Pantheon Report

Generated at 2019-11-24 14:50:05 (UTC).

Data path: Saudi Arabia on `enp2s0` (*remote*) →AWS India 2 on `ens5` (*local*).

Repeated the test of 24 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1041-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
```

```
Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
 M helpers/__init__.pyc
 M helpers/context.pyc
 M helpers/utils.pyc
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
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
```

test from Saudi Arabia to AWS India 2, 5 runs of 30s each per scheme
(mean of all runs by scheme)

test from Saudi Arabia to AWS India 2, 5 runs of 30s each per scheme
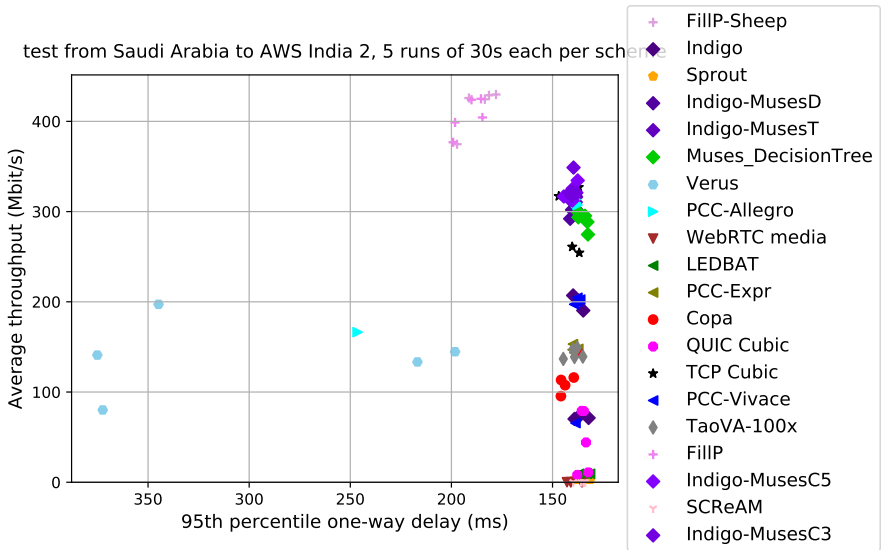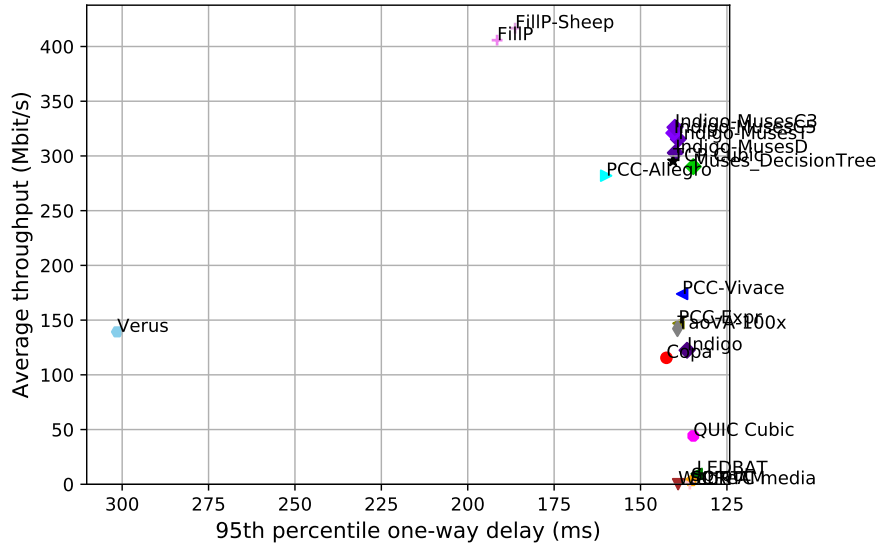
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	0	N/A	N/A	N/A
Copa	5	115.55	142.50	0.85
TCP Cubic	5	295.28	140.58	0.79
FillP	5	405.78	191.50	1.43
FillP-Sheep	5	416.74	186.28	1.33
Indigo	5	122.45	136.55	0.60
Indigo-MusesC3	5	326.16	140.06	0.74
Indigo-MusesC5	5	320.97	140.38	0.78
Indigo-MusesD	5	302.86	139.95	0.74
Indigo-MusesT	5	315.38	139.07	0.70
LEDBAT	5	9.50	133.78	1.29
Muses_DecisionTree	5	290.25	134.73	0.70
Muses_DecisionTreeH0	0	N/A	N/A	N/A
Muses_DecisionTreeR0	0	N/A	N/A	N/A
PCC-Allegro	5	281.96	159.94	1.07
PCC-Expr	5	147.04	139.04	0.83
QUIC Cubic	5	44.26	134.73	0.74
SCReAM	5	0.22	135.72	0.61
Sprout	5	3.06	135.34	0.88
TaoVA-100x	5	142.20	139.32	0.70
TCP Vegas	0	N/A	N/A	N/A
Verus	5	139.26	301.45	1.63
PCC-Vivace	5	173.92	137.97	1.04
WebRTC media	5	0.05	139.12	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-11-24 11:52:27
End at: 2019-11-24 11:52:57
Local clock offset: 0.141 ms
Remote clock offset: -39.765 ms
```

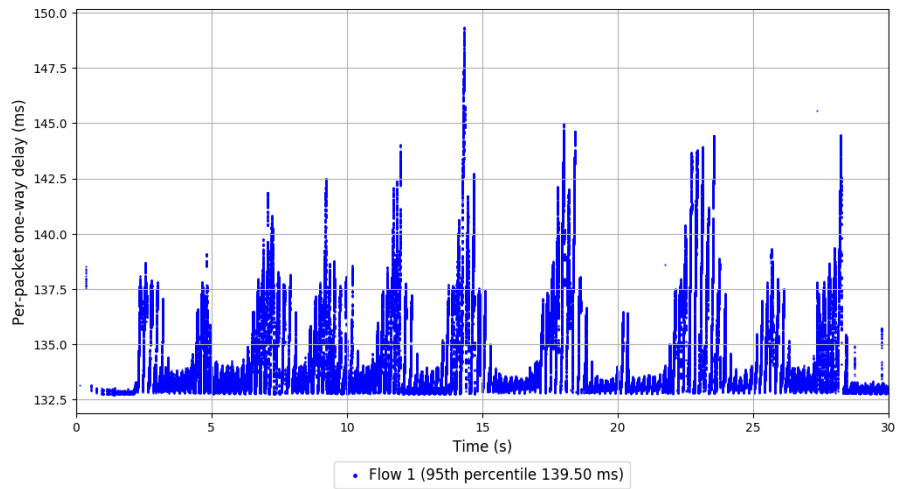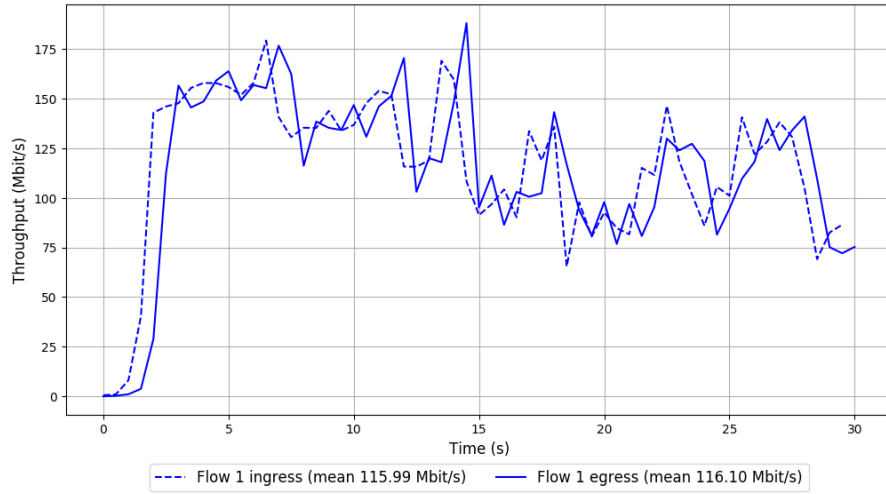Run 1: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of TCP BBR

Start at: 2019-11-24 12:23:26
End at: 2019-11-24 12:23:56
Local clock offset: -3.784 ms
Remote clock offset: -43.7 ms

Run 2: Report of TCP BBR — Data Link
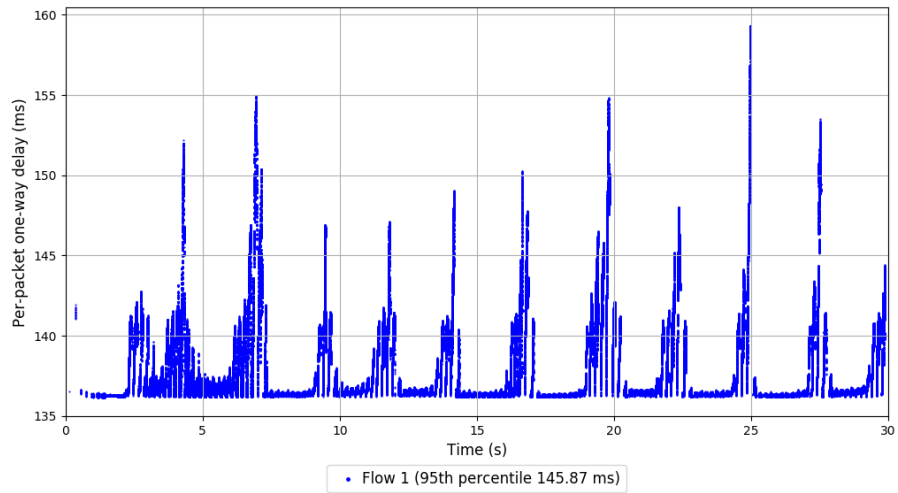
Figure is missing

Figure is missing

```
Run 3: Statistics of TCP BBR

Start at: 2019-11-24 12:54:23
End at: 2019-11-24 12:54:53
Local clock offset: -0.445 ms
Remote clock offset: -40.555 ms
```

Run 3: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

```
Run 4: Statistics of TCP BBR

Start at: 2019-11-24 13:25:34
End at: 2019-11-24 13:26:04
Local clock offset: -2.795 ms
Remote clock offset: -38.798 ms
```

Run 4: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of TCP BBR

Start at: 2019-11-24 13:56:35
End at: 2019-11-24 13:57:05
Local clock offset: -0.544 ms
Remote clock offset: -36.975 ms

Run 5: Report of TCP BBR — Data Link
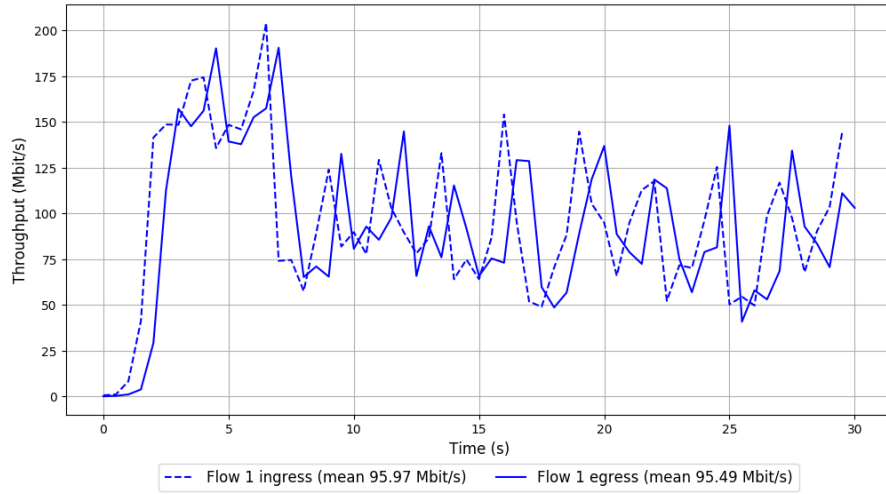
Figure is missing

Figure is missing

```
Run 1: Statistics of Copa

Start at: 2019-11-24 11:47:16
End at: 2019-11-24 11:47:46
Local clock offset: -0.948 ms
Remote clock offset: -39.419 ms


# Below is generated by plot.py at 2019-11-24 14:22:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 145.19 Mbit/s
95th percentile per-packet one-way delay: 137.575 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 145.19 Mbit/s
95th percentile per-packet one-way delay: 137.575 ms
Loss rate: 0.95%
```
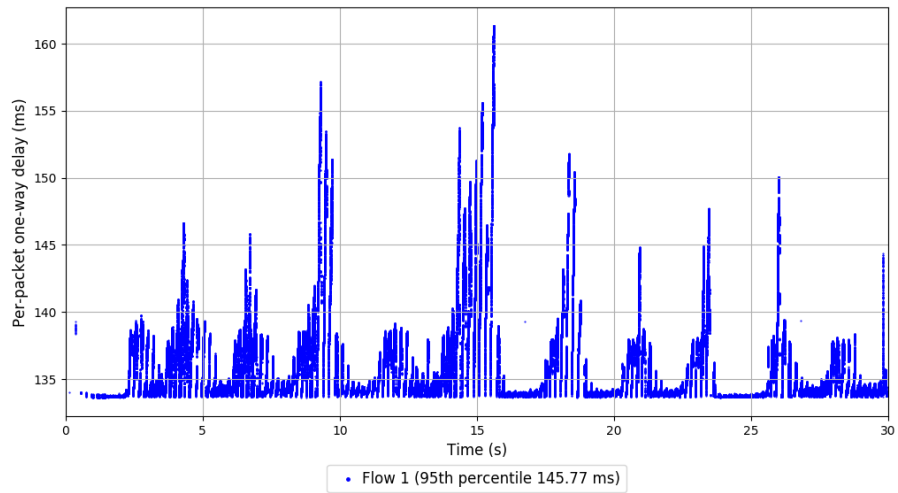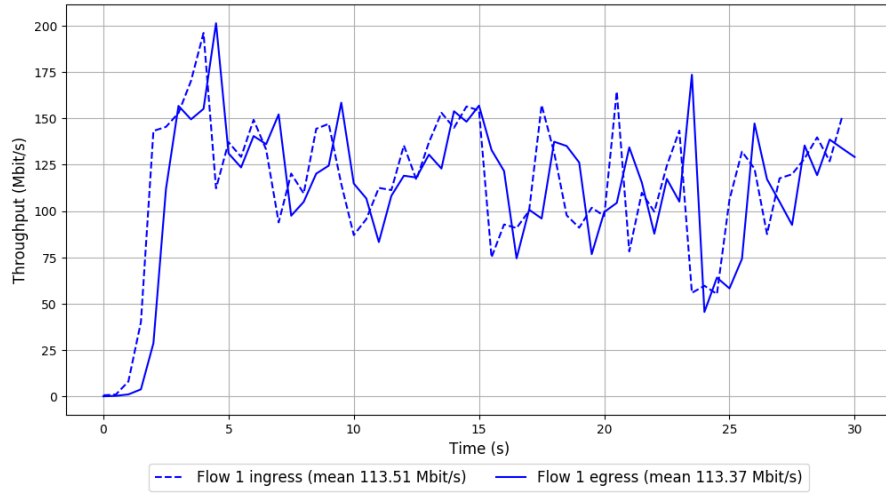
Run 1: Report of Copa — Data Link
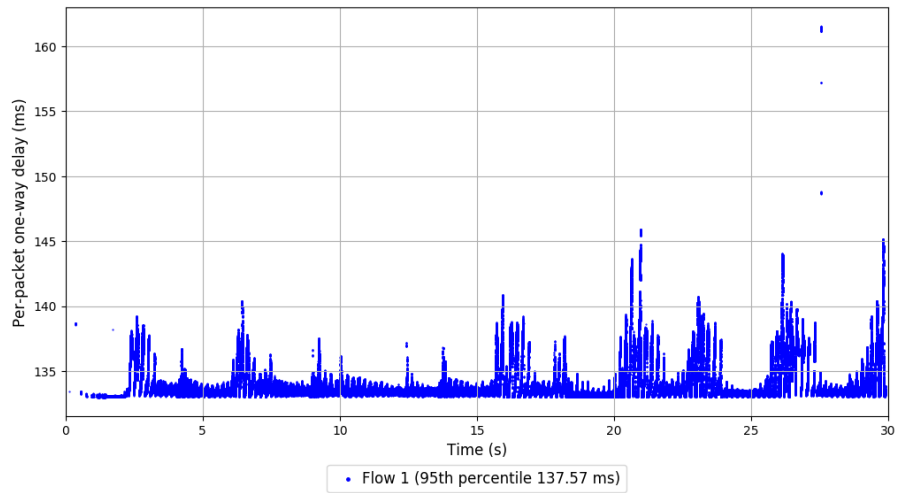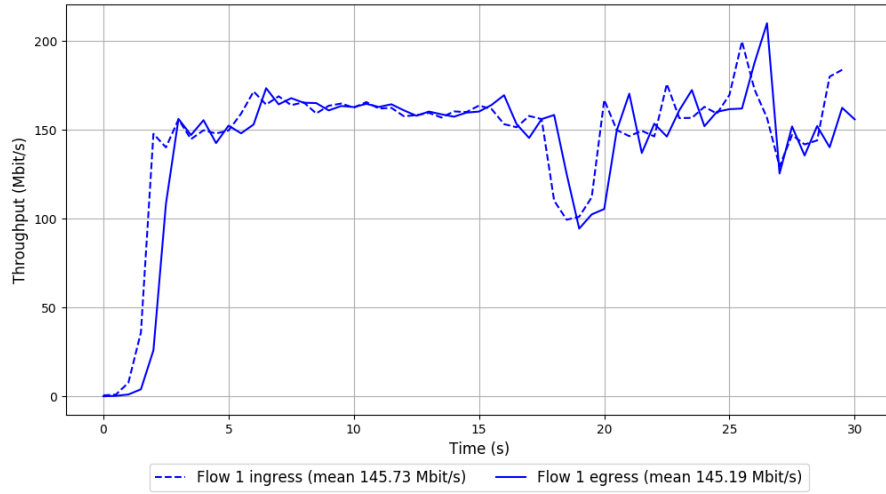
```
Run 2: Statistics of Copa

Start at: 2019-11-24 12:18:20
End at: 2019-11-24 12:18:50
Local clock offset: -2.262 ms
Remote clock offset: -39.489 ms


# Below is generated by plot.py at 2019-11-24 14:22:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 116.10 Mbit/s
95th percentile per-packet one-way delay: 139.505 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 116.10 Mbit/s
95th percentile per-packet one-way delay: 139.505 ms
Loss rate: 0.55%
```

Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 115.99 Mbit/s) --- Flow 1 egress (mean 116.10 Mbit/s)

Flow 1 (95th percentile 139.50 ms)

```
Run 3: Statistics of Copa

Start at: 2019-11-24 12:49:17
End at: 2019-11-24 12:49:47
Local clock offset: -0.684 ms
Remote clock offset: -40.527 ms


# Below is generated by plot.py at 2019-11-24 14:22:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 145.870 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 145.870 ms
Loss rate: 1.17%
```

Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 95.97 Mbit/s)   Flow 1 egress (mean 95.49 Mbit/s)

Flow 1 (95th percentile 145.87 ms)

```
Run 4: Statistics of Copa

Start at: 2019-11-24 13:20:28
End at: 2019-11-24 13:20:58
Local clock offset: -0.401 ms
Remote clock offset: -37.182 ms


# Below is generated by plot.py at 2019-11-24 14:22:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 113.37 Mbit/s
95th percentile per-packet one-way delay: 145.770 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 113.37 Mbit/s
95th percentile per-packet one-way delay: 145.770 ms
Loss rate: 0.77%
```

Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 113.51 Mbit/s)   Flow 1 egress (mean 113.37 Mbit/s)

Flow 1 (95th percentile 145.77 ms)

```
Run 5: Statistics of Copa

Start at: 2019-11-24 13:51:28
End at: 2019-11-24 13:51:58
Local clock offset: -3.175 ms
Remote clock offset: -37.635 ms


# Below is generated by plot.py at 2019-11-24 14:22:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 107.59 Mbit/s
95th percentile per-packet one-way delay: 143.788 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 107.59 Mbit/s
95th percentile per-packet one-way delay: 143.788 ms
Loss rate: 0.82%
```
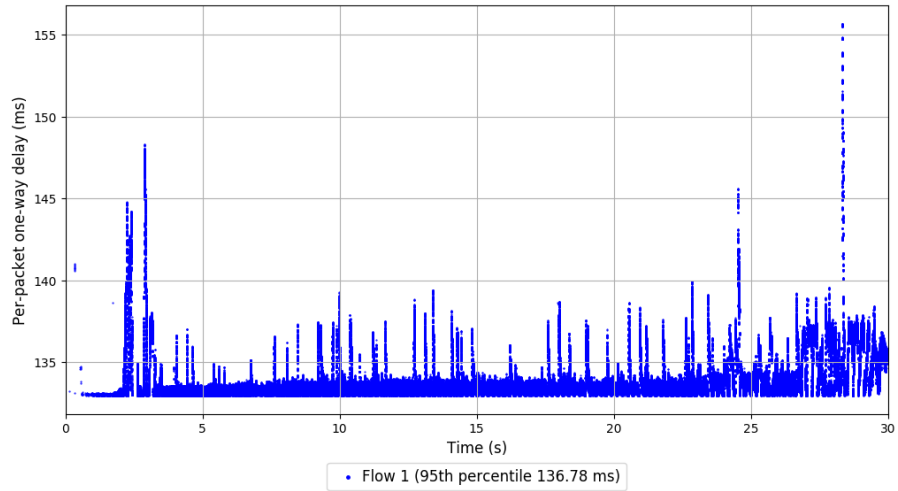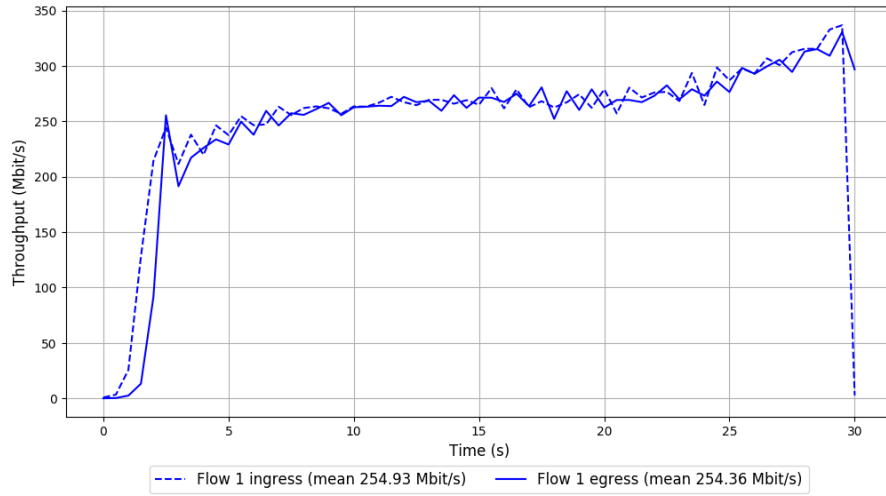
Run 5: Report of Copa — Data Link
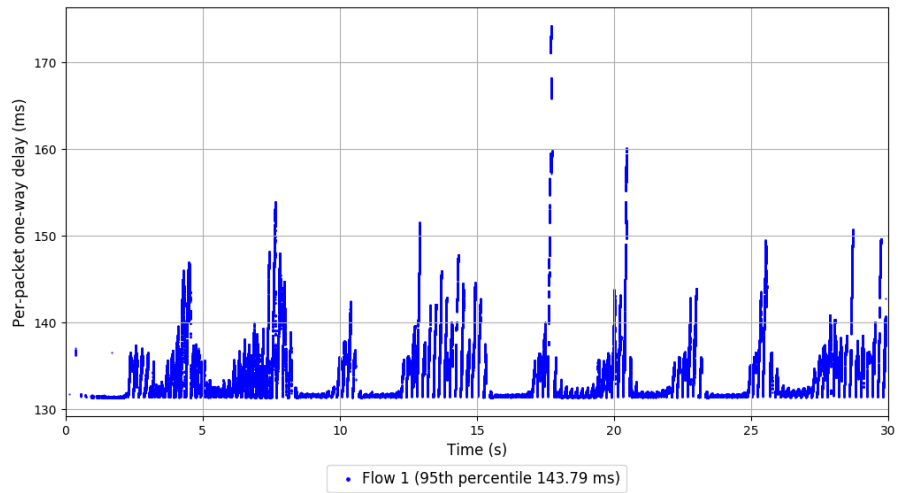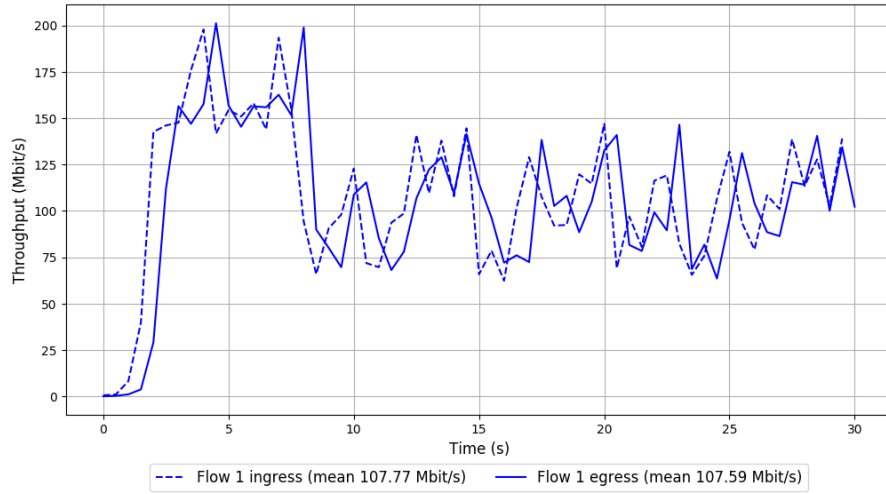
```
Run 1: Statistics of TCP Cubic

Start at: 2019-11-24 12:01:26
End at: 2019-11-24 12:01:56
Local clock offset: -3.37 ms
Remote clock offset: -40.258 ms


# Below is generated by plot.py at 2019-11-24 14:22:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 327.06 Mbit/s
95th percentile per-packet one-way delay: 137.029 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 327.06 Mbit/s
95th percentile per-packet one-way delay: 137.029 ms
Loss rate: 0.79%
```
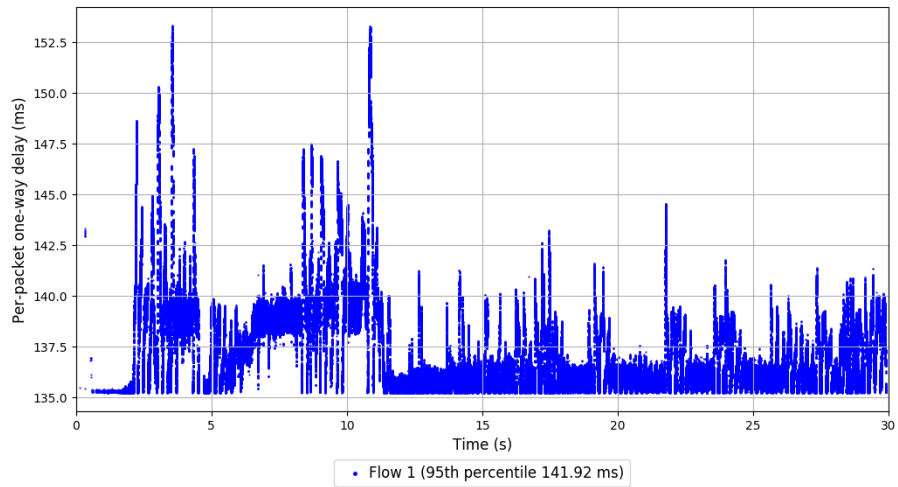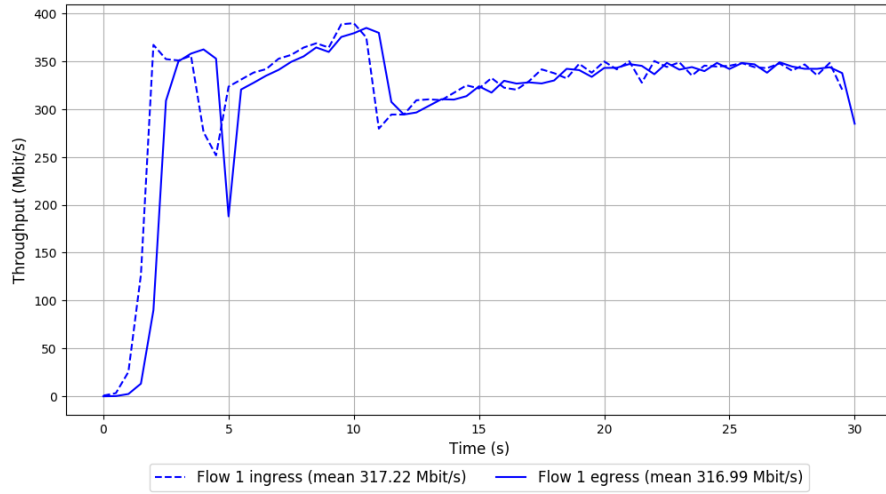
Run 1: Report of TCP Cubic — Data Link
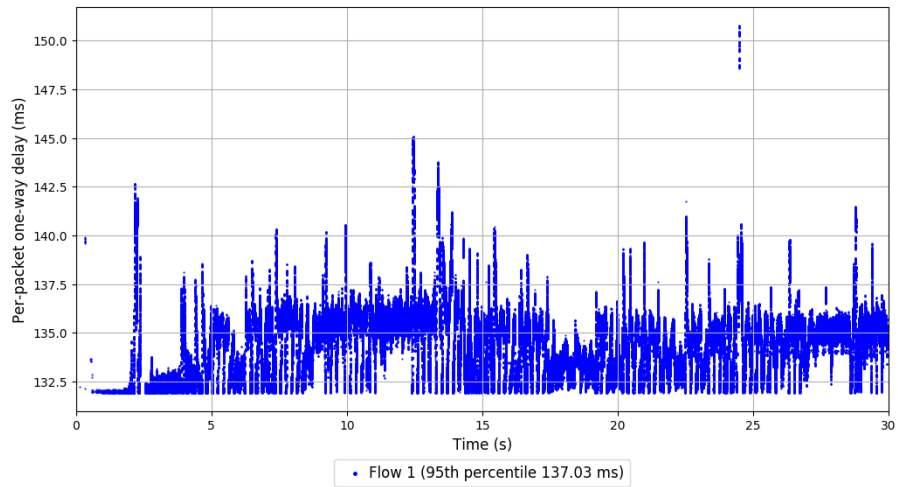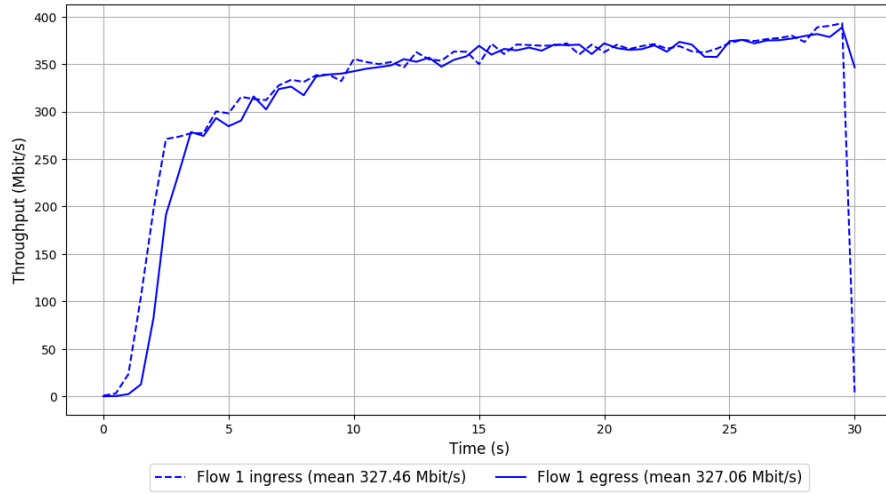
```
Run 2: Statistics of TCP Cubic

Start at: 2019-11-24 12:32:18
End at: 2019-11-24 12:32:48
Local clock offset: -0.652 ms
Remote clock offset: -41.053 ms


# Below is generated by plot.py at 2019-11-24 14:22:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 260.98 Mbit/s
95th percentile per-packet one-way delay: 140.268 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 260.98 Mbit/s
95th percentile per-packet one-way delay: 140.268 ms
Loss rate: 0.86%
```

Run 2: Report of TCP Cubic — Data Link
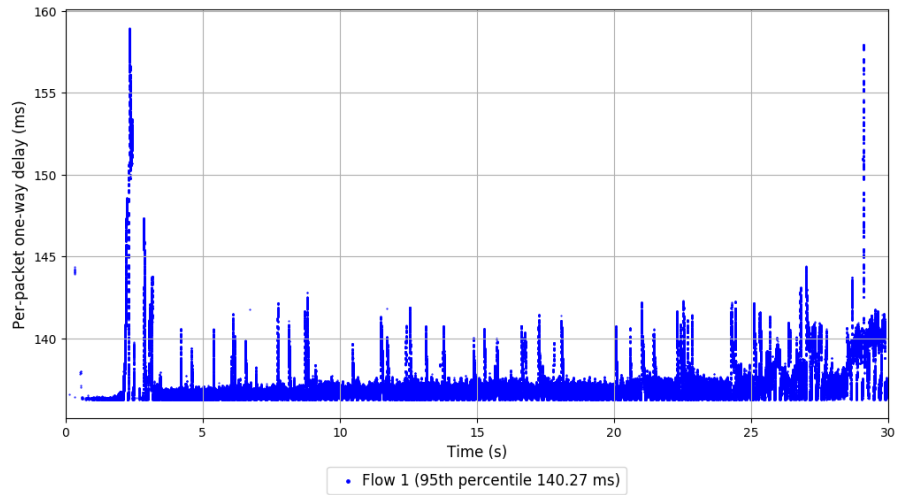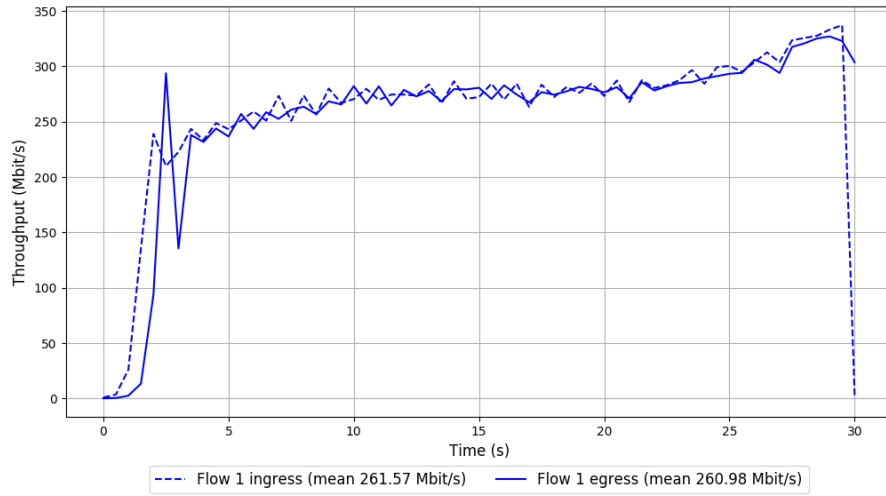
```
Run 3: Statistics of TCP Cubic

Start at: 2019-11-24 13:03:23
End at: 2019-11-24 13:03:54
Local clock offset: -1.959 ms
Remote clock offset: -38.462 ms


# Below is generated by plot.py at 2019-11-24 14:22:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 254.36 Mbit/s
95th percentile per-packet one-way delay: 136.784 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 254.36 Mbit/s
95th percentile per-packet one-way delay: 136.784 ms
Loss rate: 0.87%
```
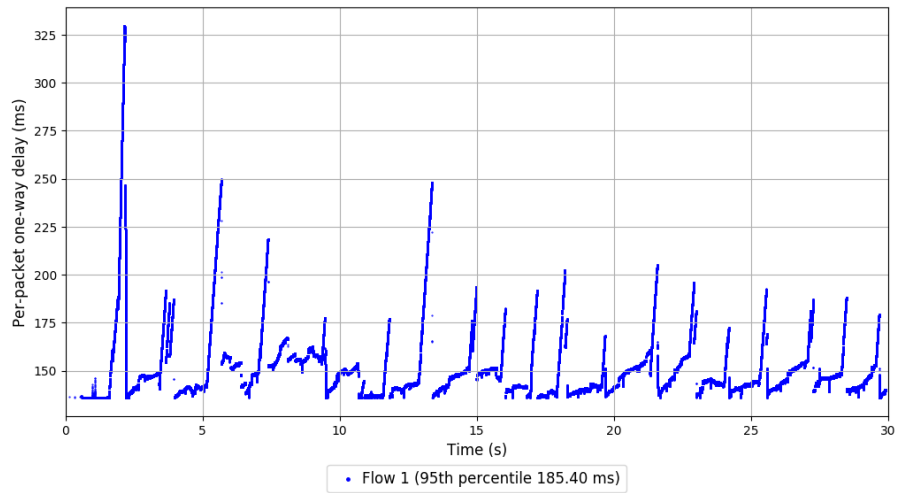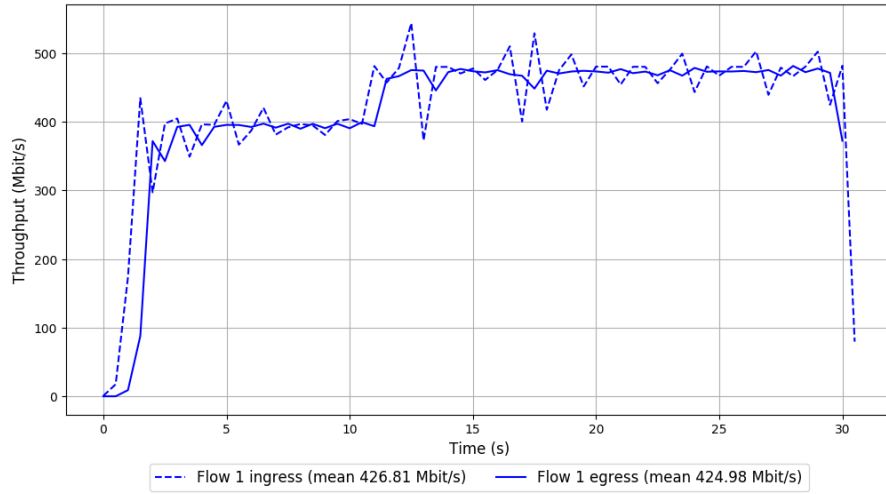
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 254.93 Mbit/s)   Flow 1 egress (mean 254.36 Mbit/s)

Flow 1 (95th percentile 136.78 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-11-24 13:34:26
End at: 2019-11-24 13:34:56
Local clock offset: 0.305 ms
Remote clock offset: -38.069 ms


# Below is generated by plot.py at 2019-11-24 14:24:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.99 Mbit/s
95th percentile per-packet one-way delay: 141.923 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 316.99 Mbit/s
95th percentile per-packet one-way delay: 141.923 ms
Loss rate: 0.71%
```

Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 317.22 Mbit/s)   Flow 1 egress (mean 316.99 Mbit/s)

Flow 1 (95th percentile 141.92 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-11-24 14:05:27
End at: 2019-11-24 14:05:57
Local clock offset: 0.225 ms
Remote clock offset: -42.609 ms


# Below is generated by plot.py at 2019-11-24 14:24:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 317.02 Mbit/s
95th percentile per-packet one-way delay: 146.905 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 317.02 Mbit/s
95th percentile per-packet one-way delay: 146.905 ms
Loss rate: 0.72%
```

Run 5: Report of TCP Cubic — Data Link
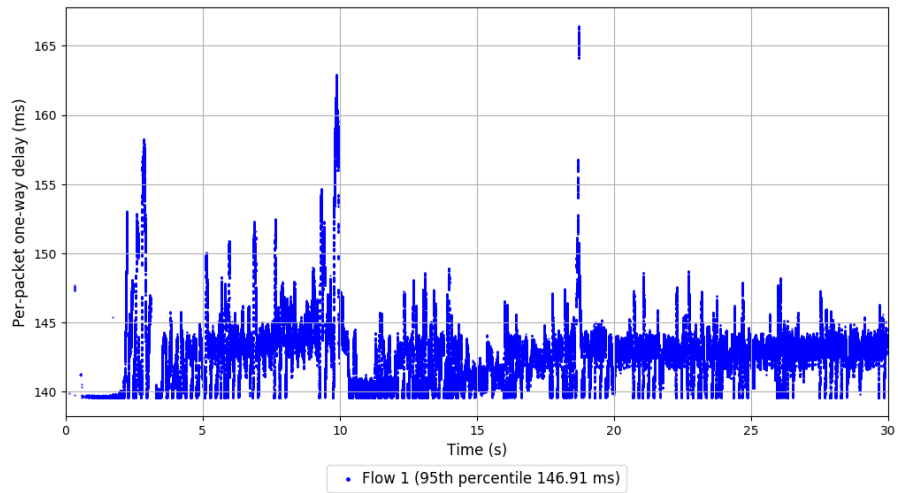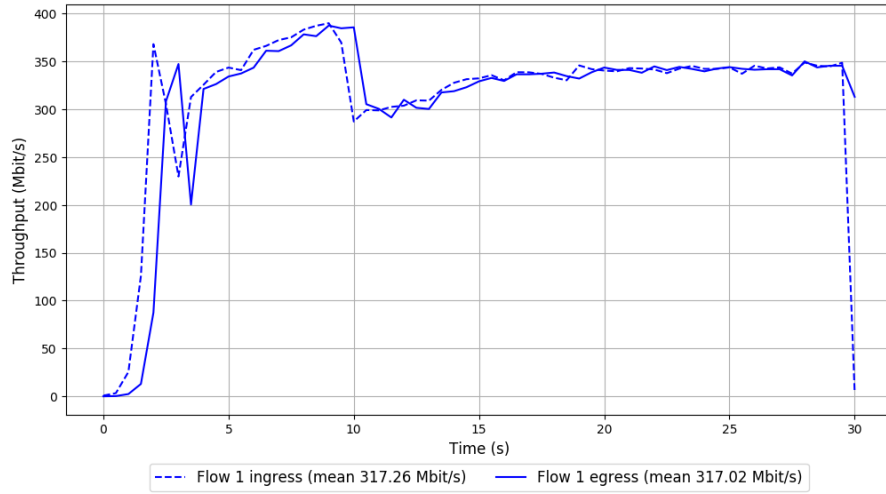
```
Run 1: Statistics of FillP

Start at: 2019-11-24 11:49:50
End at: 2019-11-24 11:50:20
Local clock offset: -0.563 ms
Remote clock offset: -41.757 ms


# Below is generated by plot.py at 2019-11-24 14:27:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 424.98 Mbit/s
95th percentile per-packet one-way delay: 185.398 ms
Loss rate: 3.05%
-- Flow 1:
Average throughput: 424.98 Mbit/s
95th percentile per-packet one-way delay: 185.398 ms
Loss rate: 3.05%
```

# Run 1: Report of FillP — Data Link



Flow 1 ingress (mean 426.81 Mbit/s)     Flow 1 egress (mean 424.98 Mbit/s)



Flow 1 (95th percentile 185.40 ms)

```
Run 2: Statistics of FillP

Start at: 2019-11-24 12:20:51
End at: 2019-11-24 12:21:21
Local clock offset: -2.93 ms
Remote clock offset: -38.539 ms

Below is generated by plot.py at 2019-11-24 14:27:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 376.83 Mbit/s
95th percentile per-packet one-way delay: 199.153 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 376.83 Mbit/s
95th percentile per-packet one-way delay: 199.153 ms
Loss rate: 1.08%
```

Run 2: Report of FillP — Data Link



Flow 1 ingress (mean 377.99 Mbit/s)    Flow 1 egress (mean 376.83 Mbit/s)



Flow 1 (95th percentile 199.15 ms)
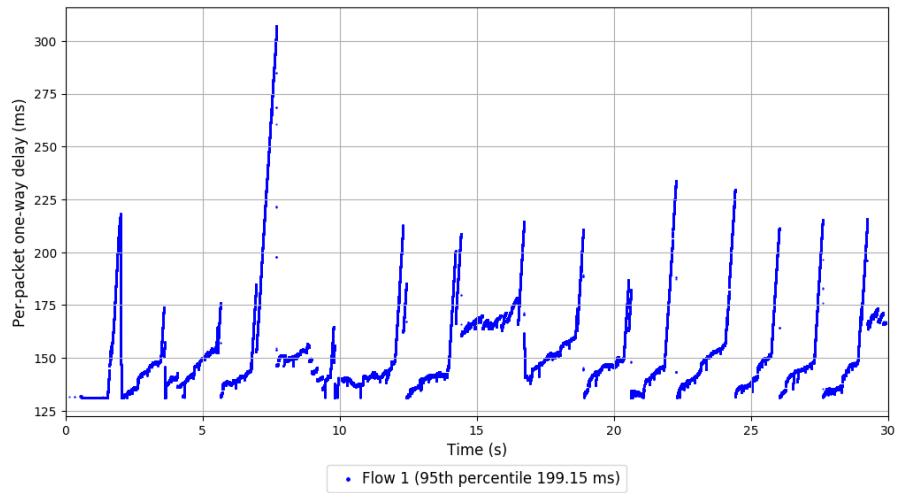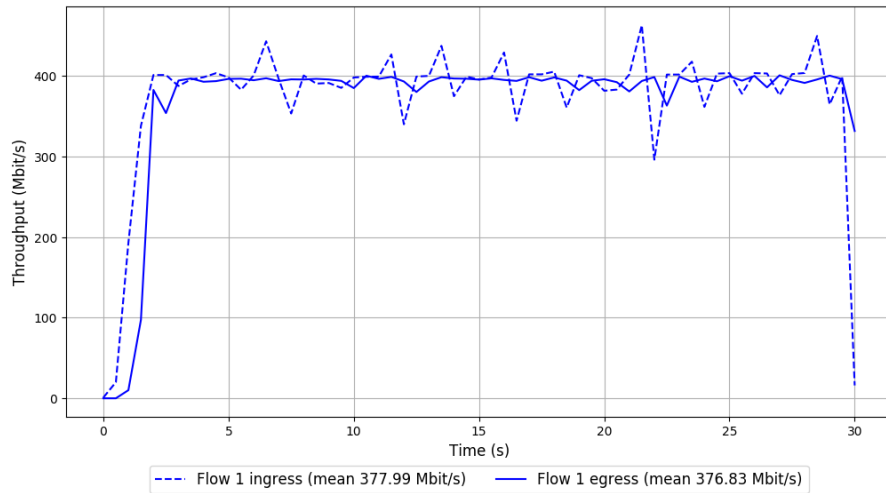
```
Run 3: Statistics of FillP

Start at: 2019-11-24 12:51:47
End at: 2019-11-24 12:52:17
Local clock offset: -2.655 ms
Remote clock offset: -41.202 ms


# Below is generated by plot.py at 2019-11-24 14:27:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 423.94 Mbit/s
95th percentile per-packet one-way delay: 190.084 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 423.94 Mbit/s
95th percentile per-packet one-way delay: 190.084 ms
Loss rate: 1.13%
```

Run 3: Report of FillP — Data Link
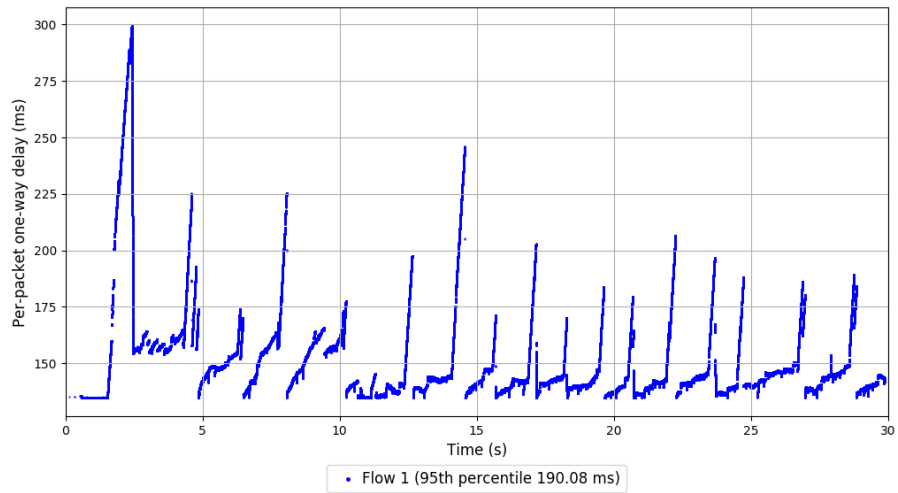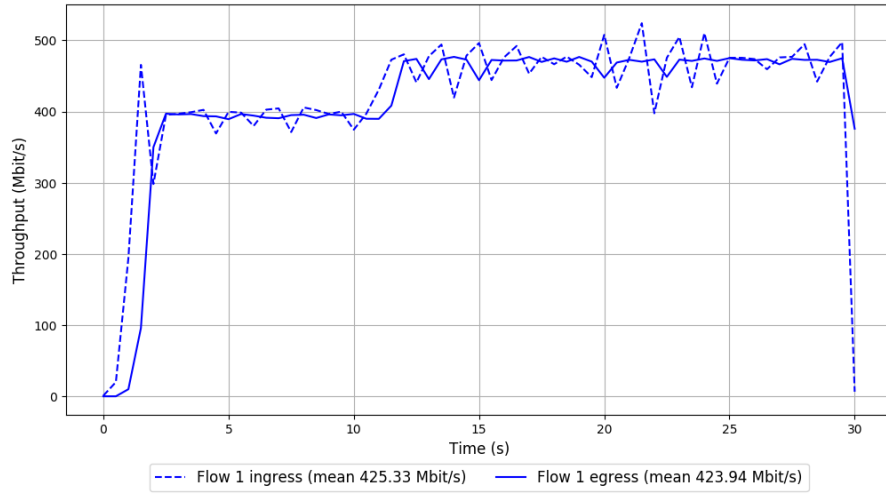
```
Run 4: Statistics of FillP

Start at: 2019-11-24 13:23:00
End at: 2019-11-24 13:23:30
Local clock offset: -1.386 ms
Remote clock offset: -38.026 ms


# Below is generated by plot.py at 2019-11-24 14:27:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 398.82 Mbit/s
95th percentile per-packet one-way delay: 198.215 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 398.82 Mbit/s
95th percentile per-packet one-way delay: 198.215 ms
Loss rate: 0.90%
```

Run 4: Report of FillP — Data Link
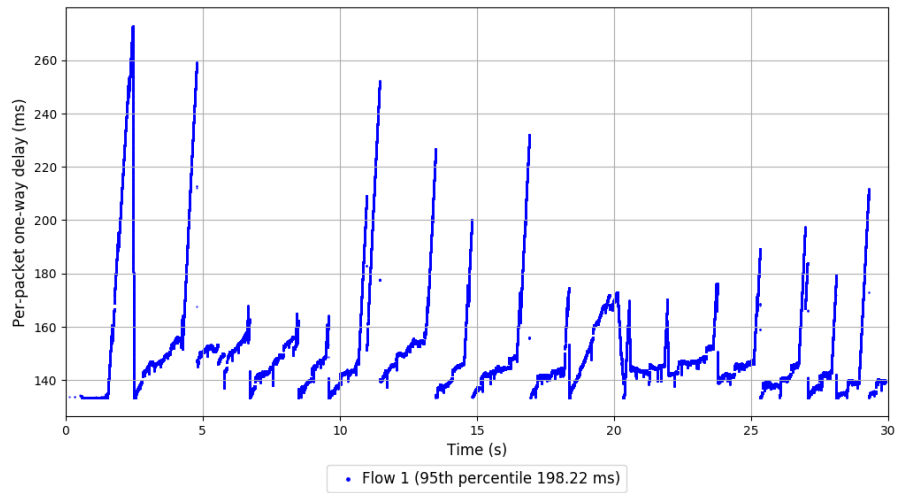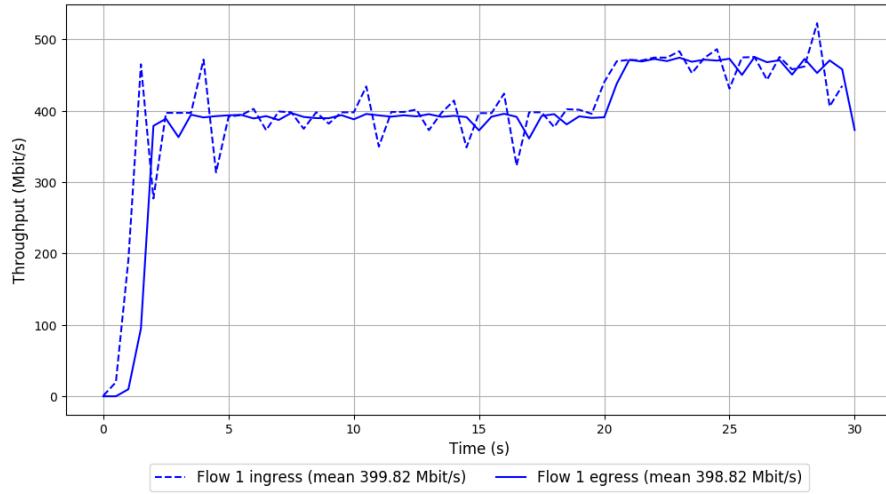
```
Run 5: Statistics of FillP

Start at: 2019-11-24 13:53:59
End at: 2019-11-24 13:54:29
Local clock offset: 0.383 ms
Remote clock offset: -37.313 ms


# Below is generated by plot.py at 2019-11-24 14:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 404.32 Mbit/s
95th percentile per-packet one-way delay: 184.667 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 404.32 Mbit/s
95th percentile per-packet one-way delay: 184.667 ms
Loss rate: 1.01%
```
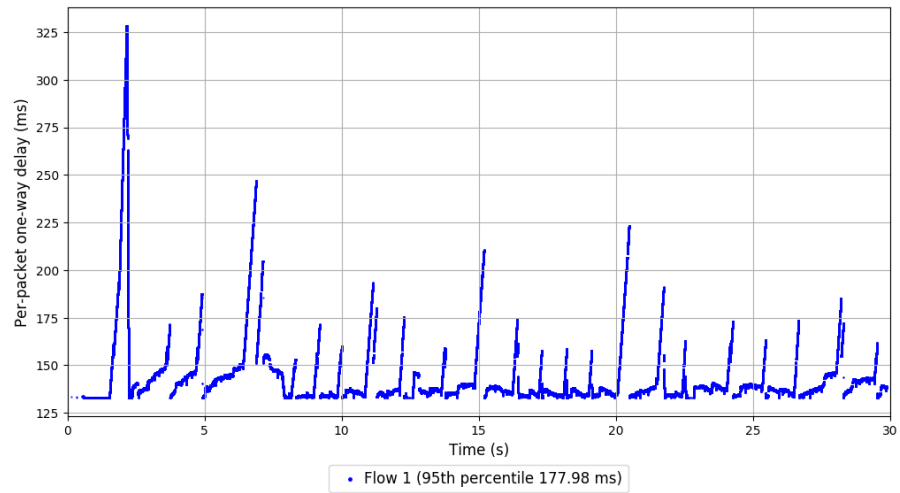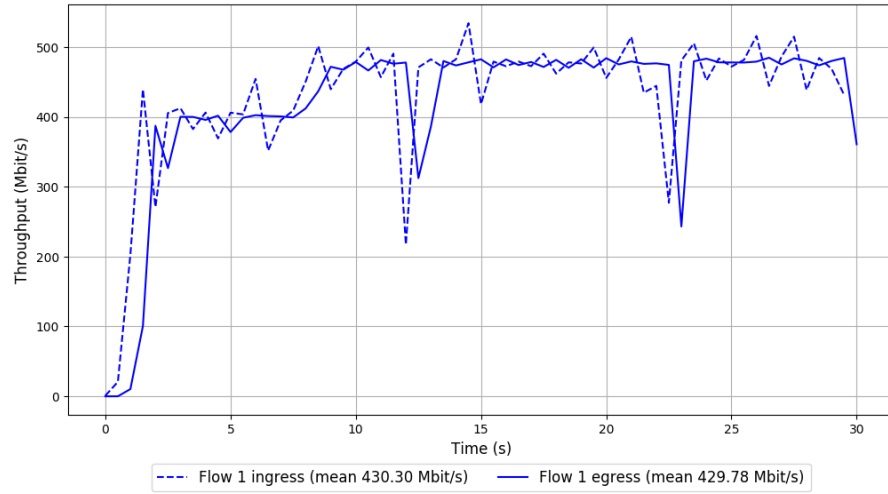
Run 5: Report of FillP — Data Link

44
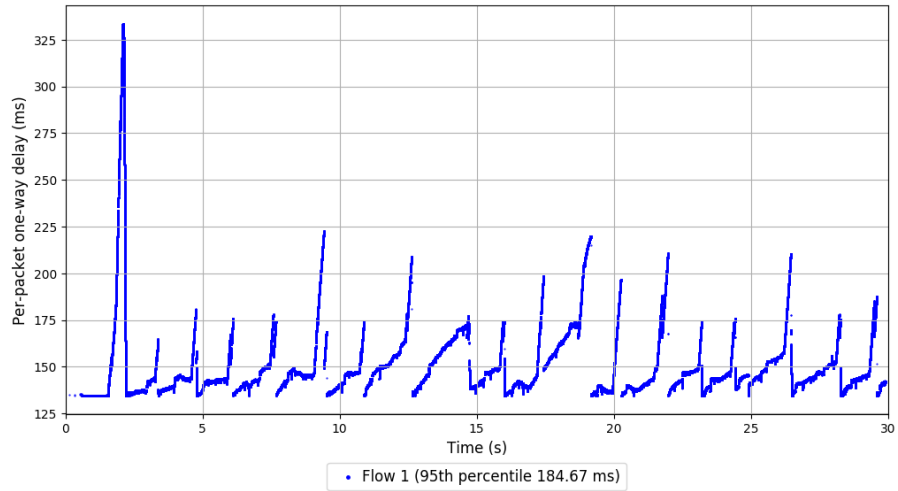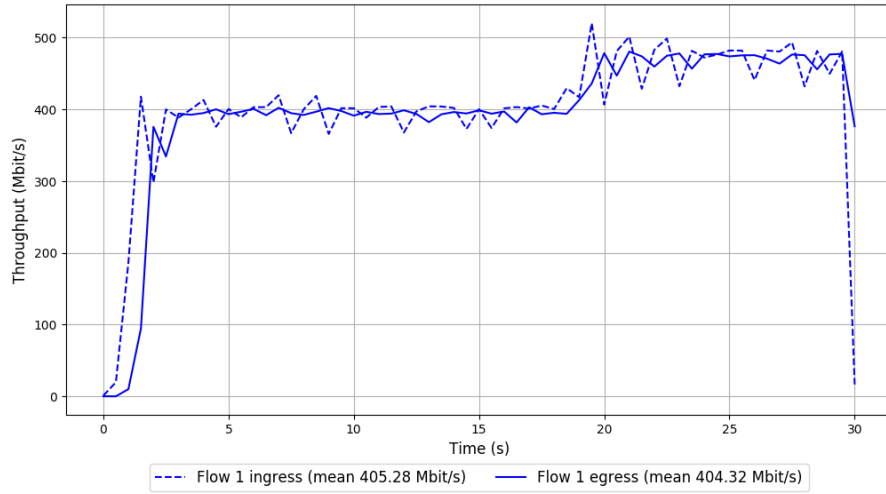
```
Run 1: Statistics of FillP-Sheep

Start at: 2019-11-24 11:41:55
End at: 2019-11-24 11:42:25
Local clock offset: -0.284 ms
Remote clock offset: -42.074 ms


# Below is generated by plot.py at 2019-11-24 14:28:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 425.88 Mbit/s
95th percentile per-packet one-way delay: 191.332 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 425.88 Mbit/s
95th percentile per-packet one-way delay: 191.332 ms
Loss rate: 0.72%
```
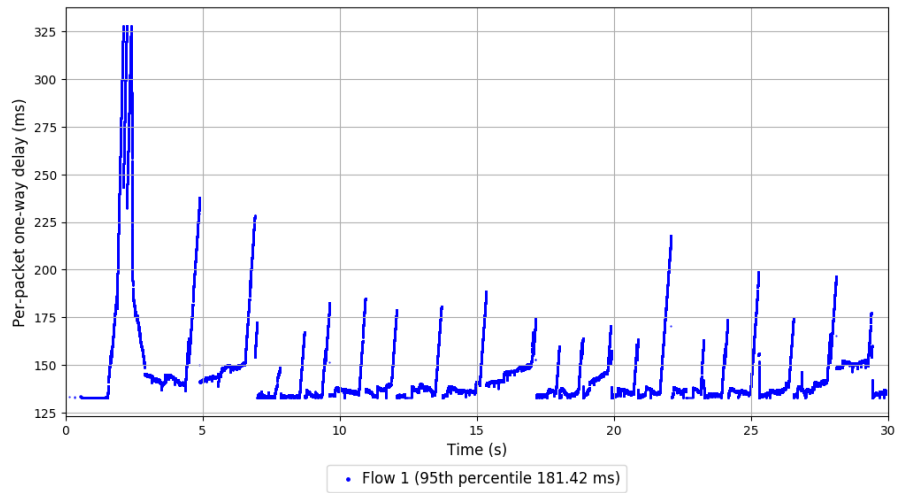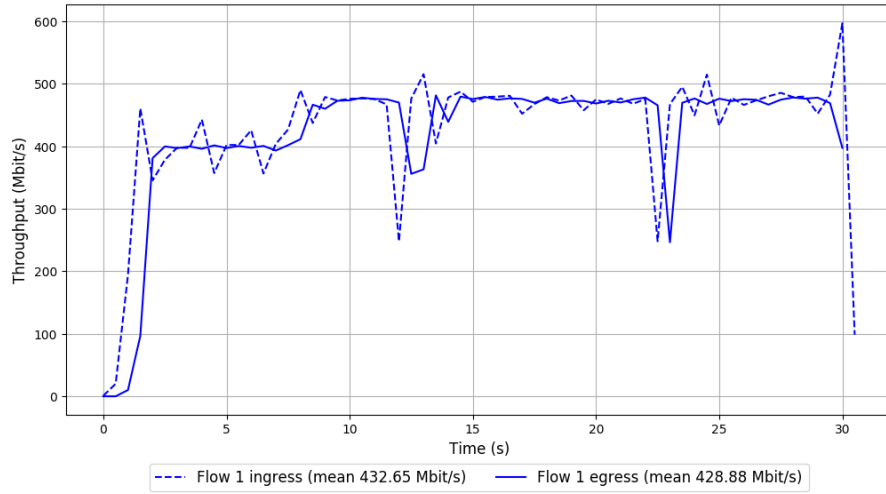
Run 1: Report of FillP-Sheep — Data Link
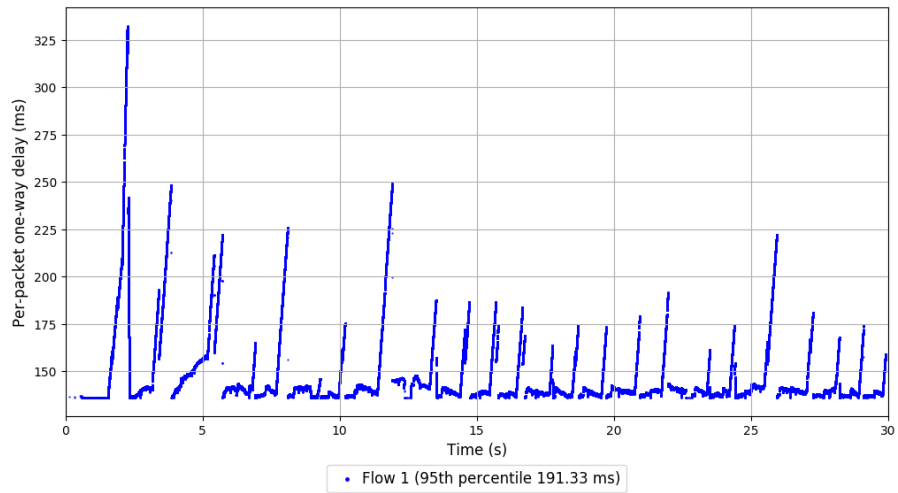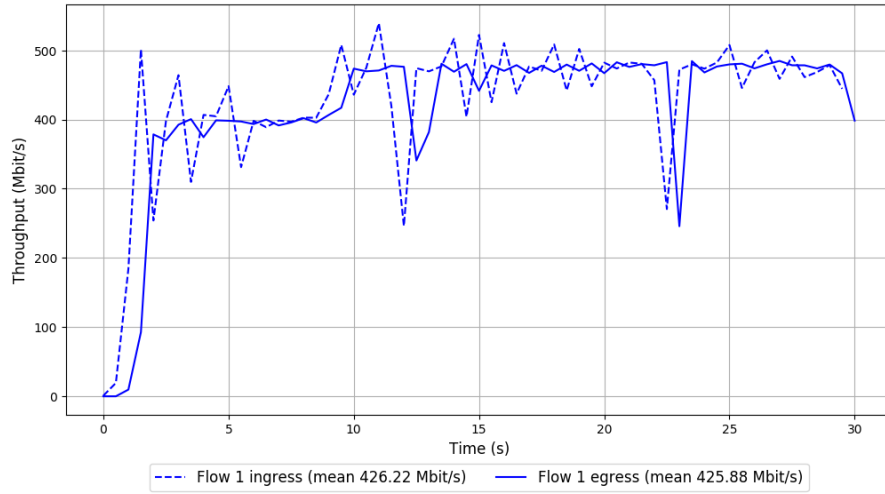
```
Run 2: Statistics of FillP-Sheep

Start at: 2019-11-24 12:12:57
End at: 2019-11-24 12:13:27
Local clock offset: -1.31 ms
Remote clock offset: -39.011 ms


# Below is generated by plot.py at 2019-11-24 14:30:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 429.78 Mbit/s
95th percentile per-packet one-way delay: 177.976 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 429.78 Mbit/s
95th percentile per-packet one-way delay: 177.976 ms
Loss rate: 0.77%
```
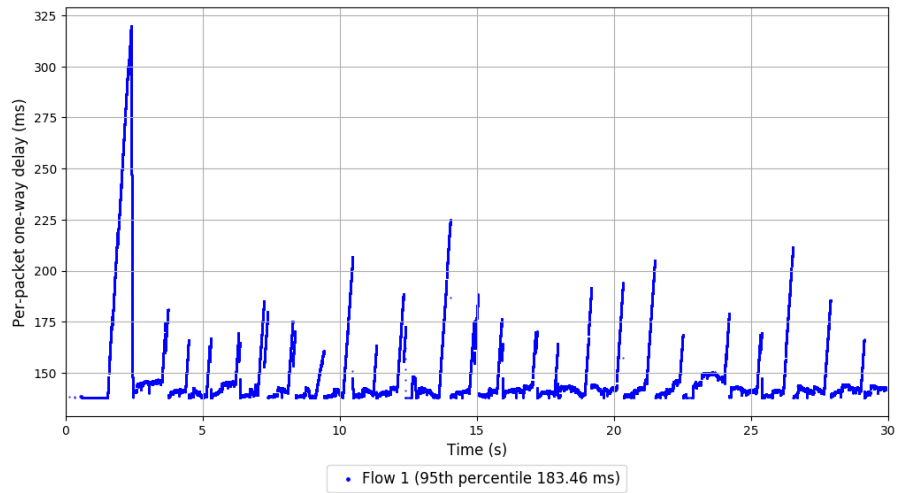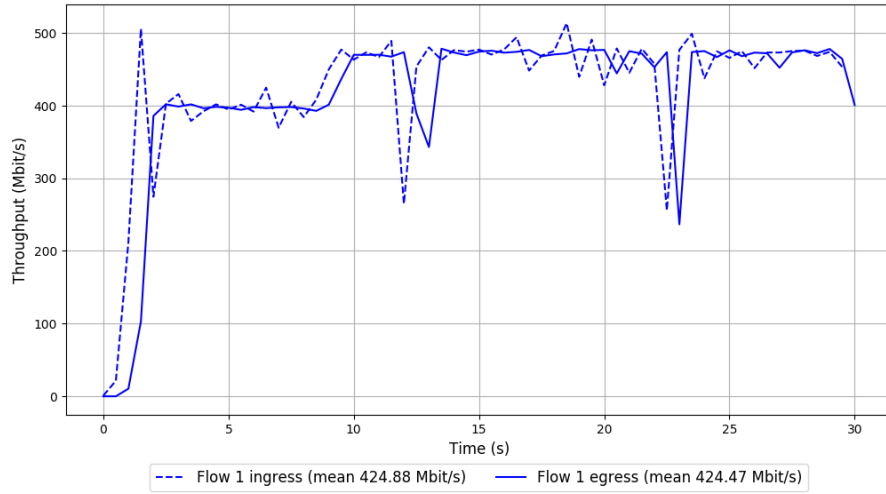
Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-11-24 12:43:56
End at: 2019-11-24 12:44:26
Local clock offset: -3.452 ms
Remote clock offset: -40.017 ms


# Below is generated by plot.py at 2019-11-24 14:30:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 428.88 Mbit/s
95th percentile per-packet one-way delay: 181.421 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 428.88 Mbit/s
95th percentile per-packet one-way delay: 181.421 ms
Loss rate: 3.46%
```

Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 432.65 Mbit/s)   Flow 1 egress (mean 428.88 Mbit/s)

Flow 1 (95th percentile 181.42 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-11-24 13:15:09
End at: 2019-11-24 13:15:39
Local clock offset: -0.839 ms
Remote clock offset: -42.058 ms


# Below is generated by plot.py at 2019-11-24 14:32:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 424.47 Mbit/s
95th percentile per-packet one-way delay: 183.457 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 424.47 Mbit/s
95th percentile per-packet one-way delay: 183.457 ms
Loss rate: 0.75%
```
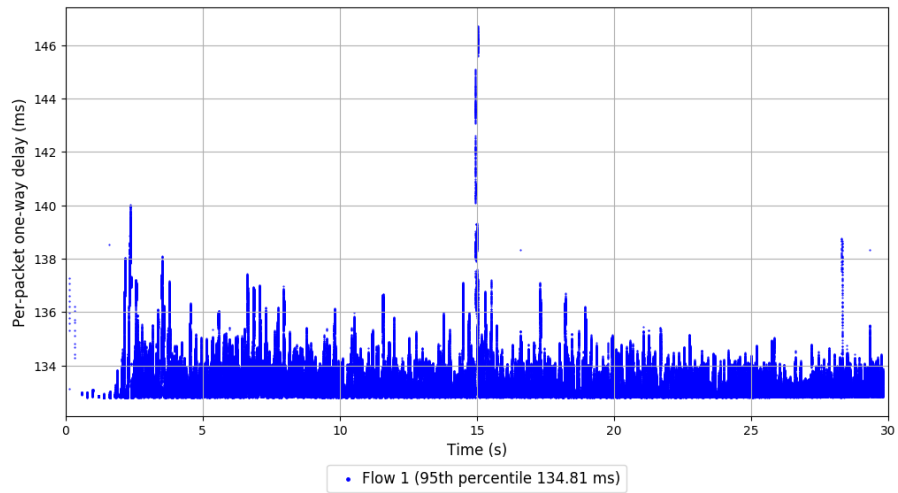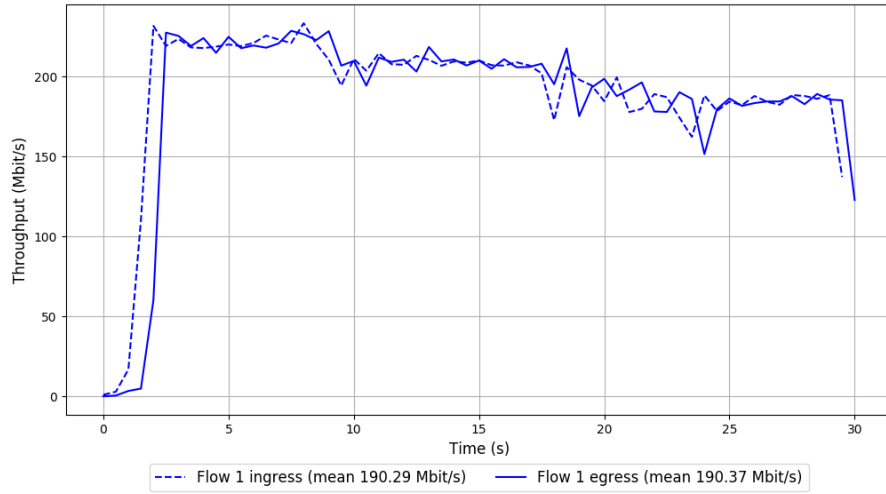
Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-11-24 13:46:10
End at: 2019-11-24 13:46:40
Local clock offset: -2.592 ms
Remote clock offset: -37.094 ms


# Below is generated by plot.py at 2019-11-24 14:32:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 374.67 Mbit/s
95th percentile per-packet one-way delay: 197.216 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 374.67 Mbit/s
95th percentile per-packet one-way delay: 197.216 ms
Loss rate: 0.96%
```

Run 5: Report of FillP-Sheep — Data Link
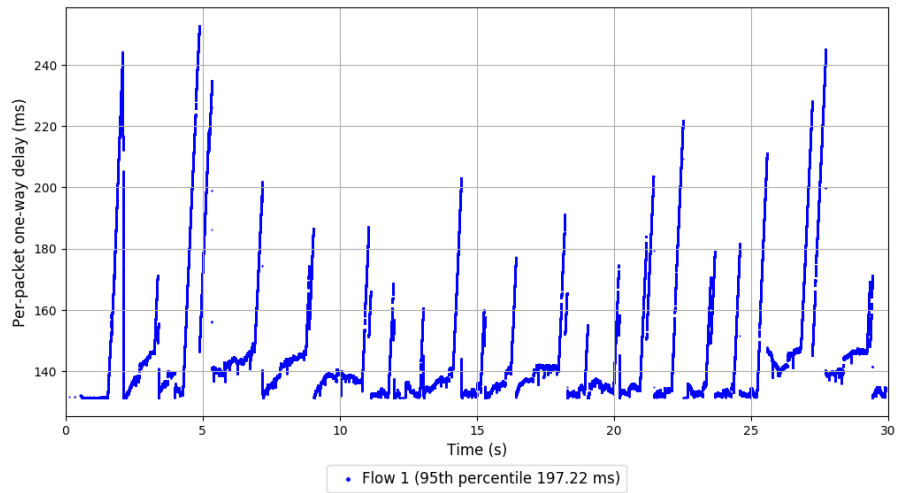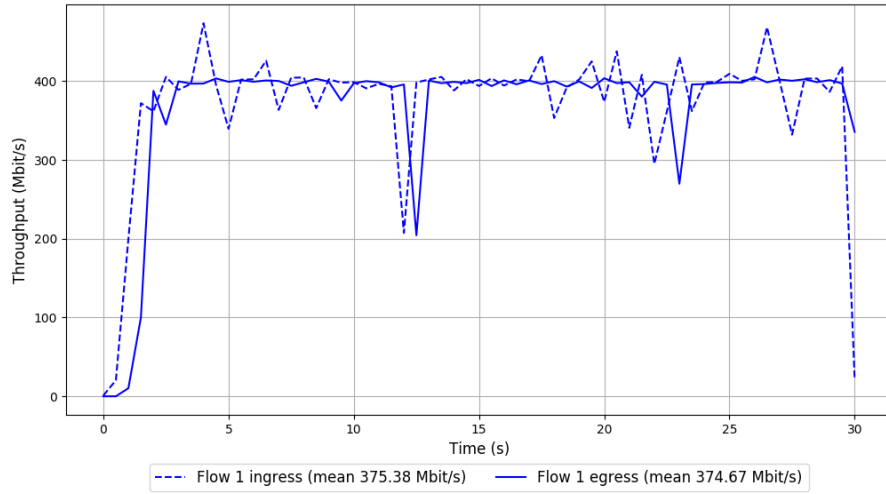
```
Run 1: Statistics of Indigo

Start at: 2019-11-24 11:53:36
End at: 2019-11-24 11:54:06
Local clock offset: -3.715 ms
Remote clock offset: -41.586 ms


# Below is generated by plot.py at 2019-11-24 14:32:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.37 Mbit/s
95th percentile per-packet one-way delay: 134.806 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 190.37 Mbit/s
95th percentile per-packet one-way delay: 134.806 ms
Loss rate: 0.60%
```

Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 190.29 Mbit/s) — Flow 1 egress (mean 190.37 Mbit/s)

Flow 1 (95th percentile 134.81 ms)

```
Run 2: Statistics of Indigo

Start at: 2019-11-24 12:24:35
End at: 2019-11-24 12:25:05
Local clock offset: -0.715 ms
Remote clock offset: -43.165 ms


# Below is generated by plot.py at 2019-11-24 14:32:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.20 Mbit/s
95th percentile per-packet one-way delay: 139.113 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 70.20 Mbit/s
95th percentile per-packet one-way delay: 139.113 ms
Loss rate: 0.71%
```
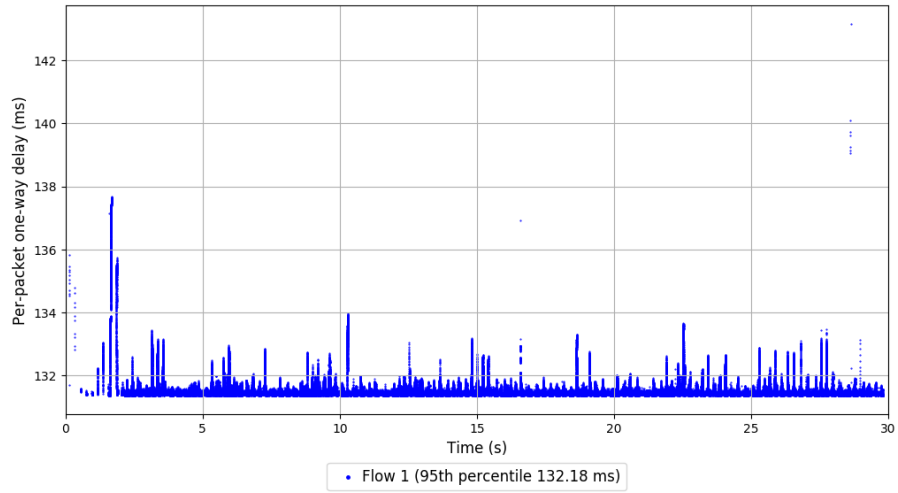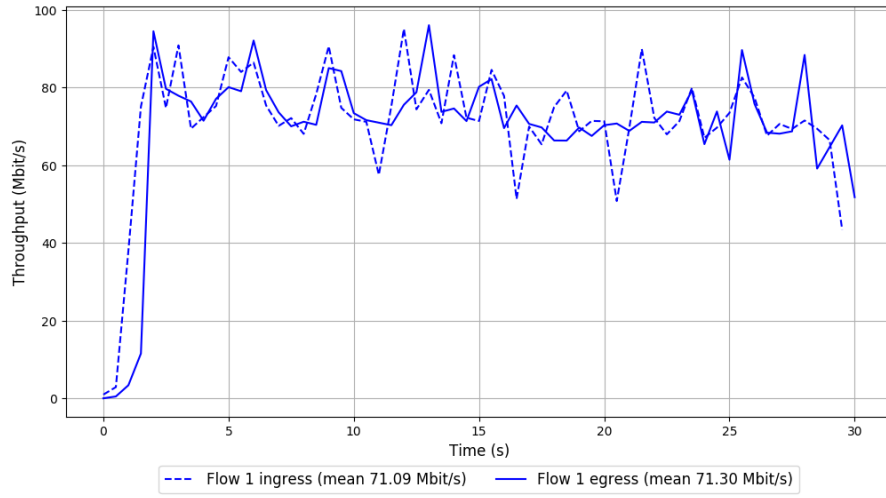
Run 2: Report of Indigo — Data Link
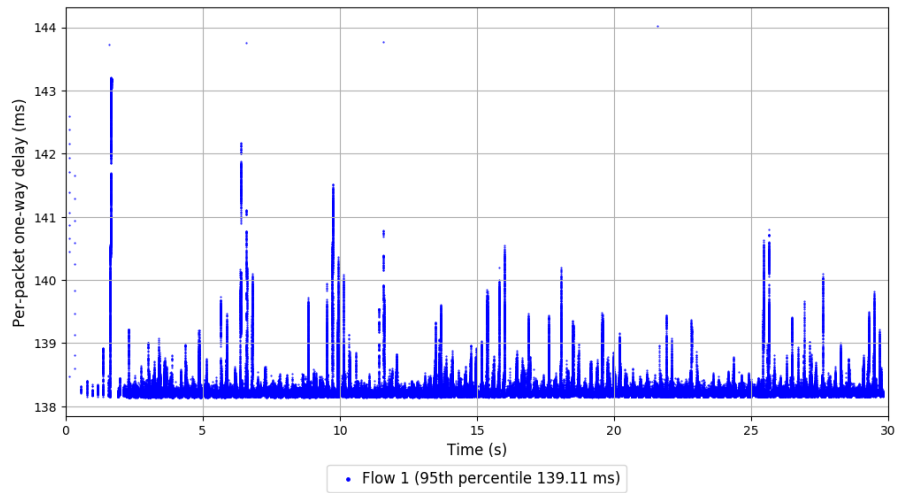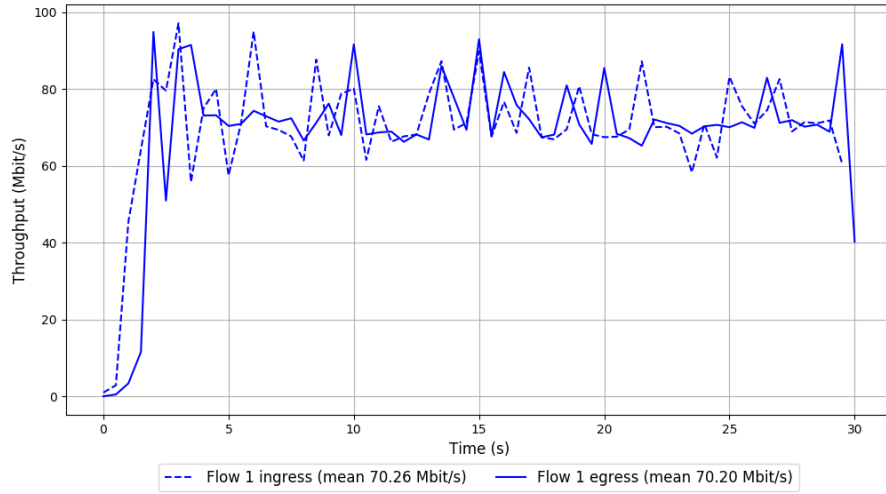
```
Run 3: Statistics of Indigo

Start at: 2019-11-24 12:55:32
End at: 2019-11-24 12:56:02
Local clock offset: -0.059 ms
Remote clock offset: -41.227 ms


# Below is generated by plot.py at 2019-11-24 14:32:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.06 Mbit/s
95th percentile per-packet one-way delay: 139.810 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 207.06 Mbit/s
95th percentile per-packet one-way delay: 139.810 ms
Loss rate: 0.66%
```

Run 3: Report of Indigo — Data Link
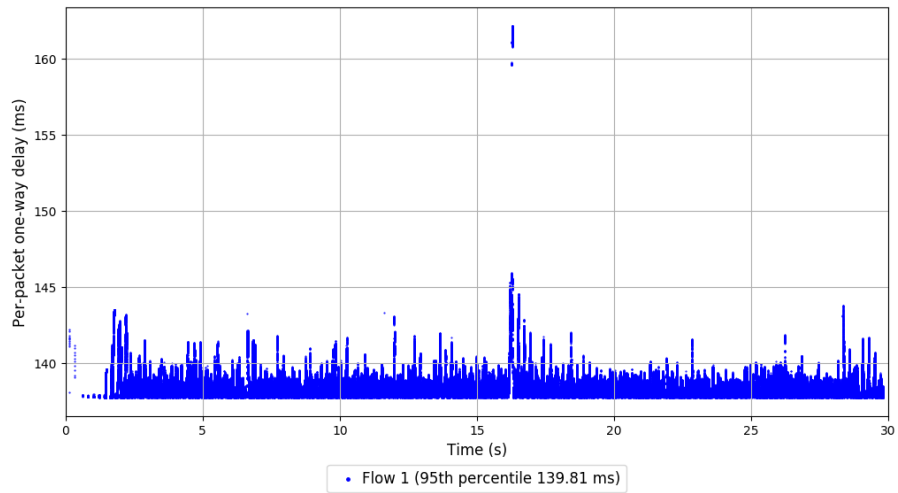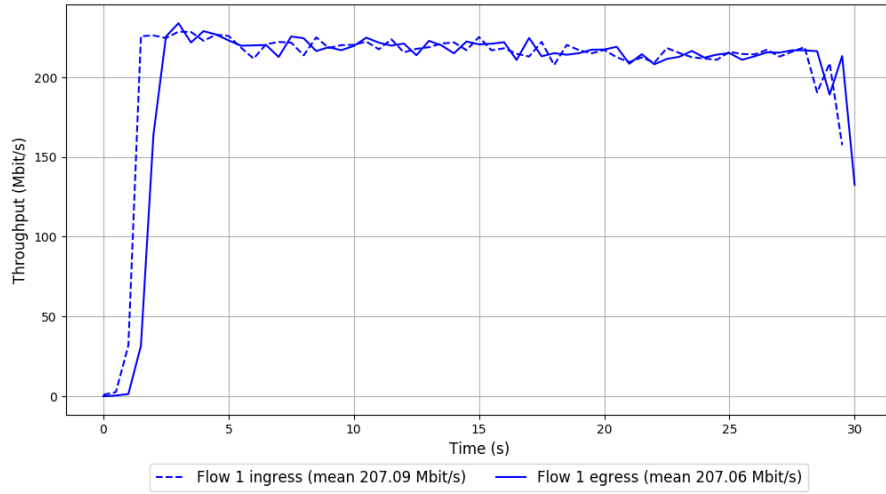
```
Run 4: Statistics of Indigo

Start at: 2019-11-24 13:26:44
End at: 2019-11-24 13:27:14
Local clock offset: -2.991 ms
Remote clock offset: -37.463 ms


# Below is generated by plot.py at 2019-11-24 14:32:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.30 Mbit/s
95th percentile per-packet one-way delay: 132.178 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 71.30 Mbit/s
95th percentile per-packet one-way delay: 132.178 ms
Loss rate: 0.35%
```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-11-24 13:57:44
End at: 2019-11-24 13:58:14
Local clock offset: 0.183 ms
Remote clock offset: -39.151 ms


# Below is generated by plot.py at 2019-11-24 14:32:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.34 Mbit/s
95th percentile per-packet one-way delay: 136.819 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 73.34 Mbit/s
95th percentile per-packet one-way delay: 136.819 ms
Loss rate: 0.70%
```
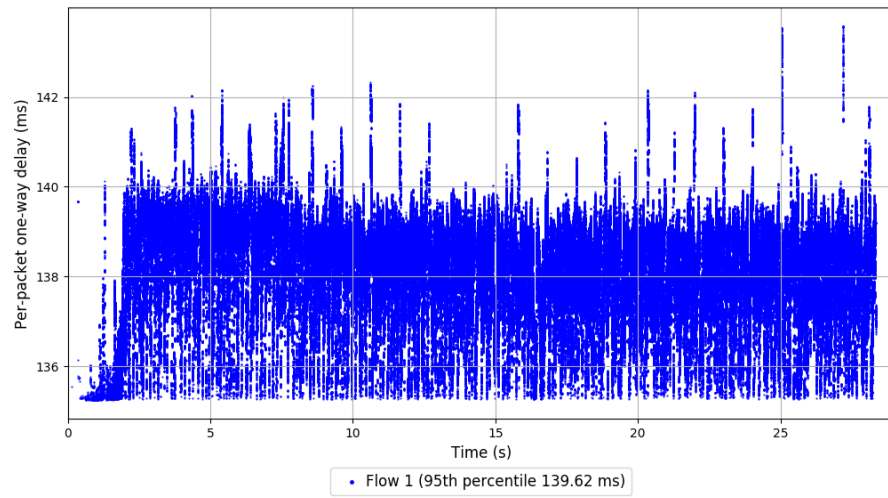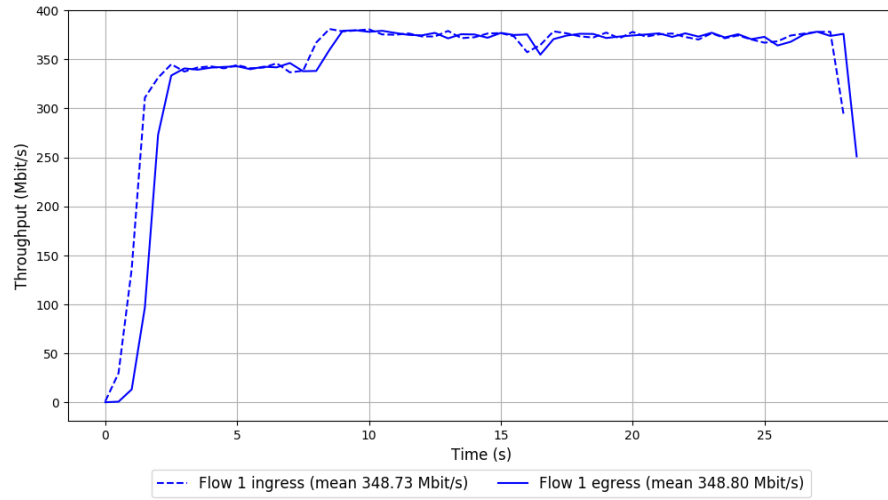
Run 5: Report of Indigo — Data Link
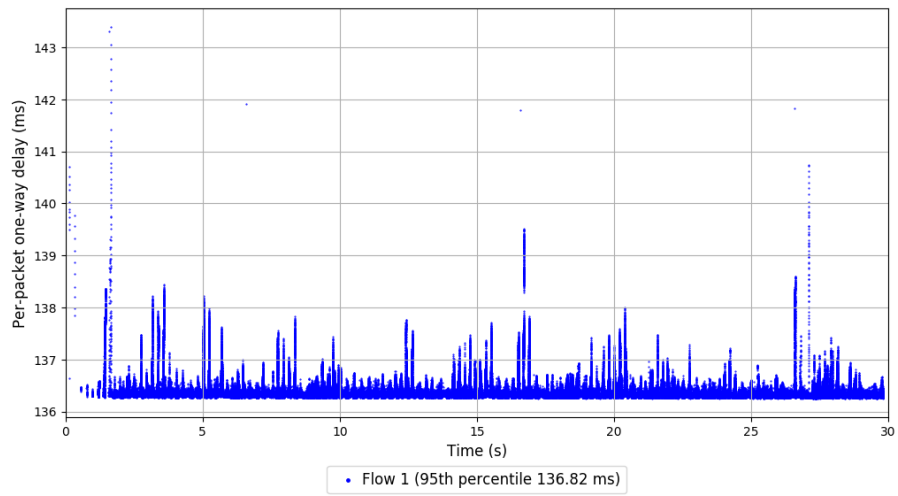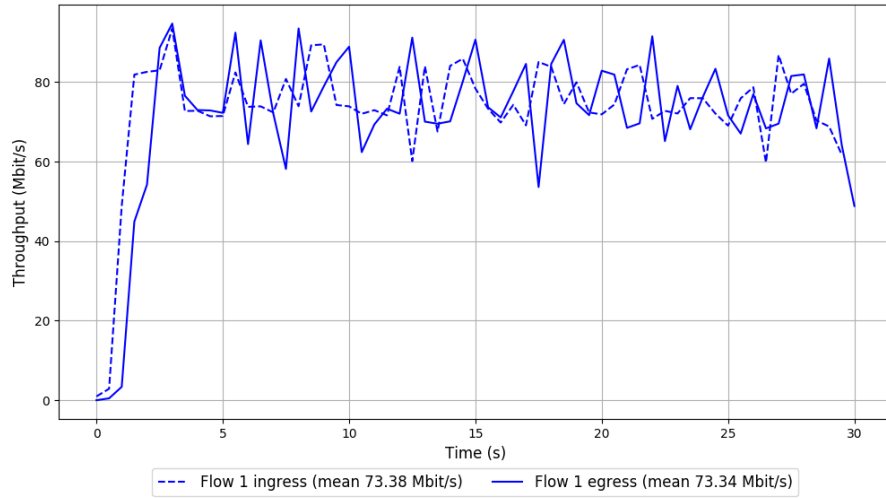
```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-11-24 11:43:21
End at: 2019-11-24 11:43:51
Local clock offset: -0.5 ms
Remote clock offset: -42.119 ms

# Below is generated by plot.py at 2019-11-24 14:32:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 317.61 Mbit/s
95th percentile per-packet one-way delay: 140.610 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 317.61 Mbit/s
95th percentile per-packet one-way delay: 140.610 ms
Loss rate: 0.75%
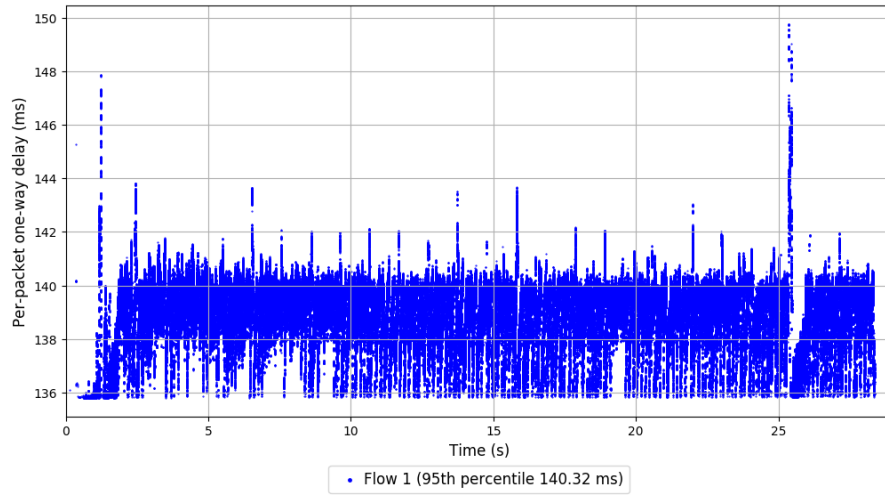```

Run 1: Report of Indigo-MusesC3 — Data Link



66
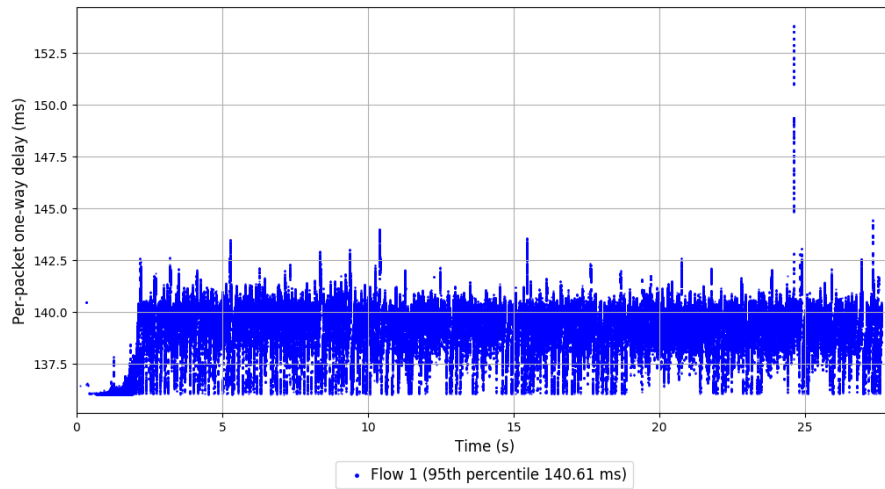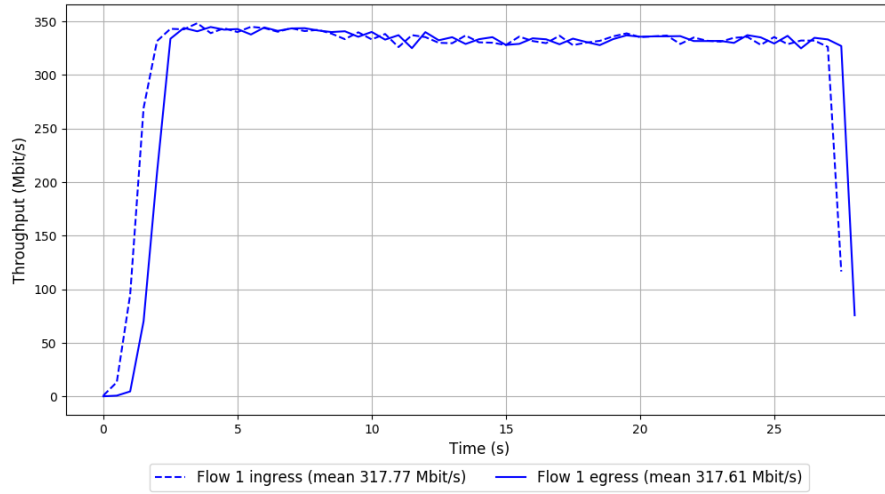
```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-11-24 12:14:23
End at: 2019-11-24 12:14:53
Local clock offset: -1.213 ms
Remote clock offset: -40.936 ms


# Below is generated by plot.py at 2019-11-24 14:33:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 348.80 Mbit/s
95th percentile per-packet one-way delay: 139.624 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 348.80 Mbit/s
95th percentile per-packet one-way delay: 139.624 ms
Loss rate: 0.75%
```

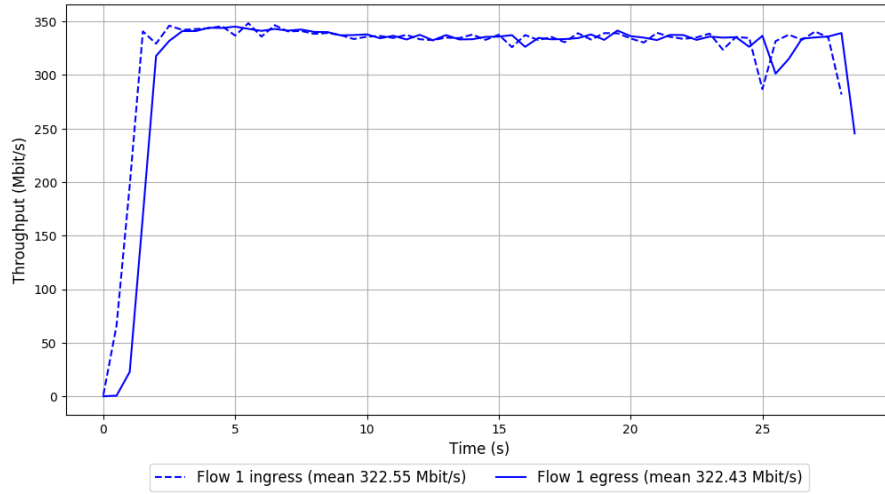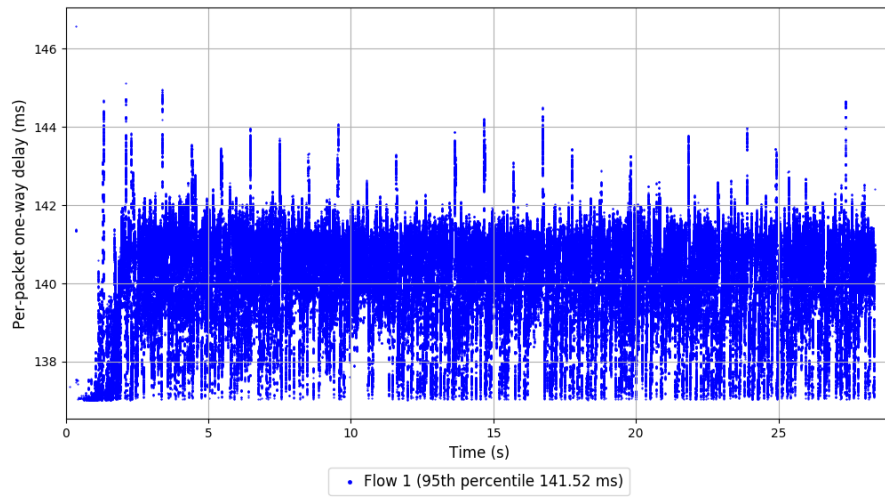Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-11-24 12:45:22
End at: 2019-11-24 12:45:52
Local clock offset: -0.796 ms
Remote clock offset: -40.208 ms


# Below is generated by plot.py at 2019-11-24 14:33:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.43 Mbit/s
95th percentile per-packet one-way delay: 140.317 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 322.43 Mbit/s
95th percentile per-packet one-way delay: 140.317 ms
Loss rate: 0.71%
```

Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 322.55 Mbit/s) — Flow 1 egress (mean 322.43 Mbit/s)
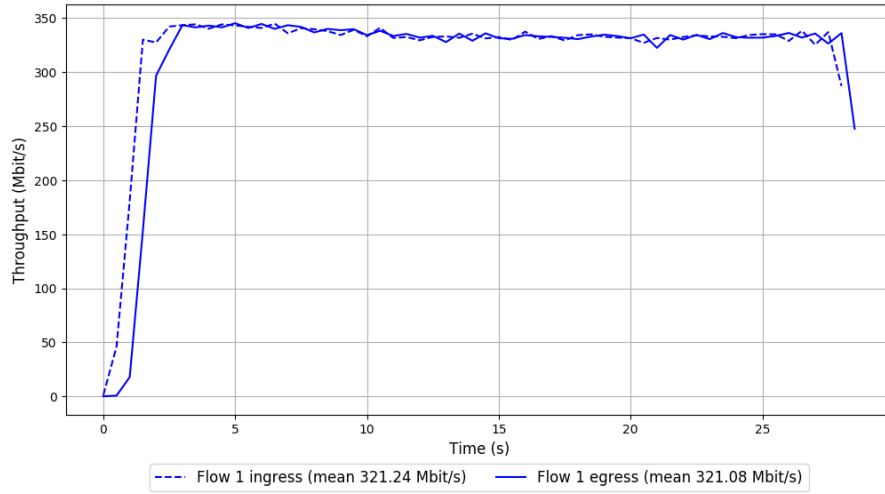

Flow 1 (95th percentile 140.32 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-11-24 13:16:34
End at: 2019-11-24 13:17:04
Local clock offset: 0.61 ms
Remote clock offset: -39.708 ms


# Below is generated by plot.py at 2019-11-24 14:33:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.08 Mbit/s
95th percentile per-packet one-way delay: 141.523 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 321.08 Mbit/s
95th percentile per-packet one-way delay: 141.523 ms
Loss rate: 0.73%
```

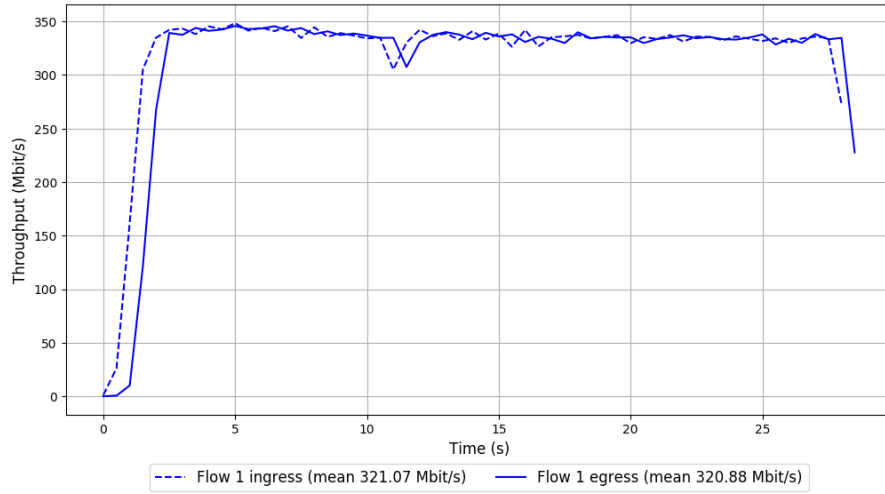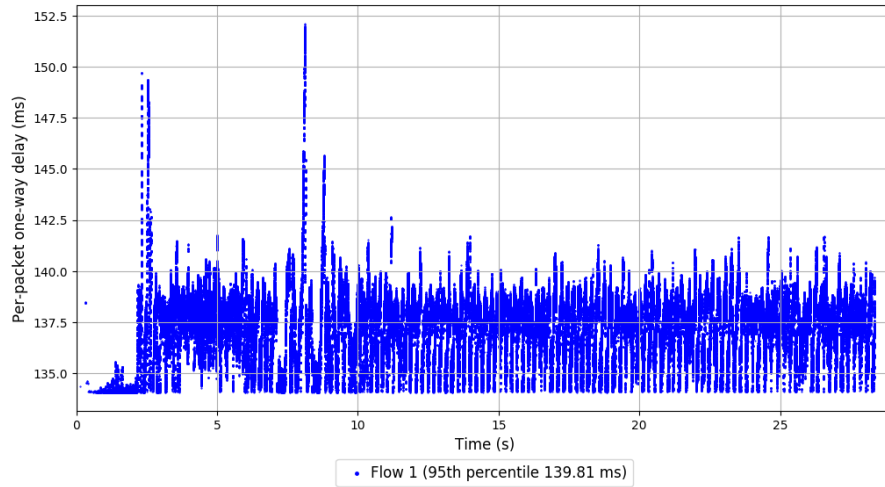Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-11-24 13:47:33
End at: 2019-11-24 13:48:03
Local clock offset: -0.034 ms
Remote clock offset: -36.608 ms


# Below is generated by plot.py at 2019-11-24 14:33:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 320.88 Mbit/s
95th percentile per-packet one-way delay: 138.212 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 320.88 Mbit/s
95th percentile per-packet one-way delay: 138.212 ms
Loss rate: 0.74%
```

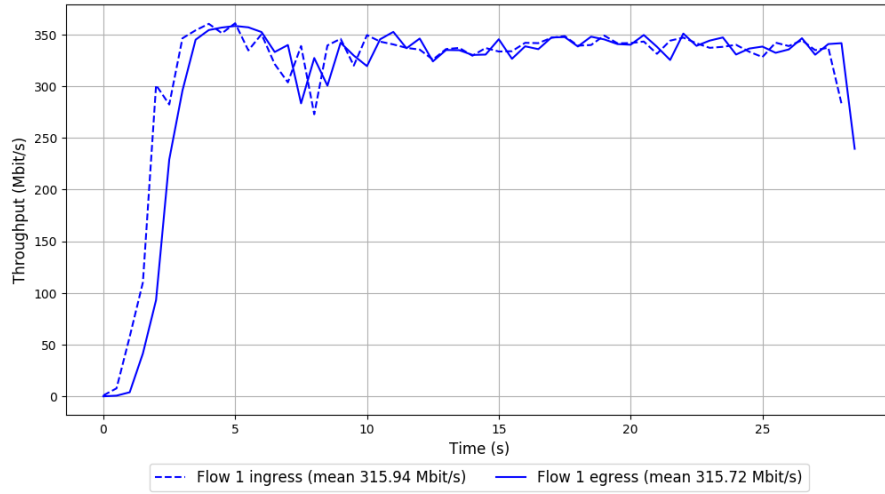Run 5: Report of Indigo-MusesC3 — Data Link
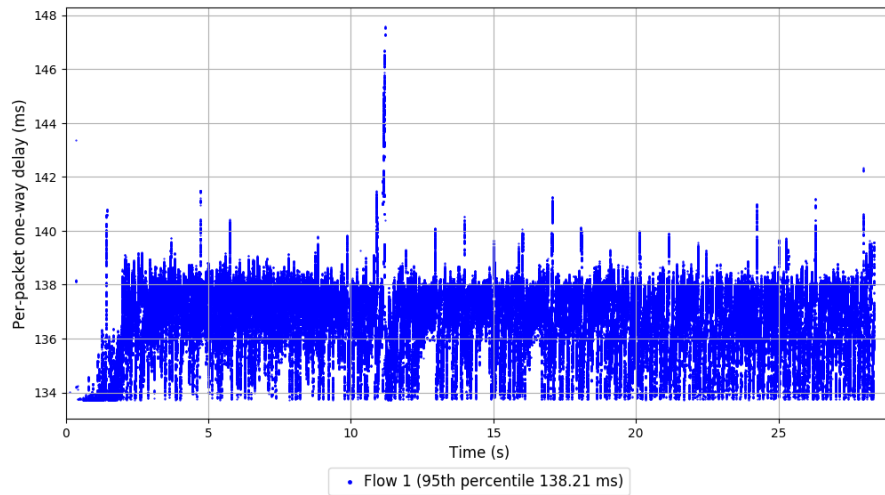
```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-11-24 12:00:03
End at: 2019-11-24 12:00:33
Local clock offset: -0.488 ms
Remote clock offset: -39.602 ms


# Below is generated by plot.py at 2019-11-24 14:34:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 315.72 Mbit/s
95th percentile per-packet one-way delay: 139.806 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 315.72 Mbit/s
95th percentile per-packet one-way delay: 139.806 ms
Loss rate: 0.75%
```

Run 1: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 315.94 Mbit/s)   Flow 1 egress (mean 315.72 Mbit/s)

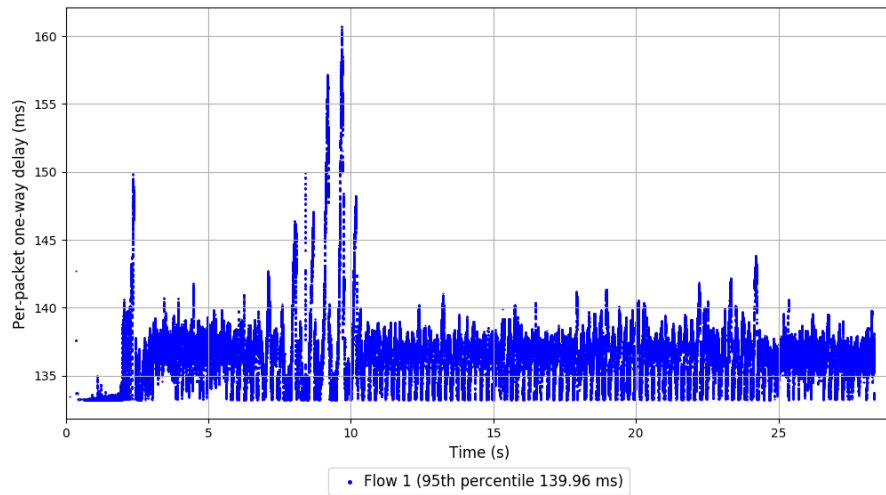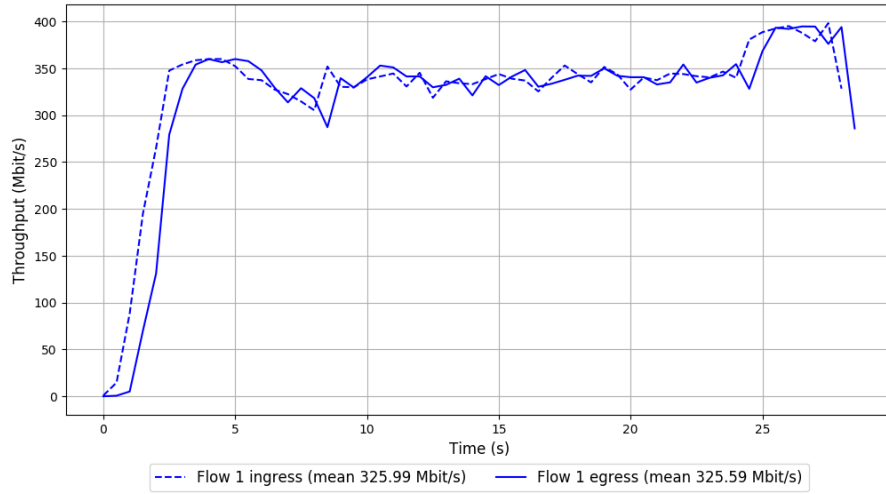Flow 1 (95th percentile 139.81 ms)

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-11-24 12:30:54
End at: 2019-11-24 12:31:24
Local clock offset: -1.237 ms
Remote clock offset: -38.504 ms


# Below is generated by plot.py at 2019-11-24 14:35:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 325.59 Mbit/s
95th percentile per-packet one-way delay: 139.960 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 325.59 Mbit/s
95th percentile per-packet one-way delay: 139.960 ms
Loss rate: 0.81%
```

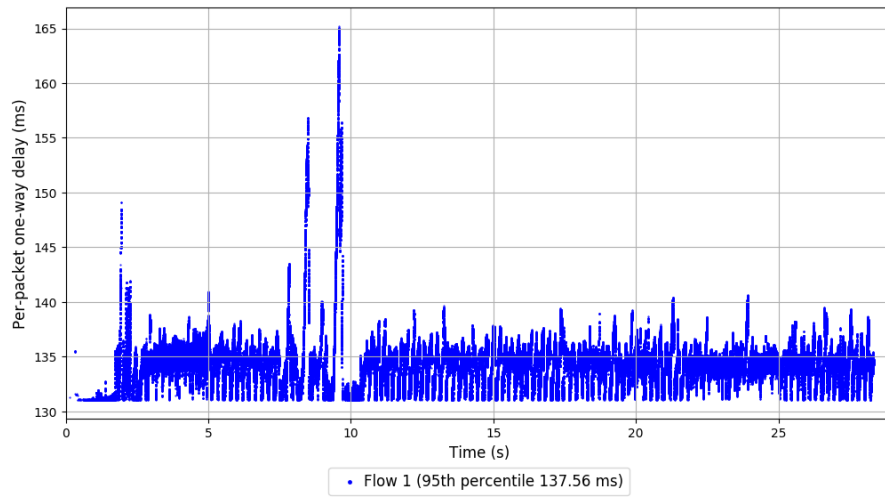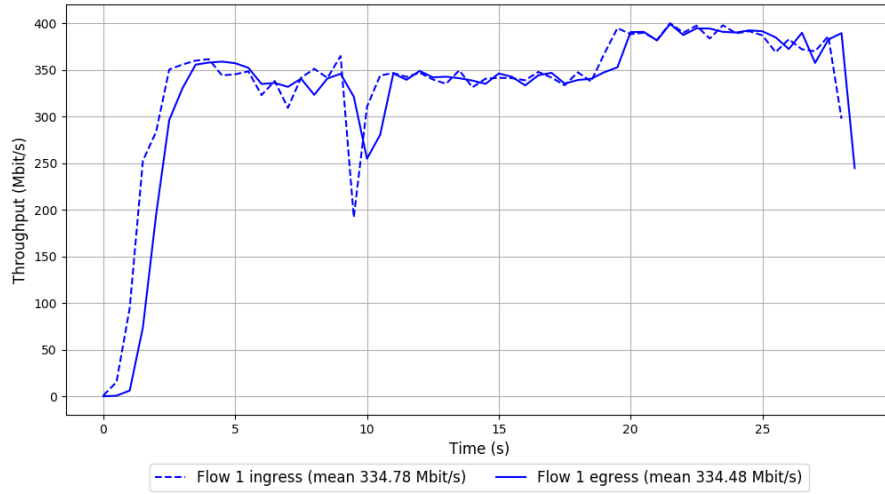Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-11-24 13:01:59
End at: 2019-11-24 13:02:30
Local clock offset: -2.593 ms
Remote clock offset: -37.208 ms


# Below is generated by plot.py at 2019-11-24 14:36:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 334.48 Mbit/s
95th percentile per-packet one-way delay: 137.564 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 334.48 Mbit/s
95th percentile per-packet one-way delay: 137.564 ms
Loss rate: 0.78%
```

Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 334.78 Mbit/s)   Flow 1 egress (mean 334.48 Mbit/s)
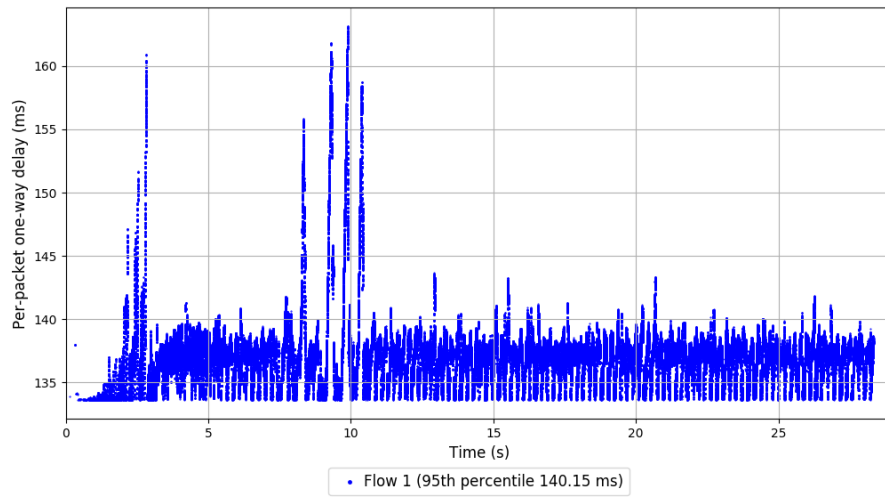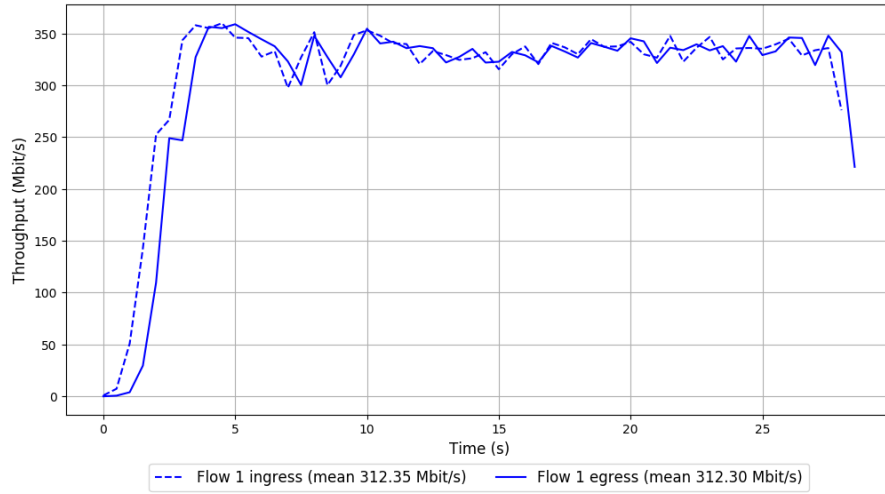

Flow 1 (95th percentile 137.56 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-11-24 13:33:03
End at: 2019-11-24 13:33:33
Local clock offset: -2.77 ms
Remote clock offset: -39.526 ms


# Below is generated by plot.py at 2019-11-24 14:36:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 312.30 Mbit/s
95th percentile per-packet one-way delay: 140.154 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 312.30 Mbit/s
95th percentile per-packet one-way delay: 140.154 ms
Loss rate: 0.80%
```

Run 4: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 312.35 Mbit/s)   Flow 1 egress (mean 312.30 Mbit/s)
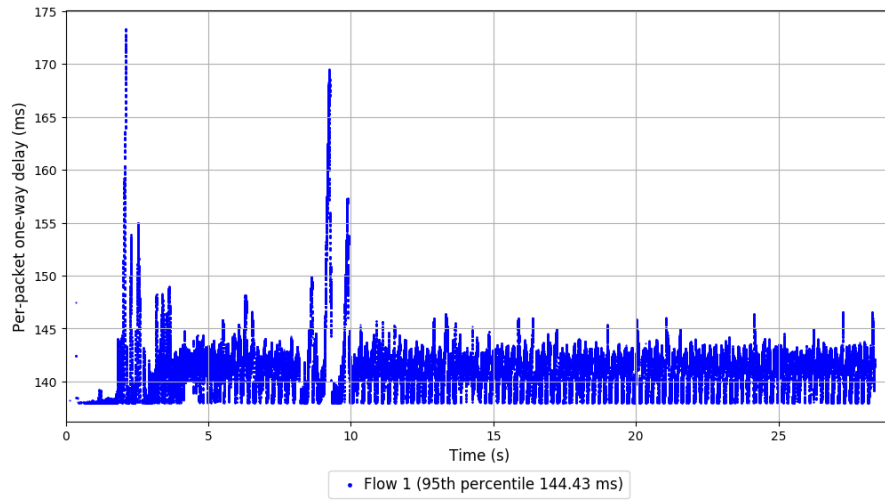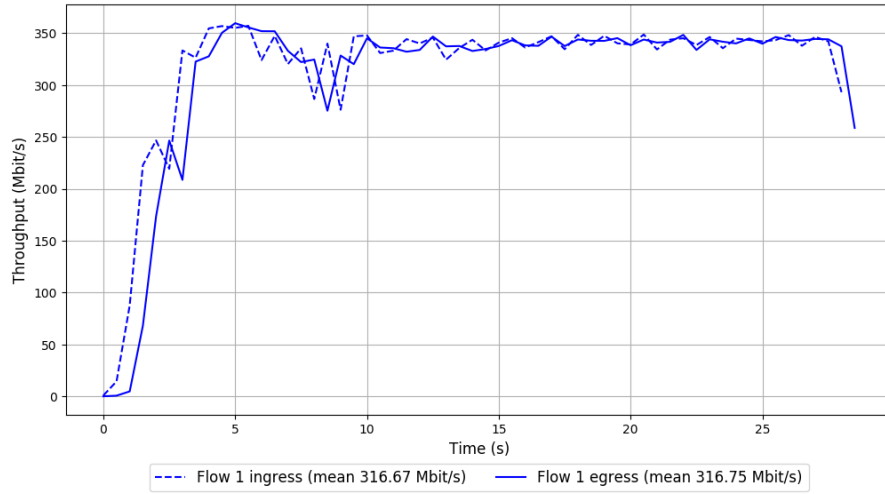

Flow 1 (95th percentile 140.15 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-11-24 14:04:03
End at: 2019-11-24 14:04:33
Local clock offset: 0.336 ms
Remote clock offset: -41.022 ms


# Below is generated by plot.py at 2019-11-24 14:36:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.75 Mbit/s
95th percentile per-packet one-way delay: 144.427 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 316.75 Mbit/s
95th percentile per-packet one-way delay: 144.427 ms
Loss rate: 0.75%
```

Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 316.67 Mbit/s)   Flow 1 egress (mean 316.75 Mbit/s)
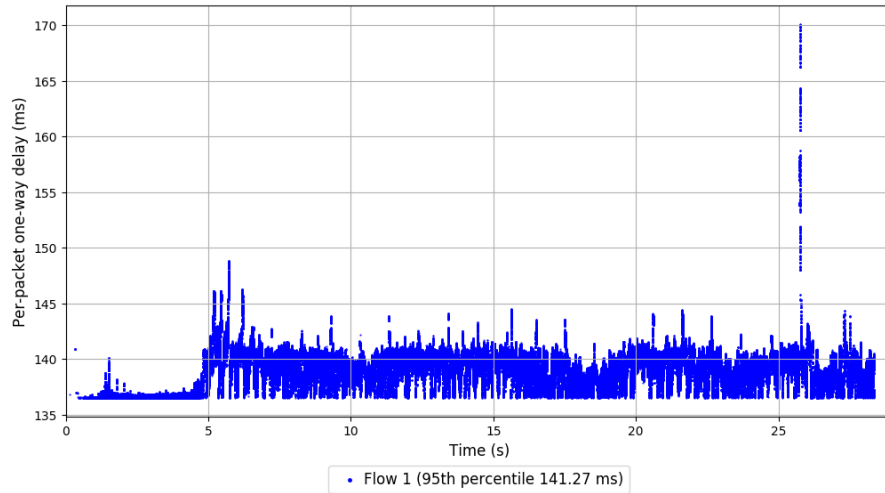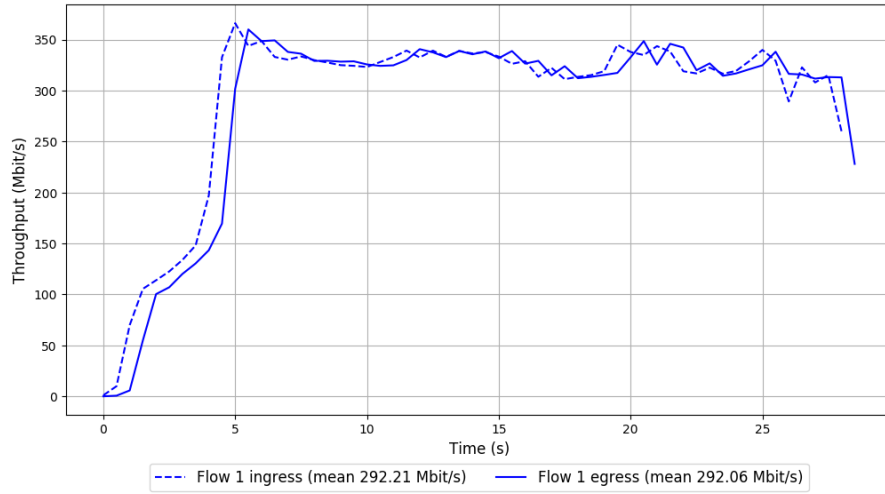

• Flow 1 (95th percentile 144.43 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-11-24 11:57:18
End at: 2019-11-24 11:57:48
Local clock offset: -1.479 ms
Remote clock offset: -43.117 ms


# Below is generated by plot.py at 2019-11-24 14:36:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 292.06 Mbit/s
95th percentile per-packet one-way delay: 141.269 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 292.06 Mbit/s
95th percentile per-packet one-way delay: 141.269 ms
Loss rate: 0.72%
```

Run 1: Report of Indigo-MusesD — Data Link

86

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-11-24 12:28:09
End at: 2019-11-24 12:28:39
Local clock offset: -3.826 ms
Remote clock offset: -41.228 ms


# Below is generated by plot.py at 2019-11-24 14:36:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 299.38 Mbit/s
95th percentile per-packet one-way delay: 137.958 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 299.38 Mbit/s
95th percentile per-packet one-way delay: 137.958 ms
Loss rate: 0.78%
```
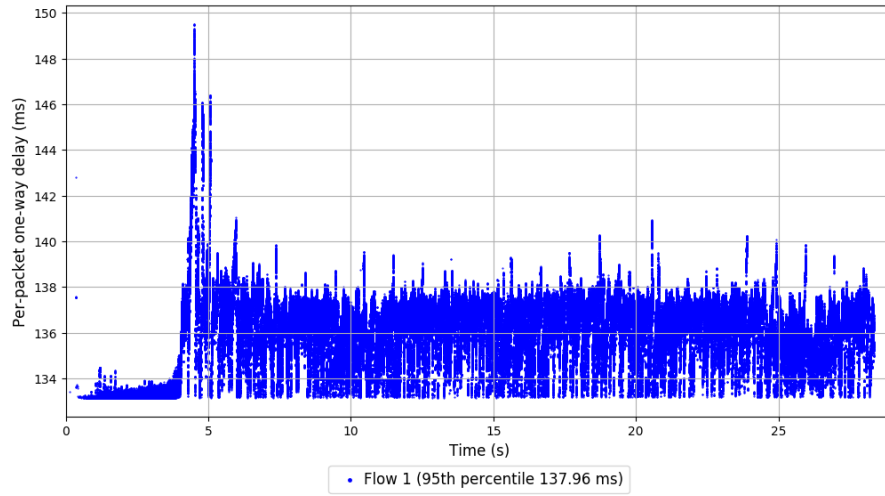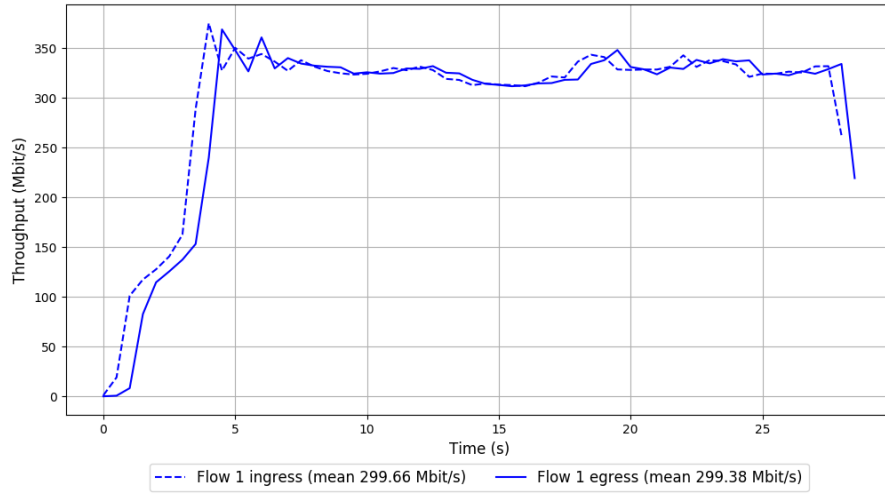
Run 2: Report of Indigo-MusesD — Data Link

88

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-11-24 12:59:14
End at: 2019-11-24 12:59:44
Local clock offset: -0.87 ms
Remote clock offset: -41.61 ms


# Below is generated by plot.py at 2019-11-24 14:37:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 318.68 Mbit/s
95th percentile per-packet one-way delay: 141.932 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 318.68 Mbit/s
95th percentile per-packet one-way delay: 141.932 ms
Loss rate: 0.74%
```
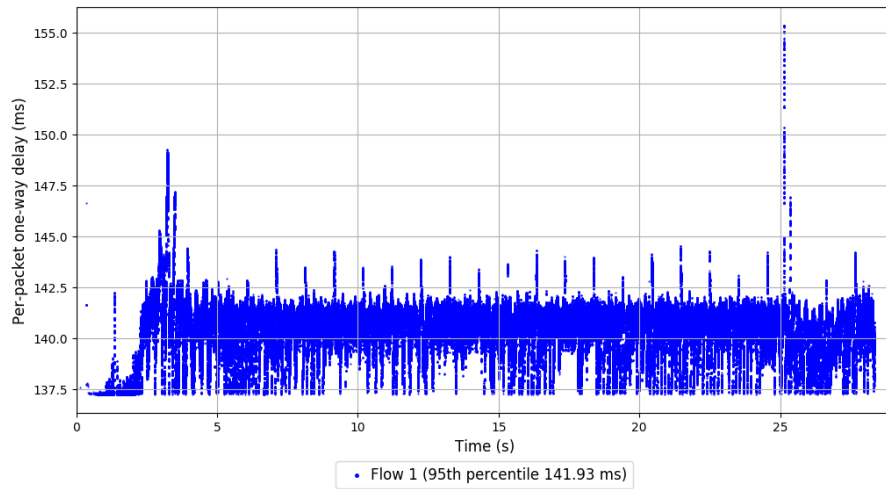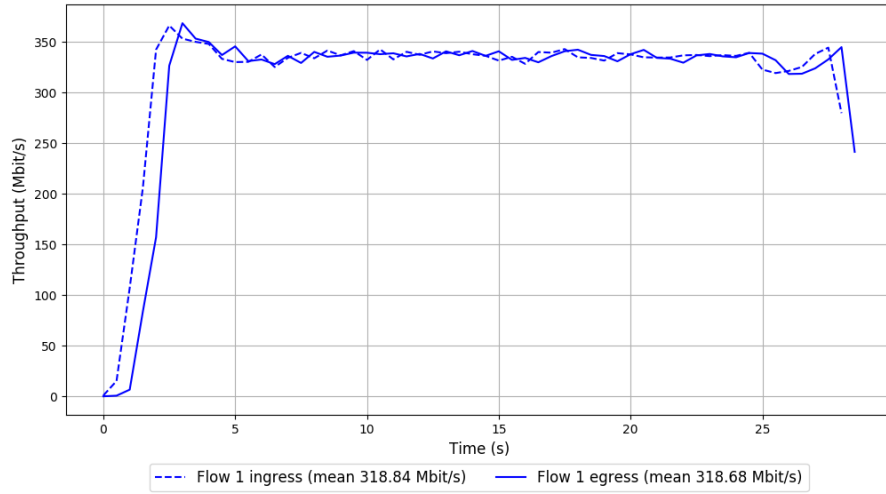
Run 3: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 318.84 Mbit/s)   Flow 1 egress (mean 318.68 Mbit/s)
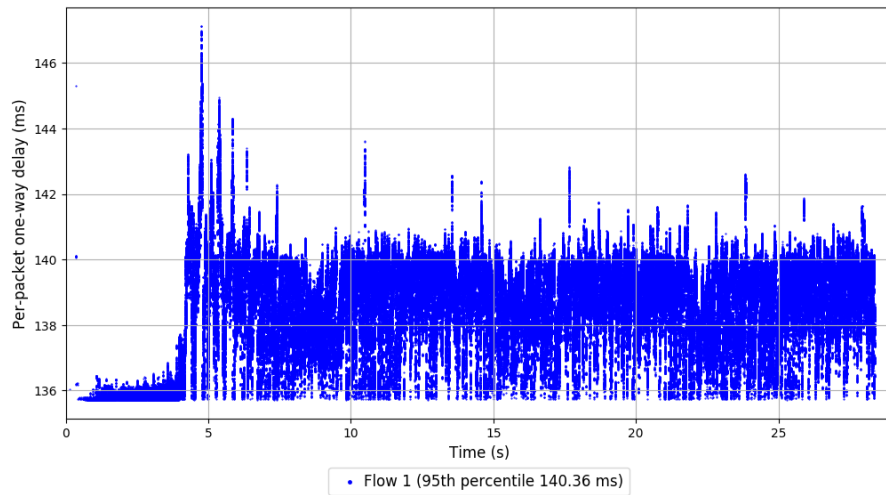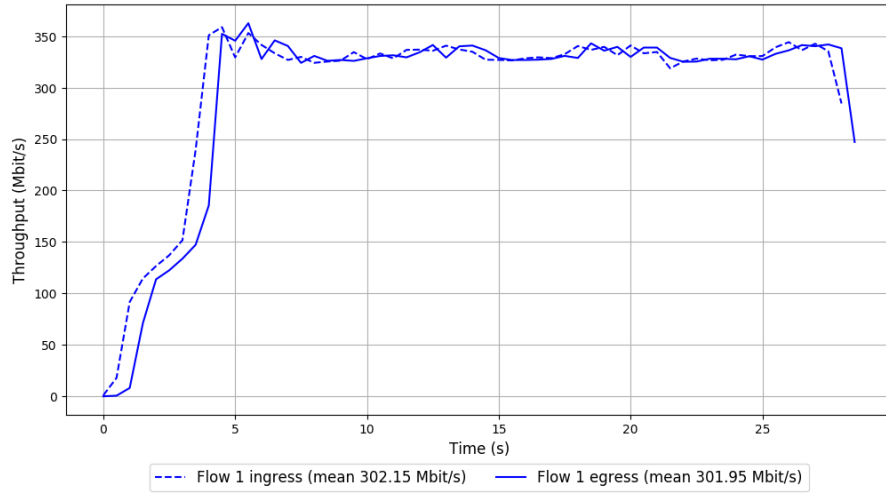

Flow 1 (95th percentile 141.93 ms)

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-11-24 13:30:18
End at: 2019-11-24 13:30:48
Local clock offset: -0.862 ms
Remote clock offset: -39.797 ms


# Below is generated by plot.py at 2019-11-24 14:37:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 301.95 Mbit/s
95th percentile per-packet one-way delay: 140.357 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 301.95 Mbit/s
95th percentile per-packet one-way delay: 140.357 ms
Loss rate: 0.75%
```

Run 4: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 302.15 Mbit/s) Flow 1 egress (mean 301.95 Mbit/s)
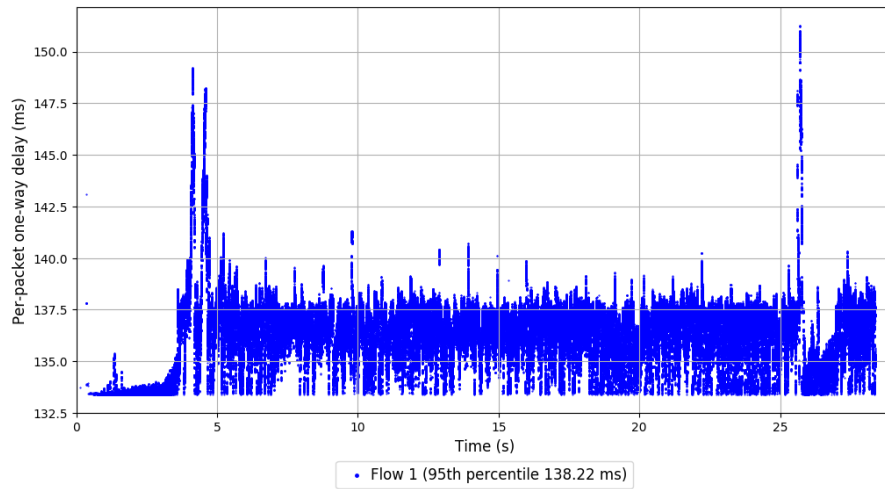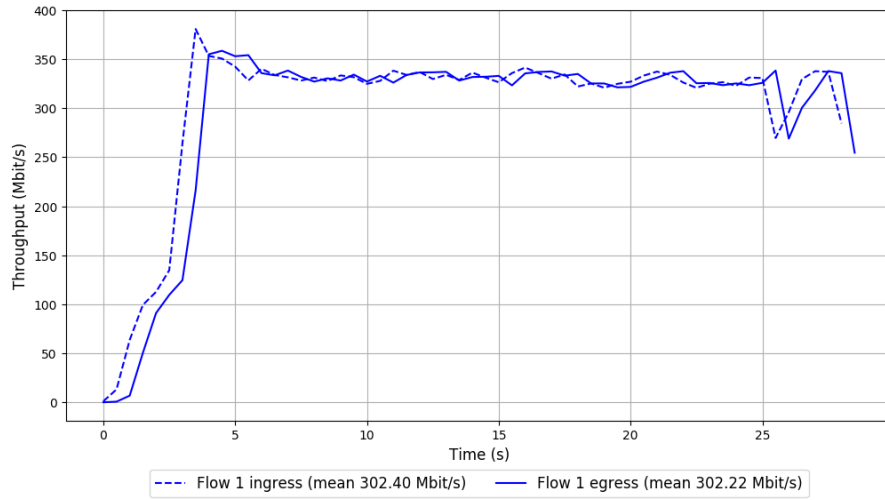

Flow 1 (95th percentile 140.36 ms)

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-11-24 14:01:18
End at: 2019-11-24 14:01:48
Local clock offset: -0.917 ms
Remote clock offset: -37.647 ms


# Below is generated by plot.py at 2019-11-24 14:39:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 302.22 Mbit/s
95th percentile per-packet one-way delay: 138.223 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 302.22 Mbit/s
95th percentile per-packet one-way delay: 138.223 ms
Loss rate: 0.73%
```

Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 302.40 Mbit/s) --- Flow 1 egress (mean 302.22 Mbit/s)

• Flow 1 (95th percentile 138.22 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-11-24 12:09:03
End at: 2019-11-24 12:09:33
Local clock offset: -1.352 ms
Remote clock offset: -42.74 ms


# Below is generated by plot.py at 2019-11-24 14:39:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 312.53 Mbit/s
95th percentile per-packet one-way delay: 141.063 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 312.53 Mbit/s
95th percentile per-packet one-way delay: 141.063 ms
Loss rate: 0.73%
```

Run 1: Report of Indigo-MusesT — Data Link
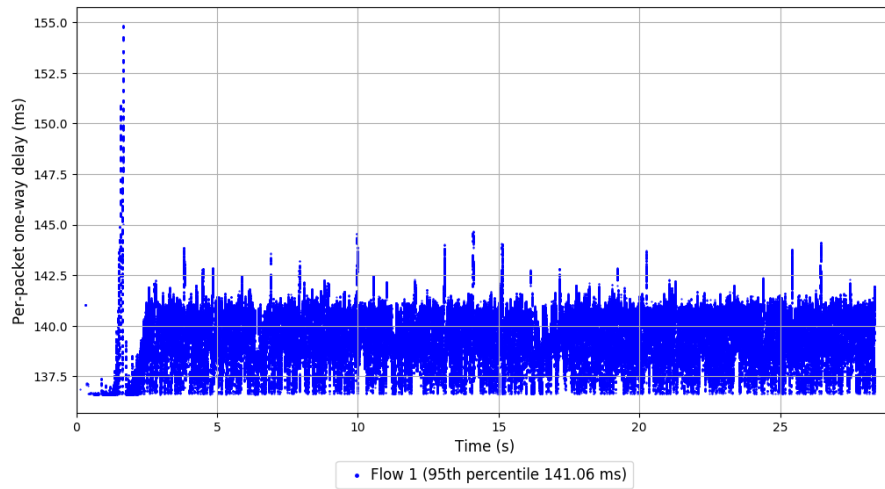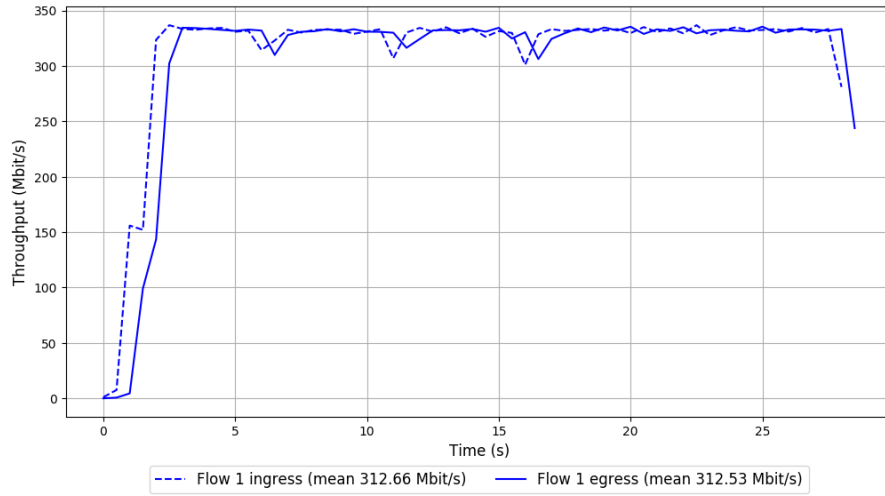
```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-11-24 12:40:06
End at: 2019-11-24 12:40:36
Local clock offset: -2.305 ms
Remote clock offset: -40.046 ms


# Below is generated by plot.py at 2019-11-24 14:39:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.18 Mbit/s
95th percentile per-packet one-way delay: 138.389 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 316.18 Mbit/s
95th percentile per-packet one-way delay: 138.389 ms
Loss rate: 0.71%
```
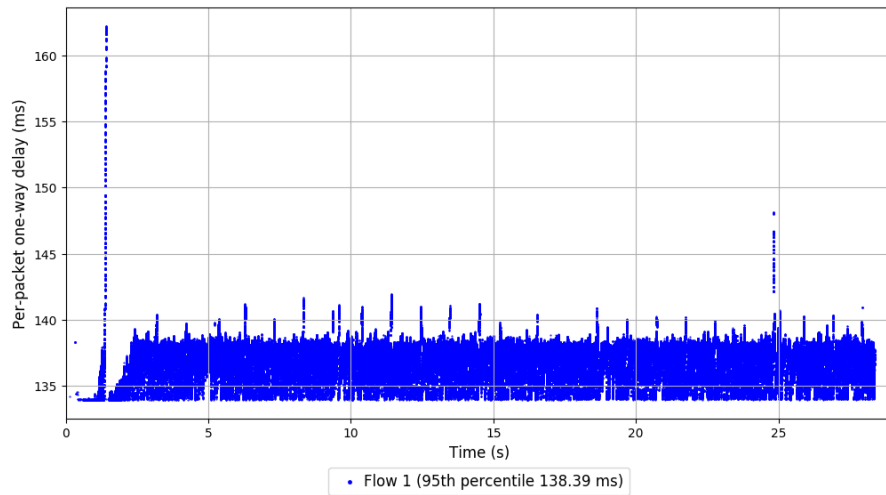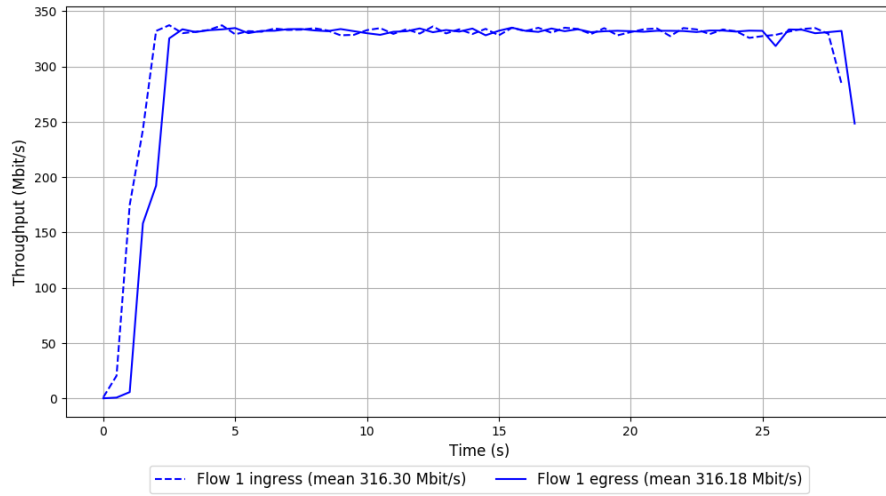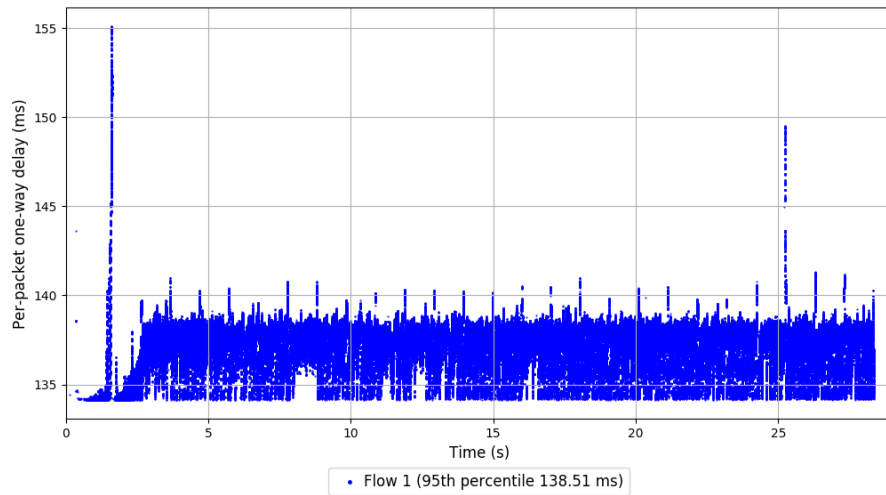
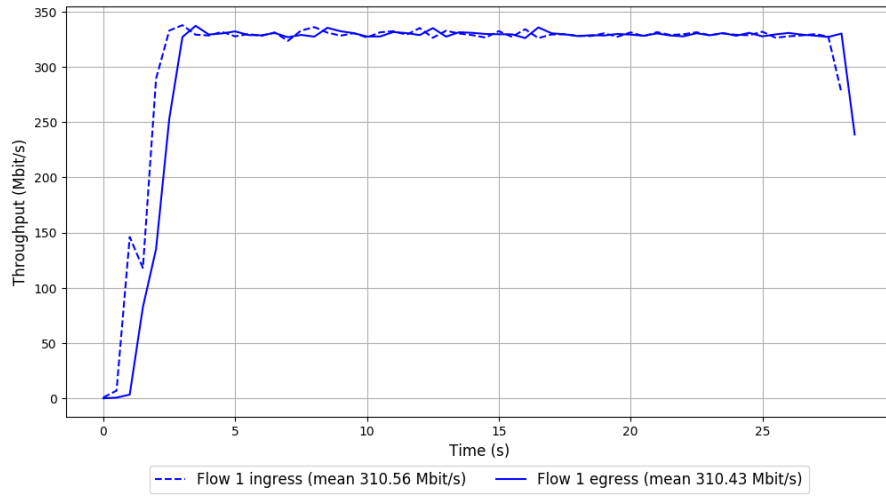Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-11-24 13:11:11
End at: 2019-11-24 13:11:41
Local clock offset: 0.002 ms
Remote clock offset: -37.647 ms


# Below is generated by plot.py at 2019-11-24 14:39:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 310.43 Mbit/s
95th percentile per-packet one-way delay: 138.513 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 310.43 Mbit/s
95th percentile per-packet one-way delay: 138.513 ms
Loss rate: 0.72%
```

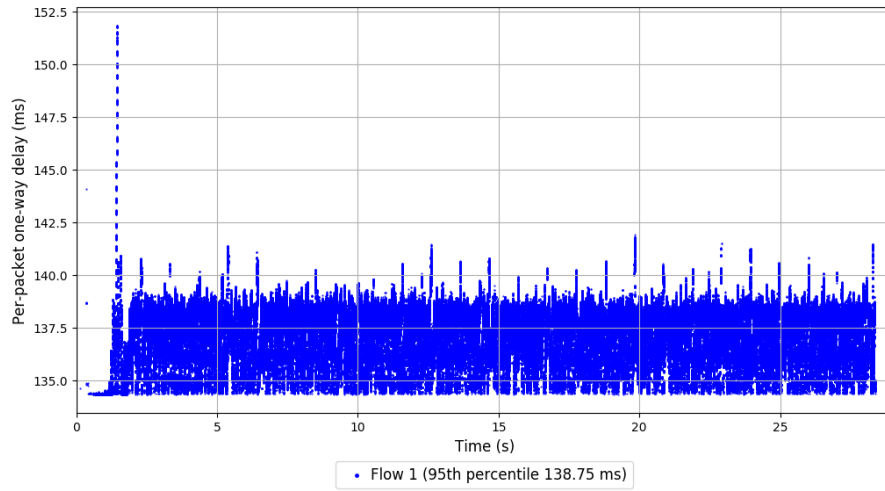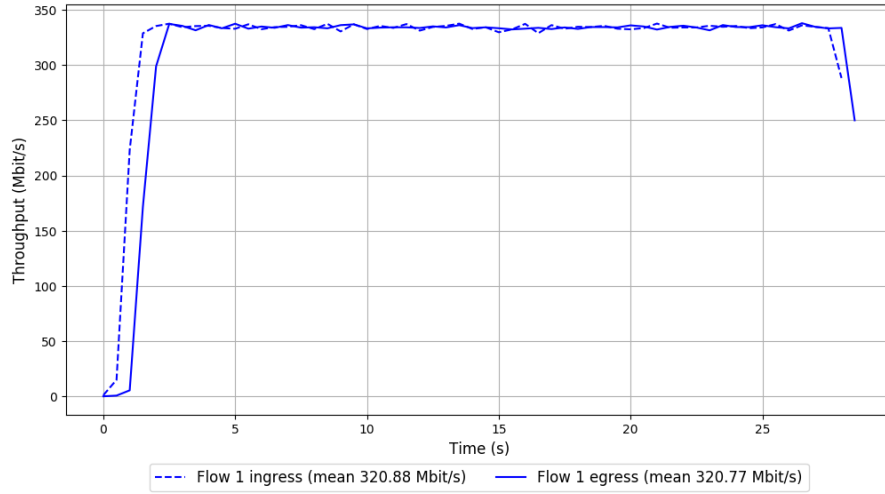Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-11-24 13:42:15
End at: 2019-11-24 13:42:45
Local clock offset: -0.815 ms
Remote clock offset: -38.22 ms


# Below is generated by plot.py at 2019-11-24 14:39:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 320.77 Mbit/s
95th percentile per-packet one-way delay: 138.750 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 320.77 Mbit/s
95th percentile per-packet one-way delay: 138.750 ms
Loss rate: 0.71%
```

# Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-11-24 14:13:15
End at: 2019-11-24 14:13:45
Local clock offset: 0.547 ms
Remote clock offset: -37.202 ms


# Below is generated by plot.py at 2019-11-24 14:40:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.98 Mbit/s
95th percentile per-packet one-way delay: 138.647 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 316.98 Mbit/s
95th percentile per-packet one-way delay: 138.647 ms
Loss rate: 0.64%
```

# Run 5: Report of Indigo-MusesT — Data Link
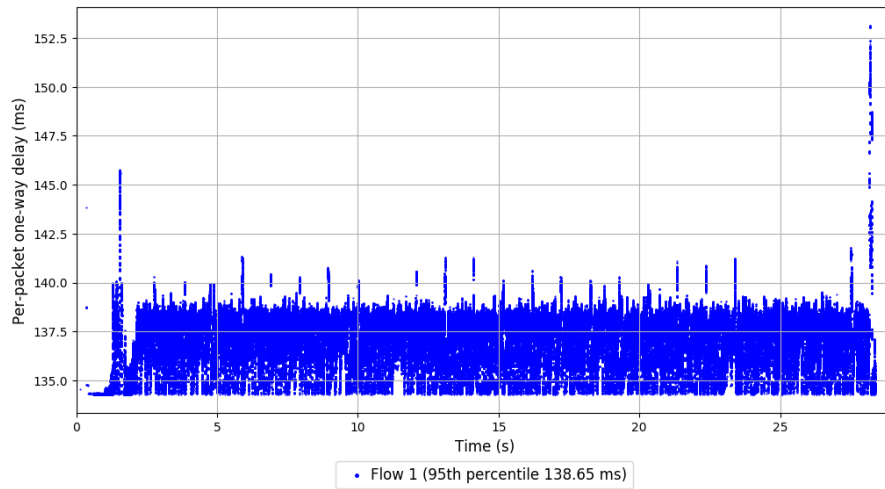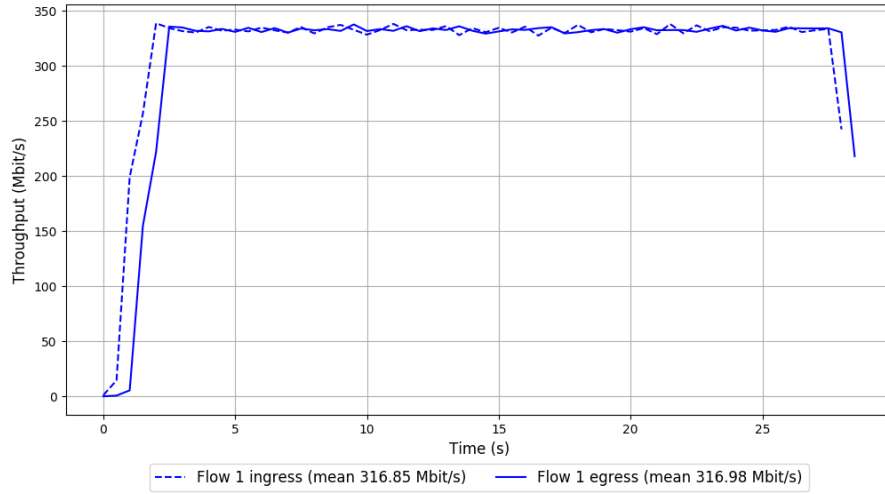
```
Run 1: Statistics of LEDBAT

Start at: 2019-11-24 11:48:39
End at: 2019-11-24 11:49:09
Local clock offset: 0.266 ms
Remote clock offset: -39.434 ms


# Below is generated by plot.py at 2019-11-24 14:40:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 134.487 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 134.487 ms
Loss rate: 1.29%
```

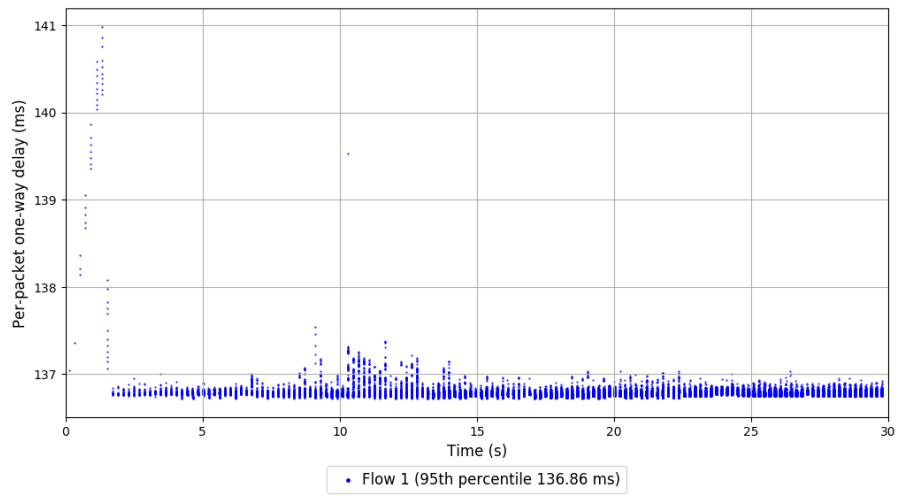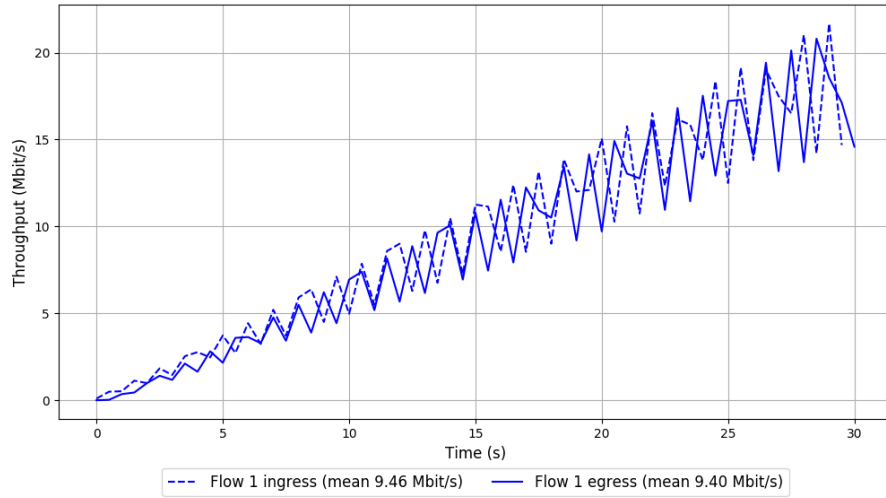Run 1: Report of LEDBAT — Data Link
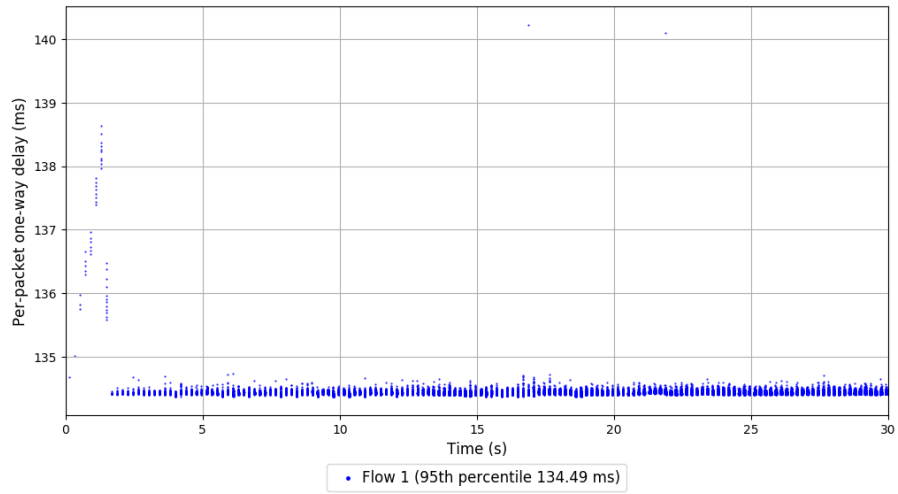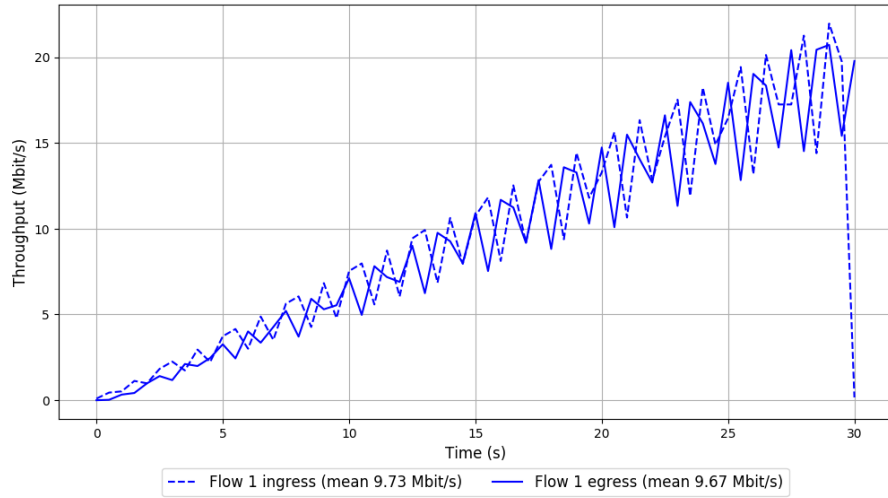
```
Run 2: Statistics of LEDBAT

Start at: 2019-11-24 12:19:40
End at: 2019-11-24 12:20:10
Local clock offset: 0.238 ms
Remote clock offset: -40.773 ms


# Below is generated by plot.py at 2019-11-24 14:40:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 136.862 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 136.862 ms
Loss rate: 1.30%
```

Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.46 Mbit/s) — Flow 1 egress (mean 9.40 Mbit/s)

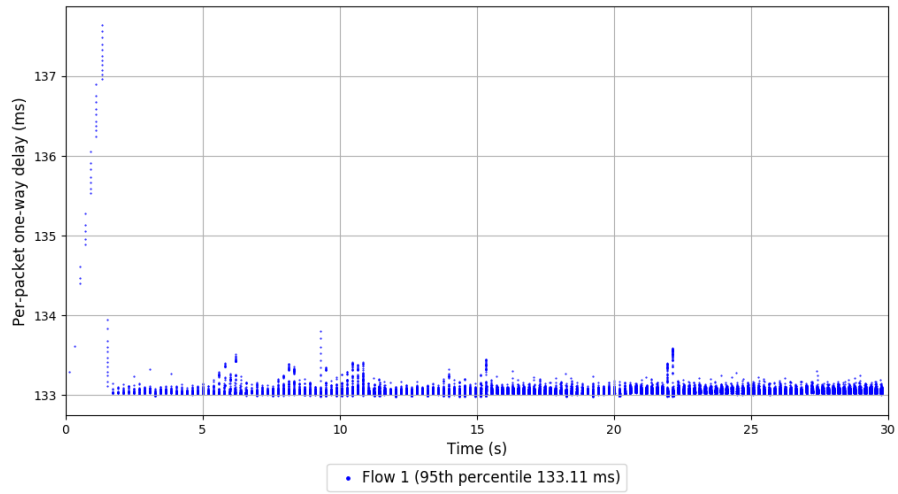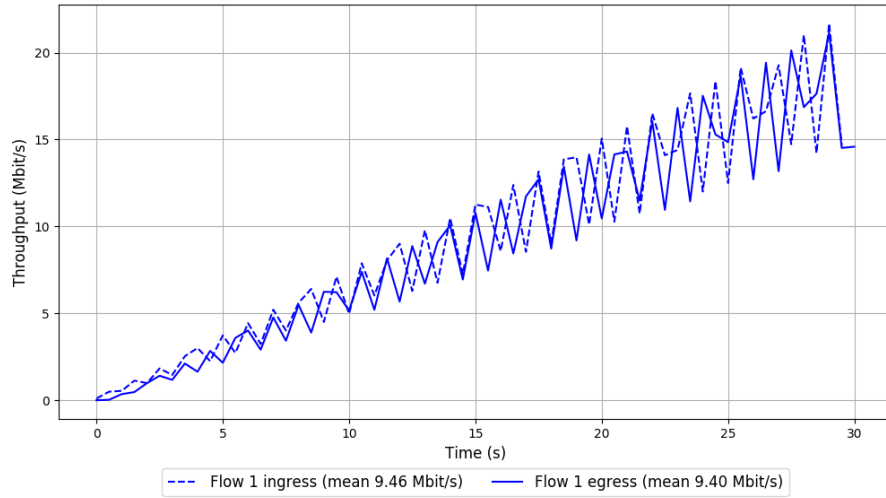• Flow 1 (95th percentile 136.86 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2019-11-24 12:50:35
End at: 2019-11-24 12:51:05
Local clock offset: -3.563 ms
Remote clock offset: -40.128 ms


# Below is generated by plot.py at 2019-11-24 14:40:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 133.111 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 133.111 ms
Loss rate: 1.30%
```

Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.46 Mbit/s)   Flow 1 egress (mean 9.40 Mbit/s)
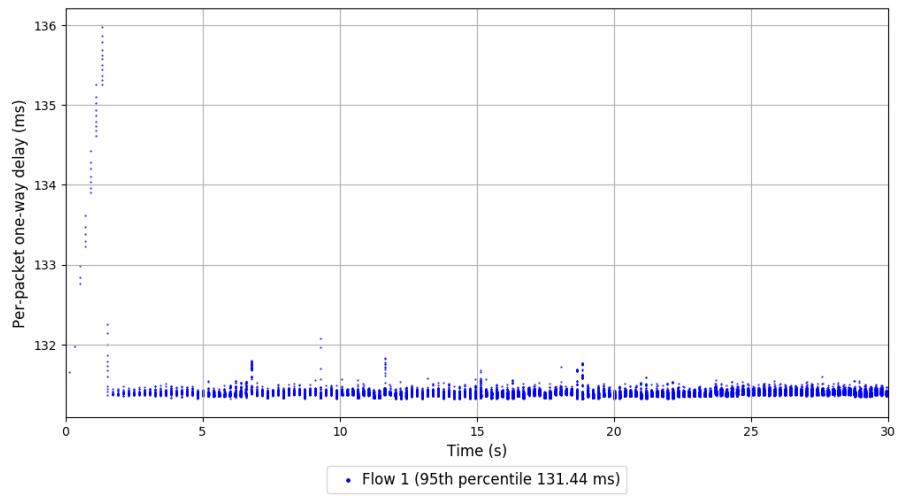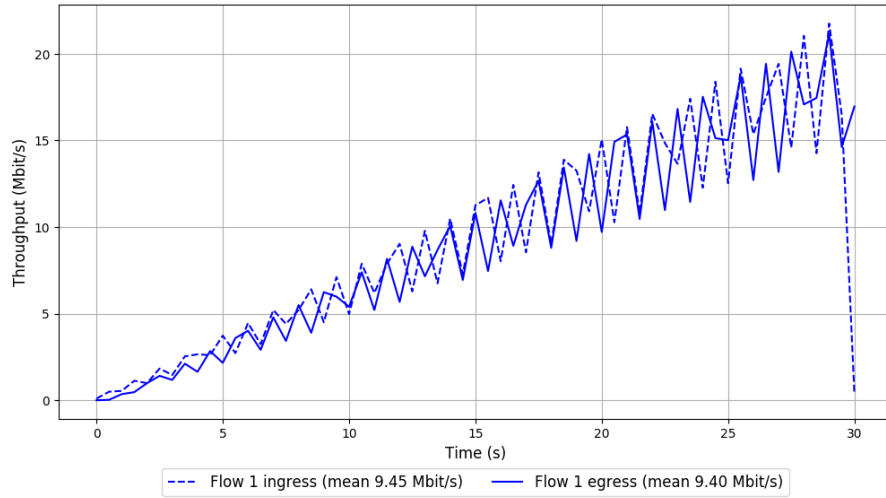

• Flow 1 (95th percentile 133.11 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-11-24 13:21:48
End at: 2019-11-24 13:22:18
Local clock offset: -3.802 ms
Remote clock offset: -38.228 ms

# Below is generated by plot.py at 2019-11-24 14:40:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 131.437 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 131.437 ms
Loss rate: 1.26%
```

Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.45 Mbit/s) --- Flow 1 egress (mean 9.40 Mbit/s)

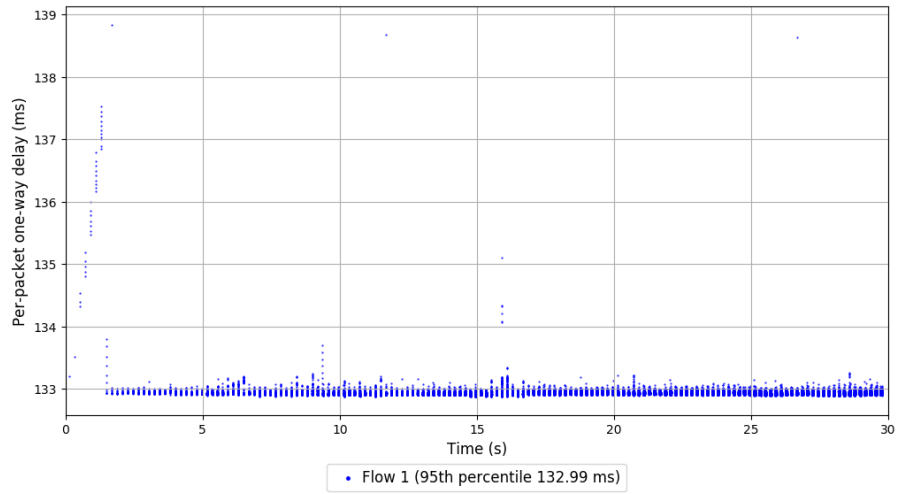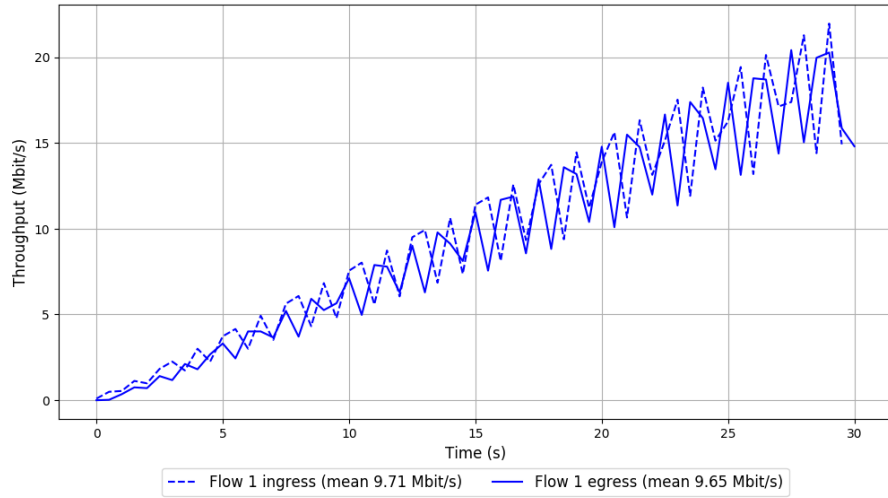Flow 1 (95th percentile 131.44 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2019-11-24 13:52:48
End at: 2019-11-24 13:53:18
Local clock offset: -2.206 ms
Remote clock offset: -38.01 ms


# Below is generated by plot.py at 2019-11-24 14:40:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 132.992 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 132.992 ms
Loss rate: 1.29%
```

Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.71 Mbit/s) --- Flow 1 egress (mean 9.65 Mbit/s)
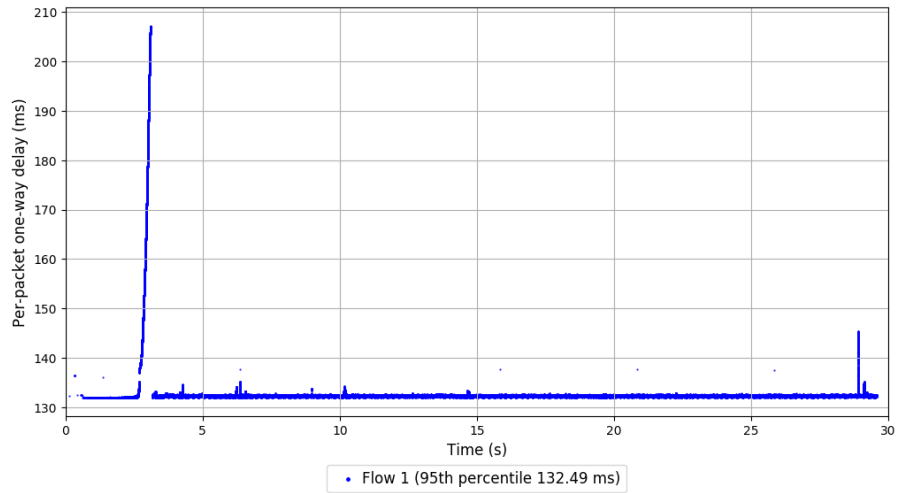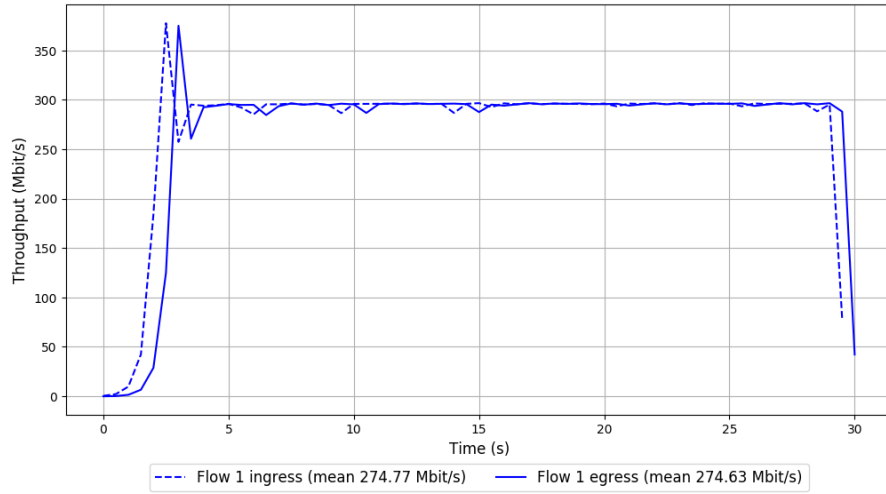

Flow 1 (95th percentile 132.99 ms)

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 12:06:25
End at: 2019-11-24 12:06:55
Local clock offset: -2.764 ms
Remote clock offset: -39.455 ms


# Below is generated by plot.py at 2019-11-24 14:41:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 274.63 Mbit/s
95th percentile per-packet one-way delay: 132.489 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 274.63 Mbit/s
95th percentile per-packet one-way delay: 132.489 ms
Loss rate: 0.70%
```
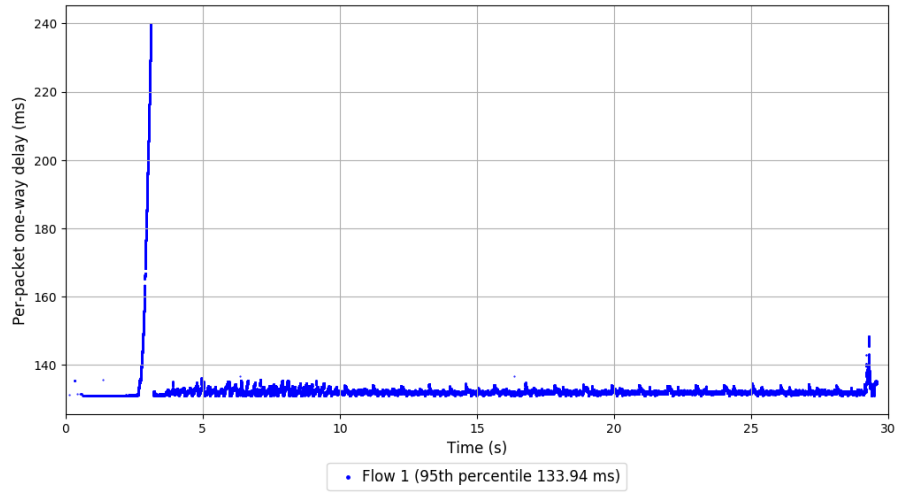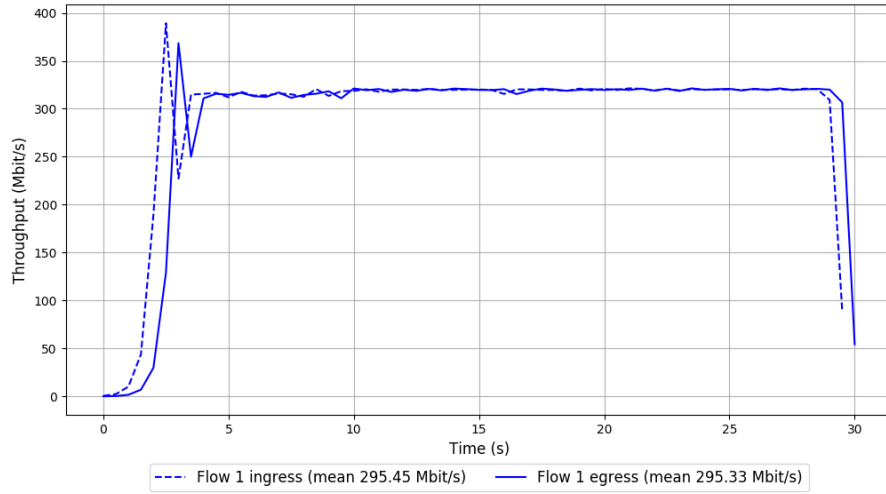
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 12:37:20
End at: 2019-11-24 12:37:50
Local clock offset: -3.392 ms
Remote clock offset: -38.267 ms


# Below is generated by plot.py at 2019-11-24 14:41:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 295.33 Mbit/s
95th percentile per-packet one-way delay: 133.936 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 295.33 Mbit/s
95th percentile per-packet one-way delay: 133.936 ms
Loss rate: 0.70%
```
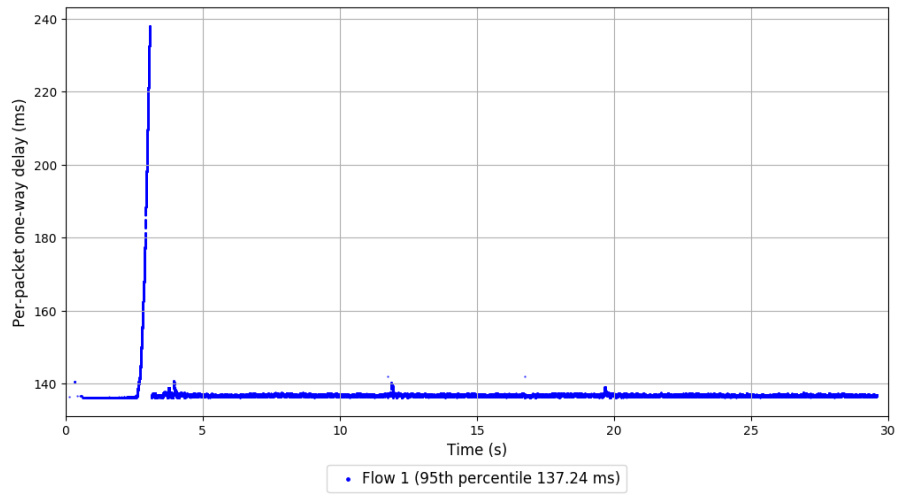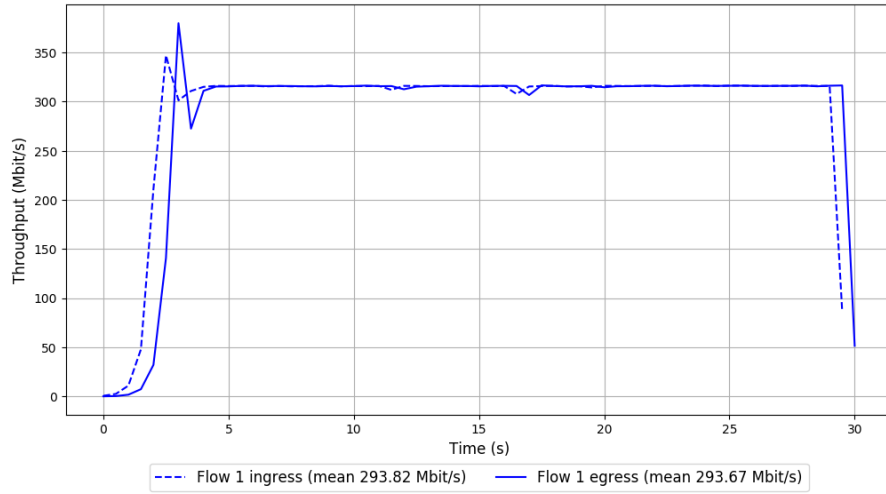
Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 13:08:25
End at: 2019-11-24 13:08:55
Local clock offset: -0.221 ms
Remote clock offset: -39.975 ms


# Below is generated by plot.py at 2019-11-24 14:42:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 293.67 Mbit/s
95th percentile per-packet one-way delay: 137.236 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 293.67 Mbit/s
95th percentile per-packet one-way delay: 137.236 ms
Loss rate: 0.70%
```
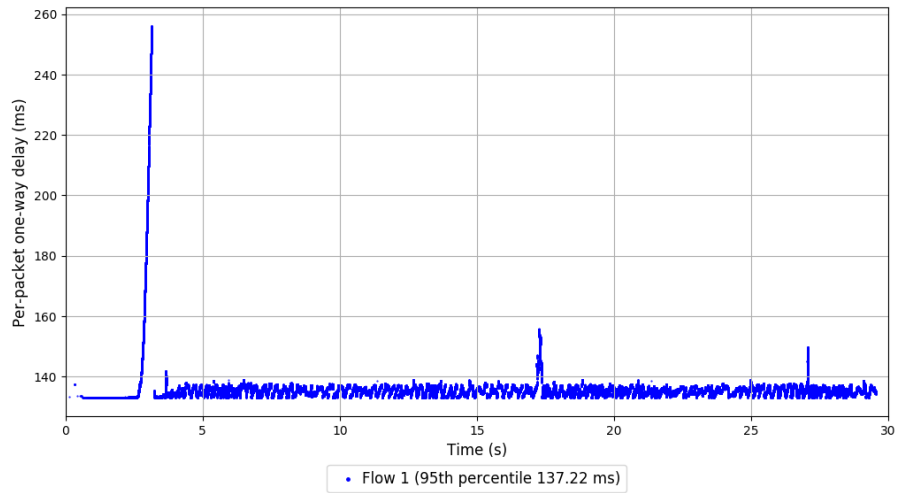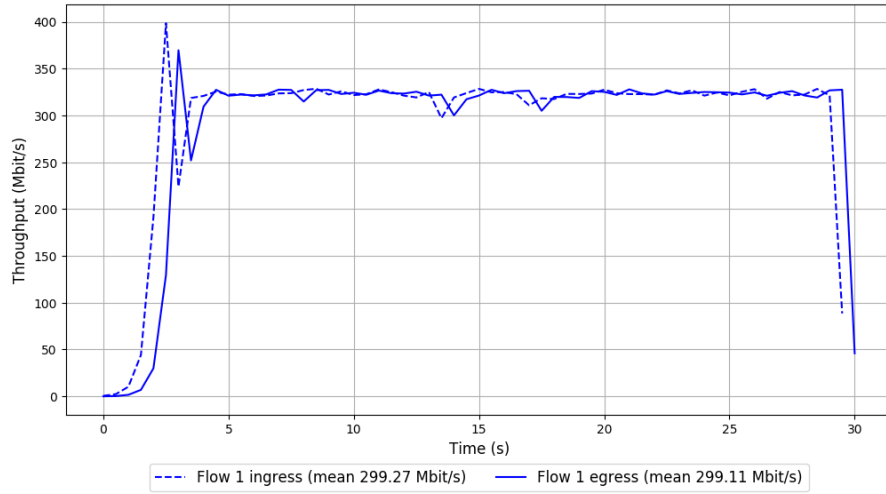
Run 3: Report of Muses_DecisionTree — Data Link

Run 4: Statistics of Muses_DecisionTree

Start at: 2019-11-24 13:39:29
End at: 2019-11-24 13:39:59
Local clock offset: -0.66 ms
Remote clock offset: -36.794 ms

Below is generated by plot.py at 2019-11-24 14:42:37
Datalink statistics
-- Total of 1 flow:
Average throughput: 299.11 Mbit/s
95th percentile per-packet one-way delay: 137.222 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 299.11 Mbit/s
95th percentile per-packet one-way delay: 137.222 ms
Loss rate: 0.72%
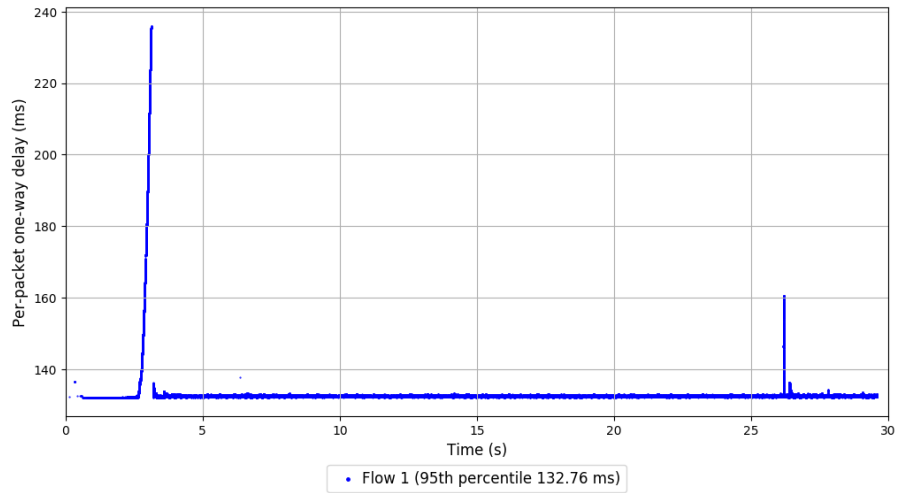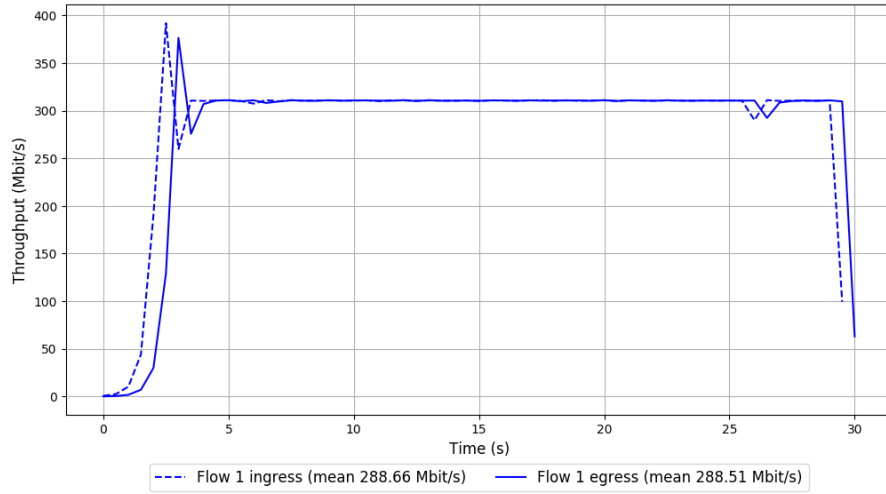
Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 14:10:30
End at: 2019-11-24 14:11:00
Local clock offset: -3.418 ms
Remote clock offset: -38.867 ms


# Below is generated by plot.py at 2019-11-24 14:42:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 288.51 Mbit/s
95th percentile per-packet one-way delay: 132.763 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 288.51 Mbit/s
95th percentile per-packet one-way delay: 132.763 ms
Loss rate: 0.70%
```

Run 5: Report of Muses_DecisionTree — Data Link

Run 1: Statistics of Muses_DecisionTreeH0

Start at: 2019-11-24 11:56:08
End at: 2019-11-24 11:56:38
Local clock offset: 0.131 ms
Remote clock offset: -41.771 ms

Run 1: Report of Muses_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of Muses_DecisionTreeH0

Start at: 2019-11-24 12:27:00
End at: 2019-11-24 12:27:30
Local clock offset: -2.778 ms
Remote clock offset: -38.273 ms

Run 2: Report of Muses_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of Muses_DecisionTreeH0

Start at: 2019-11-24 12:58:05
End at: 2019-11-24 12:58:35
Local clock offset: -3.991 ms
Remote clock offset: -39.732 ms

Run 3: Report of Muses_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of Muses_DecisionTreeH0

Start at: 2019-11-24 13:29:08
End at: 2019-11-24 13:29:38
Local clock offset: -2.532 ms
Remote clock offset: -36.926 ms

Run 4: Report of Muses_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of Muses_DecisionTreeH0

Start at: 2019-11-24 14:00:09
End at: 2019-11-24 14:00:39
Local clock offset: -1.484 ms
Remote clock offset: -42.013 ms

Run 5: Report of Muses_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 1: Statistics of Muses_DecisionTreeR0

Start at: 2019-11-24 11:46:07
End at: 2019-11-24 11:46:37
Local clock offset: -0.85 ms
Remote clock offset: -39.658 ms

Run 1: Report of Muses_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of Muses_DecisionTreeR0

Start at: 2019-11-24 12:17:10
End at: 2019-11-24 12:17:40
Local clock offset: -0.446 ms
Remote clock offset: -41.333 ms

Run 2: Report of Muses_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of Muses_DecisionTreeR0

Start at: 2019-11-24 12:48:08
End at: 2019-11-24 12:48:38
Local clock offset: -2.226 ms
Remote clock offset: -39.999 ms

Run 3: Report of Muses_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of Muses_DecisionTreeR0

Start at: 2019-11-24 13:19:19
End at: 2019-11-24 13:19:49
Local clock offset: 0.148 ms
Remote clock offset: -36.81 ms

Run 4: Report of Muses_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of Muses_DecisionTreeR0

Start at: 2019-11-24 13:50:19
End at: 2019-11-24 13:50:49
Local clock offset: -1.266 ms
Remote clock offset: -40.992 ms

Run 5: Report of Muses_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-11-24 12:05:09
End at: 2019-11-24 12:05:39
Local clock offset: -0.164 ms
Remote clock offset: -39.059 ms


# Below is generated by plot.py at 2019-11-24 14:42:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 166.37 Mbit/s
95th percentile per-packet one-way delay: 246.387 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 166.37 Mbit/s
95th percentile per-packet one-way delay: 246.387 ms
Loss rate: 1.84%
```
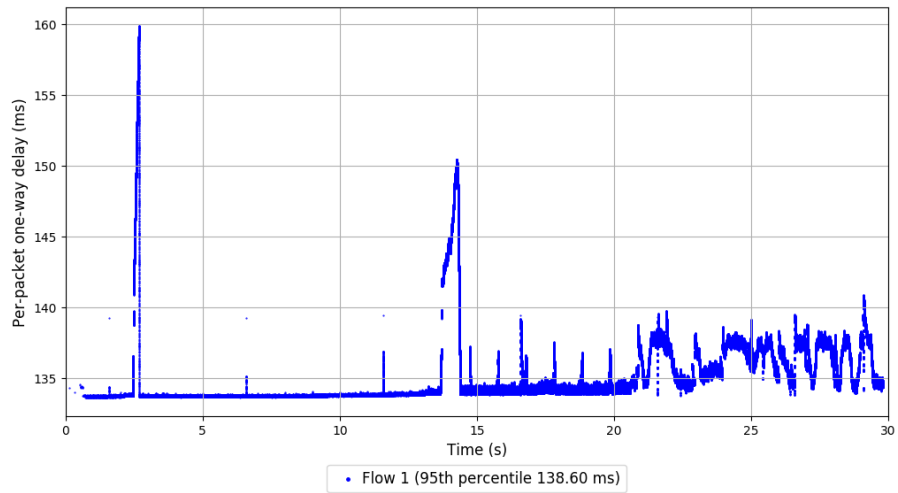
Run 1: Report of PCC-Allegro — Data Link
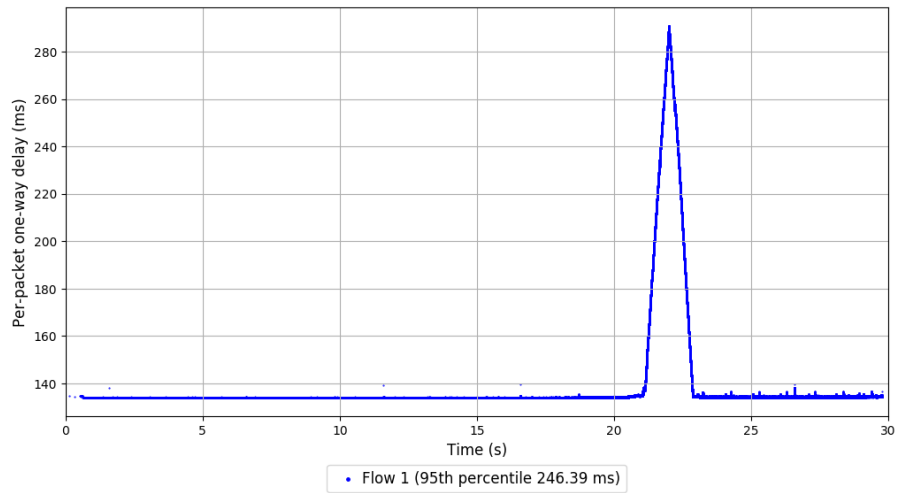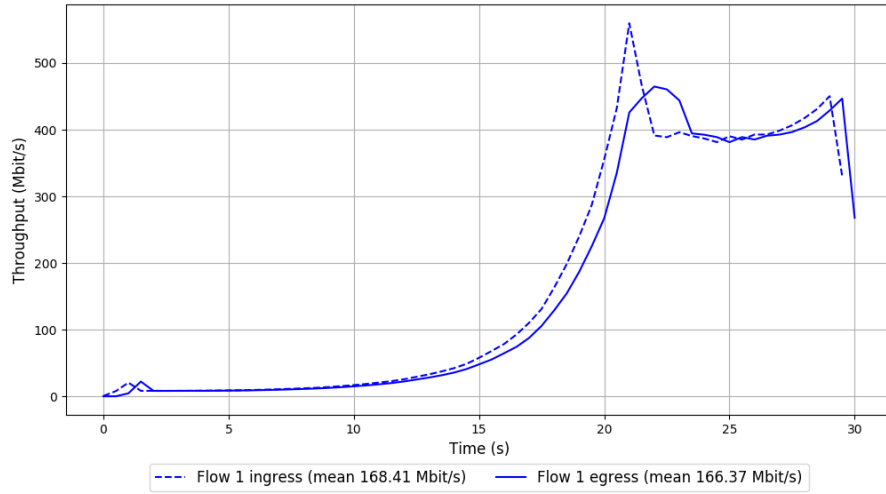
```
Run 2: Statistics of PCC-Allegro

Start at: 2019-11-24 12:35:59
End at: 2019-11-24 12:36:29
Local clock offset: -0.469 ms
Remote clock offset: -38.123 ms


# Below is generated by plot.py at 2019-11-24 14:43:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 313.50 Mbit/s
95th percentile per-packet one-way delay: 138.599 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 313.50 Mbit/s
95th percentile per-packet one-way delay: 138.599 ms
Loss rate: 0.87%
```
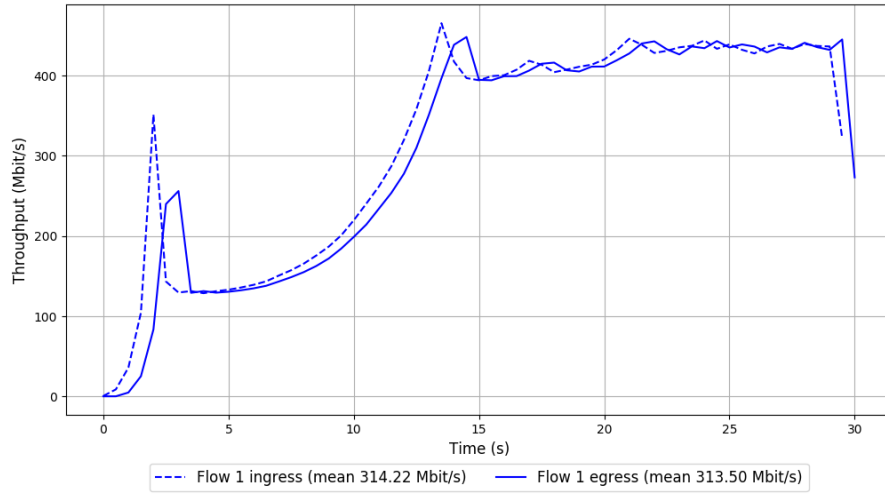
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-11-24 13:07:04
End at: 2019-11-24 13:07:34
Local clock offset: 0.253 ms
Remote clock offset: -37.506 ms


# Below is generated by plot.py at 2019-11-24 14:43:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 307.26 Mbit/s
95th percentile per-packet one-way delay: 137.617 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 307.26 Mbit/s
95th percentile per-packet one-way delay: 137.617 ms
Loss rate: 0.89%
```
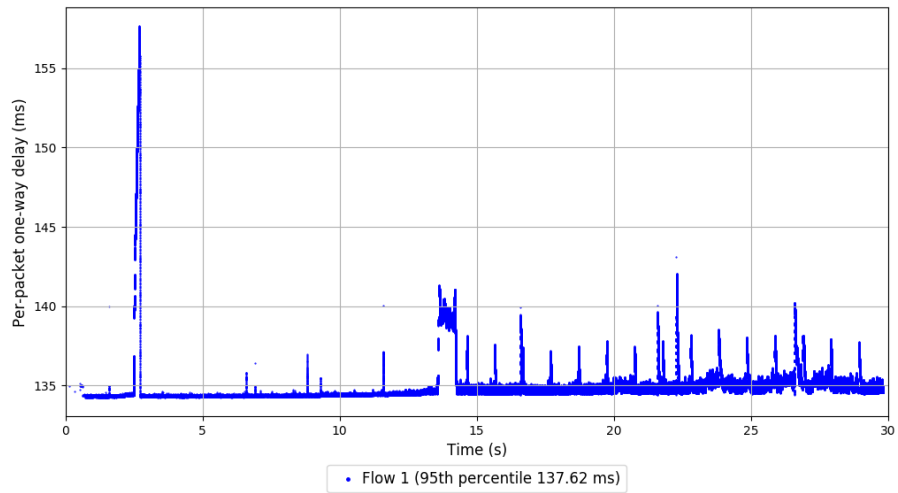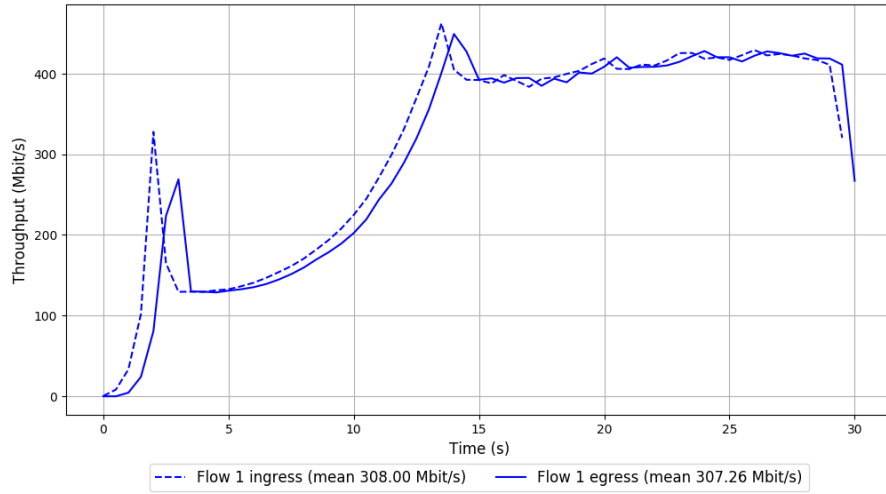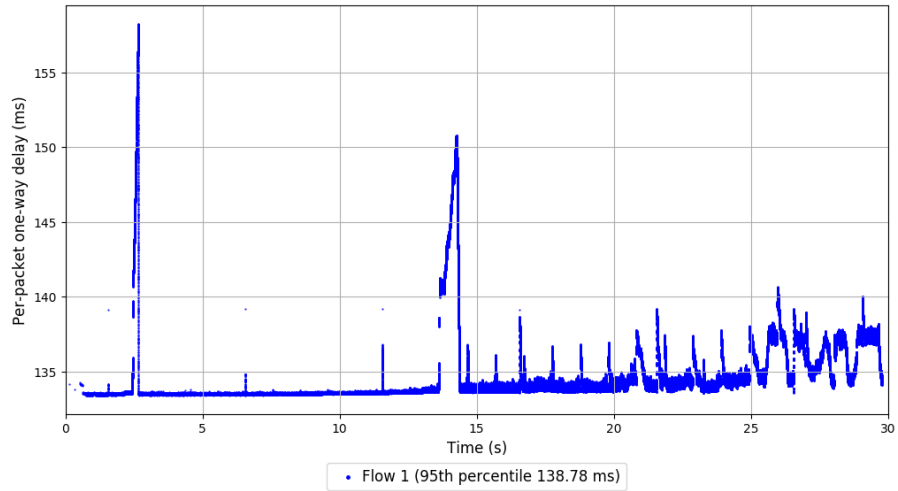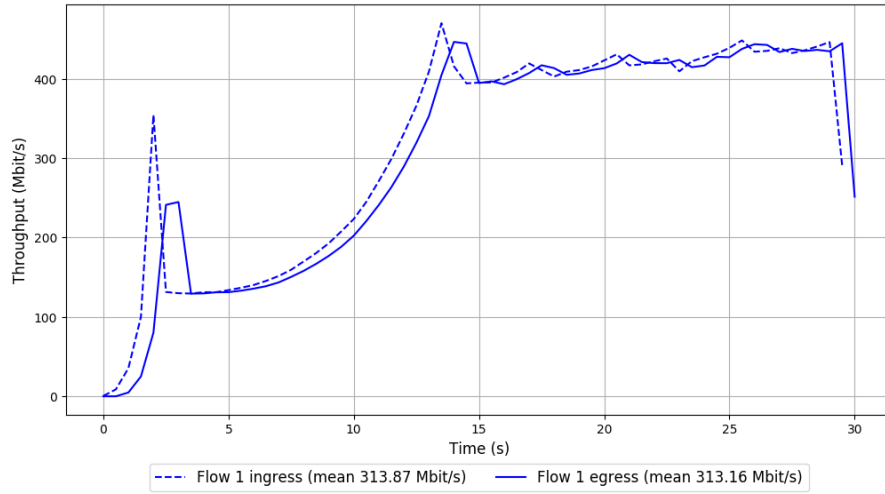
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 308.00 Mbit/s)　　Flow 1 egress (mean 307.26 Mbit/s)

Flow 1 (95th percentile 137.62 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-11-24 13:38:09
End at: 2019-11-24 13:38:39
Local clock offset: -2.708 ms
Remote clock offset: -39.374 ms


# Below is generated by plot.py at 2019-11-24 14:44:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 313.16 Mbit/s
95th percentile per-packet one-way delay: 138.777 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 313.16 Mbit/s
95th percentile per-packet one-way delay: 138.777 ms
Loss rate: 0.87%
```
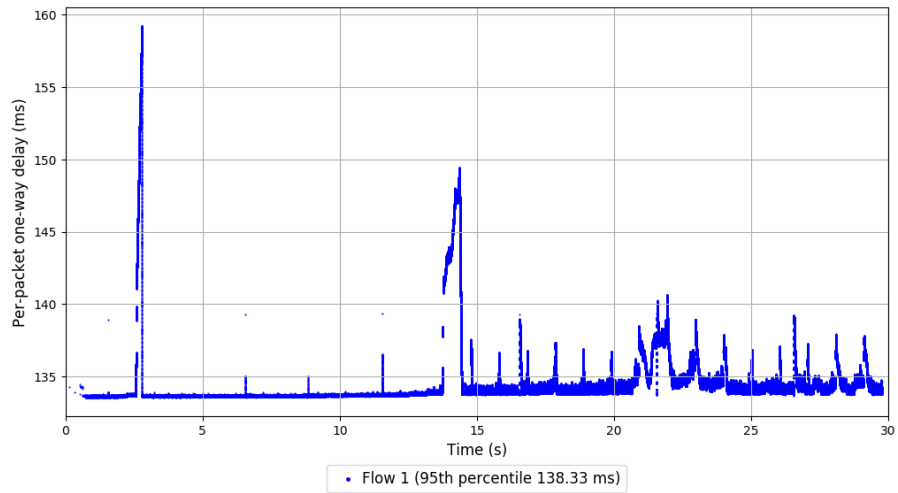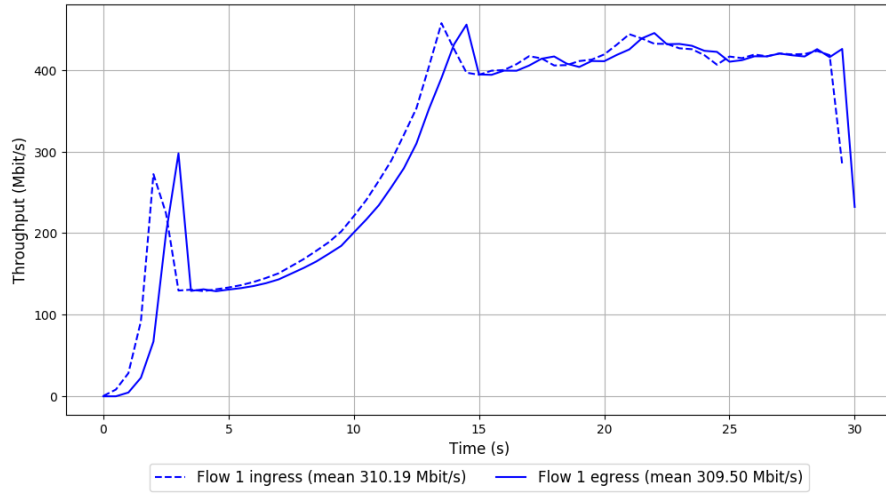
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 313.87 Mbit/s) — Flow 1 egress (mean 313.16 Mbit/s)

Flow 1 (95th percentile 138.78 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-11-24 14:09:10
End at: 2019-11-24 14:09:40
Local clock offset: -2.513 ms
Remote clock offset: -39.677 ms


# Below is generated by plot.py at 2019-11-24 14:45:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 309.50 Mbit/s
95th percentile per-packet one-way delay: 138.330 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 309.50 Mbit/s
95th percentile per-packet one-way delay: 138.330 ms
Loss rate: 0.87%
```

Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 310.19 Mbit/s) Flow 1 egress (mean 309.50 Mbit/s)

Flow 1 (95th percentile 138.33 ms)

154

```
Run 1: Statistics of PCC-Expr

Start at: 2019-11-24 11:58:40
End at: 2019-11-24 11:59:10
Local clock offset: -0.84 ms
Remote clock offset: -41.535 ms

# Below is generated by plot.py at 2019-11-24 14:45:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 153.11 Mbit/s
95th percentile per-packet one-way delay: 139.918 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 153.11 Mbit/s
95th percentile per-packet one-way delay: 139.918 ms
Loss rate: 0.82%
```
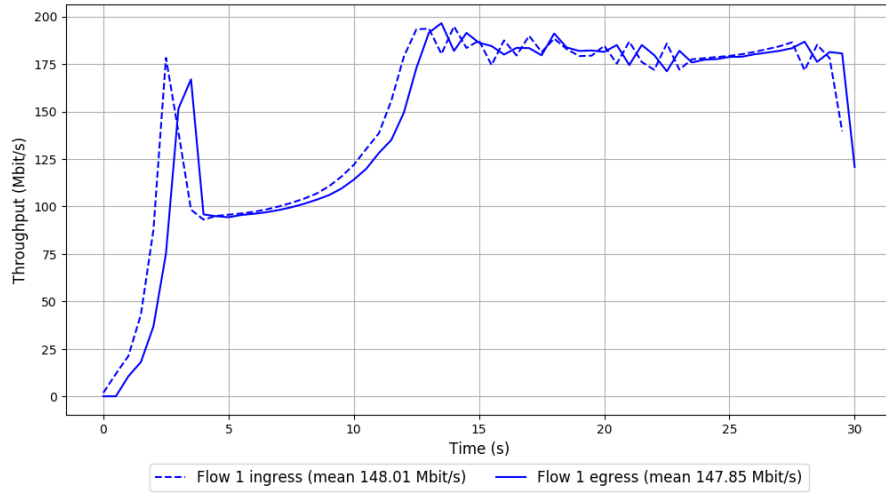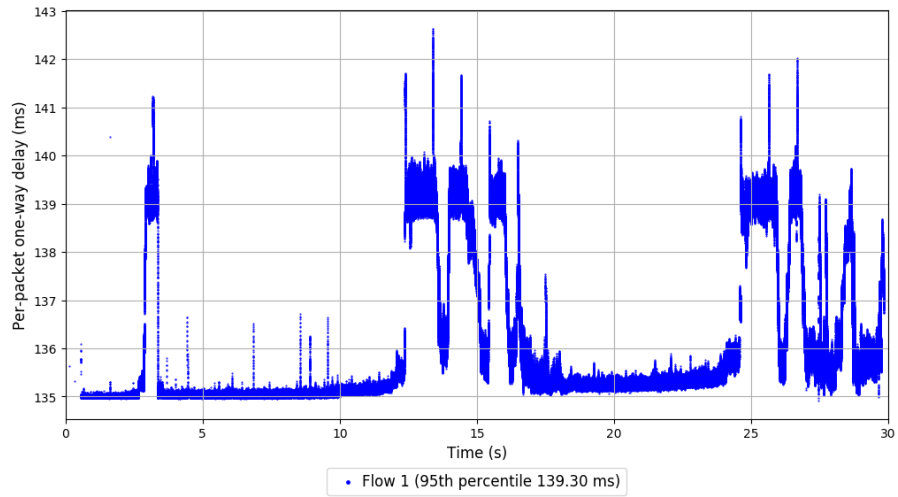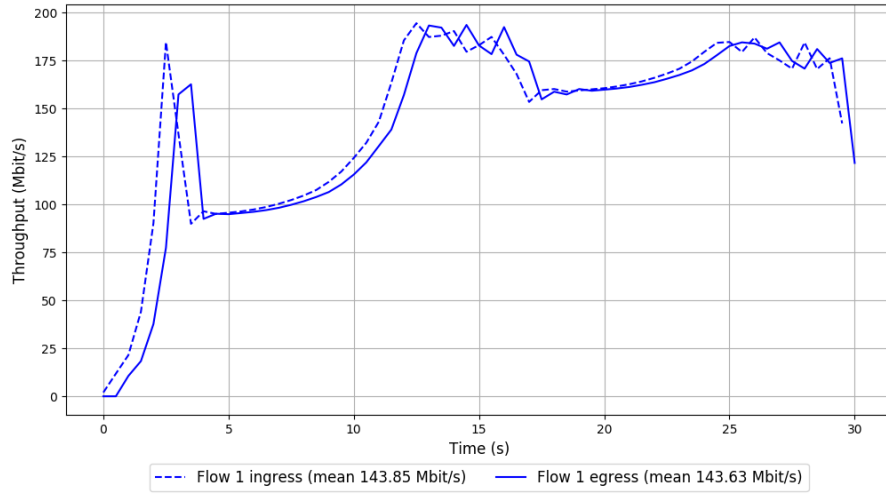
Run 1: Report of PCC-Expr — Data Link
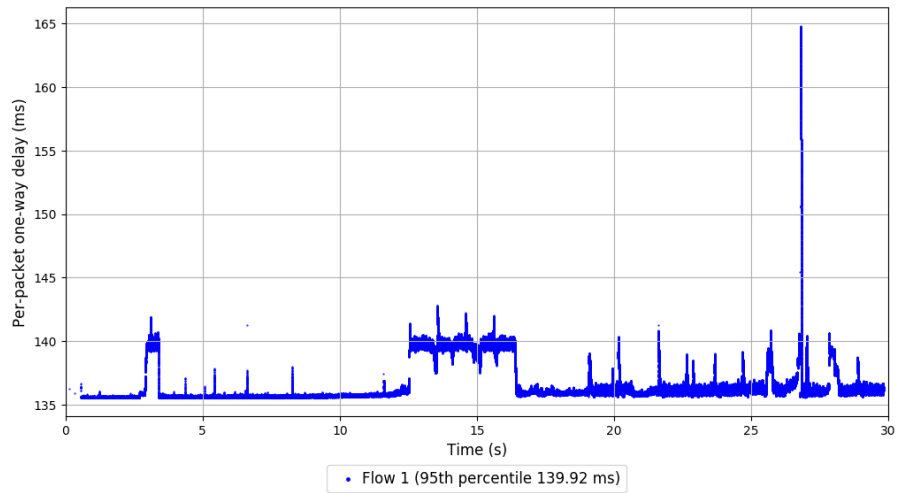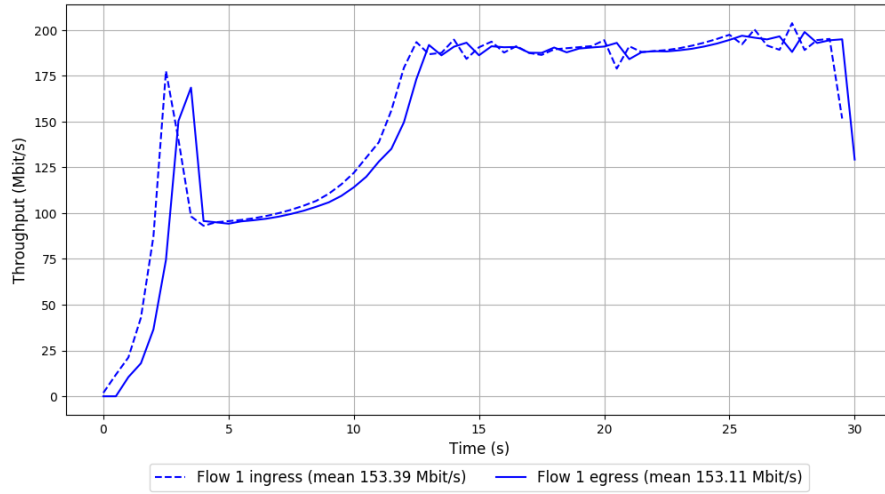
```
Run 2: Statistics of PCC-Expr

Start at: 2019-11-24 12:29:32
End at: 2019-11-24 12:30:02
Local clock offset: -2.958 ms
Remote clock offset: -40.089 ms


# Below is generated by plot.py at 2019-11-24 14:45:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 147.85 Mbit/s
95th percentile per-packet one-way delay: 137.271 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 147.85 Mbit/s
95th percentile per-packet one-way delay: 137.271 ms
Loss rate: 0.75%
```
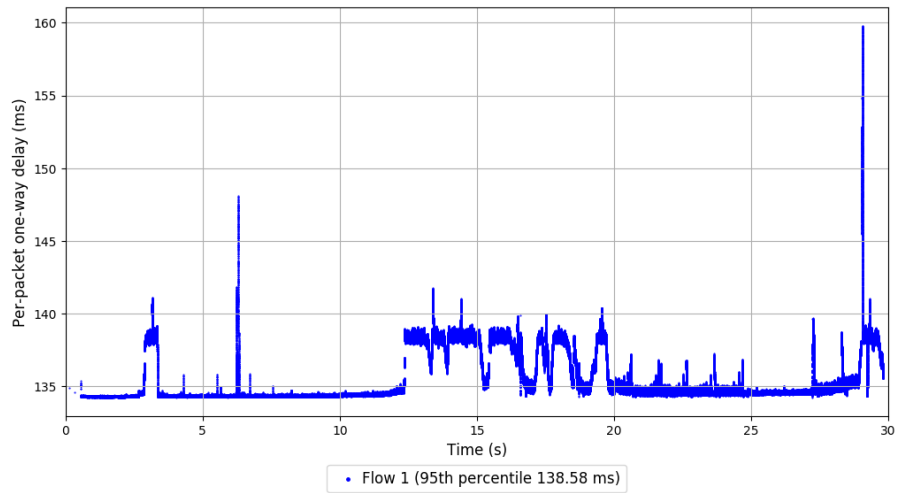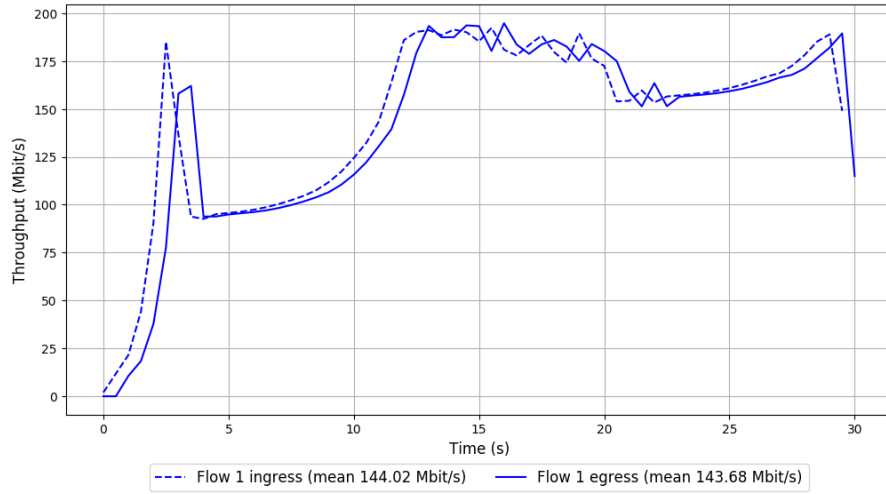
Run 2: Report of PCC-Expr — Data Link
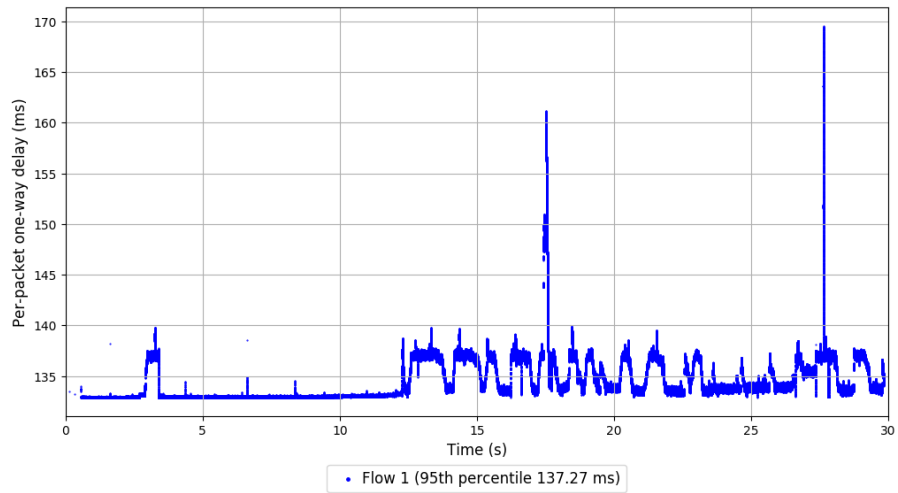
```
Run 3: Statistics of PCC-Expr

Start at: 2019-11-24 13:00:38
End at: 2019-11-24 13:01:08
Local clock offset: -1.233 ms
Remote clock offset: -39.829 ms


# Below is generated by plot.py at 2019-11-24 14:45:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 143.63 Mbit/s
95th percentile per-packet one-way delay: 139.298 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 143.63 Mbit/s
95th percentile per-packet one-way delay: 139.298 ms
Loss rate: 0.80%
```

Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-11-24 13:31:40
End at: 2019-11-24 13:32:10
Local clock offset: 0.507 ms
Remote clock offset: -36.998 ms


# Below is generated by plot.py at 2019-11-24 14:46:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 143.68 Mbit/s
95th percentile per-packet one-way delay: 138.583 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 143.68 Mbit/s
95th percentile per-packet one-way delay: 138.583 ms
Loss rate: 1.00%
```

Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-11-24 14:02:41
End at: 2019-11-24 14:03:11
Local clock offset: -0.644 ms
Remote clock offset: -39.728 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.92 Mbit/s
95th percentile per-packet one-way delay: 140.141 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 146.92 Mbit/s
95th percentile per-packet one-way delay: 140.141 ms
Loss rate: 0.79%
```
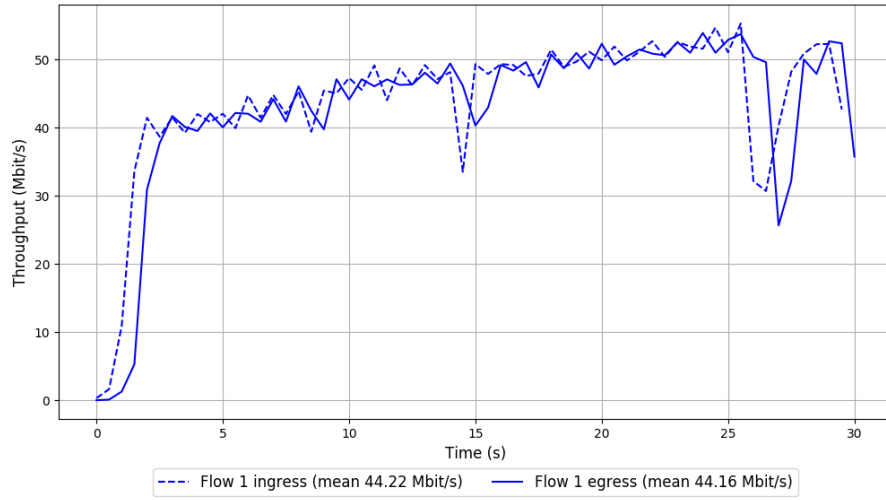
Run 5: Report of PCC-Expr — Data Link
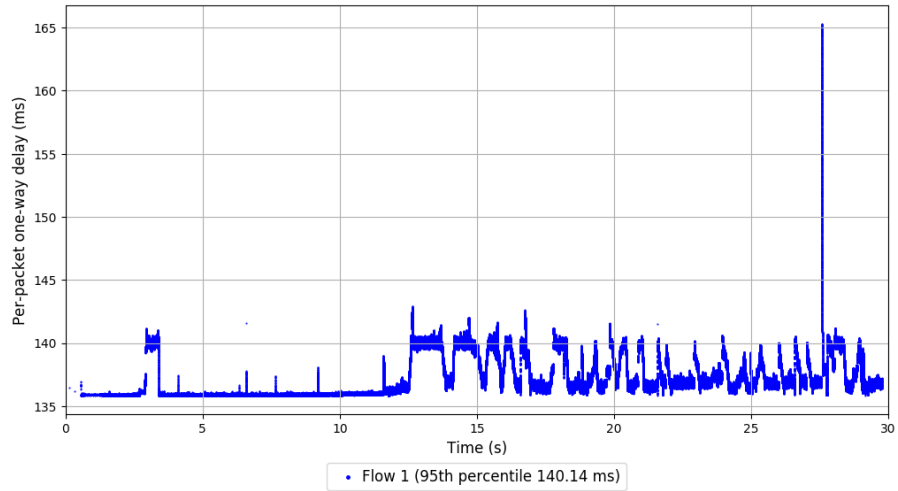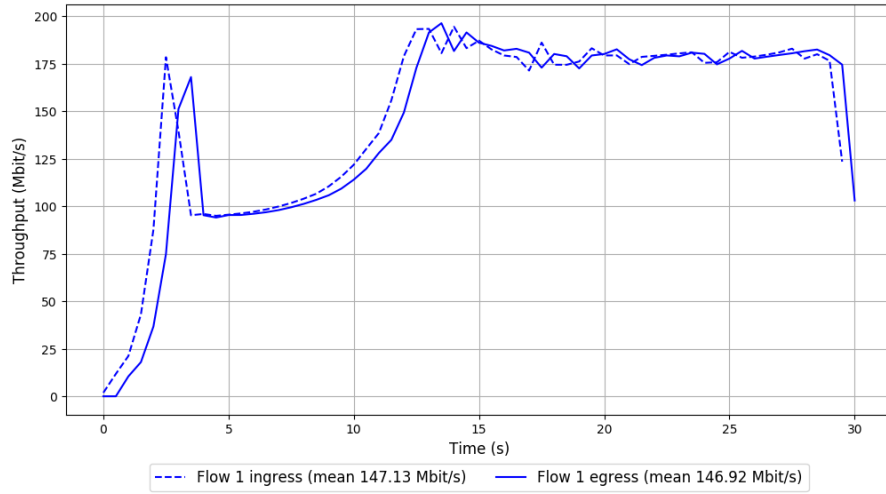
```
Run 1: Statistics of QUIC Cubic

Start at: 2019-11-24 12:10:26
End at: 2019-11-24 12:10:56
Local clock offset: -3.11 ms
Remote clock offset: -41.217 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.16 Mbit/s
95th percentile per-packet one-way delay: 133.451 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 44.16 Mbit/s
95th percentile per-packet one-way delay: 133.451 ms
Loss rate: 0.78%
```
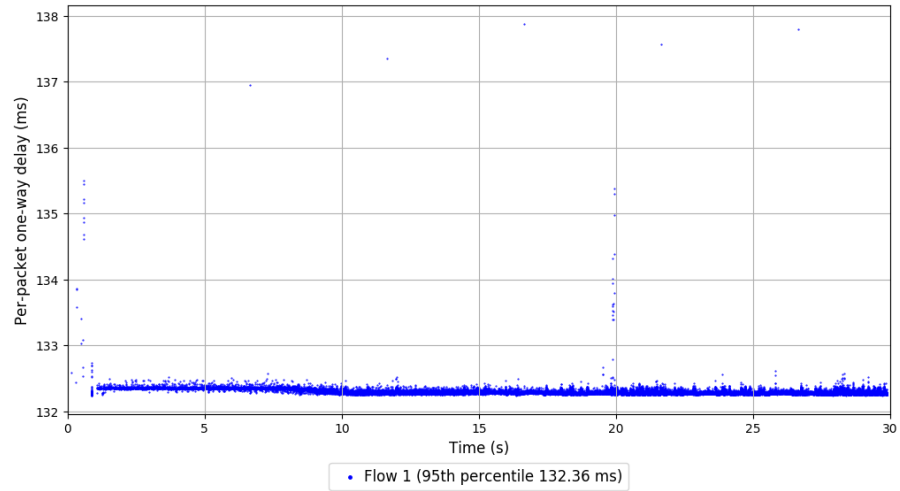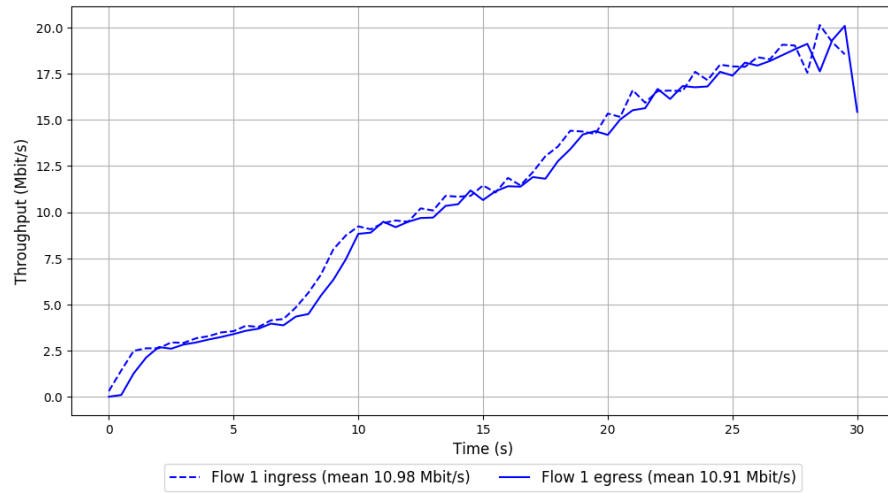
Run 1: Report of QUIC Cubic — Data Link
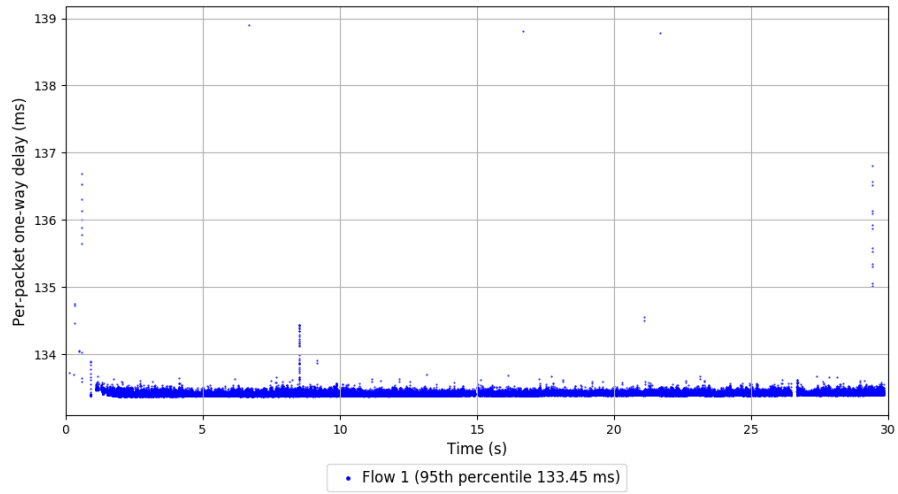
```
Run 2: Statistics of QUIC Cubic

Start at: 2019-11-24 12:41:29
End at: 2019-11-24 12:41:59
Local clock offset: -2.073 ms
Remote clock offset: -38.036 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 132.356 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 132.356 ms
Loss rate: 1.19%
```
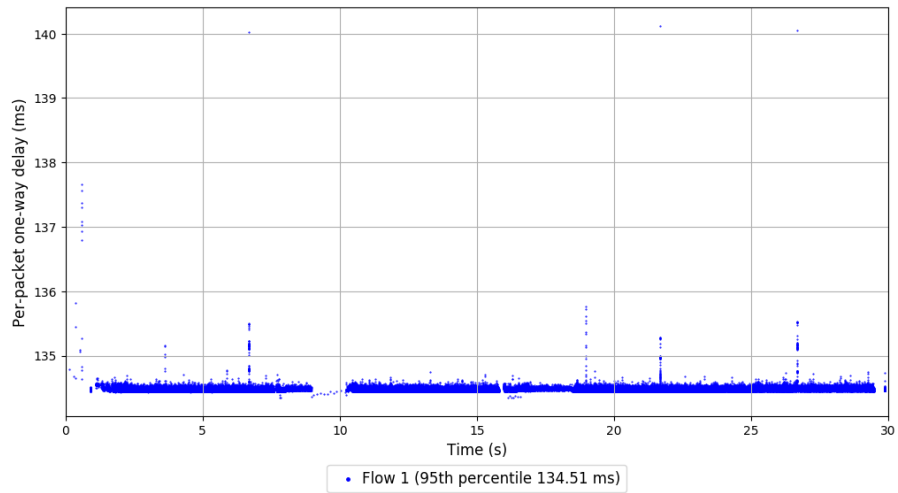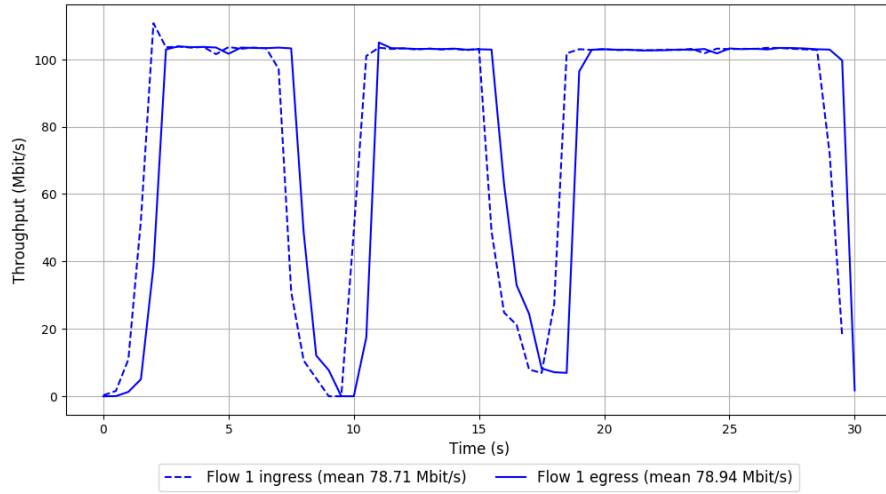
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-11-24 13:12:35
End at: 2019-11-24 13:13:05
Local clock offset: 0.103 ms
Remote clock offset: -37.721 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.94 Mbit/s
95th percentile per-packet one-way delay: 134.507 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 78.94 Mbit/s
95th percentile per-packet one-way delay: 134.507 ms
Loss rate: 0.34%
```
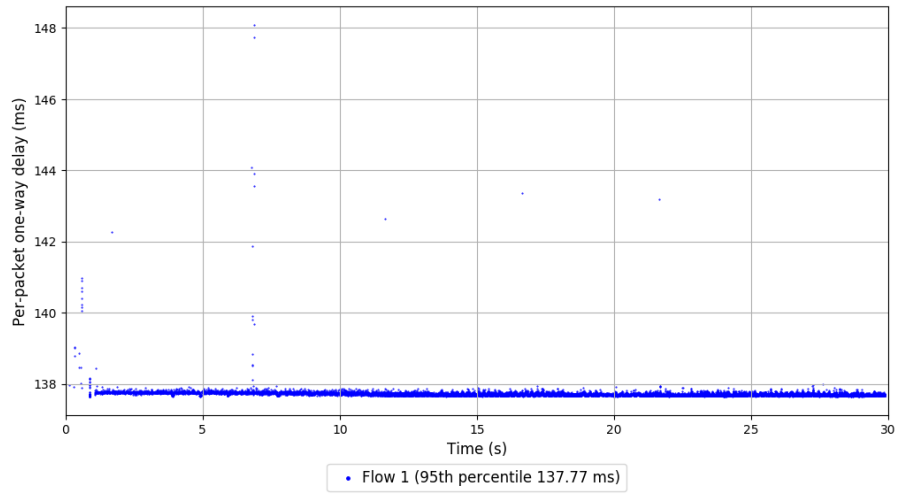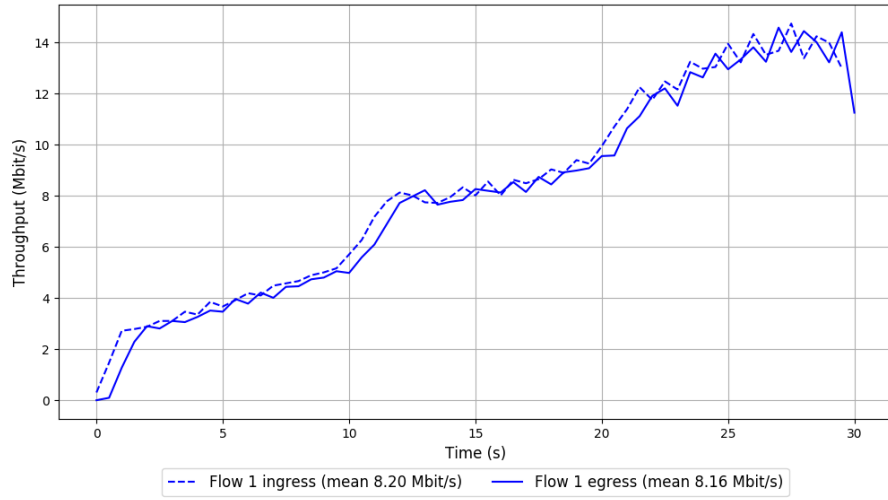
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-11-24 13:43:39
End at: 2019-11-24 13:44:09
Local clock offset: -0.796 ms
Remote clock offset: -41.493 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 137.772 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 137.772 ms
Loss rate: 1.14%
```

Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 8.20 Mbit/s)   Flow 1 egress (mean 8.16 Mbit/s)
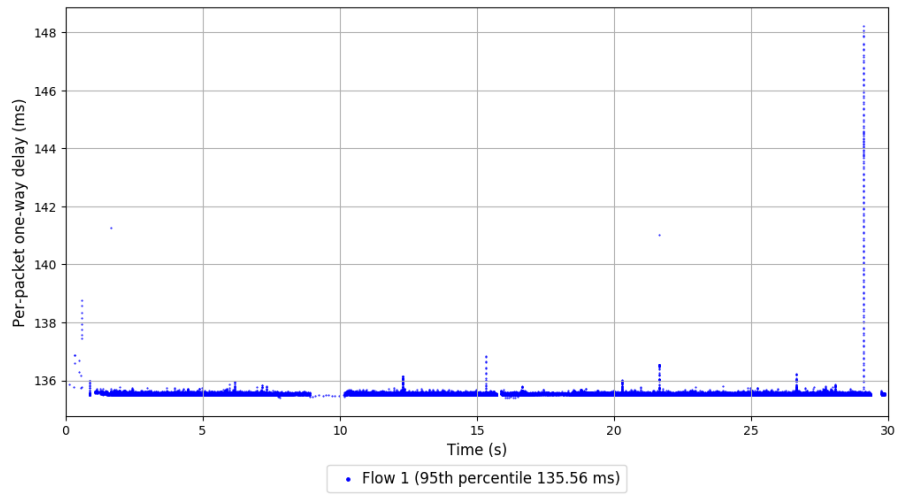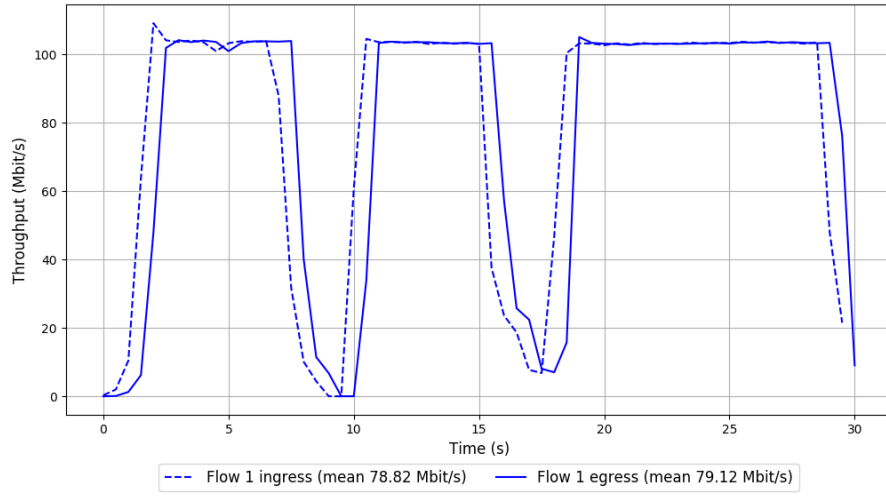

Flow 1 (95th percentile 137.77 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-11-24 14:14:39
End at: 2019-11-24 14:15:09
Local clock offset: -0.794 ms
Remote clock offset: -39.776 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.12 Mbit/s
95th percentile per-packet one-way delay: 135.556 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 79.12 Mbit/s
95th percentile per-packet one-way delay: 135.556 ms
Loss rate: 0.26%
```

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 78.82 Mbit/s)   Flow 1 egress (mean 79.12 Mbit/s)
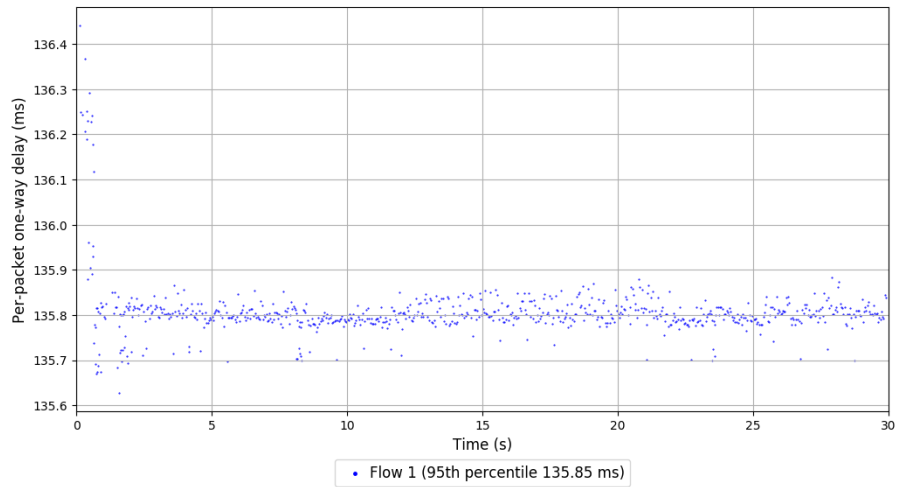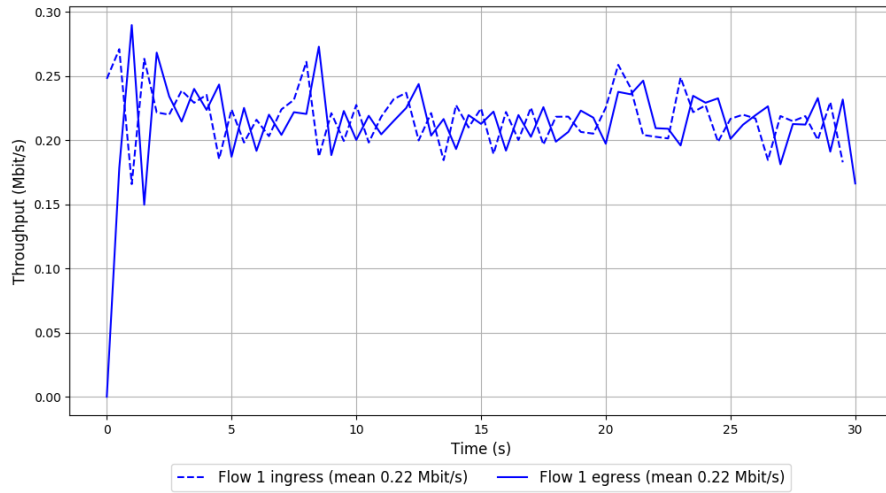

• Flow 1 (95th percentile 135.56 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-11-24 12:04:00
End at: 2019-11-24 12:04:30
Local clock offset: -0.62 ms
Remote clock offset: -41.237 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.852 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.852 ms
Loss rate: 0.51%
```

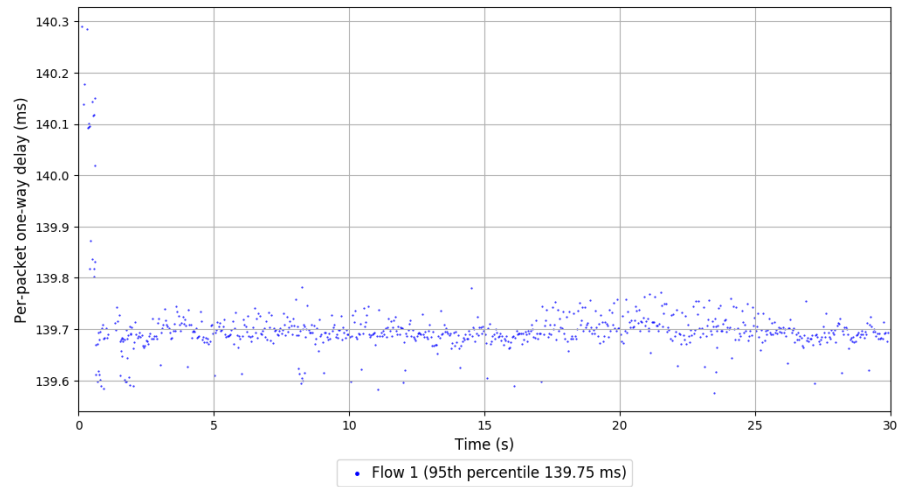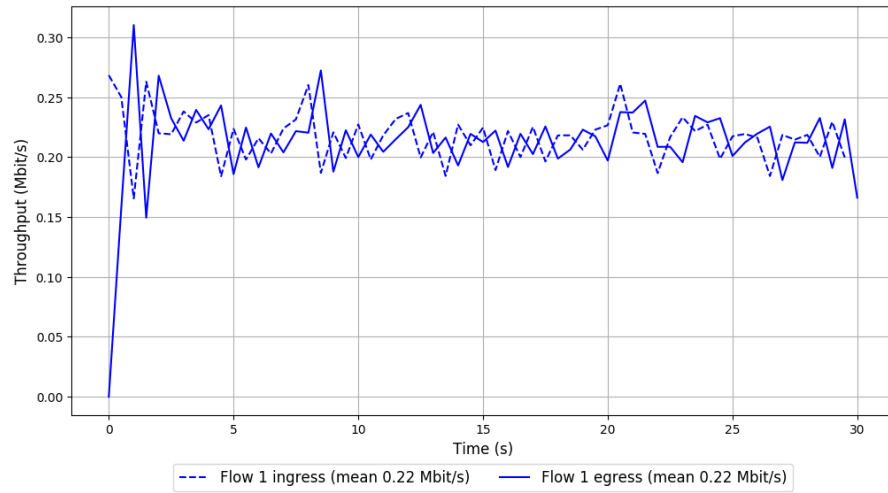Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-11-24 12:34:49
End at: 2019-11-24 12:35:19
Local clock offset: 0.08 ms
Remote clock offset: -43.575 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 139.749 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 139.749 ms
Loss rate: 0.64%
```

Run 2: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s) — Flow 1 egress (mean 0.22 Mbit/s)

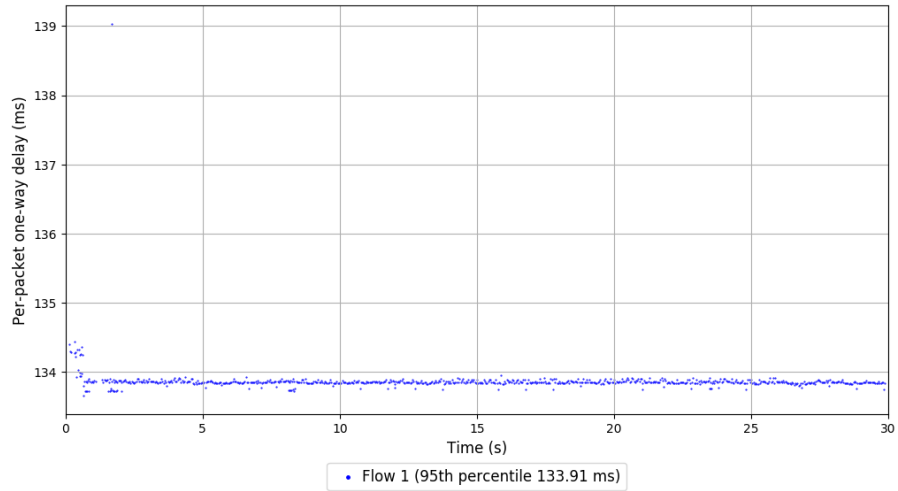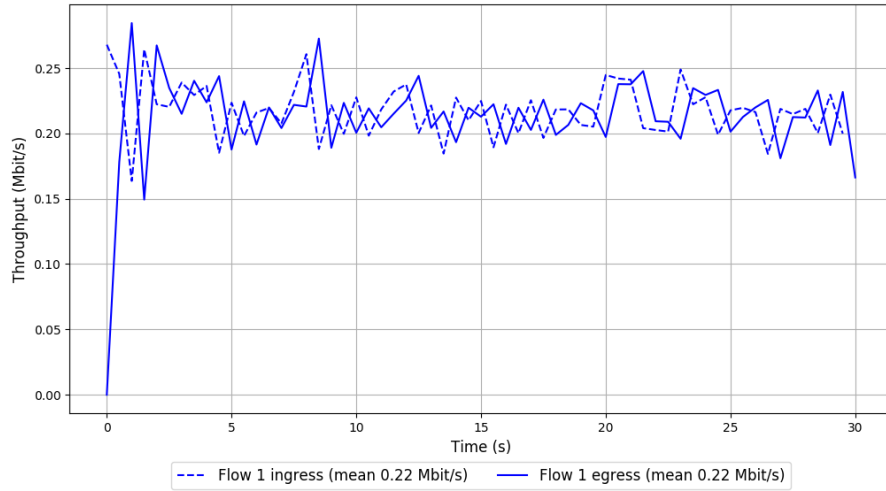Flow 1 (95th percentile 139.75 ms)

```
Run 3: Statistics of SCReAM

Start at: 2019-11-24 13:05:54
End at: 2019-11-24 13:06:24
Local clock offset: -0.23 ms
Remote clock offset: -37.532 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 133.908 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 133.908 ms
Loss rate: 0.64%
```

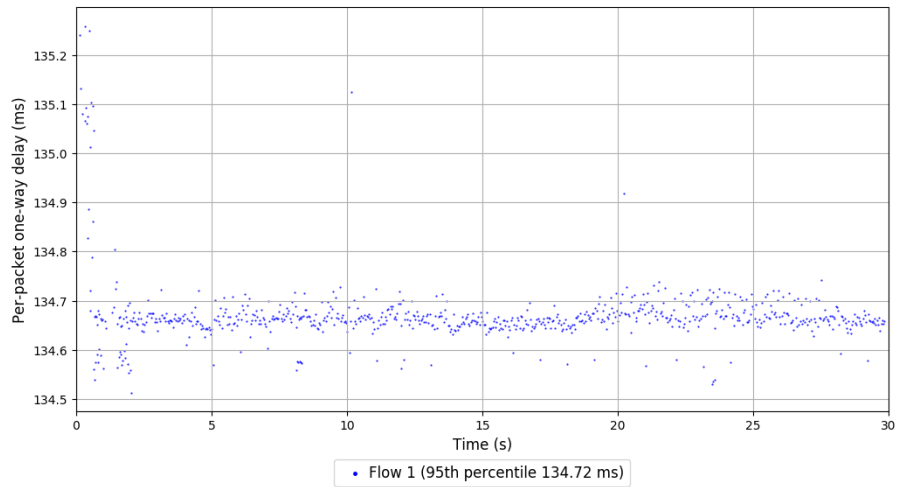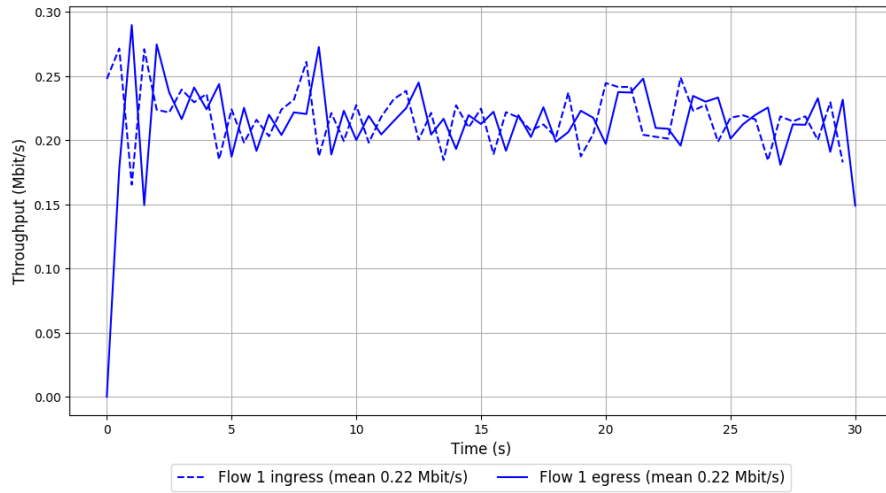## Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-11-24 13:36:59
End at: 2019-11-24 13:37:29
Local clock offset: 0.346 ms
Remote clock offset: -37.206 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.719 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.719 ms
Loss rate: 0.64%
```

Run 4: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s)   Flow 1 egress (mean 0.22 Mbit/s)

Flow 1 (95th percentile 134.72 ms)

```
Run 5: Statistics of SCReAM

Start at: 2019-11-24 14:08:00
End at: 2019-11-24 14:08:30
Local clock offset: -0.452 ms
Remote clock offset: -38.136 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.386 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.386 ms
Loss rate: 0.64%
```
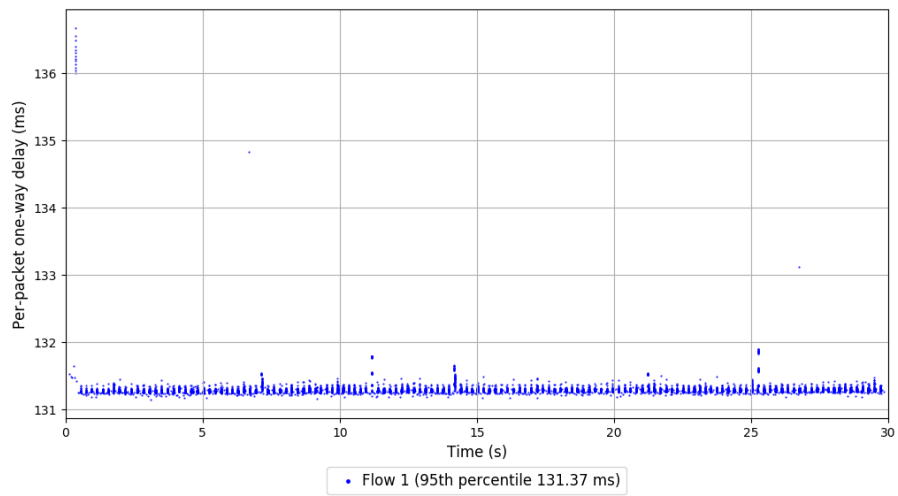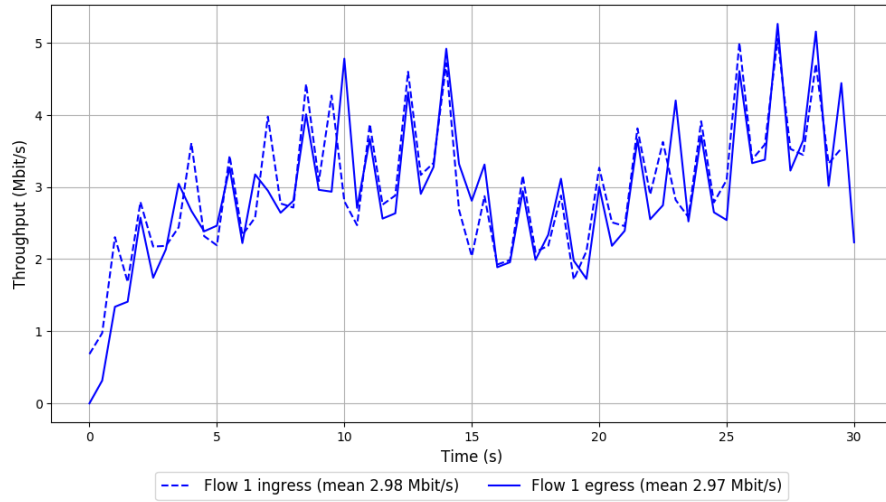
Run 5: Report of SCReAM — Data Link
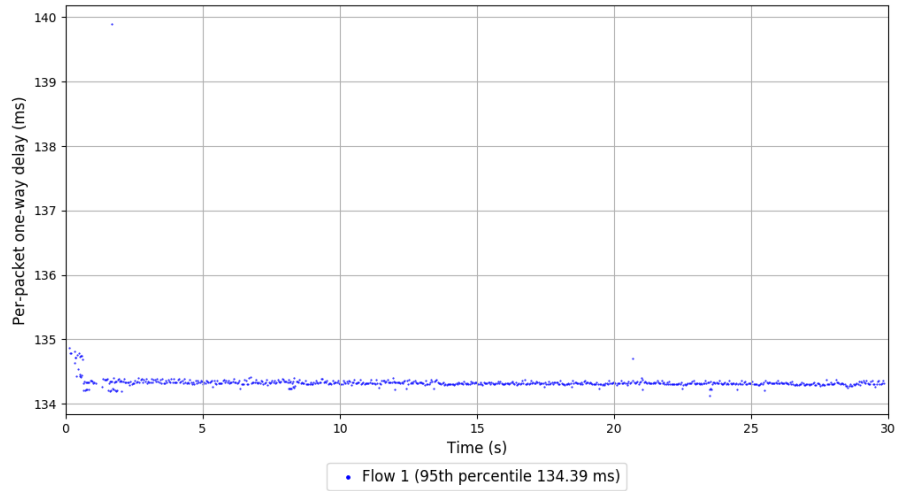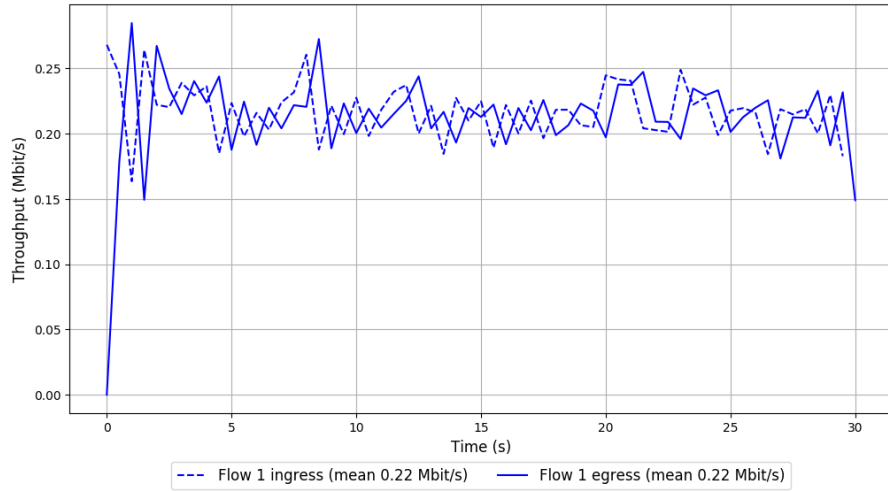
Run 1: Statistics of Sprout

Start at: 2019-11-24 11:51:16
End at: 2019-11-24 11:51:46
Local clock offset: -3.912 ms
Remote clock offset: -40.255 ms

Below is generated by plot.py at 2019-11-24 14:46:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 131.367 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 131.367 ms
Loss rate: 1.05%

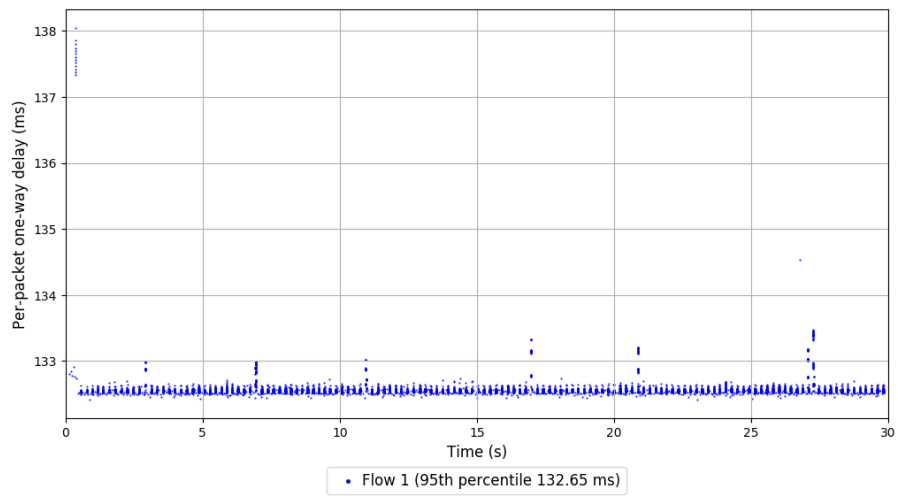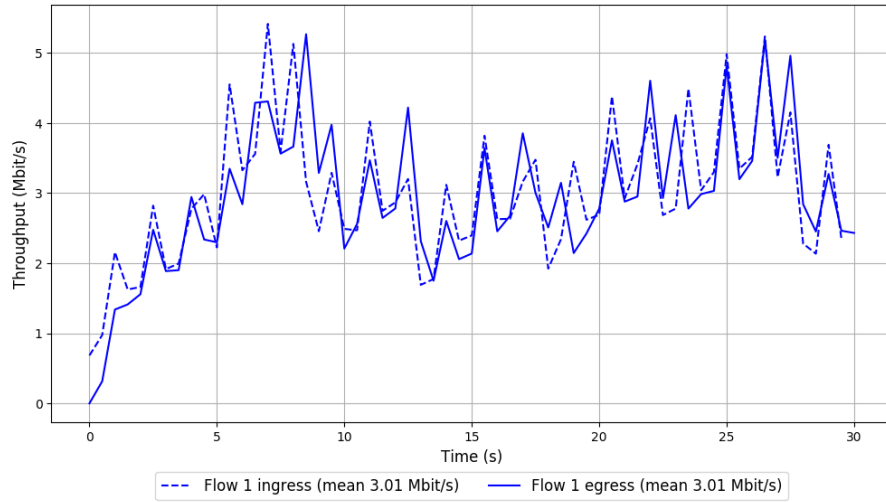Run 1: Report of Sprout — Data Link

Run 2: Statistics of Sprout

Start at: 2019-11-24 12:22:15
End at: 2019-11-24 12:22:46
Local clock offset: -3.96 ms
Remote clock offset: -40.777 ms

Below is generated by plot.py at 2019-11-24 14:46:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 132.648 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 132.648 ms
Loss rate: 0.64%

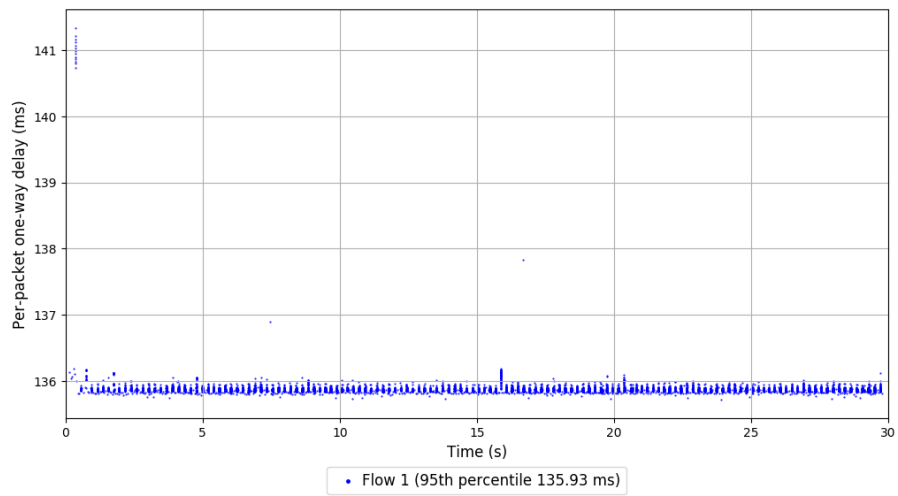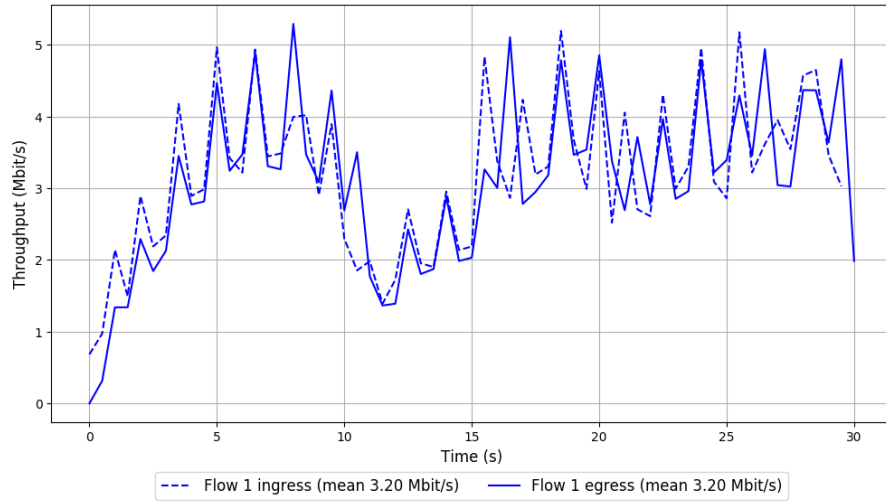Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-11-24 12:53:13
End at: 2019-11-24 12:53:43
Local clock offset: -1.308 ms
Remote clock offset: -40.533 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 135.934 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 135.934 ms
Loss rate: 0.84%
```
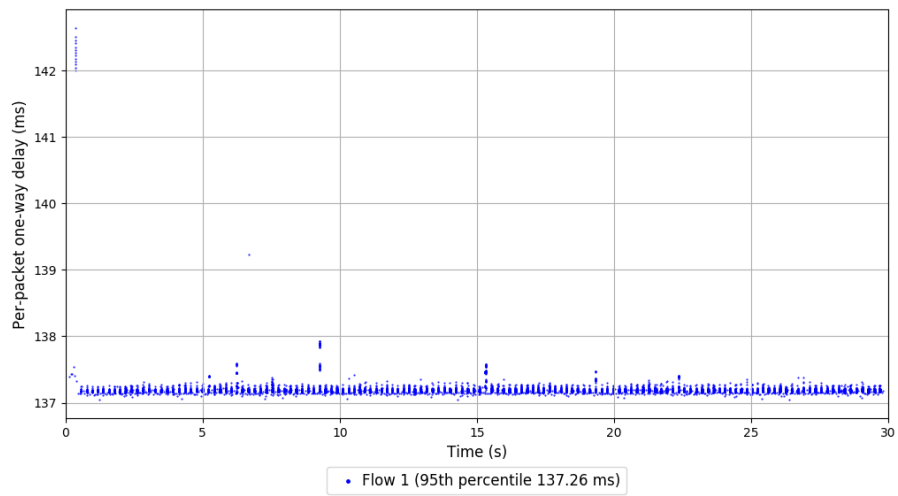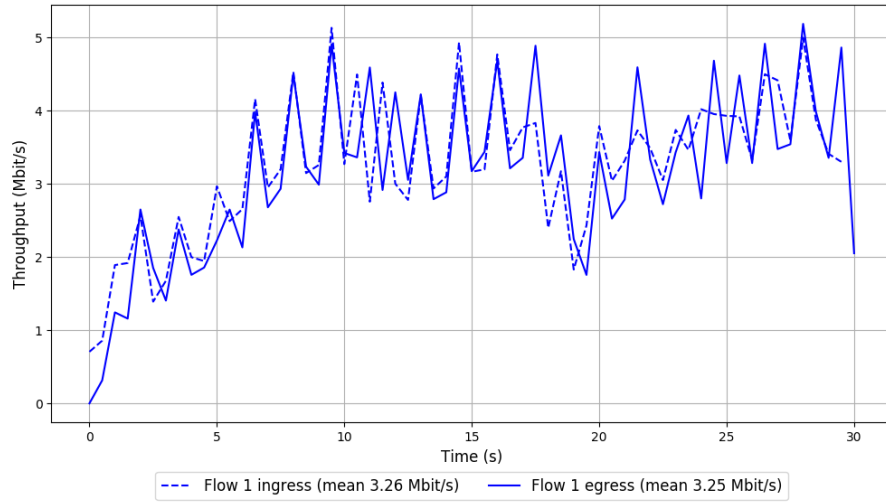
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-11-24 13:24:24
End at: 2019-11-24 13:24:54
Local clock offset: -1.928 ms
Remote clock offset: -42.266 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 137.258 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 137.258 ms
Loss rate: 0.84%
```

Run 4: Report of Sprout — Data Link

Flow 1 ingress (mean 3.26 Mbit/s) — — — Flow 1 egress (mean 3.25 Mbit/s)


Flow 1 (95th percentile 137.26 ms)

```
Run 5: Statistics of Sprout

Start at: 2019-11-24 13:55:24
End at: 2019-11-24 13:55:54
Local clock offset: 0.15 ms
Remote clock offset: -42.317 ms


# Below is generated by plot.py at 2019-11-24 14:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 139.492 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 139.492 ms
Loss rate: 1.04%
```

Run 5: Report of Sprout — Data Link
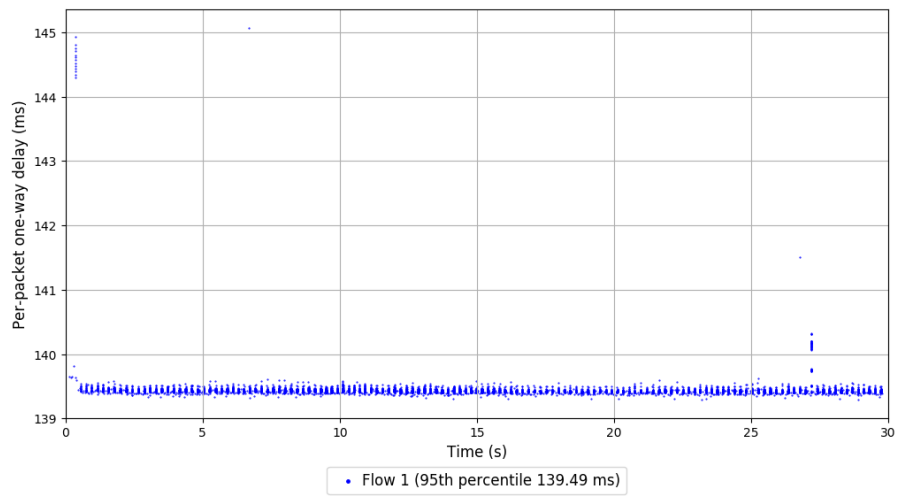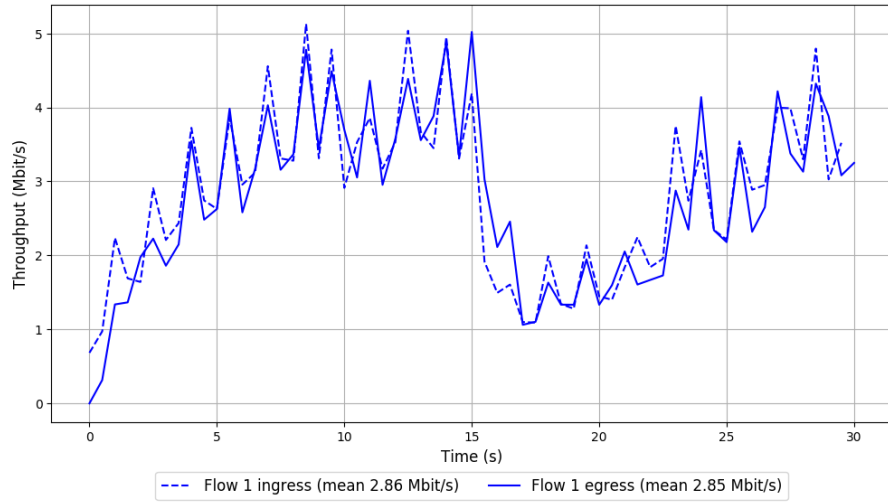
```
Run 1: Statistics of TaoVA-100x

Start at: 2019-11-24 11:44:44
End at: 2019-11-24 11:45:14
Local clock offset: -3.389 ms
Remote clock offset: -44.35 ms


# Below is generated by plot.py at 2019-11-24 14:48:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 149.04 Mbit/s
95th percentile per-packet one-way delay: 137.789 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 149.04 Mbit/s
95th percentile per-packet one-way delay: 137.789 ms
Loss rate: 0.71%
```
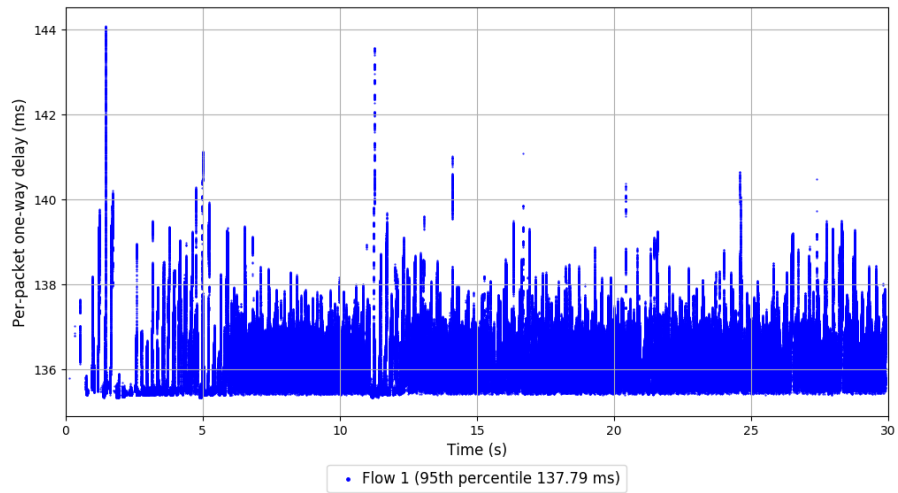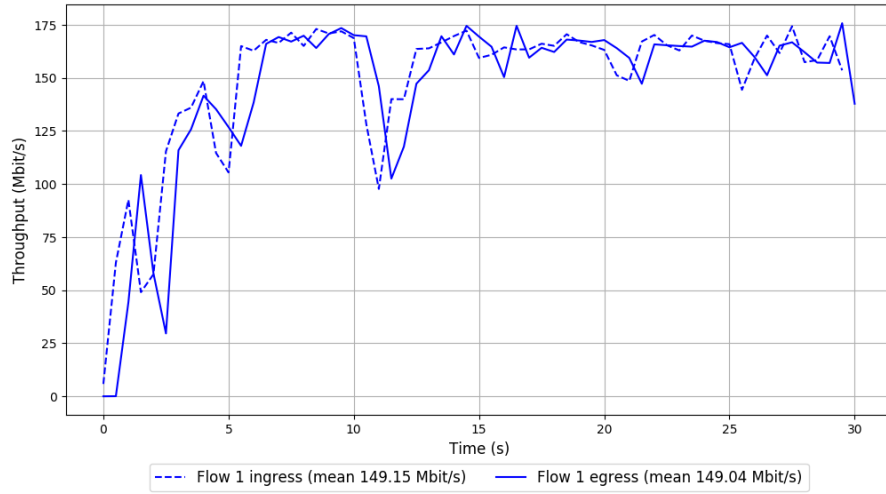
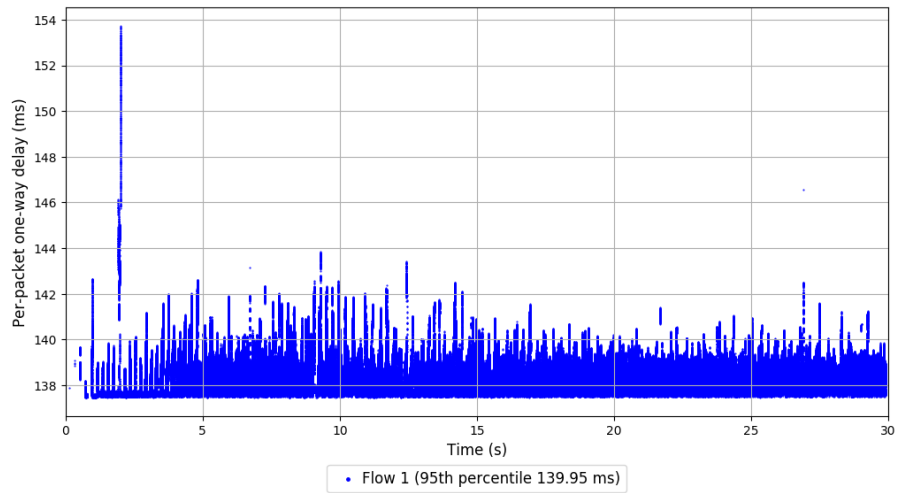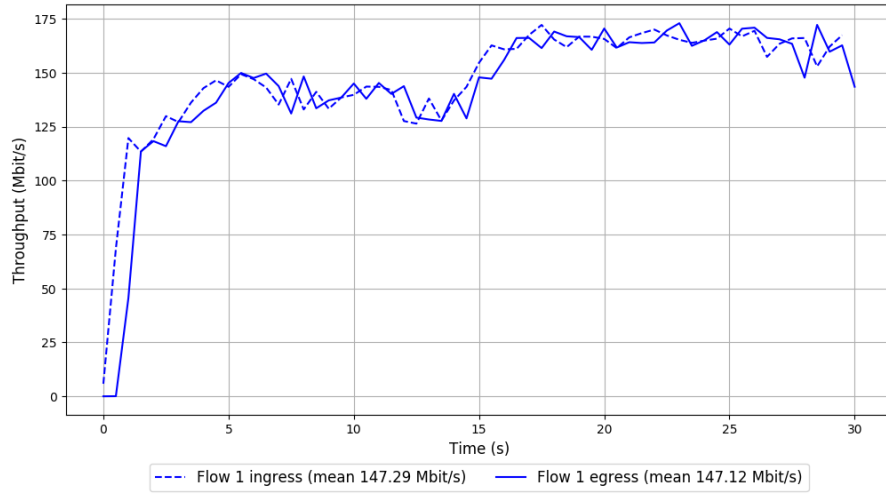Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-11-24 12:15:48
End at: 2019-11-24 12:16:18
Local clock offset: -0.376 ms
Remote clock offset: -42.278 ms


# Below is generated by plot.py at 2019-11-24 14:48:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 147.12 Mbit/s
95th percentile per-packet one-way delay: 139.952 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 147.12 Mbit/s
95th percentile per-packet one-way delay: 139.952 ms
Loss rate: 0.76%
```

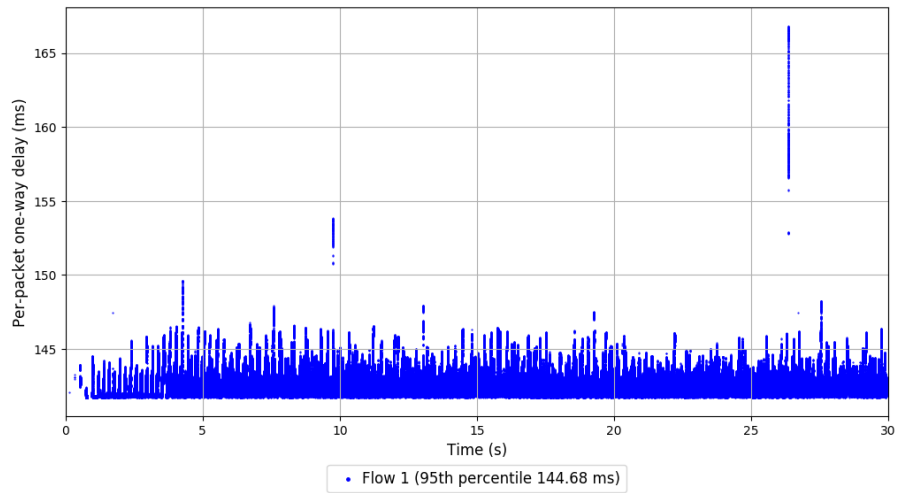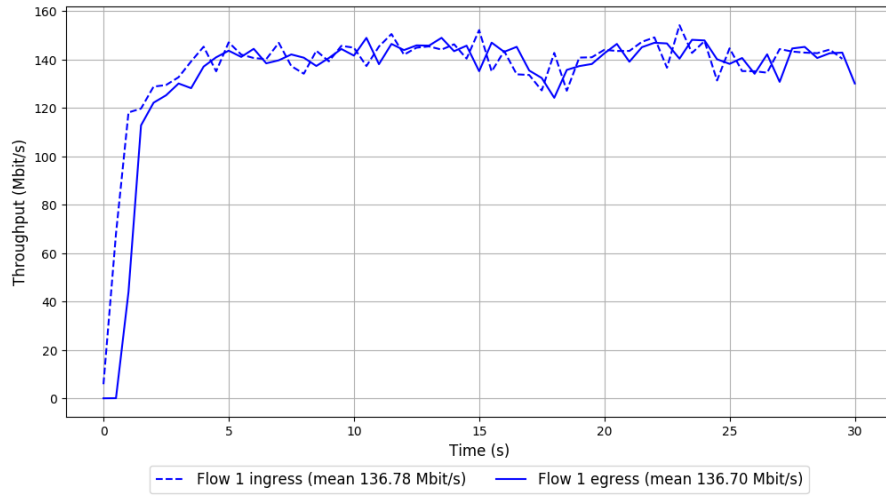Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-11-24 12:46:46
End at: 2019-11-24 12:47:16
Local clock offset: 0.037 ms
Remote clock offset: -45.398 ms


# Below is generated by plot.py at 2019-11-24 14:48:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 136.70 Mbit/s
95th percentile per-packet one-way delay: 144.677 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 136.70 Mbit/s
95th percentile per-packet one-way delay: 144.677 ms
Loss rate: 0.66%
```

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

Flow 1 ingress (mean 136.78 Mbit/s)   Flow 1 egress (mean 136.70 Mbit/s)
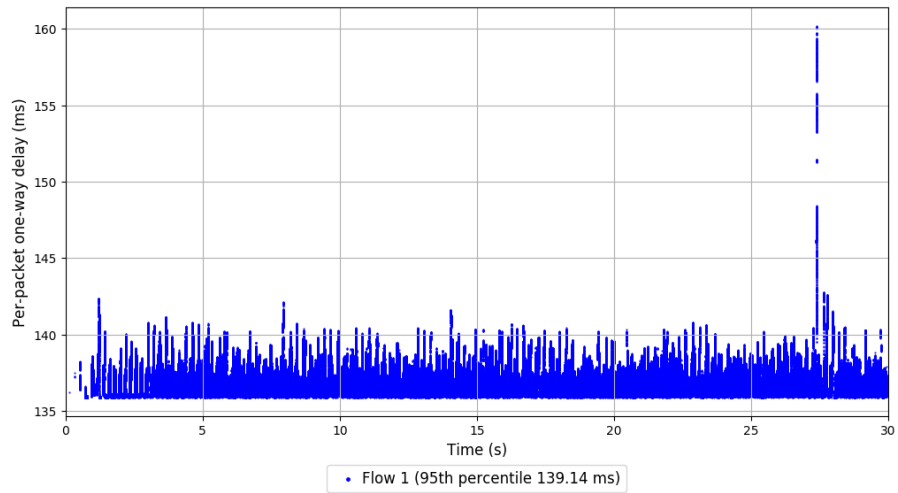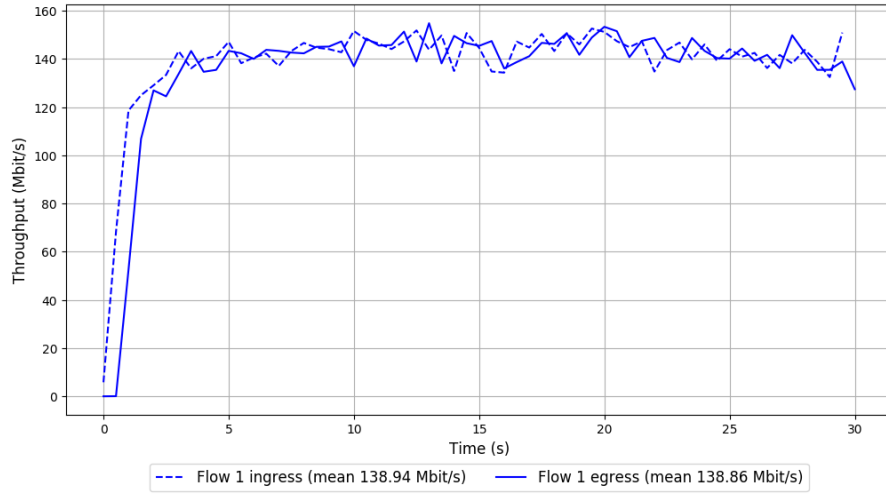

Flow 1 (95th percentile 144.68 ms)

```
Run 4: Statistics of TaoVA-100x

Start at: 2019-11-24 13:17:57
End at: 2019-11-24 13:18:27
Local clock offset: -0.53 ms
Remote clock offset: -39.852 ms

# Below is generated by plot.py at 2019-11-24 14:48:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 138.86 Mbit/s
95th percentile per-packet one-way delay: 139.144 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 138.86 Mbit/s
95th percentile per-packet one-way delay: 139.144 ms
Loss rate: 0.69%
```

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

Flow 1 ingress (mean 138.94 Mbit/s) --- Flow 1 egress (mean 138.86 Mbit/s)

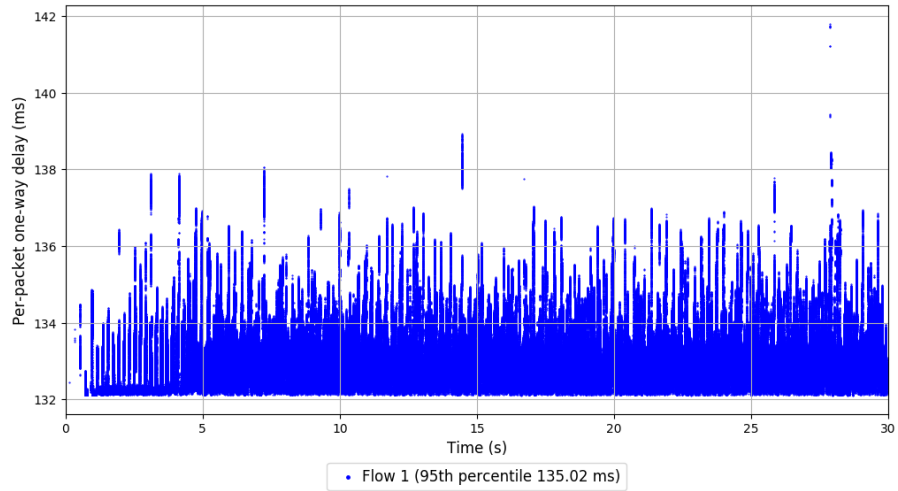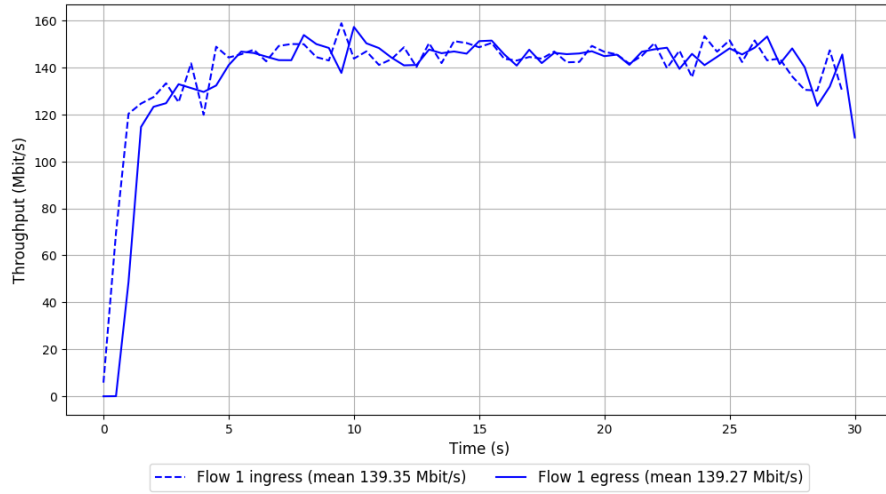
• Flow 1 (95th percentile 139.14 ms)

```
Run 5: Statistics of TaoVA-100x

Start at: 2019-11-24 13:48:57
End at: 2019-11-24 13:49:27
Local clock offset: -2.648 ms
Remote clock offset: -37.772 ms

# Below is generated by plot.py at 2019-11-24 14:48:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 139.27 Mbit/s
95th percentile per-packet one-way delay: 135.019 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 139.27 Mbit/s
95th percentile per-packet one-way delay: 135.019 ms
Loss rate: 0.69%
```

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

Flow 1 ingress (mean 139.35 Mbit/s) — Flow 1 egress (mean 139.27 Mbit/s)

Flow 1 (95th percentile 135.02 ms)

Run 1: Statistics of TCP Vegas

Start at: 2019-11-24 11:54:57
End at: 2019-11-24 11:55:27
Local clock offset: -3.948 ms
Remote clock offset: -44.19 ms

Run 1: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing

```
Run 2: Statistics of TCP Vegas

Start at: 2019-11-24 12:25:50
End at: 2019-11-24 12:26:20
Local clock offset: -0.999 ms
Remote clock offset: -38.51 ms
```

Run 2: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing

```
Run 3: Statistics of TCP Vegas

Start at: 2019-11-24 12:56:55
End at: 2019-11-24 12:57:25
Local clock offset: -0.429 ms
Remote clock offset: -39.193 ms
```

Run 3: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of TCP Vegas

Start at: 2019-11-24 13:27:58
End at: 2019-11-24 13:28:28
Local clock offset: -0.763 ms
Remote clock offset: -39.636 ms

Run 4: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of TCP Vegas

Start at: 2019-11-24 13:58:59
End at: 2019-11-24 13:59:29
Local clock offset: -2.689 ms
Remote clock offset: -39.275 ms

Run 5: Report of TCP Vegas — Data Link
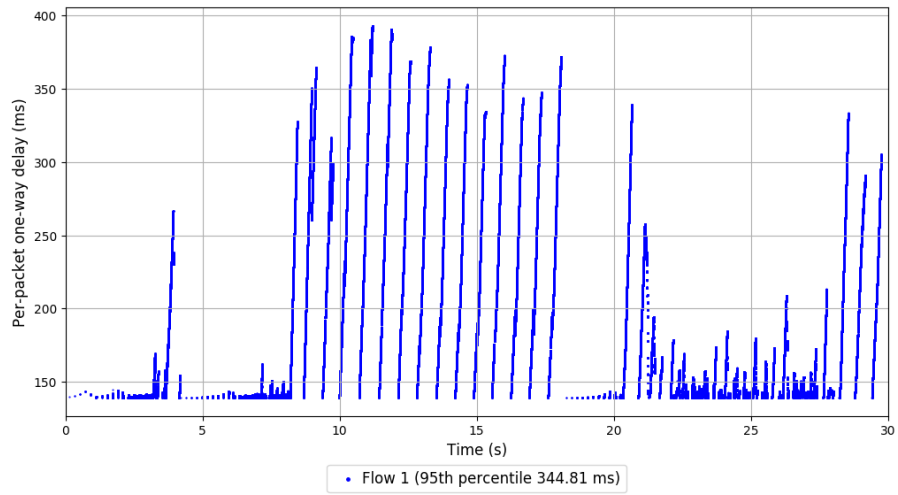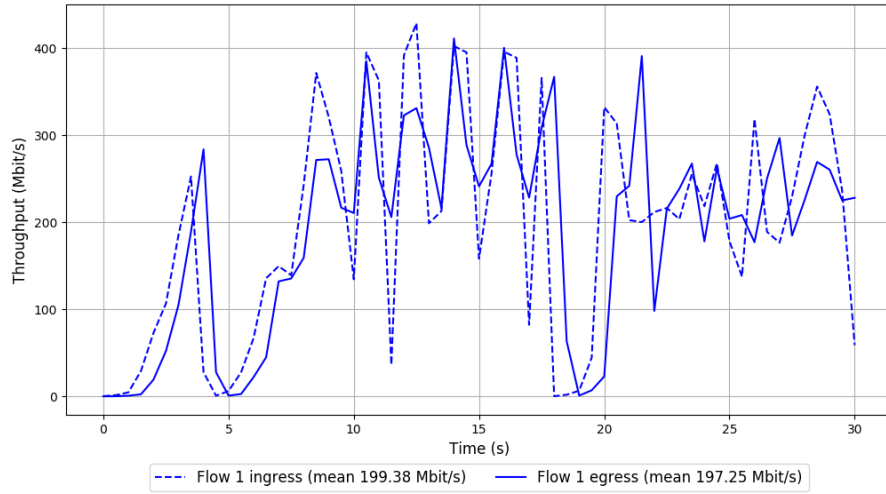
Figure is missing

Figure is missing

```
Run 1: Statistics of Verus

Start at: 2019-11-24 11:40:27
End at: 2019-11-24 11:40:57
Local clock offset: -0.268 ms
Remote clock offset: -44.977 ms


# Below is generated by plot.py at 2019-11-24 14:48:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.25 Mbit/s
95th percentile per-packet one-way delay: 344.810 ms
Loss rate: 2.51%
-- Flow 1:
Average throughput: 197.25 Mbit/s
95th percentile per-packet one-way delay: 344.810 ms
Loss rate: 2.51%
```

Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 199.38 Mbit/s)   Flow 1 egress (mean 197.25 Mbit/s)

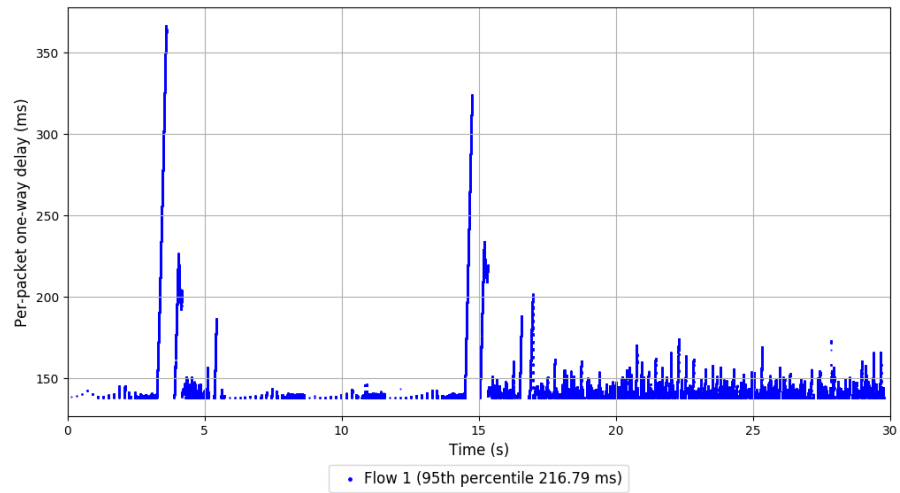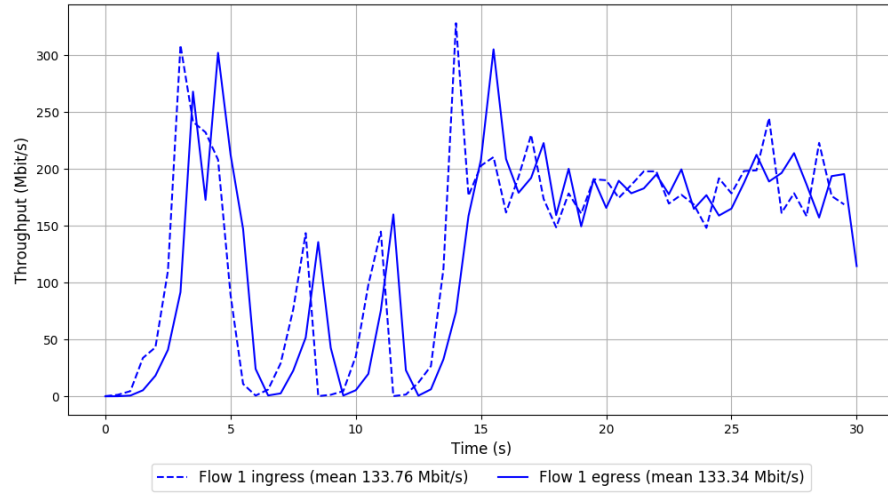• Flow 1 (95th percentile 344.81 ms)

```
Run 2: Statistics of Verus

Start at: 2019-11-24 12:11:39
End at: 2019-11-24 12:12:09
Local clock offset: -0.712 ms
Remote clock offset: -43.27 ms


# Below is generated by plot.py at 2019-11-24 14:48:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.34 Mbit/s
95th percentile per-packet one-way delay: 216.793 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 133.34 Mbit/s
95th percentile per-packet one-way delay: 216.793 ms
Loss rate: 1.32%
```

Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 133.76 Mbit/s)   Flow 1 egress (mean 133.34 Mbit/s)

Flow 1 (95th percentile 216.79 ms)

```
Run 3: Statistics of Verus

Start at: 2019-11-24 12:42:41
End at: 2019-11-24 12:43:11
Local clock offset: -2.309 ms
Remote clock offset: -41.134 ms


# Below is generated by plot.py at 2019-11-24 14:48:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.11 Mbit/s
95th percentile per-packet one-way delay: 372.409 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 80.11 Mbit/s
95th percentile per-packet one-way delay: 372.409 ms
Loss rate: 0.10%
```
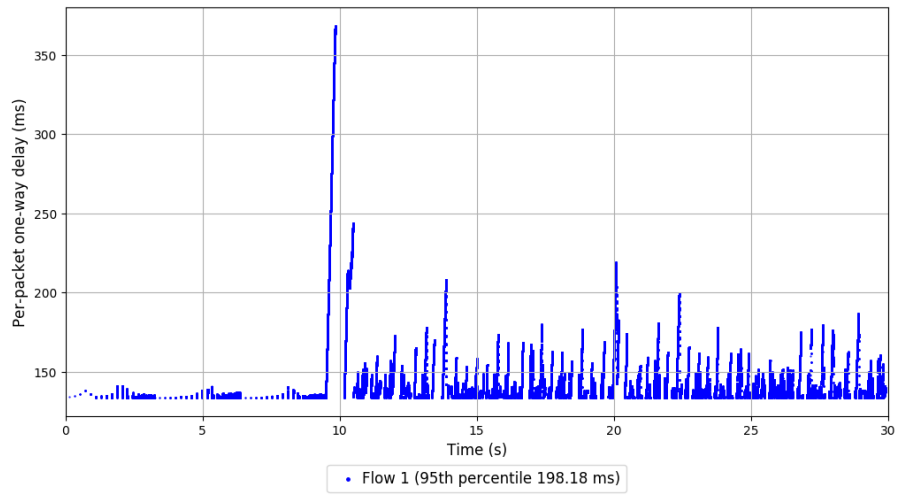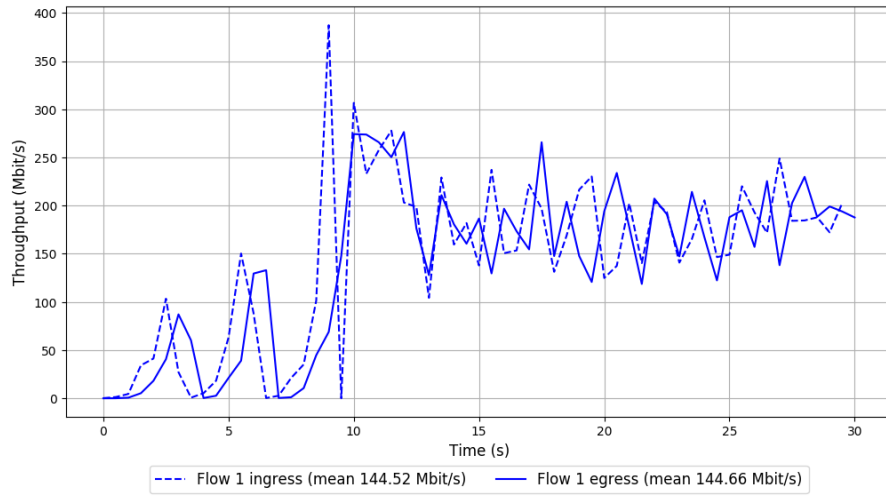
Run 3: Report of Verus — Data Link
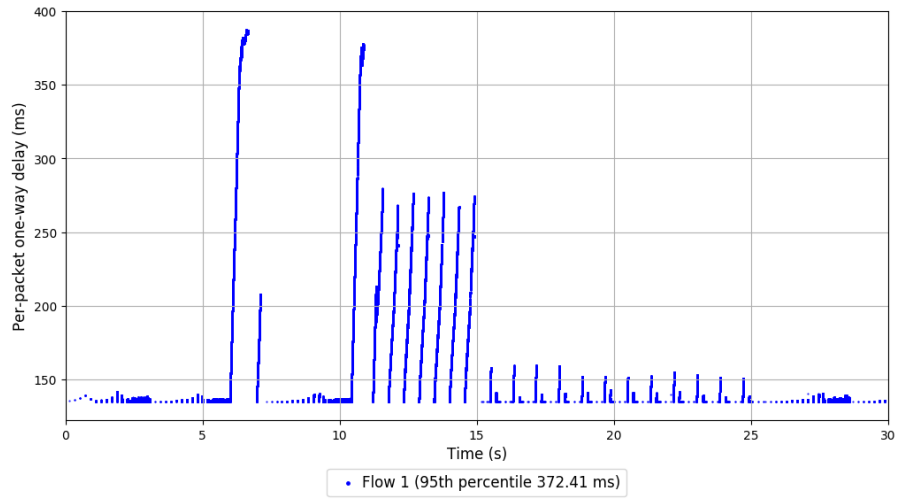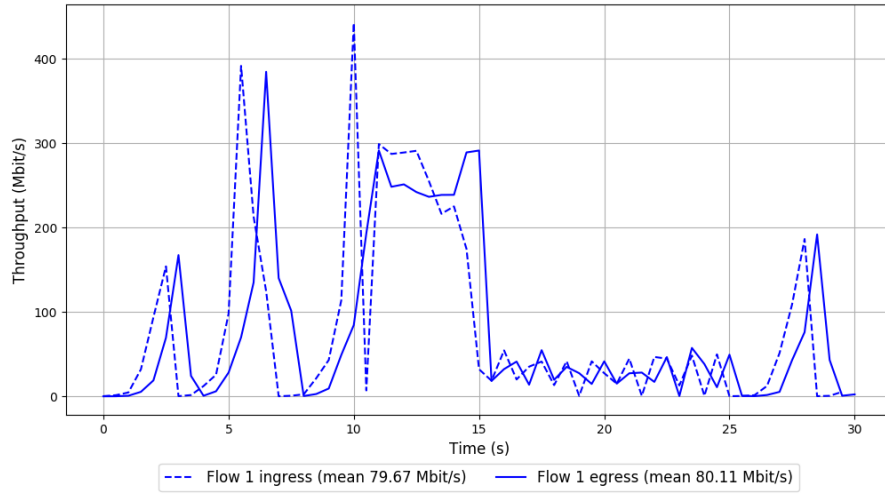
```
Run 4: Statistics of Verus

Start at: 2019-11-24 13:13:50
End at: 2019-11-24 13:14:20
Local clock offset: -3.135 ms
Remote clock offset: -40.036 ms


# Below is generated by plot.py at 2019-11-24 14:49:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 144.66 Mbit/s
95th percentile per-packet one-way delay: 198.180 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 144.66 Mbit/s
95th percentile per-packet one-way delay: 198.180 ms
Loss rate: 0.50%
```

Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-11-24 13:44:51
End at: 2019-11-24 13:45:21
Local clock offset: -3.031 ms
Remote clock offset: -40.299 ms

Below is generated by plot.py at 2019-11-24 14:49:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 140.96 Mbit/s
95th percentile per-packet one-way delay: 375.080 ms
Loss rate: 3.70%
-- Flow 1:
Average throughput: 140.96 Mbit/s
95th percentile per-packet one-way delay: 375.080 ms
Loss rate: 3.70%
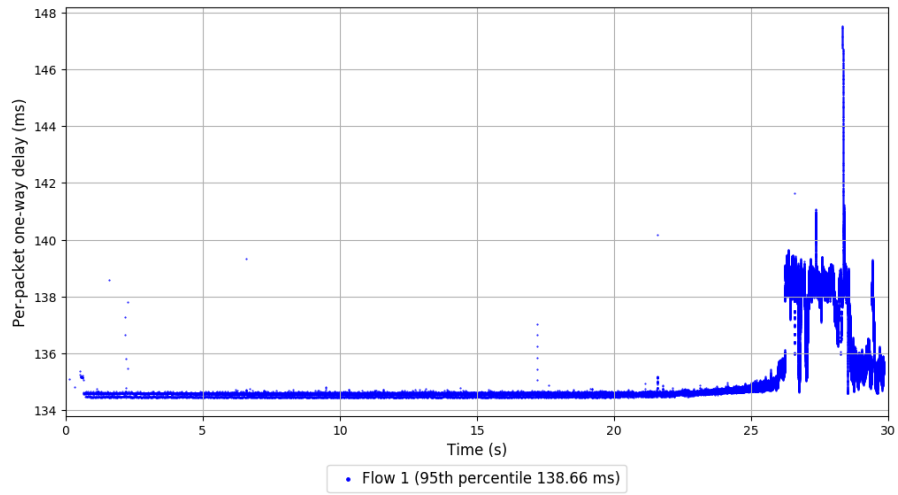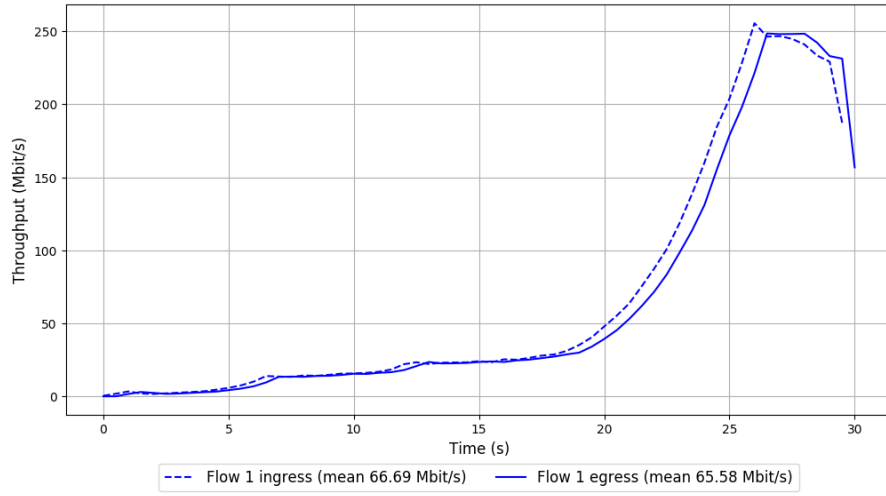```

Run 5: Report of Verus — Data Link
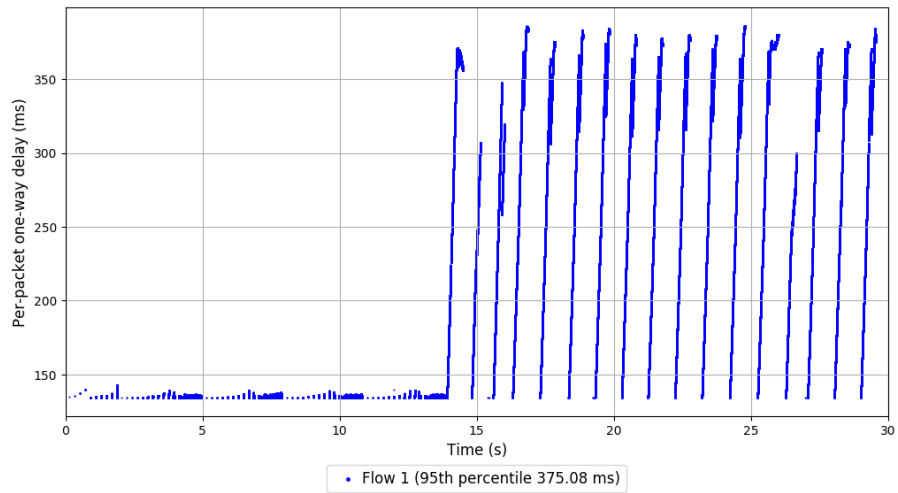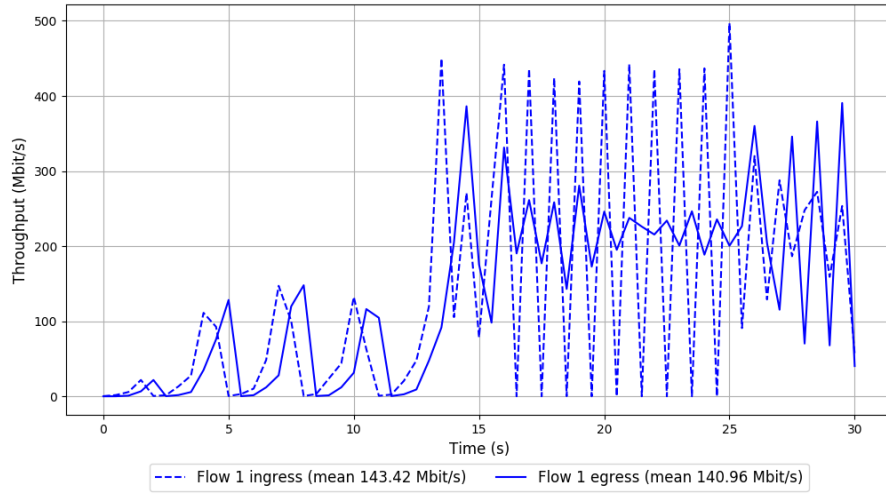
```
Run 1: Statistics of PCC-Vivace

Start at: 2019-11-24 12:07:48
End at: 2019-11-24 12:08:18
Local clock offset: -1.635 ms
Remote clock offset: -41.025 ms


# Below is generated by plot.py at 2019-11-24 14:49:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.58 Mbit/s
95th percentile per-packet one-way delay: 138.665 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 65.58 Mbit/s
95th percentile per-packet one-way delay: 138.665 ms
Loss rate: 2.29%
```
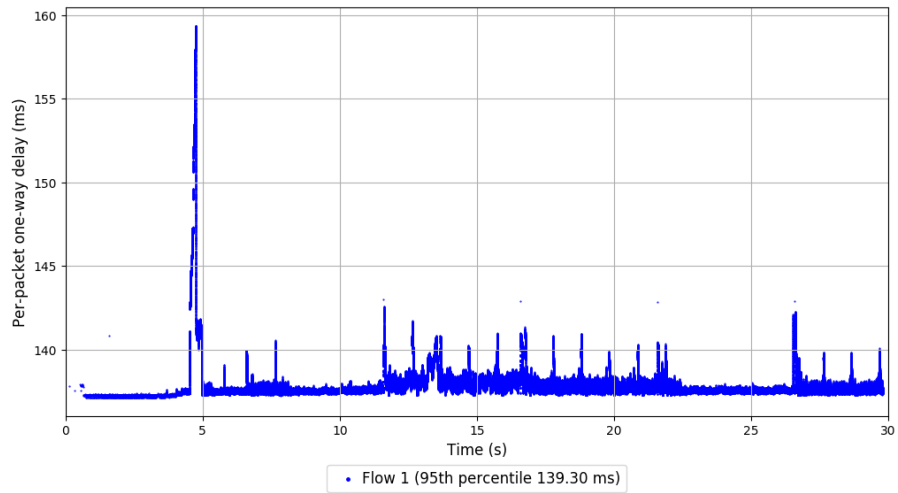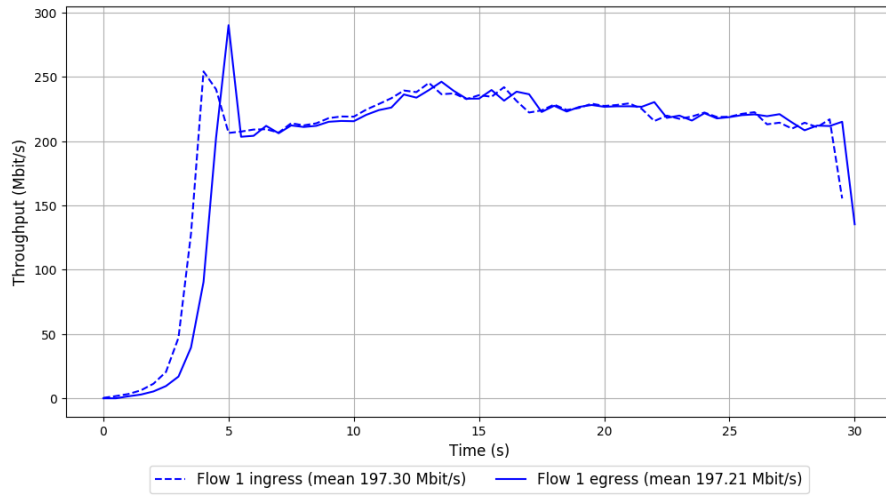
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-11-24 12:38:43
End at: 2019-11-24 12:39:13
Local clock offset: -0.153 ms
Remote clock offset: -41.225 ms


# Below is generated by plot.py at 2019-11-24 14:50:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.21 Mbit/s
95th percentile per-packet one-way delay: 139.304 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 197.21 Mbit/s
95th percentile per-packet one-way delay: 139.304 ms
Loss rate: 0.69%
```
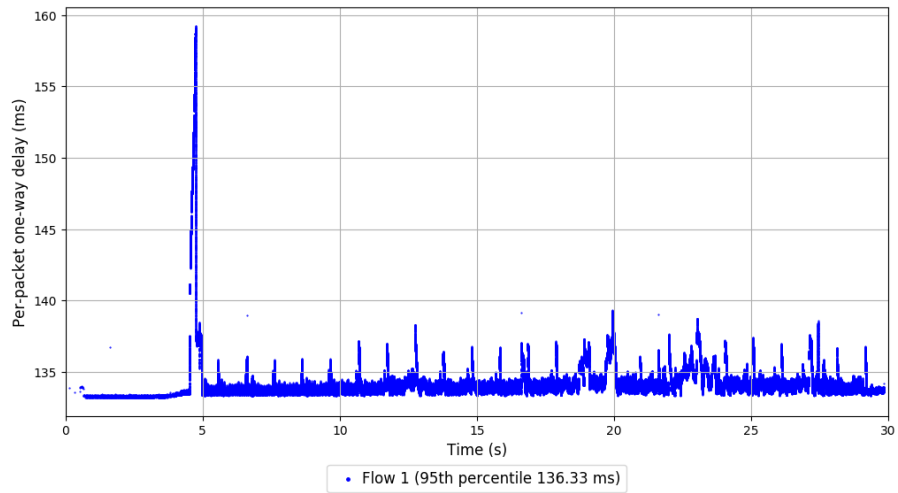
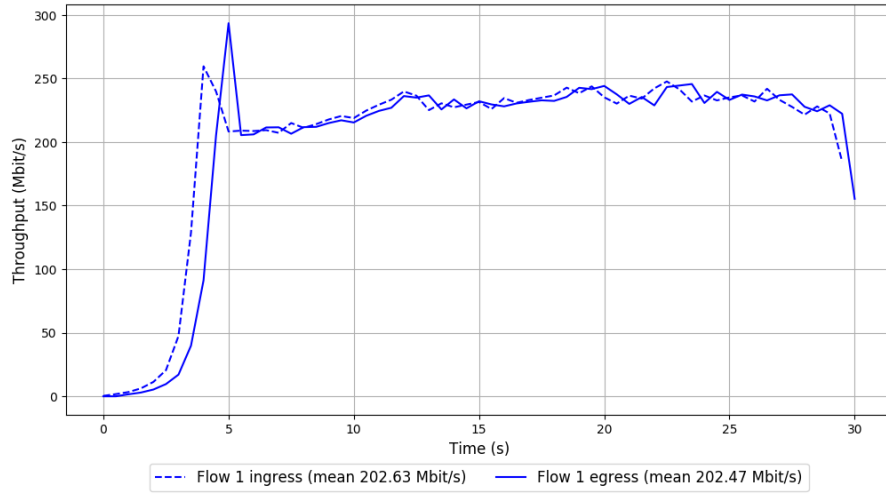## Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-11-24 13:09:49
End at: 2019-11-24 13:10:19
Local clock offset: -1.736 ms
Remote clock offset: -38.457 ms


# Below is generated by plot.py at 2019-11-24 14:50:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.47 Mbit/s
95th percentile per-packet one-way delay: 136.329 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 202.47 Mbit/s
95th percentile per-packet one-way delay: 136.329 ms
Loss rate: 0.72%
```

Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-11-24 13:40:53
End at: 2019-11-24 13:41:23
Local clock offset: -0.408 ms
Remote clock offset: -37.21 ms


# Below is generated by plot.py at 2019-11-24 14:50:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.47 Mbit/s
95th percentile per-packet one-way delay: 137.721 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 204.47 Mbit/s
95th percentile per-packet one-way delay: 137.721 ms
Loss rate: 0.77%
```
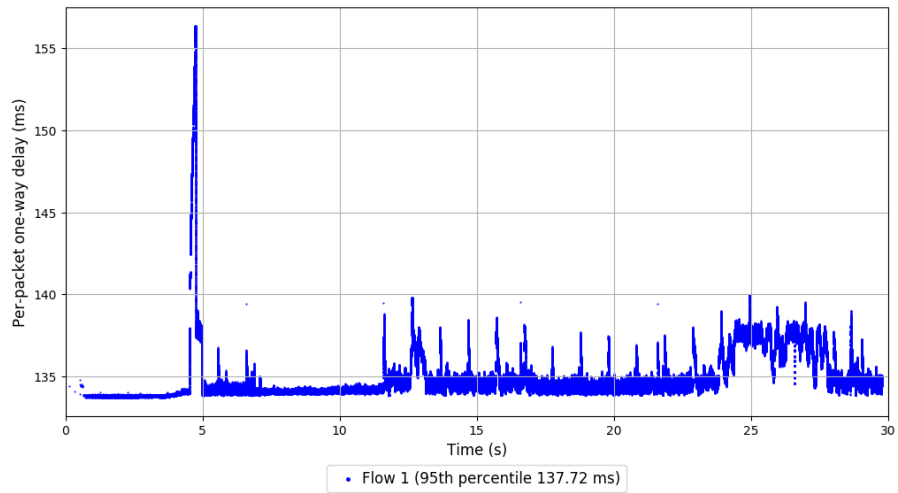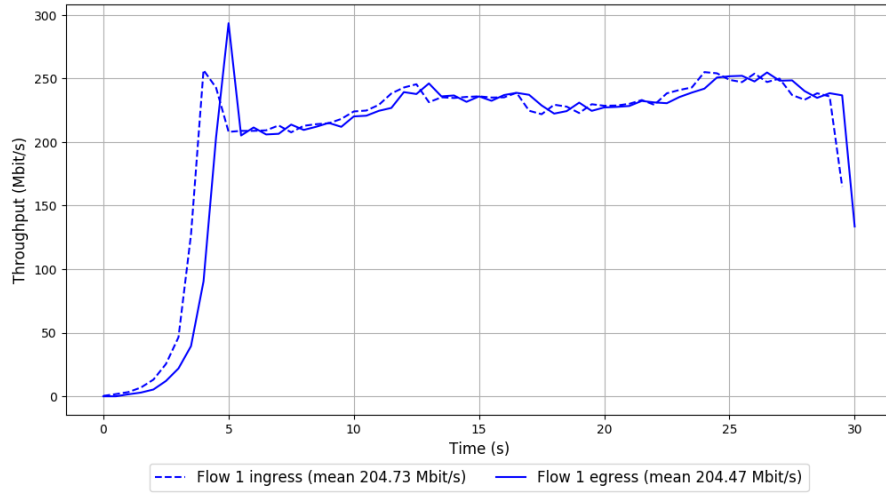
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 204.73 Mbit/s)   Flow 1 egress (mean 204.47 Mbit/s)


Flow 1 (95th percentile 137.72 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-11-24 14:11:53
End at: 2019-11-24 14:12:23
Local clock offset: -2.862 ms
Remote clock offset: -42.337 ms


# Below is generated by plot.py at 2019-11-24 14:50:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 199.87 Mbit/s
95th percentile per-packet one-way delay: 137.816 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 199.87 Mbit/s
95th percentile per-packet one-way delay: 137.816 ms
Loss rate: 0.75%
```

Run 5: Report of PCC-Vivace — Data Link
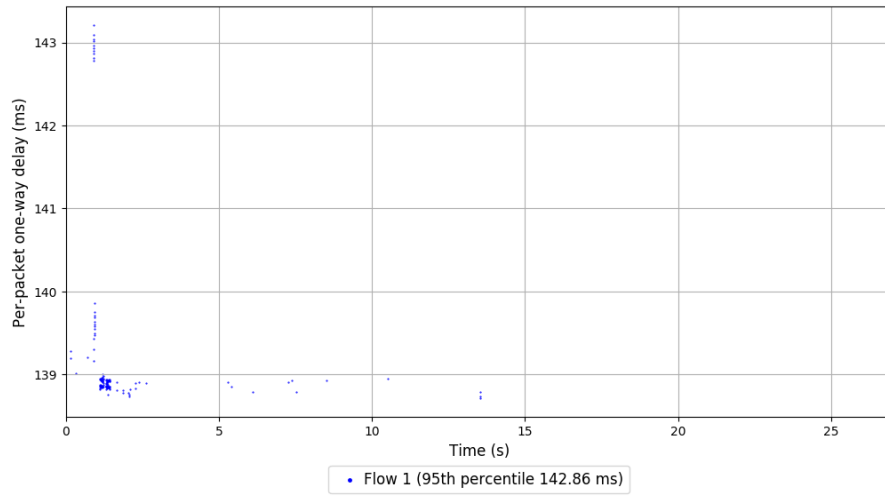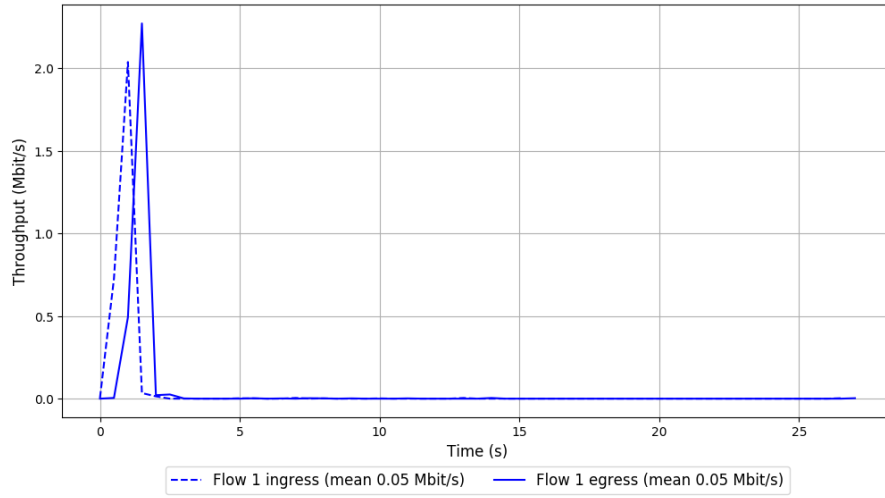

234
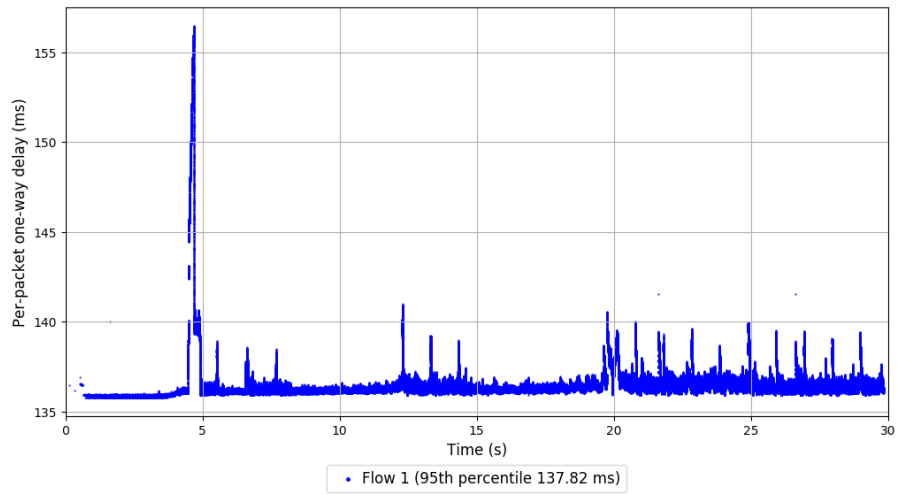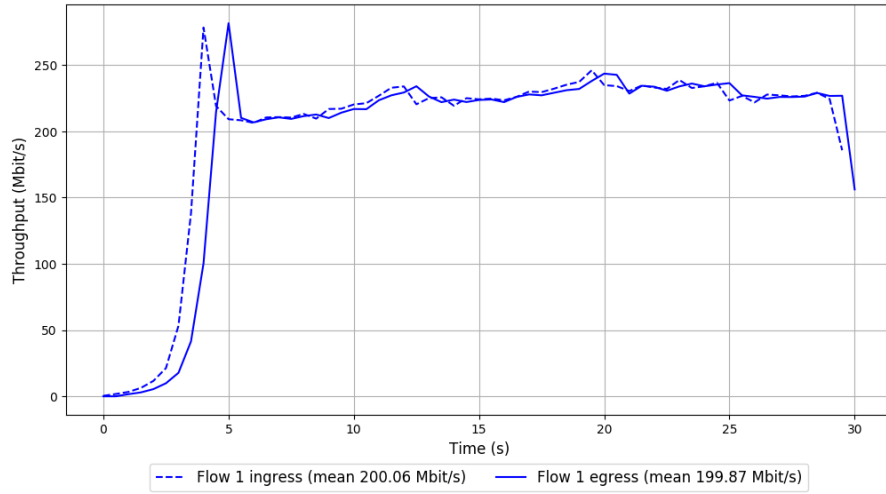
```
Run 1: Statistics of WebRTC media

Start at: 2019-11-24 12:02:50
End at: 2019-11-24 12:03:20
Local clock offset: -1.999 ms
Remote clock offset: -45.739 ms


# Below is generated by plot.py at 2019-11-24 14:50:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 142.862 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 142.862 ms
Loss rate: 0.00%
```

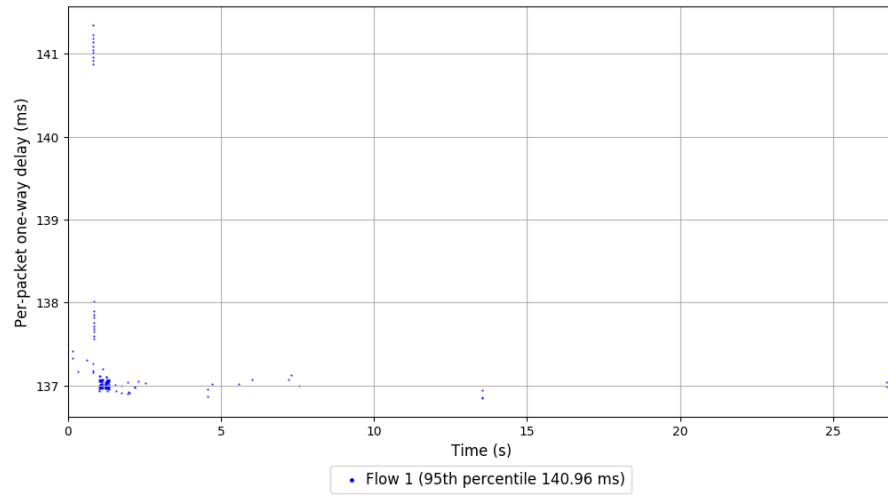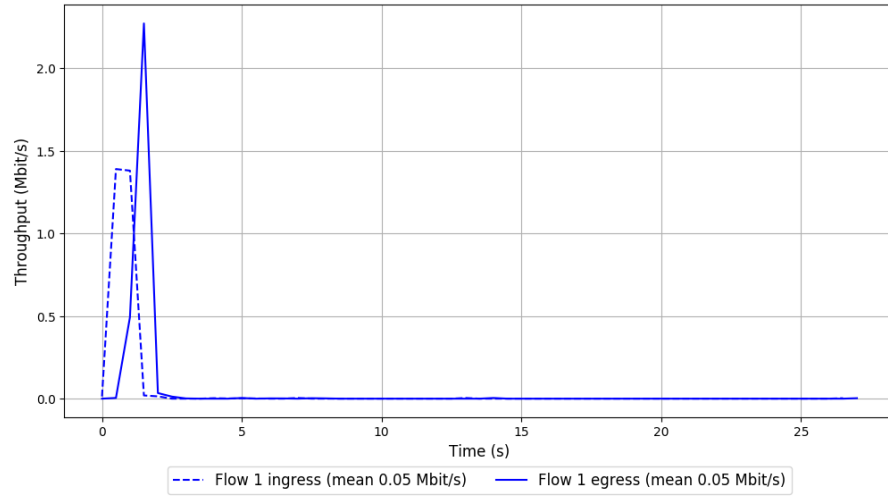Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-11-24 12:33:40
End at: 2019-11-24 12:34:10
Local clock offset: 0.352 ms
Remote clock offset: -40.652 ms


# Below is generated by plot.py at 2019-11-24 14:50:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 140.957 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 140.957 ms
Loss rate: 0.00%
```

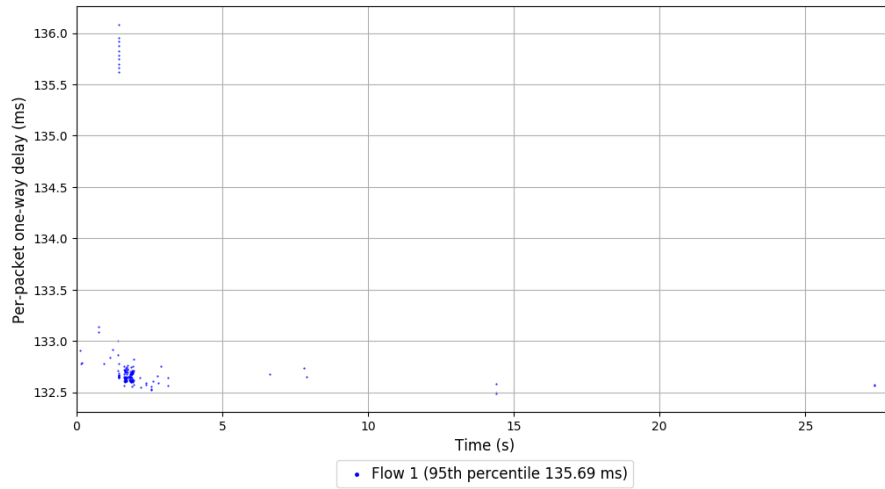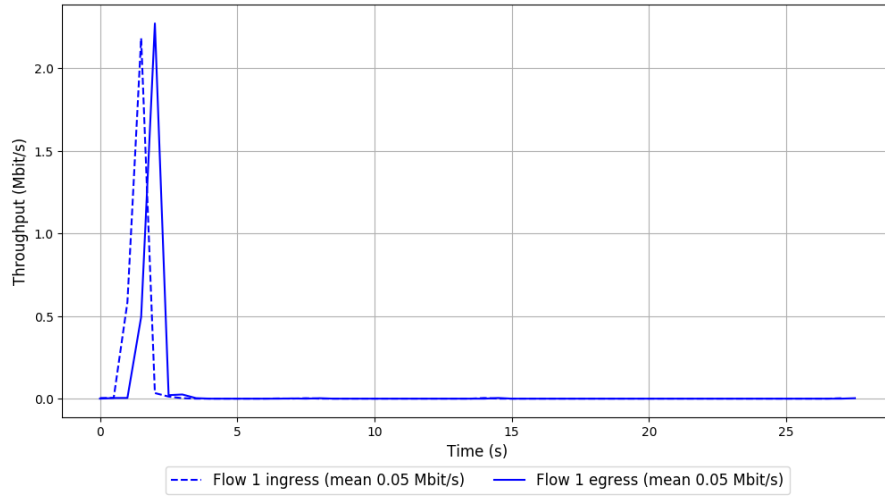Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-11-24 13:04:45
End at: 2019-11-24 13:05:15
Local clock offset: -2.092 ms
Remote clock offset: -38.183 ms


# Below is generated by plot.py at 2019-11-24 14:50:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 135.694 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 135.694 ms
Loss rate: 0.00%
```

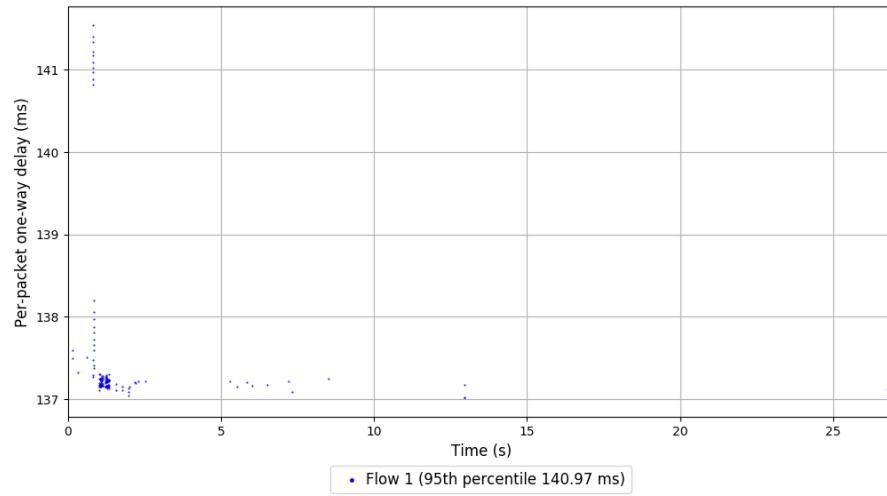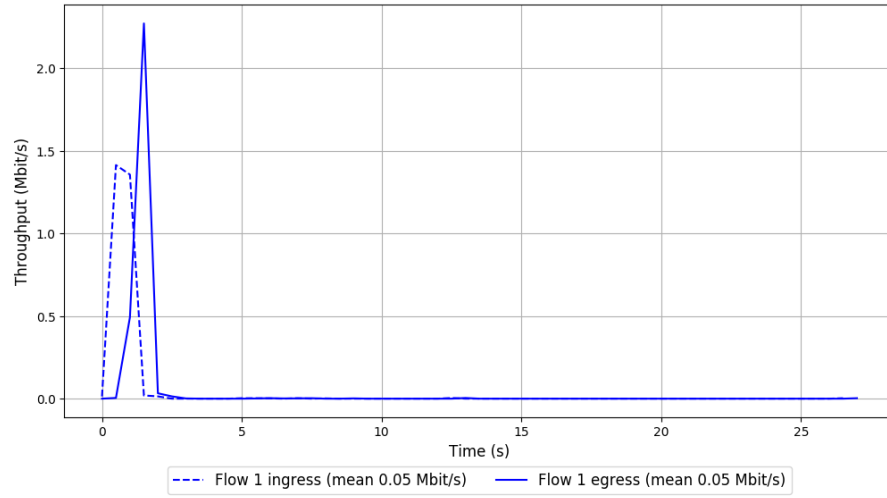Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-11-24 13:35:50
End at: 2019-11-24 13:36:20
Local clock offset: 0.477 ms
Remote clock offset: -39.646 ms


# Below is generated by plot.py at 2019-11-24 14:50:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 140.965 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 140.965 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.05 Mbit/s) ----- Flow 1 egress (mean 0.05 Mbit/s) ———

Flow 1 (95th percentile 140.97 ms)

```
Run 5: Statistics of WebRTC media

Start at: 2019-11-24 14:06:50
End at: 2019-11-24 14:07:20
Local clock offset: -2.354 ms
Remote clock offset: -37.931 ms


# Below is generated by plot.py at 2019-11-24 14:50:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 135.120 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 135.120 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link