Pantheon Report

Generated at 2019-07-18 07:17:11 (UTC).

Data path: Brazil on `p4p1` (*remote*) →AWS Brazil 1 on `ens5` (*local*).

Repeated the test of 24 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1043-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
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 Brazil to AWS Brazil 1, 5 runs of 30s each per scheme
(mean of all runs by scheme)

test from Brazil to AWS Brazil 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	96.29	9.08	0.13
Copa	5	81.06	4.07	0.02
TCP Cubic	5	97.41	9.22	0.06
FillP	5	95.93	10.02	0.04
FillP-Sheep	5	94.34	6.40	0.03
Indigo	5	97.19	5.04	0.01
Indigo-MusesC3	5	85.62	3.70	0.01
Indigo-MusesC5	5	34.23	3.46	0.01
Indigo-MusesD	5	56.90	3.72	0.01
Indigo-MusesT	5	80.36	3.19	0.01
LEDBAT	5	95.80	10.66	0.08
Muses_DecisionTree	5	52.74	1.95	0.01
Muses_DecisionTreeH0	5	59.82	2.45	0.01
Muses_DecisionTreeR0	5	57.54	2.03	0.01
PCC-Allegro	5	92.58	2.38	0.01
PCC-Expr	5	85.51	265.27	3.26
QUIC Cubic	5	90.90	7.72	0.02
SCReAM	5	0.22	2.57	0.05
Sprout	5	50.29	10.62	0.04
TaoVA-100x	5	87.63	2.28	0.01
TCP Vegas	5	96.76	3.44	0.01
Verus	5	60.56	13.83	0.03
PCC-Vivace	5	45.86	2.17	0.01
WebRTC media	5	2.35	2.19	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-07-18 05:11:29
End at: 2019-07-18 05:11:59
Local clock offset: -6.448 ms
Remote clock offset: 0.13 ms


# Below is generated by plot.py at 2019-07-18 07:03:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.23 Mbit/s
95th percentile per-packet one-way delay: 10.850 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 96.23 Mbit/s
95th percentile per-packet one-way delay: 10.850 ms
Loss rate: 0.29%
```
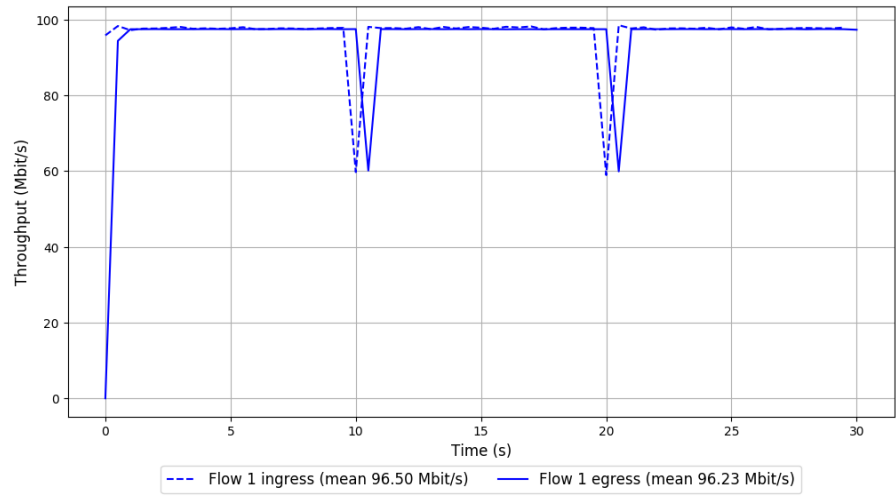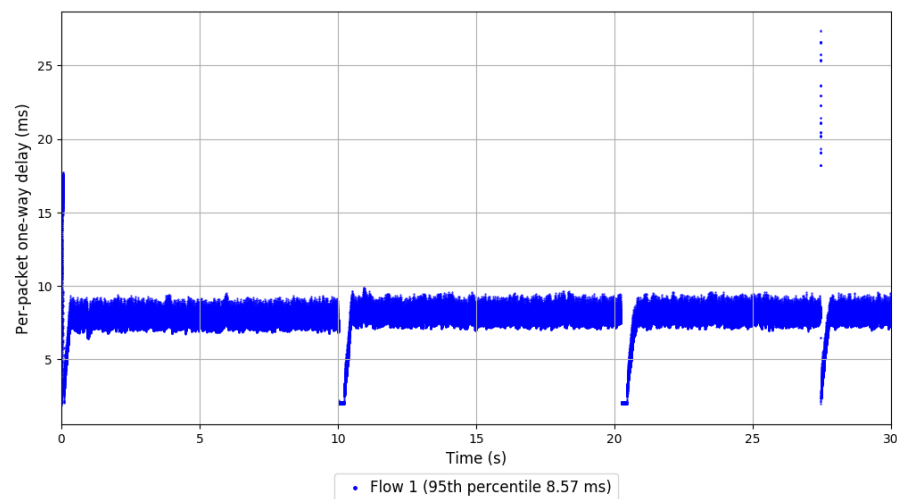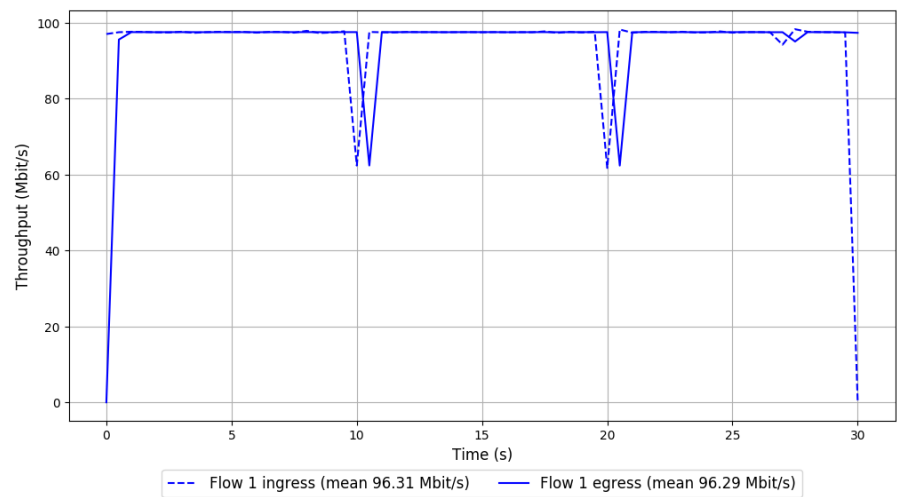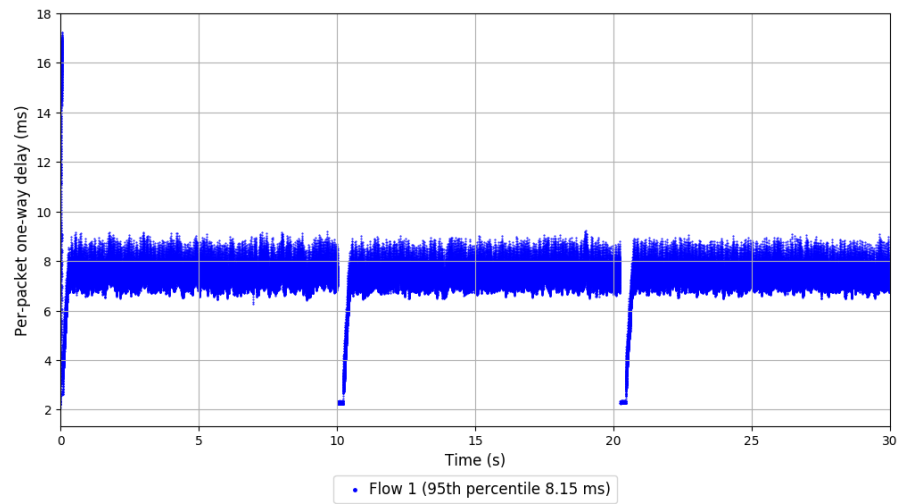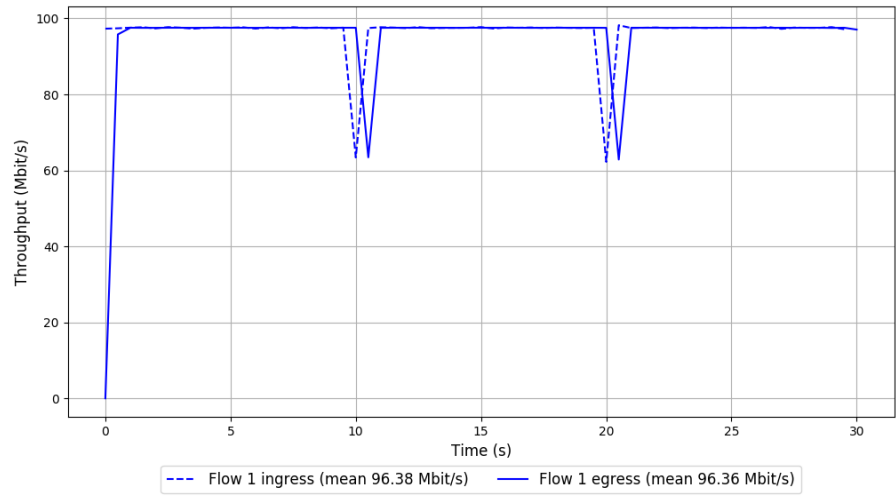
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-07-18 05:38:30
End at: 2019-07-18 05:39:00
Local clock offset: -6.623 ms
Remote clock offset: 0.511 ms


# Below is generated by plot.py at 2019-07-18 07:03:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 8.572 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 8.572 ms
Loss rate: 0.03%
```
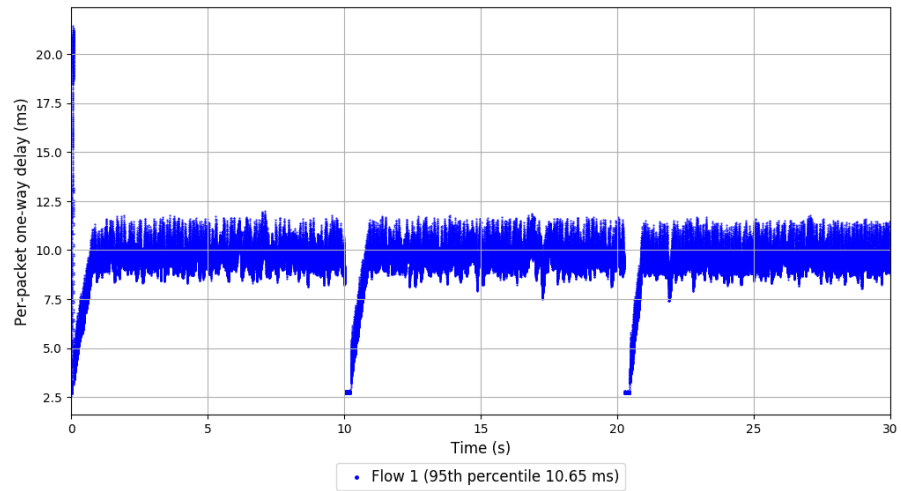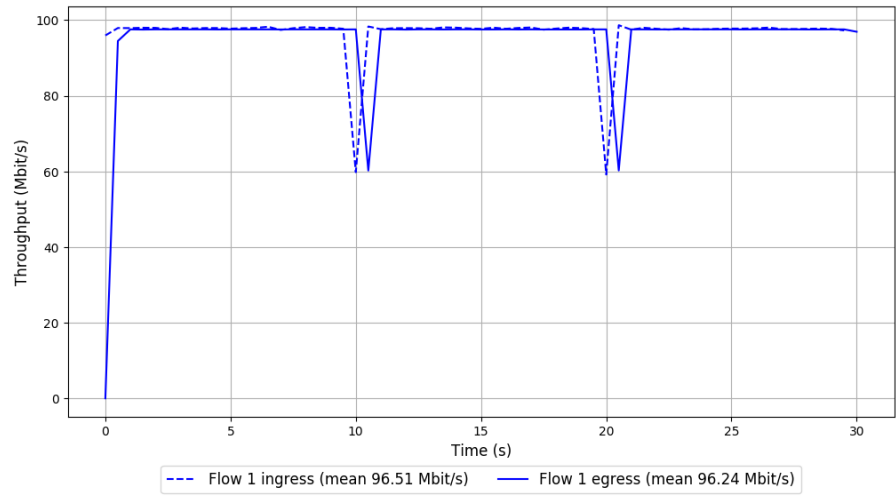
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 96.31 Mbit/s)   Flow 1 egress (mean 96.29 Mbit/s)

• Flow 1 (95th percentile 8.57 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2019-07-18 06:05:30
End at: 2019-07-18 06:06:00
Local clock offset: -6.763 ms
Remote clock offset: 0.609 ms


# Below is generated by plot.py at 2019-07-18 07:03:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.36 Mbit/s
95th percentile per-packet one-way delay: 8.146 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 96.36 Mbit/s
95th percentile per-packet one-way delay: 8.146 ms
Loss rate: 0.03%
```
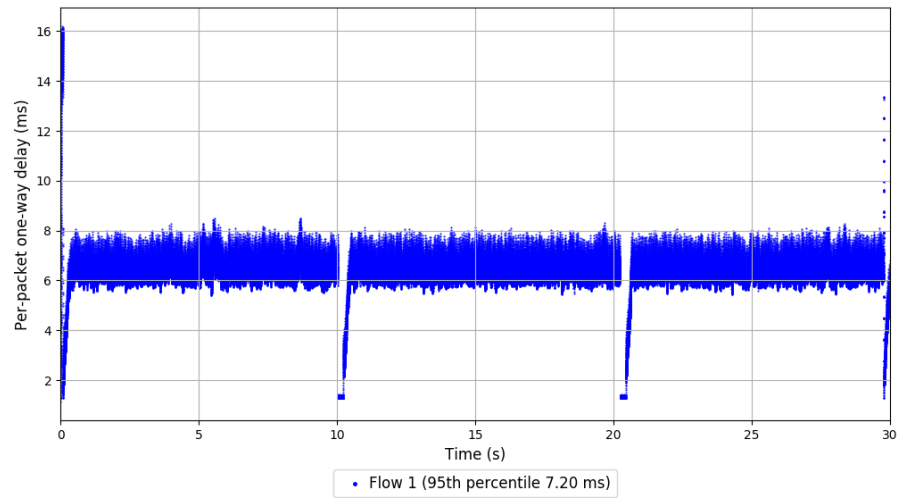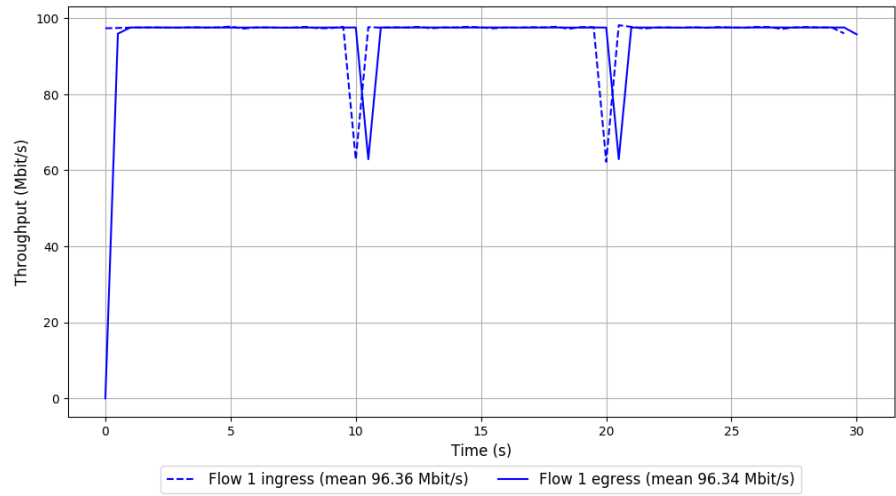
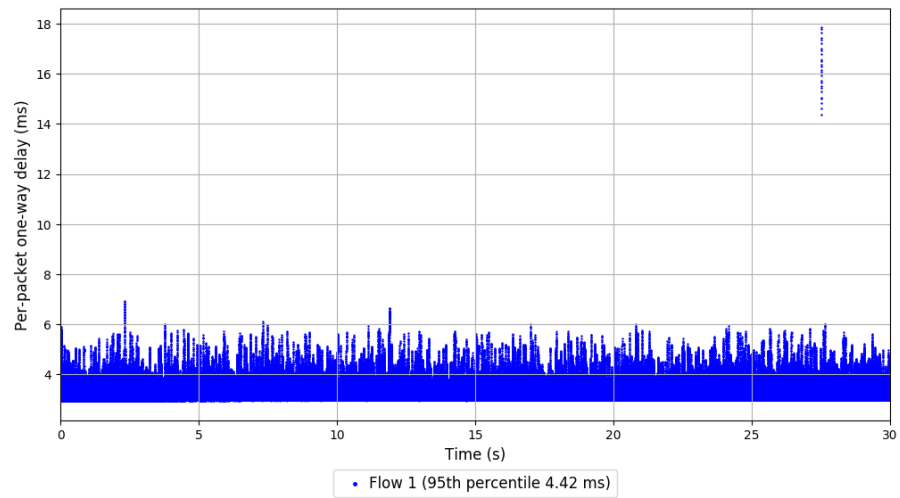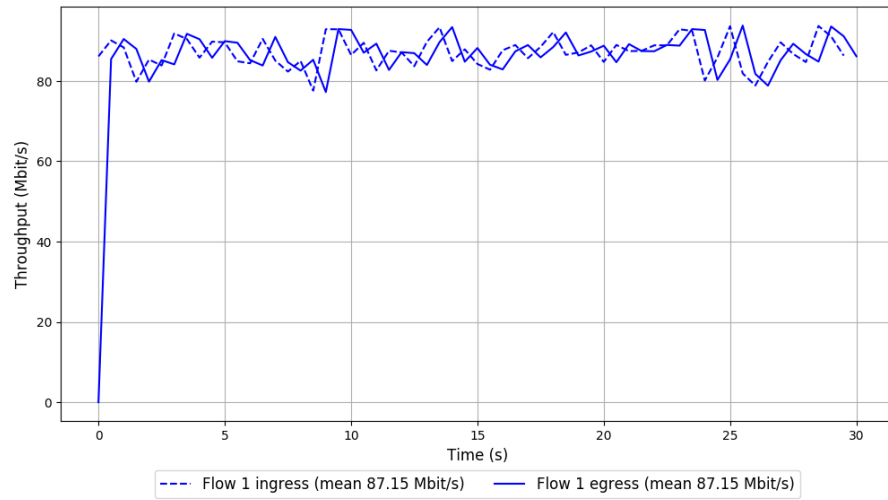Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 96.38 Mbit/s)   Flow 1 egress (mean 96.36 Mbit/s)

Flow 1 (95th percentile 8.15 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-07-18 06:32:29
End at: 2019-07-18 06:32:59
Local clock offset: -7.215 ms
Remote clock offset: 0.731 ms


# Below is generated by plot.py at 2019-07-18 07:03:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 10.650 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 10.650 ms
Loss rate: 0.29%
```

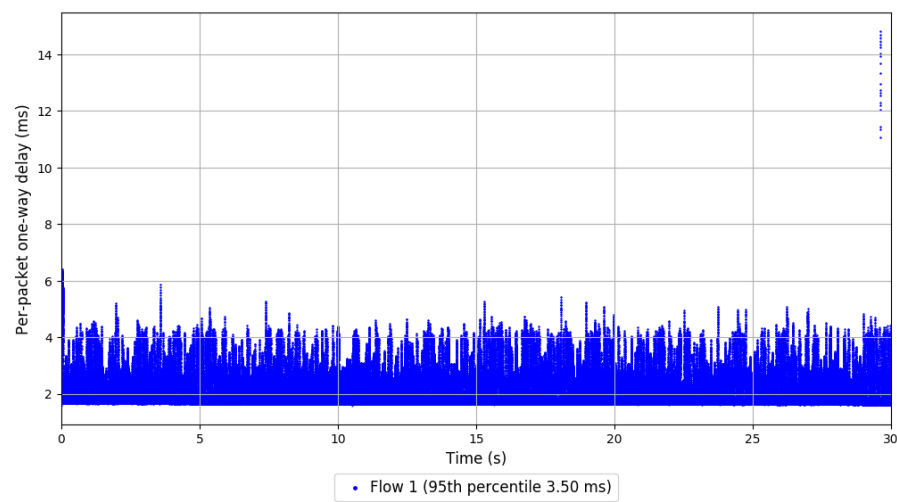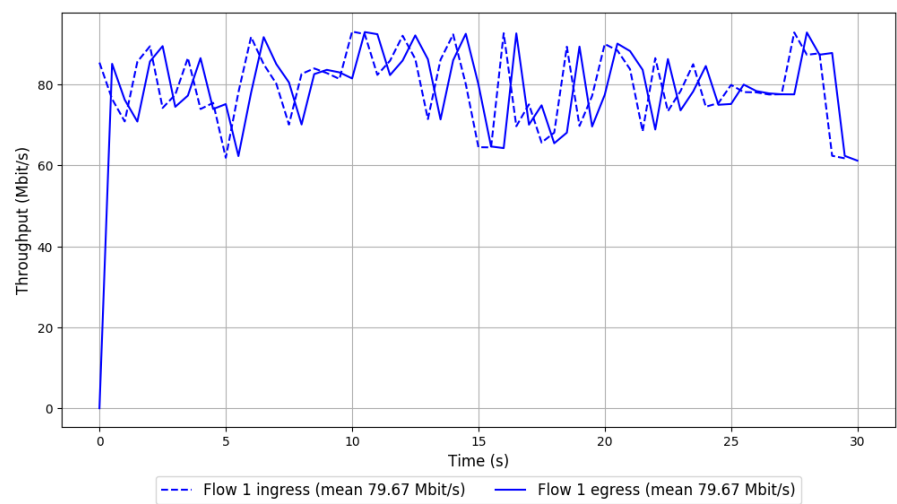Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2019-07-18 06:59:30
End at: 2019-07-18 07:00:00
Local clock offset: -8.242 ms
Remote clock offset: 0.844 ms


# Below is generated by plot.py at 2019-07-18 07:03:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 7.195 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 7.195 ms
Loss rate: 0.03%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 96.36 Mbit/s)   Flow 1 egress (mean 96.34 Mbit/s)

Flow 1 (95th percentile 7.20 ms)

```
Run 1: Statistics of Copa

Start at: 2019-07-18 05:00:08
End at: 2019-07-18 05:00:38
Local clock offset: -6.085 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2019-07-18 07:04:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.15 Mbit/s
95th percentile per-packet one-way delay: 4.418 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 87.15 Mbit/s
95th percentile per-packet one-way delay: 4.418 ms
Loss rate: 0.02%
```
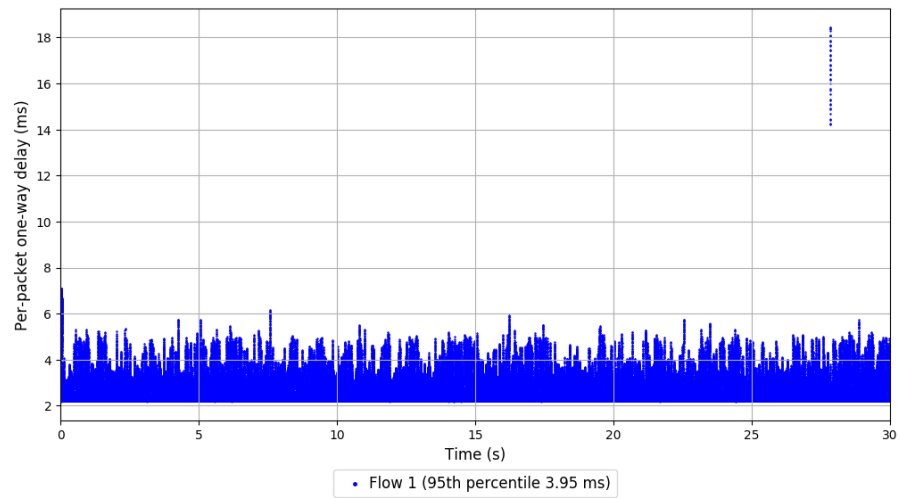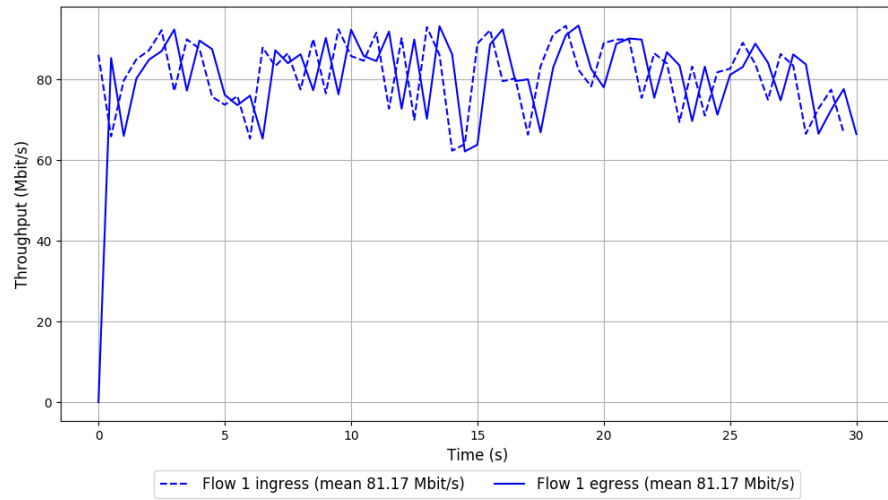
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-07-18 05:27:05
End at: 2019-07-18 05:27:35
Local clock offset: -7.269 ms
Remote clock offset: 0.227 ms


# Below is generated by plot.py at 2019-07-18 07:04:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.67 Mbit/s
95th percentile per-packet one-way delay: 3.502 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 79.67 Mbit/s
95th percentile per-packet one-way delay: 3.502 ms
Loss rate: 0.02%
```
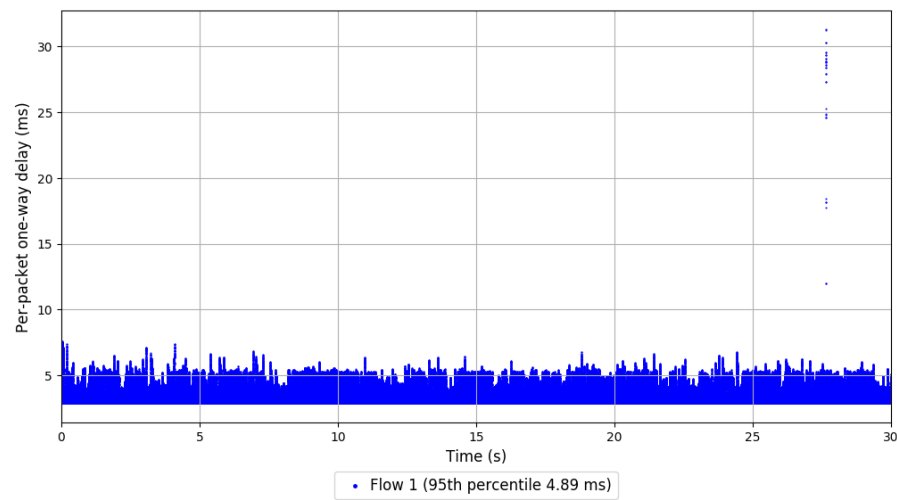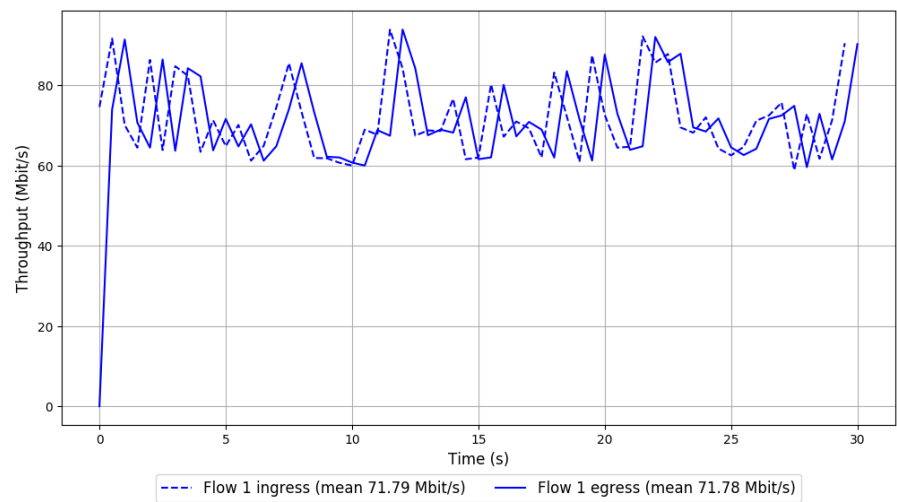
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 79.67 Mbit/s) --- Flow 1 egress (mean 79.67 Mbit/s)

Flow 1 (95th percentile 3.50 ms)

```
Run 3: Statistics of Copa

Start at: 2019-07-18 05:54:07
End at: 2019-07-18 05:54:37
Local clock offset: -5.827 ms
Remote clock offset: 0.538 ms


# Below is generated by plot.py at 2019-07-18 07:04:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.17 Mbit/s
95th percentile per-packet one-way delay: 3.948 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 81.17 Mbit/s
95th percentile per-packet one-way delay: 3.948 ms
Loss rate: 0.01%
```
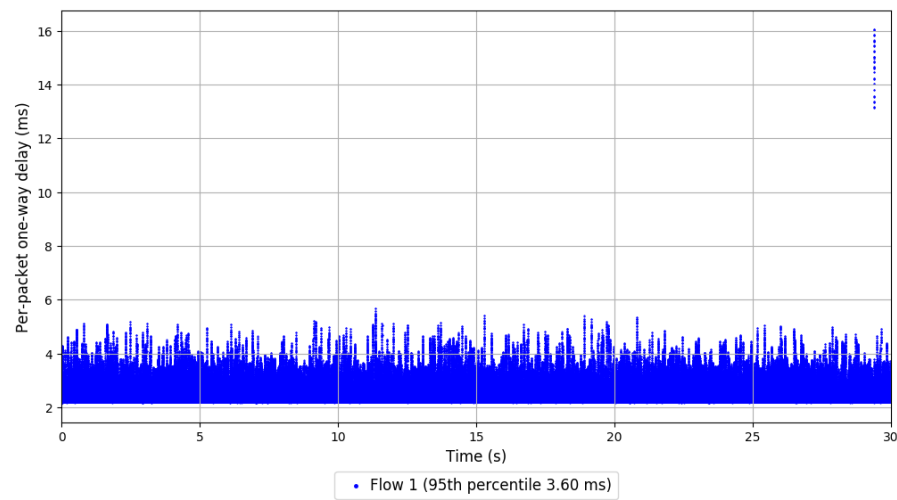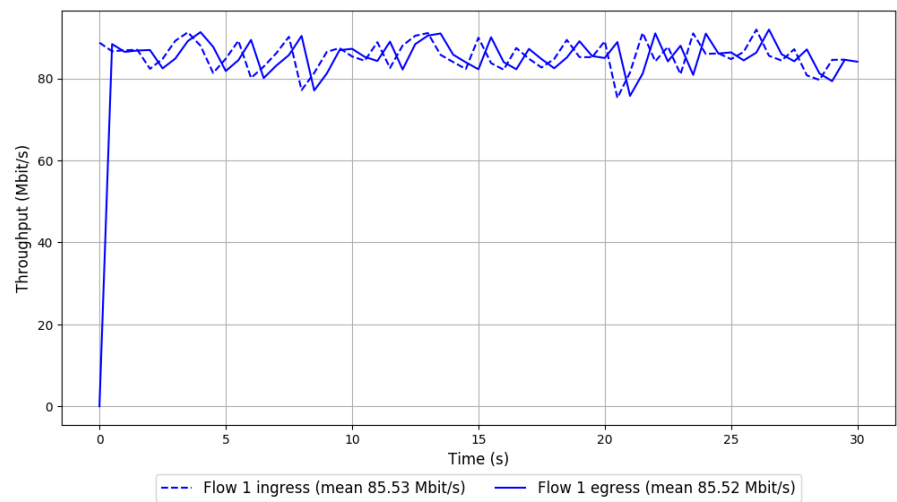
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-07-18 06:21:11
End at: 2019-07-18 06:21:41
Local clock offset: -7.021 ms
Remote clock offset: 0.656 ms


# Below is generated by plot.py at 2019-07-18 07:04:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.78 Mbit/s
95th percentile per-packet one-way delay: 4.886 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 71.78 Mbit/s
95th percentile per-packet one-way delay: 4.886 ms
Loss rate: 0.02%
```
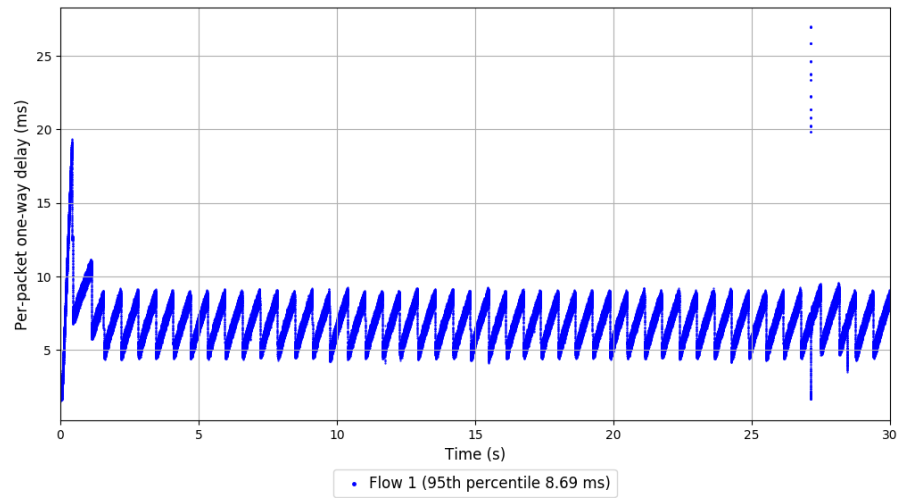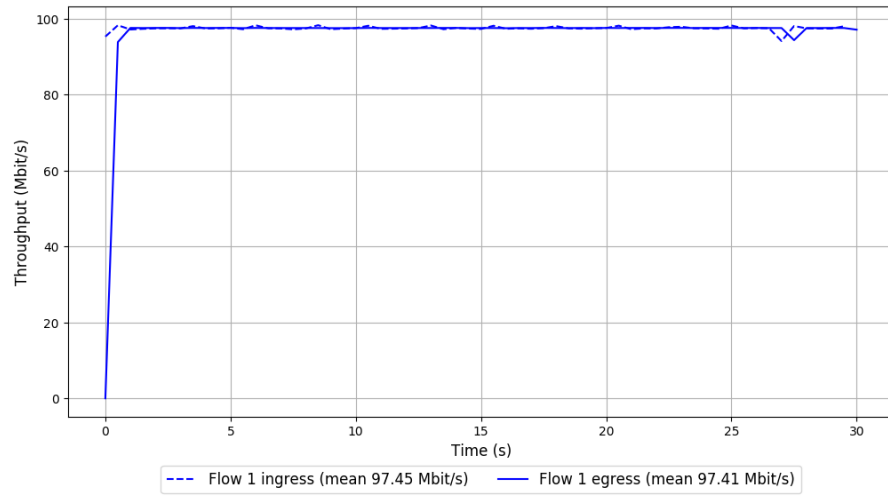
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-07-18 06:48:09
End at: 2019-07-18 06:48:39
Local clock offset: -7.281 ms
Remote clock offset: 0.839 ms


# Below is generated by plot.py at 2019-07-18 07:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.52 Mbit/s
95th percentile per-packet one-way delay: 3.600 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 85.52 Mbit/s
95th percentile per-packet one-way delay: 3.600 ms
Loss rate: 0.02%
```
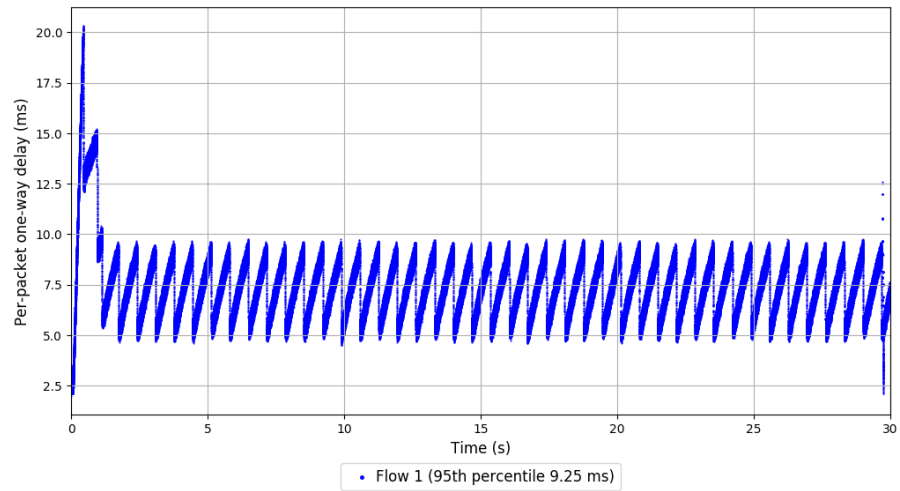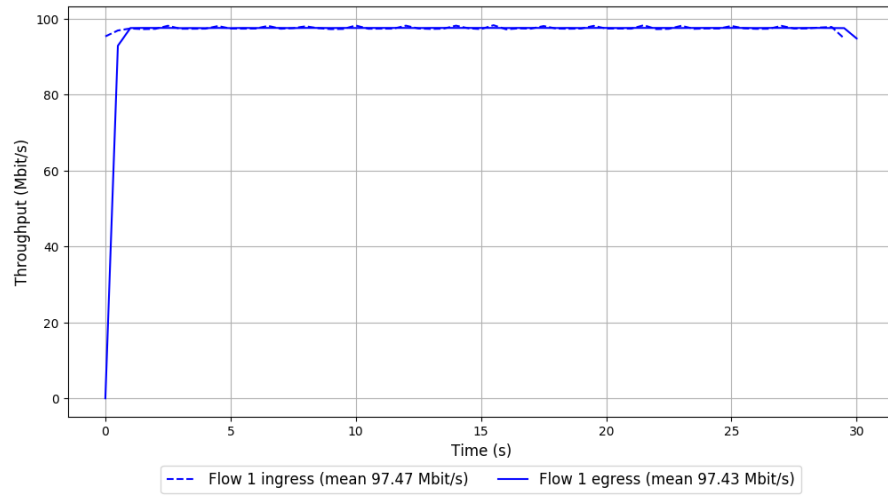
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-07-18 05:03:34
End at: 2019-07-18 05:04:04
Local clock offset: -7.018 ms
Remote clock offset: 0.102 ms


# Below is generated by plot.py at 2019-07-18 07:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 8.692 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 8.692 ms
Loss rate: 0.06%
```
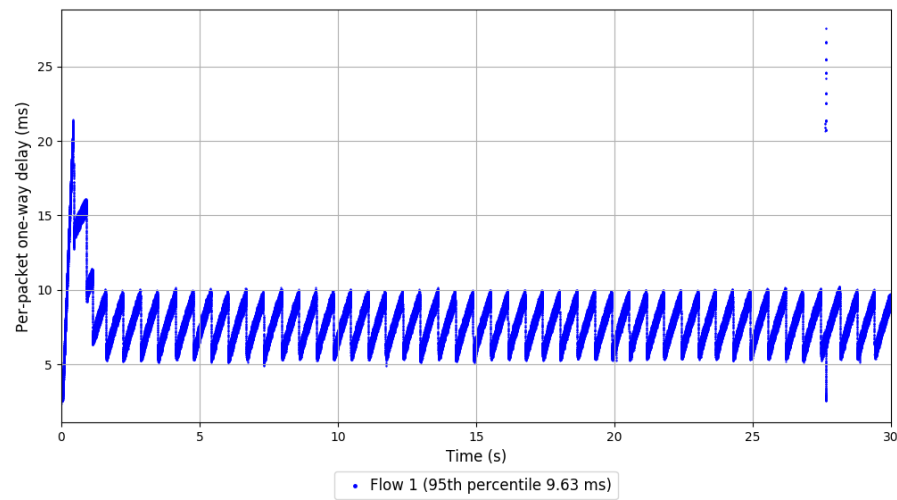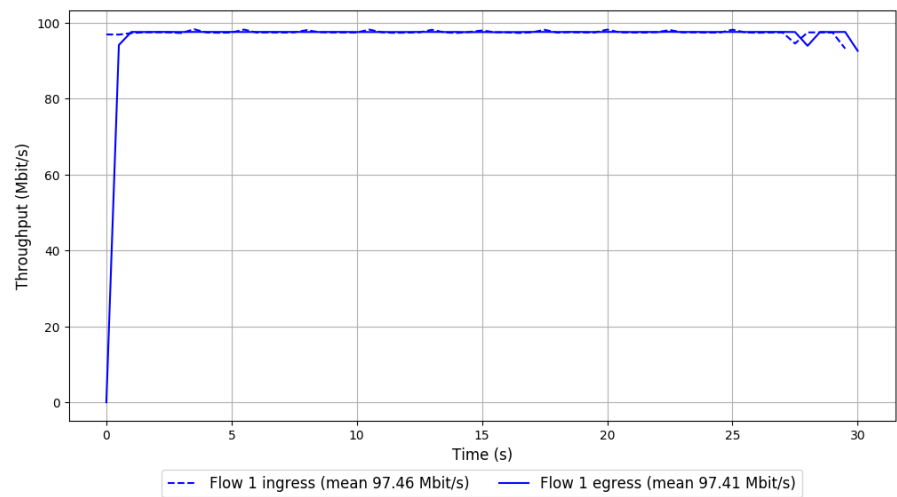
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 97.45 Mbit/s) — Flow 1 egress (mean 97.41 Mbit/s)

Flow 1 (95th percentile 8.69 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2019-07-18 05:30:30
End at: 2019-07-18 05:31:00
Local clock offset: -6.966 ms
Remote clock offset: 0.281 ms


# Below is generated by plot.py at 2019-07-18 07:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 9.250 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 9.250 ms
Loss rate: 0.05%
```
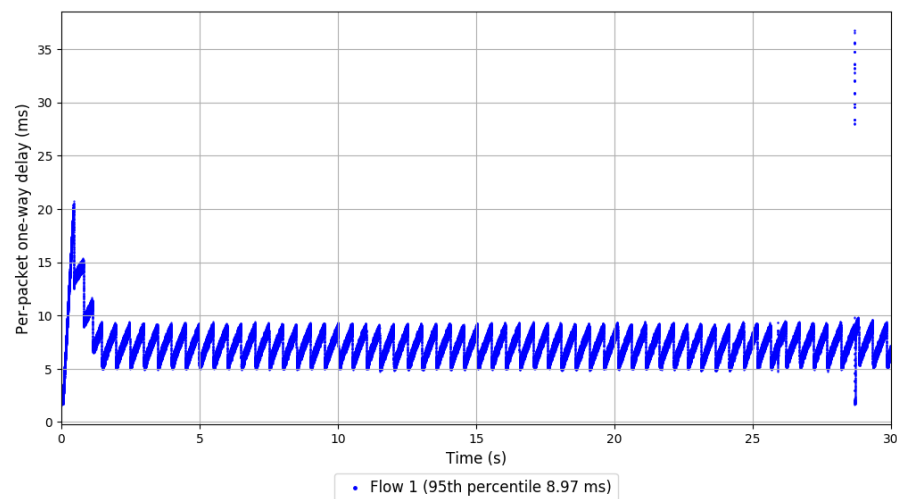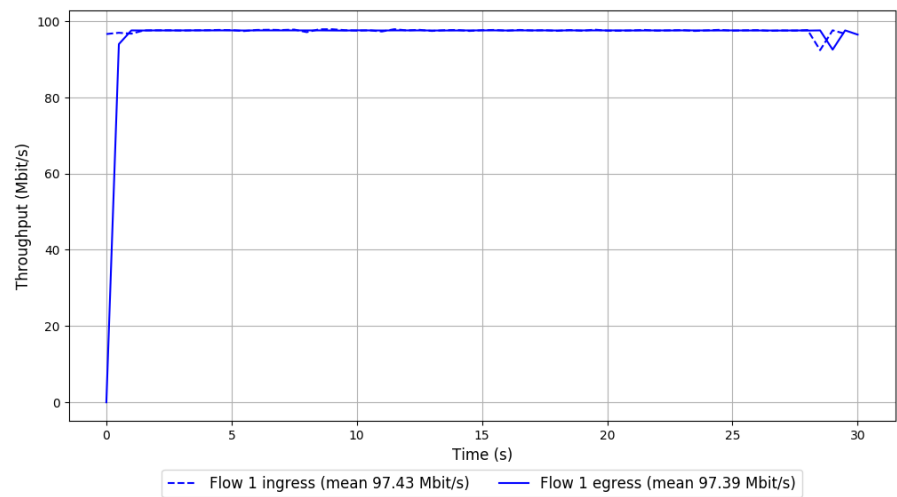
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 97.47 Mbit/s)   Flow 1 egress (mean 97.43 Mbit/s)

Flow 1 (95th percentile 9.25 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-07-18 05:57:32
End at: 2019-07-18 05:58:02
Local clock offset: -5.922 ms
Remote clock offset: 0.575 ms


# Below is generated by plot.py at 2019-07-18 07:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 9.631 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 9.631 ms
Loss rate: 0.05%
```
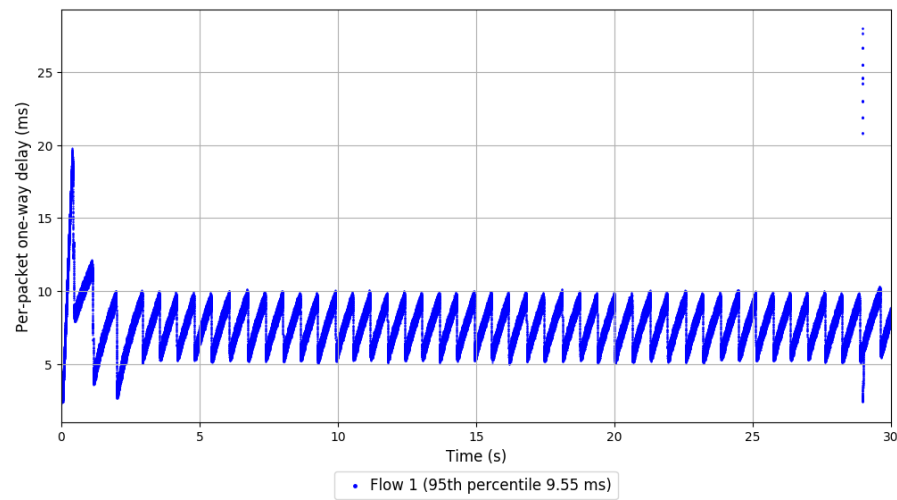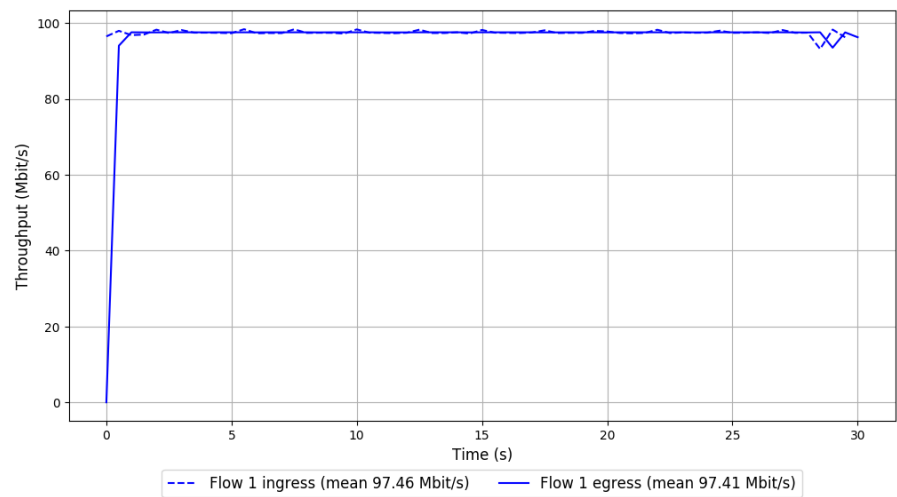
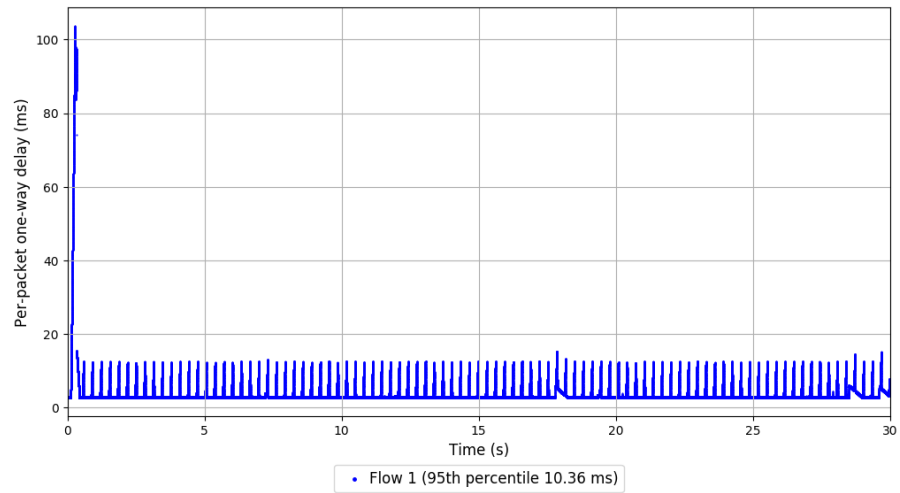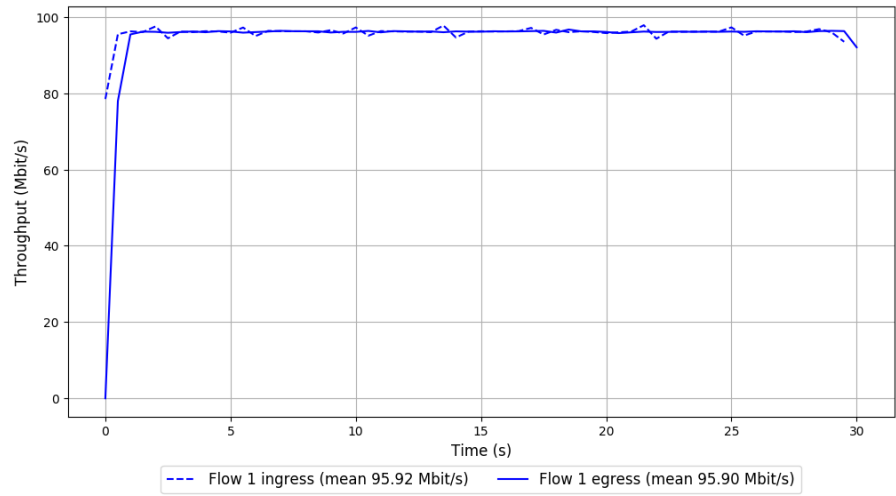# Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 97.46 Mbit/s)   Flow 1 egress (mean 97.41 Mbit/s)

Flow 1 (95th percentile 9.63 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-07-18 06:24:35
End at: 2019-07-18 06:25:05
Local clock offset: -7.862 ms
Remote clock offset: 0.669 ms


# Below is generated by plot.py at 2019-07-18 07:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 8.975 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 8.975 ms
Loss rate: 0.05%
```

Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 97.43 Mbit/s)　　Flow 1 egress (mean 97.39 Mbit/s)

Flow 1 (95th percentile 8.97 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-07-18 06:51:34
End at: 2019-07-18 06:52:04
Local clock offset: -7.087 ms
Remote clock offset: 0.746 ms


# Below is generated by plot.py at 2019-07-18 07:05:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 9.550 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 9.550 ms
Loss rate: 0.07%
```
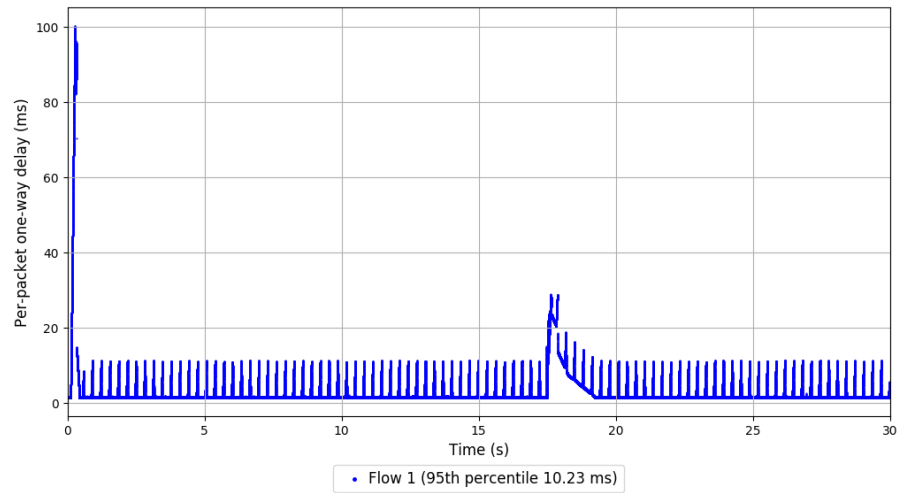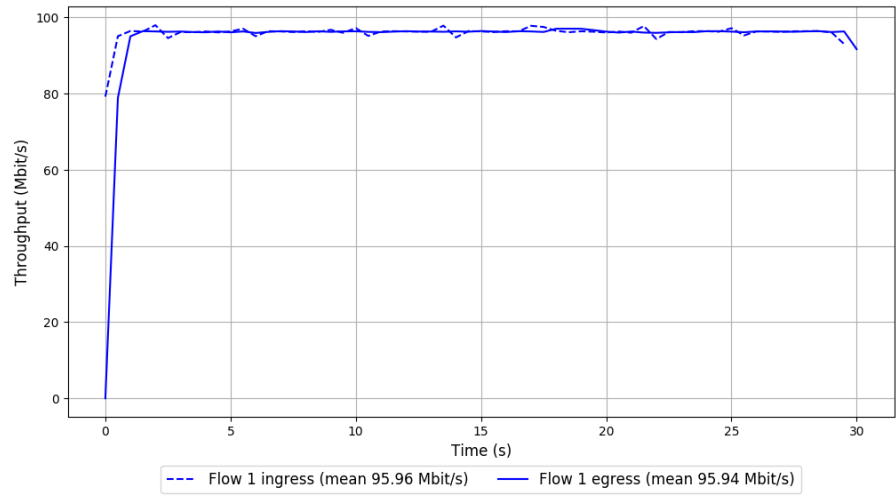
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 97.46 Mbit/s)   Flow 1 egress (mean 97.41 Mbit/s)

Flow 1 (95th percentile 9.55 ms)

```
Run 1: Statistics of FillP

Start at: 2019-07-18 04:54:33
End at: 2019-07-18 04:55:03
Local clock offset: -5.712 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2019-07-18 07:05:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.90 Mbit/s
95th percentile per-packet one-way delay: 10.361 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 95.90 Mbit/s
95th percentile per-packet one-way delay: 10.361 ms
Loss rate: 0.04%
```
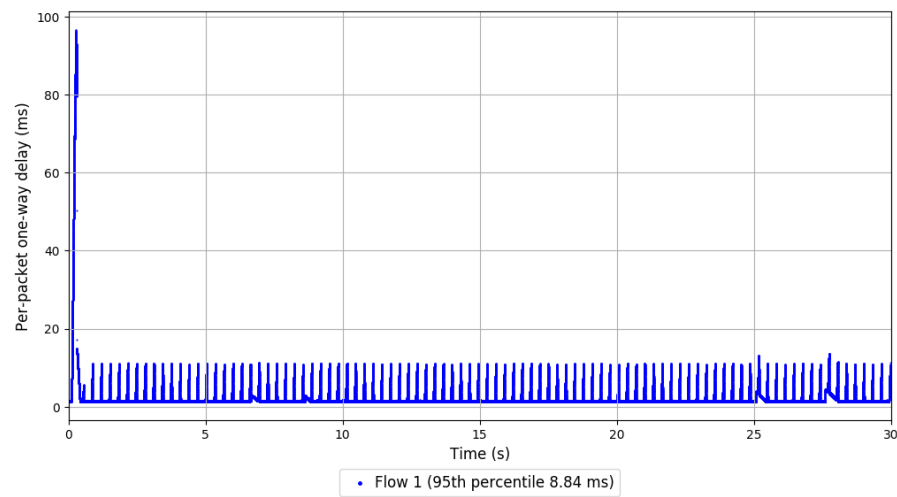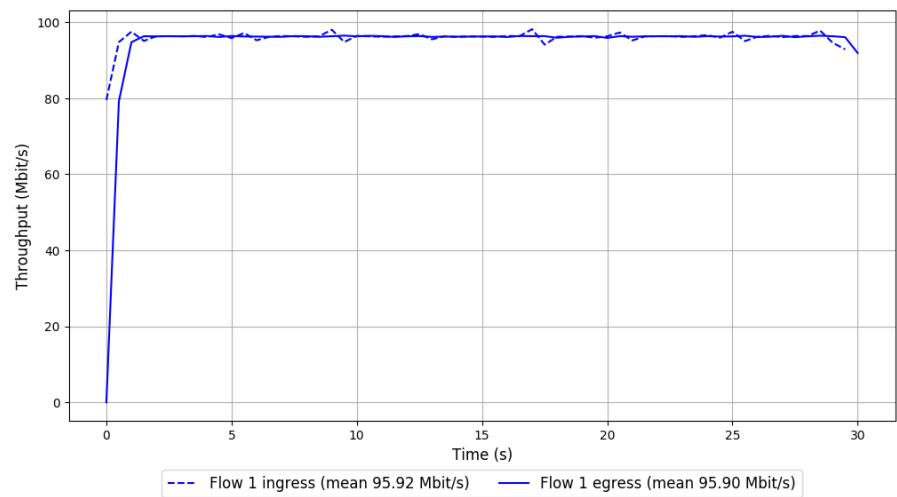
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 95.92 Mbit/s) —— Flow 1 egress (mean 95.90 Mbit/s)

Flow 1 (95th percentile 10.36 ms)

```
Run 2: Statistics of FillP

Start at: 2019-07-18 05:21:34
End at: 2019-07-18 05:22:04
Local clock offset: -7.411 ms
Remote clock offset: 0.3 ms


# Below is generated by plot.py at 2019-07-18 07:05:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 10.230 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 10.230 ms
Loss rate: 0.04%
```
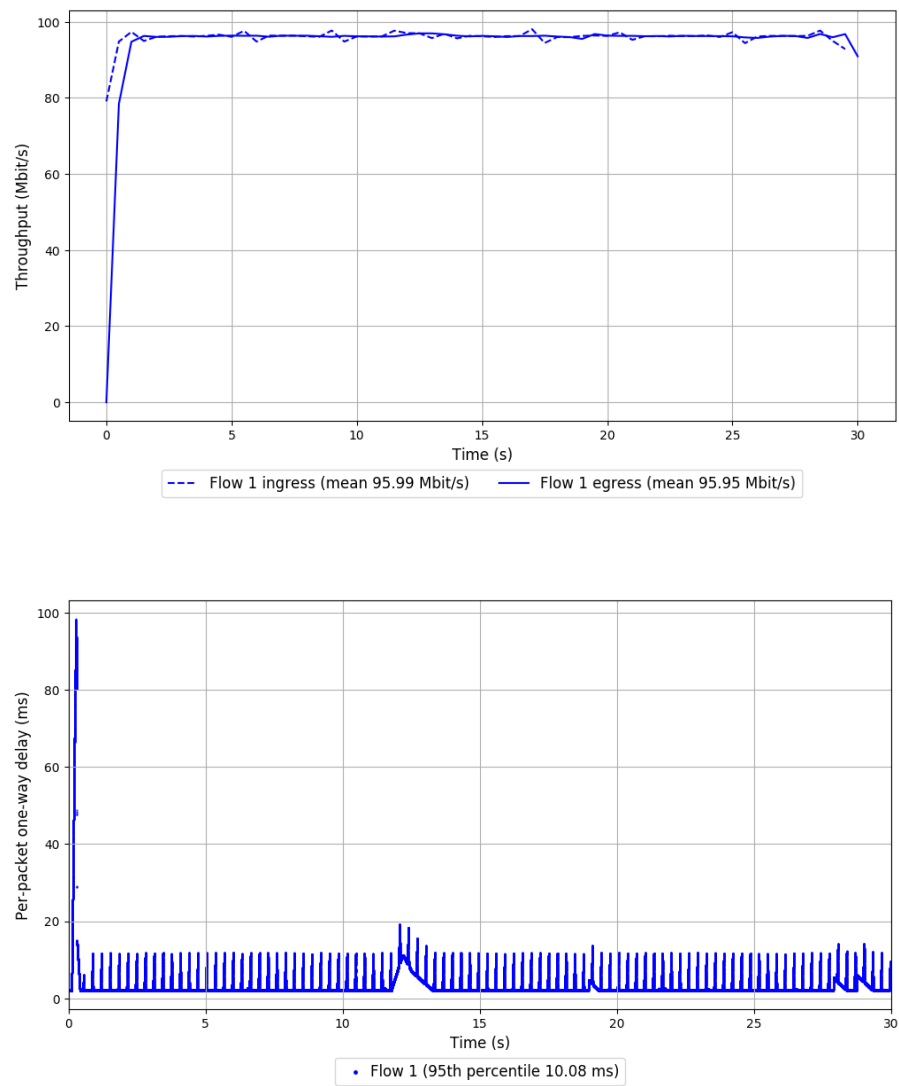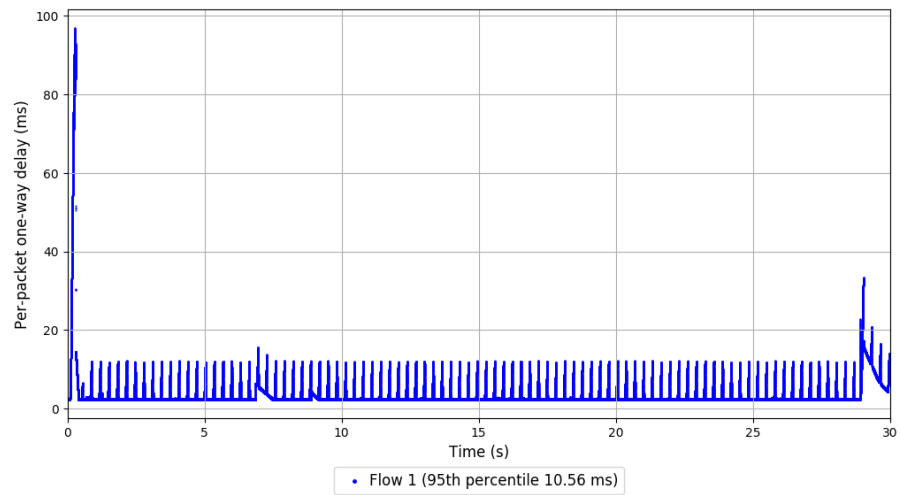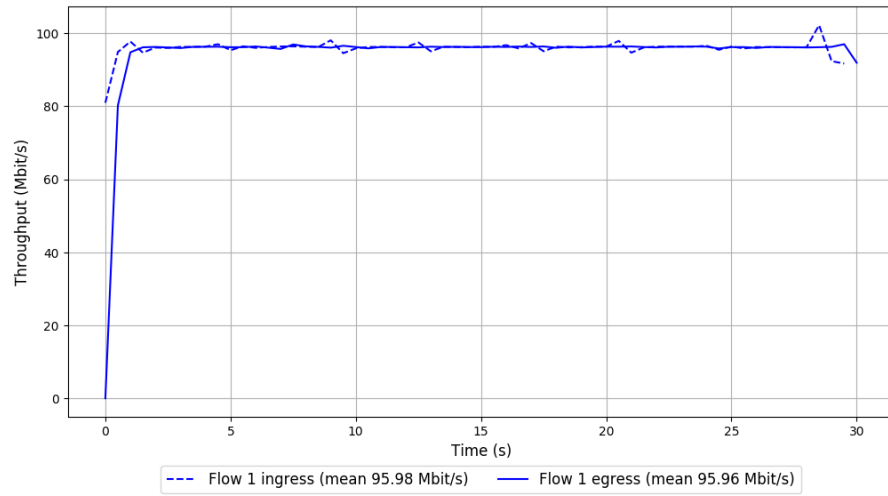
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 95.96 Mbit/s)   Flow 1 egress (mean 95.94 Mbit/s)

Flow 1 (95th percentile 10.23 ms)

```
Run 3: Statistics of FillP

Start at: 2019-07-18 05:48:36
End at: 2019-07-18 05:49:06
Local clock offset: -6.653 ms
Remote clock offset: 0.547 ms


# Below is generated by plot.py at 2019-07-18 07:05:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.90 Mbit/s
95th percentile per-packet one-way delay: 8.842 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 95.90 Mbit/s
95th percentile per-packet one-way delay: 8.842 ms
Loss rate: 0.02%
```
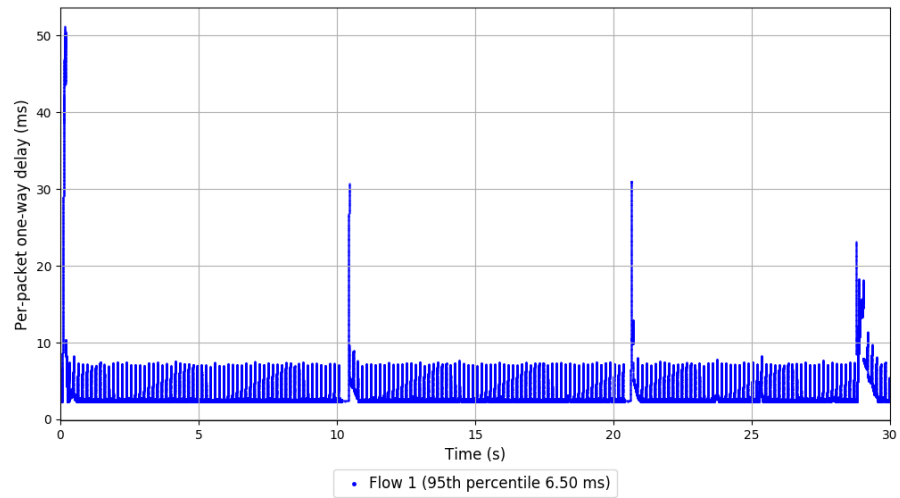
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-07-18 06:15:35
End at: 2019-07-18 06:16:05
Local clock offset: -7.678 ms
Remote clock offset: 0.617 ms


# Below is generated by plot.py at 2019-07-18 07:05:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.95 Mbit/s
95th percentile per-packet one-way delay: 10.081 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 95.95 Mbit/s
95th percentile per-packet one-way delay: 10.081 ms
Loss rate: 0.05%
```
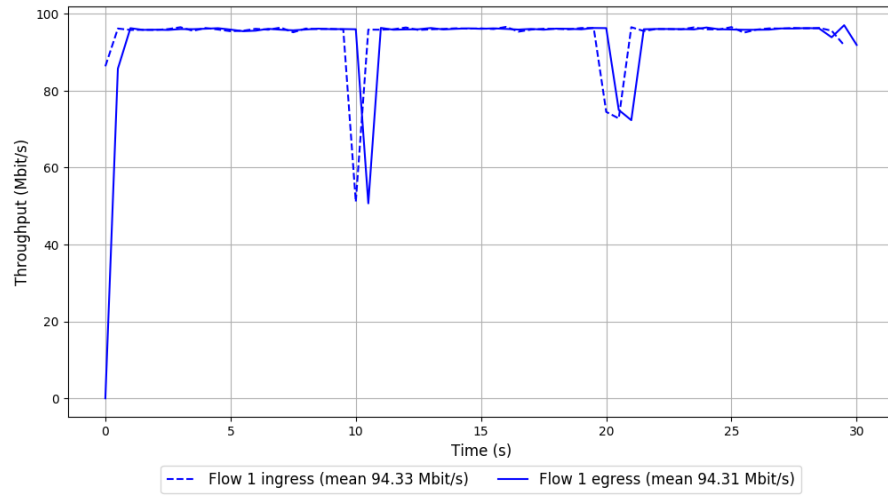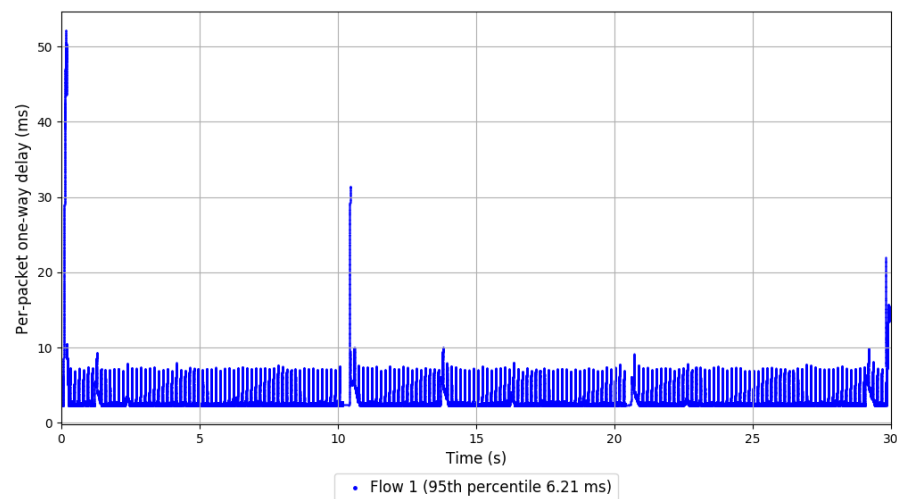
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 95.99 Mbit/s)   Flow 1 egress (mean 95.95 Mbit/s)

Flow 1 (95th percentile 10.08 ms)

```
Run 5: Statistics of FillP

Start at: 2019-07-18 06:42:36
End at: 2019-07-18 06:43:06
Local clock offset: -7.09 ms
Remote clock offset: 0.788 ms


# Below is generated by plot.py at 2019-07-18 07:06:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.96 Mbit/s
95th percentile per-packet one-way delay: 10.562 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 95.96 Mbit/s
95th percentile per-packet one-way delay: 10.562 ms
Loss rate: 0.03%
```
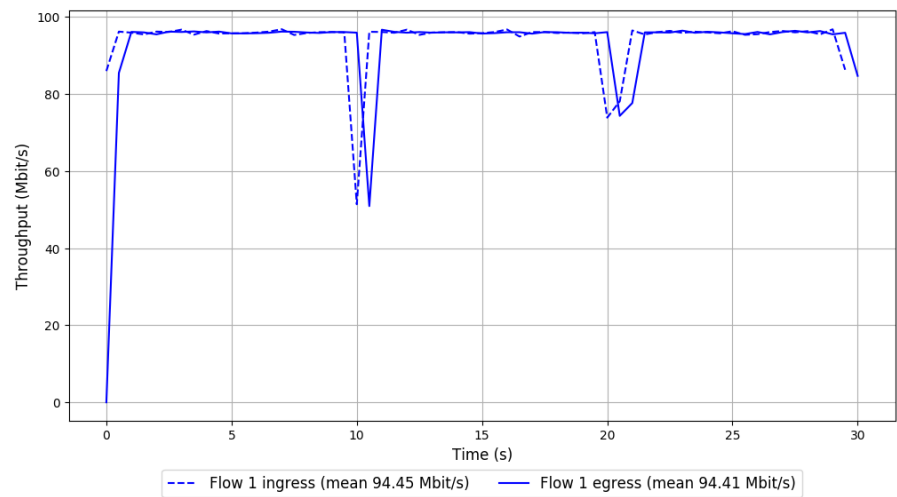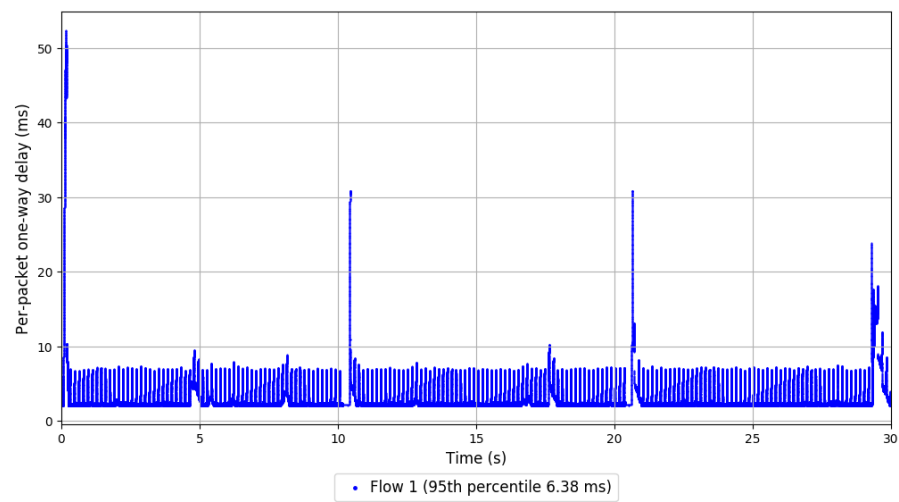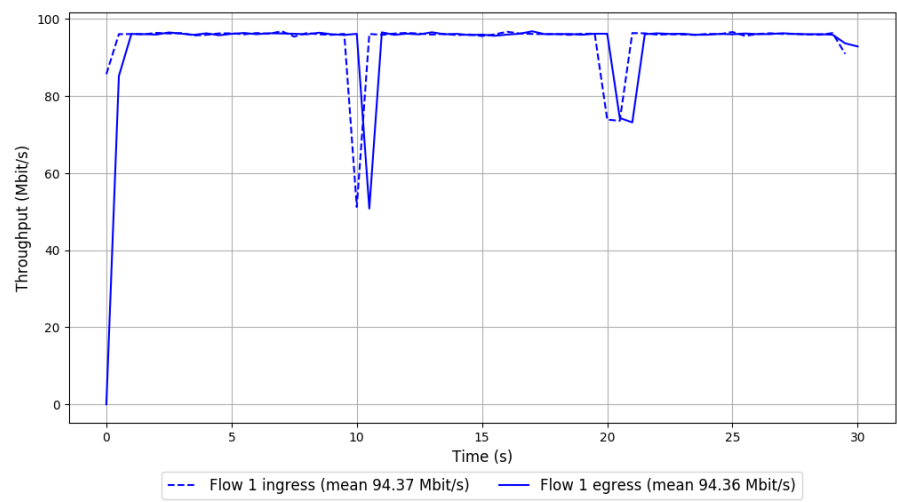
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 95.98 Mbit/s)   Flow 1 egress (mean 95.96 Mbit/s)

Flow 1 (95th percentile 10.56 ms)

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-07-18 04:52:16
End at: 2019-07-18 04:52:46
Local clock offset: -5.696 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-07-18 07:06:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.31 Mbit/s
95th percentile per-packet one-way delay: 6.501 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 94.31 Mbit/s
95th percentile per-packet one-way delay: 6.501 ms
Loss rate: 0.03%
```
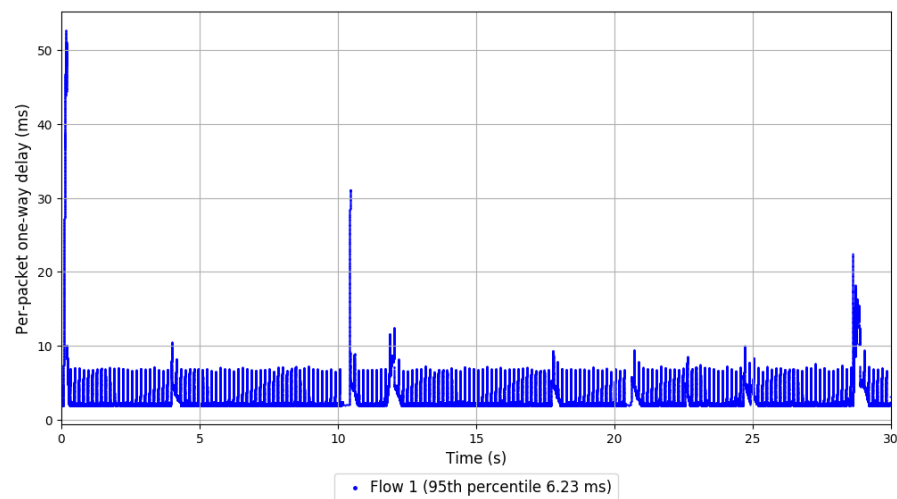
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-07-18 05:19:17
End at: 2019-07-18 05:19:47
Local clock offset: -6.605 ms
Remote clock offset: 0.308 ms


# Below is generated by plot.py at 2019-07-18 07:06:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.41 Mbit/s
95th percentile per-packet one-way delay: 6.210 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 94.41 Mbit/s
95th percentile per-packet one-way delay: 6.210 ms
Loss rate: 0.05%
```
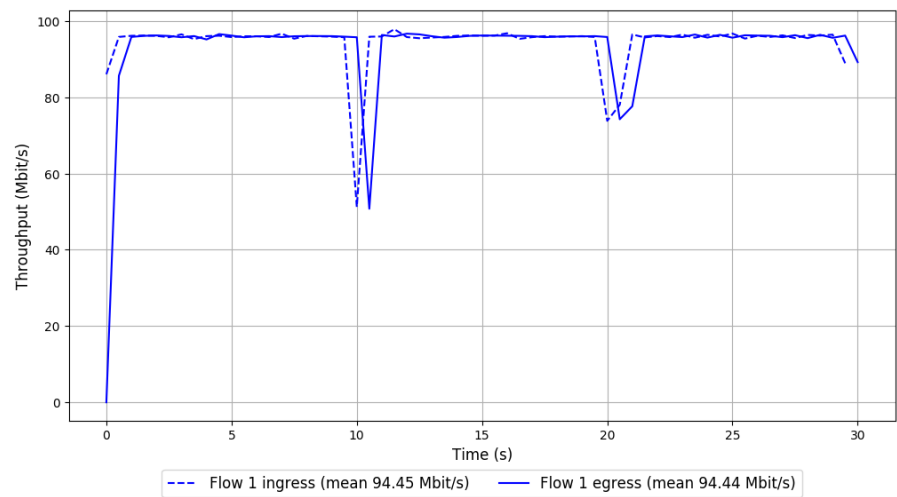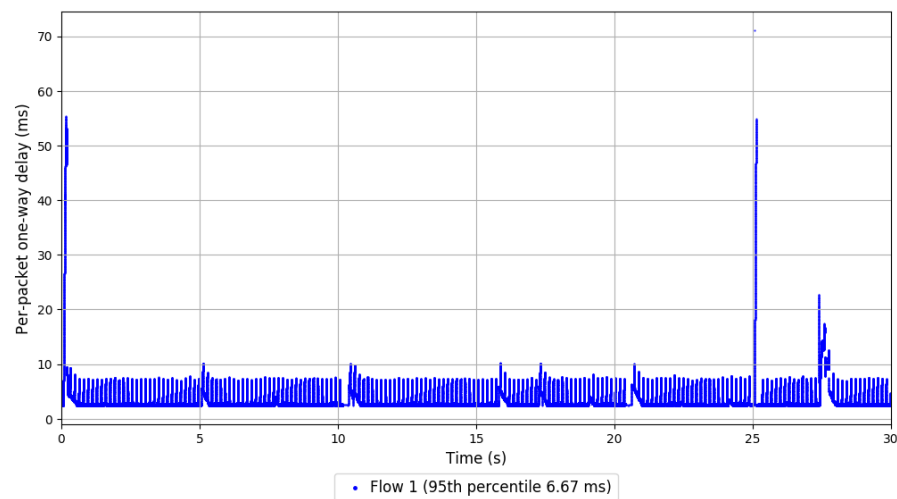
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 94.45 Mbit/s)   Flow 1 egress (mean 94.41 Mbit/s)

Flow 1 (95th percentile 6.21 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-07-18 05:46:19
End at: 2019-07-18 05:46:49
Local clock offset: -5.886 ms
Remote clock offset: 0.502 ms


# Below is generated by plot.py at 2019-07-18 07:06:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 6.384 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 6.384 ms
Loss rate: 0.02%
```
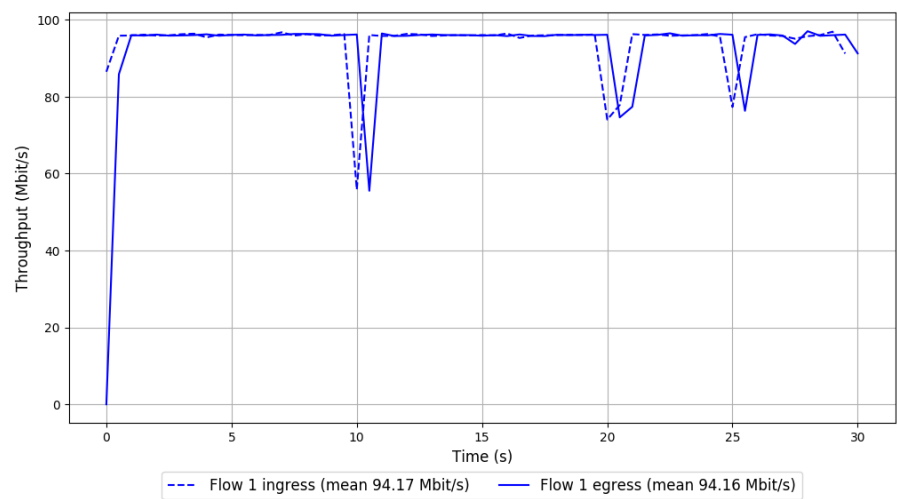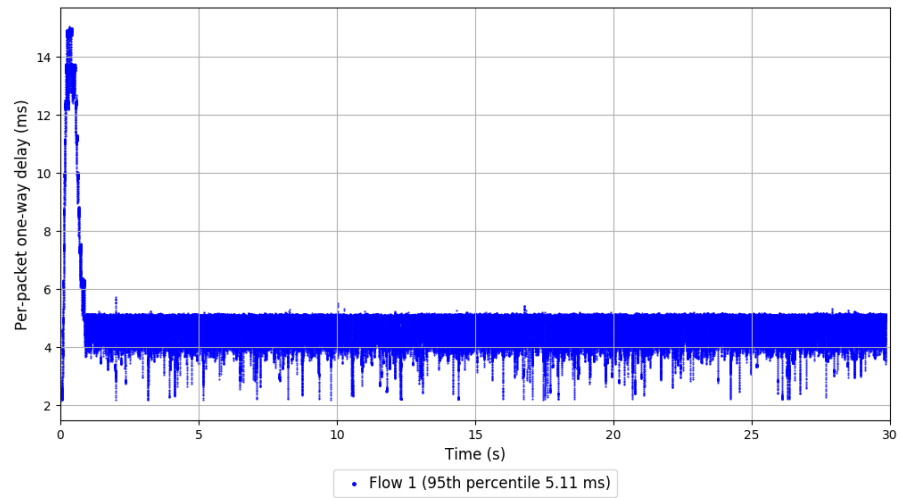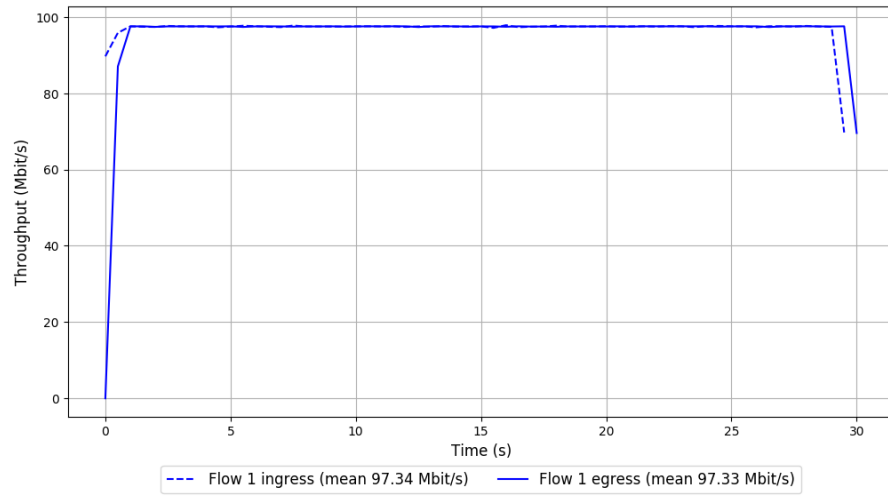
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 94.37 Mbit/s)   Flow 1 egress (mean 94.36 Mbit/s)

Flow 1 (95th percentile 6.38 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-07-18 06:13:19
End at: 2019-07-18 06:13:49
Local clock offset: -7.705 ms
Remote clock offset: 0.607 ms


# Below is generated by plot.py at 2019-07-18 07:06:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.44 Mbit/s
95th percentile per-packet one-way delay: 6.226 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 94.44 Mbit/s
95th percentile per-packet one-way delay: 6.226 ms
Loss rate: 0.02%
```
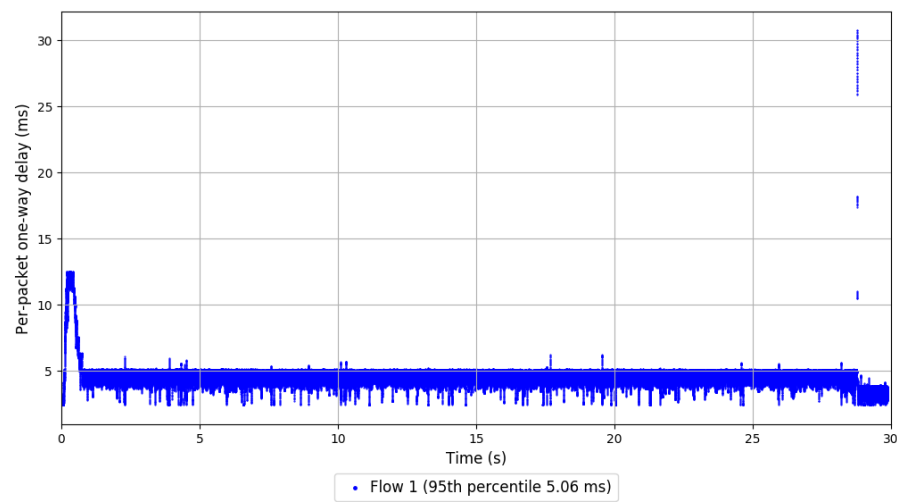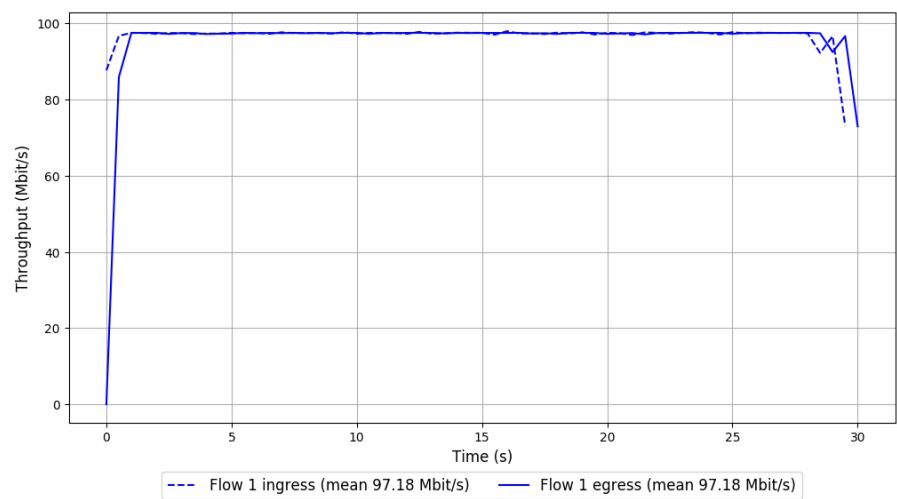
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 94.45 Mbit/s)   Flow 1 egress (mean 94.44 Mbit/s)

Flow 1 (95th percentile 6.23 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-07-18 06:40:19
End at: 2019-07-18 06:40:49
Local clock offset: -7.011 ms
Remote clock offset: 0.704 ms


# Below is generated by plot.py at 2019-07-18 07:07:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.16 Mbit/s
95th percentile per-packet one-way delay: 6.674 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 94.16 Mbit/s
95th percentile per-packet one-way delay: 6.674 ms
Loss rate: 0.02%
```
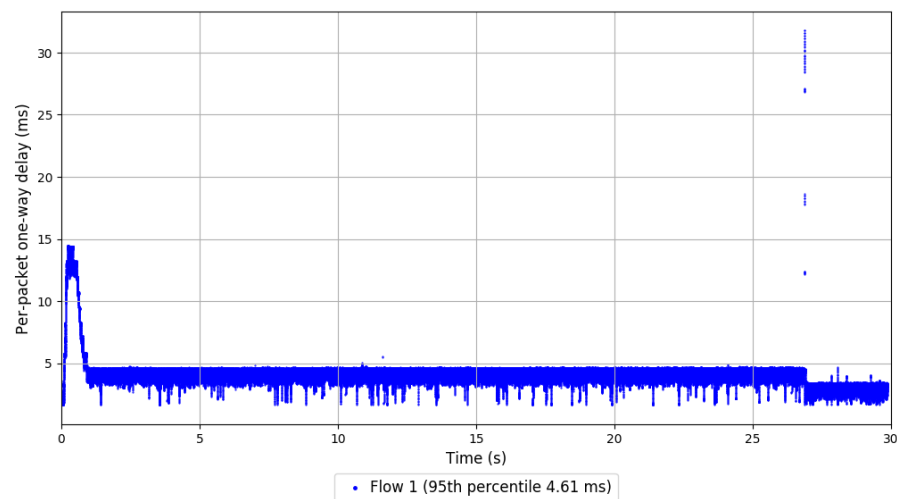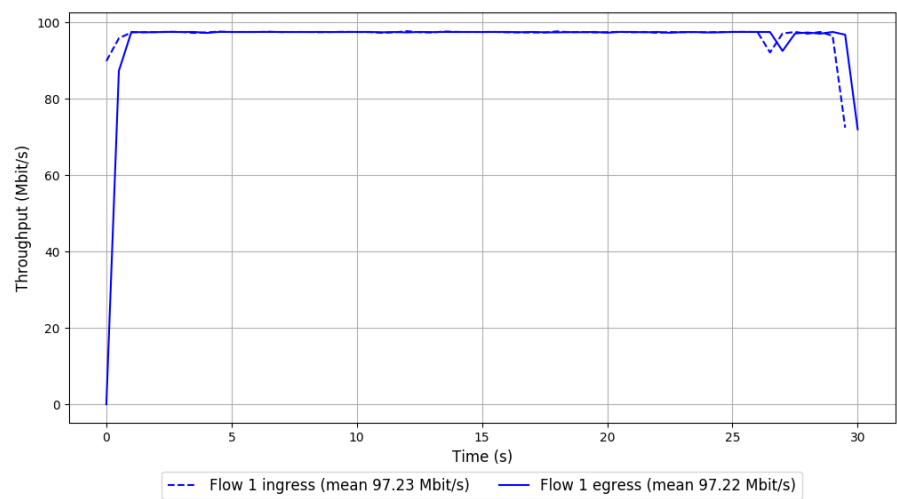
Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-07-18 05:05:53
End at: 2019-07-18 05:06:23
Local clock offset: -6.528 ms
Remote clock offset: 0.13 ms


# Below is generated by plot.py at 2019-07-18 07:07:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.33 Mbit/s
95th percentile per-packet one-way delay: 5.107 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 97.33 Mbit/s
95th percentile per-packet one-way delay: 5.107 ms
Loss rate: 0.02%
```
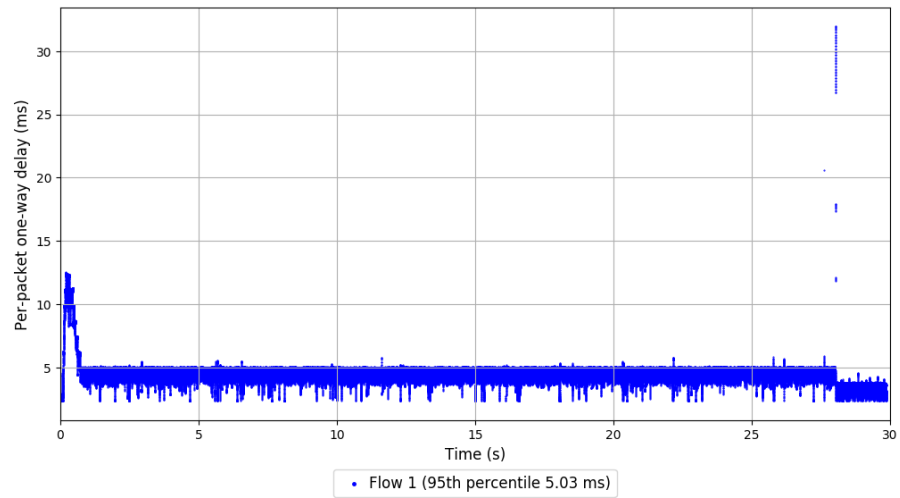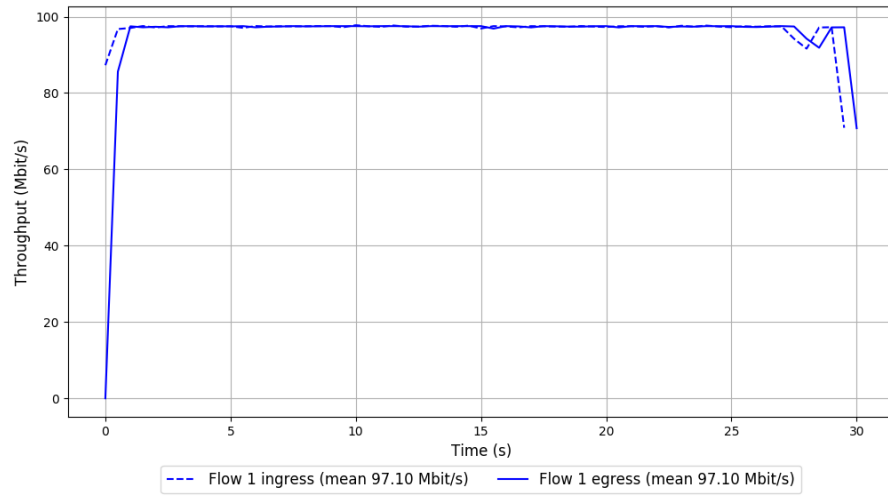
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 97.34 Mbit/s)   Flow 1 egress (mean 97.33 Mbit/s)

Flow 1 (95th percentile 5.11 ms)

```
Run 2: Statistics of Indigo

Start at: 2019-07-18 05:32:49
End at: 2019-07-18 05:33:19
Local clock offset: -6.034 ms
Remote clock offset: 0.364 ms


# Below is generated by plot.py at 2019-07-18 07:07:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 5.059 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 5.059 ms
Loss rate: 0.01%
```
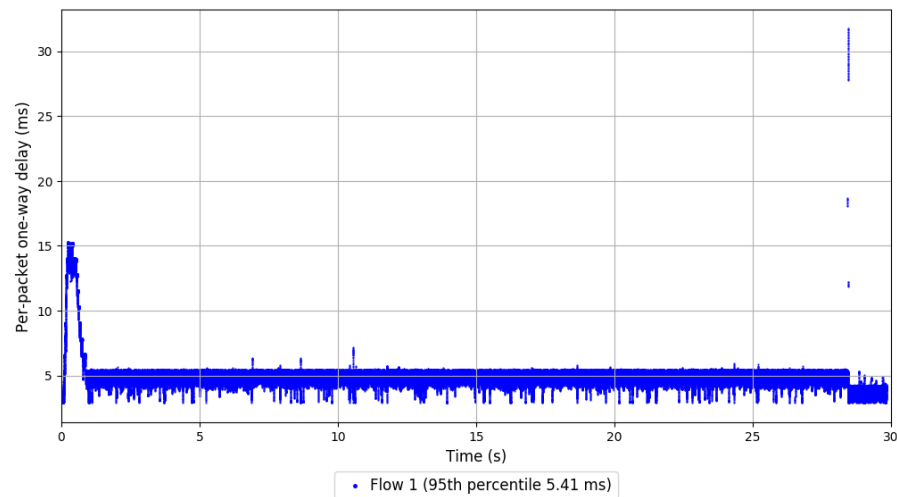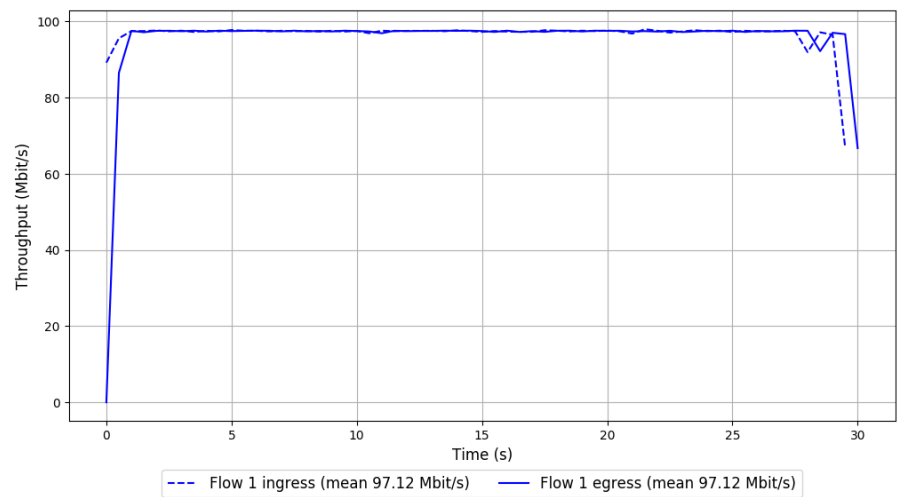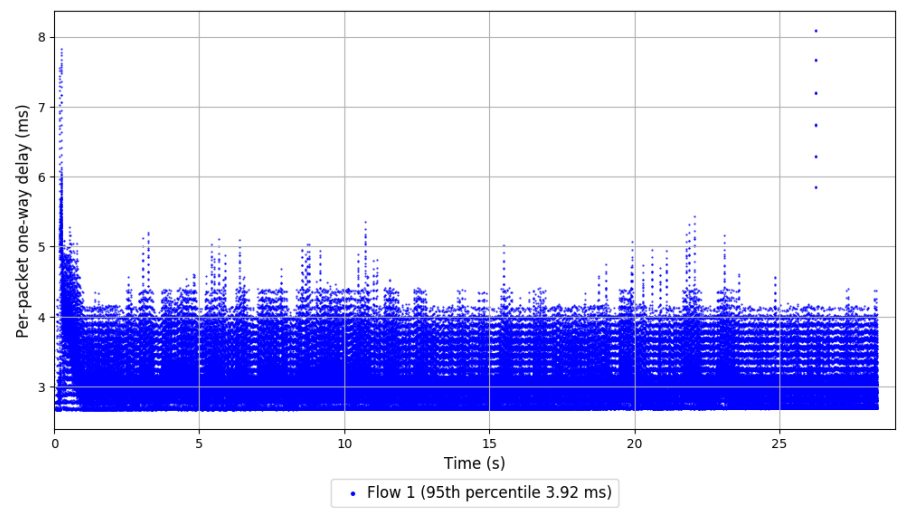
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-07-18 05:59:51
End at: 2019-07-18 06:00:21
Local clock offset: -6.949 ms
Remote clock offset: 0.603 ms

# Below is generated by plot.py at 2019-07-18 07:07:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 4.606 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 4.606 ms
Loss rate: 0.01%
```
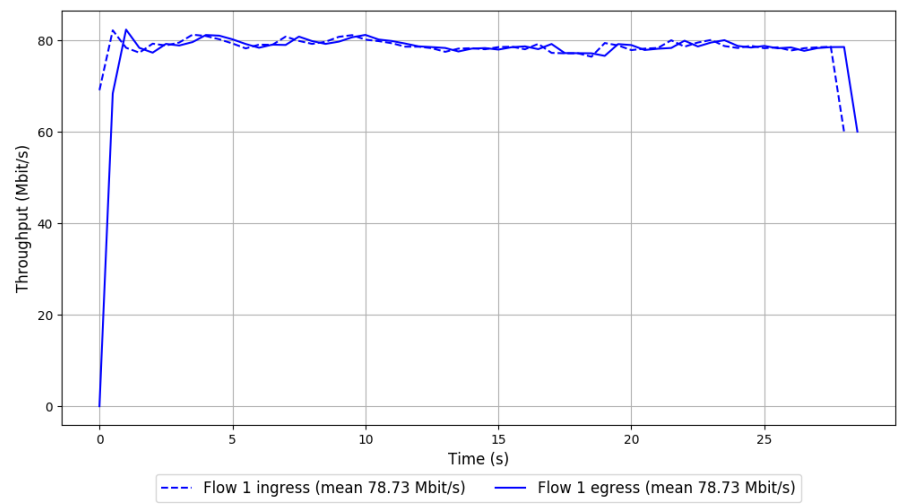
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-07-18 06:26:54
End at: 2019-07-18 06:27:24
Local clock offset: -7.052 ms
Remote clock offset: 0.756 ms


# Below is generated by plot.py at 2019-07-18 07:07:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 5.026 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 5.026 ms
Loss rate: 0.01%
```
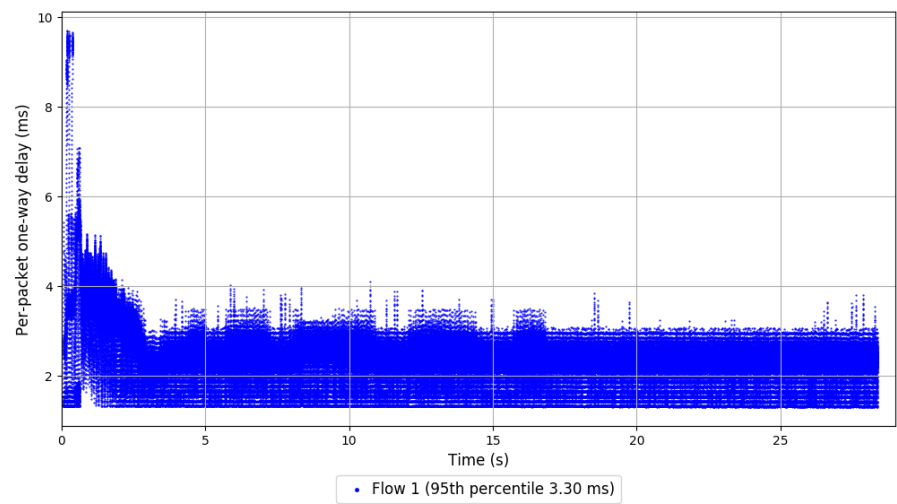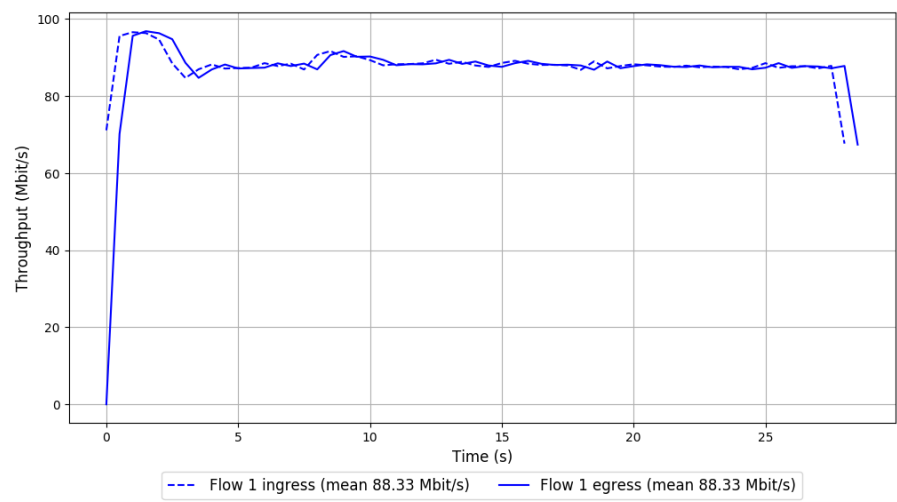
Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 97.10 Mbit/s)   Flow 1 egress (mean 97.10 Mbit/s)

Flow 1 (95th percentile 5.03 ms)

```
Run 5: Statistics of Indigo

Start at: 2019-07-18 06:53:53
End at: 2019-07-18 06:54:23
Local clock offset: -7.123 ms
Remote clock offset: 0.713 ms


# Below is generated by plot.py at 2019-07-18 07:07:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 5.411 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 5.411 ms
Loss rate: 0.01%
```
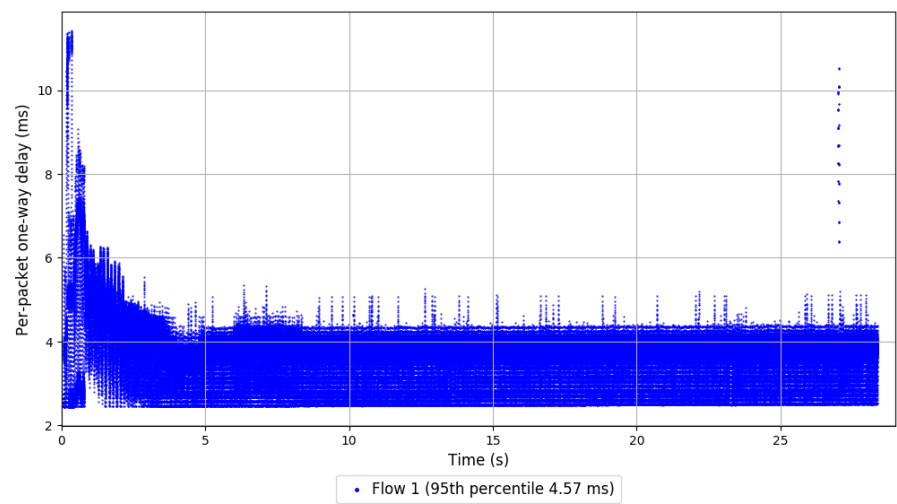
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-07-18 05:02:26
End at: 2019-07-18 05:02:56
Local clock offset: -6.412 ms
Remote clock offset: 0.026 ms


# Below is generated by plot.py at 2019-07-18 07:07:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.73 Mbit/s
95th percentile per-packet one-way delay: 3.925 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 78.73 Mbit/s
95th percentile per-packet one-way delay: 3.925 ms
Loss rate: 0.01%
```
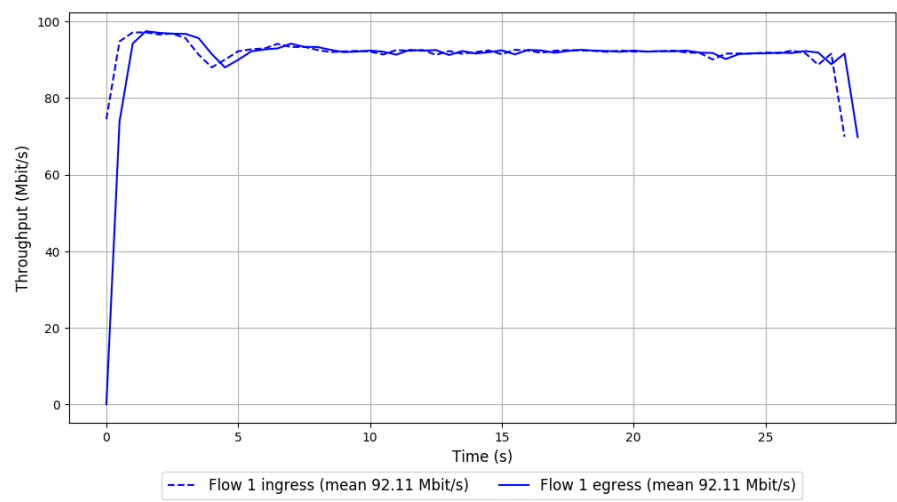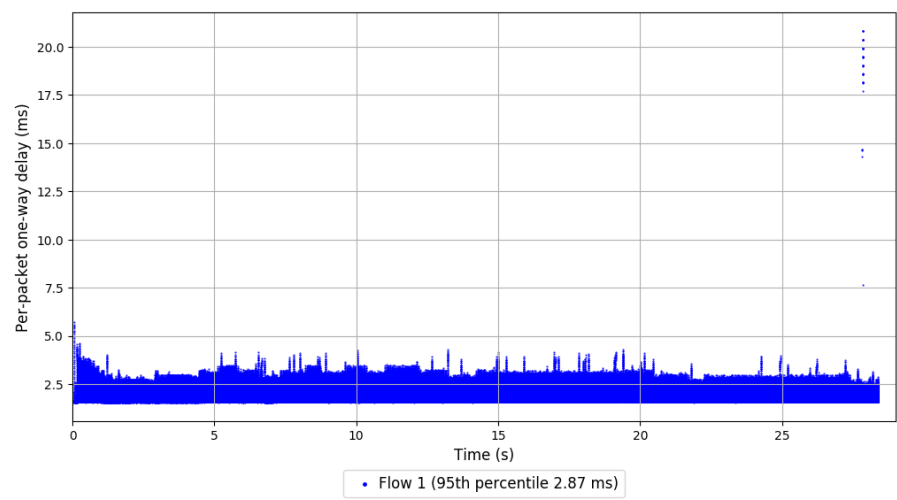
Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-07-18 05:29:22
End at: 2019-07-18 05:29:53
Local clock offset: -7.304 ms
Remote clock offset: 0.347 ms


# Below is generated by plot.py at 2019-07-18 07:07:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.33 Mbit/s
95th percentile per-packet one-way delay: 3.304 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 88.33 Mbit/s
95th percentile per-packet one-way delay: 3.304 ms
Loss rate: 0.01%
```
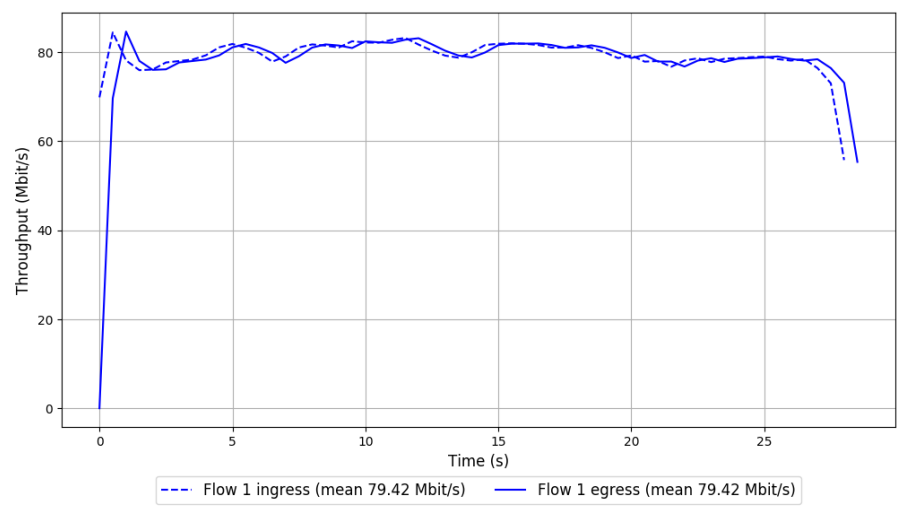
Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-07-18 05:56:24
End at: 2019-07-18 05:56:54
Local clock offset: -5.857 ms
Remote clock offset: 0.529 ms


# Below is generated by plot.py at 2019-07-18 07:08:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 4.567 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 4.567 ms
Loss rate: 0.01%
```
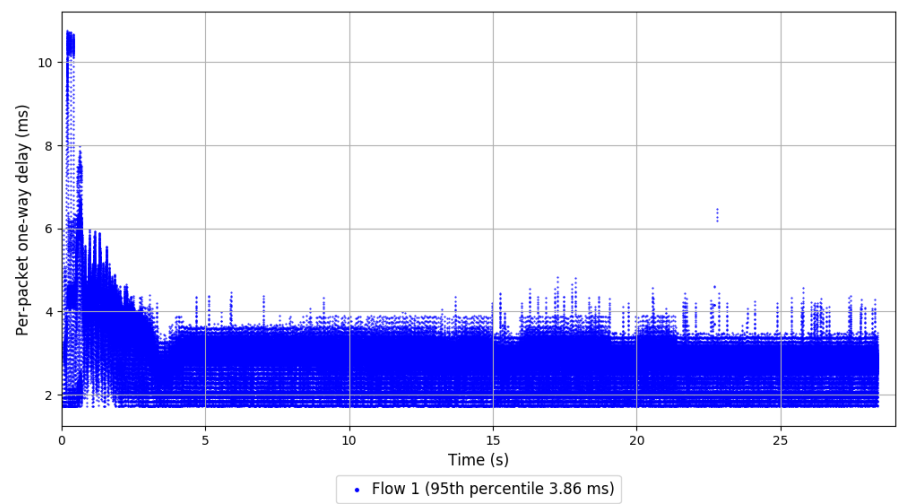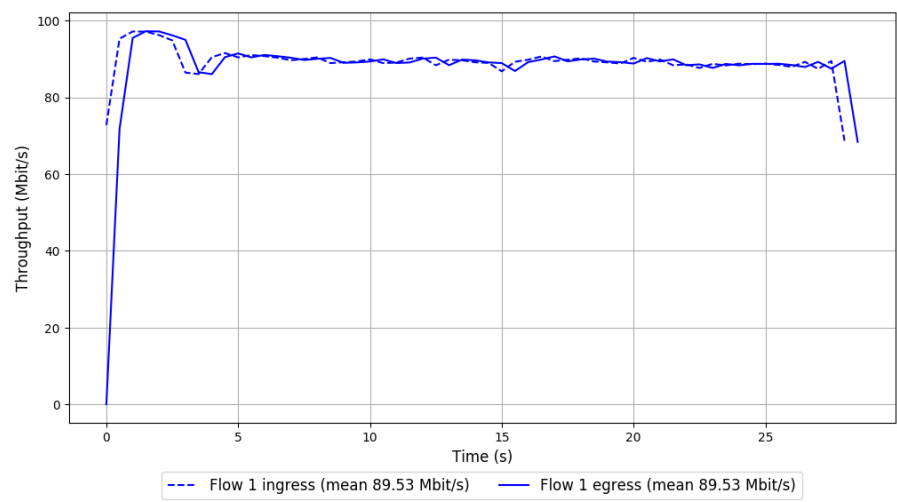
Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 92.11 Mbit/s) — Flow 1 egress (mean 92.11 Mbit/s)

Flow 1 (95th percentile 4.57 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-07-18 06:23:28
End at: 2019-07-18 06:23:58
Local clock offset: -8.065 ms
Remote clock offset: 0.593 ms


# Below is generated by plot.py at 2019-07-18 07:08:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.42 Mbit/s
95th percentile per-packet one-way delay: 2.869 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 79.42 Mbit/s
95th percentile per-packet one-way delay: 2.869 ms
Loss rate: 0.01%
```
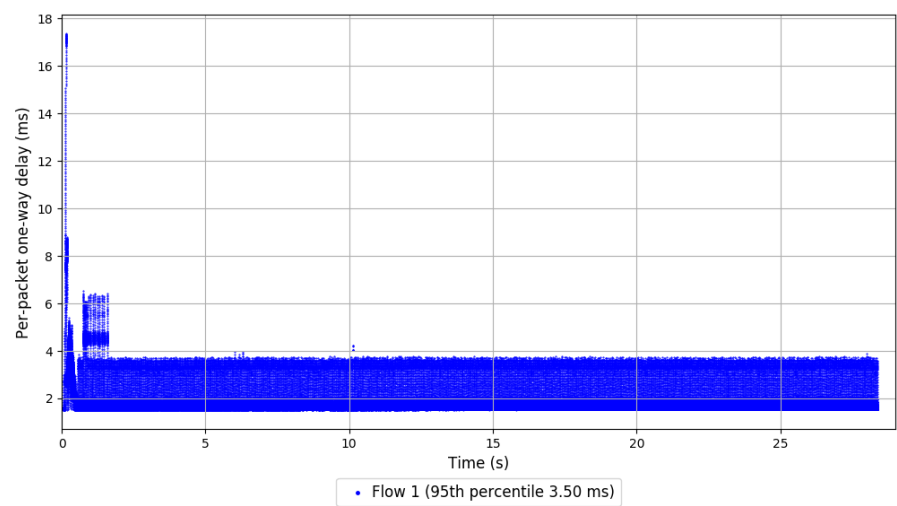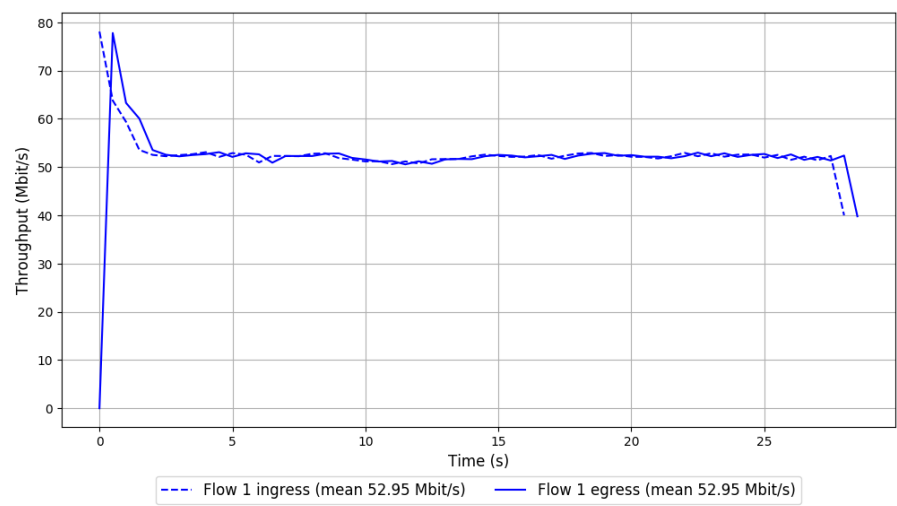
Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-07-18 06:50:26
End at: 2019-07-18 06:50:56
Local clock offset: -7.867 ms
Remote clock offset: 0.686 ms


# Below is generated by plot.py at 2019-07-18 07:08:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.53 Mbit/s
95th percentile per-packet one-way delay: 3.856 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 89.53 Mbit/s
95th percentile per-packet one-way delay: 3.856 ms
Loss rate: 0.02%
```
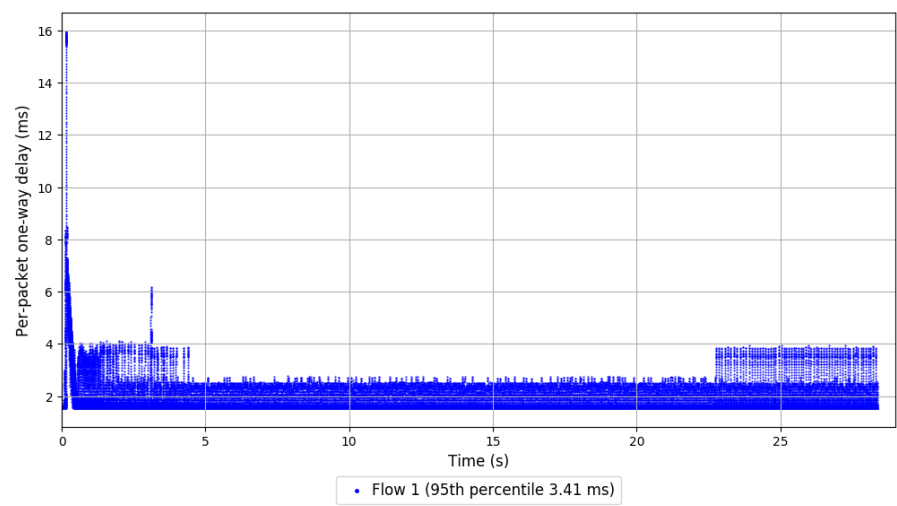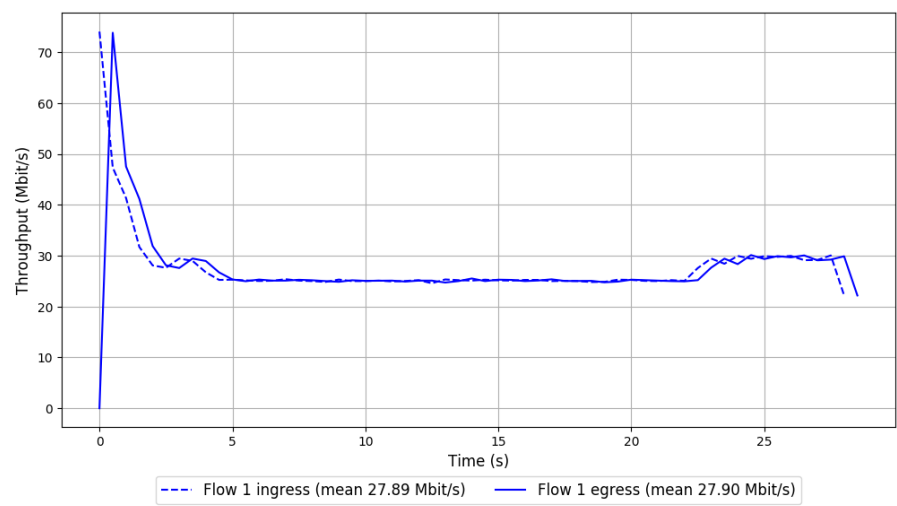
Run 5: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 89.53 Mbit/s)   —— Flow 1 egress (mean 89.53 Mbit/s)

• Flow 1 (95th percentile 3.86 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-07-18 05:08:07
End at: 2019-07-18 05:08:37
Local clock offset: -7.376 ms
Remote clock offset: 0.04 ms


# Below is generated by plot.py at 2019-07-18 07:08:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.95 Mbit/s
95th percentile per-packet one-way delay: 3.501 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 52.95 Mbit/s
95th percentile per-packet one-way delay: 3.501 ms
Loss rate: 0.01%
```
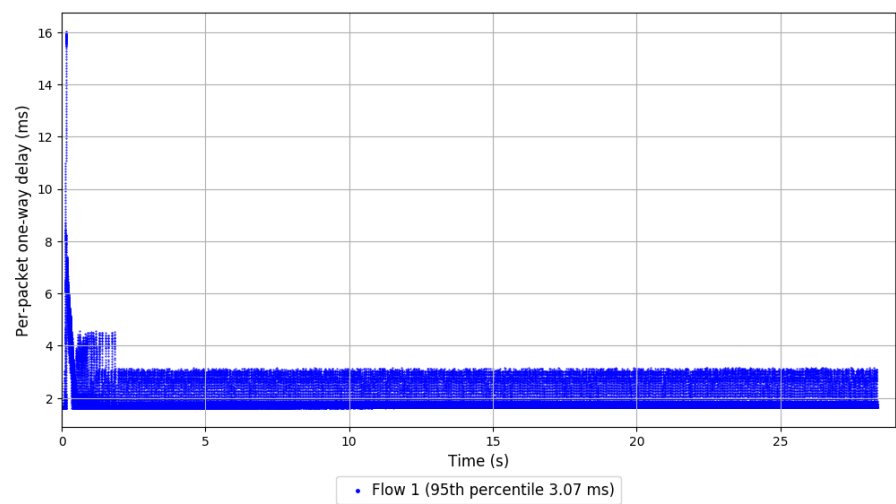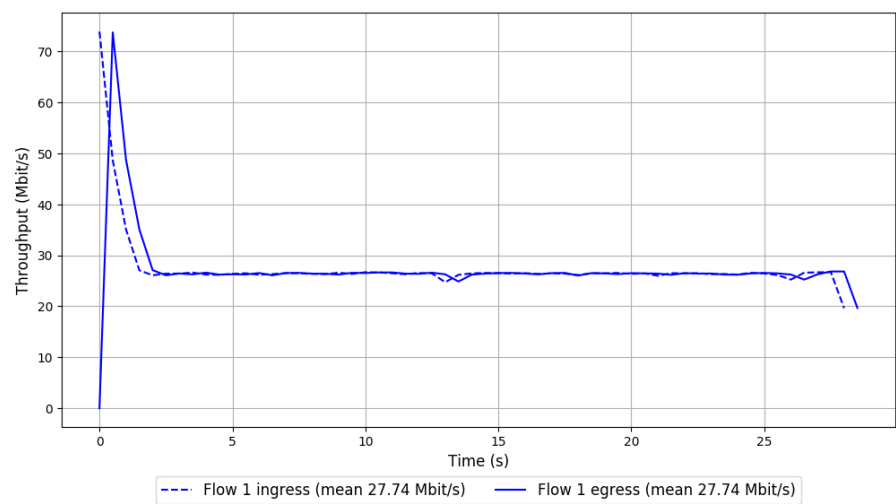
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-07-18 05:35:08
End at: 2019-07-18 05:35:38
Local clock offset: -6.721 ms
Remote clock offset: 0.469 ms


# Below is generated by plot.py at 2019-07-18 07:08:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.90 Mbit/s
95th percentile per-packet one-way delay: 3.409 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 27.90 Mbit/s
95th percentile per-packet one-way delay: 3.409 ms
Loss rate: 0.01%
```
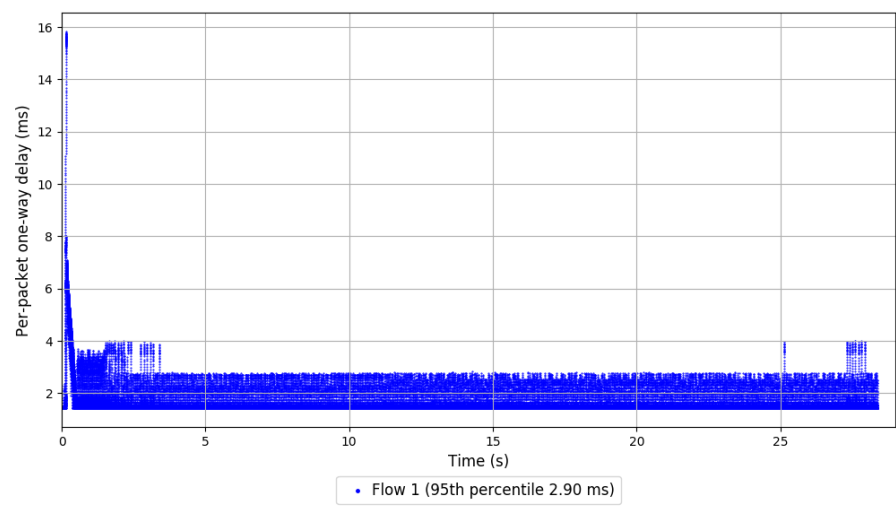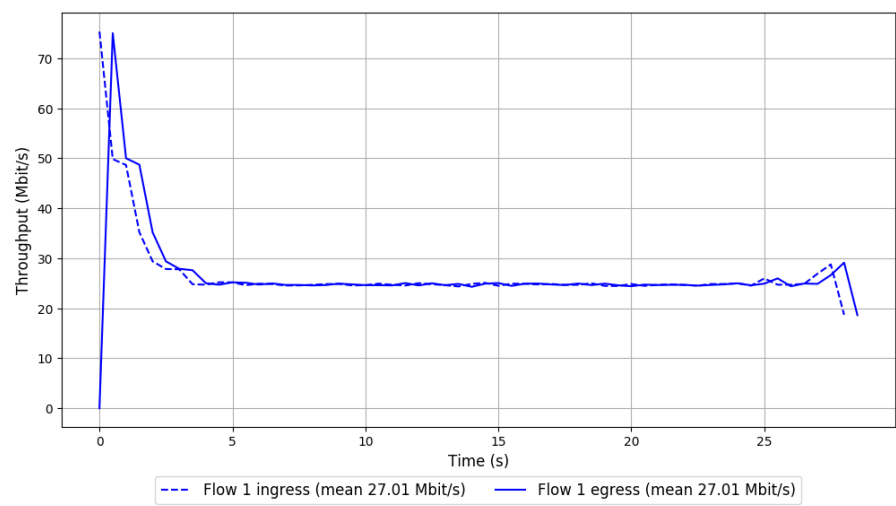
Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-07-18 06:02:10
End at: 2019-07-18 06:02:40
Local clock offset: -7.178 ms
Remote clock offset: 0.588 ms


# Below is generated by plot.py at 2019-07-18 07:08:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.74 Mbit/s
95th percentile per-packet one-way delay: 3.068 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.74 Mbit/s
95th percentile per-packet one-way delay: 3.068 ms
Loss rate: 0.00%
```
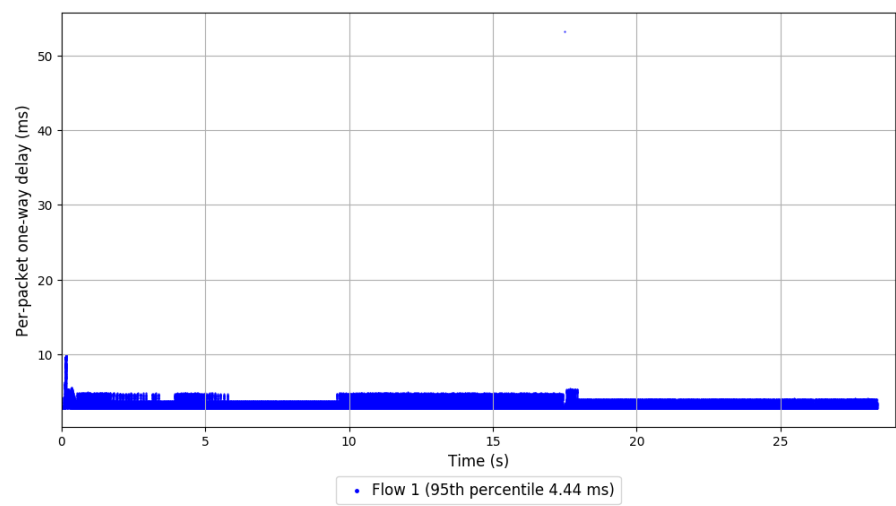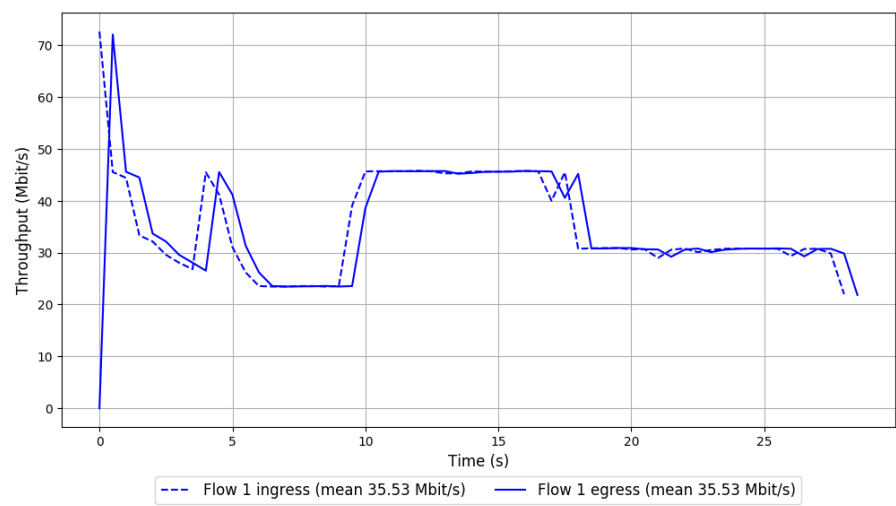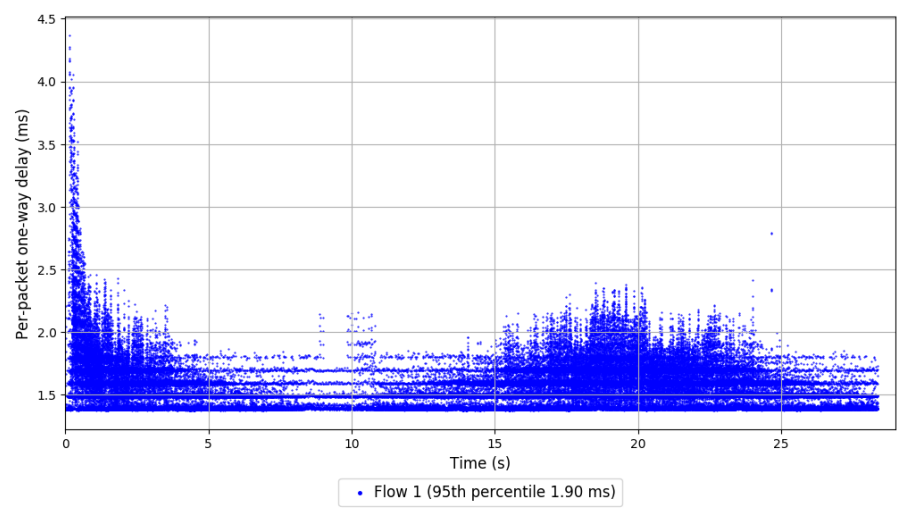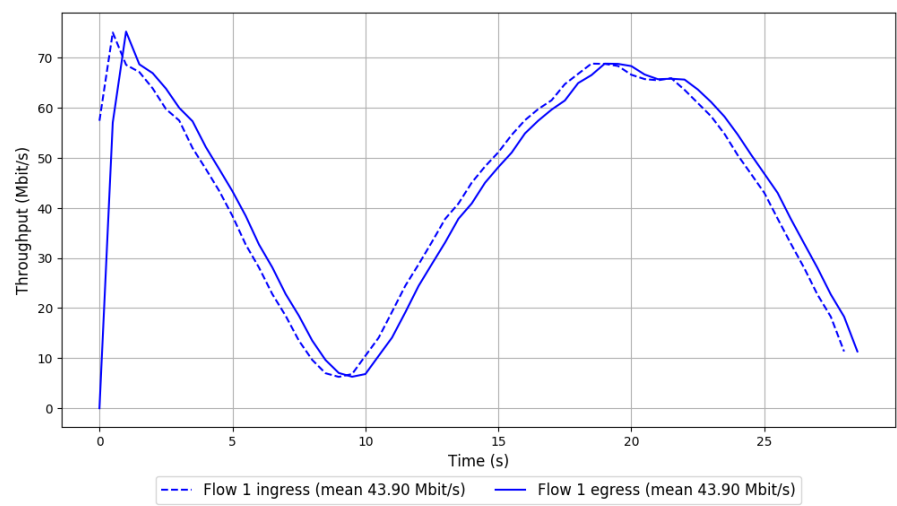
Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-07-18 06:29:09
End at: 2019-07-18 06:29:39
Local clock offset: -8.033 ms
Remote clock offset: 0.708 ms


# Below is generated by plot.py at 2019-07-18 07:08:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.01 Mbit/s
95th percentile per-packet one-way delay: 2.898 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.01 Mbit/s
95th percentile per-packet one-way delay: 2.898 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-07-18 06:56:08
End at: 2019-07-18 06:56:38
Local clock offset: -7.194 ms
Remote clock offset: 0.793 ms


# Below is generated by plot.py at 2019-07-18 07:08:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.53 Mbit/s
95th percentile per-packet one-way delay: 4.440 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 35.53 Mbit/s
95th percentile per-packet one-way delay: 4.440 ms
Loss rate: 0.01%
```
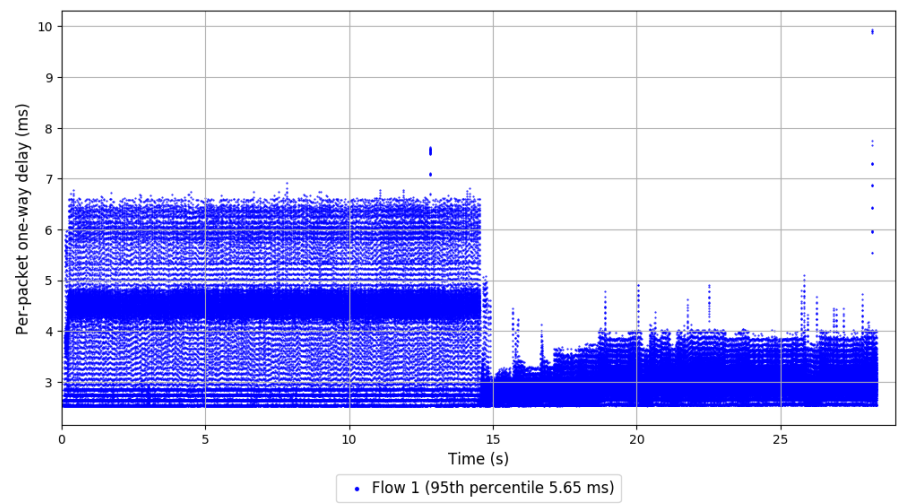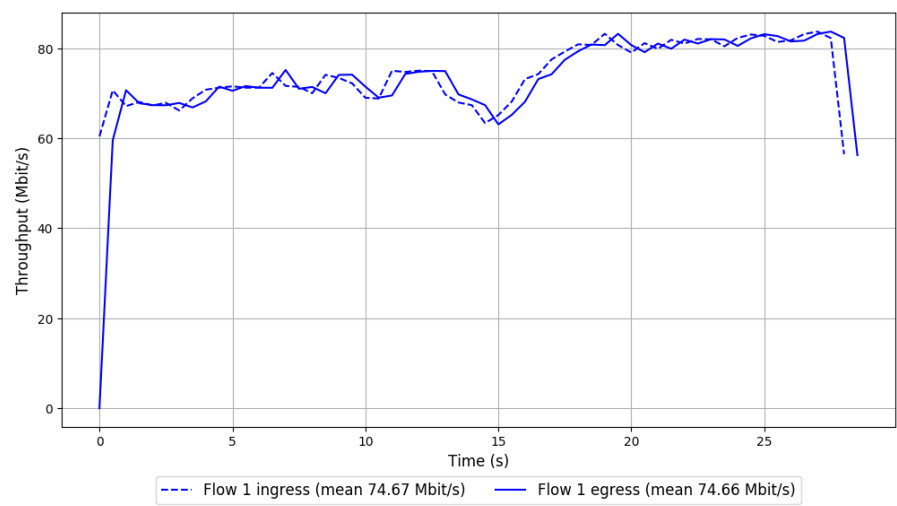
Run 5: Report of Indigo-MusesC5 — Data Link

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-07-18 04:50:00
End at: 2019-07-18 04:50:30
Local clock offset: -6.789 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2019-07-18 07:08:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.90 Mbit/s
95th percentile per-packet one-way delay: 1.902 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.90 Mbit/s
95th percentile per-packet one-way delay: 1.902 ms
Loss rate: 0.00%
```
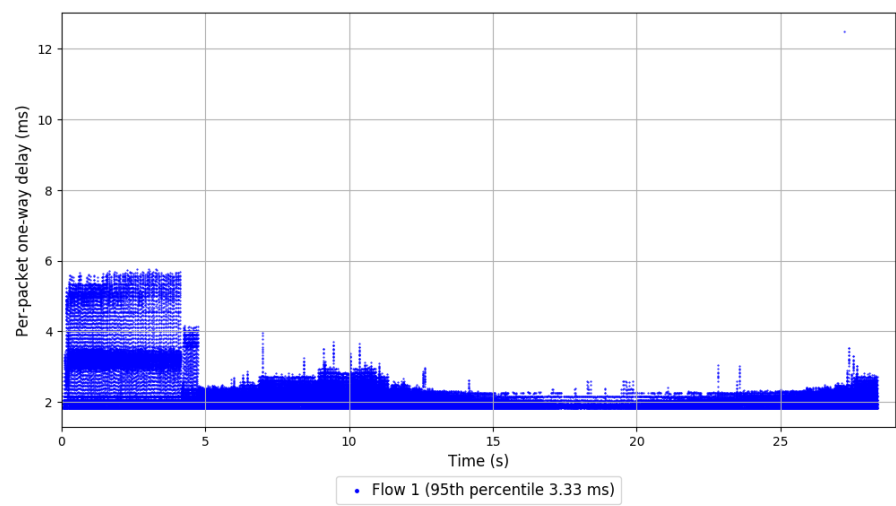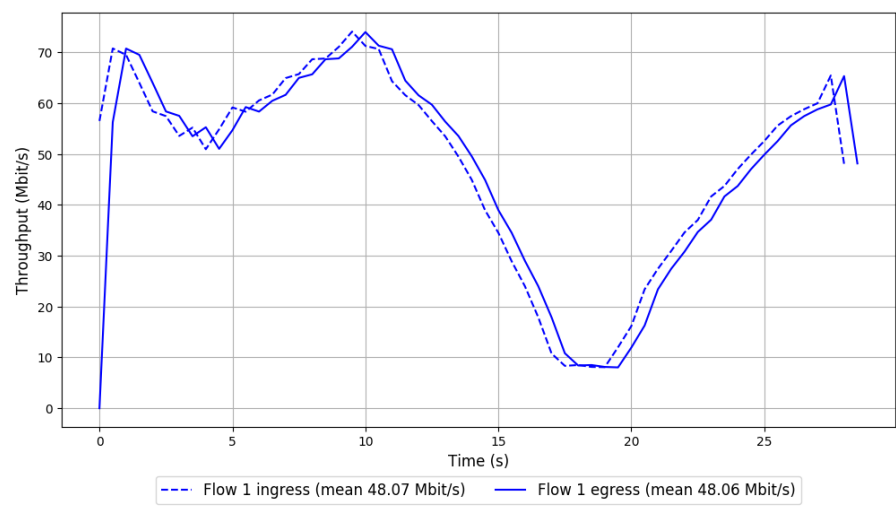
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-07-18 05:17:00
End at: 2019-07-18 05:17:30
Local clock offset: -6.571 ms
Remote clock offset: 0.13 ms


# Below is generated by plot.py at 2019-07-18 07:08:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.66 Mbit/s
95th percentile per-packet one-way delay: 5.651 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 74.66 Mbit/s
95th percentile per-packet one-way delay: 5.651 ms
Loss rate: 0.02%
```
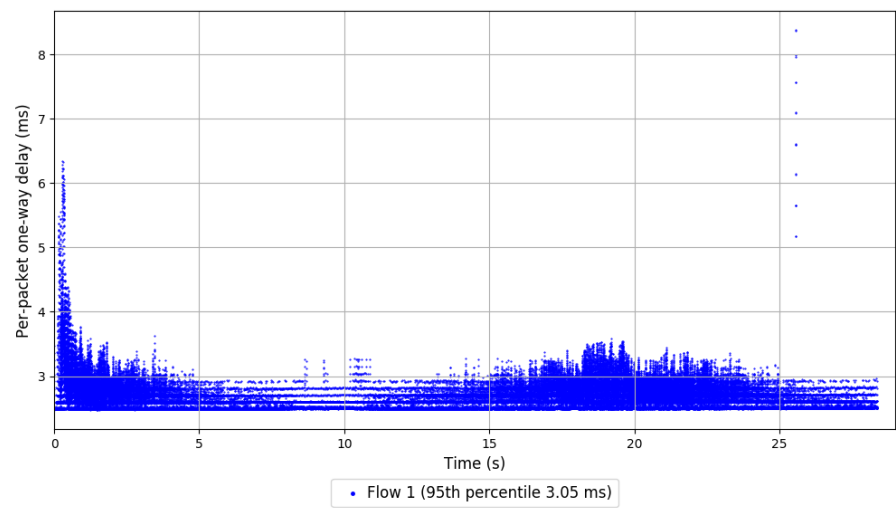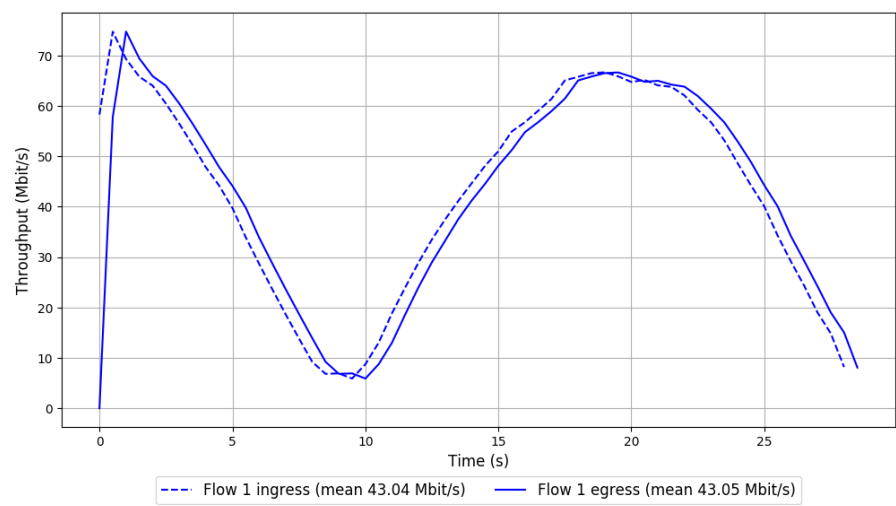
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-07-18 05:44:01
End at: 2019-07-18 05:44:31
Local clock offset: -6.732 ms
Remote clock offset: 0.511 ms


# Below is generated by plot.py at 2019-07-18 07:08:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.06 Mbit/s
95th percentile per-packet one-way delay: 3.331 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 48.06 Mbit/s
95th percentile per-packet one-way delay: 3.331 ms
Loss rate: 0.01%
```
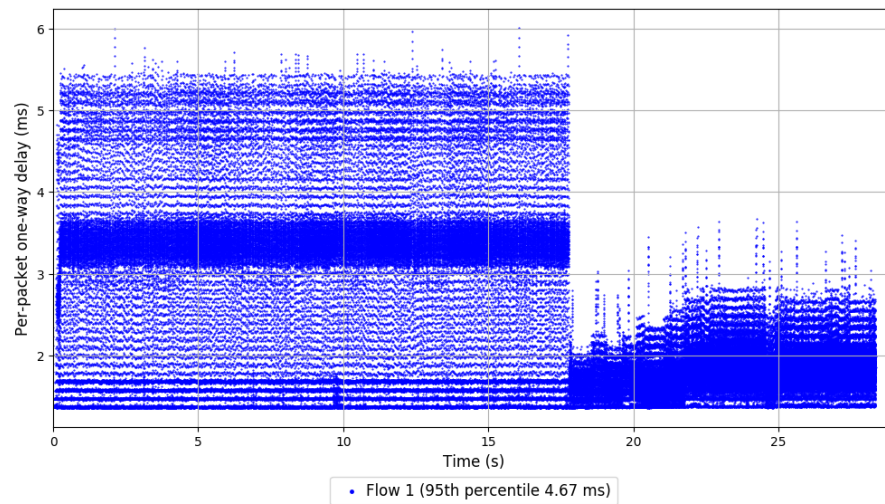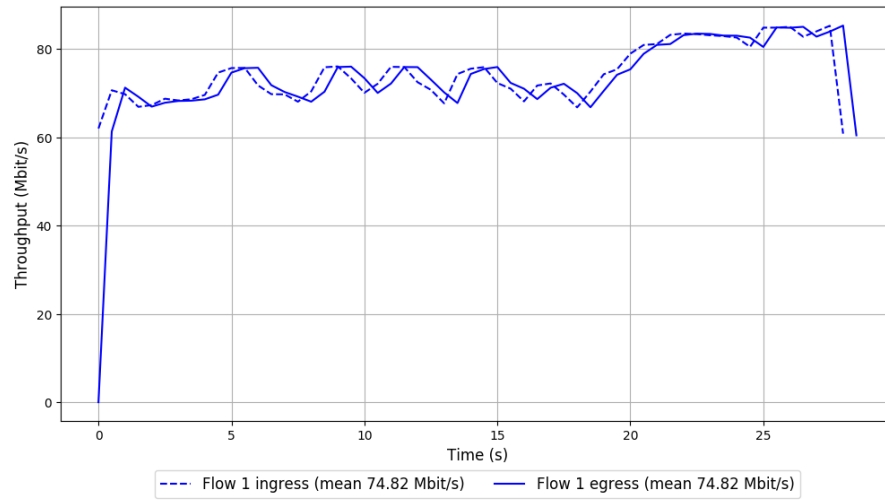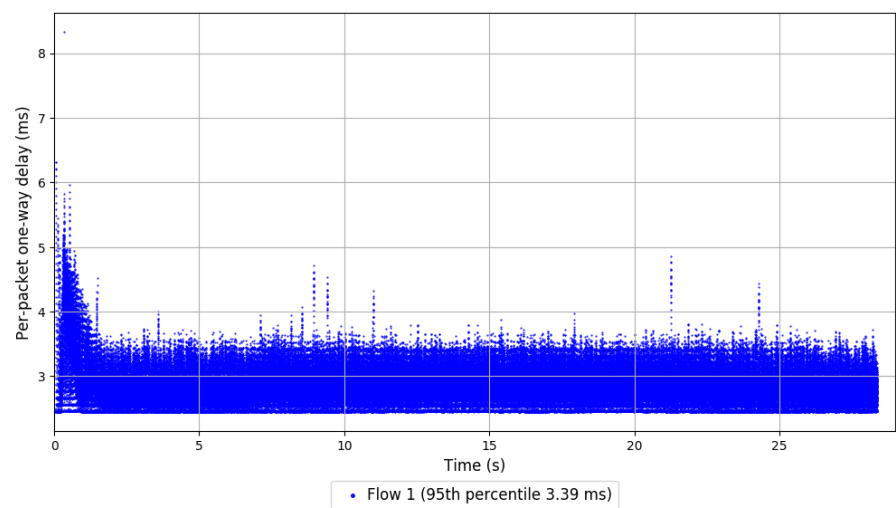
Run 3: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 48.07 Mbit/s) — — — — Flow 1 egress (mean 48.06 Mbit/s)

Flow 1 (95th percentile 3.33 ms)

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-07-18 06:11:02
End at: 2019-07-18 06:11:32
Local clock offset: -6.765 ms
Remote clock offset: 0.586 ms


# Below is generated by plot.py at 2019-07-18 07:08:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 3.053 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 3.053 ms
Loss rate: 0.00%
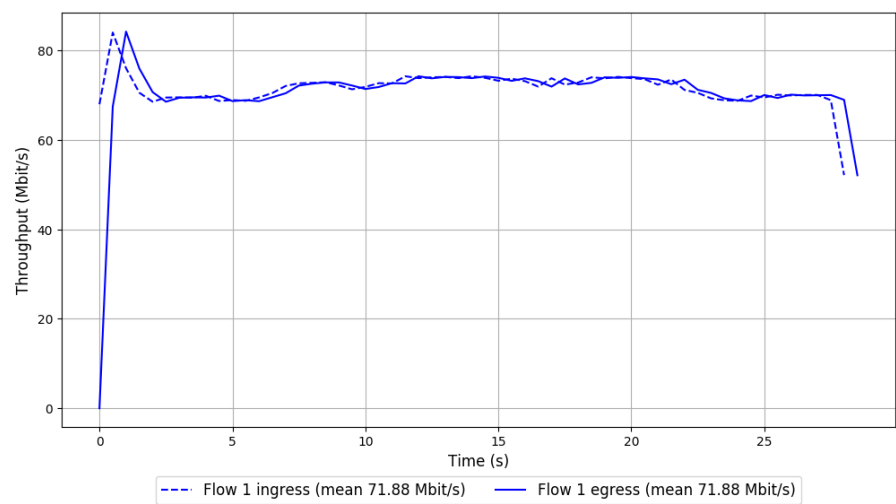```

Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-07-18 06:38:01
End at: 2019-07-18 06:38:31
Local clock offset: -8.029 ms
Remote clock offset: 0.852 ms

Below is generated by plot.py at 2019-07-18 07:08:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 74.82 Mbit/s
95th percentile per-packet one-way delay: 4.671 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 74.82 Mbit/s
95th percentile per-packet one-way delay: 4.671 ms
Loss rate: 0.02%
```
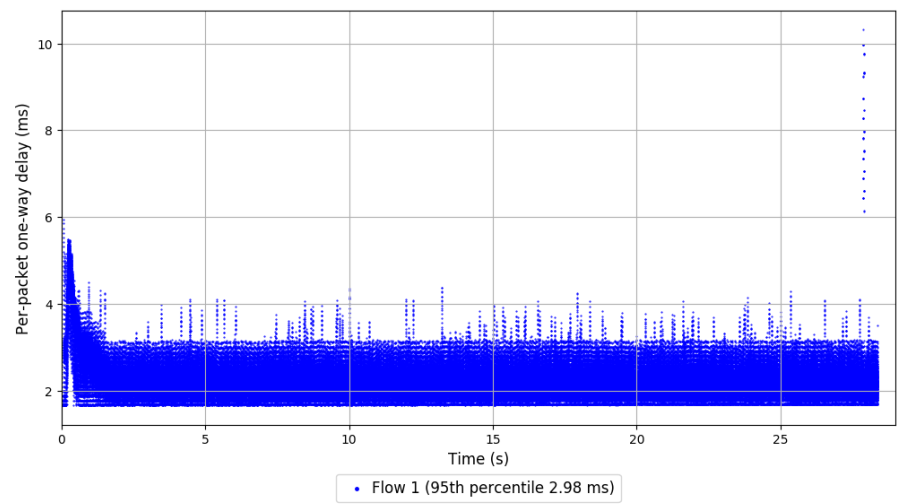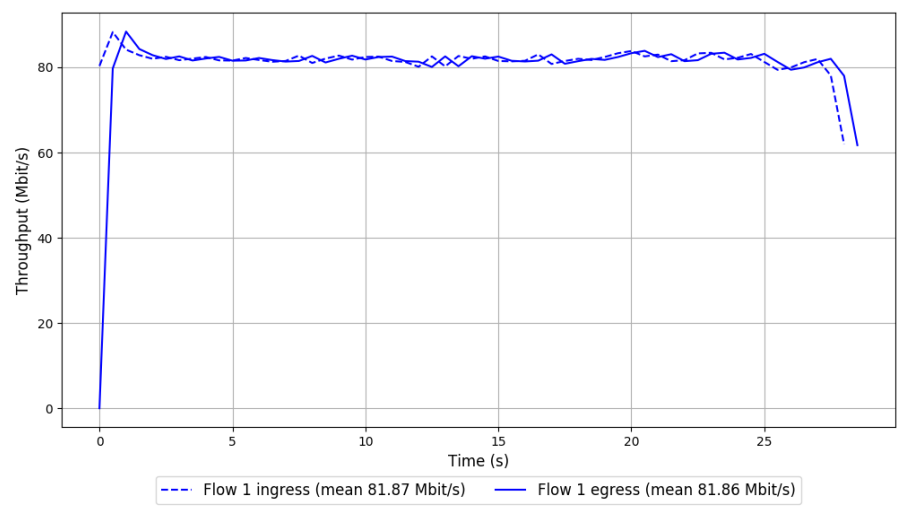
Run 5: Report of Indigo-MusesD — Data Link



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```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-07-18 04:45:35
End at: 2019-07-18 04:46:05
Local clock offset: -5.716 ms
Remote clock offset: -0.116 ms

Below is generated by plot.py at 2019-07-18 07:08:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 71.88 Mbit/s
95th percentile per-packet one-way delay: 3.390 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 71.88 Mbit/s
95th percentile per-packet one-way delay: 3.390 ms
Loss rate: 0.01%
```
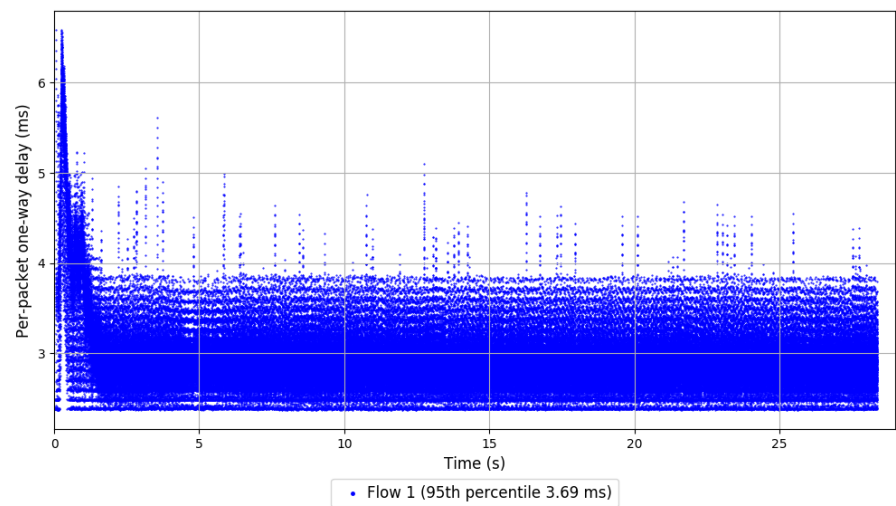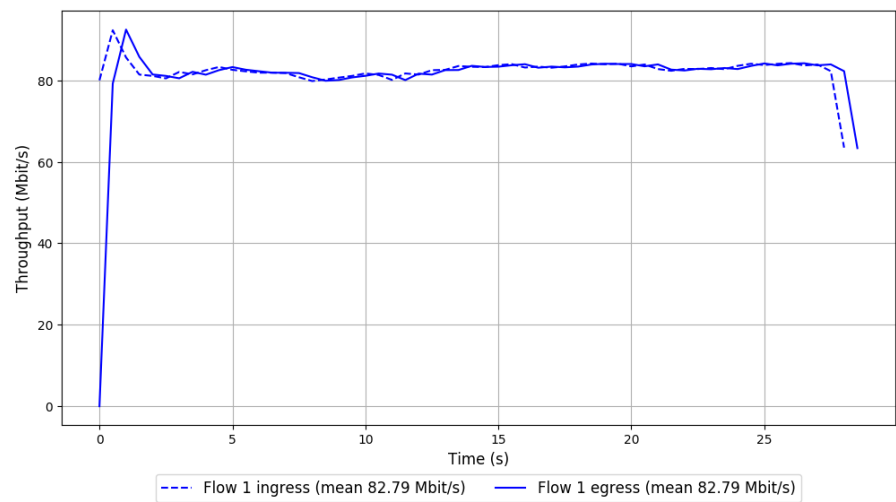
Run 1: Report of Indigo-MusesT — Data Link



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```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-07-18 05:12:37
End at: 2019-07-18 05:13:07
Local clock offset: -7.274 ms
Remote clock offset: 0.16 ms

Below is generated by plot.py at 2019-07-18 07:09:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 81.86 Mbit/s
95th percentile per-packet one-way delay: 2.976 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 81.86 Mbit/s
95th percentile per-packet one-way delay: 2.976 ms
Loss rate: 0.01%
```
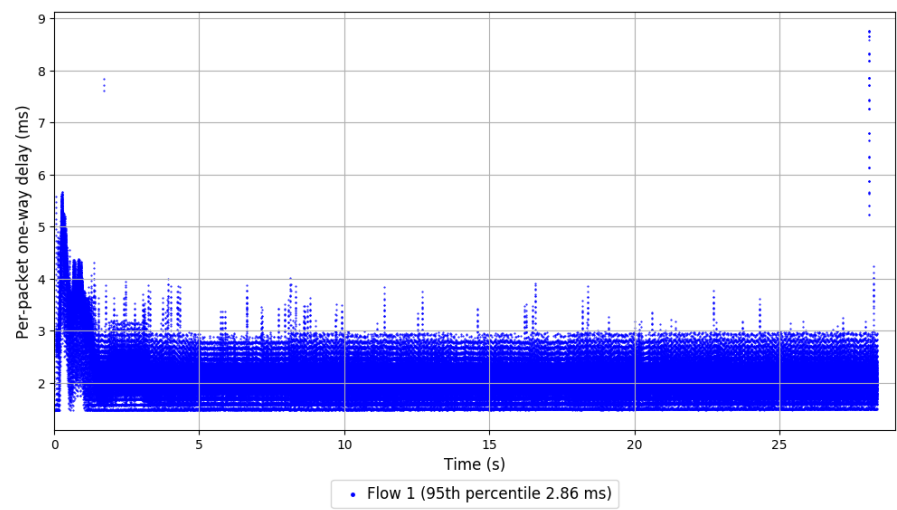
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-07-18 05:39:38
End at: 2019-07-18 05:40:08
Local clock offset: -5.796 ms
Remote clock offset: 0.516 ms

Below is generated by plot.py at 2019-07-18 07:09:15
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.79 Mbit/s
95th percentile per-packet one-way delay: 3.689 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 82.79 Mbit/s
95th percentile per-packet one-way delay: 3.689 ms
Loss rate: 0.01%
```
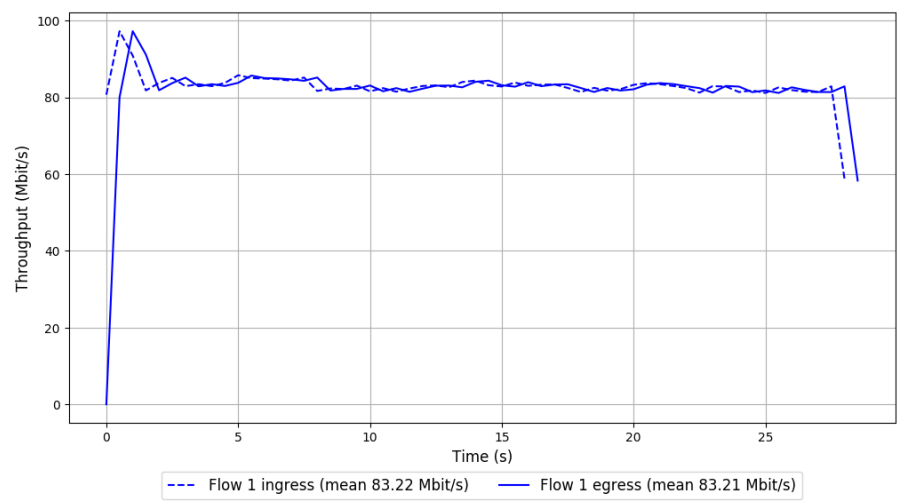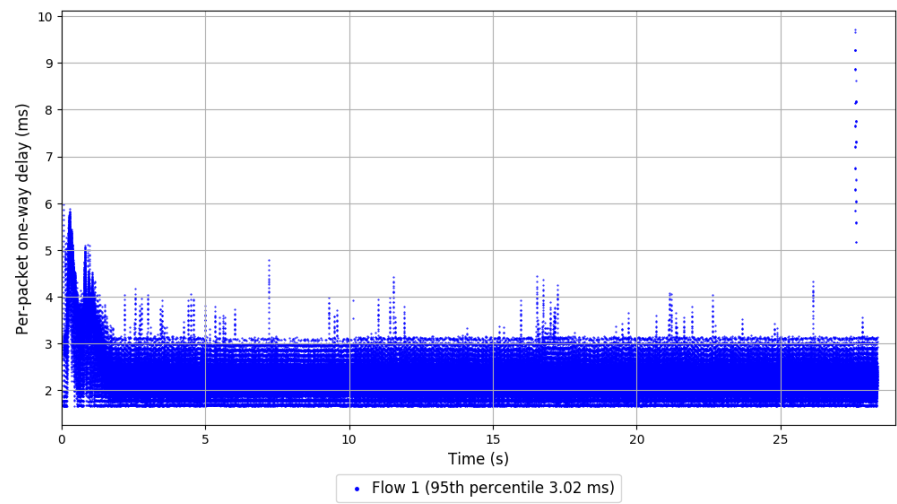
## Run 3: Report of Indigo-MusesT — Data Link



Flow 1 ingress (mean 82.79 Mbit/s)    Flow 1 egress (mean 82.79 Mbit/s)



Flow 1 (95th percentile 3.69 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-07-18 06:06:38
End at: 2019-07-18 06:07:08
Local clock offset: -7.613 ms
Remote clock offset: 0.571 ms

Below is generated by plot.py at 2019-07-18 07:09:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 83.21 Mbit/s
95th percentile per-packet one-way delay: 2.860 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 83.21 Mbit/s
95th percentile per-packet one-way delay: 2.860 ms
Loss rate: 0.02%
```
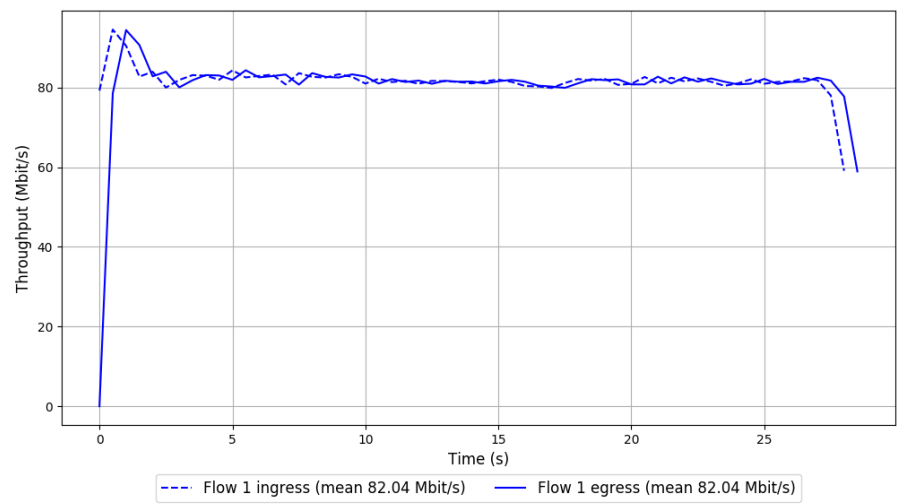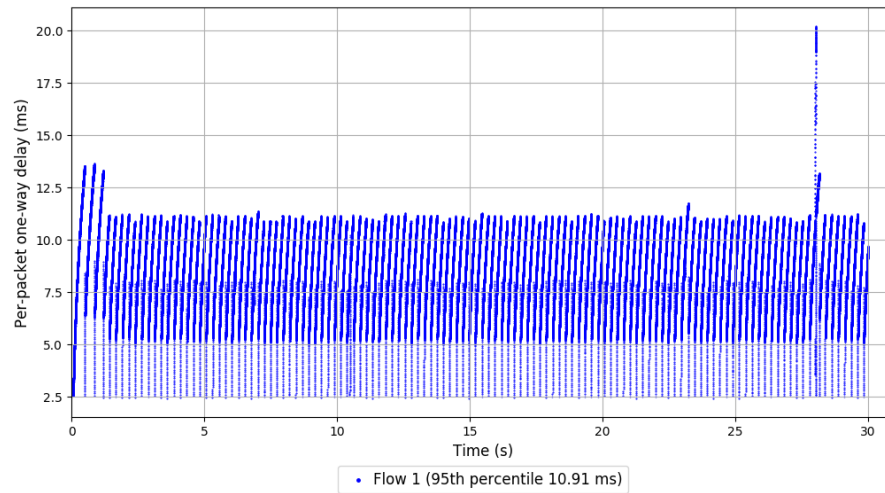
Run 4: Report of Indigo-MusesT — Data Link



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```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-07-18 06:33:38
End at: 2019-07-18 06:34:08
Local clock offset: -7.797 ms
Remote clock offset: 0.735 ms

Below is generated by plot.py at 2019-07-18 07:09:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.04 Mbit/s
95th percentile per-packet one-way delay: 3.025 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 82.04 Mbit/s
95th percentile per-packet one-way delay: 3.025 ms
Loss rate: 0.01%
```
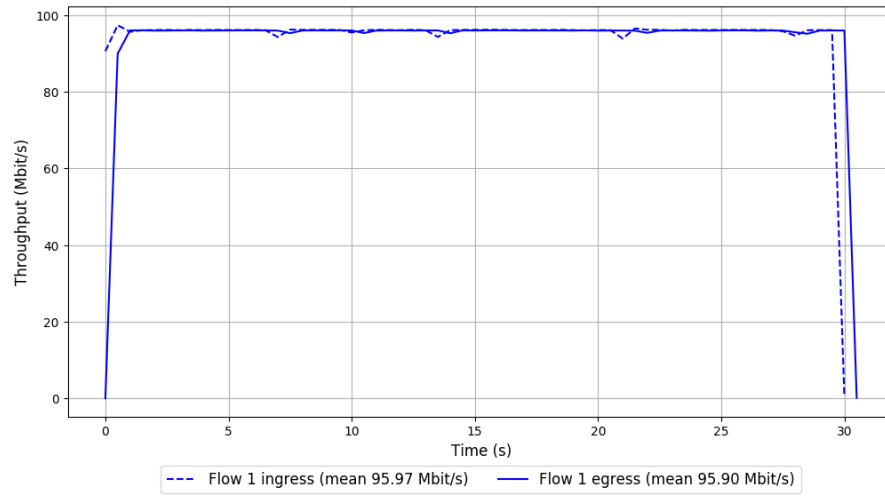
Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-07-18 04:53:23
End at: 2019-07-18 04:53:53
Local clock offset: -5.938 ms
Remote clock offset: 0.0 ms

Below is generated by plot.py at 2019-07-18 07:09:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.90 Mbit/s
95th percentile per-packet one-way delay: 10.915 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 95.90 Mbit/s
95th percentile per-packet one-way delay: 10.915 ms
Loss rate: 0.09%
```
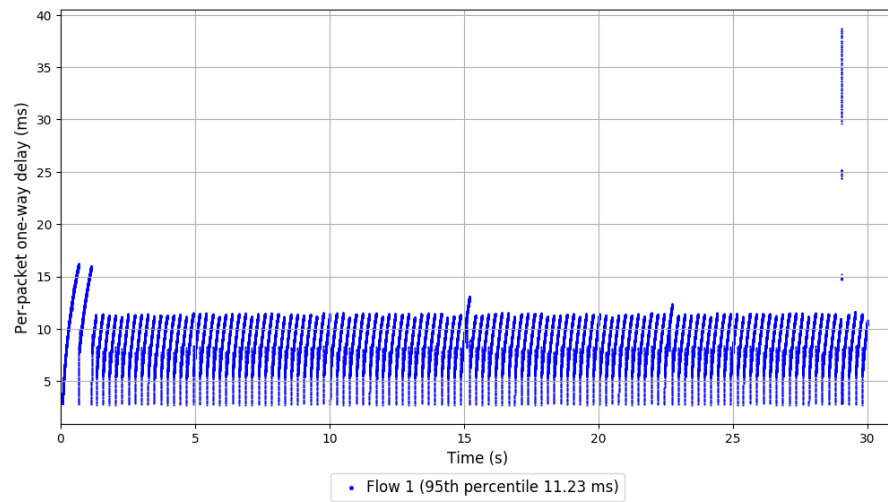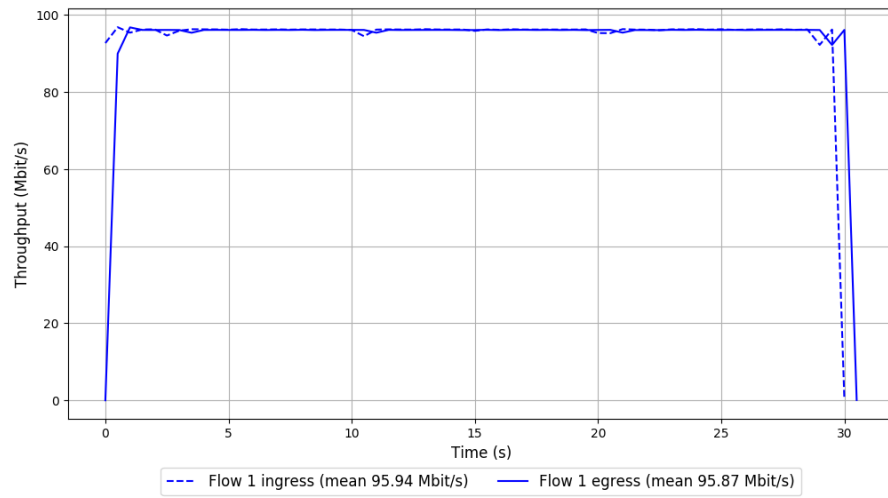
Run 1: Report of LEDBAT — Data Link



Flow 1 ingress (mean 95.97 Mbit/s)  ——— Flow 1 egress (mean 95.90 Mbit/s)



• Flow 1 (95th percentile 10.91 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-07-18 05:20:25
End at: 2019-07-18 05:20:55
Local clock offset: -6.603 ms
Remote clock offset: 0.298 ms

Below is generated by plot.py at 2019-07-18 07:10:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.87 Mbit/s
95th percentile per-packet one-way delay: 11.232 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 95.87 Mbit/s
95th percentile per-packet one-way delay: 11.232 ms
Loss rate: 0.09%
```
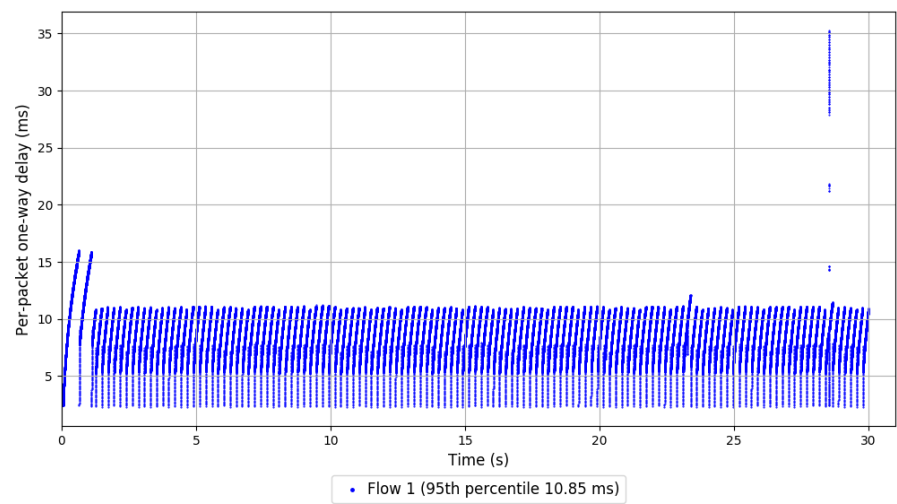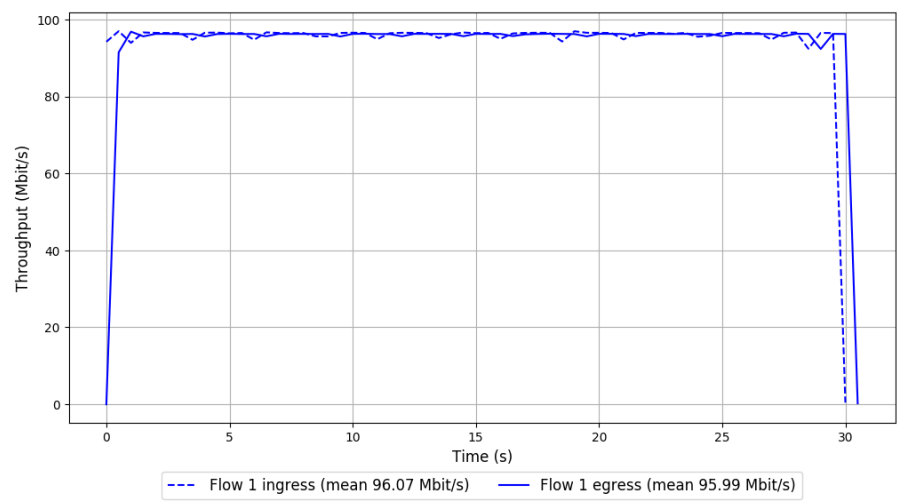
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-07-18 05:47:26
End at: 2019-07-18 05:47:56
Local clock offset: -5.672 ms
Remote clock offset: 0.532 ms

Below is generated by plot.py at 2019-07-18 07:10:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.99 Mbit/s
95th percentile per-packet one-way delay: 10.850 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 95.99 Mbit/s
95th percentile per-packet one-way delay: 10.850 ms
Loss rate: 0.09%
```
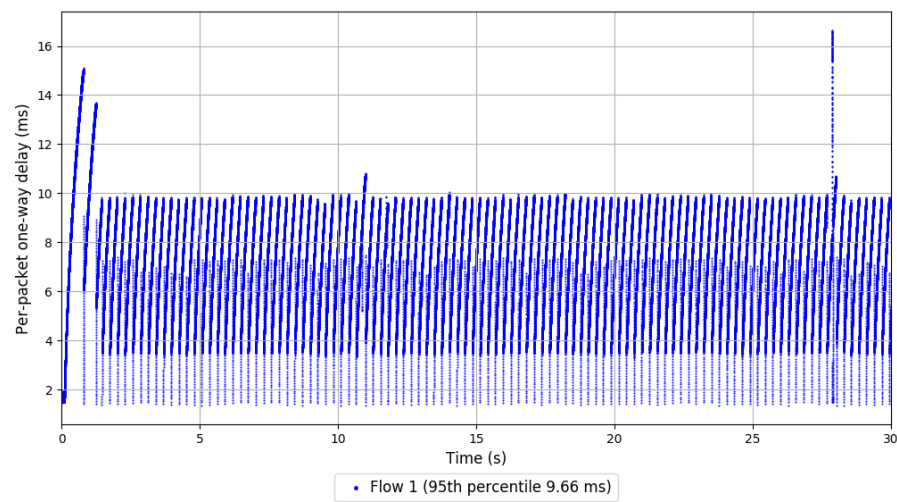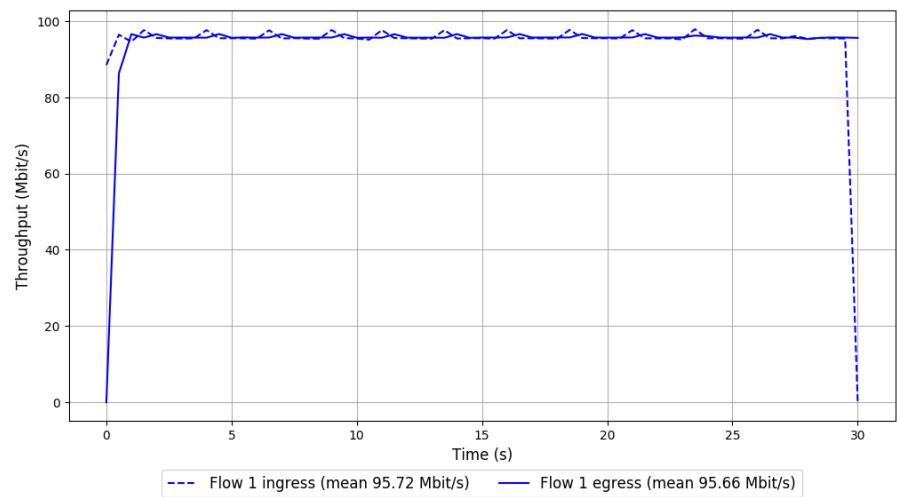
## Run 3: Report of LEDBAT — Data Link



Flow 1 ingress (mean 96.07 Mbit/s) --- Flow 1 egress (mean 95.99 Mbit/s)



Flow 1 (95th percentile 10.85 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-07-18 06:14:26
End at: 2019-07-18 06:14:56
Local clock offset: -7.869 ms
Remote clock offset: 0.593 ms

Below is generated by plot.py at 2019-07-18 07:10:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 9.665 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 9.665 ms
Loss rate: 0.07%
```
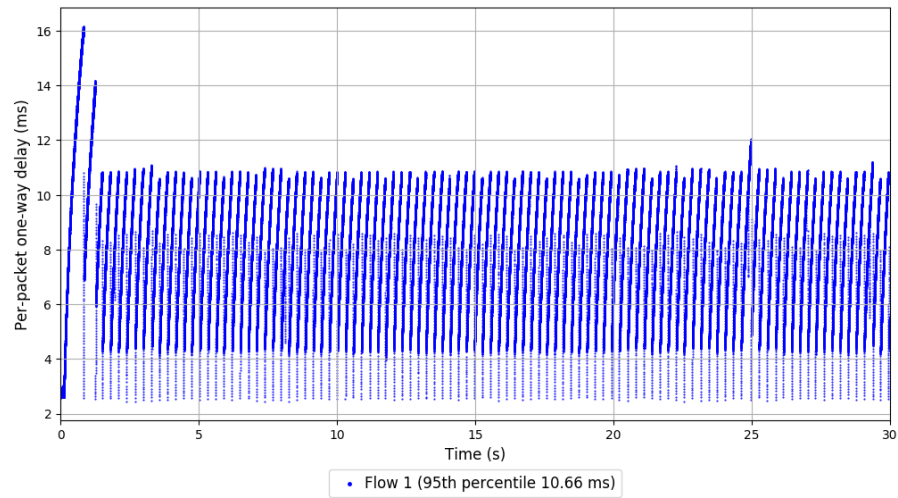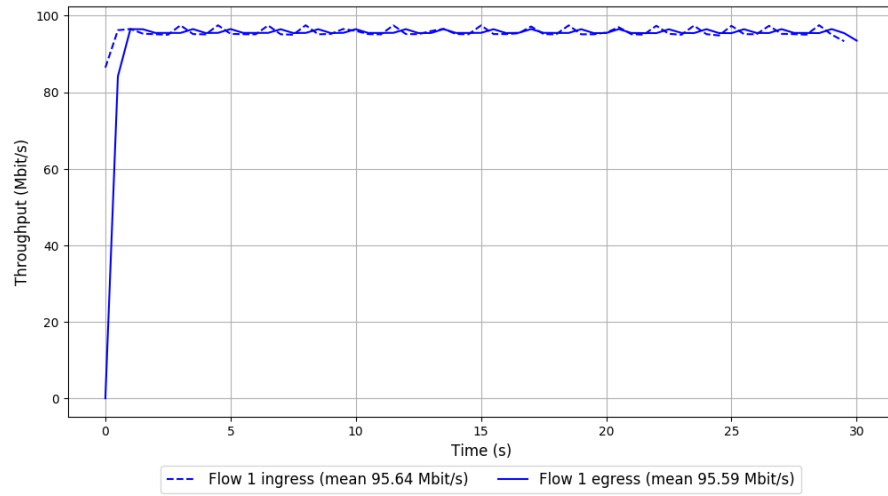
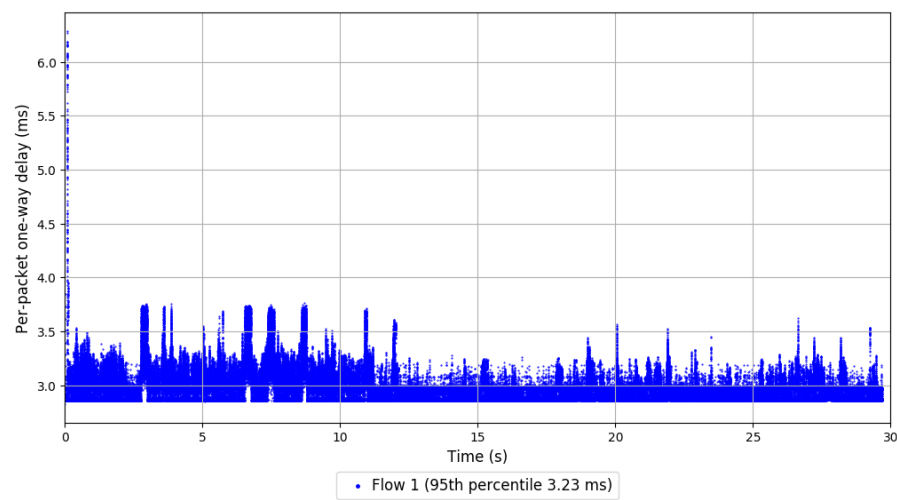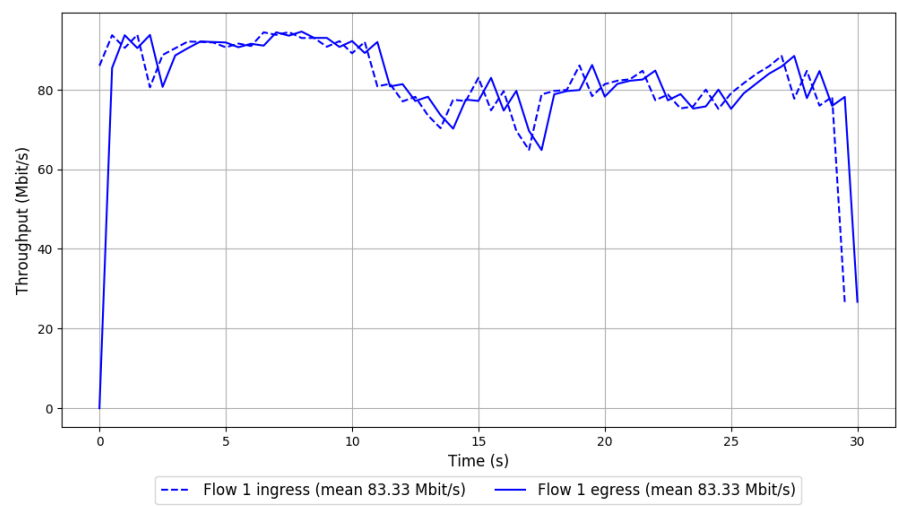## Run 4: Report of LEDBAT — Data Link



Flow 1 ingress (mean 95.72 Mbit/s)    Flow 1 egress (mean 95.66 Mbit/s)



Flow 1 (95th percentile 9.66 ms)

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```
Run 5: Statistics of LEDBAT

Start at: 2019-07-18 06:41:26
End at: 2019-07-18 06:41:57
Local clock offset: -7.306 ms
Remote clock offset: 0.806 ms

Below is generated by plot.py at 2019-07-18 07:10:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.59 Mbit/s
95th percentile per-packet one-way delay: 10.660 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 95.59 Mbit/s
95th percentile per-packet one-way delay: 10.660 ms
Loss rate: 0.06%
```
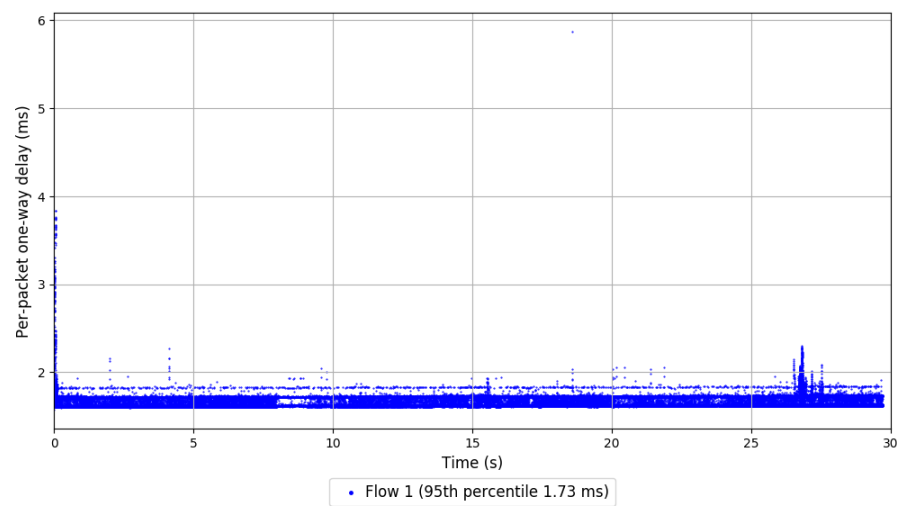
Run 5: Report of LEDBAT — Data Link



Flow 1 ingress (mean 95.64 Mbit/s)    Flow 1 egress (mean 95.59 Mbit/s)



Flow 1 (95th percentile 10.66 ms)

```
Run 1: Statistics of Muses_DecisionTree

Start at: 2019-07-18 04:47:48
End at: 2019-07-18 04:48:18
Local clock offset: -5.718 ms
Remote clock offset: -0.103 ms

Below is generated by plot.py at 2019-07-18 07:10:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 83.33 Mbit/s
95th percentile per-packet one-way delay: 3.232 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 83.33 Mbit/s
95th percentile per-packet one-way delay: 3.232 ms
Loss rate: 0.01%
```
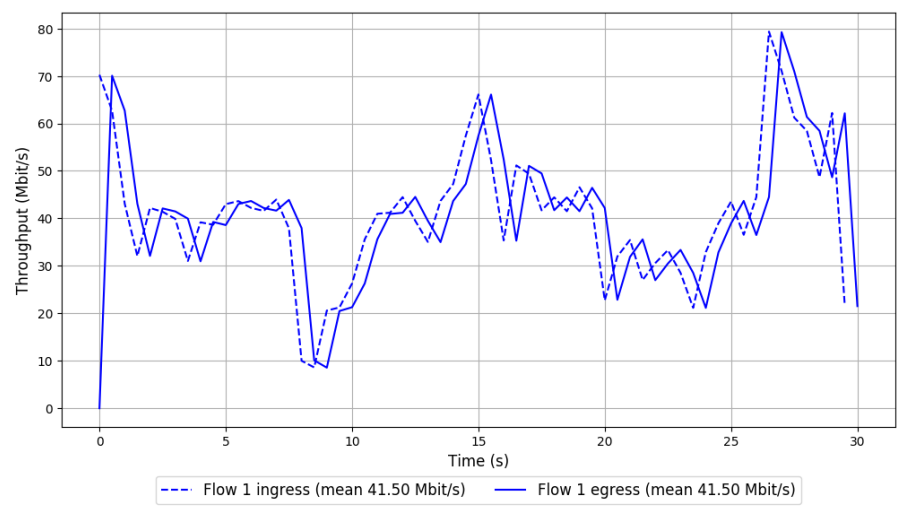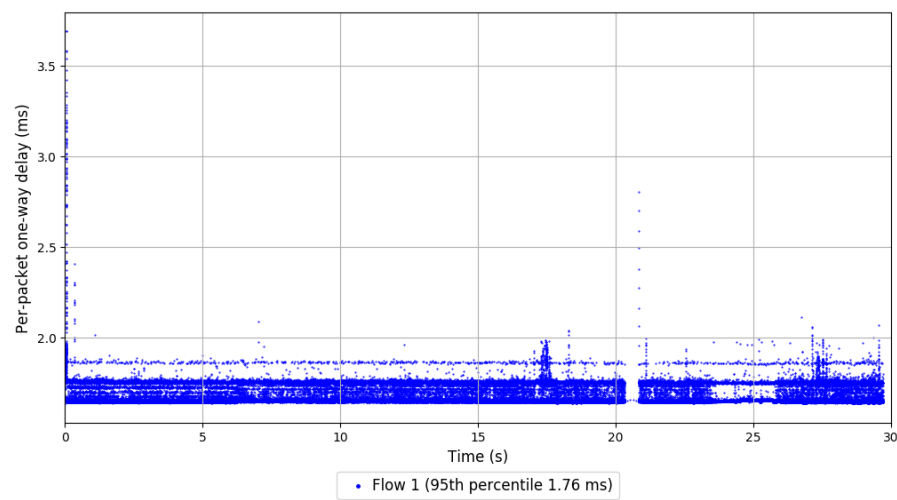
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses_DecisionTree

Start at: 2019-07-18 05:14:50
End at: 2019-07-18 05:15:20
Local clock offset: -7.37 ms
Remote clock offset: 0.196 ms

Below is generated by plot.py at 2019-07-18 07:10:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 41.50 Mbit/s
95th percentile per-packet one-way delay: 1.730 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 41.50 Mbit/s
95th percentile per-packet one-way delay: 1.730 ms
Loss rate: 0.01%
```
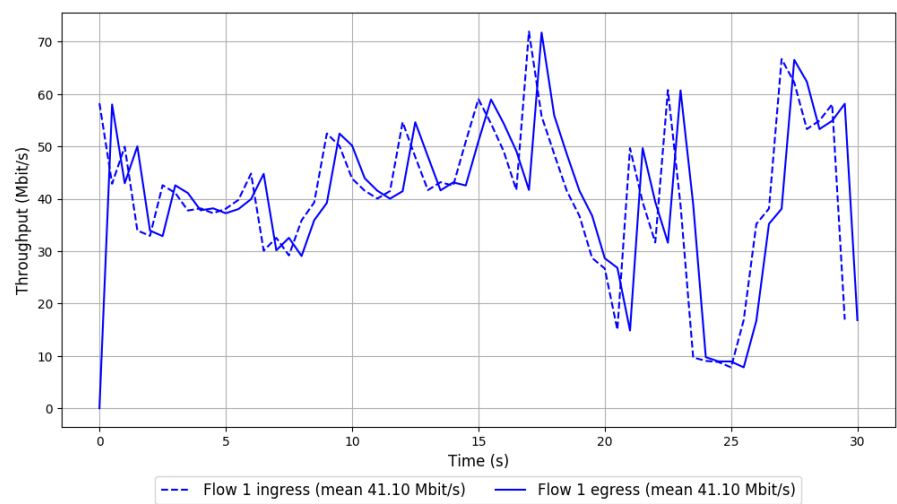
Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses_DecisionTree

Start at: 2019-07-18 05:41:51
End at: 2019-07-18 05:42:21
Local clock offset: -6.614 ms
Remote clock offset: 0.422 ms

Below is generated by plot.py at 2019-07-18 07:10:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 41.10 Mbit/s
95th percentile per-packet one-way delay: 1.758 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 41.10 Mbit/s
95th percentile per-packet one-way delay: 1.758 ms
Loss rate: 0.01%
```
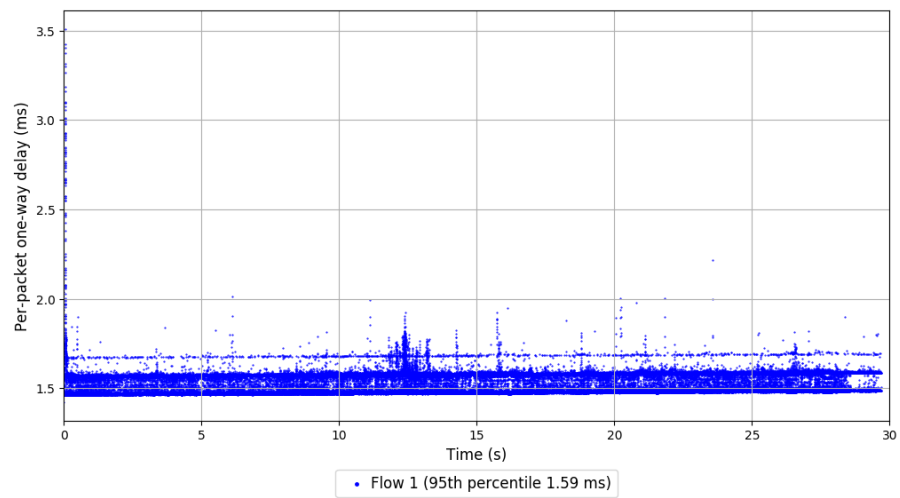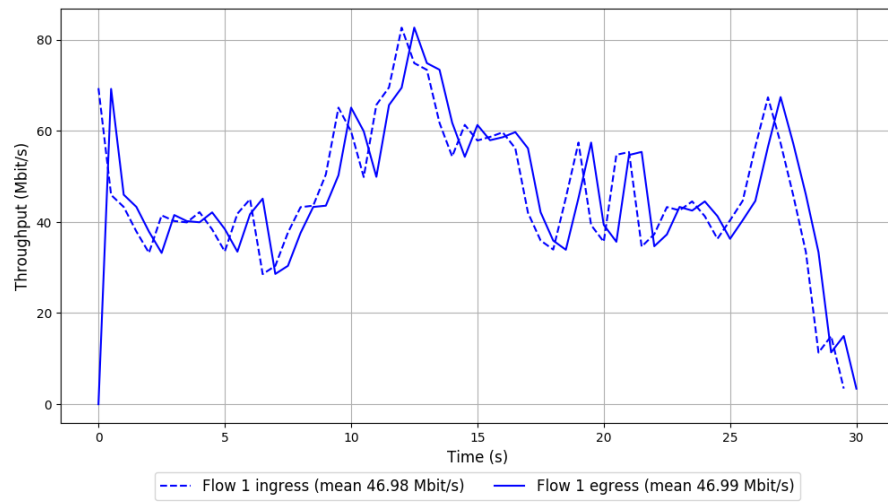
Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses_DecisionTree

Start at: 2019-07-18 06:08:51
End at: 2019-07-18 06:09:21
Local clock offset: -7.698 ms
Remote clock offset: 0.616 ms

Below is generated by plot.py at 2019-07-18 07:10:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 46.99 Mbit/s
95th percentile per-packet one-way delay: 1.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.99 Mbit/s
95th percentile per-packet one-way delay: 1.588 ms
Loss rate: 0.00%
```
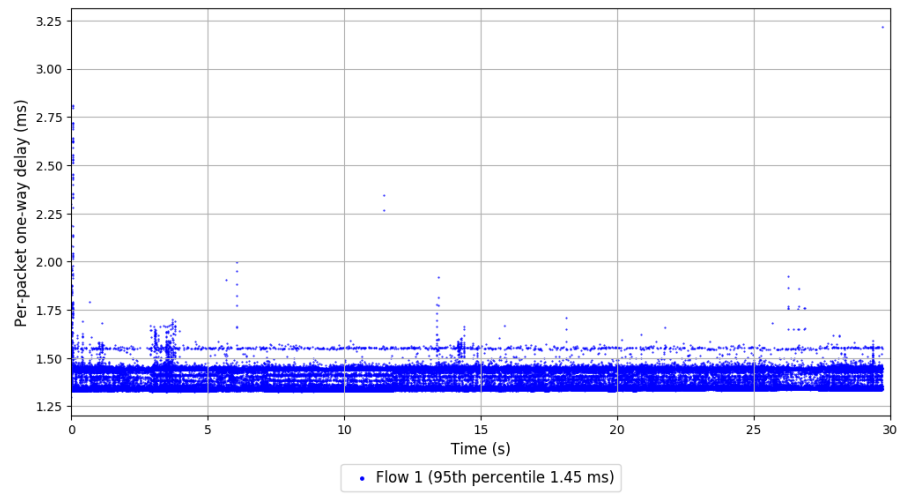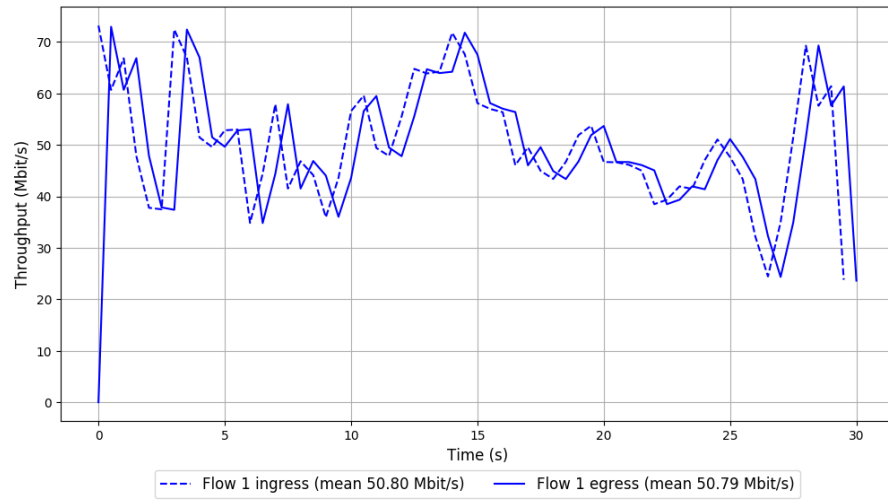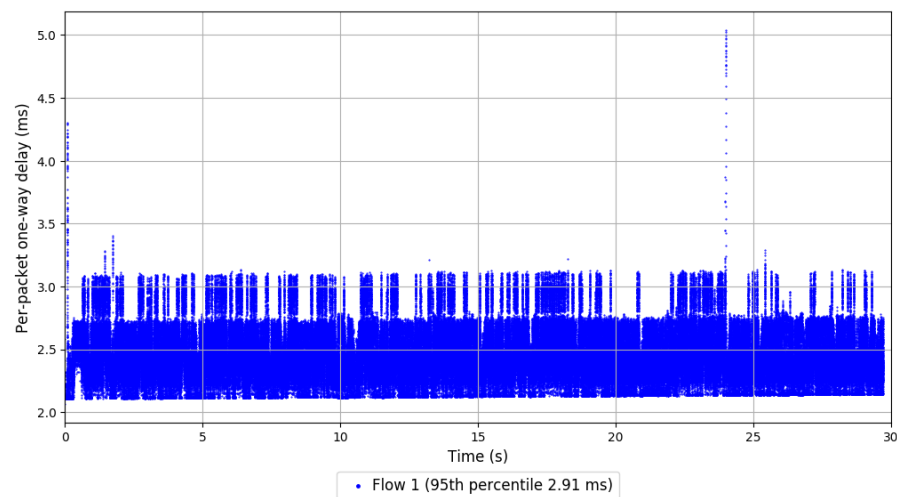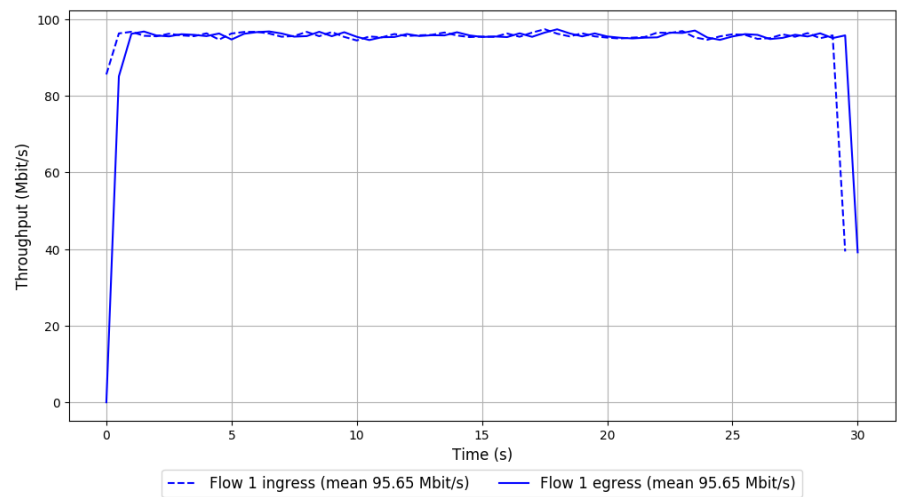
# Run 4: Report of Muses_DecisionTree — Data Link



Flow 1 ingress (mean 46.98 Mbit/s)    Flow 1 egress (mean 46.99 Mbit/s)



Flow 1 (95th percentile 1.59 ms)

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 06:35:51
End at: 2019-07-18 06:36:21
Local clock offset: -8.072 ms
Remote clock offset: 0.824 ms


# Below is generated by plot.py at 2019-07-18 07:10:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.79 Mbit/s
95th percentile per-packet one-way delay: 1.450 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.79 Mbit/s
95th percentile per-packet one-way delay: 1.450 ms
Loss rate: 0.01%
```

Run 5: Report of Muses_DecisionTree — Data Link

Run 1: Statistics of Muses_DecisionTreeH0

Start at: 2019-07-18 04:57:53
End at: 2019-07-18 04:58:23
Local clock offset: -6.754 ms
Remote clock offset: -0.038 ms

Below is generated by plot.py at 2019-07-18 07:11:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.65 Mbit/s
95th percentile per-packet one-way delay: 2.909 ms
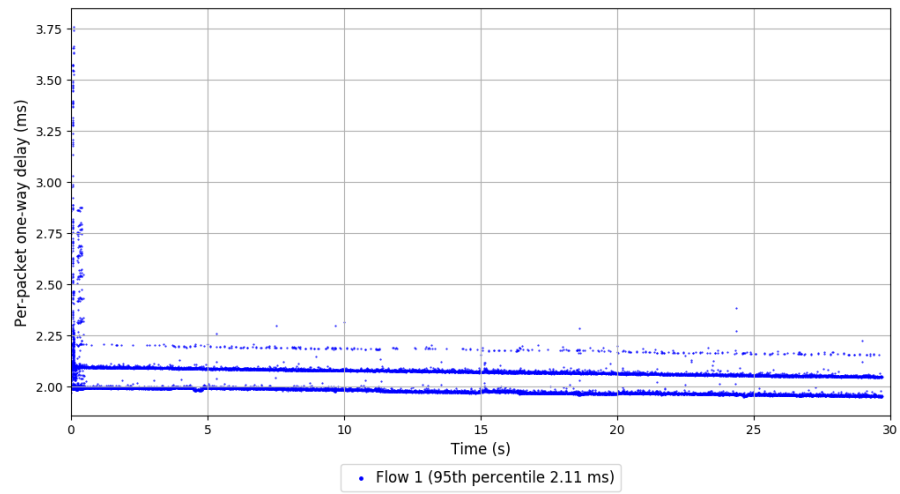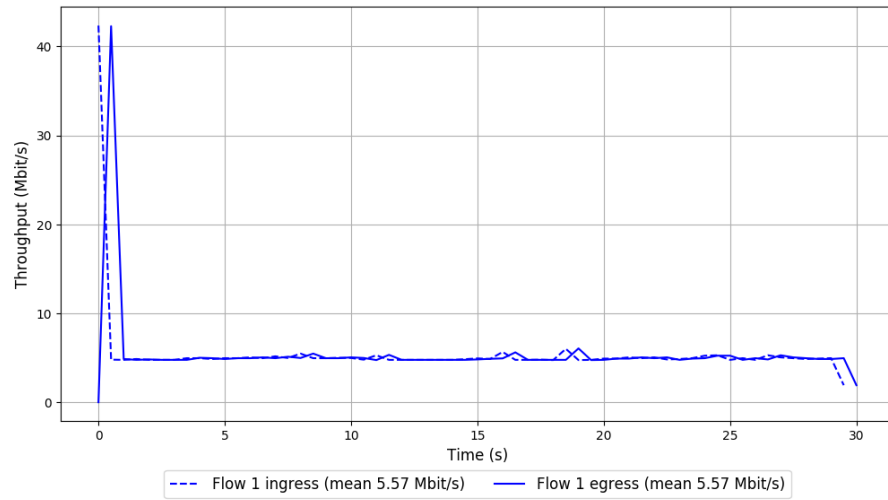Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.65 Mbit/s
95th percentile per-packet one-way delay: 2.909 ms
Loss rate: 0.01%

Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-18 05:24:54
End at: 2019-07-18 05:25:24
Local clock offset: -6.961 ms
Remote clock offset: 0.363 ms


# Below is generated by plot.py at 2019-07-18 07:11:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 2.113 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 2.113 ms
Loss rate: 0.01%
```
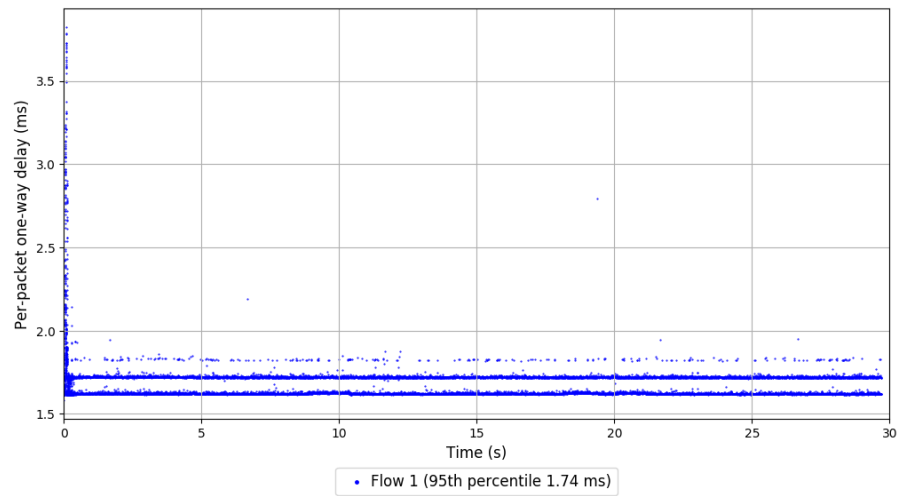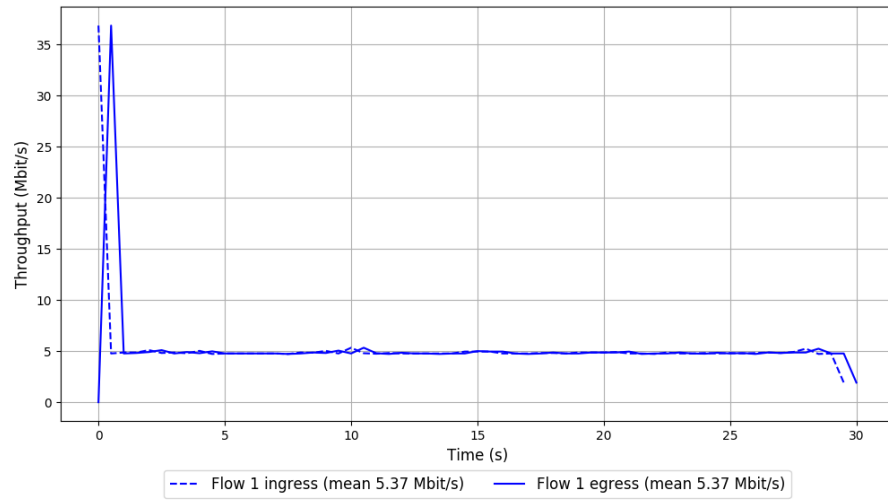
Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-18 05:51:56
End at: 2019-07-18 05:52:26
Local clock offset: -6.42 ms
Remote clock offset: 0.557 ms


# Below is generated by plot.py at 2019-07-18 07:11:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 1.736 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 1.736 ms
Loss rate: 0.00%
```

Run 3: Report of Muses_DecisionTreeH0 — Data Link

Run 4: Statistics of Muses_DecisionTreeH0

Start at: 2019-07-18 06:18:55
End at: 2019-07-18 06:19:25
Local clock offset: -7.836 ms
Remote clock offset: 0.643 ms

Below is generated by plot.py at 2019-07-18 07:11:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 2.789 ms
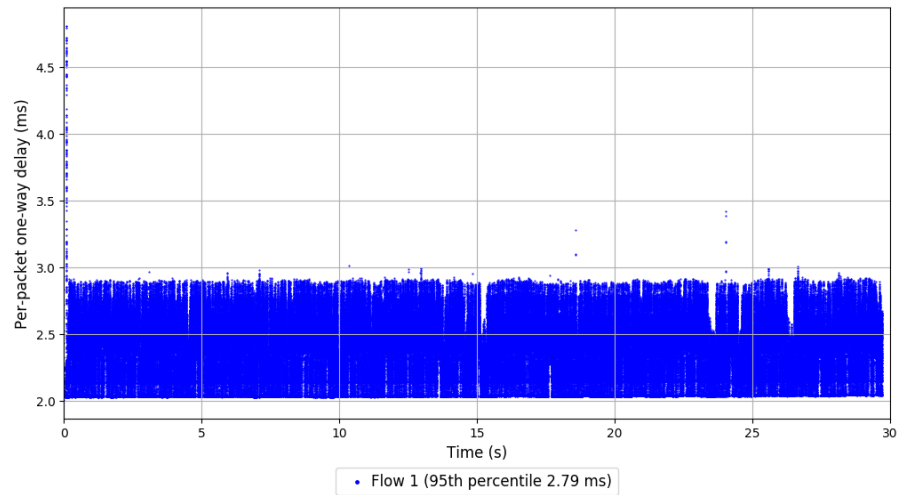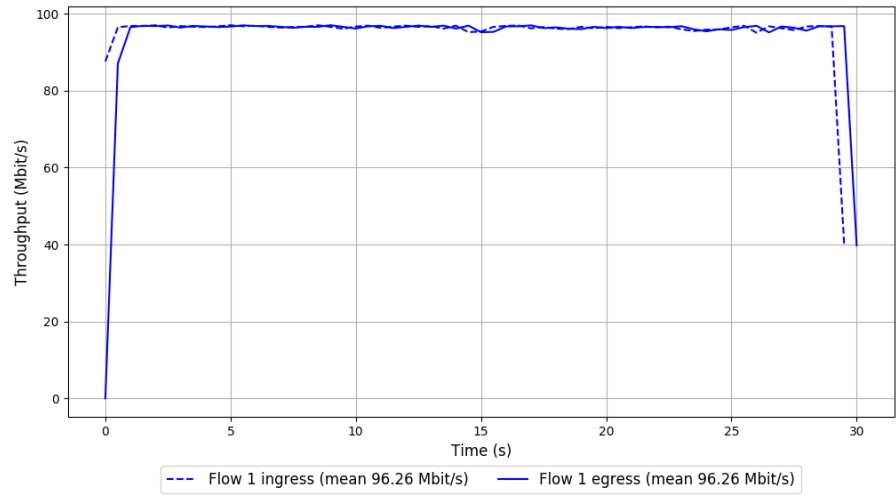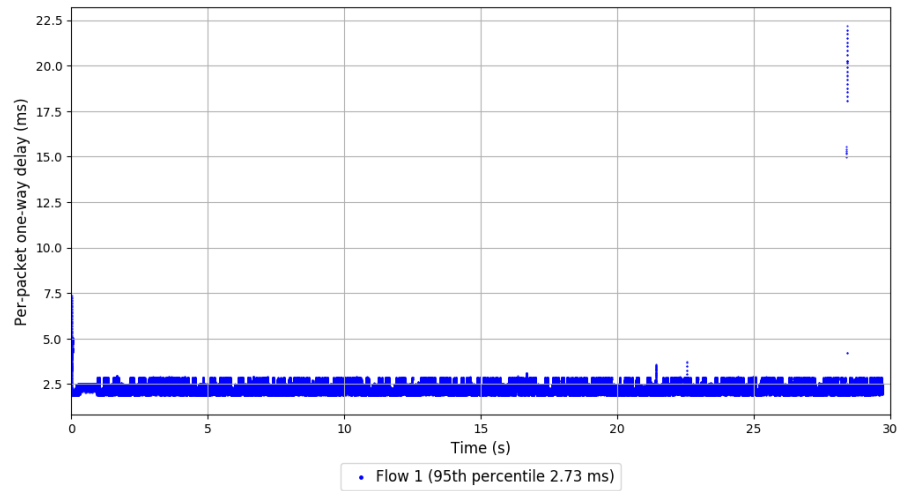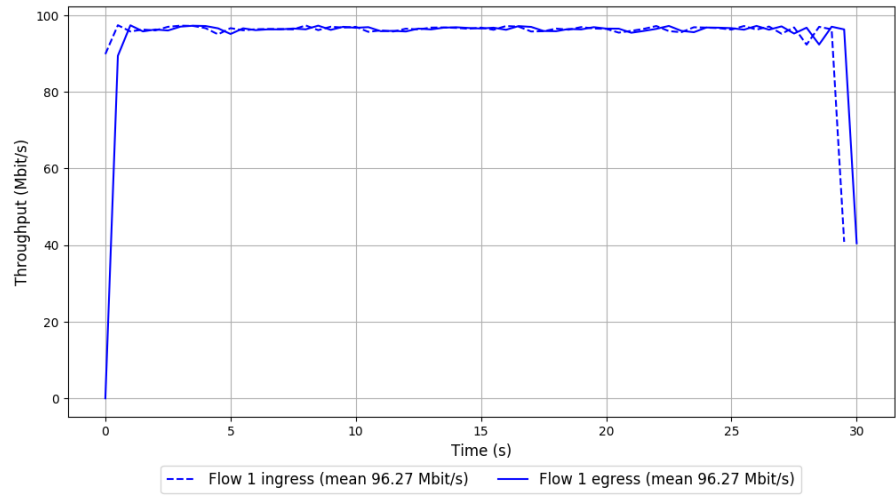Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 2.789 ms
Loss rate: 0.01%

Run 4: Report of Muses_DecisionTreeH0 — Data Link

Run 5: Statistics of Muses_DecisionTreeH0

Start at: 2019-07-18 06:45:56
End at: 2019-07-18 06:46:26
Local clock offset: -8.044 ms
Remote clock offset: 0.783 ms

Below is generated by plot.py at 2019-07-18 07:11:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 2.727 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 2.727 ms
Loss rate: 0.01%
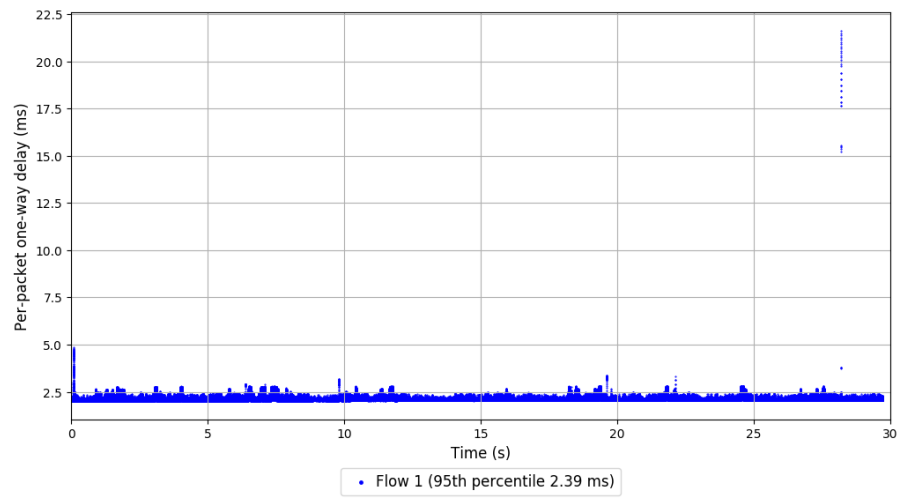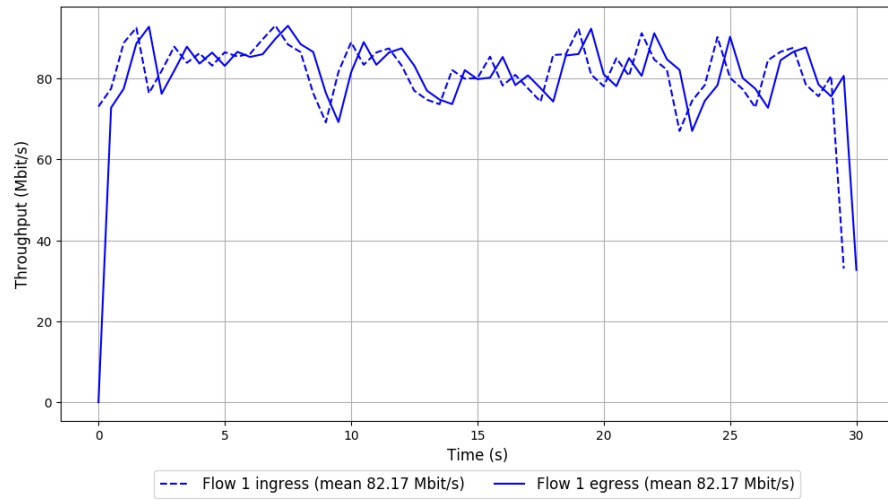
Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 04:59:01
End at: 2019-07-18 04:59:31
Local clock offset: -6.885 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2019-07-18 07:11:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.17 Mbit/s
95th percentile per-packet one-way delay: 2.387 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 82.17 Mbit/s
95th percentile per-packet one-way delay: 2.387 ms
Loss rate: 0.01%
```
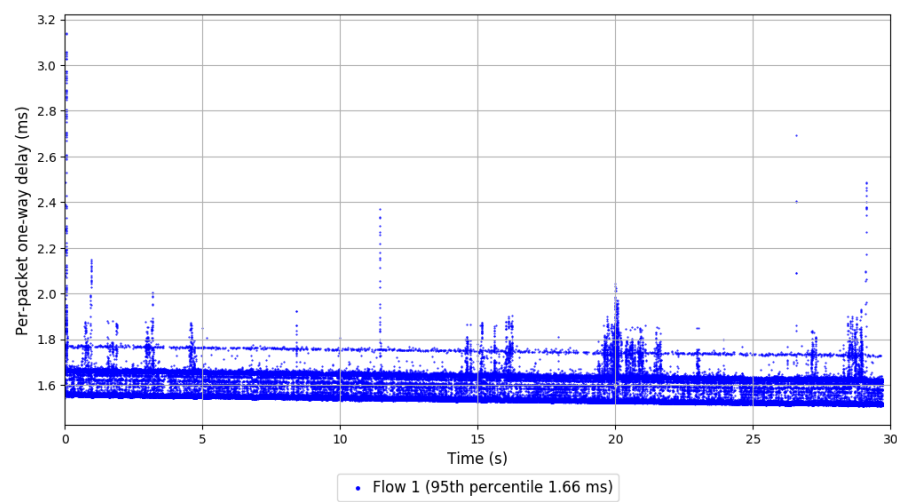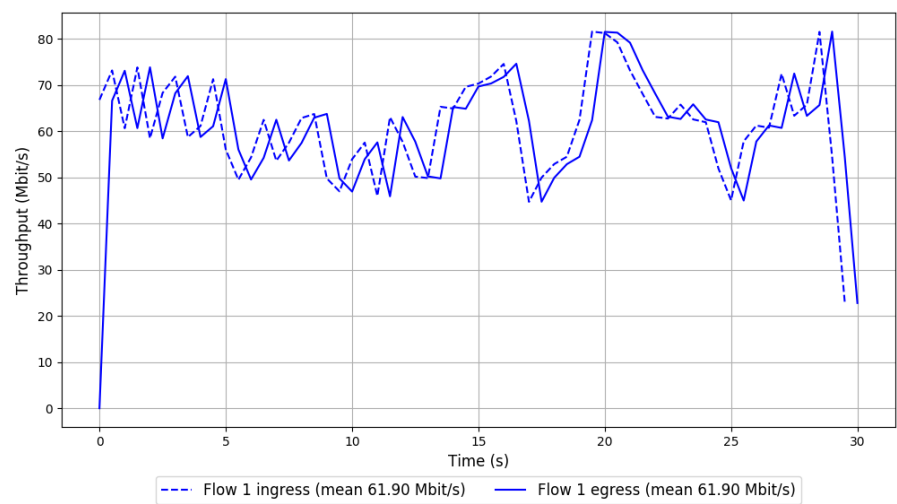
Run 1: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 82.17 Mbit/s) ——— Flow 1 egress (mean 82.17 Mbit/s)

• Flow 1 (95th percentile 2.39 ms)

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 05:25:59
End at: 2019-07-18 05:26:29
Local clock offset: -7.323 ms
Remote clock offset: 0.344 ms


# Below is generated by plot.py at 2019-07-18 07:11:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.90 Mbit/s
95th percentile per-packet one-way delay: 1.659 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 61.90 Mbit/s
95th percentile per-packet one-way delay: 1.659 ms
Loss rate: 0.01%
```
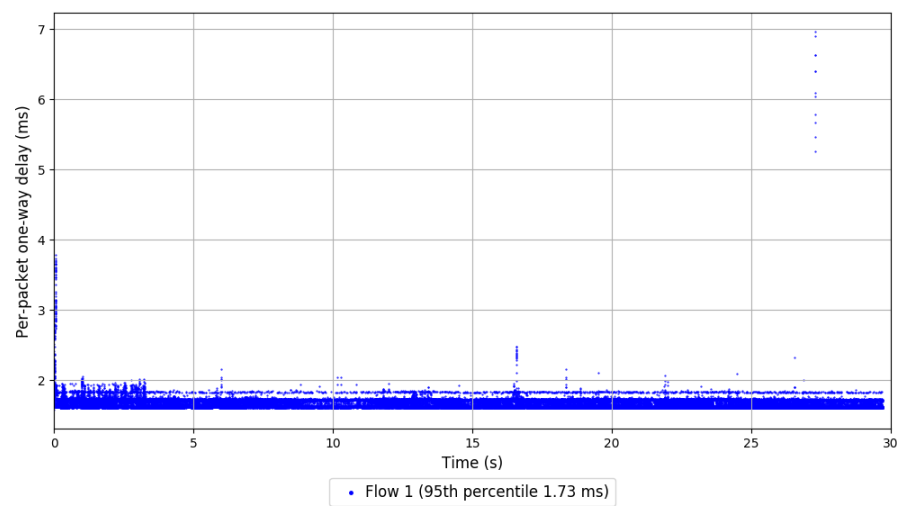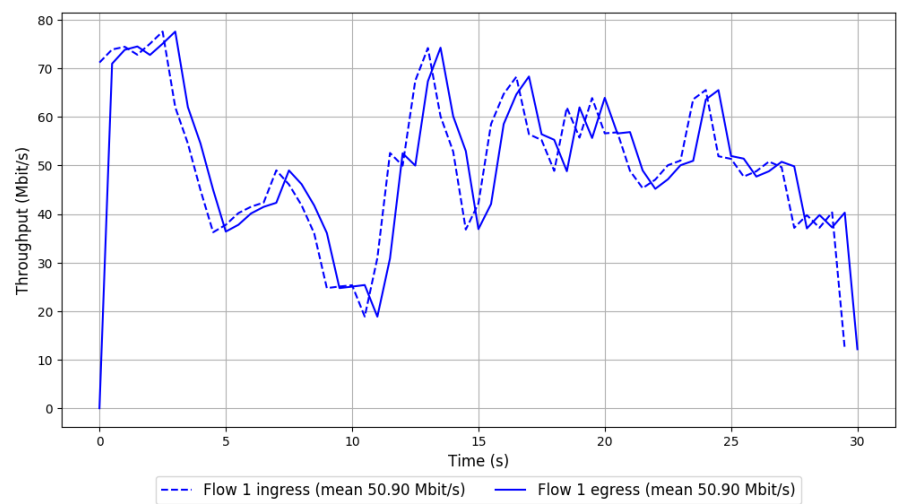
Run 2: Report of Muses_DecisionTreeR0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 05:53:00
End at: 2019-07-18 05:53:30
Local clock offset: -6.385 ms
Remote clock offset: 0.61 ms


# Below is generated by plot.py at 2019-07-18 07:11:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.90 Mbit/s
95th percentile per-packet one-way delay: 1.731 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.90 Mbit/s
95th percentile per-packet one-way delay: 1.731 ms
Loss rate: 0.01%
```
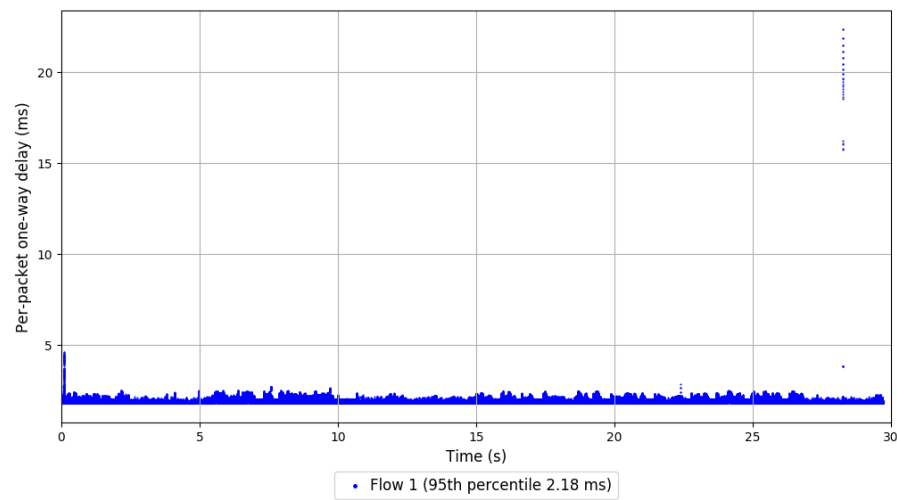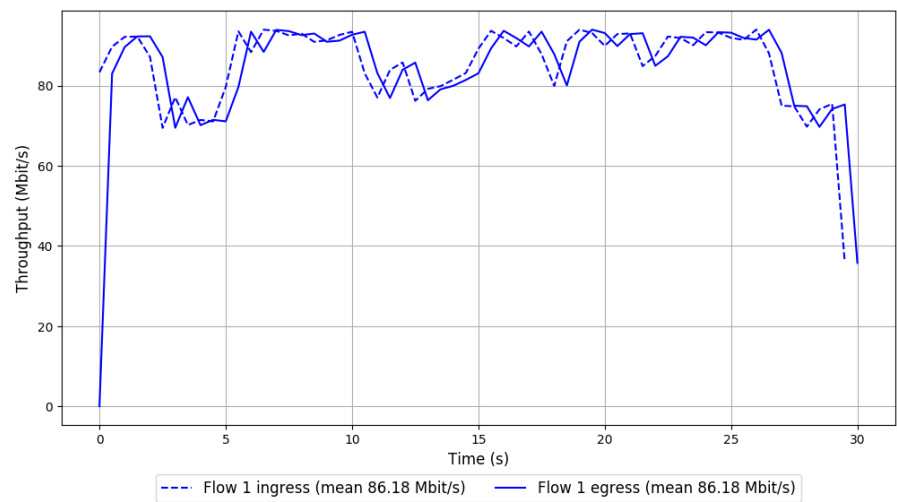
Run 3: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 50.90 Mbit/s) --- Flow 1 egress (mean 50.90 Mbit/s)

• Flow 1 (95th percentile 1.73 ms)

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 06:20:04
End at: 2019-07-18 06:20:34
Local clock offset: -8.01 ms
Remote clock offset: 0.72 ms


# Below is generated by plot.py at 2019-07-18 07:11:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.18 Mbit/s
95th percentile per-packet one-way delay: 2.178 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 86.18 Mbit/s
95th percentile per-packet one-way delay: 2.178 ms
Loss rate: 0.01%
```
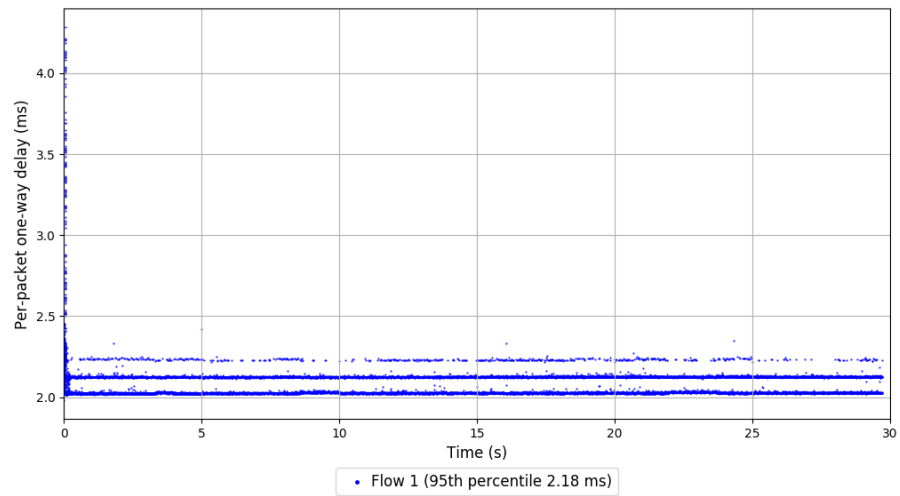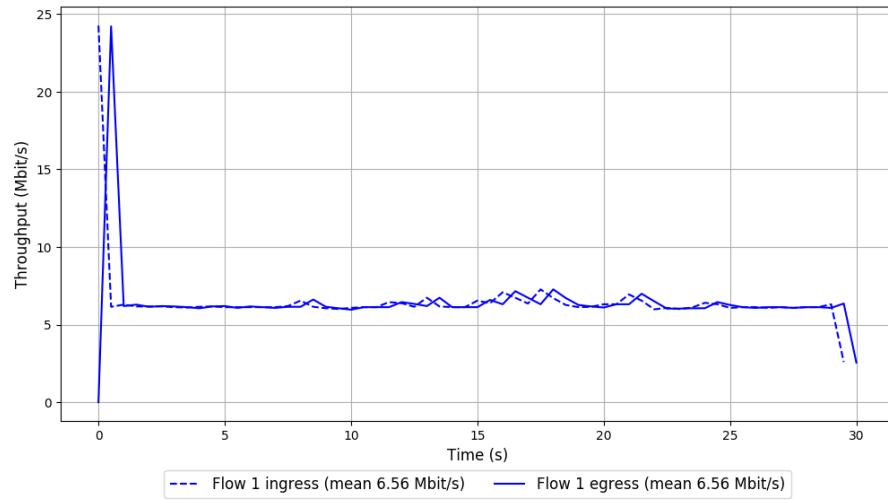
Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 06:47:04
End at: 2019-07-18 06:47:34
Local clock offset: -7.901 ms
Remote clock offset: 0.799 ms


# Below is generated by plot.py at 2019-07-18 07:11:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.56 Mbit/s
95th percentile per-packet one-way delay: 2.184 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 6.56 Mbit/s
95th percentile per-packet one-way delay: 2.184 ms
Loss rate: 0.01%
```

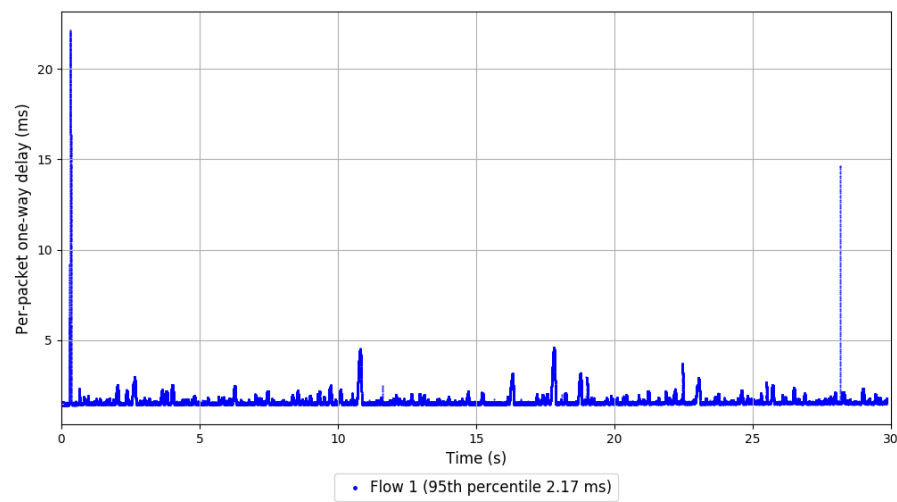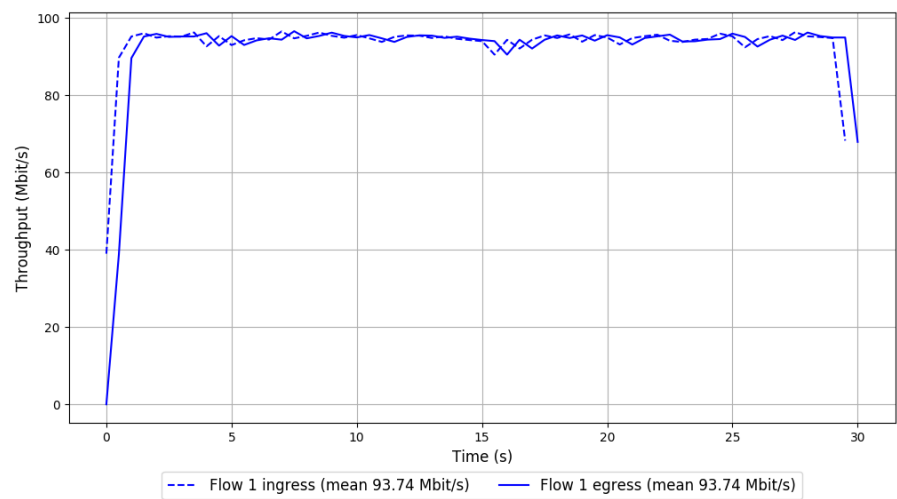# Run 5: Report of Muses_DecisionTreeR0 — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-07-18 05:01:19
End at: 2019-07-18 05:01:49
Local clock offset: -7.013 ms
Remote clock offset: 0.069 ms


# Below is generated by plot.py at 2019-07-18 07:11:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 2.165 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 2.165 ms
Loss rate: 0.01%
```
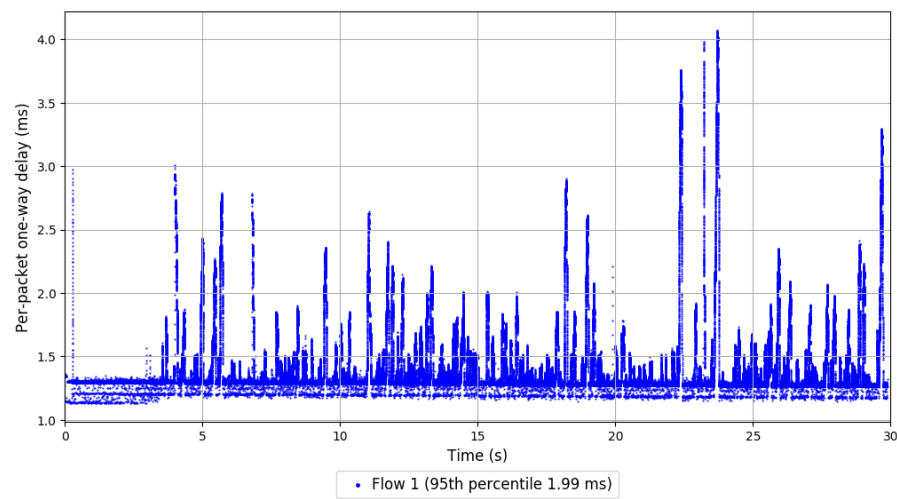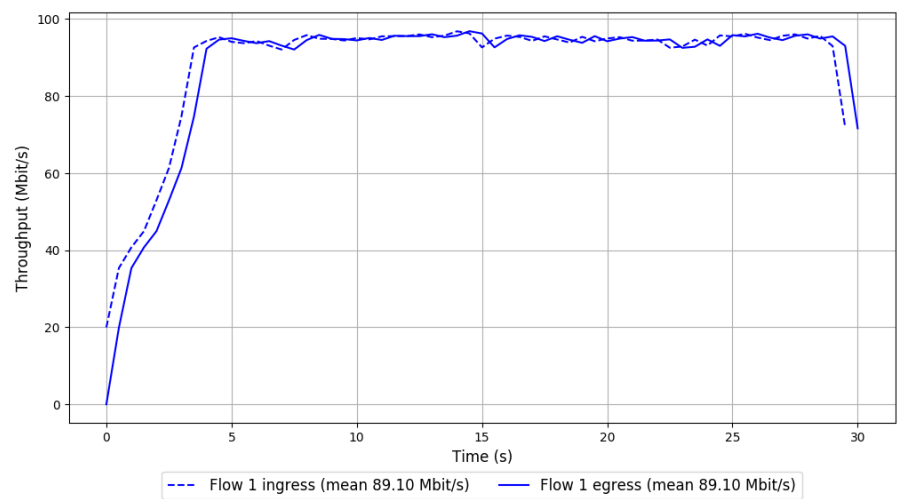
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 93.74 Mbit/s) --- Flow 1 egress (mean 93.74 Mbit/s)

Flow 1 (95th percentile 2.17 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-07-18 05:28:16
End at: 2019-07-18 05:28:46
Local clock offset: -7.34 ms
Remote clock offset: 0.412 ms


# Below is generated by plot.py at 2019-07-18 07:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.10 Mbit/s
95th percentile per-packet one-way delay: 1.990 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 89.10 Mbit/s
95th percentile per-packet one-way delay: 1.990 ms
Loss rate: 0.01%
```

Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-07-18 05:55:17
End at: 2019-07-18 05:55:47
Local clock offset: -6.498 ms
Remote clock offset: 0.574 ms


# Below is generated by plot.py at 2019-07-18 07:12:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.48 Mbit/s
95th percentile per-packet one-way delay: 2.924 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.48 Mbit/s
95th percentile per-packet one-way delay: 2.924 ms
Loss rate: 0.01%
```
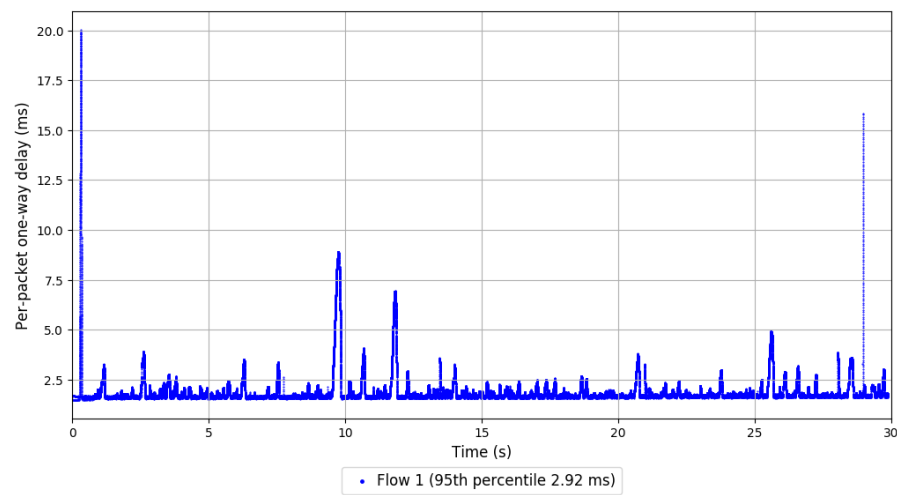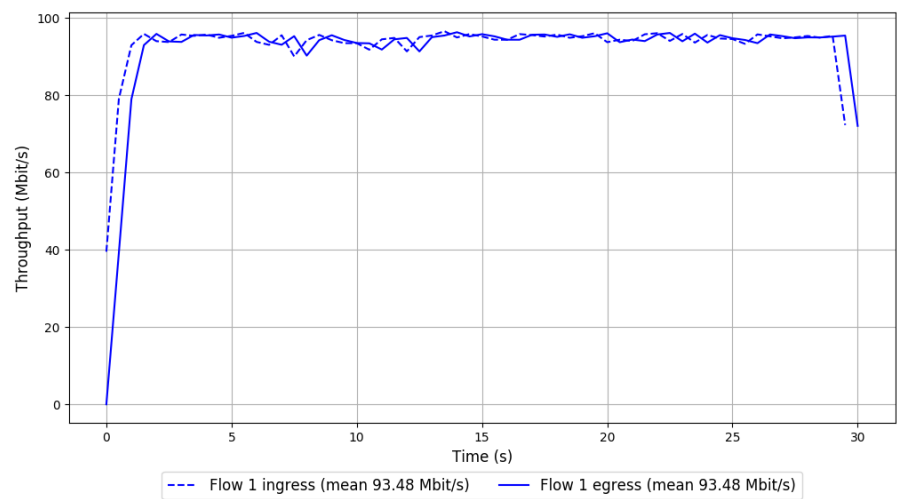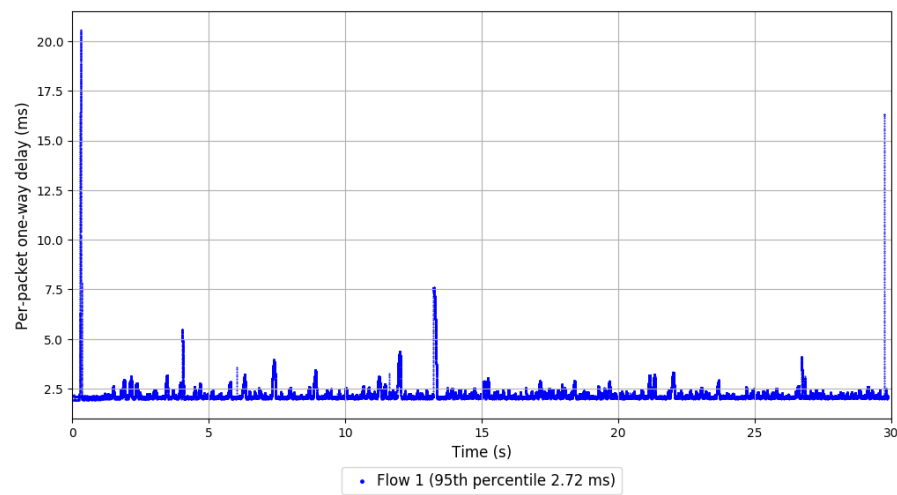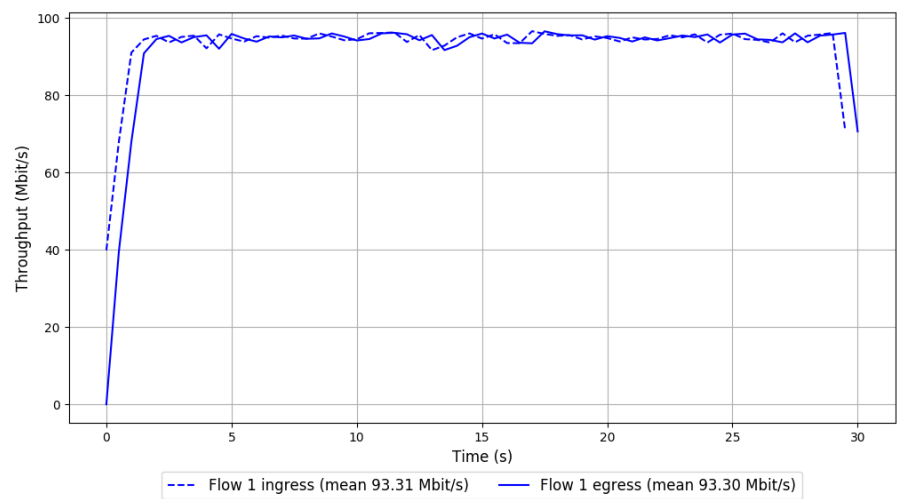
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 93.48 Mbit/s) — Flow 1 egress (mean 93.48 Mbit/s)

· Flow 1 (95th percentile 2.92 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-07-18 06:22:21
End at: 2019-07-18 06:22:51
Local clock offset: -7.822 ms
Remote clock offset: 0.709 ms


# Below is generated by plot.py at 2019-07-18 07:12:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.30 Mbit/s
95th percentile per-packet one-way delay: 2.717 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.30 Mbit/s
95th percentile per-packet one-way delay: 2.717 ms
Loss rate: 0.01%
```
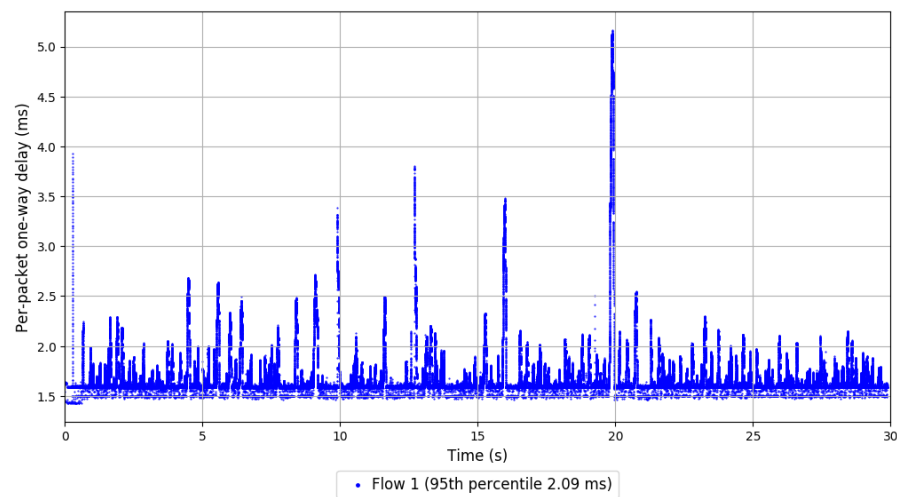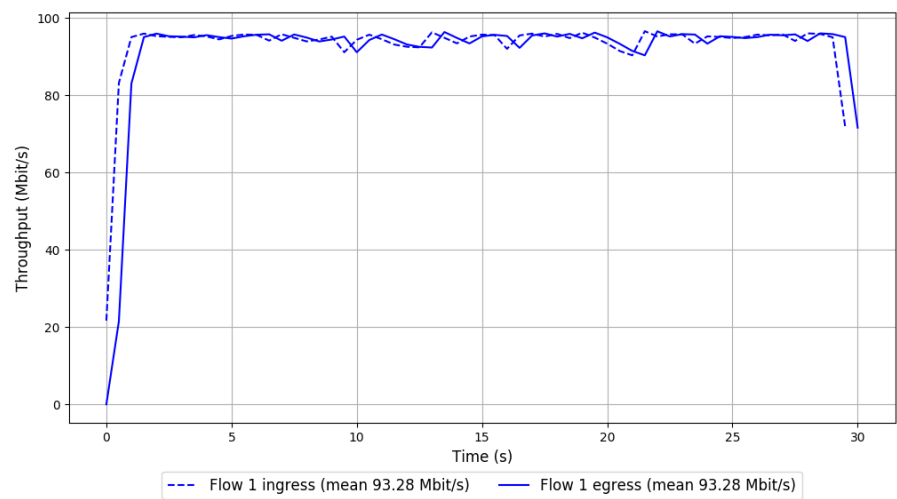
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 93.31 Mbit/s) —— Flow 1 egress (mean 93.30 Mbit/s)

• Flow 1 (95th percentile 2.72 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-07-18 06:49:19
End at: 2019-07-18 06:49:49
Local clock offset: -7.858 ms
Remote clock offset: 0.829 ms


# Below is generated by plot.py at 2019-07-18 07:12:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 2.087 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 2.087 ms
Loss rate: 0.01%
```

Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 93.28 Mbit/s)   Flow 1 egress (mean 93.28 Mbit/s)

Flow 1 (95th percentile 2.09 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2019-07-18 04:51:06
End at: 2019-07-18 04:51:36
Local clock offset: -5.696 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2019-07-18 07:13:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.94 Mbit/s
95th percentile per-packet one-way delay: 5.924 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 84.94 Mbit/s
95th percentile per-packet one-way delay: 5.924 ms
Loss rate: 0.01%
```
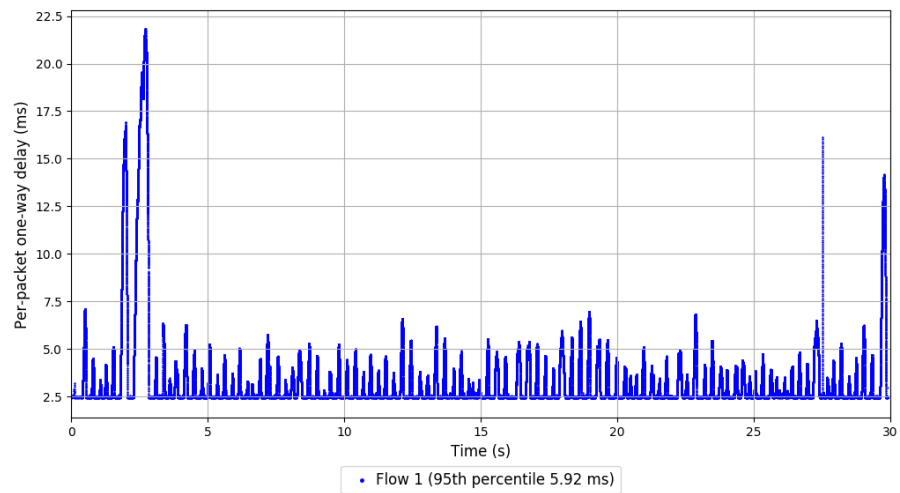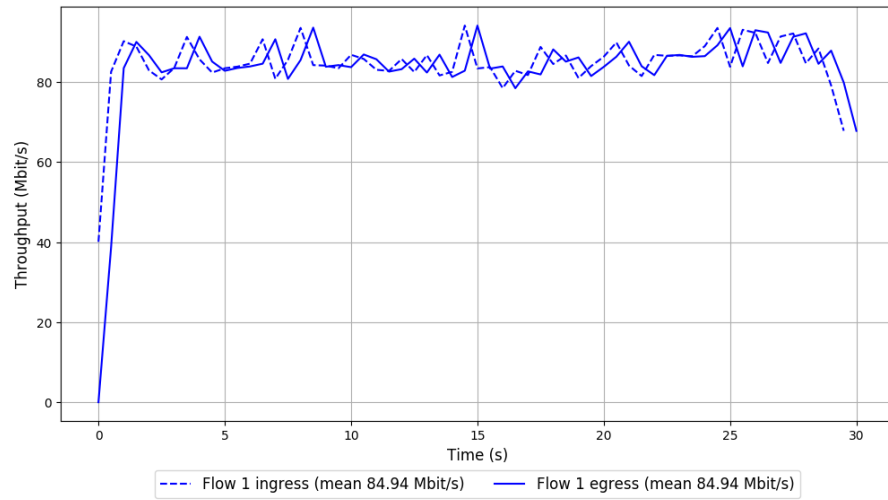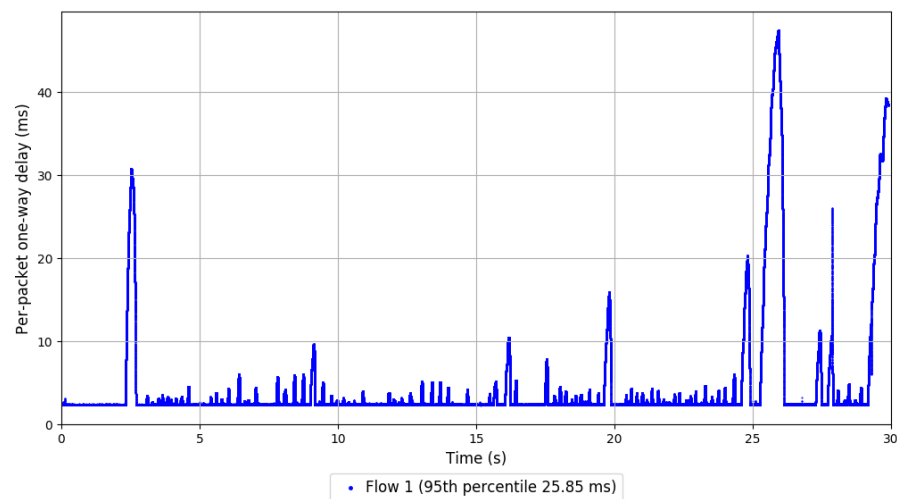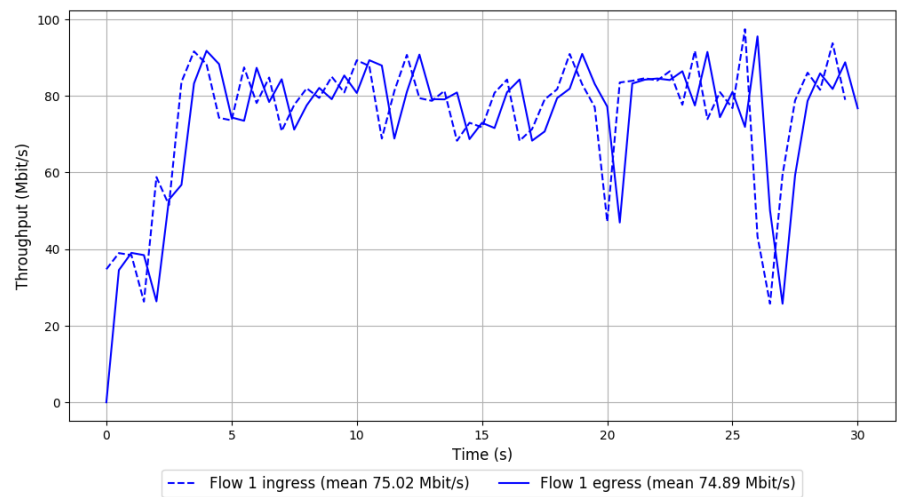
Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 84.94 Mbit/s)   Flow 1 egress (mean 84.94 Mbit/s)

Flow 1 (95th percentile 5.92 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-07-18 05:18:08
End at: 2019-07-18 05:18:38
Local clock offset: -6.559 ms
Remote clock offset: 0.25 ms


# Below is generated by plot.py at 2019-07-18 07:13:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.89 Mbit/s
95th percentile per-packet one-way delay: 25.850 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 74.89 Mbit/s
95th percentile per-packet one-way delay: 25.850 ms
Loss rate: 0.18%
```
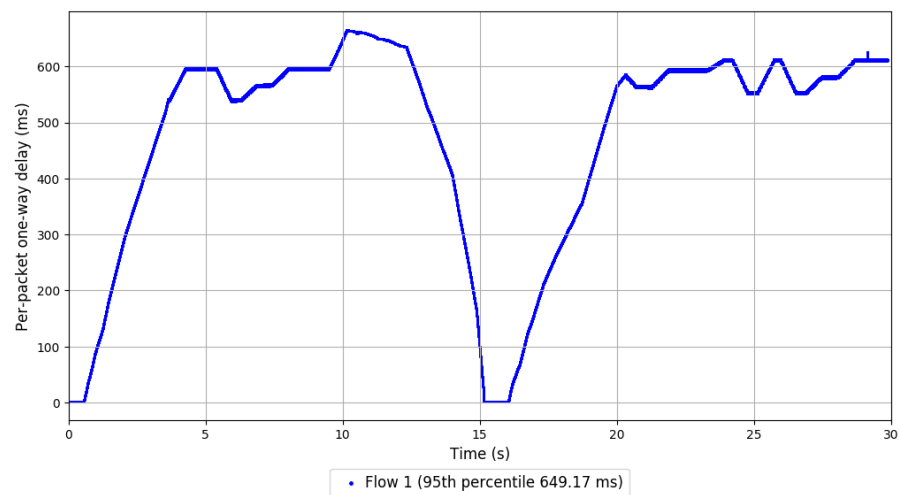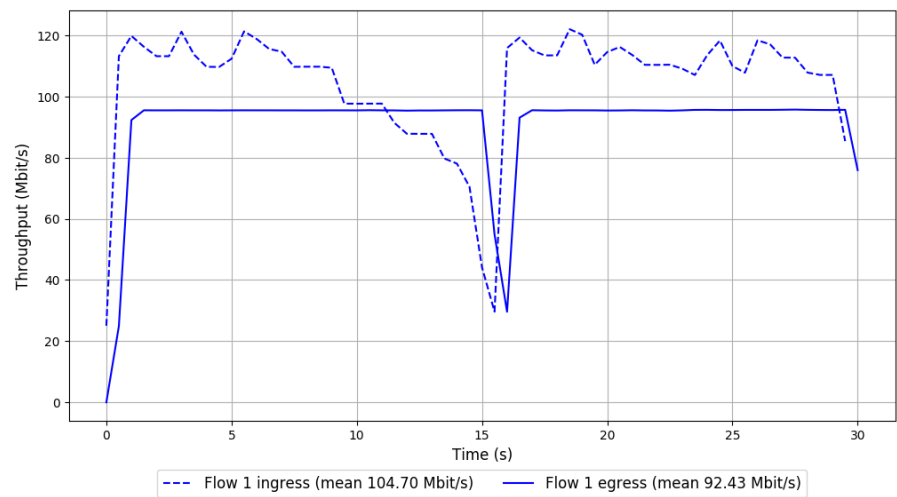
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 75.02 Mbit/s) --- Flow 1 egress (mean 74.89 Mbit/s)

Flow 1 (95th percentile 25.85 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-07-18 05:45:07
End at: 2019-07-18 05:45:37
Local clock offset: -6.7 ms
Remote clock offset: 0.553 ms


# Below is generated by plot.py at 2019-07-18 07:13:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.43 Mbit/s
95th percentile per-packet one-way delay: 649.169 ms
Loss rate: 11.73%
-- Flow 1:
Average throughput: 92.43 Mbit/s
95th percentile per-packet one-way delay: 649.169 ms
Loss rate: 11.73%
```
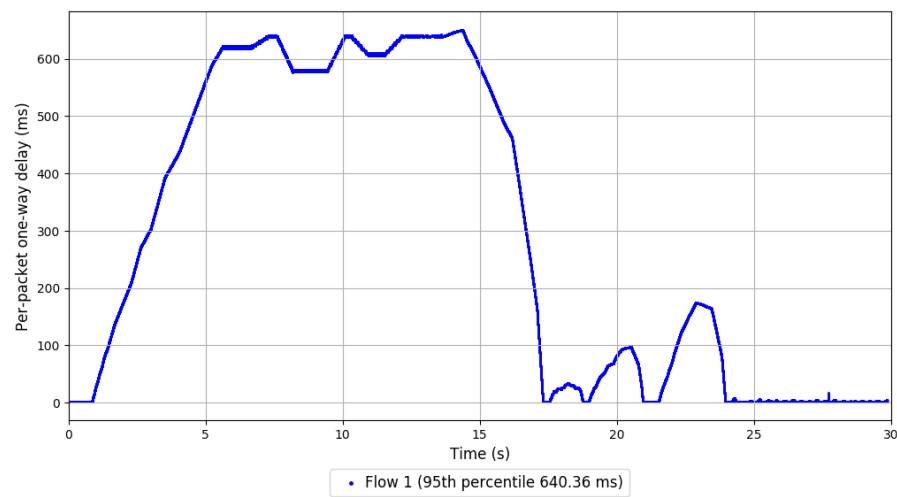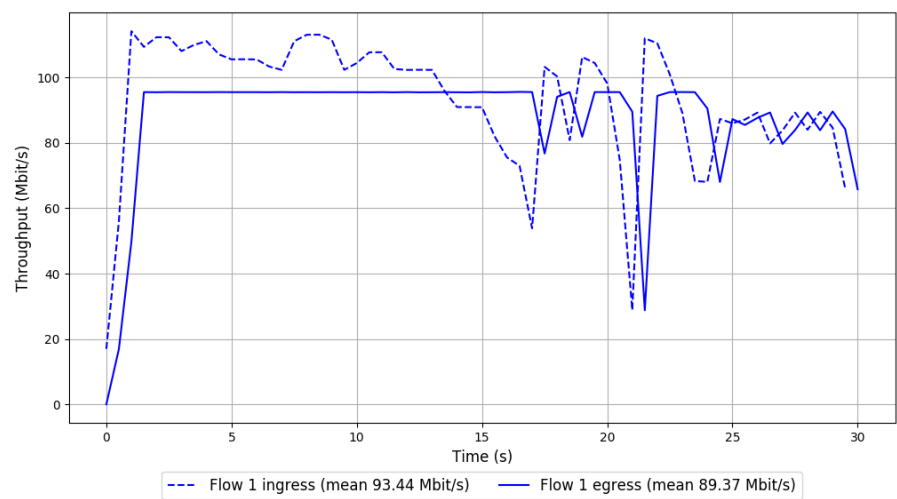
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 104.70 Mbit/s) --- Flow 1 egress (mean 92.43 Mbit/s)

Flow 1 (95th percentile 649.17 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-07-18 06:12:08
End at: 2019-07-18 06:12:38
Local clock offset: -7.67 ms
Remote clock offset: 0.614 ms


# Below is generated by plot.py at 2019-07-18 07:13:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 640.355 ms
Loss rate: 4.37%
-- Flow 1:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 640.355 ms
Loss rate: 4.37%
```
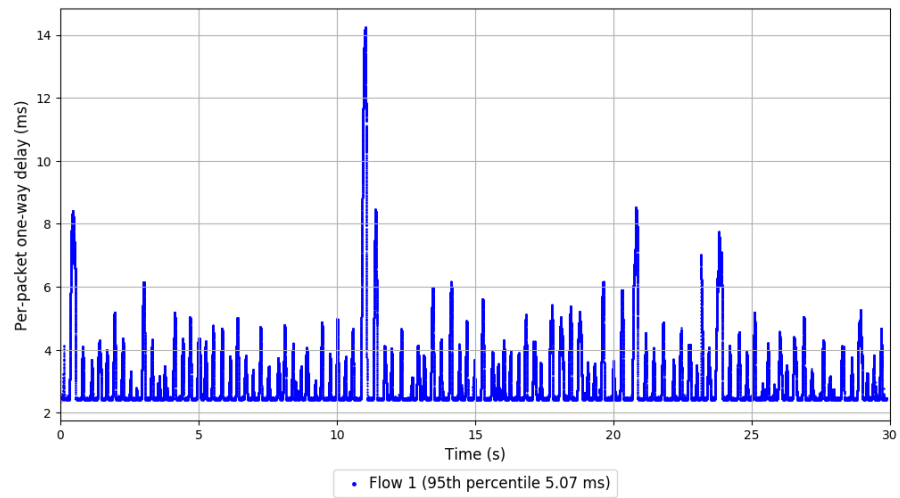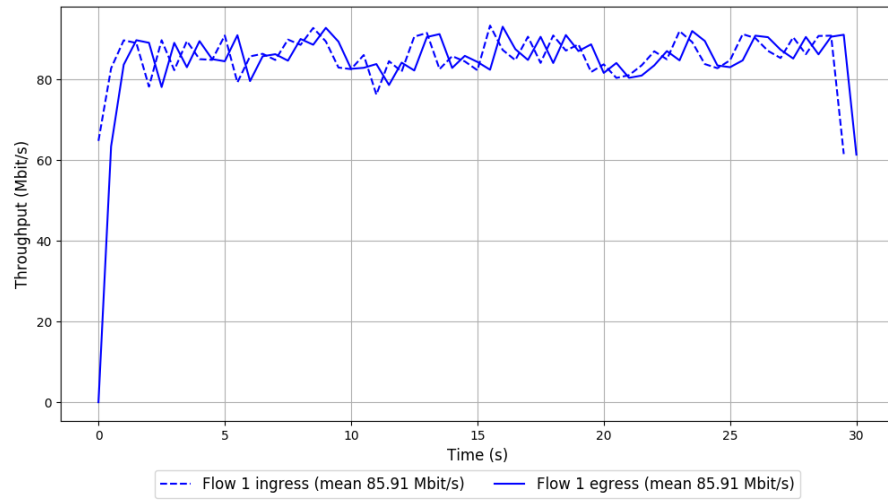
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 93.44 Mbit/s)   Flow 1 egress (mean 89.37 Mbit/s)

Flow 1 (95th percentile 640.36 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-07-18 06:39:09
End at: 2019-07-18 06:39:39
Local clock offset: -7.025 ms
Remote clock offset: 0.745 ms


# Below is generated by plot.py at 2019-07-18 07:14:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.91 Mbit/s
95th percentile per-packet one-way delay: 5.068 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 85.91 Mbit/s
95th percentile per-packet one-way delay: 5.068 ms
Loss rate: 0.01%
```
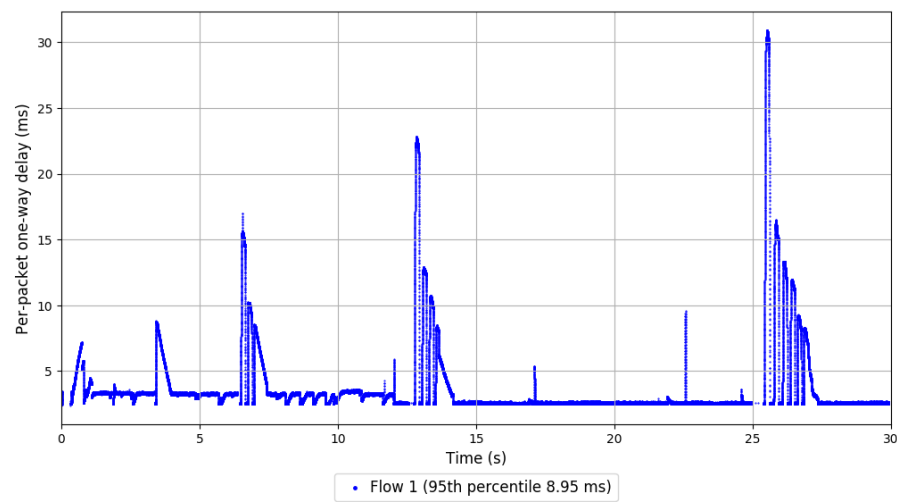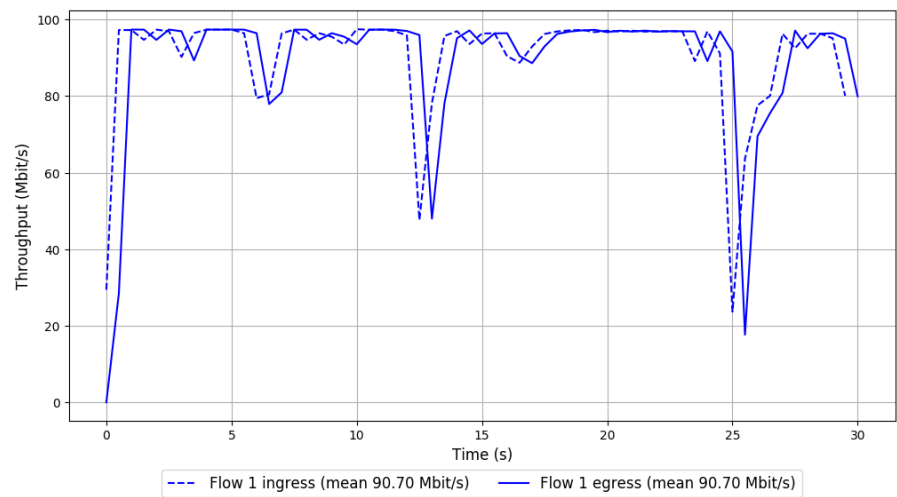
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 85.91 Mbit/s) —— Flow 1 egress (mean 85.91 Mbit/s)

• Flow 1 (95th percentile 5.07 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-07-18 05:10:21
End at: 2019-07-18 05:10:51
Local clock offset: -6.442 ms
Remote clock offset: 0.079 ms


# Below is generated by plot.py at 2019-07-18 07:14:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.70 Mbit/s
95th percentile per-packet one-way delay: 8.949 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 90.70 Mbit/s
95th percentile per-packet one-way delay: 8.949 ms
Loss rate: 0.02%
```
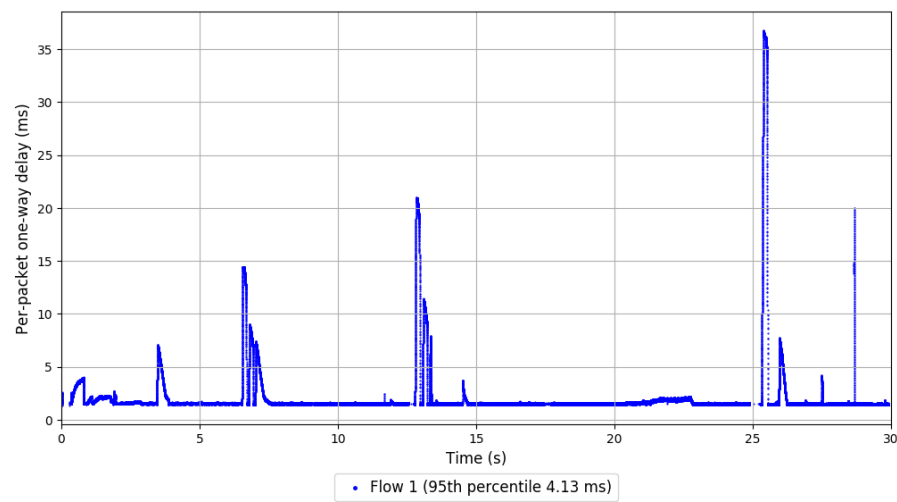
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-07-18 05:37:22
End at: 2019-07-18 05:37:52
Local clock offset: -6.735 ms
Remote clock offset: 0.496 ms


# Below is generated by plot.py at 2019-07-18 07:14:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.13 Mbit/s
95th percentile per-packet one-way delay: 4.133 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 91.13 Mbit/s
95th percentile per-packet one-way delay: 4.133 ms
Loss rate: 0.01%
```
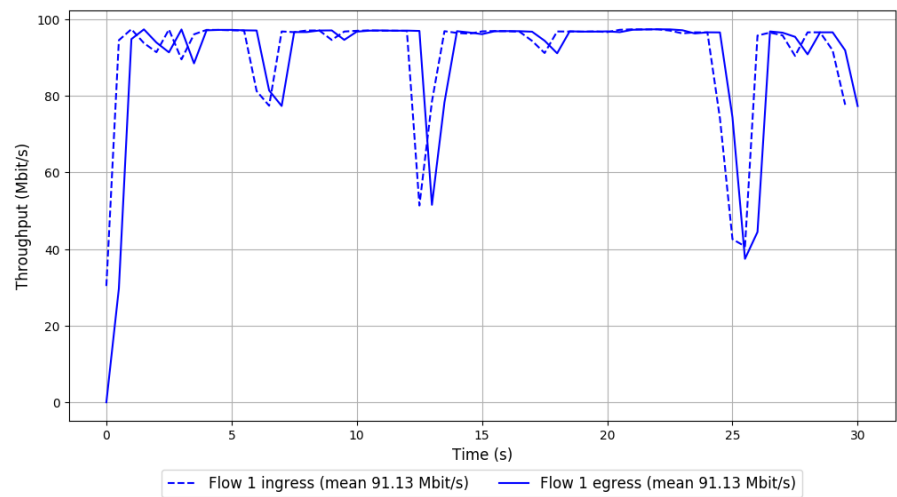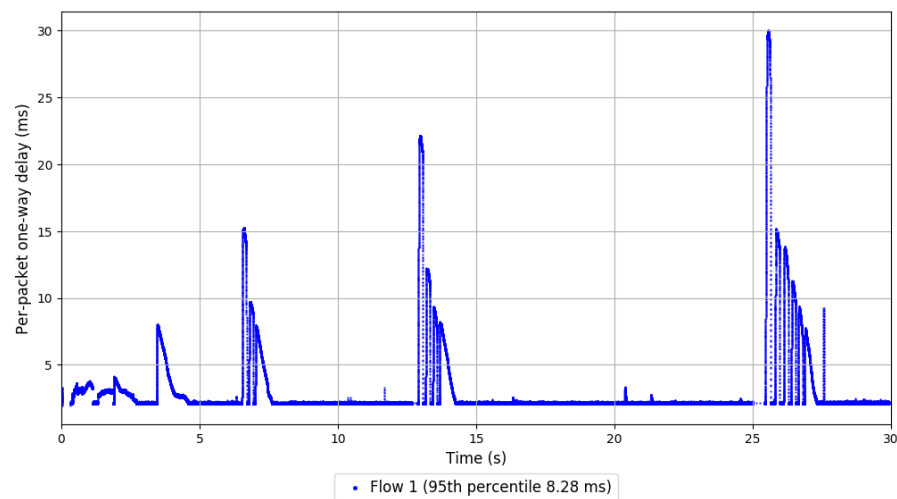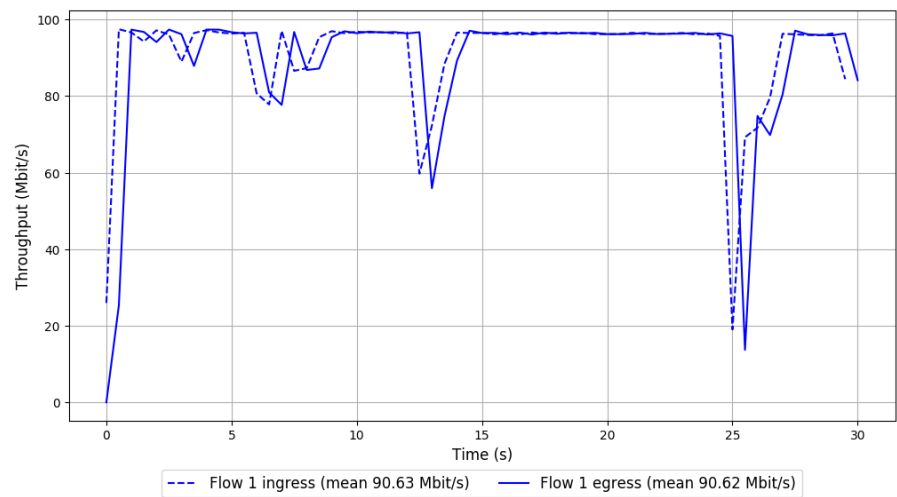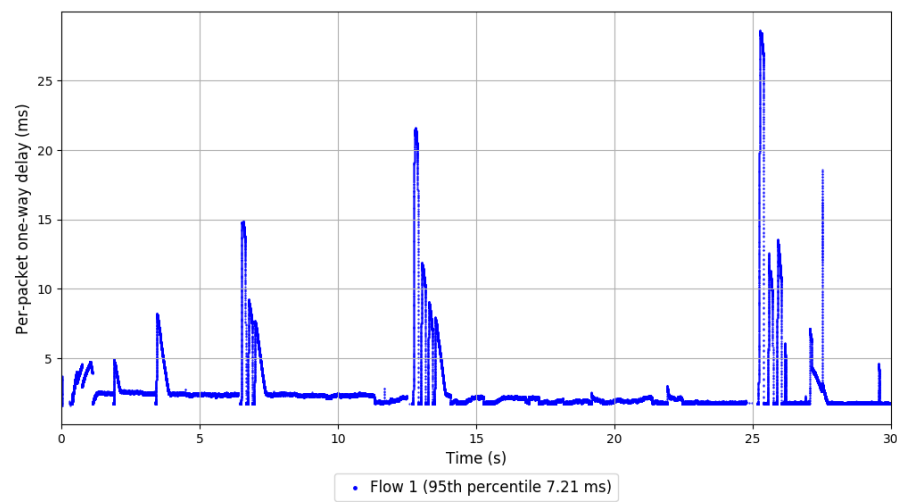
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-07-18 06:04:22
End at: 2019-07-18 06:04:52
Local clock offset: -7.283 ms
Remote clock offset: 0.591 ms


# Below is generated by plot.py at 2019-07-18 07:14:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.62 Mbit/s
95th percentile per-packet one-way delay: 8.279 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 90.62 Mbit/s
95th percentile per-packet one-way delay: 8.279 ms
Loss rate: 0.02%
```
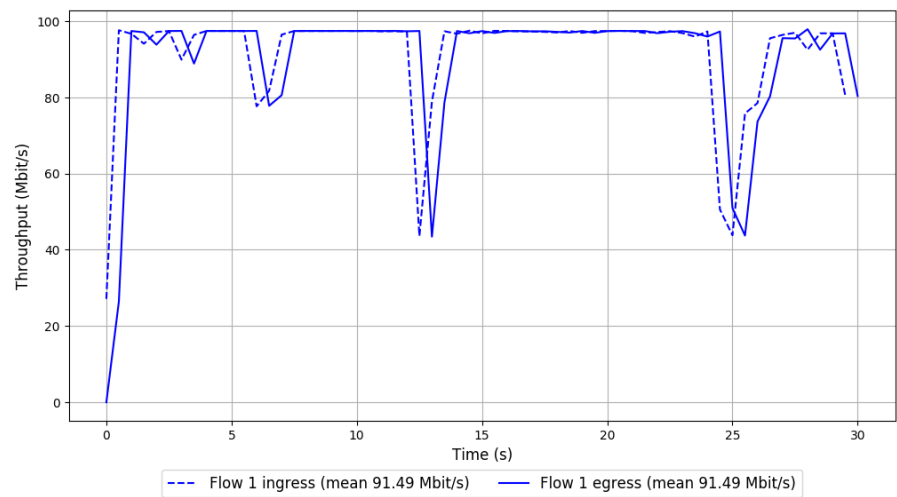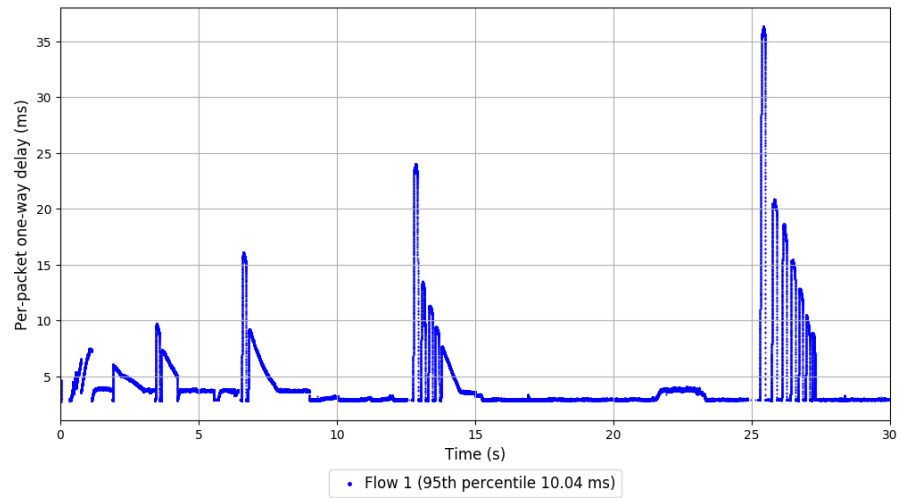
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 90.63 Mbit/s) —— Flow 1 egress (mean 90.62 Mbit/s)

• Flow 1 (95th percentile 8.28 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-07-18 06:31:21
End at: 2019-07-18 06:31:51
Local clock offset: -7.814 ms
Remote clock offset: 0.632 ms


# Below is generated by plot.py at 2019-07-18 07:14:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.49 Mbit/s
95th percentile per-packet one-way delay: 7.213 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 91.49 Mbit/s
95th percentile per-packet one-way delay: 7.213 ms
Loss rate: 0.01%
```

Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-07-18 06:58:22
End at: 2019-07-18 06:58:52
Local clock offset: -7.149 ms
Remote clock offset: 0.773 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.56 Mbit/s
95th percentile per-packet one-way delay: 10.039 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 90.56 Mbit/s
95th percentile per-packet one-way delay: 10.039 ms
Loss rate: 0.02%
```
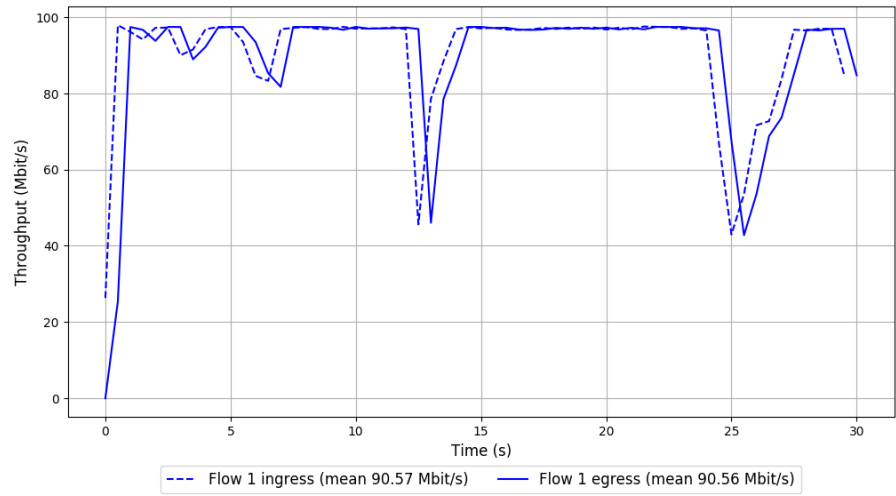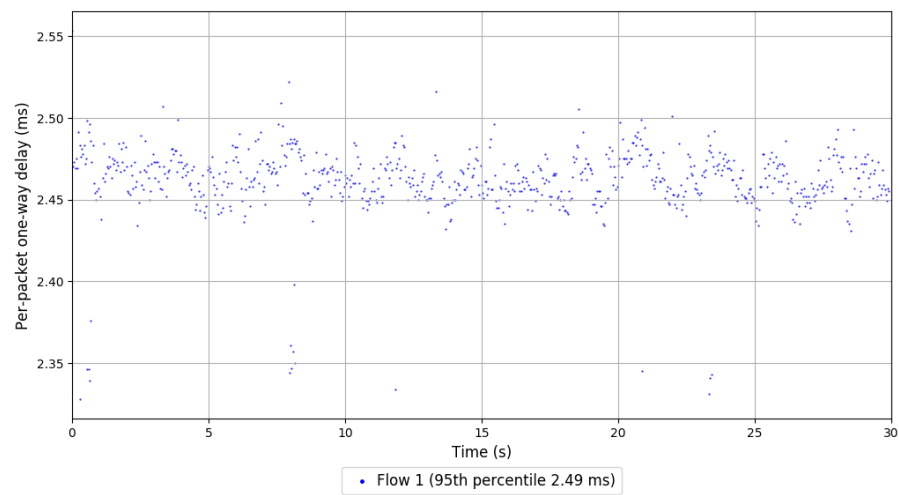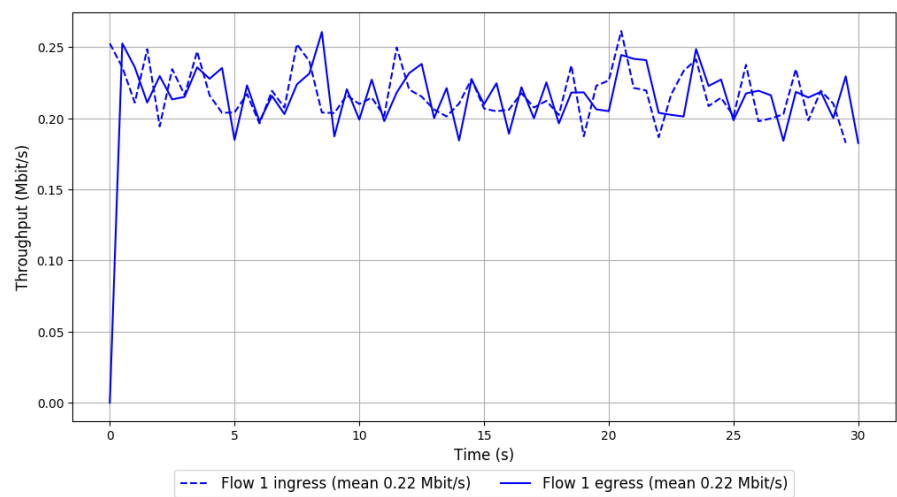
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 90.57 Mbit/s)   Flow 1 egress (mean 90.56 Mbit/s)

Flow 1 (95th percentile 10.04 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-07-18 04:48:55
End at: 2019-07-18 04:49:25
Local clock offset: -5.725 ms
Remote clock offset: -0.131 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.486 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.486 ms
Loss rate: 0.00%
```
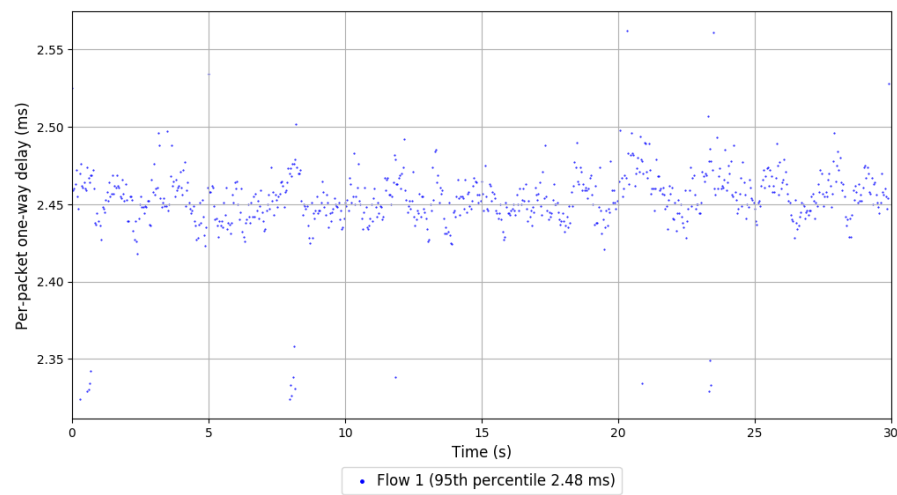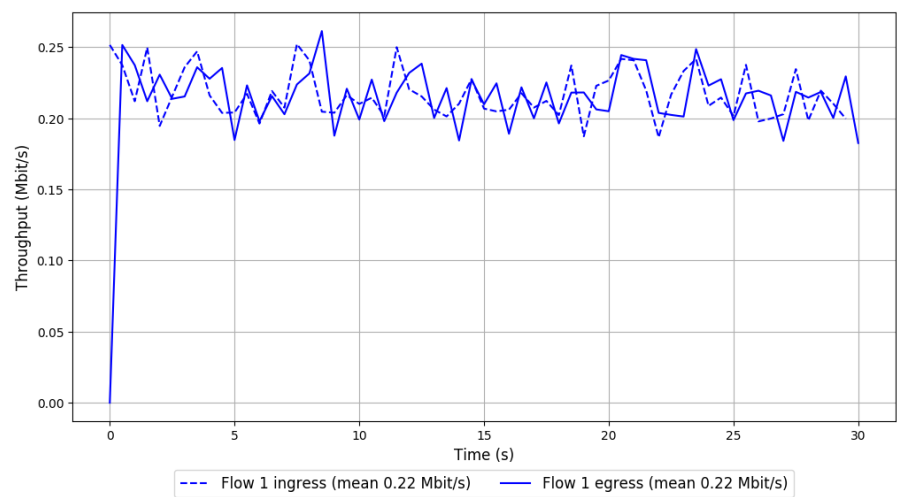
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-07-18 05:15:56
End at: 2019-07-18 05:16:26
Local clock offset: -6.531 ms
Remote clock offset: 0.217 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.479 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.479 ms
Loss rate: 0.13%
```
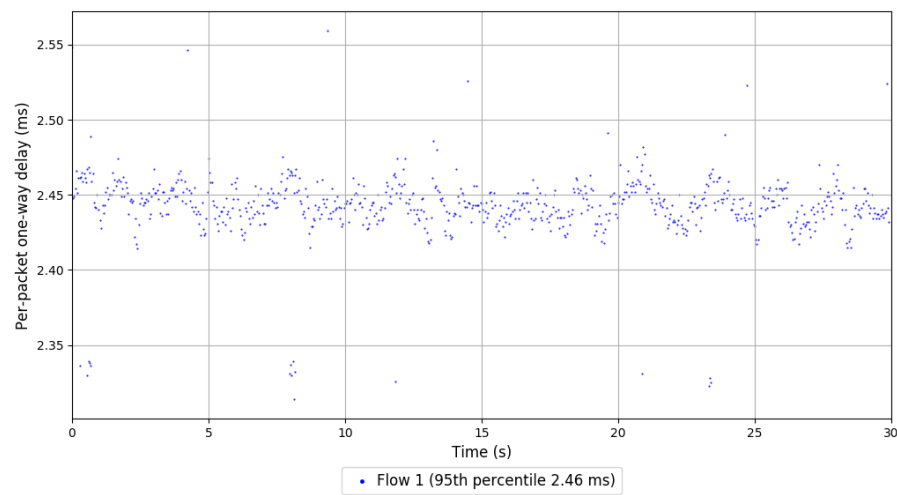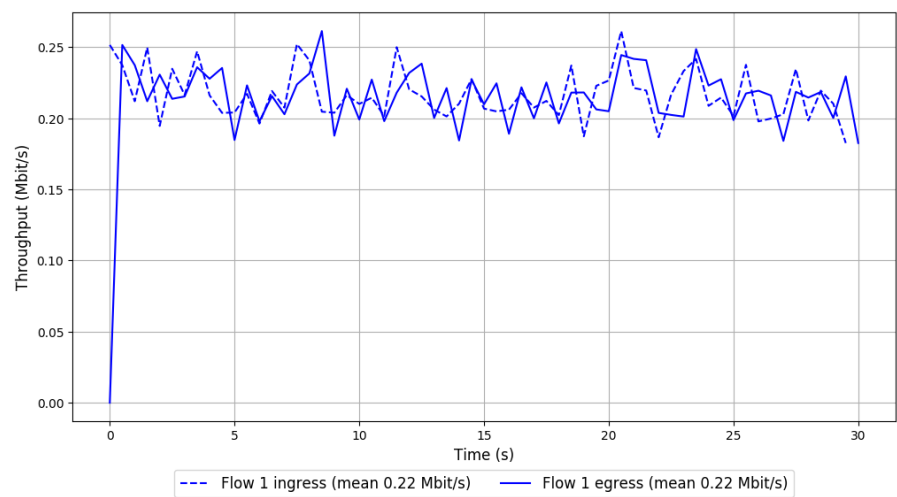
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-07-18 05:42:57
End at: 2019-07-18 05:43:27
Local clock offset: -5.734 ms
Remote clock offset: 0.461 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.465 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.465 ms
Loss rate: 0.00%
```
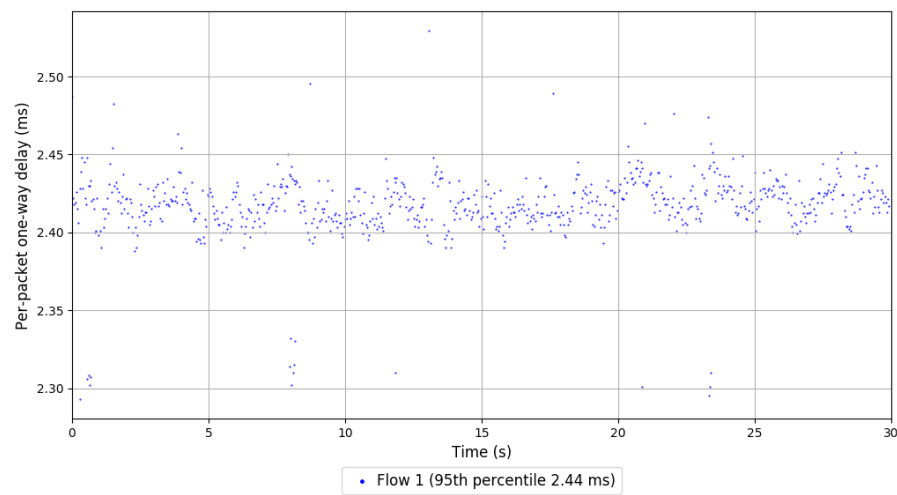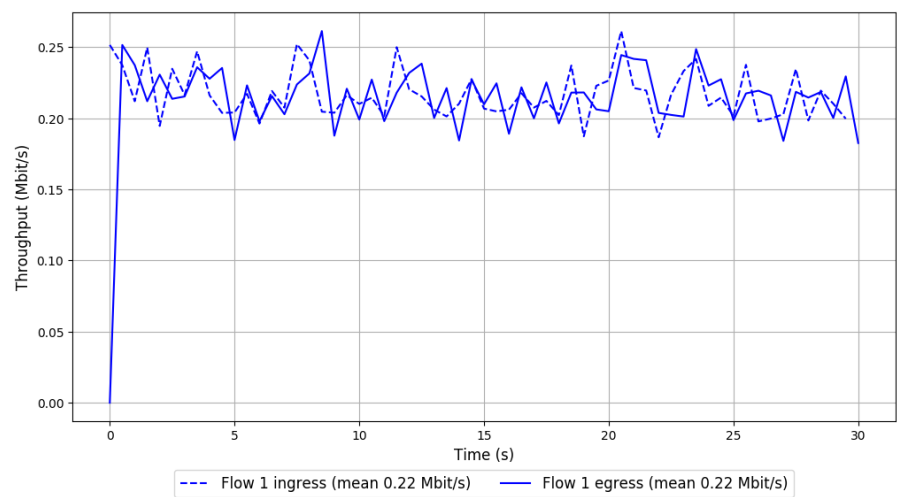
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-07-18 06:09:58
End at: 2019-07-18 06:10:28
Local clock offset: -6.702 ms
Remote clock offset: 0.672 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.442 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.442 ms
Loss rate: 0.13%
```
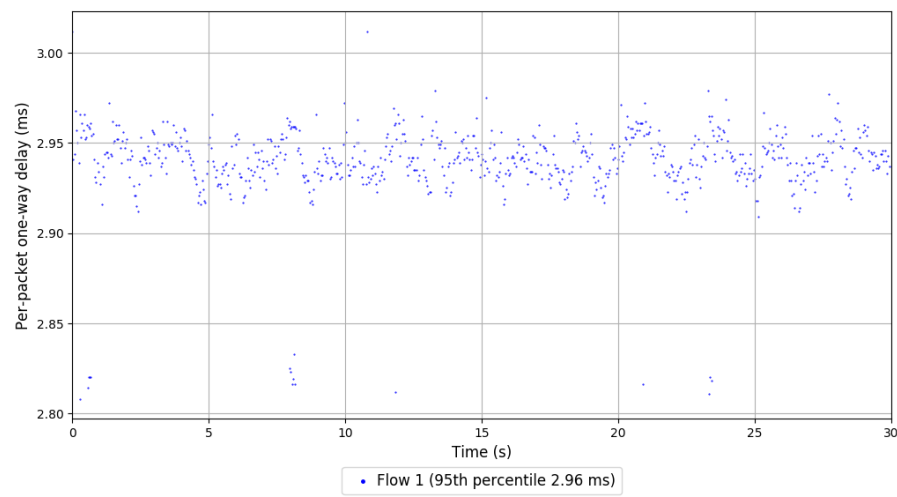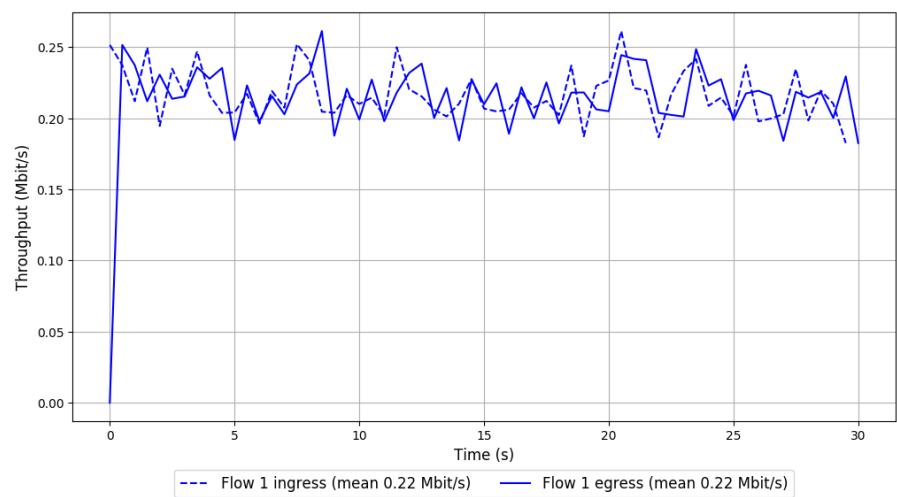
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-07-18 06:36:57
End at: 2019-07-18 06:37:27
Local clock offset: -6.981 ms
Remote clock offset: 0.727 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.962 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.962 ms
Loss rate: 0.00%
```

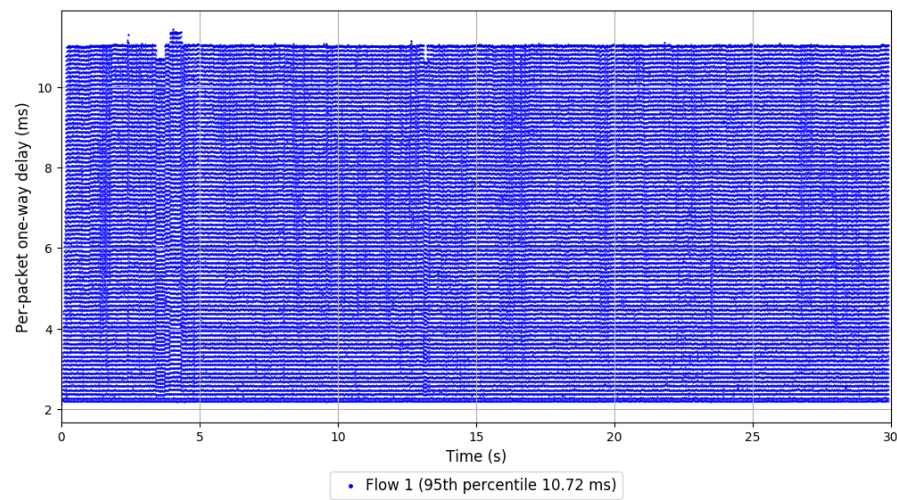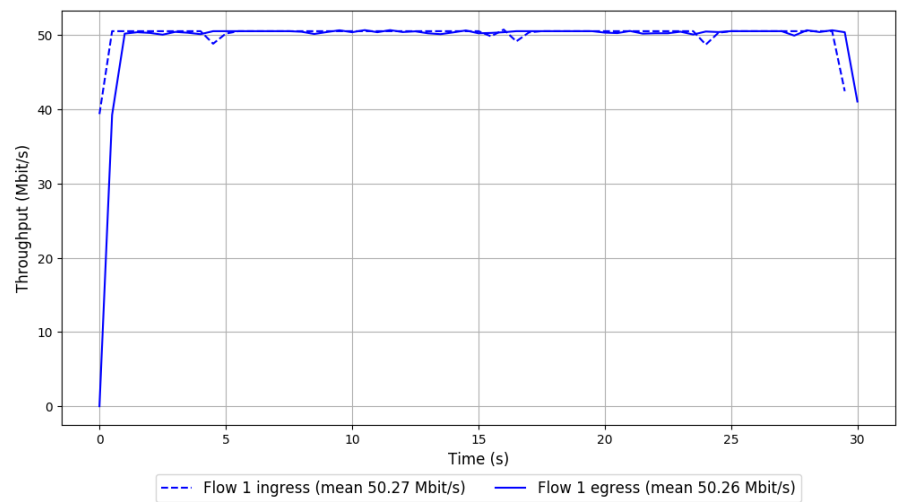Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-07-18 04:46:42
End at: 2019-07-18 04:47:12
Local clock offset: -6.505 ms
Remote clock offset: -0.184 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 10.719 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 10.719 ms
Loss rate: 0.07%
```

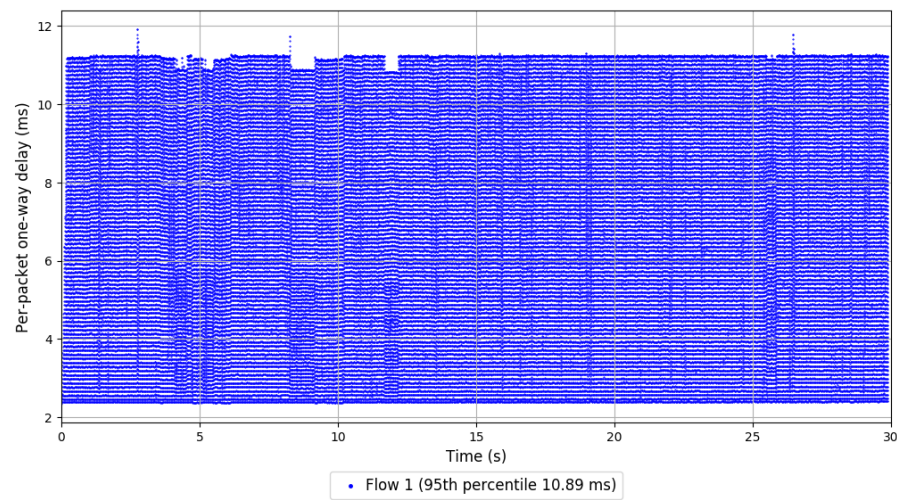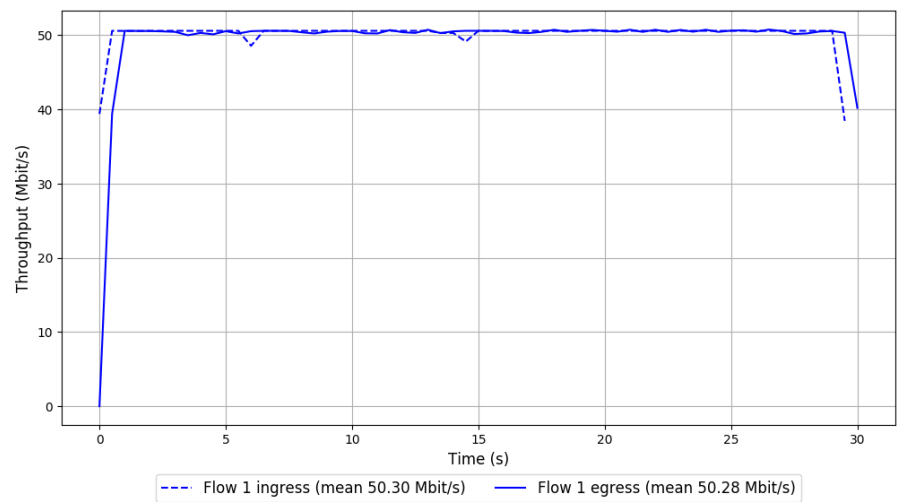Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-07-18 05:13:44
End at: 2019-07-18 05:14:14
Local clock offset: -6.582 ms
Remote clock offset: 0.166 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 10.889 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 10.889 ms
Loss rate: 0.00%
```
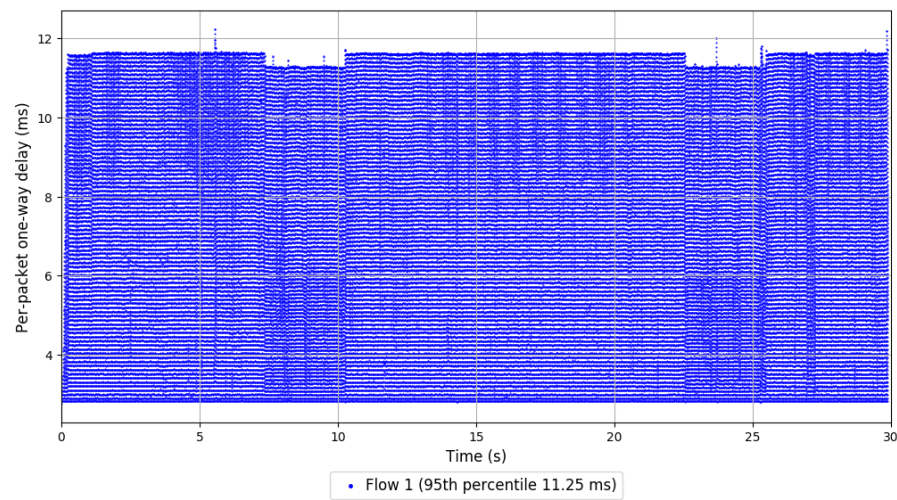
Run 2: Report of Sprout — Data Link

Flow 1 ingress (mean 50.30 Mbit/s) — — — — Flow 1 egress (mean 50.28 Mbit/s) ————

Flow 1 (95th percentile 10.89 ms)

```
Run 3: Statistics of Sprout

Start at: 2019-07-18 05:40:45
End at: 2019-07-18 05:41:15
Local clock offset: -5.839 ms
Remote clock offset: 0.482 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.30 Mbit/s
95th percentile per-packet one-way delay: 11.253 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 50.30 Mbit/s
95th percentile per-packet one-way delay: 11.253 ms
Loss rate: 0.03%
```
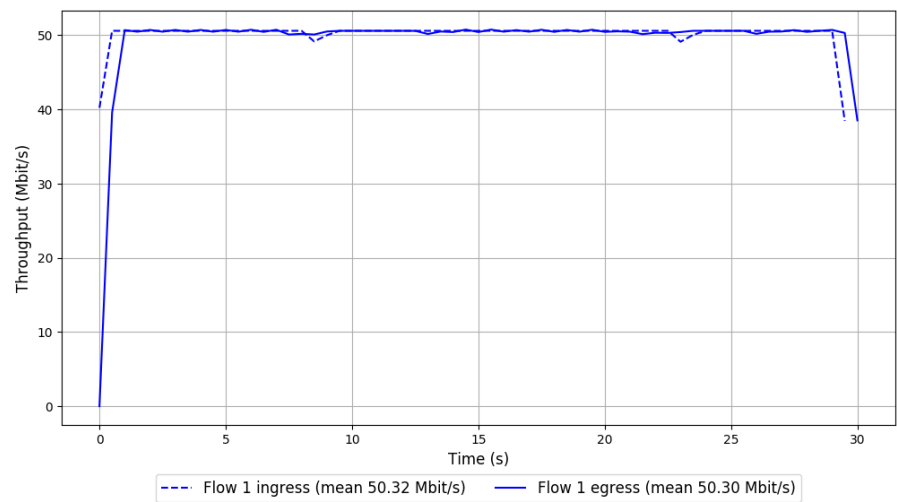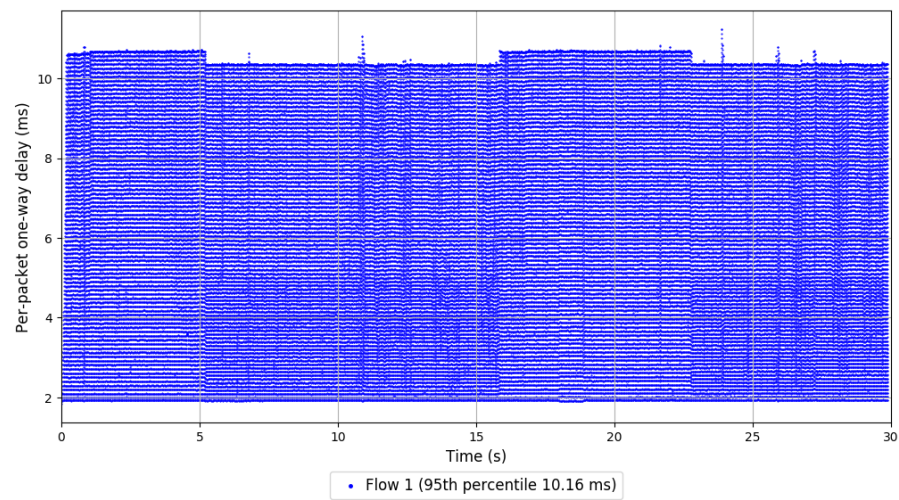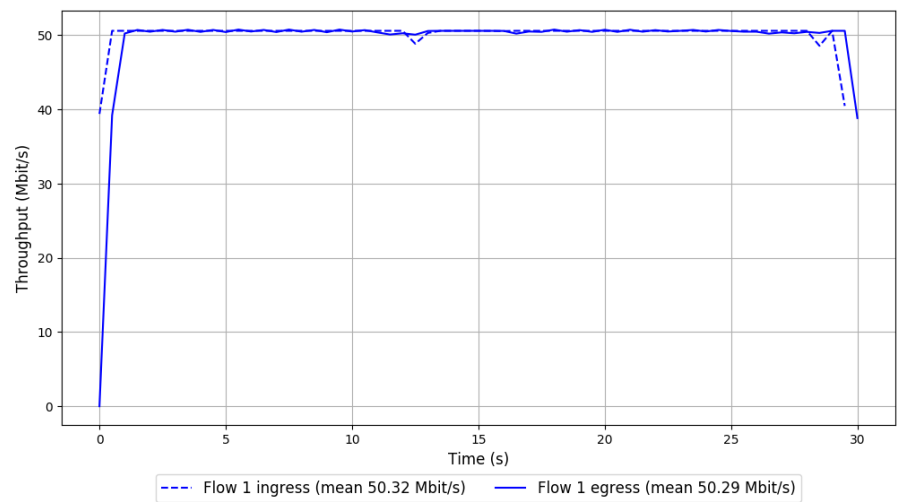
Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 50.32 Mbit/s)   ——— Flow 1 egress (mean 50.30 Mbit/s)

• Flow 1 (95th percentile 11.25 ms)

```
Run 4: Statistics of Sprout

Start at: 2019-07-18 06:07:46
End at: 2019-07-18 06:08:16
Local clock offset: -7.643 ms
Remote clock offset: 0.623 ms


# Below is generated by plot.py at 2019-07-18 07:14:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.29 Mbit/s
95th percentile per-packet one-way delay: 10.163 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 50.29 Mbit/s
95th percentile per-packet one-way delay: 10.163 ms
Loss rate: 0.05%
```
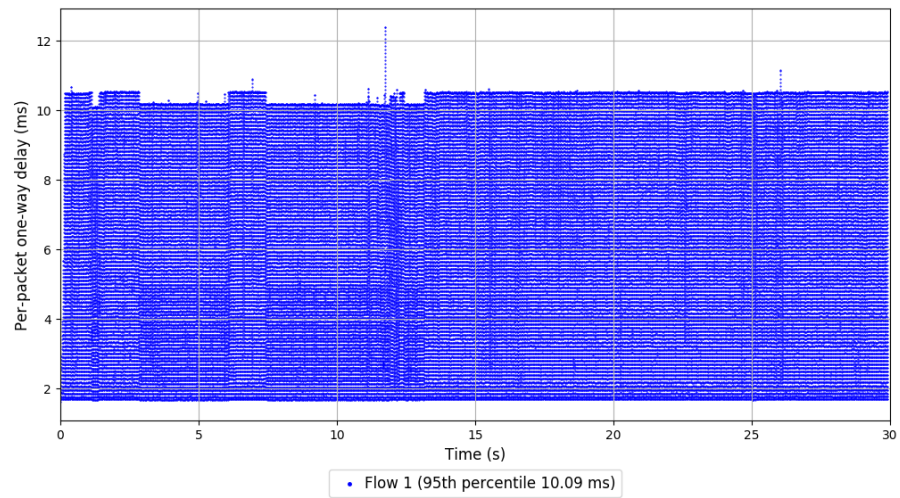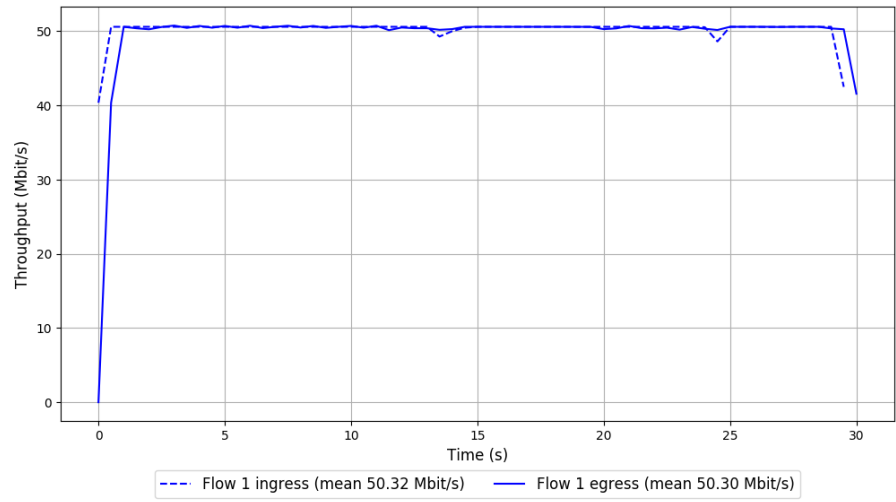
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-07-18 06:34:45
End at: 2019-07-18 06:35:15
Local clock offset: -7.804 ms
Remote clock offset: 0.742 ms


# Below is generated by plot.py at 2019-07-18 07:14:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.30 Mbit/s
95th percentile per-packet one-way delay: 10.089 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 50.30 Mbit/s
95th percentile per-packet one-way delay: 10.089 ms
Loss rate: 0.05%
```

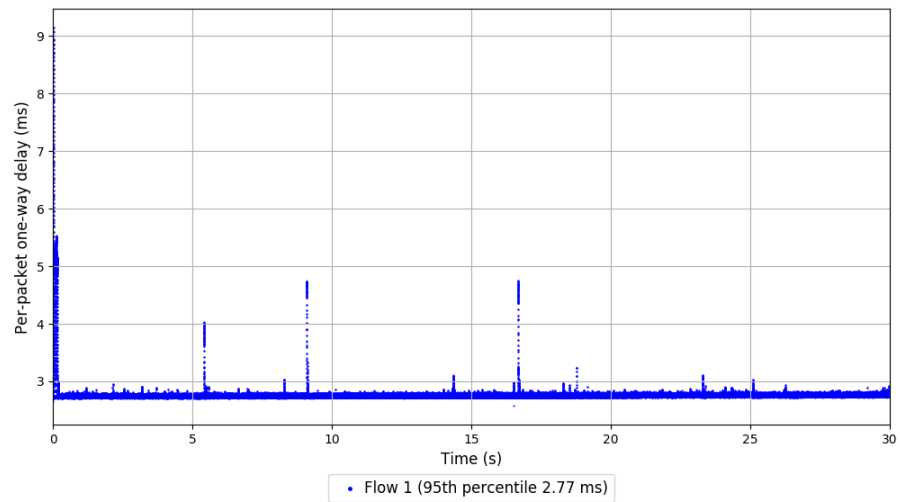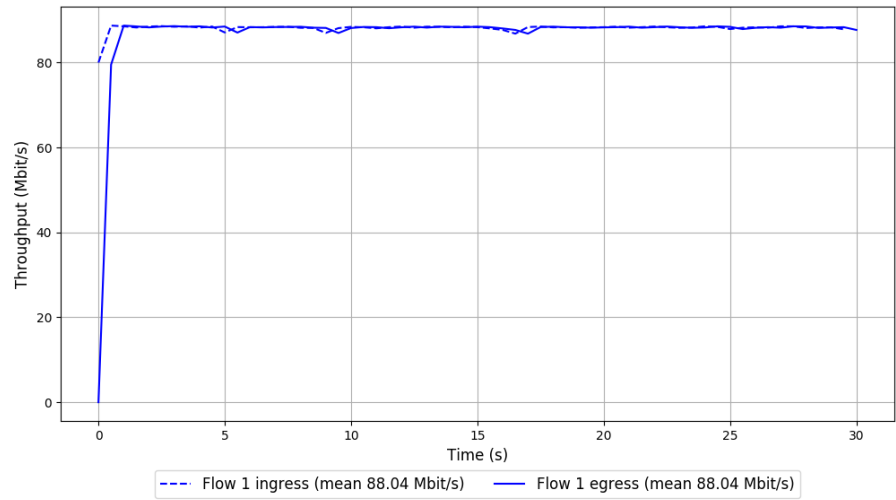## Run 5: Report of Sprout — Data Link

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

Start at: 2019-07-18 05:04:42
End at: 2019-07-18 05:05:12
Local clock offset: -6.489 ms
Remote clock offset: 0.015 ms


# Below is generated by plot.py at 2019-07-18 07:16:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.04 Mbit/s
95th percentile per-packet one-way delay: 2.771 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 88.04 Mbit/s
95th percentile per-packet one-way delay: 2.771 ms
Loss rate: 0.01%
```
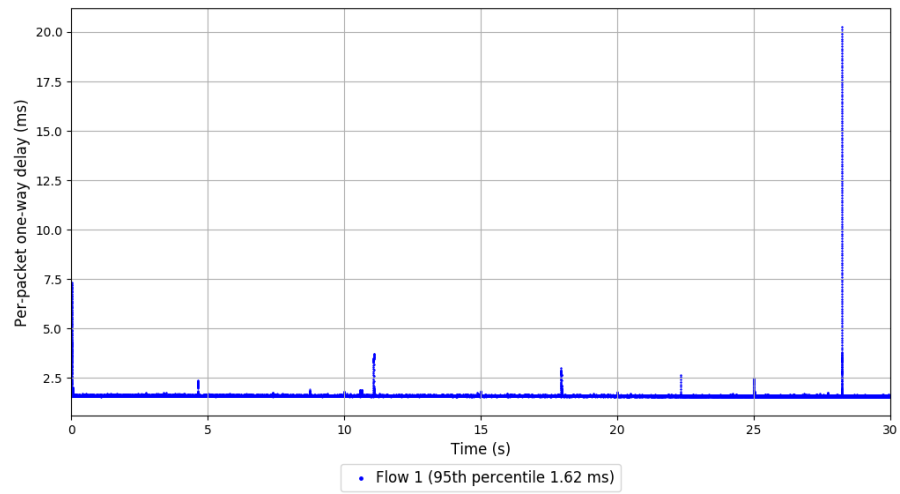
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-07-18 05:31:38
End at: 2019-07-18 05:32:08
Local clock offset: -6.885 ms
Remote clock offset: 0.398 ms


# Below is generated by plot.py at 2019-07-18 07:16:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.27 Mbit/s
95th percentile per-packet one-way delay: 1.621 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 88.27 Mbit/s
95th percentile per-packet one-way delay: 1.621 ms
Loss rate: 0.01%
```
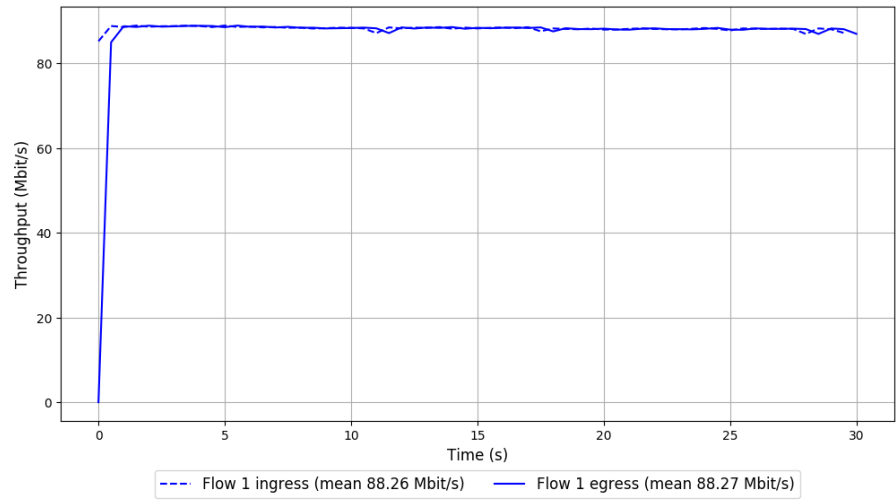
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-07-18 05:58:40
End at: 2019-07-18 05:59:10
Local clock offset: -6.818 ms
Remote clock offset: 0.503 ms


# Below is generated by plot.py at 2019-07-18 07:16:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.44 Mbit/s
95th percentile per-packet one-way delay: 1.847 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 88.44 Mbit/s
95th percentile per-packet one-way delay: 1.847 ms
Loss rate: 0.01%
```
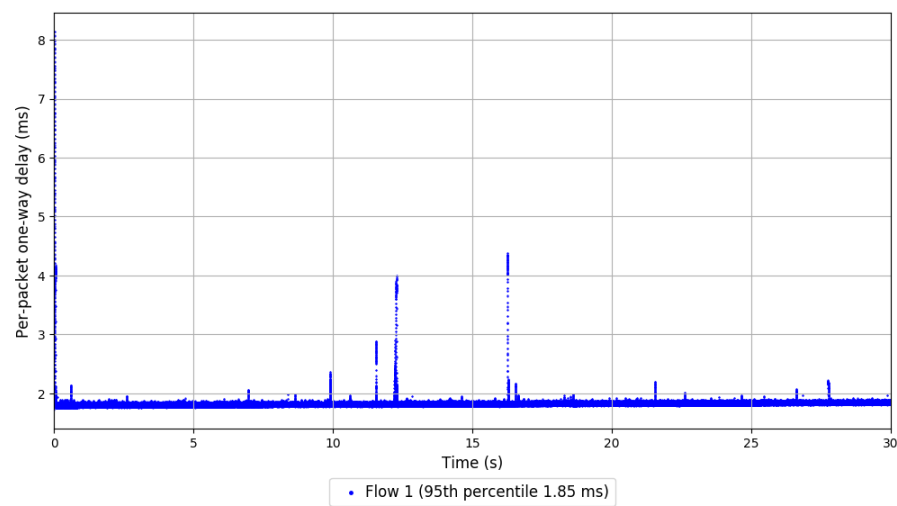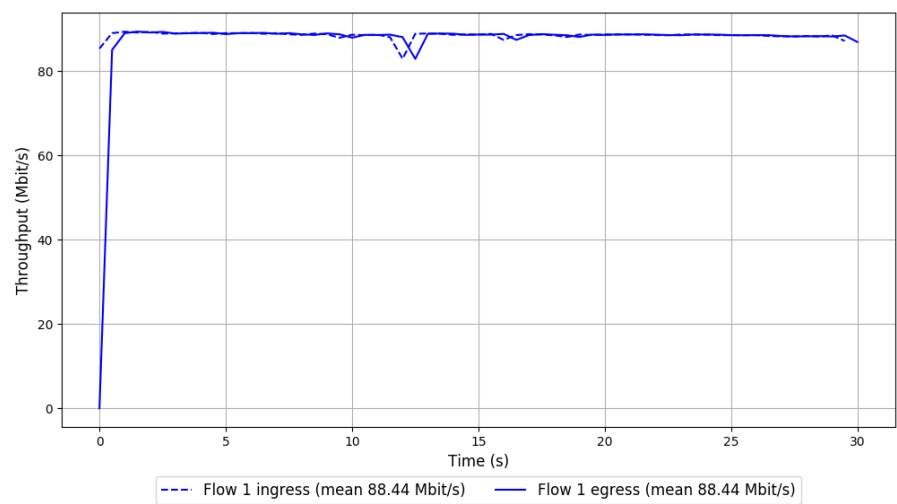
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 88.44 Mbit/s) --- Flow 1 egress (mean 88.44 Mbit/s)

Flow 1 (95th percentile 1.85 ms)

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

Start at: 2019-07-18 06:25:43
End at: 2019-07-18 06:26:13
Local clock offset: -7.297 ms
Remote clock offset: 0.765 ms


# Below is generated by plot.py at 2019-07-18 07:16:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.61 Mbit/s
95th percentile per-packet one-way delay: 2.162 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 86.61 Mbit/s
95th percentile per-packet one-way delay: 2.162 ms
Loss rate: 0.01%
```
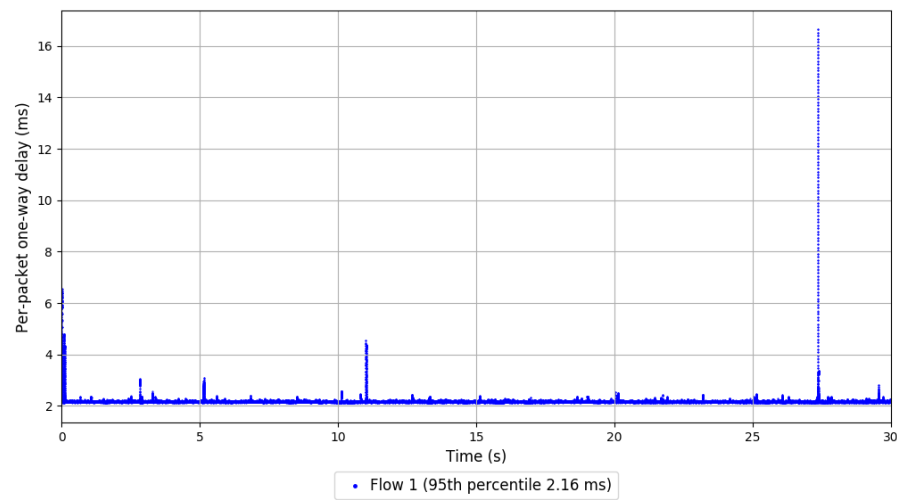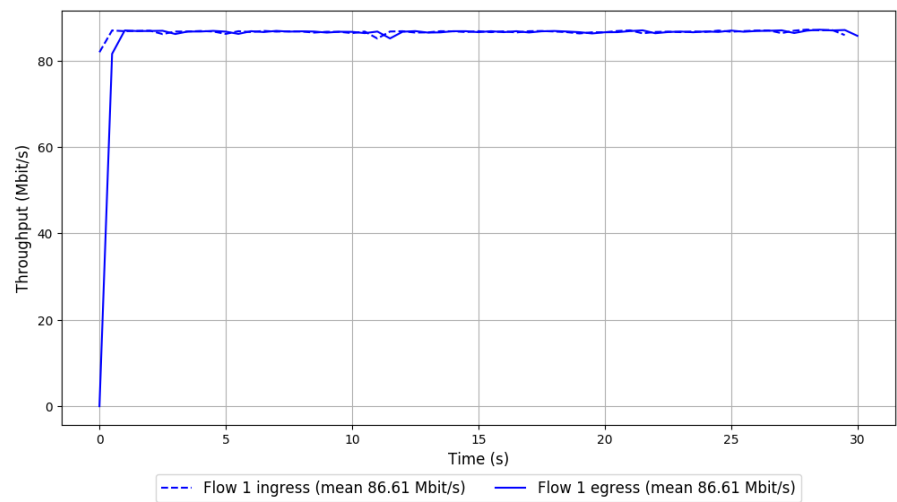
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2019-07-18 06:52:42
End at: 2019-07-18 06:53:12
Local clock offset: -7.072 ms
Remote clock offset: 0.723 ms


# Below is generated by plot.py at 2019-07-18 07:16:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.78 Mbit/s
95th percentile per-packet one-way delay: 2.978 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 86.78 Mbit/s
95th percentile per-packet one-way delay: 2.978 ms
Loss rate: 0.01%
```
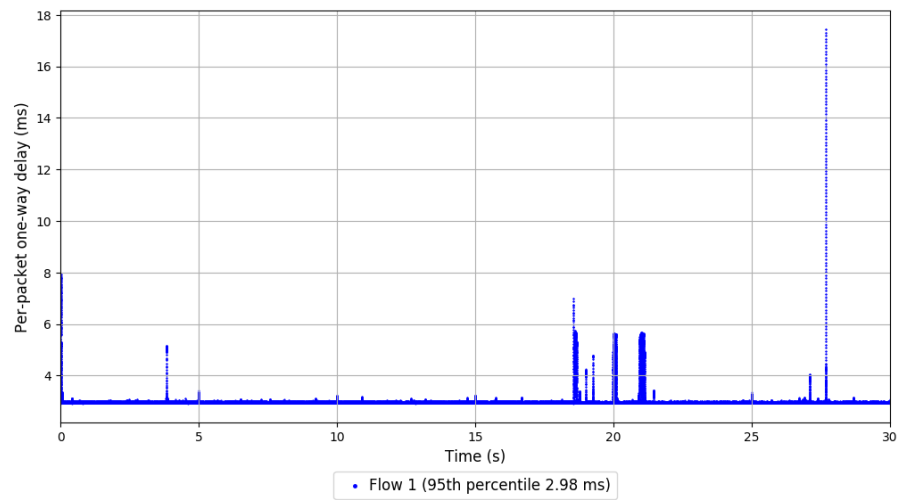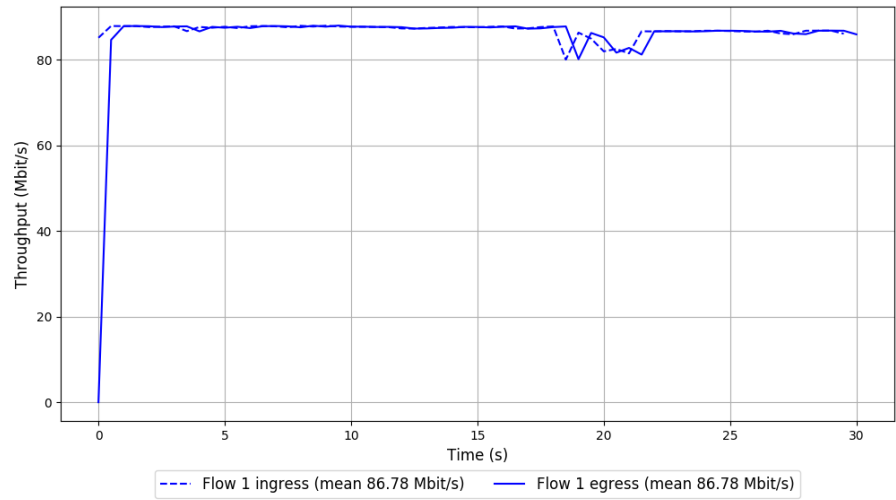
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 86.78 Mbit/s) --- Flow 1 egress (mean 86.78 Mbit/s)
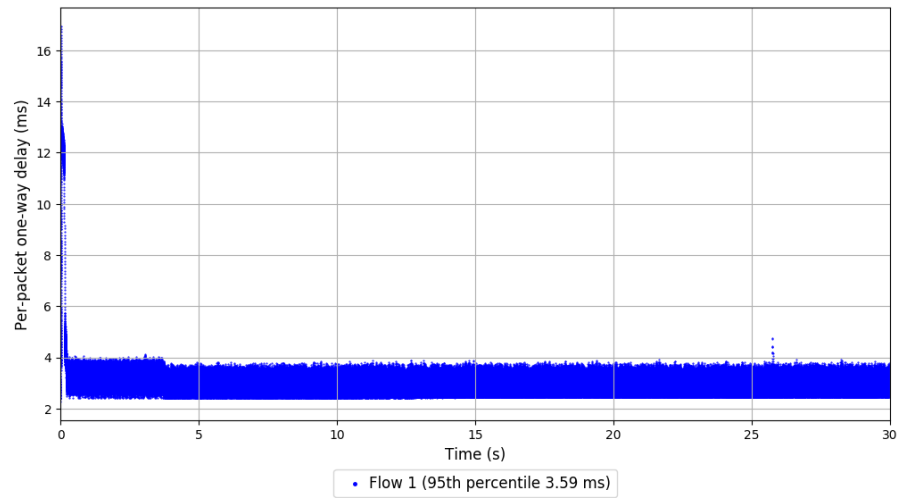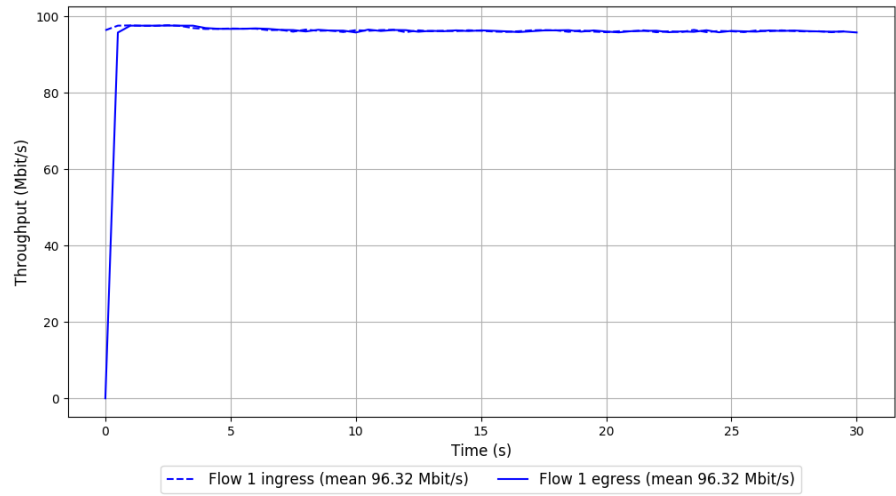

Flow 1 (95th percentile 2.98 ms)

204

```
Run 1: Statistics of TCP Vegas

Start at: 2019-07-18 04:56:45
End at: 2019-07-18 04:57:15
Local clock offset: -5.921 ms
Remote clock offset: -0.036 ms


# Below is generated by plot.py at 2019-07-18 07:16:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.32 Mbit/s
95th percentile per-packet one-way delay: 3.589 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.32 Mbit/s
95th percentile per-packet one-way delay: 3.589 ms
Loss rate: 0.01%
```

Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-07-18 05:23:46
End at: 2019-07-18 05:24:16
Local clock offset: -7.642 ms
Remote clock offset: 0.299 ms


# Below is generated by plot.py at 2019-07-18 07:16:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.17 Mbit/s
95th percentile per-packet one-way delay: 2.610 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.17 Mbit/s
95th percentile per-packet one-way delay: 2.610 ms
Loss rate: 0.01%
```
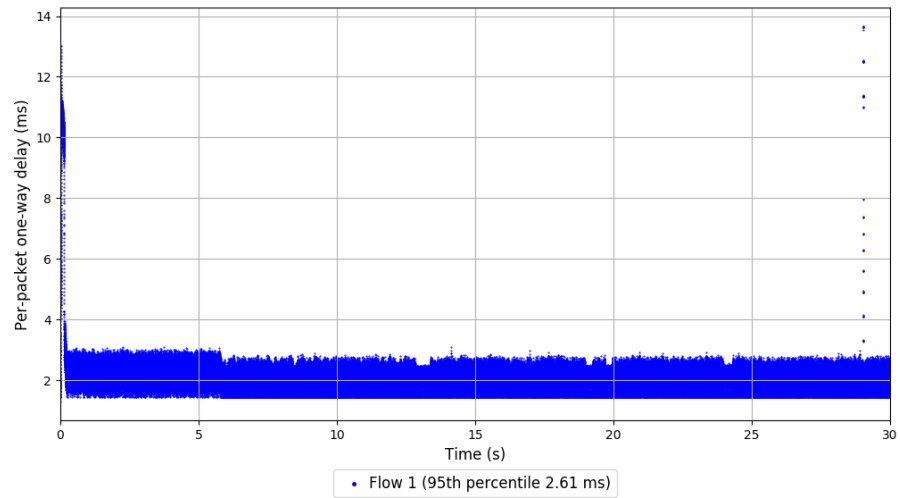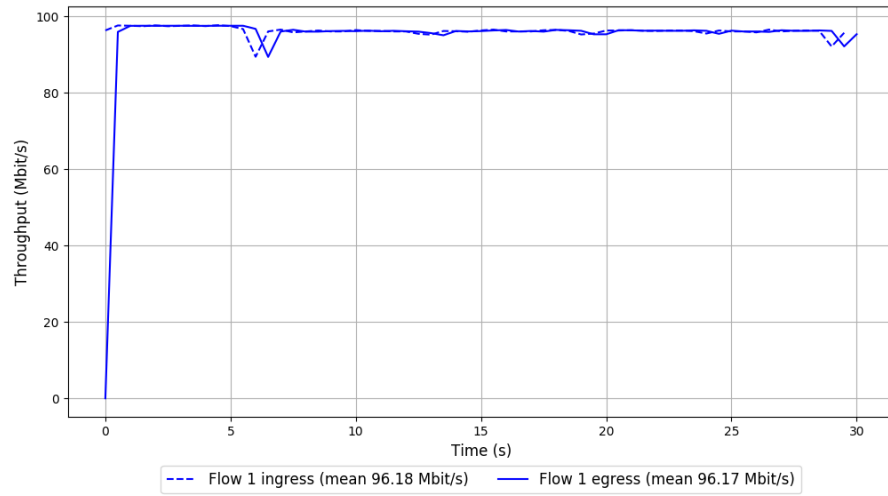
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 96.18 Mbit/s) —— Flow 1 egress (mean 96.17 Mbit/s)

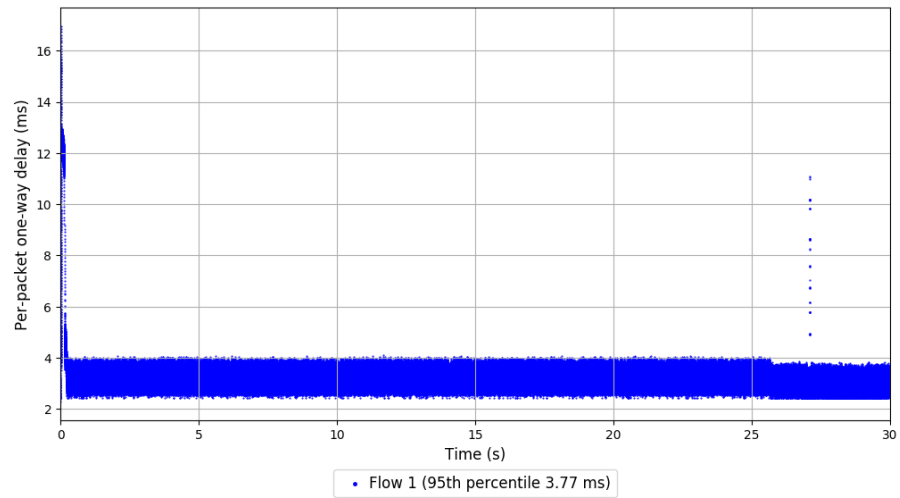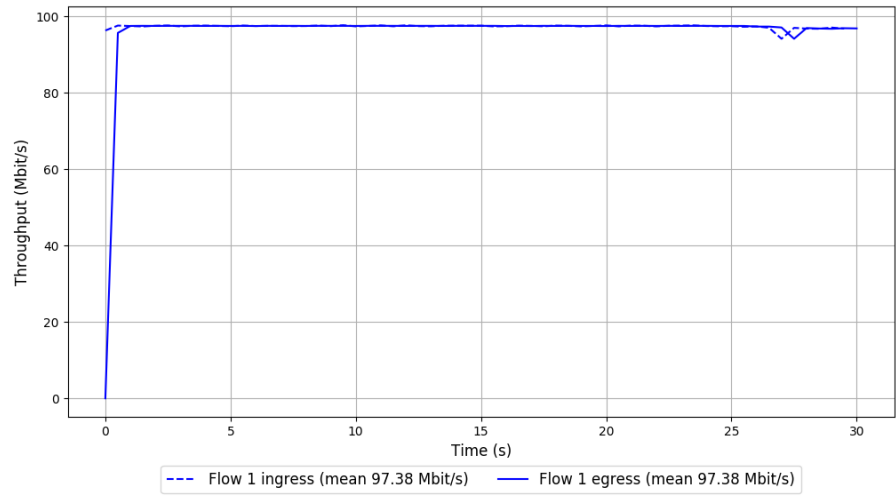• Flow 1 (95th percentile 2.61 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2019-07-18 05:50:48
End at: 2019-07-18 05:51:18
Local clock offset: -5.607 ms
Remote clock offset: 0.595 ms


# Below is generated by plot.py at 2019-07-18 07:16:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 3.766 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 3.766 ms
Loss rate: 0.01%
```

Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-07-18 06:17:47
End at: 2019-07-18 06:18:17
Local clock offset: -7.806 ms
Remote clock offset: 0.658 ms


# Below is generated by plot.py at 2019-07-18 07:16:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 3.452 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 3.452 ms
Loss rate: 0.02%
```
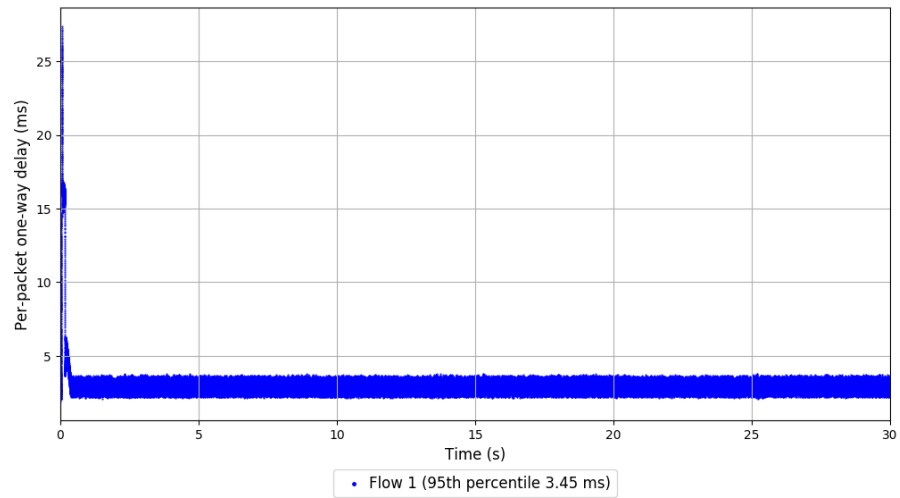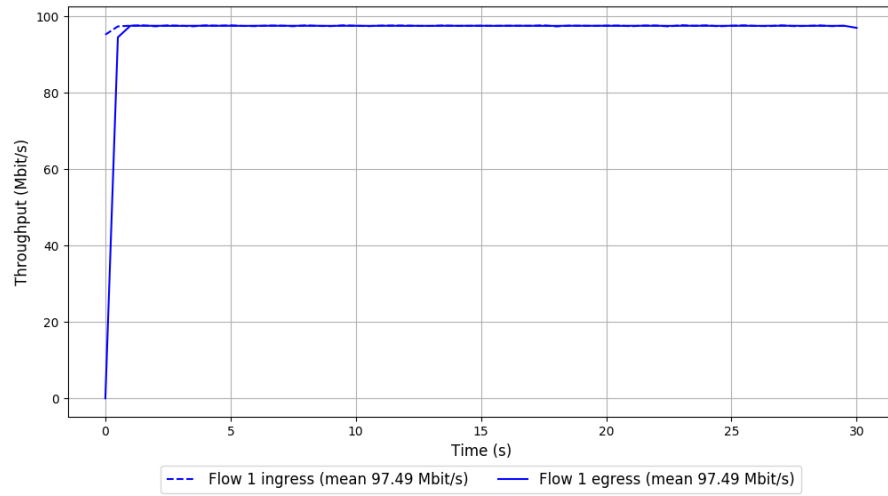
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 97.49 Mbit/s)   Flow 1 egress (mean 97.49 Mbit/s)

Flow 1 (95th percentile 3.45 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2019-07-18 06:44:48
End at: 2019-07-18 06:45:18
Local clock offset: -7.274 ms
Remote clock offset: 0.795 ms


# Below is generated by plot.py at 2019-07-18 07:16:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 3.776 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 3.776 ms
Loss rate: 0.02%
```
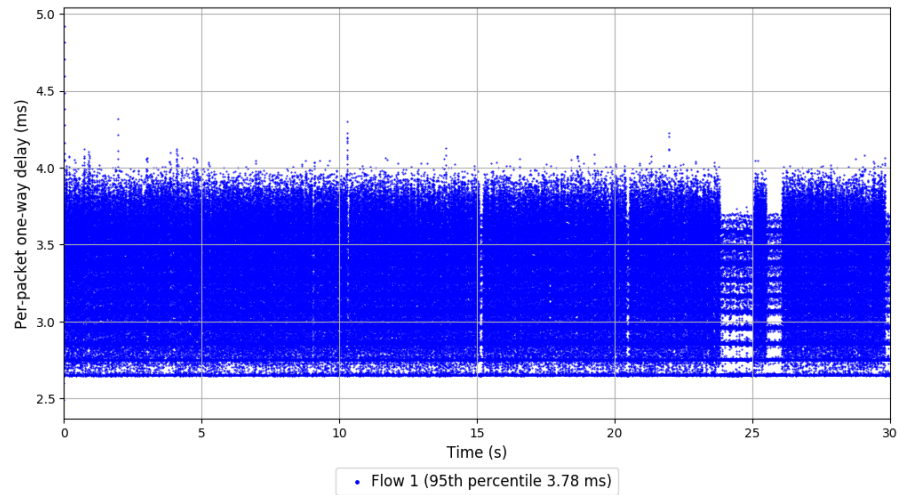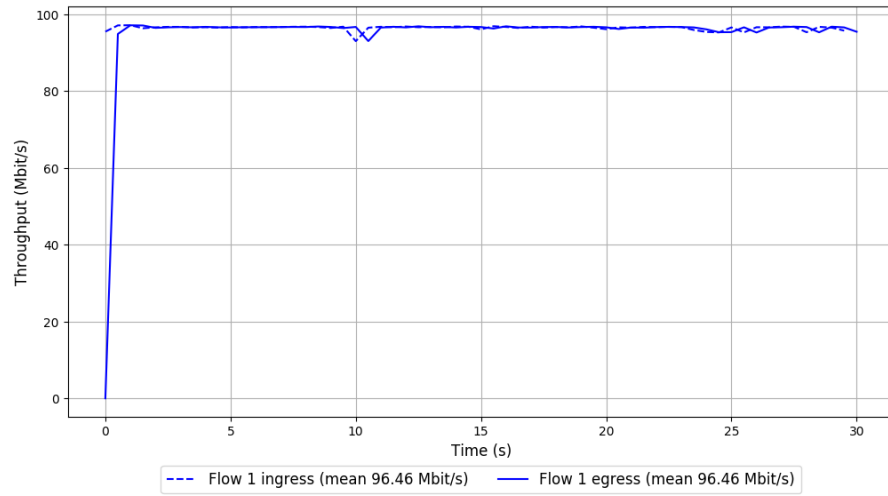
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 96.46 Mbit/s)   Flow 1 egress (mean 96.46 Mbit/s)

Flow 1 (95th percentile 3.78 ms)

```
Run 1: Statistics of Verus

Start at: 2019-07-18 05:09:14
End at: 2019-07-18 05:09:44
Local clock offset: -6.676 ms
Remote clock offset: 0.056 ms


# Below is generated by plot.py at 2019-07-18 07:16:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.58 Mbit/s
95th percentile per-packet one-way delay: 13.203 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 46.58 Mbit/s
95th percentile per-packet one-way delay: 13.203 ms
Loss rate: 0.02%
```
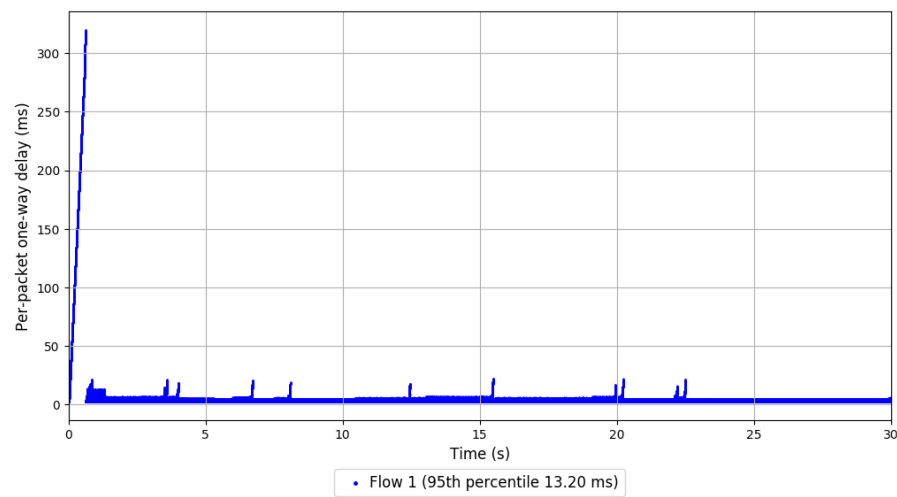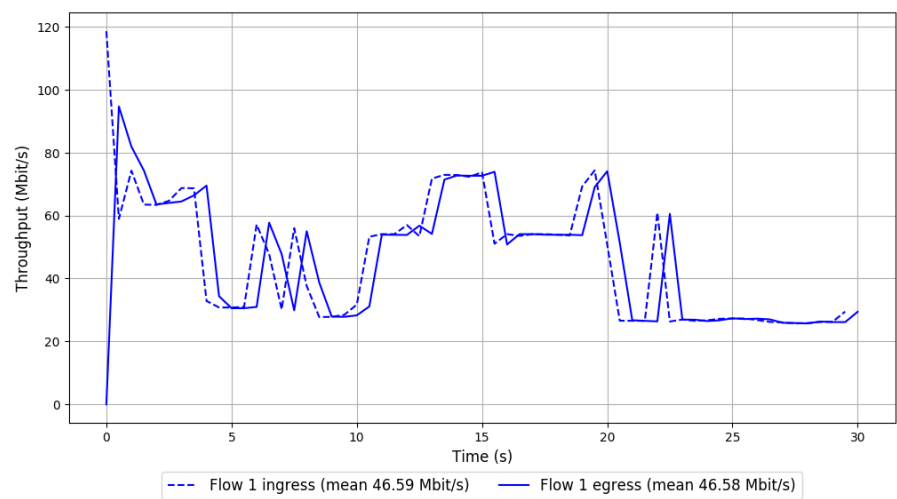
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-07-18 05:36:13
End at: 2019-07-18 05:36:43
Local clock offset: -6.117 ms
Remote clock offset: 0.359 ms


# Below is generated by plot.py at 2019-07-18 07:17:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.66 Mbit/s
95th percentile per-packet one-way delay: 12.052 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 79.66 Mbit/s
95th percentile per-packet one-way delay: 12.052 ms
Loss rate: 0.02%
```
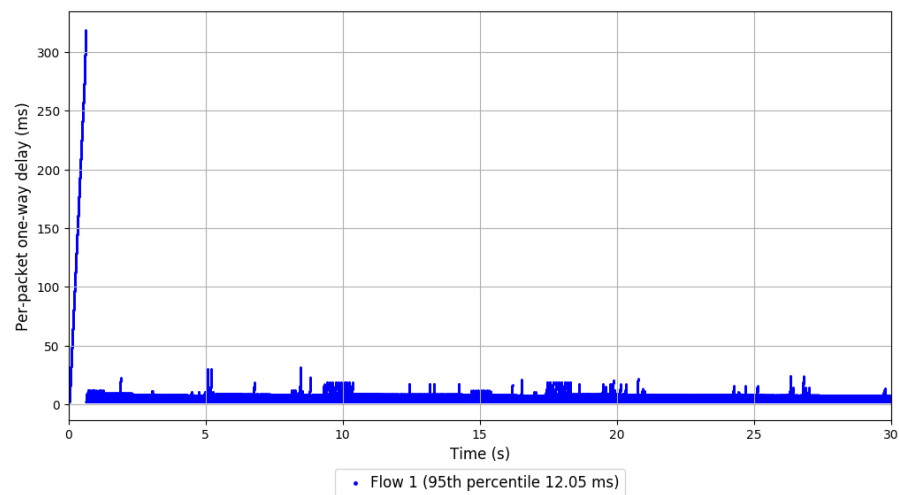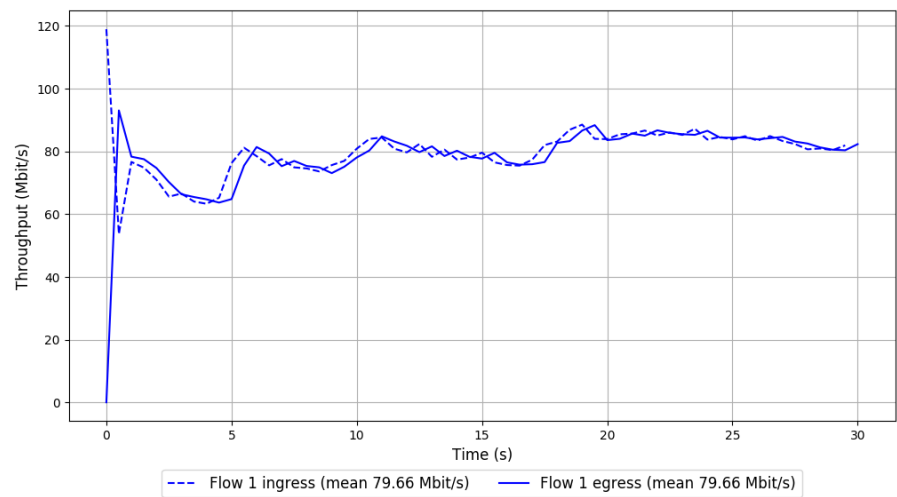
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-07-18 06:03:15
End at: 2019-07-18 06:03:45
Local clock offset: -6.428 ms
Remote clock offset: 0.6 ms


# Below is generated by plot.py at 2019-07-18 07:17:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.11 Mbit/s
95th percentile per-packet one-way delay: 14.744 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.11 Mbit/s
95th percentile per-packet one-way delay: 14.744 ms
Loss rate: 0.02%
```
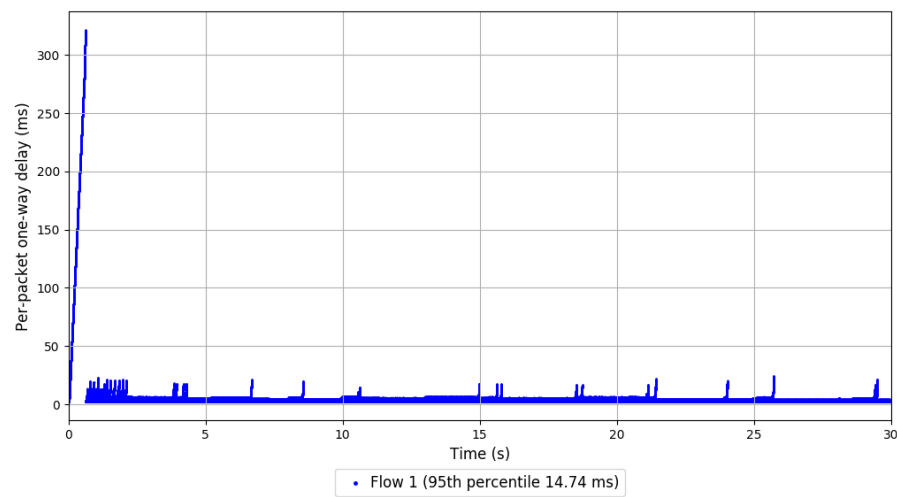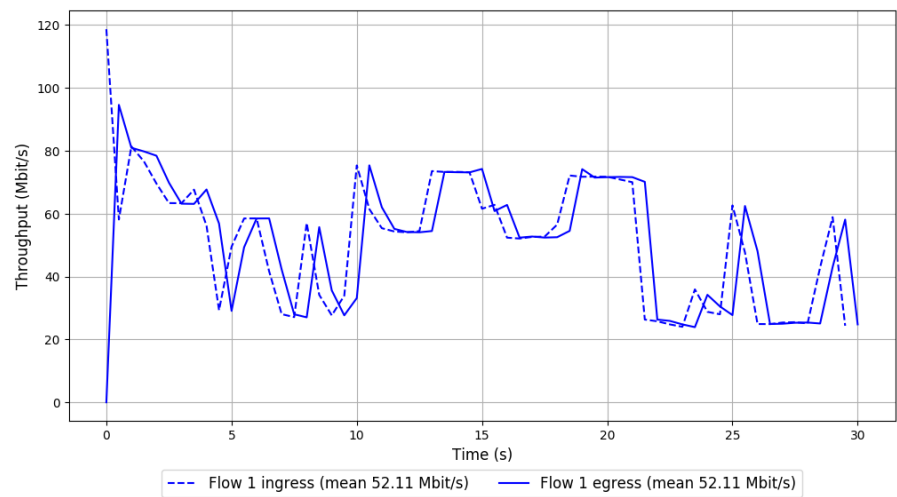
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-07-18 06:30:14
End at: 2019-07-18 06:30:44
Local clock offset: -7.033 ms
Remote clock offset: 0.683 ms

# Below is generated by plot.py at 2019-07-18 07:17:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.01 Mbit/s
95th percentile per-packet one-way delay: 14.695 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 47.01 Mbit/s
95th percentile per-packet one-way delay: 14.695 ms
Loss rate: 0.04%
```
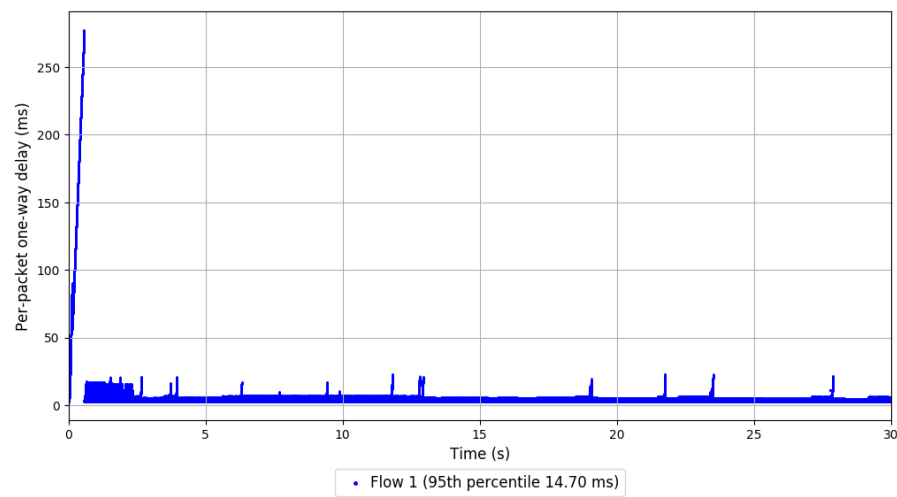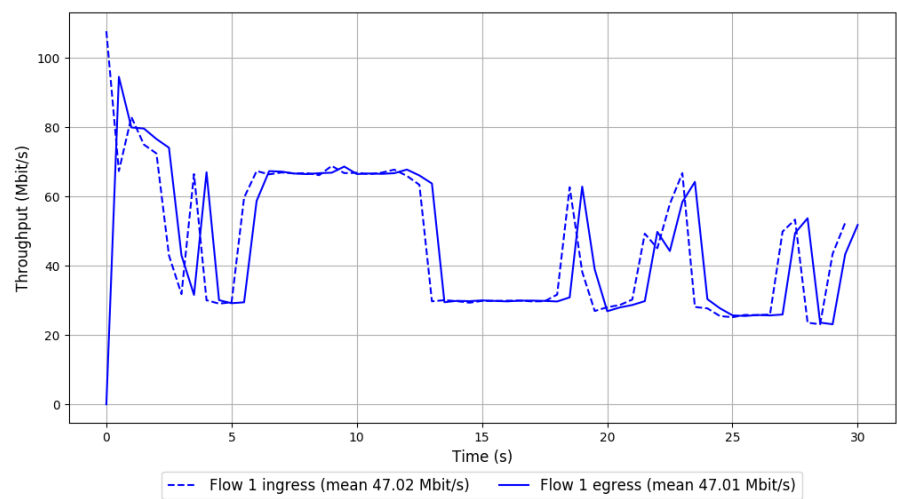
Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 47.02 Mbit/s)   Flow 1 egress (mean 47.01 Mbit/s)

Flow 1 (95th percentile 14.70 ms)

```
Run 5: Statistics of Verus

Start at: 2019-07-18 06:57:13
End at: 2019-07-18 06:57:43
Local clock offset: -7.93 ms
Remote clock offset: 0.837 ms


# Below is generated by plot.py at 2019-07-18 07:17:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.43 Mbit/s
95th percentile per-packet one-way delay: 14.435 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 77.43 Mbit/s
95th percentile per-packet one-way delay: 14.435 ms
Loss rate: 0.04%
```
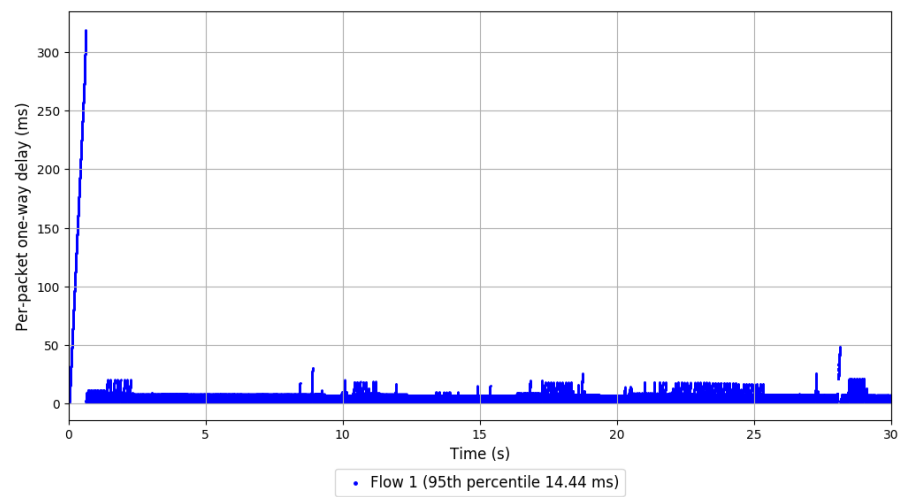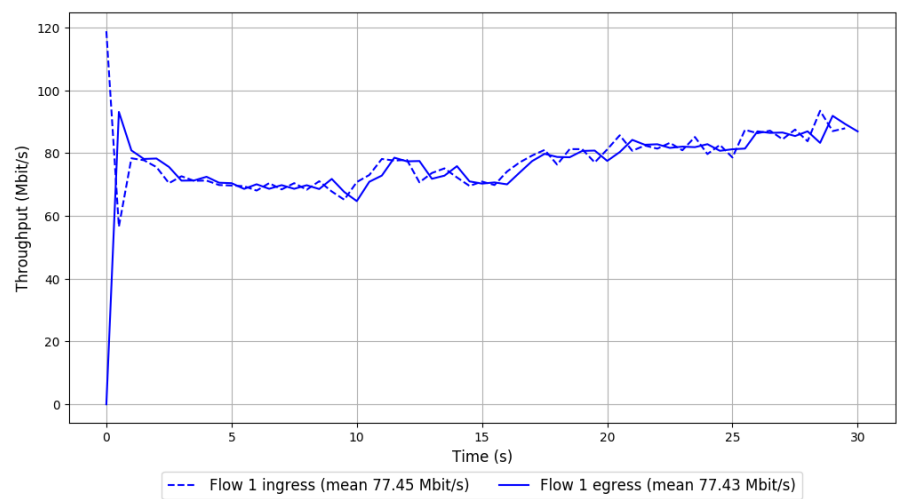
Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 77.45 Mbit/s)   Flow 1 egress (mean 77.43 Mbit/s)

Flow 1 (95th percentile 14.44 ms)

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-07-18 05:07:02
End at: 2019-07-18 05:07:32
Local clock offset: -6.348 ms
Remote clock offset: 0.043 ms


# Below is generated by plot.py at 2019-07-18 07:17:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 18.04 Mbit/s
95th percentile per-packet one-way delay: 2.527 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 18.04 Mbit/s
95th percentile per-packet one-way delay: 2.527 ms
Loss rate: 0.01%
```
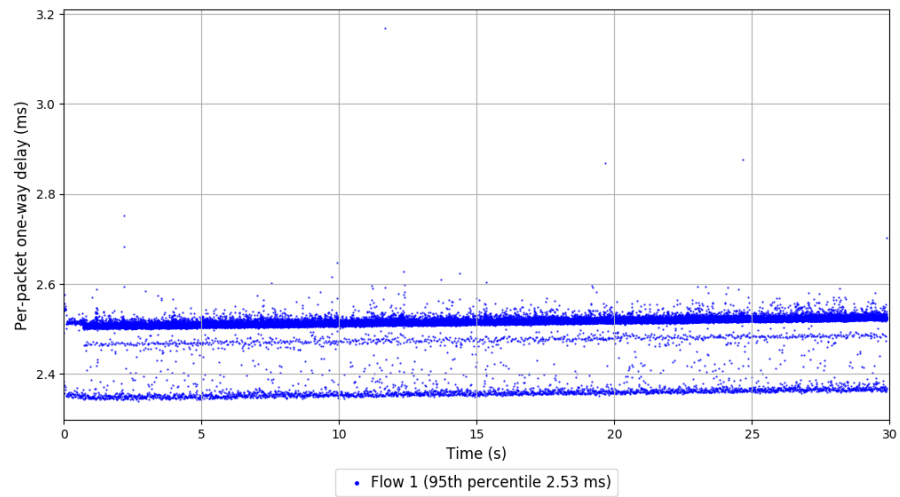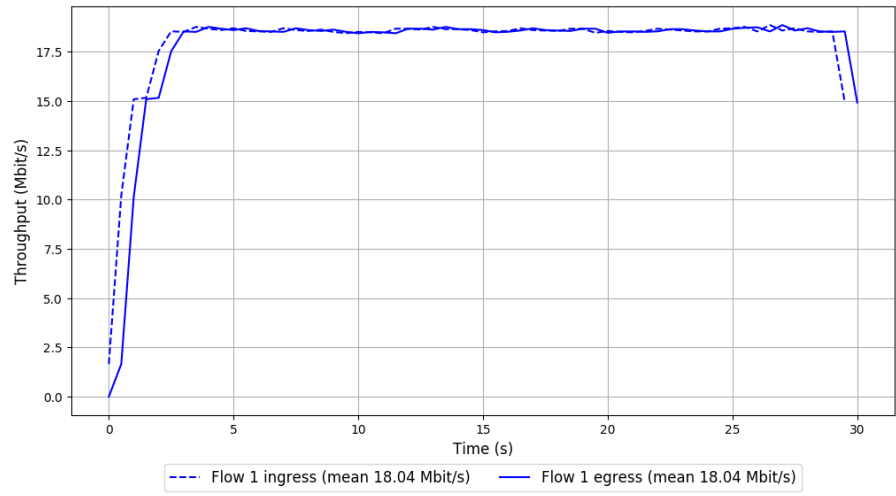
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-07-18 05:33:59
End at: 2019-07-18 05:34:29
Local clock offset: -5.989 ms
Remote clock offset: 0.454 ms


# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.54 Mbit/s
95th percentile per-packet one-way delay: 2.458 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 85.54 Mbit/s
95th percentile per-packet one-way delay: 2.458 ms
Loss rate: 0.01%
```
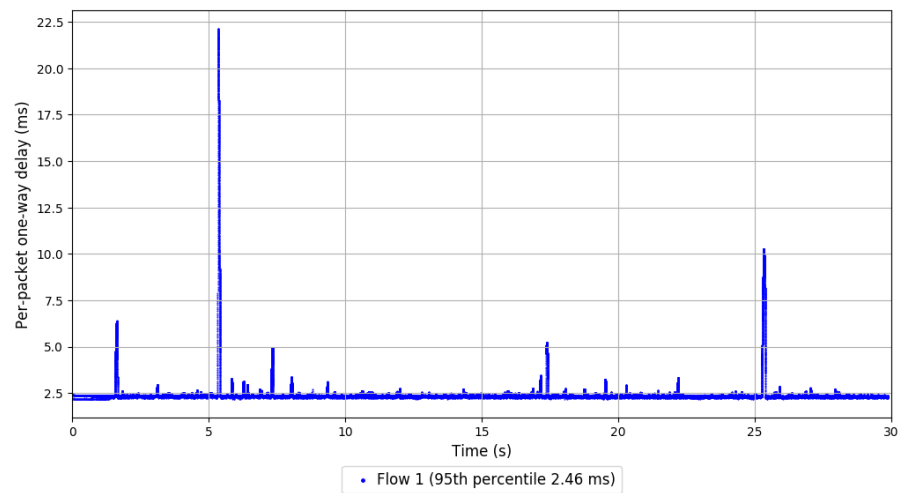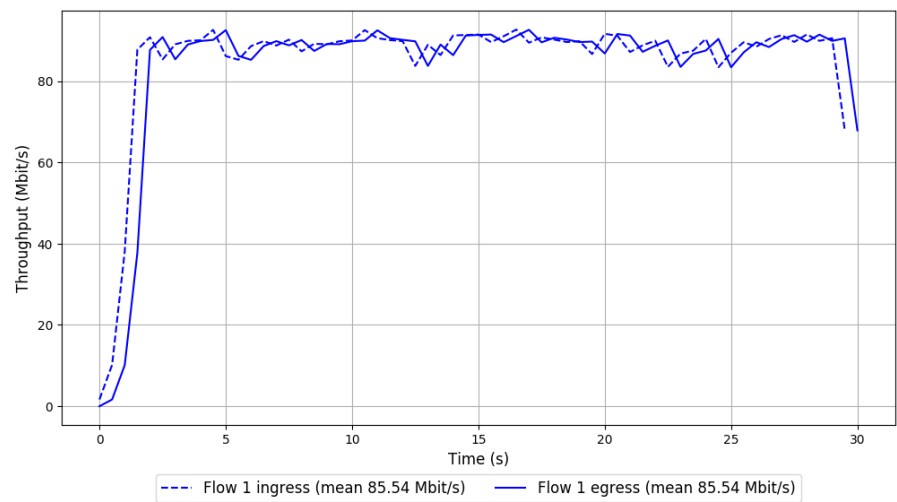
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-07-18 06:01:00
End at: 2019-07-18 06:01:31
Local clock offset: -7.056 ms
Remote clock offset: 0.664 ms

# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.24 Mbit/s
95th percentile per-packet one-way delay: 2.135 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 89.24 Mbit/s
95th percentile per-packet one-way delay: 2.135 ms
Loss rate: 0.01%
```
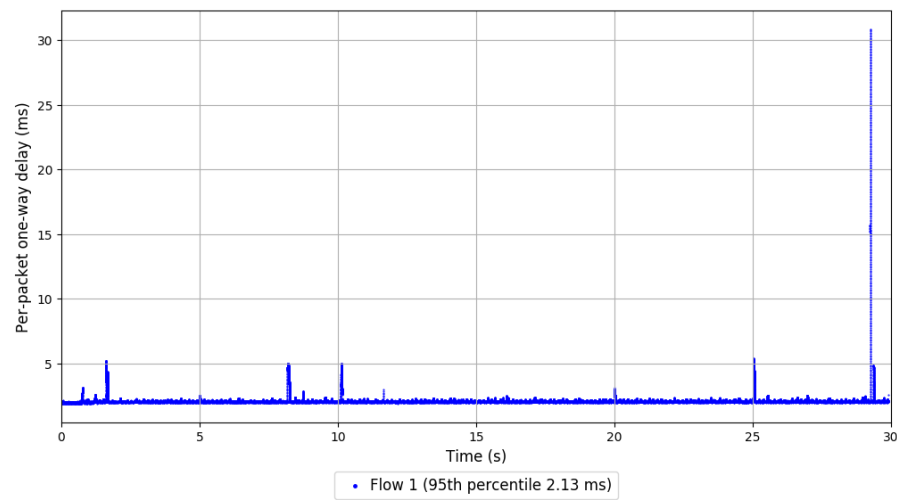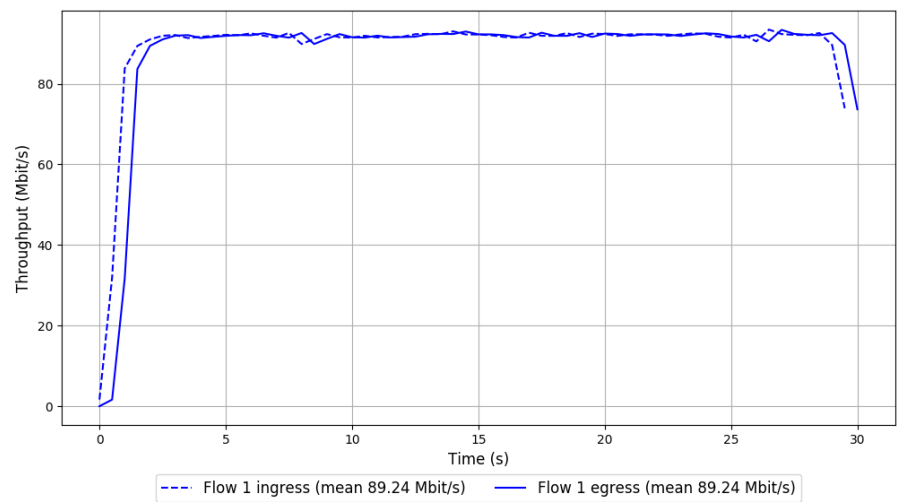
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 89.24 Mbit/s)　　Flow 1 egress (mean 89.24 Mbit/s)

Flow 1 (95th percentile 2.13 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-07-18 06:28:04
End at: 2019-07-18 06:28:34
Local clock offset: -8.111 ms
Remote clock offset: 0.785 ms


# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 18.24 Mbit/s
95th percentile per-packet one-way delay: 1.293 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 18.24 Mbit/s
95th percentile per-packet one-way delay: 1.293 ms
Loss rate: 0.01%
```
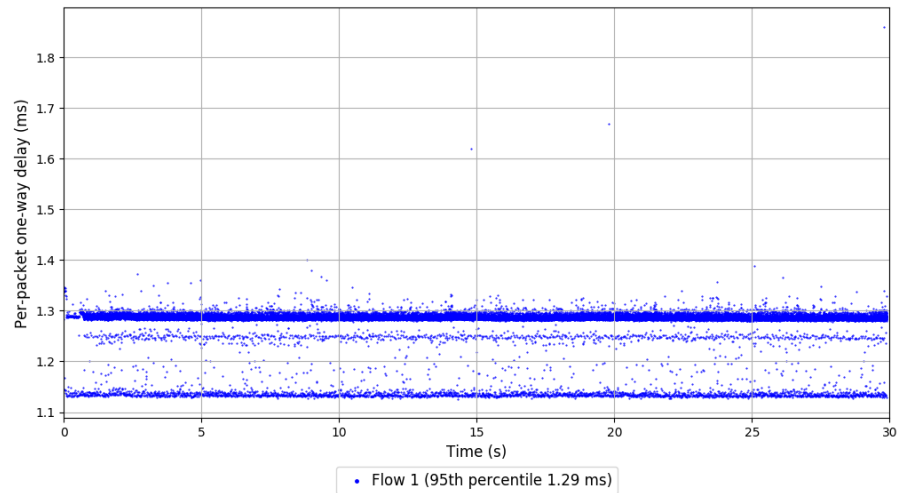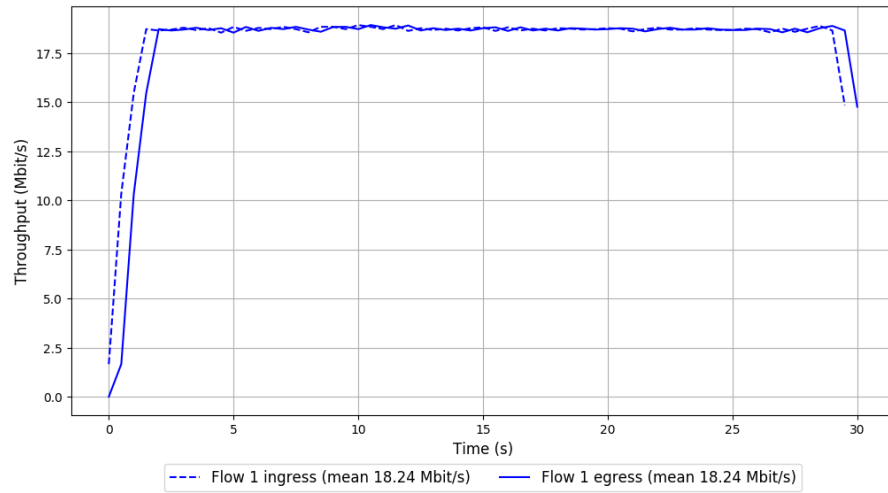
Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-07-18 06:55:02
End at: 2019-07-18 06:55:32
Local clock offset: -7.118 ms
Remote clock offset: 0.751 ms


# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 18.22 Mbit/s
95th percentile per-packet one-way delay: 2.454 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 18.22 Mbit/s
95th percentile per-packet one-way delay: 2.454 ms
Loss rate: 0.01%
```
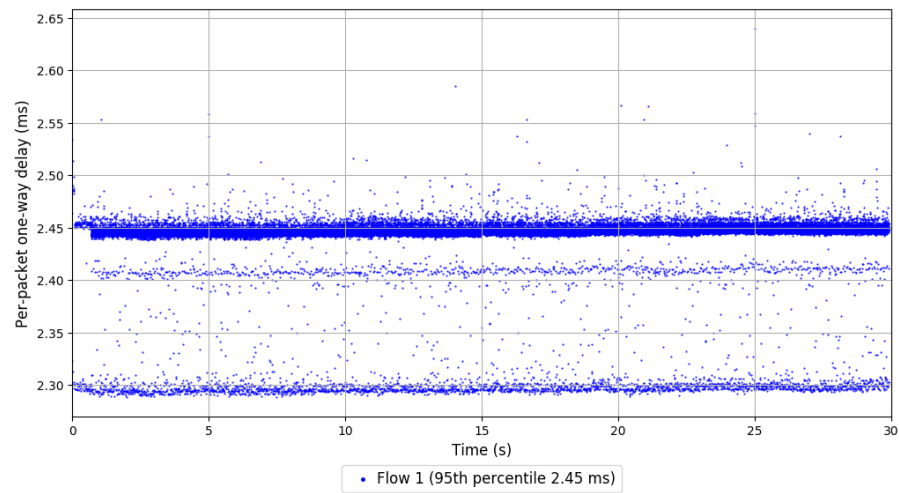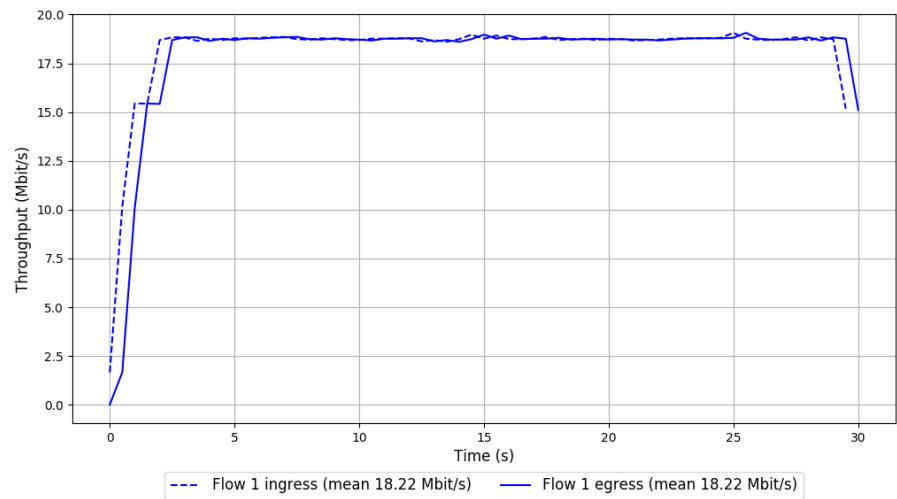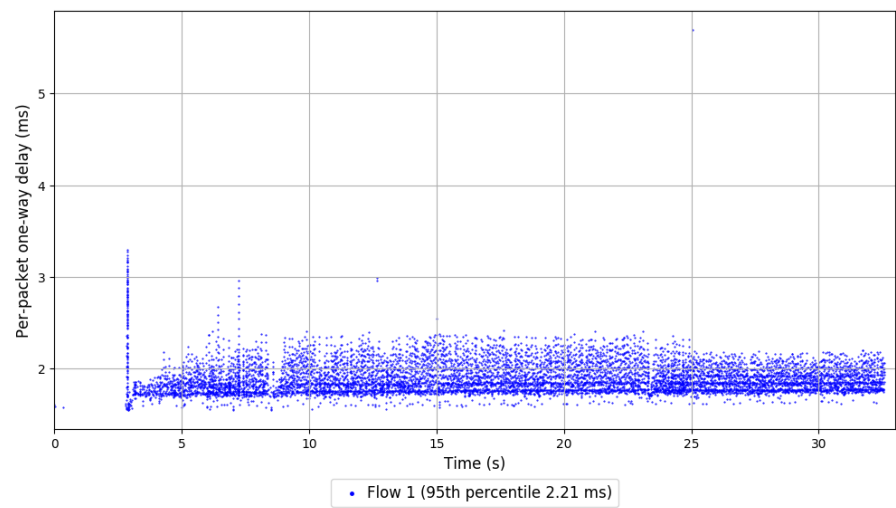
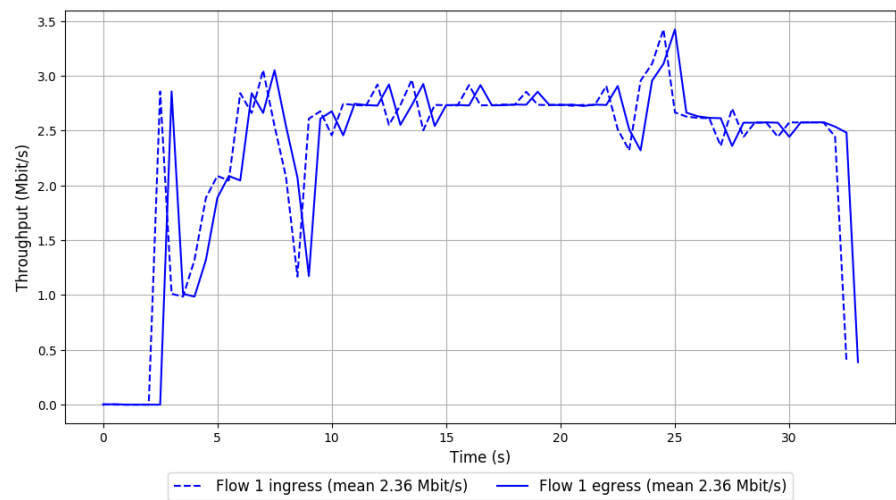Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-07-18 04:55:40
End at: 2019-07-18 04:56:10
Local clock offset: -6.597 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 2.214 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 2.214 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-07-18 05:22:42
End at: 2019-07-18 05:23:12
Local clock offset: -7.426 ms
Remote clock offset: 0.333 ms


# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 2.032 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 2.032 ms
Loss rate: 0.00%
```
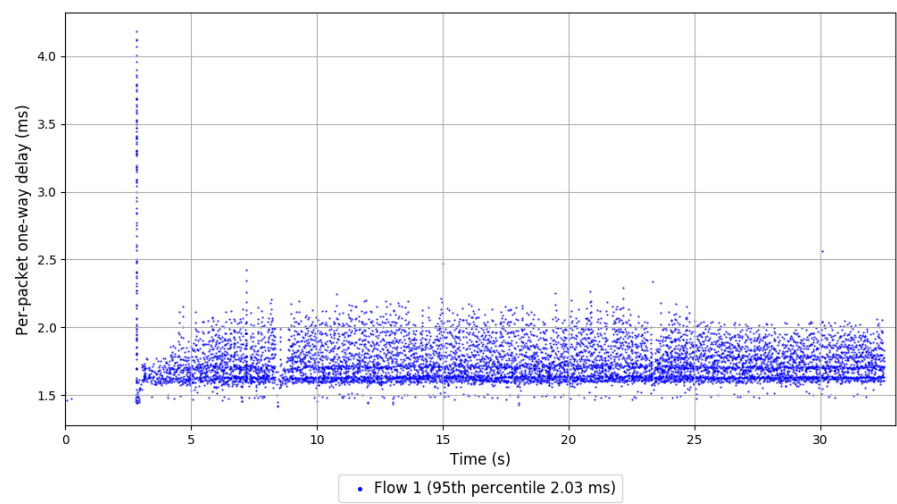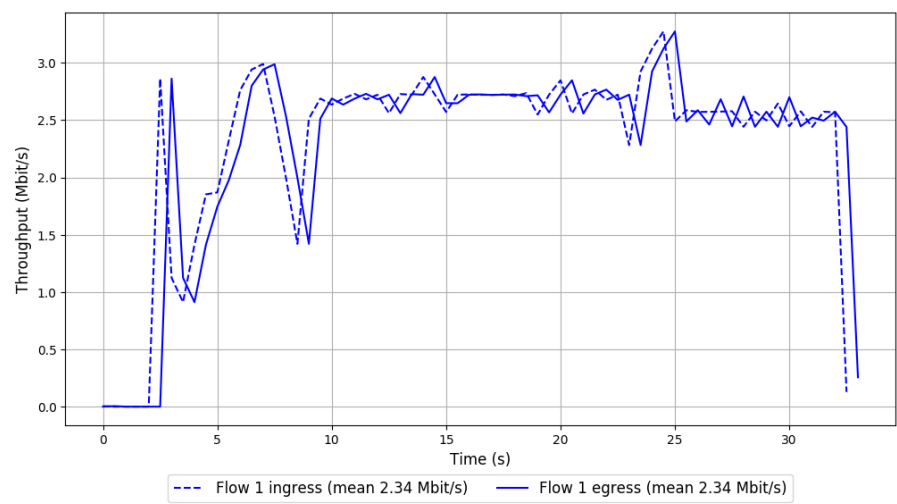
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-07-18 05:49:43
End at: 2019-07-18 05:50:13
Local clock offset: -6.644 ms
Remote clock offset: 0.612 ms


# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 1.848 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 1.848 ms
Loss rate: 0.00%
```
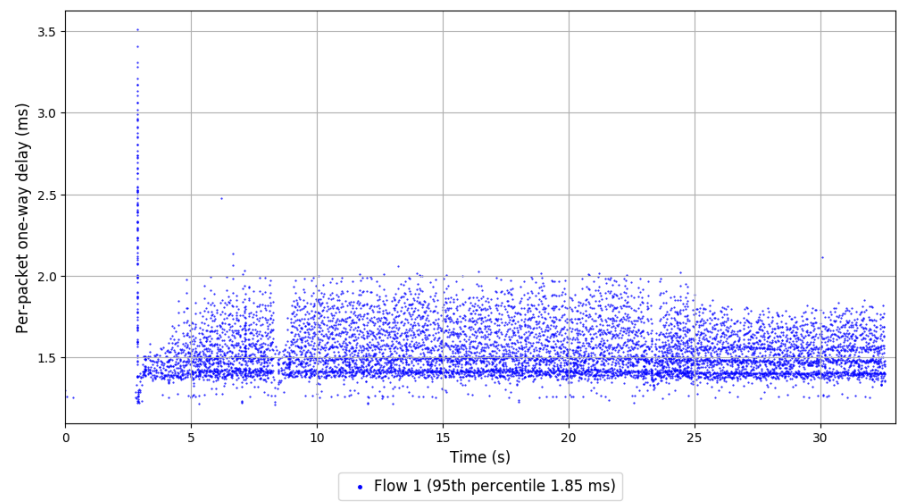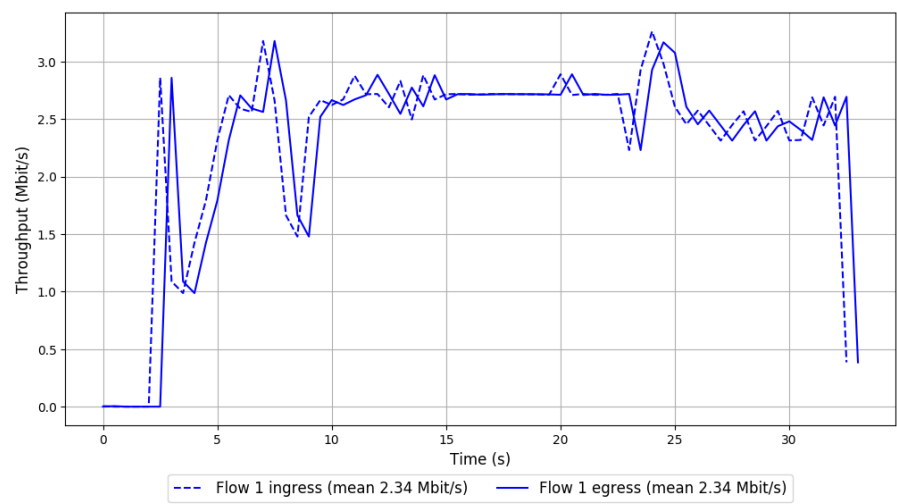
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-07-18 06:16:43
End at: 2019-07-18 06:17:13
Local clock offset: -7.722 ms
Remote clock offset: 0.648 ms


# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 2.149 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 2.149 ms
Loss rate: 0.00%
```
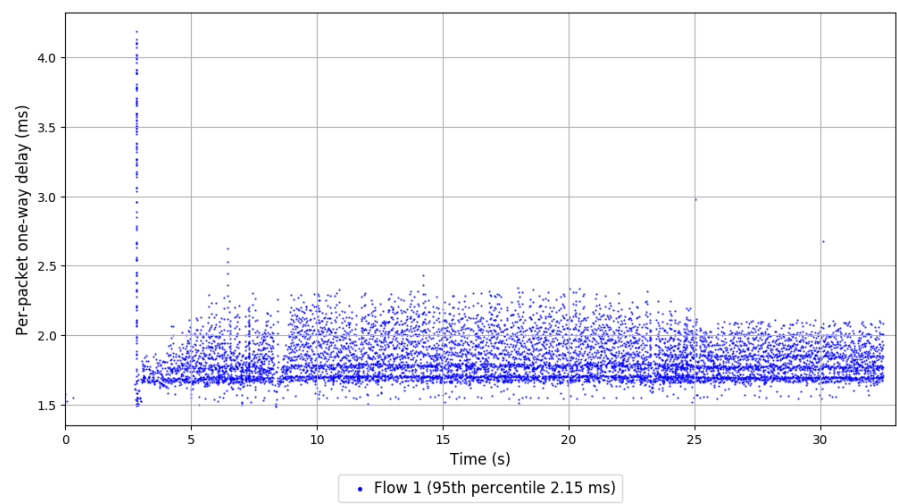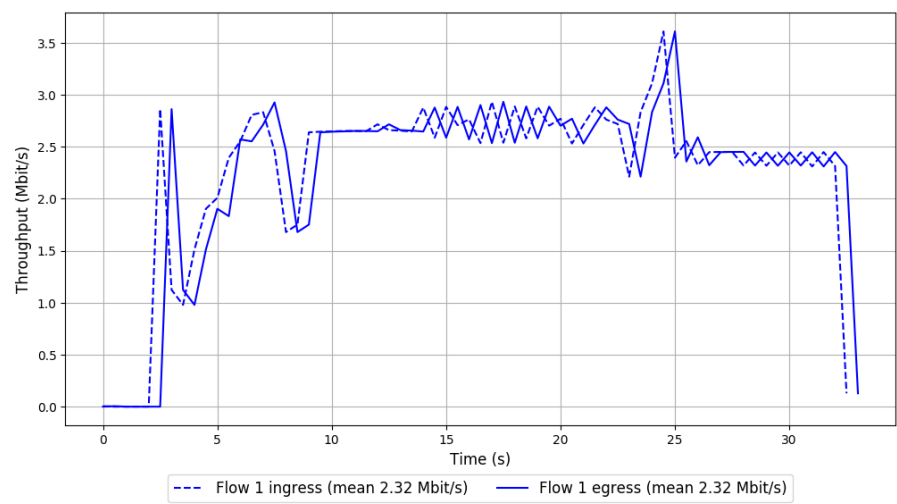
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-07-18 06:43:43
End at: 2019-07-18 06:44:13
Local clock offset: -7.245 ms
Remote clock offset: 0.784 ms


# Below is generated by plot.py at 2019-07-18 07:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 2.708 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 2.708 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link