Pantheon Report

Generated at 2019-06-27 22:13:17 (UTC).

Data path: GCE London on ens4 (*remote*) →GCE Tokyo 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.
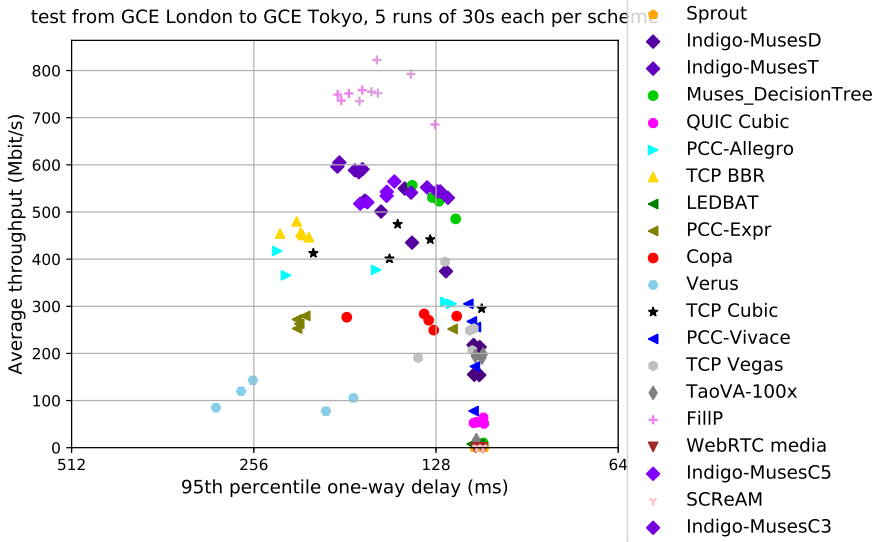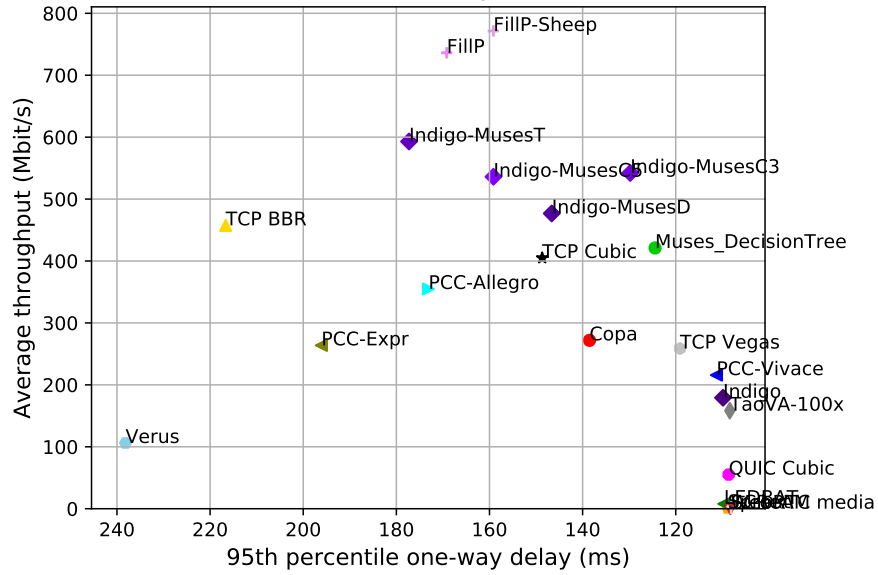
```
System info:
Linux 4.15.0-1032-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

```
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 London to GCE Tokyo, 5 runs of 30s each per scheme
(mean of all runs by scheme)

test from GCE London to GCE Tokyo, 5 runs of 30s each per scheme

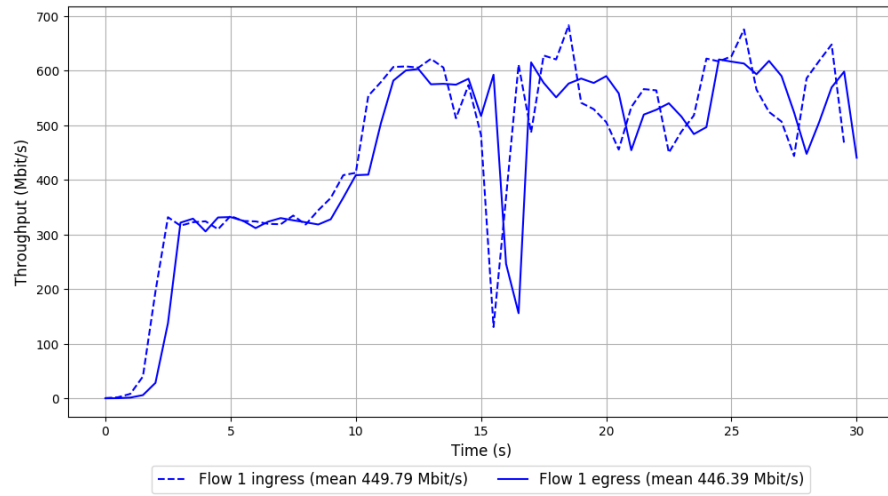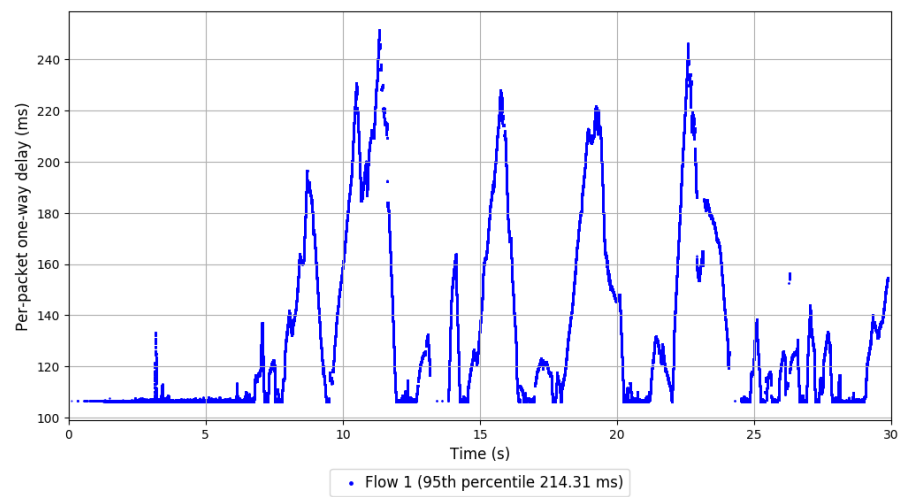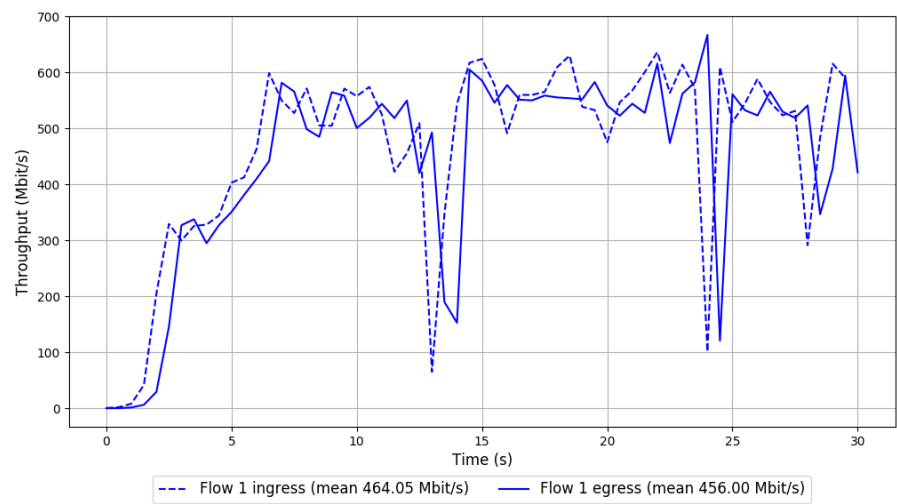| scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	457.58	216.65	2.01
Copa	5	271.86	138.53	0.84
TCP Cubic	5	404.92	148.68	0.83
FillP	5	736.17	169.17	2.88
FillP-Sheep	5	771.50	159.17	1.65
Indigo	5	179.17	109.85	0.78
Indigo-MusesC3	5	542.12	129.77	0.86
Indigo-MusesC5	5	536.03	159.15	1.05
Indigo-MusesD	5	476.78	146.63	1.02
Indigo-MusesT	5	593.00	177.28	1.04
LEDBAT	5	7.83	109.66	1.46
Muses_DecisionTree	5	421.10	124.44	1.05
PCC-Allegro	5	354.84	173.10	3.41
PCC-Expr	5	263.79	196.11	3.02
QUIC Cubic	5	55.13	108.63	1.23
SCReAM	5	0.22	108.10	0.72
Sprout	5	0.95	108.82	0.78
TaoVA-100x	5	158.32	108.40	0.83
TCP Vegas	5	258.67	119.09	0.71
Verus	5	106.15	238.17	6.85
PCC-Vivace	5	215.76	111.26	1.43
WebRTC media	5	0.05	108.27	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-06-27 18:08:10
End at: 2019-06-27 18:08:40
Local clock offset: -0.006 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-06-27 20:42:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 446.39 Mbit/s
95th percentile per-packet one-way delay: 207.517 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 446.39 Mbit/s
95th percentile per-packet one-way delay: 207.517 ms
Loss rate: 1.49%
```
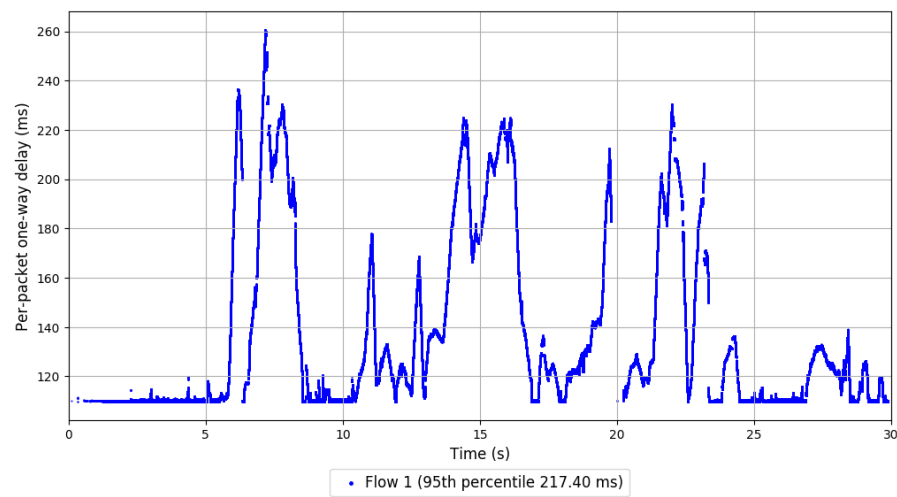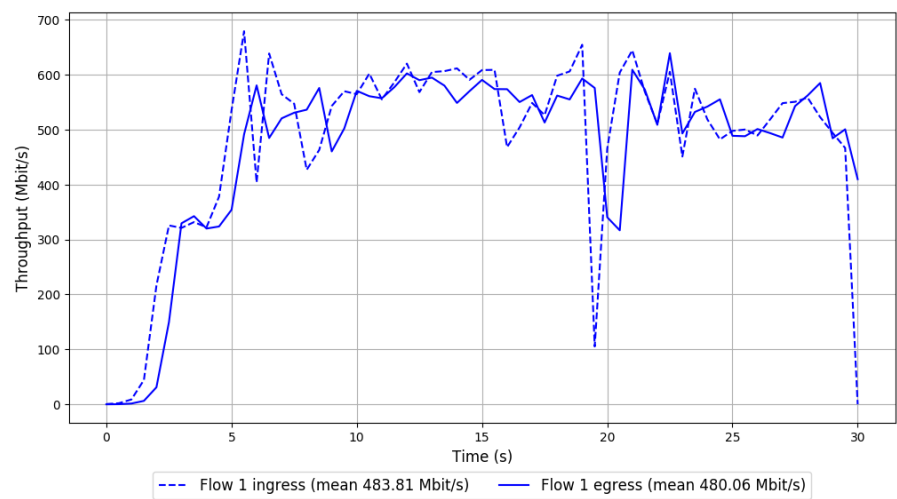
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 449.79 Mbit/s) ——— Flow 1 egress (mean 446.39 Mbit/s)
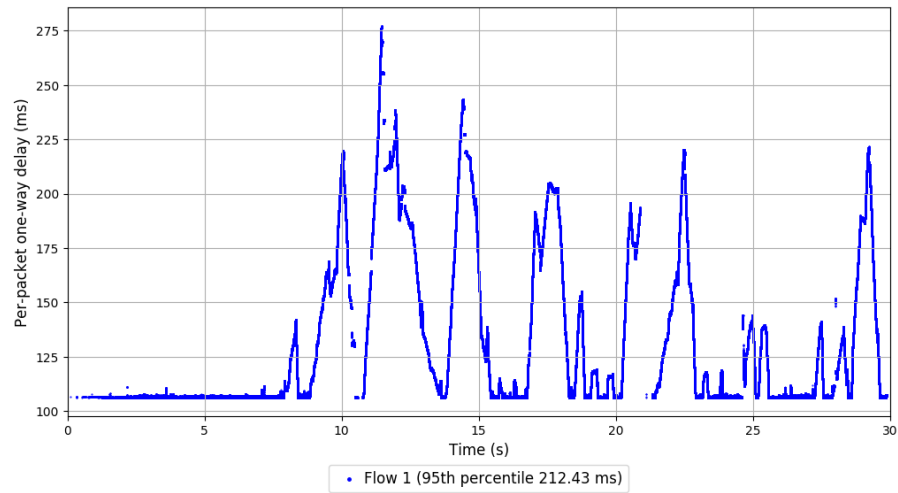

• Flow 1 (95th percentile 207.52 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2019-06-27 18:40:30
End at: 2019-06-27 18:41:00
Local clock offset: -0.103 ms
Remote clock offset: -0.121 ms


# Below is generated by plot.py at 2019-06-27 20:42:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 456.00 Mbit/s
95th percentile per-packet one-way delay: 214.313 ms
Loss rate: 2.45%
-- Flow 1:
Average throughput: 456.00 Mbit/s
95th percentile per-packet one-way delay: 214.313 ms
Loss rate: 2.45%
```
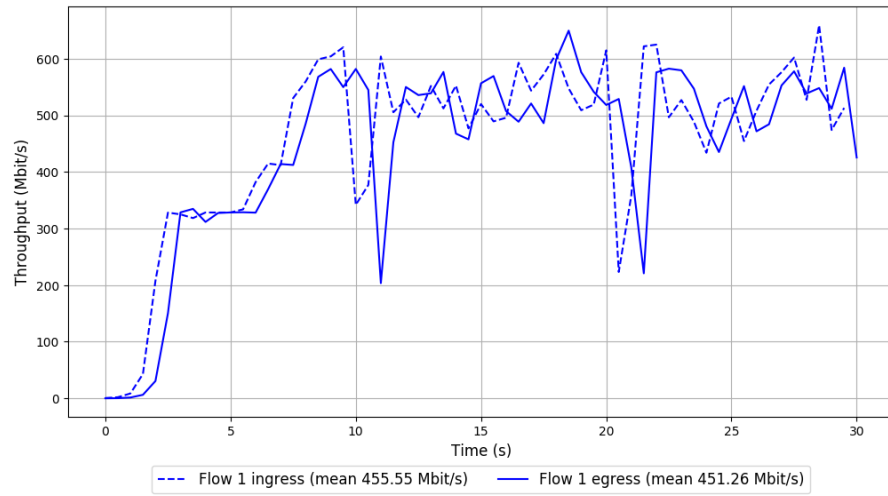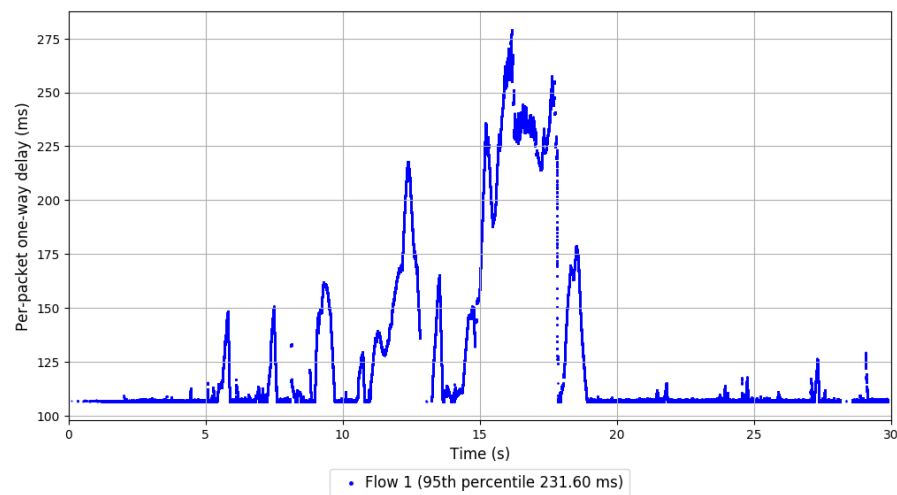
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-06-27 19:13:04
End at: 2019-06-27 19:13:34
Local clock offset: 0.584 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2019-06-27 20:43:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 480.06 Mbit/s
95th percentile per-packet one-way delay: 217.402 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 480.06 Mbit/s
95th percentile per-packet one-way delay: 217.402 ms
Loss rate: 1.51%
```
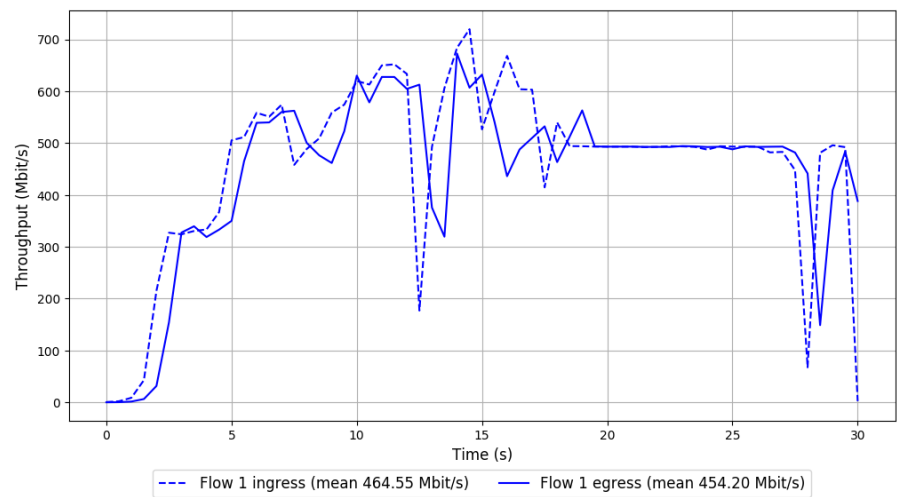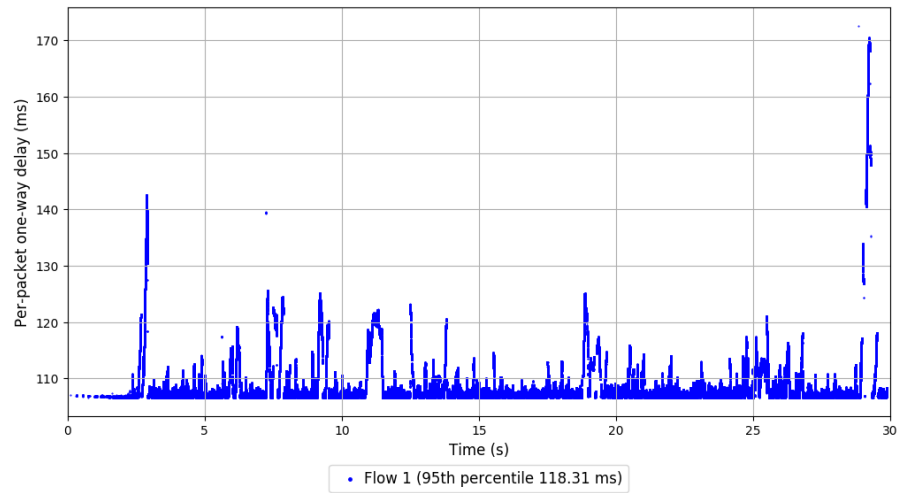
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2019-06-27 19:45:59
End at: 2019-06-27 19:46:29
Local clock offset: -0.833 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2019-06-27 20:43:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 451.26 Mbit/s
95th percentile per-packet one-way delay: 212.425 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 451.26 Mbit/s
95th percentile per-packet one-way delay: 212.425 ms
Loss rate: 1.65%
```
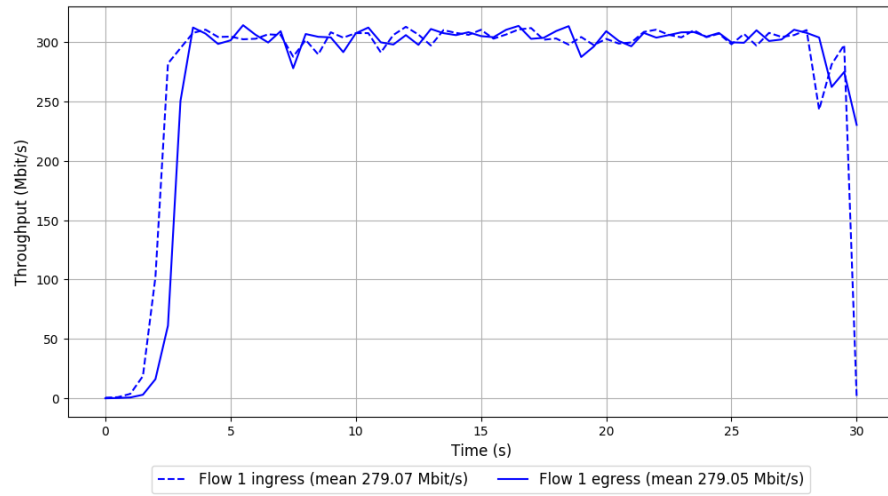
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 455.55 Mbit/s)   Flow 1 egress (mean 451.26 Mbit/s)
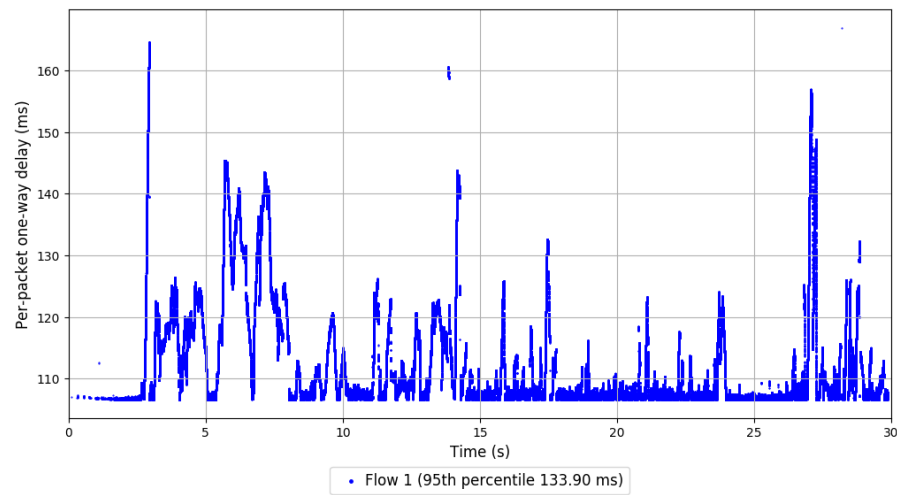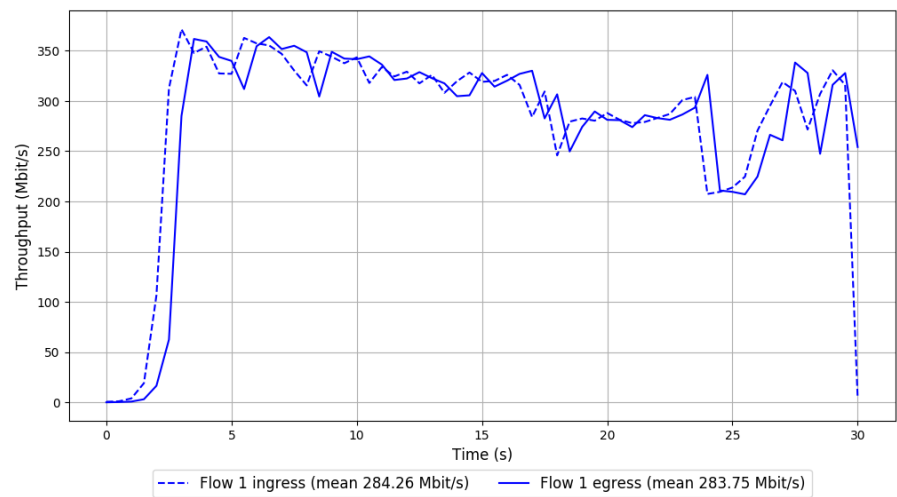

• Flow 1 (95th percentile 212.43 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-06-27 20:18:32
End at: 2019-06-27 20:19:02
Local clock offset: -0.096 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2019-06-27 20:43:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 454.20 Mbit/s
95th percentile per-packet one-way delay: 231.600 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 454.20 Mbit/s
95th percentile per-packet one-way delay: 231.600 ms
Loss rate: 2.93%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 464.55 Mbit/s)   Flow 1 egress (mean 454.20 Mbit/s)
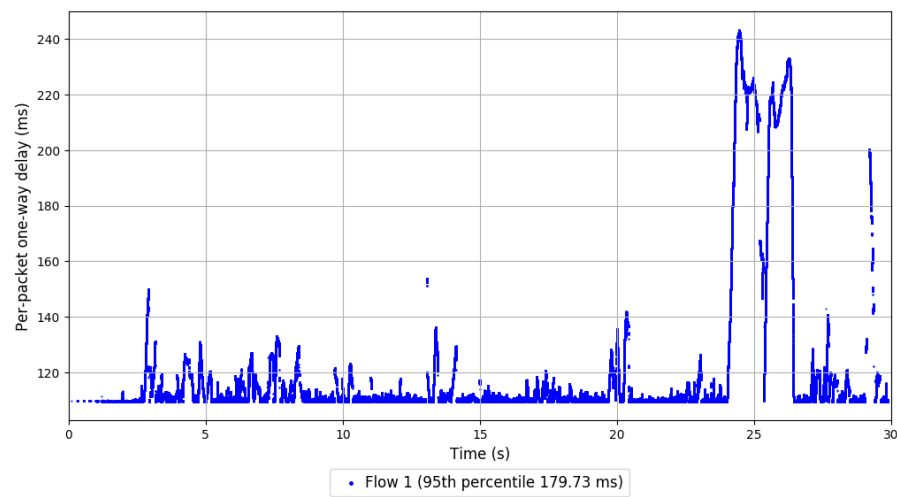

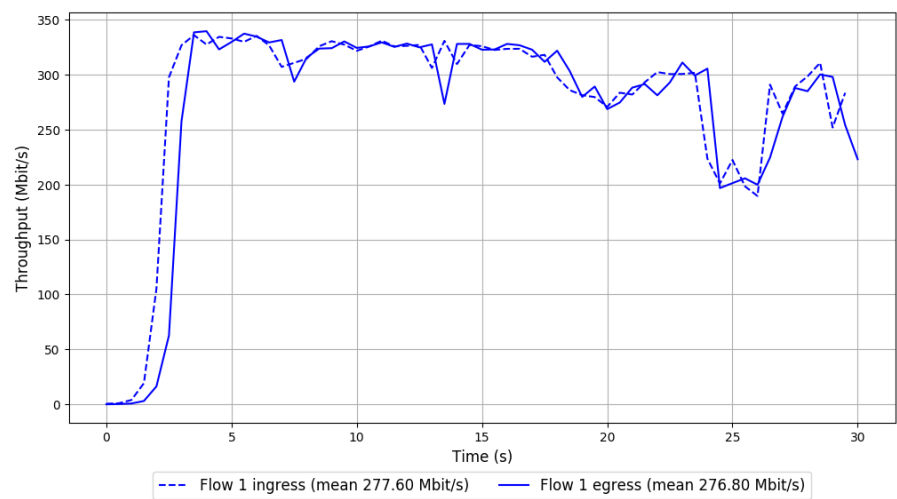· Flow 1 (95th percentile 231.60 ms)

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```
Run 1: Statistics of Copa

Start at: 2019-06-27 18:09:46
End at: 2019-06-27 18:10:16
Local clock offset: -0.051 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-06-27 20:43:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 279.05 Mbit/s
95th percentile per-packet one-way delay: 118.310 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 279.05 Mbit/s
95th percentile per-packet one-way delay: 118.310 ms
Loss rate: 0.74%
```
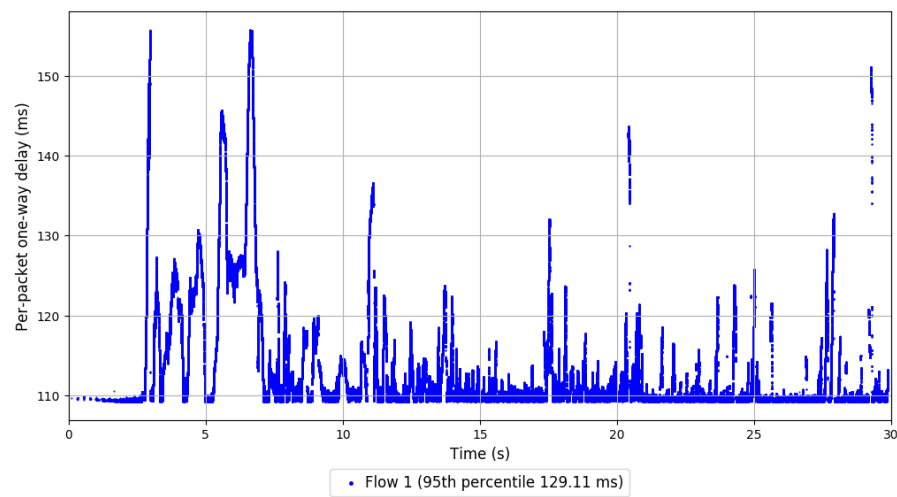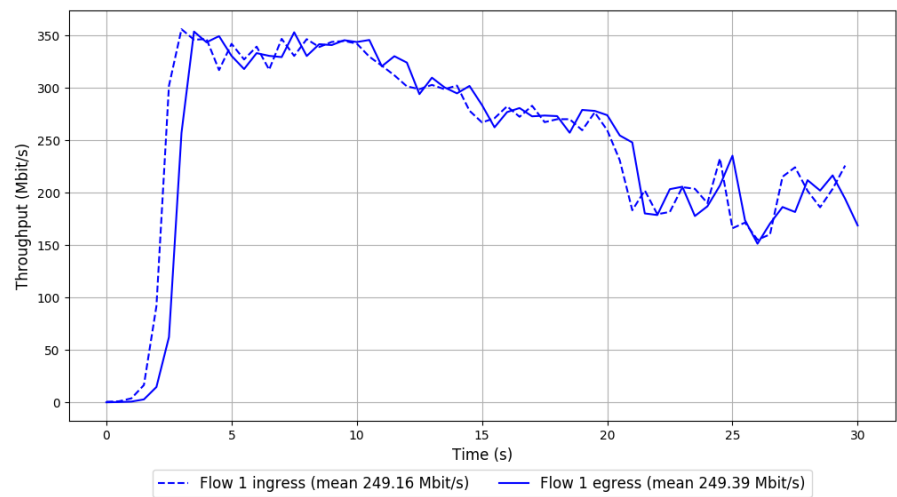
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-06-27 18:42:10
End at: 2019-06-27 18:42:40
Local clock offset: 0.003 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2019-06-27 20:43:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.75 Mbit/s
95th percentile per-packet one-way delay: 133.898 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 283.75 Mbit/s
95th percentile per-packet one-way delay: 133.898 ms
Loss rate: 0.93%
```
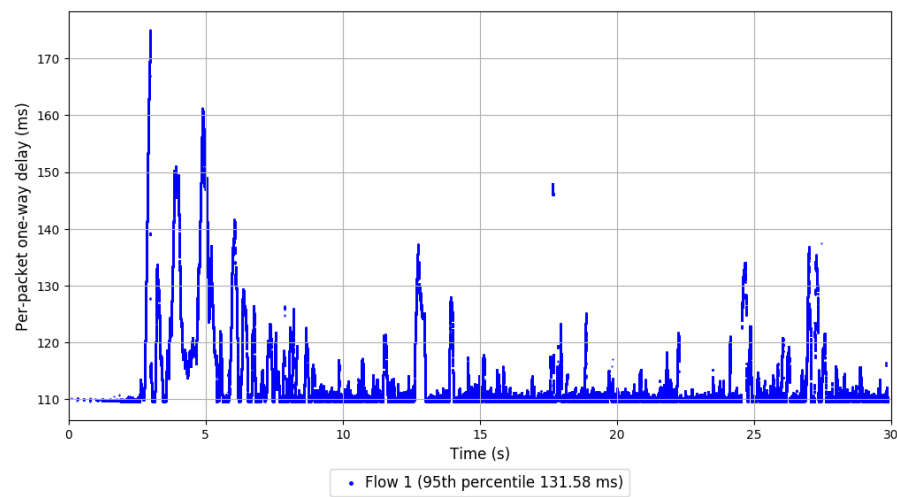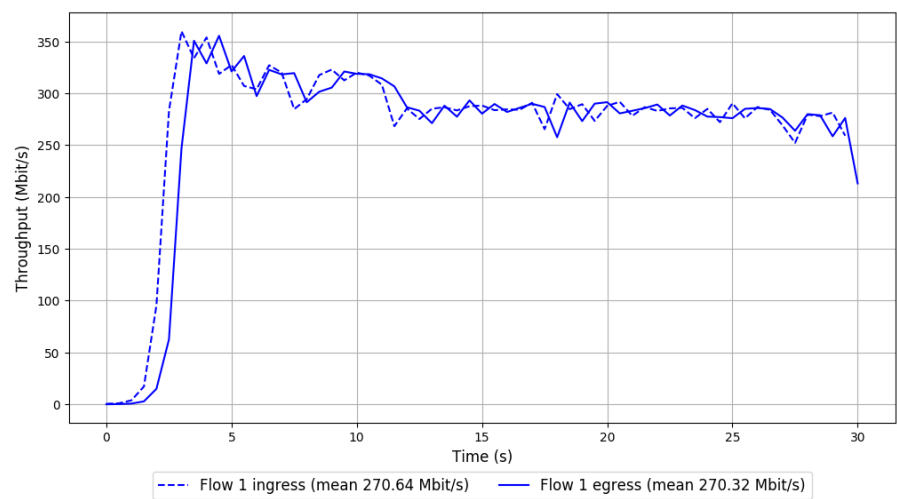
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-06-27 19:14:44
End at: 2019-06-27 19:15:14
Local clock offset: -0.033 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-06-27 20:43:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 276.80 Mbit/s
95th percentile per-packet one-way delay: 179.733 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 276.80 Mbit/s
95th percentile per-packet one-way delay: 179.733 ms
Loss rate: 1.02%
```

Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-06-27 19:47:36
End at: 2019-06-27 19:48:06
Local clock offset: -0.204 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-06-27 20:50:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.39 Mbit/s
95th percentile per-packet one-way delay: 129.106 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 249.39 Mbit/s
95th percentile per-packet one-way delay: 129.106 ms
Loss rate: 0.64%
```
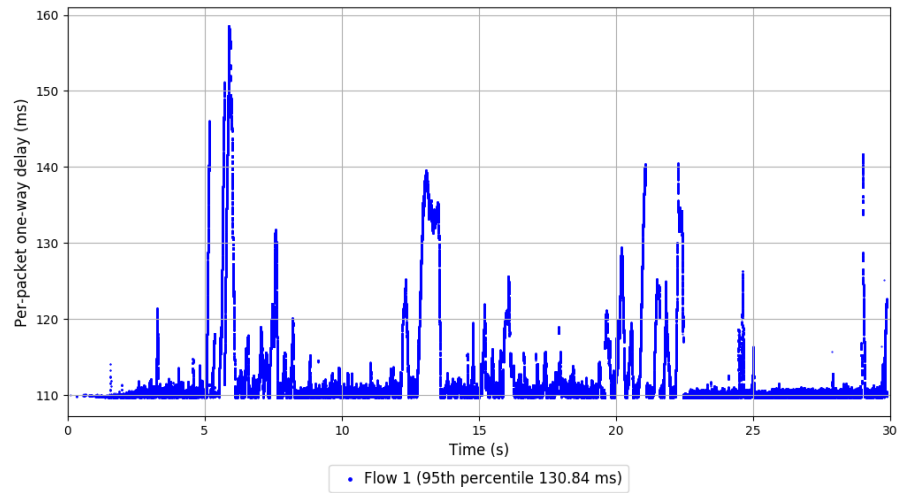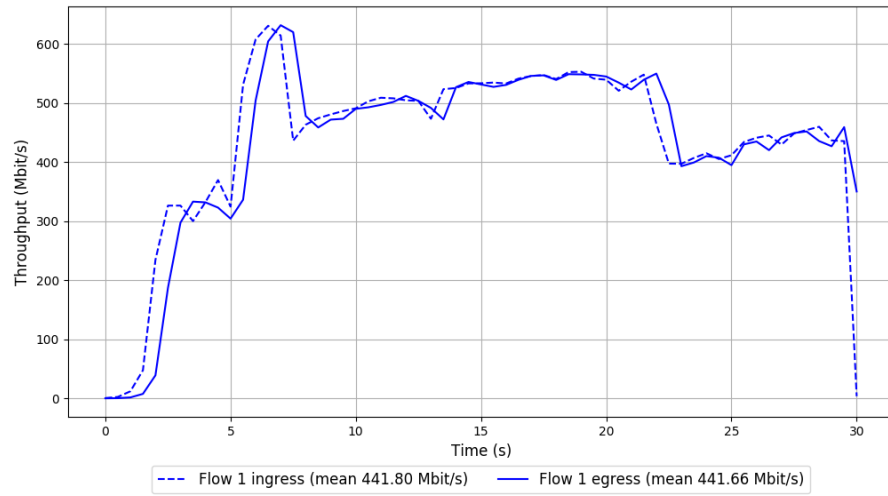
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-06-27 20:20:09
End at: 2019-06-27 20:20:39
Local clock offset: -0.039 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2019-06-27 20:51:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 270.32 Mbit/s
95th percentile per-packet one-way delay: 131.584 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 270.32 Mbit/s
95th percentile per-packet one-way delay: 131.584 ms
Loss rate: 0.85%
```

Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 270.64 Mbit/s)   Flow 1 egress (mean 270.32 Mbit/s)

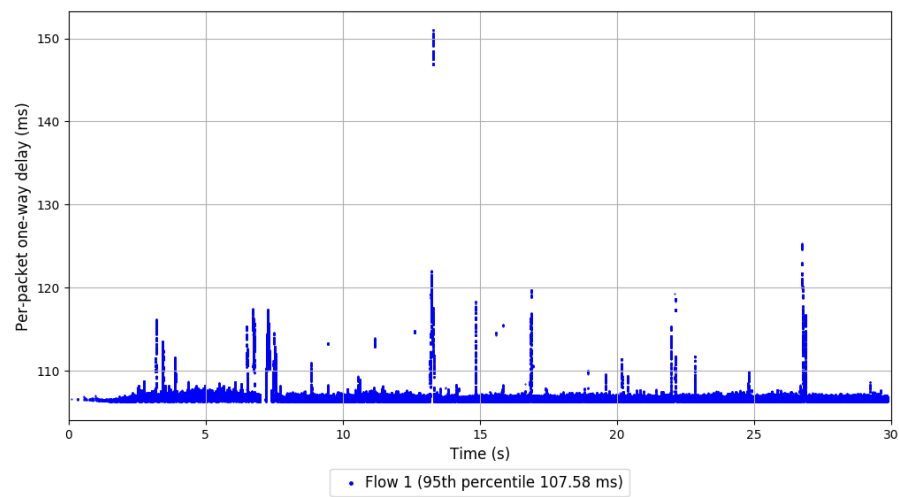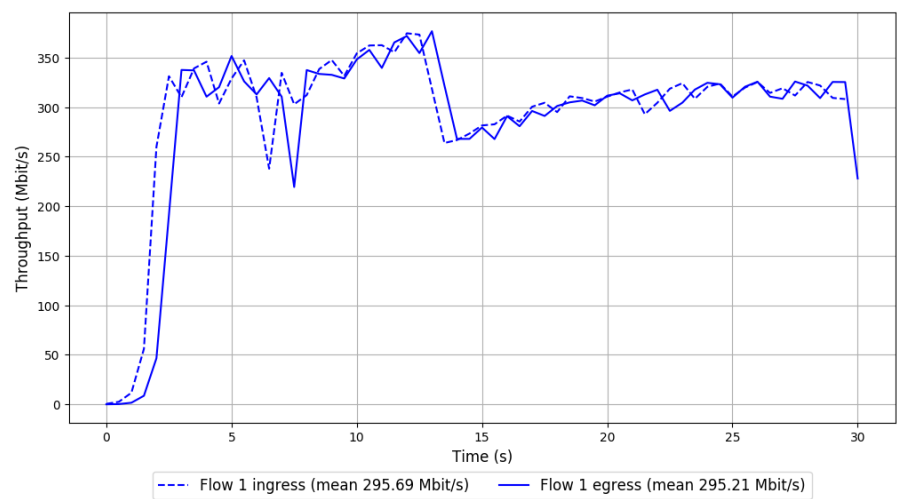Flow 1 (95th percentile 131.58 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2019-06-27 17:46:02
End at: 2019-06-27 17:46:32
Local clock offset: -0.184 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-27 20:51:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 441.66 Mbit/s
95th percentile per-packet one-way delay: 130.835 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 441.66 Mbit/s
95th percentile per-packet one-way delay: 130.835 ms
Loss rate: 0.77%
```
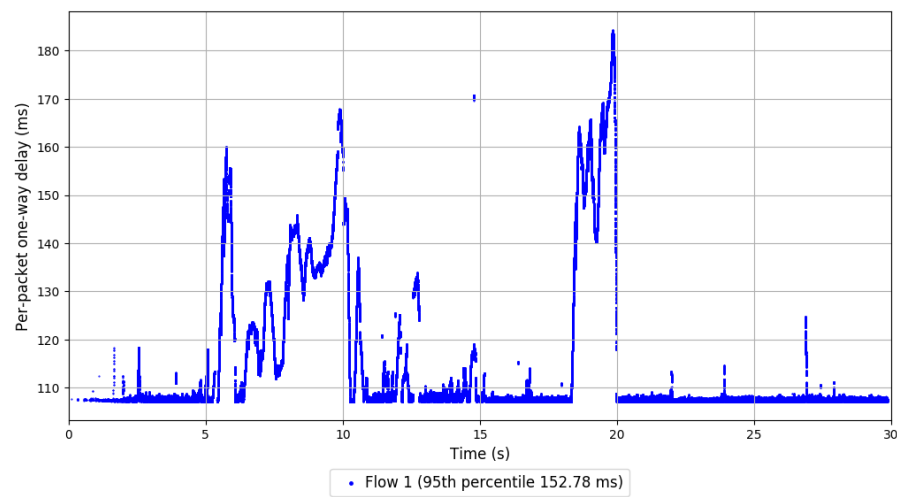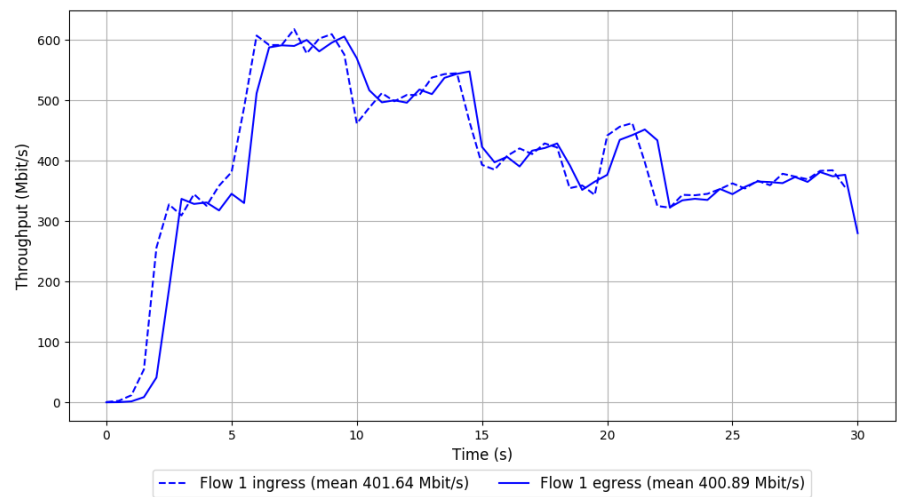
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 441.80 Mbit/s) — Flow 1 egress (mean 441.66 Mbit/s)

Flow 1 (95th percentile 130.84 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2019-06-27 18:18:13
End at: 2019-06-27 18:18:43
Local clock offset: -0.002 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2019-06-27 20:51:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 295.21 Mbit/s
95th percentile per-packet one-way delay: 107.584 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 295.21 Mbit/s
95th percentile per-packet one-way delay: 107.584 ms
Loss rate: 0.88%
```
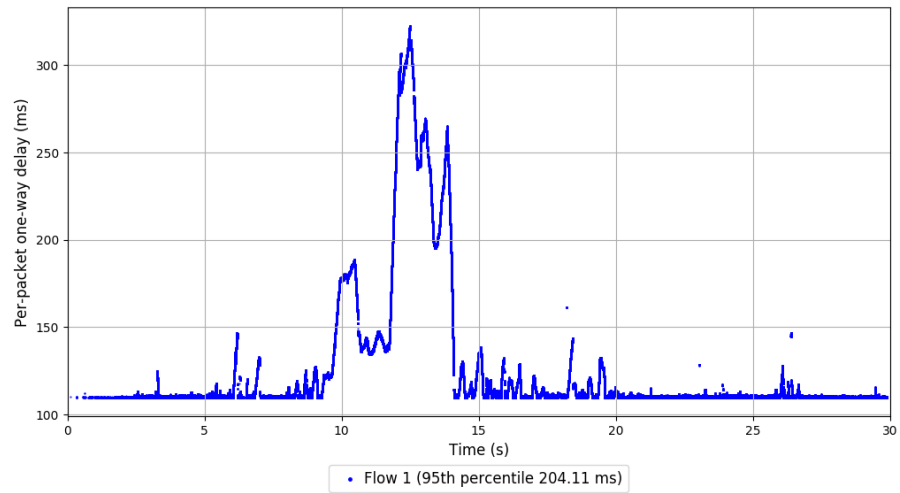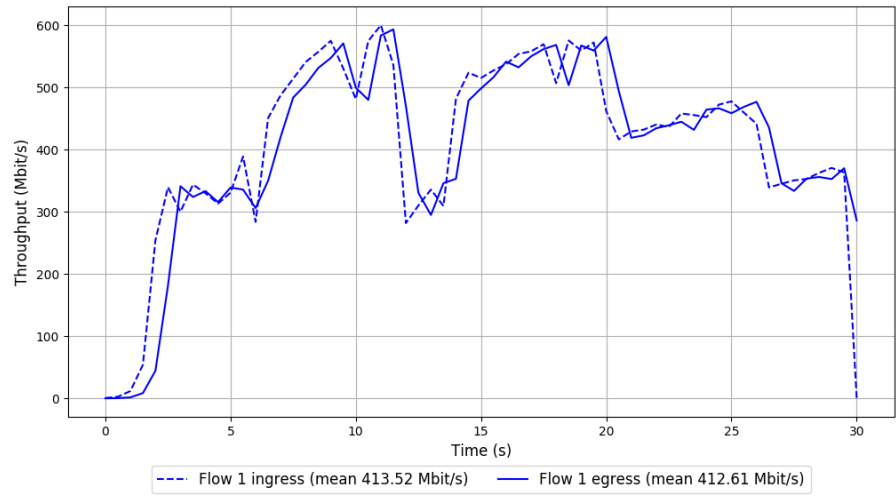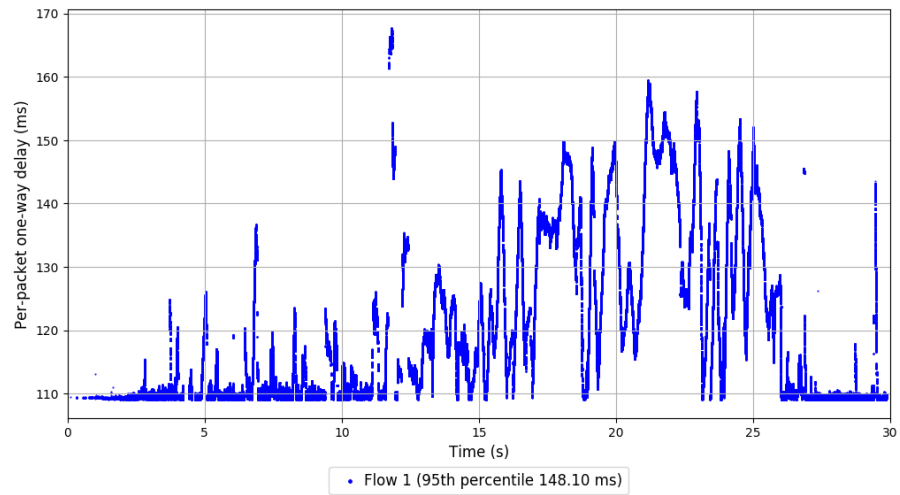
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 295.69 Mbit/s) ---- Flow 1 egress (mean 295.21 Mbit/s) ——

• Flow 1 (95th percentile 107.58 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-06-27 18:50:42
End at: 2019-06-27 18:51:12
Local clock offset: 0.326 ms
Remote clock offset: -0.112 ms


# Below is generated by plot.py at 2019-06-27 20:51:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 400.89 Mbit/s
95th percentile per-packet one-way delay: 152.785 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 400.89 Mbit/s
95th percentile per-packet one-way delay: 152.785 ms
Loss rate: 0.91%
```
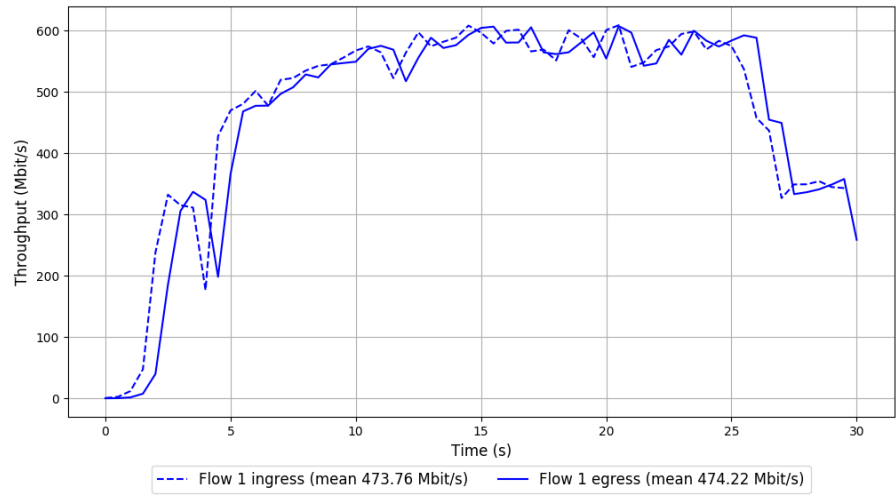
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 401.64 Mbit/s) --- Flow 1 egress (mean 400.89 Mbit/s)

Flow 1 (95th percentile 152.78 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-06-27 19:23:00
End at: 2019-06-27 19:23:30
Local clock offset: 0.06 ms
Remote clock offset: -0.13 ms


# Below is generated by plot.py at 2019-06-27 20:51:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 412.61 Mbit/s
95th percentile per-packet one-way delay: 204.108 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 412.61 Mbit/s
95th percentile per-packet one-way delay: 204.108 ms
Loss rate: 0.94%
```
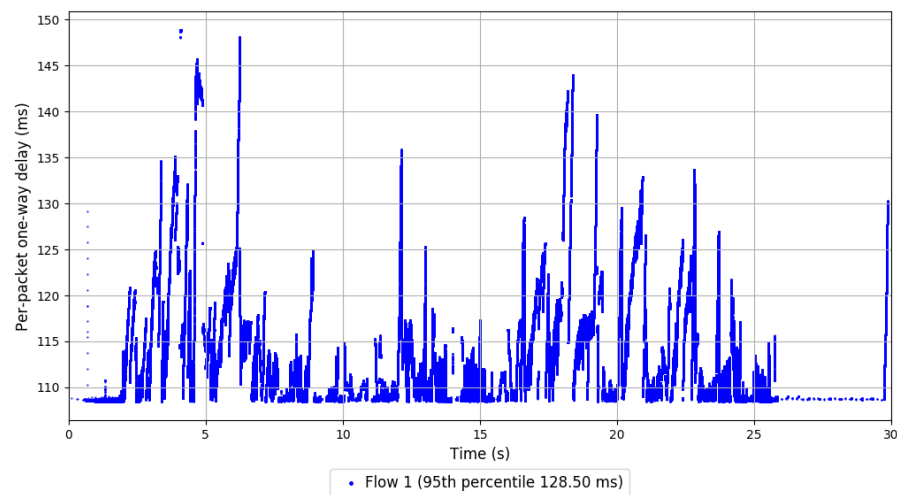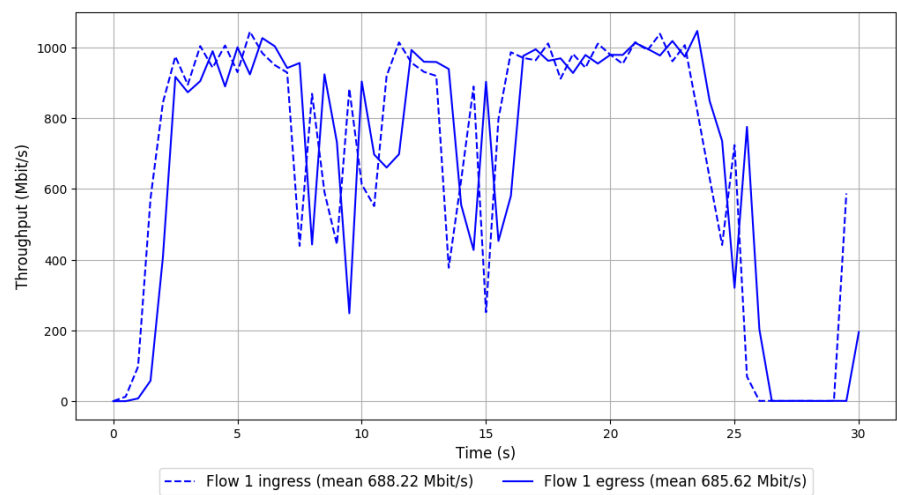
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-06-27 19:56:00
End at: 2019-06-27 19:56:30
Local clock offset: -0.071 ms
Remote clock offset: -0.024 ms


# Below is generated by plot.py at 2019-06-27 20:52:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 474.22 Mbit/s
95th percentile per-packet one-way delay: 148.104 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 474.22 Mbit/s
95th percentile per-packet one-way delay: 148.104 ms
Loss rate: 0.63%
```
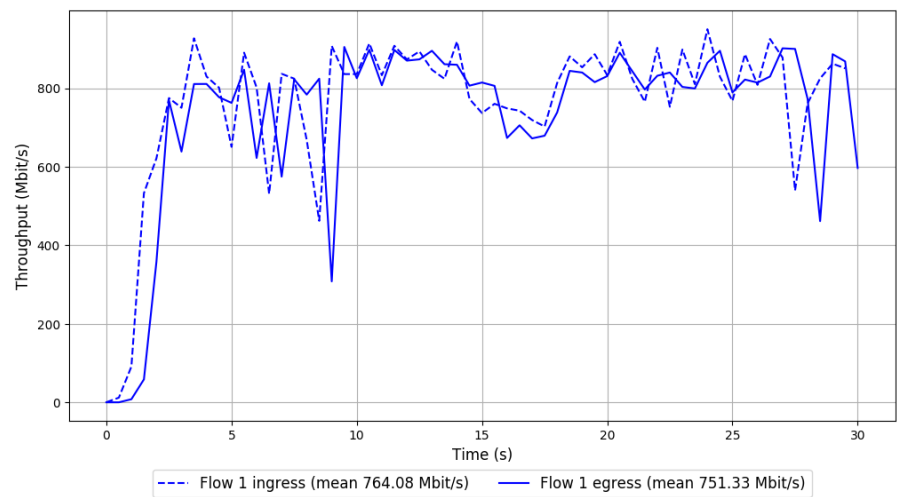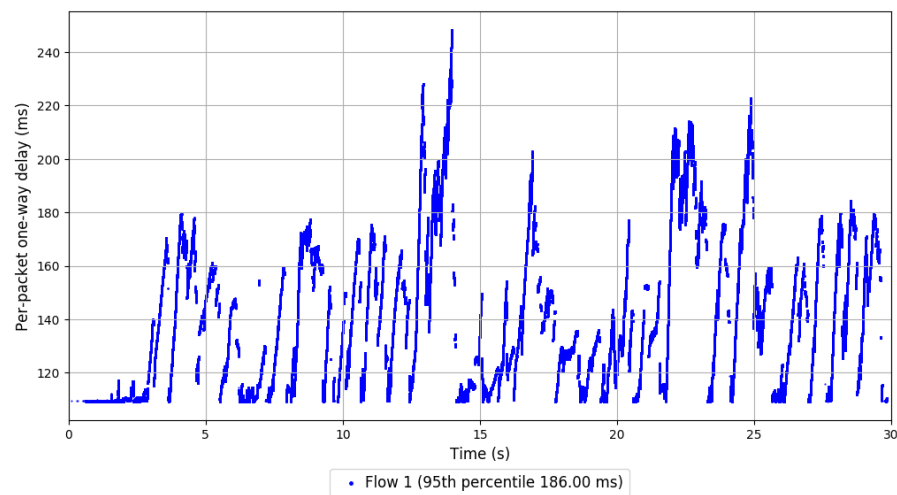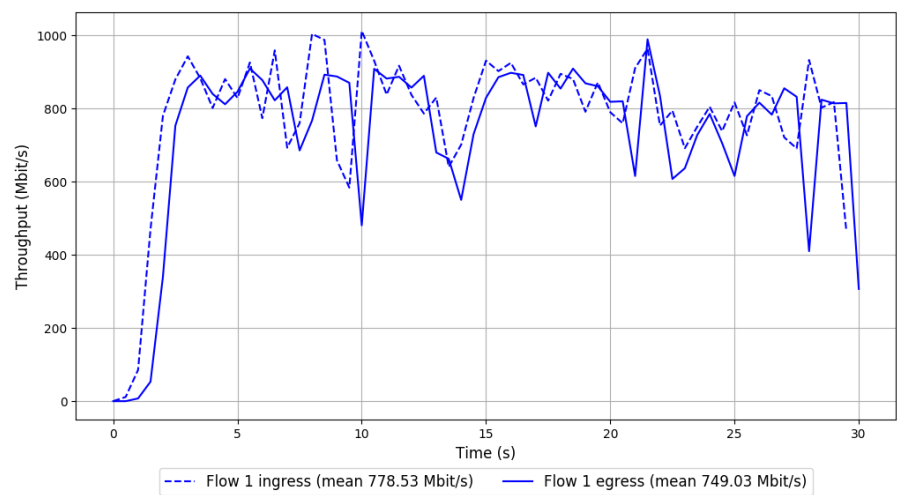
Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-06-27 17:50:23
End at: 2019-06-27 17:50:53
Local clock offset: -0.162 ms
Remote clock offset: 0.25 ms


# Below is generated by plot.py at 2019-06-27 20:57:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 685.62 Mbit/s
95th percentile per-packet one-way delay: 128.502 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 685.62 Mbit/s
95th percentile per-packet one-way delay: 128.502 ms
Loss rate: 1.11%
```

Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 688.22 Mbit/s)   Flow 1 egress (mean 685.62 Mbit/s)
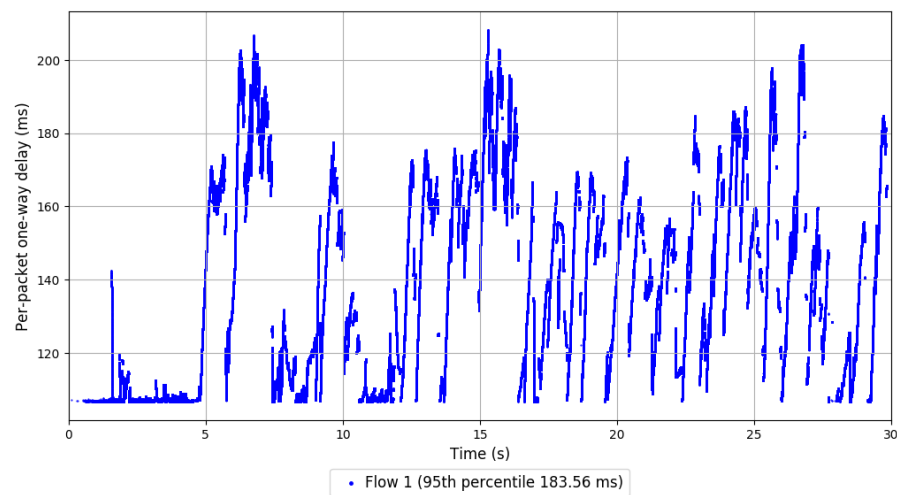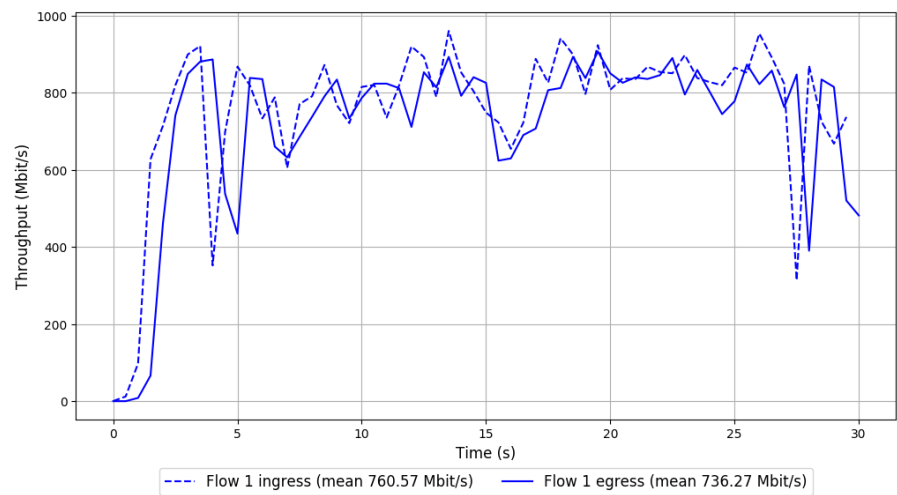

• Flow 1 (95th percentile 128.50 ms)

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```
Run 2: Statistics of FillP

Start at: 2019-06-27 18:22:28
End at: 2019-06-27 18:22:58
Local clock offset: 0.129 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2019-06-27 21:06:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 751.33 Mbit/s
95th percentile per-packet one-way delay: 178.346 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 751.33 Mbit/s
95th percentile per-packet one-way delay: 178.346 ms
Loss rate: 2.38%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 764.08 Mbit/s) — — —   Flow 1 egress (mean 751.33 Mbit/s)

• Flow 1 (95th percentile 178.35 ms)

```
Run 3: Statistics of FillP

Start at: 2019-06-27 18:55:02
End at: 2019-06-27 18:55:32
Local clock offset: -0.904 ms
Remote clock offset: -0.101 ms


# Below is generated by plot.py at 2019-06-27 21:07:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 749.03 Mbit/s
95th percentile per-packet one-way delay: 186.004 ms
Loss rate: 4.46%
-- Flow 1:
Average throughput: 749.03 Mbit/s
95th percentile per-packet one-way delay: 186.004 ms
Loss rate: 4.46%
```
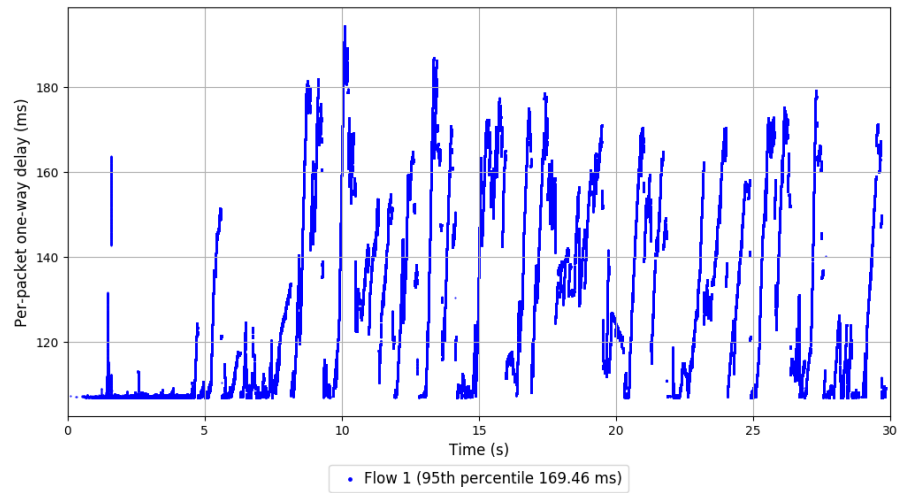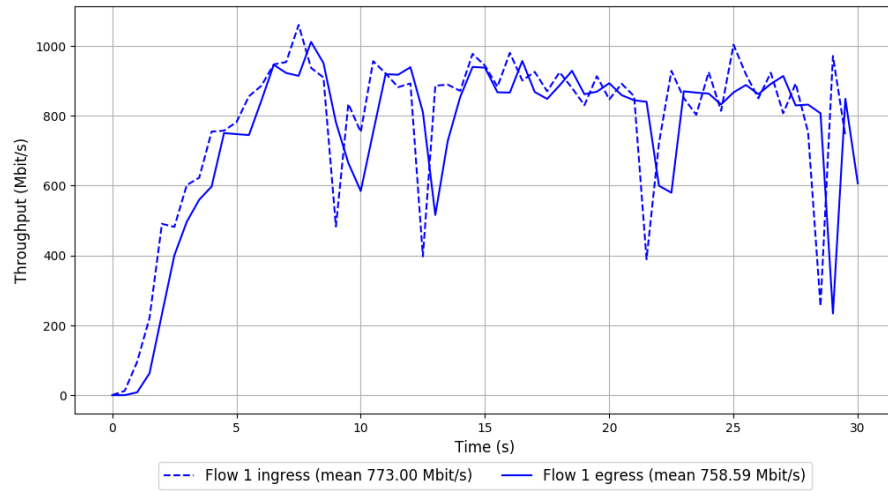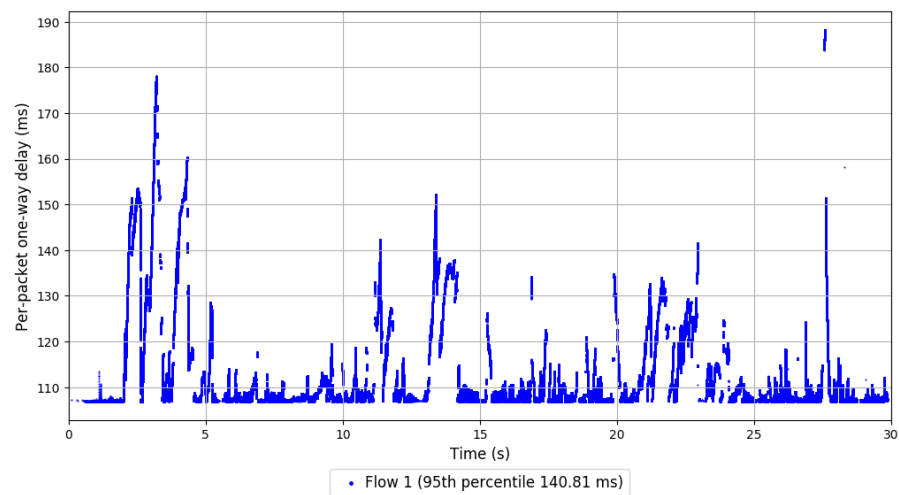
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-06-27 19:27:22
End at: 2019-06-27 19:27:52
Local clock offset: -0.102 ms
Remote clock offset: -0.081 ms


# Below is generated by plot.py at 2019-06-27 21:07:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 736.27 Mbit/s
95th percentile per-packet one-way delay: 183.561 ms
Loss rate: 3.89%
-- Flow 1:
Average throughput: 736.27 Mbit/s
95th percentile per-packet one-way delay: 183.561 ms
Loss rate: 3.89%
```
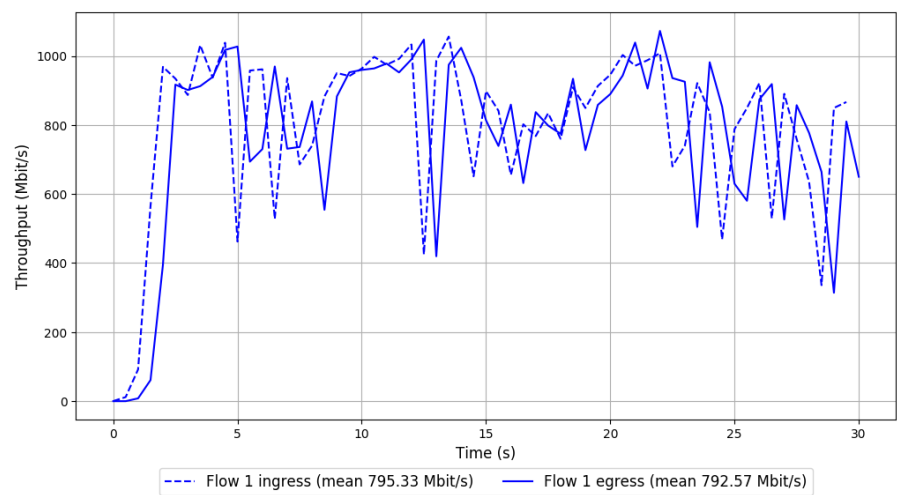
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-06-27 20:00:25
End at: 2019-06-27 20:00:55
Local clock offset: -0.018 ms
Remote clock offset: 0.008 ms


# Below is generated by plot.py at 2019-06-27 21:07:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 758.59 Mbit/s
95th percentile per-packet one-way delay: 169.461 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 758.59 Mbit/s
95th percentile per-packet one-way delay: 169.461 ms
Loss rate: 2.57%
```
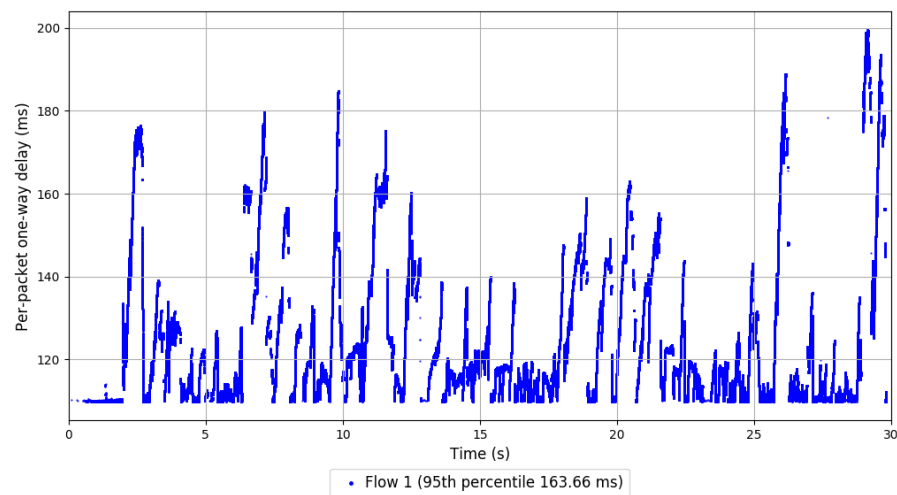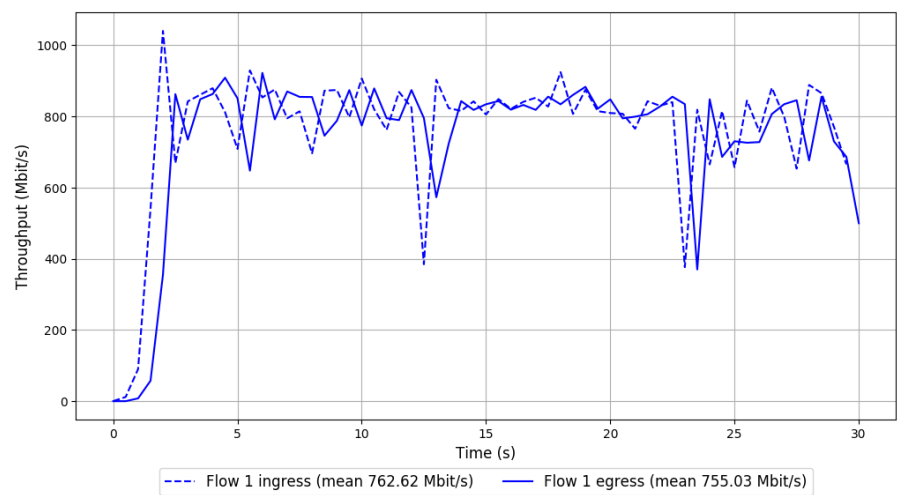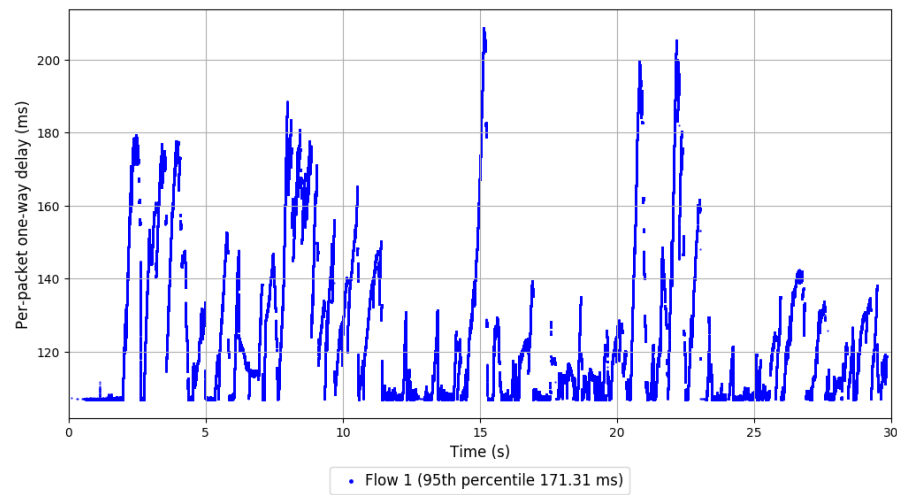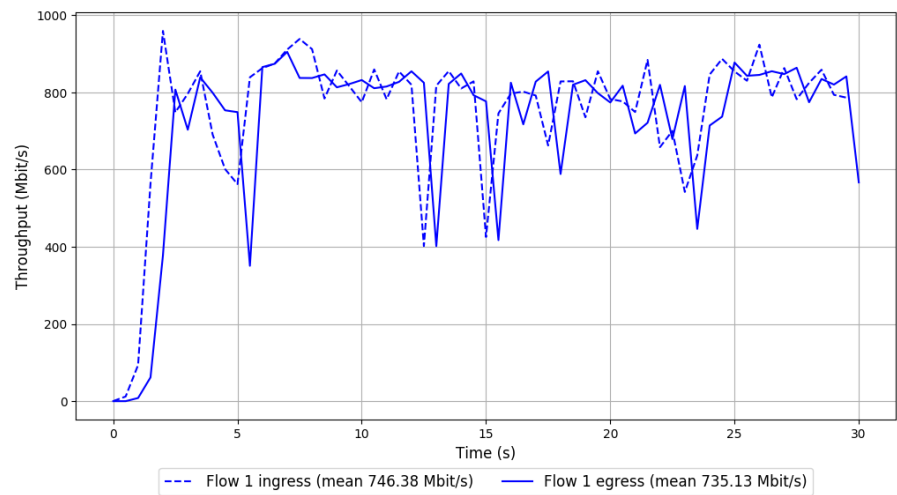
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-06-27 17:59:40
End at: 2019-06-27 18:00:10
Local clock offset: -0.246 ms
Remote clock offset: -0.473 ms


# Below is generated by plot.py at 2019-06-27 21:08:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 792.57 Mbit/s
95th percentile per-packet one-way delay: 140.812 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 792.57 Mbit/s
95th percentile per-packet one-way delay: 140.812 ms
Loss rate: 1.07%
```

Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-06-27 18:31:47
End at: 2019-06-27 18:32:17
Local clock offset: 0.05 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2019-06-27 21:08:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 755.03 Mbit/s
95th percentile per-packet one-way delay: 163.660 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 755.03 Mbit/s
95th percentile per-packet one-way delay: 163.660 ms
Loss rate: 1.73%
```
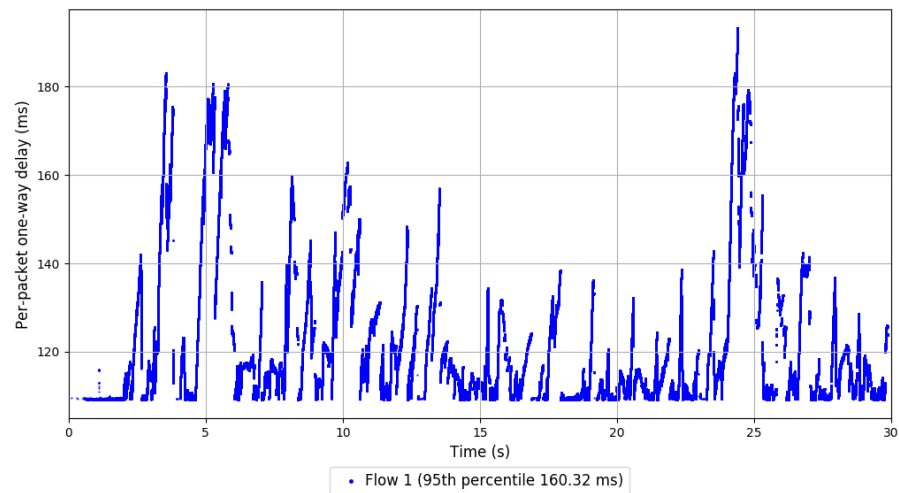
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 762.62 Mbit/s)   Flow 1 egress (mean 755.03 Mbit/s)

• Flow 1 (95th percentile 163.66 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-06-27 19:04:15
End at: 2019-06-27 19:04:45
Local clock offset: -0.005 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-06-27 21:08:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 735.13 Mbit/s
95th percentile per-packet one-way delay: 171.308 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 735.13 Mbit/s
95th percentile per-packet one-way delay: 171.308 ms
Loss rate: 2.23%
```
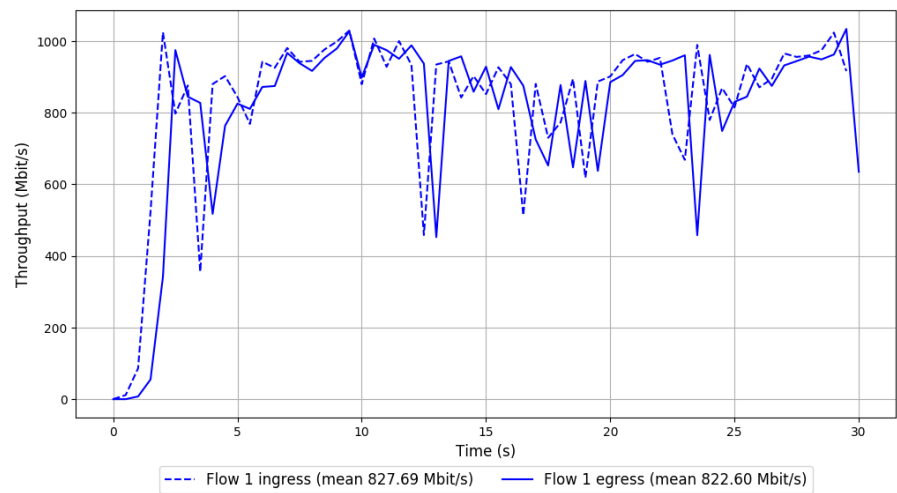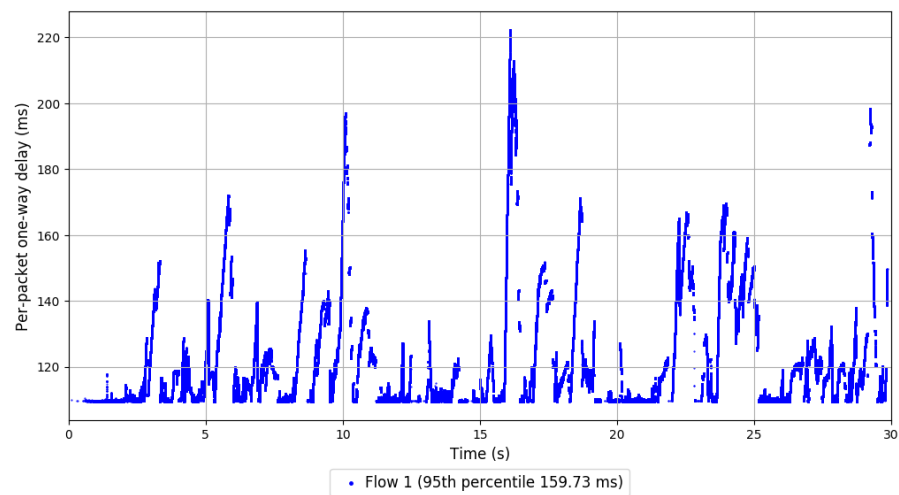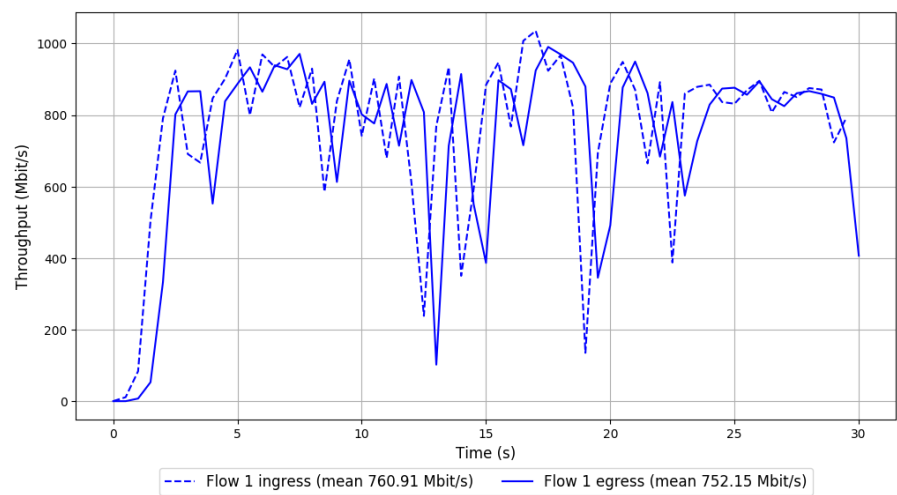
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 746.38 Mbit/s) --- Flow 1 egress (mean 735.13 Mbit/s)

• Flow 1 (95th percentile 171.31 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-06-27 19:36:48
End at: 2019-06-27 19:37:18
Local clock offset: 0.048 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2019-06-27 21:18:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 822.60 Mbit/s
95th percentile per-packet one-way delay: 160.320 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 822.60 Mbit/s
95th percentile per-packet one-way delay: 160.320 ms
Loss rate: 1.34%
```
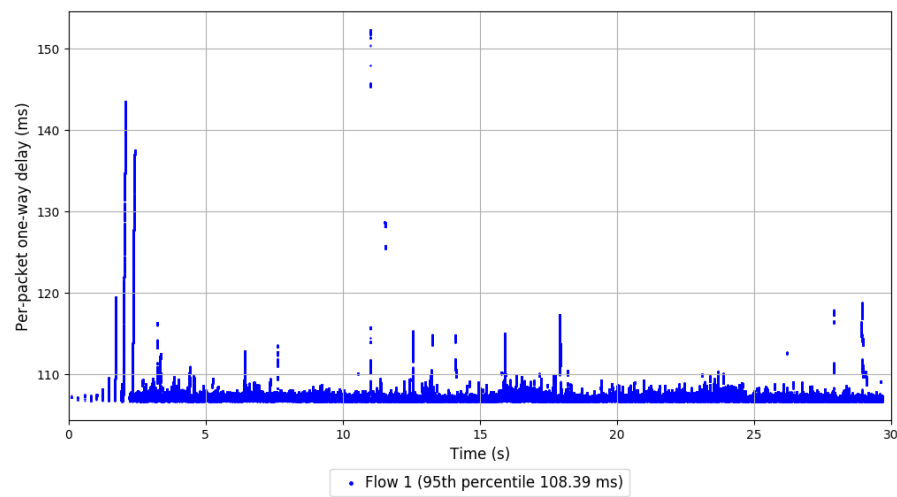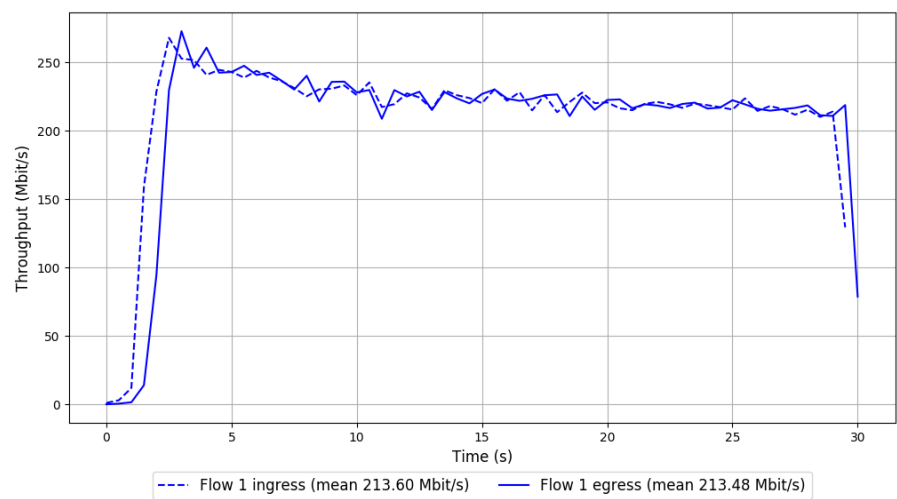
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 827.69 Mbit/s)　　Flow 1 egress (mean 822.60 Mbit/s)

Flow 1 (95th percentile 160.32 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-06-27 20:09:53
End at: 2019-06-27 20:10:23
Local clock offset: -0.18 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2019-06-27 21:22:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 752.15 Mbit/s
95th percentile per-packet one-way delay: 159.730 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 752.15 Mbit/s
95th percentile per-packet one-way delay: 159.730 ms
Loss rate: 1.87%
```
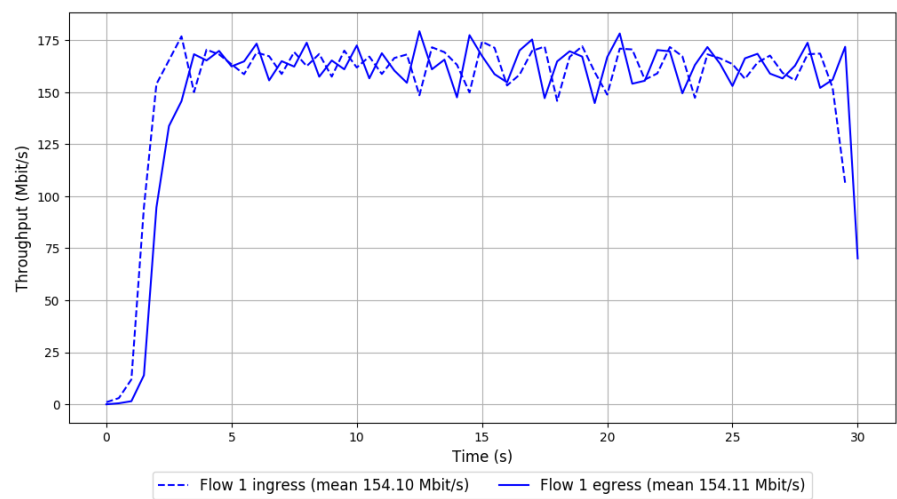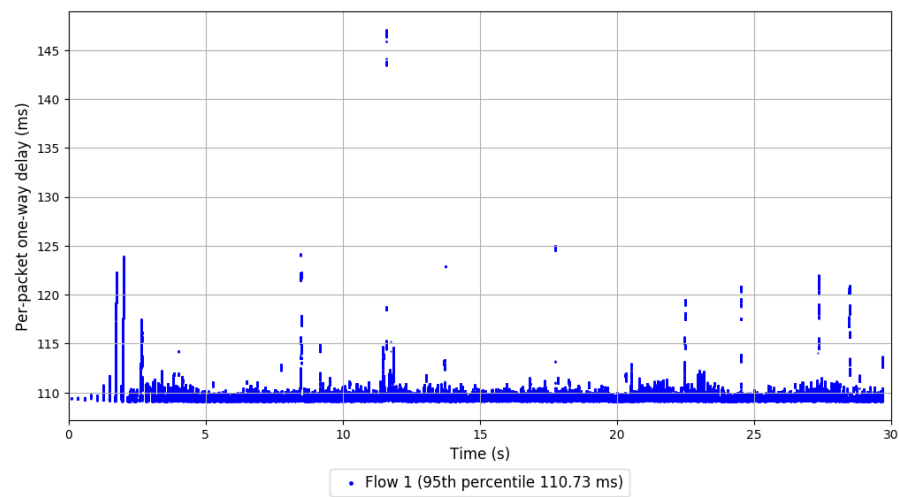
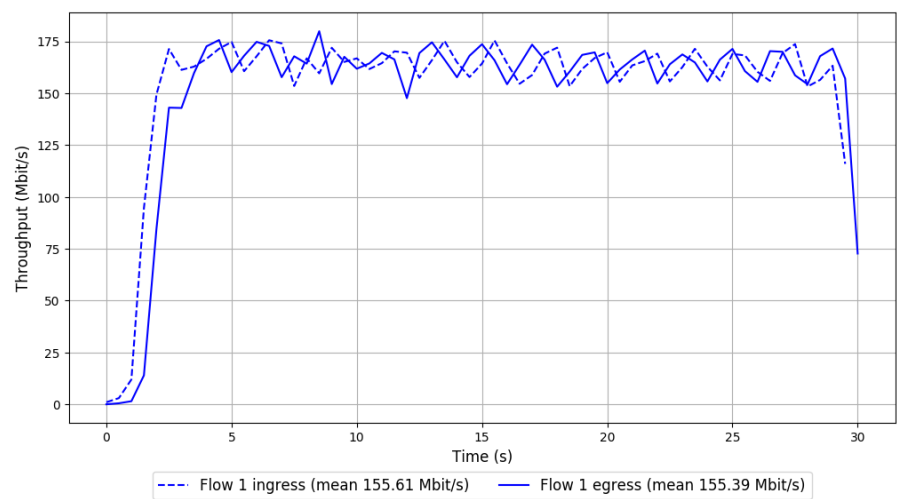Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-06-27 18:03:45
End at: 2019-06-27 18:04:15
Local clock offset: -0.084 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2019-06-27 21:22:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.48 Mbit/s
95th percentile per-packet one-way delay: 108.393 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 213.48 Mbit/s
95th percentile per-packet one-way delay: 108.393 ms
Loss rate: 0.79%
```
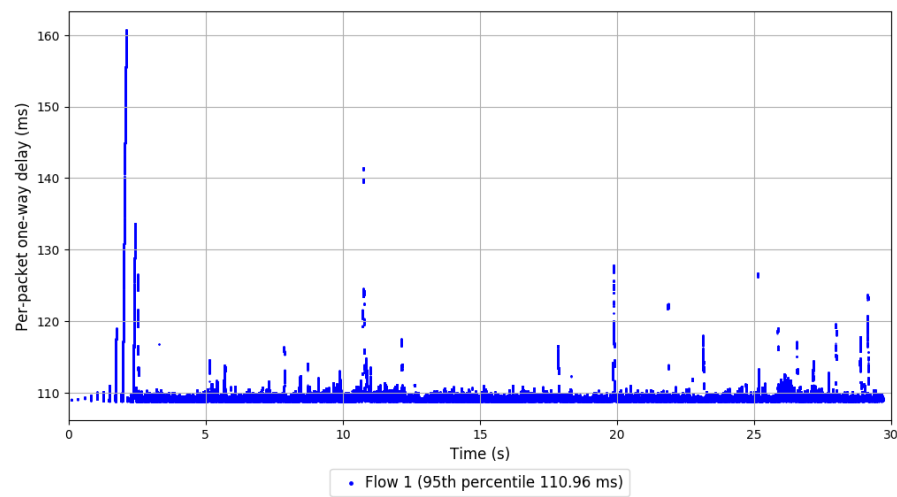
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-06-27 18:36:18
End at: 2019-06-27 18:36:48
Local clock offset: -0.005 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2019-06-27 21:22:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 154.11 Mbit/s
95th percentile per-packet one-way delay: 108.564 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 154.11 Mbit/s
95th percentile per-packet one-way delay: 108.564 ms
Loss rate: 0.72%
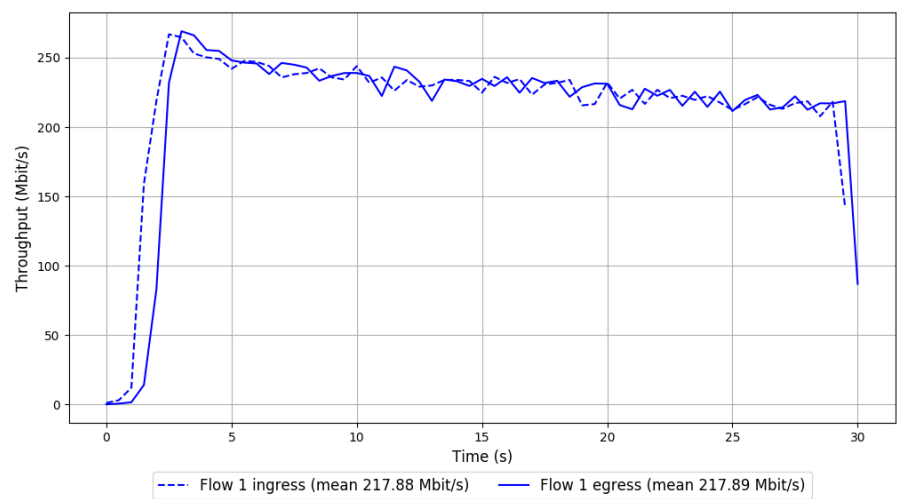```

Run 2: Report of Indigo — Data Link



Flow 1 ingress (mean 154.10 Mbit/s)    Flow 1 egress (mean 154.11 Mbit/s)



• Flow 1 (95th percentile 108.56 ms)

```
Run 3: Statistics of Indigo

Start at: 2019-06-27 19:08:45
End at: 2019-06-27 19:09:15
Local clock offset: -0.005 ms
Remote clock offset: -0.109 ms

Below is generated by plot.py at 2019-06-27 21:22:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 155.39 Mbit/s
95th percentile per-packet one-way delay: 110.726 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 155.39 Mbit/s
95th percentile per-packet one-way delay: 110.726 ms
Loss rate: 0.88%
```
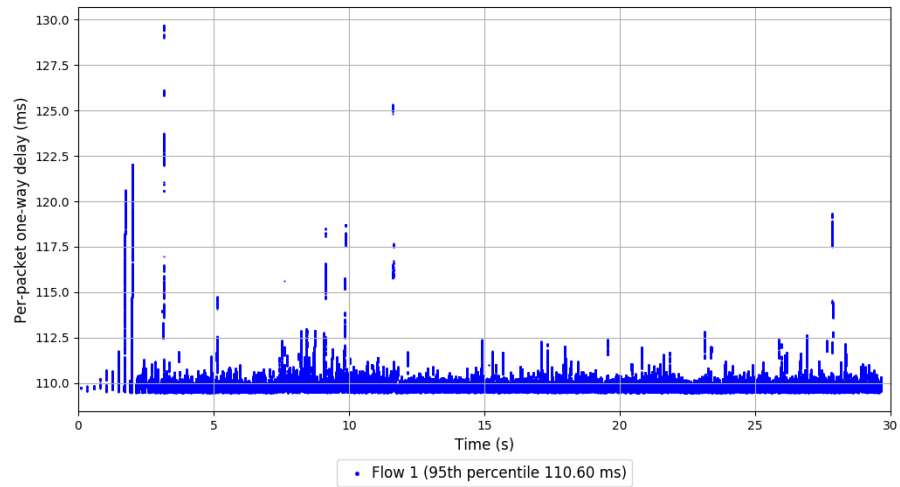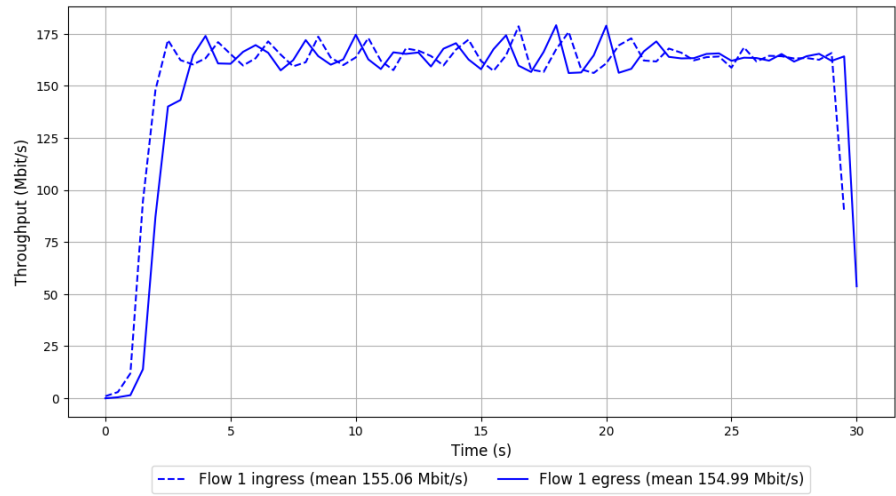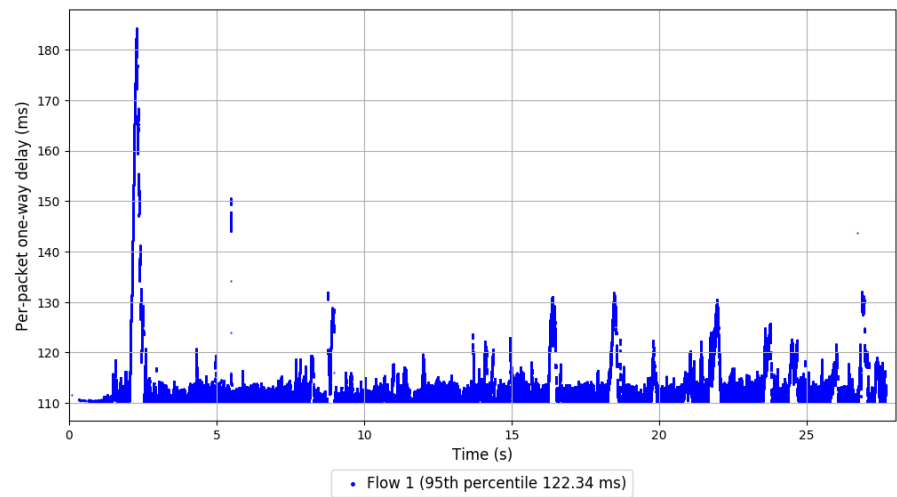
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-06-27 19:41:25
End at: 2019-06-27 19:41:55
Local clock offset: -0.013 ms
Remote clock offset: -0.049 ms

Below is generated by plot.py at 2019-06-27 21:22:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 217.89 Mbit/s
95th percentile per-packet one-way delay: 110.963 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 217.89 Mbit/s
95th percentile per-packet one-way delay: 110.963 ms
Loss rate: 0.73%
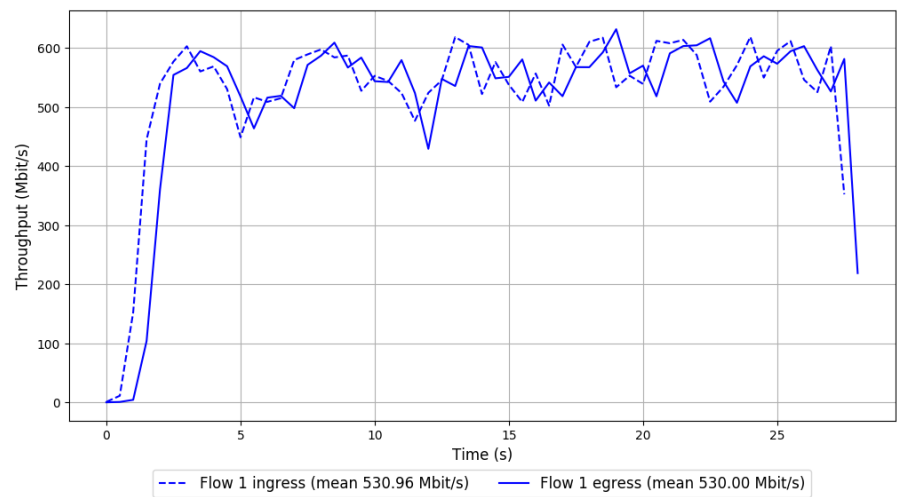```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-06-27 20:14:25
End at: 2019-06-27 20:14:55
Local clock offset: -0.063 ms
Remote clock offset: -0.42 ms


# Below is generated by plot.py at 2019-06-27 21:22:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 154.99 Mbit/s
95th percentile per-packet one-way delay: 110.601 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 154.99 Mbit/s
95th percentile per-packet one-way delay: 110.601 ms
Loss rate: 0.79%
```
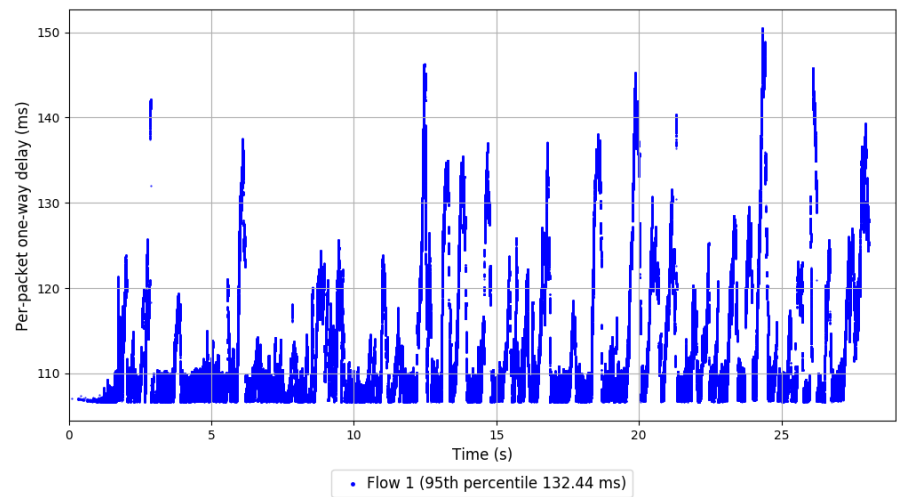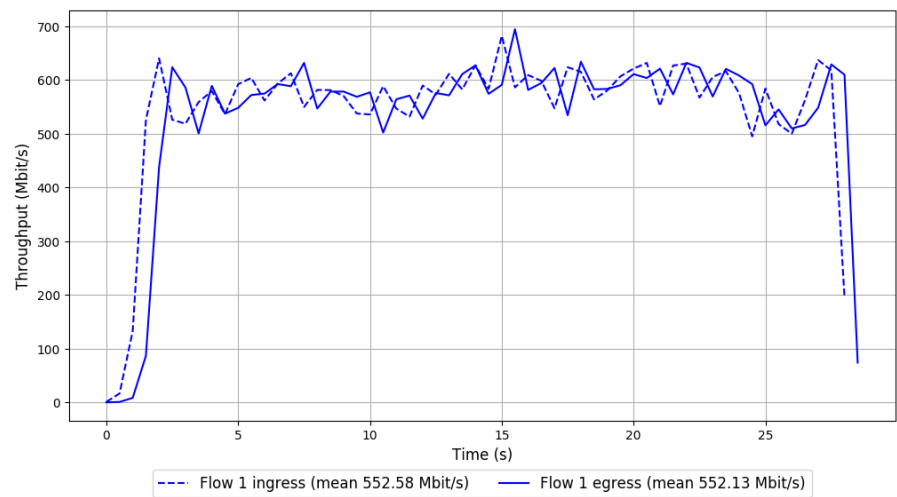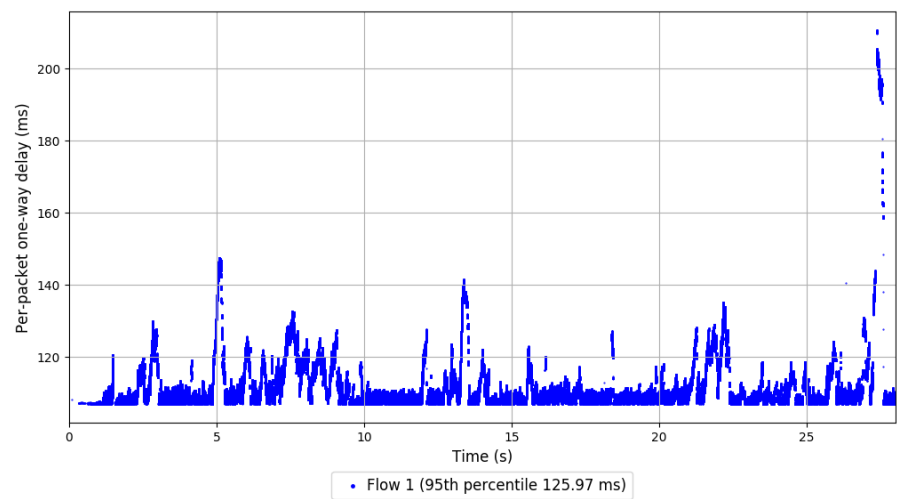
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-27 17:43:16
End at: 2019-06-27 17:43:46
Local clock offset: -0.143 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2019-06-27 21:22:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 530.00 Mbit/s
95th percentile per-packet one-way delay: 122.337 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 530.00 Mbit/s
95th percentile per-packet one-way delay: 122.337 ms
Loss rate: 0.98%
```
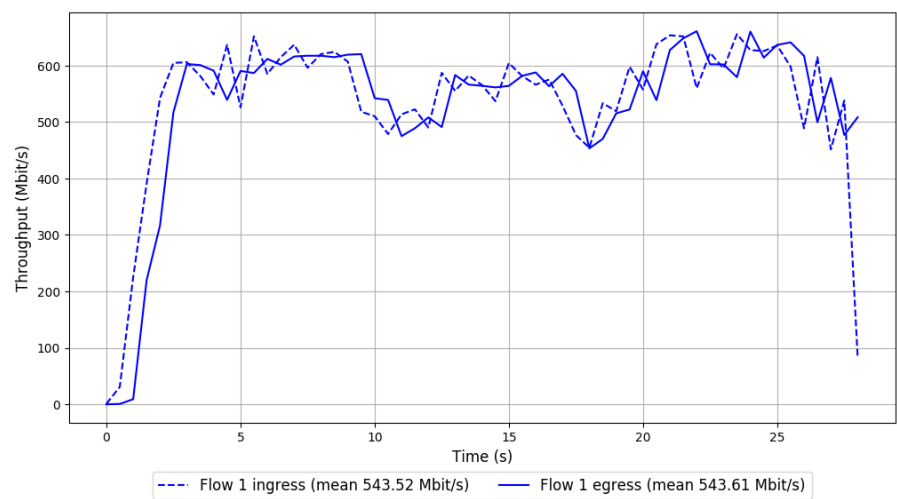
Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-27 18:15:26
End at: 2019-06-27 18:15:56
Local clock offset: -0.021 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-06-27 21:22:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 552.13 Mbit/s
95th percentile per-packet one-way delay: 132.439 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 552.13 Mbit/s
95th percentile per-packet one-way delay: 132.439 ms
Loss rate: 0.88%
```
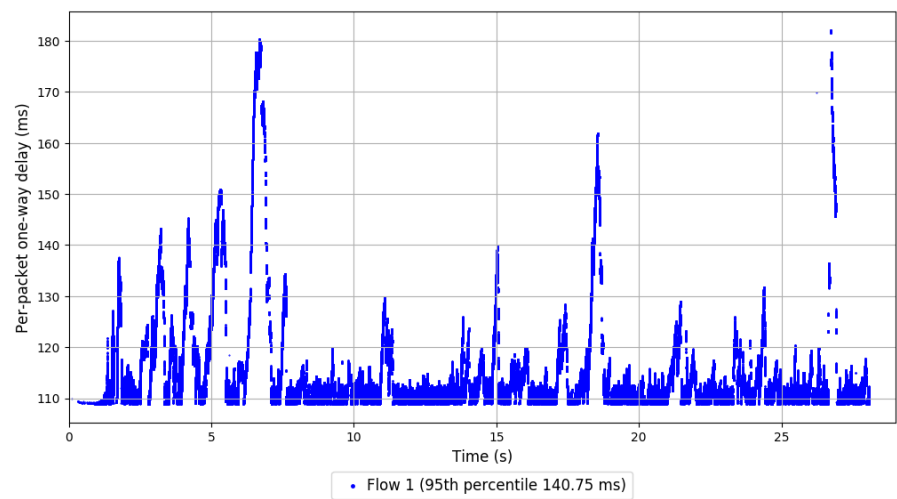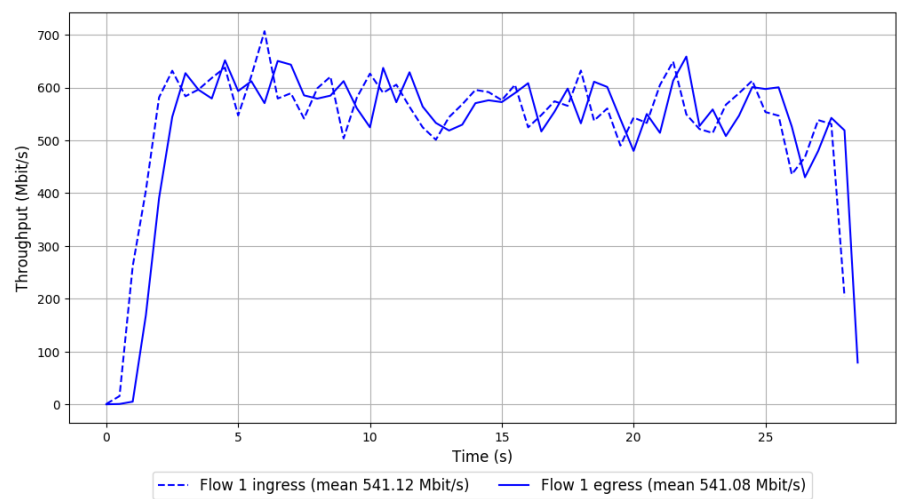
Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-27 18:47:55
End at: 2019-06-27 18:48:25
Local clock offset: 0.035 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2019-06-27 21:23:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 543.61 Mbit/s
95th percentile per-packet one-way delay: 125.965 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 543.61 Mbit/s
95th percentile per-packet one-way delay: 125.965 ms
Loss rate: 0.76%
```

Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 543.52 Mbit/s)   Flow 1 egress (mean 543.61 Mbit/s)
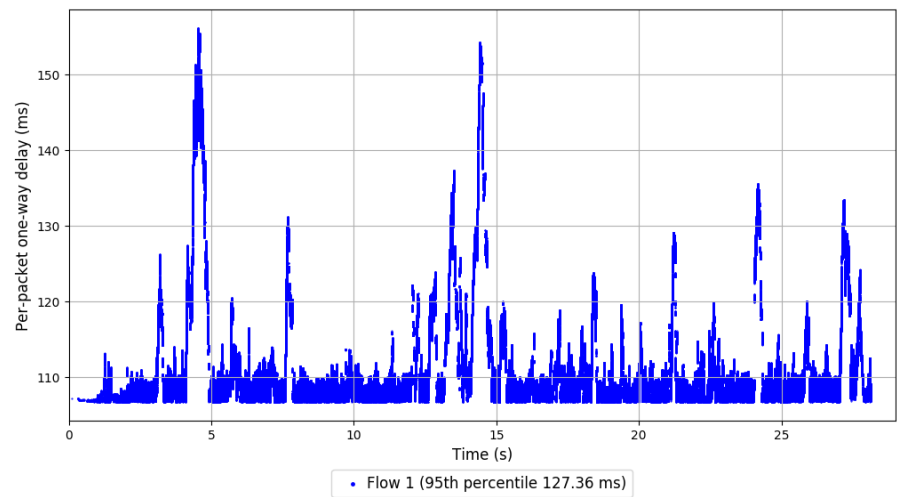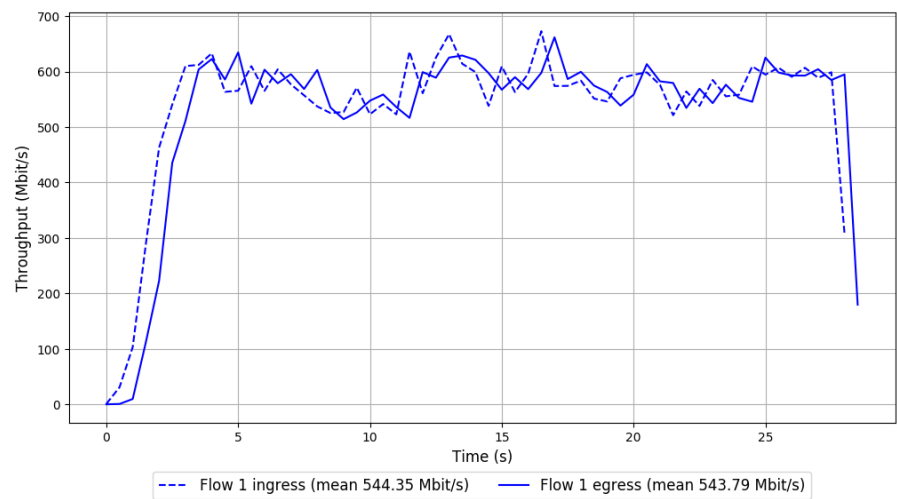

Flow 1 (95th percentile 125.97 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-27 19:20:13
End at: 2019-06-27 19:20:43
Local clock offset: -0.165 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2019-06-27 21:24:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 541.08 Mbit/s
95th percentile per-packet one-way delay: 140.746 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 541.08 Mbit/s
95th percentile per-packet one-way delay: 140.746 ms
Loss rate: 0.79%
```

Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-27 19:53:13
End at: 2019-06-27 19:53:43
Local clock offset: 0.01 ms
Remote clock offset: -0.021 ms


# Below is generated by plot.py at 2019-06-27 21:24:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 543.79 Mbit/s
95th percentile per-packet one-way delay: 127.357 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 543.79 Mbit/s
95th percentile per-packet one-way delay: 127.357 ms
Loss rate: 0.87%
```
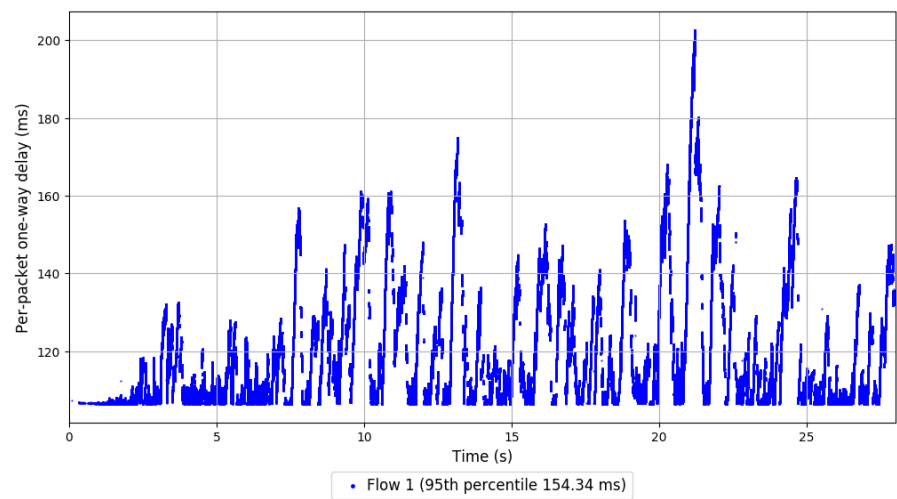
Run 5: Report of Indigo-MusesC3 — Data Link

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-27 17:58:02
End at: 2019-06-27 17:58:32
Local clock offset: -0.272 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-06-27 21:26:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 542.92 Mbit/s
95th percentile per-packet one-way delay: 154.339 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 542.92 Mbit/s
95th percentile per-packet one-way delay: 154.339 ms
Loss rate: 0.90%
```
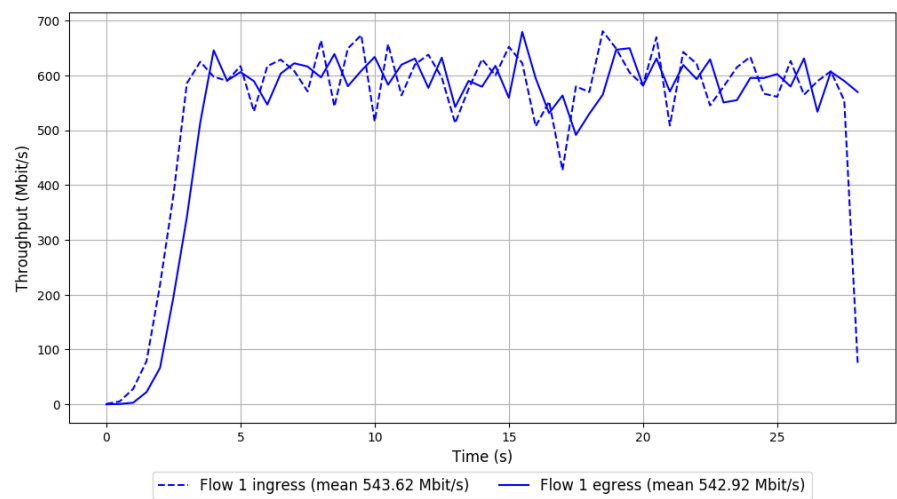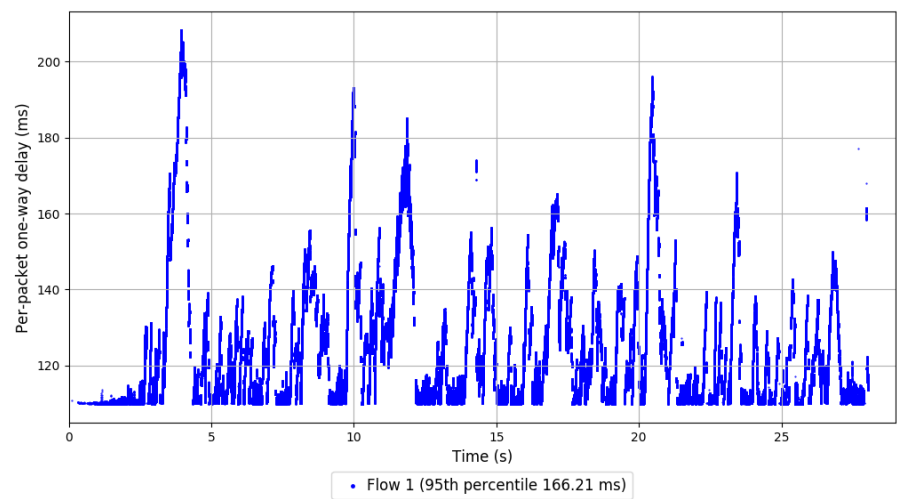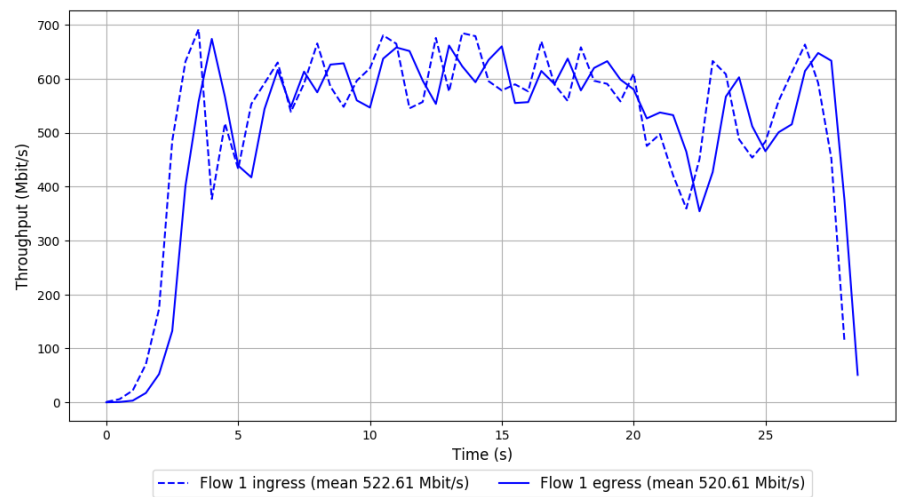
Run 1: Report of Indigo-MusesC5 — Data Link

- - - Flow 1 ingress (mean 543.62 Mbit/s) ——— Flow 1 egress (mean 542.92 Mbit/s)
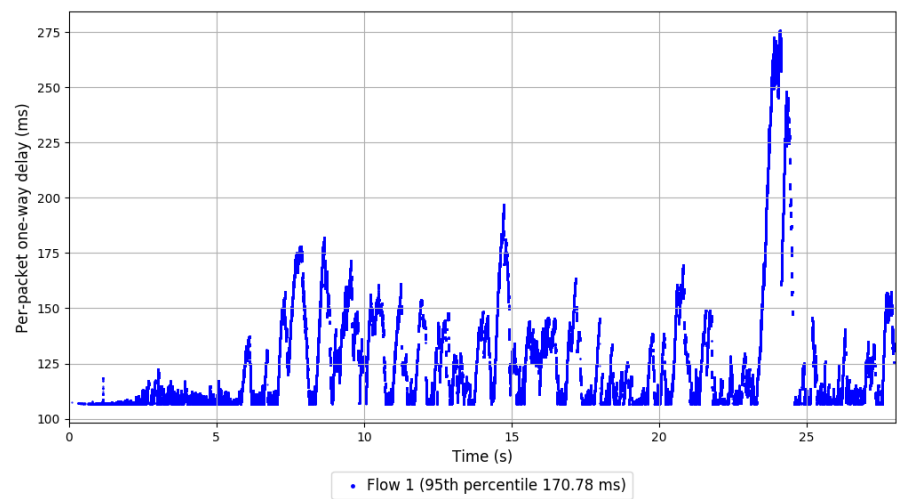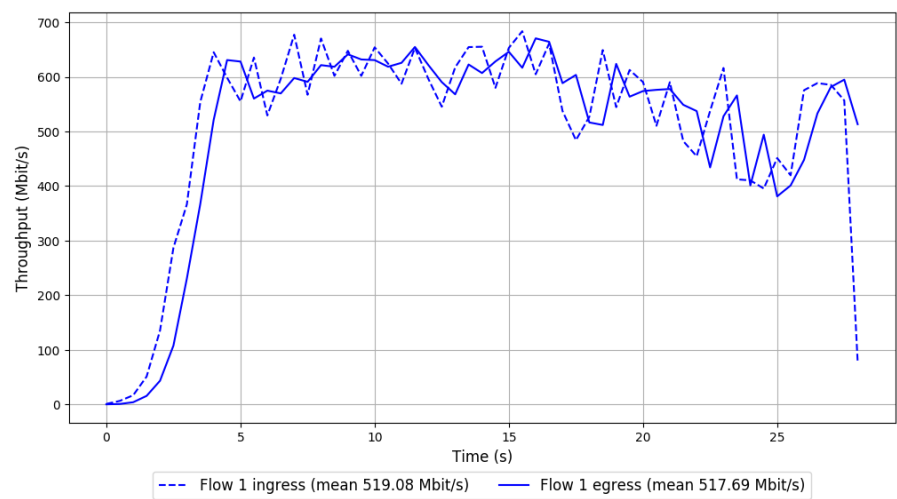

• Flow 1 (95th percentile 154.34 ms)

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-27 18:30:11
End at: 2019-06-27 18:30:41
Local clock offset: 0.038 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2019-06-27 21:27:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 520.61 Mbit/s
95th percentile per-packet one-way delay: 166.208 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 520.61 Mbit/s
95th percentile per-packet one-way delay: 166.208 ms
Loss rate: 1.17%
```
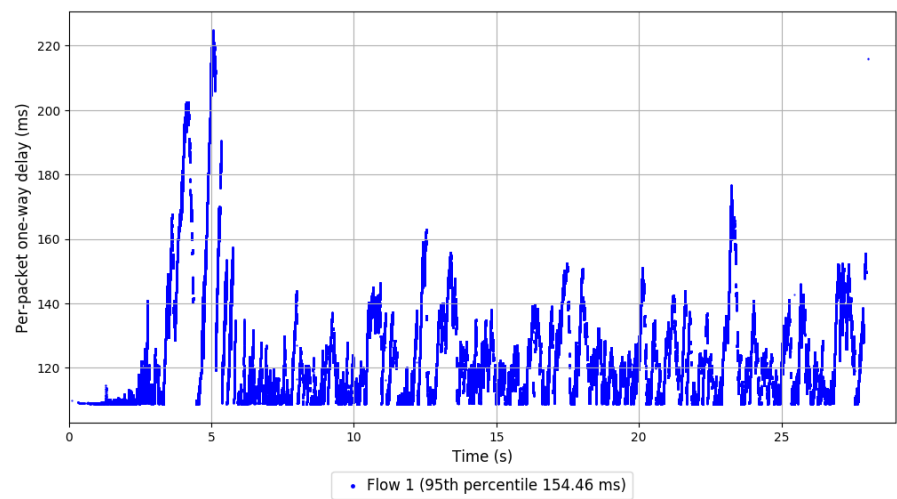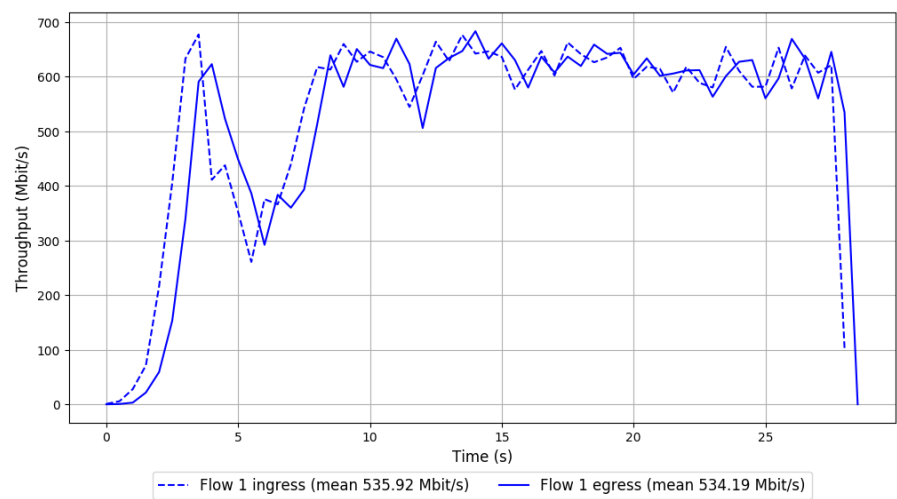
Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-27 19:02:39
End at: 2019-06-27 19:03:09
Local clock offset: 0.011 ms
Remote clock offset: -0.112 ms


# Below is generated by plot.py at 2019-06-27 21:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 517.69 Mbit/s
95th percentile per-packet one-way delay: 170.778 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 517.69 Mbit/s
95th percentile per-packet one-way delay: 170.778 ms
Loss rate: 1.04%
```
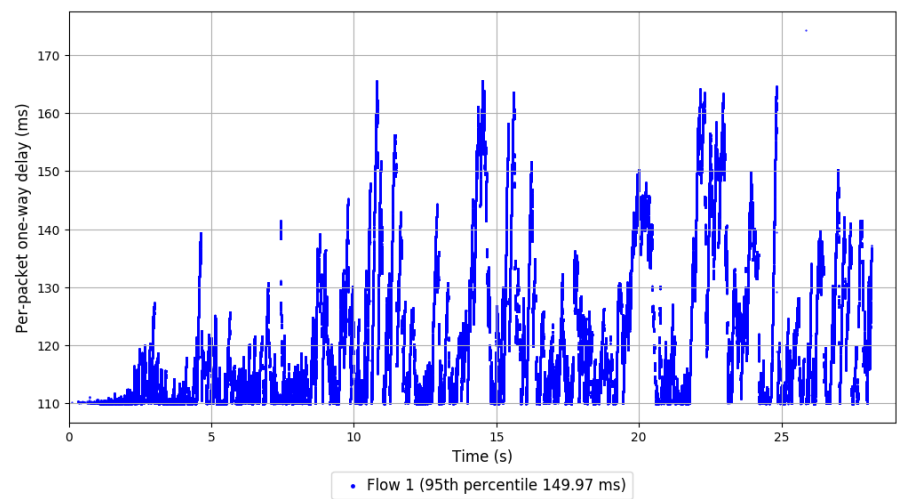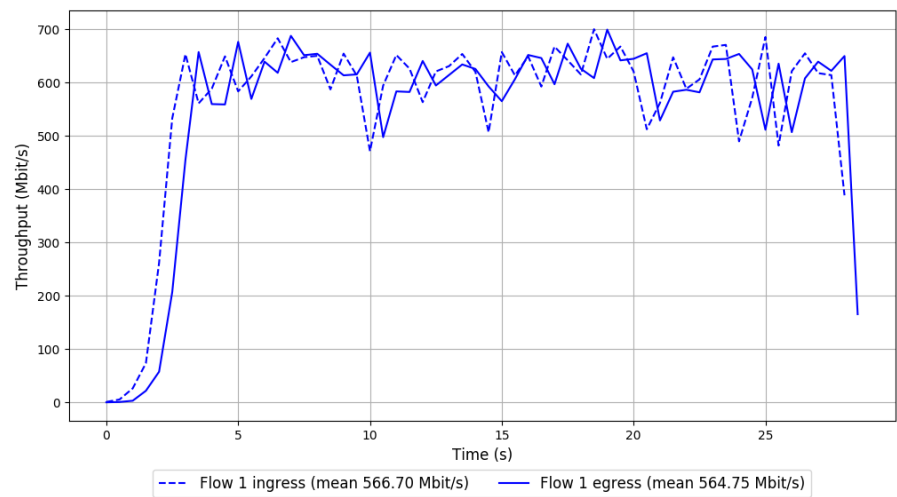
Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-27 19:35:10
End at: 2019-06-27 19:35:40
Local clock offset: -0.098 ms
Remote clock offset: -0.149 ms


# Below is generated by plot.py at 2019-06-27 21:32:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 534.19 Mbit/s
95th percentile per-packet one-way delay: 154.459 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 534.19 Mbit/s
95th percentile per-packet one-way delay: 154.459 ms
Loss rate: 1.04%
```

Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-27 20:08:14
End at: 2019-06-27 20:08:44
Local clock offset: -0.287 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2019-06-27 21:33:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 564.75 Mbit/s
95th percentile per-packet one-way delay: 149.965 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 564.75 Mbit/s
95th percentile per-packet one-way delay: 149.965 ms
Loss rate: 1.11%
```

Run 5: Report of Indigo-MusesC5 — Data Link

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-27 17:53:13
End at: 2019-06-27 17:53:43
Local clock offset: -0.054 ms
Remote clock offset: -0.111 ms


# Below is generated by plot.py at 2019-06-27 21:33:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 435.00 Mbit/s
95th percentile per-packet one-way delay: 140.205 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 435.00 Mbit/s
95th percentile per-packet one-way delay: 140.205 ms
Loss rate: 0.73%
```
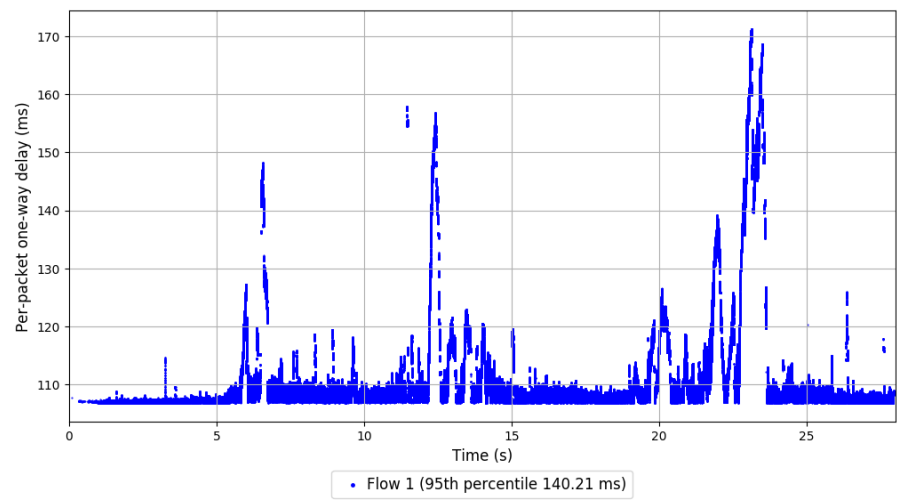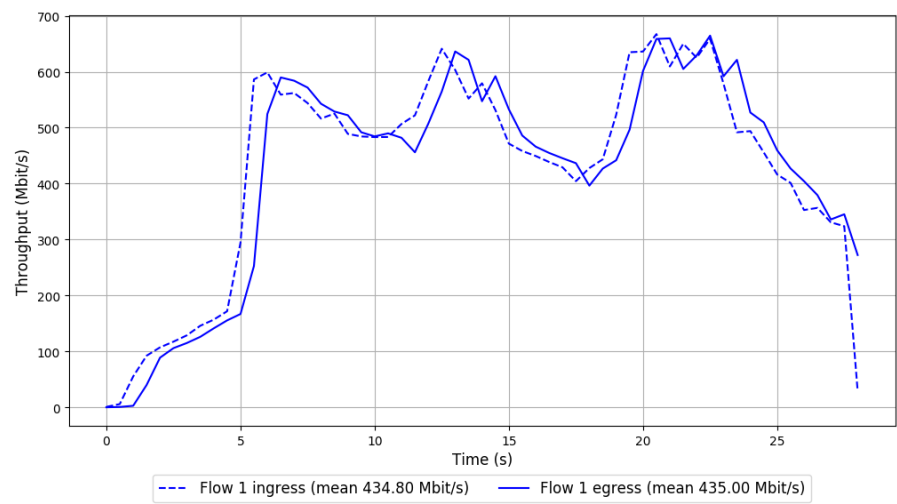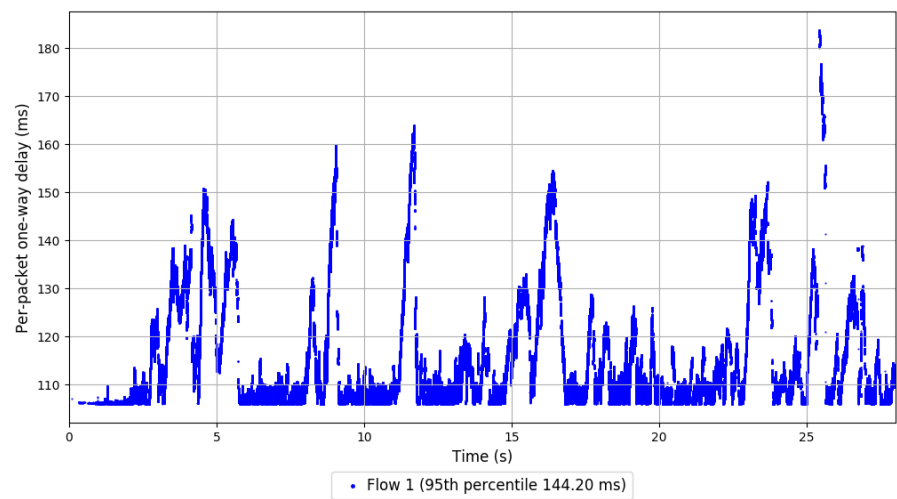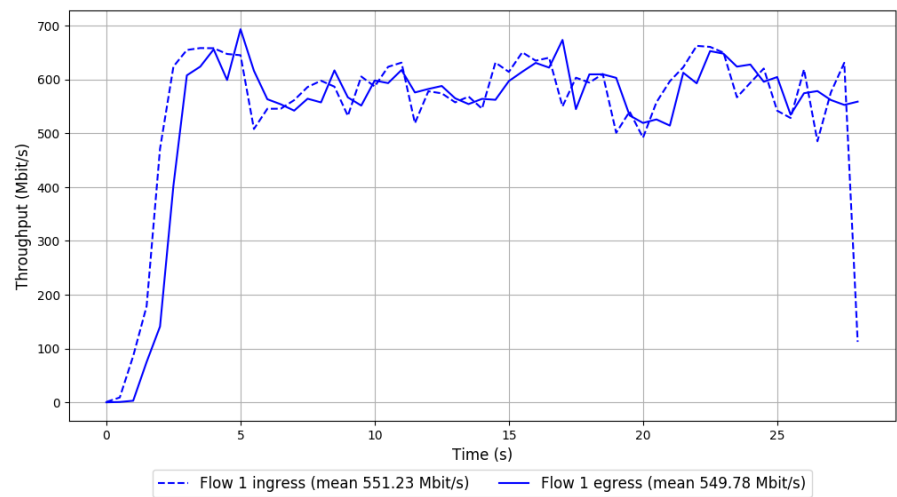
Run 1: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 434.80 Mbit/s)   Flow 1 egress (mean 435.00 Mbit/s)

Flow 1 (95th percentile 140.21 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-27 18:25:21
End at: 2019-06-27 18:25:51
Local clock offset: -0.313 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2019-06-27 21:34:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 549.78 Mbit/s
95th percentile per-packet one-way delay: 144.196 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 549.78 Mbit/s
95th percentile per-packet one-way delay: 144.196 ms
Loss rate: 1.04%
```
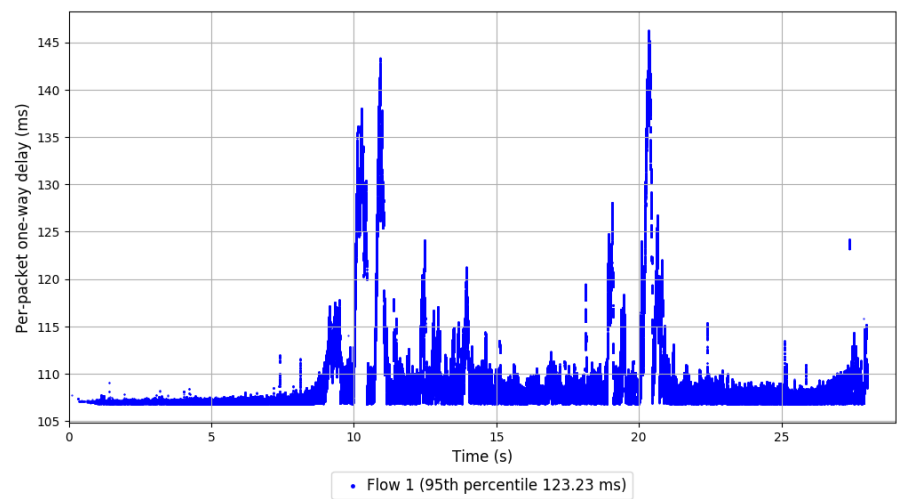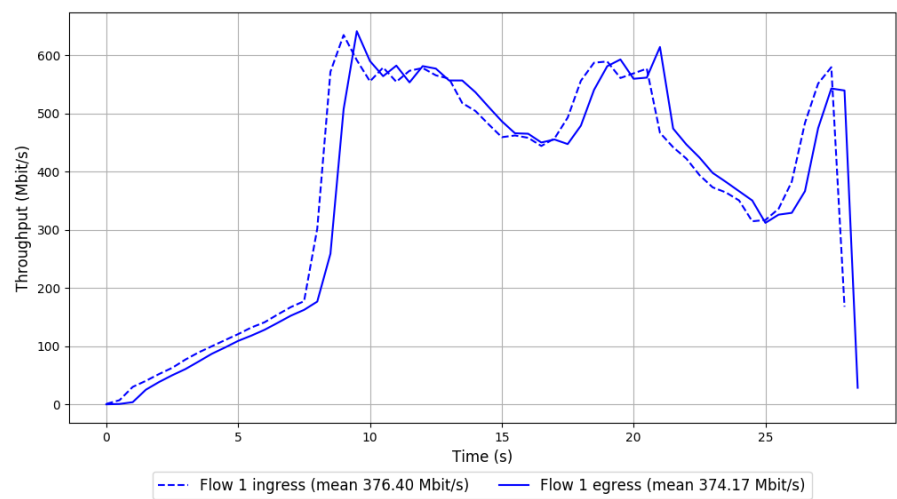
Run 2: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 551.23 Mbit/s) —— Flow 1 egress (mean 549.78 Mbit/s)

• Flow 1 (95th percentile 144.20 ms)

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-27 18:57:57
End at: 2019-06-27 18:58:27
Local clock offset: 0.006 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2019-06-27 21:34:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 374.17 Mbit/s
95th percentile per-packet one-way delay: 123.228 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 374.17 Mbit/s
95th percentile per-packet one-way delay: 123.228 ms
Loss rate: 1.37%
```
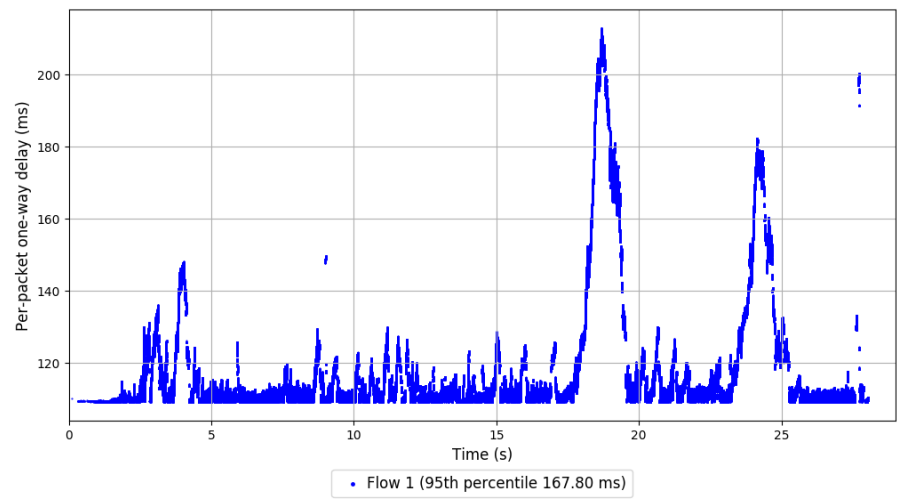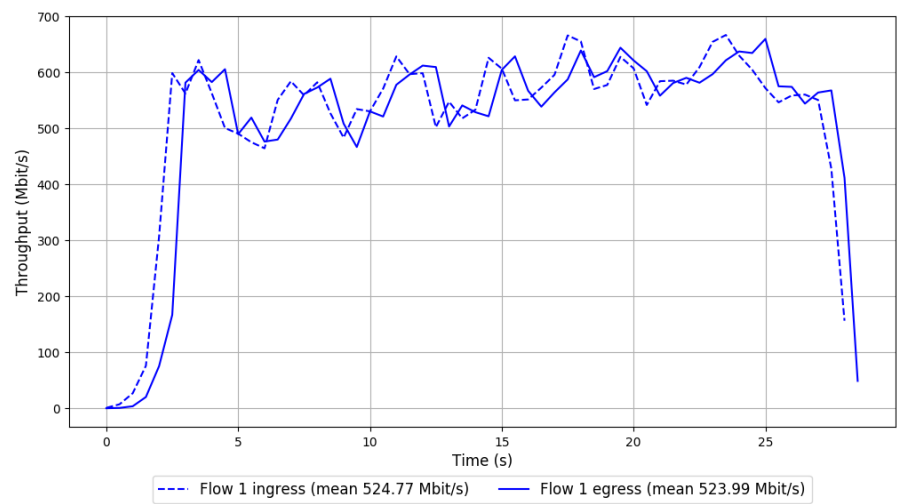
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-27 19:30:16
End at: 2019-06-27 19:30:46
Local clock offset: -0.285 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2019-06-27 21:36:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 523.99 Mbit/s
95th percentile per-packet one-way delay: 167.802 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 523.99 Mbit/s
95th percentile per-packet one-way delay: 167.802 ms
Loss rate: 0.92%
```
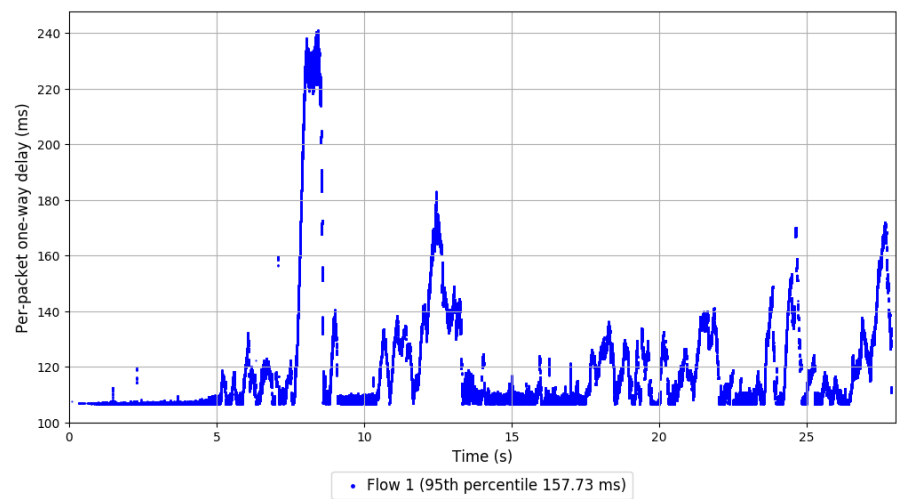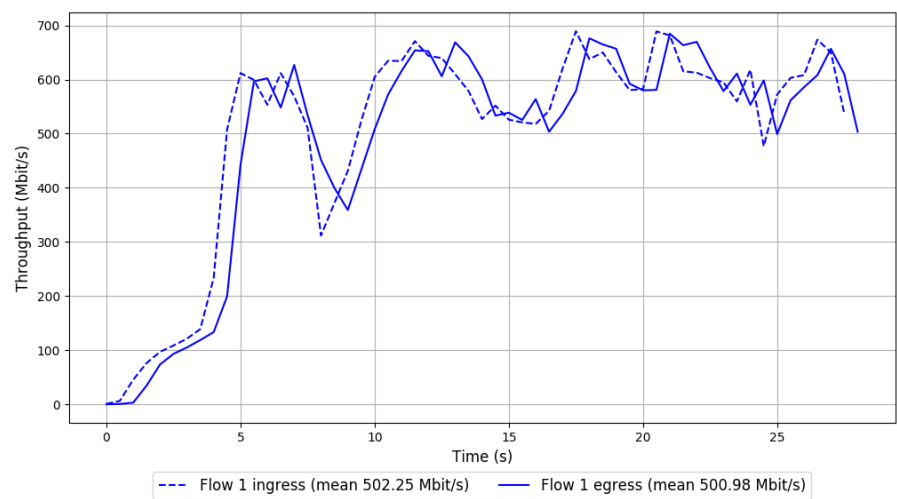
Run 4: Report of Indigo-MusesD — Data Link

- - - Flow 1 ingress (mean 524.77 Mbit/s) — Flow 1 egress (mean 523.99 Mbit/s)

• Flow 1 (95th percentile 167.80 ms)

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-27 20:03:18
End at: 2019-06-27 20:03:48
Local clock offset: -0.076 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2019-06-27 21:37:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.98 Mbit/s
95th percentile per-packet one-way delay: 157.734 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 500.98 Mbit/s
95th percentile per-packet one-way delay: 157.734 ms
Loss rate: 1.02%
```
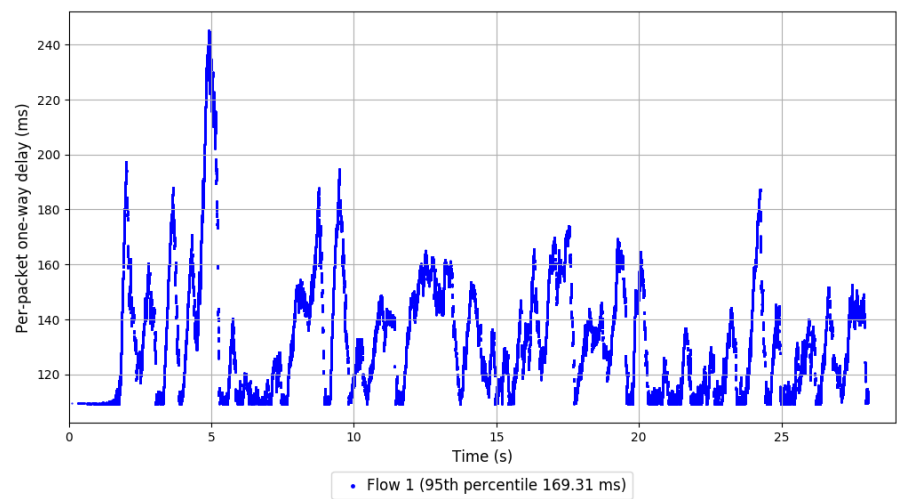
Run 5: Report of Indigo-MusesD — Data Link

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```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-27 17:54:46
End at: 2019-06-27 17:55:16
Local clock offset: -0.105 ms
Remote clock offset: -0.111 ms


# Below is generated by plot.py at 2019-06-27 21:39:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 590.81 Mbit/s
95th percentile per-packet one-way delay: 169.315 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 590.81 Mbit/s
95th percentile per-packet one-way delay: 169.315 ms
Loss rate: 0.96%
```
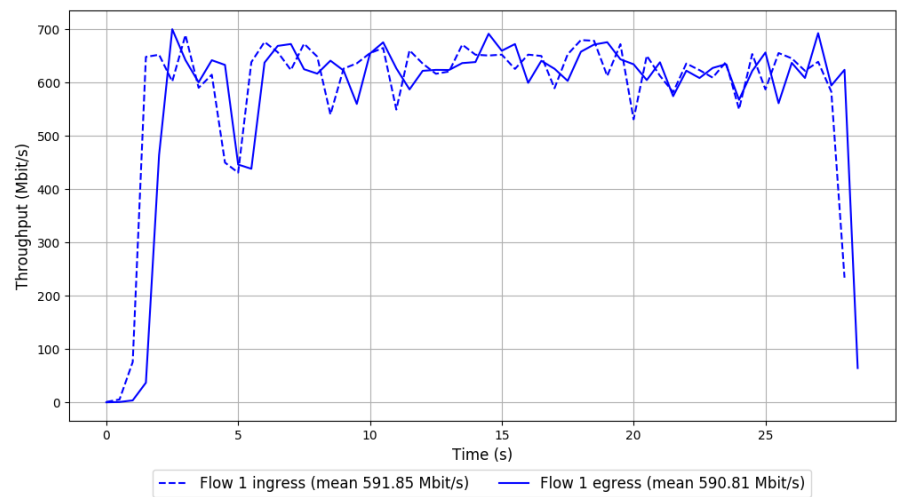
Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-27 18:26:58
End at: 2019-06-27 18:27:28
Local clock offset: -0.012 ms
Remote clock offset: -0.388 ms


# Below is generated by plot.py at 2019-06-27 21:42:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 588.42 Mbit/s
95th percentile per-packet one-way delay: 174.263 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 588.42 Mbit/s
95th percentile per-packet one-way delay: 174.263 ms
Loss rate: 1.12%
```
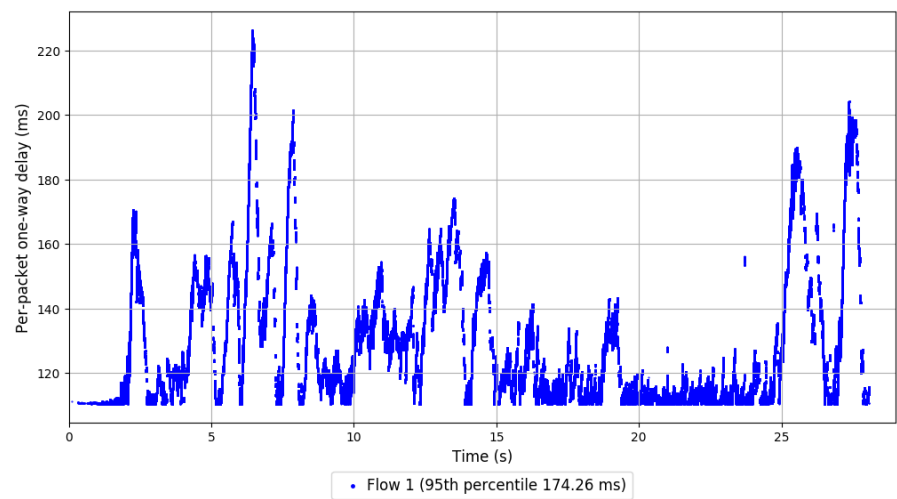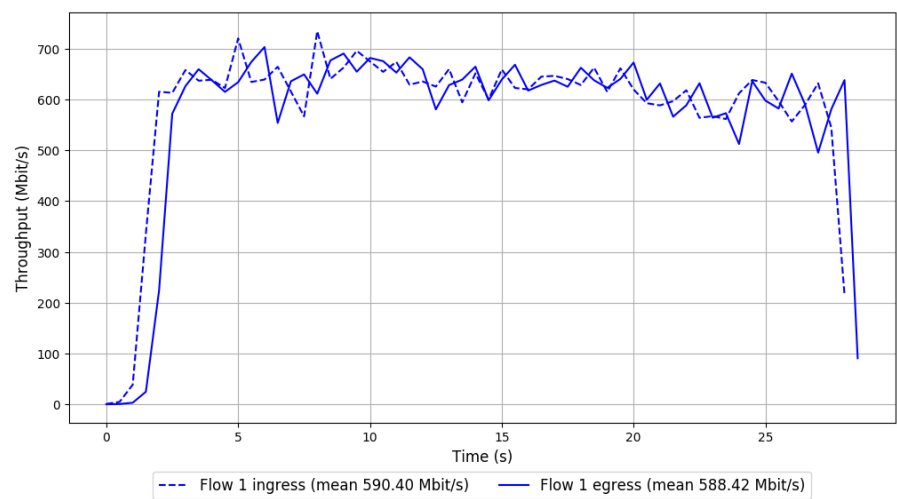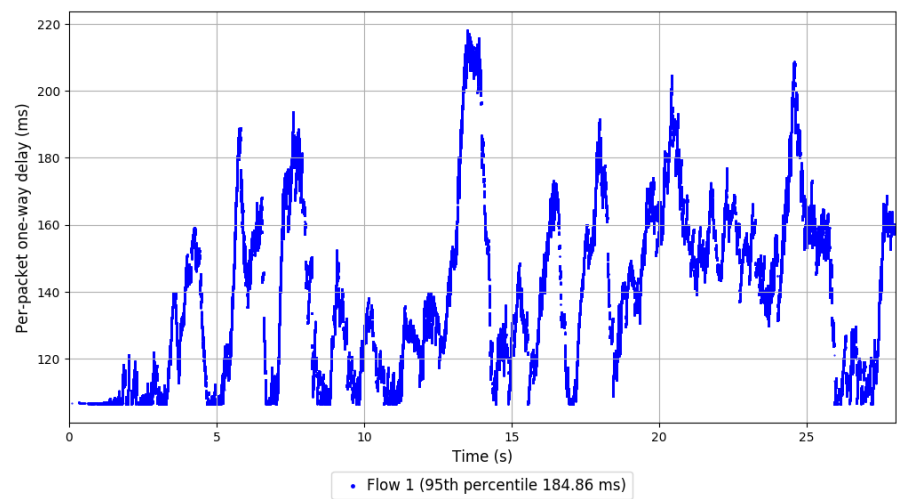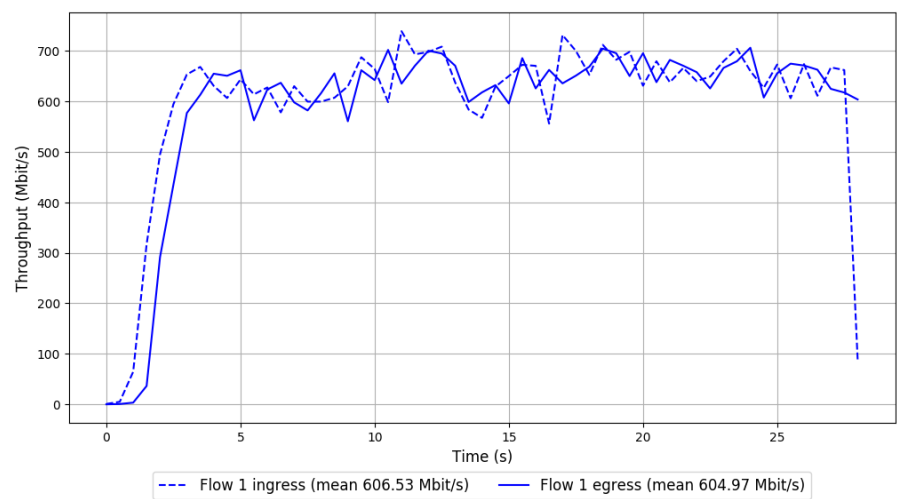
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-27 18:59:26
End at: 2019-06-27 18:59:56
Local clock offset: -0.195 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2019-06-27 21:42:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 604.97 Mbit/s
95th percentile per-packet one-way delay: 184.862 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 604.97 Mbit/s
95th percentile per-packet one-way delay: 184.862 ms
Loss rate: 1.03%
```

Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-27 19:31:52
End at: 2019-06-27 19:32:22
Local clock offset: -0.74 ms
Remote clock offset: -0.117 ms


# Below is generated by plot.py at 2019-06-27 21:43:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 596.33 Mbit/s
95th percentile per-packet one-way delay: 186.288 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 596.33 Mbit/s
95th percentile per-packet one-way delay: 186.288 ms
Loss rate: 1.02%
```
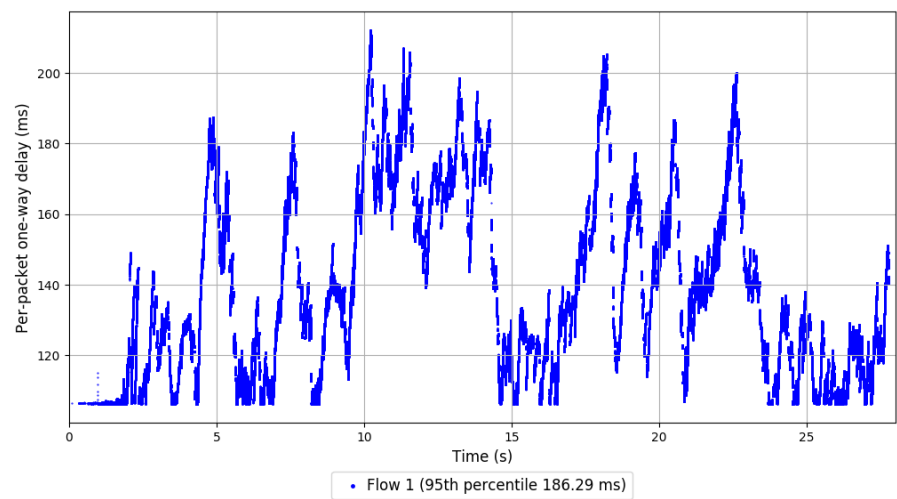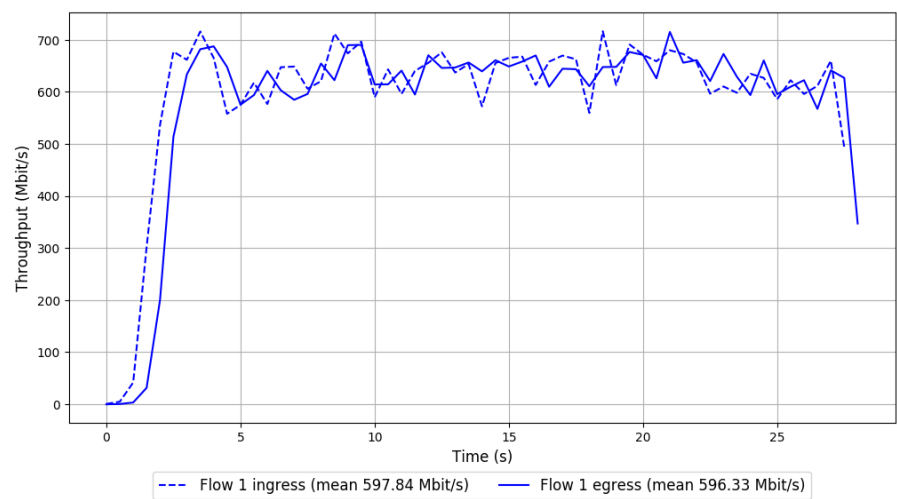
Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-27 20:04:53
End at: 2019-06-27 20:05:23
Local clock offset: -0.072 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2019-06-27 21:44:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 584.45 Mbit/s
95th percentile per-packet one-way delay: 171.660 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 584.45 Mbit/s
95th percentile per-packet one-way delay: 171.660 ms
Loss rate: 1.09%
```
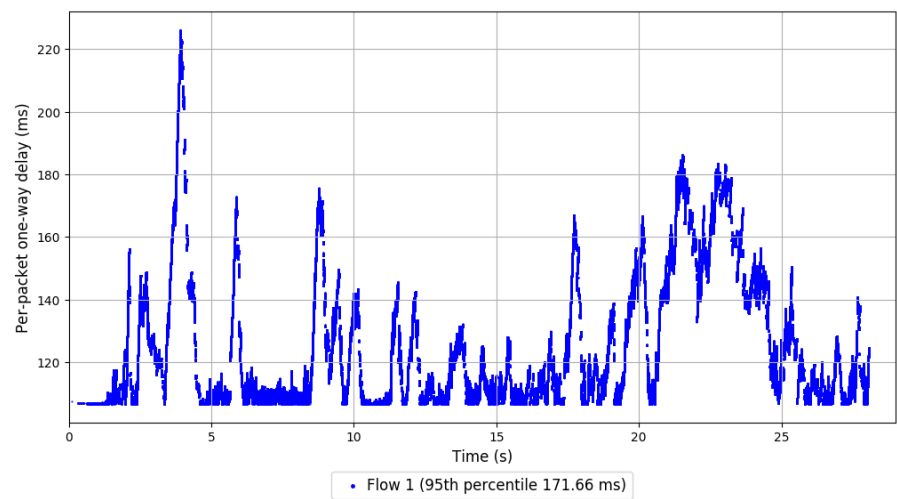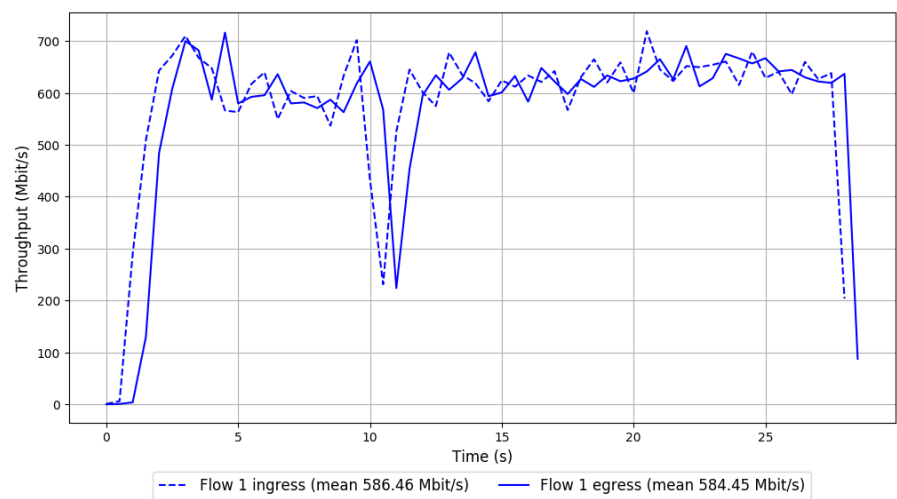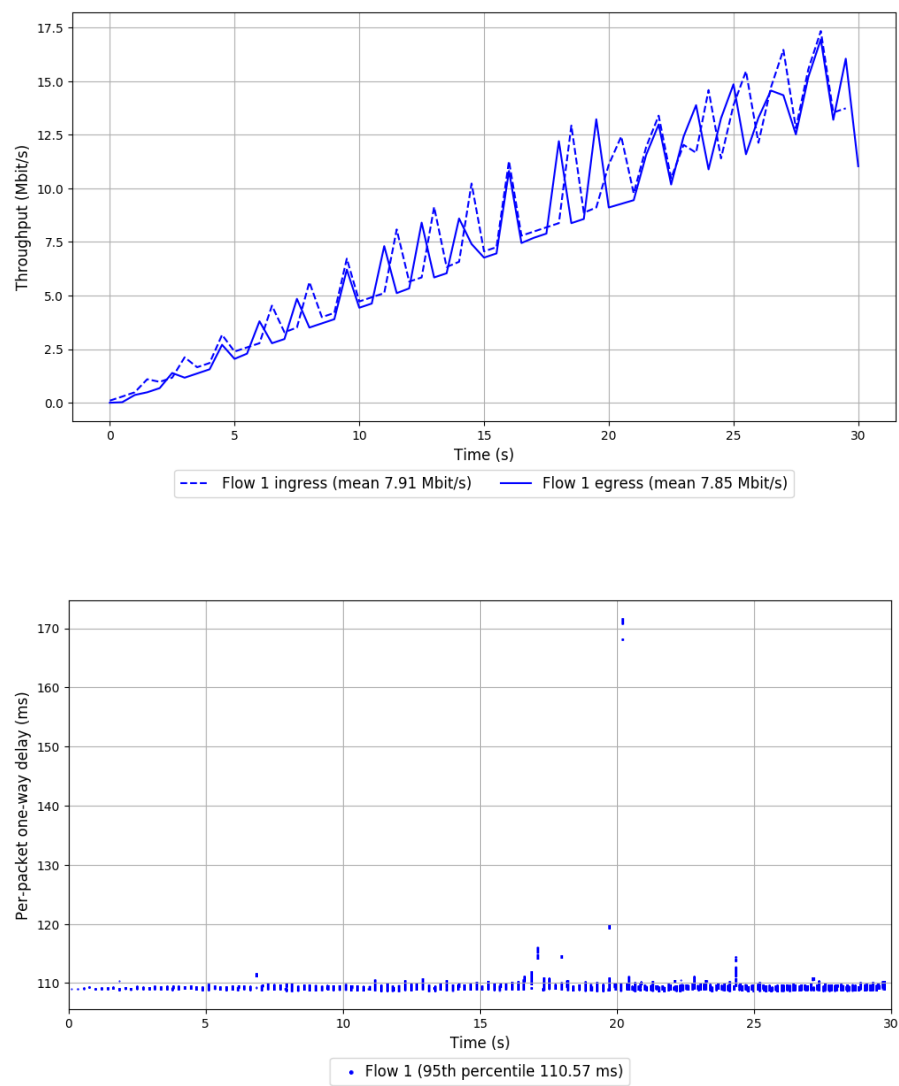
Run 5: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 586.46 Mbit/s) --- Flow 1 egress (mean 584.45 Mbit/s)
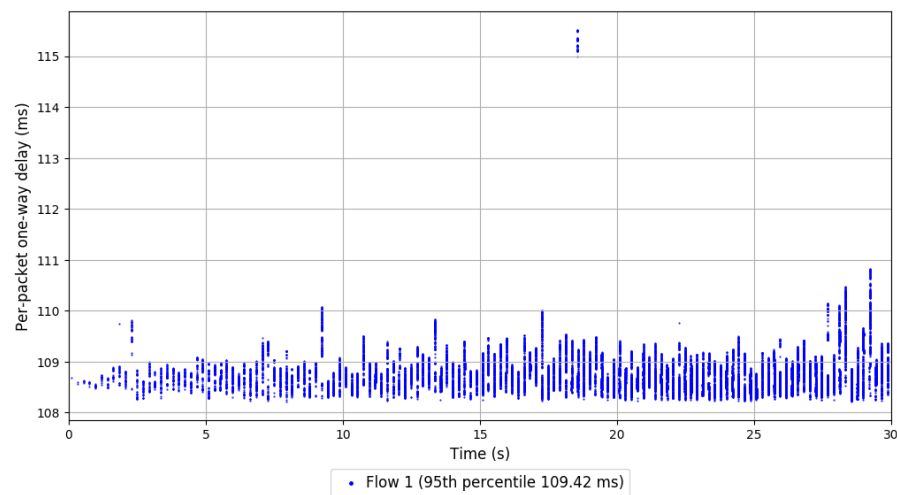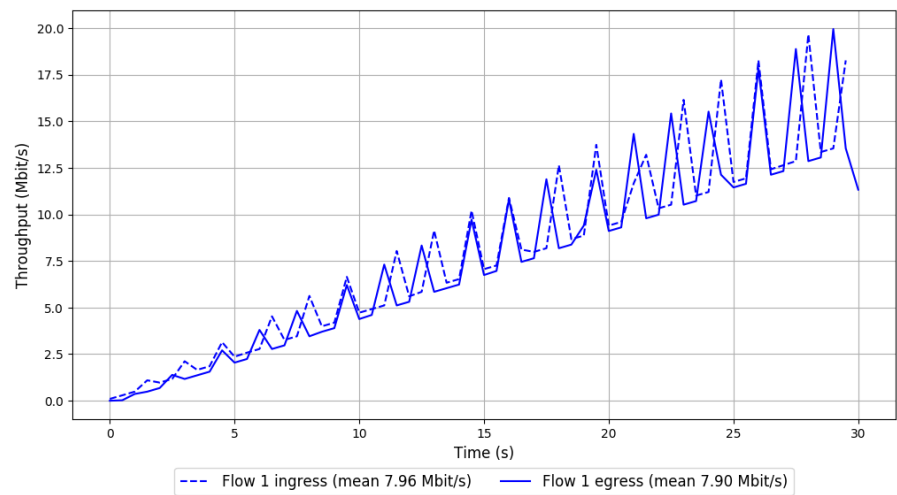

• Flow 1 (95th percentile 171.66 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2019-06-27 17:47:36
End at: 2019-06-27 17:48:06
Local clock offset: -0.168 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-06-27 21:44:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 110.566 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 110.566 ms
Loss rate: 1.46%
```

Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 7.91 Mbit/s) --- Flow 1 egress (mean 7.85 Mbit/s)

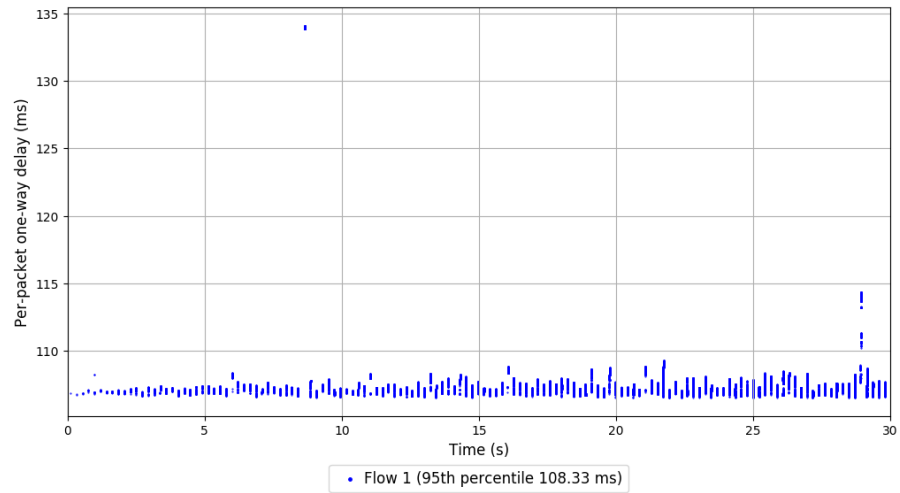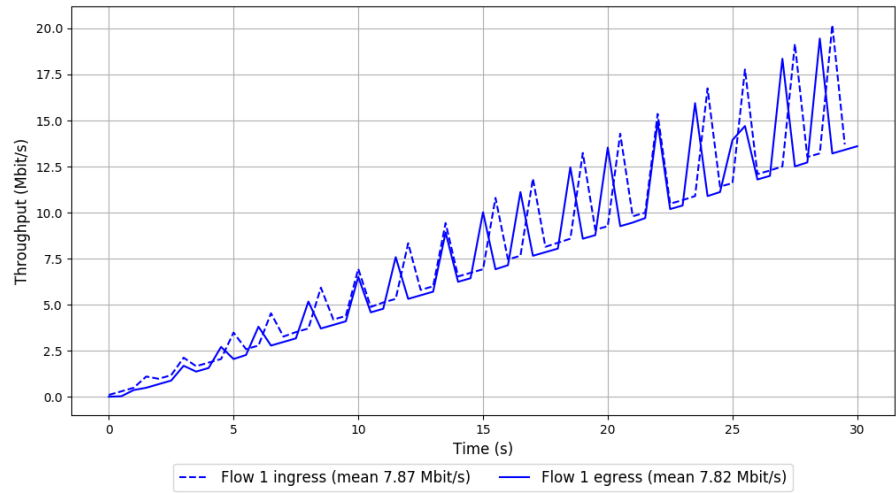Flow 1 (95th percentile 110.57 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-06-27 18:19:40
End at: 2019-06-27 18:20:10
Local clock offset: -0.786 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-06-27 21:44:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 109.422 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 109.422 ms
Loss rate: 1.45%
```

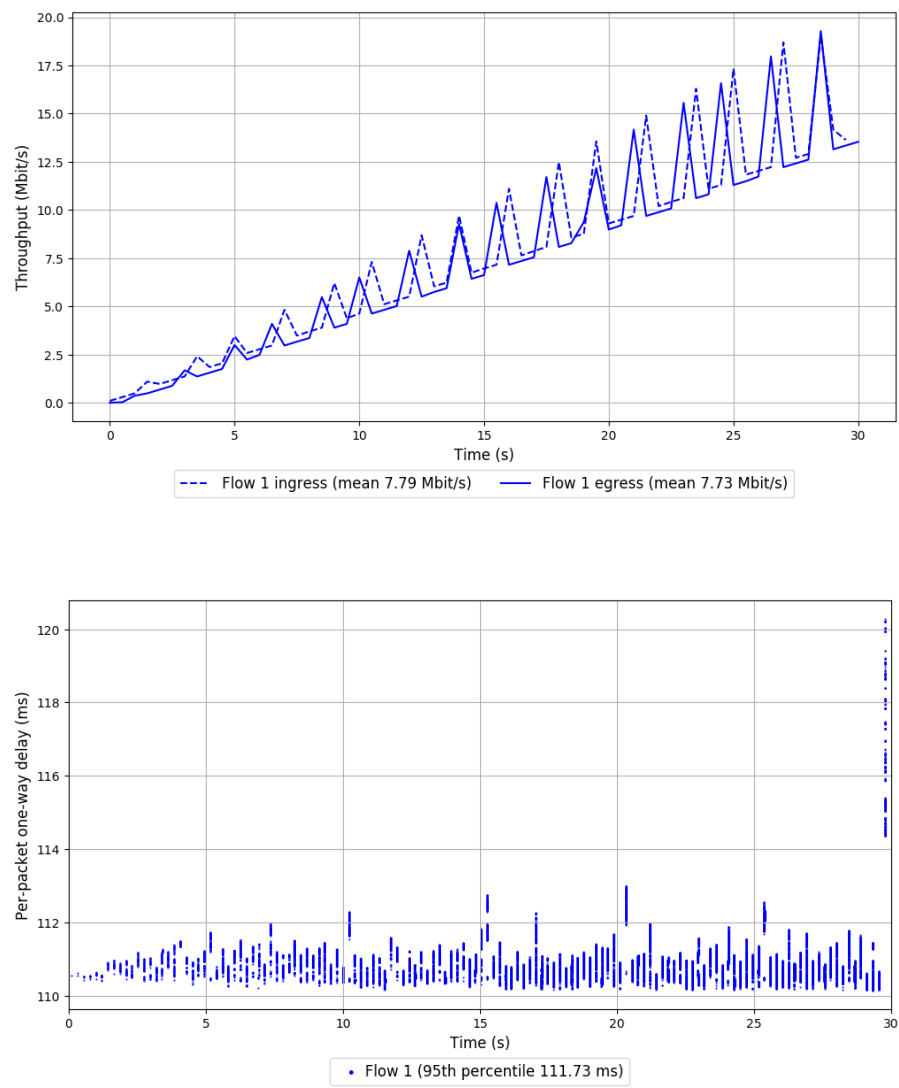## Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-06-27 18:52:15
End at: 2019-06-27 18:52:45
Local clock offset: -0.156 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2019-06-27 21:44:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 108.335 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 108.335 ms
Loss rate: 1.46%
```

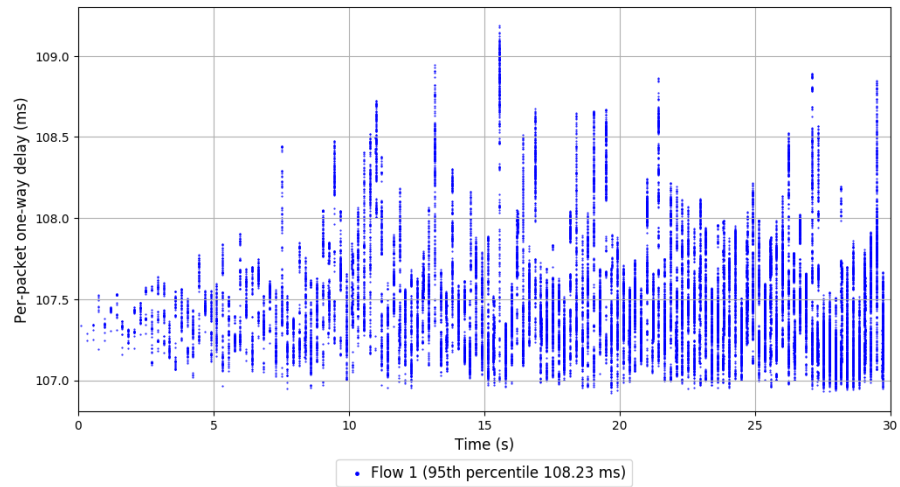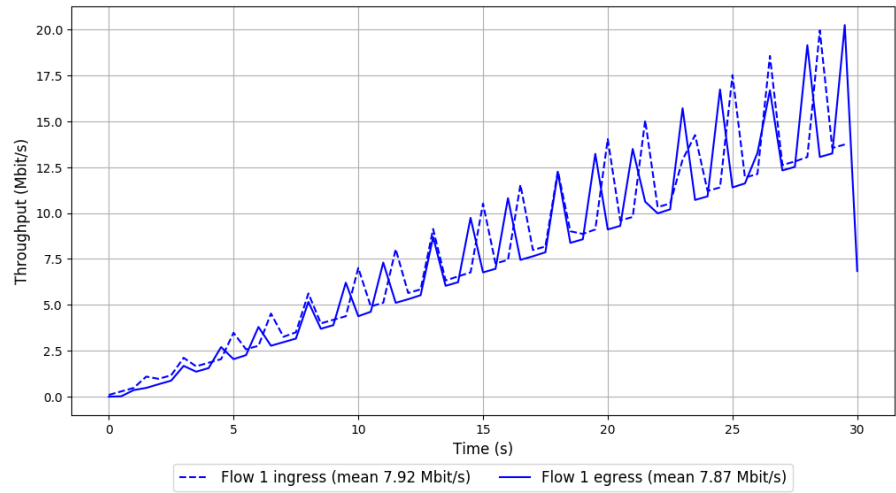# Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-06-27 19:24:34
End at: 2019-06-27 19:25:04
Local clock offset: 0.618 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2019-06-27 21:44:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.73 Mbit/s
95th percentile per-packet one-way delay: 111.732 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 7.73 Mbit/s
95th percentile per-packet one-way delay: 111.732 ms
Loss rate: 1.47%
```

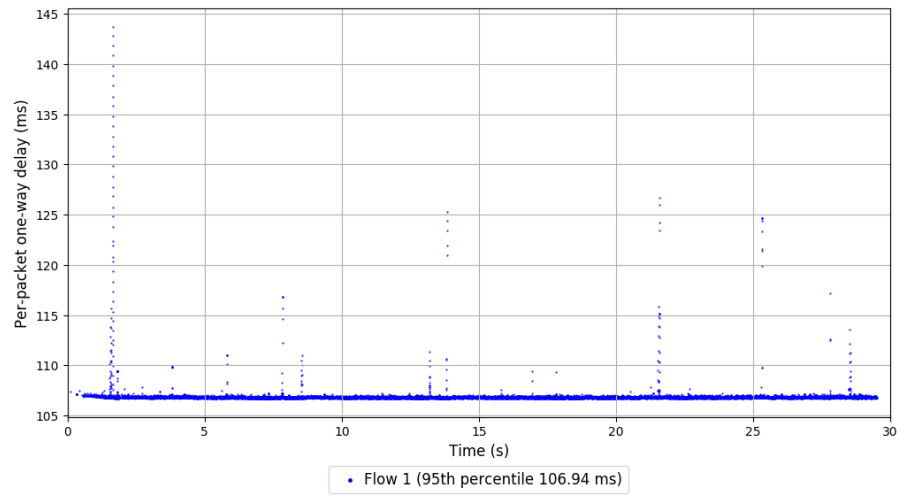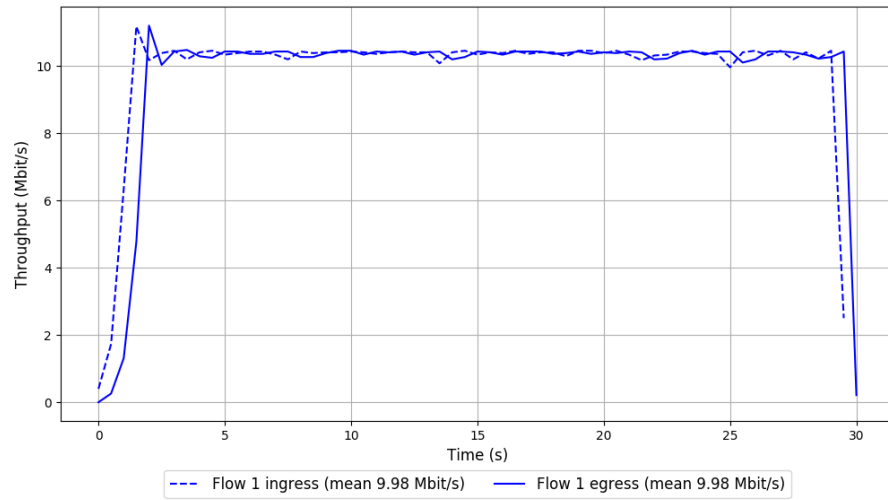Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 7.79 Mbit/s)   Flow 1 egress (mean 7.73 Mbit/s)

Flow 1 (95th percentile 111.73 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2019-06-27 19:57:35
End at: 2019-06-27 19:58:05
Local clock offset: 0.123 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2019-06-27 21:44:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 108.231 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 108.231 ms
Loss rate: 1.46%
```
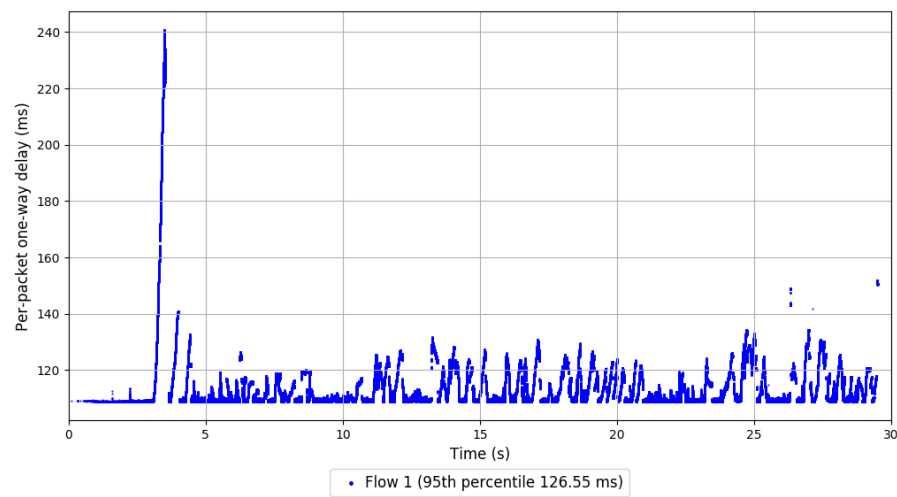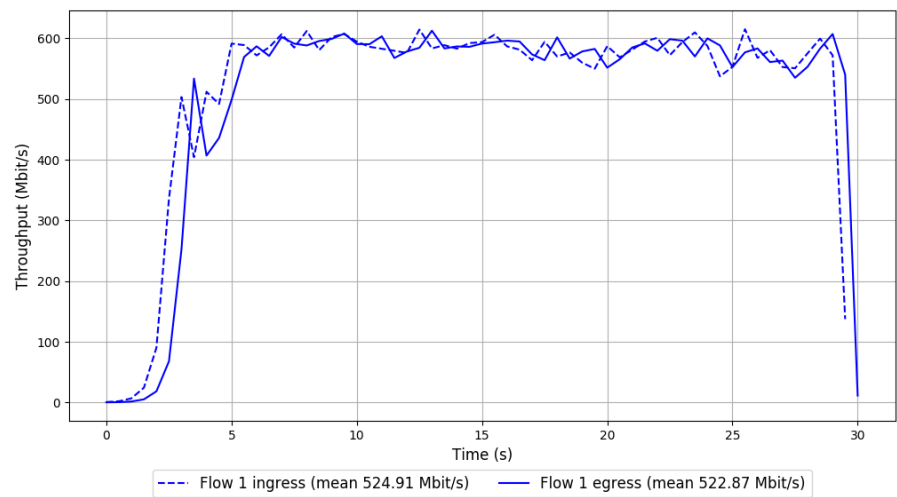
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 18:01:25
End at: 2019-06-27 18:01:55
Local clock offset: -0.034 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2019-06-27 21:44:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.98 Mbit/s
95th percentile per-packet one-way delay: 106.937 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 9.98 Mbit/s
95th percentile per-packet one-way delay: 106.937 ms
Loss rate: 0.77%
```

Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 18:33:30
End at: 2019-06-27 18:34:00
Local clock offset: -0.071 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2019-06-27 21:46:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 522.87 Mbit/s
95th percentile per-packet one-way delay: 126.553 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 522.87 Mbit/s
95th percentile per-packet one-way delay: 126.553 ms
Loss rate: 1.13%
```

Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 19:05:59
End at: 2019-06-27 19:06:29
Local clock offset: 0.08 ms
Remote clock offset: -0.13 ms


# Below is generated by plot.py at 2019-06-27 21:46:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 485.33 Mbit/s
95th percentile per-packet one-way delay: 118.783 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 485.33 Mbit/s
95th percentile per-packet one-way delay: 118.783 ms
Loss rate: 1.01%
```
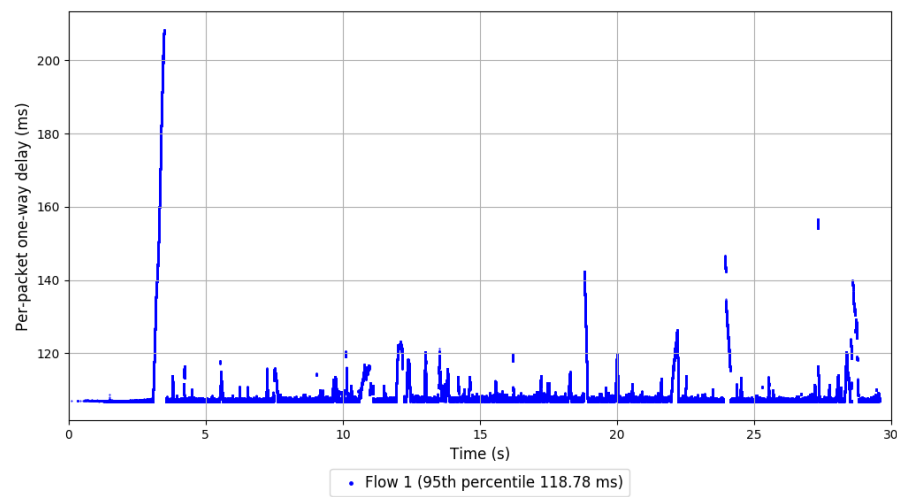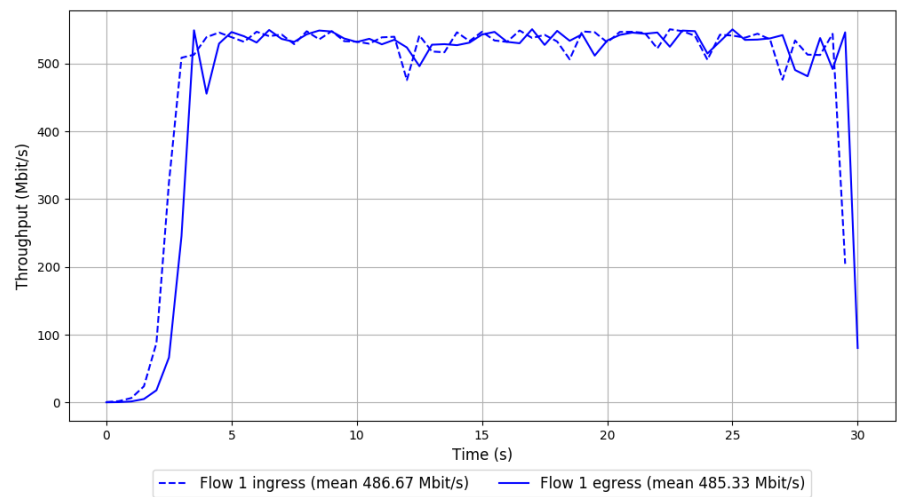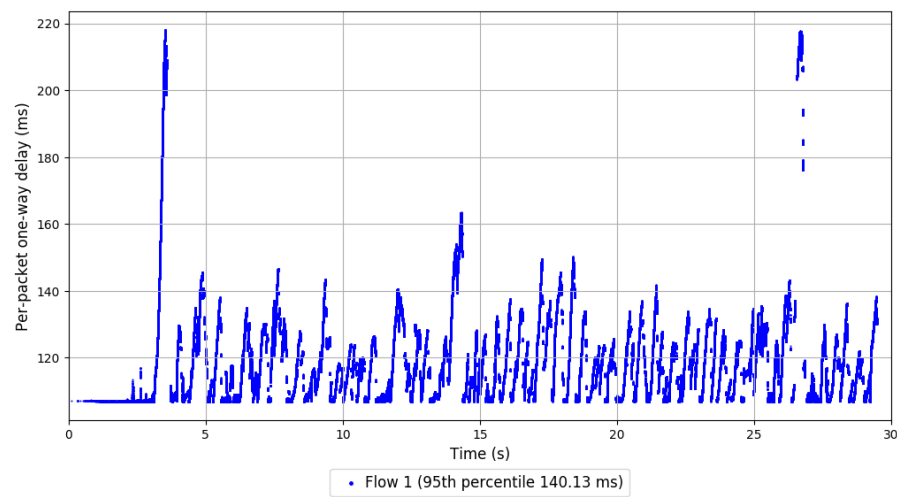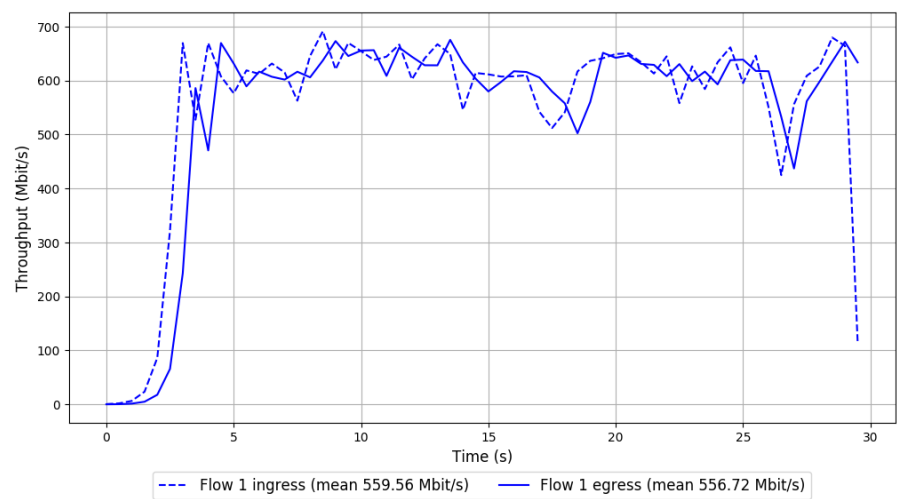
Run 3: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 486.67 Mbit/s)   Flow 1 egress (mean 485.33 Mbit/s)
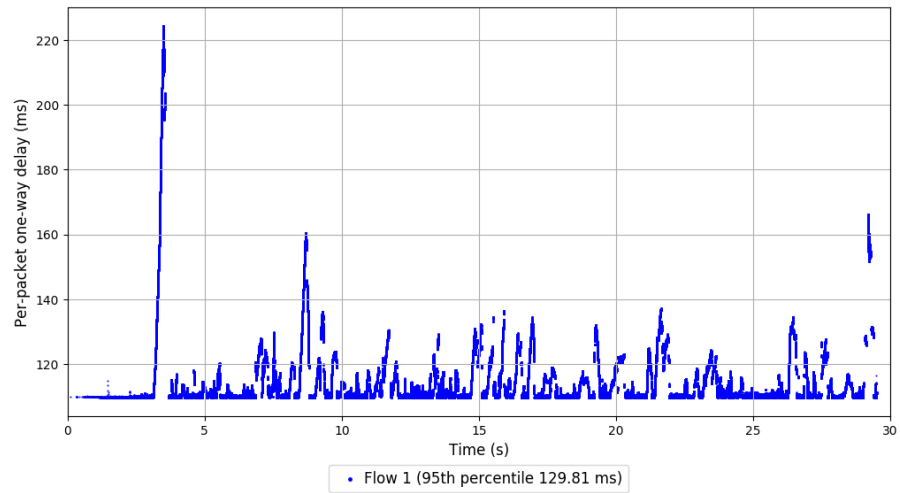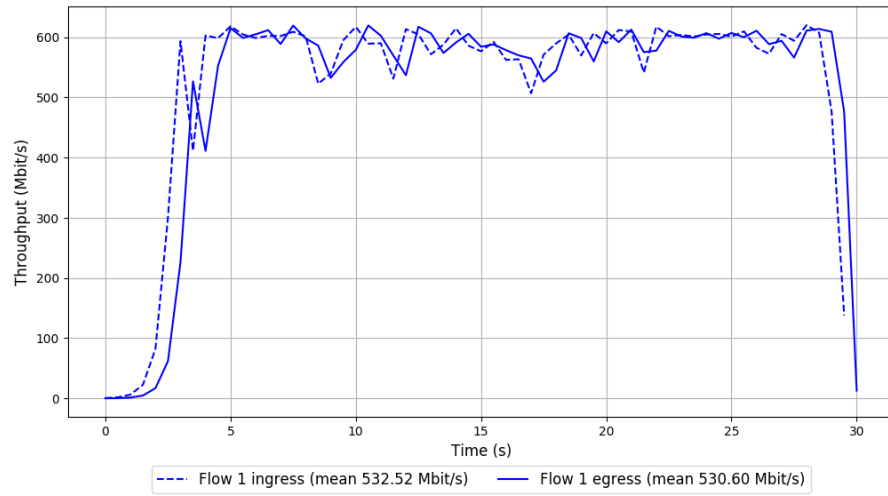

Flow 1 (95th percentile 118.78 ms)

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 19:38:36
End at: 2019-06-27 19:39:06
Local clock offset: 0.013 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2019-06-27 21:48:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 556.72 Mbit/s
95th percentile per-packet one-way delay: 140.135 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 556.72 Mbit/s
95th percentile per-packet one-way delay: 140.135 ms
Loss rate: 1.23%
```

Run 4: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 559.56 Mbit/s) — Flow 1 egress (mean 556.72 Mbit/s)

Flow 1 (95th percentile 140.13 ms)

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 20:11:37
End at: 2019-06-27 20:12:07
Local clock offset: -0.081 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-06-27 21:49:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 530.60 Mbit/s
95th percentile per-packet one-way delay: 129.807 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 530.60 Mbit/s
95th percentile per-packet one-way delay: 129.807 ms
Loss rate: 1.09%
```
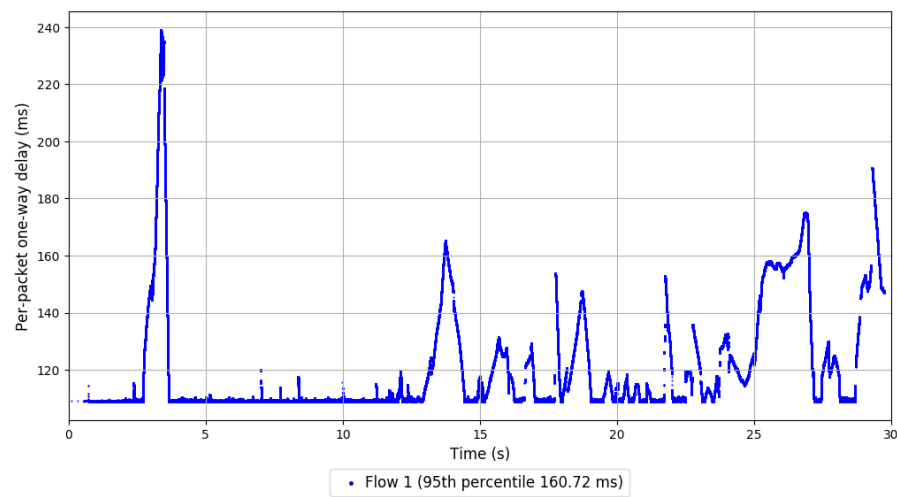
Run 5: Report of Muses_DecisionTree — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-06-27 17:56:26
End at: 2019-06-27 17:56:56
Local clock offset: -0.02 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2019-06-27 21:56:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 377.19 Mbit/s
95th percentile per-packet one-way delay: 160.720 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 377.19 Mbit/s
95th percentile per-packet one-way delay: 160.720 ms
Loss rate: 1.48%
```
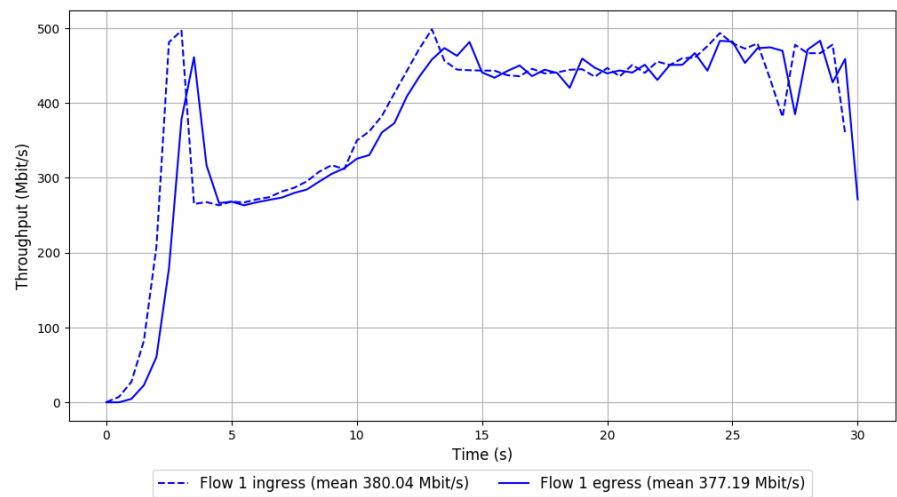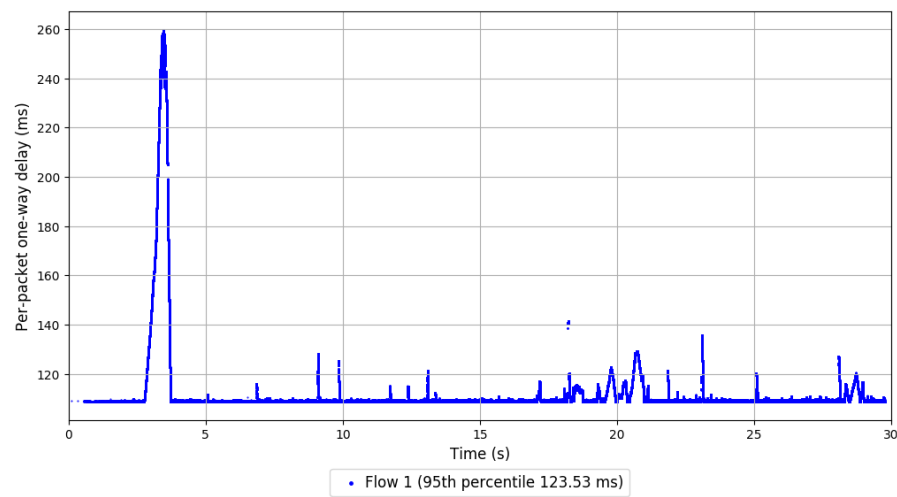
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-06-27 18:28:38
End at: 2019-06-27 18:29:08
Local clock offset: -0.096 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2019-06-27 21:56:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 309.17 Mbit/s
95th percentile per-packet one-way delay: 123.528 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 309.17 Mbit/s
95th percentile per-packet one-way delay: 123.528 ms
Loss rate: 1.68%
```
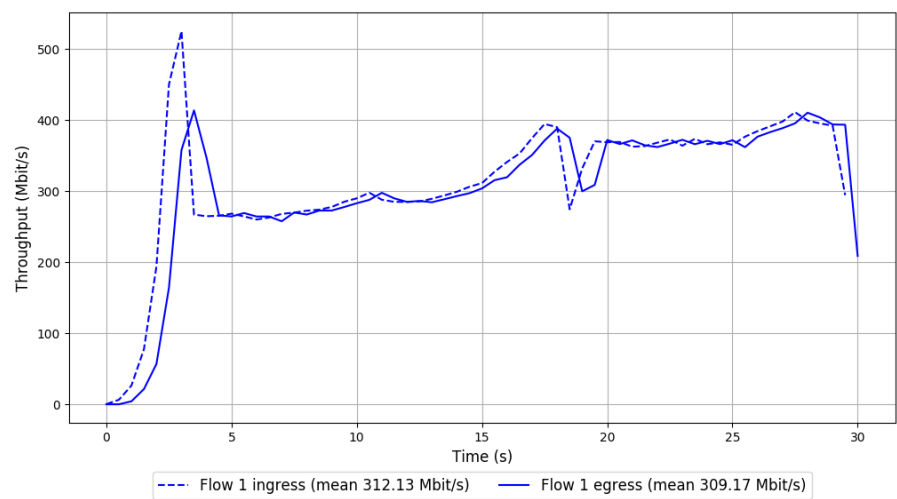
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-06-27 19:01:07
End at: 2019-06-27 19:01:37
Local clock offset: 0.002 ms
Remote clock offset: -0.456 ms


# Below is generated by plot.py at 2019-06-27 21:56:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 305.23 Mbit/s
95th percentile per-packet one-way delay: 120.641 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 305.23 Mbit/s
95th percentile per-packet one-way delay: 120.641 ms
Loss rate: 1.97%
```
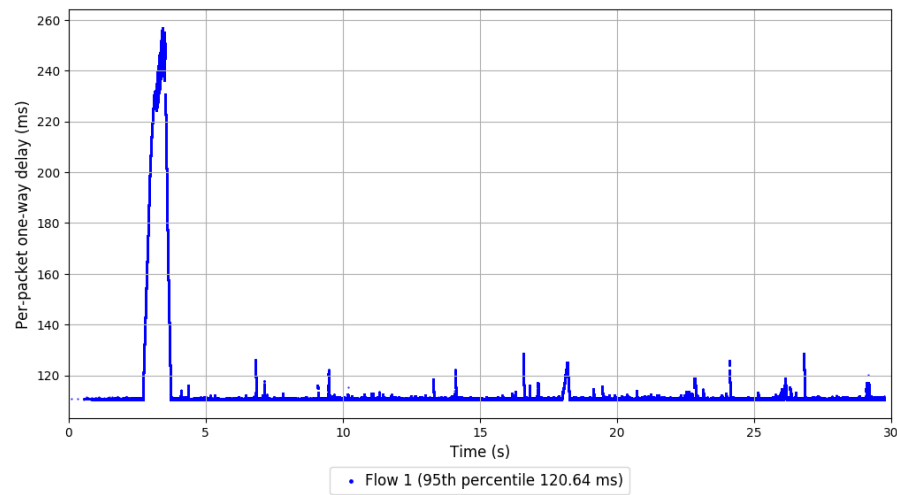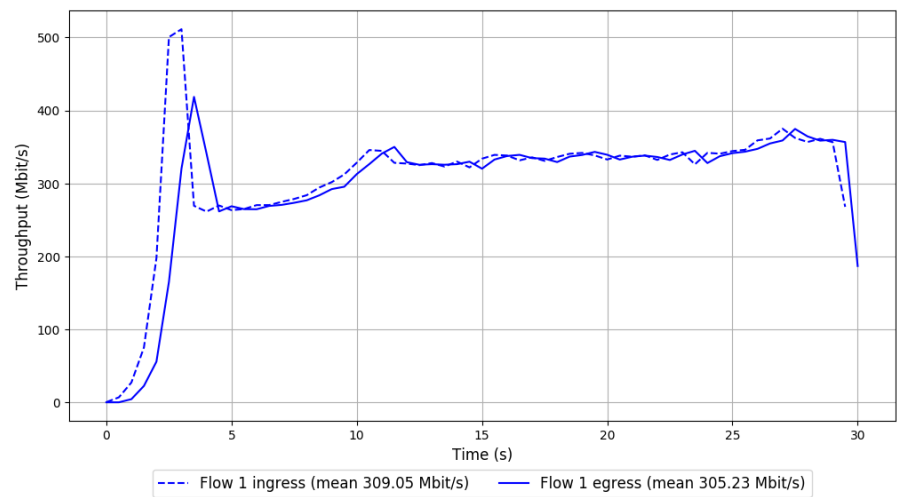
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-06-27 19:33:33
End at: 2019-06-27 19:34:03
Local clock offset: -0.051 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2019-06-27 21:58:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 365.47 Mbit/s
95th percentile per-packet one-way delay: 226.440 ms
Loss rate: 2.61%
-- Flow 1:
Average throughput: 365.47 Mbit/s
95th percentile per-packet one-way delay: 226.440 ms
Loss rate: 2.61%
```
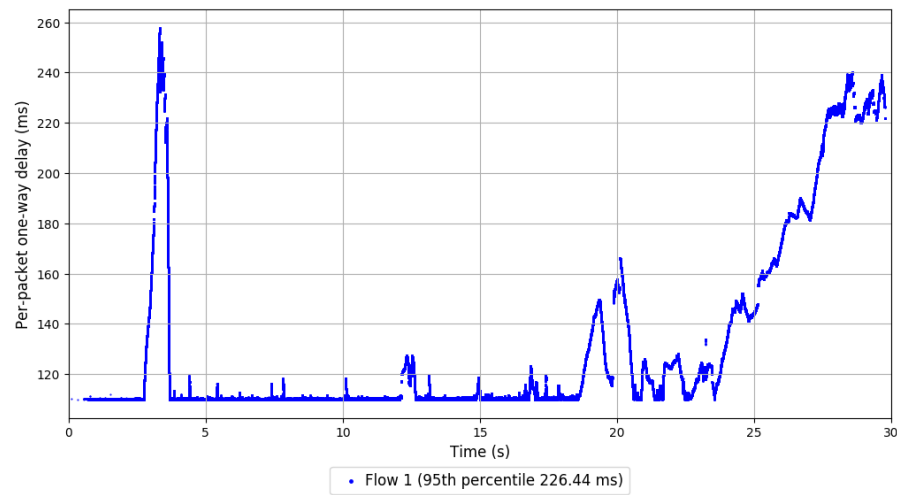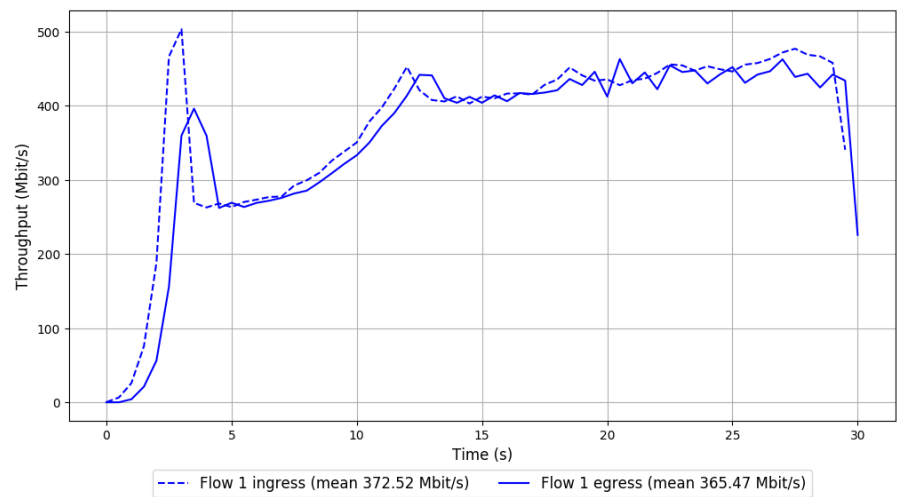
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-06-27 20:06:33
End at: 2019-06-27 20:07:03
Local clock offset: -0.181 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-06-27 22:01:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 417.16 Mbit/s
95th percentile per-packet one-way delay: 234.163 ms
Loss rate: 9.33%
-- Flow 1:
Average throughput: 417.16 Mbit/s
95th percentile per-packet one-way delay: 234.163 ms
Loss rate: 9.33%
```
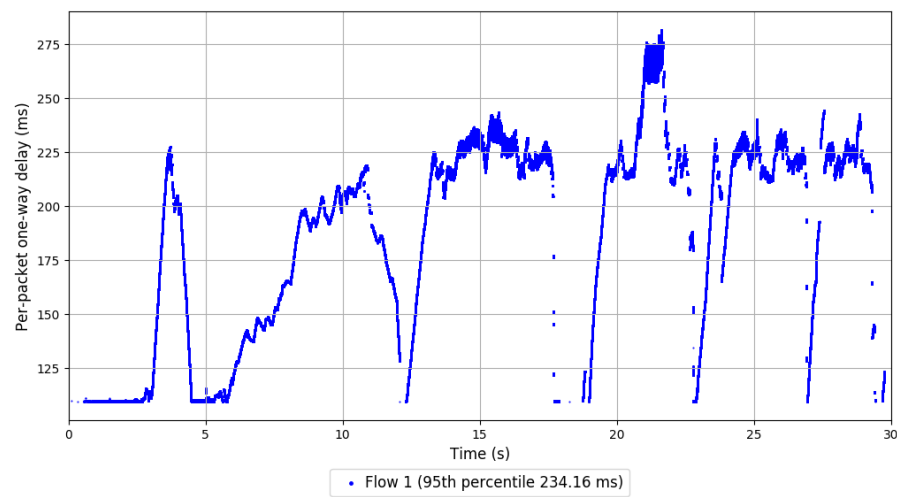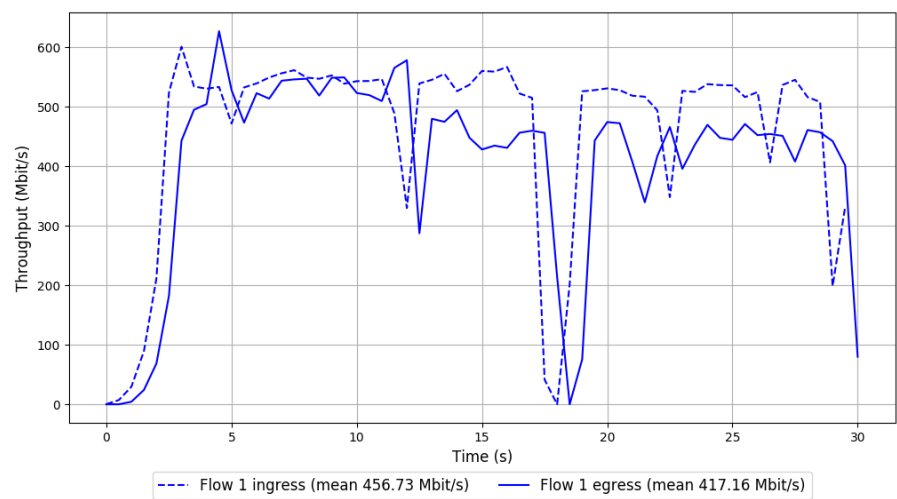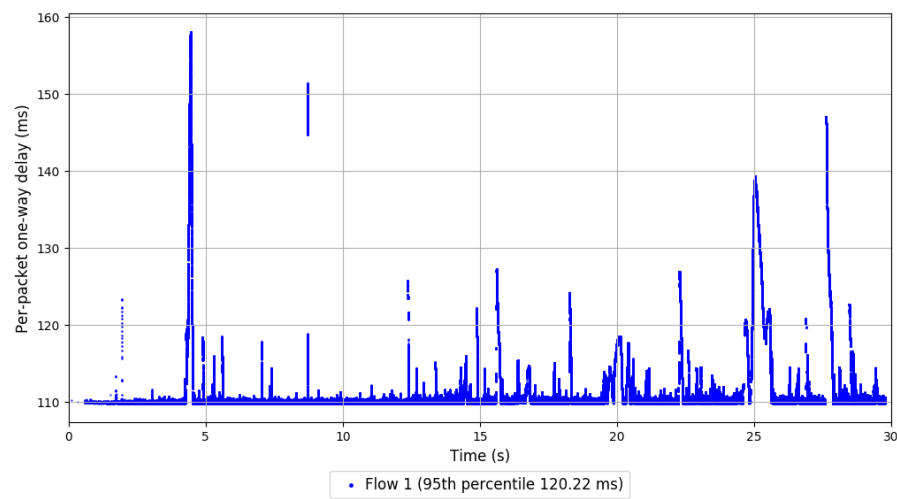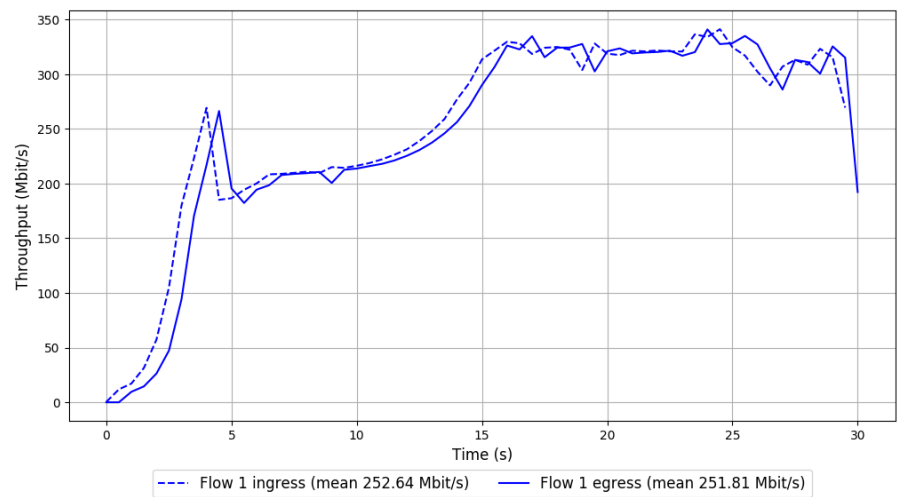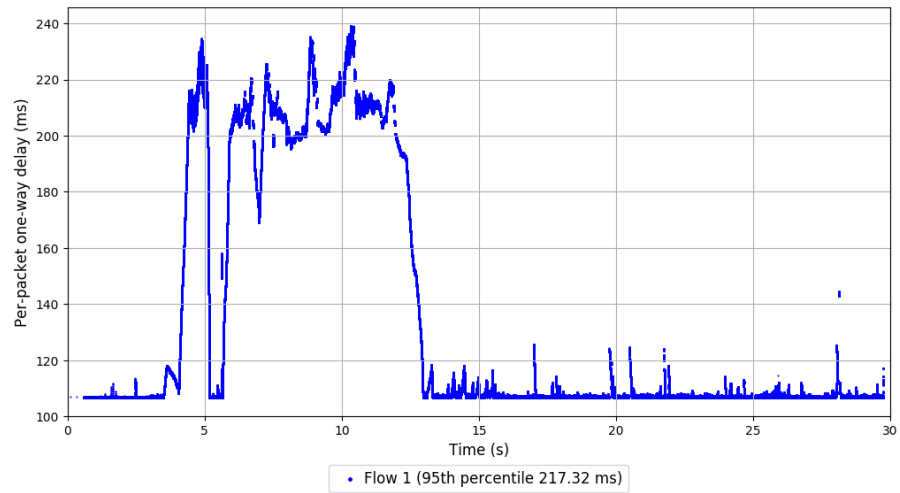
Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-27 17:48:48
End at: 2019-06-27 17:49:18
Local clock offset: -0.124 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2019-06-27 22:01:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.81 Mbit/s
95th percentile per-packet one-way delay: 120.216 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 251.81 Mbit/s
95th percentile per-packet one-way delay: 120.216 ms
Loss rate: 1.06%
```
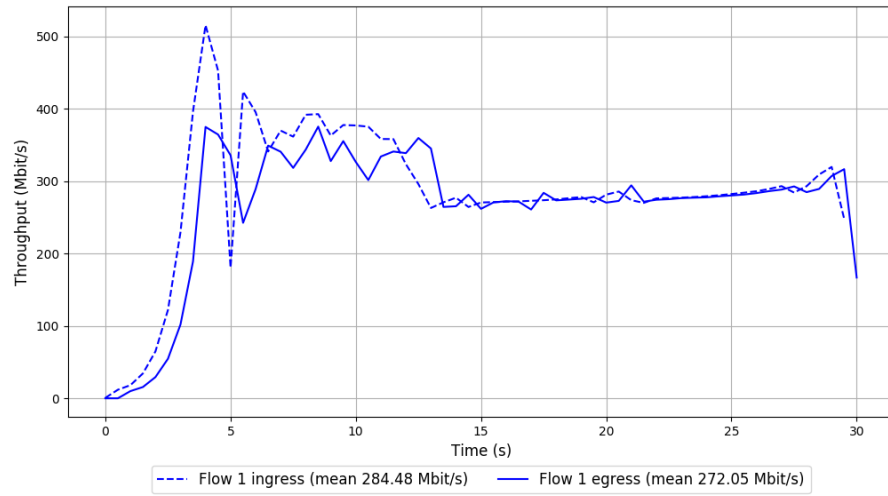
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-06-27 18:20:51
End at: 2019-06-27 18:21:21
Local clock offset: 0.007 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2019-06-27 22:01:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.05 Mbit/s
95th percentile per-packet one-way delay: 217.319 ms
Loss rate: 5.07%
-- Flow 1:
Average throughput: 272.05 Mbit/s
95th percentile per-packet one-way delay: 217.319 ms
Loss rate: 5.07%
```
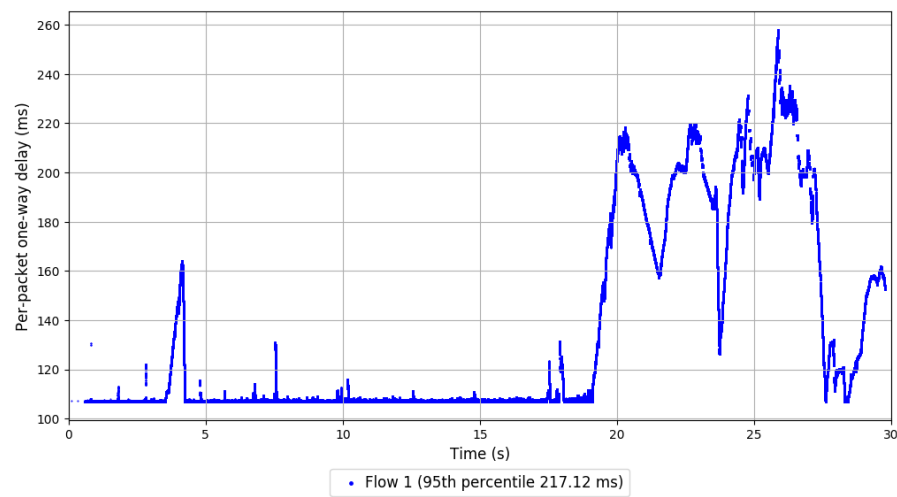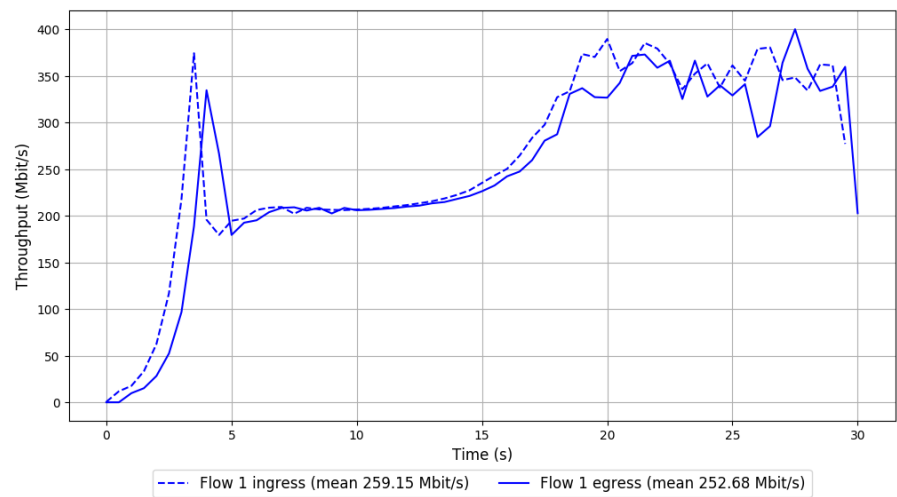
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 284.48 Mbit/s)　　Flow 1 egress (mean 272.05 Mbit/s)

Flow 1 (95th percentile 217.32 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-06-27 18:53:26
End at: 2019-06-27 18:53:56
Local clock offset: 0.004 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2019-06-27 22:01:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 252.68 Mbit/s
95th percentile per-packet one-way delay: 217.122 ms
Loss rate: 3.21%
-- Flow 1:
Average throughput: 252.68 Mbit/s
95th percentile per-packet one-way delay: 217.122 ms
Loss rate: 3.21%
```
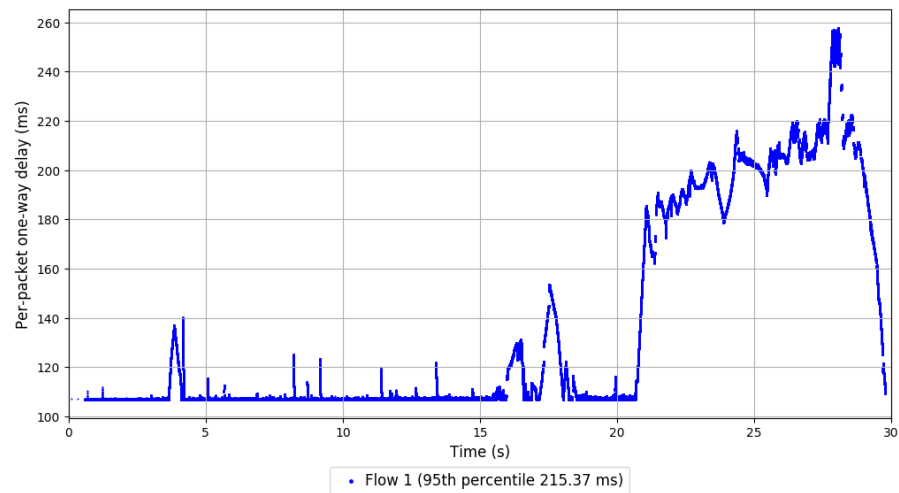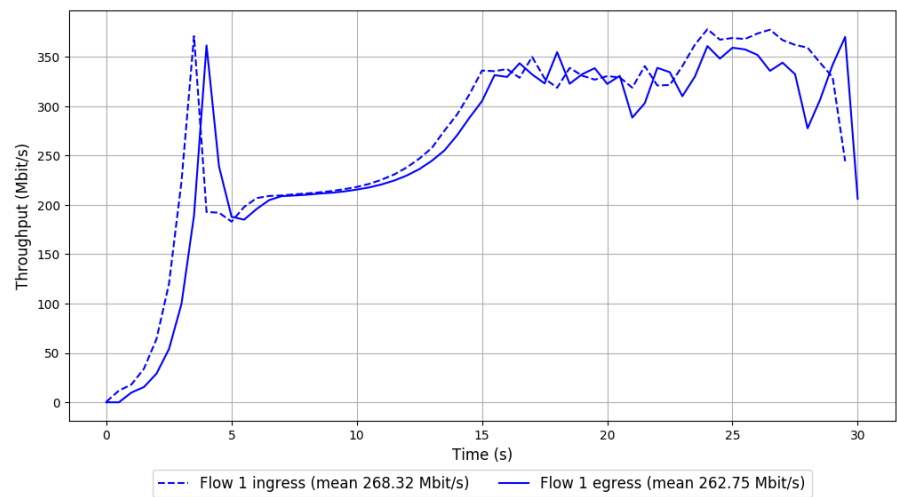
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 259.15 Mbit/s)   Flow 1 egress (mean 252.68 Mbit/s)
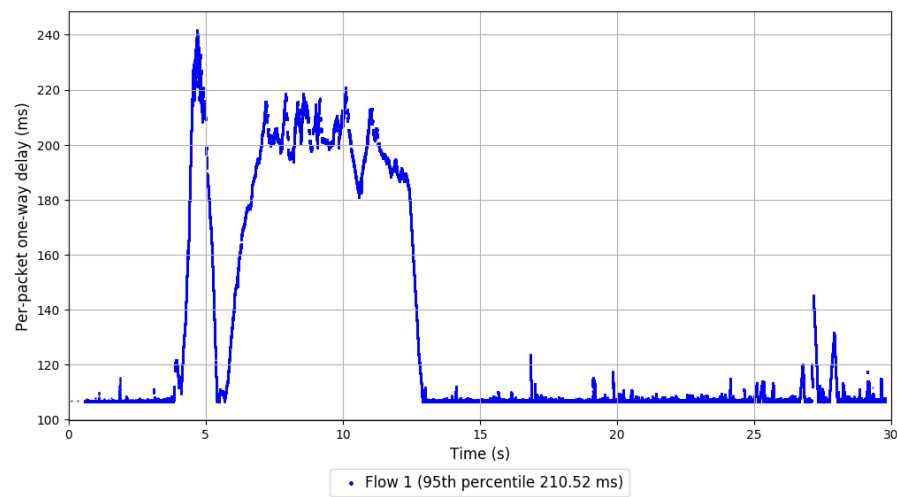

• Flow 1 (95th percentile 217.12 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-06-27 19:25:45
End at: 2019-06-27 19:26:15
Local clock offset: 0.3 ms
Remote clock offset: 0.291 ms


# Below is generated by plot.py at 2019-06-27 22:04:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 262.75 Mbit/s
95th percentile per-packet one-way delay: 215.373 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 262.75 Mbit/s
95th percentile per-packet one-way delay: 215.373 ms
Loss rate: 2.78%
```

Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 268.32 Mbit/s)   Flow 1 egress (mean 262.75 Mbit/s)

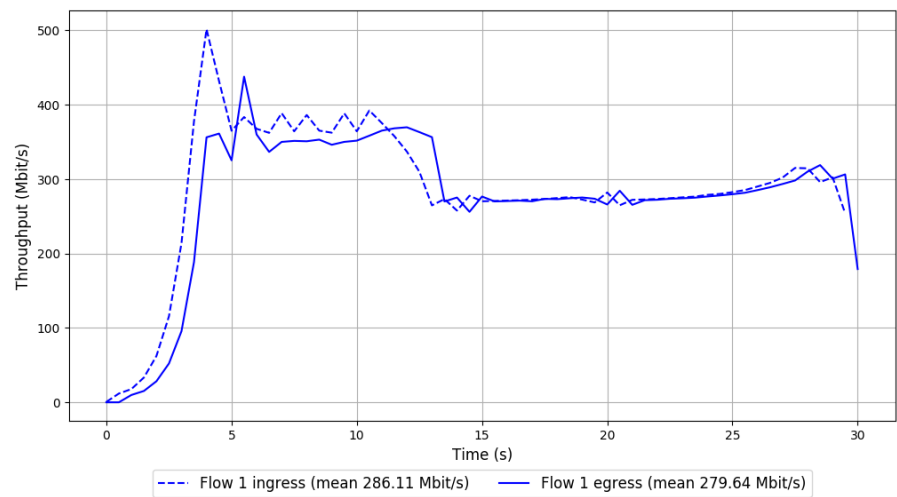

Flow 1 (95th percentile 215.37 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-06-27 19:58:47
End at: 2019-06-27 19:59:17
Local clock offset: -0.14 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 279.64 Mbit/s
95th percentile per-packet one-way delay: 210.517 ms
Loss rate: 2.96%
-- Flow 1:
Average throughput: 279.64 Mbit/s
95th percentile per-packet one-way delay: 210.517 ms
Loss rate: 2.96%
```

Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-06-27 18:12:43
End at: 2019-06-27 18:13:13
Local clock offset: -0.045 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.27 Mbit/s
95th percentile per-packet one-way delay: 109.712 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 54.27 Mbit/s
95th percentile per-packet one-way delay: 109.712 ms
Loss rate: 1.22%
```
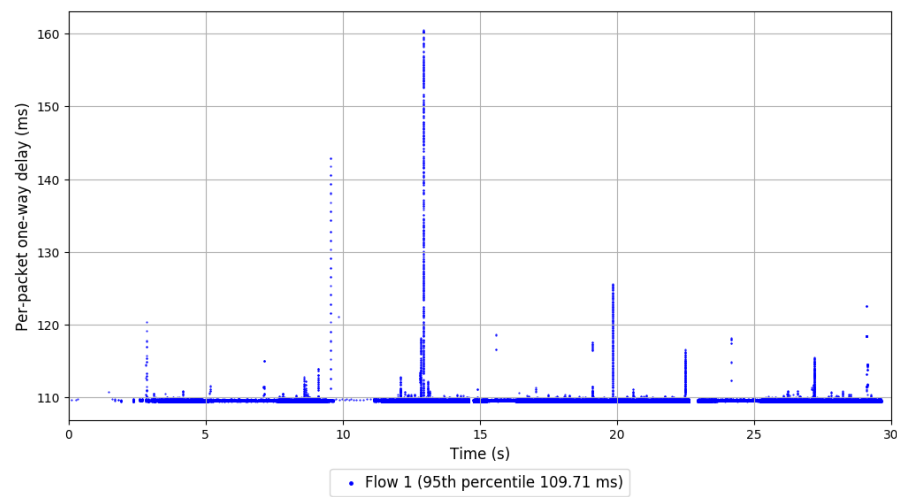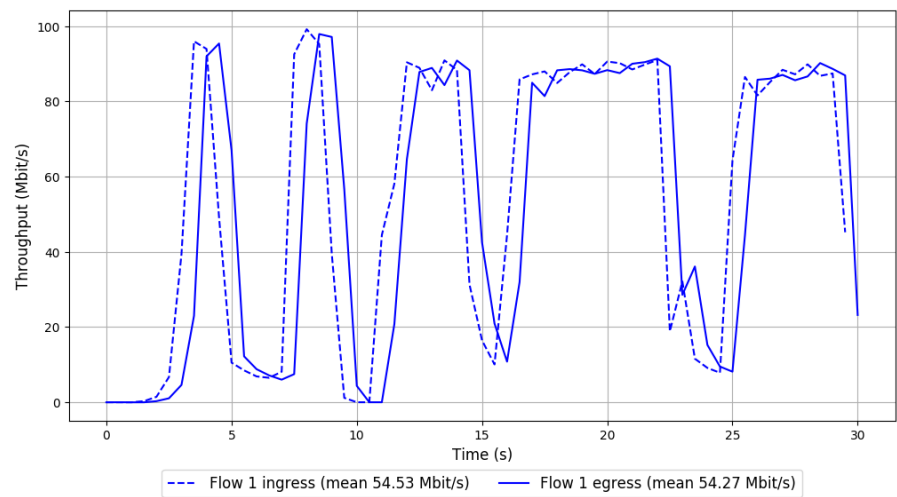
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-06-27 18:45:12
End at: 2019-06-27 18:45:42
Local clock offset: 0.029 ms
Remote clock offset: -0.502 ms

# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 110.903 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 110.903 ms
Loss rate: 1.28%
```
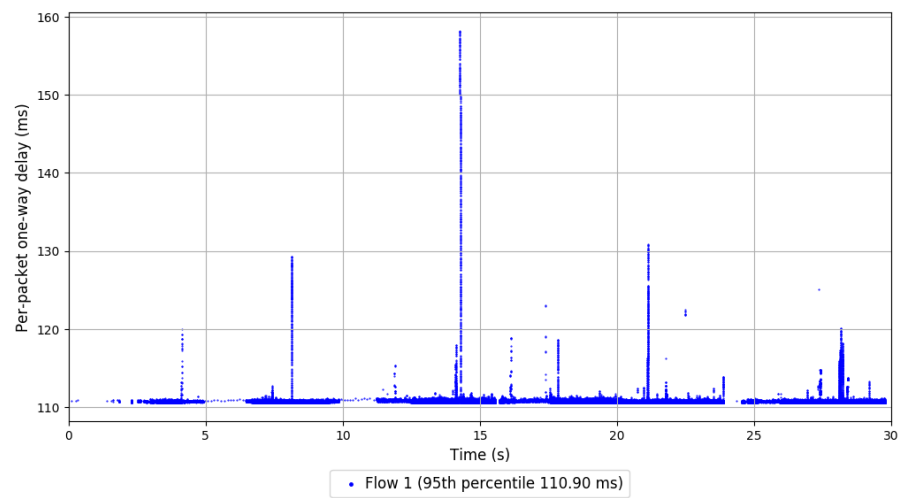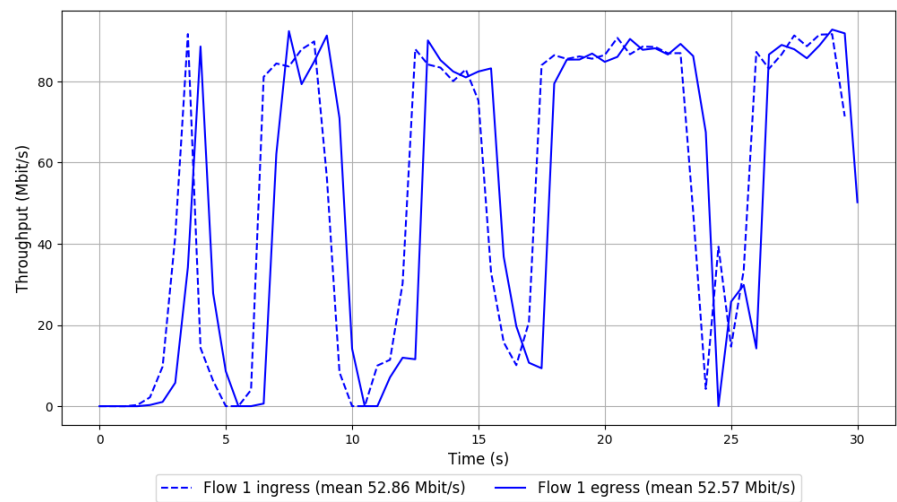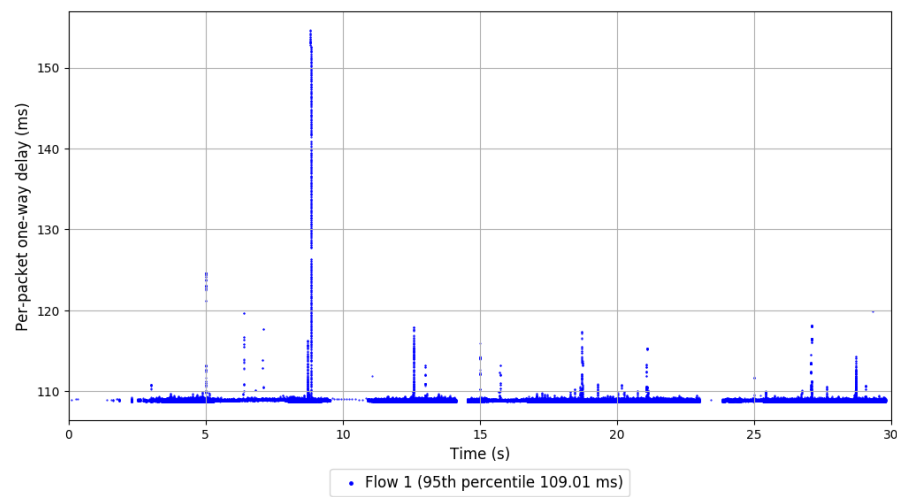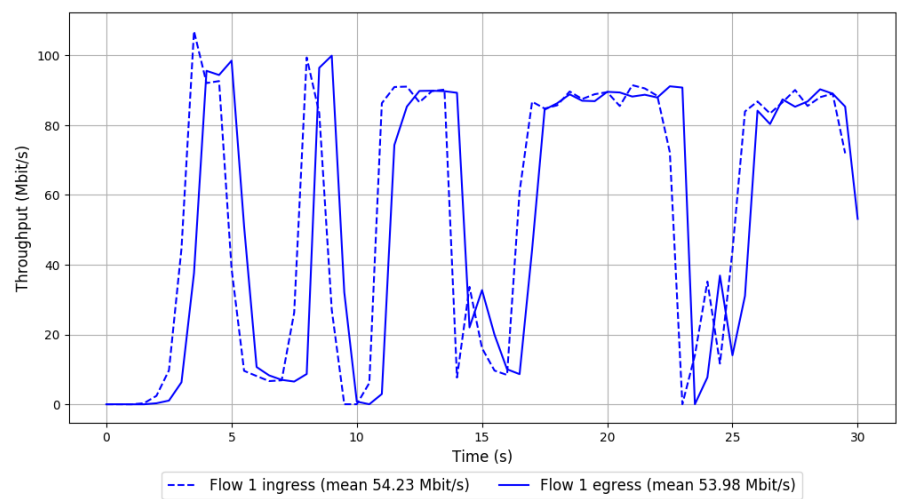
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-06-27 19:17:48
End at: 2019-06-27 19:18:18
Local clock offset: -0.112 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.98 Mbit/s
95th percentile per-packet one-way delay: 109.006 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 53.98 Mbit/s
95th percentile per-packet one-way delay: 109.006 ms
Loss rate: 1.19%
```

Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-06-27 19:50:29
End at: 2019-06-27 19:50:59
Local clock offset: -0.114 ms
Remote clock offset: 0.007 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.82 Mbit/s
95th percentile per-packet one-way delay: 106.915 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 63.82 Mbit/s
95th percentile per-packet one-way delay: 106.915 ms
Loss rate: 1.11%
```
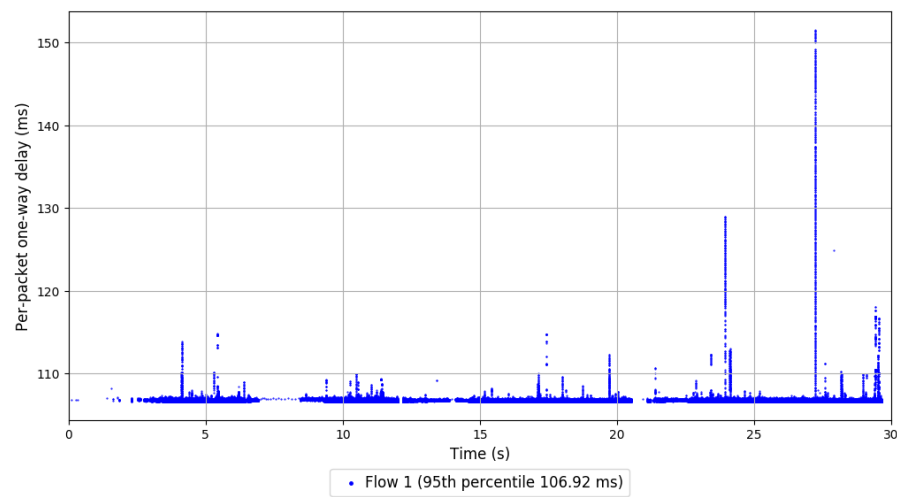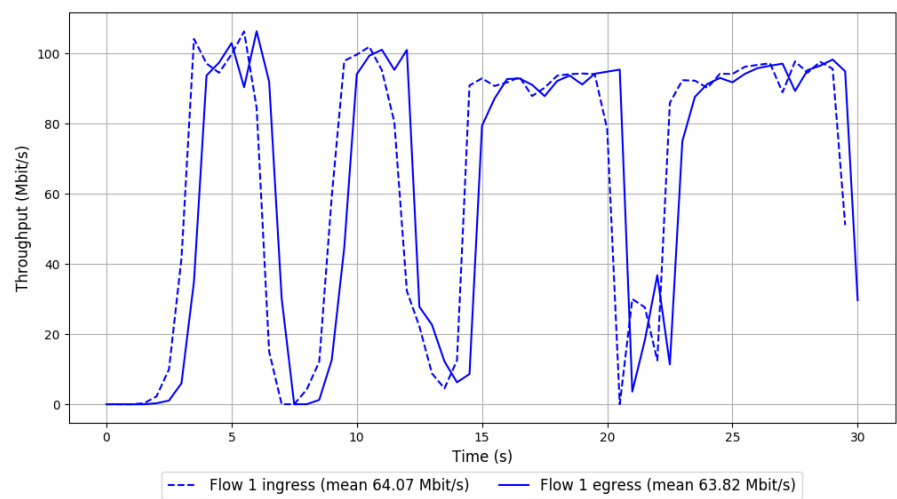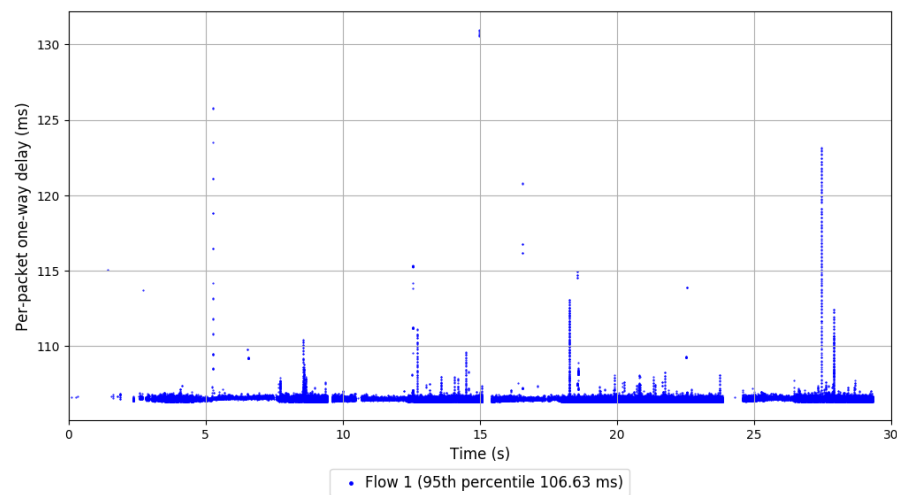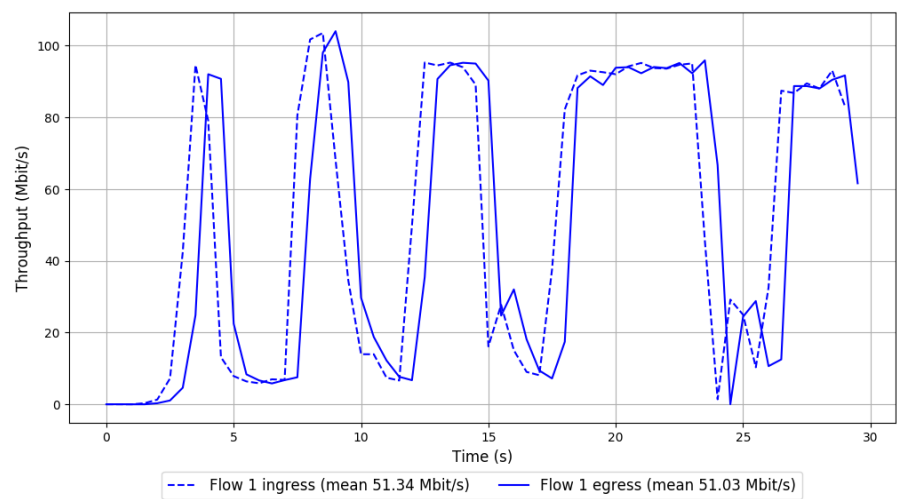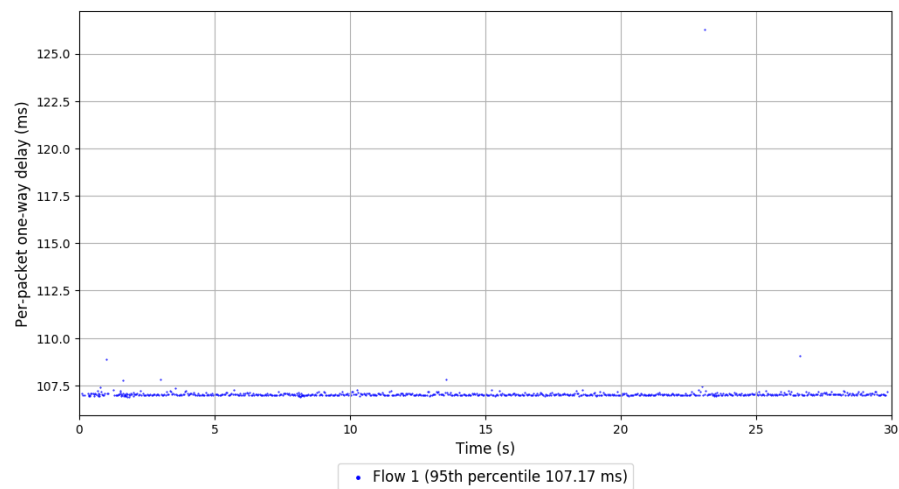
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 64.07 Mbit/s)   Flow 1 egress (mean 63.82 Mbit/s)

Flow 1 (95th percentile 106.92 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-06-27 20:23:08
End at: 2019-06-27 20:23:38
Local clock offset: -0.342 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.03 Mbit/s
95th percentile per-packet one-way delay: 106.628 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 51.03 Mbit/s
95th percentile per-packet one-way delay: 106.628 ms
Loss rate: 1.34%
```

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 51.34 Mbit/s) ----- Flow 1 egress (mean 51.03 Mbit/s)
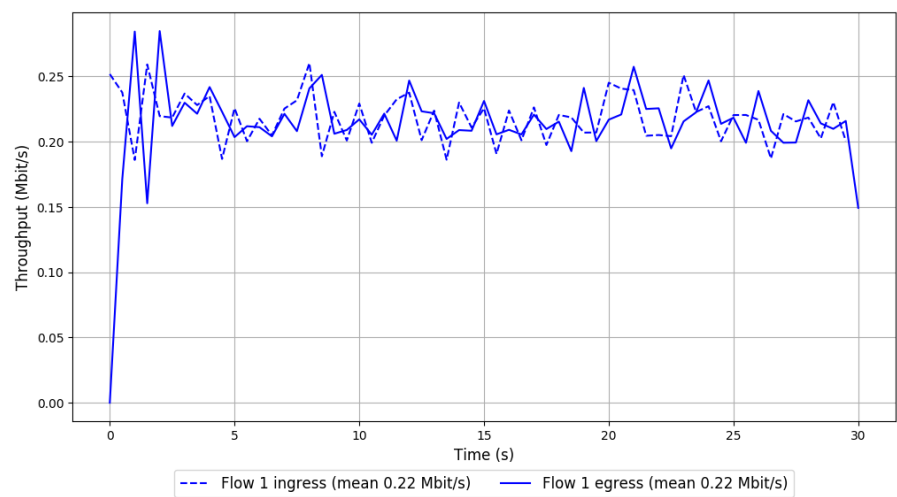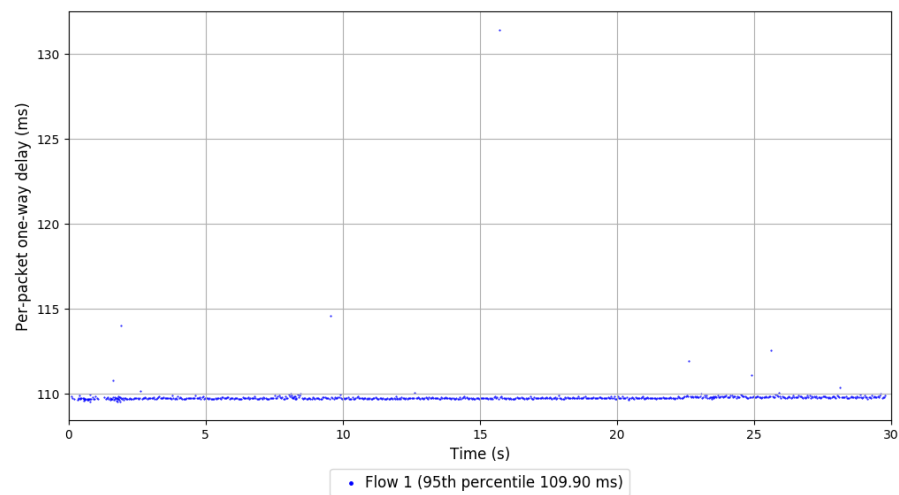

• Flow 1 (95th percentile 106.63 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-06-27 17:52:03
End at: 2019-06-27 17:52:34
Local clock offset: -0.093 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.174 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.174 ms
Loss rate: 0.77%
```

Run 1: Report of SCReAM — Data Link

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

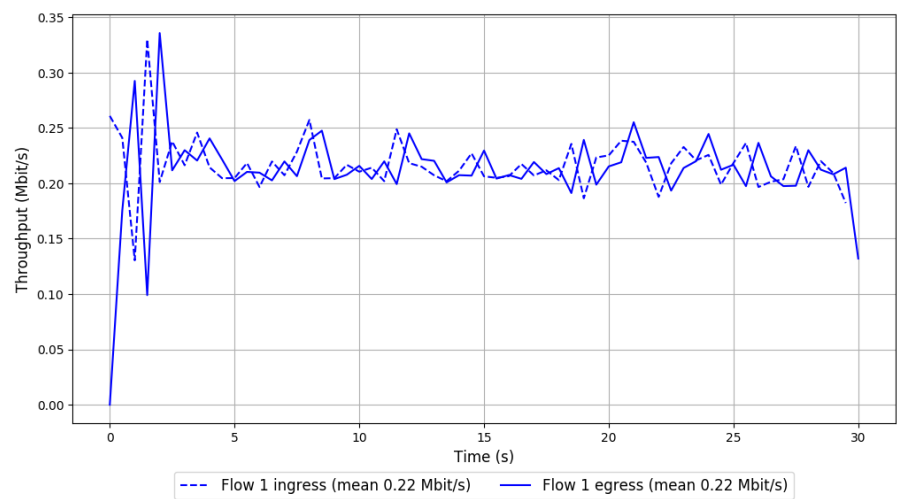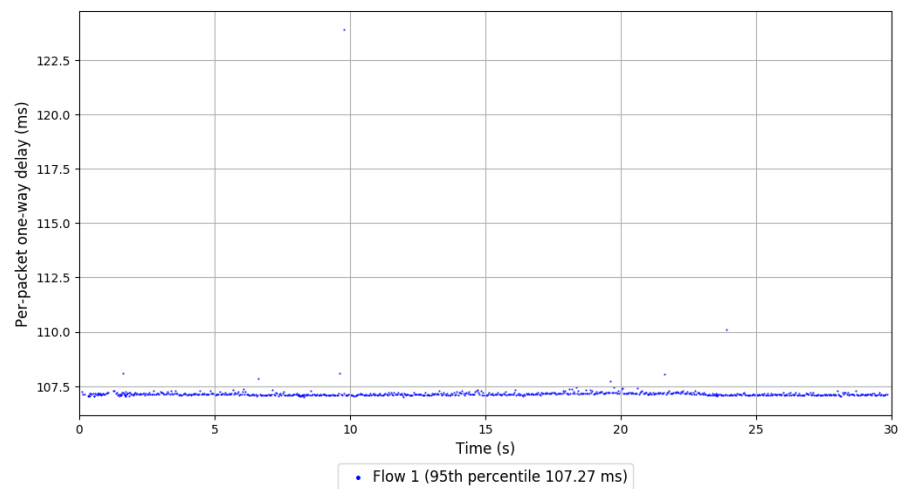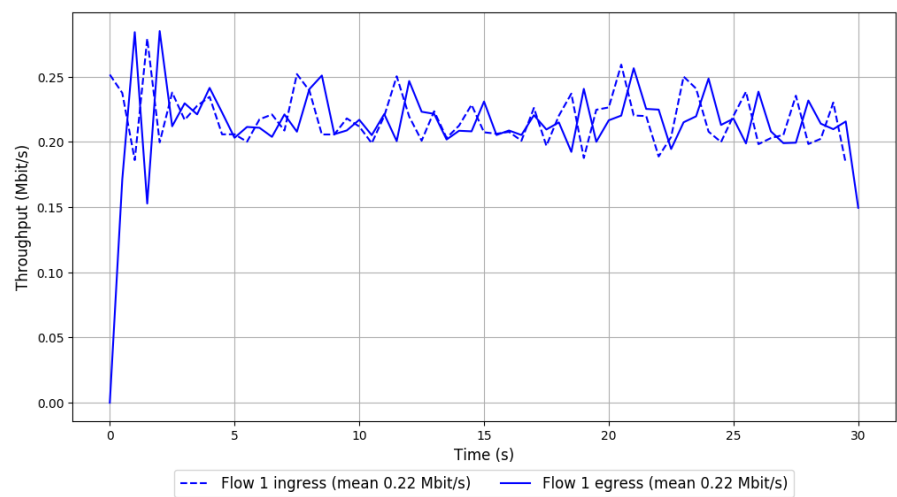Flow 1 (95th percentile 107.17 ms)

```
Run 2: Statistics of SCReAM

Start at: 2019-06-27 18:24:11
End at: 2019-06-27 18:24:41
Local clock offset: -0.098 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.901 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.901 ms
Loss rate: 0.76%
```

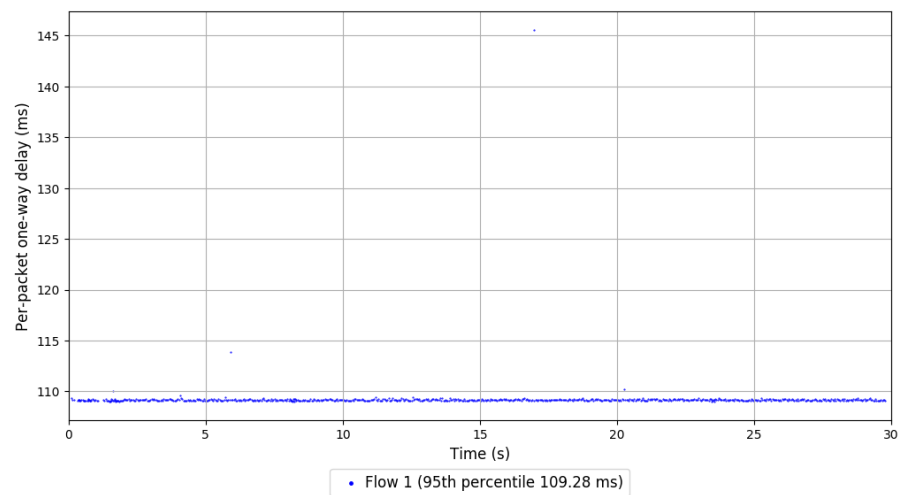Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-06-27 18:56:47
End at: 2019-06-27 18:57:17
Local clock offset: -0.081 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.269 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.269 ms
Loss rate: 0.64%
```

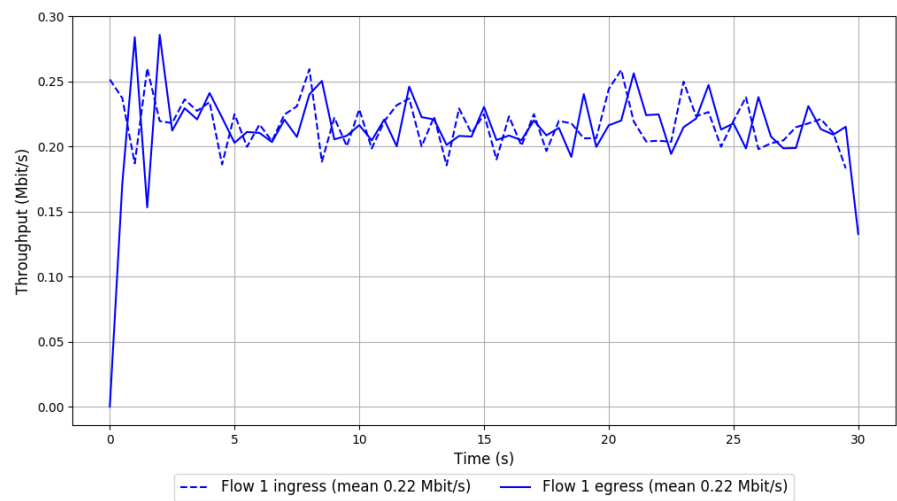# Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-06-27 19:29:06
End at: 2019-06-27 19:29:36
Local clock offset: -0.168 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.277 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.277 ms
Loss rate: 0.77%
```
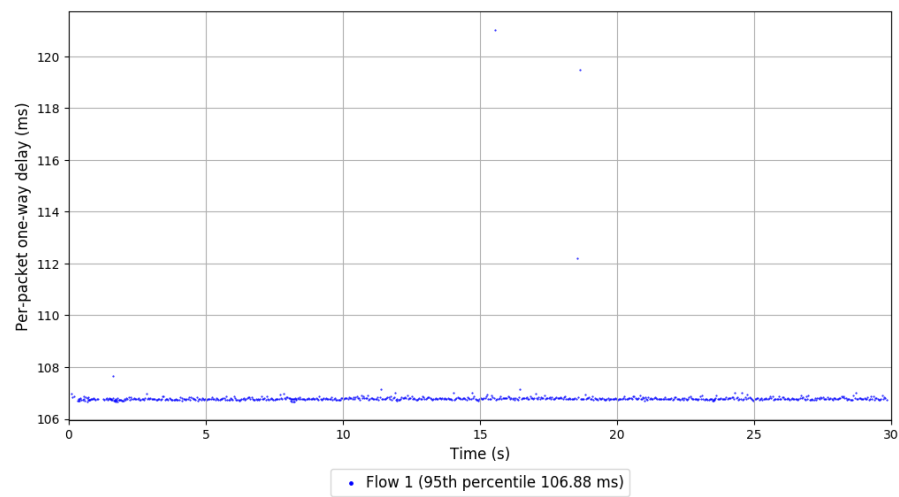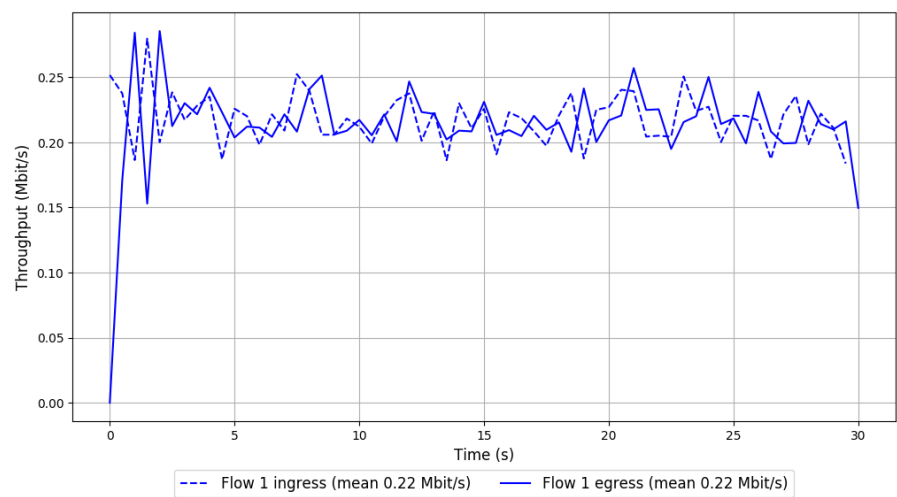
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-06-27 20:02:08
End at: 2019-06-27 20:02:38
Local clock offset: -0.211 ms
Remote clock offset: 0.007 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 106.881 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 106.881 ms
Loss rate: 0.64%
```

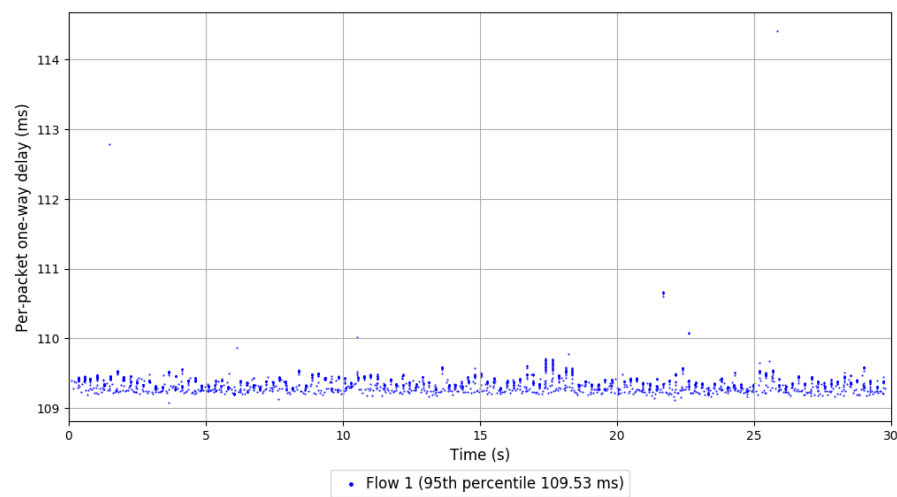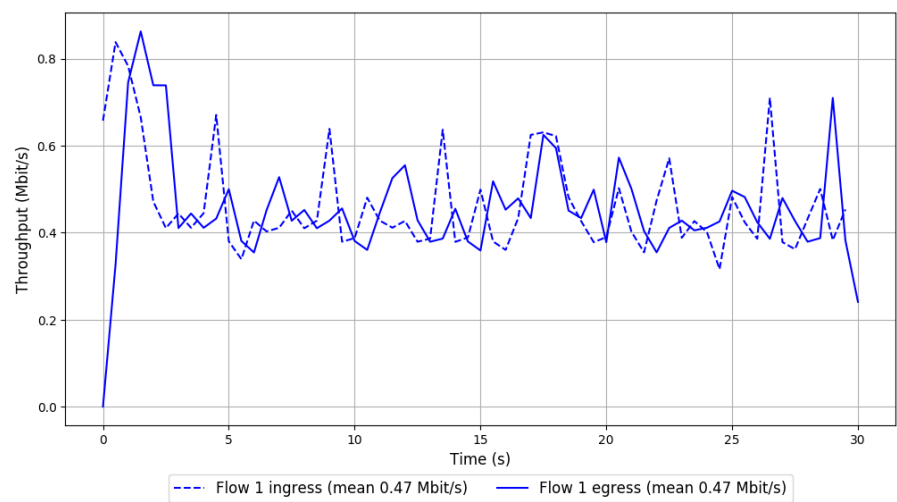# Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-06-27 18:02:36
End at: 2019-06-27 18:03:06
Local clock offset: -0.034 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 109.532 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 109.532 ms
Loss rate: 0.77%
```
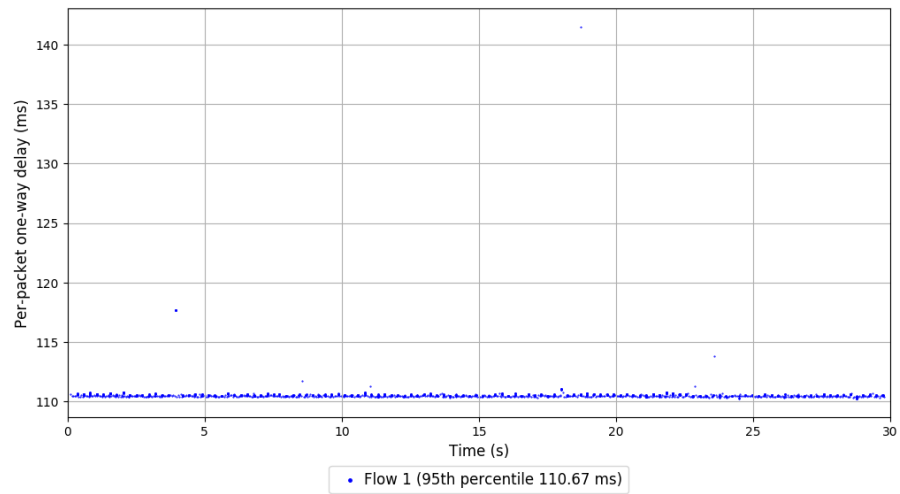
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-06-27 18:35:08
End at: 2019-06-27 18:35:38
Local clock offset: 0.034 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 110.668 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 110.668 ms
Loss rate: 0.72%
```
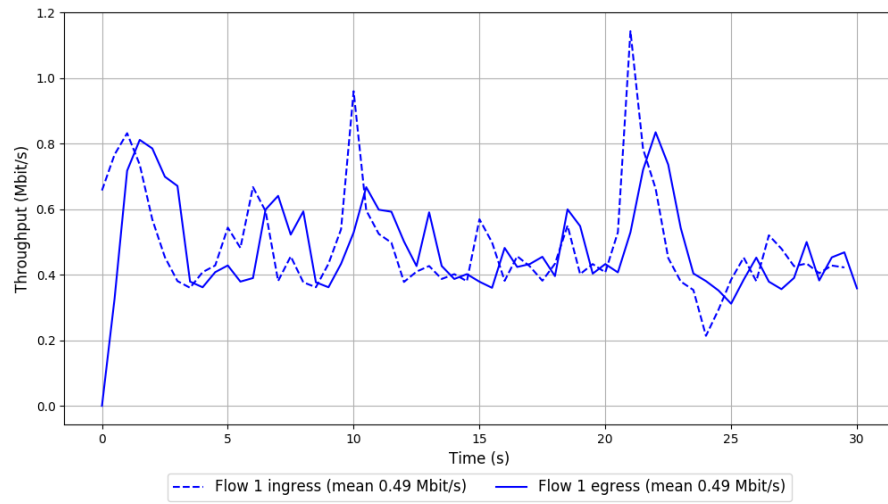
Run 2: Report of Sprout — Data Link

Flow 1 ingress (mean 0.49 Mbit/s) — Flow 1 egress (mean 0.49 Mbit/s)

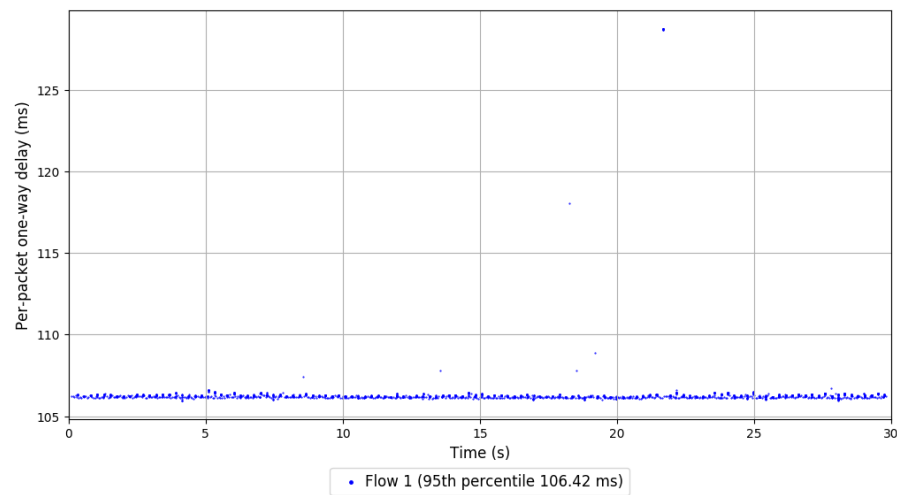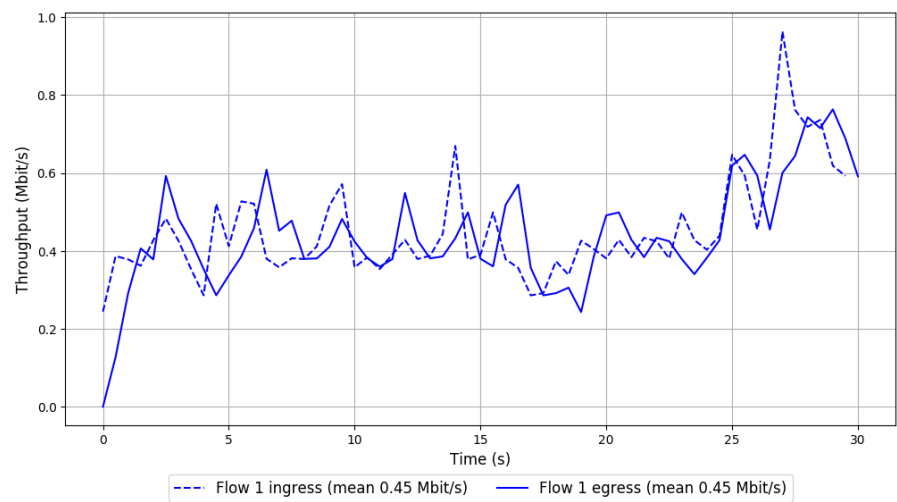• Flow 1 (95th percentile 110.67 ms)

```
Run 3: Statistics of Sprout

Start at: 2019-06-27 19:07:35
End at: 2019-06-27 19:08:05
Local clock offset: -0.876 ms
Remote clock offset: -0.131 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 106.418 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 106.418 ms
Loss rate: 1.04%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 0.45 Mbit/s)   Flow 1 egress (mean 0.45 Mbit/s)

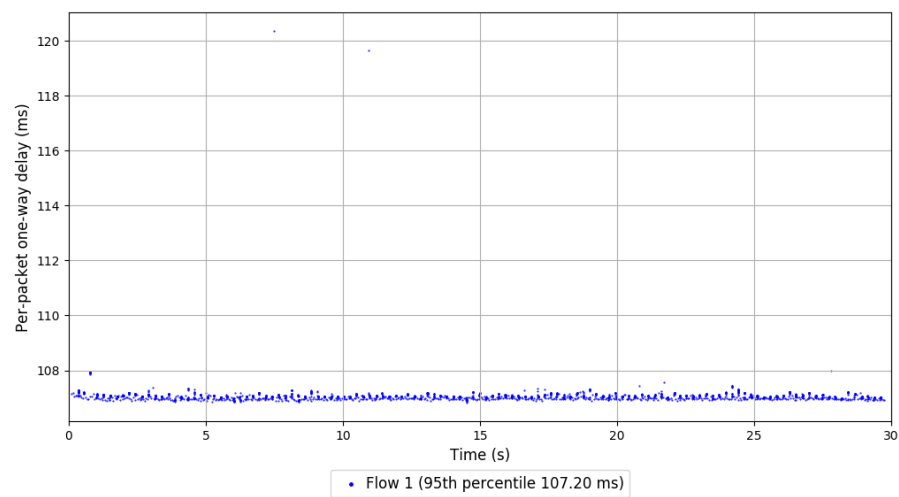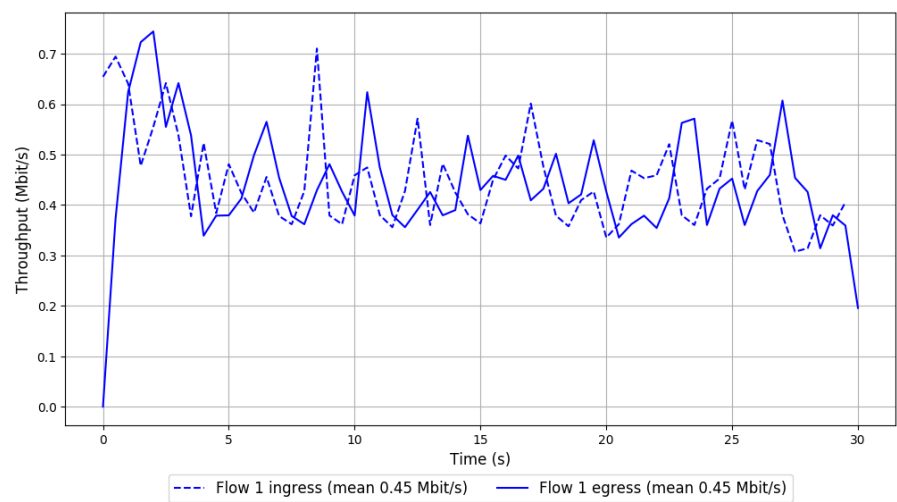Flow 1 (95th percentile 106.42 ms)

```
Run 4: Statistics of Sprout

Start at: 2019-06-27 19:40:16
End at: 2019-06-27 19:40:46
Local clock offset: -0.034 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 107.204 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 107.204 ms
Loss rate: 0.79%
```

Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-06-27 20:13:15
End at: 2019-06-27 20:13:45
Local clock offset: -0.056 ms
Remote clock offset: 0.372 ms


# Below is generated by plot.py at 2019-06-27 22:05:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 110.288 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 110.288 ms
Loss rate: 0.57%
```
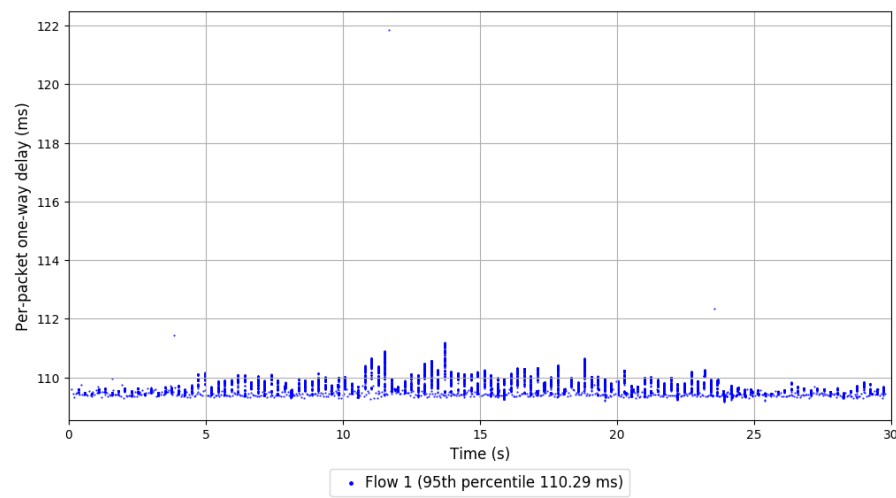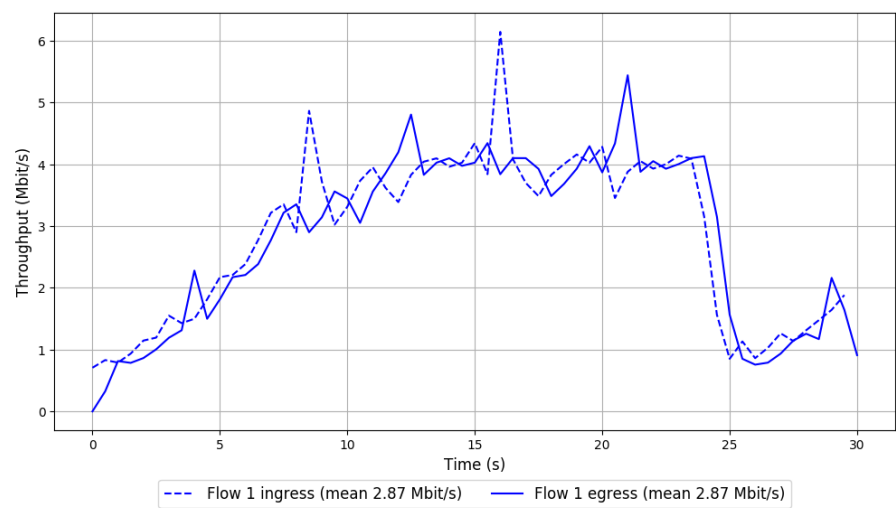
Run 5: Report of Sprout — Data Link

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

Start at: 2019-06-27 17:41:45
End at: 2019-06-27 17:42:15
Local clock offset: -0.1 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2019-06-27 22:06:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 194.48 Mbit/s
95th percentile per-packet one-way delay: 110.203 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 194.48 Mbit/s
95th percentile per-packet one-way delay: 110.203 ms
Loss rate: 0.99%
```
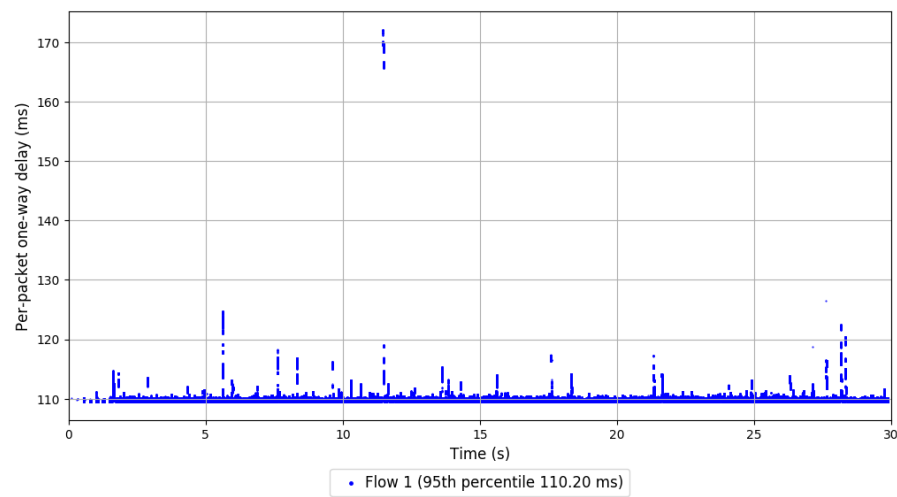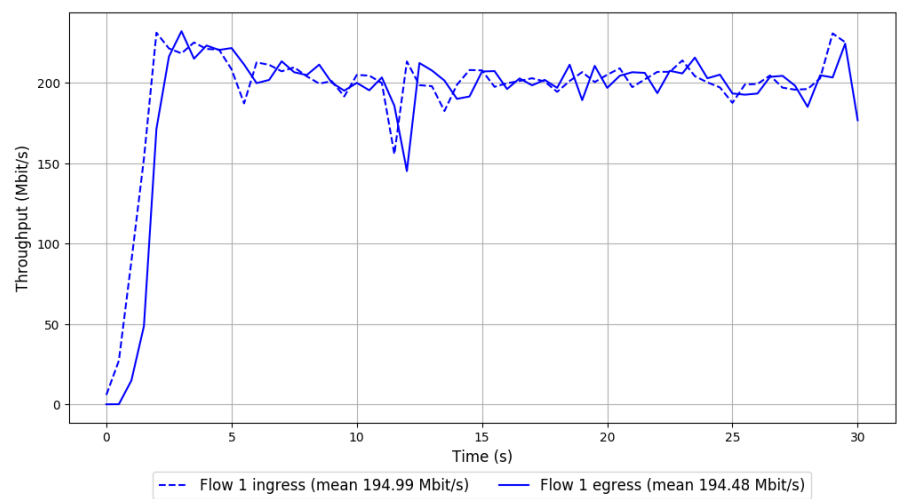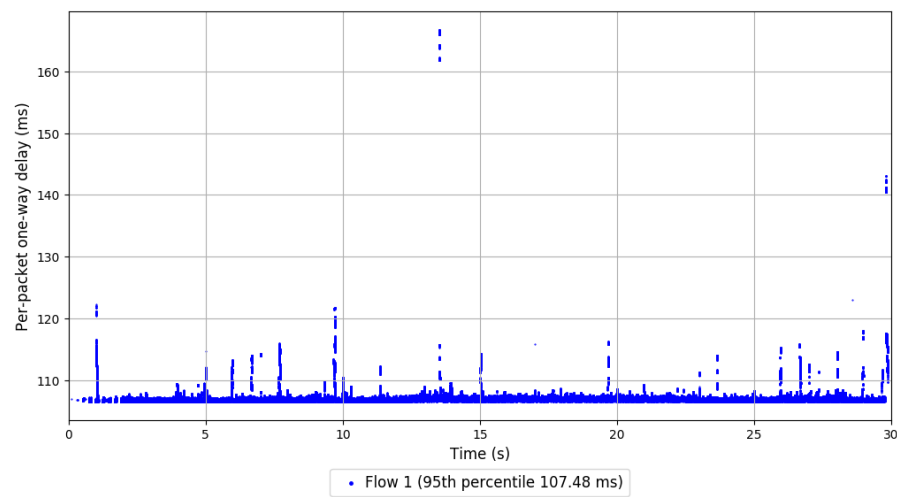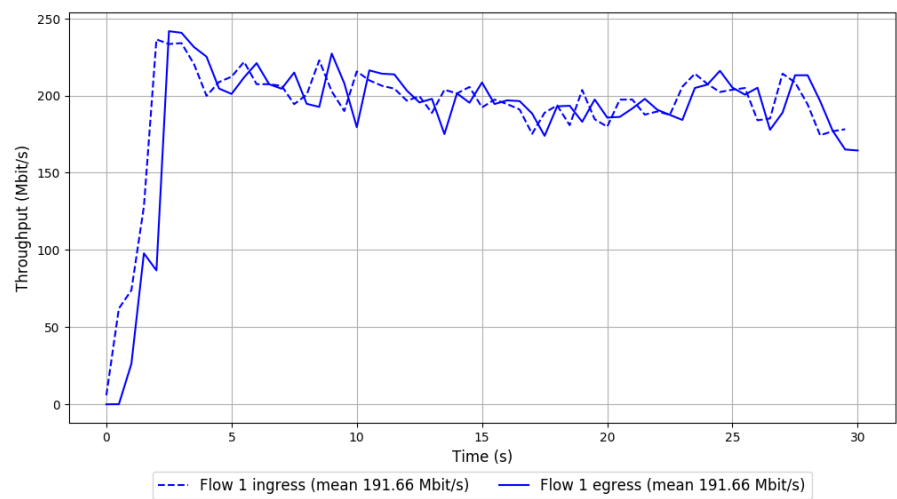
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-27 18:13:57
End at: 2019-06-27 18:14:27
Local clock offset: -0.111 ms
Remote clock offset: -0.079 ms


# Below is generated by plot.py at 2019-06-27 22:06:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.66 Mbit/s
95th percentile per-packet one-way delay: 107.480 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 191.66 Mbit/s
95th percentile per-packet one-way delay: 107.480 ms
Loss rate: 0.71%
```

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

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

Start at: 2019-06-27 18:46:25
End at: 2019-06-27 18:46:55
Local clock offset: 0.038 ms
Remote clock offset: -0.094 ms


# Below is generated by plot.py at 2019-06-27 22:06:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.44 Mbit/s
95th percentile per-packet one-way delay: 107.557 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 191.44 Mbit/s
95th percentile per-packet one-way delay: 107.557 ms
Loss rate: 0.83%
```
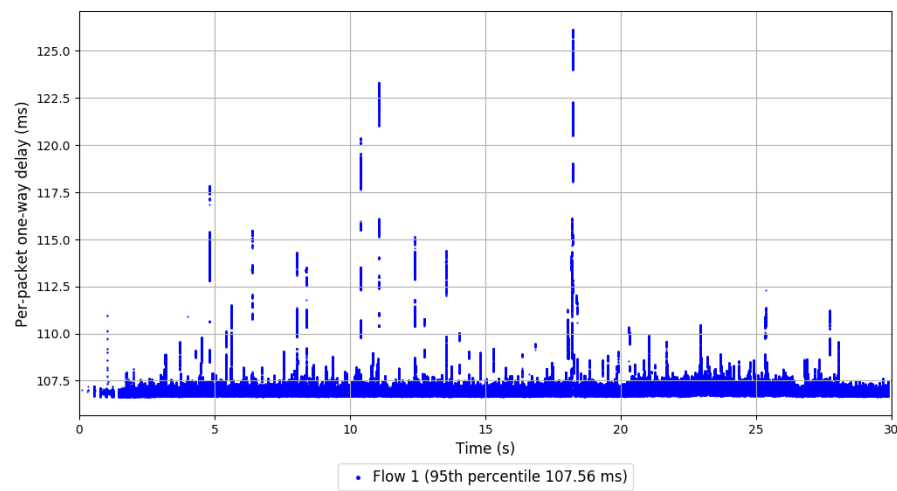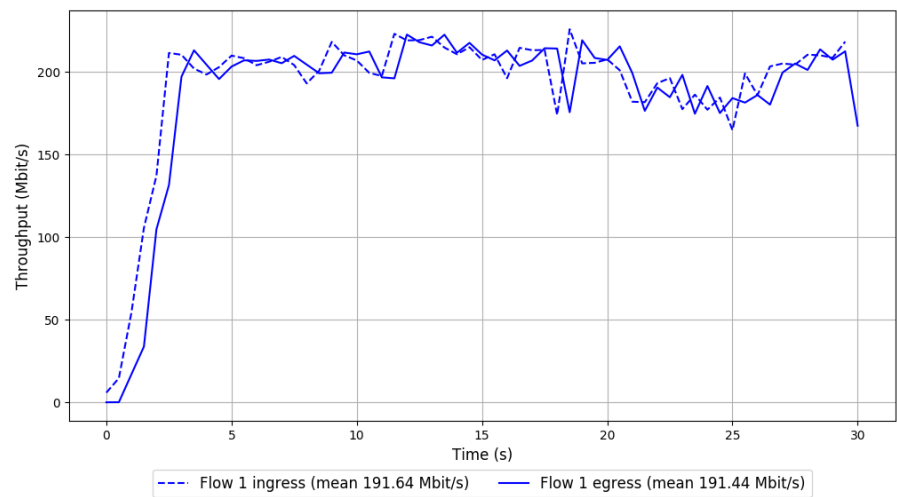
Run 3: Report of TaoVA-100x — Data Link
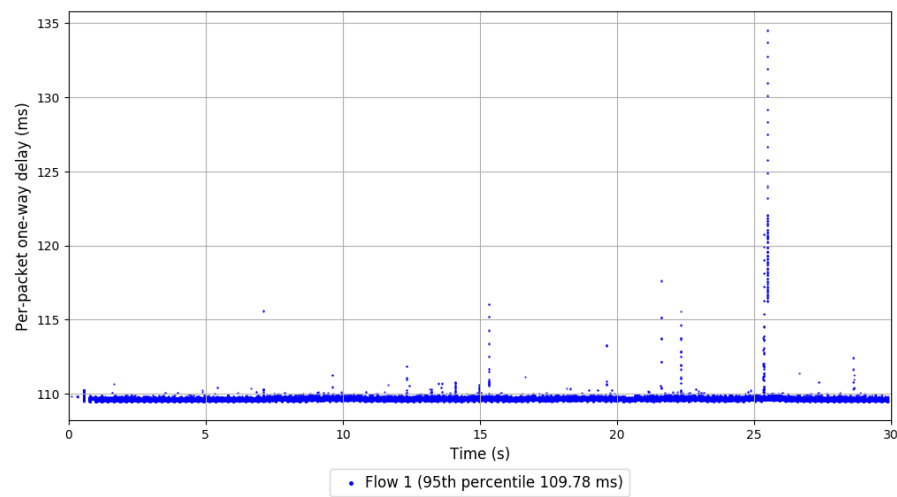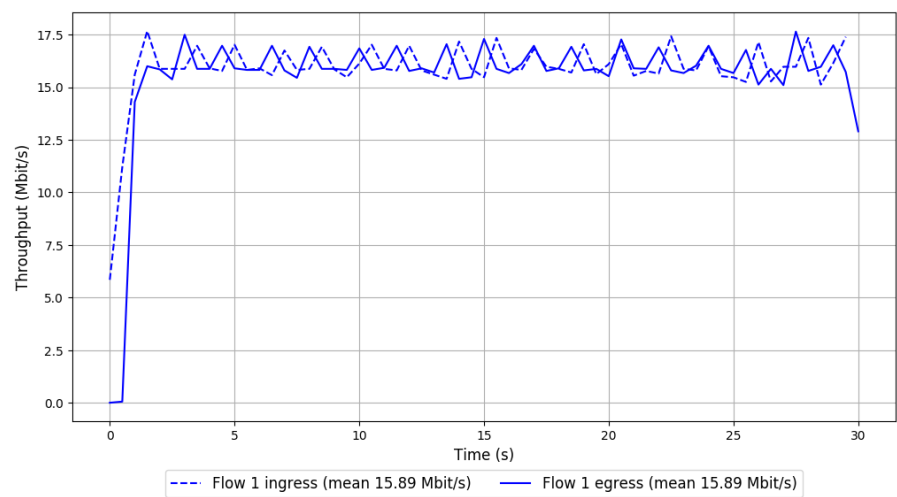

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```
Run 4: Statistics of TaoVA-100x

Start at: 2019-06-27 19:19:01
End at: 2019-06-27 19:19:31
Local clock offset: -0.105 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-06-27 22:06:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 109.784 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 109.784 ms
Loss rate: 0.75%
```

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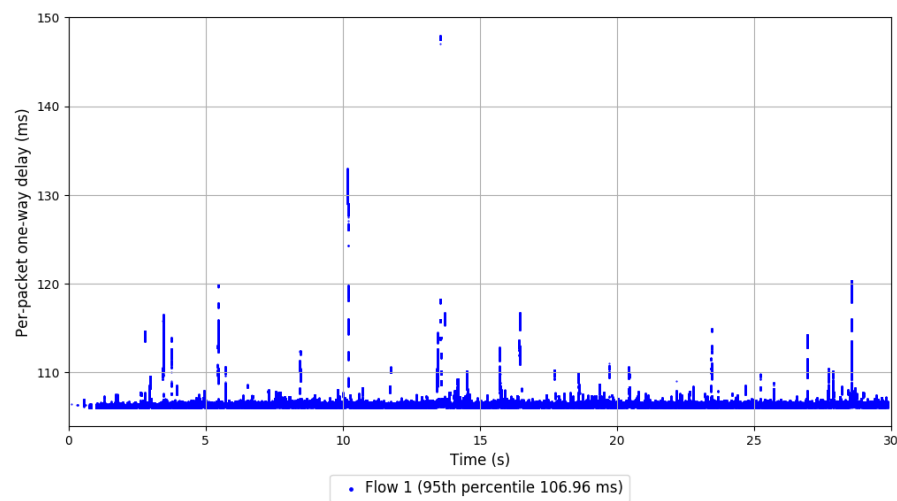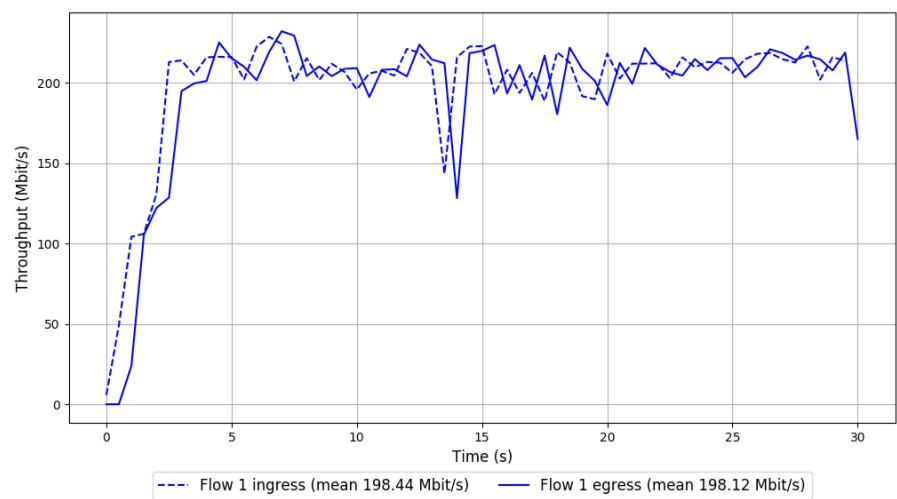

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```
Run 5: Statistics of TaoVA-100x

Start at: 2019-06-27 19:51:43
End at: 2019-06-27 19:52:13
Local clock offset: -0.873 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-06-27 22:07:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.12 Mbit/s
95th percentile per-packet one-way delay: 106.957 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 198.12 Mbit/s
95th percentile per-packet one-way delay: 106.957 ms
Loss rate: 0.88%
```

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

```
Run 1: Statistics of TCP Vegas

Start at: 2019-06-27 18:05:17
End at: 2019-06-27 18:05:47
Local clock offset: -0.048 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2019-06-27 22:07:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.70 Mbit/s
95th percentile per-packet one-way delay: 137.010 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 190.70 Mbit/s
95th percentile per-packet one-way delay: 137.010 ms
Loss rate: 0.63%
```
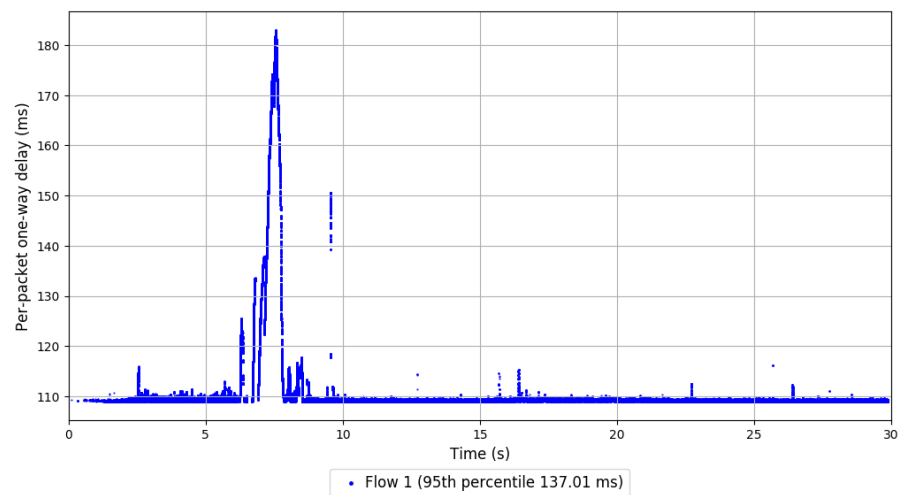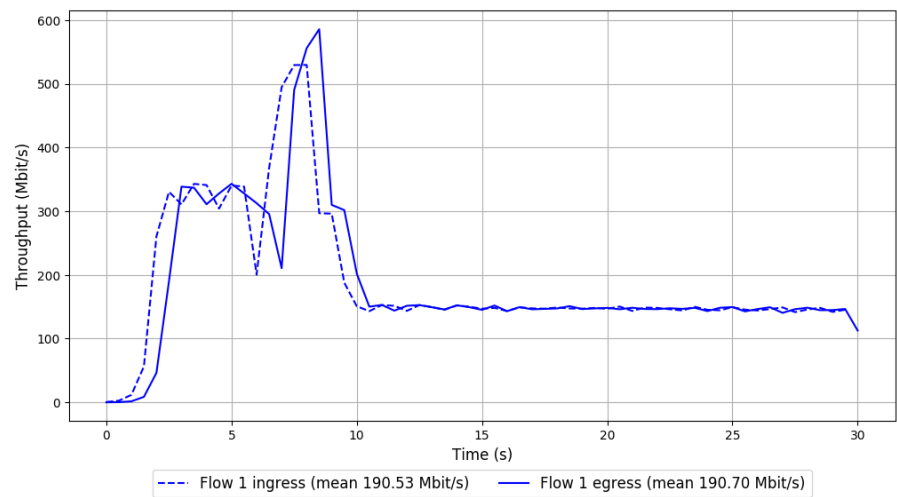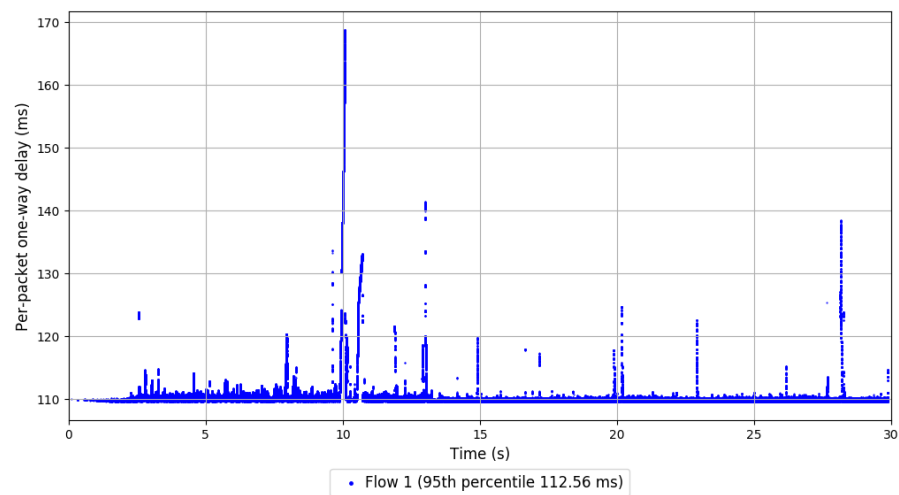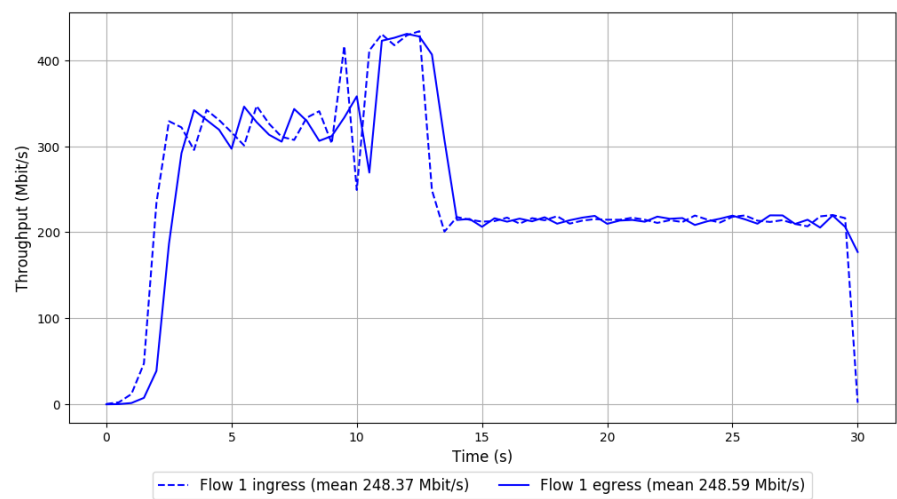
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-06-27 18:37:44
End at: 2019-06-27 18:38:14
Local clock offset: -0.066 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2019-06-27 22:07:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.59 Mbit/s
95th percentile per-packet one-way delay: 112.555 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 248.59 Mbit/s
95th percentile per-packet one-way delay: 112.555 ms
Loss rate: 0.66%
```
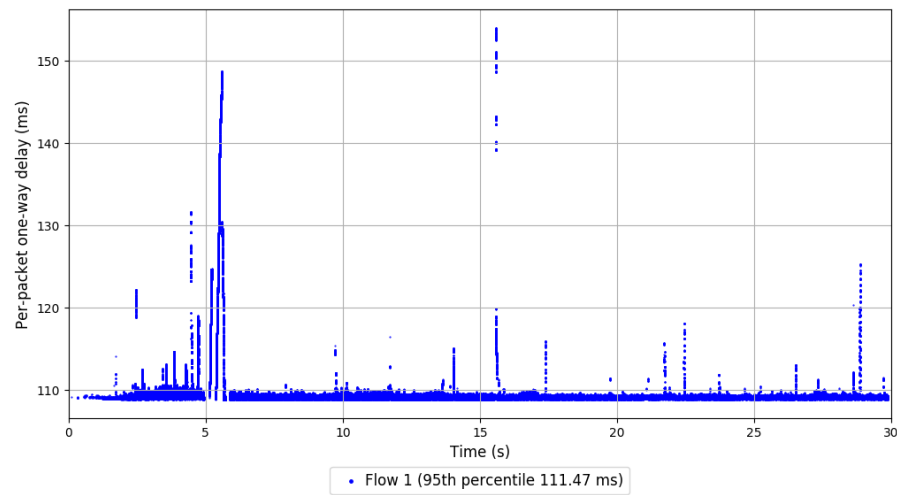
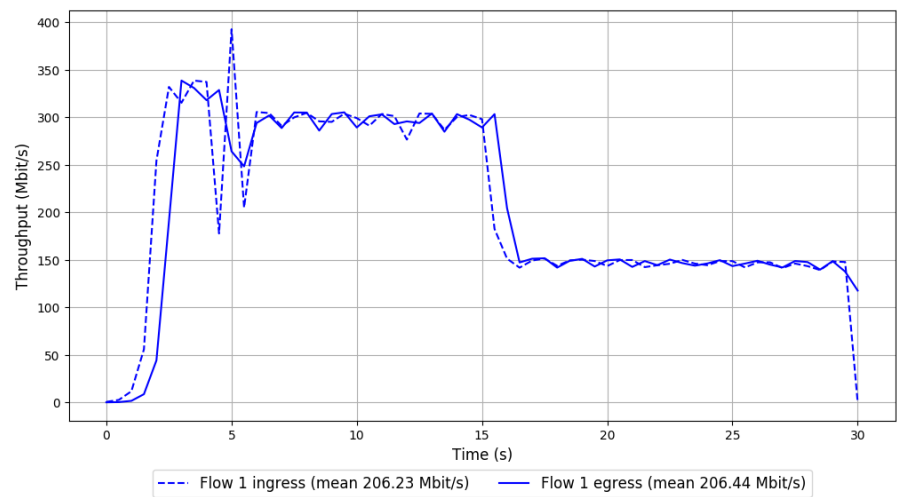Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-06-27 19:10:11
End at: 2019-06-27 19:10:41
Local clock offset: -0.145 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2019-06-27 22:07:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.44 Mbit/s
95th percentile per-packet one-way delay: 111.465 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 206.44 Mbit/s
95th percentile per-packet one-way delay: 111.465 ms
Loss rate: 0.62%
```
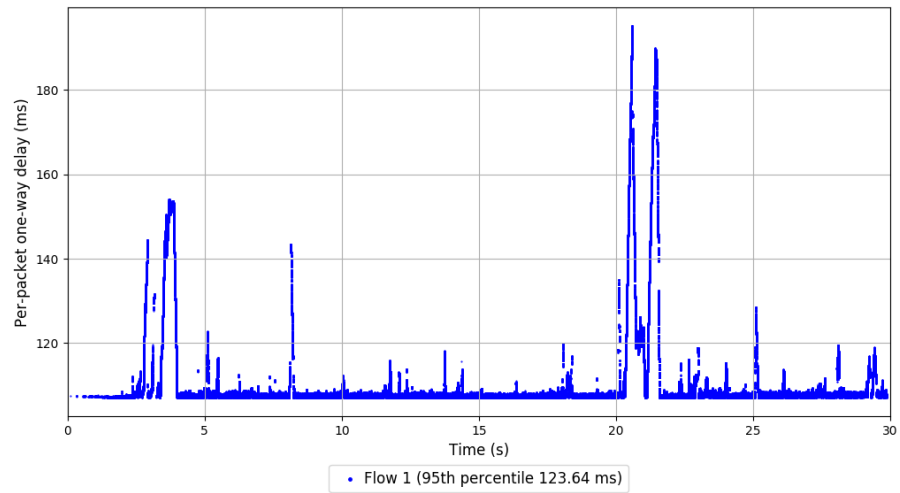
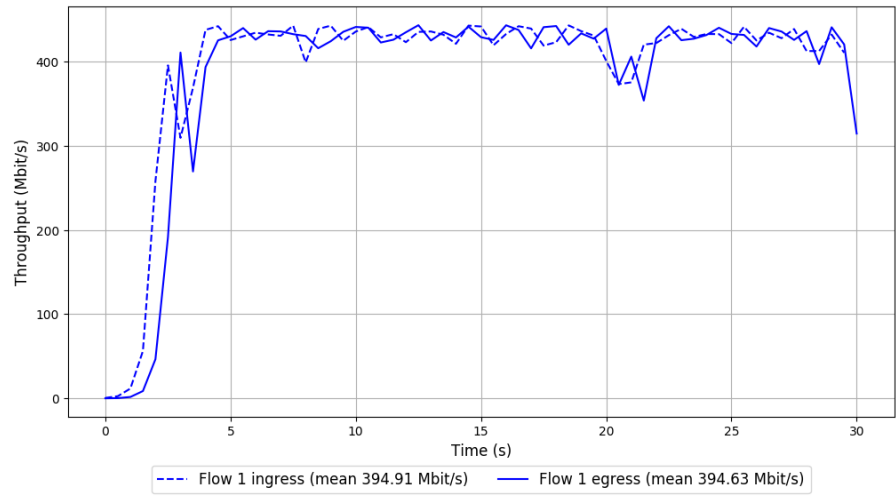Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-06-27 19:42:58
End at: 2019-06-27 19:43:28
Local clock offset: 0.003 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-06-27 22:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 394.63 Mbit/s
95th percentile per-packet one-way delay: 123.641 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 394.63 Mbit/s
95th percentile per-packet one-way delay: 123.641 ms
Loss rate: 0.79%
```

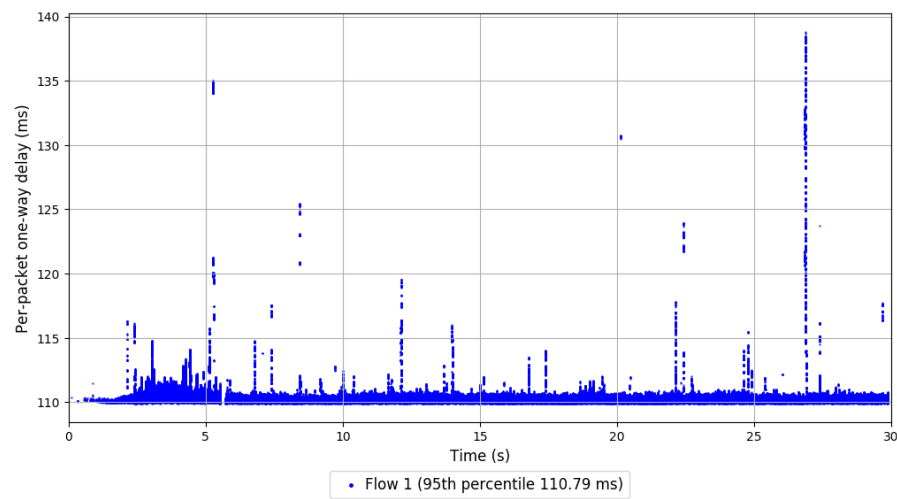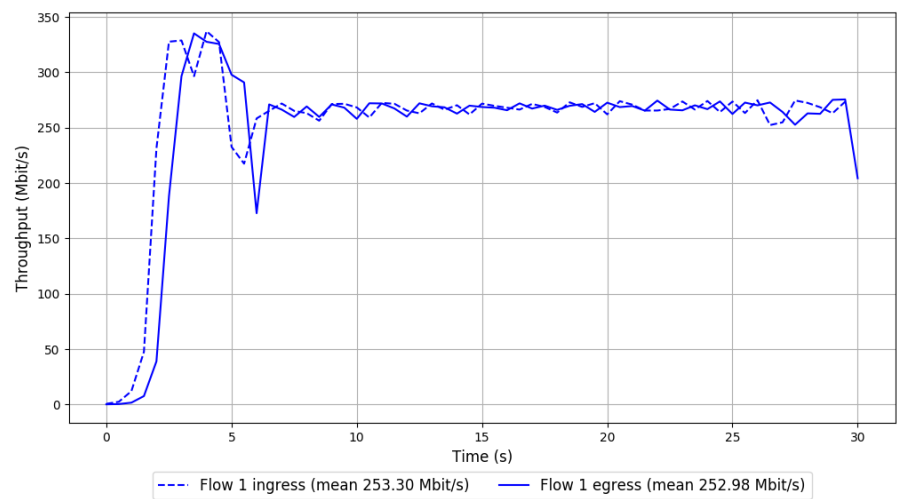Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-06-27 20:15:51
End at: 2019-06-27 20:16:21
Local clock offset: 0.02 ms
Remote clock offset: -0.041 ms


# Below is generated by plot.py at 2019-06-27 22:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 252.98 Mbit/s
95th percentile per-packet one-way delay: 110.790 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 252.98 Mbit/s
95th percentile per-packet one-way delay: 110.790 ms
Loss rate: 0.86%
```

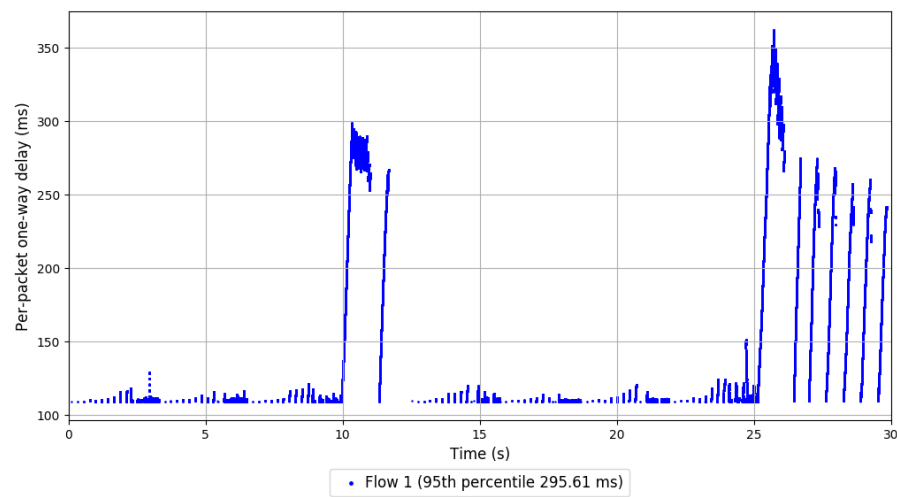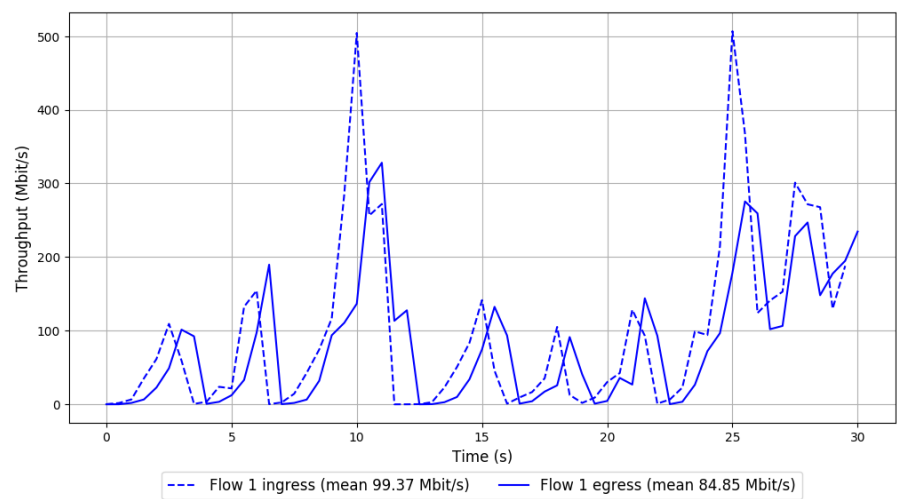Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-06-27 18:11:24
End at: 2019-06-27 18:11:54
Local clock offset: -0.156 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2019-06-27 22:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.85 Mbit/s
95th percentile per-packet one-way delay: 295.613 ms
Loss rate: 14.46%
-- Flow 1:
Average throughput: 84.85 Mbit/s
95th percentile per-packet one-way delay: 295.613 ms
Loss rate: 14.46%
```
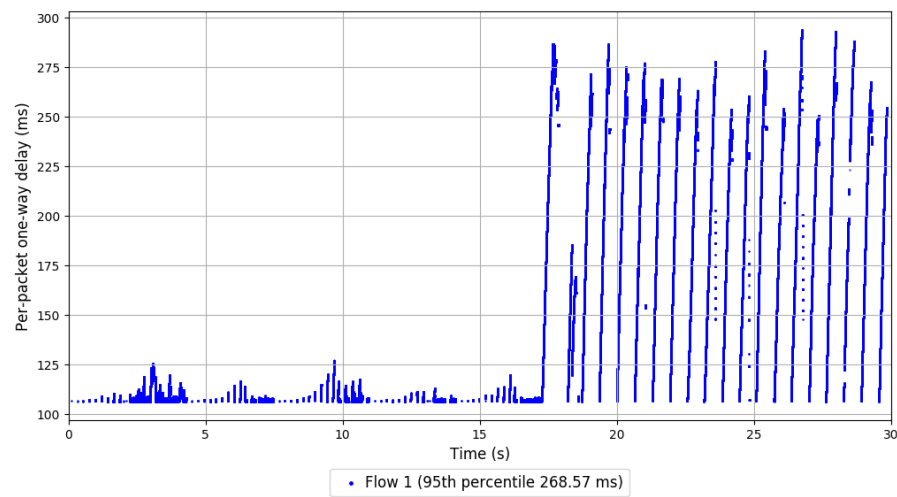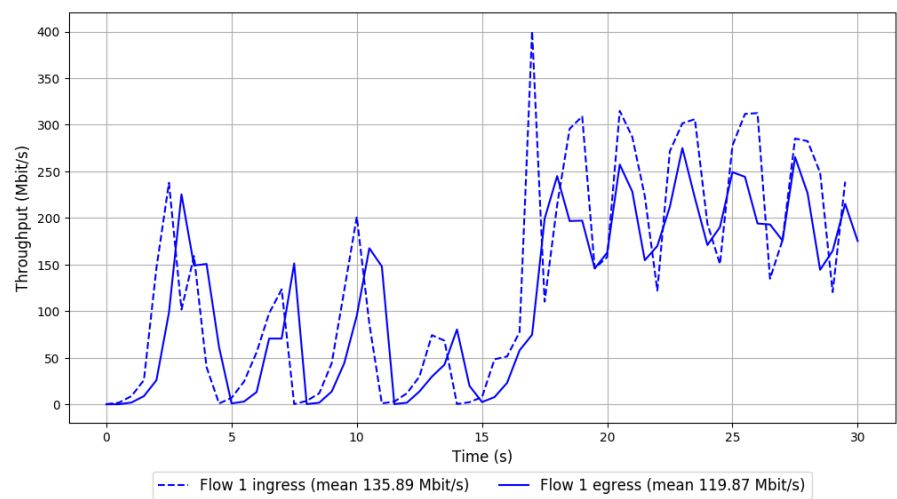
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-06-27 18:43:49
End at: 2019-06-27 18:44:19
Local clock offset: -0.151 ms
Remote clock offset: -0.133 ms


# Below is generated by plot.py at 2019-06-27 22:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 119.87 Mbit/s
95th percentile per-packet one-way delay: 268.569 ms
Loss rate: 11.66%
-- Flow 1:
Average throughput: 119.87 Mbit/s
95th percentile per-packet one-way delay: 268.569 ms
Loss rate: 11.66%
```

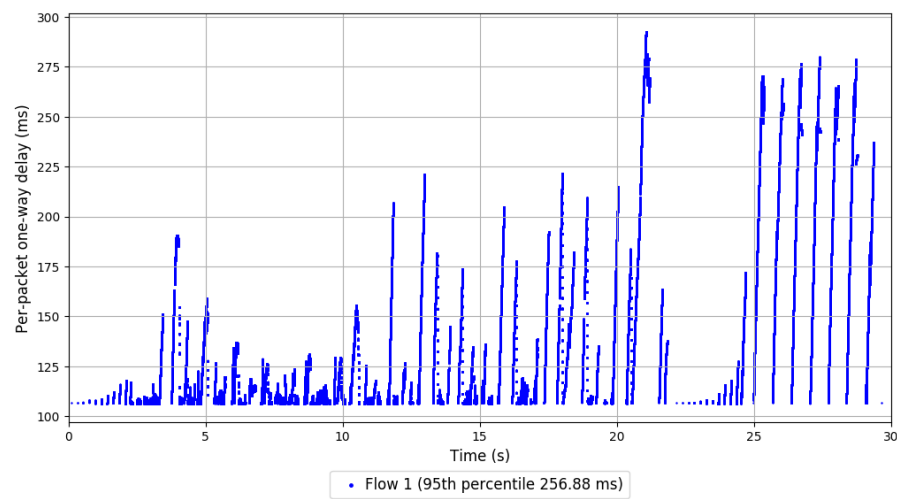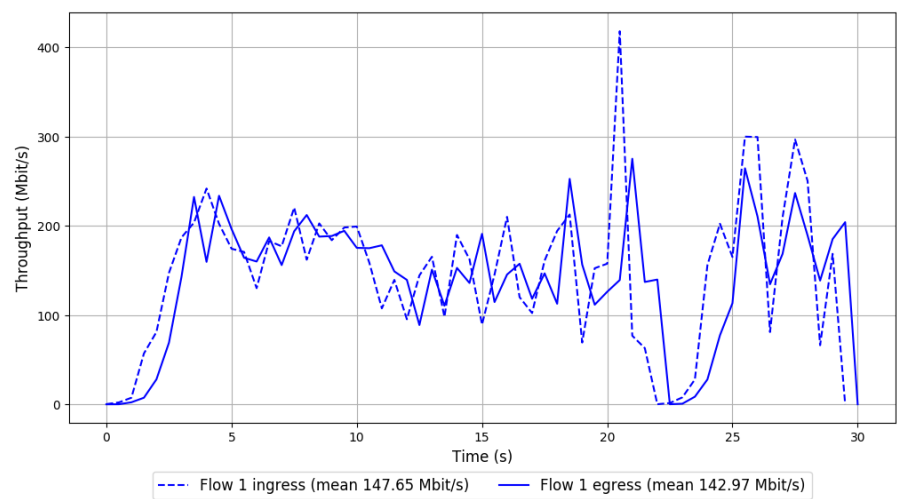## Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-06-27 19:16:23
End at: 2019-06-27 19:16:53
Local clock offset: -0.444 ms
Remote clock offset: -0.081 ms


# Below is generated by plot.py at 2019-06-27 22:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 142.97 Mbit/s
95th percentile per-packet one-way delay: 256.878 ms
Loss rate: 3.88%
-- Flow 1:
Average throughput: 142.97 Mbit/s
95th percentile per-packet one-way delay: 256.878 ms
Loss rate: 3.88%
```
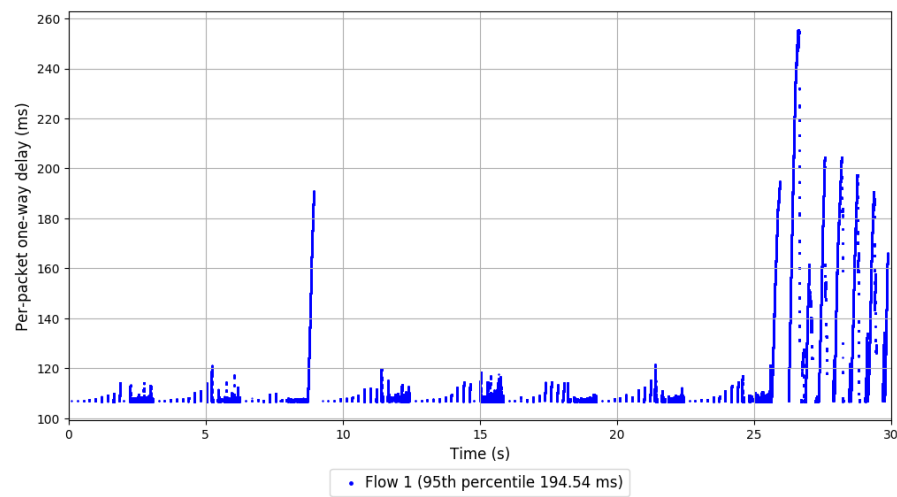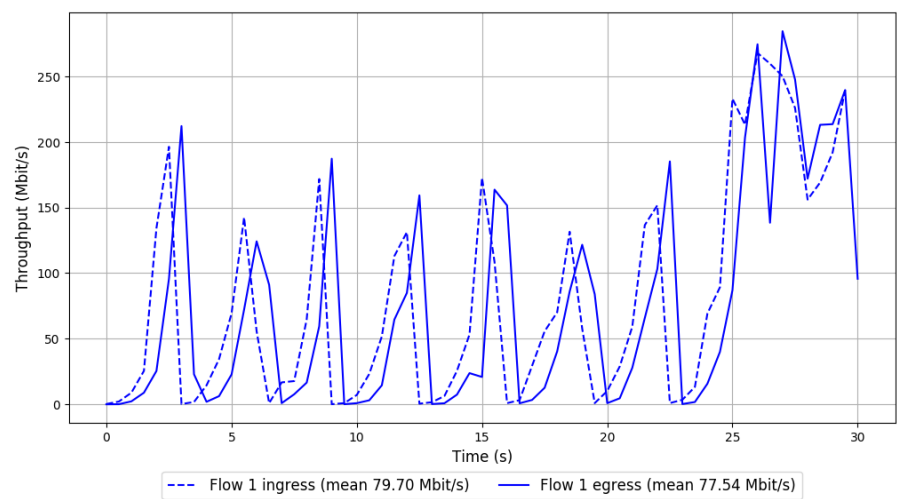
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-06-27 19:49:11
End at: 2019-06-27 19:49:41
Local clock offset: -0.078 ms
Remote clock offset: -0.036 ms


# Below is generated by plot.py at 2019-06-27 22:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.54 Mbit/s
95th percentile per-packet one-way delay: 194.543 ms
Loss rate: 3.27%
-- Flow 1:
Average throughput: 77.54 Mbit/s
95th percentile per-packet one-way delay: 194.543 ms
Loss rate: 3.27%
```
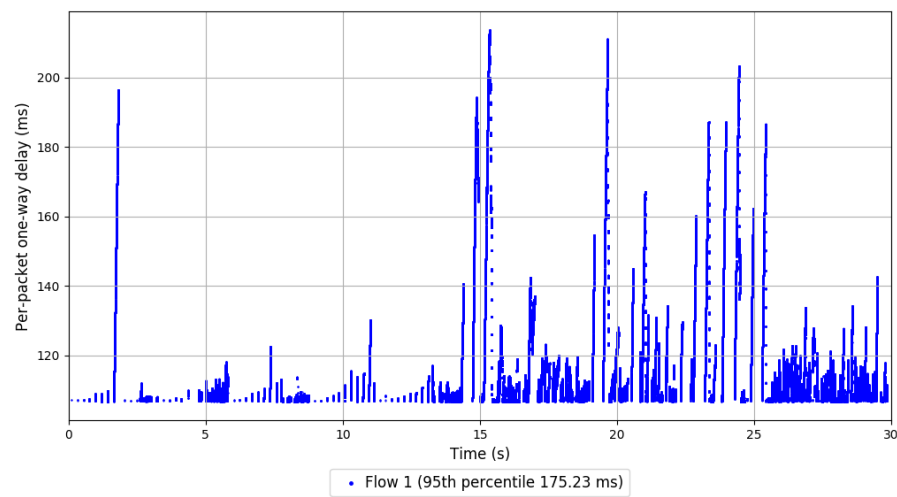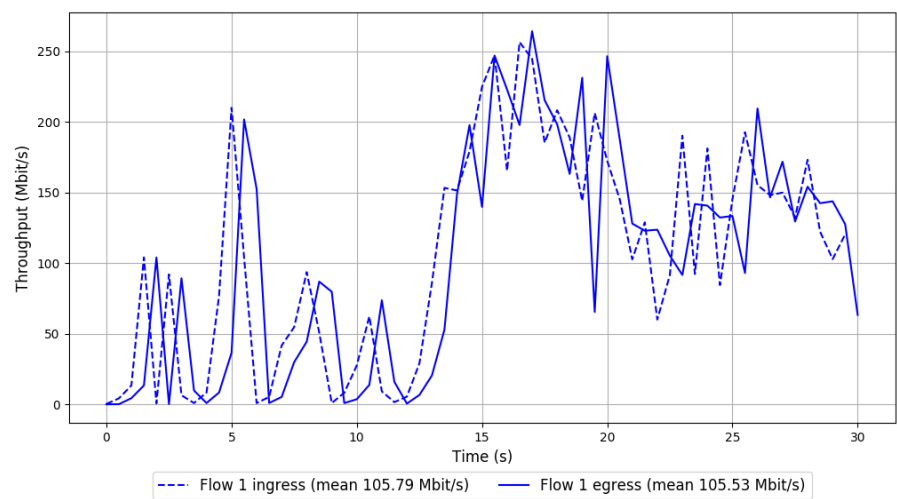
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-06-27 20:21:46
End at: 2019-06-27 20:22:16
Local clock offset: -0.051 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2019-06-27 22:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 105.53 Mbit/s
95th percentile per-packet one-way delay: 175.227 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 105.53 Mbit/s
95th percentile per-packet one-way delay: 175.227 ms
Loss rate: 0.96%
```

Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-06-27 18:06:37
End at: 2019-06-27 18:07:07
Local clock offset: -0.007 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2019-06-27 22:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 305.04 Mbit/s
95th percentile per-packet one-way delay: 113.198 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 305.04 Mbit/s
95th percentile per-packet one-way delay: 113.198 ms
Loss rate: 0.86%
```
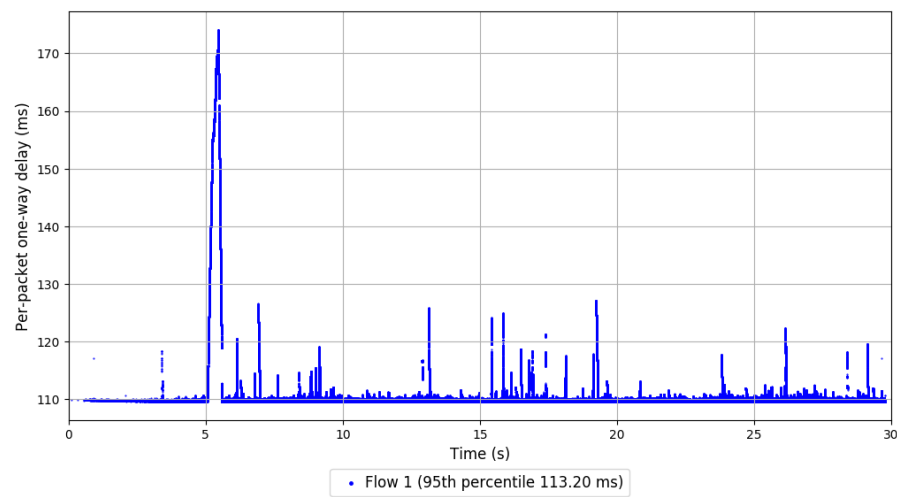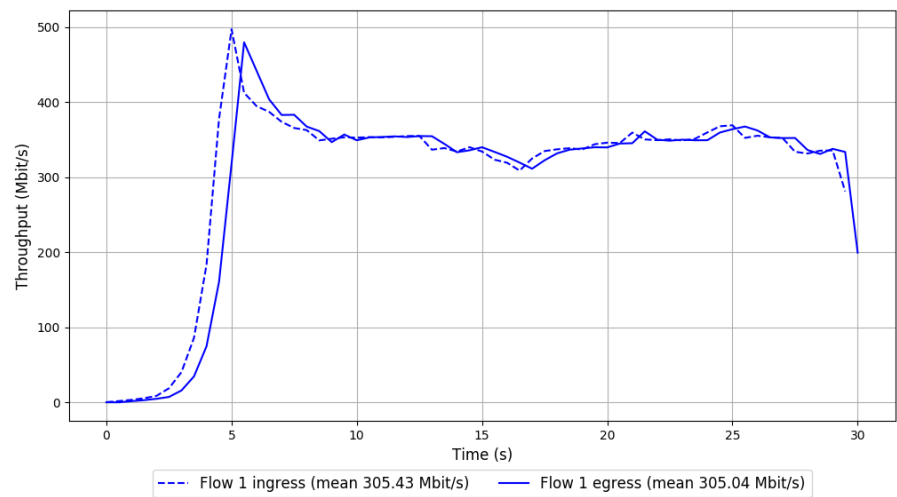
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 305.43 Mbit/s) --- Flow 1 egress (mean 305.04 Mbit/s)

Flow 1 (95th percentile 113.20 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-06-27 18:39:08
End at: 2019-06-27 18:39:38
Local clock offset: 0.614 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2019-06-27 22:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 172.32 Mbit/s
95th percentile per-packet one-way delay: 110.442 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 172.32 Mbit/s
95th percentile per-packet one-way delay: 110.442 ms
Loss rate: 0.84%
```
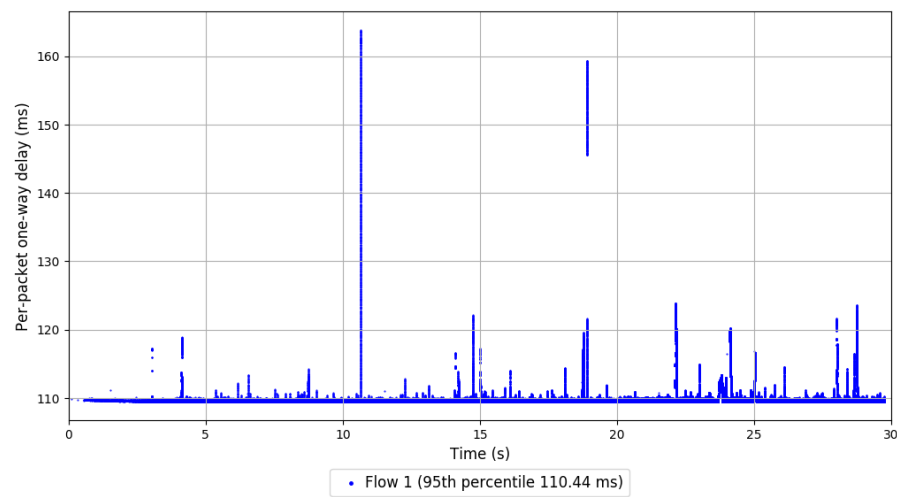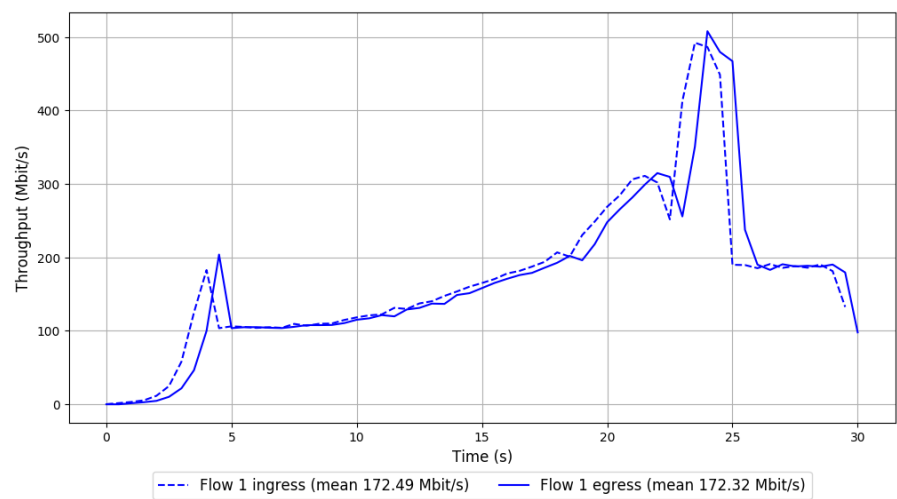
Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 172.49 Mbit/s) —— Flow 1 egress (mean 172.32 Mbit/s)

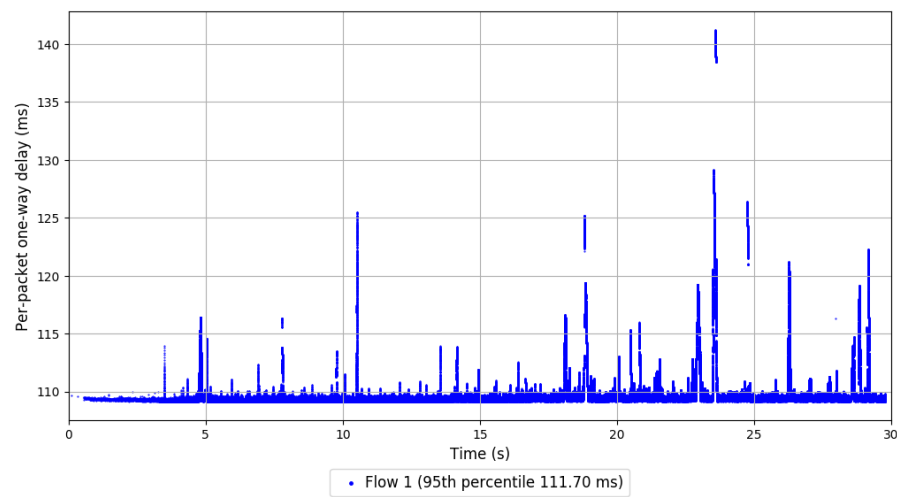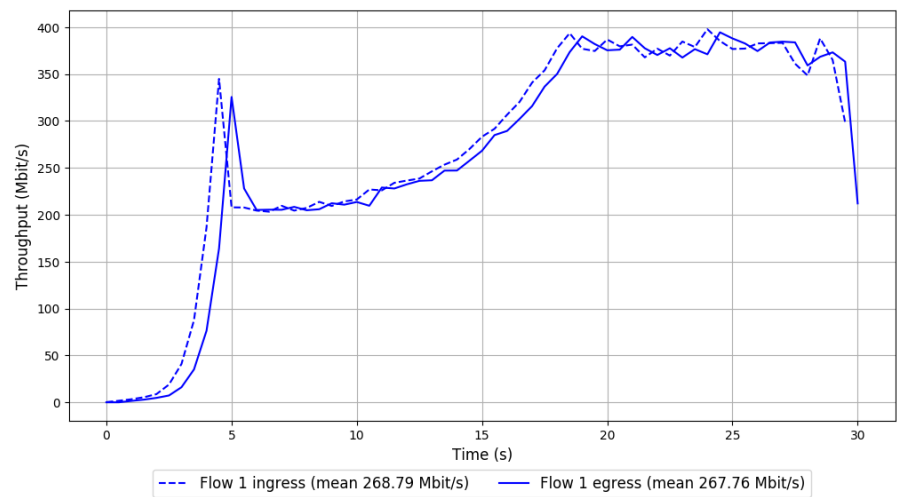
• Flow 1 (95th percentile 110.44 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-06-27 19:11:33
End at: 2019-06-27 19:12:03
Local clock offset: 0.084 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2019-06-27 22:13:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 267.76 Mbit/s
95th percentile per-packet one-way delay: 111.700 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 267.76 Mbit/s
95th percentile per-packet one-way delay: 111.700 ms
Loss rate: 1.12%
```

Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 268.79 Mbit/s) — Flow 1 egress (mean 267.76 Mbit/s)

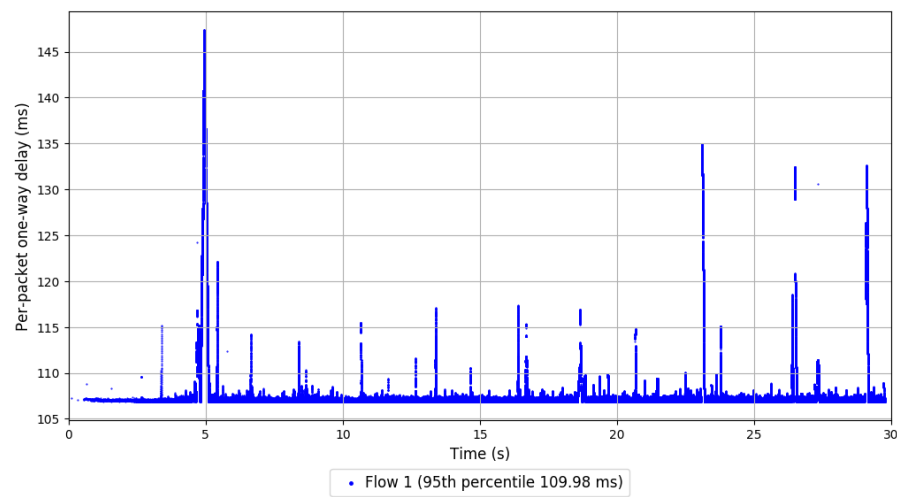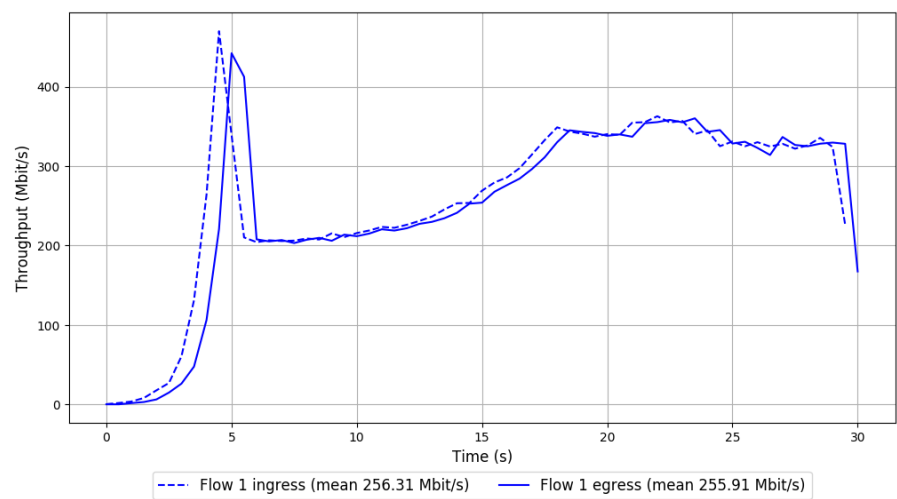
• Flow 1 (95th percentile 111.70 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-06-27 19:44:30
End at: 2019-06-27 19:45:00
Local clock offset: -0.032 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2019-06-27 22:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.91 Mbit/s
95th percentile per-packet one-way delay: 109.982 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 255.91 Mbit/s
95th percentile per-packet one-way delay: 109.982 ms
Loss rate: 0.87%
```

Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 256.31 Mbit/s)   Flow 1 egress (mean 255.91 Mbit/s)

Flow 1 (95th percentile 109.98 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-06-27 20:17:16
End at: 2019-06-27 20:17:46
Local clock offset: -0.037 ms
Remote clock offset: -0.39 ms


# Below is generated by plot.py at 2019-06-27 22:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.78 Mbit/s
95th percentile per-packet one-way delay: 110.985 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 77.78 Mbit/s
95th percentile per-packet one-way delay: 110.985 ms
Loss rate: 3.46%
```
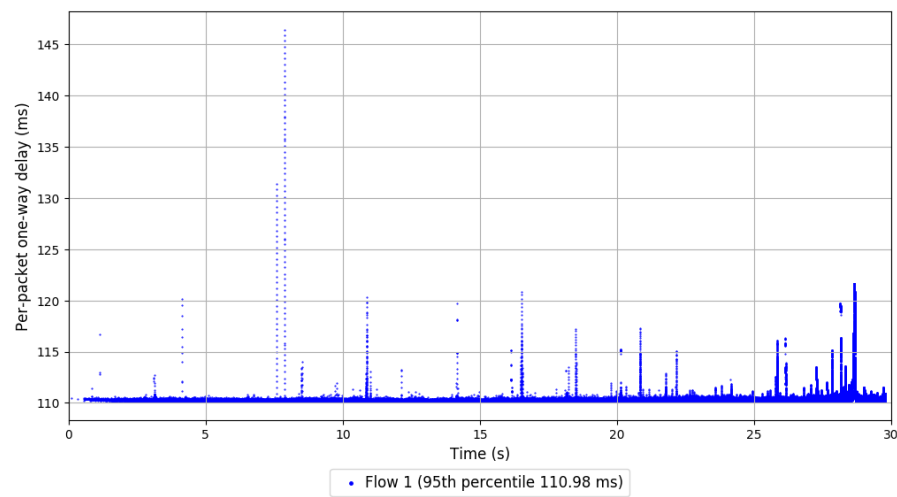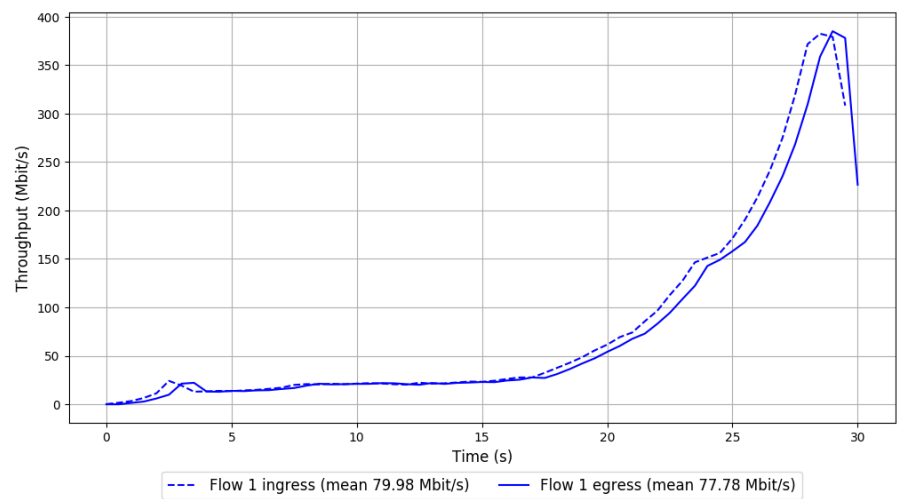
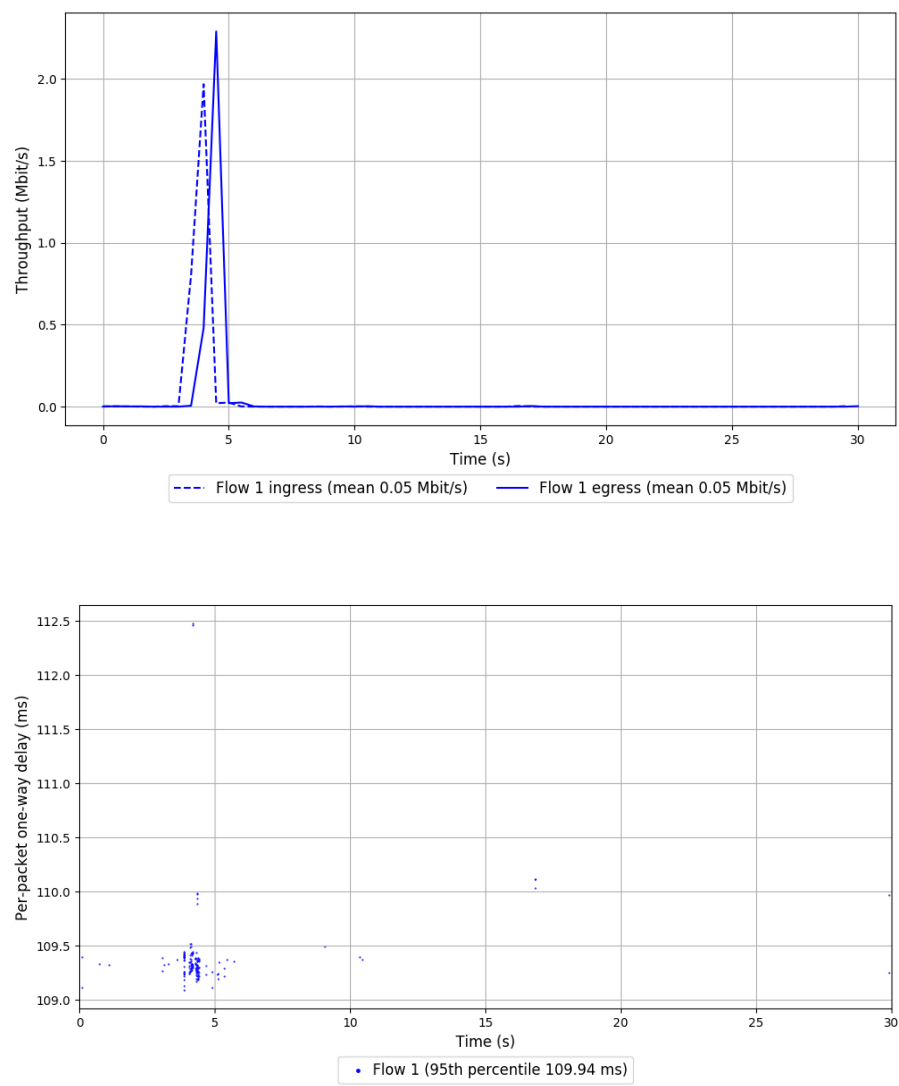# Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-06-27 17:44:52
End at: 2019-06-27 17:45:22
Local clock offset: -0.137 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2019-06-27 22:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.935 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.935 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-06-27 18:17:04
End at: 2019-06-27 18:17:34
Local clock offset: -0.249 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2019-06-27 22:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.082 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.082 ms
Loss rate: 0.00%
```
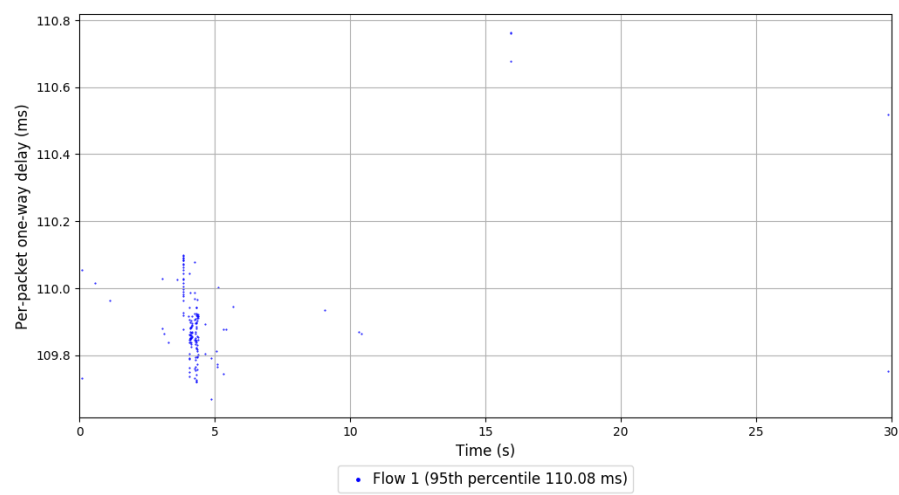
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-06-27 18:49:32
End at: 2019-06-27 18:50:02
Local clock offset: -0.03 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2019-06-27 22:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 107.128 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 107.128 ms
Loss rate: 0.00%
```
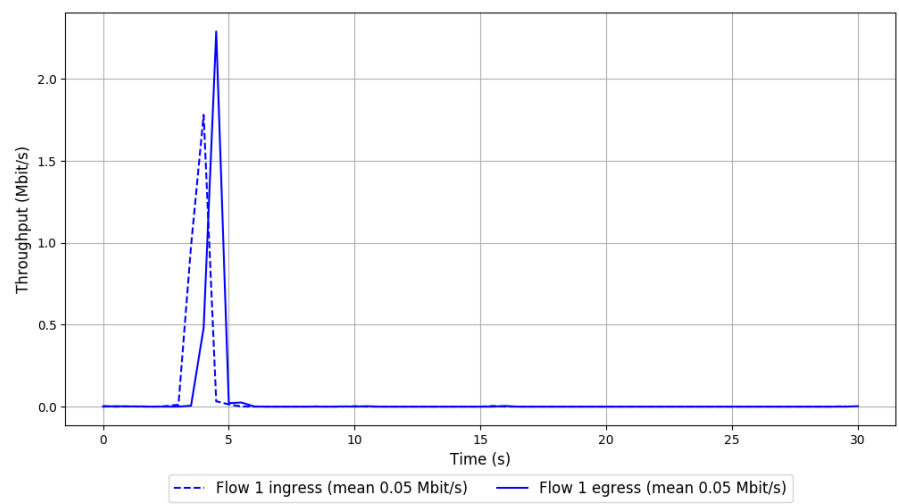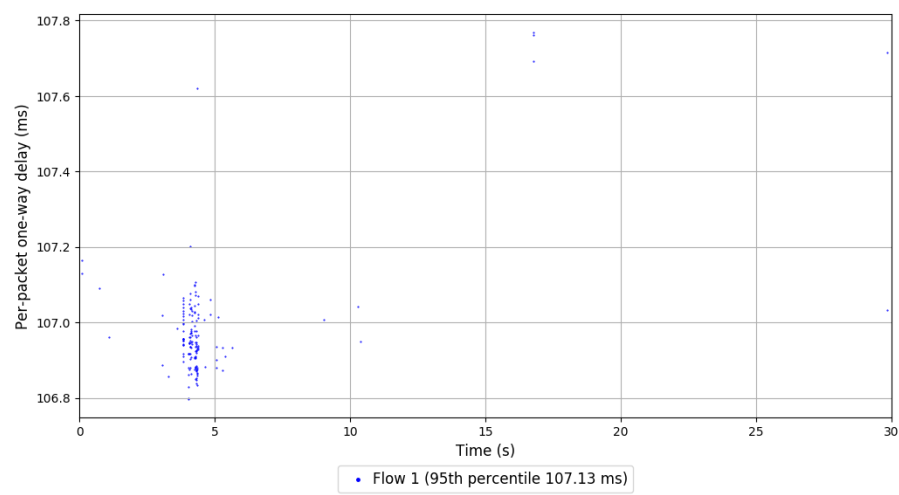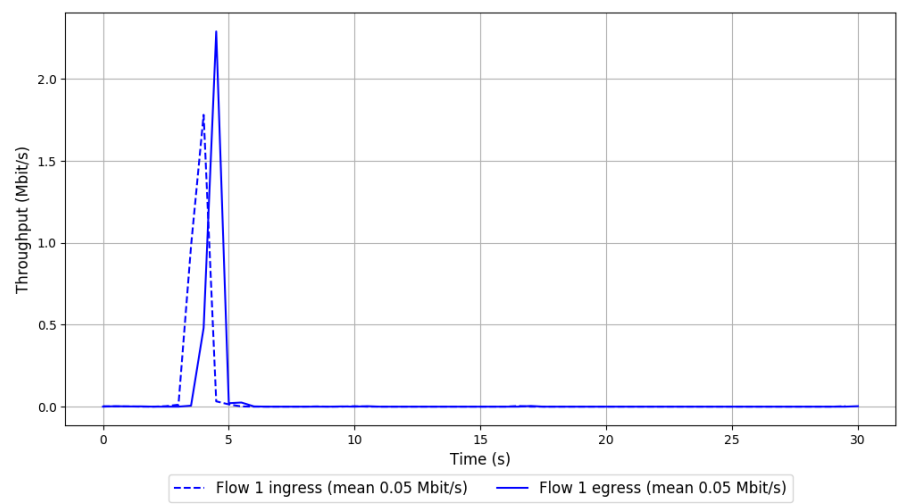
Run 3: Report of WebRTC media — Data Link

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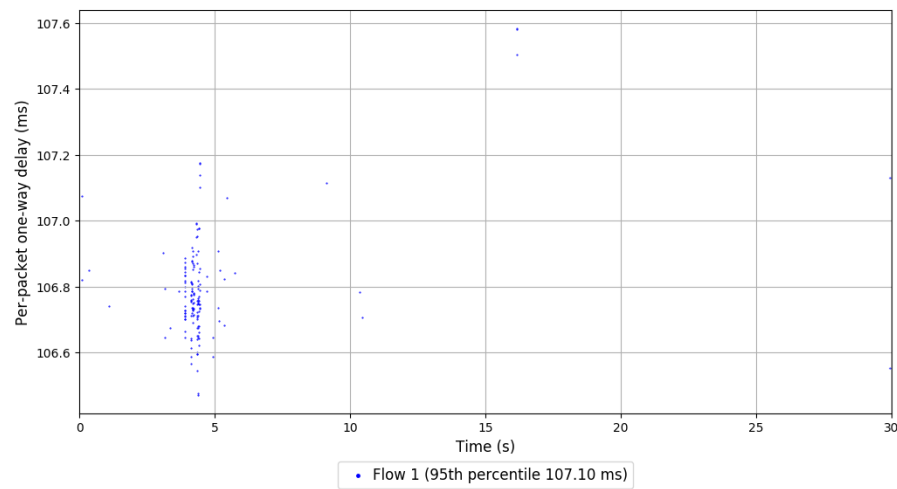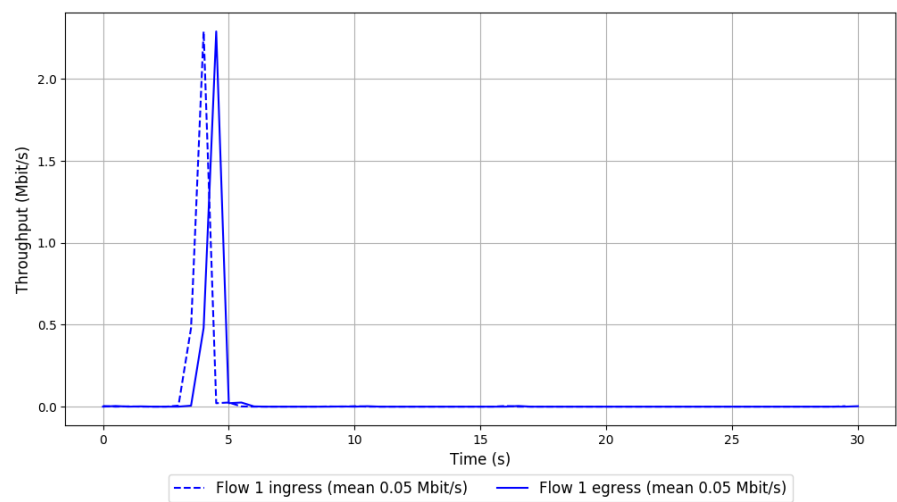

Flow 1 (95th percentile 107.13 ms)

```
Run 4: Statistics of WebRTC media

Start at: 2019-06-27 19:21:51
End at: 2019-06-27 19:22:21
Local clock offset: -0.396 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2019-06-27 22:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 107.102 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 107.102 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-06-27 19:54:50
End at: 2019-06-27 19:55:20
Local clock offset: -0.061 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-06-27 22:13:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 107.113 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 107.113 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link