Pantheon Report

Generated at 2019-09-18 03:19:03 (UTC).

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

Repeated the test of 24 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.
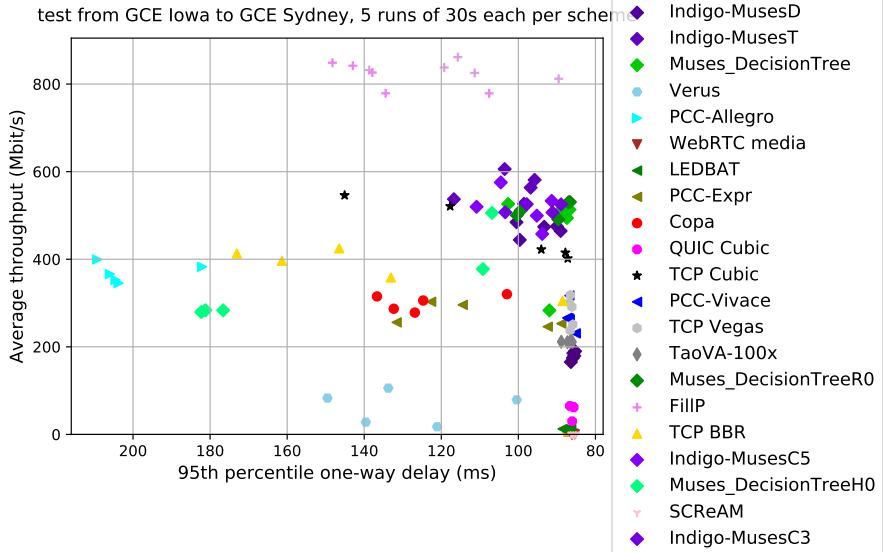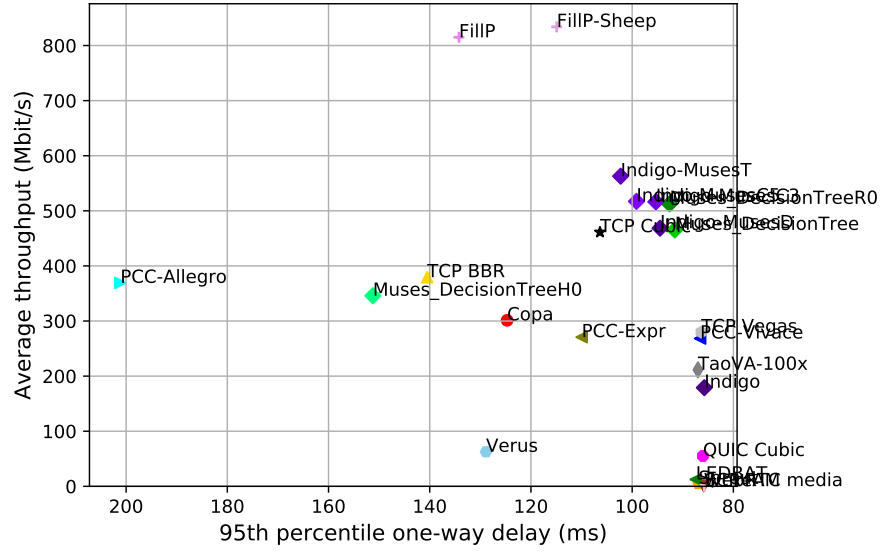
```
System info:
Linux 4.15.0-1040-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
```

```
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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

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

3

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	379.55	140.50	0.73
Copa	5	301.26	124.71	0.63
TCP Cubic	5	461.20	106.36	0.66
FillP	5	814.94	134.22	1.53
FillP-Sheep	5	833.77	114.90	0.84
Indigo	5	179.01	85.74	0.62
Indigo-MusesC3	4	516.30	95.32	0.66
Indigo-MusesC5	5	517.16	99.15	0.68
Indigo-MusesD	5	468.51	94.49	0.61
Indigo-MusesT	5	562.84	102.28	0.67
LEDBAT	5	12.45	87.43	1.13
Muses_DecisionTree	5	465.40	91.57	0.73
Muses_DecisionTreeH0	5	345.90	151.23	3.55
Muses_DecisionTreeR0	5	512.64	92.60	0.66
PCC-Allegro	5	369.28	201.14	2.50
PCC-Expr	5	270.71	109.98	0.90
QUIC Cubic	4	55.02	86.02	0.76
SCReAM	5	0.22	85.74	0.54
Sprout	5	4.51	86.90	0.56
TaoVA-100x	5	211.46	87.01	0.60
TCP Vegas	5	279.71	86.36	0.55
Verus	5	62.68	128.88	0.42
PCC-Vivace	5	268.31	86.58	0.73
WebRTC media	5	0.41	85.85	0.17

```
Run 1: Statistics of TCP BBR

Start at: 2019-09-17 22:46:49
End at: 2019-09-17 22:47:19
Local clock offset: 12.109 ms
Remote clock offset: -0.262 ms


# Below is generated by plot.py at 2019-09-18 01:41:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 304.70 Mbit/s
95th percentile per-packet one-way delay: 88.527 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 304.70 Mbit/s
95th percentile per-packet one-way delay: 88.527 ms
Loss rate: 0.00%
```
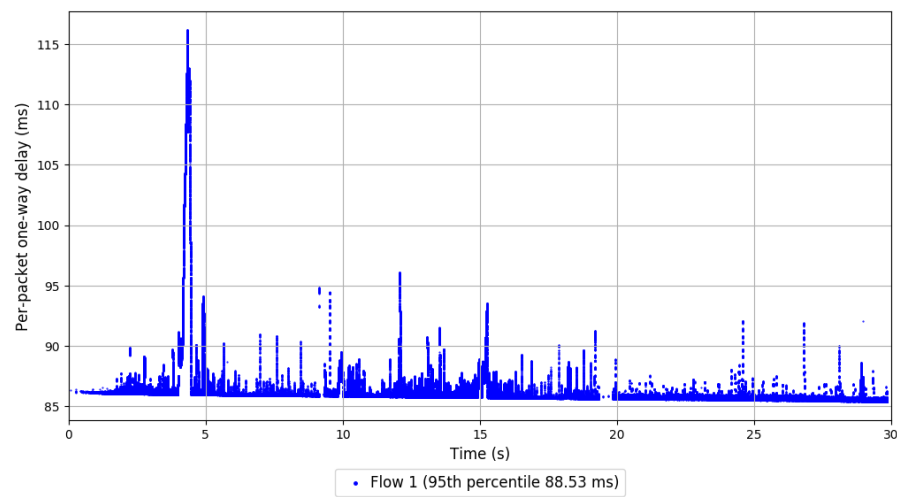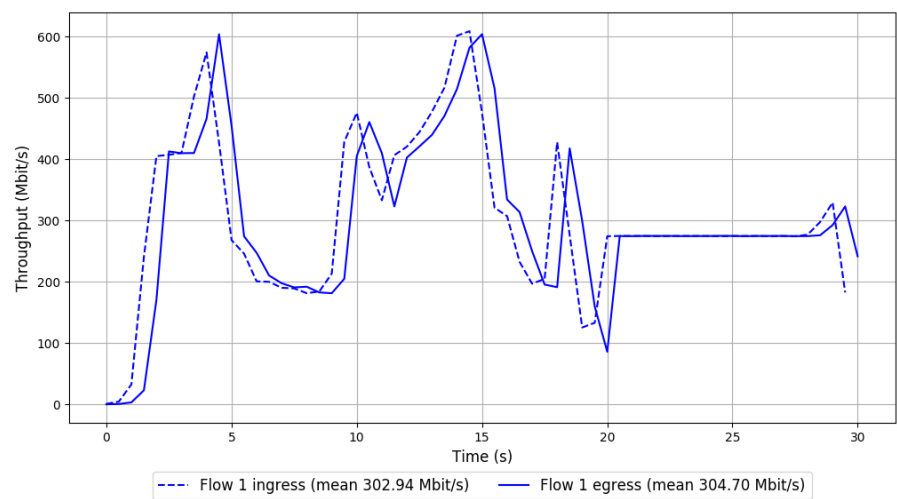
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-09-17 23:21:25
End at: 2019-09-17 23:21:55
Local clock offset: 16.591 ms
Remote clock offset: 0.337 ms


# Below is generated by plot.py at 2019-09-18 01:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 424.89 Mbit/s
95th percentile per-packet one-way delay: 146.494 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 424.89 Mbit/s
95th percentile per-packet one-way delay: 146.494 ms
Loss rate: 0.60%
```
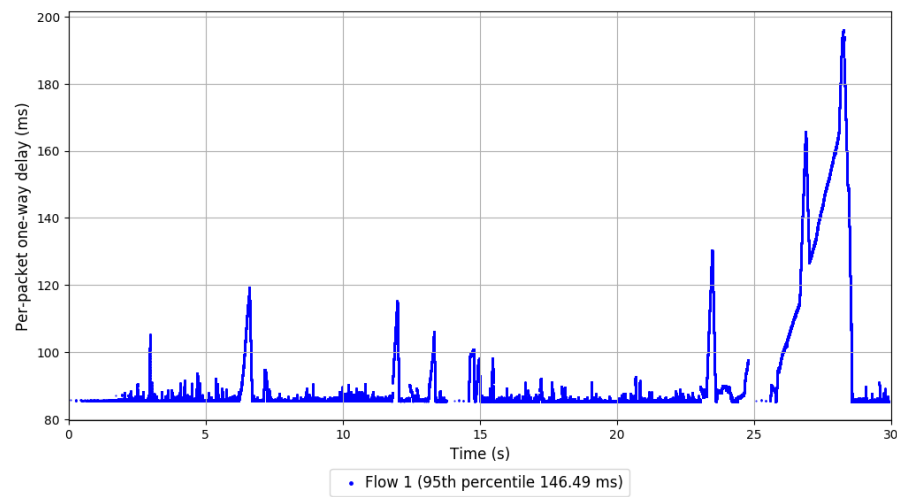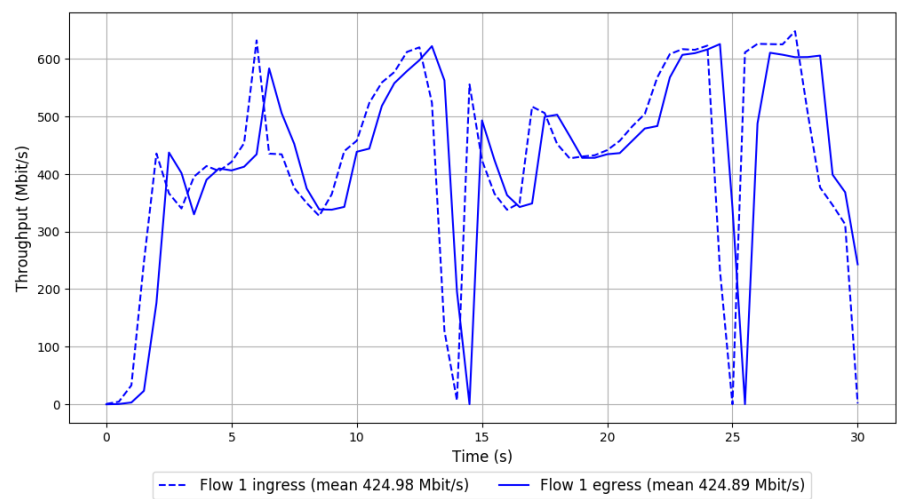
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 424.98 Mbit/s)   Flow 1 egress (mean 424.89 Mbit/s)

Flow 1 (95th percentile 146.49 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2019-09-17 23:56:22
End at: 2019-09-17 23:56:52
Local clock offset: 11.293 ms
Remote clock offset: 0.211 ms


# Below is generated by plot.py at 2019-09-18 01:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 396.60 Mbit/s
95th percentile per-packet one-way delay: 161.356 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 396.60 Mbit/s
95th percentile per-packet one-way delay: 161.356 ms
Loss rate: 0.49%
```
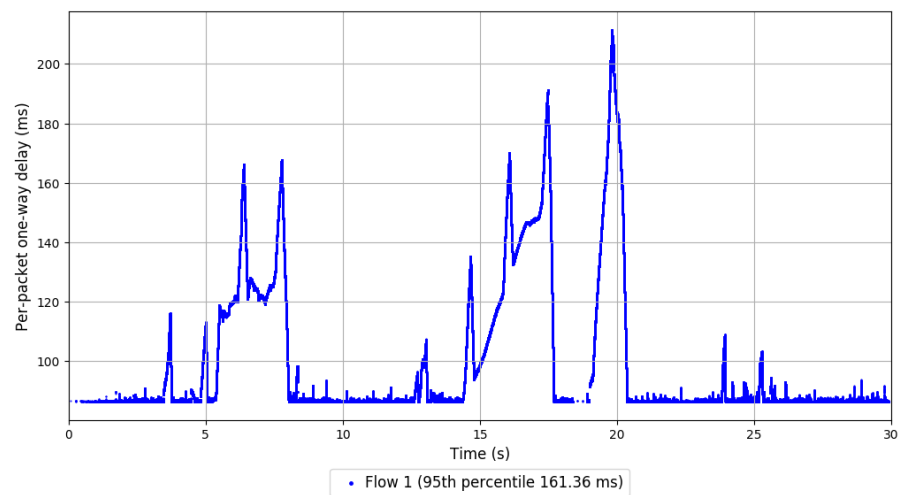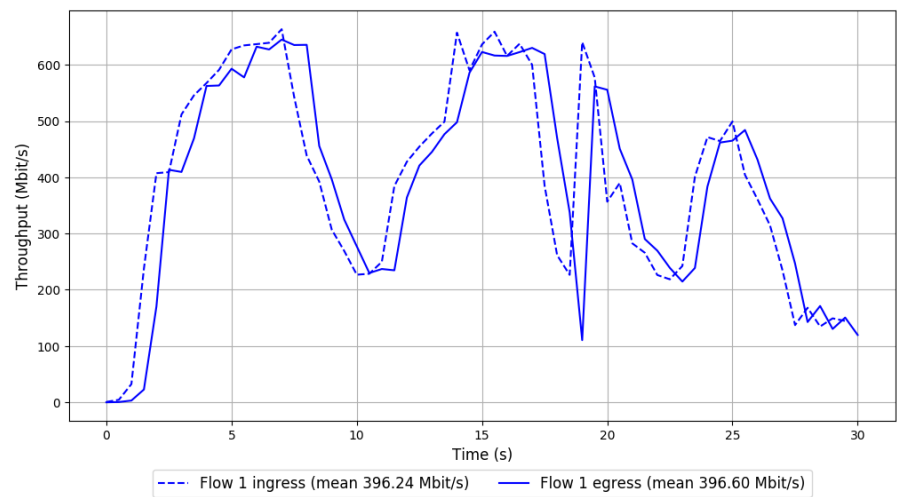
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 396.24 Mbit/s)   Flow 1 egress (mean 396.60 Mbit/s)

Flow 1 (95th percentile 161.36 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-09-18 00:31:31
End at: 2019-09-18 00:32:02
Local clock offset: 5.429 ms
Remote clock offset: 0.033 ms


# Below is generated by plot.py at 2019-09-18 01:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 358.41 Mbit/s
95th percentile per-packet one-way delay: 133.071 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 358.41 Mbit/s
95th percentile per-packet one-way delay: 133.071 ms
Loss rate: 1.06%
```
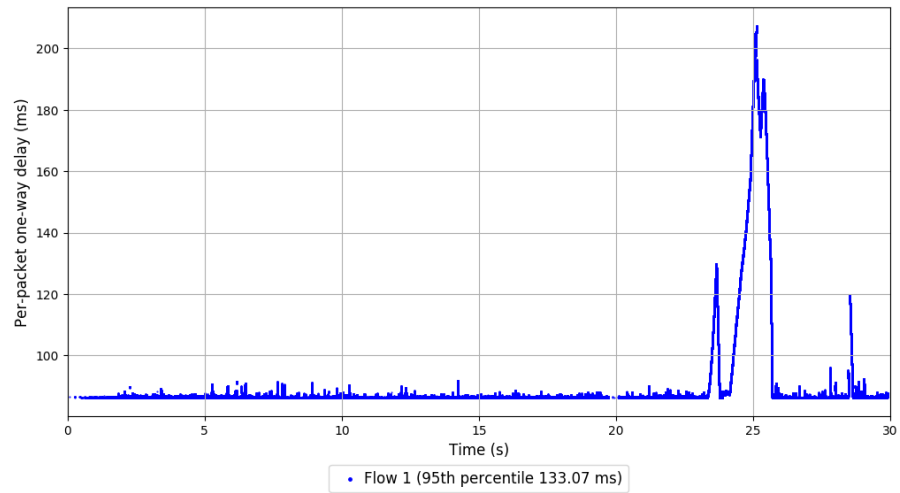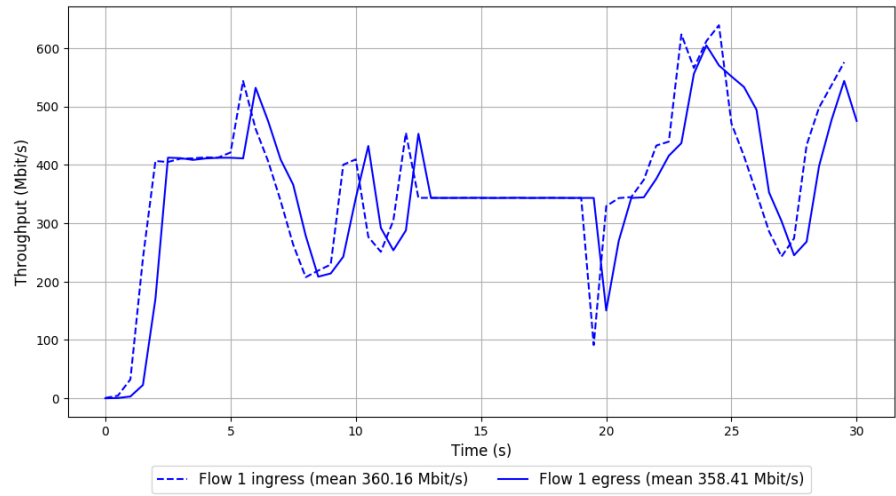
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2019-09-18 01:06:21
End at: 2019-09-18 01:06:51
Local clock offset: 2.842 ms
Remote clock offset: 0.012 ms


# Below is generated by plot.py at 2019-09-18 01:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 413.13 Mbit/s
95th percentile per-packet one-way delay: 173.061 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 413.13 Mbit/s
95th percentile per-packet one-way delay: 173.061 ms
Loss rate: 1.49%
```
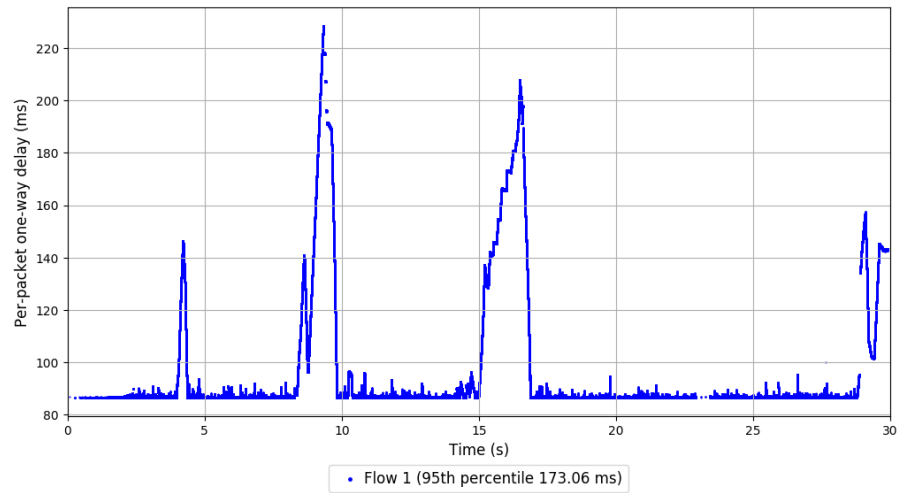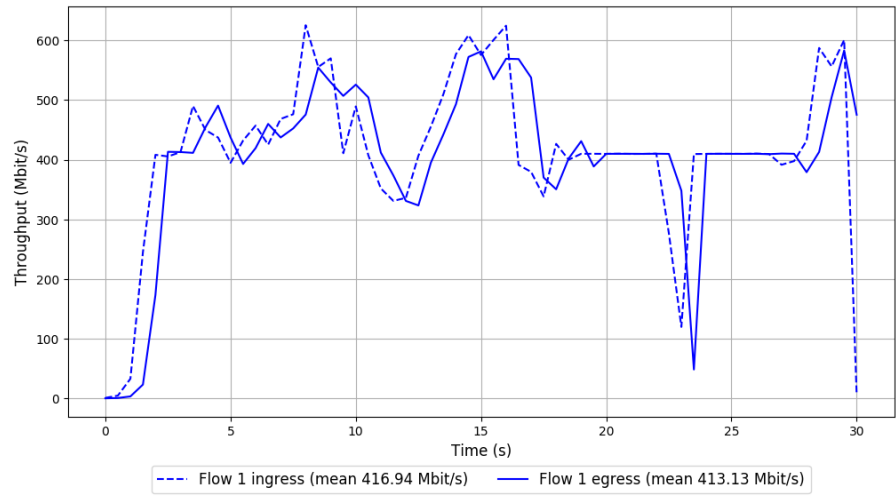
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 416.94 Mbit/s) ----   Flow 1 egress (mean 413.13 Mbit/s) ——

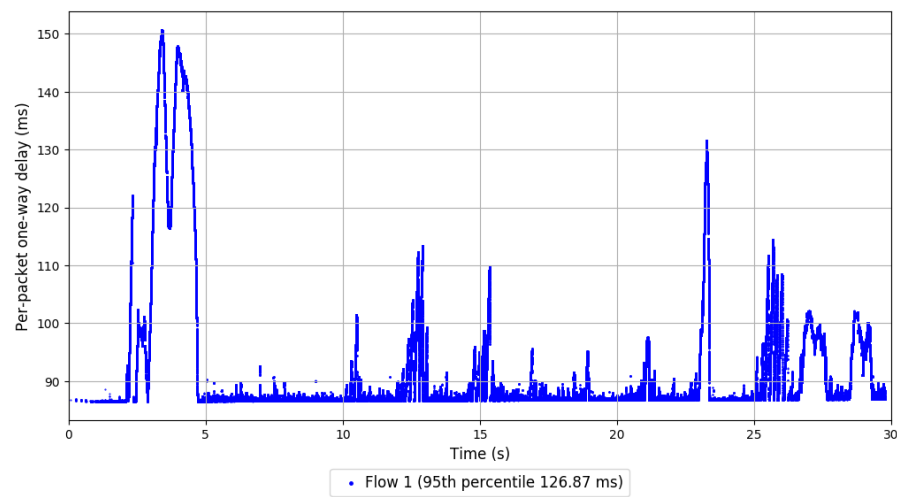
· Flow 1 (95th percentile 173.06 ms)

```
Run 1: Statistics of Copa

Start at: 2019-09-17 22:49:57
End at: 2019-09-17 22:50:27
Local clock offset: 10.543 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2019-09-18 01:45:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 278.20 Mbit/s
95th percentile per-packet one-way delay: 126.866 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 278.20 Mbit/s
95th percentile per-packet one-way delay: 126.866 ms
Loss rate: 0.73%
```
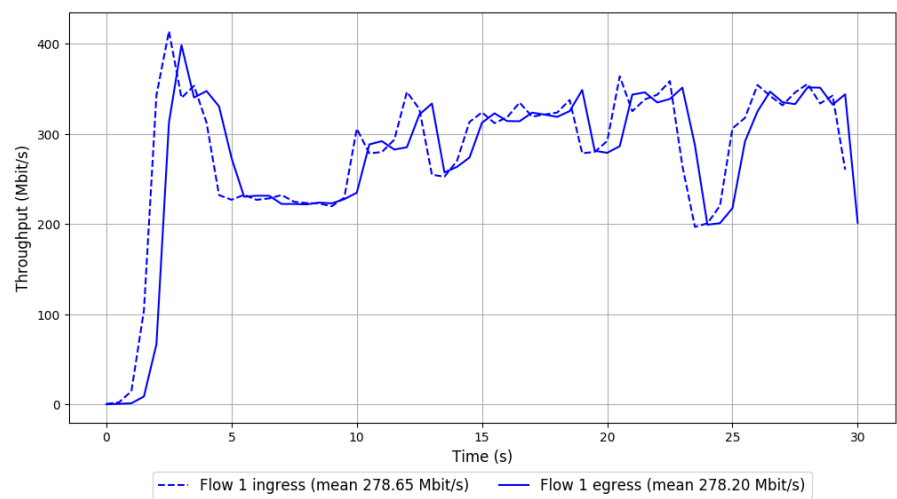
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-09-17 23:24:39
End at: 2019-09-17 23:25:09
Local clock offset: 18.444 ms
Remote clock offset: 0.262 ms


# Below is generated by plot.py at 2019-09-18 01:46:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 320.22 Mbit/s
95th percentile per-packet one-way delay: 102.961 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 320.22 Mbit/s
95th percentile per-packet one-way delay: 102.961 ms
Loss rate: 0.63%
```
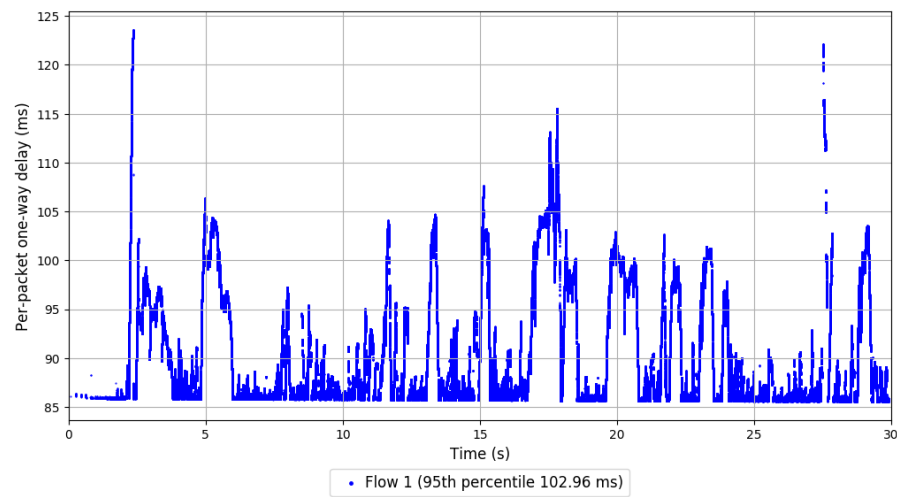
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-09-17 23:59:37
End at: 2019-09-18 00:00:07
Local clock offset: 11.537 ms
Remote clock offset: 0.144 ms

# Below is generated by plot.py at 2019-09-18 01:46:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 305.76 Mbit/s
95th percentile per-packet one-way delay: 124.691 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 305.76 Mbit/s
95th percentile per-packet one-way delay: 124.691 ms
Loss rate: 0.54%
```

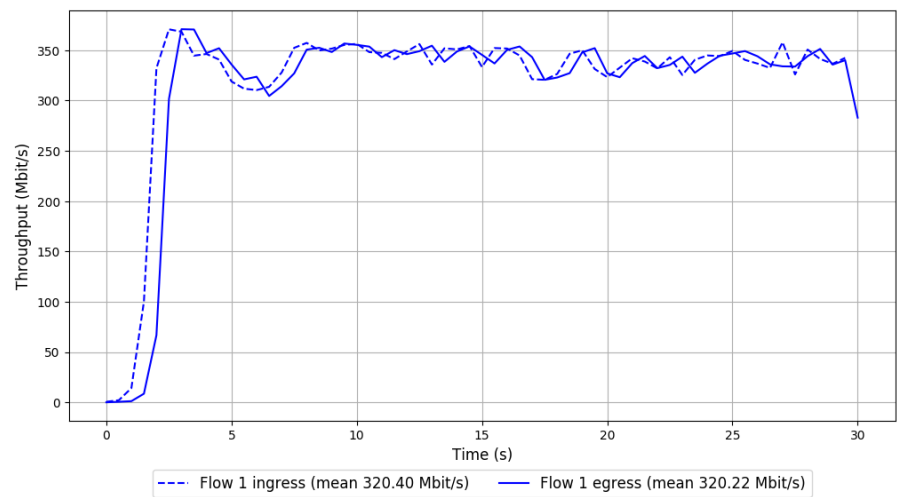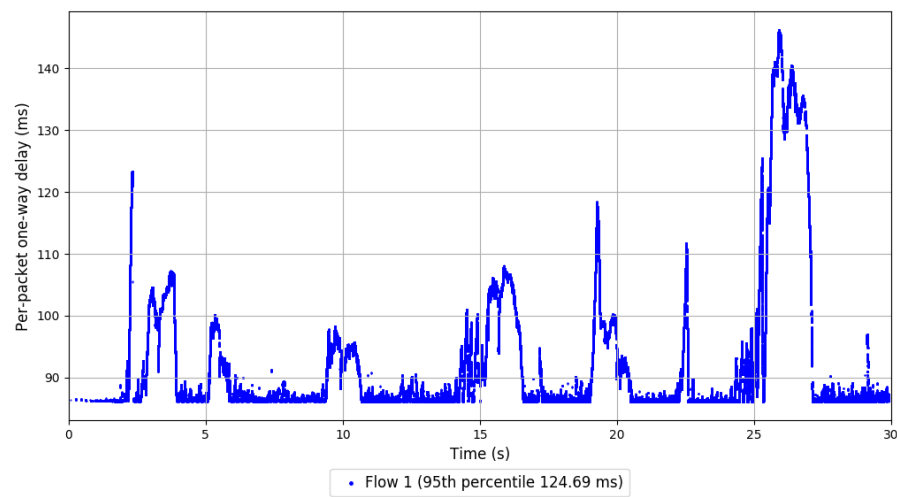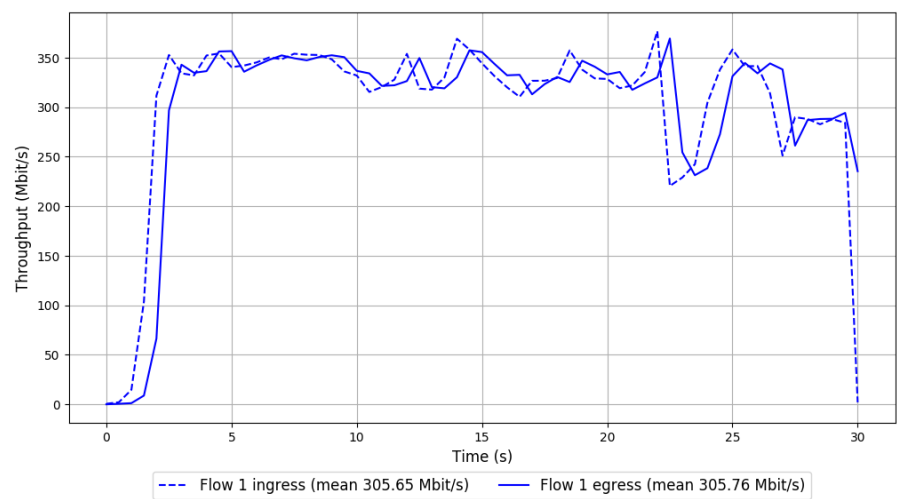Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-09-18 00:34:45
End at: 2019-09-18 00:35:15
Local clock offset: 5.547 ms
Remote clock offset: 0.017 ms


# Below is generated by plot.py at 2019-09-18 01:51:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 315.16 Mbit/s
95th percentile per-packet one-way delay: 136.685 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 315.16 Mbit/s
95th percentile per-packet one-way delay: 136.685 ms
Loss rate: 0.58%
```
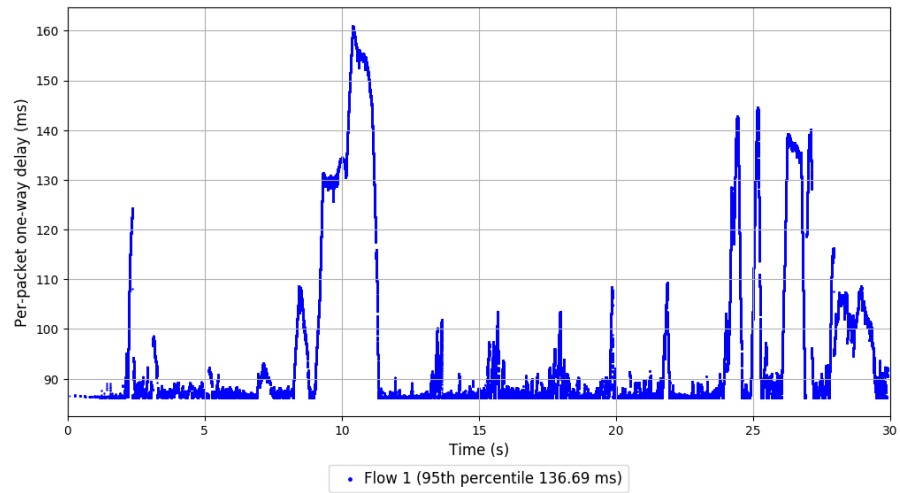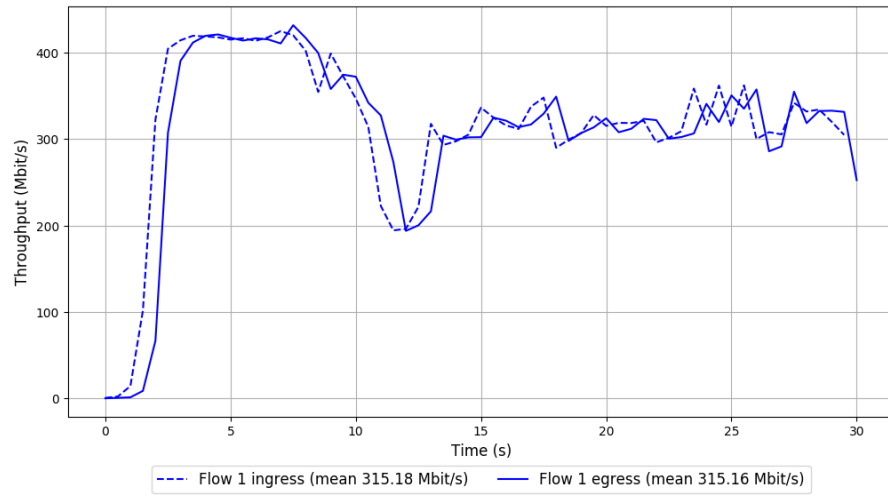
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-09-18 01:09:37
End at: 2019-09-18 01:10:07
Local clock offset: 2.185 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-09-18 01:51:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 286.97 Mbit/s
95th percentile per-packet one-way delay: 132.329 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 286.97 Mbit/s
95th percentile per-packet one-way delay: 132.329 ms
Loss rate: 0.68%
```
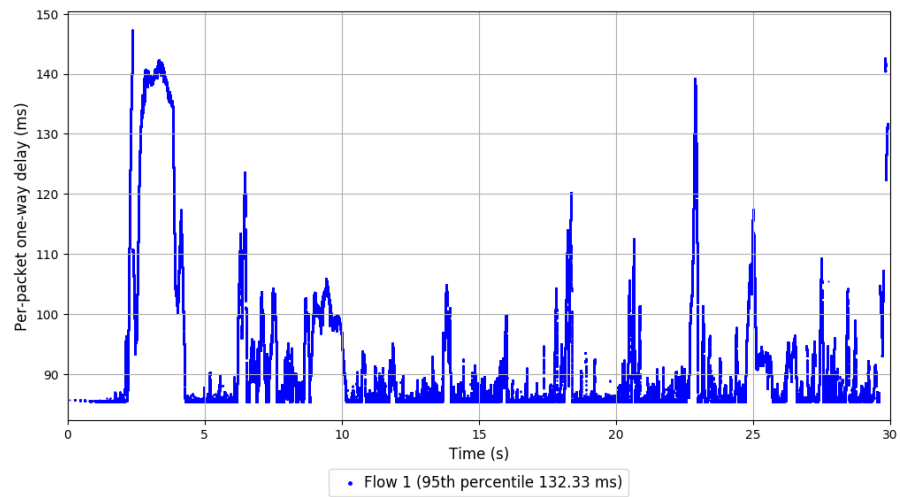
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 287.28 Mbit/s) — Flow 1 egress (mean 286.97 Mbit/s)

• Flow 1 (95th percentile 132.33 ms)

24

```
Run 1: Statistics of TCP Cubic

Start at: 2019-09-17 22:31:41
End at: 2019-09-17 22:32:11
Local clock offset: 4.149 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2019-09-18 01:51:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 422.32 Mbit/s
95th percentile per-packet one-way delay: 94.038 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 422.32 Mbit/s
95th percentile per-packet one-way delay: 94.038 ms
Loss rate: 0.58%
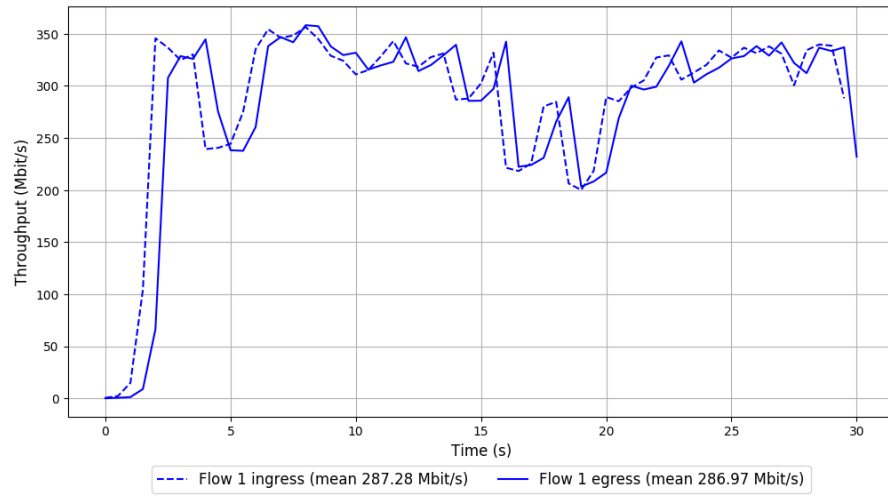```

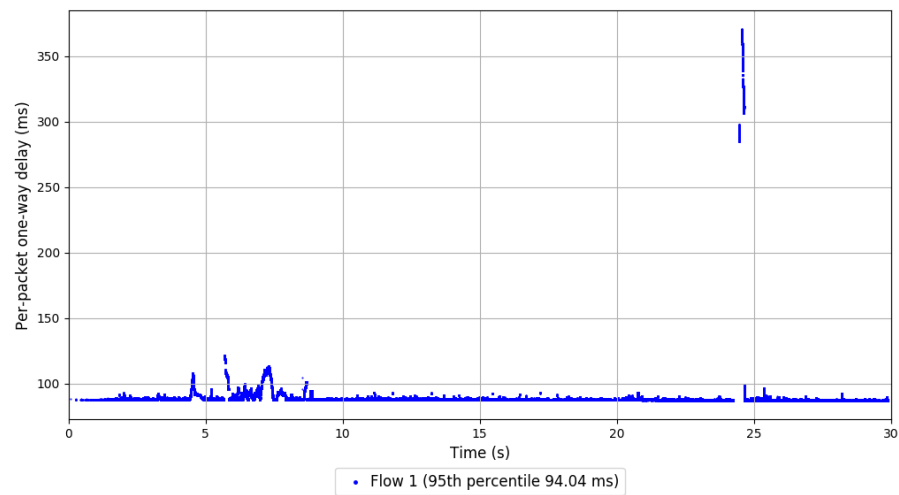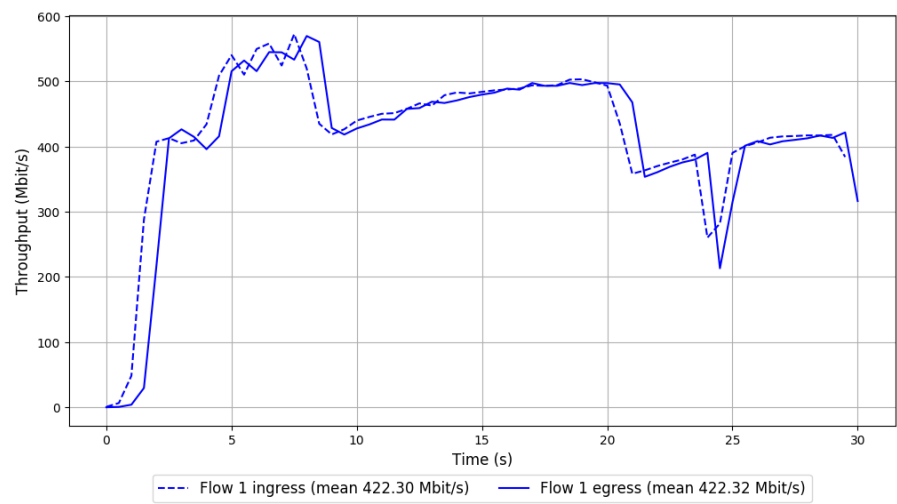Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-09-17 23:05:45
End at: 2019-09-17 23:06:15
Local clock offset: 18.006 ms
Remote clock offset: 0.128 ms

Below is generated by plot.py at 2019-09-18 01:51:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 401.72 Mbit/s
95th percentile per-packet one-way delay: 87.182 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 401.72 Mbit/s
95th percentile per-packet one-way delay: 87.182 ms
Loss rate: 0.64%
```
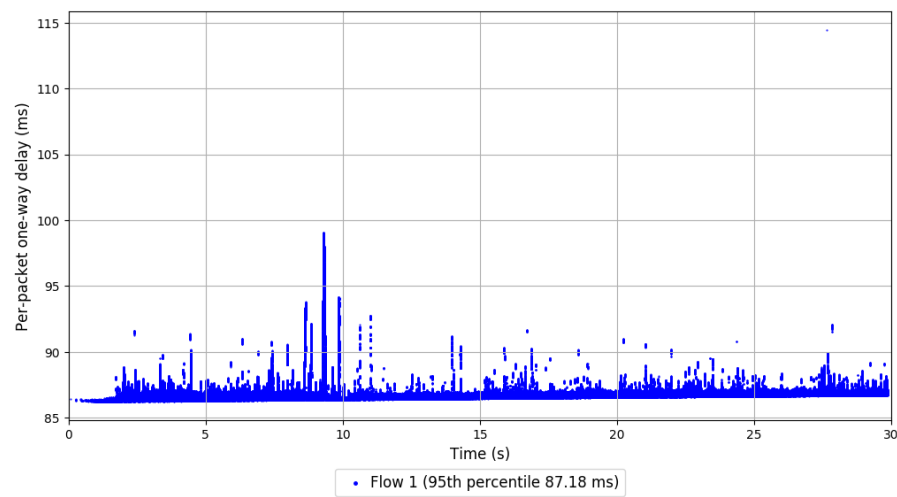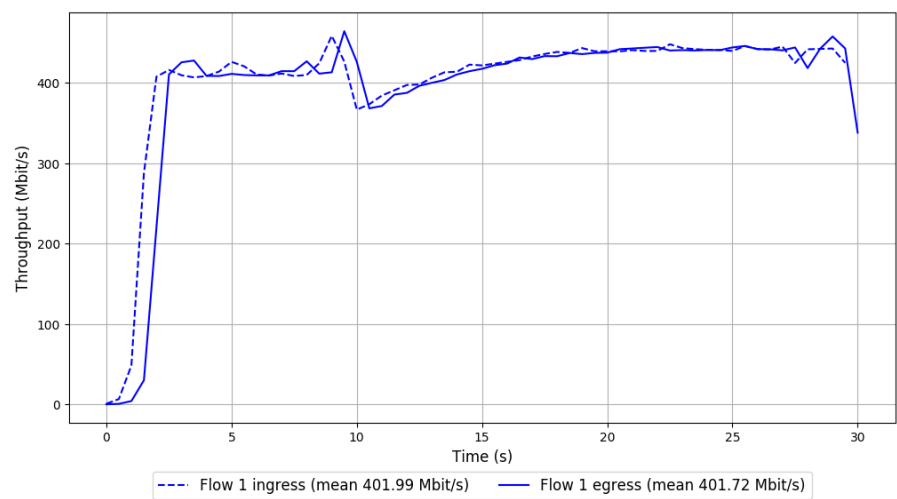
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2019-09-17 23:40:38
End at: 2019-09-17 23:41:08
Local clock offset: 24.832 ms
Remote clock offset: 0.108 ms

Below is generated by plot.py at 2019-09-18 01:53:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 545.99 Mbit/s
95th percentile per-packet one-way delay: 145.088 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 545.99 Mbit/s
95th percentile per-packet one-way delay: 145.088 ms
Loss rate: 0.71%
```
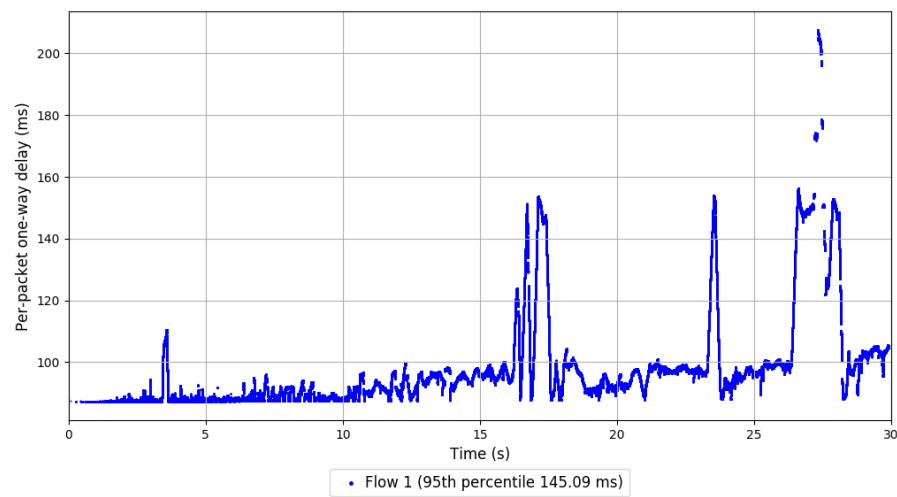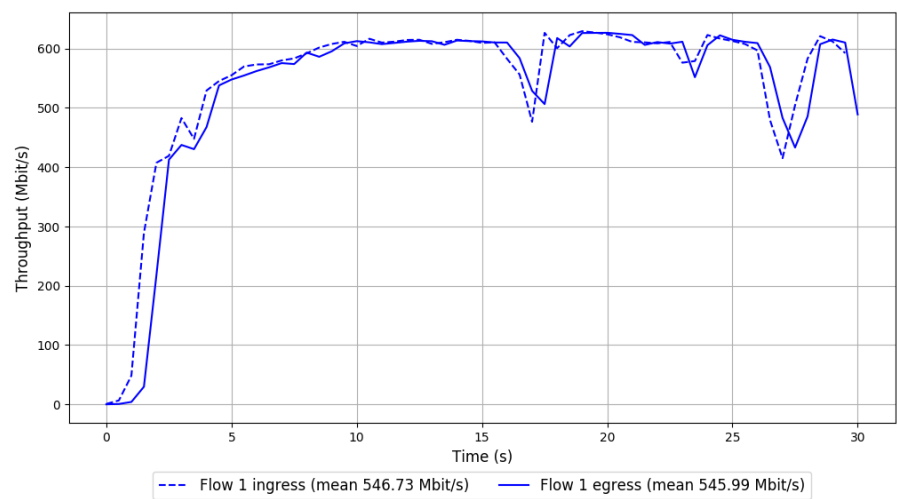
Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2019-09-18 00:15:52
End at: 2019-09-18 00:16:22
Local clock offset: 11.638 ms
Remote clock offset: 0.019 ms

Below is generated by plot.py at 2019-09-18 01:53:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 414.98 Mbit/s
95th percentile per-packet one-way delay: 87.790 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 414.98 Mbit/s
95th percentile per-packet one-way delay: 87.790 ms
Loss rate: 0.66%
```
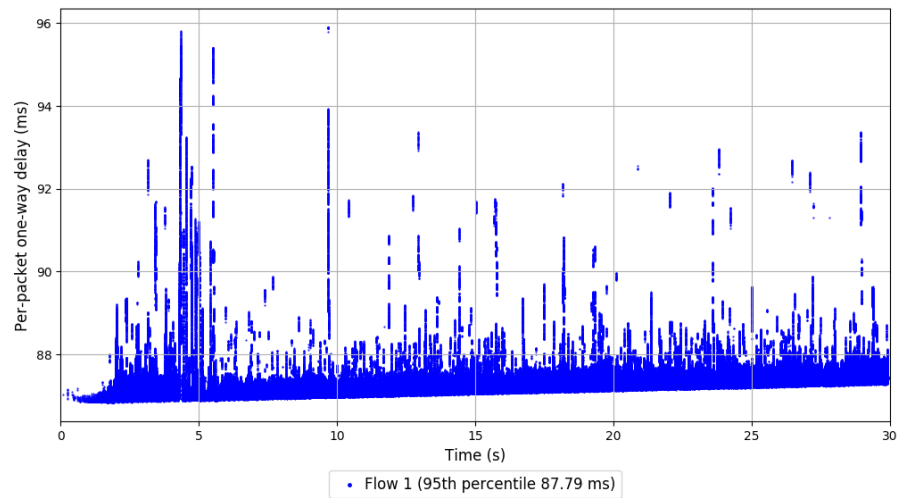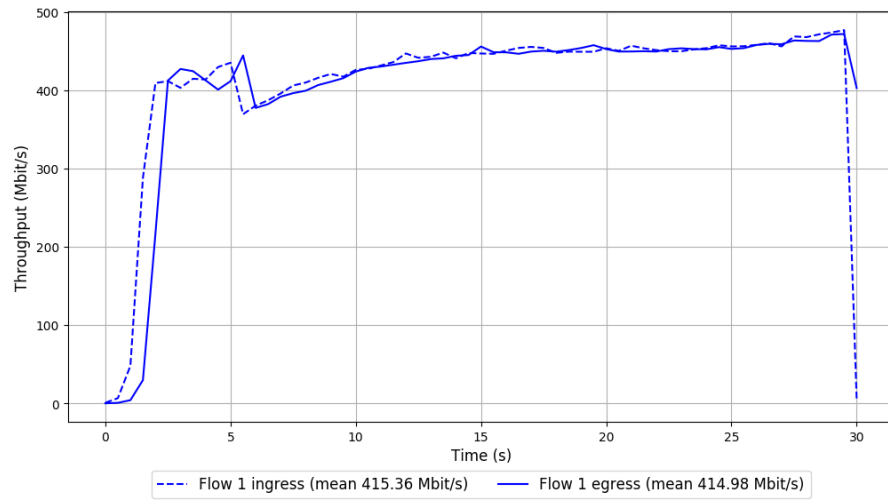
Run 4: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 415.36 Mbit/s)    Flow 1 egress (mean 414.98 Mbit/s)



• Flow 1 (95th percentile 87.79 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-09-18 00:50:48
End at: 2019-09-18 00:51:18
Local clock offset: 4.557 ms
Remote clock offset: -0.012 ms

Below is generated by plot.py at 2019-09-18 01:54:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 520.99 Mbit/s
95th percentile per-packet one-way delay: 117.685 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 520.99 Mbit/s
95th percentile per-packet one-way delay: 117.685 ms
Loss rate: 0.71%
```
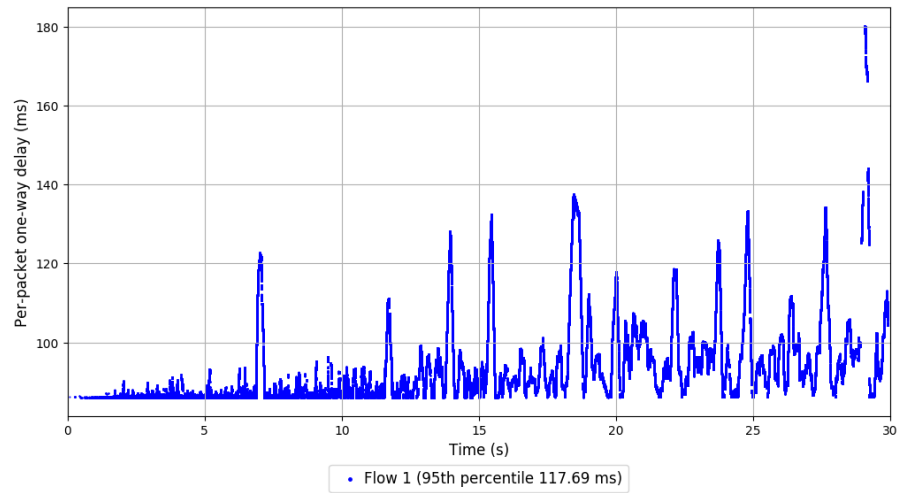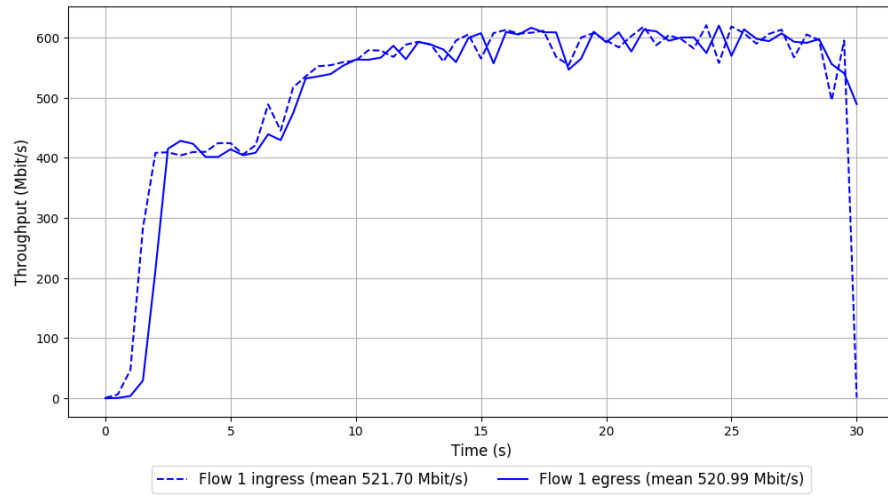
Run 5: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 521.70 Mbit/s)   Flow 1 egress (mean 520.99 Mbit/s)



Flow 1 (95th percentile 117.69 ms)

```
Run 1: Statistics of FillP

Start at: 2019-09-17 22:48:15
End at: 2019-09-17 22:48:45
Local clock offset: 12.502 ms
Remote clock offset: -0.236 ms


# Below is generated by plot.py at 2019-09-18 02:02:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 778.87 Mbit/s
95th percentile per-packet one-way delay: 107.579 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 778.87 Mbit/s
95th percentile per-packet one-way delay: 107.579 ms
Loss rate: 0.90%
```

Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 781.40 Mbit/s) —— Flow 1 egress (mean 778.87 Mbit/s)
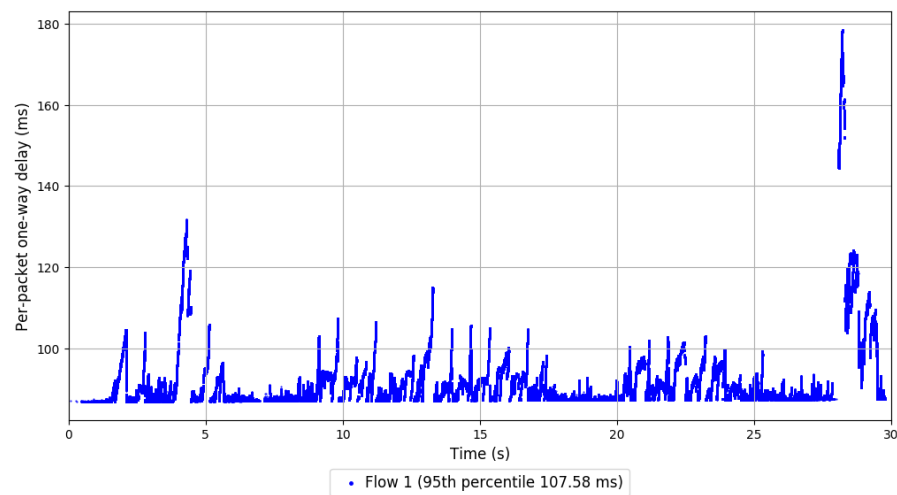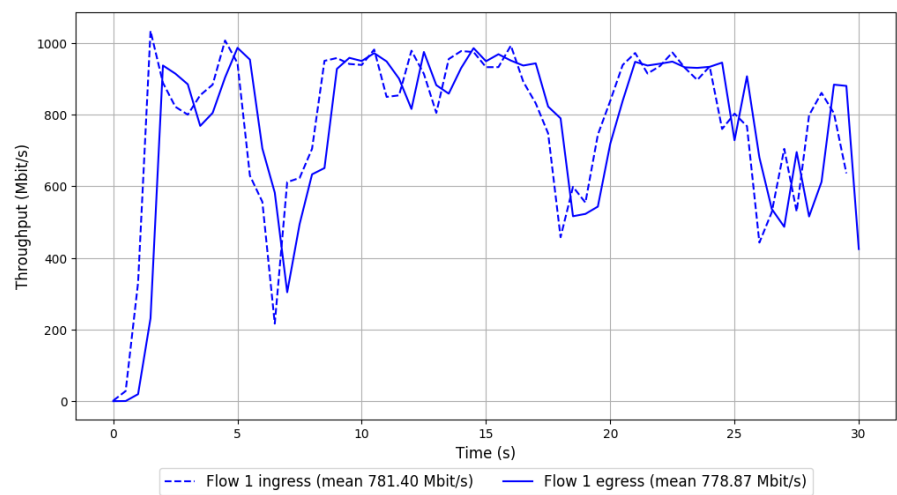

• Flow 1 (95th percentile 107.58 ms)

```
Run 2: Statistics of FillP

Start at: 2019-09-17 23:22:58
End at: 2019-09-17 23:23:28
Local clock offset: 17.337 ms
Remote clock offset: 0.326 ms


# Below is generated by plot.py at 2019-09-18 02:07:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 778.96 Mbit/s
95th percentile per-packet one-way delay: 134.448 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 778.96 Mbit/s
95th percentile per-packet one-way delay: 134.448 ms
Loss rate: 1.33%
```
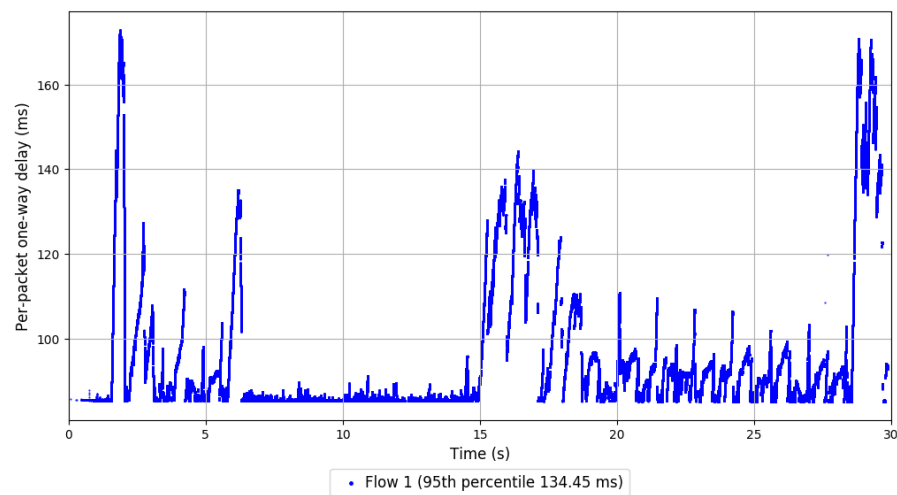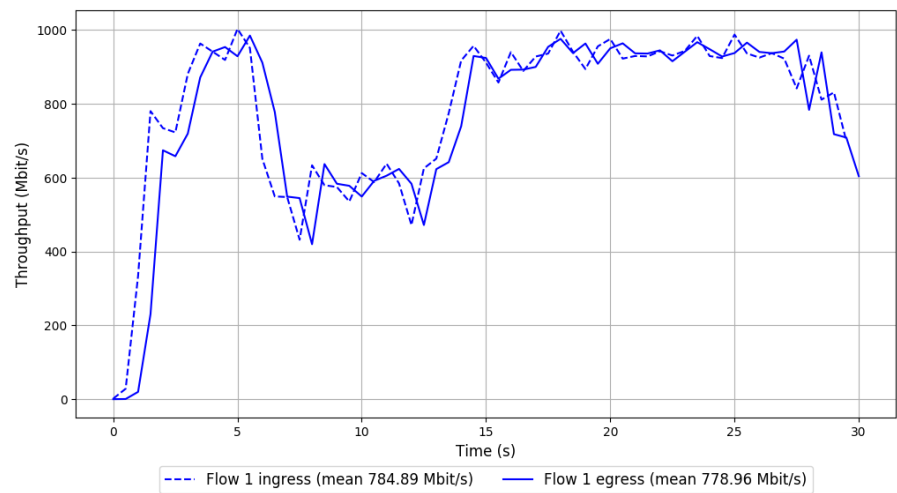
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-09-17 23:57:54
End at: 2019-09-17 23:58:24
Local clock offset: 11.287 ms
Remote clock offset: 0.167 ms


# Below is generated by plot.py at 2019-09-18 02:08:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 826.35 Mbit/s
95th percentile per-packet one-way delay: 137.903 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 826.35 Mbit/s
95th percentile per-packet one-way delay: 137.903 ms
Loss rate: 1.09%
```
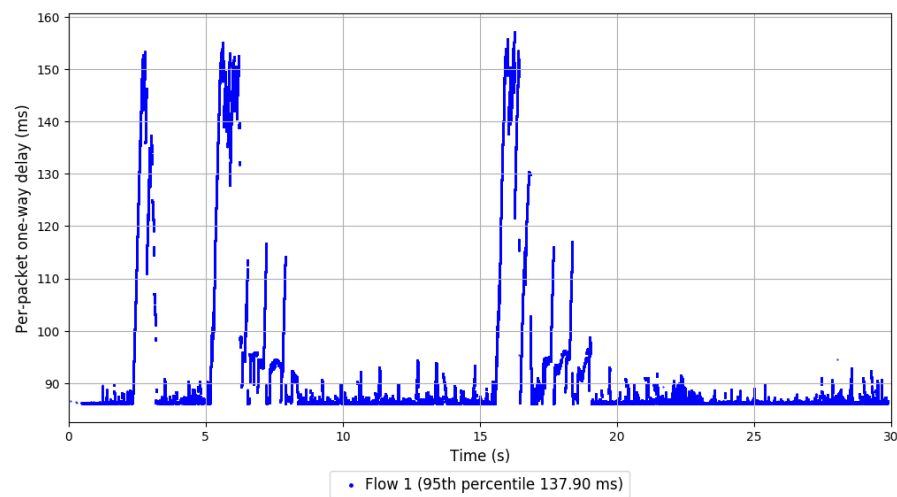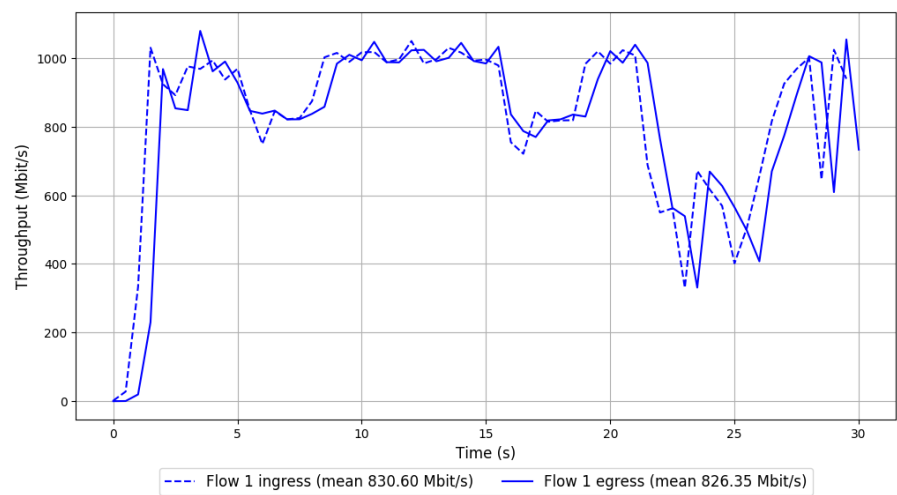
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-09-18 00:33:01
End at: 2019-09-18 00:33:31
Local clock offset: 4.927 ms
Remote clock offset: 0.026 ms


# Below is generated by plot.py at 2019-09-18 02:09:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 841.89 Mbit/s
95th percentile per-packet one-way delay: 142.951 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 841.89 Mbit/s
95th percentile per-packet one-way delay: 142.951 ms
Loss rate: 1.56%
```
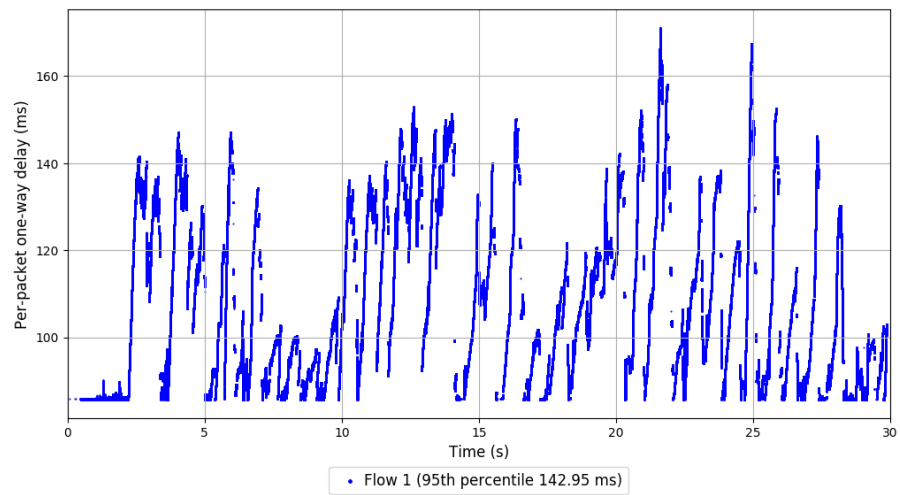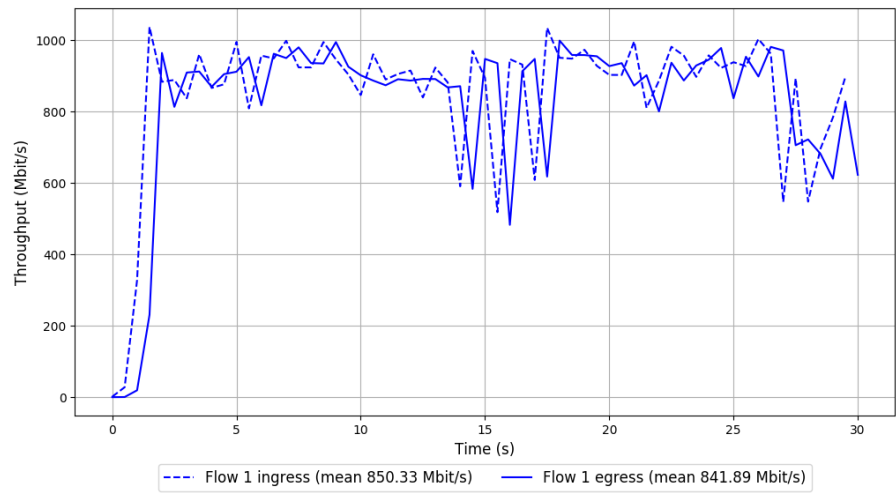
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-09-18 01:07:52
End at: 2019-09-18 01:08:22
Local clock offset: 2.398 ms
Remote clock offset: 0.033 ms


# Below is generated by plot.py at 2019-09-18 02:10:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 848.63 Mbit/s
95th percentile per-packet one-way delay: 148.240 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 848.63 Mbit/s
95th percentile per-packet one-way delay: 148.240 ms
Loss rate: 2.78%
```
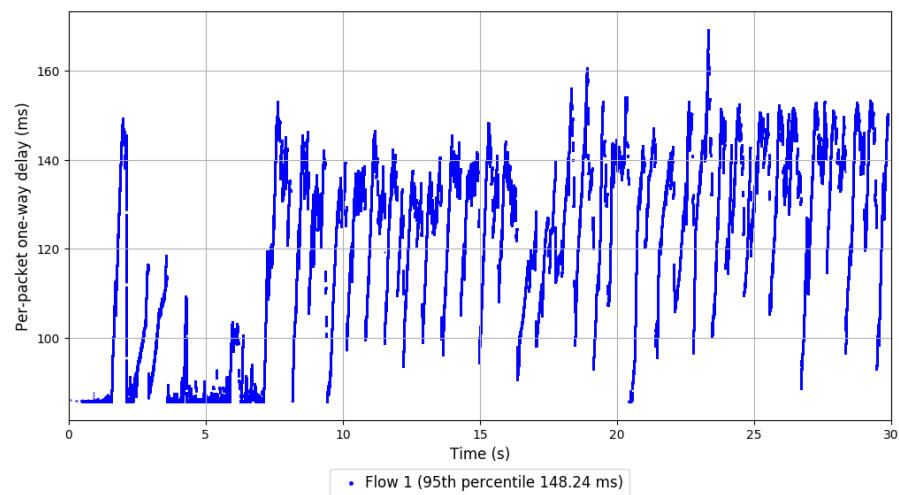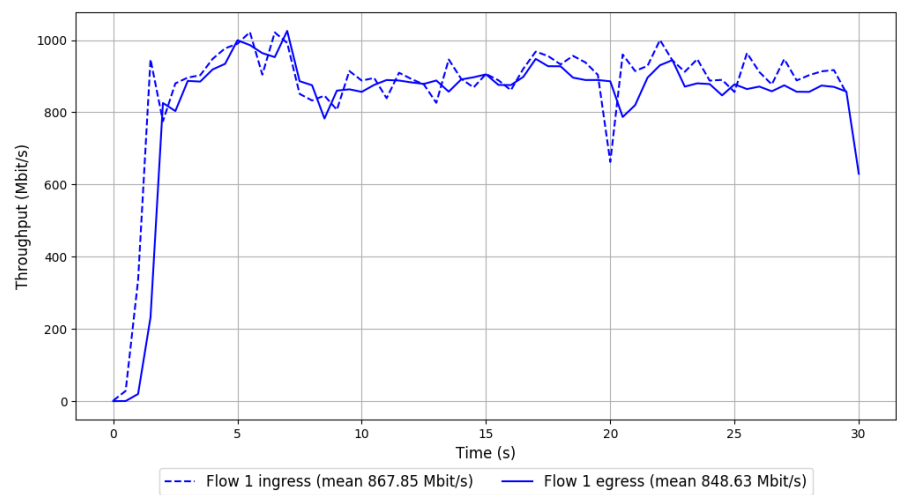
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 867.85 Mbit/s)   Flow 1 egress (mean 848.63 Mbit/s)

• Flow 1 (95th percentile 148.24 ms)

44

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-09-17 22:40:49
End at: 2019-09-17 22:41:19
Local clock offset: 6.413 ms
Remote clock offset: -0.183 ms


# Below is generated by plot.py at 2019-09-18 02:10:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 812.08 Mbit/s
95th percentile per-packet one-way delay: 89.540 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 812.08 Mbit/s
95th percentile per-packet one-way delay: 89.540 ms
Loss rate: 0.89%
```
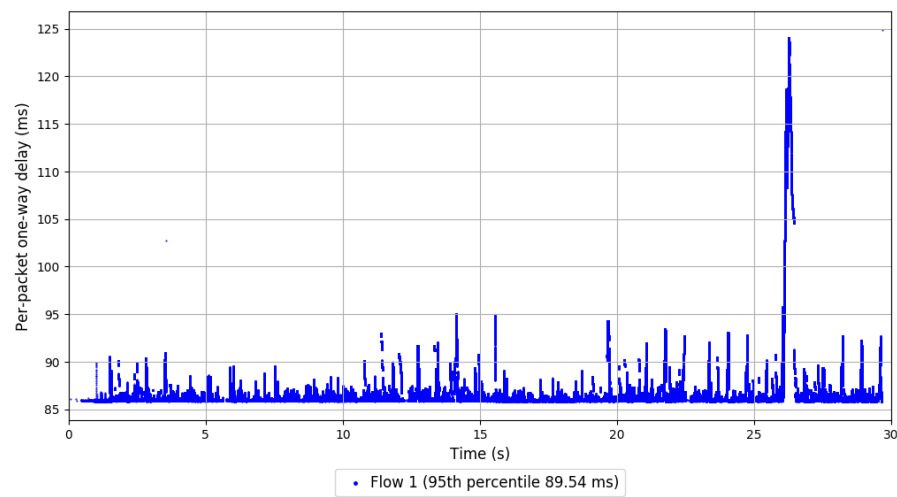
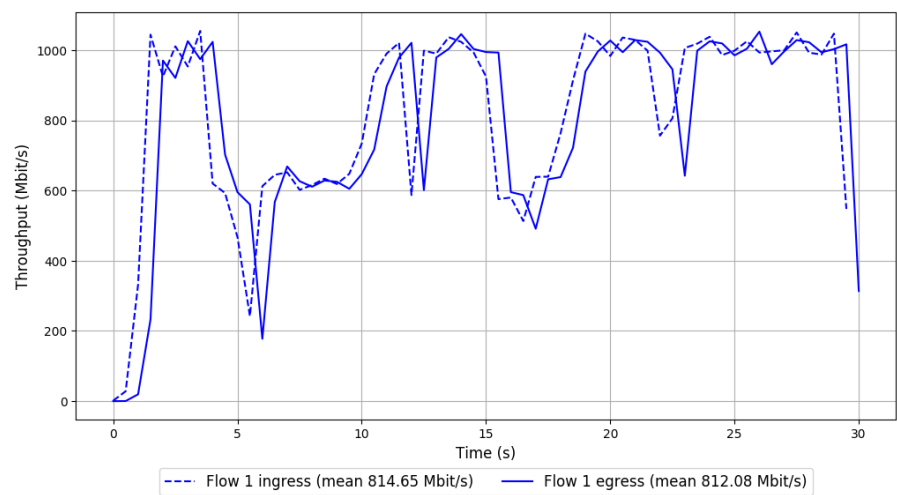Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-09-17 23:15:22
End at: 2019-09-17 23:15:52
Local clock offset: 14.182 ms
Remote clock offset: 0.243 ms


# Below is generated by plot.py at 2019-09-18 02:11:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 861.47 Mbit/s
95th percentile per-packet one-way delay: 115.718 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 861.47 Mbit/s
95th percentile per-packet one-way delay: 115.718 ms
Loss rate: 0.68%
```

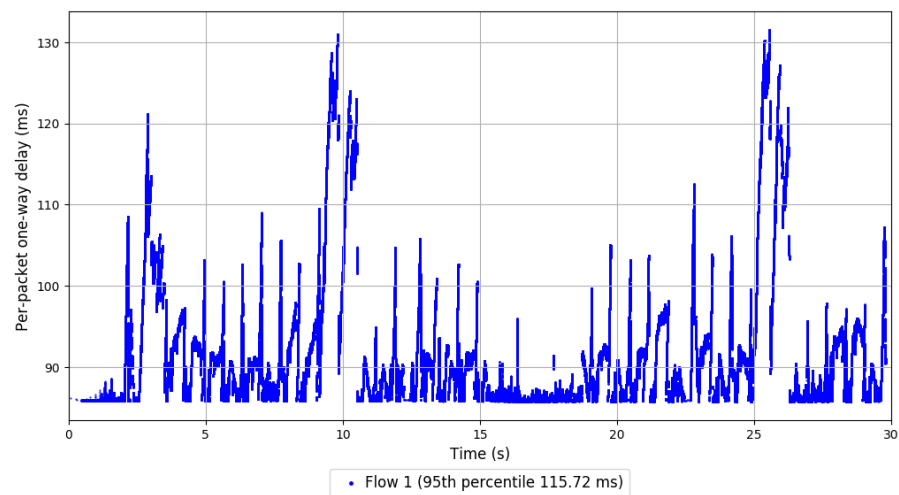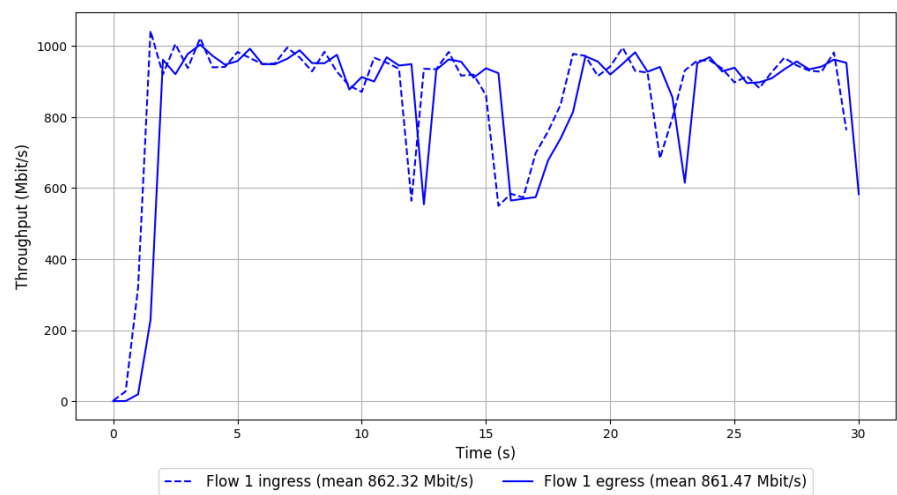Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-09-17 23:50:23
End at: 2019-09-17 23:50:53
Local clock offset: 12.567 ms
Remote clock offset: 0.162 ms


# Below is generated by plot.py at 2019-09-18 02:12:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 837.89 Mbit/s
95th percentile per-packet one-way delay: 119.240 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 837.89 Mbit/s
95th percentile per-packet one-way delay: 119.240 ms
Loss rate: 0.74%
```
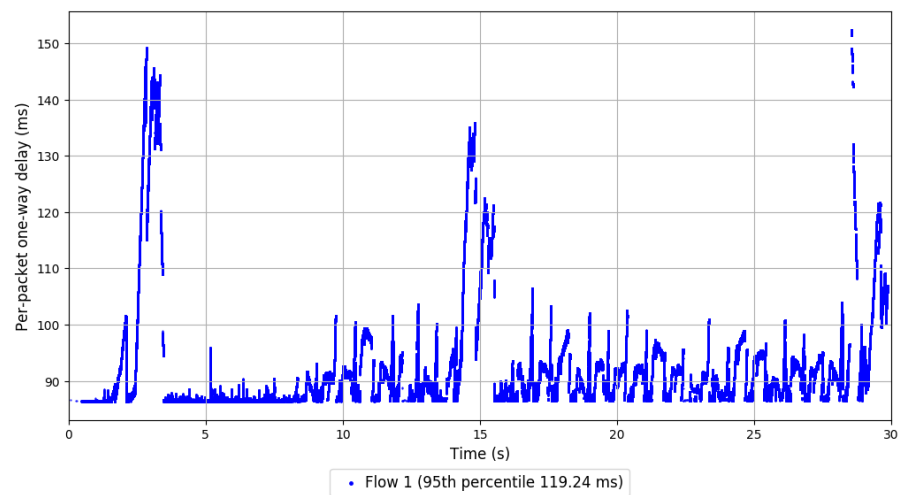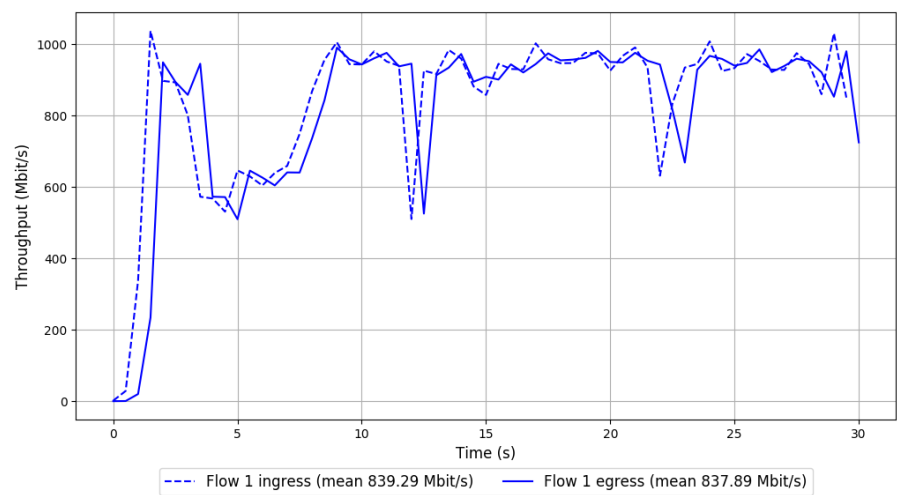
Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-09-18 00:25:29
End at: 2019-09-18 00:25:59
Local clock offset: 5.794 ms
Remote clock offset: 0.004 ms


# Below is generated by plot.py at 2019-09-18 02:21:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 831.93 Mbit/s
95th percentile per-packet one-way delay: 138.696 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 831.93 Mbit/s
95th percentile per-packet one-way delay: 138.696 ms
Loss rate: 1.29%
```
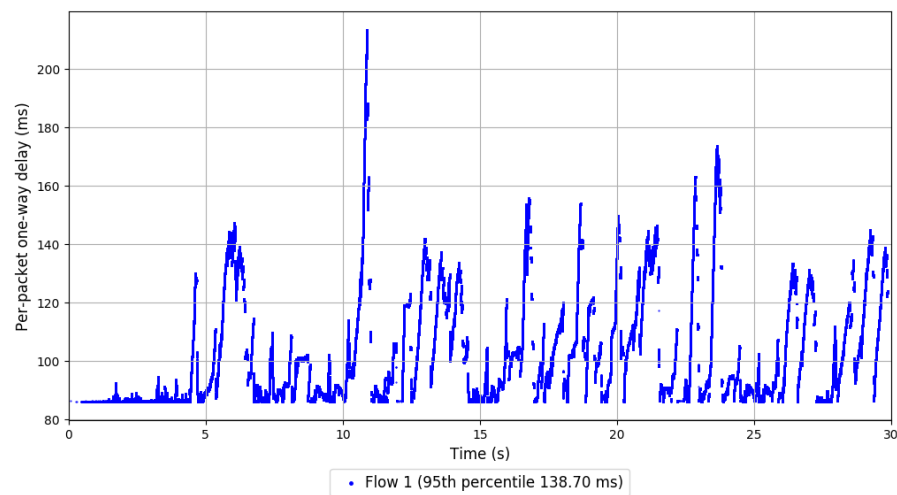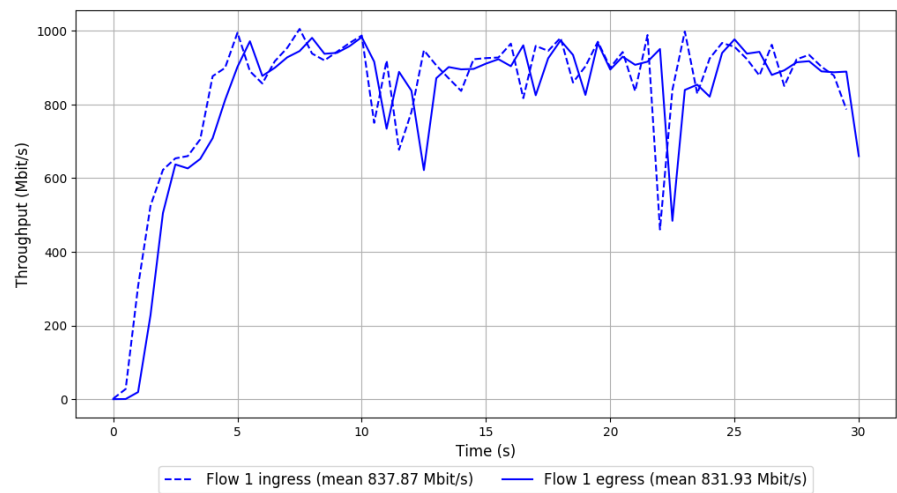
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 837.87 Mbit/s)   Flow 1 egress (mean 831.93 Mbit/s)

Flow 1 (95th percentile 138.70 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-09-18 01:00:32
End at: 2019-09-18 01:01:02
Local clock offset: 3.003 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 825.48 Mbit/s
95th percentile per-packet one-way delay: 111.329 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 825.48 Mbit/s
95th percentile per-packet one-way delay: 111.329 ms
Loss rate: 0.58%
```
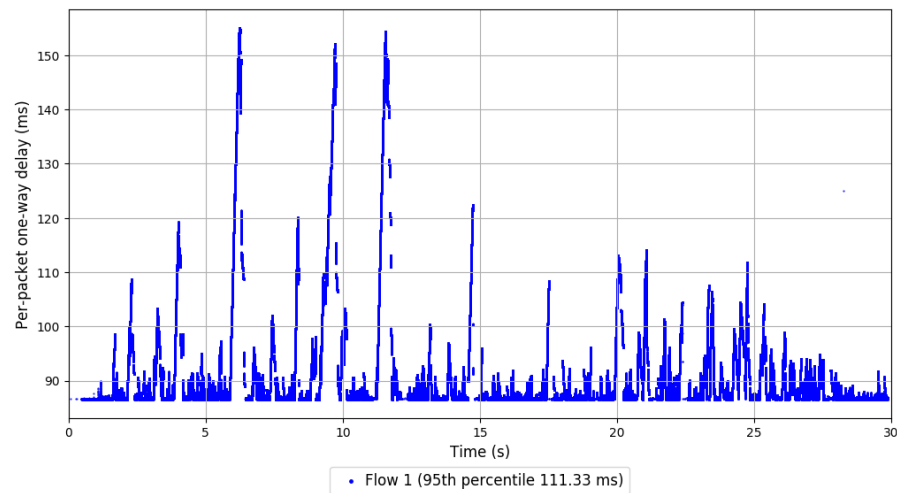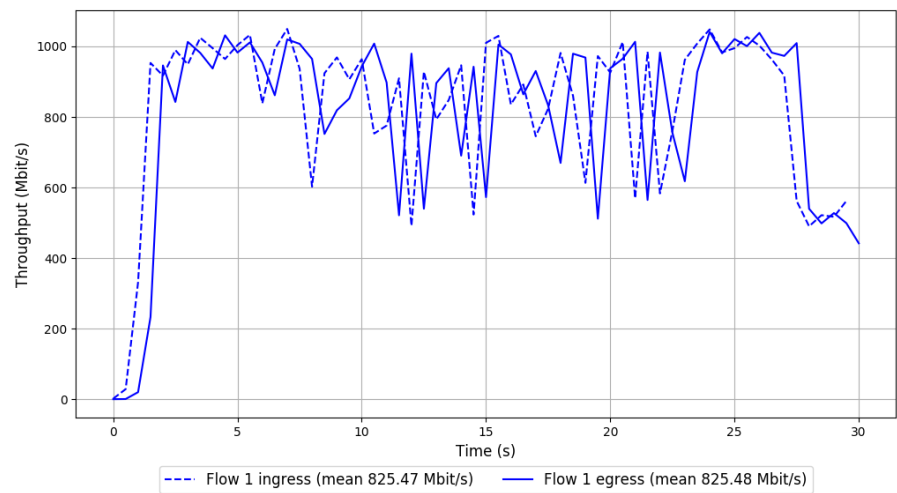
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 825.47 Mbit/s)   Flow 1 egress (mean 825.48 Mbit/s)
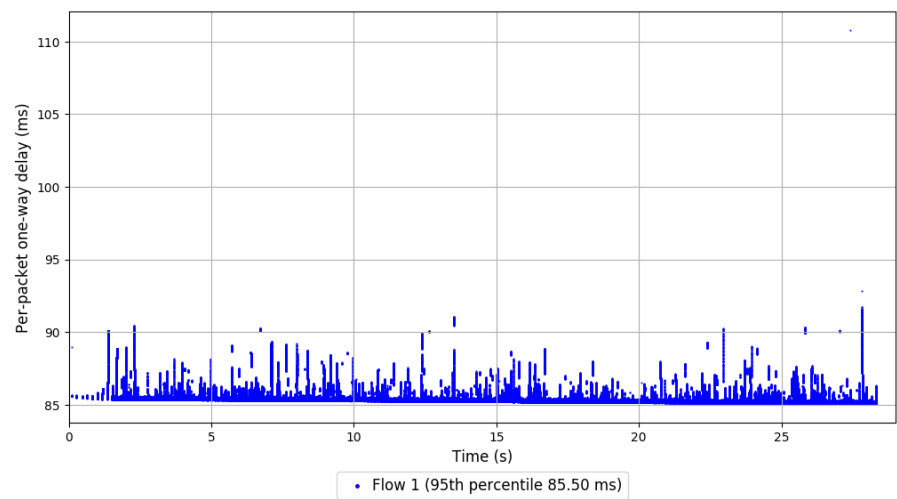

Flow 1 (95th percentile 111.33 ms)

```
Run 1: Statistics of Indigo

Start at: 2019-09-17 22:55:37
End at: 2019-09-17 22:56:08
Local clock offset: 10.671 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.46 Mbit/s
95th percentile per-packet one-way delay: 85.504 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 179.46 Mbit/s
95th percentile per-packet one-way delay: 85.504 ms
Loss rate: 0.65%
```
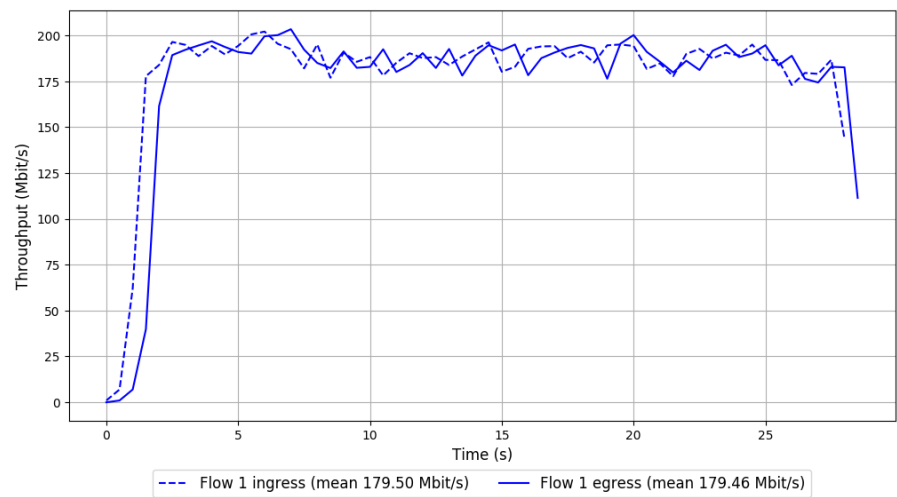
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-09-17 23:30:32
End at: 2019-09-17 23:31:02
Local clock offset: 22.085 ms
Remote clock offset: 0.168 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.02 Mbit/s
95th percentile per-packet one-way delay: 85.287 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 190.02 Mbit/s
95th percentile per-packet one-way delay: 85.287 ms
Loss rate: 0.62%
```
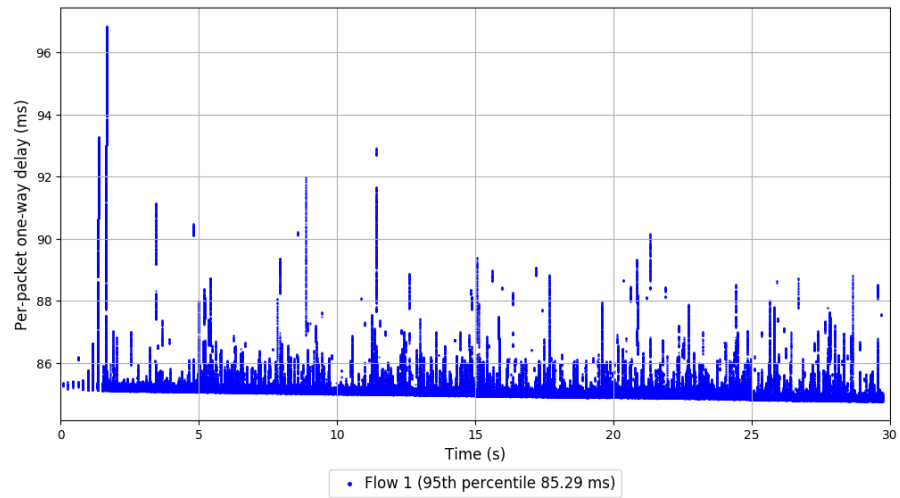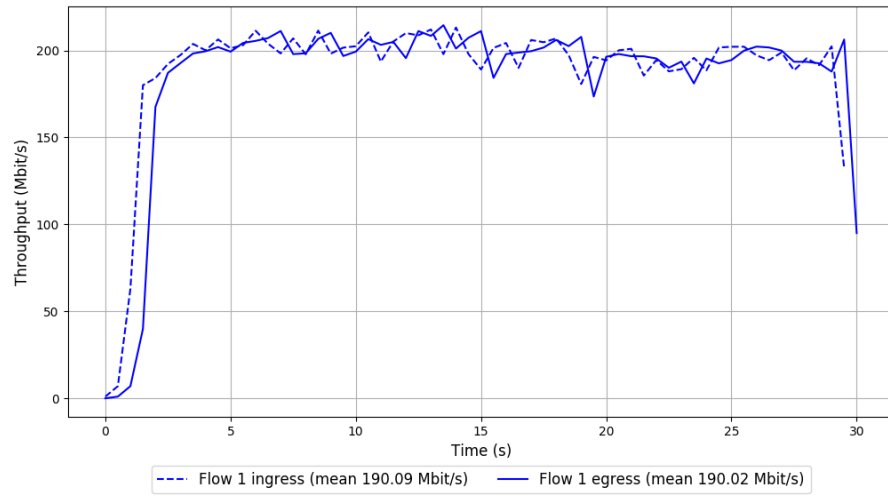
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-09-18 00:05:29
End at: 2019-09-18 00:05:59
Local clock offset: 11.954 ms
Remote clock offset: 0.026 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.61 Mbit/s
95th percentile per-packet one-way delay: 85.711 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 185.61 Mbit/s
95th percentile per-packet one-way delay: 85.711 ms
Loss rate: 0.60%
```
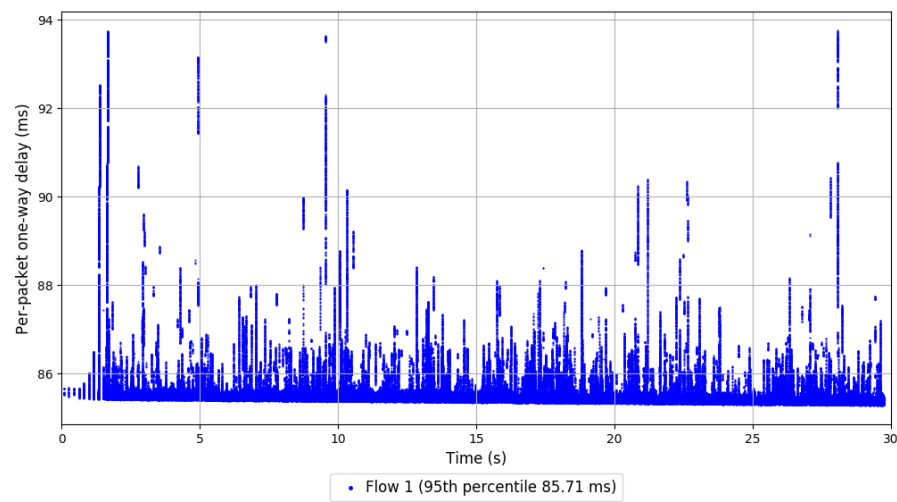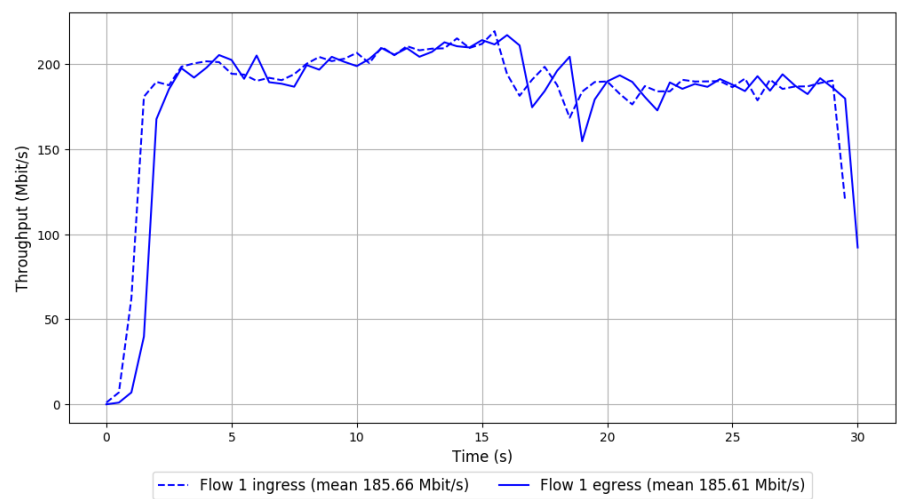
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-09-18 00:40:36
End at: 2019-09-18 00:41:06
Local clock offset: 5.725 ms
Remote clock offset: 0.0 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 165.32 Mbit/s
95th percentile per-packet one-way delay: 86.368 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 165.32 Mbit/s
95th percentile per-packet one-way delay: 86.368 ms
Loss rate: 0.59%
```
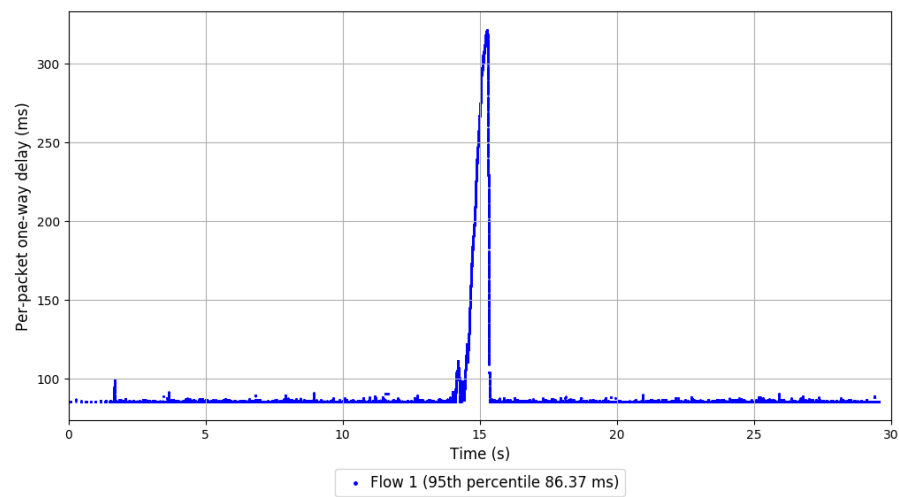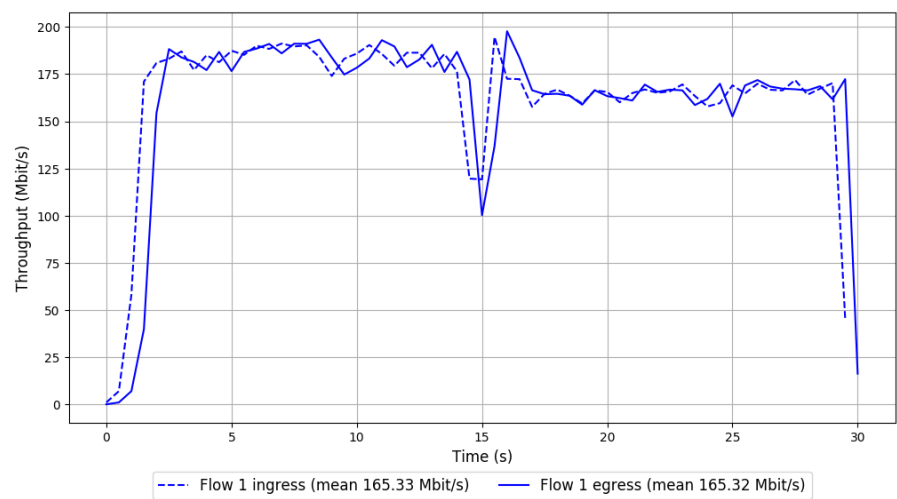
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-09-18 01:15:27
End at: 2019-09-18 01:15:57
Local clock offset: 2.587 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 174.62 Mbit/s
95th percentile per-packet one-way delay: 85.850 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 174.62 Mbit/s
95th percentile per-packet one-way delay: 85.850 ms
Loss rate: 0.64%
```
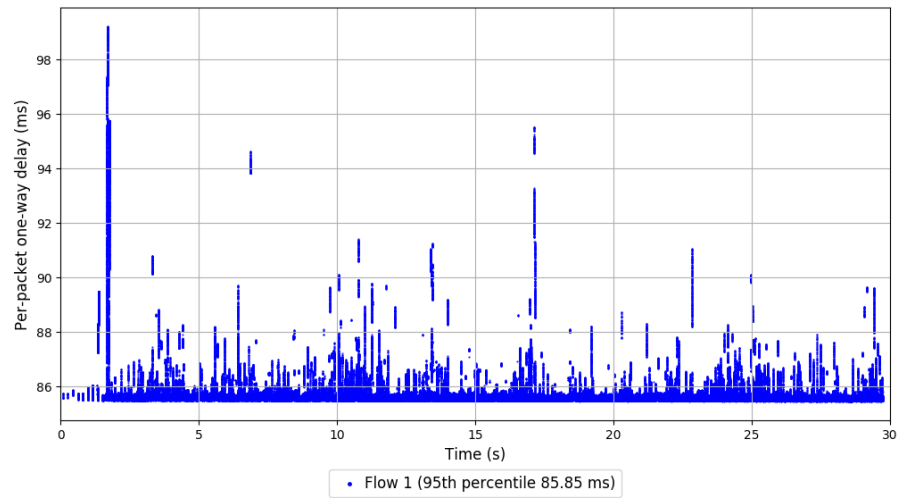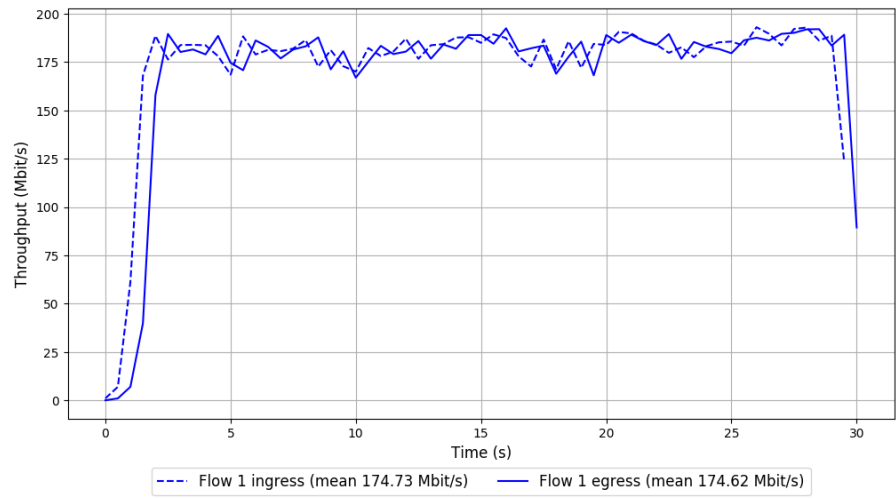
Run 5: Report of Indigo — Data Link
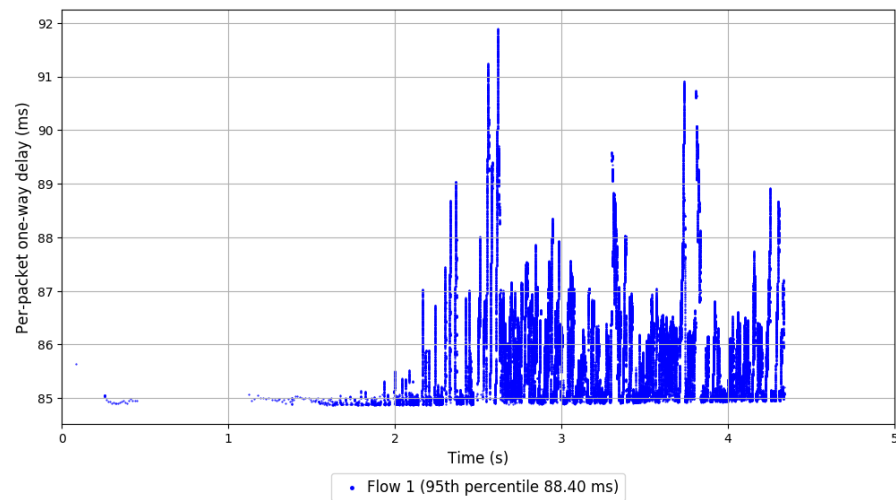
```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-09-17 22:38:29
End at: 2019-09-17 22:38:59
Local clock offset: 7.478 ms
Remote clock offset: -0.198 ms
```

Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-09-17 23:12:36
End at: 2019-09-17 23:13:06
Local clock offset: 14.484 ms
Remote clock offset: 0.215 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 506.89 Mbit/s
95th percentile per-packet one-way delay: 91.126 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 506.89 Mbit/s
95th percentile per-packet one-way delay: 91.126 ms
Loss rate: 0.67%
```

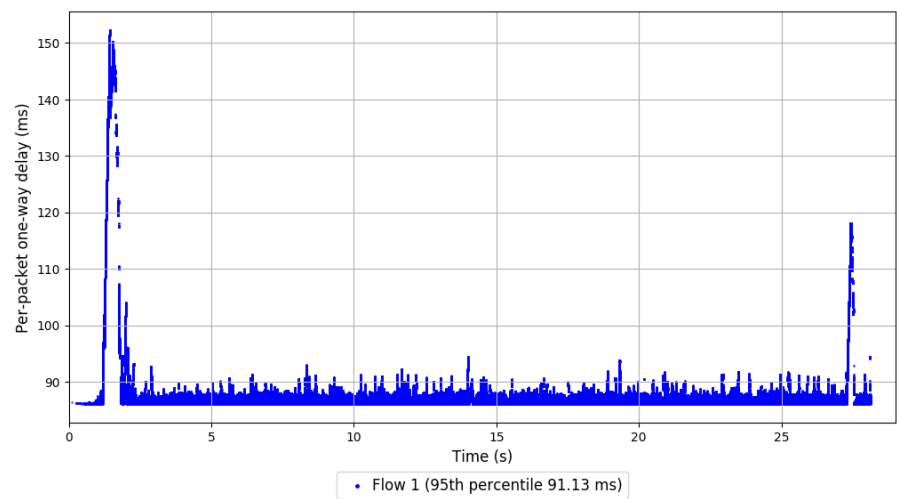Run 2: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 507.16 Mbit/s)   Flow 1 egress (mean 506.89 Mbit/s)

• Flow 1 (95th percentile 91.13 ms)

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-09-17 23:47:37
End at: 2019-09-17 23:48:07
Local clock offset: 13.74 ms
Remote clock offset: 0.14 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 525.24 Mbit/s
95th percentile per-packet one-way delay: 88.925 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 525.24 Mbit/s
95th percentile per-packet one-way delay: 88.925 ms
Loss rate: 0.70%
```

Run 3: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 525.70 Mbit/s) —— Flow 1 egress (mean 525.24 Mbit/s)

• Flow 1 (95th percentile 88.92 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-09-18 00:22:43
End at: 2019-09-18 00:23:13
Local clock offset: 6.468 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2019-09-18 02:24:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 507.38 Mbit/s
95th percentile per-packet one-way delay: 103.411 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 507.38 Mbit/s
95th percentile per-packet one-way delay: 103.411 ms
Loss rate: 0.66%
```
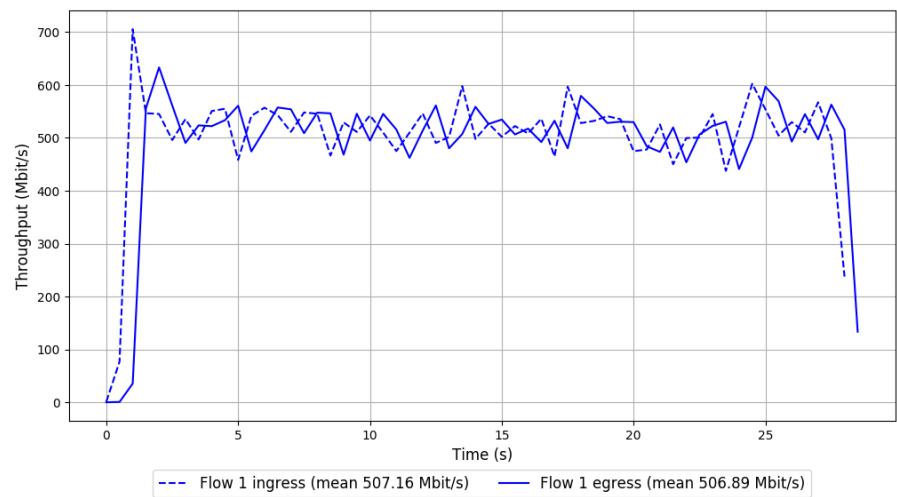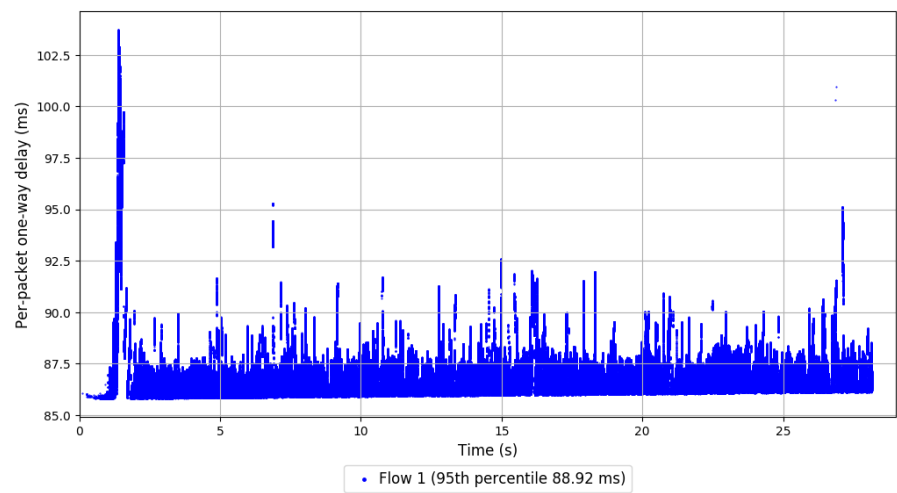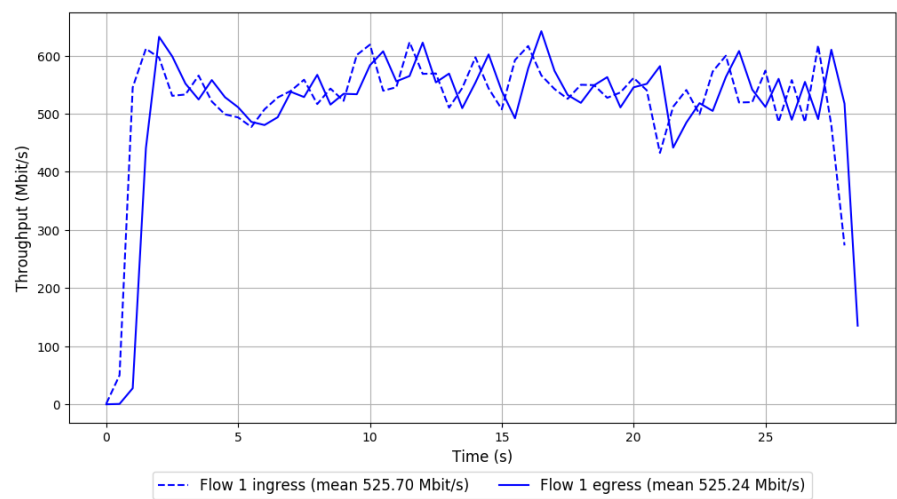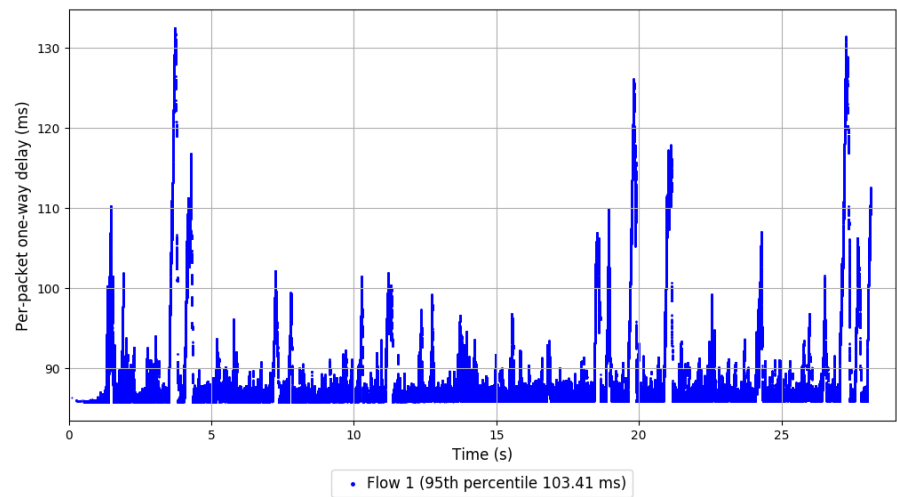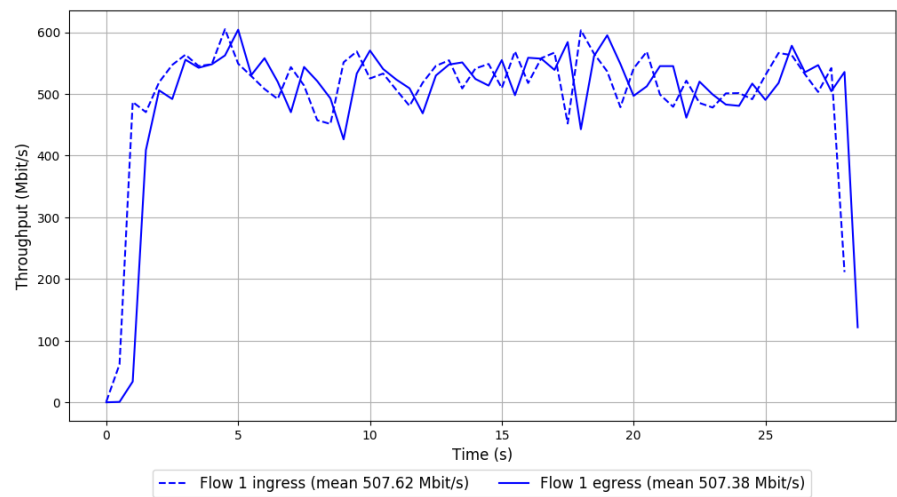
Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 507.62 Mbit/s)   Flow 1 egress (mean 507.38 Mbit/s)

• Flow 1 (95th percentile 103.41 ms)

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-09-18 00:57:47
End at: 2019-09-18 00:58:17
Local clock offset: 2.944 ms
Remote clock offset: 0.009 ms


# Below is generated by plot.py at 2019-09-18 02:24:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 525.70 Mbit/s
95th percentile per-packet one-way delay: 97.821 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 525.70 Mbit/s
95th percentile per-packet one-way delay: 97.821 ms
Loss rate: 0.60%
```
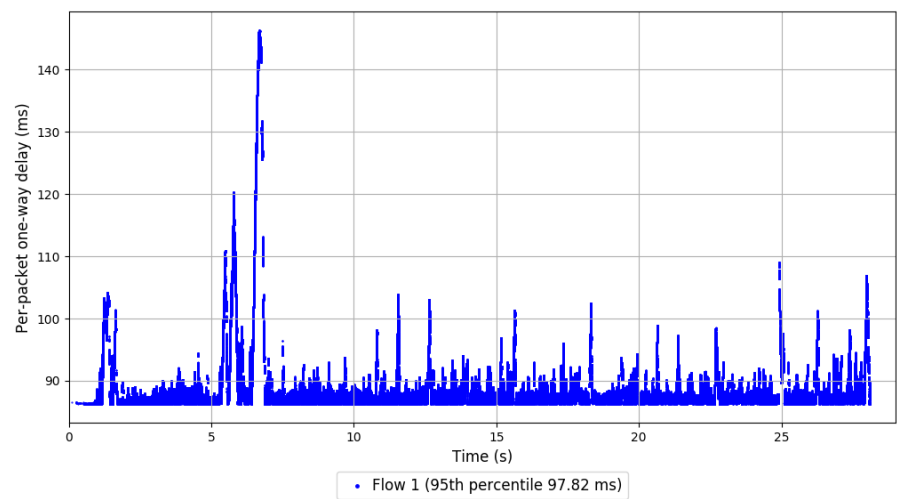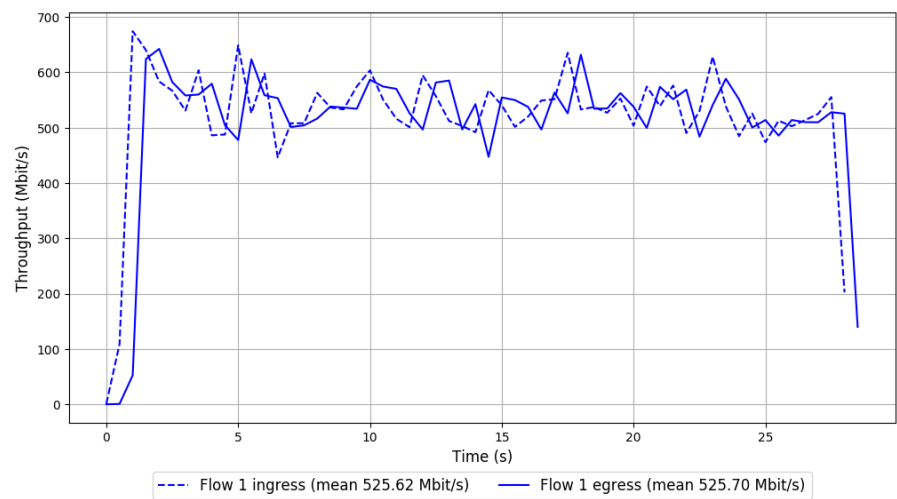
Run 5: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 525.62 Mbit/s)   Flow 1 egress (mean 525.70 Mbit/s)

Flow 1 (95th percentile 97.82 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-09-17 23:02:44
End at: 2019-09-17 23:03:14
Local clock offset: 16.885 ms
Remote clock offset: 0.126 ms


# Below is generated by plot.py at 2019-09-18 02:24:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 499.52 Mbit/s
95th percentile per-packet one-way delay: 95.209 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 499.52 Mbit/s
95th percentile per-packet one-way delay: 95.209 ms
Loss rate: 0.74%
```
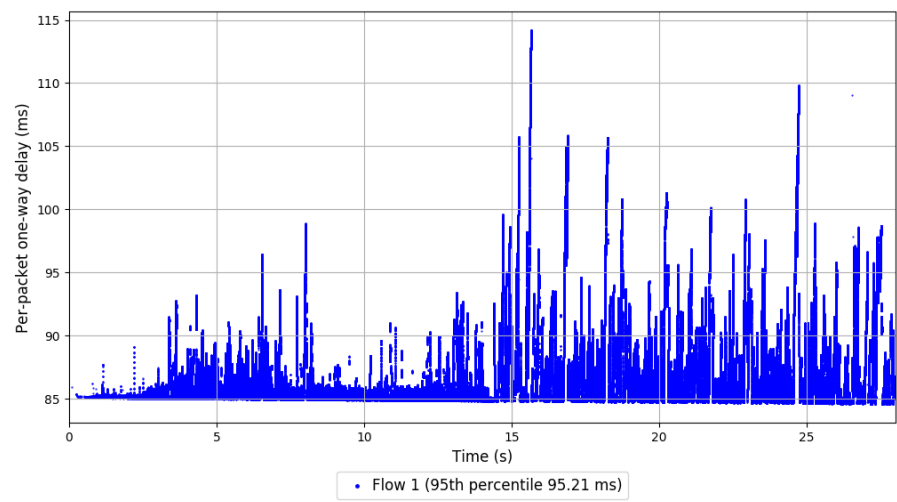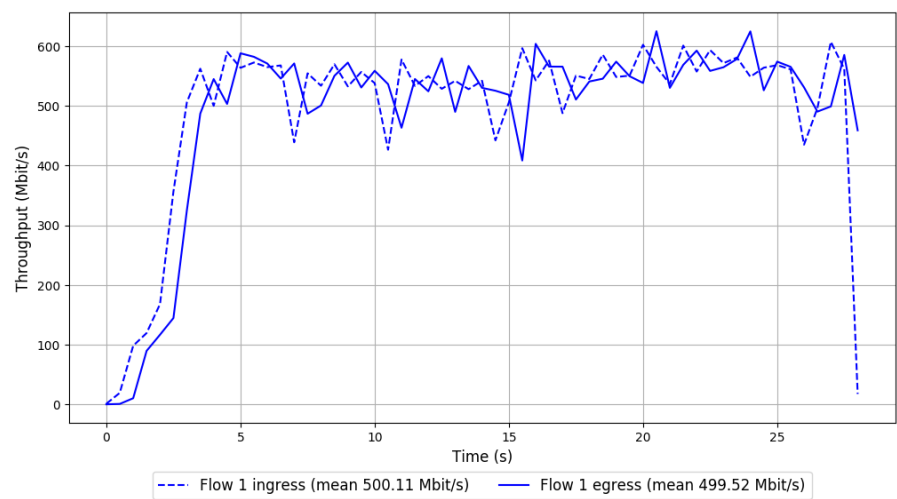
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-09-17 23:37:39
End at: 2019-09-17 23:38:09
Local clock offset: 27.919 ms
Remote clock offset: 0.117 ms


# Below is generated by plot.py at 2019-09-18 02:24:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 457.73 Mbit/s
95th percentile per-packet one-way delay: 93.810 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 457.73 Mbit/s
95th percentile per-packet one-way delay: 93.810 ms
Loss rate: 0.77%
```
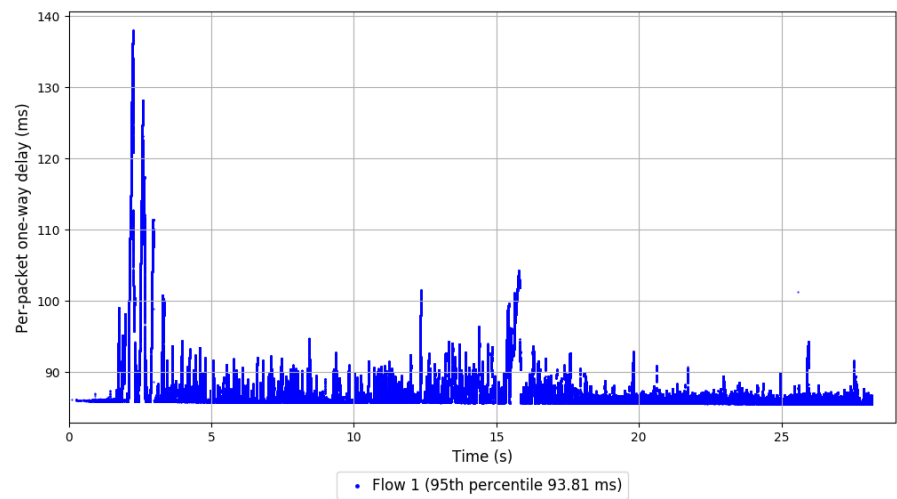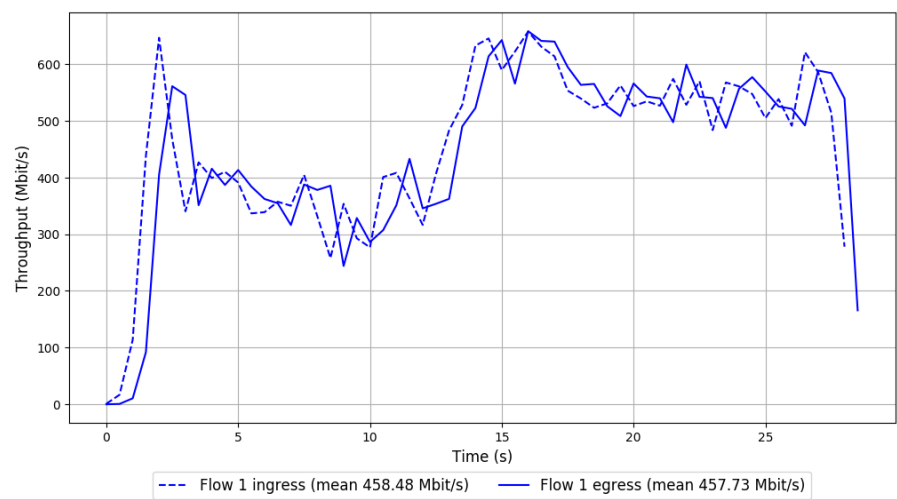
Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 458.48 Mbit/s)   Flow 1 egress (mean 457.73 Mbit/s)

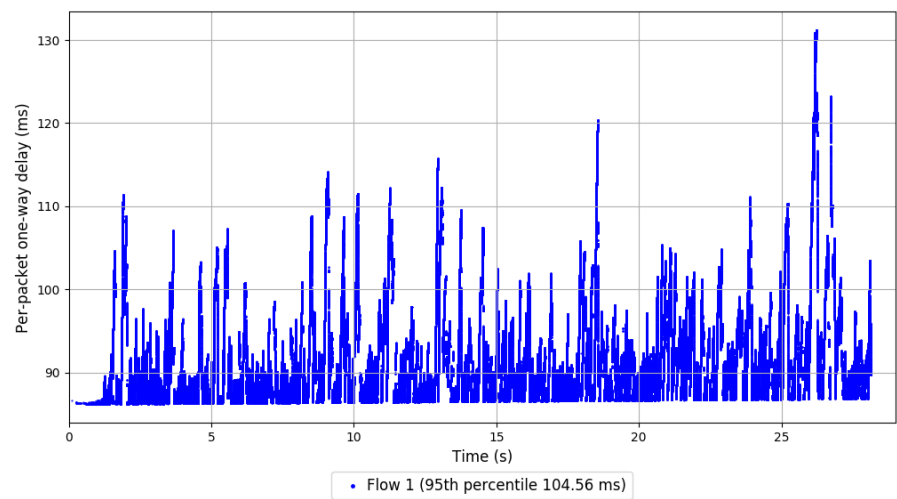

• Flow 1 (95th percentile 93.81 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-09-18 00:12:47
End at: 2019-09-18 00:13:17
Local clock offset: 14.814 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2019-09-18 02:31:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 575.40 Mbit/s
95th percentile per-packet one-way delay: 104.558 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 575.40 Mbit/s
95th percentile per-packet one-way delay: 104.558 ms
Loss rate: 0.65%
```

Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 575.65 Mbit/s)   Flow 1 egress (mean 575.40 Mbit/s)
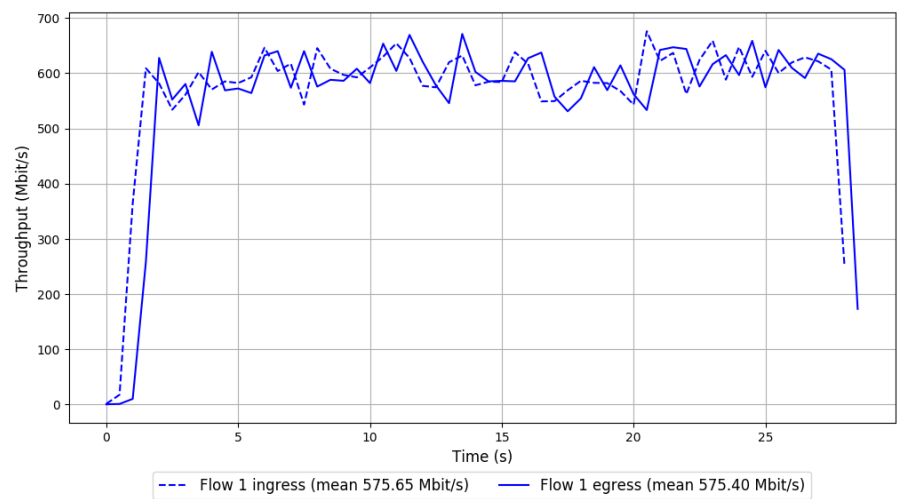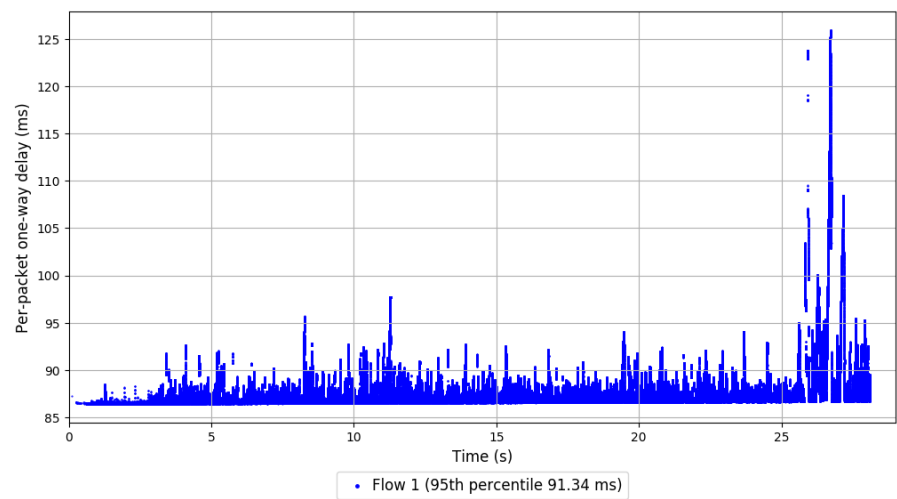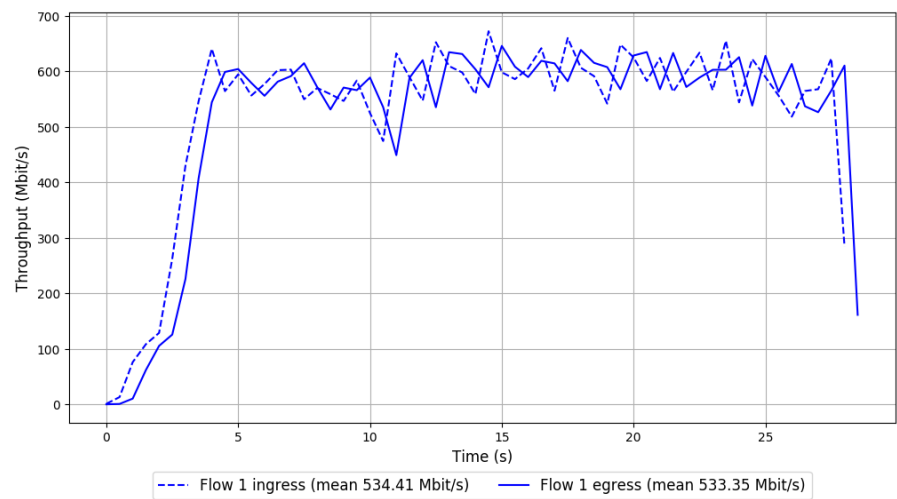

Flow 1 (95th percentile 104.56 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-09-18 00:47:43
End at: 2019-09-18 00:48:13
Local clock offset: 6.962 ms
Remote clock offset: -0.002 ms


# Below is generated by plot.py at 2019-09-18 02:31:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 533.35 Mbit/s
95th percentile per-packet one-way delay: 91.345 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 533.35 Mbit/s
95th percentile per-packet one-way delay: 91.345 ms
Loss rate: 0.81%
```

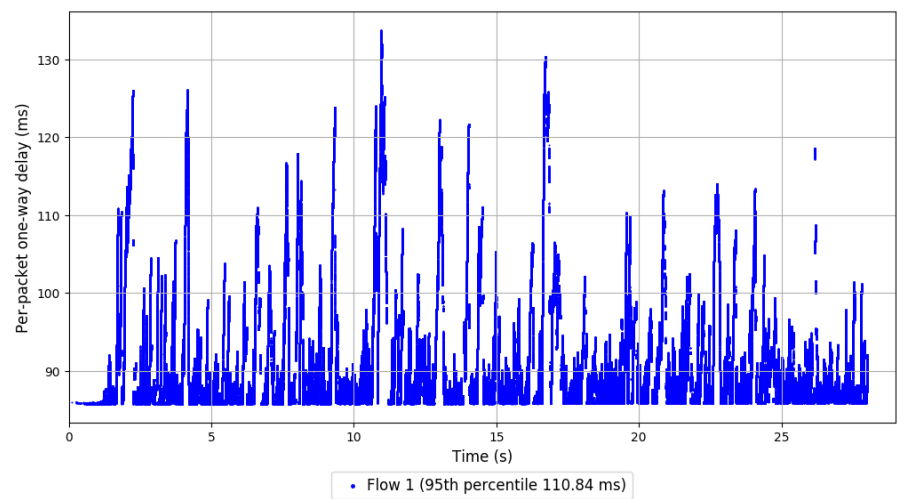Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-09-18 01:22:33
End at: 2019-09-18 01:23:03
Local clock offset: 2.669 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2019-09-18 02:32:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 519.79 Mbit/s
95th percentile per-packet one-way delay: 110.843 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 519.79 Mbit/s
95th percentile per-packet one-way delay: 110.843 ms
Loss rate: 0.44%
```
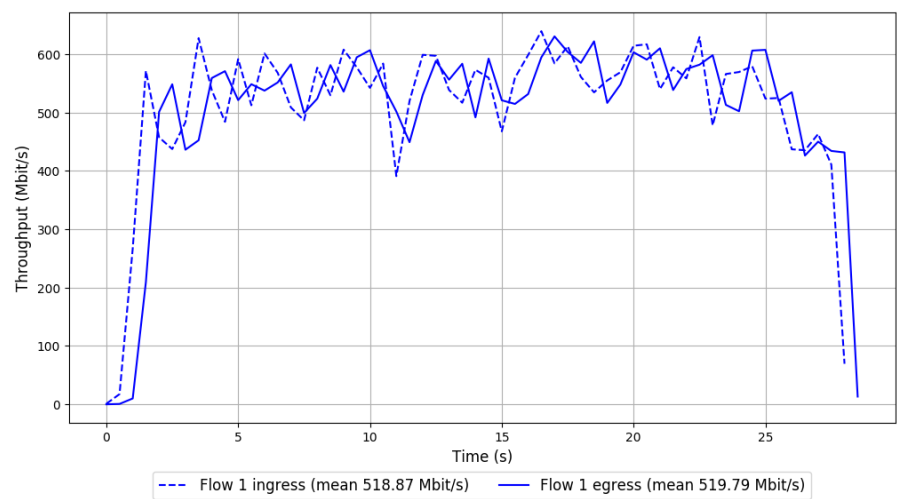
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 518.87 Mbit/s) — Flow 1 egress (mean 519.79 Mbit/s)

• Flow 1 (95th percentile 110.84 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-09-17 22:59:49
End at: 2019-09-17 23:00:19
Local clock offset: 14.68 ms
Remote clock offset: 0.06 ms


# Below is generated by plot.py at 2019-09-18 02:32:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 464.64 Mbit/s
95th percentile per-packet one-way delay: 89.032 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 464.64 Mbit/s
95th percentile per-packet one-way delay: 89.032 ms
Loss rate: 0.70%
```
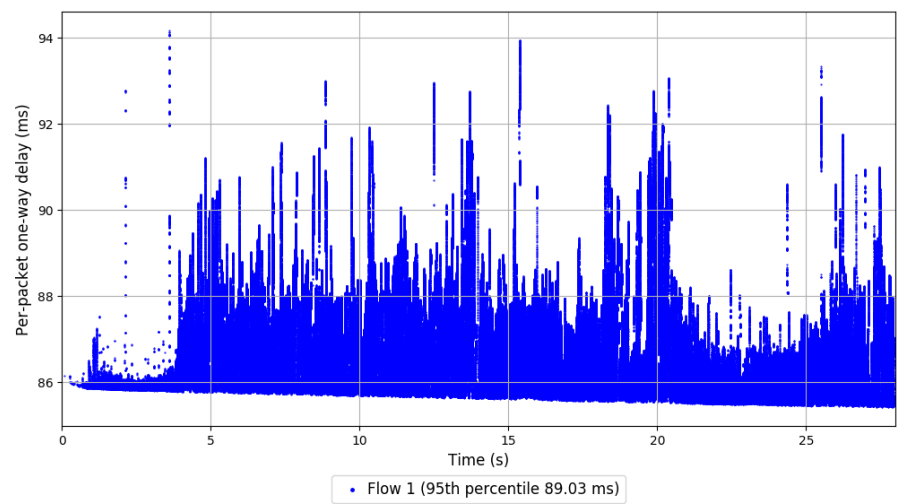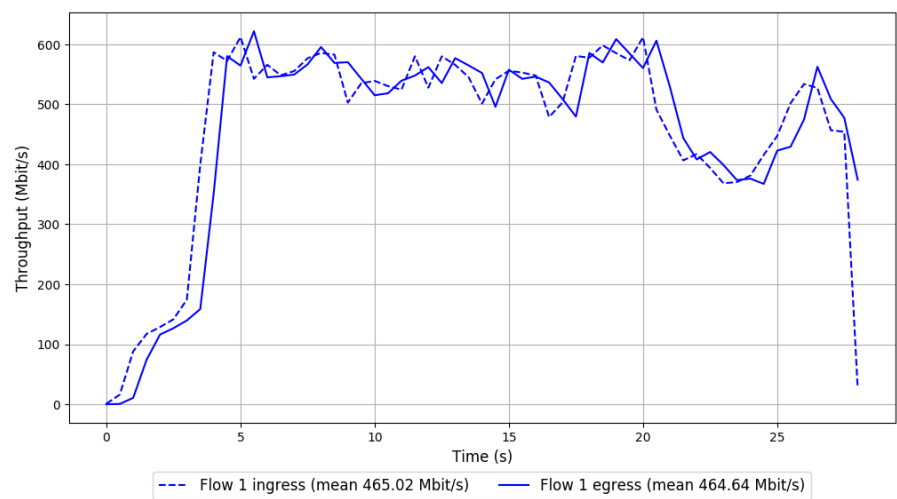
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-09-17 23:34:43
End at: 2019-09-17 23:35:14
Local clock offset: 25.9 ms
Remote clock offset: 0.12 ms


# Below is generated by plot.py at 2019-09-18 02:32:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 475.00 Mbit/s
95th percentile per-packet one-way delay: 90.007 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 475.00 Mbit/s
95th percentile per-packet one-way delay: 90.007 ms
Loss rate: 0.55%
```
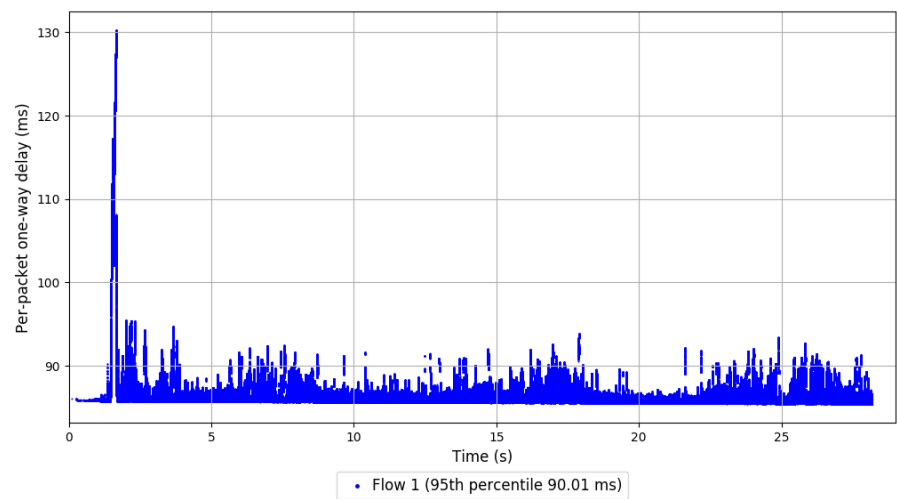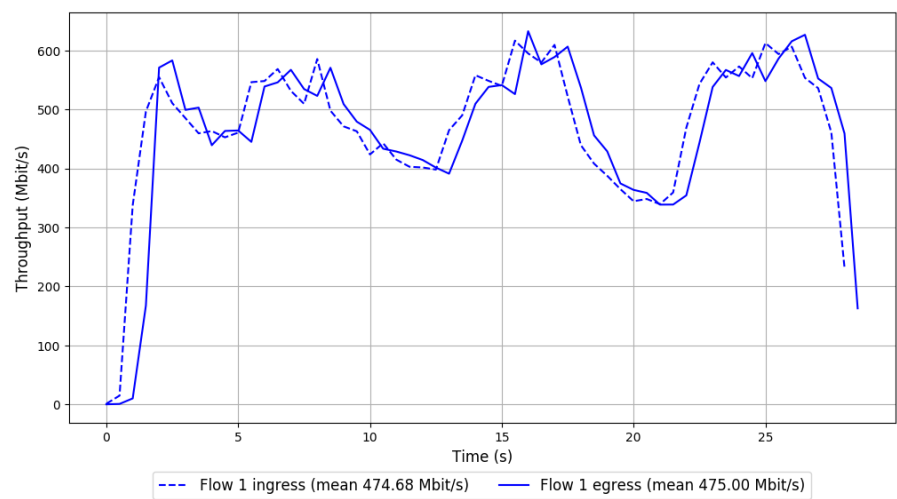
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-09-18 00:09:41
End at: 2019-09-18 00:10:11
Local clock offset: 13.845 ms
Remote clock offset: 0.03 ms


# Below is generated by plot.py at 2019-09-18 02:32:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 484.61 Mbit/s
95th percentile per-packet one-way delay: 100.482 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 484.61 Mbit/s
95th percentile per-packet one-way delay: 100.482 ms
Loss rate: 0.58%
```
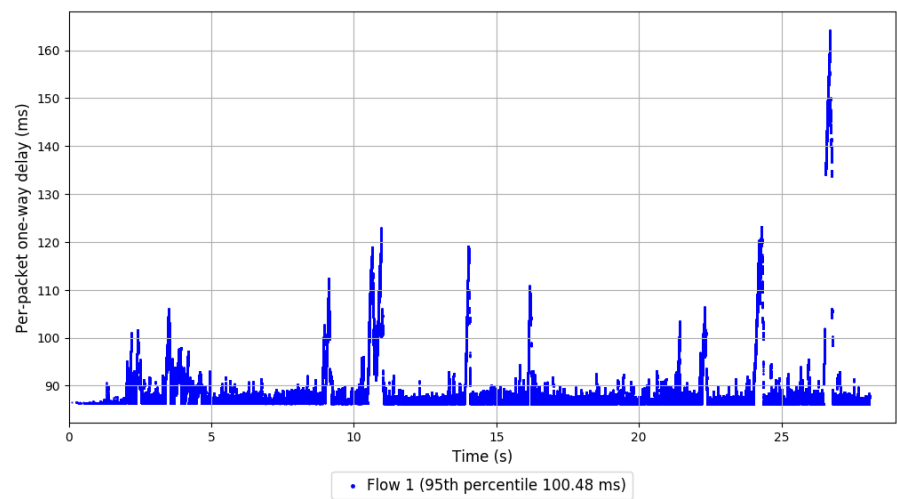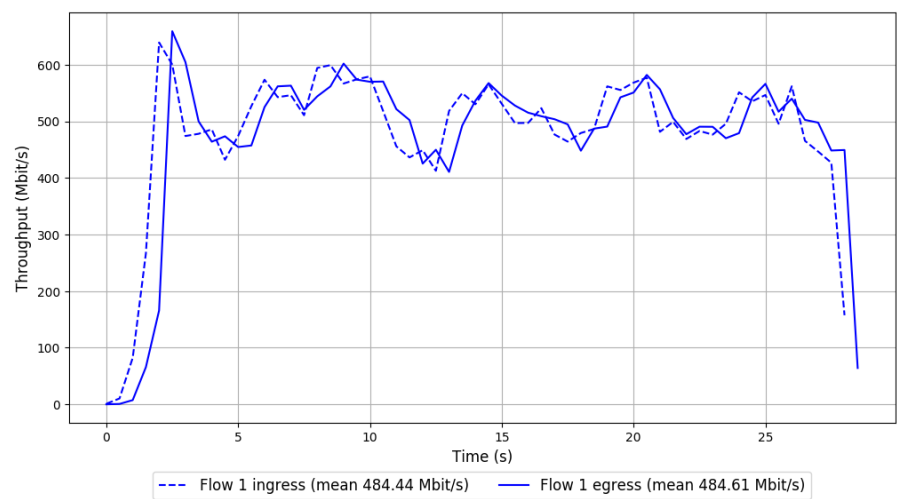
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-09-18 00:44:44
End at: 2019-09-18 00:45:14
Local clock offset: 6.531 ms
Remote clock offset: 0.006 ms


# Below is generated by plot.py at 2019-09-18 02:32:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 444.16 Mbit/s
95th percentile per-packet one-way delay: 99.629 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 444.16 Mbit/s
95th percentile per-packet one-way delay: 99.629 ms
Loss rate: 0.63%
```
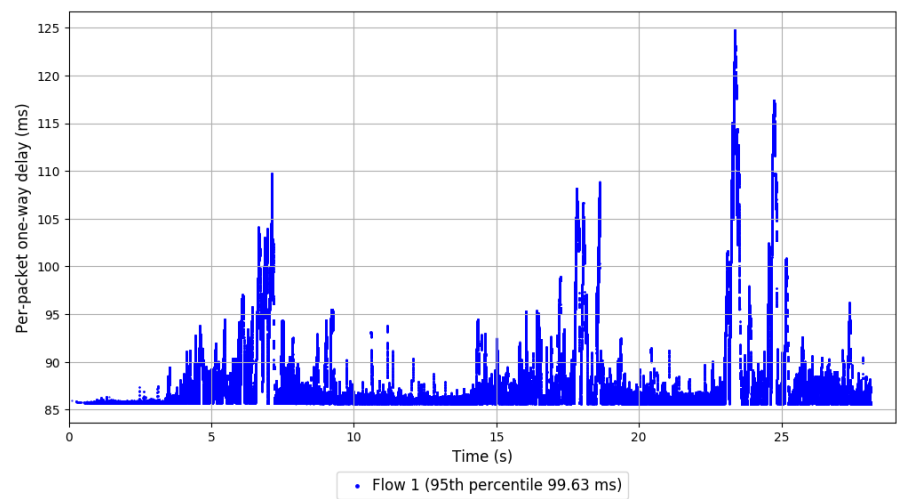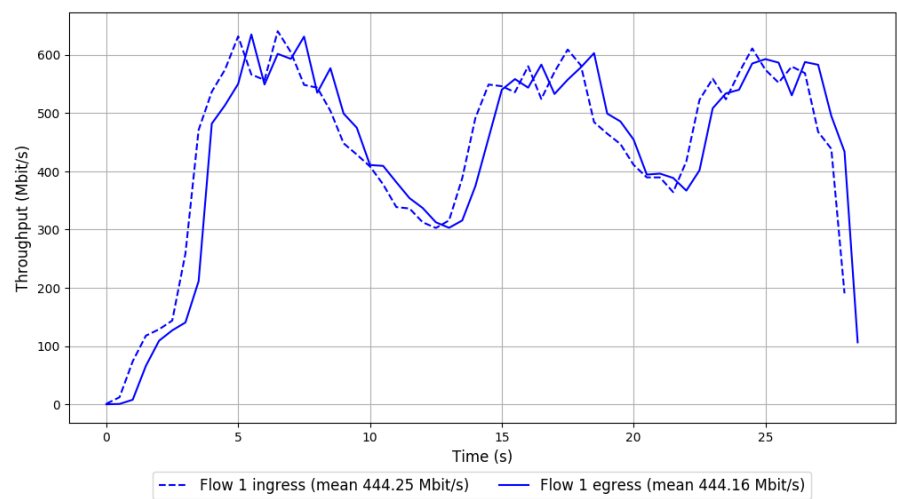
Run 4: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 444.25 Mbit/s) ----- Flow 1 egress (mean 444.16 Mbit/s) ———

Flow 1 (95th percentile 99.63 ms)

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-09-18 01:19:37
End at: 2019-09-18 01:20:07
Local clock offset: 3.29 ms
Remote clock offset: 0.007 ms


# Below is generated by plot.py at 2019-09-18 02:33:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 474.15 Mbit/s
95th percentile per-packet one-way delay: 93.292 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 474.15 Mbit/s
95th percentile per-packet one-way delay: 93.292 ms
Loss rate: 0.61%
```
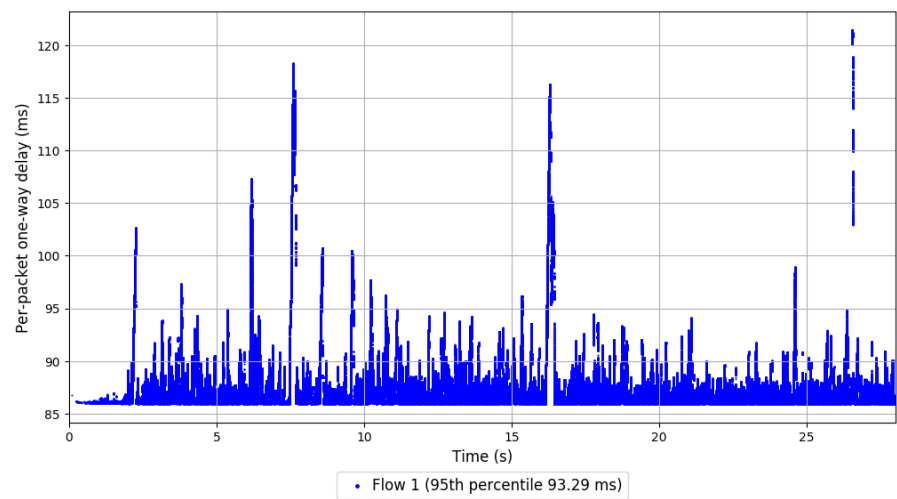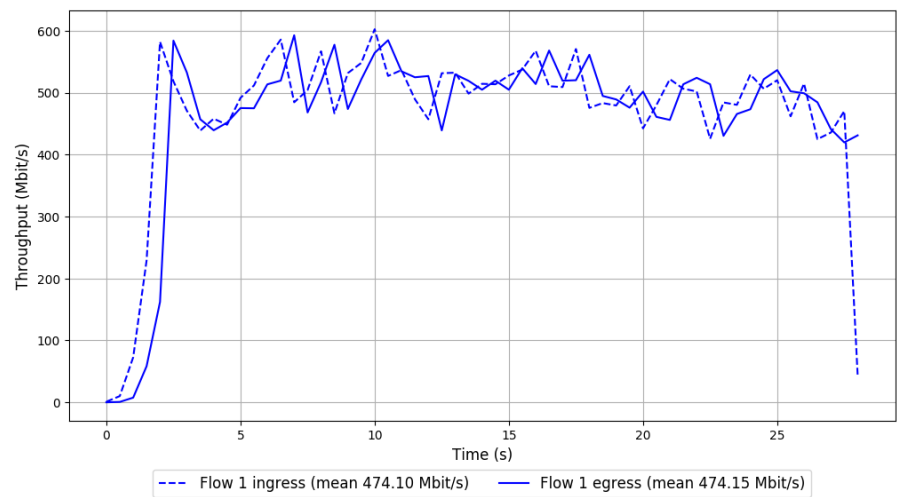
Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 474.10 Mbit/s)   Flow 1 egress (mean 474.15 Mbit/s)
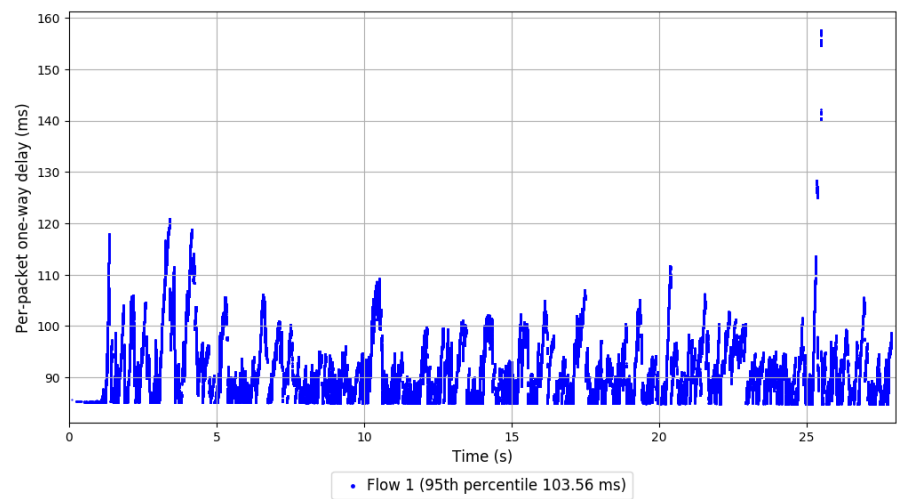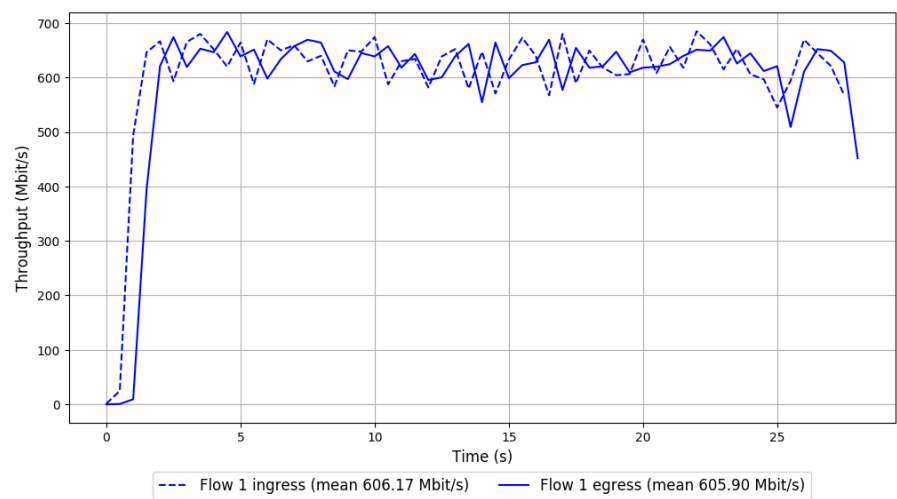

Flow 1 (95th percentile 93.29 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-09-17 22:57:03
End at: 2019-09-17 22:57:33
Local clock offset: 11.515 ms
Remote clock offset: -0.029 ms


# Below is generated by plot.py at 2019-09-18 02:41:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 605.90 Mbit/s
95th percentile per-packet one-way delay: 103.557 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 605.90 Mbit/s
95th percentile per-packet one-way delay: 103.557 ms
Loss rate: 0.66%
```

Run 1: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 606.17 Mbit/s) ----- Flow 1 egress (mean 605.90 Mbit/s) ———

• Flow 1 (95th percentile 103.56 ms)

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-09-17 23:31:59
End at: 2019-09-17 23:32:29
Local clock offset: 23.018 ms
Remote clock offset: 0.143 ms


# Below is generated by plot.py at 2019-09-18 02:41:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 563.53 Mbit/s
95th percentile per-packet one-way delay: 96.809 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 563.53 Mbit/s
95th percentile per-packet one-way delay: 96.809 ms
Loss rate: 0.69%
```
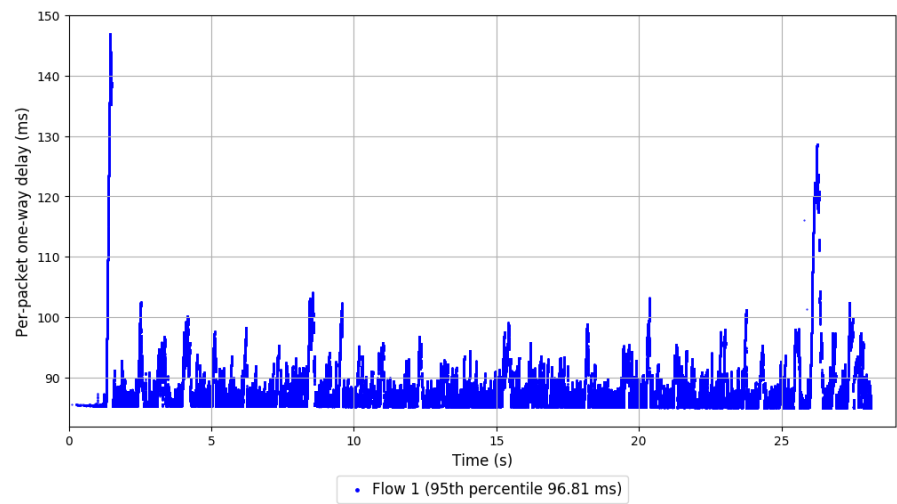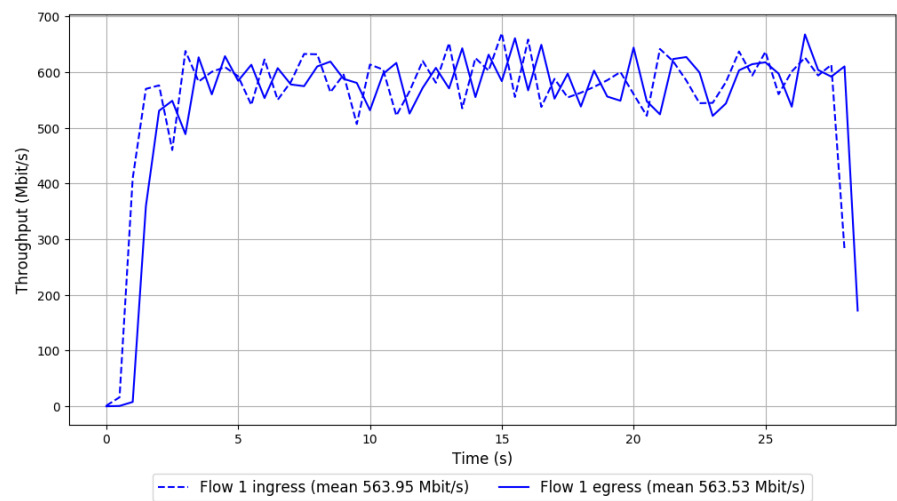
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-09-18 00:06:55
End at: 2019-09-18 00:07:25
Local clock offset: 12.405 ms
Remote clock offset: 0.034 ms


# Below is generated by plot.py at 2019-09-18 02:41:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 581.22 Mbit/s
95th percentile per-packet one-way delay: 95.781 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 581.22 Mbit/s
95th percentile per-packet one-way delay: 95.781 ms
Loss rate: 0.69%
```
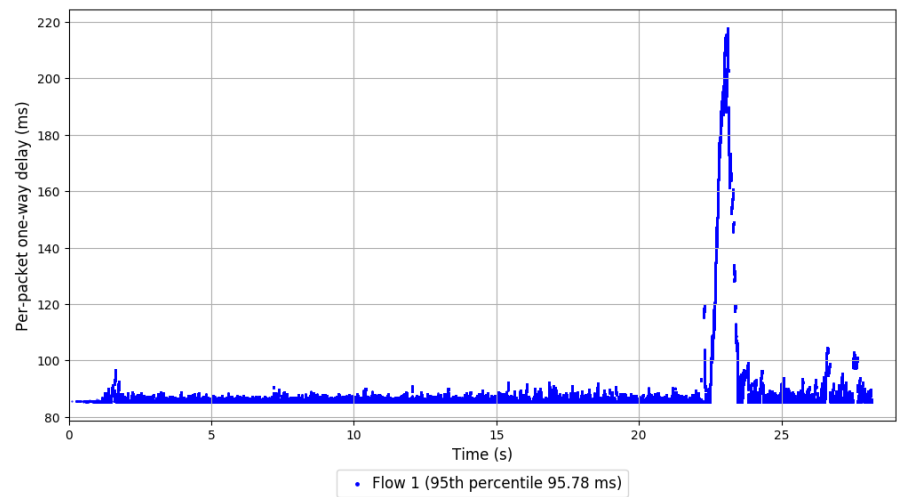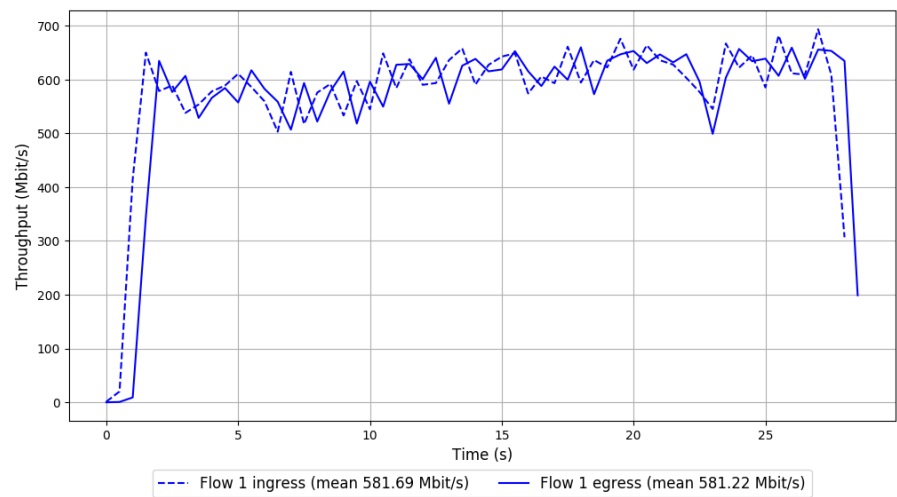
Run 3: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 581.69 Mbit/s)   Flow 1 egress (mean 581.22 Mbit/s)

• Flow 1 (95th percentile 95.78 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-09-18 00:42:01
End at: 2019-09-18 00:42:31
Local clock offset: 6.08 ms
Remote clock offset: 0.013 ms


# Below is generated by plot.py at 2019-09-18 02:41:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 537.11 Mbit/s
95th percentile per-packet one-way delay: 116.727 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 537.11 Mbit/s
95th percentile per-packet one-way delay: 116.727 ms
Loss rate: 0.74%
```
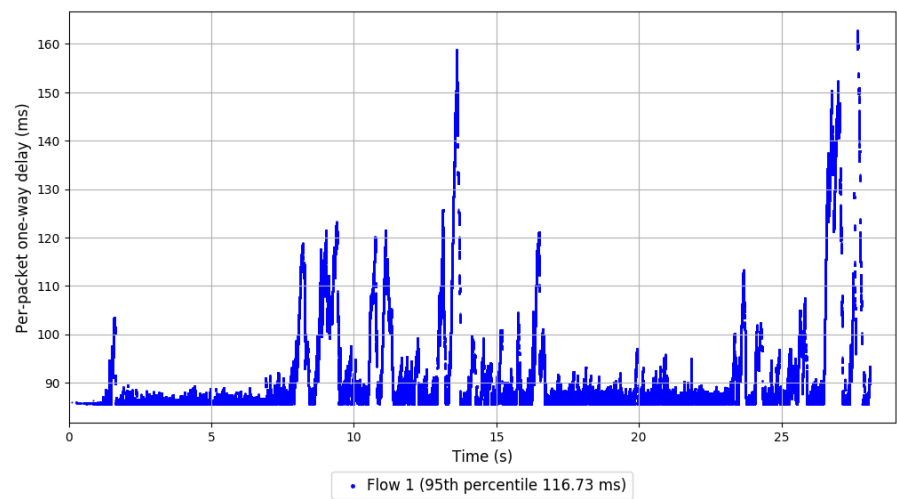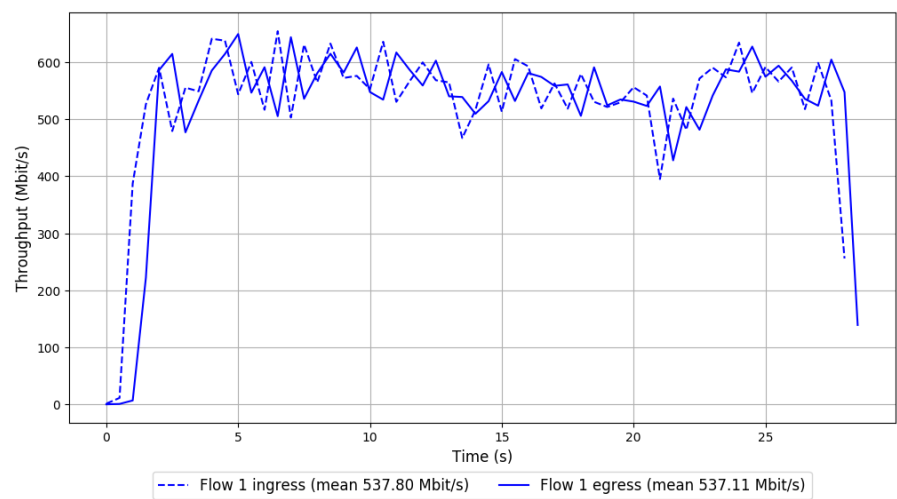
Run 4: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 537.80 Mbit/s)   Flow 1 egress (mean 537.11 Mbit/s)

Flow 1 (95th percentile 116.73 ms)

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-09-18 01:16:53
End at: 2019-09-18 01:17:23
Local clock offset: 2.905 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-09-18 02:41:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 526.46 Mbit/s
95th percentile per-packet one-way delay: 98.547 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 526.46 Mbit/s
95th percentile per-packet one-way delay: 98.547 ms
Loss rate: 0.58%
```
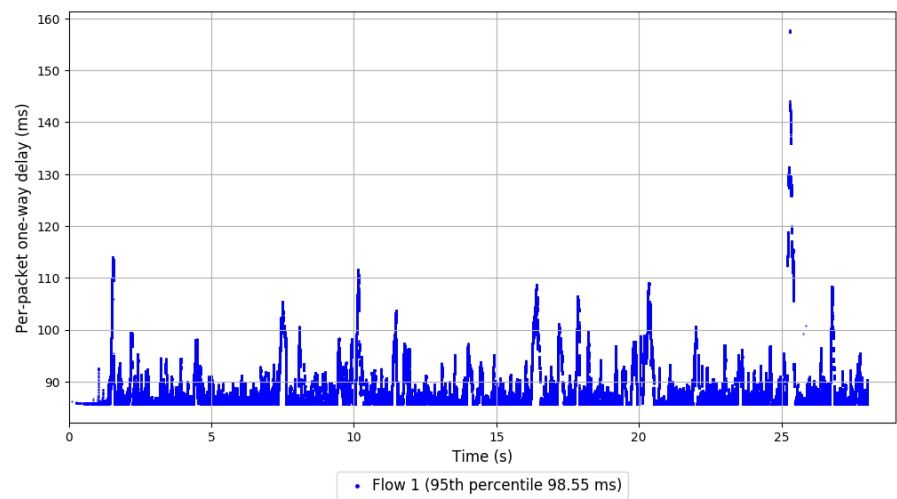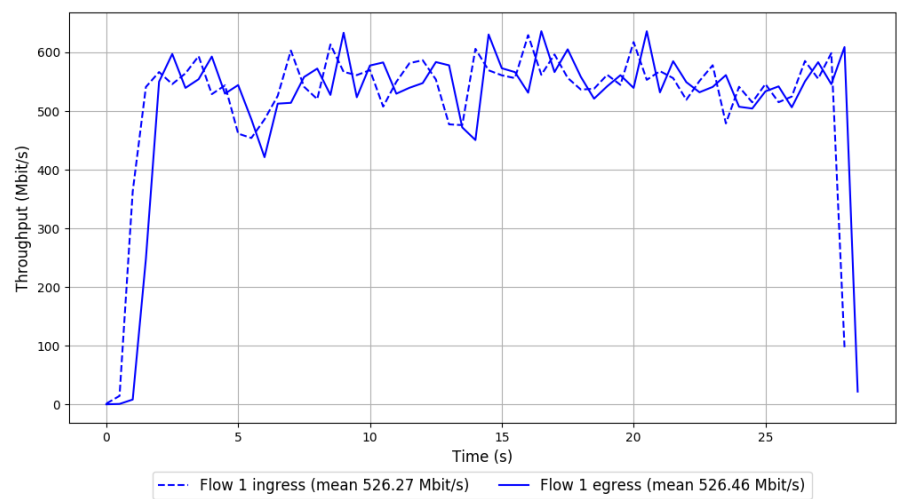
Run 5: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 526.27 Mbit/s) — — — Flow 1 egress (mean 526.46 Mbit/s)
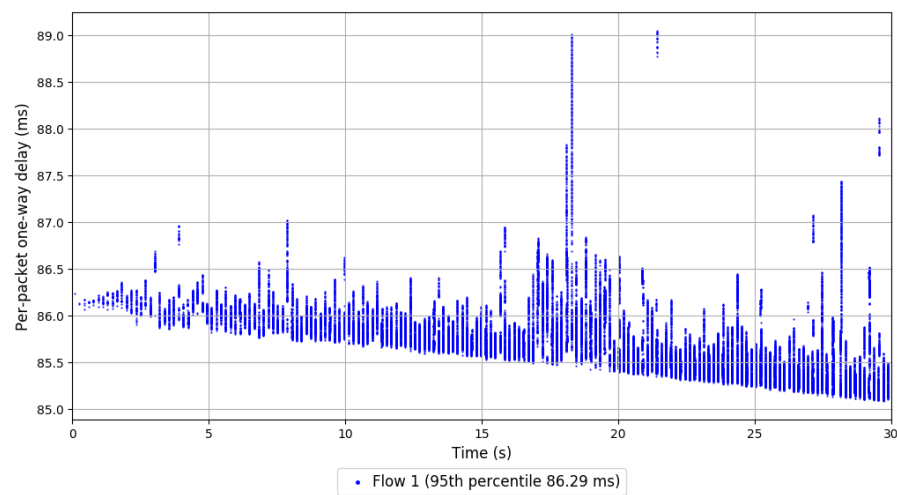
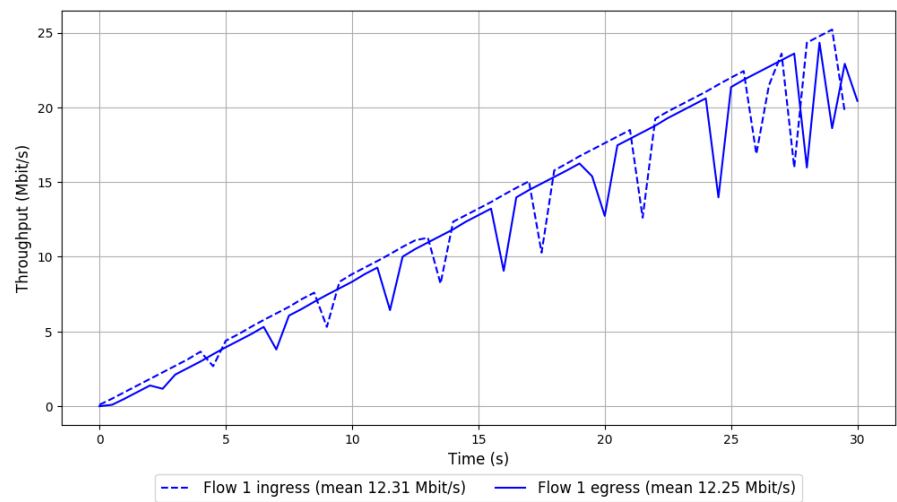

• Flow 1 (95th percentile 98.55 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2019-09-17 22:33:14
End at: 2019-09-17 22:33:44
Local clock offset: 3.157 ms
Remote clock offset: -0.12 ms


# Below is generated by plot.py at 2019-09-18 02:41:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.25 Mbit/s
95th percentile per-packet one-way delay: 86.288 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 12.25 Mbit/s
95th percentile per-packet one-way delay: 86.288 ms
Loss rate: 1.05%
```

Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-09-17 23:07:15
End at: 2019-09-17 23:07:45
Local clock offset: 16.647 ms
Remote clock offset: 0.156 ms


# Below is generated by plot.py at 2019-09-18 02:41:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 87.231 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 87.231 ms
Loss rate: 1.15%
```
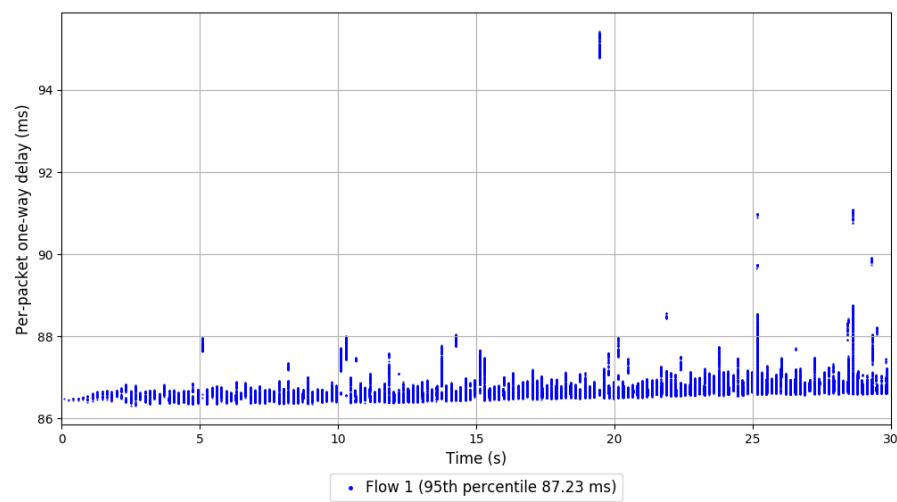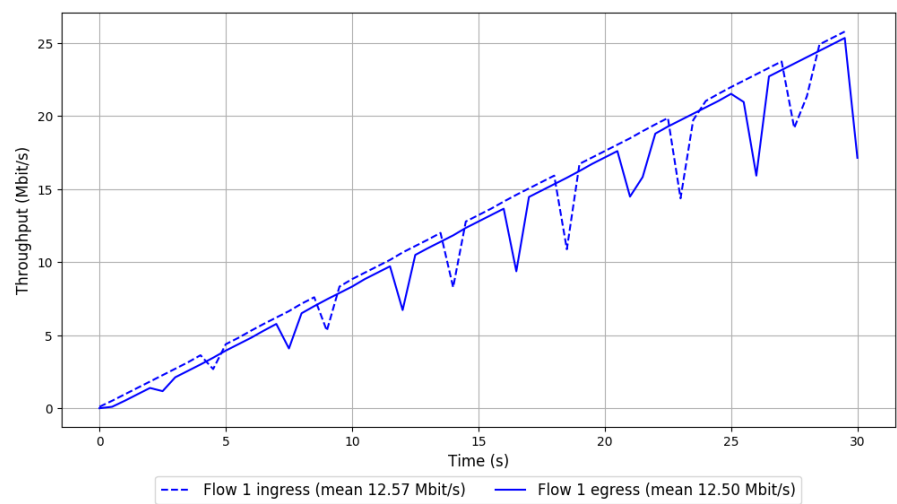
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-09-17 23:42:15
End at: 2019-09-17 23:42:45
Local clock offset: 21.333 ms
Remote clock offset: 0.121 ms


# Below is generated by plot.py at 2019-09-18 02:41:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 88.523 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 88.523 ms
Loss rate: 1.15%
```
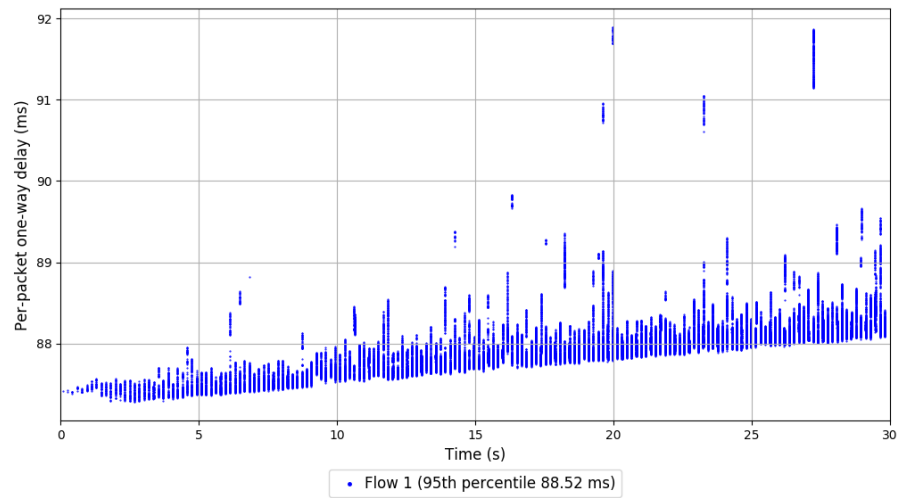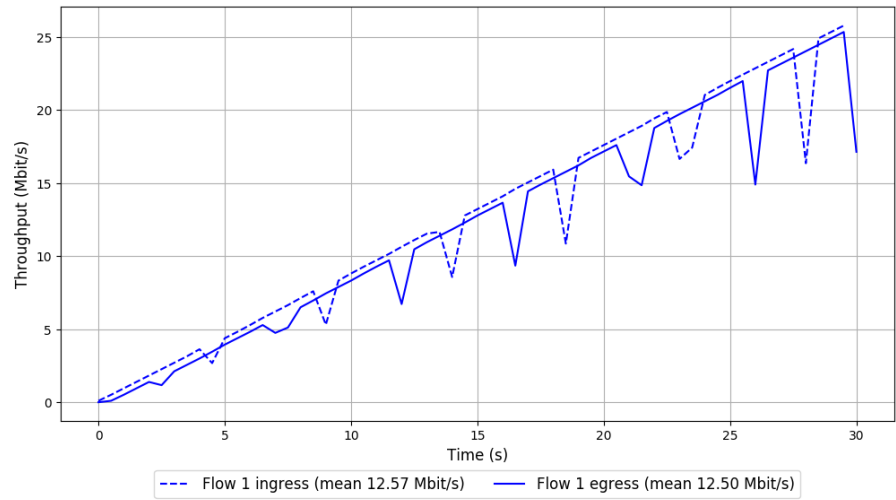
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-09-18 00:17:23
End at: 2019-09-18 00:17:53
Local clock offset: 9.571 ms
Remote clock offset: 0.018 ms


# Below is generated by plot.py at 2019-09-18 02:41:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.52 Mbit/s
95th percentile per-packet one-way delay: 87.563 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.52 Mbit/s
95th percentile per-packet one-way delay: 87.563 ms
Loss rate: 1.15%
```
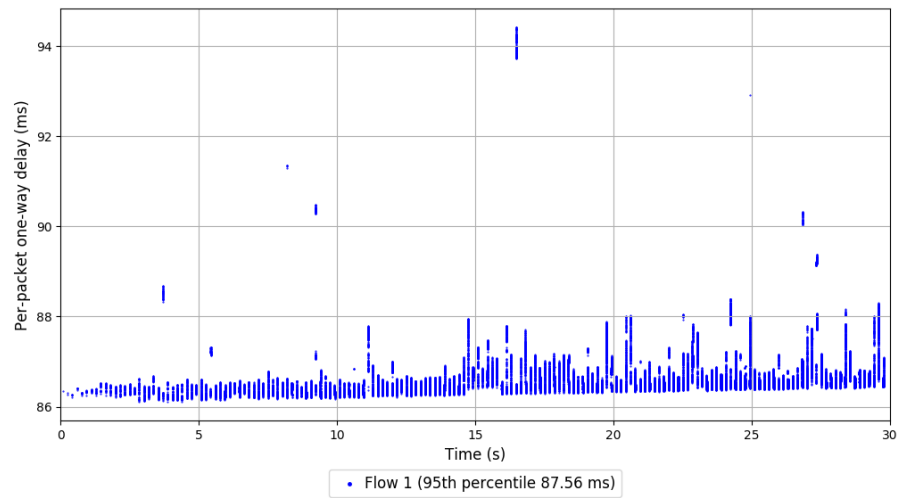
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-09-18 00:52:24
End at: 2019-09-18 00:52:54
Local clock offset: 4.312 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2019-09-18 02:41:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.46 Mbit/s
95th percentile per-packet one-way delay: 87.530 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 12.46 Mbit/s
95th percentile per-packet one-way delay: 87.530 ms
Loss rate: 1.15%
```
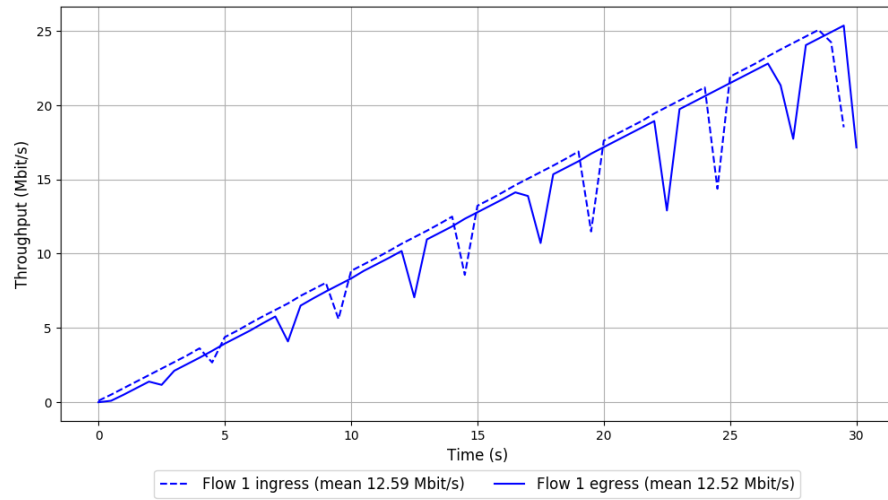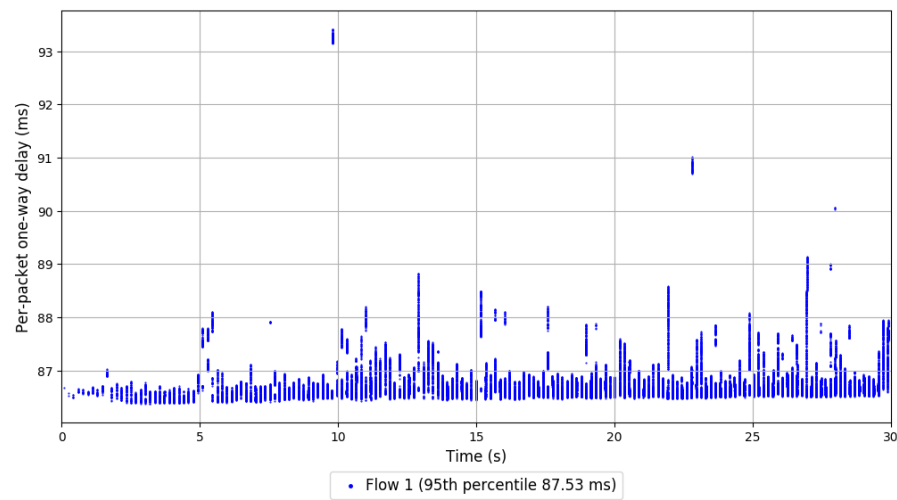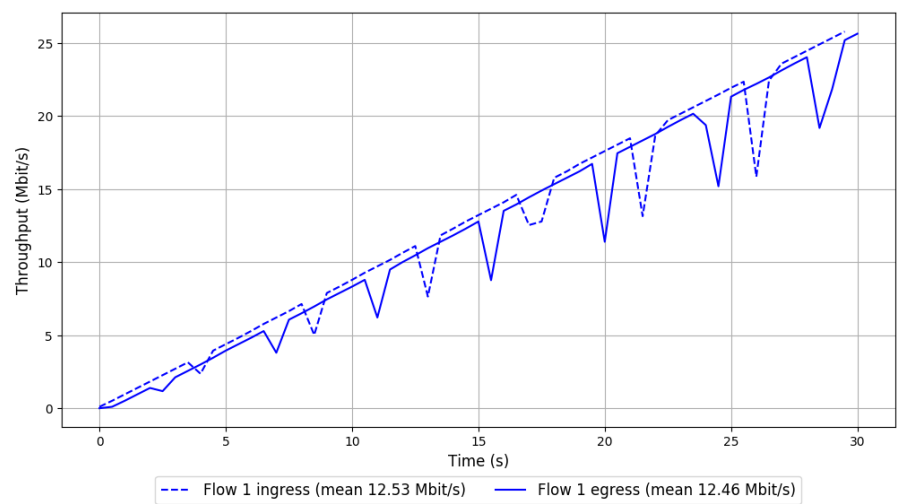
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 12.53 Mbit/s) --- Flow 1 egress (mean 12.46 Mbit/s)
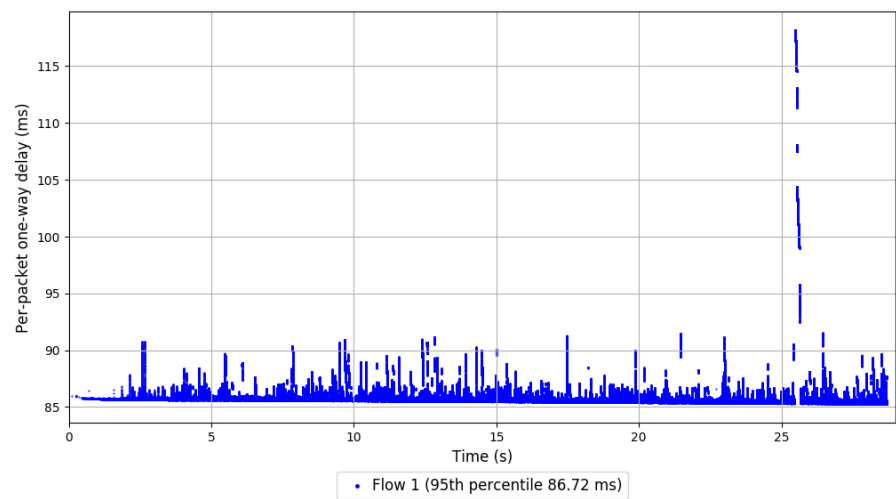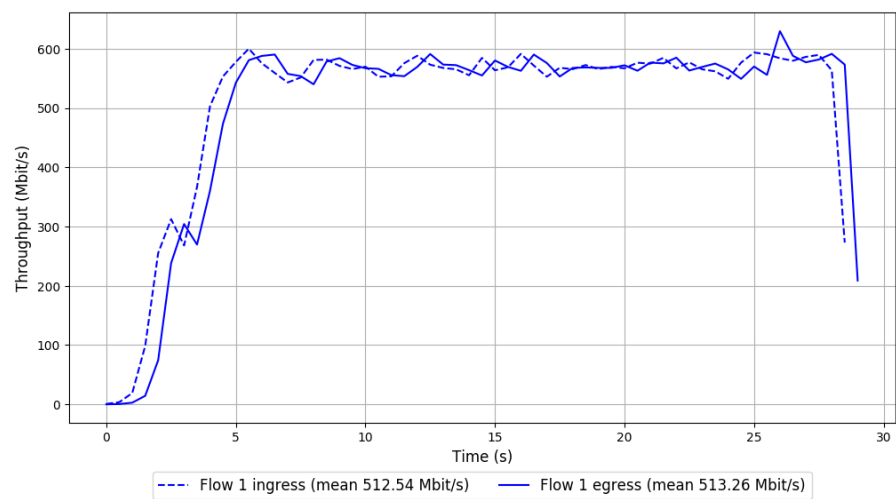

Flow 1 (95th percentile 87.53 ms)

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```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-09-17 22:42:31
End at: 2019-09-17 22:43:01
Local clock offset: 6.618 ms
Remote clock offset: -0.215 ms


# Below is generated by plot.py at 2019-09-18 02:42:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 513.26 Mbit/s
95th percentile per-packet one-way delay: 86.720 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 513.26 Mbit/s
95th percentile per-packet one-way delay: 86.720 ms
Loss rate: 0.53%
```

Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-09-17 23:17:06
End at: 2019-09-17 23:17:36
Local clock offset: 14.822 ms
Remote clock offset: 0.298 ms


# Below is generated by plot.py at 2019-09-18 02:42:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 510.10 Mbit/s
95th percentile per-packet one-way delay: 89.168 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 510.10 Mbit/s
95th percentile per-packet one-way delay: 89.168 ms
Loss rate: 0.66%
```
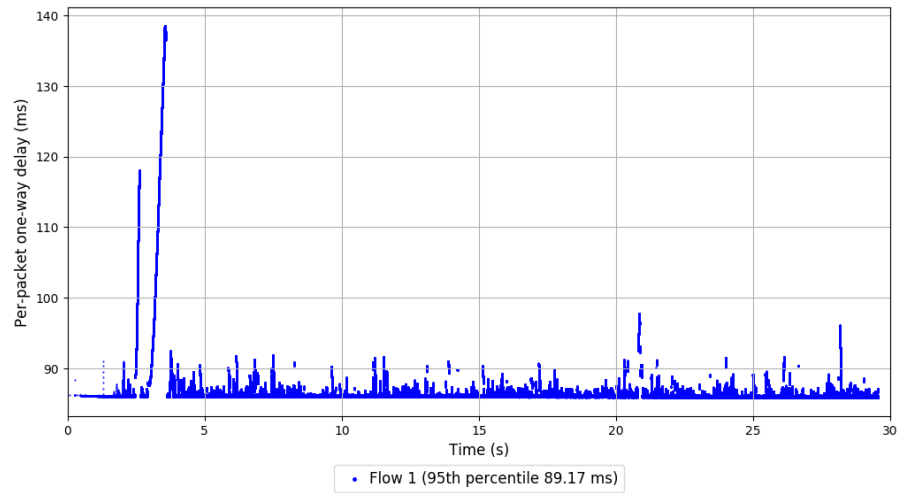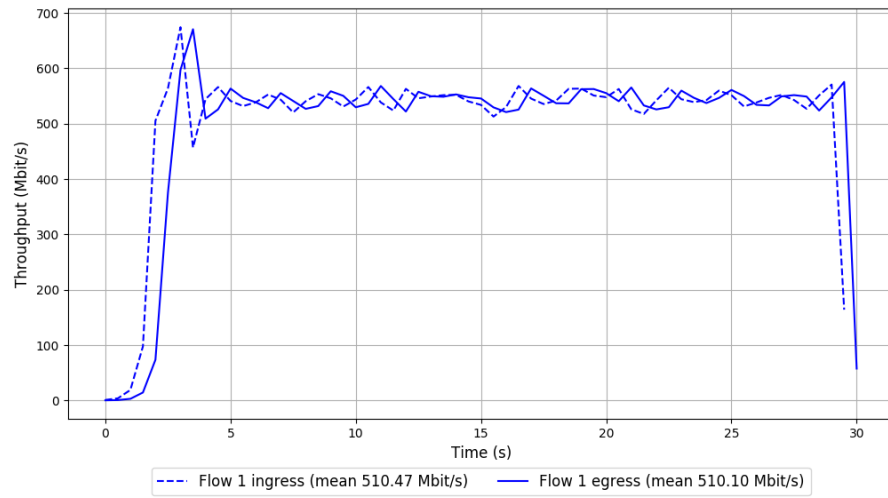
Run 2: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 510.47 Mbit/s)   Flow 1 egress (mean 510.10 Mbit/s)

Flow 1 (95th percentile 89.17 ms)

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-09-17 23:52:07
End at: 2019-09-17 23:52:37
Local clock offset: 11.966 ms
Remote clock offset: 0.141 ms


# Below is generated by plot.py at 2019-09-18 02:42:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 494.23 Mbit/s
95th percentile per-packet one-way delay: 87.383 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 494.23 Mbit/s
95th percentile per-packet one-way delay: 87.383 ms
Loss rate: 0.63%
```
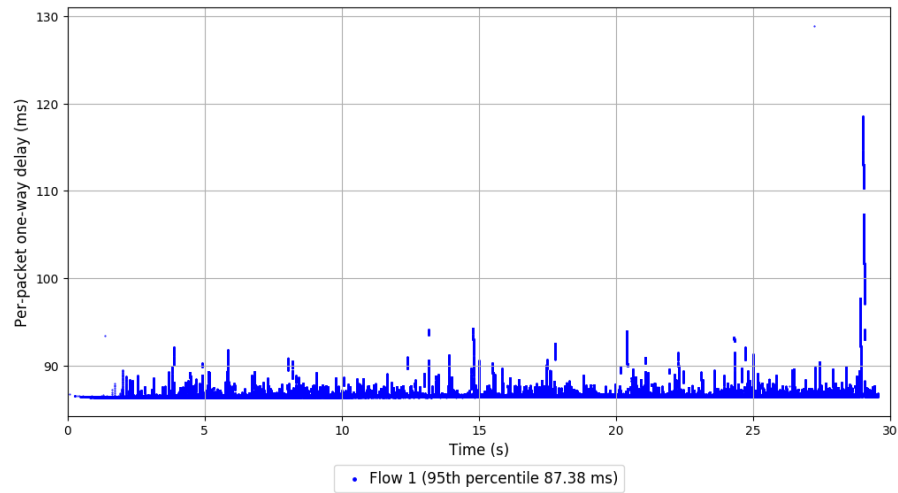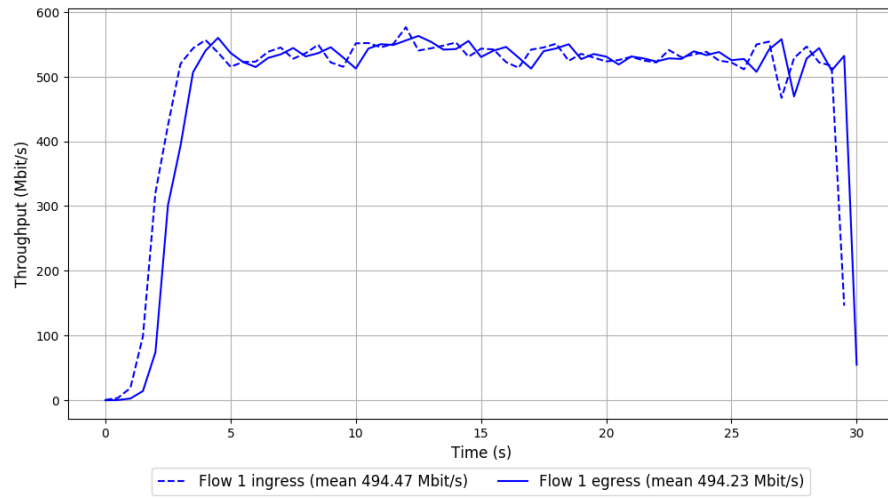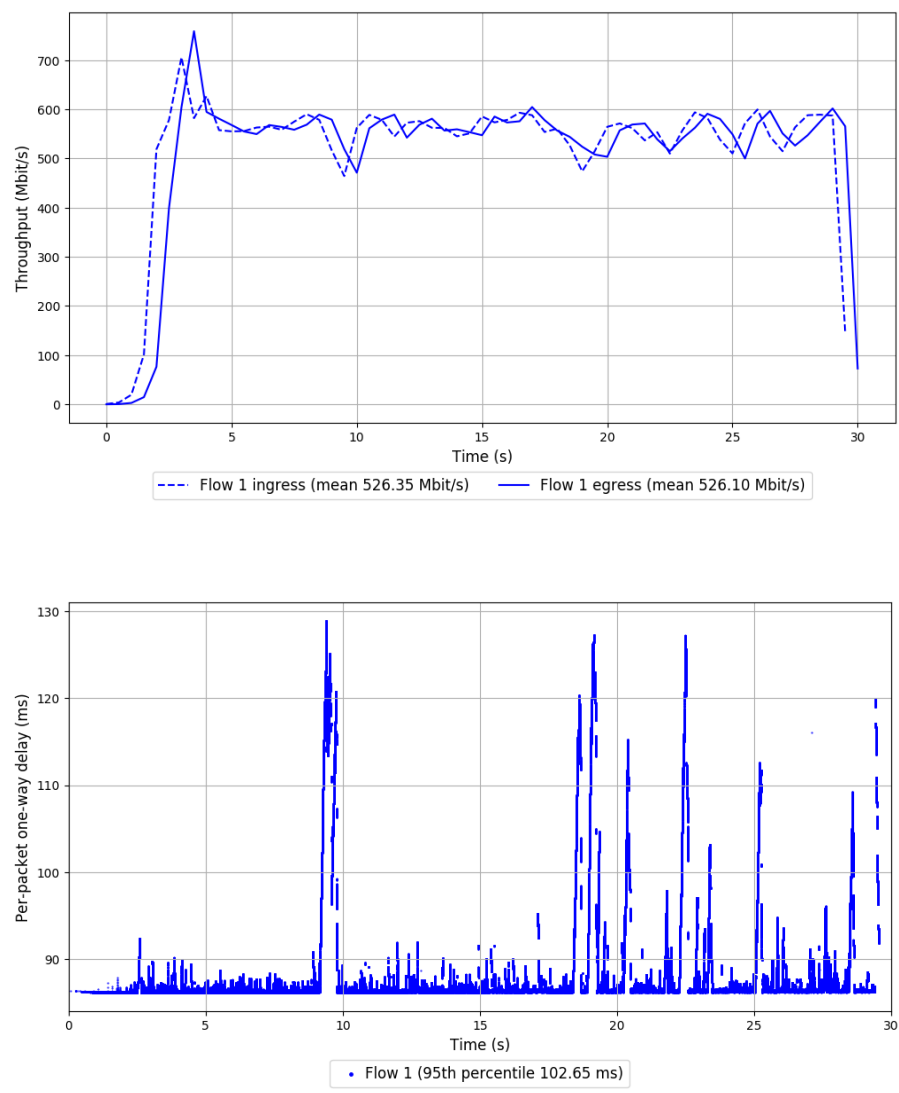
Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-09-18 00:27:12
End at: 2019-09-18 00:27:42
Local clock offset: 5.786 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2019-09-18 02:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 526.10 Mbit/s
95th percentile per-packet one-way delay: 102.646 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 526.10 Mbit/s
95th percentile per-packet one-way delay: 102.646 ms
Loss rate: 0.63%
```

Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-09-18 01:02:14
End at: 2019-09-18 01:02:44
Local clock offset: 2.36 ms
Remote clock offset: 0.035 ms


# Below is generated by plot.py at 2019-09-18 02:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.29 Mbit/s
95th percentile per-packet one-way delay: 91.946 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 283.29 Mbit/s
95th percentile per-packet one-way delay: 91.946 ms
Loss rate: 1.19%
```
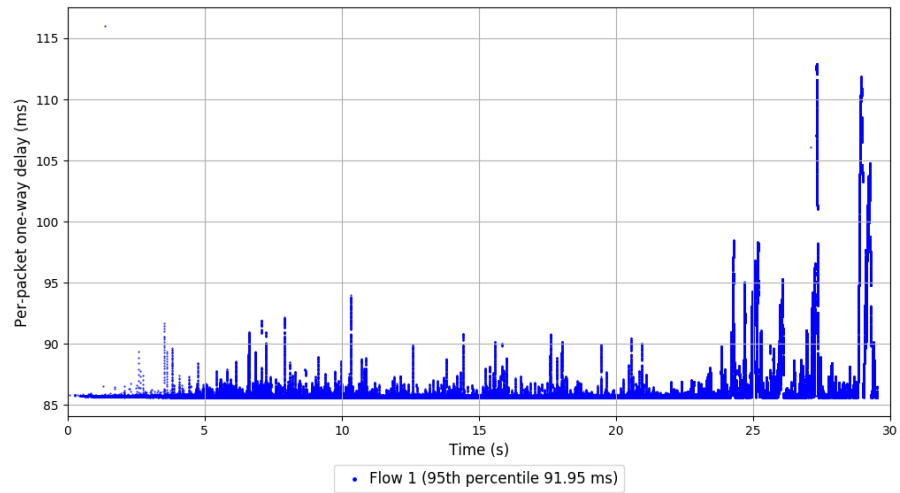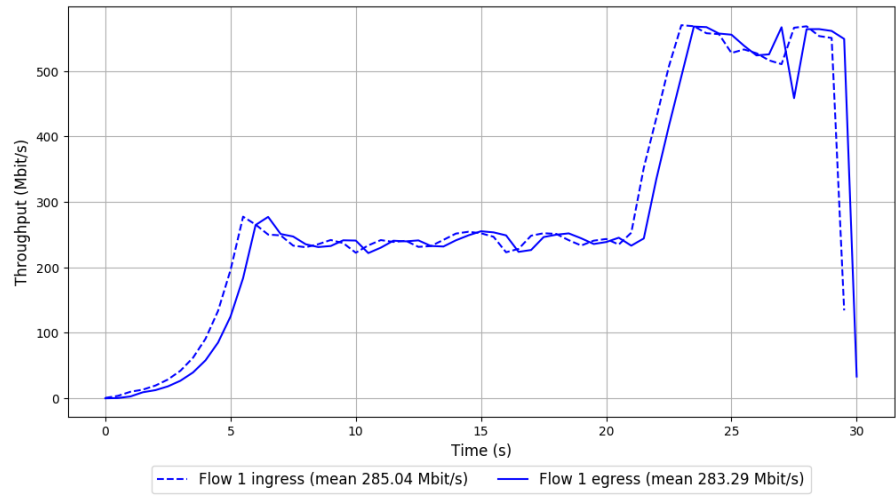
Run 5: Report of Muses_DecisionTree — Data Link
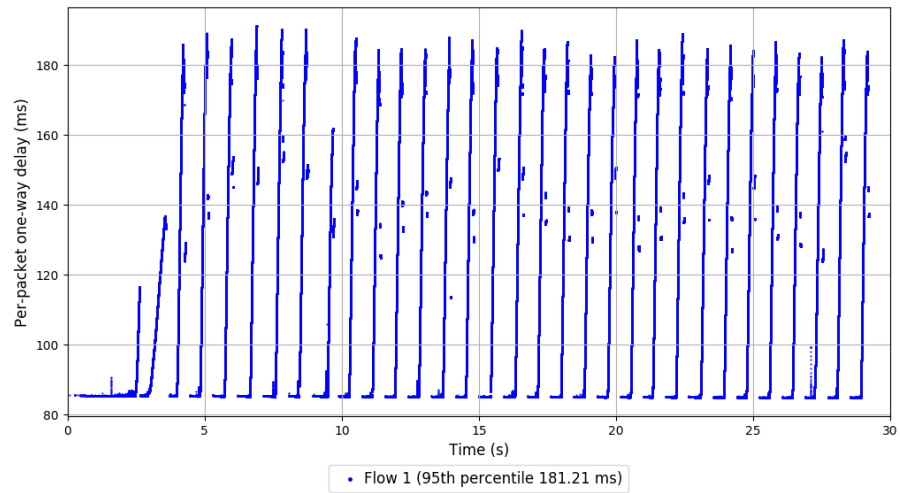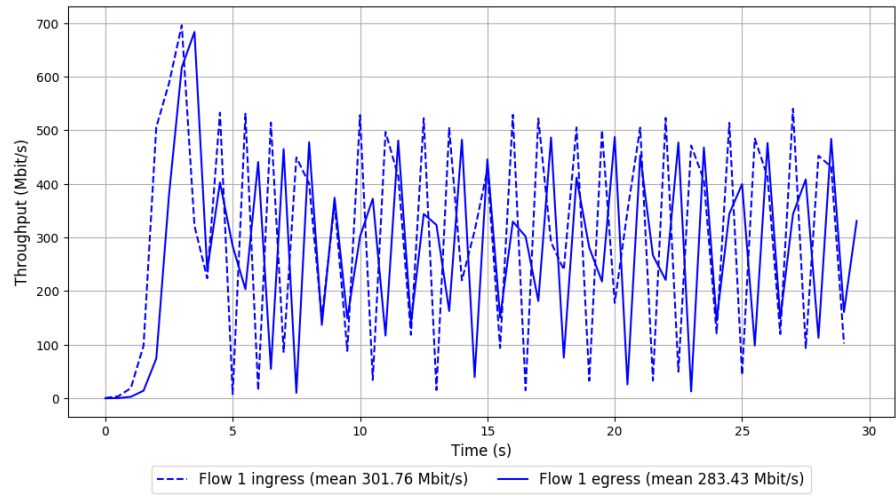
Run 1: Statistics of Muses_DecisionTreeH0

Start at: 2019-09-17 23:01:20
End at: 2019-09-17 23:01:50
Local clock offset: 15.588 ms
Remote clock offset: 0.094 ms

Below is generated by plot.py at 2019-09-18 02:49:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 283.43 Mbit/s
95th percentile per-packet one-way delay: 181.210 ms
Loss rate: 6.93%
-- Flow 1:
Average throughput: 283.43 Mbit/s
95th percentile per-packet one-way delay: 181.210 ms
Loss rate: 6.93%

Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-09-17 23:36:15
End at: 2019-09-17 23:36:45
Local clock offset: 26.953 ms
Remote clock offset: 0.152 ms


# Below is generated by plot.py at 2019-09-18 02:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.33 Mbit/s
95th percentile per-packet one-way delay: 176.609 ms
Loss rate: 5.96%
-- Flow 1:
Average throughput: 283.33 Mbit/s
95th percentile per-packet one-way delay: 176.609 ms
Loss rate: 5.96%
```
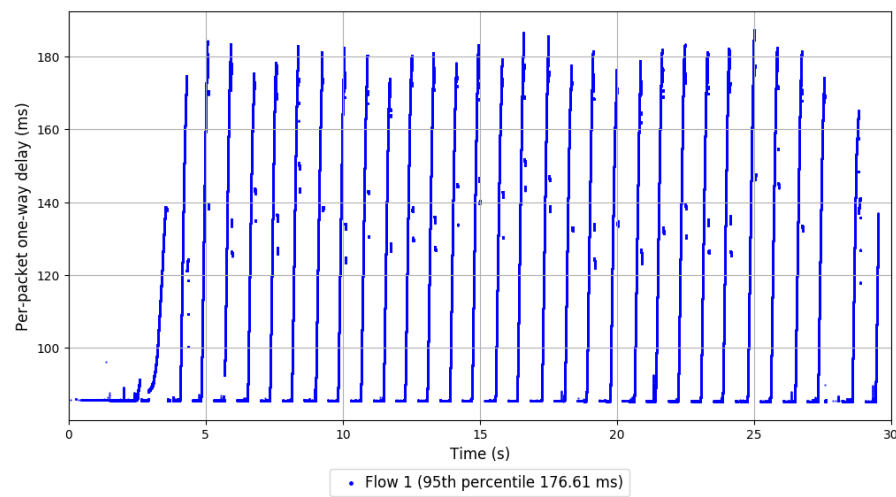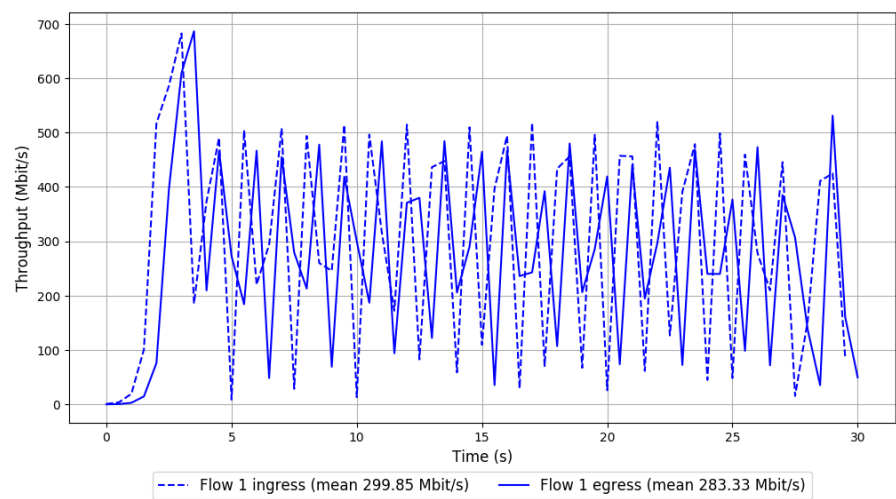
Run 2: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 299.85 Mbit/s)   Flow 1 egress (mean 283.33 Mbit/s)

• Flow 1 (95th percentile 176.61 ms)

Run 3: Statistics of Muses_DecisionTreeH0

Start at: 2019-09-18 00:11:13
End at: 2019-09-18 00:11:43
Local clock offset: 13.481 ms
Remote clock offset: 0.033 ms

Below is generated by plot.py at 2019-09-18 02:49:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 505.79 Mbit/s
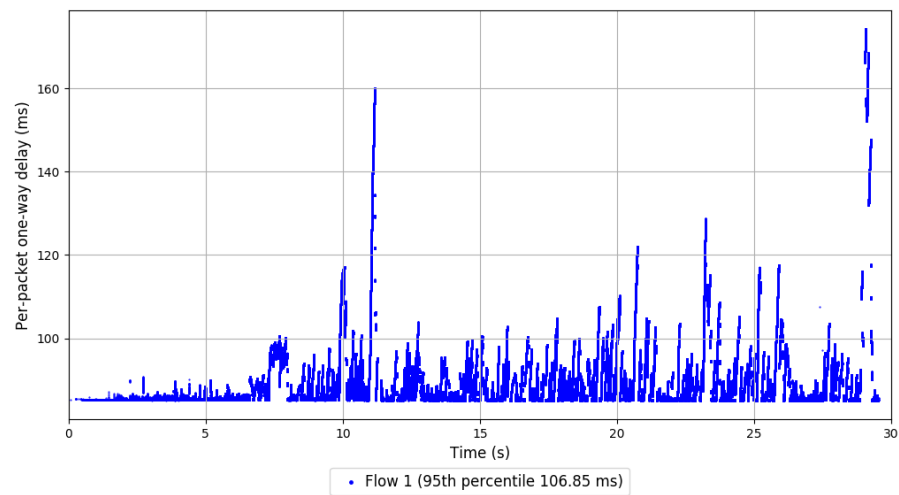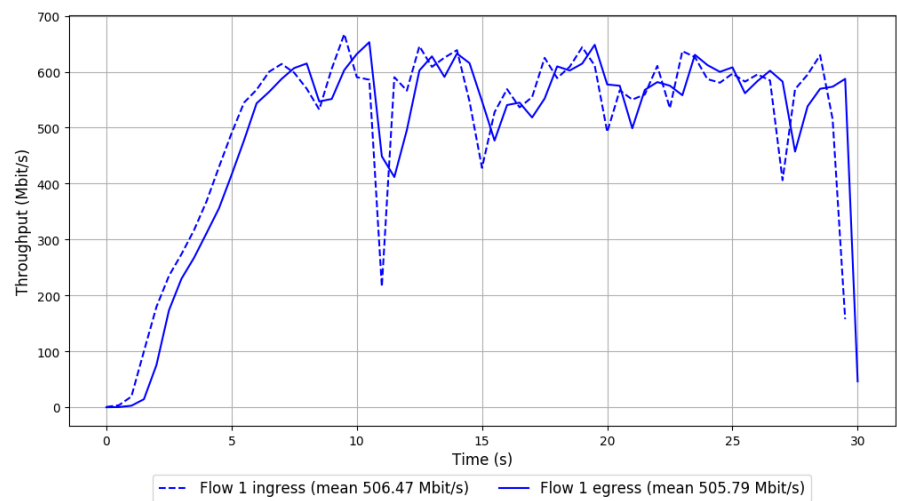95th percentile per-packet one-way delay: 106.846 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 505.79 Mbit/s
95th percentile per-packet one-way delay: 106.846 ms
Loss rate: 0.69%
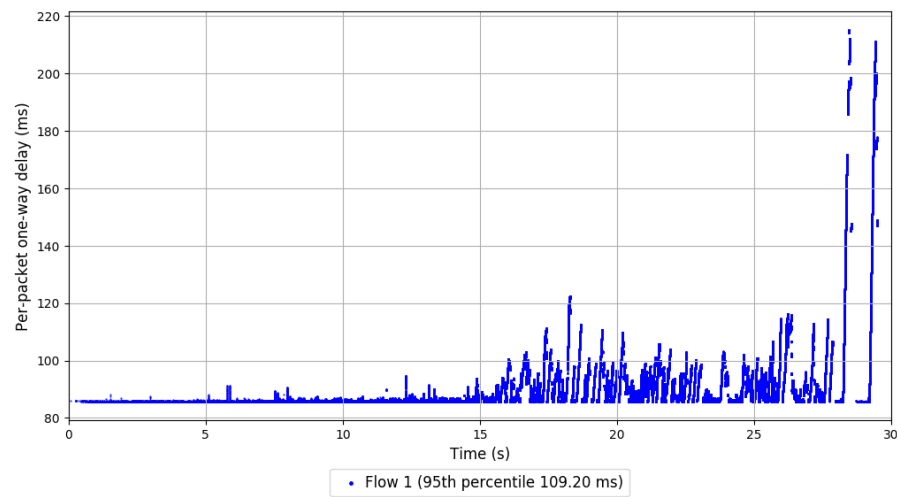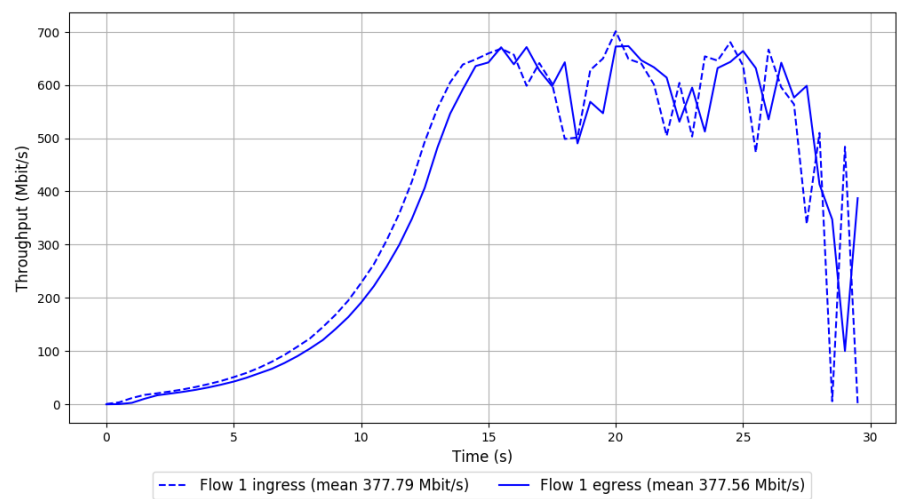
Run 3: Report of Muses_DecisionTreeH0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-09-18 00:46:15
End at: 2019-09-18 00:46:45
Local clock offset: 6.771 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2019-09-18 02:49:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 377.56 Mbit/s
95th percentile per-packet one-way delay: 109.203 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 377.56 Mbit/s
95th percentile per-packet one-way delay: 109.203 ms
Loss rate: 0.79%
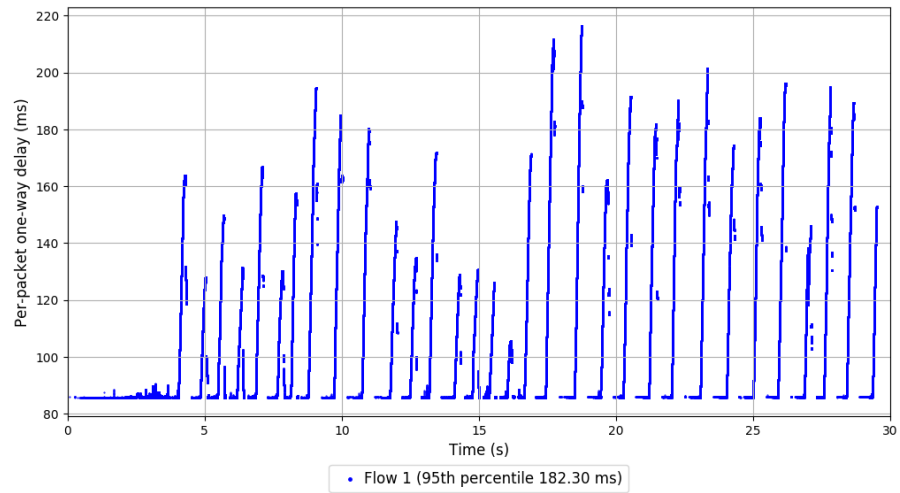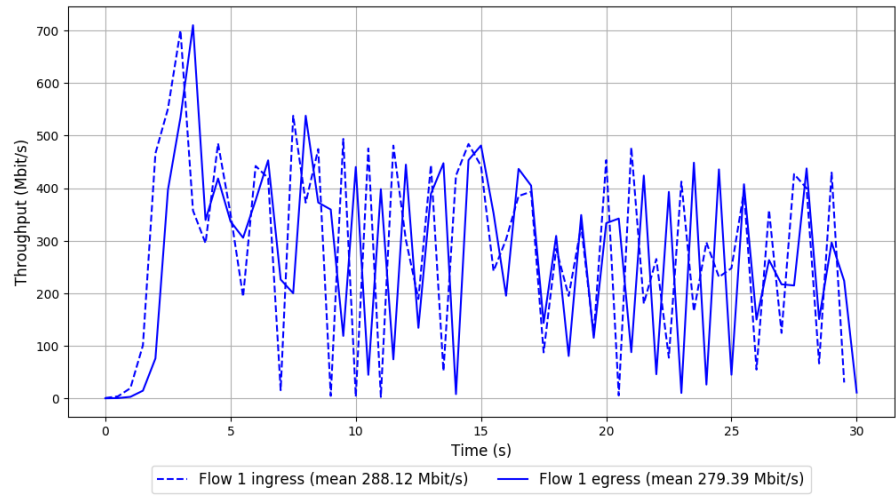```

Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-09-18 01:21:09
End at: 2019-09-18 01:21:39
Local clock offset: 3.01 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2019-09-18 02:49:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 279.39 Mbit/s
95th percentile per-packet one-way delay: 182.301 ms
Loss rate: 3.37%
-- Flow 1:
Average throughput: 279.39 Mbit/s
95th percentile per-packet one-way delay: 182.301 ms
Loss rate: 3.37%
```

Run 5: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 288.12 Mbit/s) —— Flow 1 egress (mean 279.39 Mbit/s)
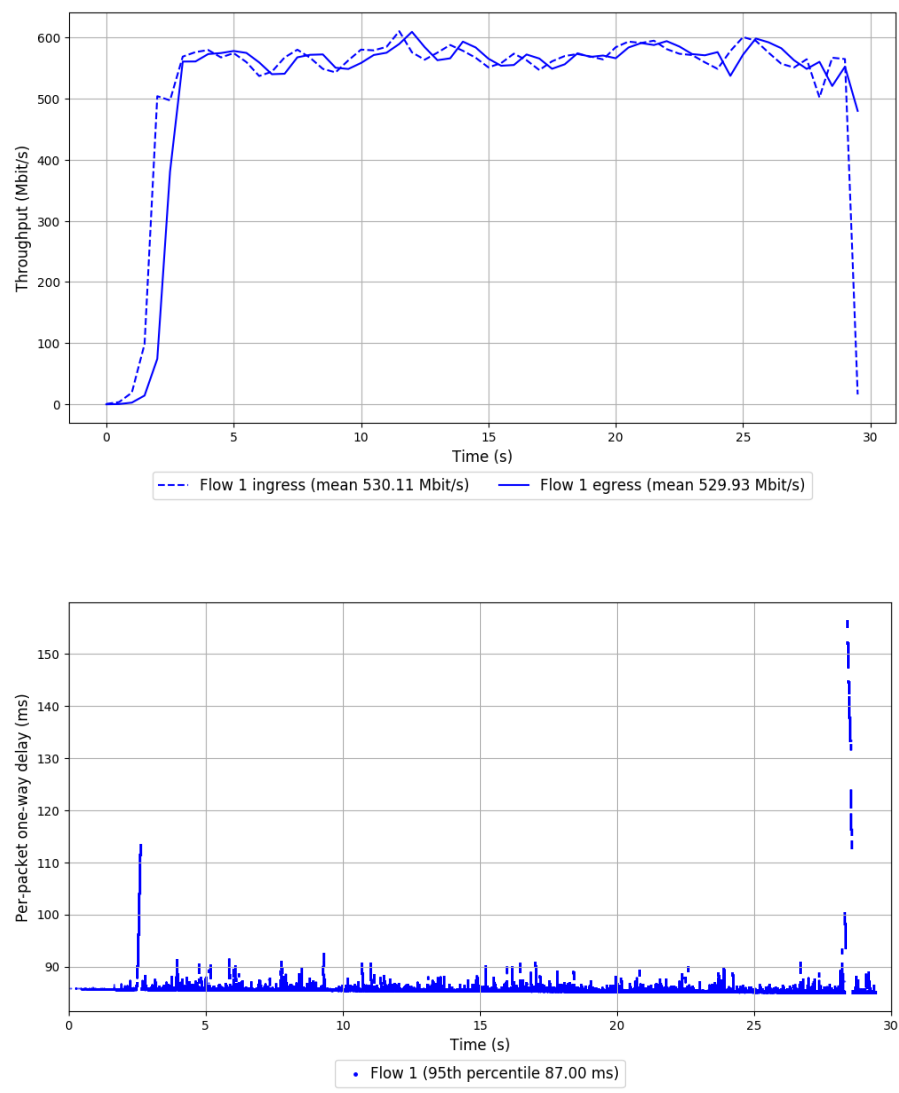

• Flow 1 (95th percentile 182.30 ms)

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-09-17 22:45:14
End at: 2019-09-17 22:45:44
Local clock offset: 9.578 ms
Remote clock offset: -0.24 ms


# Below is generated by plot.py at 2019-09-18 02:51:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 529.93 Mbit/s
95th percentile per-packet one-way delay: 87.001 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 529.93 Mbit/s
95th percentile per-packet one-way delay: 87.001 ms
Loss rate: 0.62%
```

Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-09-17 23:19:49
End at: 2019-09-17 23:20:19
Local clock offset: 15.421 ms
Remote clock offset: 0.301 ms


# Below is generated by plot.py at 2019-09-18 02:54:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 530.70 Mbit/s
95th percentile per-packet one-way delay: 86.610 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 530.70 Mbit/s
95th percentile per-packet one-way delay: 86.610 ms
Loss rate: 0.60%
```
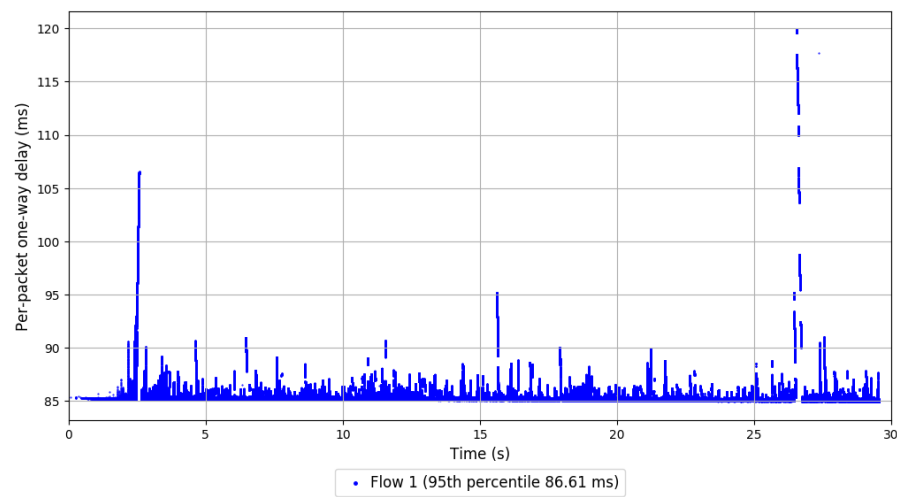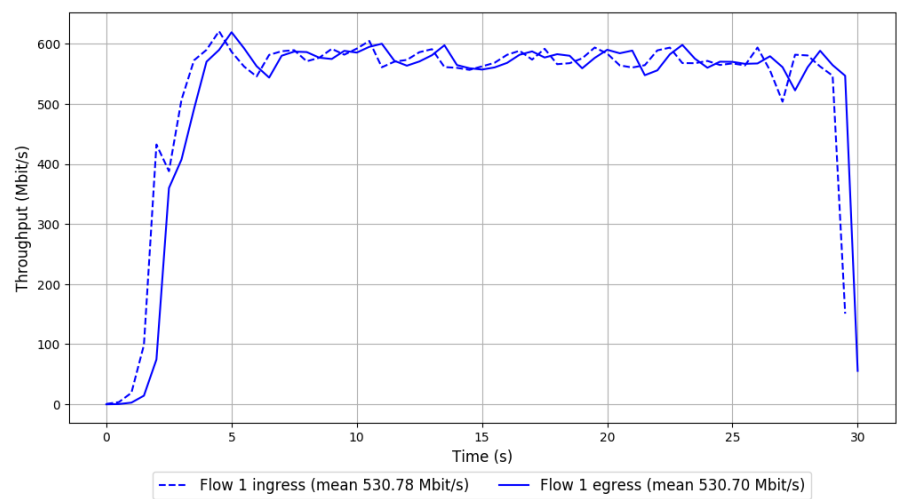
Run 2: Report of Muses_DecisionTreeR0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-09-17 23:54:49
End at: 2019-09-17 23:55:19
Local clock offset: 10.656 ms
Remote clock offset: 0.183 ms


# Below is generated by plot.py at 2019-09-18 02:54:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 490.81 Mbit/s
95th percentile per-packet one-way delay: 89.631 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 490.81 Mbit/s
95th percentile per-packet one-way delay: 89.631 ms
Loss rate: 0.75%
```
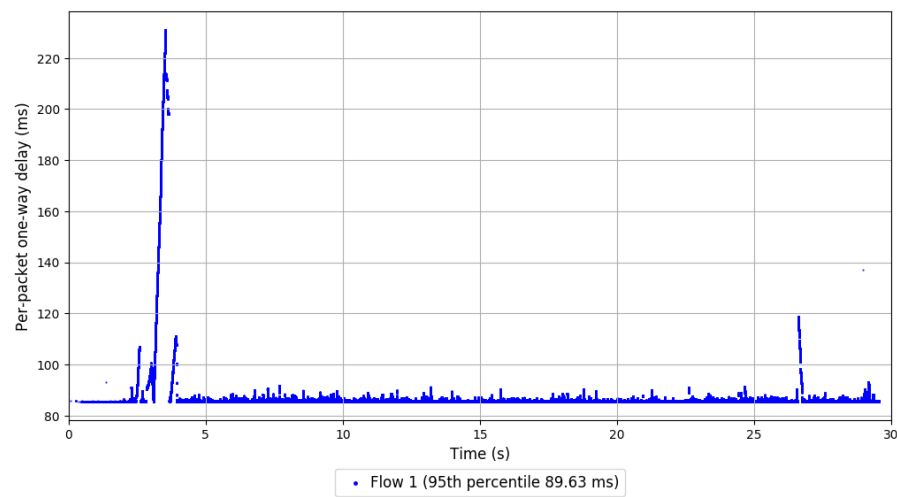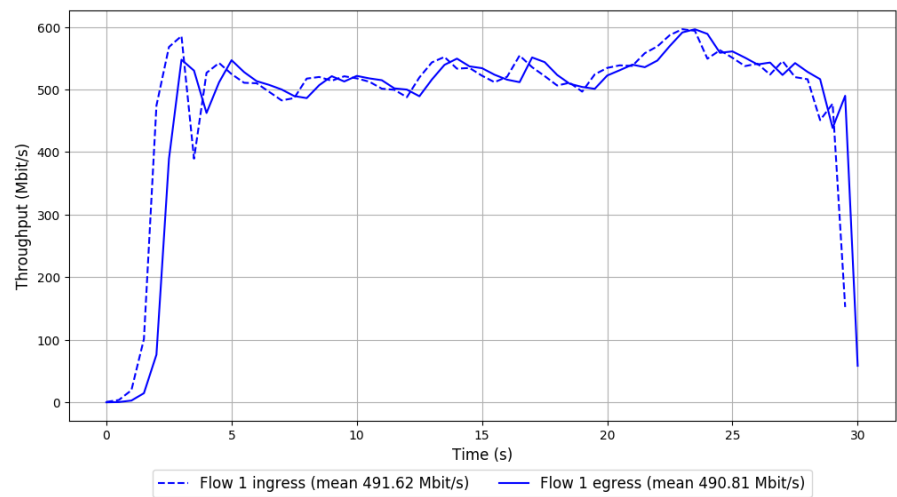
Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-09-18 00:29:56
End at: 2019-09-18 00:30:26
Local clock offset: 5.303 ms
Remote clock offset: -0.0 ms


# Below is generated by plot.py at 2019-09-18 02:54:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 511.36 Mbit/s
95th percentile per-packet one-way delay: 99.362 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 511.36 Mbit/s
95th percentile per-packet one-way delay: 99.362 ms
Loss rate: 0.65%
```
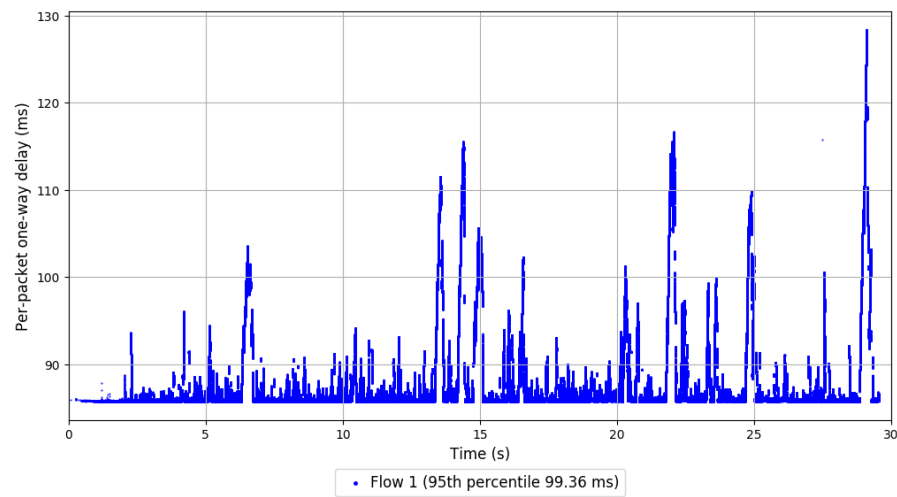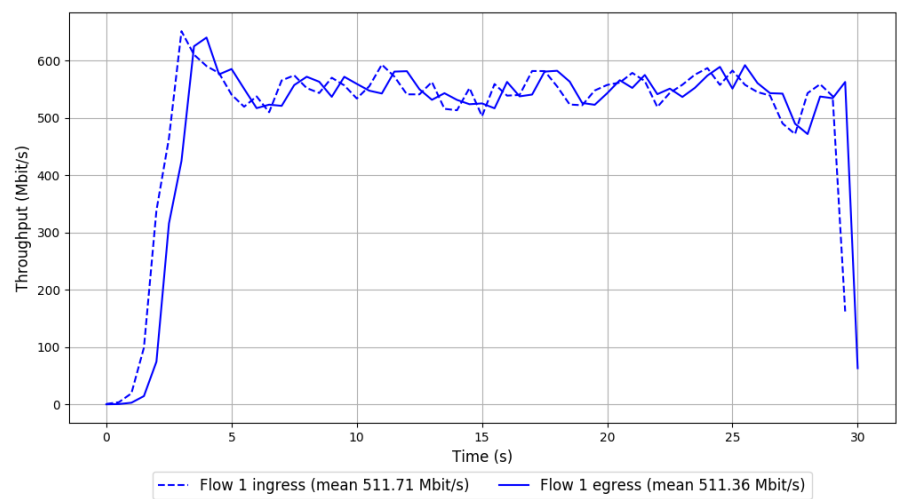
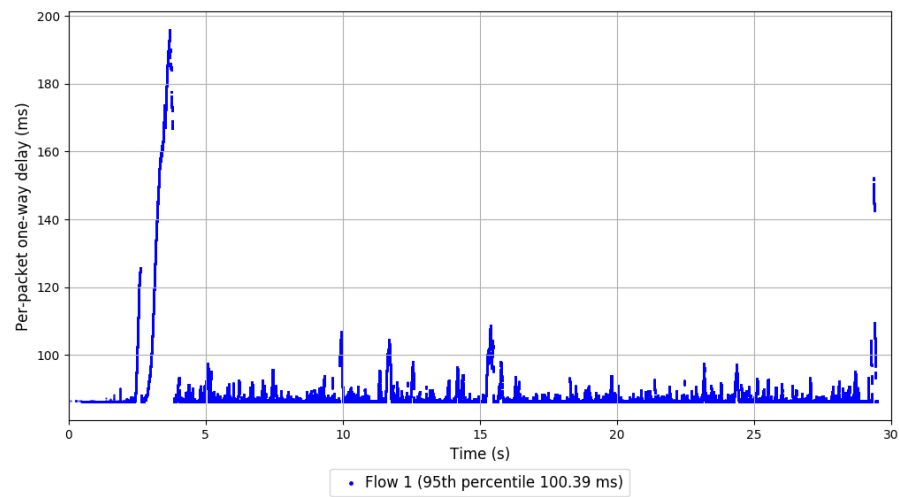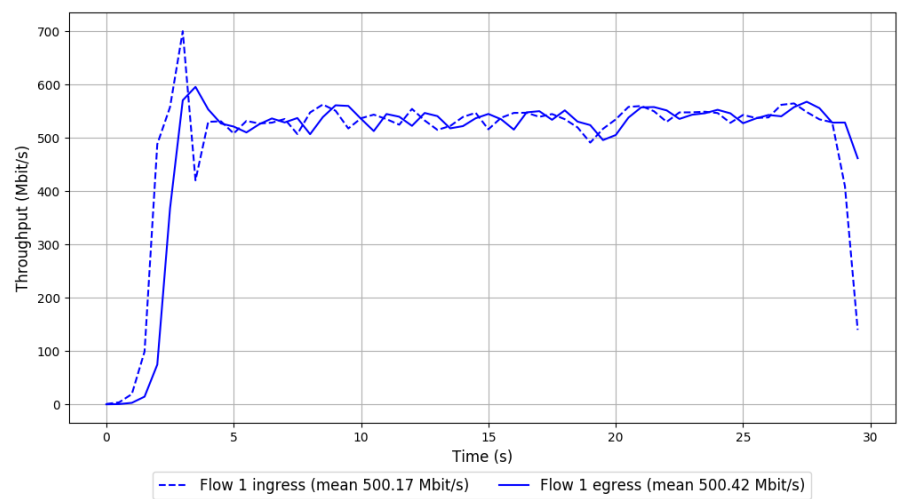Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-09-18 01:04:47
End at: 2019-09-18 01:05:17
Local clock offset: 2.864 ms
Remote clock offset: 0.019 ms


# Below is generated by plot.py at 2019-09-18 02:55:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.42 Mbit/s
95th percentile per-packet one-way delay: 100.387 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 500.42 Mbit/s
95th percentile per-packet one-way delay: 100.387 ms
Loss rate: 0.70%
```

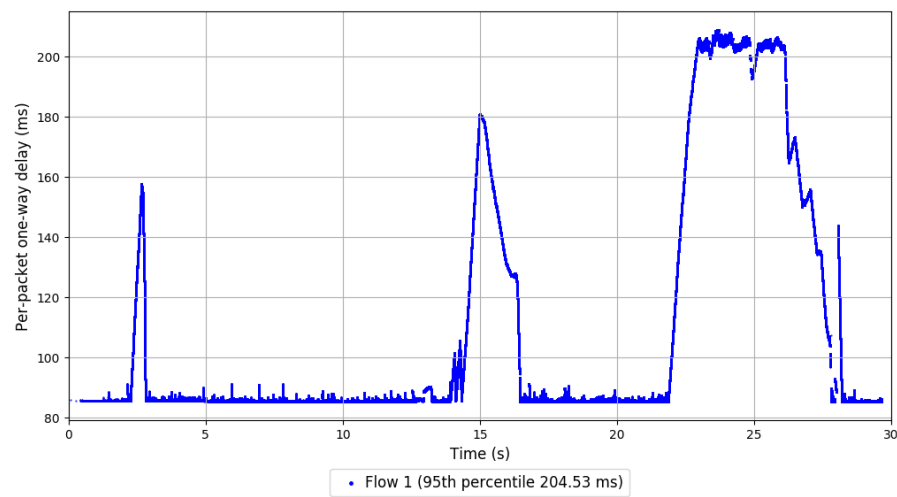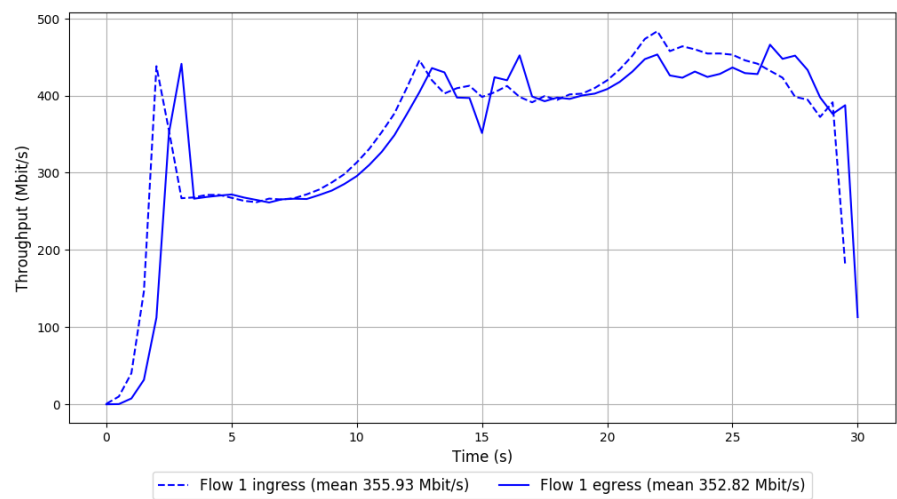Run 5: Report of Muses_DecisionTreeR0 — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-09-17 22:52:44
End at: 2019-09-17 22:53:14
Local clock offset: 9.301 ms
Remote clock offset: 0.154 ms

# Below is generated by plot.py at 2019-09-18 03:00:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 352.82 Mbit/s
95th percentile per-packet one-way delay: 204.532 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 352.82 Mbit/s
95th percentile per-packet one-way delay: 204.532 ms
Loss rate: 1.45%
```

Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 355.93 Mbit/s) --- Flow 1 egress (mean 352.82 Mbit/s)

• Flow 1 (95th percentile 204.53 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-09-17 23:27:36
End at: 2019-09-17 23:28:06
Local clock offset: 20.184 ms
Remote clock offset: 0.184 ms


# Below is generated by plot.py at 2019-09-18 03:02:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 366.03 Mbit/s
95th percentile per-packet one-way delay: 206.021 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 366.03 Mbit/s
95th percentile per-packet one-way delay: 206.021 ms
Loss rate: 2.11%
```
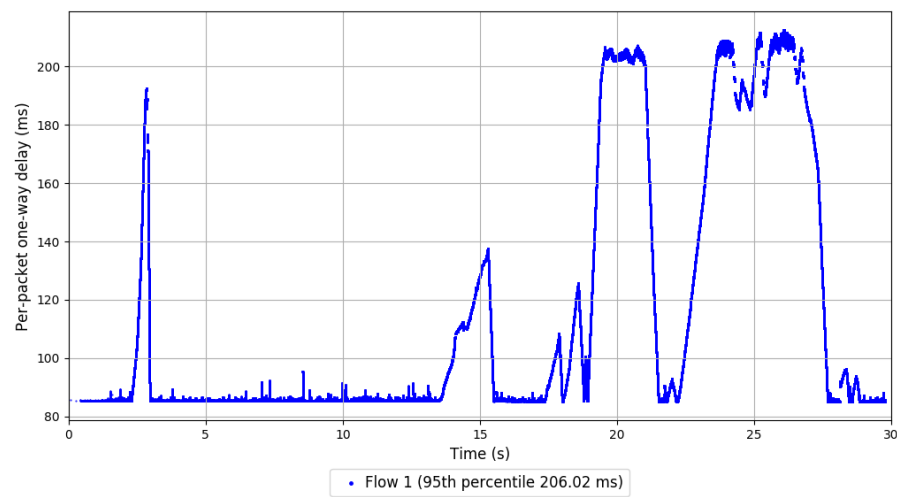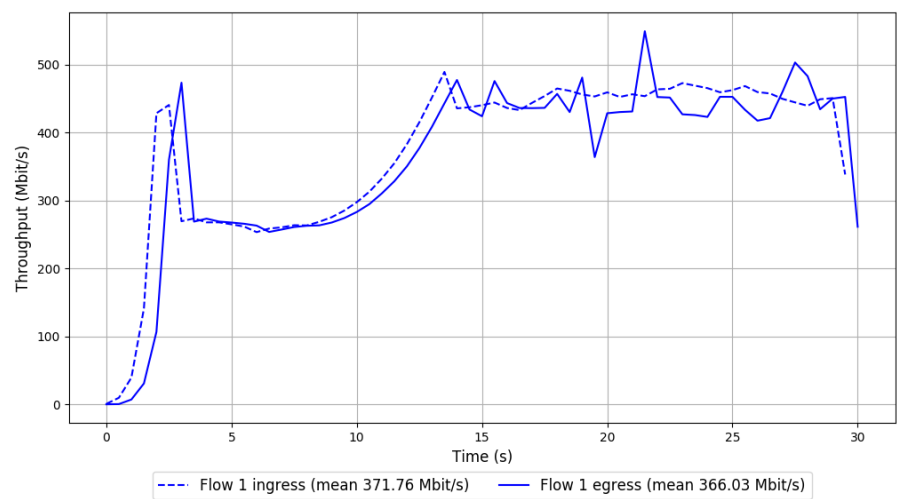
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-09-18 00:02:30
End at: 2019-09-18 00:03:00
Local clock offset: 11.317 ms
Remote clock offset: 0.1 ms


# Below is generated by plot.py at 2019-09-18 03:03:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 382.71 Mbit/s
95th percentile per-packet one-way delay: 182.062 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 382.71 Mbit/s
95th percentile per-packet one-way delay: 182.062 ms
Loss rate: 1.10%
```
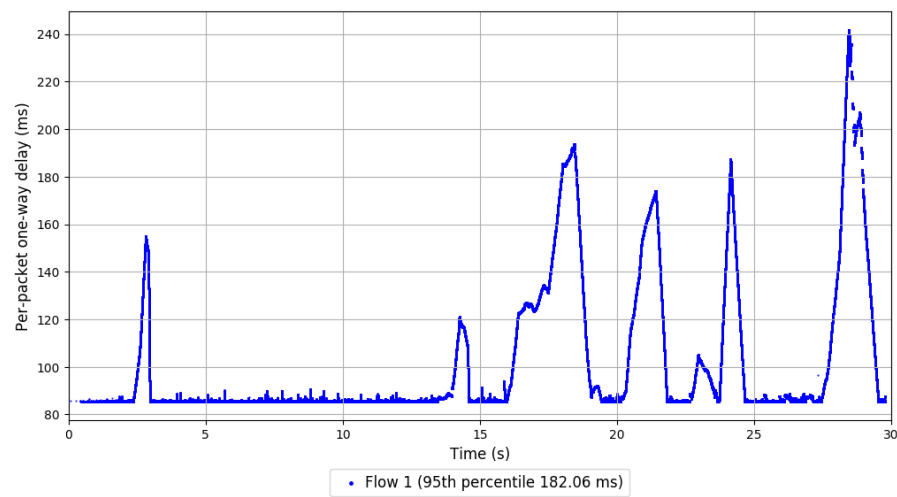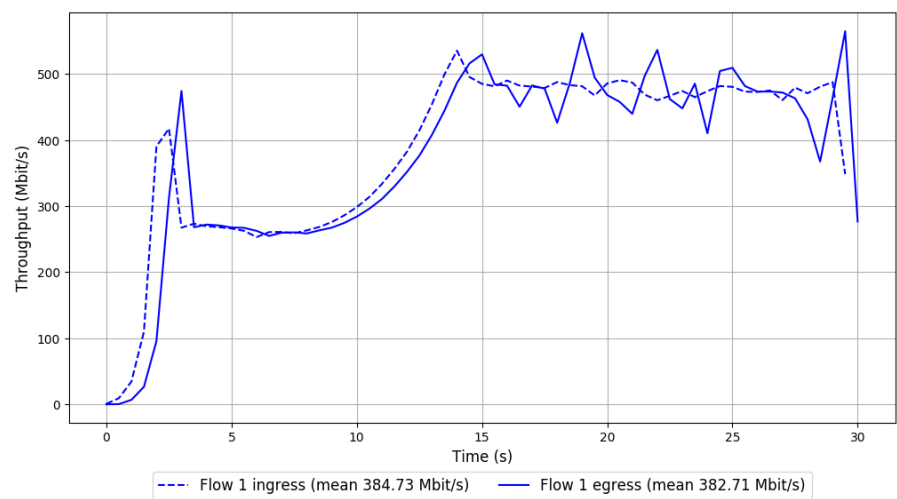
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 384.73 Mbit/s) — — — Flow 1 egress (mean 382.71 Mbit/s)

Flow 1 (95th percentile 182.06 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-09-18 00:37:39
End at: 2019-09-18 00:38:09
Local clock offset: 5.606 ms
Remote clock offset: 0.026 ms


# Below is generated by plot.py at 2019-09-18 03:03:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 345.47 Mbit/s
95th percentile per-packet one-way delay: 203.750 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 345.47 Mbit/s
95th percentile per-packet one-way delay: 203.750 ms
Loss rate: 1.32%
```
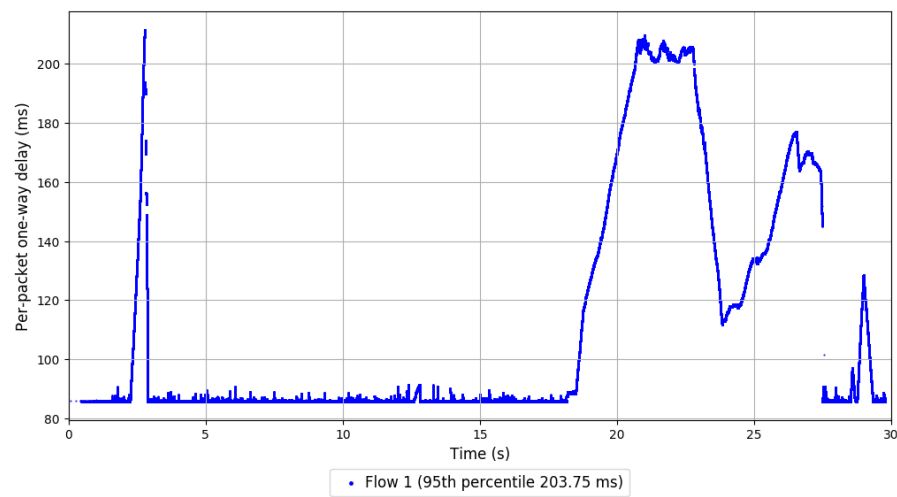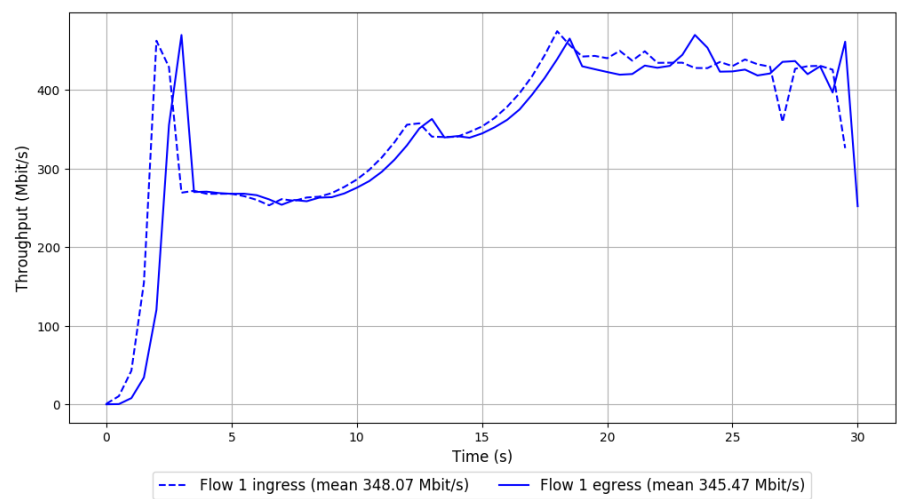
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 348.07 Mbit/s) — — — Flow 1 egress (mean 345.47 Mbit/s)

• Flow 1 (95th percentile 203.75 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-09-18 01:12:25
End at: 2019-09-18 01:12:55
Local clock offset: 2.262 ms
Remote clock offset: 0.024 ms


# Below is generated by plot.py at 2019-09-18 03:08:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 399.35 Mbit/s
95th percentile per-packet one-way delay: 209.319 ms
Loss rate: 6.51%
-- Flow 1:
Average throughput: 399.35 Mbit/s
95th percentile per-packet one-way delay: 209.319 ms
Loss rate: 6.51%
```
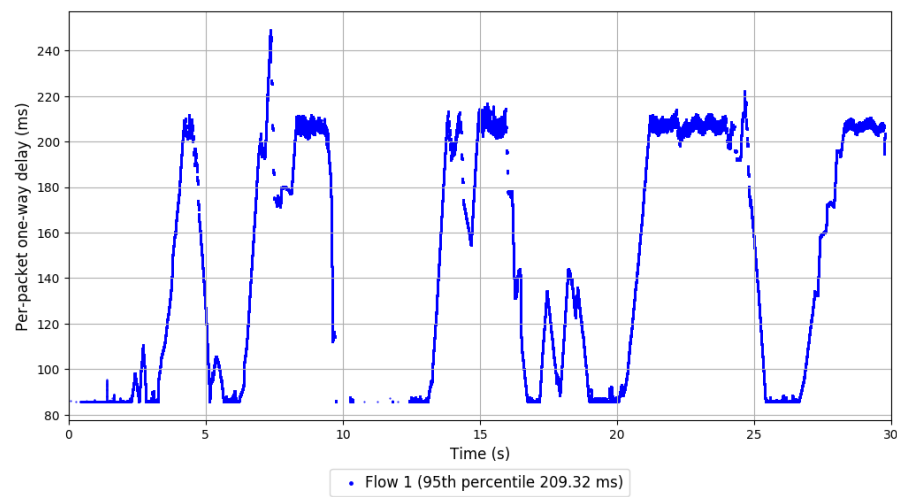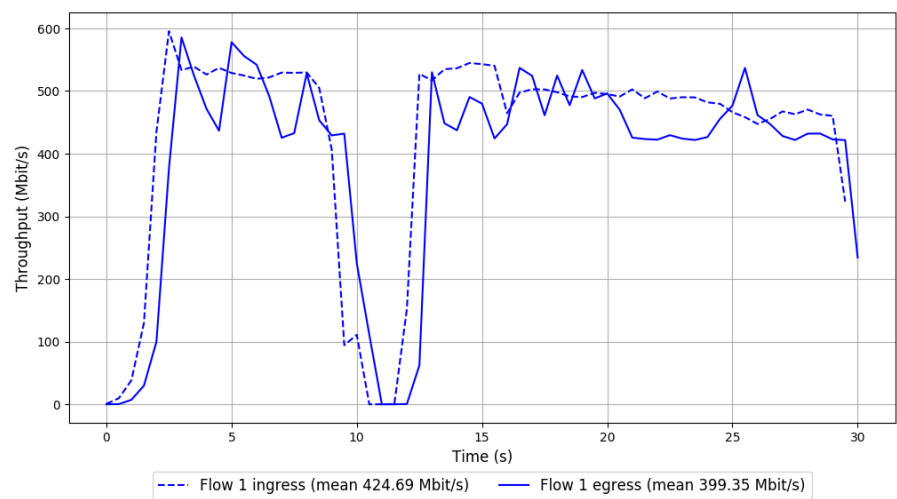
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 424.69 Mbit/s)   Flow 1 egress (mean 399.35 Mbit/s)
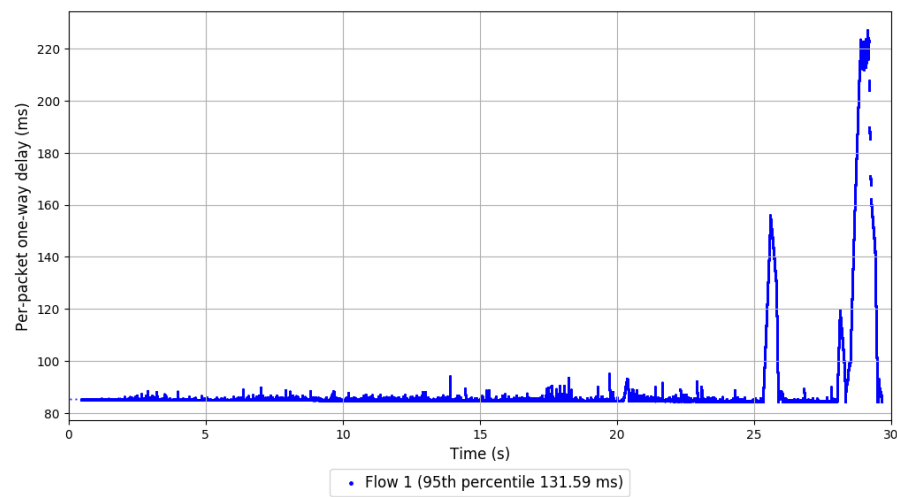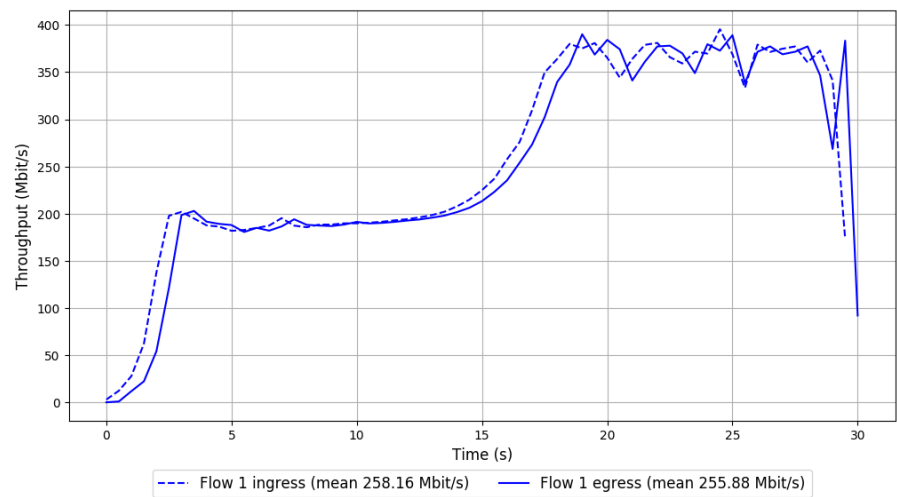

Flow 1 (95th percentile 209.32 ms)

154

```
Run 1: Statistics of PCC-Expr

Start at: 2019-09-17 22:36:59
End at: 2019-09-17 22:37:29
Local clock offset: 4.853 ms
Remote clock offset: -0.211 ms


# Below is generated by plot.py at 2019-09-18 03:08:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.88 Mbit/s
95th percentile per-packet one-way delay: 131.591 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 255.88 Mbit/s
95th percentile per-packet one-way delay: 131.591 ms
Loss rate: 1.46%
```

Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-09-17 23:11:03
End at: 2019-09-17 23:11:33
Local clock offset: 14.531 ms
Remote clock offset: 0.216 ms


# Below is generated by plot.py at 2019-09-18 03:08:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 302.89 Mbit/s
95th percentile per-packet one-way delay: 122.630 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 302.89 Mbit/s
95th percentile per-packet one-way delay: 122.630 ms
Loss rate: 0.77%
```
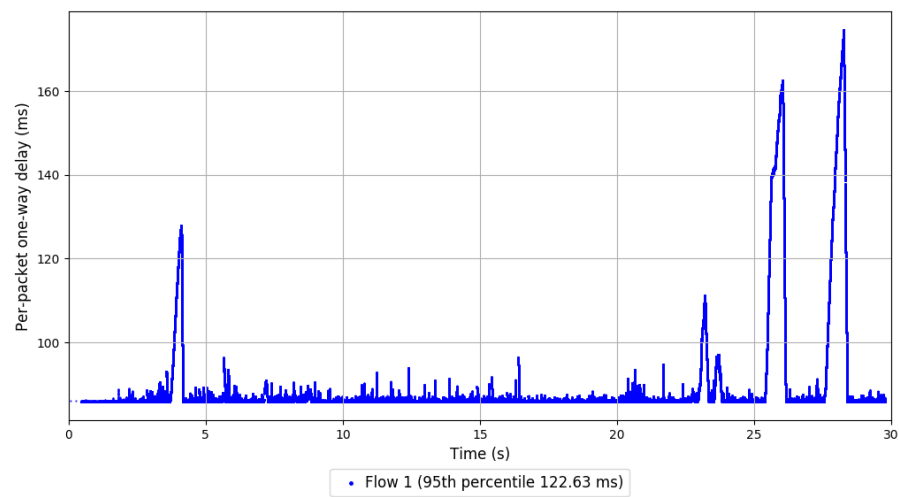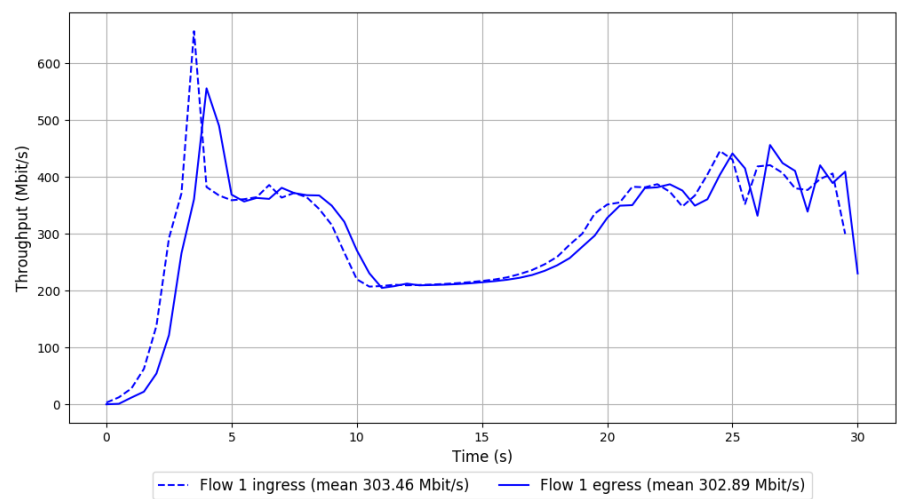
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-09-17 23:46:03
End at: 2019-09-17 23:46:33
Local clock offset: 15.195 ms
Remote clock offset: 0.145 ms


# Below is generated by plot.py at 2019-09-18 03:08:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 295.81 Mbit/s
95th percentile per-packet one-way delay: 114.441 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 295.81 Mbit/s
95th percentile per-packet one-way delay: 114.441 ms
Loss rate: 0.91%
```
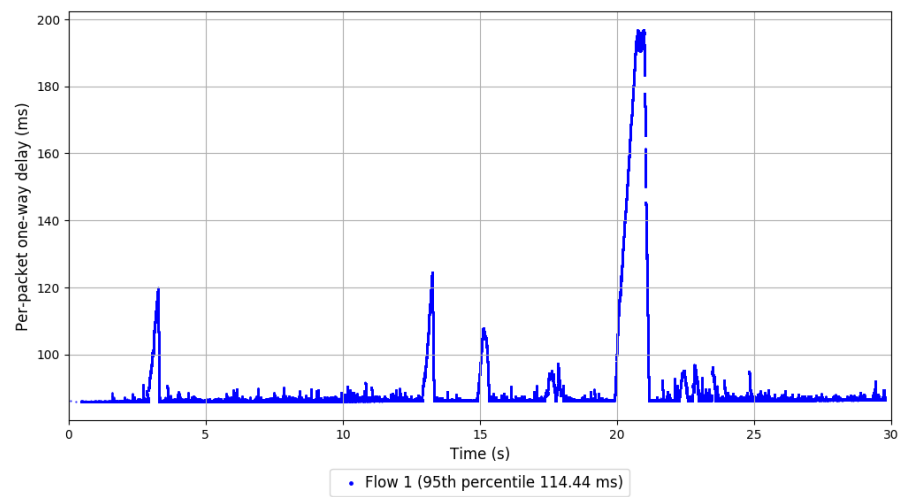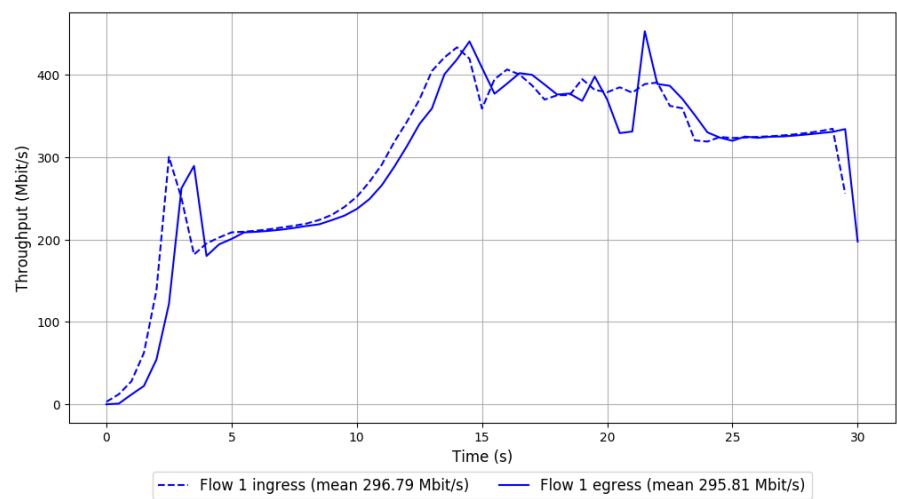
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-09-18 00:21:11
End at: 2019-09-18 00:21:41
Local clock offset: 7.398 ms
Remote clock offset: 0.015 ms


# Below is generated by plot.py at 2019-09-18 03:08:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 252.97 Mbit/s
95th percentile per-packet one-way delay: 88.848 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 252.97 Mbit/s
95th percentile per-packet one-way delay: 88.848 ms
Loss rate: 0.71%
```
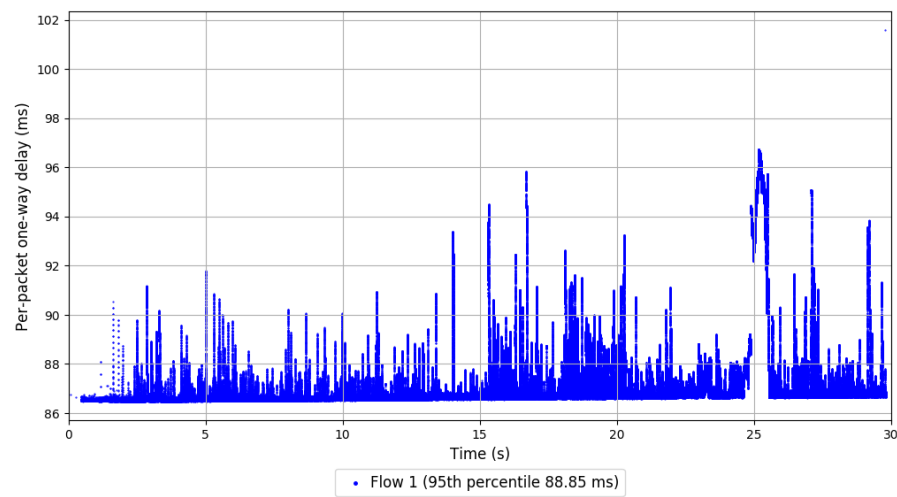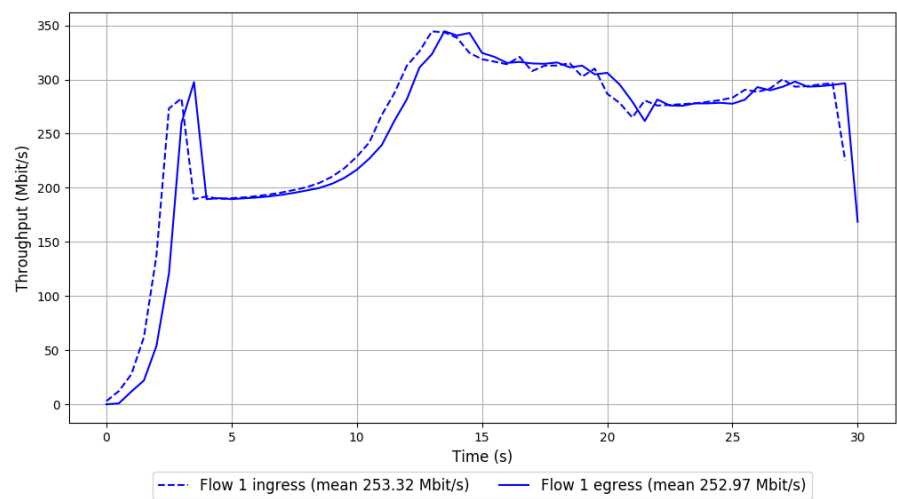
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-09-18 00:56:16
End at: 2019-09-18 00:56:46
Local clock offset: 3.234 ms
Remote clock offset: 0.008 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.98 Mbit/s
95th percentile per-packet one-way delay: 92.383 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 245.98 Mbit/s
95th percentile per-packet one-way delay: 92.383 ms
Loss rate: 0.65%
```
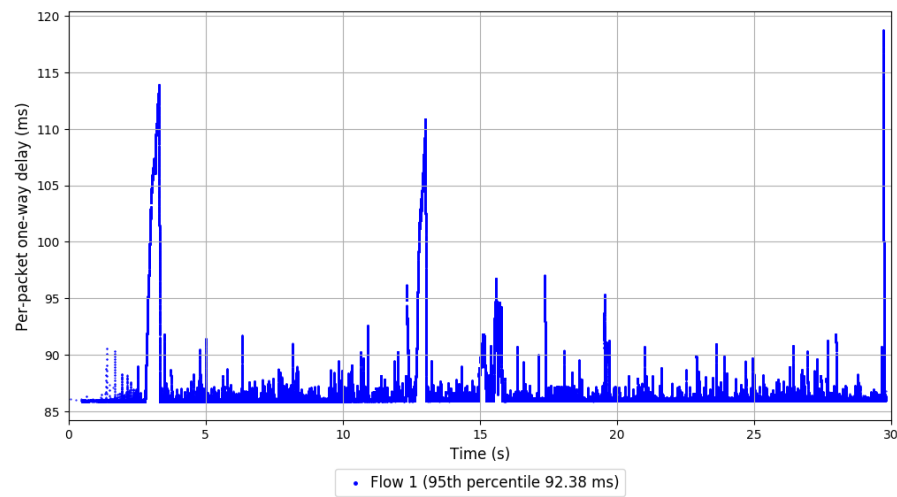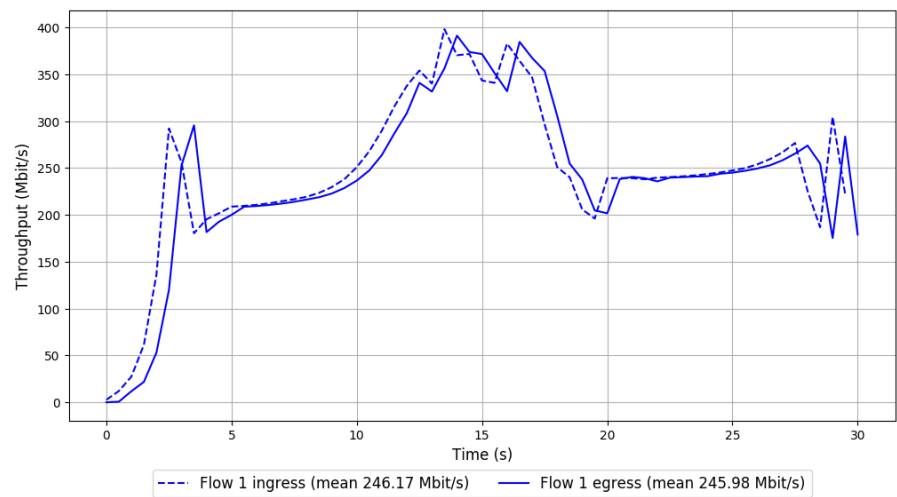
Run 5: Report of PCC-Expr — Data Link
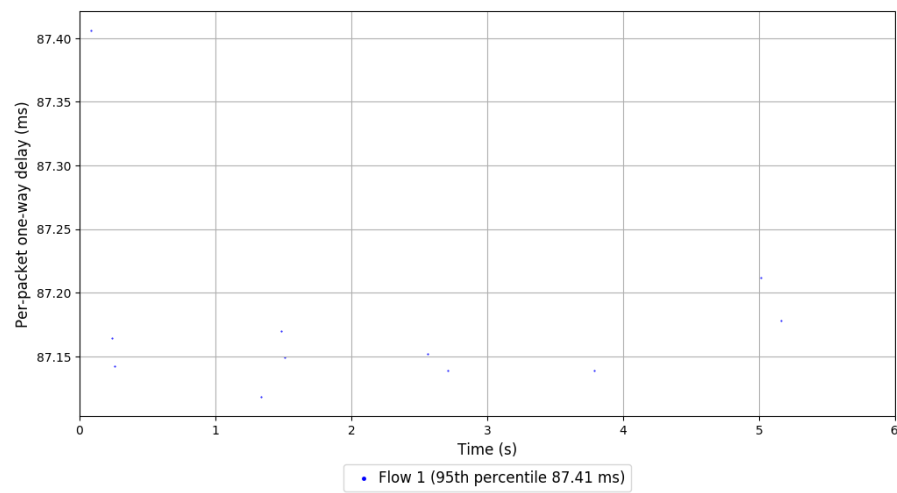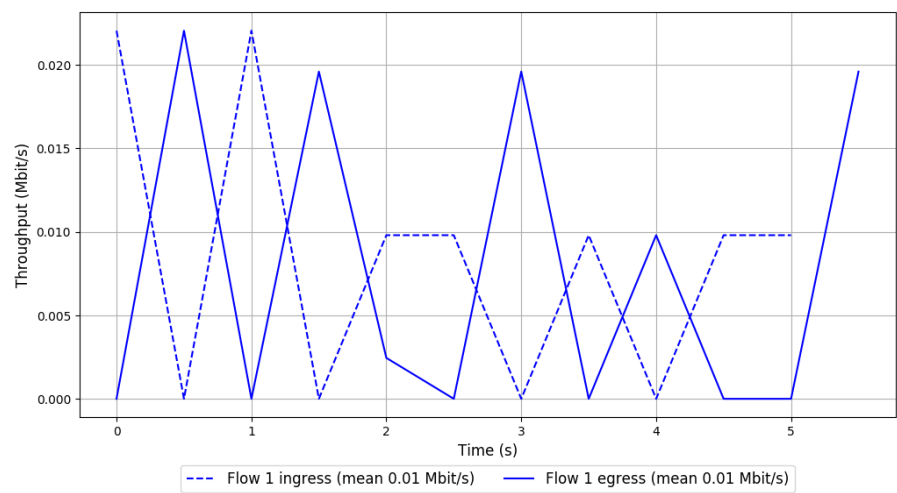
```
Run 1: Statistics of QUIC Cubic

Start at: 2019-09-17 22:39:40
End at: 2019-09-17 22:40:10
Local clock offset: 7.881 ms
Remote clock offset: -0.163 ms
```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-09-17 23:14:09
End at: 2019-09-17 23:14:39
Local clock offset: 14.223 ms
Remote clock offset: 0.266 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.05 Mbit/s
95th percentile per-packet one-way delay: 85.754 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 63.05 Mbit/s
95th percentile per-packet one-way delay: 85.754 ms
Loss rate: 0.77%
```
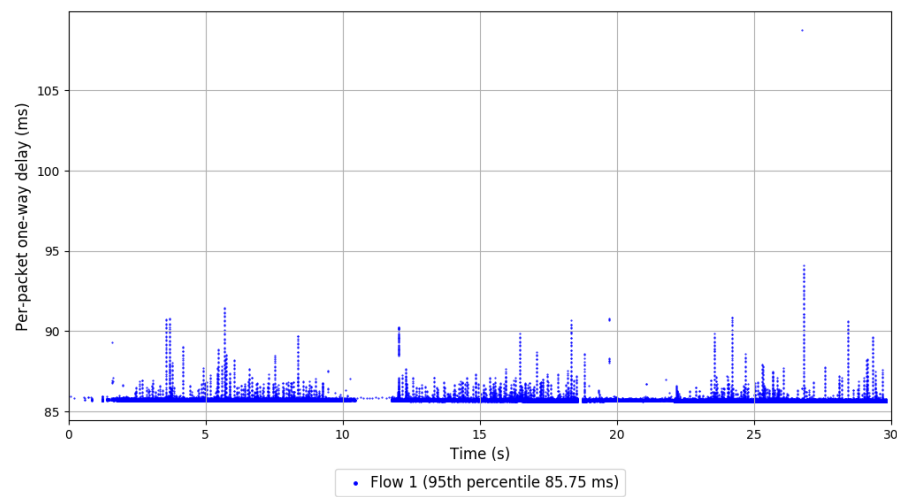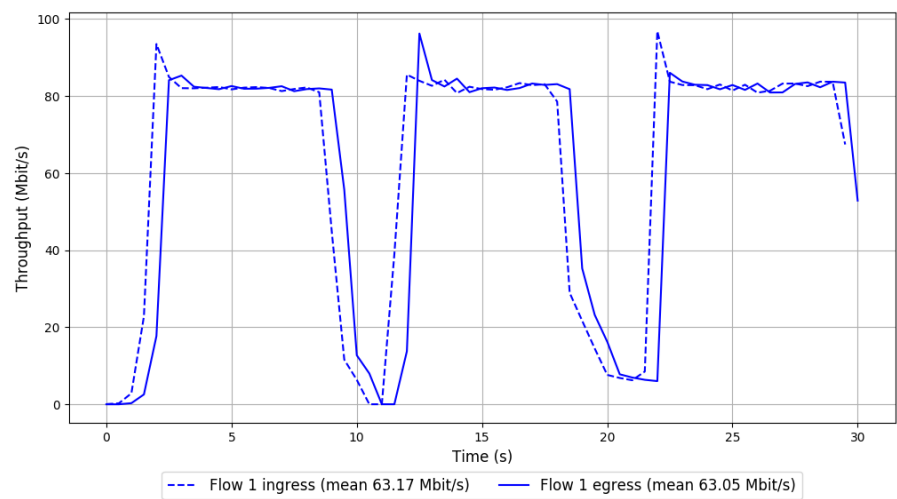
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-09-17 23:49:11
End at: 2019-09-17 23:49:41
Local clock offset: 13.275 ms
Remote clock offset: 0.184 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.02 Mbit/s
95th percentile per-packet one-way delay: 86.629 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 65.02 Mbit/s
95th percentile per-packet one-way delay: 86.629 ms
Loss rate: 0.70%
```
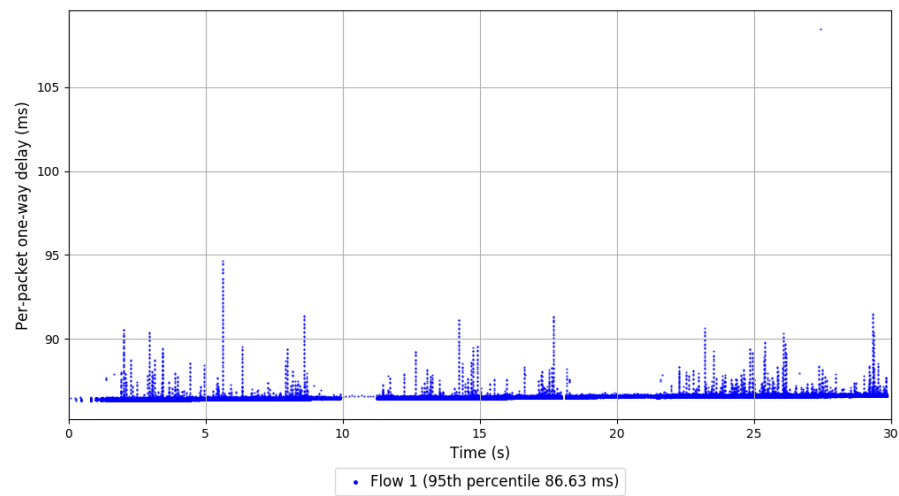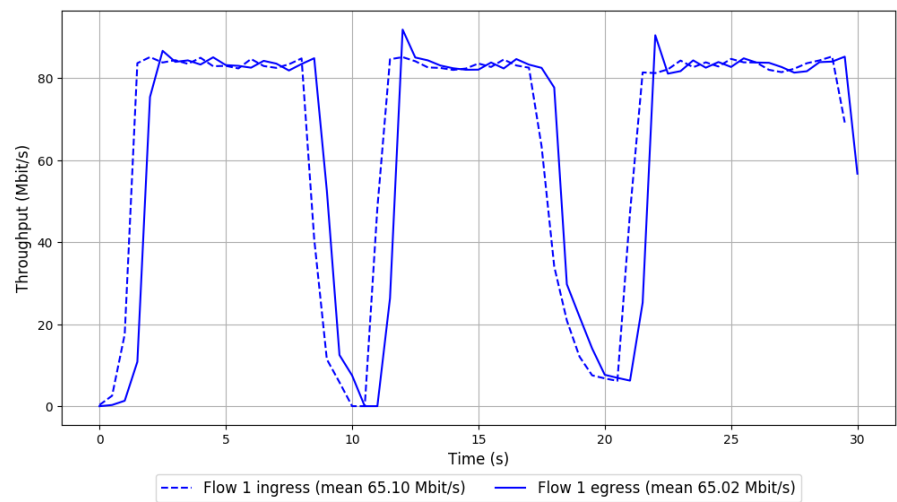
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-09-18 00:24:16
End at: 2019-09-18 00:24:46
Local clock offset: 5.72 ms
Remote clock offset: 0.008 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.83 Mbit/s
95th percentile per-packet one-way delay: 85.647 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 61.83 Mbit/s
95th percentile per-packet one-way delay: 85.647 ms
Loss rate: 0.76%
```
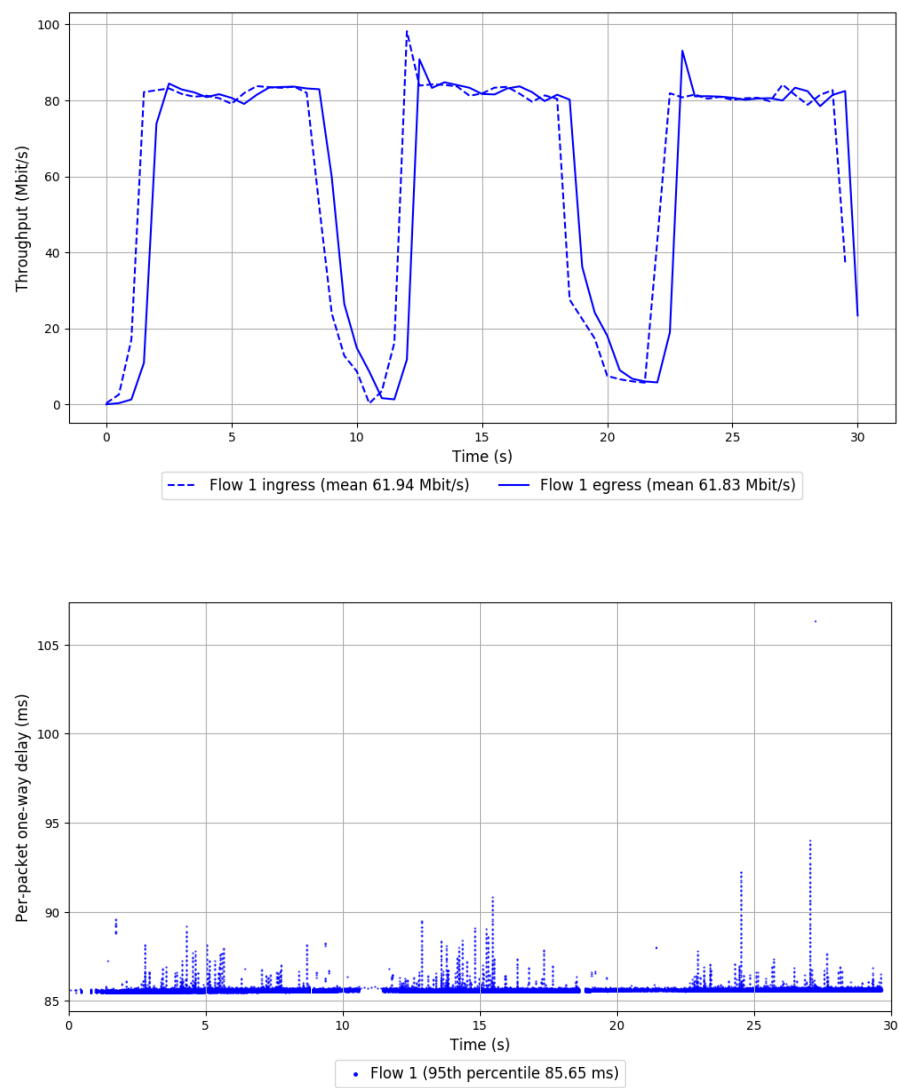
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-09-18 00:59:21
End at: 2019-09-18 00:59:51
Local clock offset: 2.764 ms
Remote clock offset: 0.015 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 86.037 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 86.037 ms
Loss rate: 0.79%
```
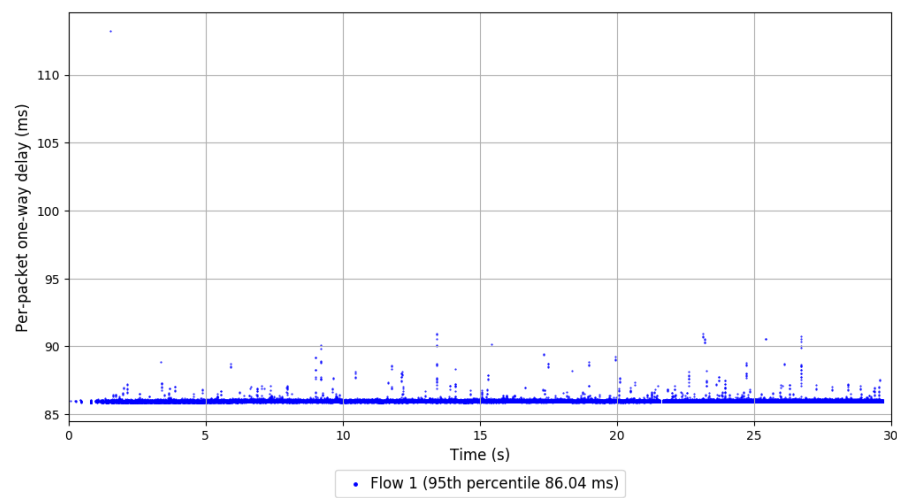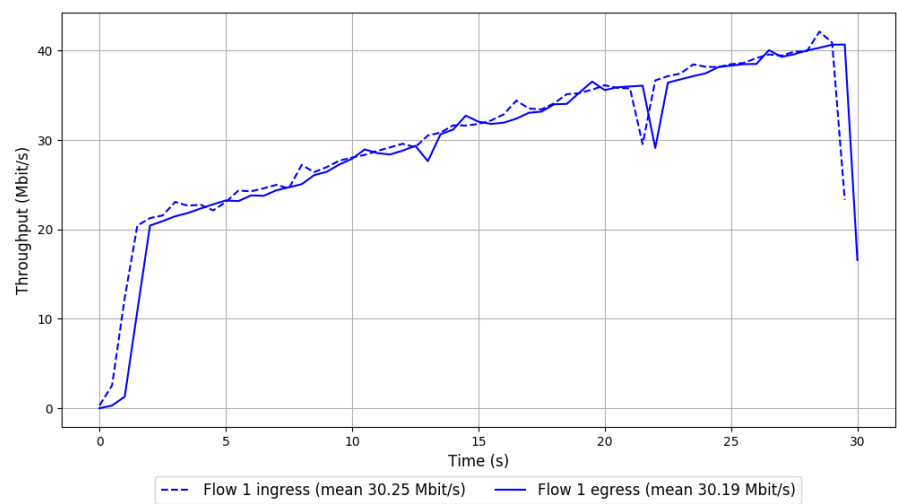
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 30.25 Mbit/s)   Flow 1 egress (mean 30.19 Mbit/s)
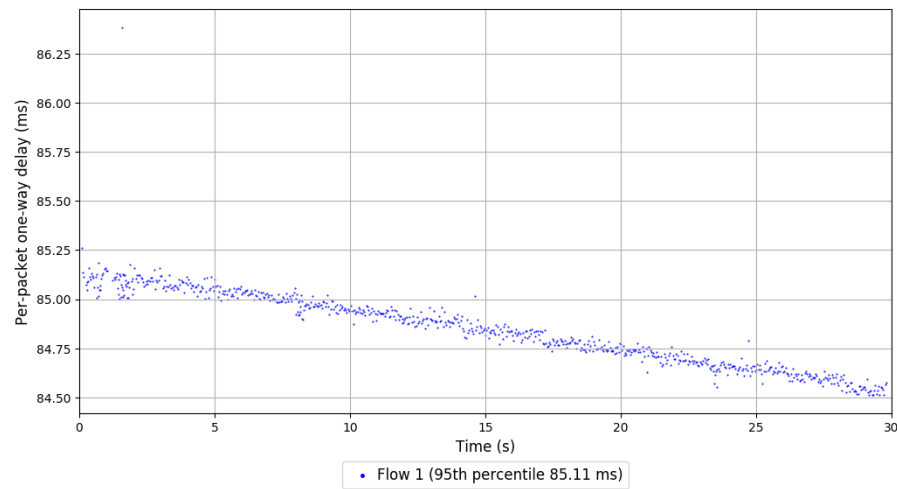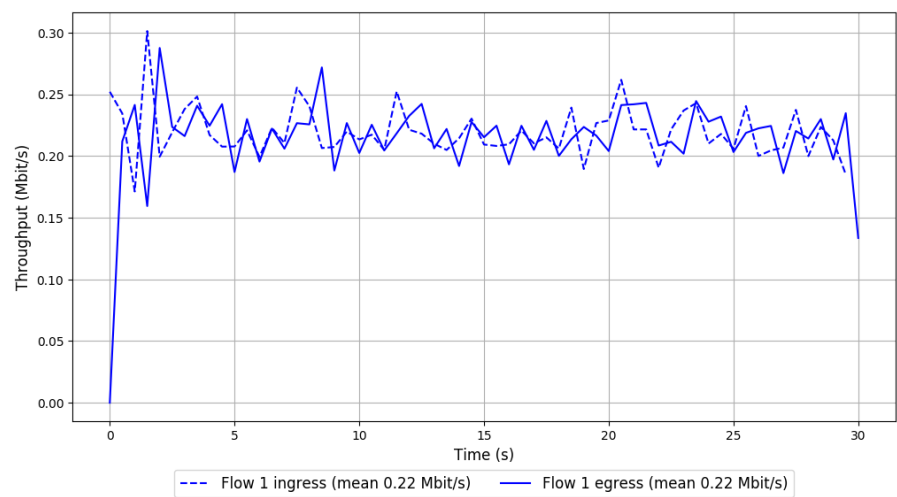

Flow 1 (95th percentile 86.04 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-09-17 22:44:05
End at: 2019-09-17 22:44:35
Local clock offset: 7.805 ms
Remote clock offset: -0.217 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.110 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.110 ms
Loss rate: 0.64%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-09-17 23:18:40
End at: 2019-09-17 23:19:10
Local clock offset: 15.171 ms
Remote clock offset: 0.303 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.619 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.619 ms
Loss rate: 0.51%
```
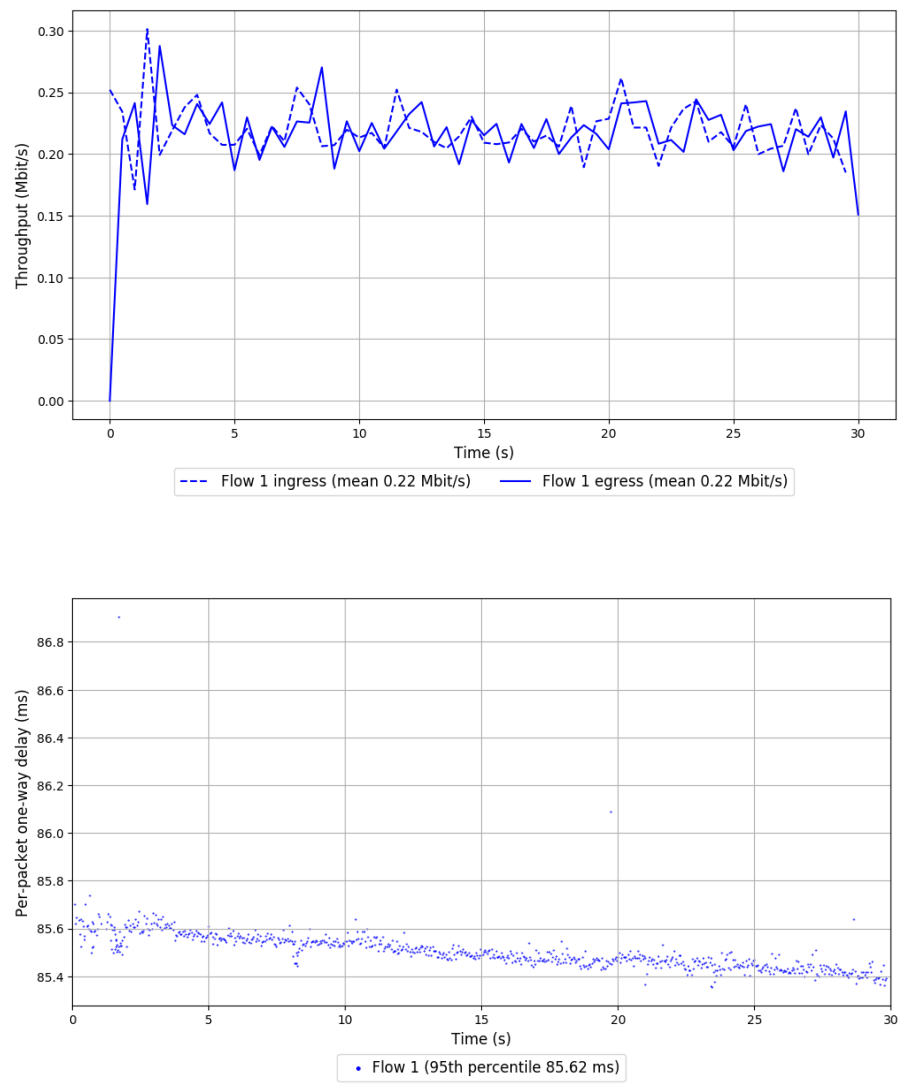
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-09-17 23:53:40
End at: 2019-09-17 23:54:10
Local clock offset: 10.902 ms
Remote clock offset: 0.198 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.826 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.826 ms
Loss rate: 0.51%
```
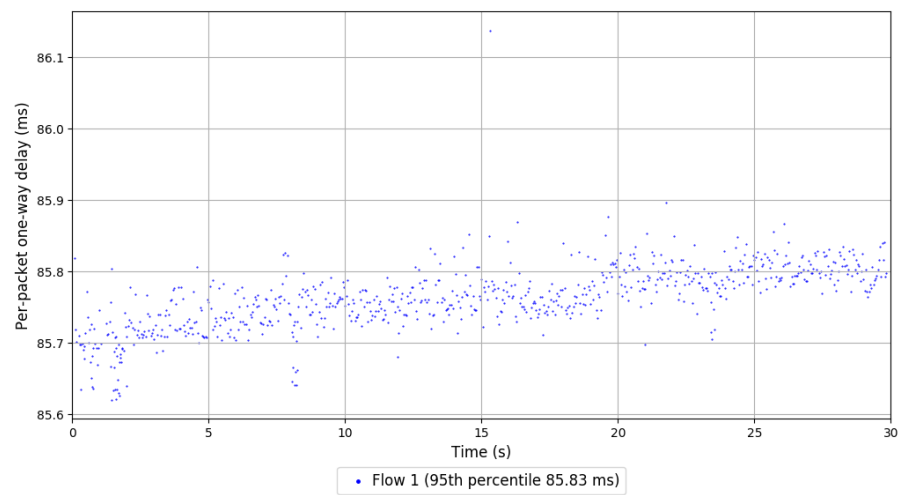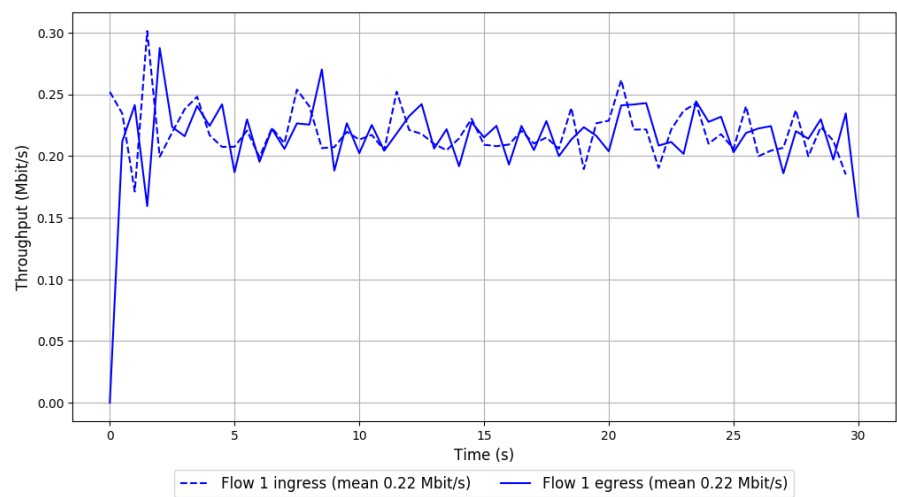
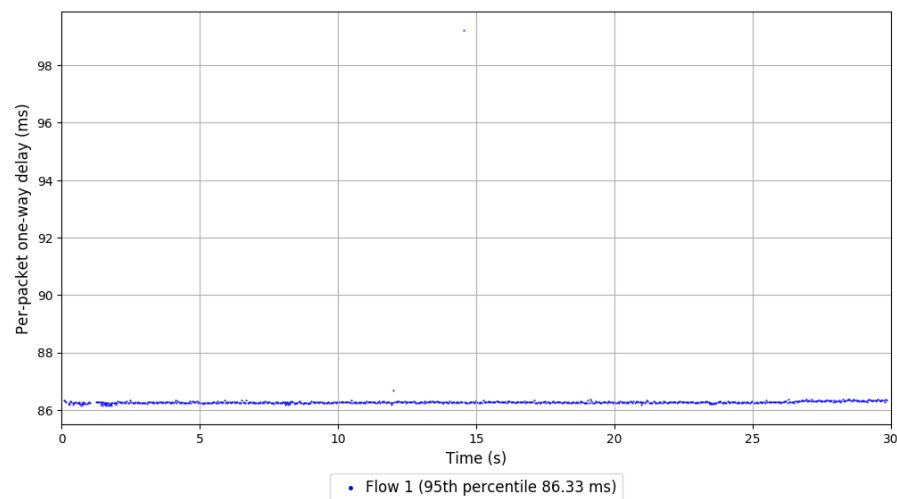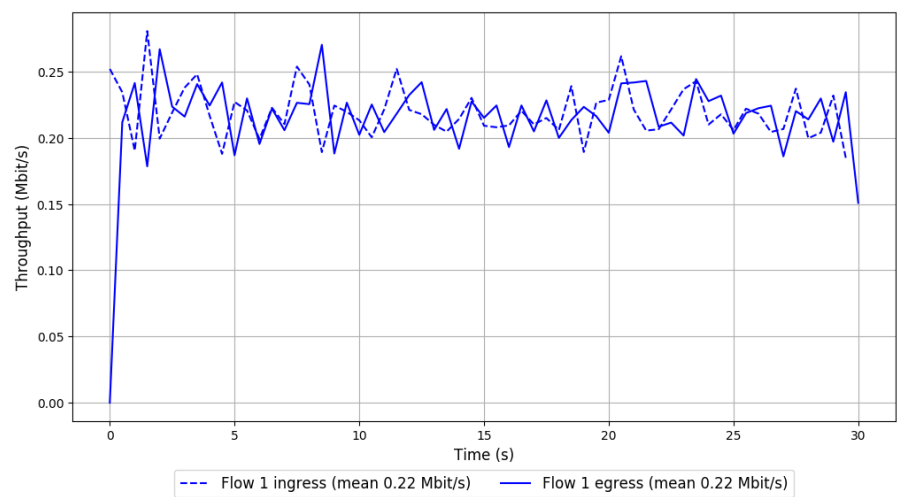## Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-09-18 00:28:47
End at: 2019-09-18 00:29:17
Local clock offset: 5.593 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.332 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.332 ms
Loss rate: 0.51%
```

Run 4: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 86.33 ms)

```
Run 5: Statistics of SCReAM

Start at: 2019-09-18 01:03:38
End at: 2019-09-18 01:04:08
Local clock offset: 2.279 ms
Remote clock offset: 0.019 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.812 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.812 ms
Loss rate: 0.51%
```
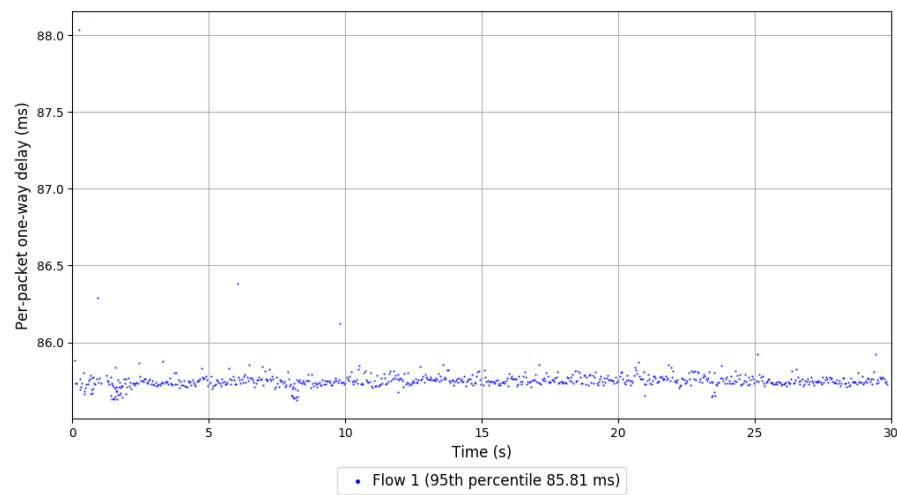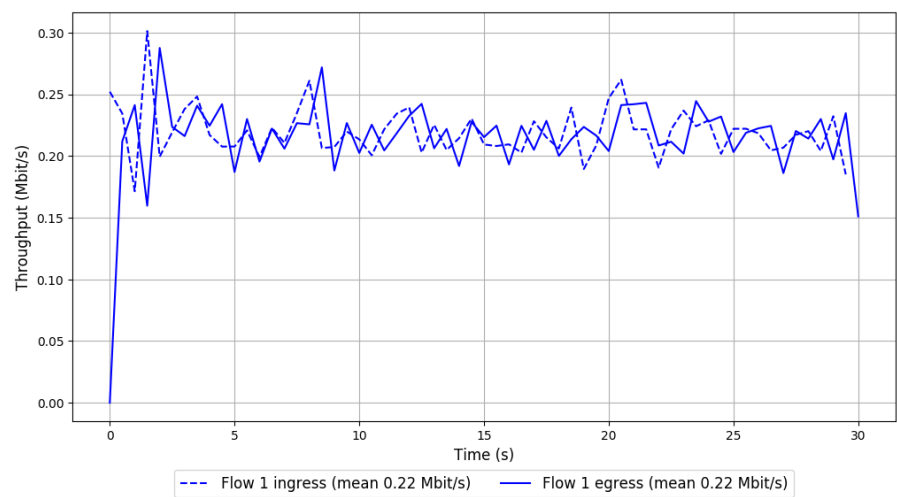
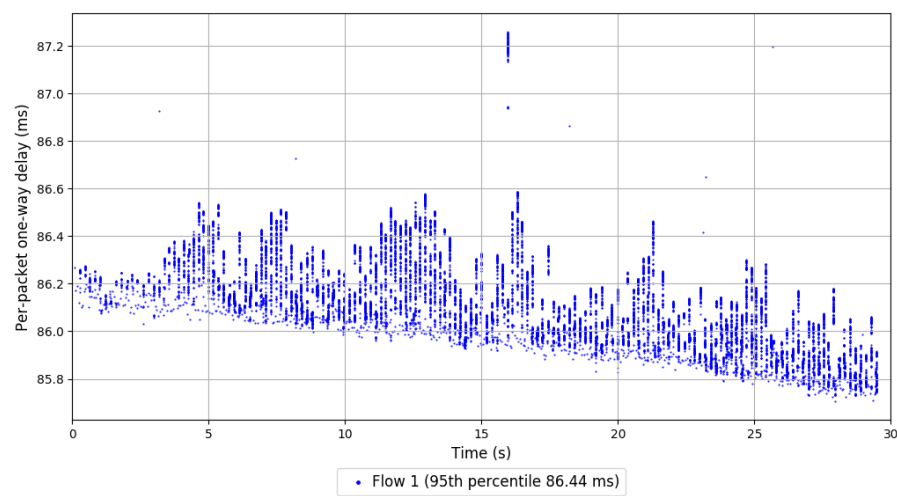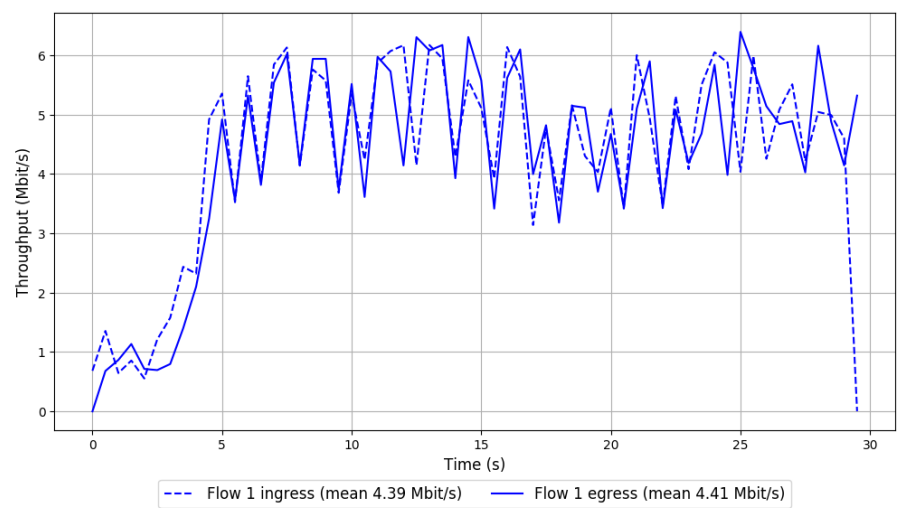## Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-09-17 22:35:50
End at: 2019-09-17 22:36:20
Local clock offset: 4.547 ms
Remote clock offset: -0.193 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 86.442 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 86.442 ms
Loss rate: 0.11%
```

Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-09-17 23:09:53
End at: 2019-09-17 23:10:23
Local clock offset: 14.524 ms
Remote clock offset: 0.191 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 86.819 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 86.819 ms
Loss rate: 0.83%
```
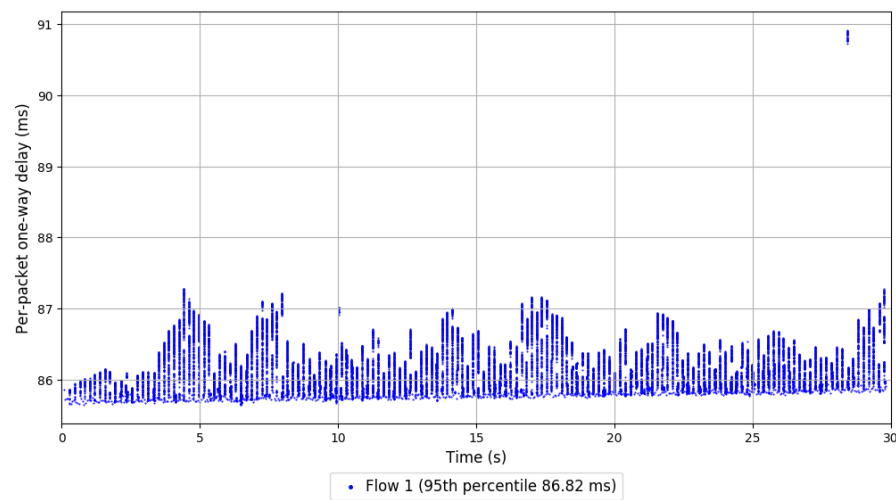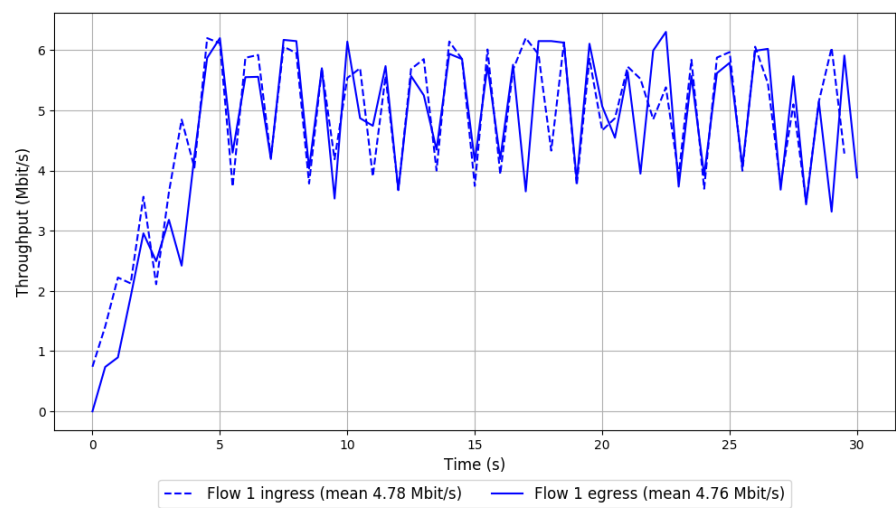
Run 2: Report of Sprout — Data Link

Flow 1 ingress (mean 4.78 Mbit/s)   Flow 1 egress (mean 4.76 Mbit/s)
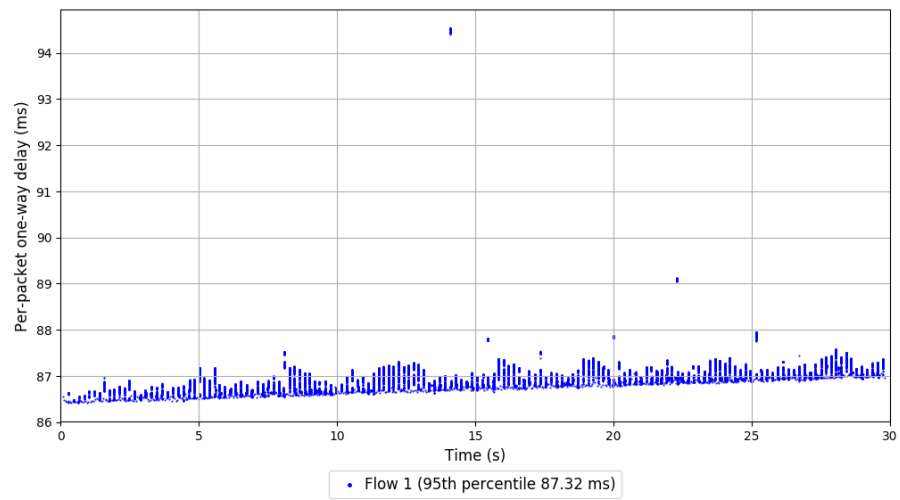
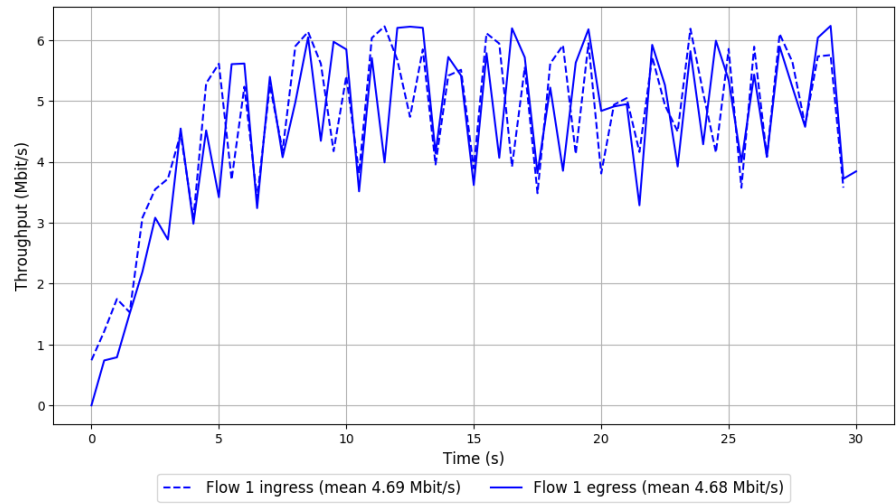

• Flow 1 (95th percentile 86.82 ms)

```
Run 3: Statistics of Sprout

Start at: 2019-09-17 23:44:53
End at: 2019-09-17 23:45:23
Local clock offset: 16.896 ms
Remote clock offset: 0.119 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 87.319 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 87.319 ms
Loss rate: 0.63%
```

Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-09-18 00:20:01
End at: 2019-09-18 00:20:31
Local clock offset: 8.224 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 87.426 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 87.426 ms
Loss rate: 0.50%
```
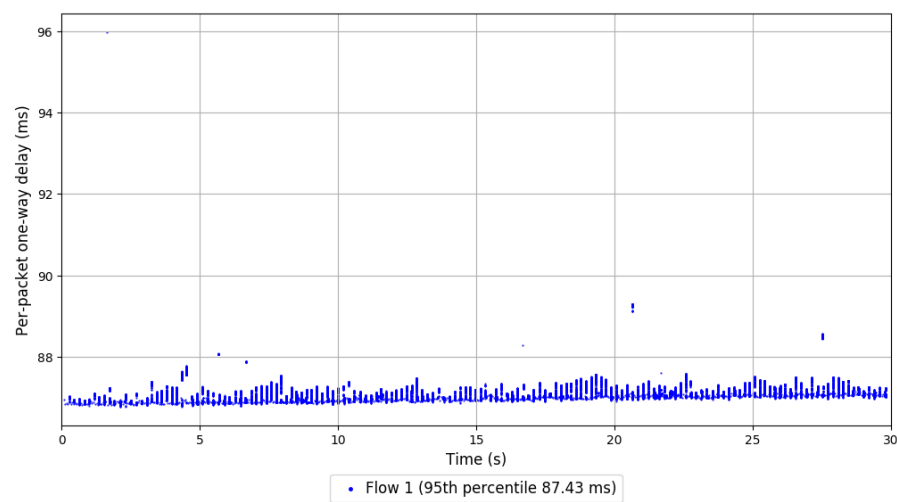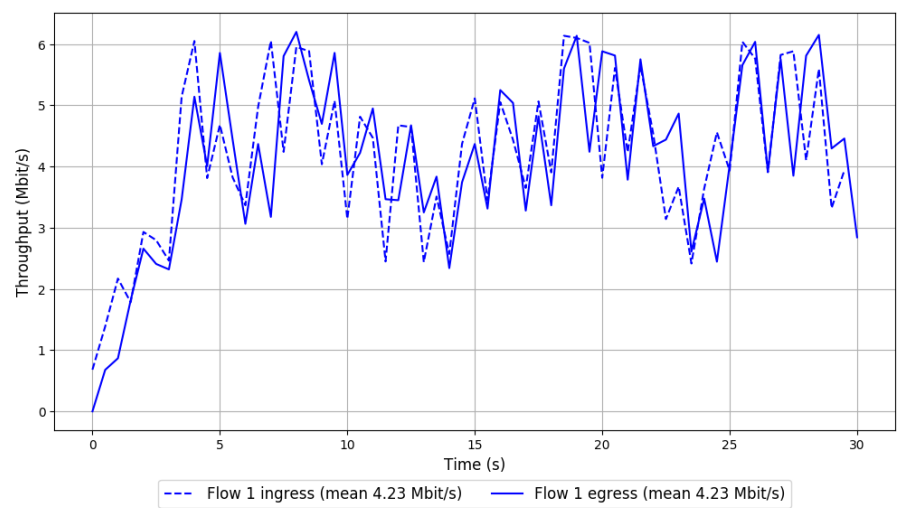
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-09-18 00:55:06
End at: 2019-09-18 00:55:36
Local clock offset: 3.224 ms
Remote clock offset: 0.044 ms


# Below is generated by plot.py at 2019-09-18 03:11:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 86.508 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 86.508 ms
Loss rate: 0.72%
```
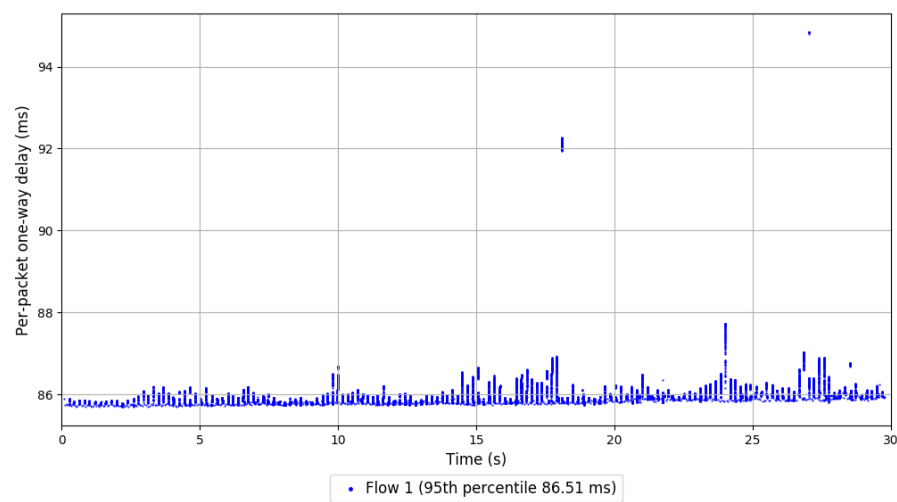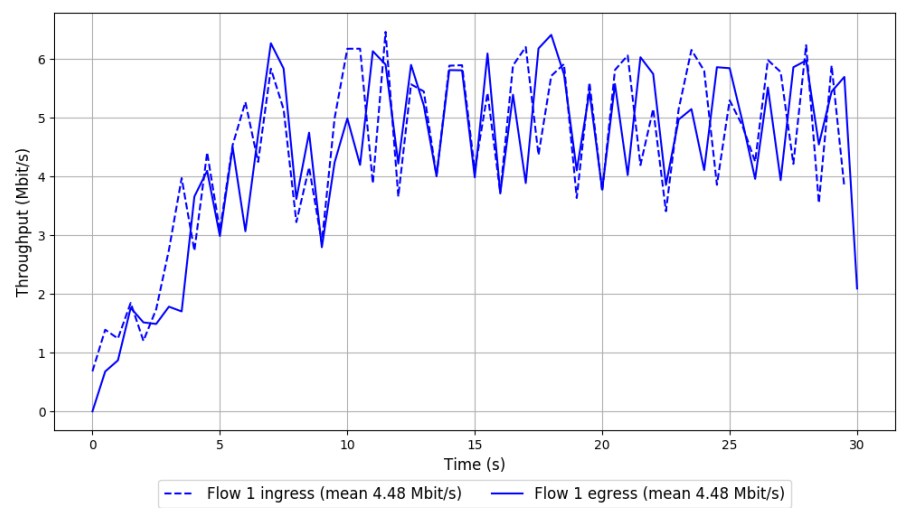
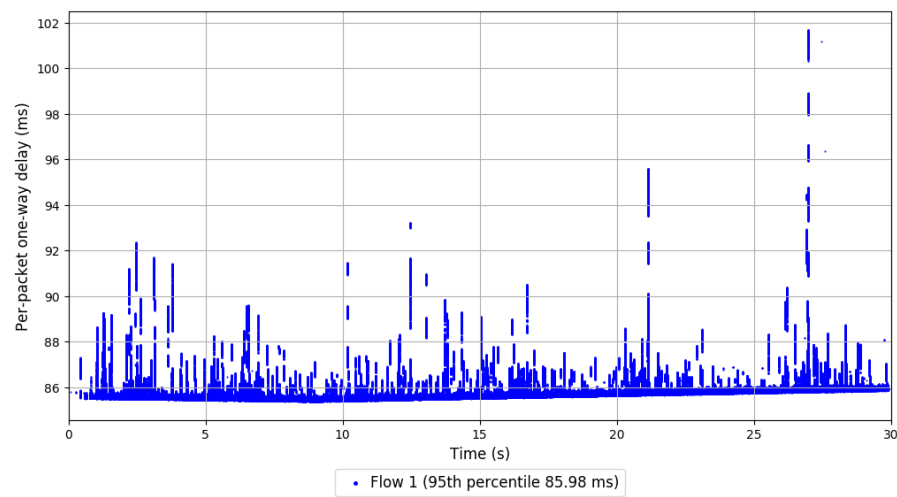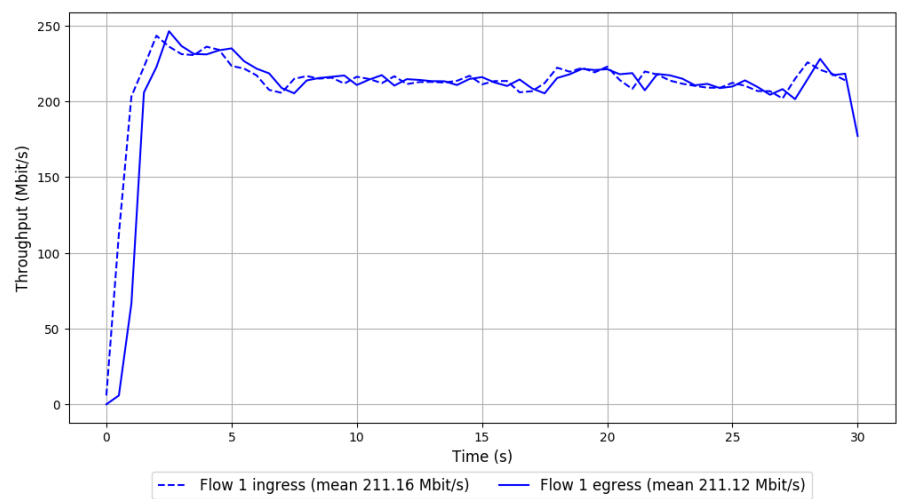## Run 5: Report of Sprout — Data Link

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

Start at: 2019-09-17 23:04:16
End at: 2019-09-17 23:04:46
Local clock offset: 18.611 ms
Remote clock offset: 0.135 ms


# Below is generated by plot.py at 2019-09-18 03:12:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.12 Mbit/s
95th percentile per-packet one-way delay: 85.981 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 211.12 Mbit/s
95th percentile per-packet one-way delay: 85.981 ms
Loss rate: 0.59%
```

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

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

Start at: 2019-09-17 23:39:10
End at: 2019-09-17 23:39:40
Local clock offset: 28.867 ms
Remote clock offset: 0.12 ms


# Below is generated by plot.py at 2019-09-18 03:12:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.55 Mbit/s
95th percentile per-packet one-way delay: 88.860 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 211.55 Mbit/s
95th percentile per-packet one-way delay: 88.860 ms
Loss rate: 0.62%
```
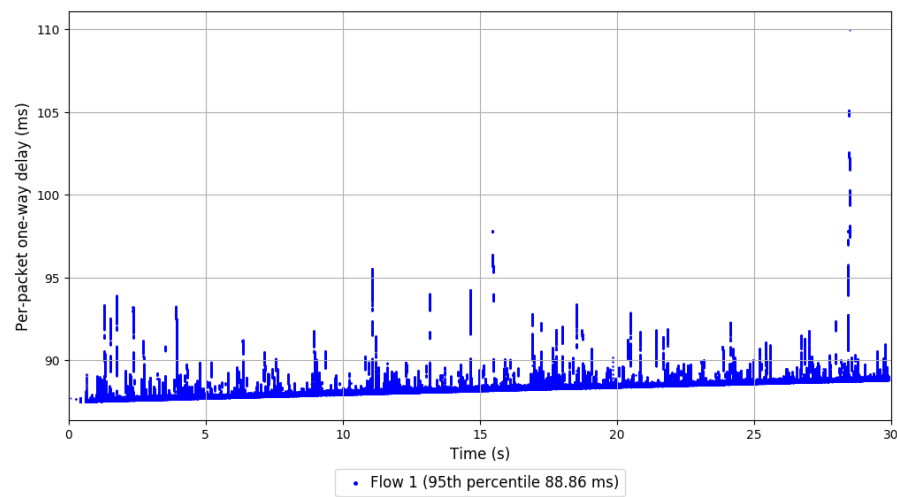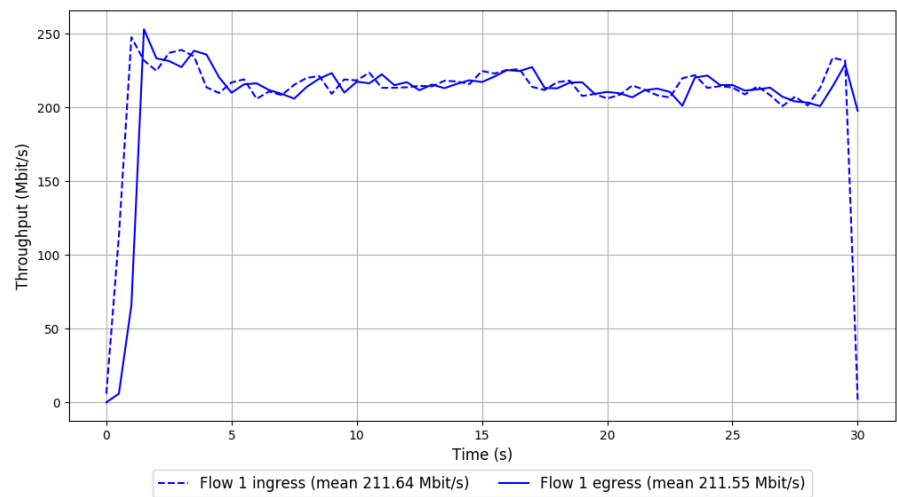
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-09-18 00:14:23
End at: 2019-09-18 00:14:53
Local clock offset: 12.87 ms
Remote clock offset: 0.014 ms


# Below is generated by plot.py at 2019-09-18 03:12:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.53 Mbit/s
95th percentile per-packet one-way delay: 87.262 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 210.53 Mbit/s
95th percentile per-packet one-way delay: 87.262 ms
Loss rate: 0.61%
```
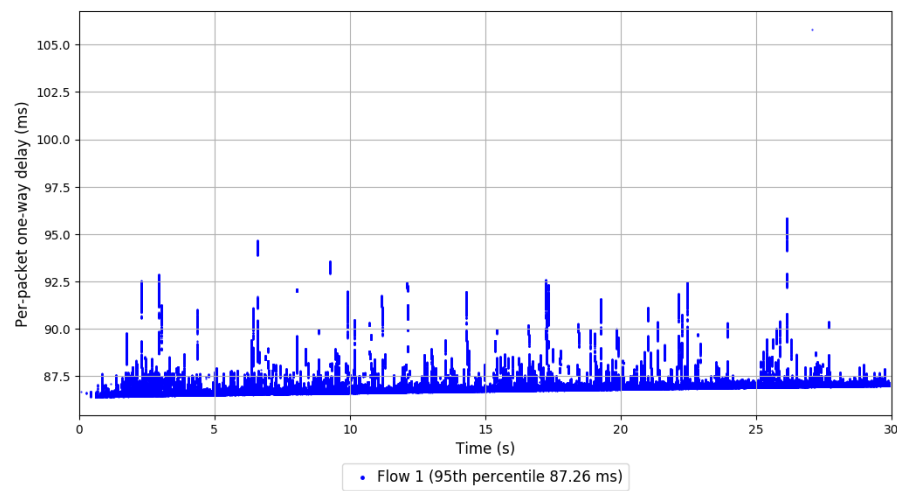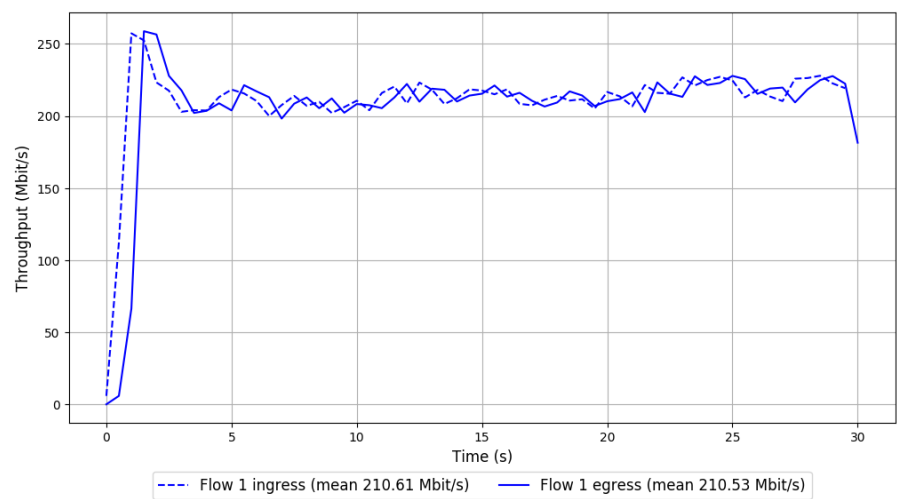
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 210.61 Mbit/s)   Flow 1 egress (mean 210.53 Mbit/s)

Flow 1 (95th percentile 87.26 ms)

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

Start at: 2019-09-18 00:49:18
End at: 2019-09-18 00:49:48
Local clock offset: 5.348 ms
Remote clock offset: 0.0 ms


# Below is generated by plot.py at 2019-09-18 03:12:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 212.72 Mbit/s
95th percentile per-packet one-way delay: 86.328 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 212.72 Mbit/s
95th percentile per-packet one-way delay: 86.328 ms
Loss rate: 0.59%
```
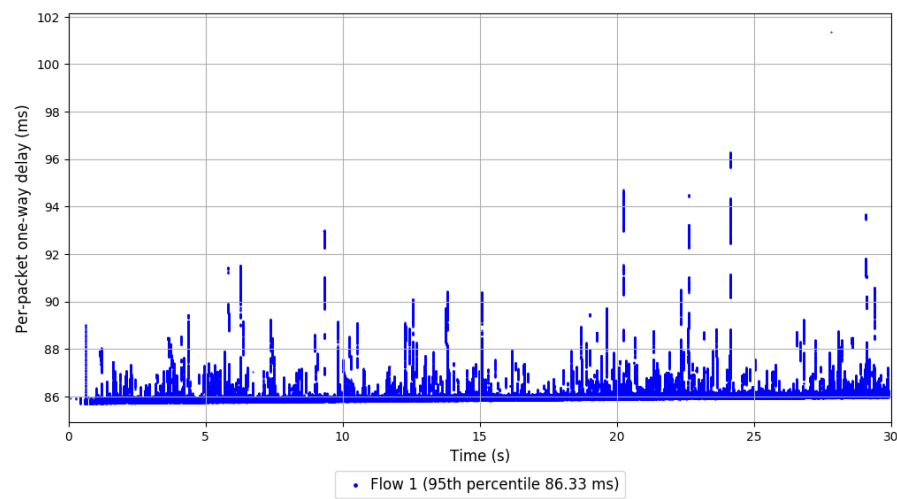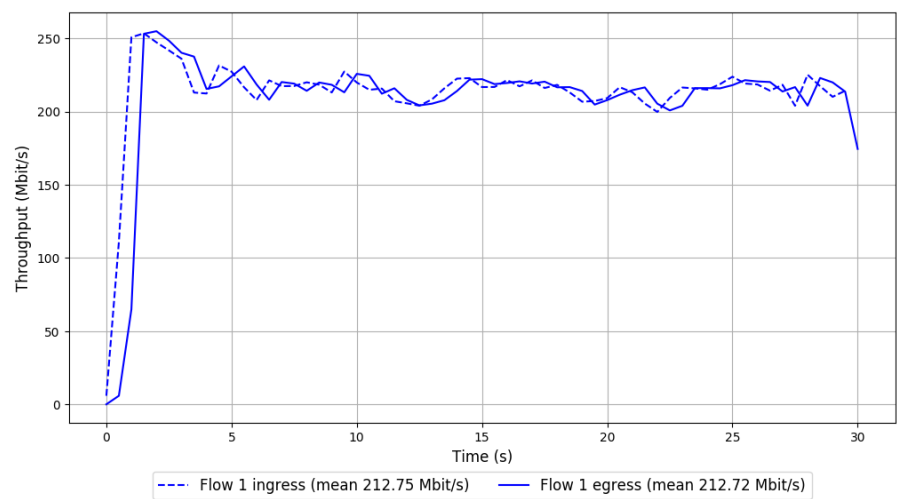
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2019-09-18 01:24:07
End at: 2019-09-18 01:24:37
Local clock offset: 2.437 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2019-09-18 03:13:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.39 Mbit/s
95th percentile per-packet one-way delay: 86.596 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 211.39 Mbit/s
95th percentile per-packet one-way delay: 86.596 ms
Loss rate: 0.58%
```
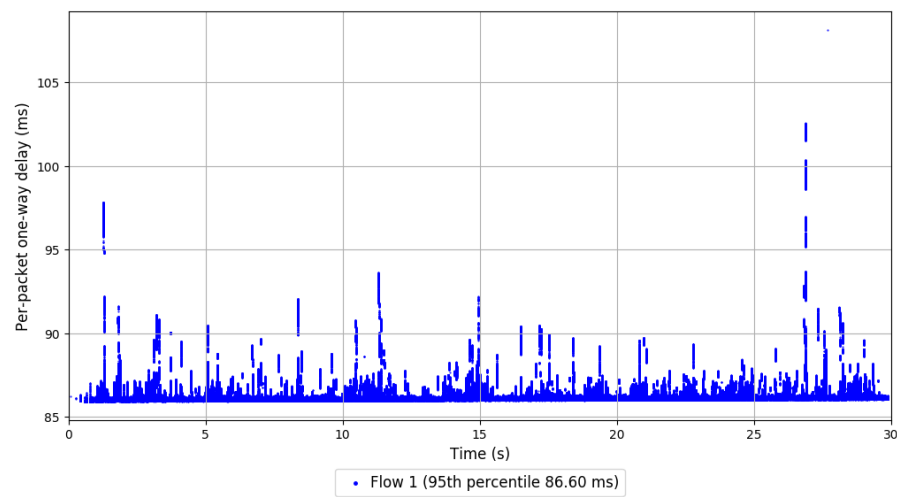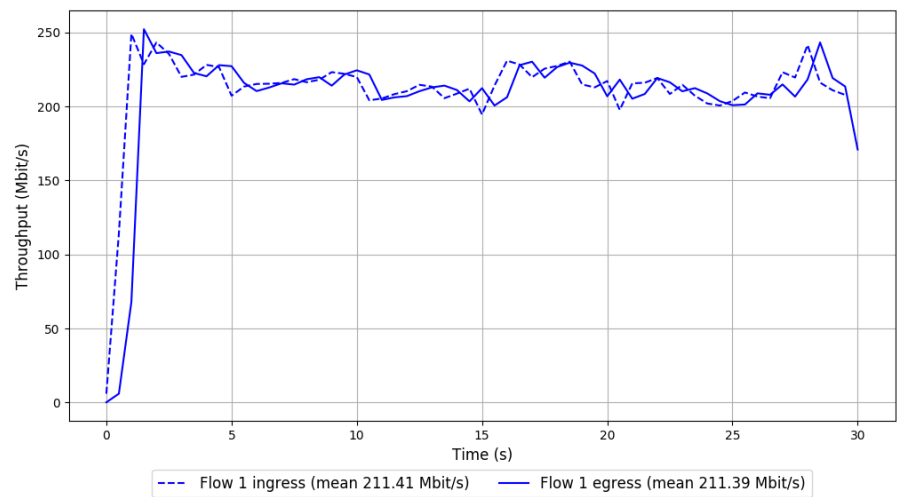
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 211.41 Mbit/s)   Flow 1 egress (mean 211.39 Mbit/s)
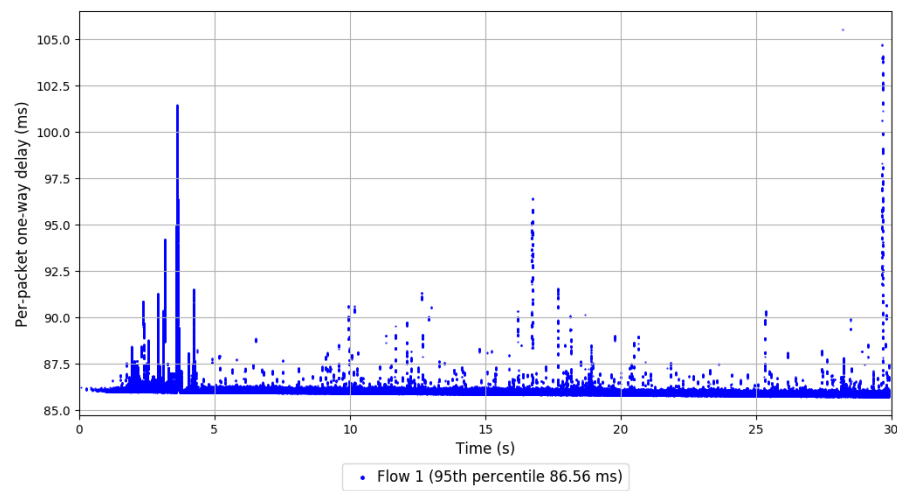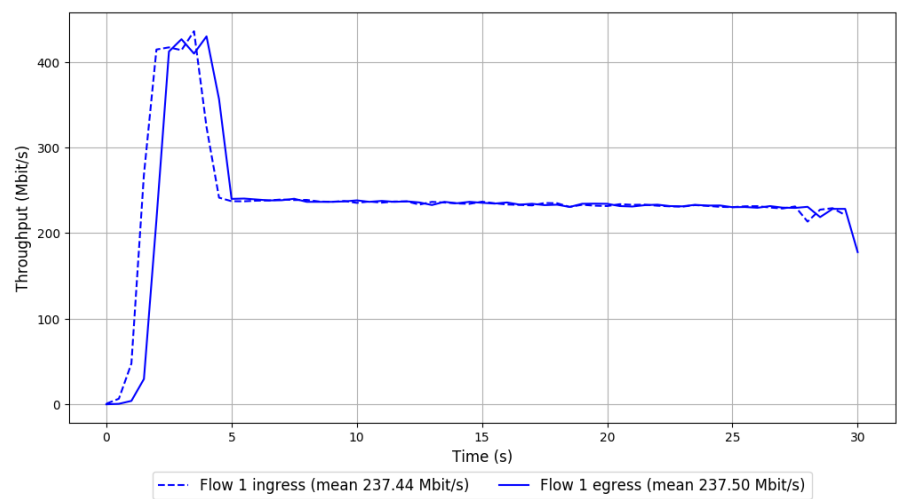

Flow 1 (95th percentile 86.60 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-09-17 22:54:16
End at: 2019-09-17 22:54:46
Local clock offset: 10.145 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2019-09-18 03:13:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 237.50 Mbit/s
95th percentile per-packet one-way delay: 86.560 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 237.50 Mbit/s
95th percentile per-packet one-way delay: 86.560 ms
Loss rate: 0.55%
```

Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-09-17 23:29:10
End at: 2019-09-17 23:29:40
Local clock offset: 21.37 ms
Remote clock offset: 0.189 ms


# Below is generated by plot.py at 2019-09-18 03:13:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.97 Mbit/s
95th percentile per-packet one-way delay: 85.861 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 250.97 Mbit/s
95th percentile per-packet one-way delay: 85.861 ms
Loss rate: 0.55%
```
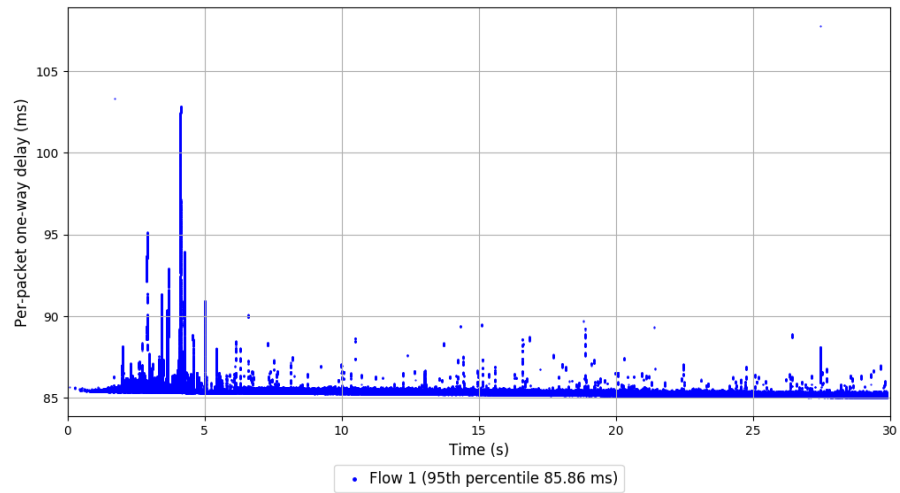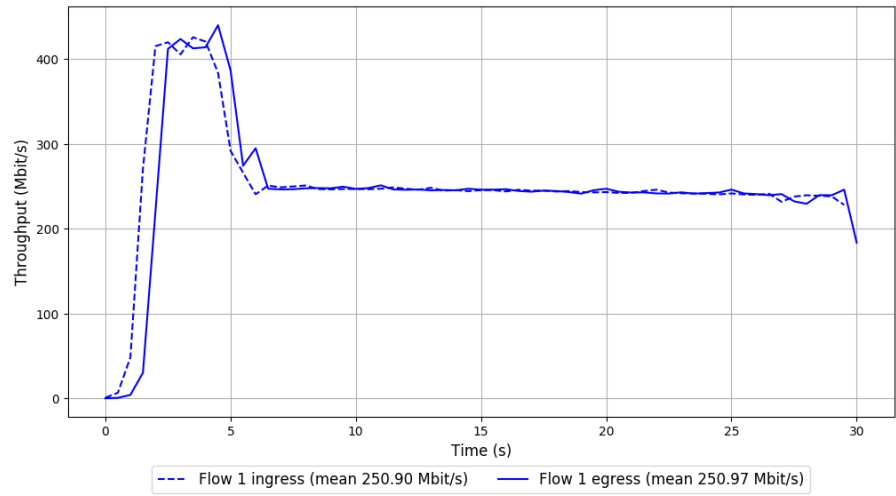
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-09-18 00:04:05
End at: 2019-09-18 00:04:35
Local clock offset: 11.69 ms
Remote clock offset: 0.046 ms


# Below is generated by plot.py at 2019-09-18 03:16:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 291.37 Mbit/s
95th percentile per-packet one-way delay: 86.108 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 291.37 Mbit/s
95th percentile per-packet one-way delay: 86.108 ms
Loss rate: 0.52%
```
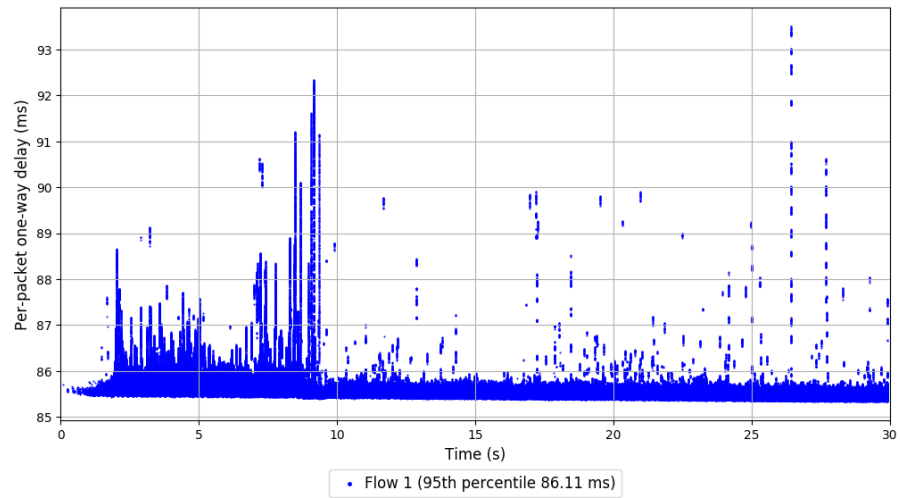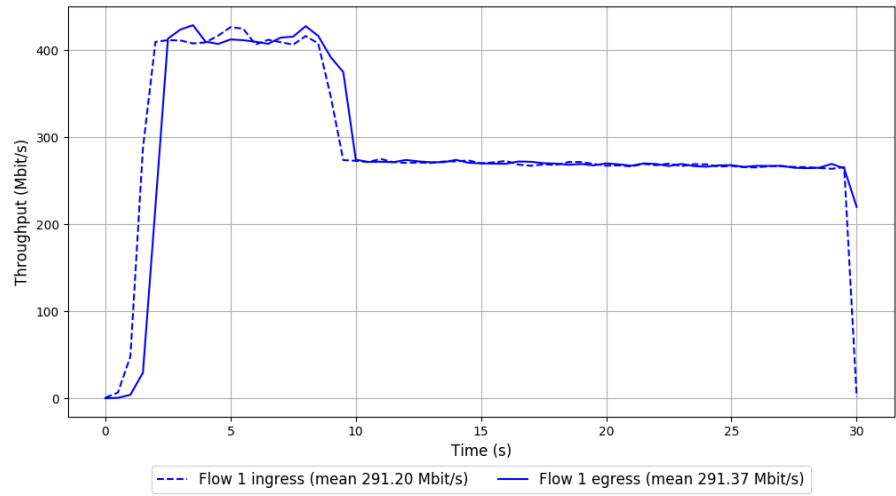
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 291.20 Mbit/s)   Flow 1 egress (mean 291.37 Mbit/s)

Flow 1 (95th percentile 86.11 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-09-18 00:39:12
End at: 2019-09-18 00:39:42
Local clock offset: 6.231 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-09-18 03:17:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 300.55 Mbit/s
95th percentile per-packet one-way delay: 86.765 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 300.55 Mbit/s
95th percentile per-packet one-way delay: 86.765 ms
Loss rate: 0.54%
```
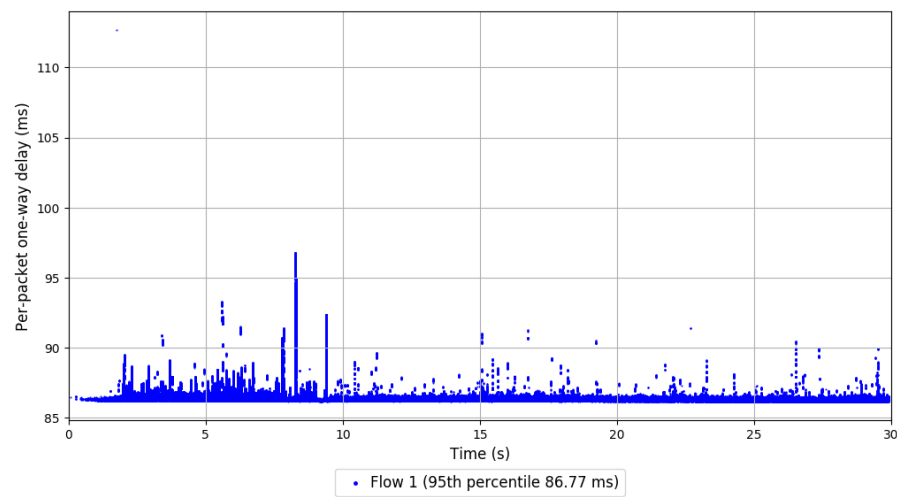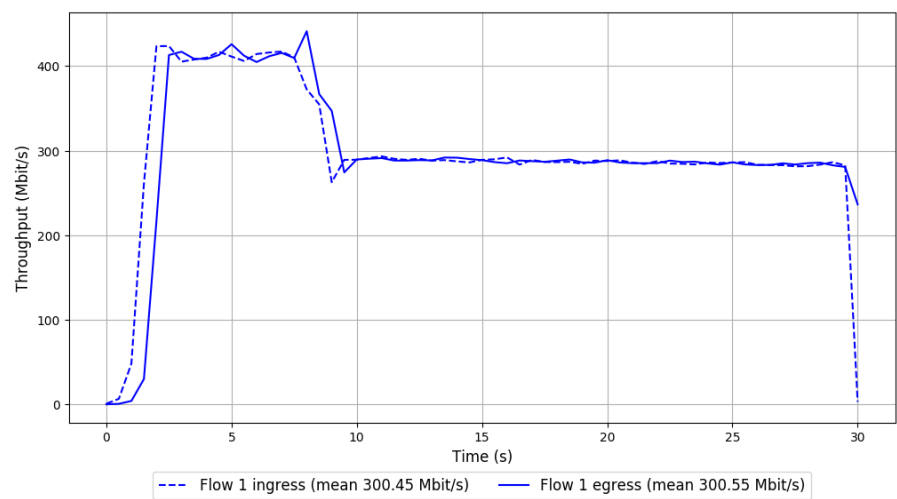
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 300.45 Mbit/s)   Flow 1 egress (mean 300.55 Mbit/s)
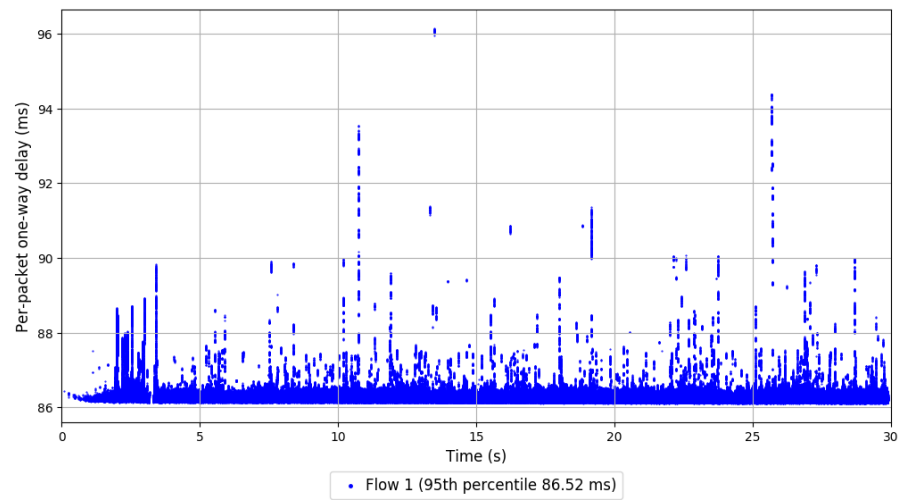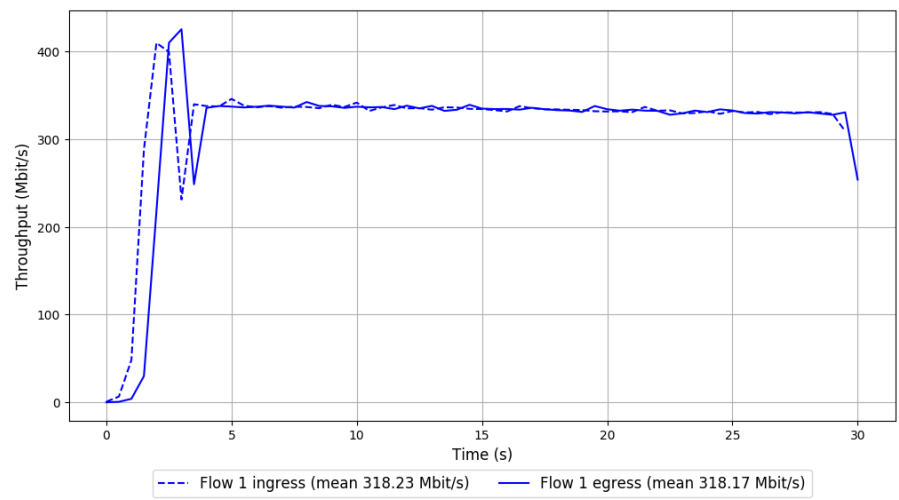

Flow 1 (95th percentile 86.77 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2019-09-18 01:14:02
End at: 2019-09-18 01:14:32
Local clock offset: 3.126 ms
Remote clock offset: -0.002 ms


# Below is generated by plot.py at 2019-09-18 03:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 318.17 Mbit/s
95th percentile per-packet one-way delay: 86.523 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 318.17 Mbit/s
95th percentile per-packet one-way delay: 86.523 ms
Loss rate: 0.59%
```

Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 318.23 Mbit/s) — Flow 1 egress (mean 318.17 Mbit/s)

Flow 1 (95th percentile 86.52 ms)

```
Run 1: Statistics of Verus

Start at: 2019-09-17 22:51:32
End at: 2019-09-17 22:52:02
Local clock offset: 9.941 ms
Remote clock offset: 0.191 ms


# Below is generated by plot.py at 2019-09-18 03:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.03 Mbit/s
95th percentile per-packet one-way delay: 139.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.03 Mbit/s
95th percentile per-packet one-way delay: 139.588 ms
Loss rate: 0.00%
```
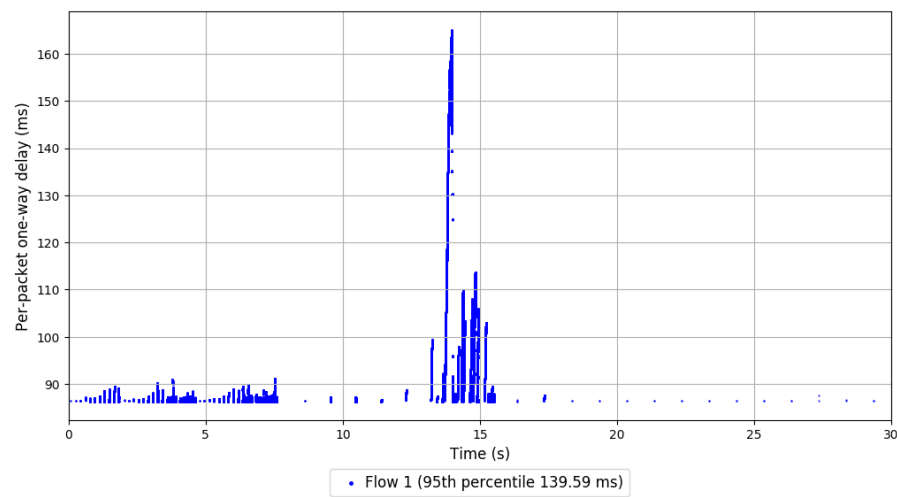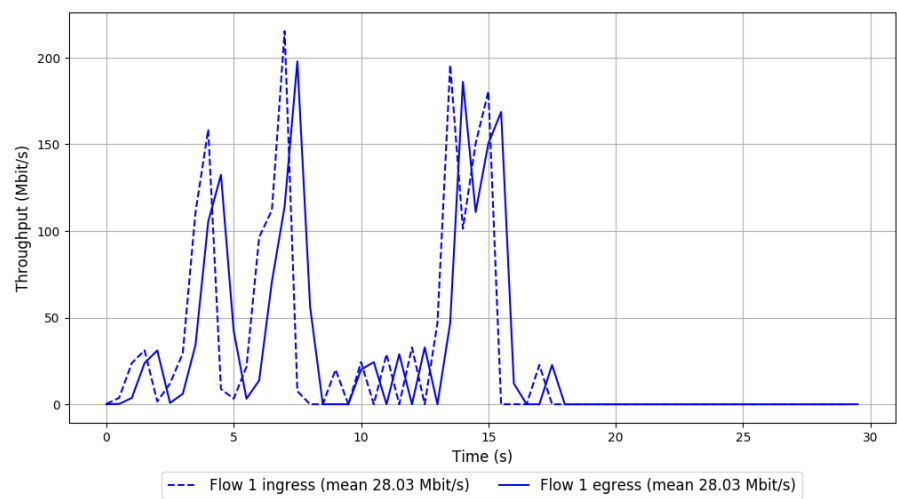
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-09-17 23:26:18
End at: 2019-09-17 23:26:48
Local clock offset: 19.535 ms
Remote clock offset: 0.229 ms


# Below is generated by plot.py at 2019-09-18 03:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 105.72 Mbit/s
95th percentile per-packet one-way delay: 133.762 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 105.72 Mbit/s
95th percentile per-packet one-way delay: 133.762 ms
Loss rate: 2.11%
```
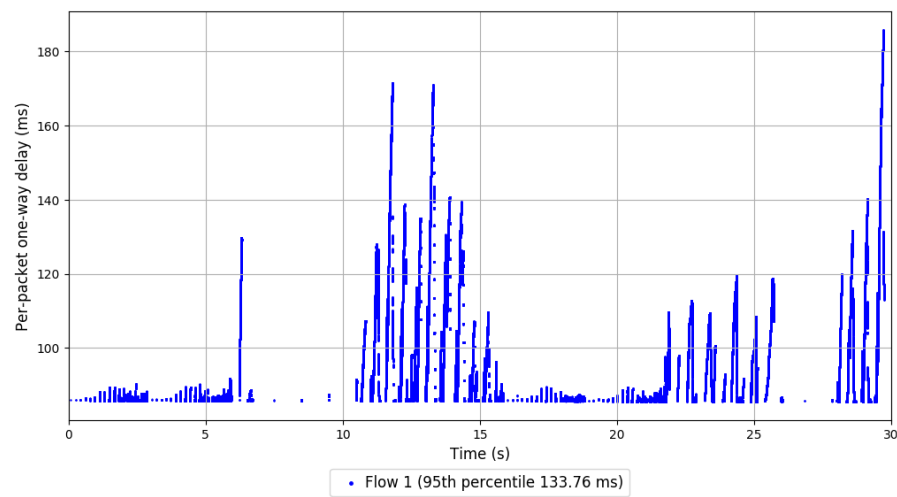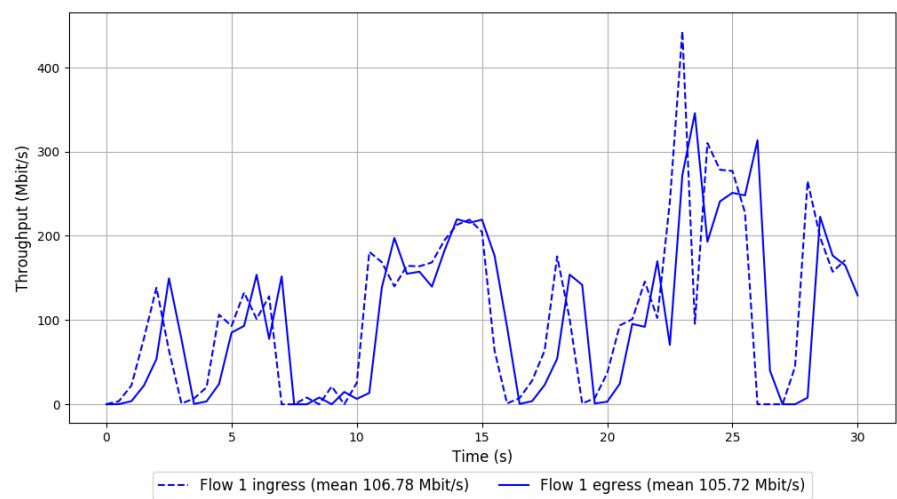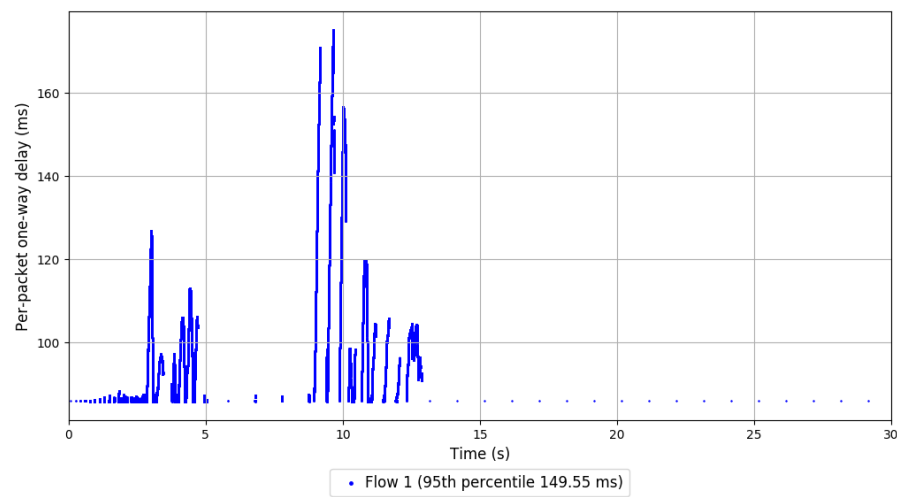
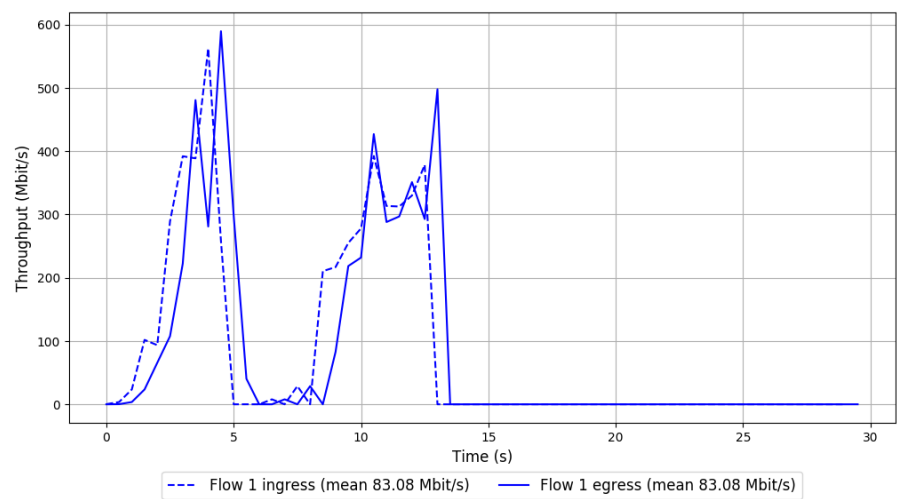## Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-09-18 00:01:15
End at: 2019-09-18 00:01:45
Local clock offset: 11.442 ms
Remote clock offset: 0.08 ms


# Below is generated by plot.py at 2019-09-18 03:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.08 Mbit/s
95th percentile per-packet one-way delay: 149.548 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.08 Mbit/s
95th percentile per-packet one-way delay: 149.548 ms
Loss rate: 0.00%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-09-18 00:36:24
End at: 2019-09-18 00:36:54
Local clock offset: 5.361 ms
Remote clock offset: 0.006 ms


# Below is generated by plot.py at 2019-09-18 03:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.04 Mbit/s
95th percentile per-packet one-way delay: 100.425 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.04 Mbit/s
95th percentile per-packet one-way delay: 100.425 ms
Loss rate: 0.00%
```
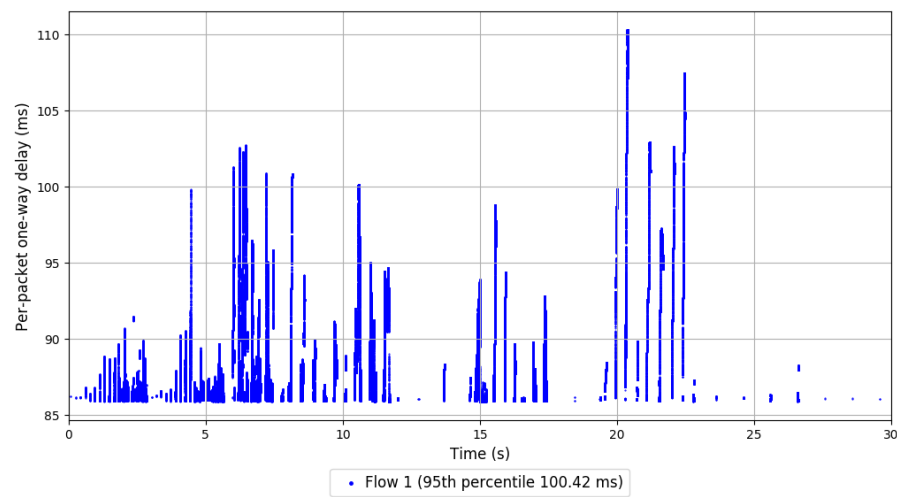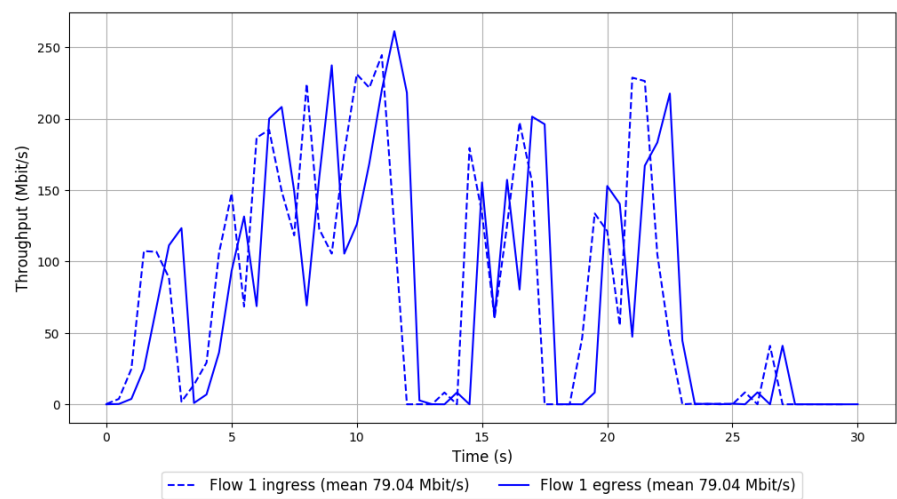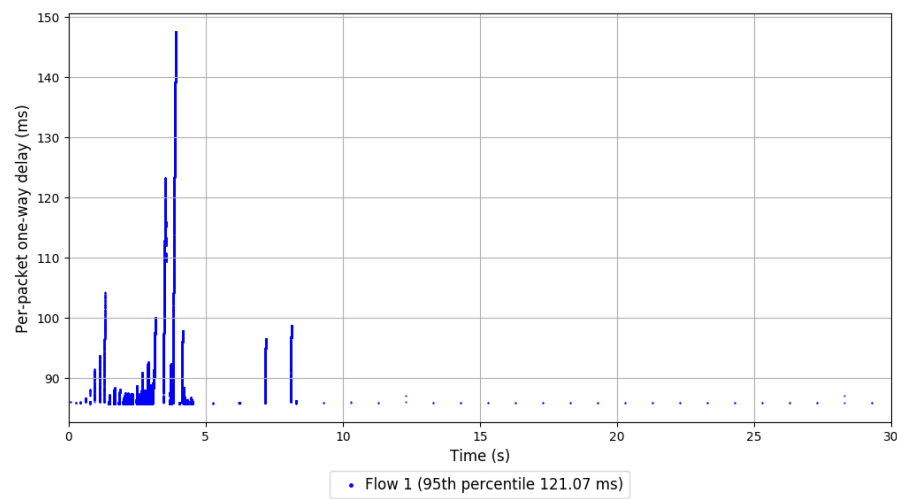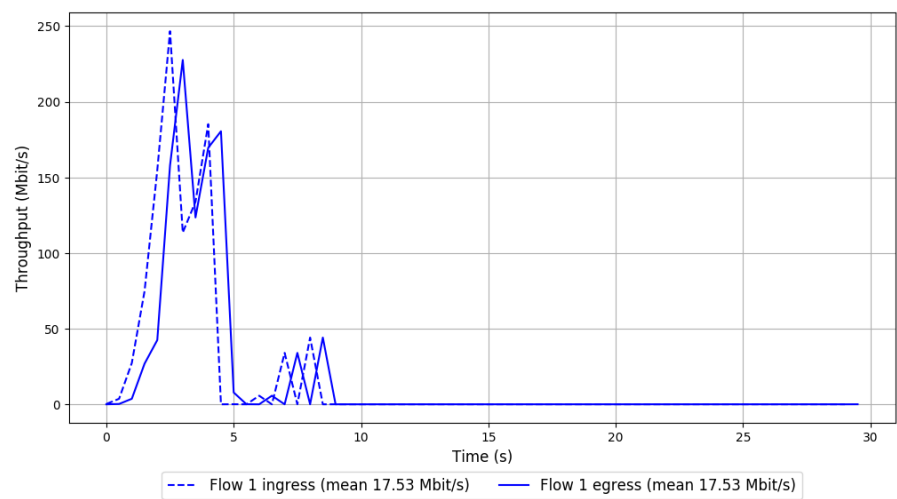
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-09-18 01:11:13
End at: 2019-09-18 01:11:43
Local clock offset: 2.609 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2019-09-18 03:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.53 Mbit/s
95th percentile per-packet one-way delay: 121.073 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 17.53 Mbit/s
95th percentile per-packet one-way delay: 121.073 ms
Loss rate: 0.00%
```

Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-09-17 22:34:25
End at: 2019-09-17 22:34:55
Local clock offset: 4.157 ms
Remote clock offset: -0.136 ms


# Below is generated by plot.py at 2019-09-18 03:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.75 Mbit/s
95th percentile per-packet one-way delay: 85.113 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 230.75 Mbit/s
95th percentile per-packet one-way delay: 85.113 ms
Loss rate: 0.70%
```
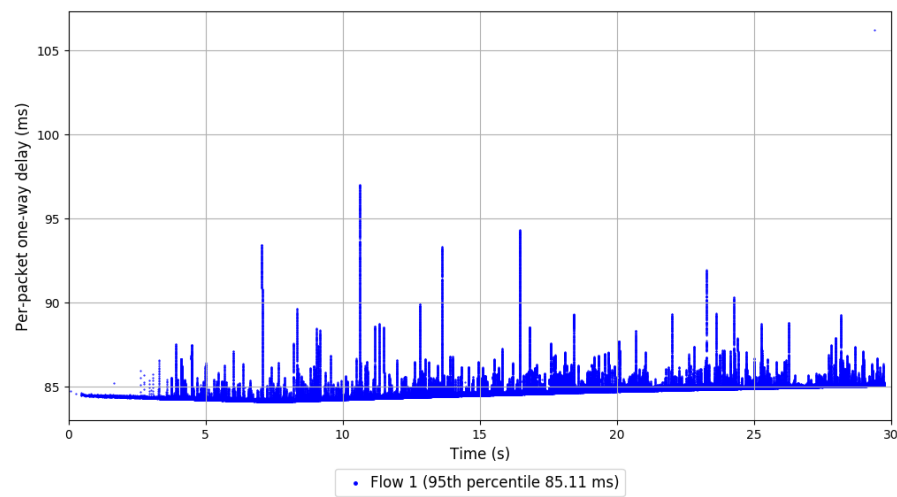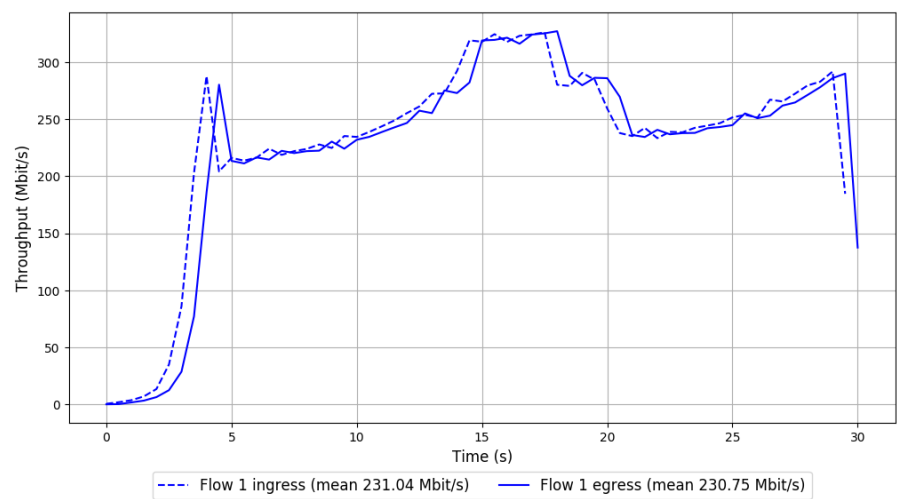
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 231.04 Mbit/s)   Flow 1 egress (mean 230.75 Mbit/s)

Flow 1 (95th percentile 85.11 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-09-17 23:08:26
End at: 2019-09-17 23:08:56
Local clock offset: 15.802 ms
Remote clock offset: 0.166 ms


# Below is generated by plot.py at 2019-09-18 03:18:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 262.53 Mbit/s
95th percentile per-packet one-way delay: 86.670 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 262.53 Mbit/s
95th percentile per-packet one-way delay: 86.670 ms
Loss rate: 0.71%
```
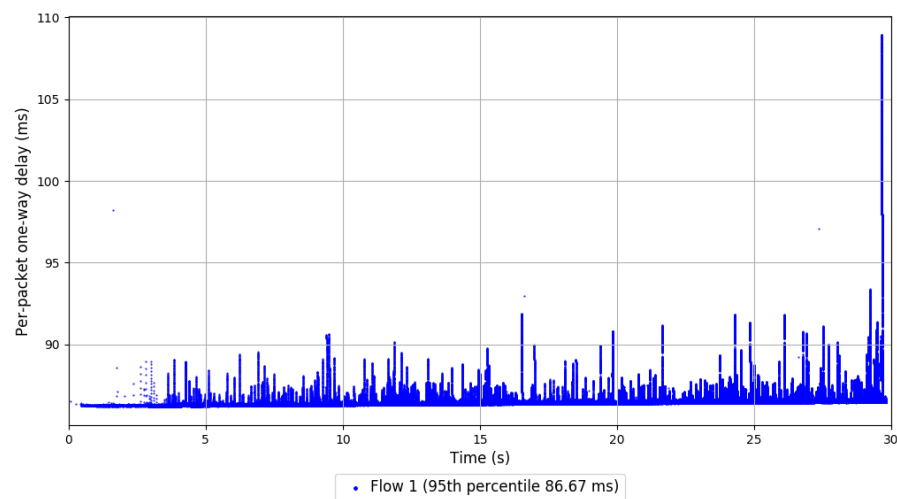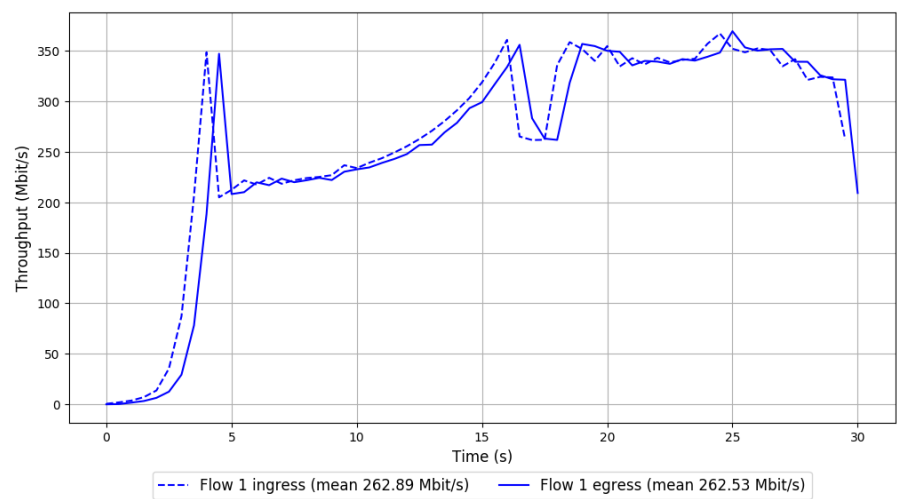
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-09-17 23:43:26
End at: 2019-09-17 23:43:56
Local clock offset: 18.67 ms
Remote clock offset: 0.14 ms


# Below is generated by plot.py at 2019-09-18 03:18:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 265.94 Mbit/s
95th percentile per-packet one-way delay: 87.335 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 265.94 Mbit/s
95th percentile per-packet one-way delay: 87.335 ms
Loss rate: 0.82%
```
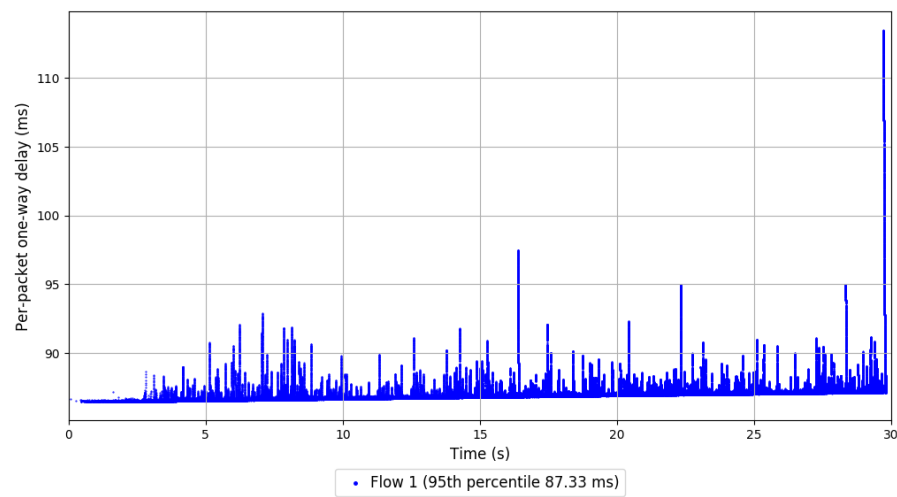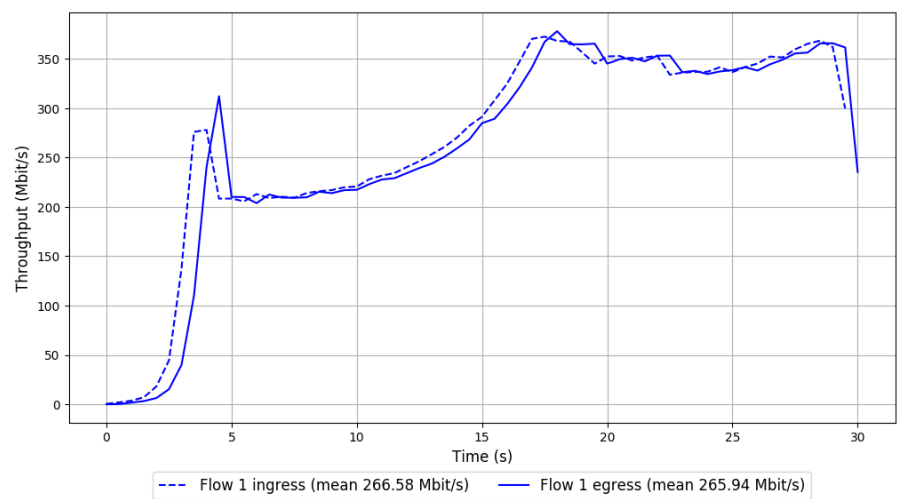
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 266.58 Mbit/s)   Flow 1 egress (mean 265.94 Mbit/s)

Flow 1 (95th percentile 87.33 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-09-18 00:18:33
End at: 2019-09-18 00:19:03
Local clock offset: 9.081 ms
Remote clock offset: 0.016 ms


# Below is generated by plot.py at 2019-09-18 03:18:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 265.39 Mbit/s
95th percentile per-packet one-way delay: 86.988 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 265.39 Mbit/s
95th percentile per-packet one-way delay: 86.988 ms
Loss rate: 0.79%
```
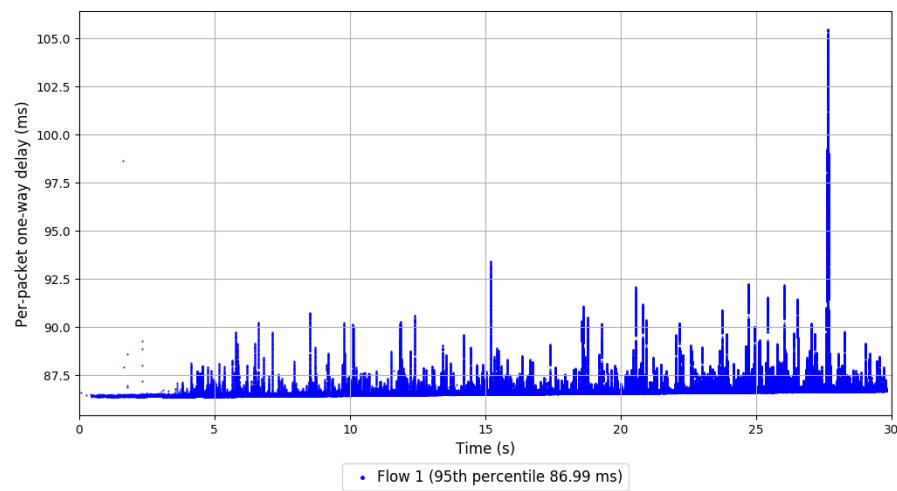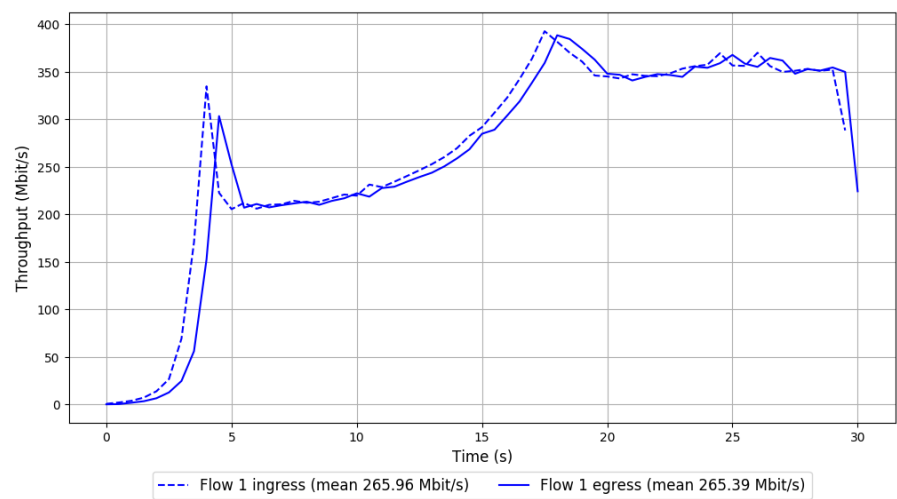
Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-09-18 00:53:34
End at: 2019-09-18 00:54:04
Local clock offset: 3.715 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2019-09-18 03:19:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.96 Mbit/s
95th percentile per-packet one-way delay: 86.775 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 316.96 Mbit/s
95th percentile per-packet one-way delay: 86.775 ms
Loss rate: 0.62%
```
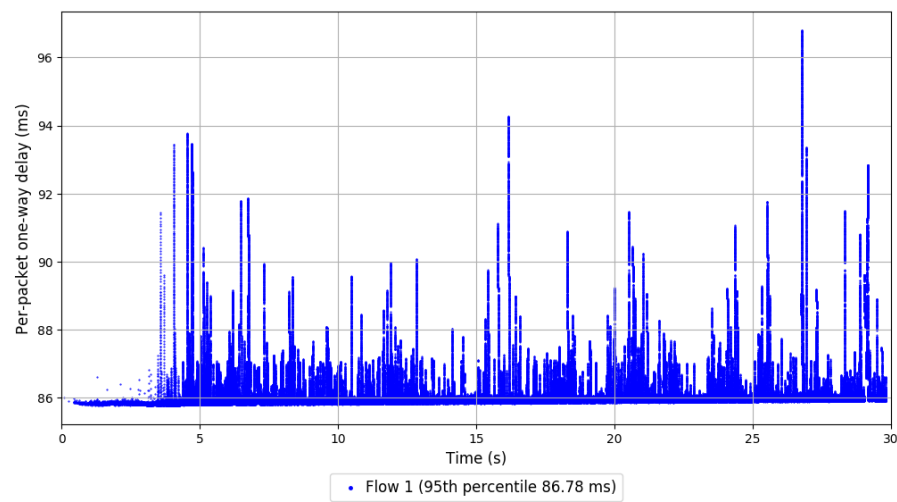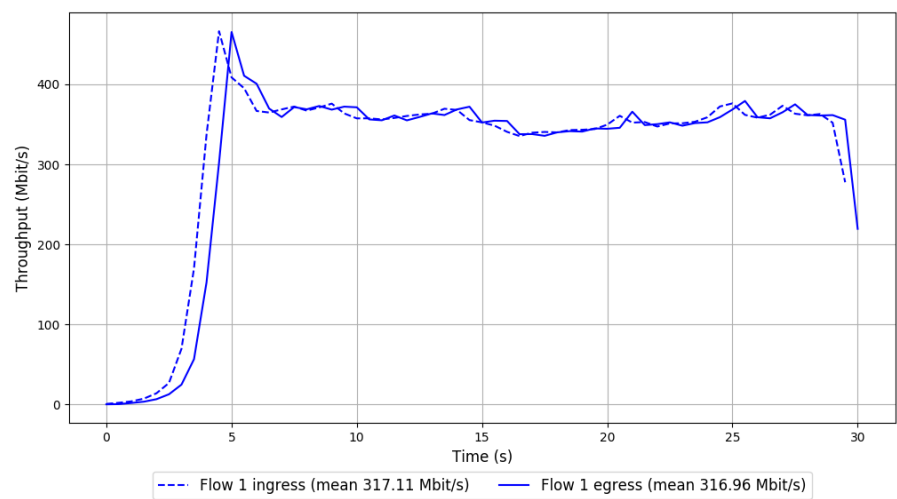
Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-09-17 22:58:40
End at: 2019-09-17 22:59:10
Local clock offset: 13.404 ms
Remote clock offset: 0.041 ms


# Below is generated by plot.py at 2019-09-18 03:19:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 85.697 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 85.697 ms
Loss rate: 0.86%
```
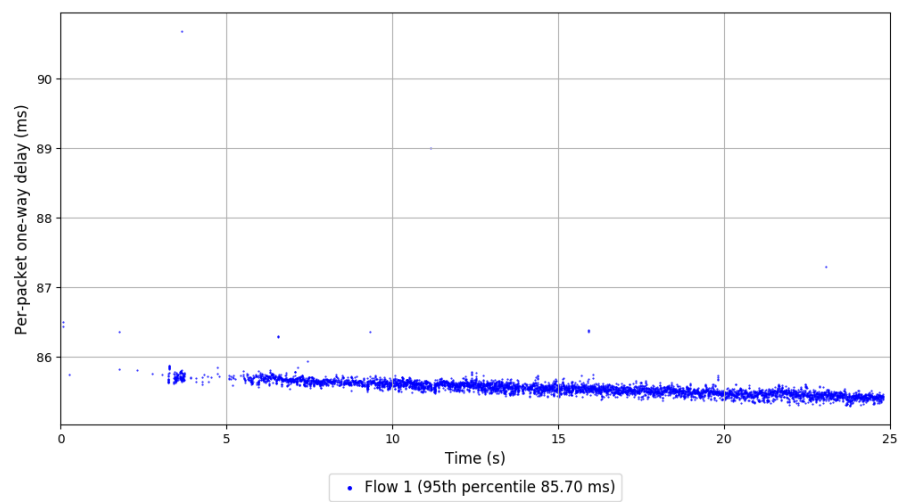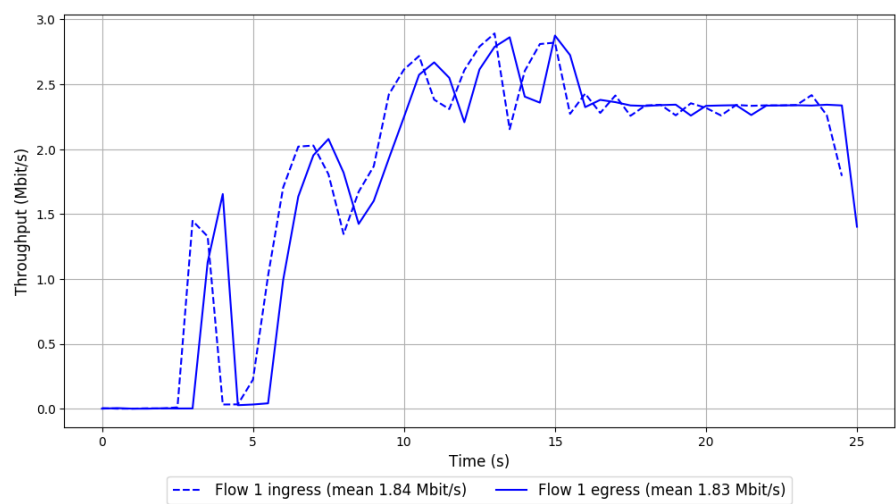
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-09-17 23:33:35
End at: 2019-09-17 23:34:05
Local clock offset: 24.38 ms
Remote clock offset: 0.166 ms


# Below is generated by plot.py at 2019-09-18 03:19:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.358 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.358 ms
Loss rate: 0.00%
```
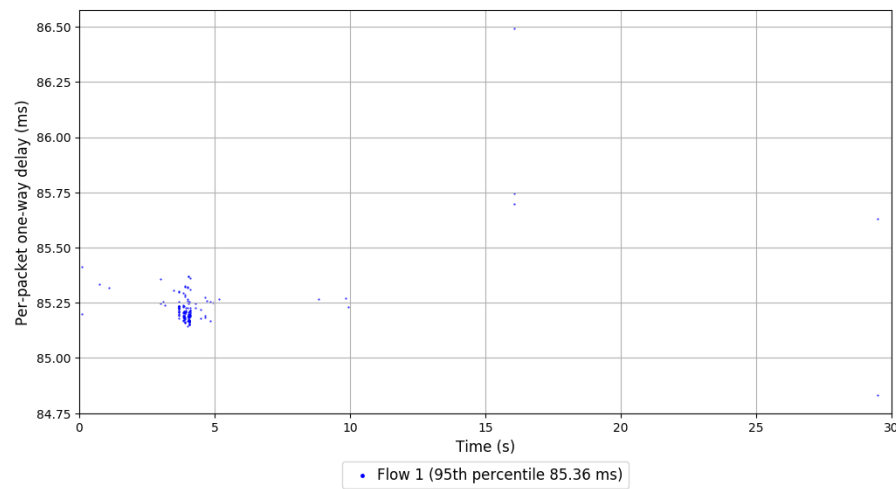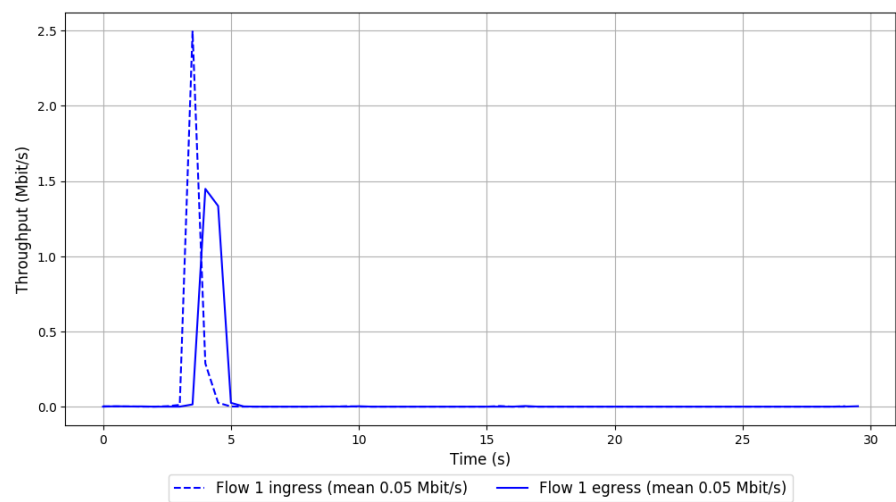
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-09-18 00:08:32
End at: 2019-09-18 00:09:02
Local clock offset: 13.091 ms
Remote clock offset: 0.042 ms


# Below is generated by plot.py at 2019-09-18 03:19:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.923 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.923 ms
Loss rate: 0.00%
```
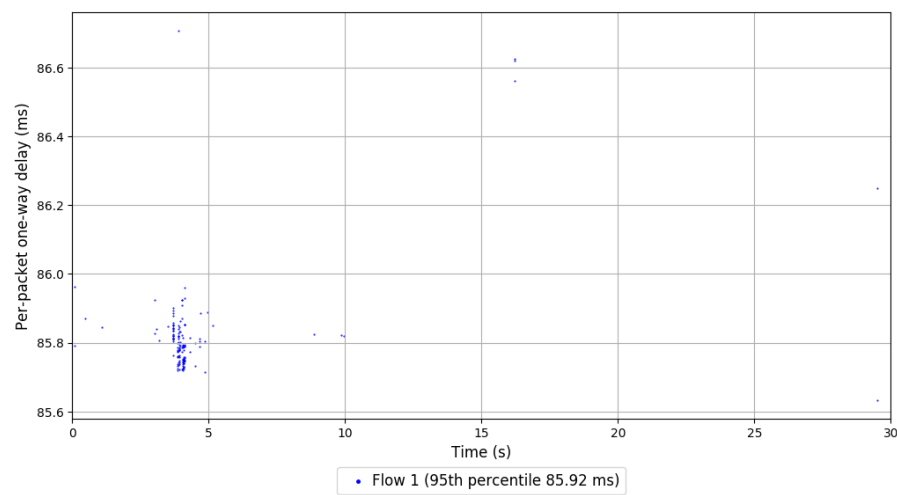
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-09-18 00:43:35
End at: 2019-09-18 00:44:05
Local clock offset: 6.593 ms
Remote clock offset: 0.032 ms


# Below is generated by plot.py at 2019-09-18 03:19:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.132 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.132 ms
Loss rate: 0.00%
```
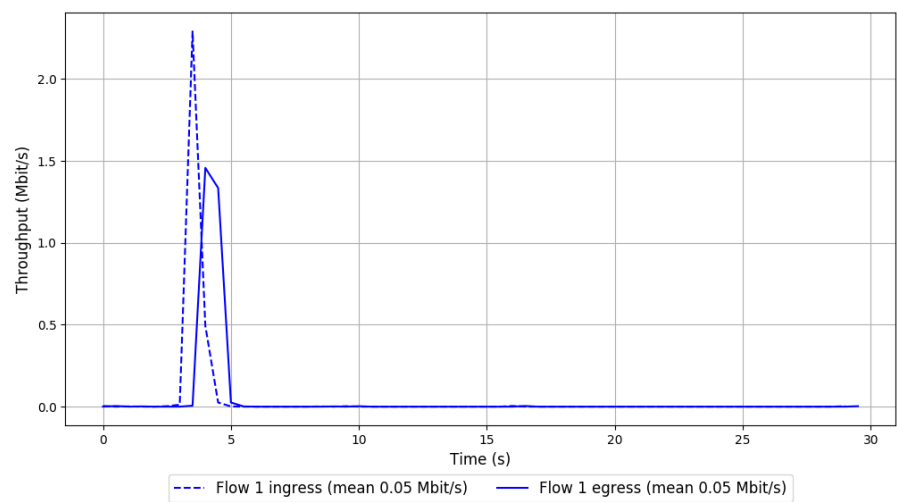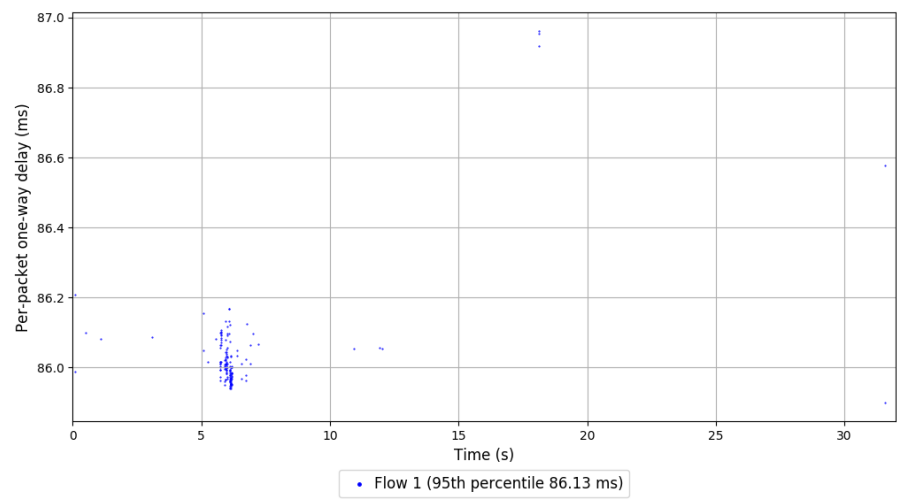
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-09-18 01:18:28
End at: 2019-09-18 01:18:58
Local clock offset: 2.849 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2019-09-18 03:19:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.160 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.160 ms
Loss rate: 0.00%
```
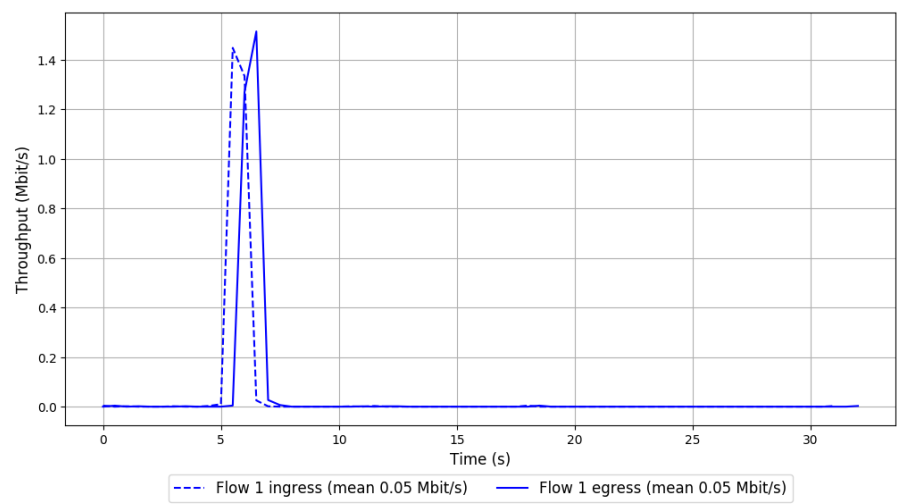
Run 5: Report of WebRTC media — Data Link