Pantheon Report

Generated at 2019-06-27 22:15:40 (UTC).

Data path: GCE Iowa on ens4 (*remote*) →GCE Sydney on ens4 (*local*).

Repeated the test of 22 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against time.google.com and have been applied to correct the timestamps in logs.
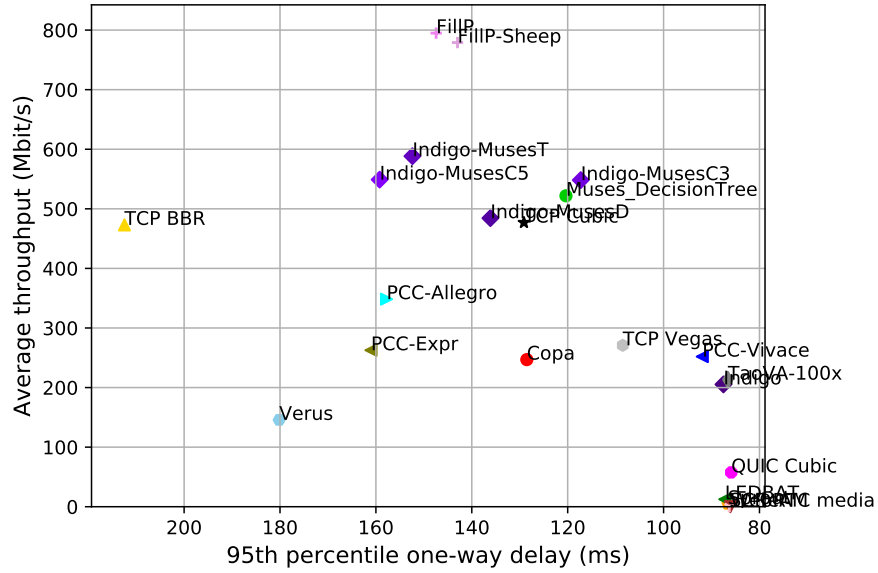
```
System info:
Linux 4.15.0-1032-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```
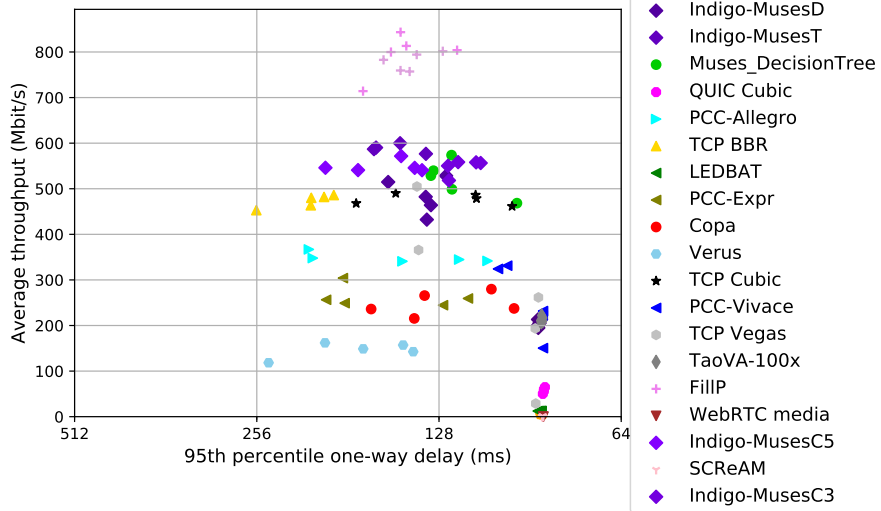
```
Git summary:
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
 M helpers/__init__.pyc
 M helpers/context.pyc
 M helpers/utils.pyc
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
```

```
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from GCE Iowa to GCE Sydney, 5 runs of 30s each per scheme
(mean of all runs by scheme)

test from GCE Iowa to GCE Sydney, 5 runs of 30s each per scheme

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scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	473.02	212.44	2.52
Copa	5	246.90	128.53	0.65
TCP Cubic	5	476.90	129.12	0.58
FillP	5	794.95	147.43	2.51
FillP-Sheep	5	779.04	142.98	1.21
Indigo	5	205.28	87.52	0.66
Indigo-MusesC3	5	548.24	117.27	0.68
Indigo-MusesC5	5	549.01	159.22	1.15
Indigo-MusesD	5	484.35	136.12	0.80
Indigo-MusesT	4	588.40	152.38	0.93
LEDBAT	5	12.45	87.23	1.15
Muses_DecisionTree	5	521.86	120.36	0.80
PCC-Allegro	5	348.38	157.78	1.62
PCC-Expr	5	262.64	161.03	1.46
QUIC Cubic	4	57.62	85.89	0.93
SCReAM	5	0.22	86.30	0.64
Sprout	5	4.36	86.60	0.64
TaoVA-100x	5	213.23	86.59	0.63
TCP Vegas	5	270.92	108.52	0.47
Verus	5	145.74	180.18	3.18
PCC-Vivace	5	251.97	91.93	0.90
WebRTC media	2	0.05	86.07	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-06-27 17:55:49
End at: 2019-06-27 17:56:19
Local clock offset: -0.09 ms
Remote clock offset: 0.199 ms


# Below is generated by plot.py at 2019-06-27 20:42:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 453.01 Mbit/s
95th percentile per-packet one-way delay: 256.460 ms
Loss rate: 4.54%
-- Flow 1:
Average throughput: 453.01 Mbit/s
95th percentile per-packet one-way delay: 256.460 ms
Loss rate: 4.54%
```
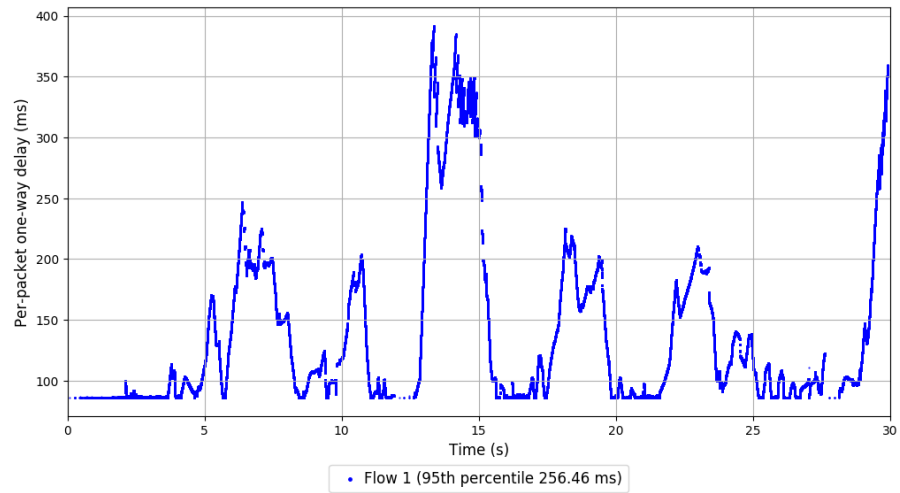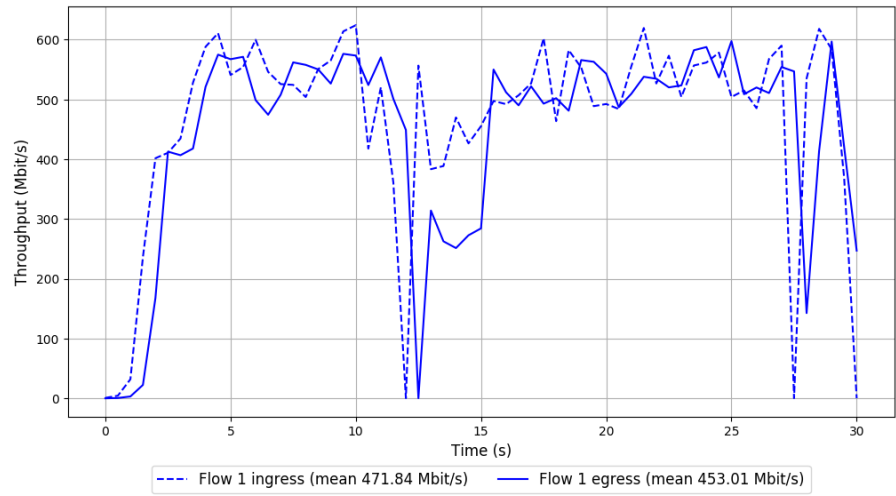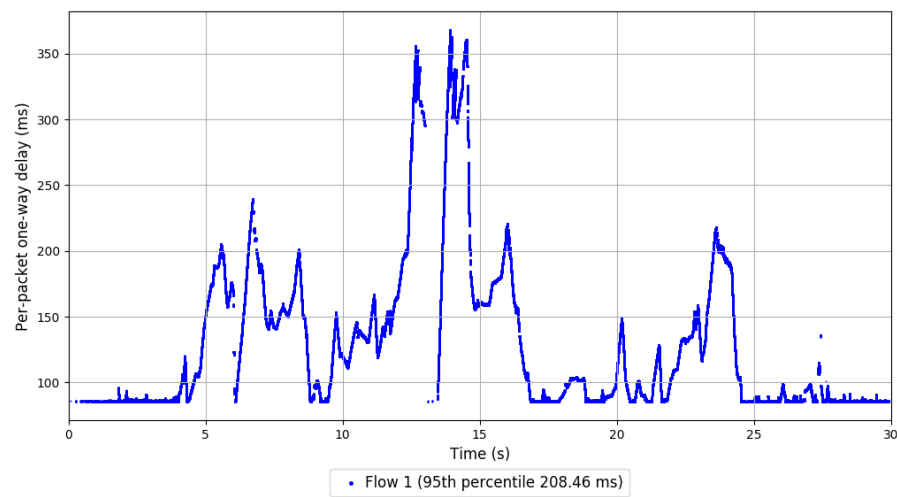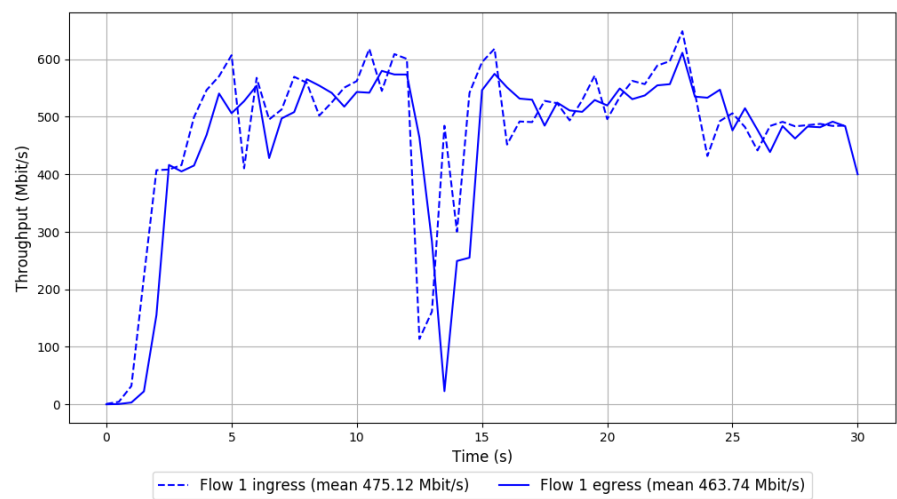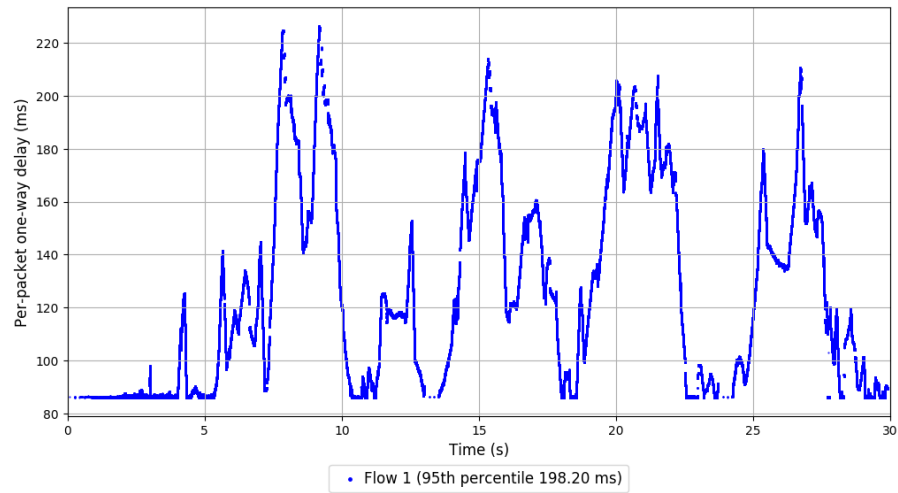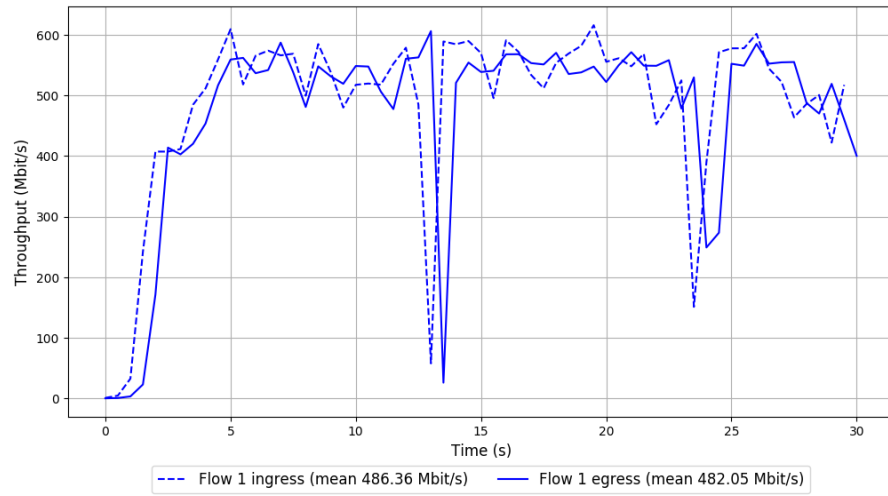
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 471.84 Mbit/s)   Flow 1 egress (mean 453.01 Mbit/s)

Flow 1 (95th percentile 256.46 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2019-06-27 18:28:02
End at: 2019-06-27 18:28:32
Local clock offset: -0.428 ms
Remote clock offset: 0.371 ms


# Below is generated by plot.py at 2019-06-27 20:42:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 463.74 Mbit/s
95th percentile per-packet one-way delay: 208.460 ms
Loss rate: 2.96%
-- Flow 1:
Average throughput: 463.74 Mbit/s
95th percentile per-packet one-way delay: 208.460 ms
Loss rate: 2.96%
```
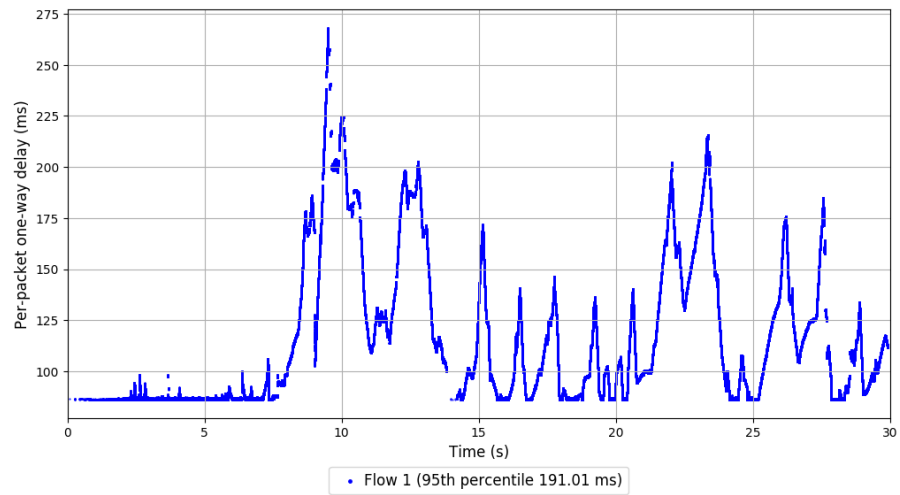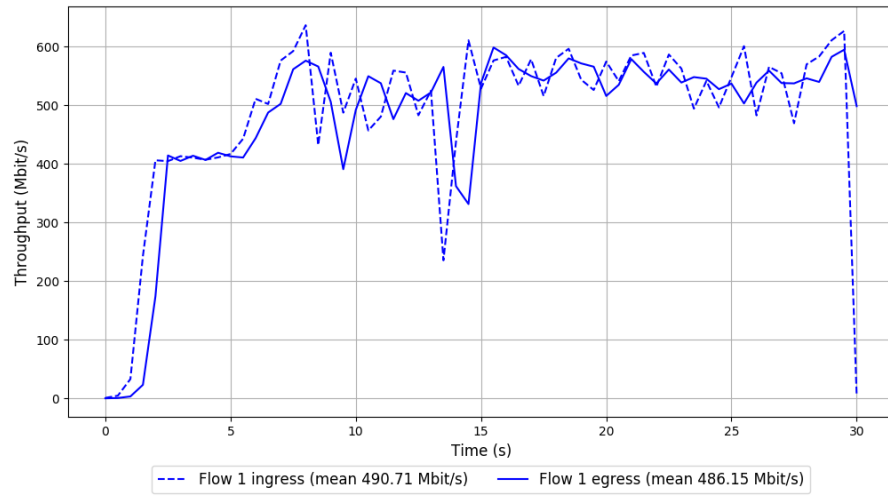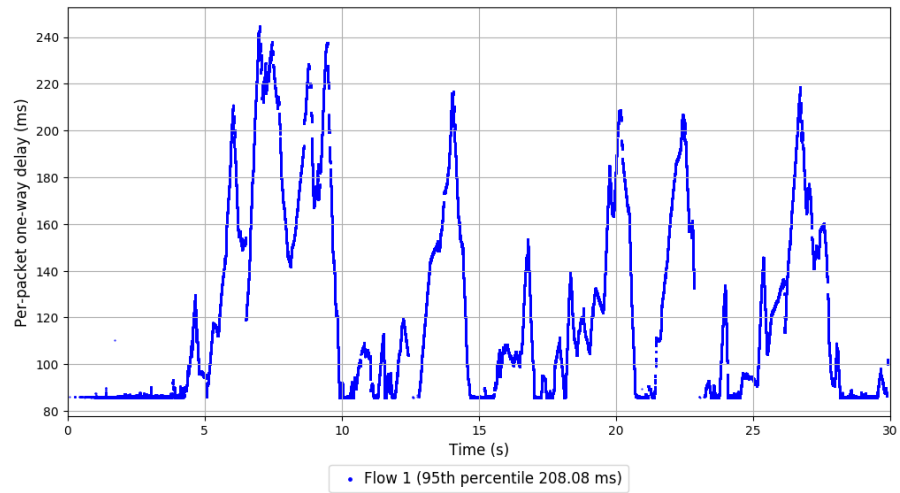
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-06-27 19:00:42
End at: 2019-06-27 19:01:12
Local clock offset: 0.093 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2019-06-27 20:42:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 482.05 Mbit/s
95th percentile per-packet one-way delay: 198.201 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 482.05 Mbit/s
95th percentile per-packet one-way delay: 198.201 ms
Loss rate: 1.46%
```
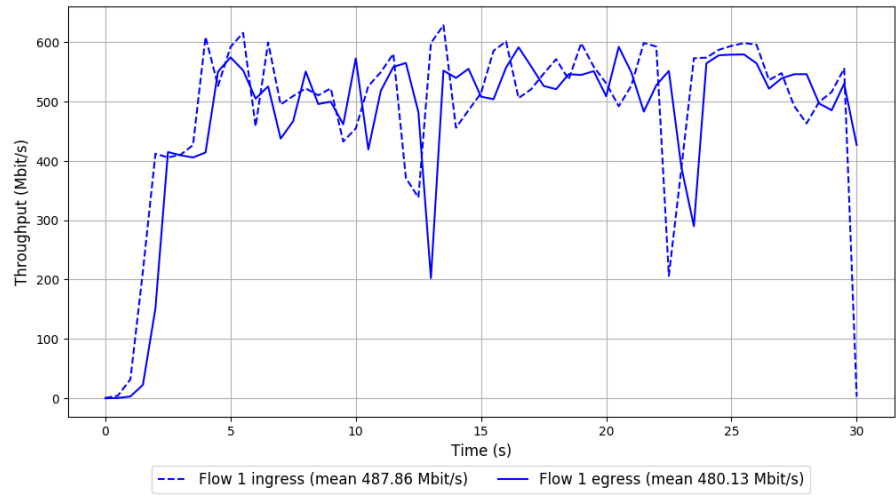
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 486.36 Mbit/s)   Flow 1 egress (mean 482.05 Mbit/s)

Flow 1 (95th percentile 198.20 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-06-27 19:33:05
End at: 2019-06-27 19:33:35
Local clock offset: 0.413 ms
Remote clock offset: 0.022 ms


# Below is generated by plot.py at 2019-06-27 20:42:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 486.15 Mbit/s
95th percentile per-packet one-way delay: 191.011 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 486.15 Mbit/s
95th percentile per-packet one-way delay: 191.011 ms
Loss rate: 1.50%
```
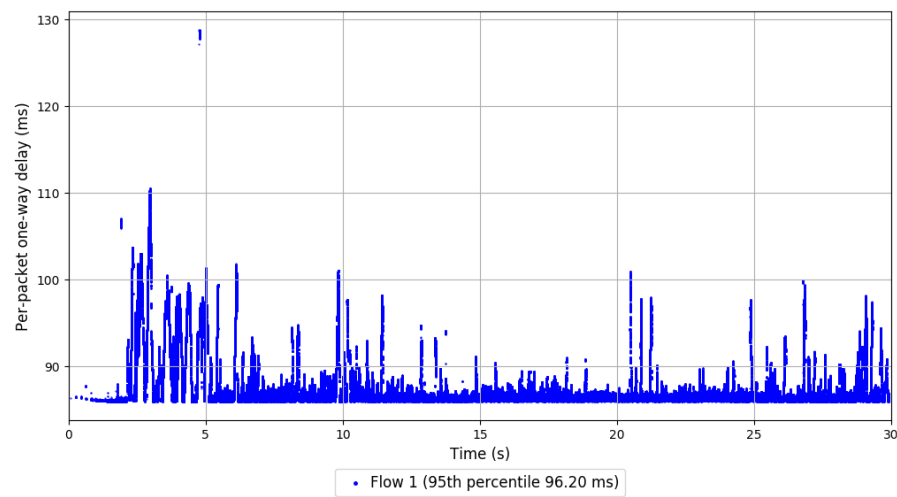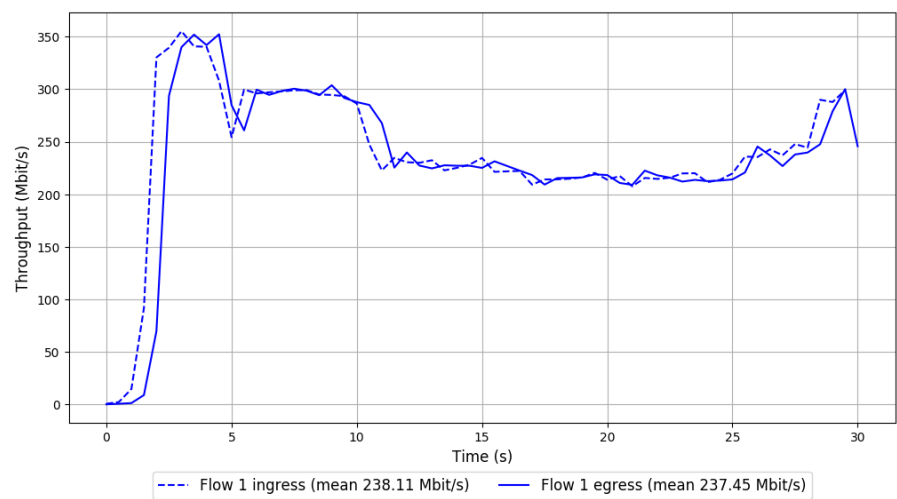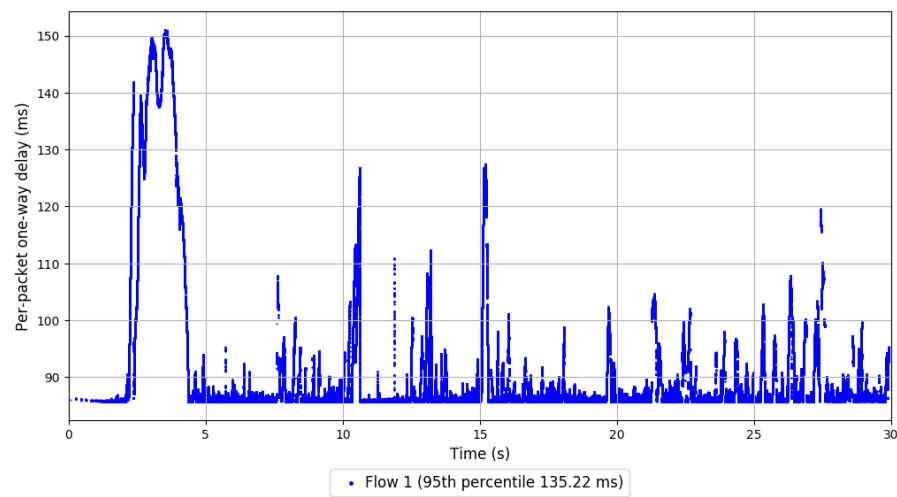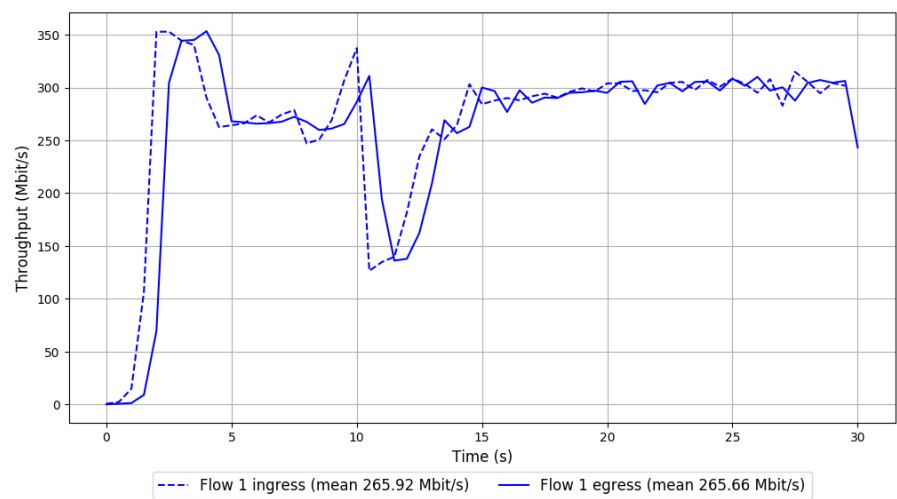
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 490.71 Mbit/s) —— Flow 1 egress (mean 486.15 Mbit/s)

• Flow 1 (95th percentile 191.01 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-06-27 20:05:24
End at: 2019-06-27 20:05:54
Local clock offset: -0.428 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2019-06-27 20:42:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 480.13 Mbit/s
95th percentile per-packet one-way delay: 208.084 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 480.13 Mbit/s
95th percentile per-packet one-way delay: 208.084 ms
Loss rate: 2.15%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 487.86 Mbit/s)   Flow 1 egress (mean 480.13 Mbit/s)

· Flow 1 (95th percentile 208.08 ms)

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```
Run 1: Statistics of Copa

Start at: 2019-06-27 17:51:25
End at: 2019-06-27 17:51:55
Local clock offset: 0.164 ms
Remote clock offset: 0.138 ms

# Below is generated by plot.py at 2019-06-27 20:42:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 237.45 Mbit/s
95th percentile per-packet one-way delay: 96.202 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 237.45 Mbit/s
95th percentile per-packet one-way delay: 96.202 ms
Loss rate: 0.85%
```
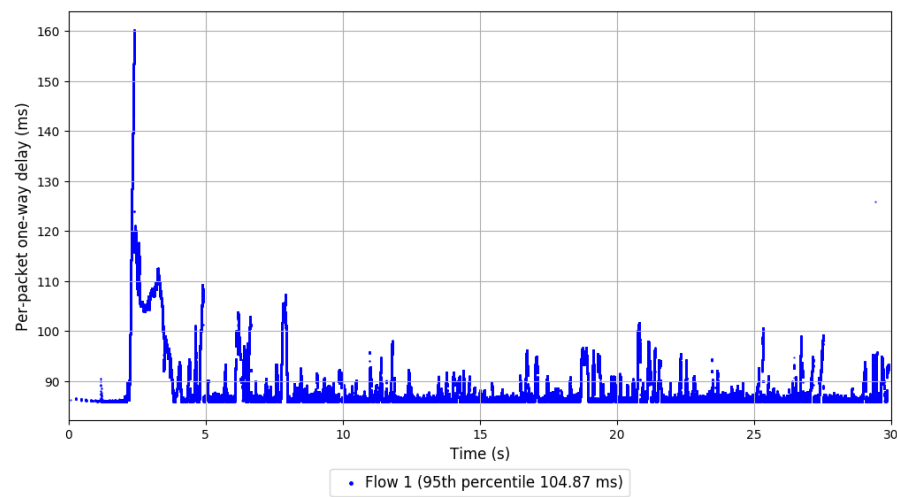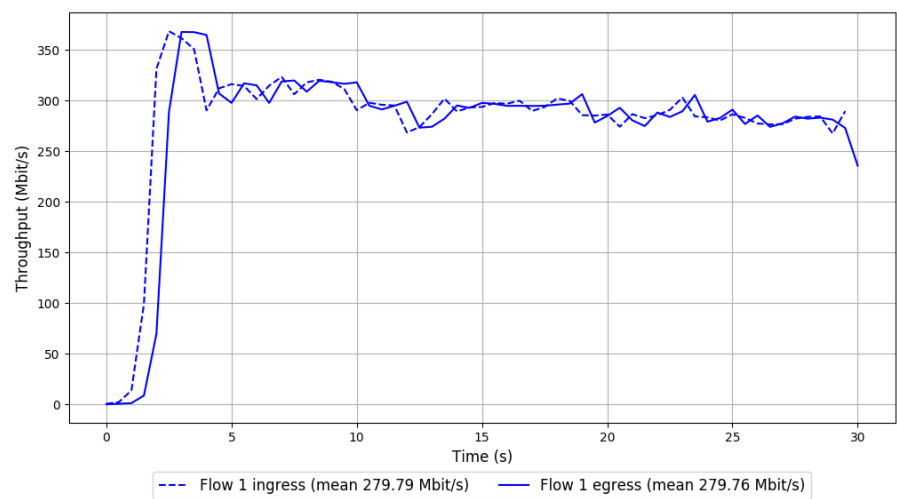
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-06-27 18:23:18
End at: 2019-06-27 18:23:48
Local clock offset: -0.058 ms
Remote clock offset: 0.311 ms

# Below is generated by plot.py at 2019-06-27 20:42:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 265.66 Mbit/s
95th percentile per-packet one-way delay: 135.223 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 265.66 Mbit/s
95th percentile per-packet one-way delay: 135.223 ms
Loss rate: 0.67%
```
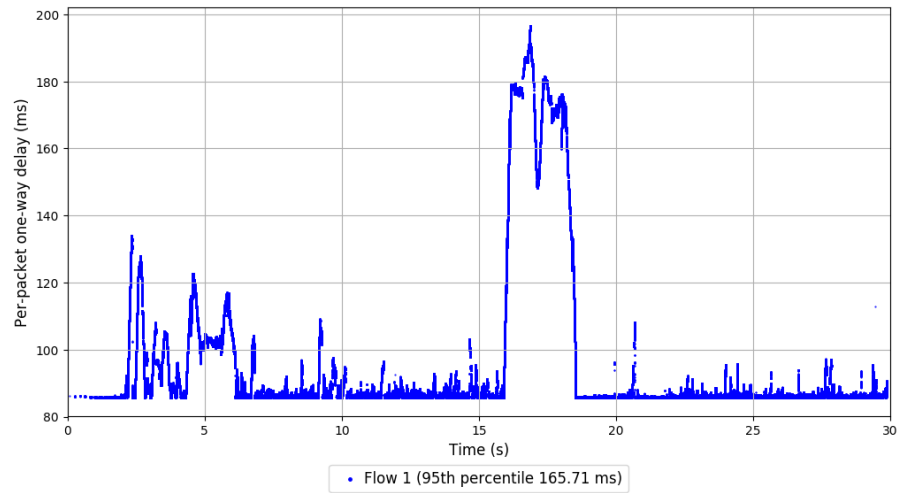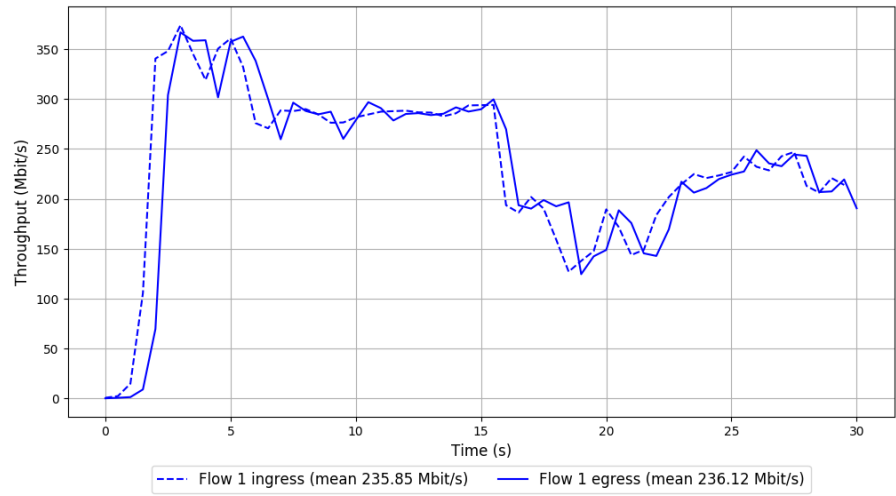
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-06-27 18:55:55
End at: 2019-06-27 18:56:25
Local clock offset: -0.217 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2019-06-27 20:43:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 279.76 Mbit/s
95th percentile per-packet one-way delay: 104.873 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 279.76 Mbit/s
95th percentile per-packet one-way delay: 104.873 ms
Loss rate: 0.59%
```
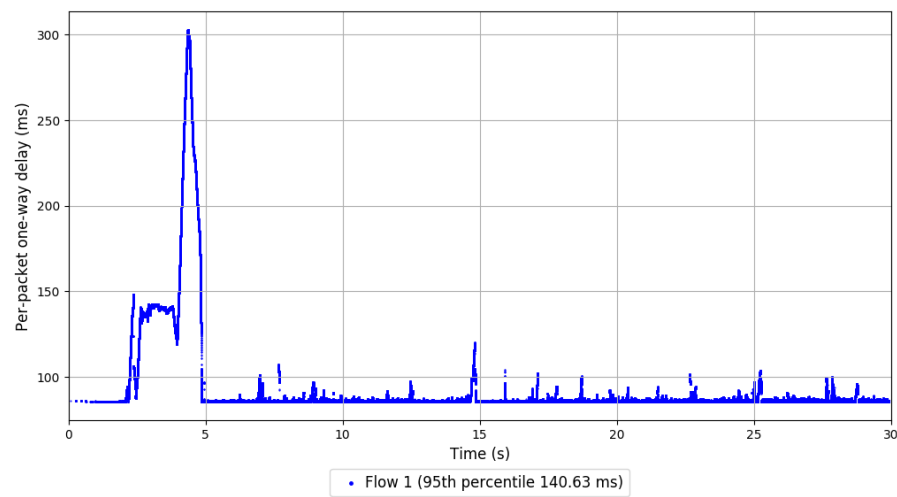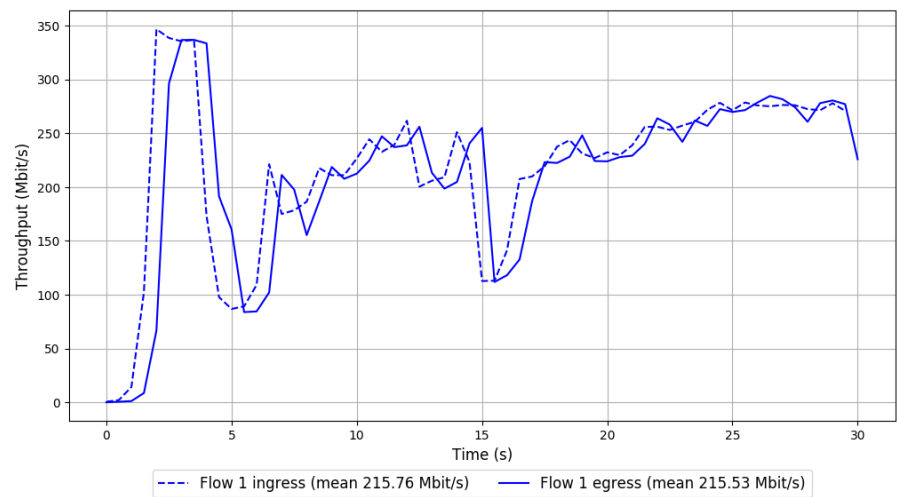
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-06-27 19:28:21
End at: 2019-06-27 19:28:51
Local clock offset: 0.033 ms
Remote clock offset: 0.034 ms


# Below is generated by plot.py at 2019-06-27 20:50:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 236.12 Mbit/s
95th percentile per-packet one-way delay: 165.708 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 236.12 Mbit/s
95th percentile per-packet one-way delay: 165.708 ms
Loss rate: 0.46%
```
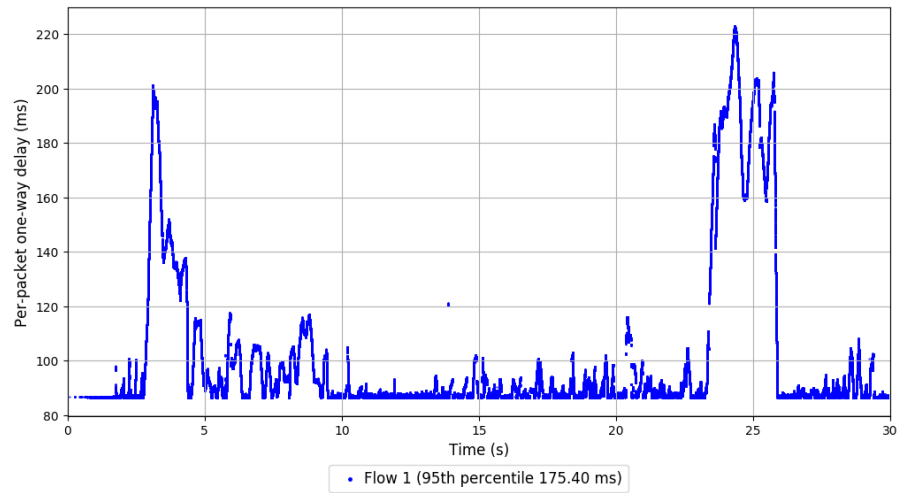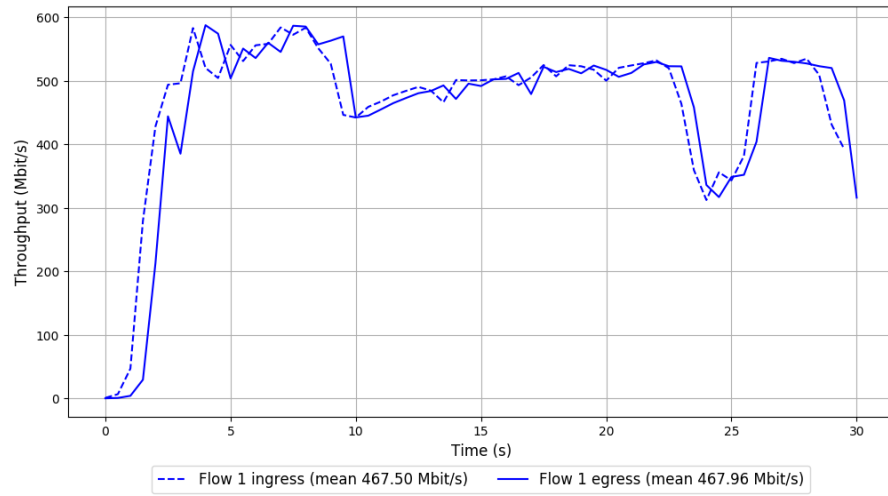
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 235.85 Mbit/s) --- Flow 1 egress (mean 236.12 Mbit/s)

• Flow 1 (95th percentile 165.71 ms)

```
Run 5: Statistics of Copa

Start at: 2019-06-27 20:00:44
End at: 2019-06-27 20:01:14
Local clock offset: -0.327 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-06-27 20:50:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.53 Mbit/s
95th percentile per-packet one-way delay: 140.626 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 215.53 Mbit/s
95th percentile per-packet one-way delay: 140.626 ms
Loss rate: 0.68%
```
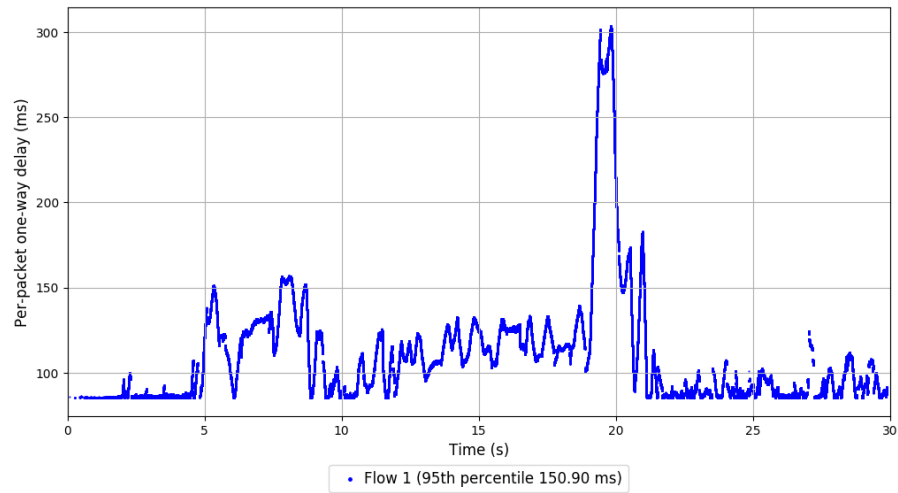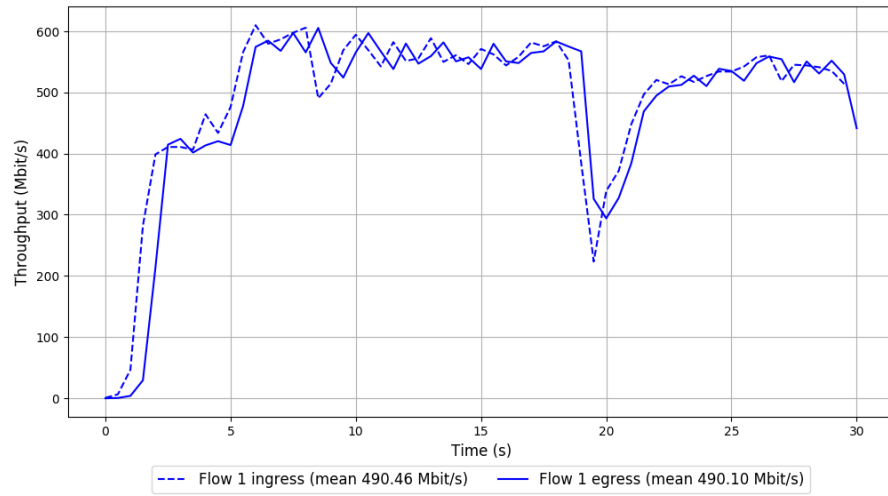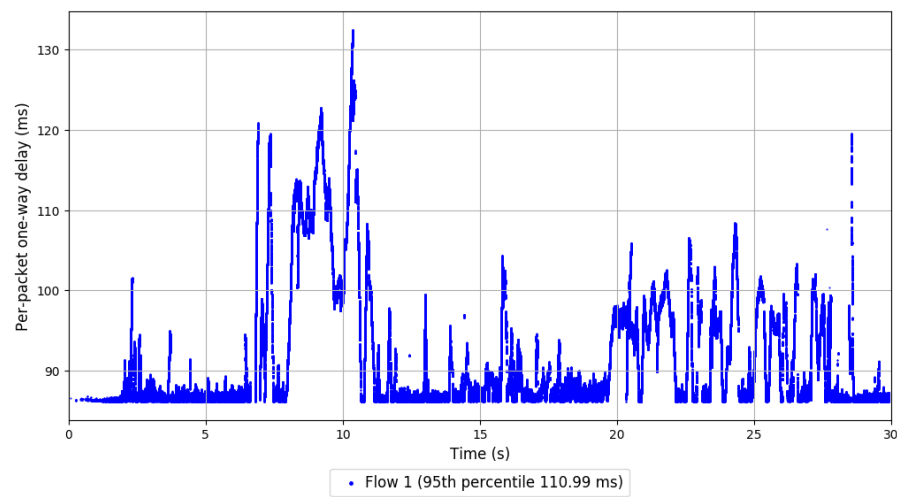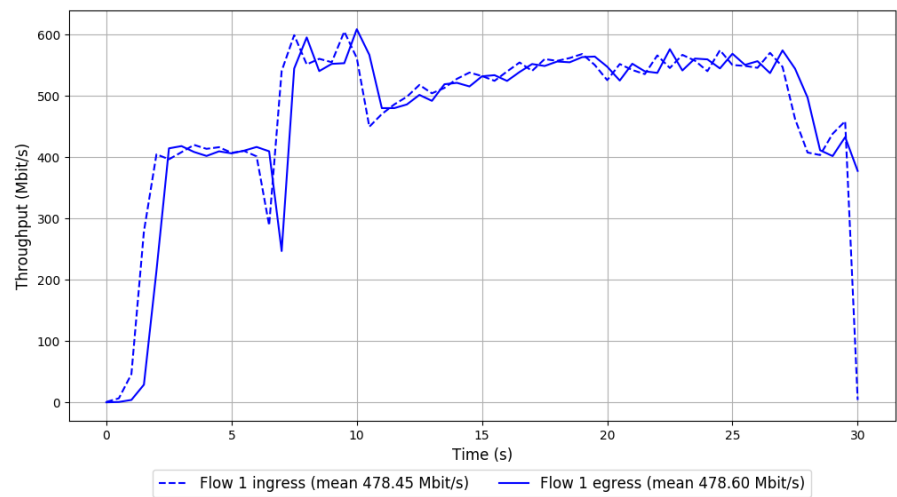
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-06-27 18:07:43
End at: 2019-06-27 18:08:13
Local clock offset: 0.352 ms
Remote clock offset: 0.234 ms


# Below is generated by plot.py at 2019-06-27 20:50:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 467.96 Mbit/s
95th percentile per-packet one-way delay: 175.401 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 467.96 Mbit/s
95th percentile per-packet one-way delay: 175.401 ms
Loss rate: 0.48%
```
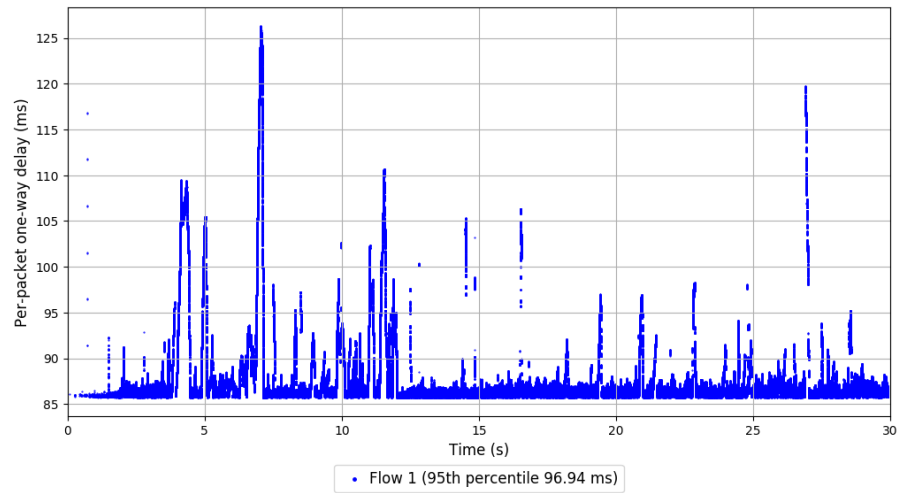
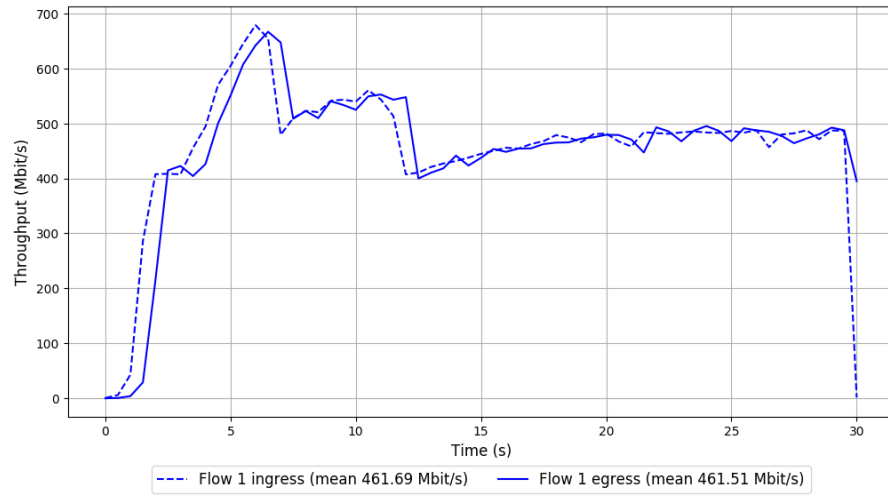Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-06-27 18:40:00
End at: 2019-06-27 18:40:30
Local clock offset: -0.424 ms
Remote clock offset: 0.036 ms


# Below is generated by plot.py at 2019-06-27 20:51:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 490.10 Mbit/s
95th percentile per-packet one-way delay: 150.902 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 490.10 Mbit/s
95th percentile per-packet one-way delay: 150.902 ms
Loss rate: 0.65%
```
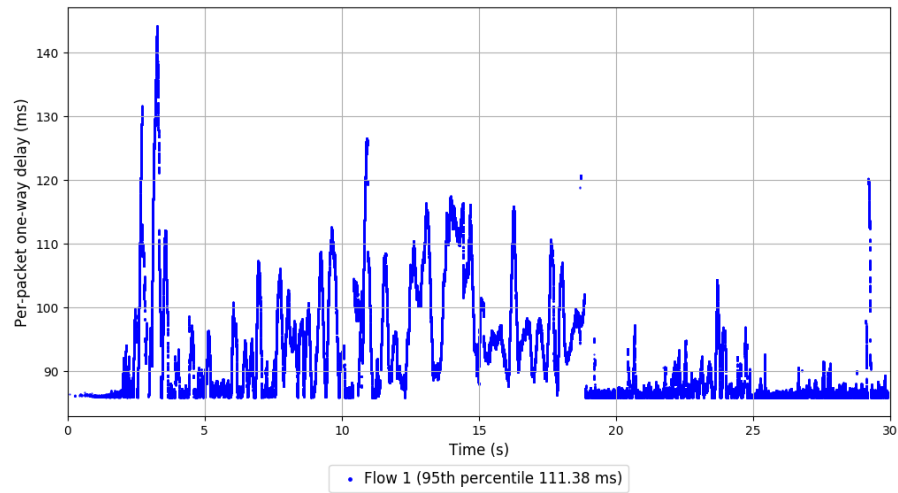
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2019-06-27 19:12:38
End at: 2019-06-27 19:13:08
Local clock offset: 0.38 ms
Remote clock offset: -0.043 ms


# Below is generated by plot.py at 2019-06-27 20:51:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 478.60 Mbit/s
95th percentile per-packet one-way delay: 110.994 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 478.60 Mbit/s
95th percentile per-packet one-way delay: 110.994 ms
Loss rate: 0.55%
```
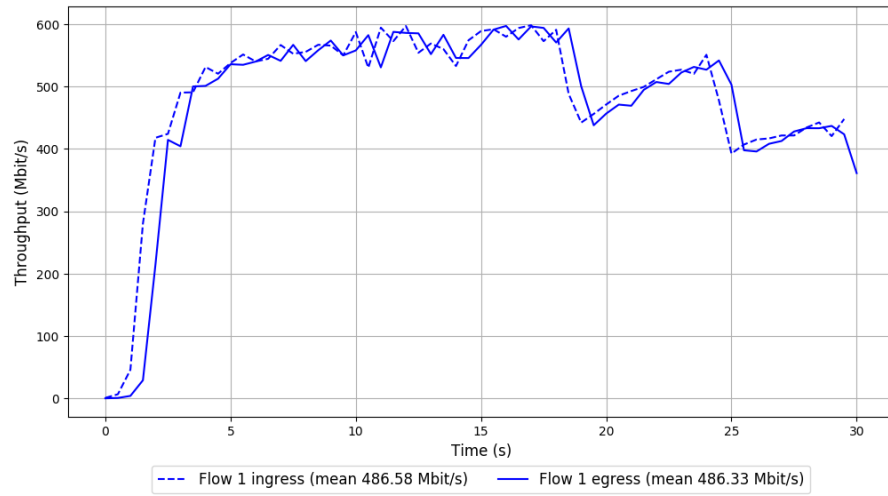
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 478.45 Mbit/s)   Flow 1 egress (mean 478.60 Mbit/s)

Flow 1 (95th percentile 110.99 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-06-27 19:44:59
End at: 2019-06-27 19:45:29
Local clock offset: -0.076 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-06-27 20:51:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 461.51 Mbit/s
95th percentile per-packet one-way delay: 96.939 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 461.51 Mbit/s
95th percentile per-packet one-way delay: 96.939 ms
Loss rate: 0.61%
```
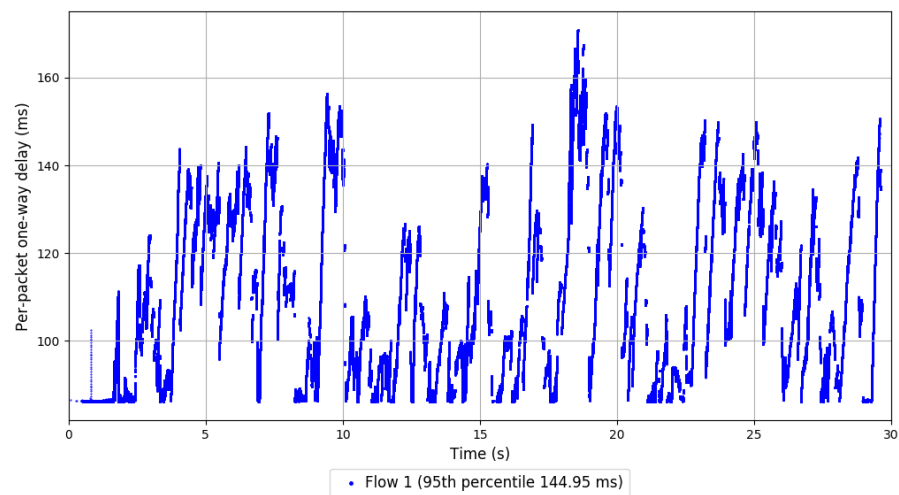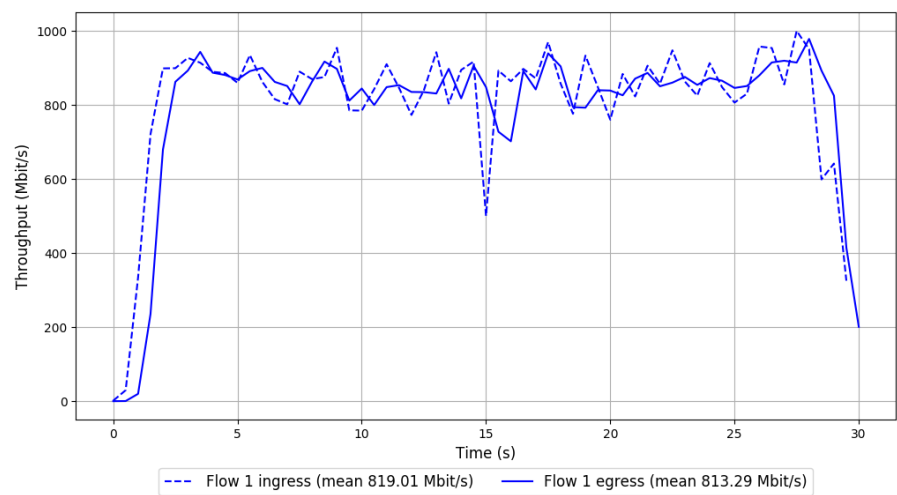
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-06-27 20:17:11
End at: 2019-06-27 20:17:41
Local clock offset: 0.143 ms
Remote clock offset: -0.002 ms


# Below is generated by plot.py at 2019-06-27 20:51:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 486.33 Mbit/s
95th percentile per-packet one-way delay: 111.378 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 486.33 Mbit/s
95th percentile per-packet one-way delay: 111.378 ms
Loss rate: 0.63%
```
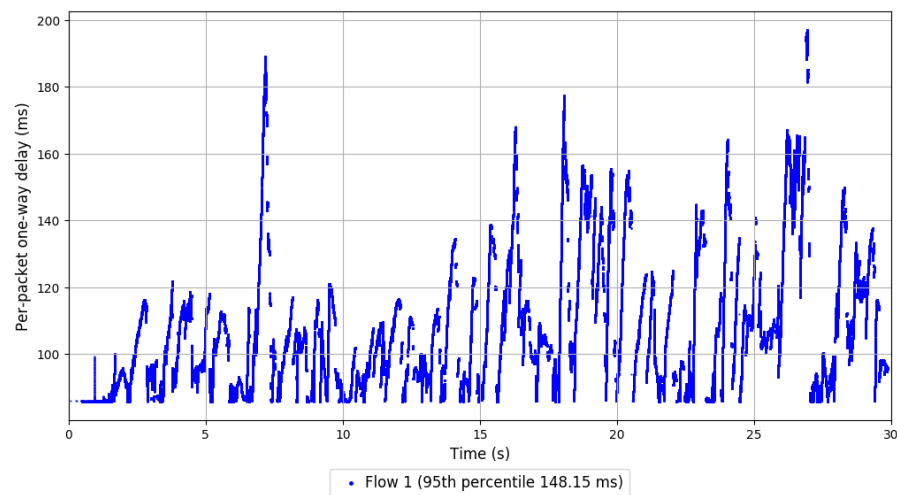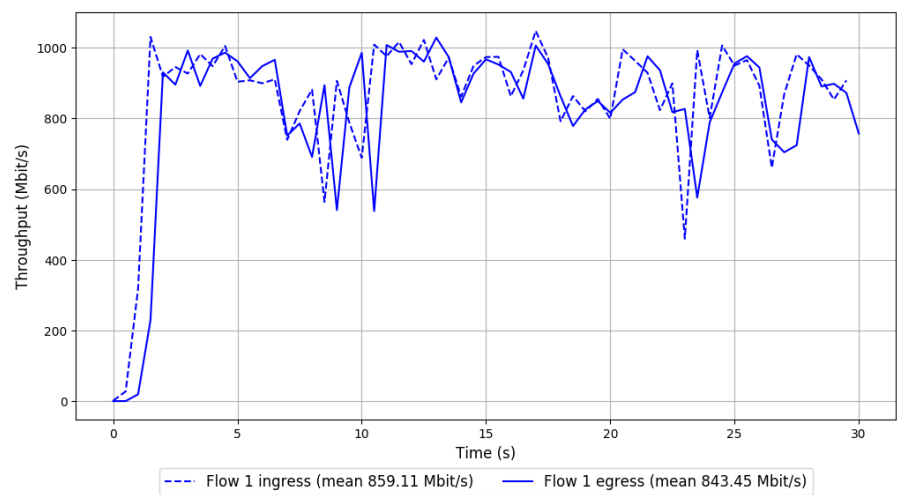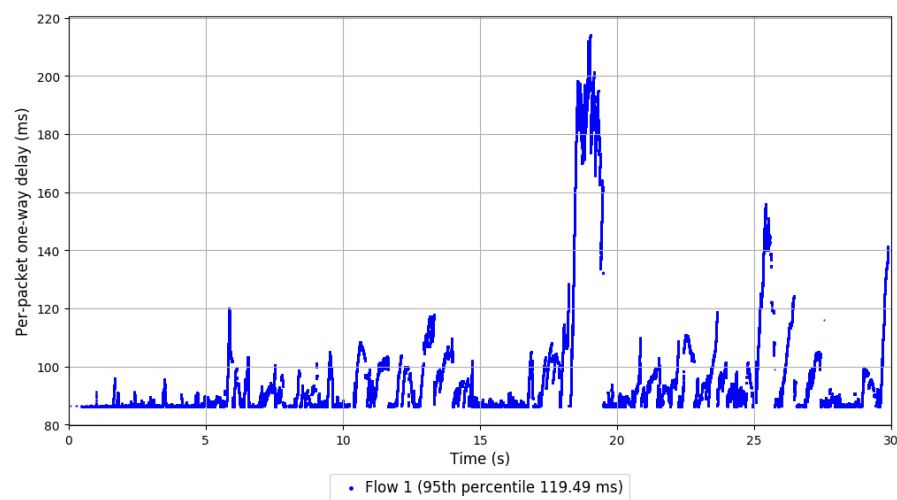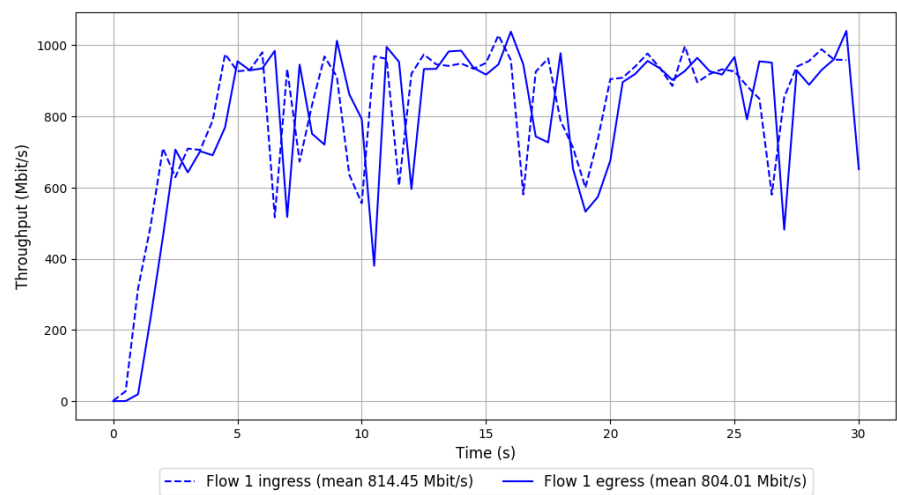
Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-06-27 18:03:12
End at: 2019-06-27 18:03:42
Local clock offset: 0.381 ms
Remote clock offset: 0.255 ms


# Below is generated by plot.py at 2019-06-27 20:59:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 813.29 Mbit/s
95th percentile per-packet one-way delay: 144.949 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 813.29 Mbit/s
95th percentile per-packet one-way delay: 144.949 ms
Loss rate: 1.25%
```
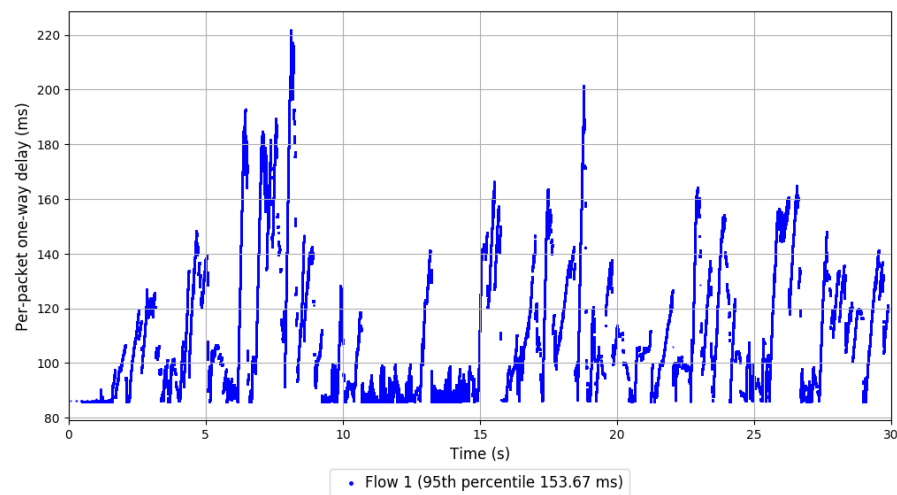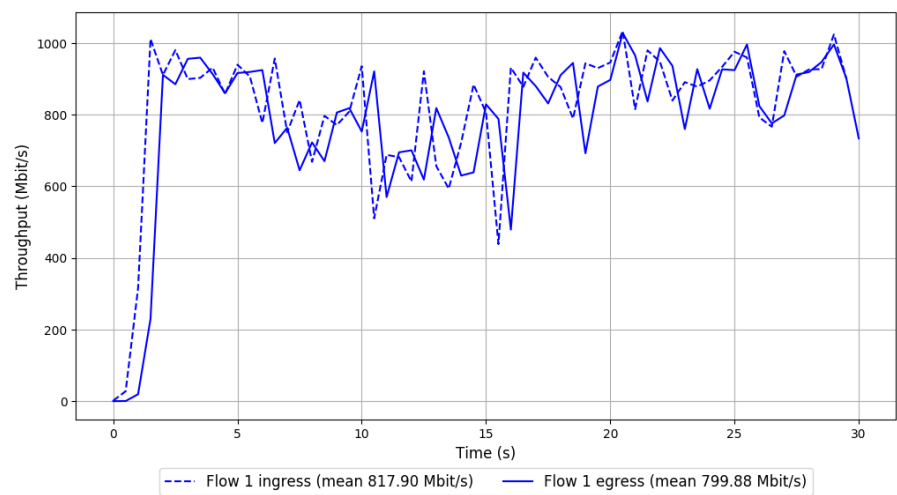
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2019-06-27 18:35:31
End at: 2019-06-27 18:36:01
Local clock offset: -0.049 ms
Remote clock offset: 0.135 ms


# Below is generated by plot.py at 2019-06-27 21:08:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 843.45 Mbit/s
95th percentile per-packet one-way delay: 148.152 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 843.45 Mbit/s
95th percentile per-packet one-way delay: 148.152 ms
Loss rate: 2.39%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 859.11 Mbit/s) --- Flow 1 egress (mean 843.45 Mbit/s)
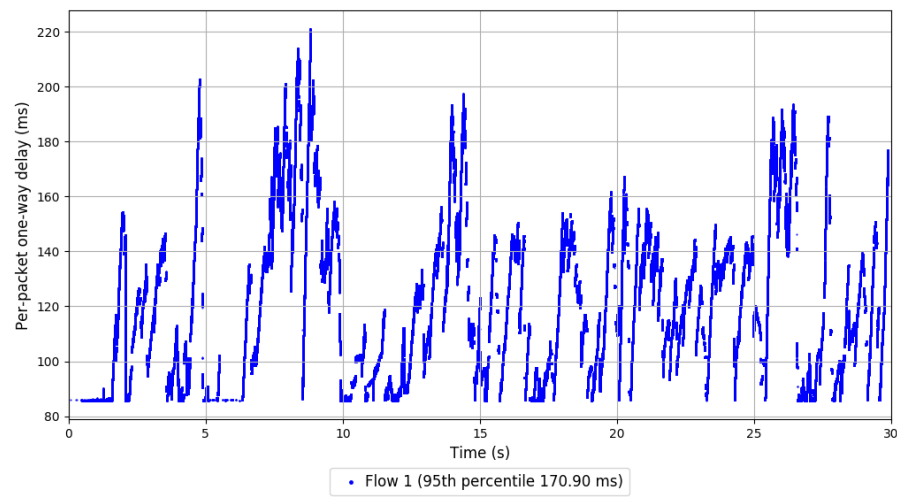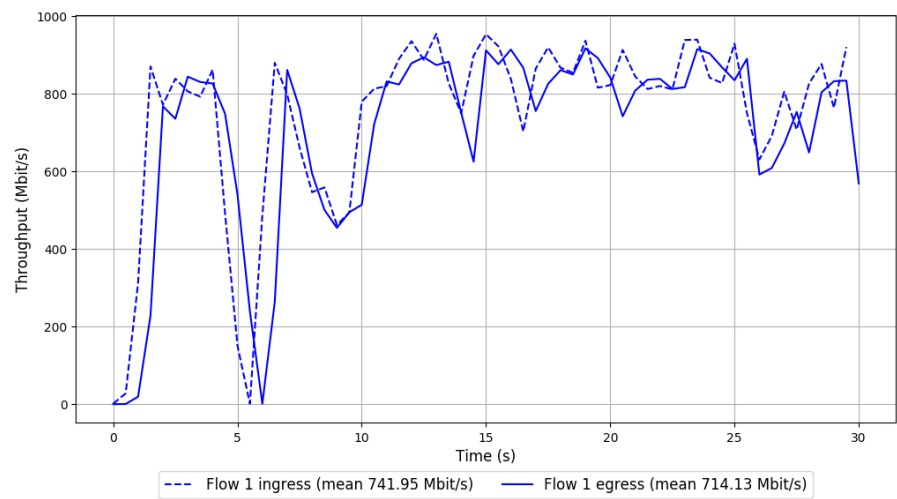

• Flow 1 (95th percentile 148.15 ms)

```
Run 3: Statistics of FillP

Start at: 2019-06-27 19:08:13
End at: 2019-06-27 19:08:43
Local clock offset: 0.383 ms
Remote clock offset: -0.052 ms


# Below is generated by plot.py at 2019-06-27 21:08:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 804.01 Mbit/s
95th percentile per-packet one-way delay: 119.492 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 804.01 Mbit/s
95th percentile per-packet one-way delay: 119.492 ms
Loss rate: 1.85%
```

Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-06-27 19:40:34
End at: 2019-06-27 19:41:04
Local clock offset: -0.234 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-06-27 21:08:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 799.88 Mbit/s
95th percentile per-packet one-way delay: 153.673 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 799.88 Mbit/s
95th percentile per-packet one-way delay: 153.673 ms
Loss rate: 2.77%
```
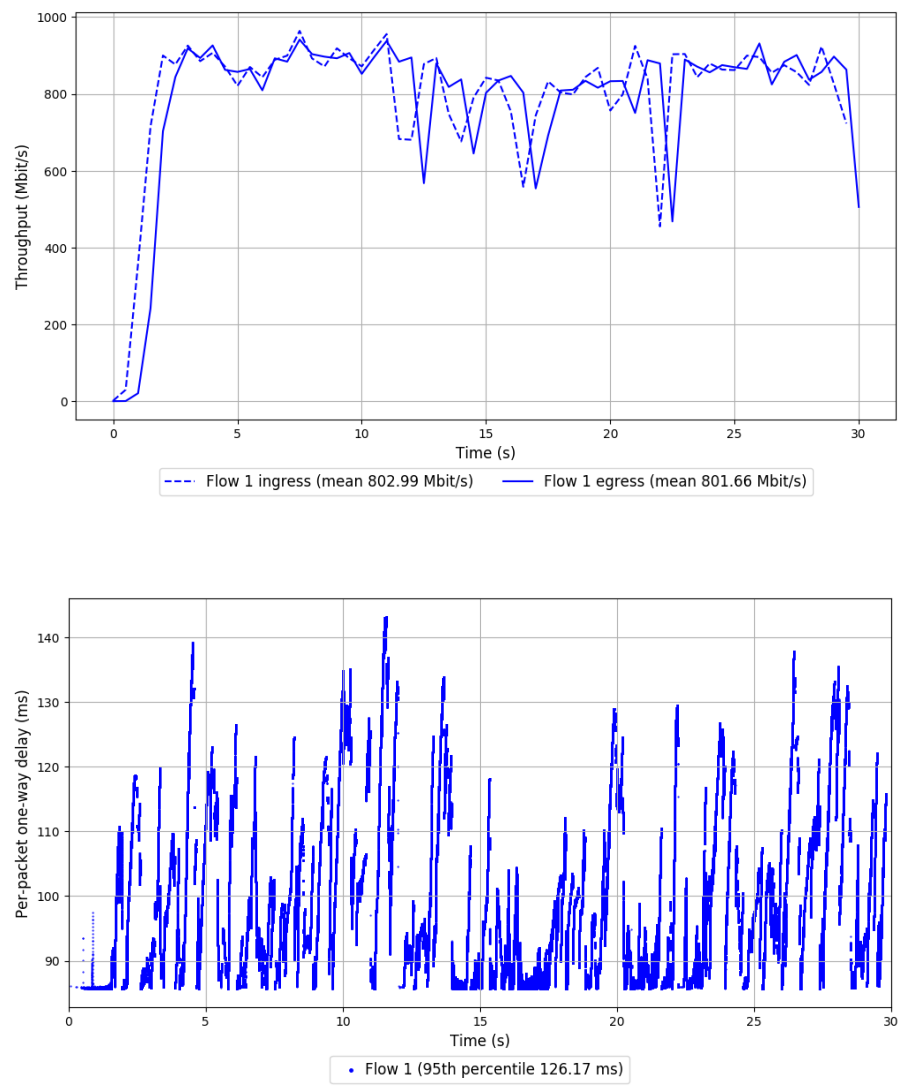
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 817.90 Mbit/s)   Flow 1 egress (mean 799.88 Mbit/s)

• Flow 1 (95th percentile 153.67 ms)

```
Run 5: Statistics of FillP

Start at: 2019-06-27 20:12:47
End at: 2019-06-27 20:13:17
Local clock offset: -0.512 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2019-06-27 21:08:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 714.13 Mbit/s
95th percentile per-packet one-way delay: 170.895 ms
Loss rate: 4.30%
-- Flow 1:
Average throughput: 714.13 Mbit/s
95th percentile per-packet one-way delay: 170.895 ms
Loss rate: 4.30%
```
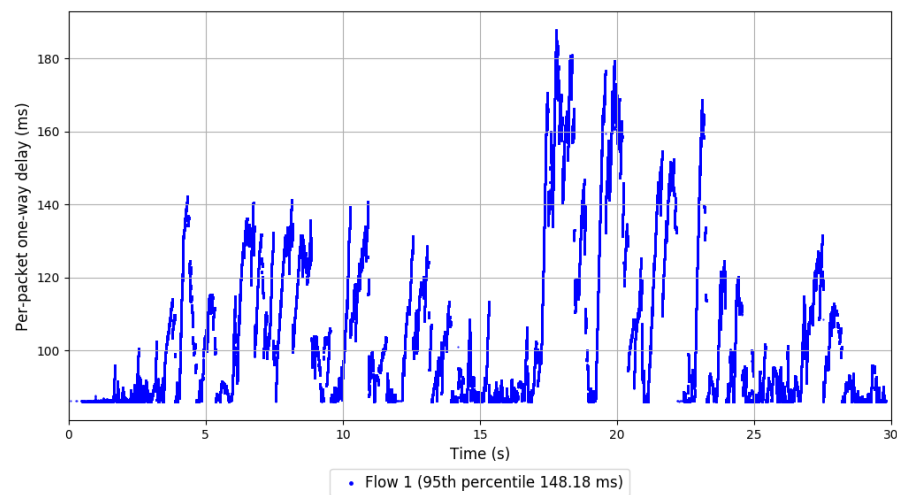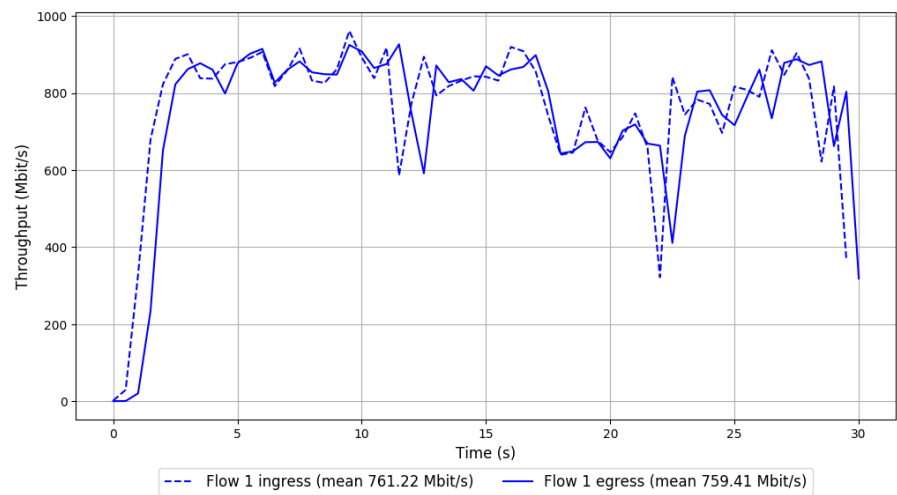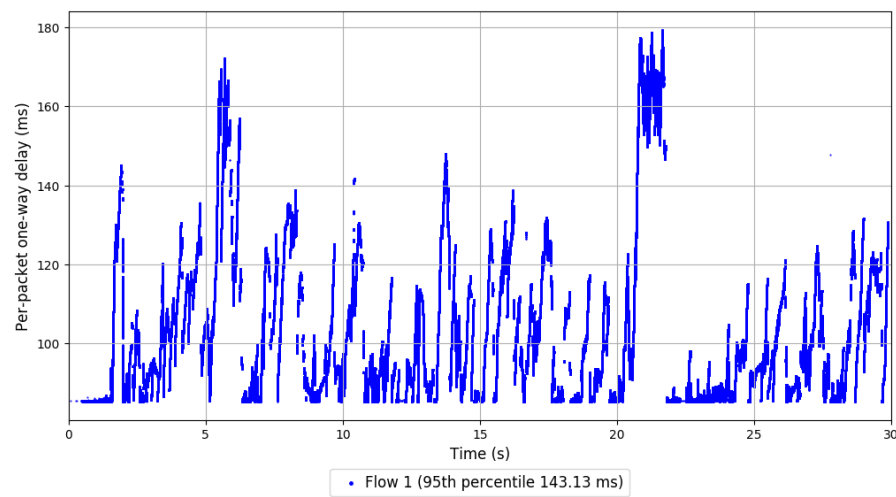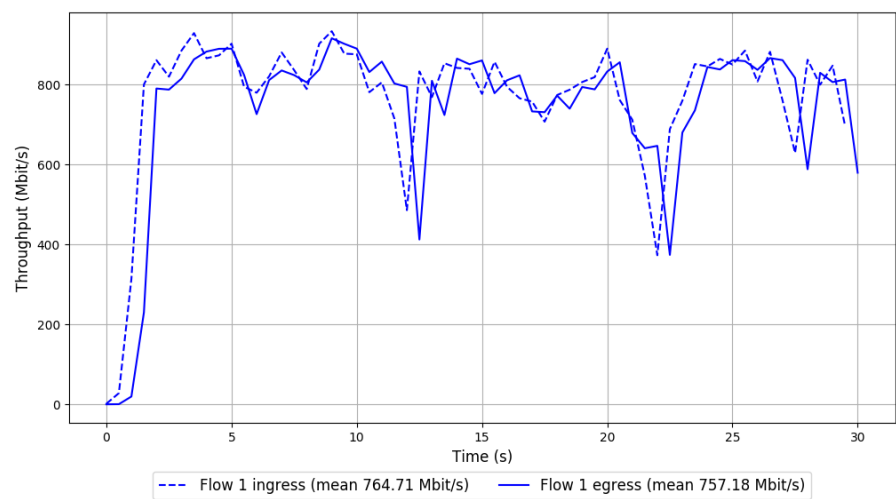
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-06-27 17:49:42
End at: 2019-06-27 17:50:12
Local clock offset: -0.09 ms
Remote clock offset: 0.12 ms


# Below is generated by plot.py at 2019-06-27 21:08:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 801.66 Mbit/s
95th percentile per-packet one-way delay: 126.168 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 801.66 Mbit/s
95th percentile per-packet one-way delay: 126.168 ms
Loss rate: 0.74%
```

Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 802.99 Mbit/s)   Flow 1 egress (mean 801.66 Mbit/s)

• Flow 1 (95th percentile 126.17 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-06-27 18:21:37
End at: 2019-06-27 18:22:07
Local clock offset: 0.113 ms
Remote clock offset: 0.293 ms


# Below is generated by plot.py at 2019-06-27 21:08:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 759.41 Mbit/s
95th percentile per-packet one-way delay: 148.183 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 759.41 Mbit/s
95th percentile per-packet one-way delay: 148.183 ms
Loss rate: 0.95%
```
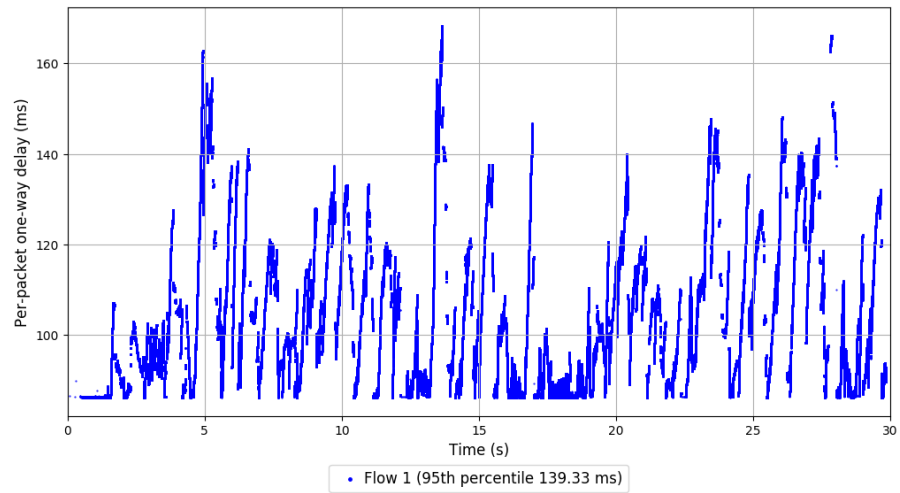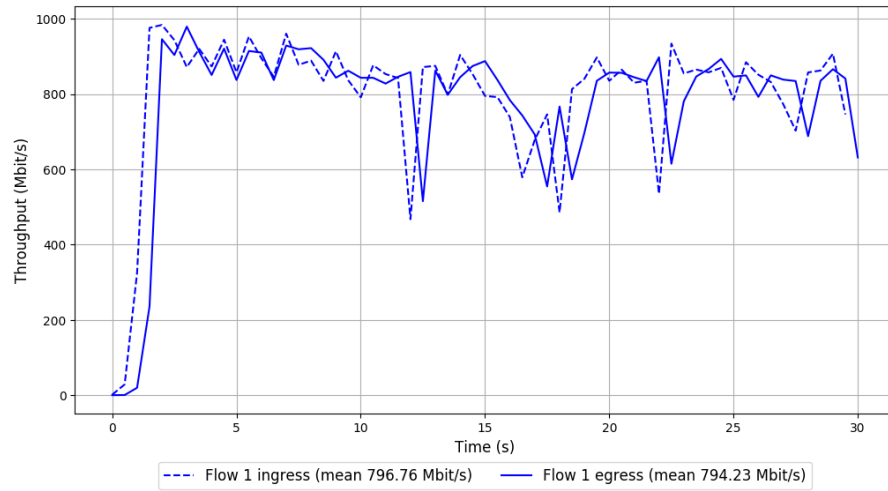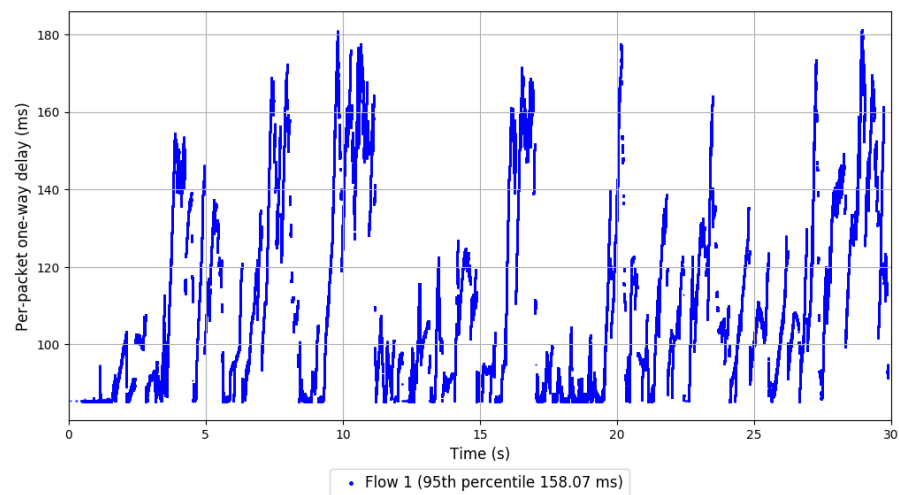
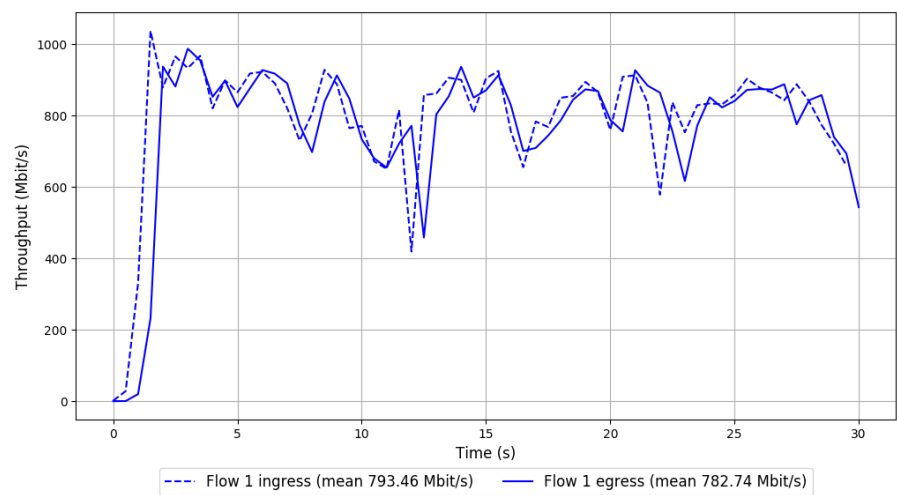Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-06-27 18:54:13
End at: 2019-06-27 18:54:43
Local clock offset: -0.516 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-06-27 21:08:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 757.18 Mbit/s
95th percentile per-packet one-way delay: 143.135 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 757.18 Mbit/s
95th percentile per-packet one-way delay: 143.135 ms
Loss rate: 1.55%
```

Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-06-27 19:26:37
End at: 2019-06-27 19:27:07
Local clock offset: 0.136 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2019-06-27 21:20:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 794.23 Mbit/s
95th percentile per-packet one-way delay: 139.330 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 794.23 Mbit/s
95th percentile per-packet one-way delay: 139.330 ms
Loss rate: 0.90%
```
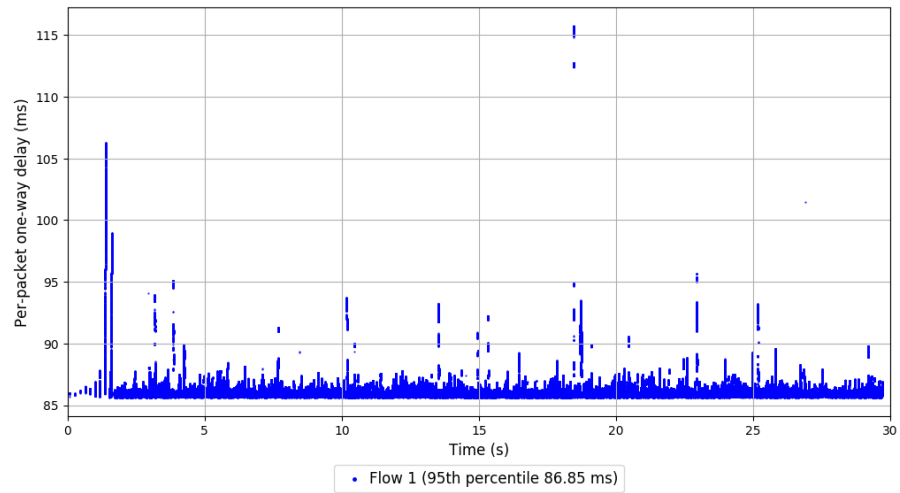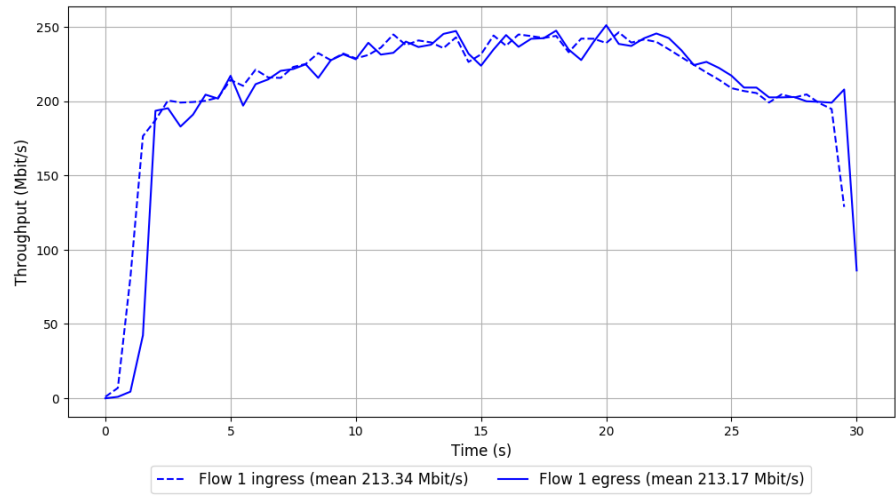
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 796.76 Mbit/s) — Flow 1 egress (mean 794.23 Mbit/s)

• Flow 1 (95th percentile 139.33 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-06-27 19:59:01
End at: 2019-06-27 19:59:31
Local clock offset: -0.533 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2019-06-27 21:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 782.74 Mbit/s
95th percentile per-packet one-way delay: 158.074 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 782.74 Mbit/s
95th percentile per-packet one-way delay: 158.074 ms
Loss rate: 1.92%
```
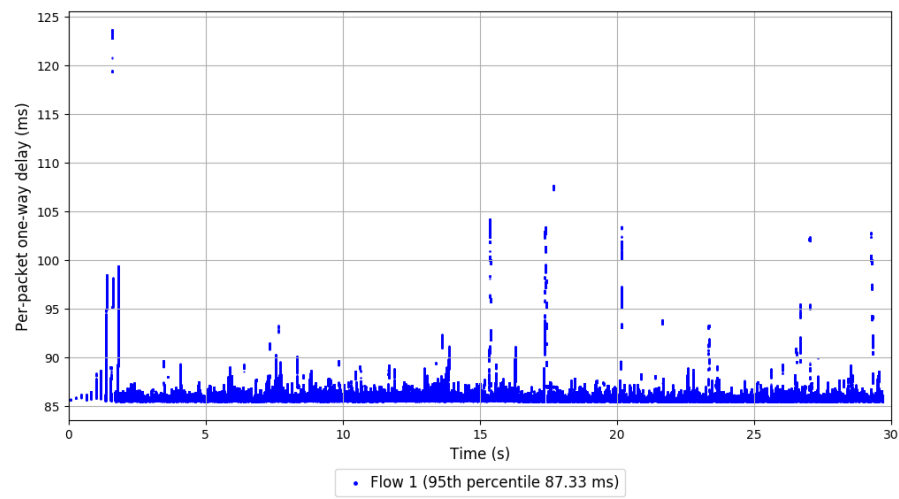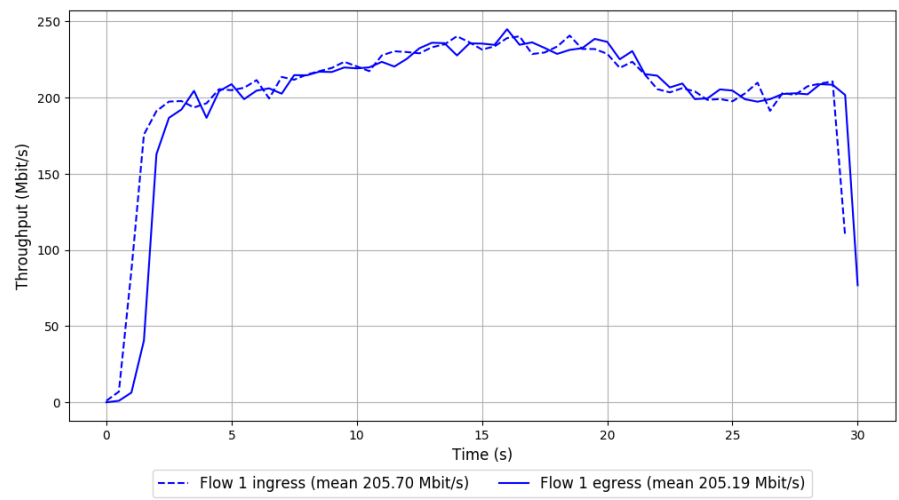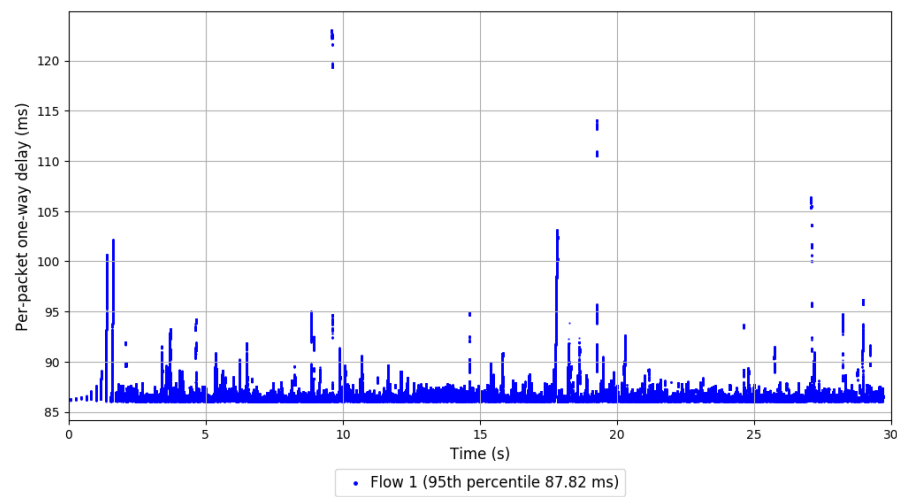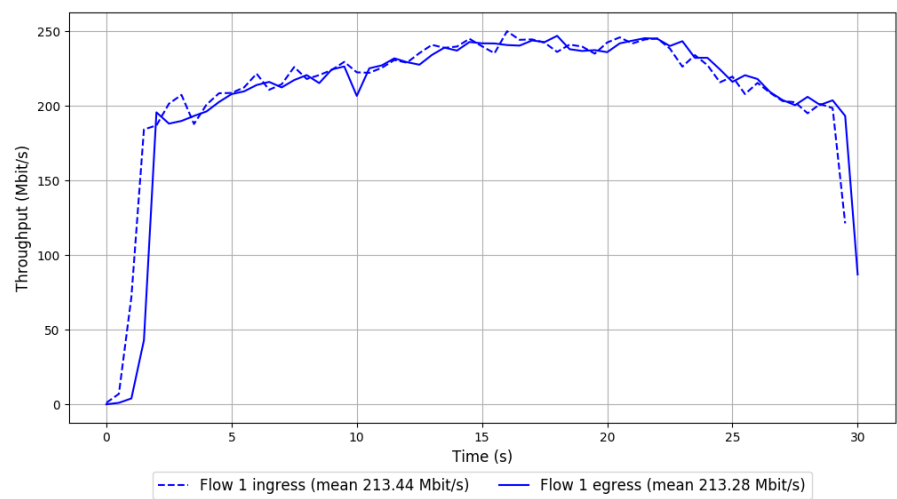
Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-06-27 18:00:11
End at: 2019-06-27 18:00:41
Local clock offset: -0.477 ms
Remote clock offset: 0.196 ms


# Below is generated by plot.py at 2019-06-27 21:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.17 Mbit/s
95th percentile per-packet one-way delay: 86.848 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 213.17 Mbit/s
95th percentile per-packet one-way delay: 86.848 ms
Loss rate: 0.64%
```

Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-06-27 18:32:28
End at: 2019-06-27 18:32:58
Local clock offset: -0.258 ms
Remote clock offset: 0.247 ms


# Below is generated by plot.py at 2019-06-27 21:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 205.19 Mbit/s
95th percentile per-packet one-way delay: 87.326 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 205.19 Mbit/s
95th percentile per-packet one-way delay: 87.326 ms
Loss rate: 0.83%
```
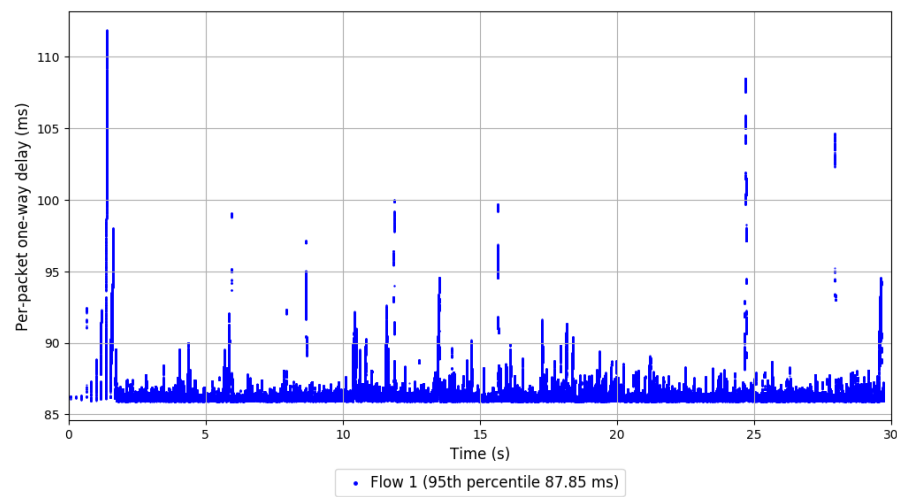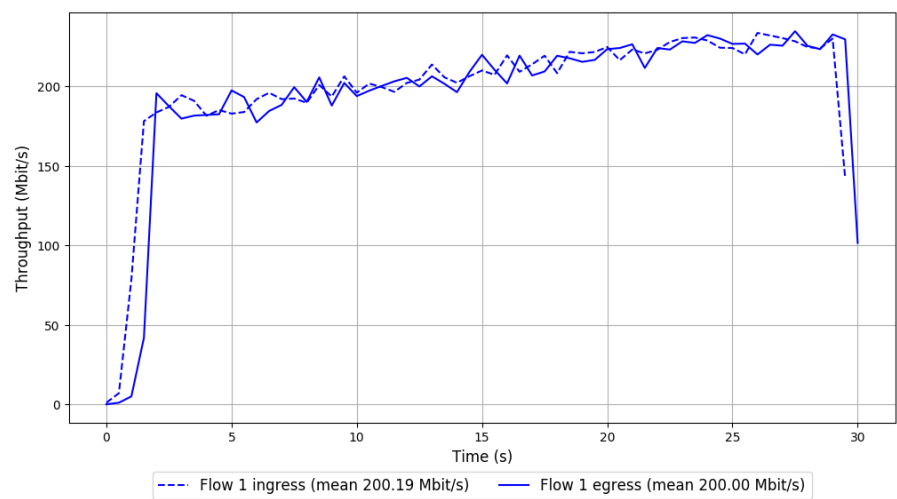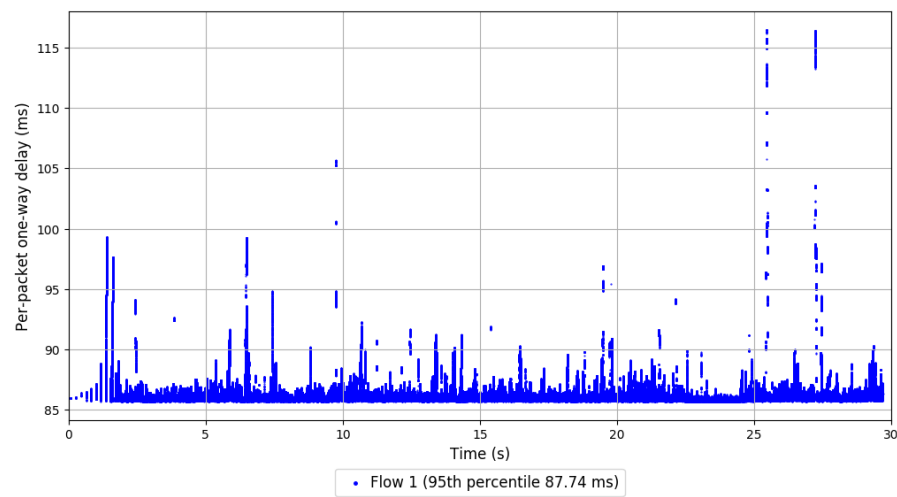
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-06-27 19:05:10
End at: 2019-06-27 19:05:40
Local clock offset: -0.046 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2019-06-27 21:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.28 Mbit/s
95th percentile per-packet one-way delay: 87.821 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 213.28 Mbit/s
95th percentile per-packet one-way delay: 87.821 ms
Loss rate: 0.66%
```
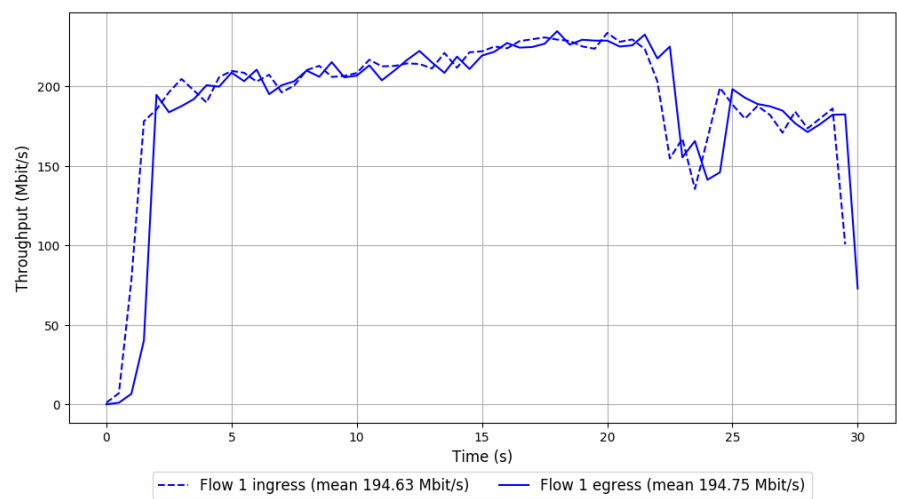
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-06-27 19:37:31
End at: 2019-06-27 19:38:01
Local clock offset: 0.21 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2019-06-27 21:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 200.00 Mbit/s
95th percentile per-packet one-way delay: 87.849 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 200.00 Mbit/s
95th percentile per-packet one-way delay: 87.849 ms
Loss rate: 0.67%
```
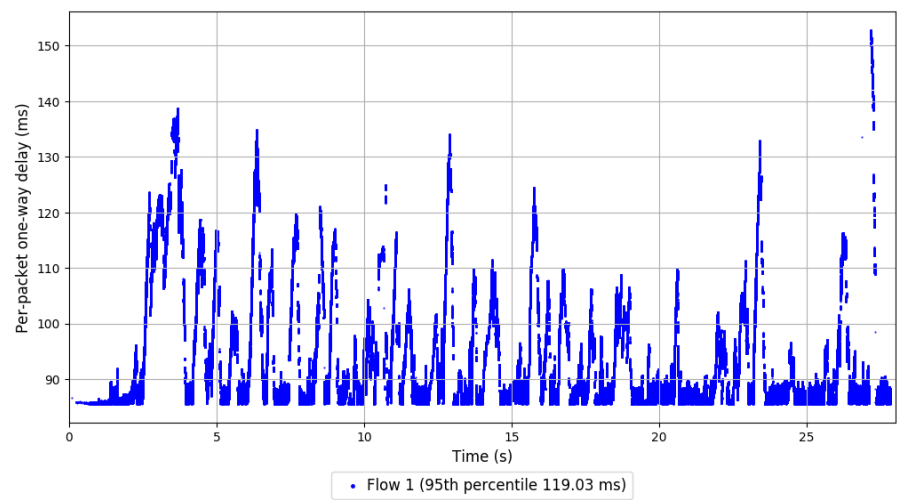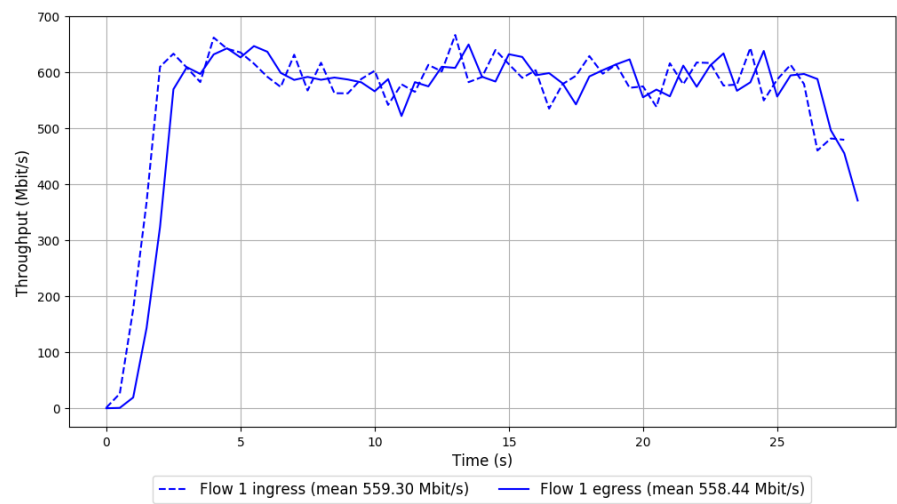
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-06-27 20:09:49
End at: 2019-06-27 20:10:19
Local clock offset: -0.023 ms
Remote clock offset: -0.009 ms


# Below is generated by plot.py at 2019-06-27 21:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 194.75 Mbit/s
95th percentile per-packet one-way delay: 87.738 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 194.75 Mbit/s
95th percentile per-packet one-way delay: 87.738 ms
Loss rate: 0.52%
```
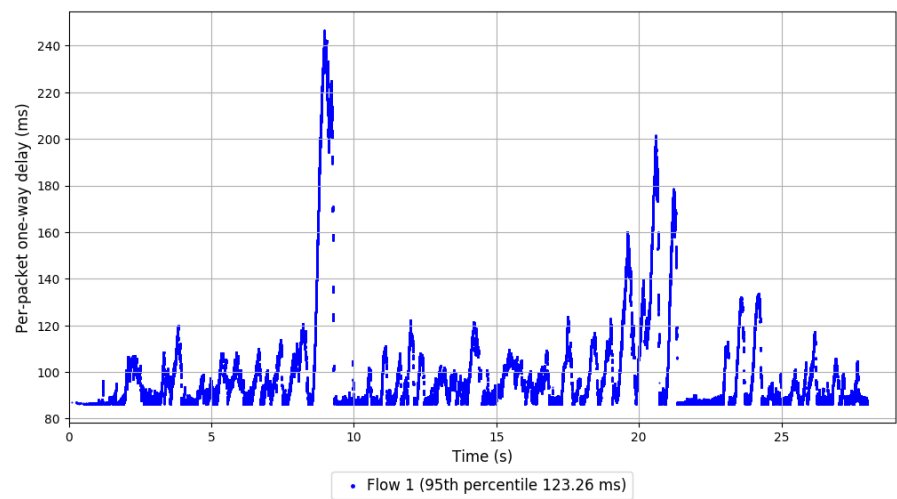
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-27 18:09:17
End at: 2019-06-27 18:09:47
Local clock offset: -0.269 ms
Remote clock offset: 0.242 ms


# Below is generated by plot.py at 2019-06-27 21:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 558.44 Mbit/s
95th percentile per-packet one-way delay: 119.026 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 558.44 Mbit/s
95th percentile per-packet one-way delay: 119.026 ms
Loss rate: 0.77%
```
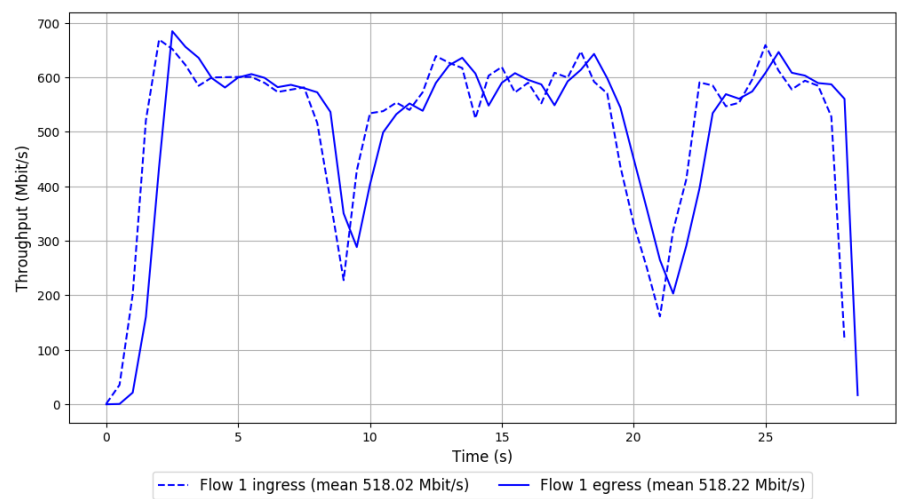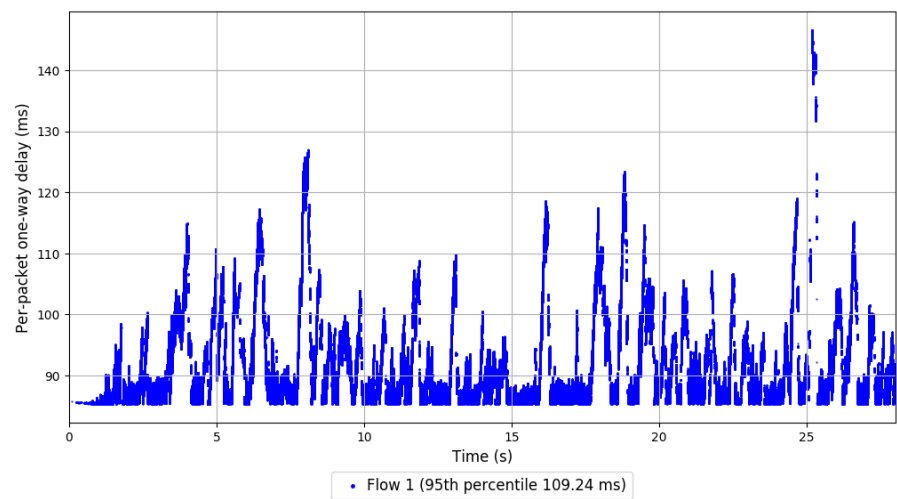
Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-27 18:41:35
End at: 2019-06-27 18:42:05
Local clock offset: 0.191 ms
Remote clock offset: 0.053 ms


# Below is generated by plot.py at 2019-06-27 21:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 518.22 Mbit/s
95th percentile per-packet one-way delay: 123.257 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 518.22 Mbit/s
95th percentile per-packet one-way delay: 123.257 ms
Loss rate: 0.58%
```
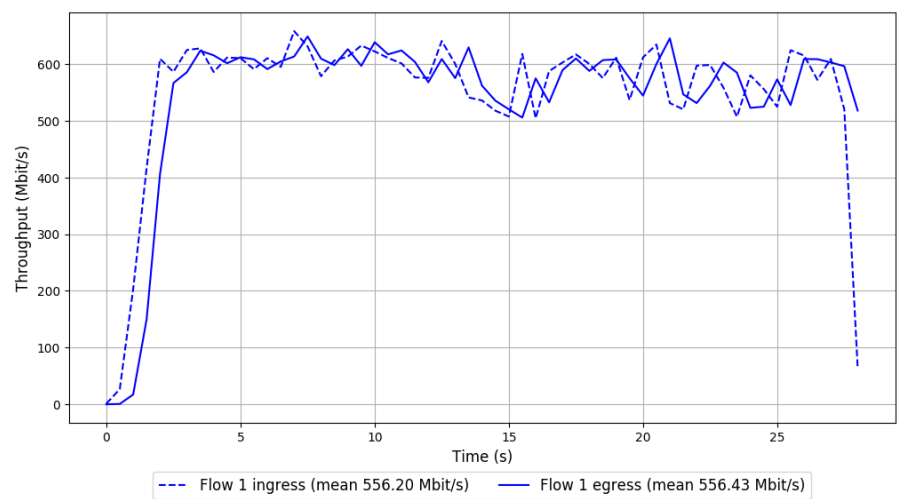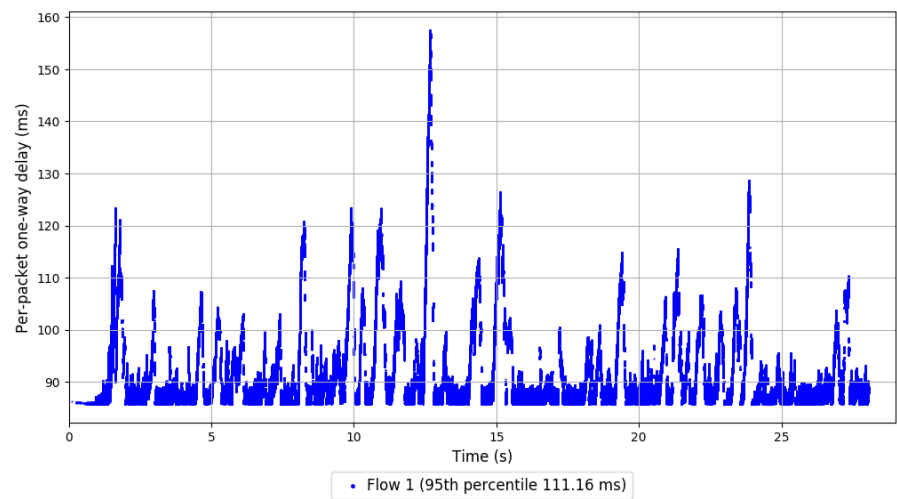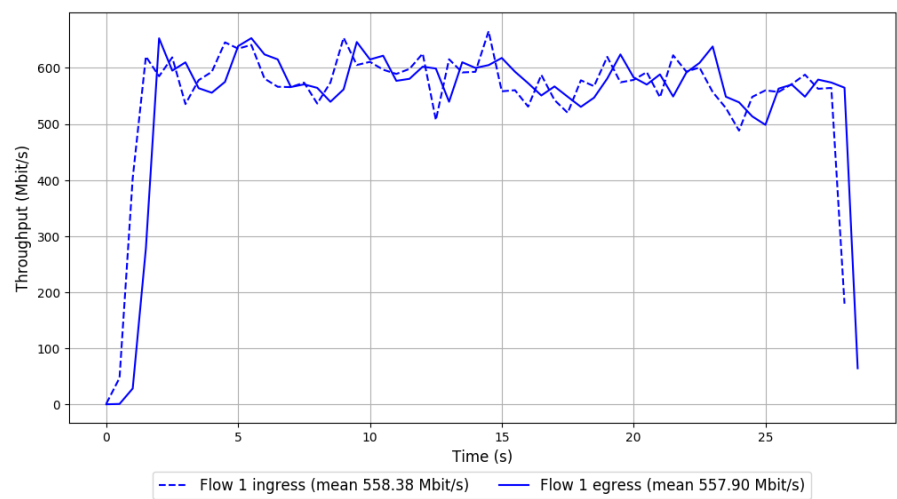
Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-27 19:14:13
End at: 2019-06-27 19:14:43
Local clock offset: -0.435 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2019-06-27 21:25:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 556.43 Mbit/s
95th percentile per-packet one-way delay: 109.237 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 556.43 Mbit/s
95th percentile per-packet one-way delay: 109.237 ms
Loss rate: 0.57%
```

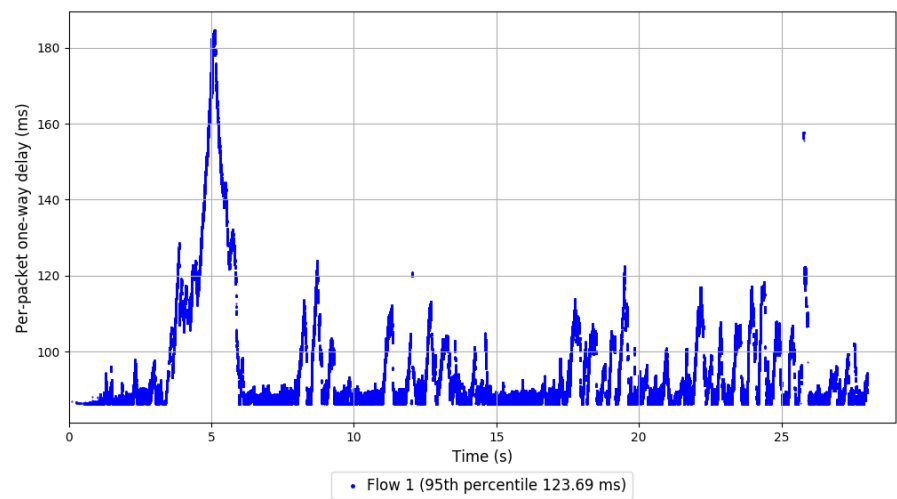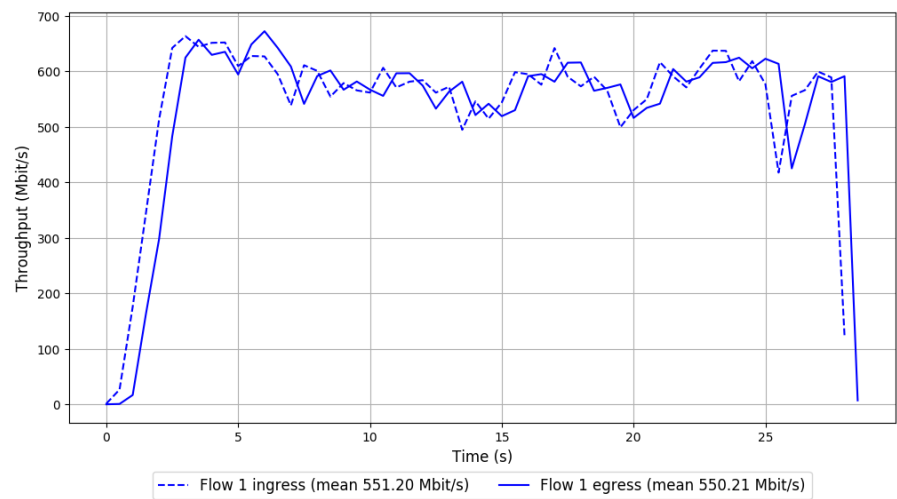Run 3: Report of Indigo-MusesC3 — Data Link

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-27 19:46:32
End at: 2019-06-27 19:47:03
Local clock offset: -0.042 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-06-27 21:25:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 557.90 Mbit/s
95th percentile per-packet one-way delay: 111.156 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 557.90 Mbit/s
95th percentile per-packet one-way delay: 111.156 ms
Loss rate: 0.69%
```

Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 558.38 Mbit/s)   Flow 1 egress (mean 557.90 Mbit/s)

Flow 1 (95th percentile 111.16 ms)

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-27 20:18:46
End at: 2019-06-27 20:19:16
Local clock offset: 0.382 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2019-06-27 21:25:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 550.21 Mbit/s
95th percentile per-packet one-way delay: 123.685 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 550.21 Mbit/s
95th percentile per-packet one-way delay: 123.685 ms
Loss rate: 0.79%
```
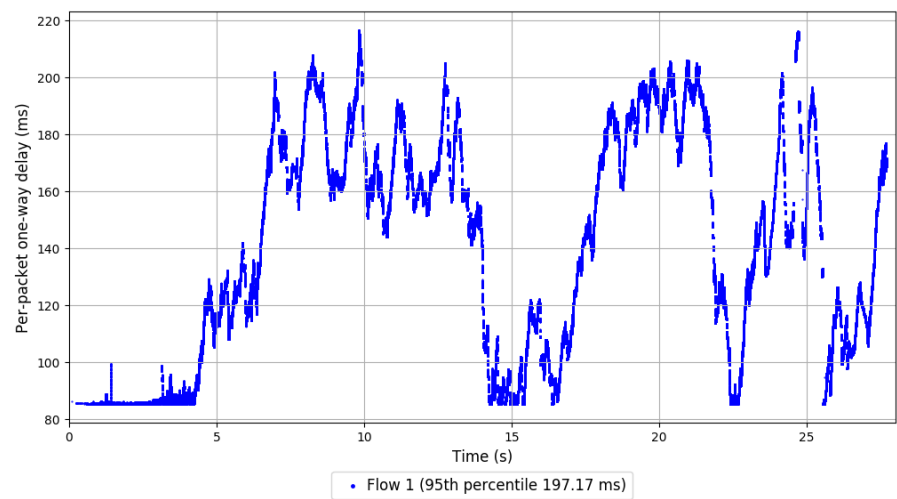
Run 5: Report of Indigo-MusesC3 — Data Link

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-27 17:57:26
End at: 2019-06-27 17:57:56
Local clock offset: -0.36 ms
Remote clock offset: 0.215 ms

# Below is generated by plot.py at 2019-06-27 21:25:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 546.03 Mbit/s
95th percentile per-packet one-way delay: 197.169 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 546.03 Mbit/s
95th percentile per-packet one-way delay: 197.169 ms
Loss rate: 2.02%
```
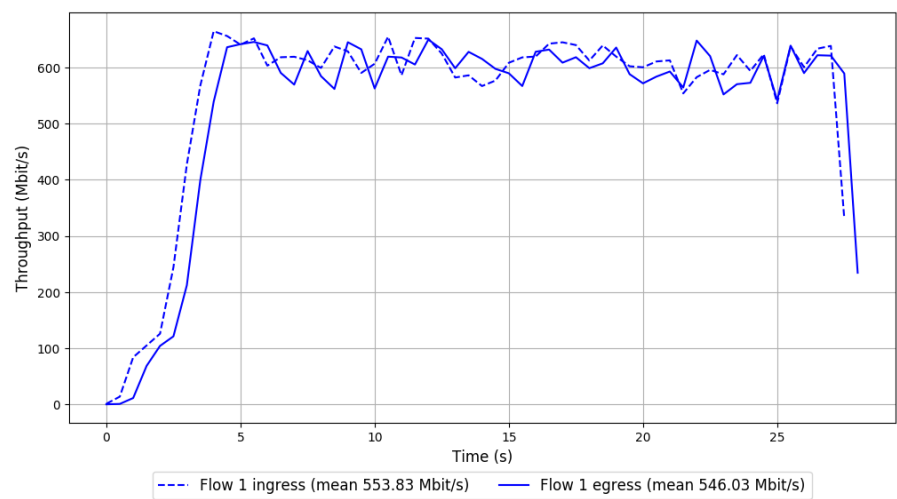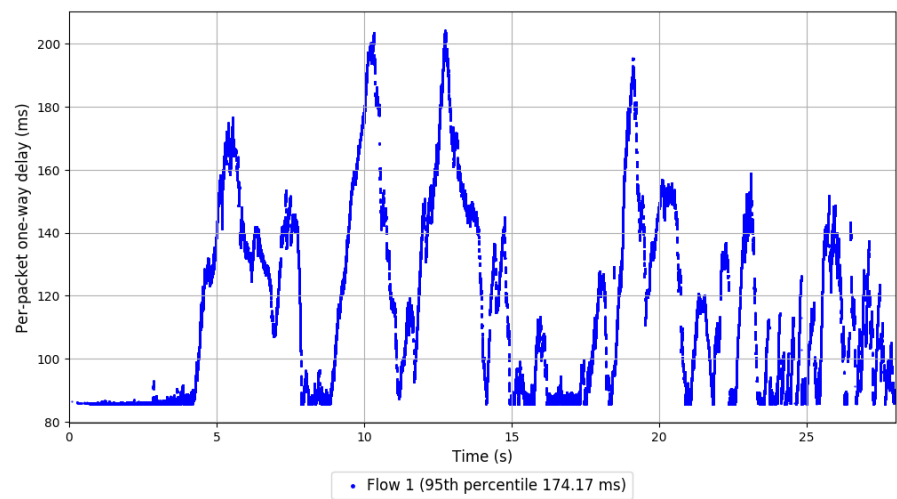
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-27 18:29:39
End at: 2019-06-27 18:30:09
Local clock offset: -0.108 ms
Remote clock offset: 0.378 ms


# Below is generated by plot.py at 2019-06-27 21:28:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 540.90 Mbit/s
95th percentile per-packet one-way delay: 174.168 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 540.90 Mbit/s
95th percentile per-packet one-way delay: 174.168 ms
Loss rate: 0.96%
```
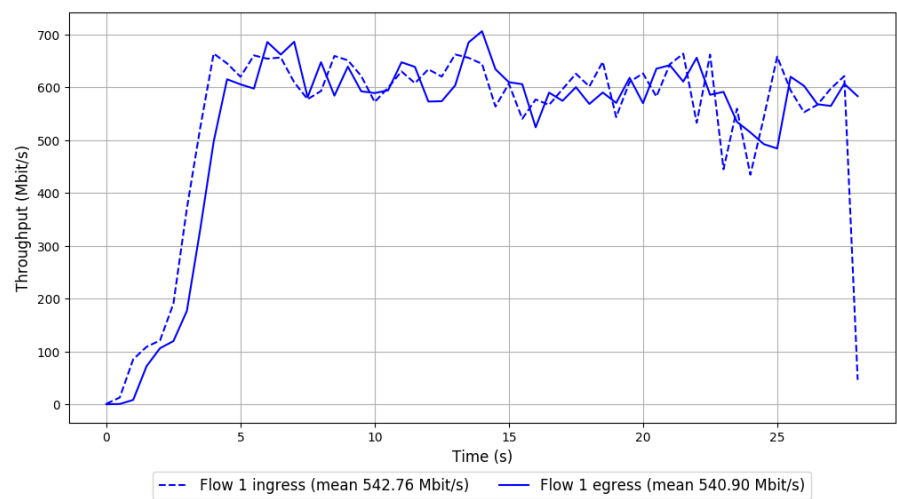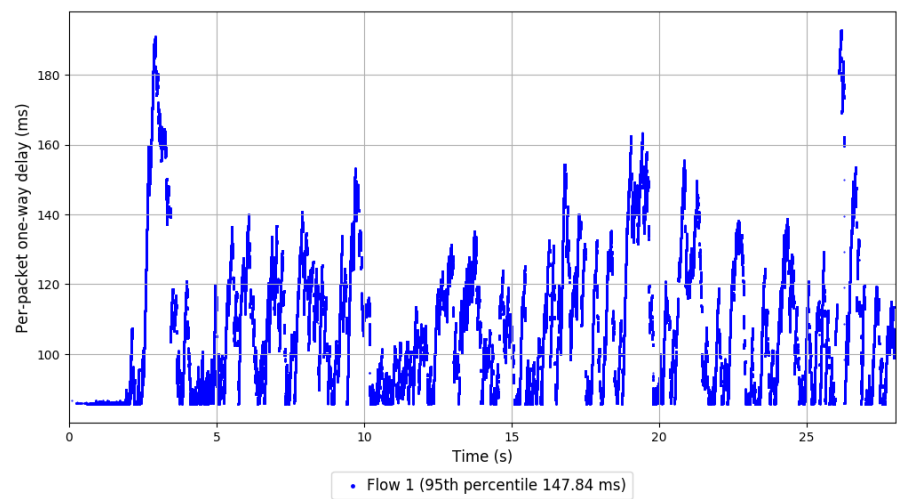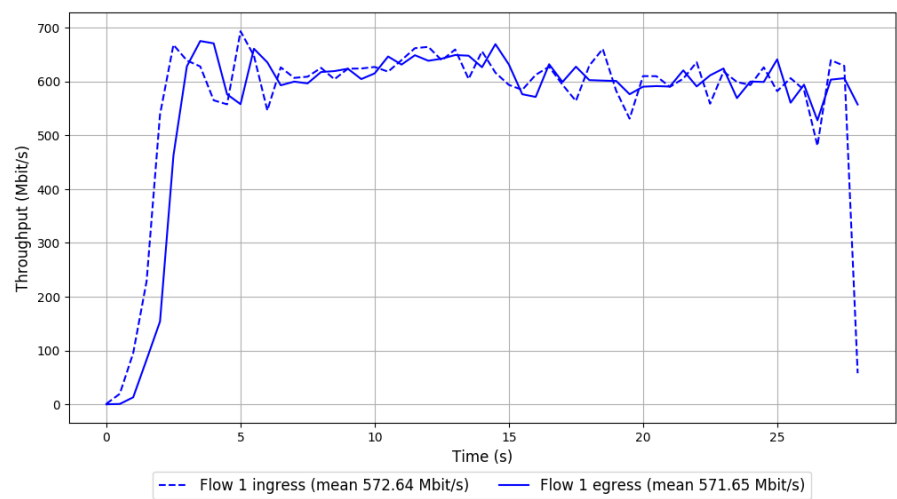
Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 542.76 Mbit/s)   Flow 1 egress (mean 540.90 Mbit/s)

Flow 1 (95th percentile 174.17 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-27 19:02:20
End at: 2019-06-27 19:02:50
Local clock offset: -0.493 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2019-06-27 21:30:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 571.65 Mbit/s
95th percentile per-packet one-way delay: 147.843 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 571.65 Mbit/s
95th percentile per-packet one-way delay: 147.843 ms
Loss rate: 0.80%
```
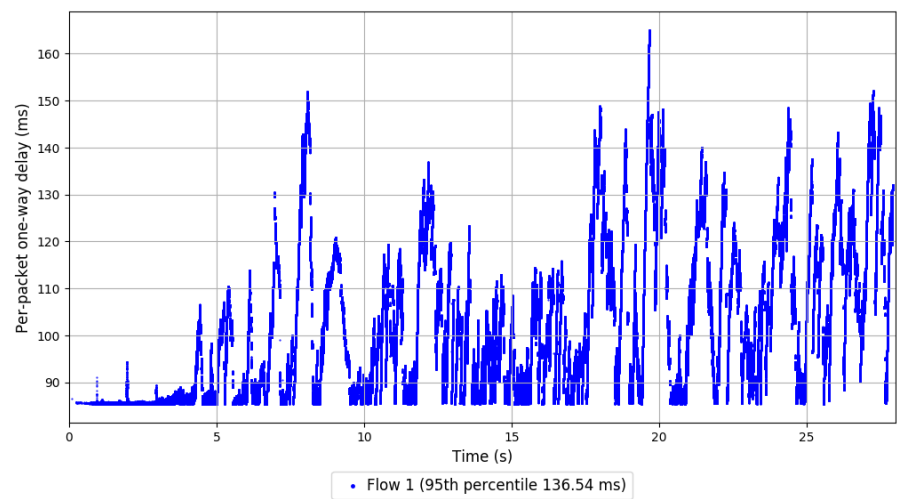
Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-27 19:34:42
End at: 2019-06-27 19:35:12
Local clock offset: -0.355 ms
Remote clock offset: -0.01 ms


# Below is generated by plot.py at 2019-06-27 21:34:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 540.67 Mbit/s
95th percentile per-packet one-way delay: 136.541 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 540.67 Mbit/s
95th percentile per-packet one-way delay: 136.541 ms
Loss rate: 0.87%
```
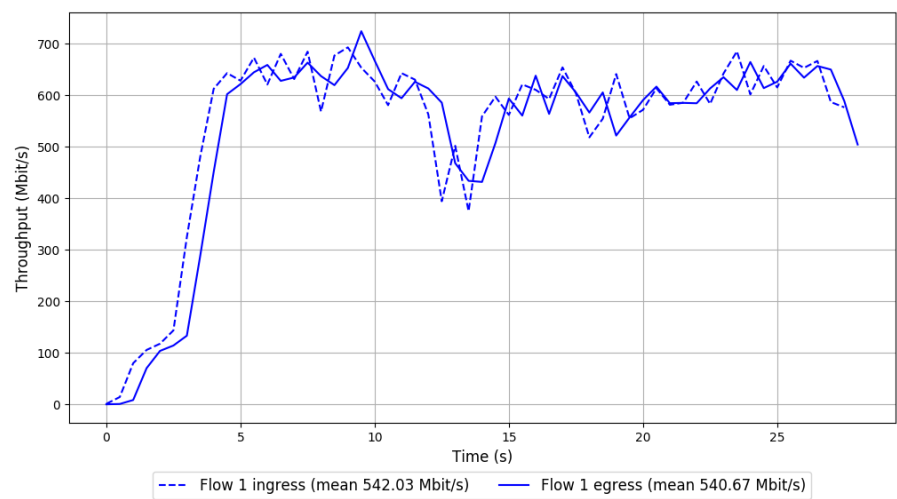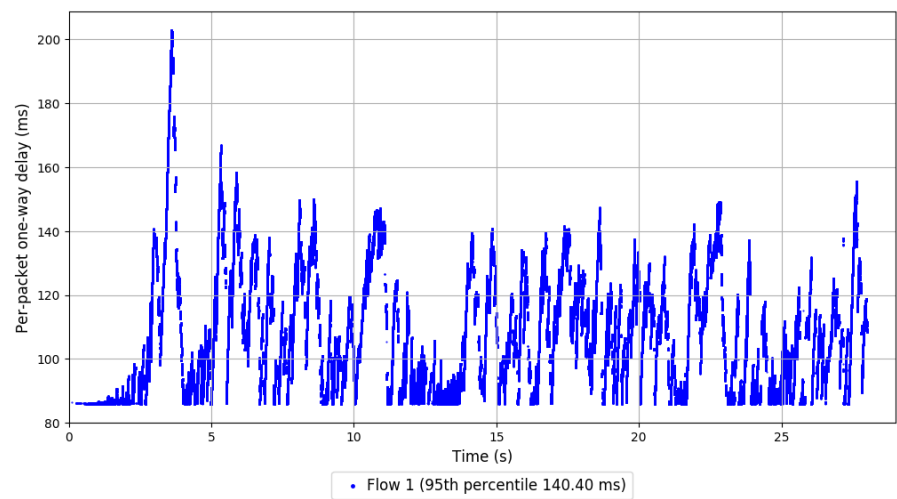
Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-27 20:07:01
End at: 2019-06-27 20:07:31
Local clock offset: -0.115 ms
Remote clock offset: 0.025 ms


# Below is generated by plot.py at 2019-06-27 21:34:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 545.81 Mbit/s
95th percentile per-packet one-way delay: 140.400 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 545.81 Mbit/s
95th percentile per-packet one-way delay: 140.400 ms
Loss rate: 1.10%
```
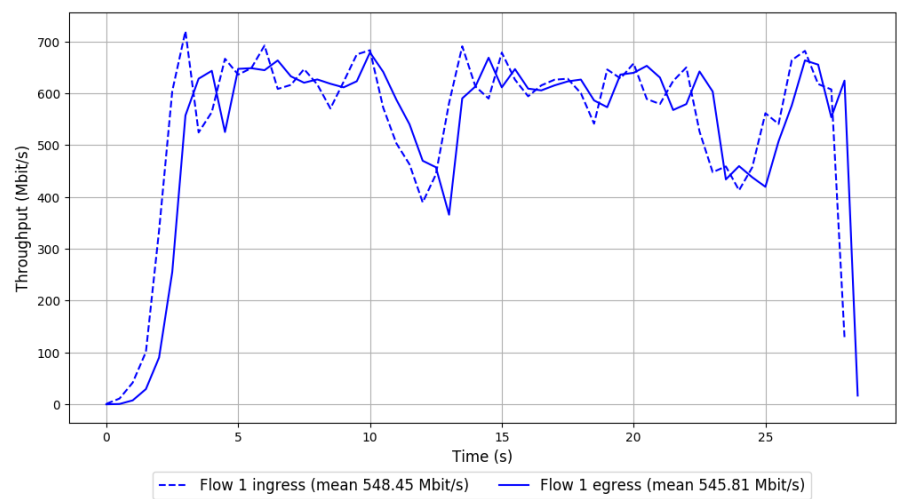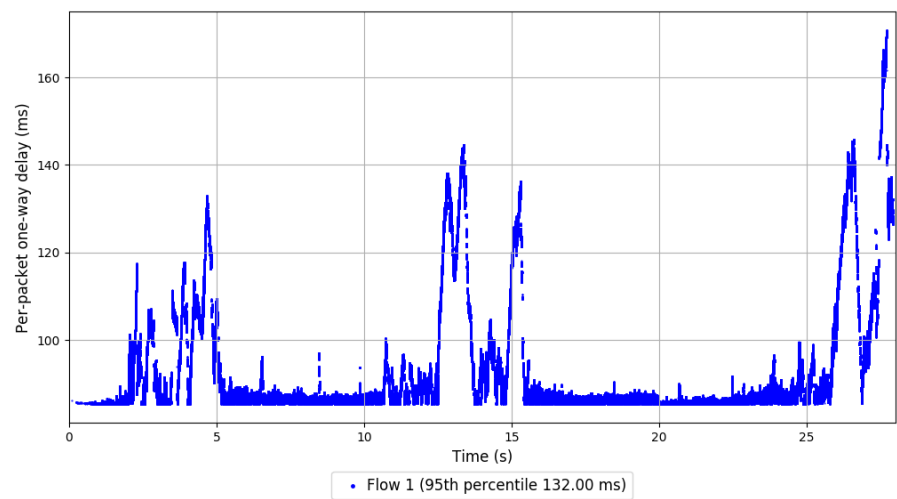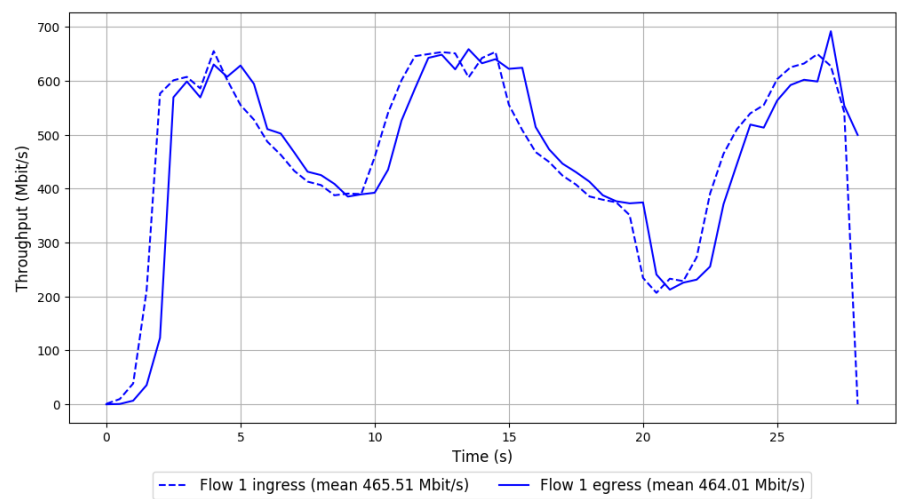
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 548.45 Mbit/s)   Flow 1 egress (mean 545.81 Mbit/s)

Flow 1 (95th percentile 140.40 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-27 18:01:41
End at: 2019-06-27 18:02:11
Local clock offset: -0.51 ms
Remote clock offset: 0.22 ms


# Below is generated by plot.py at 2019-06-27 21:34:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 464.01 Mbit/s
95th percentile per-packet one-way delay: 131.999 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 464.01 Mbit/s
95th percentile per-packet one-way delay: 131.999 ms
Loss rate: 0.94%
```
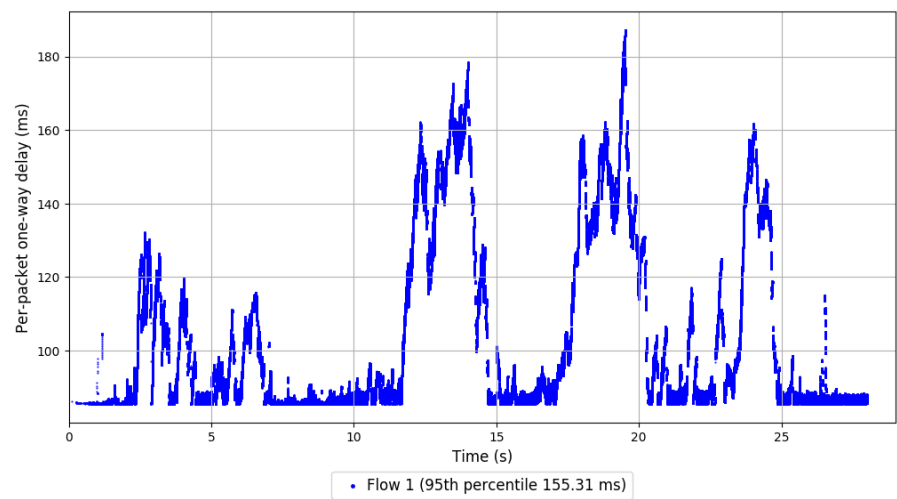
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-27 18:33:57
End at: 2019-06-27 18:34:27
Local clock offset: -0.325 ms
Remote clock offset: 0.206 ms


# Below is generated by plot.py at 2019-06-27 21:34:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 514.74 Mbit/s
95th percentile per-packet one-way delay: 155.308 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 514.74 Mbit/s
95th percentile per-packet one-way delay: 155.308 ms
Loss rate: 0.47%
```
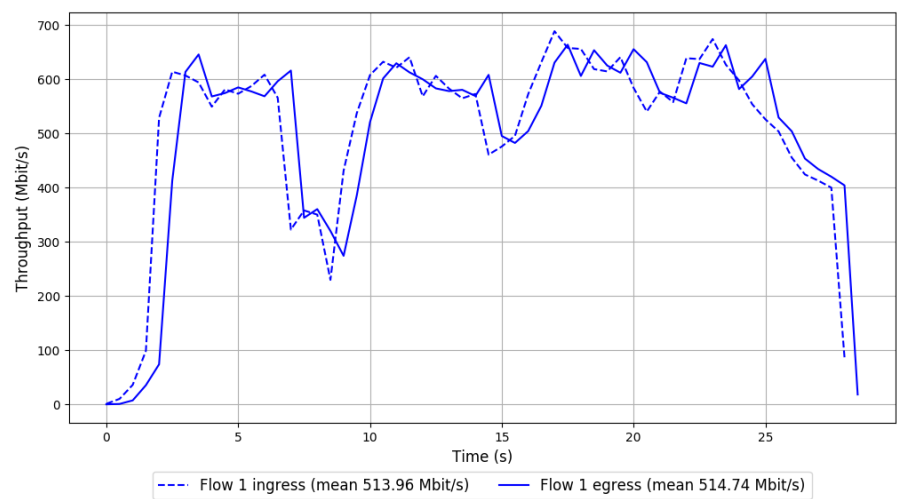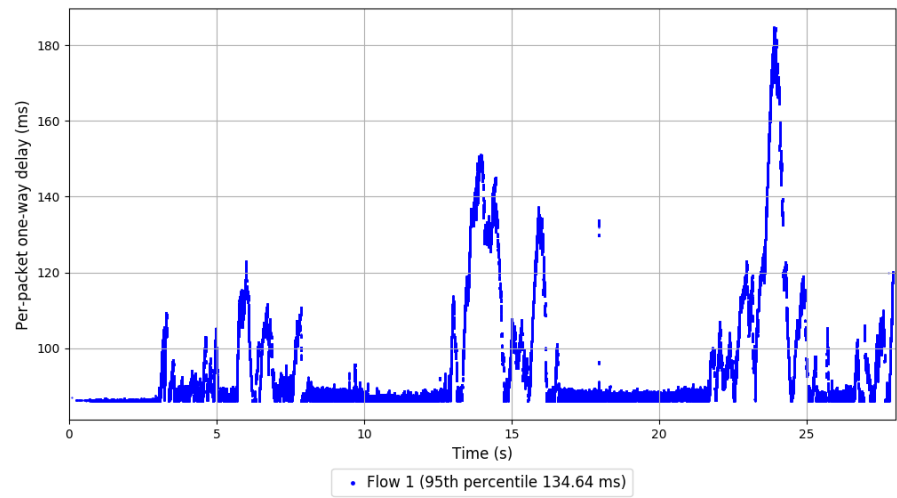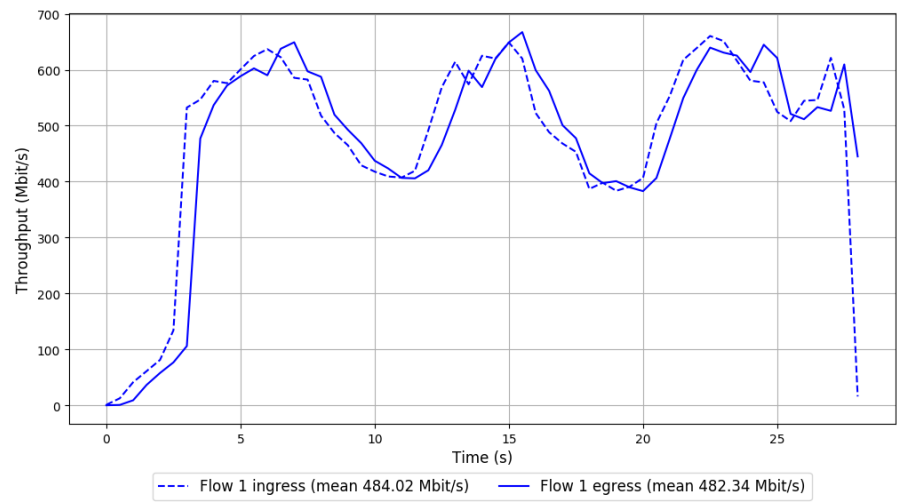
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-27 19:06:40
End at: 2019-06-27 19:07:10
Local clock offset: -0.088 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2019-06-27 21:34:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 482.34 Mbit/s
95th percentile per-packet one-way delay: 134.641 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 482.34 Mbit/s
95th percentile per-packet one-way delay: 134.641 ms
Loss rate: 0.97%
```
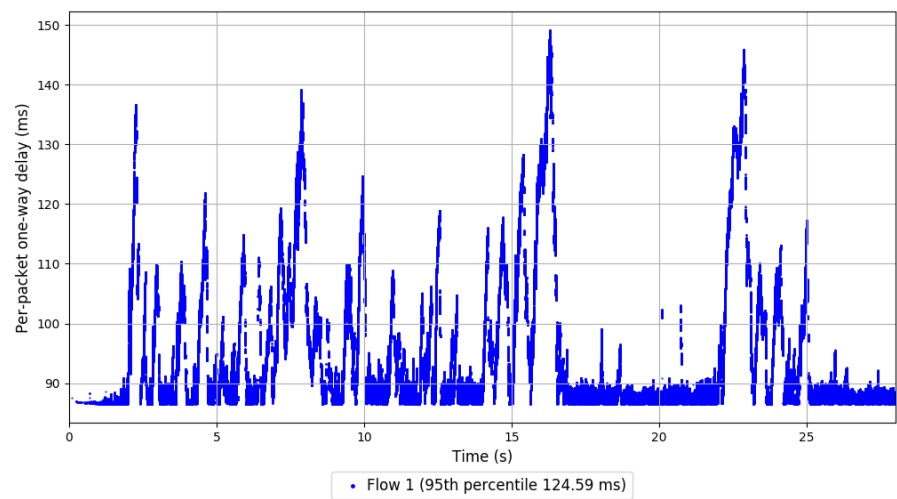
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-27 19:38:59
End at: 2019-06-27 19:39:29
Local clock offset: 0.395 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-06-27 21:35:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 528.41 Mbit/s
95th percentile per-packet one-way delay: 124.590 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 528.41 Mbit/s
95th percentile per-packet one-way delay: 124.590 ms
Loss rate: 0.48%
```
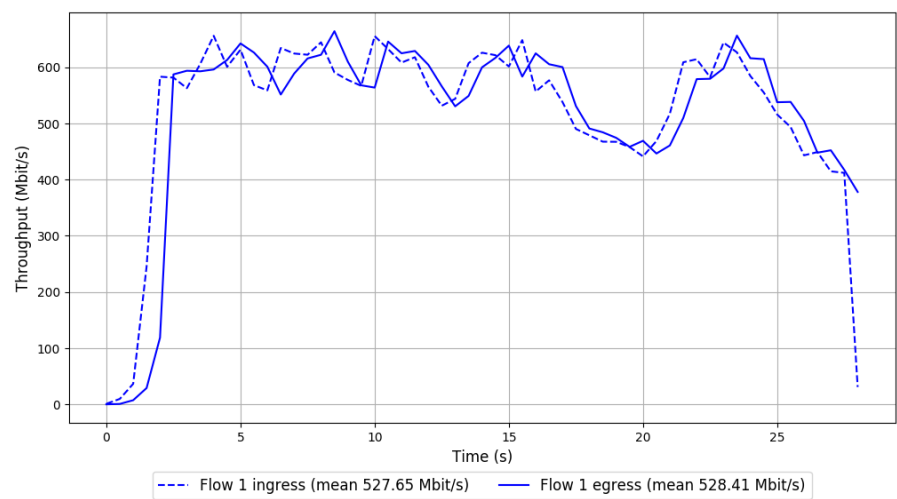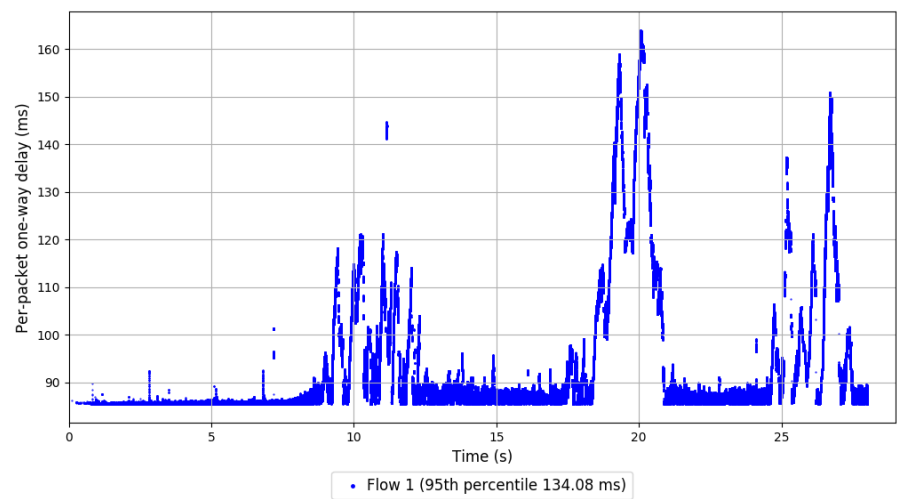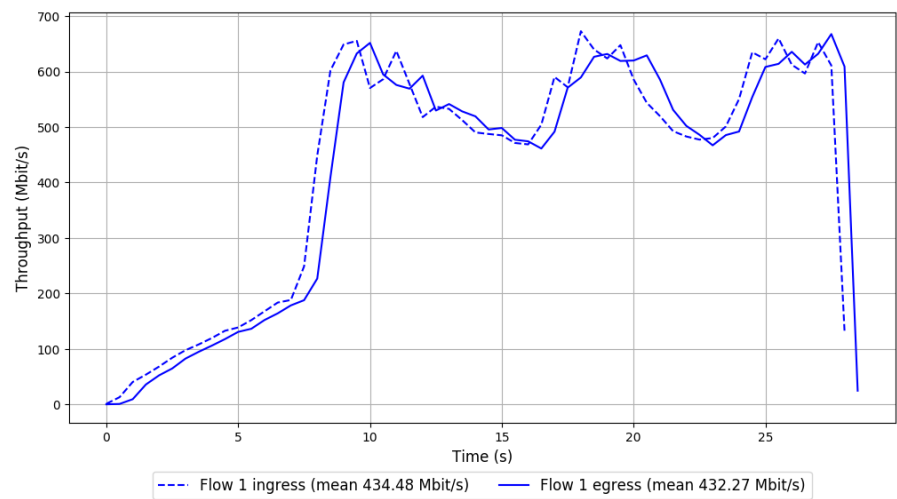
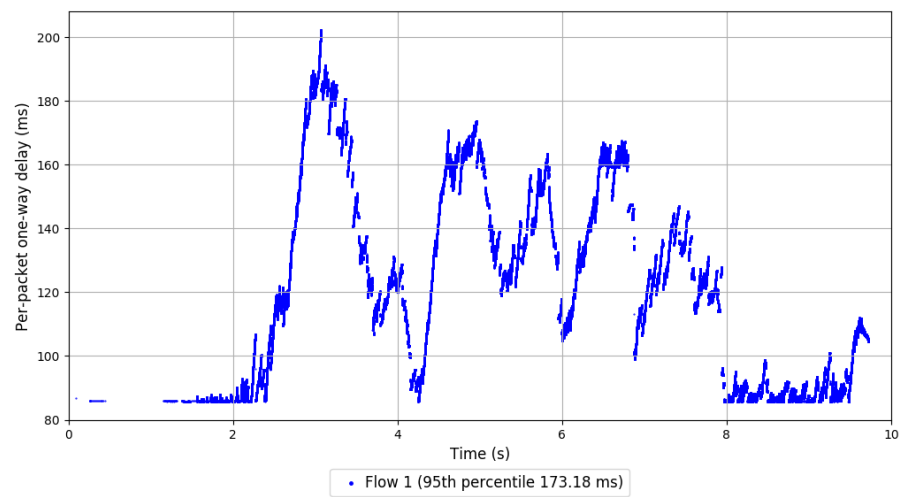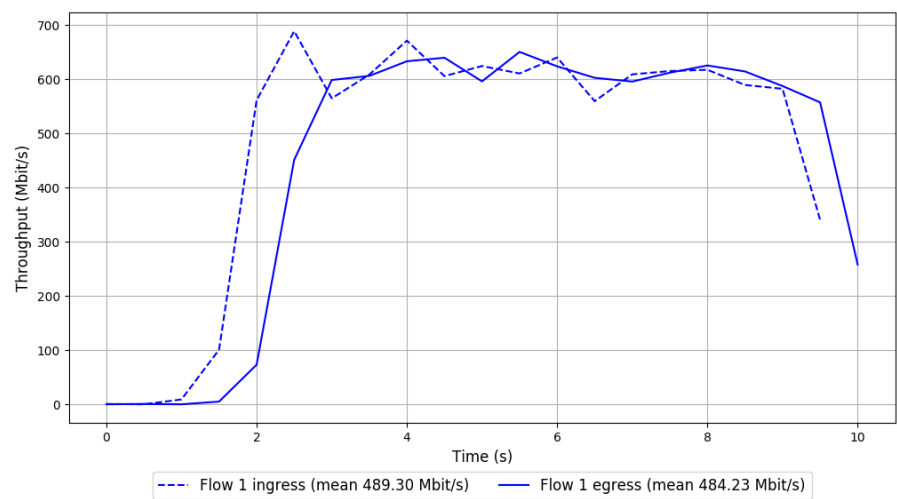Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-27 20:11:17
End at: 2019-06-27 20:11:47
Local clock offset: -0.385 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2019-06-27 21:37:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 432.27 Mbit/s
95th percentile per-packet one-way delay: 134.077 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 432.27 Mbit/s
95th percentile per-packet one-way delay: 134.077 ms
Loss rate: 1.12%
```
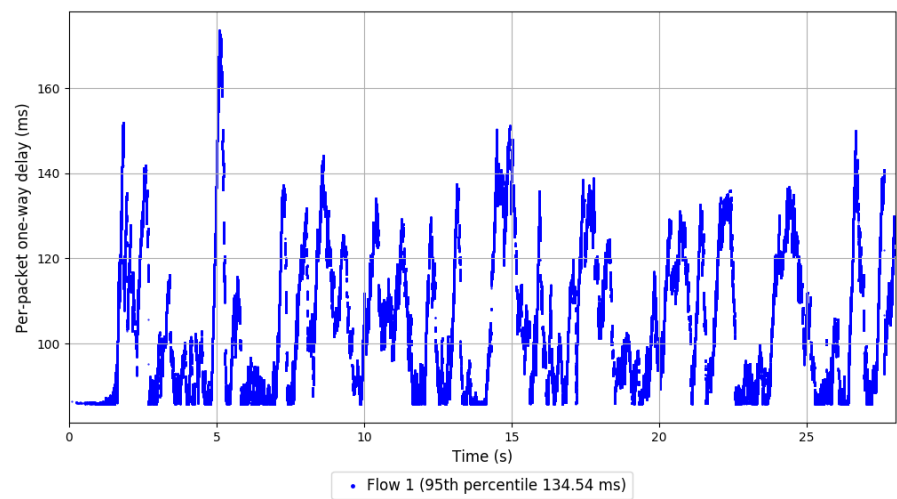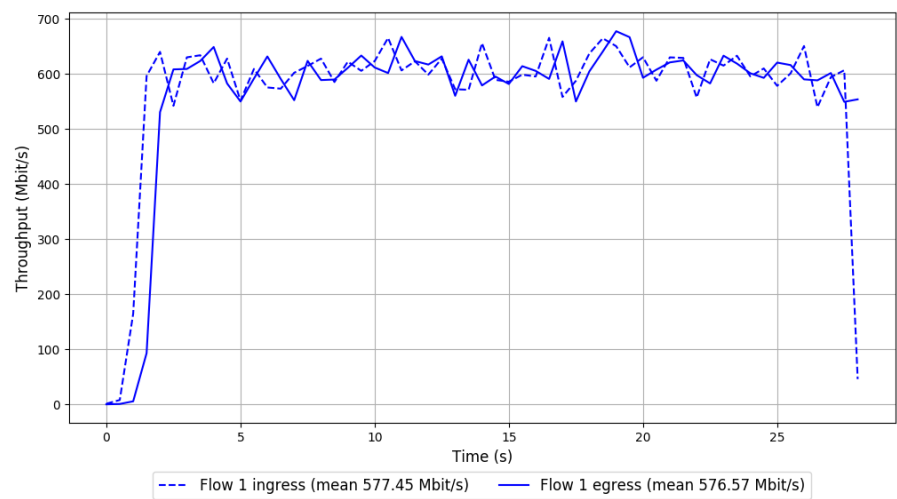
Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 434.48 Mbit/s)   Flow 1 egress (mean 432.27 Mbit/s)

Flow 1 (95th percentile 134.08 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-27 17:54:32
End at: 2019-06-27 17:55:02
Local clock offset: -0.131 ms
Remote clock offset: 0.185 ms
```

Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-27 18:26:25
End at: 2019-06-27 18:26:55
Local clock offset: -0.02 ms
Remote clock offset: 0.362 ms


# Below is generated by plot.py at 2019-06-27 21:44:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 576.57 Mbit/s
95th percentile per-packet one-way delay: 134.537 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 576.57 Mbit/s
95th percentile per-packet one-way delay: 134.537 ms
Loss rate: 0.77%
```

Run 2: Report of Indigo-MusesT — Data Link

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```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-27 18:59:04
End at: 2019-06-27 18:59:34
Local clock offset: -0.047 ms
Remote clock offset: -0.098 ms


# Below is generated by plot.py at 2019-06-27 21:44:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 590.30 Mbit/s
95th percentile per-packet one-way delay: 162.632 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 590.30 Mbit/s
95th percentile per-packet one-way delay: 162.632 ms
Loss rate: 1.06%
```
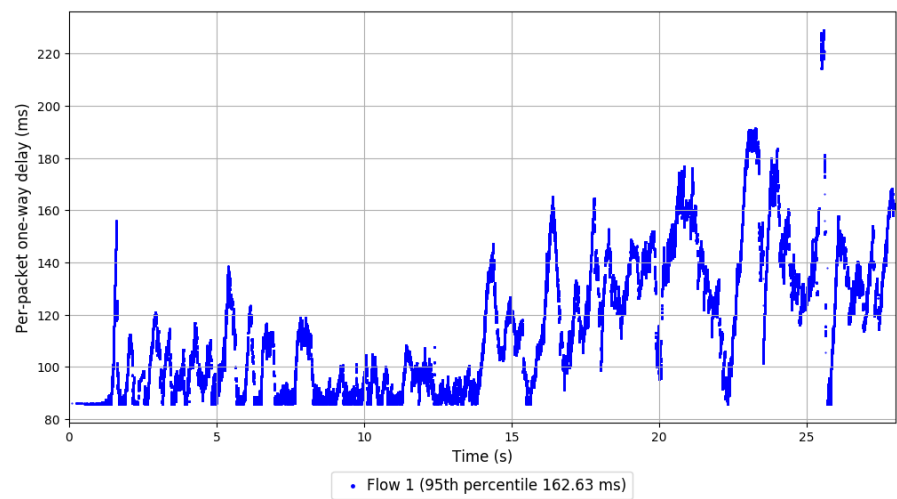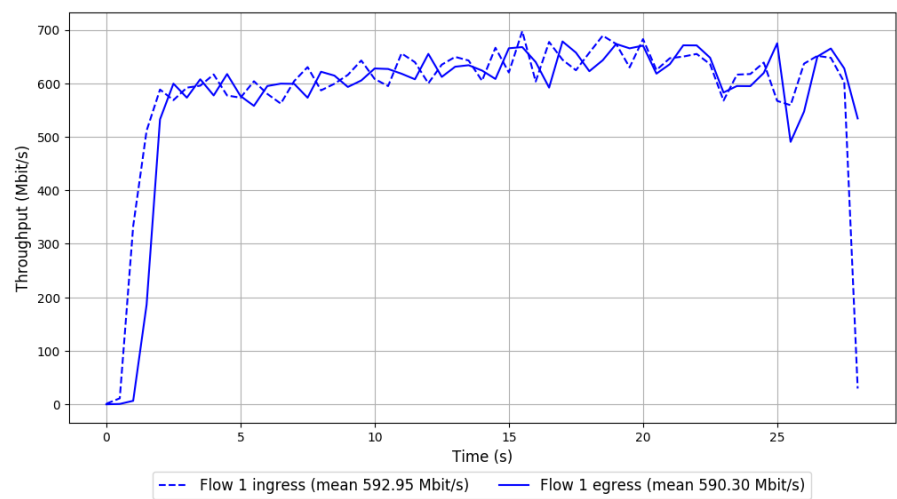
Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-27 19:31:27
End at: 2019-06-27 19:31:57
Local clock offset: 0.178 ms
Remote clock offset: -0.007 ms


# Below is generated by plot.py at 2019-06-27 21:45:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 599.82 Mbit/s
95th percentile per-packet one-way delay: 148.414 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 599.82 Mbit/s
95th percentile per-packet one-way delay: 148.414 ms
Loss rate: 0.83%
```
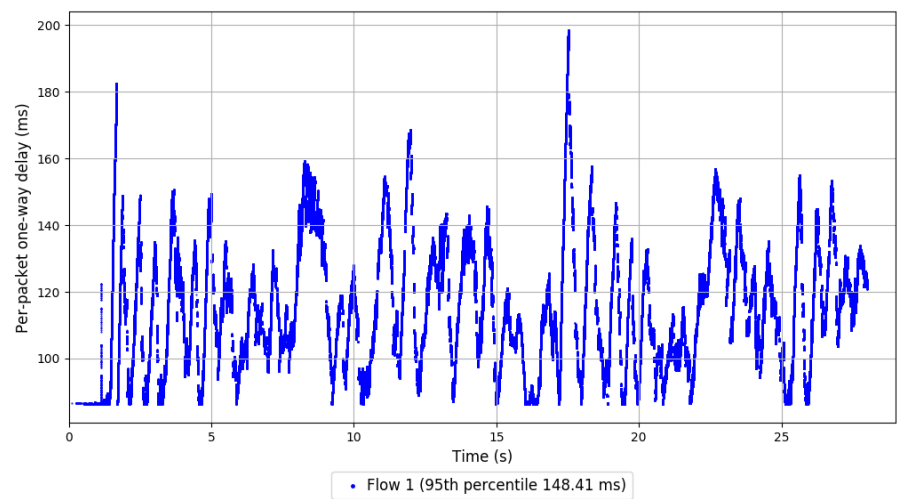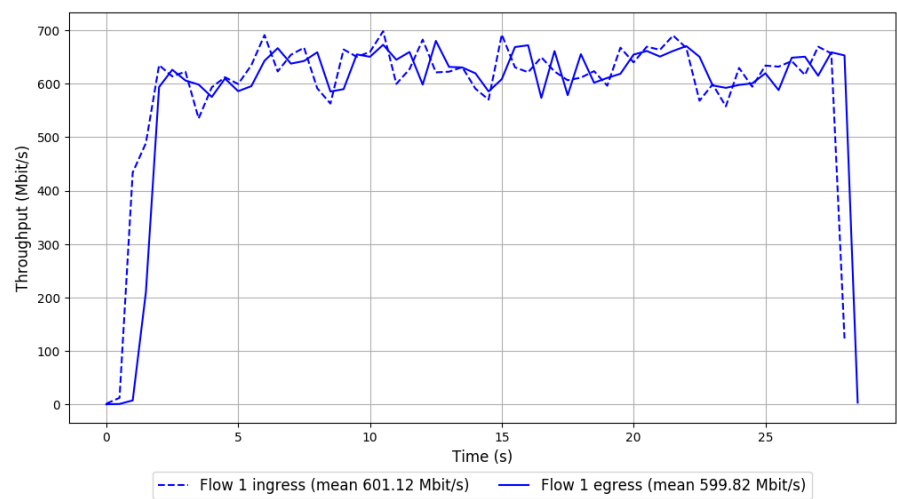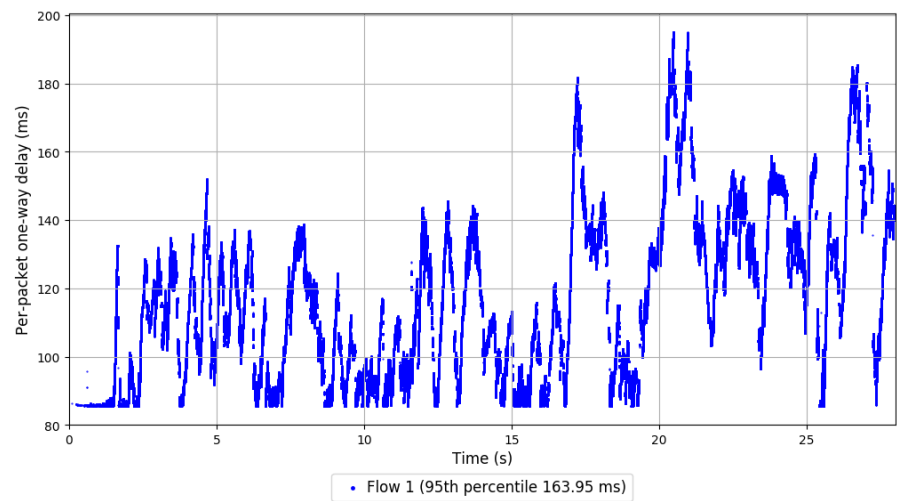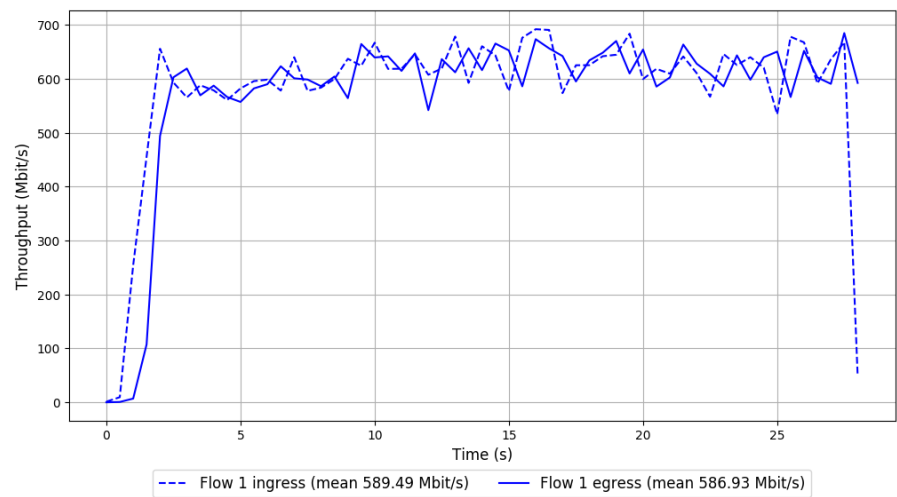
Run 4: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 601.12 Mbit/s)   Flow 1 egress (mean 599.82 Mbit/s)

Flow 1 (95th percentile 148.41 ms)

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-27 20:03:46
End at: 2019-06-27 20:04:16
Local clock offset: -0.291 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2019-06-27 21:45:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 586.93 Mbit/s
95th percentile per-packet one-way delay: 163.948 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 586.93 Mbit/s
95th percentile per-packet one-way delay: 163.948 ms
Loss rate: 1.05%
```

Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-06-27 17:44:28
End at: 2019-06-27 17:44:58
Local clock offset: 0.088 ms
Remote clock offset: 0.124 ms


# Below is generated by plot.py at 2019-06-27 21:45:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.39 Mbit/s
95th percentile per-packet one-way delay: 87.185 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 12.39 Mbit/s
95th percentile per-packet one-way delay: 87.185 ms
Loss rate: 1.14%
```
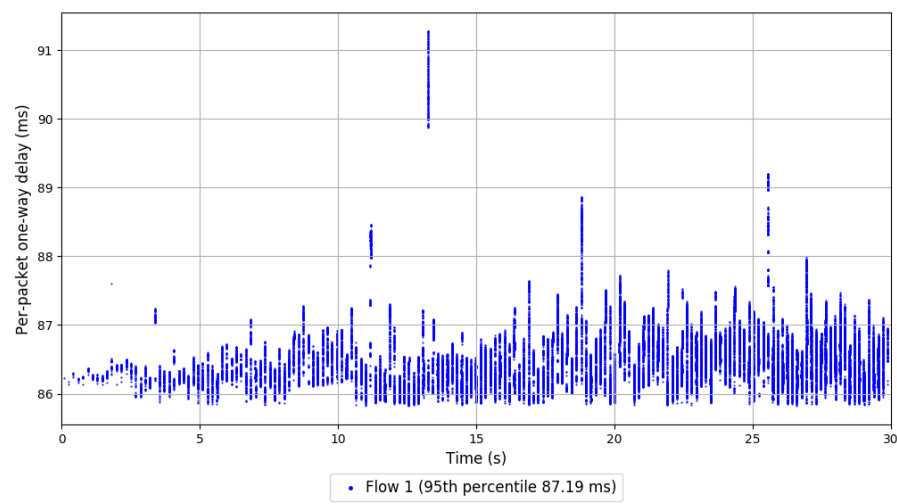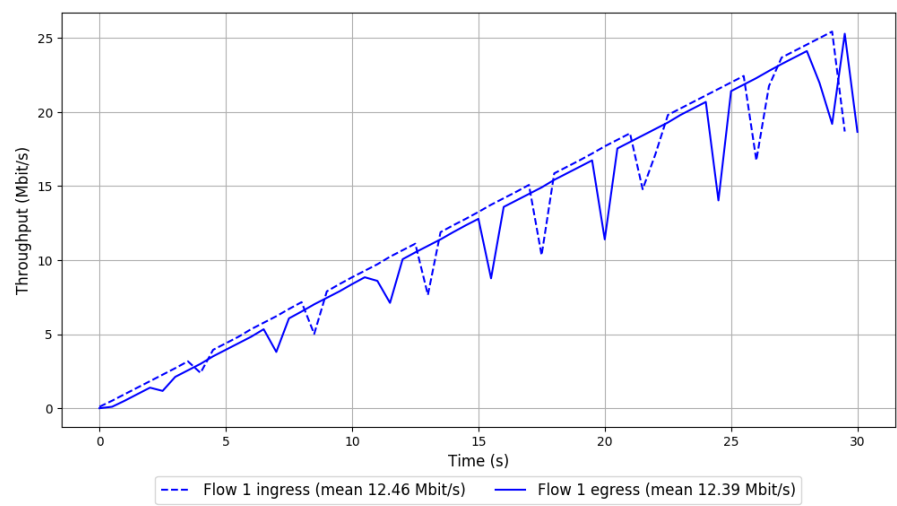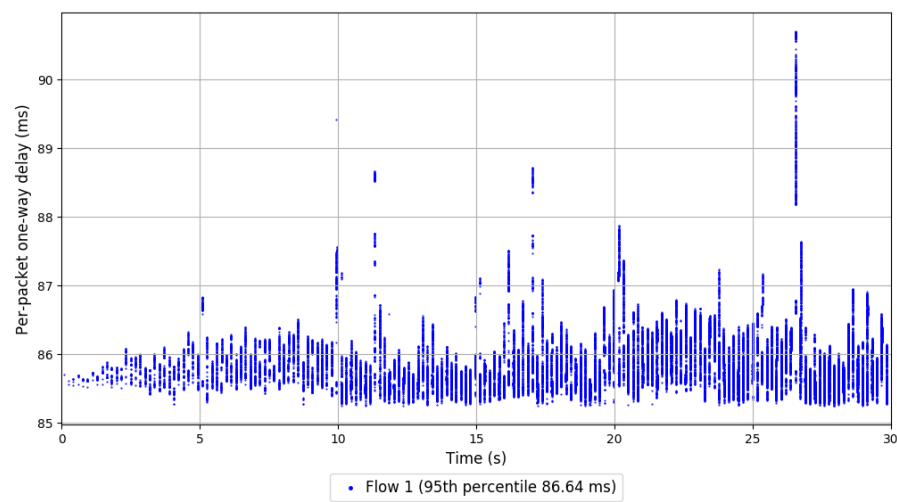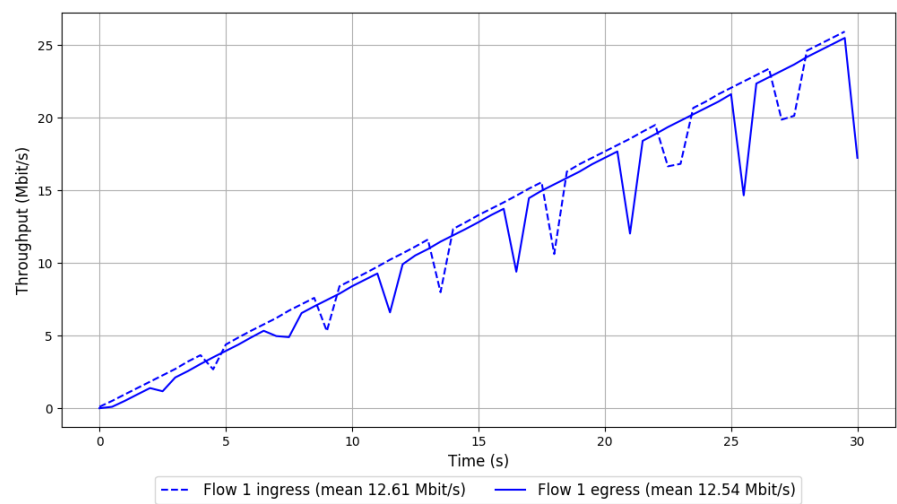
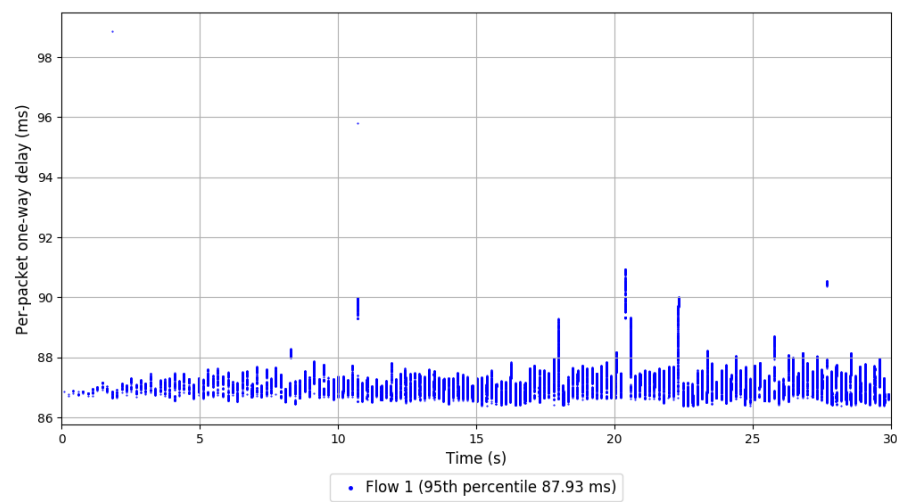## Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-06-27 18:16:18
End at: 2019-06-27 18:16:48
Local clock offset: -0.452 ms
Remote clock offset: 0.28 ms


# Below is generated by plot.py at 2019-06-27 21:45:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.54 Mbit/s
95th percentile per-packet one-way delay: 86.641 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.54 Mbit/s
95th percentile per-packet one-way delay: 86.641 ms
Loss rate: 1.15%
```

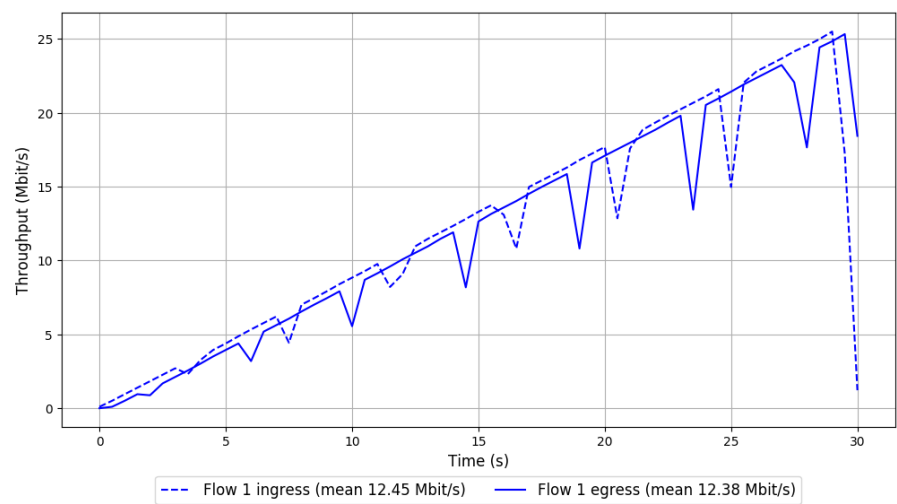Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-06-27 18:48:51
End at: 2019-06-27 18:49:21
Local clock offset: 0.29 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2019-06-27 21:45:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 87.933 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 87.933 ms
Loss rate: 1.15%
```

Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 12.45 Mbit/s) --- Flow 1 egress (mean 12.38 Mbit/s)

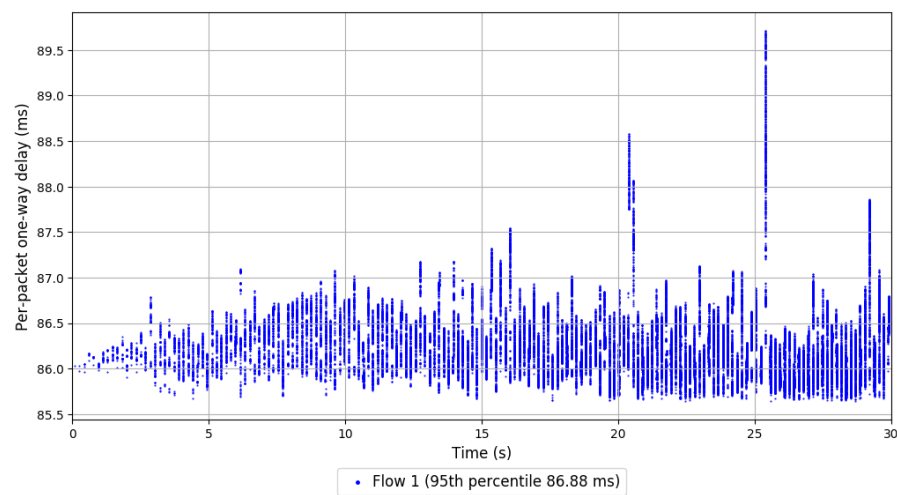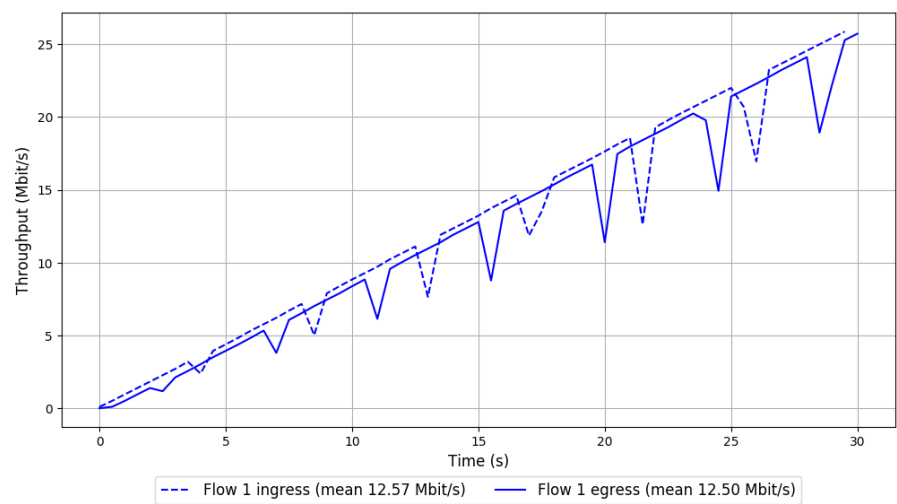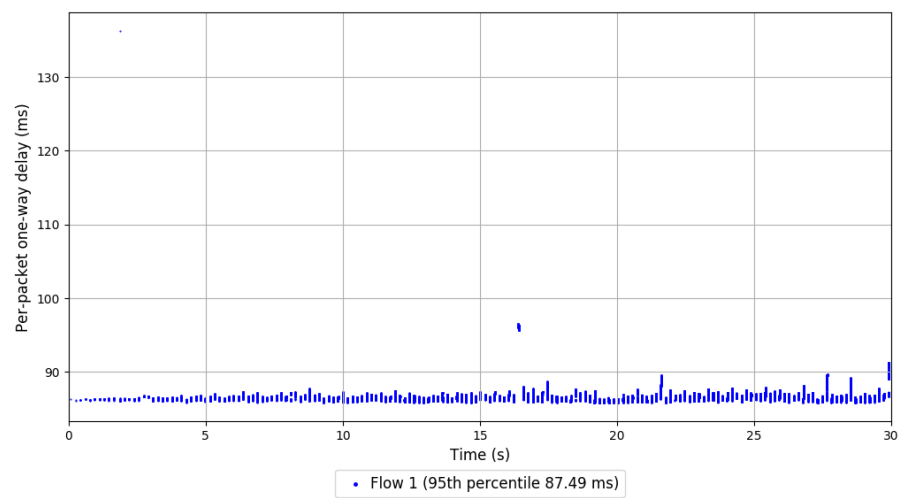Flow 1 (95th percentile 87.93 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-06-27 19:21:13
End at: 2019-06-27 19:21:43
Local clock offset: -0.436 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-06-27 21:45:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 86.882 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 86.882 ms
Loss rate: 1.15%
```

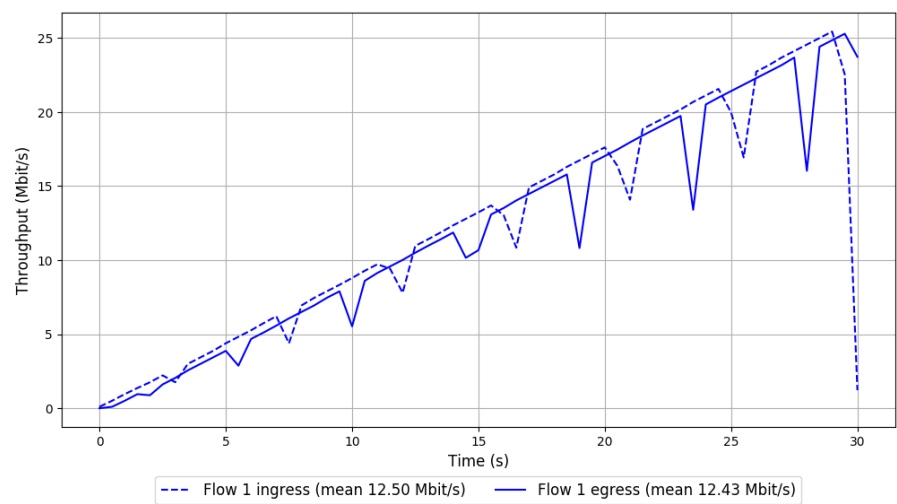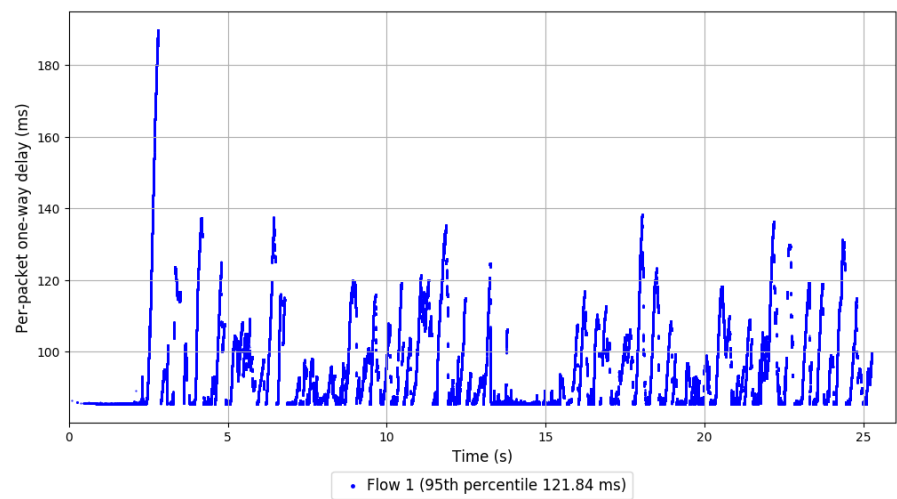## Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-06-27 19:53:44
End at: 2019-06-27 19:54:14
Local clock offset: -0.085 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2019-06-27 21:45:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 87.494 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 87.494 ms
Loss rate: 1.14%
```

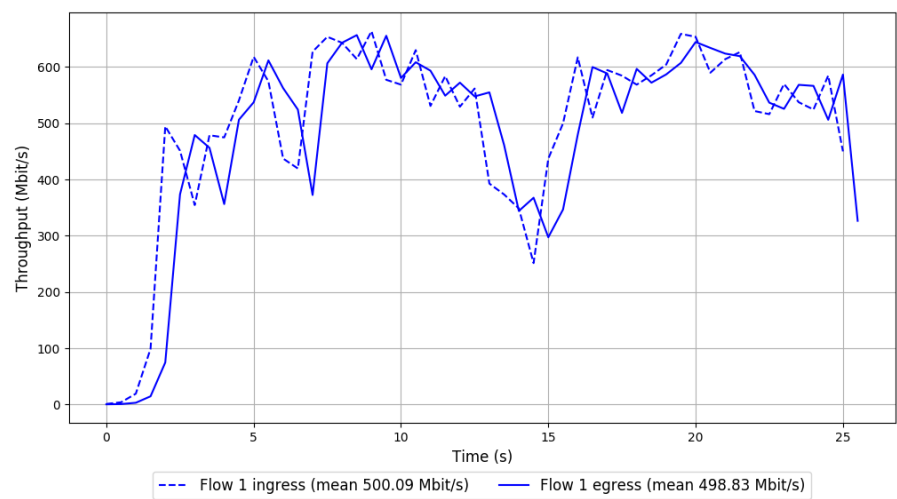# Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 17:45:39
End at: 2019-06-27 17:46:09
Local clock offset: -0.284 ms
Remote clock offset: 0.13 ms


# Below is generated by plot.py at 2019-06-27 21:45:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 498.83 Mbit/s
95th percentile per-packet one-way delay: 121.845 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 498.83 Mbit/s
95th percentile per-packet one-way delay: 121.845 ms
Loss rate: 0.94%
```

Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 18:17:29
End at: 2019-06-27 18:17:59
Local clock offset: 0.174 ms
Remote clock offset: 0.265 ms


# Below is generated by plot.py at 2019-06-27 21:45:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 468.38 Mbit/s
95th percentile per-packet one-way delay: 95.168 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 468.38 Mbit/s
95th percentile per-packet one-way delay: 95.168 ms
Loss rate: 0.64%
```
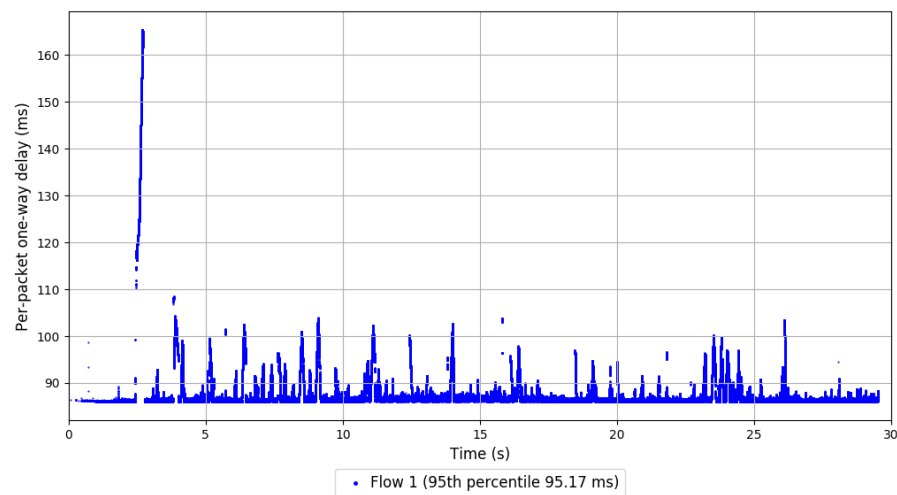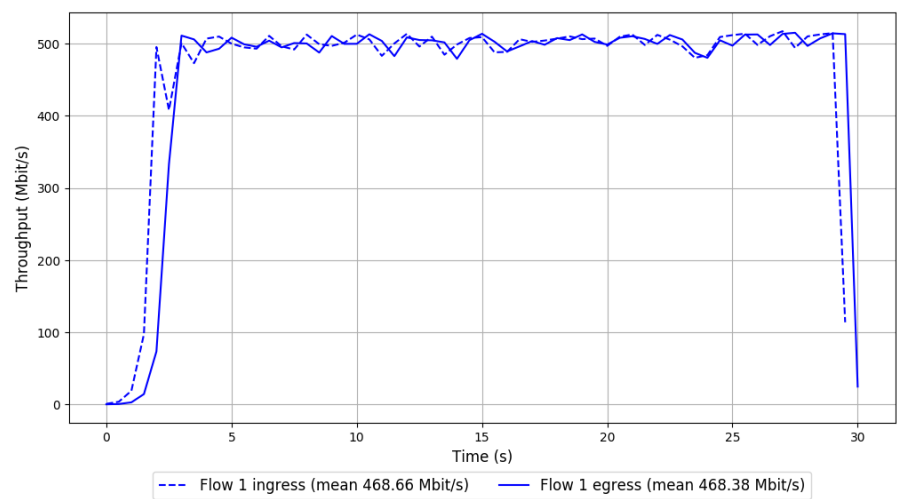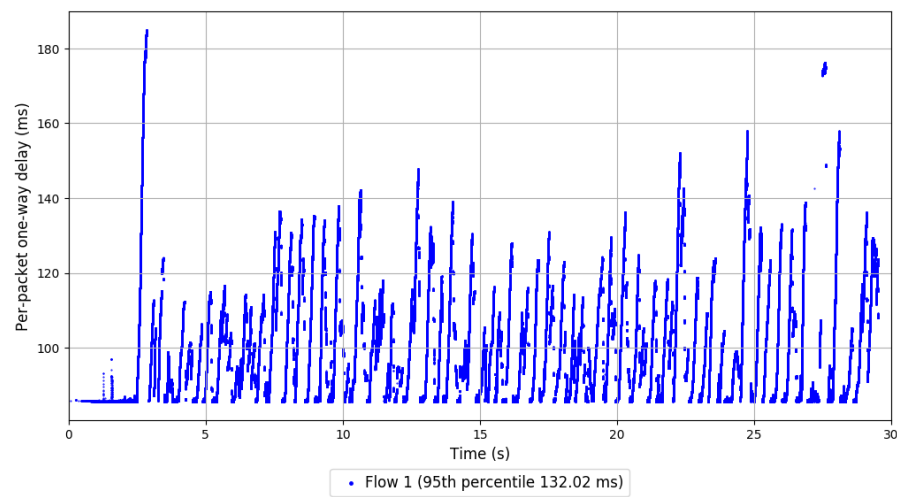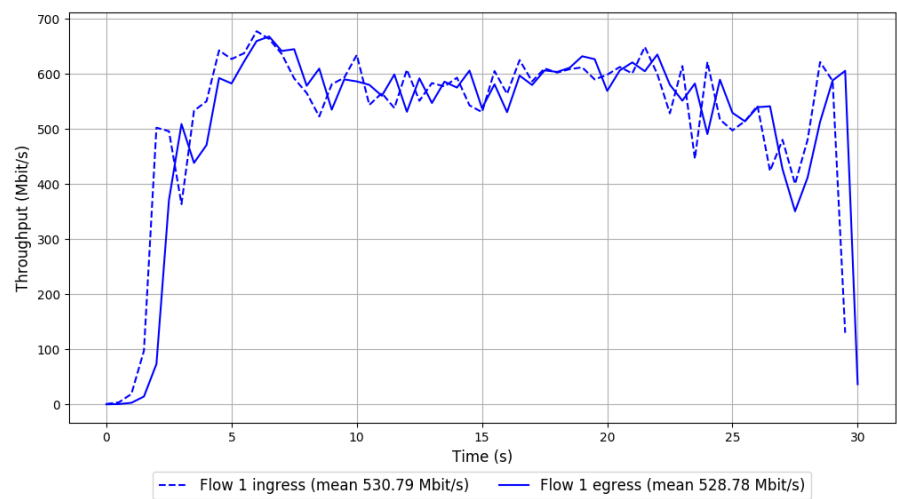
Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 18:50:02
End at: 2019-06-27 18:50:32
Local clock offset: -0.48 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2019-06-27 21:46:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 528.78 Mbit/s
95th percentile per-packet one-way delay: 132.018 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 528.78 Mbit/s
95th percentile per-packet one-way delay: 132.018 ms
Loss rate: 0.89%
```

Run 3: Report of Muses_DecisionTree — Data Link

Run 4: Statistics of Muses_DecisionTree

Start at: 2019-06-27 19:22:24
End at: 2019-06-27 19:22:54
Local clock offset: -0.229 ms
Remote clock offset: -0.03 ms

Below is generated by plot.py at 2019-06-27 21:48:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 573.73 Mbit/s
95th percentile per-packet one-way delay: 122.039 ms
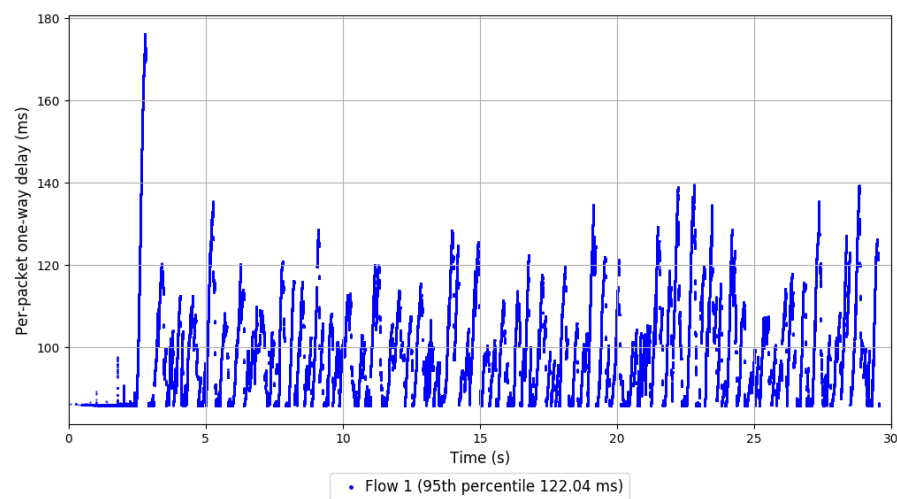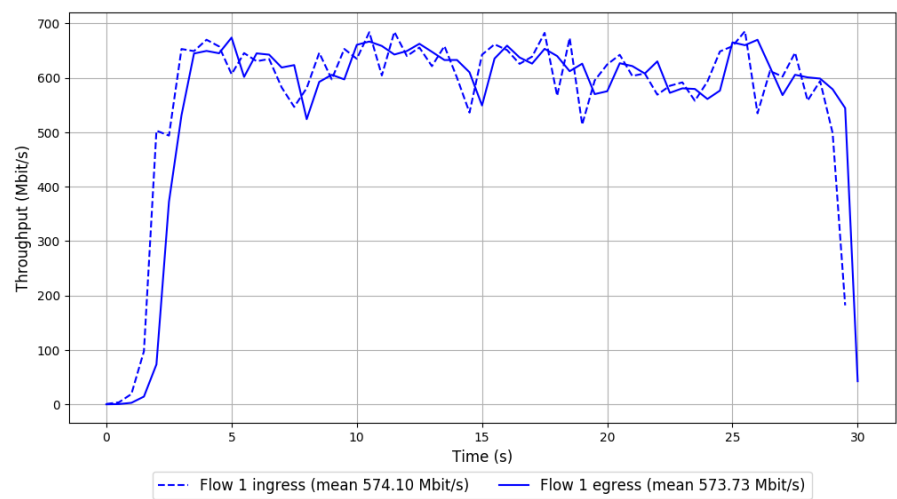Loss rate: 0.65%
-- Flow 1:
Average throughput: 573.73 Mbit/s
95th percentile per-packet one-way delay: 122.039 ms
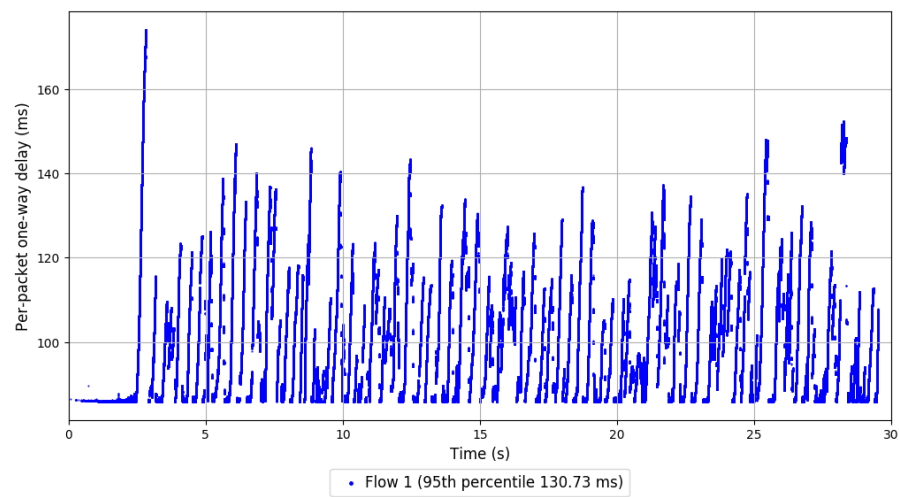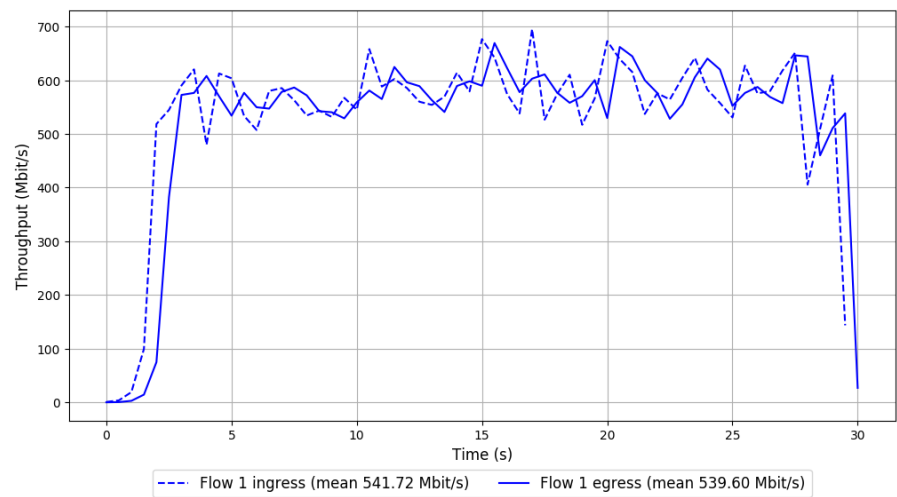Loss rate: 0.65%

Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 19:54:54
End at: 2019-06-27 19:55:24
Local clock offset: 0.083 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2019-06-27 21:55:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 539.60 Mbit/s
95th percentile per-packet one-way delay: 130.731 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 539.60 Mbit/s
95th percentile per-packet one-way delay: 130.731 ms
Loss rate: 0.88%
```
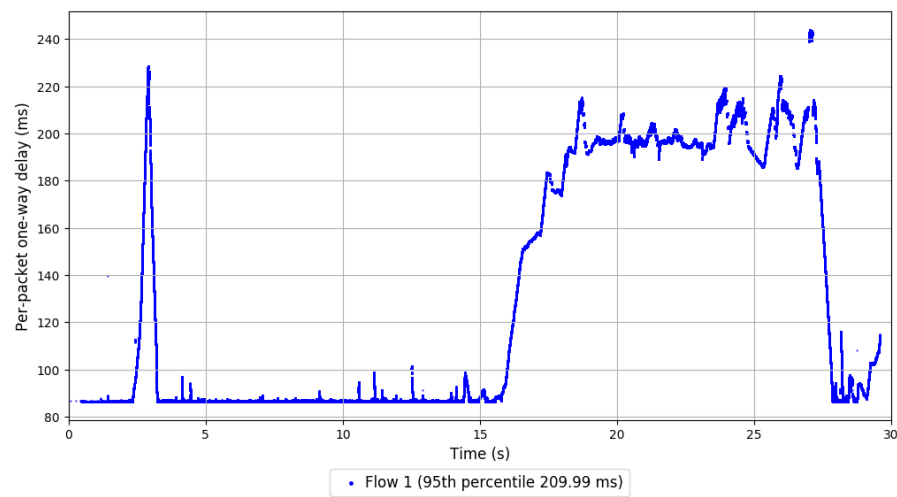
Run 5: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 541.72 Mbit/s)   Flow 1 egress (mean 539.60 Mbit/s)

Flow 1 (95th percentile 130.73 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-06-27 17:52:57
End at: 2019-06-27 17:53:27
Local clock offset: 0.304 ms
Remote clock offset: 0.175 ms


# Below is generated by plot.py at 2019-06-27 21:57:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 366.92 Mbit/s
95th percentile per-packet one-way delay: 209.986 ms
Loss rate: 3.23%
-- Flow 1:
Average throughput: 366.92 Mbit/s
95th percentile per-packet one-way delay: 209.986 ms
Loss rate: 3.23%
```
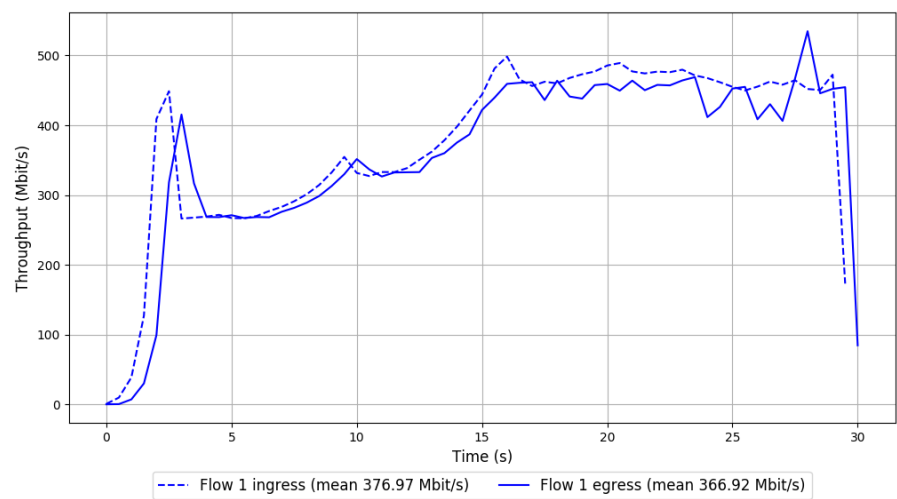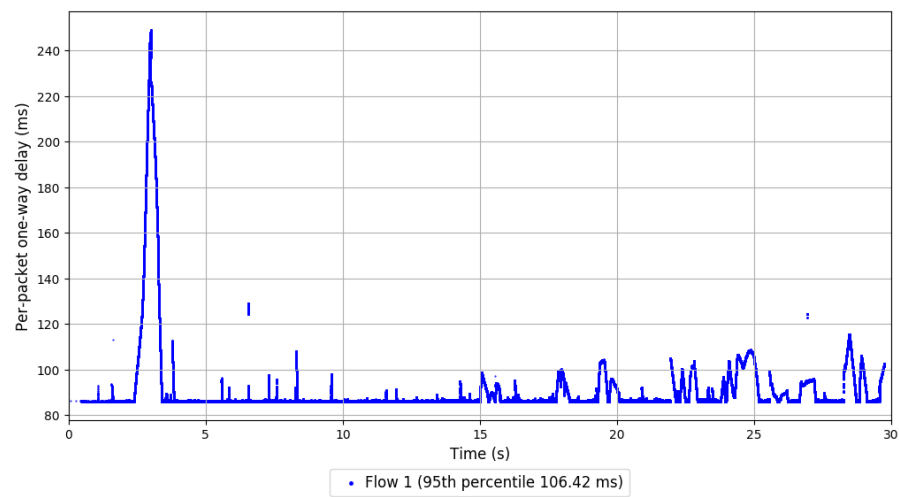
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 376.97 Mbit/s) ----   Flow 1 egress (mean 366.92 Mbit/s) ——

• Flow 1 (95th percentile 209.99 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-06-27 18:24:53
End at: 2019-06-27 18:25:23
Local clock offset: 0.1 ms
Remote clock offset: 0.327 ms

# Below is generated by plot.py at 2019-06-27 21:57:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 341.66 Mbit/s
95th percentile per-packet one-way delay: 106.419 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 341.66 Mbit/s
95th percentile per-packet one-way delay: 106.419 ms
Loss rate: 1.22%
```
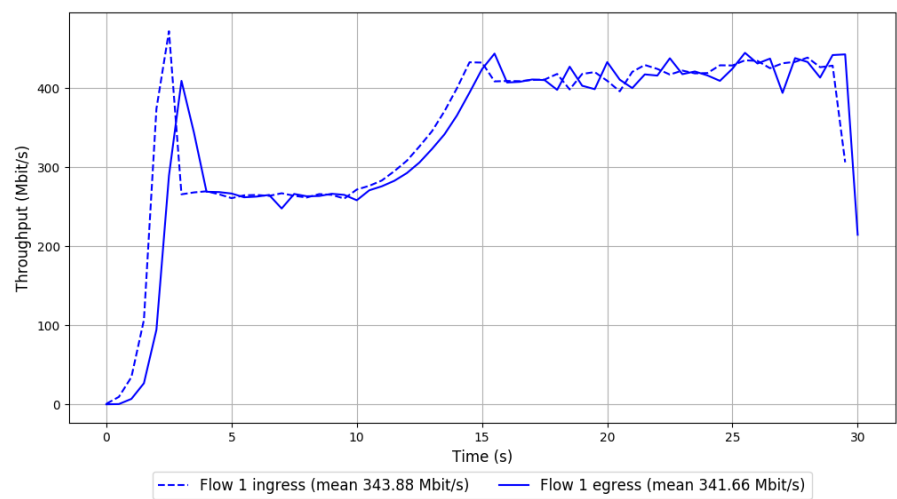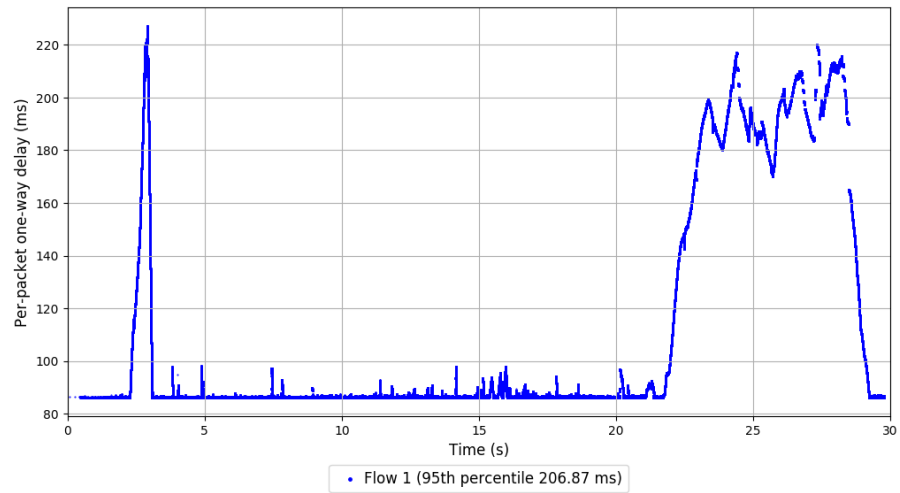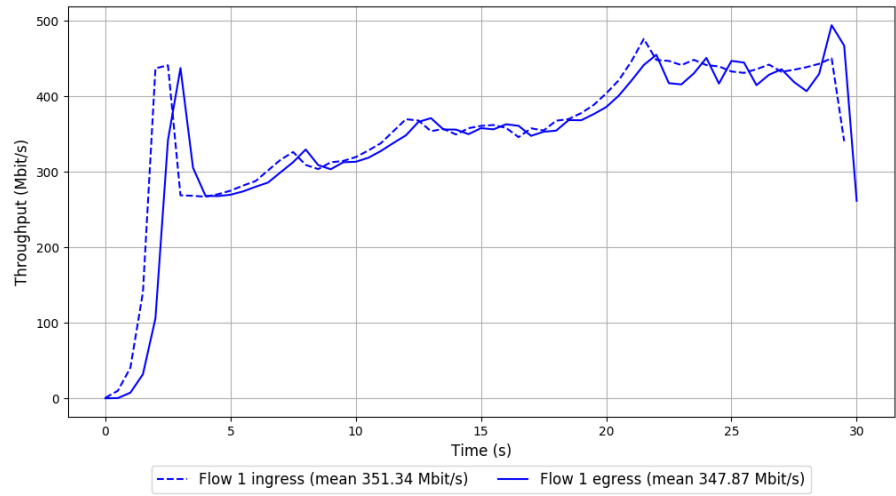
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-06-27 18:57:31
End at: 2019-06-27 18:58:01
Local clock offset: -0.074 ms
Remote clock offset: -0.102 ms


# Below is generated by plot.py at 2019-06-27 21:57:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 347.87 Mbit/s
95th percentile per-packet one-way delay: 206.869 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 347.87 Mbit/s
95th percentile per-packet one-way delay: 206.869 ms
Loss rate: 1.56%
```

Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-06-27 19:29:53
End at: 2019-06-27 19:30:23
Local clock offset: -0.282 ms
Remote clock offset: 0.011 ms


# Below is generated by plot.py at 2019-06-27 21:57:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 344.68 Mbit/s
95th percentile per-packet one-way delay: 118.544 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 344.68 Mbit/s
95th percentile per-packet one-way delay: 118.544 ms
Loss rate: 1.04%
```
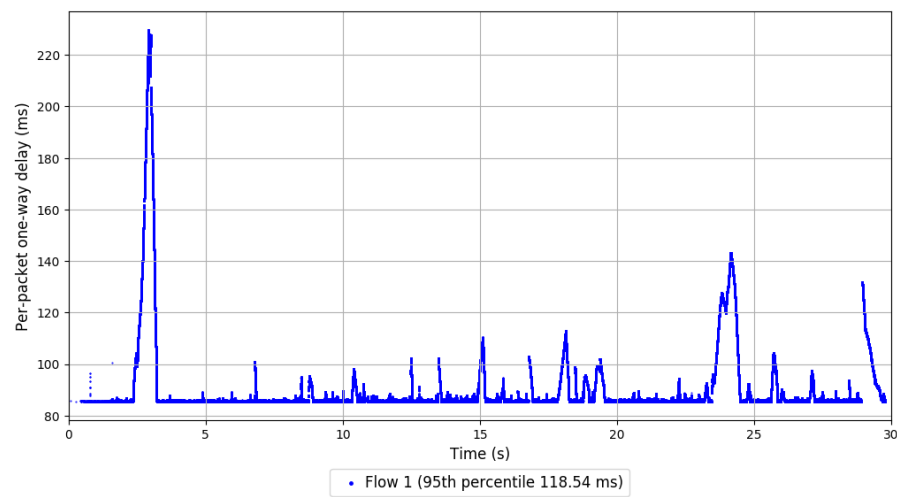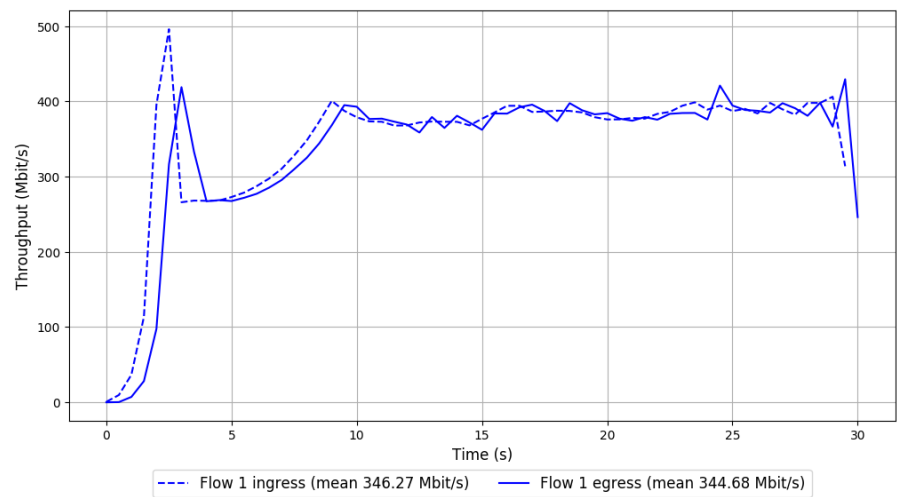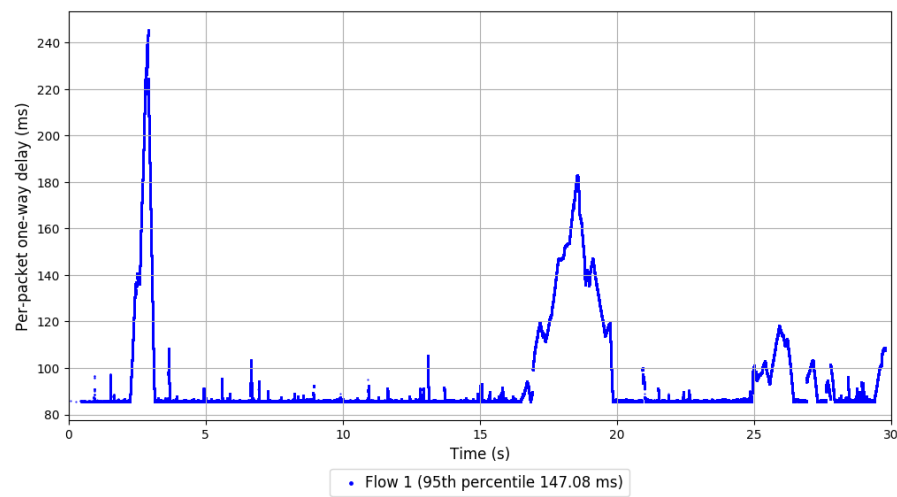
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 346.27 Mbit/s)   Flow 1 egress (mean 344.68 Mbit/s)

Flow 1 (95th percentile 118.54 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-06-27 20:02:14
End at: 2019-06-27 20:02:44
Local clock offset: -0.292 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2019-06-27 21:57:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 340.79 Mbit/s
95th percentile per-packet one-way delay: 147.076 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 340.79 Mbit/s
95th percentile per-packet one-way delay: 147.076 ms
Loss rate: 1.07%
```
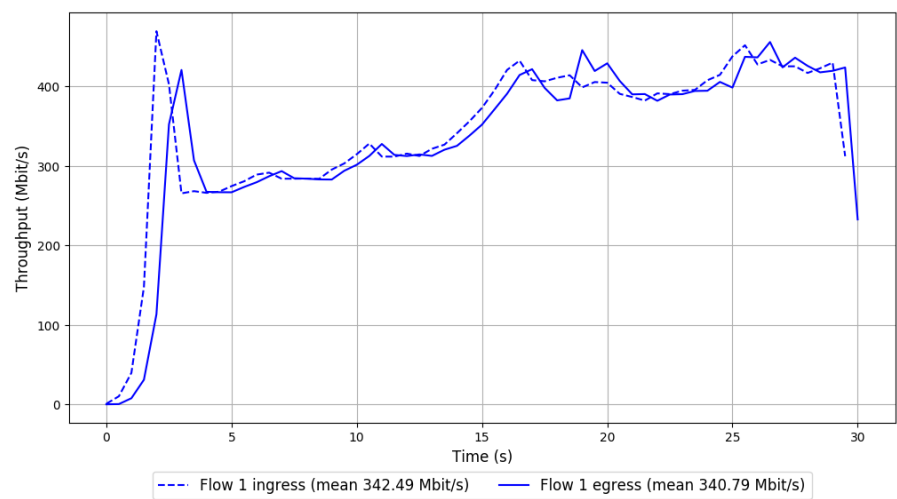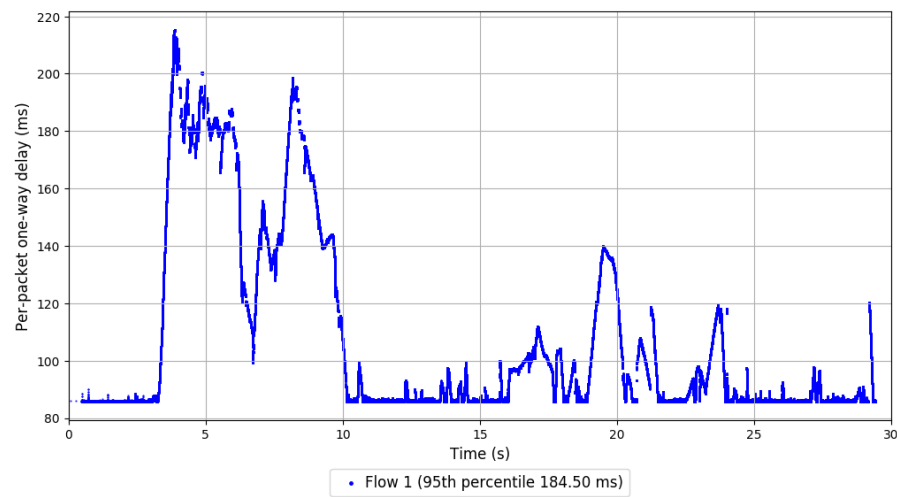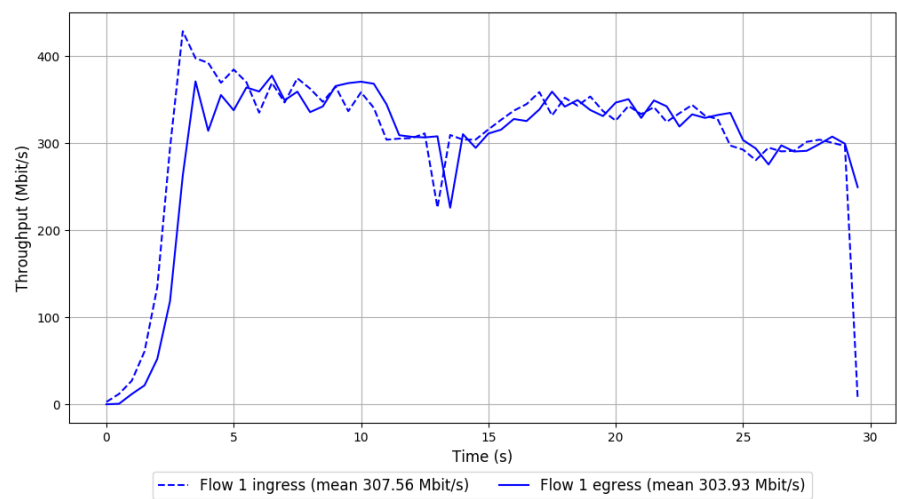
Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-27 18:06:05
End at: 2019-06-27 18:06:35
Local clock offset: -0.032 ms
Remote clock offset: 0.197 ms


# Below is generated by plot.py at 2019-06-27 21:57:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 303.93 Mbit/s
95th percentile per-packet one-way delay: 184.500 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 303.93 Mbit/s
95th percentile per-packet one-way delay: 184.500 ms
Loss rate: 1.76%
```
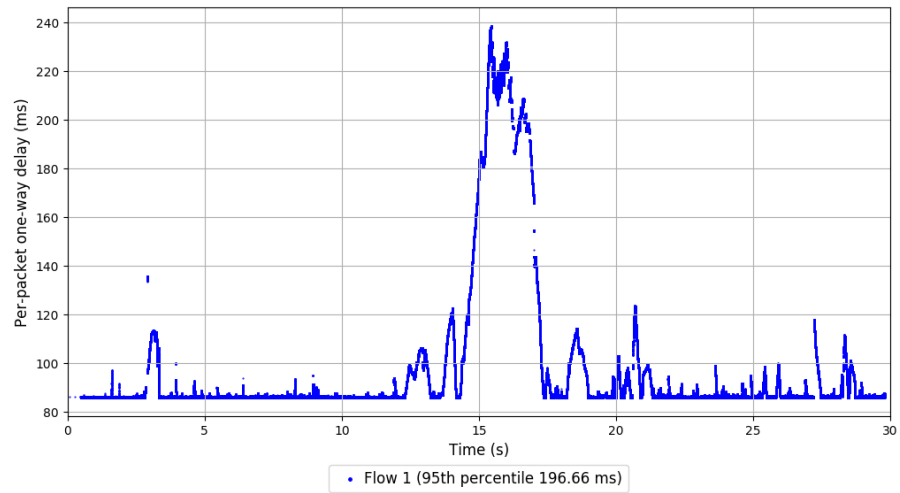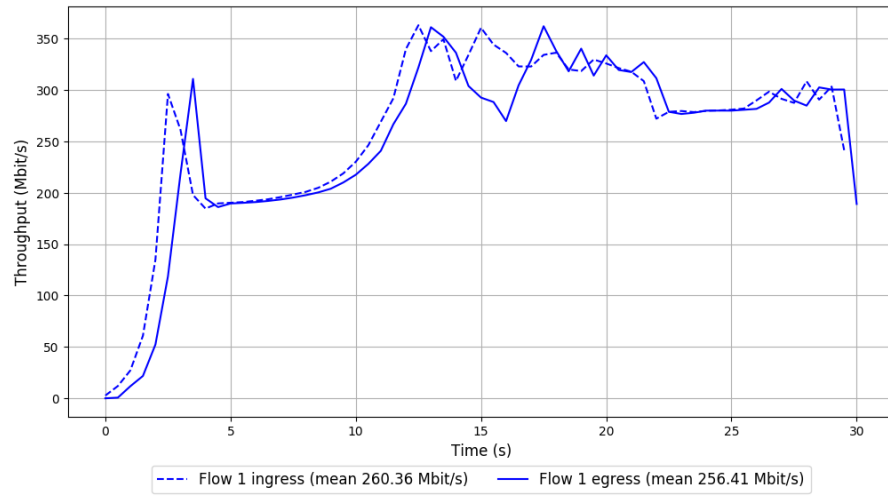
Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 307.56 Mbit/s) — Flow 1 egress (mean 303.93 Mbit/s)

Flow 1 (95th percentile 184.50 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-06-27 18:38:27
End at: 2019-06-27 18:38:57
Local clock offset: -0.016 ms
Remote clock offset: 0.12 ms


# Below is generated by plot.py at 2019-06-27 21:58:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.41 Mbit/s
95th percentile per-packet one-way delay: 196.662 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 256.41 Mbit/s
95th percentile per-packet one-way delay: 196.662 ms
Loss rate: 2.09%
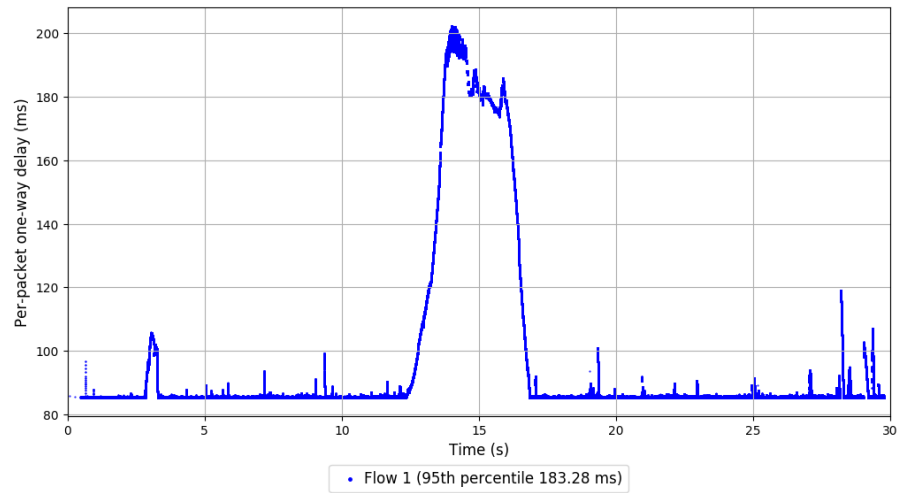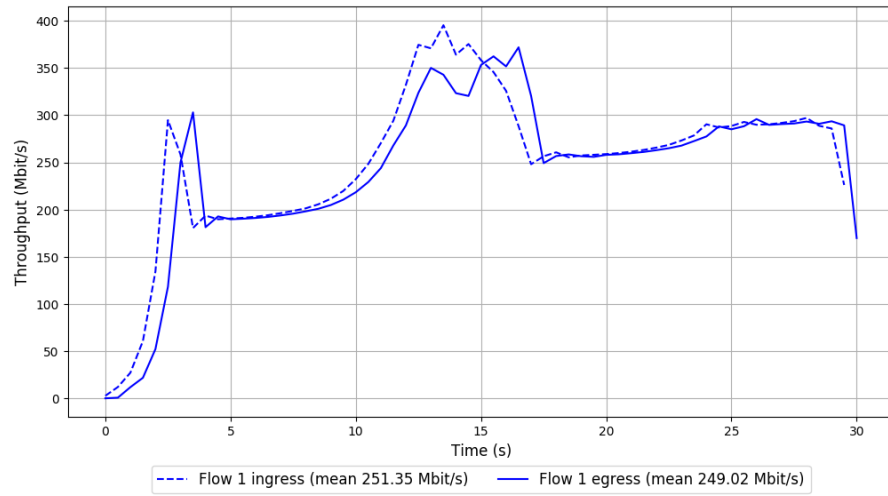```

## Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-06-27 19:11:06
End at: 2019-06-27 19:11:36
Local clock offset: -0.462 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2019-06-27 22:03:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.02 Mbit/s
95th percentile per-packet one-way delay: 183.282 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 249.02 Mbit/s
95th percentile per-packet one-way delay: 183.282 ms
Loss rate: 1.50%
```

Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 251.35 Mbit/s) ---- Flow 1 egress (mean 249.02 Mbit/s)
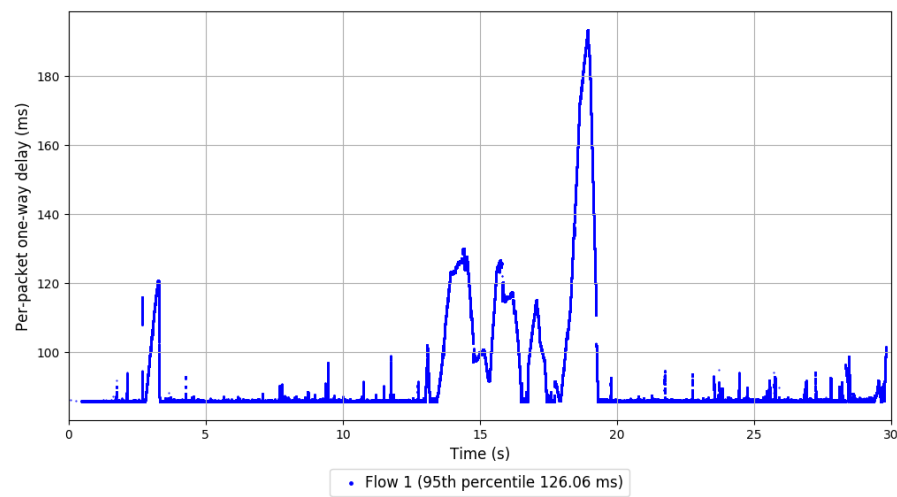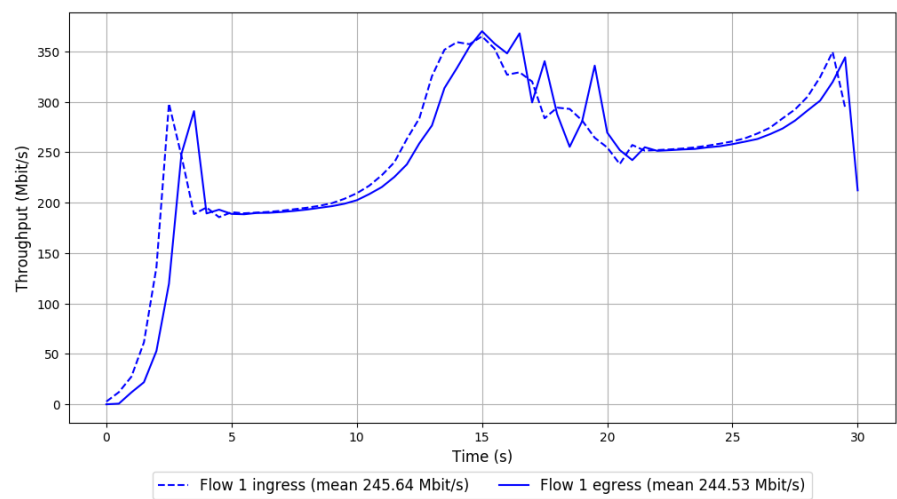

Flow 1 (95th percentile 183.28 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-06-27 19:43:27
End at: 2019-06-27 19:43:57
Local clock offset: -0.031 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2019-06-27 22:05:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 244.53 Mbit/s
95th percentile per-packet one-way delay: 126.064 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 244.53 Mbit/s
95th percentile per-packet one-way delay: 126.064 ms
Loss rate: 1.03%
```
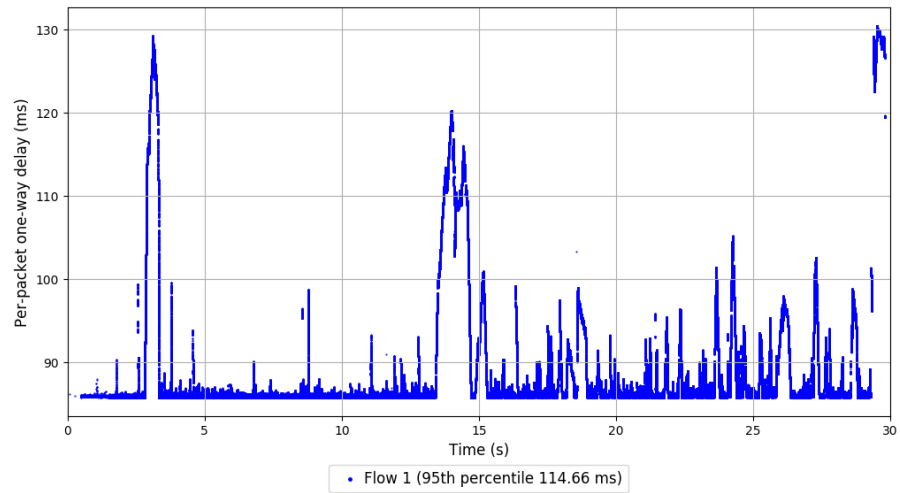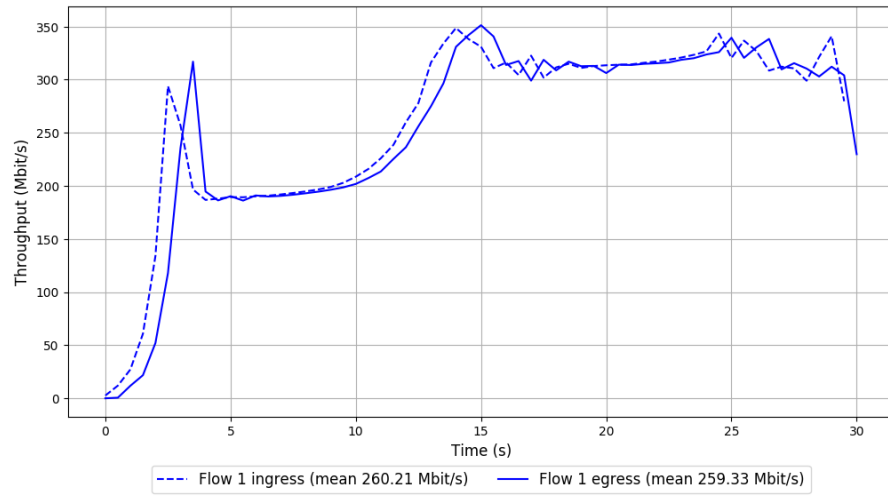
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-06-27 20:15:38
End at: 2019-06-27 20:16:08
Local clock offset: -0.067 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 259.33 Mbit/s
95th percentile per-packet one-way delay: 114.659 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 259.33 Mbit/s
95th percentile per-packet one-way delay: 114.659 ms
Loss rate: 0.92%
```

Run 5: Report of PCC-Expr — Data Link

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```
Run 1: Statistics of QUIC Cubic

Start at: 2019-06-27 17:59:02
End at: 2019-06-27 17:59:32
Local clock offset: -0.426 ms
Remote clock offset: 0.218 ms
```
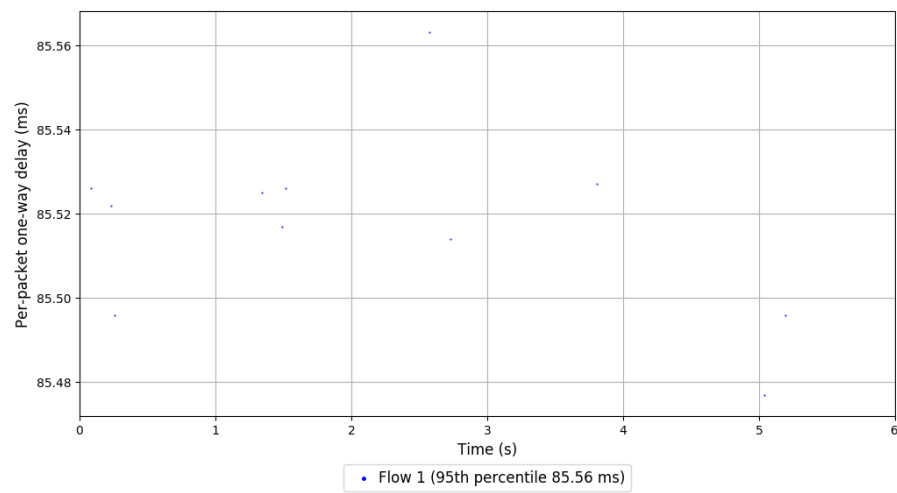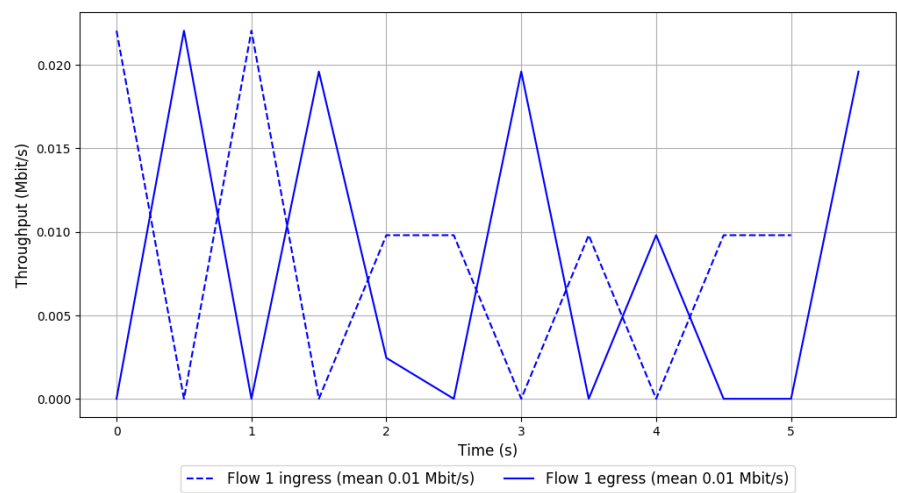
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-06-27 18:31:15
End at: 2019-06-27 18:31:45
Local clock offset: 0.308 ms
Remote clock offset: 0.281 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.95 Mbit/s
95th percentile per-packet one-way delay: 86.236 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 49.95 Mbit/s
95th percentile per-packet one-way delay: 86.236 ms
Loss rate: 0.99%
```
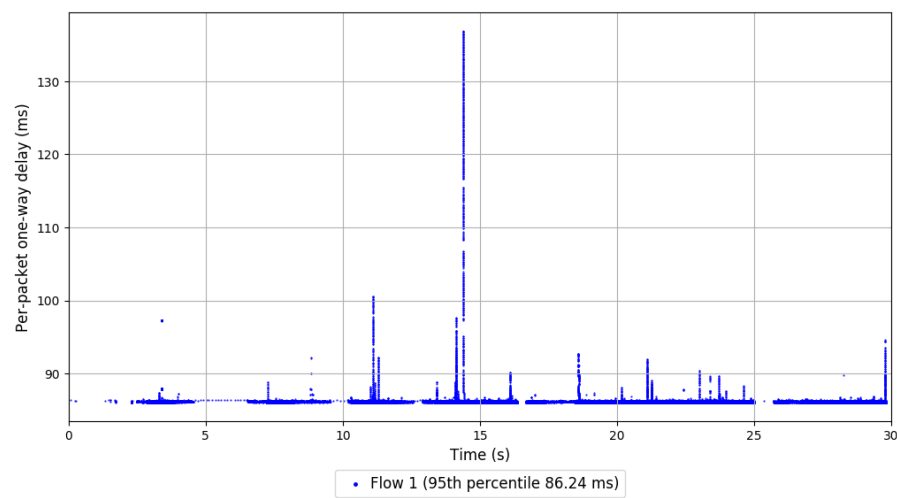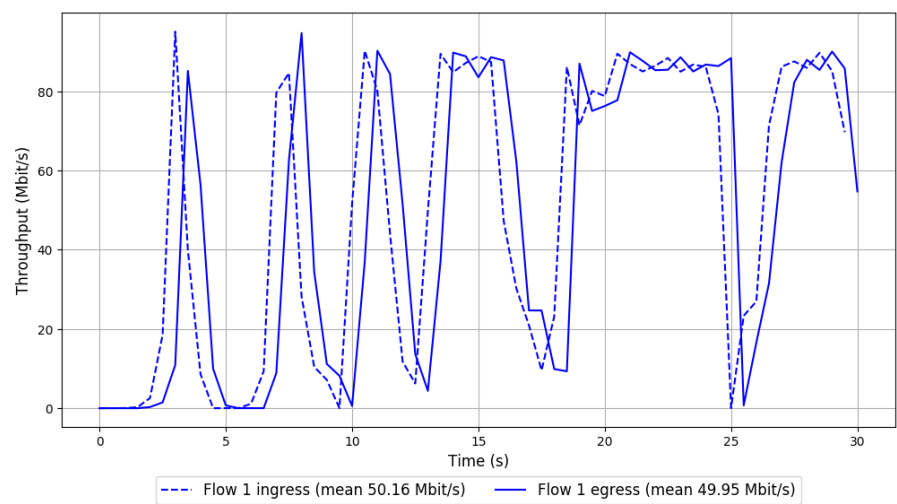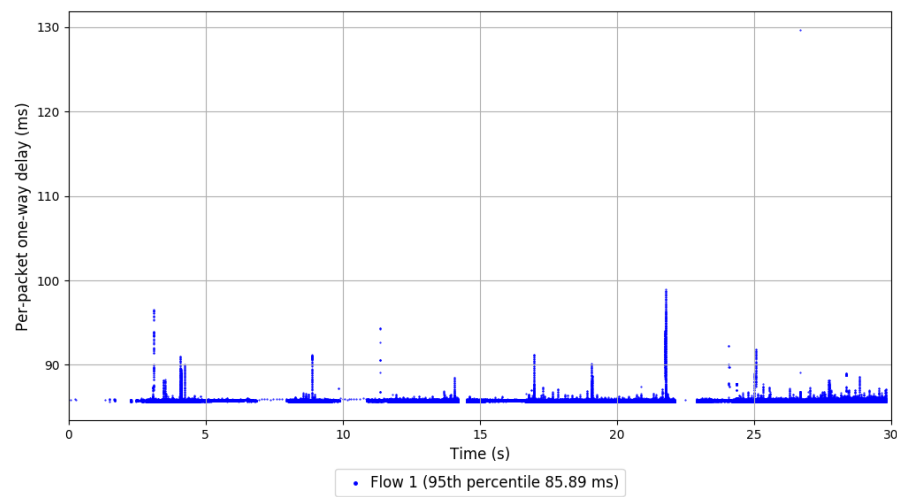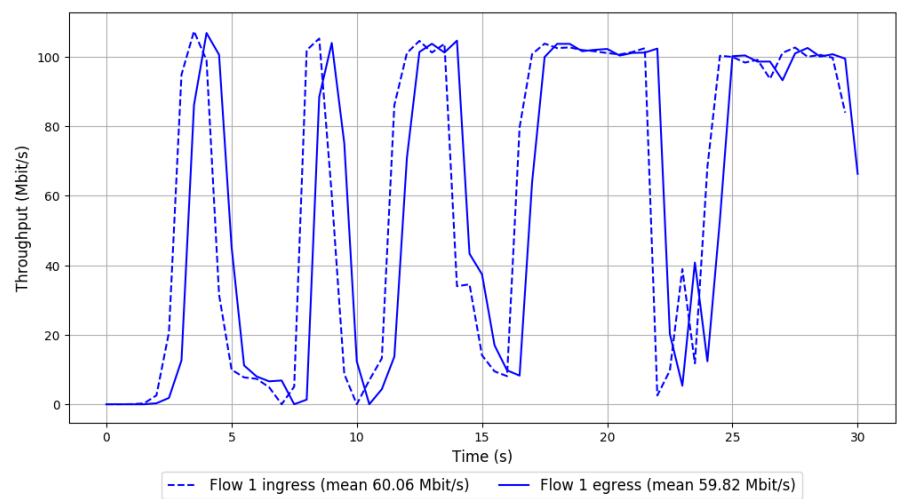
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-06-27 19:03:57
End at: 2019-06-27 19:04:27
Local clock offset: -0.099 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.82 Mbit/s
95th percentile per-packet one-way delay: 85.885 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 59.82 Mbit/s
95th percentile per-packet one-way delay: 85.885 ms
Loss rate: 0.98%
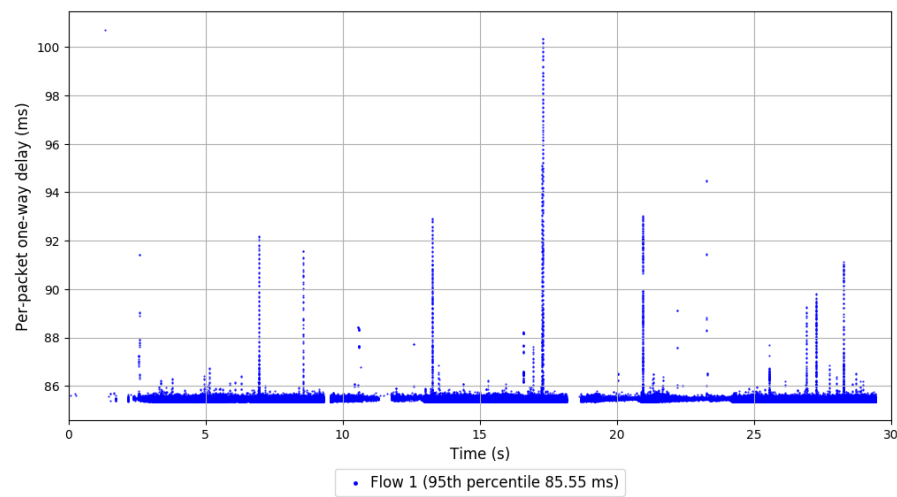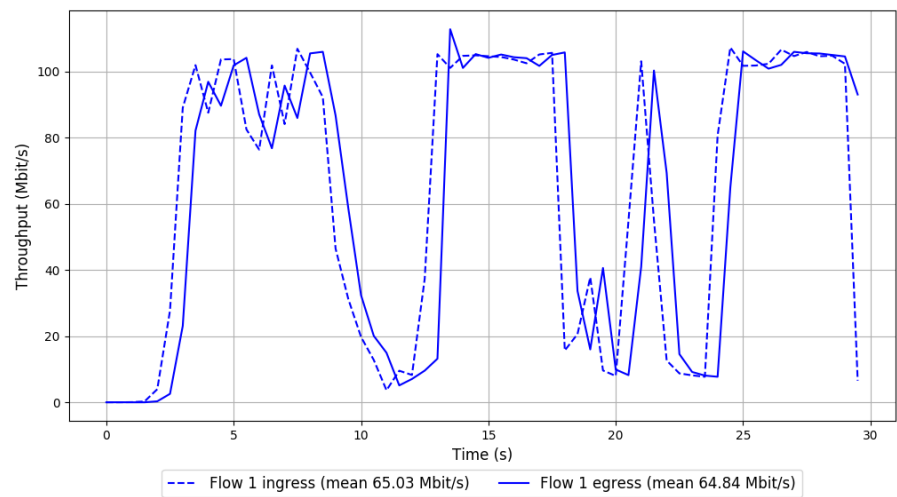```

# Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-06-27 19:36:18
End at: 2019-06-27 19:36:48
Local clock offset: -0.423 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.84 Mbit/s
95th percentile per-packet one-way delay: 85.548 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 64.84 Mbit/s
95th percentile per-packet one-way delay: 85.548 ms
Loss rate: 0.88%
```

Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 65.03 Mbit/s) — Flow 1 egress (mean 64.84 Mbit/s)

Flow 1 (95th percentile 85.55 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-06-27 20:08:36
End at: 2019-06-27 20:09:06
Local clock offset: -0.092 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.85 Mbit/s
95th percentile per-packet one-way delay: 85.909 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 55.85 Mbit/s
95th percentile per-packet one-way delay: 85.909 ms
Loss rate: 0.86%
```
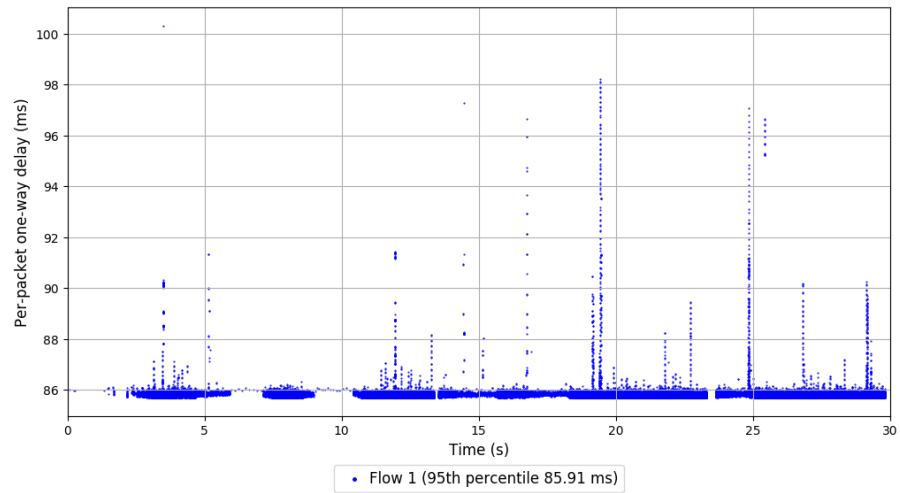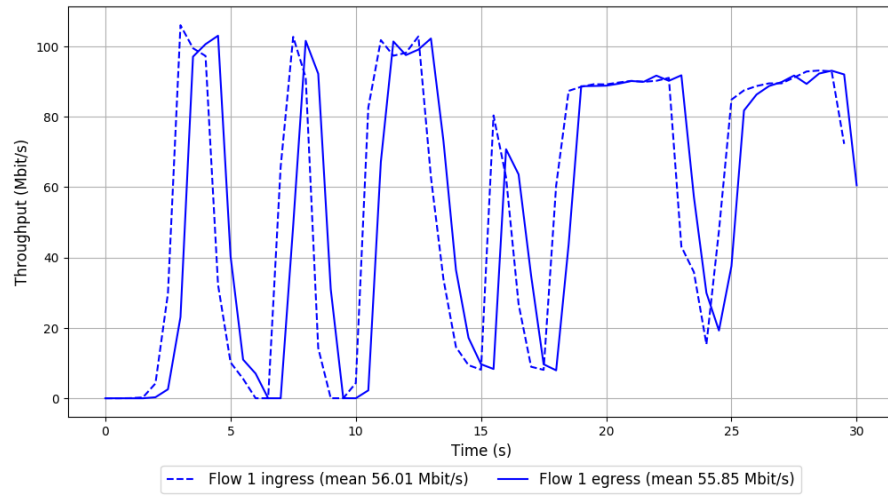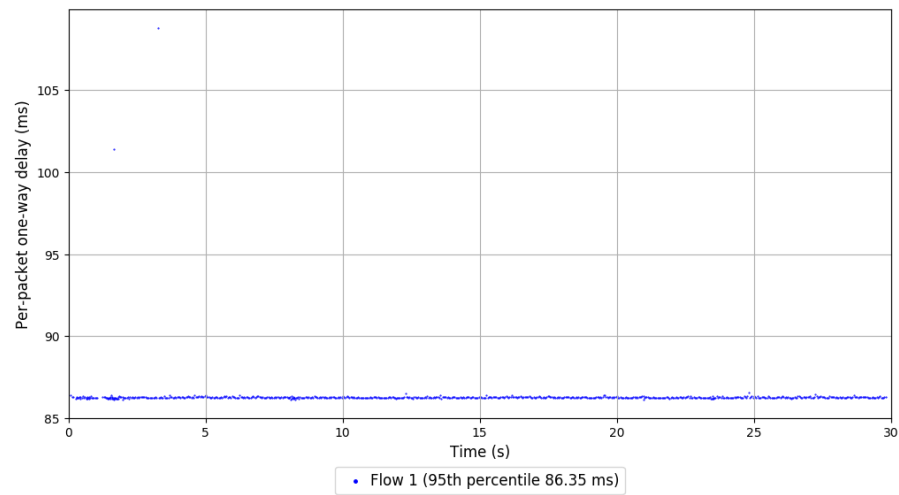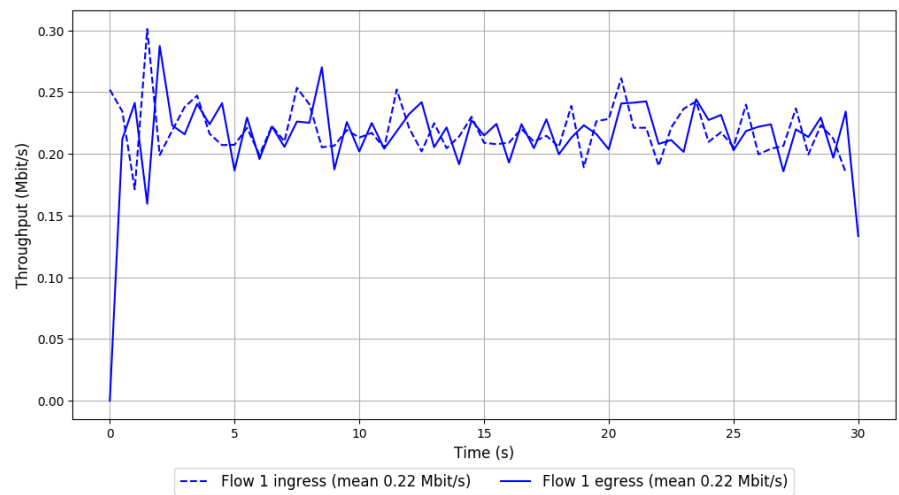
Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-06-27 18:04:56
End at: 2019-06-27 18:05:26
Local clock offset: 0.203 ms
Remote clock offset: 0.214 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.353 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.353 ms
Loss rate: 0.64%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-06-27 18:37:18
End at: 2019-06-27 18:37:48
Local clock offset: -0.06 ms
Remote clock offset: 0.143 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.385 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.385 ms
Loss rate: 0.64%
```
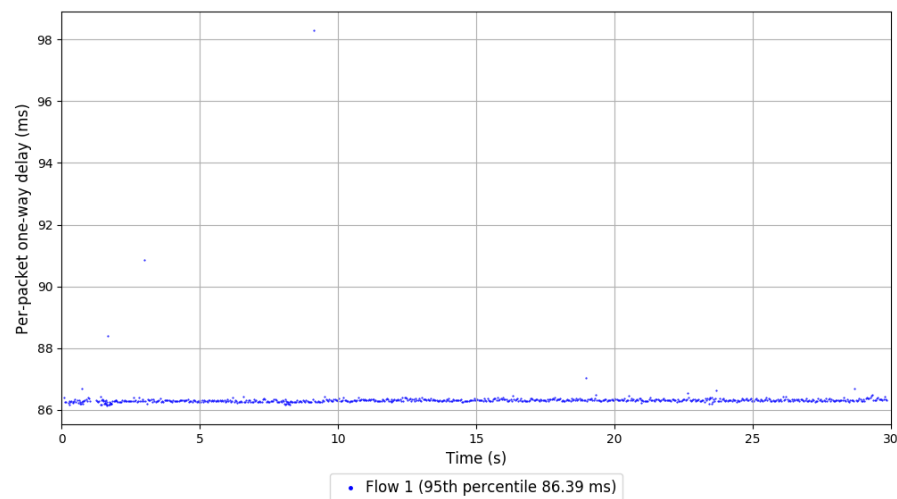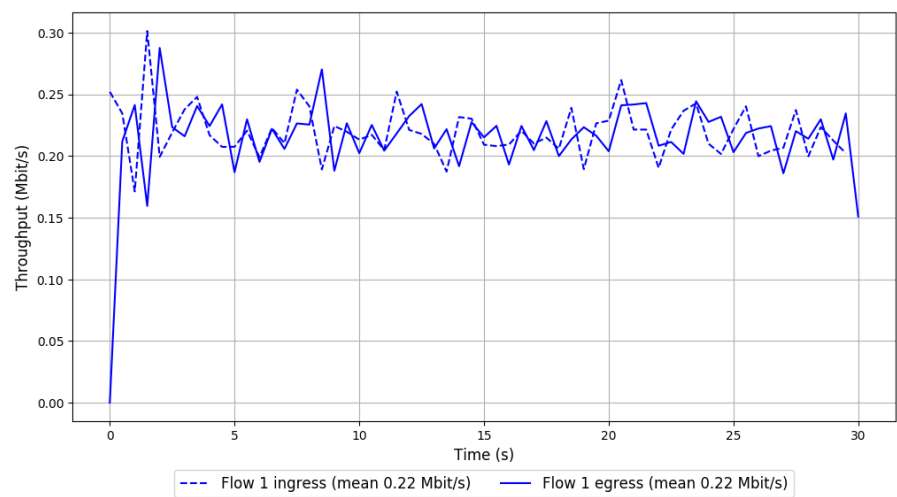
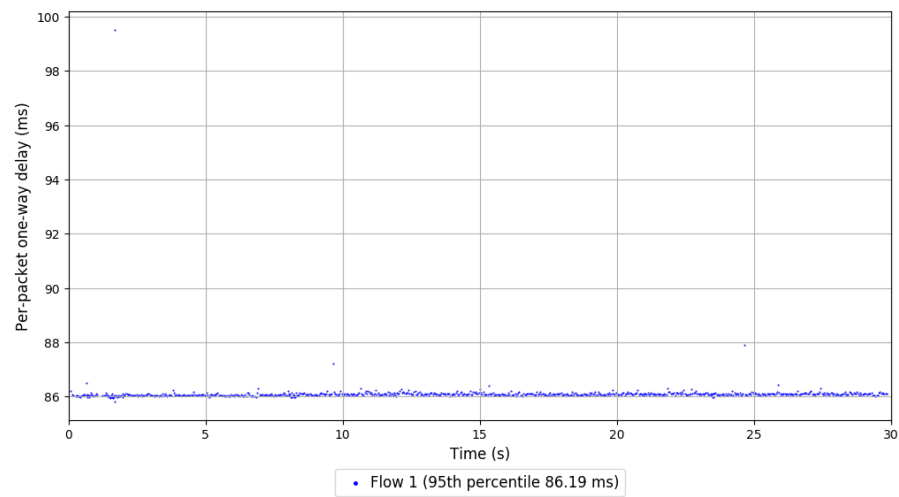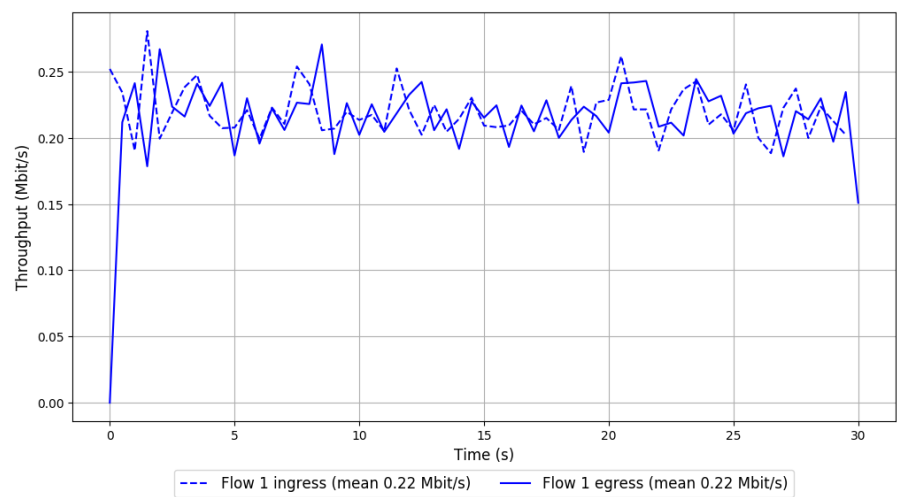# Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-06-27 19:09:57
End at: 2019-06-27 19:10:27
Local clock offset: 0.022 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.186 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.186 ms
Loss rate: 0.64%
```

Run 3: Report of SCReAM — Data Link

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

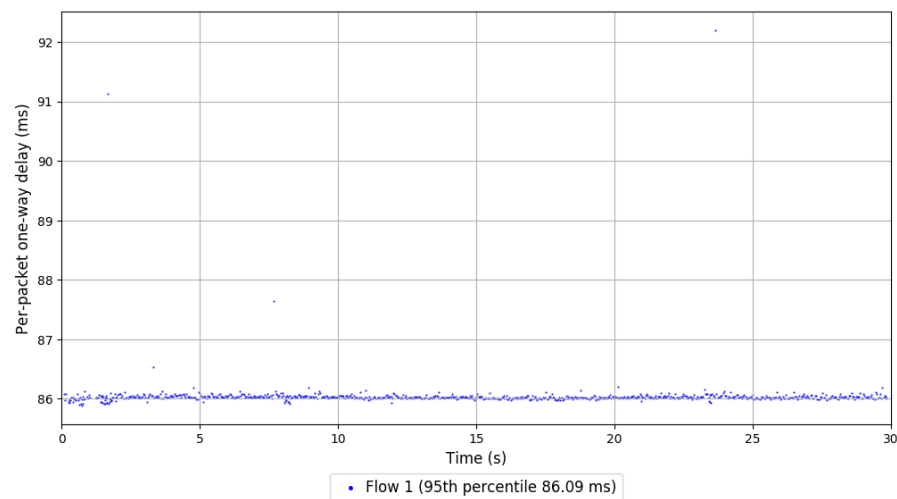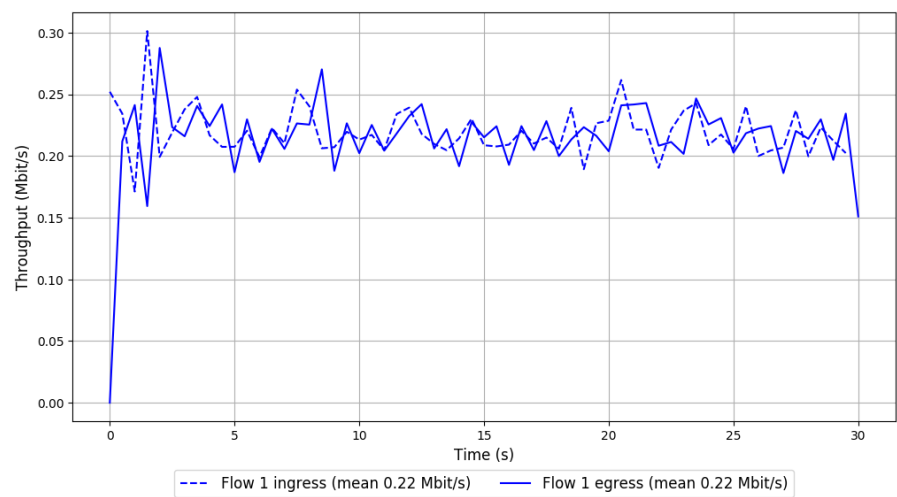Flow 1 (95th percentile 86.19 ms)

```
Run 4: Statistics of SCReAM

Start at: 2019-06-27 19:42:18
End at: 2019-06-27 19:42:48
Local clock offset: -0.025 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.090 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.090 ms
Loss rate: 0.64%
```

Run 4: Report of SCReAM — Data Link

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

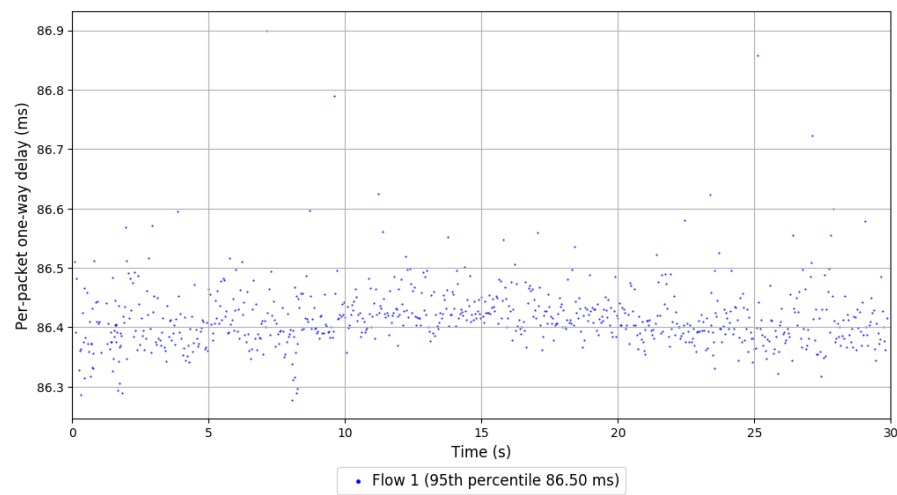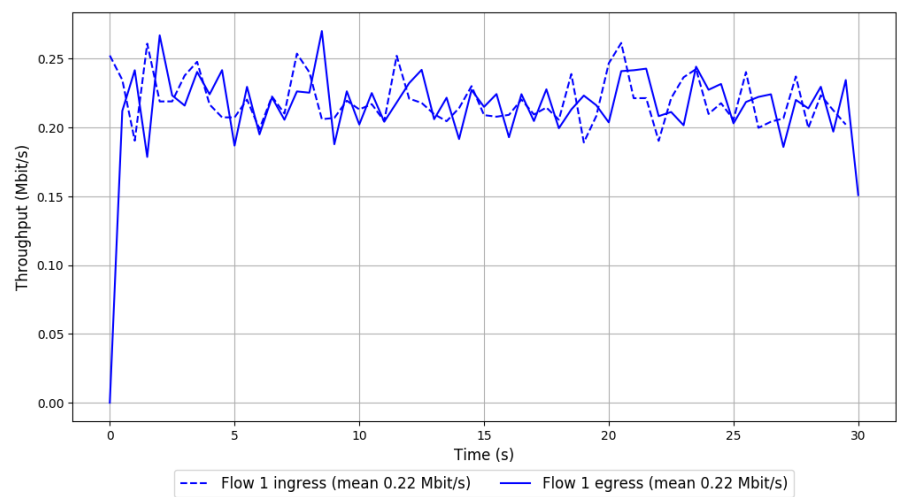Flow 1 (95th percentile 86.09 ms)

```
Run 5: Statistics of SCReAM

Start at: 2019-06-27 20:14:28
End at: 2019-06-27 20:14:58
Local clock offset: -0.019 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.496 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.496 ms
Loss rate: 0.64%
```

Run 5: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 86.50 ms)

```
Run 1: Statistics of Sprout

Start at: 2019-06-27 17:41:48
End at: 2019-06-27 17:42:18
Local clock offset: -0.062 ms
Remote clock offset: 0.055 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 86.742 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 86.742 ms
Loss rate: 0.80%
```
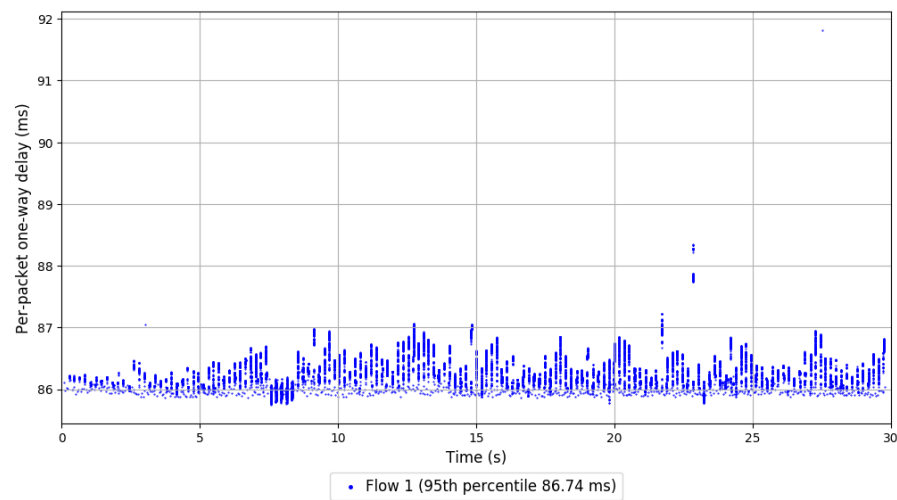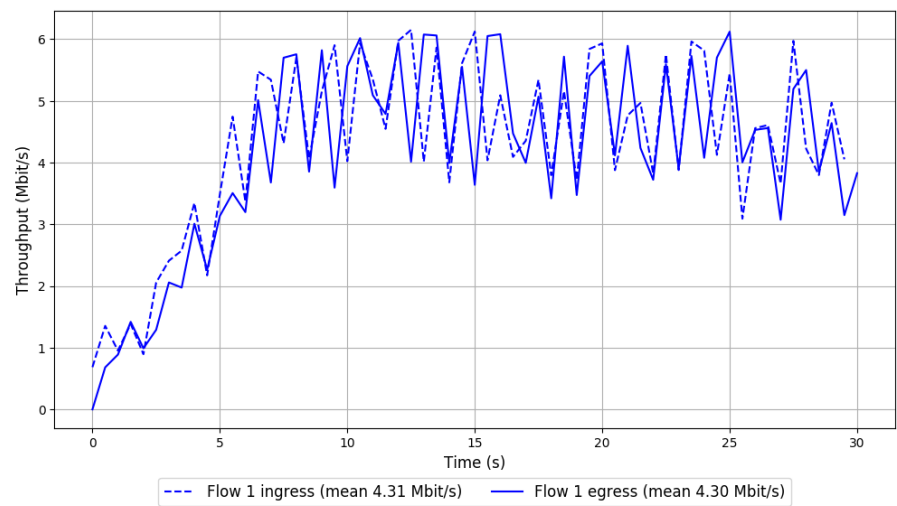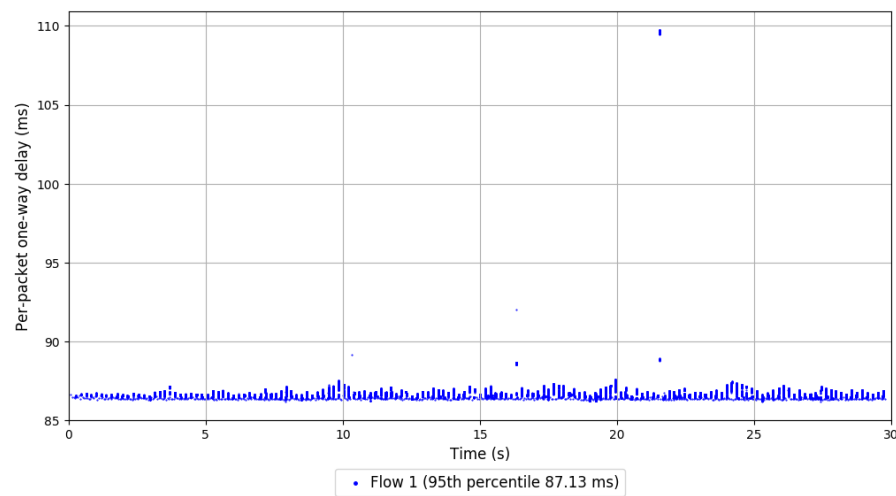
Run 1: Report of Sprout — Data Link

Flow 1 ingress (mean 4.31 Mbit/s) --- Flow 1 egress (mean 4.30 Mbit/s)

Flow 1 (95th percentile 86.74 ms)

```
Run 2: Statistics of Sprout

Start at: 2019-06-27 18:13:38
End at: 2019-06-27 18:14:08
Local clock offset: 0.39 ms
Remote clock offset: 0.272 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 87.128 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 87.128 ms
Loss rate: 0.74%
```
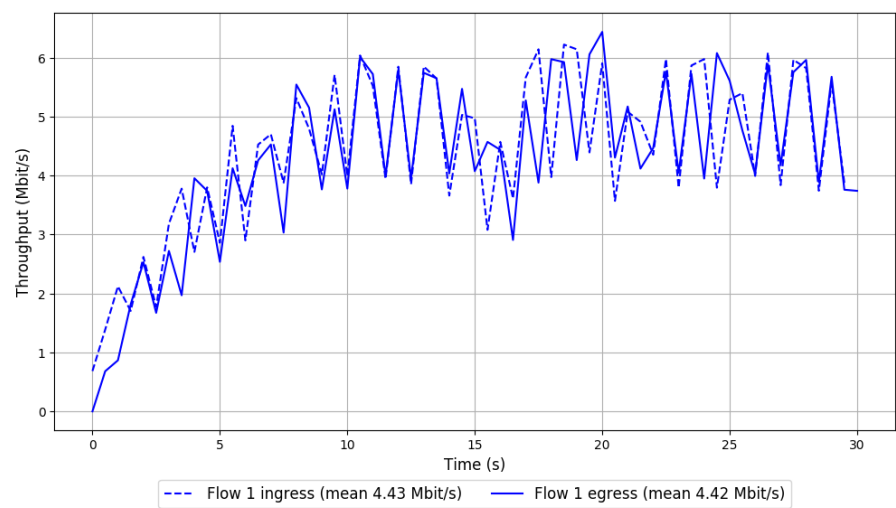
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-06-27 18:46:10
End at: 2019-06-27 18:46:40
Local clock offset: -0.493 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 86.237 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 86.237 ms
Loss rate: 0.28%
```
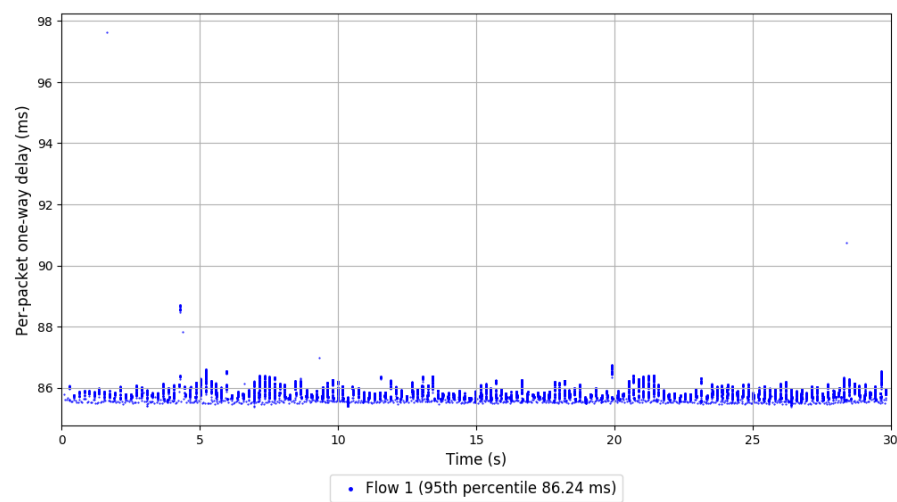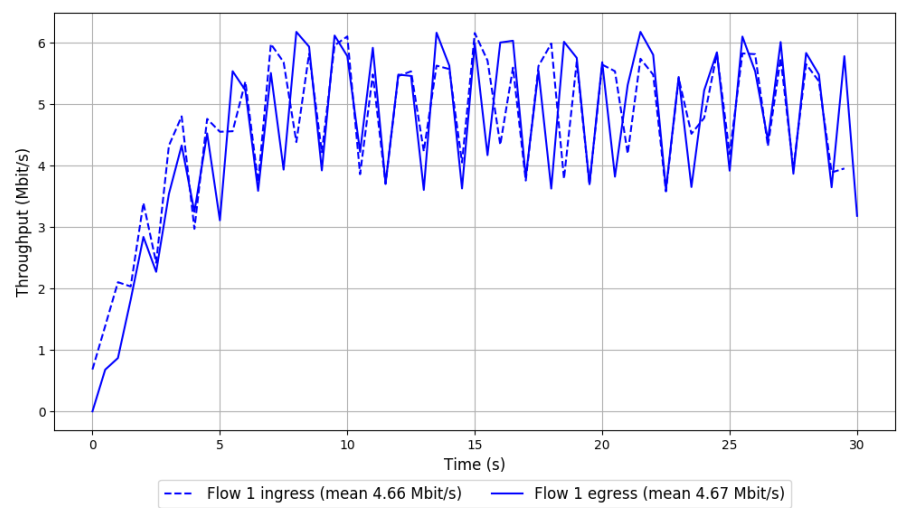
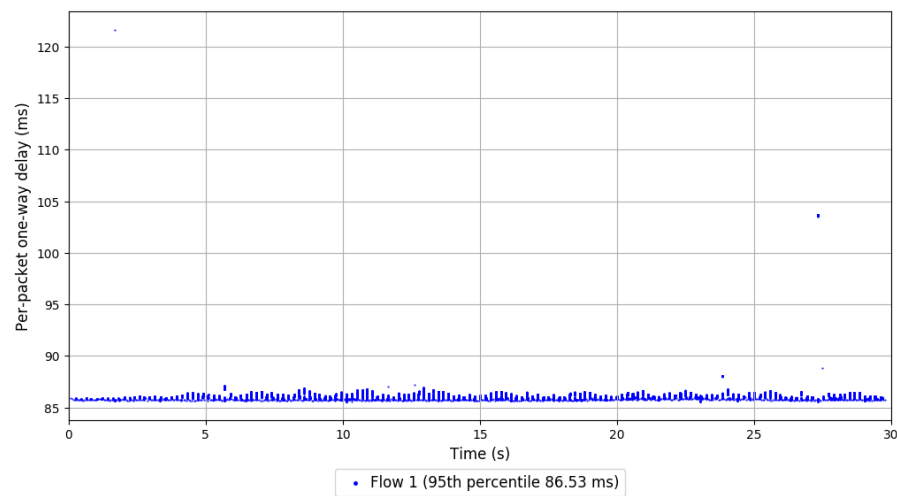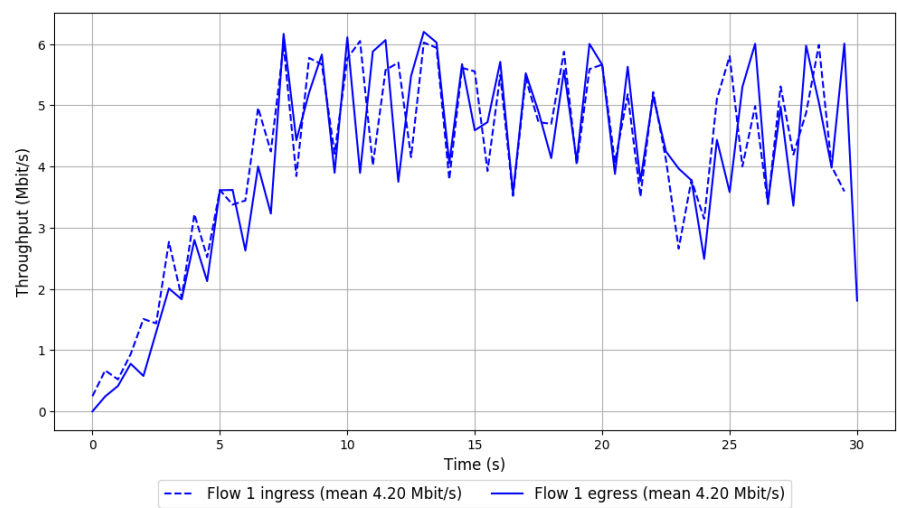## Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-06-27 19:18:33
End at: 2019-06-27 19:19:03
Local clock offset: -0.2 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 86.527 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 86.527 ms
Loss rate: 0.71%
```

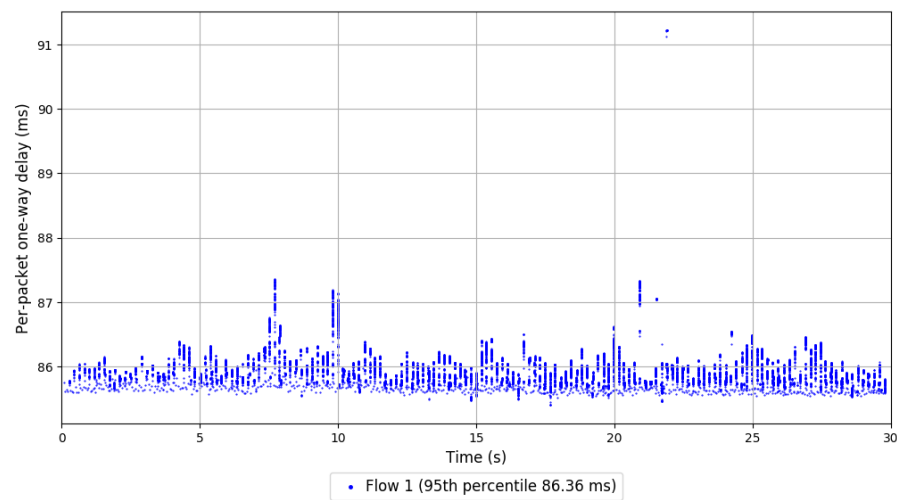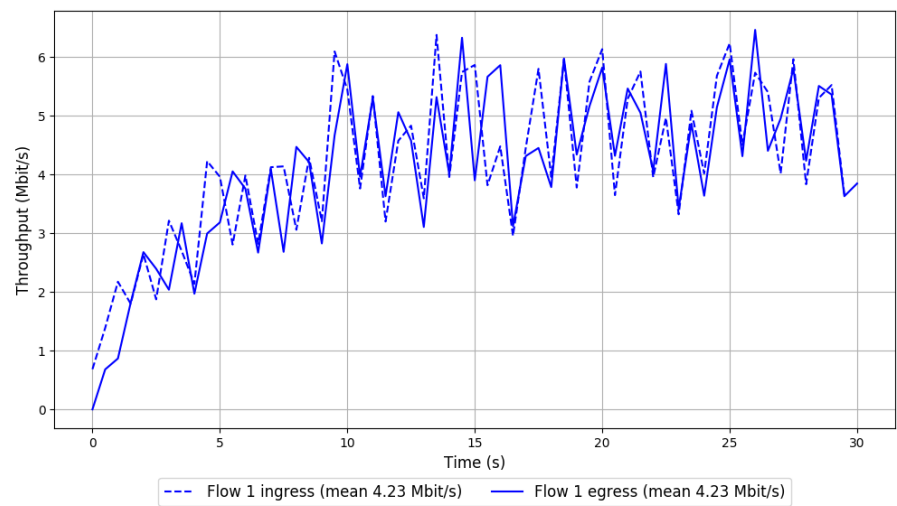## Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-06-27 19:51:05
End at: 2019-06-27 19:51:35
Local clock offset: -0.485 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2019-06-27 22:06:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 86.358 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 86.358 ms
Loss rate: 0.68%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 4.23 Mbit/s) --- Flow 1 egress (mean 4.23 Mbit/s)

• Flow 1 (95th percentile 86.36 ms)

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

Start at: 2019-06-27 17:42:58
End at: 2019-06-27 17:43:28
Local clock offset: -0.057 ms
Remote clock offset: 0.117 ms


# Below is generated by plot.py at 2019-06-27 22:06:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.73 Mbit/s
95th percentile per-packet one-way delay: 86.992 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 210.73 Mbit/s
95th percentile per-packet one-way delay: 86.992 ms
Loss rate: 0.65%
```
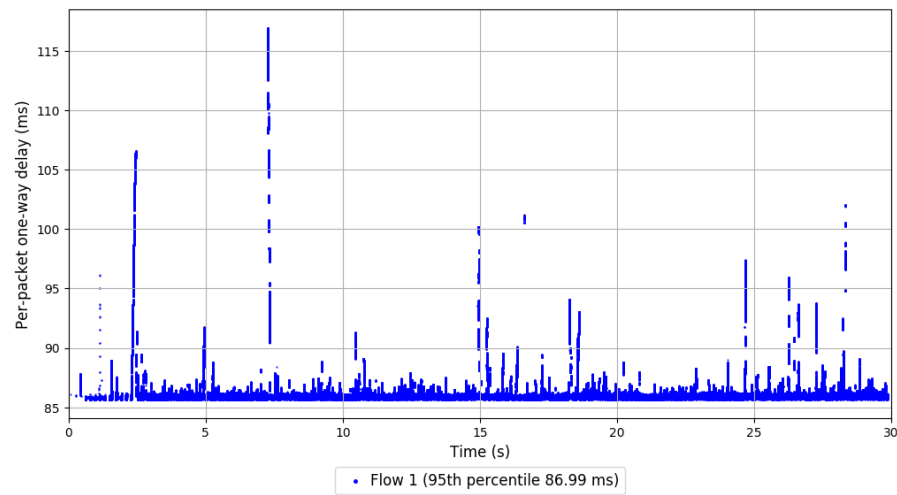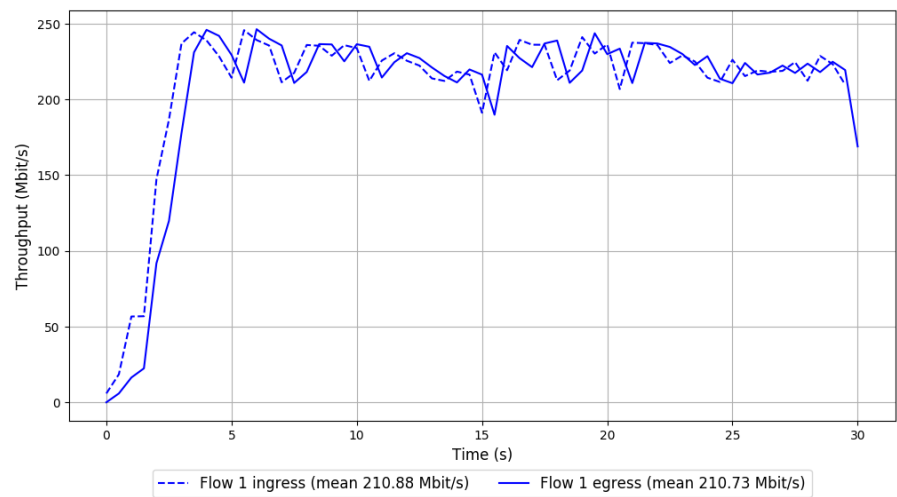
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-27 18:14:48
End at: 2019-06-27 18:15:18
Local clock offset: -0.43 ms
Remote clock offset: 0.28 ms


# Below is generated by plot.py at 2019-06-27 22:06:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.59 Mbit/s
95th percentile per-packet one-way delay: 86.300 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 209.59 Mbit/s
95th percentile per-packet one-way delay: 86.300 ms
Loss rate: 0.71%
```
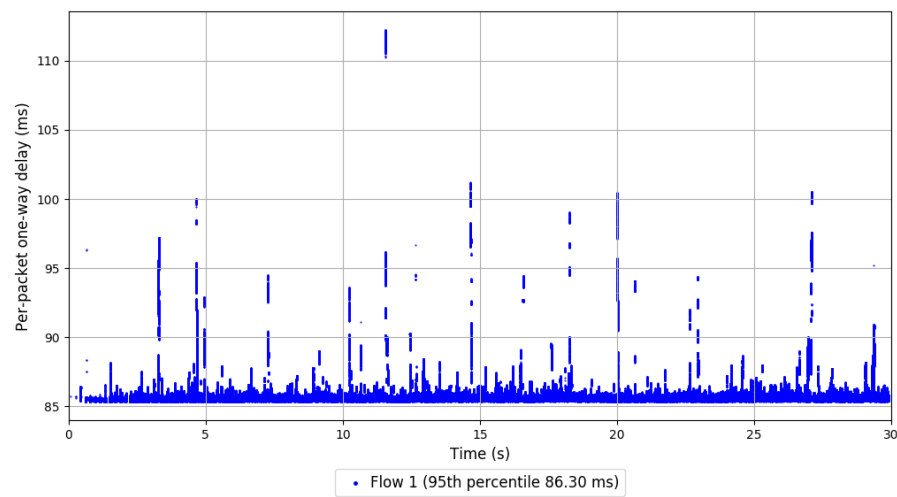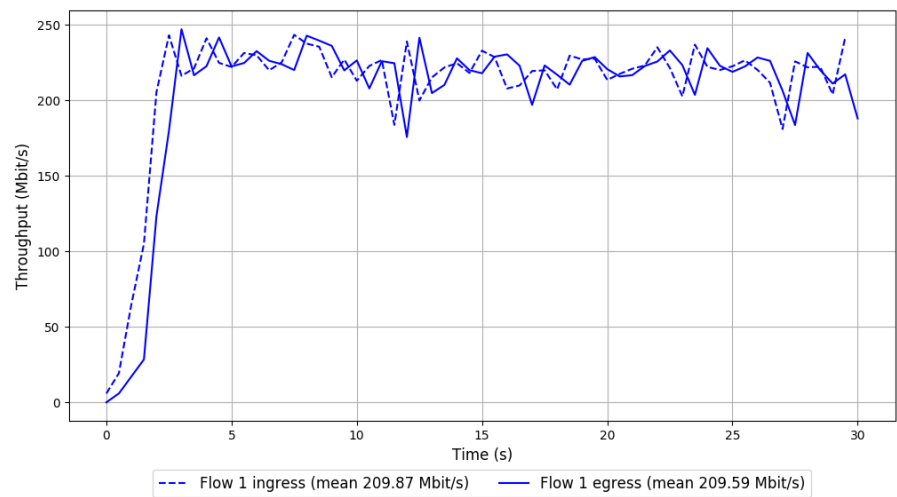
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-27 18:47:20
End at: 2019-06-27 18:47:50
Local clock offset: 0.167 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-06-27 22:07:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.00 Mbit/s
95th percentile per-packet one-way delay: 86.636 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 222.00 Mbit/s
95th percentile per-packet one-way delay: 86.636 ms
Loss rate: 0.60%
```
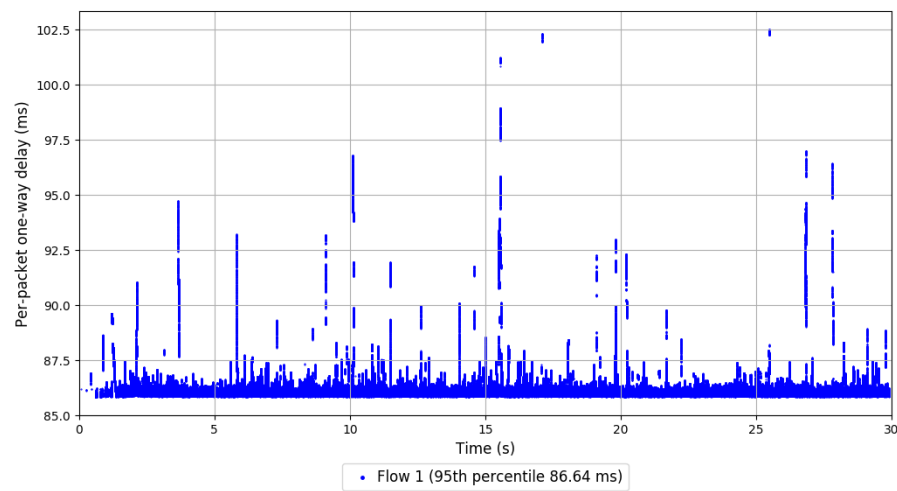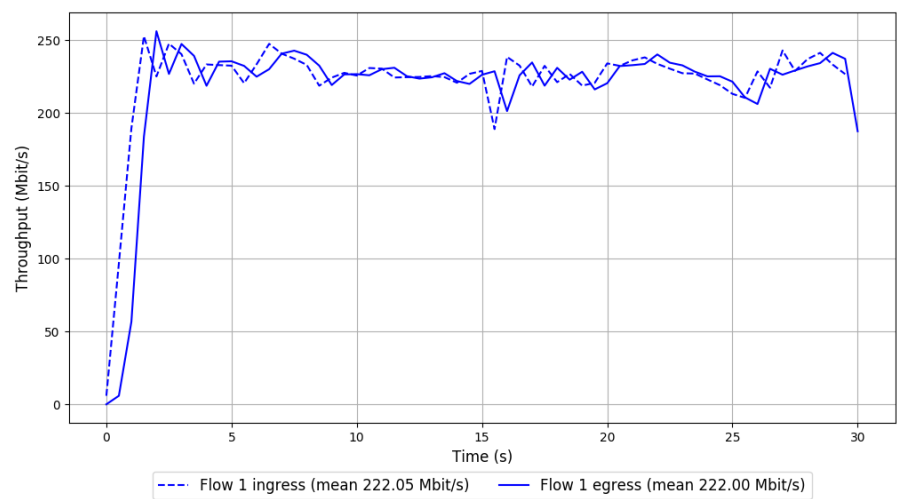
Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-27 19:19:42
End at: 2019-06-27 19:20:12
Local clock offset: -0.309 ms
Remote clock offset: 0.0 ms


# Below is generated by plot.py at 2019-06-27 22:07:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.80 Mbit/s
95th percentile per-packet one-way delay: 86.211 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 216.80 Mbit/s
95th percentile per-packet one-way delay: 86.211 ms
Loss rate: 0.63%
```
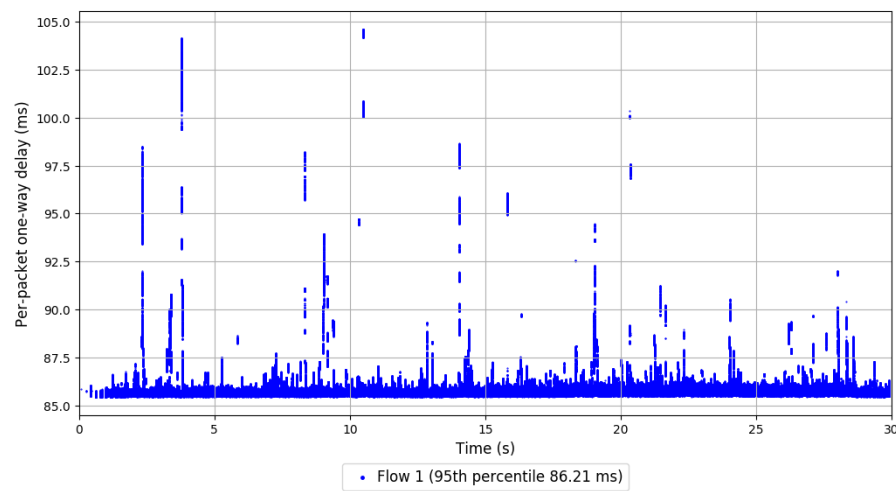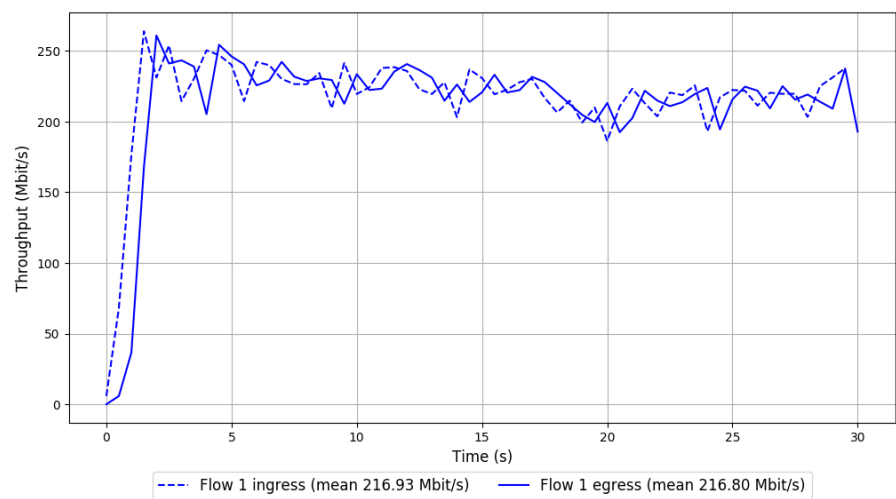
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-27 19:52:14
End at: 2019-06-27 19:52:44
Local clock offset: 0.155 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2019-06-27 22:07:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.04 Mbit/s
95th percentile per-packet one-way delay: 86.802 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 207.04 Mbit/s
95th percentile per-packet one-way delay: 86.802 ms
Loss rate: 0.55%
```
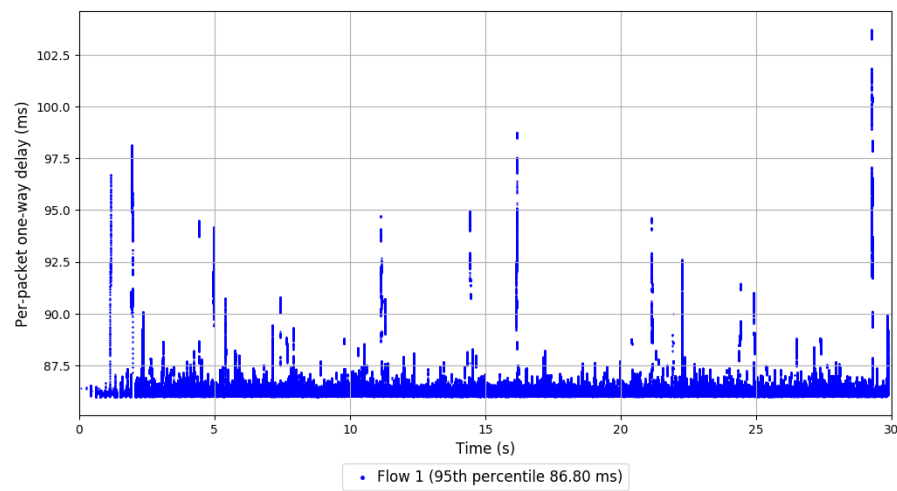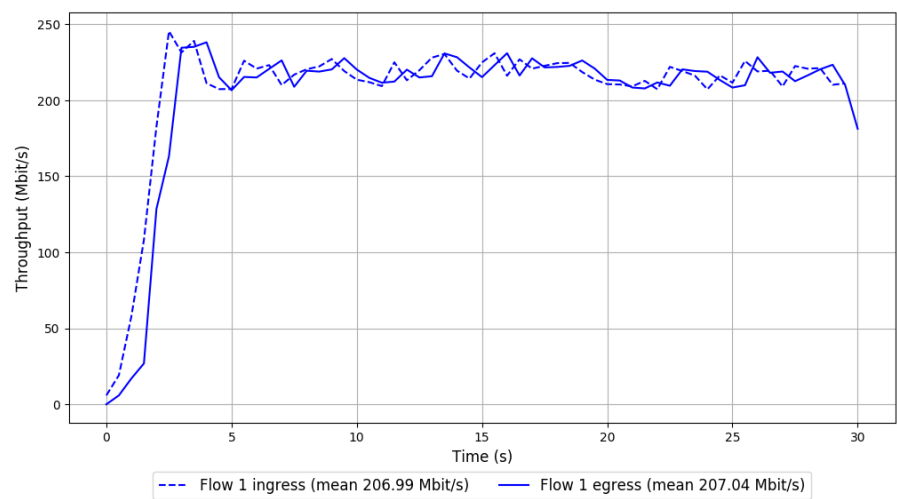
Run 5: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2019-06-27 18:10:54
End at: 2019-06-27 18:11:24
Local clock offset: -0.463 ms
Remote clock offset: 0.231 ms


# Below is generated by plot.py at 2019-06-27 22:07:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.61 Mbit/s
95th percentile per-packet one-way delay: 88.746 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 193.61 Mbit/s
95th percentile per-packet one-way delay: 88.746 ms
Loss rate: 0.66%
```
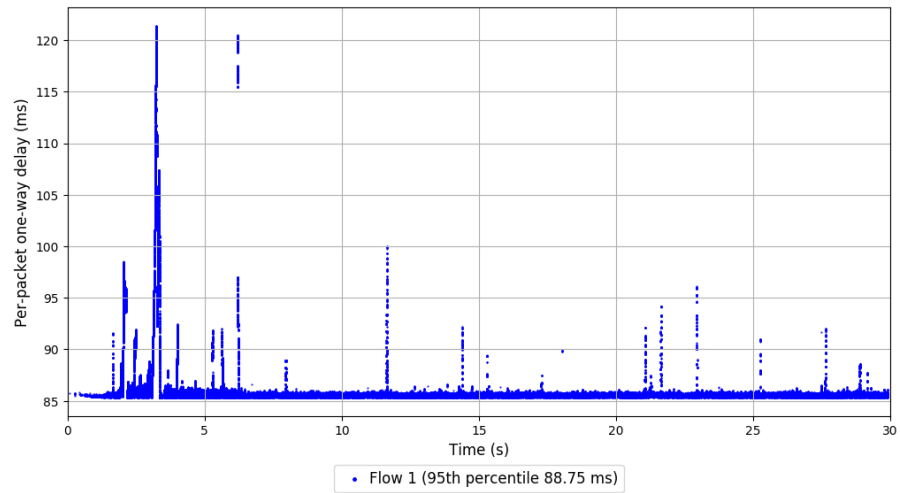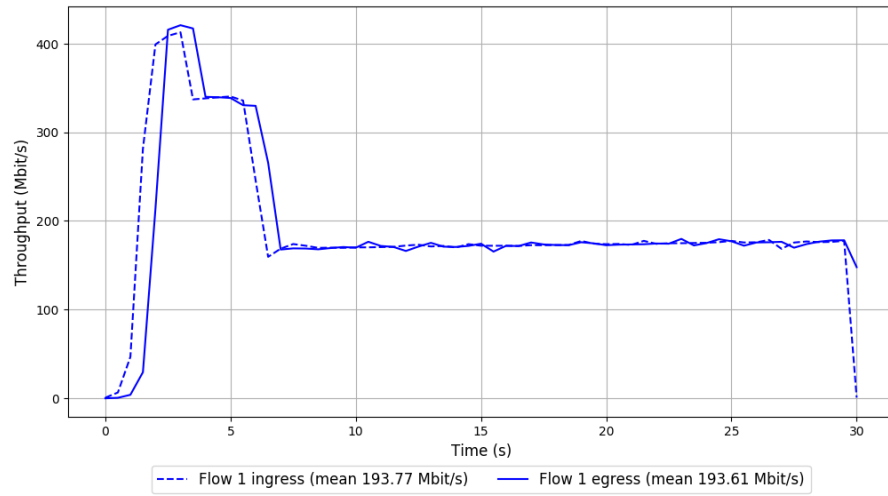
Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 193.77 Mbit/s) --- Flow 1 egress (mean 193.61 Mbit/s)

Flow 1 (95th percentile 88.75 ms)

```
Run 2: Statistics of TCP Vegas

Start at: 2019-06-27 18:43:09
End at: 2019-06-27 18:43:39
Local clock offset: -0.463 ms
Remote clock offset: 0.003 ms


# Below is generated by plot.py at 2019-06-27 22:12:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 365.65 Mbit/s
95th percentile per-packet one-way delay: 138.348 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 365.65 Mbit/s
95th percentile per-packet one-way delay: 138.348 ms
Loss rate: 0.53%
```
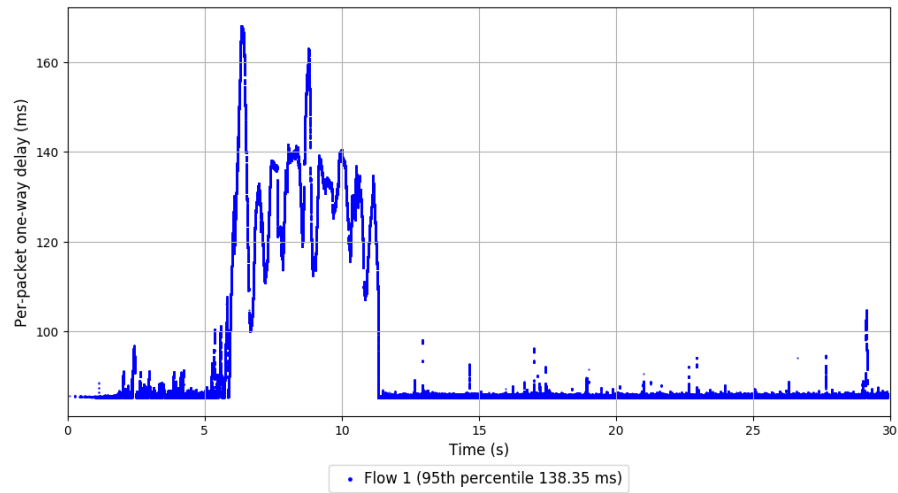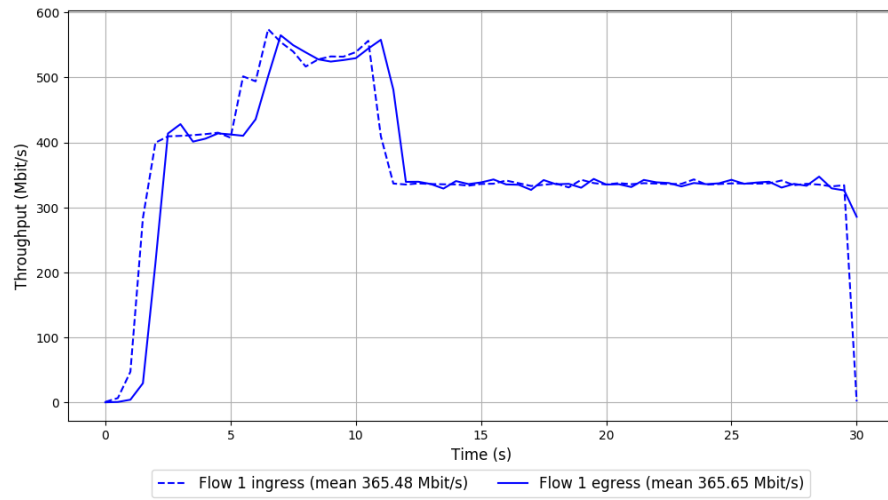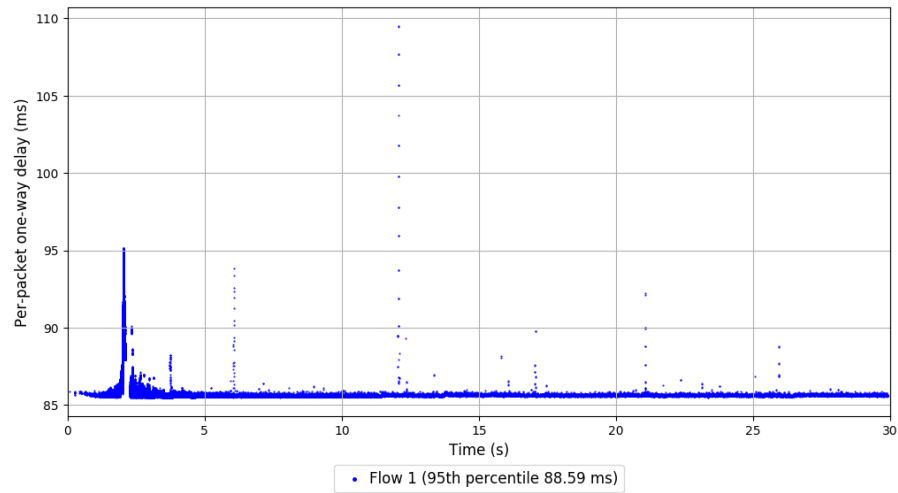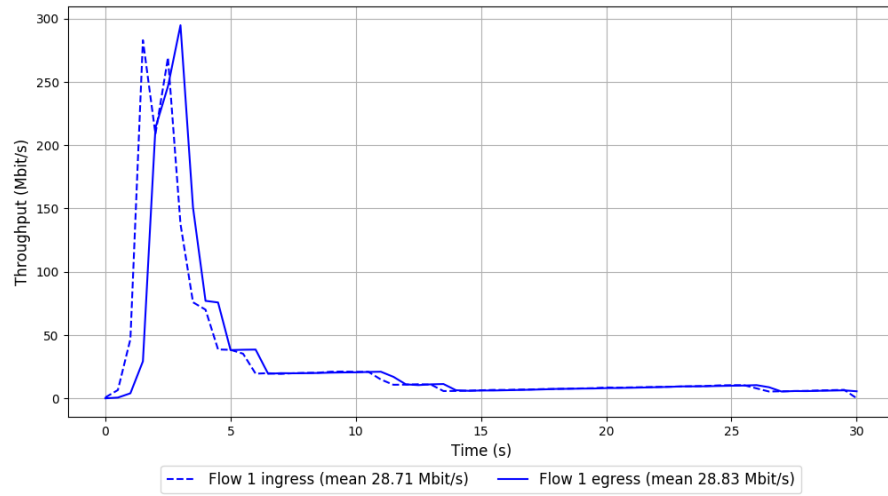
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-06-27 19:15:49
End at: 2019-06-27 19:16:19
Local clock offset: -0.26 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2019-06-27 22:12:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.83 Mbit/s
95th percentile per-packet one-way delay: 88.590 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 28.83 Mbit/s
95th percentile per-packet one-way delay: 88.590 ms
Loss rate: 0.15%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 28.71 Mbit/s)   —— Flow 1 egress (mean 28.83 Mbit/s)
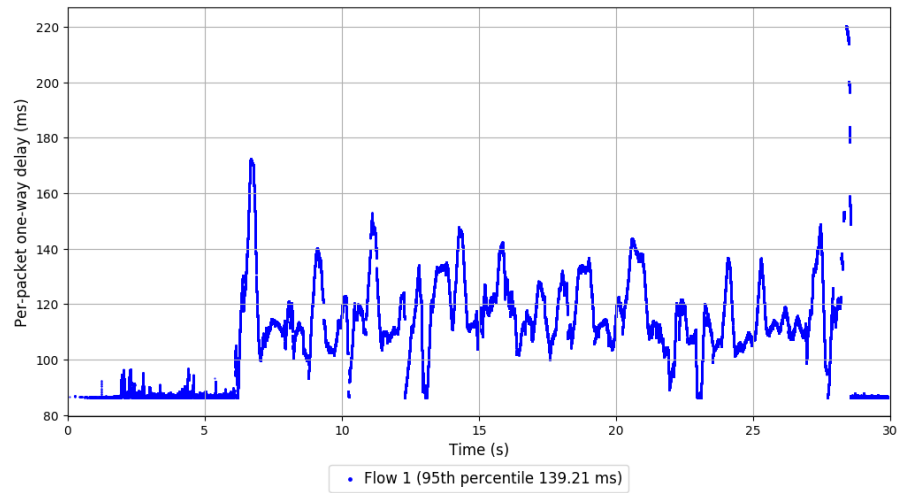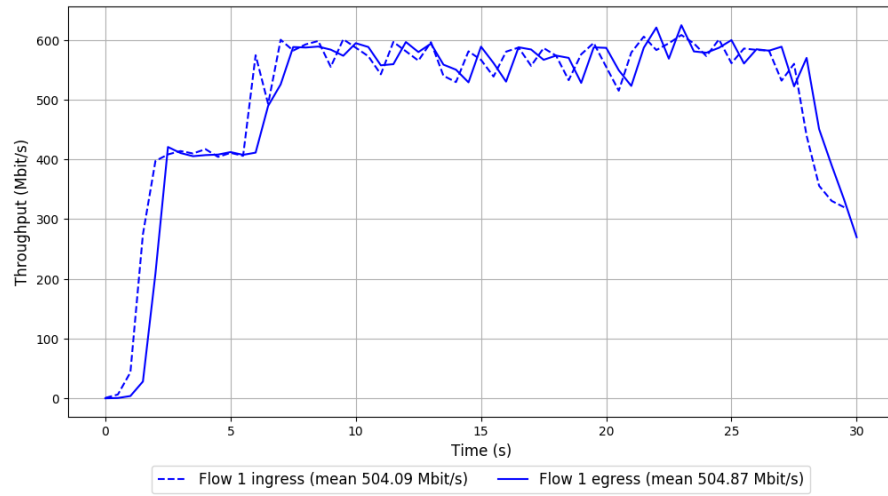

• Flow 1 (95th percentile 88.59 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-06-27 19:48:09
End at: 2019-06-27 19:48:39
Local clock offset: 0.195 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2019-06-27 22:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 504.87 Mbit/s
95th percentile per-packet one-way delay: 139.210 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 504.87 Mbit/s
95th percentile per-packet one-way delay: 139.210 ms
Loss rate: 0.42%
```
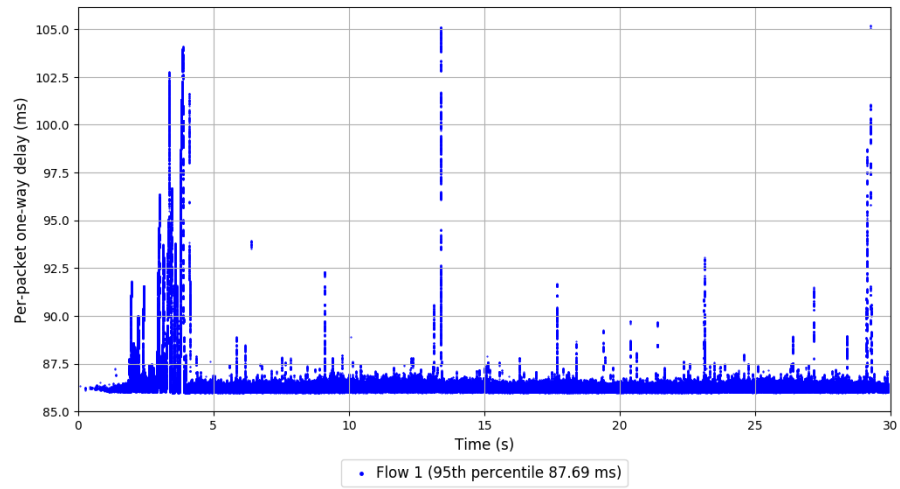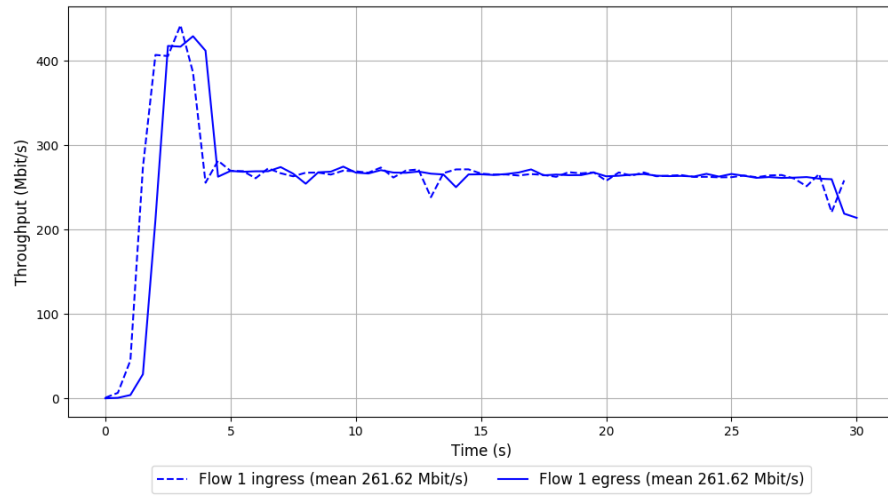
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-06-27 20:20:22
End at: 2019-06-27 20:20:52
Local clock offset: -0.14 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-27 22:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.62 Mbit/s
95th percentile per-packet one-way delay: 87.690 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 261.62 Mbit/s
95th percentile per-packet one-way delay: 87.690 ms
Loss rate: 0.58%
```

Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-06-27 17:47:10
End at: 2019-06-27 17:47:40
Local clock offset: 0.284 ms
Remote clock offset: 0.103 ms


# Below is generated by plot.py at 2019-06-27 22:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 142.54 Mbit/s
95th percentile per-packet one-way delay: 141.188 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 142.54 Mbit/s
95th percentile per-packet one-way delay: 141.188 ms
Loss rate: 0.84%
```
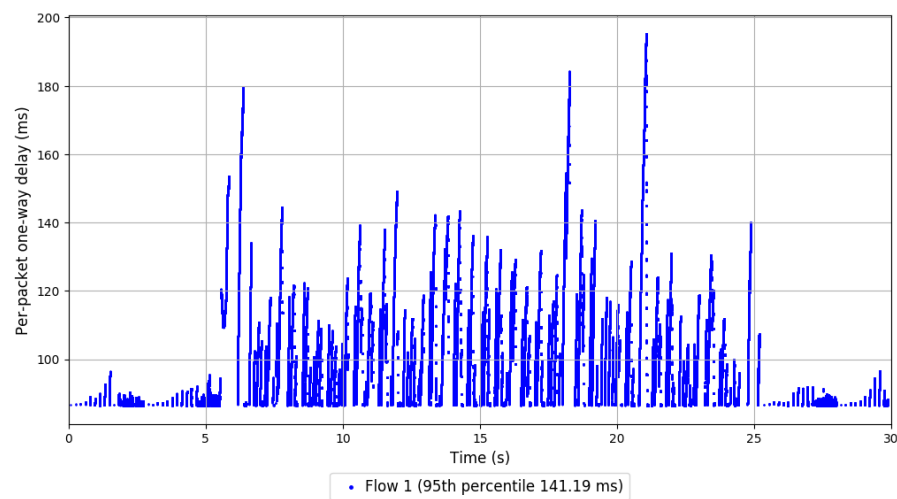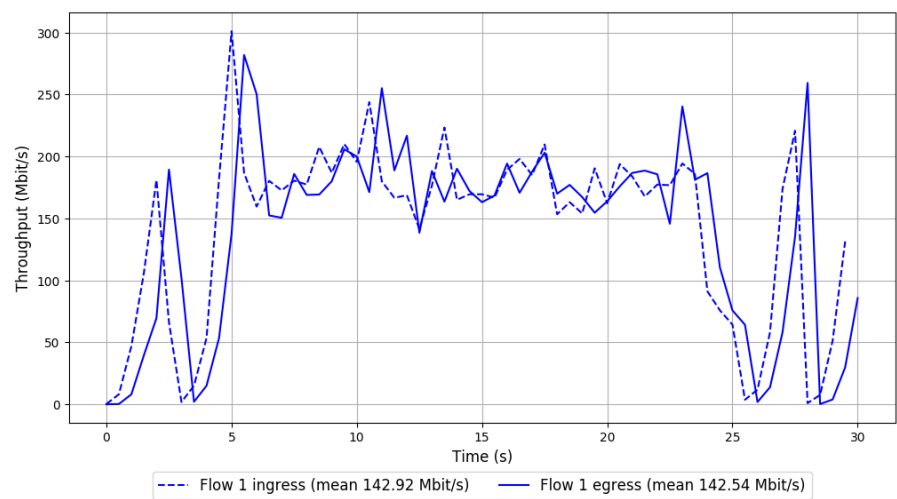
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-06-27 18:19:02
End at: 2019-06-27 18:19:32
Local clock offset: 0.393 ms
Remote clock offset: 0.33 ms


# Below is generated by plot.py at 2019-06-27 22:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 161.98 Mbit/s
95th percentile per-packet one-way delay: 197.485 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 161.98 Mbit/s
95th percentile per-packet one-way delay: 197.485 ms
Loss rate: 2.27%
```
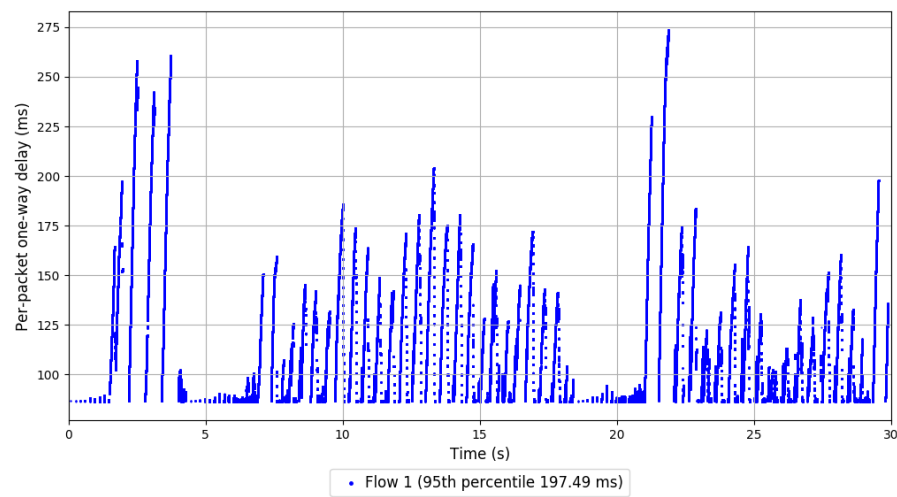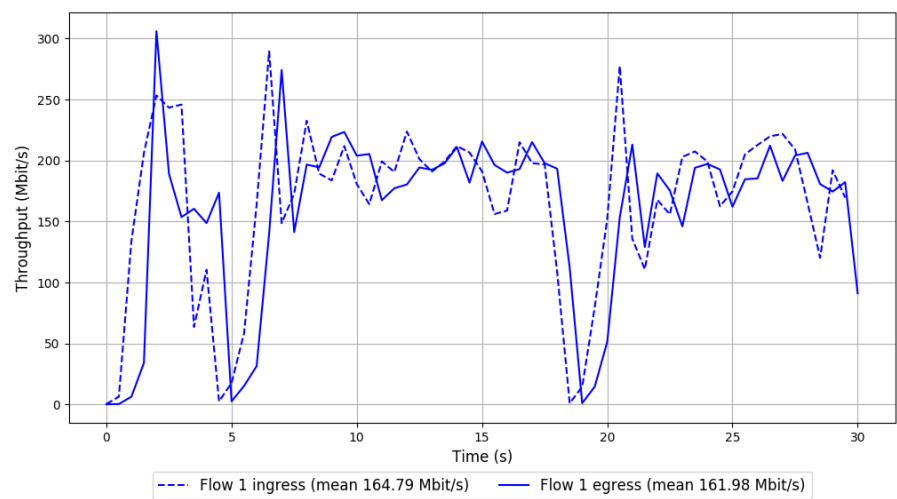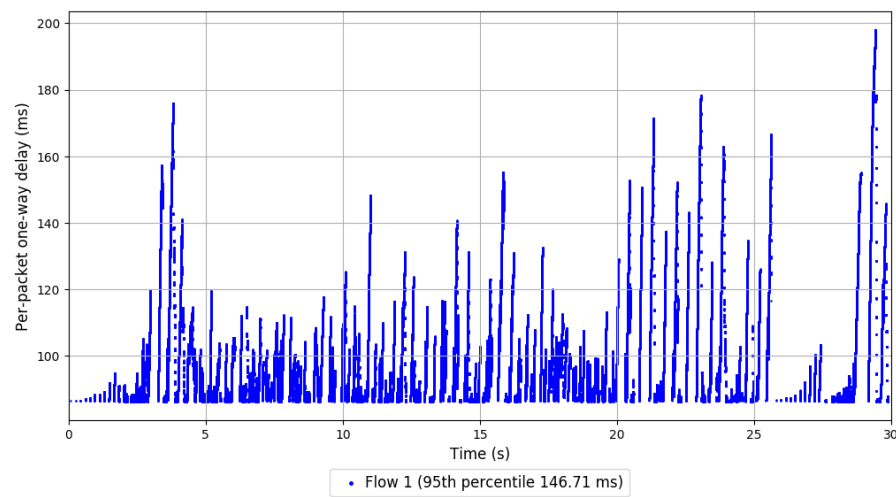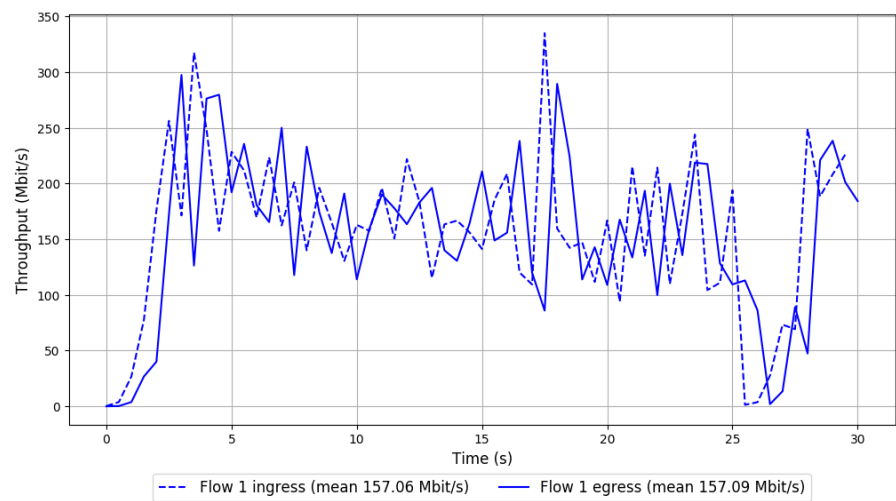
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-06-27 18:51:39
End at: 2019-06-27 18:52:09
Local clock offset: 0.202 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-06-27 22:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 157.09 Mbit/s
95th percentile per-packet one-way delay: 146.712 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 157.09 Mbit/s
95th percentile per-packet one-way delay: 146.712 ms
Loss rate: 0.52%
```
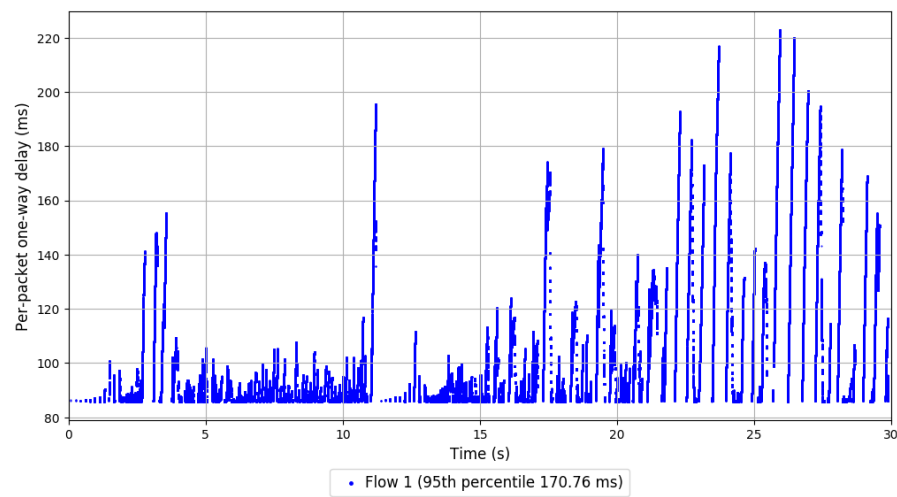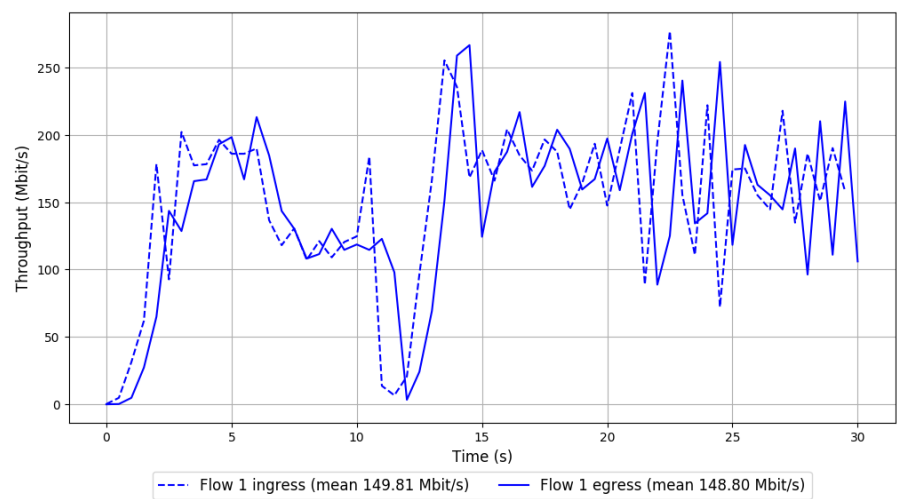
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-06-27 19:24:04
End at: 2019-06-27 19:24:34
Local clock offset: 0.059 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2019-06-27 22:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 148.80 Mbit/s
95th percentile per-packet one-way delay: 170.762 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 148.80 Mbit/s
95th percentile per-packet one-way delay: 170.762 ms
Loss rate: 1.25%
```

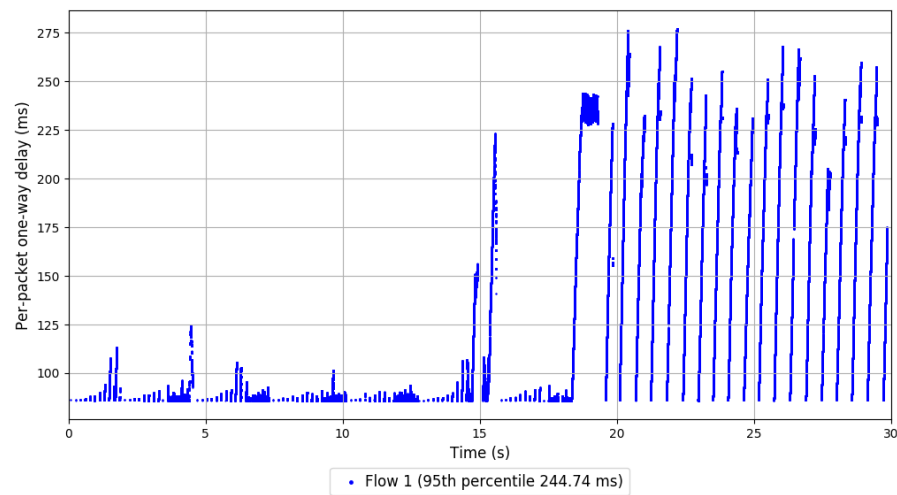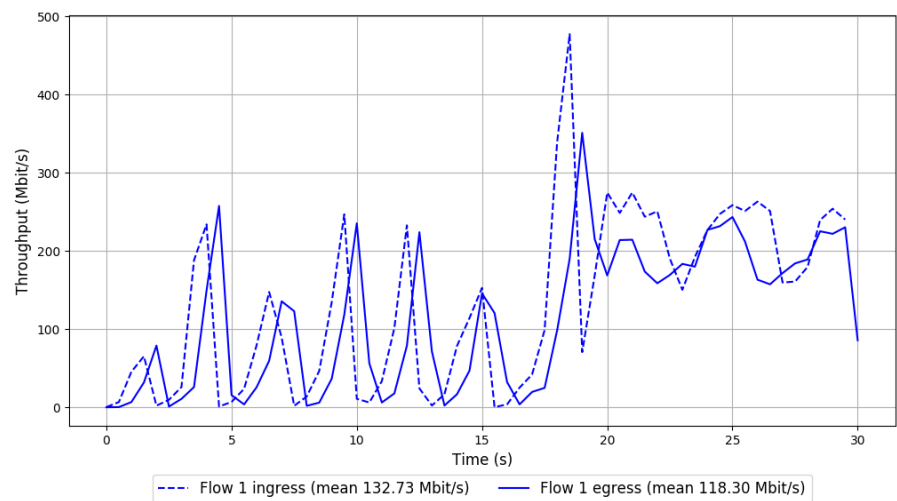## Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-06-27 19:56:31
End at: 2019-06-27 19:57:01
Local clock offset: -0.466 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2019-06-27 22:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.30 Mbit/s
95th percentile per-packet one-way delay: 244.739 ms
Loss rate: 11.04%
-- Flow 1:
Average throughput: 118.30 Mbit/s
95th percentile per-packet one-way delay: 244.739 ms
Loss rate: 11.04%
```

Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-06-27 18:12:13
End at: 2019-06-27 18:12:43
Local clock offset: -0.004 ms
Remote clock offset: 0.24 ms


# Below is generated by plot.py at 2019-06-27 22:14:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.39 Mbit/s
95th percentile per-packet one-way delay: 86.272 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 222.39 Mbit/s
95th percentile per-packet one-way delay: 86.272 ms
Loss rate: 0.71%
```
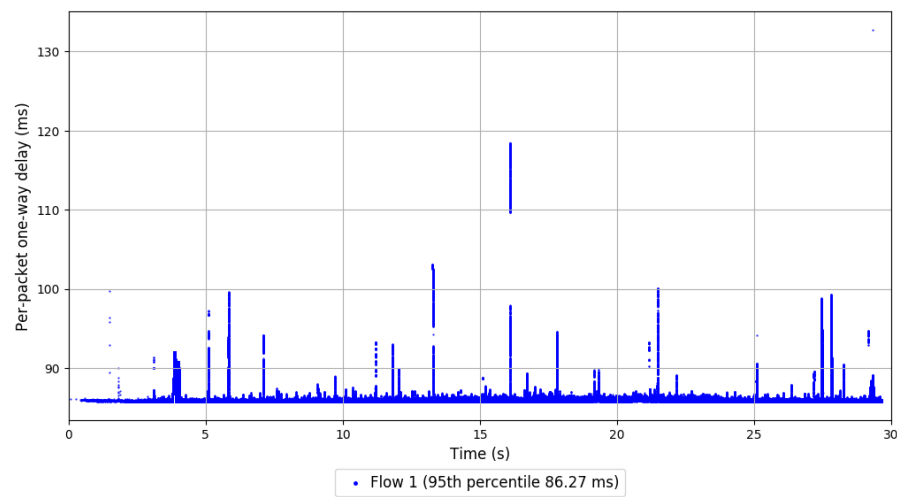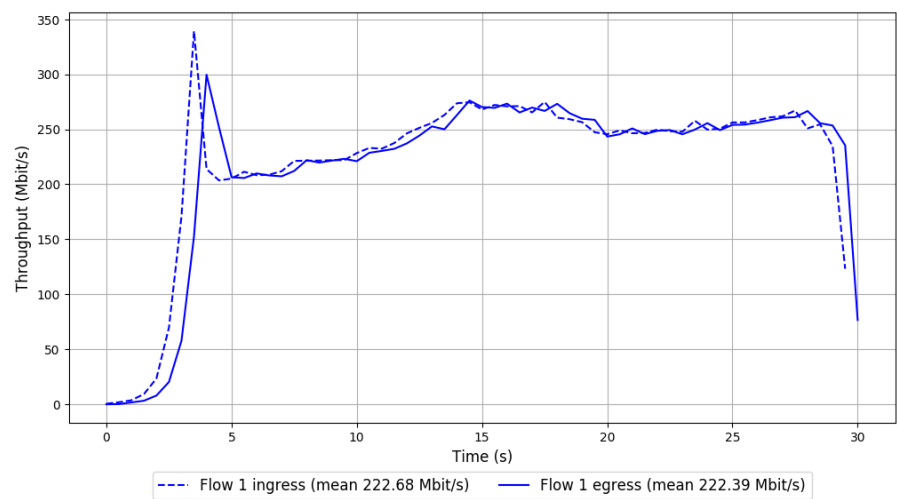
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 222.68 Mbit/s) — Flow 1 egress (mean 222.39 Mbit/s)

Flow 1 (95th percentile 86.27 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-06-27 18:44:37
End at: 2019-06-27 18:45:07
Local clock offset: -0.415 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2019-06-27 22:15:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 331.24 Mbit/s
95th percentile per-packet one-way delay: 98.751 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 331.24 Mbit/s
95th percentile per-packet one-way delay: 98.751 ms
Loss rate: 1.01%
```
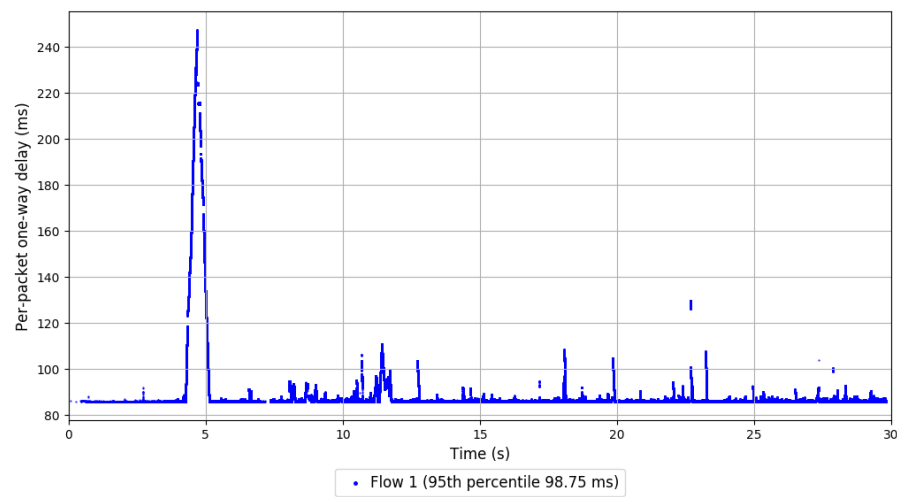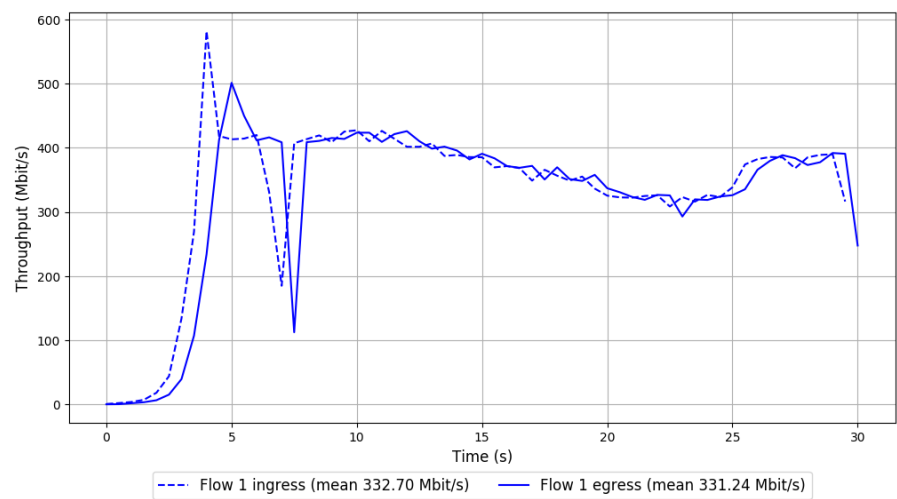
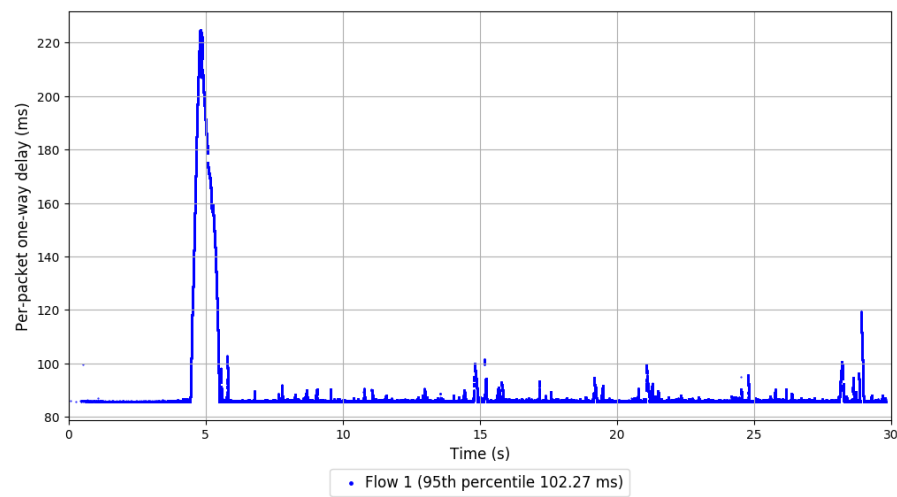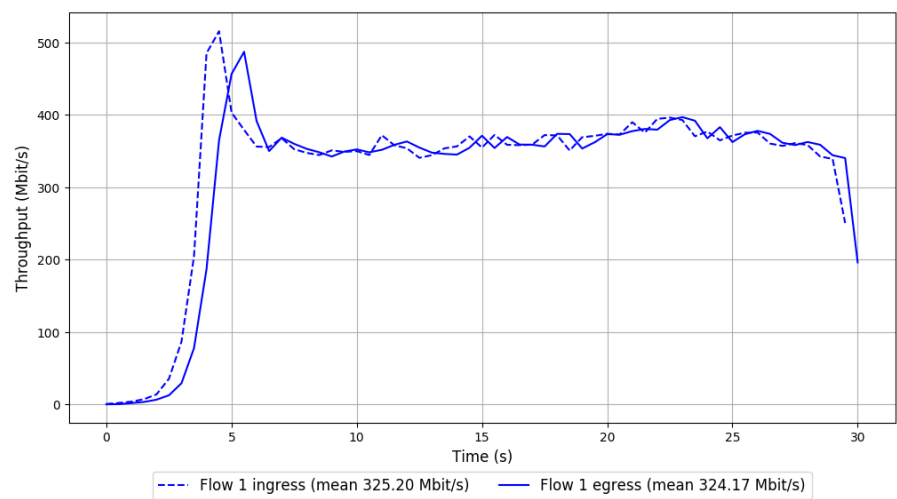Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-06-27 19:17:01
End at: 2019-06-27 19:17:31
Local clock offset: -0.033 ms
Remote clock offset: -0.036 ms


# Below is generated by plot.py at 2019-06-27 22:15:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 324.17 Mbit/s
95th percentile per-packet one-way delay: 102.270 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 324.17 Mbit/s
95th percentile per-packet one-way delay: 102.270 ms
Loss rate: 0.89%
```

Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 325.20 Mbit/s) ----- Flow 1 egress (mean 324.17 Mbit/s)

• Flow 1 (95th percentile 102.27 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-06-27 19:49:44
End at: 2019-06-27 19:50:14
Local clock offset: 0.074 ms
Remote clock offset: 0.0 ms


# Below is generated by plot.py at 2019-06-27 22:15:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 150.35 Mbit/s
95th percentile per-packet one-way delay: 86.189 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 150.35 Mbit/s
95th percentile per-packet one-way delay: 86.189 ms
Loss rate: 1.10%
```
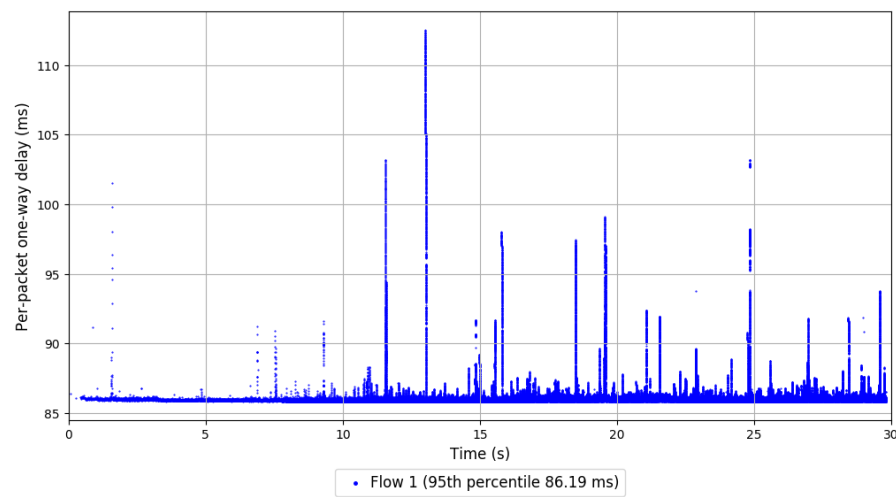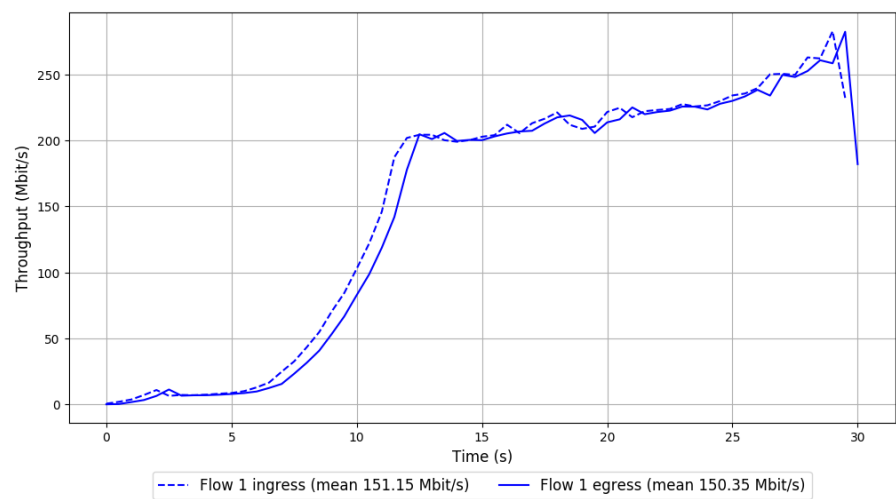
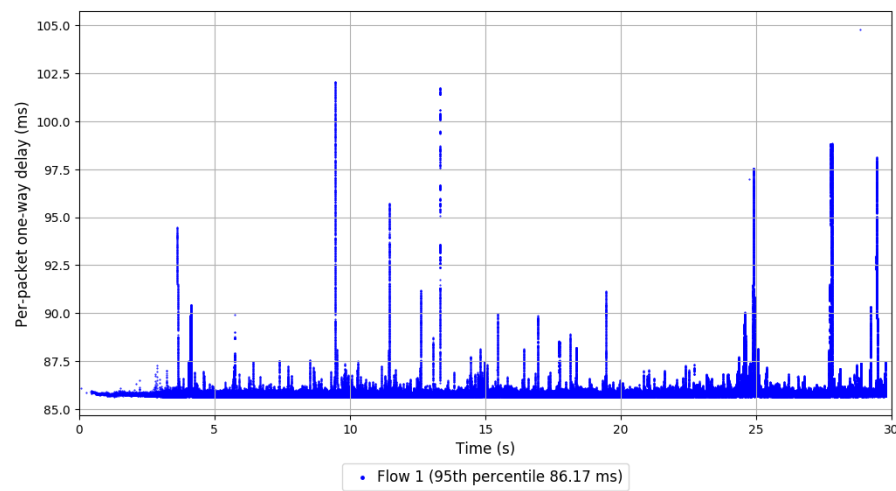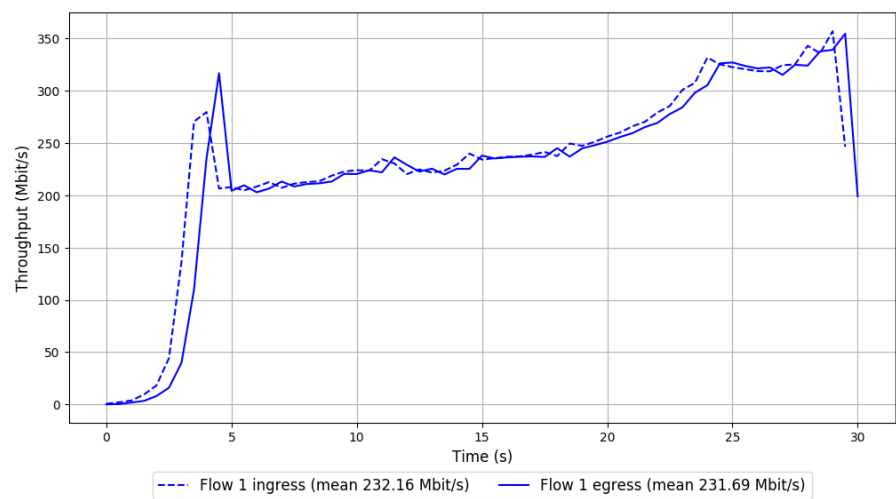# Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-06-27 20:21:46
End at: 2019-06-27 20:22:16
Local clock offset: -0.063 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-06-27 22:15:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.69 Mbit/s
95th percentile per-packet one-way delay: 86.170 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 231.69 Mbit/s
95th percentile per-packet one-way delay: 86.170 ms
Loss rate: 0.78%
```

Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 232.16 Mbit/s) --- Flow 1 egress (mean 231.69 Mbit/s)

Flow 1 (95th percentile 86.17 ms)
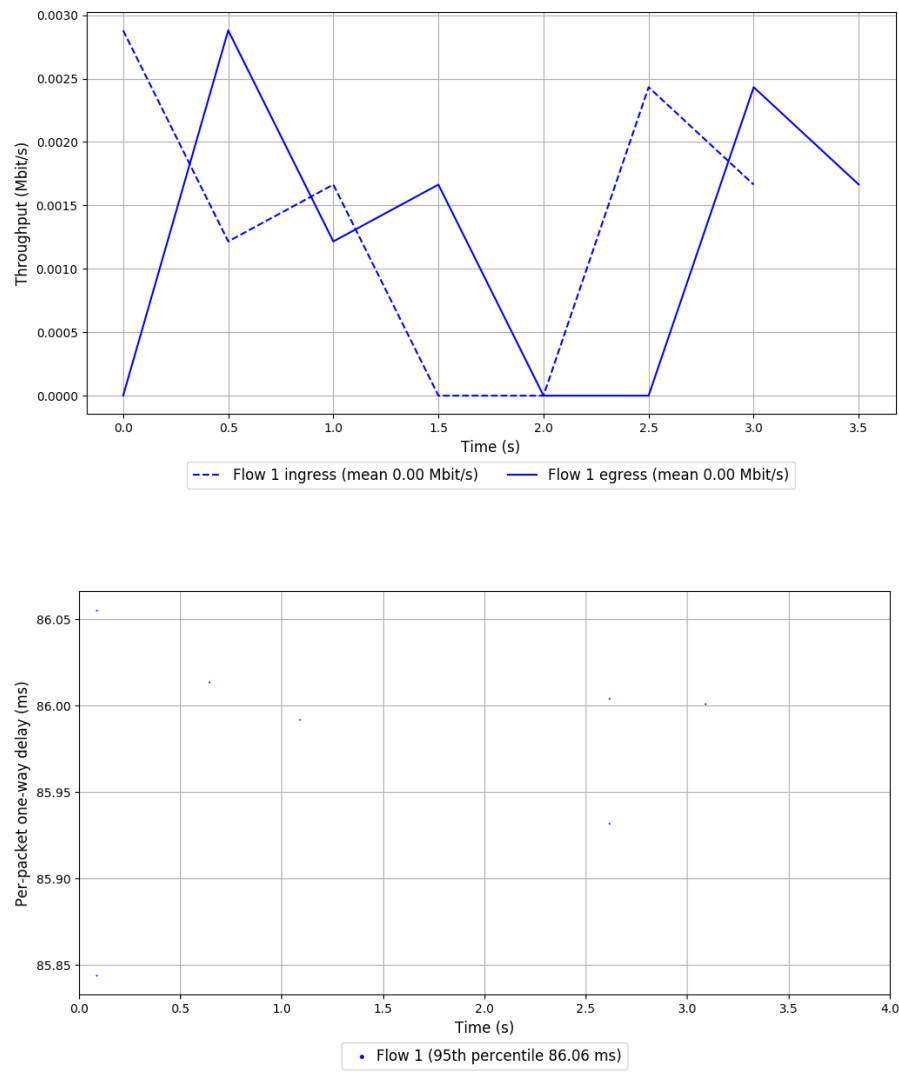
```
Run 1: Statistics of WebRTC media

Start at: 2019-06-27 17:48:33
End at: 2019-06-27 17:49:03
Local clock offset: -0.064 ms
Remote clock offset: 0.138 ms
```

Run 1: Report of WebRTC media — Data Link
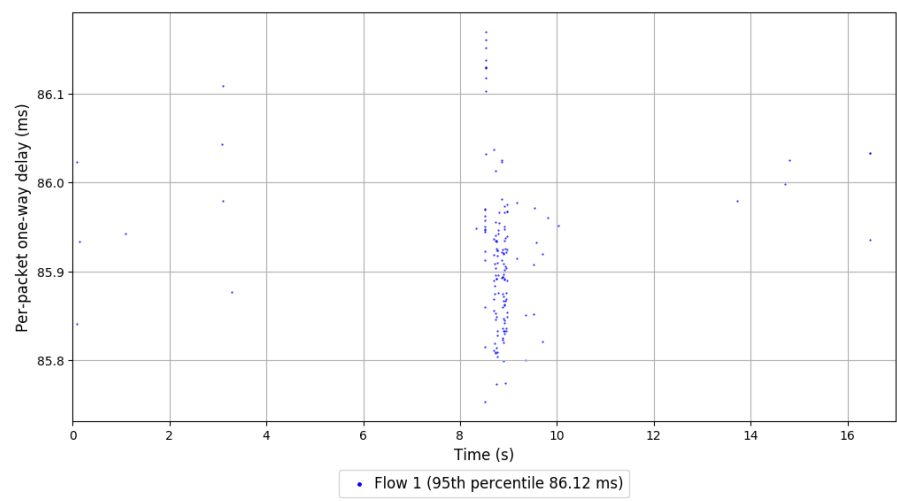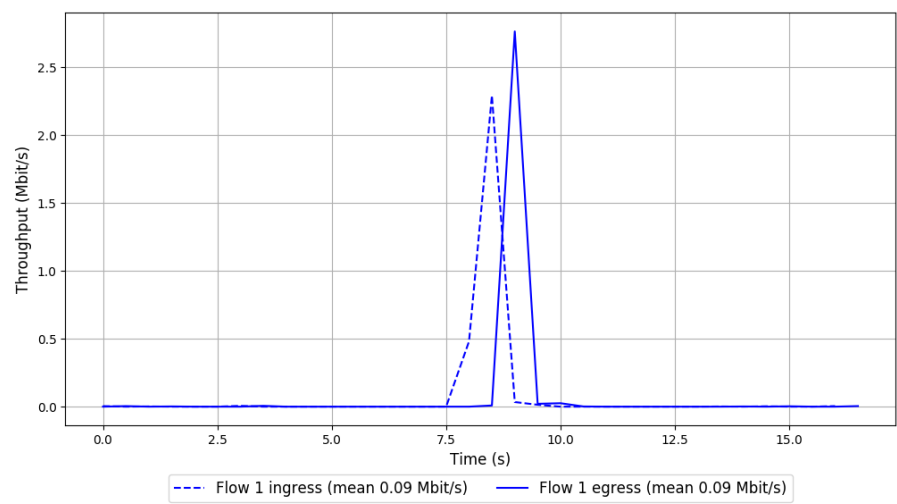
Run 2: Statistics of WebRTC media

Start at: 2019-06-27 18:20:28
End at: 2019-06-27 18:20:58
Local clock offset: -0.028 ms
Remote clock offset: 0.342 ms

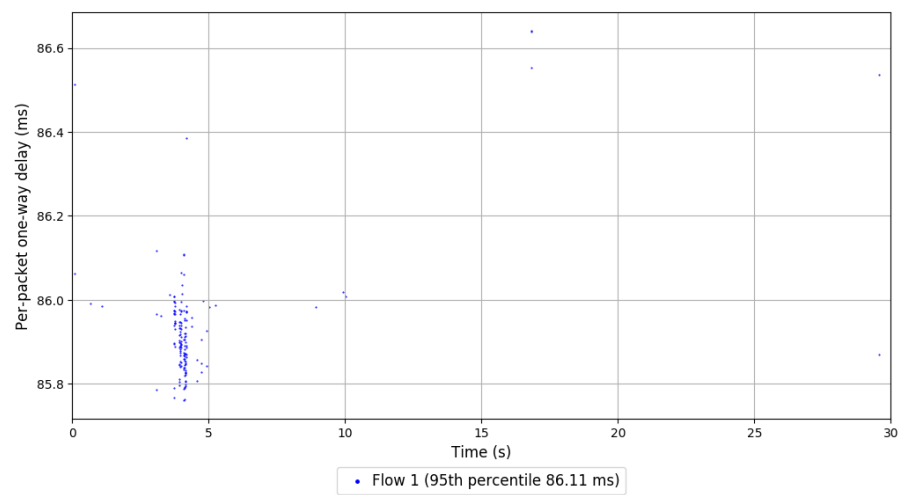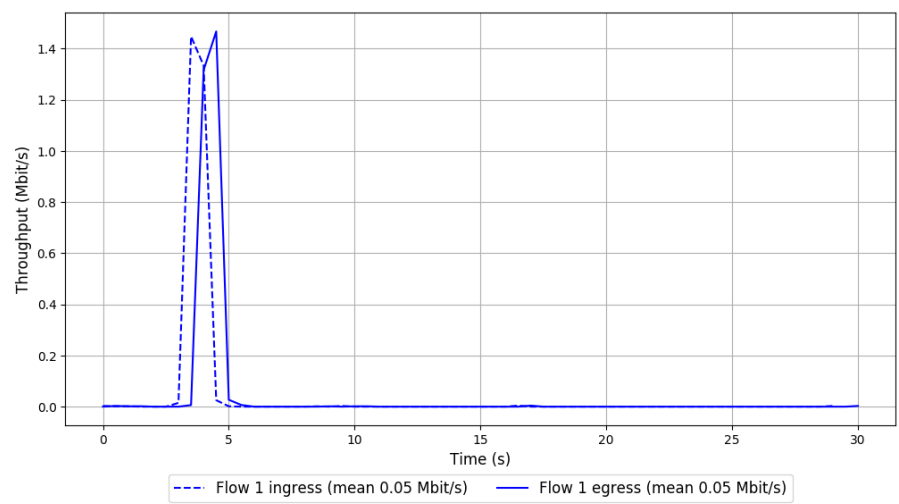Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-06-27 18:53:04
End at: 2019-06-27 18:53:34
Local clock offset: -0.068 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2019-06-27 22:15:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.106 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.106 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

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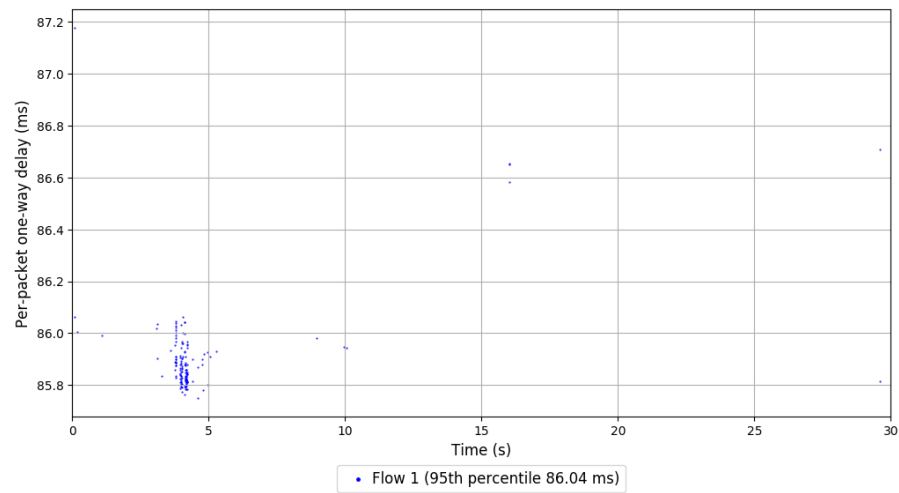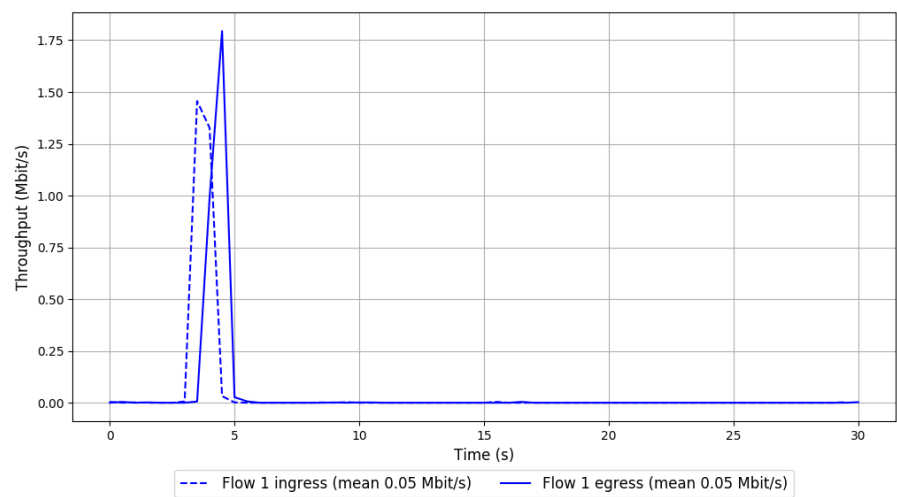

Flow 1 (95th percentile 86.11 ms)

```
Run 4: Statistics of WebRTC media

Start at: 2019-06-27 19:25:28
End at: 2019-06-27 19:25:58
Local clock offset: -0.041 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2019-06-27 22:15:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.043 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.043 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

Run 5: Statistics of WebRTC media

Start at: 2019-06-27 19:57:53
End at: 2019-06-27 19:58:23
Local clock offset: 0.306 ms
Remote clock offset: -0.055 ms

Run 5: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.06 Mbit/s) — — — Flow 1 egress (mean 0.06 Mbit/s)

· Flow 1 (95th percentile 86.52 ms)