Pantheon Report

Generated at 2021-03-08 05:01:32 (UTC).

Data path: $(local) \rightarrow (remote)$.

Repeated the test of 12 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

```
System info:
Linux 5.4.0-1038-aws
net.core.default_qdisc = fq_codel
net.core.rmem_default = 212992
net.core.rmem_max = 212992
net.core.wmem_default = 212992
net.core.wmem_max = 212992
net.ipv4.tcp_rmem = 4096 131072 6291456
net.ipv4.tcp_wmem = 4096 16384 4194304

Git summary:
branch: master @ c3c3745a95cfbeb077ba44029b7f8bb2711f4282
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 463d89b09699a57bfdfbae351646df6a60040b90
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
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
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from local to remote, 3 runs of 30s each per scheme
(mean of all runs by scheme)

test from local to remote, 3 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	3	121.01	42.51	4.10
TCP Cubic	3	11.21	42.04	0.49
FillP	3	278.58	42.88	11.55
FillP-Sheep	3	358.85	42.02	4.43
LEDBAT	3	10.88	42.44	0.46
PCC-Allegro	3	161.37	42.16	3.14
PCC-Expr	3	131.01	42.80	2.87
SCReAM	3	0.22	41.70	0.00
Sprout	3	9.02	42.08	1.37
TaoVA-100x	3	134.72	43.13	7.43
TCP Vegas	3	10.38	42.04	0.38
PCC-Vivace	3	123.23	42.42	1.22

```
Run 1: Statistics of TCP BBR

Start at: 2021-03-08 04:28:47
End at: 2021-03-08 04:29:17

# Below is generated by plot.py at 2021-03-08 04:52:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 122.20 Mbit/s
95th percentile per-packet one-way delay: 42.616 ms
Loss rate: 4.27%
-- Flow 1:
Average throughput: 122.20 Mbit/s
95th percentile per-packet one-way delay: 42.616 ms
Loss rate: 4.27%
```
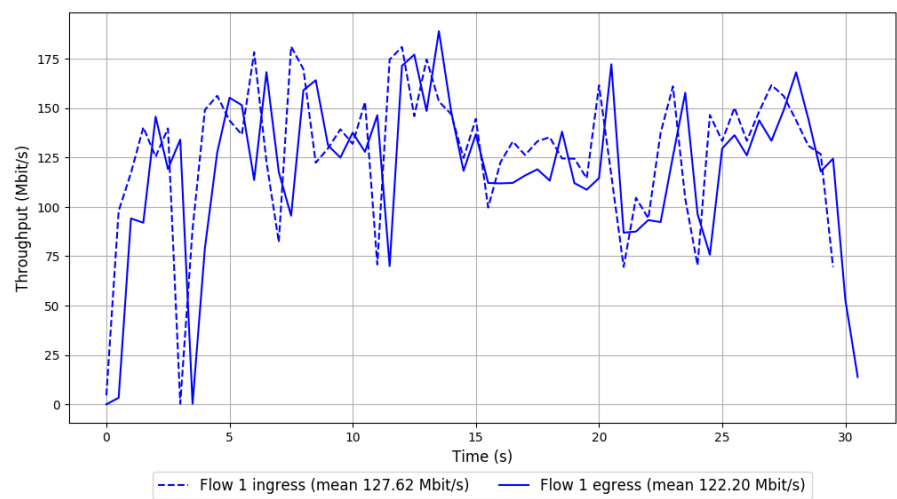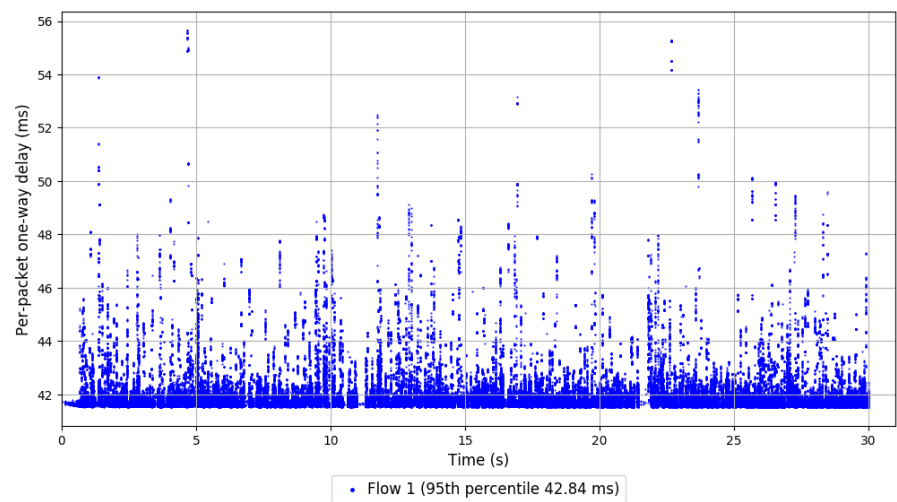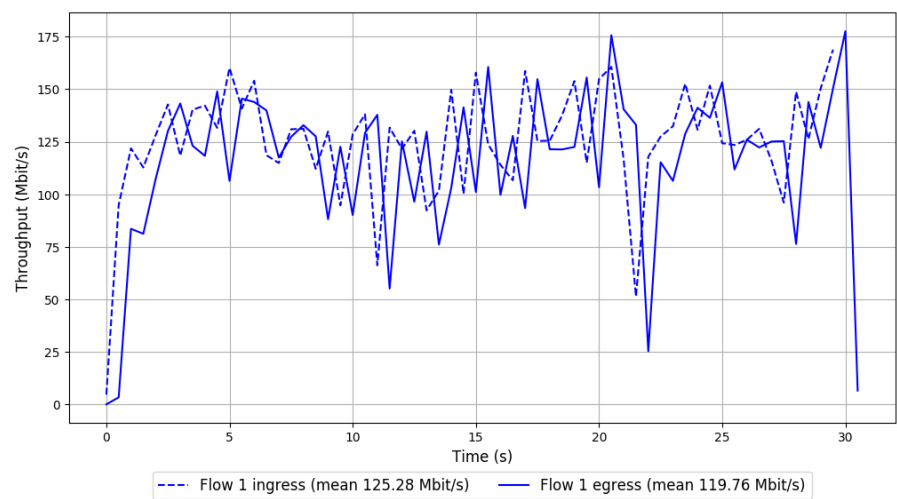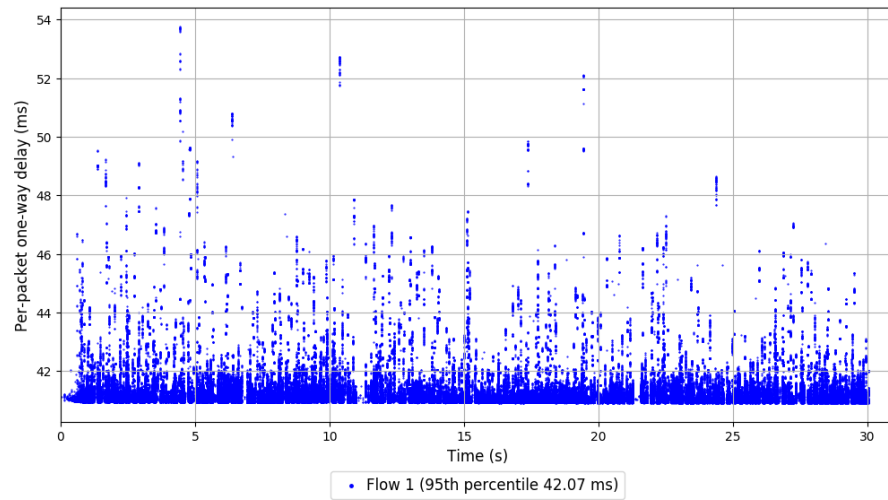
Run 1: Report of TCP BBR — Data Link
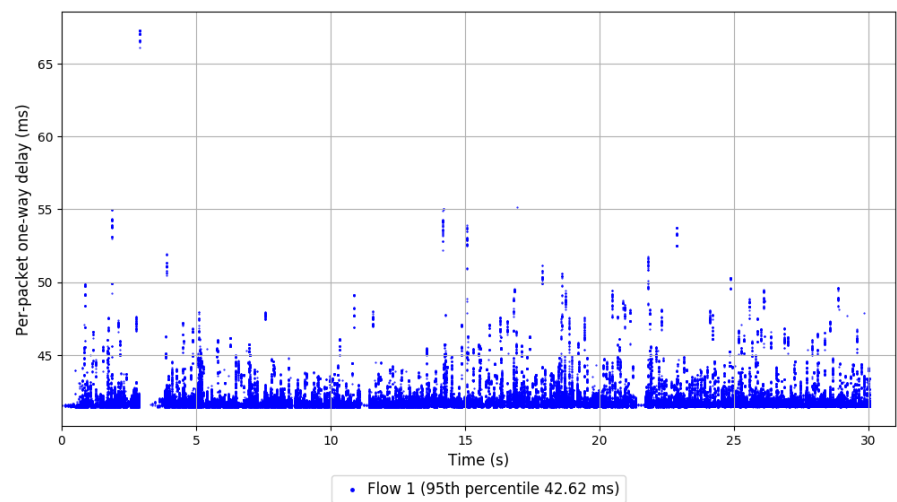
```
Run 2: Statistics of TCP BBR

Start at: 2021-03-08 04:38:00
End at: 2021-03-08 04:38:30

# Below is generated by plot.py at 2021-03-08 04:52:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 119.76 Mbit/s
95th percentile per-packet one-way delay: 42.839 ms
Loss rate: 4.41%
-- Flow 1:
Average throughput: 119.76 Mbit/s
95th percentile per-packet one-way delay: 42.839 ms
Loss rate: 4.41%
```

Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2021-03-08 04:47:07
End at: 2021-03-08 04:47:37

# Below is generated by plot.py at 2021-03-08 04:53:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.08 Mbit/s
95th percentile per-packet one-way delay: 42.071 ms
Loss rate: 3.61%
-- Flow 1:
Average throughput: 121.08 Mbit/s
95th percentile per-packet one-way delay: 42.071 ms
Loss rate: 3.61%
```
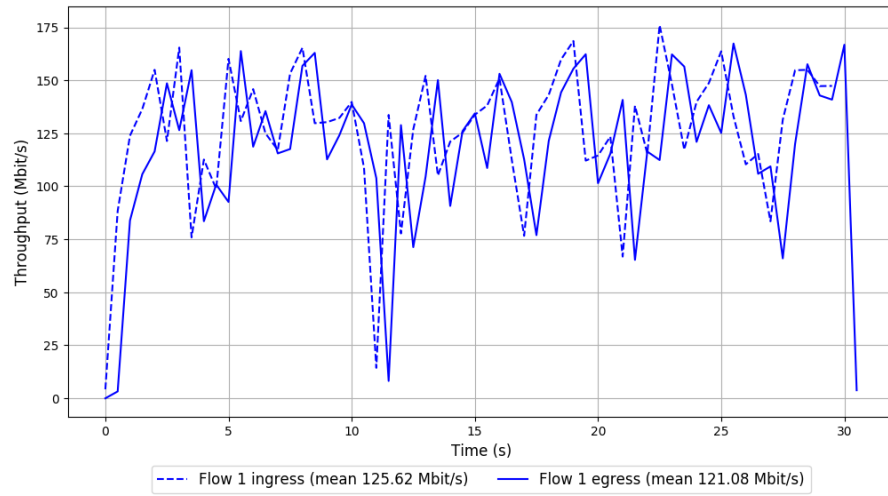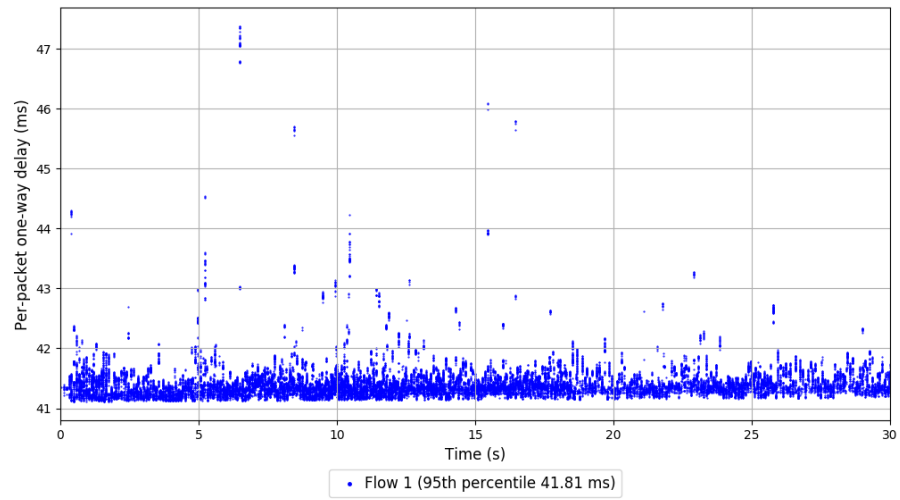
Run 3: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2021-03-08 04:26:39
End at: 2021-03-08 04:27:09

# Below is generated by plot.py at 2021-03-08 04:53:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.68 Mbit/s
95th percentile per-packet one-way delay: 41.809 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 10.68 Mbit/s
95th percentile per-packet one-way delay: 41.809 ms
Loss rate: 0.14%
```
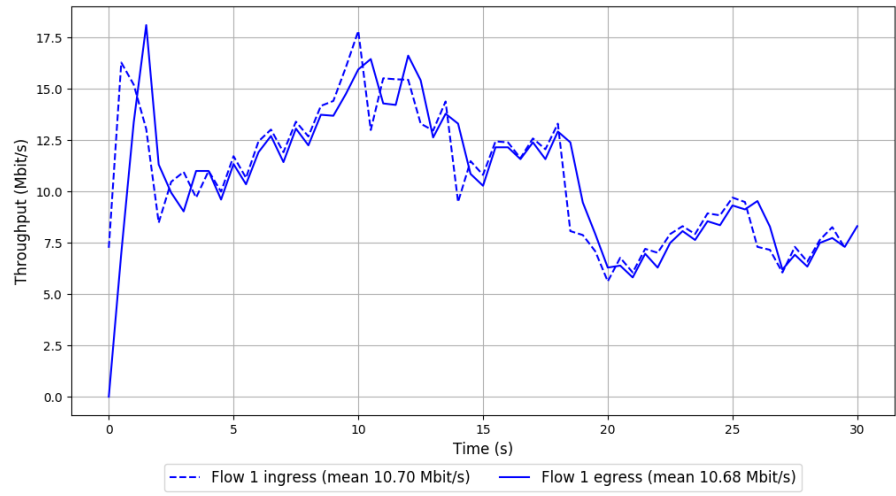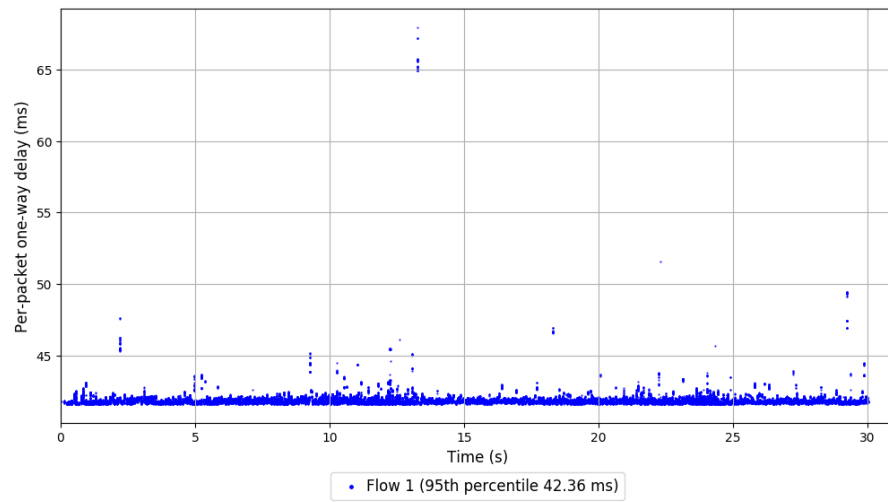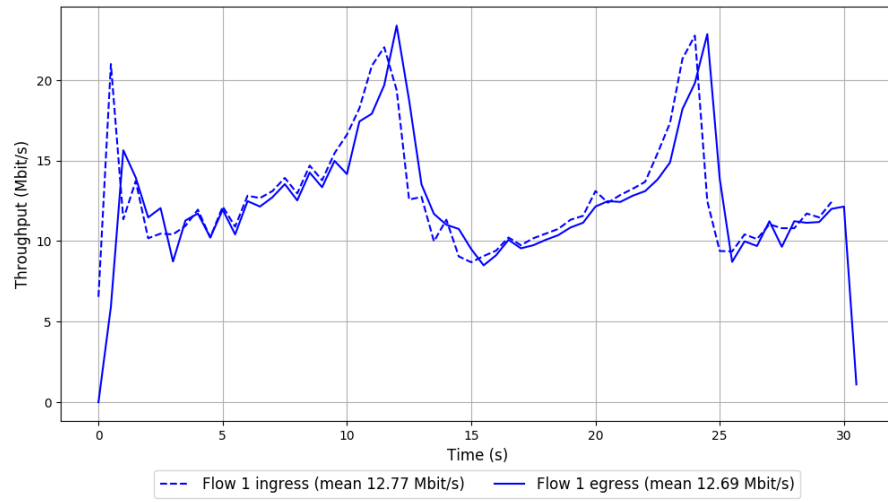
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 10.70 Mbit/s) —— Flow 1 egress (mean 10.68 Mbit/s)

• Flow 1 (95th percentile 41.81 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2021-03-08 04:35:46
End at: 2021-03-08 04:36:16

# Below is generated by plot.py at 2021-03-08 04:53:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 42.360 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 42.360 ms
Loss rate: 0.61%
```

Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 12.77 Mbit/s) ----   Flow 1 egress (mean 12.69 Mbit/s) ——

• Flow 1 (95th percentile 42.36 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2021-03-08 04:44:59
End at: 2021-03-08 04:45:29

# Below is generated by plot.py at 2021-03-08 04:53:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.25 Mbit/s
95th percentile per-packet one-way delay: 41.951 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 10.25 Mbit/s
95th percentile per-packet one-way delay: 41.951 ms
Loss rate: 0.72%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 10.32 Mbit/s)   Flow 1 egress (mean 10.25 Mbit/s)

Flow 1 (95th percentile 41.95 ms)
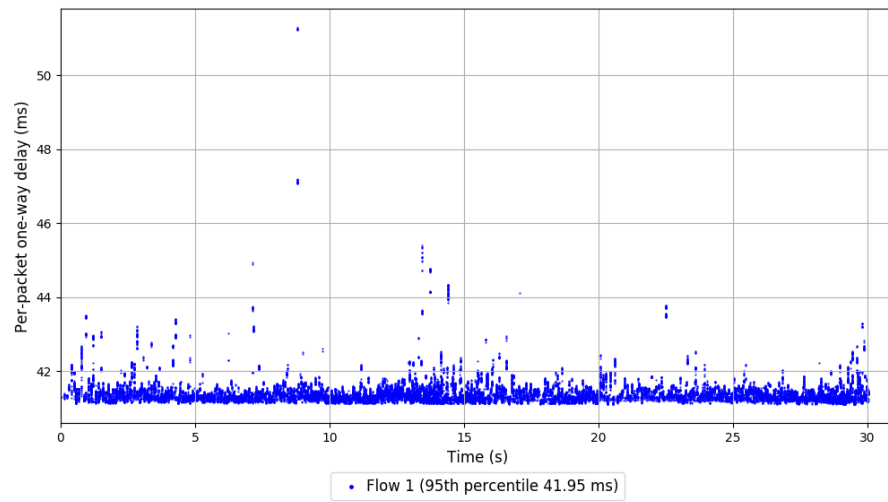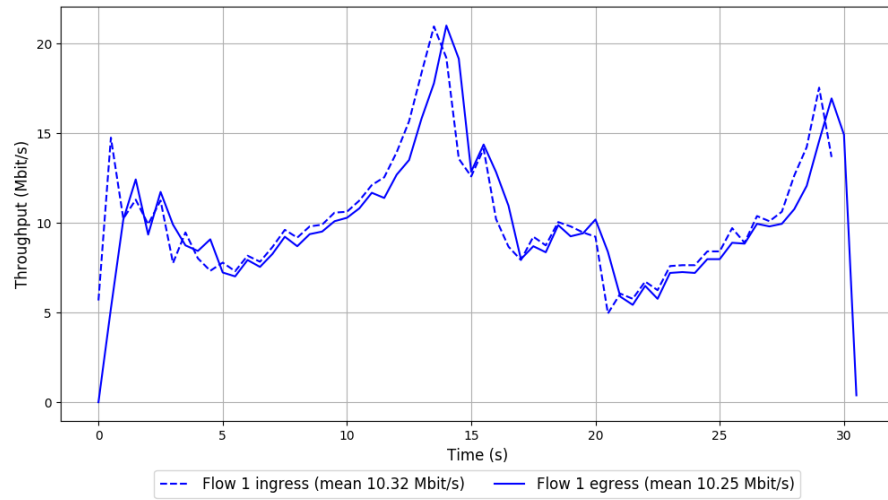
```
Run 1: Statistics of FillP

Start at: 2021-03-08 04:25:49
End at: 2021-03-08 04:26:19

# Below is generated by plot.py at 2021-03-08 04:54:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 275.68 Mbit/s
95th percentile per-packet one-way delay: 42.794 ms
Loss rate: 13.04%
-- Flow 1:
Average throughput: 275.68 Mbit/s
95th percentile per-packet one-way delay: 42.794 ms
Loss rate: 13.04%
```
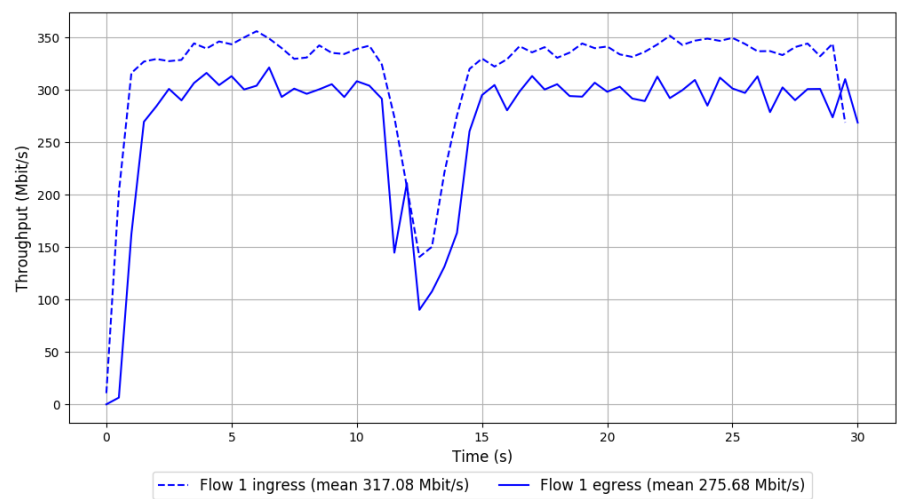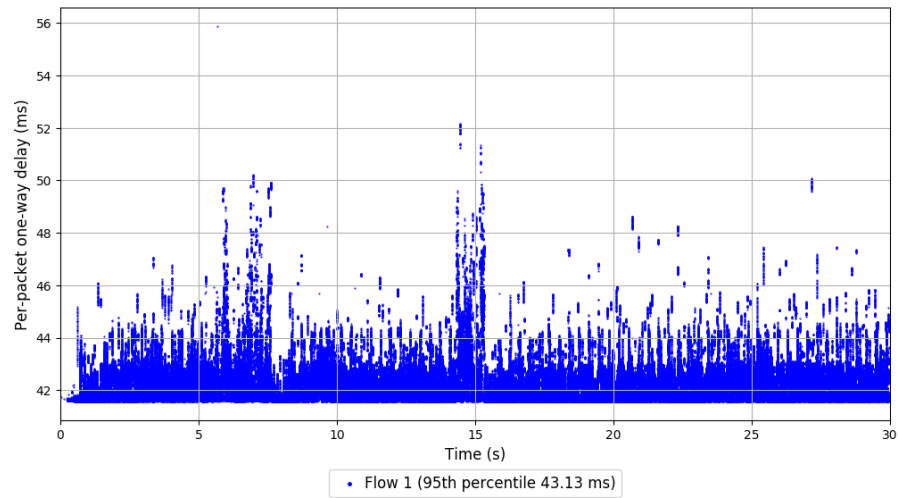
Run 1: Report of FillP — Data Link
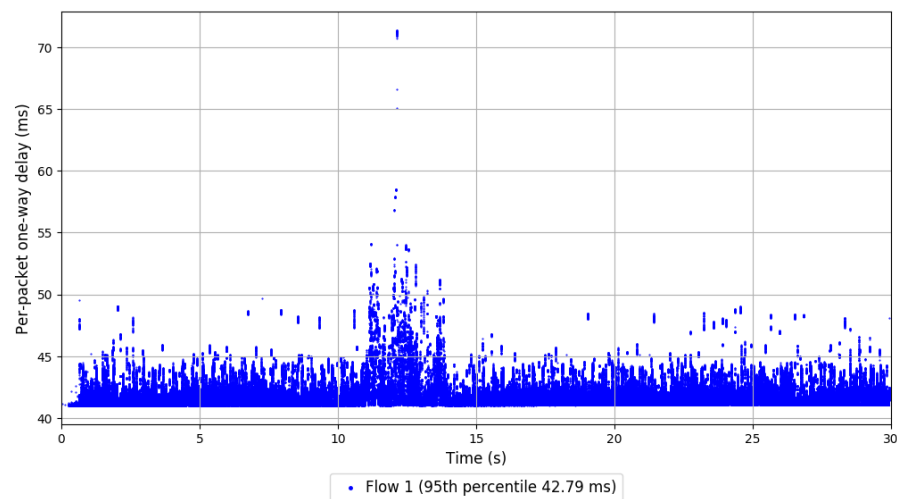
```
Run 2: Statistics of FillP

Start at: 2021-03-08 04:34:56
End at: 2021-03-08 04:35:26

# Below is generated by plot.py at 2021-03-08 04:54:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 277.67 Mbit/s
95th percentile per-packet one-way delay: 43.135 ms
Loss rate: 10.94%
-- Flow 1:
Average throughput: 277.67 Mbit/s
95th percentile per-packet one-way delay: 43.135 ms
Loss rate: 10.94%
```
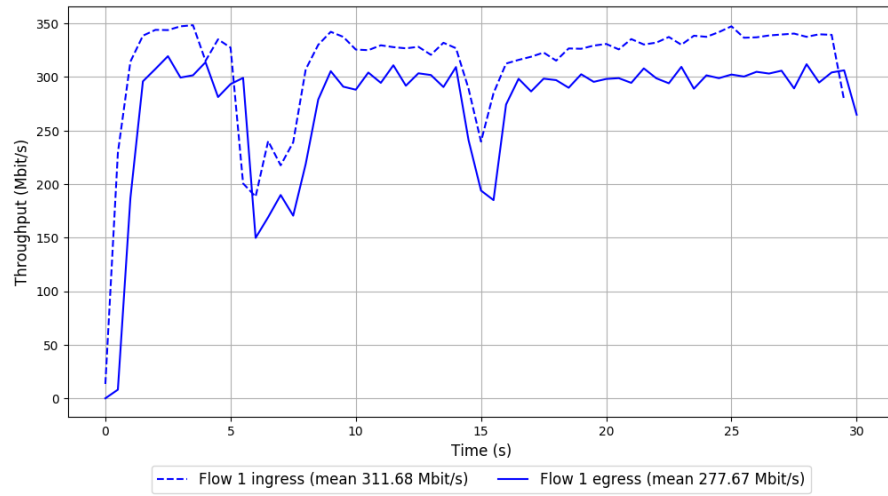
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 311.68 Mbit/s)   Flow 1 egress (mean 277.67 Mbit/s)

Flow 1 (95th percentile 43.13 ms)

```
Run 3: Statistics of FillP

Start at: 2021-03-08 04:44:08
End at: 2021-03-08 04:44:38

# Below is generated by plot.py at 2021-03-08 04:55:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.39 Mbit/s
95th percentile per-packet one-way delay: 42.709 ms
Loss rate: 10.66%
-- Flow 1:
Average throughput: 282.39 Mbit/s
95th percentile per-packet one-way delay: 42.709 ms
Loss rate: 10.66%
```
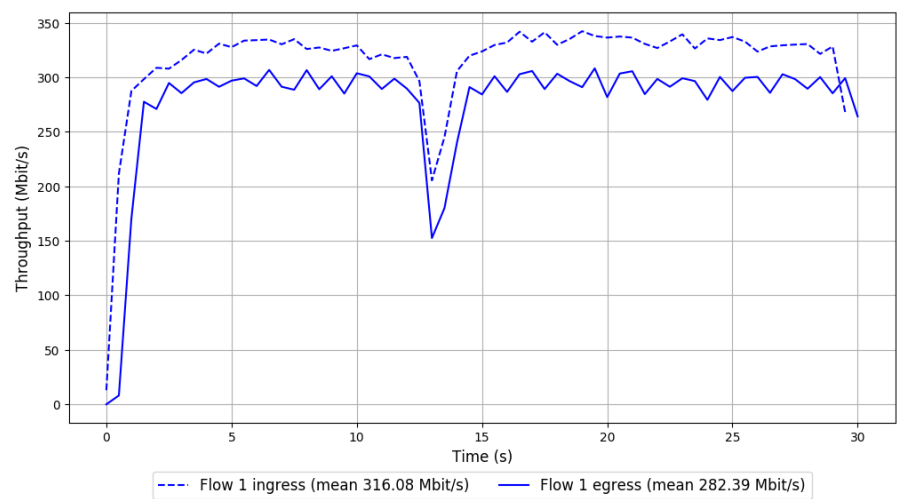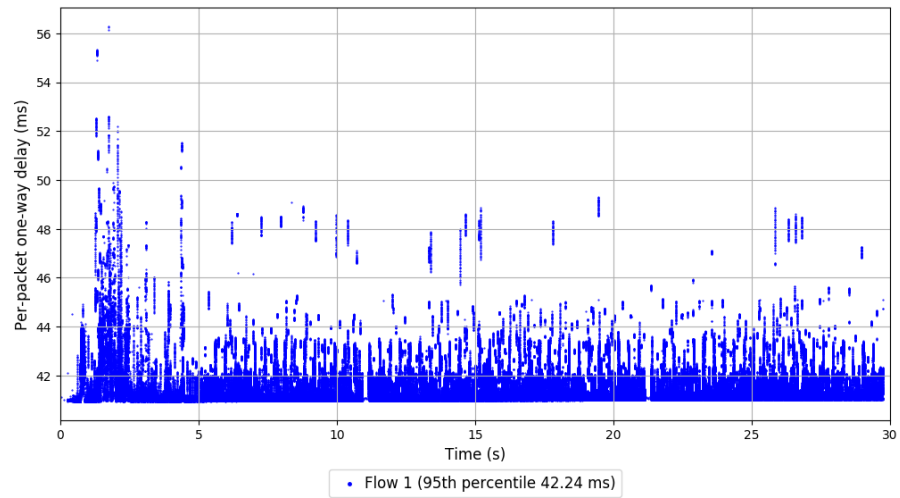
Run 3: Report of FillP — Data Link
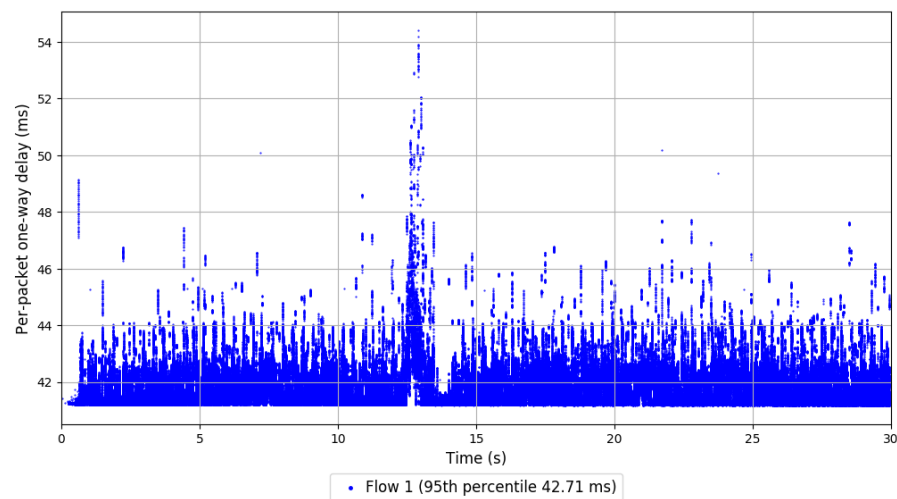
```
Run 1: Statistics of FillP-Sheep

Start at: 2021-03-08 04:25:00
End at: 2021-03-08 04:25:30

# Below is generated by plot.py at 2021-03-08 04:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.49 Mbit/s
95th percentile per-packet one-way delay: 42.240 ms
Loss rate: 7.89%
-- Flow 1:
Average throughput: 261.49 Mbit/s
95th percentile per-packet one-way delay: 42.240 ms
Loss rate: 7.89%
```
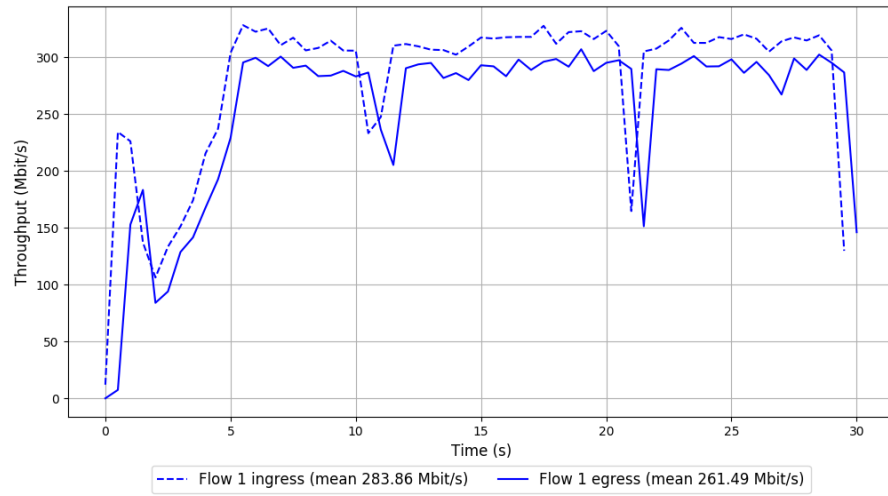
Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 283.86 Mbit/s)   Flow 1 egress (mean 261.49 Mbit/s)

Flow 1 (95th percentile 42.24 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2021-03-08 04:34:03
End at: 2021-03-08 04:34:33

# Below is generated by plot.py at 2021-03-08 04:56:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 380.04 Mbit/s
95th percentile per-packet one-way delay: 42.041 ms
Loss rate: 2.49%
-- Flow 1:
Average throughput: 380.04 Mbit/s
95th percentile per-packet one-way delay: 42.041 ms
Loss rate: 2.49%
```
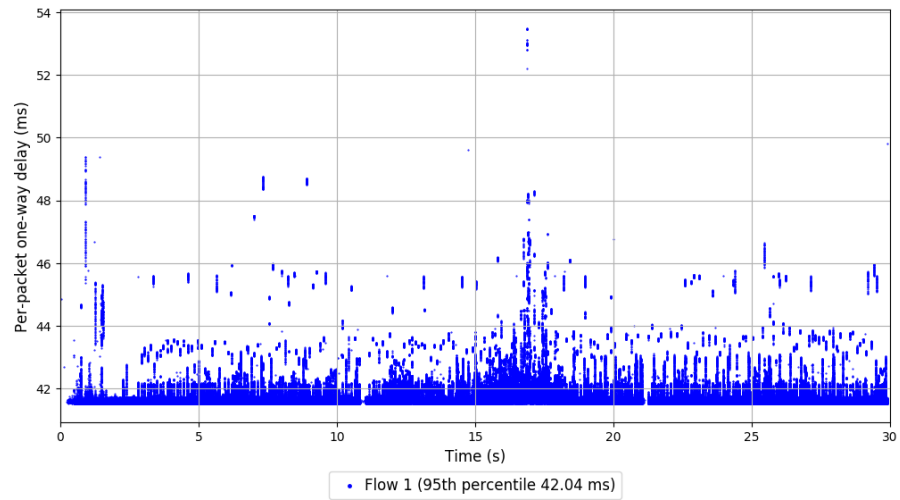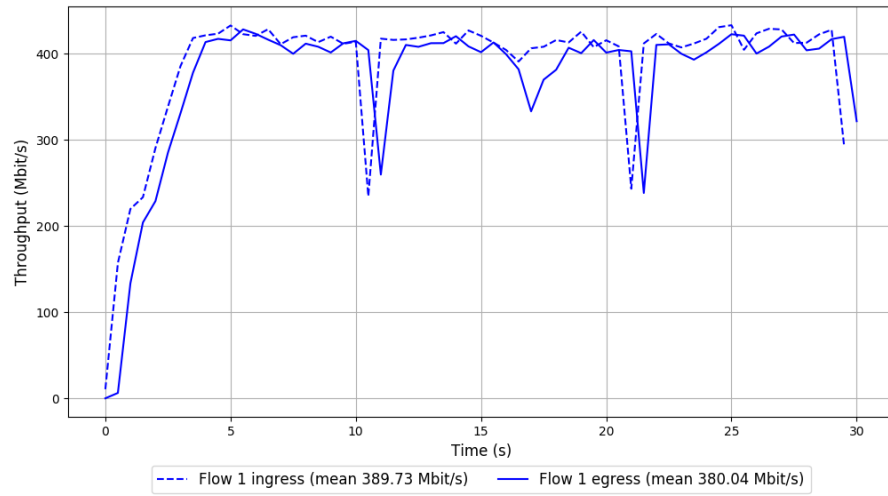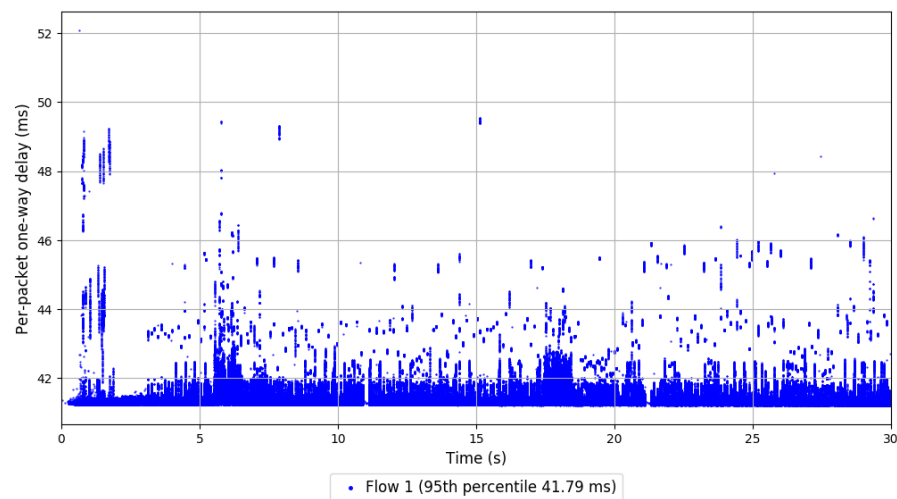
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 389.73 Mbit/s)   Flow 1 egress (mean 380.04 Mbit/s)

Flow 1 (95th percentile 42.04 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2021-03-08 04:43:13
End at: 2021-03-08 04:43:43

# Below is generated by plot.py at 2021-03-08 04:57:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 435.02 Mbit/s
95th percentile per-packet one-way delay: 41.787 ms
Loss rate: 2.90%
-- Flow 1:
Average throughput: 435.02 Mbit/s
95th percentile per-packet one-way delay: 41.787 ms
Loss rate: 2.90%
```
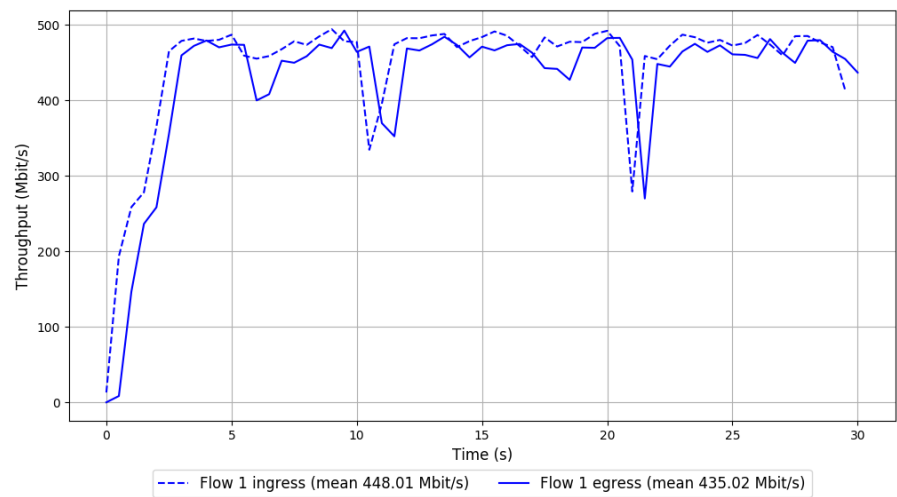
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 448.01 Mbit/s)   Flow 1 egress (mean 435.02 Mbit/s)

• Flow 1 (95th percentile 41.79 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2021-03-08 04:30:14
End at: 2021-03-08 04:30:44

# Below is generated by plot.py at 2021-03-08 04:57:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 42.455 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 42.455 ms
Loss rate: 0.30%
```

Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 13.35 Mbit/s)   Flow 1 egress (mean 13.31 Mbit/s)

Flow 1 (95th percentile 42.45 ms)
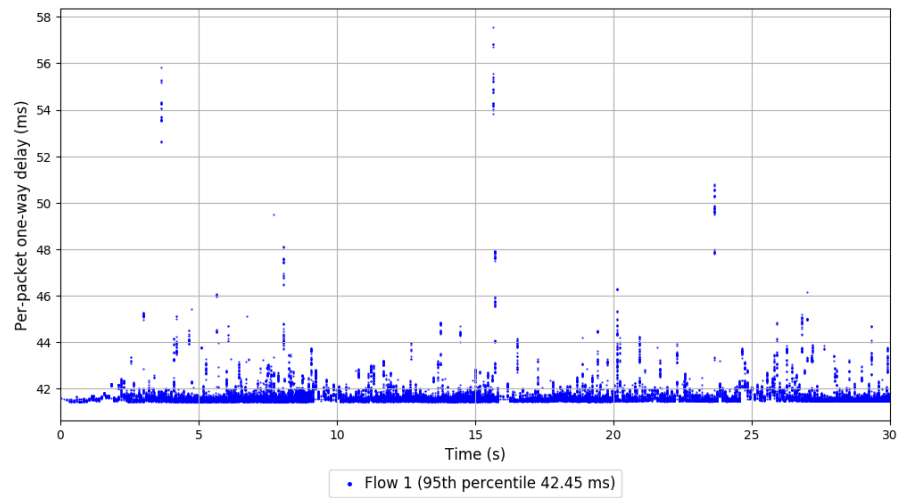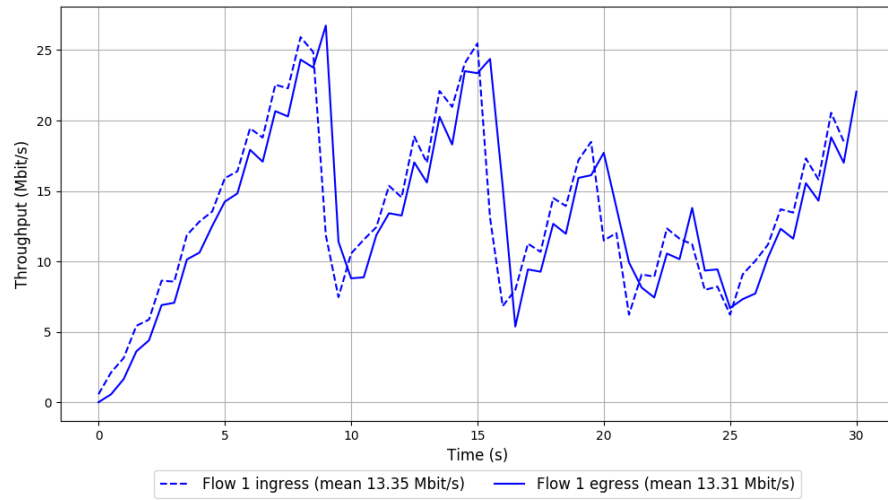
```
Run 2: Statistics of LEDBAT

Start at: 2021-03-08 04:39:25
End at: 2021-03-08 04:39:55

# Below is generated by plot.py at 2021-03-08 04:57:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.16 Mbit/s
95th percentile per-packet one-way delay: 42.615 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 9.16 Mbit/s
95th percentile per-packet one-way delay: 42.615 ms
Loss rate: 0.68%
```
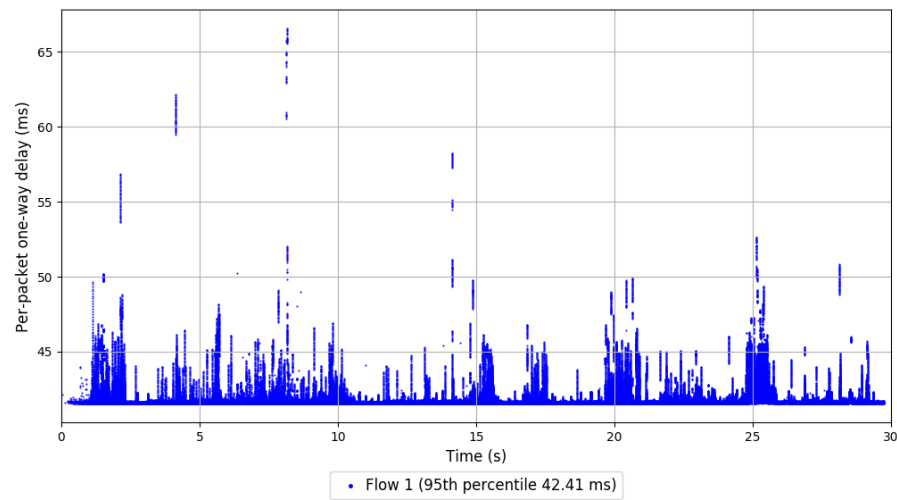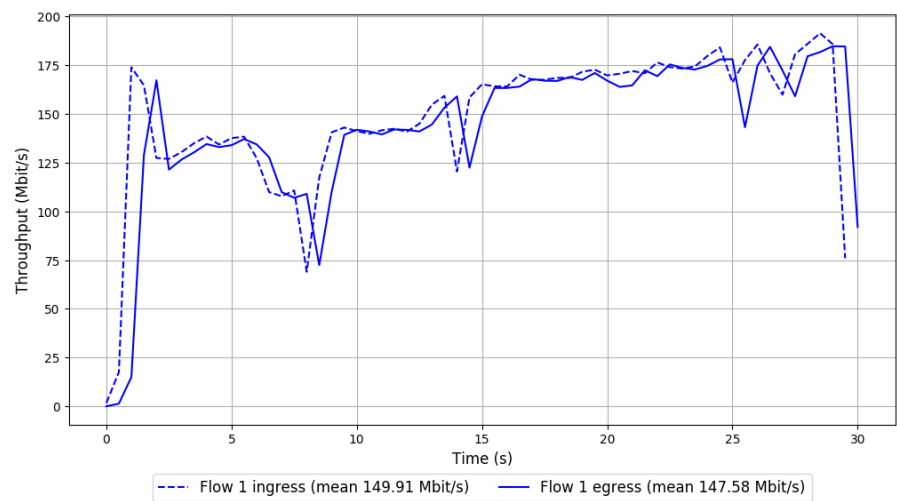
Run 2: Report of LEDBAT — Data Link
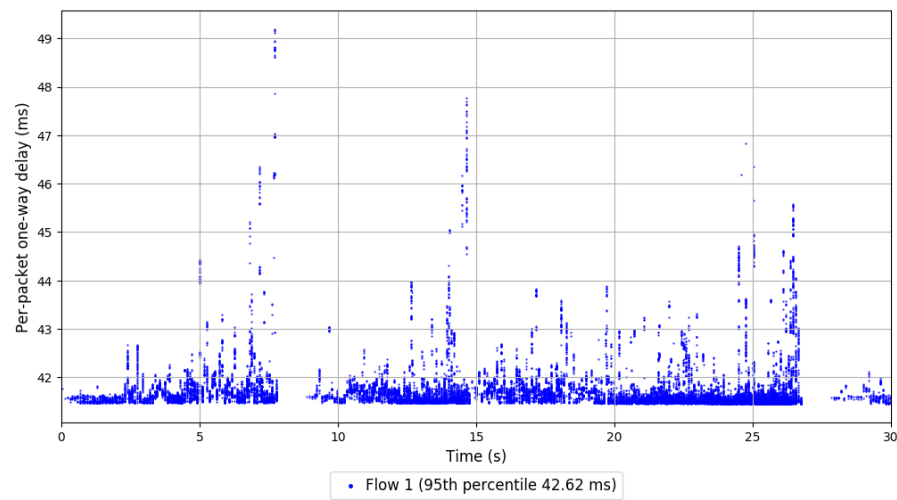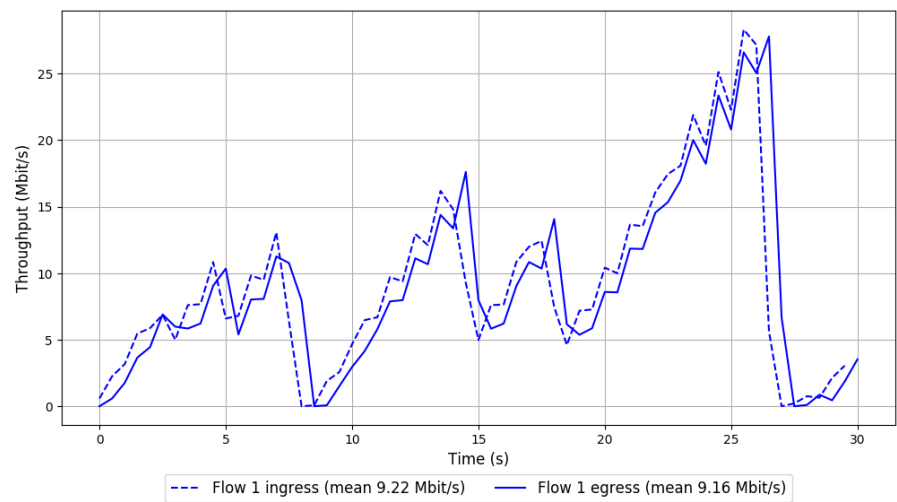
```
Run 3: Statistics of LEDBAT

Start at: 2021-03-08 04:48:32
End at: 2021-03-08 04:49:02

# Below is generated by plot.py at 2021-03-08 04:57:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.18 Mbit/s
95th percentile per-packet one-way delay: 42.240 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 10.18 Mbit/s
95th percentile per-packet one-way delay: 42.240 ms
Loss rate: 0.39%
```

Run 3: Report of LEDBAT — Data Link
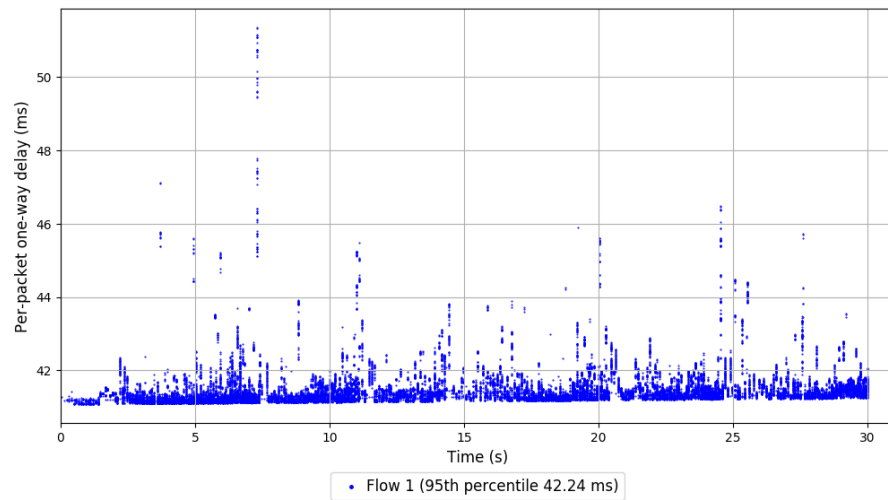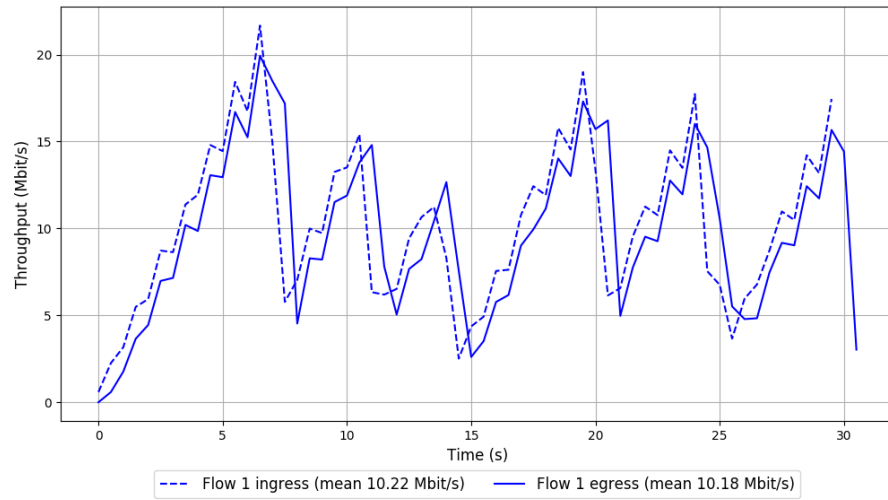
```
Run 1: Statistics of PCC-Allegro

Start at: 2021-03-08 04:30:55
End at: 2021-03-08 04:31:25

# Below is generated by plot.py at 2021-03-08 04:57:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 147.58 Mbit/s
95th percentile per-packet one-way delay: 42.414 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 147.58 Mbit/s
95th percentile per-packet one-way delay: 42.414 ms
Loss rate: 1.57%
```

Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2021-03-08 04:40:07
End at: 2021-03-08 04:40:37

# Below is generated by plot.py at 2021-03-08 04:57:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.10 Mbit/s
95th percentile per-packet one-way delay: 41.904 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 133.10 Mbit/s
95th percentile per-packet one-way delay: 41.904 ms
Loss rate: 1.27%
```
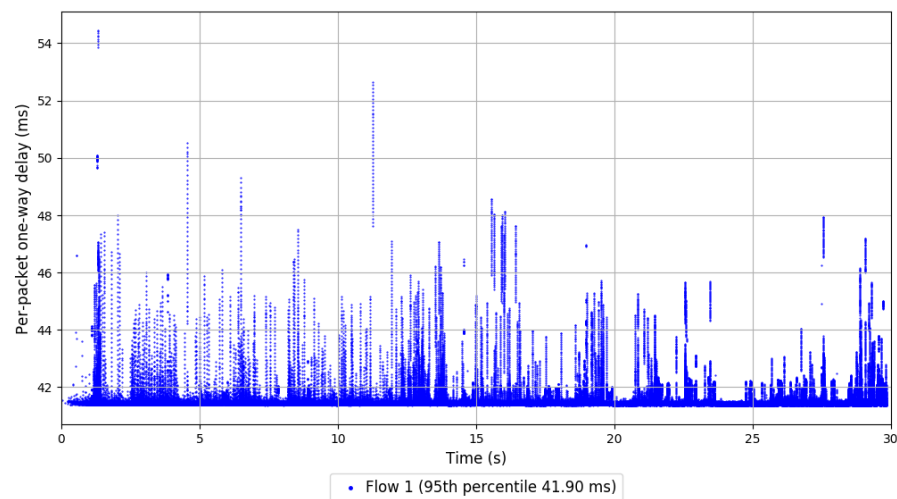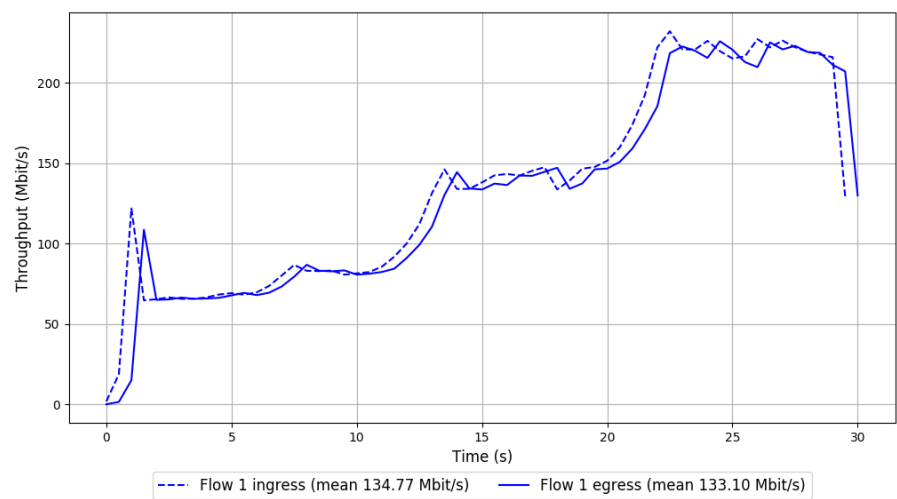
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2021-03-08 04:49:13
End at: 2021-03-08 04:49:43

# Below is generated by plot.py at 2021-03-08 04:58:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.42 Mbit/s
95th percentile per-packet one-way delay: 42.159 ms
Loss rate: 6.58%
-- Flow 1:
Average throughput: 203.42 Mbit/s
95th percentile per-packet one-way delay: 42.159 ms
Loss rate: 6.58%
```
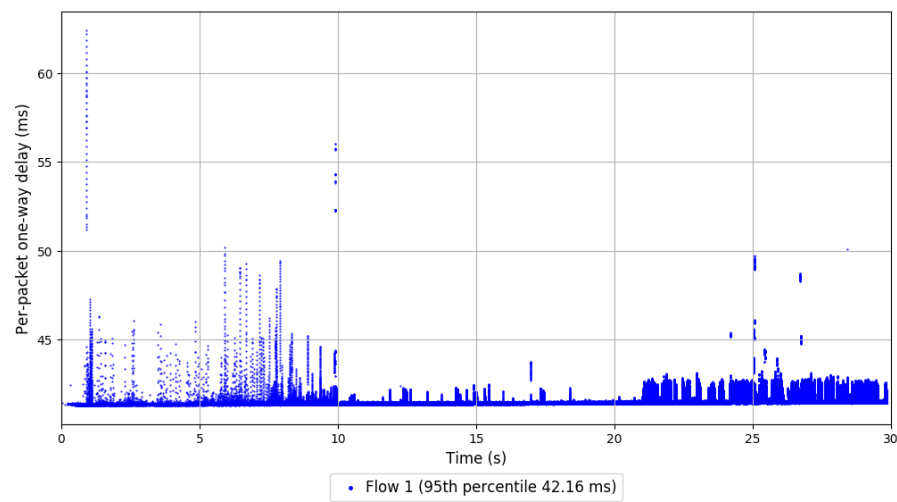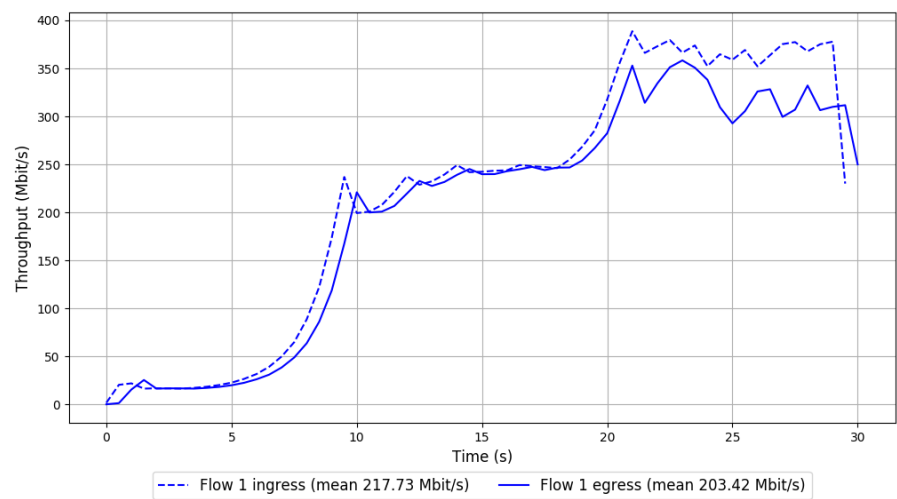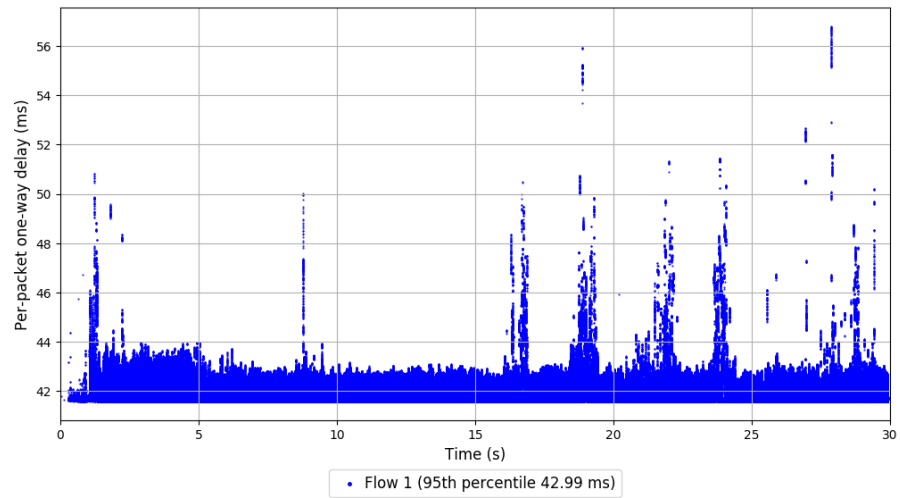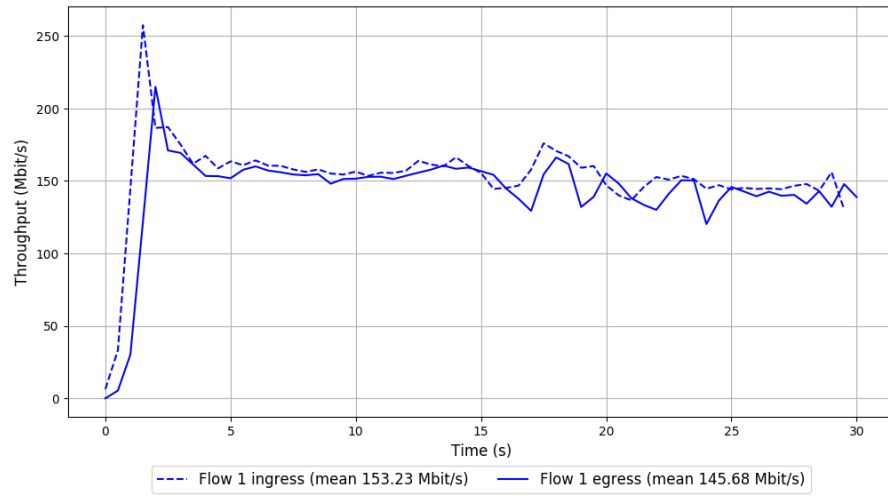
Run 3: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2021-03-08 04:33:11
End at: 2021-03-08 04:33:42

# Below is generated by plot.py at 2021-03-08 04:58:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 145.68 Mbit/s
95th percentile per-packet one-way delay: 42.995 ms
Loss rate: 4.94%
-- Flow 1:
Average throughput: 145.68 Mbit/s
95th percentile per-packet one-way delay: 42.995 ms
Loss rate: 4.94%
```
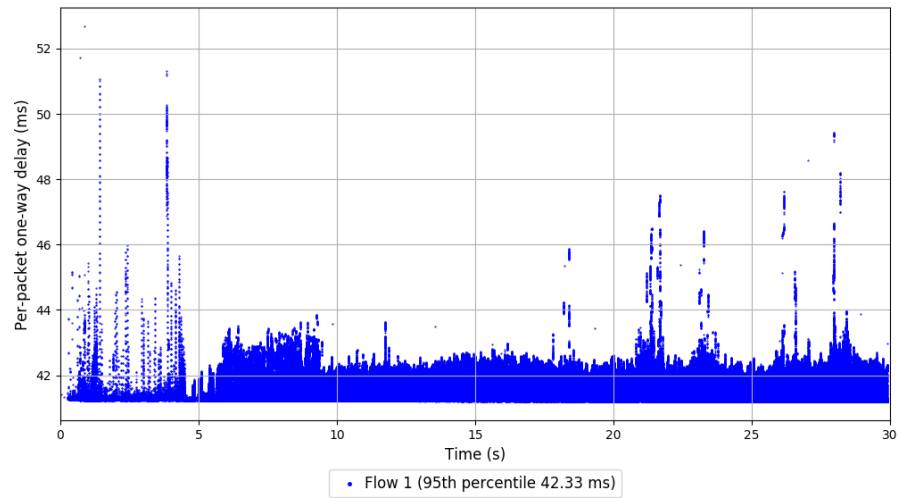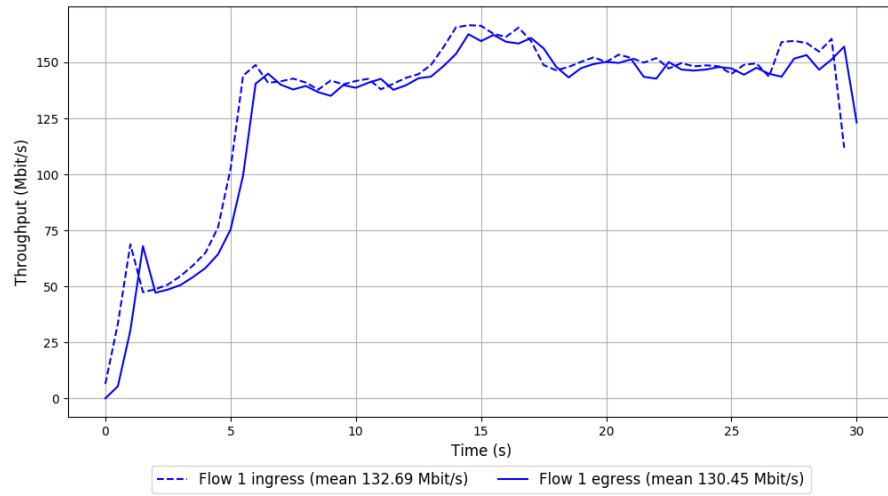
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2021-03-08 04:42:22
End at: 2021-03-08 04:42:52

# Below is generated by plot.py at 2021-03-08 04:58:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 130.45 Mbit/s
95th percentile per-packet one-way delay: 42.334 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 130.45 Mbit/s
95th percentile per-packet one-way delay: 42.334 ms
Loss rate: 1.70%
```
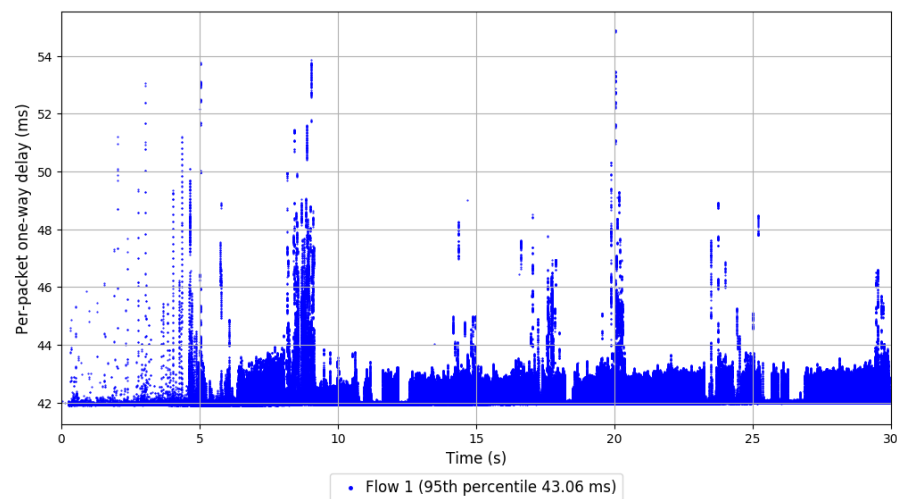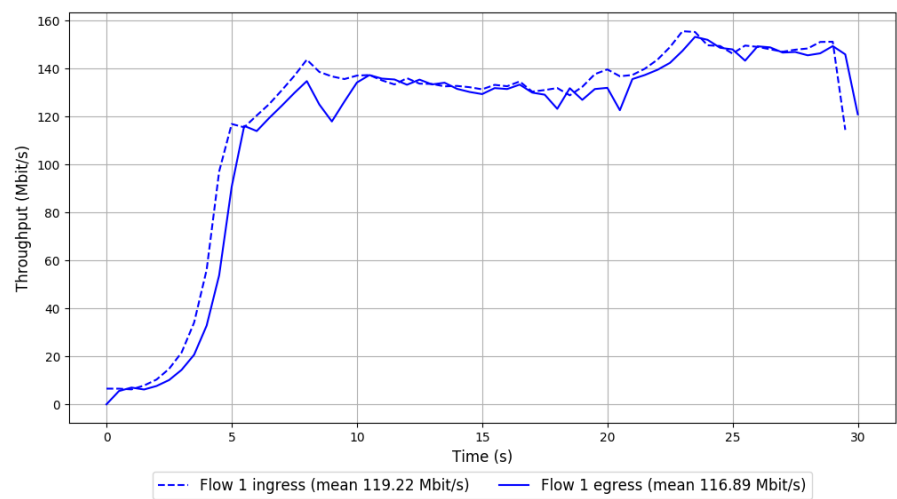
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2021-03-08 04:51:30
End at: 2021-03-08 04:52:00

# Below is generated by plot.py at 2021-03-08 04:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 116.89 Mbit/s
95th percentile per-packet one-way delay: 43.064 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 116.89 Mbit/s
95th percentile per-packet one-way delay: 43.064 ms
Loss rate: 1.98%
```

Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 119.22 Mbit/s)   Flow 1 egress (mean 116.89 Mbit/s)

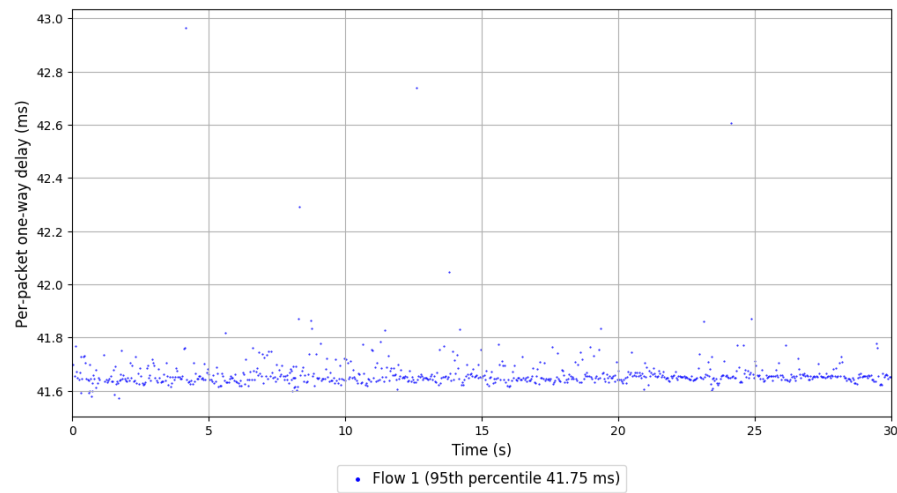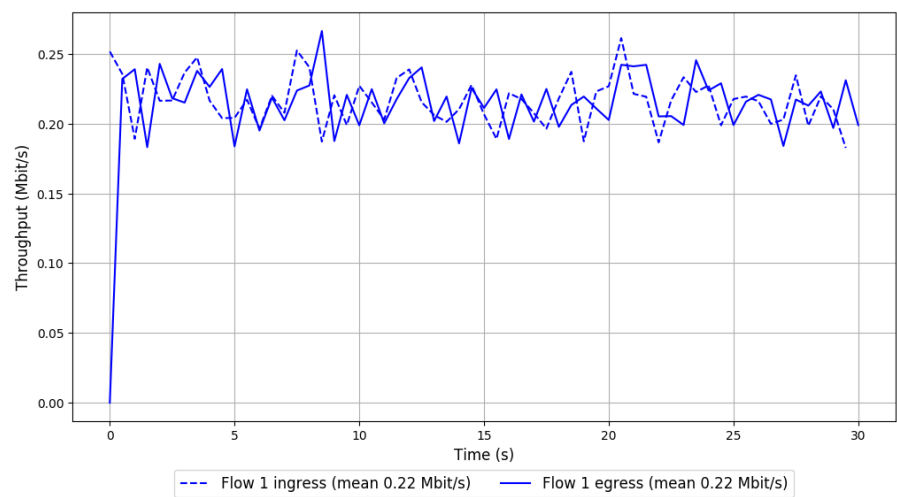

Flow 1 (95th percentile 43.06 ms)

```
Run 1: Statistics of SCReAM

Start at: 2021-03-08 04:31:41
End at: 2021-03-08 04:32:11

# Below is generated by plot.py at 2021-03-08 04:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.747 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.747 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2021-03-08 04:40:52
End at: 2021-03-08 04:41:22


# Below is generated by plot.py at 2021-03-08 04:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.528 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.528 ms
Loss rate: 0.00%
```
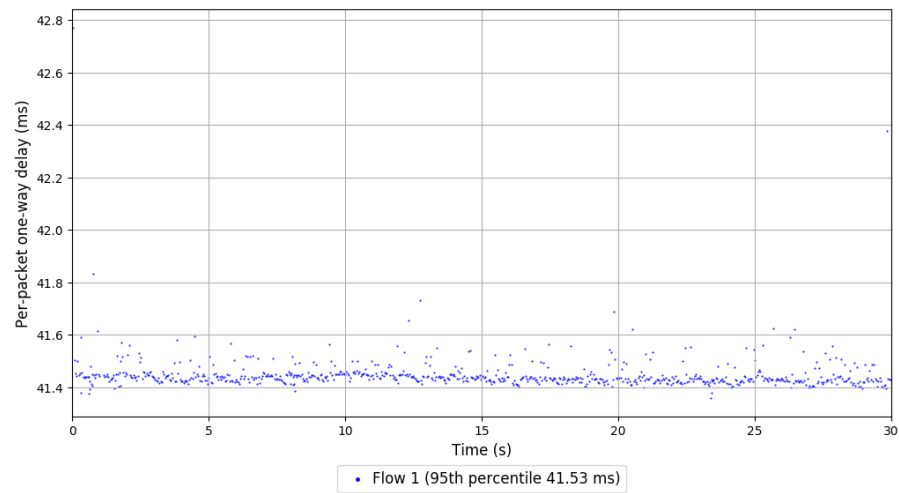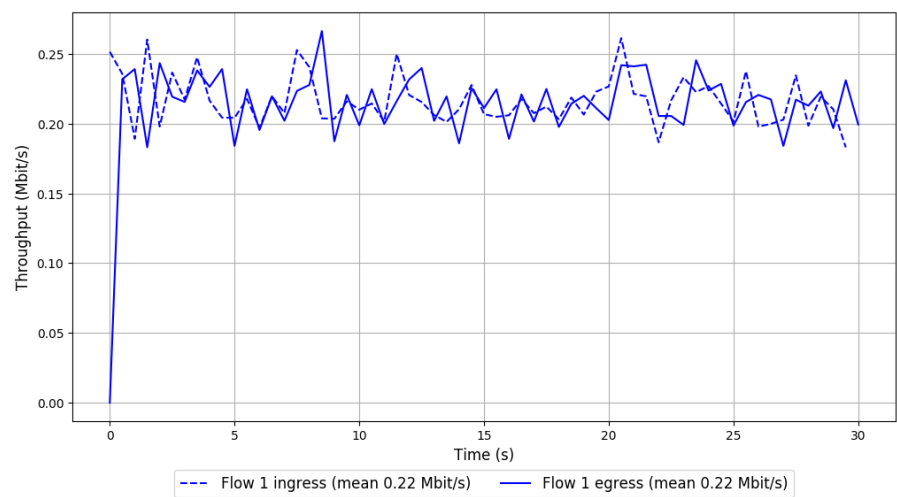
Run 2: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 41.53 ms)

```
Run 3: Statistics of SCReAM

Start at: 2021-03-08 04:49:59
End at: 2021-03-08 04:50:29

# Below is generated by plot.py at 2021-03-08 04:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.815 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.815 ms
Loss rate: 0.00%
```
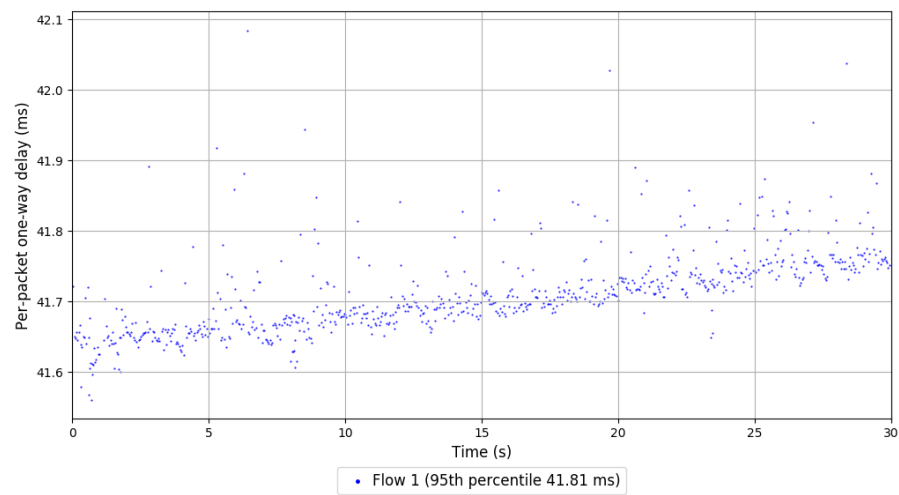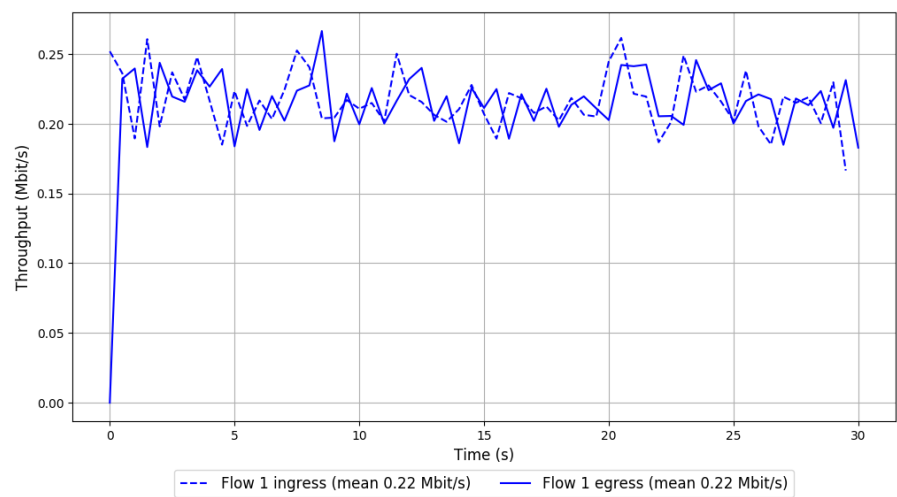
Run 3: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 41.81 ms)

```
Run 1: Statistics of Sprout

Start at: 2021-03-08 04:27:20
End at: 2021-03-08 04:27:50

# Below is generated by plot.py at 2021-03-08 04:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 41.943 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 41.943 ms
Loss rate: 1.27%
```
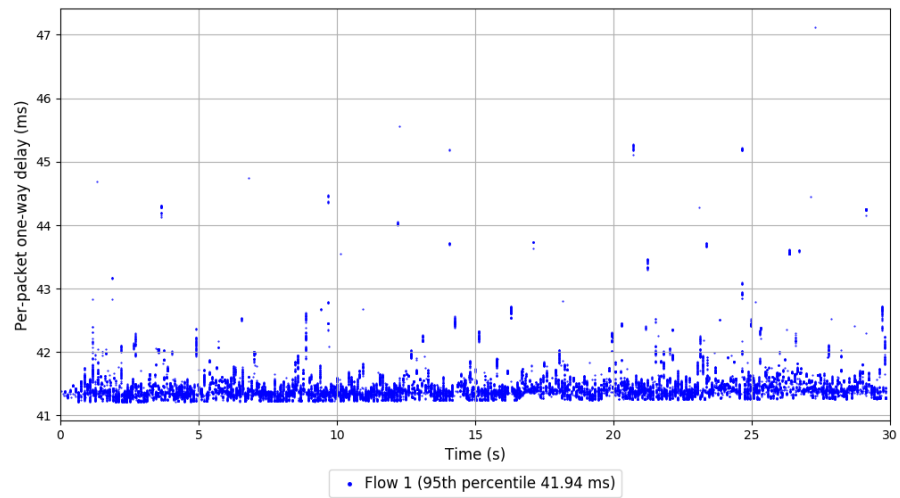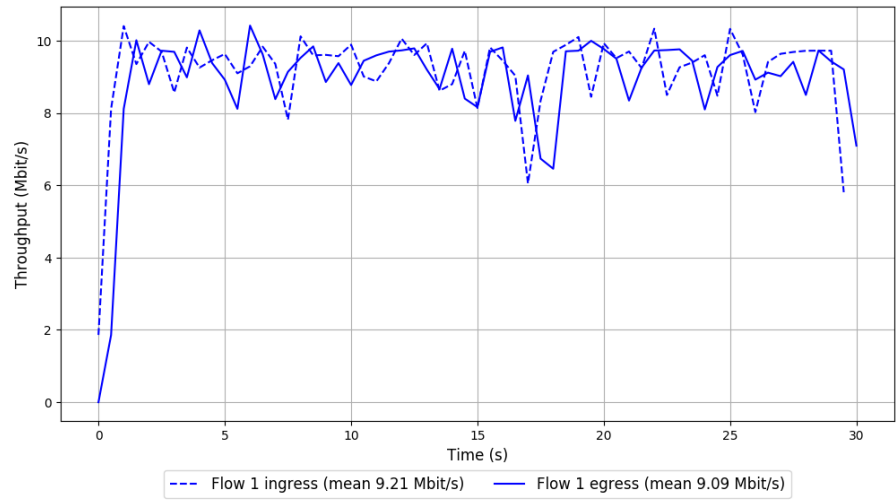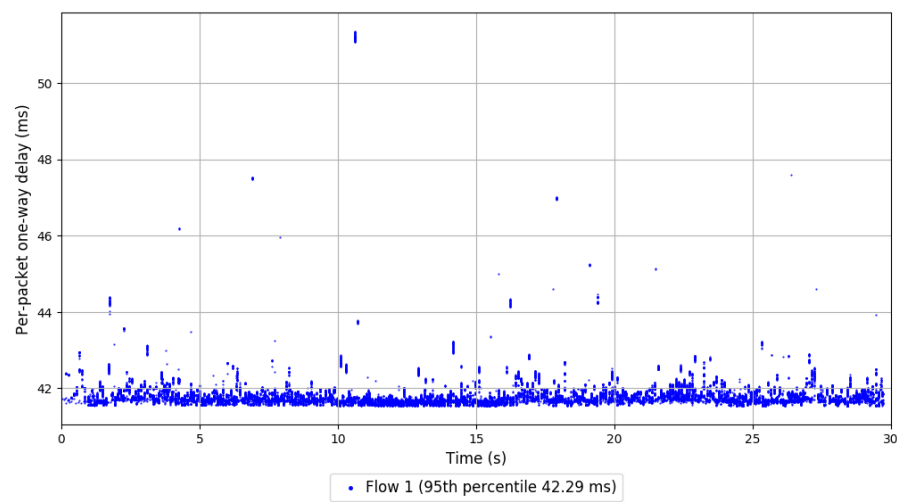
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2021-03-08 04:36:27
End at: 2021-03-08 04:36:57


# Below is generated by plot.py at 2021-03-08 04:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 42.291 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 42.291 ms
Loss rate: 0.97%
```
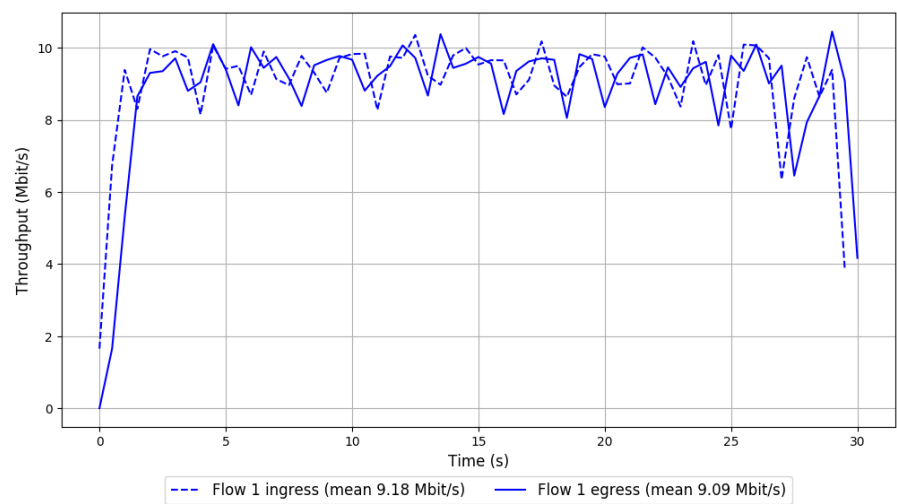
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2021-03-08 04:45:40
End at: 2021-03-08 04:46:10

# Below is generated by plot.py at 2021-03-08 04:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.89 Mbit/s
95th percentile per-packet one-way delay: 42.017 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 8.89 Mbit/s
95th percentile per-packet one-way delay: 42.017 ms
Loss rate: 1.86%
```
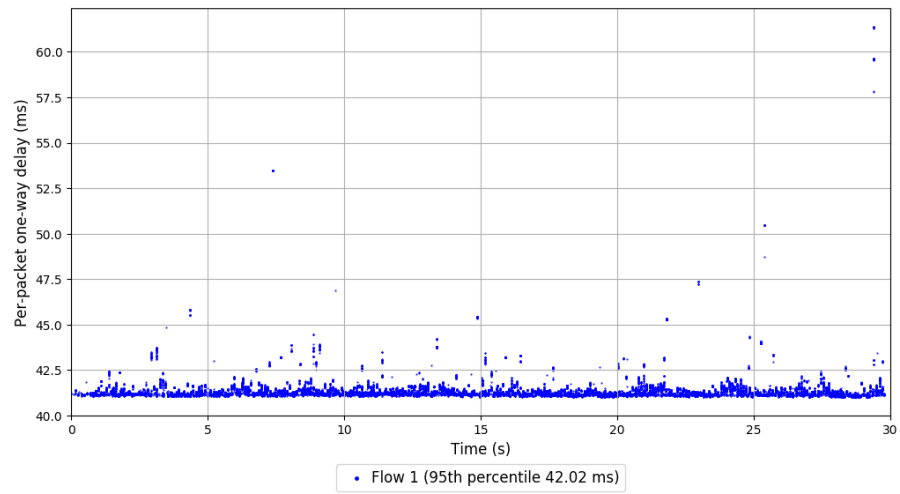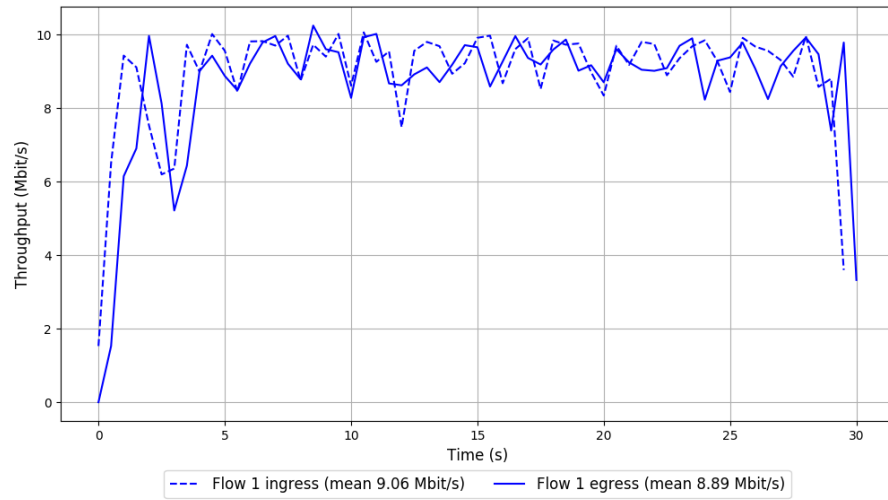
Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 9.06 Mbit/s)   Flow 1 egress (mean 8.89 Mbit/s)

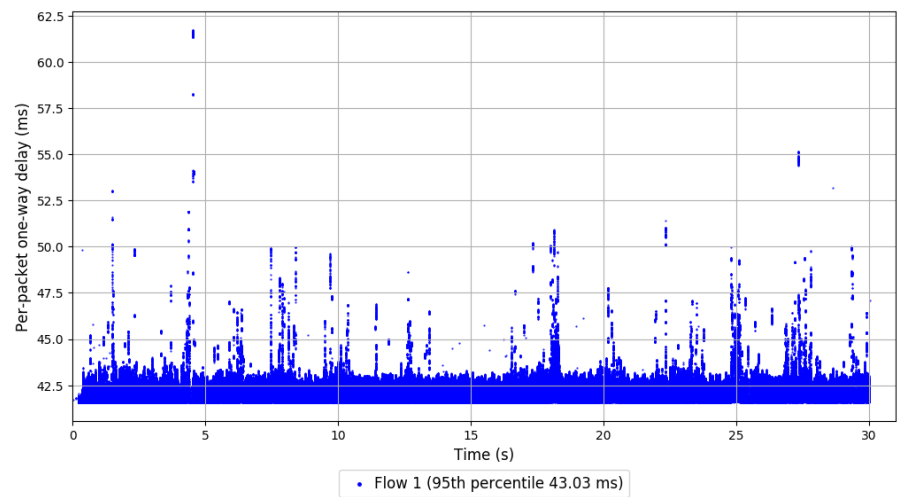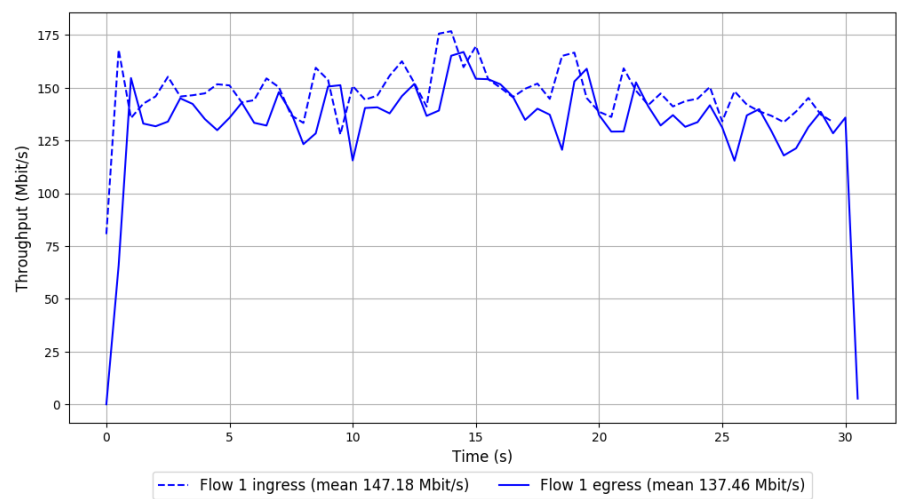Flow 1 (95th percentile 42.02 ms)

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

Start at: 2021-03-08 04:32:20
End at: 2021-03-08 04:32:50

# Below is generated by plot.py at 2021-03-08 05:00:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.46 Mbit/s
95th percentile per-packet one-way delay: 43.026 ms
Loss rate: 6.58%
-- Flow 1:
Average throughput: 137.46 Mbit/s
95th percentile per-packet one-way delay: 43.026 ms
Loss rate: 6.58%
```

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

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

Start at: 2021-03-08 04:41:31
End at: 2021-03-08 04:42:01

# Below is generated by plot.py at 2021-03-08 05:00:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 130.78 Mbit/s
95th percentile per-packet one-way delay: 43.107 ms
Loss rate: 7.95%
-- Flow 1:
Average throughput: 130.78 Mbit/s
95th percentile per-packet one-way delay: 43.107 ms
Loss rate: 7.95%
```
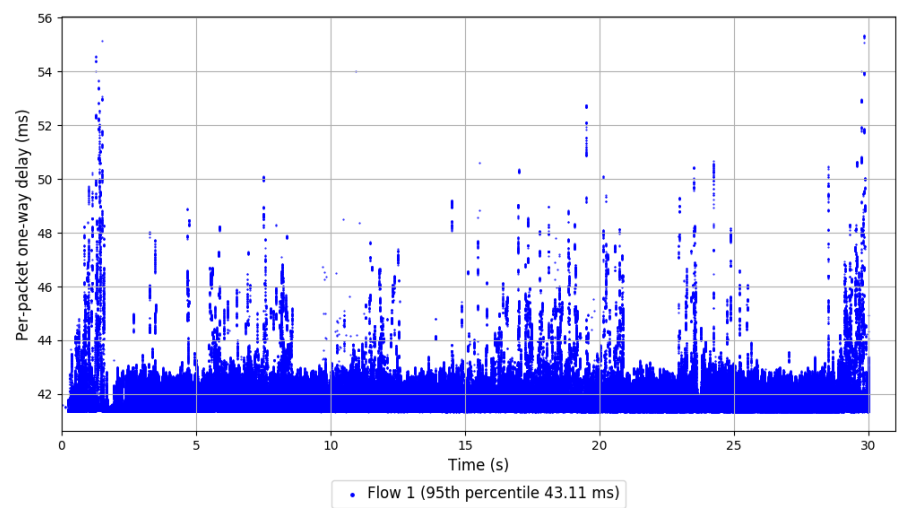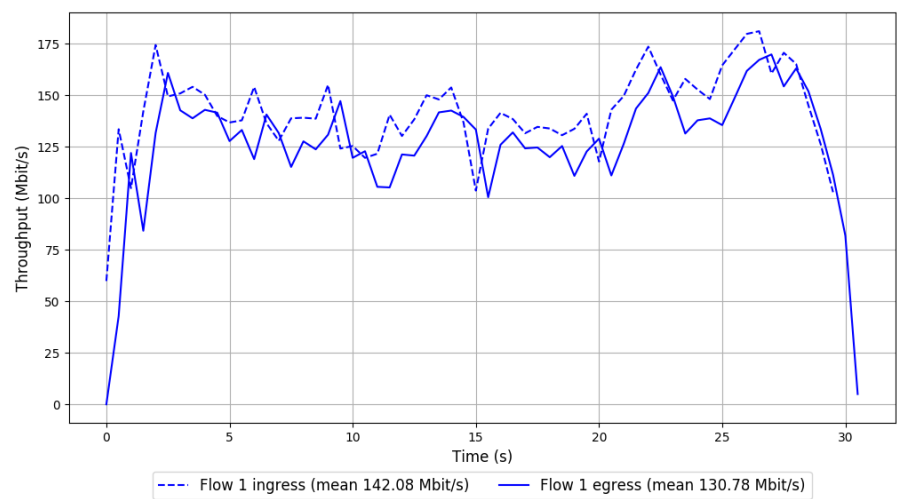
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2021-03-08 04:50:39
End at: 2021-03-08 04:51:09

# Below is generated by plot.py at 2021-03-08 05:01:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 135.91 Mbit/s
95th percentile per-packet one-way delay: 43.253 ms
Loss rate: 7.75%
-- Flow 1:
Average throughput: 135.91 Mbit/s
95th percentile per-packet one-way delay: 43.253 ms
Loss rate: 7.75%
```
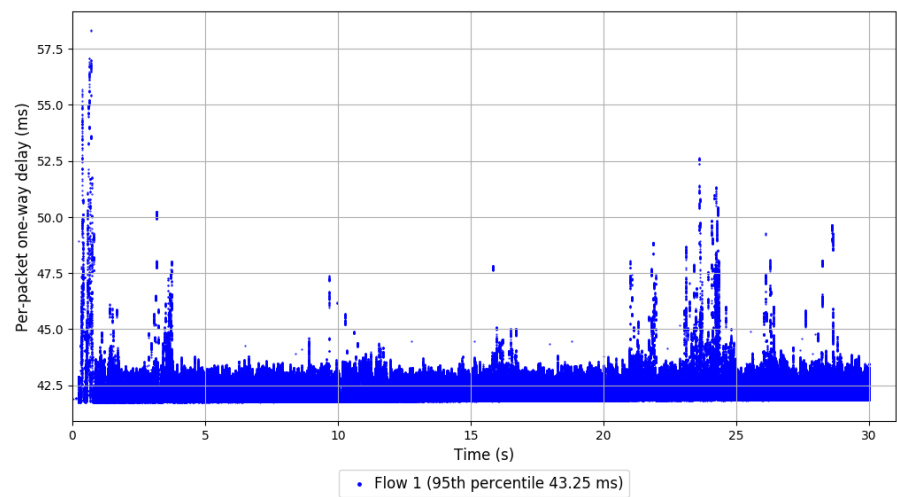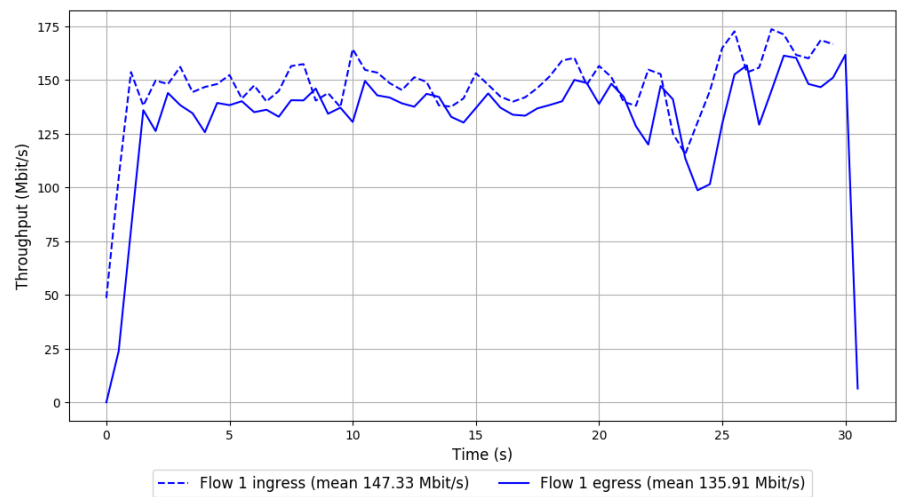
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 147.33 Mbit/s)   Flow 1 egress (mean 135.91 Mbit/s)

Flow 1 (95th percentile 43.25 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2021-03-08 04:29:31
End at: 2021-03-08 04:30:01

# Below is generated by plot.py at 2021-03-08 05:01:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.28 Mbit/s
95th percentile per-packet one-way delay: 42.072 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 10.28 Mbit/s
95th percentile per-packet one-way delay: 42.072 ms
Loss rate: 0.37%
```
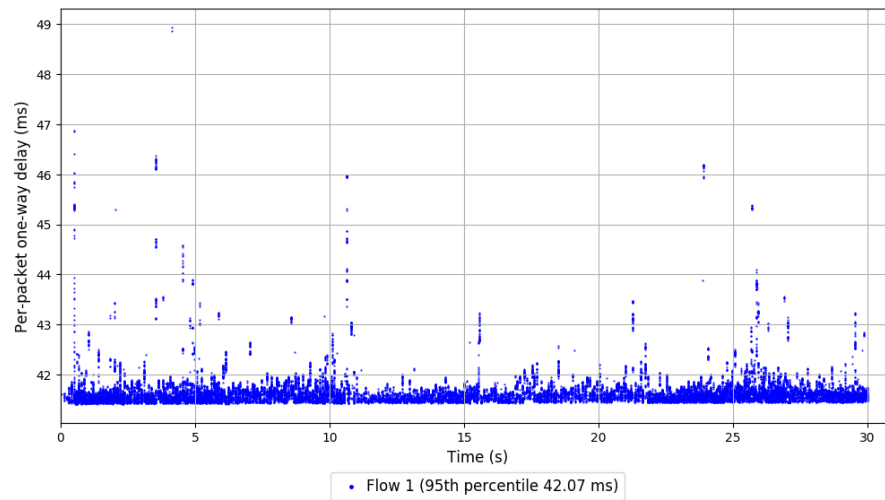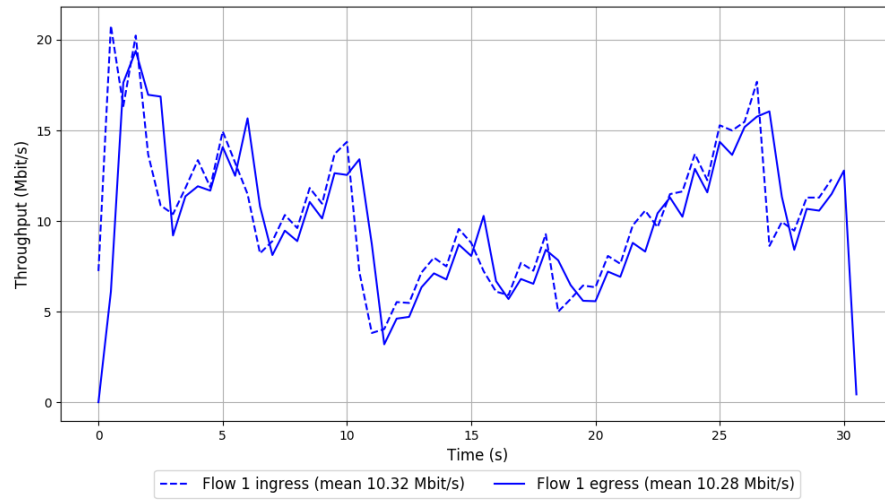
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2021-03-08 04:38:44
End at: 2021-03-08 04:39:14

# Below is generated by plot.py at 2021-03-08 05:01:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.44 Mbit/s
95th percentile per-packet one-way delay: 42.219 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 10.44 Mbit/s
95th percentile per-packet one-way delay: 42.219 ms
Loss rate: 0.50%
```
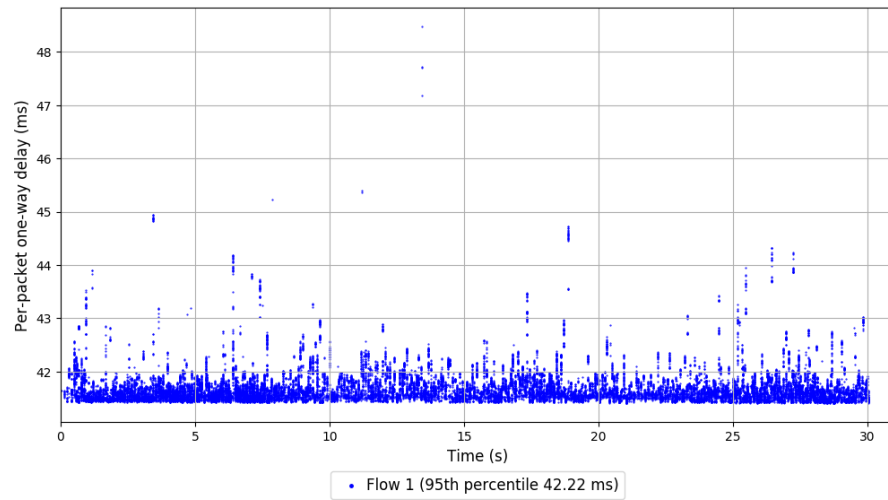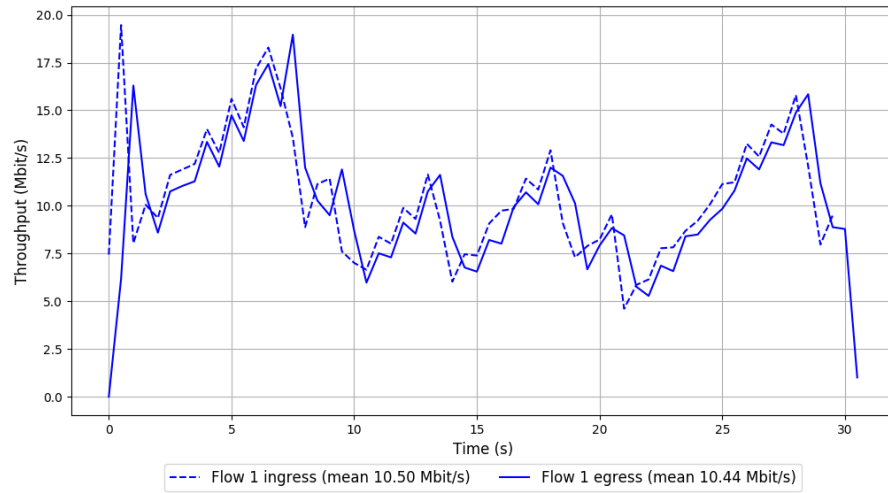
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2021-03-08 04:47:51
End at: 2021-03-08 04:48:21

# Below is generated by plot.py at 2021-03-08 05:01:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.43 Mbit/s
95th percentile per-packet one-way delay: 41.834 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 10.43 Mbit/s
95th percentile per-packet one-way delay: 41.834 ms
Loss rate: 0.26%
```
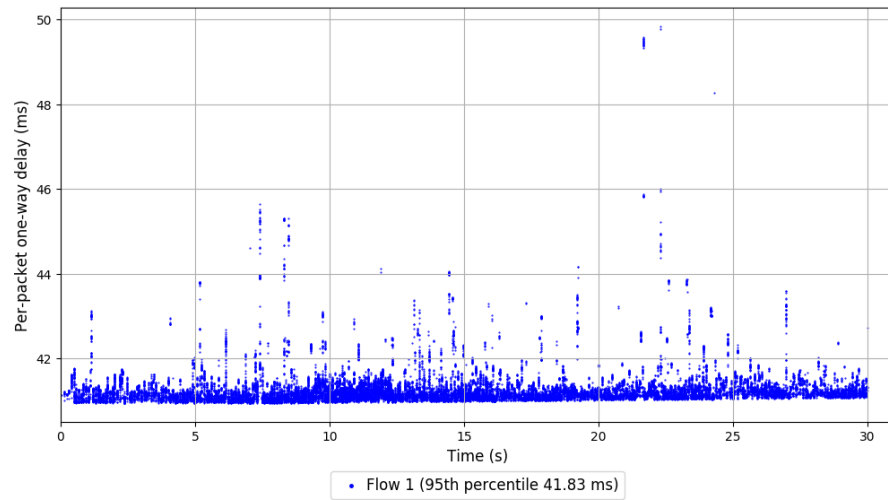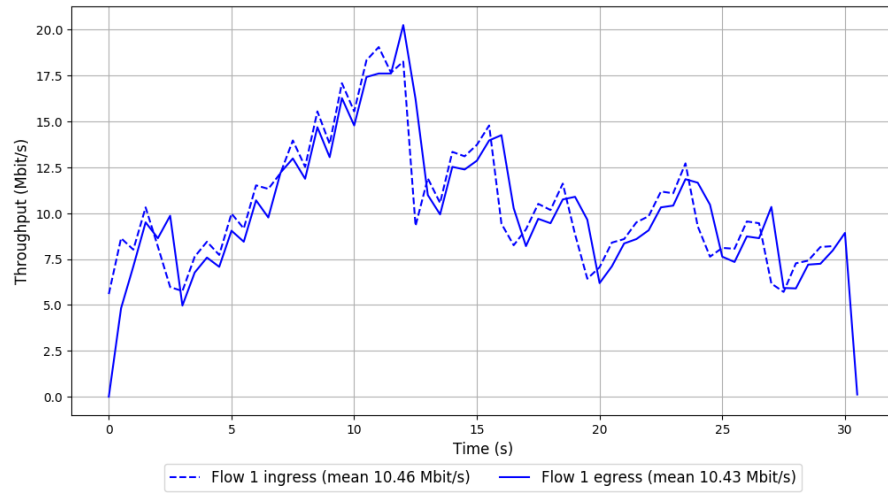
Run 3: Report of TCP Vegas — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2021-03-08 04:28:00
End at: 2021-03-08 04:28:30

# Below is generated by plot.py at 2021-03-08 05:01:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 105.29 Mbit/s
95th percentile per-packet one-way delay: 42.282 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 105.29 Mbit/s
95th percentile per-packet one-way delay: 42.282 ms
Loss rate: 0.90%
```
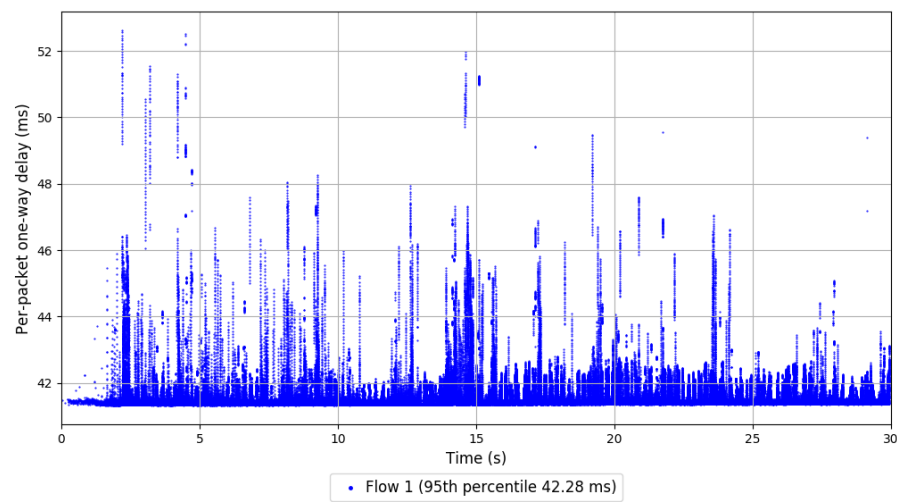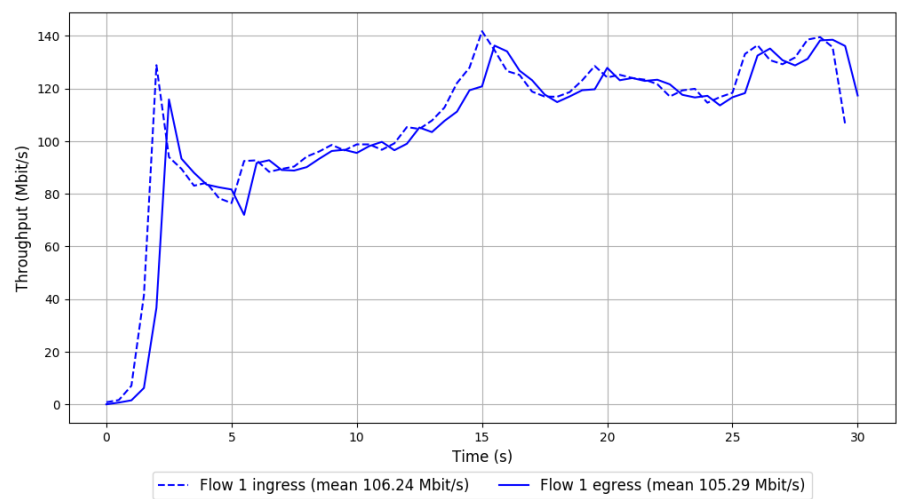
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2021-03-08 04:37:09
End at: 2021-03-08 04:37:39

# Below is generated by plot.py at 2021-03-08 05:01:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.10 Mbit/s
95th percentile per-packet one-way delay: 41.899 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 187.10 Mbit/s
95th percentile per-packet one-way delay: 41.899 ms
Loss rate: 0.57%
```
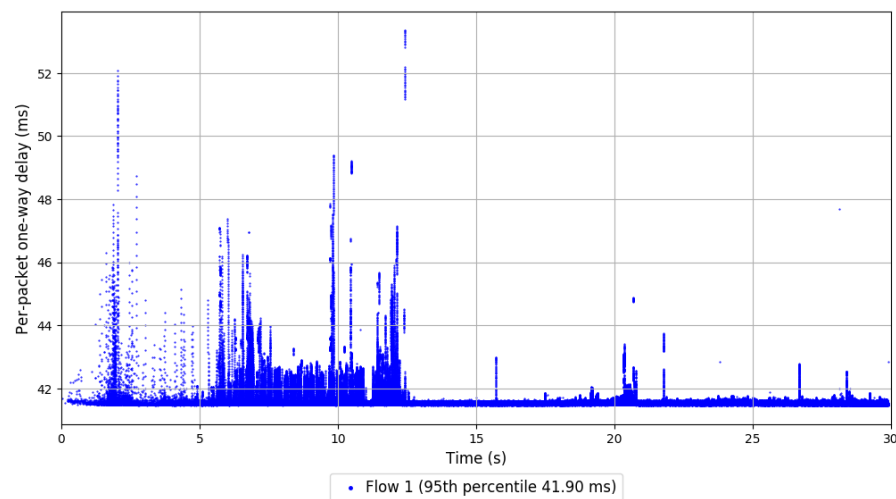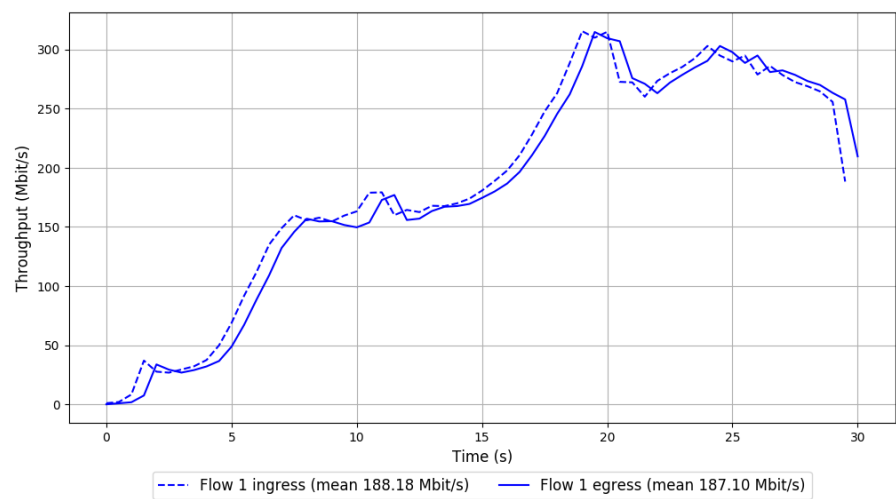
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2021-03-08 04:46:21
End at: 2021-03-08 04:46:51

# Below is generated by plot.py at 2021-03-08 05:01:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 43.085 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 43.085 ms
Loss rate: 2.19%
```

Run 3: Report of PCC-Vivace — Data Link