Pantheon Report

Generated at 2019-11-25 02:56:08 (UTC).

Data path: GCE Iowa on `ens4` (*remote*) →GCE London 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.
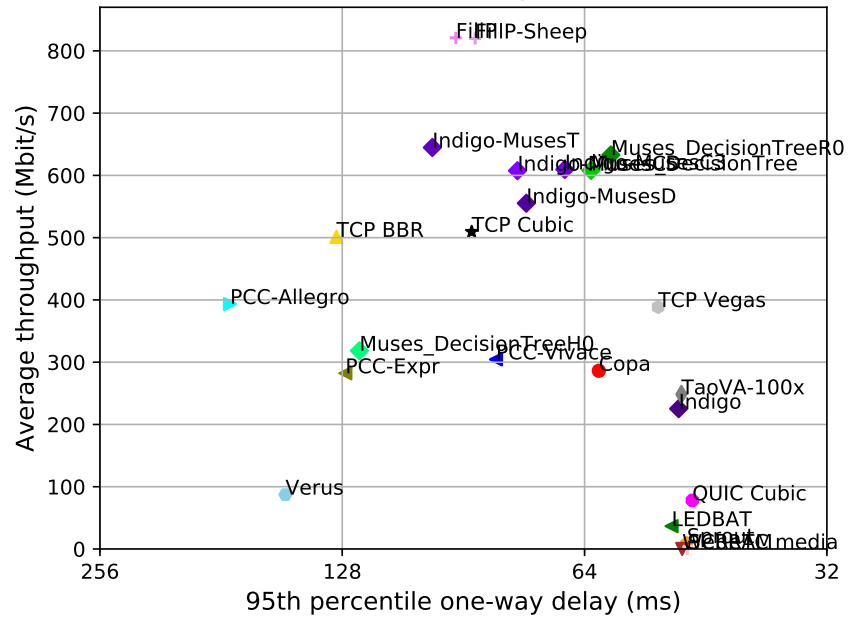
```
System info:
Linux 4.15.0-1044-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```
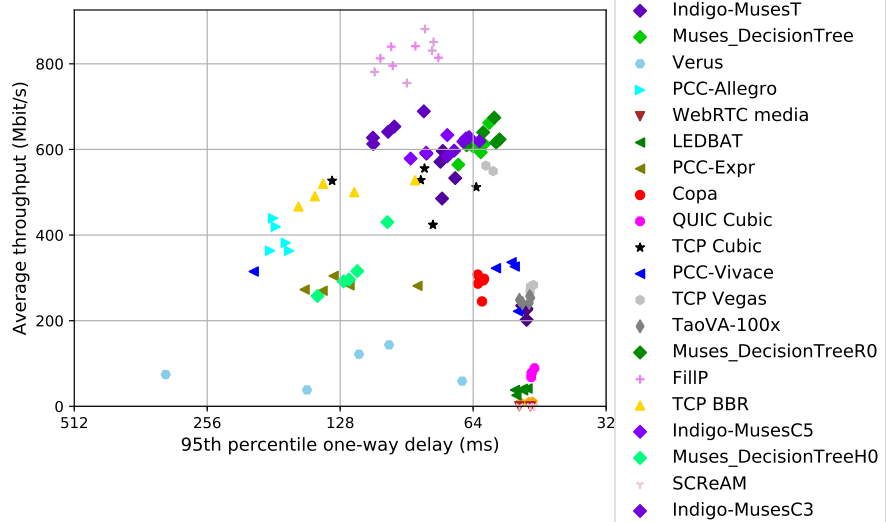
```
Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
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 London, 5 runs of 30s each per scheme
(mean of all runs by scheme)

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

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	501.22	130.14	0.69
Copa	5	286.24	61.44	0.32
TCP Cubic	5	509.37	88.39	0.35
FillP	5	820.82	92.49	0.52
FillP-Sheep	5	819.89	87.52	0.46
Indigo	5	225.32	48.90	0.34
Indigo-MusesC3	5	609.54	67.72	0.36
Indigo-MusesC5	4	607.53	77.54	0.39
Indigo-MusesD	5	555.25	75.61	0.43
Indigo-MusesT	5	644.80	98.92	0.44
LEDBAT	5	36.68	49.90	0.52
Muses_DecisionTree	5	608.01	62.82	0.29
Muses_DecisionTreeH0	5	318.32	121.86	0.39
Muses_DecisionTreeR0	5	632.79	59.36	0.34
PCC-Allegro	5	393.40	176.43	4.23
PCC-Expr	5	282.21	126.87	0.87
QUIC Cubic	4	78.13	47.03	0.47
SCReAM	5	0.22	47.67	0.33
Sprout	5	9.49	47.76	0.36
TaoVA-100x	5	248.37	48.52	0.32
TCP Vegas	5	388.57	51.85	0.28
Verus	5	87.28	150.60	3.21
PCC-Vivace	5	304.49	82.46	0.57
WebRTC media	3	0.05	48.41	0.00

4

```
Run 1: Statistics of TCP BBR

Start at: 2019-11-24 21:53:19
End at: 2019-11-24 21:53:49
Local clock offset: 0.023 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2019-11-25 00:38:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 520.08 Mbit/s
95th percentile per-packet one-way delay: 139.944 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 520.08 Mbit/s
95th percentile per-packet one-way delay: 139.944 ms
Loss rate: 0.49%
```
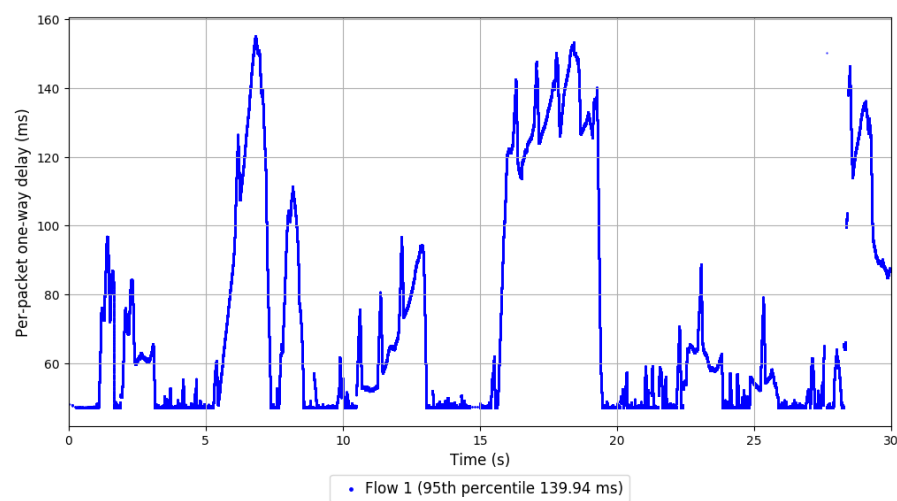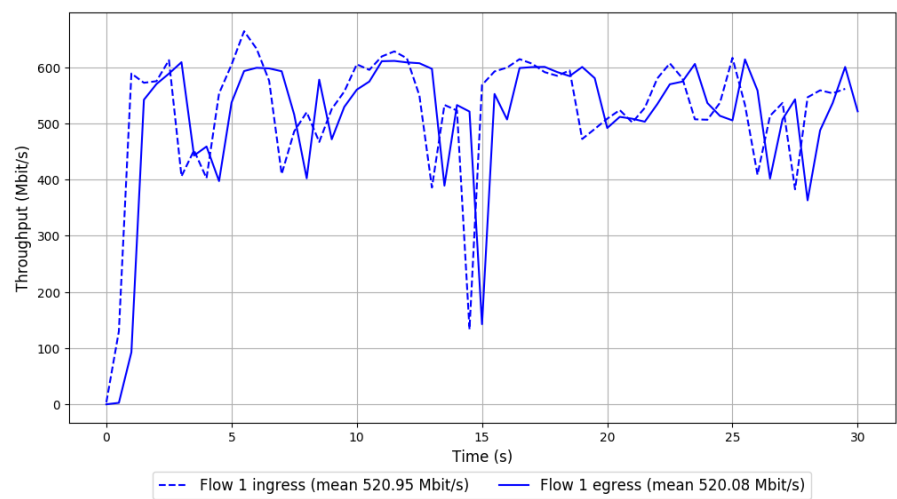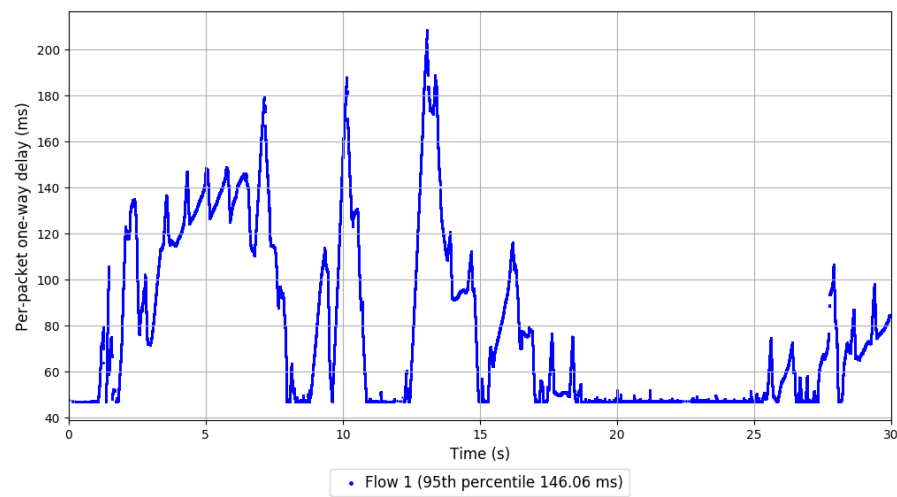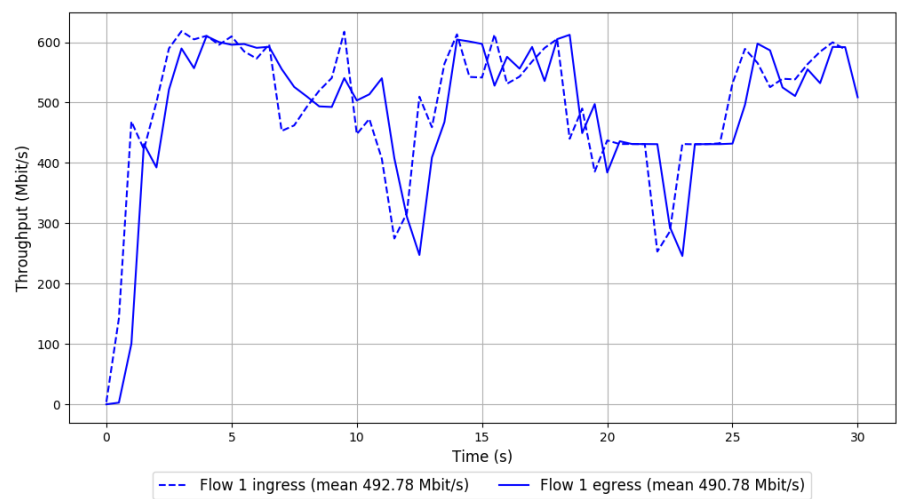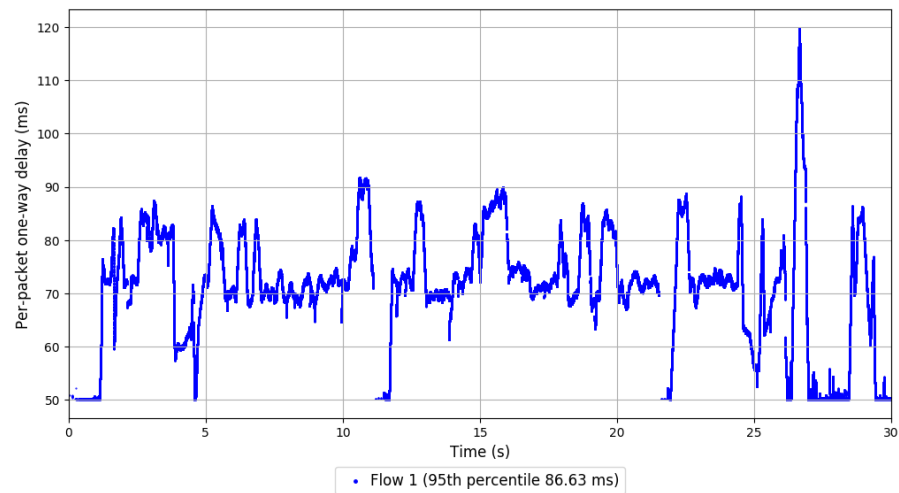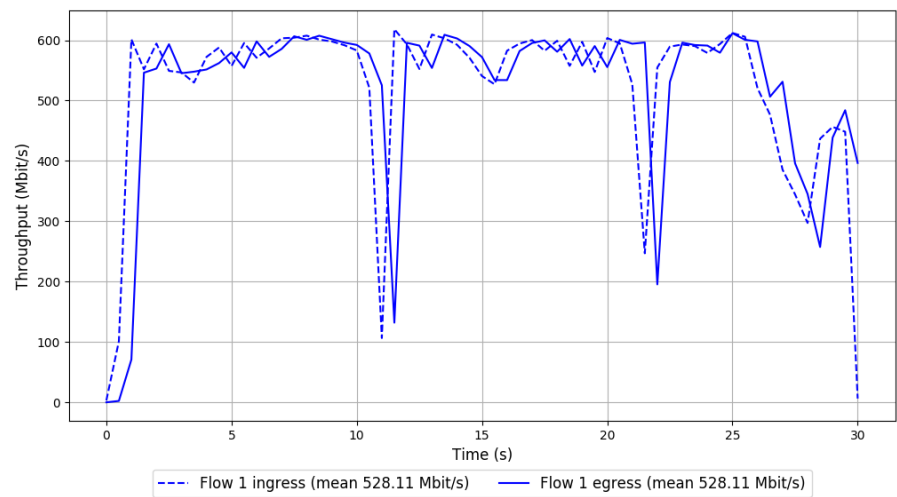
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-11-24 22:28:10
End at: 2019-11-24 22:28:40
Local clock offset: -0.006 ms
Remote clock offset: 0.021 ms


# Below is generated by plot.py at 2019-11-25 00:38:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 490.78 Mbit/s
95th percentile per-packet one-way delay: 146.059 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 490.78 Mbit/s
95th percentile per-packet one-way delay: 146.059 ms
Loss rate: 0.72%
```
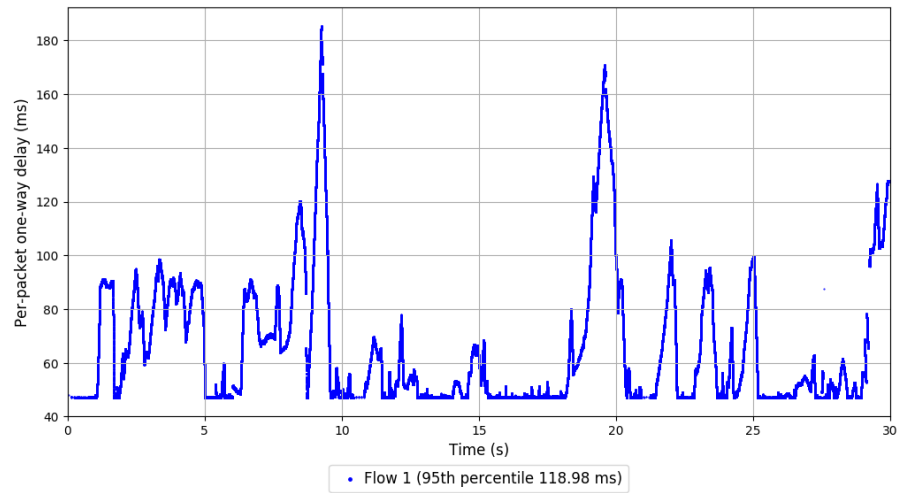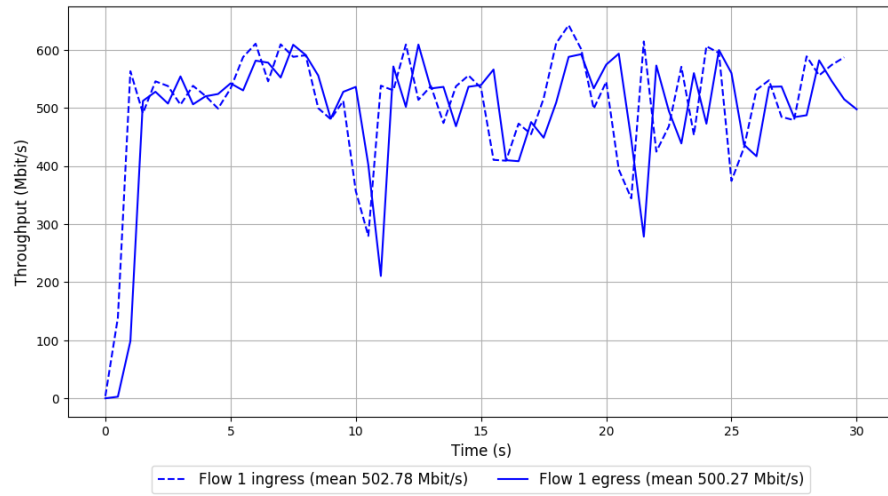
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-11-24 23:02:49
End at: 2019-11-24 23:03:19
Local clock offset: -0.087 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2019-11-25 00:38:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 528.11 Mbit/s
95th percentile per-packet one-way delay: 86.634 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 528.11 Mbit/s
95th percentile per-packet one-way delay: 86.634 ms
Loss rate: 0.33%
```
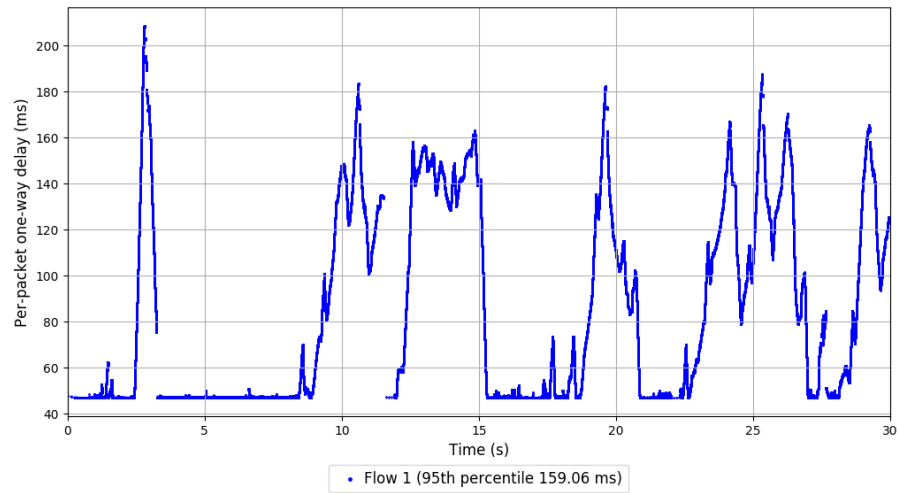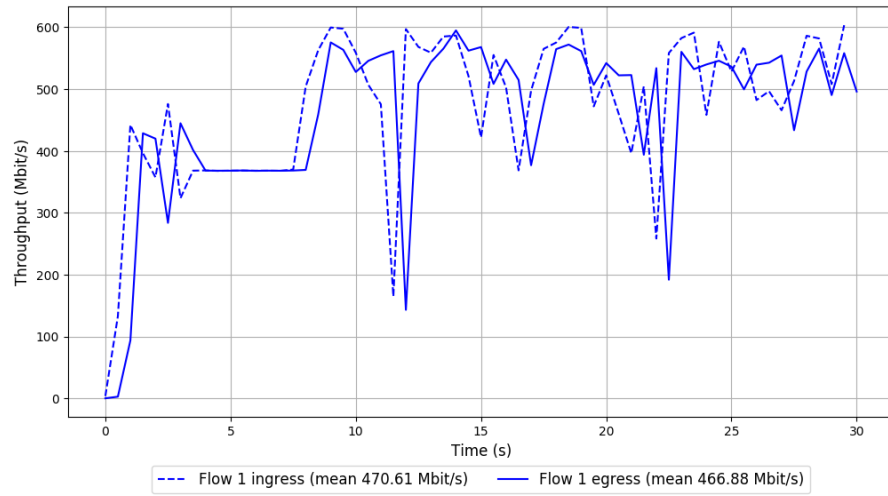
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 528.11 Mbit/s) —— Flow 1 egress (mean 528.11 Mbit/s)

• Flow 1 (95th percentile 86.63 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-11-24 23:37:35
End at: 2019-11-24 23:38:05
Local clock offset: -0.07 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-11-25 00:38:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.27 Mbit/s
95th percentile per-packet one-way delay: 118.978 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 500.27 Mbit/s
95th percentile per-packet one-way delay: 118.978 ms
Loss rate: 0.82%
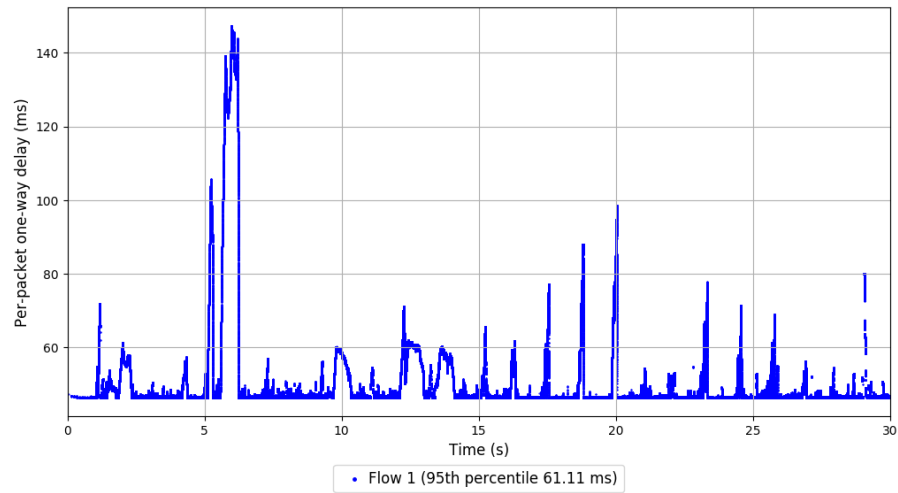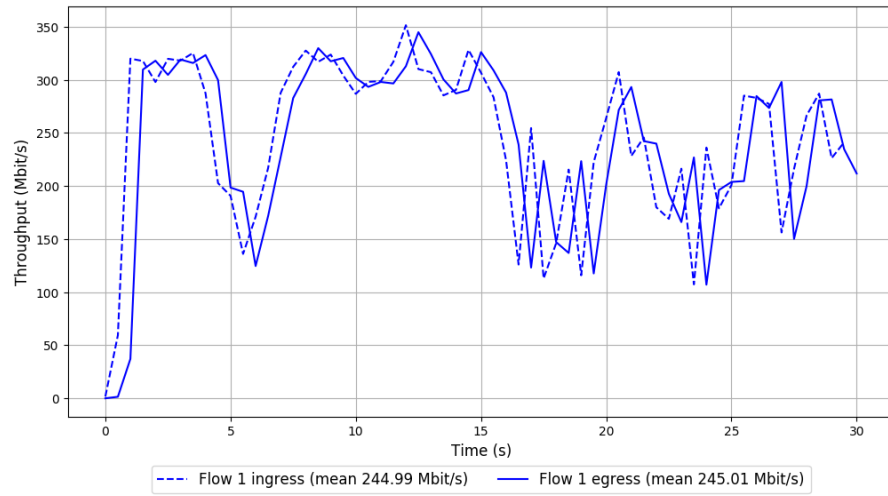```

Run 4: Report of TCP BBR — Data Link



Flow 1 ingress (mean 502.78 Mbit/s) — Flow 1 egress (mean 500.27 Mbit/s)



· Flow 1 (95th percentile 118.98 ms)

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```
Run 5: Statistics of TCP BBR

Start at: 2019-11-25 00:12:18
End at: 2019-11-25 00:12:48
Local clock offset: -0.148 ms
Remote clock offset: 0.004 ms

Below is generated by plot.py at 2019-11-25 00:38:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 466.88 Mbit/s
95th percentile per-packet one-way delay: 159.064 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 466.88 Mbit/s
95th percentile per-packet one-way delay: 159.064 ms
Loss rate: 1.11%
```
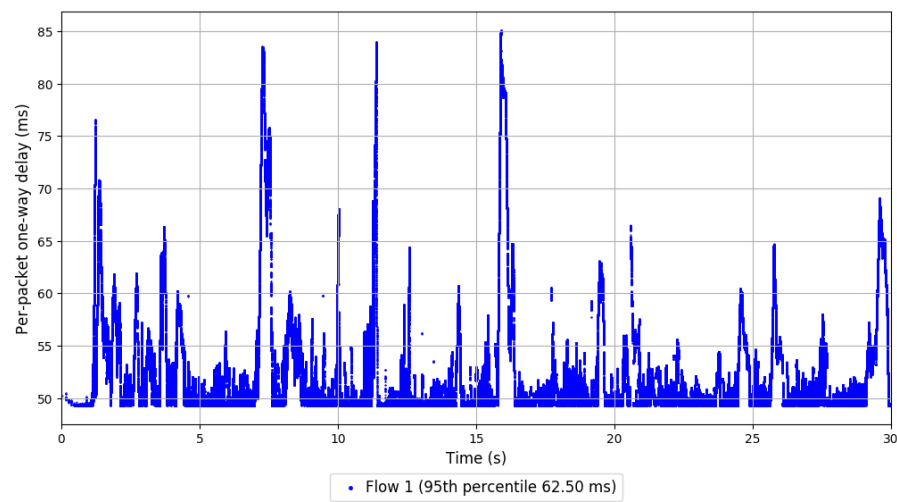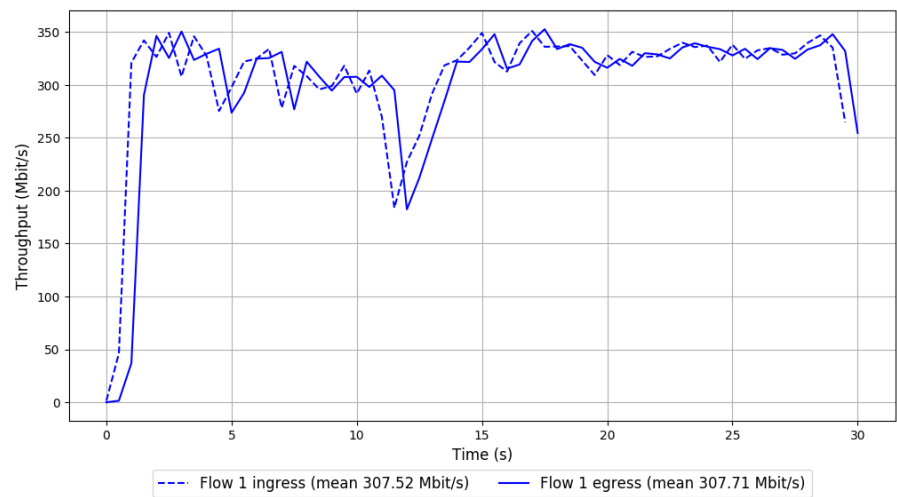
Run 5: Report of TCP BBR — Data Link



Flow 1 ingress (mean 470.61 Mbit/s) — — —    Flow 1 egress (mean 466.88 Mbit/s) ———



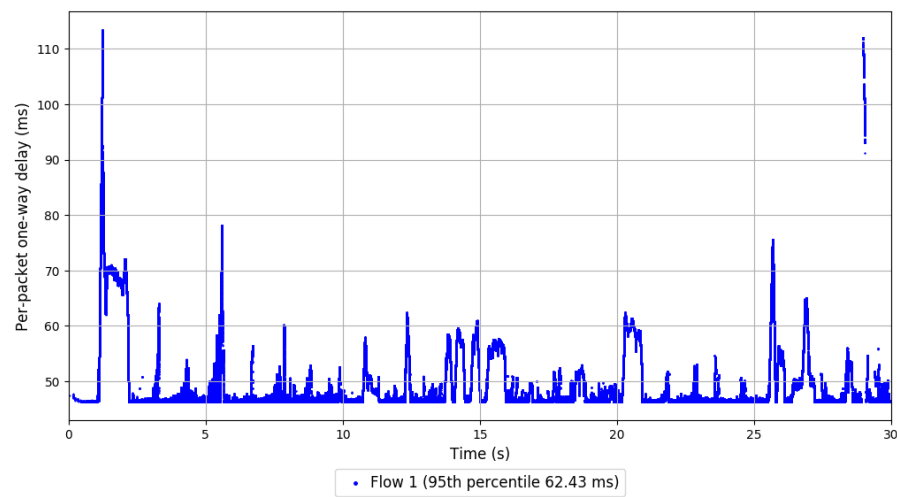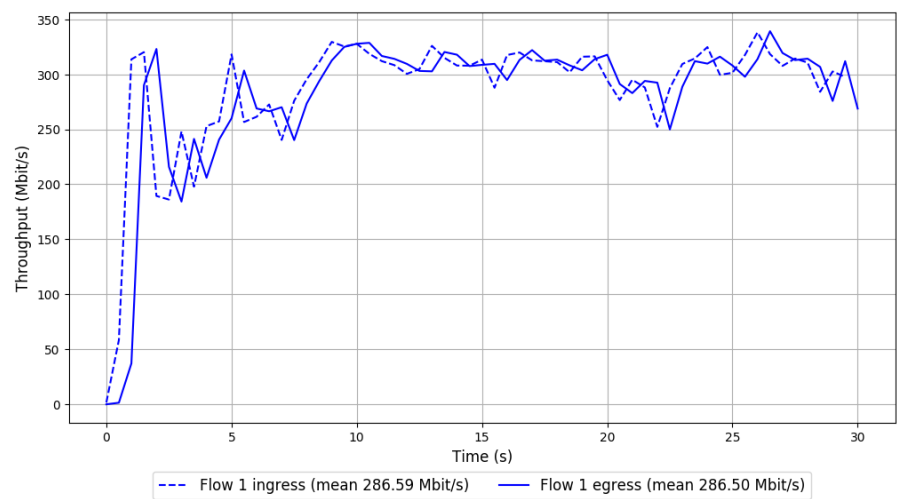• Flow 1 (95th percentile 159.06 ms)

```
Run 1: Statistics of Copa

Start at: 2019-11-24 21:43:51
End at: 2019-11-24 21:44:21
Local clock offset: 0.015 ms
Remote clock offset: -0.038 ms

Below is generated by plot.py at 2019-11-25 00:38:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 245.01 Mbit/s
95th percentile per-packet one-way delay: 61.113 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 245.01 Mbit/s
95th percentile per-packet one-way delay: 61.113 ms
Loss rate: 0.31%
```
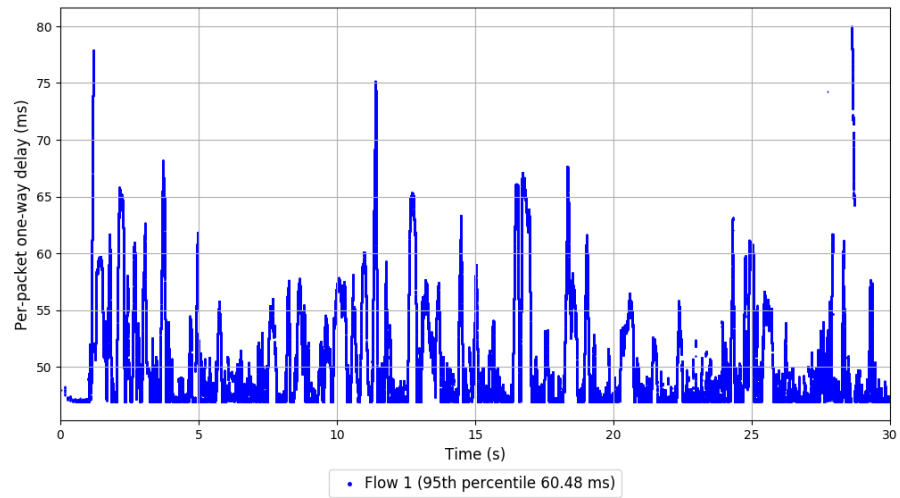
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-11-24 22:18:38
End at: 2019-11-24 22:19:08
Local clock offset: 0.008 ms
Remote clock offset: 0.003 ms

Below is generated by plot.py at 2019-11-25 00:39:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 307.71 Mbit/s
95th percentile per-packet one-way delay: 62.497 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 307.71 Mbit/s
95th percentile per-packet one-way delay: 62.497 ms
Loss rate: 0.27%
```
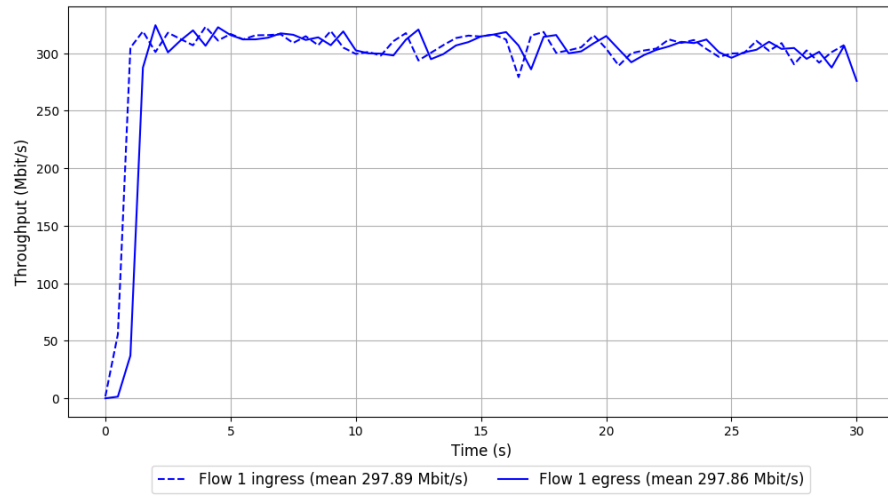
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-11-24 22:53:08
End at: 2019-11-24 22:53:38
Local clock offset: -0.074 ms
Remote clock offset: -0.038 ms

Below is generated by plot.py at 2019-11-25 00:39:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 286.50 Mbit/s
95th percentile per-packet one-way delay: 62.426 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 286.50 Mbit/s
95th percentile per-packet one-way delay: 62.426 ms
Loss rate: 0.34%
```
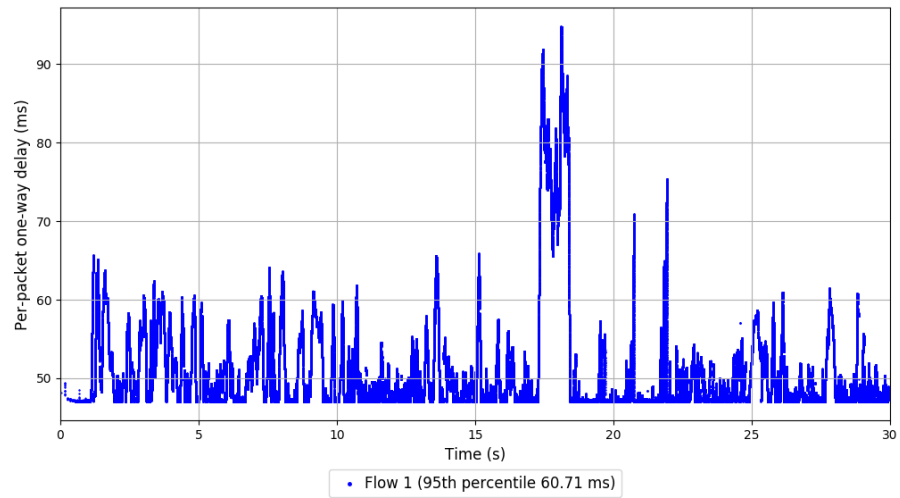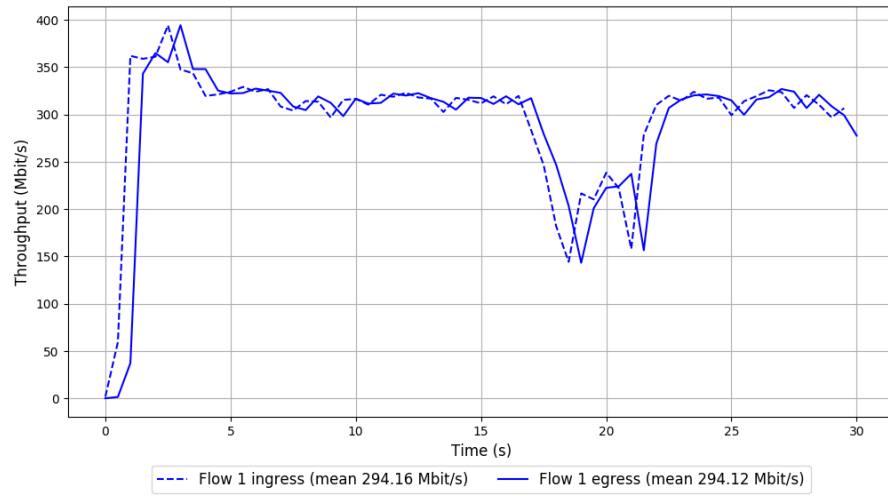
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-11-24 23:27:52
End at: 2019-11-24 23:28:22
Local clock offset: -0.149 ms
Remote clock offset: -0.072 ms

Below is generated by plot.py at 2019-11-25 00:49:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 297.86 Mbit/s
95th percentile per-packet one-way delay: 60.475 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 297.86 Mbit/s
95th percentile per-packet one-way delay: 60.475 ms
Loss rate: 0.33%
```
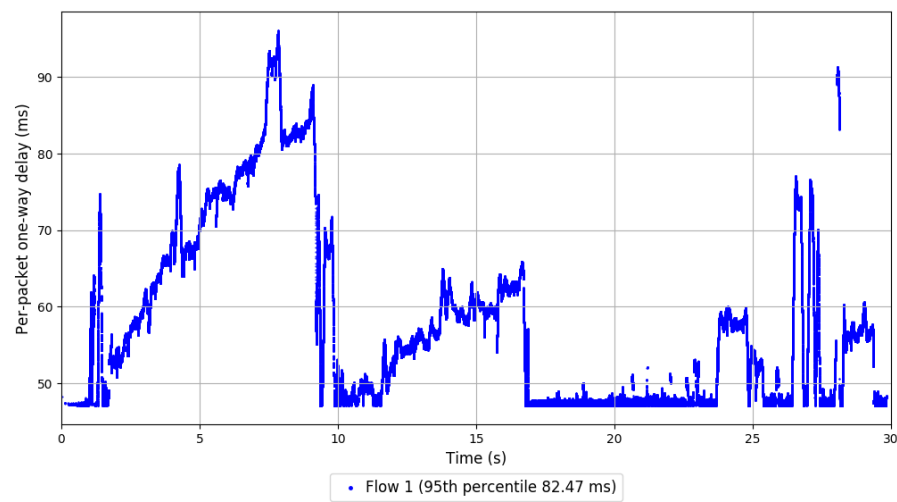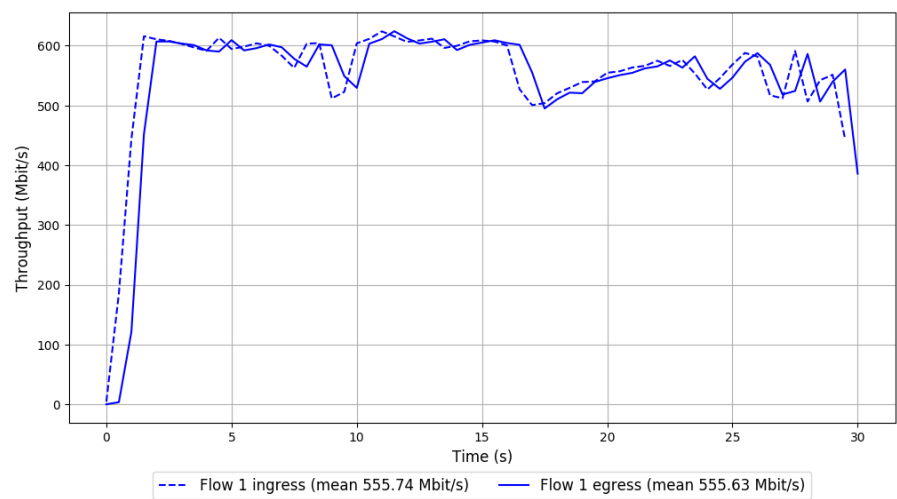
Run 4: Report of Copa — Data Link



Flow 1 ingress (mean 297.89 Mbit/s)    Flow 1 egress (mean 297.86 Mbit/s)



Flow 1 (95th percentile 60.48 ms)

```
Run 5: Statistics of Copa

Start at: 2019-11-25 00:02:46
End at: 2019-11-25 00:03:16
Local clock offset: -0.098 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2019-11-25 00:49:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 294.12 Mbit/s
95th percentile per-packet one-way delay: 60.707 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 294.12 Mbit/s
95th percentile per-packet one-way delay: 60.707 ms
Loss rate: 0.33%
```

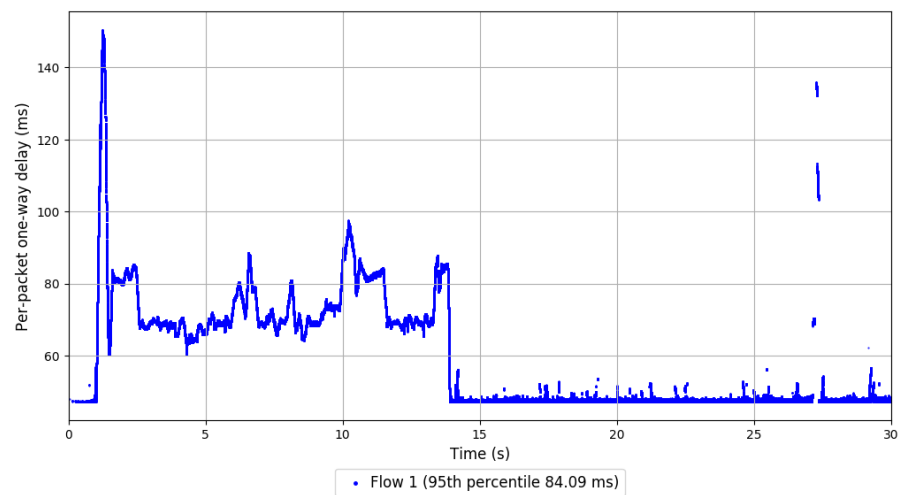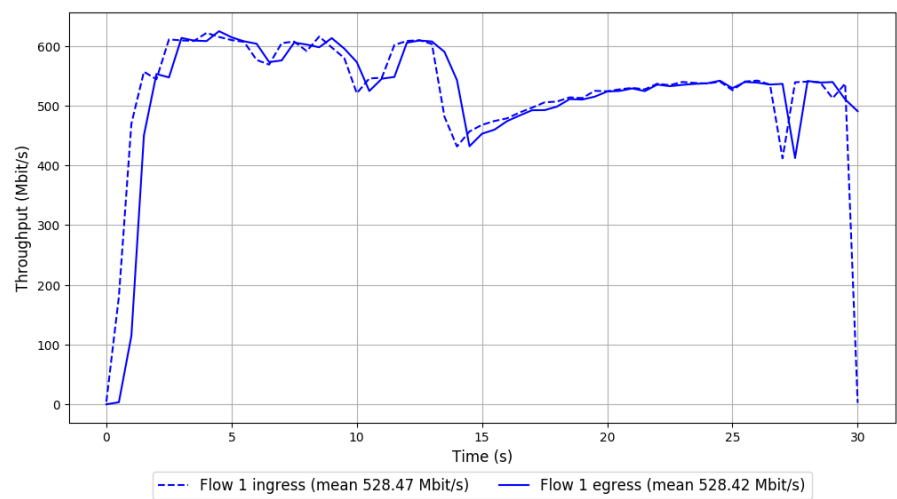Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-11-24 21:25:06
End at: 2019-11-24 21:25:36
Local clock offset: 0.024 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2019-11-25 00:49:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 555.63 Mbit/s
95th percentile per-packet one-way delay: 82.469 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 555.63 Mbit/s
95th percentile per-packet one-way delay: 82.469 ms
Loss rate: 0.34%
```
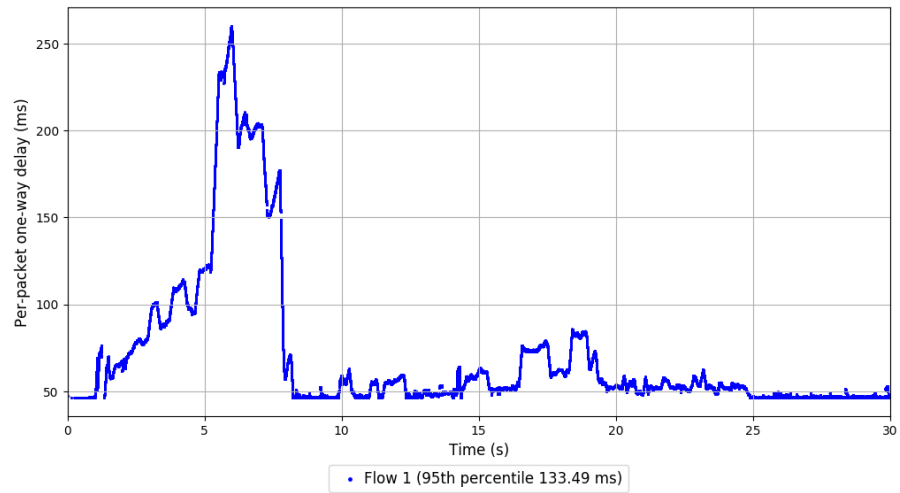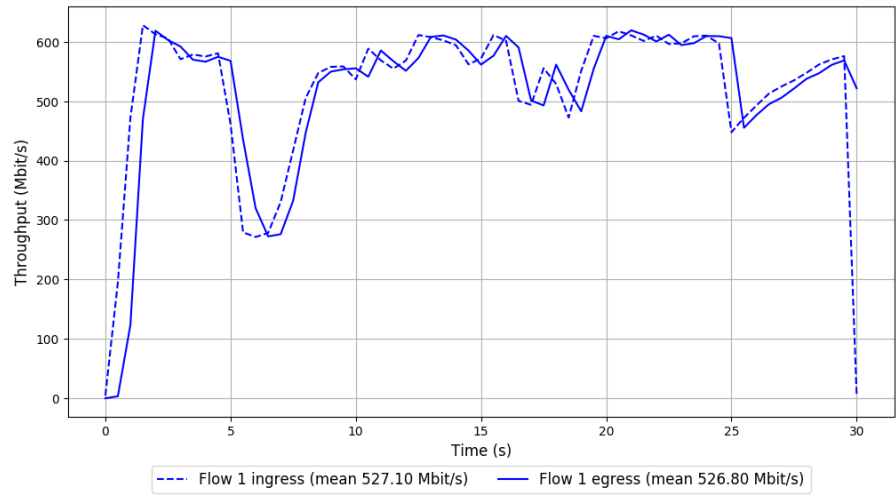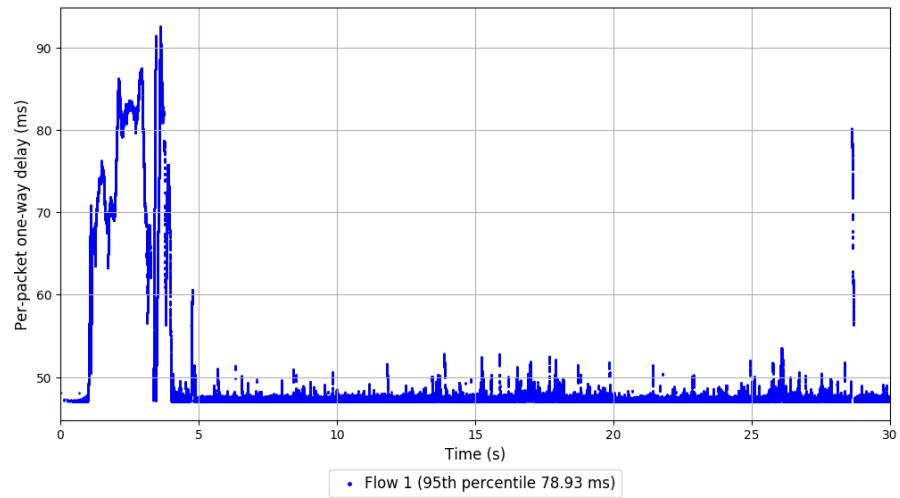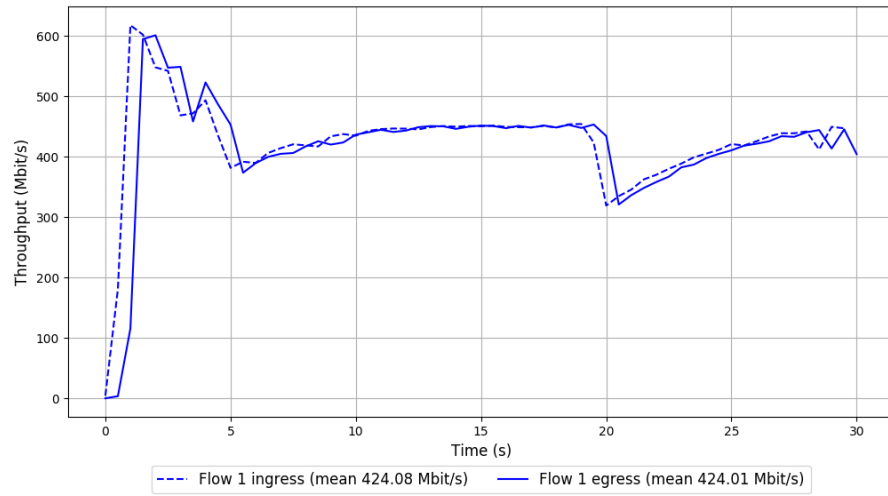
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-11-24 21:59:40
End at: 2019-11-24 22:00:10
Local clock offset: 0.06 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-11-25 00:49:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 528.42 Mbit/s
95th percentile per-packet one-way delay: 84.089 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 528.42 Mbit/s
95th percentile per-packet one-way delay: 84.089 ms
Loss rate: 0.32%
```

Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 528.47 Mbit/s)   Flow 1 egress (mean 528.42 Mbit/s)
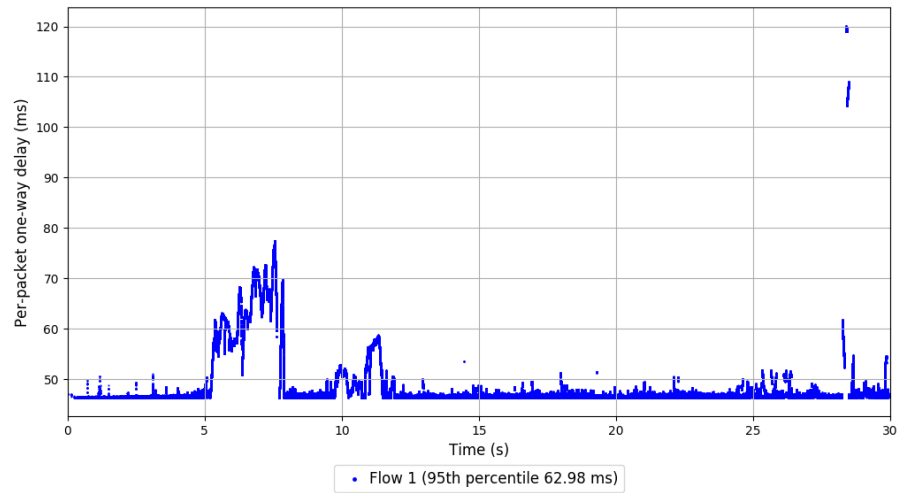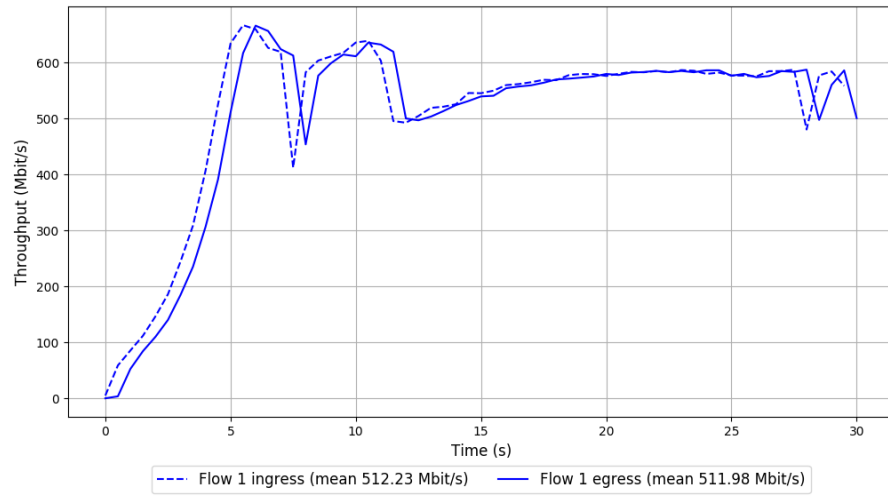

Flow 1 (95th percentile 84.09 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-11-24 22:34:27
End at: 2019-11-24 22:34:57
Local clock offset: -0.031 ms
Remote clock offset: 0.045 ms


# Below is generated by plot.py at 2019-11-25 00:49:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 526.80 Mbit/s
95th percentile per-packet one-way delay: 133.494 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 526.80 Mbit/s
95th percentile per-packet one-way delay: 133.494 ms
Loss rate: 0.37%
```
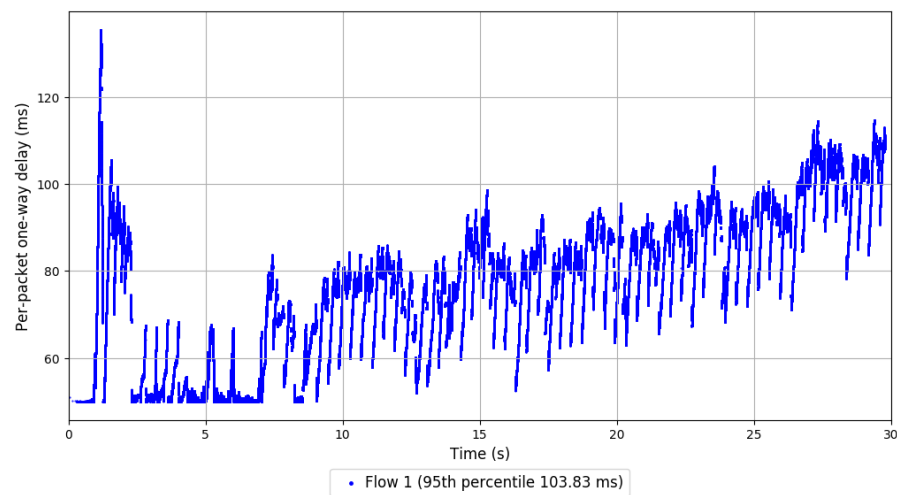
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 527.10 Mbit/s)   Flow 1 egress (mean 526.80 Mbit/s)

Flow 1 (95th percentile 133.49 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-11-24 23:09:11
End at: 2019-11-24 23:09:41
Local clock offset: -0.11 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2019-11-25 00:49:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 424.01 Mbit/s
95th percentile per-packet one-way delay: 78.929 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 424.01 Mbit/s
95th percentile per-packet one-way delay: 78.929 ms
Loss rate: 0.34%
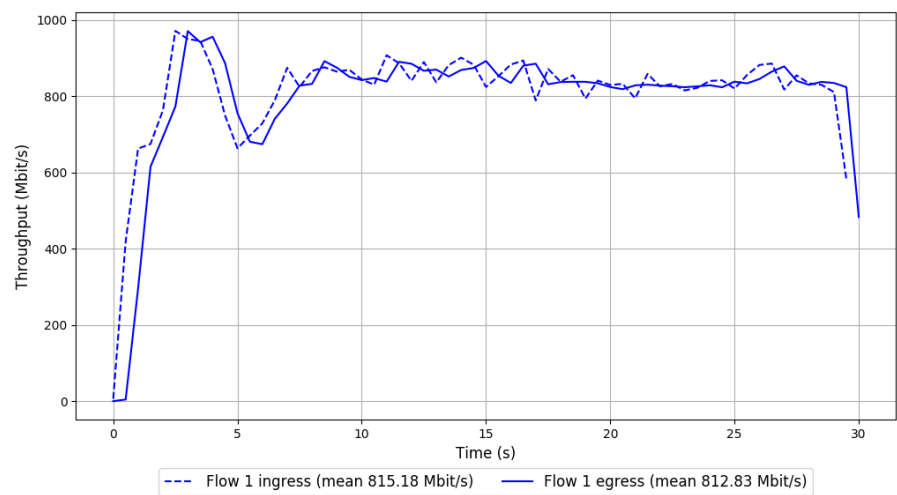```

Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-11-24 23:43:55
End at: 2019-11-24 23:44:25
Local clock offset: -0.076 ms
Remote clock offset: -0.029 ms

Below is generated by plot.py at 2019-11-25 00:49:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 511.98 Mbit/s
95th percentile per-packet one-way delay: 62.980 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 511.98 Mbit/s
95th percentile per-packet one-way delay: 62.980 ms
Loss rate: 0.36%
```
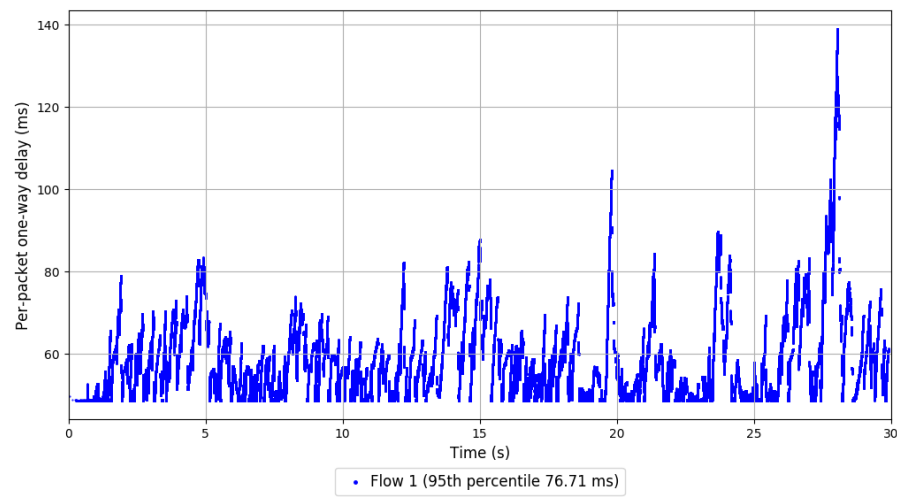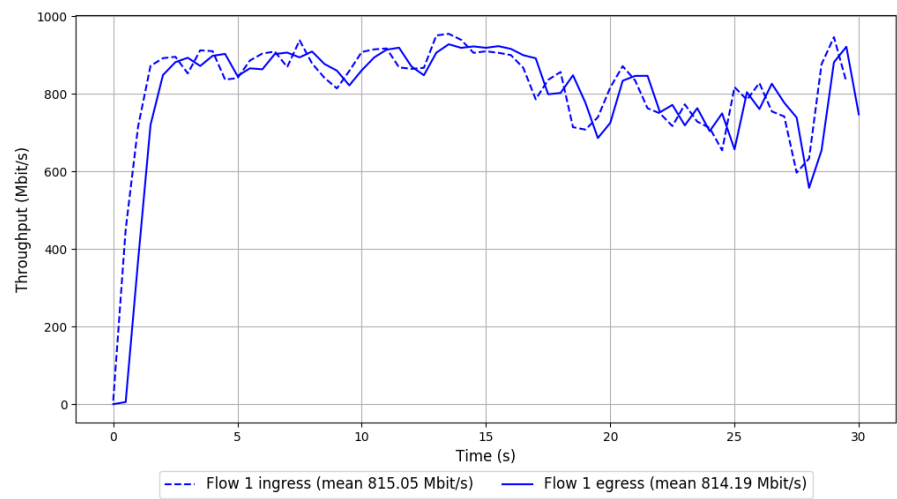
Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-11-24 21:20:44
End at: 2019-11-24 21:21:14
Local clock offset: -0.021 ms
Remote clock offset: -0.068 ms

Below is generated by plot.py at 2019-11-25 00:59:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 812.83 Mbit/s
95th percentile per-packet one-way delay: 103.833 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 812.83 Mbit/s
95th percentile per-packet one-way delay: 103.833 ms
Loss rate: 0.62%
```
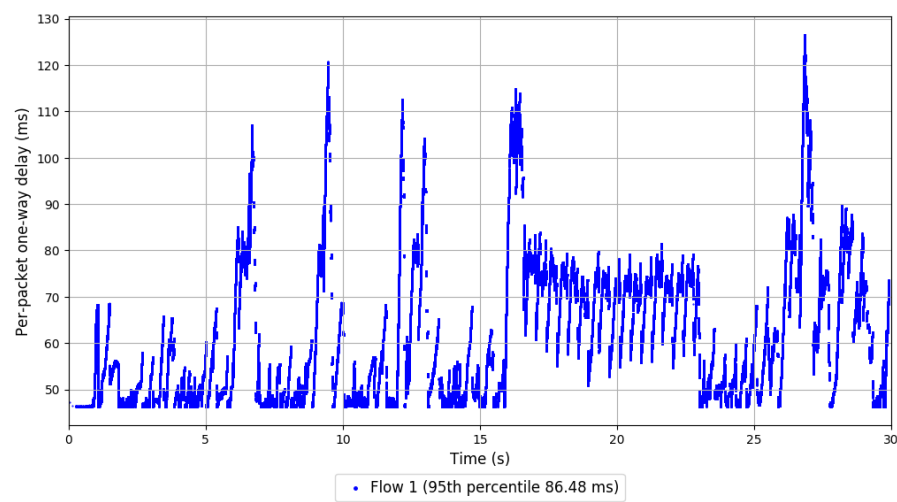
# Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2019-11-24 21:54:53
End at: 2019-11-24 21:55:23
Local clock offset: 0.026 ms
Remote clock offset: -0.05 ms

Below is generated by plot.py at 2019-11-25 01:09:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 814.19 Mbit/s
95th percentile per-packet one-way delay: 76.710 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 814.19 Mbit/s
95th percentile per-packet one-way delay: 76.710 ms
Loss rate: 0.43%
```
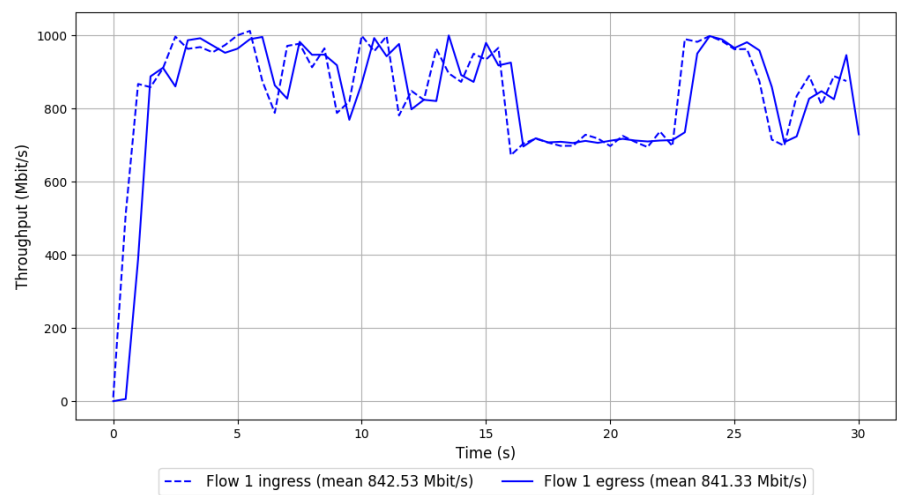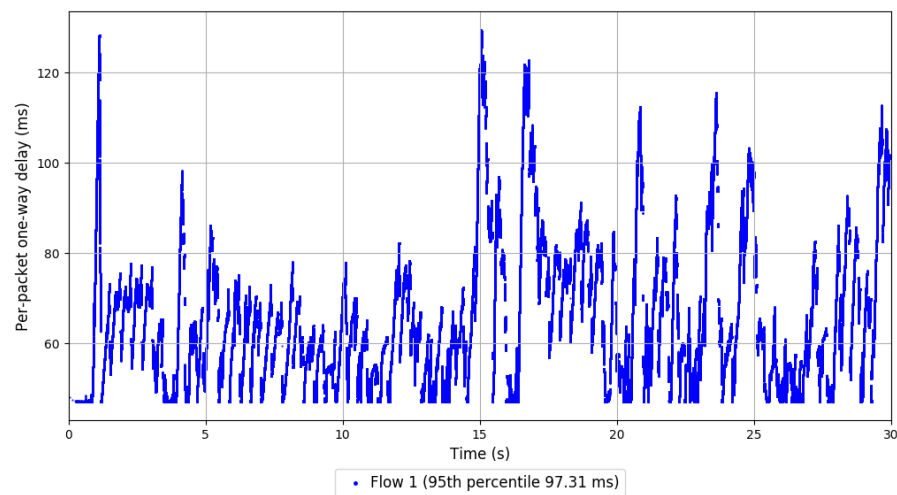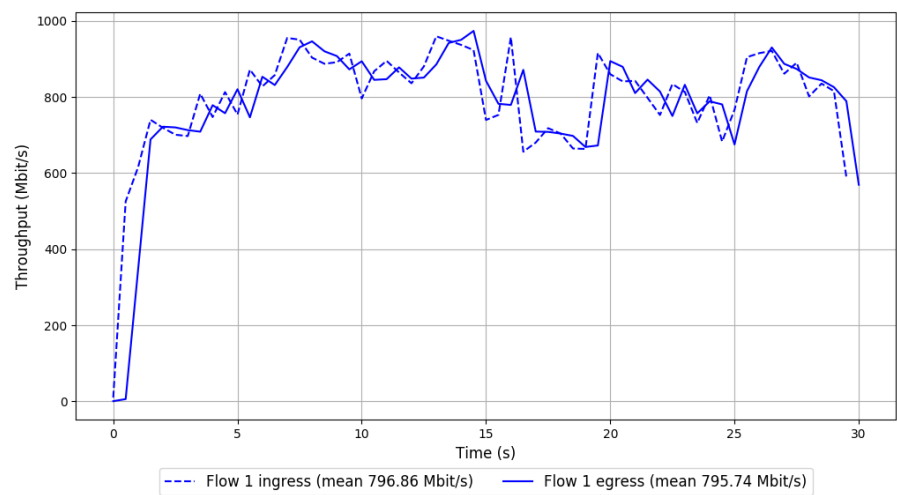
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-11-24 22:29:42
End at: 2019-11-24 22:30:12
Local clock offset: -0.014 ms
Remote clock offset: 0.028 ms


# Below is generated by plot.py at 2019-11-25 01:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 841.33 Mbit/s
95th percentile per-packet one-way delay: 86.480 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 841.33 Mbit/s
95th percentile per-packet one-way delay: 86.480 ms
Loss rate: 0.46%
```

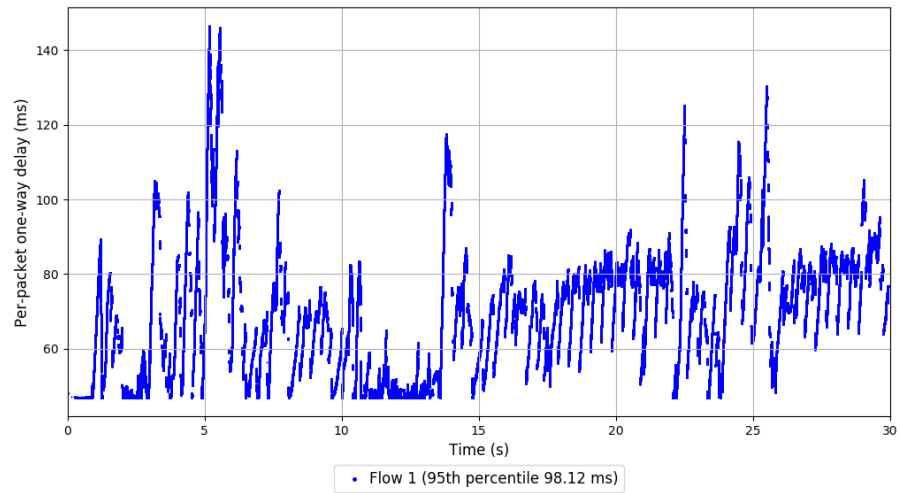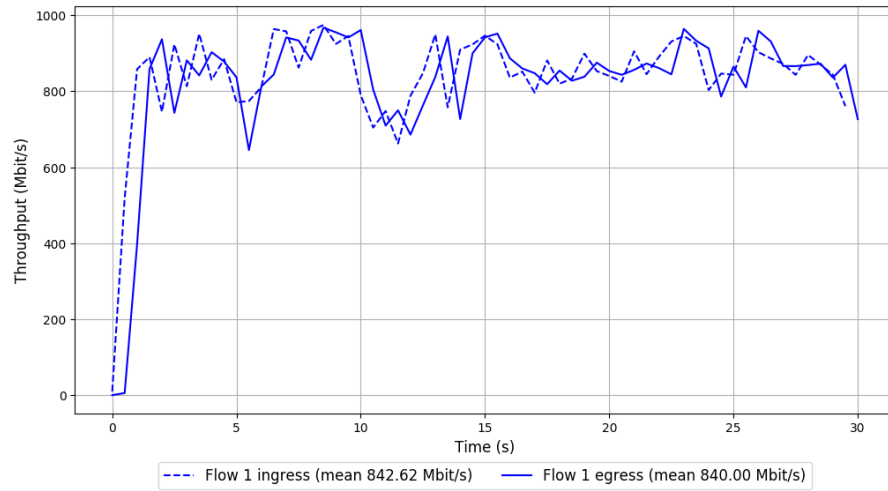Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 842.53 Mbit/s)   Flow 1 egress (mean 841.33 Mbit/s)

Flow 1 (95th percentile 86.48 ms)

```
Run 4: Statistics of FillP

Start at: 2019-11-24 23:04:22
End at: 2019-11-24 23:04:52
Local clock offset: -0.117 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2019-11-25 01:11:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 795.74 Mbit/s
95th percentile per-packet one-way delay: 97.308 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 795.74 Mbit/s
95th percentile per-packet one-way delay: 97.308 ms
Loss rate: 0.46%
```
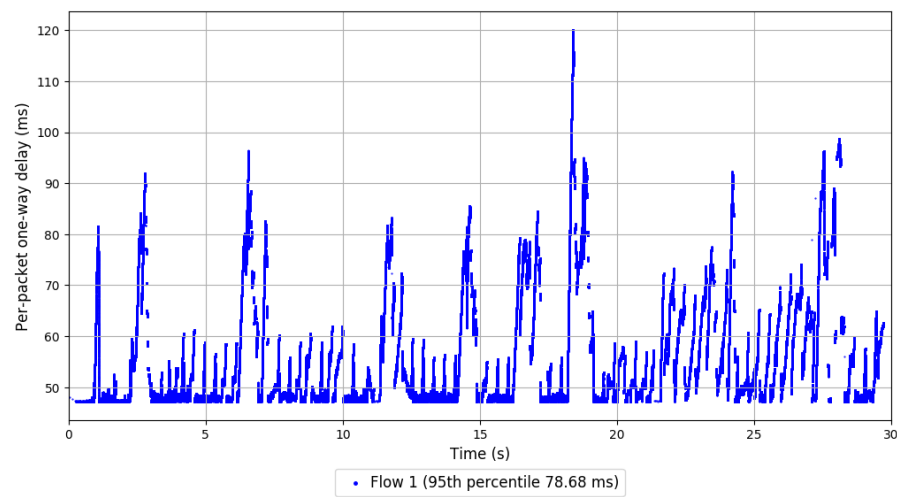
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-11-24 23:39:08
End at: 2019-11-24 23:39:38
Local clock offset: -0.423 ms
Remote clock offset: -0.041 ms


# Below is generated by plot.py at 2019-11-25 01:12:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 840.00 Mbit/s
95th percentile per-packet one-way delay: 98.117 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 840.00 Mbit/s
95th percentile per-packet one-way delay: 98.117 ms
Loss rate: 0.63%
```
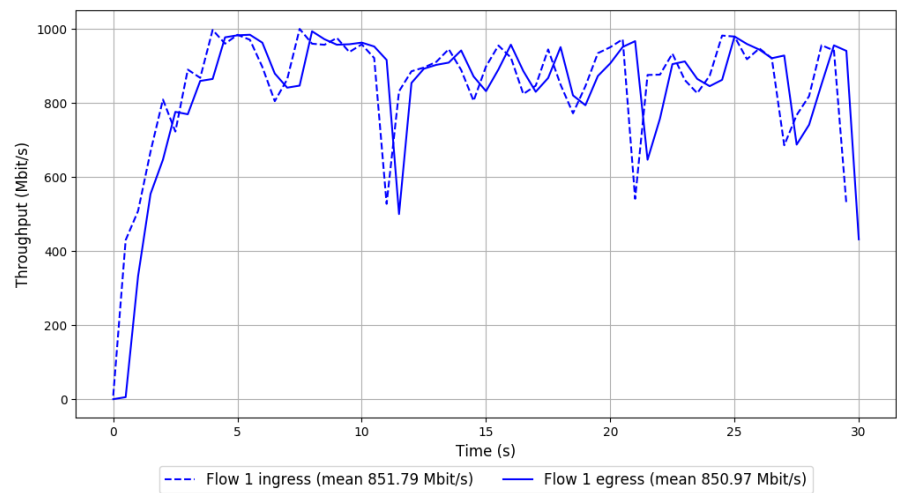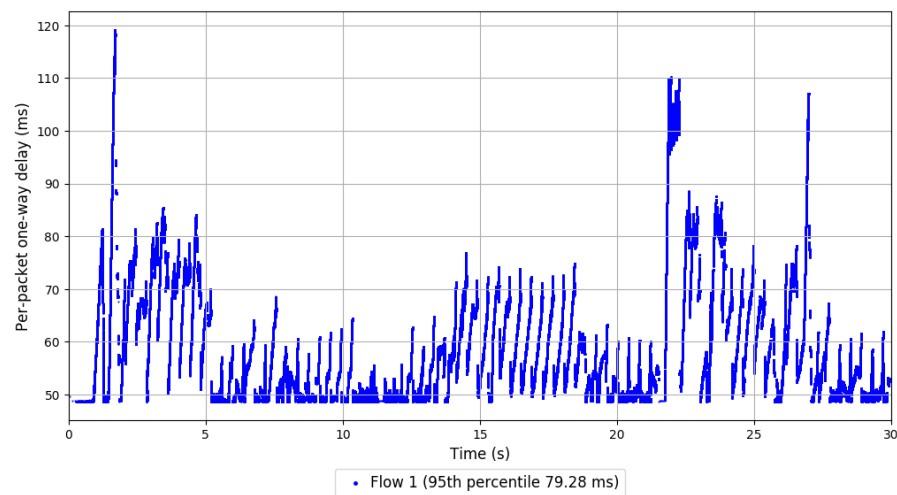
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-11-24 21:45:20
End at: 2019-11-24 21:45:50
Local clock offset: 0.041 ms
Remote clock offset: -0.056 ms


# Below is generated by plot.py at 2019-11-25 01:12:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 850.97 Mbit/s
95th percentile per-packet one-way delay: 78.677 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 850.97 Mbit/s
95th percentile per-packet one-way delay: 78.677 ms
Loss rate: 0.40%
```
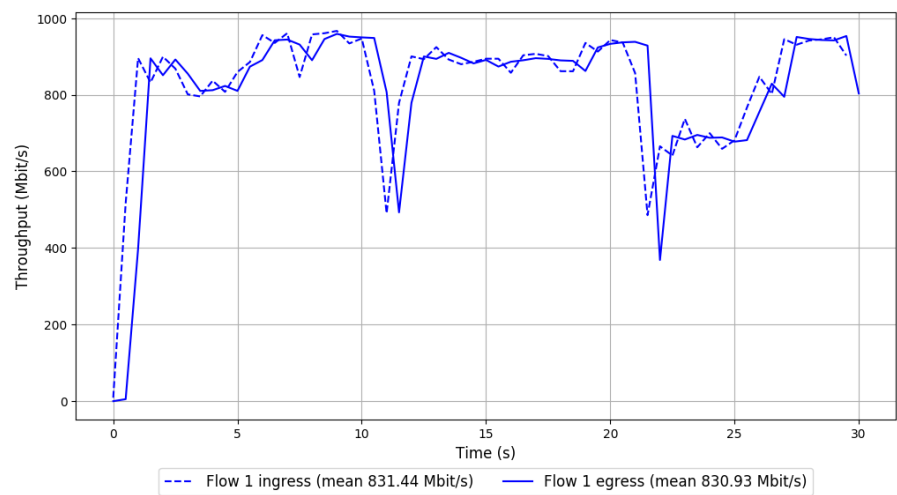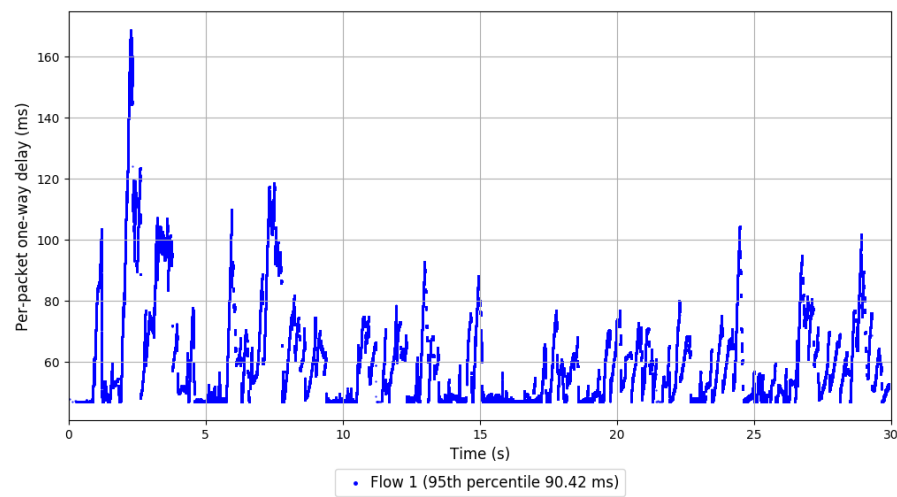
Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 851.79 Mbit/s) ----   Flow 1 egress (mean 850.97 Mbit/s) ——
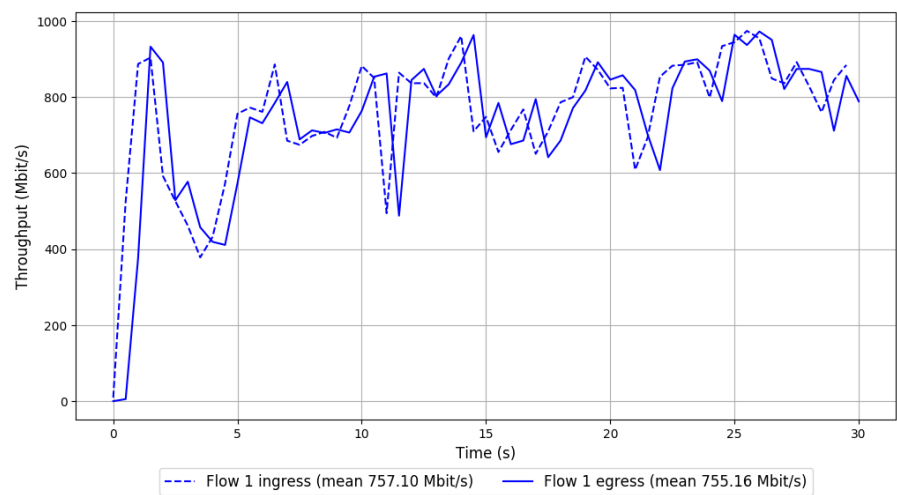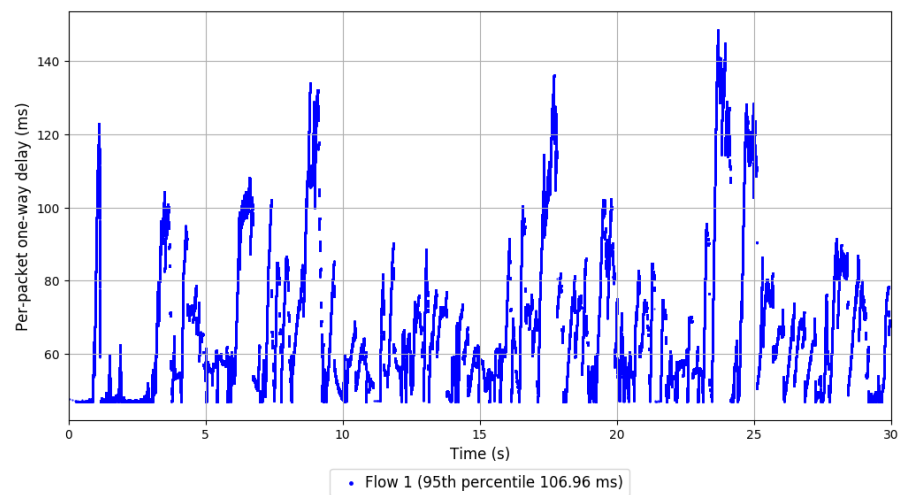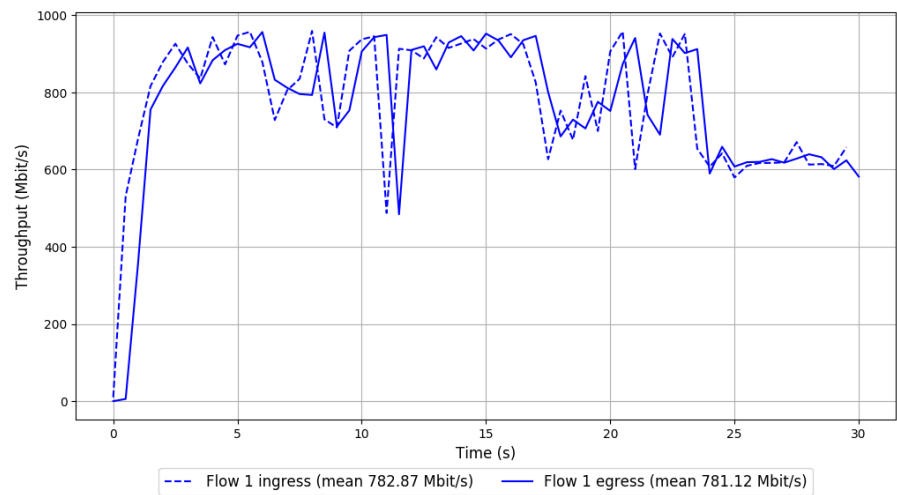

Flow 1 (95th percentile 78.68 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-11-24 22:20:12
End at: 2019-11-24 22:20:42
Local clock offset: 0.016 ms
Remote clock offset: 0.012 ms


# Below is generated by plot.py at 2019-11-25 01:12:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 830.93 Mbit/s
95th percentile per-packet one-way delay: 79.276 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 830.93 Mbit/s
95th percentile per-packet one-way delay: 79.276 ms
Loss rate: 0.39%
```

Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 831.44 Mbit/s)   Flow 1 egress (mean 830.93 Mbit/s)

Flow 1 (95th percentile 79.28 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-11-24 22:54:41
End at: 2019-11-24 22:55:11
Local clock offset: -0.059 ms
Remote clock offset: -0.041 ms


# Below is generated by plot.py at 2019-11-25 01:12:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 755.16 Mbit/s
95th percentile per-packet one-way delay: 90.423 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 755.16 Mbit/s
95th percentile per-packet one-way delay: 90.423 ms
Loss rate: 0.58%
```
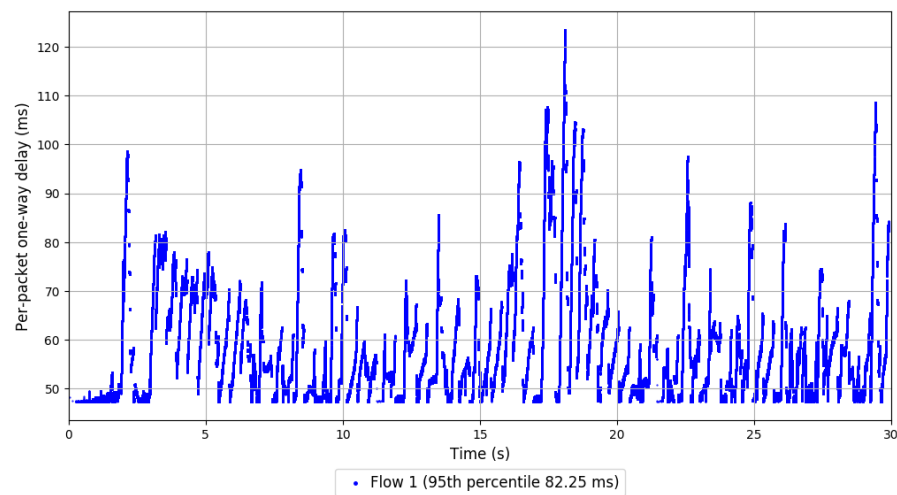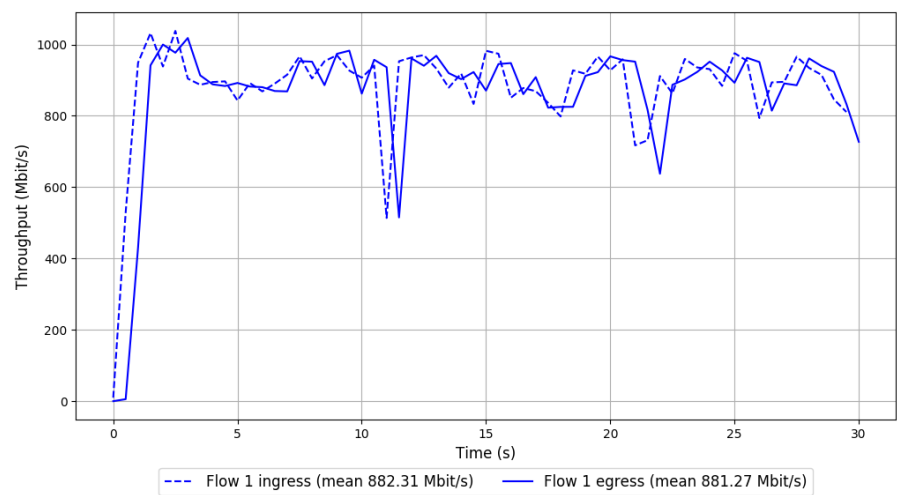
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 757.10 Mbit/s)   Flow 1 egress (mean 755.16 Mbit/s)

Flow 1 (95th percentile 90.42 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-11-24 23:29:26
End at: 2019-11-24 23:29:56
Local clock offset: -0.067 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2019-11-25 01:22:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 781.12 Mbit/s
95th percentile per-packet one-way delay: 106.956 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 781.12 Mbit/s
95th percentile per-packet one-way delay: 106.956 ms
Loss rate: 0.54%
```
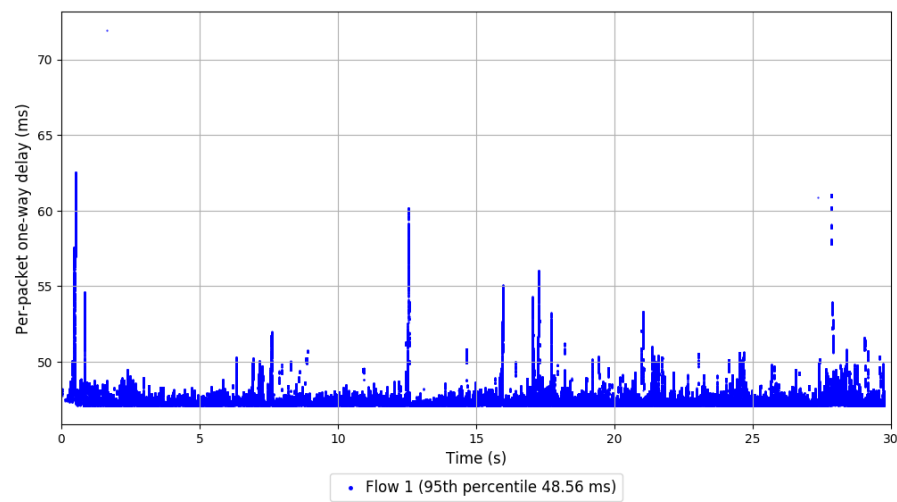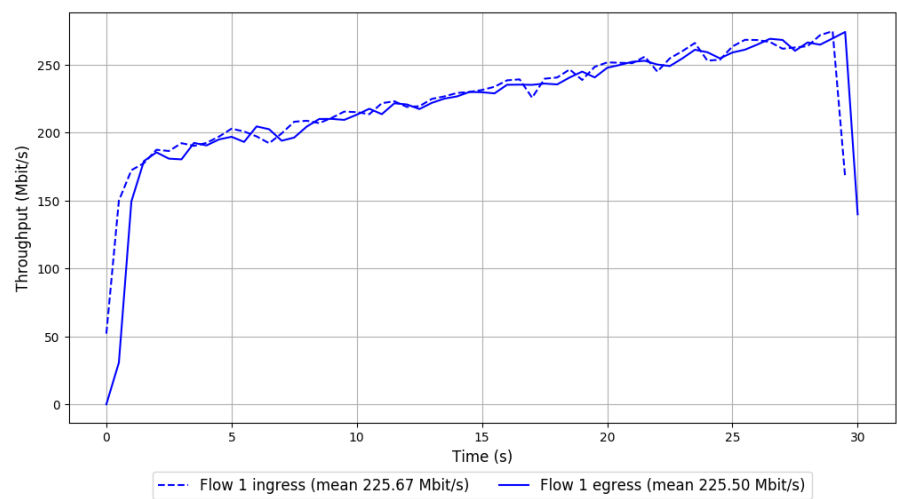
Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-11-25 00:04:19
End at: 2019-11-25 00:04:49
Local clock offset: -0.056 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2019-11-25 01:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 881.27 Mbit/s
95th percentile per-packet one-way delay: 82.252 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 881.27 Mbit/s
95th percentile per-packet one-way delay: 82.252 ms
Loss rate: 0.37%
```
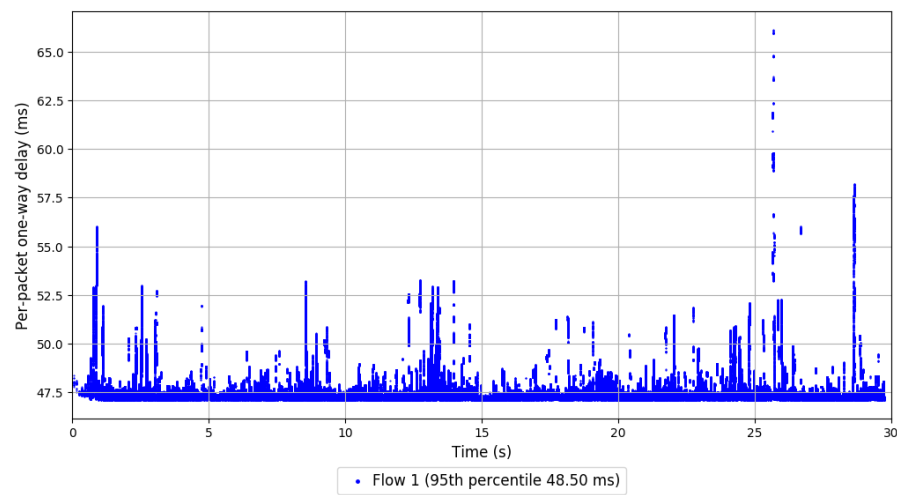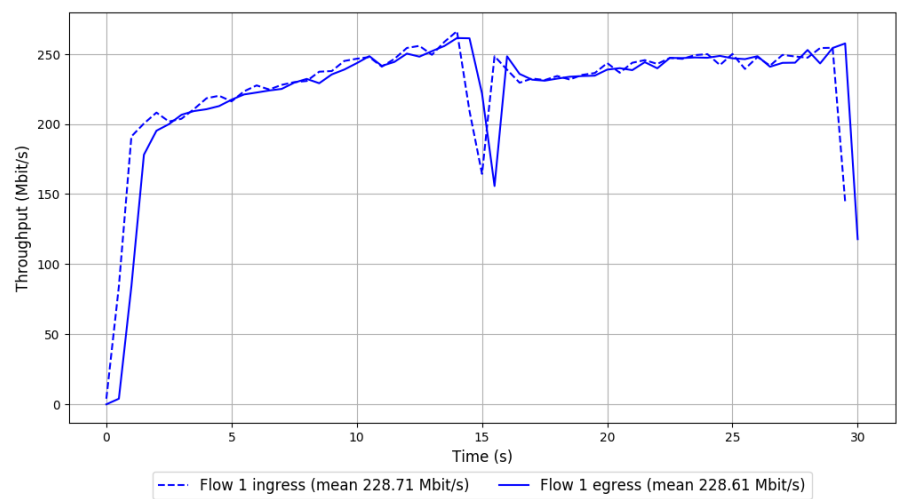
Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-11-24 21:42:24
End at: 2019-11-24 21:42:54
Local clock offset: 0.013 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2019-11-25 01:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.50 Mbit/s
95th percentile per-packet one-way delay: 48.559 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 225.50 Mbit/s
95th percentile per-packet one-way delay: 48.559 ms
Loss rate: 0.39%
```
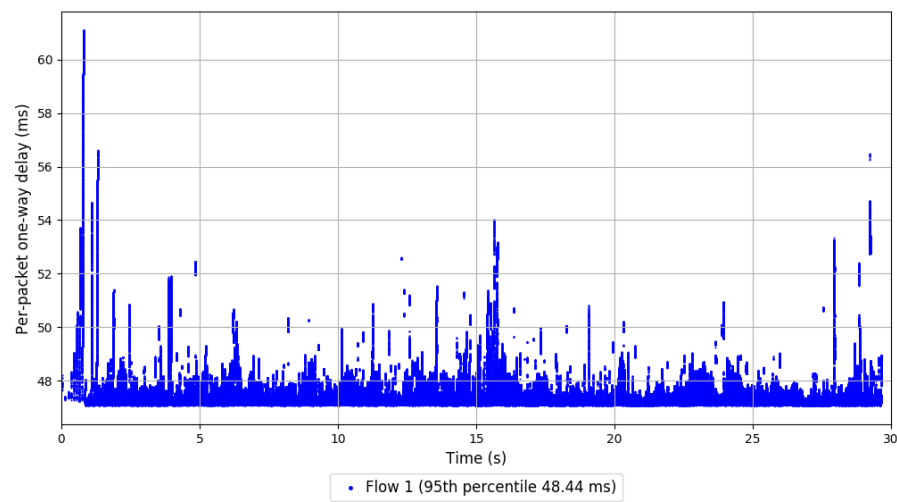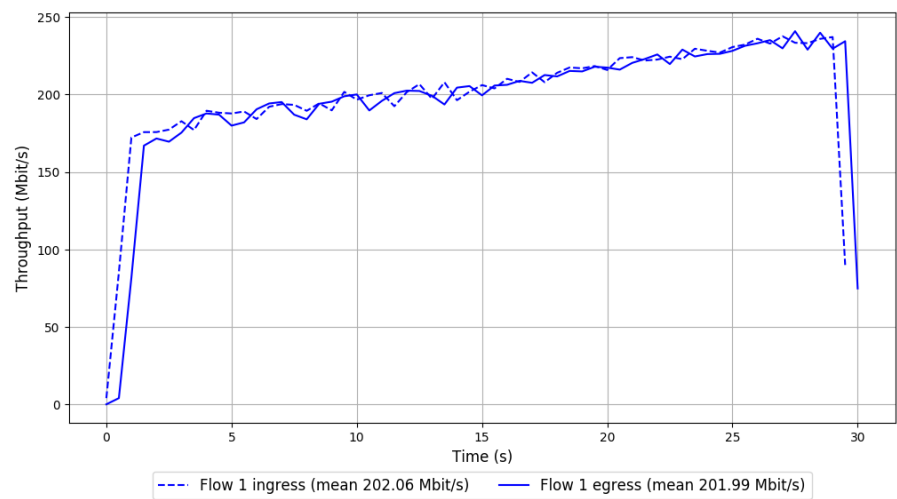
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-11-24 22:17:11
End at: 2019-11-24 22:17:41
Local clock offset: -0.015 ms
Remote clock offset: -0.009 ms


# Below is generated by plot.py at 2019-11-25 01:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.61 Mbit/s
95th percentile per-packet one-way delay: 48.498 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 228.61 Mbit/s
95th percentile per-packet one-way delay: 48.498 ms
Loss rate: 0.36%
```
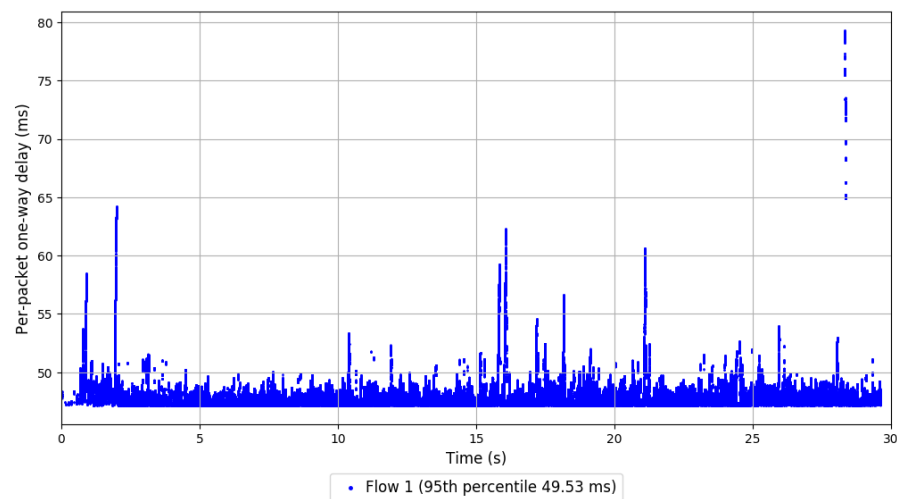
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-11-24 22:51:43
End at: 2019-11-24 22:52:13
Local clock offset: -0.086 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2019-11-25 01:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.99 Mbit/s
95th percentile per-packet one-way delay: 48.440 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 201.99 Mbit/s
95th percentile per-packet one-way delay: 48.440 ms
Loss rate: 0.35%
```
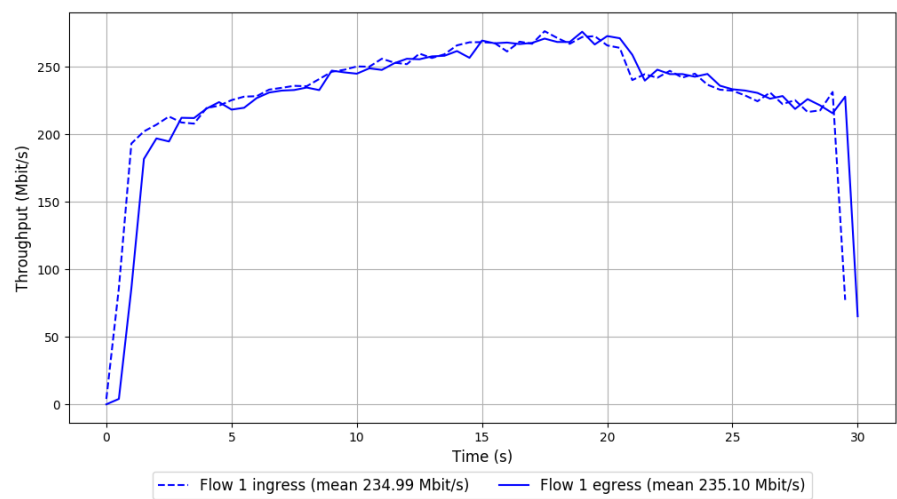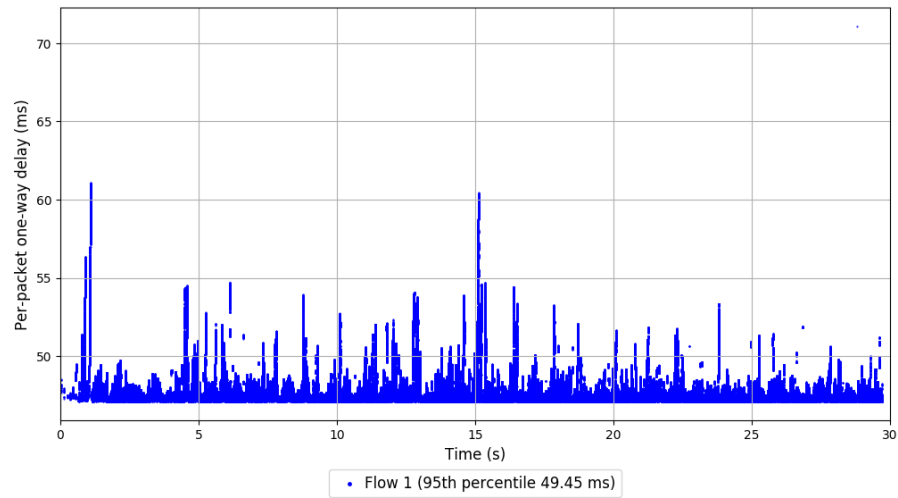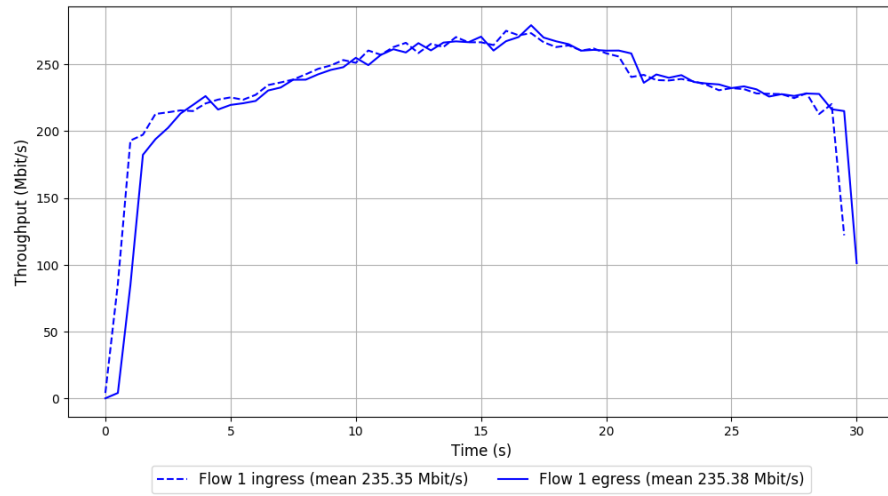
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-11-24 23:26:24
End at: 2019-11-24 23:26:54
Local clock offset: -0.09 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2019-11-25 01:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.10 Mbit/s
95th percentile per-packet one-way delay: 49.527 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 235.10 Mbit/s
95th percentile per-packet one-way delay: 49.527 ms
Loss rate: 0.28%
```
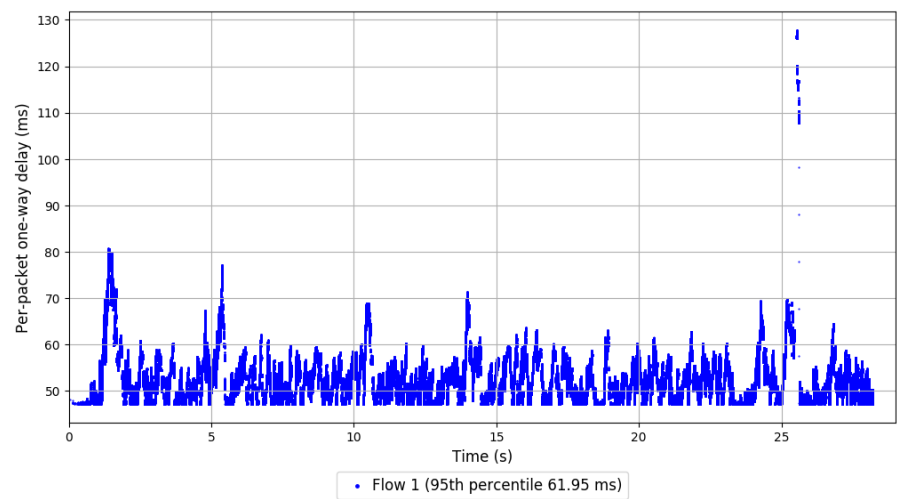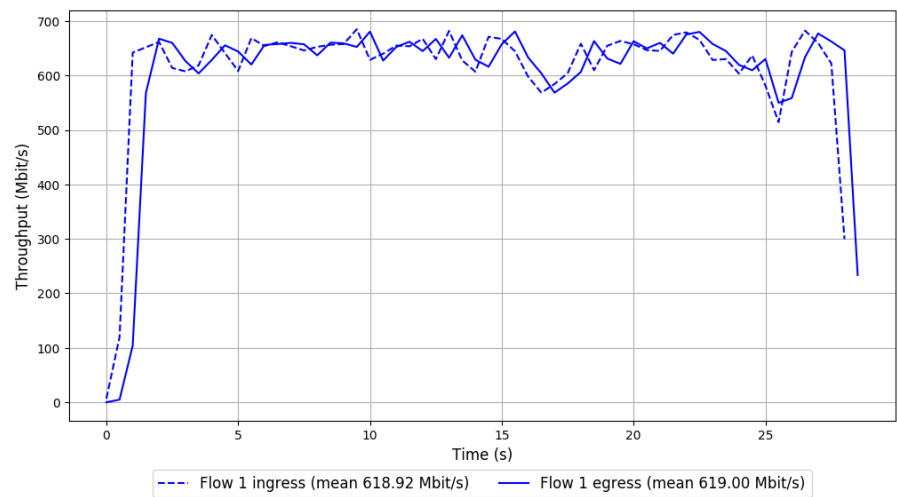
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-11-25 00:01:17
End at: 2019-11-25 00:01:47
Local clock offset: -0.133 ms
Remote clock offset: -0.007 ms


# Below is generated by plot.py at 2019-11-25 01:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.38 Mbit/s
95th percentile per-packet one-way delay: 49.454 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 235.38 Mbit/s
95th percentile per-packet one-way delay: 49.454 ms
Loss rate: 0.31%
```

Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-11-24 21:47:00
End at: 2019-11-24 21:47:30
Local clock offset: 0.026 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2019-11-25 01:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 619.00 Mbit/s
95th percentile per-packet one-way delay: 61.953 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 619.00 Mbit/s
95th percentile per-packet one-way delay: 61.953 ms
Loss rate: 0.33%
```

Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-11-24 22:21:51
End at: 2019-11-24 22:22:21
Local clock offset: 0.017 ms
Remote clock offset: 0.043 ms


# Below is generated by plot.py at 2019-11-25 01:33:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 628.82 Mbit/s
95th percentile per-packet one-way delay: 65.401 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 628.82 Mbit/s
95th percentile per-packet one-way delay: 65.401 ms
Loss rate: 0.36%
```
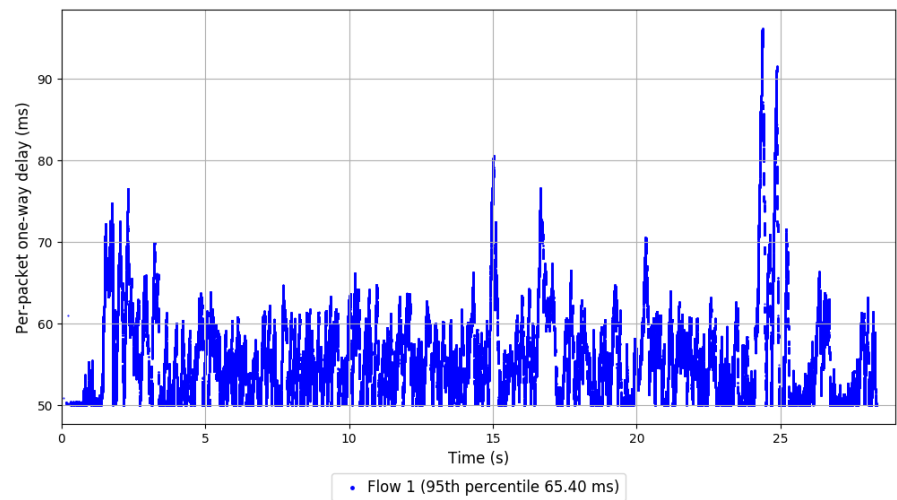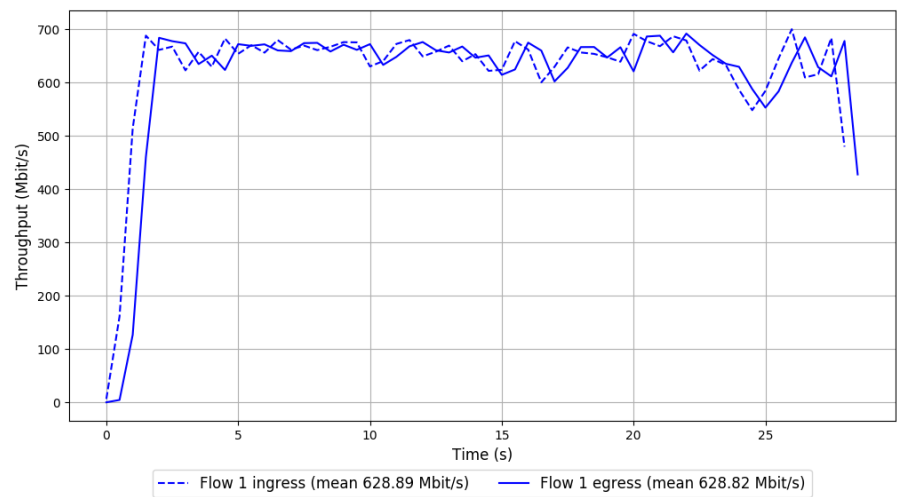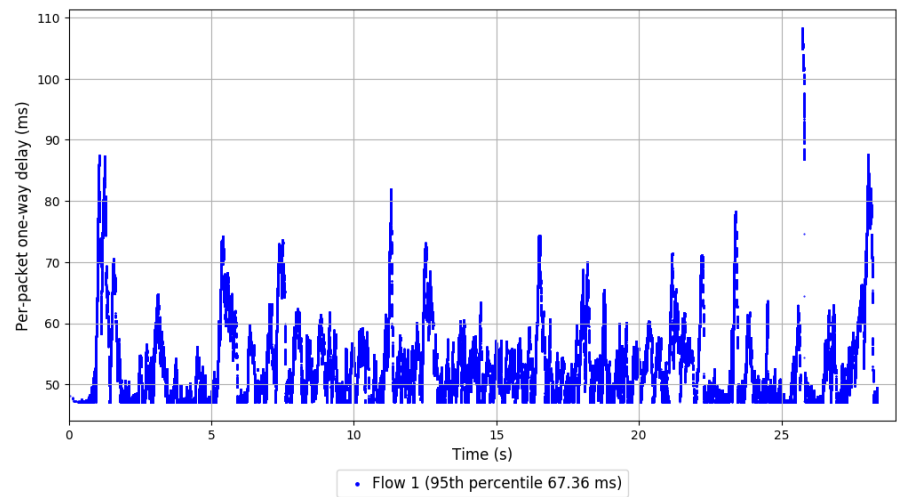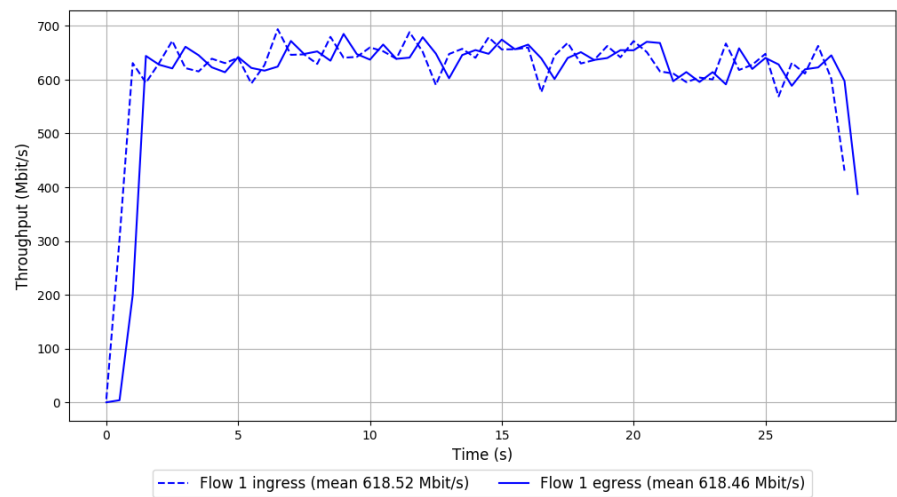
Run 2: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 628.89 Mbit/s) ——— Flow 1 egress (mean 628.82 Mbit/s)

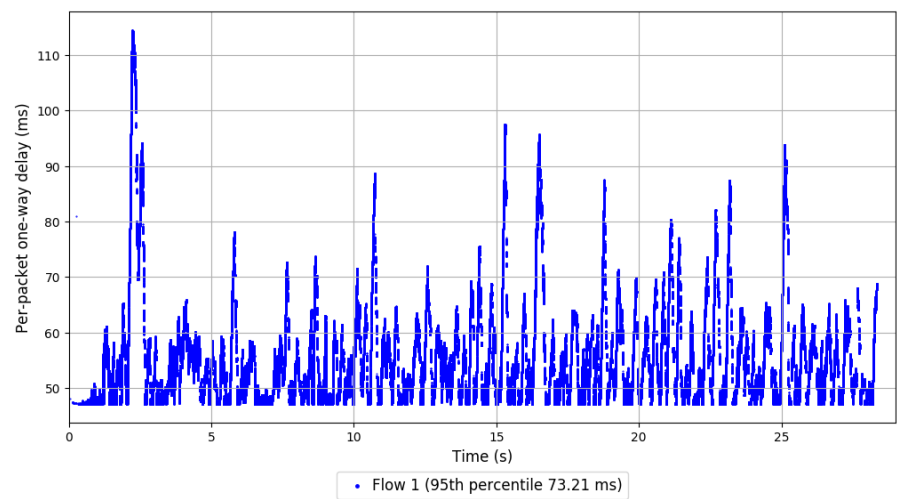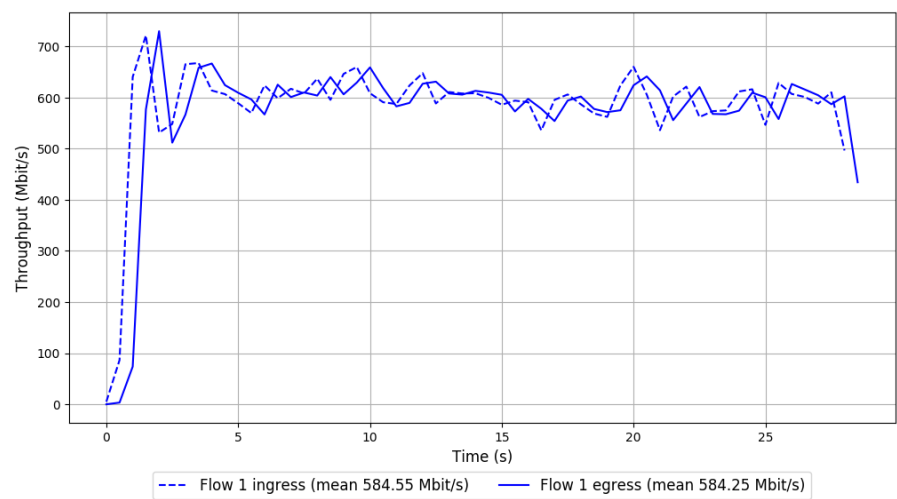• Flow 1 (95th percentile 65.40 ms)

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-11-24 22:56:17
End at: 2019-11-24 22:56:47
Local clock offset: -0.066 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-11-25 01:33:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 618.46 Mbit/s
95th percentile per-packet one-way delay: 67.355 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 618.46 Mbit/s
95th percentile per-packet one-way delay: 67.355 ms
Loss rate: 0.35%
```
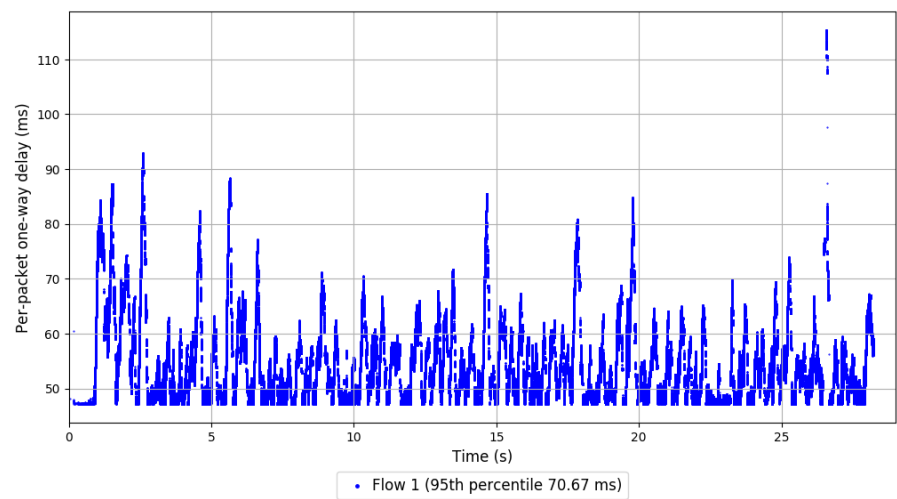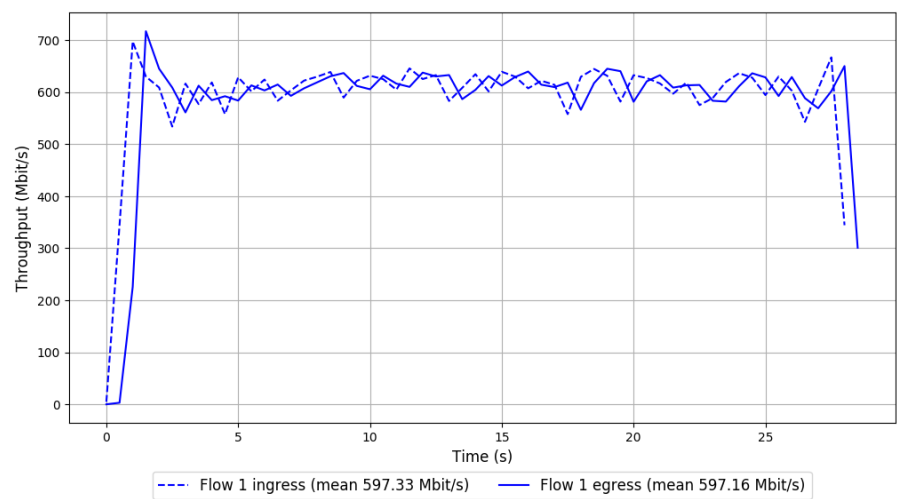
Run 3: Report of Indigo-MusesC3 — Data Link
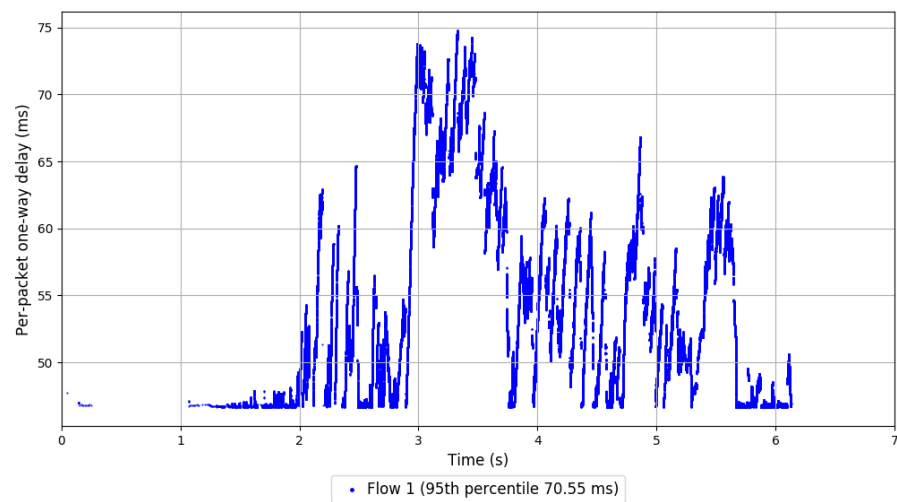

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```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-11-24 23:31:04
End at: 2019-11-24 23:31:34
Local clock offset: -0.094 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2019-11-25 01:33:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 584.25 Mbit/s
95th percentile per-packet one-way delay: 73.213 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 584.25 Mbit/s
95th percentile per-packet one-way delay: 73.213 ms
Loss rate: 0.40%
```

Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 584.55 Mbit/s)   Flow 1 egress (mean 584.25 Mbit/s)

• Flow 1 (95th percentile 73.21 ms)

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-11-25 00:06:00
End at: 2019-11-25 00:06:30
Local clock offset: -0.124 ms
Remote clock offset: -0.015 ms


# Below is generated by plot.py at 2019-11-25 01:35:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 597.16 Mbit/s
95th percentile per-packet one-way delay: 70.673 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 597.16 Mbit/s
95th percentile per-packet one-way delay: 70.673 ms
Loss rate: 0.37%
```
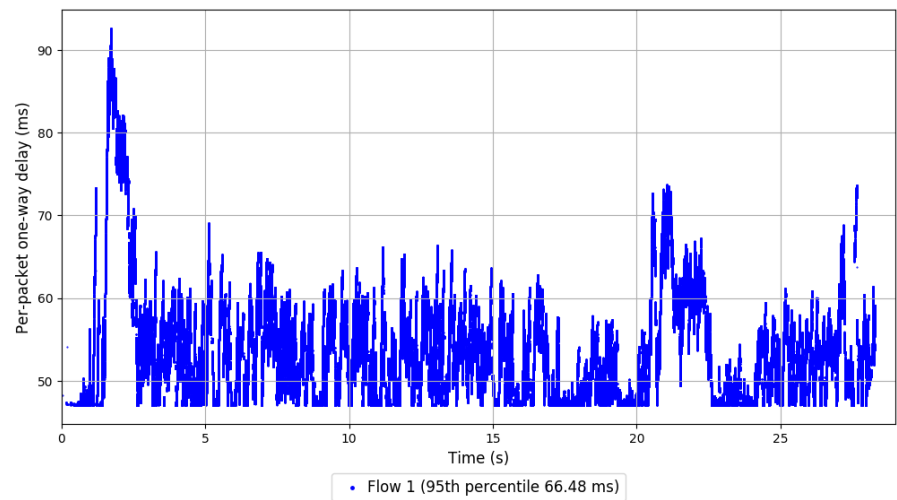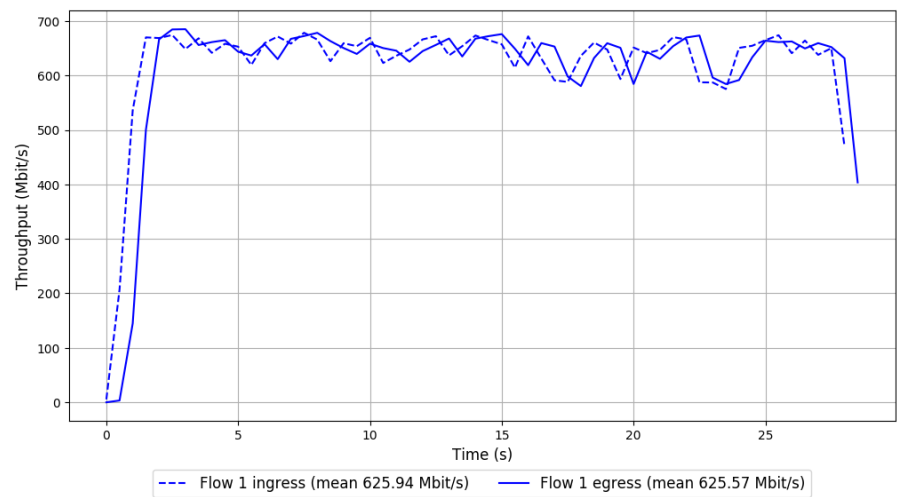
Run 5: Report of Indigo-MusesC3 — Data Link

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-11-24 21:23:54
End at: 2019-11-24 21:24:24
Local clock offset: -0.392 ms
Remote clock offset: -0.077 ms
```

Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-11-24 21:58:04
End at: 2019-11-24 21:58:34
Local clock offset: 0.075 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2019-11-25 01:36:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 625.57 Mbit/s
95th percentile per-packet one-way delay: 66.477 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 625.57 Mbit/s
95th percentile per-packet one-way delay: 66.477 ms
Loss rate: 0.40%
```

Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-11-24 22:32:51
End at: 2019-11-24 22:33:22
Local clock offset: 0.005 ms
Remote clock offset: 0.044 ms


# Below is generated by plot.py at 2019-11-25 01:38:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 633.63 Mbit/s
95th percentile per-packet one-way delay: 73.243 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 633.63 Mbit/s
95th percentile per-packet one-way delay: 73.243 ms
Loss rate: 0.35%
```
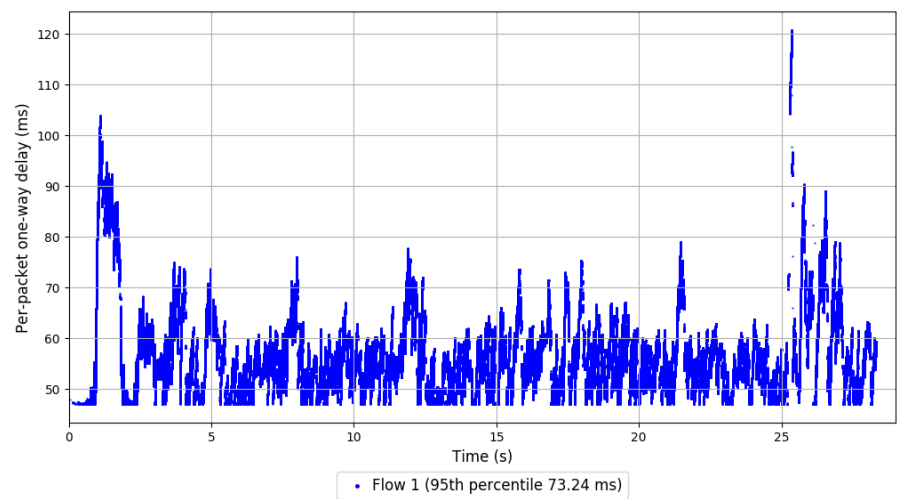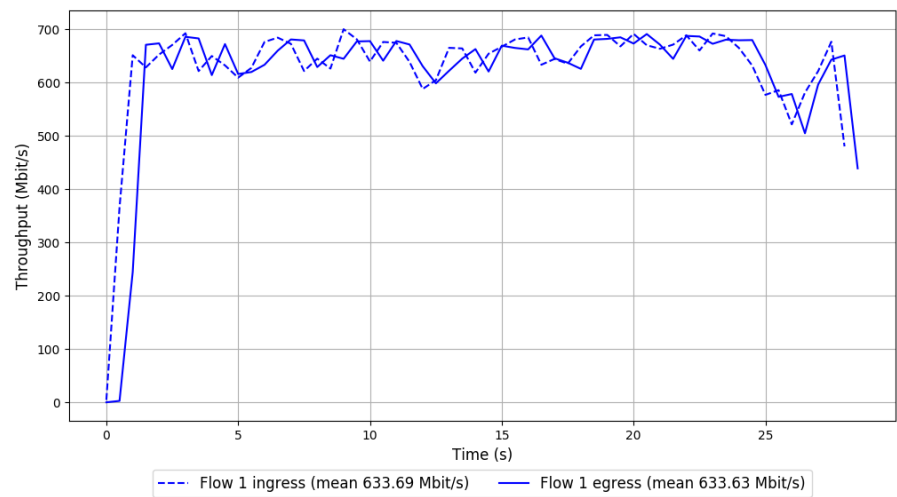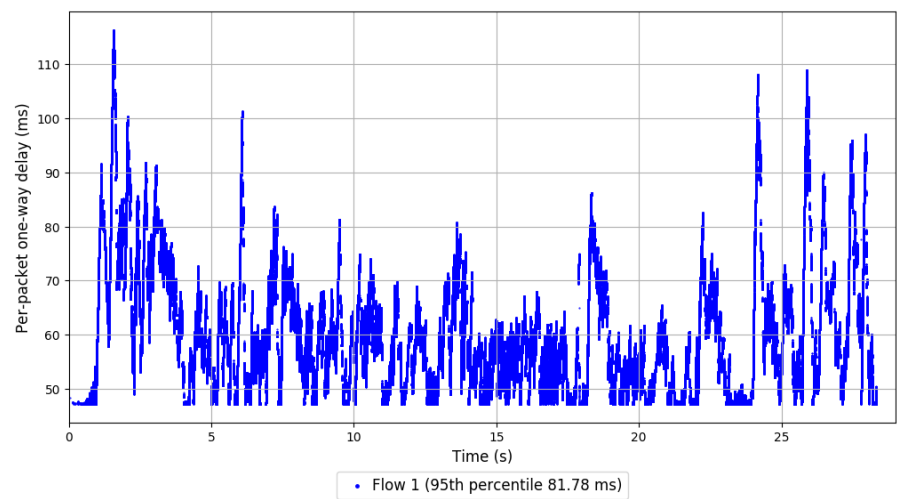
Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 633.69 Mbit/s) ----   Flow 1 egress (mean 633.63 Mbit/s) ——

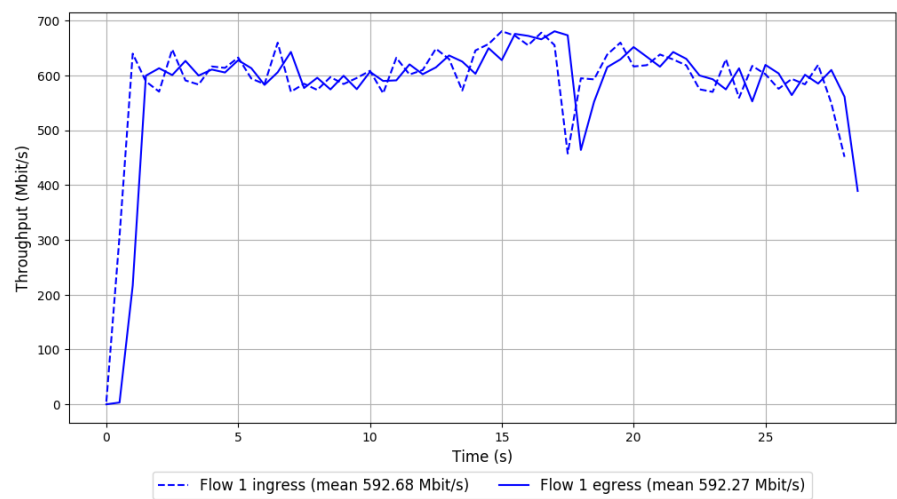• Flow 1 (95th percentile 73.24 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-11-24 23:07:37
End at: 2019-11-24 23:08:07
Local clock offset: -0.105 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2019-11-25 01:38:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 592.27 Mbit/s
95th percentile per-packet one-way delay: 81.782 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 592.27 Mbit/s
95th percentile per-packet one-way delay: 81.782 ms
Loss rate: 0.41%
```
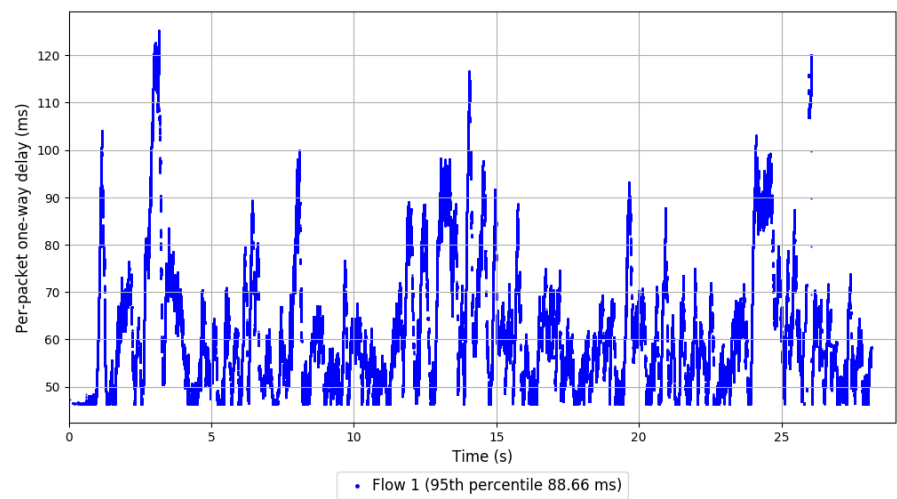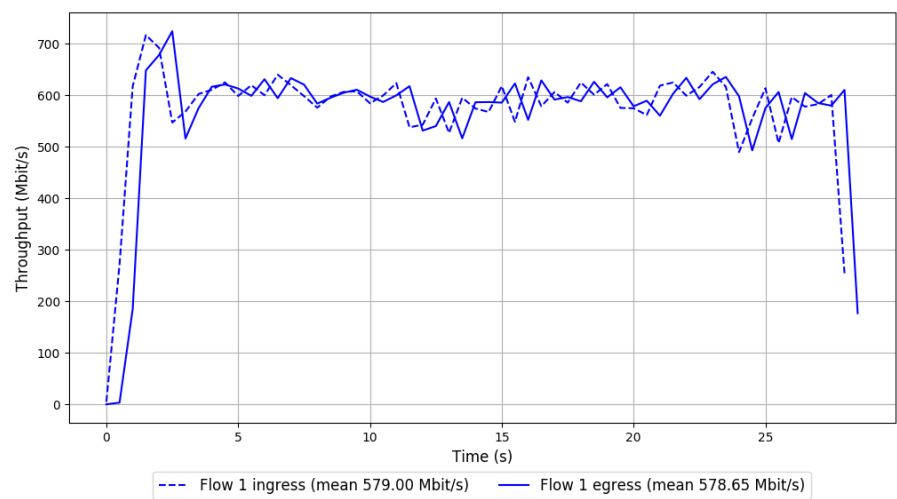
Run 4: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 592.68 Mbit/s) --- Flow 1 egress (mean 592.27 Mbit/s)
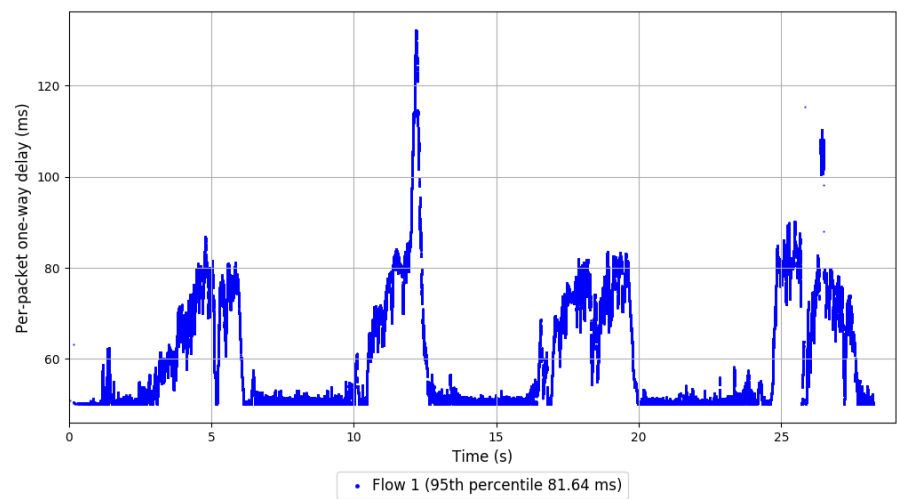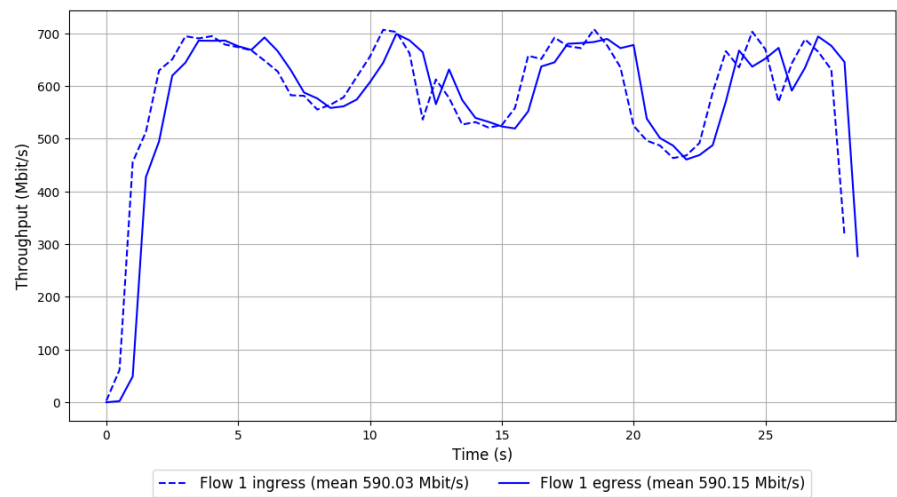

• Flow 1 (95th percentile 81.78 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-11-24 23:42:22
End at: 2019-11-24 23:42:53
Local clock offset: -0.06 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2019-11-25 01:45:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 578.65 Mbit/s
95th percentile per-packet one-way delay: 88.662 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 578.65 Mbit/s
95th percentile per-packet one-way delay: 88.662 ms
Loss rate: 0.40%
```

Run 5: Report of Indigo-MusesC5 — Data Link

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```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-11-24 21:33:32
End at: 2019-11-24 21:34:02
Local clock offset: 0.026 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-11-25 01:46:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 590.15 Mbit/s
95th percentile per-packet one-way delay: 81.644 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 590.15 Mbit/s
95th percentile per-packet one-way delay: 81.644 ms
Loss rate: 0.33%
```

Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-11-24 22:08:12
End at: 2019-11-24 22:08:42
Local clock offset: 0.063 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-11-25 01:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 596.53 Mbit/s
95th percentile per-packet one-way delay: 74.974 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 596.53 Mbit/s
95th percentile per-packet one-way delay: 74.974 ms
Loss rate: 0.41%
```
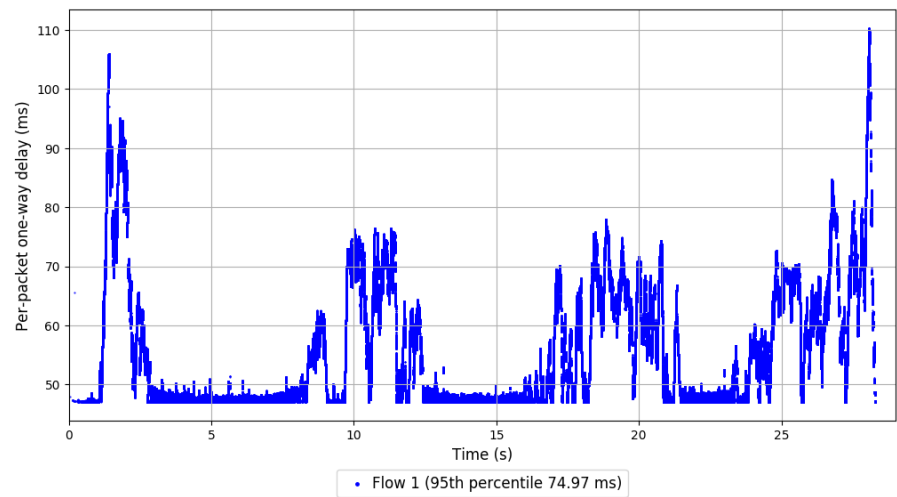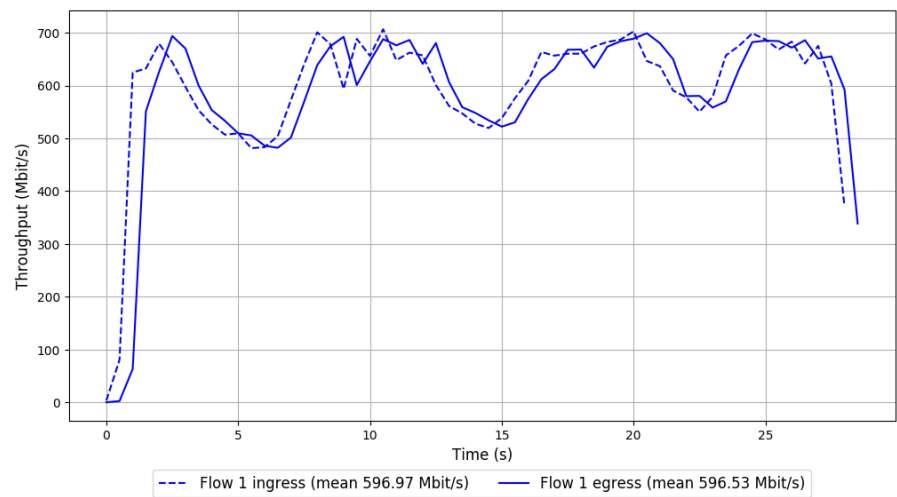
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-11-24 22:42:55
End at: 2019-11-24 22:43:25
Local clock offset: -0.028 ms
Remote clock offset: 0.07 ms


# Below is generated by plot.py at 2019-11-25 01:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 485.38 Mbit/s
95th percentile per-packet one-way delay: 75.251 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 485.38 Mbit/s
95th percentile per-packet one-way delay: 75.251 ms
Loss rate: 0.48%
```
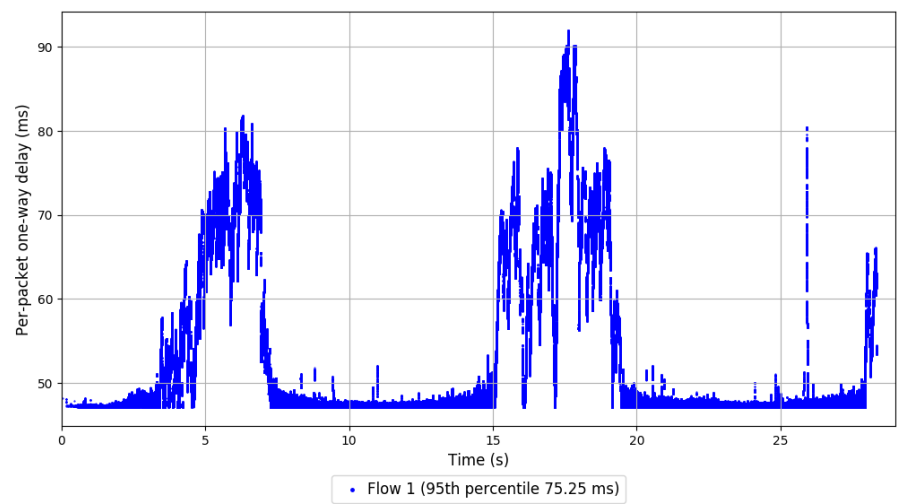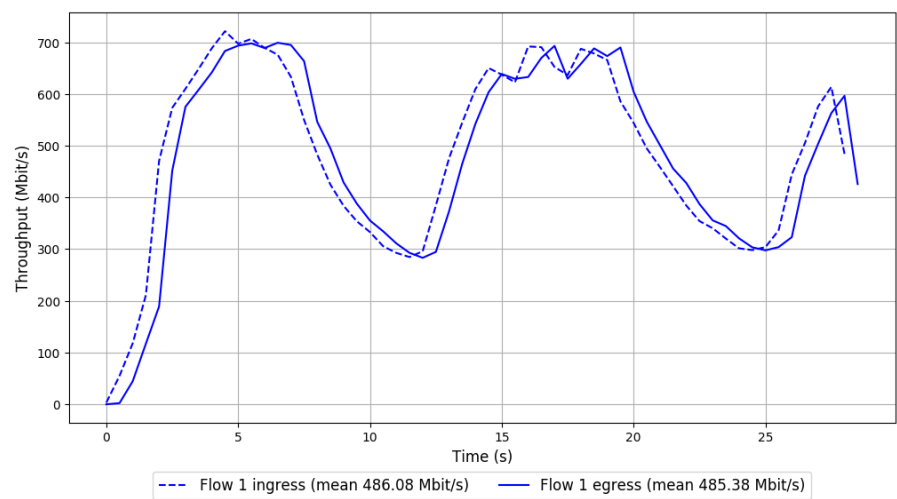
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-11-24 23:17:38
End at: 2019-11-24 23:18:08
Local clock offset: -0.089 ms
Remote clock offset: -0.104 ms


# Below is generated by plot.py at 2019-11-25 01:47:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 571.11 Mbit/s
95th percentile per-packet one-way delay: 75.899 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 571.11 Mbit/s
95th percentile per-packet one-way delay: 75.899 ms
Loss rate: 0.44%
```
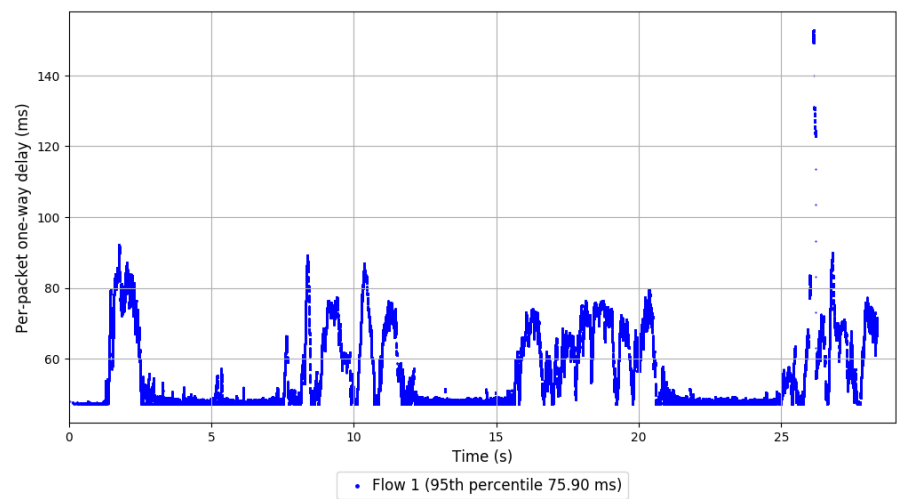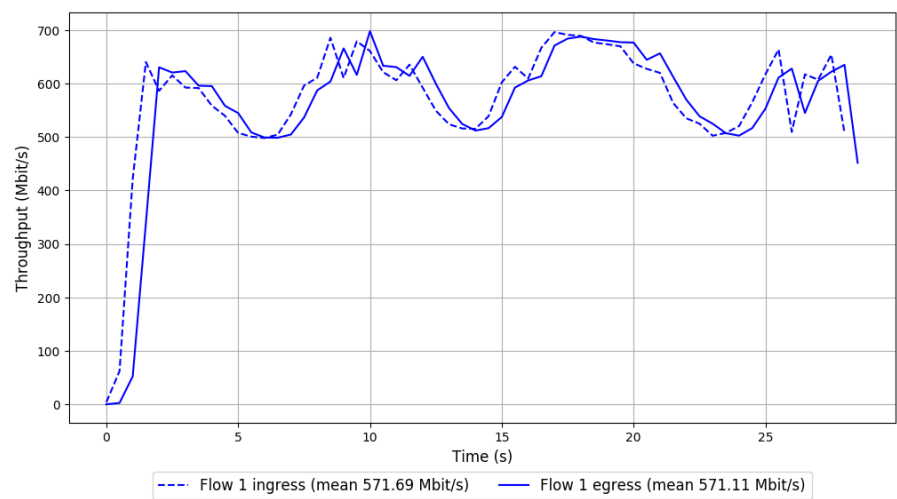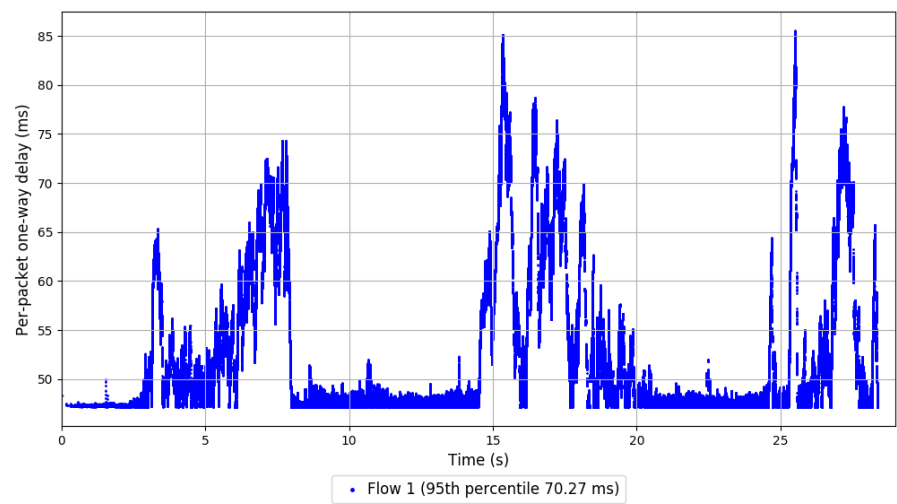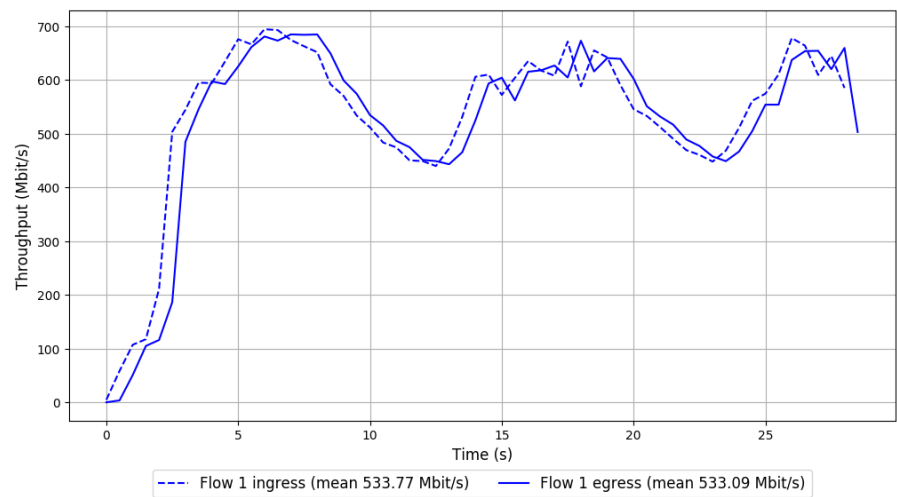
Run 4: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 571.69 Mbit/s)   Flow 1 egress (mean 571.11 Mbit/s)
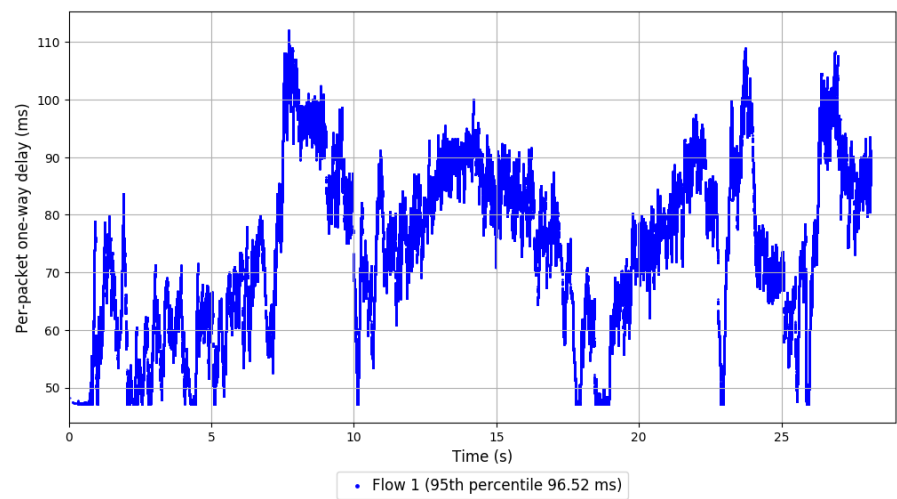

Flow 1 (95th percentile 75.90 ms)

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-11-24 23:52:25
End at: 2019-11-24 23:52:55
Local clock offset: -0.092 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-11-25 01:47:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 533.09 Mbit/s
95th percentile per-packet one-way delay: 70.266 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 533.09 Mbit/s
95th percentile per-packet one-way delay: 70.266 ms
Loss rate: 0.47%
```

Run 5: Report of Indigo-MusesD — Data Link

- - - Flow 1 ingress (mean 533.77 Mbit/s) —— Flow 1 egress (mean 533.09 Mbit/s)
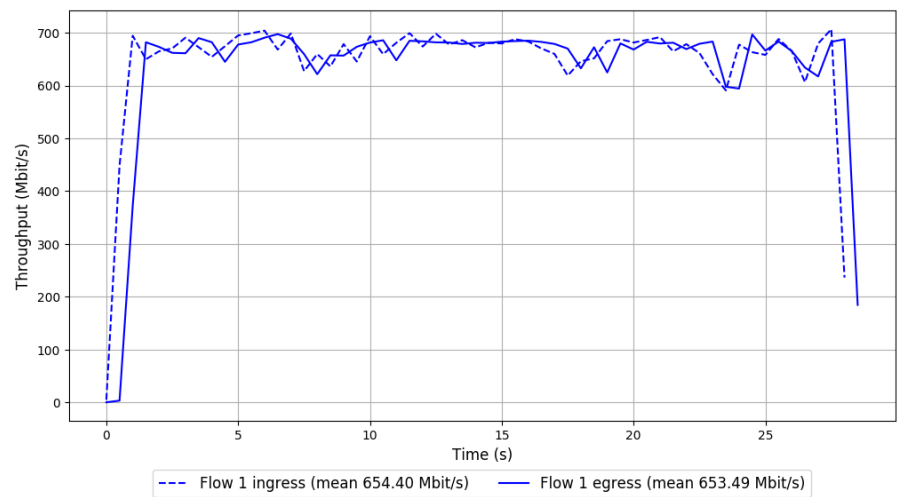

• Flow 1 (95th percentile 70.27 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-11-24 21:29:26
End at: 2019-11-24 21:29:56
Local clock offset: 0.019 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2019-11-25 01:52:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 653.49 Mbit/s
95th percentile per-packet one-way delay: 96.519 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 653.49 Mbit/s
95th percentile per-packet one-way delay: 96.519 ms
Loss rate: 0.48%
```

Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-11-24 22:03:59
End at: 2019-11-24 22:04:29
Local clock offset: 0.063 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-11-25 01:52:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 612.81 Mbit/s
95th percentile per-packet one-way delay: 107.749 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 612.81 Mbit/s
95th percentile per-packet one-way delay: 107.749 ms
Loss rate: 0.41%
```
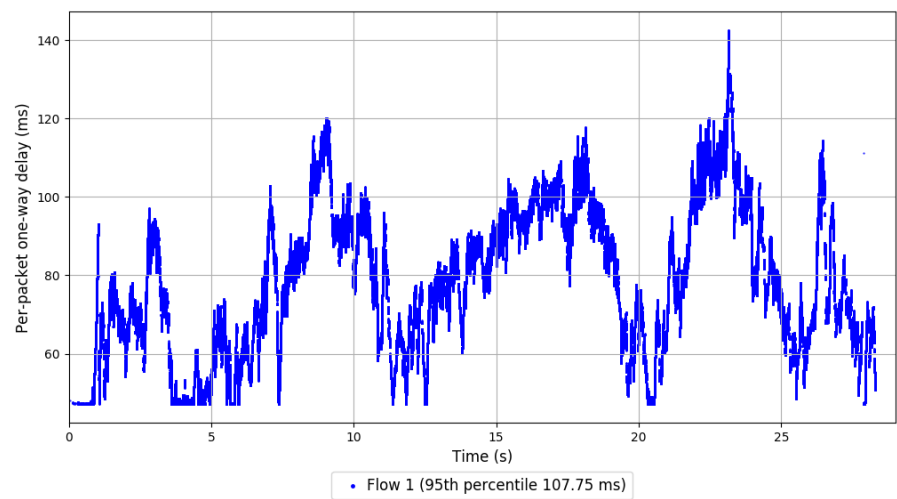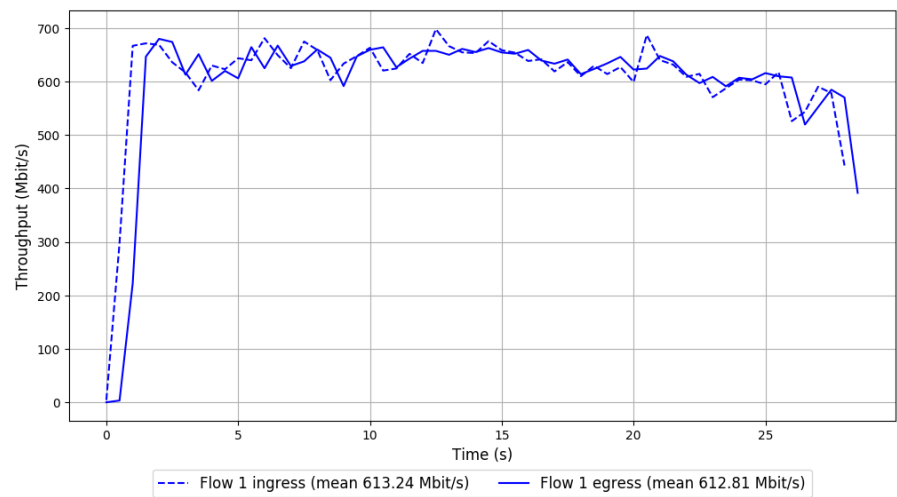
Run 2: Report of Indigo-MusesT — Data Link

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```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-11-24 22:38:46
End at: 2019-11-24 22:39:16
Local clock offset: -0.021 ms
Remote clock offset: 0.027 ms


# Below is generated by plot.py at 2019-11-25 01:58:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 641.10 Mbit/s
95th percentile per-packet one-way delay: 99.677 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 641.10 Mbit/s
95th percentile per-packet one-way delay: 99.677 ms
Loss rate: 0.47%
```
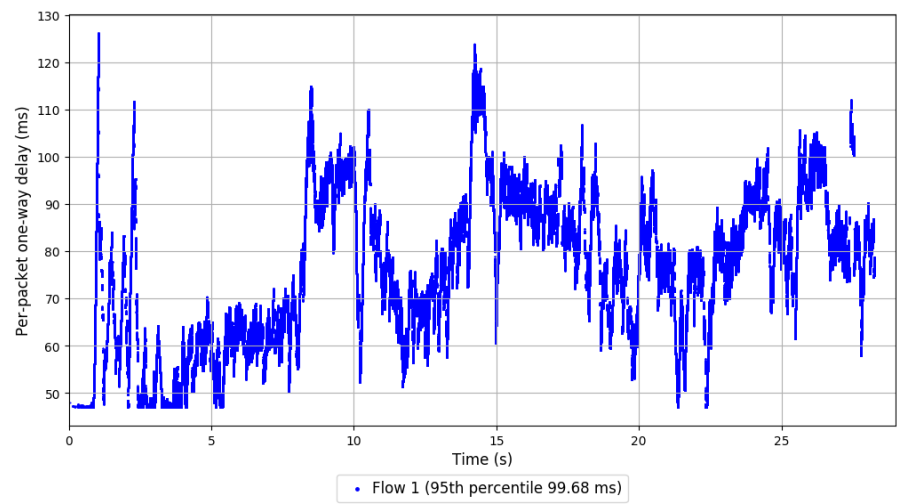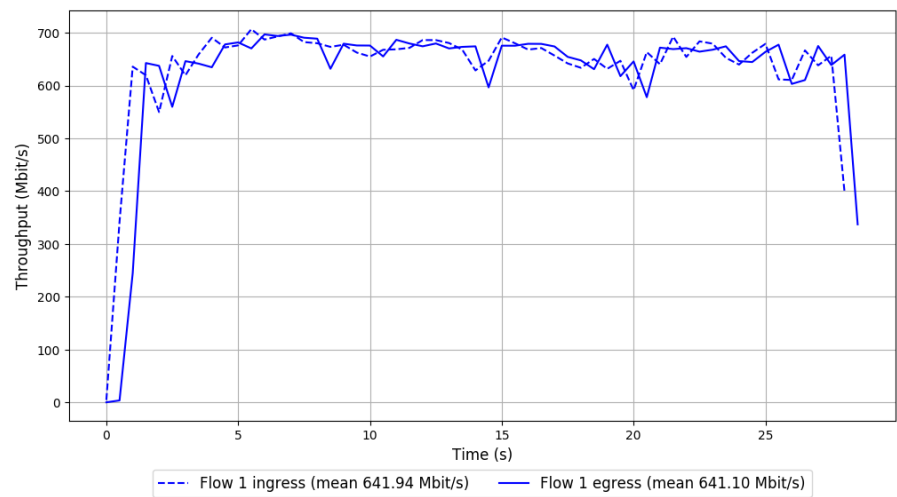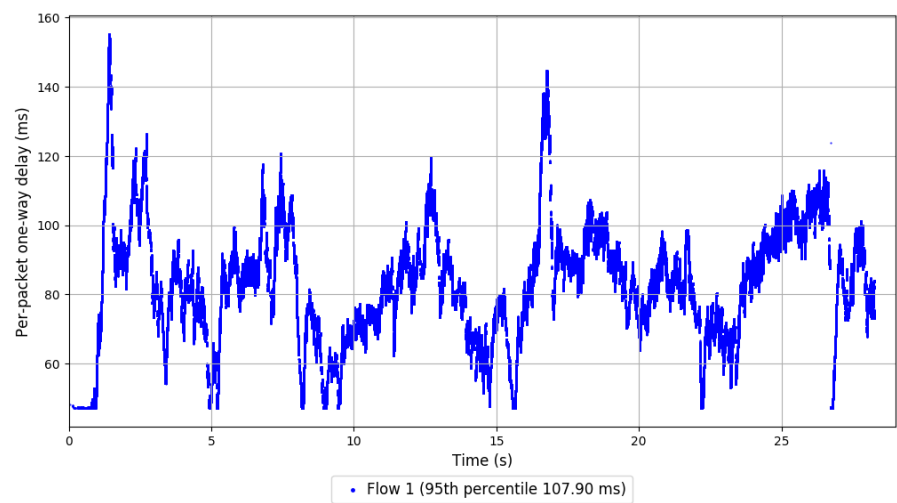
Run 3: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 641.94 Mbit/s)   Flow 1 egress (mean 641.10 Mbit/s)
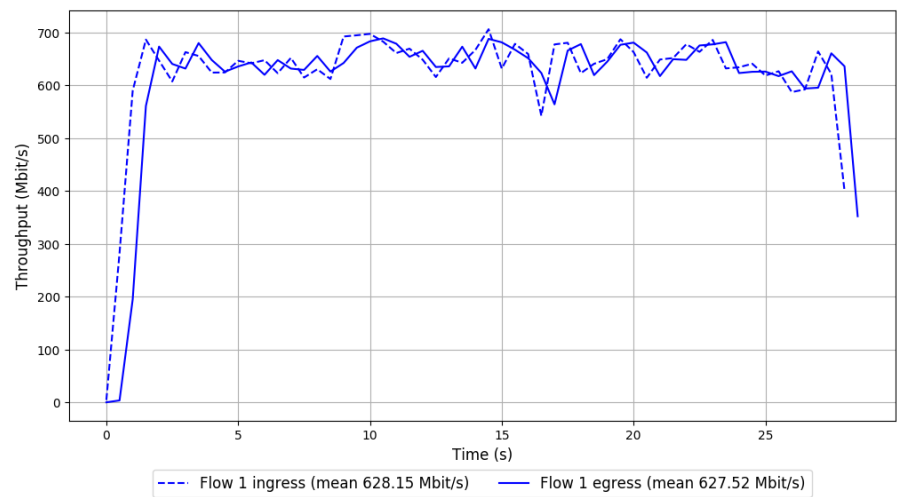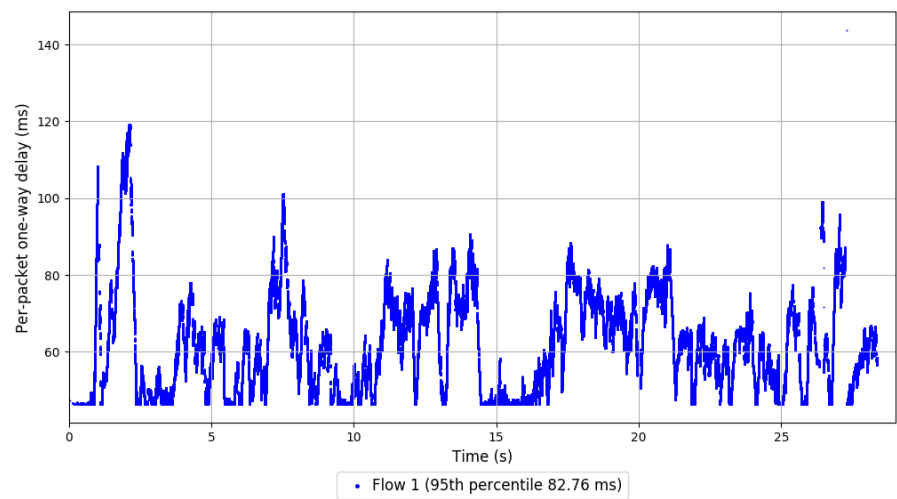

Flow 1 (95th percentile 99.68 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-11-24 23:13:29
End at: 2019-11-24 23:13:59
Local clock offset: -0.105 ms
Remote clock offset: -0.099 ms


# Below is generated by plot.py at 2019-11-25 01:59:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 627.52 Mbit/s
95th percentile per-packet one-way delay: 107.900 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 627.52 Mbit/s
95th percentile per-packet one-way delay: 107.900 ms
Loss rate: 0.44%
```

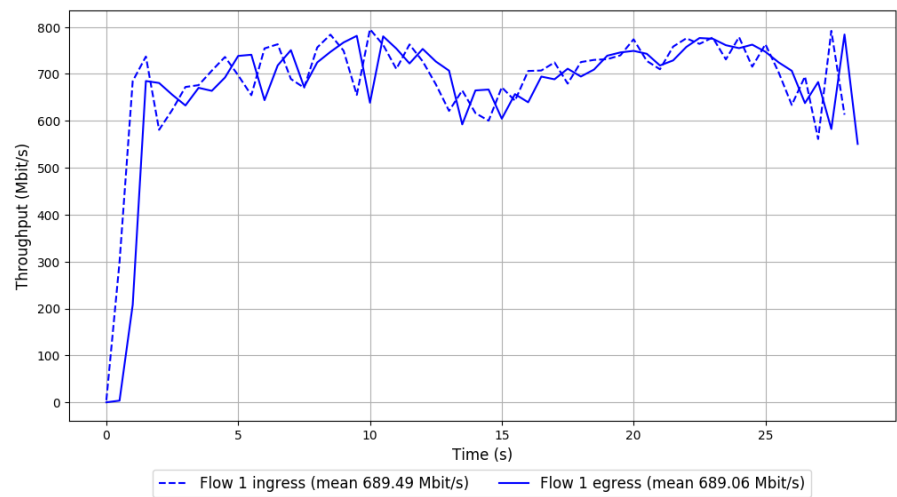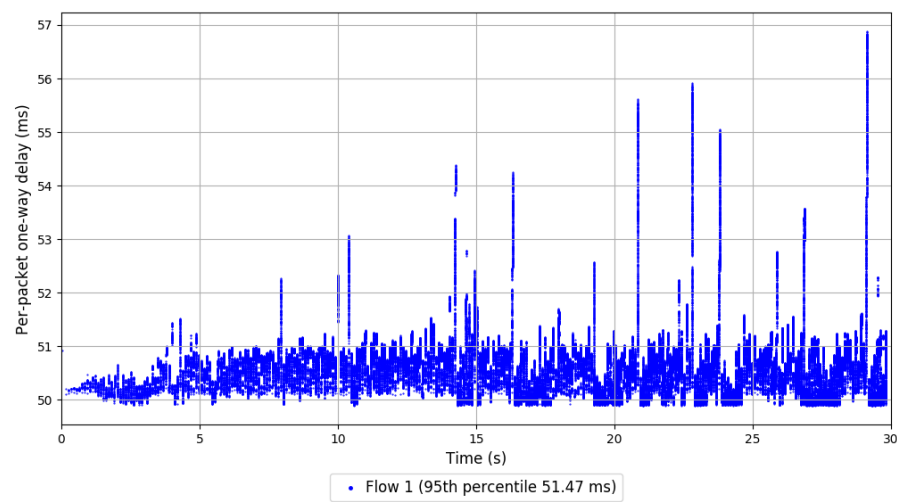Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-11-24 23:48:15
End at: 2019-11-24 23:48:45
Local clock offset: -0.093 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-11-25 02:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 689.06 Mbit/s
95th percentile per-packet one-way delay: 82.758 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 689.06 Mbit/s
95th percentile per-packet one-way delay: 82.758 ms
Loss rate: 0.40%
```

Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-11-24 21:28:15
End at: 2019-11-24 21:28:45
Local clock offset: -0.023 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-11-25 02:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.15 Mbit/s
95th percentile per-packet one-way delay: 51.469 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 38.15 Mbit/s
95th percentile per-packet one-way delay: 51.469 ms
Loss rate: 0.65%
```
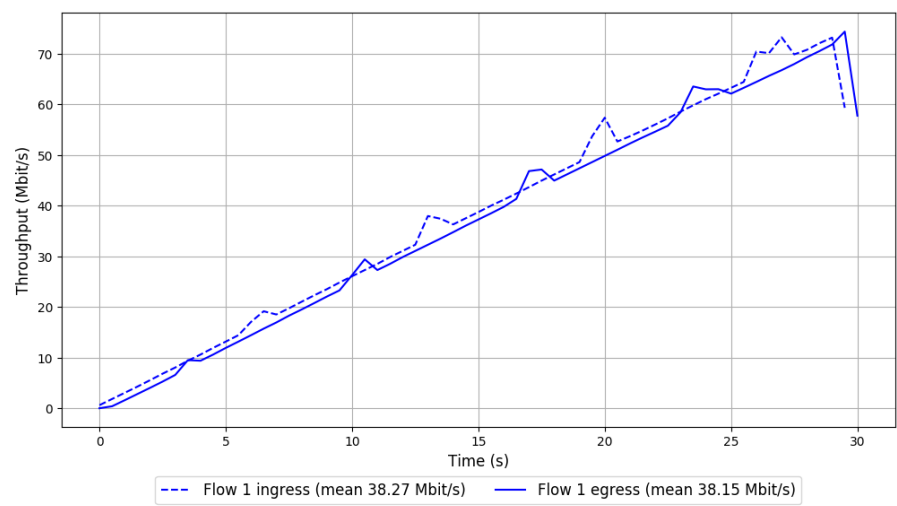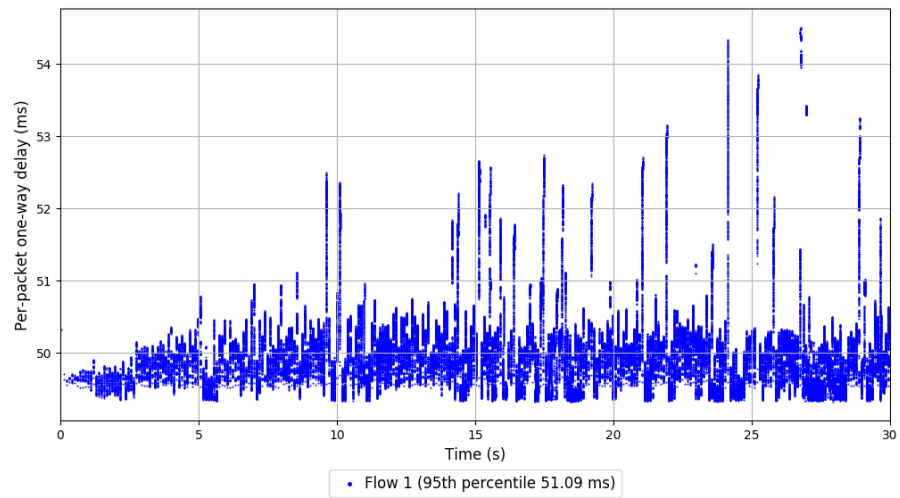
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 38.27 Mbit/s) --- Flow 1 egress (mean 38.15 Mbit/s)

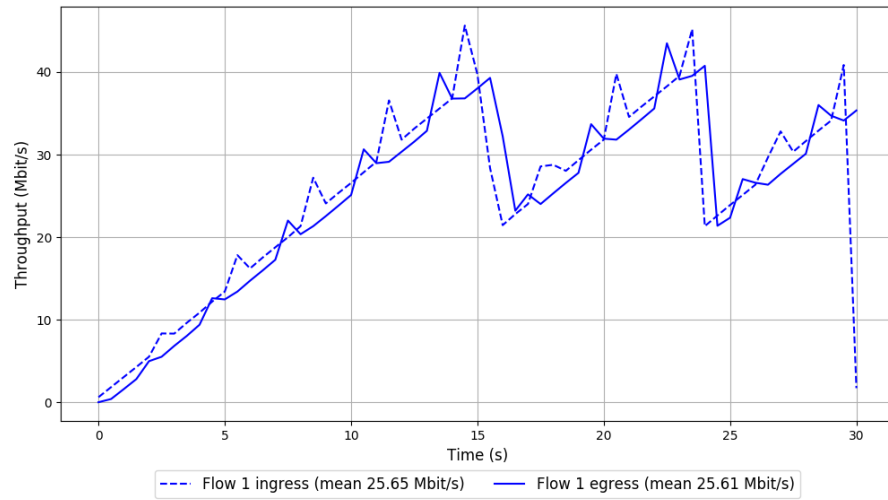Flow 1 (95th percentile 51.47 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-11-24 22:02:49
End at: 2019-11-24 22:03:19
Local clock offset: 0.058 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2019-11-25 02:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 25.61 Mbit/s
95th percentile per-packet one-way delay: 51.085 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 25.61 Mbit/s
95th percentile per-packet one-way delay: 51.085 ms
Loss rate: 0.47%
```
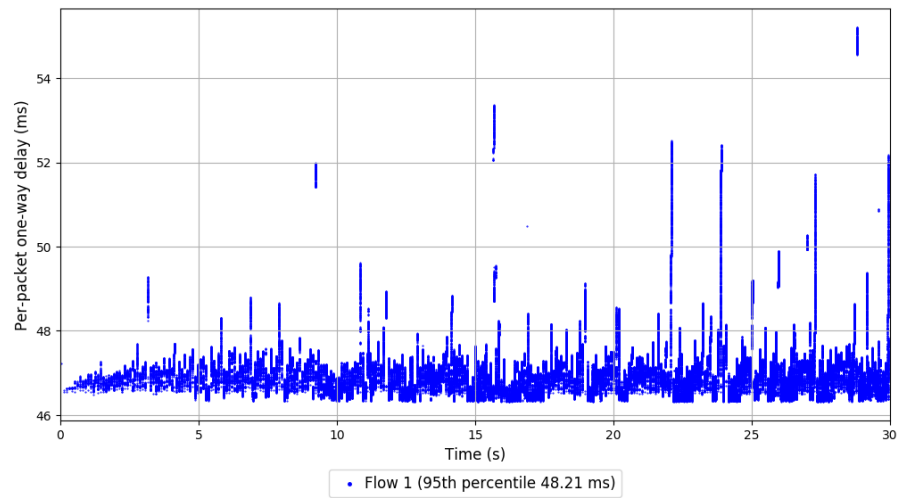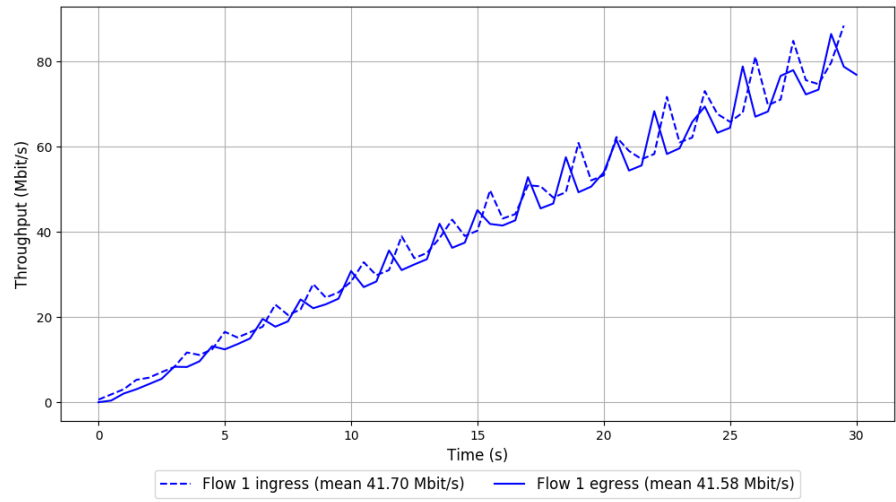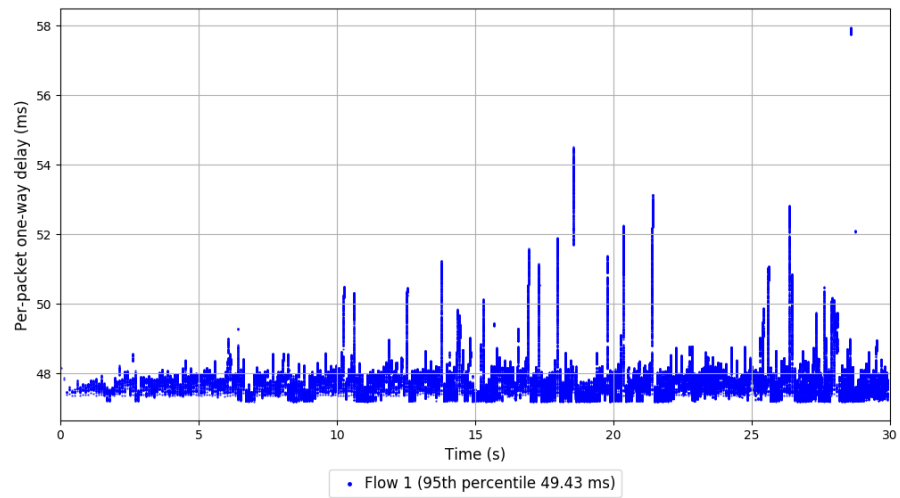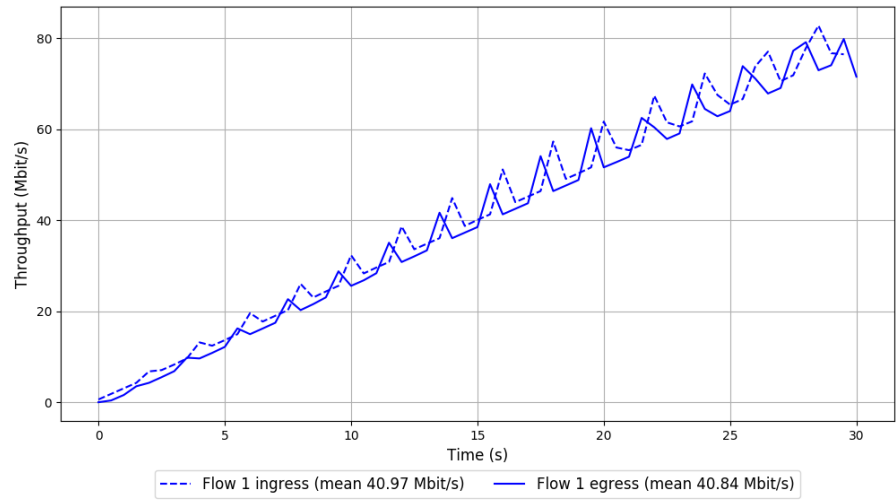
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 25.65 Mbit/s)   Flow 1 egress (mean 25.61 Mbit/s)

• Flow 1 (95th percentile 51.09 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2019-11-24 22:37:35
End at: 2019-11-24 22:38:05
Local clock offset: 0.002 ms
Remote clock offset: 0.05 ms


# Below is generated by plot.py at 2019-11-25 02:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.58 Mbit/s
95th percentile per-packet one-way delay: 48.208 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 41.58 Mbit/s
95th percentile per-packet one-way delay: 48.208 ms
Loss rate: 0.62%
```

Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 41.70 Mbit/s) — Flow 1 egress (mean 41.58 Mbit/s)

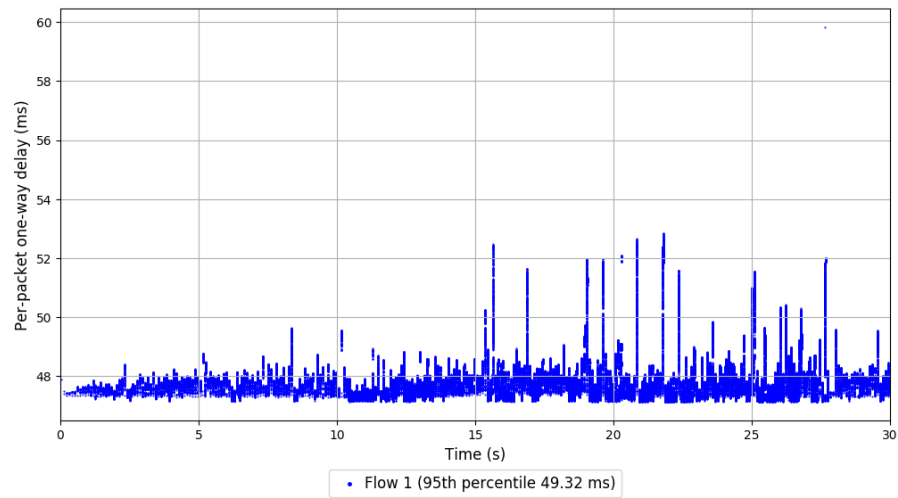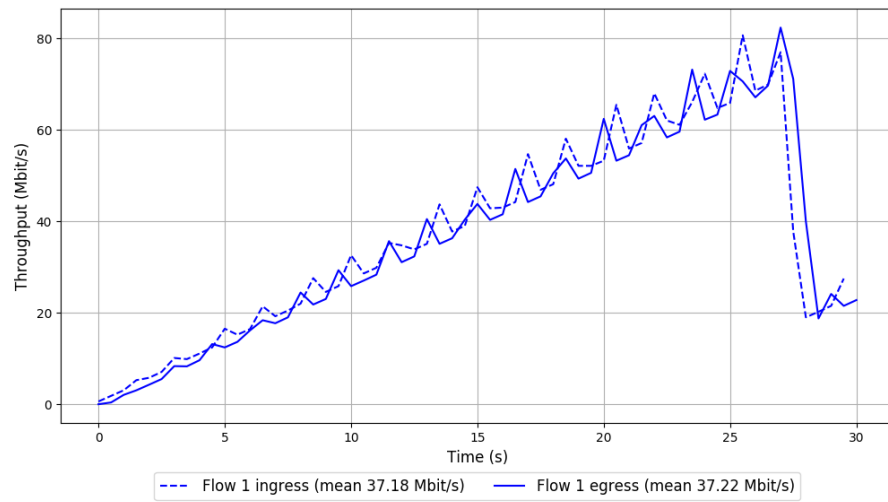• Flow 1 (95th percentile 48.21 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-11-24 23:12:17
End at: 2019-11-24 23:12:47
Local clock offset: -0.09 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2019-11-25 02:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.84 Mbit/s
95th percentile per-packet one-way delay: 49.432 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 40.84 Mbit/s
95th percentile per-packet one-way delay: 49.432 ms
Loss rate: 0.63%
```
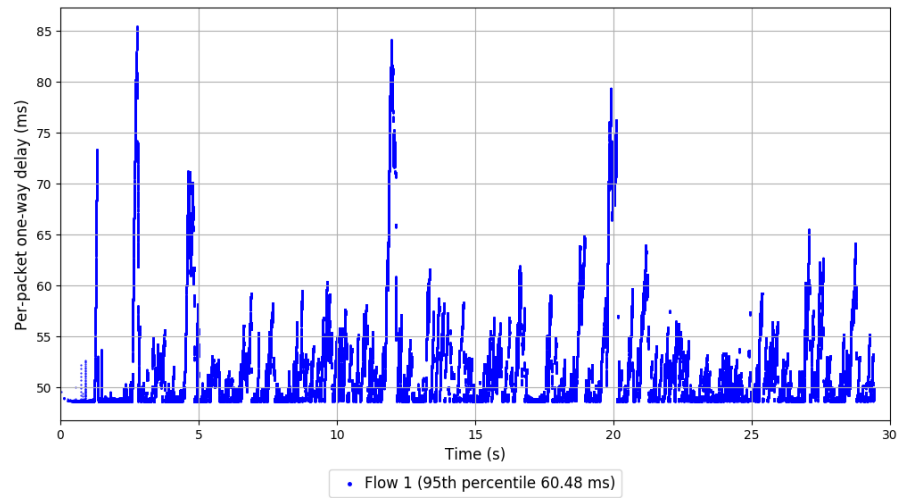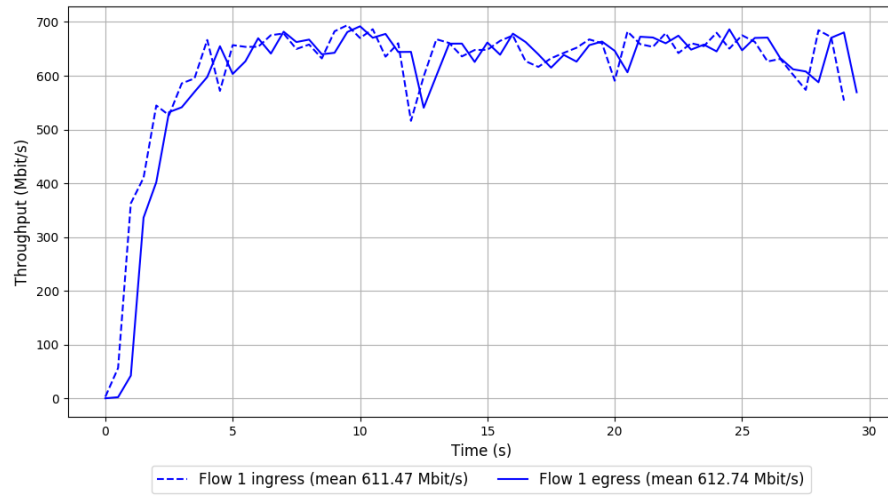
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-11-24 23:47:04
End at: 2019-11-24 23:47:34
Local clock offset: -0.075 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2019-11-25 02:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.22 Mbit/s
95th percentile per-packet one-way delay: 49.317 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 37.22 Mbit/s
95th percentile per-packet one-way delay: 49.317 ms
Loss rate: 0.21%
```

Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 37.18 Mbit/s) --- Flow 1 egress (mean 37.22 Mbit/s)

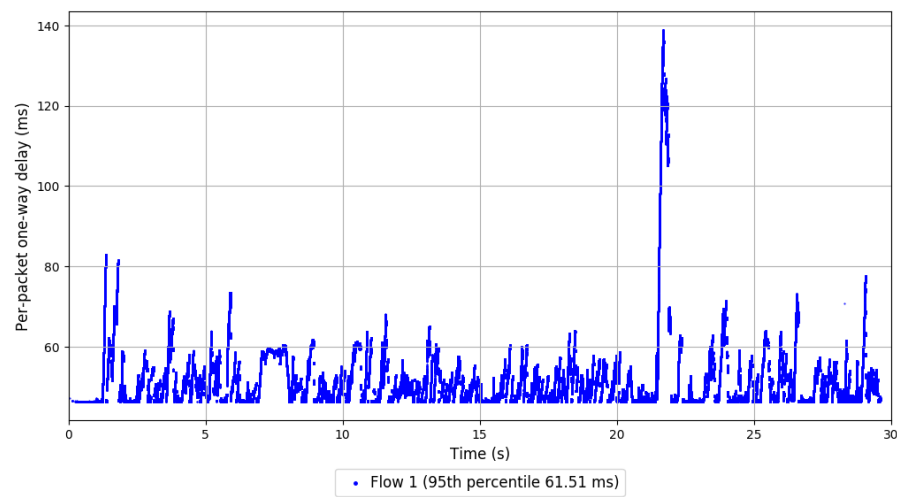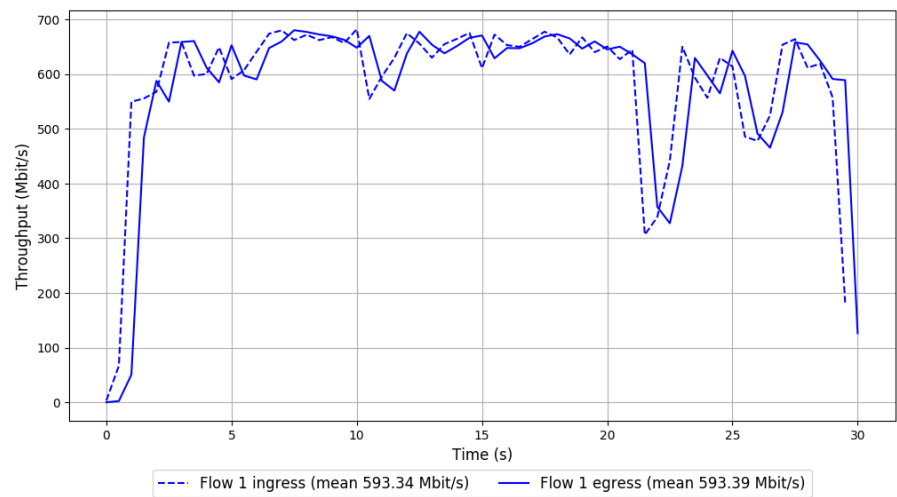Flow 1 (95th percentile 49.32 ms)

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 21:39:26
End at: 2019-11-24 21:39:56
Local clock offset: 0.042 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-11-25 02:04:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 612.74 Mbit/s
95th percentile per-packet one-way delay: 60.484 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 612.74 Mbit/s
95th percentile per-packet one-way delay: 60.484 ms
Loss rate: 0.13%
```

Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 22:14:06
End at: 2019-11-24 22:14:36
Local clock offset: 0.005 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2019-11-25 02:04:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 593.39 Mbit/s
95th percentile per-packet one-way delay: 61.507 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 593.39 Mbit/s
95th percentile per-packet one-way delay: 61.507 ms
Loss rate: 0.31%
```

Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 22:48:39
End at: 2019-11-24 22:49:09
Local clock offset: -0.047 ms
Remote clock offset: 0.007 ms


# Below is generated by plot.py at 2019-11-25 02:04:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 607.60 Mbit/s
95th percentile per-packet one-way delay: 64.115 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 607.60 Mbit/s
95th percentile per-packet one-way delay: 64.115 ms
Loss rate: 0.32%
```
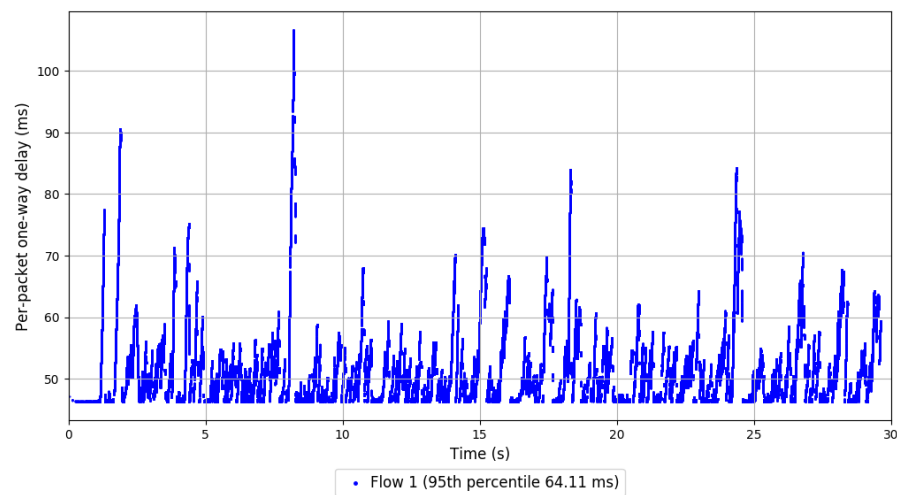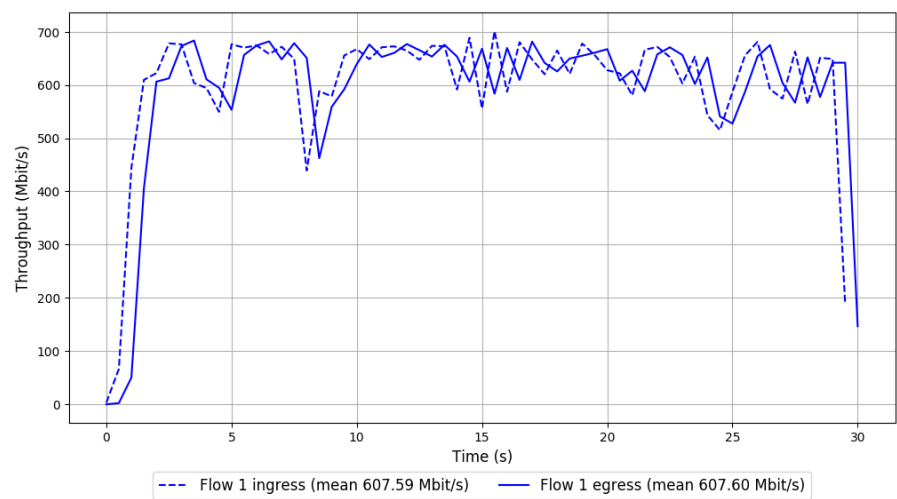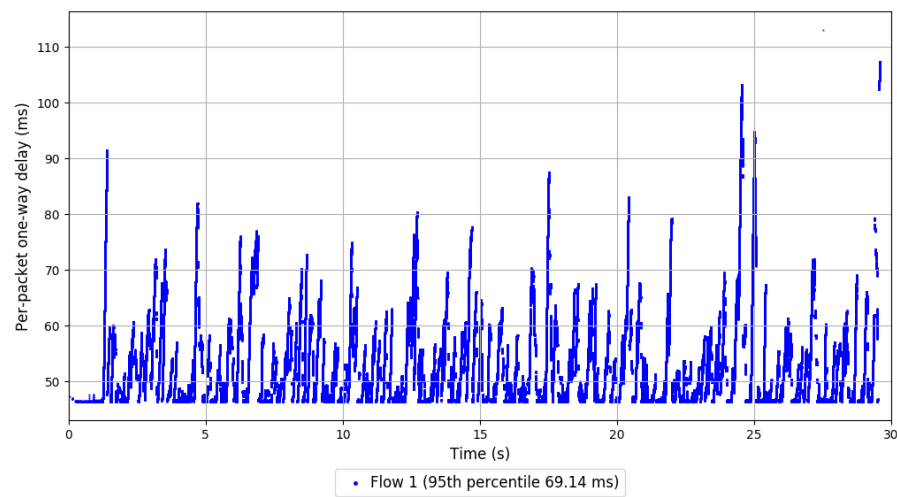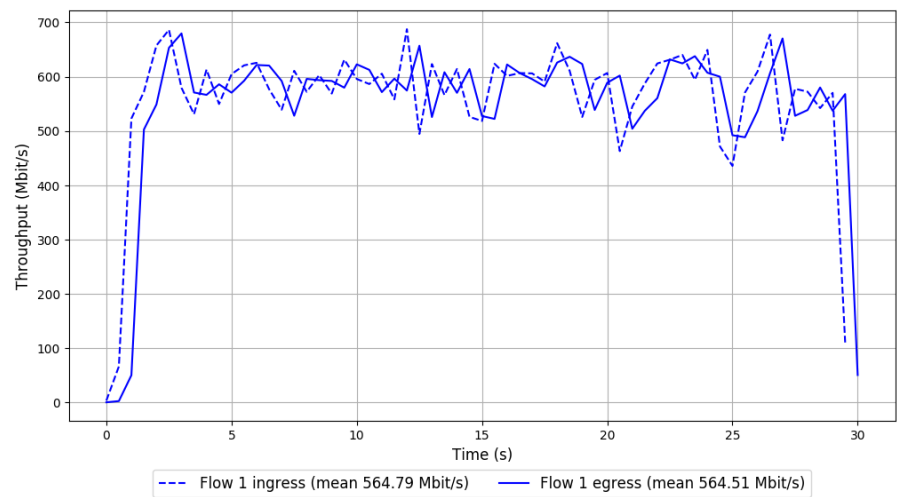
Run 3: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 607.59 Mbit/s)   Flow 1 egress (mean 607.60 Mbit/s)

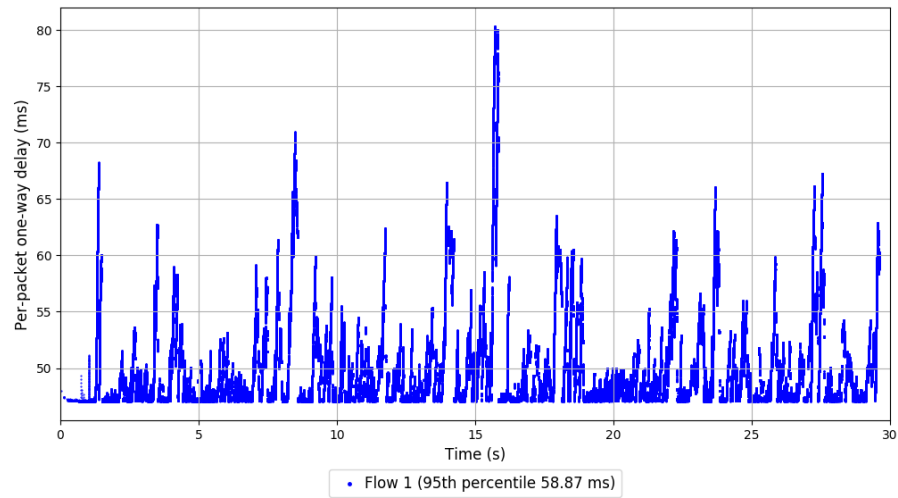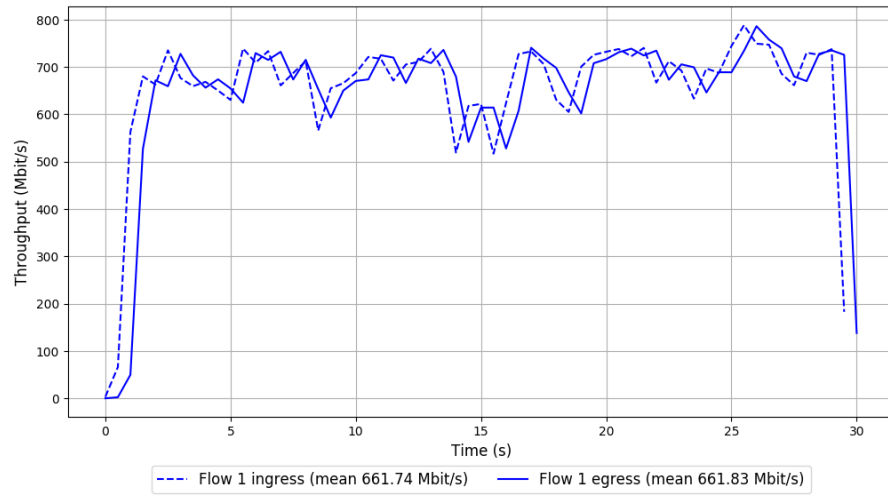Flow 1 (95th percentile 64.11 ms)

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 23:23:22
End at: 2019-11-24 23:23:52
Local clock offset: -0.056 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-11-25 02:05:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 564.51 Mbit/s
95th percentile per-packet one-way delay: 69.139 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 564.51 Mbit/s
95th percentile per-packet one-way delay: 69.139 ms
Loss rate: 0.37%
```
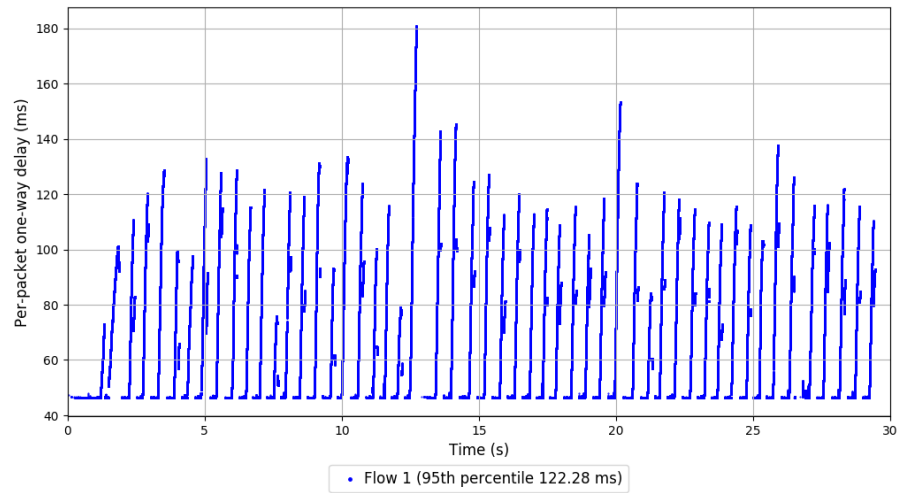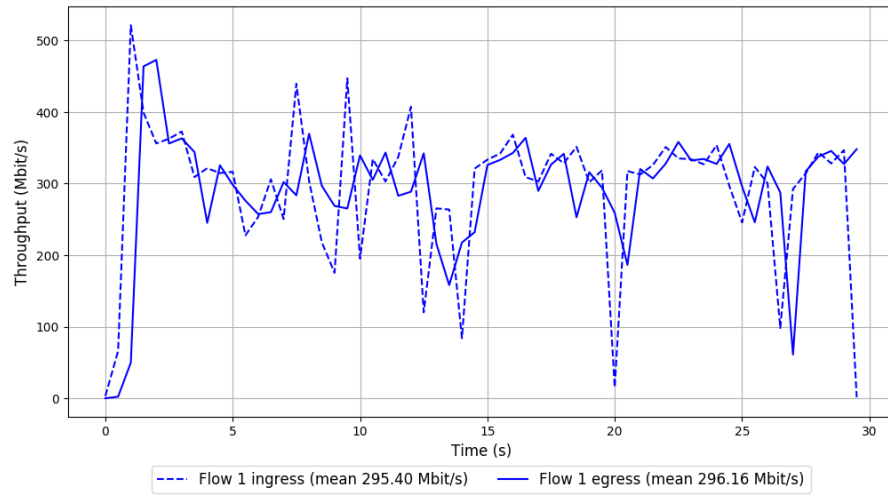
Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 23:58:10
End at: 2019-11-24 23:58:40
Local clock offset: -0.077 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-11-25 02:08:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 661.83 Mbit/s
95th percentile per-packet one-way delay: 58.872 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 661.83 Mbit/s
95th percentile per-packet one-way delay: 58.872 ms
Loss rate: 0.31%
```

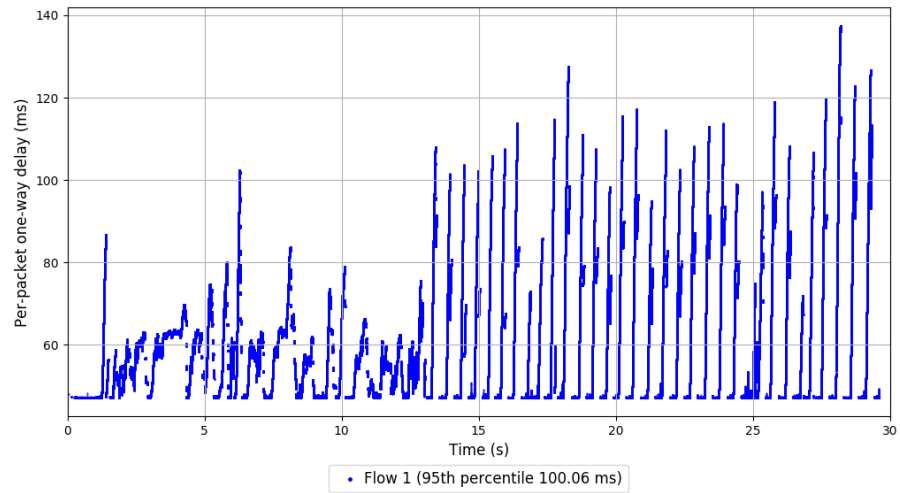Run 5: Report of Muses_DecisionTree — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-24 21:32:10
End at: 2019-11-24 21:32:40
Local clock offset: 0.056 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2019-11-25 02:08:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 296.16 Mbit/s
95th percentile per-packet one-way delay: 122.284 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 296.16 Mbit/s
95th percentile per-packet one-way delay: 122.284 ms
Loss rate: 0.25%
```

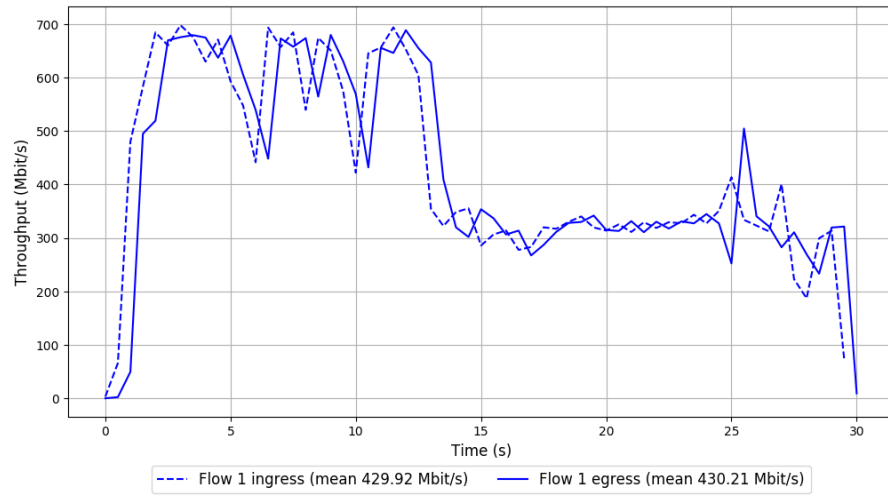Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-24 22:06:45
End at: 2019-11-24 22:07:15
Local clock offset: 0.064 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2019-11-25 02:09:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 430.21 Mbit/s
95th percentile per-packet one-way delay: 100.059 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 430.21 Mbit/s
95th percentile per-packet one-way delay: 100.059 ms
Loss rate: 0.26%
```

Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-24 22:41:33
End at: 2019-11-24 22:42:03
Local clock offset: -0.372 ms
Remote clock offset: 0.031 ms


# Below is generated by plot.py at 2019-11-25 02:09:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 315.90 Mbit/s
95th percentile per-packet one-way delay: 117.112 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 315.90 Mbit/s
95th percentile per-packet one-way delay: 117.112 ms
Loss rate: 0.06%
```
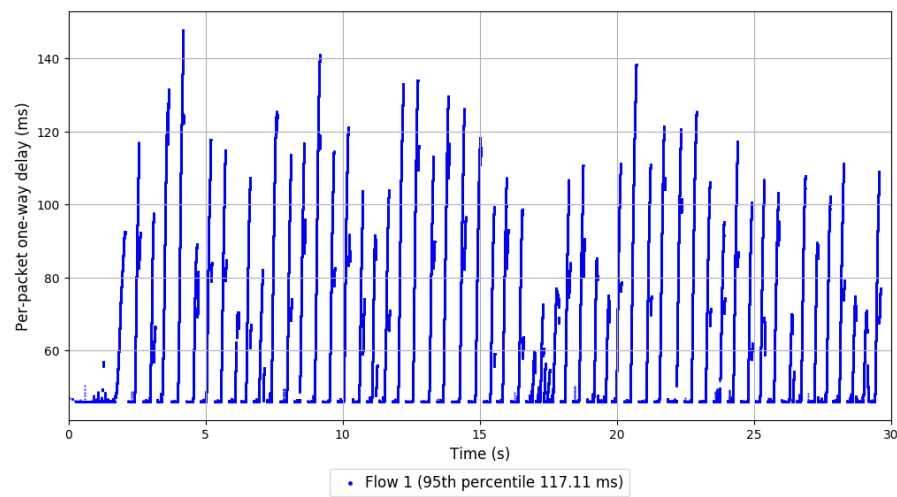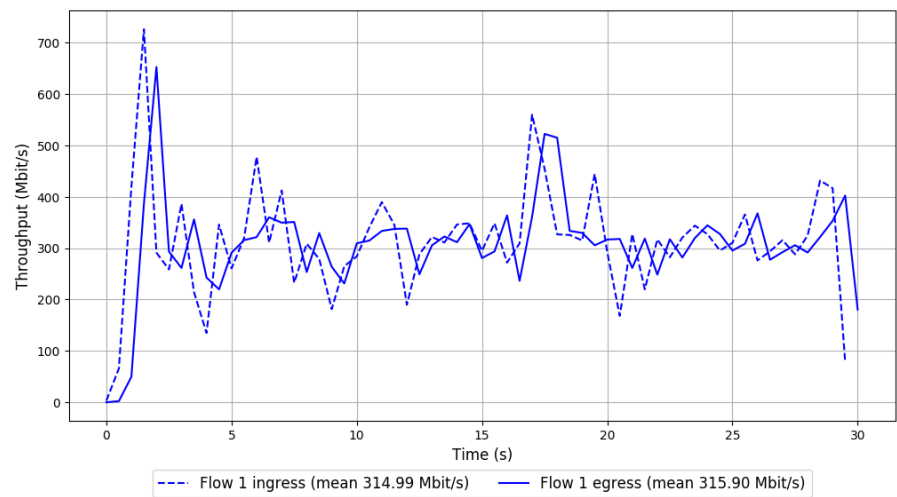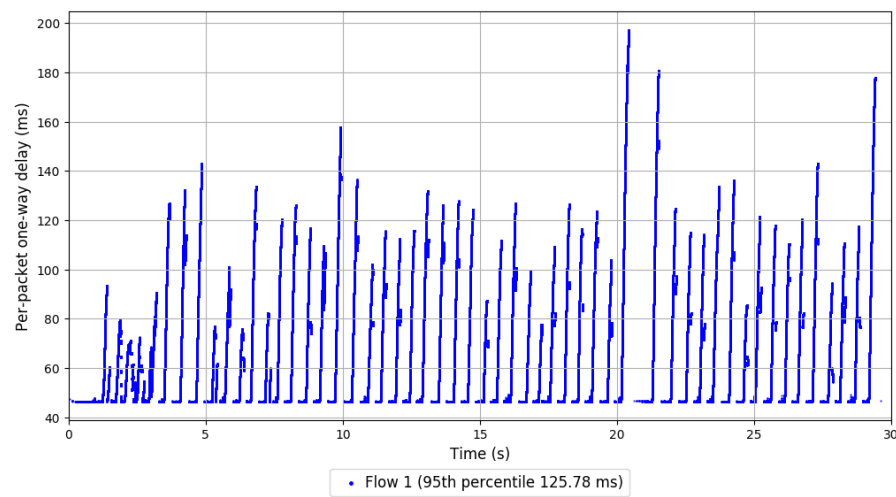
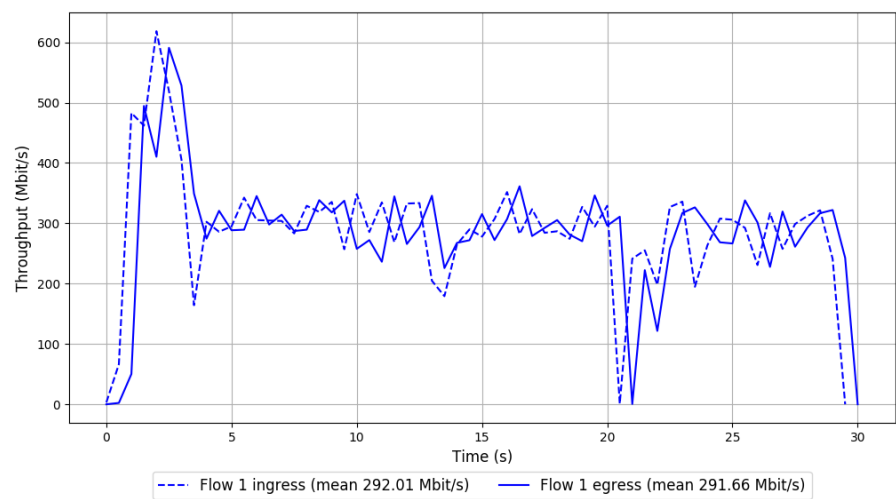Run 3: Report of Muses_DecisionTreeH0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-24 23:16:17
End at: 2019-11-24 23:16:47
Local clock offset: -0.088 ms
Remote clock offset: -0.117 ms


# Below is generated by plot.py at 2019-11-25 02:10:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 291.66 Mbit/s
95th percentile per-packet one-way delay: 125.775 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 291.66 Mbit/s
95th percentile per-packet one-way delay: 125.775 ms
Loss rate: 0.12%
```

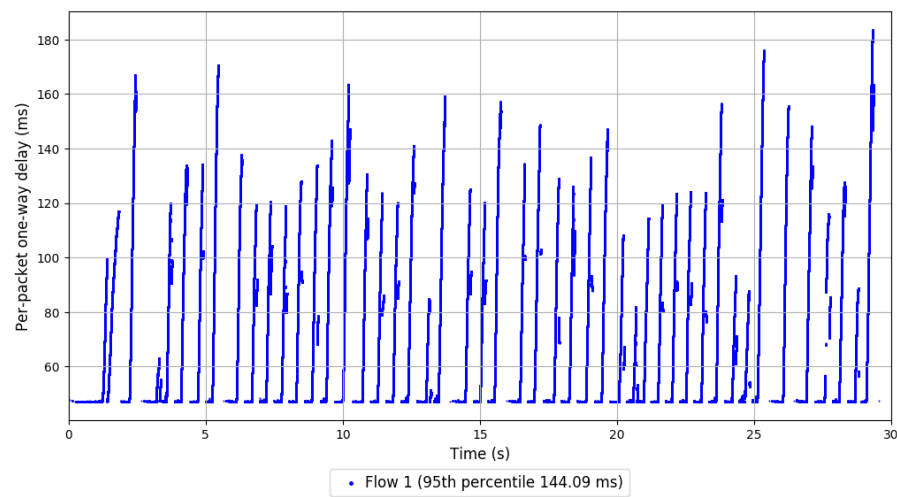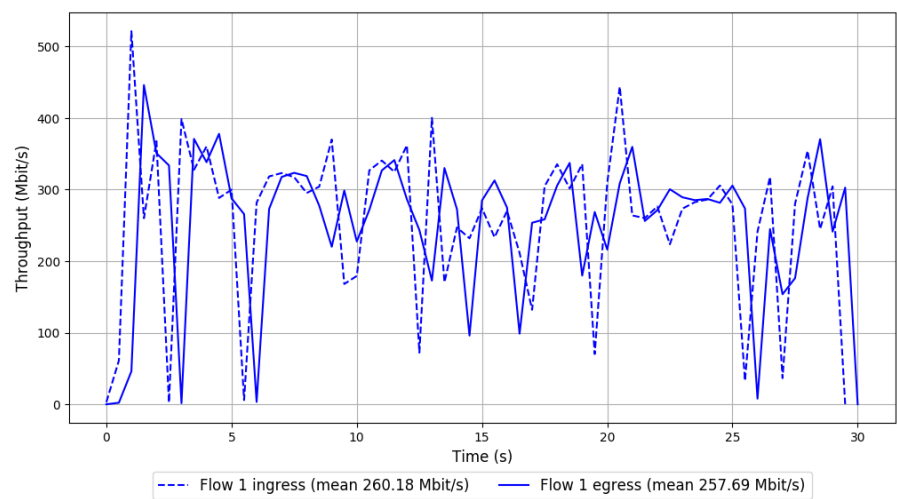Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-24 23:51:05
End at: 2019-11-24 23:51:35
Local clock offset: -0.081 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-11-25 02:10:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 257.69 Mbit/s
95th percentile per-packet one-way delay: 144.085 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 257.69 Mbit/s
95th percentile per-packet one-way delay: 144.085 ms
Loss rate: 1.28%
```

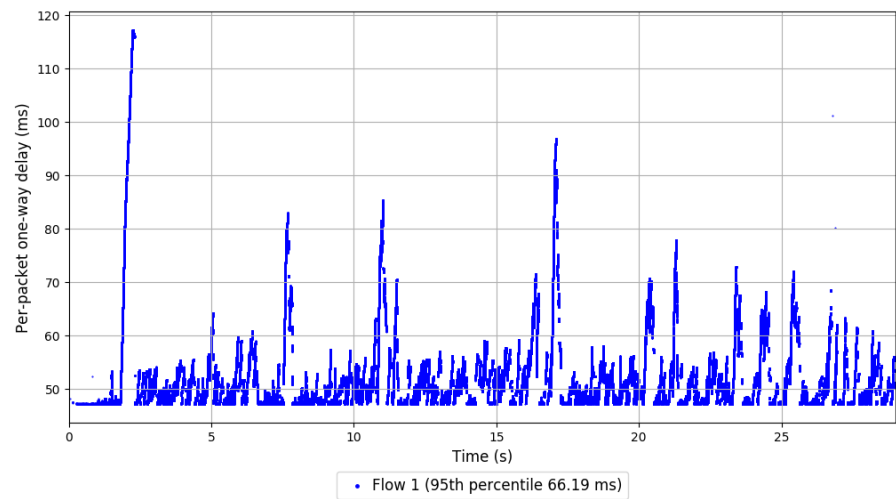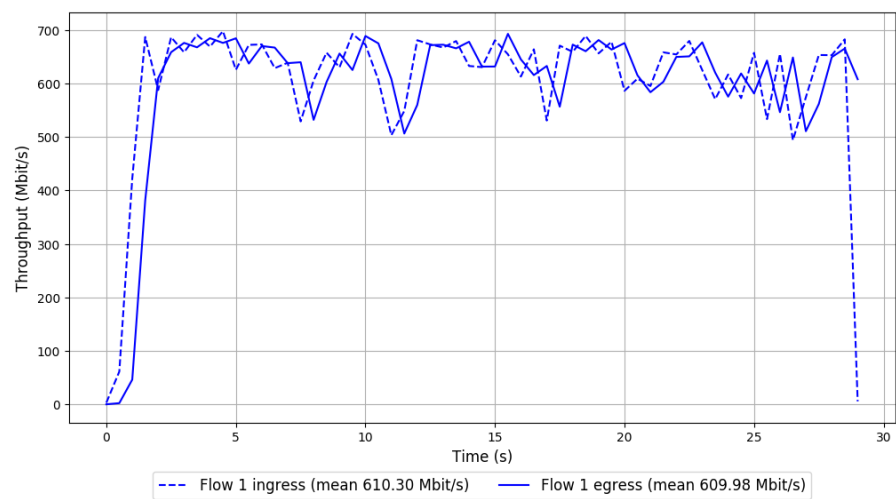# Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 21:26:40
End at: 2019-11-24 21:27:10
Local clock offset: 0.002 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2019-11-25 02:17:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 609.98 Mbit/s
95th percentile per-packet one-way delay: 66.192 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 609.98 Mbit/s
95th percentile per-packet one-way delay: 66.192 ms
Loss rate: 0.38%
```

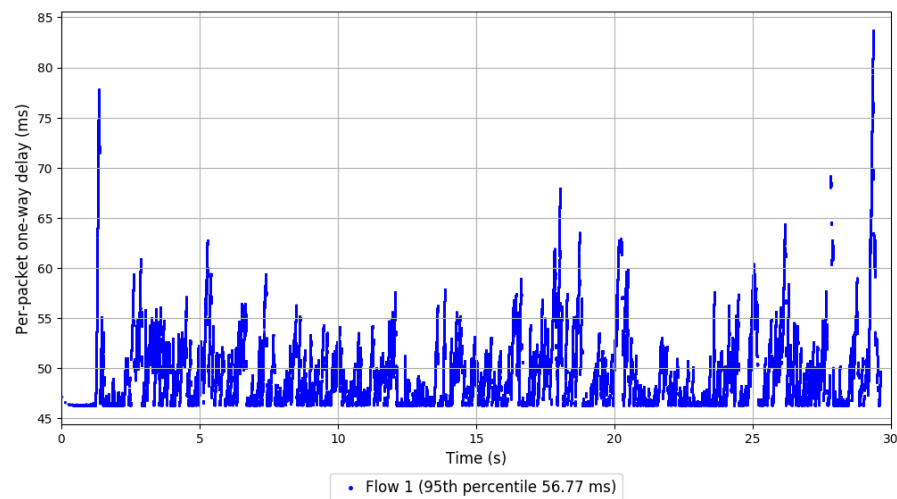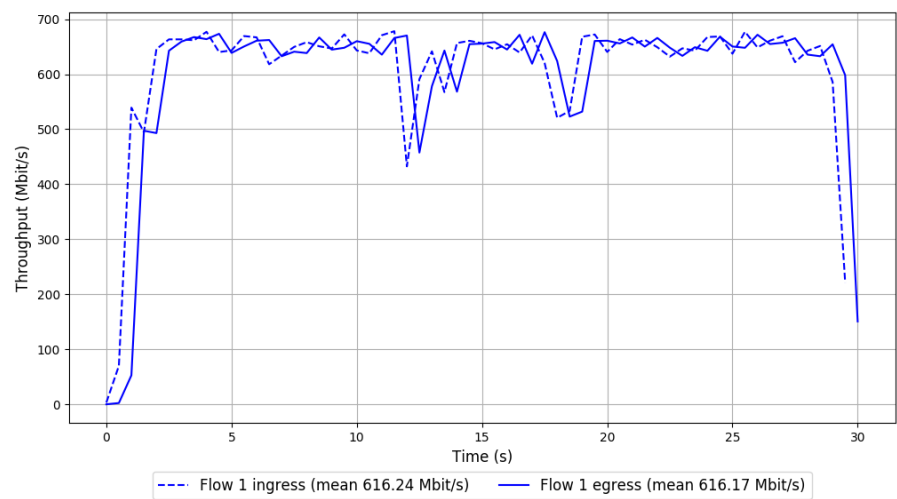Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 22:01:12
End at: 2019-11-24 22:01:42
Local clock offset: 0.047 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-11-25 02:19:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 616.17 Mbit/s
95th percentile per-packet one-way delay: 56.775 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 616.17 Mbit/s
95th percentile per-packet one-way delay: 56.775 ms
Loss rate: 0.33%
```

Run 2: Report of Muses_DecisionTreeR0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 22:35:59
End at: 2019-11-24 22:36:29
Local clock offset: -0.045 ms
Remote clock offset: 0.014 ms


# Below is generated by plot.py at 2019-11-25 02:19:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 623.59 Mbit/s
95th percentile per-packet one-way delay: 55.764 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 623.59 Mbit/s
95th percentile per-packet one-way delay: 55.764 ms
Loss rate: 0.33%
```
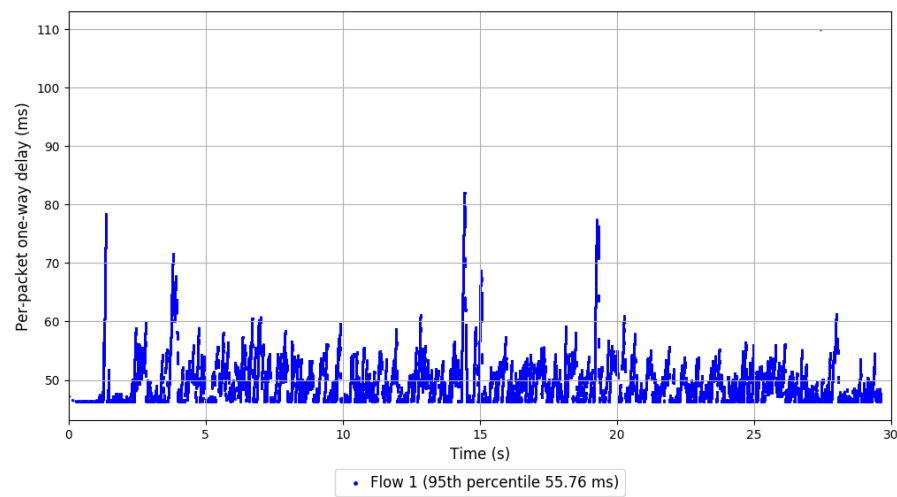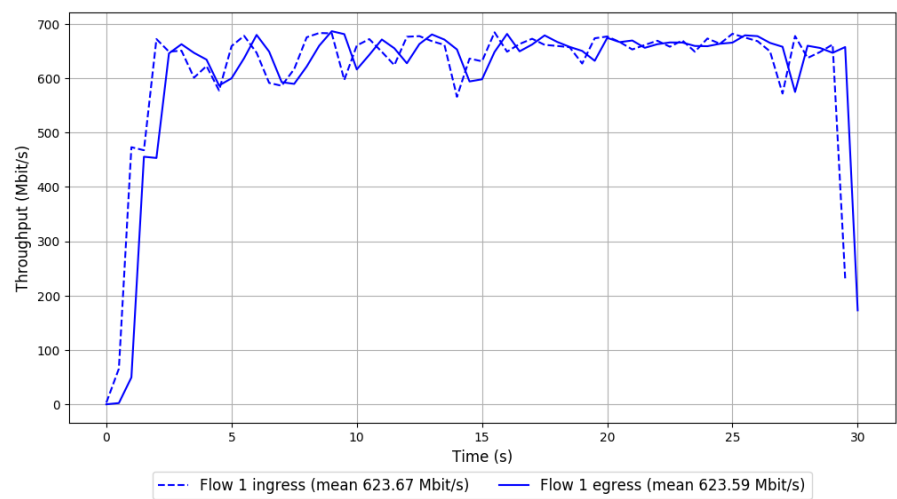
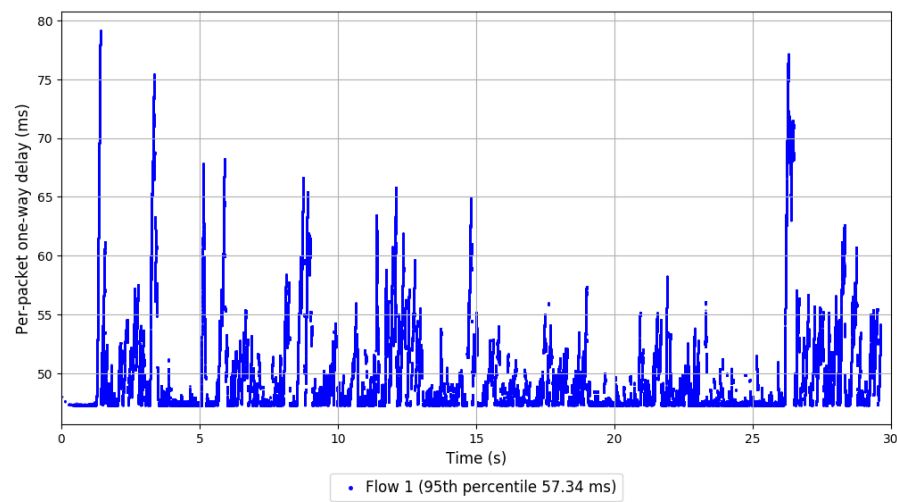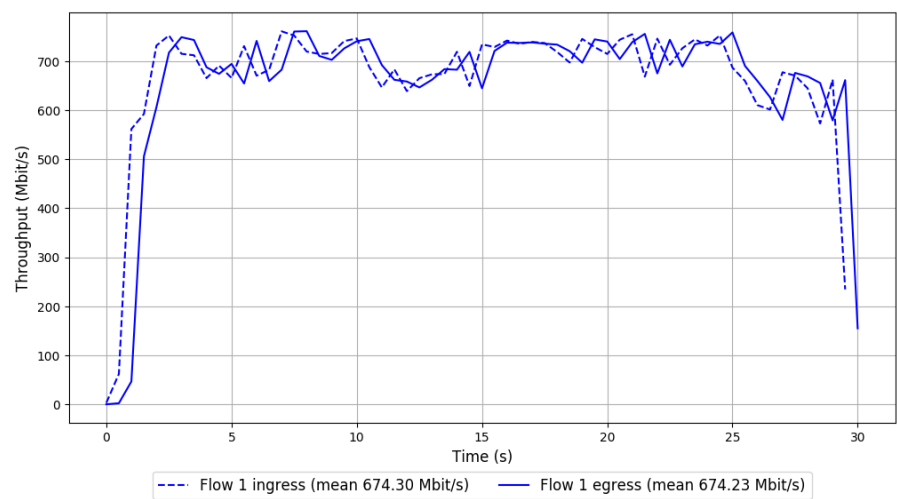Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 23:10:39
End at: 2019-11-24 23:11:09
Local clock offset: -0.064 ms
Remote clock offset: -0.134 ms


# Below is generated by plot.py at 2019-11-25 02:24:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 674.23 Mbit/s
95th percentile per-packet one-way delay: 57.335 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 674.23 Mbit/s
95th percentile per-packet one-way delay: 57.335 ms
Loss rate: 0.33%
```

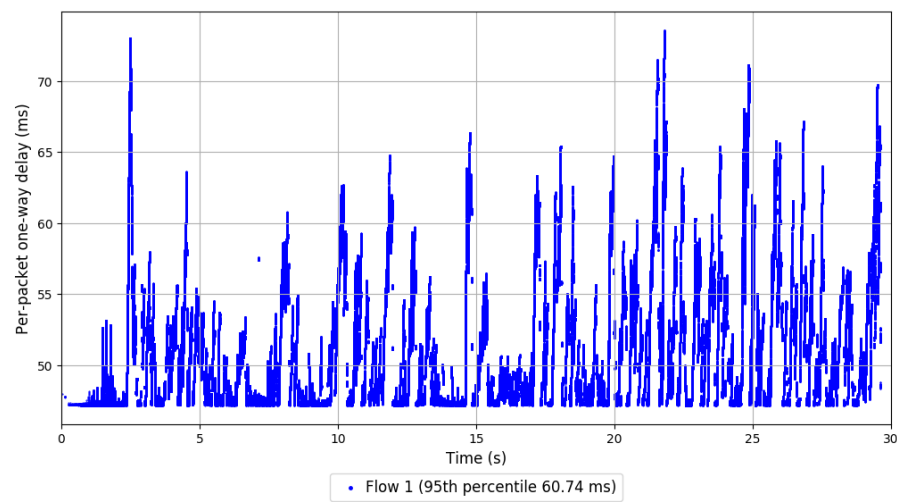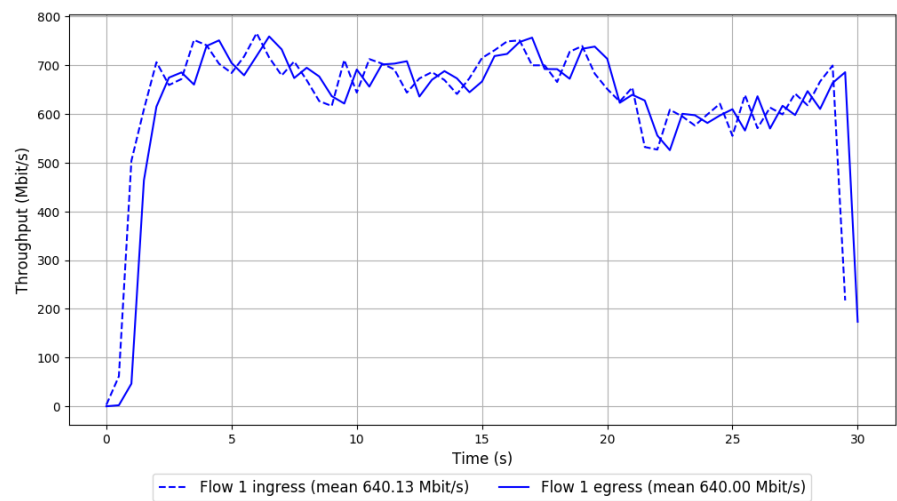# Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 23:45:27
End at: 2019-11-24 23:45:57
Local clock offset: -0.069 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-11-25 02:24:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 640.00 Mbit/s
95th percentile per-packet one-way delay: 60.744 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 640.00 Mbit/s
95th percentile per-packet one-way delay: 60.744 ms
Loss rate: 0.33%
```

Run 5: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 640.13 Mbit/s)   Flow 1 egress (mean 640.00 Mbit/s)

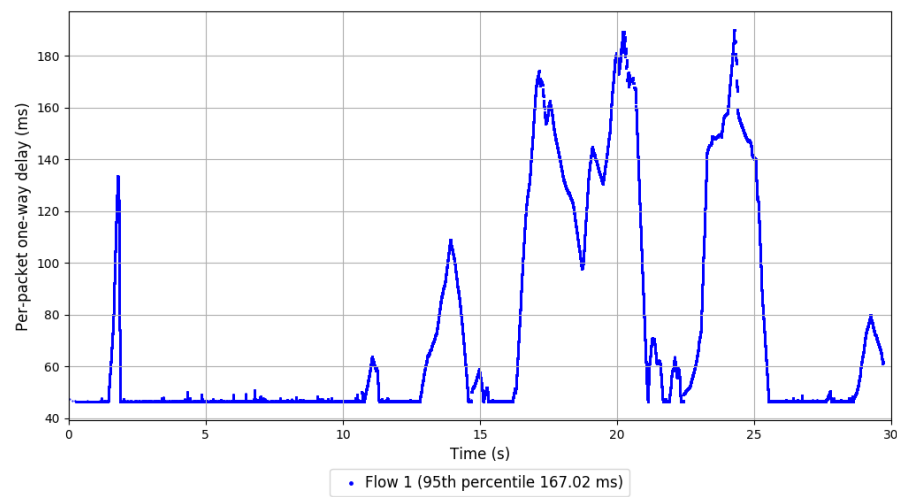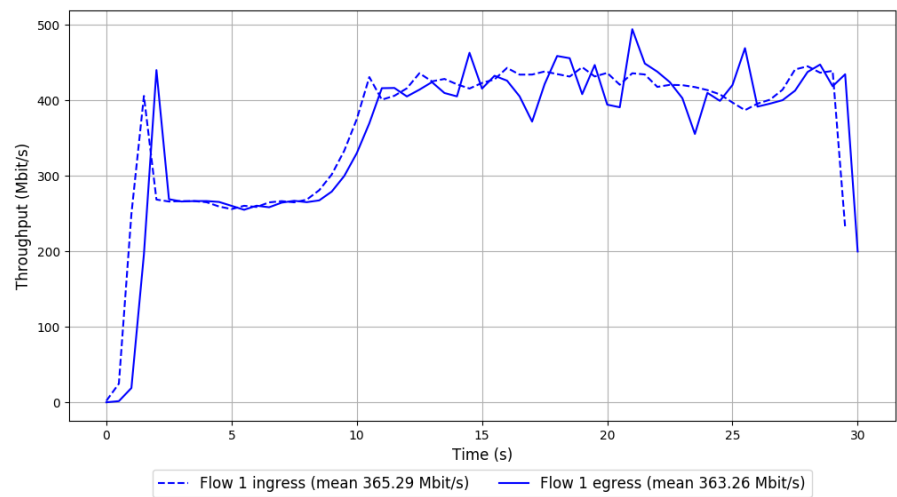Flow 1 (95th percentile 60.74 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-11-24 21:22:23
End at: 2019-11-24 21:22:53
Local clock offset: 0.012 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2019-11-25 02:25:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 363.26 Mbit/s
95th percentile per-packet one-way delay: 167.020 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 363.26 Mbit/s
95th percentile per-packet one-way delay: 167.020 ms
Loss rate: 0.88%
```

Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-11-24 21:56:33
End at: 2019-11-24 21:57:03
Local clock offset: 0.033 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-11-25 02:26:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 381.81 Mbit/s
95th percentile per-packet one-way delay: 169.981 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 381.81 Mbit/s
95th percentile per-packet one-way delay: 169.981 ms
Loss rate: 1.71%
```
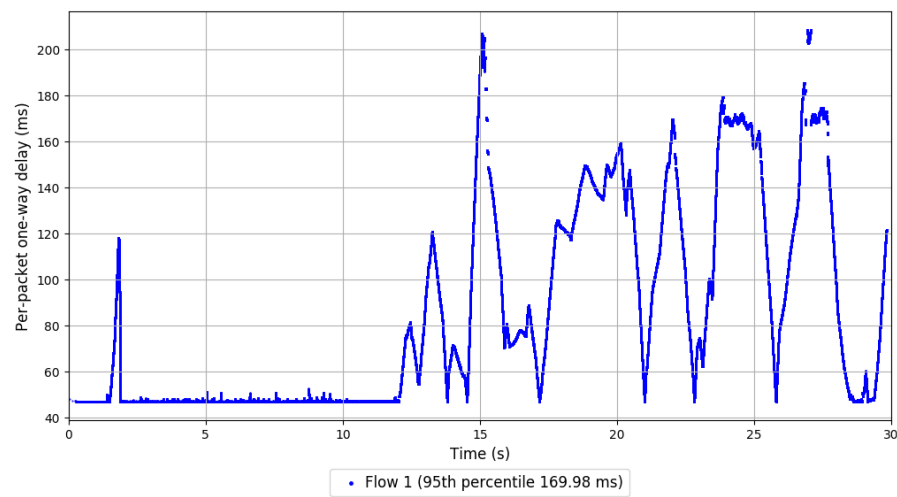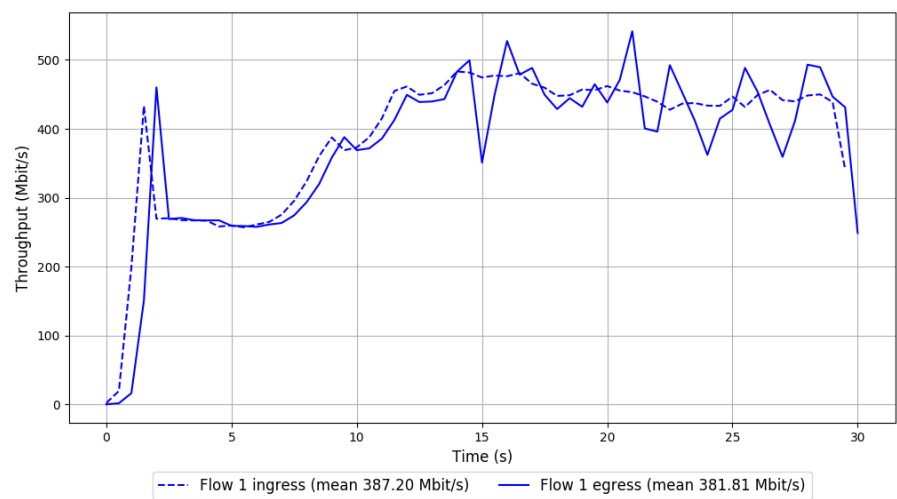
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-11-24 22:31:22
End at: 2019-11-24 22:31:52
Local clock offset: 0.365 ms
Remote clock offset: 0.036 ms


# Below is generated by plot.py at 2019-11-25 02:26:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 363.36 Mbit/s
95th percentile per-packet one-way delay: 184.490 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 363.36 Mbit/s
95th percentile per-packet one-way delay: 184.490 ms
Loss rate: 1.58%
```
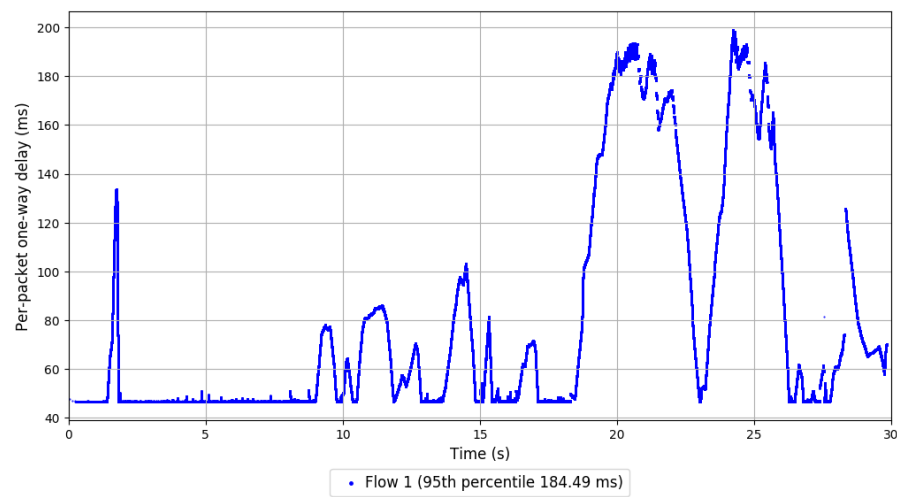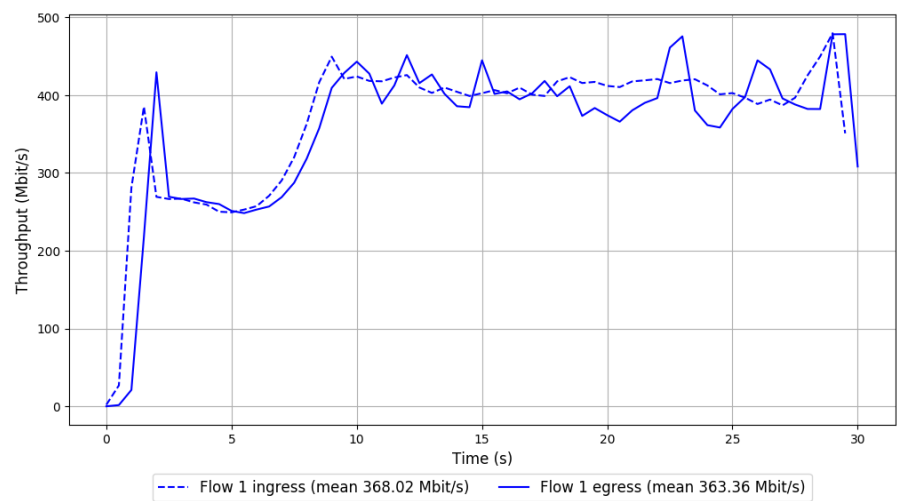
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 368.02 Mbit/s) ——— Flow 1 egress (mean 363.36 Mbit/s)

• Flow 1 (95th percentile 184.49 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-11-24 23:06:01
End at: 2019-11-24 23:06:31
Local clock offset: -0.06 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2019-11-25 02:38:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 439.11 Mbit/s
95th percentile per-packet one-way delay: 181.617 ms
Loss rate: 7.55%
-- Flow 1:
Average throughput: 439.11 Mbit/s
95th percentile per-packet one-way delay: 181.617 ms
Loss rate: 7.55%
```
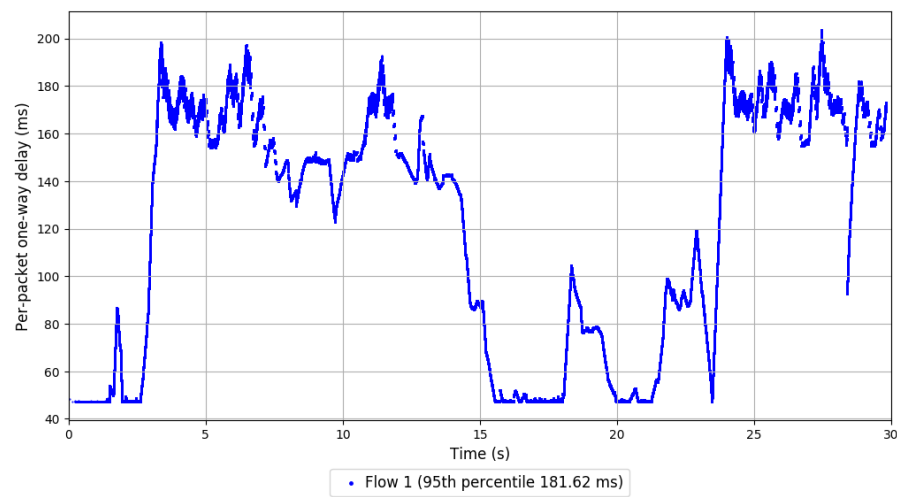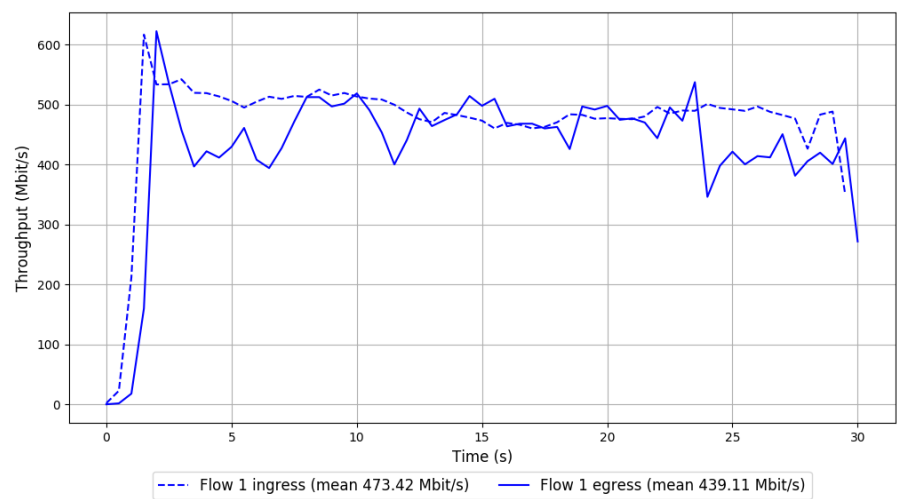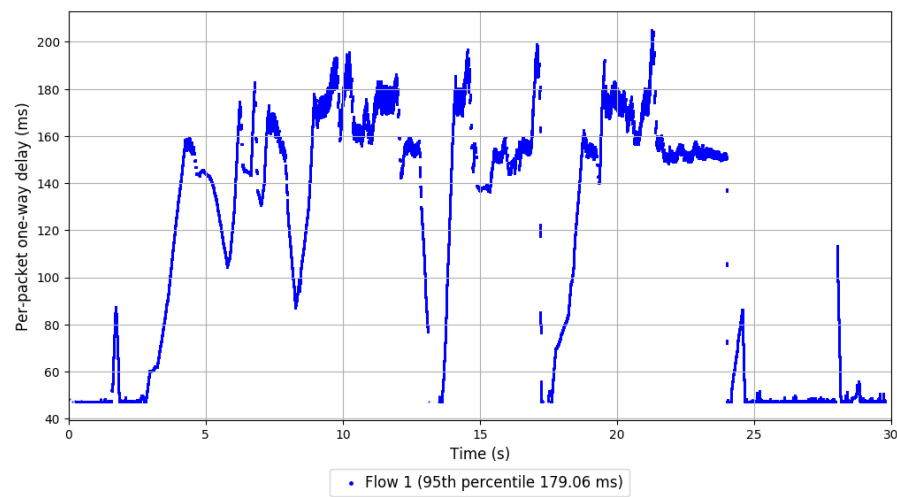
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 473.42 Mbit/s)   Flow 1 egress (mean 439.11 Mbit/s)

• Flow 1 (95th percentile 181.62 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-11-24 23:40:48
End at: 2019-11-24 23:41:18
Local clock offset: -0.046 ms
Remote clock offset: -0.033 ms


# Below is generated by plot.py at 2019-11-25 02:38:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 419.47 Mbit/s
95th percentile per-packet one-way delay: 179.063 ms
Loss rate: 9.45%
-- Flow 1:
Average throughput: 419.47 Mbit/s
95th percentile per-packet one-way delay: 179.063 ms
Loss rate: 9.45%
```
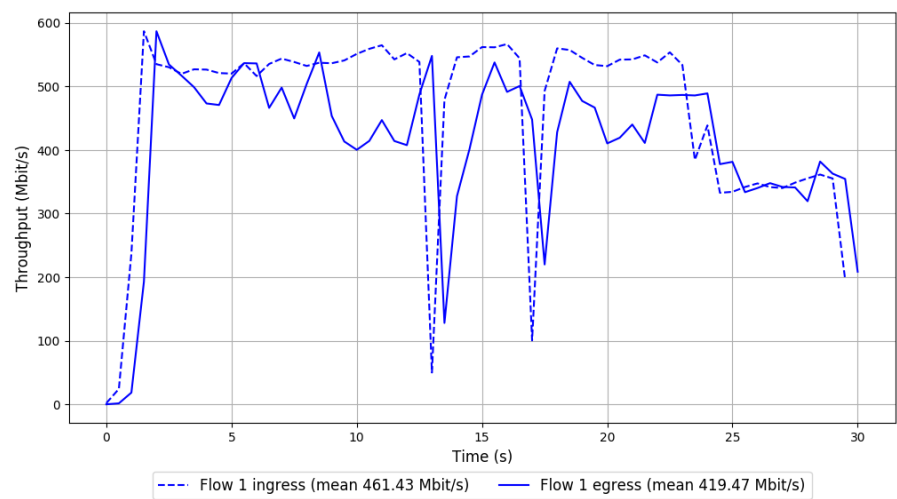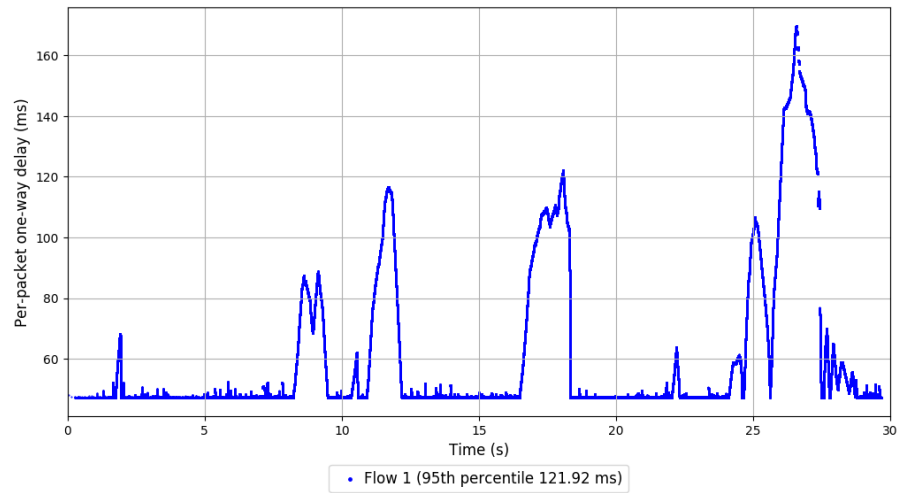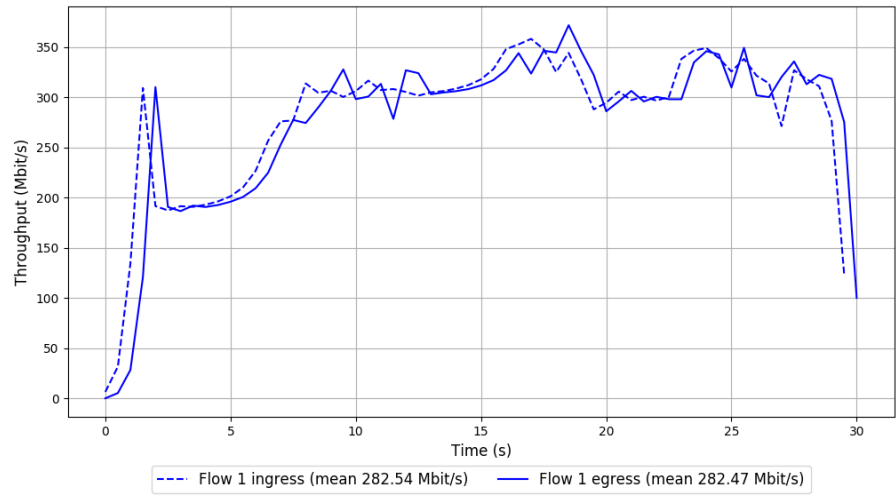
Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-11-24 21:36:25
End at: 2019-11-24 21:36:55
Local clock offset: 0.155 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2019-11-25 02:38:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.47 Mbit/s
95th percentile per-packet one-way delay: 121.917 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 282.47 Mbit/s
95th percentile per-packet one-way delay: 121.917 ms
Loss rate: 0.35%
```

Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 282.54 Mbit/s)   Flow 1 egress (mean 282.47 Mbit/s)
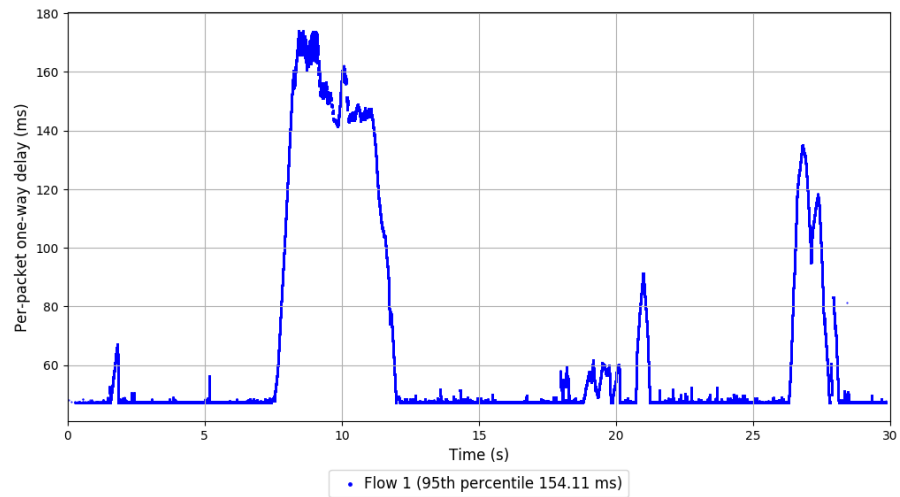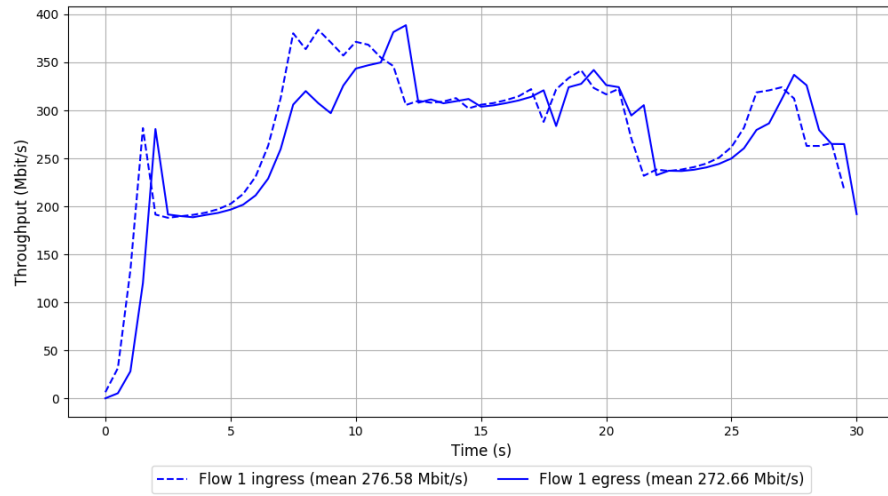

Flow 1 (95th percentile 121.92 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-11-24 22:11:05
End at: 2019-11-24 22:11:35
Local clock offset: -0.003 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-11-25 02:38:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.66 Mbit/s
95th percentile per-packet one-way delay: 154.110 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 272.66 Mbit/s
95th percentile per-packet one-way delay: 154.110 ms
Loss rate: 1.73%
```
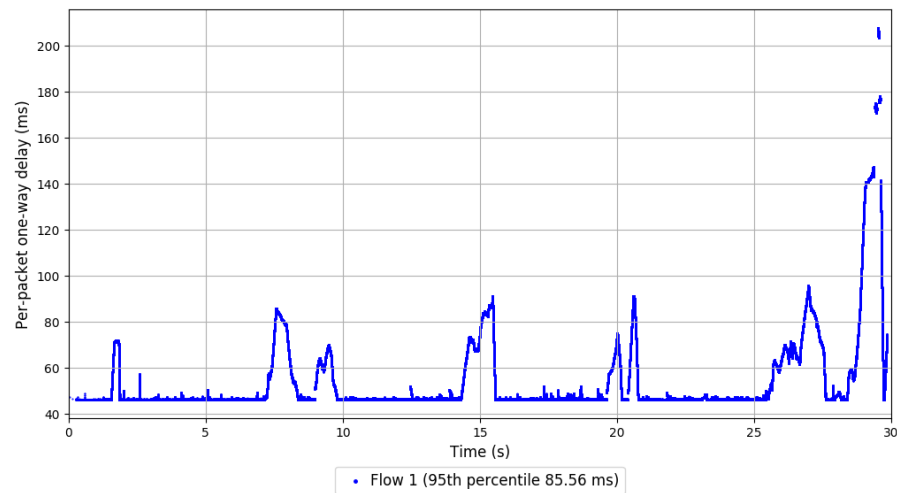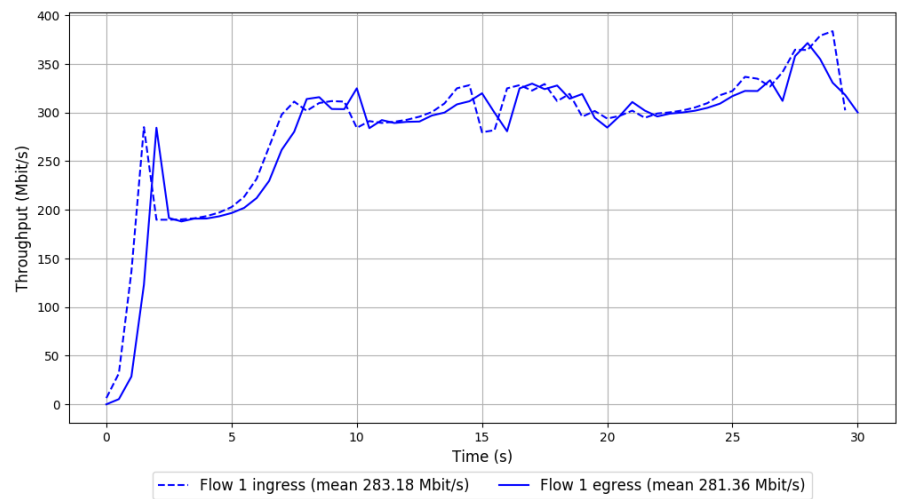
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 276.58 Mbit/s)　　Flow 1 egress (mean 272.66 Mbit/s)

Flow 1 (95th percentile 154.11 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-11-24 22:45:38
End at: 2019-11-24 22:46:08
Local clock offset: -0.025 ms
Remote clock offset: 0.029 ms


# Below is generated by plot.py at 2019-11-25 02:38:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 281.36 Mbit/s
95th percentile per-packet one-way delay: 85.564 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 281.36 Mbit/s
95th percentile per-packet one-way delay: 85.564 ms
Loss rate: 0.96%
```
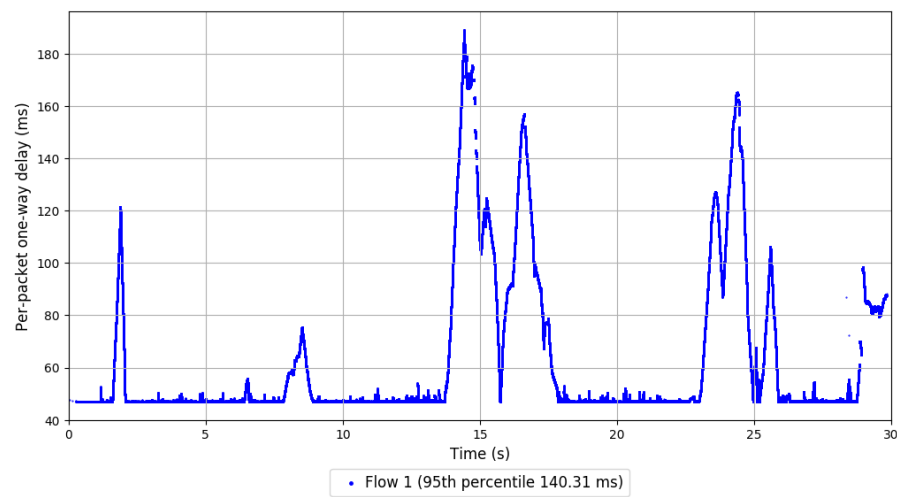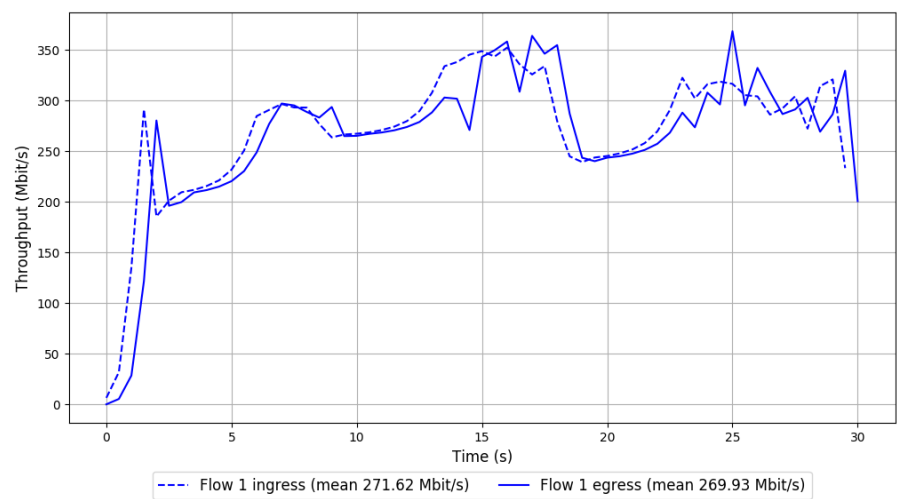
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-11-24 23:20:21
End at: 2019-11-24 23:20:51
Local clock offset: -0.086 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2019-11-25 02:38:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 269.93 Mbit/s
95th percentile per-packet one-way delay: 140.314 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 269.93 Mbit/s
95th percentile per-packet one-way delay: 140.314 ms
Loss rate: 0.94%
```

Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 271.62 Mbit/s) — Flow 1 egress (mean 269.93 Mbit/s)
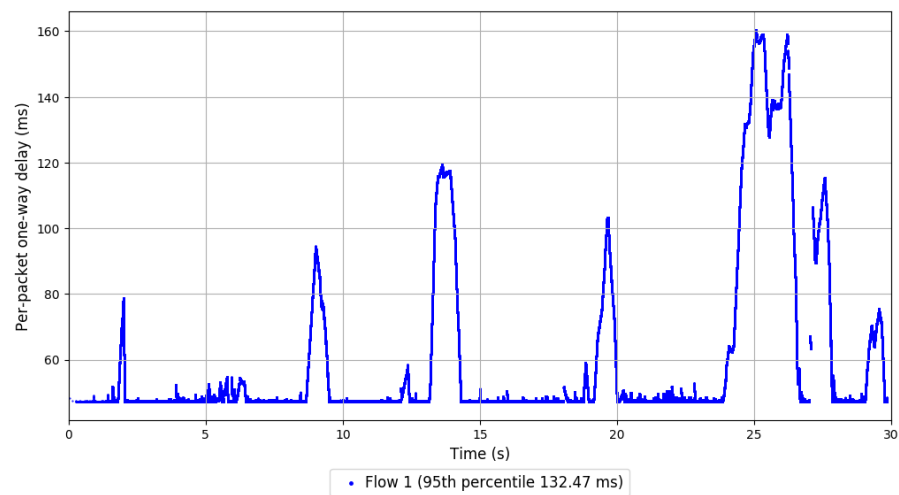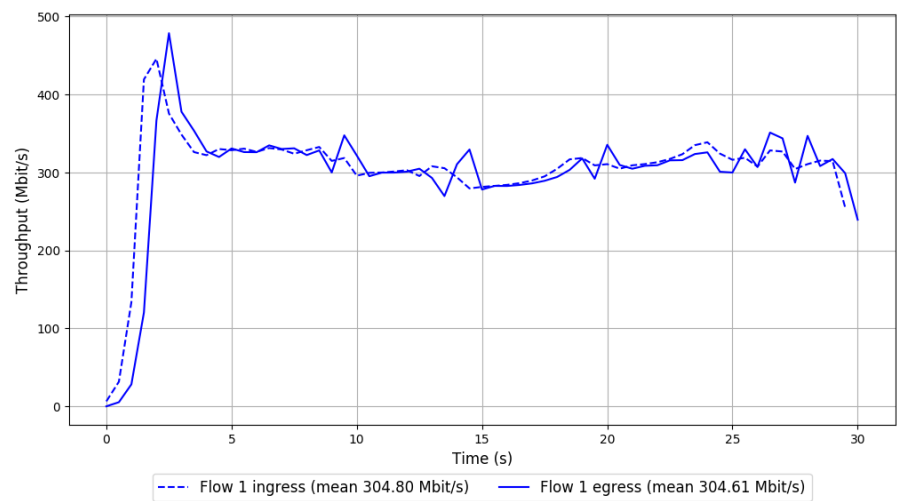

Flow 1 (95th percentile 140.31 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-11-24 23:55:08
End at: 2019-11-24 23:55:38
Local clock offset: -0.08 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 304.61 Mbit/s
95th percentile per-packet one-way delay: 132.469 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 304.61 Mbit/s
95th percentile per-packet one-way delay: 132.469 ms
Loss rate: 0.39%
```

Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 304.80 Mbit/s)   Flow 1 egress (mean 304.61 Mbit/s)

• Flow 1 (95th percentile 132.47 ms)
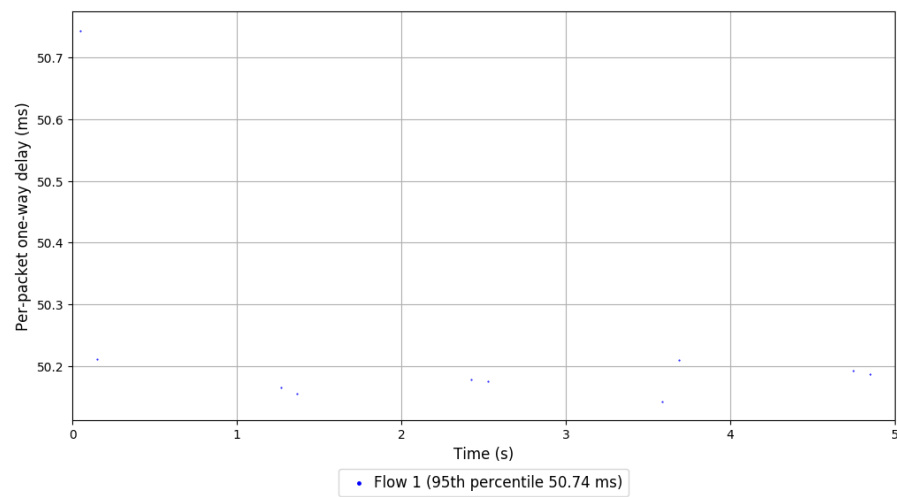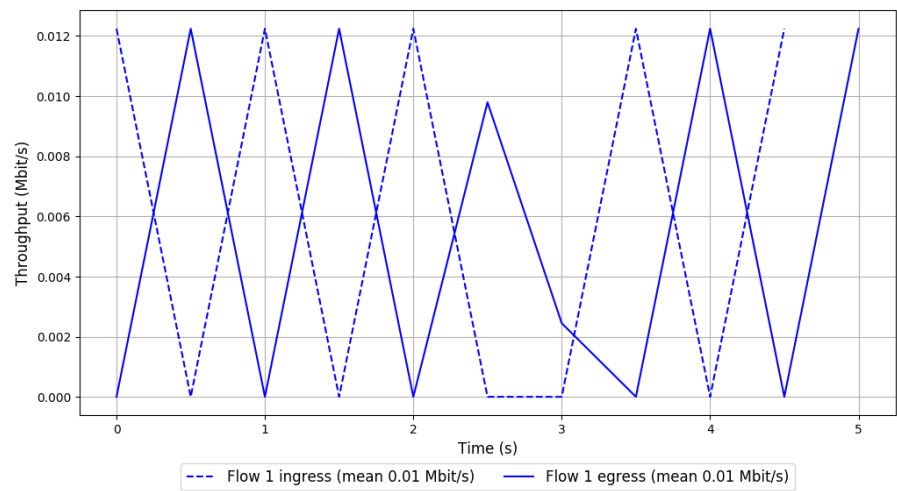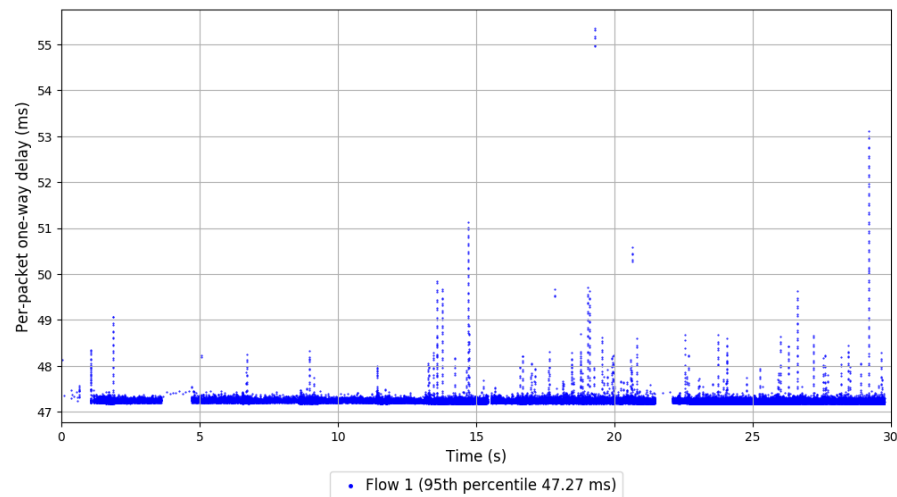
Run 1: Statistics of QUIC Cubic

Start at: 2019-11-24 21:31:03
End at: 2019-11-24 21:31:33
Local clock offset: 0.047 ms
Remote clock offset: -0.042 ms

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-11-24 22:05:34
End at: 2019-11-24 22:06:04
Local clock offset: 0.081 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.74 Mbit/s
95th percentile per-packet one-way delay: 47.274 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 67.74 Mbit/s
95th percentile per-packet one-way delay: 47.274 ms
Loss rate: 0.55%
```
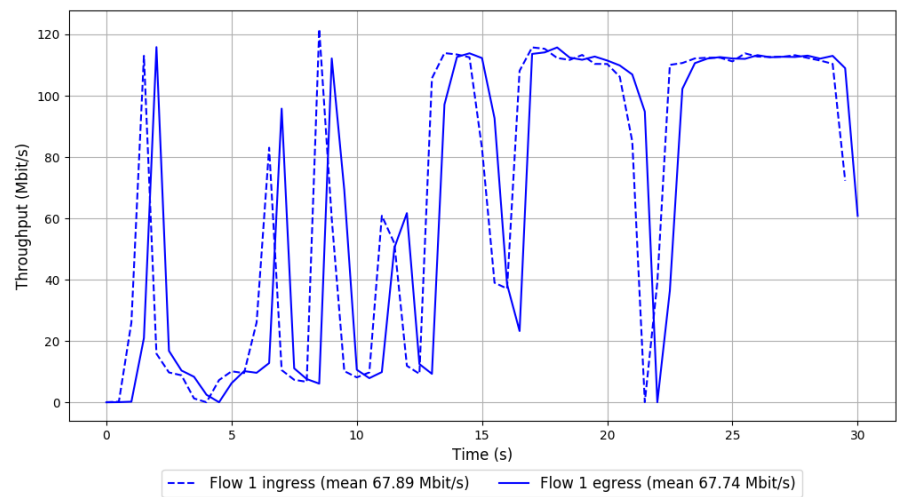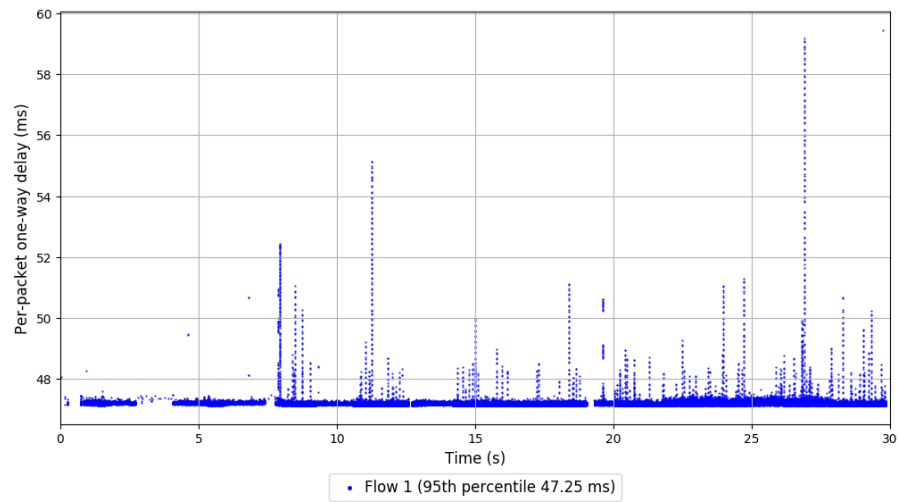
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-11-24 22:40:22
End at: 2019-11-24 22:40:52
Local clock offset: -0.001 ms
Remote clock offset: 0.041 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.90 Mbit/s
95th percentile per-packet one-way delay: 47.249 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 76.90 Mbit/s
95th percentile per-packet one-way delay: 47.249 ms
Loss rate: 0.49%
```
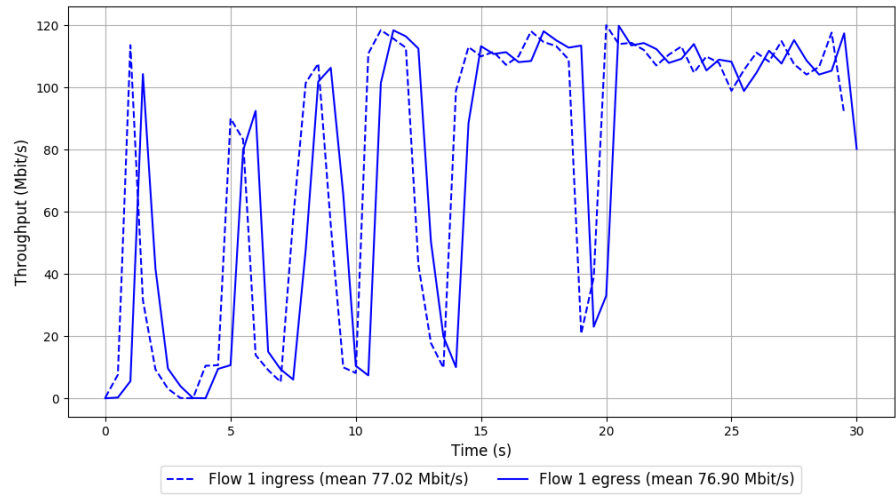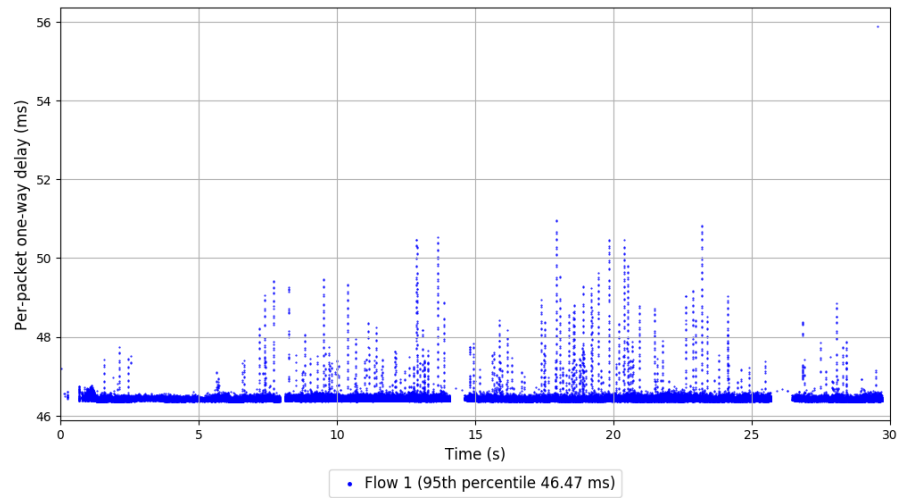
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 77.02 Mbit/s)   Flow 1 egress (mean 76.90 Mbit/s)

Flow 1 (95th percentile 47.25 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-11-24 23:15:05
End at: 2019-11-24 23:15:35
Local clock offset: -0.08 ms
Remote clock offset: -0.124 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.13 Mbit/s
95th percentile per-packet one-way delay: 46.474 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 89.13 Mbit/s
95th percentile per-packet one-way delay: 46.474 ms
Loss rate: 0.37%
```
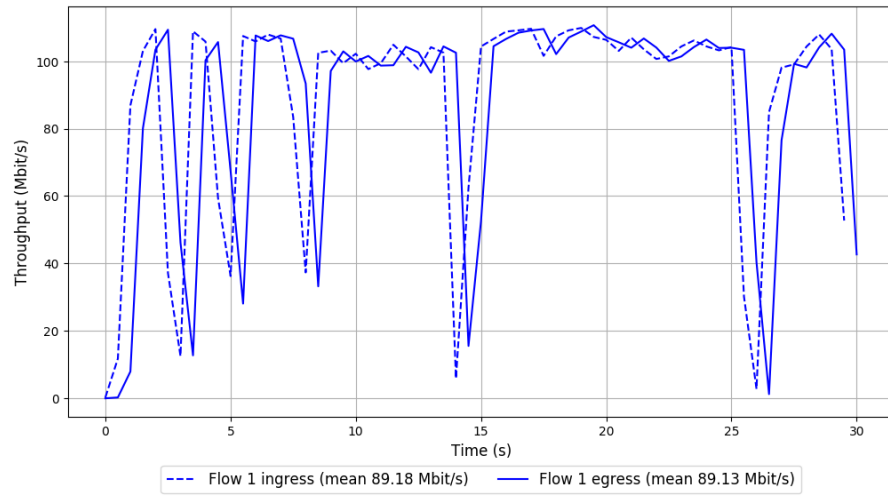
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-11-24 23:49:54
End at: 2019-11-24 23:50:24
Local clock offset: -0.067 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.77 Mbit/s
95th percentile per-packet one-way delay: 47.124 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 78.77 Mbit/s
95th percentile per-packet one-way delay: 47.124 ms
Loss rate: 0.45%
```
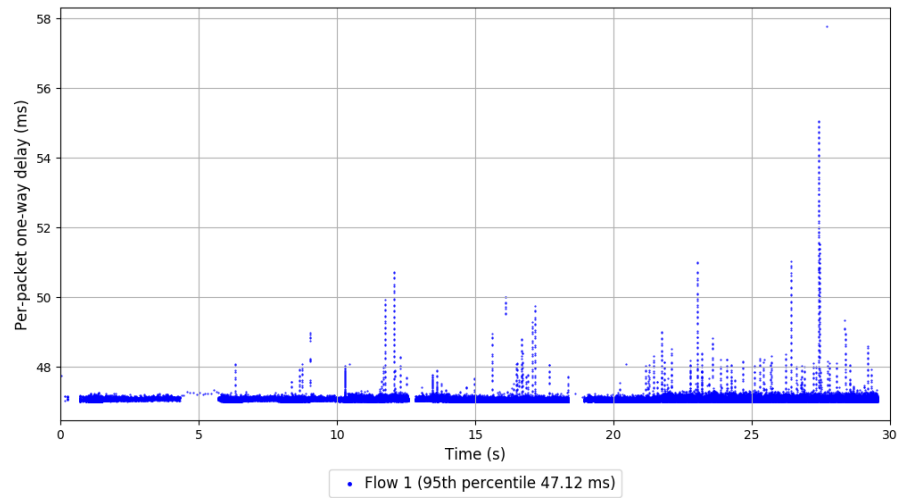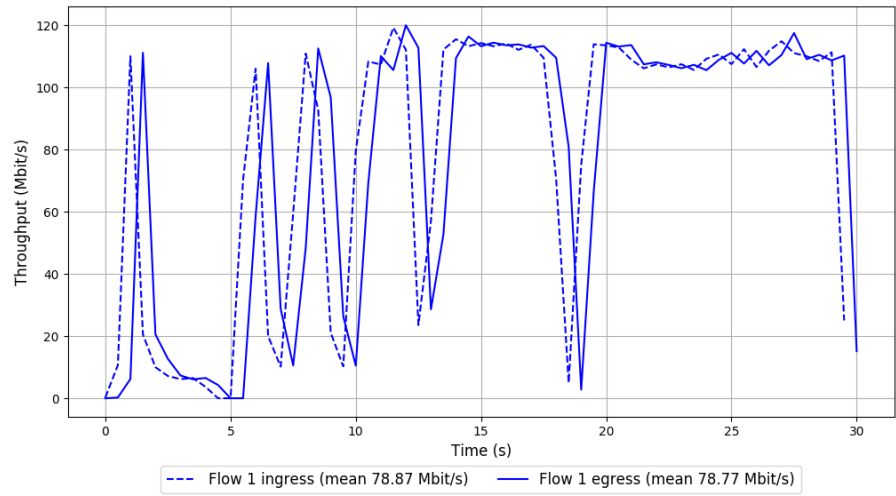
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 78.87 Mbit/s) --- Flow 1 egress (mean 78.77 Mbit/s)
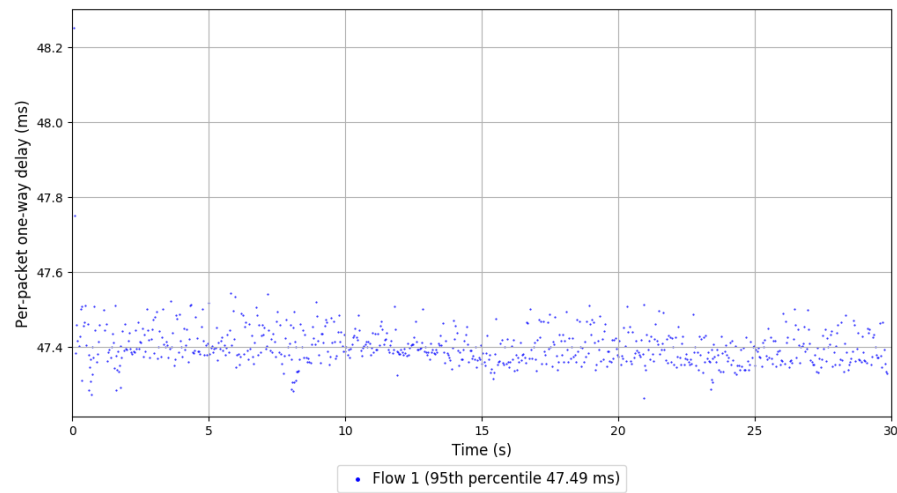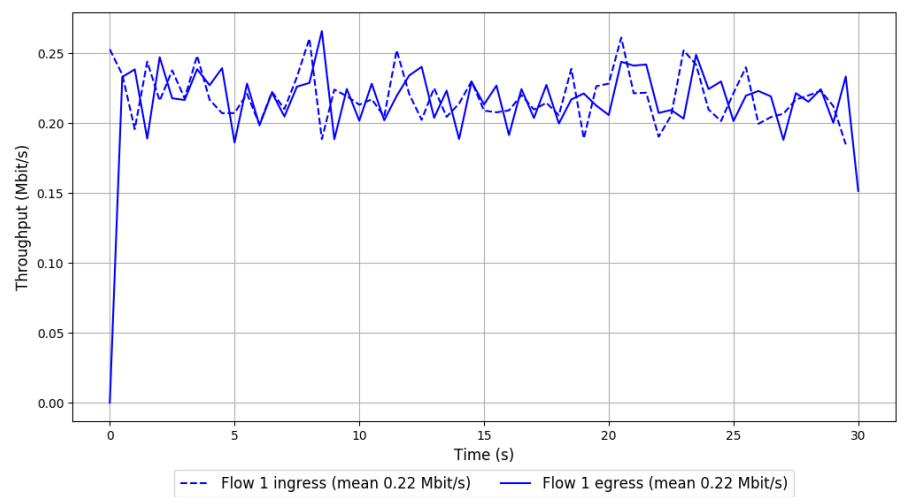

Flow 1 (95th percentile 47.12 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-11-24 21:48:35
End at: 2019-11-24 21:49:05
Local clock offset: 0.053 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.488 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.488 ms
Loss rate: 0.38%
```
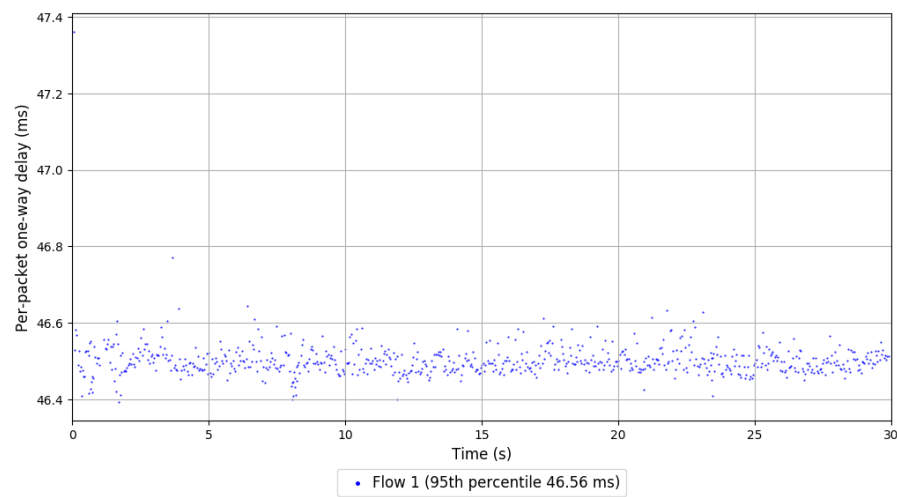
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-11-24 22:23:26
End at: 2019-11-24 22:23:56
Local clock offset: -0.023 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.565 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.565 ms
Loss rate: 0.39%
```
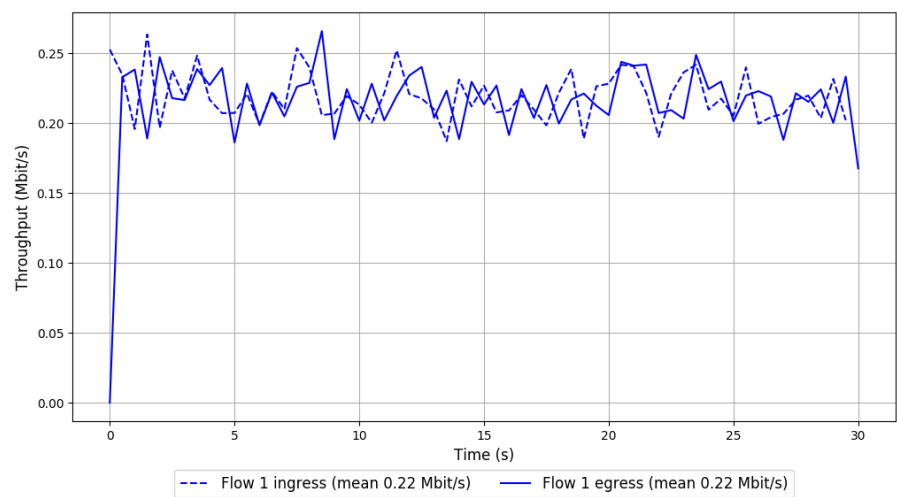
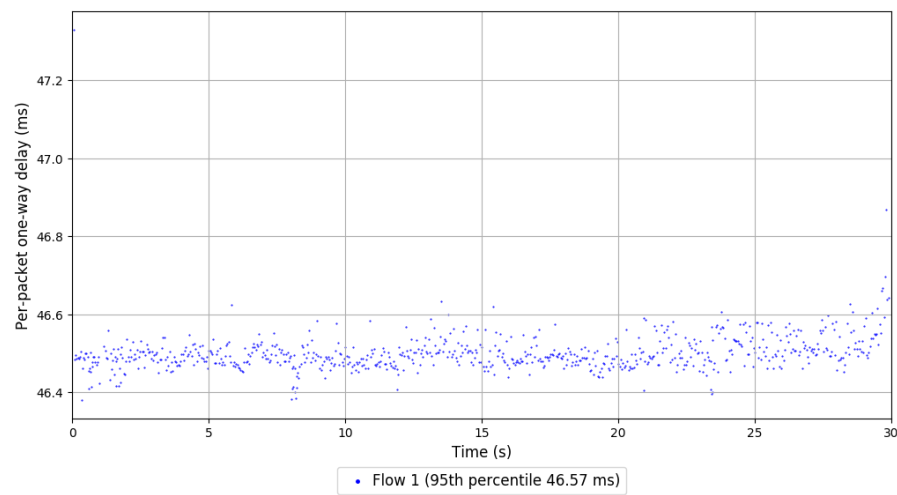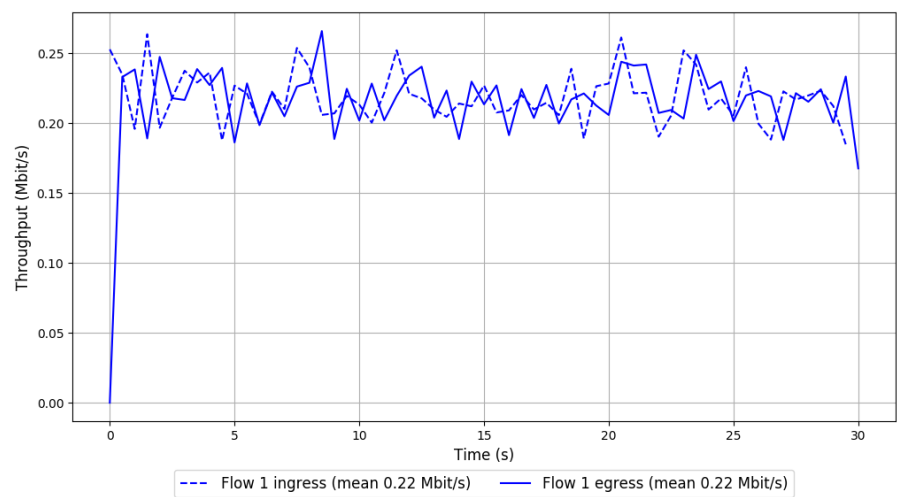# Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-11-24 22:57:52
End at: 2019-11-24 22:58:22
Local clock offset: -0.086 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.574 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.574 ms
Loss rate: 0.26%
```

Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-11-24 23:32:38
End at: 2019-11-24 23:33:08
Local clock offset: -0.053 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.263 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.263 ms
Loss rate: 0.38%
```
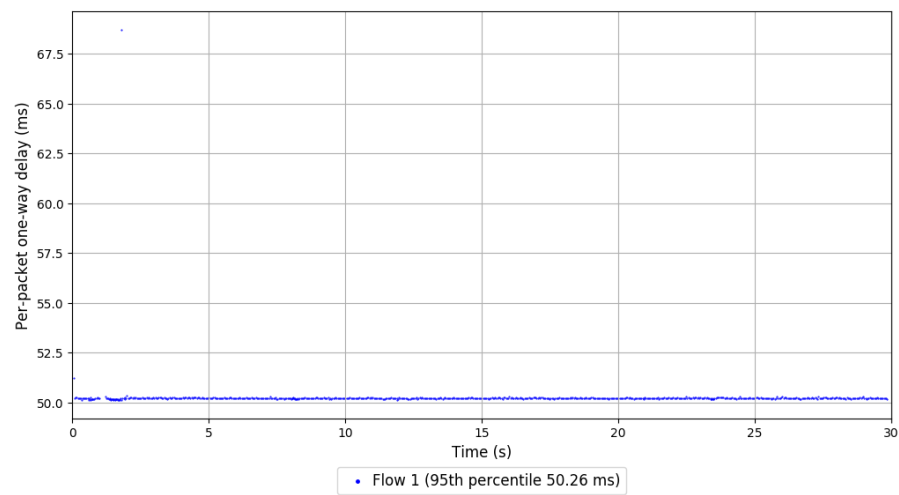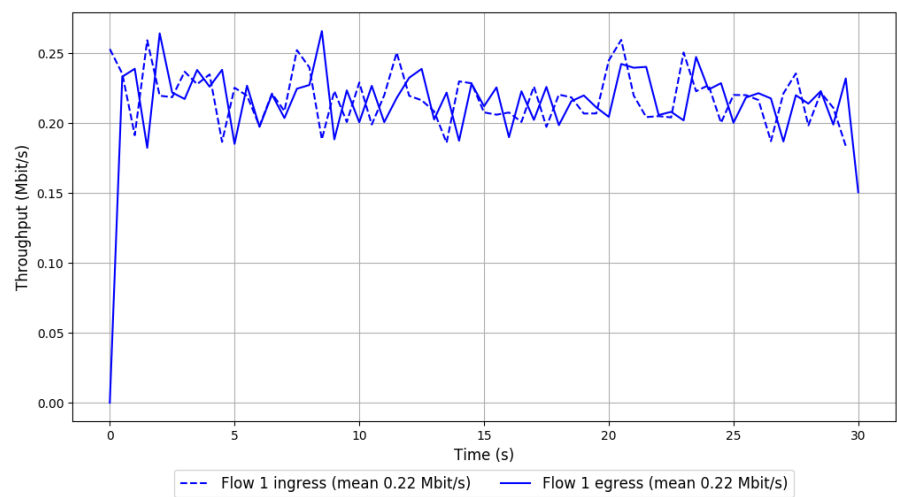
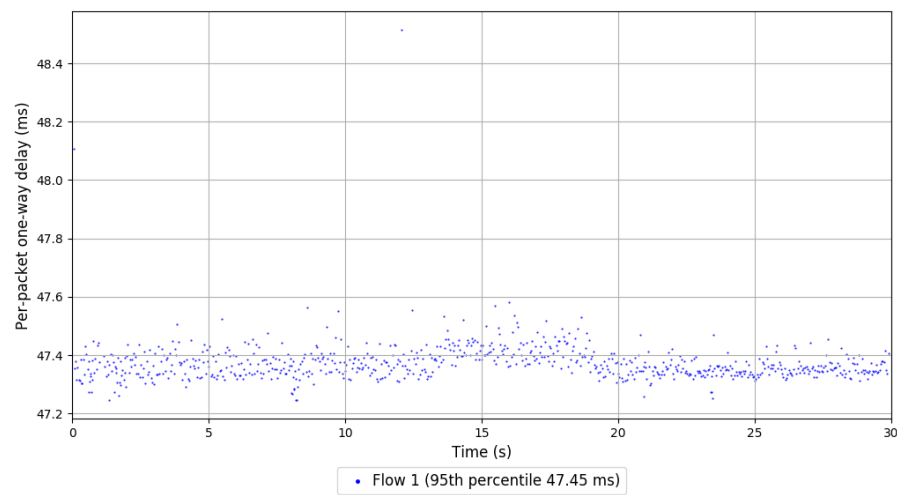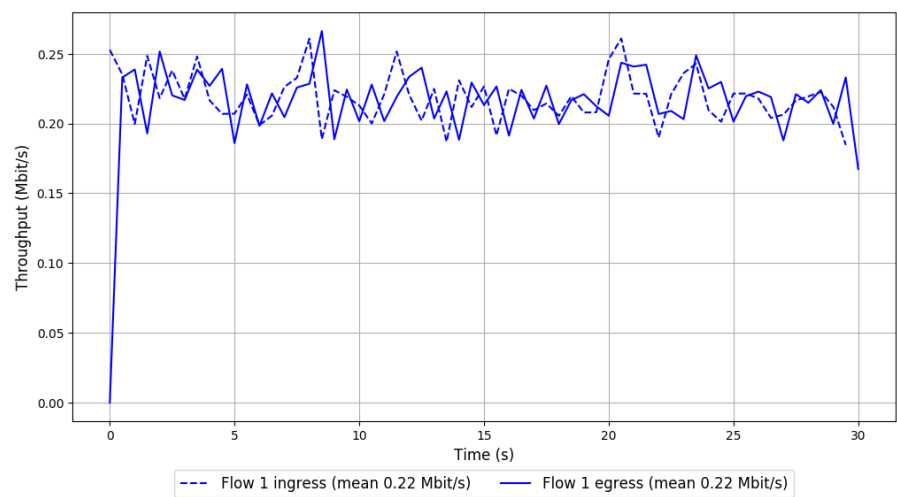# Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-11-25 00:07:34
End at: 2019-11-25 00:08:04
Local clock offset: -0.144 ms
Remote clock offset: -0.029 ms


# Below is generated by plot.py at 2019-11-25 02:39:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.455 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.455 ms
Loss rate: 0.26%
```

Run 5: Report of SCReAM — Data Link

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

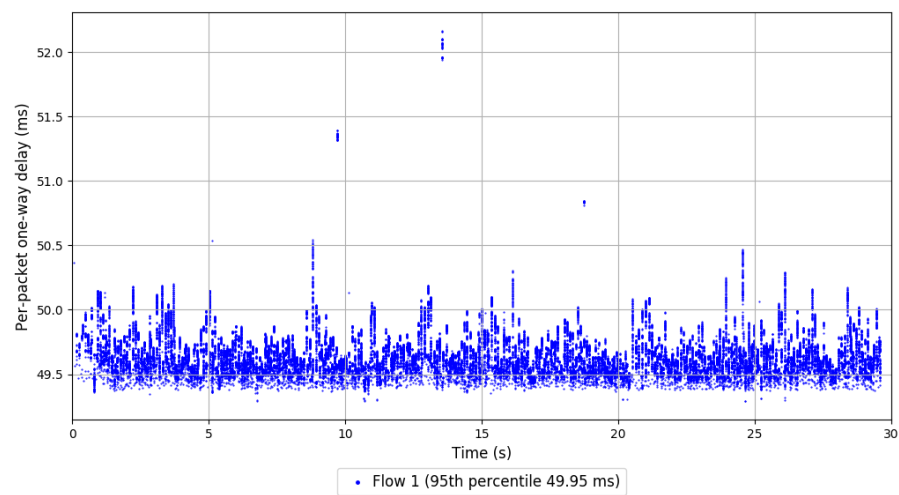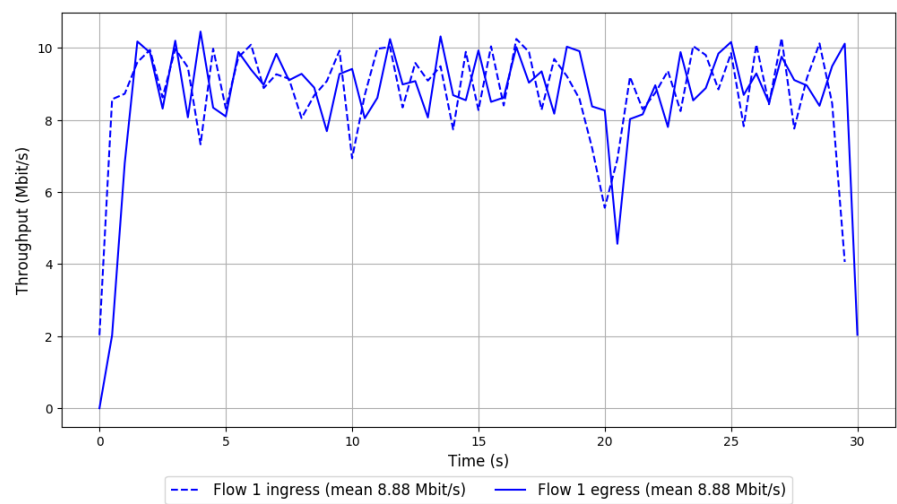Flow 1 (95th percentile 47.45 ms)

```
Run 1: Statistics of Sprout

Start at: 2019-11-24 21:51:03
End at: 2019-11-24 21:51:33
Local clock offset: 0.014 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2019-11-25 02:39:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.88 Mbit/s
95th percentile per-packet one-way delay: 49.947 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 8.88 Mbit/s
95th percentile per-packet one-way delay: 49.947 ms
Loss rate: 0.38%
```

Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-11-24 22:25:54
End at: 2019-11-24 22:26:24
Local clock offset: 0.017 ms
Remote clock offset: 0.035 ms


# Below is generated by plot.py at 2019-11-25 02:39:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 47.838 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 47.838 ms
Loss rate: 0.35%
```
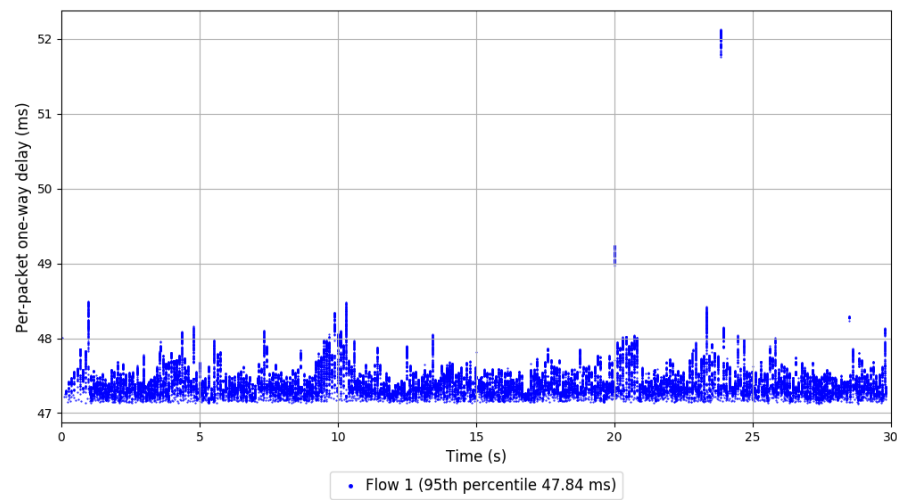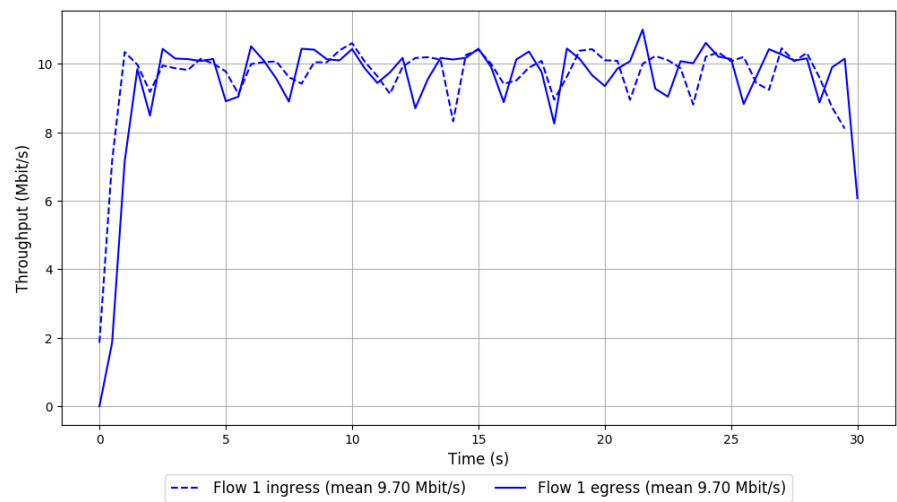
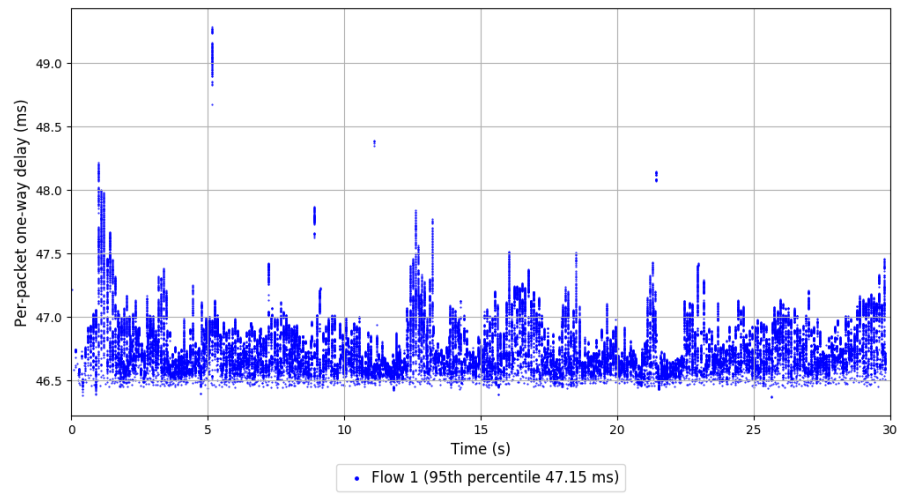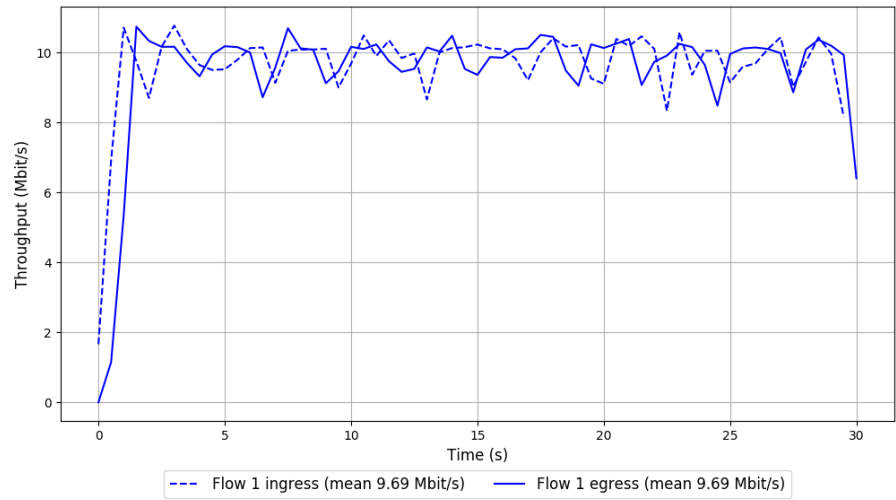Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-11-24 23:00:33
End at: 2019-11-24 23:01:03
Local clock offset: -0.077 ms
Remote clock offset: -0.102 ms


# Below is generated by plot.py at 2019-11-25 02:39:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 47.147 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 47.147 ms
Loss rate: 0.35%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 9.69 Mbit/s) --- Flow 1 egress (mean 9.69 Mbit/s)

Flow 1 (95th percentile 47.15 ms)

```
Run 4: Statistics of Sprout

Start at: 2019-11-24 23:35:19
End at: 2019-11-24 23:35:49
Local clock offset: -0.071 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2019-11-25 02:39:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 46.911 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 46.911 ms
Loss rate: 0.35%
```
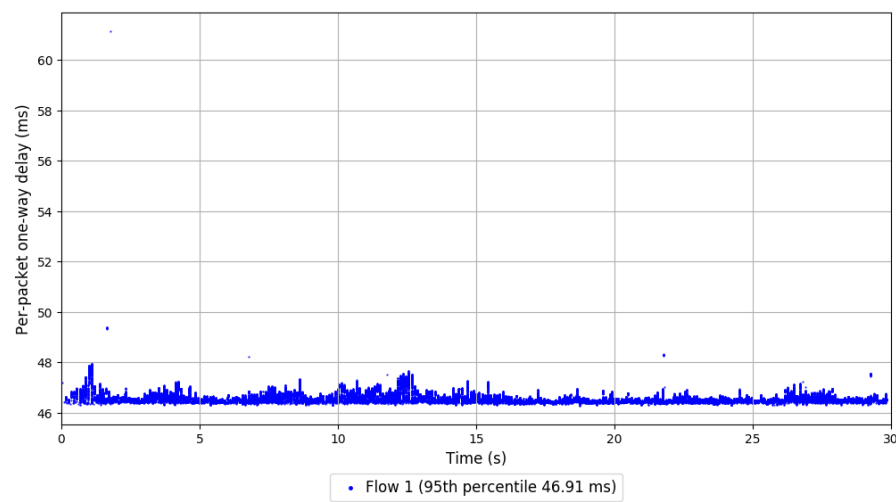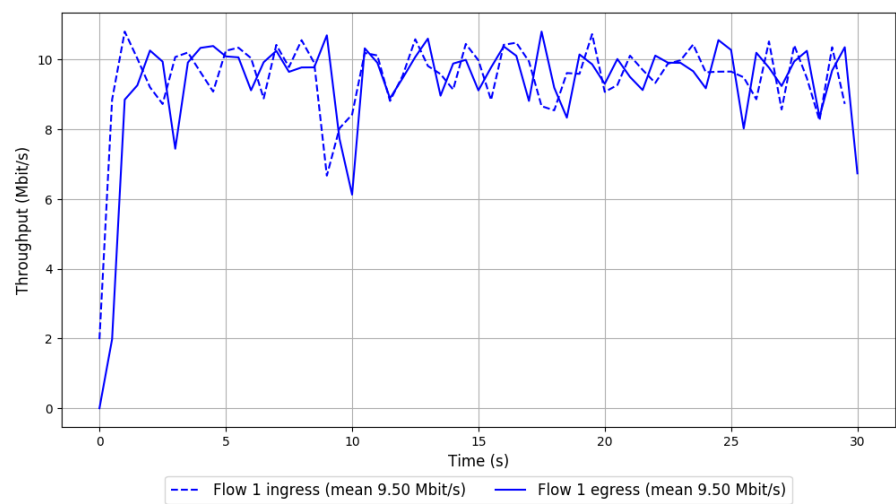
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-11-25 00:10:03
End at: 2019-11-25 00:10:33
Local clock offset: -0.159 ms
Remote clock offset: 0.007 ms


# Below is generated by plot.py at 2019-11-25 02:39:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 46.949 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 46.949 ms
Loss rate: 0.38%
```
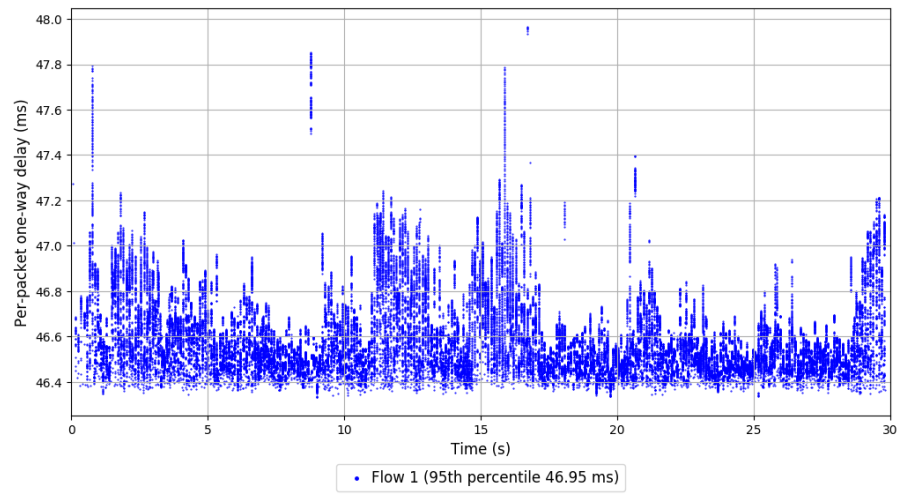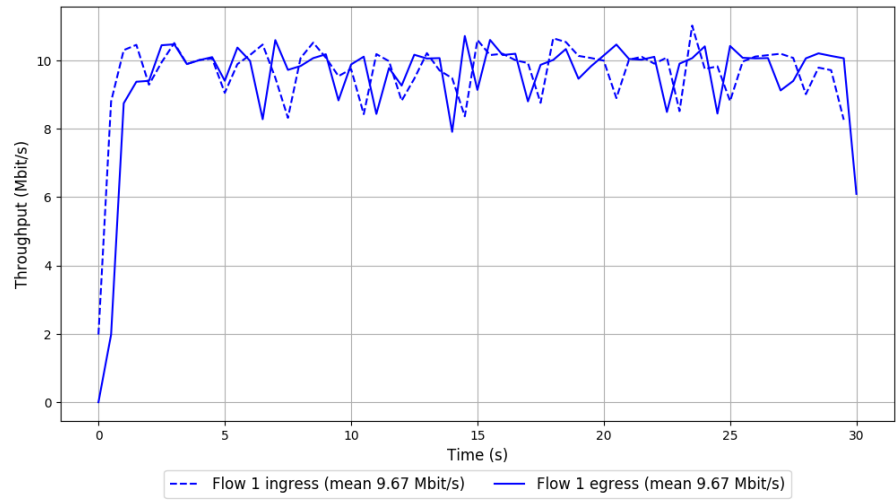
Run 5: Report of Sprout — Data Link

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

Start at: 2019-11-24 21:37:57
End at: 2019-11-24 21:38:27
Local clock offset: 0.015 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-11-25 02:45:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 253.60 Mbit/s
95th percentile per-packet one-way delay: 47.384 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 253.60 Mbit/s
95th percentile per-packet one-way delay: 47.384 ms
Loss rate: 0.34%
```
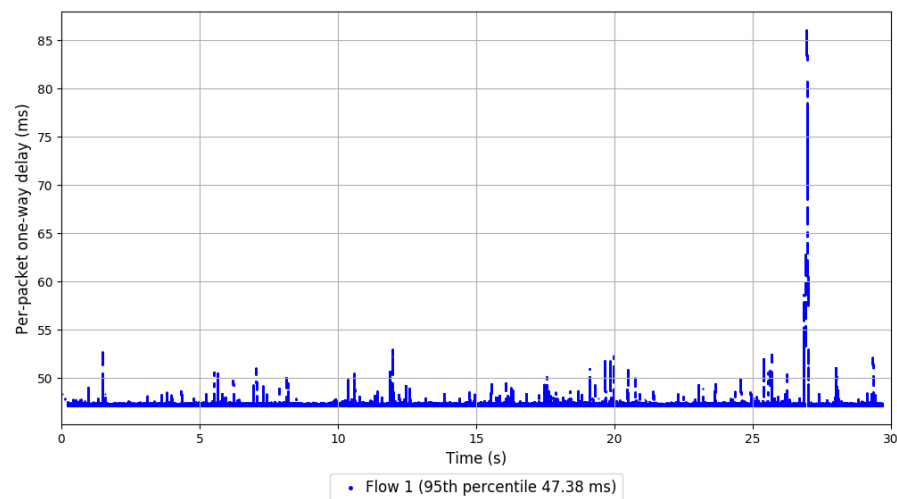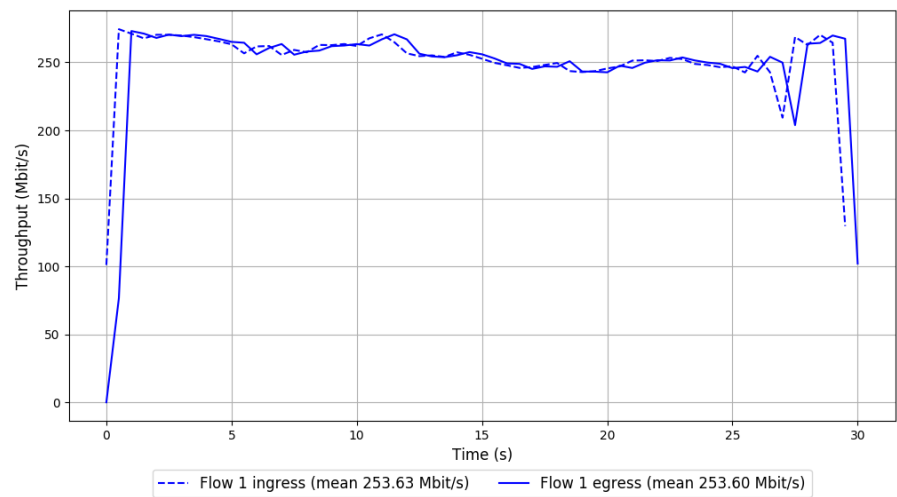
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 253.63 Mbit/s)   Flow 1 egress (mean 253.60 Mbit/s)
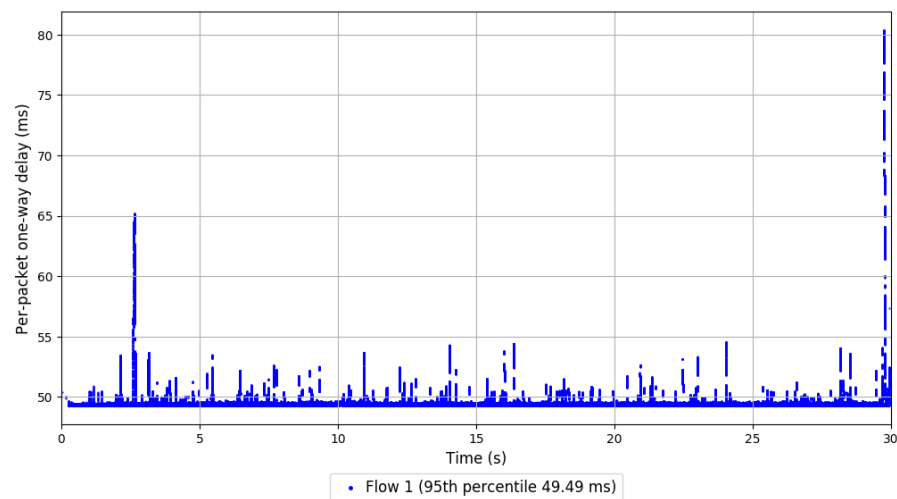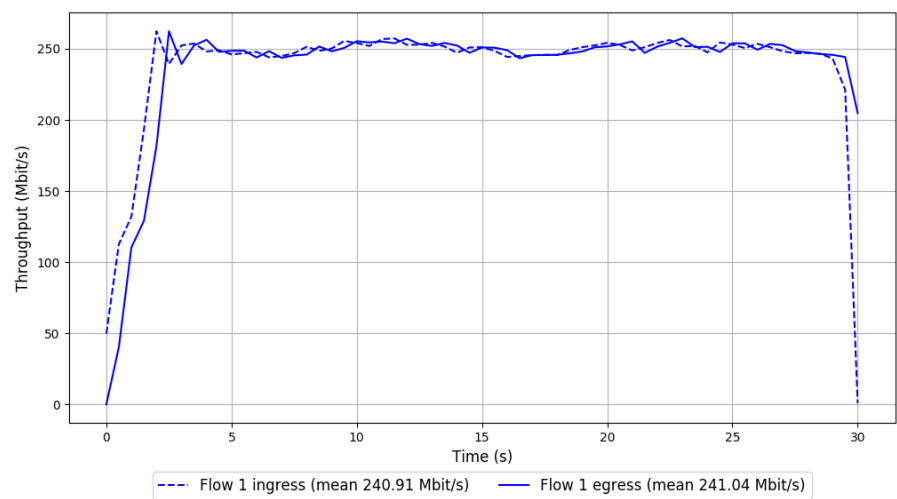

Flow 1 (95th percentile 47.38 ms)

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

Start at: 2019-11-24 22:12:36
End at: 2019-11-24 22:13:07
Local clock offset: -0.034 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2019-11-25 02:45:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 241.04 Mbit/s
95th percentile per-packet one-way delay: 49.495 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 241.04 Mbit/s
95th percentile per-packet one-way delay: 49.495 ms
Loss rate: 0.29%
```

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

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

Start at: 2019-11-24 22:47:10
End at: 2019-11-24 22:47:40
Local clock offset: -0.043 ms
Remote clock offset: 0.034 ms


# Below is generated by plot.py at 2019-11-25 02:46:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.51 Mbit/s
95th percentile per-packet one-way delay: 50.281 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 248.51 Mbit/s
95th percentile per-packet one-way delay: 50.281 ms
Loss rate: 0.32%
```
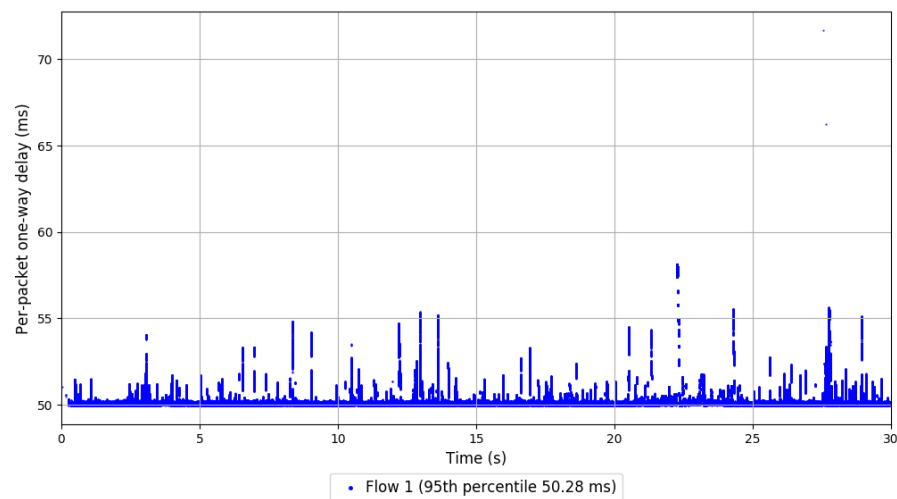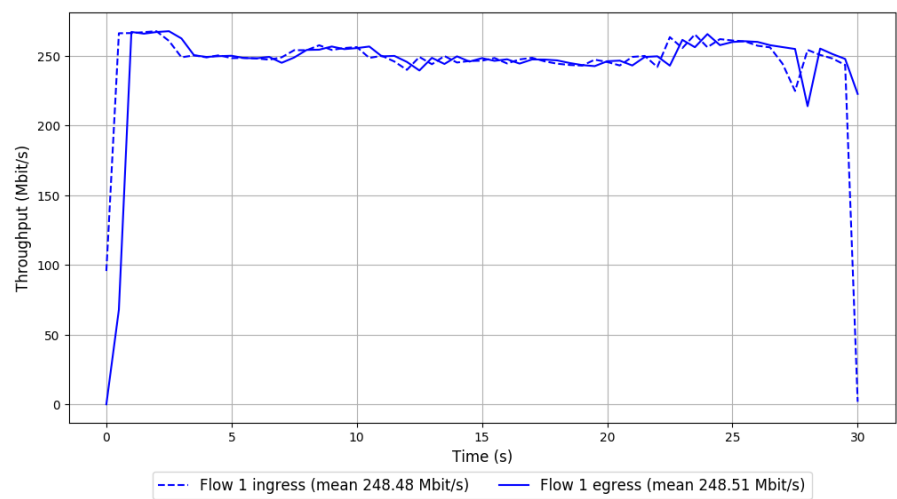
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 248.48 Mbit/s)   Flow 1 egress (mean 248.51 Mbit/s)

Flow 1 (95th percentile 50.28 ms)

200

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

Start at: 2019-11-24 23:21:52
End at: 2019-11-24 23:22:22
Local clock offset: -0.056 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2019-11-25 02:47:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 257.13 Mbit/s
95th percentile per-packet one-way delay: 47.669 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 257.13 Mbit/s
95th percentile per-packet one-way delay: 47.669 ms
Loss rate: 0.31%
```
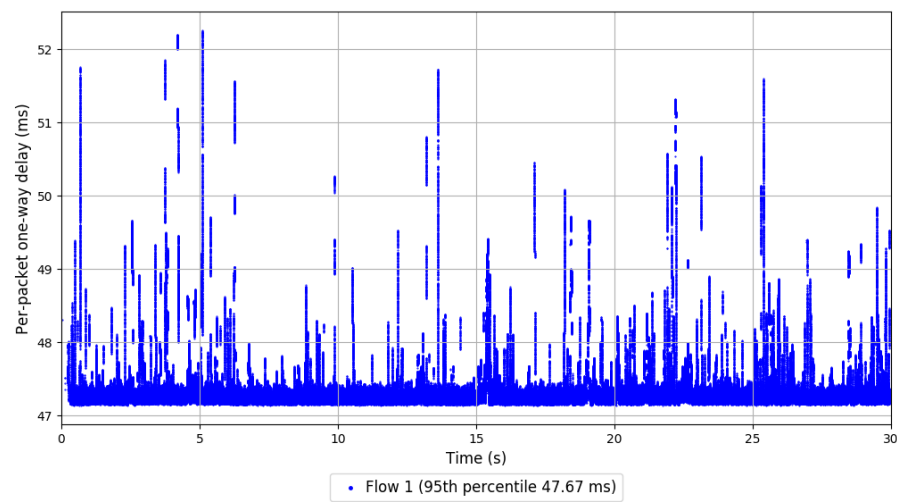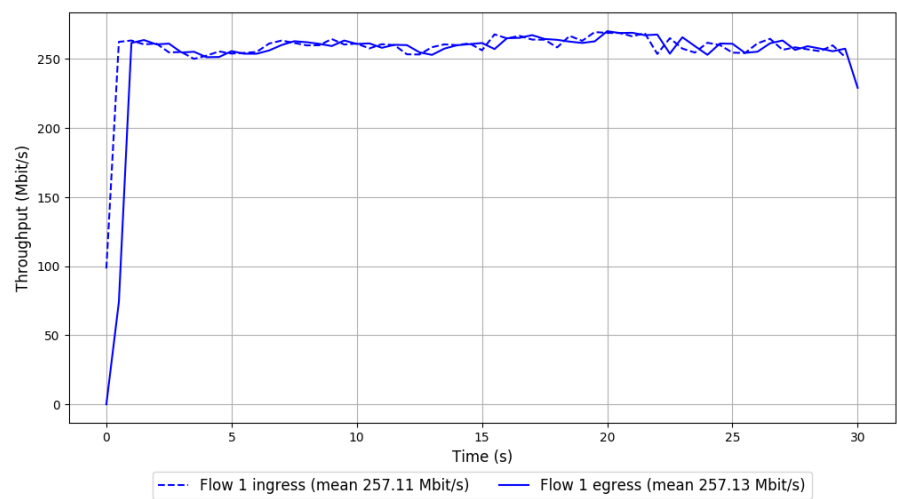
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 257.11 Mbit/s)   Flow 1 egress (mean 257.13 Mbit/s)
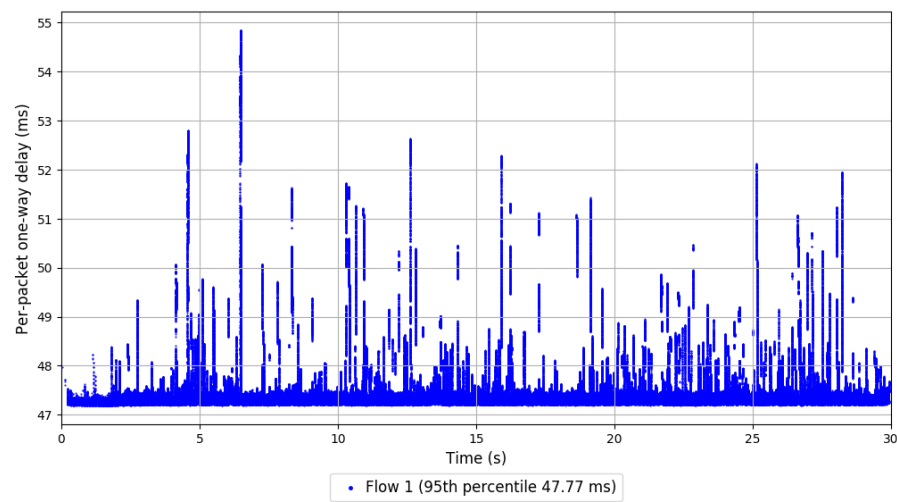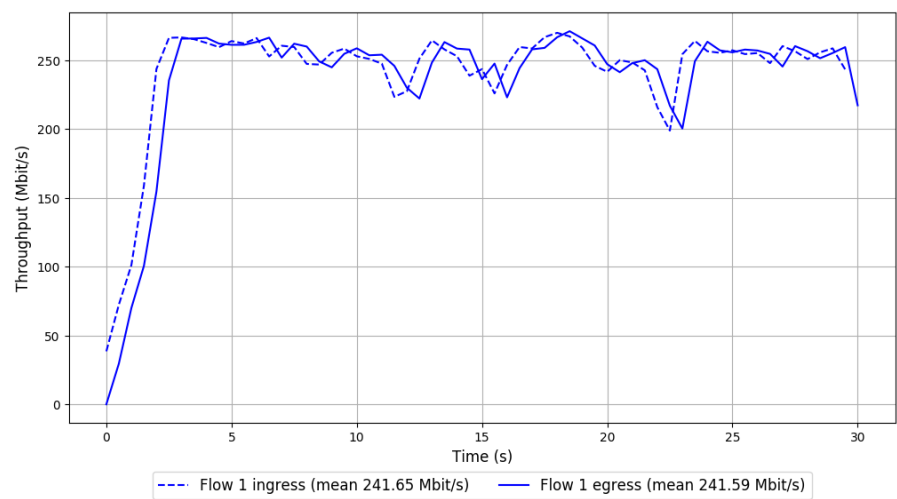

• Flow 1 (95th percentile 47.67 ms)

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

Start at: 2019-11-24 23:56:41
End at: 2019-11-24 23:57:11
Local clock offset: -0.059 ms
Remote clock offset: -0.024 ms


# Below is generated by plot.py at 2019-11-25 02:47:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 241.59 Mbit/s
95th percentile per-packet one-way delay: 47.772 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 241.59 Mbit/s
95th percentile per-packet one-way delay: 47.772 ms
Loss rate: 0.34%
```

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

Flow 1 ingress (mean 241.65 Mbit/s)   Flow 1 egress (mean 241.59 Mbit/s)
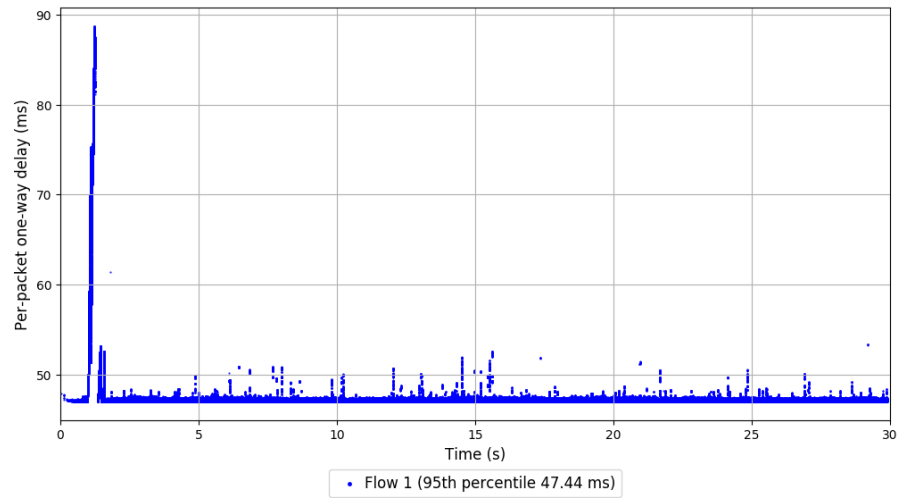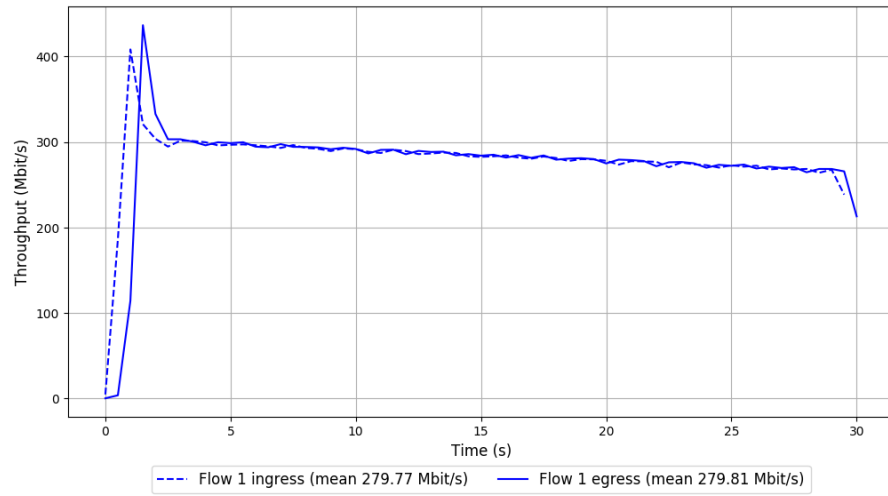

Flow 1 (95th percentile 47.77 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-11-24 21:49:42
End at: 2019-11-24 21:50:12
Local clock offset: 0.036 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2019-11-25 02:47:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 279.81 Mbit/s
95th percentile per-packet one-way delay: 47.441 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 279.81 Mbit/s
95th percentile per-packet one-way delay: 47.441 ms
Loss rate: 0.30%
```

Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-11-24 22:24:34
End at: 2019-11-24 22:25:04
Local clock offset: 0.0 ms
Remote clock offset: 0.041 ms


# Below is generated by plot.py at 2019-11-25 02:47:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 268.22 Mbit/s
95th percentile per-packet one-way delay: 47.553 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 268.22 Mbit/s
95th percentile per-packet one-way delay: 47.553 ms
Loss rate: 0.30%
```
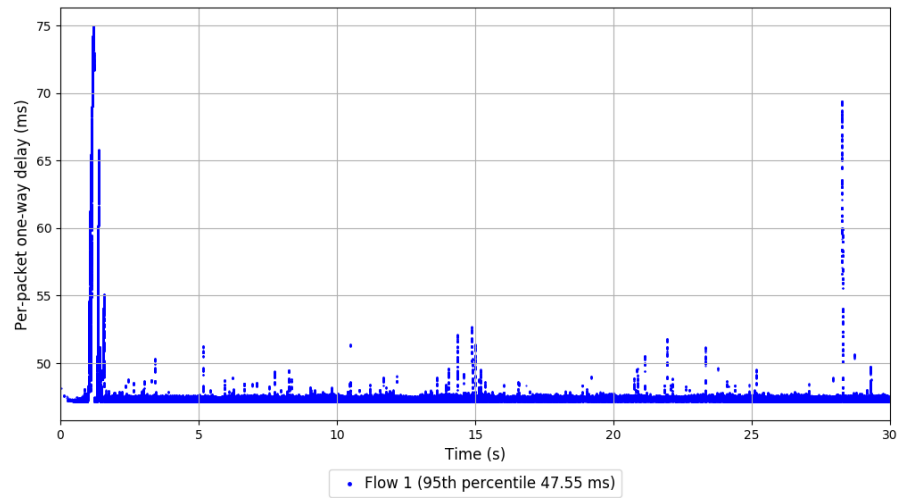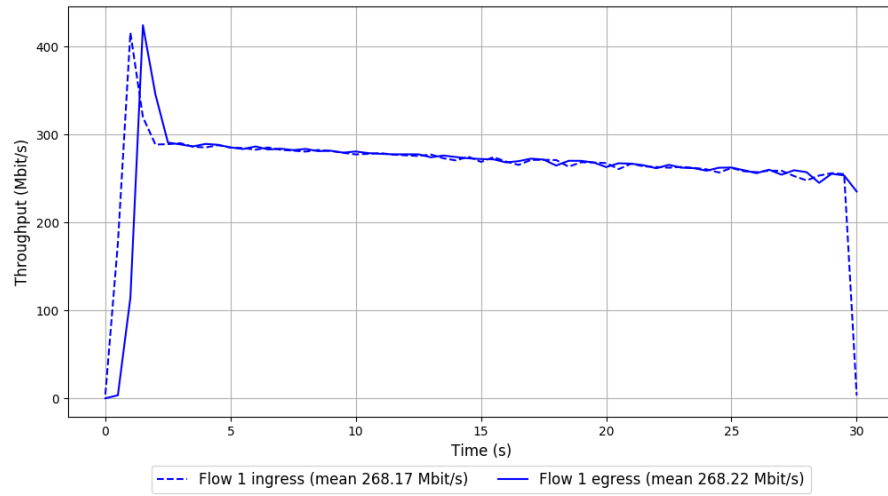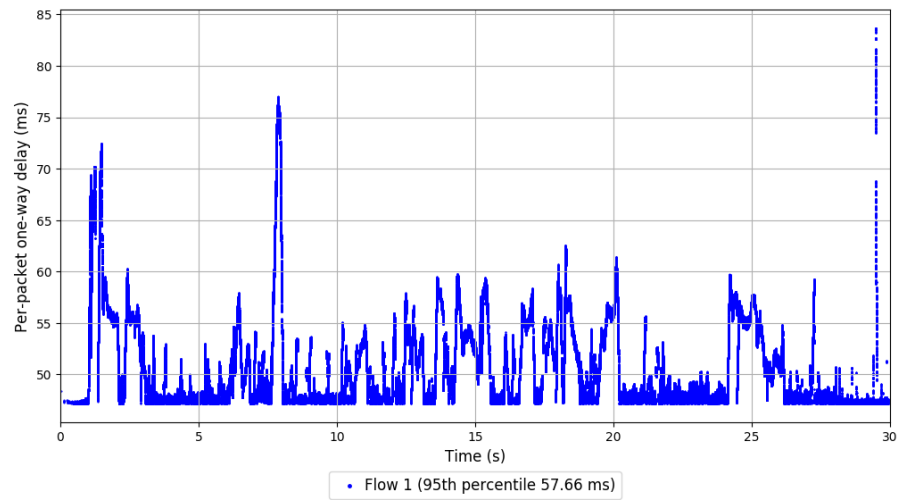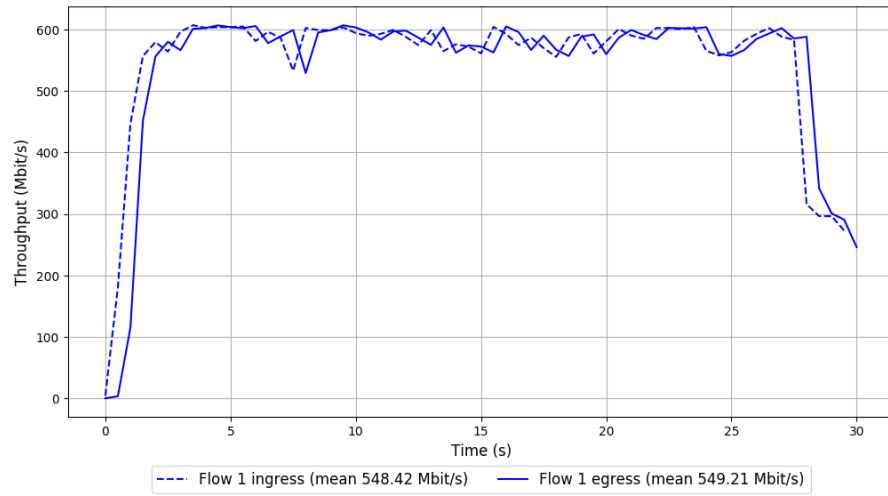
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-11-24 22:59:00
End at: 2019-11-24 22:59:30
Local clock offset: -0.084 ms
Remote clock offset: -0.111 ms


# Below is generated by plot.py at 2019-11-25 02:52:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 549.21 Mbit/s
95th percentile per-packet one-way delay: 57.662 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 549.21 Mbit/s
95th percentile per-packet one-way delay: 57.662 ms
Loss rate: 0.17%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 548.42 Mbit/s)   Flow 1 egress (mean 549.21 Mbit/s)
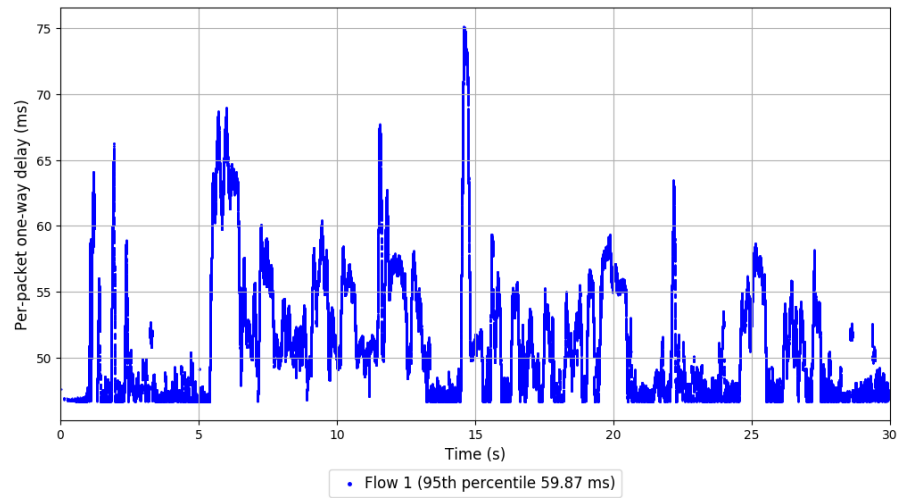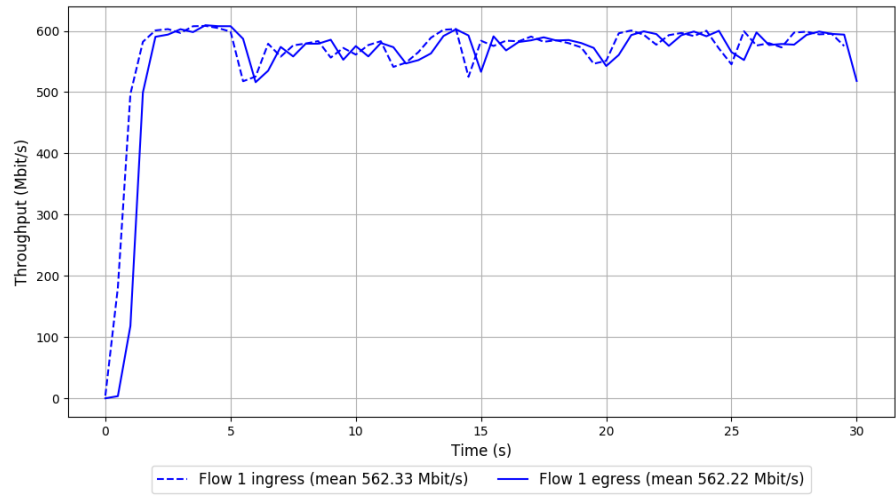

Flow 1 (95th percentile 57.66 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-11-24 23:33:45
End at: 2019-11-24 23:34:15
Local clock offset: -0.455 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 562.22 Mbit/s
95th percentile per-packet one-way delay: 59.870 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 562.22 Mbit/s
95th percentile per-packet one-way delay: 59.870 ms
Loss rate: 0.34%
```
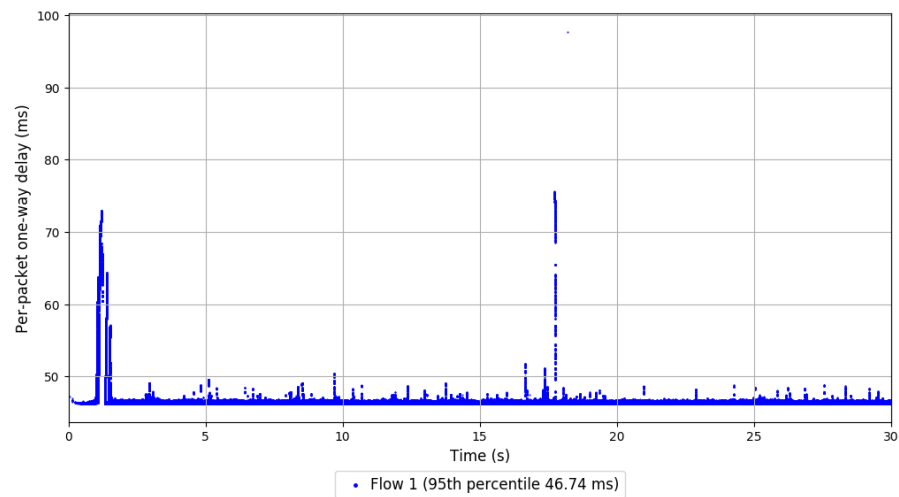
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 562.33 Mbit/s)　　Flow 1 egress (mean 562.22 Mbit/s)

Flow 1 (95th percentile 59.87 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2019-11-25 00:08:41
End at: 2019-11-25 00:09:11
Local clock offset: -0.15 ms
Remote clock offset: 0.019 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.38 Mbit/s
95th percentile per-packet one-way delay: 46.745 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 283.38 Mbit/s
95th percentile per-packet one-way delay: 46.745 ms
Loss rate: 0.30%
```
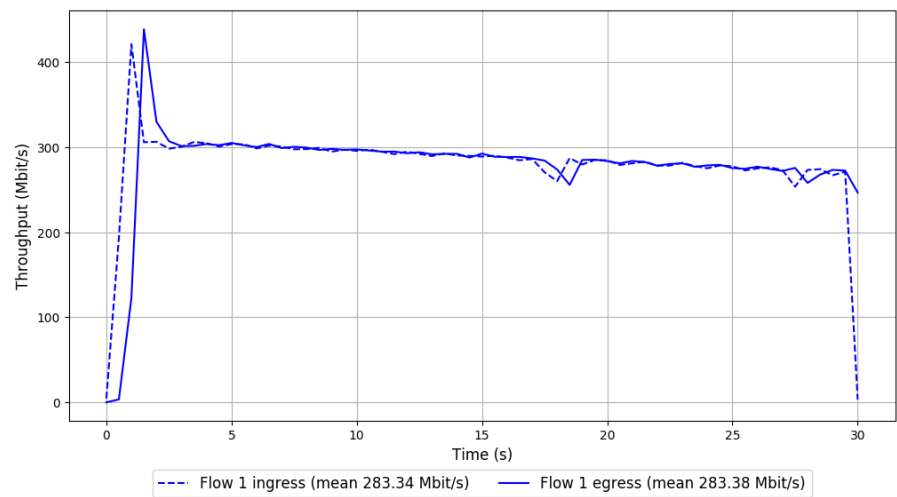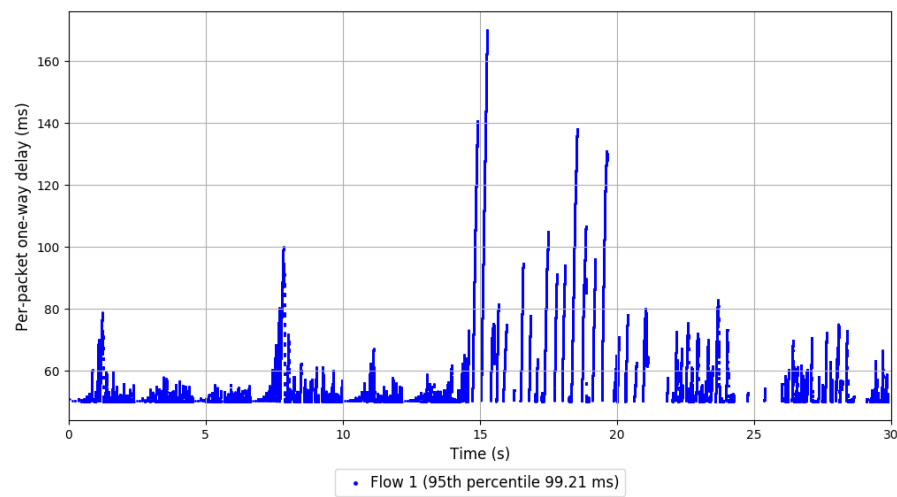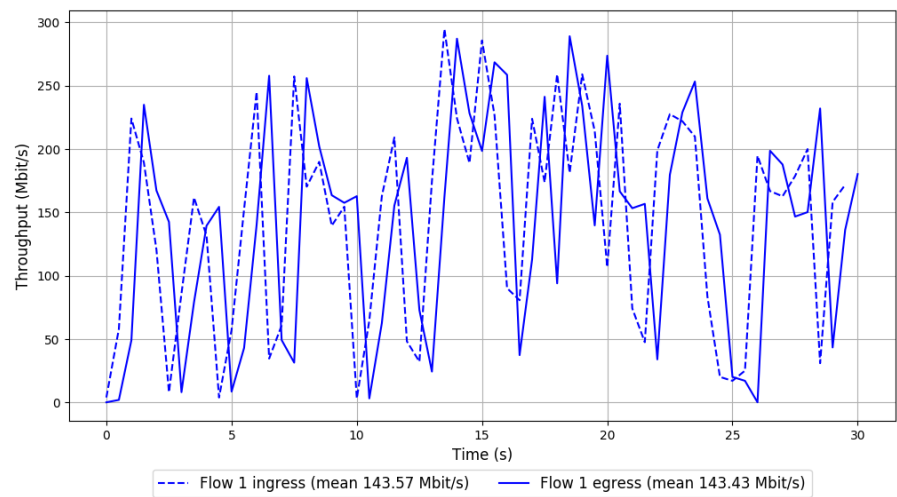
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-11-24 21:35:06
End at: 2019-11-24 21:35:36
Local clock offset: 0.019 ms
Remote clock offset: -0.052 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 143.43 Mbit/s
95th percentile per-packet one-way delay: 99.212 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 143.43 Mbit/s
95th percentile per-packet one-way delay: 99.212 ms
Loss rate: 0.16%
```

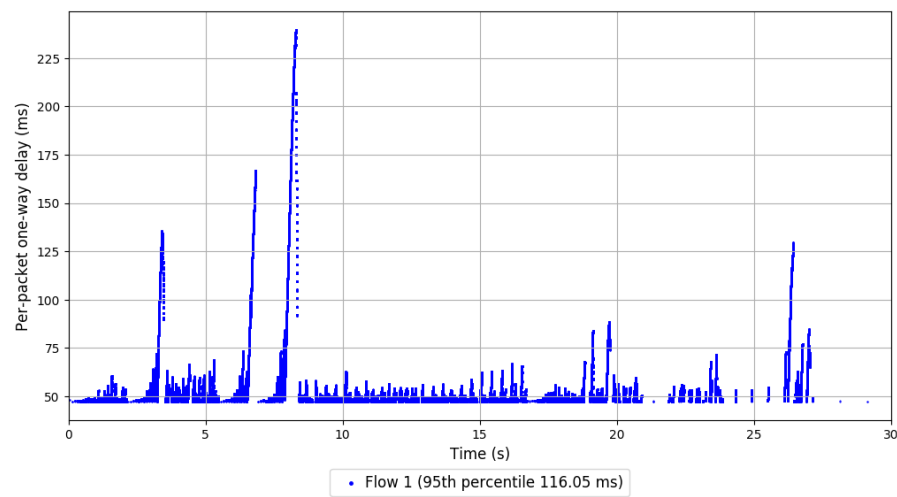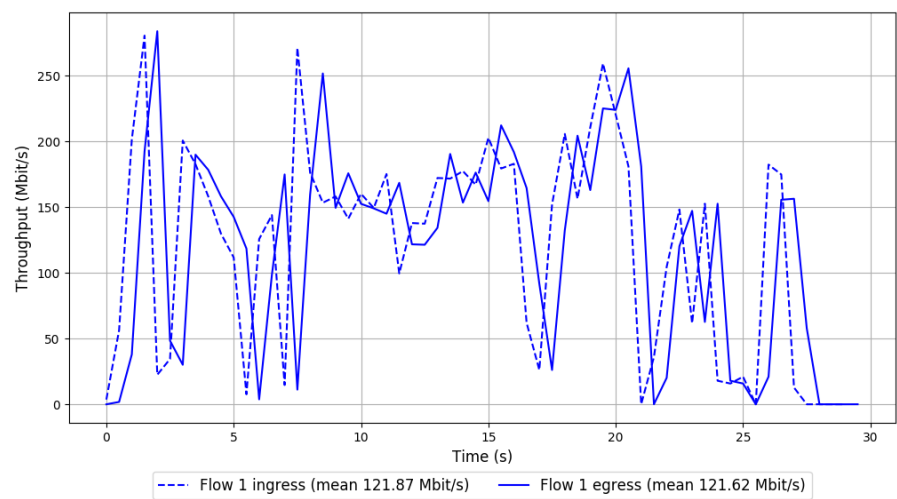Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-11-24 22:09:47
End at: 2019-11-24 22:10:17
Local clock offset: 0.015 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.62 Mbit/s
95th percentile per-packet one-way delay: 116.047 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 121.62 Mbit/s
95th percentile per-packet one-way delay: 116.047 ms
Loss rate: 0.21%
```

Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-11-24 22:44:24
End at: 2019-11-24 22:44:54
Local clock offset: 0.322 ms
Remote clock offset: 0.051 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.19 Mbit/s
95th percentile per-packet one-way delay: 317.779 ms
Loss rate: 15.47%
-- Flow 1:
Average throughput: 74.19 Mbit/s
95th percentile per-packet one-way delay: 317.779 ms
Loss rate: 15.47%
```
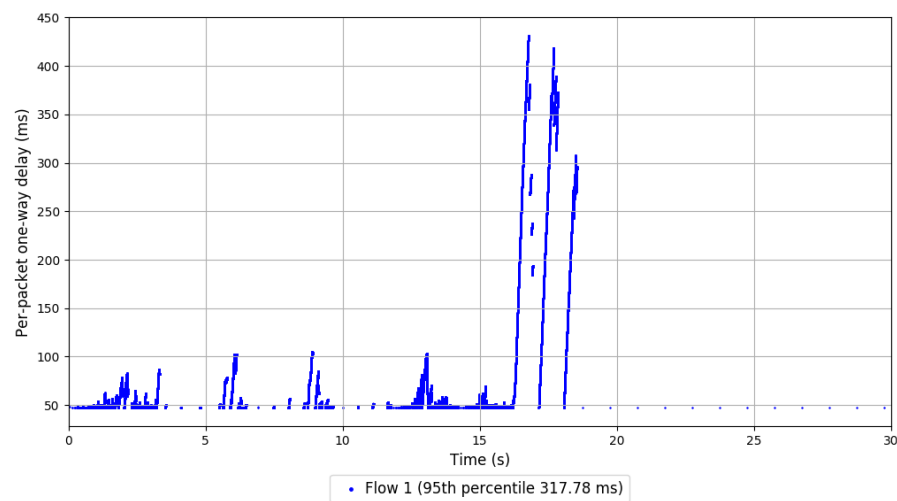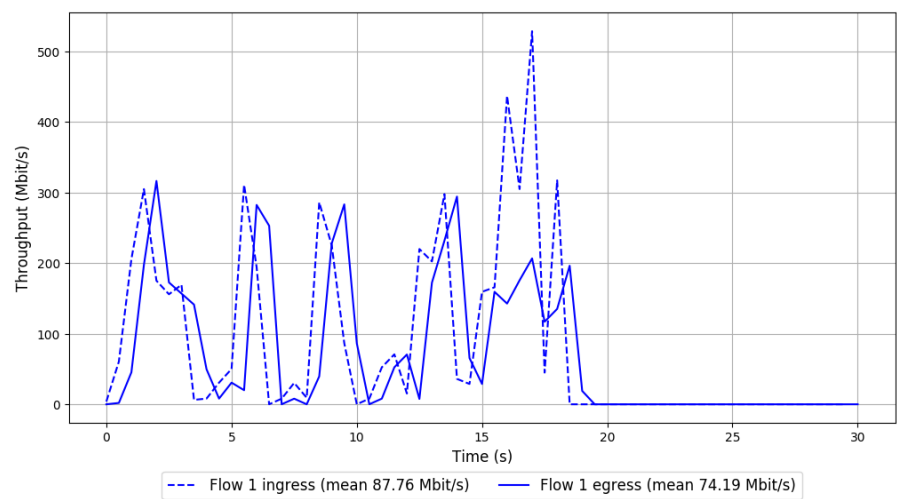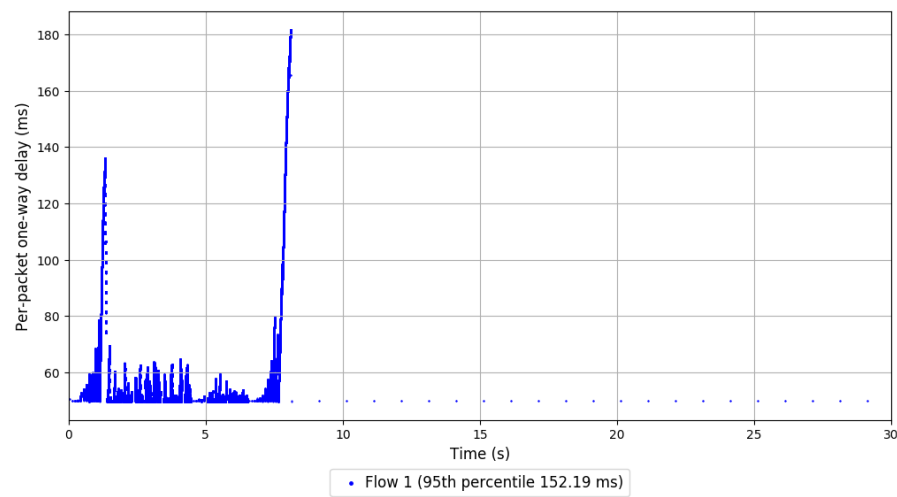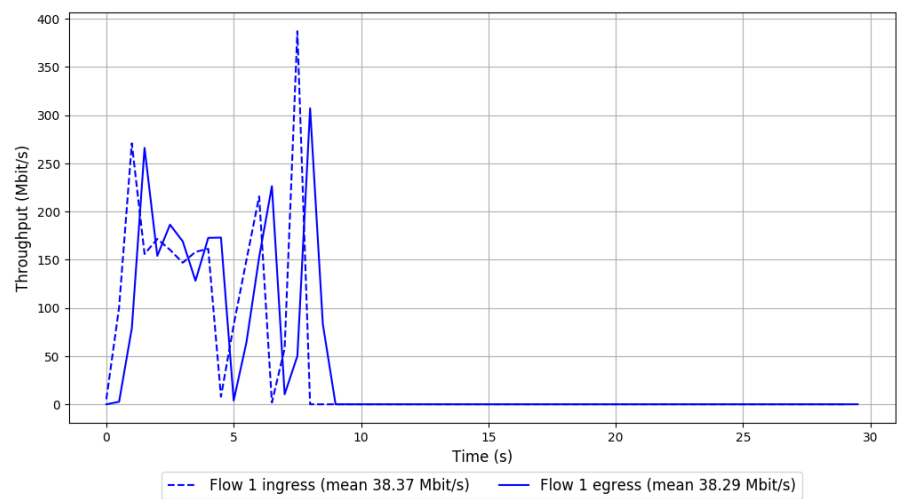
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-11-24 23:19:10
End at: 2019-11-24 23:19:40
Local clock offset: -0.473 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.29 Mbit/s
95th percentile per-packet one-way delay: 152.186 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 38.29 Mbit/s
95th percentile per-packet one-way delay: 152.186 ms
Loss rate: 0.20%
```
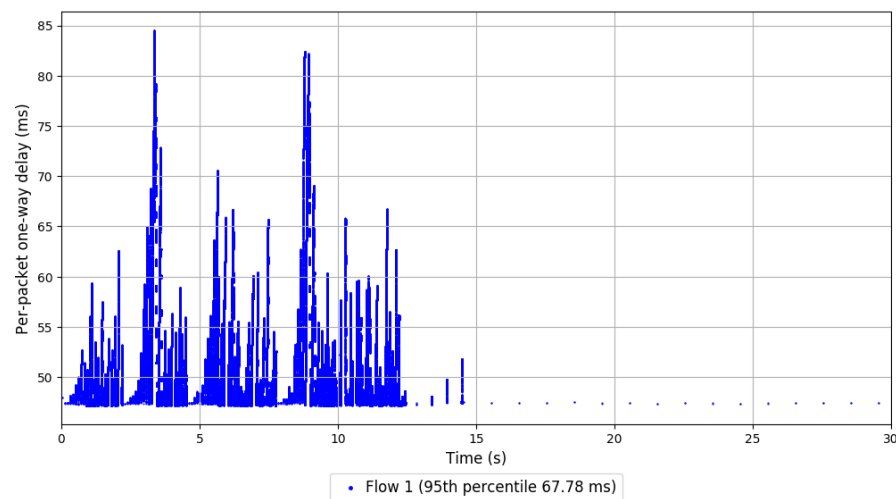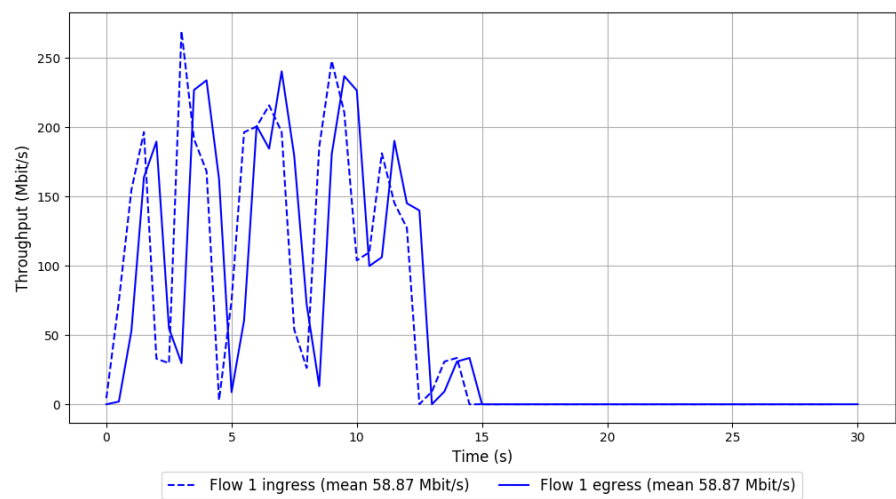
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-11-24 23:53:55
End at: 2019-11-24 23:54:25
Local clock offset: -0.086 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.87 Mbit/s
95th percentile per-packet one-way delay: 67.780 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.87 Mbit/s
95th percentile per-packet one-way delay: 67.780 ms
Loss rate: 0.00%
```

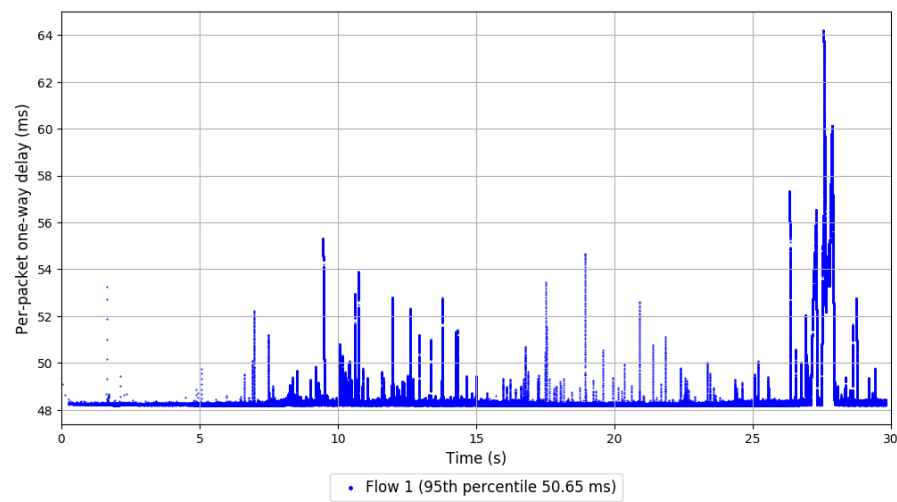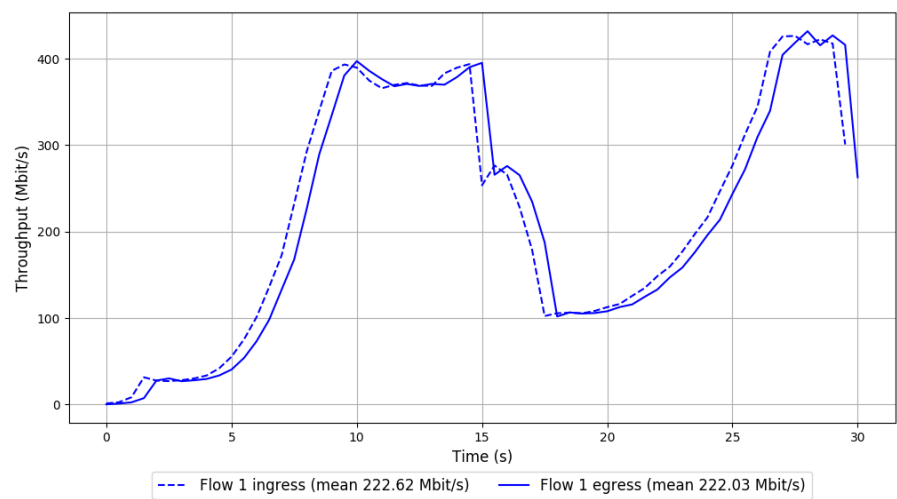## Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-11-24 21:41:02
End at: 2019-11-24 21:41:32
Local clock offset: -0.358 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.03 Mbit/s
95th percentile per-packet one-way delay: 50.648 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 222.03 Mbit/s
95th percentile per-packet one-way delay: 50.648 ms
Loss rate: 0.59%
```

Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 222.62 Mbit/s) --- Flow 1 egress (mean 222.03 Mbit/s)

Flow 1 (95th percentile 50.65 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-11-24 22:15:41
End at: 2019-11-24 22:16:11
Local clock offset: -0.366 ms
Remote clock offset: 0.015 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 336.45 Mbit/s
95th percentile per-packet one-way delay: 52.391 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 336.45 Mbit/s
95th percentile per-packet one-way delay: 52.391 ms
Loss rate: 0.40%
```
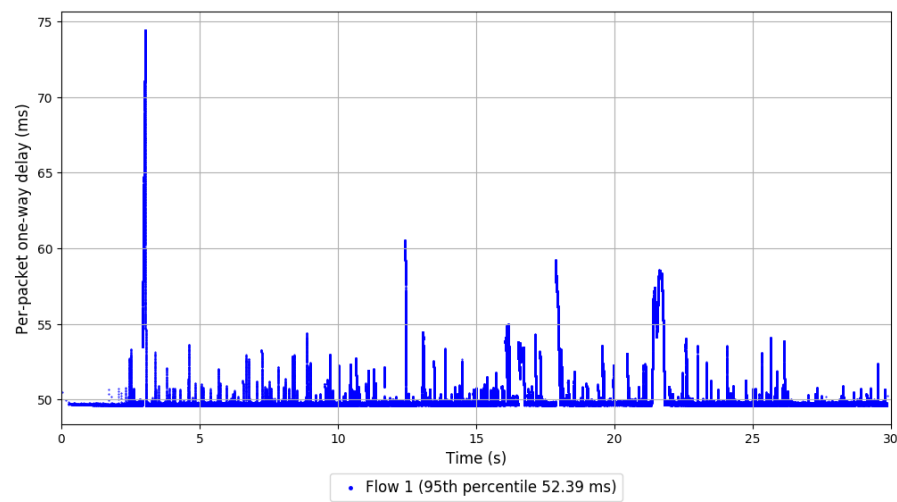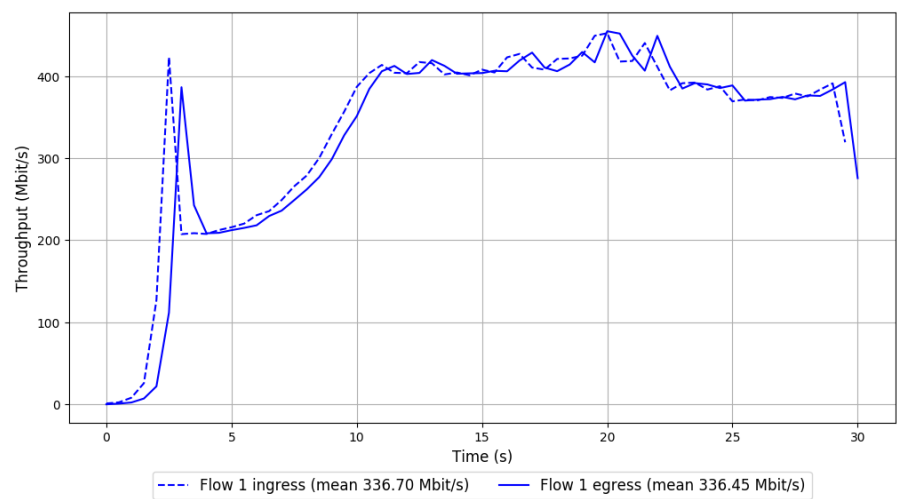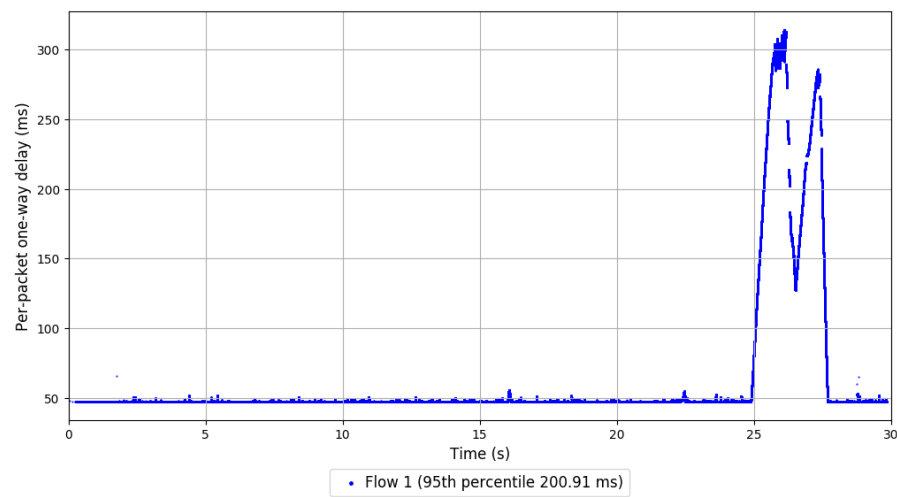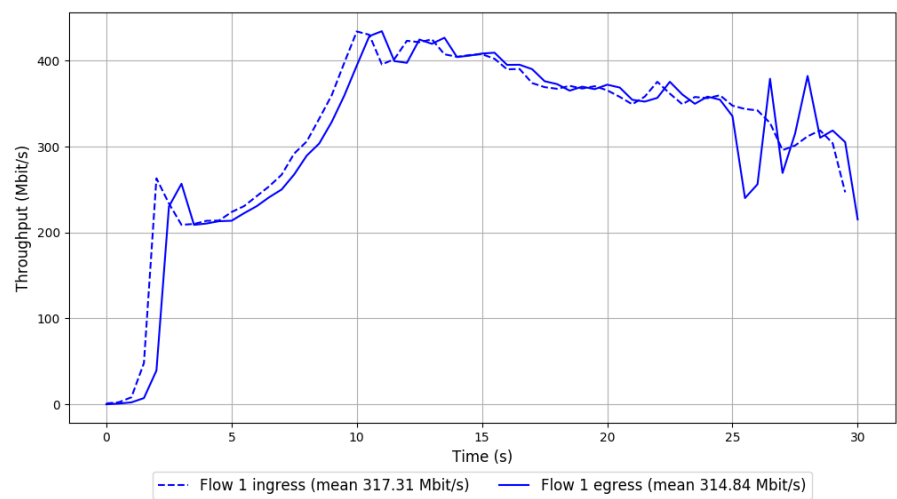
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-11-24 22:50:15
End at: 2019-11-24 22:50:45
Local clock offset: -0.068 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2019-11-25 02:55:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 314.84 Mbit/s
95th percentile per-packet one-way delay: 200.914 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 314.84 Mbit/s
95th percentile per-packet one-way delay: 200.914 ms
Loss rate: 1.10%
```

Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 317.31 Mbit/s)   Flow 1 egress (mean 314.84 Mbit/s)

Flow 1 (95th percentile 200.91 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-11-24 23:24:55
End at: 2019-11-24 23:25:25
Local clock offset: -0.081 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2019-11-25 02:56:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 326.54 Mbit/s
95th percentile per-packet one-way delay: 51.537 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 326.54 Mbit/s
95th percentile per-packet one-way delay: 51.537 ms
Loss rate: 0.39%
```
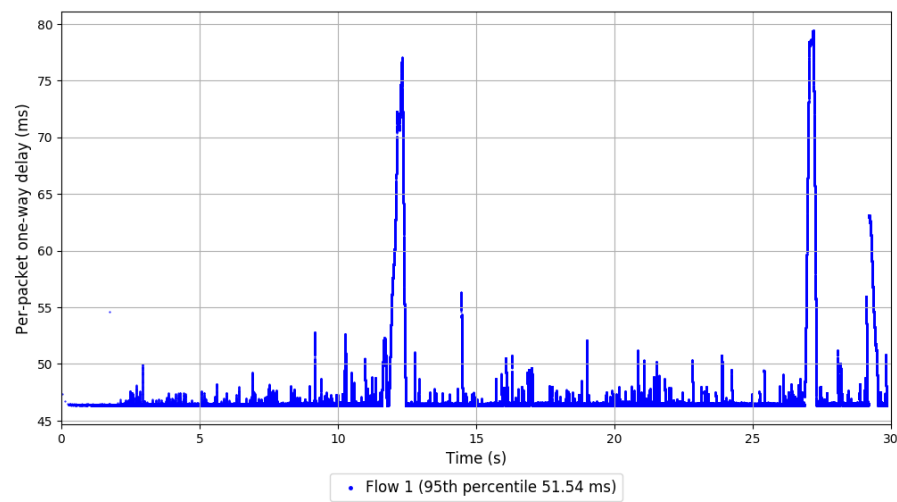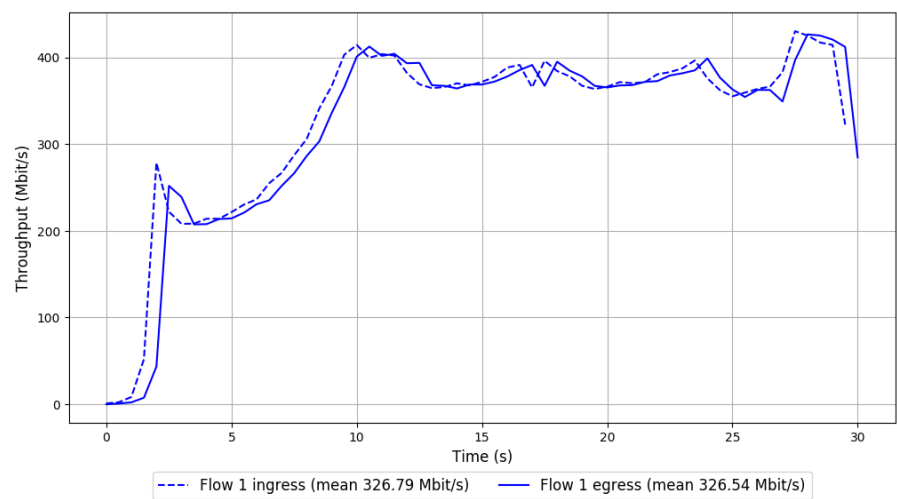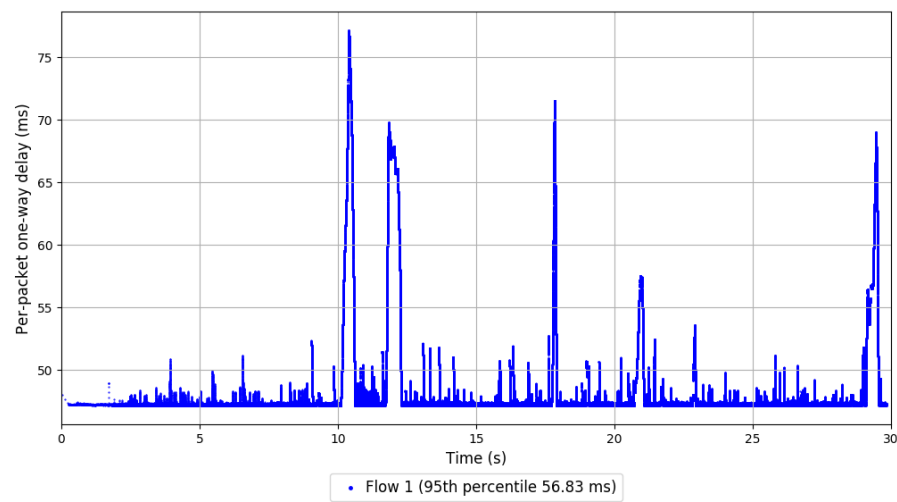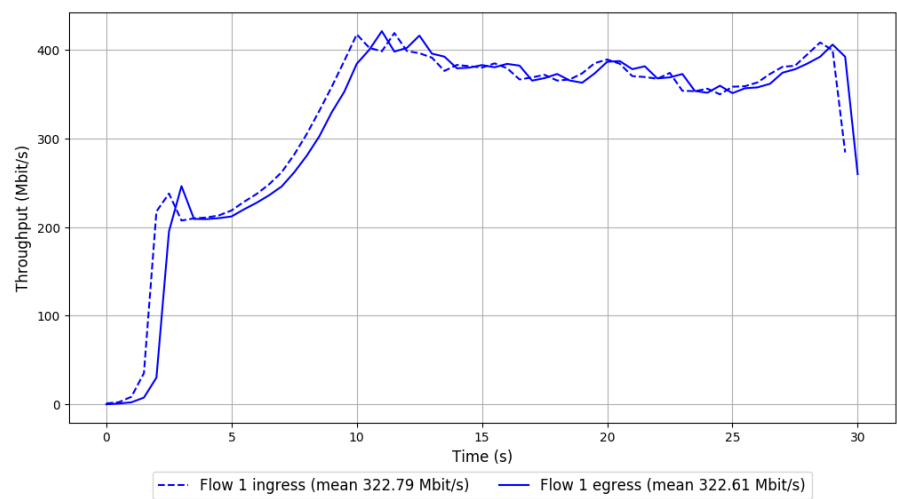
Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-11-24 23:59:49
End at: 2019-11-25 00:00:19
Local clock offset: -0.1 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-11-25 02:56:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.61 Mbit/s
95th percentile per-packet one-way delay: 56.828 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 322.61 Mbit/s
95th percentile per-packet one-way delay: 56.828 ms
Loss rate: 0.38%
```

Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 322.79 Mbit/s) --- Flow 1 egress (mean 322.61 Mbit/s)

Flow 1 (95th percentile 56.83 ms)
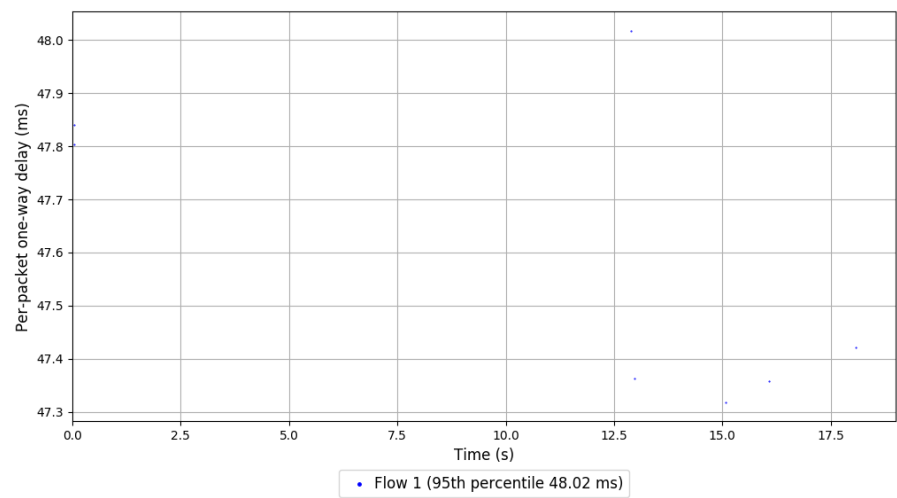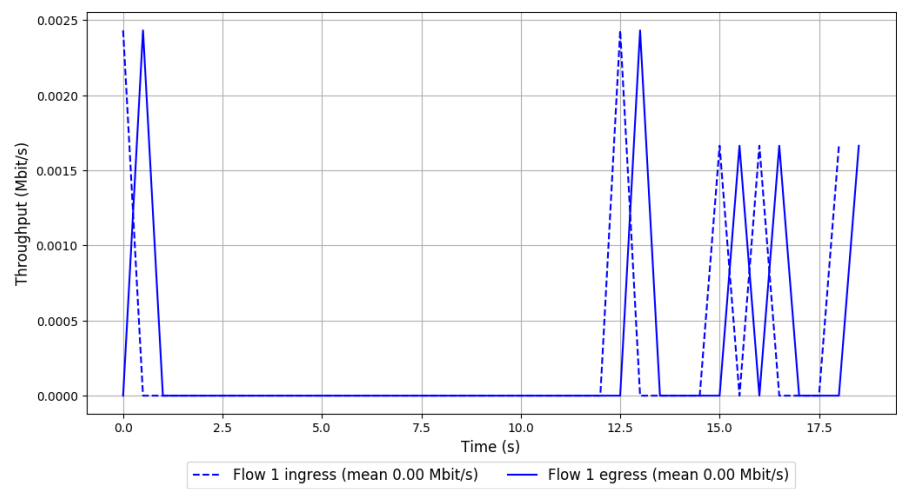
Run 1: Statistics of WebRTC media

Start at: 2019-11-24 21:52:12
End at: 2019-11-24 21:52:42
Local clock offset: 0.022 ms
Remote clock offset: 0.003 ms

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-11-24 22:27:02
End at: 2019-11-24 22:27:32
Local clock offset: 0.015 ms
Remote clock offset: 0.025 ms


# Below is generated by plot.py at 2019-11-25 02:56:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 50.312 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 50.312 ms
Loss rate: 0.00%
```
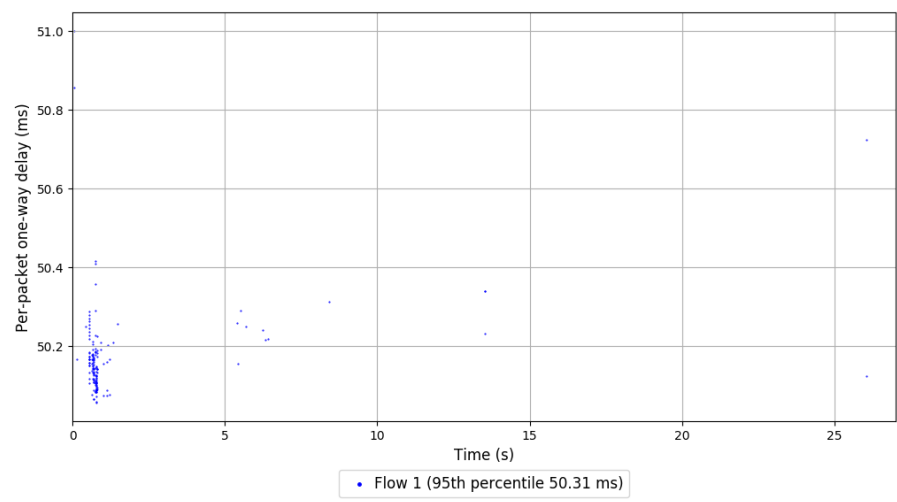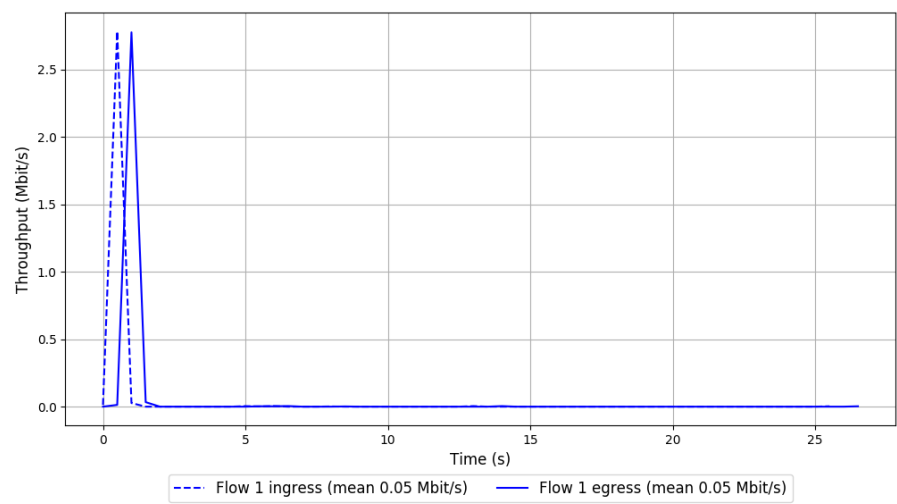
Run 2: Report of WebRTC media — Data Link
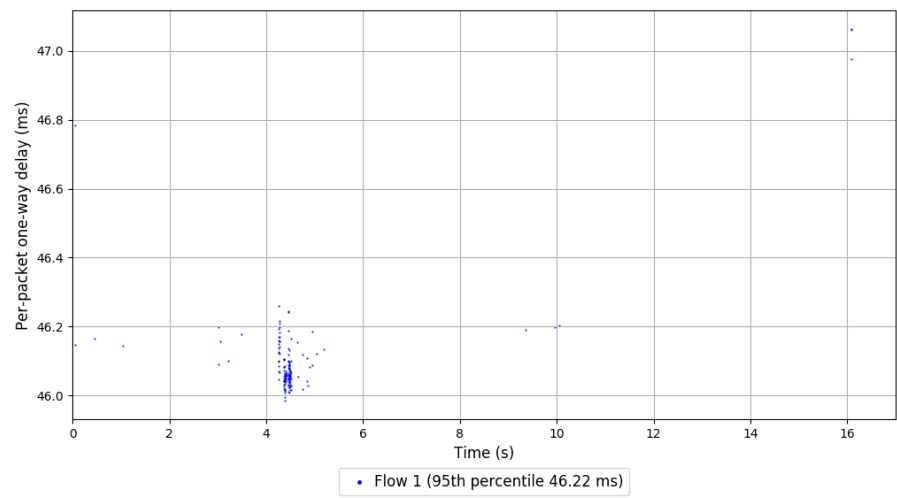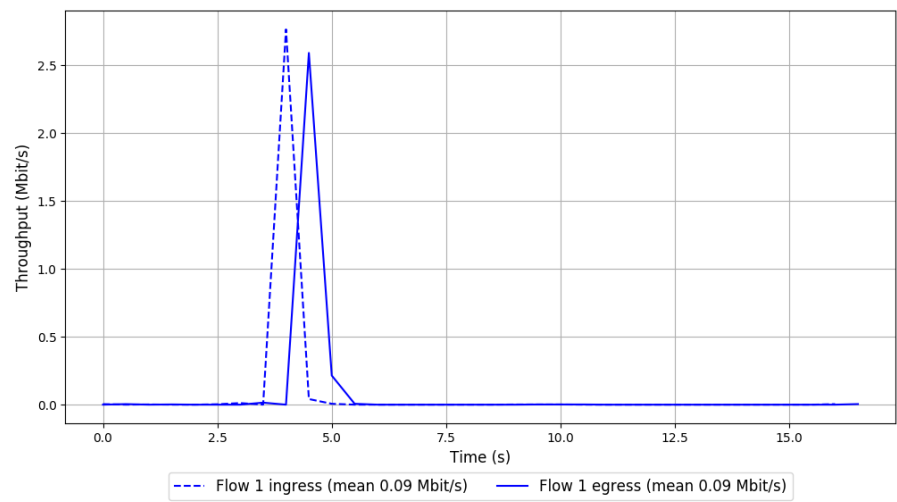
```
Run 3: Statistics of WebRTC media

Start at: 2019-11-24 23:01:42
End at: 2019-11-24 23:02:12
Local clock offset: -0.441 ms
Remote clock offset: -0.089 ms
```

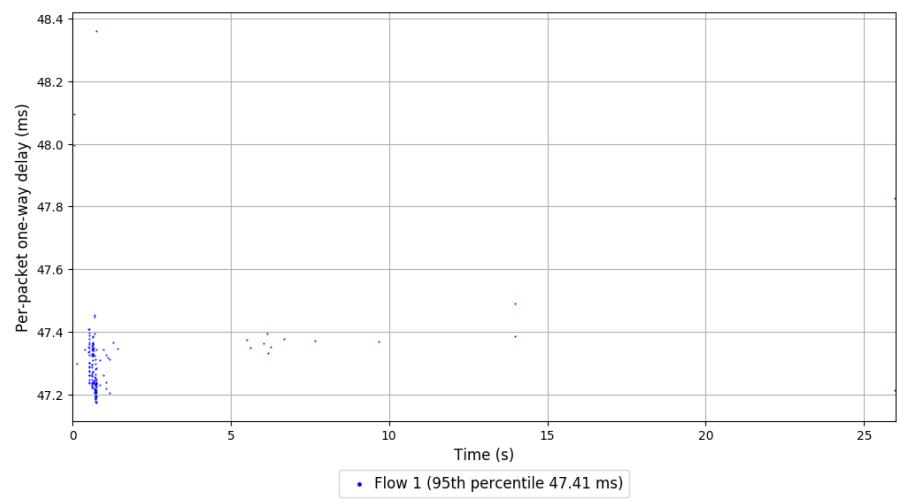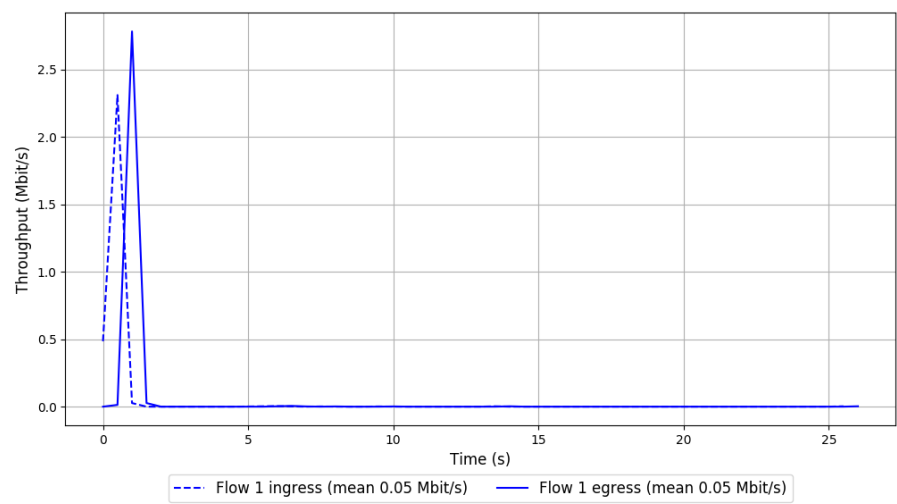Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-11-24 23:36:28
End at: 2019-11-24 23:36:58
Local clock offset: -0.044 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2019-11-25 02:56:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.407 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.407 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-11-25 00:11:11
End at: 2019-11-25 00:11:41
Local clock offset: -0.121 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2019-11-25 02:56:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.503 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.503 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link