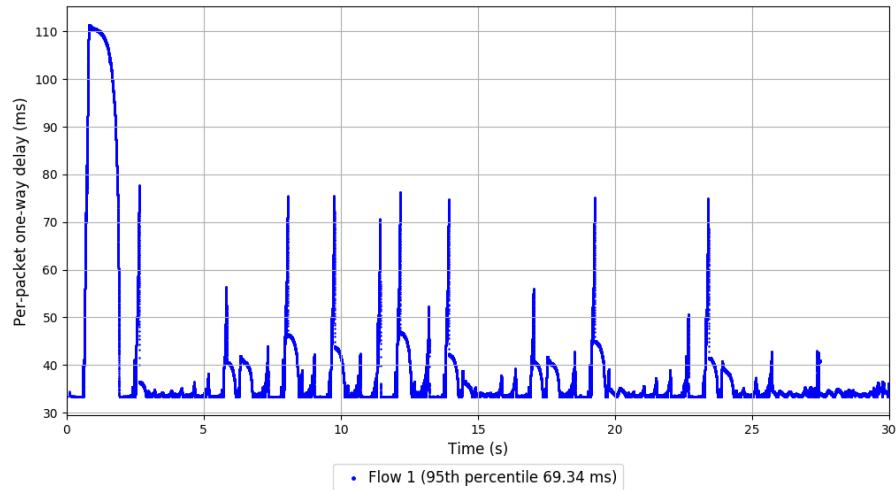
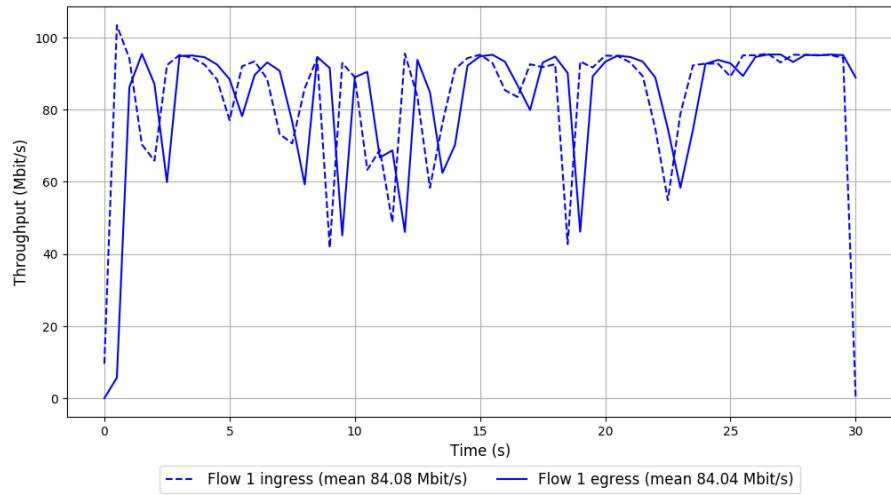


Run 1: Statistics of Copa

```
Start at: 2018-09-07 19:38:01
End at: 2018-09-07 19:38:31
Local clock offset: -2.758 ms
Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2018-09-07 21:23:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.04 Mbit/s
95th percentile per-packet one-way delay: 69.341 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 84.04 Mbit/s
95th percentile per-packet one-way delay: 69.341 ms
Loss rate: 0.26%
```

Run 1: Report of Copa — Data Link

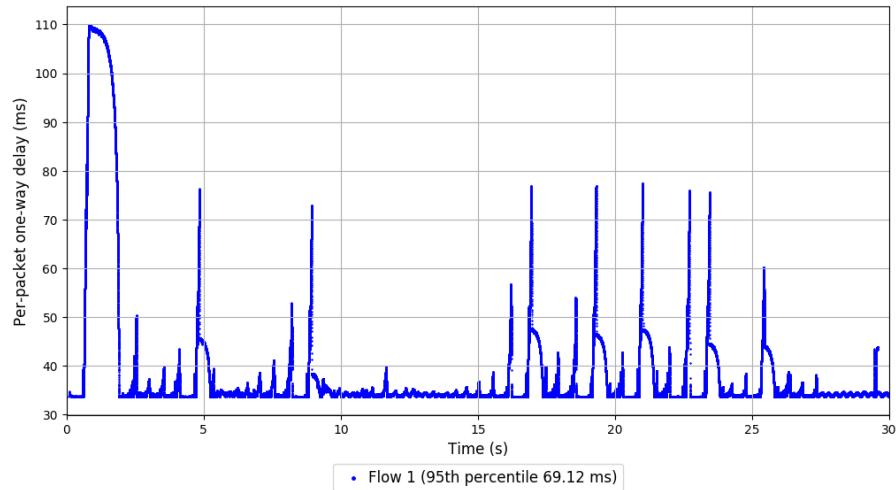
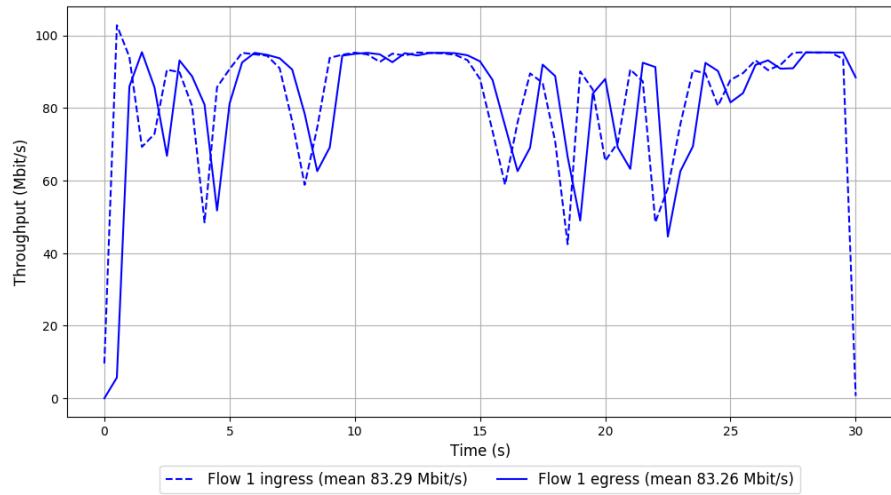


Run 2: Statistics of Copa

```
Start at: 2018-09-07 20:01:53
End at: 2018-09-07 20:02:23
Local clock offset: -2.726 ms
Remote clock offset: 0.472 ms

# Below is generated by plot.py at 2018-09-07 21:23:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.26 Mbit/s
95th percentile per-packet one-way delay: 69.123 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 83.26 Mbit/s
95th percentile per-packet one-way delay: 69.123 ms
Loss rate: 0.26%
```

Run 2: Report of Copa — Data Link

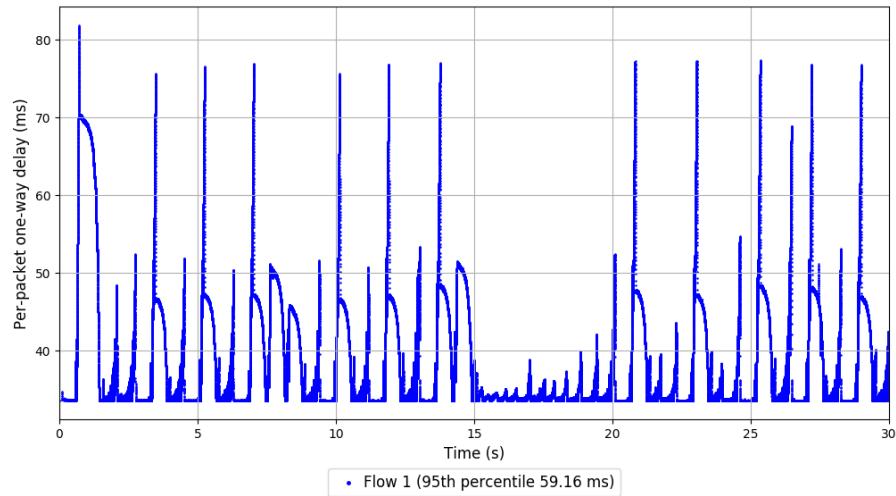
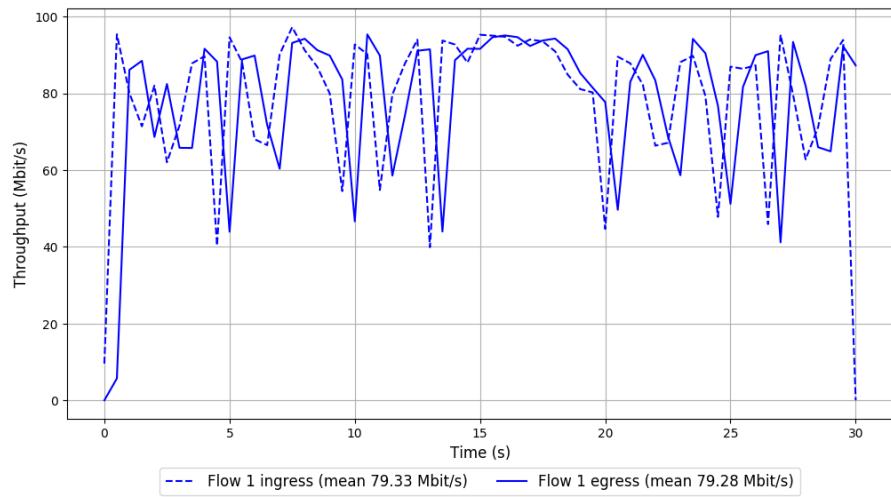


Run 3: Statistics of Copa

```
Start at: 2018-09-07 20:25:46
End at: 2018-09-07 20:26:16
Local clock offset: -0.604 ms
Remote clock offset: 0.88 ms

# Below is generated by plot.py at 2018-09-07 21:23:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.28 Mbit/s
95th percentile per-packet one-way delay: 59.161 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 79.28 Mbit/s
95th percentile per-packet one-way delay: 59.161 ms
Loss rate: 0.31%
```

Run 3: Report of Copa — Data Link

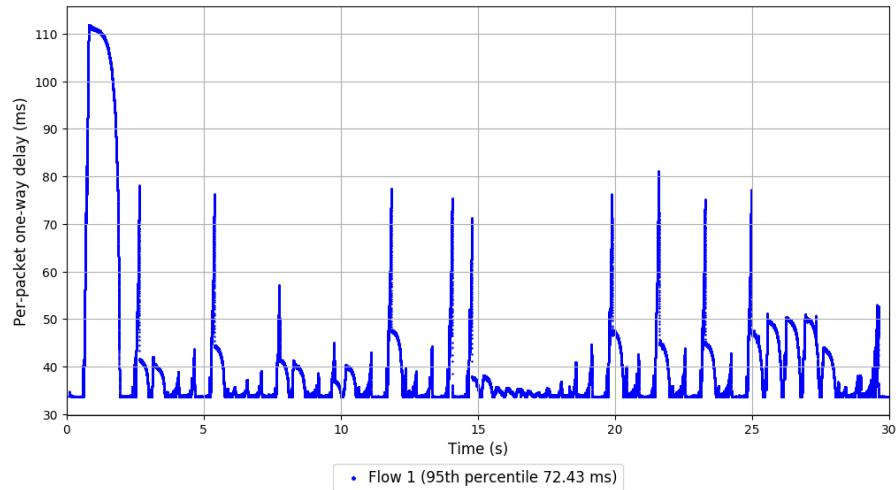
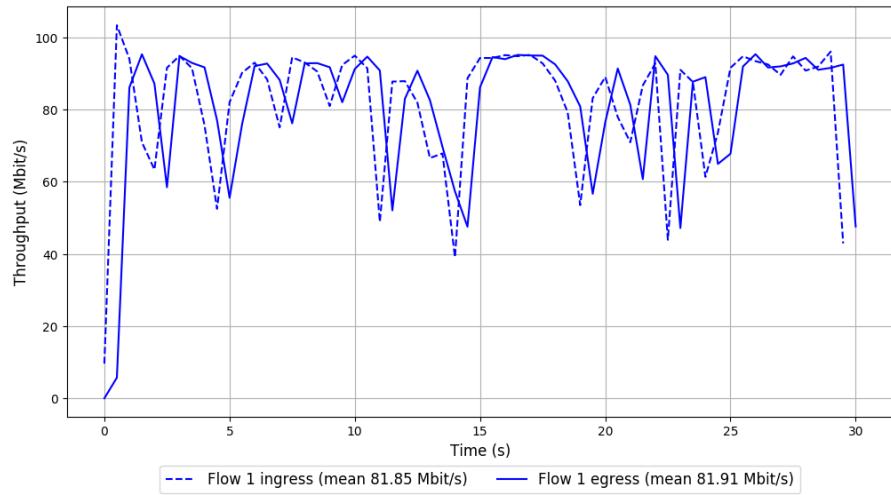


Run 4: Statistics of Copa

```
Start at: 2018-09-07 20:49:41
End at: 2018-09-07 20:50:11
Local clock offset: 0.565 ms
Remote clock offset: 1.171 ms

# Below is generated by plot.py at 2018-09-07 21:24:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.91 Mbit/s
95th percentile per-packet one-way delay: 72.427 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 81.91 Mbit/s
95th percentile per-packet one-way delay: 72.427 ms
Loss rate: 0.15%
```

Run 4: Report of Copa — Data Link

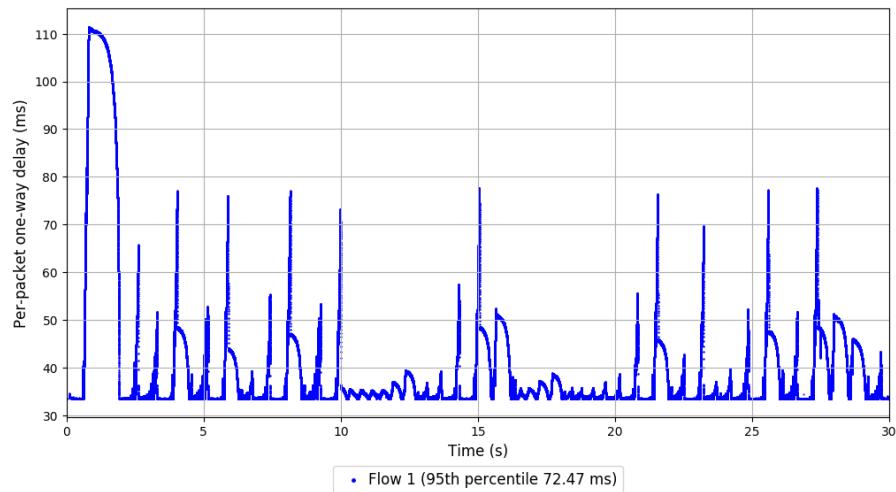
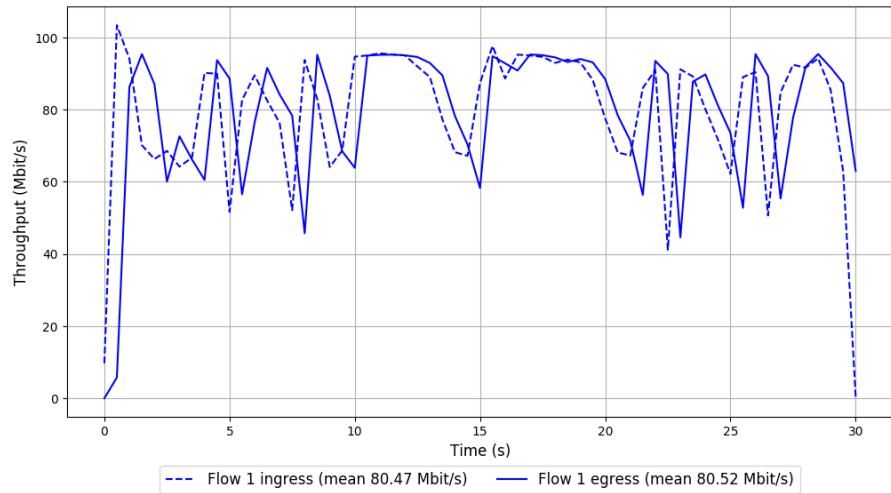


Run 5: Statistics of Copa

```
Start at: 2018-09-07 21:13:36
End at: 2018-09-07 21:14:06
Local clock offset: 0.493 ms
Remote clock offset: 1.416 ms

# Below is generated by plot.py at 2018-09-07 21:24:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.52 Mbit/s
95th percentile per-packet one-way delay: 72.474 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 80.52 Mbit/s
95th percentile per-packet one-way delay: 72.474 ms
Loss rate: 0.16%
```

Run 5: Report of Copa — Data Link

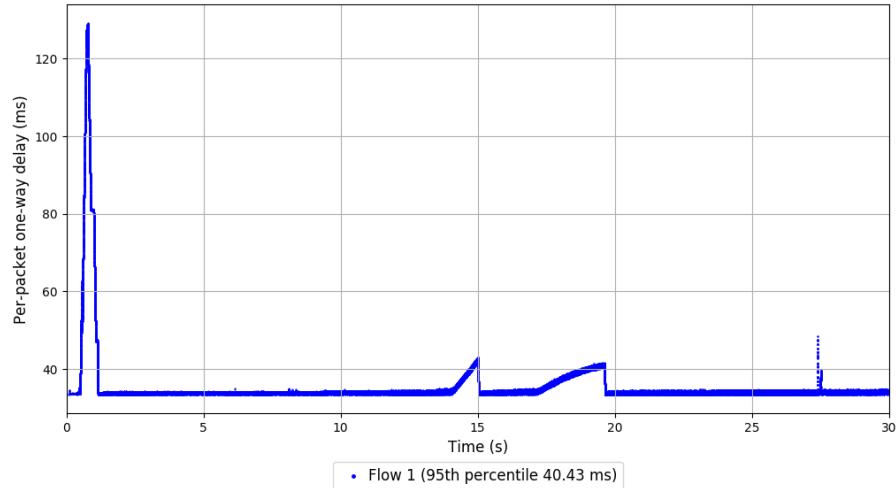
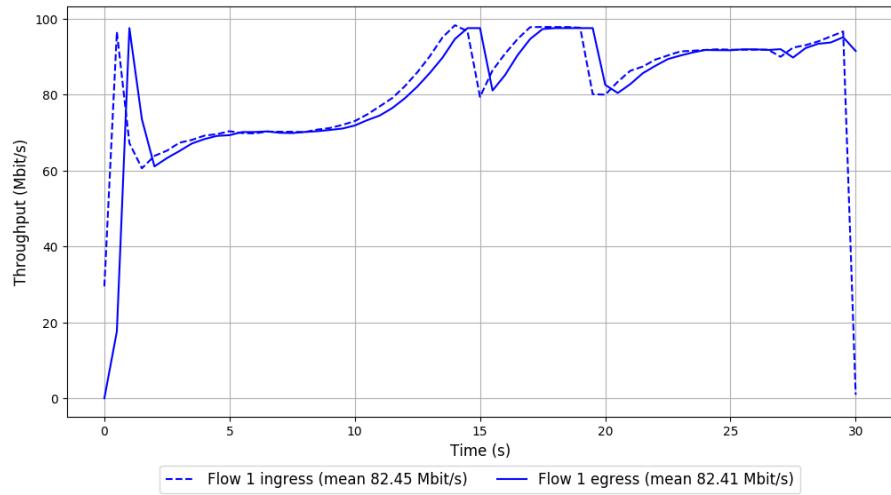


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-09-07 19:31:22
End at: 2018-09-07 19:31:52
Local clock offset: -2.766 ms
Remote clock offset: -0.131 ms

# Below is generated by plot.py at 2018-09-07 21:24:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.41 Mbit/s
95th percentile per-packet one-way delay: 40.430 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 82.41 Mbit/s
95th percentile per-packet one-way delay: 40.430 ms
Loss rate: 0.26%
```

Run 1: Report of TCP Cubic — Data Link

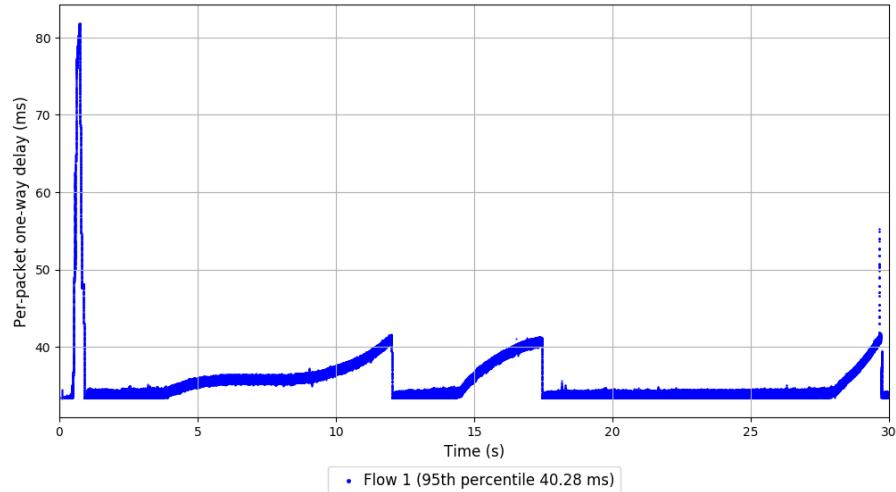
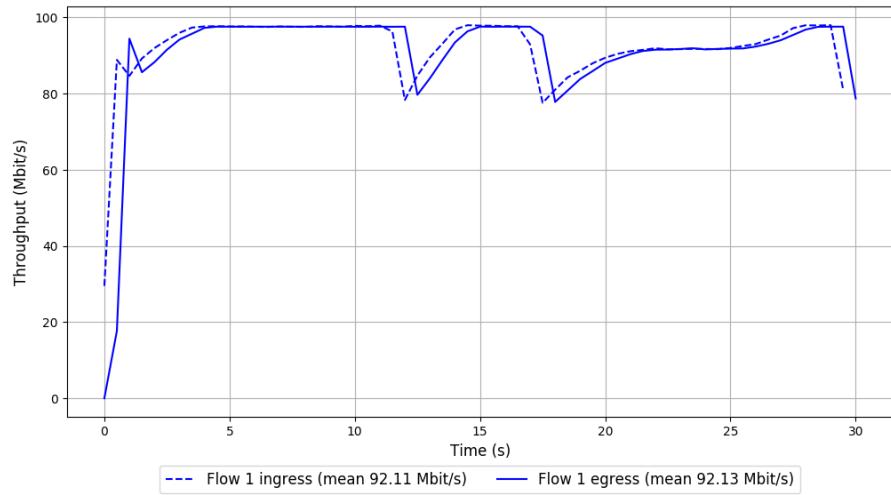


Run 2: Statistics of TCP Cubic

```
Start at: 2018-09-07 19:55:13
End at: 2018-09-07 19:55:43
Local clock offset: -2.817 ms
Remote clock offset: 0.479 ms

# Below is generated by plot.py at 2018-09-07 21:24:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.13 Mbit/s
95th percentile per-packet one-way delay: 40.284 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 92.13 Mbit/s
95th percentile per-packet one-way delay: 40.284 ms
Loss rate: 0.19%
```

Run 2: Report of TCP Cubic — Data Link

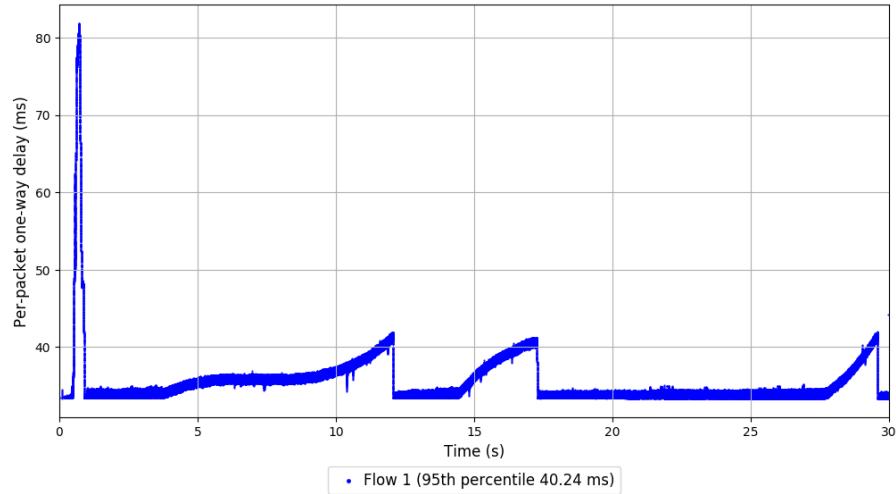
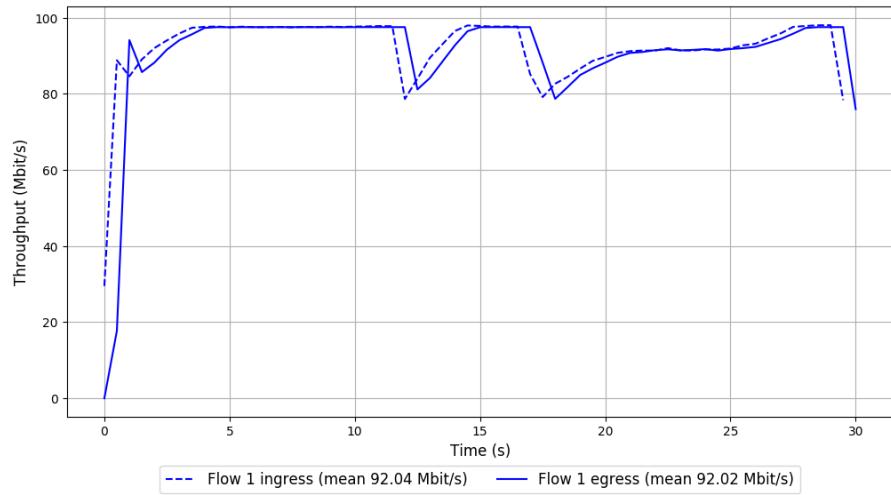


Run 3: Statistics of TCP Cubic

```
Start at: 2018-09-07 20:19:07
End at: 2018-09-07 20:19:37
Local clock offset: -1.573 ms
Remote clock offset: 0.912 ms

# Below is generated by plot.py at 2018-09-07 21:24:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.02 Mbit/s
95th percentile per-packet one-way delay: 40.236 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 92.02 Mbit/s
95th percentile per-packet one-way delay: 40.236 ms
Loss rate: 0.19%
```

Run 3: Report of TCP Cubic — Data Link

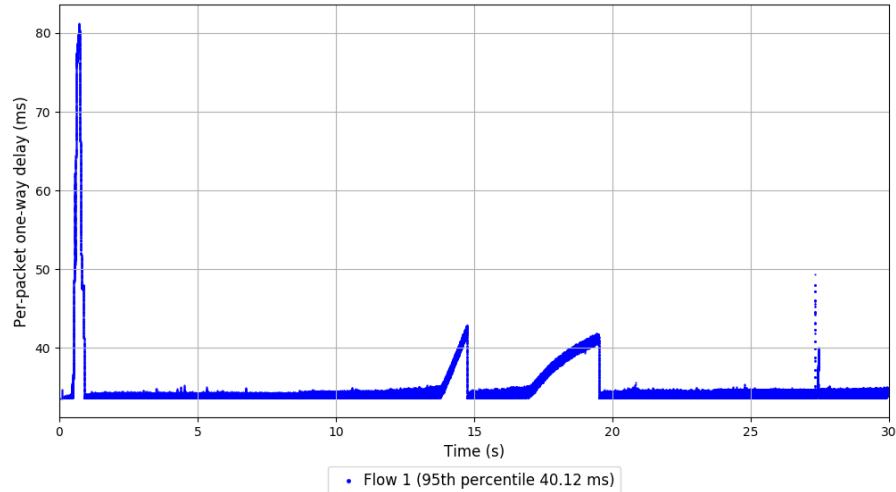
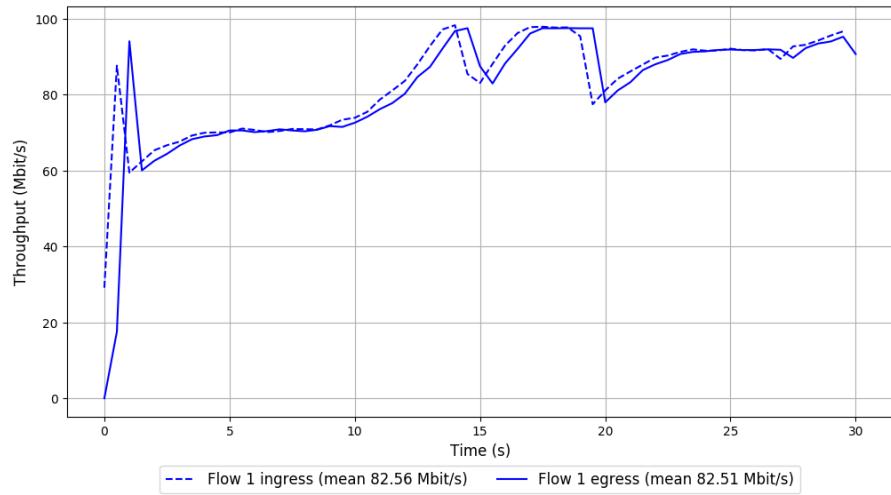


Run 4: Statistics of TCP Cubic

```
Start at: 2018-09-07 20:43:01
End at: 2018-09-07 20:43:31
Local clock offset: 0.772 ms
Remote clock offset: 1.315 ms

# Below is generated by plot.py at 2018-09-07 21:24:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.51 Mbit/s
95th percentile per-packet one-way delay: 40.123 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 82.51 Mbit/s
95th percentile per-packet one-way delay: 40.123 ms
Loss rate: 0.27%
```

Run 4: Report of TCP Cubic — Data Link

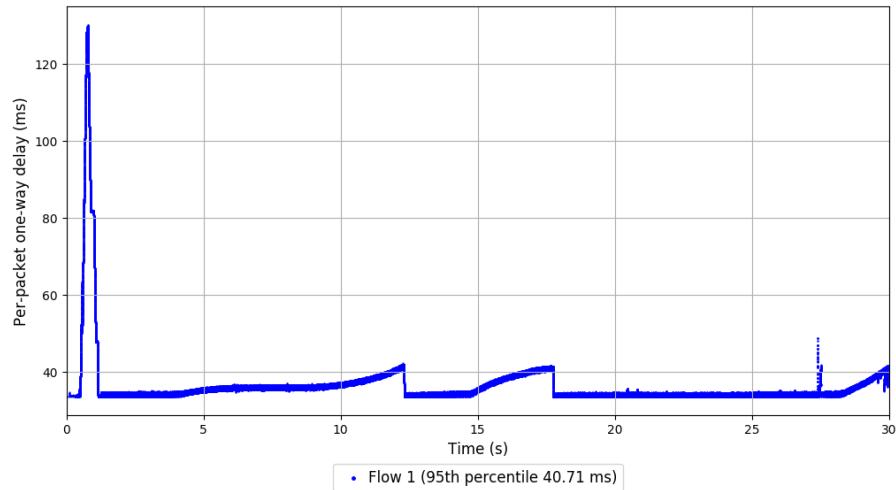
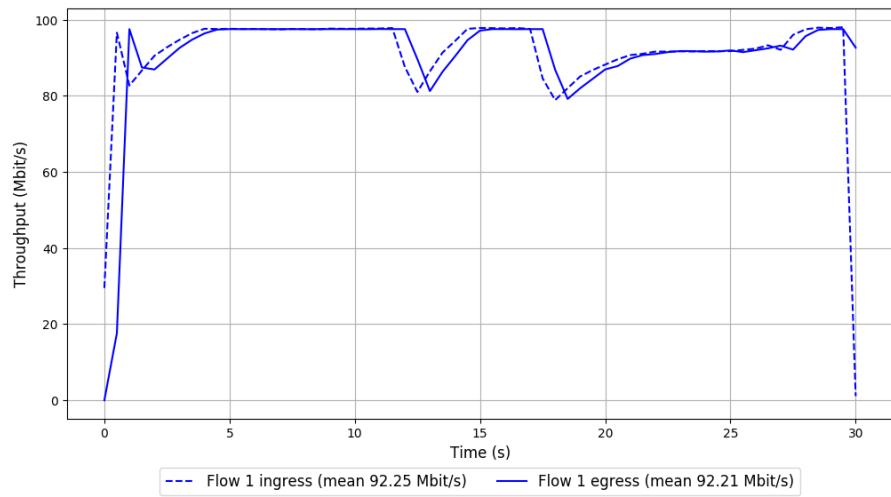


Run 5: Statistics of TCP Cubic

```
Start at: 2018-09-07 21:06:57
End at: 2018-09-07 21:07:27
Local clock offset: 0.419 ms
Remote clock offset: 1.145 ms

# Below is generated by plot.py at 2018-09-07 21:24:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.21 Mbit/s
95th percentile per-packet one-way delay: 40.710 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 92.21 Mbit/s
95th percentile per-packet one-way delay: 40.710 ms
Loss rate: 0.26%
```

Run 5: Report of TCP Cubic — Data Link

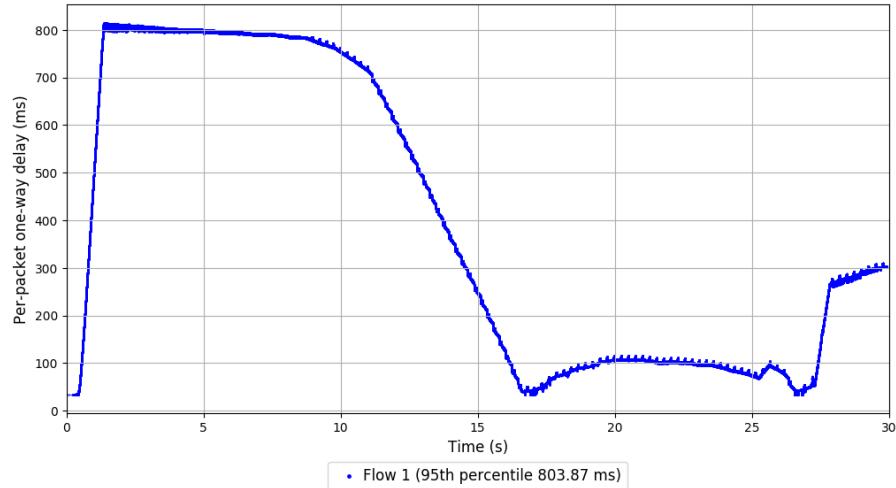
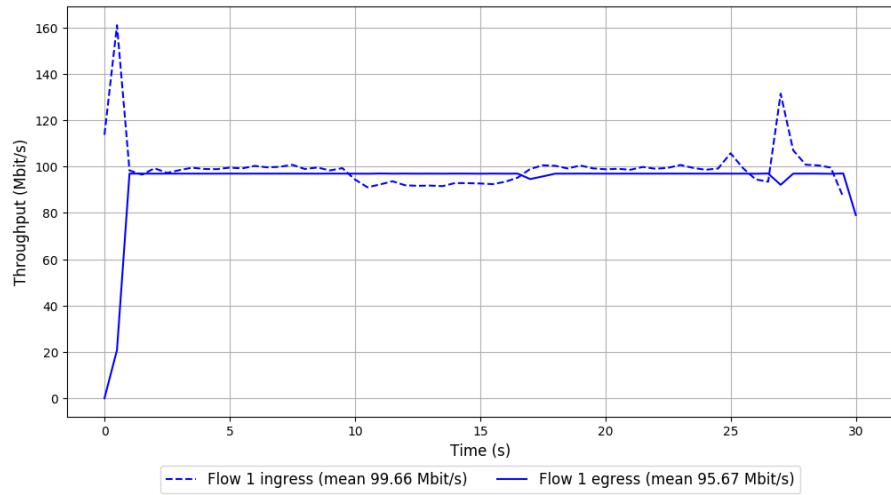


```
Run 1: Statistics of FillP
```

```
Start at: 2018-09-07 19:30:03
End at: 2018-09-07 19:30:33
Local clock offset: -2.888 ms
Remote clock offset: -0.143 ms

# Below is generated by plot.py at 2018-09-07 21:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 803.868 ms
Loss rate: 4.21%
-- Flow 1:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 803.868 ms
Loss rate: 4.21%
```

Run 1: Report of FillP — Data Link

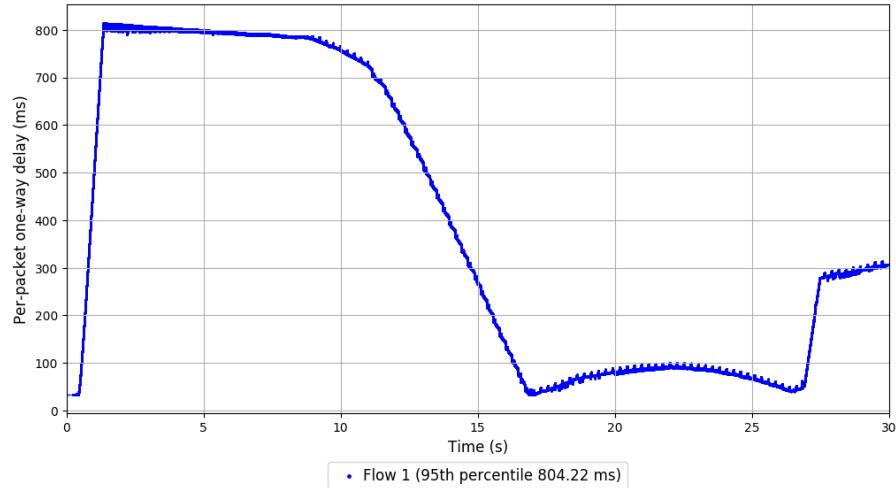
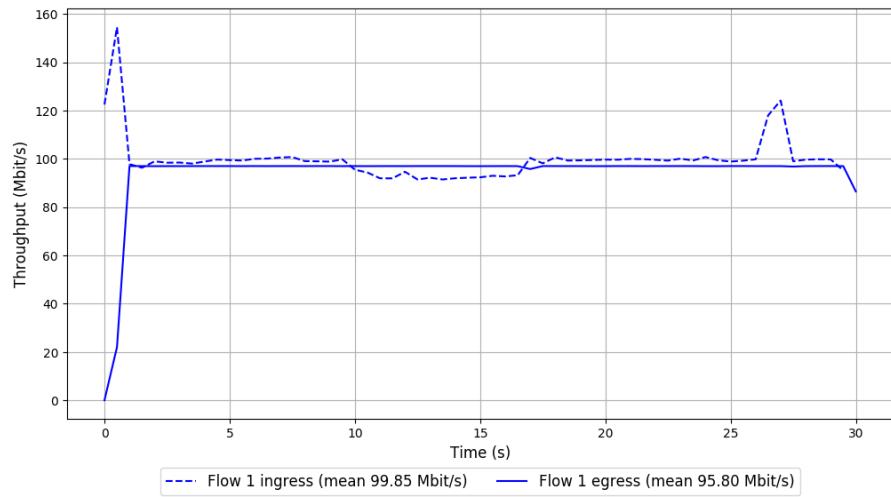


Run 2: Statistics of FillP

```
Start at: 2018-09-07 19:53:54
End at: 2018-09-07 19:54:24
Local clock offset: -2.794 ms
Remote clock offset: 0.411 ms

# Below is generated by plot.py at 2018-09-07 21:24:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 804.221 ms
Loss rate: 4.25%
-- Flow 1:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 804.221 ms
Loss rate: 4.25%
```

Run 2: Report of FillP — Data Link

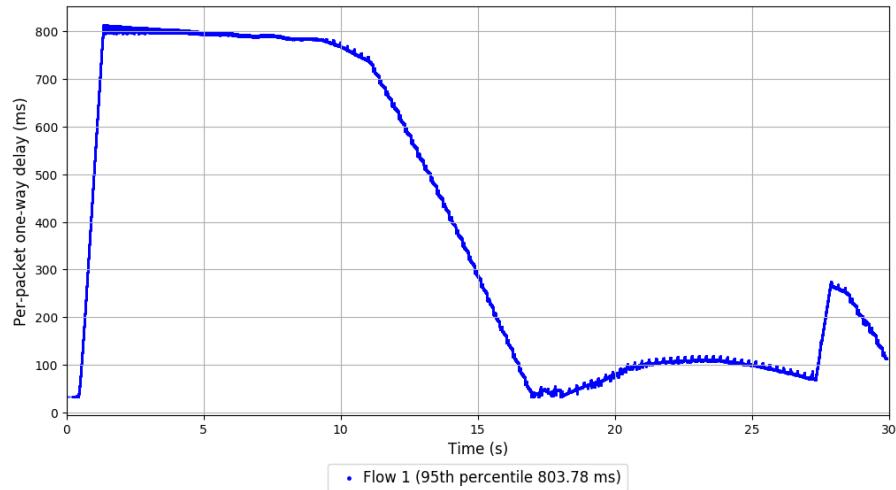
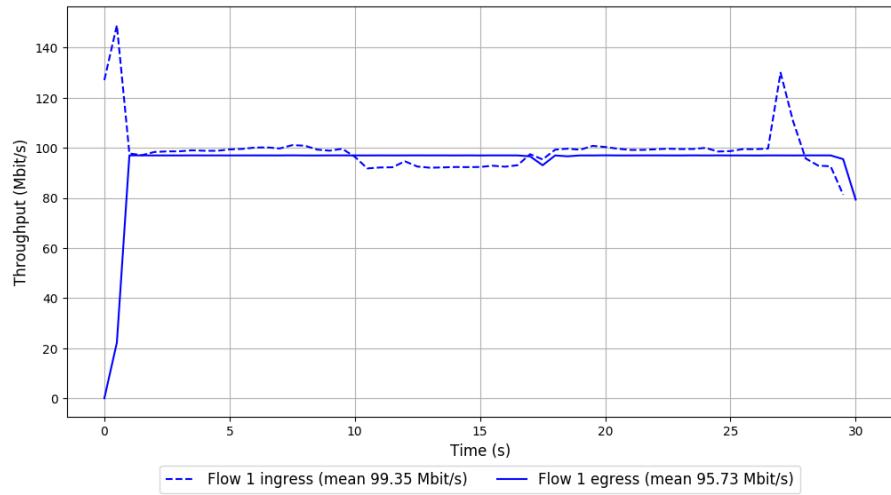


Run 3: Statistics of FillP

```
Start at: 2018-09-07 20:17:48
End at: 2018-09-07 20:18:18
Local clock offset: -1.995 ms
Remote clock offset: 0.934 ms

# Below is generated by plot.py at 2018-09-07 21:24:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 803.776 ms
Loss rate: 3.84%
-- Flow 1:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 803.776 ms
Loss rate: 3.84%
```

Run 3: Report of FillP — Data Link

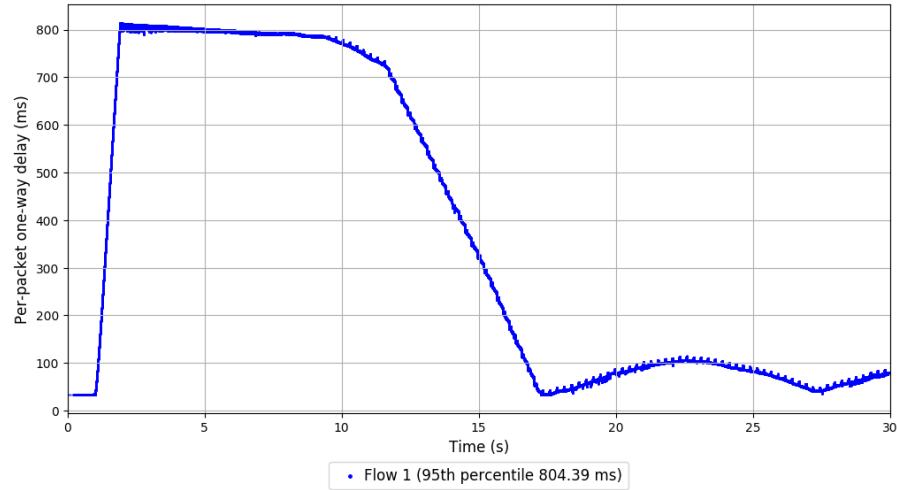
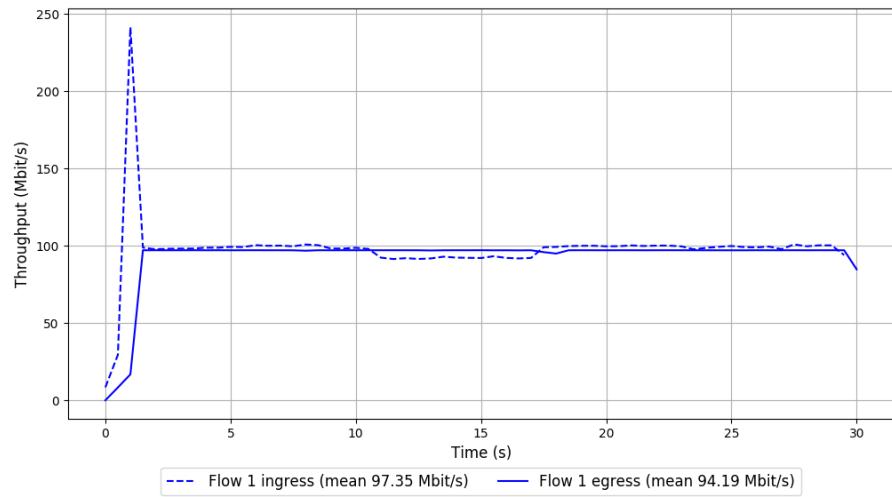


Run 4: Statistics of FillP

```
Start at: 2018-09-07 20:41:42
End at: 2018-09-07 20:42:12
Local clock offset: 0.695 ms
Remote clock offset: 1.356 ms

# Below is generated by plot.py at 2018-09-07 21:24:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.19 Mbit/s
95th percentile per-packet one-way delay: 804.392 ms
Loss rate: 3.45%
-- Flow 1:
Average throughput: 94.19 Mbit/s
95th percentile per-packet one-way delay: 804.392 ms
Loss rate: 3.45%
```

Run 4: Report of FillP — Data Link

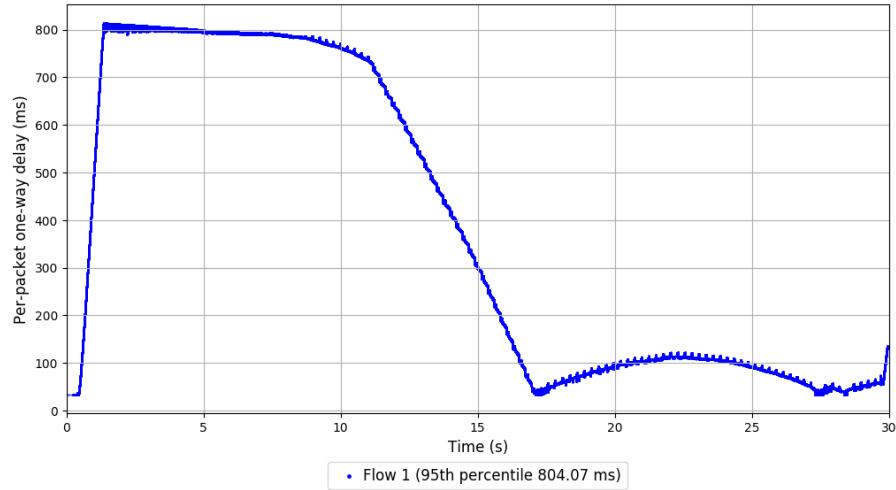
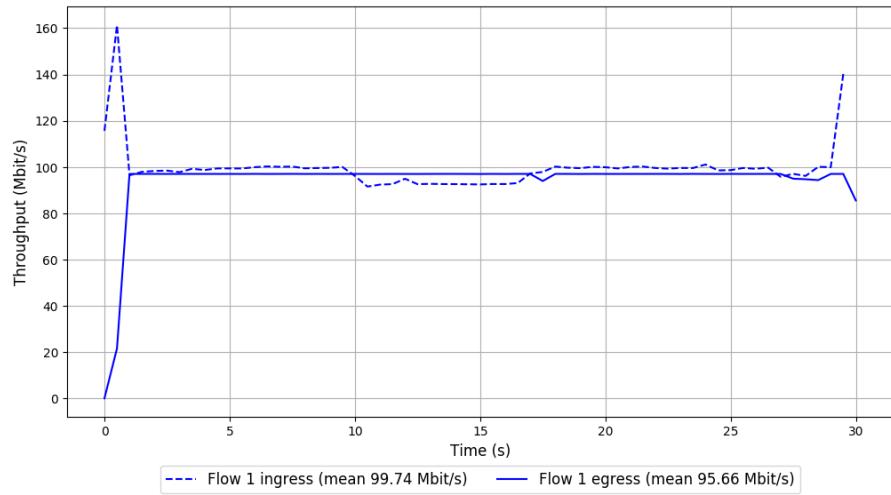


Run 5: Statistics of FillP

```
Start at: 2018-09-07 21:05:37
End at: 2018-09-07 21:06:07
Local clock offset: 0.31 ms
Remote clock offset: 1.399 ms

# Below is generated by plot.py at 2018-09-07 21:25:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 804.067 ms
Loss rate: 4.30%
-- Flow 1:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 804.067 ms
Loss rate: 4.30%
```

Run 5: Report of FillP — Data Link

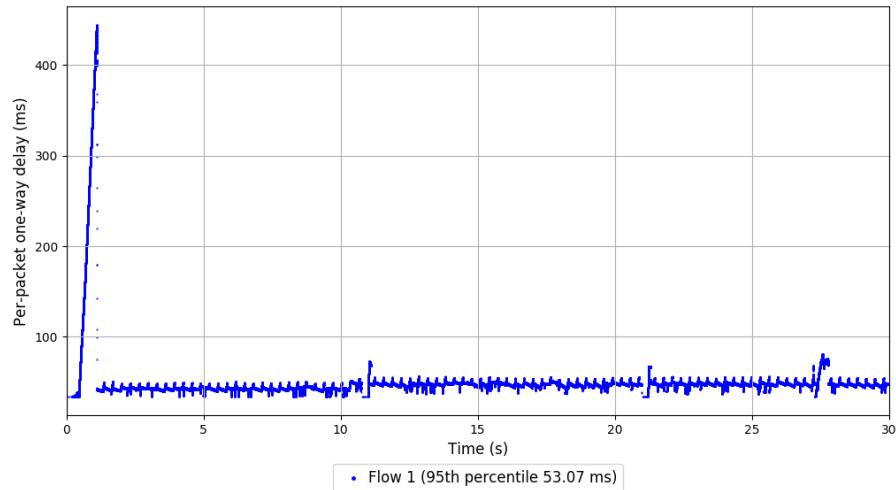
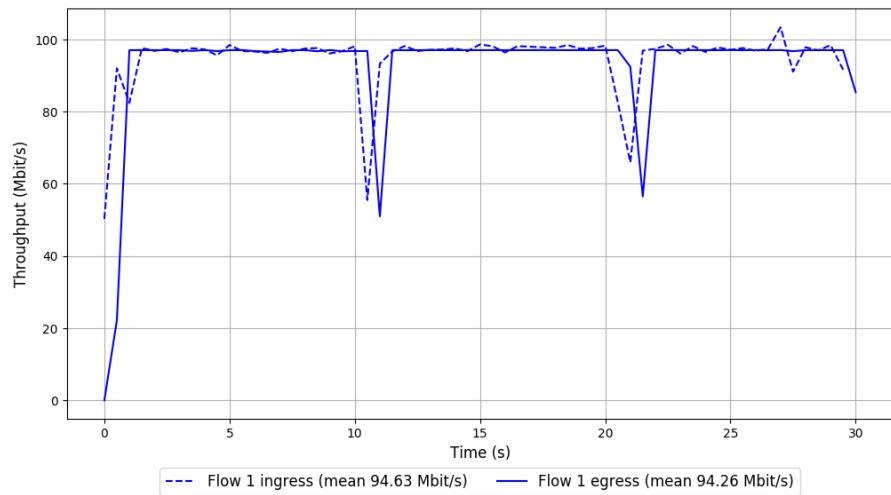


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2018-09-07 19:35:22
End at: 2018-09-07 19:35:52
Local clock offset: -2.7 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2018-09-07 21:25:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.26 Mbit/s
95th percentile per-packet one-way delay: 53.073 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 94.26 Mbit/s
95th percentile per-packet one-way delay: 53.073 ms
Loss rate: 0.60%
```

Run 1: Report of FillP-Sheep — Data Link

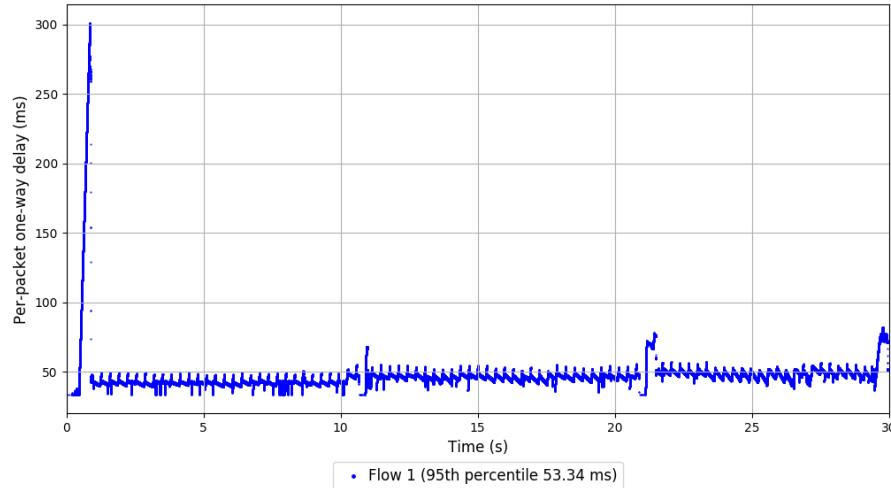
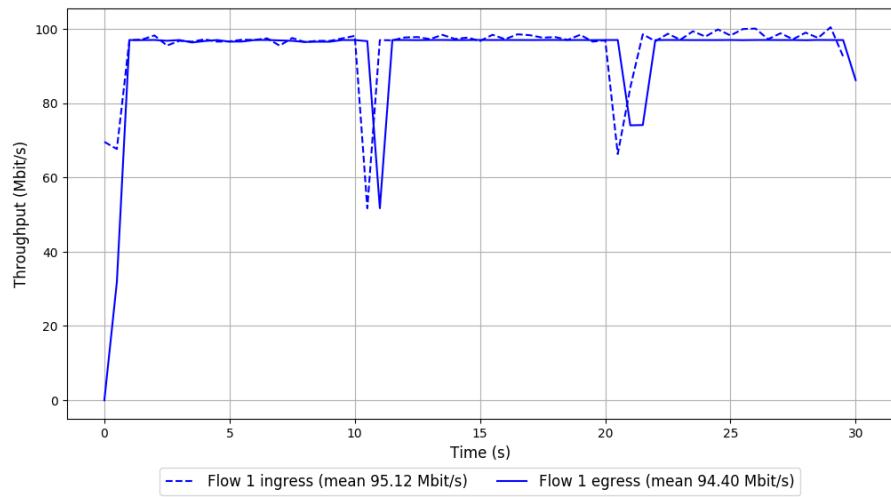


Run 2: Statistics of FillP-Sheep

```
Start at: 2018-09-07 19:59:14
End at: 2018-09-07 19:59:44
Local clock offset: -2.722 ms
Remote clock offset: 0.532 ms

# Below is generated by plot.py at 2018-09-07 21:25:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 53.335 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 53.335 ms
Loss rate: 0.97%
```

Run 2: Report of FillP-Sheep — Data Link

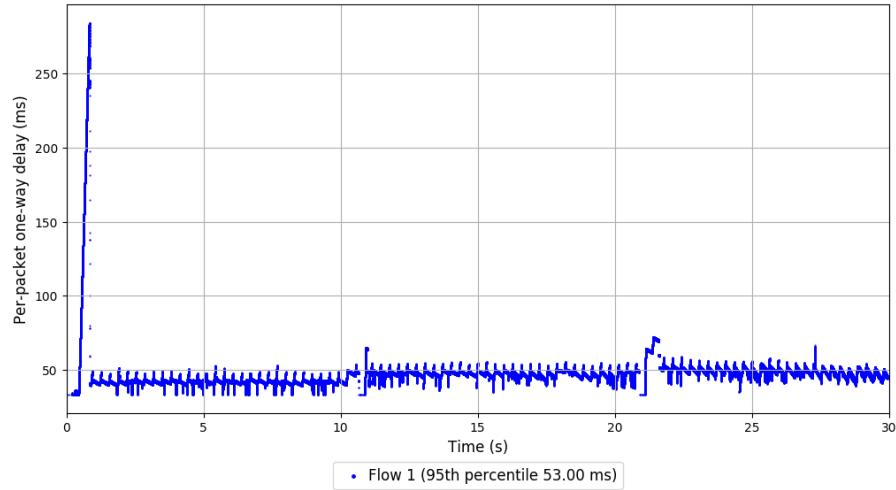
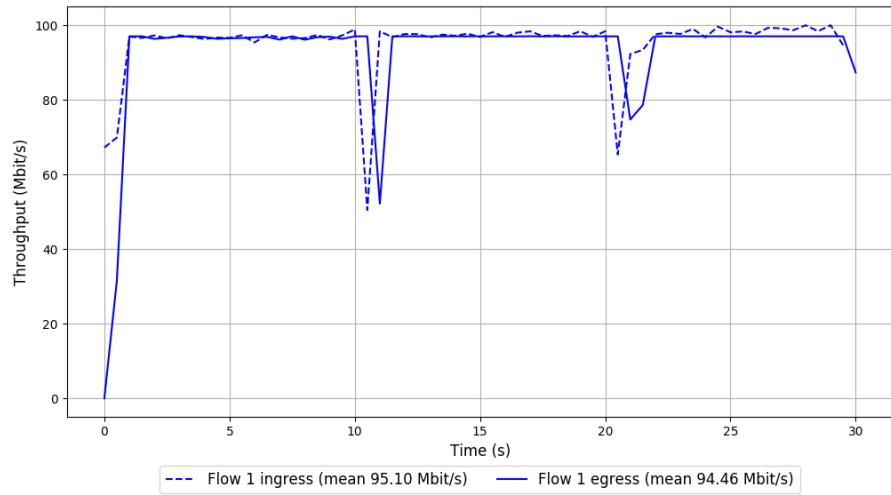


Run 3: Statistics of FillP-Sheep

```
Start at: 2018-09-07 20:23:08
End at: 2018-09-07 20:23:38
Local clock offset: -0.837 ms
Remote clock offset: 1.153 ms

# Below is generated by plot.py at 2018-09-07 21:25:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.46 Mbit/s
95th percentile per-packet one-way delay: 53.001 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 94.46 Mbit/s
95th percentile per-packet one-way delay: 53.001 ms
Loss rate: 0.88%
```

Run 3: Report of FillP-Sheep — Data Link

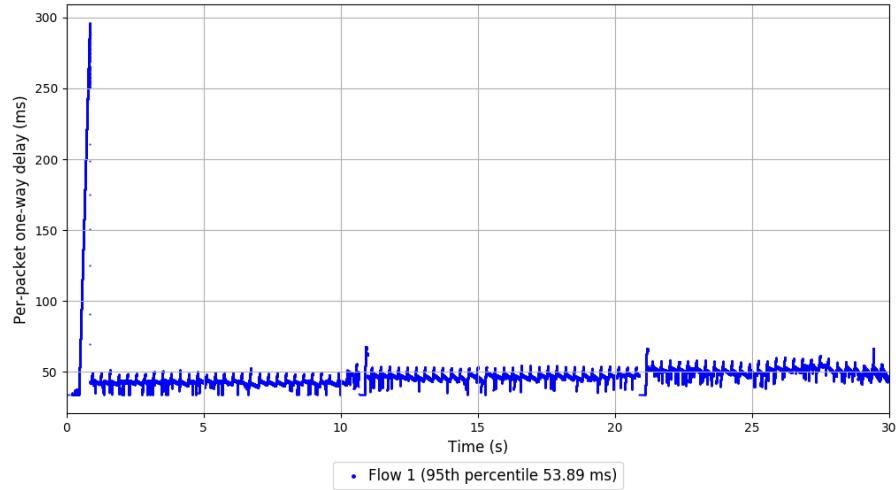
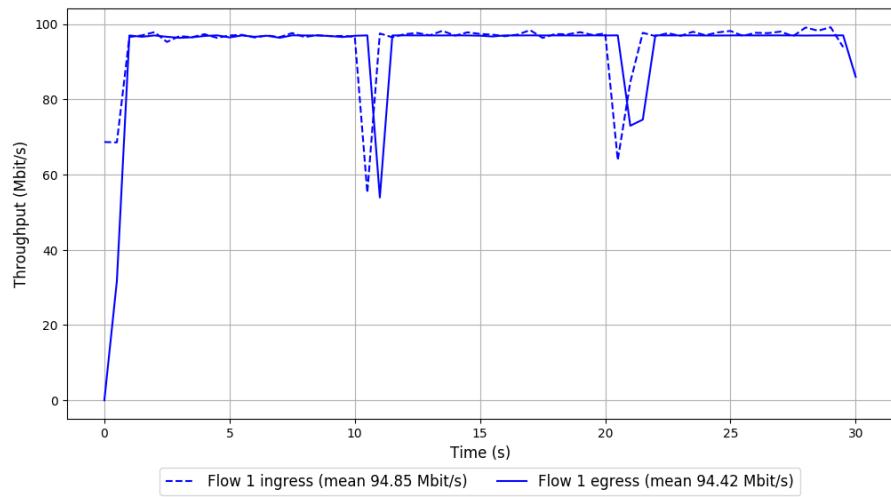


Run 4: Statistics of FillP-Sheep

```
Start at: 2018-09-07 20:47:03
End at: 2018-09-07 20:47:33
Local clock offset: 0.728 ms
Remote clock offset: 1.336 ms

# Below is generated by plot.py at 2018-09-07 21:25:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 53.890 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 53.890 ms
Loss rate: 0.66%
```

Run 4: Report of FillP-Sheep — Data Link

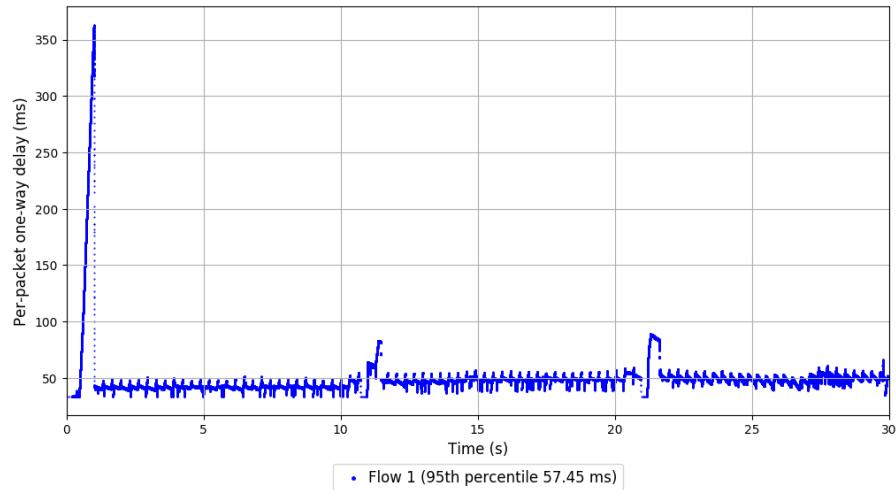
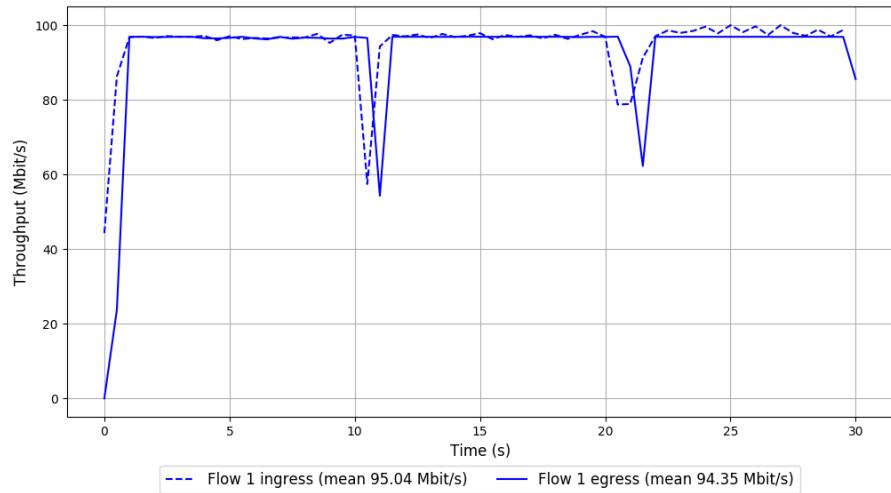


Run 5: Statistics of FillP-Sheep

```
Start at: 2018-09-07 21:10:58
End at: 2018-09-07 21:11:28
Local clock offset: 0.454 ms
Remote clock offset: 1.462 ms

# Below is generated by plot.py at 2018-09-07 21:25:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 57.448 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 57.448 ms
Loss rate: 0.94%
```

Run 5: Report of FillP-Sheep — Data Link

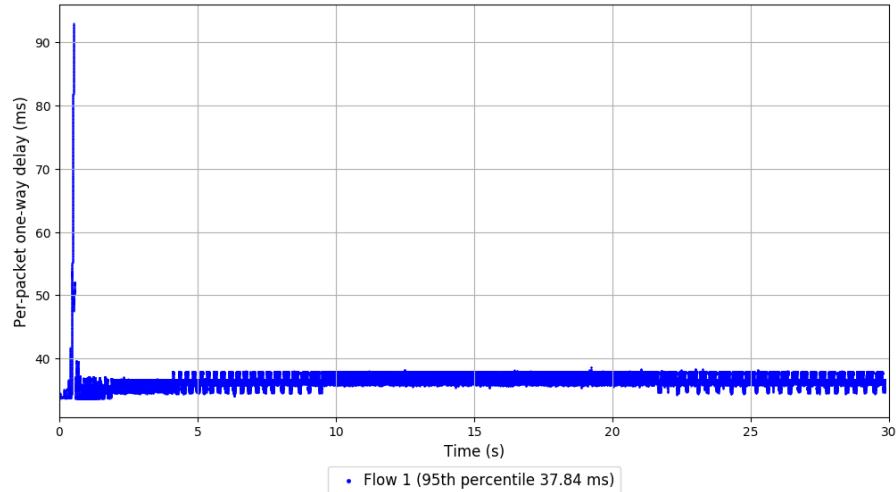
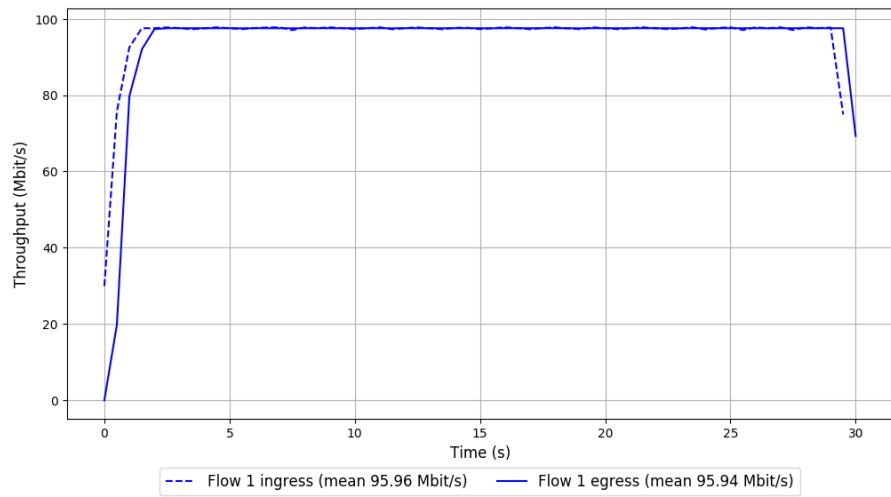


Run 1: Statistics of Indigo

```
Start at: 2018-09-07 19:32:41
End at: 2018-09-07 19:33:11
Local clock offset: -2.71 ms
Remote clock offset: -0.274 ms

# Below is generated by plot.py at 2018-09-07 21:25:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 37.841 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 37.841 ms
Loss rate: 0.23%
```

Run 1: Report of Indigo — Data Link

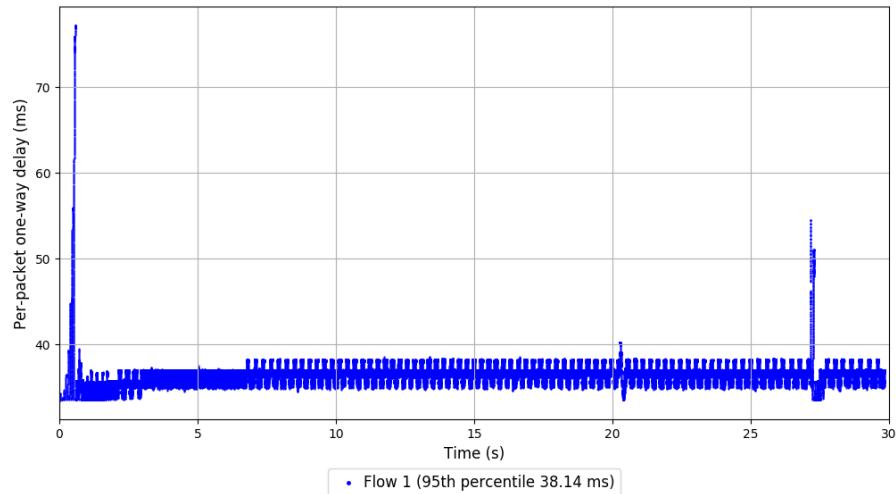
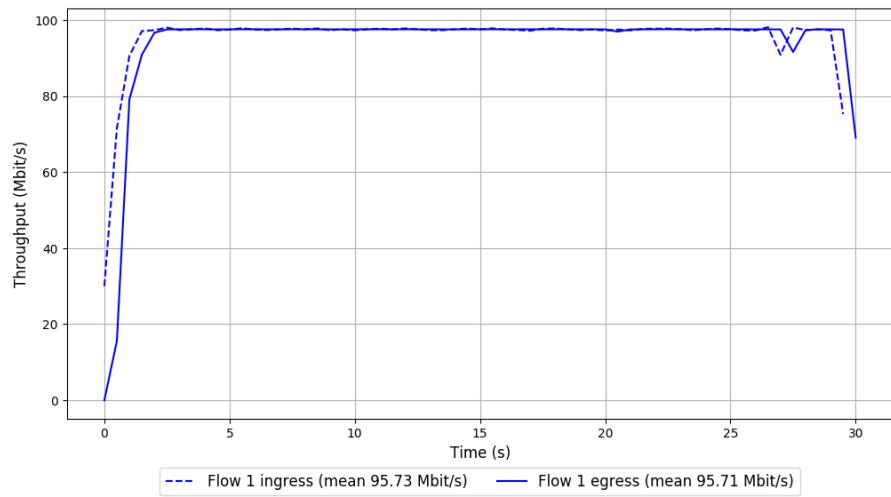


Run 2: Statistics of Indigo

```
Start at: 2018-09-07 19:56:32
End at: 2018-09-07 19:57:02
Local clock offset: -2.727 ms
Remote clock offset: 0.545 ms

# Below is generated by plot.py at 2018-09-07 21:25:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 38.138 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 38.138 ms
Loss rate: 0.23%
```

Run 2: Report of Indigo — Data Link

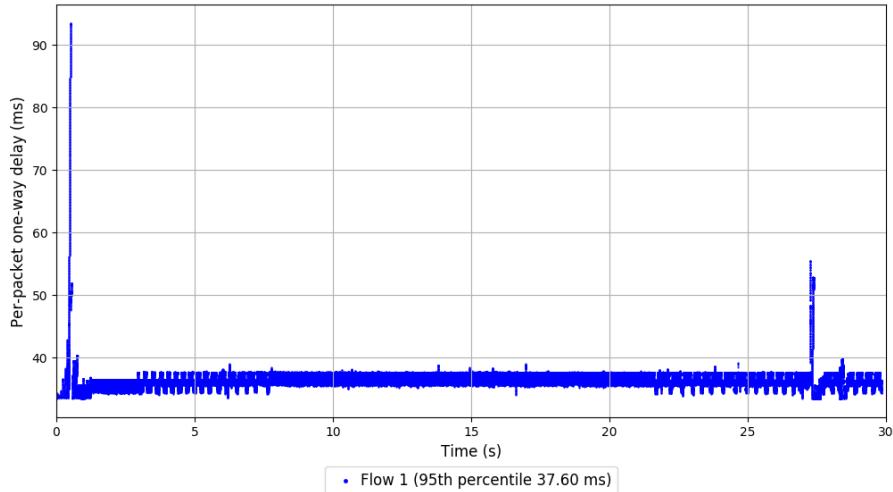
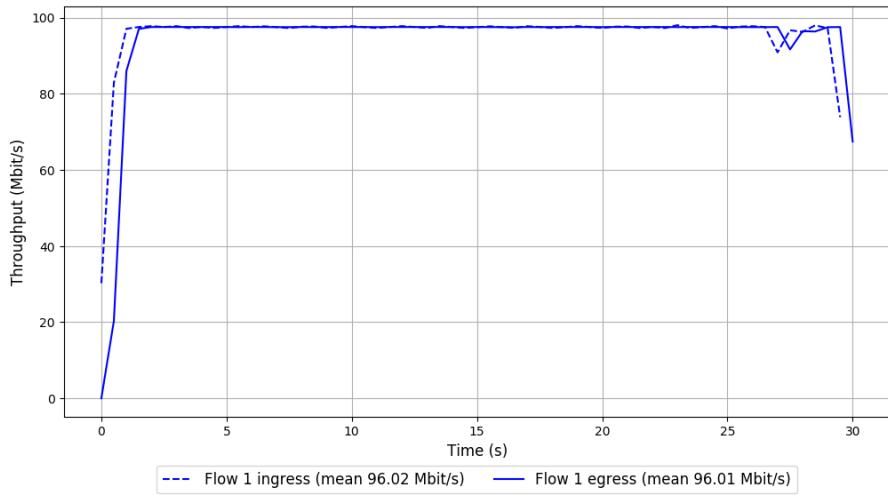


Run 3: Statistics of Indigo

```
Start at: 2018-09-07 20:20:26
End at: 2018-09-07 20:20:56
Local clock offset: -1.294 ms
Remote clock offset: 0.964 ms

# Below is generated by plot.py at 2018-09-07 21:26:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.01 Mbit/s
95th percentile per-packet one-way delay: 37.600 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 96.01 Mbit/s
95th percentile per-packet one-way delay: 37.600 ms
Loss rate: 0.23%
```

Run 3: Report of Indigo — Data Link

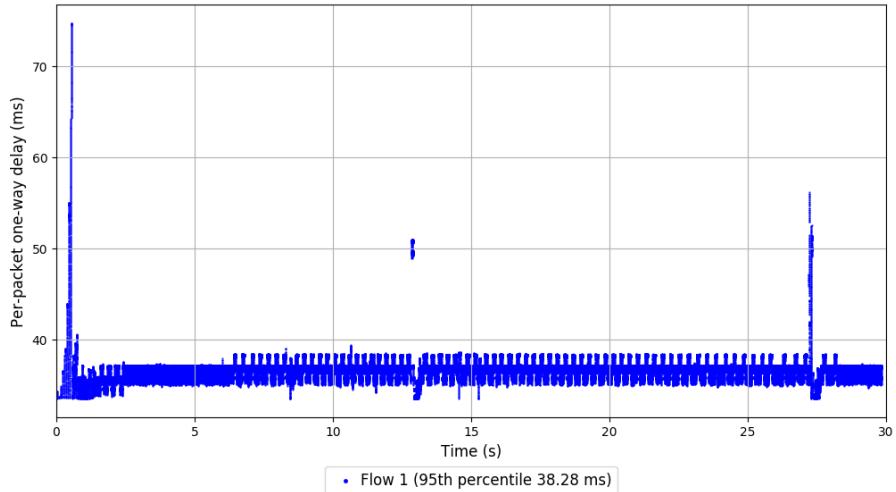
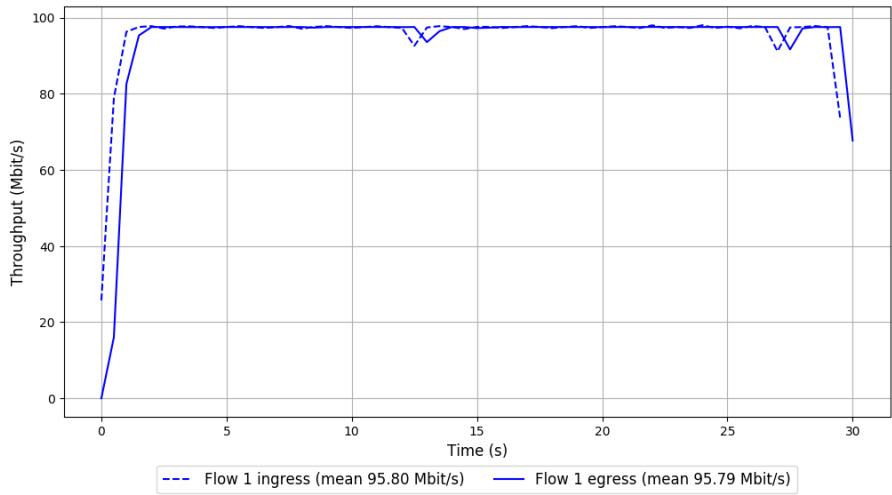


Run 4: Statistics of Indigo

```
Start at: 2018-09-07 20:44:21
End at: 2018-09-07 20:44:51
Local clock offset: 0.75 ms
Remote clock offset: 1.179 ms

# Below is generated by plot.py at 2018-09-07 21:26:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 38.278 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 38.278 ms
Loss rate: 0.23%
```

Run 4: Report of Indigo — Data Link

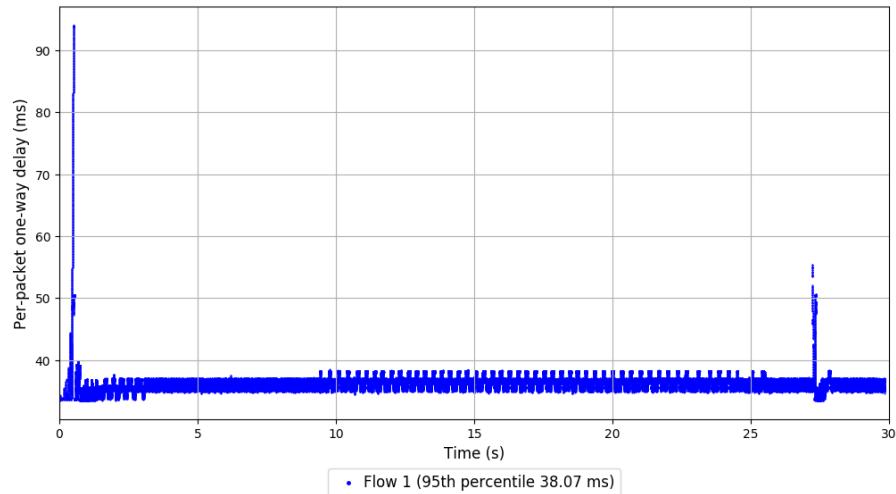
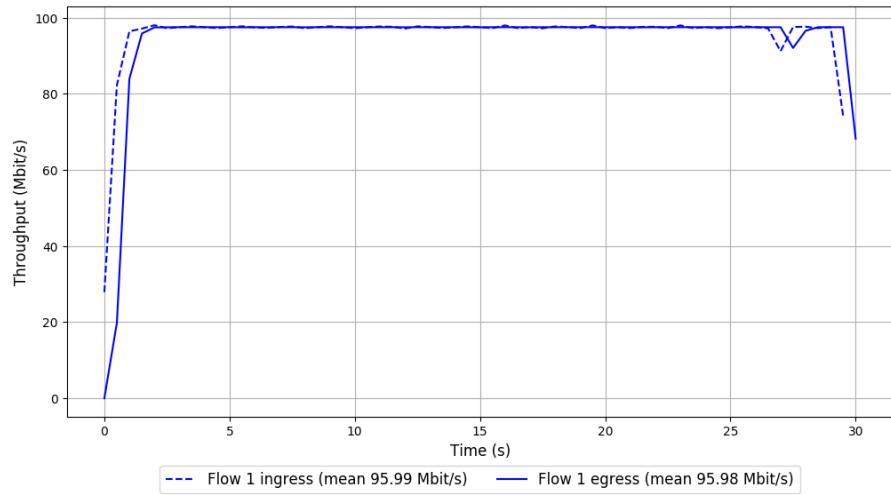


Run 5: Statistics of Indigo

```
Start at: 2018-09-07 21:08:16
End at: 2018-09-07 21:08:46
Local clock offset: 0.398 ms
Remote clock offset: 1.333 ms

# Below is generated by plot.py at 2018-09-07 21:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.98 Mbit/s
95th percentile per-packet one-way delay: 38.068 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 95.98 Mbit/s
95th percentile per-packet one-way delay: 38.068 ms
Loss rate: 0.22%
```

Run 5: Report of Indigo — Data Link

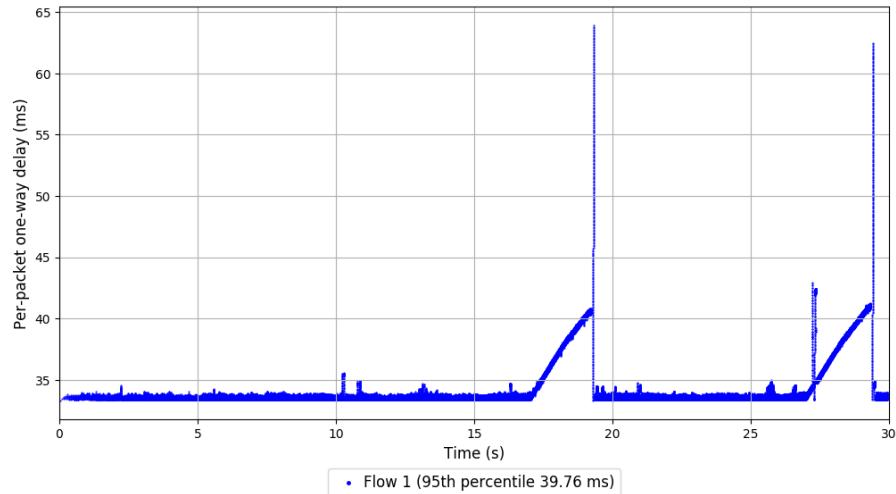
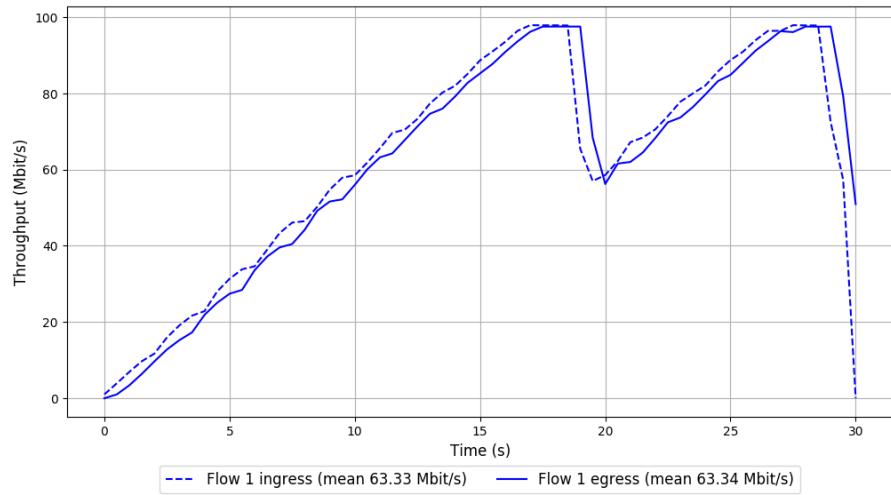


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-09-07 19:27:21
End at: 2018-09-07 19:27:51
Local clock offset: -2.88 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-09-07 21:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.34 Mbit/s
95th percentile per-packet one-way delay: 39.756 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.34 Mbit/s
95th percentile per-packet one-way delay: 39.756 ms
Loss rate: 0.20%
```

Run 1: Report of LEDBAT — Data Link

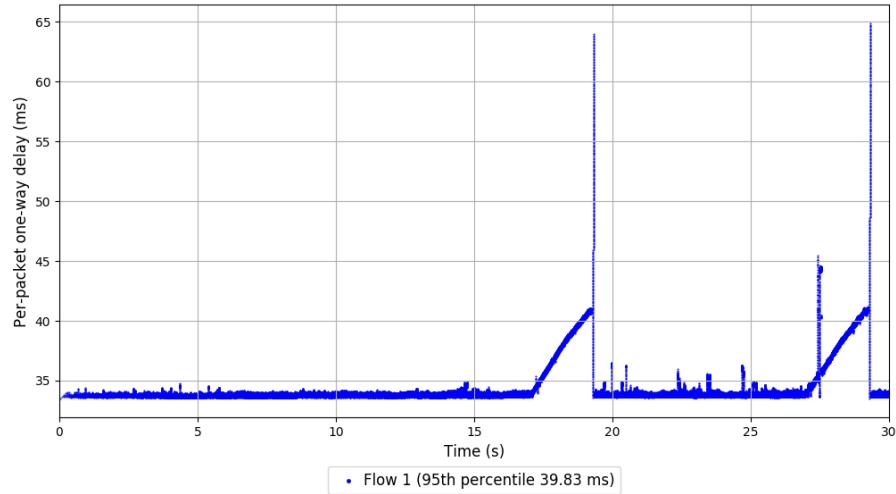
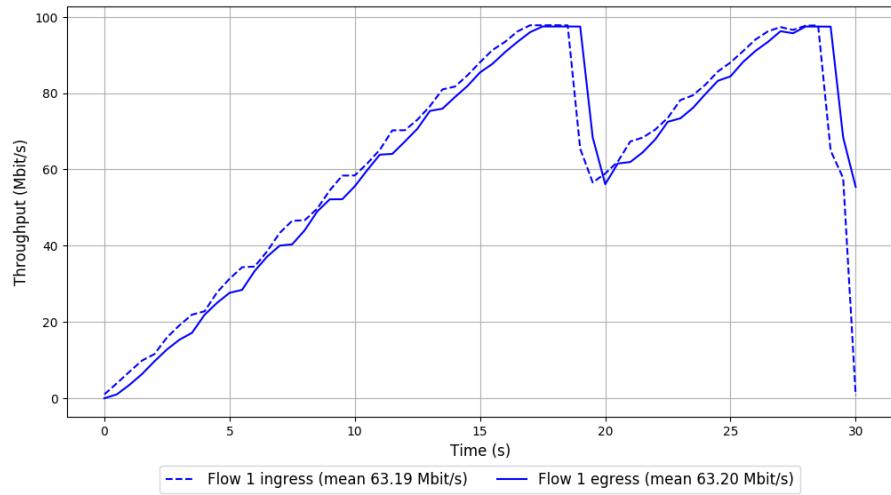


Run 2: Statistics of LEDBAT

```
Start at: 2018-09-07 19:51:12
End at: 2018-09-07 19:51:42
Local clock offset: -2.682 ms
Remote clock offset: 0.332 ms

# Below is generated by plot.py at 2018-09-07 21:26:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.20 Mbit/s
95th percentile per-packet one-way delay: 39.831 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.20 Mbit/s
95th percentile per-packet one-way delay: 39.831 ms
Loss rate: 0.20%
```

Run 2: Report of LEDBAT — Data Link

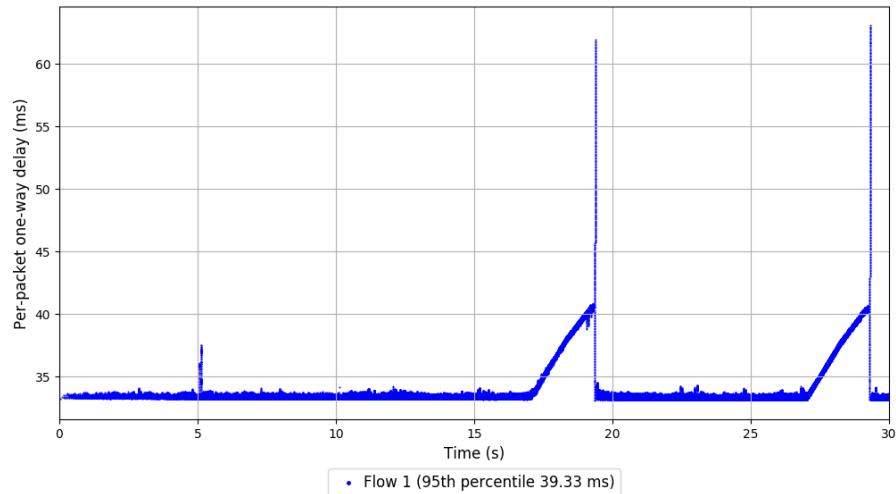
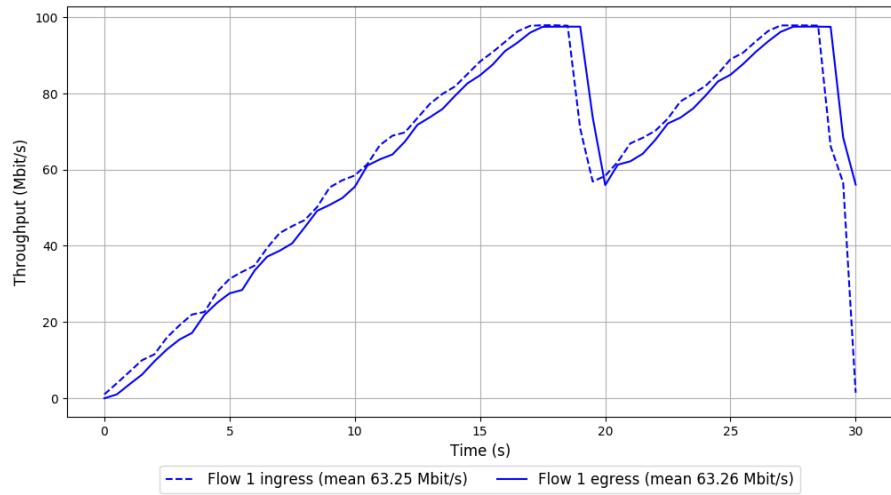


Run 3: Statistics of LEDBAT

```
Start at: 2018-09-07 20:15:06
End at: 2018-09-07 20:15:36
Local clock offset: -2.789 ms
Remote clock offset: 0.864 ms

# Below is generated by plot.py at 2018-09-07 21:26:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.26 Mbit/s
95th percentile per-packet one-way delay: 39.328 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.26 Mbit/s
95th percentile per-packet one-way delay: 39.328 ms
Loss rate: 0.20%
```

Run 3: Report of LEDBAT — Data Link

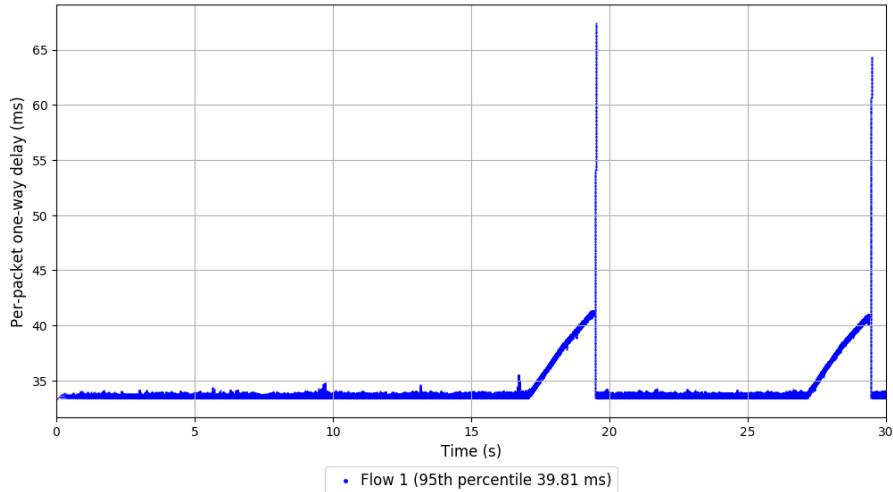
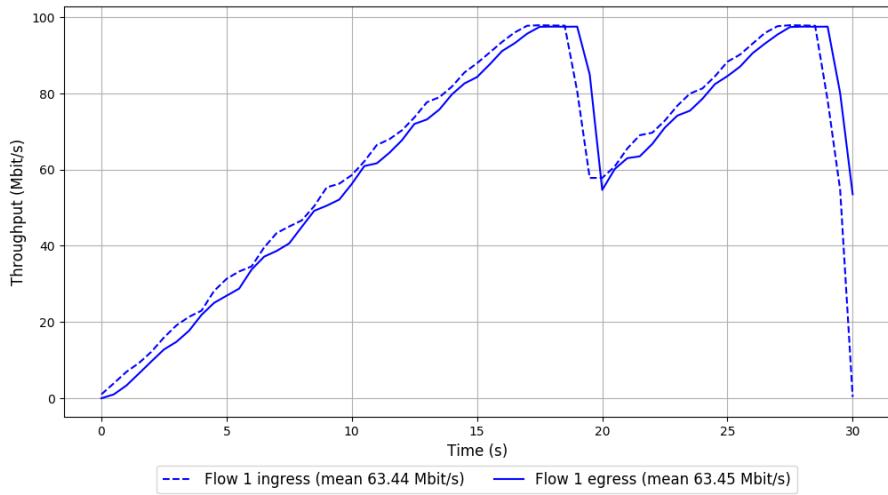


Run 4: Statistics of LEDBAT

```
Start at: 2018-09-07 20:38:59
End at: 2018-09-07 20:39:29
Local clock offset: 0.444 ms
Remote clock offset: 1.279 ms

# Below is generated by plot.py at 2018-09-07 21:26:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.45 Mbit/s
95th percentile per-packet one-way delay: 39.813 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 63.45 Mbit/s
95th percentile per-packet one-way delay: 39.813 ms
Loss rate: 0.19%
```

Run 4: Report of LEDBAT — Data Link

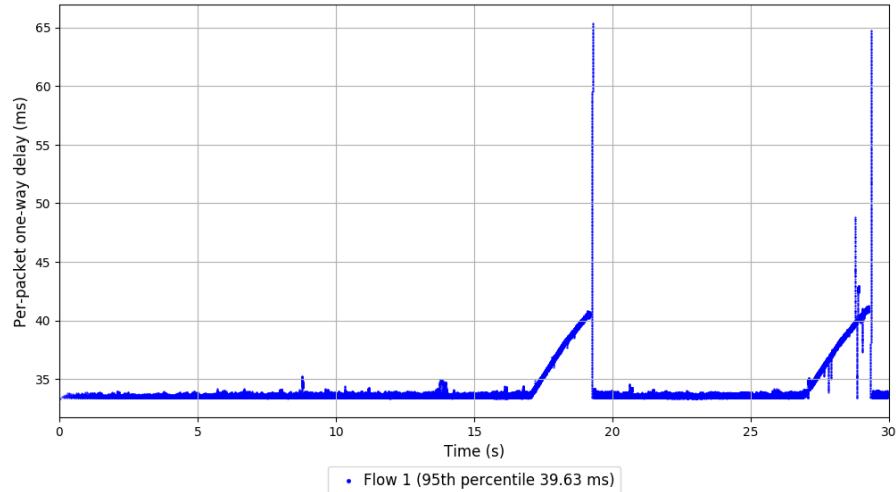
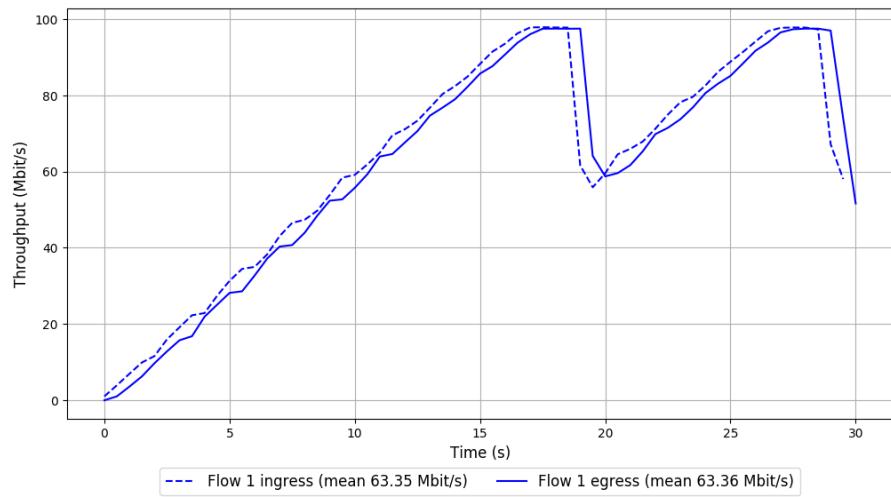


Run 5: Statistics of LEDBAT

```
Start at: 2018-09-07 21:02:54
End at: 2018-09-07 21:03:24
Local clock offset: 0.29 ms
Remote clock offset: 1.341 ms

# Below is generated by plot.py at 2018-09-07 21:26:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.36 Mbit/s
95th percentile per-packet one-way delay: 39.635 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.36 Mbit/s
95th percentile per-packet one-way delay: 39.635 ms
Loss rate: 0.20%
```

Run 5: Report of LEDBAT — Data Link

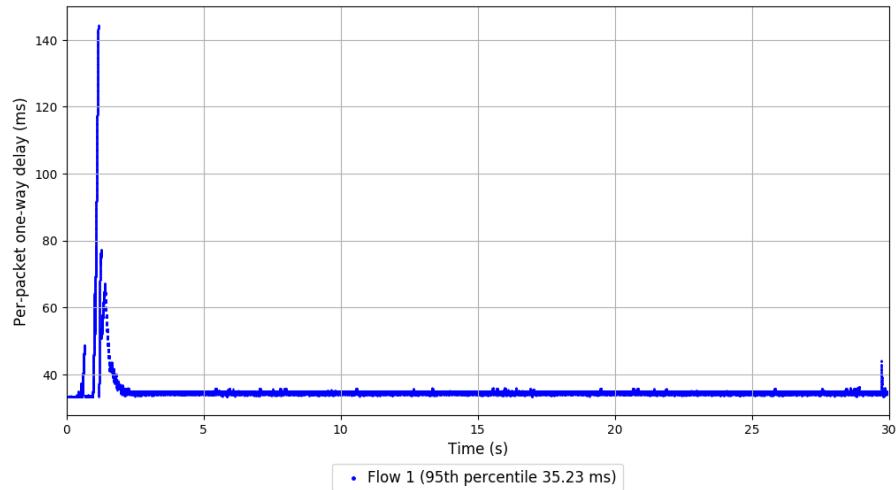
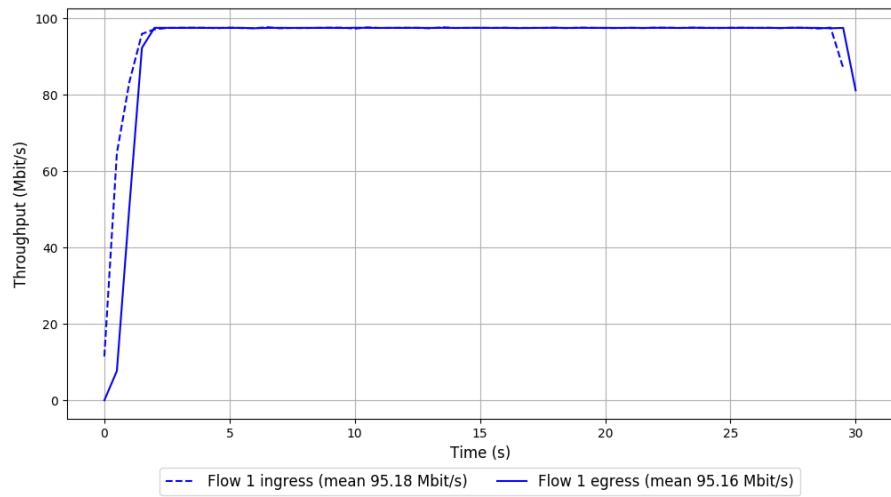


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-09-07 19:26:02
End at: 2018-09-07 19:26:32
Local clock offset: -3.046 ms
Remote clock offset: -0.166 ms

# Below is generated by plot.py at 2018-09-07 21:27:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.16 Mbit/s
95th percentile per-packet one-way delay: 35.234 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.16 Mbit/s
95th percentile per-packet one-way delay: 35.234 ms
Loss rate: 0.23%
```

Run 1: Report of Indigo-Muses — Data Link

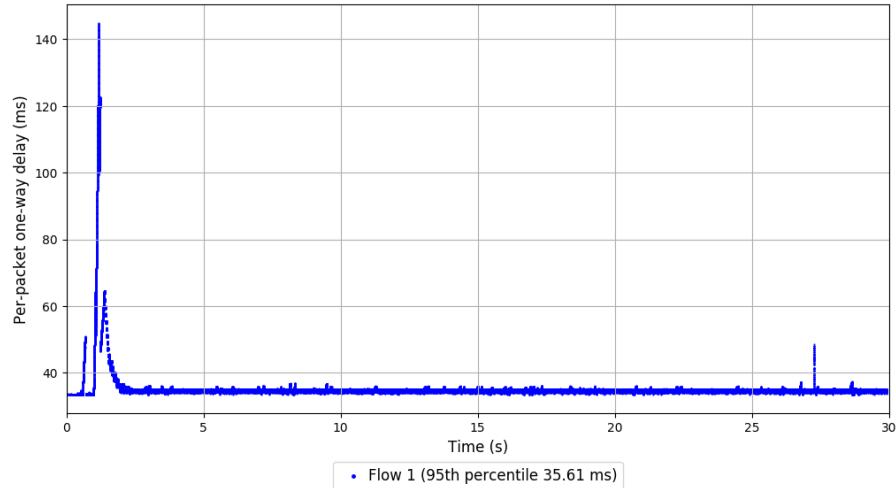
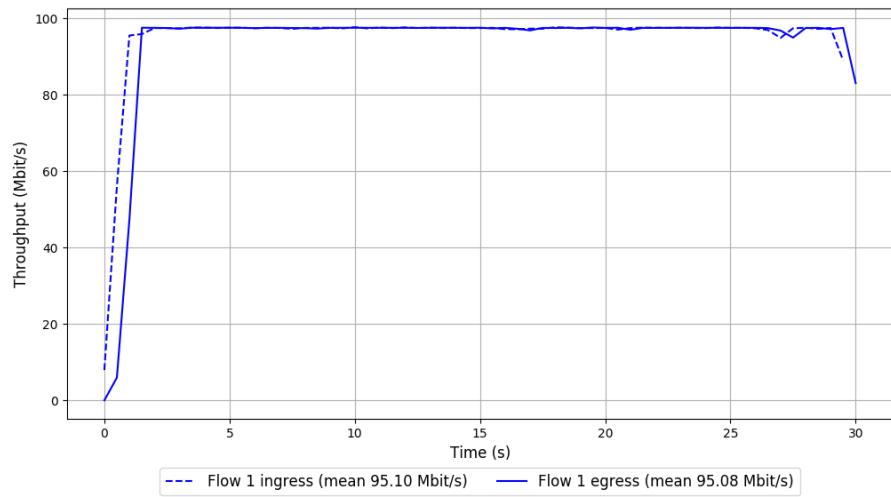


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-09-07 19:49:52
End at: 2018-09-07 19:50:22
Local clock offset: -2.668 ms
Remote clock offset: 0.378 ms

# Below is generated by plot.py at 2018-09-07 21:27:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.08 Mbit/s
95th percentile per-packet one-way delay: 35.610 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.08 Mbit/s
95th percentile per-packet one-way delay: 35.610 ms
Loss rate: 0.23%
```

Run 2: Report of Indigo-Muses — Data Link

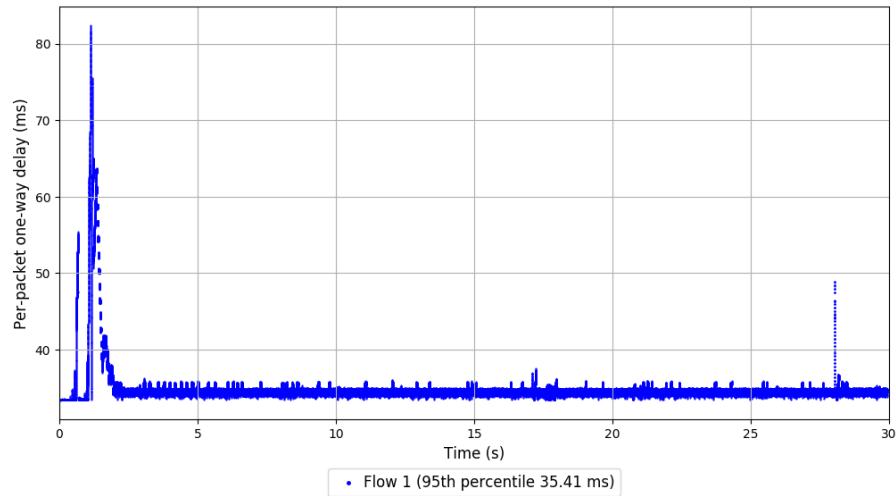
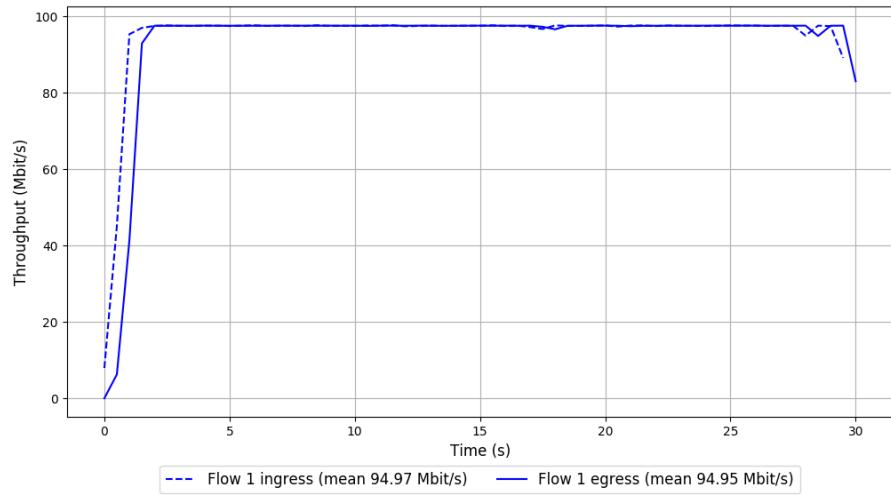


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-09-07 20:13:47
End at: 2018-09-07 20:14:17
Local clock offset: -2.809 ms
Remote clock offset: 0.807 ms

# Below is generated by plot.py at 2018-09-07 21:27:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.95 Mbit/s
95th percentile per-packet one-way delay: 35.410 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 94.95 Mbit/s
95th percentile per-packet one-way delay: 35.410 ms
Loss rate: 0.23%
```

Run 3: Report of Indigo-Muses — Data Link

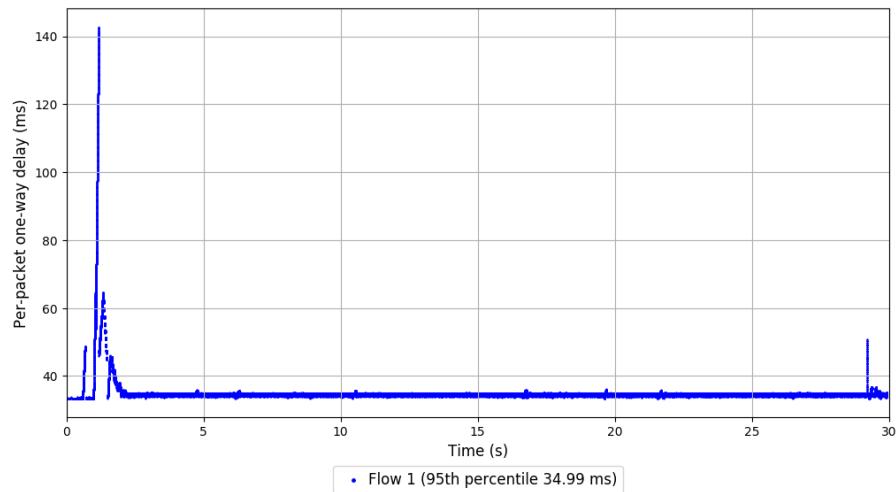
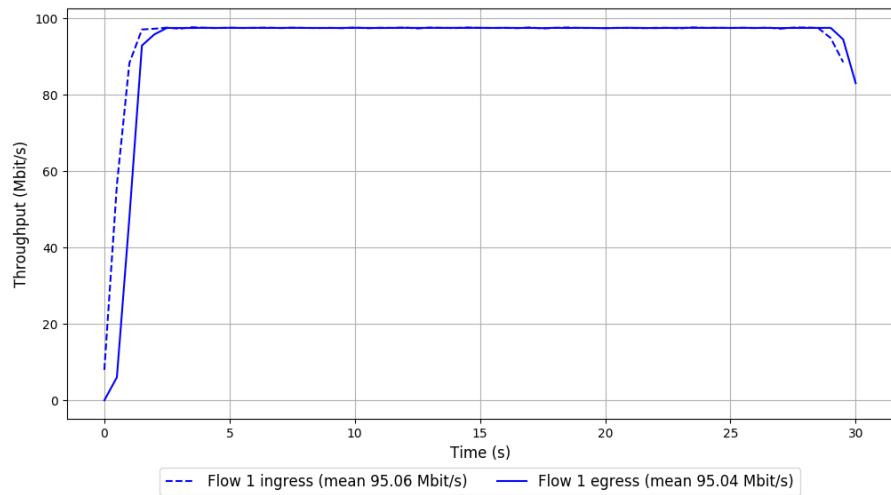


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-09-07 20:37:39
End at: 2018-09-07 20:38:09
Local clock offset: 0.356 ms
Remote clock offset: 1.204 ms

# Below is generated by plot.py at 2018-09-07 21:27:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.04 Mbit/s
95th percentile per-packet one-way delay: 34.992 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.04 Mbit/s
95th percentile per-packet one-way delay: 34.992 ms
Loss rate: 0.23%
```

Run 4: Report of Indigo-Muses — Data Link

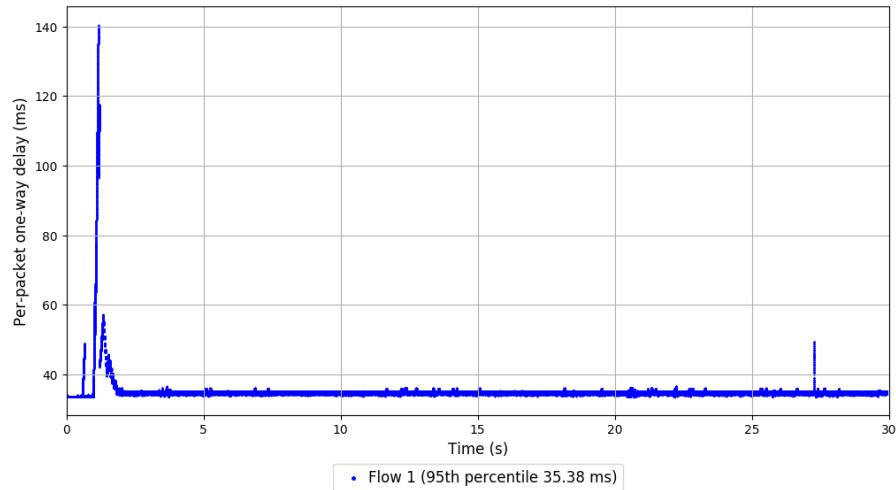
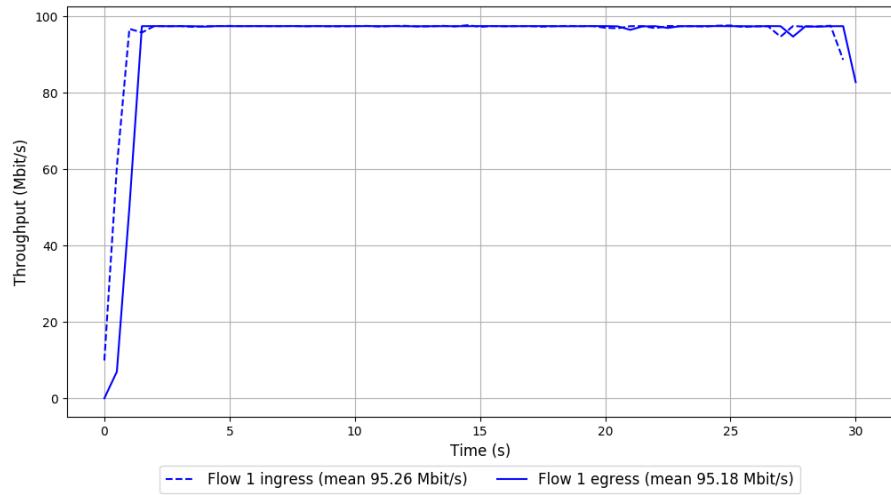


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-09-07 21:01:34
End at: 2018-09-07 21:02:04
Local clock offset: 0.37 ms
Remote clock offset: 1.233 ms

# Below is generated by plot.py at 2018-09-07 21:27:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.18 Mbit/s
95th percentile per-packet one-way delay: 35.376 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 95.18 Mbit/s
95th percentile per-packet one-way delay: 35.376 ms
Loss rate: 0.30%
```

Run 5: Report of Indigo-Muses — Data Link

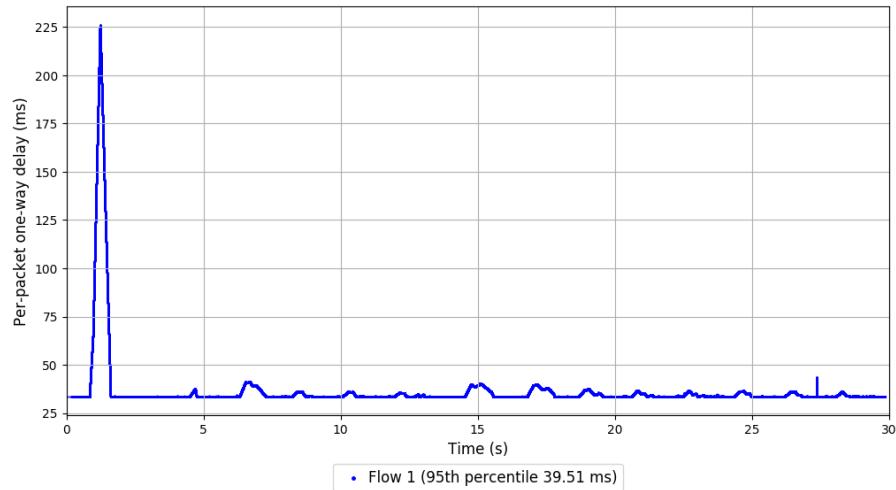
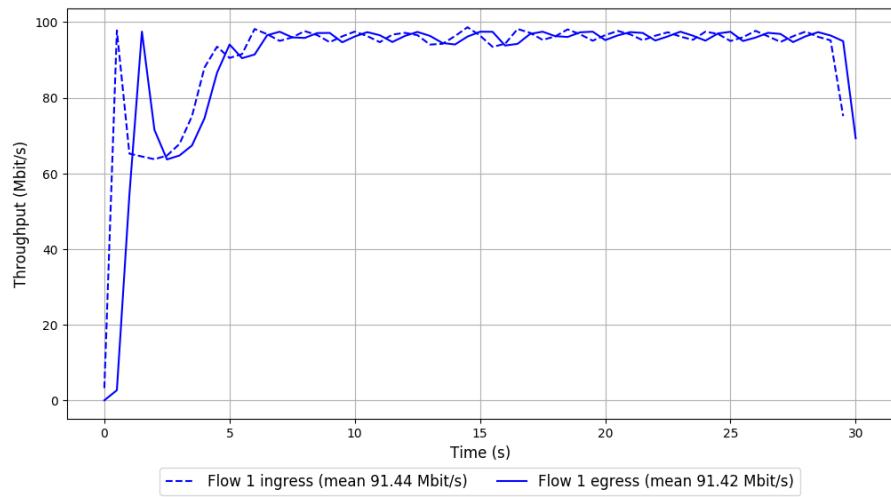


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-09-07 19:22:07
End at: 2018-09-07 19:22:37
Local clock offset: -3.196 ms
Remote clock offset: -0.455 ms

# Below is generated by plot.py at 2018-09-07 21:27:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.42 Mbit/s
95th percentile per-packet one-way delay: 39.508 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 91.42 Mbit/s
95th percentile per-packet one-way delay: 39.508 ms
Loss rate: 0.23%
```

Run 1: Report of PCC-Allegro — Data Link

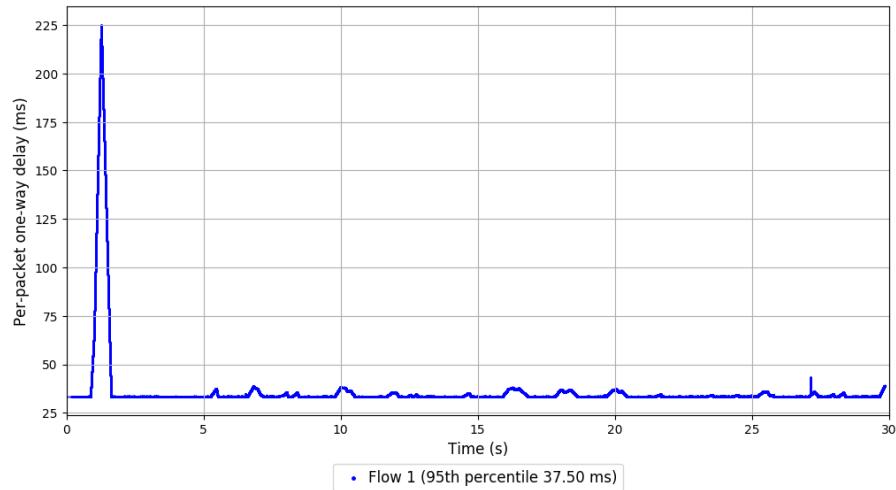
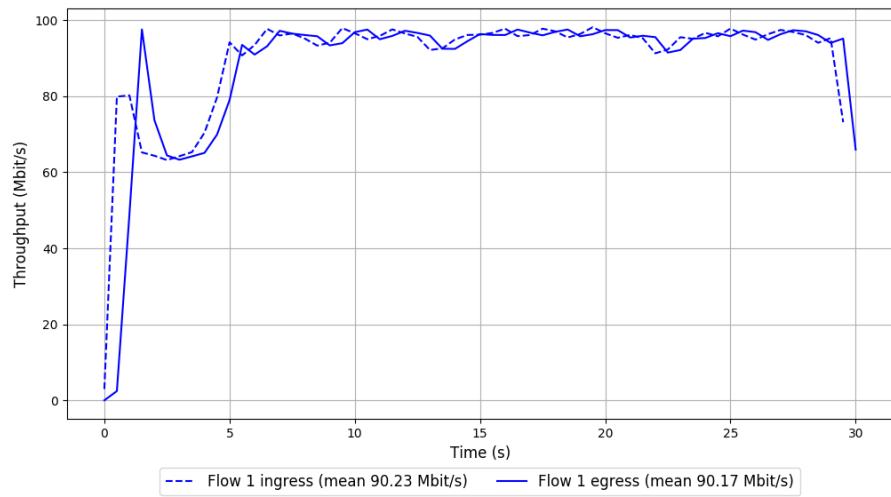


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-09-07 19:45:57
End at: 2018-09-07 19:46:27
Local clock offset: -2.616 ms
Remote clock offset: 0.245 ms

# Below is generated by plot.py at 2018-09-07 21:27:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.17 Mbit/s
95th percentile per-packet one-way delay: 37.498 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 90.17 Mbit/s
95th percentile per-packet one-way delay: 37.498 ms
Loss rate: 0.28%
```

Run 2: Report of PCC-Allegro — Data Link

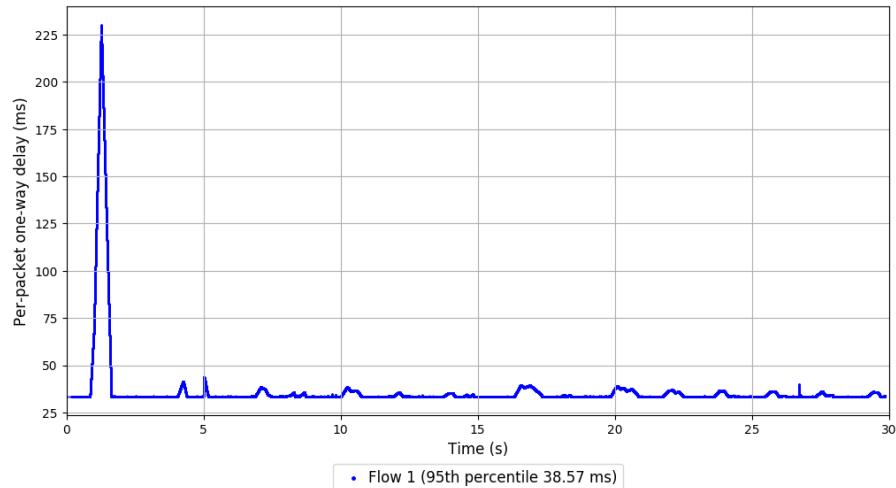
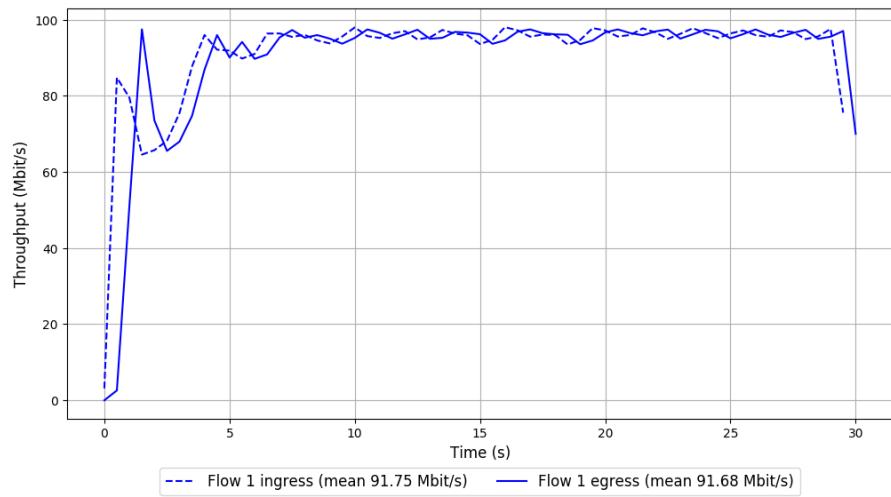


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-09-07 20:09:52
End at: 2018-09-07 20:10:22
Local clock offset: -2.698 ms
Remote clock offset: 0.722 ms

# Below is generated by plot.py at 2018-09-07 21:27:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 38.569 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 38.569 ms
Loss rate: 0.28%
```

Run 3: Report of PCC-Allegro — Data Link

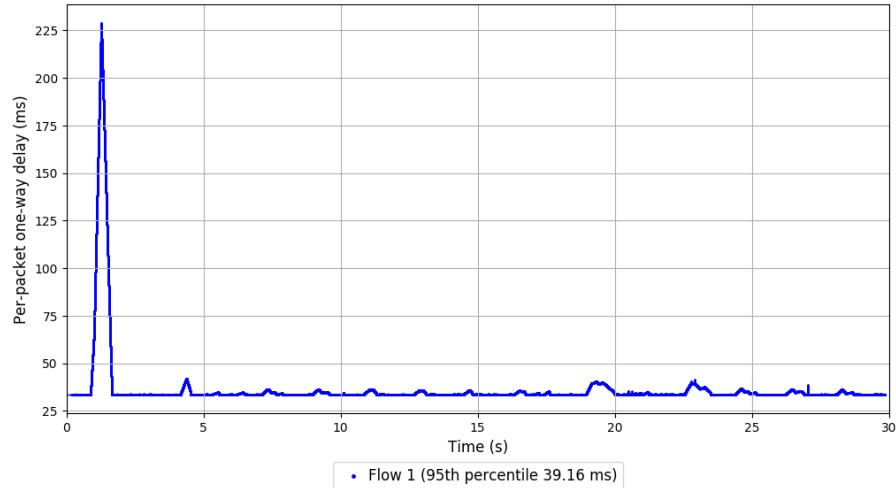
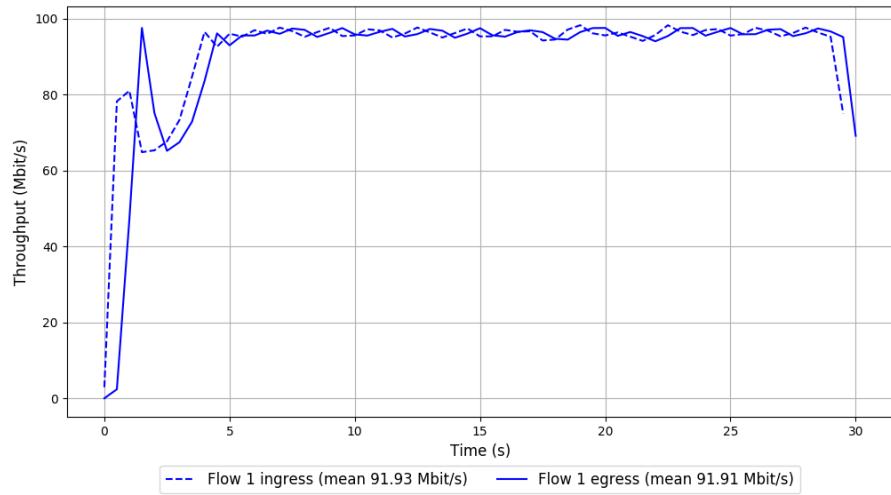


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-09-07 20:33:43
End at: 2018-09-07 20:34:13
Local clock offset: 0.114 ms
Remote clock offset: 1.008 ms

# Below is generated by plot.py at 2018-09-07 21:28:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.91 Mbit/s
95th percentile per-packet one-way delay: 39.157 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 91.91 Mbit/s
95th percentile per-packet one-way delay: 39.157 ms
Loss rate: 0.23%
```

Run 4: Report of PCC-Allegro — Data Link

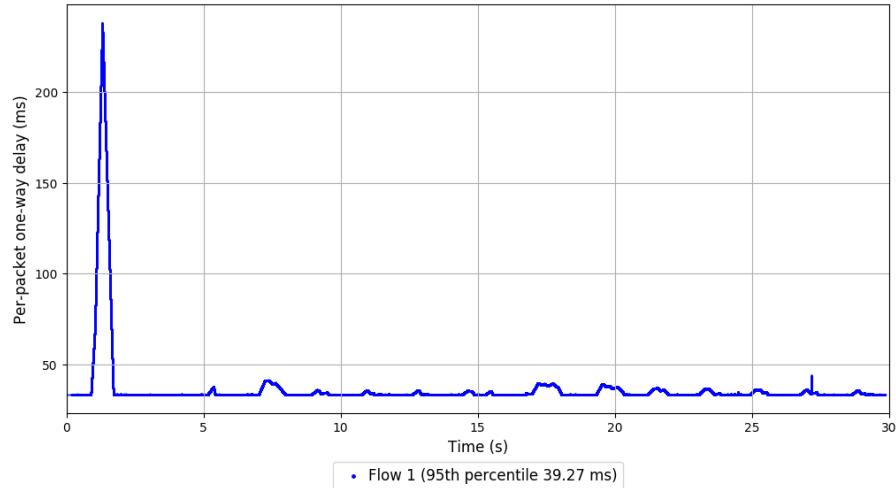
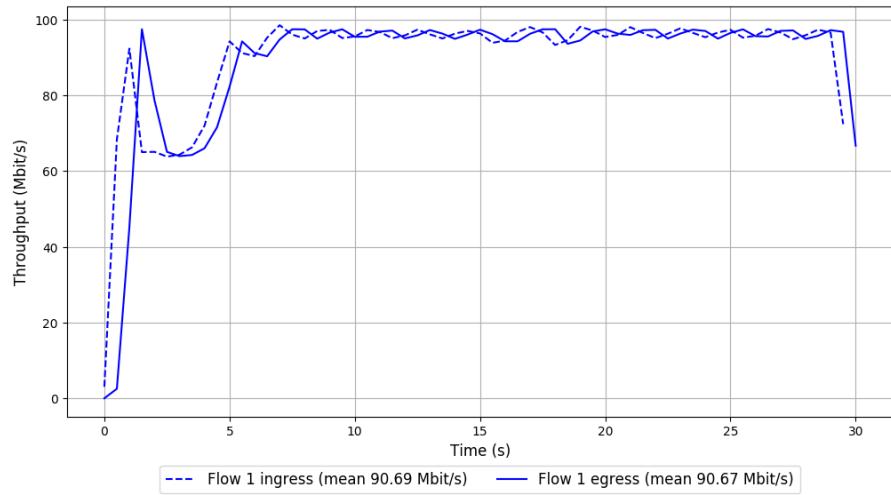


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-09-07 20:57:37
End at: 2018-09-07 20:58:07
Local clock offset: 0.29 ms
Remote clock offset: 1.254 ms

# Below is generated by plot.py at 2018-09-07 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.67 Mbit/s
95th percentile per-packet one-way delay: 39.272 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 90.67 Mbit/s
95th percentile per-packet one-way delay: 39.272 ms
Loss rate: 0.23%
```

Run 5: Report of PCC-Allegro — Data Link

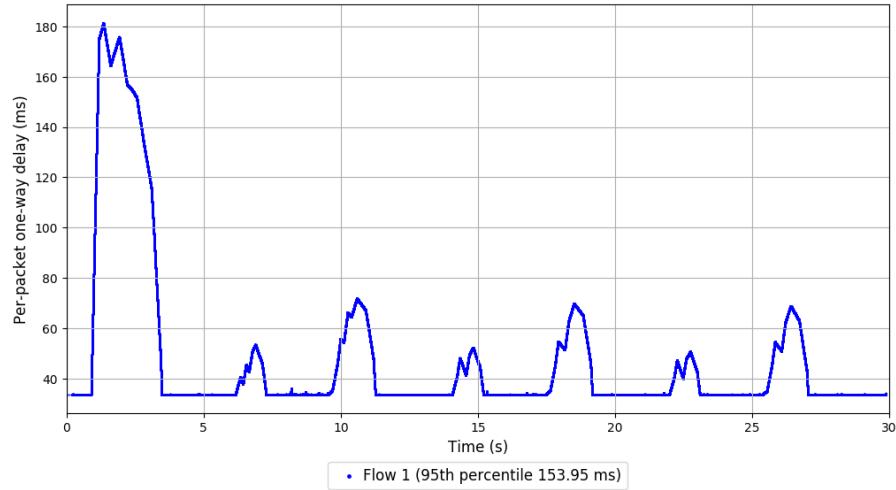
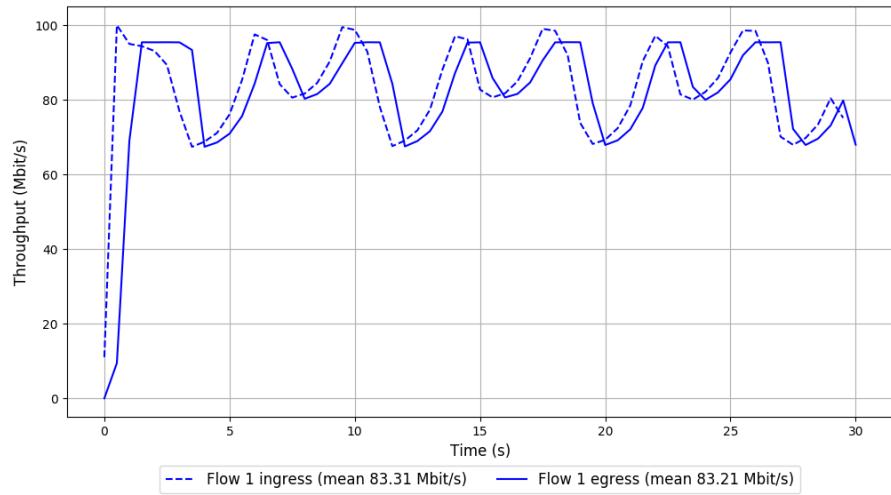


Run 1: Statistics of PCC-Expr

```
Start at: 2018-09-07 19:20:45
End at: 2018-09-07 19:21:15
Local clock offset: -3.32 ms
Remote clock offset: -0.509 ms

# Below is generated by plot.py at 2018-09-07 21:29:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.21 Mbit/s
95th percentile per-packet one-way delay: 153.953 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 83.21 Mbit/s
95th percentile per-packet one-way delay: 153.953 ms
Loss rate: 0.33%
```

Run 1: Report of PCC-Expr — Data Link

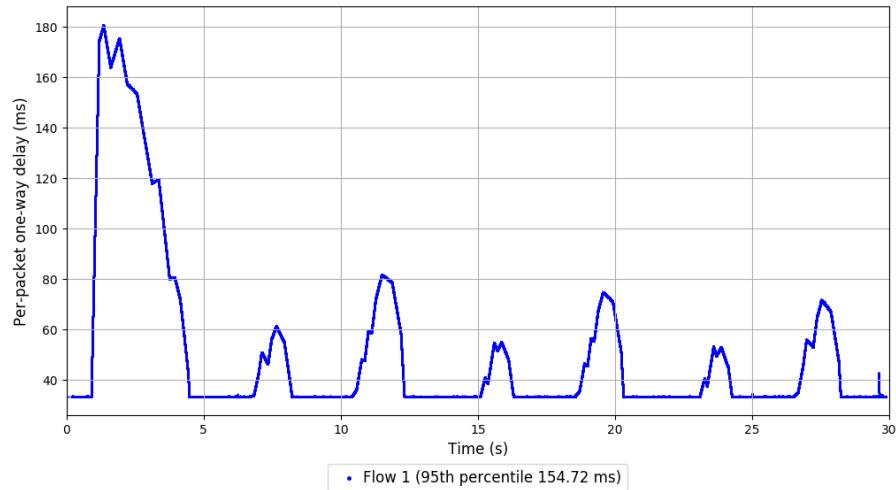
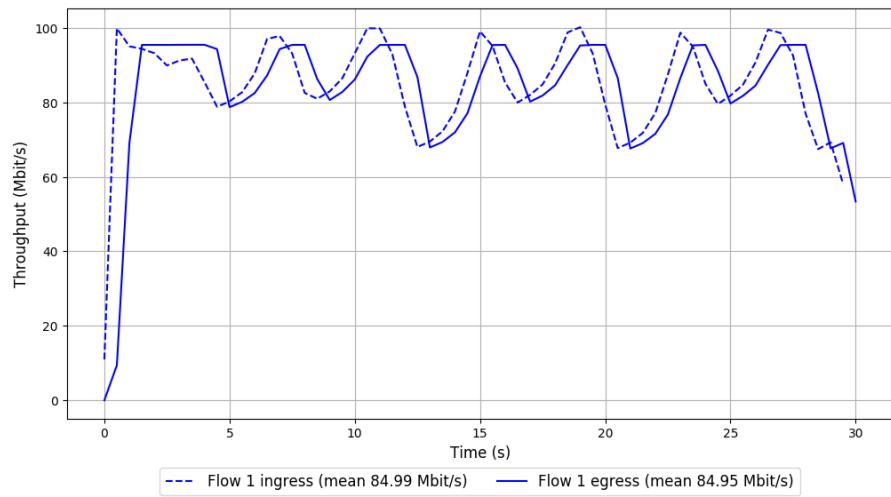


Run 2: Statistics of PCC-Expr

```
Start at: 2018-09-07 19:44:35
End at: 2018-09-07 19:45:05
Local clock offset: -2.61 ms
Remote clock offset: 0.213 ms

# Below is generated by plot.py at 2018-09-07 21:29:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.95 Mbit/s
95th percentile per-packet one-way delay: 154.722 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 84.95 Mbit/s
95th percentile per-packet one-way delay: 154.722 ms
Loss rate: 0.26%
```

Run 2: Report of PCC-Expr — Data Link

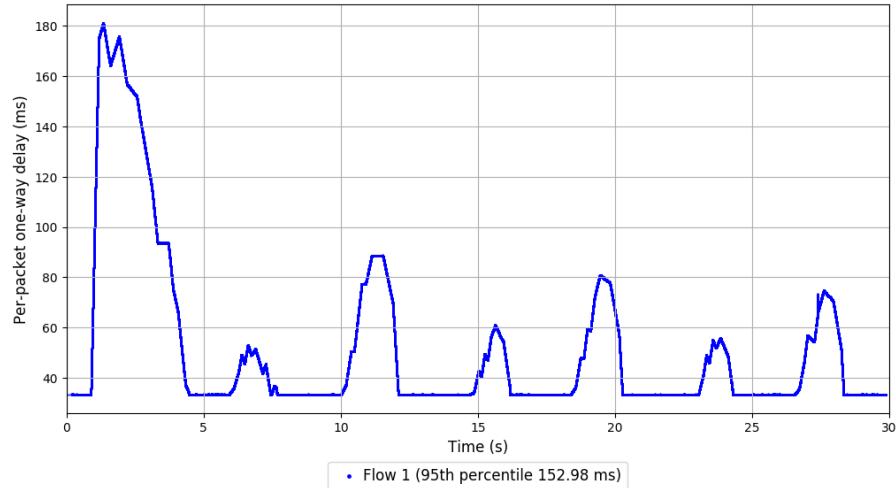
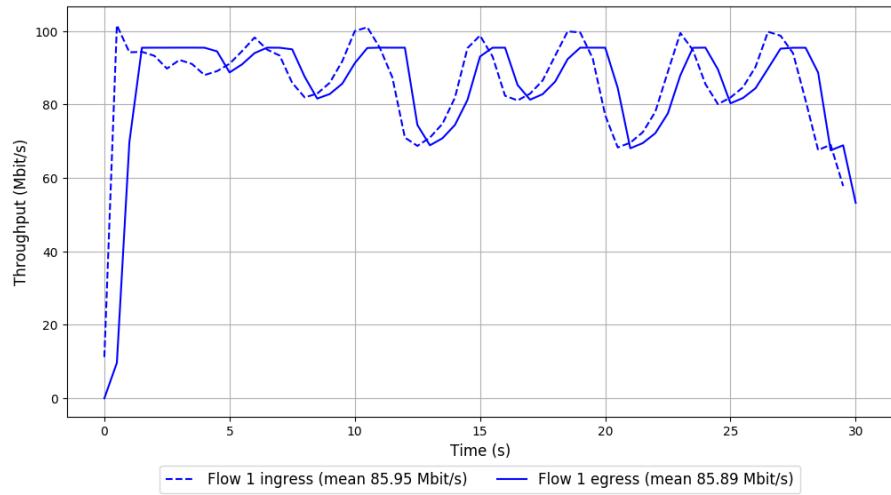


Run 3: Statistics of PCC-Expr

```
Start at: 2018-09-07 20:08:30
End at: 2018-09-07 20:09:00
Local clock offset: -2.7 ms
Remote clock offset: 0.725 ms

# Below is generated by plot.py at 2018-09-07 21:29:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.89 Mbit/s
95th percentile per-packet one-way delay: 152.979 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 85.89 Mbit/s
95th percentile per-packet one-way delay: 152.979 ms
Loss rate: 0.29%
```

Run 3: Report of PCC-Expr — Data Link

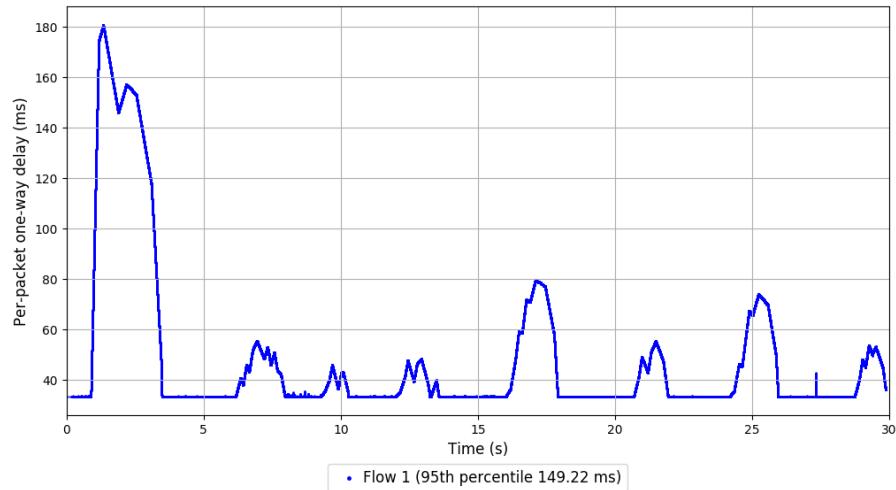
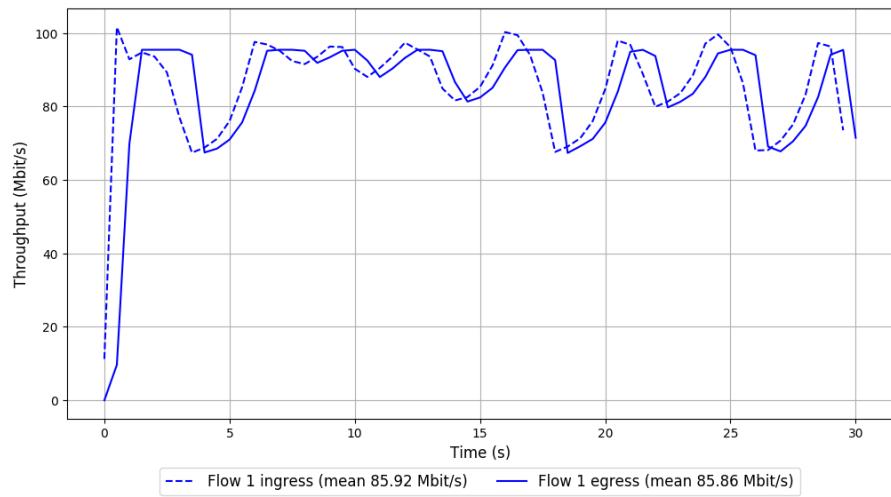


Run 4: Statistics of PCC-Expr

```
Start at: 2018-09-07 20:32:21
End at: 2018-09-07 20:32:51
Local clock offset: 0.003 ms
Remote clock offset: 1.208 ms

# Below is generated by plot.py at 2018-09-07 21:29:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.86 Mbit/s
95th percentile per-packet one-way delay: 149.219 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 85.86 Mbit/s
95th percentile per-packet one-way delay: 149.219 ms
Loss rate: 0.28%
```

Run 4: Report of PCC-Expr — Data Link

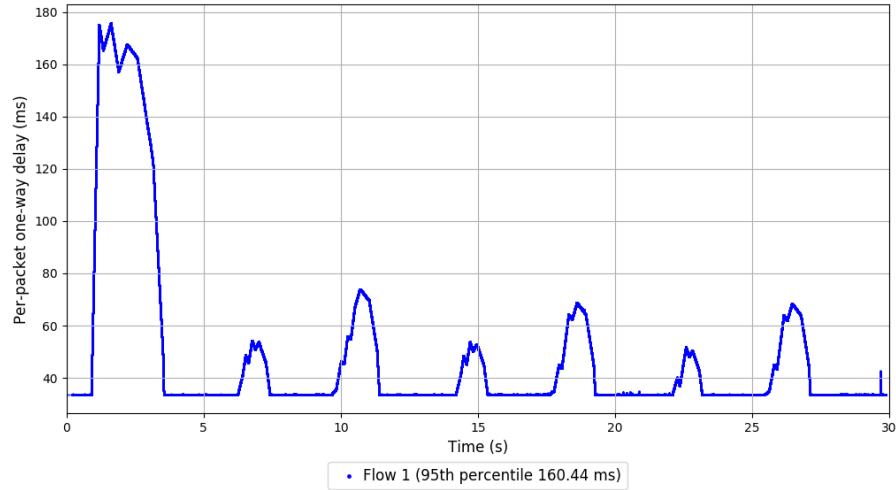
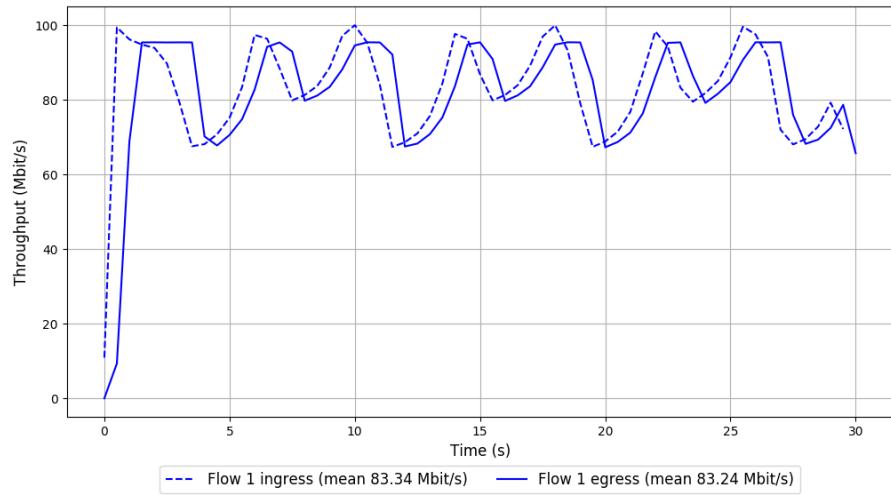


Run 5: Statistics of PCC-Expr

```
Start at: 2018-09-07 20:56:15
End at: 2018-09-07 20:56:45
Local clock offset: 0.29 ms
Remote clock offset: 1.233 ms

# Below is generated by plot.py at 2018-09-07 21:29:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.24 Mbit/s
95th percentile per-packet one-way delay: 160.436 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 83.24 Mbit/s
95th percentile per-packet one-way delay: 160.436 ms
Loss rate: 0.32%
```

Run 5: Report of PCC-Expr — Data Link

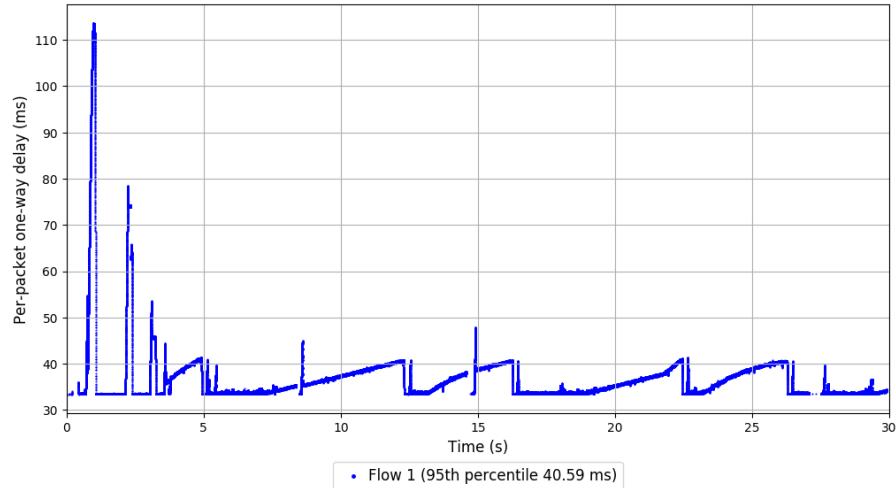
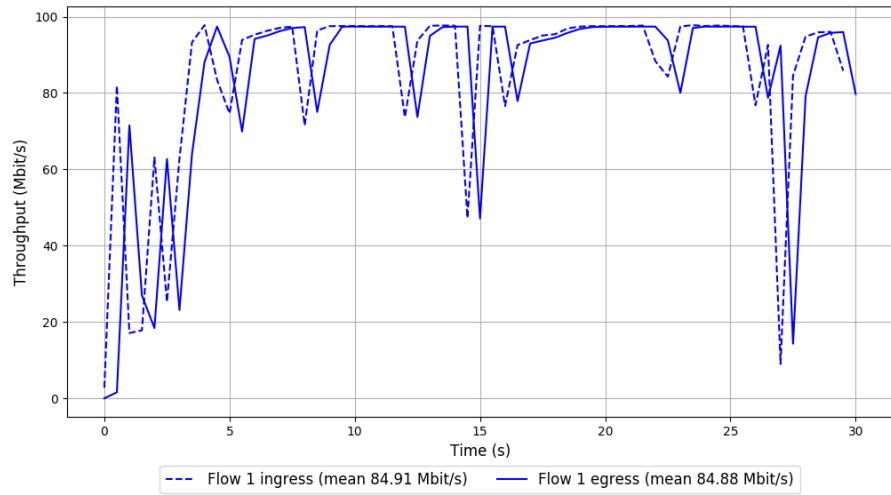


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-09-07 19:39:23
End at: 2018-09-07 19:39:53
Local clock offset: -2.657 ms
Remote clock offset: 0.143 ms

# Below is generated by plot.py at 2018-09-07 21:29:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.88 Mbit/s
95th percentile per-packet one-way delay: 40.590 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 84.88 Mbit/s
95th percentile per-packet one-way delay: 40.590 ms
Loss rate: 0.25%
```

Run 1: Report of QUIC Cubic — Data Link

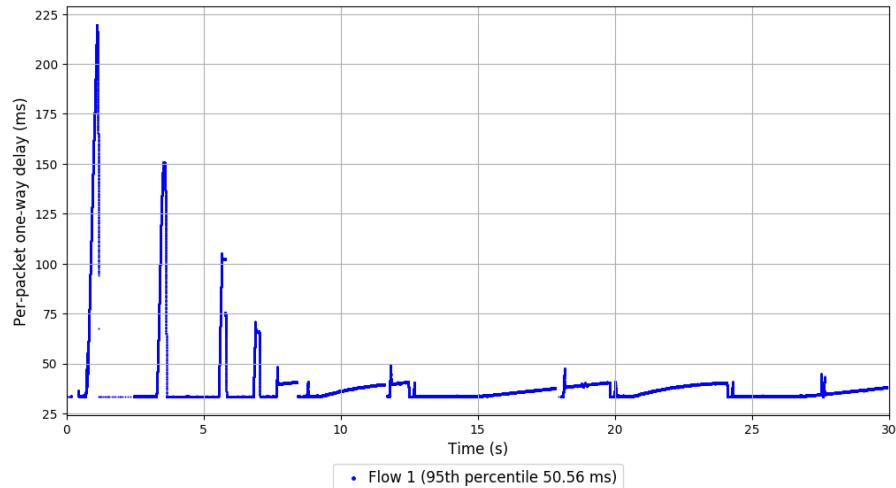
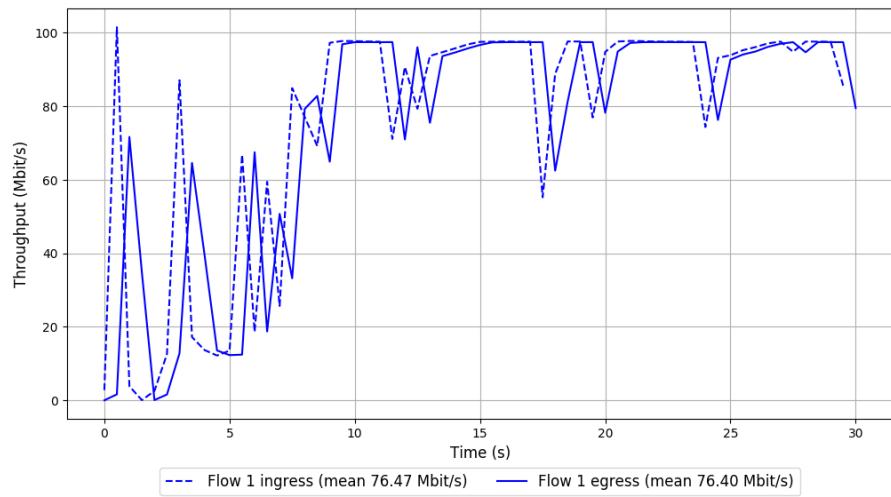


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-09-07 20:03:17
End at: 2018-09-07 20:03:47
Local clock offset: -2.737 ms
Remote clock offset: 0.675 ms

# Below is generated by plot.py at 2018-09-07 21:29:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.40 Mbit/s
95th percentile per-packet one-way delay: 50.563 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 76.40 Mbit/s
95th percentile per-packet one-way delay: 50.563 ms
Loss rate: 0.30%
```

Run 2: Report of QUIC Cubic — Data Link

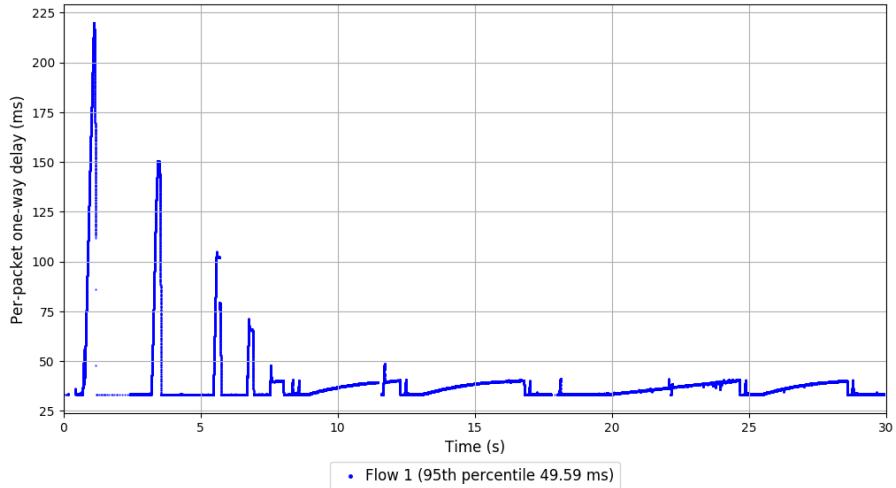
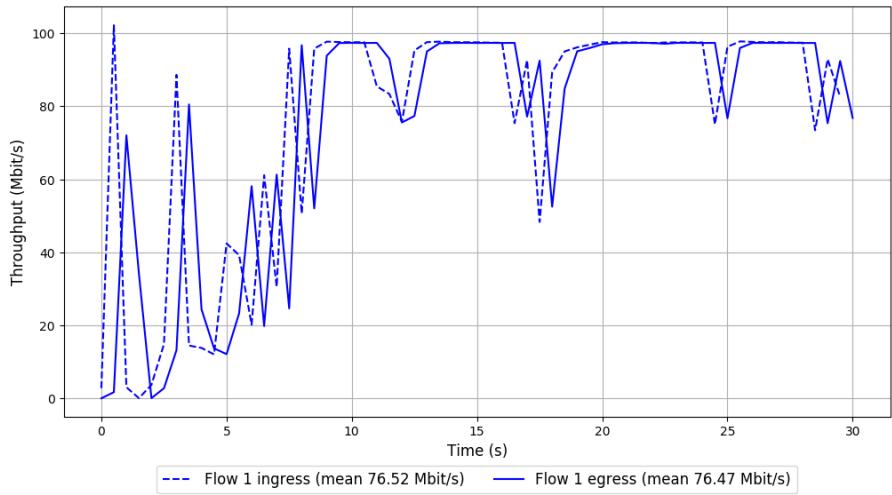


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-09-07 20:27:08
End at: 2018-09-07 20:27:38
Local clock offset: -0.457 ms
Remote clock offset: 1.235 ms

# Below is generated by plot.py at 2018-09-07 21:29:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.47 Mbit/s
95th percentile per-packet one-way delay: 49.588 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 76.47 Mbit/s
95th percentile per-packet one-way delay: 49.588 ms
Loss rate: 0.27%
```

Run 3: Report of QUIC Cubic — Data Link

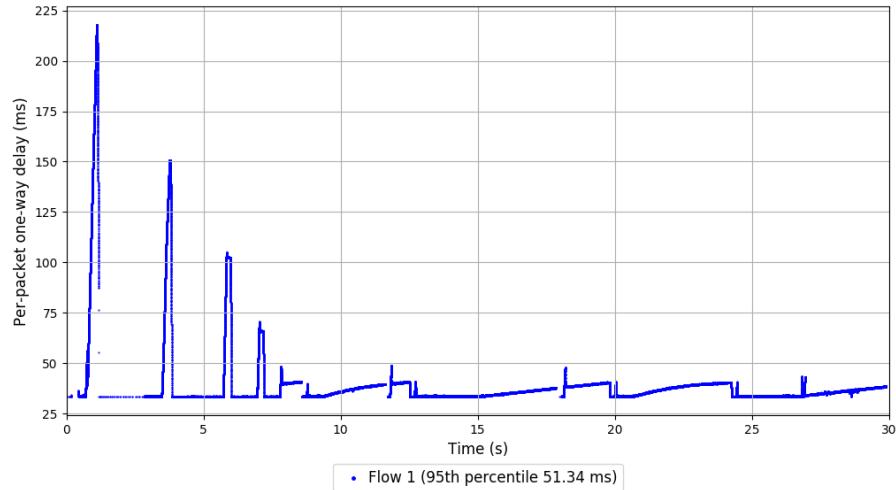
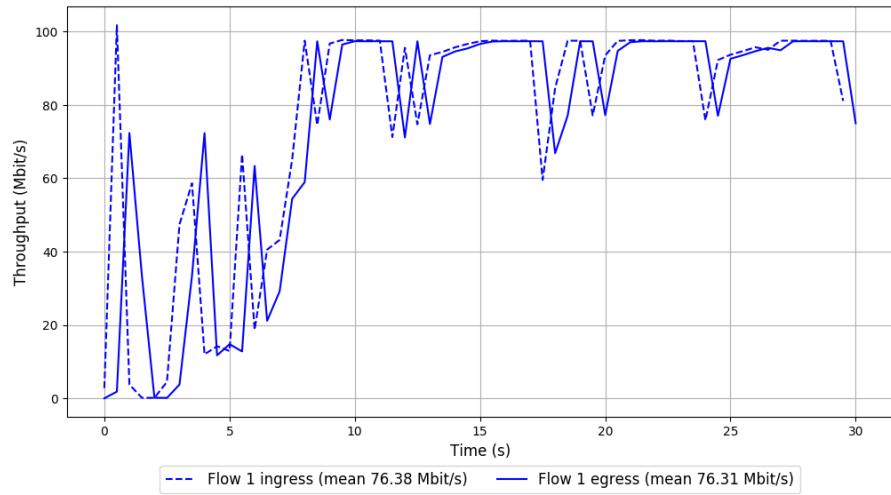


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-09-07 20:51:03
End at: 2018-09-07 20:51:33
Local clock offset: 0.41 ms
Remote clock offset: 1.241 ms

# Below is generated by plot.py at 2018-09-07 21:30:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.31 Mbit/s
95th percentile per-packet one-way delay: 51.336 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 76.31 Mbit/s
95th percentile per-packet one-way delay: 51.336 ms
Loss rate: 0.32%
```

Run 4: Report of QUIC Cubic — Data Link

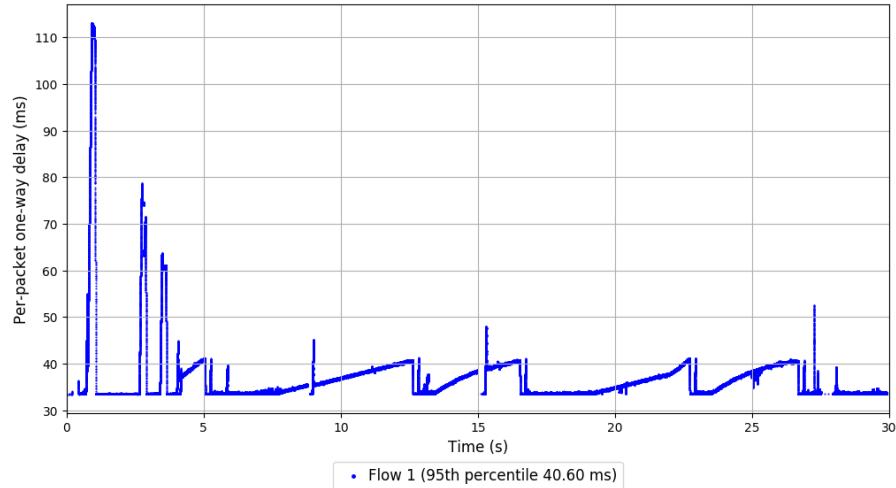
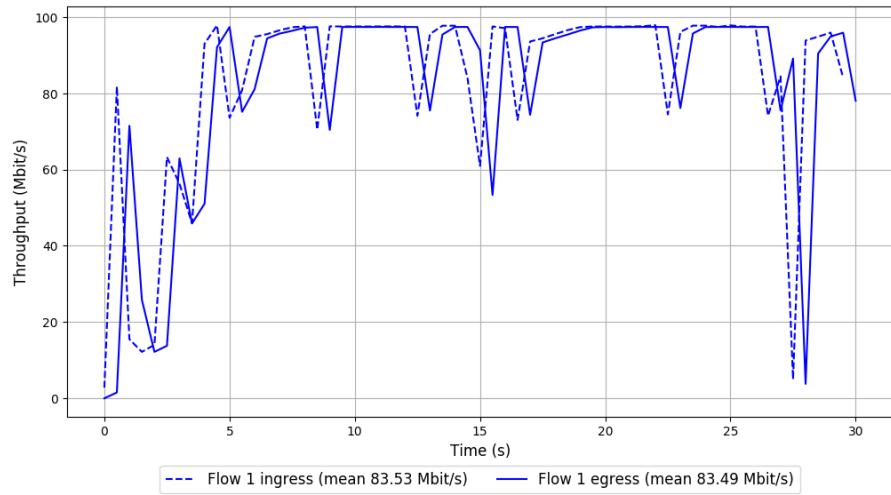


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-09-07 21:14:58
End at: 2018-09-07 21:15:28
Local clock offset: 0.422 ms
Remote clock offset: 1.398 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.49 Mbit/s
95th percentile per-packet one-way delay: 40.600 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 83.49 Mbit/s
95th percentile per-packet one-way delay: 40.600 ms
Loss rate: 0.26%
```

Run 5: Report of QUIC Cubic — Data Link

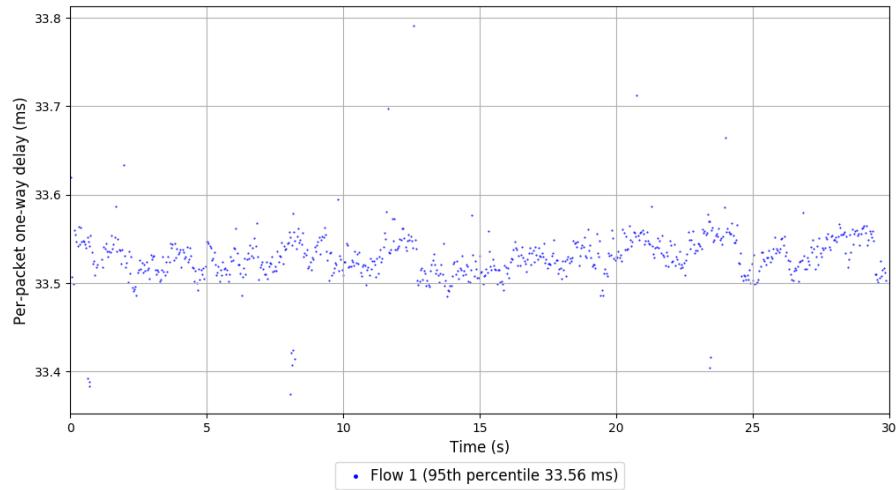
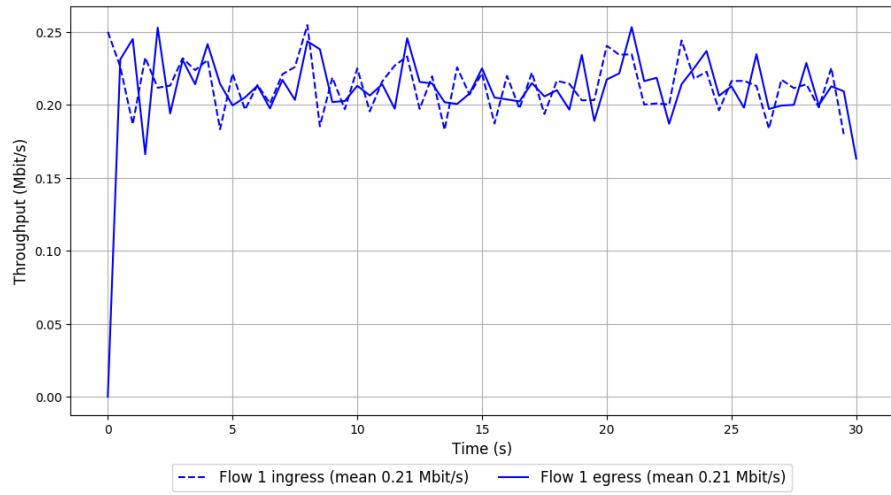


Run 1: Statistics of SCReAM

```
Start at: 2018-09-07 19:43:19
End at: 2018-09-07 19:43:49
Local clock offset: -2.603 ms
Remote clock offset: 0.207 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.562 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.562 ms
Loss rate: 0.26%
```

Run 1: Report of SCReAM — Data Link

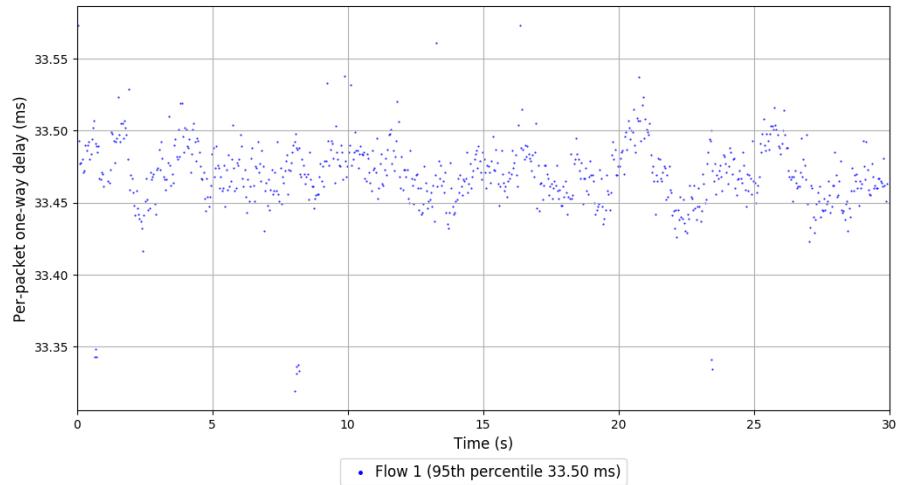
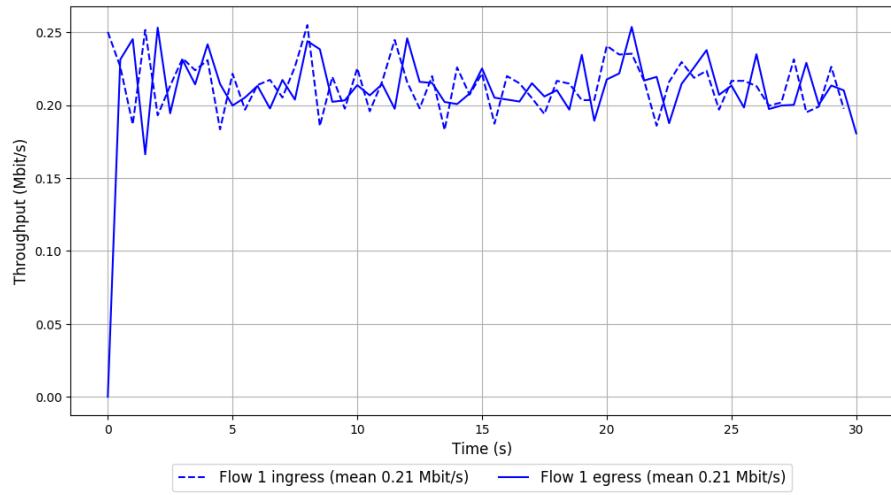


Run 2: Statistics of SCReAM

```
Start at: 2018-09-07 20:07:14
End at: 2018-09-07 20:07:44
Local clock offset: -2.727 ms
Remote clock offset: 0.749 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.503 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.503 ms
Loss rate: 0.26%
```

Run 2: Report of SCReAM — Data Link

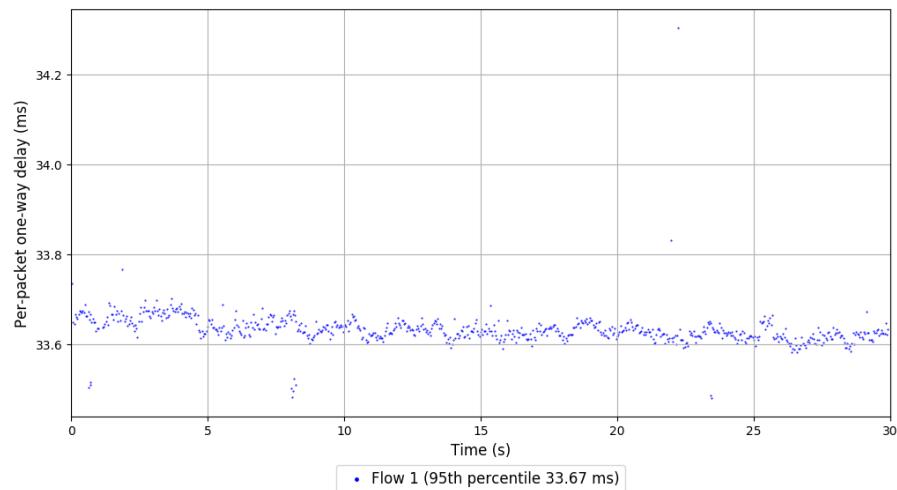
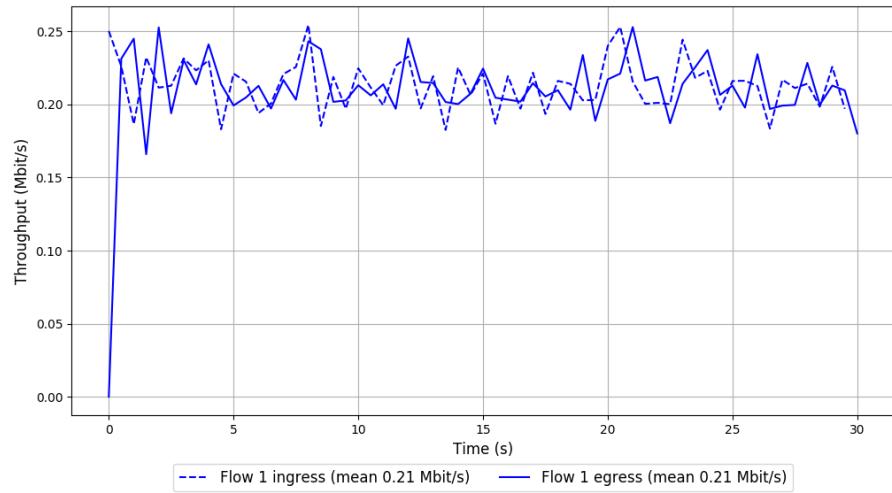


Run 3: Statistics of SCReAM

```
Start at: 2018-09-07 20:31:05
End at: 2018-09-07 20:31:35
Local clock offset: -0.005 ms
Remote clock offset: 1.023 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.674 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.674 ms
Loss rate: 0.26%
```

Run 3: Report of SCReAM — Data Link

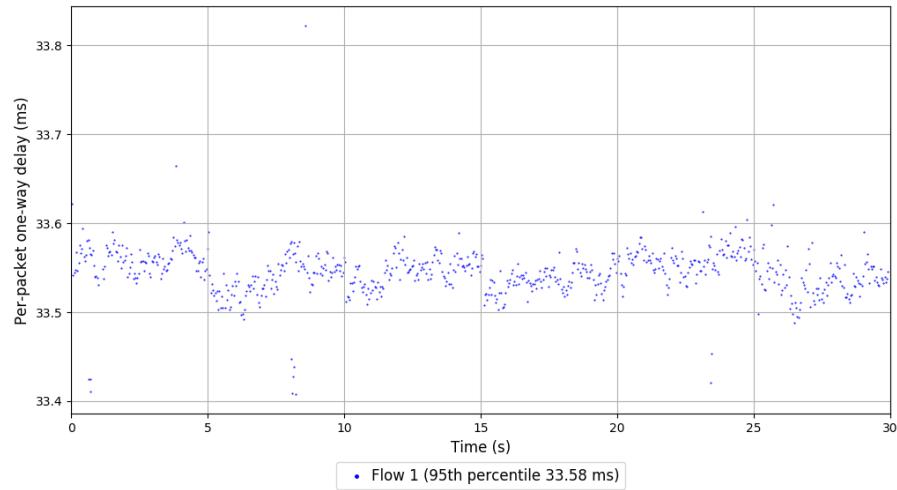
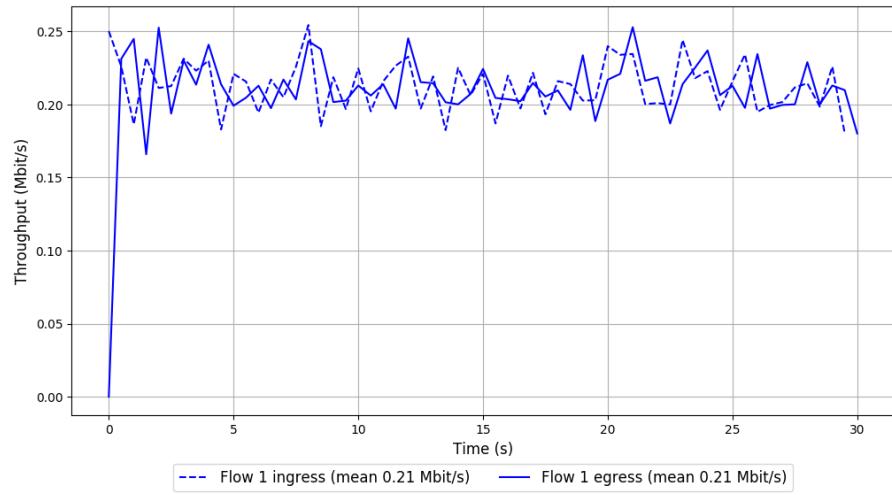


Run 4: Statistics of SCReAM

```
Start at: 2018-09-07 20:54:59
End at: 2018-09-07 20:55:29
Local clock offset: 0.412 ms
Remote clock offset: 1.264 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.578 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.578 ms
Loss rate: 0.13%
```

Run 4: Report of SCReAM — Data Link

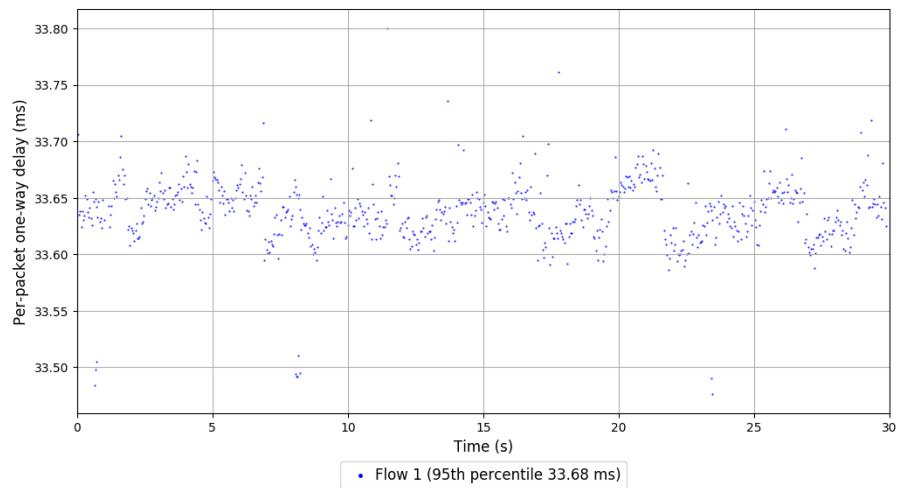
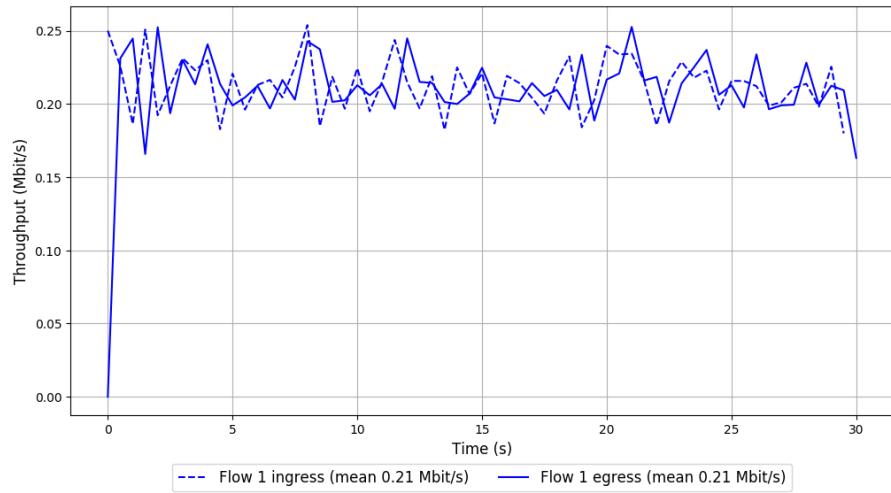


Run 5: Statistics of SCReAM

```
Start at: 2018-09-07 21:18:55
End at: 2018-09-07 21:19:25
Local clock offset: 0.272 ms
Remote clock offset: 1.369 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.676 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.676 ms
Loss rate: 0.26%
```

Run 5: Report of SCReAM — Data Link

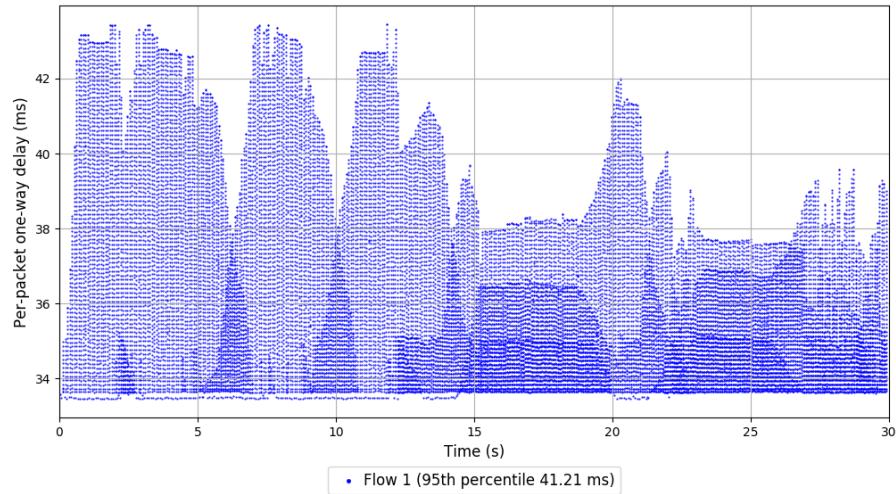
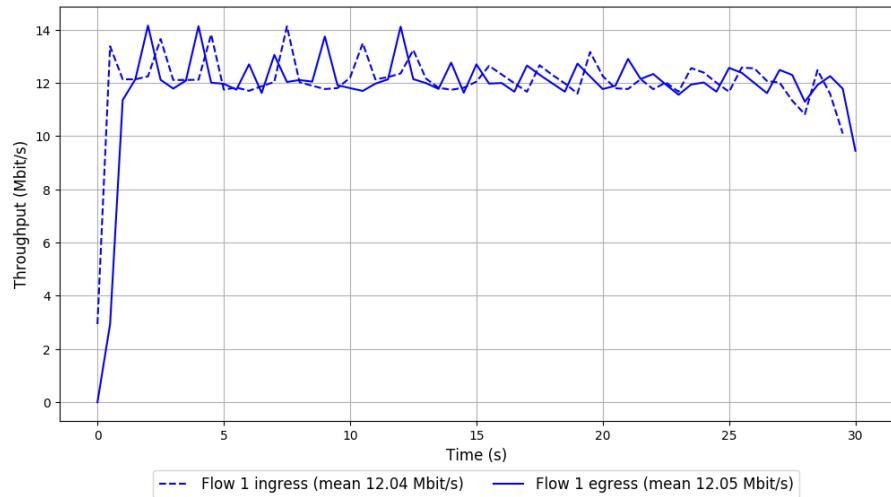


Run 1: Statistics of Sprout

```
Start at: 2018-09-07 19:40:42
End at: 2018-09-07 19:41:13
Local clock offset: -2.65 ms
Remote clock offset: 0.089 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 41.212 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 41.212 ms
Loss rate: 0.11%
```

Run 1: Report of Sprout — Data Link

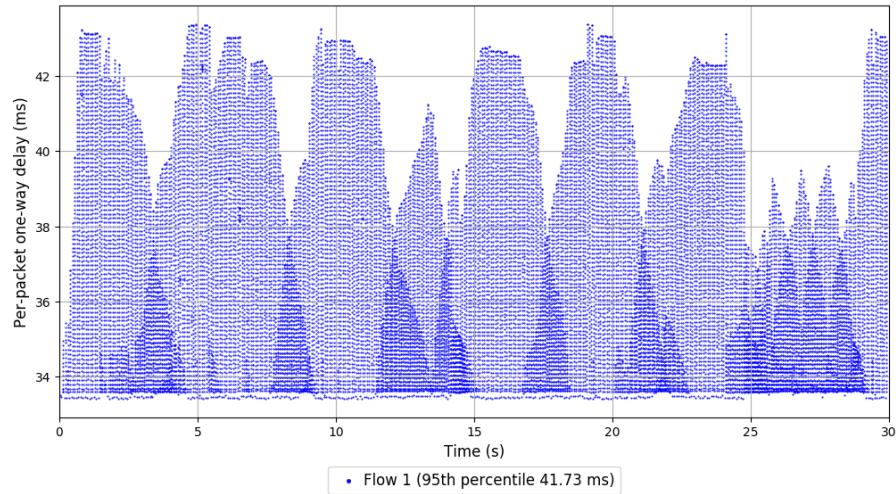
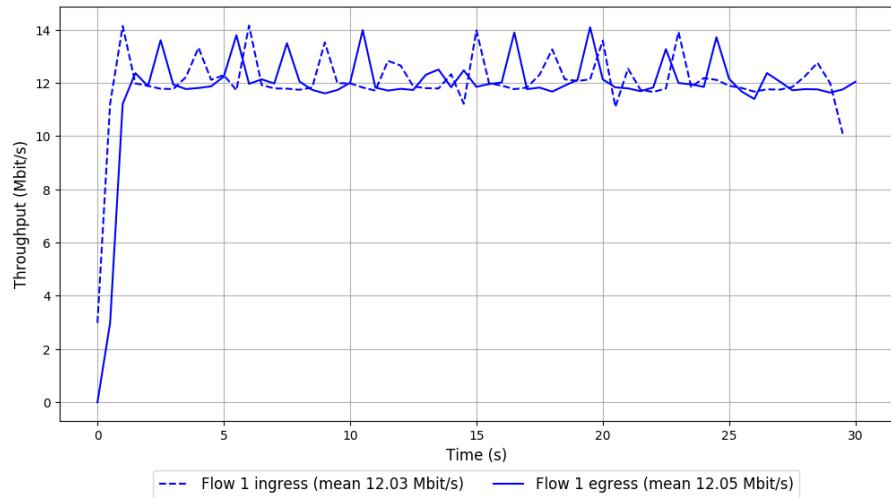


Run 2: Statistics of Sprout

```
Start at: 2018-09-07 20:04:37
End at: 2018-09-07 20:05:07
Local clock offset: -2.728 ms
Remote clock offset: 0.648 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 41.727 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 41.727 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

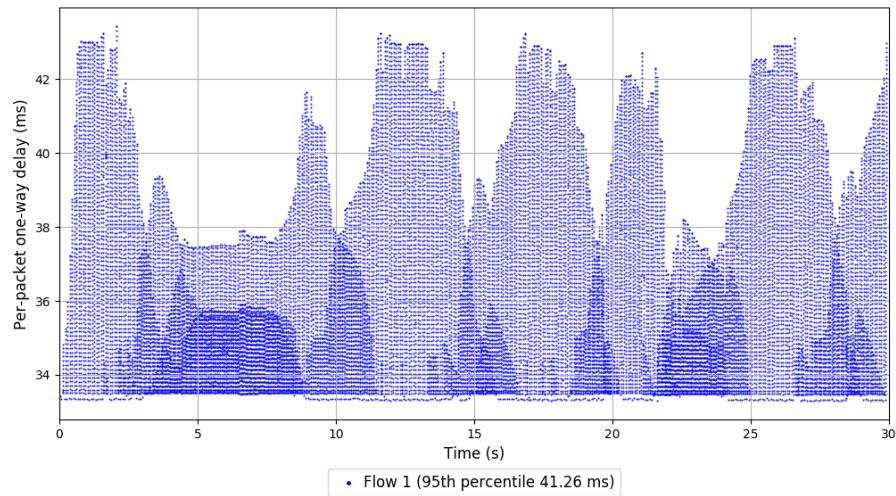
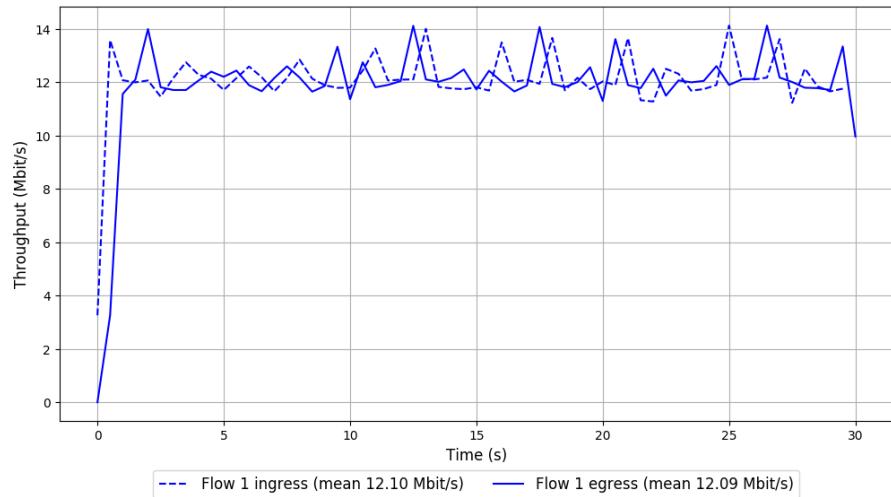


Run 3: Statistics of Sprout

```
Start at: 2018-09-07 20:28:28
End at: 2018-09-07 20:28:58
Local clock offset: -0.257 ms
Remote clock offset: 1.131 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.09 Mbit/s
95th percentile per-packet one-way delay: 41.257 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 12.09 Mbit/s
95th percentile per-packet one-way delay: 41.257 ms
Loss rate: 0.28%
```

Run 3: Report of Sprout — Data Link

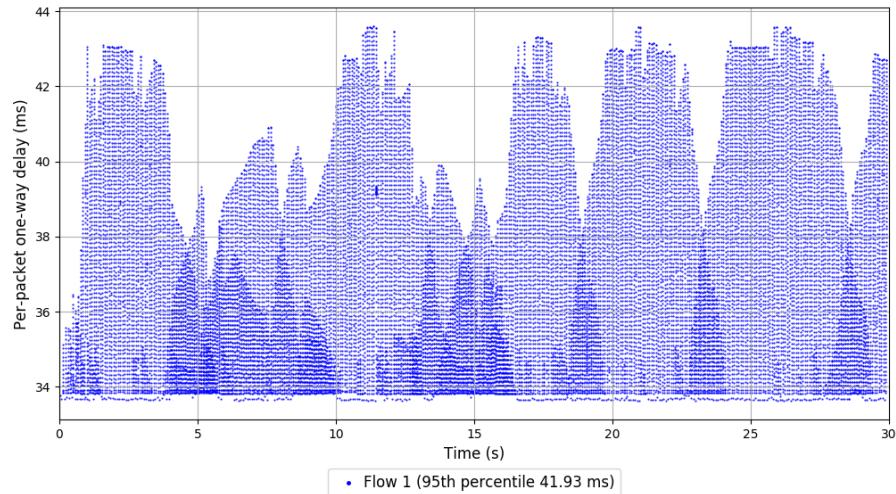
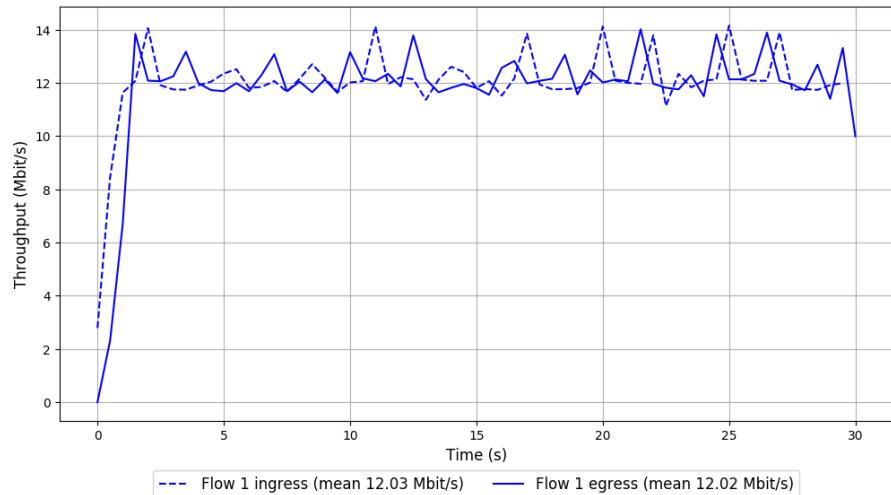


Run 4: Statistics of Sprout

```
Start at: 2018-09-07 20:52:22
End at: 2018-09-07 20:52:52
Local clock offset: 0.471 ms
Remote clock offset: 1.072 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.02 Mbit/s
95th percentile per-packet one-way delay: 41.932 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 12.02 Mbit/s
95th percentile per-packet one-way delay: 41.932 ms
Loss rate: 0.28%
```

Run 4: Report of Sprout — Data Link

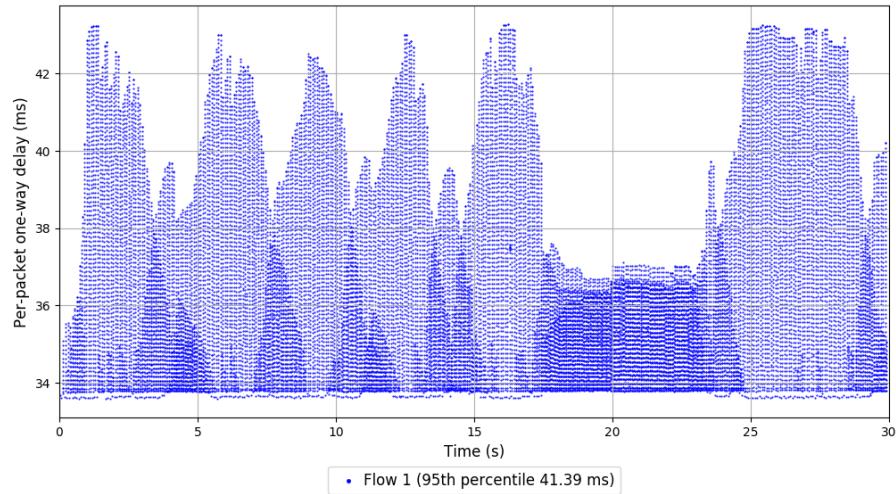
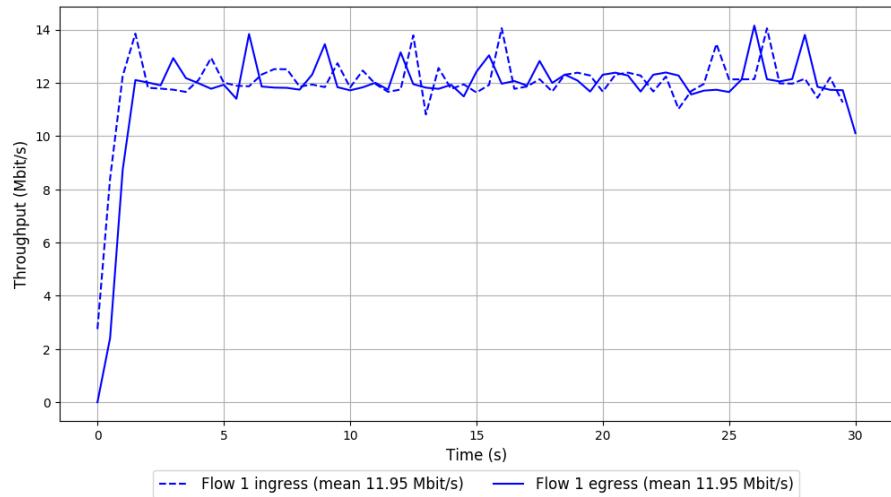


Run 5: Statistics of Sprout

```
Start at: 2018-09-07 21:16:18
End at: 2018-09-07 21:16:48
Local clock offset: 0.322 ms
Remote clock offset: 1.208 ms

# Below is generated by plot.py at 2018-09-07 21:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.95 Mbit/s
95th percentile per-packet one-way delay: 41.389 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 11.95 Mbit/s
95th percentile per-packet one-way delay: 41.389 ms
Loss rate: 0.23%
```

Run 5: Report of Sprout — Data Link

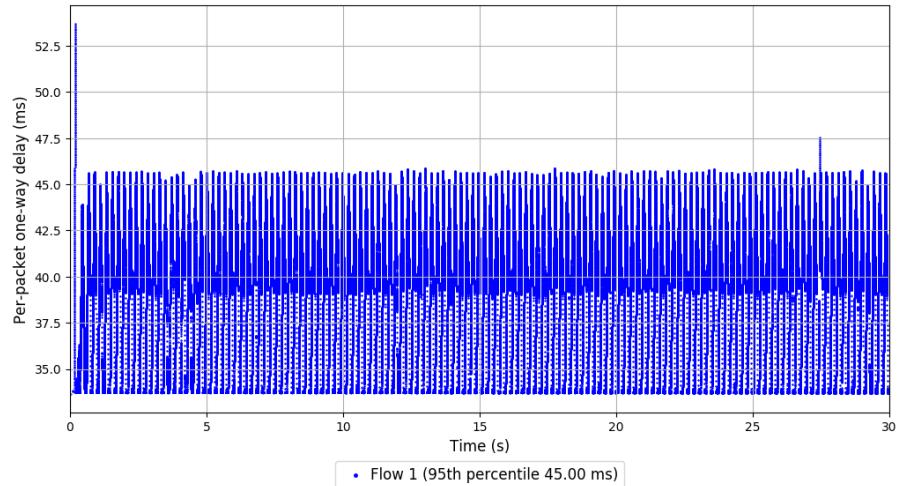
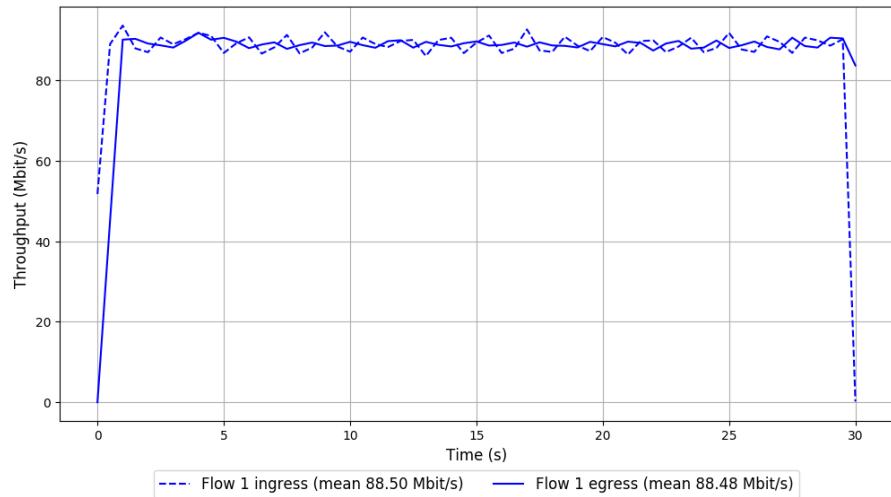


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-09-07 19:28:40
End at: 2018-09-07 19:29:10
Local clock offset: -2.832 ms
Remote clock offset: -0.352 ms

# Below is generated by plot.py at 2018-09-07 21:31:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.48 Mbit/s
95th percentile per-packet one-way delay: 45.000 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 88.48 Mbit/s
95th percentile per-packet one-way delay: 45.000 ms
Loss rate: 0.24%
```

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

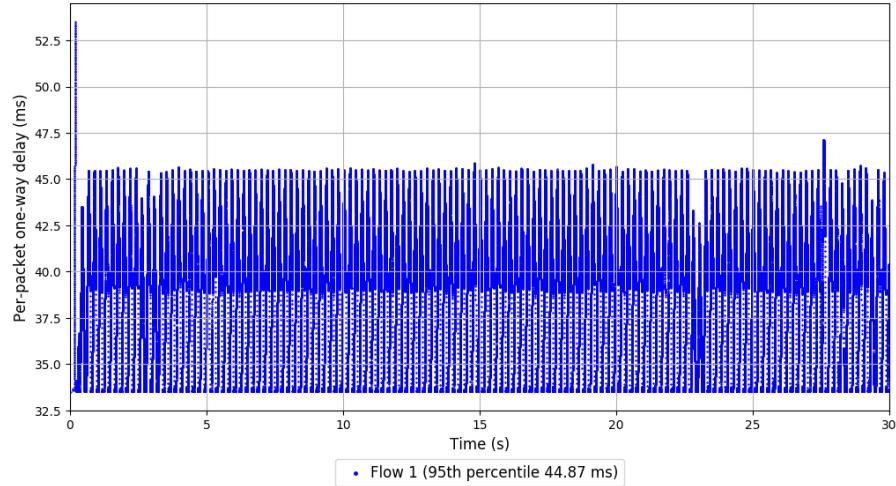
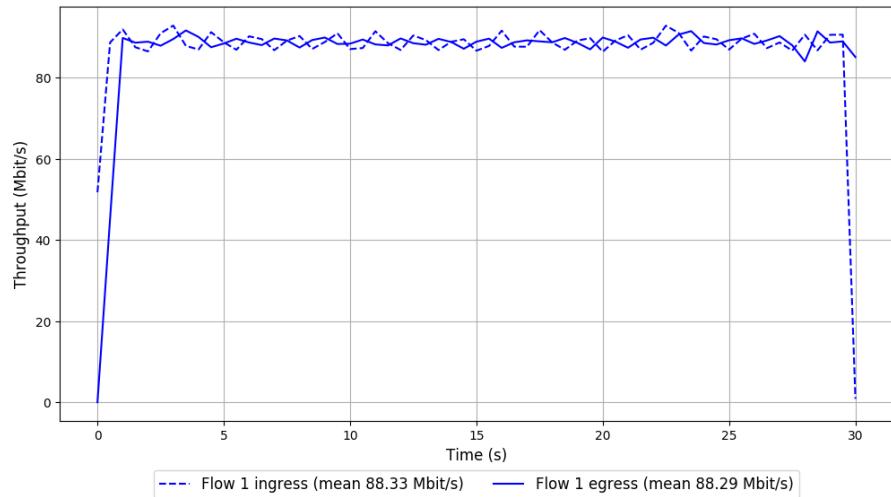


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-09-07 19:52:31
End at: 2018-09-07 19:53:01
Local clock offset: -2.7 ms
Remote clock offset: 0.38 ms

# Below is generated by plot.py at 2018-09-07 21:31:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.29 Mbit/s
95th percentile per-packet one-way delay: 44.872 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 88.29 Mbit/s
95th percentile per-packet one-way delay: 44.872 ms
Loss rate: 0.26%
```

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

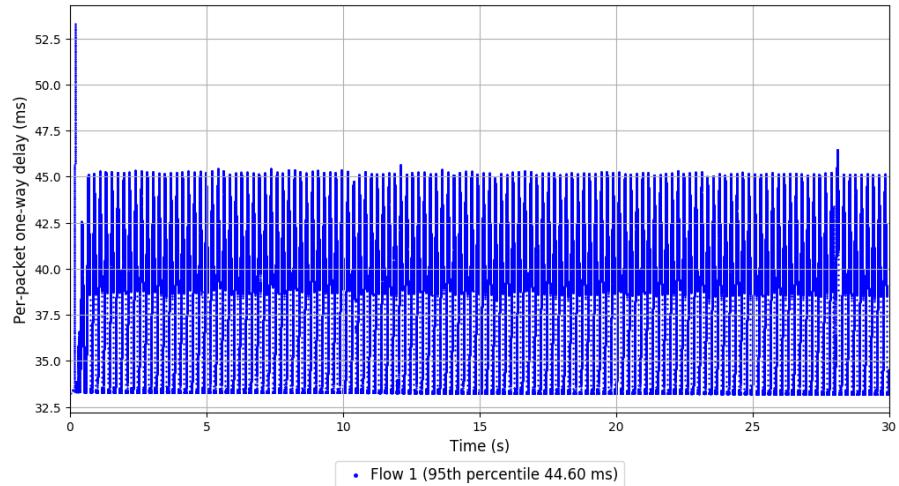
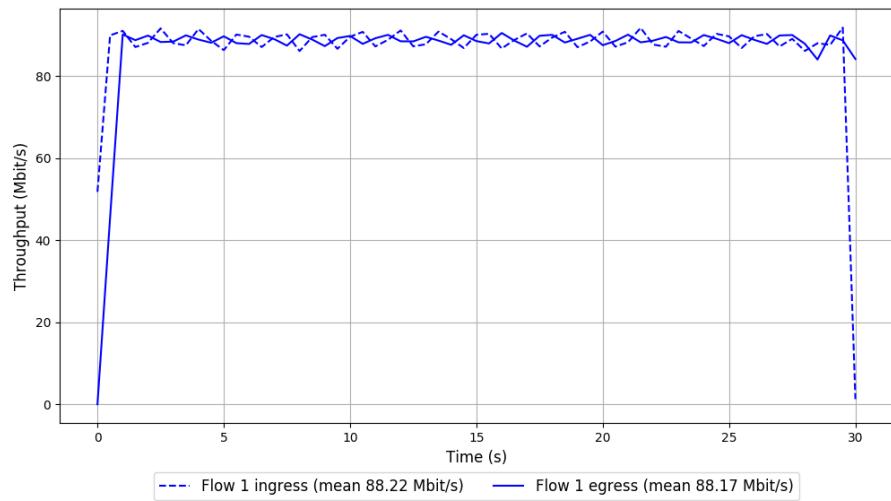


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-09-07 20:16:25
End at: 2018-09-07 20:16:55
Local clock offset: -2.292 ms
Remote clock offset: 0.93 ms

# Below is generated by plot.py at 2018-09-07 21:31:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.17 Mbit/s
95th percentile per-packet one-way delay: 44.600 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 88.17 Mbit/s
95th percentile per-packet one-way delay: 44.600 ms
Loss rate: 0.27%
```

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

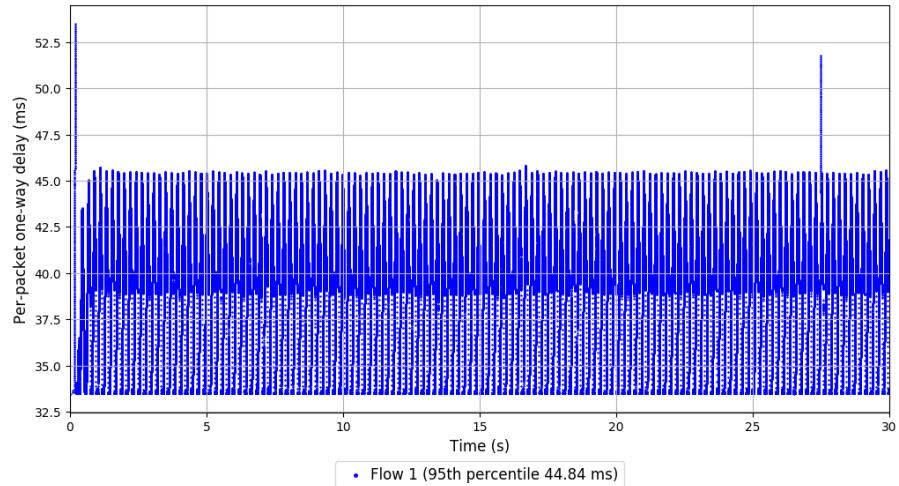
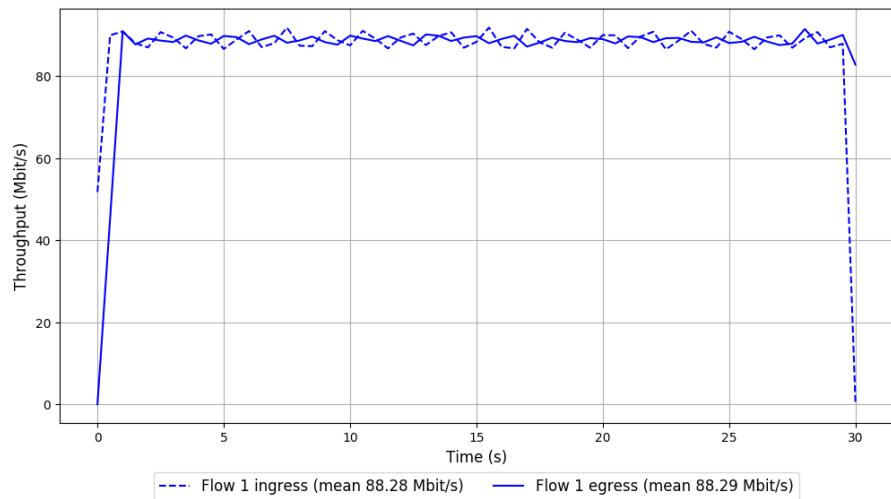


Run 4: Statistics of TaoVA-100x

```
Start at: 2018-09-07 20:40:19
End at: 2018-09-07 20:40:49
Local clock offset: 0.61 ms
Remote clock offset: 1.324 ms

# Below is generated by plot.py at 2018-09-07 21:31:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.29 Mbit/s
95th percentile per-packet one-way delay: 44.837 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 88.29 Mbit/s
95th percentile per-packet one-way delay: 44.837 ms
Loss rate: 0.21%
```

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

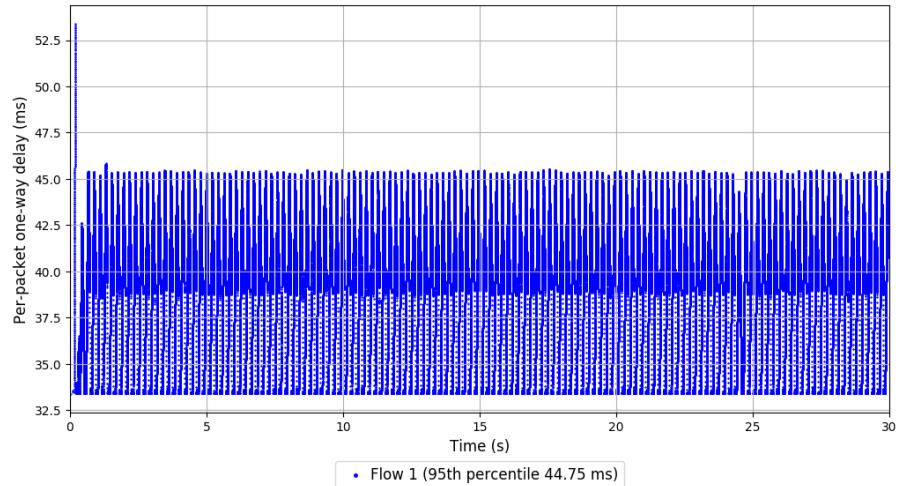
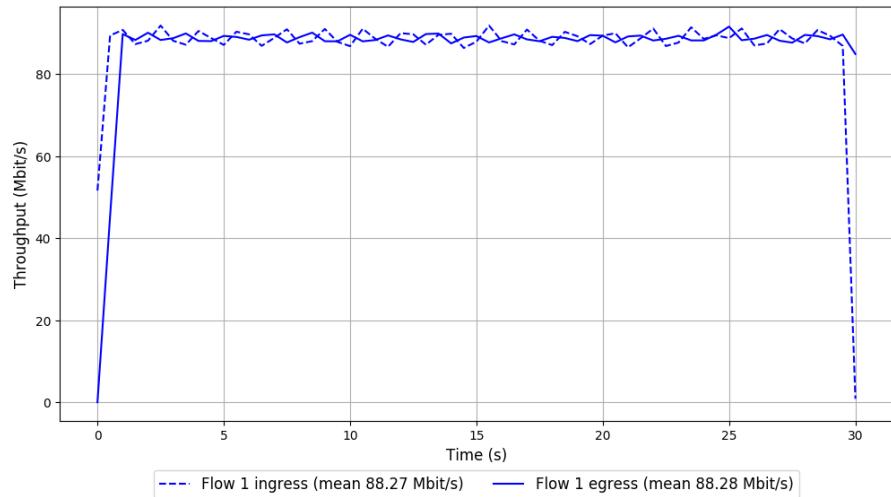


Run 5: Statistics of TaoVA-100x

```
Start at: 2018-09-07 21:04:14
End at: 2018-09-07 21:04:44
Local clock offset: 0.396 ms
Remote clock offset: 1.394 ms

# Below is generated by plot.py at 2018-09-07 21:31:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.28 Mbit/s
95th percentile per-packet one-way delay: 44.748 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 88.28 Mbit/s
95th percentile per-packet one-way delay: 44.748 ms
Loss rate: 0.20%
```

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

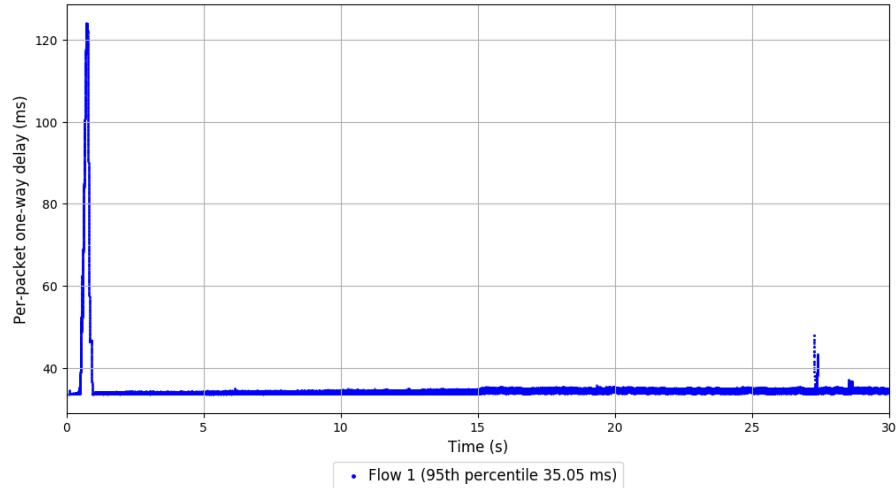
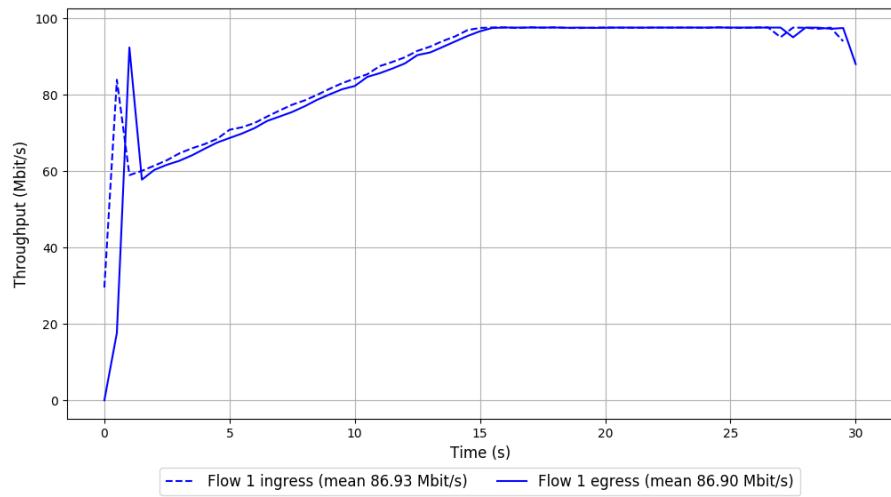


Run 1: Statistics of TCP Vegas

```
Start at: 2018-09-07 19:36:41
End at: 2018-09-07 19:37:11
Local clock offset: -2.692 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-09-07 21:31:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 35.048 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 35.048 ms
Loss rate: 0.25%
```

Run 1: Report of TCP Vegas — Data Link

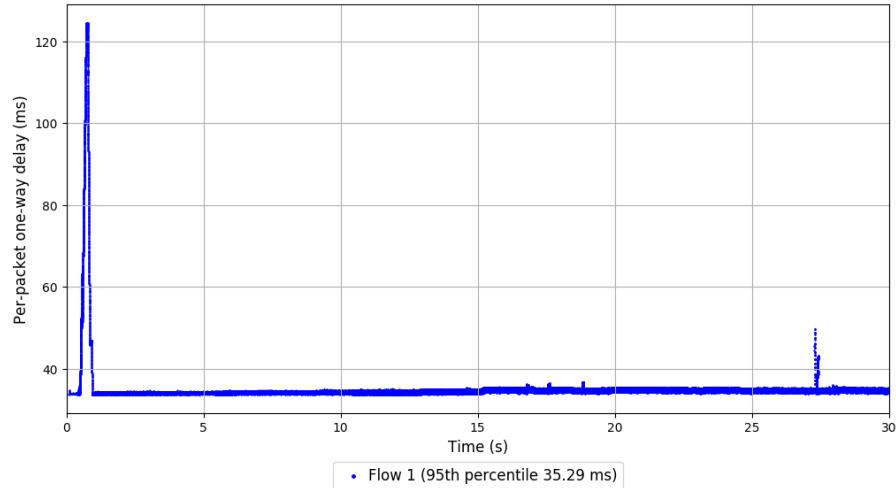
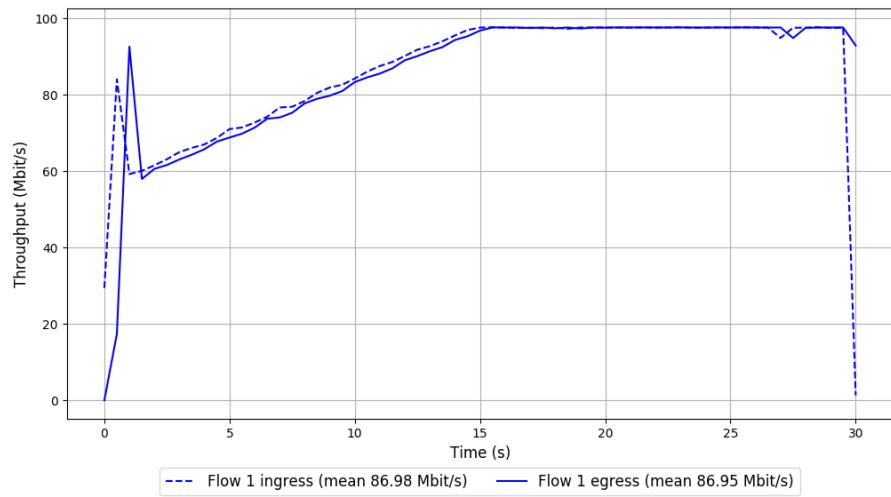


Run 2: Statistics of TCP Vegas

```
Start at: 2018-09-07 20:00:34
End at: 2018-09-07 20:01:04
Local clock offset: -2.738 ms
Remote clock offset: 0.377 ms

# Below is generated by plot.py at 2018-09-07 21:31:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.95 Mbit/s
95th percentile per-packet one-way delay: 35.292 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 86.95 Mbit/s
95th percentile per-packet one-way delay: 35.292 ms
Loss rate: 0.25%
```

Run 2: Report of TCP Vegas — Data Link

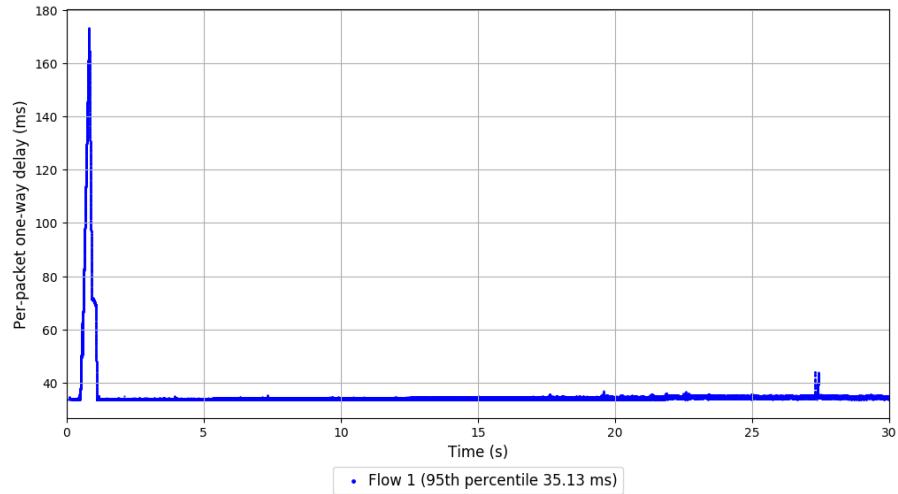
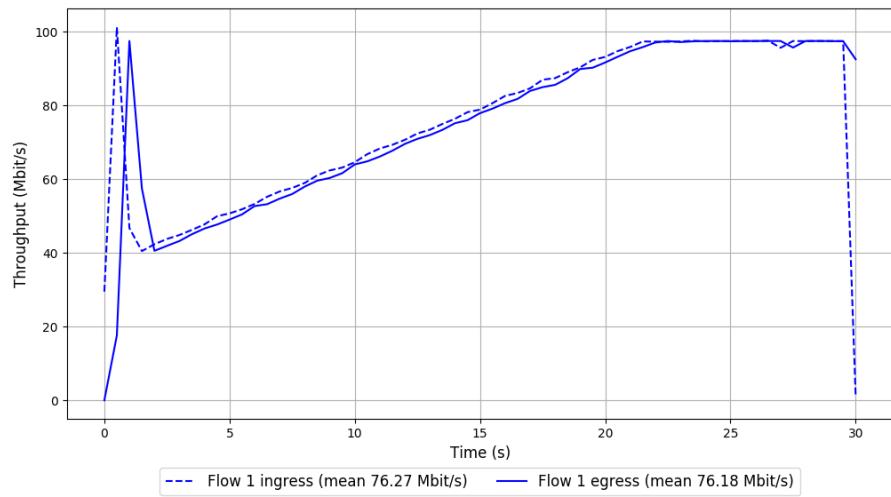


Run 3: Statistics of TCP Vegas

```
Start at: 2018-09-07 20:24:27
End at: 2018-09-07 20:24:57
Local clock offset: -0.677 ms
Remote clock offset: 0.847 ms

# Below is generated by plot.py at 2018-09-07 21:31:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.18 Mbit/s
95th percentile per-packet one-way delay: 35.128 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 76.18 Mbit/s
95th percentile per-packet one-way delay: 35.128 ms
Loss rate: 0.33%
```

Run 3: Report of TCP Vegas — Data Link

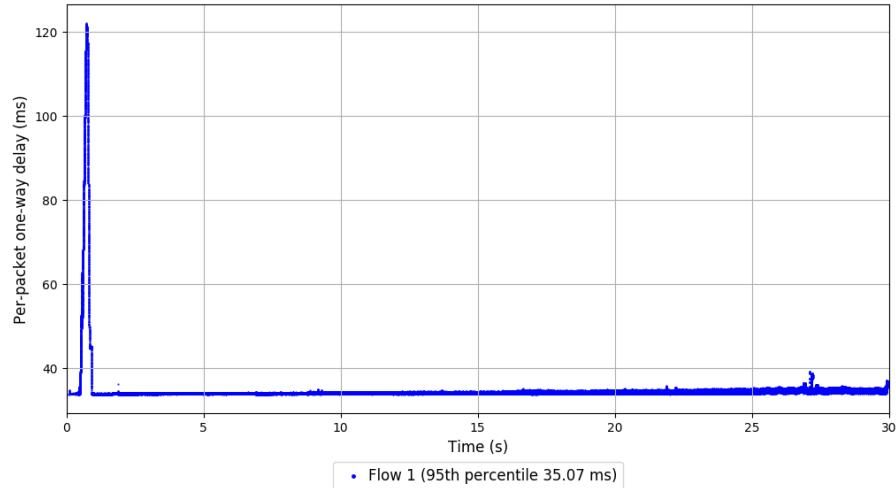
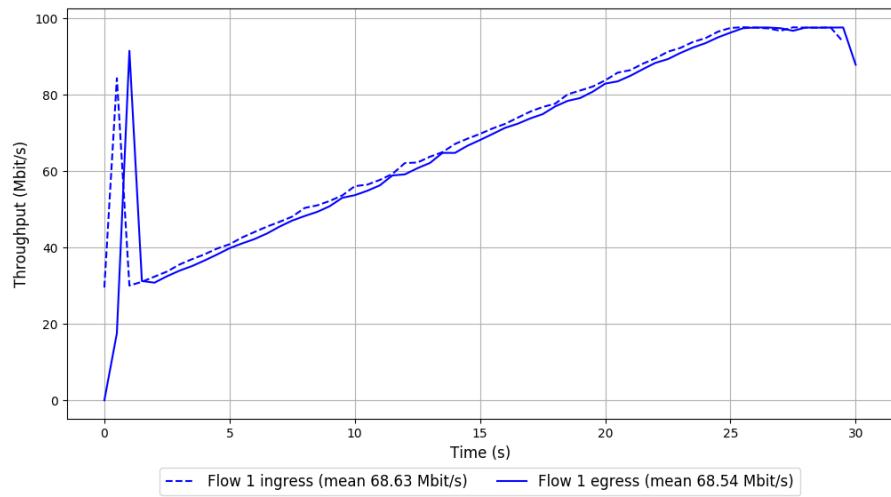


Run 4: Statistics of TCP Vegas

```
Start at: 2018-09-07 20:48:22
End at: 2018-09-07 20:48:52
Local clock offset: 0.646 ms
Remote clock offset: 1.189 ms

# Below is generated by plot.py at 2018-09-07 21:31:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.54 Mbit/s
95th percentile per-packet one-way delay: 35.070 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 68.54 Mbit/s
95th percentile per-packet one-way delay: 35.070 ms
Loss rate: 0.34%
```

Run 4: Report of TCP Vegas — Data Link

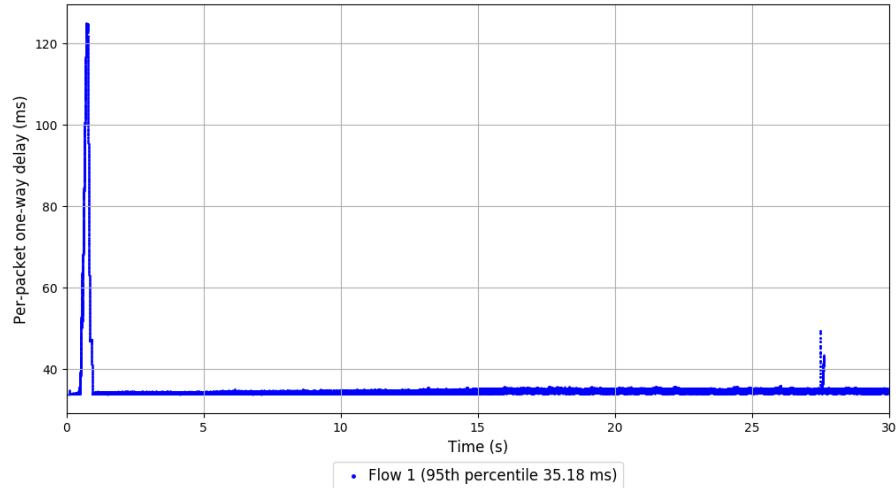
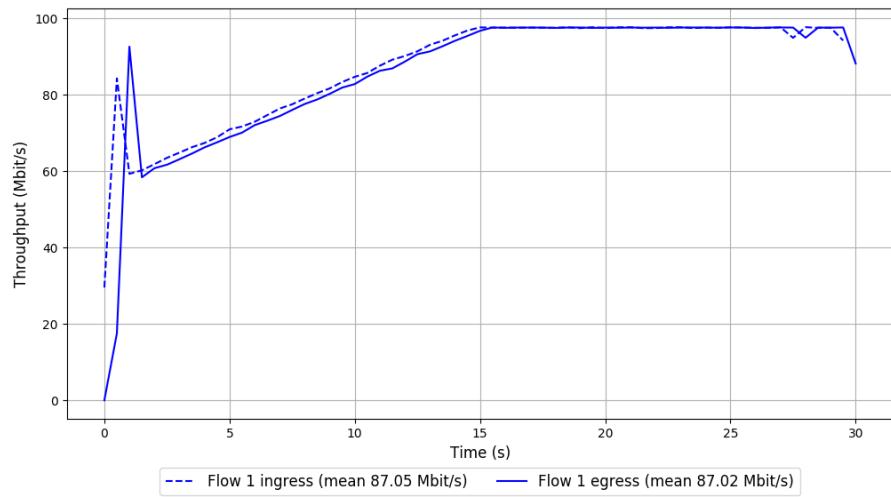


Run 5: Statistics of TCP Vegas

```
Start at: 2018-09-07 21:12:17
End at: 2018-09-07 21:12:47
Local clock offset: 0.481 ms
Remote clock offset: 1.175 ms

# Below is generated by plot.py at 2018-09-07 21:32:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 35.180 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 35.180 ms
Loss rate: 0.25%
```

Run 5: Report of TCP Vegas — Data Link

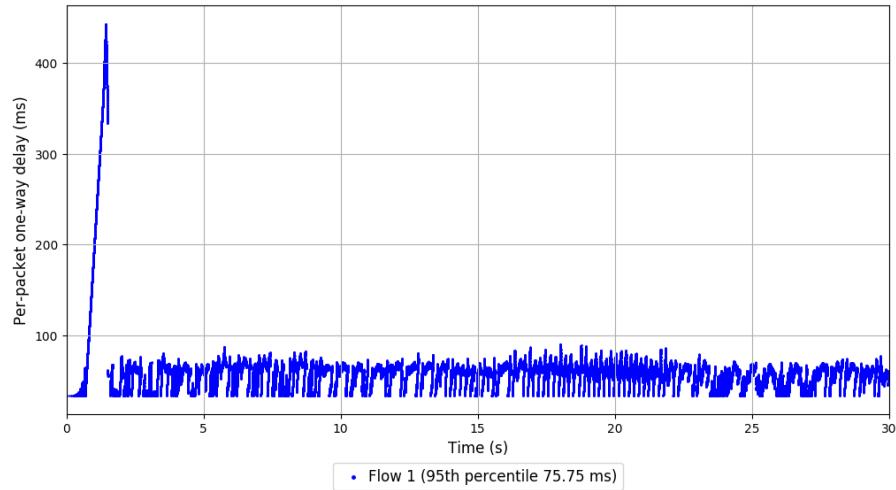
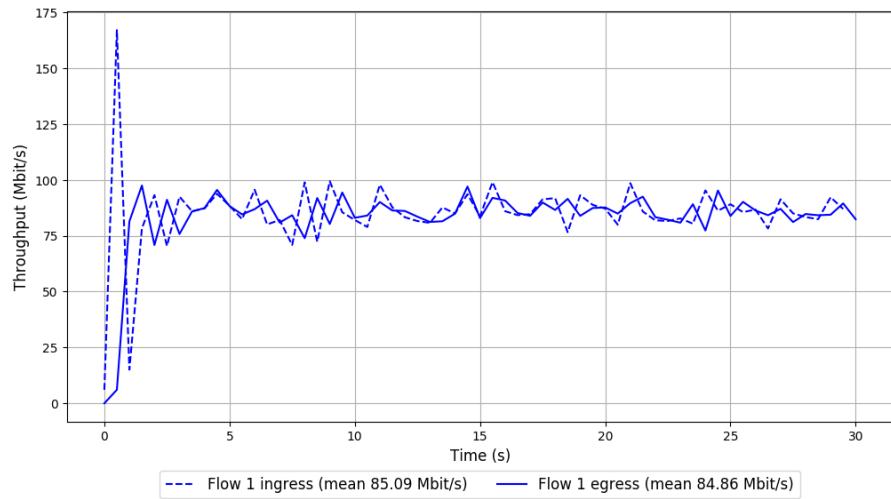


Run 1: Statistics of Verus

```
Start at: 2018-09-07 19:34:02
End at: 2018-09-07 19:34:32
Local clock offset: -2.811 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-09-07 21:32:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.86 Mbit/s
95th percentile per-packet one-way delay: 75.748 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 84.86 Mbit/s
95th percentile per-packet one-way delay: 75.748 ms
Loss rate: 0.47%
```

Run 1: Report of Verus — Data Link

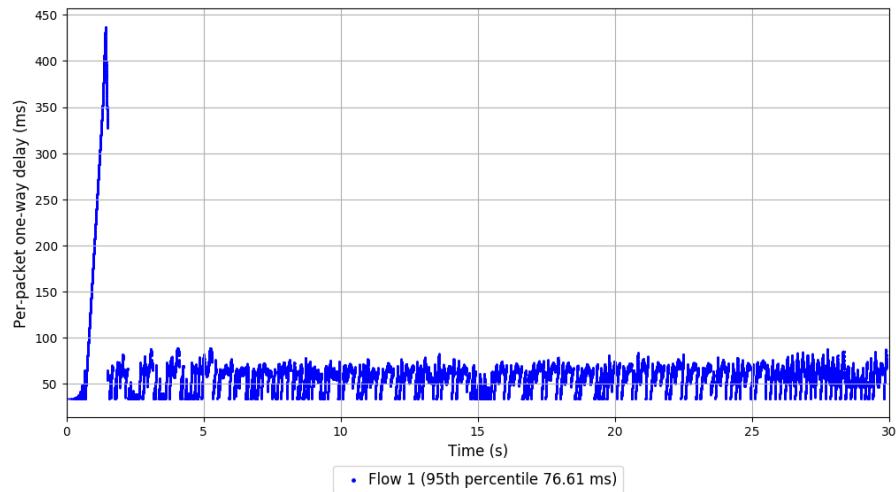
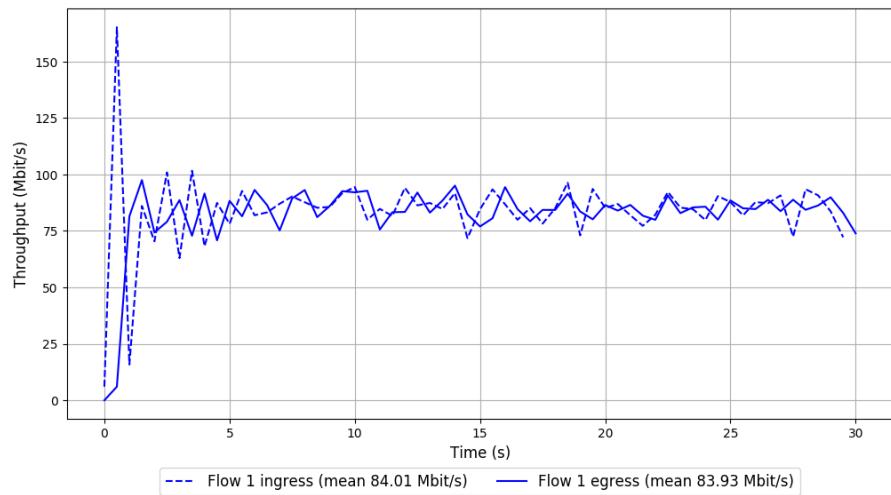


Run 2: Statistics of Verus

```
Start at: 2018-09-07 19:57:53
End at: 2018-09-07 19:58:23
Local clock offset: -2.726 ms
Remote clock offset: 0.481 ms

# Below is generated by plot.py at 2018-09-07 21:32:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.93 Mbit/s
95th percentile per-packet one-way delay: 76.608 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 83.93 Mbit/s
95th percentile per-packet one-way delay: 76.608 ms
Loss rate: 0.35%
```

Run 2: Report of Verus — Data Link

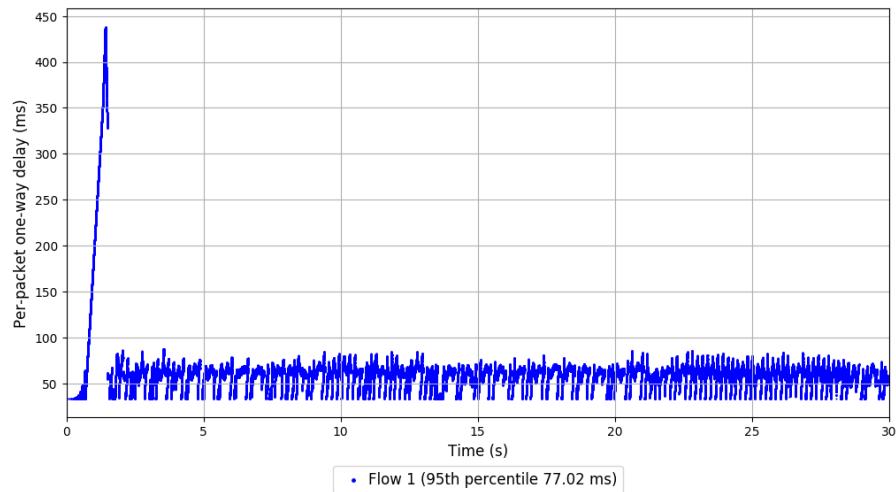
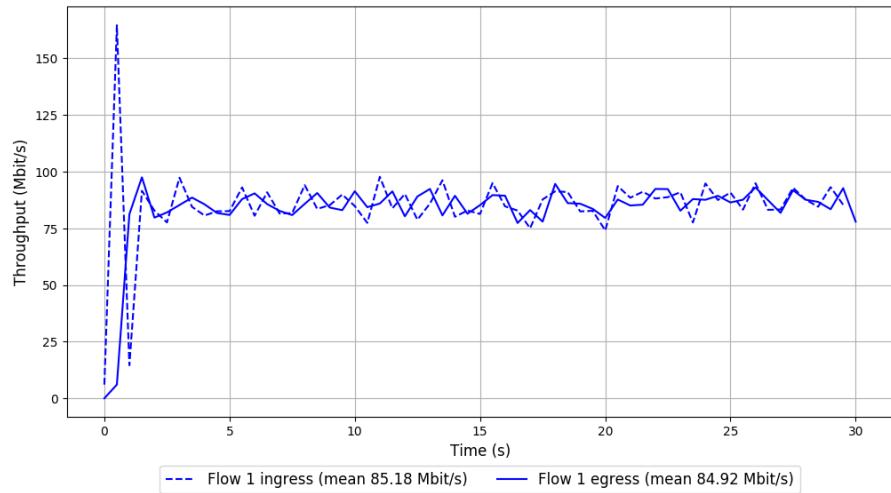


Run 3: Statistics of Verus

```
Start at: 2018-09-07 20:21:48
End at: 2018-09-07 20:22:18
Local clock offset: -1.181 ms
Remote clock offset: 1.023 ms

# Below is generated by plot.py at 2018-09-07 21:32:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.92 Mbit/s
95th percentile per-packet one-way delay: 77.016 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 84.92 Mbit/s
95th percentile per-packet one-way delay: 77.016 ms
Loss rate: 0.51%
```

Run 3: Report of Verus — Data Link

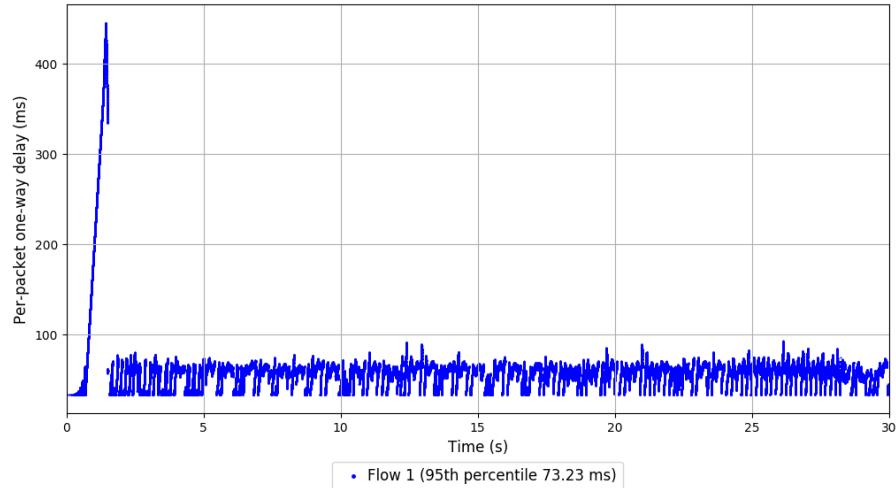
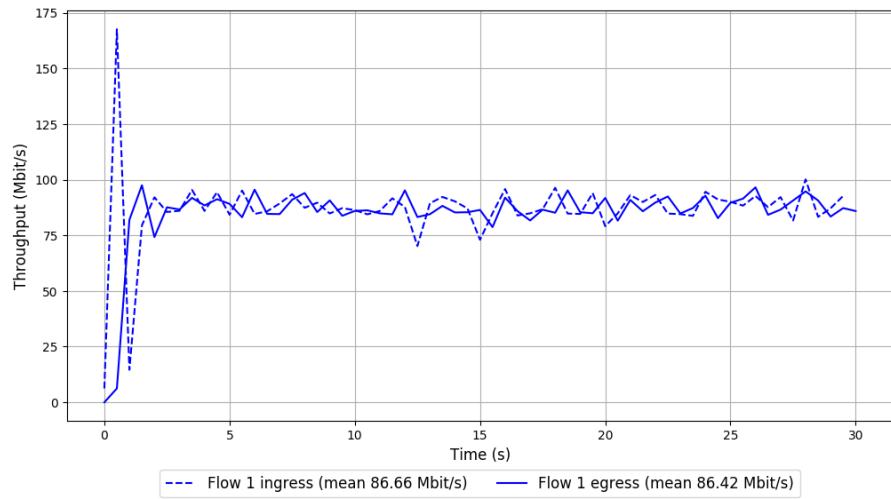


Run 4: Statistics of Verus

```
Start at: 2018-09-07 20:45:42
End at: 2018-09-07 20:46:12
Local clock offset: 0.84 ms
Remote clock offset: 1.328 ms

# Below is generated by plot.py at 2018-09-07 21:32:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.42 Mbit/s
95th percentile per-packet one-way delay: 73.229 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 86.42 Mbit/s
95th percentile per-packet one-way delay: 73.229 ms
Loss rate: 0.47%
```

Run 4: Report of Verus — Data Link

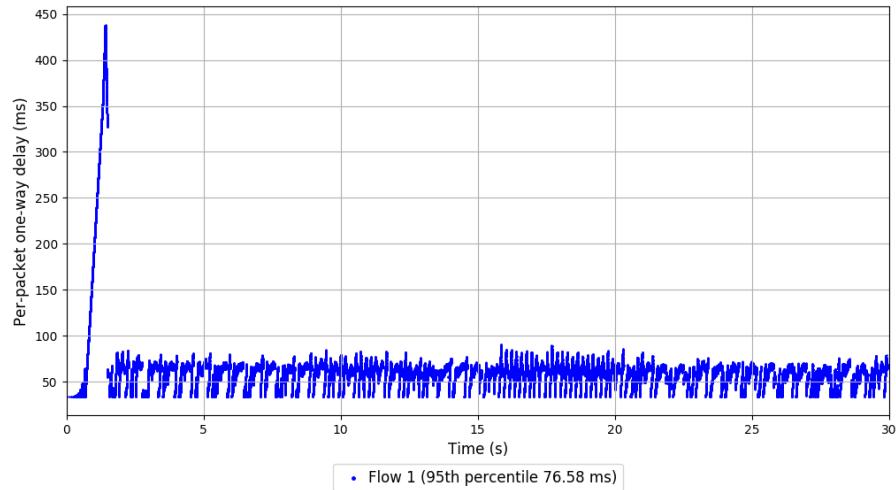
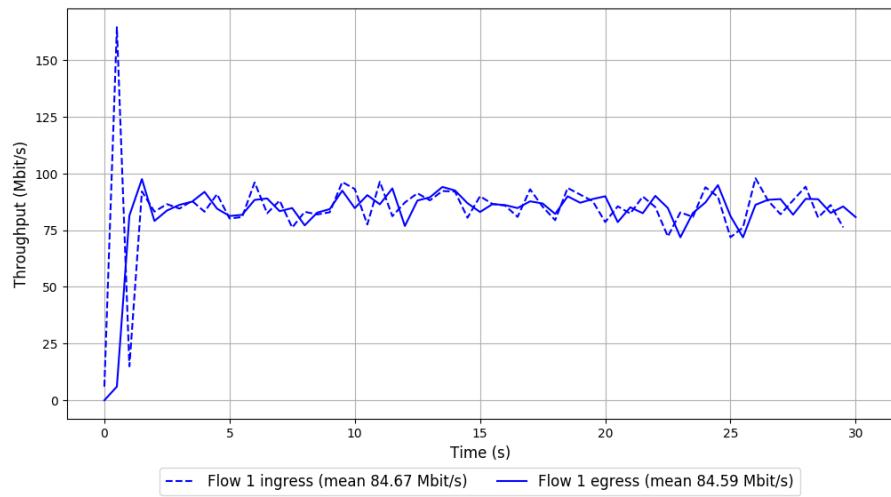


Run 5: Statistics of Verus

```
Start at: 2018-09-07 21:09:38
End at: 2018-09-07 21:10:08
Local clock offset: 0.441 ms
Remote clock offset: 1.18 ms

# Below is generated by plot.py at 2018-09-07 21:32:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.59 Mbit/s
95th percentile per-packet one-way delay: 76.575 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 84.59 Mbit/s
95th percentile per-packet one-way delay: 76.575 ms
Loss rate: 0.32%
```

Run 5: Report of Verus — Data Link

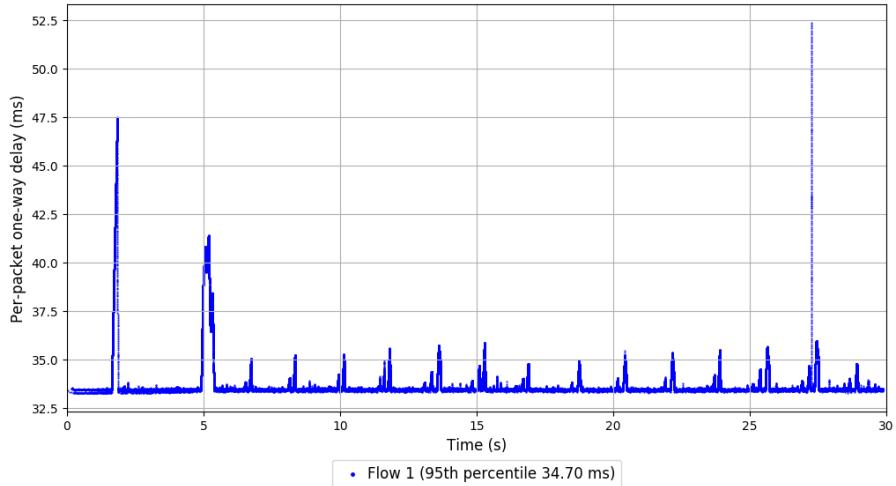
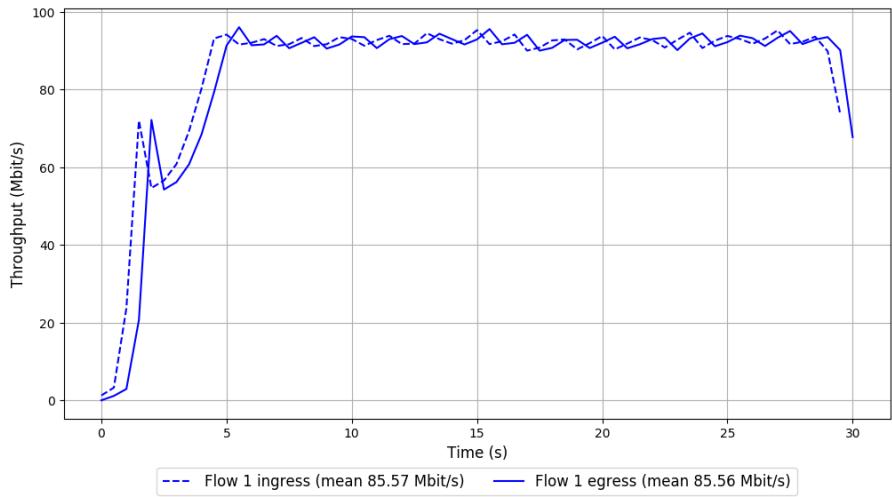


Run 1: Statistics of PCC-Vivace

```
Start at: 2018-09-07 19:41:59
End at: 2018-09-07 19:42:29
Local clock offset: -2.717 ms
Remote clock offset: 0.111 ms

# Below is generated by plot.py at 2018-09-07 21:32:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.56 Mbit/s
95th percentile per-packet one-way delay: 34.701 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 85.56 Mbit/s
95th percentile per-packet one-way delay: 34.701 ms
Loss rate: 0.23%
```

Run 1: Report of PCC-Vivace — Data Link

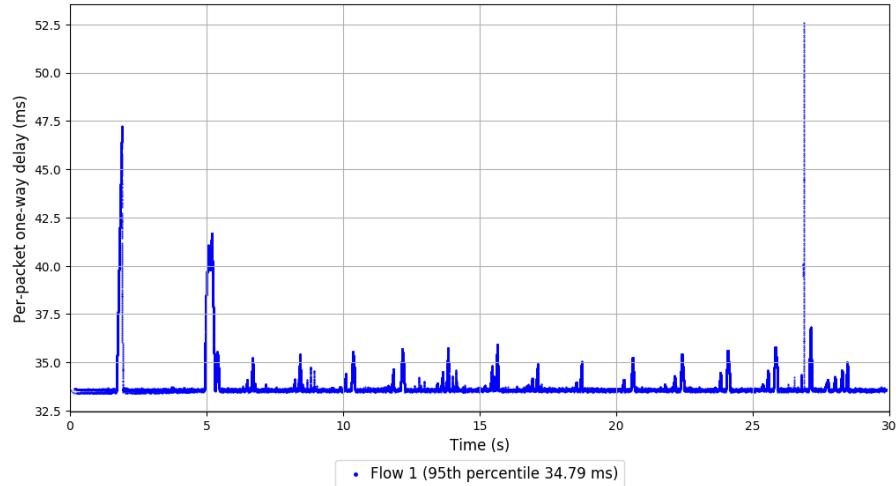
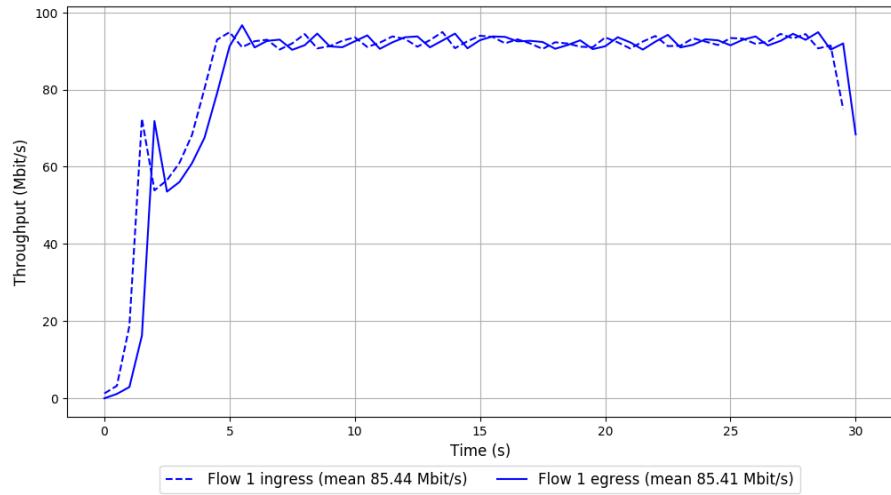


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-09-07 20:05:53
End at: 2018-09-07 20:06:23
Local clock offset: -2.726 ms
Remote clock offset: 0.667 ms

# Below is generated by plot.py at 2018-09-07 21:32:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.41 Mbit/s
95th percentile per-packet one-way delay: 34.791 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 85.41 Mbit/s
95th percentile per-packet one-way delay: 34.791 ms
Loss rate: 0.25%
```

Run 2: Report of PCC-Vivace — Data Link

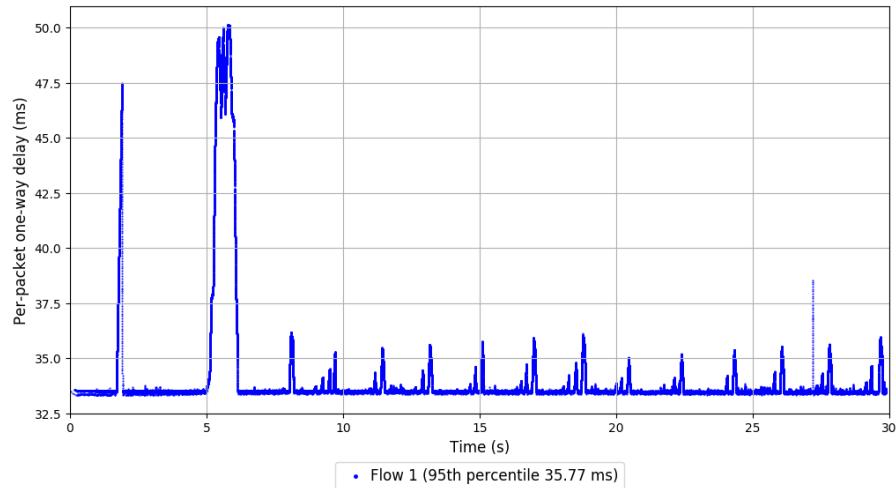
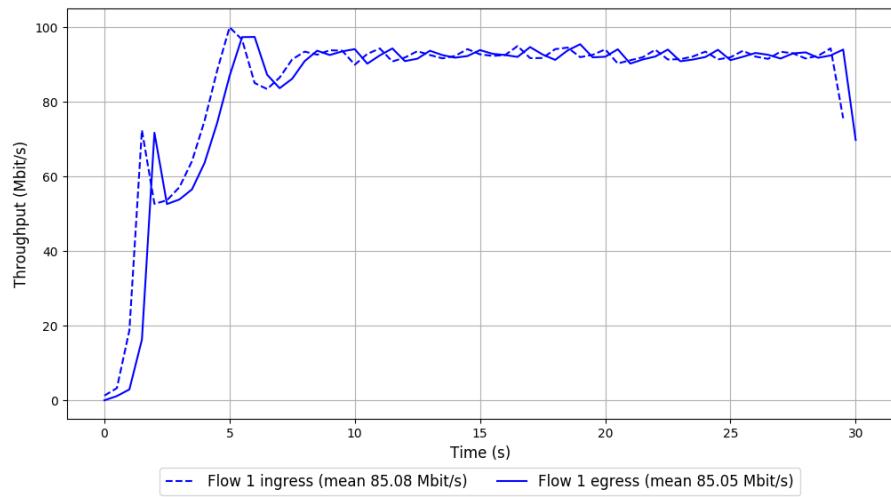


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-09-07 20:29:44
End at: 2018-09-07 20:30:14
Local clock offset: -0.113 ms
Remote clock offset: 1.136 ms

# Below is generated by plot.py at 2018-09-07 21:33:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 35.775 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 35.775 ms
Loss rate: 0.25%
```

Run 3: Report of PCC-Vivace — Data Link

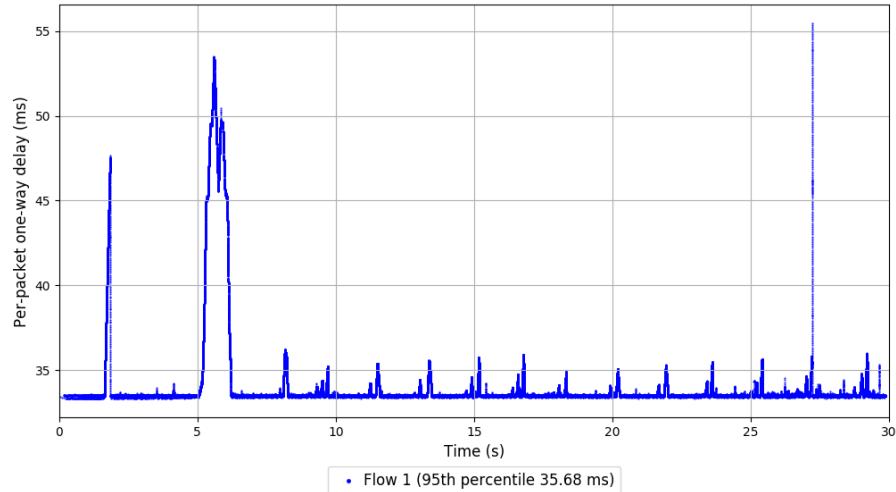
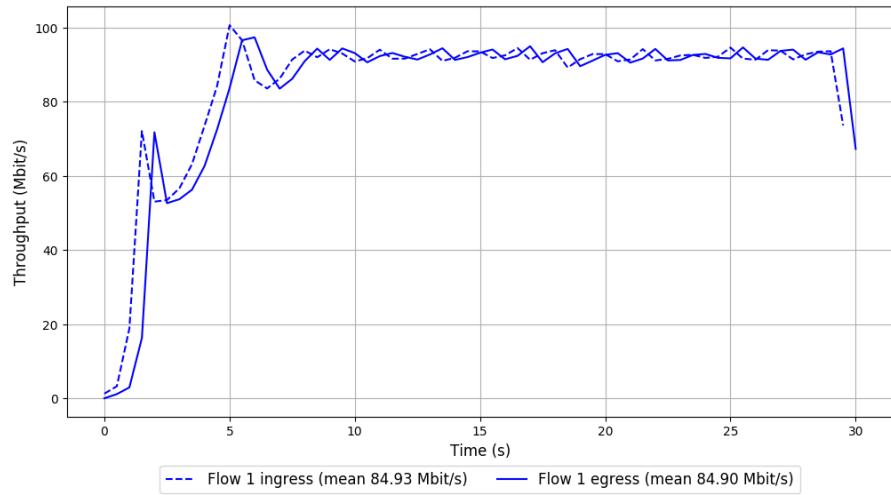


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-09-07 20:53:38
End at: 2018-09-07 20:54:08
Local clock offset: 0.417 ms
Remote clock offset: 1.347 ms

# Below is generated by plot.py at 2018-09-07 21:33:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.90 Mbit/s
95th percentile per-packet one-way delay: 35.683 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 84.90 Mbit/s
95th percentile per-packet one-way delay: 35.683 ms
Loss rate: 0.25%
```

Run 4: Report of PCC-Vivace — Data Link

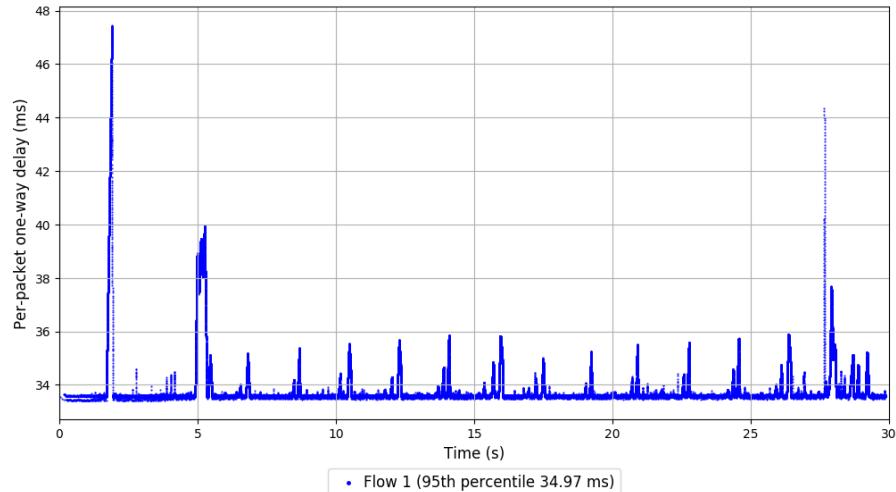
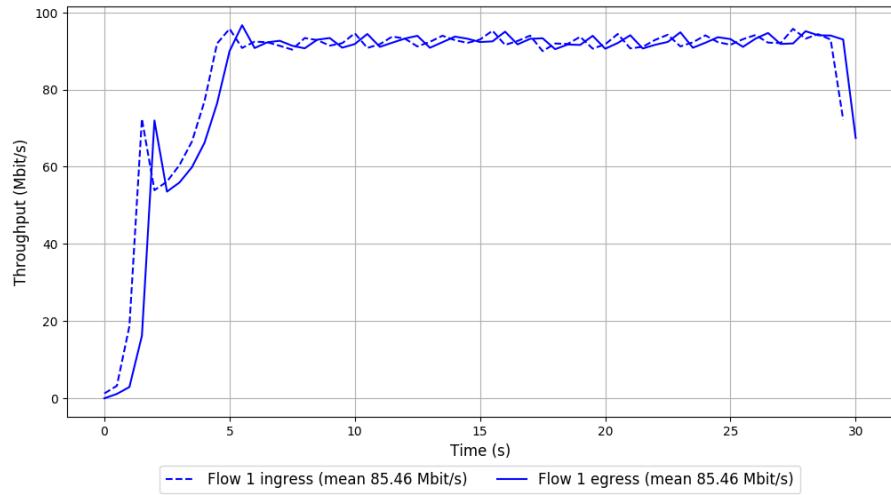


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-09-07 21:17:34
End at: 2018-09-07 21:18:04
Local clock offset: 0.264 ms
Remote clock offset: 1.32 ms

# Below is generated by plot.py at 2018-09-07 21:33:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.46 Mbit/s
95th percentile per-packet one-way delay: 34.972 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 85.46 Mbit/s
95th percentile per-packet one-way delay: 34.972 ms
Loss rate: 0.22%
```

Run 5: Report of PCC-Vivace — Data Link

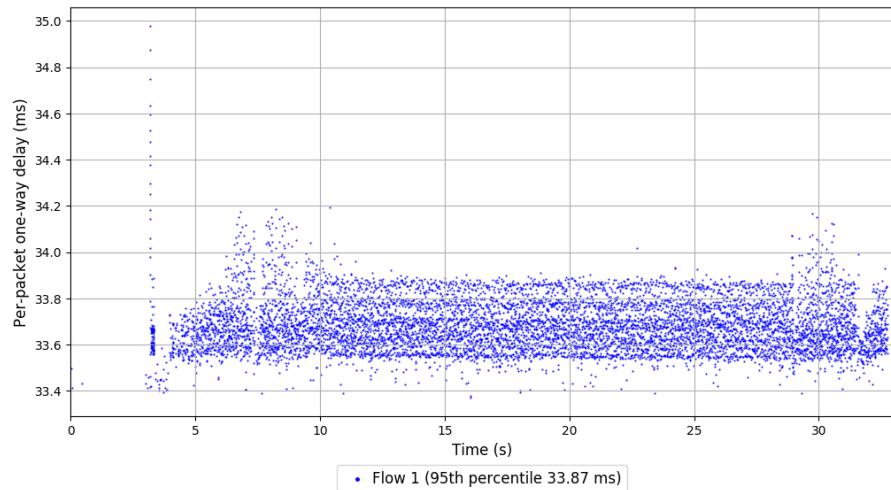
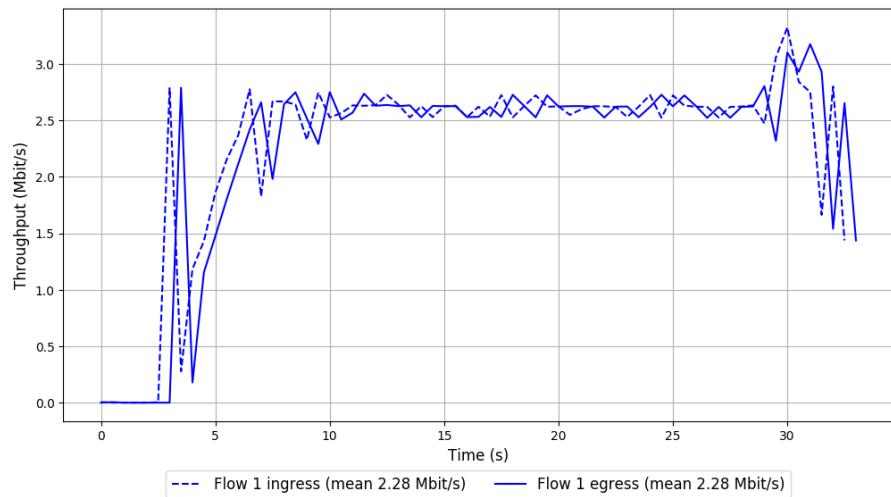


Run 1: Statistics of WebRTC media

```
Start at: 2018-09-07 19:23:25
End at: 2018-09-07 19:23:55
Local clock offset: -3.122 ms
Remote clock offset: -0.245 ms

# Below is generated by plot.py at 2018-09-07 21:33:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 33.869 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 33.869 ms
Loss rate: 0.20%
```

Run 1: Report of WebRTC media — Data Link

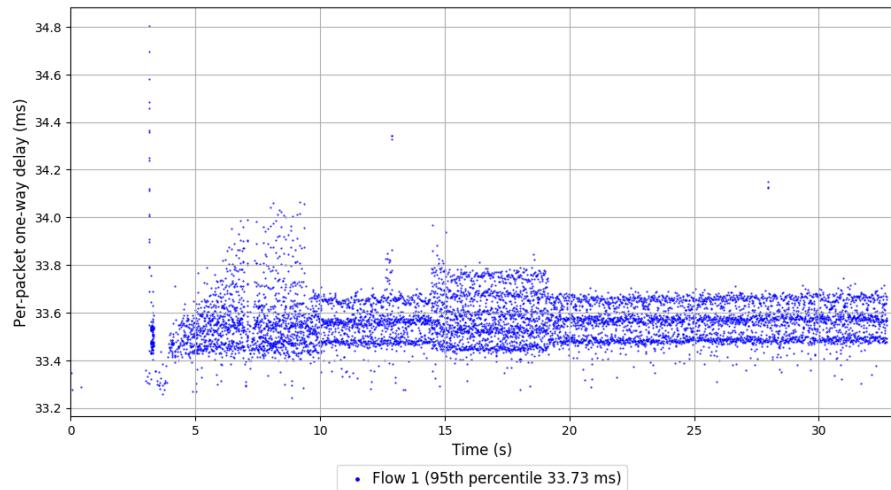
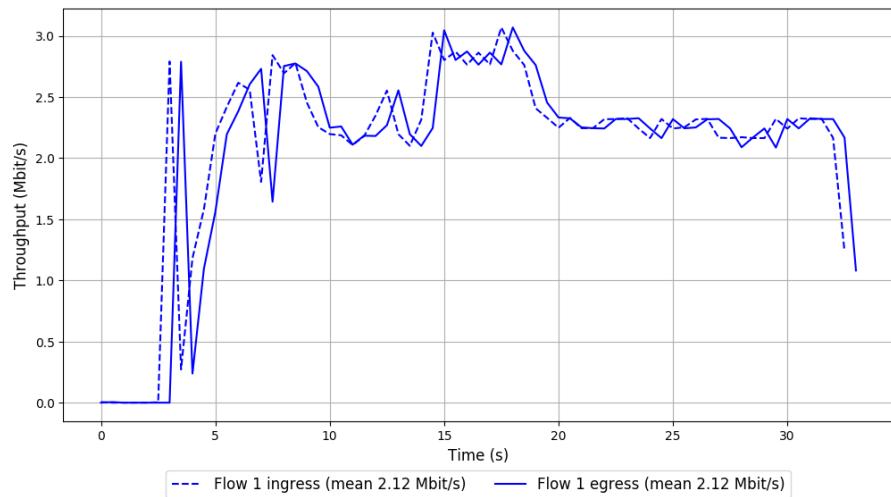


Run 2: Statistics of WebRTC media

```
Start at: 2018-09-07 19:47:16
End at: 2018-09-07 19:47:46
Local clock offset: -2.731 ms
Remote clock offset: 0.312 ms

# Below is generated by plot.py at 2018-09-07 21:33:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 33.730 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 33.730 ms
Loss rate: 0.22%
```

Run 2: Report of WebRTC media — Data Link

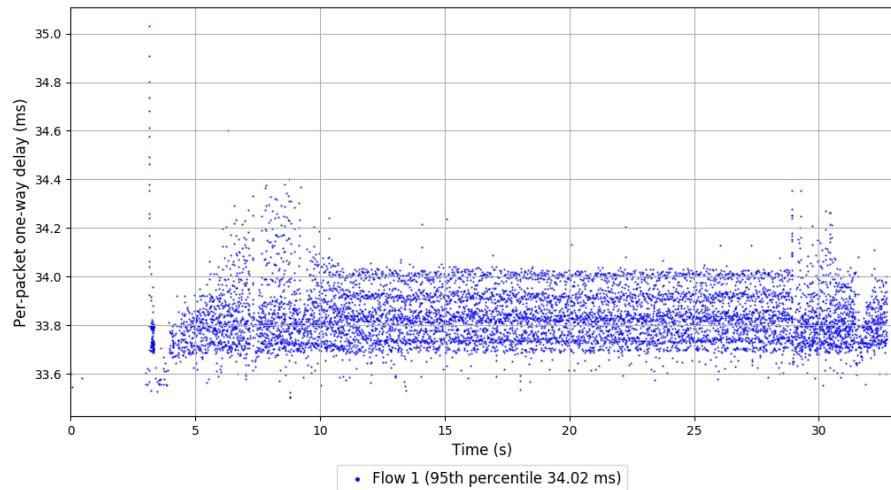
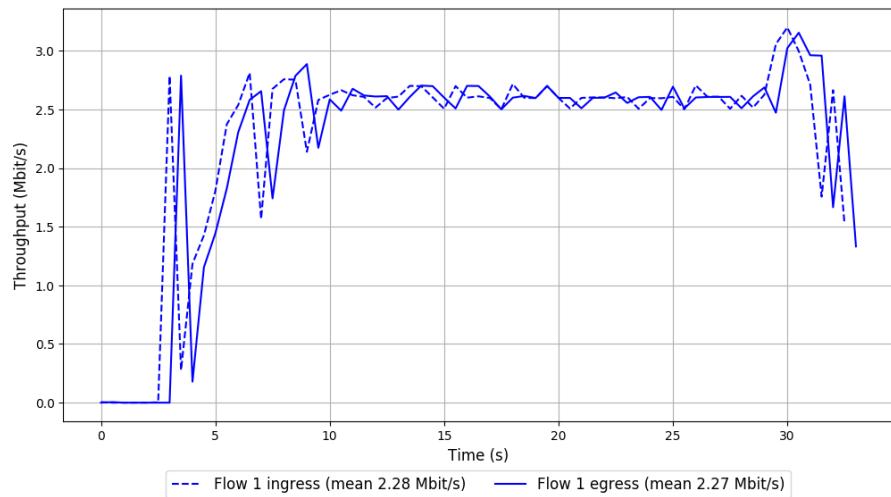


Run 3: Statistics of WebRTC media

```
Start at: 2018-09-07 20:11:11
End at: 2018-09-07 20:11:41
Local clock offset: -2.694 ms
Remote clock offset: 0.676 ms

# Below is generated by plot.py at 2018-09-07 21:33:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 34.021 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 34.021 ms
Loss rate: 0.26%
```

Run 3: Report of WebRTC media — Data Link

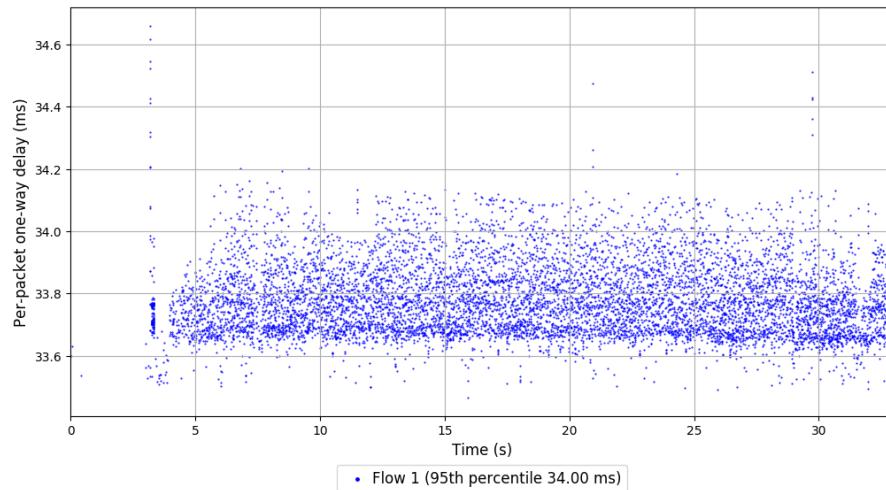
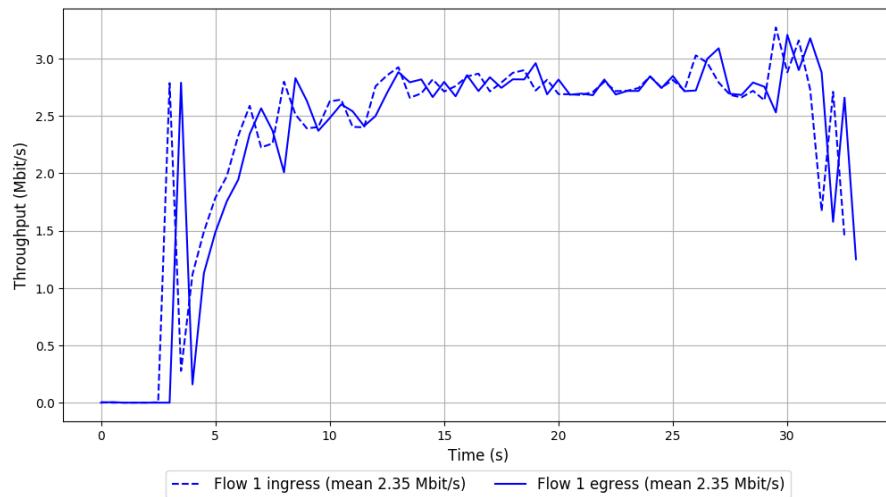


Run 4: Statistics of WebRTC media

```
Start at: 2018-09-07 20:35:02
End at: 2018-09-07 20:35:32
Local clock offset: 0.278 ms
Remote clock offset: 1.059 ms

# Below is generated by plot.py at 2018-09-07 21:33:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 34.004 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 34.004 ms
Loss rate: 0.25%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-09-07 20:58:56
End at: 2018-09-07 20:59:26
Local clock offset: 0.366 ms
Remote clock offset: 1.221 ms

# Below is generated by plot.py at 2018-09-07 21:33:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 33.982 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 33.982 ms
Loss rate: 0.26%
```

Run 5: Report of WebRTC media — Data Link

