

## Pantheon Report

Generated at 2019-10-02 22:36:29 (UTC).

Data path: GCE London on *ens4 (remote)* → GCE Tokyo 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:

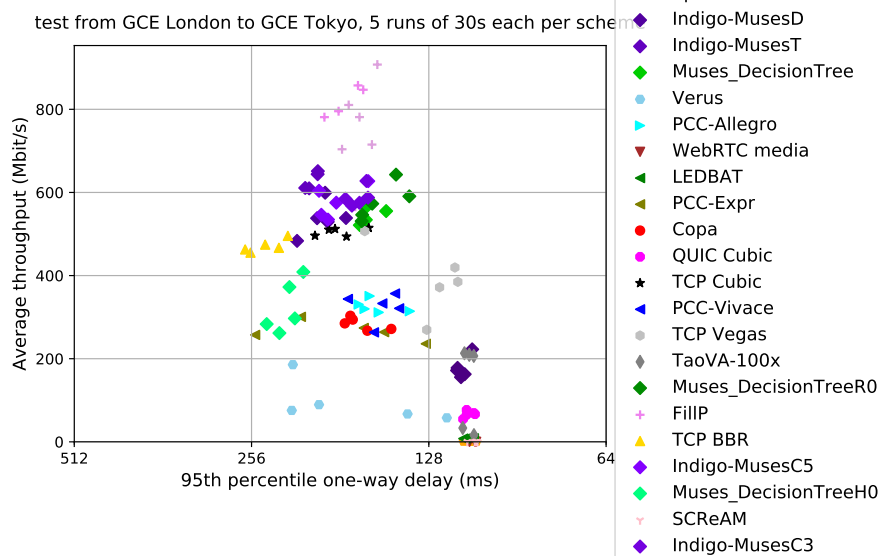
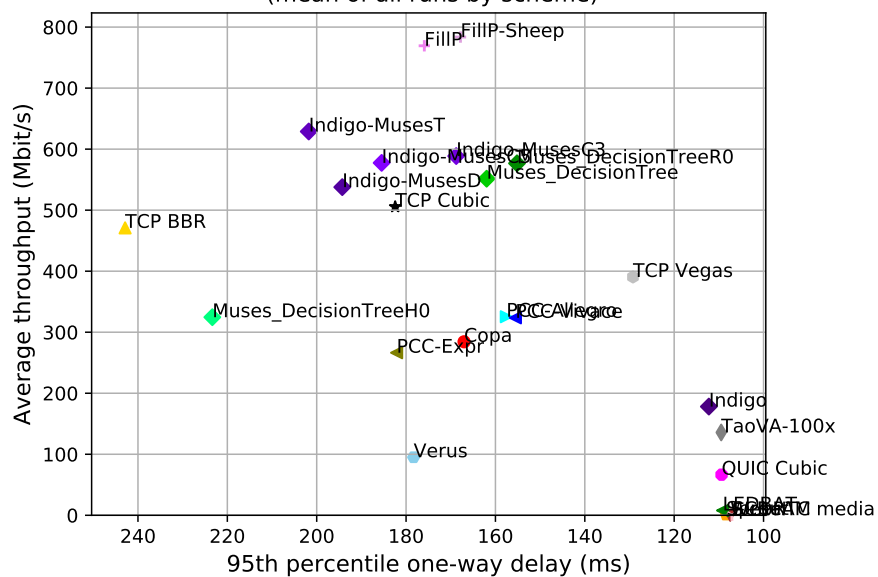
```
Linux 4.15.0-1044-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

third\_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4  
third\_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

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



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	470.97	242.88	4.34
Copa	5	284.30	167.02	0.77
TCP Cubic	5	505.47	182.44	0.91
FillP	5	769.36	175.91	3.79
FillP-Sheep	5	783.66	167.82	2.43
Indigo	5	178.14	112.24	0.78
Indigo-MusesC3	5	588.67	168.78	0.89
Indigo-MusesC5	5	577.49	185.47	1.32
Indigo-MusesD	5	537.74	194.28	1.19
Indigo-MusesT	4	628.92	201.78	1.79
LEDBAT	5	7.89	109.17	1.45
Muses_DecisionTree	5	551.54	161.97	1.00
Muses_DecisionTreeH0	5	324.61	223.36	16.19
Muses_DecisionTreeR0	5	576.75	155.17	0.97
PCC-Allegro	5	325.37	157.56	1.47
PCC-Expr	5	266.38	182.12	3.52
QUIC Cubic	5	66.52	109.40	1.11
SCReAM	5	0.22	107.08	0.72
Sprout	5	0.66	108.36	0.92
TaoVA-100x	5	135.72	109.47	0.84
TCP Vegas	5	390.52	129.22	0.87
Verus	5	95.12	178.31	2.66
PCC-Vivace	5	323.57	155.54	0.86
WebRTC media	3	0.05	107.47	0.00



Run 1: Statistics of TCP BBR

Start at: 2019-10-02 17:54:24

End at: 2019-10-02 17:54:55

Local clock offset: 15.353 ms

Remote clock offset: 21.795 ms

# Below is generated by plot.py at 2019-10-02 20:46:54

# Datalink statistics

-- Total of 1 flow:

Average throughput: 462.88 Mbit/s

95th percentile per-packet one-way delay: 262.457 ms

Loss rate: 5.70%

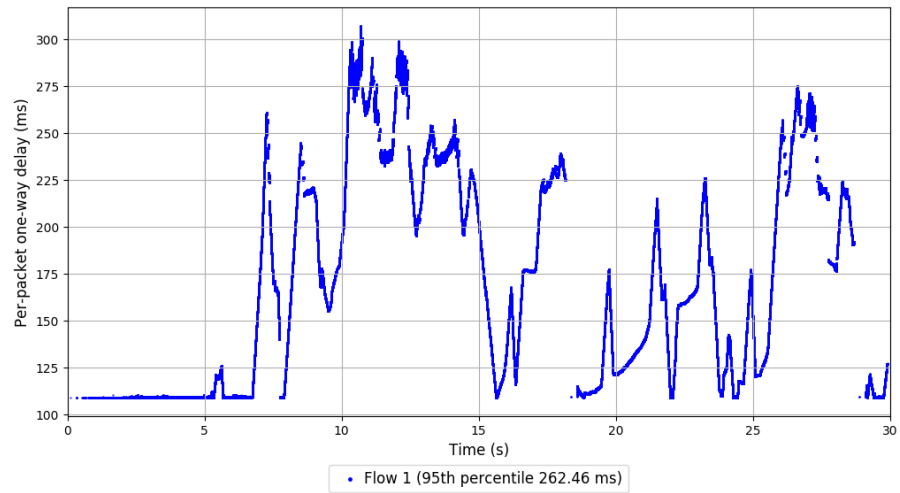
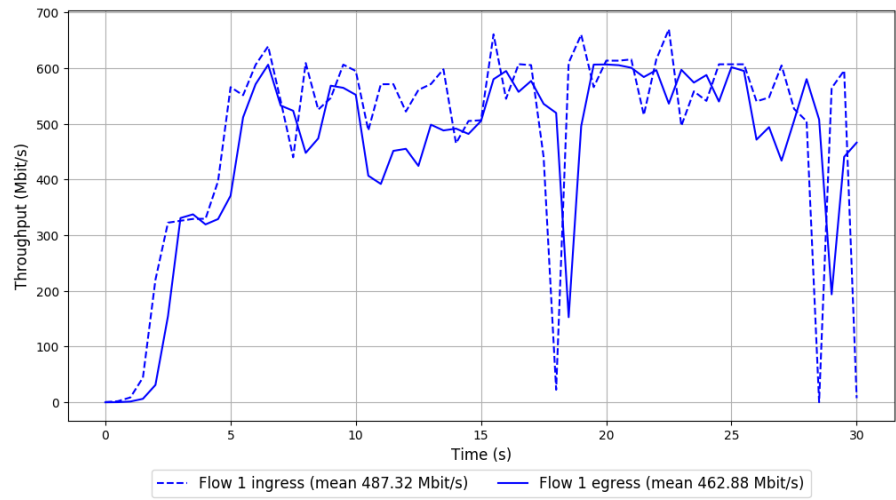
-- Flow 1:

Average throughput: 462.88 Mbit/s

95th percentile per-packet one-way delay: 262.457 ms

Loss rate: 5.70%

# Run 1: Report of TCP BBR — Data Link

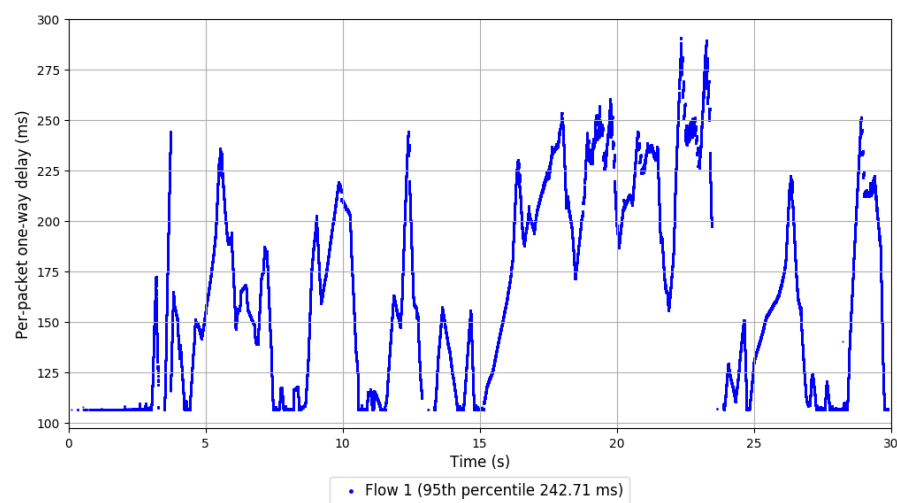
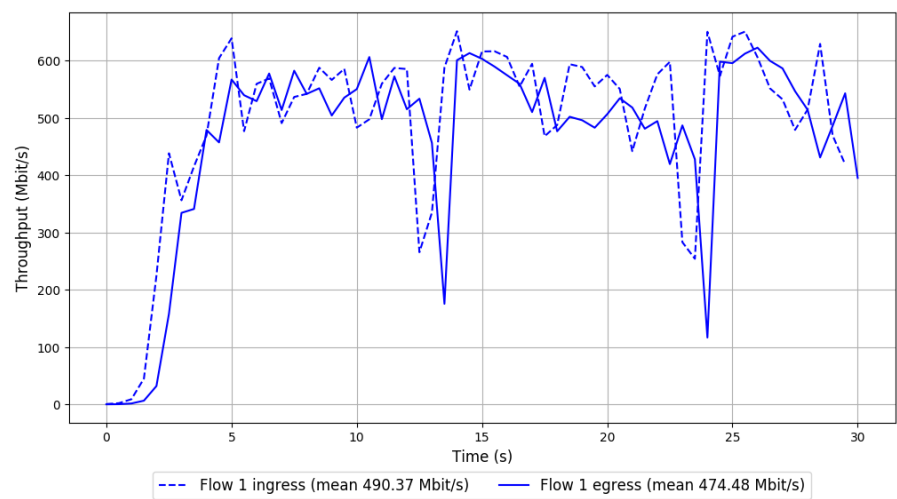


Run 2: Statistics of TCP BBR

Start at: 2019-10-02 18:30:52  
End at: 2019-10-02 18:31:22  
Local clock offset: 28.348 ms  
Remote clock offset: 39.329 ms

# Below is generated by plot.py at 2019-10-02 20:47:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 474.48 Mbit/s  
95th percentile per-packet one-way delay: 242.710 ms  
Loss rate: 3.94%  
-- Flow 1:  
Average throughput: 474.48 Mbit/s  
95th percentile per-packet one-way delay: 242.710 ms  
Loss rate: 3.94%

Run 2: Report of TCP BBR — Data Link

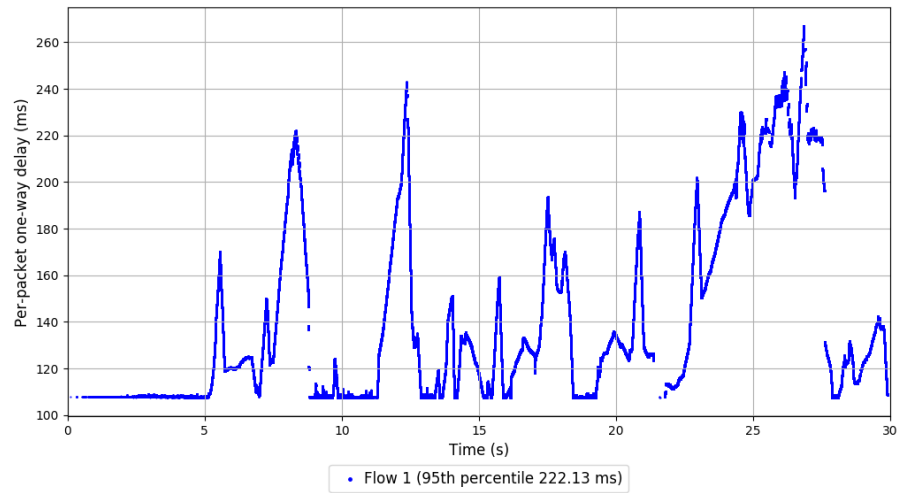
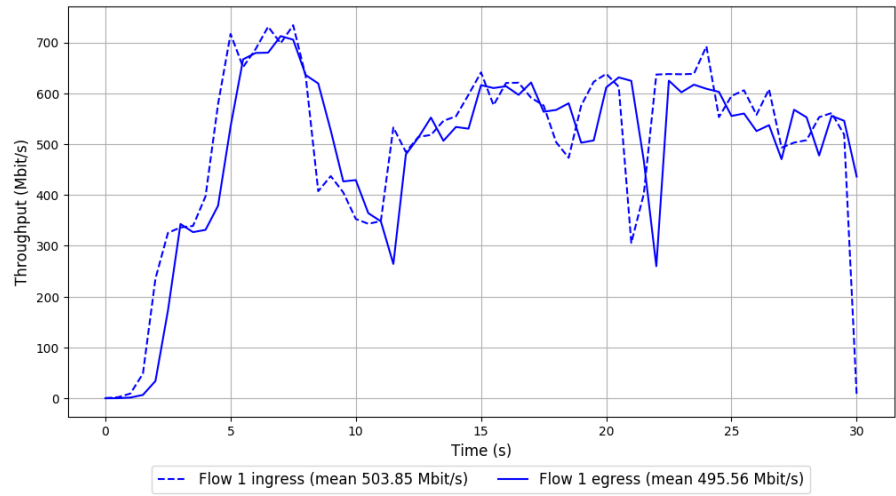


Run 3: Statistics of TCP BBR

Start at: 2019-10-02 19:07:14  
End at: 2019-10-02 19:07:44  
Local clock offset: 14.929 ms  
Remote clock offset: 19.704 ms

# Below is generated by plot.py at 2019-10-02 20:47:20  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 495.56 Mbit/s  
95th percentile per-packet one-way delay: 222.131 ms  
Loss rate: 2.36%  
-- Flow 1:  
Average throughput: 495.56 Mbit/s  
95th percentile per-packet one-way delay: 222.131 ms  
Loss rate: 2.36%

### Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-10-02 19:43:06

End at: 2019-10-02 19:43:36

Local clock offset: 6.045 ms

Remote clock offset: 7.985 ms

# Below is generated by plot.py at 2019-10-02 20:47:20

# Datalink statistics

-- Total of 1 flow:

Average throughput: 466.80 Mbit/s

95th percentile per-packet one-way delay: 230.046 ms

Loss rate: 3.28%

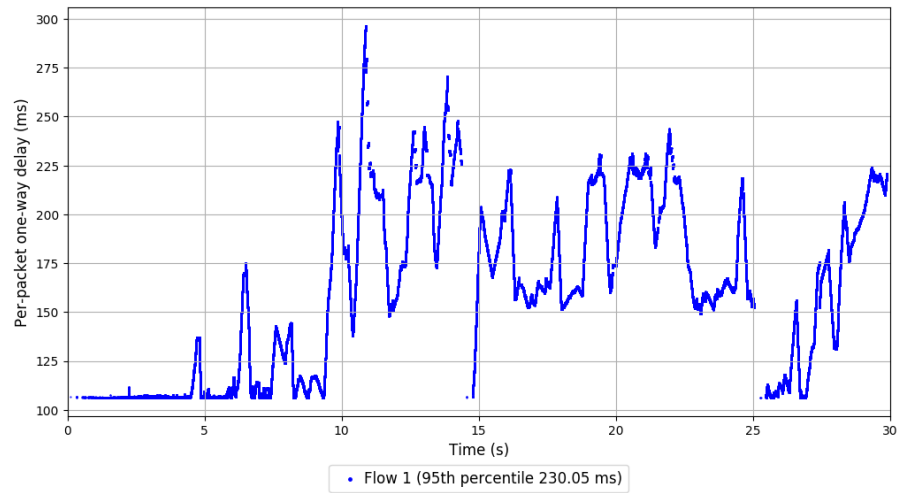
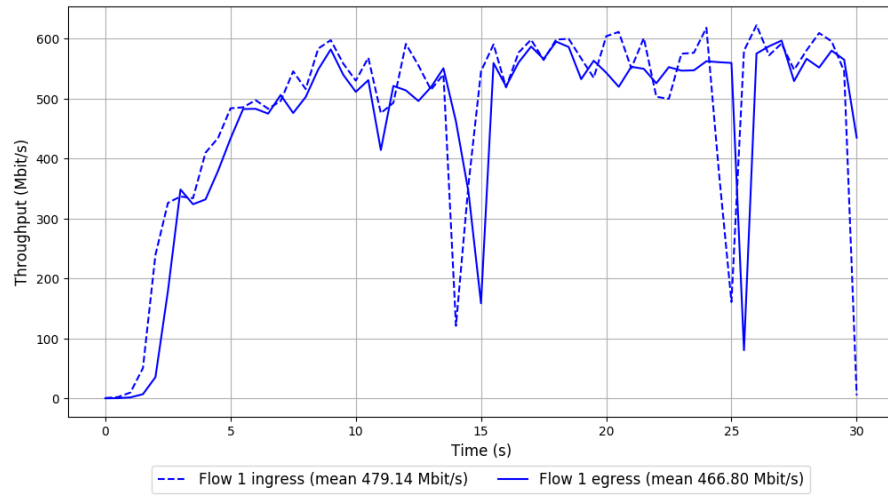
-- Flow 1:

Average throughput: 466.80 Mbit/s

95th percentile per-packet one-way delay: 230.046 ms

Loss rate: 3.28%

#### Run 4: Report of TCP BBR — Data Link





Run 5: Statistics of TCP BBR

Start at: 2019-10-02 20:18:39

End at: 2019-10-02 20:19:09

Local clock offset: 1.098 ms

Remote clock offset: 1.616 ms

# Below is generated by plot.py at 2019-10-02 20:47:20

# Datalink statistics

-- Total of 1 flow:

Average throughput: 455.14 Mbit/s

95th percentile per-packet one-way delay: 257.036 ms

Loss rate: 6.43%

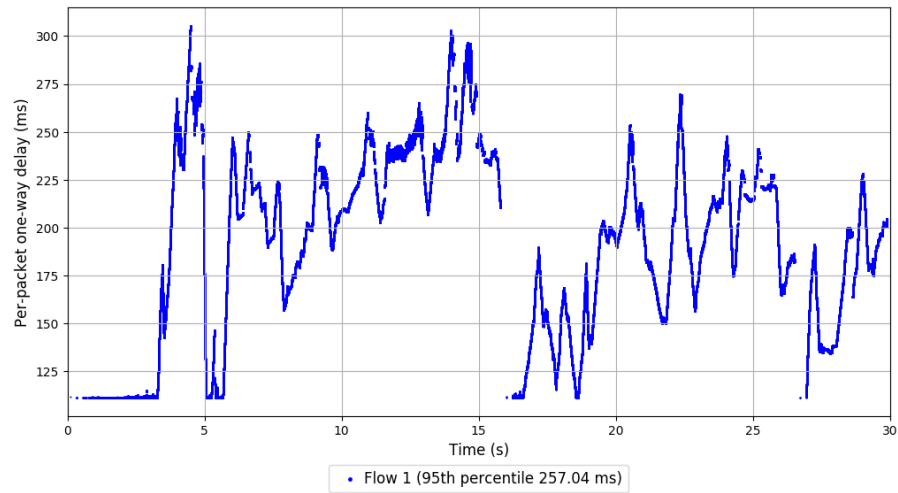
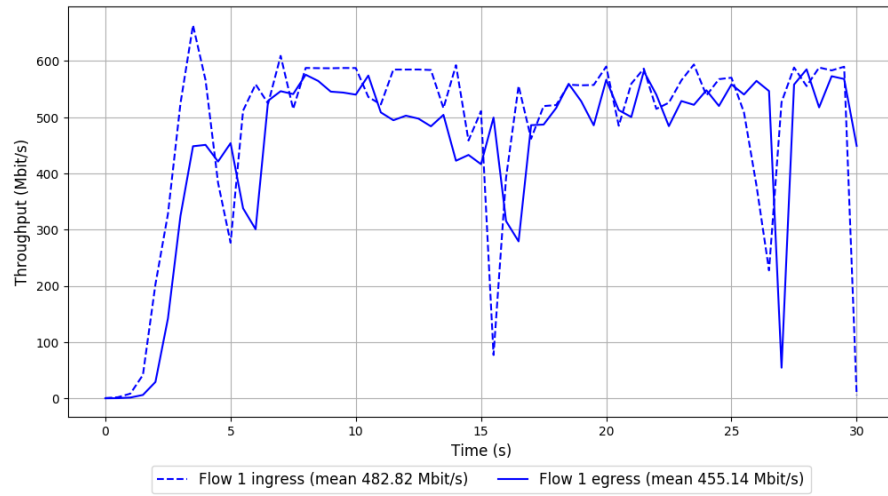
-- Flow 1:

Average throughput: 455.14 Mbit/s

95th percentile per-packet one-way delay: 257.036 ms

Loss rate: 6.43%

### Run 5: Report of TCP BBR — Data Link

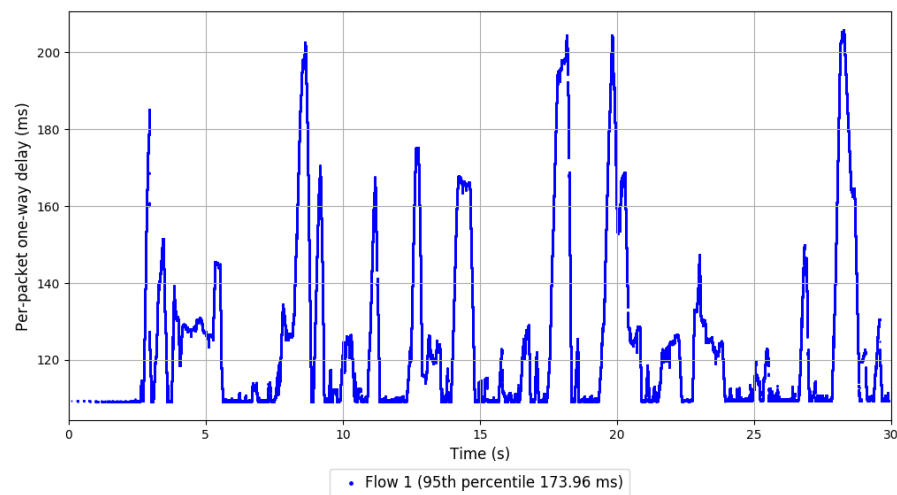
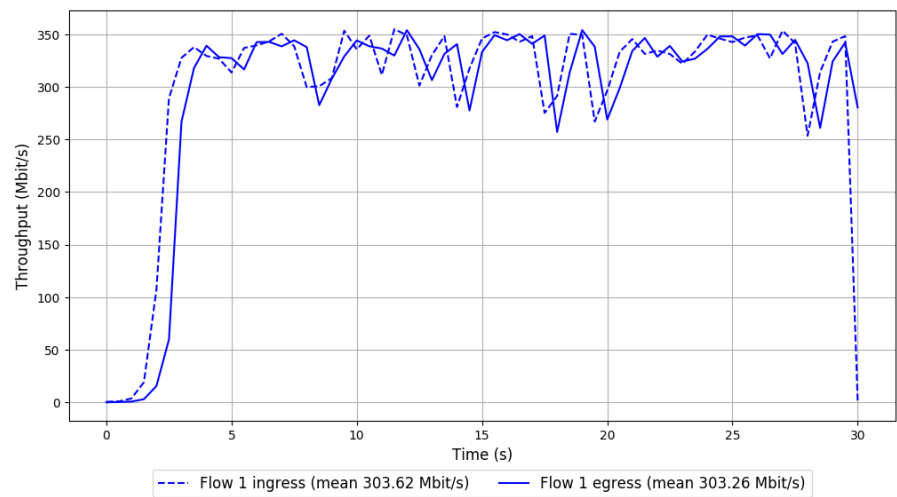


Run 1: Statistics of Copa

Start at: 2019-10-02 17:52:45  
End at: 2019-10-02 17:53:15  
Local clock offset: 13.749 ms  
Remote clock offset: 19.846 ms

# Below is generated by plot.py at 2019-10-02 20:48:08  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 303.26 Mbit/s  
95th percentile per-packet one-way delay: 173.962 ms  
Loss rate: 0.83%  
-- Flow 1:  
Average throughput: 303.26 Mbit/s  
95th percentile per-packet one-way delay: 173.962 ms  
Loss rate: 0.83%

Run 1: Report of Copa — Data Link

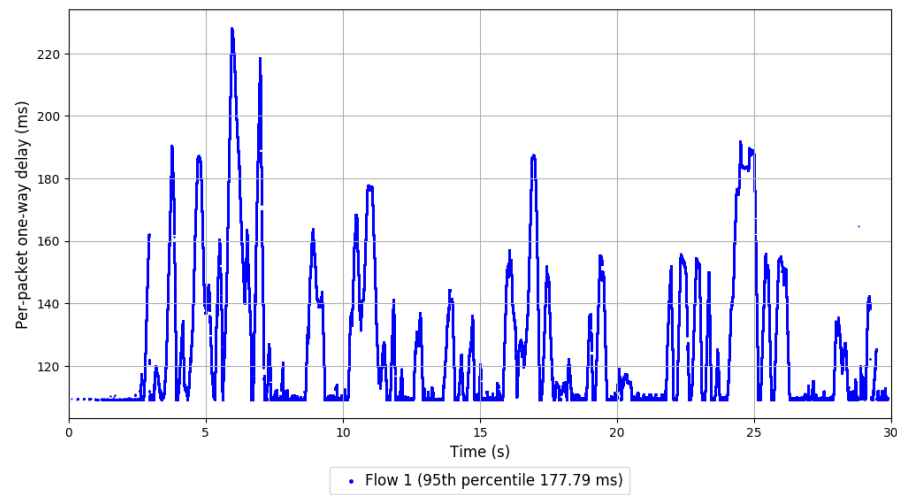
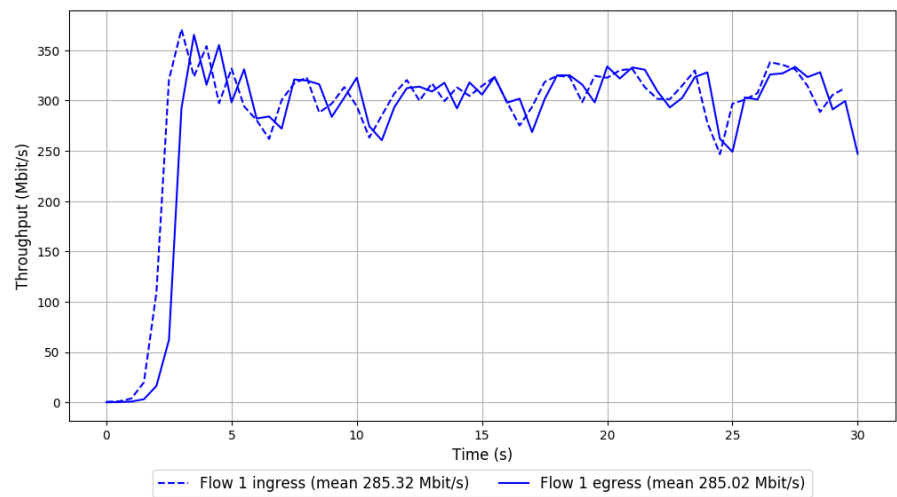


Run 2: Statistics of Copa

Start at: 2019-10-02 18:29:14  
End at: 2019-10-02 18:29:44  
Local clock offset: 27.003 ms  
Remote clock offset: 37.744 ms

# Below is generated by plot.py at 2019-10-02 20:48:08  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 285.02 Mbit/s  
95th percentile per-packet one-way delay: 177.791 ms  
Loss rate: 0.83%  
-- Flow 1:  
Average throughput: 285.02 Mbit/s  
95th percentile per-packet one-way delay: 177.791 ms  
Loss rate: 0.83%

Run 2: Report of Copa — Data Link

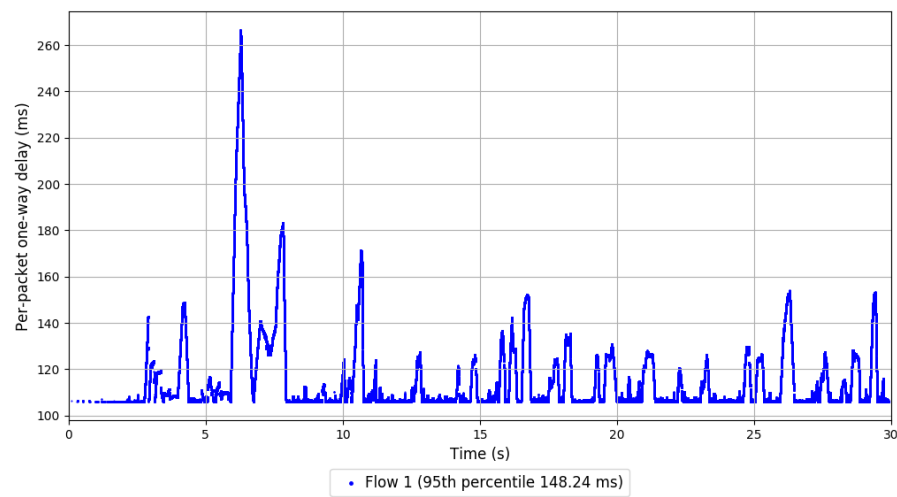
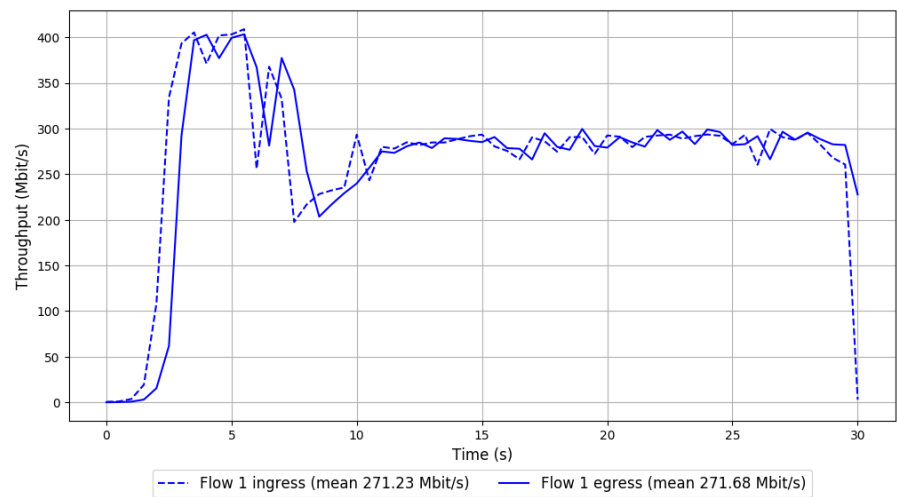


Run 3: Statistics of Copa

Start at: 2019-10-02 19:05:37  
End at: 2019-10-02 19:06:07  
Local clock offset: 14.66 ms  
Remote clock offset: 20.493 ms

# Below is generated by plot.py at 2019-10-02 20:48:08  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 271.68 Mbit/s  
95th percentile per-packet one-way delay: 148.239 ms  
Loss rate: 0.55%  
-- Flow 1:  
Average throughput: 271.68 Mbit/s  
95th percentile per-packet one-way delay: 148.239 ms  
Loss rate: 0.55%

Run 3: Report of Copa — Data Link





Run 4: Statistics of Copa

Start at: 2019-10-02 19:41:26

End at: 2019-10-02 19:41:56

Local clock offset: 6.842 ms

Remote clock offset: 9.594 ms

# Below is generated by plot.py at 2019-10-02 20:56:51

# Datalink statistics

-- Total of 1 flow:

Average throughput: 294.14 Mbit/s

95th percentile per-packet one-way delay: 172.345 ms

Loss rate: 0.82%

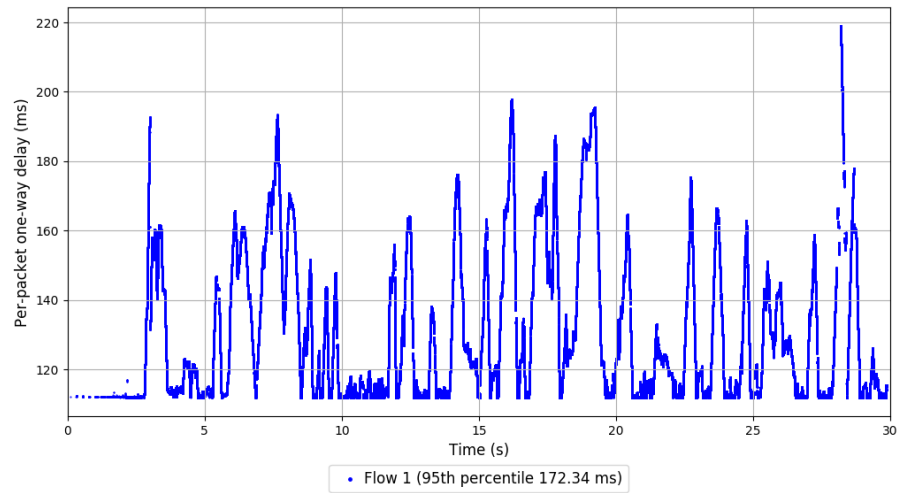
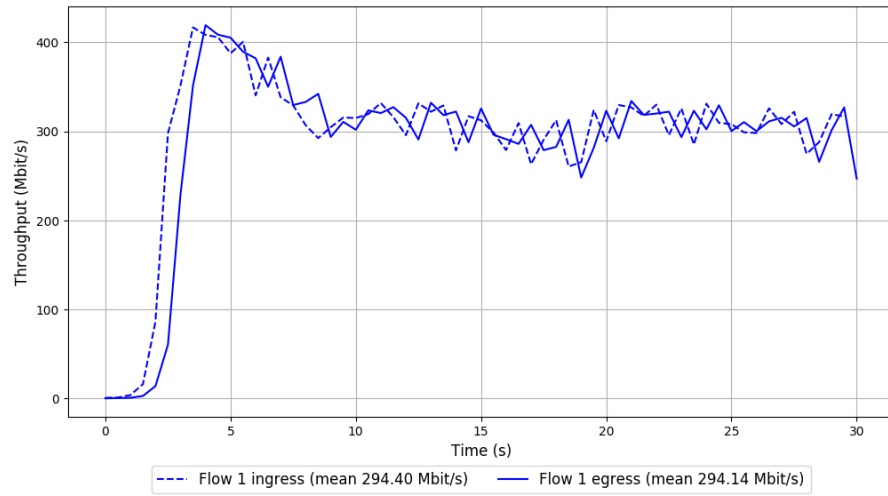
-- Flow 1:

Average throughput: 294.14 Mbit/s

95th percentile per-packet one-way delay: 172.345 ms

Loss rate: 0.82%

#### Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-10-02 20:17:01

End at: 2019-10-02 20:17:31

Local clock offset: 1.304 ms

Remote clock offset: 1.881 ms

# Below is generated by plot.py at 2019-10-02 20:56:51

# Datalink statistics

-- Total of 1 flow:

Average throughput: 267.40 Mbit/s

95th percentile per-packet one-way delay: 162.779 ms

Loss rate: 0.82%

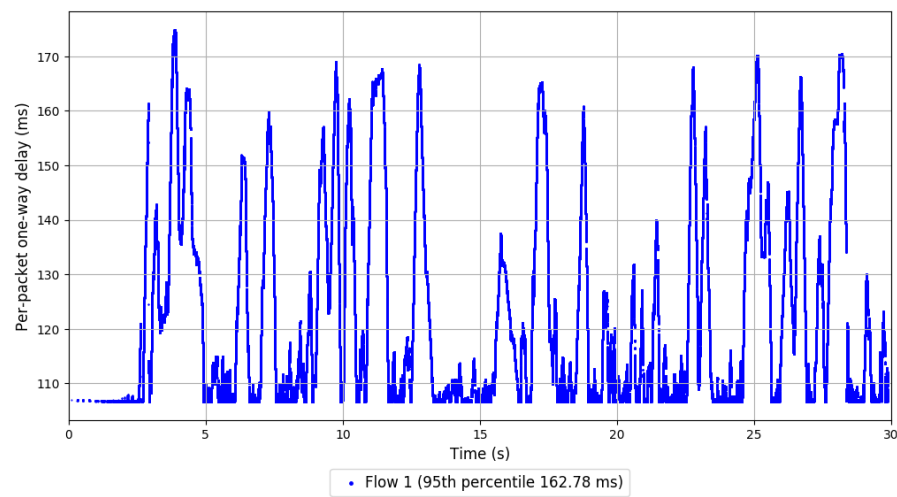
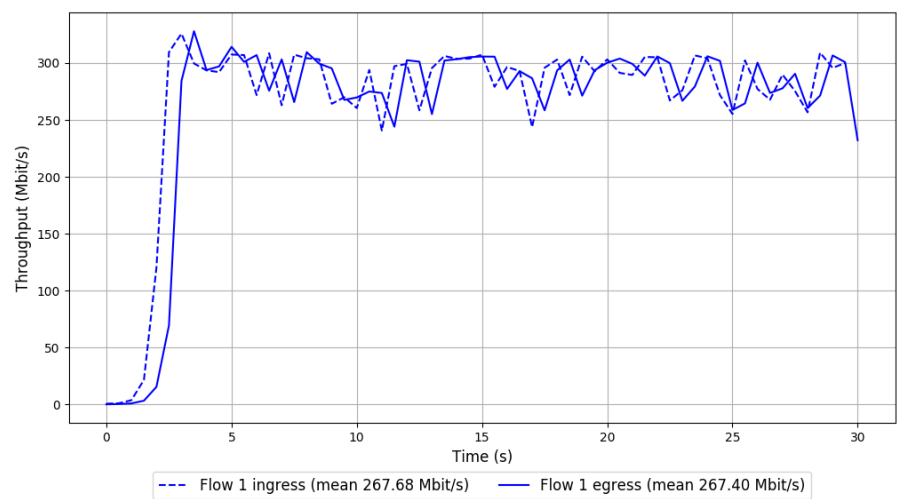
-- Flow 1:

Average throughput: 267.40 Mbit/s

95th percentile per-packet one-way delay: 162.779 ms

Loss rate: 0.82%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-10-02 17:35:02

End at: 2019-10-02 17:35:32

Local clock offset: 6.696 ms

Remote clock offset: 9.173 ms

# Below is generated by plot.py at 2019-10-02 20:56:51

# Datalink statistics

-- Total of 1 flow:

Average throughput: 512.24 Mbit/s

95th percentile per-packet one-way delay: 184.710 ms

Loss rate: 1.03%

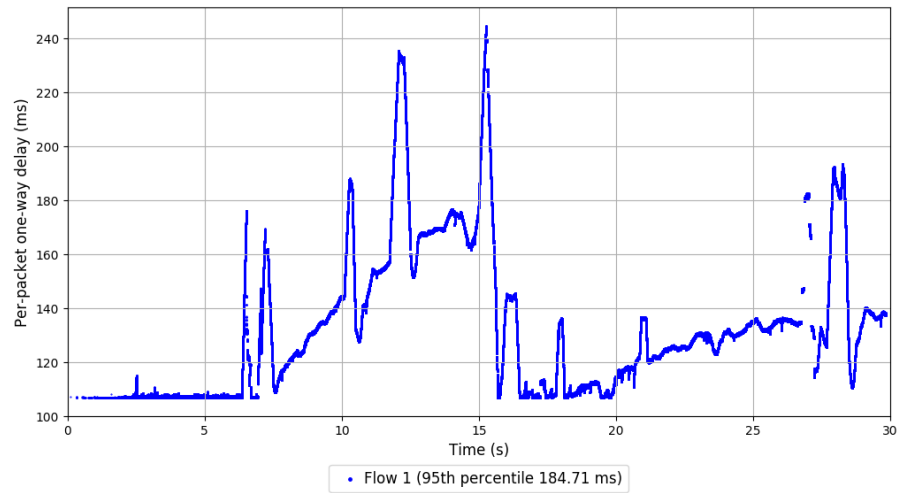
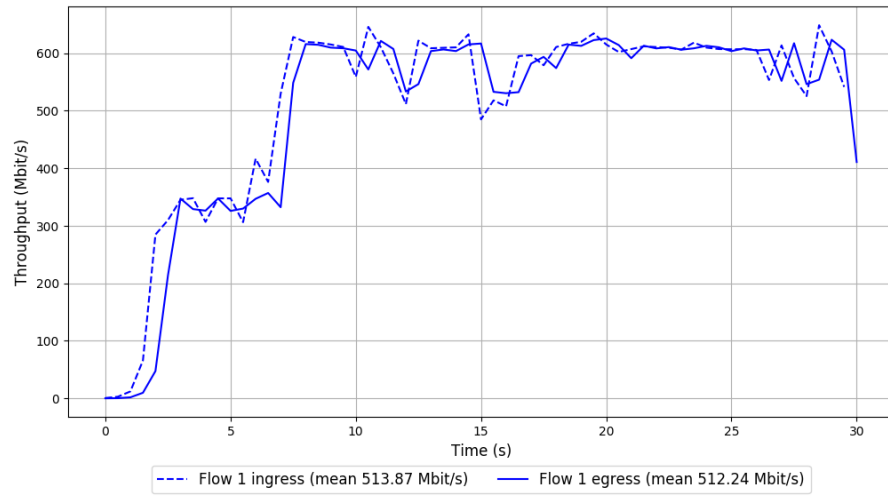
-- Flow 1:

Average throughput: 512.24 Mbit/s

95th percentile per-packet one-way delay: 184.710 ms

Loss rate: 1.03%

## Run 1: Report of TCP Cubic — Data Link

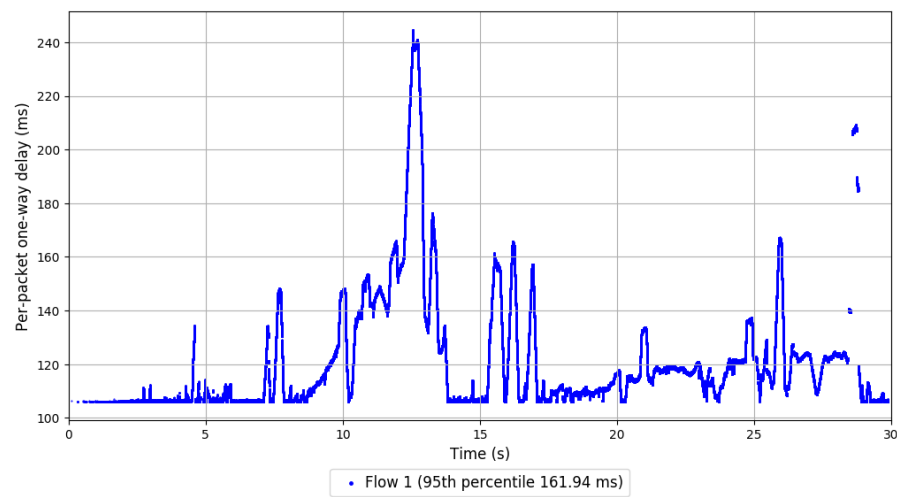
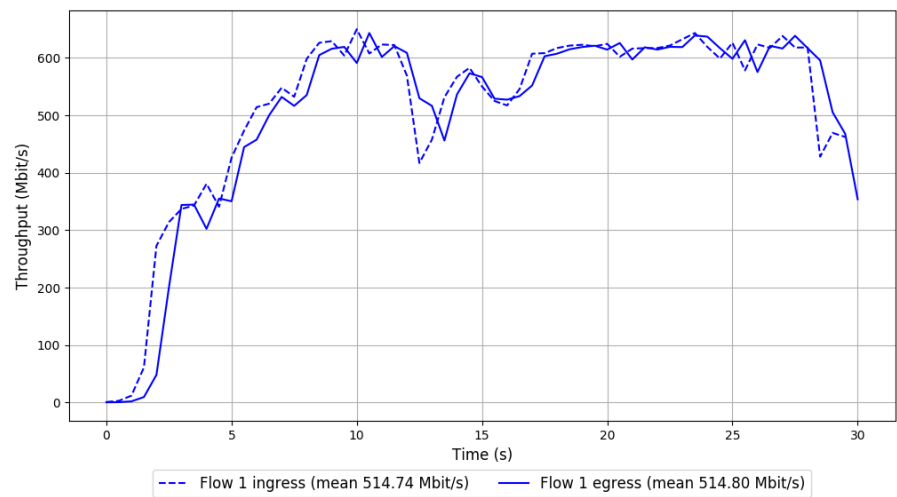


Run 2: Statistics of TCP Cubic

Start at: 2019-10-02 18:11:13  
End at: 2019-10-02 18:11:43  
Local clock offset: 15.311 ms  
Remote clock offset: 21.512 ms

# Below is generated by plot.py at 2019-10-02 20:56:51  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 514.80 Mbit/s  
95th percentile per-packet one-way delay: 161.937 ms  
Loss rate: 0.70%  
-- Flow 1:  
Average throughput: 514.80 Mbit/s  
95th percentile per-packet one-way delay: 161.937 ms  
Loss rate: 0.70%

Run 2: Report of TCP Cubic — Data Link



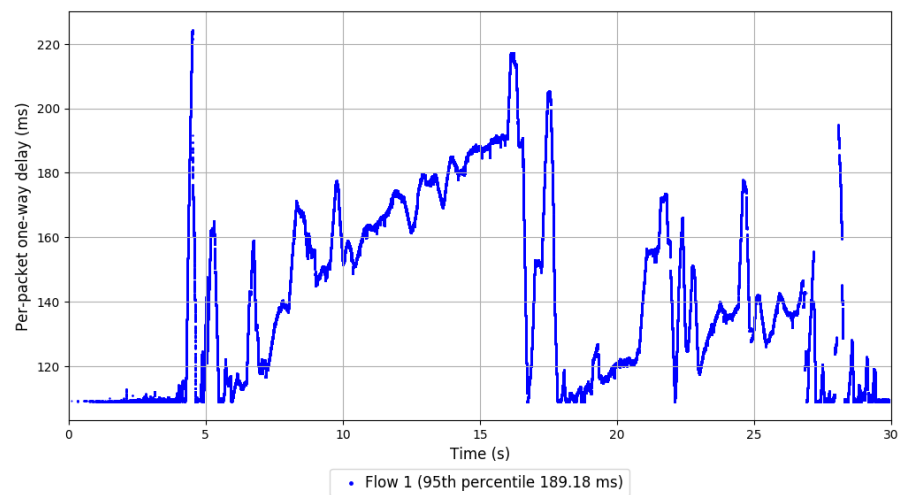
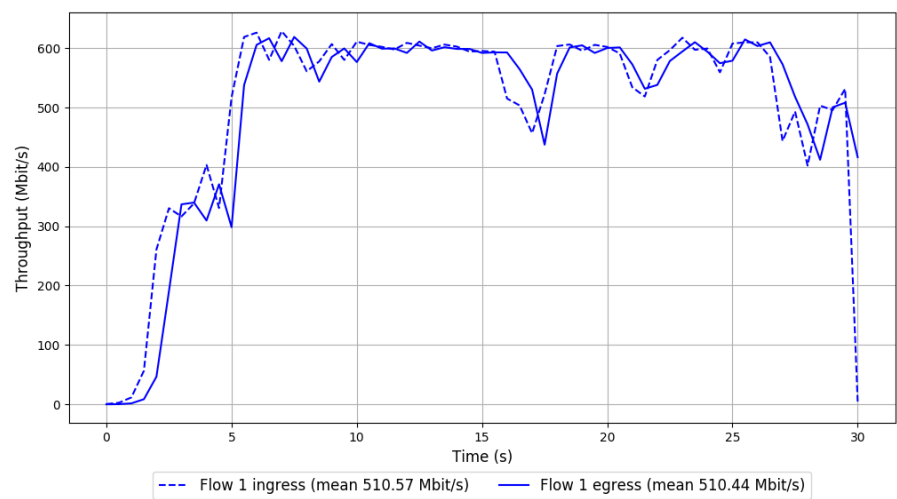


Run 3: Statistics of TCP Cubic

Start at: 2019-10-02 18:47:36  
End at: 2019-10-02 18:48:06  
Local clock offset: 11.65 ms  
Remote clock offset: 16.049 ms

# Below is generated by plot.py at 2019-10-02 20:56:51  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 510.44 Mbit/s  
95th percentile per-packet one-way delay: 189.179 ms  
Loss rate: 0.75%  
-- Flow 1:  
Average throughput: 510.44 Mbit/s  
95th percentile per-packet one-way delay: 189.179 ms  
Loss rate: 0.75%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-10-02 19:23:41

End at: 2019-10-02 19:24:11

Local clock offset: 4.757 ms

Remote clock offset: 7.75 ms

# Below is generated by plot.py at 2019-10-02 20:56:51

# Datalink statistics

-- Total of 1 flow:

Average throughput: 493.87 Mbit/s

95th percentile per-packet one-way delay: 176.591 ms

Loss rate: 1.07%

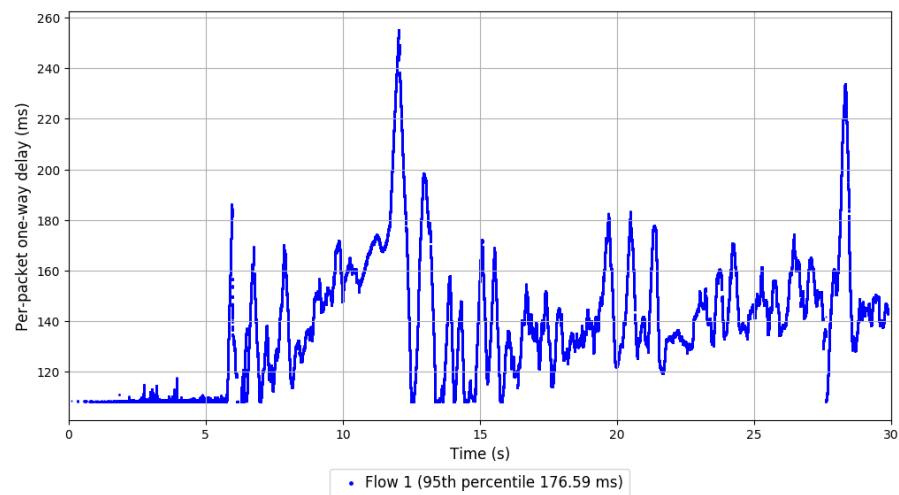
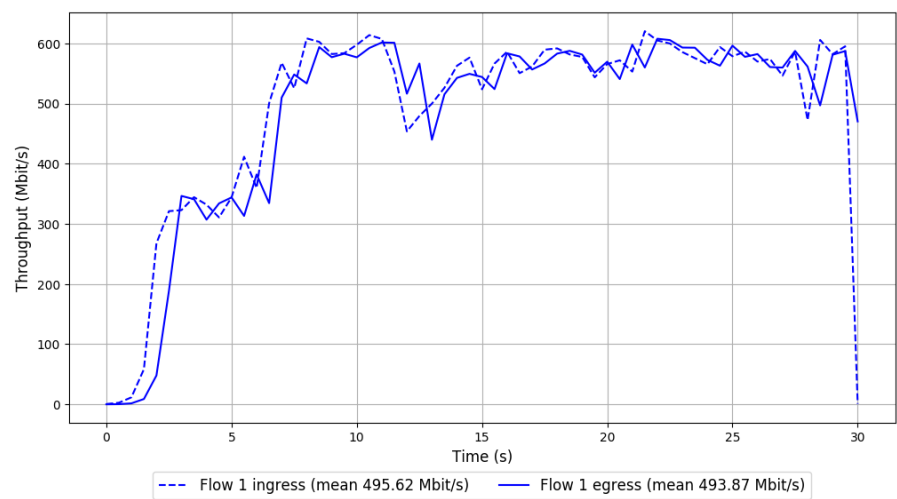
-- Flow 1:

Average throughput: 493.87 Mbit/s

95th percentile per-packet one-way delay: 176.591 ms

Loss rate: 1.07%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-10-02 19:59:10

End at: 2019-10-02 19:59:40

Local clock offset: 1.595 ms

Remote clock offset: 2.731 ms

# Below is generated by plot.py at 2019-10-02 20:56:55

# Datalink statistics

-- Total of 1 flow:

Average throughput: 496.02 Mbit/s

95th percentile per-packet one-way delay: 199.758 ms

Loss rate: 1.02%

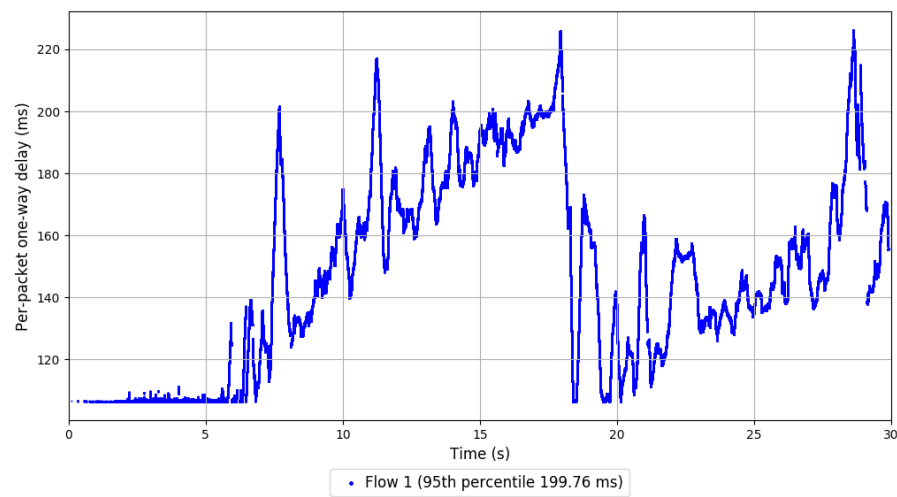
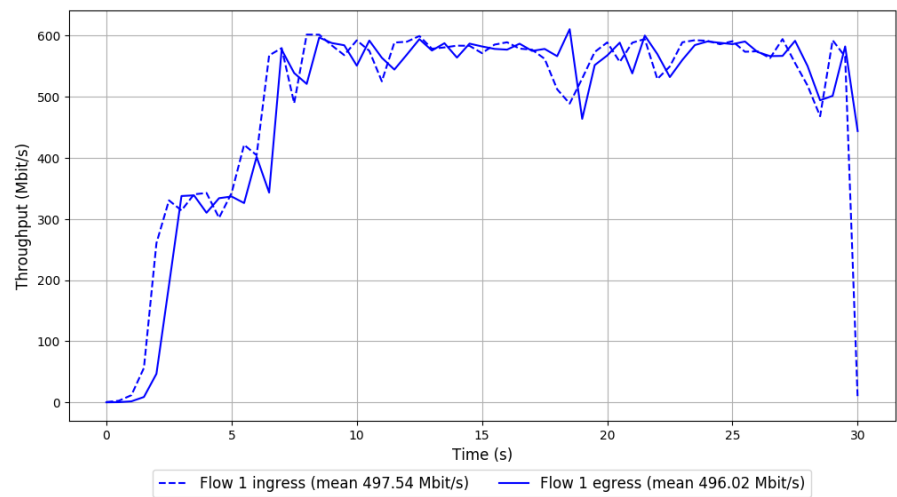
-- Flow 1:

Average throughput: 496.02 Mbit/s

95th percentile per-packet one-way delay: 199.758 ms

Loss rate: 1.02%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-10-02 17:29:03

End at: 2019-10-02 17:29:33

Local clock offset: 5.135 ms

Remote clock offset: 6.993 ms

# Below is generated by plot.py at 2019-10-02 21:06:13

# Datalink statistics

-- Total of 1 flow:

Average throughput: 857.46 Mbit/s

95th percentile per-packet one-way delay: 168.848 ms

Loss rate: 2.47%

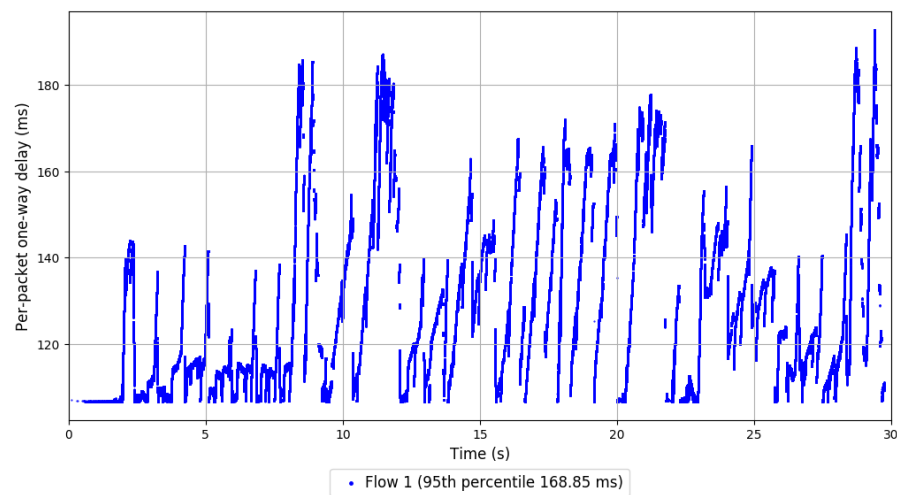
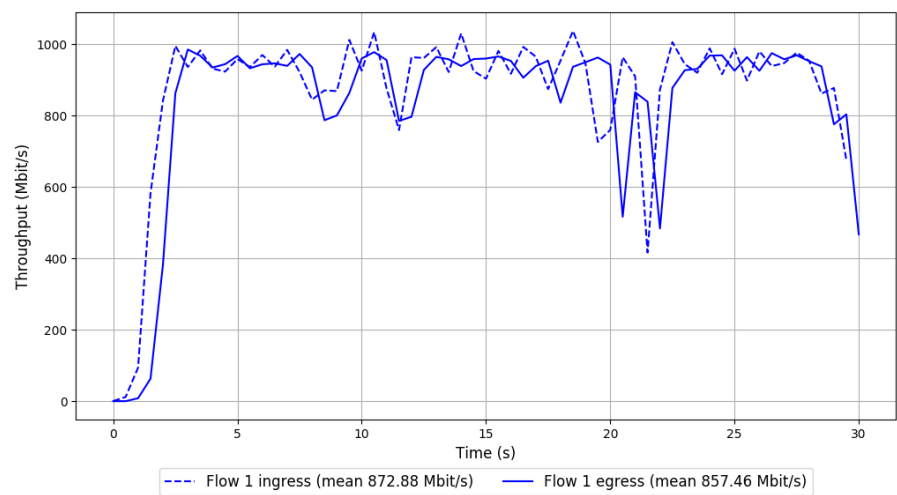
-- Flow 1:

Average throughput: 857.46 Mbit/s

95th percentile per-packet one-way delay: 168.848 ms

Loss rate: 2.47%

Run 1: Report of FillP — Data Link



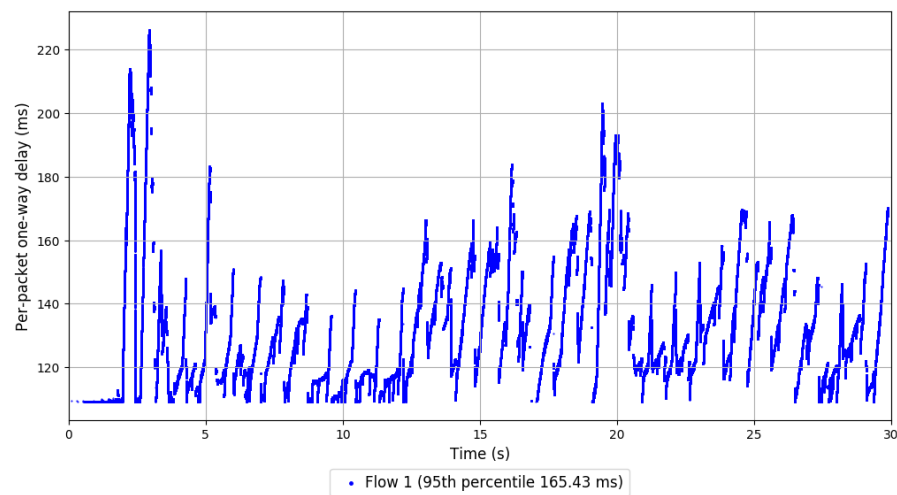
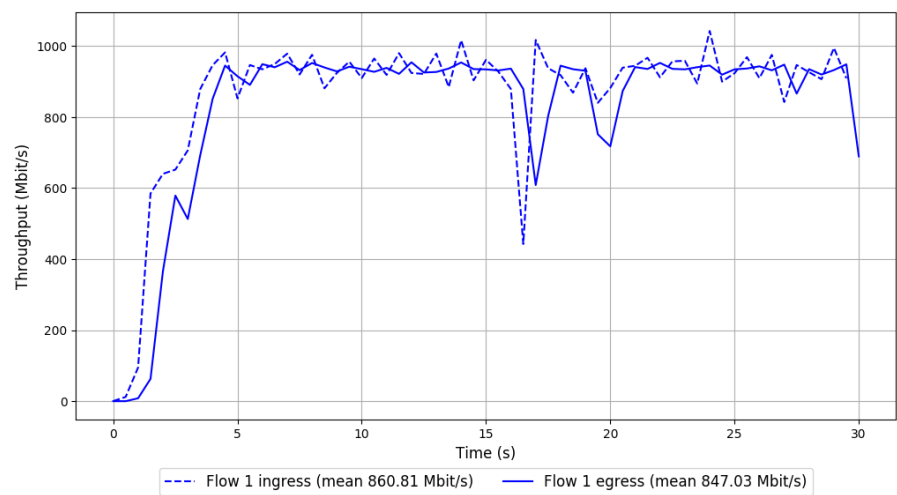


Run 2: Statistics of FillP

Start at: 2019-10-02 18:05:10  
End at: 2019-10-02 18:05:40  
Local clock offset: 14.849 ms  
Remote clock offset: 20.783 ms

# Below is generated by plot.py at 2019-10-02 21:15:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 847.03 Mbit/s  
95th percentile per-packet one-way delay: 165.428 ms  
Loss rate: 2.32%  
-- Flow 1:  
Average throughput: 847.03 Mbit/s  
95th percentile per-packet one-way delay: 165.428 ms  
Loss rate: 2.32%

Run 2: Report of FillP — Data Link

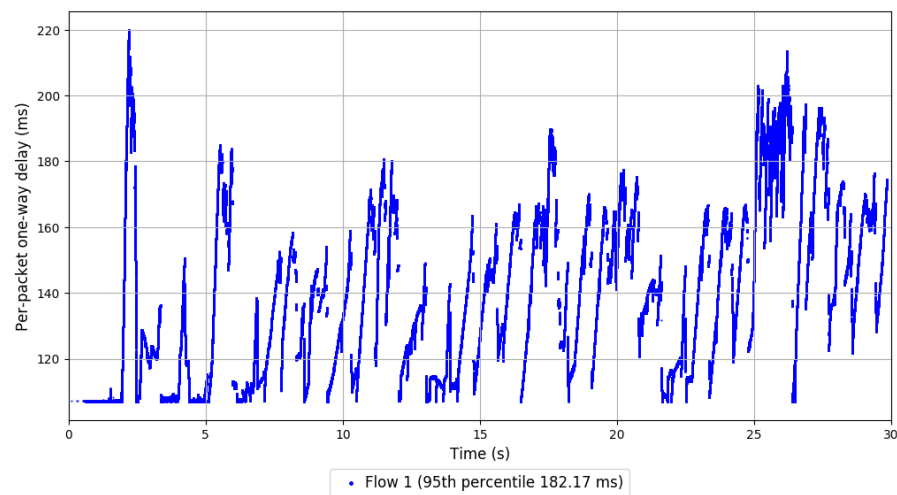
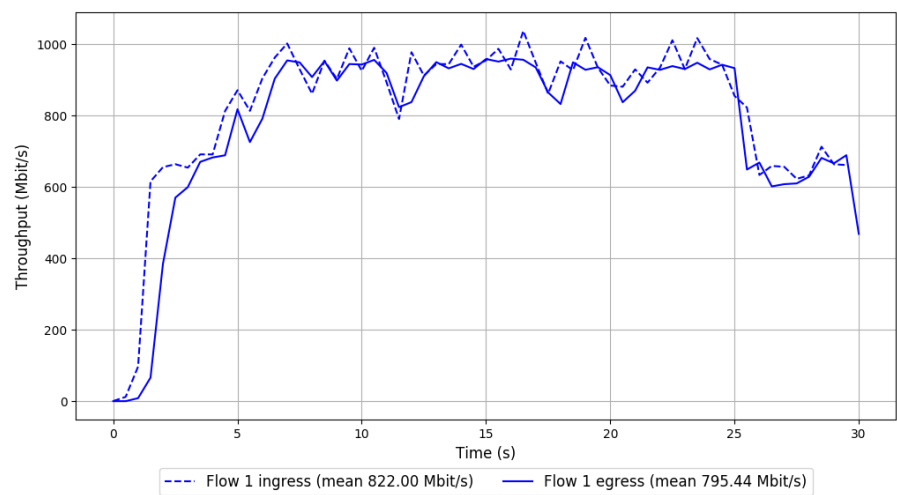


Run 3: Statistics of FillP

Start at: 2019-10-02 18:41:33  
End at: 2019-10-02 18:42:03  
Local clock offset: 14.616 ms  
Remote clock offset: 19.945 ms

# Below is generated by plot.py at 2019-10-02 21:15:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 795.44 Mbit/s  
95th percentile per-packet one-way delay: 182.167 ms  
Loss rate: 3.93%  
-- Flow 1:  
Average throughput: 795.44 Mbit/s  
95th percentile per-packet one-way delay: 182.167 ms  
Loss rate: 3.93%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-10-02 19:17:57

End at: 2019-10-02 19:18:27

Local clock offset: 6.363 ms

Remote clock offset: 8.892 ms

# Below is generated by plot.py at 2019-10-02 21:15:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 781.15 Mbit/s

95th percentile per-packet one-way delay: 192.520 ms

Loss rate: 6.72%

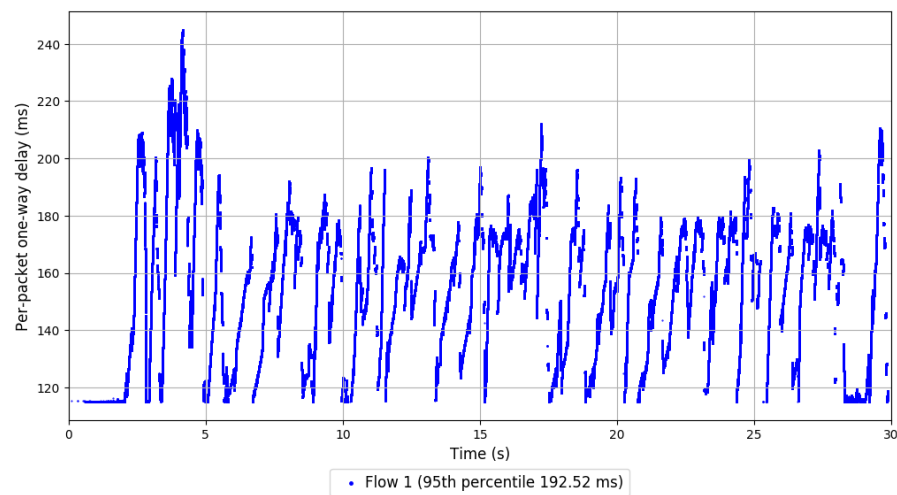
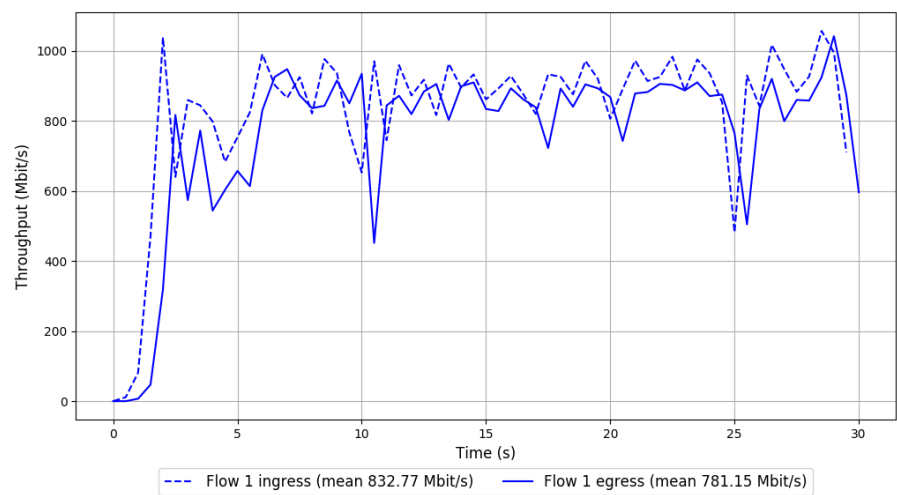
-- Flow 1:

Average throughput: 781.15 Mbit/s

95th percentile per-packet one-way delay: 192.520 ms

Loss rate: 6.72%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-10-02 19:53:35

End at: 2019-10-02 19:54:05

Local clock offset: 2.168 ms

Remote clock offset: 3.075 ms

# Below is generated by plot.py at 2019-10-02 21:15:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 565.70 Mbit/s

95th percentile per-packet one-way delay: 170.612 ms

Loss rate: 3.53%

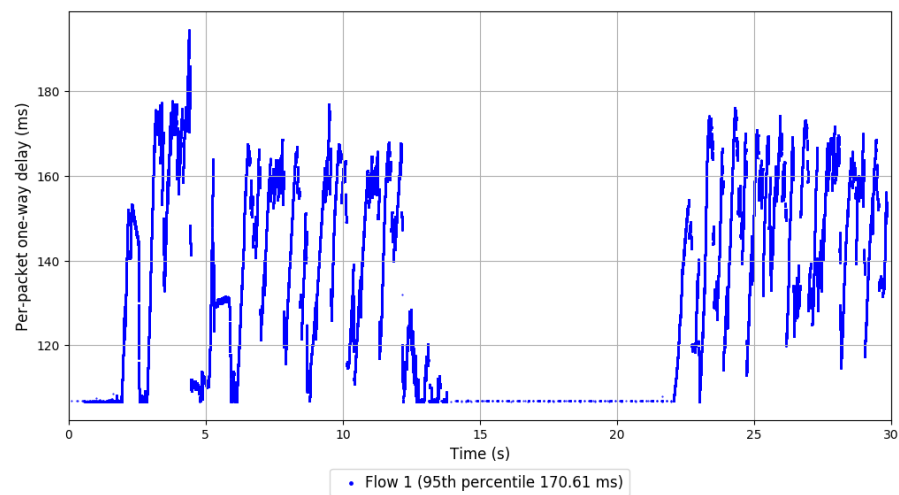
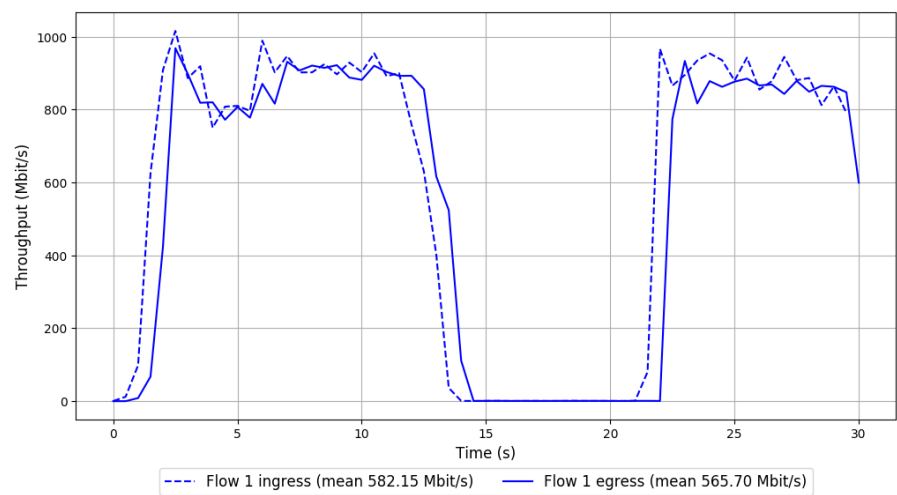
-- Flow 1:

Average throughput: 565.70 Mbit/s

95th percentile per-packet one-way delay: 170.612 ms

Loss rate: 3.53%

Run 5: Report of FillP — Data Link



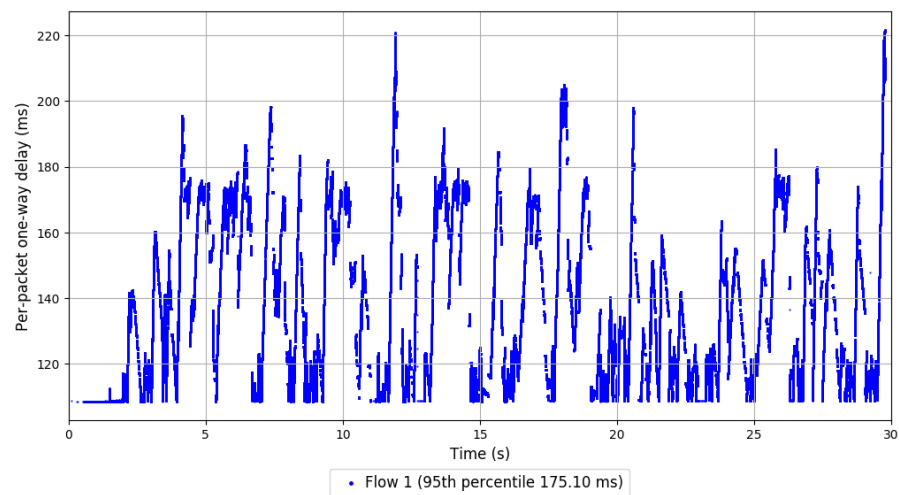
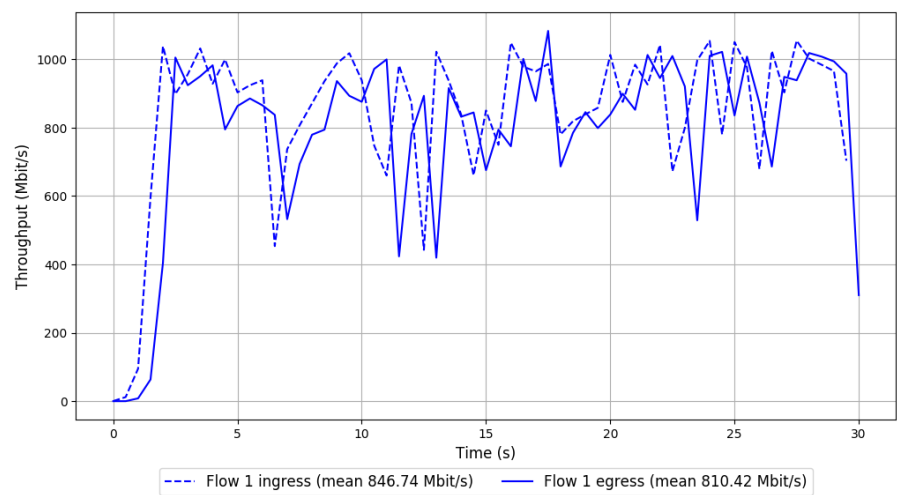


Run 1: Statistics of FillP-Sheep

Start at: 2019-10-02 17:57:29  
End at: 2019-10-02 17:57:59  
Local clock offset: 18.151 ms  
Remote clock offset: 26.541 ms

# Below is generated by plot.py at 2019-10-02 21:15:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 810.42 Mbit/s  
95th percentile per-packet one-way delay: 175.102 ms  
Loss rate: 4.97%  
-- Flow 1:  
Average throughput: 810.42 Mbit/s  
95th percentile per-packet one-way delay: 175.102 ms  
Loss rate: 4.97%

Run 1: Report of FillP-Sheep — Data Link

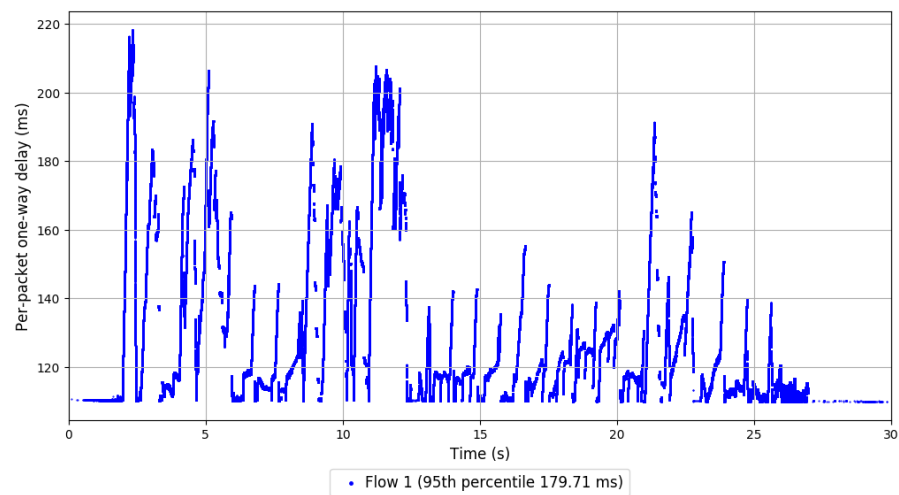
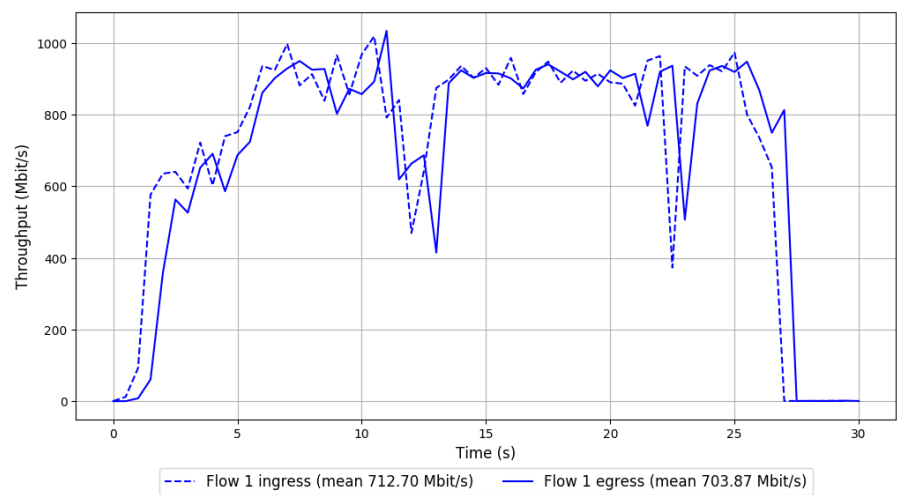


Run 2: Statistics of FillP-Sheep

Start at: 2019-10-02 18:34:03  
End at: 2019-10-02 18:34:33  
Local clock offset: 26.507 ms  
Remote clock offset: 35.834 ms

# Below is generated by plot.py at 2019-10-02 21:15:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 703.87 Mbit/s  
95th percentile per-packet one-way delay: 179.706 ms  
Loss rate: 2.01%  
-- Flow 1:  
Average throughput: 703.87 Mbit/s  
95th percentile per-packet one-way delay: 179.706 ms  
Loss rate: 2.01%

Run 2: Report of FillP-Sheep — Data Link

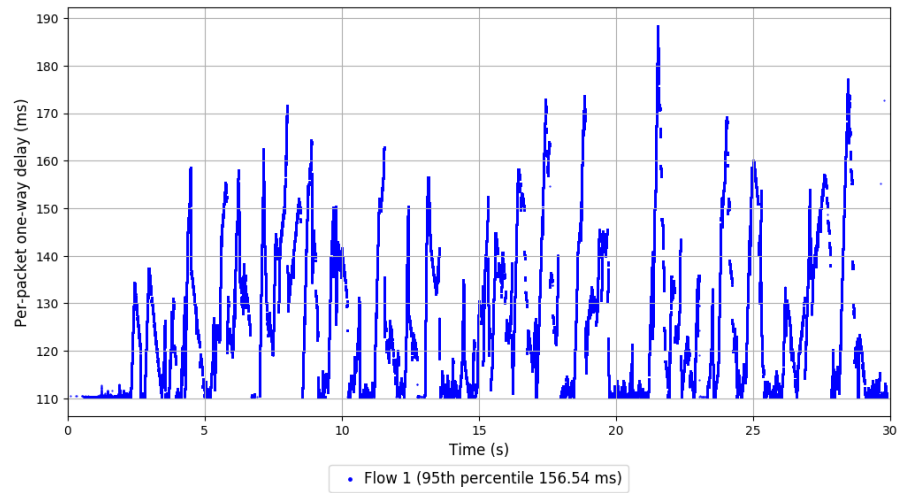
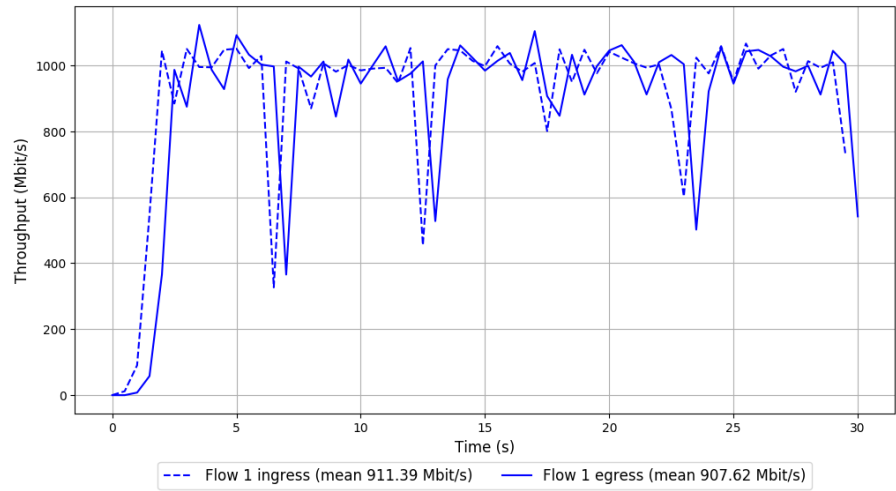


Run 3: Statistics of FillP-Sheep

Start at: 2019-10-02 19:10:21  
End at: 2019-10-02 19:10:51  
Local clock offset: 11.545 ms  
Remote clock offset: 14.957 ms

# Below is generated by plot.py at 2019-10-02 21:17:20  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 907.62 Mbit/s  
95th percentile per-packet one-way delay: 156.543 ms  
Loss rate: 1.14%  
-- Flow 1:  
Average throughput: 907.62 Mbit/s  
95th percentile per-packet one-way delay: 156.543 ms  
Loss rate: 1.14%

### Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-10-02 19:46:10

End at: 2019-10-02 19:46:40

Local clock offset: 4.157 ms

Remote clock offset: 5.839 ms

# Below is generated by plot.py at 2019-10-02 21:24:22

# Datalink statistics

-- Total of 1 flow:

Average throughput: 715.14 Mbit/s

95th percentile per-packet one-way delay: 159.888 ms

Loss rate: 1.72%

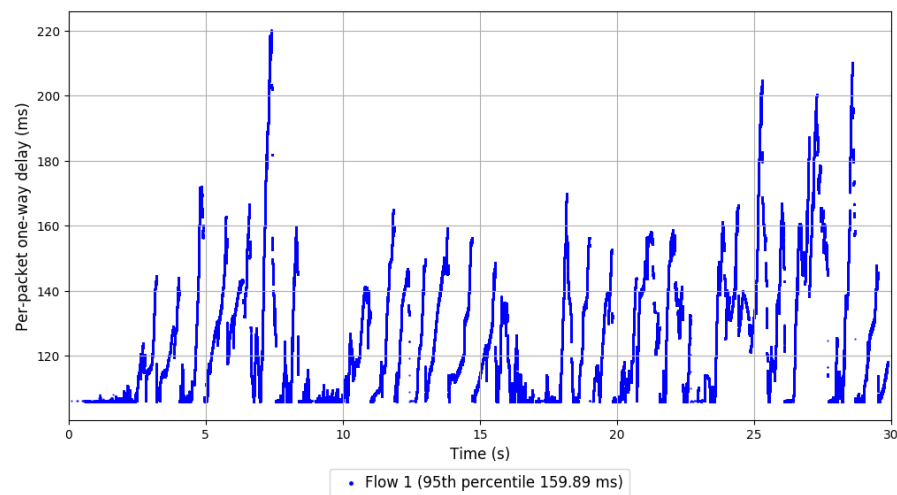
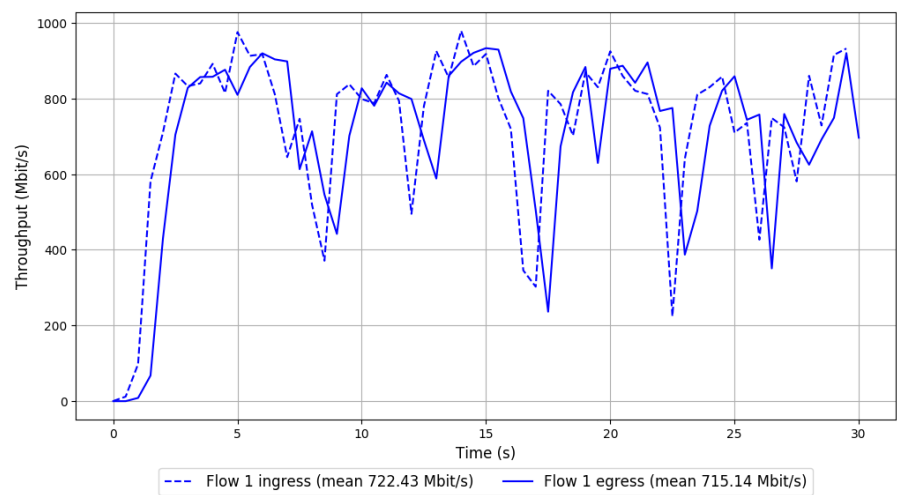
-- Flow 1:

Average throughput: 715.14 Mbit/s

95th percentile per-packet one-way delay: 159.888 ms

Loss rate: 1.72%

Run 4: Report of FillP-Sheep — Data Link





Run 5: Statistics of FillP-Sheep

Start at: 2019-10-02 20:21:44

End at: 2019-10-02 20:22:14

Local clock offset: 0.244 ms

Remote clock offset: 0.832 ms

# Below is generated by plot.py at 2019-10-02 21:27:39

# Datalink statistics

-- Total of 1 flow:

Average throughput: 781.27 Mbit/s

95th percentile per-packet one-way delay: 167.865 ms

Loss rate: 2.31%

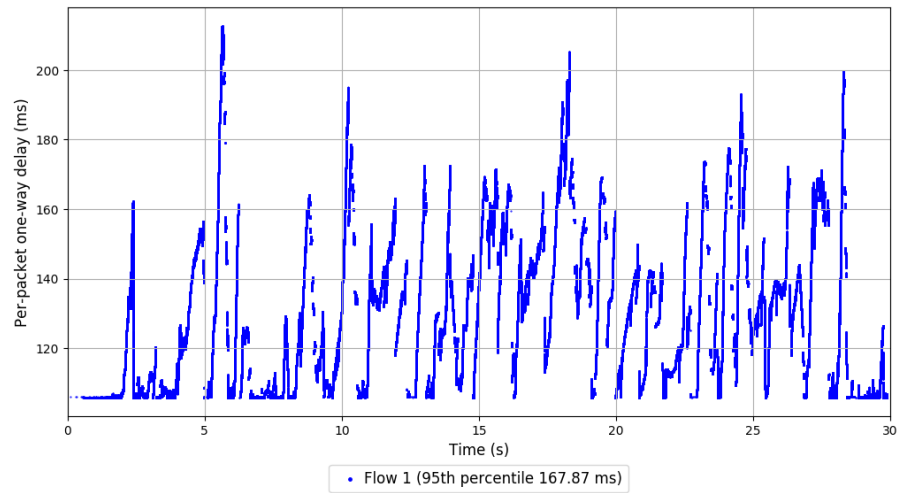
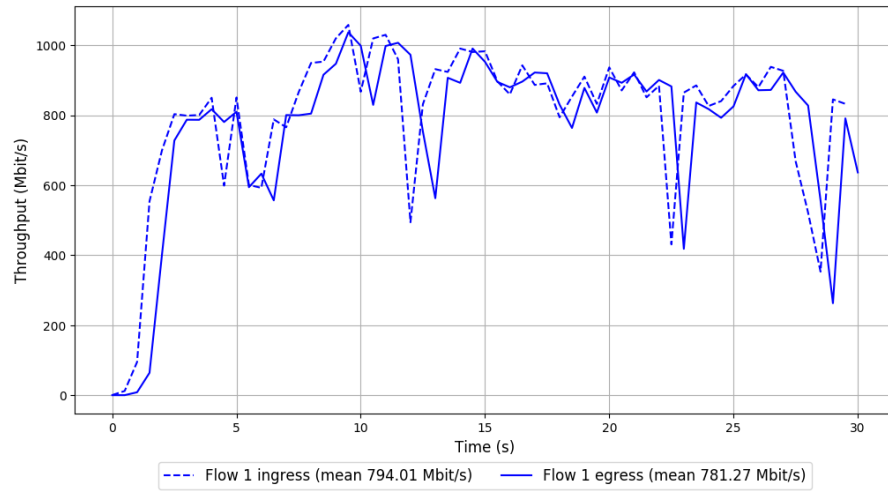
-- Flow 1:

Average throughput: 781.27 Mbit/s

95th percentile per-packet one-way delay: 167.865 ms

Loss rate: 2.31%

### Run 5: Report of FillP-Sheep — Data Link

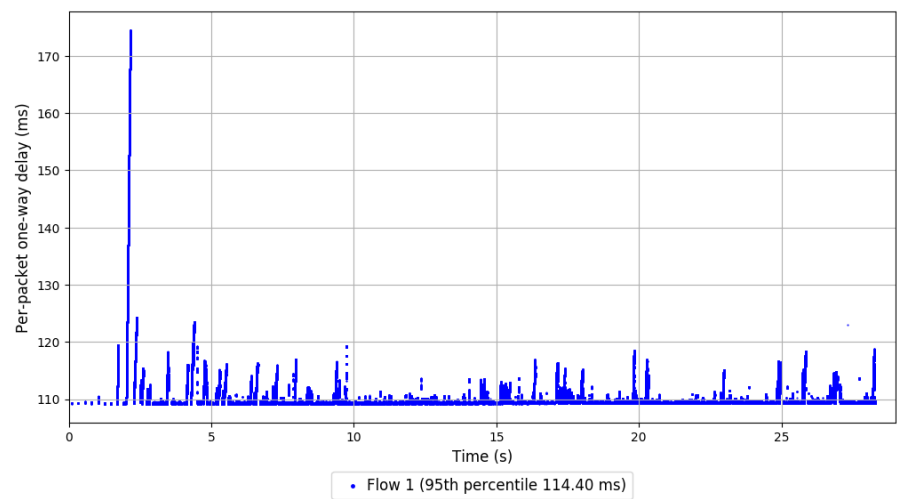
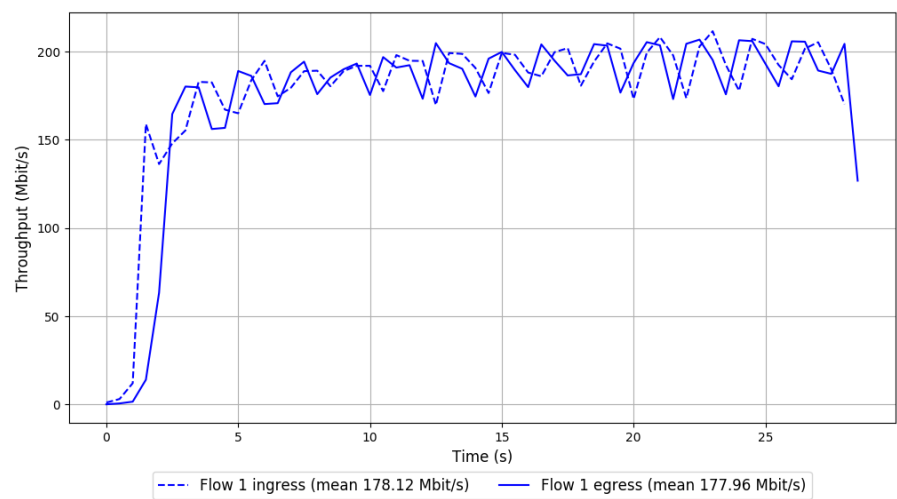


Run 1: Statistics of Indigo

Start at: 2019-10-02 17:56:02  
End at: 2019-10-02 17:56:32  
Local clock offset: 17.092 ms  
Remote clock offset: 24.484 ms

# Below is generated by plot.py at 2019-10-02 21:27:39  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 177.96 Mbit/s  
95th percentile per-packet one-way delay: 114.399 ms  
Loss rate: 0.85%  
-- Flow 1:  
Average throughput: 177.96 Mbit/s  
95th percentile per-packet one-way delay: 114.399 ms  
Loss rate: 0.85%

Run 1: Report of Indigo — Data Link

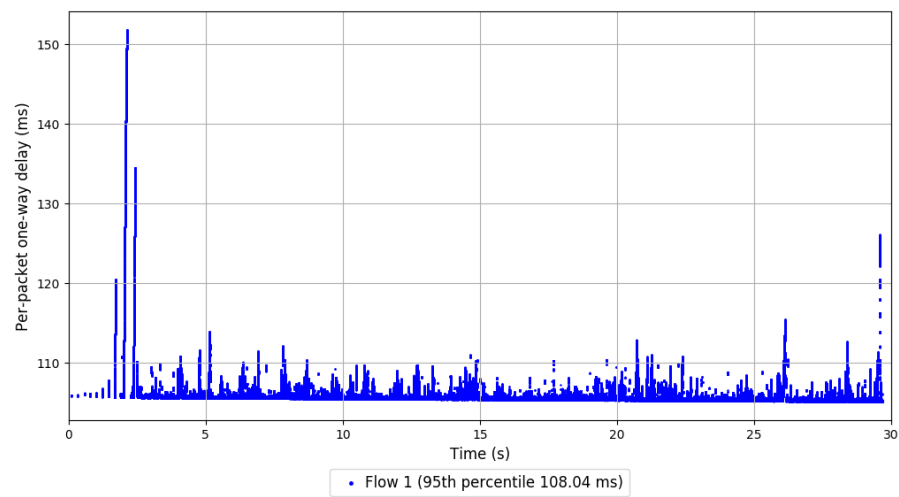
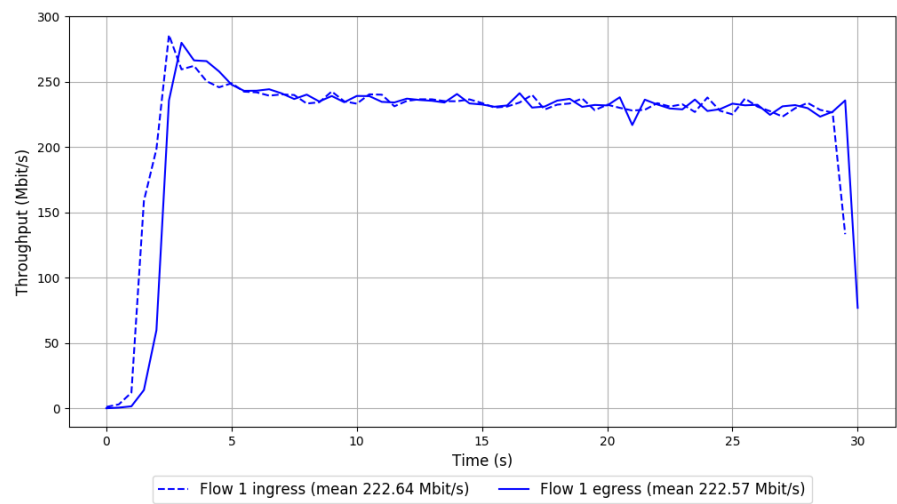


Run 2: Statistics of Indigo

Start at: 2019-10-02 18:32:31  
End at: 2019-10-02 18:33:01  
Local clock offset: 29.717 ms  
Remote clock offset: 41.581 ms

# Below is generated by plot.py at 2019-10-02 21:27:39  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 222.57 Mbit/s  
95th percentile per-packet one-way delay: 108.039 ms  
Loss rate: 0.75%  
-- Flow 1:  
Average throughput: 222.57 Mbit/s  
95th percentile per-packet one-way delay: 108.039 ms  
Loss rate: 0.75%

Run 2: Report of Indigo — Data Link

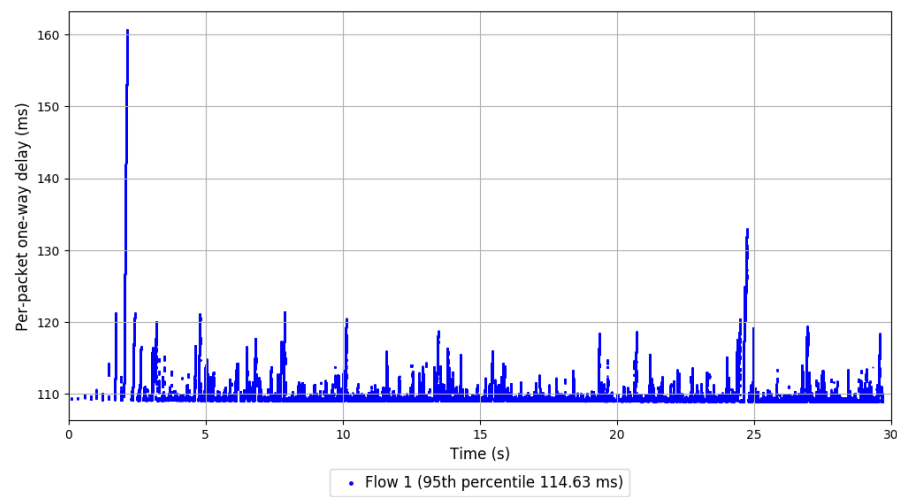
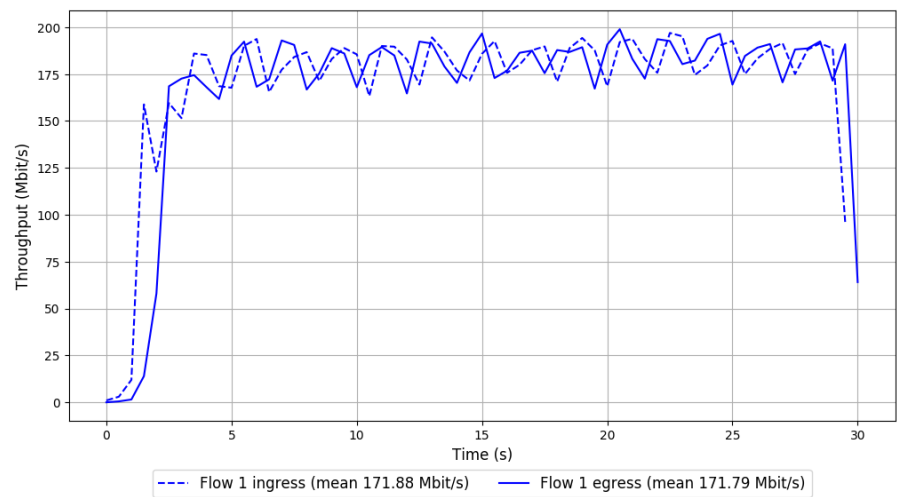


Run 3: Statistics of Indigo

Start at: 2019-10-02 19:08:54  
End at: 2019-10-02 19:09:24  
Local clock offset: 12.509 ms  
Remote clock offset: 17.026 ms

# Below is generated by plot.py at 2019-10-02 21:27:39  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 171.79 Mbit/s  
95th percentile per-packet one-way delay: 114.627 ms  
Loss rate: 0.78%  
-- Flow 1:  
Average throughput: 171.79 Mbit/s  
95th percentile per-packet one-way delay: 114.627 ms  
Loss rate: 0.78%

Run 3: Report of Indigo — Data Link





Run 4: Statistics of Indigo

Start at: 2019-10-02 19:44:44

End at: 2019-10-02 19:45:14

Local clock offset: 5.09 ms

Remote clock offset: 6.789 ms

# Below is generated by plot.py at 2019-10-02 21:27:39

# Datalink statistics

-- Total of 1 flow:

Average throughput: 162.74 Mbit/s

95th percentile per-packet one-way delay: 111.246 ms

Loss rate: 0.77%

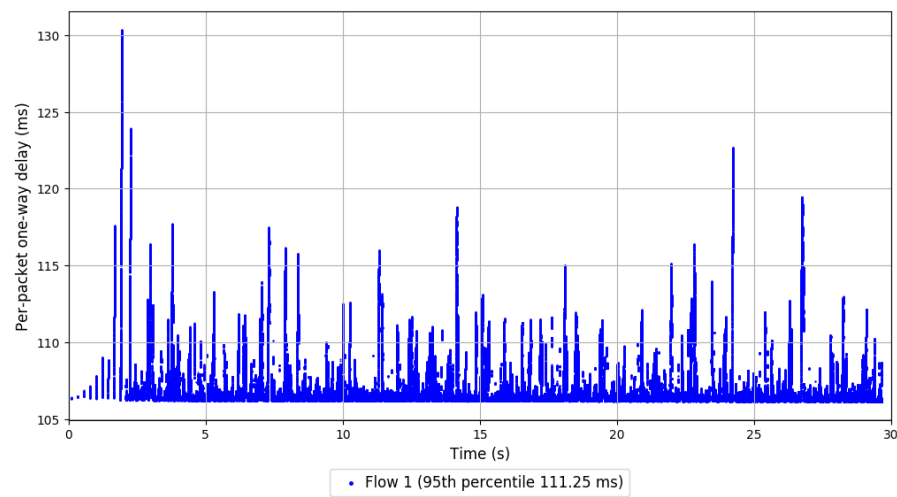
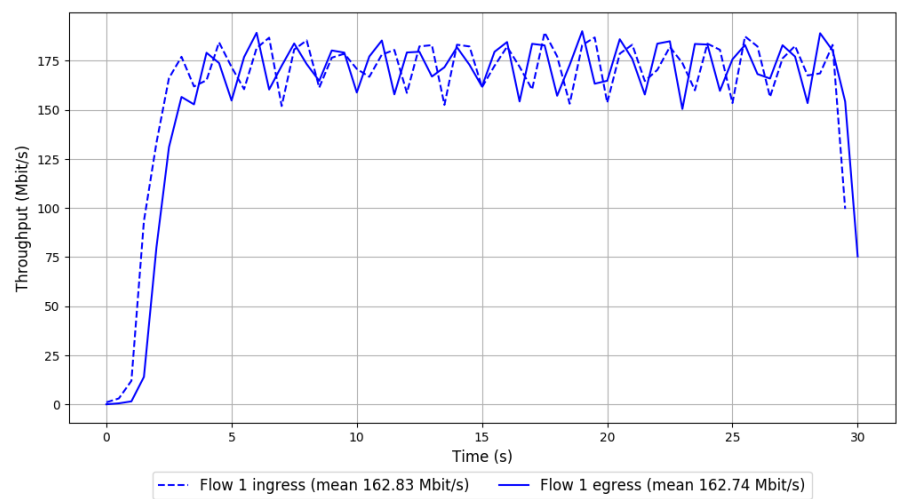
-- Flow 1:

Average throughput: 162.74 Mbit/s

95th percentile per-packet one-way delay: 111.246 ms

Loss rate: 0.77%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-10-02 20:20:18

End at: 2019-10-02 20:20:48

Local clock offset: 1.021 ms

Remote clock offset: 1.408 ms

# Below is generated by plot.py at 2019-10-02 21:27:39

# Datalink statistics

-- Total of 1 flow:

Average throughput: 155.62 Mbit/s

95th percentile per-packet one-way delay: 112.874 ms

Loss rate: 0.77%

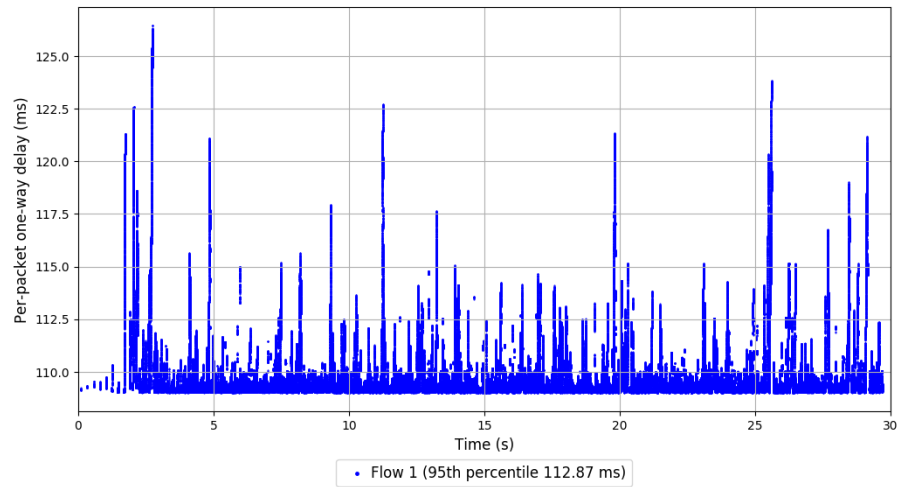
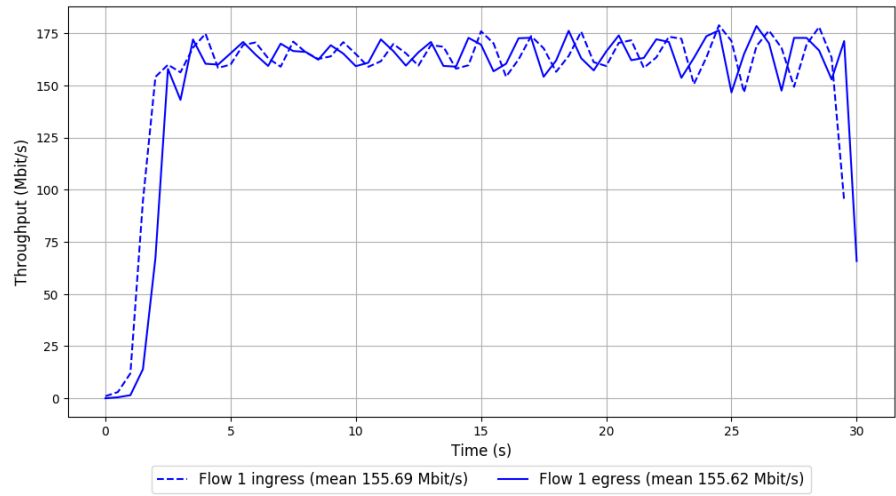
-- Flow 1:

Average throughput: 155.62 Mbit/s

95th percentile per-packet one-way delay: 112.874 ms

Loss rate: 0.77%

### Run 5: Report of Indigo — Data Link

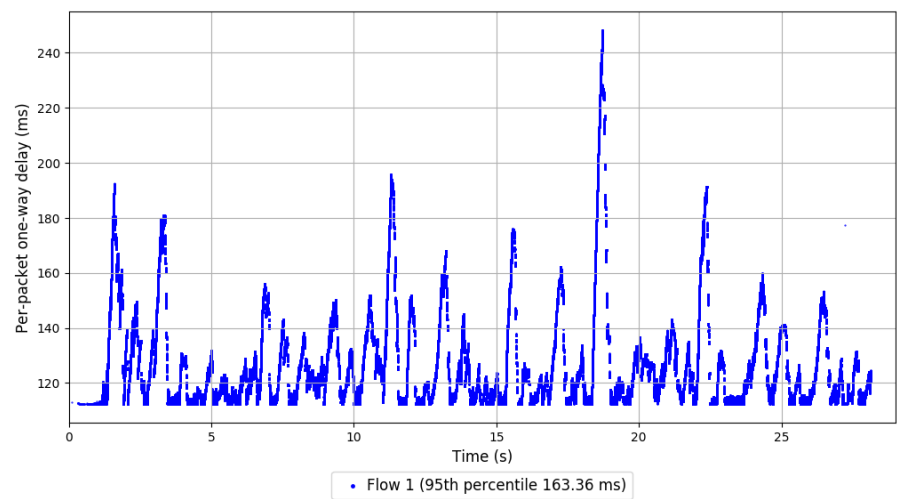
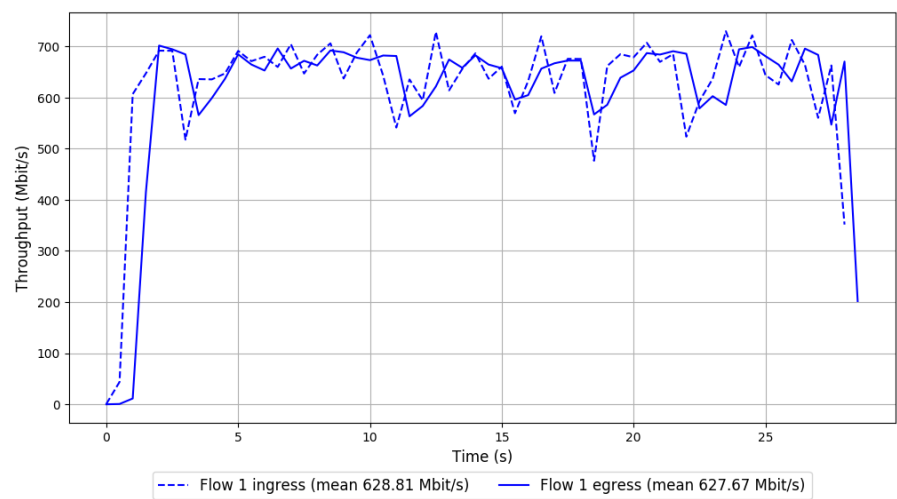


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-10-02 17:49:37  
End at: 2019-10-02 17:50:07  
Local clock offset: 11.478 ms  
Remote clock offset: 15.905 ms

# Below is generated by plot.py at 2019-10-02 21:29:11  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 627.67 Mbit/s  
95th percentile per-packet one-way delay: 163.363 ms  
Loss rate: 0.96%  
-- Flow 1:  
Average throughput: 627.67 Mbit/s  
95th percentile per-packet one-way delay: 163.363 ms  
Loss rate: 0.96%

Run 1: Report of Indigo-MusesC3 — Data Link

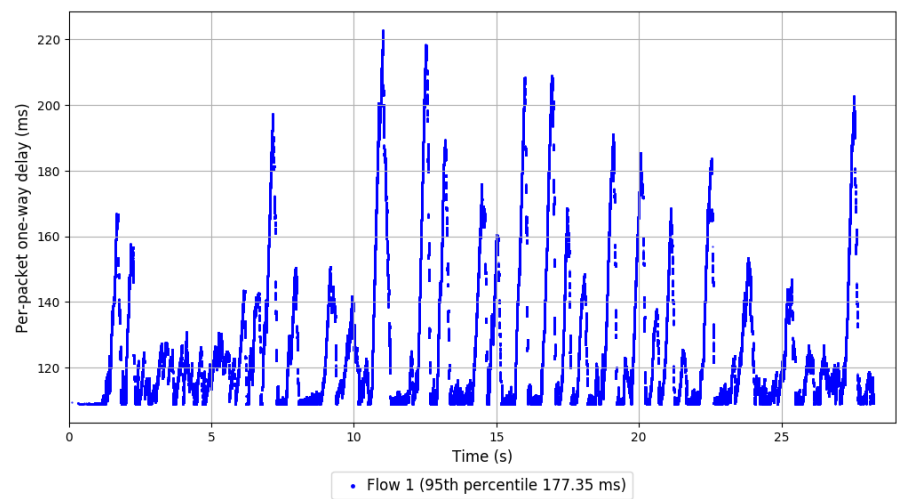
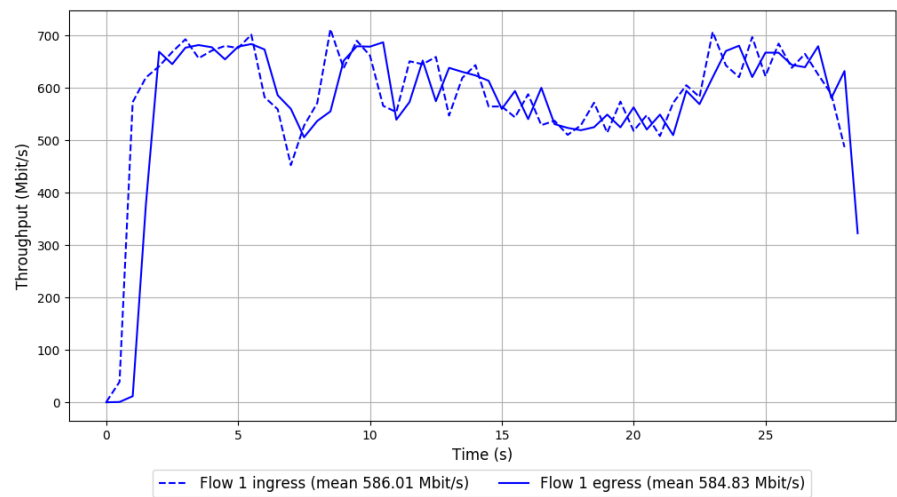


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-10-02 18:26:02  
End at: 2019-10-02 18:26:32  
Local clock offset: 24.435 ms  
Remote clock offset: 34.266 ms

# Below is generated by plot.py at 2019-10-02 21:30:06  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 584.83 Mbit/s  
95th percentile per-packet one-way delay: 177.355 ms  
Loss rate: 0.97%  
-- Flow 1:  
Average throughput: 584.83 Mbit/s  
95th percentile per-packet one-way delay: 177.355 ms  
Loss rate: 0.97%

Run 2: Report of Indigo-MusesC3 — Data Link



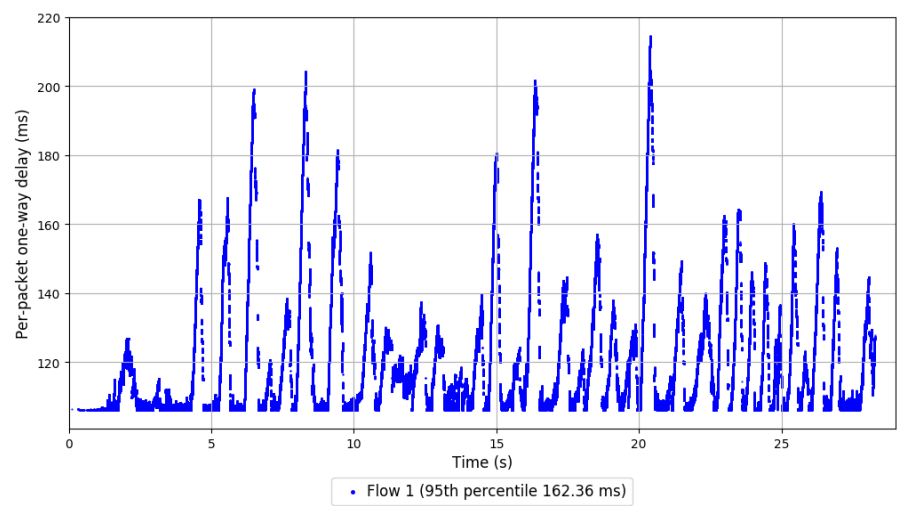
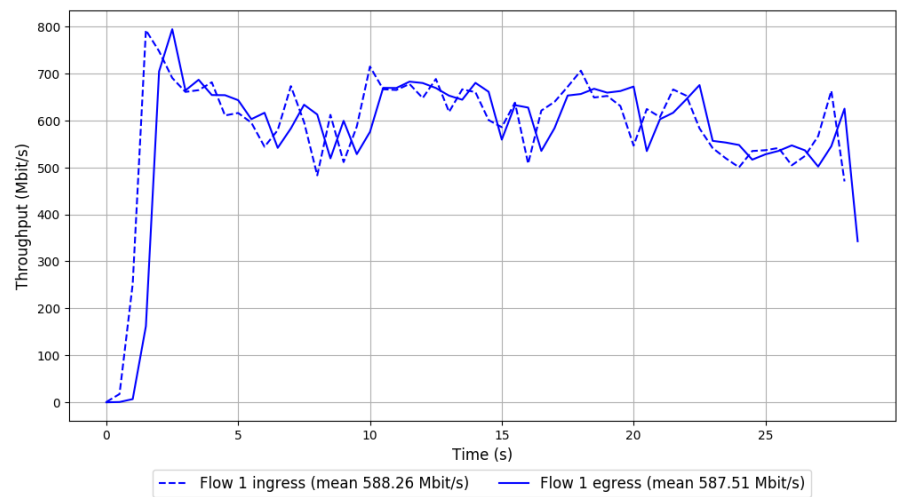


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-10-02 19:02:33  
End at: 2019-10-02 19:03:03  
Local clock offset: 13.154 ms  
Remote clock offset: 18.993 ms

# Below is generated by plot.py at 2019-10-02 21:32:41  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 587.51 Mbit/s  
95th percentile per-packet one-way delay: 162.358 ms  
Loss rate: 0.89%  
-- Flow 1:  
Average throughput: 587.51 Mbit/s  
95th percentile per-packet one-way delay: 162.358 ms  
Loss rate: 0.89%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-10-02 19:38:16

End at: 2019-10-02 19:38:46

Local clock offset: 6.833 ms

Remote clock offset: 9.514 ms

# Below is generated by plot.py at 2019-10-02 21:32:41

# Datalink statistics

-- Total of 1 flow:

Average throughput: 568.24 Mbit/s

95th percentile per-packet one-way delay: 172.929 ms

Loss rate: 0.96%

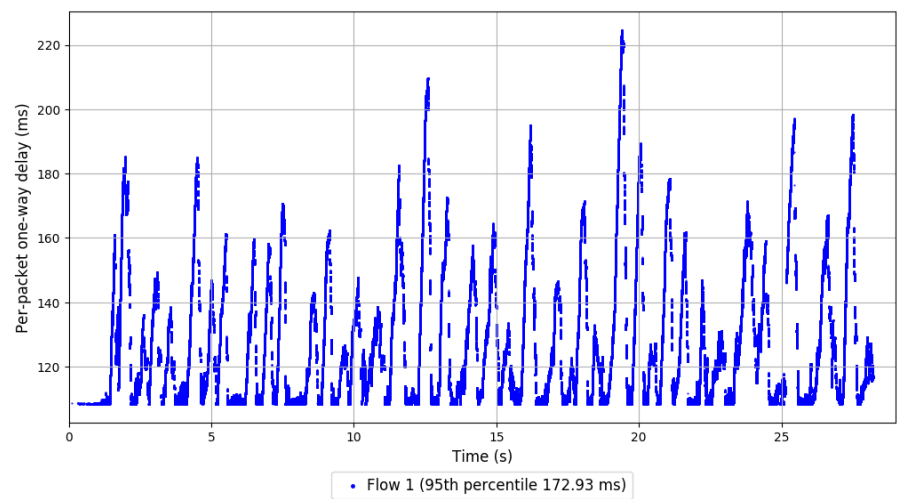
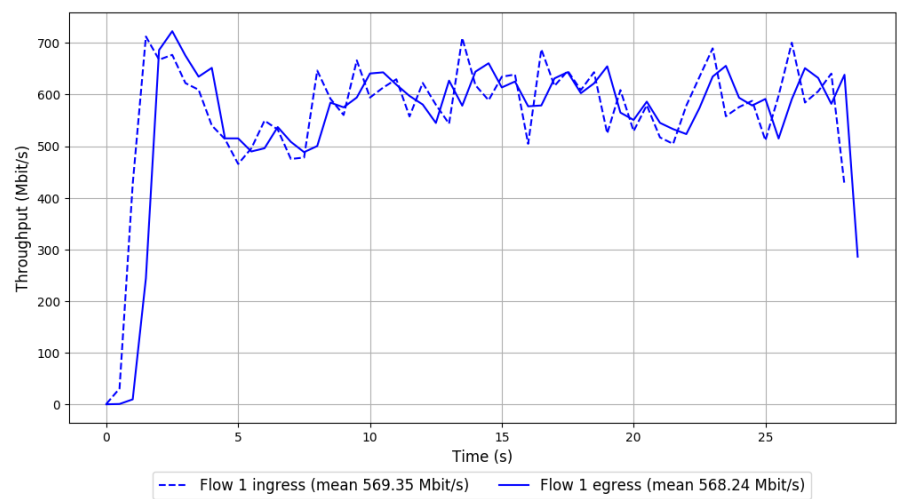
-- Flow 1:

Average throughput: 568.24 Mbit/s

95th percentile per-packet one-way delay: 172.929 ms

Loss rate: 0.96%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-10-02 20:13:55

End at: 2019-10-02 20:14:25

Local clock offset: 1.556 ms

Remote clock offset: 1.91 ms

# Below is generated by plot.py at 2019-10-02 21:32:45

# Datalink statistics

-- Total of 1 flow:

Average throughput: 575.12 Mbit/s

95th percentile per-packet one-way delay: 167.894 ms

Loss rate: 0.69%

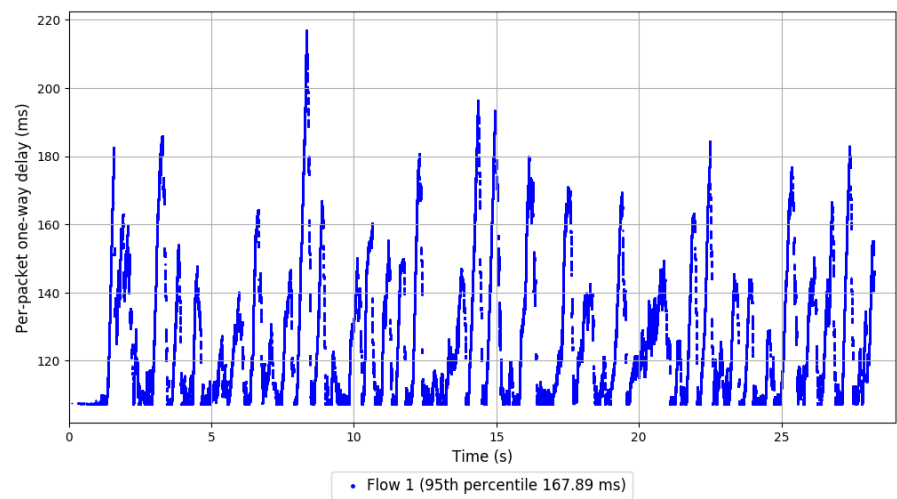
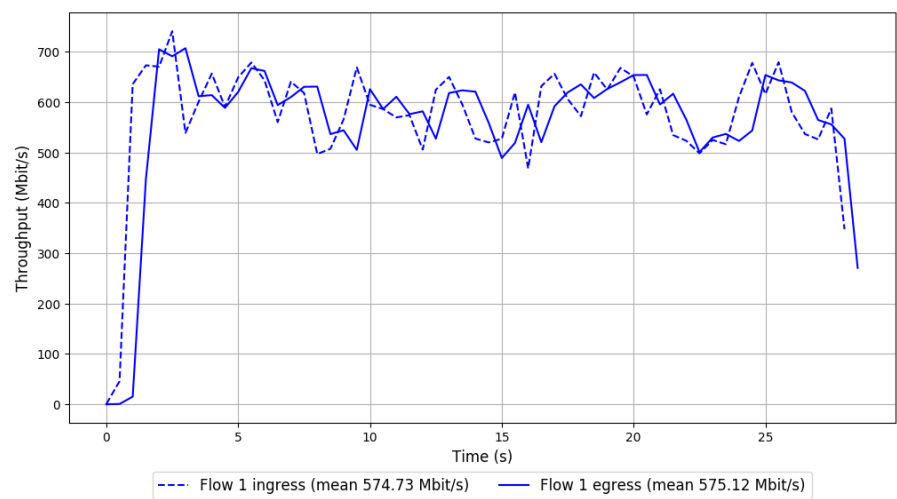
-- Flow 1:

Average throughput: 575.12 Mbit/s

95th percentile per-packet one-way delay: 167.894 ms

Loss rate: 0.69%

Run 5: Report of Indigo-MusesC3 — Data Link

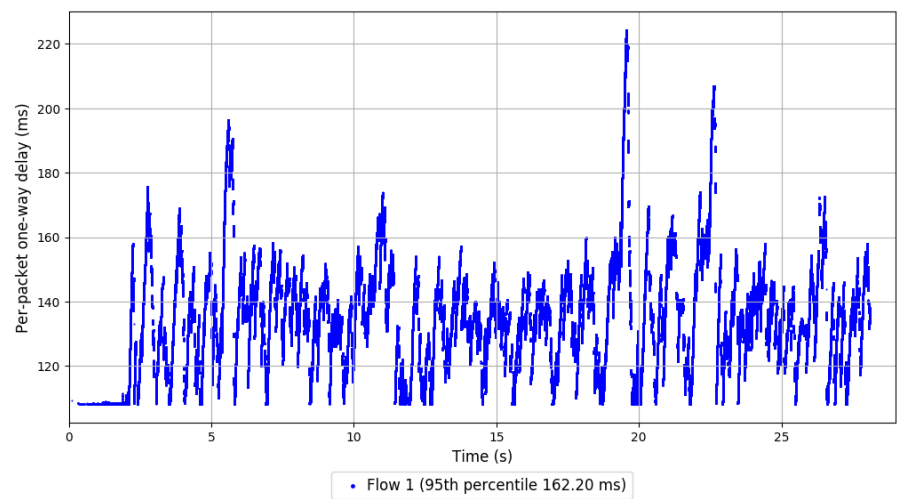
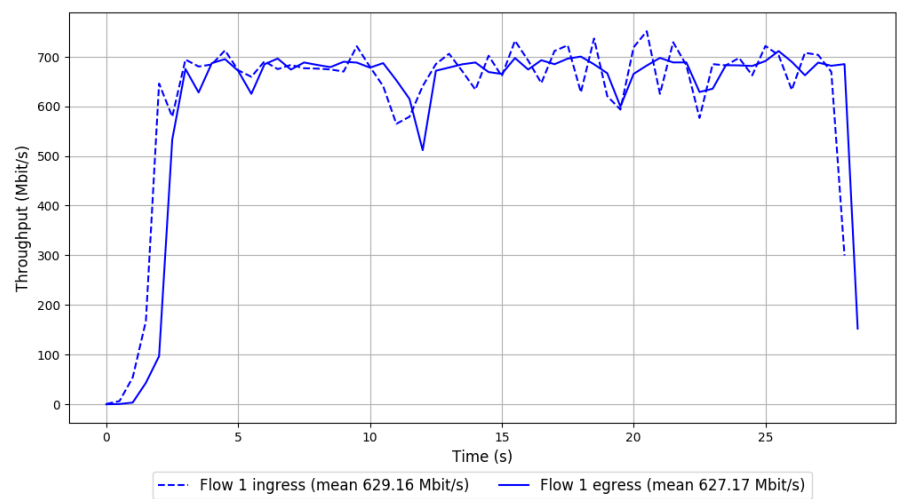


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-10-02 17:45:35  
End at: 2019-10-02 17:46:05  
Local clock offset: 9.007 ms  
Remote clock offset: 13.809 ms

# Below is generated by plot.py at 2019-10-02 21:34:21  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 627.17 Mbit/s  
95th percentile per-packet one-way delay: 162.202 ms  
Loss rate: 1.09%  
-- Flow 1:  
Average throughput: 627.17 Mbit/s  
95th percentile per-packet one-way delay: 162.202 ms  
Loss rate: 1.09%

Run 1: Report of Indigo-MusesC5 — Data Link



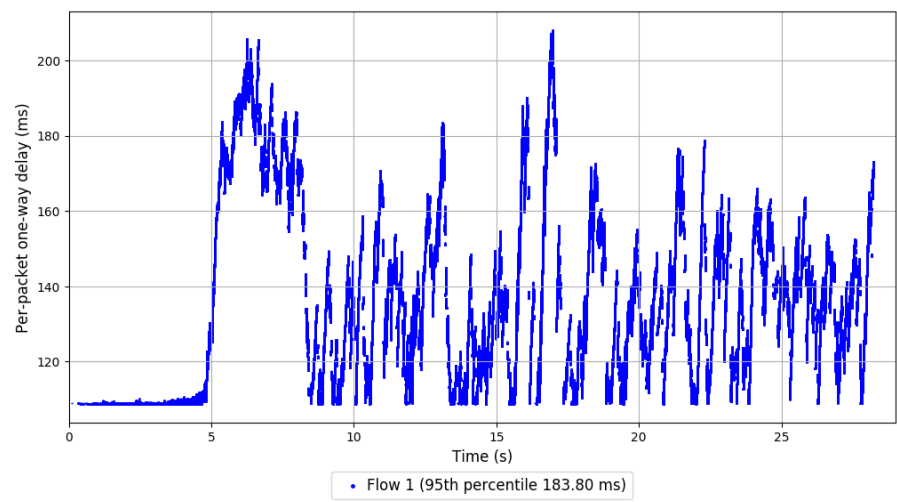
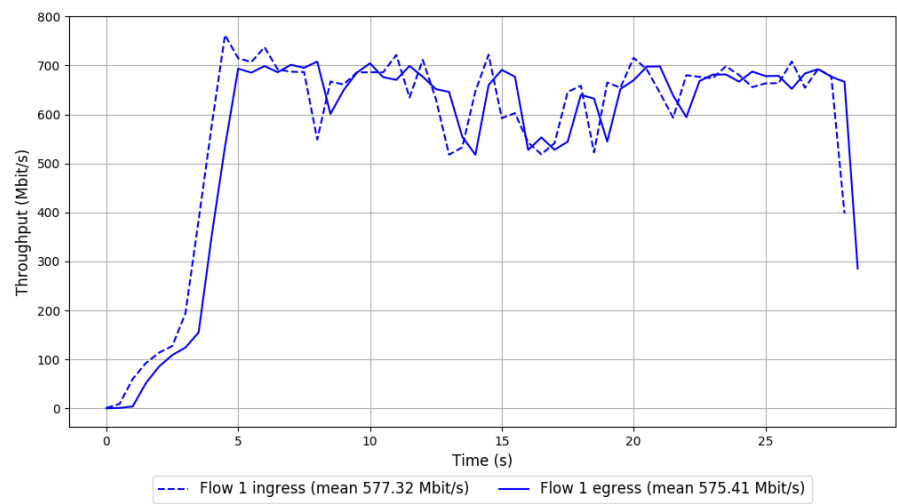


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-10-02 18:22:02  
End at: 2019-10-02 18:22:32  
Local clock offset: 21.336 ms  
Remote clock offset: 30.187 ms

# Below is generated by plot.py at 2019-10-02 21:34:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 575.41 Mbit/s  
95th percentile per-packet one-way delay: 183.797 ms  
Loss rate: 1.06%  
-- Flow 1:  
Average throughput: 575.41 Mbit/s  
95th percentile per-packet one-way delay: 183.797 ms  
Loss rate: 1.06%

Run 2: Report of Indigo-MusesC5 — Data Link

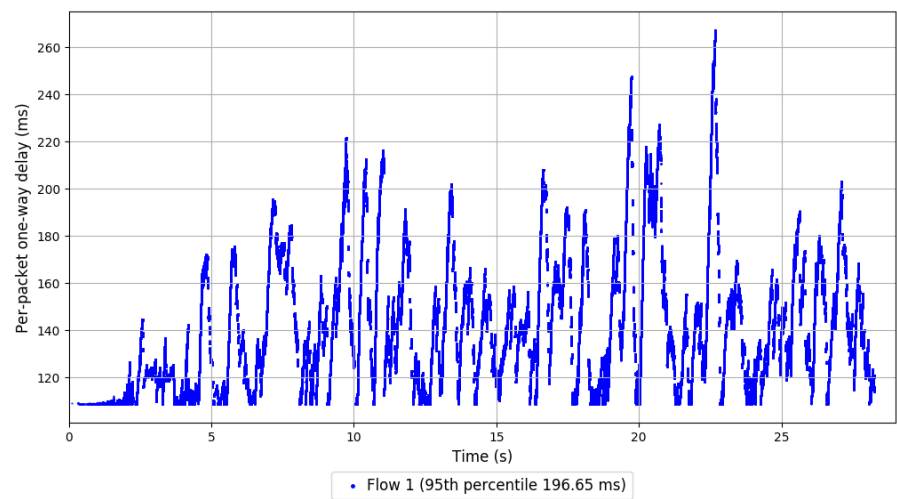
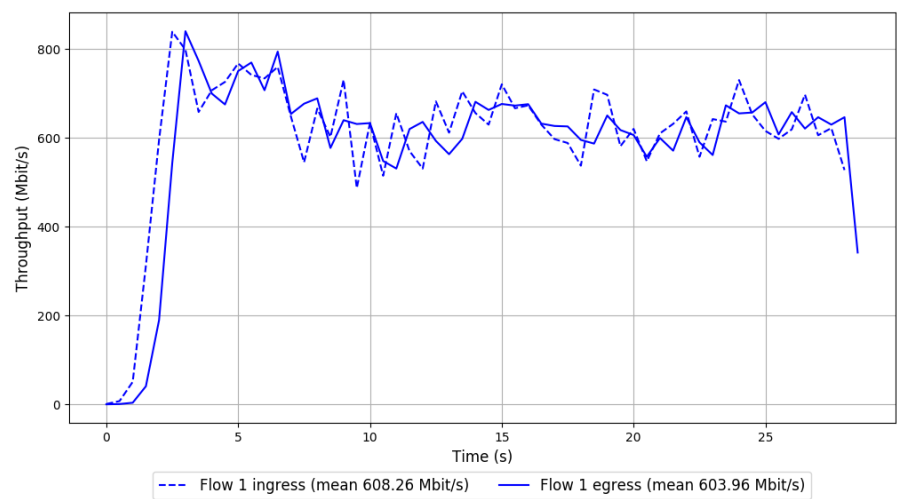


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-10-02 18:58:32  
End at: 2019-10-02 18:59:02  
Local clock offset: 12.455 ms  
Remote clock offset: 17.815 ms

# Below is generated by plot.py at 2019-10-02 21:39:29  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 603.96 Mbit/s  
95th percentile per-packet one-way delay: 196.649 ms  
Loss rate: 1.47%  
-- Flow 1:  
Average throughput: 603.96 Mbit/s  
95th percentile per-packet one-way delay: 196.649 ms  
Loss rate: 1.47%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-10-02 19:34:18

End at: 2019-10-02 19:34:48

Local clock offset: 6.146 ms

Remote clock offset: 8.753 ms

# Below is generated by plot.py at 2019-10-02 21:39:36

# Datalink statistics

-- Total of 1 flow:

Average throughput: 546.27 Mbit/s

95th percentile per-packet one-way delay: 194.858 ms

Loss rate: 1.25%

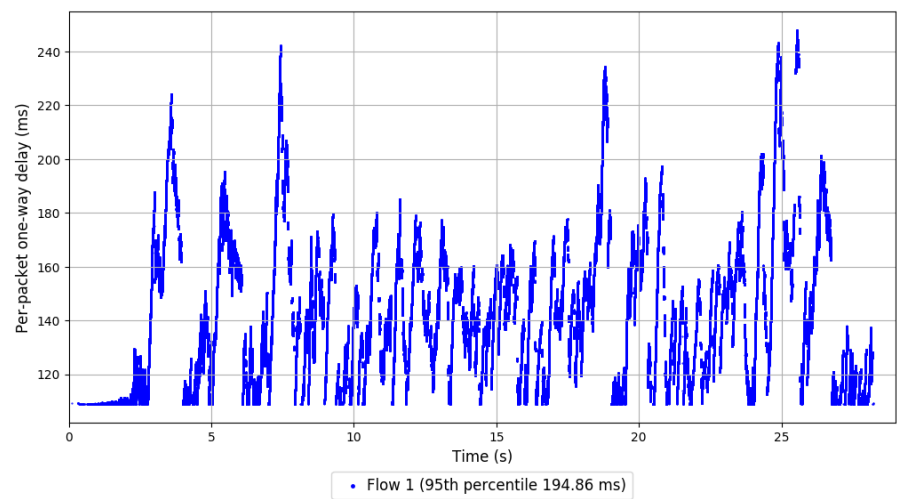
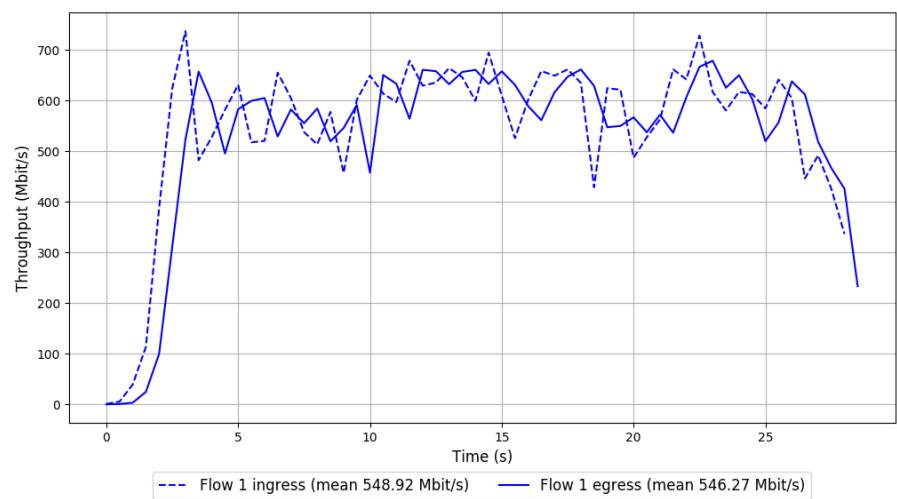
-- Flow 1:

Average throughput: 546.27 Mbit/s

95th percentile per-packet one-way delay: 194.858 ms

Loss rate: 1.25%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-10-02 20:09:56

End at: 2019-10-02 20:10:26

Local clock offset: 1.311 ms

Remote clock offset: 2.165 ms

# Below is generated by plot.py at 2019-10-02 21:40:15

# Datalink statistics

-- Total of 1 flow:

Average throughput: 534.65 Mbit/s

95th percentile per-packet one-way delay: 189.838 ms

Loss rate: 1.71%

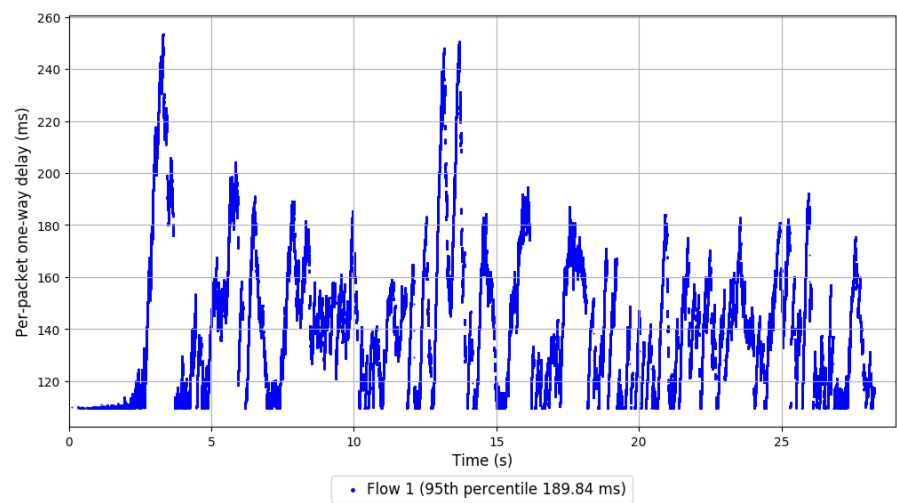
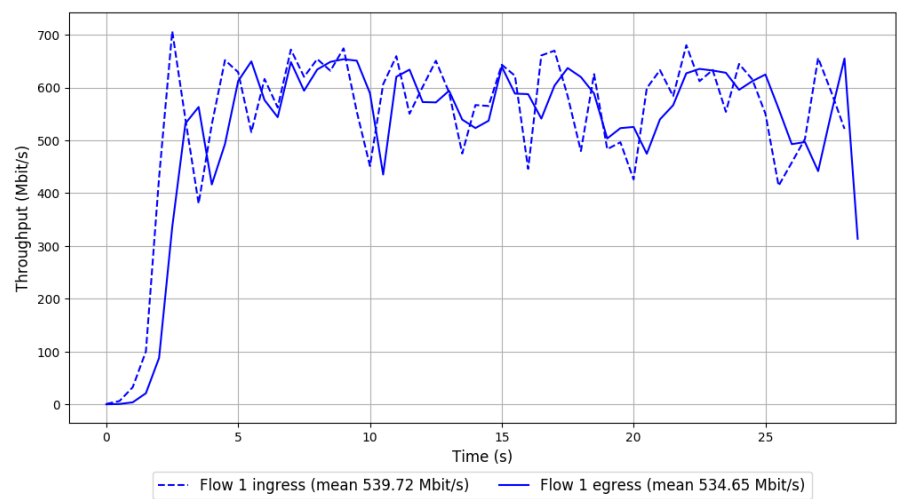
-- Flow 1:

Average throughput: 534.65 Mbit/s

95th percentile per-packet one-way delay: 189.838 ms

Loss rate: 1.71%

Run 5: Report of Indigo-MusesC5 — Data Link





Run 1: Statistics of Indigo-MusesD

Start at: 2019-10-02 18:00:28

End at: 2019-10-02 18:00:58

Local clock offset: 17.669 ms

Remote clock offset: 24.476 ms

# Below is generated by plot.py at 2019-10-02 21:42:22

# Datalink statistics

-- Total of 1 flow:

Average throughput: 537.99 Mbit/s

95th percentile per-packet one-way delay: 198.132 ms

Loss rate: 1.46%

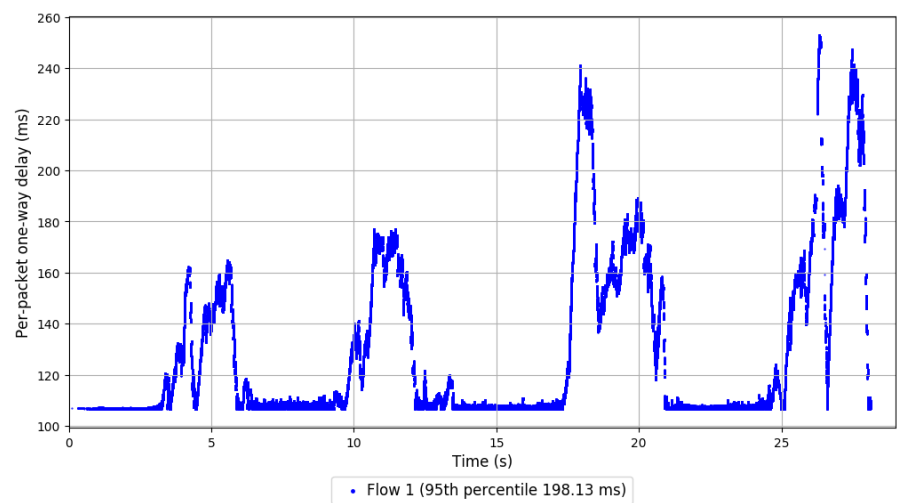
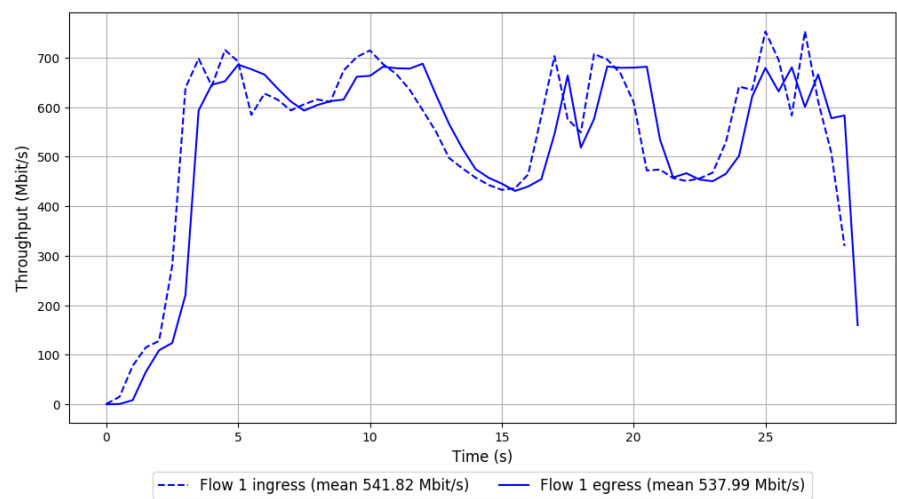
-- Flow 1:

Average throughput: 537.99 Mbit/s

95th percentile per-packet one-way delay: 198.132 ms

Loss rate: 1.46%

Run 1: Report of Indigo-MusesD — Data Link

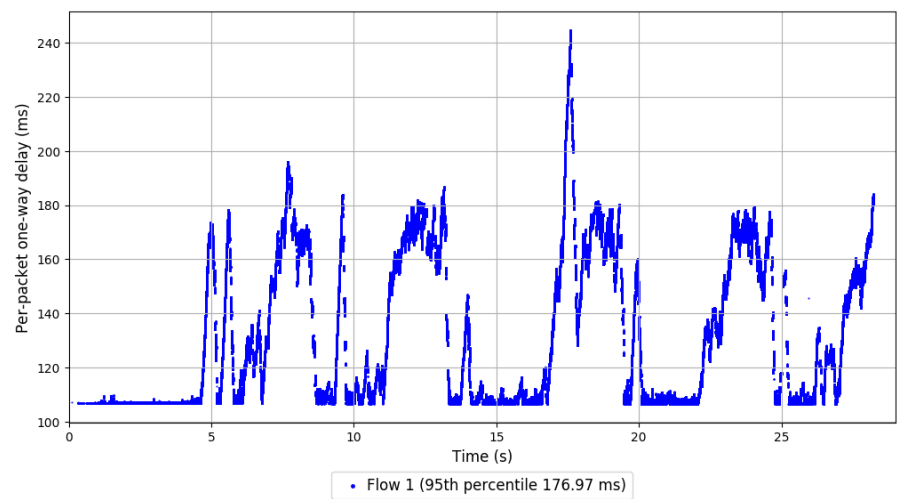
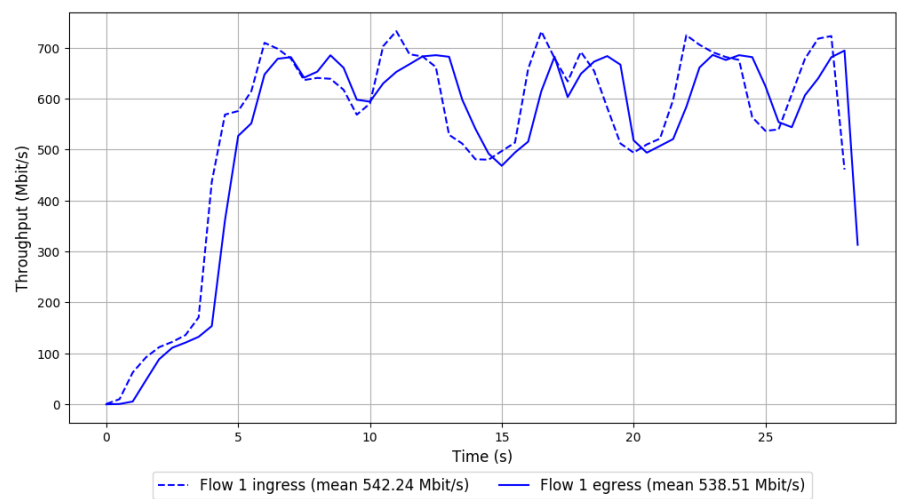


Run 2: Statistics of Indigo-MusesD

Start at: 2019-10-02 18:36:58  
End at: 2019-10-02 18:37:28  
Local clock offset: 20.482 ms  
Remote clock offset: 27.857 ms

# Below is generated by plot.py at 2019-10-02 21:42:36  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 538.51 Mbit/s  
95th percentile per-packet one-way delay: 176.966 ms  
Loss rate: 1.45%  
-- Flow 1:  
Average throughput: 538.51 Mbit/s  
95th percentile per-packet one-way delay: 176.966 ms  
Loss rate: 1.45%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-10-02 19:13:24

End at: 2019-10-02 19:13:54

Local clock offset: 8.456 ms

Remote clock offset: 11.593 ms

# Below is generated by plot.py at 2019-10-02 21:42:36

# Datalink statistics

-- Total of 1 flow:

Average throughput: 529.42 Mbit/s

95th percentile per-packet one-way delay: 190.050 ms

Loss rate: 0.97%

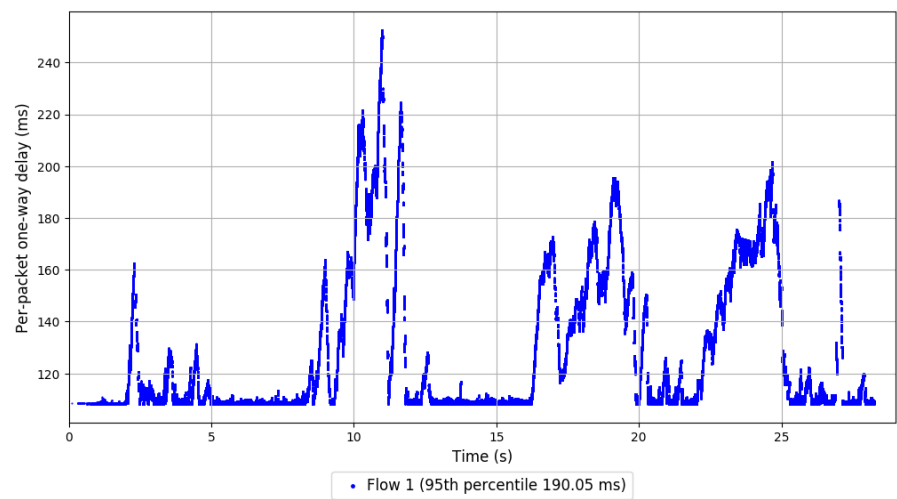
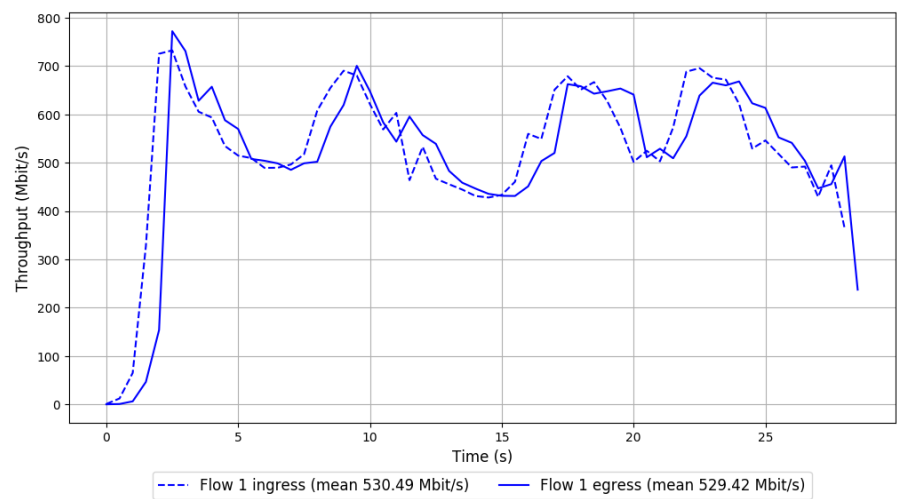
-- Flow 1:

Average throughput: 529.42 Mbit/s

95th percentile per-packet one-way delay: 190.050 ms

Loss rate: 0.97%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-10-02 19:49:06

End at: 2019-10-02 19:49:36

Local clock offset: 3.214 ms

Remote clock offset: 4.403 ms

# Below is generated by plot.py at 2019-10-02 21:43:55

# Datalink statistics

-- Total of 1 flow:

Average throughput: 483.49 Mbit/s

95th percentile per-packet one-way delay: 214.263 ms

Loss rate: 1.23%

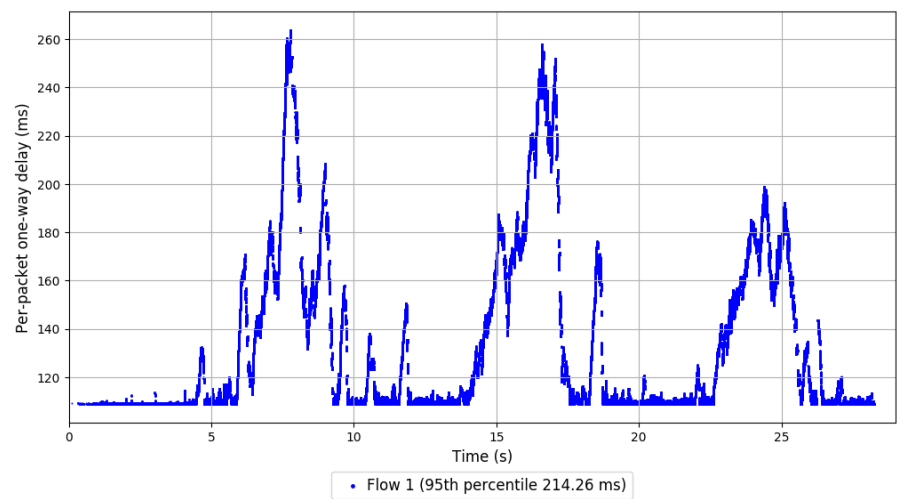
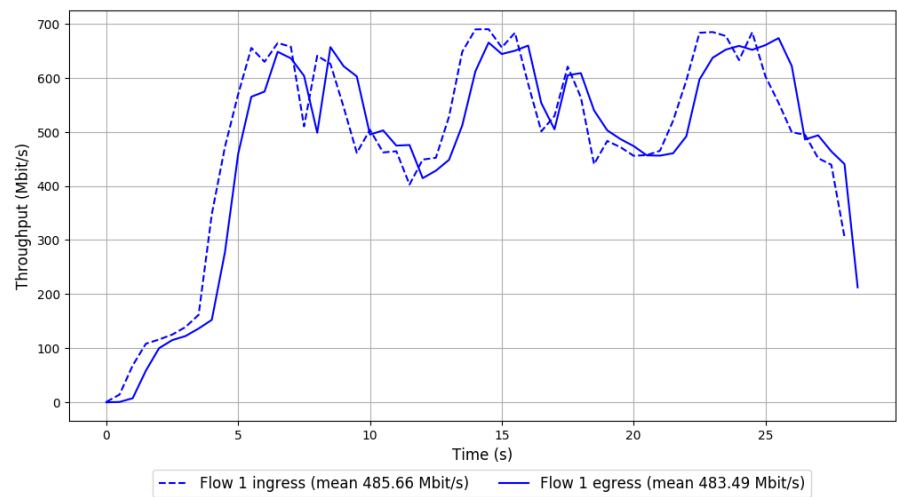
-- Flow 1:

Average throughput: 483.49 Mbit/s

95th percentile per-packet one-way delay: 214.263 ms

Loss rate: 1.23%

Run 4: Report of Indigo-MusesD — Data Link





Run 5: Statistics of Indigo-MusesD

Start at: 2019-10-02 20:24:44

End at: 2019-10-02 20:25:14

Local clock offset: 0.699 ms

Remote clock offset: 1.382 ms

# Below is generated by plot.py at 2019-10-02 21:46:06

# Datalink statistics

-- Total of 1 flow:

Average throughput: 599.30 Mbit/s

95th percentile per-packet one-way delay: 191.976 ms

Loss rate: 0.85%

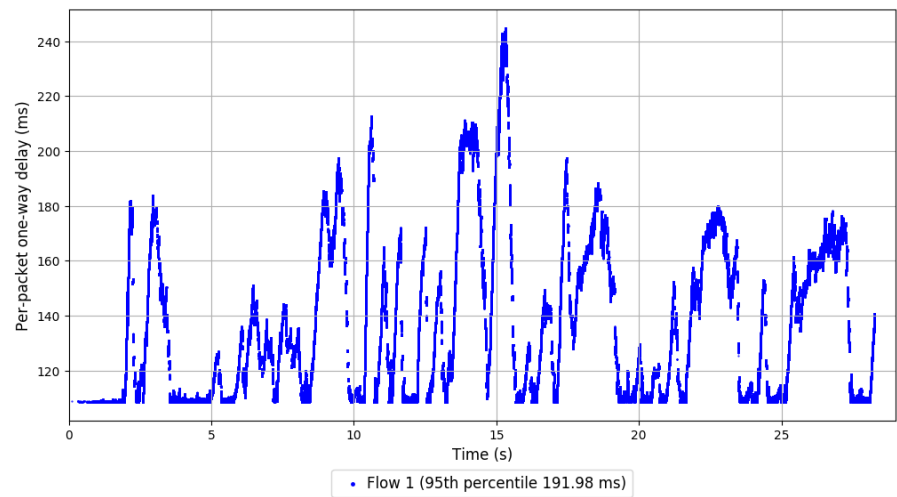
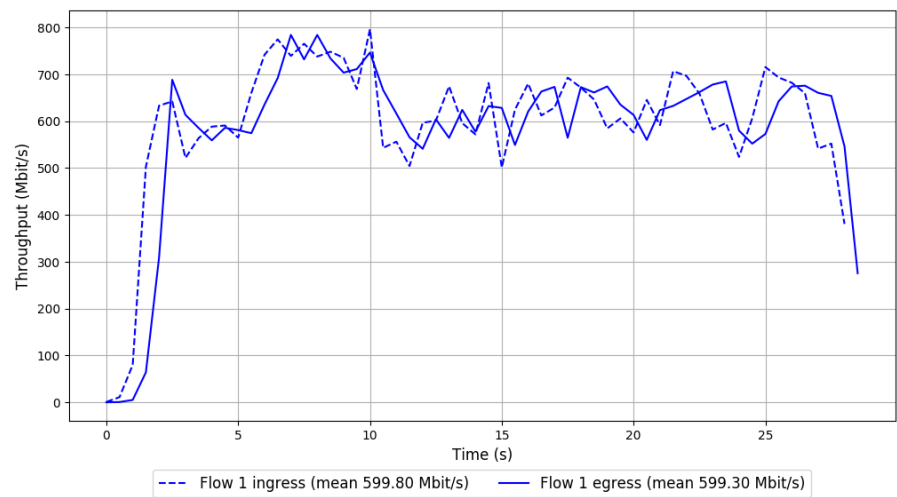
-- Flow 1:

Average throughput: 599.30 Mbit/s

95th percentile per-packet one-way delay: 191.976 ms

Loss rate: 0.85%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

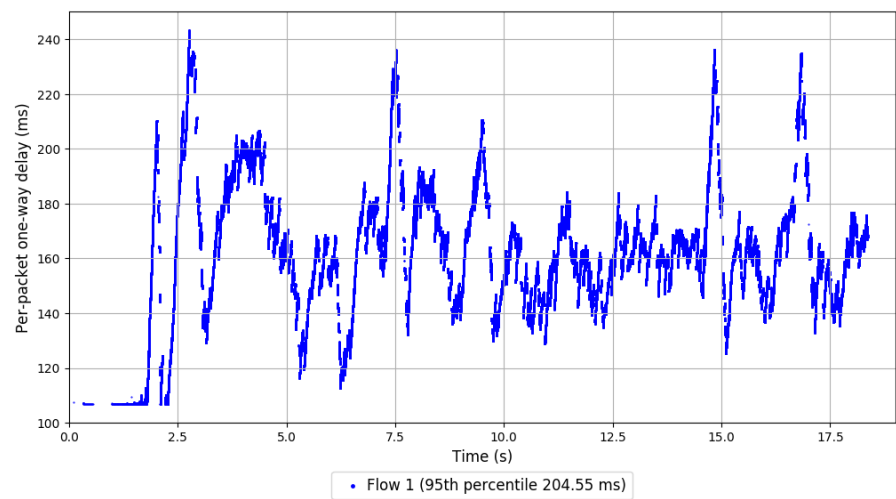
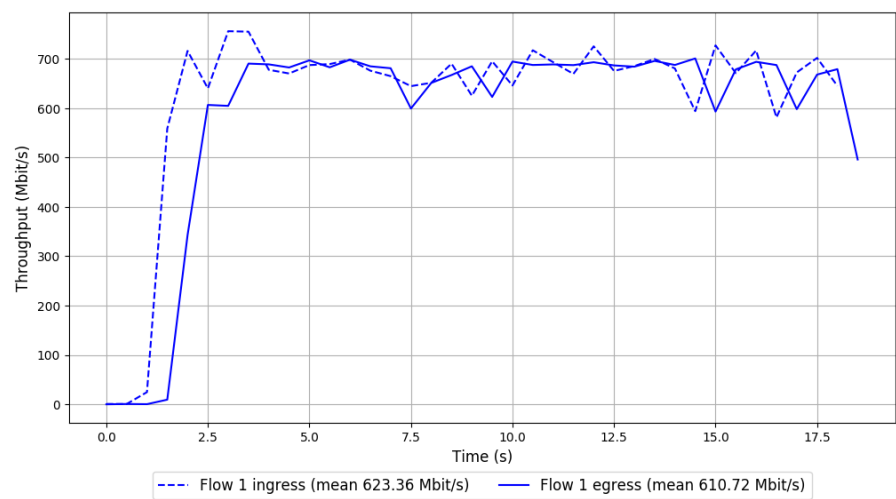
Start at: 2019-10-02 17:38:17

End at: 2019-10-02 17:38:47

Local clock offset: 8.946 ms

Remote clock offset: 12.802 ms

Run 1: Report of Indigo-MusesT — Data Link

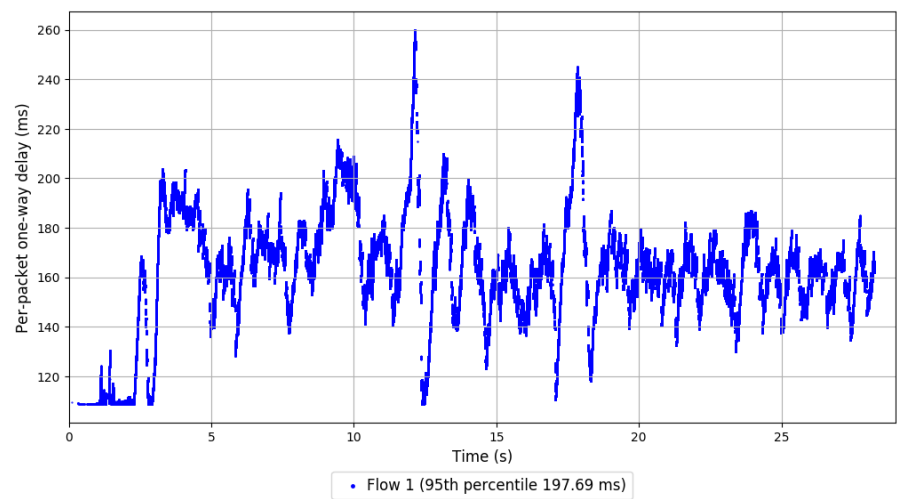
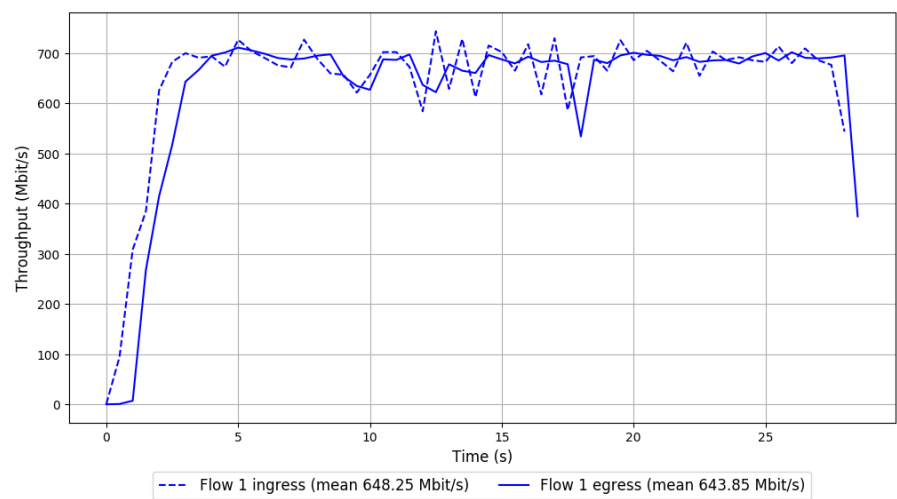


Run 2: Statistics of Indigo-MusesT

Start at: 2019-10-02 18:14:31  
End at: 2019-10-02 18:15:01  
Local clock offset: 16.67 ms  
Remote clock offset: 23.635 ms

# Below is generated by plot.py at 2019-10-02 21:51:37  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 643.85 Mbit/s  
95th percentile per-packet one-way delay: 197.695 ms  
Loss rate: 1.44%  
-- Flow 1:  
Average throughput: 643.85 Mbit/s  
95th percentile per-packet one-way delay: 197.695 ms  
Loss rate: 1.44%

Run 2: Report of Indigo-MusesT — Data Link

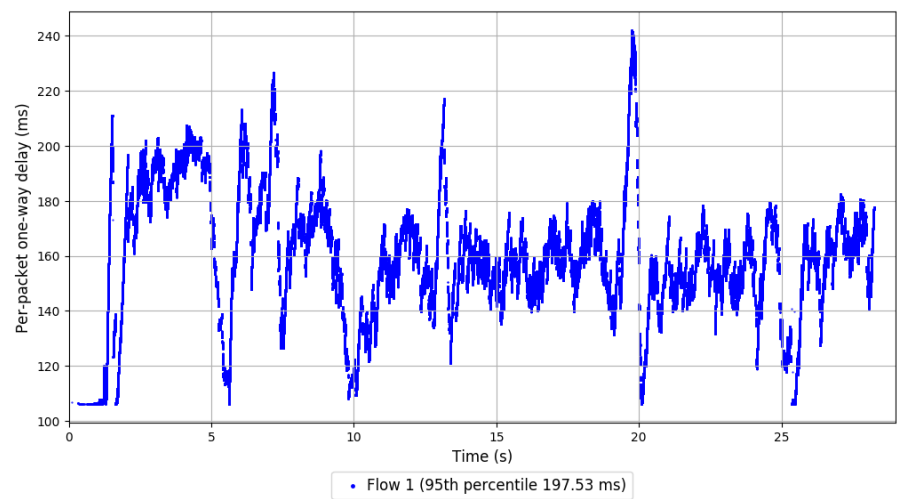
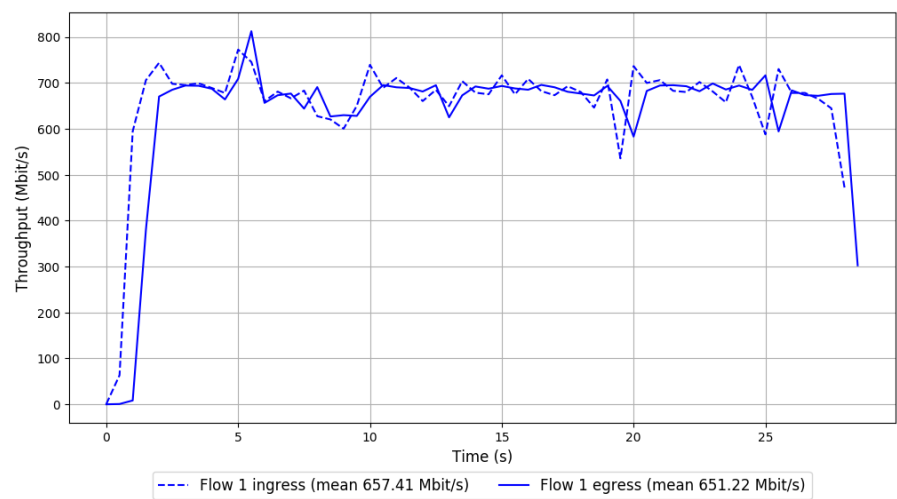


Run 3: Statistics of Indigo-MusesT

Start at: 2019-10-02 18:50:54  
End at: 2019-10-02 18:51:24  
Local clock offset: 11.381 ms  
Remote clock offset: 15.747 ms

# Below is generated by plot.py at 2019-10-02 21:52:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 651.22 Mbit/s  
95th percentile per-packet one-way delay: 197.530 ms  
Loss rate: 1.70%  
-- Flow 1:  
Average throughput: 651.22 Mbit/s  
95th percentile per-packet one-way delay: 197.530 ms  
Loss rate: 1.70%

Run 3: Report of Indigo-MusesT — Data Link





Run 4: Statistics of Indigo-MusesT

Start at: 2019-10-02 19:26:56

End at: 2019-10-02 19:27:26

Local clock offset: 5.482 ms

Remote clock offset: 7.432 ms

# Below is generated by plot.py at 2019-10-02 21:53:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 610.80 Mbit/s

95th percentile per-packet one-way delay: 207.533 ms

Loss rate: 2.02%

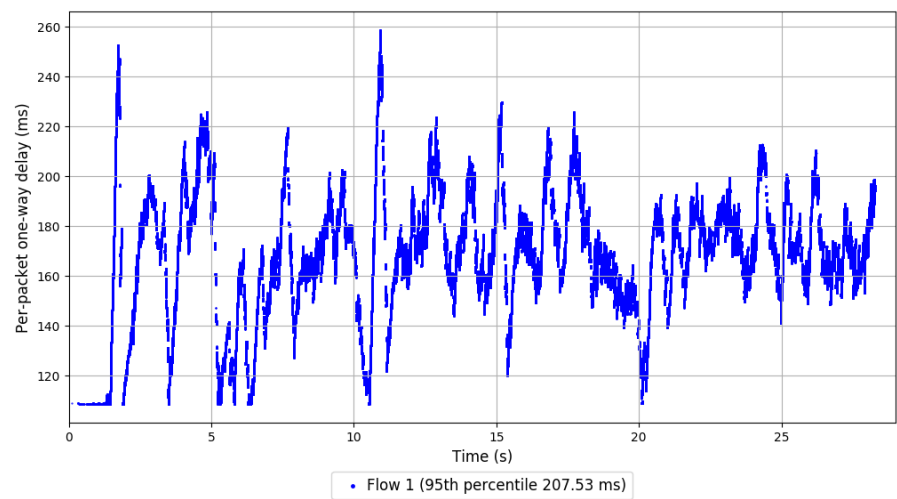
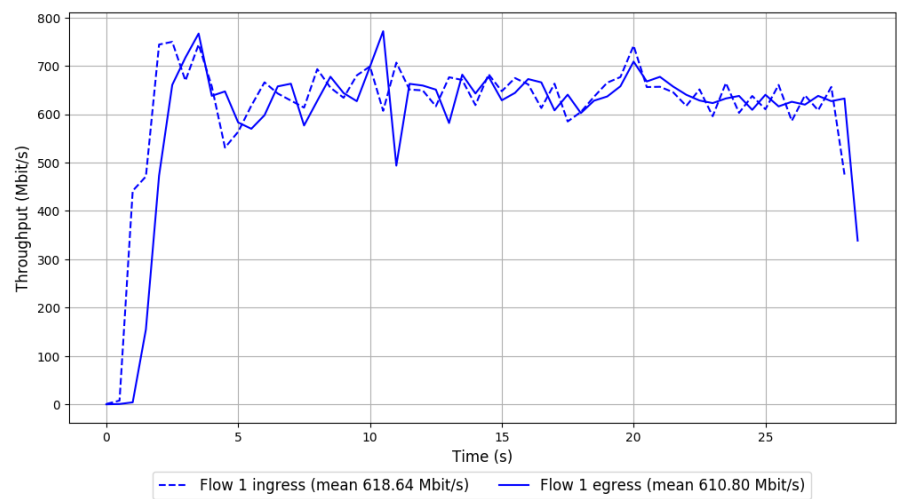
-- Flow 1:

Average throughput: 610.80 Mbit/s

95th percentile per-packet one-way delay: 207.533 ms

Loss rate: 2.02%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-10-02 20:02:32

End at: 2019-10-02 20:03:02

Local clock offset: 0.717 ms

Remote clock offset: 2.192 ms

# Below is generated by plot.py at 2019-10-02 21:53:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 609.81 Mbit/s

95th percentile per-packet one-way delay: 204.360 ms

Loss rate: 1.99%

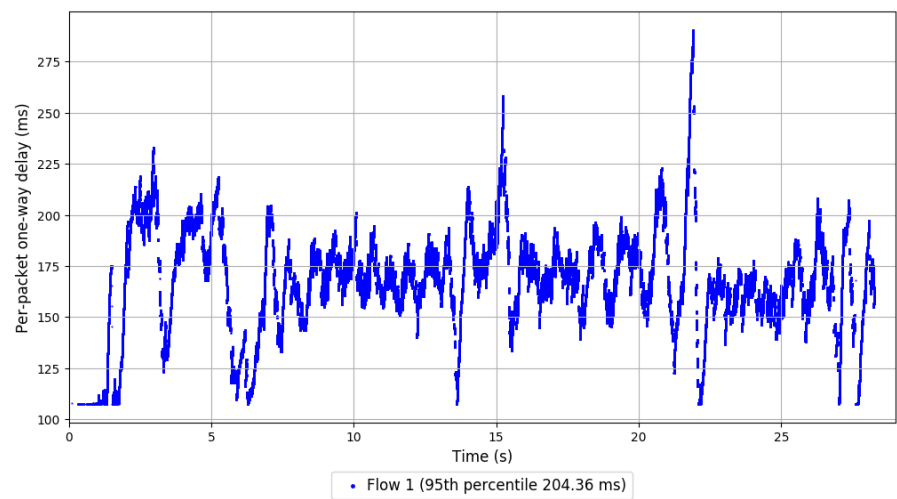
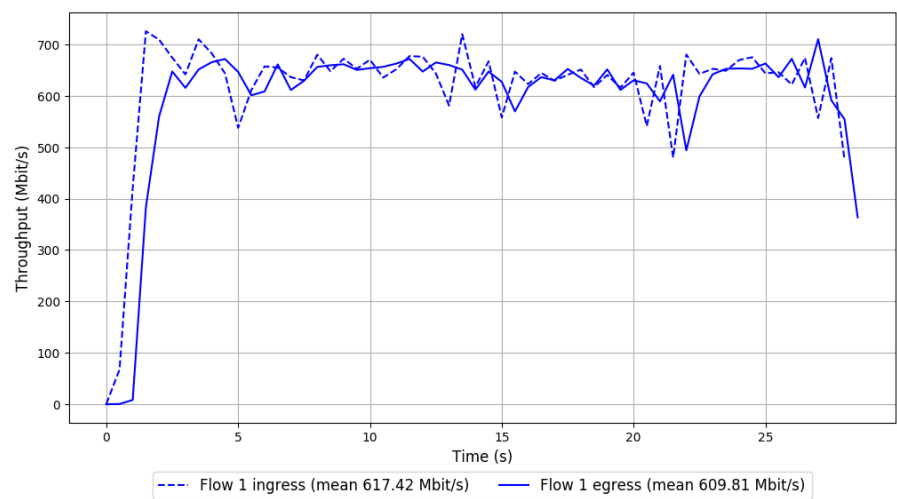
-- Flow 1:

Average throughput: 609.81 Mbit/s

95th percentile per-packet one-way delay: 204.360 ms

Loss rate: 1.99%

Run 5: Report of Indigo-MusesT — Data Link

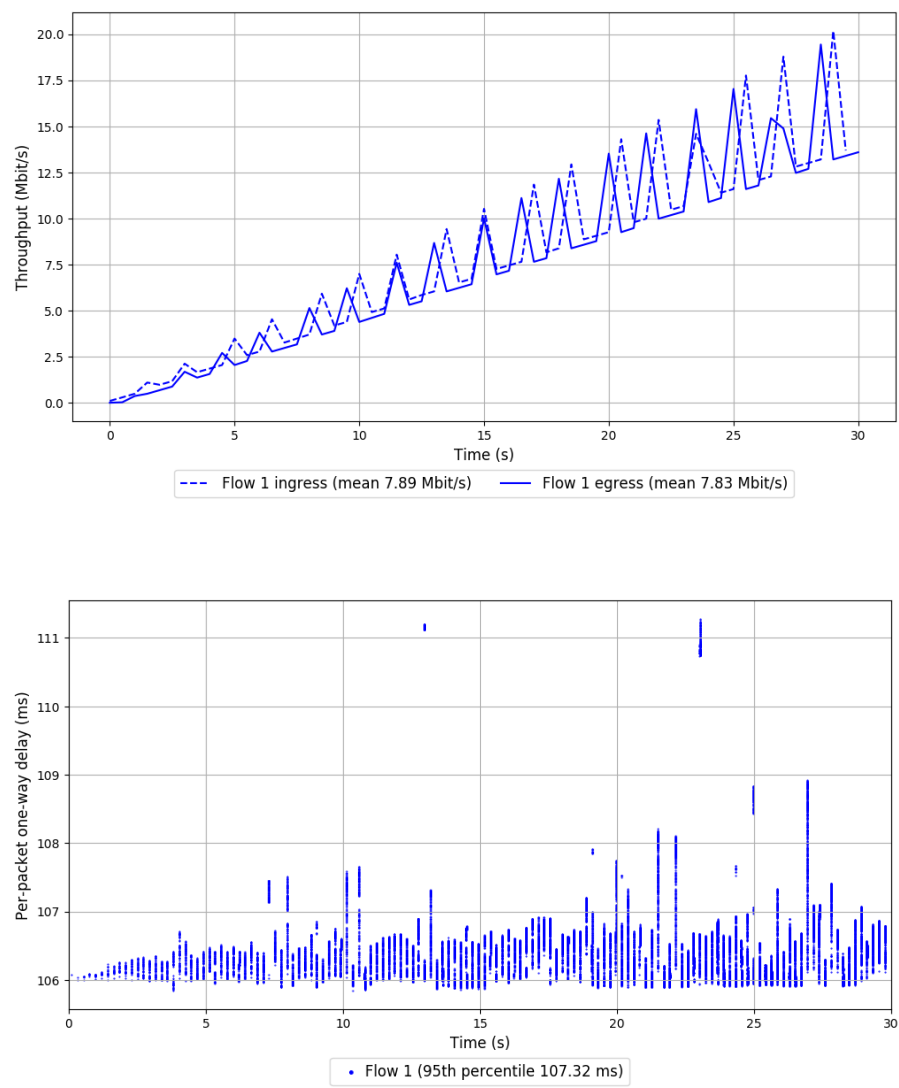


Run 1: Statistics of LEDBAT

Start at: 2019-10-02 17:48:26  
End at: 2019-10-02 17:48:56  
Local clock offset: 10.424 ms  
Remote clock offset: 14.875 ms

# Below is generated by plot.py at 2019-10-02 21:53:50  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 7.83 Mbit/s  
95th percentile per-packet one-way delay: 107.323 ms  
Loss rate: 1.46%  
-- Flow 1:  
Average throughput: 7.83 Mbit/s  
95th percentile per-packet one-way delay: 107.323 ms  
Loss rate: 1.46%

Run 1: Report of LEDBAT — Data Link

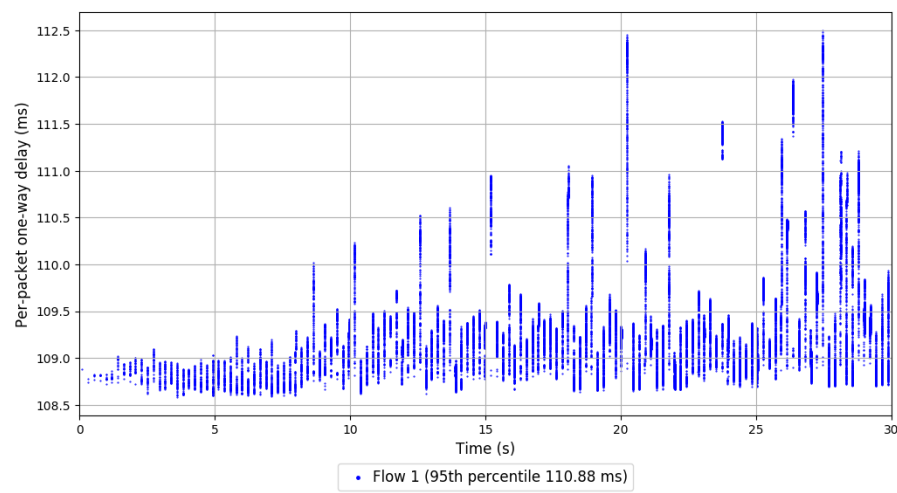
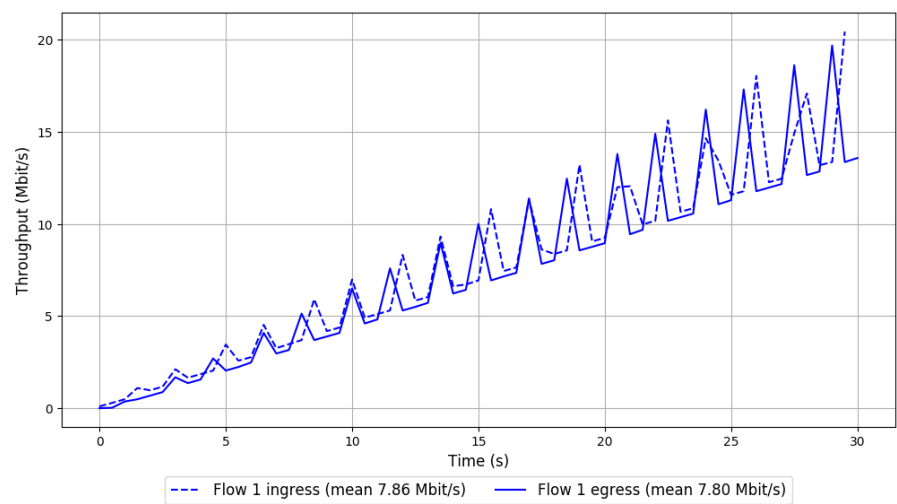


Run 2: Statistics of LEDBAT

Start at: 2019-10-02 18:24:51  
End at: 2019-10-02 18:25:21  
Local clock offset: 23.646 ms  
Remote clock offset: 33.428 ms

# Below is generated by plot.py at 2019-10-02 21:53:50  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 7.80 Mbit/s  
95th percentile per-packet one-way delay: 110.880 ms  
Loss rate: 1.46%  
-- Flow 1:  
Average throughput: 7.80 Mbit/s  
95th percentile per-packet one-way delay: 110.880 ms  
Loss rate: 1.46%

Run 2: Report of LEDBAT — Data Link





Run 3: Statistics of LEDBAT

Start at: 2019-10-02 19:01:21

End at: 2019-10-02 19:01:51

Local clock offset: 13.456 ms

Remote clock offset: 18.48 ms

# Below is generated by plot.py at 2019-10-02 21:53:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 111.874 ms

Loss rate: 1.46%

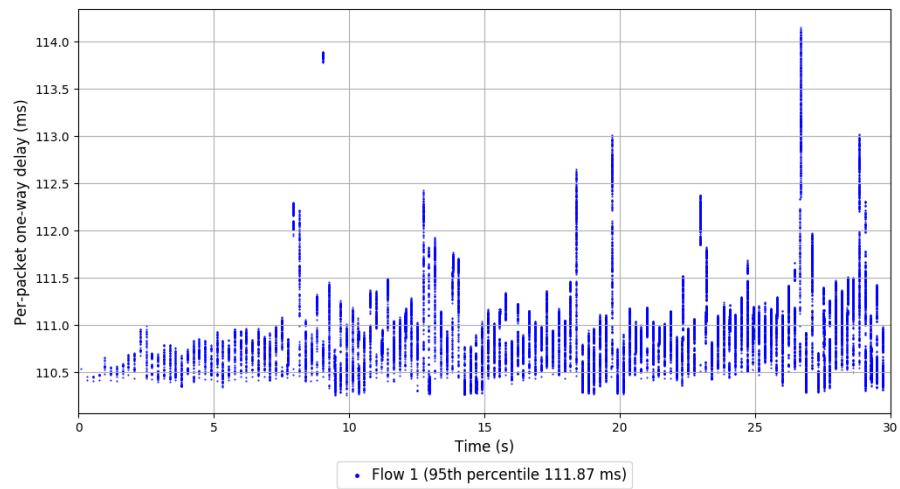
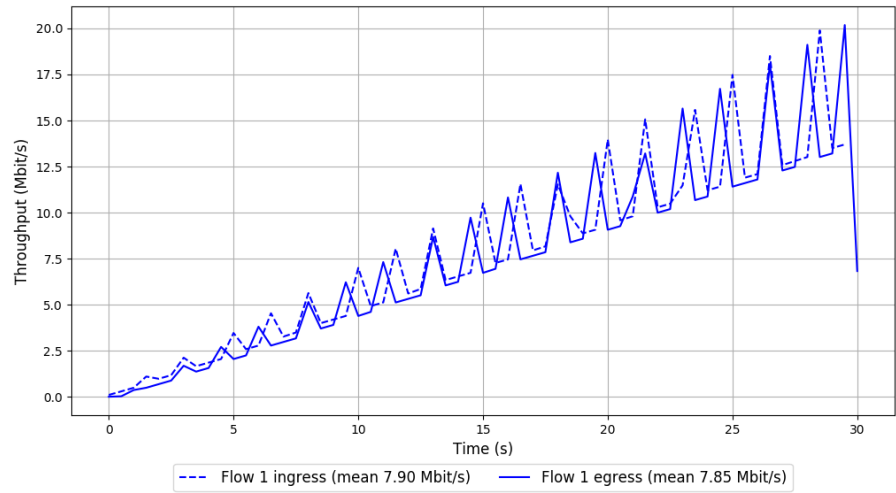
-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 111.874 ms

Loss rate: 1.46%

### Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-10-02 19:37:05

End at: 2019-10-02 19:37:35

Local clock offset: 6.442 ms

Remote clock offset: 9.274 ms

# Below is generated by plot.py at 2019-10-02 21:53:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 107.405 ms

Loss rate: 1.45%

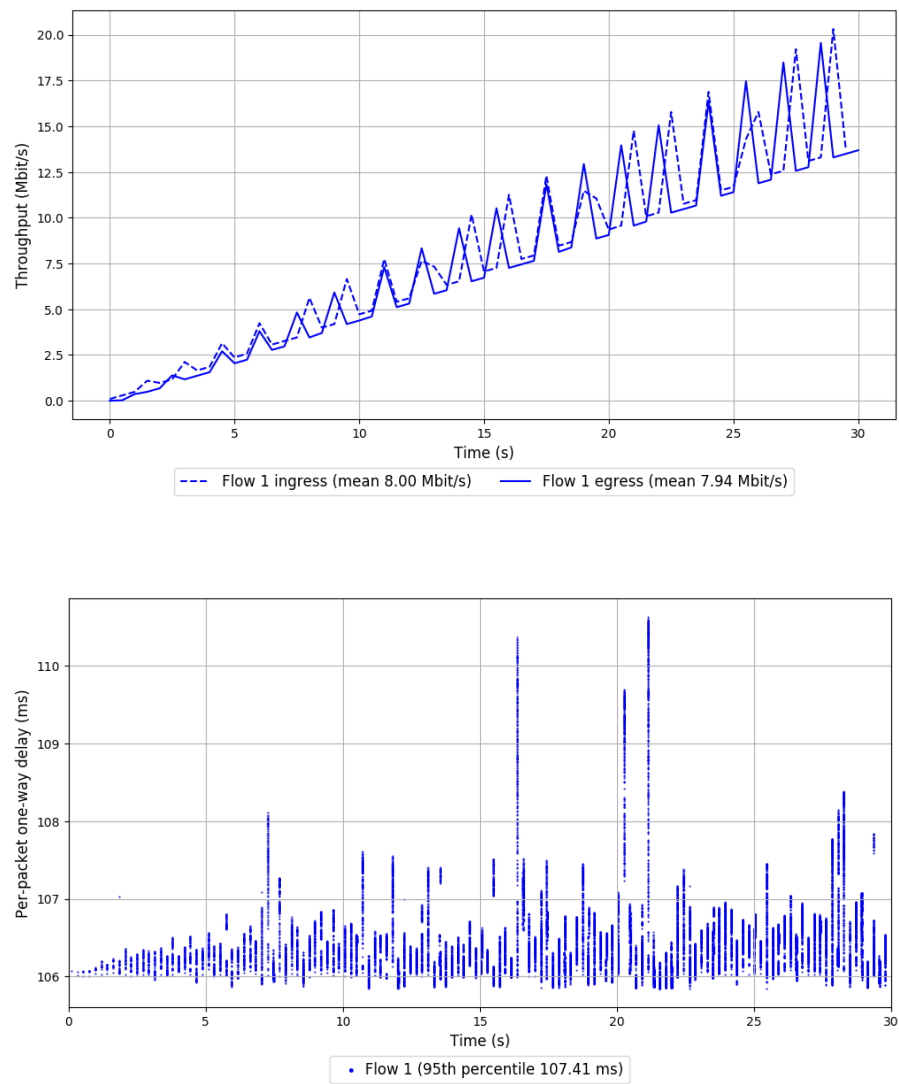
-- Flow 1:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 107.405 ms

Loss rate: 1.45%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-10-02 20:12:43

End at: 2019-10-02 20:13:13

Local clock offset: 1.656 ms

Remote clock offset: 2.241 ms

# Below is generated by plot.py at 2019-10-02 21:53:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 8.05 Mbit/s

95th percentile per-packet one-way delay: 108.345 ms

Loss rate: 1.43%

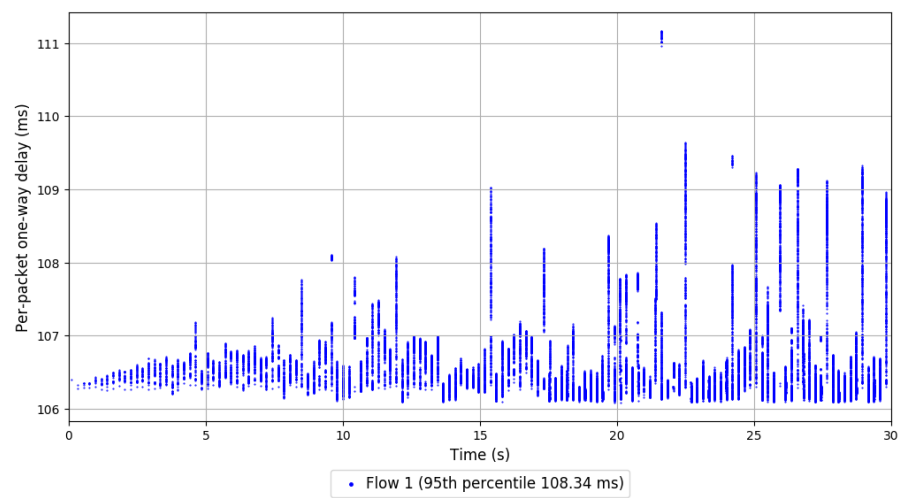
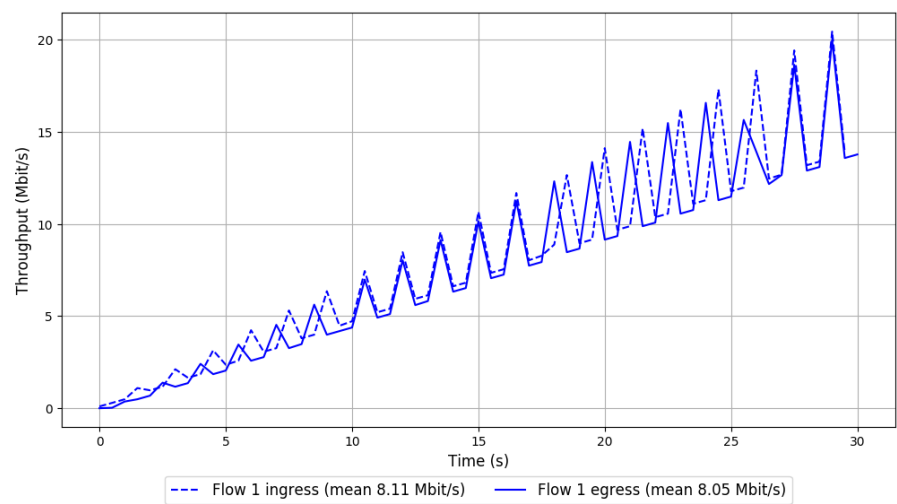
-- Flow 1:

Average throughput: 8.05 Mbit/s

95th percentile per-packet one-way delay: 108.345 ms

Loss rate: 1.43%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of Muses\\_DecisionTree

Start at: 2019-10-02 17:27:28

End at: 2019-10-02 17:27:58

Local clock offset: 3.006 ms

Remote clock offset: 4.975 ms

# Below is generated by plot.py at 2019-10-02 21:53:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 534.15 Mbit/s

95th percentile per-packet one-way delay: 163.747 ms

Loss rate: 1.17%

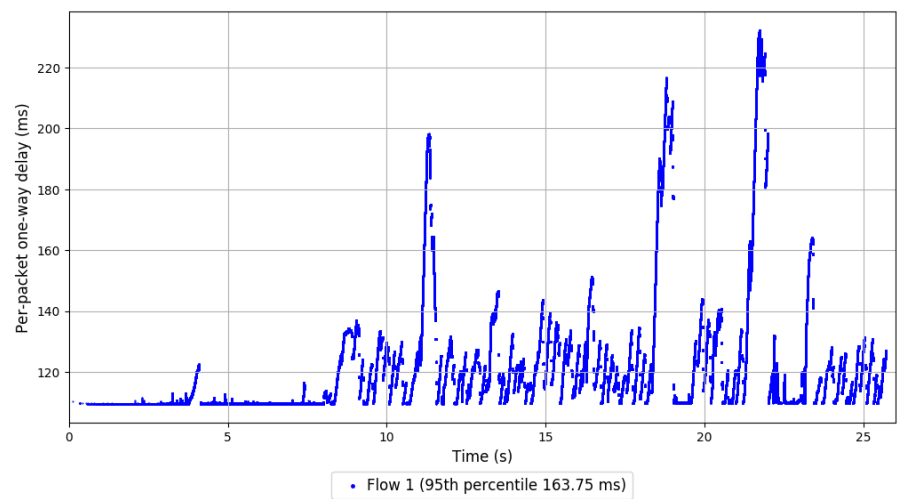
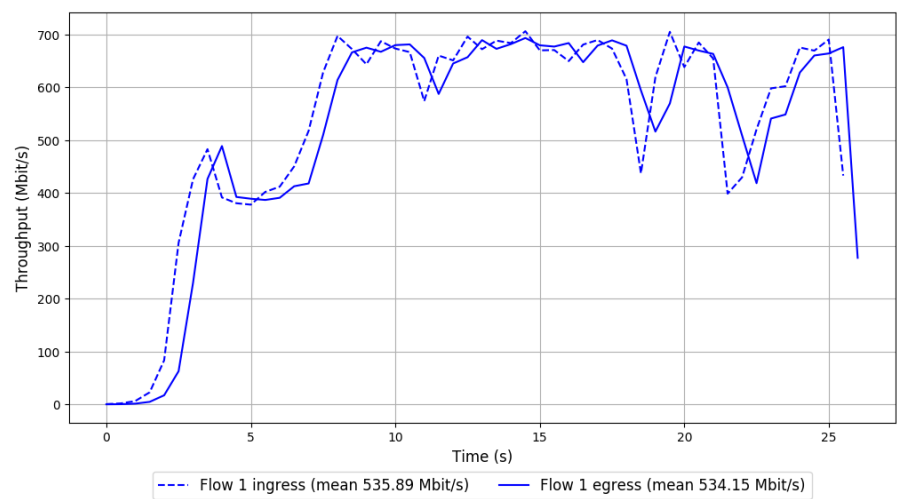
-- Flow 1:

Average throughput: 534.15 Mbit/s

95th percentile per-packet one-way delay: 163.747 ms

Loss rate: 1.17%

Run 1: Report of Muses\_DecisionTree — Data Link



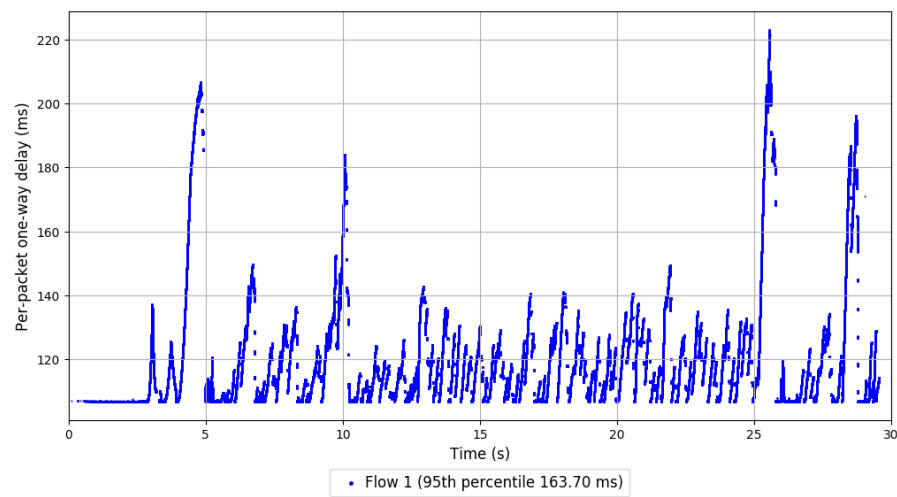
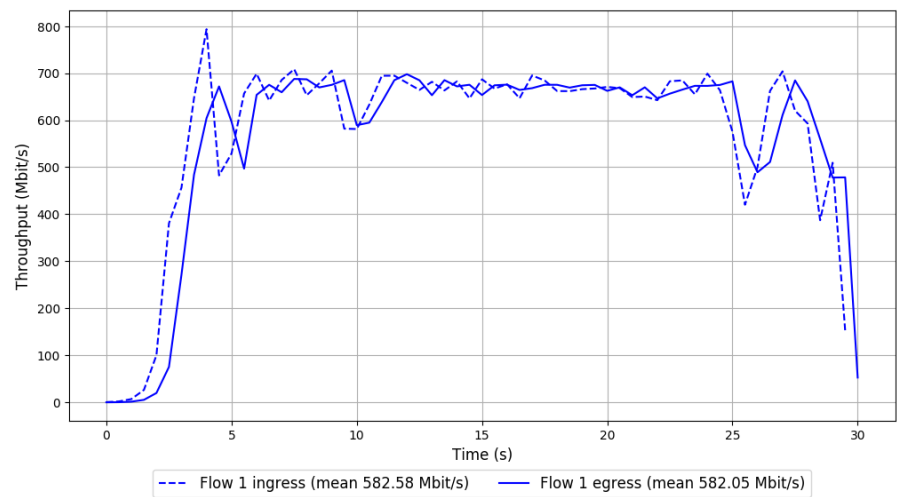


Run 2: Statistics of Muses\\_DecisionTree

Start at: 2019-10-02 18:03:30  
End at: 2019-10-02 18:04:00  
Local clock offset: 15.564 ms  
Remote clock offset: 21.551 ms

# Below is generated by plot.py at 2019-10-02 21:55:32  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 582.05 Mbit/s  
95th percentile per-packet one-way delay: 163.700 ms  
Loss rate: 0.81%  
-- Flow 1:  
Average throughput: 582.05 Mbit/s  
95th percentile per-packet one-way delay: 163.700 ms  
Loss rate: 0.81%

Run 2: Report of Muses\_DecisionTree — Data Link

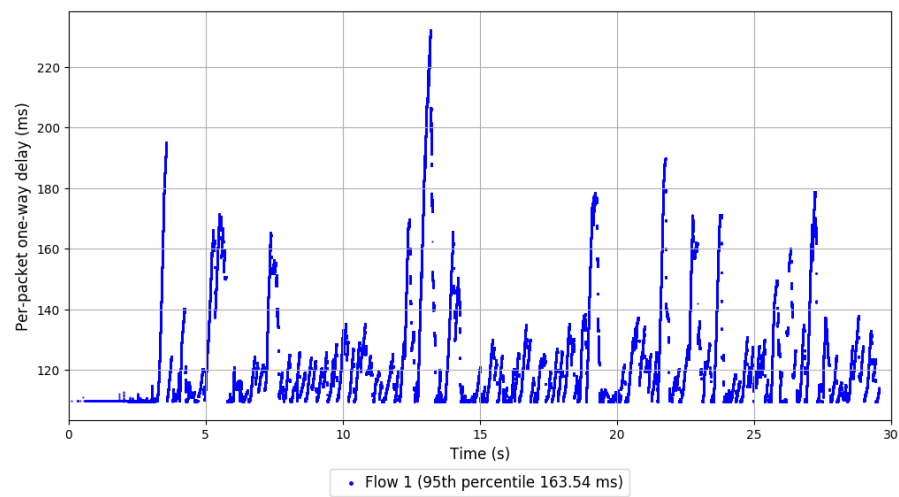
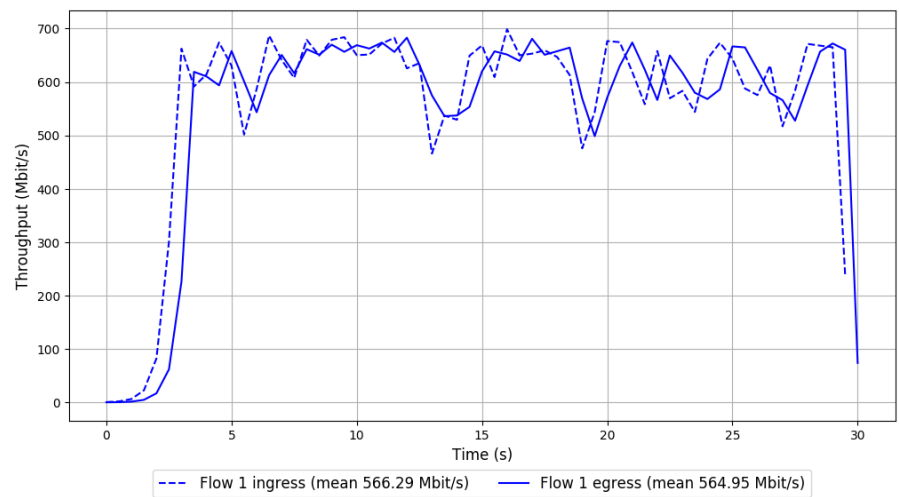


Run 3: Statistics of Muses\\_DecisionTree

Start at: 2019-10-02 18:39:53  
End at: 2019-10-02 18:40:23  
Local clock offset: 16.176 ms  
Remote clock offset: 22.217 ms

# Below is generated by plot.py at 2019-10-02 21:57:14  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 564.95 Mbit/s  
95th percentile per-packet one-way delay: 163.536 ms  
Loss rate: 0.97%  
-- Flow 1:  
Average throughput: 564.95 Mbit/s  
95th percentile per-packet one-way delay: 163.536 ms  
Loss rate: 0.97%

Run 3: Report of Muses\_DecisionTree — Data Link



Run 4: Statistics of Muses\\_DecisionTree

Start at: 2019-10-02 19:16:17

End at: 2019-10-02 19:16:47

Local clock offset: 6.962 ms

Remote clock offset: 9.554 ms

# Below is generated by plot.py at 2019-10-02 21:57:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 555.21 Mbit/s

95th percentile per-packet one-way delay: 151.243 ms

Loss rate: 1.00%

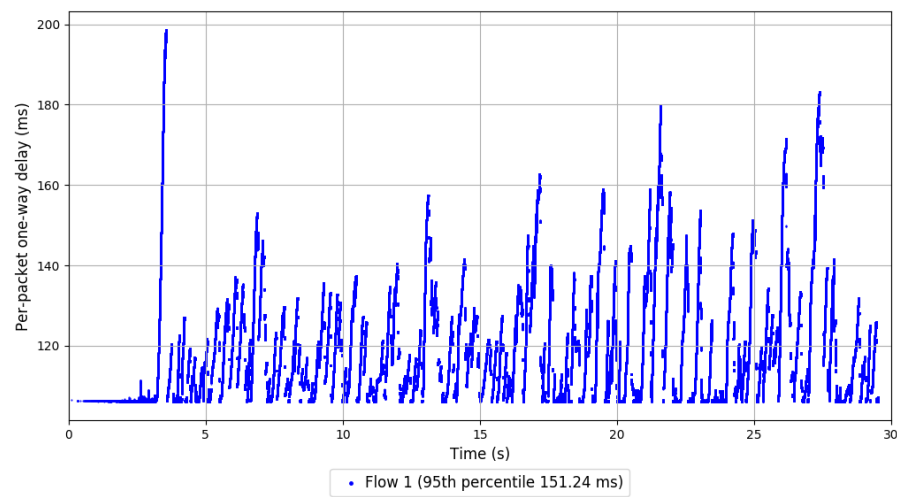
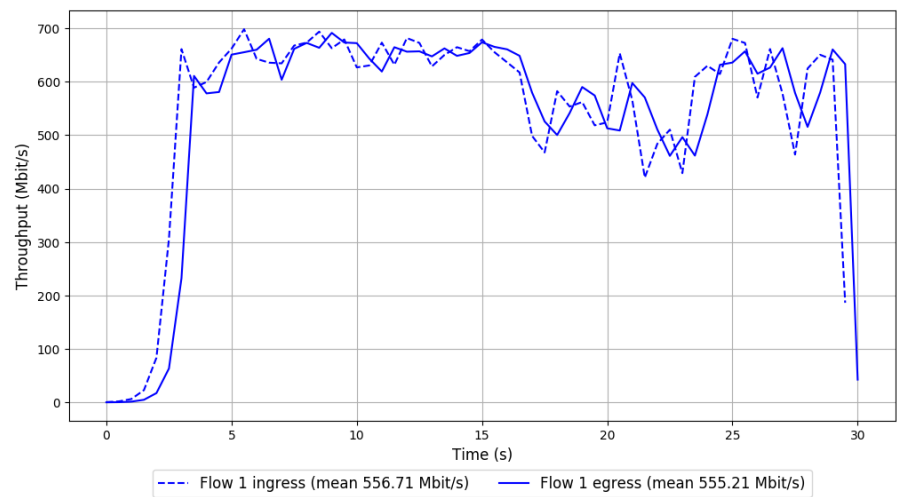
-- Flow 1:

Average throughput: 555.21 Mbit/s

95th percentile per-packet one-way delay: 151.243 ms

Loss rate: 1.00%

Run 4: Report of Muses\_DecisionTree — Data Link



Run 5: Statistics of Muses\\_DecisionTree

Start at: 2019-10-02 19:51:58

End at: 2019-10-02 19:52:28

Local clock offset: 2.53 ms

Remote clock offset: 3.534 ms

# Below is generated by plot.py at 2019-10-02 22:01:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 521.35 Mbit/s

95th percentile per-packet one-way delay: 167.627 ms

Loss rate: 1.03%

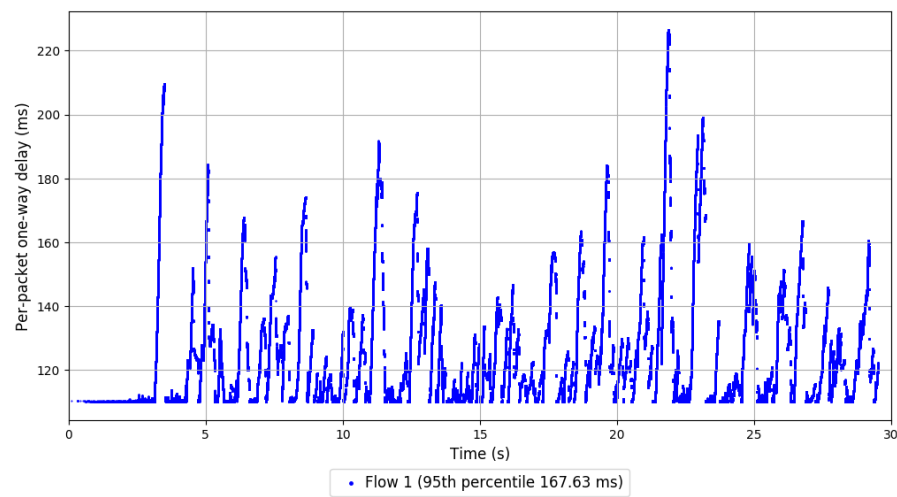
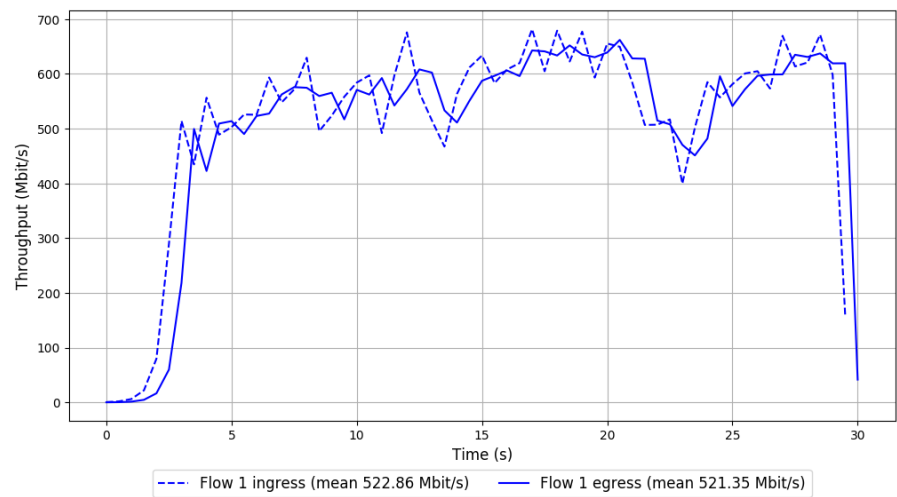
-- Flow 1:

Average throughput: 521.35 Mbit/s

95th percentile per-packet one-way delay: 167.627 ms

Loss rate: 1.03%

Run 5: Report of Muses\_DecisionTree — Data Link



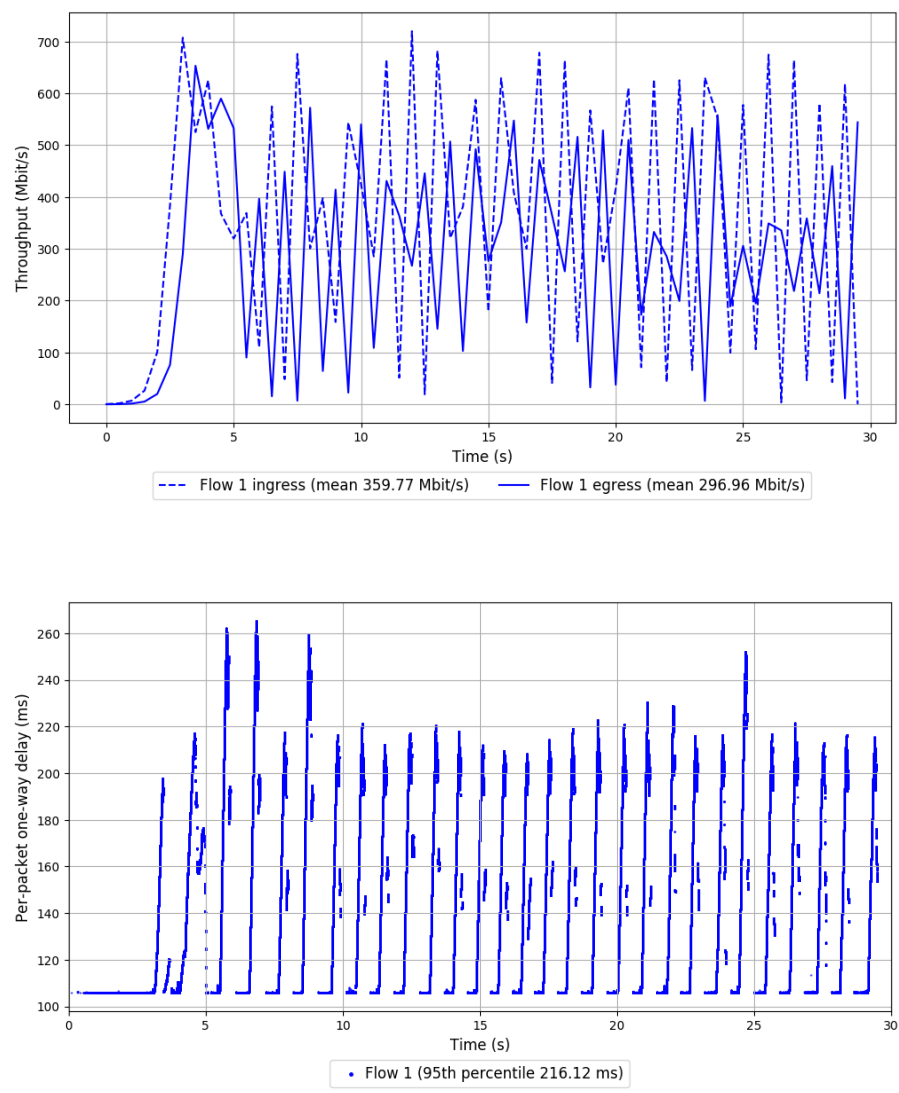


```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-10-02 17:51:18
End at: 2019-10-02 17:51:48
Local clock offset: 12.378 ms
Remote clock offset: 17.696 ms

# Below is generated by plot.py at 2019-10-02 22:01:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 296.96 Mbit/s
95th percentile per-packet one-way delay: 216.121 ms
Loss rate: 18.05%
-- Flow 1:
Average throughput: 296.96 Mbit/s
95th percentile per-packet one-way delay: 216.121 ms
Loss rate: 18.05%
```

Run 1: Report of Muses\_DecisionTreeH0 — Data Link

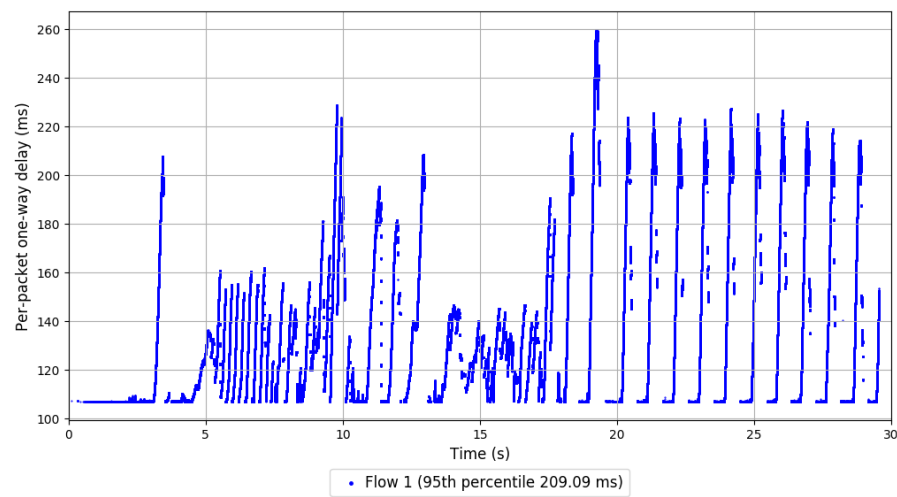
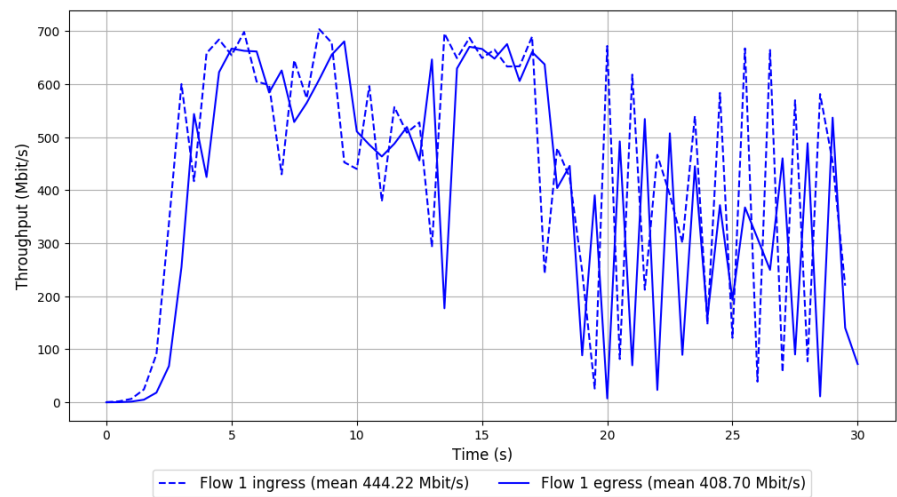


Run 2: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-10-02 18:27:41  
End at: 2019-10-02 18:28:11  
Local clock offset: 25.781 ms  
Remote clock offset: 35.919 ms

# Below is generated by plot.py at 2019-10-02 22:01:38  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 408.70 Mbit/s  
95th percentile per-packet one-way delay: 209.085 ms  
Loss rate: 8.65%  
-- Flow 1:  
Average throughput: 408.70 Mbit/s  
95th percentile per-packet one-way delay: 209.085 ms  
Loss rate: 8.65%

Run 2: Report of Muses\_DecisionTreeH0 — Data Link

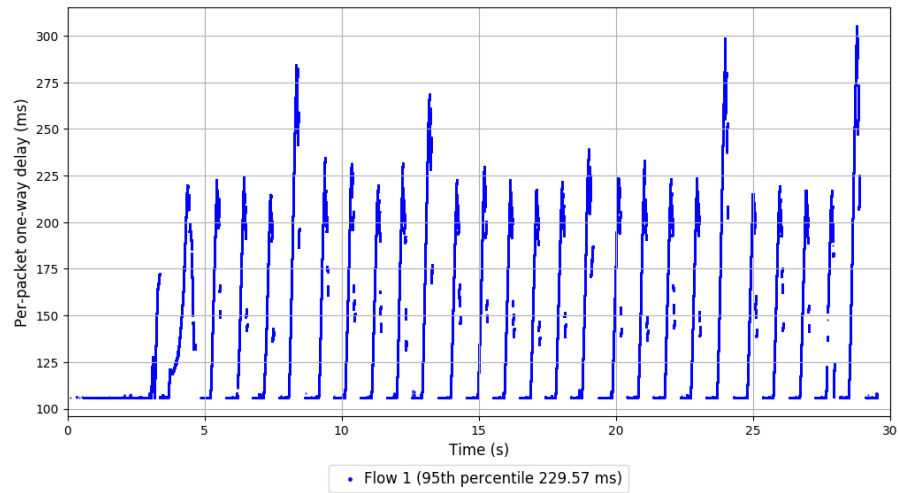
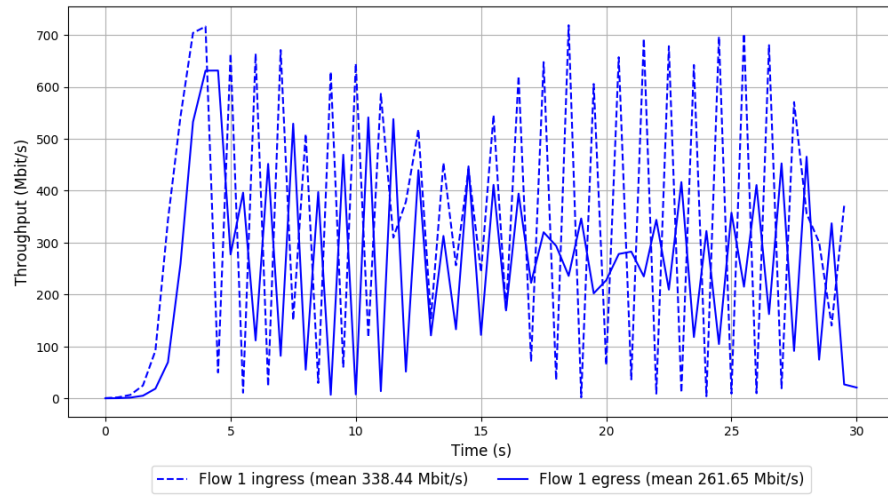


Run 3: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-10-02 19:04:12  
End at: 2019-10-02 19:04:42  
Local clock offset: 14.159 ms  
Remote clock offset: 19.829 ms

# Below is generated by plot.py at 2019-10-02 22:01:38  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 261.65 Mbit/s  
95th percentile per-packet one-way delay: 229.573 ms  
Loss rate: 23.25%  
-- Flow 1:  
Average throughput: 261.65 Mbit/s  
95th percentile per-packet one-way delay: 229.573 ms  
Loss rate: 23.25%

### Run 3: Report of Muses\_DecisionTreeH0 — Data Link



Run 4: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-10-02 19:39:56

End at: 2019-10-02 19:40:26

Local clock offset: 7.008 ms

Remote clock offset: 9.899 ms

# Below is generated by plot.py at 2019-10-02 22:01:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 372.40 Mbit/s

95th percentile per-packet one-way delay: 220.744 ms

Loss rate: 11.00%

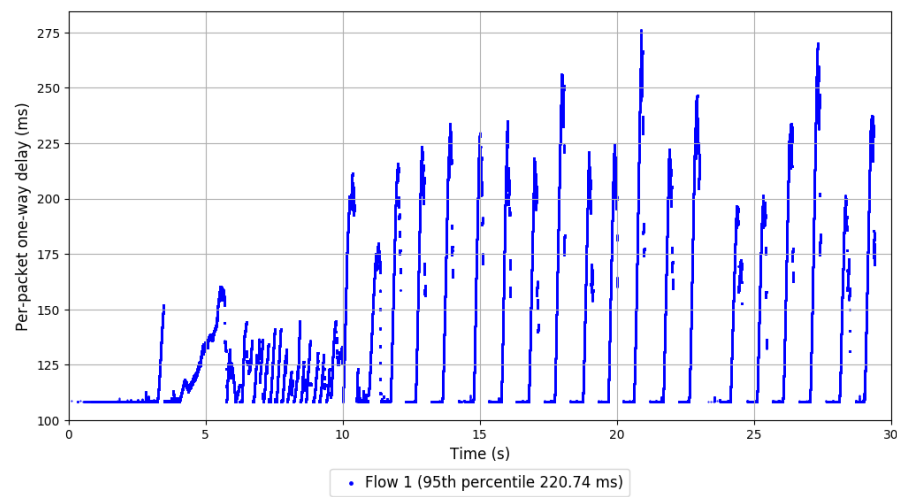
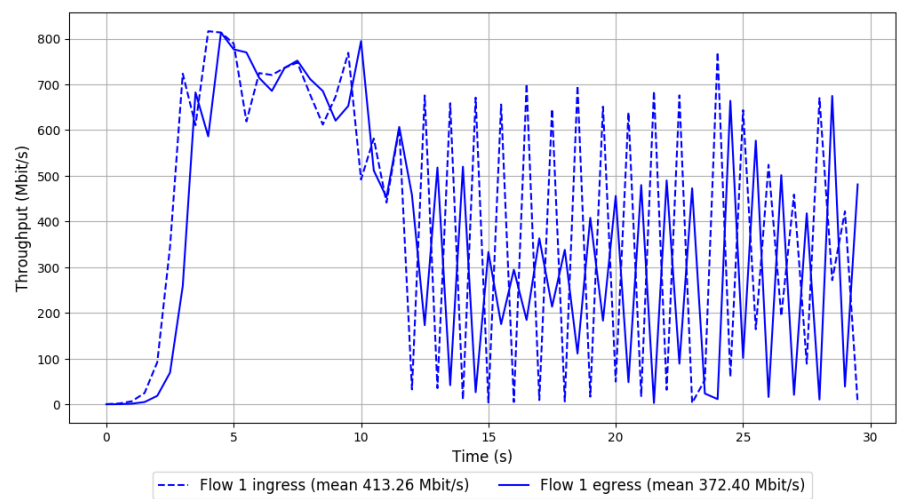
-- Flow 1:

Average throughput: 372.40 Mbit/s

95th percentile per-packet one-way delay: 220.744 ms

Loss rate: 11.00%

Run 4: Report of Muses\_DecisionTreeH0 — Data Link





Run 5: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-10-02 20:15:34

End at: 2019-10-02 20:16:04

Local clock offset: 1.492 ms

Remote clock offset: 2.222 ms

# Below is generated by plot.py at 2019-10-02 22:01:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 283.32 Mbit/s

95th percentile per-packet one-way delay: 241.264 ms

Loss rate: 20.02%

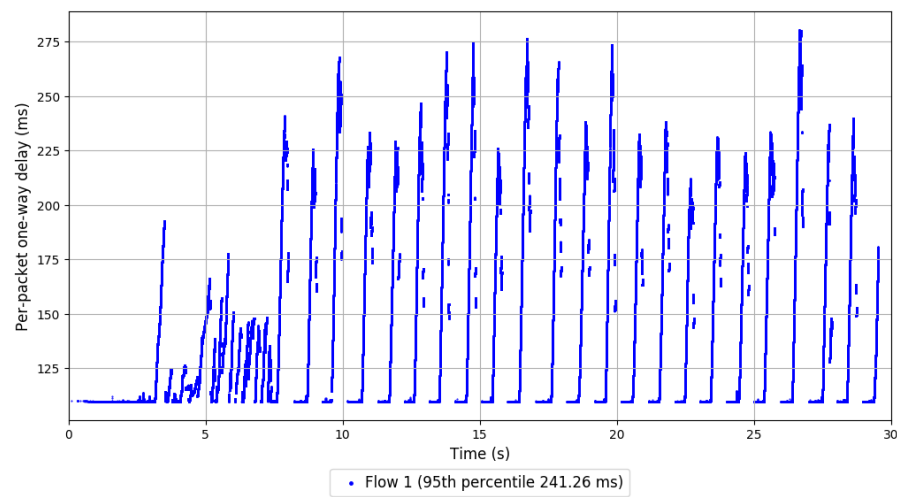
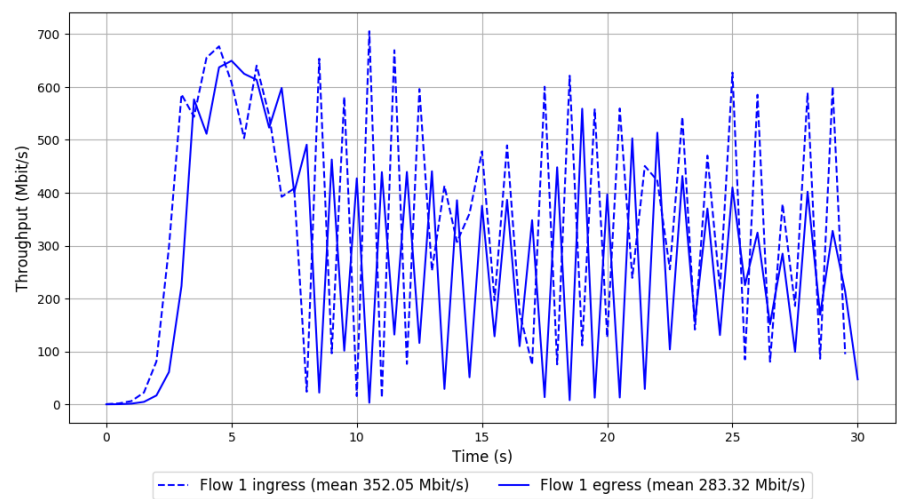
-- Flow 1:

Average throughput: 283.32 Mbit/s

95th percentile per-packet one-way delay: 241.264 ms

Loss rate: 20.02%

Run 5: Report of Muses\_DecisionTreeH0 — Data Link

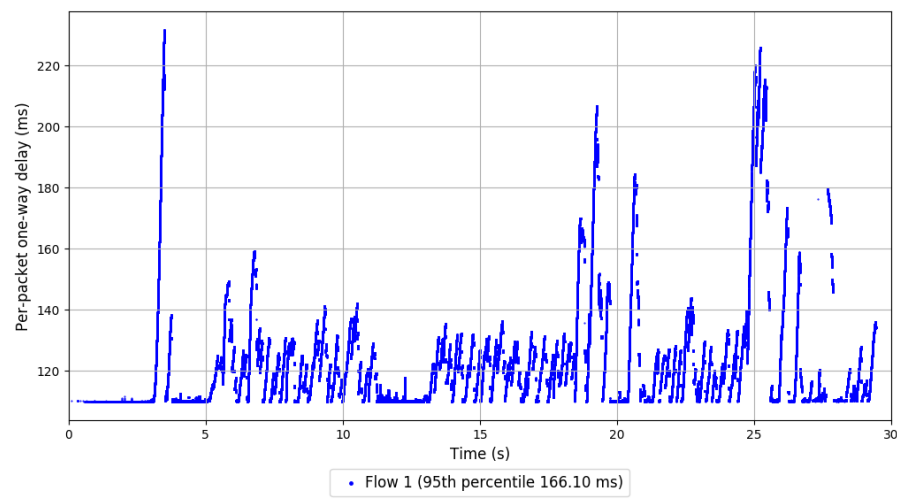
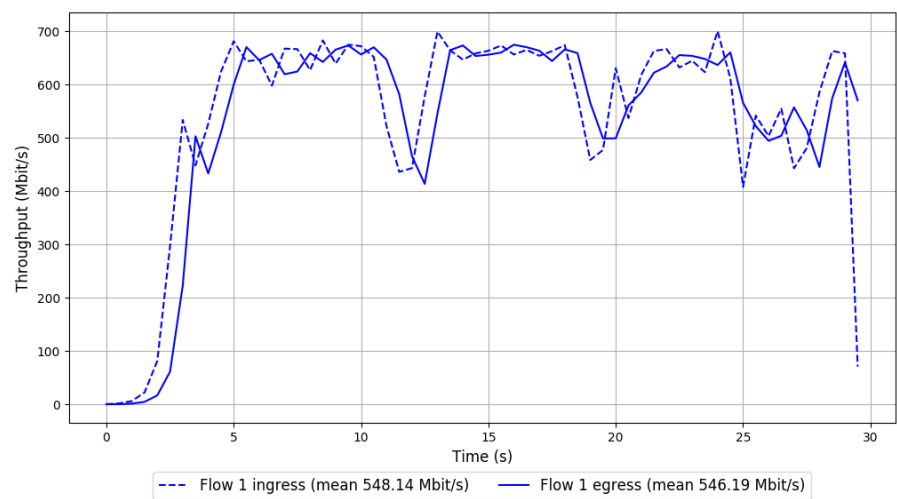


```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-02 17:36:39
End at: 2019-10-02 17:37:09
Local clock offset: 7.126 ms
Remote clock offset: 10.453 ms

# Below is generated by plot.py at 2019-10-02 22:07:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 546.19 Mbit/s
95th percentile per-packet one-way delay: 166.100 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 546.19 Mbit/s
95th percentile per-packet one-way delay: 166.100 ms
Loss rate: 1.09%
```

Run 1: Report of Muses\_DecisionTreeR0 — Data Link

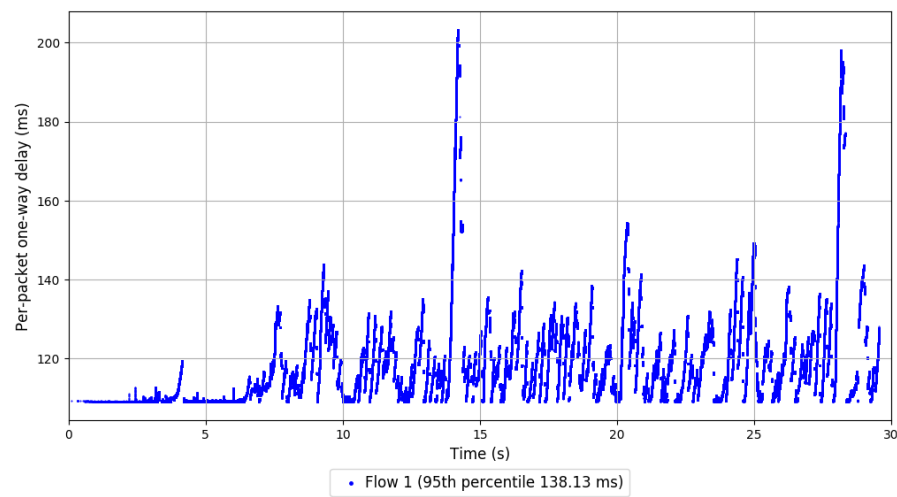
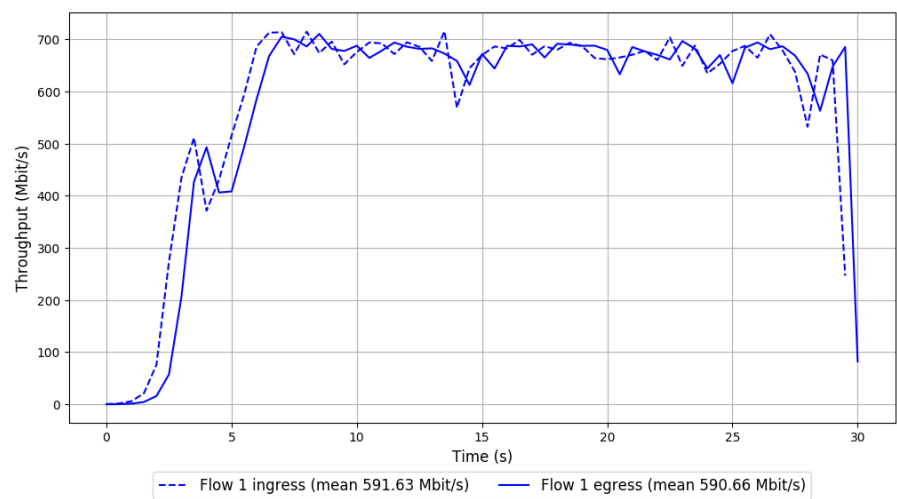


Run 2: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-10-02 18:12:50  
End at: 2019-10-02 18:13:20  
Local clock offset: 15.99 ms  
Remote clock offset: 22.483 ms

# Below is generated by plot.py at 2019-10-02 22:09:20  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 590.66 Mbit/s  
95th percentile per-packet one-way delay: 138.134 ms  
Loss rate: 0.90%  
-- Flow 1:  
Average throughput: 590.66 Mbit/s  
95th percentile per-packet one-way delay: 138.134 ms  
Loss rate: 0.90%

Run 2: Report of Muses\_DecisionTreeR0 — Data Link

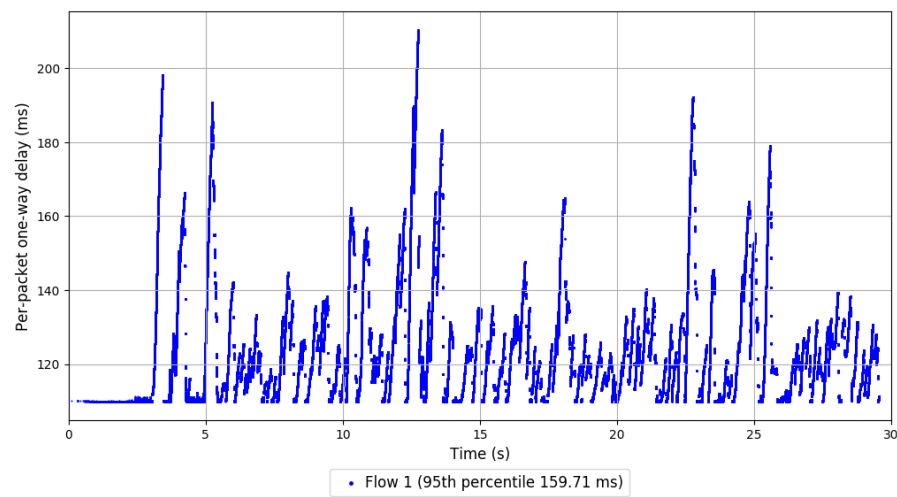
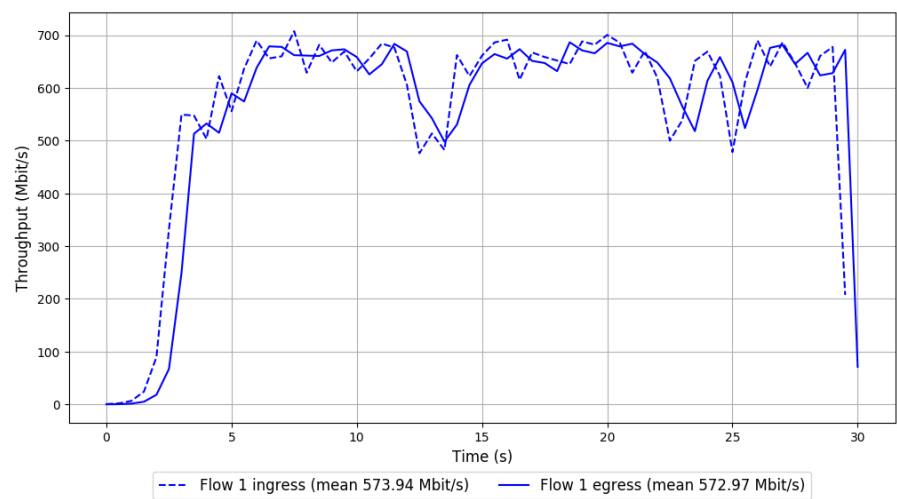


Run 3: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-10-02 18:49:13  
End at: 2019-10-02 18:49:44  
Local clock offset: 11.107 ms  
Remote clock offset: 15.801 ms

# Below is generated by plot.py at 2019-10-02 22:09:20  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 572.97 Mbit/s  
95th percentile per-packet one-way delay: 159.706 ms  
Loss rate: 0.91%  
-- Flow 1:  
Average throughput: 572.97 Mbit/s  
95th percentile per-packet one-way delay: 159.706 ms  
Loss rate: 0.91%

Run 3: Report of Muses\_DecisionTreeR0 — Data Link



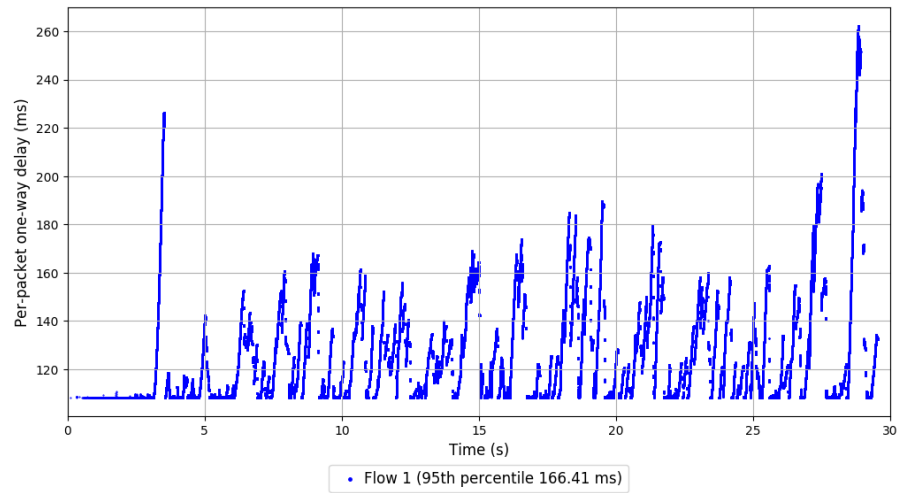
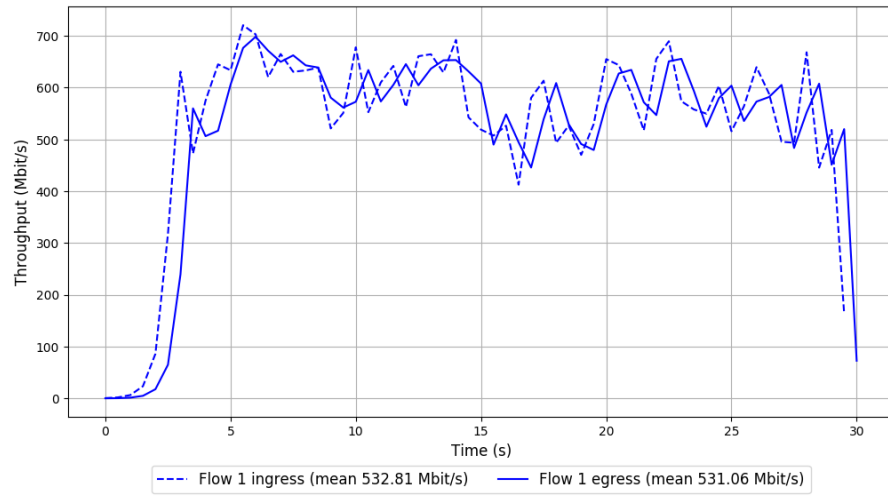


```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-10-02 19:25:18
End at: 2019-10-02 19:25:48
Local clock offset: 5.398 ms
Remote clock offset: 7.698 ms

# Below is generated by plot.py at 2019-10-02 22:10:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 531.06 Mbit/s
95th percentile per-packet one-way delay: 166.415 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 531.06 Mbit/s
95th percentile per-packet one-way delay: 166.415 ms
Loss rate: 1.06%
```

#### Run 4: Report of Muses\_DecisionTreeR0 — Data Link



Run 5: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-10-02 20:00:47

End at: 2019-10-02 20:01:17

Local clock offset: 1.573 ms

Remote clock offset: 2.239 ms

# Below is generated by plot.py at 2019-10-02 22:14:11

# Datalink statistics

-- Total of 1 flow:

Average throughput: 642.87 Mbit/s

95th percentile per-packet one-way delay: 145.514 ms

Loss rate: 0.88%

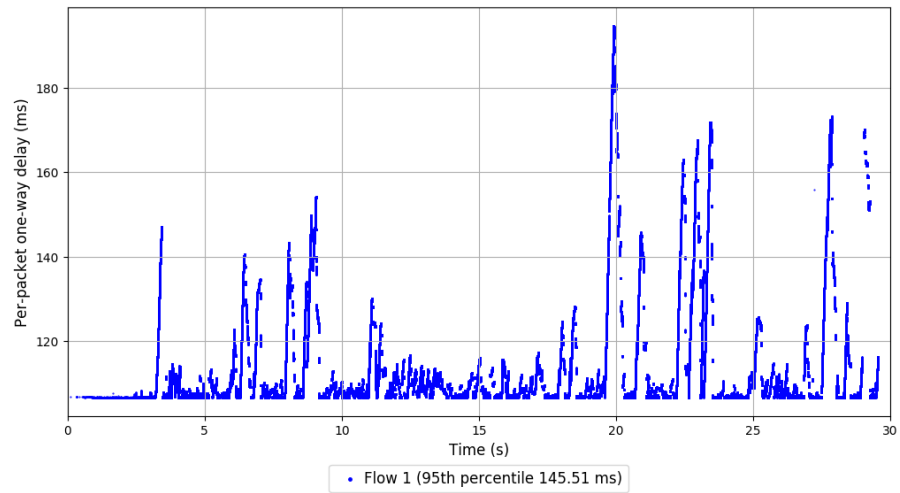
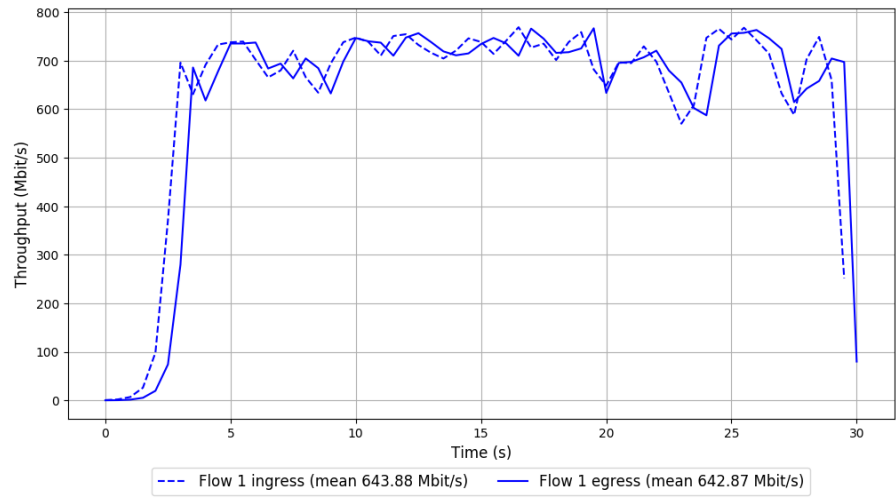
-- Flow 1:

Average throughput: 642.87 Mbit/s

95th percentile per-packet one-way delay: 145.514 ms

Loss rate: 0.88%

Run 5: Report of Muses\_DecisionTreeR0 — Data Link

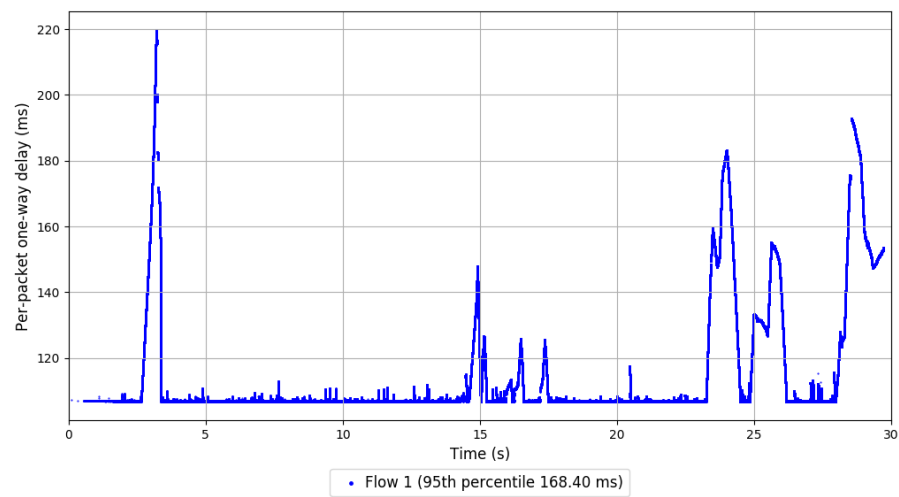
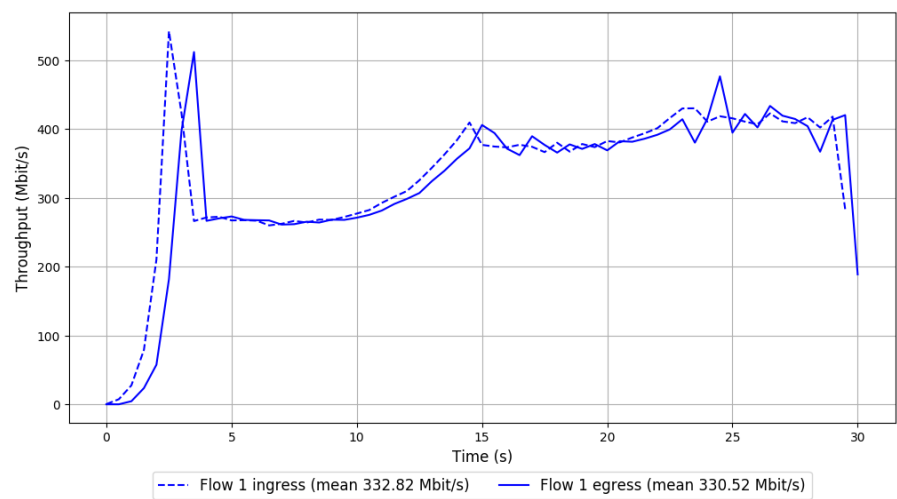


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-10-02 17:42:28
End at: 2019-10-02 17:42:58
Local clock offset: 12.122 ms
Remote clock offset: 16.383 ms

# Below is generated by plot.py at 2019-10-02 22:14:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 330.52 Mbit/s
95th percentile per-packet one-way delay: 168.395 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 330.52 Mbit/s
95th percentile per-packet one-way delay: 168.395 ms
Loss rate: 1.41%
```

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-10-02 18:18:54

End at: 2019-10-02 18:19:24

Local clock offset: 19.341 ms

Remote clock offset: 27.106 ms

# Below is generated by plot.py at 2019-10-02 22:14:11

# Datalink statistics

-- Total of 1 flow:

Average throughput: 319.90 Mbit/s

95th percentile per-packet one-way delay: 164.545 ms

Loss rate: 1.52%

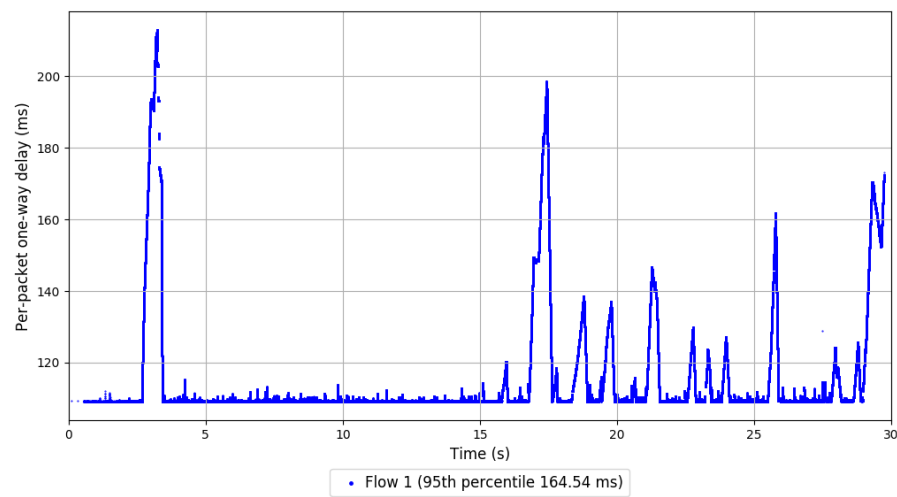
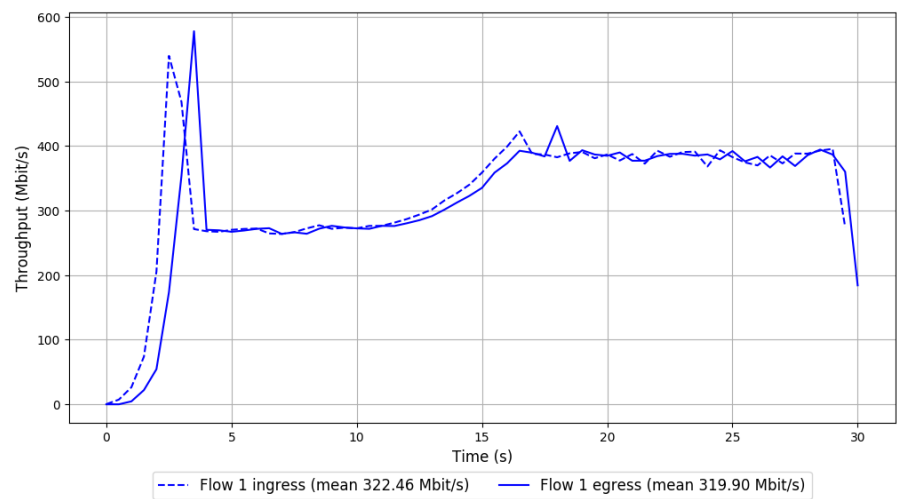
-- Flow 1:

Average throughput: 319.90 Mbit/s

95th percentile per-packet one-way delay: 164.545 ms

Loss rate: 1.52%

Run 2: Report of PCC-Allegro — Data Link





Run 3: Statistics of PCC-Allegro

Start at: 2019-10-02 18:55:23

End at: 2019-10-02 18:55:53

Local clock offset: 11.757 ms

Remote clock offset: 16.444 ms

# Below is generated by plot.py at 2019-10-02 22:14:51

# Datalink statistics

-- Total of 1 flow:

Average throughput: 350.72 Mbit/s

95th percentile per-packet one-way delay: 161.318 ms

Loss rate: 1.22%

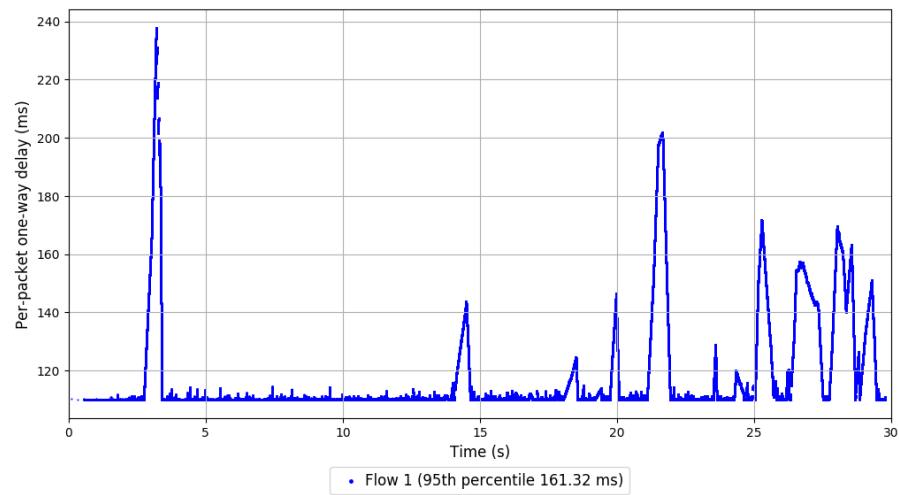
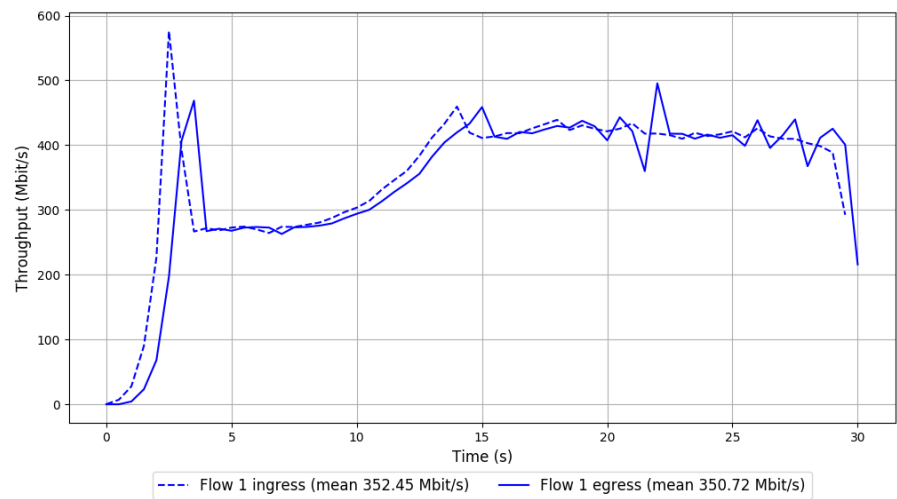
-- Flow 1:

Average throughput: 350.72 Mbit/s

95th percentile per-packet one-way delay: 161.318 ms

Loss rate: 1.22%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-10-02 19:31:12

End at: 2019-10-02 19:31:42

Local clock offset: 5.771 ms

Remote clock offset: 8.562 ms

# Below is generated by plot.py at 2019-10-02 22:20:14

# Datalink statistics

-- Total of 1 flow:

Average throughput: 314.27 Mbit/s

95th percentile per-packet one-way delay: 137.865 ms

Loss rate: 1.41%

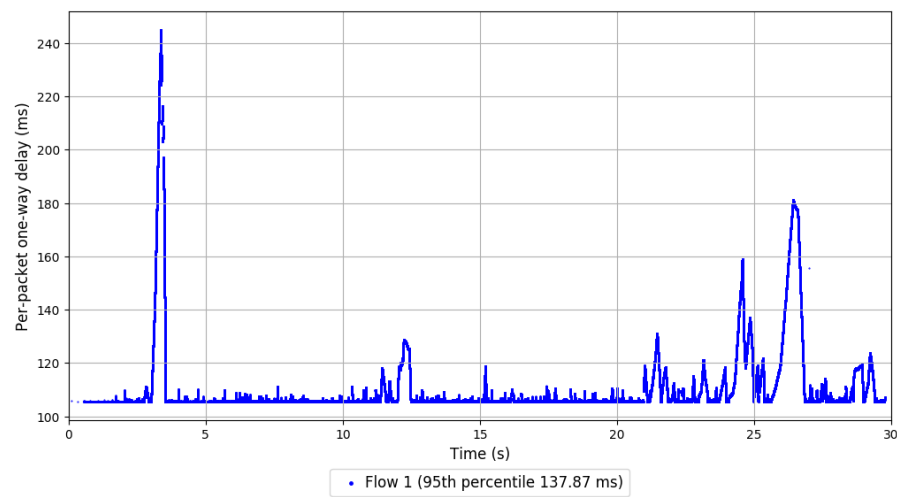
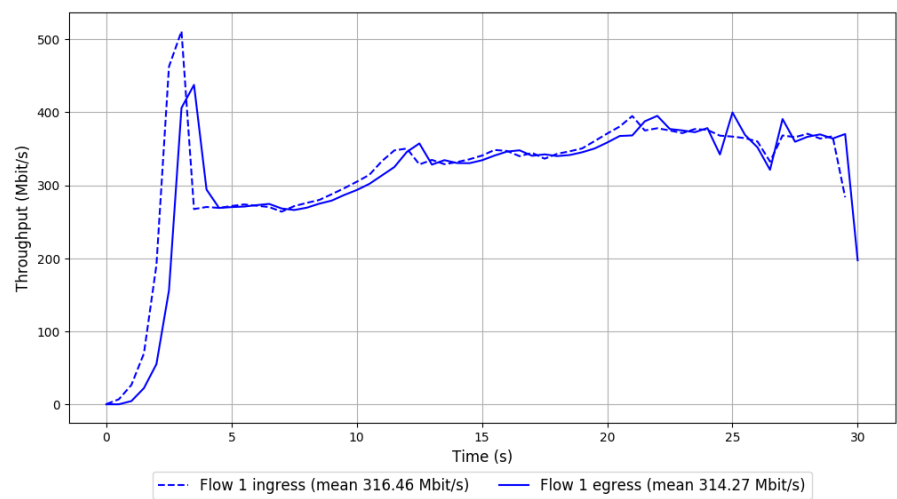
-- Flow 1:

Average throughput: 314.27 Mbit/s

95th percentile per-packet one-way delay: 137.865 ms

Loss rate: 1.41%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-10-02 20:06:54

End at: 2019-10-02 20:07:24

Local clock offset: 1.459 ms

Remote clock offset: 2.123 ms

# Below is generated by plot.py at 2019-10-02 22:21:56

# Datalink statistics

-- Total of 1 flow:

Average throughput: 311.42 Mbit/s

95th percentile per-packet one-way delay: 155.693 ms

Loss rate: 1.78%

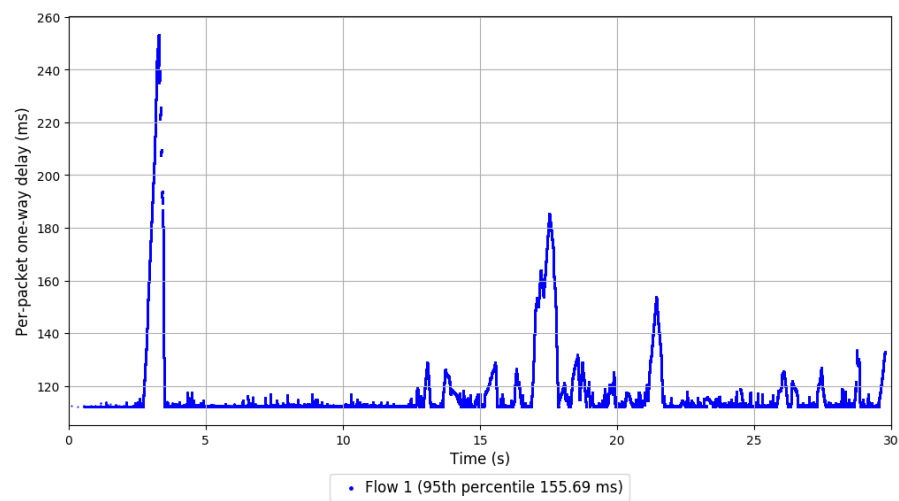
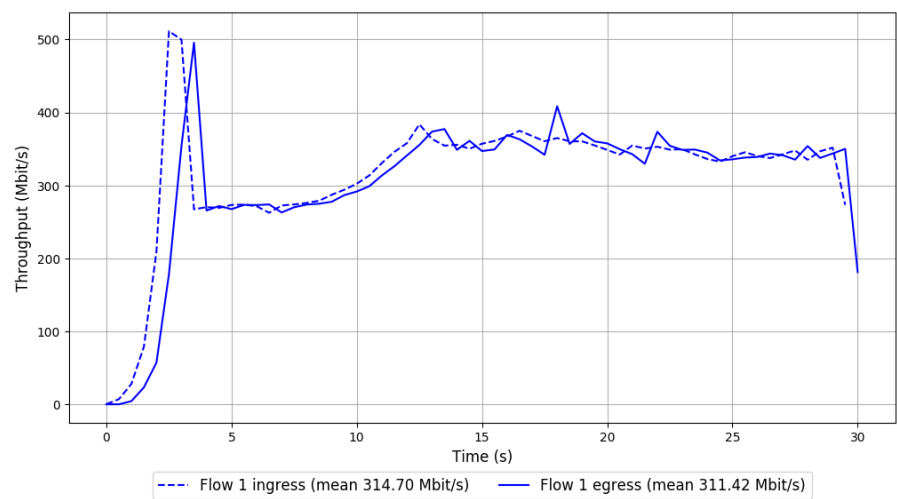
-- Flow 1:

Average throughput: 311.42 Mbit/s

95th percentile per-packet one-way delay: 155.693 ms

Loss rate: 1.78%

Run 5: Report of PCC-Allegro — Data Link

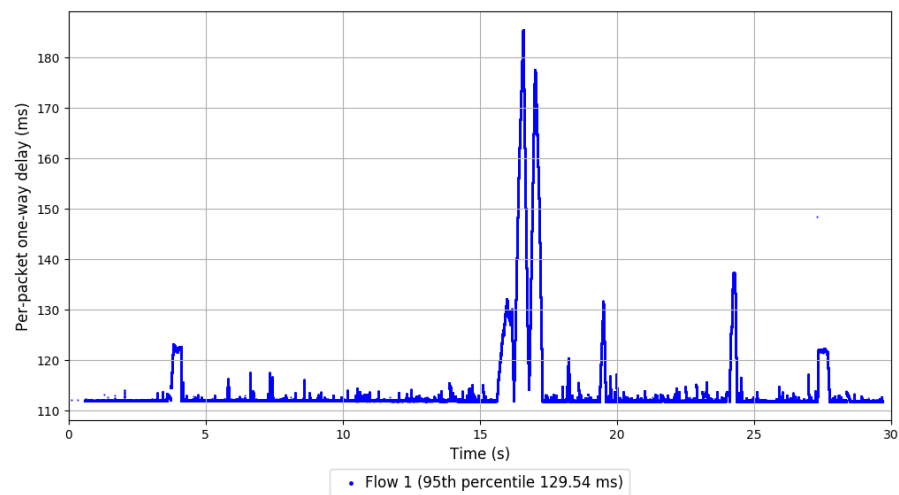
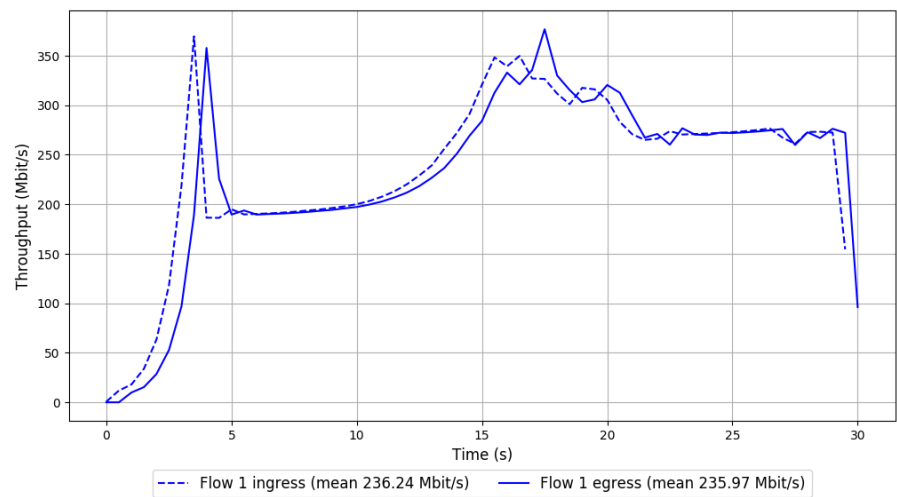


Run 1: Statistics of PCC-Expr

Start at: 2019-10-02 17:33:29  
End at: 2019-10-02 17:33:59  
Local clock offset: 8.46 ms  
Remote clock offset: 10.697 ms

# Below is generated by plot.py at 2019-10-02 22:21:56  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 235.97 Mbit/s  
95th percentile per-packet one-way delay: 129.539 ms  
Loss rate: 0.85%  
-- Flow 1:  
Average throughput: 235.97 Mbit/s  
95th percentile per-packet one-way delay: 129.539 ms  
Loss rate: 0.85%

Run 1: Report of PCC-Expr — Data Link



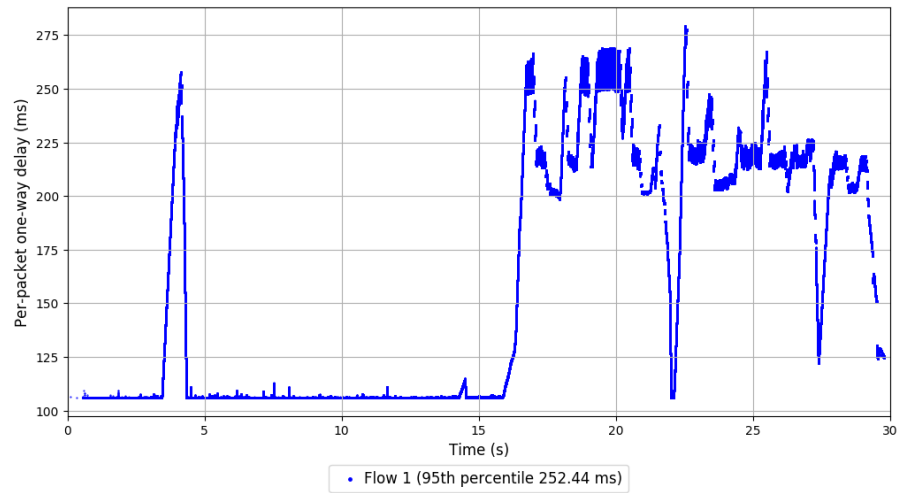
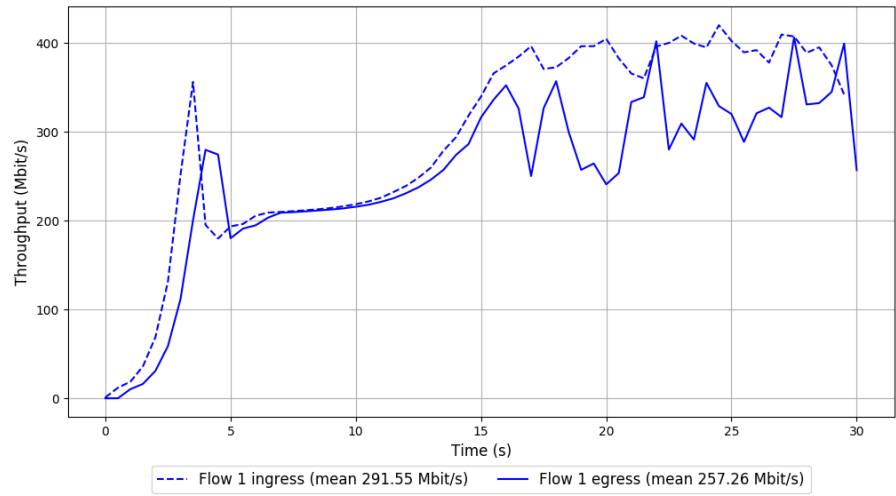


Run 2: Statistics of PCC-Expr

Start at: 2019-10-02 18:09:36  
End at: 2019-10-02 18:10:07  
Local clock offset: 14.48 ms  
Remote clock offset: 20.991 ms

# Below is generated by plot.py at 2019-10-02 22:21:56  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 257.26 Mbit/s  
95th percentile per-packet one-way delay: 252.445 ms  
Loss rate: 12.40%  
-- Flow 1:  
Average throughput: 257.26 Mbit/s  
95th percentile per-packet one-way delay: 252.445 ms  
Loss rate: 12.40%

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

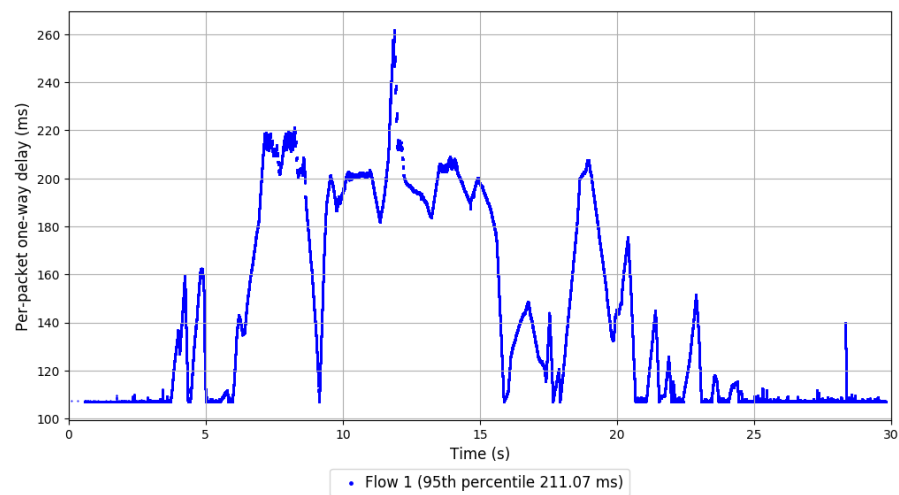
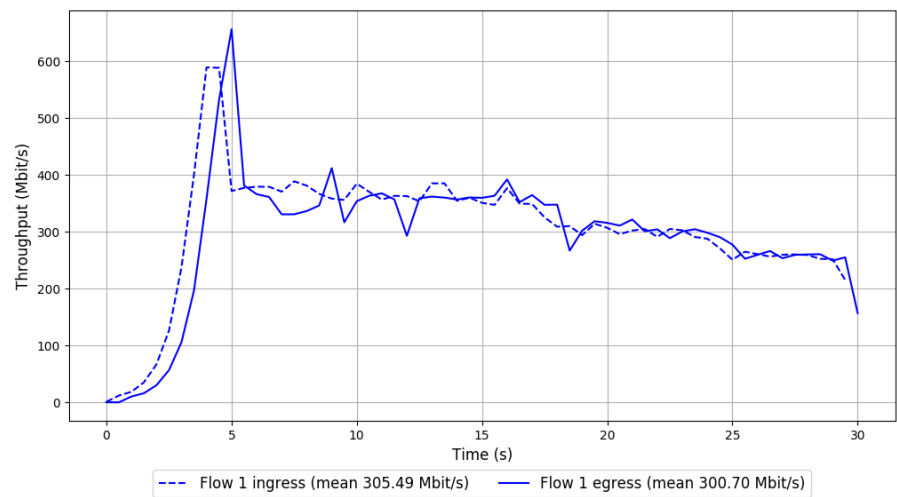


Run 3: Statistics of PCC-Expr

Start at: 2019-10-02 18:45:58  
End at: 2019-10-02 18:46:28  
Local clock offset: 12.131 ms  
Remote clock offset: 16.564 ms

# Below is generated by plot.py at 2019-10-02 22:24:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 300.70 Mbit/s  
95th percentile per-packet one-way delay: 211.074 ms  
Loss rate: 2.28%  
-- Flow 1:  
Average throughput: 300.70 Mbit/s  
95th percentile per-packet one-way delay: 211.074 ms  
Loss rate: 2.28%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-10-02 19:22:05

End at: 2019-10-02 19:22:35

Local clock offset: 5.608 ms

Remote clock offset: 7.891 ms

# Below is generated by plot.py at 2019-10-02 22:24:48

# Datalink statistics

-- Total of 1 flow:

Average throughput: 273.97 Mbit/s

95th percentile per-packet one-way delay: 165.096 ms

Loss rate: 1.40%

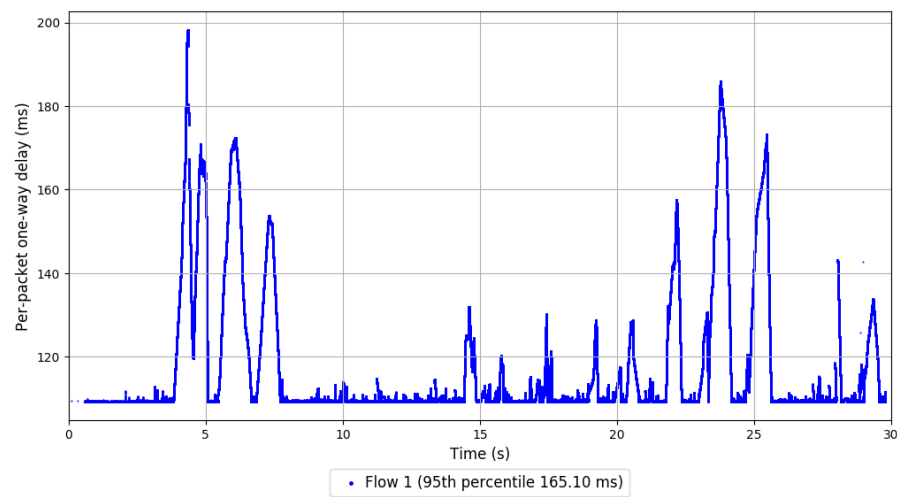
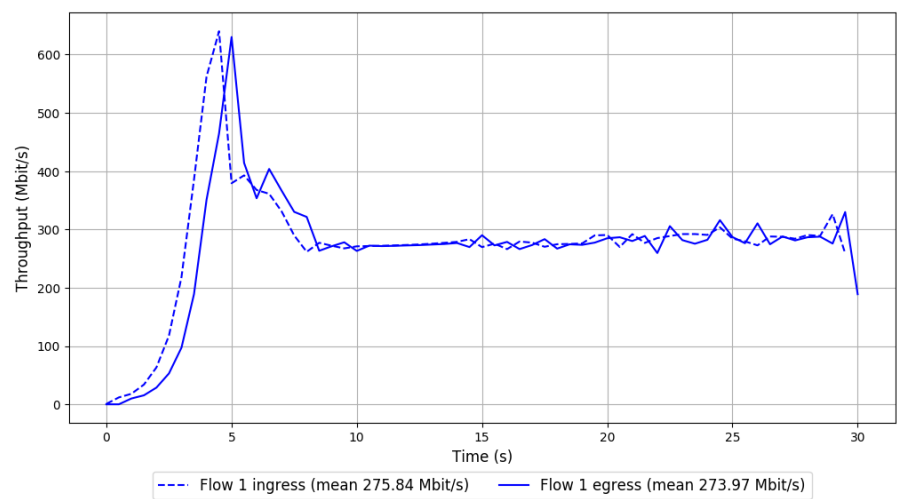
-- Flow 1:

Average throughput: 273.97 Mbit/s

95th percentile per-packet one-way delay: 165.096 ms

Loss rate: 1.40%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-10-02 19:57:34

End at: 2019-10-02 19:58:04

Local clock offset: 1.711 ms

Remote clock offset: 2.524 ms

# Below is generated by plot.py at 2019-10-02 22:24:48

# Datalink statistics

-- Total of 1 flow:

Average throughput: 264.00 Mbit/s

95th percentile per-packet one-way delay: 152.445 ms

Loss rate: 0.66%

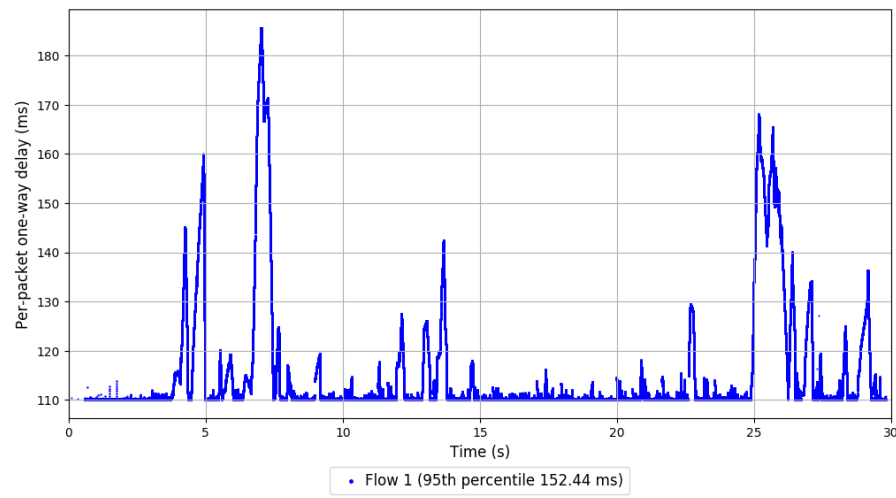
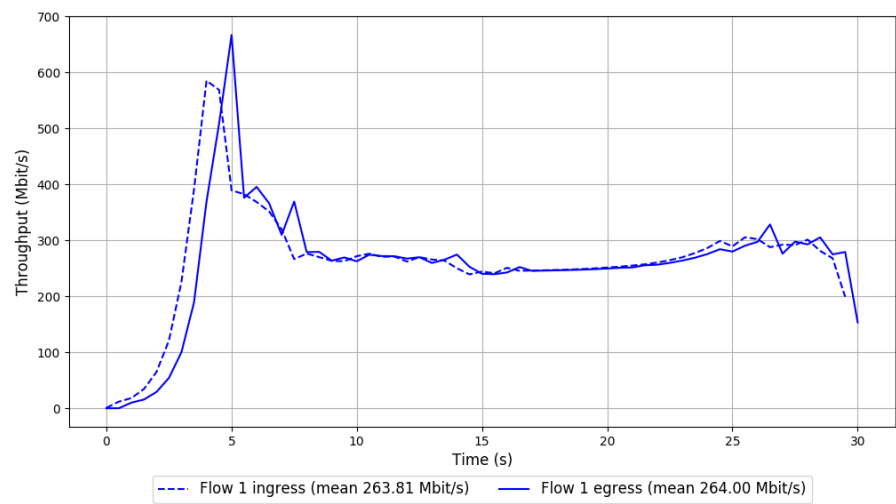
-- Flow 1:

Average throughput: 264.00 Mbit/s

95th percentile per-packet one-way delay: 152.445 ms

Loss rate: 0.66%

Run 5: Report of PCC-Expr — Data Link



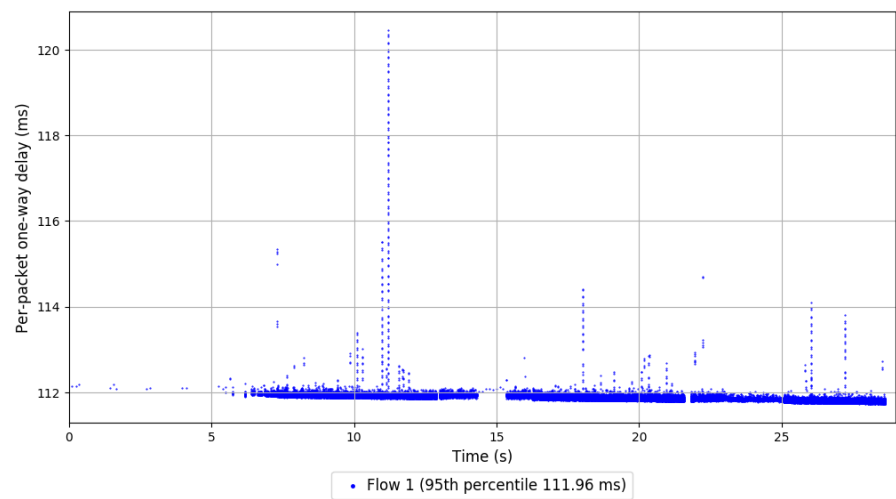
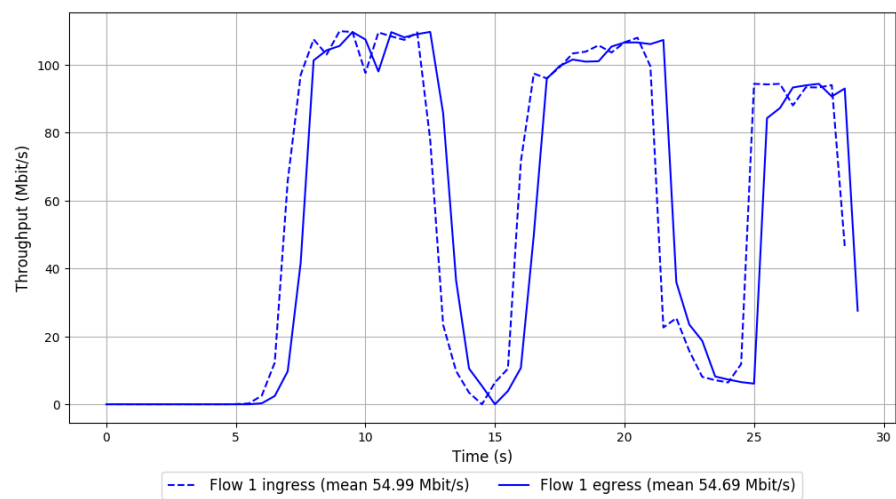


Run 1: Statistics of QUIC Cubic

Start at: 2019-10-02 17:59:14  
End at: 2019-10-02 17:59:44  
Local clock offset: 19.209 ms  
Remote clock offset: 26.534 ms

# Below is generated by plot.py at 2019-10-02 22:24:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 54.69 Mbit/s  
95th percentile per-packet one-way delay: 111.957 ms  
Loss rate: 1.30%  
-- Flow 1:  
Average throughput: 54.69 Mbit/s  
95th percentile per-packet one-way delay: 111.957 ms  
Loss rate: 1.30%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-10-02 18:35:44

End at: 2019-10-02 18:36:14

Local clock offset: 22.588 ms

Remote clock offset: 30.568 ms

# Below is generated by plot.py at 2019-10-02 22:24:48

# Datalink statistics

-- Total of 1 flow:

Average throughput: 69.39 Mbit/s

95th percentile per-packet one-way delay: 107.349 ms

Loss rate: 1.01%

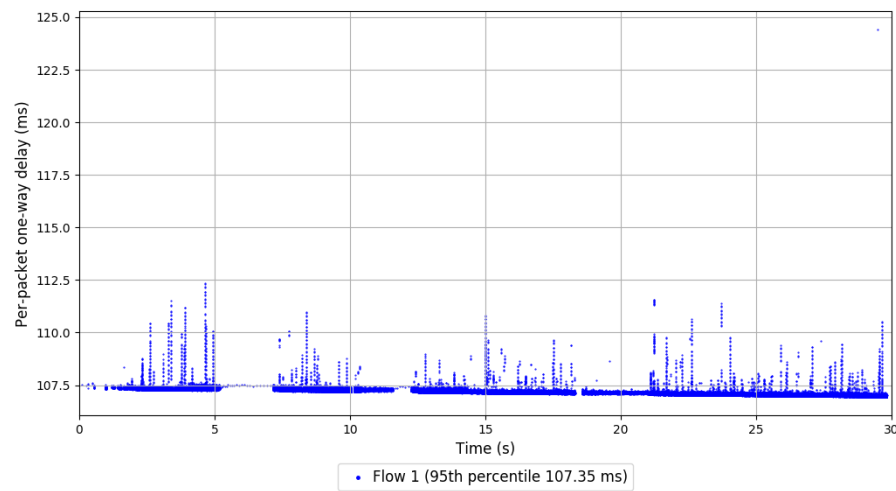
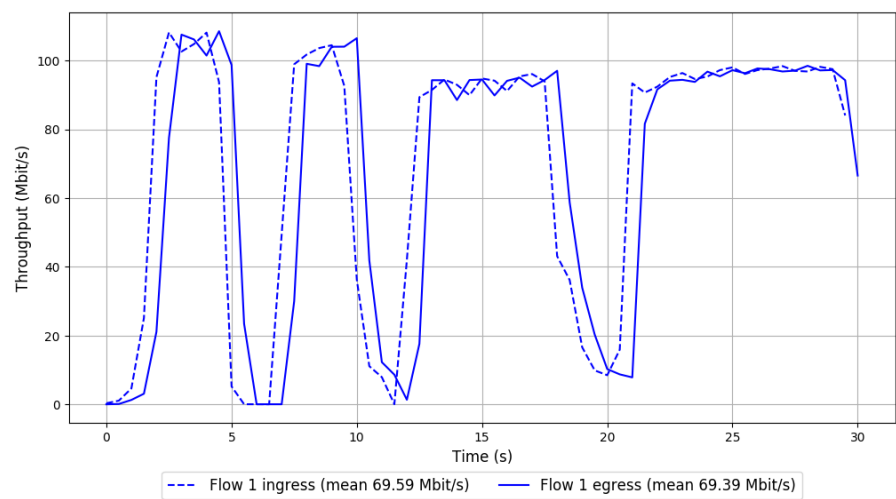
-- Flow 1:

Average throughput: 69.39 Mbit/s

95th percentile per-packet one-way delay: 107.349 ms

Loss rate: 1.01%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-10-02 19:12:10

End at: 2019-10-02 19:12:40

Local clock offset: 9.403 ms

Remote clock offset: 12.651 ms

# Below is generated by plot.py at 2019-10-02 22:24:48

# Datalink statistics

-- Total of 1 flow:

Average throughput: 65.09 Mbit/s

95th percentile per-packet one-way delay: 110.411 ms

Loss rate: 1.13%

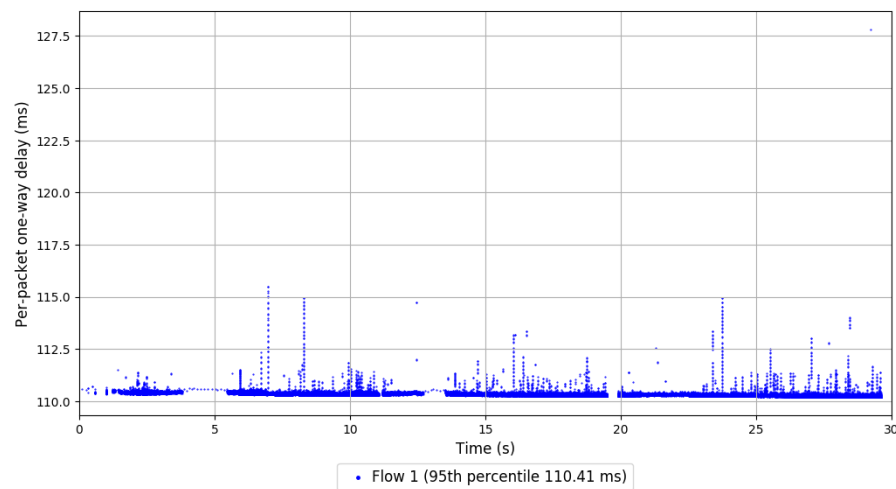
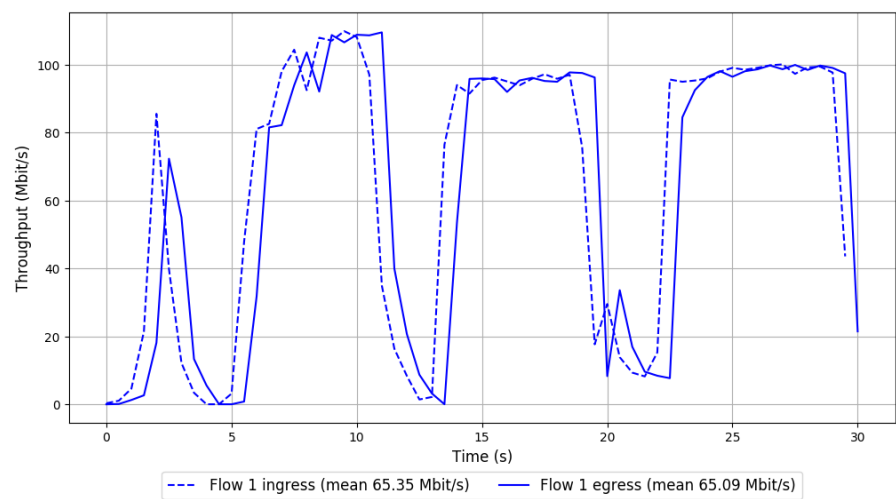
-- Flow 1:

Average throughput: 65.09 Mbit/s

95th percentile per-packet one-way delay: 110.411 ms

Loss rate: 1.13%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-10-02 19:47:51

End at: 2019-10-02 19:48:21

Local clock offset: 3.637 ms

Remote clock offset: 4.575 ms

# Below is generated by plot.py at 2019-10-02 22:24:48

# Datalink statistics

-- Total of 1 flow:

Average throughput: 76.83 Mbit/s

95th percentile per-packet one-way delay: 110.411 ms

Loss rate: 1.05%

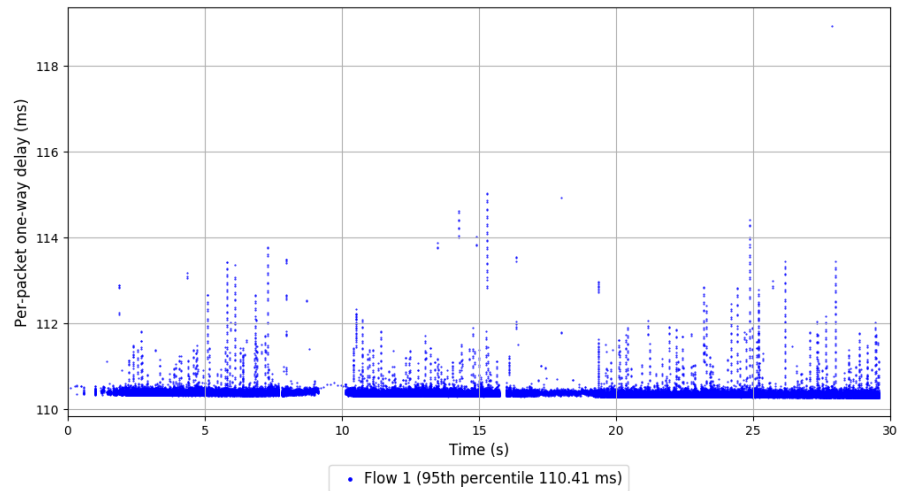
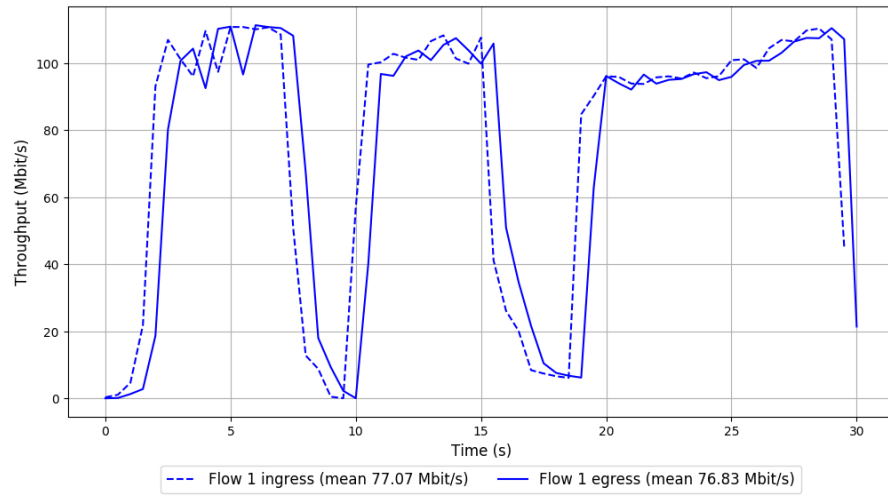
-- Flow 1:

Average throughput: 76.83 Mbit/s

95th percentile per-packet one-way delay: 110.411 ms

Loss rate: 1.05%

#### Run 4: Report of QUIC Cubic — Data Link





Run 5: Statistics of QUIC Cubic

Start at: 2019-10-02 20:23:30

End at: 2019-10-02 20:24:00

Local clock offset: 0.751 ms

Remote clock offset: 1.092 ms

# Below is generated by plot.py at 2019-10-02 22:24:48

# Datalink statistics

-- Total of 1 flow:

Average throughput: 66.60 Mbit/s

95th percentile per-packet one-way delay: 106.850 ms

Loss rate: 1.05%

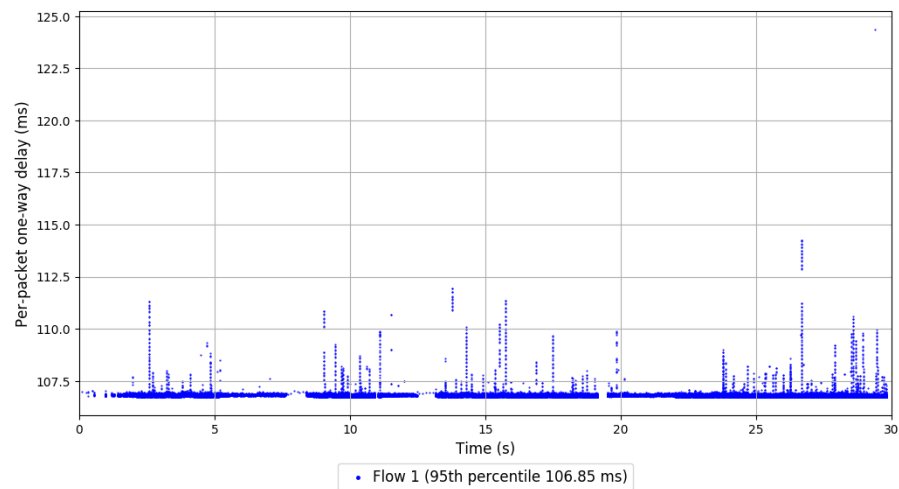
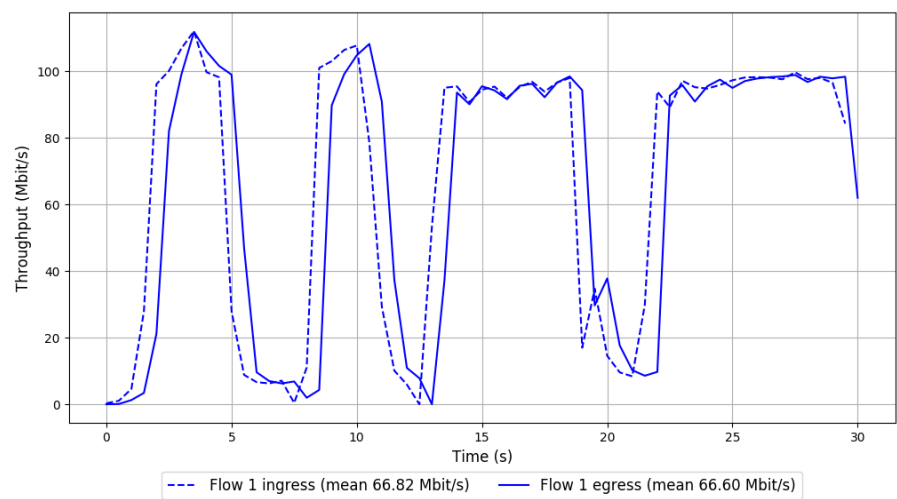
-- Flow 1:

Average throughput: 66.60 Mbit/s

95th percentile per-packet one-way delay: 106.850 ms

Loss rate: 1.05%

Run 5: Report of QUIC Cubic — Data Link

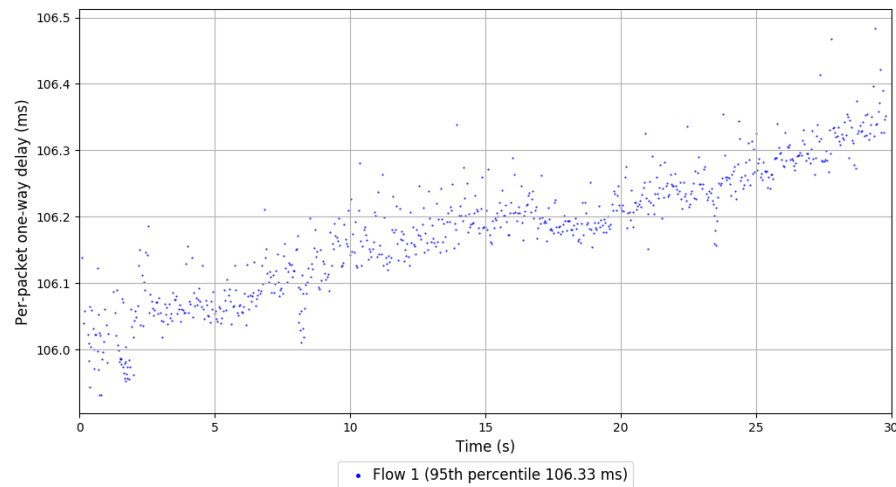
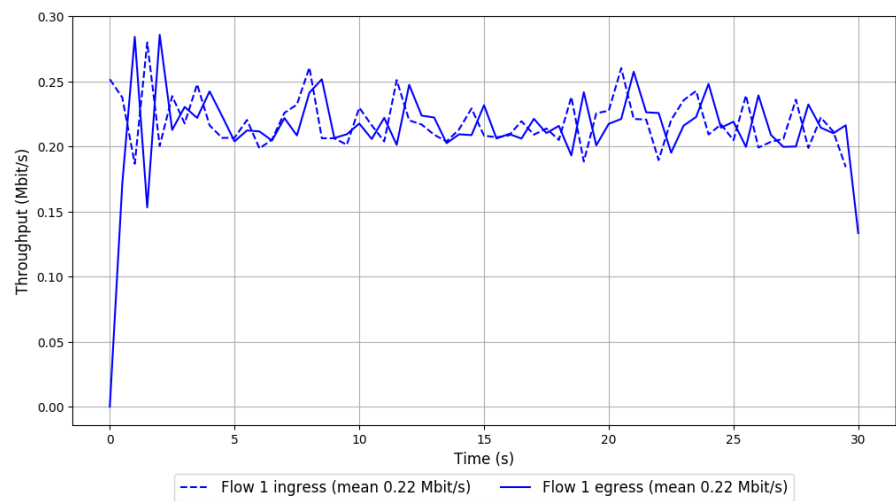


Run 1: Statistics of SCReAM

Start at: 2019-10-02 17:39:47  
End at: 2019-10-02 17:40:17  
Local clock offset: 10.659 ms  
Remote clock offset: 15.258 ms

# Below is generated by plot.py at 2019-10-02 22:24:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 106.328 ms  
Loss rate: 0.77%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 106.328 ms  
Loss rate: 0.77%

Run 1: Report of SReAM — Data Link

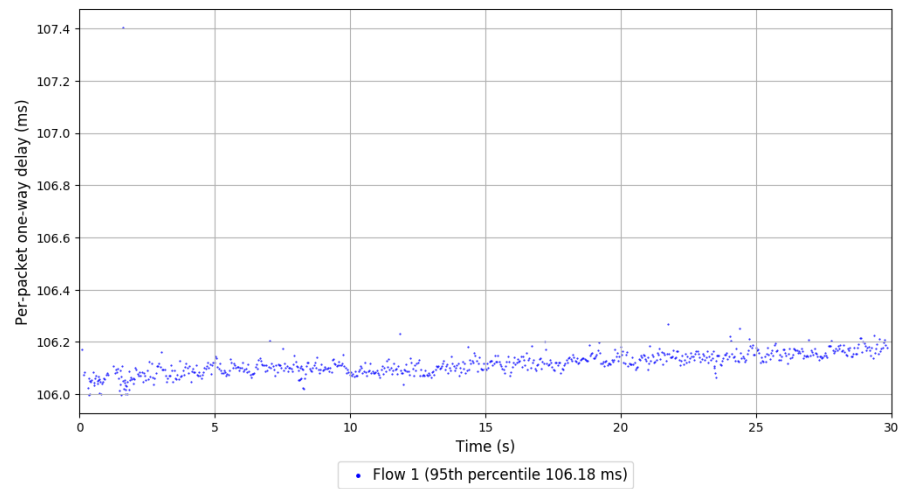
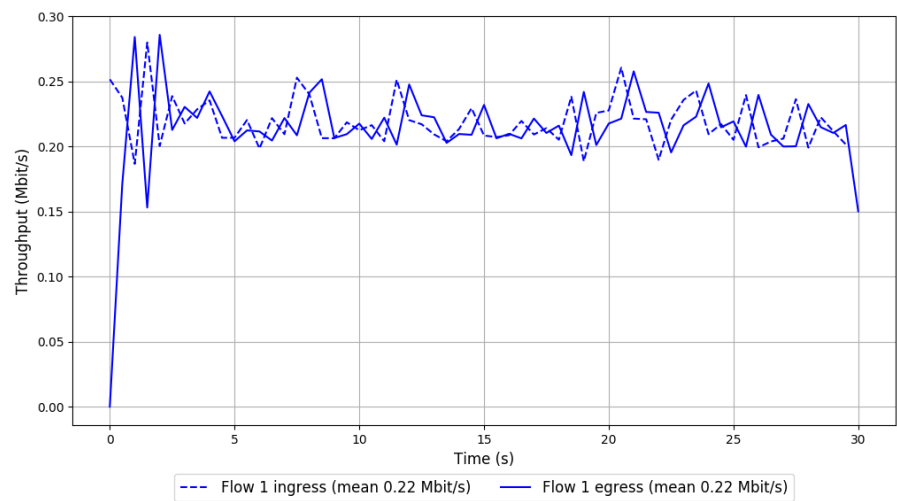


Run 2: Statistics of SCReAM

Start at: 2019-10-02 18:16:14  
End at: 2019-10-02 18:16:44  
Local clock offset: 17.666 ms  
Remote clock offset: 24.885 ms

# Below is generated by plot.py at 2019-10-02 22:24:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 106.182 ms  
Loss rate: 0.77%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 106.182 ms  
Loss rate: 0.77%

Run 2: Report of SReAM — Data Link

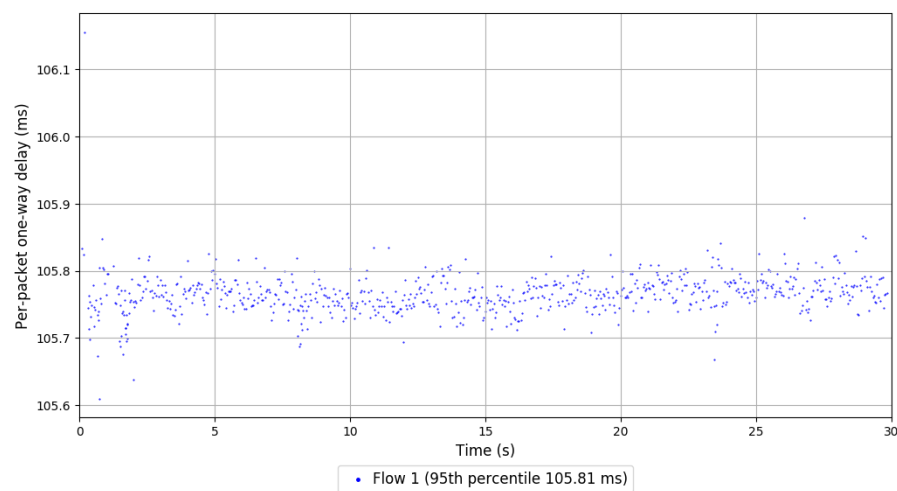
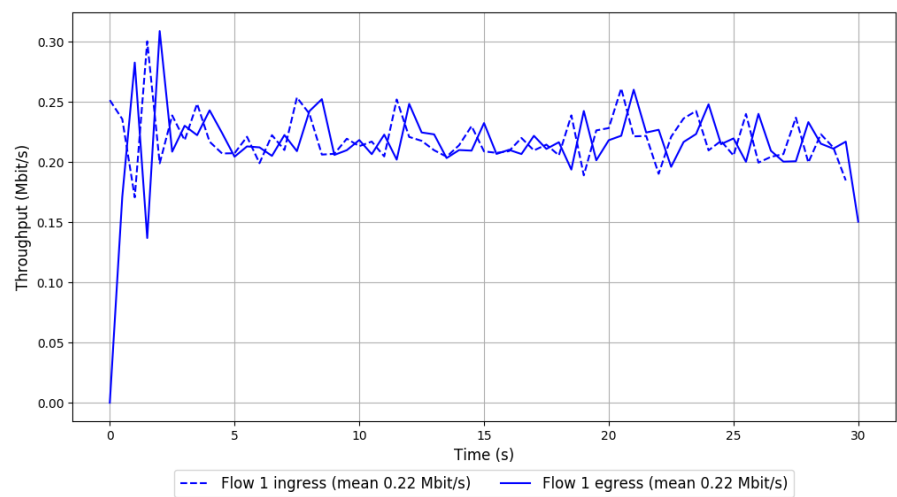


Run 3: Statistics of SCReAM

Start at: 2019-10-02 18:52:37  
End at: 2019-10-02 18:53:07  
Local clock offset: 10.887 ms  
Remote clock offset: 15.833 ms

# Below is generated by plot.py at 2019-10-02 22:24:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 105.808 ms  
Loss rate: 0.64%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 105.808 ms  
Loss rate: 0.64%

Run 3: Report of SReAM — Data Link





Run 4: Statistics of SCReAM

Start at: 2019-10-02 19:28:38

End at: 2019-10-02 19:29:08

Local clock offset: 5.692 ms

Remote clock offset: 7.907 ms

# Below is generated by plot.py at 2019-10-02 22:24:48

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.123 ms

Loss rate: 0.77%

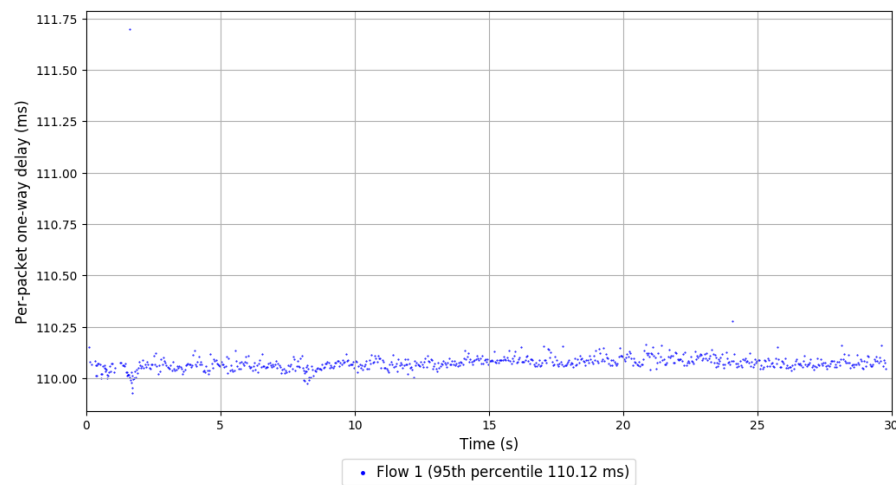
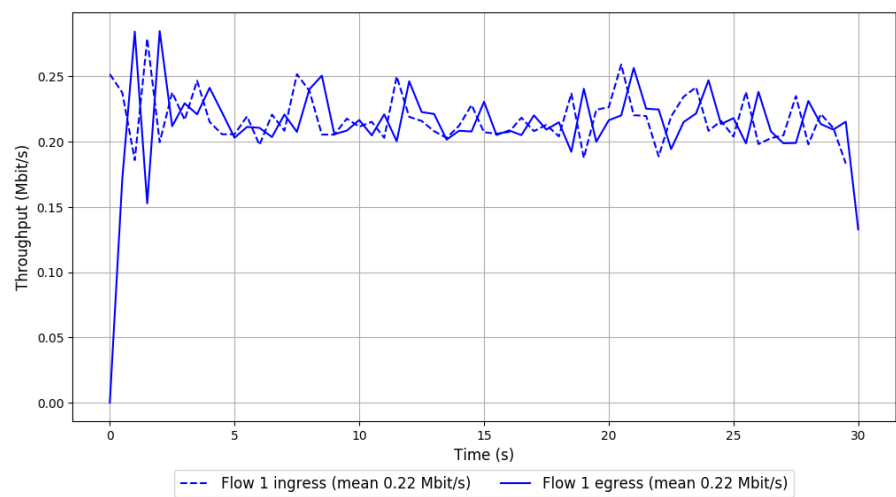
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.123 ms

Loss rate: 0.77%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2019-10-02 20:04:14

End at: 2019-10-02 20:04:44

Local clock offset: 1.389 ms

Remote clock offset: 2.149 ms

# Below is generated by plot.py at 2019-10-02 22:24:49

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 106.971 ms

Loss rate: 0.64%

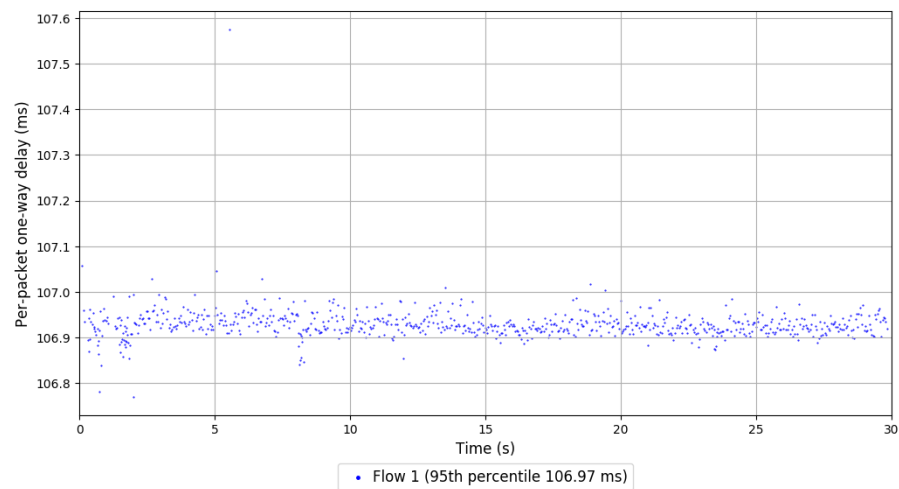
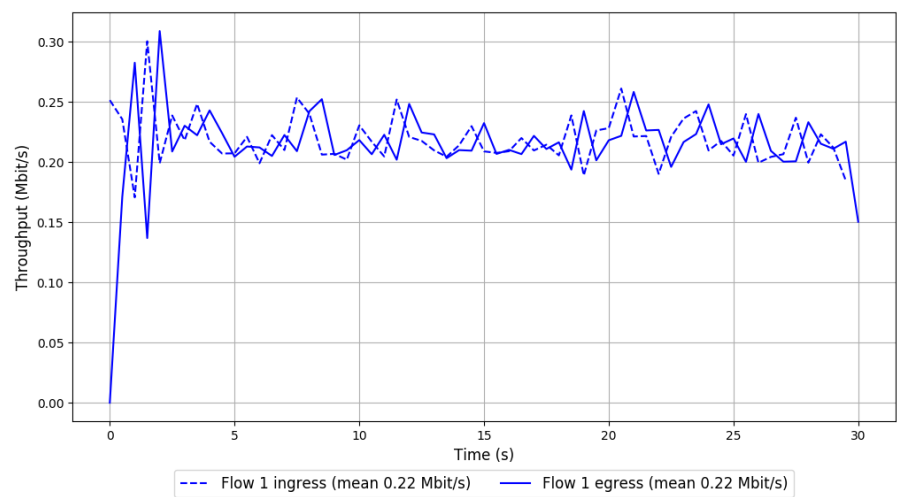
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 106.971 ms

Loss rate: 0.64%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-10-02 17:30:49

End at: 2019-10-02 17:31:19

Local clock offset: 5.287 ms

Remote clock offset: 7.451 ms

# Below is generated by plot.py at 2019-10-02 22:24:49

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 107.479 ms

Loss rate: 0.54%

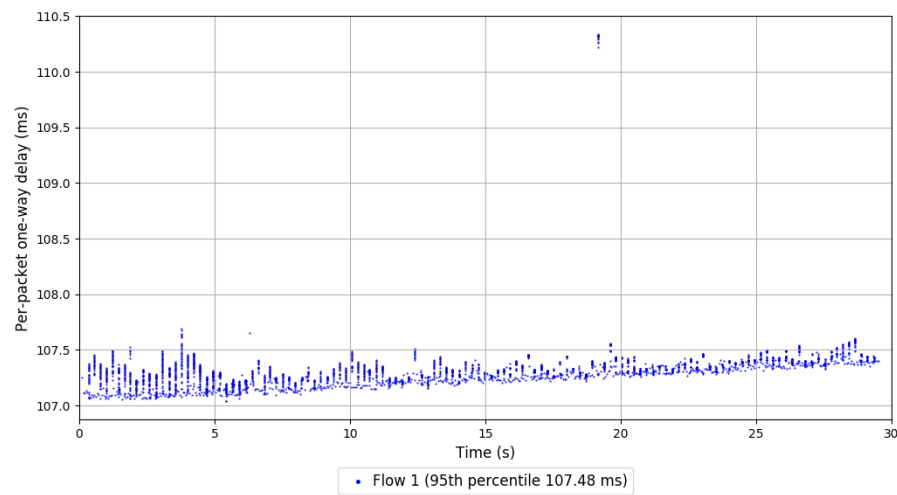
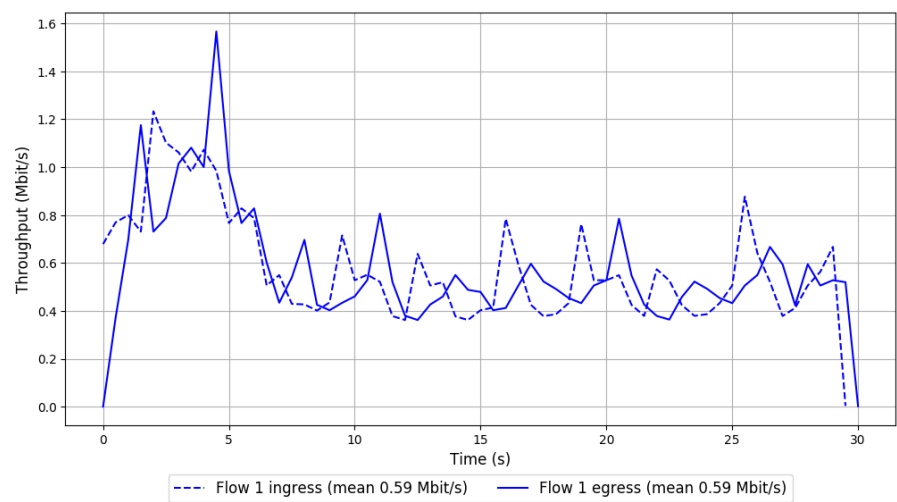
-- Flow 1:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 107.479 ms

Loss rate: 0.54%

Run 1: Report of Sprout — Data Link

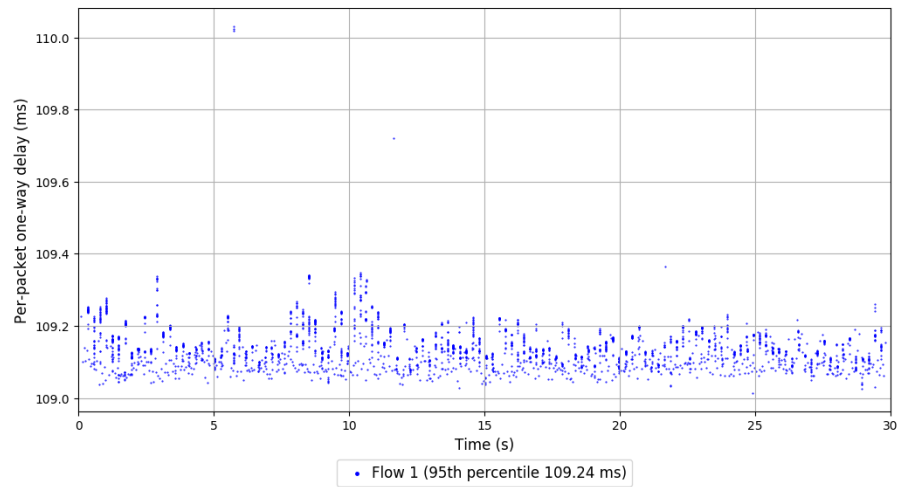
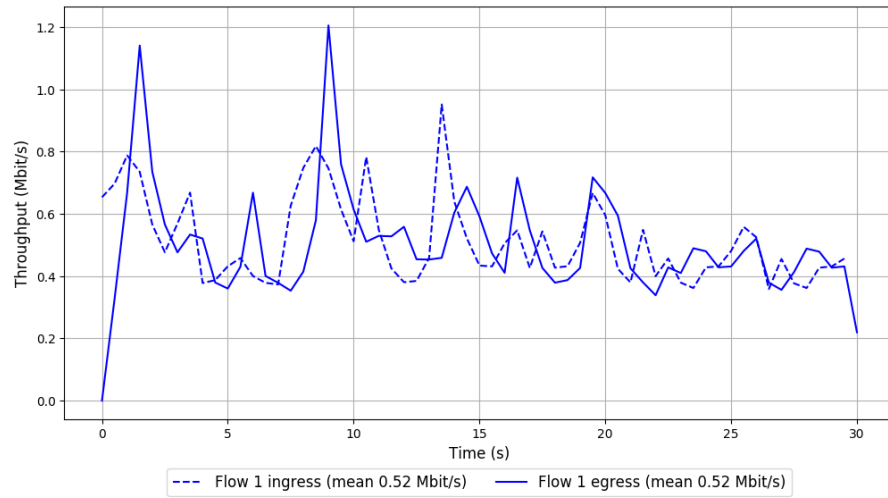


Run 2: Statistics of Sprout

Start at: 2019-10-02 18:06:56  
End at: 2019-10-02 18:07:26  
Local clock offset: 14.723 ms  
Remote clock offset: 20.546 ms

# Below is generated by plot.py at 2019-10-02 22:24:49  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.52 Mbit/s  
95th percentile per-packet one-way delay: 109.241 ms  
Loss rate: 0.78%  
-- Flow 1:  
Average throughput: 0.52 Mbit/s  
95th percentile per-packet one-way delay: 109.241 ms  
Loss rate: 0.78%

## Run 2: Report of Sprout — Data Link



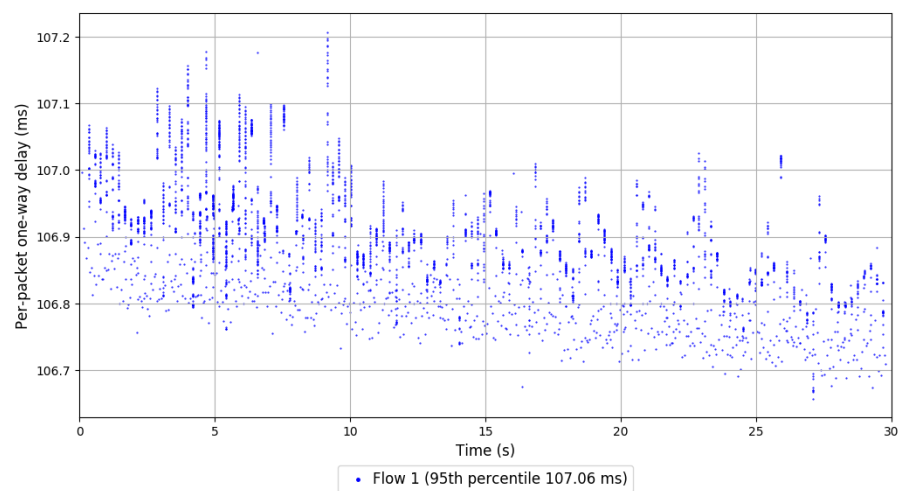
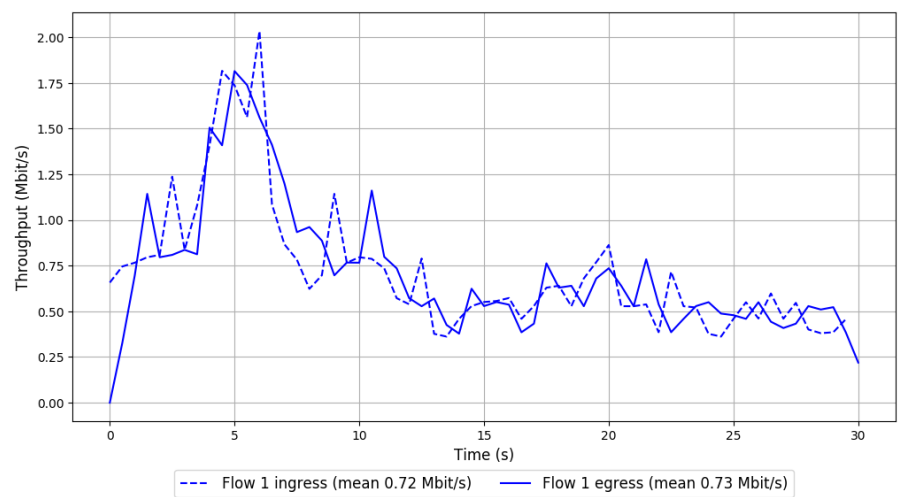


Run 3: Statistics of Sprout

Start at: 2019-10-02 18:43:17  
End at: 2019-10-02 18:43:47  
Local clock offset: 13.214 ms  
Remote clock offset: 18.182 ms

# Below is generated by plot.py at 2019-10-02 22:24:49  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.73 Mbit/s  
95th percentile per-packet one-way delay: 107.064 ms  
Loss rate: 0.55%  
-- Flow 1:  
Average throughput: 0.73 Mbit/s  
95th percentile per-packet one-way delay: 107.064 ms  
Loss rate: 0.55%

Run 3: Report of Sprout — Data Link

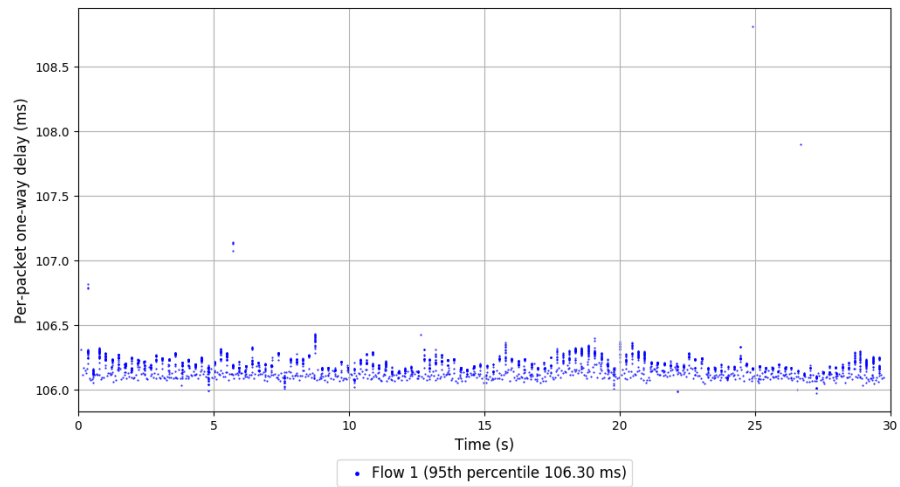
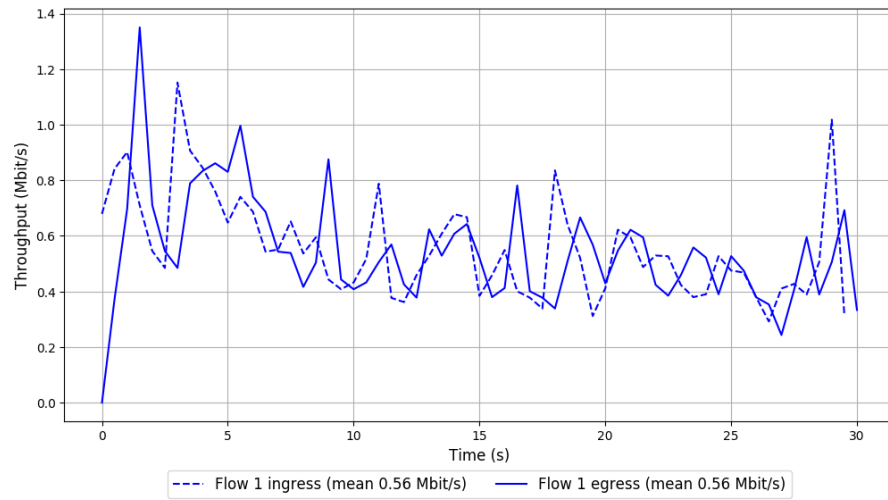


Run 4: Statistics of Sprout

Start at: 2019-10-02 19:19:43  
End at: 2019-10-02 19:20:13  
Local clock offset: 5.978 ms  
Remote clock offset: 8.317 ms

# Below is generated by plot.py at 2019-10-02 22:24:49  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.56 Mbit/s  
95th percentile per-packet one-way delay: 106.298 ms  
Loss rate: 0.92%  
-- Flow 1:  
Average throughput: 0.56 Mbit/s  
95th percentile per-packet one-way delay: 106.298 ms  
Loss rate: 0.92%

#### Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-10-02 19:55:10

End at: 2019-10-02 19:55:40

Local clock offset: 2.01 ms

Remote clock offset: 2.79 ms

# Below is generated by plot.py at 2019-10-02 22:24:49

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 111.707 ms

Loss rate: 1.80%

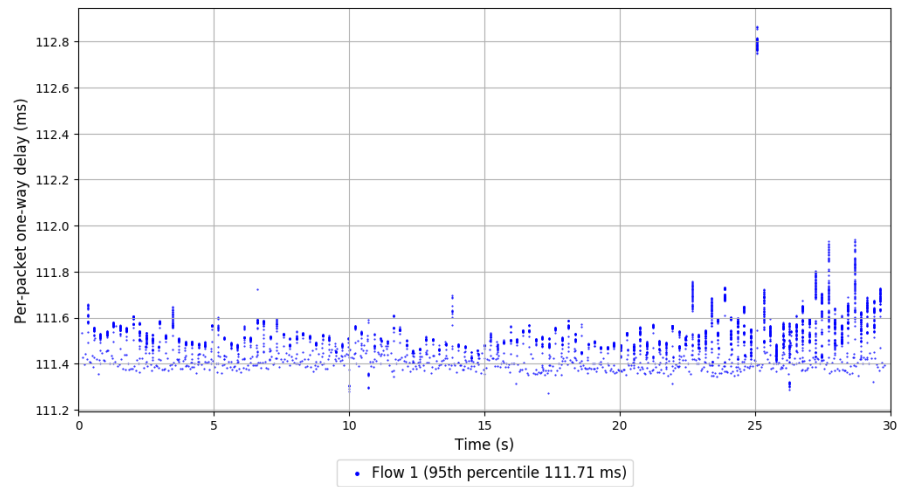
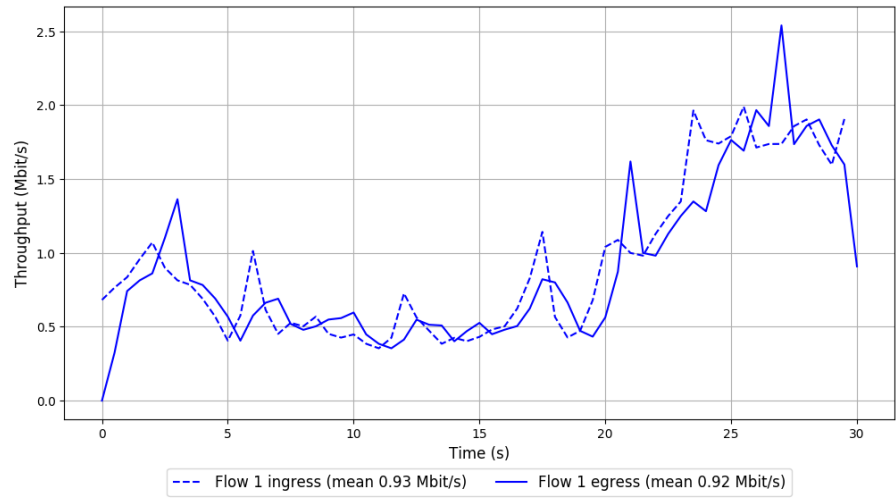
-- Flow 1:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 111.707 ms

Loss rate: 1.80%

## Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-10-02 17:31:59

End at: 2019-10-02 17:32:29

Local clock offset: 6.511 ms

Remote clock offset: 9.987 ms

# Below is generated by plot.py at 2019-10-02 22:28:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 213.17 Mbit/s

95th percentile per-packet one-way delay: 111.355 ms

Loss rate: 0.77%

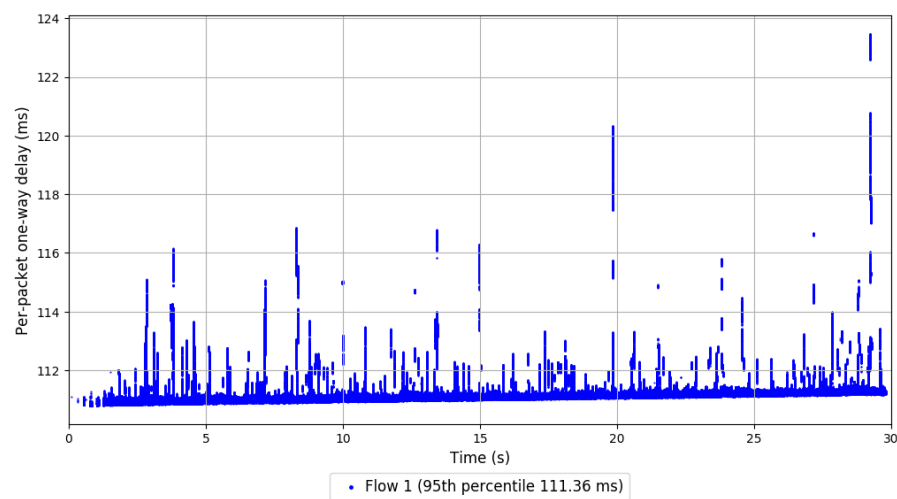
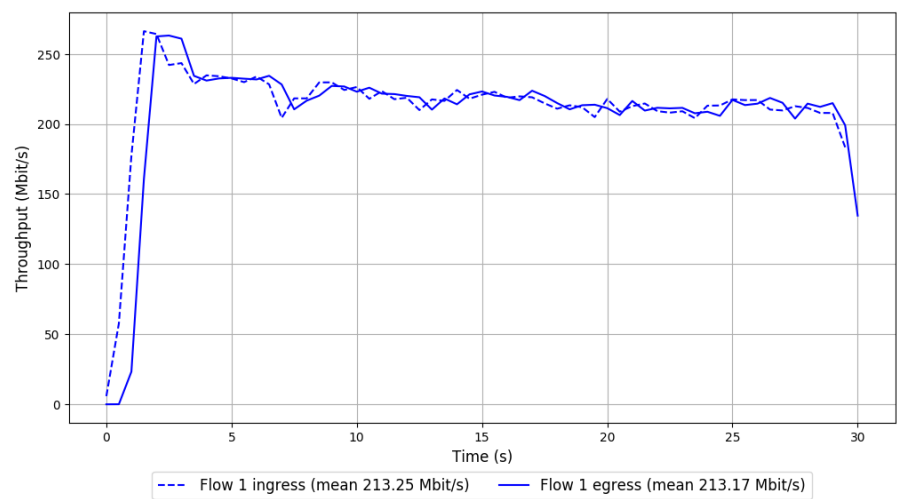
-- Flow 1:

Average throughput: 213.17 Mbit/s

95th percentile per-packet one-way delay: 111.355 ms

Loss rate: 0.77%

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



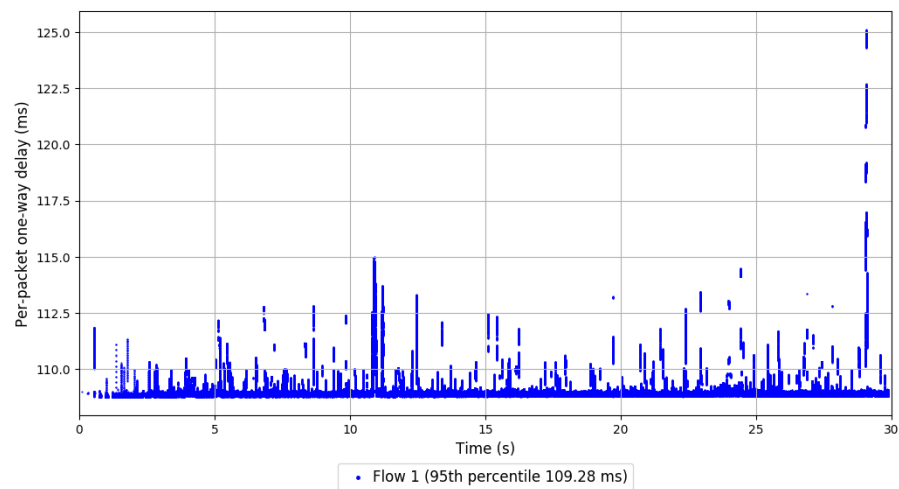
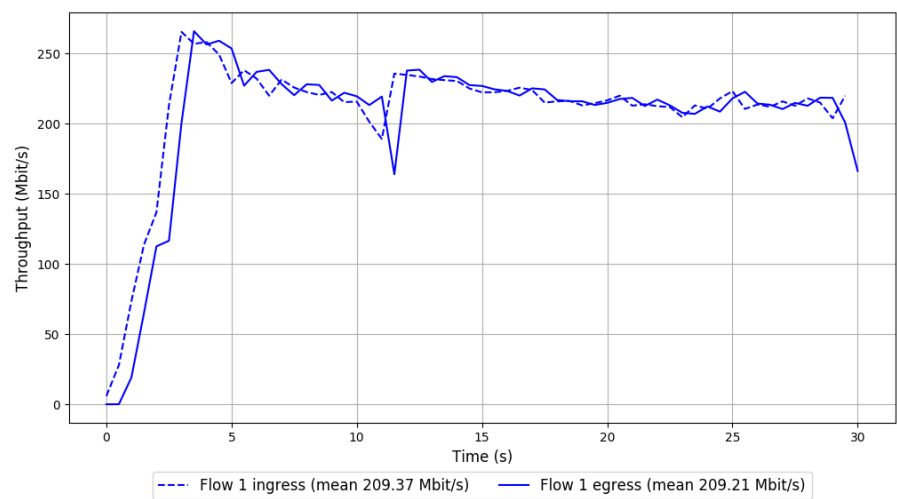


Run 2: Statistics of TaoVA-100x

Start at: 2019-10-02 18:08:06  
End at: 2019-10-02 18:08:36  
Local clock offset: 14.636 ms  
Remote clock offset: 20.614 ms

# Below is generated by plot.py at 2019-10-02 22:28:40  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 209.21 Mbit/s  
95th percentile per-packet one-way delay: 109.276 ms  
Loss rate: 0.80%  
-- Flow 1:  
Average throughput: 209.21 Mbit/s  
95th percentile per-packet one-way delay: 109.276 ms  
Loss rate: 0.80%

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

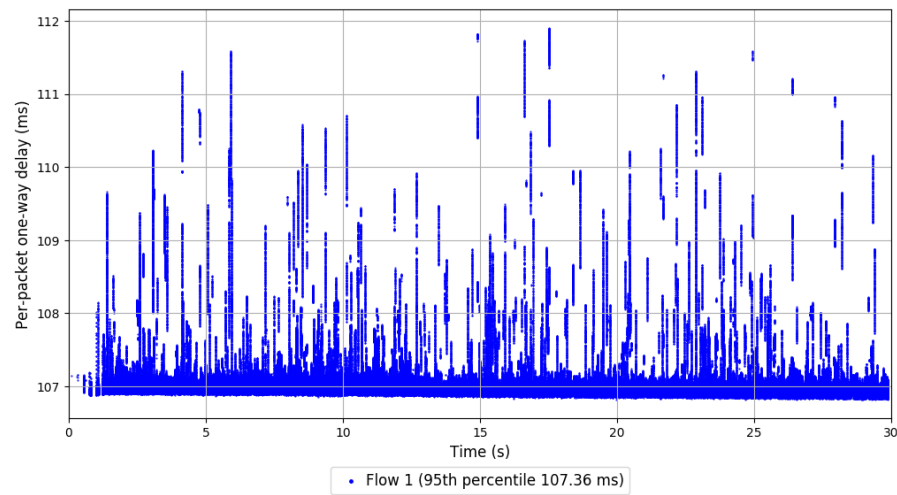
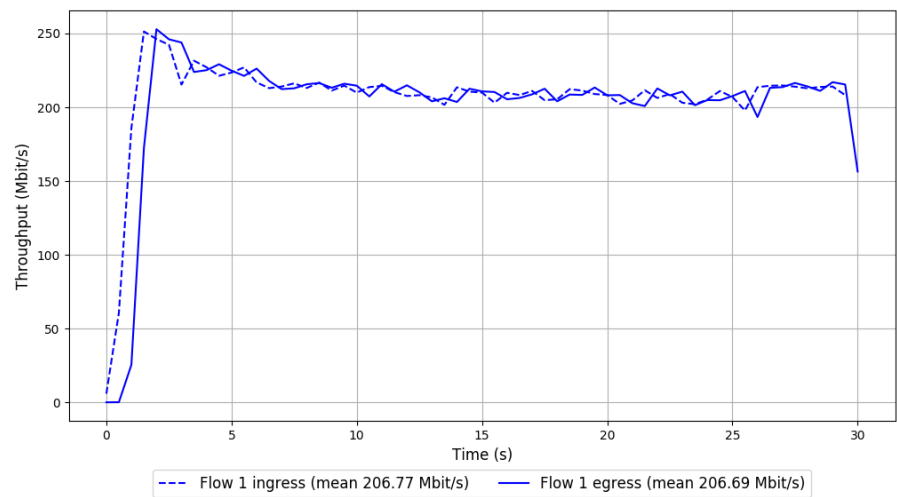


Run 3: Statistics of TaoVA-100x

Start at: 2019-10-02 18:44:27  
End at: 2019-10-02 18:44:57  
Local clock offset: 12.627 ms  
Remote clock offset: 17.421 ms

# Below is generated by plot.py at 2019-10-02 22:28:40  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 206.69 Mbit/s  
95th percentile per-packet one-way delay: 107.362 ms  
Loss rate: 0.76%  
-- Flow 1:  
Average throughput: 206.69 Mbit/s  
95th percentile per-packet one-way delay: 107.362 ms  
Loss rate: 0.76%

Run 3: Report of TaoVA-100x — Data Link



Run 4: Statistics of TaoVA-100x

Start at: 2019-10-02 19:20:53

End at: 2019-10-02 19:21:23

Local clock offset: 5.724 ms

Remote clock offset: 7.68 ms

# Below is generated by plot.py at 2019-10-02 22:28:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 16.24 Mbit/s

95th percentile per-packet one-way delay: 107.289 ms

Loss rate: 0.73%

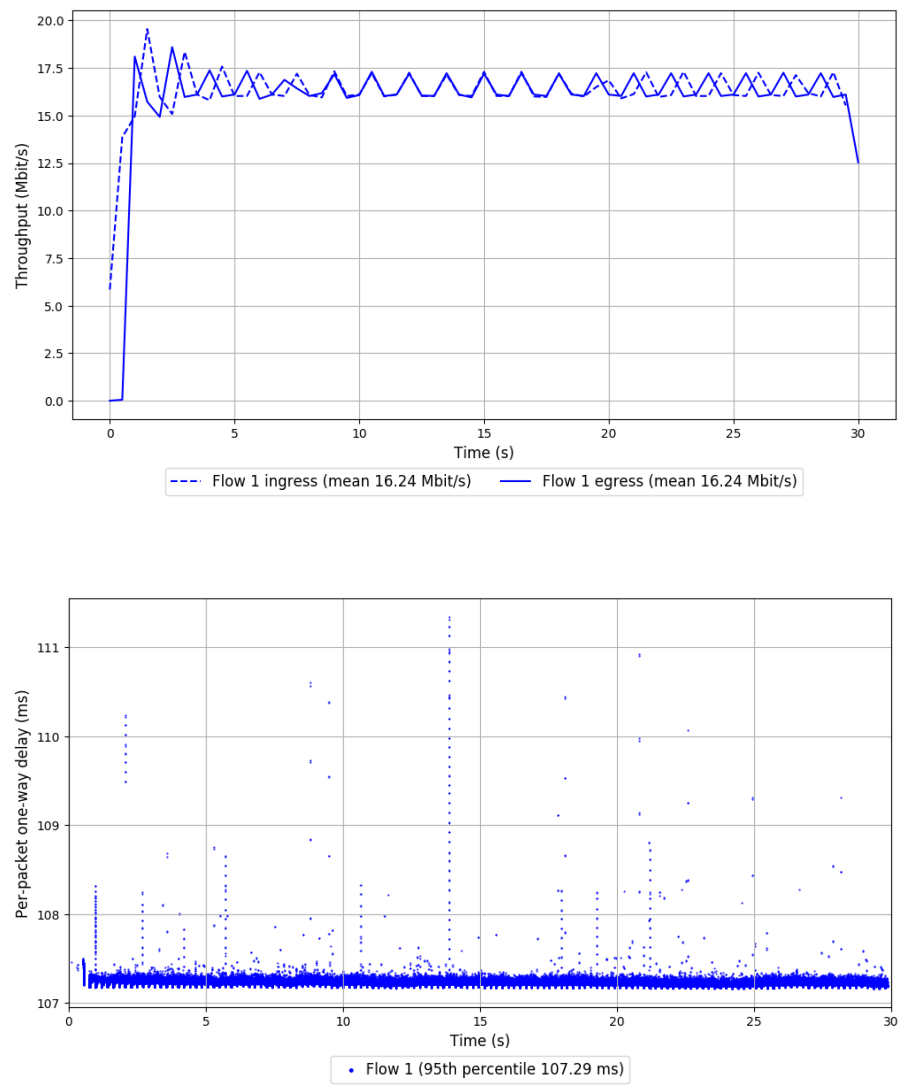
-- Flow 1:

Average throughput: 16.24 Mbit/s

95th percentile per-packet one-way delay: 107.289 ms

Loss rate: 0.73%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-10-02 19:56:20

End at: 2019-10-02 19:56:50

Local clock offset: 1.732 ms

Remote clock offset: 2.632 ms

# Below is generated by plot.py at 2019-10-02 22:28:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 33.28 Mbit/s

95th percentile per-packet one-way delay: 112.088 ms

Loss rate: 1.14%

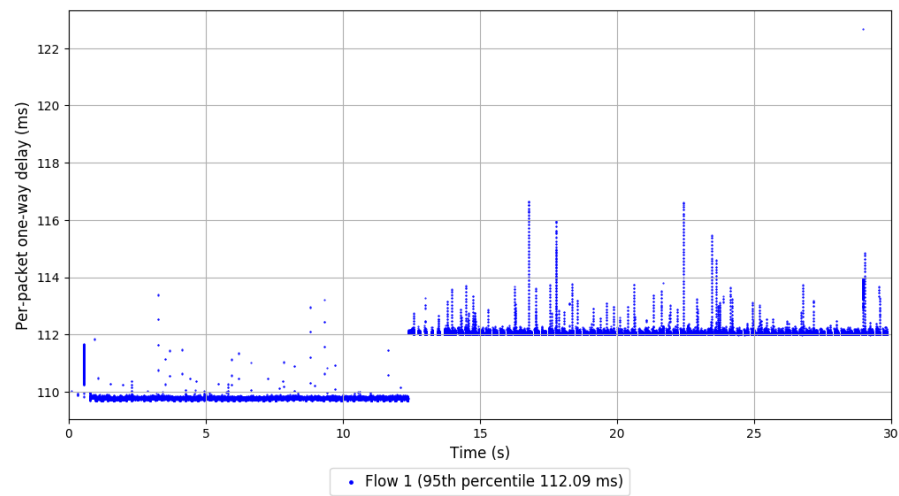
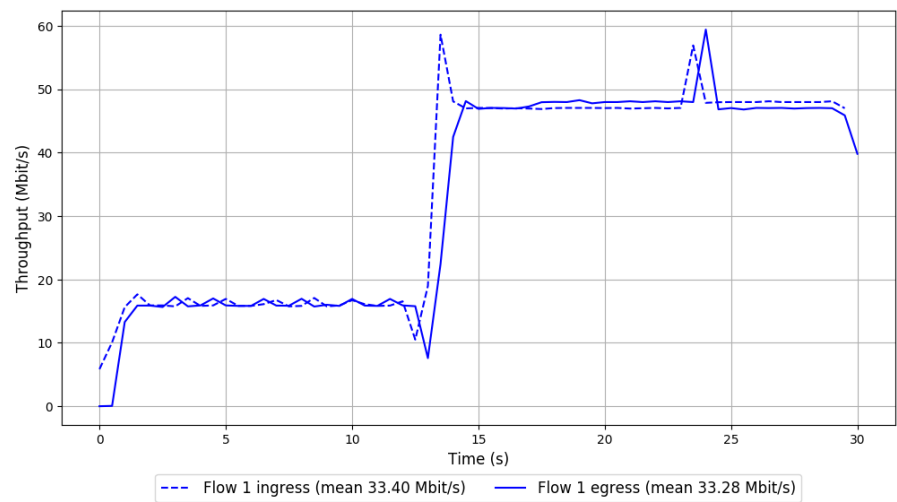
-- Flow 1:

Average throughput: 33.28 Mbit/s

95th percentile per-packet one-way delay: 112.088 ms

Loss rate: 1.14%

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



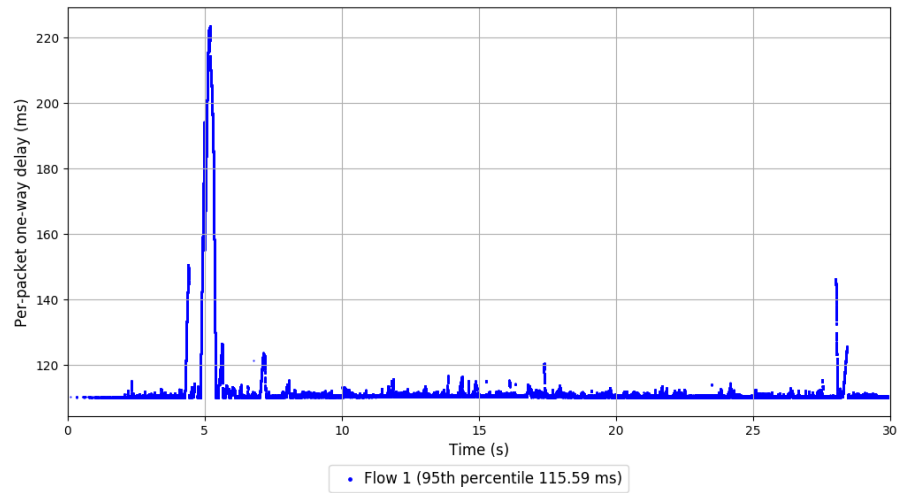
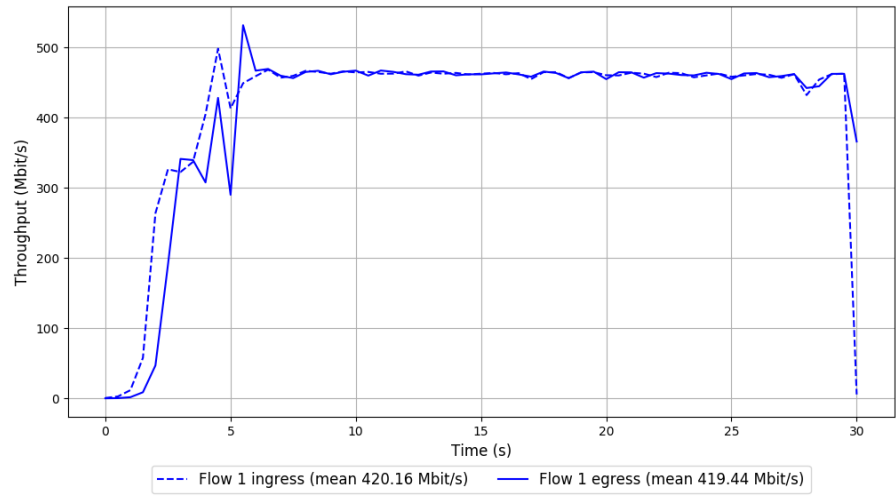


Run 1: Statistics of TCP Vegas

Start at: 2019-10-02 17:40:56  
End at: 2019-10-02 17:41:26  
Local clock offset: 12.782 ms  
Remote clock offset: 17.523 ms

# Below is generated by plot.py at 2019-10-02 22:29:52  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 419.44 Mbit/s  
95th percentile per-packet one-way delay: 115.587 ms  
Loss rate: 0.89%  
-- Flow 1:  
Average throughput: 419.44 Mbit/s  
95th percentile per-packet one-way delay: 115.587 ms  
Loss rate: 0.89%

### Run 1: Report of TCP Vegas — Data Link

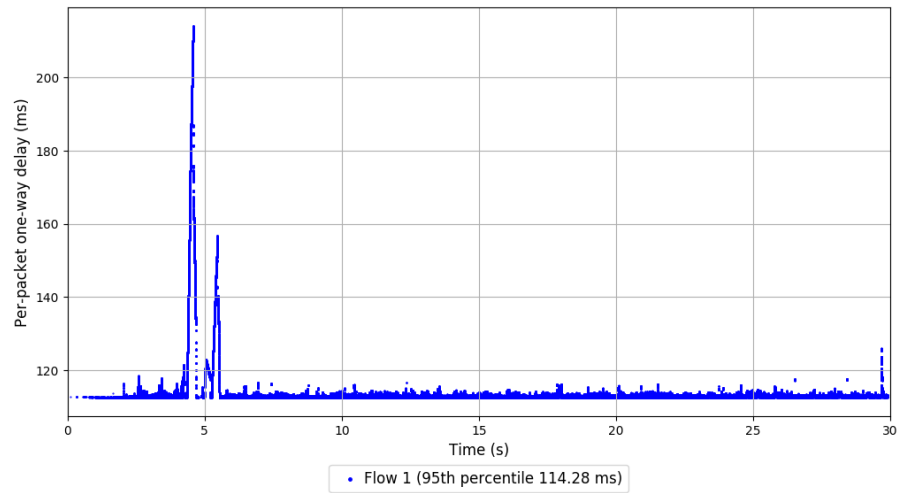
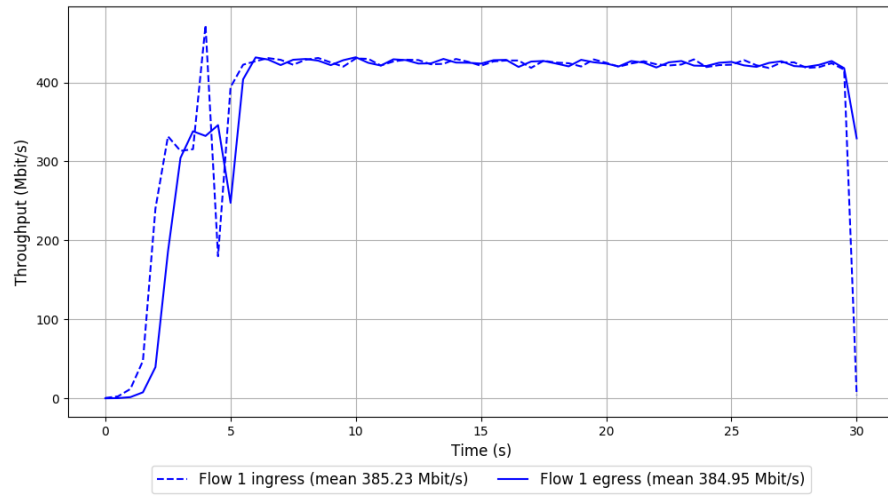


Run 2: Statistics of TCP Vegas

Start at: 2019-10-02 18:17:23  
End at: 2019-10-02 18:17:53  
Local clock offset: 18.362 ms  
Remote clock offset: 25.776 ms

# Below is generated by plot.py at 2019-10-02 22:30:12  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 384.95 Mbit/s  
95th percentile per-packet one-way delay: 114.281 ms  
Loss rate: 0.80%  
-- Flow 1:  
Average throughput: 384.95 Mbit/s  
95th percentile per-packet one-way delay: 114.281 ms  
Loss rate: 0.80%

## Run 2: Report of TCP Vegas — Data Link

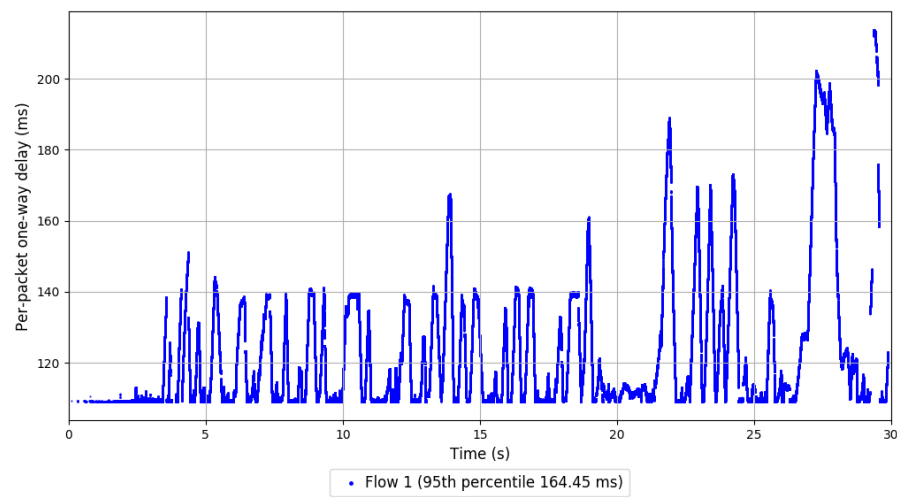
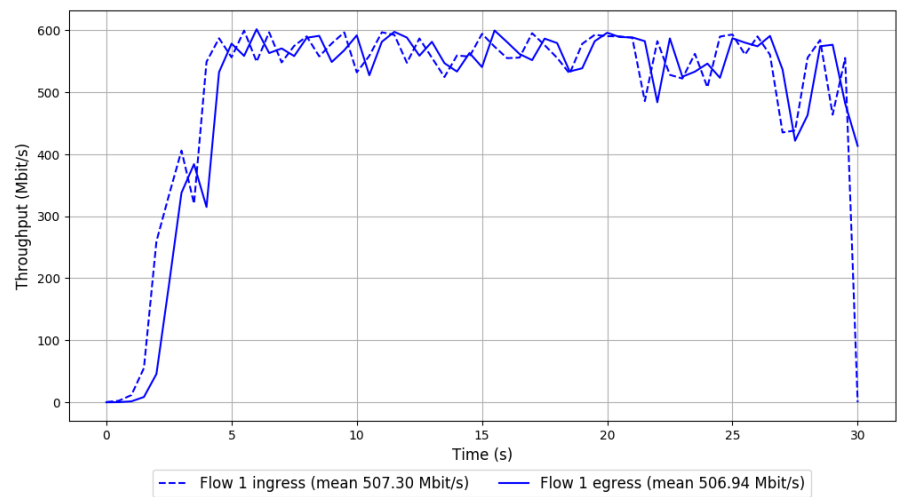


Run 3: Statistics of TCP Vegas

Start at: 2019-10-02 18:53:46  
End at: 2019-10-02 18:54:16  
Local clock offset: 10.918 ms  
Remote clock offset: 16.011 ms

# Below is generated by plot.py at 2019-10-02 22:34:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 506.94 Mbit/s  
95th percentile per-packet one-way delay: 164.446 ms  
Loss rate: 0.84%  
-- Flow 1:  
Average throughput: 506.94 Mbit/s  
95th percentile per-packet one-way delay: 164.446 ms  
Loss rate: 0.84%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-10-02 19:29:47

End at: 2019-10-02 19:30:17

Local clock offset: 5.686 ms

Remote clock offset: 8.039 ms

# Below is generated by plot.py at 2019-10-02 22:34:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 269.51 Mbit/s

95th percentile per-packet one-way delay: 129.050 ms

Loss rate: 1.05%

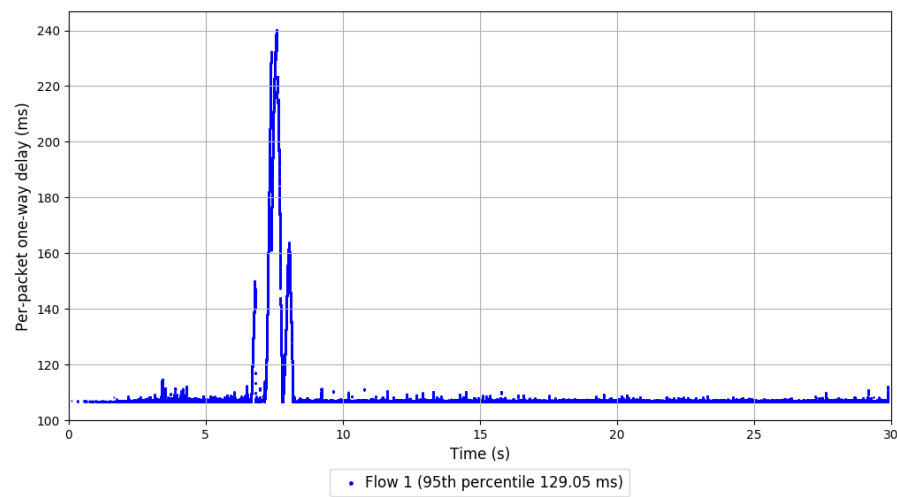
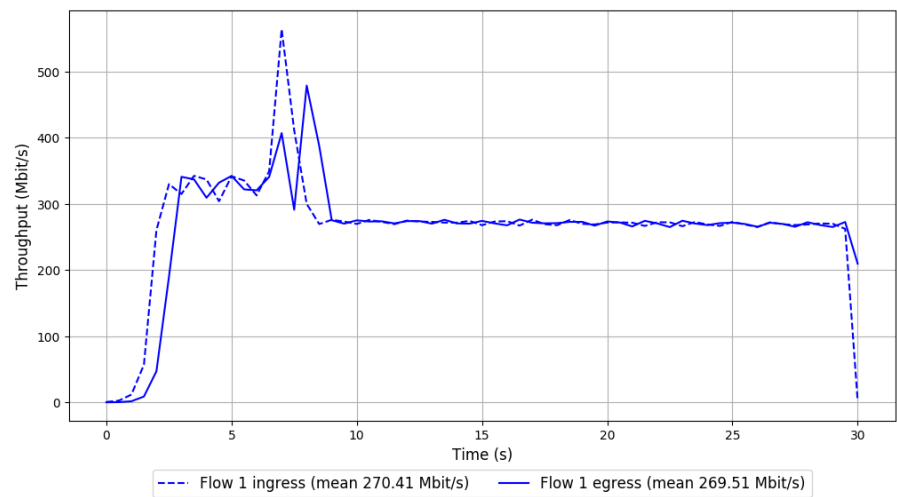
-- Flow 1:

Average throughput: 269.51 Mbit/s

95th percentile per-packet one-way delay: 129.050 ms

Loss rate: 1.05%

Run 4: Report of TCP Vegas — Data Link





Run 5: Statistics of TCP Vegas

Start at: 2019-10-02 20:05:23

End at: 2019-10-02 20:05:53

Local clock offset: 1.399 ms

Remote clock offset: 2.156 ms

# Below is generated by plot.py at 2019-10-02 22:34:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 371.76 Mbit/s

95th percentile per-packet one-way delay: 122.730 ms

Loss rate: 0.75%

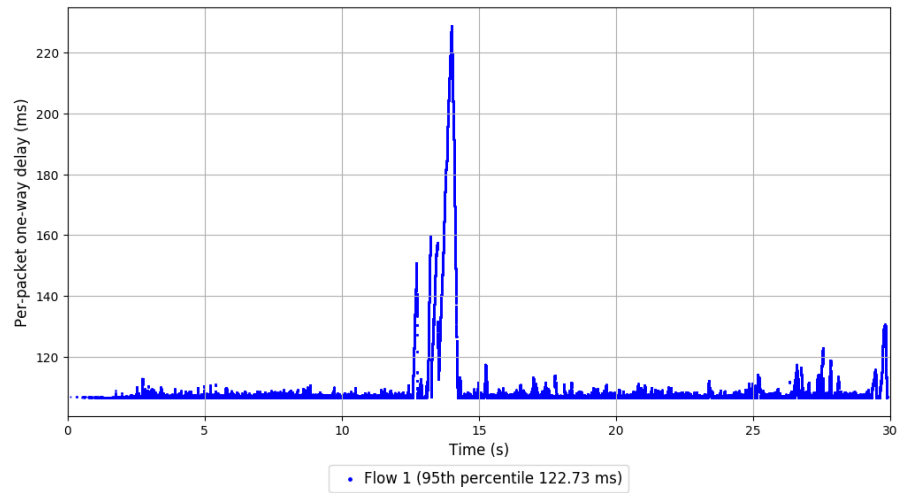
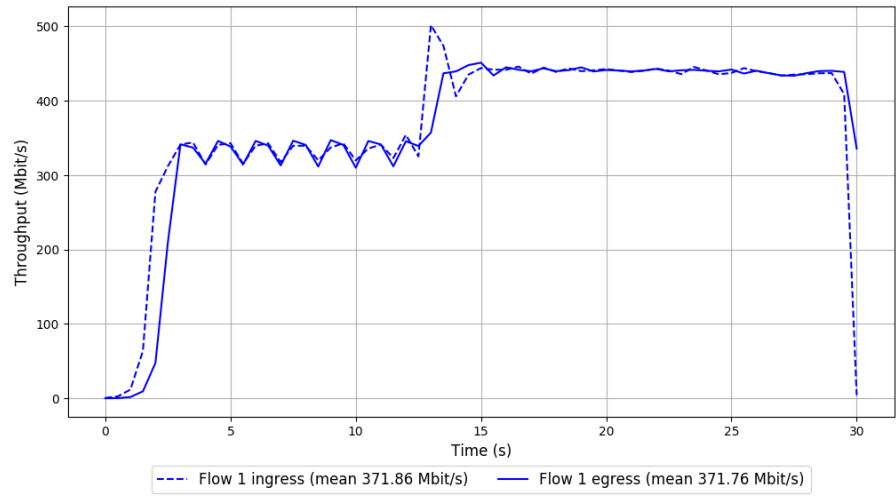
-- Flow 1:

Average throughput: 371.76 Mbit/s

95th percentile per-packet one-way delay: 122.730 ms

Loss rate: 0.75%

### Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-10-02 17:26:10

End at: 2019-10-02 17:26:40

Local clock offset: 2.14 ms

Remote clock offset: 4.047 ms

# Below is generated by plot.py at 2019-10-02 22:34:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 57.79 Mbit/s

95th percentile per-packet one-way delay: 119.303 ms

Loss rate: 3.69%

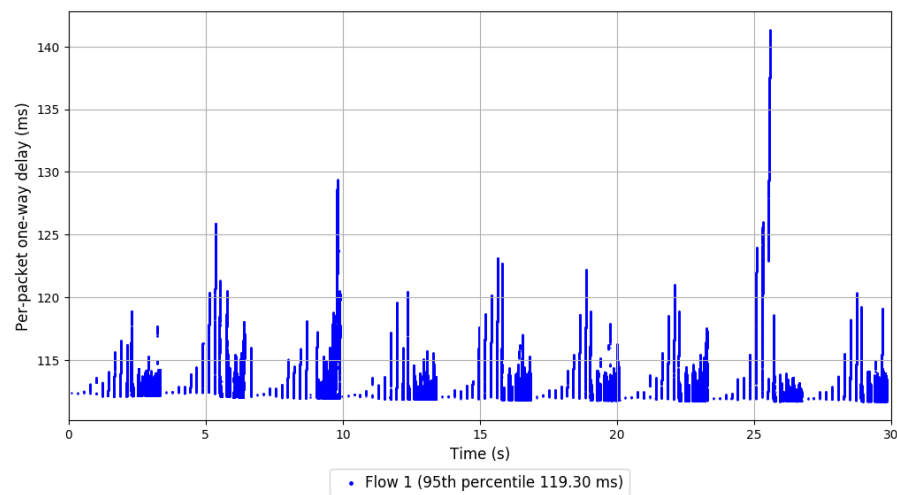
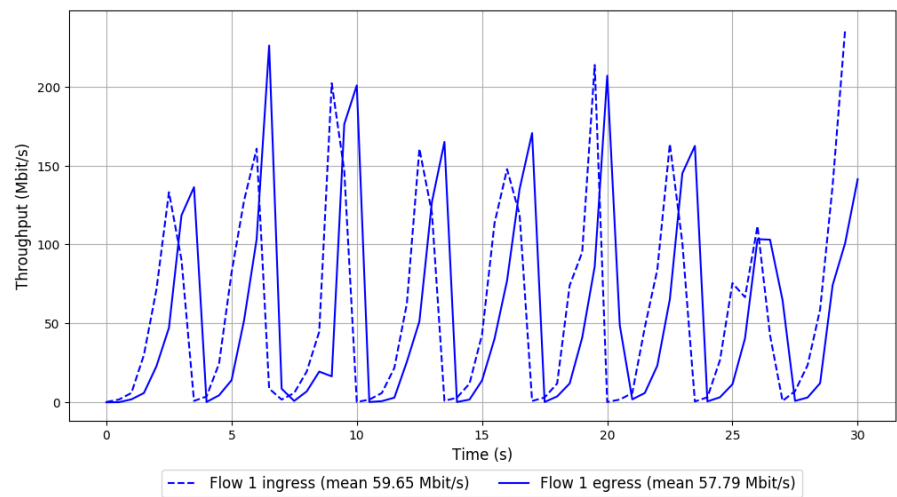
-- Flow 1:

Average throughput: 57.79 Mbit/s

95th percentile per-packet one-way delay: 119.303 ms

Loss rate: 3.69%

Run 1: Report of Verus — Data Link

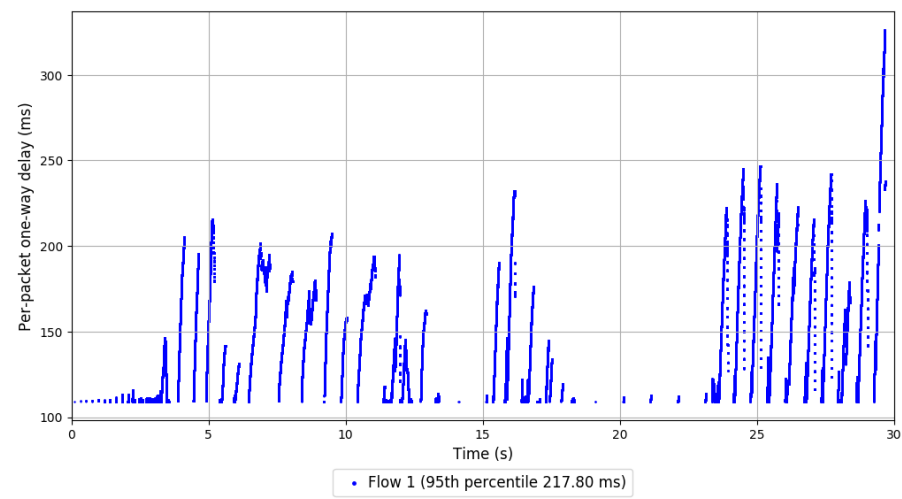
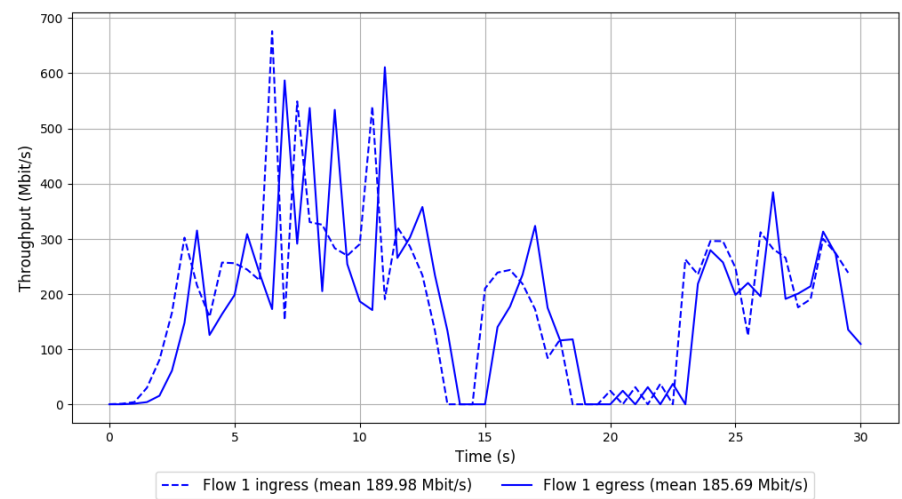


Run 2: Statistics of Verus

Start at: 2019-10-02 18:02:04  
End at: 2019-10-02 18:02:34  
Local clock offset: 16.51 ms  
Remote clock offset: 22.766 ms

# Below is generated by plot.py at 2019-10-02 22:34:43  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 185.69 Mbit/s  
95th percentile per-packet one-way delay: 217.802 ms  
Loss rate: 3.62%  
-- Flow 1:  
Average throughput: 185.69 Mbit/s  
95th percentile per-packet one-way delay: 217.802 ms  
Loss rate: 3.62%

Run 2: Report of Verus — Data Link

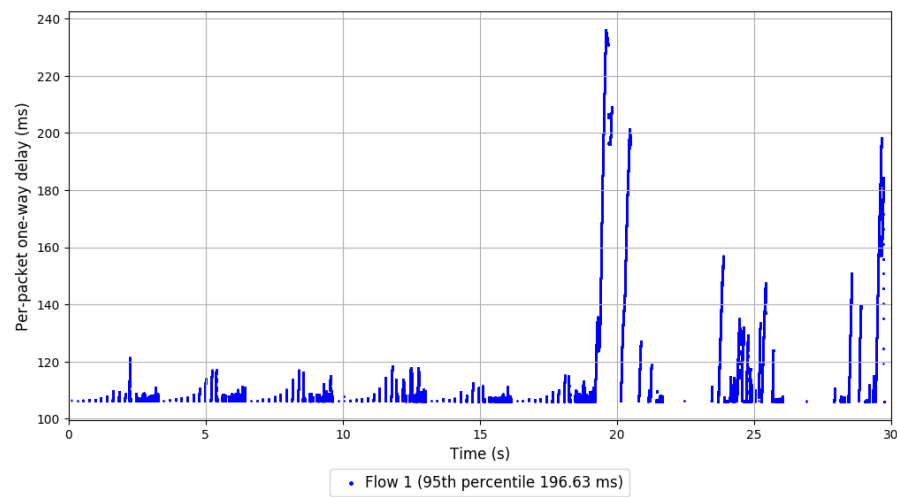
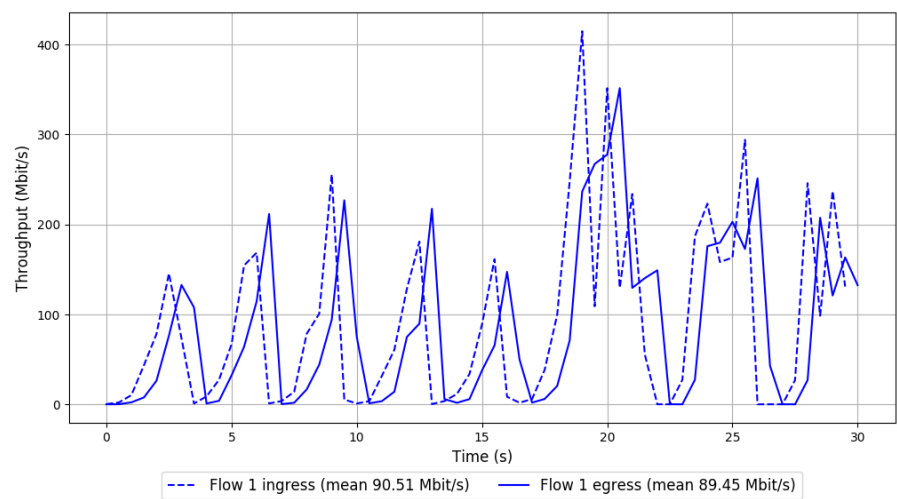


Run 3: Statistics of Verus

Start at: 2019-10-02 18:38:35  
End at: 2019-10-02 18:39:05  
Local clock offset: 17.653 ms  
Remote clock offset: 24.127 ms

# Below is generated by plot.py at 2019-10-02 22:34:43  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 89.45 Mbit/s  
95th percentile per-packet one-way delay: 196.632 ms  
Loss rate: 2.29%  
-- Flow 1:  
Average throughput: 89.45 Mbit/s  
95th percentile per-packet one-way delay: 196.632 ms  
Loss rate: 2.29%

Run 3: Report of Verus — Data Link



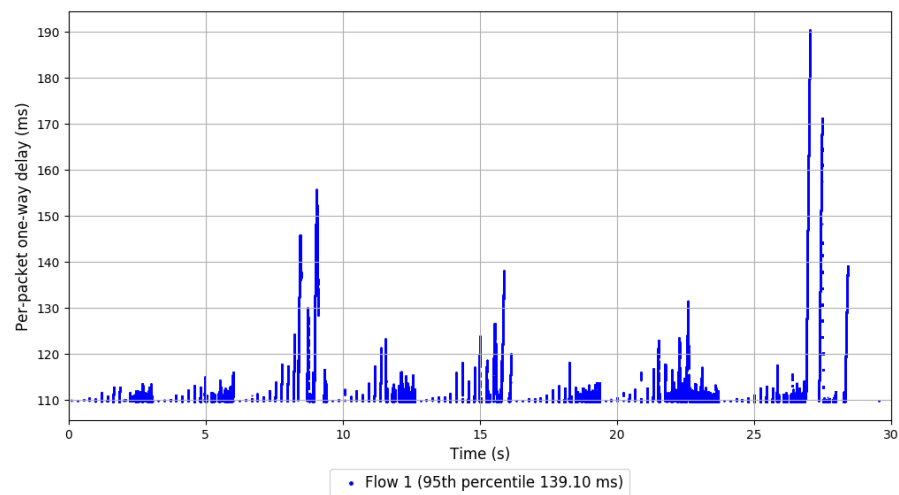
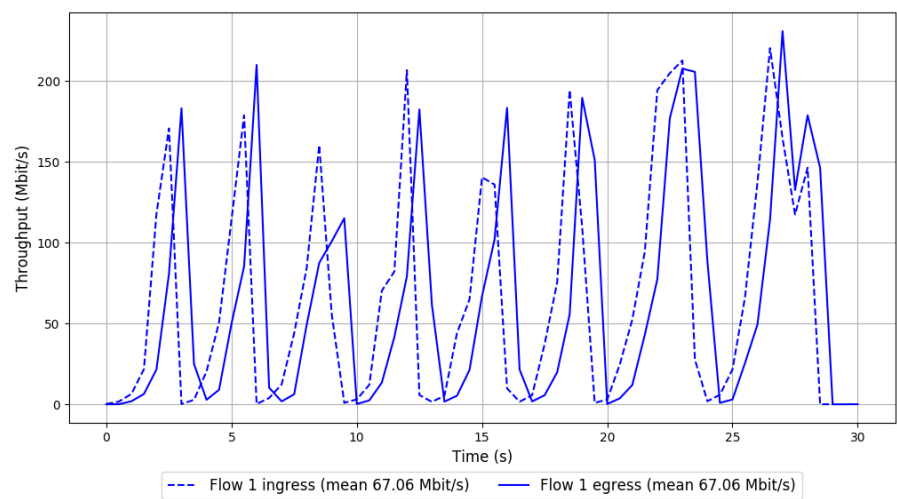


Run 4: Statistics of Verus

Start at: 2019-10-02 19:15:00  
End at: 2019-10-02 19:15:30  
Local clock offset: 7.476 ms  
Remote clock offset: 10.388 ms

# Below is generated by plot.py at 2019-10-02 22:34:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 67.06 Mbit/s  
95th percentile per-packet one-way delay: 139.097 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 67.06 Mbit/s  
95th percentile per-packet one-way delay: 139.097 ms  
Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-10-02 19:50:41

End at: 2019-10-02 19:51:11

Local clock offset: 2.759 ms

Remote clock offset: 3.821 ms

# Below is generated by plot.py at 2019-10-02 22:34:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 75.62 Mbit/s

95th percentile per-packet one-way delay: 218.740 ms

Loss rate: 3.70%

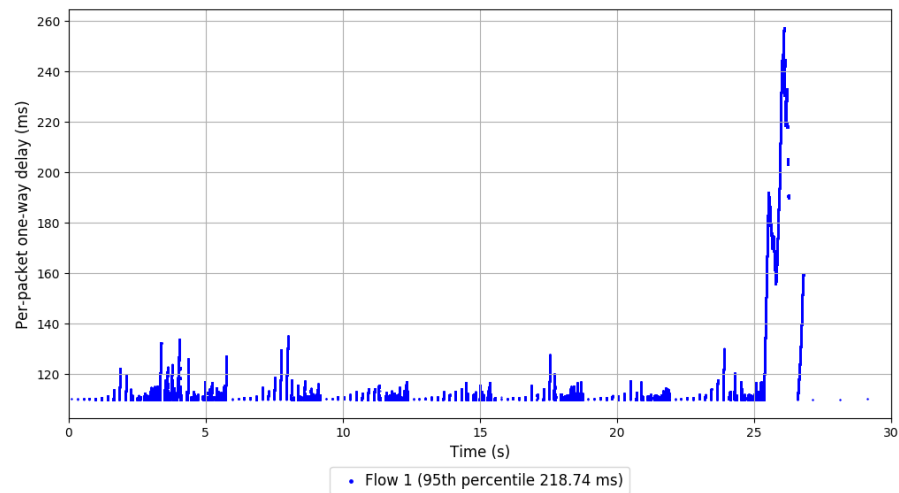
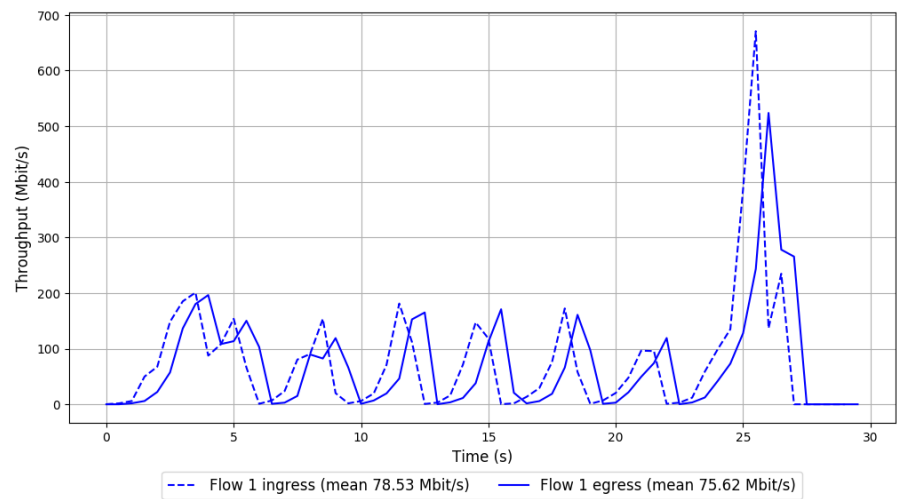
-- Flow 1:

Average throughput: 75.62 Mbit/s

95th percentile per-packet one-way delay: 218.740 ms

Loss rate: 3.70%

Run 5: Report of Verus — Data Link

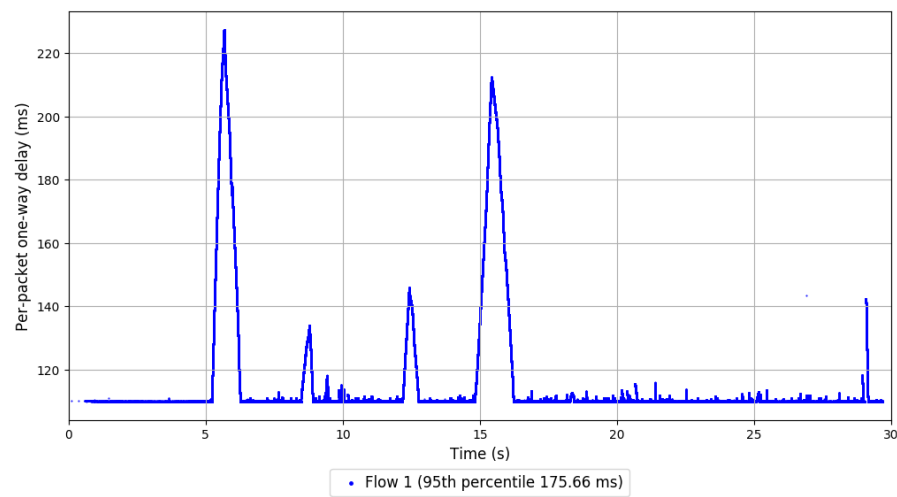
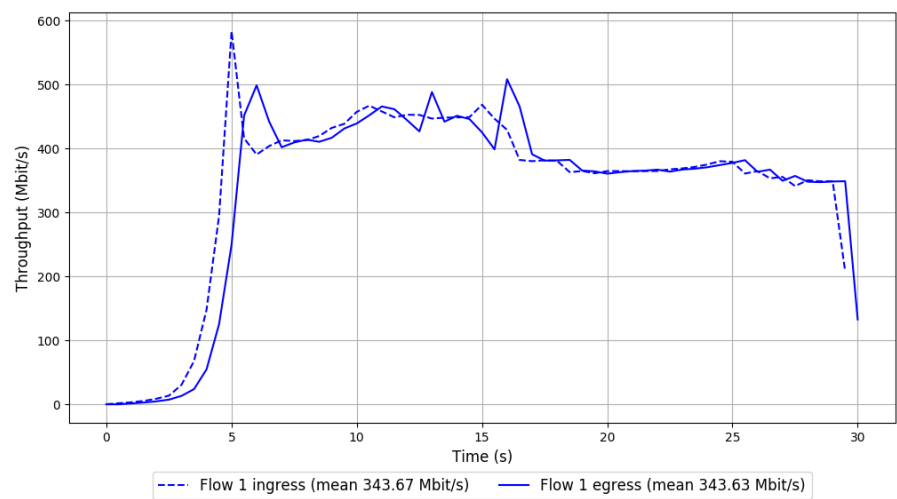


Run 1: Statistics of PCC-Vivace

Start at: 2019-10-02 17:44:01  
End at: 2019-10-02 17:44:31  
Local clock offset: 10.595 ms  
Remote clock offset: 14.485 ms

# Below is generated by plot.py at 2019-10-02 22:36:13  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 343.63 Mbit/s  
95th percentile per-packet one-way delay: 175.659 ms  
Loss rate: 0.74%  
-- Flow 1:  
Average throughput: 343.63 Mbit/s  
95th percentile per-packet one-way delay: 175.659 ms  
Loss rate: 0.74%

Run 1: Report of PCC-Vivace — Data Link

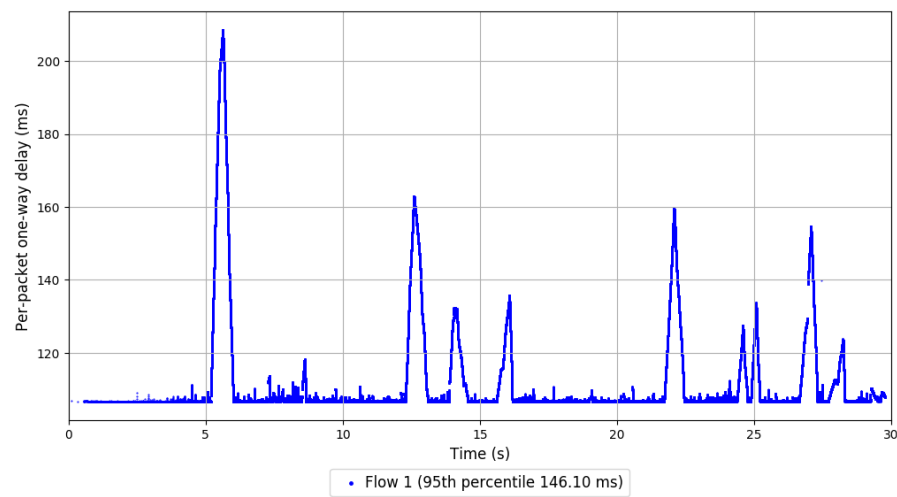
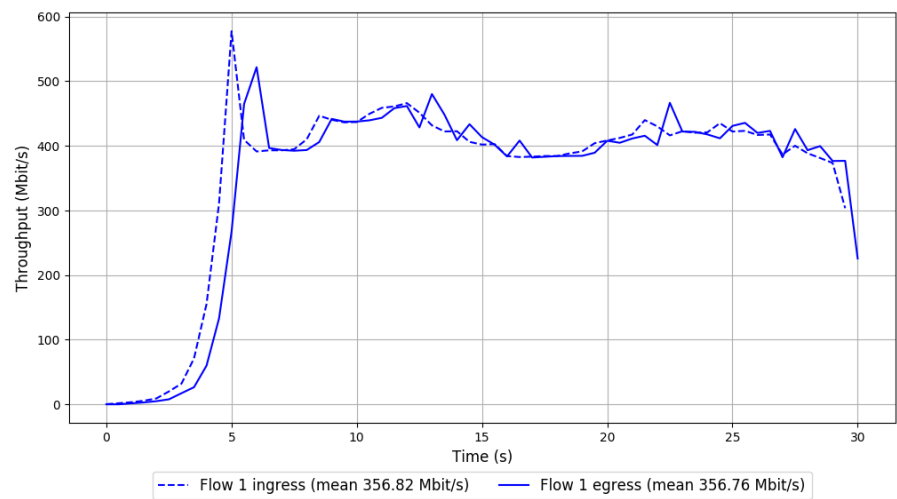


Run 2: Statistics of PCC-Vivace

Start at: 2019-10-02 18:20:26  
End at: 2019-10-02 18:20:56  
Local clock offset: 20.341 ms  
Remote clock offset: 28.513 ms

# Below is generated by plot.py at 2019-10-02 22:36:17  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 356.76 Mbit/s  
95th percentile per-packet one-way delay: 146.096 ms  
Loss rate: 0.74%  
-- Flow 1:  
Average throughput: 356.76 Mbit/s  
95th percentile per-packet one-way delay: 146.096 ms  
Loss rate: 0.74%

Run 2: Report of PCC-Vivace — Data Link



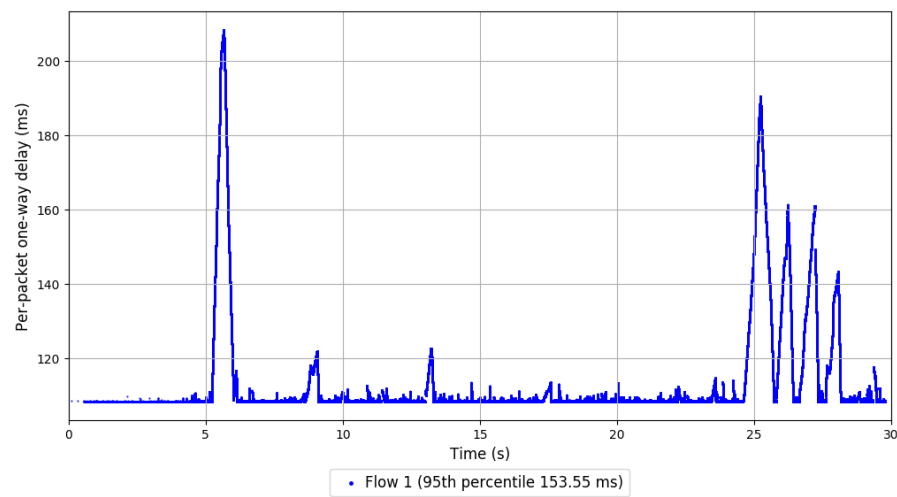
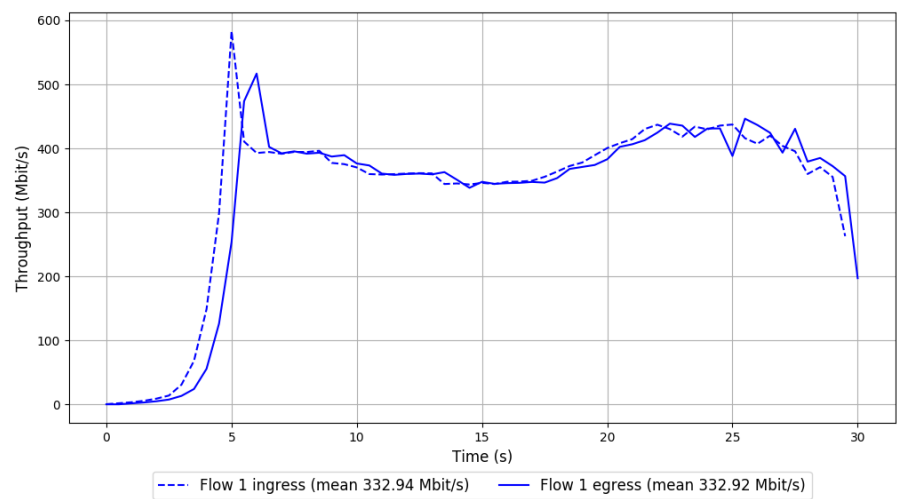


Run 3: Statistics of PCC-Vivace

Start at: 2019-10-02 18:56:57  
End at: 2019-10-02 18:57:27  
Local clock offset: 12.194 ms  
Remote clock offset: 16.885 ms

# Below is generated by plot.py at 2019-10-02 22:36:24  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 332.92 Mbit/s  
95th percentile per-packet one-way delay: 153.546 ms  
Loss rate: 0.73%  
-- Flow 1:  
Average throughput: 332.92 Mbit/s  
95th percentile per-packet one-way delay: 153.546 ms  
Loss rate: 0.73%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-10-02 19:32:44

End at: 2019-10-02 19:33:14

Local clock offset: 4.735 ms

Remote clock offset: 8.414 ms

# Below is generated by plot.py at 2019-10-02 22:36:26

# Datalink statistics

-- Total of 1 flow:

Average throughput: 321.13 Mbit/s

95th percentile per-packet one-way delay: 143.767 ms

Loss rate: 0.87%

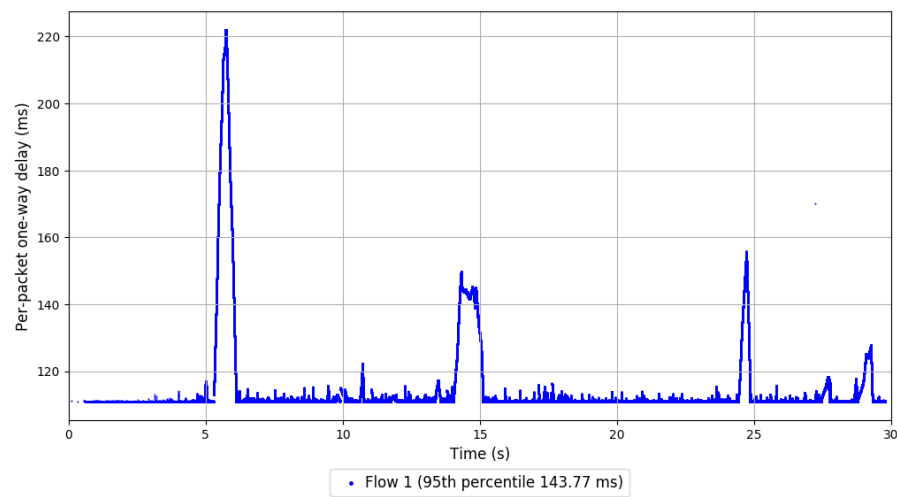
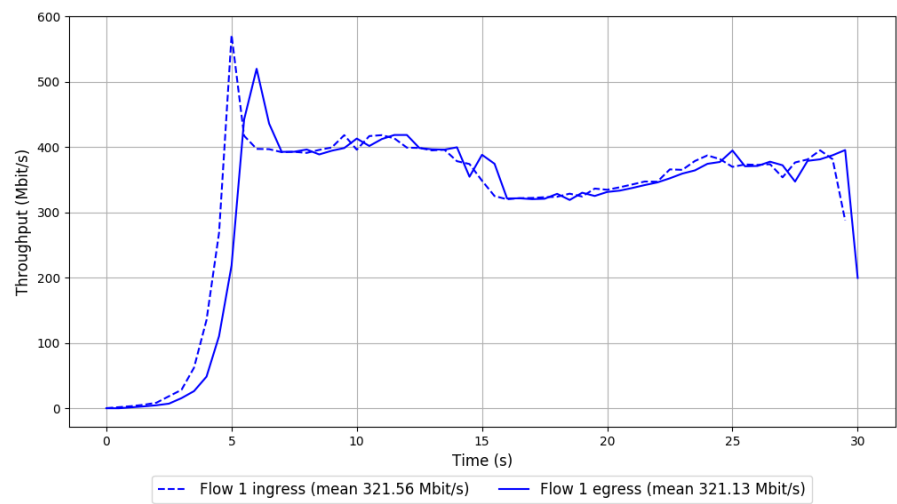
-- Flow 1:

Average throughput: 321.13 Mbit/s

95th percentile per-packet one-way delay: 143.767 ms

Loss rate: 0.87%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-10-02 20:08:26

End at: 2019-10-02 20:08:56

Local clock offset: 1.477 ms

Remote clock offset: 2.133 ms

# Below is generated by plot.py at 2019-10-02 22:36:26

# Datalink statistics

-- Total of 1 flow:

Average throughput: 263.41 Mbit/s

95th percentile per-packet one-way delay: 158.637 ms

Loss rate: 1.23%

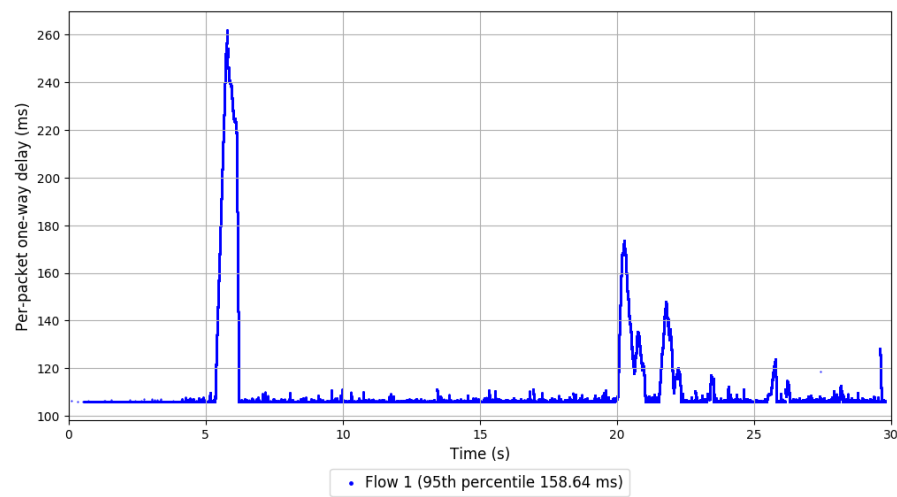
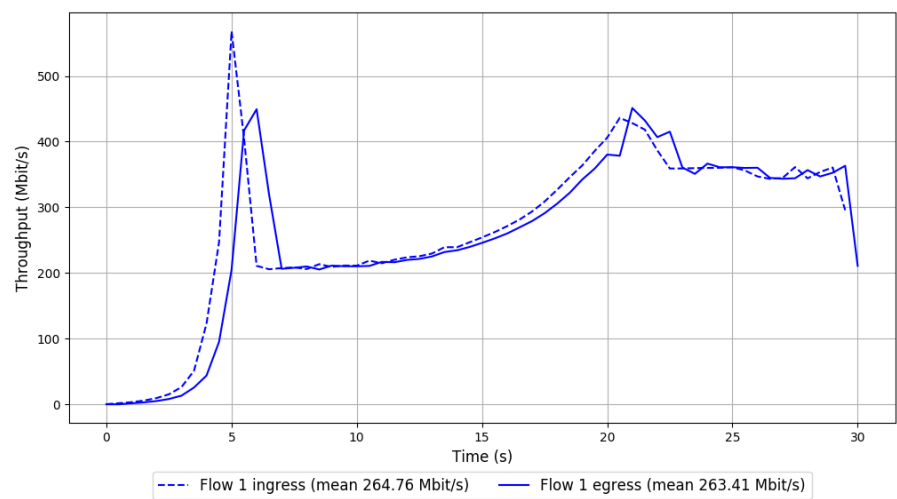
-- Flow 1:

Average throughput: 263.41 Mbit/s

95th percentile per-packet one-way delay: 158.637 ms

Loss rate: 1.23%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

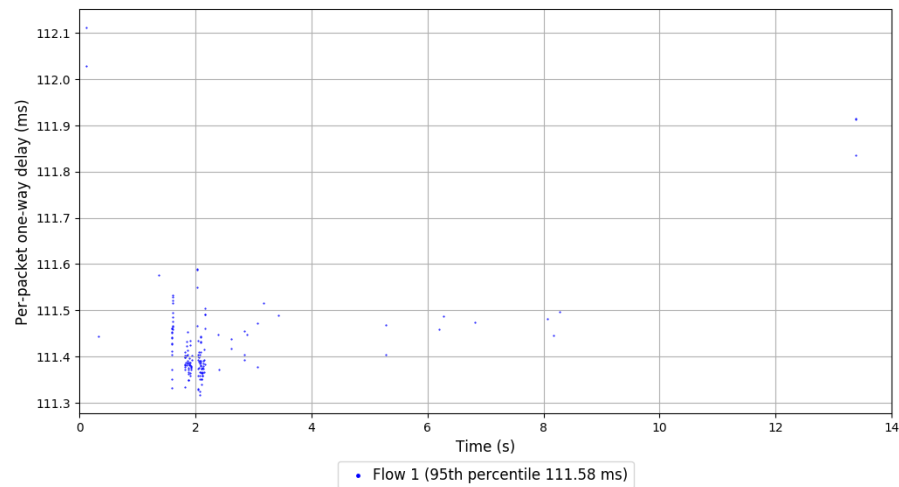
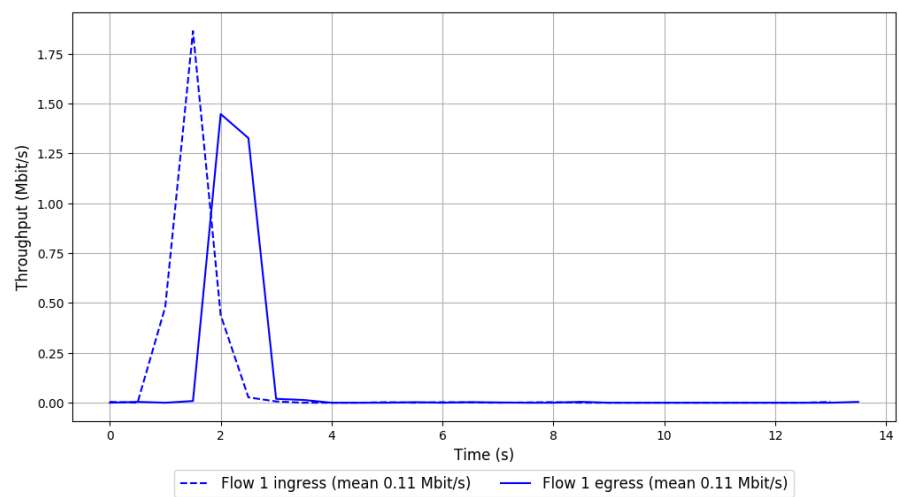
Start at: 2019-10-02 17:47:17

End at: 2019-10-02 17:47:47

Local clock offset: 10.108 ms

Remote clock offset: 14.201 ms

Run 1: Report of WebRTC media — Data Link



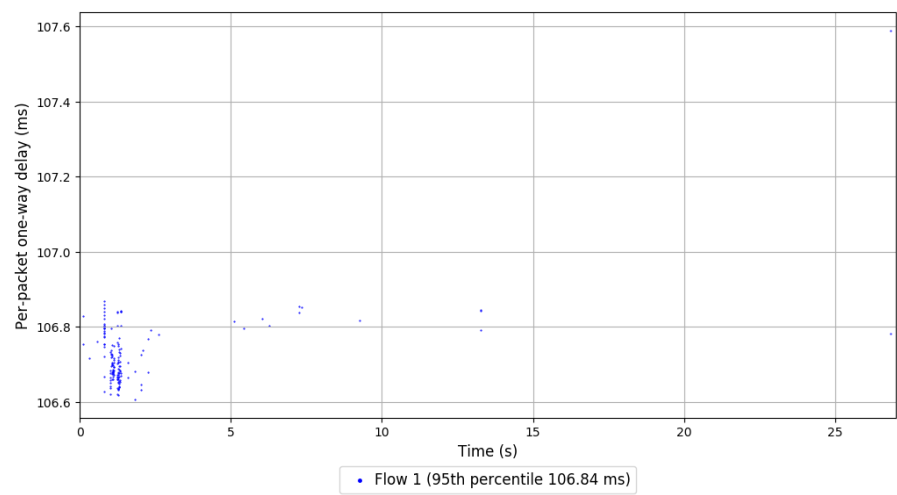
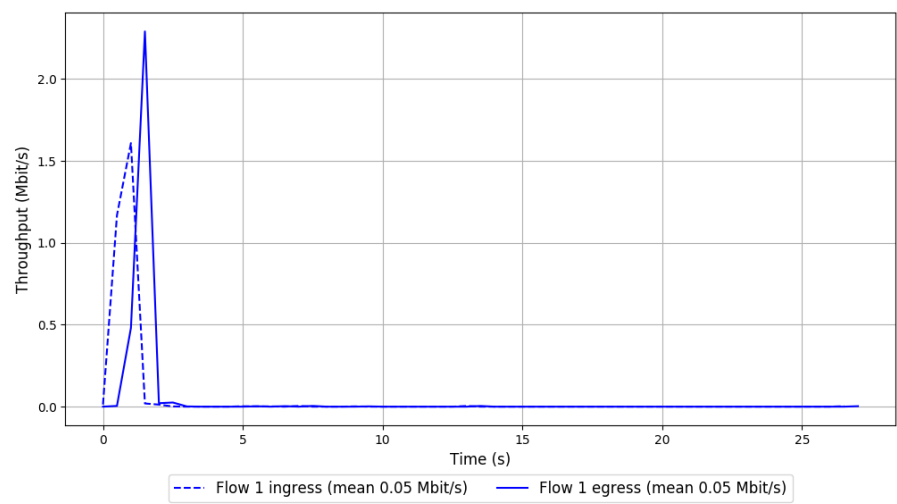


Run 2: Statistics of WebRTC media

Start at: 2019-10-02 18:23:41  
End at: 2019-10-02 18:24:11  
Local clock offset: 22.469 ms  
Remote clock offset: 31.777 ms

# Below is generated by plot.py at 2019-10-02 22:36:26  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 106.842 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 106.842 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

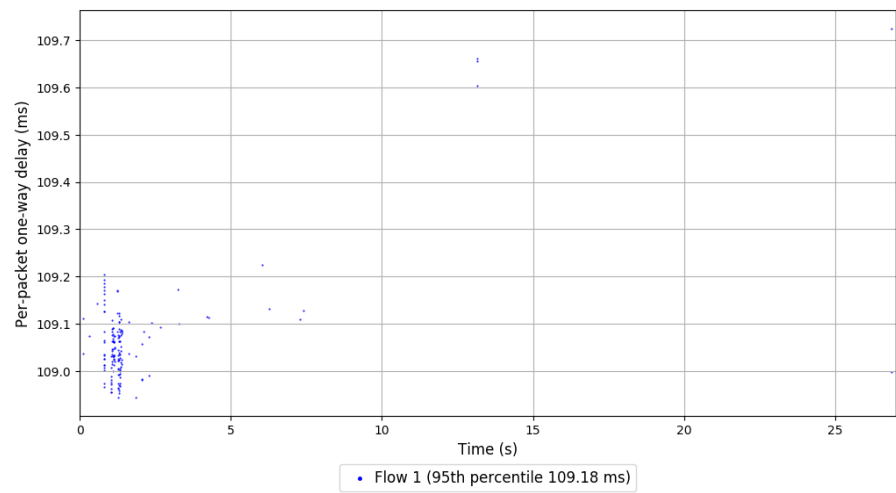
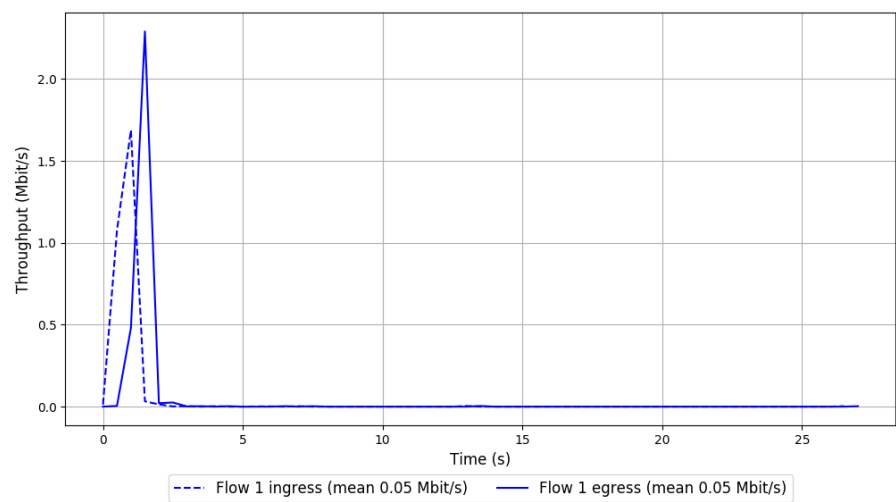


Run 3: Statistics of WebRTC media

Start at: 2019-10-02 19:00:12  
End at: 2019-10-02 19:00:42  
Local clock offset: 12.973 ms  
Remote clock offset: 18.092 ms

# Below is generated by plot.py at 2019-10-02 22:36:26  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 109.179 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 109.179 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

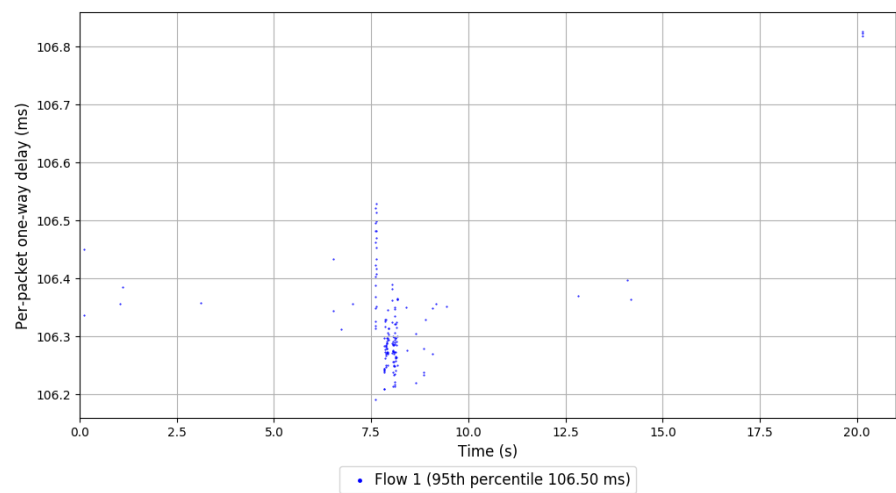
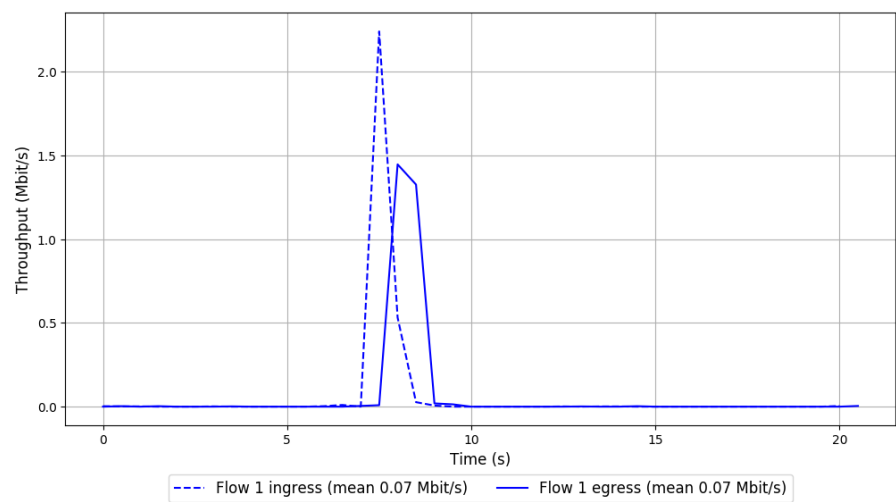
Start at: 2019-10-02 19:35:56

End at: 2019-10-02 19:36:26

Local clock offset: 6.268 ms

Remote clock offset: 9.437 ms

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-10-02 20:11:34

End at: 2019-10-02 20:12:04

Local clock offset: 1.386 ms

Remote clock offset: 2.577 ms

# Below is generated by plot.py at 2019-10-02 22:36:26

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 106.376 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 106.376 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

