Pantheon Report

Generated at 2019-01-19 07:59:50 (UTC).

Data path: India on em1 (*remote*) →AWS India 1 on ens5 (*local*).

Repeated the test of 21 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

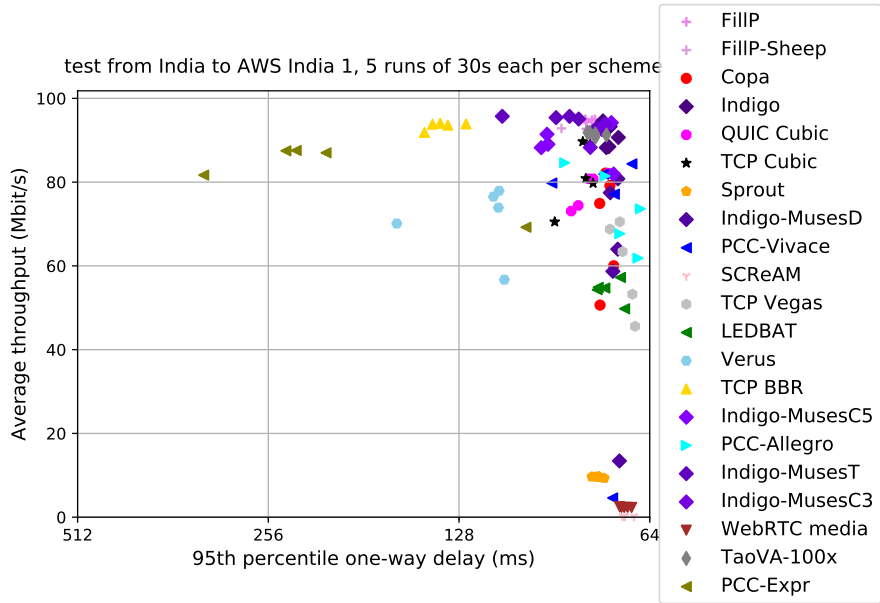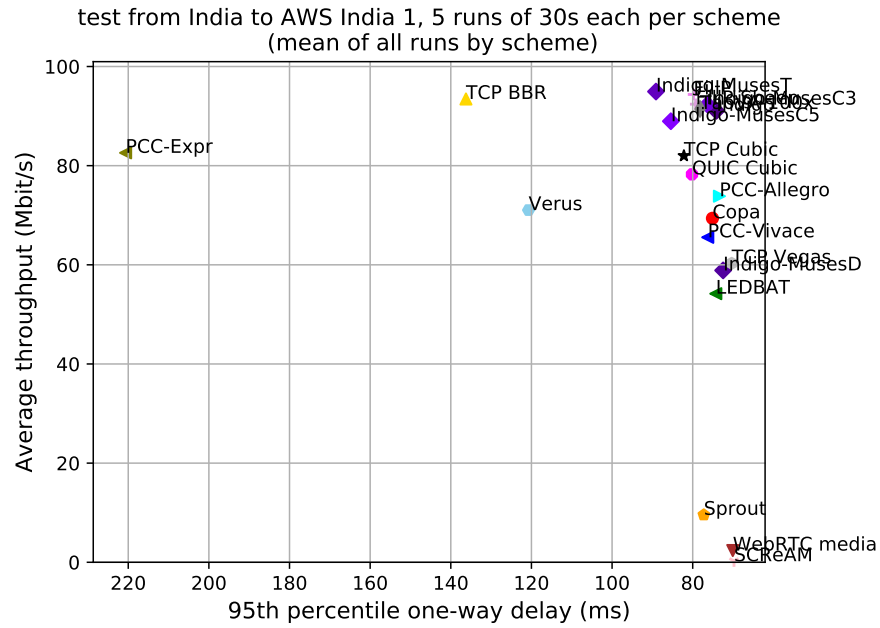NTP offsets were measured against nets.org.sg and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1031-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 @ c80a283586bf7b0cc1fe08c69c8f60d56498f81c
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ c3eee875824760ec5b2fd207fefe166e1afe2170
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 India to AWS India 1, 5 runs of 30s each per scheme
(mean of all runs by scheme)

test from India to AWS India 1, 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	5	93.46	136.24	2.44
Copa	5	69.38	75.11	0.26
TCP Cubic	5	81.99	82.19	0.30
FillP	5	94.36	79.82	0.39
FillP-Sheep	5	92.40	79.29	0.27
Indigo	5	91.06	74.14	0.27
Indigo-MusesC3	5	92.32	76.33	0.28
Indigo-MusesC5	5	88.96	85.42	0.31
Indigo-MusesD	5	58.87	72.46	0.21
Indigo-MusesT	5	94.95	89.11	0.39
LEDBAT	5	54.18	74.28	0.34
PCC-Allegro	5	73.84	73.37	0.38
PCC-Expr	5	82.59	220.66	0.39
QUIC Cubic	5	78.25	80.18	0.33
SCReAM	5	0.22	69.76	0.26
Sprout	5	9.57	77.25	0.27
TaoVA-100x	5	91.44	78.18	0.25
TCP Vegas	5	60.30	70.34	0.32
Verus	5	71.04	120.72	0.39
PCC-Vivace	5	65.55	76.27	0.34
WebRTC media	5	2.37	70.07	0.25

```
Run 1: Statistics of TCP BBR

Start at: 2019-01-19 05:28:48
End at: 2019-01-19 05:29:18
Local clock offset: -0.833 ms
Remote clock offset: 3.406 ms


# Below is generated by plot.py at 2019-01-19 07:48:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.60 Mbit/s
95th percentile per-packet one-way delay: 133.330 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 93.60 Mbit/s
95th percentile per-packet one-way delay: 133.330 ms
Loss rate: 2.58%
```
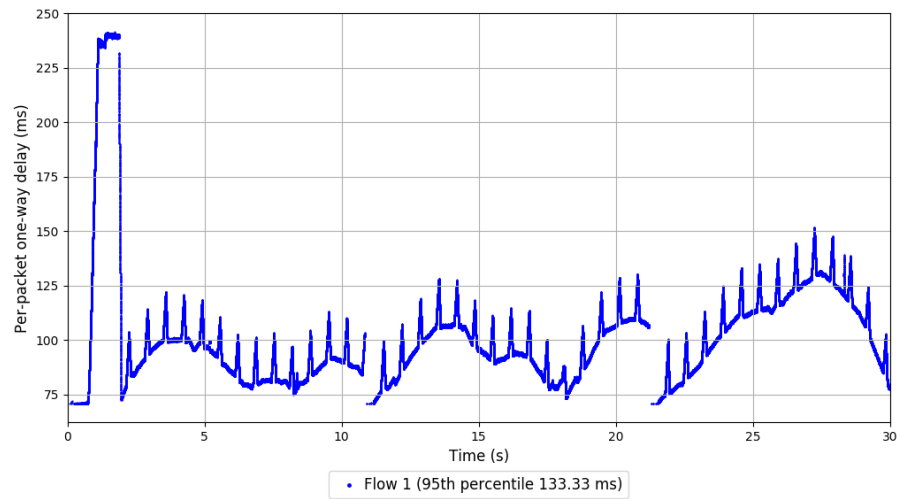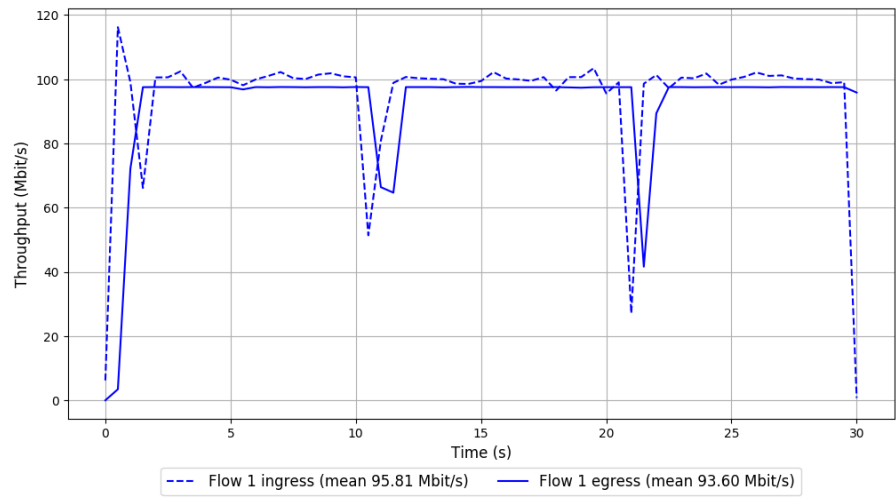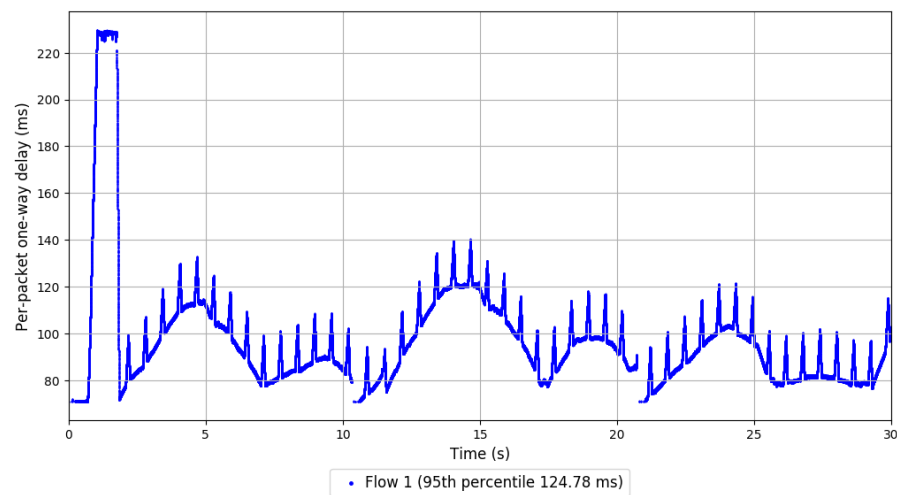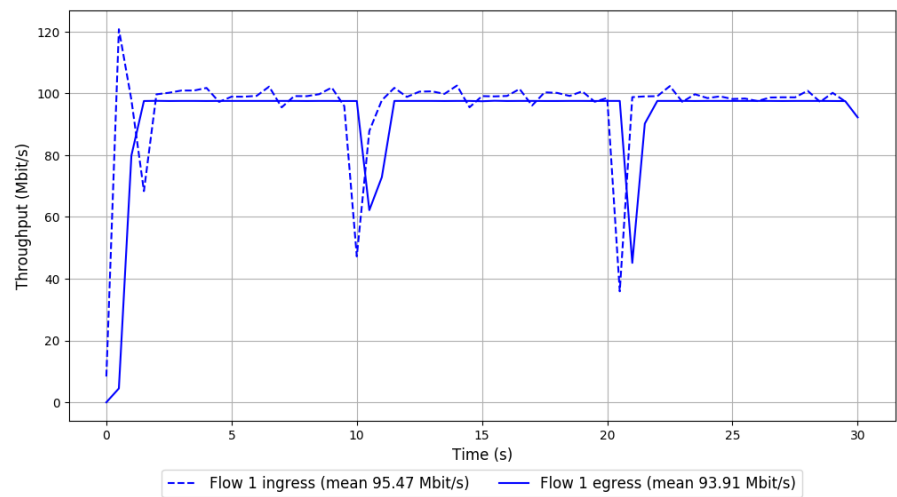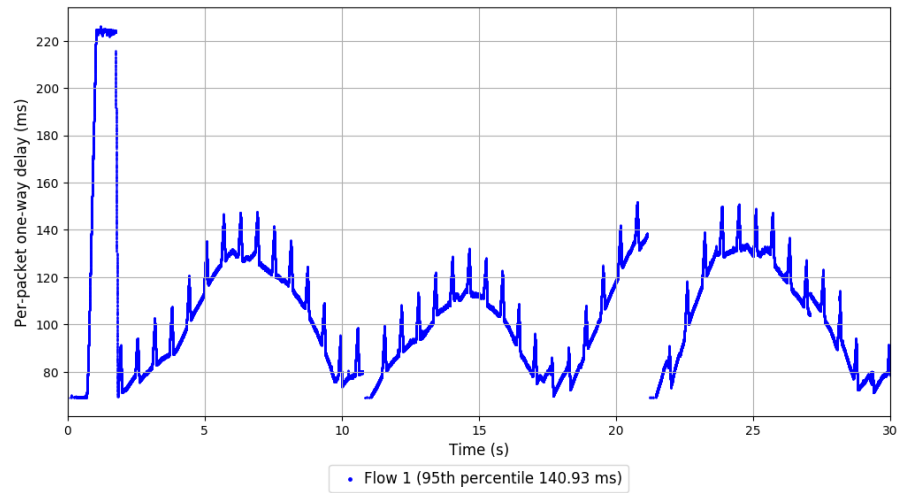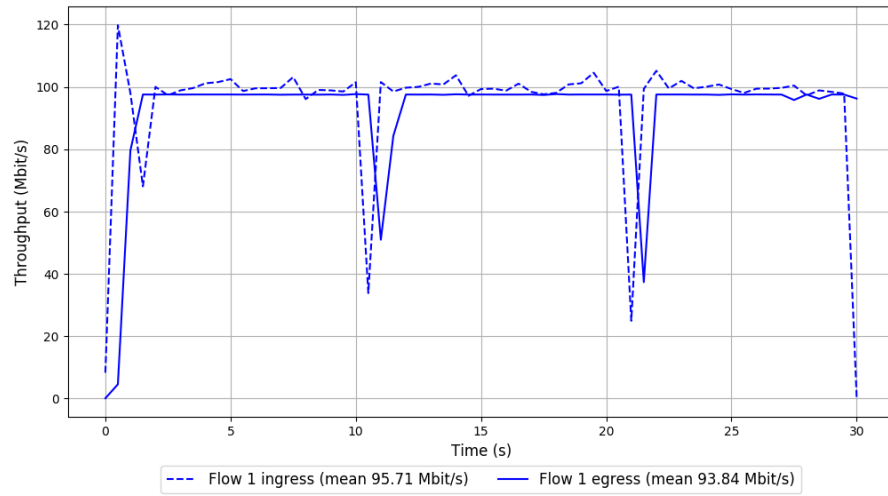
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-01-19 05:59:19
End at: 2019-01-19 05:59:49
Local clock offset: 1.08 ms
Remote clock offset: 0.311 ms


# Below is generated by plot.py at 2019-01-19 07:48:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.91 Mbit/s
95th percentile per-packet one-way delay: 124.775 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 93.91 Mbit/s
95th percentile per-packet one-way delay: 124.775 ms
Loss rate: 1.89%
```
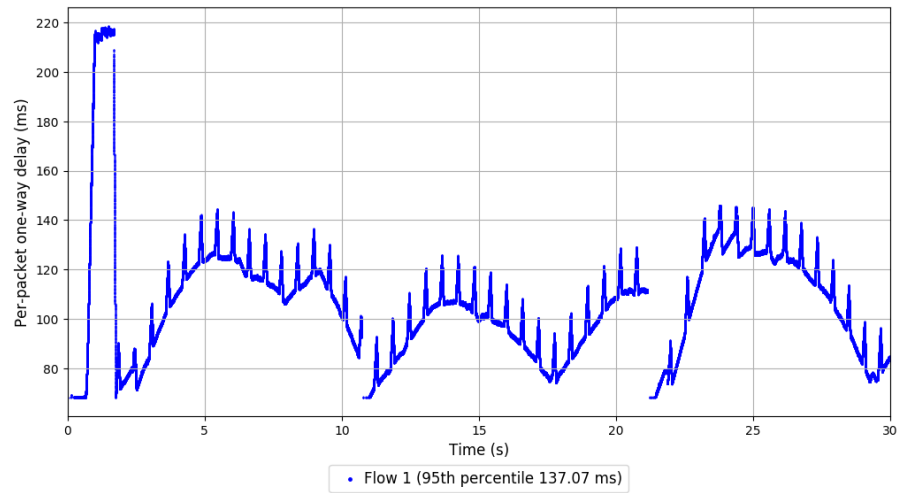
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-01-19 06:28:10
End at: 2019-01-19 06:28:40
Local clock offset: 0.739 ms
Remote clock offset: 0.307 ms


# Below is generated by plot.py at 2019-01-19 07:48:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.84 Mbit/s
95th percentile per-packet one-way delay: 140.930 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 93.84 Mbit/s
95th percentile per-packet one-way delay: 140.930 ms
Loss rate: 2.21%
```
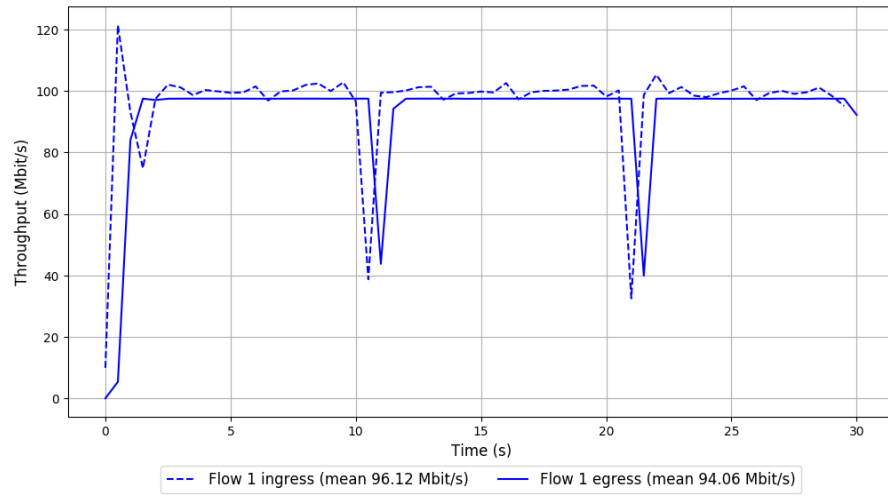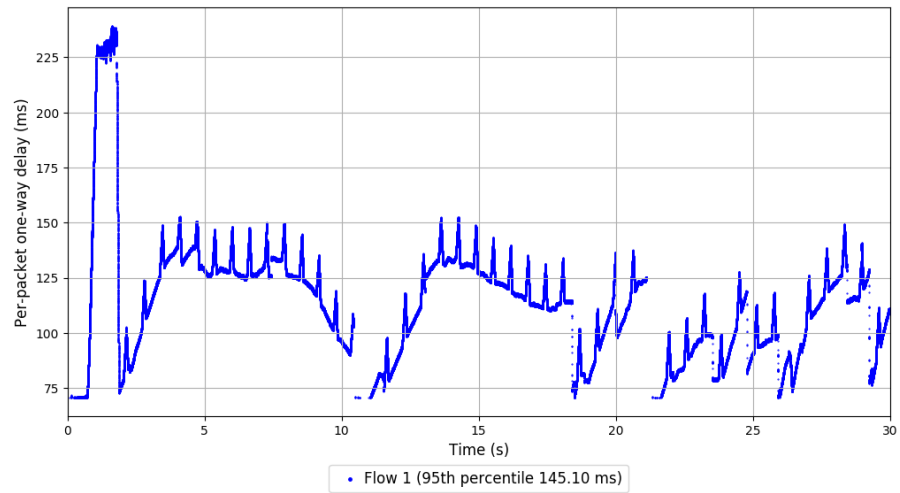
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 95.71 Mbit/s)   Flow 1 egress (mean 93.84 Mbit/s)

Flow 1 (95th percentile 140.93 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-01-19 06:58:33
End at: 2019-01-19 06:59:03
Local clock offset: 2.225 ms
Remote clock offset: -2.717 ms


# Below is generated by plot.py at 2019-01-19 07:48:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.06 Mbit/s
95th percentile per-packet one-way delay: 137.073 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 94.06 Mbit/s
95th percentile per-packet one-way delay: 137.073 ms
Loss rate: 2.39%
```
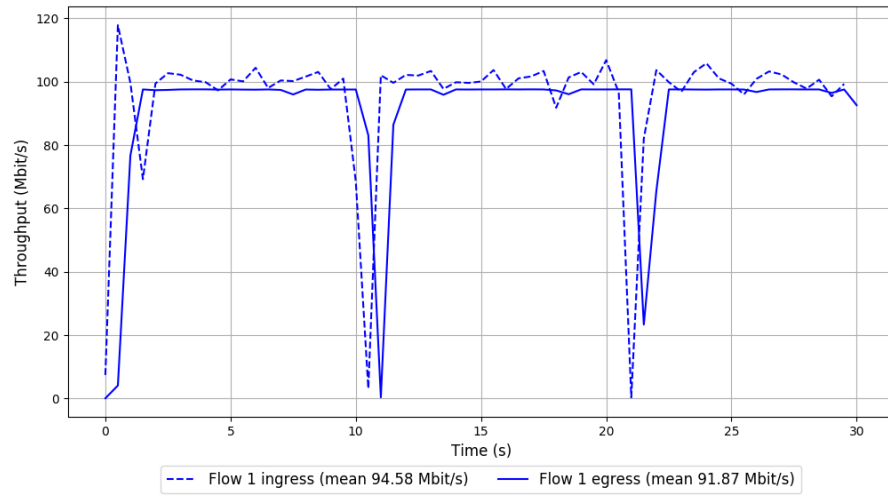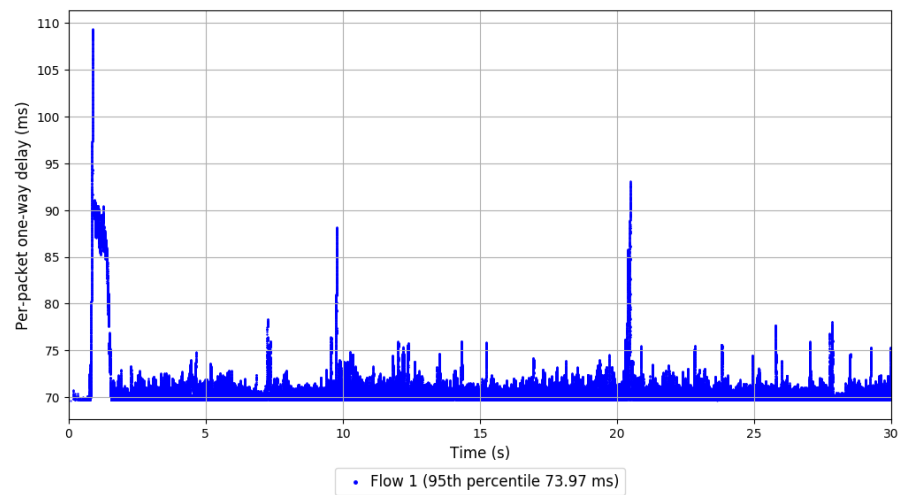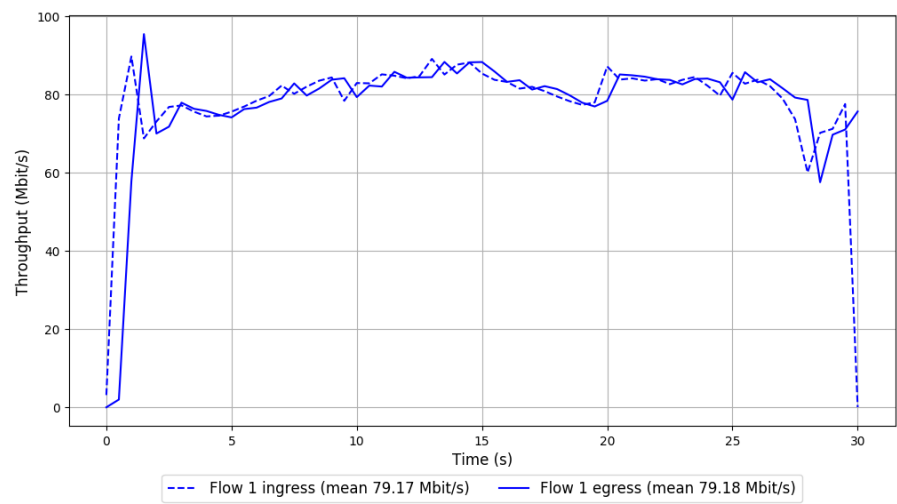
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 96.12 Mbit/s) --- Flow 1 egress (mean 94.06 Mbit/s)

• Flow 1 (95th percentile 137.07 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-01-19 07:27:03
End at: 2019-01-19 07:27:33
Local clock offset: 1.627 ms
Remote clock offset: -1.023 ms


# Below is generated by plot.py at 2019-01-19 07:48:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 145.102 ms
Loss rate: 3.13%
-- Flow 1:
Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 145.102 ms
Loss rate: 3.13%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 94.58 Mbit/s)   Flow 1 egress (mean 91.87 Mbit/s)
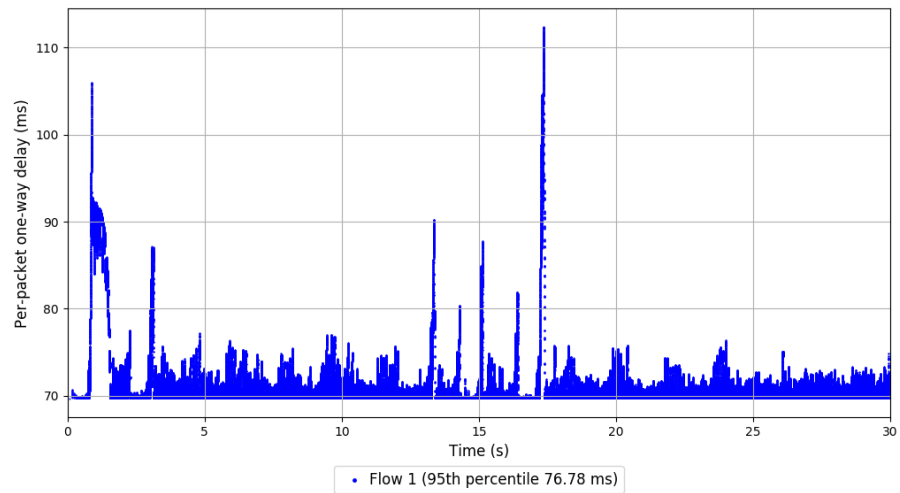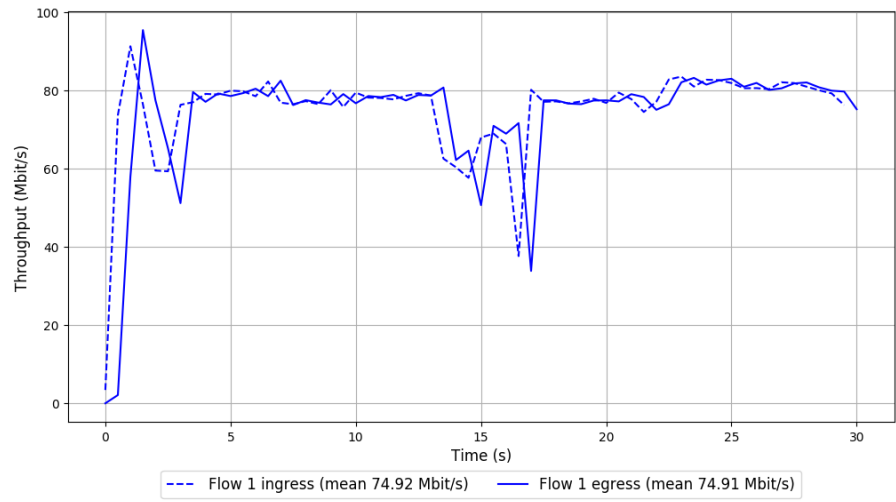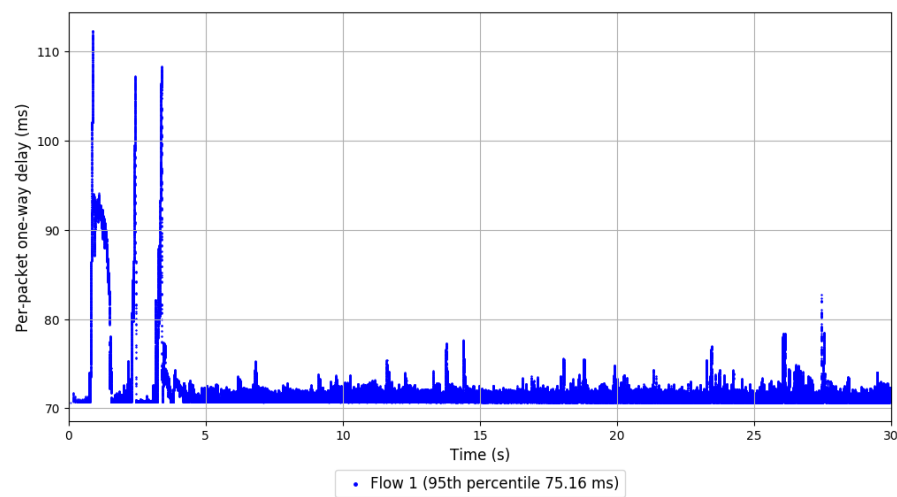

Flow 1 (95th percentile 145.10 ms)

```
Run 1: Statistics of Copa

Start at: 2019-01-19 05:42:34
End at: 2019-01-19 05:43:04
Local clock offset: 0.215 ms
Remote clock offset: 0.673 ms


# Below is generated by plot.py at 2019-01-19 07:48:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.18 Mbit/s
95th percentile per-packet one-way delay: 73.973 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 79.18 Mbit/s
95th percentile per-packet one-way delay: 73.973 ms
Loss rate: 0.25%
```
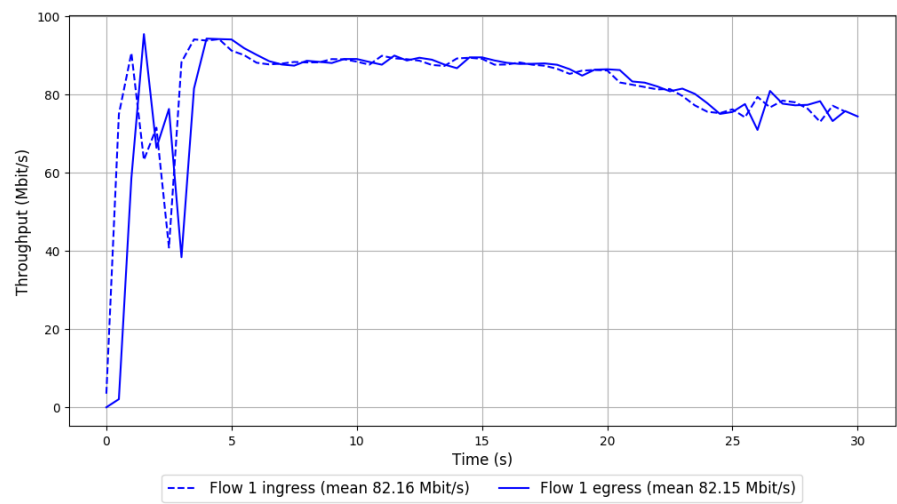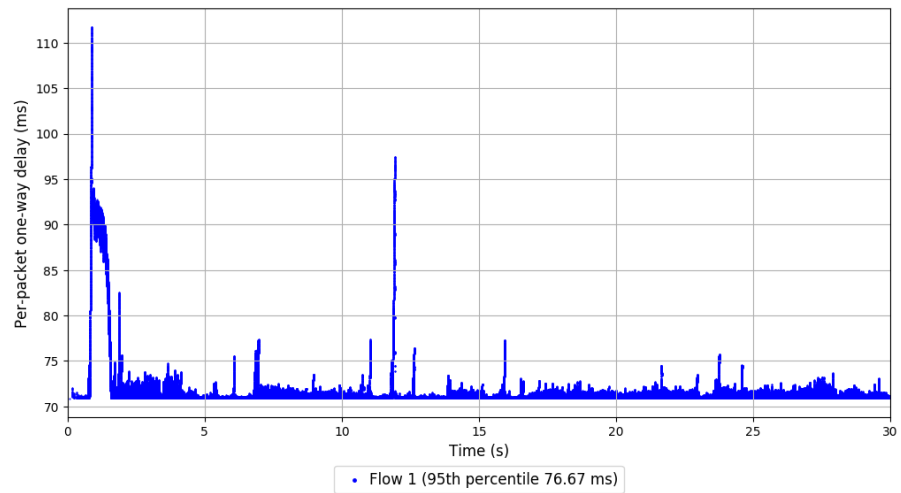
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 79.17 Mbit/s)   Flow 1 egress (mean 79.18 Mbit/s)

Flow 1 (95th percentile 73.97 ms)

```
Run 2: Statistics of Copa

Start at: 2019-01-19 06:12:59
End at: 2019-01-19 06:13:29
Local clock offset: -0.823 ms
Remote clock offset: 0.035 ms


# Below is generated by plot.py at 2019-01-19 07:48:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.91 Mbit/s
95th percentile per-packet one-way delay: 76.781 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 74.91 Mbit/s
95th percentile per-packet one-way delay: 76.781 ms
Loss rate: 0.27%
```
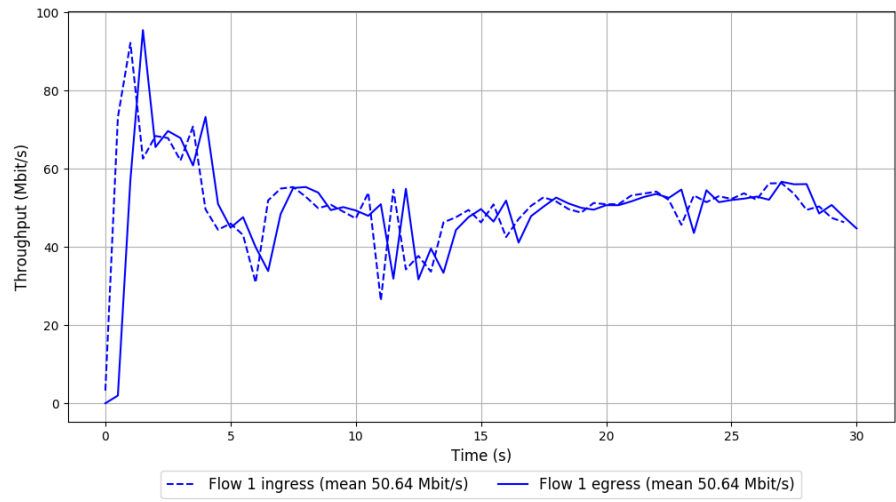
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 74.92 Mbit/s) — — — Flow 1 egress (mean 74.91 Mbit/s)

• Flow 1 (95th percentile 76.78 ms)

```
Run 3: Statistics of Copa

Start at: 2019-01-19 06:42:03
End at: 2019-01-19 06:42:33
Local clock offset: 2.14 ms
Remote clock offset: -0.177 ms


# Below is generated by plot.py at 2019-01-19 07:49:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.15 Mbit/s
95th percentile per-packet one-way delay: 75.161 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 82.15 Mbit/s
95th percentile per-packet one-way delay: 75.161 ms
Loss rate: 0.26%
```
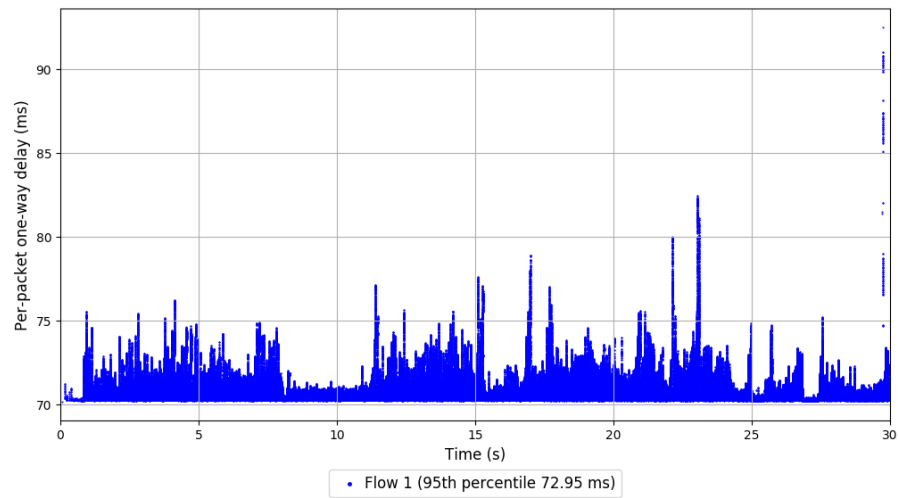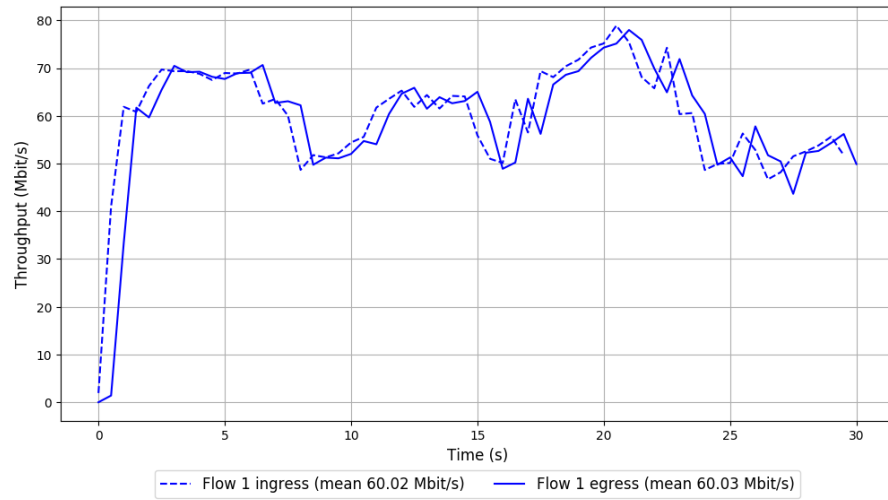
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 82.16 Mbit/s) --- Flow 1 egress (mean 82.15 Mbit/s)

• Flow 1 (95th percentile 75.16 ms)

```
Run 4: Statistics of Copa

Start at: 2019-01-19 07:11:46
End at: 2019-01-19 07:12:16
Local clock offset: 1.895 ms
Remote clock offset: -0.727 ms


# Below is generated by plot.py at 2019-01-19 07:49:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.64 Mbit/s
95th percentile per-packet one-way delay: 76.675 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 50.64 Mbit/s
95th percentile per-packet one-way delay: 76.675 ms
Loss rate: 0.26%
```
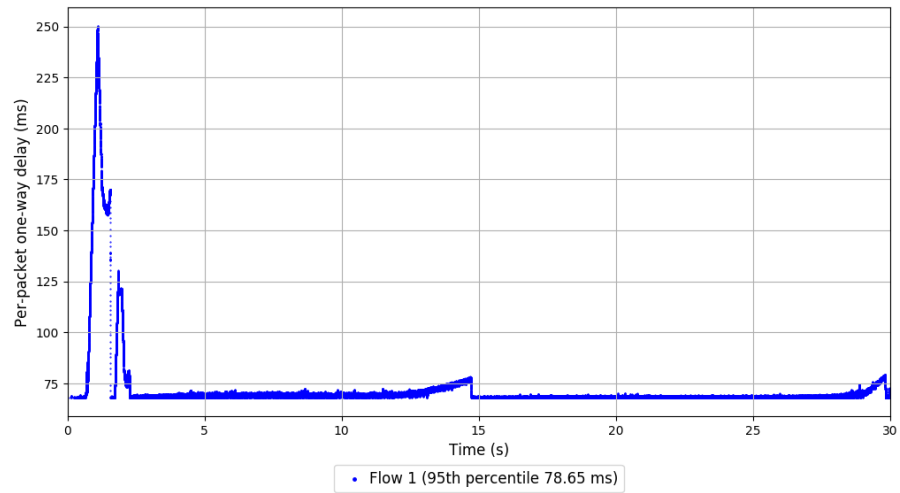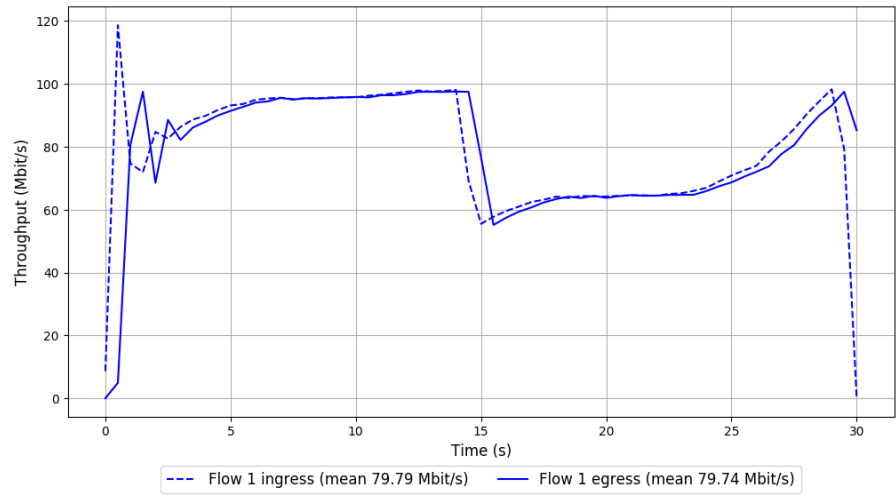
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-01-19 07:39:47
End at: 2019-01-19 07:40:17
Local clock offset: 0.939 ms
Remote clock offset: -1.09 ms


# Below is generated by plot.py at 2019-01-19 07:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.03 Mbit/s
95th percentile per-packet one-way delay: 72.952 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 60.03 Mbit/s
95th percentile per-packet one-way delay: 72.952 ms
Loss rate: 0.25%
```
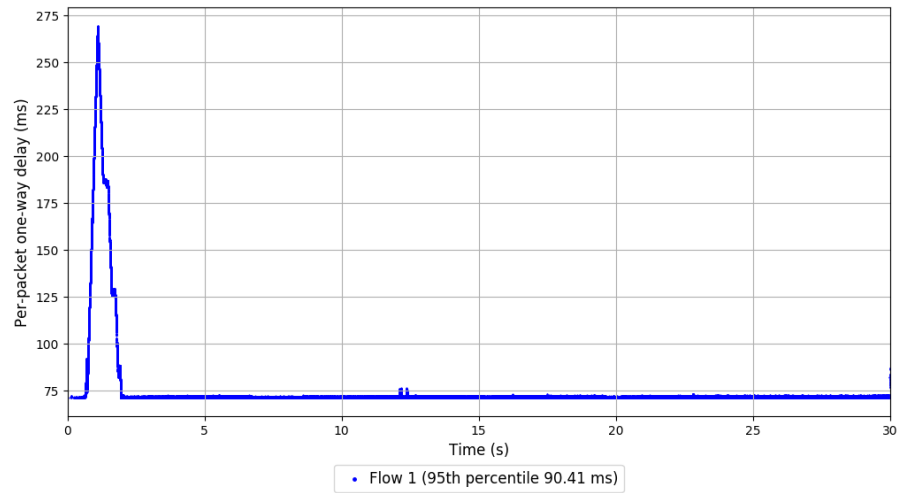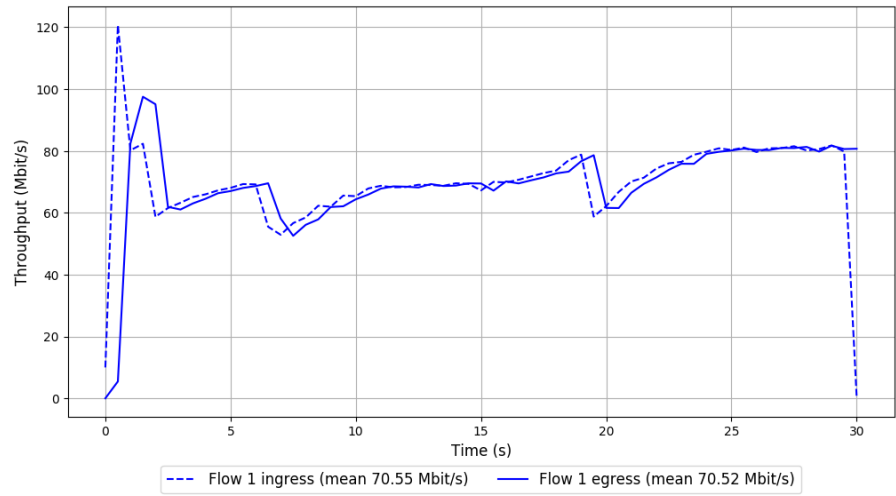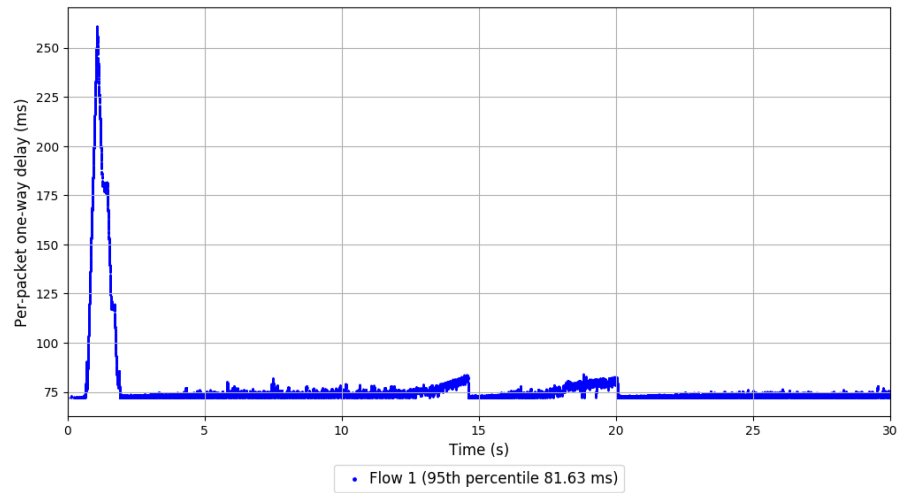
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-01-19 05:18:42
End at: 2019-01-19 05:19:12
Local clock offset: -2.031 ms
Remote clock offset: 3.18 ms


# Below is generated by plot.py at 2019-01-19 07:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 78.646 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 78.646 ms
Loss rate: 0.33%
```
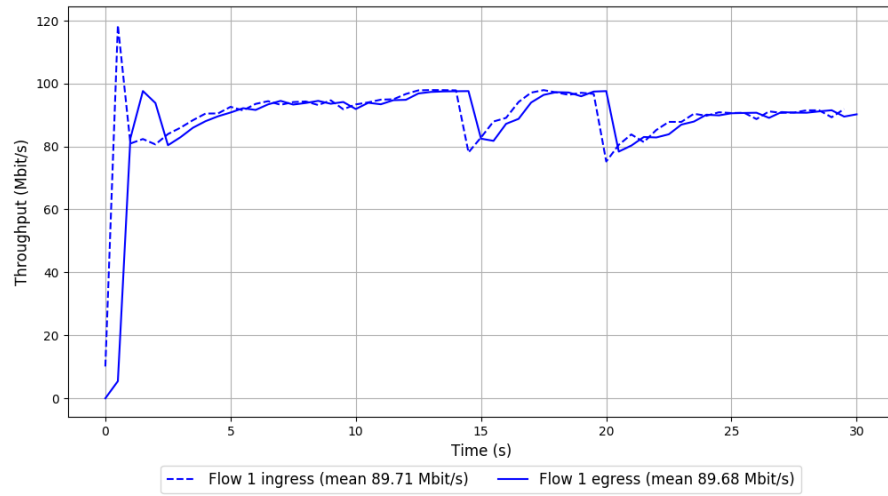
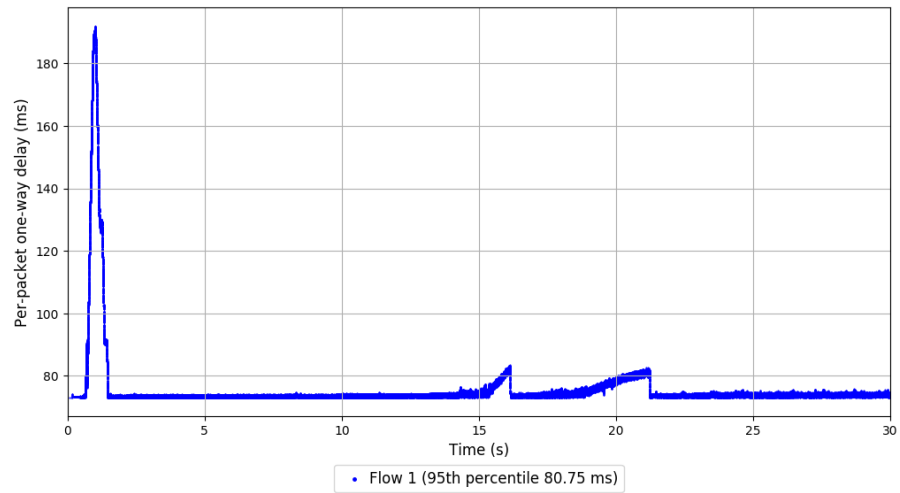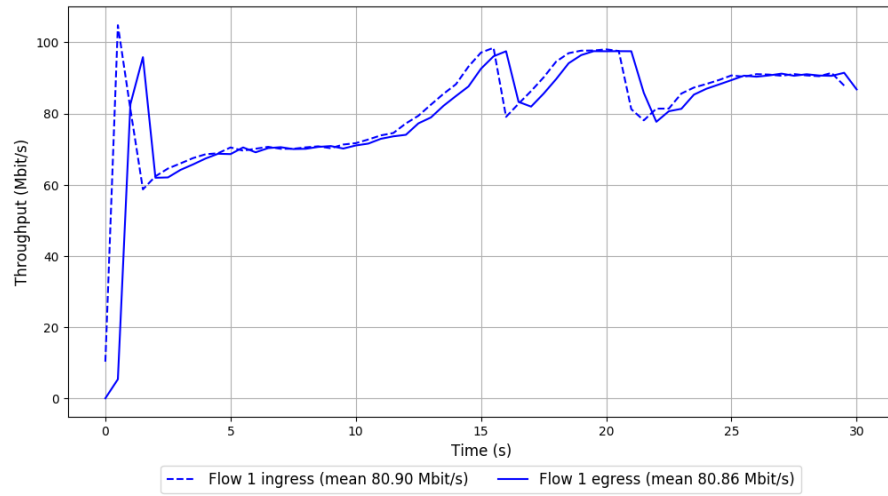Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-01-19 05:49:52
End at: 2019-01-19 05:50:22
Local clock offset: 1.954 ms
Remote clock offset: 1.773 ms


# Below is generated by plot.py at 2019-01-19 07:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.52 Mbit/s
95th percentile per-packet one-way delay: 90.407 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 70.52 Mbit/s
95th percentile per-packet one-way delay: 90.407 ms
Loss rate: 0.29%
```

Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2019-01-19 06:19:53
End at: 2019-01-19 06:20:23
Local clock offset: 2.342 ms
Remote clock offset: -0.209 ms


# Below is generated by plot.py at 2019-01-19 07:49:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.68 Mbit/s
95th percentile per-packet one-way delay: 81.626 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 89.68 Mbit/s
95th percentile per-packet one-way delay: 81.626 ms
Loss rate: 0.30%
```
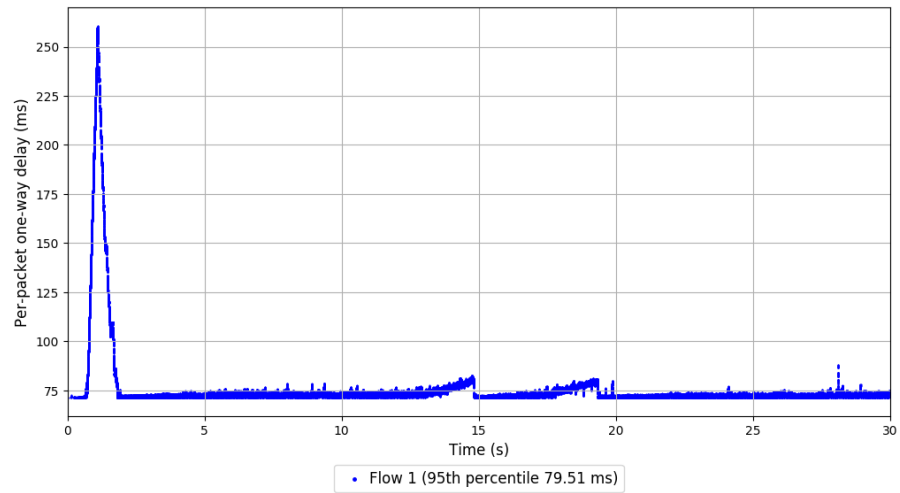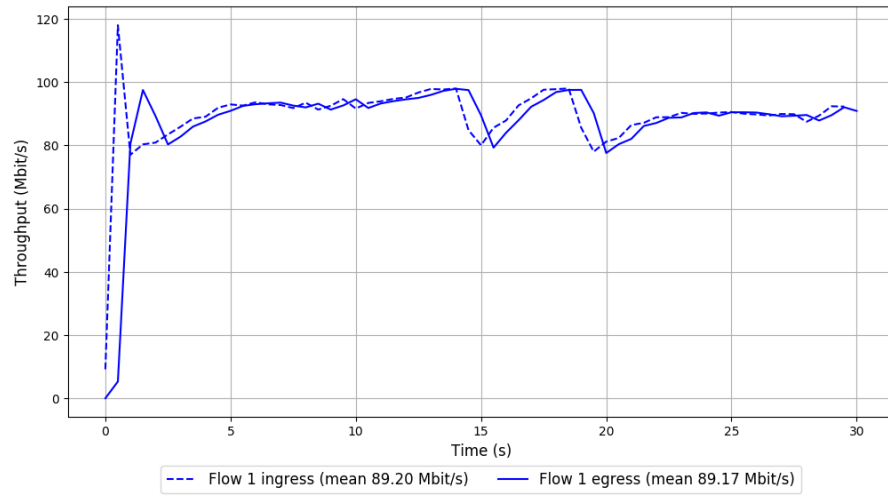
Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2019-01-19 06:49:15
End at: 2019-01-19 06:49:45
Local clock offset: 4.057 ms
Remote clock offset: -0.791 ms


# Below is generated by plot.py at 2019-01-19 07:49:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.86 Mbit/s
95th percentile per-packet one-way delay: 80.752 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 80.86 Mbit/s
95th percentile per-packet one-way delay: 80.752 ms
Loss rate: 0.31%
```
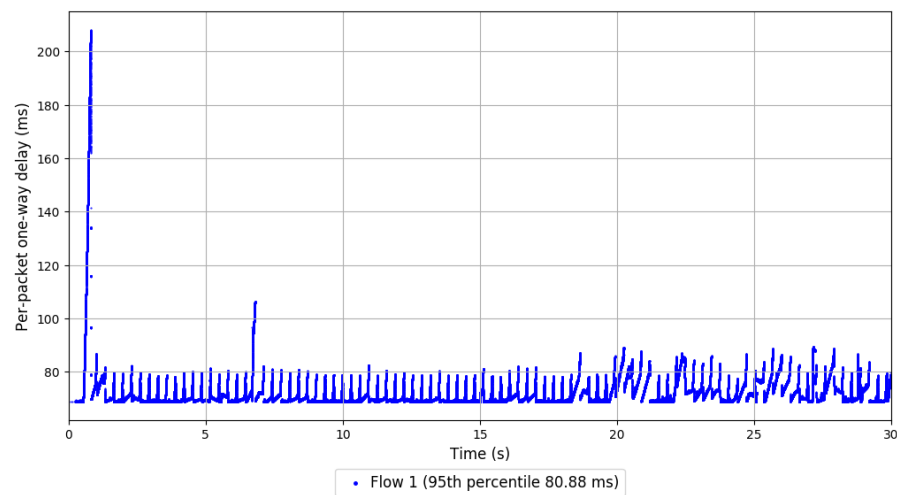
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 80.90 Mbit/s)   Flow 1 egress (mean 80.86 Mbit/s)

Flow 1 (95th percentile 80.75 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-01-19 07:18:34
End at: 2019-01-19 07:19:04
Local clock offset: 2.827 ms
Remote clock offset: -1.037 ms


# Below is generated by plot.py at 2019-01-19 07:49:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.17 Mbit/s
95th percentile per-packet one-way delay: 79.506 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 89.17 Mbit/s
95th percentile per-packet one-way delay: 79.506 ms
Loss rate: 0.29%
```
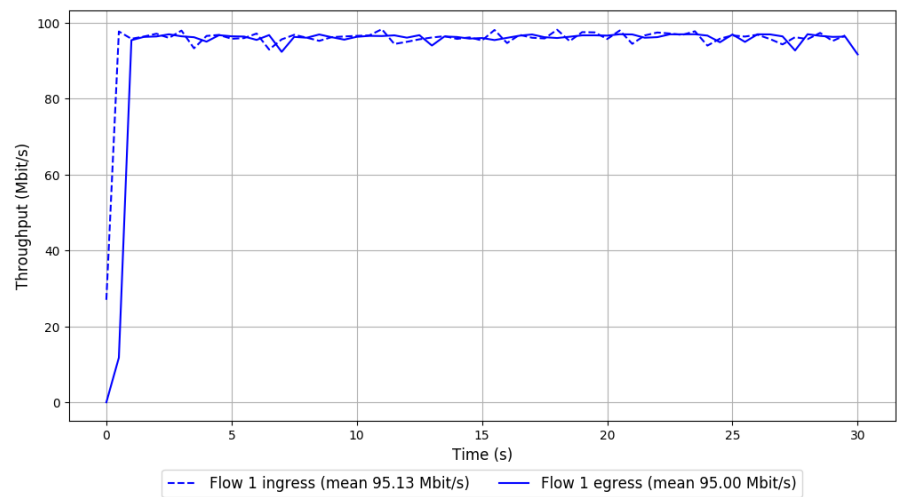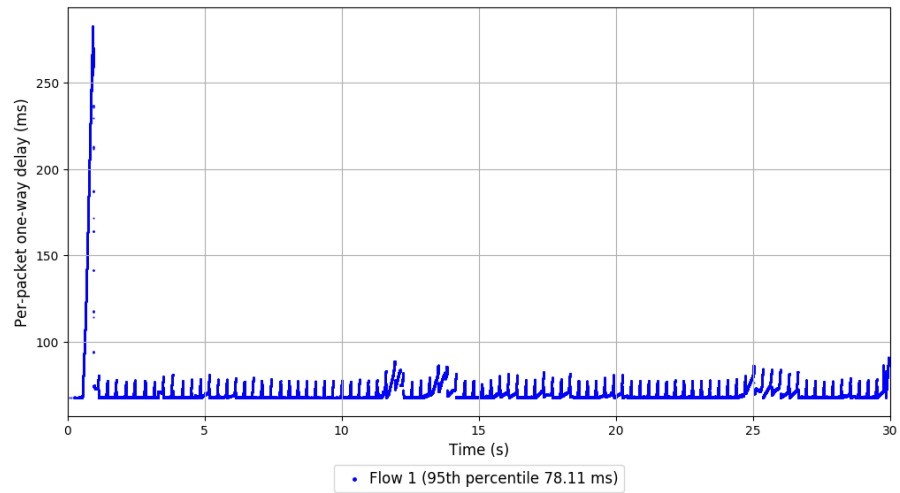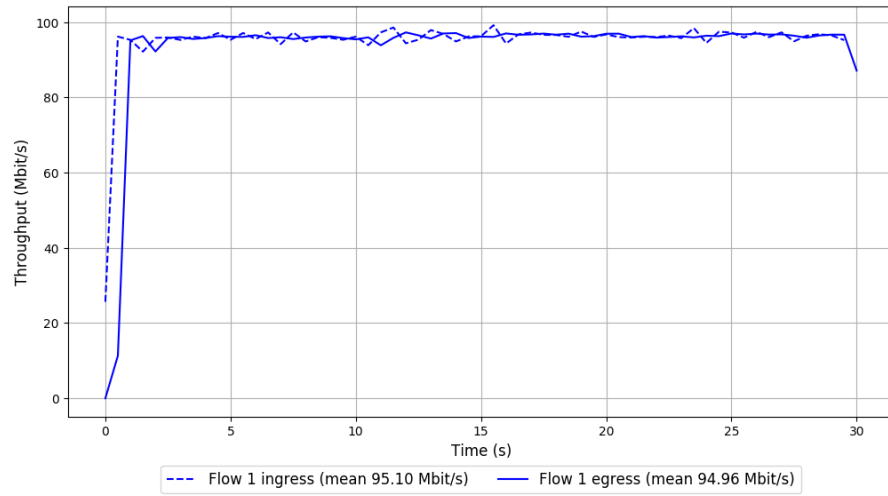
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 89.20 Mbit/s)　　Flow 1 egress (mean 89.17 Mbit/s)

Flow 1 (95th percentile 79.51 ms)

```
Run 1: Statistics of FillP

Start at: 2019-01-19 05:32:44
End at: 2019-01-19 05:33:14
Local clock offset: 1.787 ms
Remote clock offset: 0.643 ms


# Below is generated by plot.py at 2019-01-19 07:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 80.875 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 80.875 ms
Loss rate: 0.39%
```

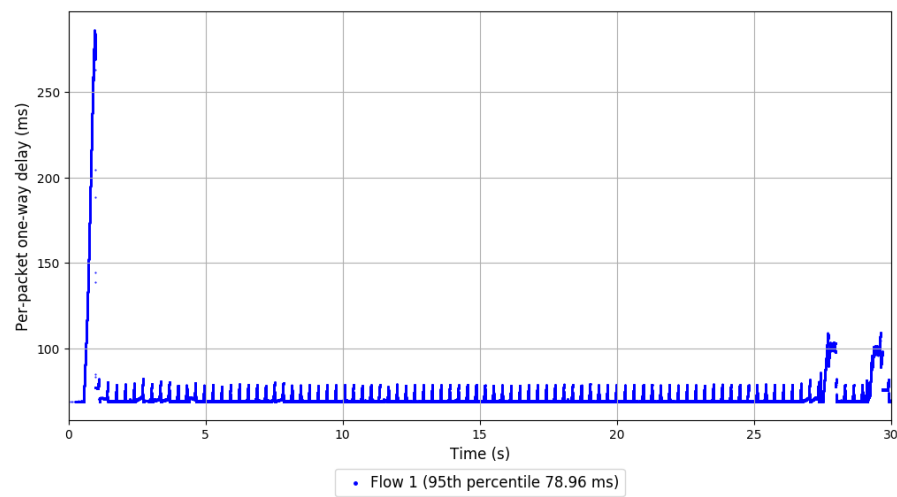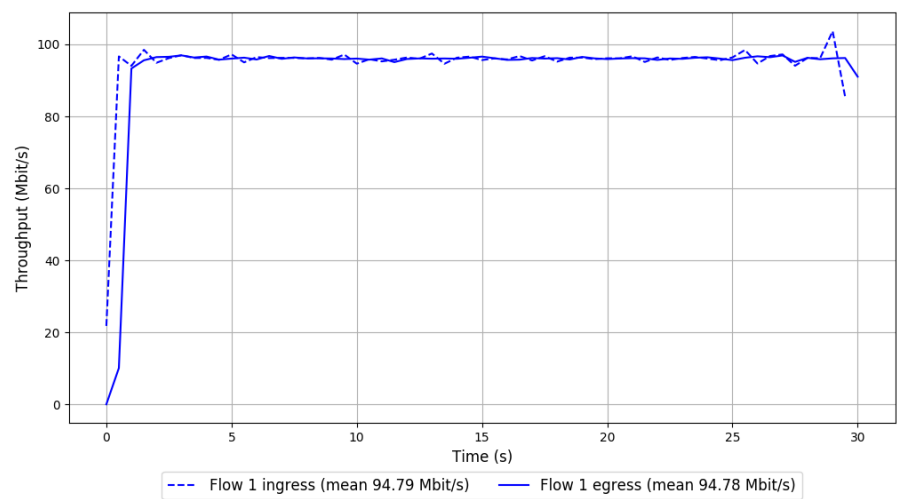Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2019-01-19 06:03:26
End at: 2019-01-19 06:03:56
Local clock offset: 0.813 ms
Remote clock offset: 1.031 ms


# Below is generated by plot.py at 2019-01-19 07:50:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.96 Mbit/s
95th percentile per-packet one-way delay: 78.112 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 94.96 Mbit/s
95th percentile per-packet one-way delay: 78.112 ms
Loss rate: 0.39%
```
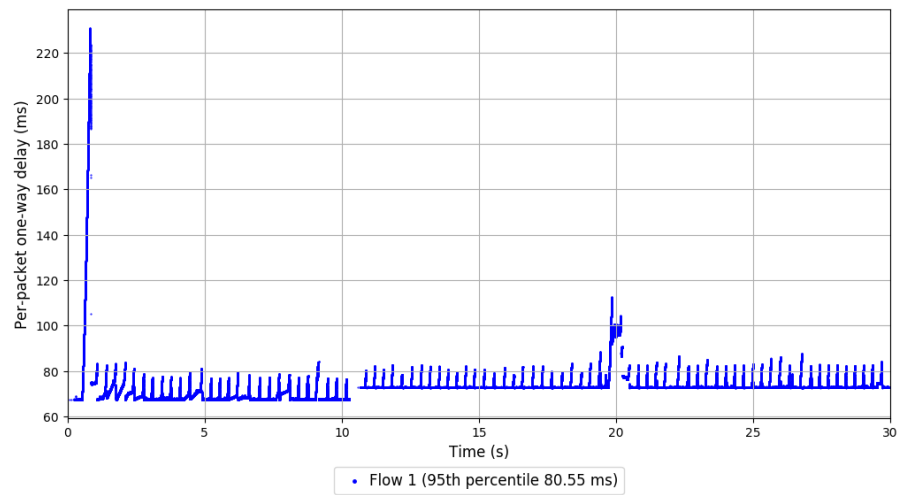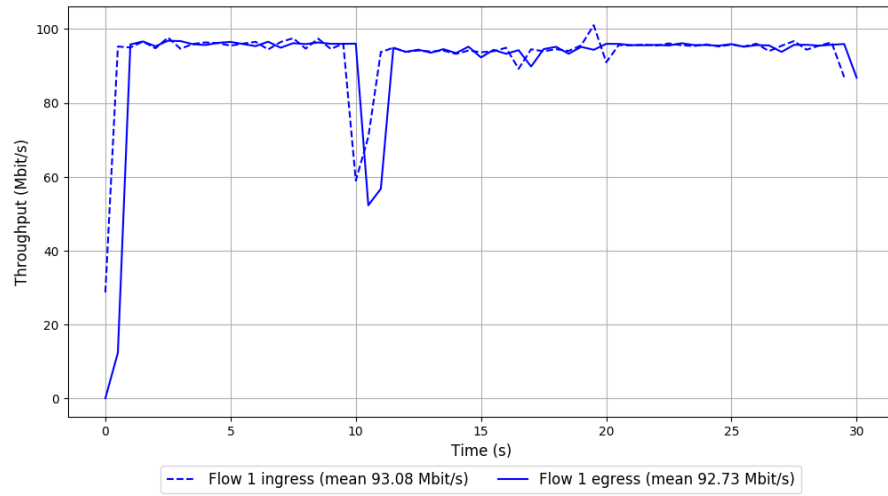
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-01-19 06:32:19
End at: 2019-01-19 06:32:49
Local clock offset: 0.459 ms
Remote clock offset: -0.134 ms


# Below is generated by plot.py at 2019-01-19 07:50:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.78 Mbit/s
95th percentile per-packet one-way delay: 78.961 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 94.78 Mbit/s
95th percentile per-packet one-way delay: 78.961 ms
Loss rate: 0.27%
```
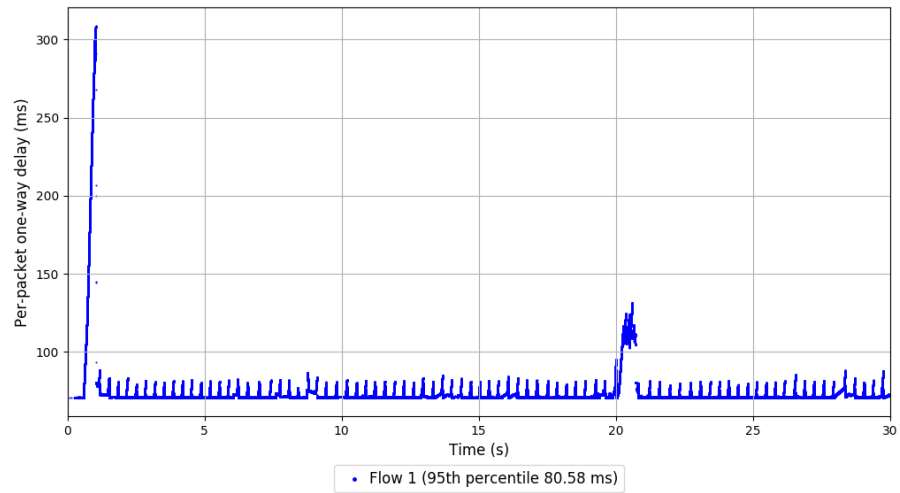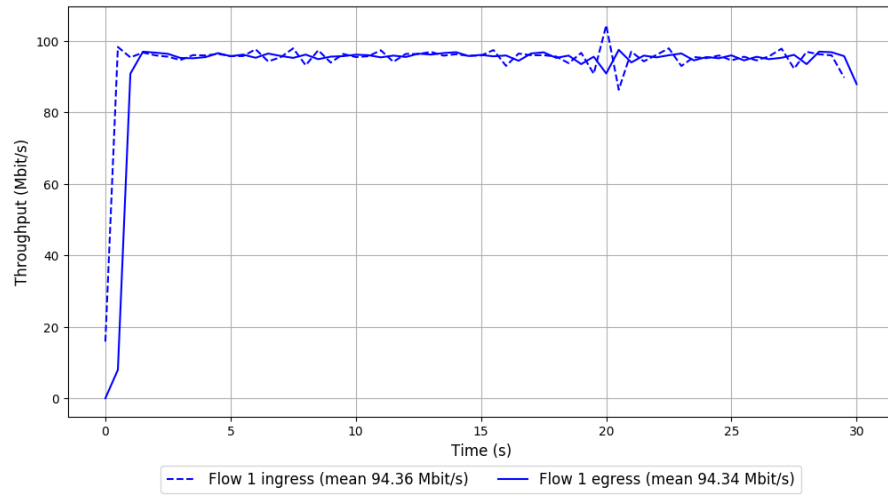
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-01-19 07:02:48
End at: 2019-01-19 07:03:18
Local clock offset: 1.412 ms
Remote clock offset: -2.897 ms


# Below is generated by plot.py at 2019-01-19 07:50:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.73 Mbit/s
95th percentile per-packet one-way delay: 80.550 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 92.73 Mbit/s
95th percentile per-packet one-way delay: 80.550 ms
Loss rate: 0.62%
```

Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-01-19 07:30:53
End at: 2019-01-19 07:31:23
Local clock offset: 1.588 ms
Remote clock offset: -0.625 ms


# Below is generated by plot.py at 2019-01-19 07:50:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.34 Mbit/s
95th percentile per-packet one-way delay: 80.582 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 94.34 Mbit/s
95th percentile per-packet one-way delay: 80.582 ms
Loss rate: 0.28%
```
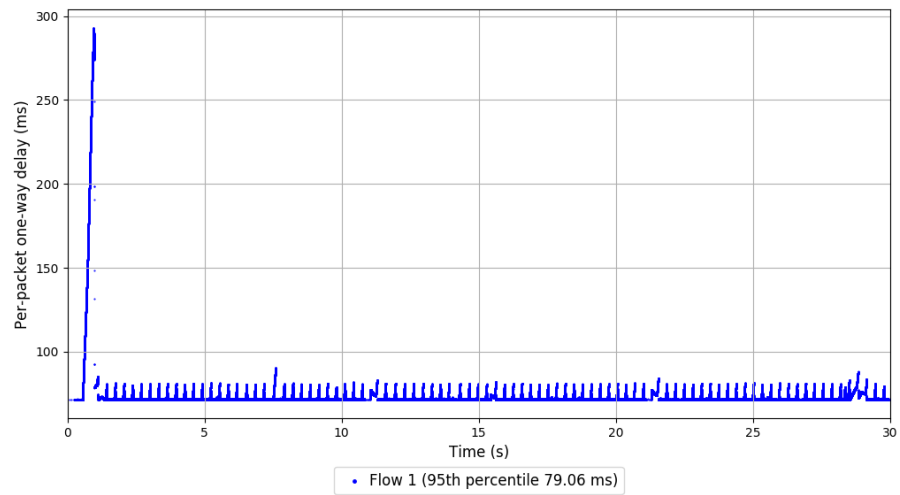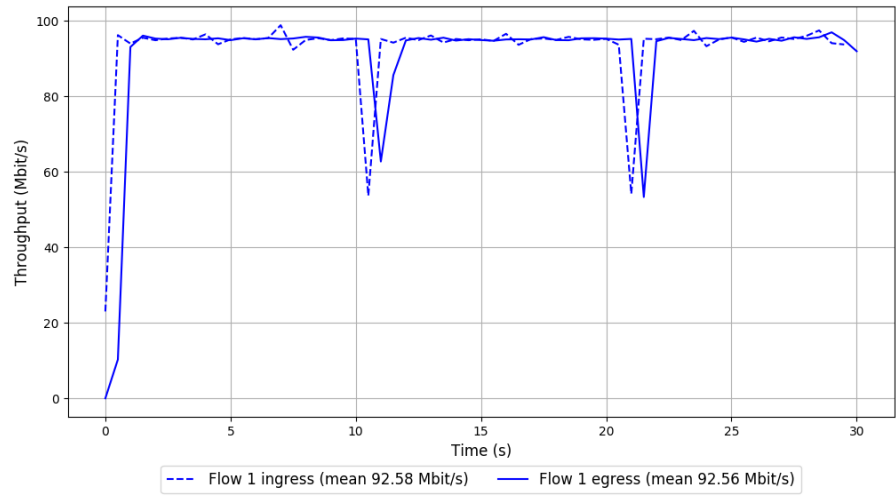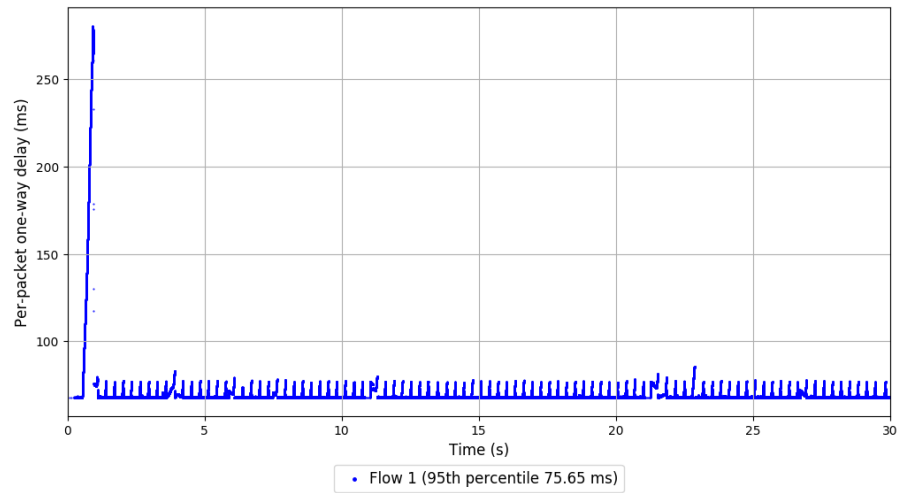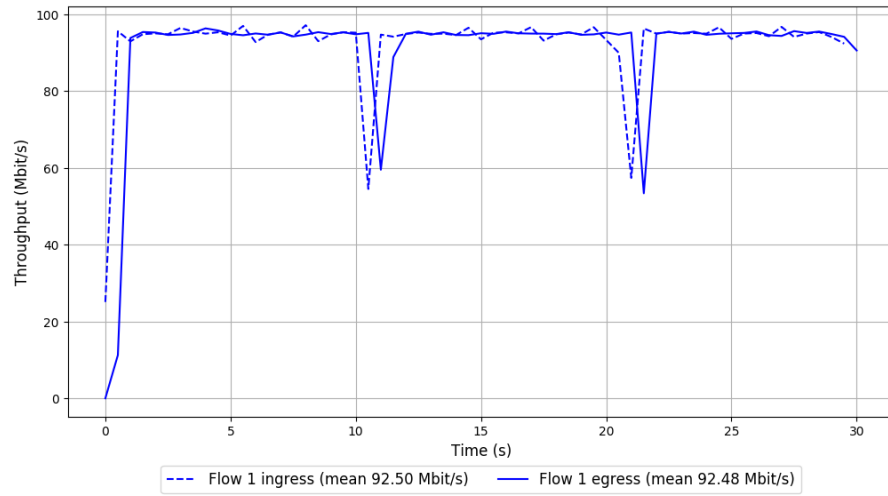
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 94.36 Mbit/s)   Flow 1 egress (mean 94.34 Mbit/s)

Flow 1 (95th percentile 80.58 ms)

44

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-01-19 05:46:51
End at: 2019-01-19 05:47:21
Local clock offset: 0.843 ms
Remote clock offset: 0.644 ms


# Below is generated by plot.py at 2019-01-19 07:50:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.56 Mbit/s
95th percentile per-packet one-way delay: 79.055 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 92.56 Mbit/s
95th percentile per-packet one-way delay: 79.055 ms
Loss rate: 0.28%
```
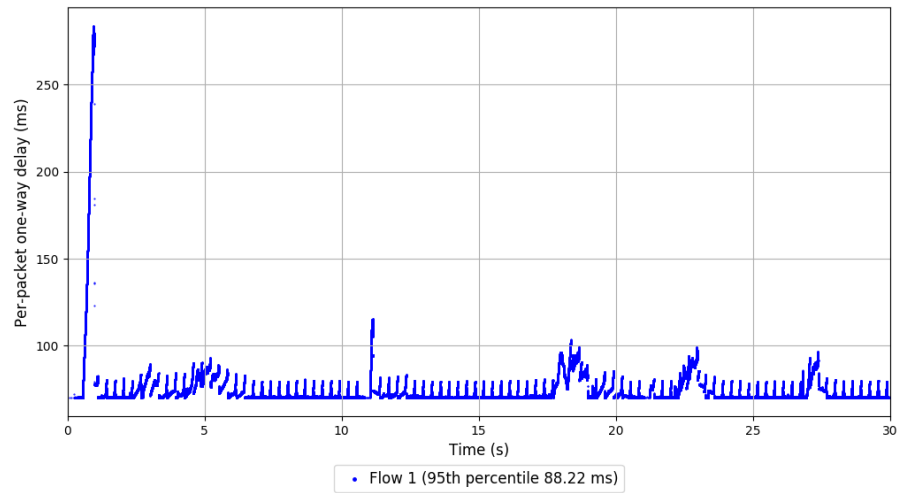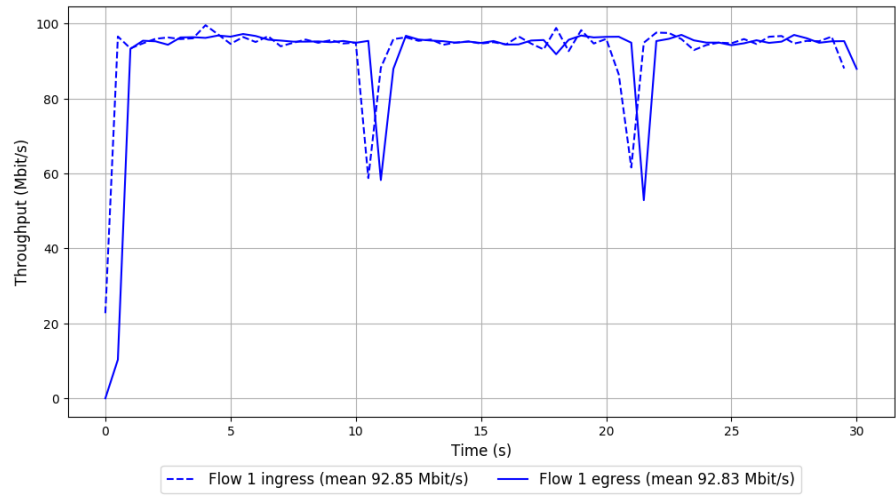
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-01-19 06:17:05
End at: 2019-01-19 06:17:35
Local clock offset: -1.203 ms
Remote clock offset: 0.796 ms


# Below is generated by plot.py at 2019-01-19 07:51:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 75.649 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 75.649 ms
Loss rate: 0.27%
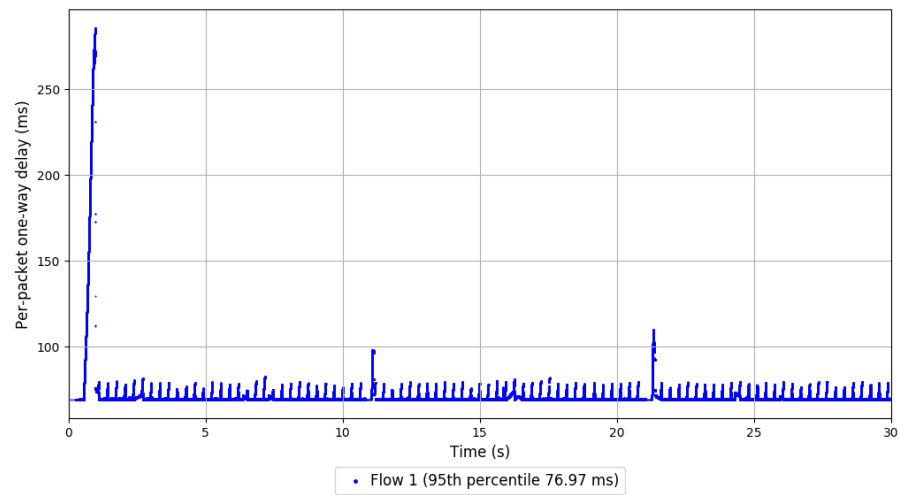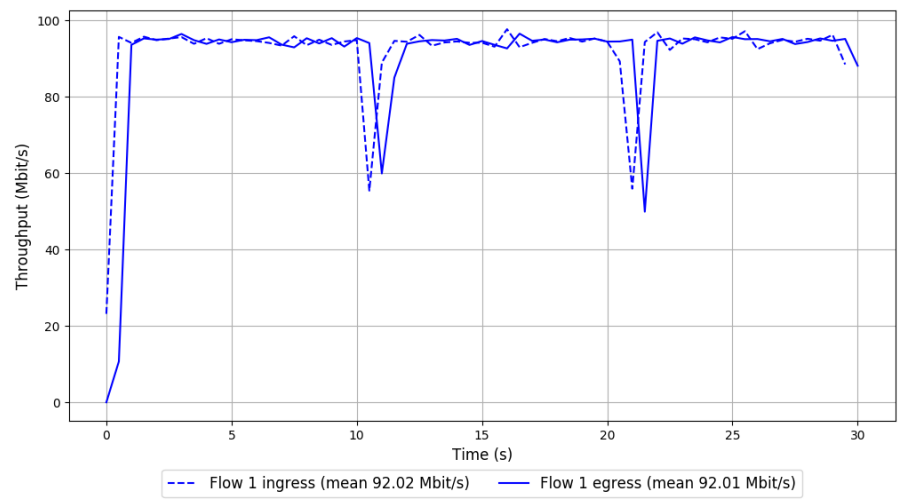```

Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-01-19 06:46:20
End at: 2019-01-19 06:46:50
Local clock offset: 2.61 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2019-01-19 07:51:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.83 Mbit/s
95th percentile per-packet one-way delay: 88.218 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 92.83 Mbit/s
95th percentile per-packet one-way delay: 88.218 ms
Loss rate: 0.28%
```

Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 92.85 Mbit/s)   —— Flow 1 egress (mean 92.83 Mbit/s)

• Flow 1 (95th percentile 88.22 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-01-19 07:16:03
End at: 2019-01-19 07:16:33
Local clock offset: 0.627 ms
Remote clock offset: -1.273 ms


# Below is generated by plot.py at 2019-01-19 07:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.01 Mbit/s
95th percentile per-packet one-way delay: 76.973 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 92.01 Mbit/s
95th percentile per-packet one-way delay: 76.973 ms
Loss rate: 0.27%
```
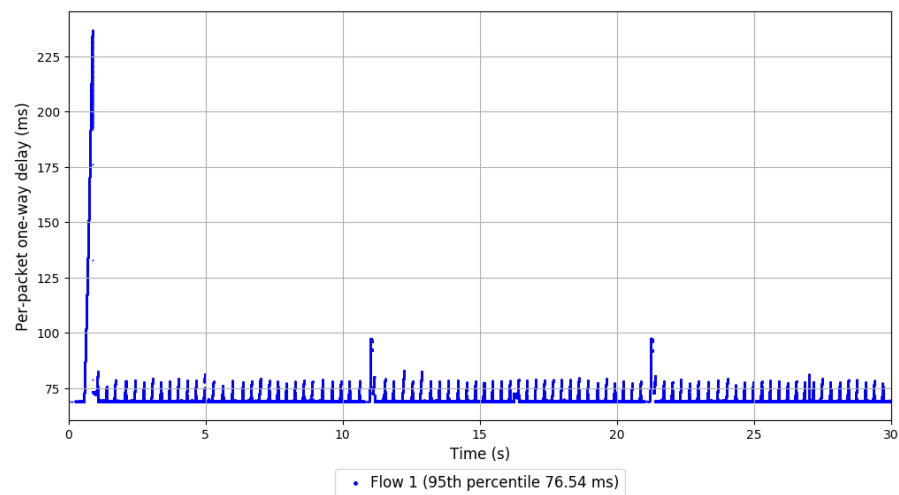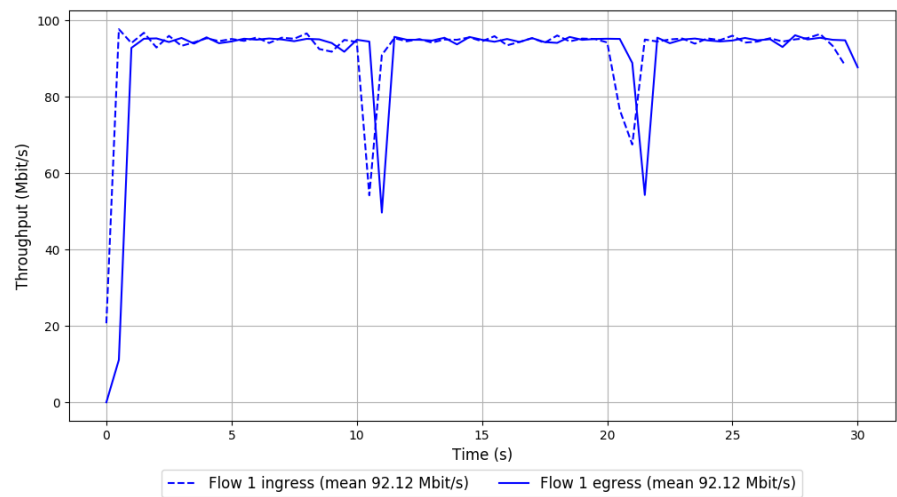
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 92.02 Mbit/s) --- Flow 1 egress (mean 92.01 Mbit/s)

Flow 1 (95th percentile 76.97 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-01-19 07:43:23
End at: 2019-01-19 07:43:53
Local clock offset: 1.525 ms
Remote clock offset: -1.17 ms


# Below is generated by plot.py at 2019-01-19 07:51:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.12 Mbit/s
95th percentile per-packet one-way delay: 76.538 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 92.12 Mbit/s
95th percentile per-packet one-way delay: 76.538 ms
Loss rate: 0.25%
```
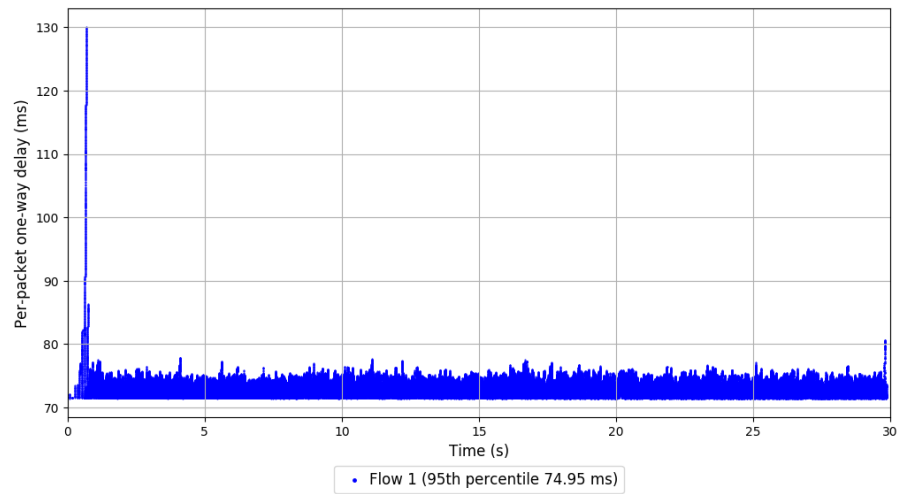
Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-01-19 05:23:55
End at: 2019-01-19 05:24:25
Local clock offset: -0.407 ms
Remote clock offset: 3.238 ms


# Below is generated by plot.py at 2019-01-19 07:51:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.25 Mbit/s
95th percentile per-packet one-way delay: 74.947 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 88.25 Mbit/s
95th percentile per-packet one-way delay: 74.947 ms
Loss rate: 0.29%
```
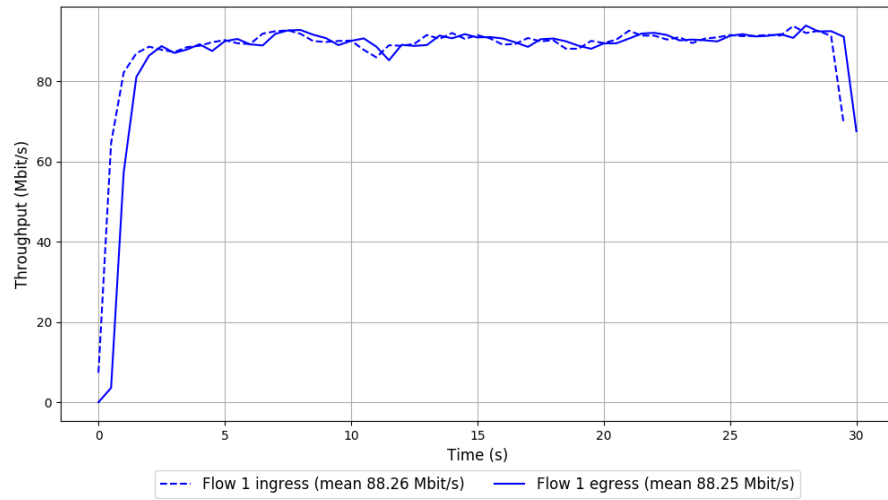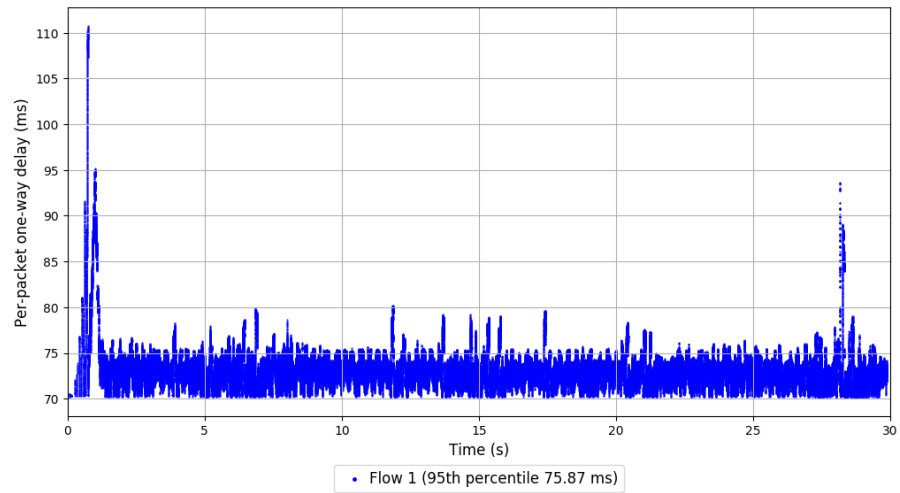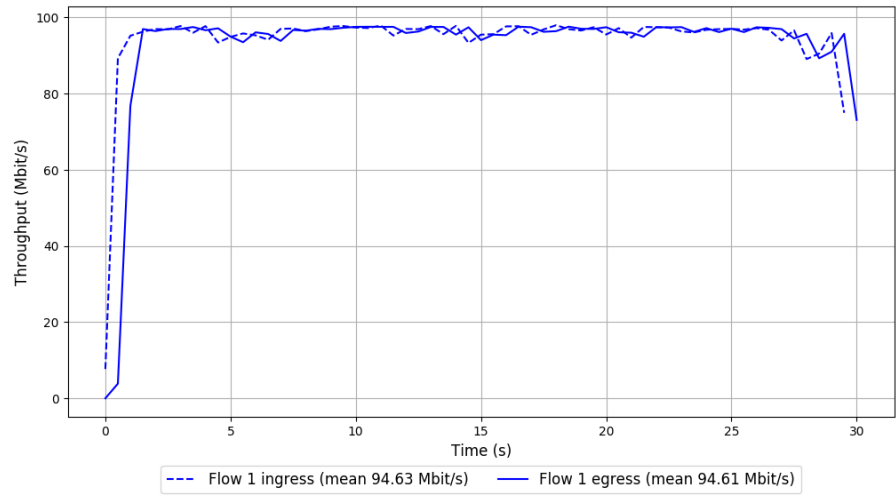
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 88.26 Mbit/s) ----- Flow 1 egress (mean 88.25 Mbit/s)

Flow 1 (95th percentile 74.95 ms)

56

```
Run 2: Statistics of Indigo

Start at: 2019-01-19 05:54:45
End at: 2019-01-19 05:55:15
Local clock offset: -0.62 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2019-01-19 07:51:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.61 Mbit/s
95th percentile per-packet one-way delay: 75.866 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 94.61 Mbit/s
95th percentile per-packet one-way delay: 75.866 ms
Loss rate: 0.28%
```
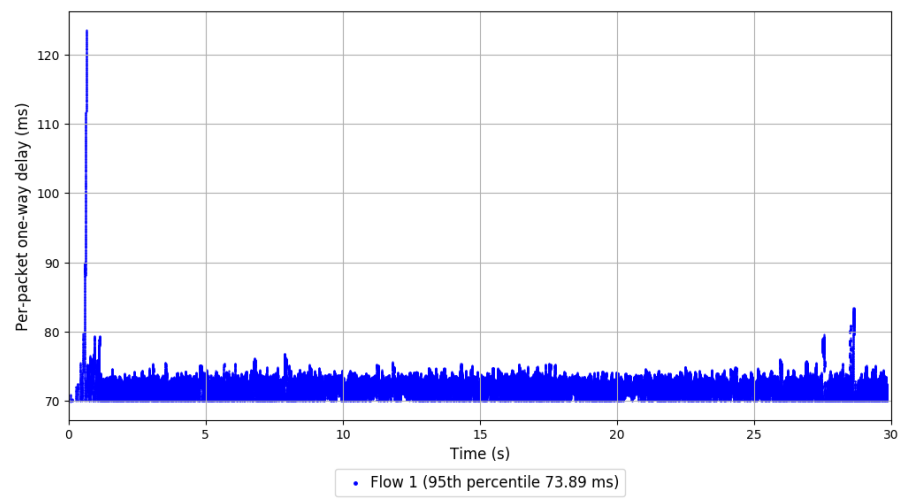
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-01-19 06:23:51
End at: 2019-01-19 06:24:21
Local clock offset: 0.53 ms
Remote clock offset: 0.163 ms


# Below is generated by plot.py at 2019-01-19 07:51:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.27 Mbit/s
95th percentile per-packet one-way delay: 73.888 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 93.27 Mbit/s
95th percentile per-packet one-way delay: 73.888 ms
Loss rate: 0.27%
```
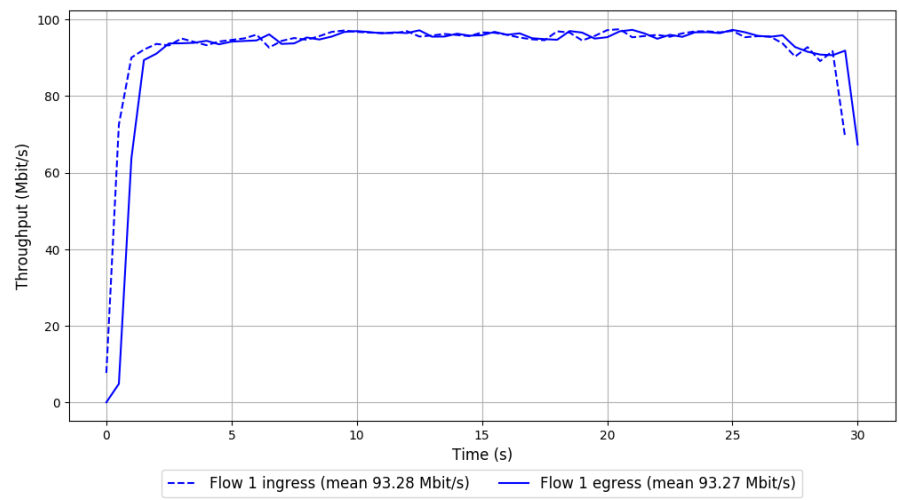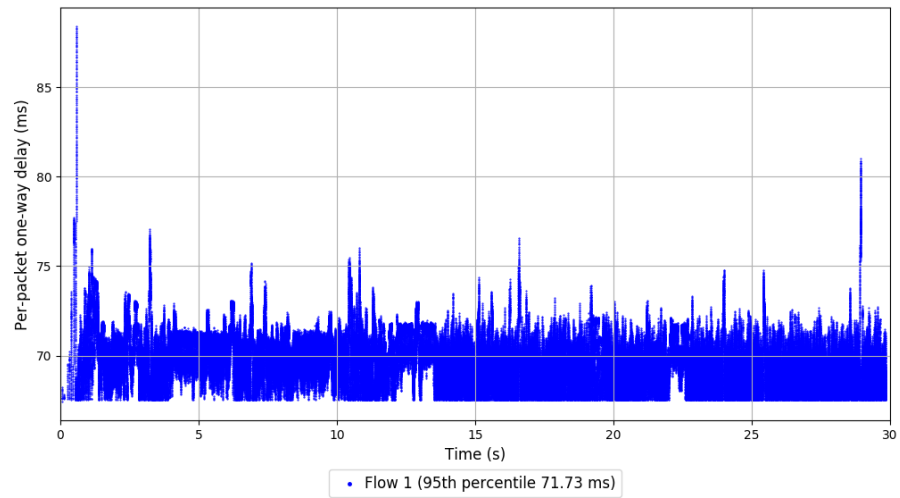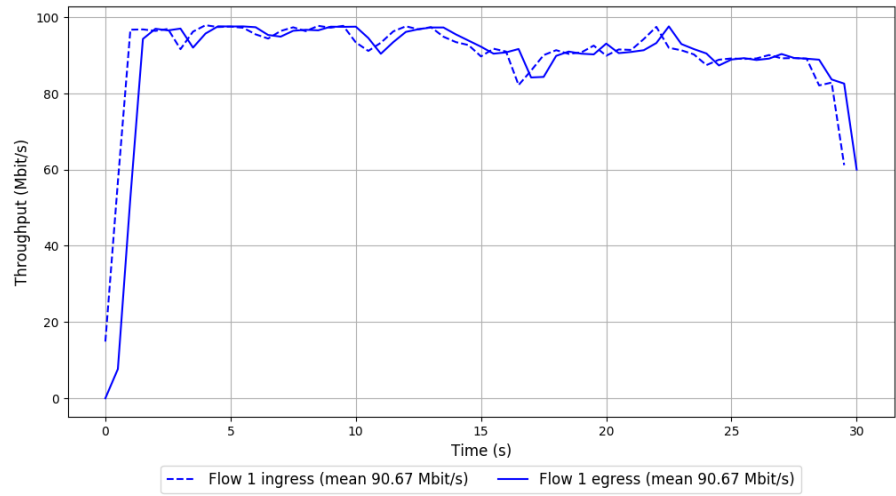
Run 3: Report of Indigo — Data Link

Run 4: Statistics of Indigo

Start at: 2019-01-19 06:53:41
End at: 2019-01-19 06:54:11
Local clock offset: 1.085 ms
Remote clock offset: -3.115 ms

Below is generated by plot.py at 2019-01-19 07:51:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.67 Mbit/s
95th percentile per-packet one-way delay: 71.733 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 90.67 Mbit/s
95th percentile per-packet one-way delay: 71.733 ms
Loss rate: 0.23%

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-01-19 07:22:37
End at: 2019-01-19 07:23:07
Local clock offset: 0.259 ms
Remote clock offset: -1.5 ms


# Below is generated by plot.py at 2019-01-19 07:52:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.48 Mbit/s
95th percentile per-packet one-way delay: 74.268 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 88.48 Mbit/s
95th percentile per-packet one-way delay: 74.268 ms
Loss rate: 0.28%
```
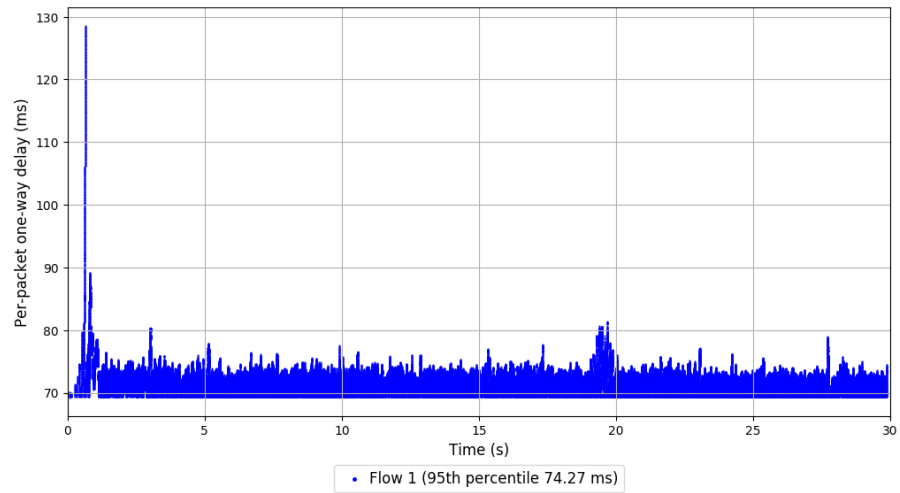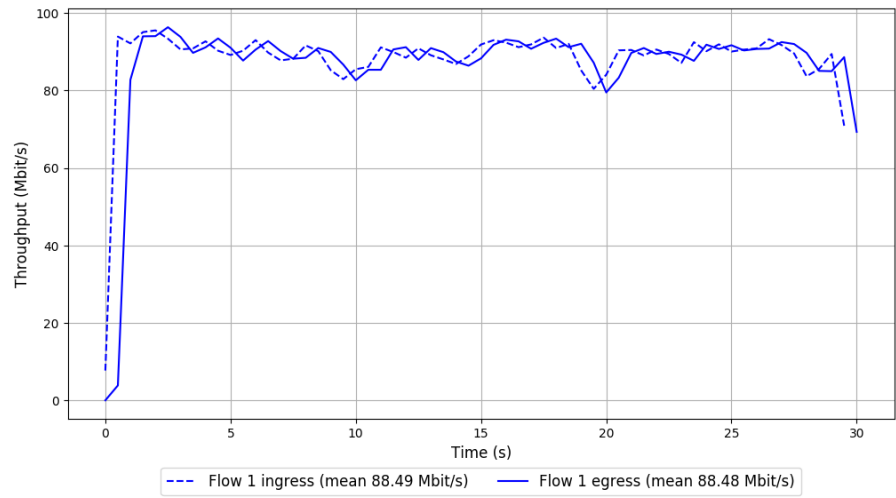
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-19 05:48:14
End at: 2019-01-19 05:48:44
Local clock offset: 0.084 ms
Remote clock offset: 1.655 ms


# Below is generated by plot.py at 2019-01-19 07:52:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.81 Mbit/s
95th percentile per-packet one-way delay: 75.173 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 93.81 Mbit/s
95th percentile per-packet one-way delay: 75.173 ms
Loss rate: 0.29%
```
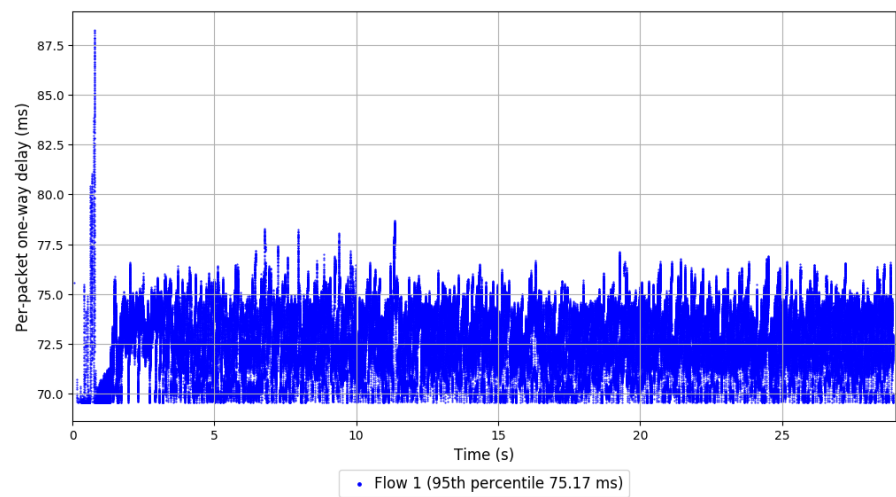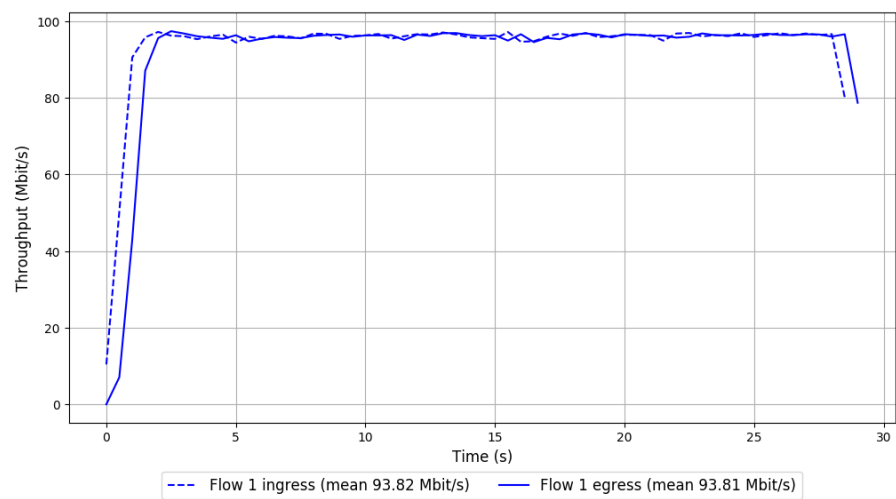
Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-19 06:18:27
End at: 2019-01-19 06:18:57
Local clock offset: 0.062 ms
Remote clock offset: 0.22 ms


# Below is generated by plot.py at 2019-01-19 07:52:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.88 Mbit/s
95th percentile per-packet one-way delay: 75.295 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 93.88 Mbit/s
95th percentile per-packet one-way delay: 75.295 ms
Loss rate: 0.28%
```
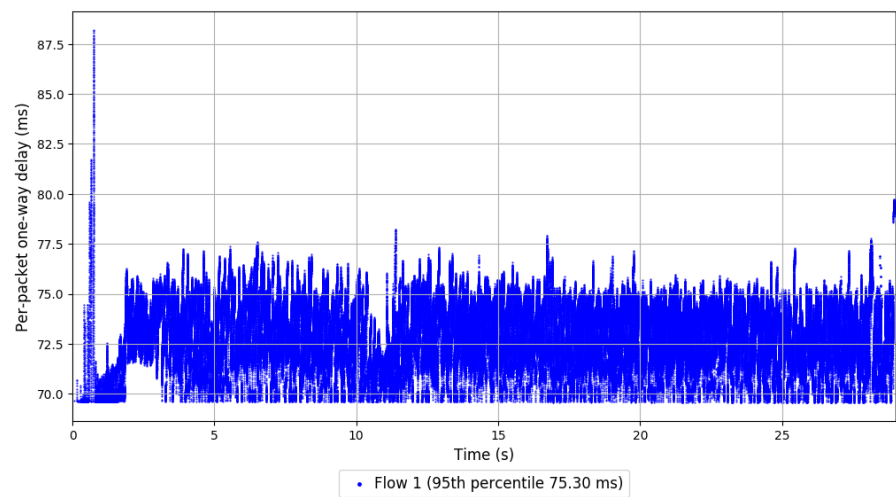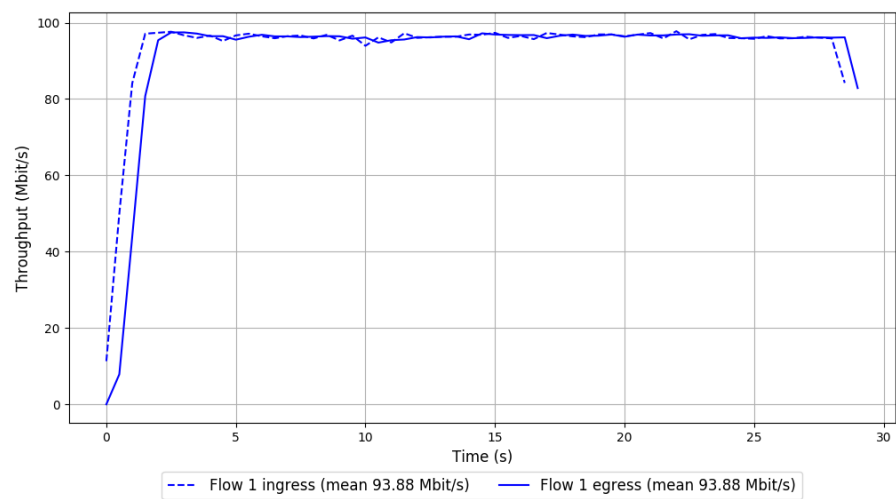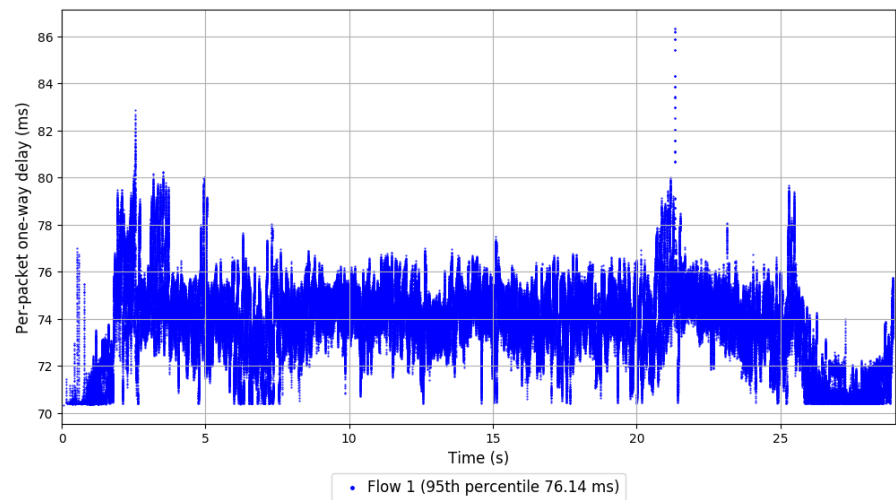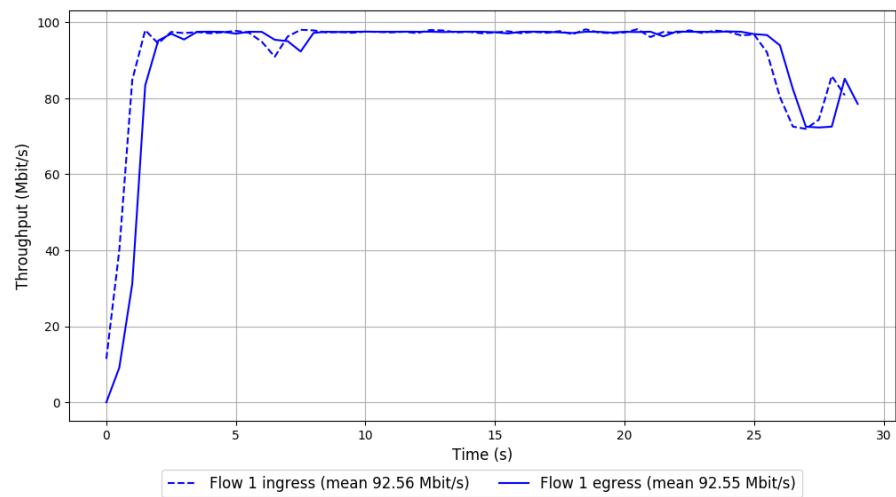
Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-19 06:47:41
End at: 2019-01-19 06:48:11
Local clock offset: 1.98 ms
Remote clock offset: -0.703 ms


# Below is generated by plot.py at 2019-01-19 07:52:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.55 Mbit/s
95th percentile per-packet one-way delay: 76.145 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 92.55 Mbit/s
95th percentile per-packet one-way delay: 76.145 ms
Loss rate: 0.28%
```

Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 92.56 Mbit/s)   Flow 1 egress (mean 92.55 Mbit/s)
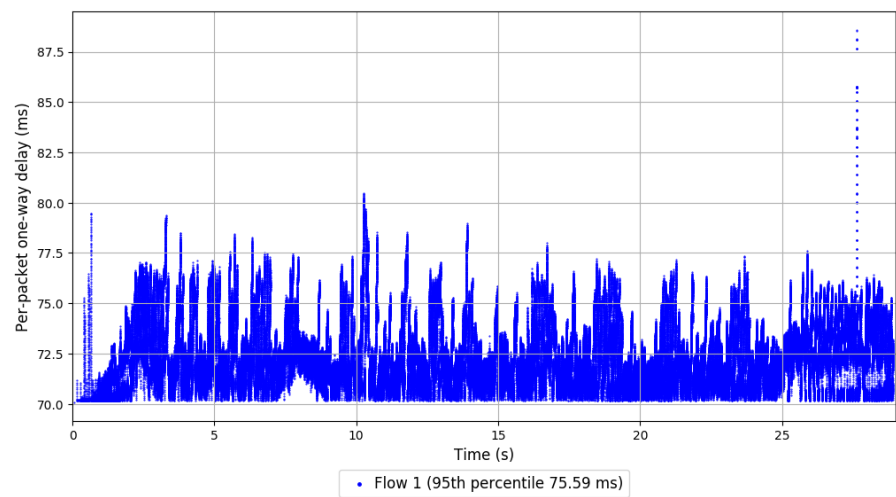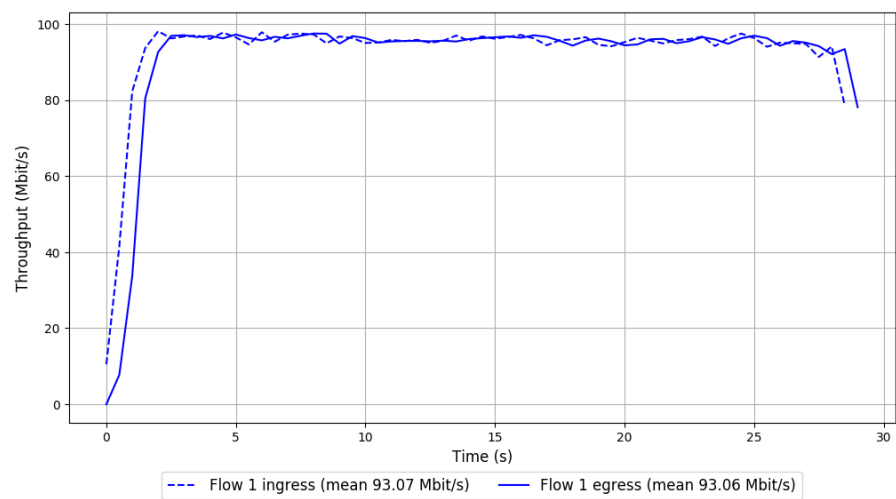

Flow 1 (95th percentile 76.14 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-19 07:17:16
End at: 2019-01-19 07:17:46
Local clock offset: 3.383 ms
Remote clock offset: -1.562 ms


# Below is generated by plot.py at 2019-01-19 07:52:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 75.589 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 75.589 ms
Loss rate: 0.27%
```
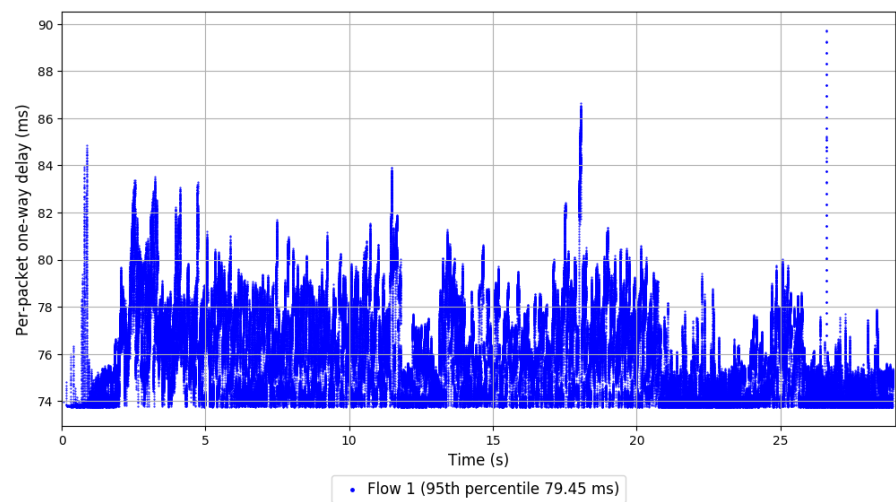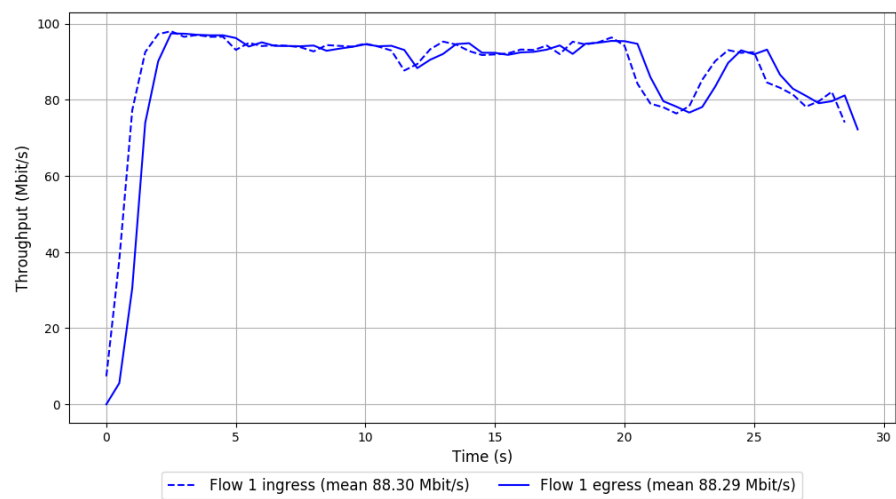
Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 93.07 Mbit/s) ----   Flow 1 egress (mean 93.06 Mbit/s) ——
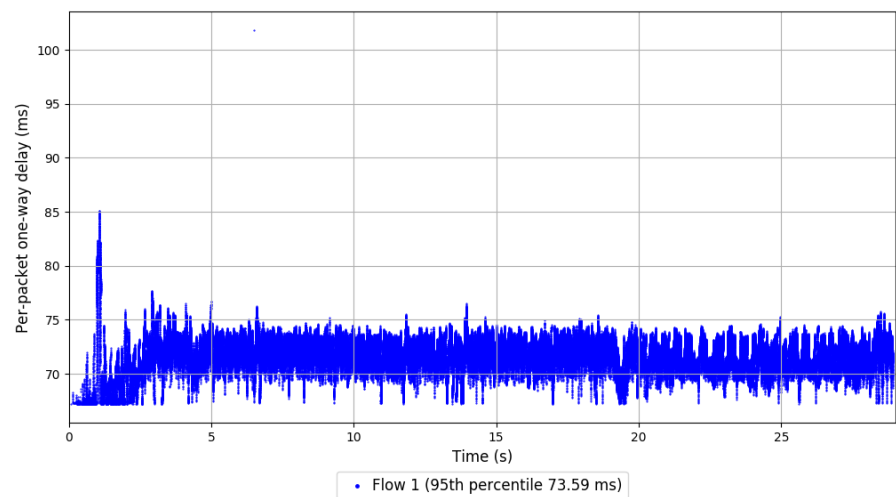

• Flow 1 (95th percentile 75.59 ms)

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-19 07:44:39
End at: 2019-01-19 07:45:09
Local clock offset: -0.326 ms
Remote clock offset: -5.94 ms


# Below is generated by plot.py at 2019-01-19 07:52:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.29 Mbit/s
95th percentile per-packet one-way delay: 79.448 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 88.29 Mbit/s
95th percentile per-packet one-way delay: 79.448 ms
Loss rate: 0.28%
```

Run 5: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 88.30 Mbit/s)   Flow 1 egress (mean 88.29 Mbit/s)
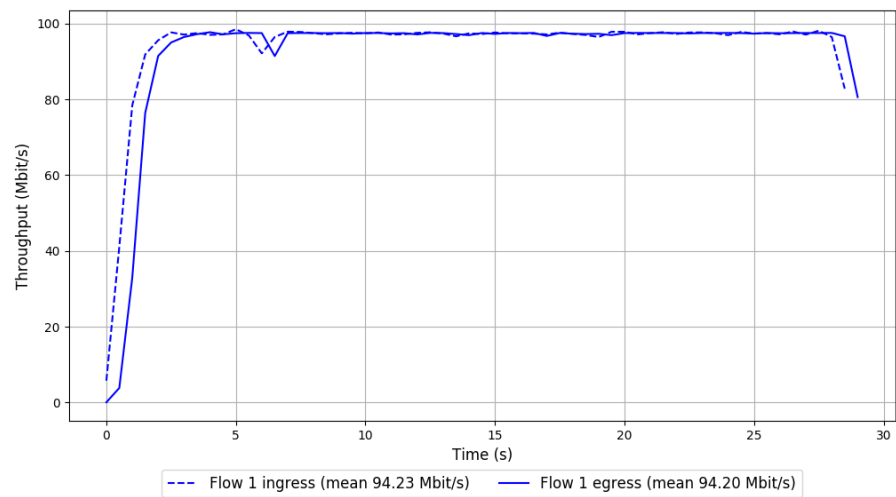

• Flow 1 (95th percentile 79.45 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-19 05:39:32
End at: 2019-01-19 05:40:02
Local clock offset: -0.842 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2019-01-19 07:52:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.20 Mbit/s
95th percentile per-packet one-way delay: 73.590 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 94.20 Mbit/s
95th percentile per-packet one-way delay: 73.590 ms
Loss rate: 0.30%
```

Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-19 06:09:51
End at: 2019-01-19 06:10:21
Local clock offset: 0.813 ms
Remote clock offset: 0.543 ms


# Below is generated by plot.py at 2019-01-19 07:53:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.03 Mbit/s
95th percentile per-packet one-way delay: 92.639 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 89.03 Mbit/s
95th percentile per-packet one-way delay: 92.639 ms
Loss rate: 0.32%
```
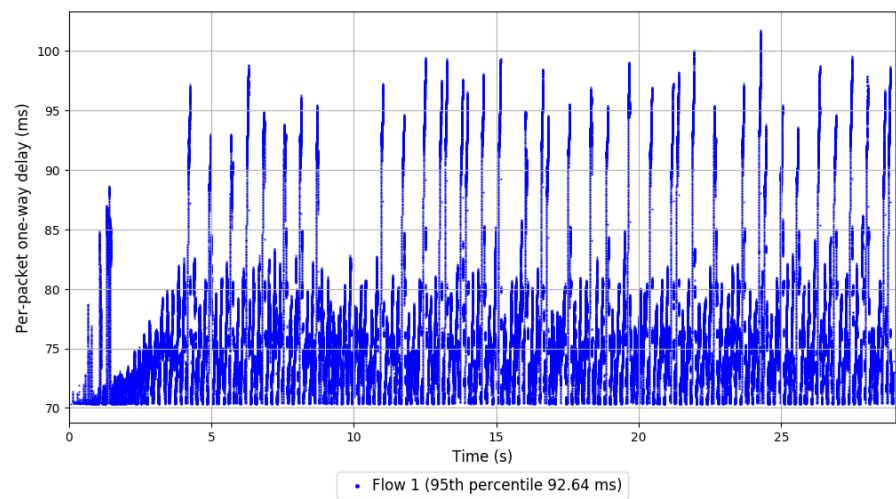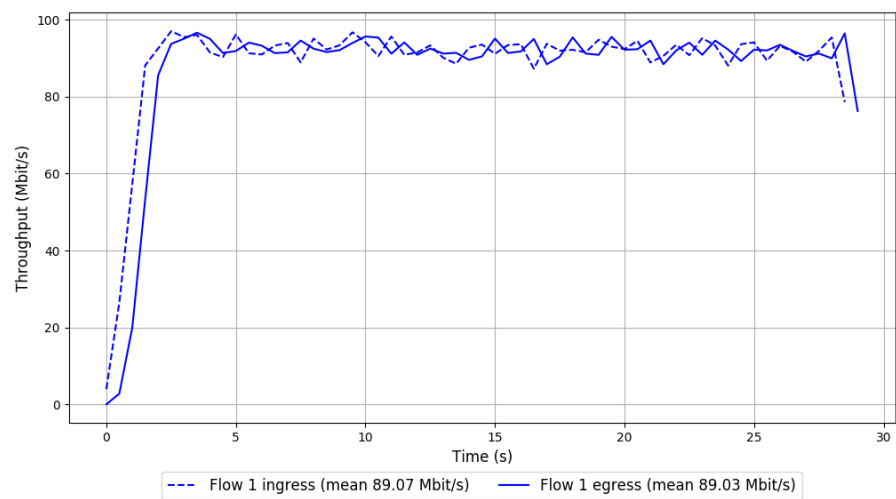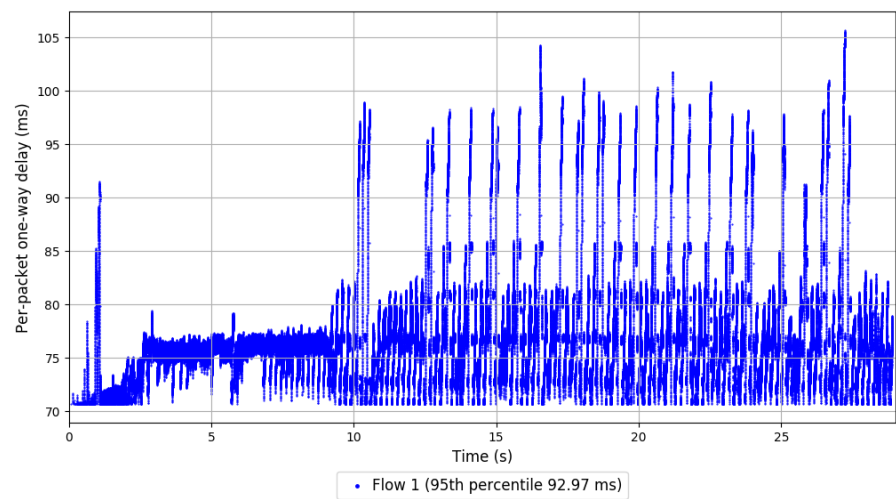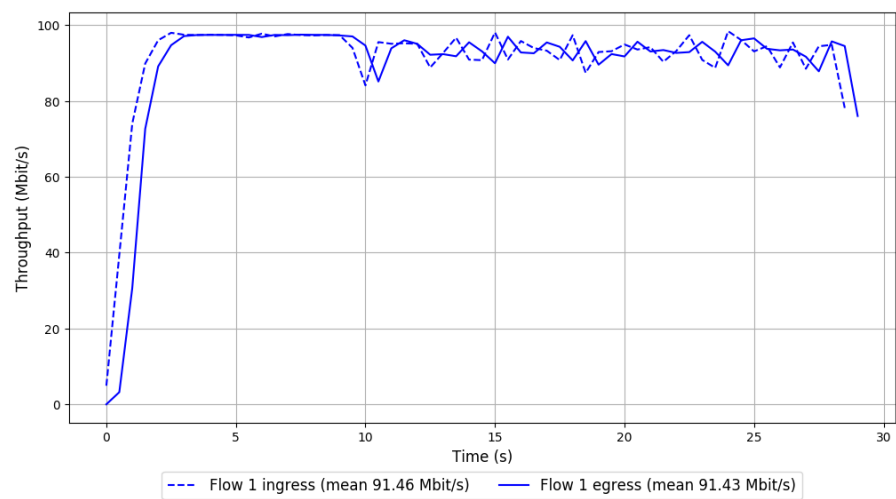
Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 89.07 Mbit/s) --- Flow 1 egress (mean 89.03 Mbit/s)

Flow 1 (95th percentile 92.64 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-19 06:38:57
End at: 2019-01-19 06:39:27
Local clock offset: 2.93 ms
Remote clock offset: 0.303 ms


# Below is generated by plot.py at 2019-01-19 07:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.43 Mbit/s
95th percentile per-packet one-way delay: 92.975 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 91.43 Mbit/s
95th percentile per-packet one-way delay: 92.975 ms
Loss rate: 0.31%
```

Run 3: Report of Indigo-MusesC5 — Data Link

80

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-19 07:09:04
End at: 2019-01-19 07:09:34
Local clock offset: 0.919 ms
Remote clock offset: -0.2 ms


# Below is generated by plot.py at 2019-01-19 07:53:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.23 Mbit/s
95th percentile per-packet one-way delay: 94.934 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 88.23 Mbit/s
95th percentile per-packet one-way delay: 94.934 ms
Loss rate: 0.33%
```
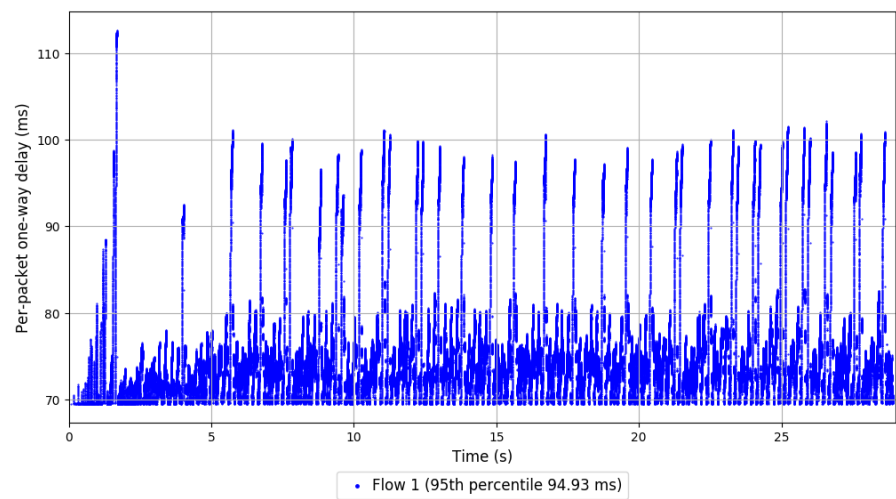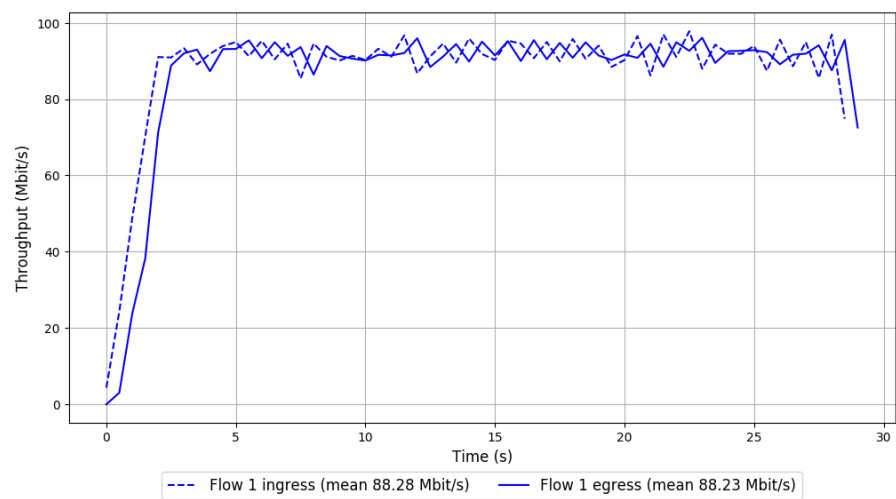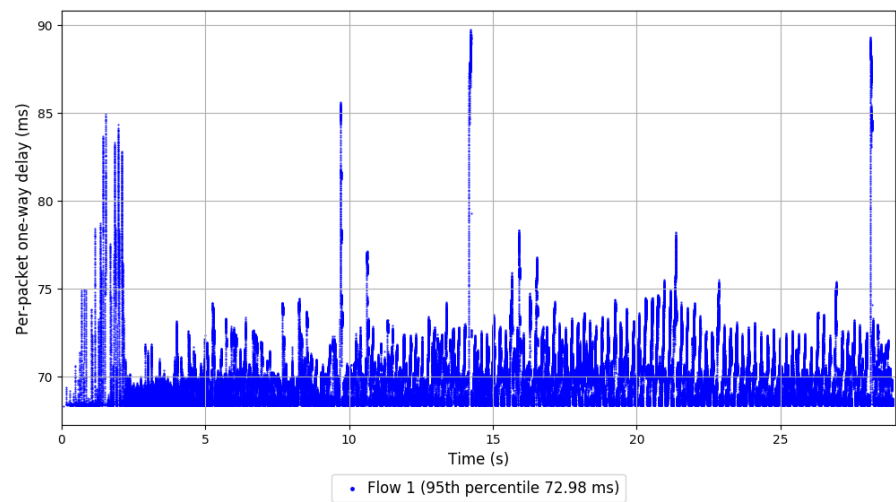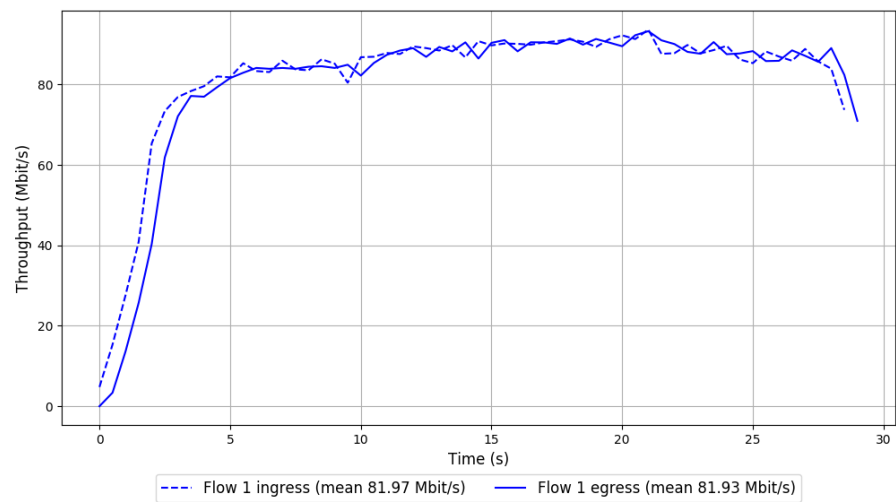
Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-19 07:37:17
End at: 2019-01-19 07:37:47
Local clock offset: -0.317 ms
Remote clock offset: -0.475 ms


# Below is generated by plot.py at 2019-01-19 07:53:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.93 Mbit/s
95th percentile per-packet one-way delay: 72.980 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 81.93 Mbit/s
95th percentile per-packet one-way delay: 72.980 ms
Loss rate: 0.31%
```
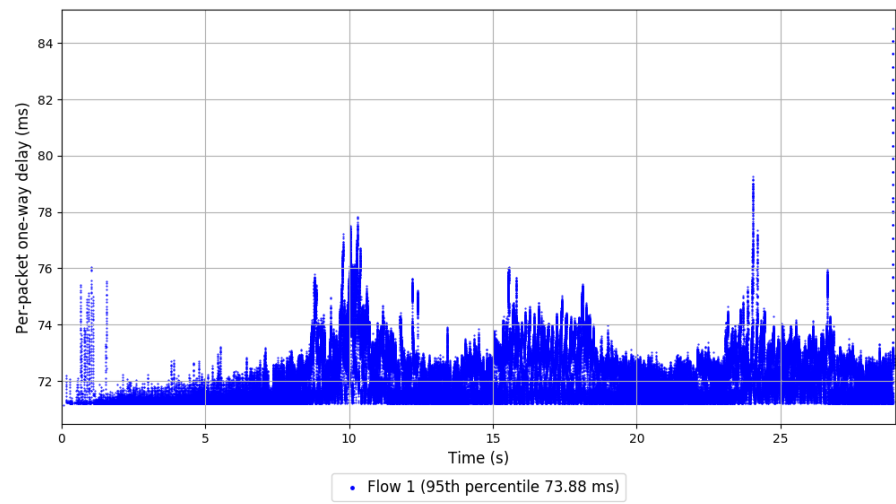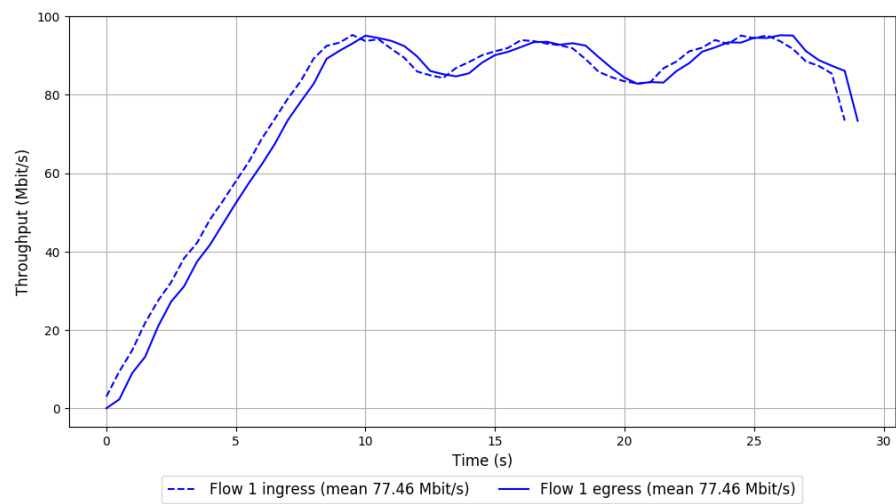
Run 5: Report of Indigo-MusesC5 — Data Link

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-19 05:37:04
End at: 2019-01-19 05:37:34
Local clock offset: 1.397 ms
Remote clock offset: 0.281 ms


# Below is generated by plot.py at 2019-01-19 07:53:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.46 Mbit/s
95th percentile per-packet one-way delay: 73.882 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 77.46 Mbit/s
95th percentile per-packet one-way delay: 73.882 ms
Loss rate: 0.27%
```
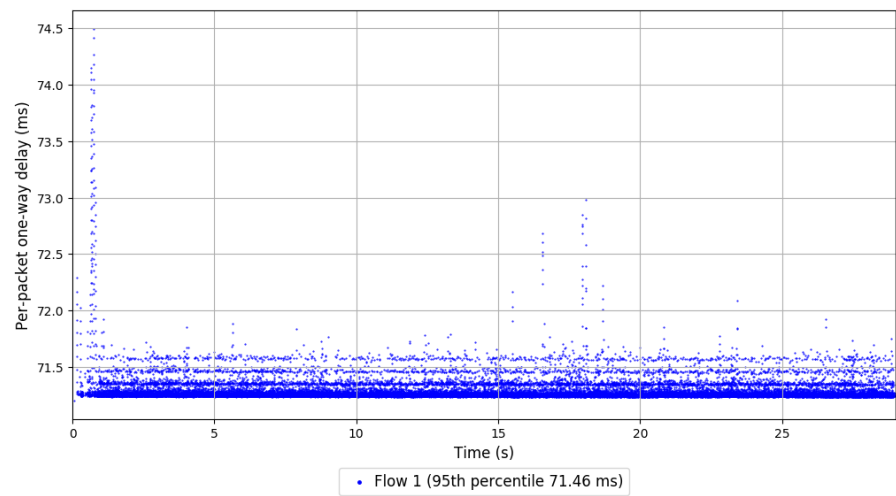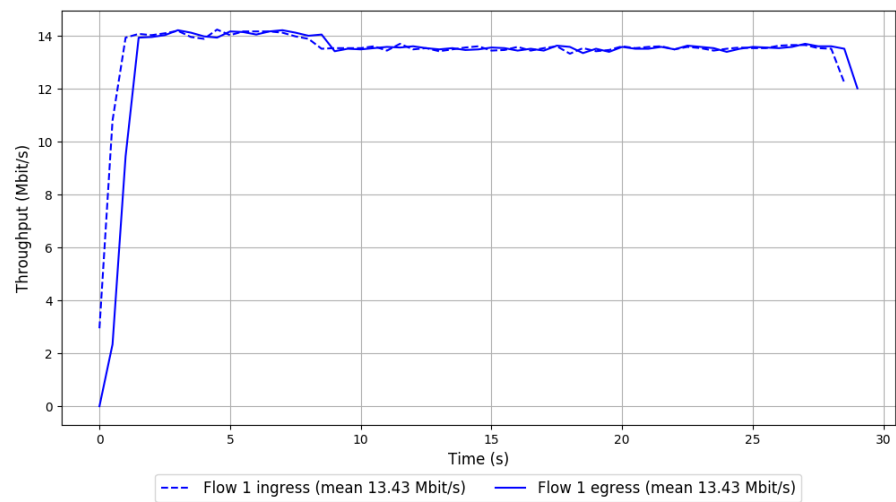
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-19 06:07:37
End at: 2019-01-19 06:08:07
Local clock offset: 1.706 ms
Remote clock offset: 0.591 ms


# Below is generated by plot.py at 2019-01-19 07:53:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.43 Mbit/s
95th percentile per-packet one-way delay: 71.458 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 13.43 Mbit/s
95th percentile per-packet one-way delay: 71.458 ms
Loss rate: 0.27%
```

Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-19 06:36:11
End at: 2019-01-19 06:36:41
Local clock offset: 2.638 ms
Remote clock offset: -0.236 ms


# Below is generated by plot.py at 2019-01-19 07:53:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.79 Mbit/s
95th percentile per-packet one-way delay: 71.872 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 80.79 Mbit/s
95th percentile per-packet one-way delay: 71.872 ms
Loss rate: 0.31%
```
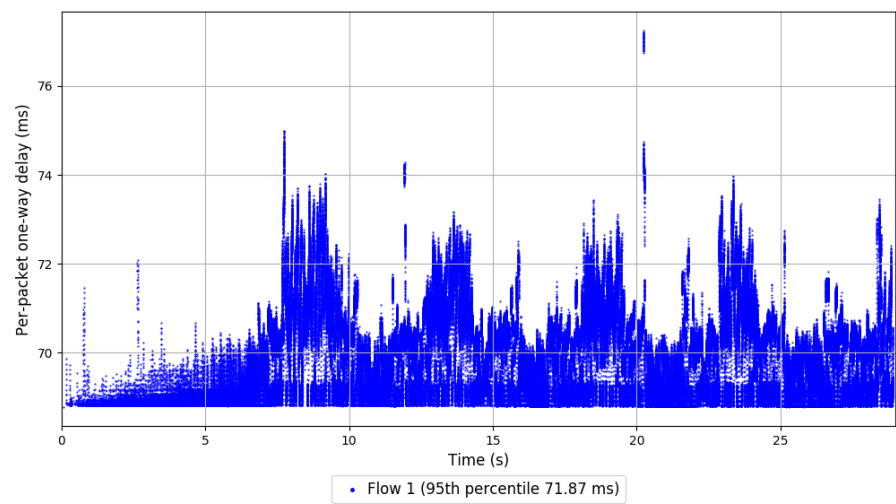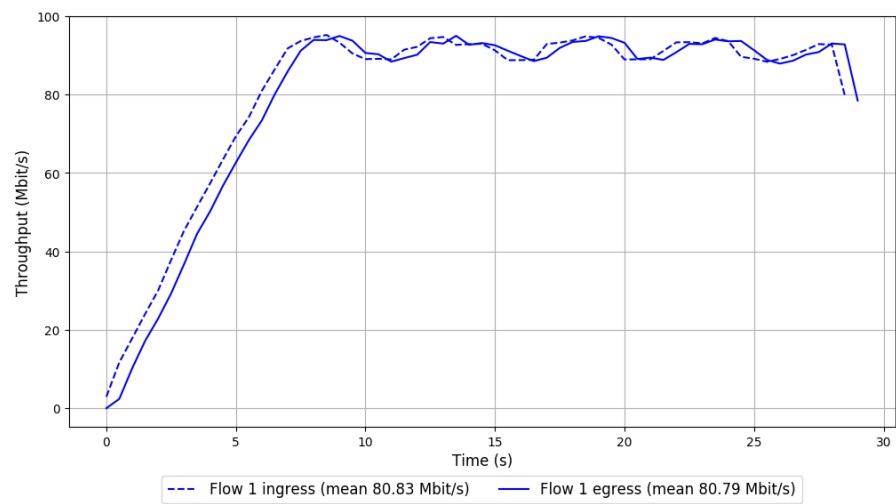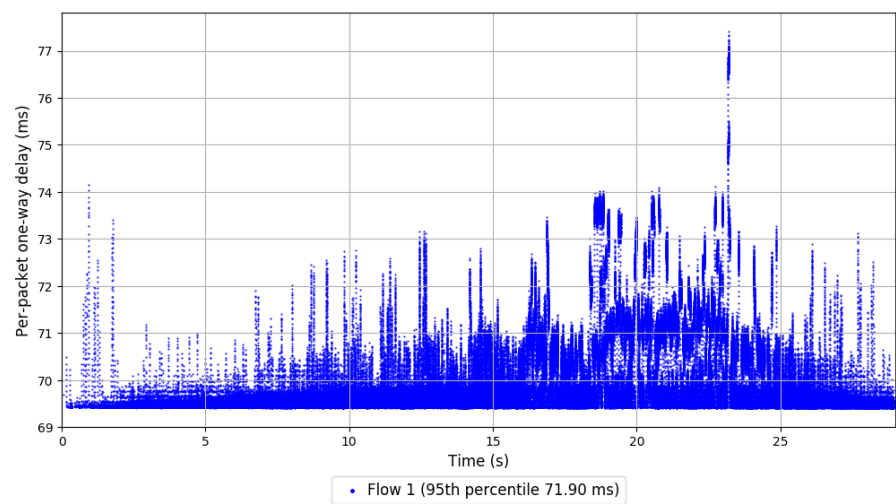
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-19 07:06:42
End at: 2019-01-19 07:07:12
Local clock offset: 0.678 ms
Remote clock offset: -0.301 ms


# Below is generated by plot.py at 2019-01-19 07:53:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.99 Mbit/s
95th percentile per-packet one-way delay: 71.896 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 63.99 Mbit/s
95th percentile per-packet one-way delay: 71.896 ms
Loss rate: 0.13%
```
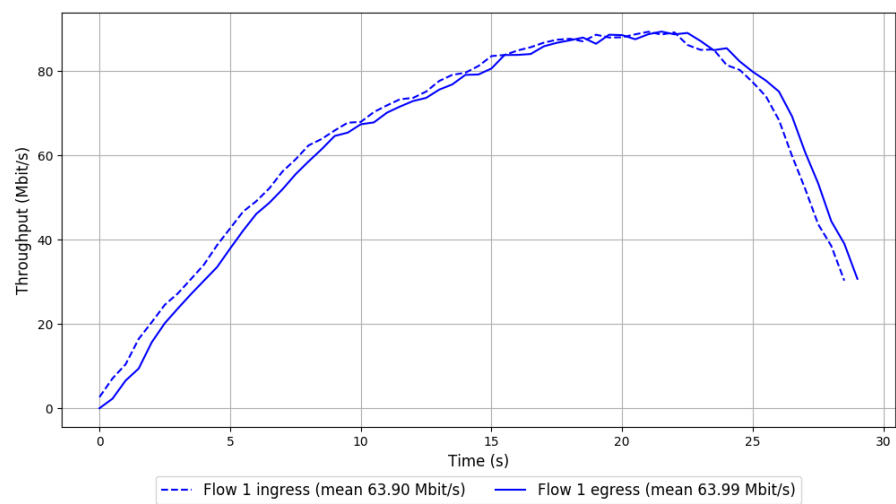
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-19 07:34:42
End at: 2019-01-19 07:35:12
Local clock offset: 2.16 ms
Remote clock offset: -0.375 ms


# Below is generated by plot.py at 2019-01-19 07:53:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.70 Mbit/s
95th percentile per-packet one-way delay: 73.179 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 58.70 Mbit/s
95th percentile per-packet one-way delay: 73.179 ms
Loss rate: 0.05%
```
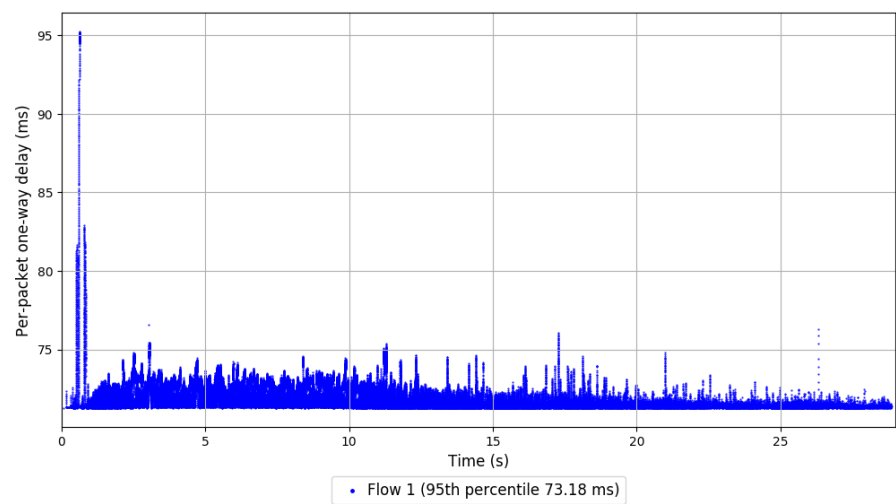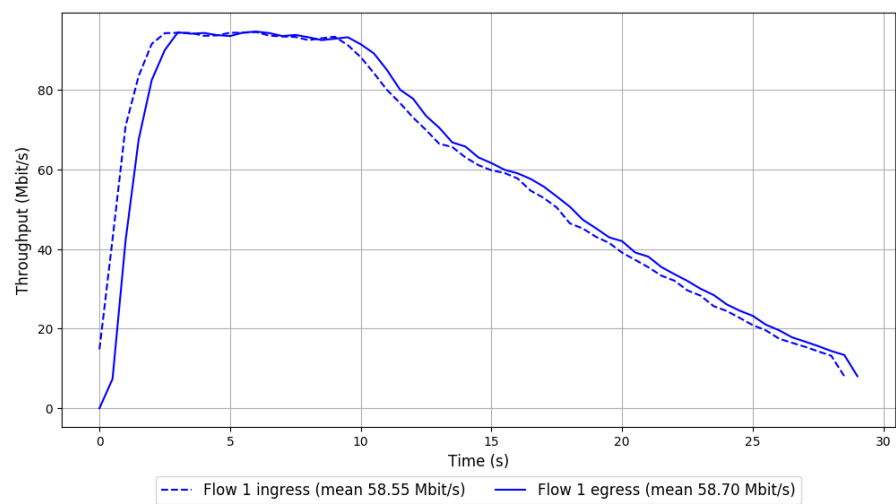
Run 5: Report of Indigo-MusesD — Data Link

94

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-19 05:35:35
End at: 2019-01-19 05:36:05
Local clock offset: 1.804 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2019-01-19 07:54:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 82.869 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 82.869 ms
Loss rate: 0.37%
```
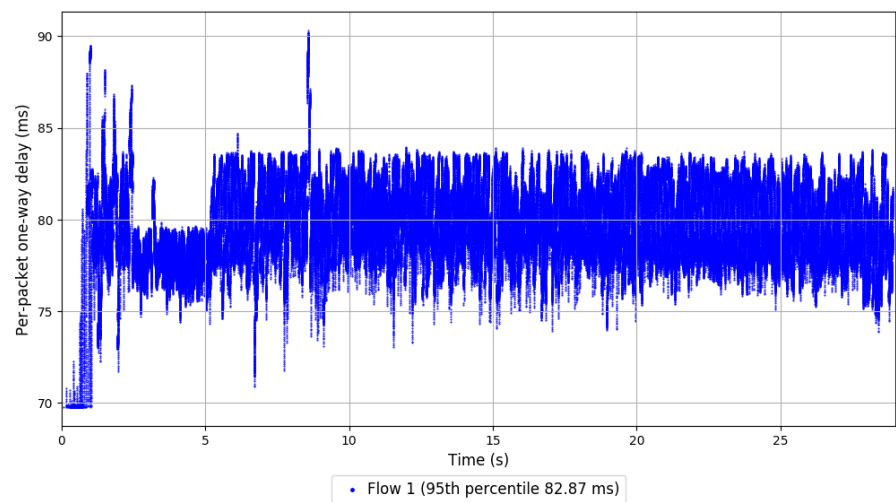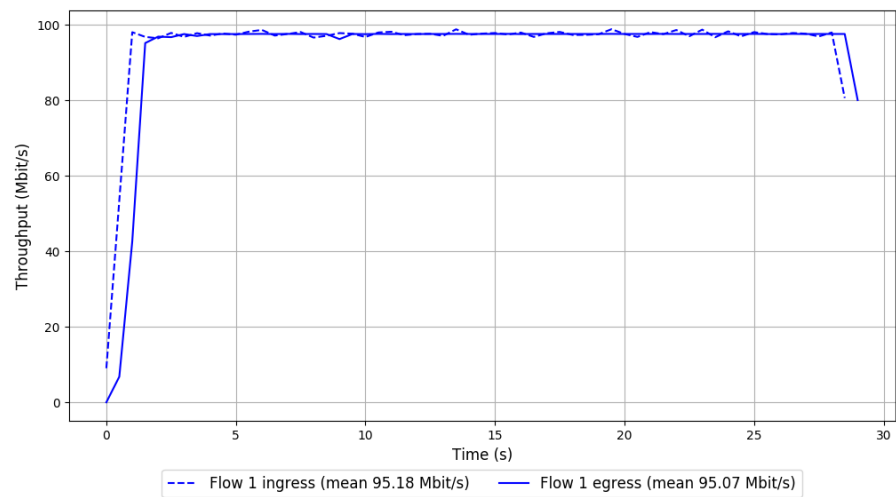
Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-19 06:06:01
End at: 2019-01-19 06:06:31
Local clock offset: 0.036 ms
Remote clock offset: 1.161 ms


# Below is generated by plot.py at 2019-01-19 07:54:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 109.392 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 109.392 ms
Loss rate: 0.44%
```
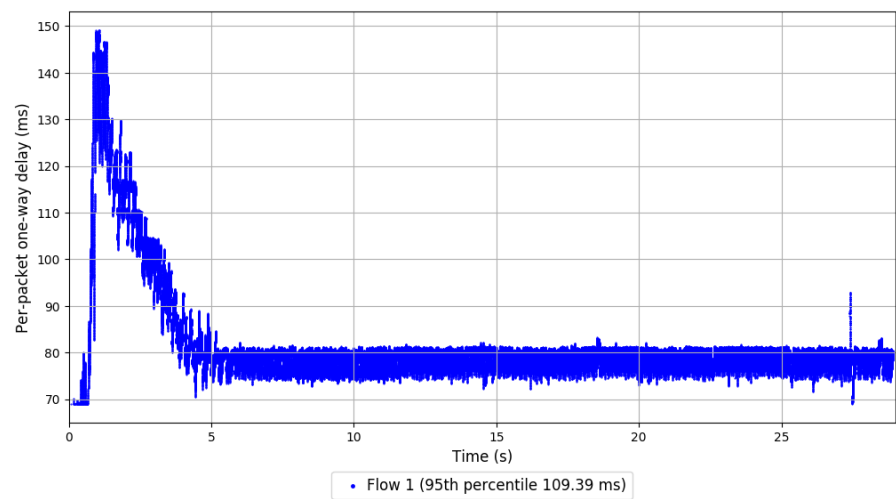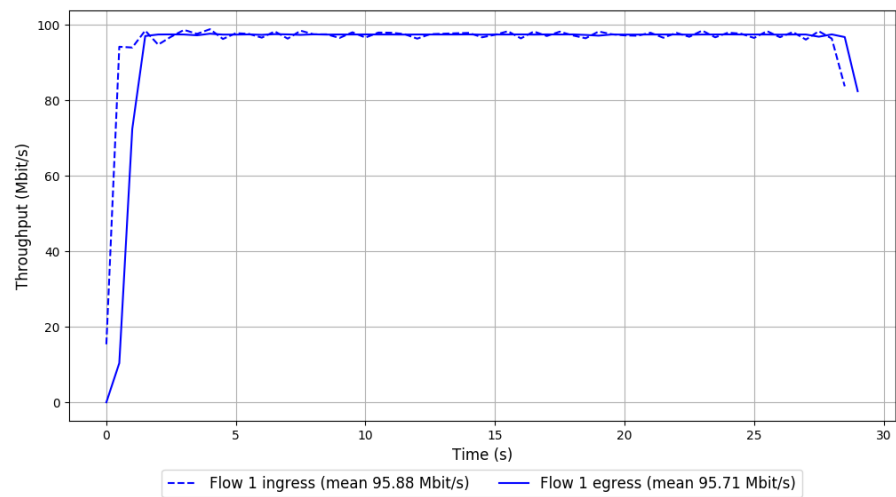
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-19 06:34:43
End at: 2019-01-19 06:35:13
Local clock offset: 1.934 ms
Remote clock offset: 0.017 ms


# Below is generated by plot.py at 2019-01-19 07:54:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 85.659 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 85.659 ms
Loss rate: 0.45%
```
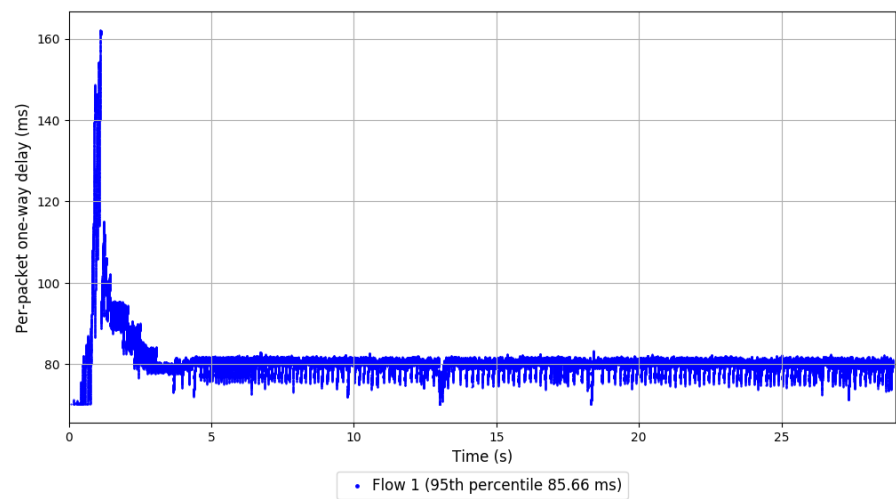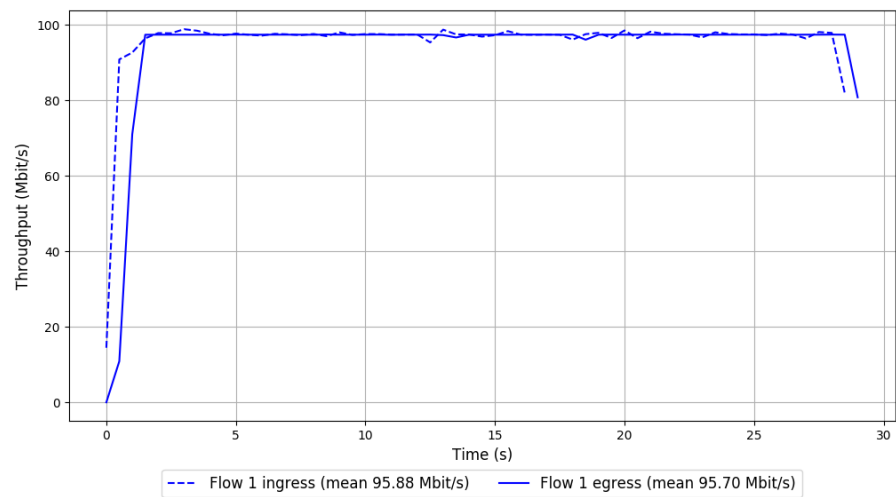
Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-19 07:05:14
End at: 2019-01-19 07:05:44
Local clock offset: 2.363 ms
Remote clock offset: -0.638 ms


# Below is generated by plot.py at 2019-01-19 07:54:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.40 Mbit/s
95th percentile per-packet one-way delay: 89.962 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 95.40 Mbit/s
95th percentile per-packet one-way delay: 89.962 ms
Loss rate: 0.39%
```
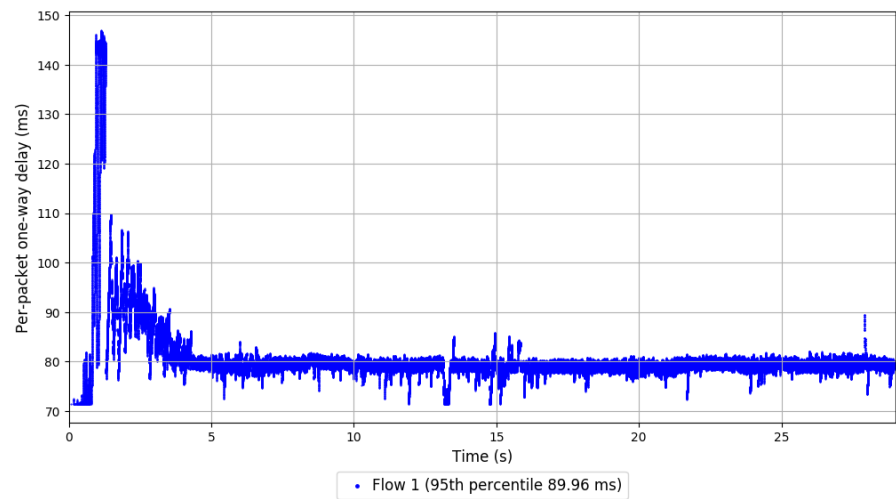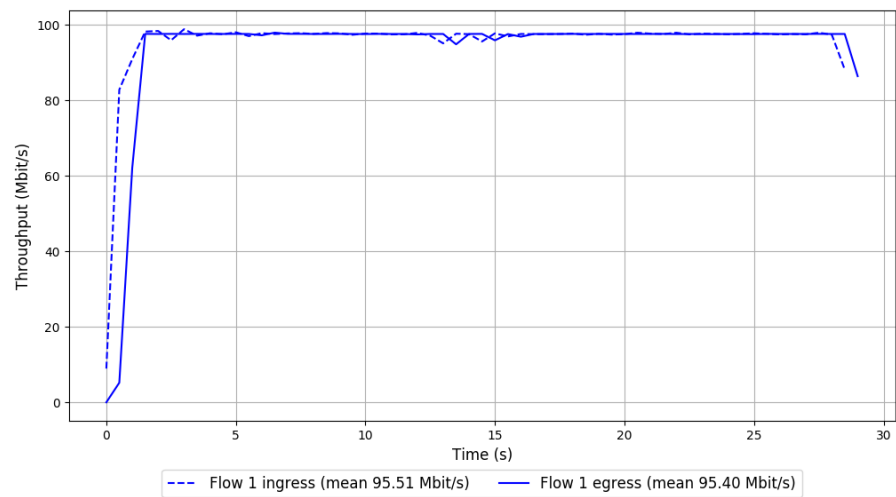
Run 4: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 95.51 Mbit/s)   Flow 1 egress (mean 95.40 Mbit/s)

Flow 1 (95th percentile 89.96 ms)

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-19 07:33:12
End at: 2019-01-19 07:33:42
Local clock offset: 0.911 ms
Remote clock offset: -1.053 ms


# Below is generated by plot.py at 2019-01-19 07:54:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 77.686 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 77.686 ms
Loss rate: 0.30%
```
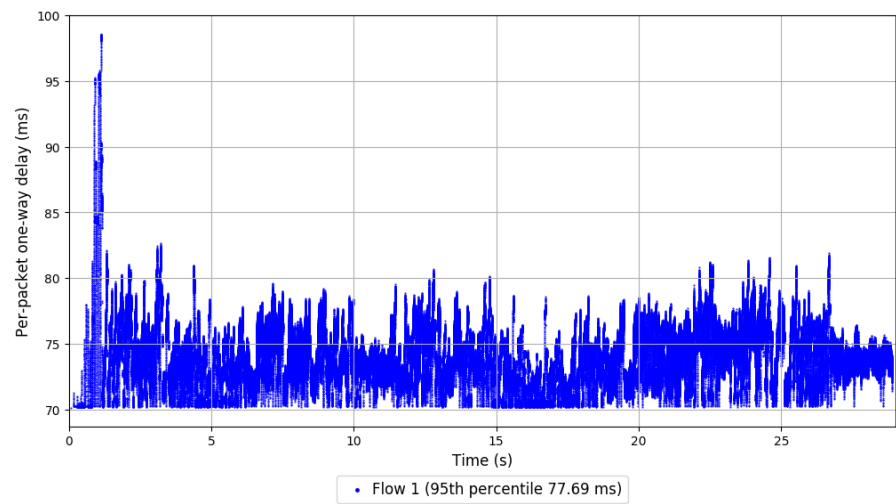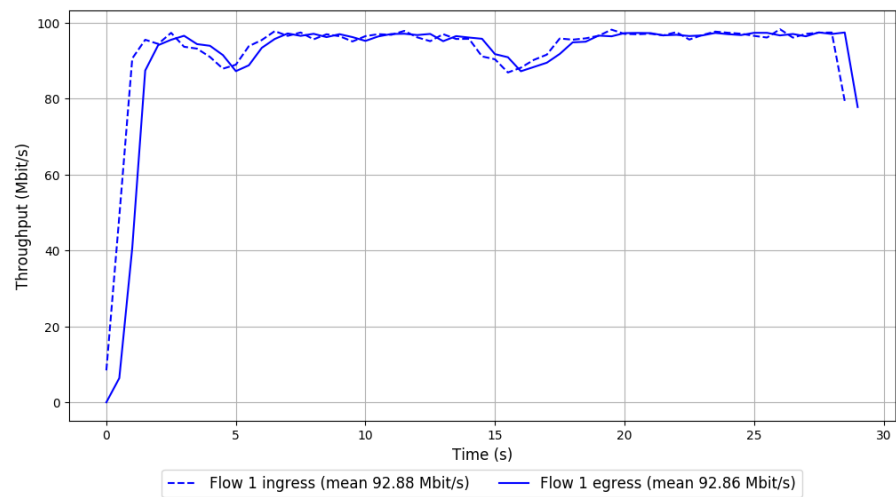
Run 5: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 92.88 Mbit/s) — — — Flow 1 egress (mean 92.86 Mbit/s) ———

Flow 1 (95th percentile 77.69 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2019-01-19 05:31:23
End at: 2019-01-19 05:31:53
Local clock offset: 0.484 ms
Remote clock offset: 0.599 ms


# Below is generated by plot.py at 2019-01-19 07:54:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.88 Mbit/s
95th percentile per-packet one-way delay: 77.198 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 54.88 Mbit/s
95th percentile per-packet one-way delay: 77.198 ms
Loss rate: 0.27%
```
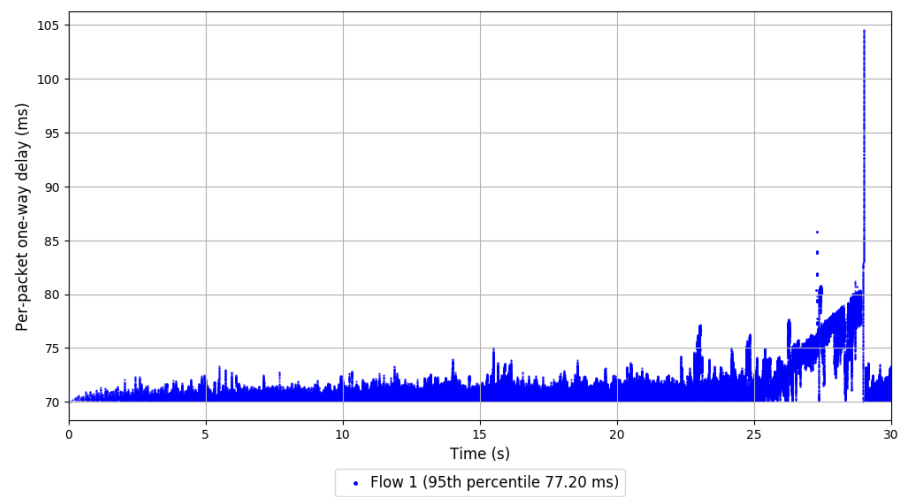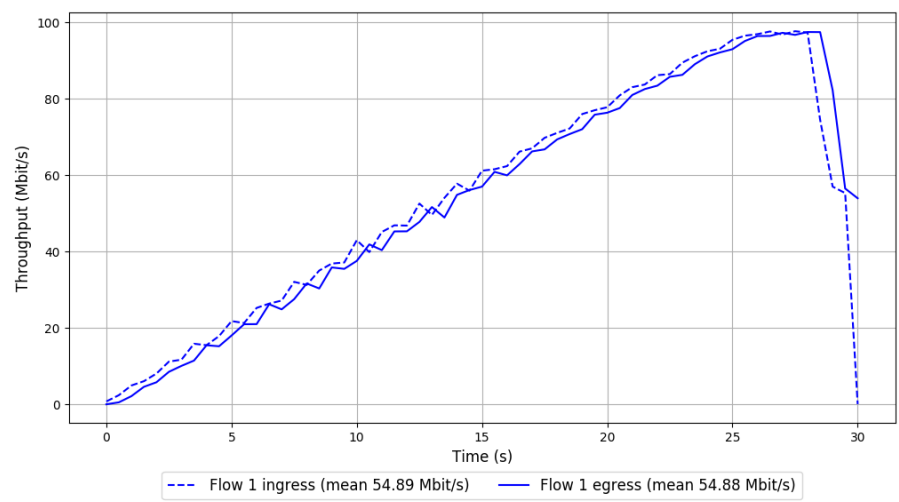
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-01-19 06:02:05
End at: 2019-01-19 06:02:35
Local clock offset: 0.289 ms
Remote clock offset: 0.325 ms


# Below is generated by plot.py at 2019-01-19 07:54:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.31 Mbit/s
95th percentile per-packet one-way delay: 77.489 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 54.31 Mbit/s
95th percentile per-packet one-way delay: 77.489 ms
Loss rate: 0.28%
```
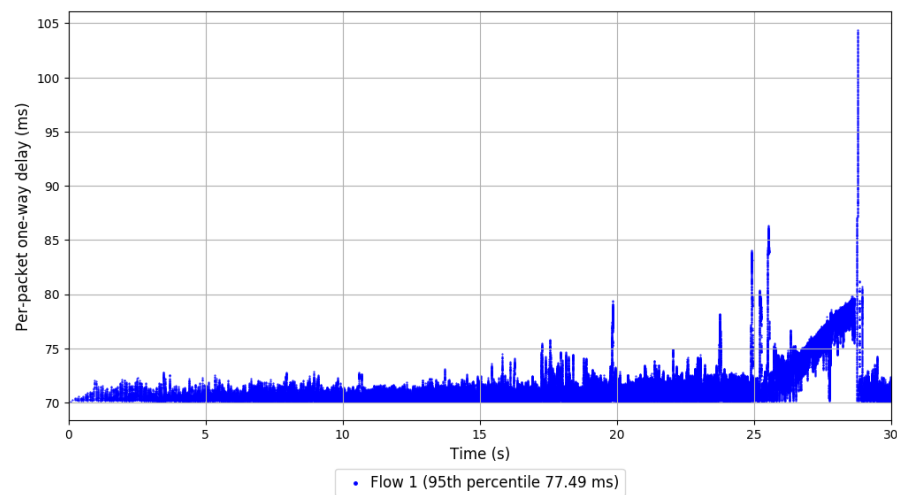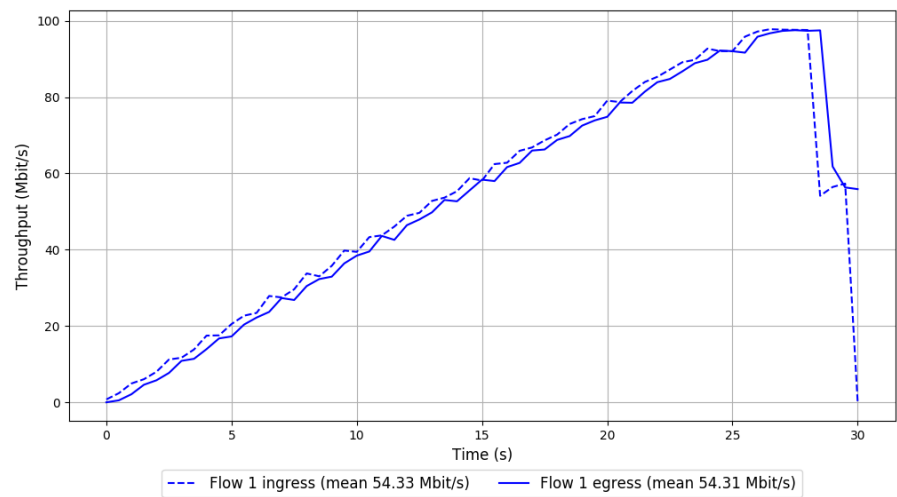
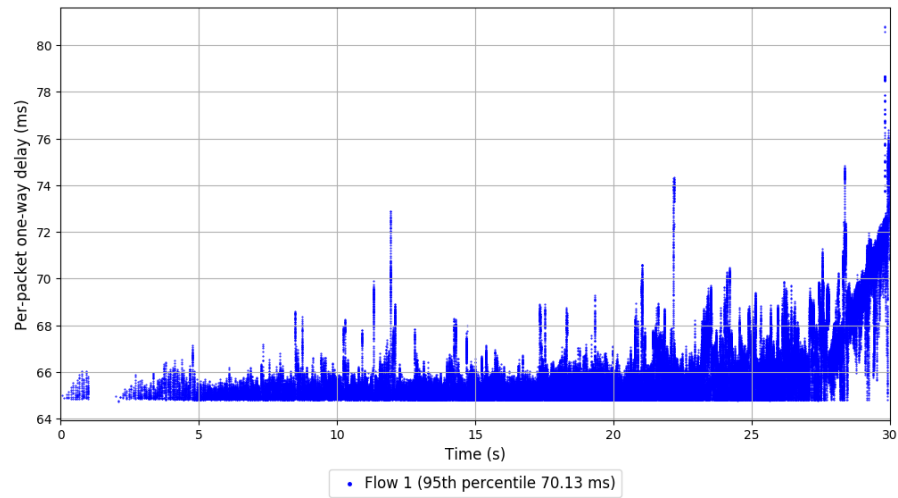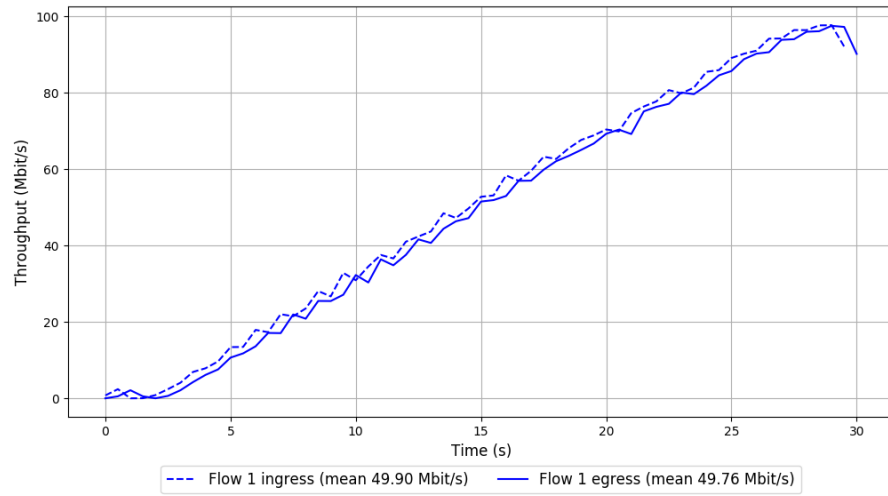## Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-01-19 06:31:05
End at: 2019-01-19 06:31:35
Local clock offset: -4.249 ms
Remote clock offset: -0.551 ms


# Below is generated by plot.py at 2019-01-19 07:54:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.76 Mbit/s
95th percentile per-packet one-way delay: 70.134 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 49.76 Mbit/s
95th percentile per-packet one-way delay: 70.134 ms
Loss rate: 0.53%
```

Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 49.90 Mbit/s)   Flow 1 egress (mean 49.76 Mbit/s)

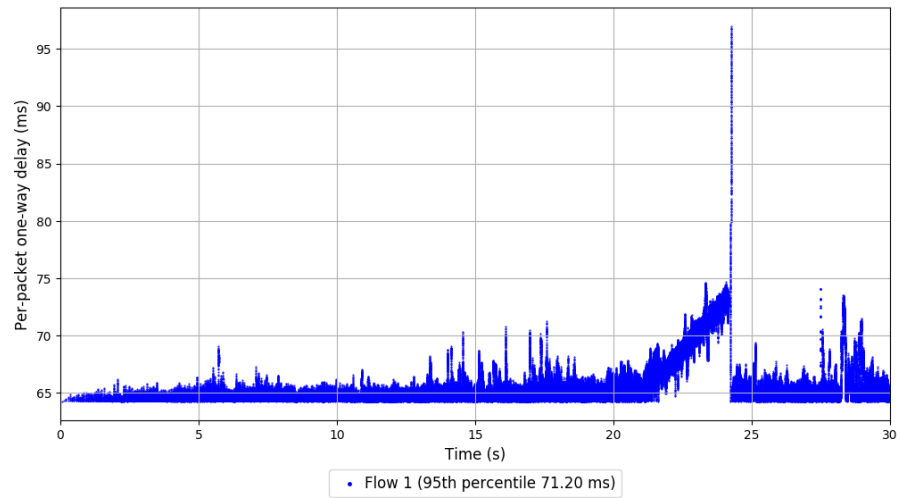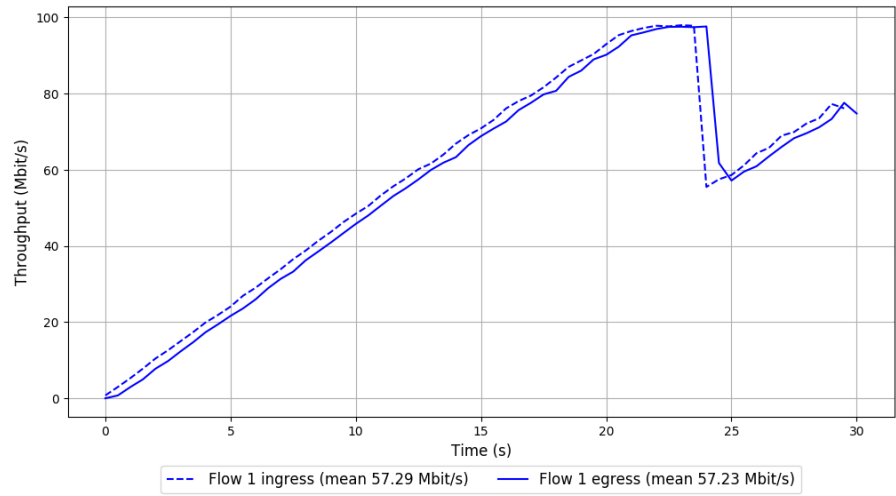Flow 1 (95th percentile 70.13 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-01-19 07:01:20
End at: 2019-01-19 07:01:50
Local clock offset: 0.448 ms
Remote clock offset: -2.853 ms

# Below is generated by plot.py at 2019-01-19 07:54:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 71.202 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 71.202 ms
Loss rate: 0.34%
```

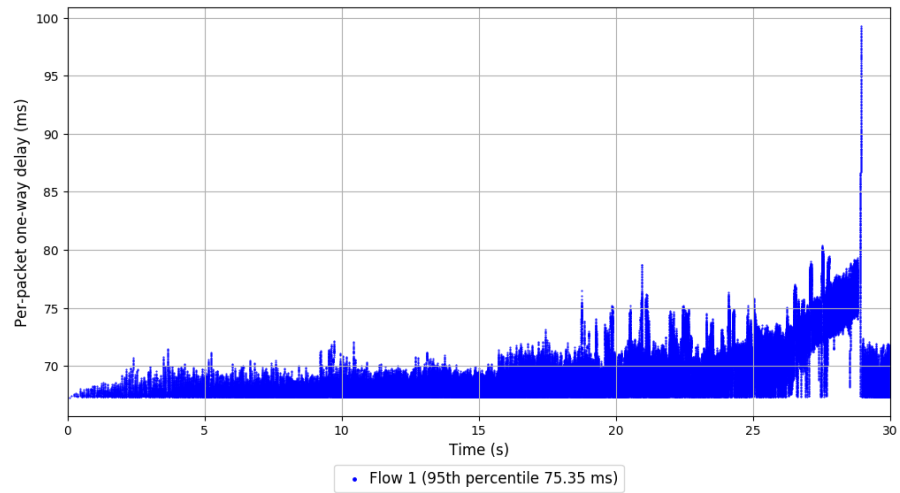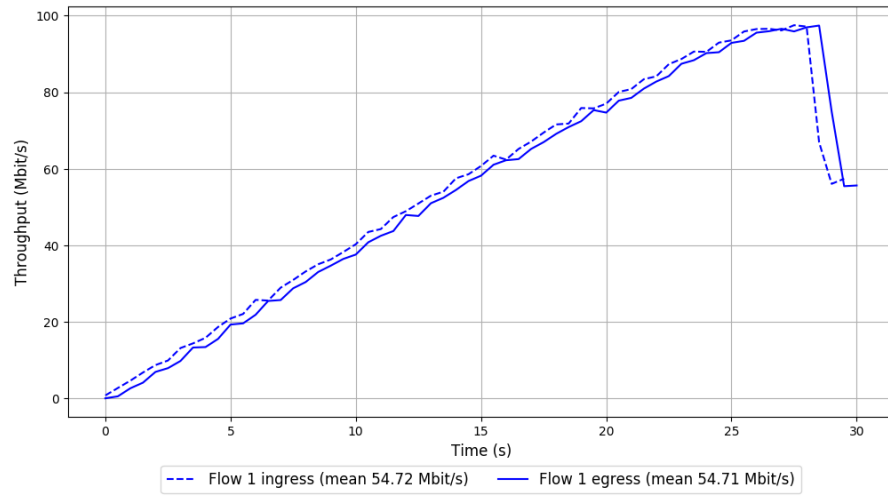# Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-01-19 07:29:42
End at: 2019-01-19 07:30:12
Local clock offset: 0.554 ms
Remote clock offset: -1.527 ms


# Below is generated by plot.py at 2019-01-19 07:54:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.71 Mbit/s
95th percentile per-packet one-way delay: 75.354 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 54.71 Mbit/s
95th percentile per-packet one-way delay: 75.354 ms
Loss rate: 0.27%
```

Run 5: Report of LEDBAT — Data Link

114

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-01-19 05:20:22
End at: 2019-01-19 05:20:52
Local clock offset: -0.6 ms
Remote clock offset: 0.716 ms


# Below is generated by plot.py at 2019-01-19 07:55:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.61 Mbit/s
95th percentile per-packet one-way delay: 87.179 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 84.61 Mbit/s
95th percentile per-packet one-way delay: 87.179 ms
Loss rate: 0.34%
```
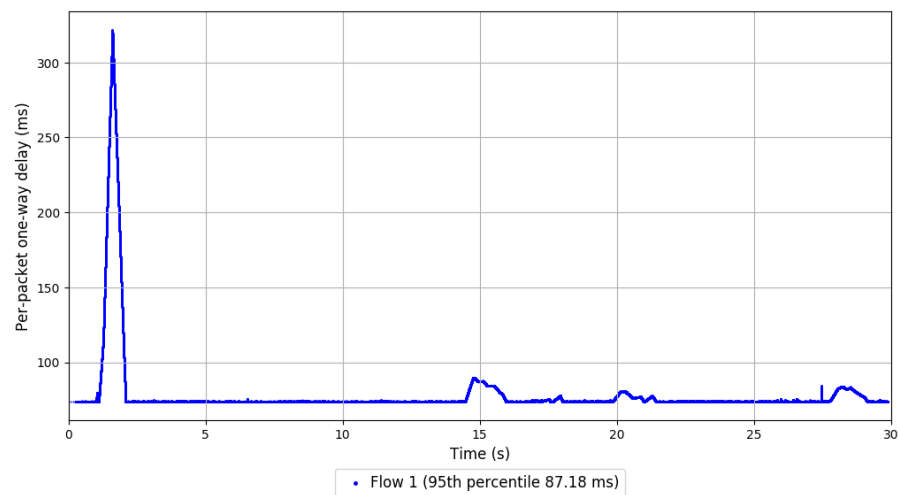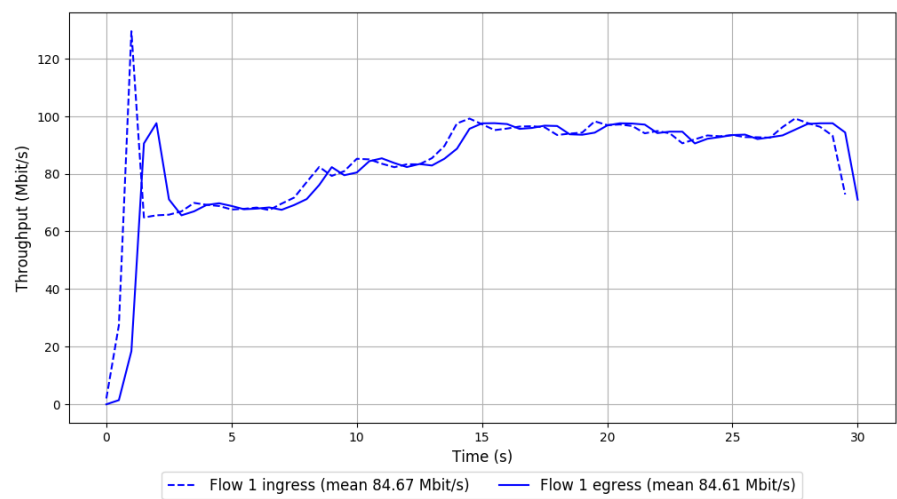
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 84.67 Mbit/s) --- Flow 1 egress (mean 84.61 Mbit/s)

Flow 1 (95th percentile 87.18 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-01-19 05:51:24
End at: 2019-01-19 05:51:54
Local clock offset: 1.684 ms
Remote clock offset: 1.408 ms


# Below is generated by plot.py at 2019-01-19 07:55:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.44 Mbit/s
95th percentile per-packet one-way delay: 75.315 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 81.44 Mbit/s
95th percentile per-packet one-way delay: 75.315 ms
Loss rate: 0.31%
```
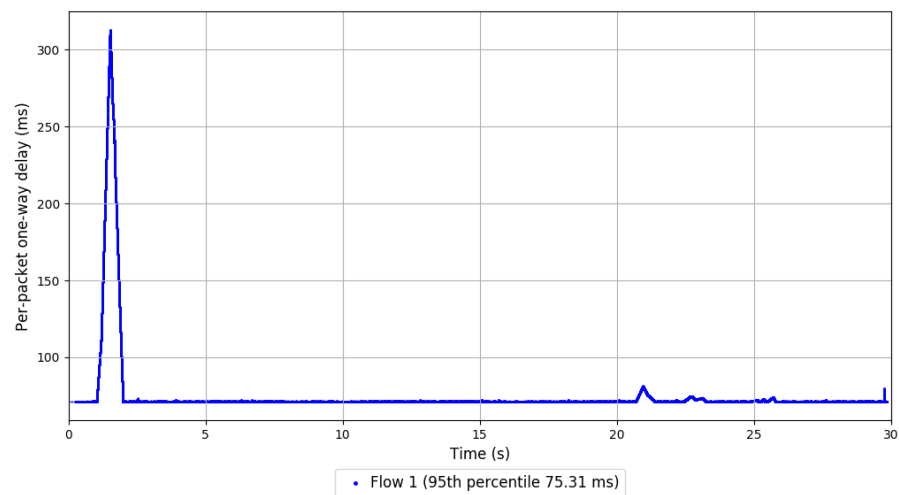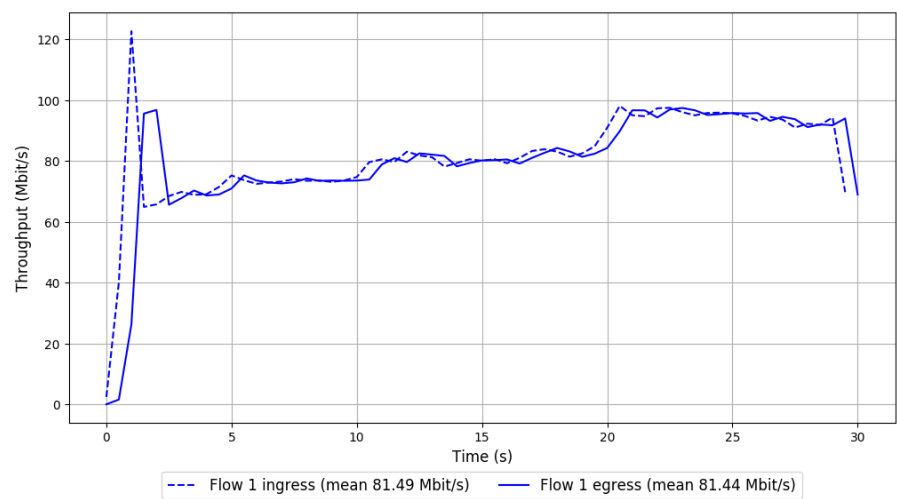
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-01-19 06:21:11
End at: 2019-01-19 06:21:41
Local clock offset: -0.236 ms
Remote clock offset: 0.481 ms


# Below is generated by plot.py at 2019-01-19 07:55:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.85 Mbit/s
95th percentile per-packet one-way delay: 66.798 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 61.85 Mbit/s
95th percentile per-packet one-way delay: 66.798 ms
Loss rate: 0.48%
```
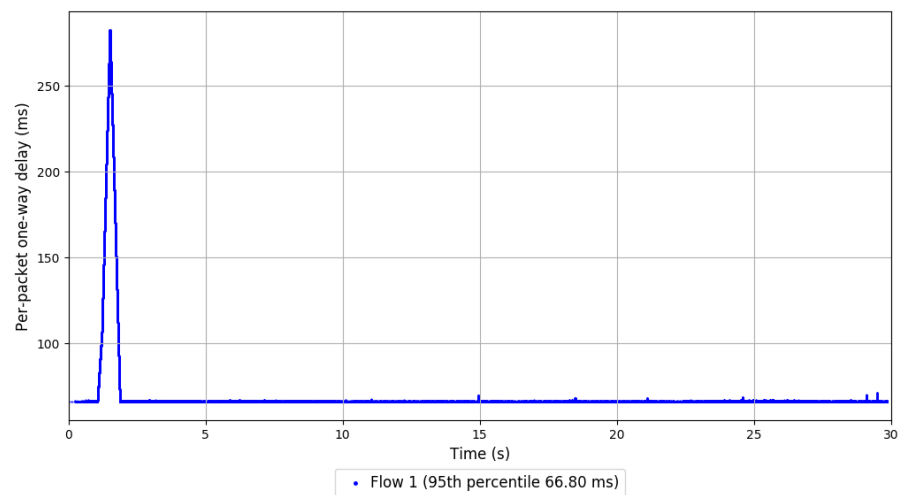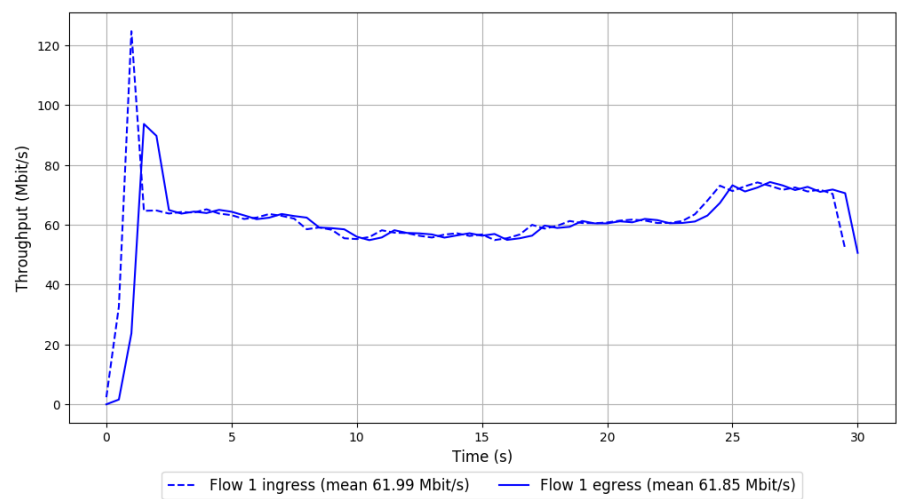
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 61.99 Mbit/s) — — — Flow 1 egress (mean 61.85 Mbit/s)
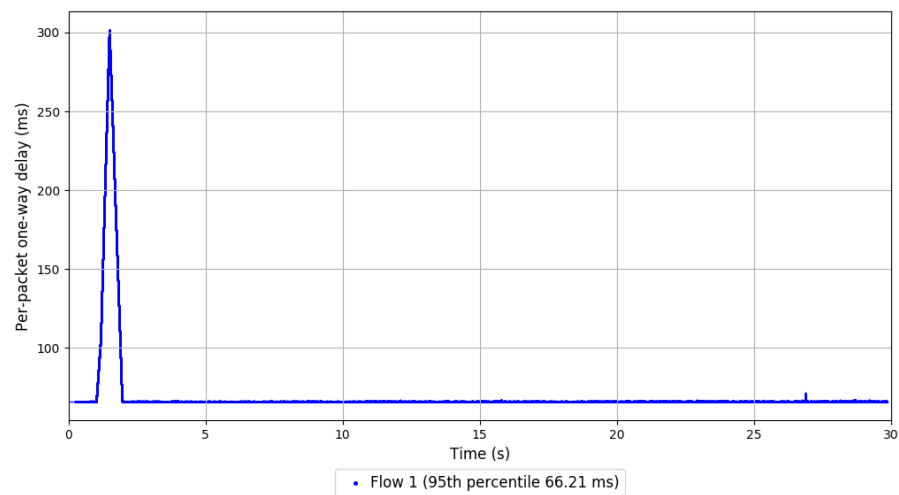
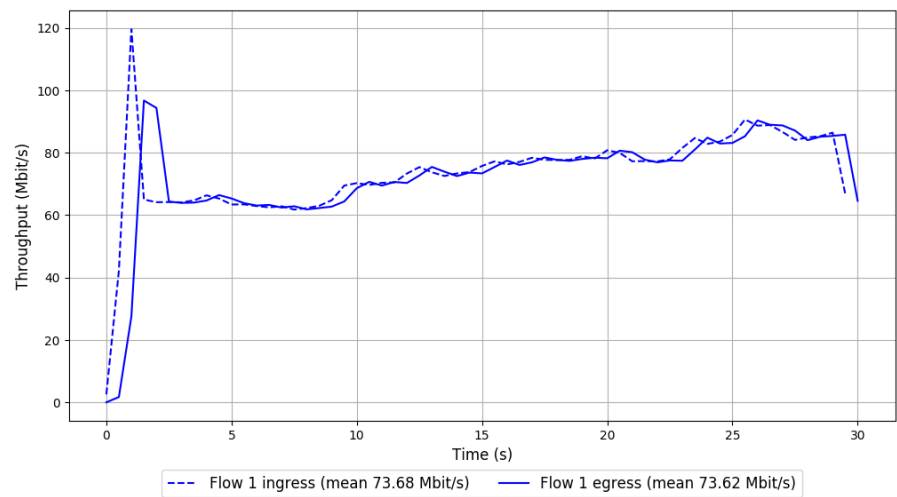

• Flow 1 (95th percentile 66.80 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-01-19 06:50:51
End at: 2019-01-19 06:51:21
Local clock offset: 0.266 ms
Remote clock offset: -0.268 ms


# Below is generated by plot.py at 2019-01-19 07:55:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.62 Mbit/s
95th percentile per-packet one-way delay: 66.207 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 73.62 Mbit/s
95th percentile per-packet one-way delay: 66.207 ms
Loss rate: 0.33%
```

Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-01-19 07:19:59
End at: 2019-01-19 07:20:29
Local clock offset: 2.156 ms
Remote clock offset: -1.165 ms


# Below is generated by plot.py at 2019-01-19 07:55:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.68 Mbit/s
95th percentile per-packet one-way delay: 71.358 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 67.68 Mbit/s
95th percentile per-packet one-way delay: 71.358 ms
Loss rate: 0.45%
```
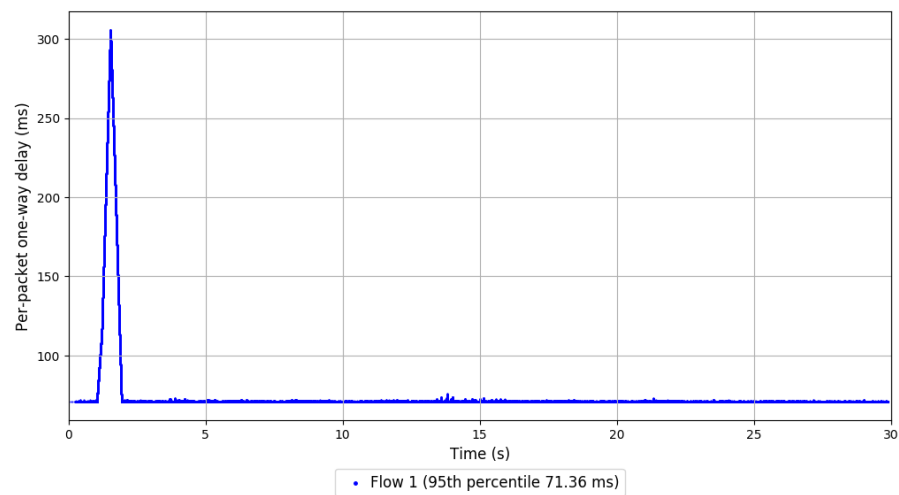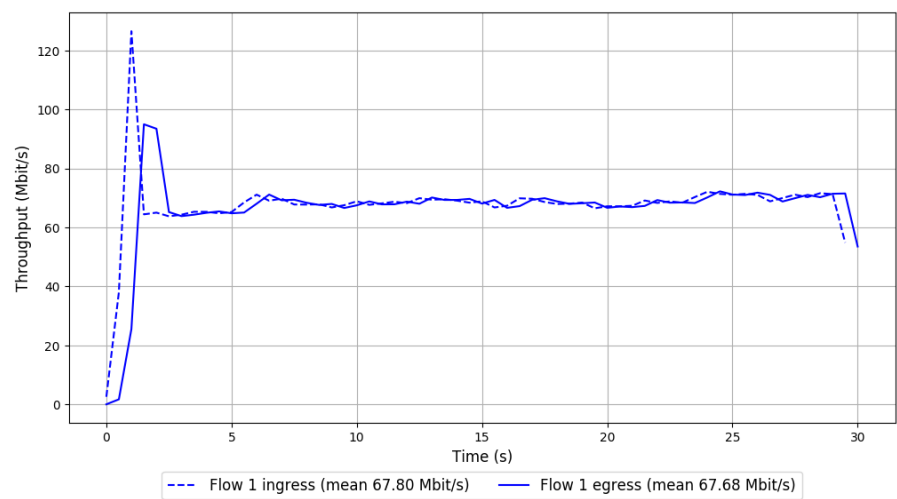
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 67.80 Mbit/s) ——— Flow 1 egress (mean 67.68 Mbit/s)
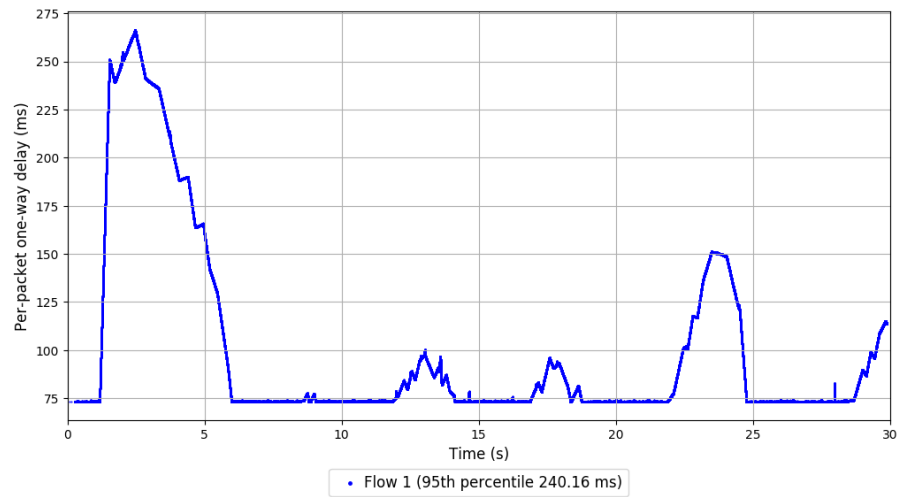
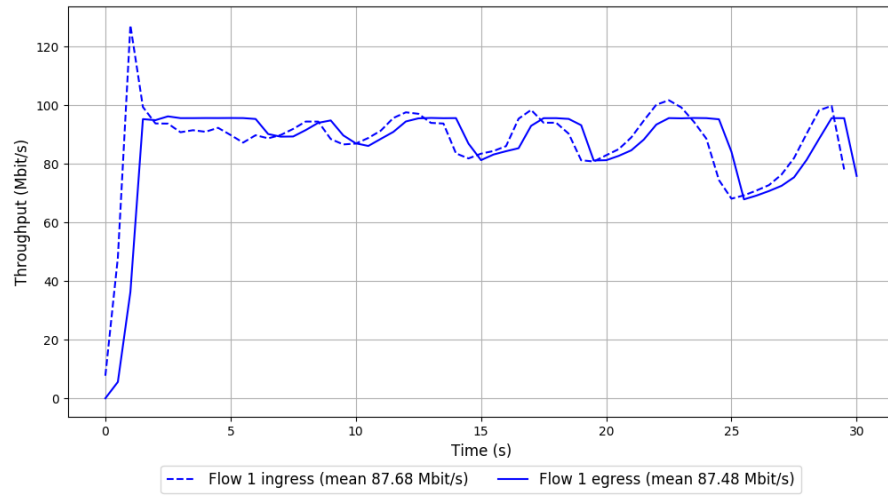

• Flow 1 (95th percentile 71.36 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-19 05:26:51
End at: 2019-01-19 05:27:21
Local clock offset: 0.928 ms
Remote clock offset: 2.641 ms


# Below is generated by plot.py at 2019-01-19 07:56:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.48 Mbit/s
95th percentile per-packet one-way delay: 240.157 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 87.48 Mbit/s
95th percentile per-packet one-way delay: 240.157 ms
Loss rate: 0.50%
```

Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 87.68 Mbit/s)   Flow 1 egress (mean 87.48 Mbit/s)

• Flow 1 (95th percentile 240.16 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-01-19 05:57:42
End at: 2019-01-19 05:58:12
Local clock offset: 0.407 ms
Remote clock offset: 1.279 ms


# Below is generated by plot.py at 2019-01-19 07:56:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.56 Mbit/s
95th percentile per-packet one-way delay: 231.368 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 87.56 Mbit/s
95th percentile per-packet one-way delay: 231.368 ms
Loss rate: 0.32%
```
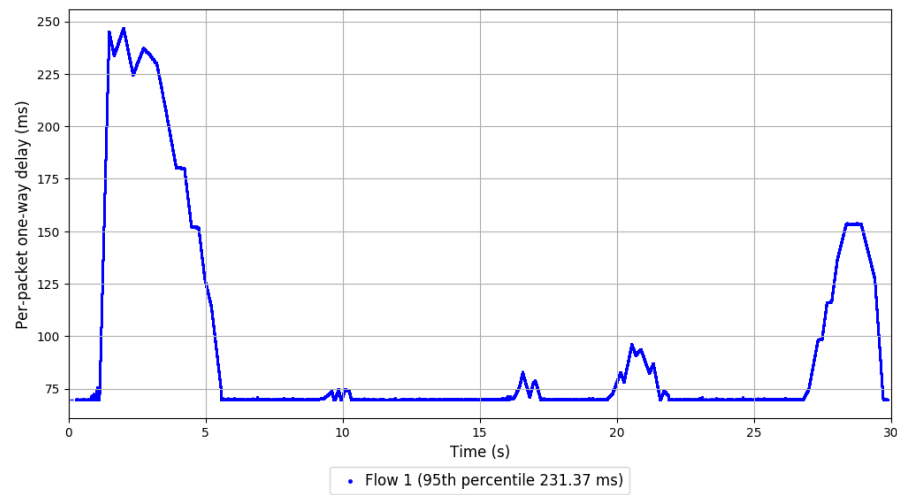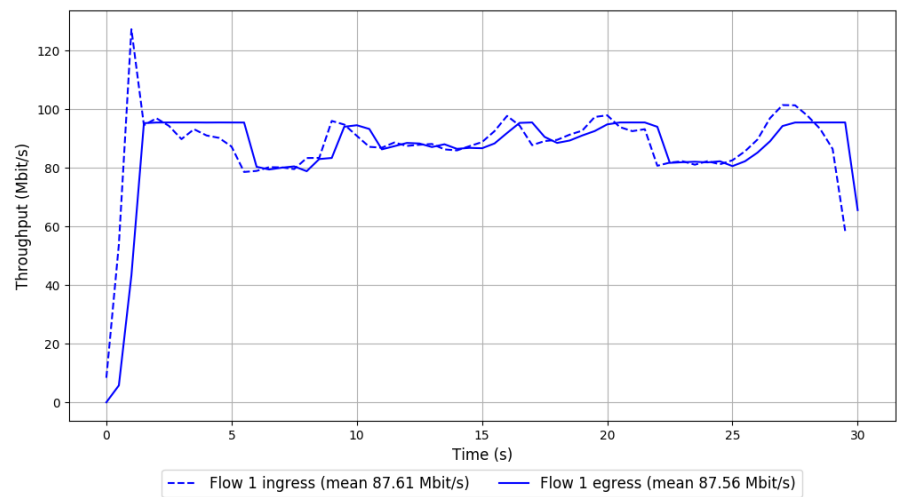
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 87.61 Mbit/s) — Flow 1 egress (mean 87.56 Mbit/s)

Flow 1 (95th percentile 231.37 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-01-19 06:26:43
End at: 2019-01-19 06:27:13
Local clock offset: 1.609 ms
Remote clock offset: 0.429 ms


# Below is generated by plot.py at 2019-01-19 07:56:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.22 Mbit/s
95th percentile per-packet one-way delay: 100.363 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 69.22 Mbit/s
95th percentile per-packet one-way delay: 100.363 ms
Loss rate: 0.39%
```
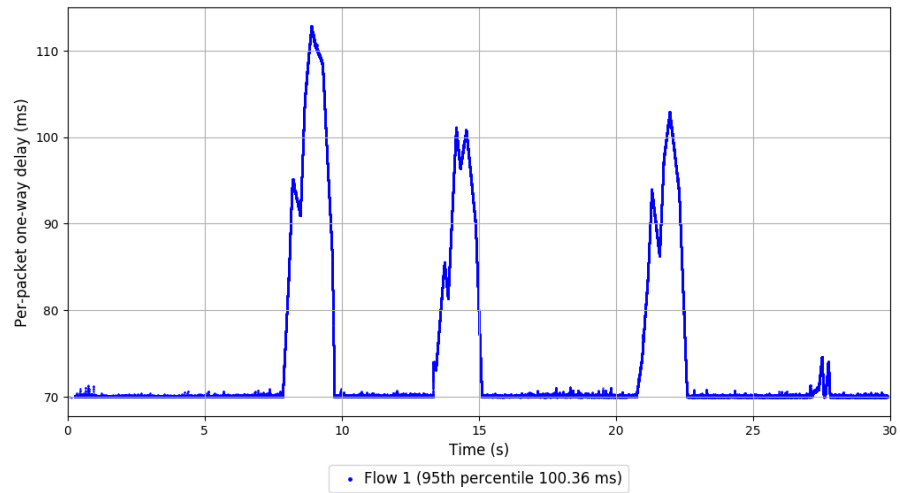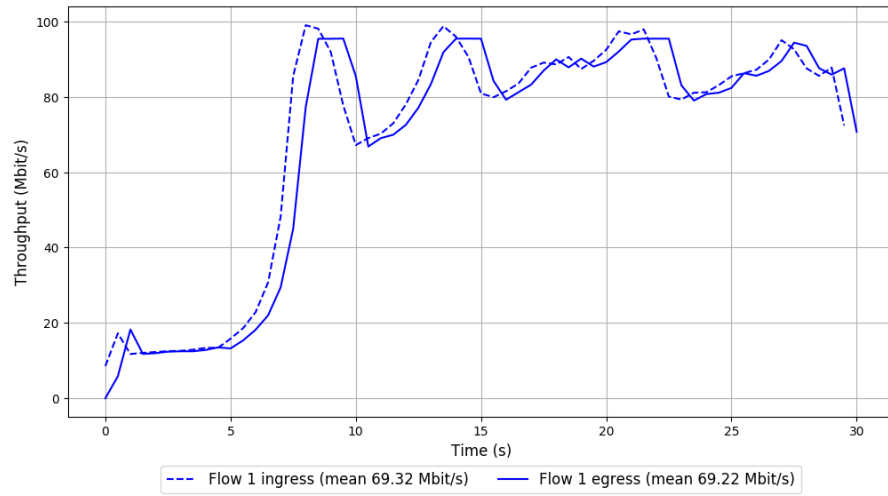
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 69.32 Mbit/s) Flow 1 egress (mean 69.22 Mbit/s)

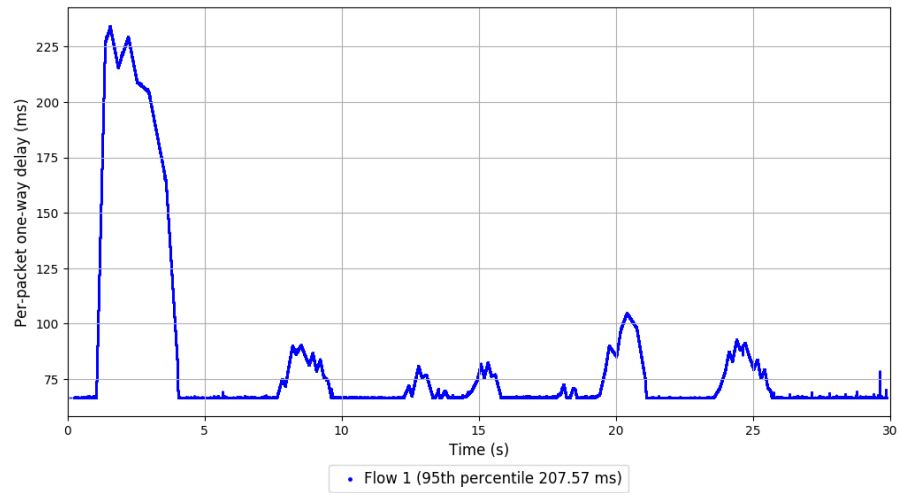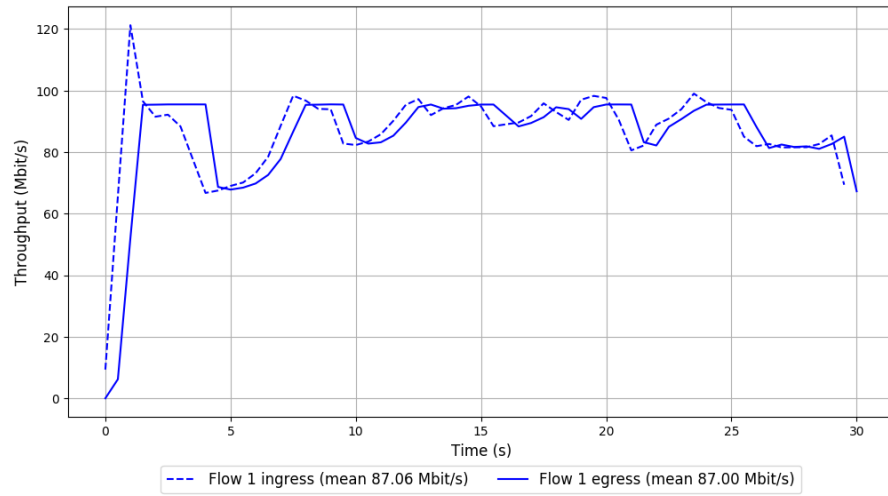Flow 1 (95th percentile 100.36 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-01-19 06:56:47
End at: 2019-01-19 06:57:17
Local clock offset: 0.997 ms
Remote clock offset: -2.332 ms


# Below is generated by plot.py at 2019-01-19 07:57:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.00 Mbit/s
95th percentile per-packet one-way delay: 207.575 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 87.00 Mbit/s
95th percentile per-packet one-way delay: 207.575 ms
Loss rate: 0.32%
```
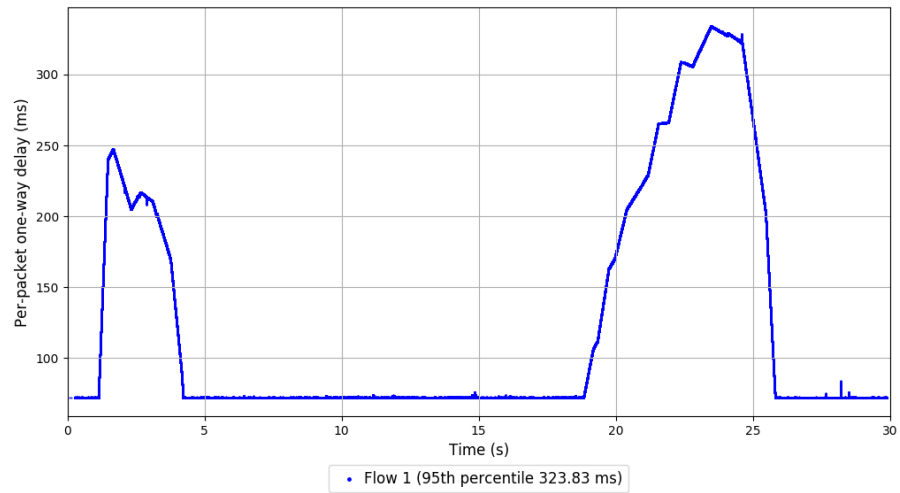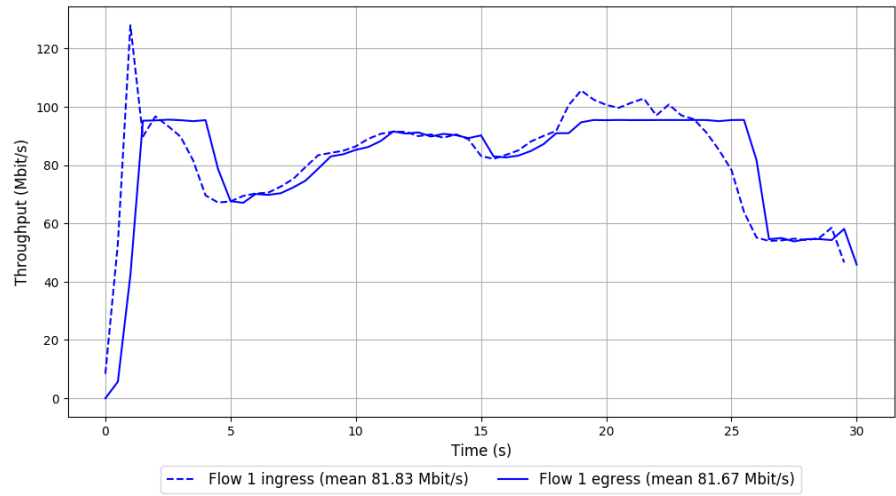
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-01-19 07:25:24
End at: 2019-01-19 07:25:54
Local clock offset: 3.041 ms
Remote clock offset: -1.222 ms


# Below is generated by plot.py at 2019-01-19 07:57:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.67 Mbit/s
95th percentile per-packet one-way delay: 323.827 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 81.67 Mbit/s
95th percentile per-packet one-way delay: 323.827 ms
Loss rate: 0.44%
```

Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 81.83 Mbit/s)   Flow 1 egress (mean 81.67 Mbit/s)

Flow 1 (95th percentile 323.83 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-19 05:25:32
End at: 2019-01-19 05:26:02
Local clock offset: 0.909 ms
Remote clock offset: 2.423 ms


# Below is generated by plot.py at 2019-01-19 07:57:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.09 Mbit/s
95th percentile per-packet one-way delay: 85.142 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 73.09 Mbit/s
95th percentile per-packet one-way delay: 85.142 ms
Loss rate: 0.40%
```
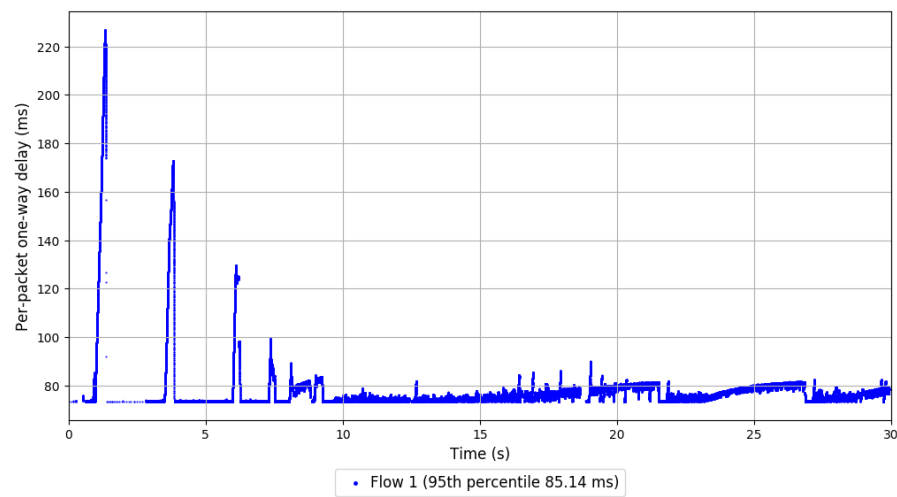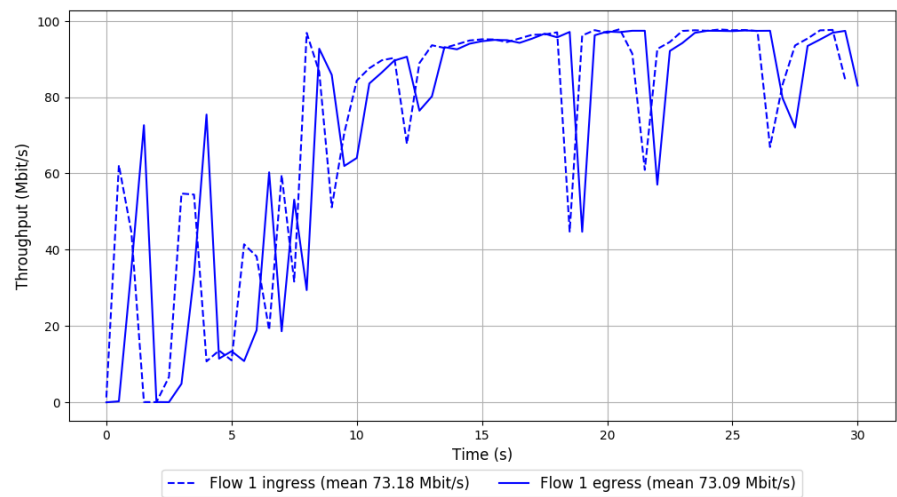
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-01-19 05:56:21
End at: 2019-01-19 05:56:51
Local clock offset: -0.348 ms
Remote clock offset: 0.912 ms


# Below is generated by plot.py at 2019-01-19 07:57:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.44 Mbit/s
95th percentile per-packet one-way delay: 82.981 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 74.44 Mbit/s
95th percentile per-packet one-way delay: 82.981 ms
Loss rate: 0.38%
```
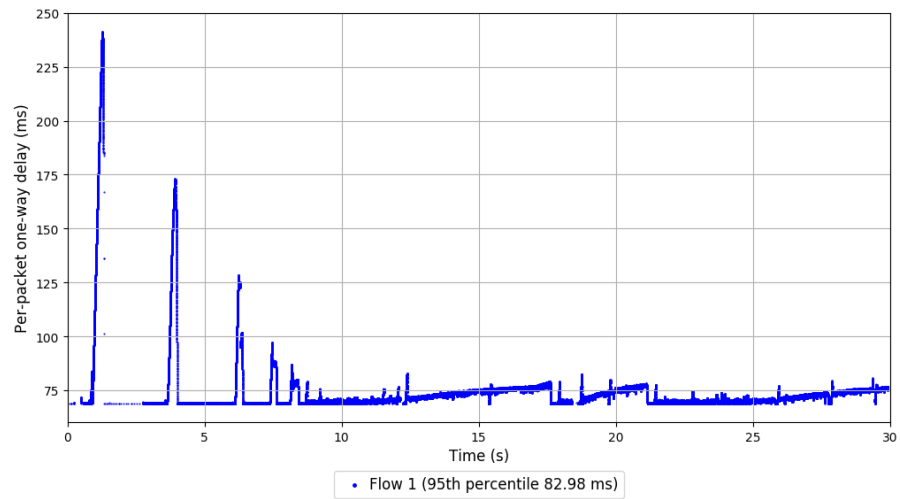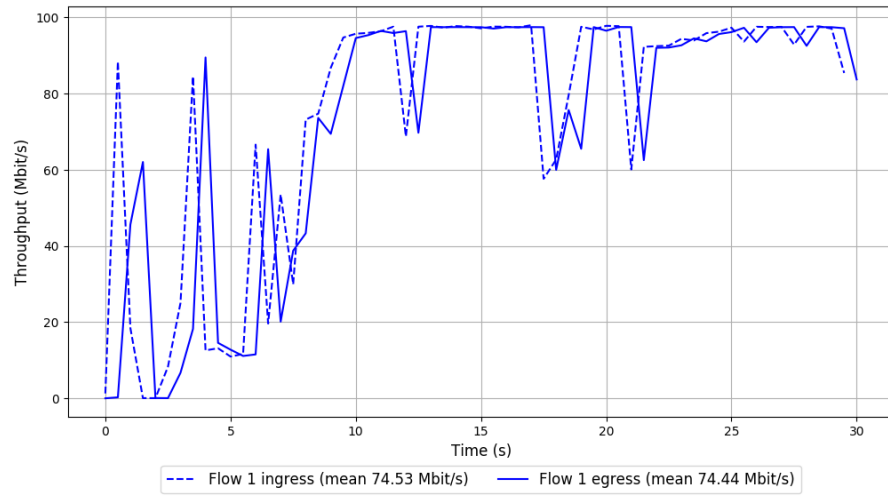
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 74.53 Mbit/s) ---- Flow 1 egress (mean 74.44 Mbit/s)

• Flow 1 (95th percentile 82.98 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-01-19 06:25:23
End at: 2019-01-19 06:25:53
Local clock offset: 0.243 ms
Remote clock offset: -0.416 ms


# Below is generated by plot.py at 2019-01-19 07:57:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.80 Mbit/s
95th percentile per-packet one-way delay: 78.594 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 80.80 Mbit/s
95th percentile per-packet one-way delay: 78.594 ms
Loss rate: 0.31%
```
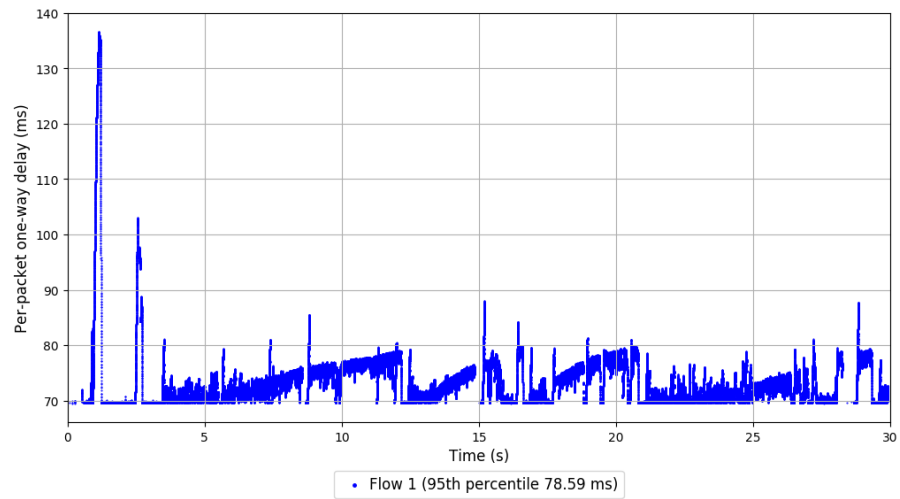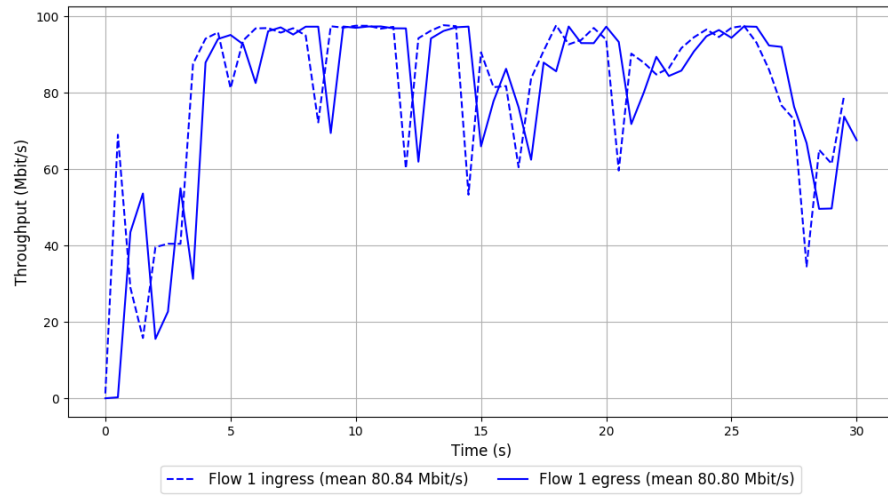
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-01-19 06:55:21
End at: 2019-01-19 06:55:51
Local clock offset: 2.65 ms
Remote clock offset: -2.31 ms


# Below is generated by plot.py at 2019-01-19 07:57:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.13 Mbit/s
95th percentile per-packet one-way delay: 74.305 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 82.13 Mbit/s
95th percentile per-packet one-way delay: 74.305 ms
Loss rate: 0.32%
```
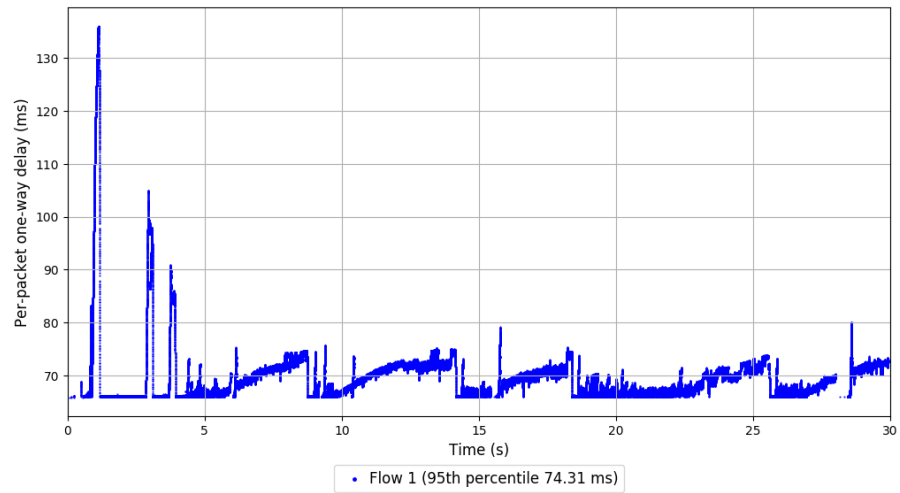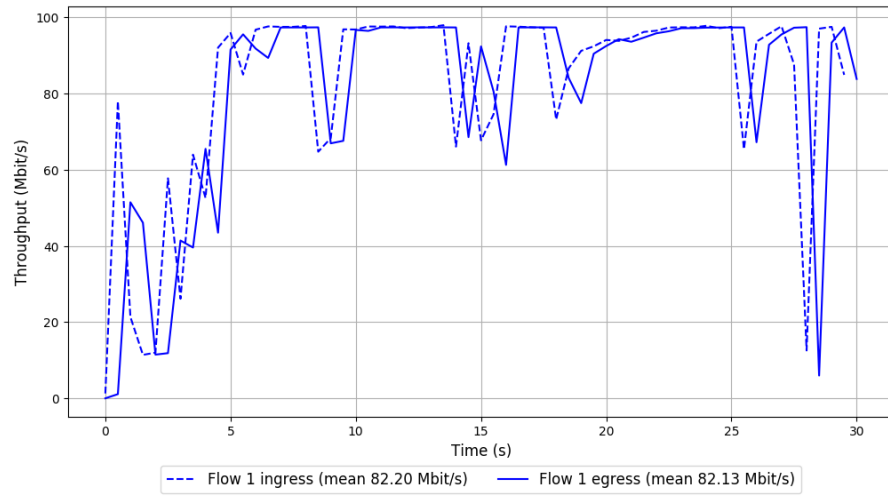
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 82.20 Mbit/s)   Flow 1 egress (mean 82.13 Mbit/s)

Flow 1 (95th percentile 74.31 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-01-19 07:24:03
End at: 2019-01-19 07:24:33
Local clock offset: 1.844 ms
Remote clock offset: -0.913 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.79 Mbit/s
95th percentile per-packet one-way delay: 79.891 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 80.79 Mbit/s
95th percentile per-packet one-way delay: 79.891 ms
Loss rate: 0.26%
```
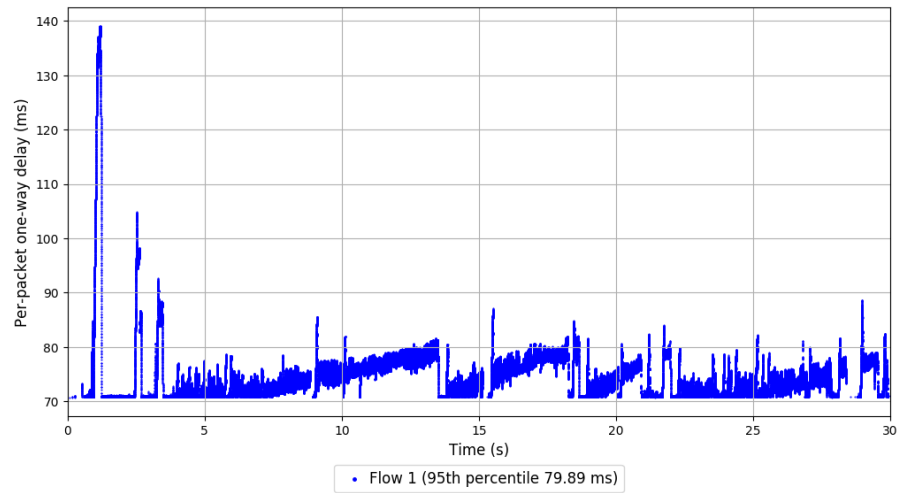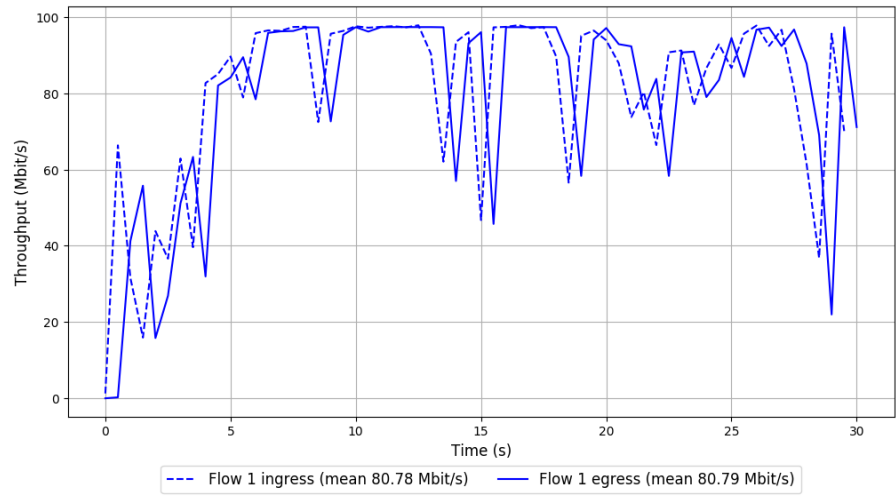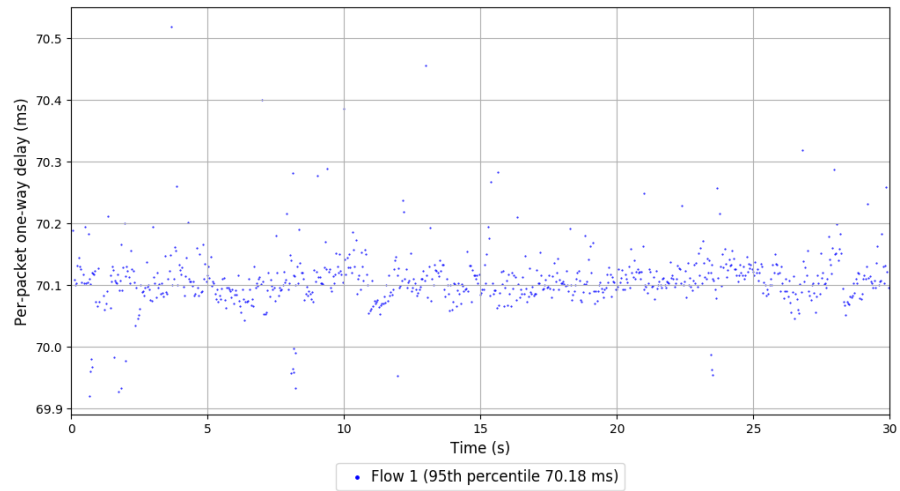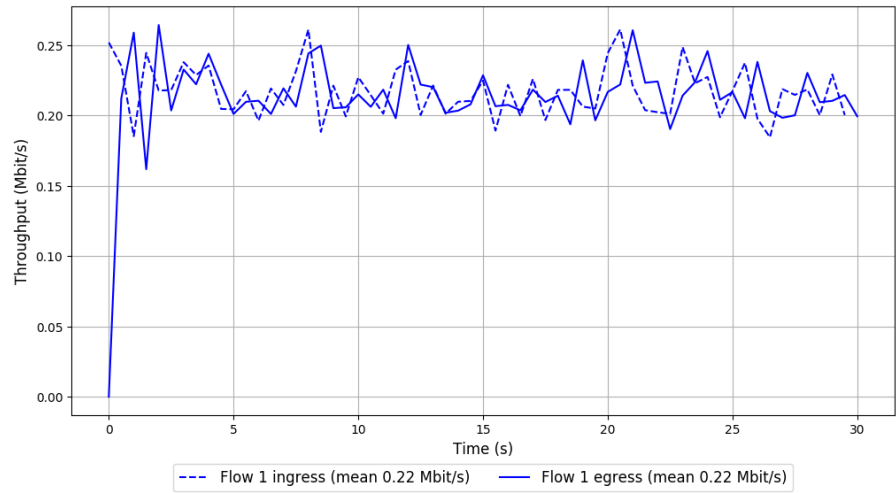
Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-01-19 05:38:26
End at: 2019-01-19 05:38:56
Local clock offset: 0.844 ms
Remote clock offset: 0.883 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 70.179 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 70.179 ms
Loss rate: 0.26%
```

Run 1: 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 70.18 ms)

```
Run 2: Statistics of SCReAM

Start at: 2019-01-19 06:08:45
End at: 2019-01-19 06:09:15
Local clock offset: 1.16 ms
Remote clock offset: 1.311 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 67.777 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 67.777 ms
Loss rate: 0.26%
```
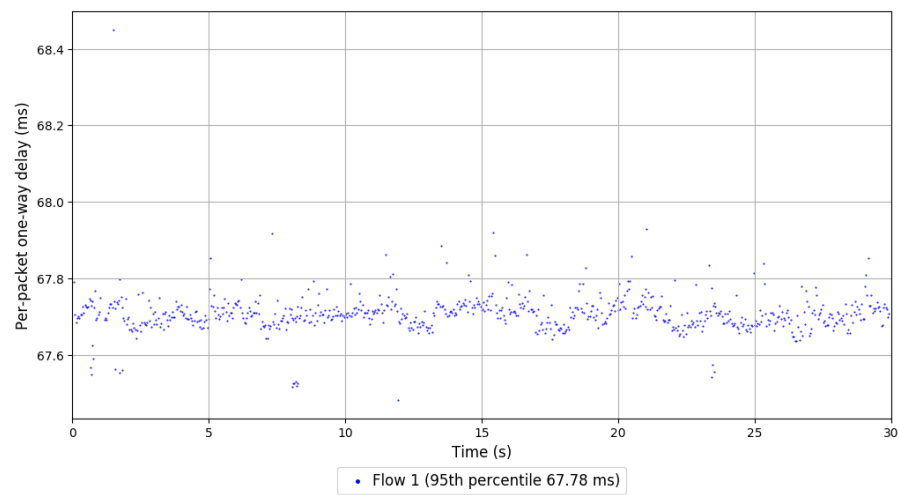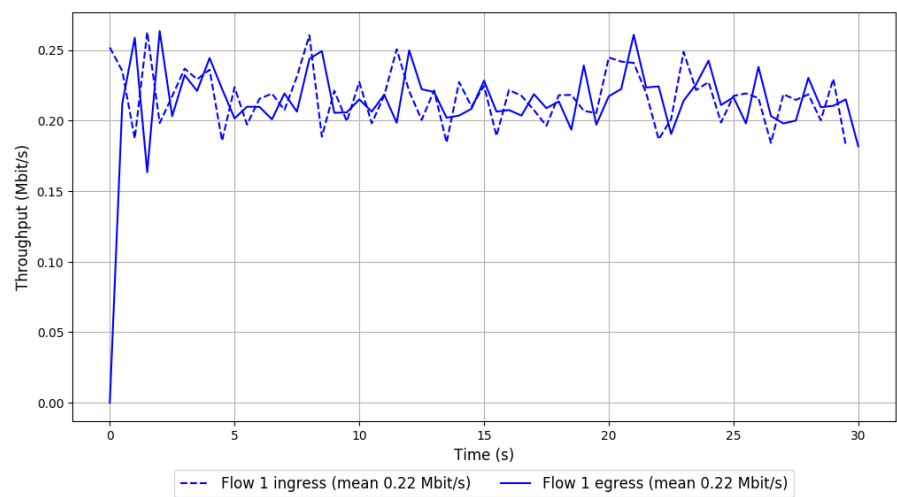
Run 2: Report of SCReAM — Data Link

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

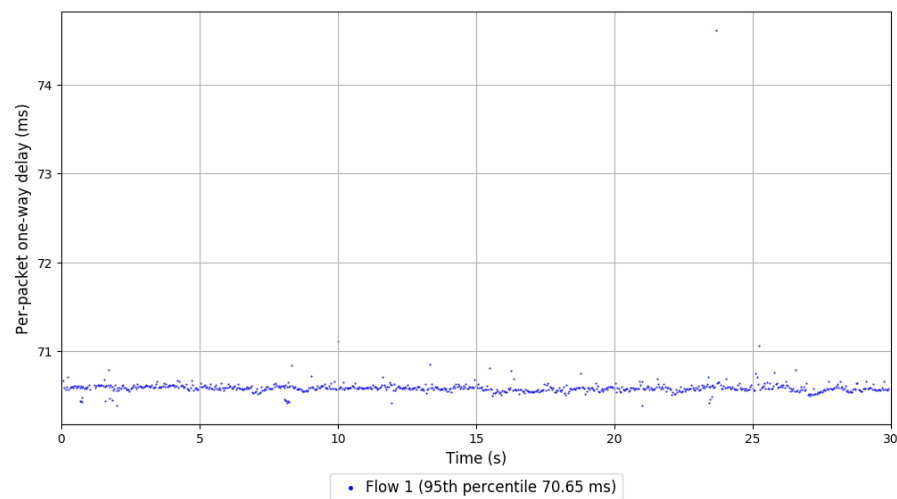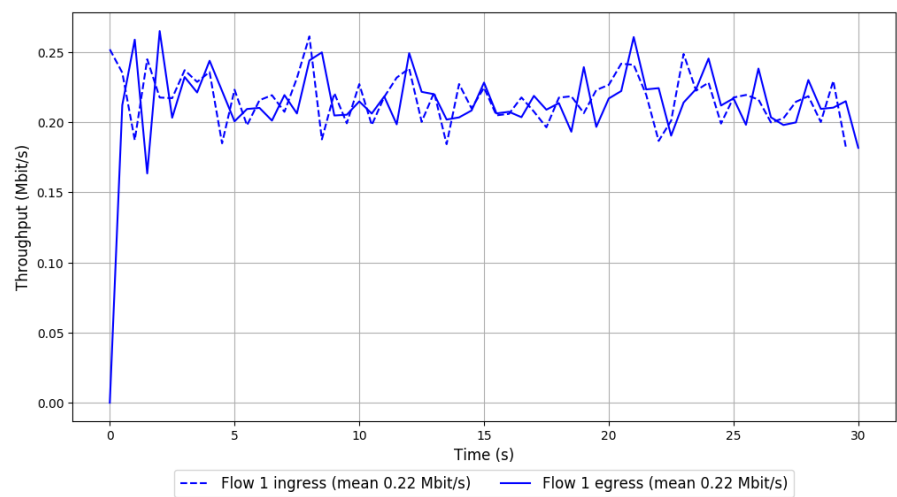Flow 1 (95th percentile 67.78 ms)

```
Run 3: Statistics of SCReAM

Start at: 2019-01-19 06:37:51
End at: 2019-01-19 06:38:21
Local clock offset: 2.293 ms
Remote clock offset: -0.162 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 70.651 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 70.651 ms
Loss rate: 0.26%
```

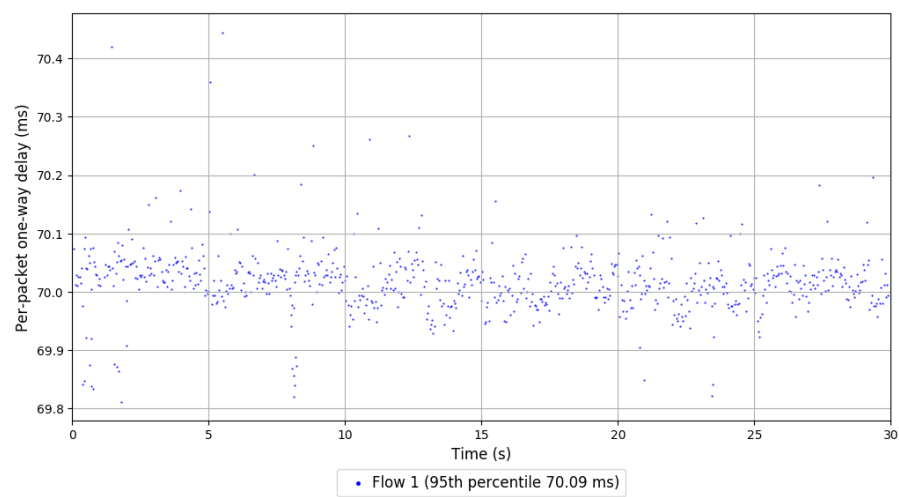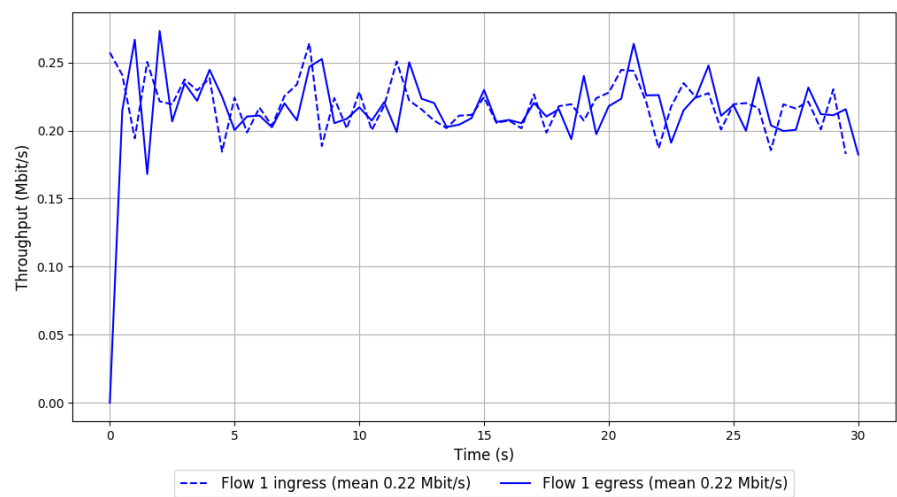## Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-01-19 07:07:57
End at: 2019-01-19 07:08:27
Local clock offset: 0.847 ms
Remote clock offset: -0.194 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 70.093 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 70.093 ms
Loss rate: 0.25%
```

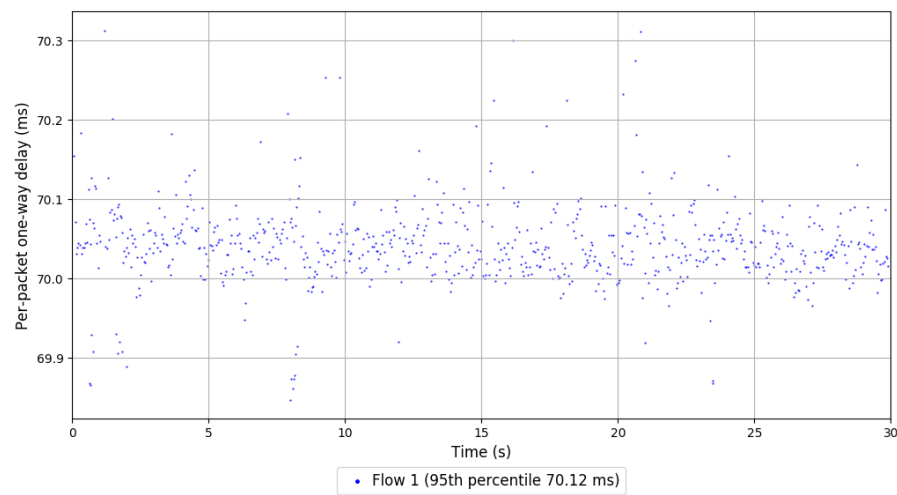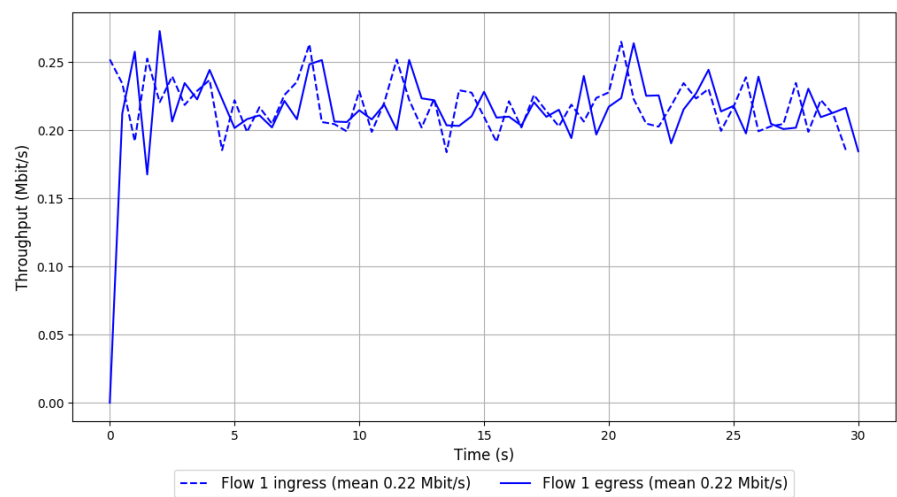# Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-01-19 07:36:11
End at: 2019-01-19 07:36:41
Local clock offset: 1.393 ms
Remote clock offset: -0.389 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 70.117 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 70.117 ms
Loss rate: 0.26%
```

Run 5: 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 70.12 ms)

```
Run 1: Statistics of Sprout

Start at: 2019-01-19 05:45:44
End at: 2019-01-19 05:46:14
Local clock offset: 0.89 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 79.007 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 79.007 ms
Loss rate: 0.35%
```
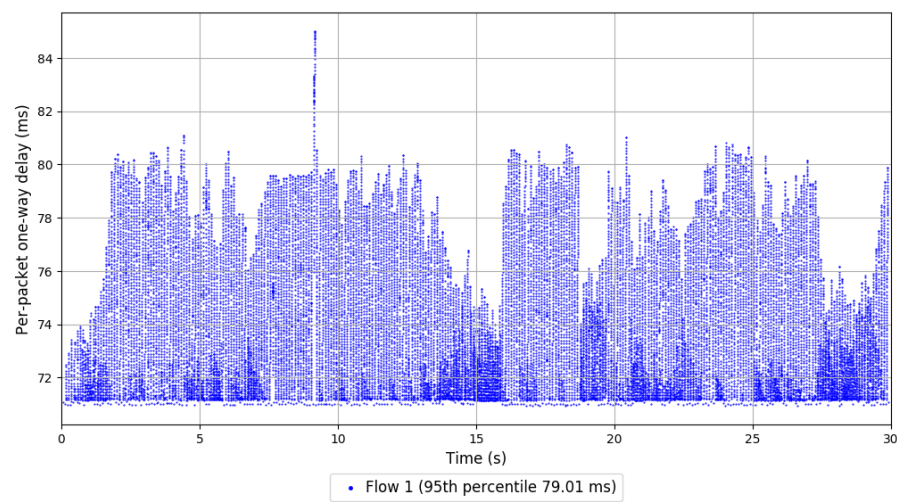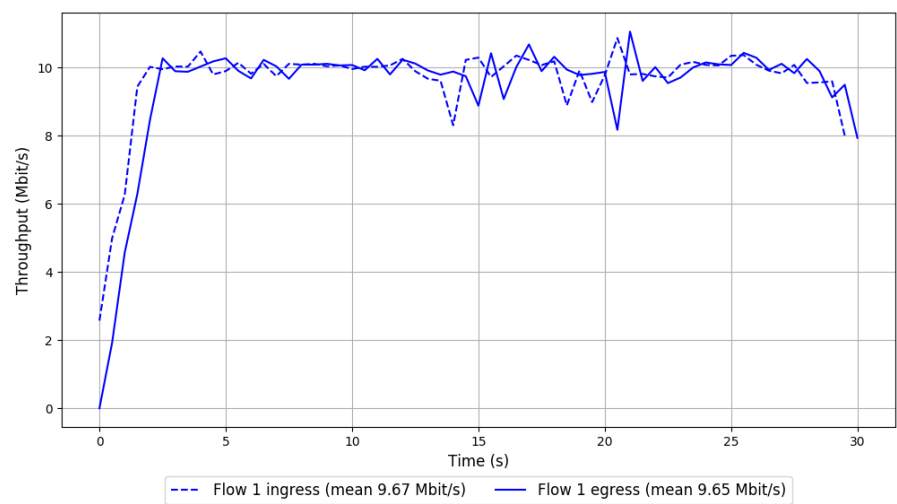
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-01-19 06:15:55
End at: 2019-01-19 06:16:25
Local clock offset: -0.225 ms
Remote clock offset: 0.34 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.63 Mbit/s
95th percentile per-packet one-way delay: 77.888 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.63 Mbit/s
95th percentile per-packet one-way delay: 77.888 ms
Loss rate: 0.00%
```
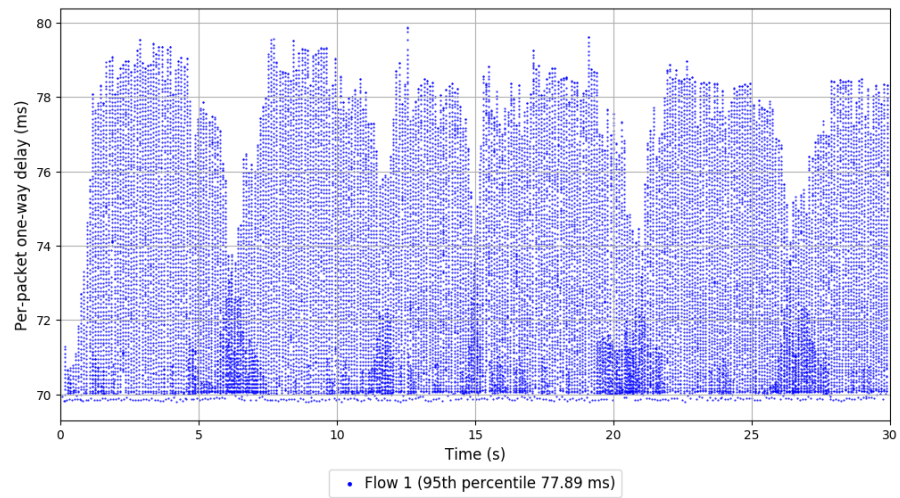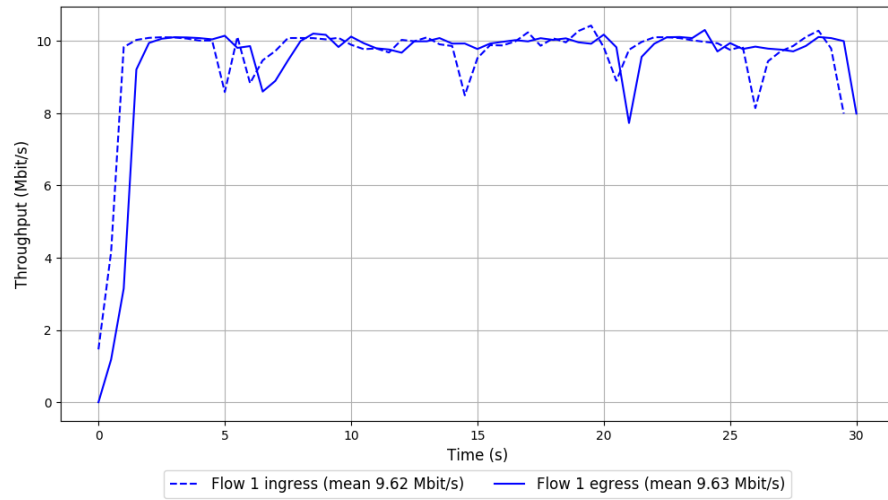
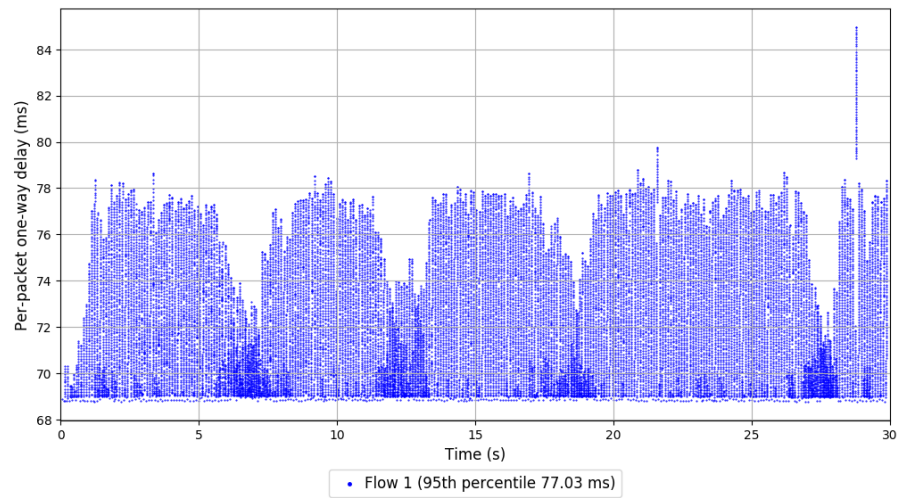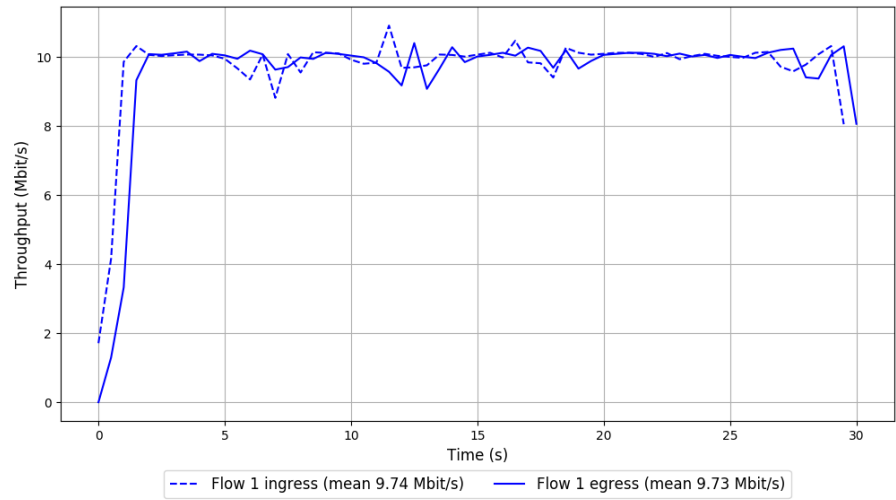Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-01-19 06:45:12
End at: 2019-01-19 06:45:42
Local clock offset: 1.14 ms
Remote clock offset: -0.095 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.73 Mbit/s
95th percentile per-packet one-way delay: 77.034 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.73 Mbit/s
95th percentile per-packet one-way delay: 77.034 ms
Loss rate: 0.35%
```

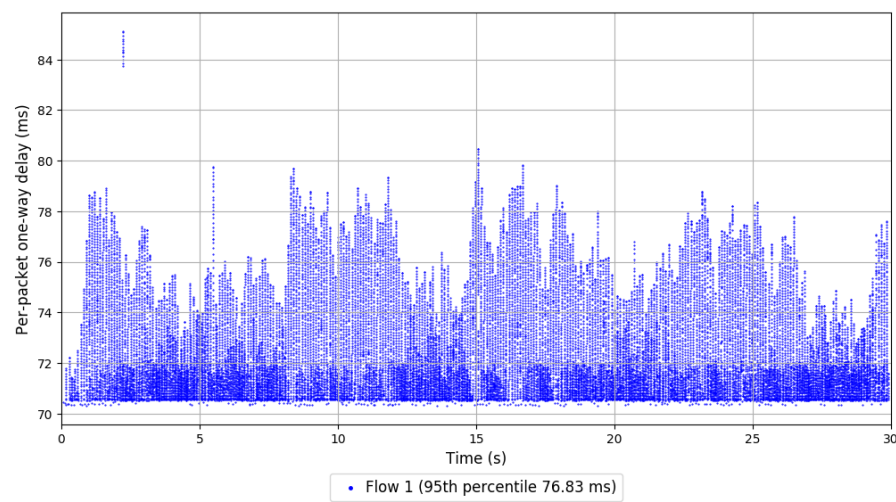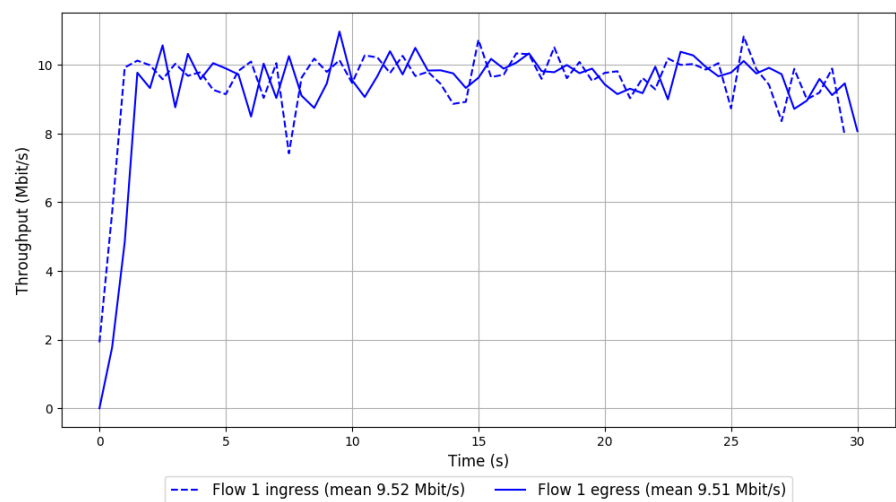Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-01-19 07:14:56
End at: 2019-01-19 07:15:26
Local clock offset: 1.455 ms
Remote clock offset: -1.025 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 76.835 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 76.835 ms
Loss rate: 0.30%
```
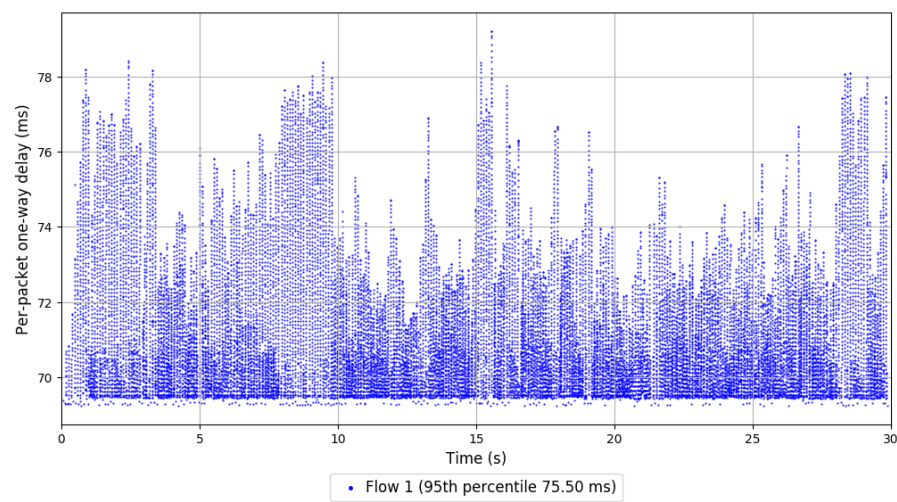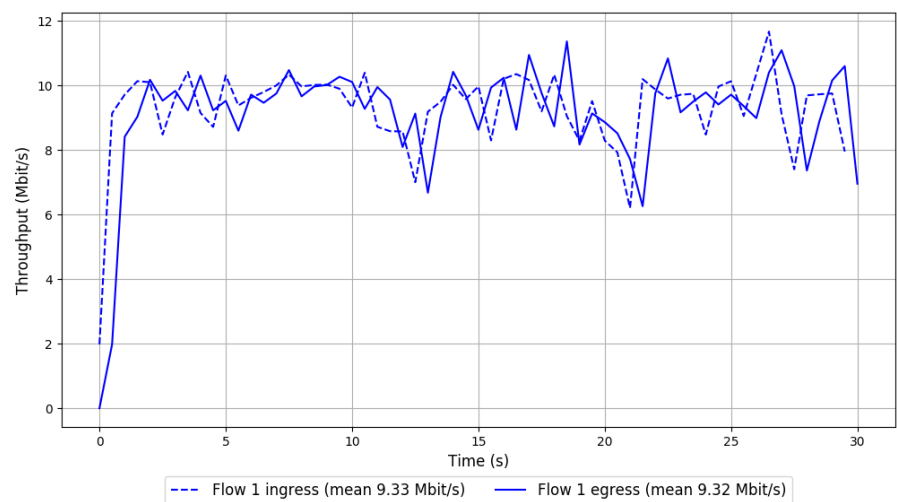
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-01-19 07:42:11
End at: 2019-01-19 07:42:41
Local clock offset: -0.251 ms
Remote clock offset: -1.481 ms


# Below is generated by plot.py at 2019-01-19 07:57:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 75.497 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 75.497 ms
Loss rate: 0.35%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 9.33 Mbit/s)   Flow 1 egress (mean 9.32 Mbit/s)

Flow 1 (95th percentile 75.50 ms)

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

Start at: 2019-01-19 05:21:47
End at: 2019-01-19 05:22:17
Local clock offset: -1.048 ms
Remote clock offset: 2.273 ms


# Below is generated by plot.py at 2019-01-19 07:58:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.88 Mbit/s
95th percentile per-packet one-way delay: 79.659 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 91.88 Mbit/s
95th percentile per-packet one-way delay: 79.659 ms
Loss rate: 0.27%
```
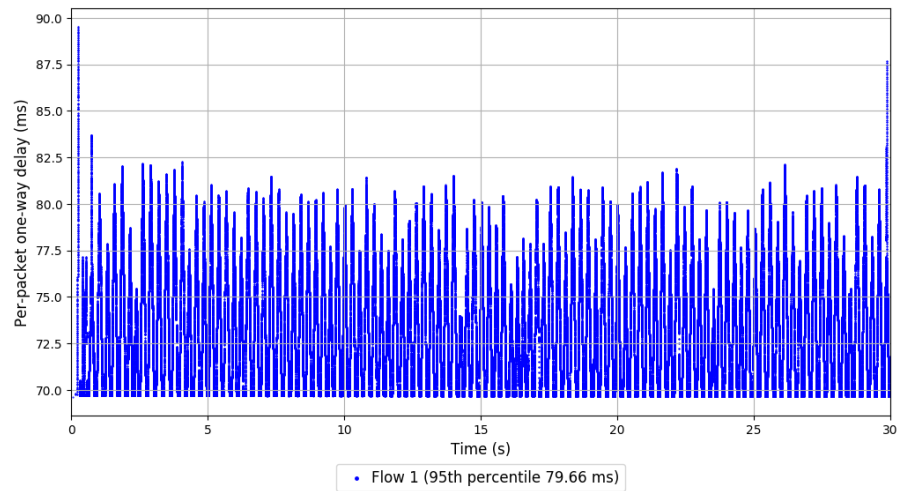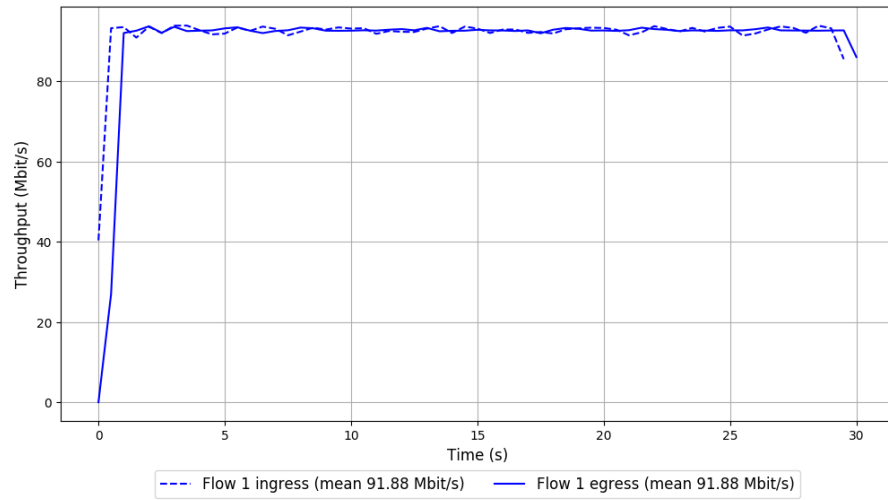
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-01-19 05:52:52
End at: 2019-01-19 05:53:22
Local clock offset: -0.685 ms
Remote clock offset: 0.963 ms


# Below is generated by plot.py at 2019-01-19 07:58:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.71 Mbit/s
95th percentile per-packet one-way delay: 78.009 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 90.71 Mbit/s
95th percentile per-packet one-way delay: 78.009 ms
Loss rate: 0.25%
```
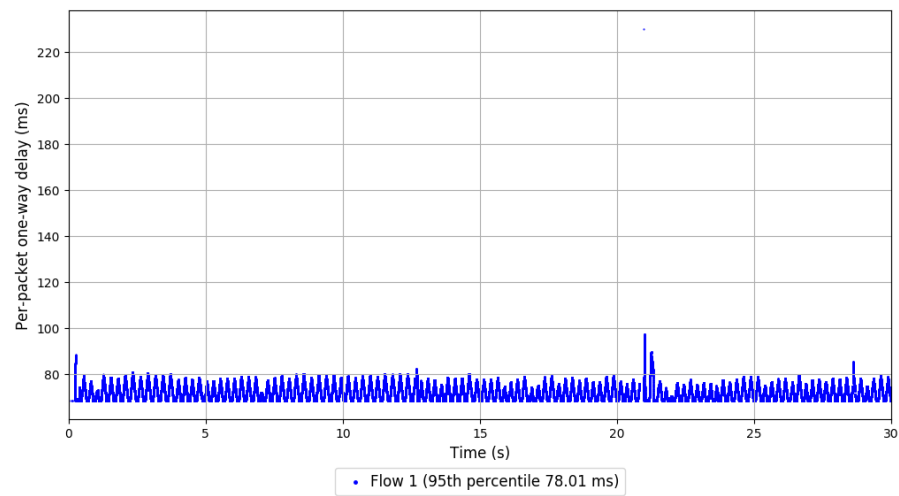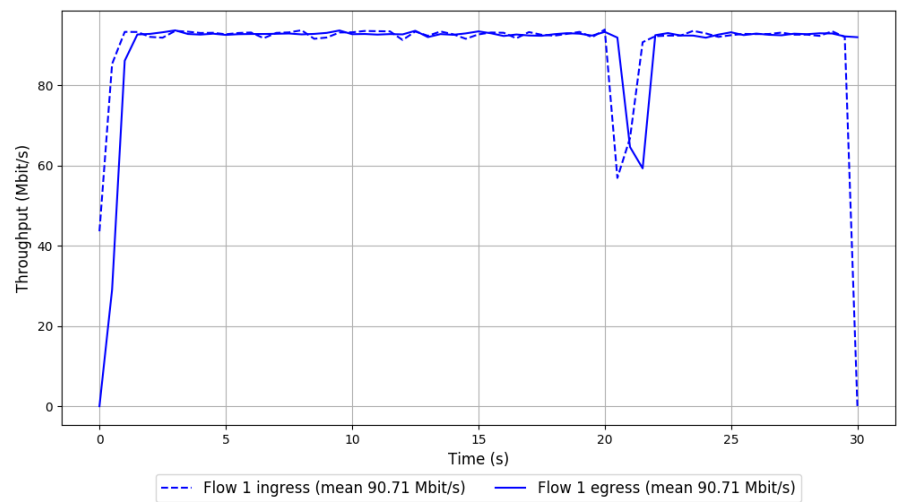
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 90.71 Mbit/s)   Flow 1 egress (mean 90.71 Mbit/s)

Flow 1 (95th percentile 78.01 ms)

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

Start at: 2019-01-19 06:22:23
End at: 2019-01-19 06:22:53
Local clock offset: 1.211 ms
Remote clock offset: 0.418 ms


# Below is generated by plot.py at 2019-01-19 07:58:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.85 Mbit/s
95th percentile per-packet one-way delay: 80.275 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 91.85 Mbit/s
95th percentile per-packet one-way delay: 80.275 ms
Loss rate: 0.26%
```
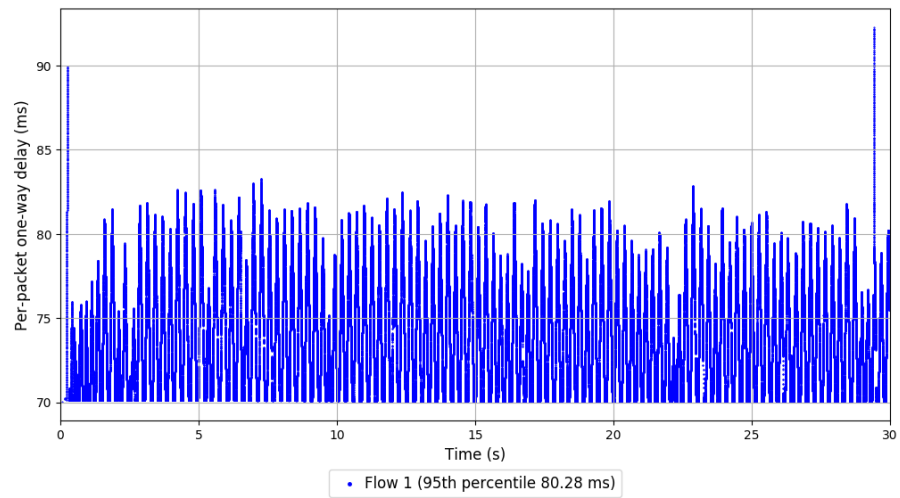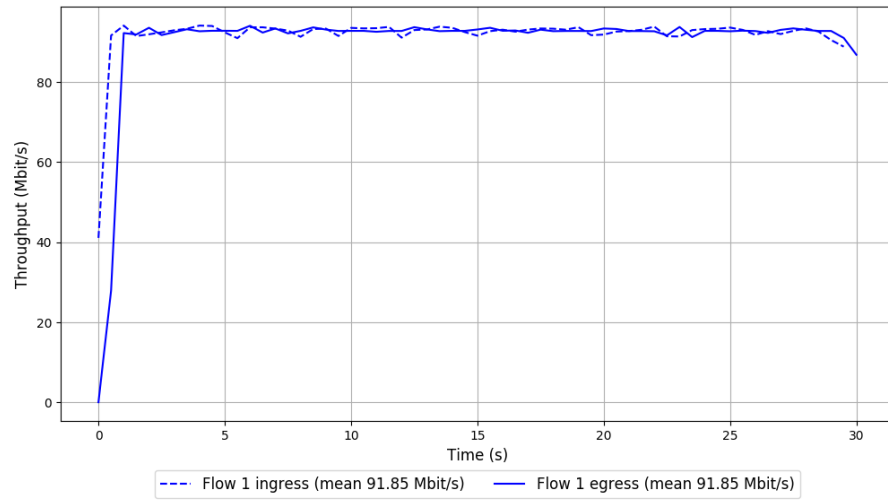
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 91.85 Mbit/s)   Flow 1 egress (mean 91.85 Mbit/s)

Flow 1 (95th percentile 80.28 ms)

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

Start at: 2019-01-19 06:52:04
End at: 2019-01-19 06:52:34
Local clock offset: 2.395 ms
Remote clock offset: -2.461 ms


# Below is generated by plot.py at 2019-01-19 07:58:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.26 Mbit/s
95th percentile per-packet one-way delay: 74.924 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 91.26 Mbit/s
95th percentile per-packet one-way delay: 74.924 ms
Loss rate: 0.24%
```
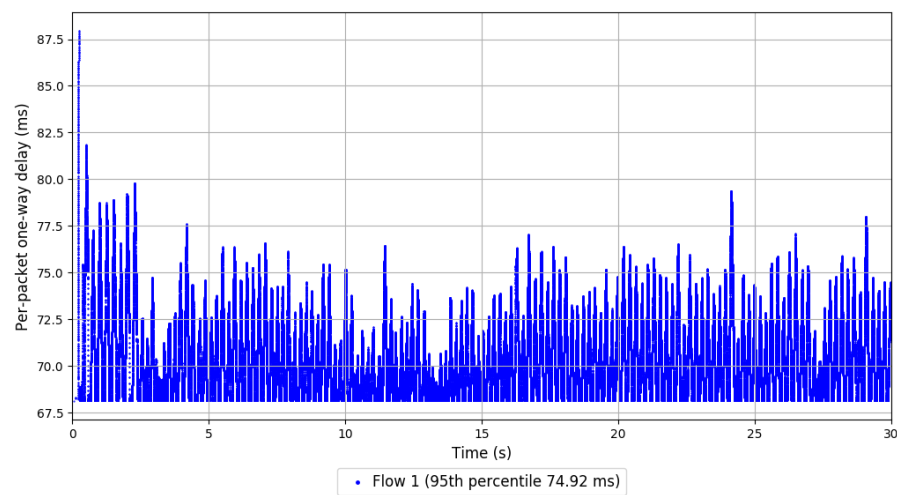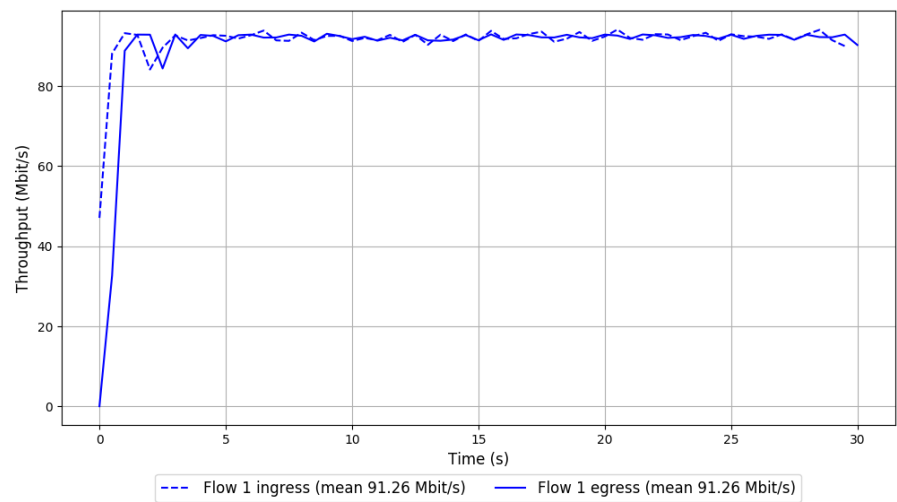
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 91.26 Mbit/s) --- Flow 1 egress (mean 91.26 Mbit/s)

Flow 1 (95th percentile 74.92 ms)

172

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

Start at: 2019-01-19 07:21:14
End at: 2019-01-19 07:21:44
Local clock offset: 0.101 ms
Remote clock offset: -1.101 ms


# Below is generated by plot.py at 2019-01-19 07:59:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.51 Mbit/s
95th percentile per-packet one-way delay: 78.018 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 91.51 Mbit/s
95th percentile per-packet one-way delay: 78.018 ms
Loss rate: 0.25%
```
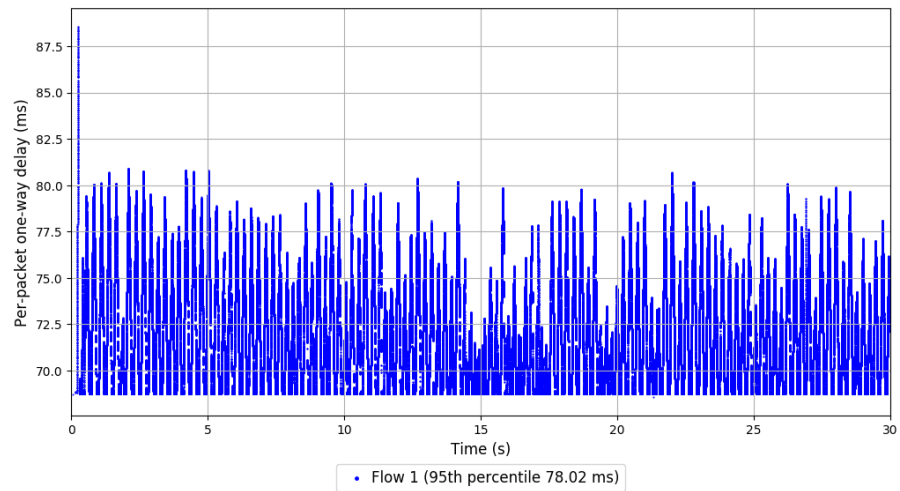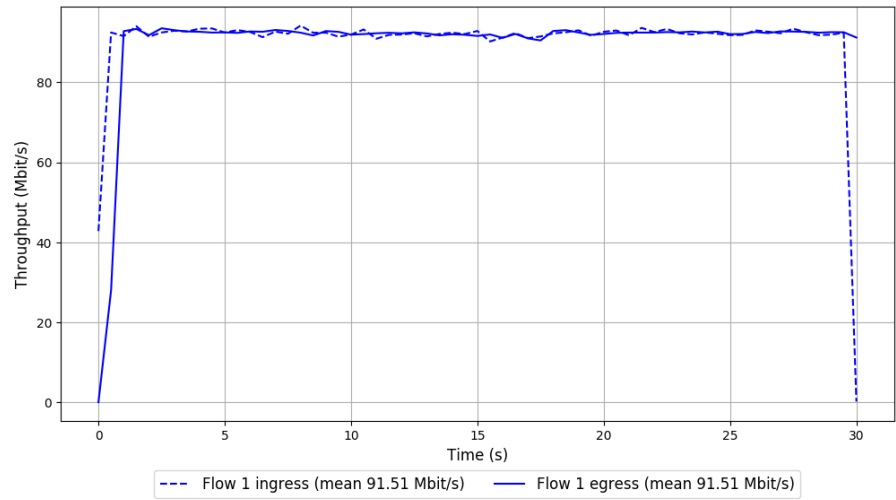
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 91.51 Mbit/s) --- Flow 1 egress (mean 91.51 Mbit/s)
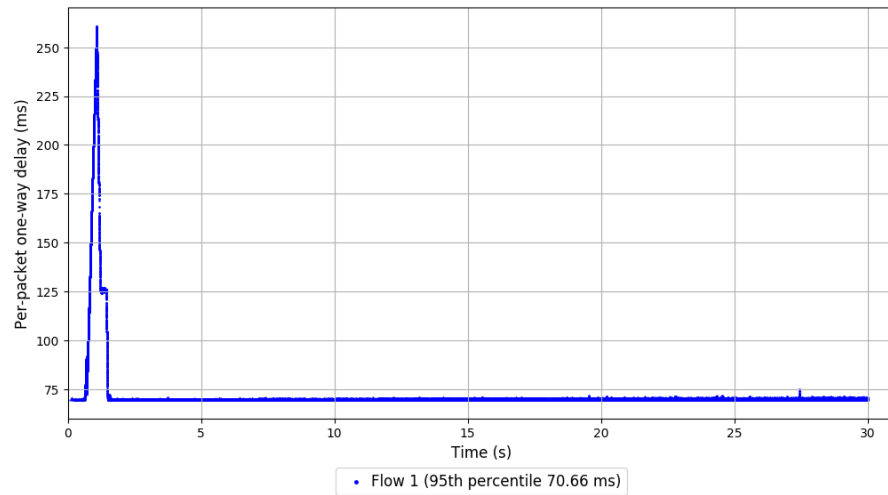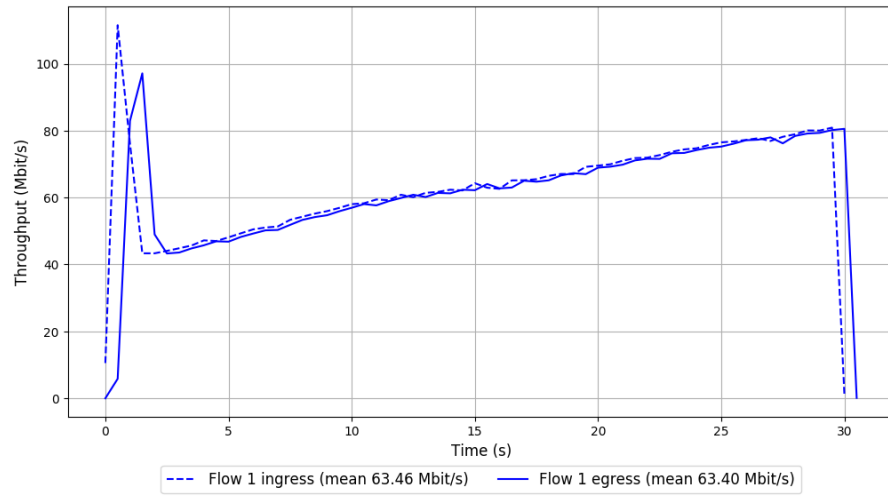

Flow 1 (95th percentile 78.02 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-01-19 05:30:11
End at: 2019-01-19 05:30:41
Local clock offset: -0.679 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2019-01-19 07:59:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.40 Mbit/s
95th percentile per-packet one-way delay: 70.662 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 63.40 Mbit/s
95th percentile per-packet one-way delay: 70.662 ms
Loss rate: 0.35%
```

Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 63.46 Mbit/s)   Flow 1 egress (mean 63.40 Mbit/s)

Flow 1 (95th percentile 70.66 ms)

```
Run 2: Statistics of TCP Vegas

Start at: 2019-01-19 06:00:44
End at: 2019-01-19 06:01:14
Local clock offset: 0.807 ms
Remote clock offset: 0.966 ms


# Below is generated by plot.py at 2019-01-19 07:59:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.53 Mbit/s
95th percentile per-packet one-way delay: 71.368 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 70.53 Mbit/s
95th percentile per-packet one-way delay: 71.368 ms
Loss rate: 0.34%
```
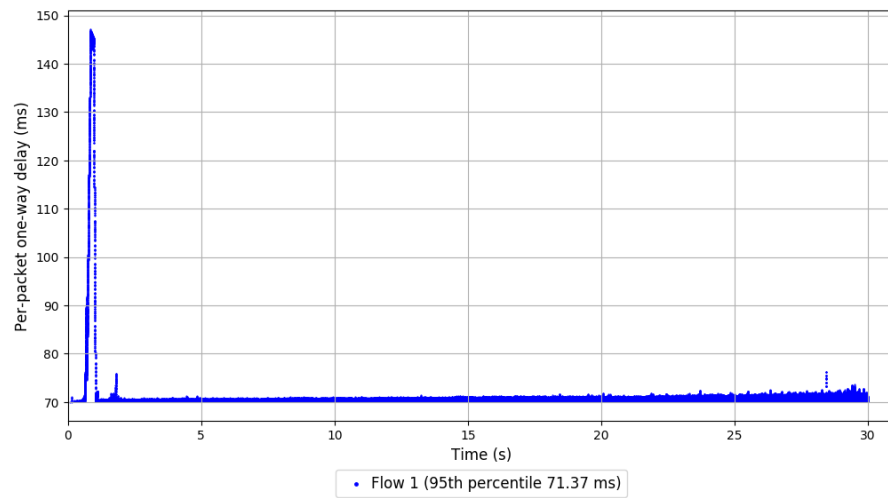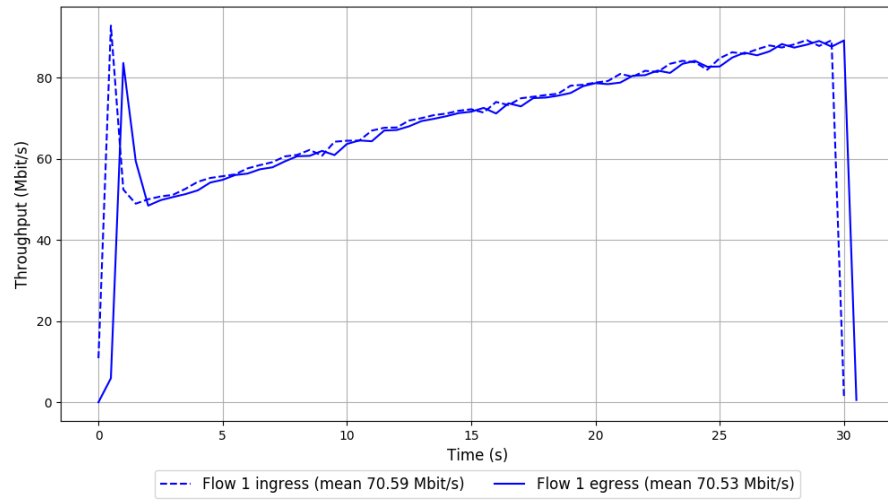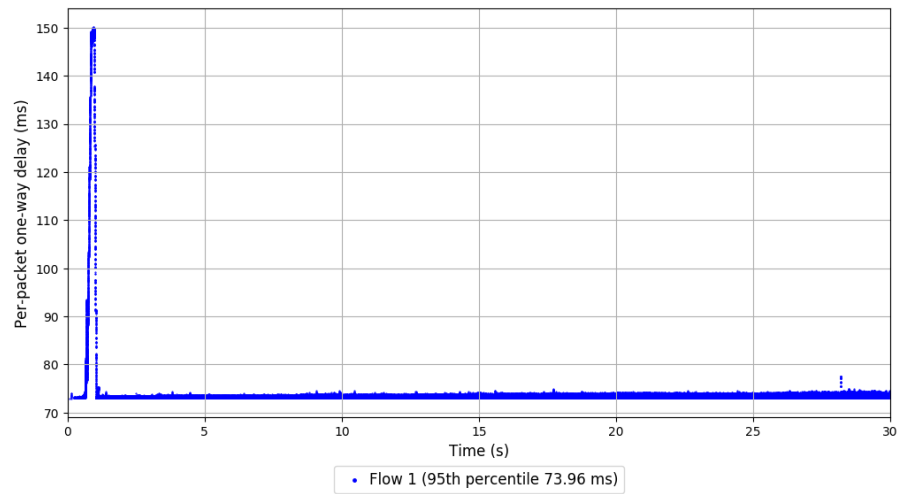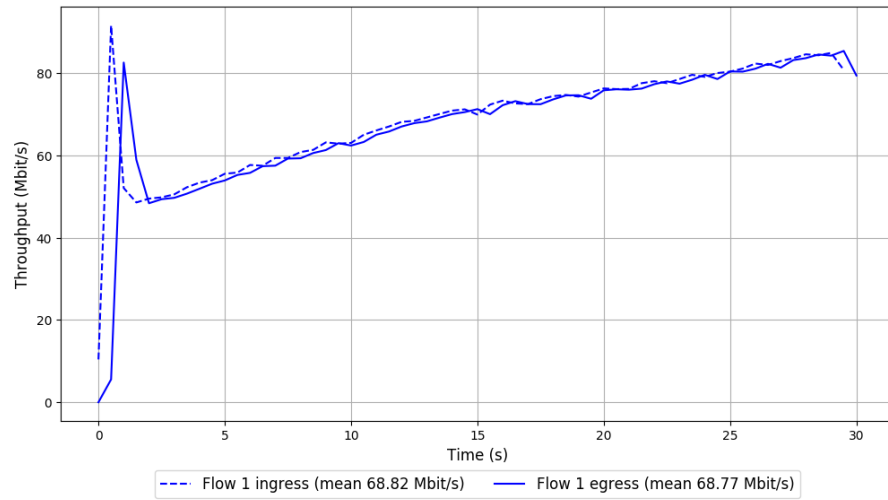
Run 2: Report of TCP Vegas — Data Link

Run 3: Statistics of TCP Vegas

Start at: 2019-01-19 06:29:50
End at: 2019-01-19 06:30:20
Local clock offset: 3.823 ms
Remote clock offset: -0.085 ms

Below is generated by plot.py at 2019-01-19 07:59:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 68.77 Mbit/s
95th percentile per-packet one-way delay: 73.959 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 68.77 Mbit/s
95th percentile per-packet one-way delay: 73.959 ms
Loss rate: 0.33%

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 68.82 Mbit/s)   Flow 1 egress (mean 68.77 Mbit/s)

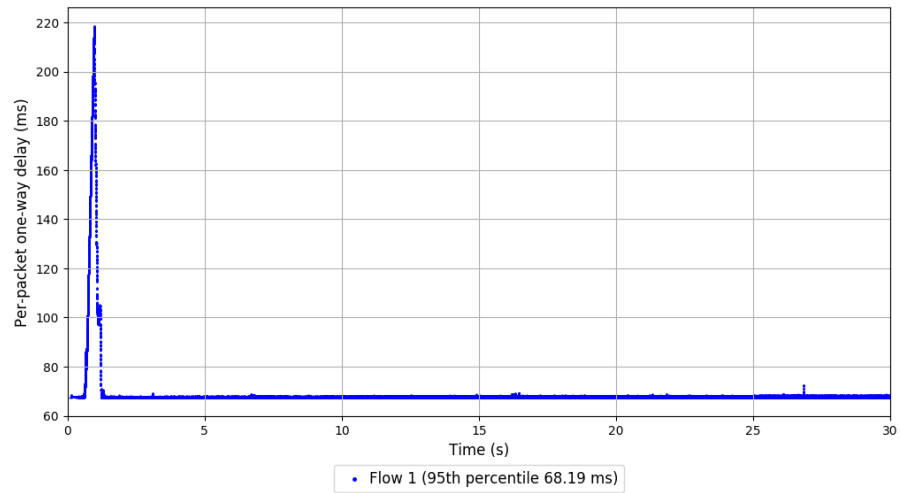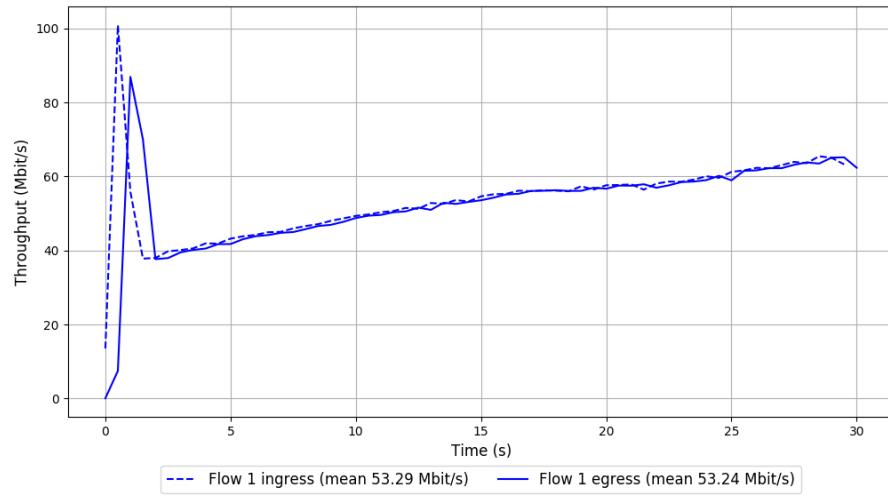Flow 1 (95th percentile 73.96 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-01-19 07:00:09
End at: 2019-01-19 07:00:39
Local clock offset: 1.534 ms
Remote clock offset: -2.711 ms


# Below is generated by plot.py at 2019-01-19 07:59:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.24 Mbit/s
95th percentile per-packet one-way delay: 68.188 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 53.24 Mbit/s
95th percentile per-packet one-way delay: 68.188 ms
Loss rate: 0.33%
```
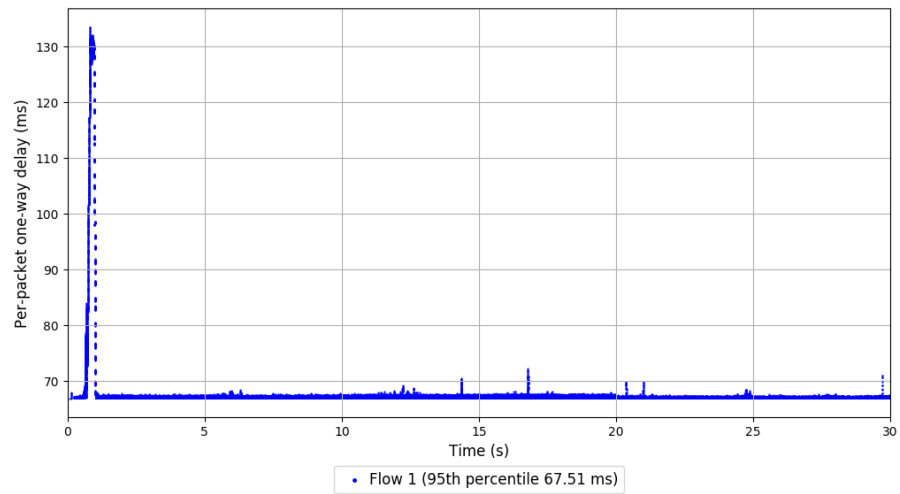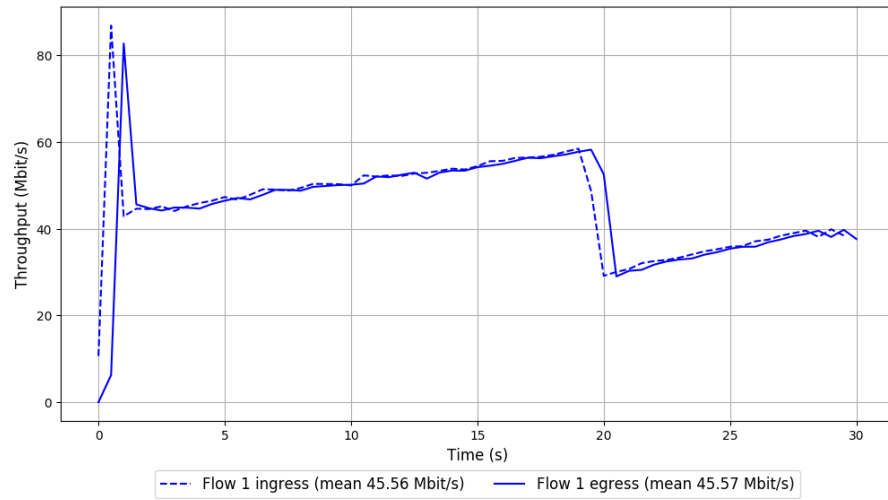
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-01-19 07:28:26
End at: 2019-01-19 07:28:56
Local clock offset: 0.498 ms
Remote clock offset: -1.219 ms


# Below is generated by plot.py at 2019-01-19 07:59:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.57 Mbit/s
95th percentile per-packet one-way delay: 67.511 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 45.57 Mbit/s
95th percentile per-packet one-way delay: 67.511 ms
Loss rate: 0.23%
```

Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-01-19 05:40:58
End at: 2019-01-19 05:41:28
Local clock offset: 0.89 ms
Remote clock offset: 0.993 ms


# Below is generated by plot.py at 2019-01-19 07:59:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.54 Mbit/s
95th percentile per-packet one-way delay: 112.949 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 76.54 Mbit/s
95th percentile per-packet one-way delay: 112.949 ms
Loss rate: 0.21%
```
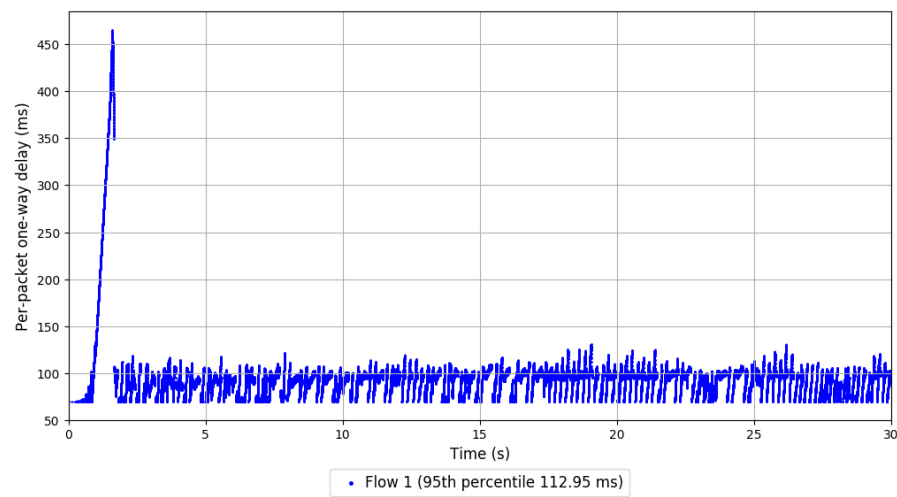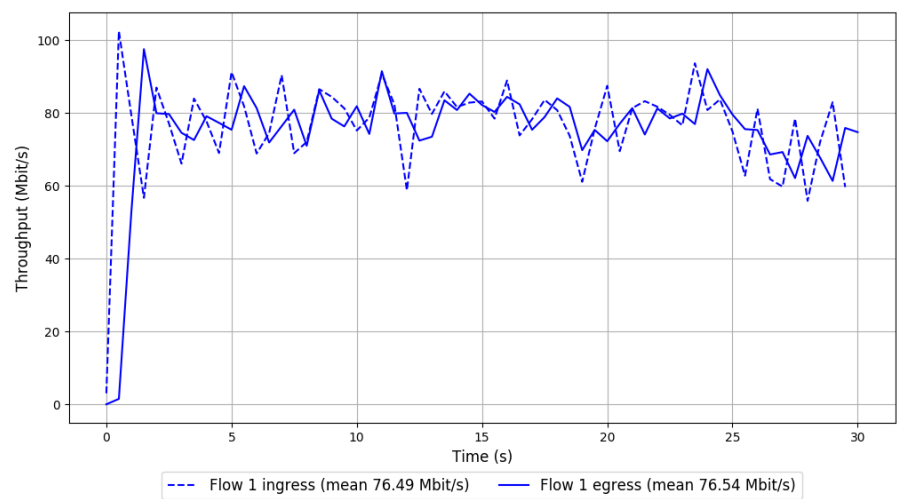
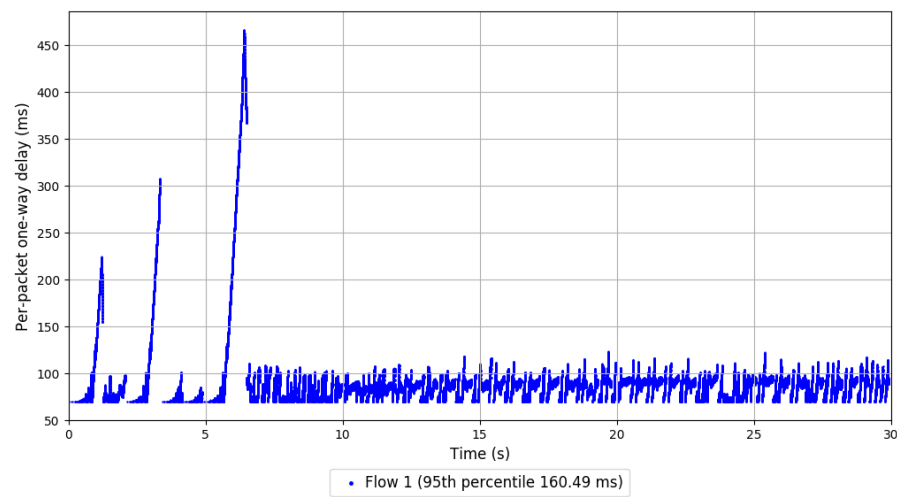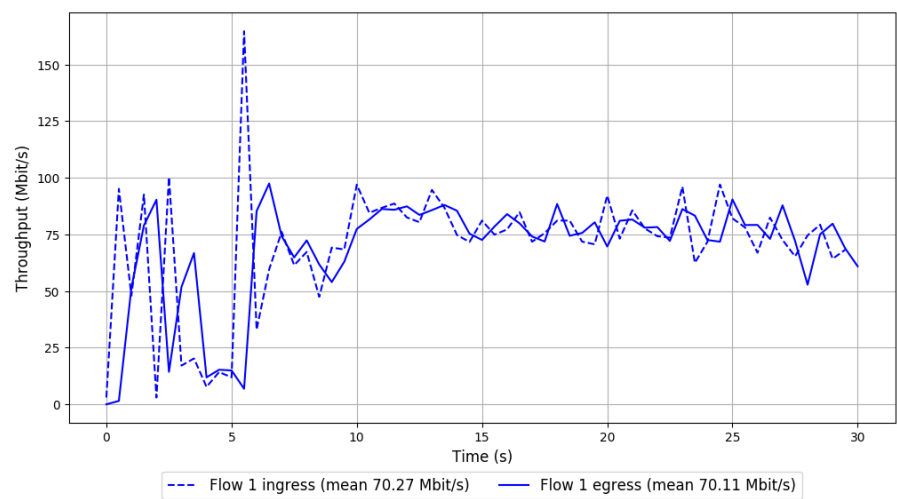Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-01-19 06:11:34
End at: 2019-01-19 06:12:04
Local clock offset: -0.217 ms
Remote clock offset: 0.372 ms


# Below is generated by plot.py at 2019-01-19 07:59:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 160.489 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 160.489 ms
Loss rate: 0.67%
```

Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-01-19 06:40:27
End at: 2019-01-19 06:40:57
Local clock offset: 1.732 ms
Remote clock offset: 0.174 ms


# Below is generated by plot.py at 2019-01-19 07:59:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.91 Mbit/s
95th percentile per-packet one-way delay: 110.933 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 73.91 Mbit/s
95th percentile per-packet one-way delay: 110.933 ms
Loss rate: 0.48%
```
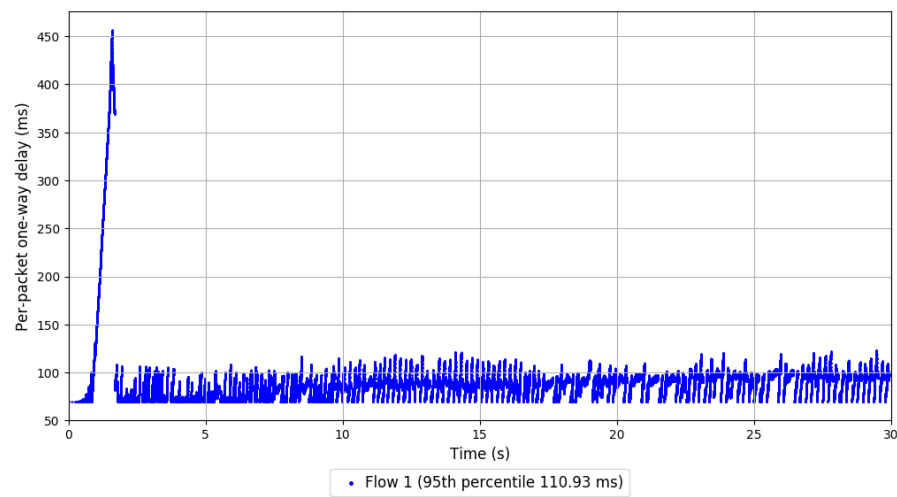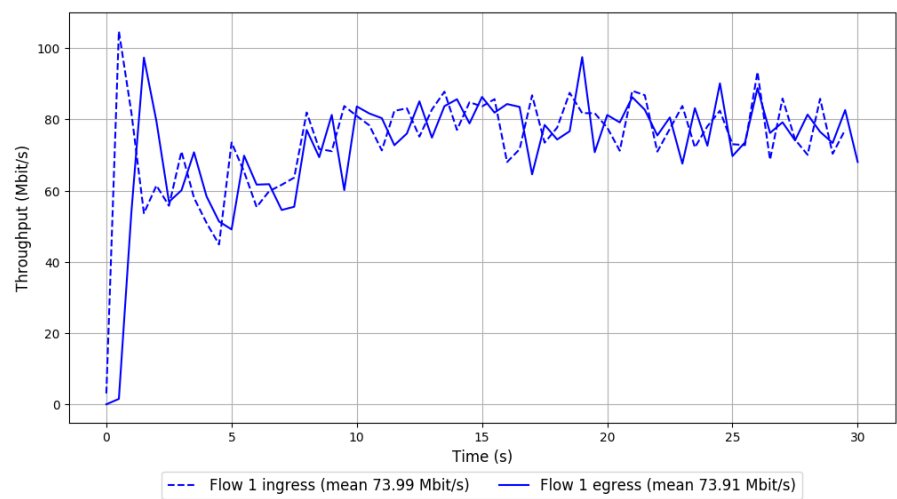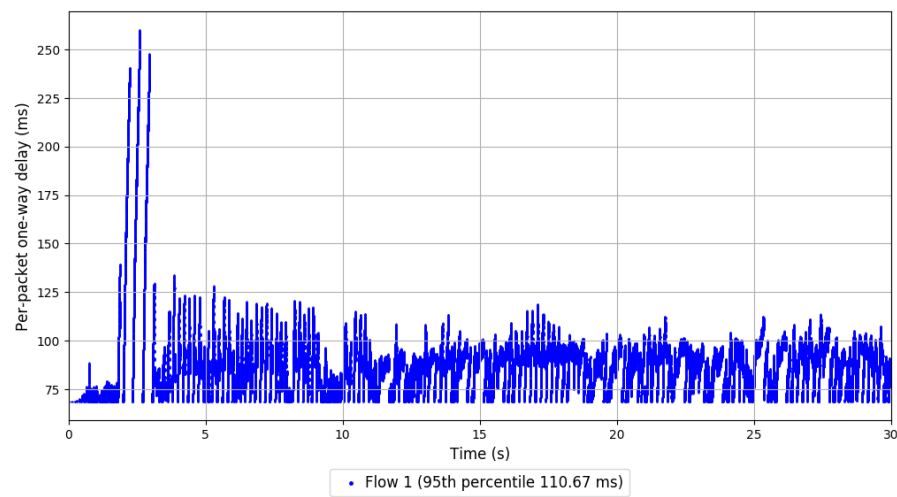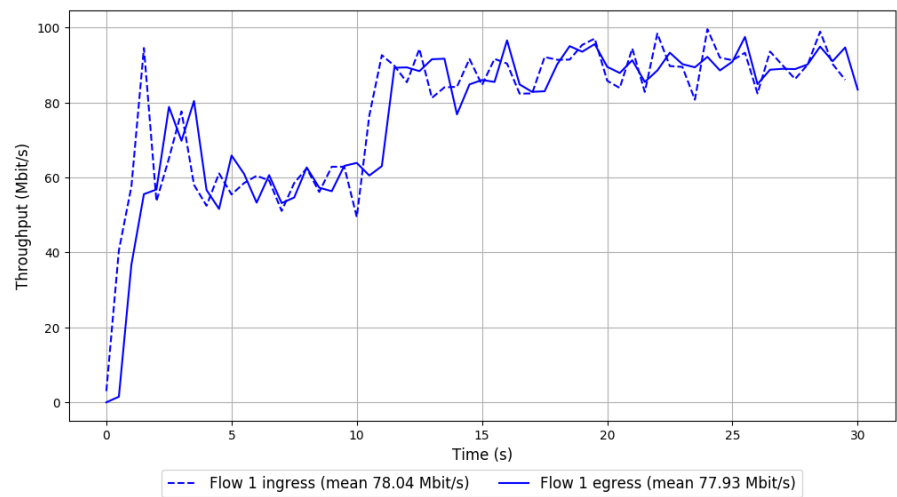
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-01-19 07:10:20
End at: 2019-01-19 07:10:50
Local clock offset: -0.42 ms
Remote clock offset: -0.256 ms


# Below is generated by plot.py at 2019-01-19 07:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.93 Mbit/s
95th percentile per-packet one-way delay: 110.666 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 77.93 Mbit/s
95th percentile per-packet one-way delay: 110.666 ms
Loss rate: 0.41%
```
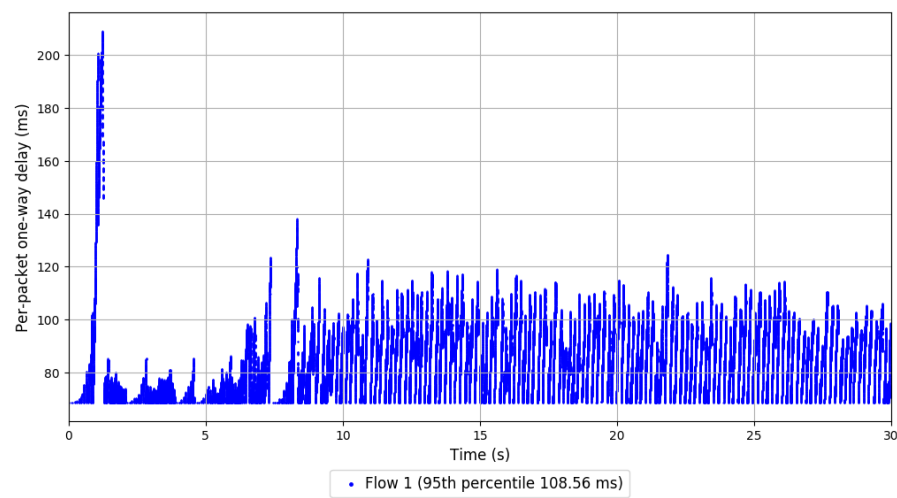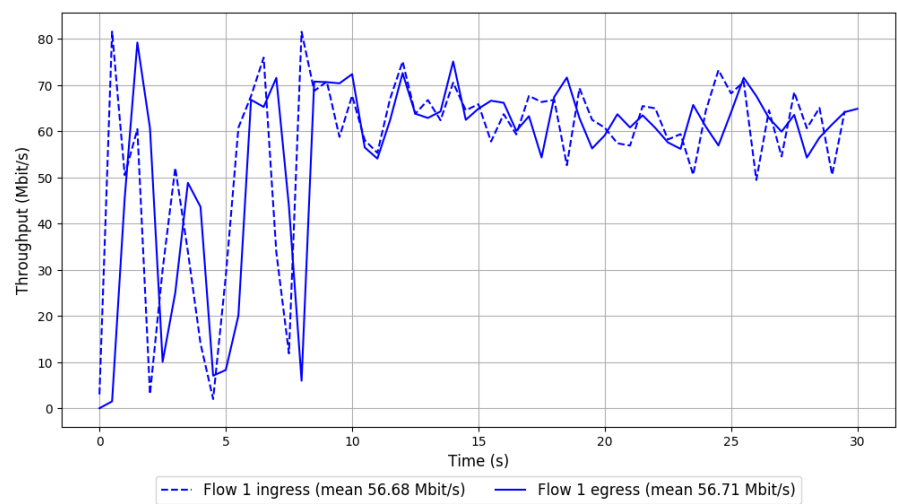
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-01-19 07:38:34
End at: 2019-01-19 07:39:04
Local clock offset: 0.199 ms
Remote clock offset: -0.135 ms


# Below is generated by plot.py at 2019-01-19 07:59:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 108.563 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 108.563 ms
Loss rate: 0.20%
```

Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-01-19 05:44:12
End at: 2019-01-19 05:44:42
Local clock offset: 1.027 ms
Remote clock offset: 1.48 ms


# Below is generated by plot.py at 2019-01-19 07:59:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.89 Mbit/s
95th percentile per-packet one-way delay: 75.664 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 81.89 Mbit/s
95th percentile per-packet one-way delay: 75.664 ms
Loss rate: 0.31%
```
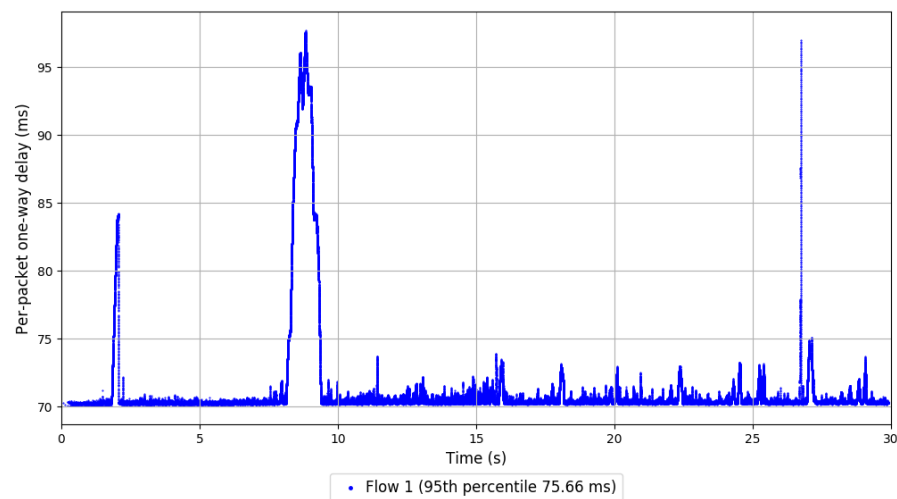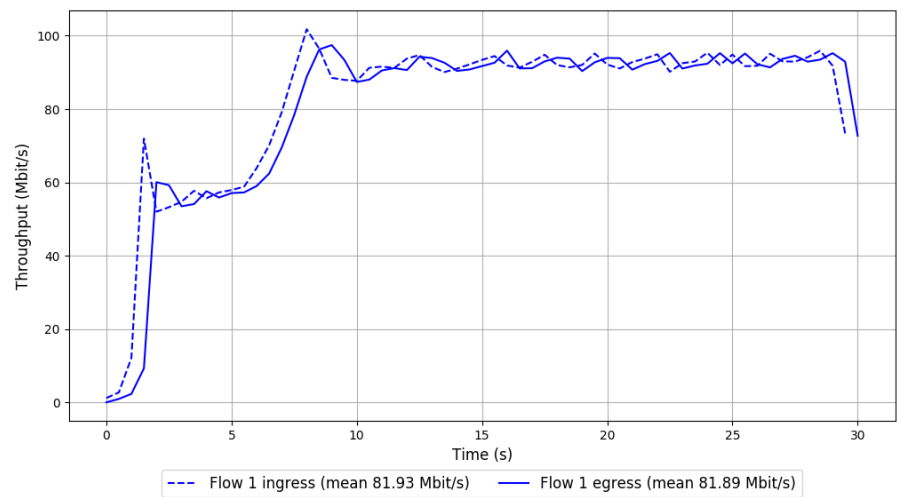
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 81.93 Mbit/s) --- Flow 1 egress (mean 81.89 Mbit/s)
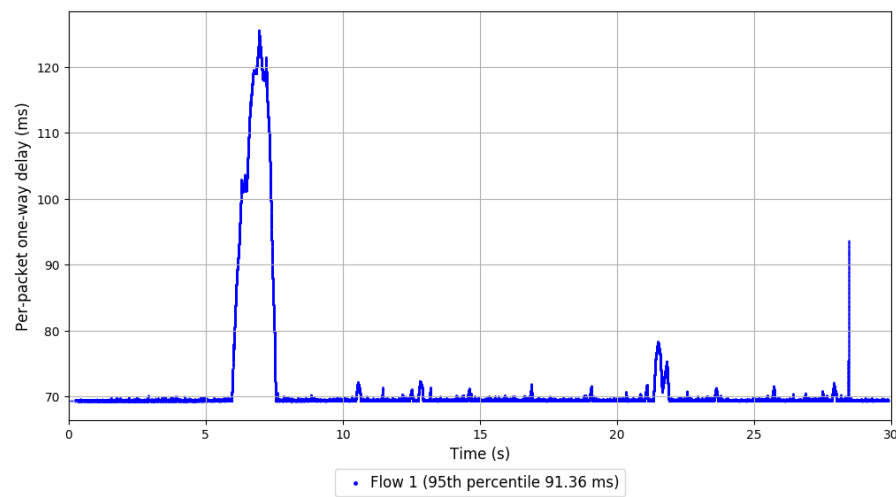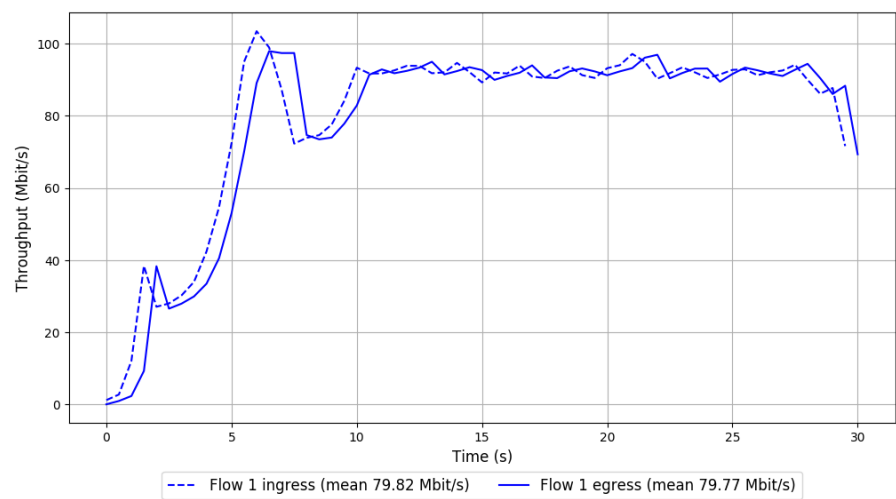

Flow 1 (95th percentile 75.66 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-01-19 06:14:33
End at: 2019-01-19 06:15:03
Local clock offset: -0.648 ms
Remote clock offset: -0.036 ms


# Below is generated by plot.py at 2019-01-19 07:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.77 Mbit/s
95th percentile per-packet one-way delay: 91.356 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 79.77 Mbit/s
95th percentile per-packet one-way delay: 91.356 ms
Loss rate: 0.32%
```

Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 79.82 Mbit/s)   Flow 1 egress (mean 79.77 Mbit/s)
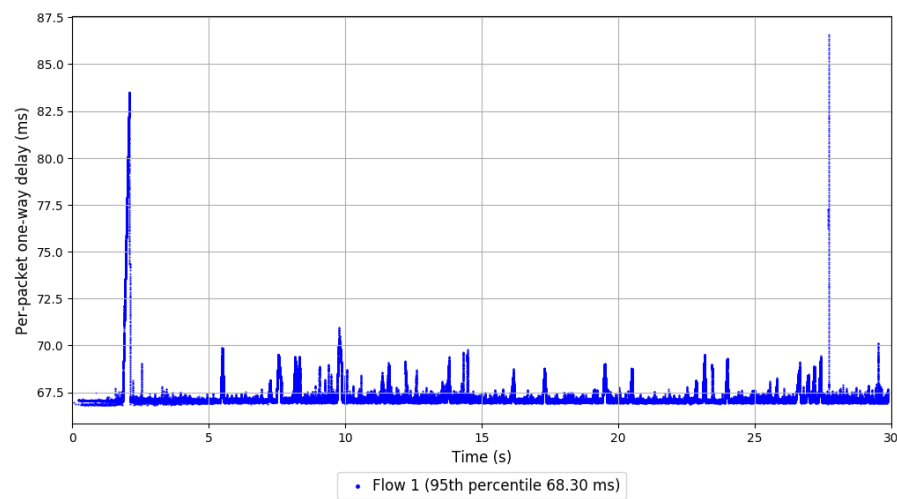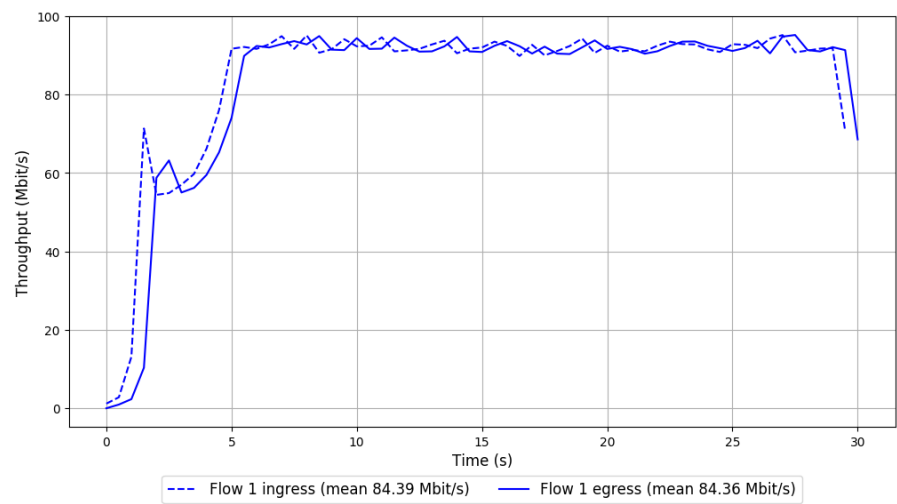

Flow 1 (95th percentile 91.36 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-01-19 06:43:40
End at: 2019-01-19 06:44:10
Local clock offset: 0.361 ms
Remote clock offset: -0.638 ms


# Below is generated by plot.py at 2019-01-19 07:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.36 Mbit/s
95th percentile per-packet one-way delay: 68.299 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 84.36 Mbit/s
95th percentile per-packet one-way delay: 68.299 ms
Loss rate: 0.29%
```

Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-01-19 07:13:20
End at: 2019-01-19 07:13:50
Local clock offset: 0.827 ms
Remote clock offset: -0.345 ms


# Below is generated by plot.py at 2019-01-19 07:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.13 Mbit/s
95th percentile per-packet one-way delay: 72.802 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 77.13 Mbit/s
95th percentile per-packet one-way delay: 72.802 ms
Loss rate: 0.52%
```
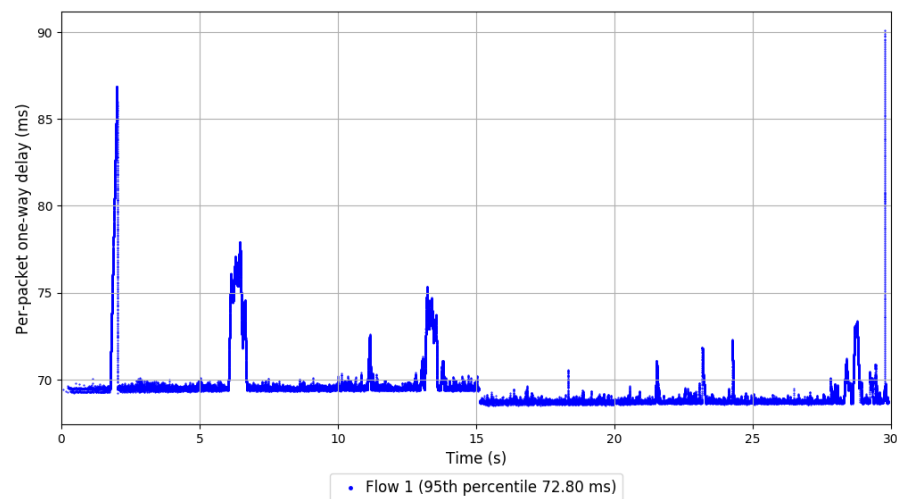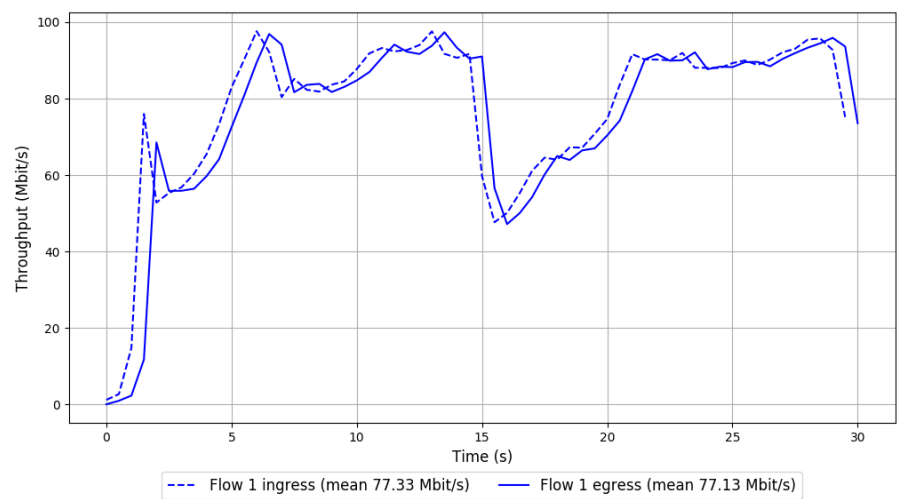
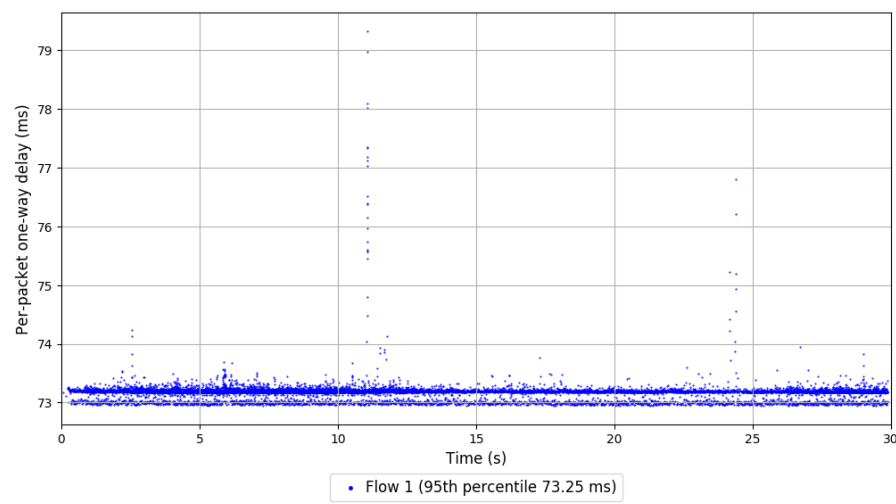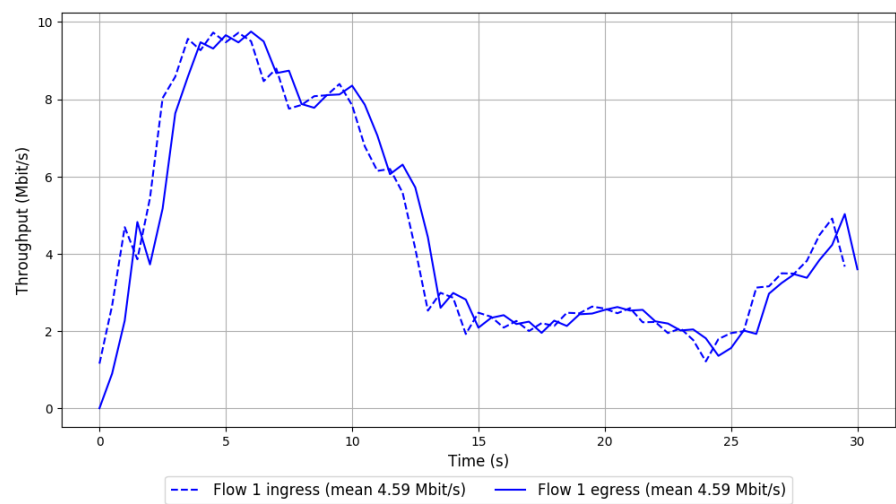# Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-01-19 07:41:00
End at: 2019-01-19 07:41:30
Local clock offset: 4.026 ms
Remote clock offset: -0.962 ms


# Below is generated by plot.py at 2019-01-19 07:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 73.250 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 73.250 ms
Loss rate: 0.27%
```

Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-01-19 05:34:27
End at: 2019-01-19 05:34:57
Local clock offset: 0.975 ms
Remote clock offset: 0.984 ms


# Below is generated by plot.py at 2019-01-19 07:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 68.375 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 68.375 ms
Loss rate: 0.26%
```
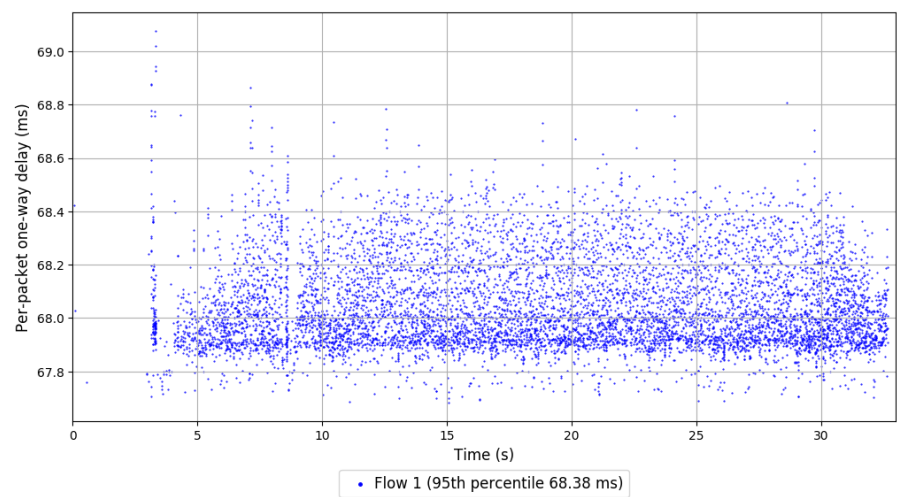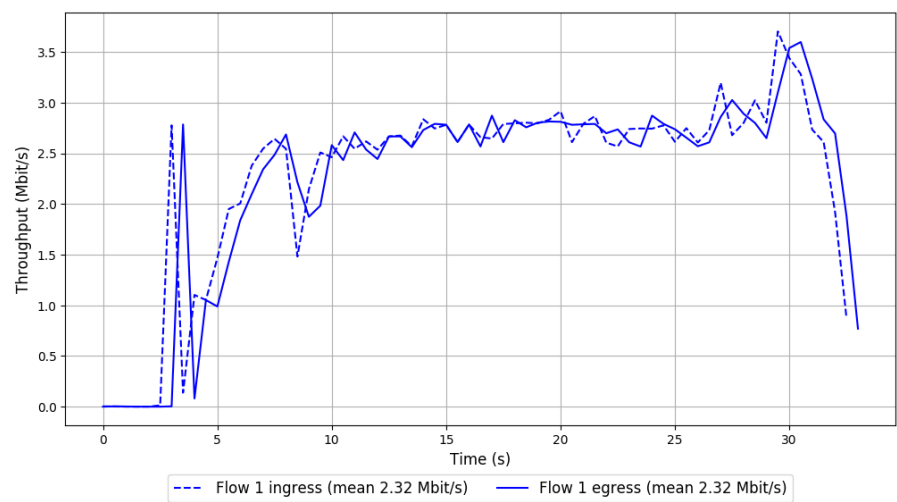
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-01-19 06:04:54
End at: 2019-01-19 06:05:24
Local clock offset: 0.757 ms
Remote clock offset: 0.434 ms


# Below is generated by plot.py at 2019-01-19 07:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 70.974 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 70.974 ms
Loss rate: 0.26%
```

Run 2: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.33 Mbit/s)　　Flow 1 egress (mean 2.33 Mbit/s)

Flow 1 (95th percentile 70.97 ms)

```
Run 3: Statistics of WebRTC media

Start at: 2019-01-19 06:33:37
End at: 2019-01-19 06:34:07
Local clock offset: 1.646 ms
Remote clock offset: 0.287 ms


# Below is generated by plot.py at 2019-01-19 07:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 70.234 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 70.234 ms
Loss rate: 0.30%
```
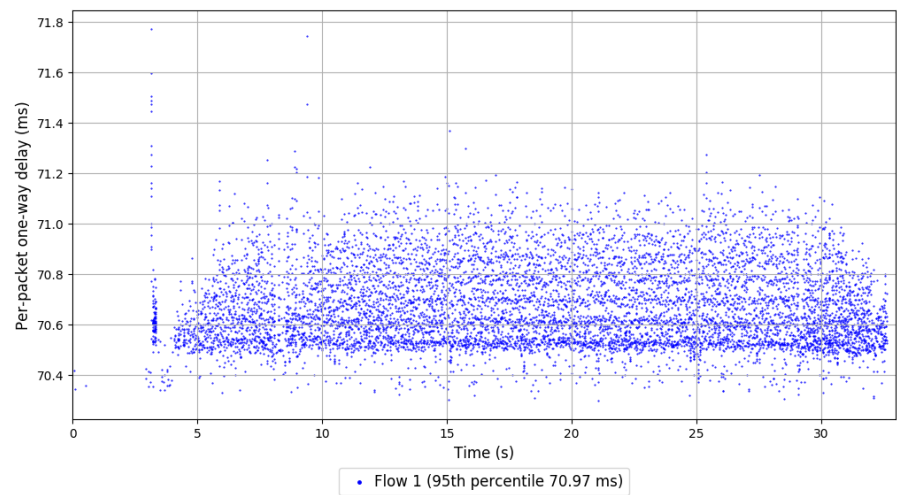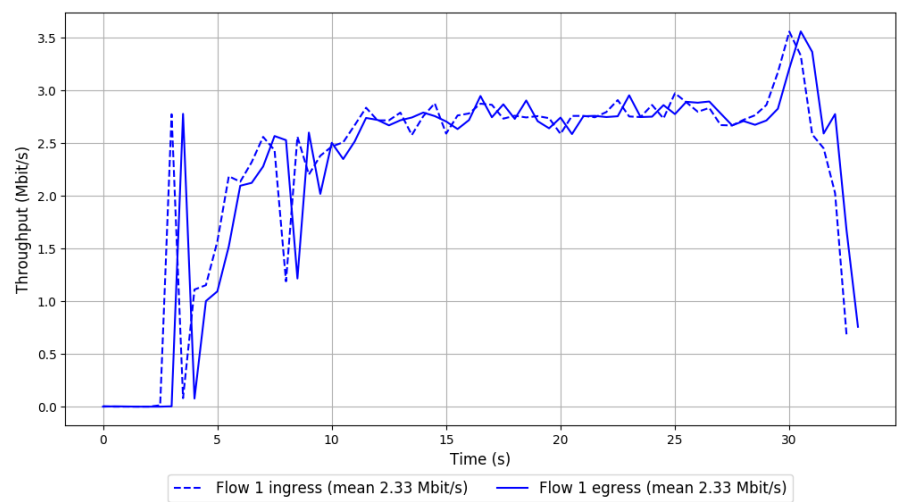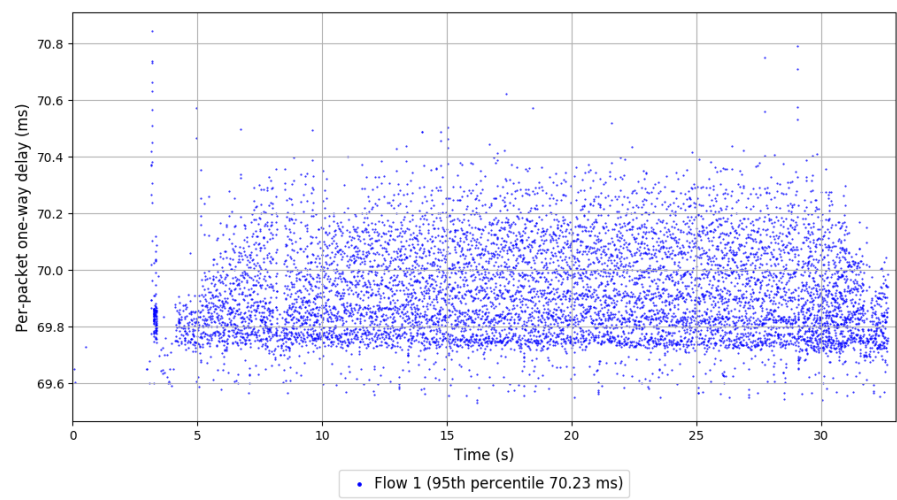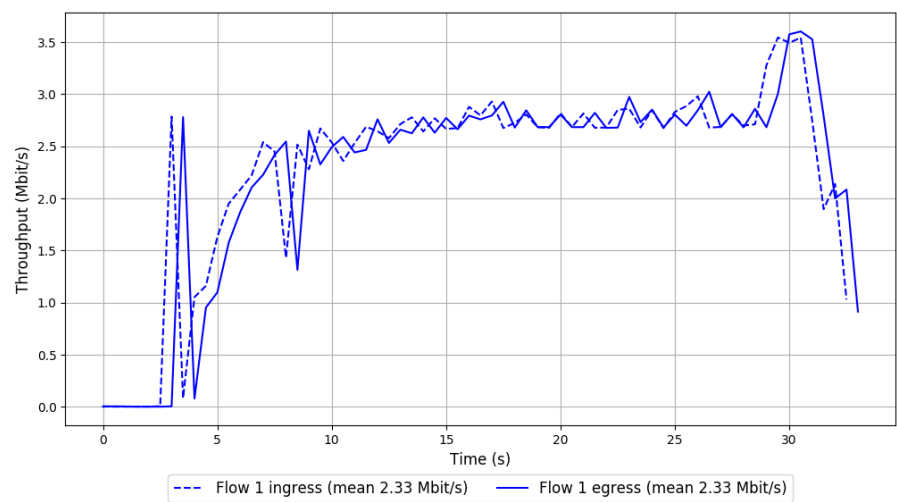
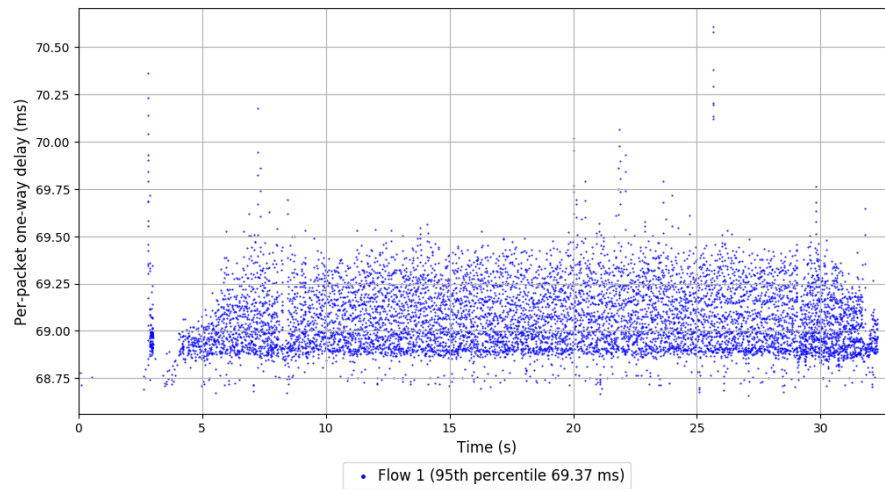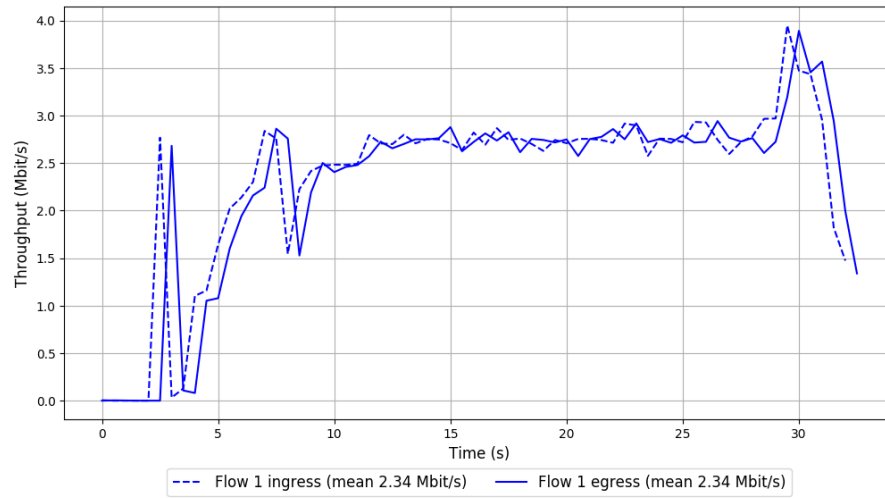Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-01-19 07:04:07
End at: 2019-01-19 07:04:37
Local clock offset: 0.087 ms
Remote clock offset: -0.285 ms


# Below is generated by plot.py at 2019-01-19 07:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 69.372 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 69.372 ms
Loss rate: 0.24%
```

Run 4: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.34 Mbit/s)   Flow 1 egress (mean 2.34 Mbit/s)

Flow 1 (95th percentile 69.37 ms)

```
Run 5: Statistics of WebRTC media

Start at: 2019-01-19 07:32:06
End at: 2019-01-19 07:32:36
Local clock offset: 1.305 ms
Remote clock offset: -1.294 ms


# Below is generated by plot.py at 2019-01-19 07:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 71.385 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 71.385 ms
Loss rate: 0.18%
```

Run 5: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.50 Mbit/s) — — — Flow 1 egress (mean 2.51 Mbit/s)

· Flow 1 (95th percentile 71.39 ms)