

Pantheon Report

Generated at 2018-12-20 12:37:55 (UTC).

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

Repeated the test of 19 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:

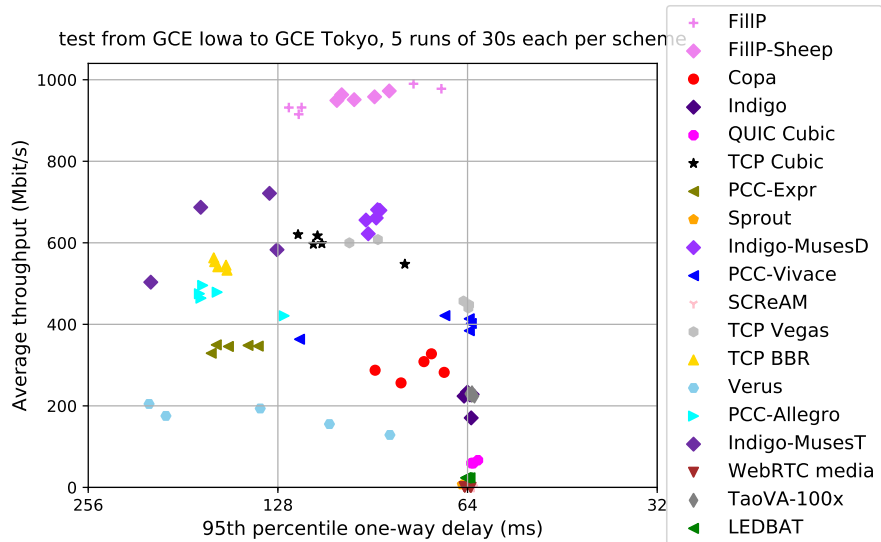
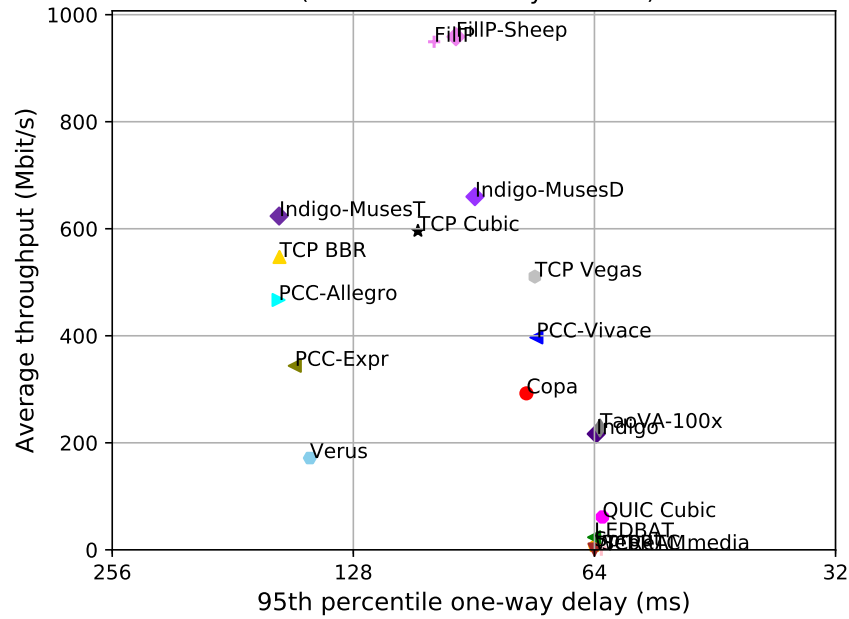
```
Linux 4.15.0-1025-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ c654af0b7d59d4ef4b914cfac404e1fc2e96dc68
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfc58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/muses-refactored @ 31f8f0ba8ef8b1da76c2bc0cd0a7850c33ff64fb
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 Iowa to GCE Tokyo, 5 runs of 30s each per scheme
(mean of all runs by scheme)



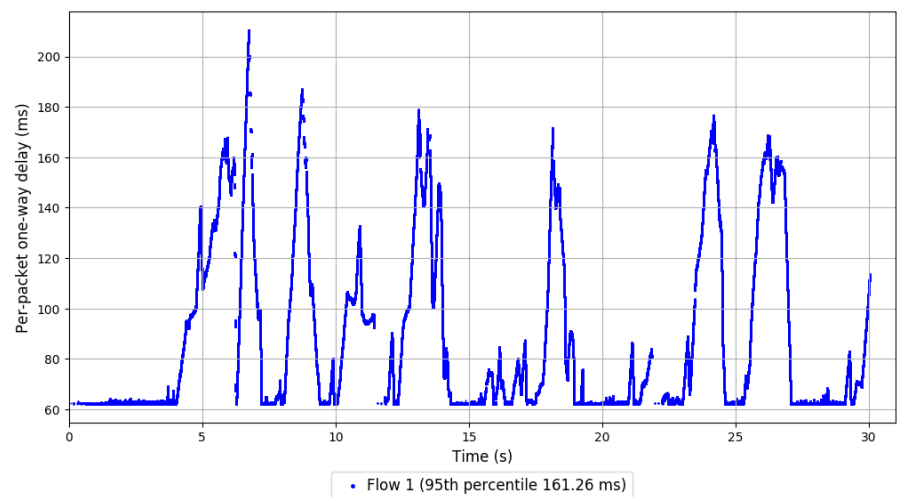
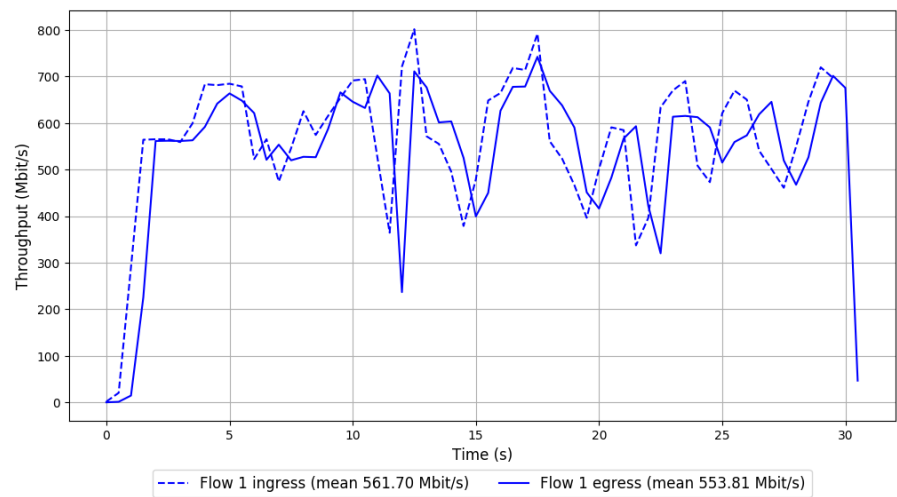
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	547.26	158.27	0.93
Copa	5	292.41	77.82	0.00
TCP Cubic	5	595.98	106.31	0.06
FillP	5	949.40	101.47	0.83
FillP-Sheep	5	958.83	95.30	0.20
Indigo	5	216.63	63.68	0.00
Indigo-MusesD	5	659.92	90.24	0.03
Indigo-MusesT	4	623.72	158.45	0.55
LEDBAT	5	23.44	64.06	0.00
PCC-Allegro	5	466.92	158.69	1.47
PCC-Expr	5	343.86	151.47	1.37
QUIC Cubic	4	61.38	62.55	0.00
SCReAM	5	0.22	62.74	0.00
Sprout	5	6.80	64.01	0.00
TaoVA-100x	5	227.80	62.99	0.00
TCP Vegas	5	510.56	75.96	0.02
Verus	5	171.53	145.04	1.66
PCC-Vivace	5	396.97	75.63	0.00
WebRTC media	4	0.52	63.99	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-12-20 08:29:35
End at: 2018-12-20 08:30:05
Local clock offset: -0.076 ms
Remote clock offset: -0.801 ms

Below is generated by plot.py at 2018-12-20 11:05:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 553.81 Mbit/s
95th percentile per-packet one-way delay: 161.260 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 553.81 Mbit/s
95th percentile per-packet one-way delay: 161.260 ms
Loss rate: 1.40%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-12-20 08:57:41

End at: 2018-12-20 08:58:11

Local clock offset: -0.04 ms

Remote clock offset: 0.745 ms

Below is generated by plot.py at 2018-12-20 11:05:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 545.13 Mbit/s

95th percentile per-packet one-way delay: 154.713 ms

Loss rate: 0.76%

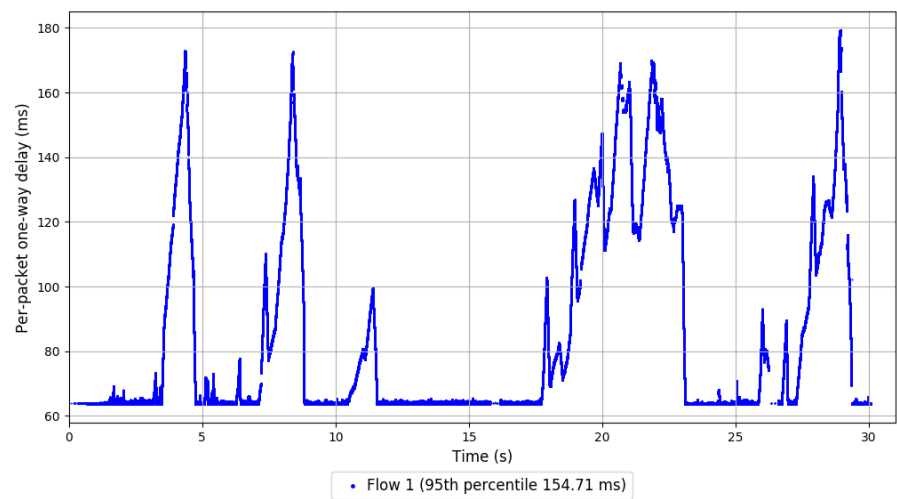
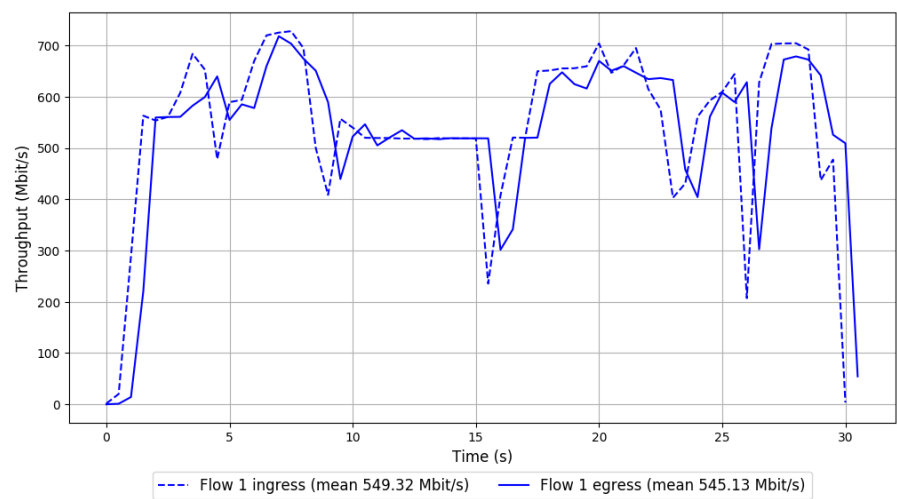
-- Flow 1:

Average throughput: 545.13 Mbit/s

95th percentile per-packet one-way delay: 154.713 ms

Loss rate: 0.76%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-12-20 09:26:05

End at: 2018-12-20 09:26:35

Local clock offset: 0.004 ms

Remote clock offset: -0.532 ms

Below is generated by plot.py at 2018-12-20 11:05:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 532.90 Mbit/s

95th percentile per-packet one-way delay: 154.167 ms

Loss rate: 0.70%

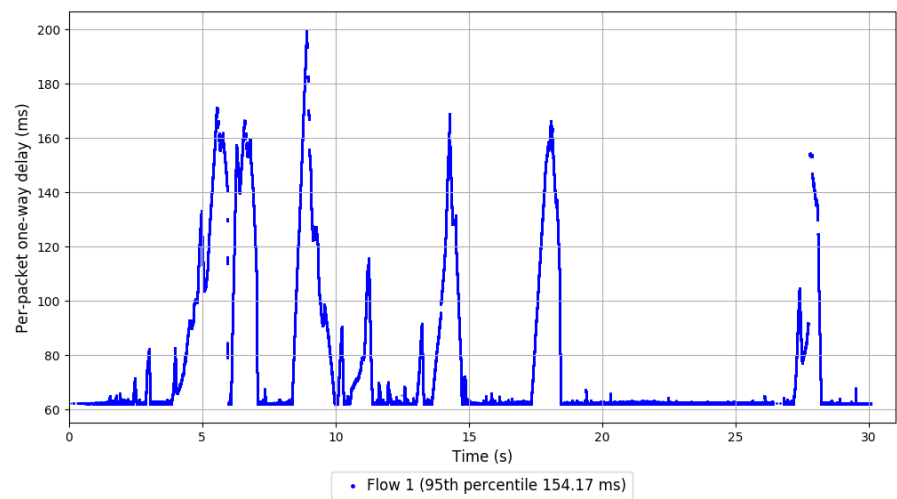
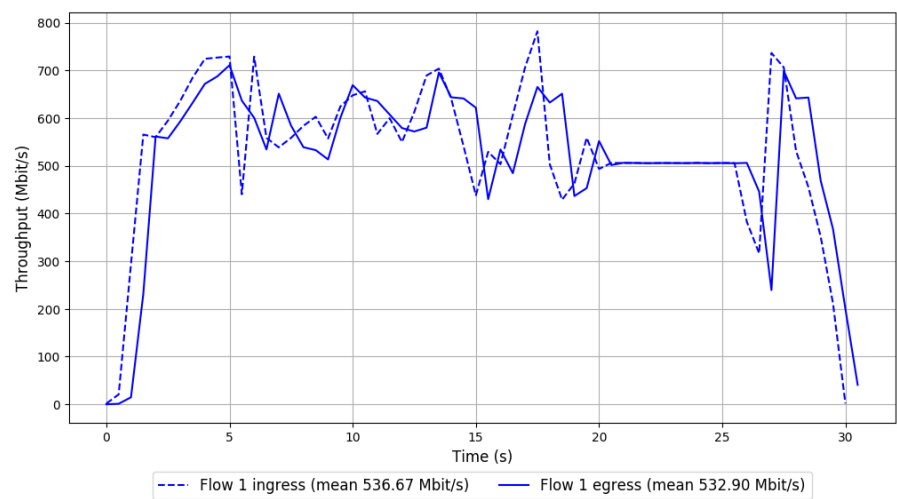
-- Flow 1:

Average throughput: 532.90 Mbit/s

95th percentile per-packet one-way delay: 154.167 ms

Loss rate: 0.70%

Run 3: Report of TCP BBR — Data Link

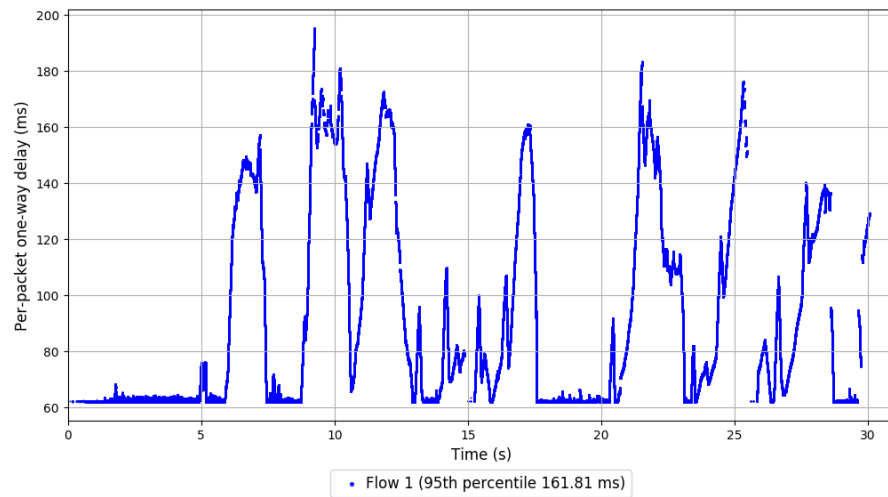
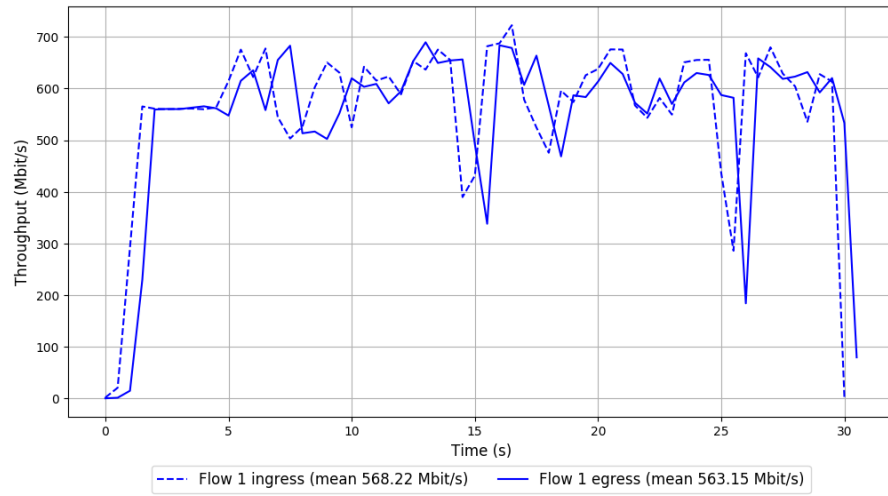


Run 4: Statistics of TCP BBR

Start at: 2018-12-20 09:54:11
End at: 2018-12-20 09:54:41
Local clock offset: -0.097 ms
Remote clock offset: -0.844 ms

Below is generated by plot.py at 2018-12-20 11:05:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 563.15 Mbit/s
95th percentile per-packet one-way delay: 161.814 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 563.15 Mbit/s
95th percentile per-packet one-way delay: 161.814 ms
Loss rate: 0.89%

Run 4: Report of TCP BBR — Data Link

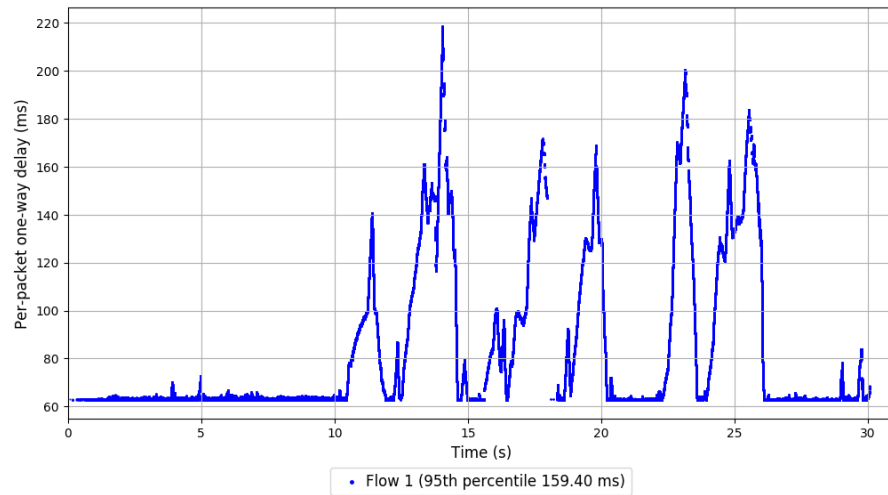
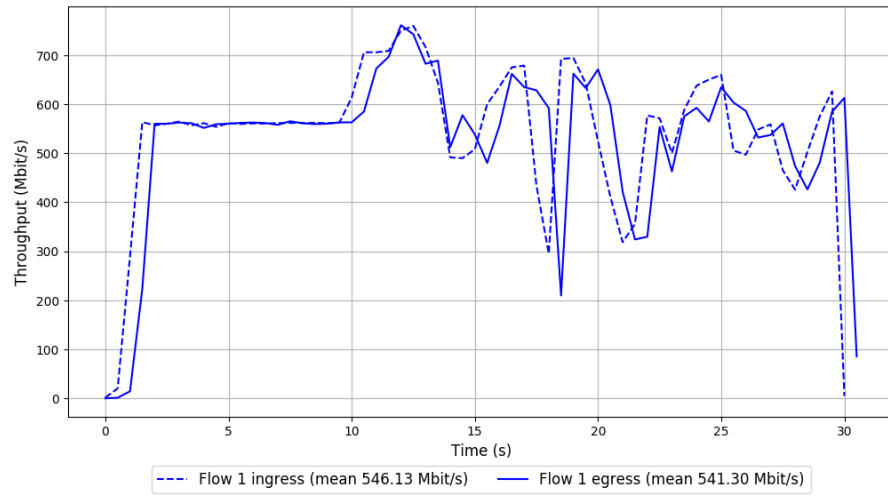


Run 5: Statistics of TCP BBR

Start at: 2018-12-20 10:22:24
End at: 2018-12-20 10:22:54
Local clock offset: -0.116 ms
Remote clock offset: -0.111 ms

Below is generated by plot.py at 2018-12-20 11:05:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 541.30 Mbit/s
95th percentile per-packet one-way delay: 159.402 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 541.30 Mbit/s
95th percentile per-packet one-way delay: 159.402 ms
Loss rate: 0.88%

Run 5: Report of TCP BBR — Data Link

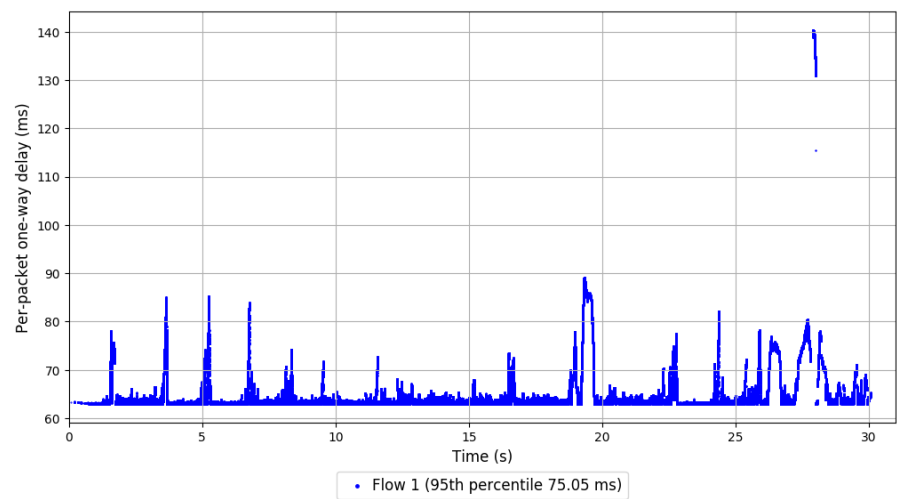
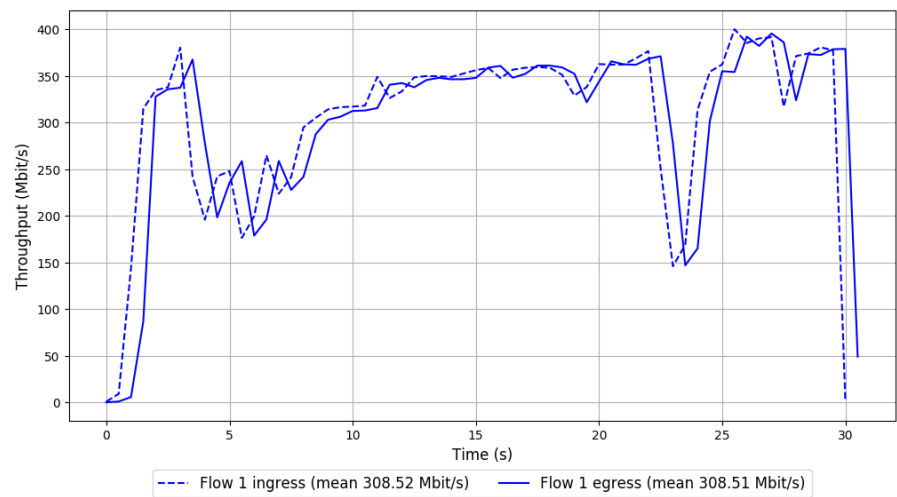


Run 1: Statistics of Copa

Start at: 2018-12-20 08:44:33
End at: 2018-12-20 08:45:03
Local clock offset: -0.06 ms
Remote clock offset: -0.065 ms

Below is generated by plot.py at 2018-12-20 11:05:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 308.51 Mbit/s
95th percentile per-packet one-way delay: 75.054 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 308.51 Mbit/s
95th percentile per-packet one-way delay: 75.054 ms
Loss rate: 0.00%

Run 1: Report of Copa — Data Link

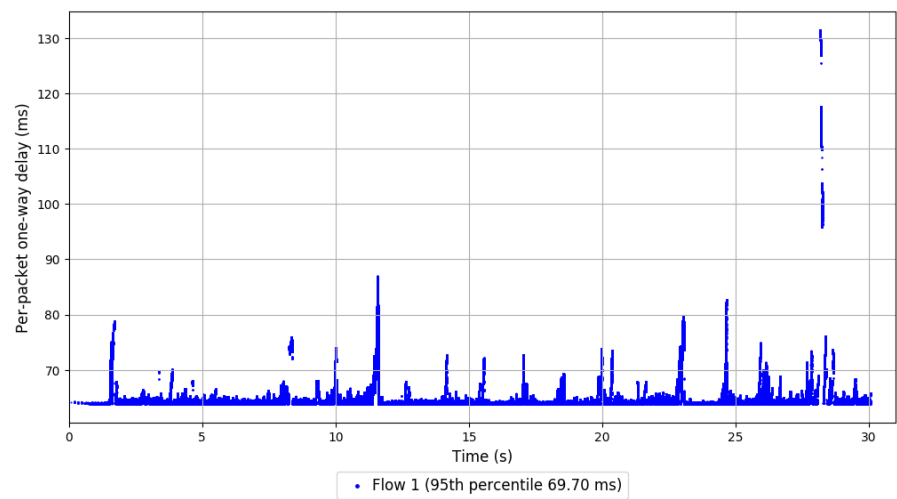
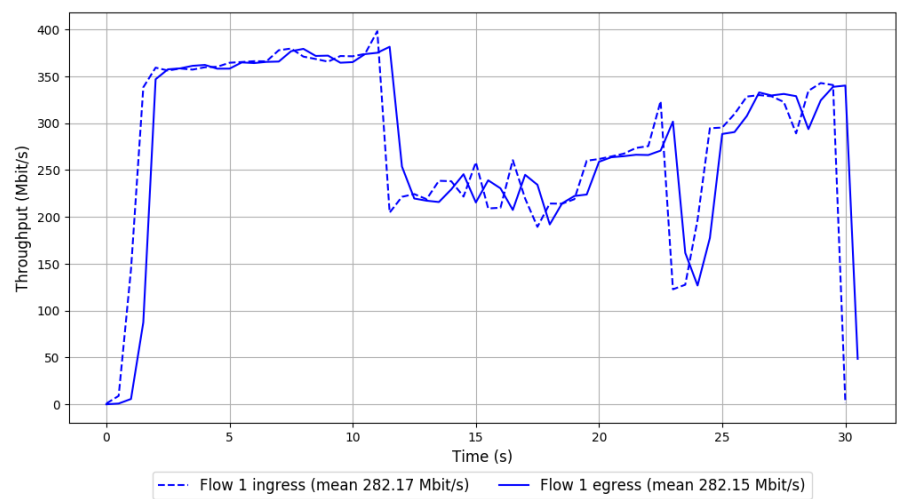


Run 2: Statistics of Copa

Start at: 2018-12-20 09:13:04
End at: 2018-12-20 09:13:34
Local clock offset: -0.055 ms
Remote clock offset: 0.719 ms

Below is generated by plot.py at 2018-12-20 11:05:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 282.15 Mbit/s
95th percentile per-packet one-way delay: 69.703 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 282.15 Mbit/s
95th percentile per-packet one-way delay: 69.703 ms
Loss rate: 0.00%

Run 2: Report of Copa — Data Link

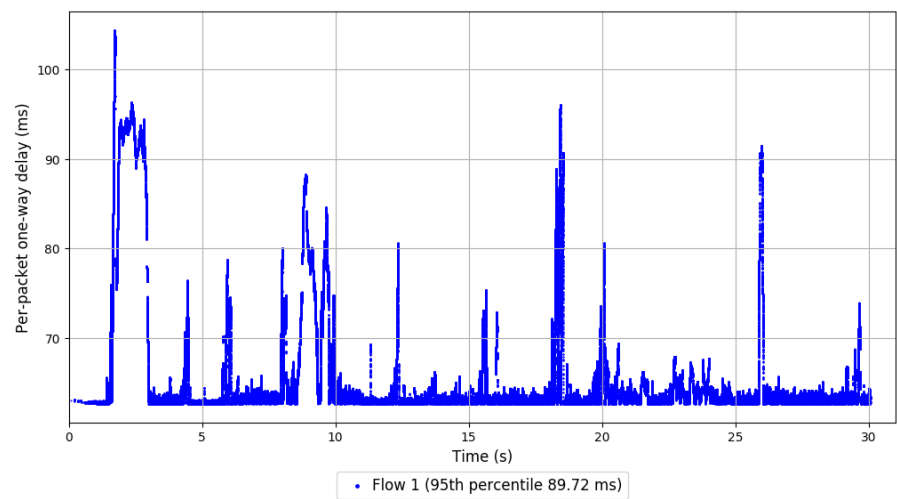
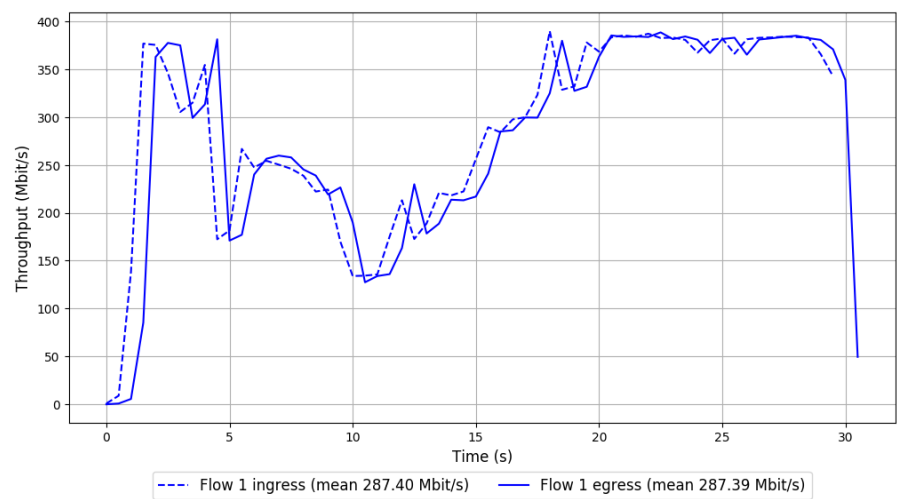


Run 3: Statistics of Copa

Start at: 2018-12-20 09:41:14
End at: 2018-12-20 09:41:44
Local clock offset: -0.071 ms
Remote clock offset: -0.604 ms

Below is generated by plot.py at 2018-12-20 11:05:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 287.39 Mbit/s
95th percentile per-packet one-way delay: 89.716 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 287.39 Mbit/s
95th percentile per-packet one-way delay: 89.716 ms
Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-12-20 10:09:35

End at: 2018-12-20 10:10:05

Local clock offset: -0.082 ms

Remote clock offset: 0.108 ms

Below is generated by plot.py at 2018-12-20 11:13:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 256.32 Mbit/s

95th percentile per-packet one-way delay: 81.608 ms

Loss rate: 0.00%

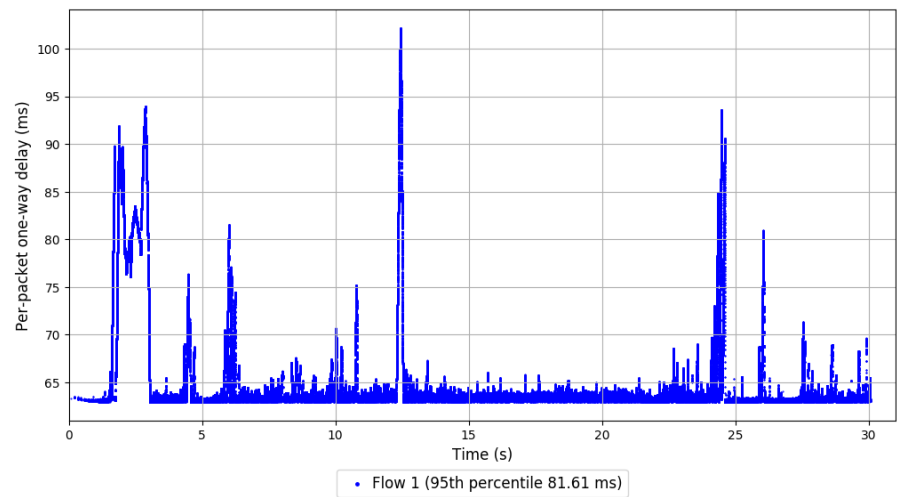
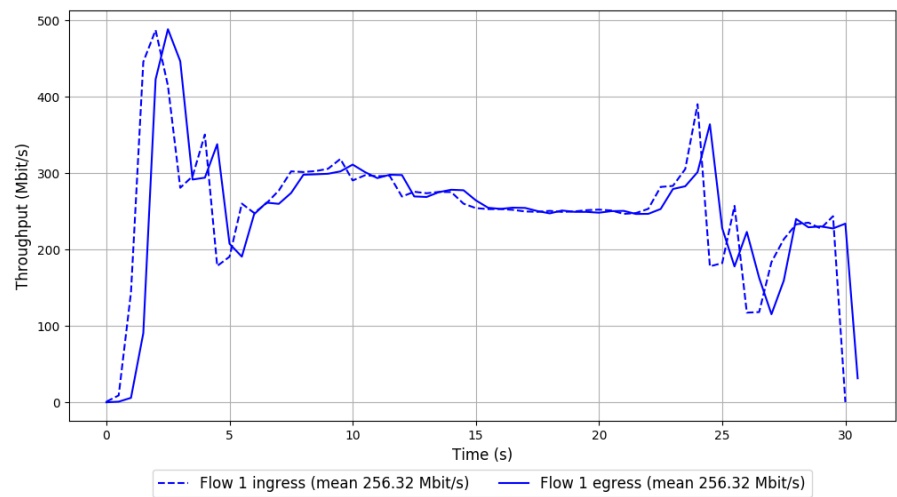
-- Flow 1:

Average throughput: 256.32 Mbit/s

95th percentile per-packet one-way delay: 81.608 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-12-20 10:37:41

End at: 2018-12-20 10:38:11

Local clock offset: -0.087 ms

Remote clock offset: -0.24 ms

Below is generated by plot.py at 2018-12-20 11:15:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 327.69 Mbit/s

95th percentile per-packet one-way delay: 73.033 ms

Loss rate: 0.02%

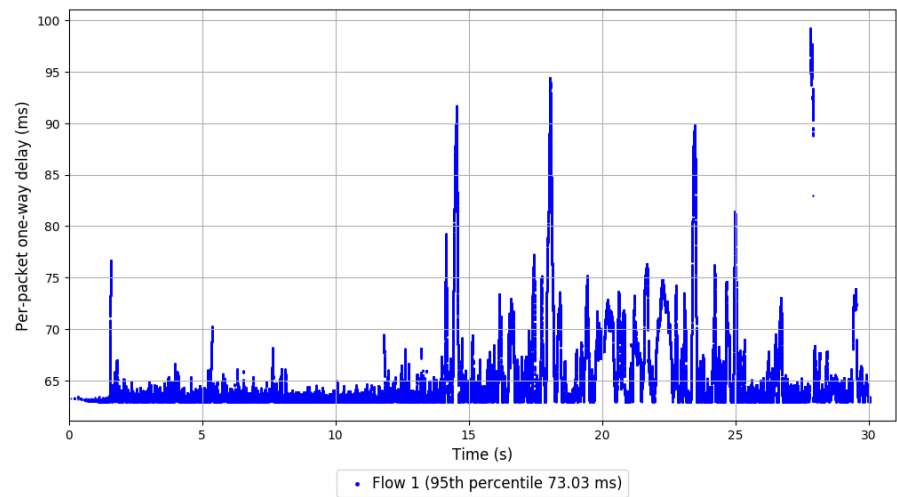
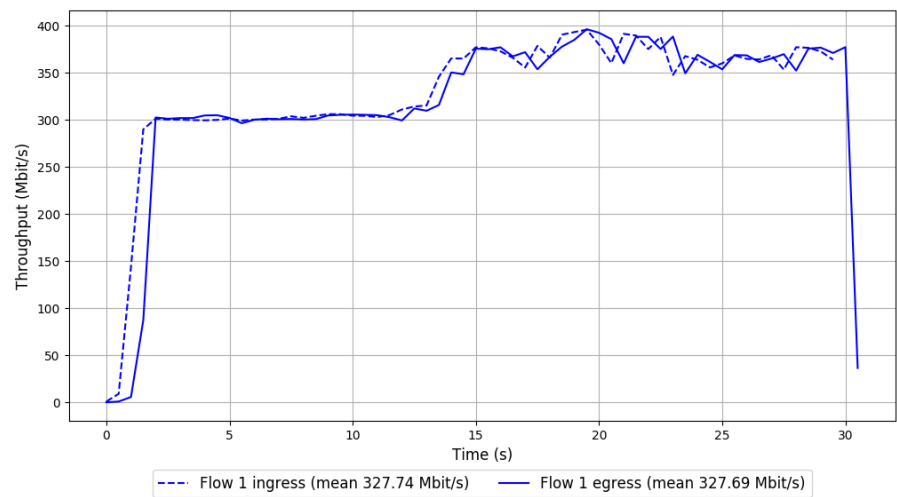
-- Flow 1:

Average throughput: 327.69 Mbit/s

95th percentile per-packet one-way delay: 73.033 ms

Loss rate: 0.02%

Run 5: Report of Copa — Data Link

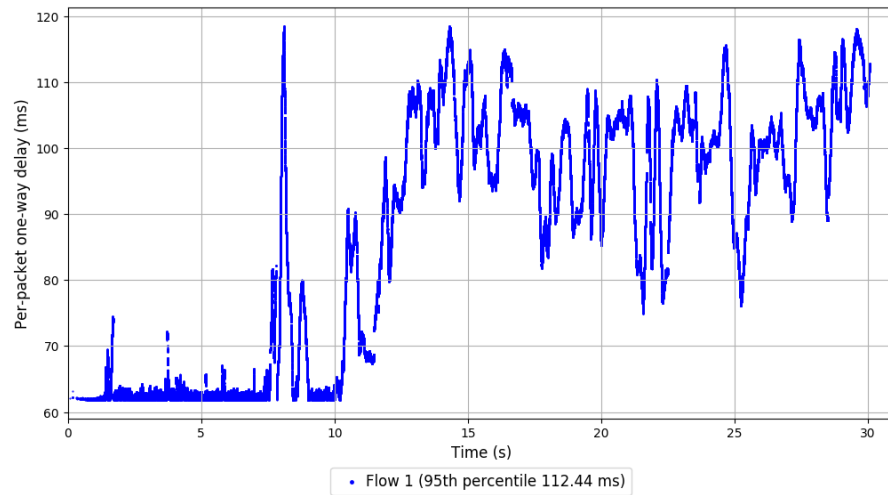
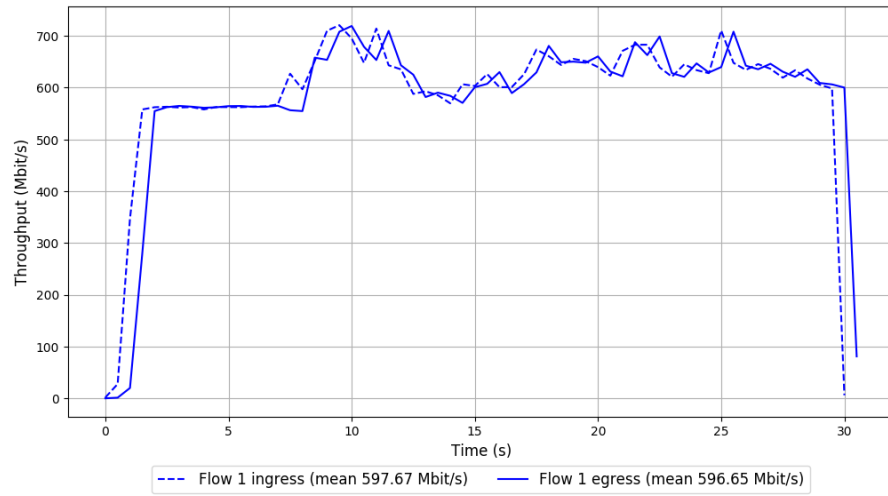


Run 1: Statistics of TCP Cubic

Start at: 2018-12-20 08:39:57
End at: 2018-12-20 08:40:27
Local clock offset: -0.072 ms
Remote clock offset: -0.798 ms

Below is generated by plot.py at 2018-12-20 11:15:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 596.65 Mbit/s
95th percentile per-packet one-way delay: 112.438 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 596.65 Mbit/s
95th percentile per-packet one-way delay: 112.438 ms
Loss rate: 0.17%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-12-20 09:08:21

End at: 2018-12-20 09:08:51

Local clock offset: -0.03 ms

Remote clock offset: 0.019 ms

Below is generated by plot.py at 2018-12-20 11:16:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 617.35 Mbit/s

95th percentile per-packet one-way delay: 110.751 ms

Loss rate: 0.02%

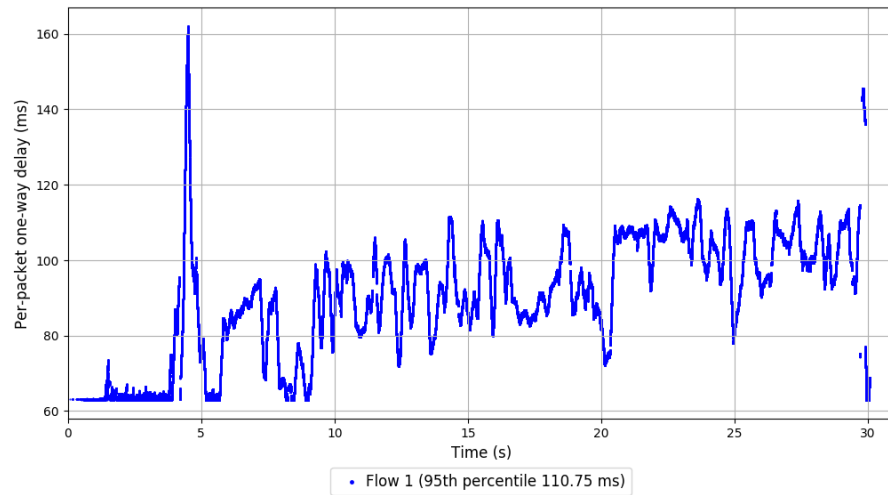
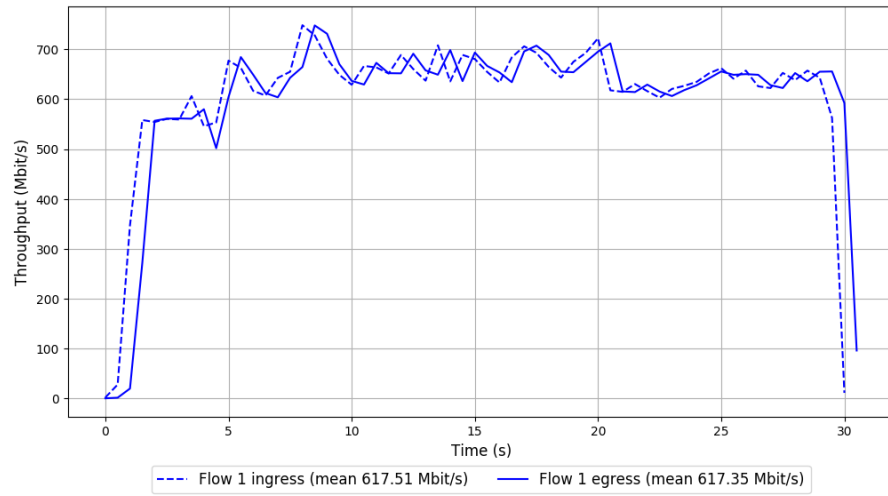
-- Flow 1:

Average throughput: 617.35 Mbit/s

95th percentile per-packet one-way delay: 110.751 ms

Loss rate: 0.02%

Run 2: Report of TCP Cubic — Data Link

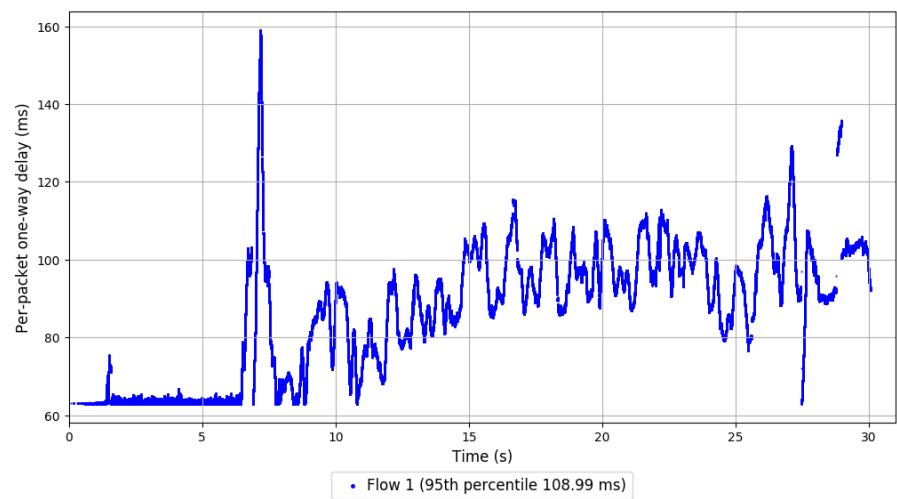
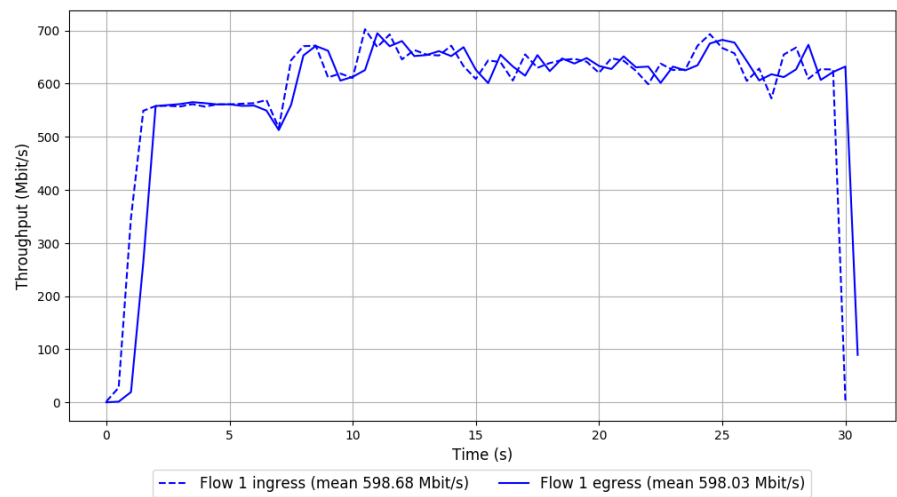


Run 3: Statistics of TCP Cubic

Start at: 2018-12-20 09:36:35
End at: 2018-12-20 09:37:05
Local clock offset: -0.049 ms
Remote clock offset: -0.292 ms

Below is generated by plot.py at 2018-12-20 11:16:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 598.03 Mbit/s
95th percentile per-packet one-way delay: 108.989 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 598.03 Mbit/s
95th percentile per-packet one-way delay: 108.989 ms
Loss rate: 0.11%

Run 3: Report of TCP Cubic — Data Link

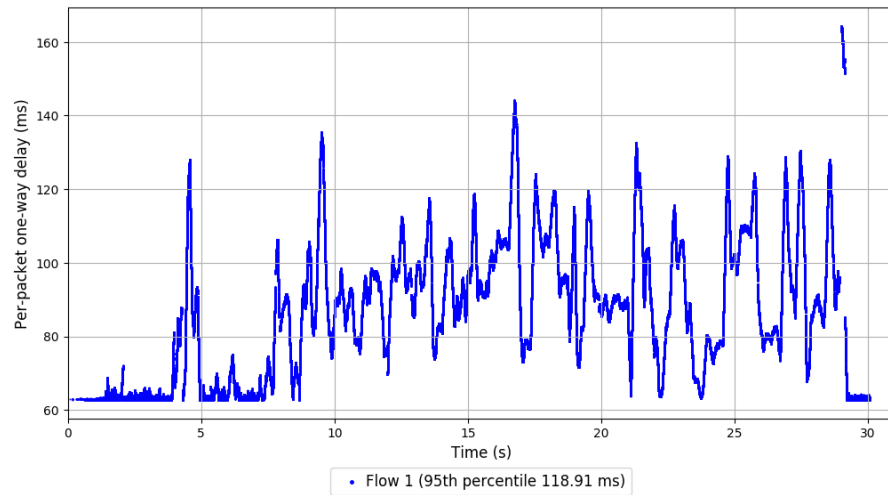
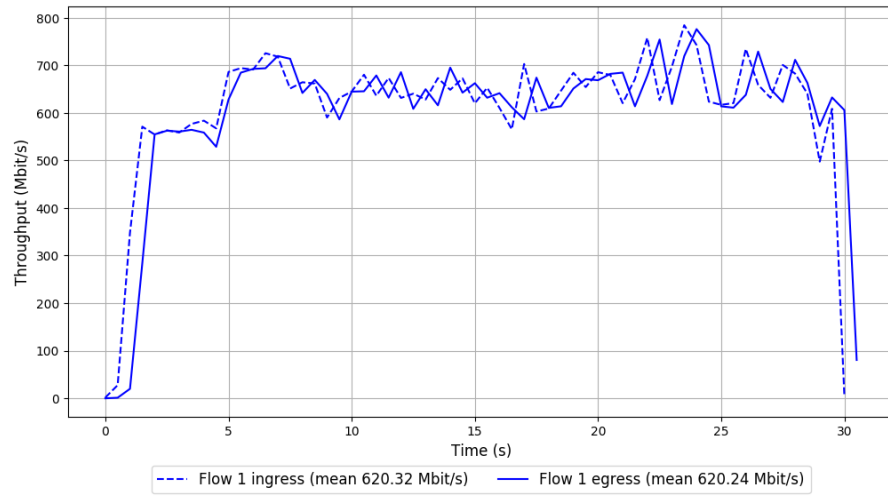


Run 4: Statistics of TCP Cubic

Start at: 2018-12-20 10:04:50
End at: 2018-12-20 10:05:20
Local clock offset: -0.046 ms
Remote clock offset: -0.096 ms

Below is generated by plot.py at 2018-12-20 11:16:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 620.24 Mbit/s
95th percentile per-packet one-way delay: 118.908 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 620.24 Mbit/s
95th percentile per-packet one-way delay: 118.908 ms
Loss rate: 0.01%

Run 4: Report of TCP Cubic — Data Link

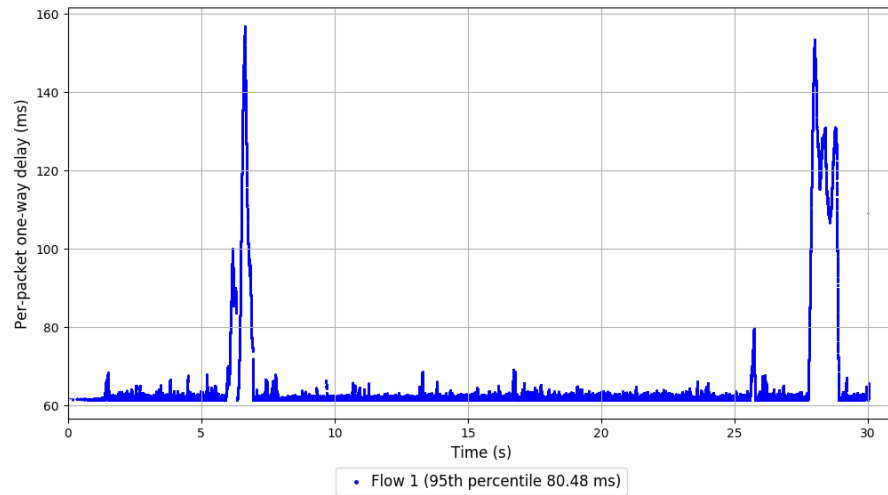
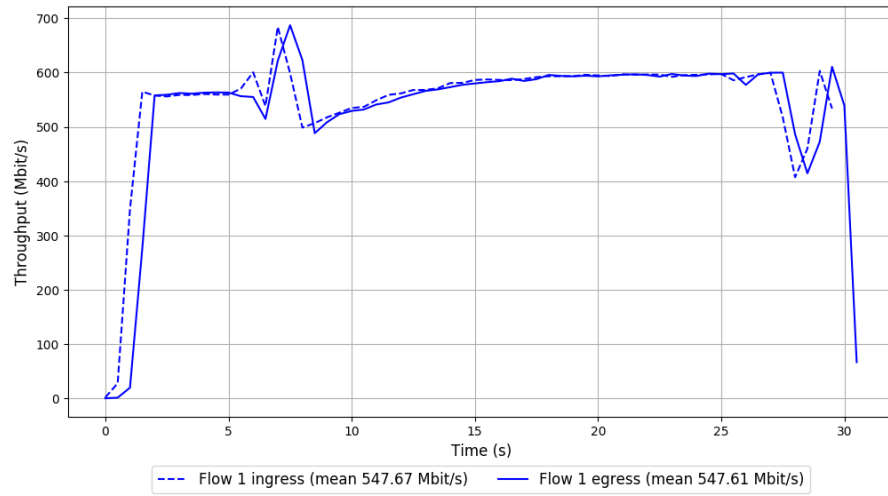


Run 5: Statistics of TCP Cubic

Start at: 2018-12-20 10:33:02
End at: 2018-12-20 10:33:32
Local clock offset: -0.116 ms
Remote clock offset: -1.474 ms

Below is generated by plot.py at 2018-12-20 11:16:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 547.61 Mbit/s
95th percentile per-packet one-way delay: 80.478 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 547.61 Mbit/s
95th percentile per-packet one-way delay: 80.478 ms
Loss rate: 0.01%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-12-20 08:36:59

End at: 2018-12-20 08:37:29

Local clock offset: -0.054 ms

Remote clock offset: 0.158 ms

Below is generated by plot.py at 2018-12-20 11:23:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 977.89 Mbit/s

95th percentile per-packet one-way delay: 70.419 ms

Loss rate: 0.49%

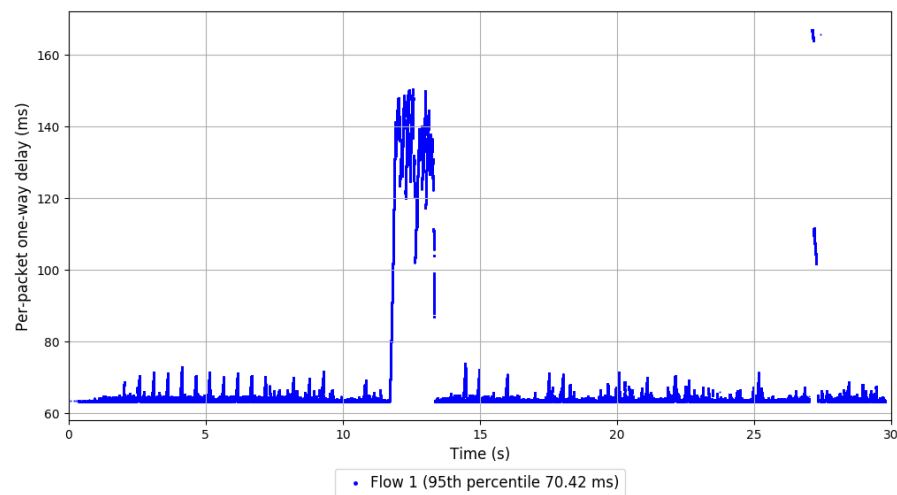
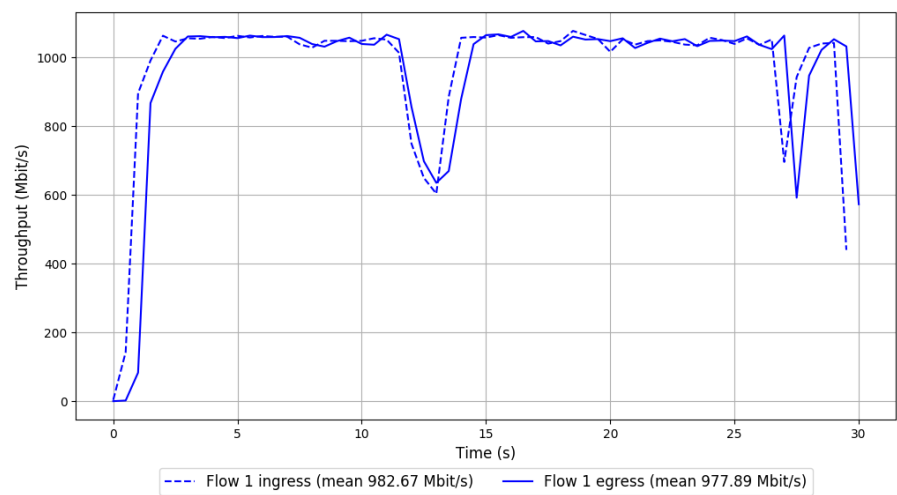
-- Flow 1:

Average throughput: 977.89 Mbit/s

95th percentile per-packet one-way delay: 70.419 ms

Loss rate: 0.49%

Run 1: Report of FillP — Data Link

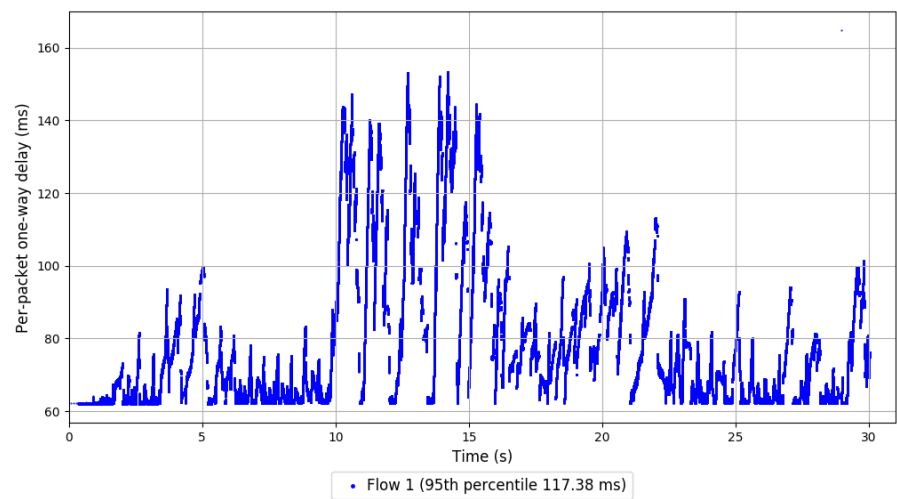
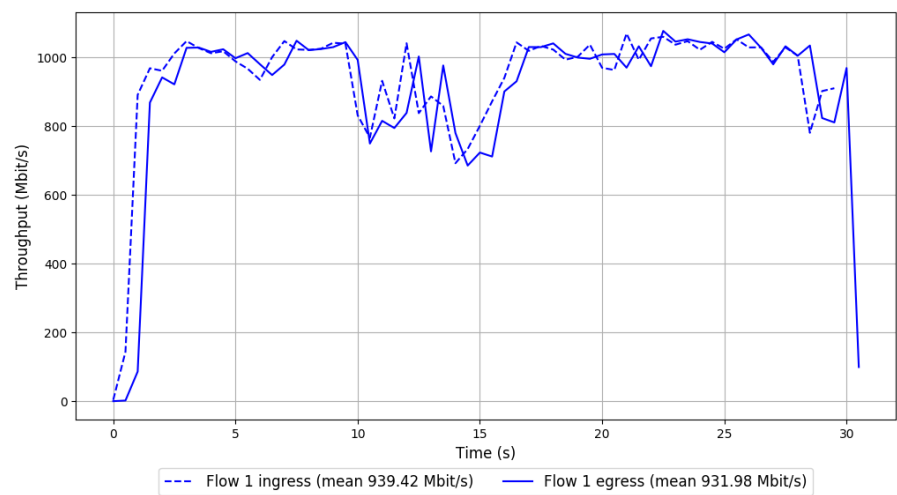


Run 2: Statistics of FillP

Start at: 2018-12-20 09:05:25
End at: 2018-12-20 09:05:55
Local clock offset: -0.025 ms
Remote clock offset: -0.752 ms

Below is generated by plot.py at 2018-12-20 11:34:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 931.98 Mbit/s
95th percentile per-packet one-way delay: 117.376 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 931.98 Mbit/s
95th percentile per-packet one-way delay: 117.376 ms
Loss rate: 0.79%

Run 2: Report of FillP — Data Link

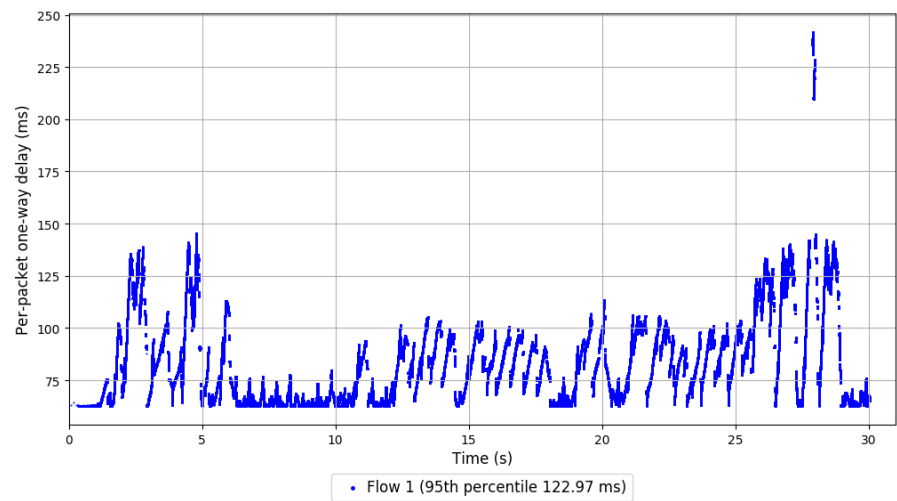
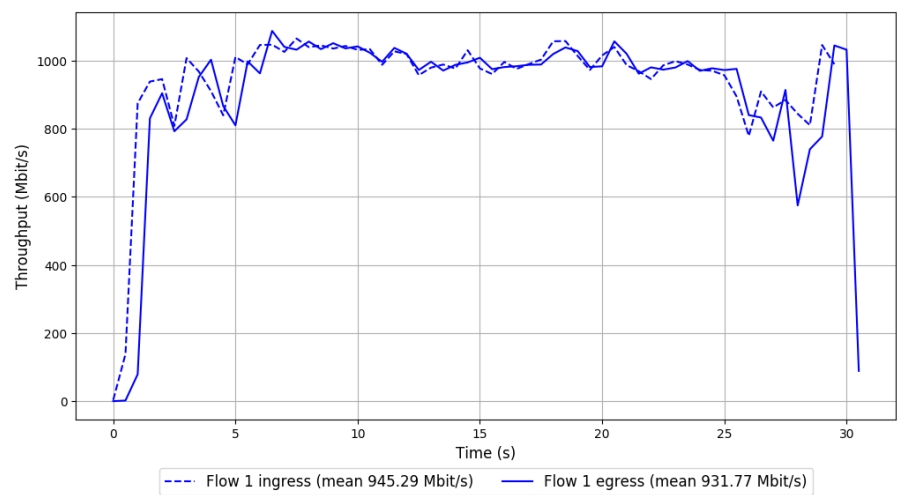


Run 3: Statistics of FillP

Start at: 2018-12-20 09:33:39
End at: 2018-12-20 09:34:09
Local clock offset: -0.034 ms
Remote clock offset: -0.168 ms

Below is generated by plot.py at 2018-12-20 11:35:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 931.77 Mbit/s
95th percentile per-packet one-way delay: 122.973 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 931.77 Mbit/s
95th percentile per-packet one-way delay: 122.973 ms
Loss rate: 1.43%

Run 3: Report of FillP — Data Link

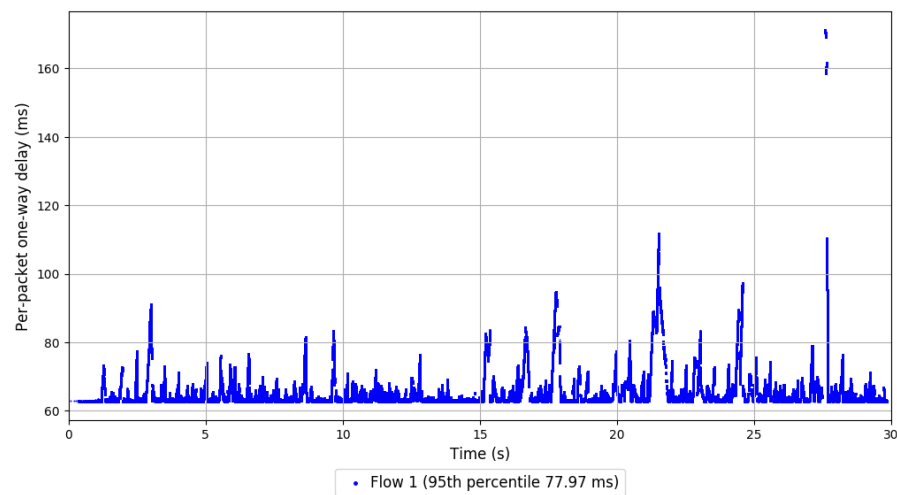
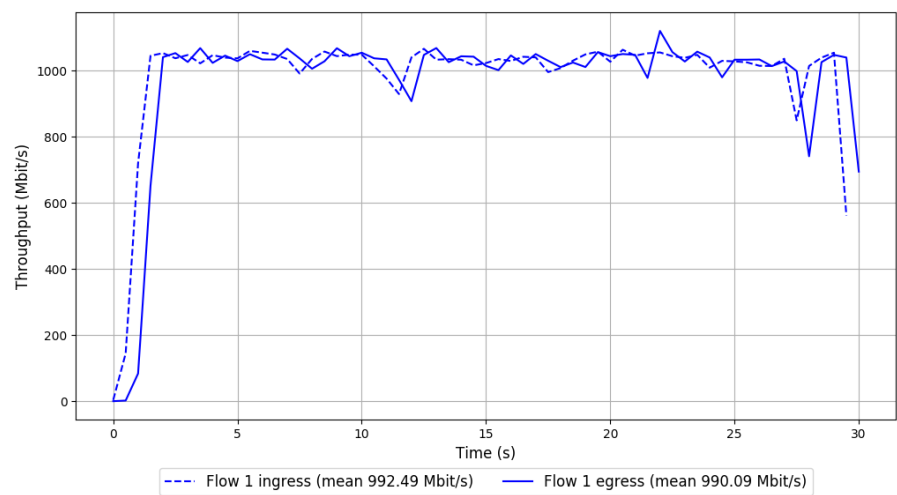


Run 4: Statistics of FillP

Start at: 2018-12-20 10:01:51
End at: 2018-12-20 10:02:21
Local clock offset: -0.099 ms
Remote clock offset: -0.179 ms

Below is generated by plot.py at 2018-12-20 11:37:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 990.09 Mbit/s
95th percentile per-packet one-way delay: 77.972 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 990.09 Mbit/s
95th percentile per-packet one-way delay: 77.972 ms
Loss rate: 0.24%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-12-20 10:30:06

End at: 2018-12-20 10:30:36

Local clock offset: -0.084 ms

Remote clock offset: 0.358 ms

Below is generated by plot.py at 2018-12-20 11:37:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 915.26 Mbit/s

95th percentile per-packet one-way delay: 118.612 ms

Loss rate: 1.21%

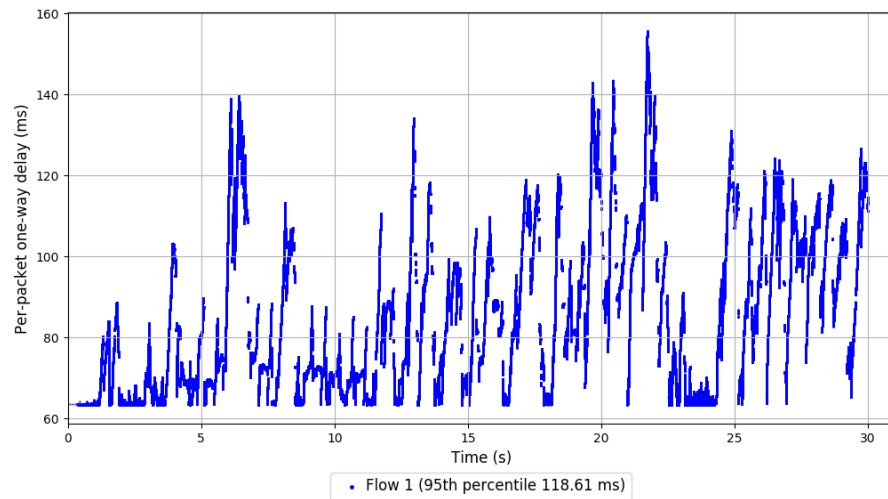
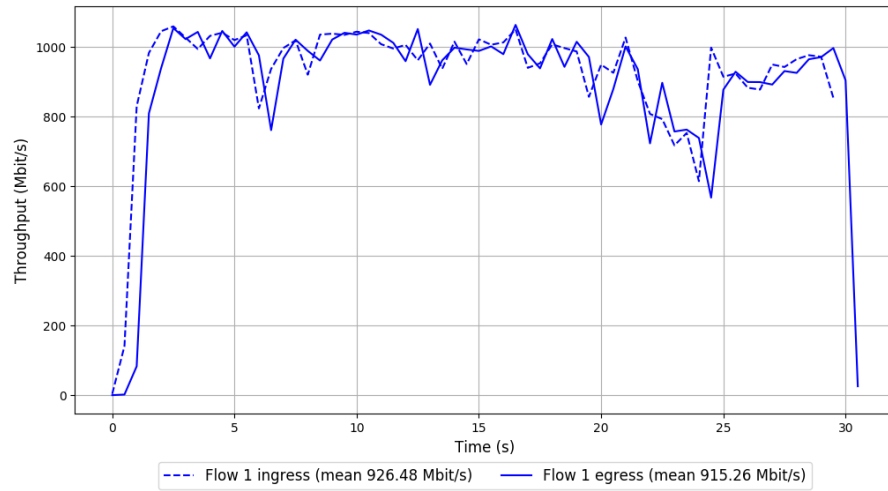
-- Flow 1:

Average throughput: 915.26 Mbit/s

95th percentile per-packet one-way delay: 118.612 ms

Loss rate: 1.21%

Run 5: Report of FillP — Data Link

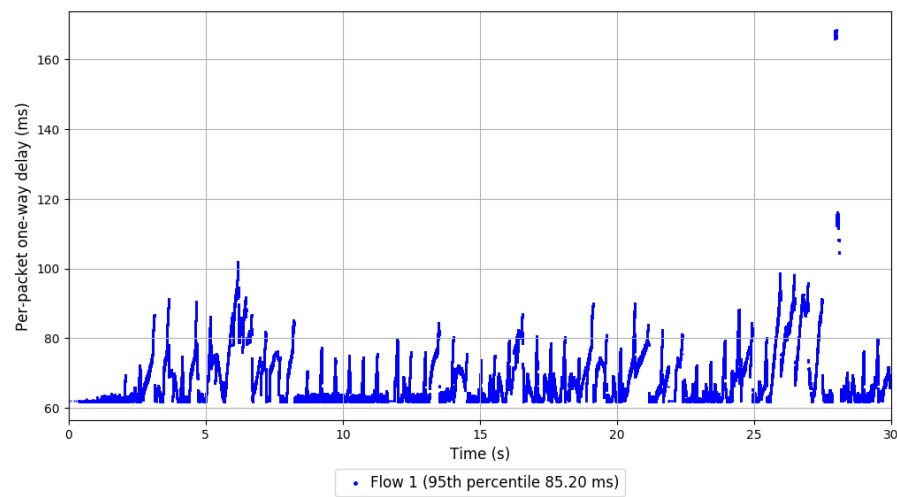
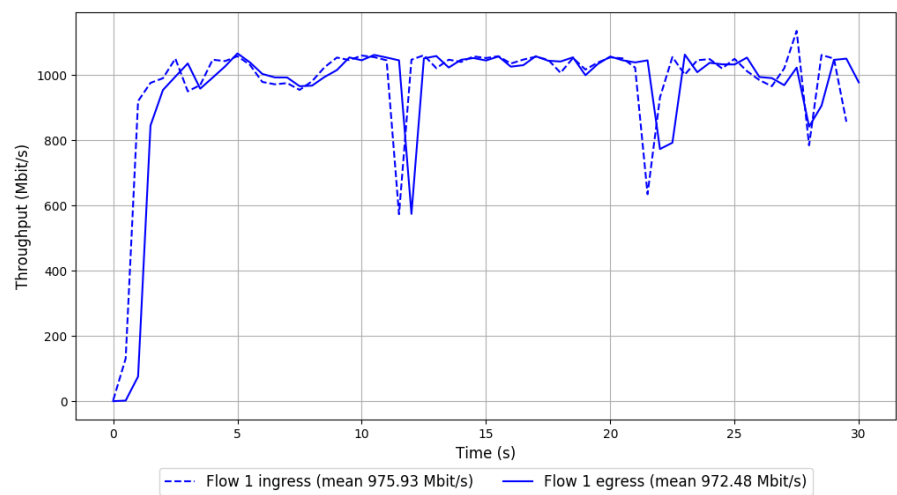


Run 1: Statistics of FillP-Sheep

Start at: 2018-12-20 08:35:11
End at: 2018-12-20 08:35:41
Local clock offset: -0.04 ms
Remote clock offset: -0.916 ms

Below is generated by plot.py at 2018-12-20 11:37:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 972.48 Mbit/s
95th percentile per-packet one-way delay: 85.201 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 972.48 Mbit/s
95th percentile per-packet one-way delay: 85.201 ms
Loss rate: 0.35%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2018-12-20 09:03:41

End at: 2018-12-20 09:04:11

Local clock offset: -0.054 ms

Remote clock offset: 1.32 ms

Below is generated by plot.py at 2018-12-20 11:37:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 951.12 Mbit/s

95th percentile per-packet one-way delay: 96.854 ms

Loss rate: 0.15%

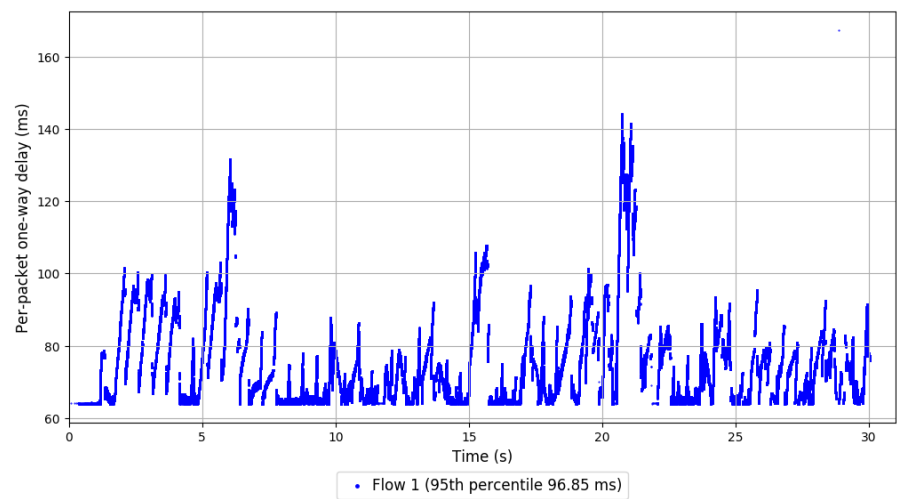
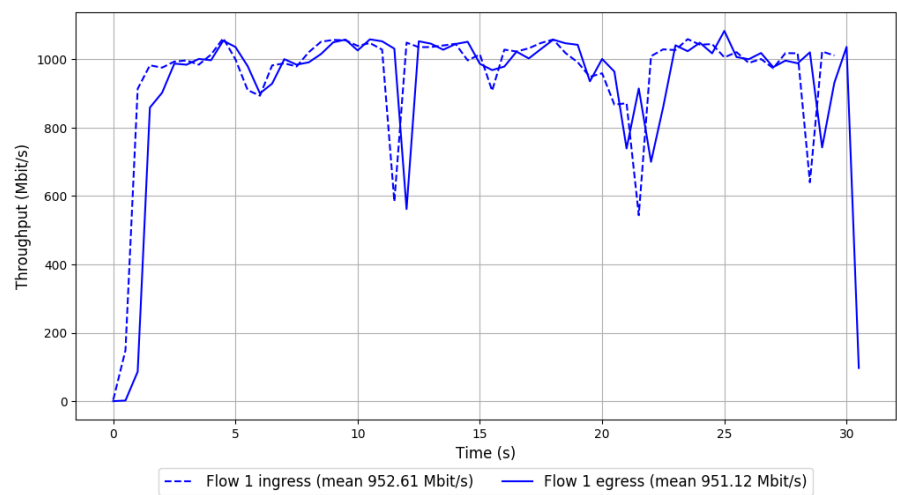
-- Flow 1:

Average throughput: 951.12 Mbit/s

95th percentile per-packet one-way delay: 96.854 ms

Loss rate: 0.15%

Run 2: Report of FillP-Sheep — Data Link

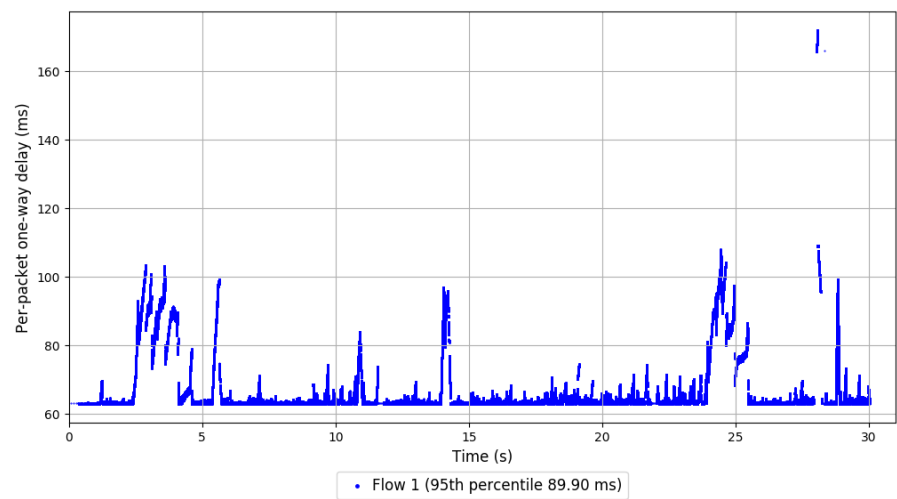
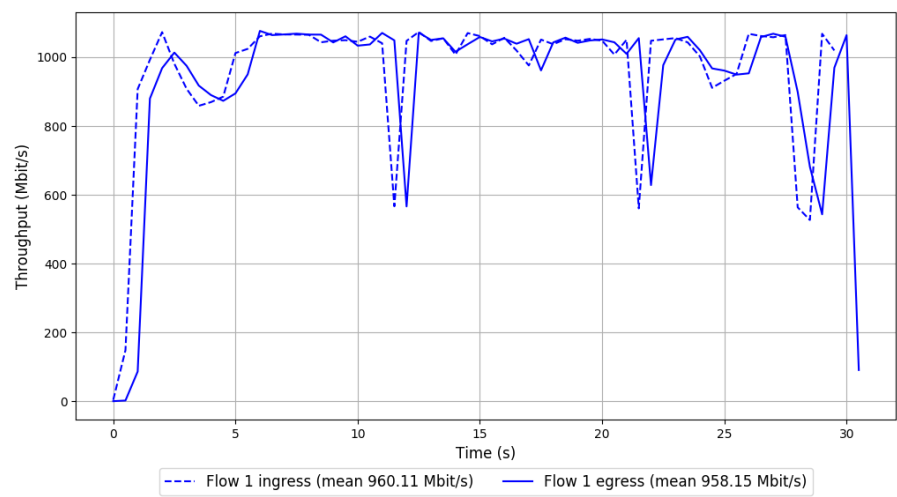


Run 3: Statistics of FillP-Sheep

Start at: 2018-12-20 09:31:52
End at: 2018-12-20 09:32:22
Local clock offset: -0.076 ms
Remote clock offset: -0.067 ms

Below is generated by plot.py at 2018-12-20 11:37:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 958.15 Mbit/s
95th percentile per-packet one-way delay: 89.899 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 958.15 Mbit/s
95th percentile per-packet one-way delay: 89.899 ms
Loss rate: 0.20%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2018-12-20 10:00:04

End at: 2018-12-20 10:00:34

Local clock offset: -0.058 ms

Remote clock offset: 0.16 ms

Below is generated by plot.py at 2018-12-20 11:47:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 963.24 Mbit/s

95th percentile per-packet one-way delay: 101.375 ms

Loss rate: 0.09%

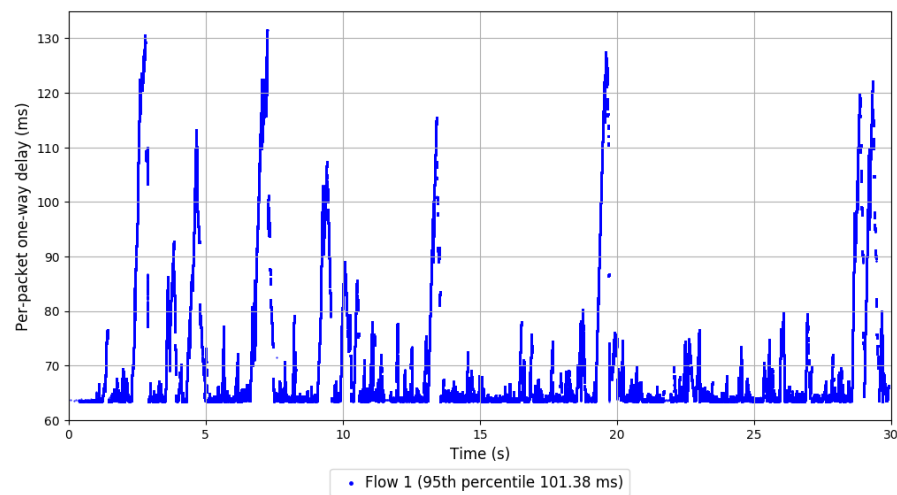
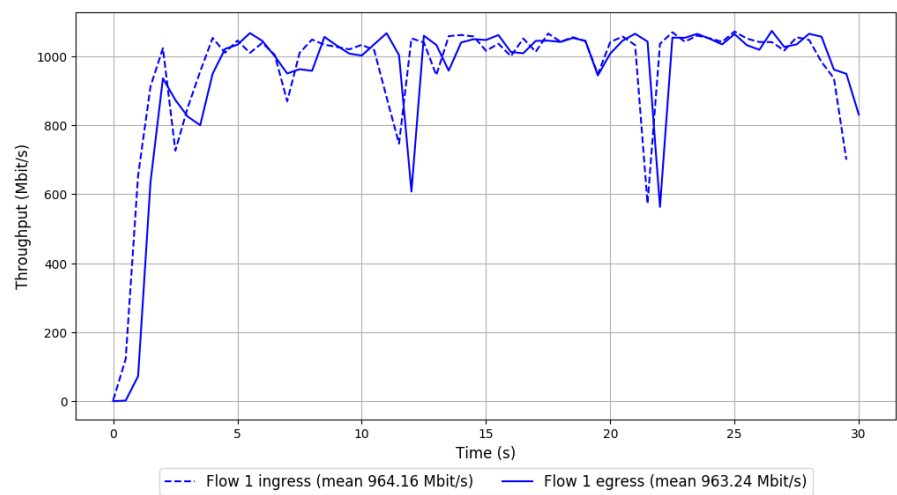
-- Flow 1:

Average throughput: 963.24 Mbit/s

95th percentile per-packet one-way delay: 101.375 ms

Loss rate: 0.09%

Run 4: Report of FillP-Sheep — Data Link

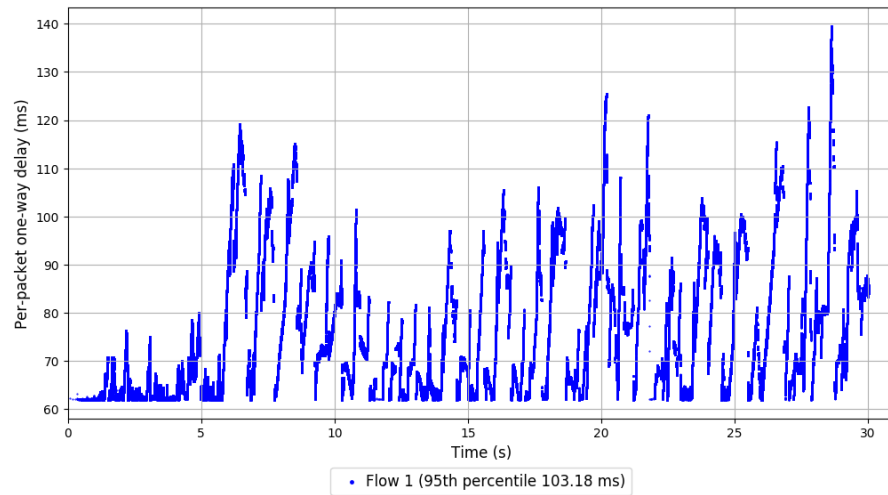
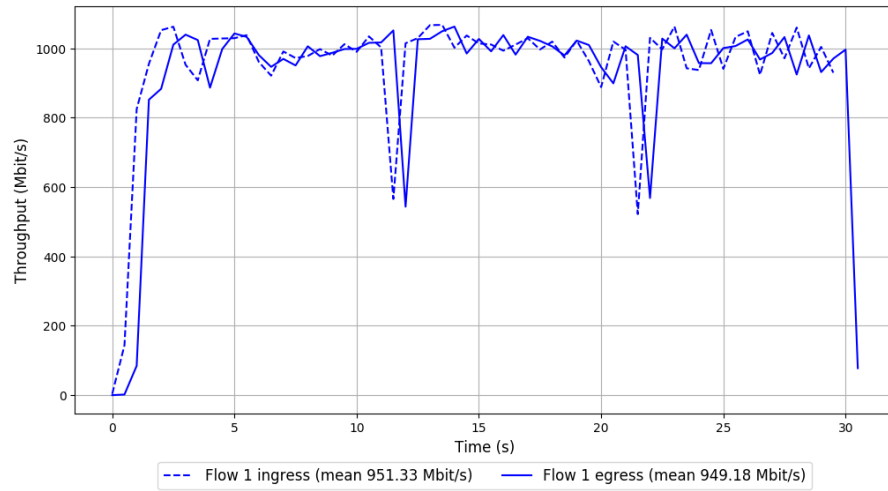


Run 5: Statistics of FillP-Sheep

Start at: 2018-12-20 10:28:20
End at: 2018-12-20 10:28:50
Local clock offset: -0.088 ms
Remote clock offset: -0.879 ms

Below is generated by plot.py at 2018-12-20 11:54:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 949.18 Mbit/s
95th percentile per-packet one-way delay: 103.183 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 949.18 Mbit/s
95th percentile per-packet one-way delay: 103.183 ms
Loss rate: 0.22%

Run 5: Report of FillP-Sheep — Data Link

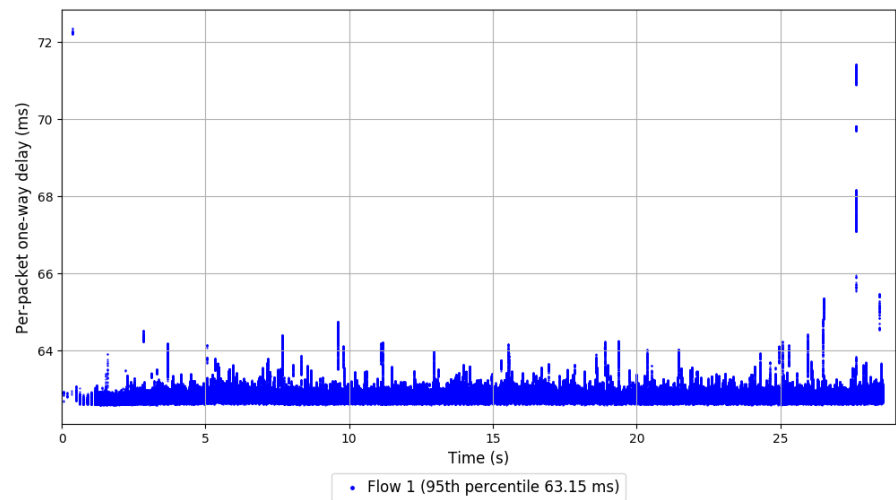
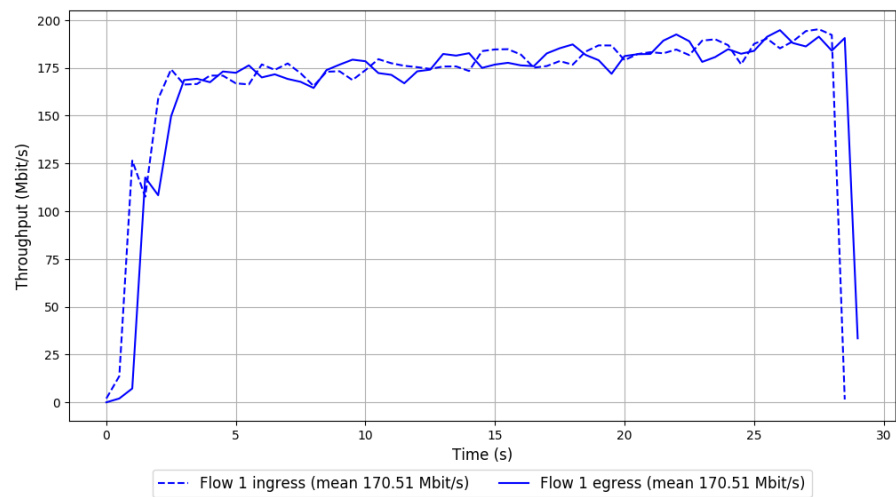


Run 1: Statistics of Indigo

Start at: 2018-12-20 08:43:09
End at: 2018-12-20 08:43:39
Local clock offset: -0.065 ms
Remote clock offset: -0.253 ms

Below is generated by plot.py at 2018-12-20 11:54:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 170.51 Mbit/s
95th percentile per-packet one-way delay: 63.148 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 170.51 Mbit/s
95th percentile per-packet one-way delay: 63.148 ms
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link

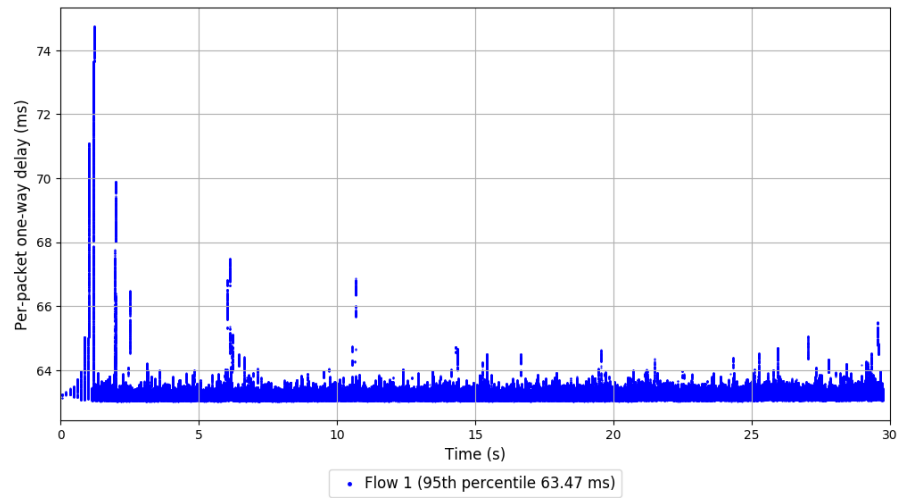
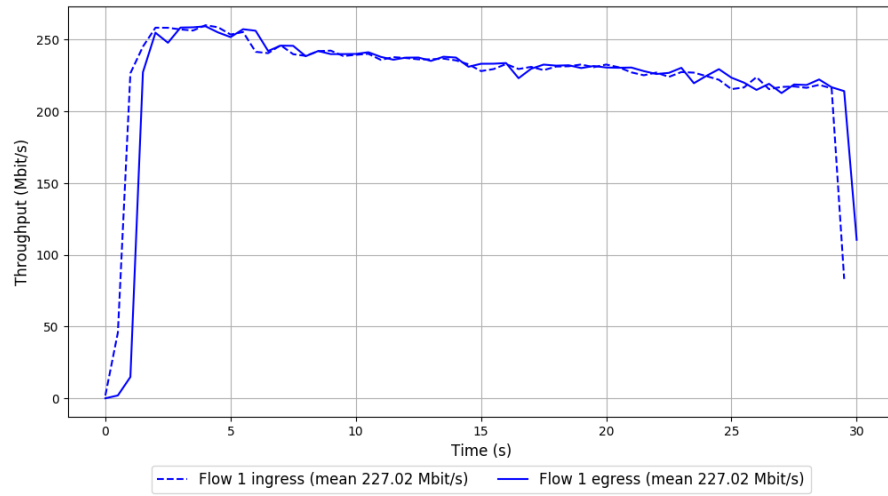


Run 2: Statistics of Indigo

Start at: 2018-12-20 09:11:35
End at: 2018-12-20 09:12:05
Local clock offset: 0.0 ms
Remote clock offset: -0.026 ms

Below is generated by plot.py at 2018-12-20 11:54:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 227.02 Mbit/s
95th percentile per-packet one-way delay: 63.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.02 Mbit/s
95th percentile per-packet one-way delay: 63.466 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-12-20 09:39:45

End at: 2018-12-20 09:40:15

Local clock offset: -0.058 ms

Remote clock offset: 1.448 ms

Below is generated by plot.py at 2018-12-20 11:54:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 223.89 Mbit/s

95th percentile per-packet one-way delay: 64.816 ms

Loss rate: 0.00%

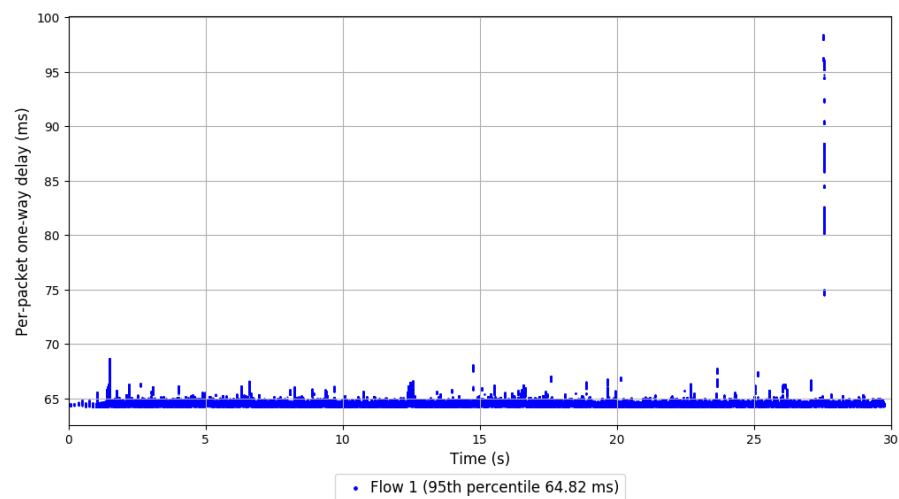
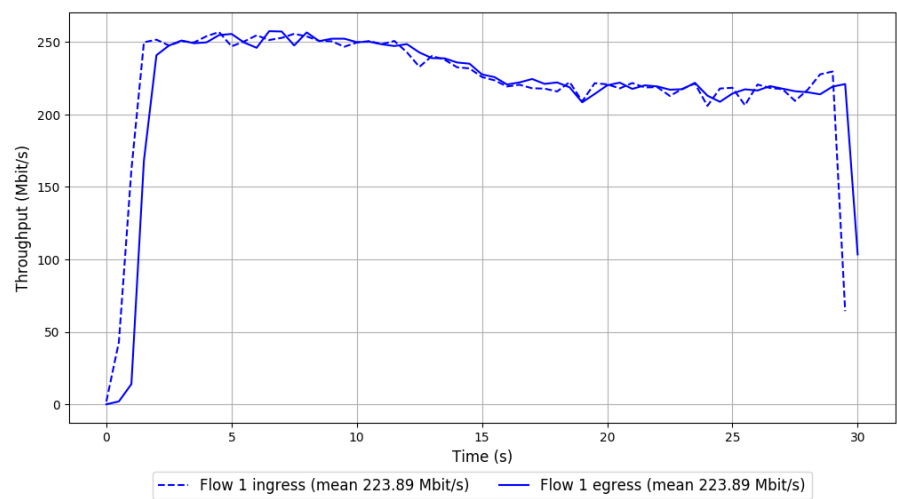
-- Flow 1:

Average throughput: 223.89 Mbit/s

95th percentile per-packet one-way delay: 64.816 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-12-20 10:08:05

End at: 2018-12-20 10:08:35

Local clock offset: -0.1 ms

Remote clock offset: 0.467 ms

Below is generated by plot.py at 2018-12-20 11:54:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 233.72 Mbit/s

95th percentile per-packet one-way delay: 64.021 ms

Loss rate: 0.00%

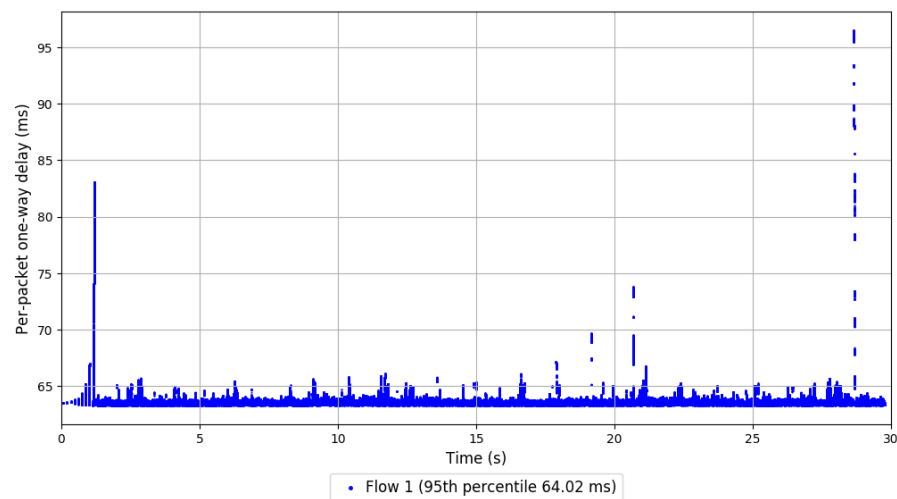
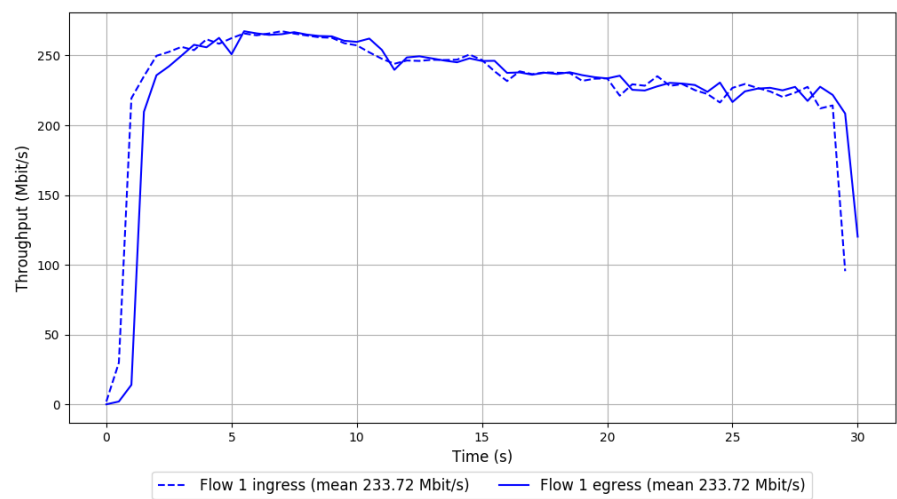
-- Flow 1:

Average throughput: 233.72 Mbit/s

95th percentile per-packet one-way delay: 64.021 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link

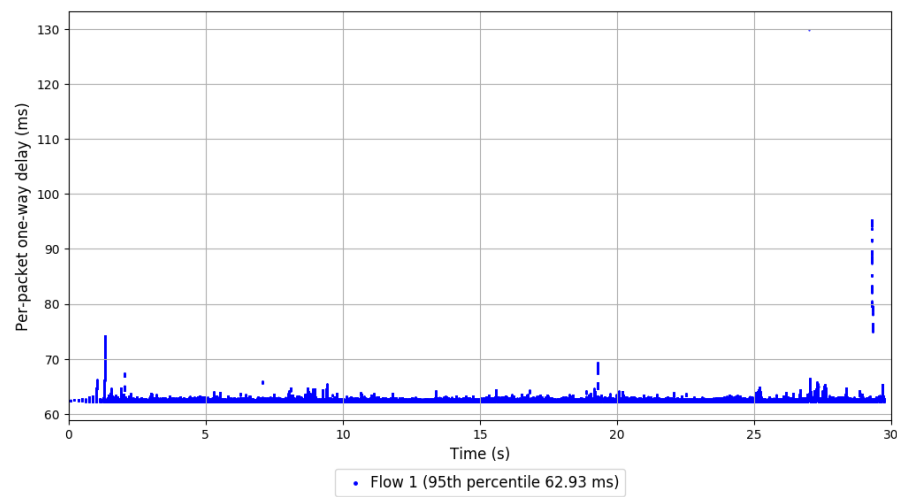
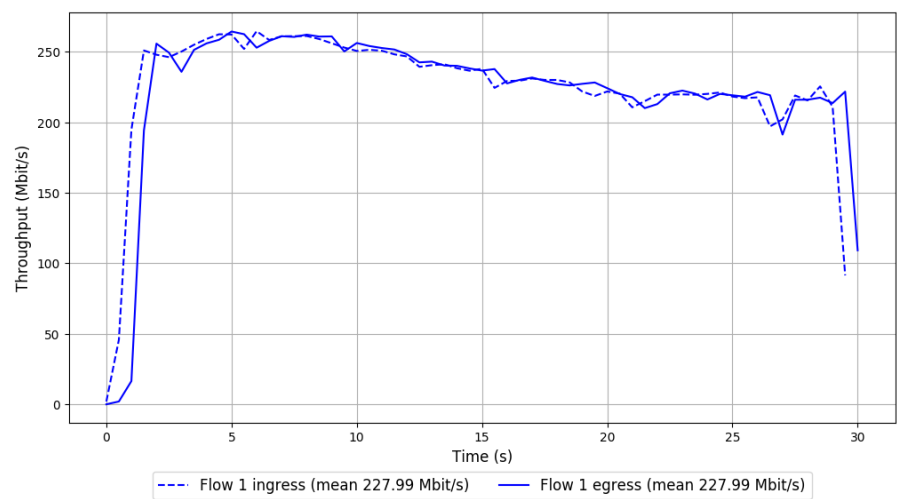


Run 5: Statistics of Indigo

Start at: 2018-12-20 10:36:12
End at: 2018-12-20 10:36:42
Local clock offset: -0.063 ms
Remote clock offset: -0.668 ms

Below is generated by plot.py at 2018-12-20 11:54:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 227.99 Mbit/s
95th percentile per-packet one-way delay: 62.930 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.99 Mbit/s
95th percentile per-packet one-way delay: 62.930 ms
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

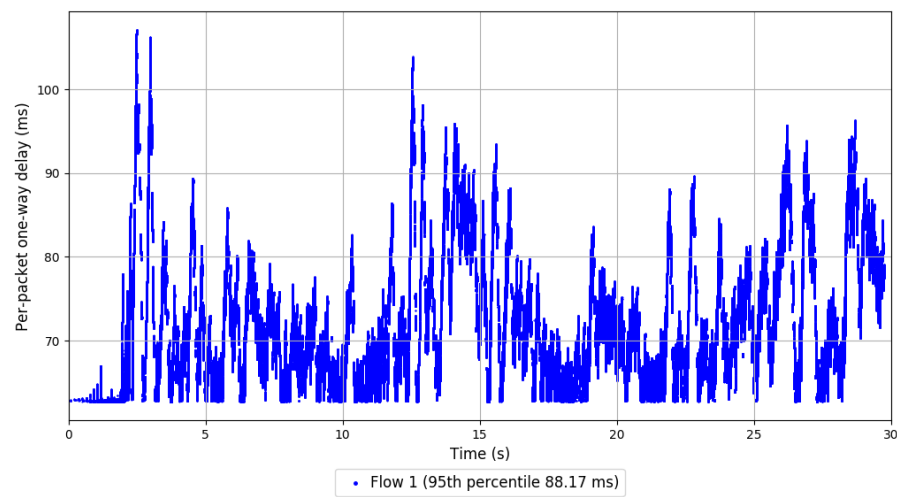
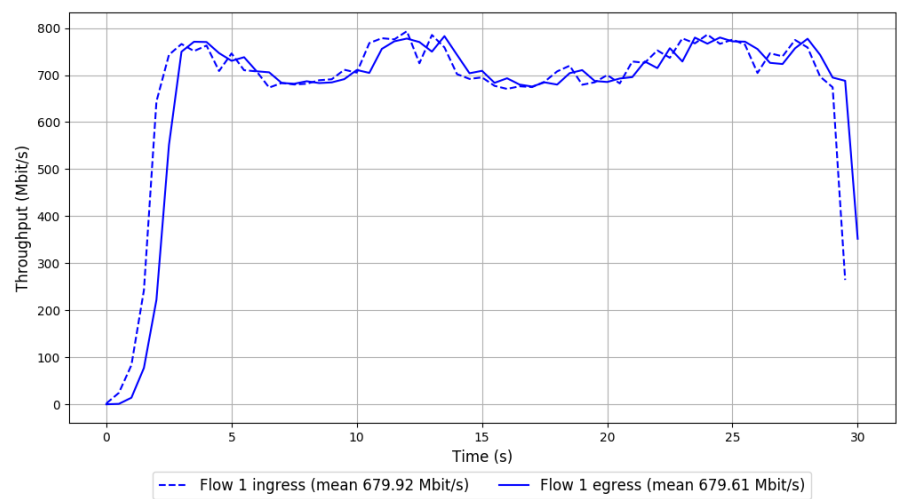


Run 1: Statistics of Indigo-MusesD

Start at: 2018-12-20 08:47:51
End at: 2018-12-20 08:48:21
Local clock offset: -0.076 ms
Remote clock offset: -0.216 ms

Below is generated by plot.py at 2018-12-20 11:54:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 679.61 Mbit/s
95th percentile per-packet one-way delay: 88.169 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 679.61 Mbit/s
95th percentile per-packet one-way delay: 88.169 ms
Loss rate: 0.04%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2018-12-20 09:16:16

End at: 2018-12-20 09:16:46

Local clock offset: -0.01 ms

Remote clock offset: 0.084 ms

Below is generated by plot.py at 2018-12-20 11:54:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 655.78 Mbit/s

95th percentile per-packet one-way delay: 92.765 ms

Loss rate: 0.00%

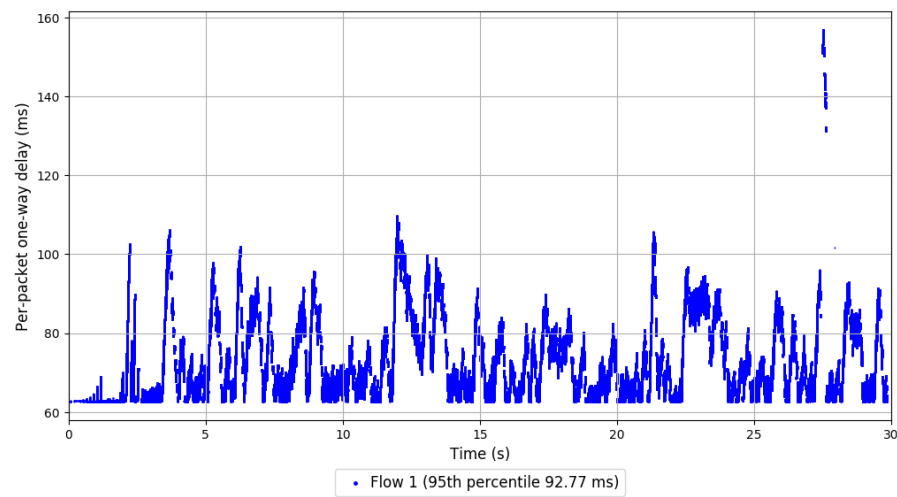
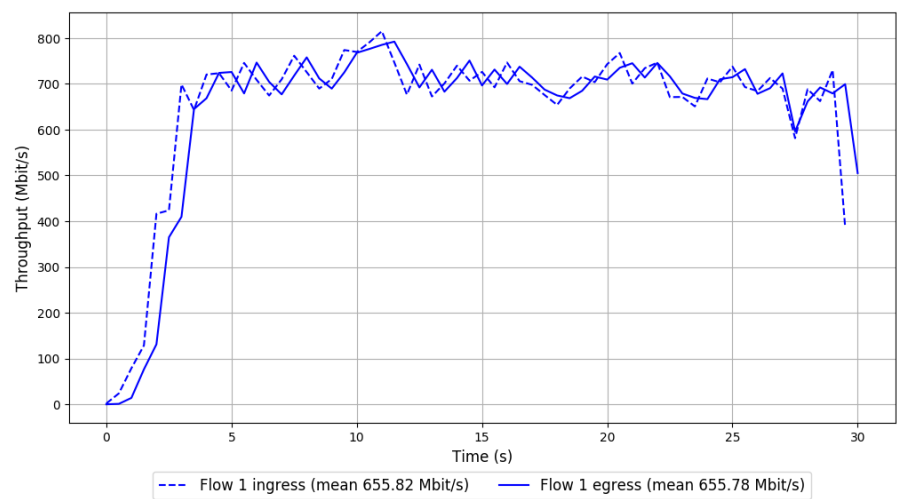
-- Flow 1:

Average throughput: 655.78 Mbit/s

95th percentile per-packet one-way delay: 92.765 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2018-12-20 09:44:28

End at: 2018-12-20 09:44:58

Local clock offset: -0.057 ms

Remote clock offset: 0.439 ms

Below is generated by plot.py at 2018-12-20 11:55:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 622.13 Mbit/s

95th percentile per-packet one-way delay: 91.997 ms

Loss rate: 0.01%

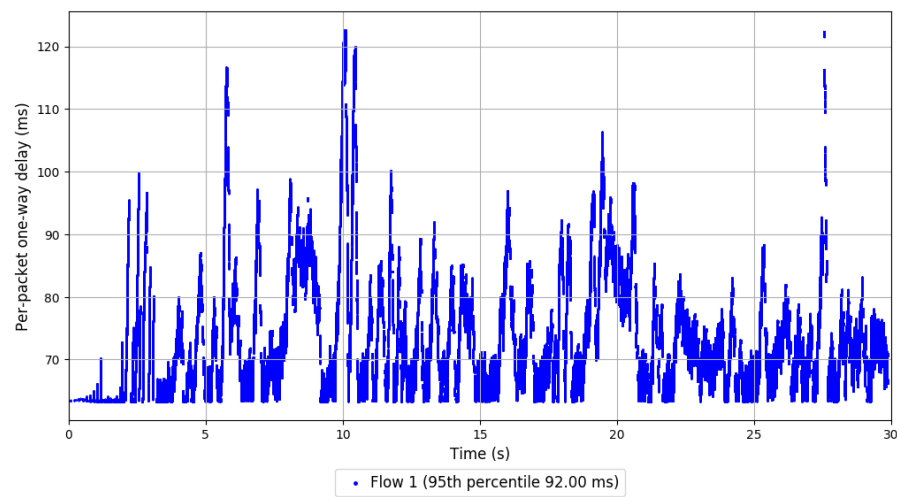
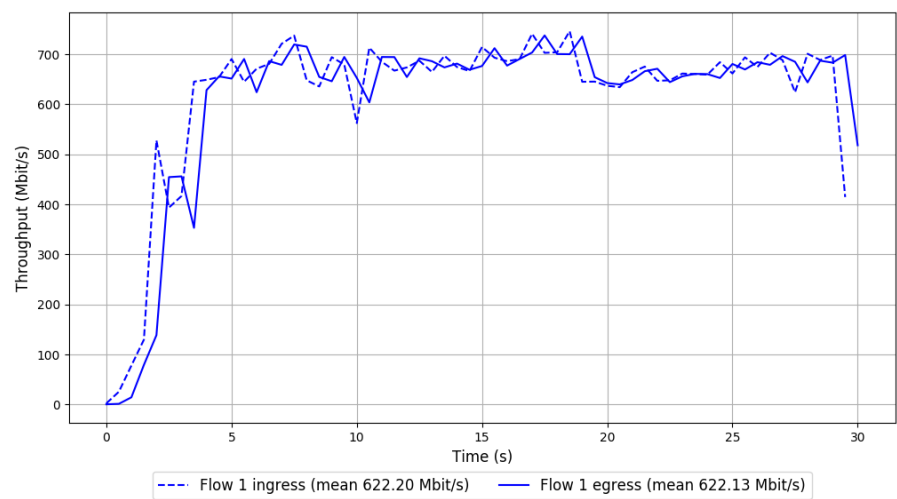
-- Flow 1:

Average throughput: 622.13 Mbit/s

95th percentile per-packet one-way delay: 91.997 ms

Loss rate: 0.01%

Run 3: Report of Indigo-MusesD — Data Link

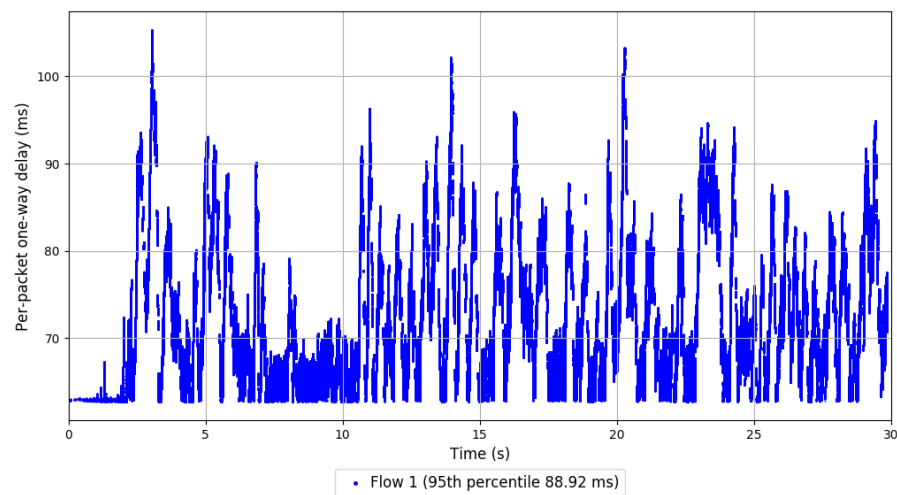
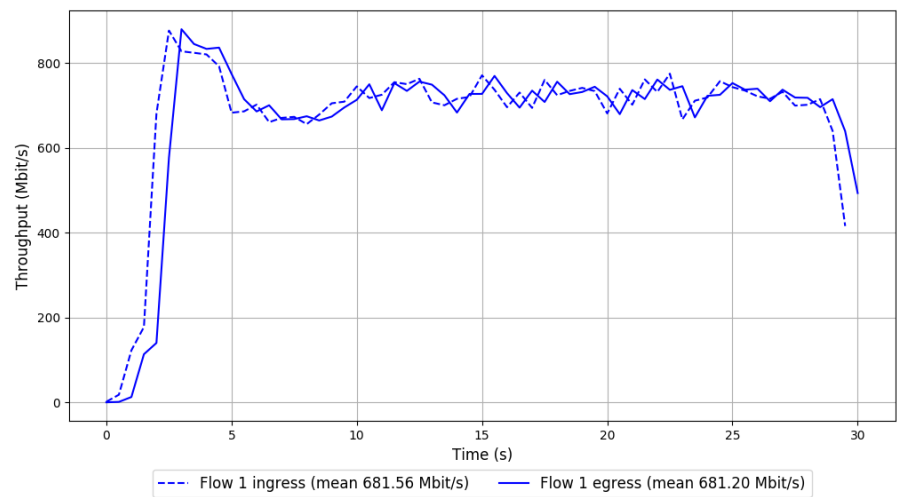


Run 4: Statistics of Indigo-MusesD

Start at: 2018-12-20 10:12:45
End at: 2018-12-20 10:13:15
Local clock offset: -0.085 ms
Remote clock offset: -0.214 ms

Below is generated by plot.py at 2018-12-20 11:57:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 681.20 Mbit/s
95th percentile per-packet one-way delay: 88.925 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 681.20 Mbit/s
95th percentile per-packet one-way delay: 88.925 ms
Loss rate: 0.05%

Run 4: Report of Indigo-MusesD — Data Link

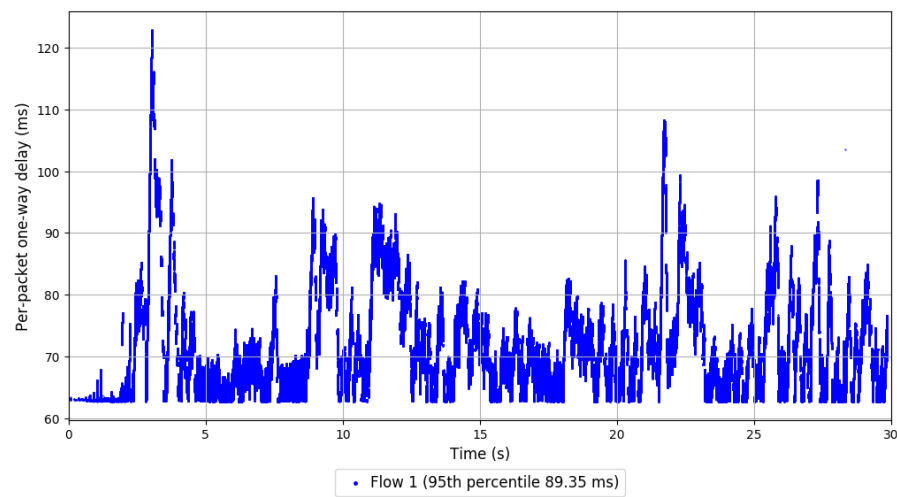
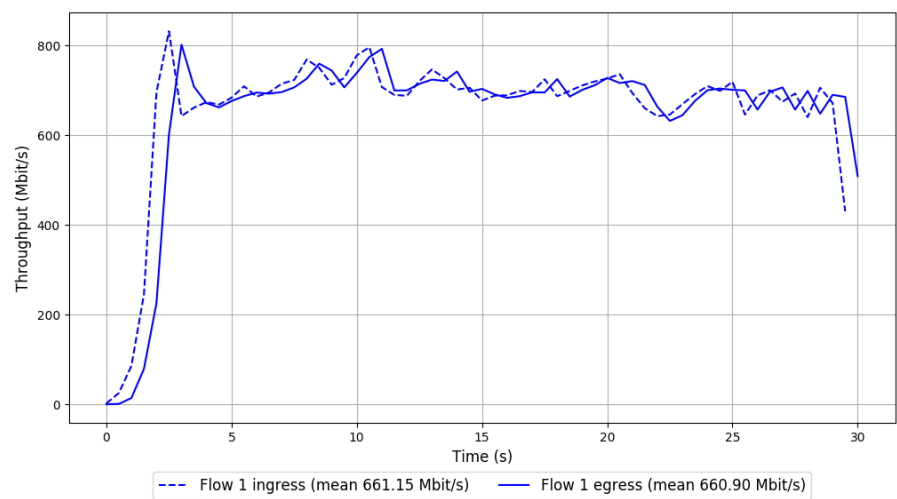


Run 5: Statistics of Indigo-MusesD

Start at: 2018-12-20 10:40:56
End at: 2018-12-20 10:41:26
Local clock offset: -0.062 ms
Remote clock offset: -0.225 ms

Below is generated by plot.py at 2018-12-20 11:57:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 660.90 Mbit/s
95th percentile per-packet one-way delay: 89.351 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 660.90 Mbit/s
95th percentile per-packet one-way delay: 89.351 ms
Loss rate: 0.04%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

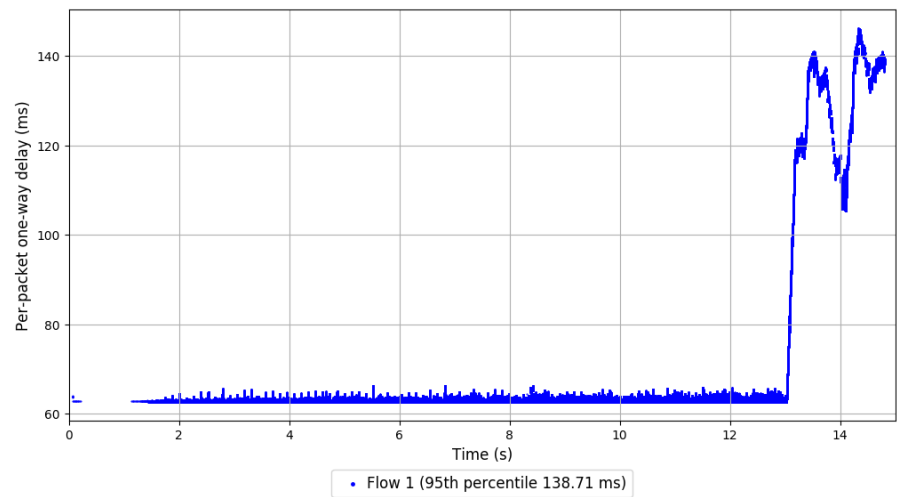
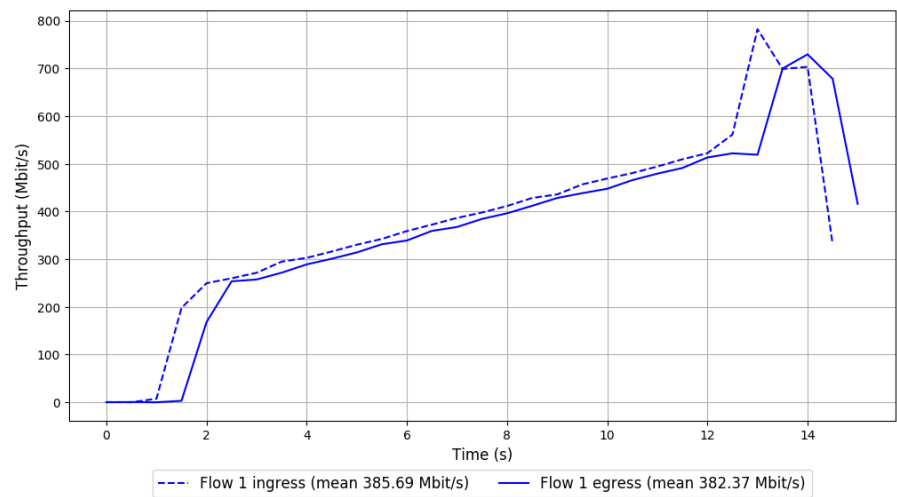
Start at: 2018-12-20 08:32:23

End at: 2018-12-20 08:32:53

Local clock offset: -0.016 ms

Remote clock offset: -0.059 ms

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2018-12-20 09:00:29

End at: 2018-12-20 09:00:59

Local clock offset: -0.066 ms

Remote clock offset: 0.017 ms

Below is generated by plot.py at 2018-12-20 12:00:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 721.33 Mbit/s

95th percentile per-packet one-way delay: 131.986 ms

Loss rate: 0.09%

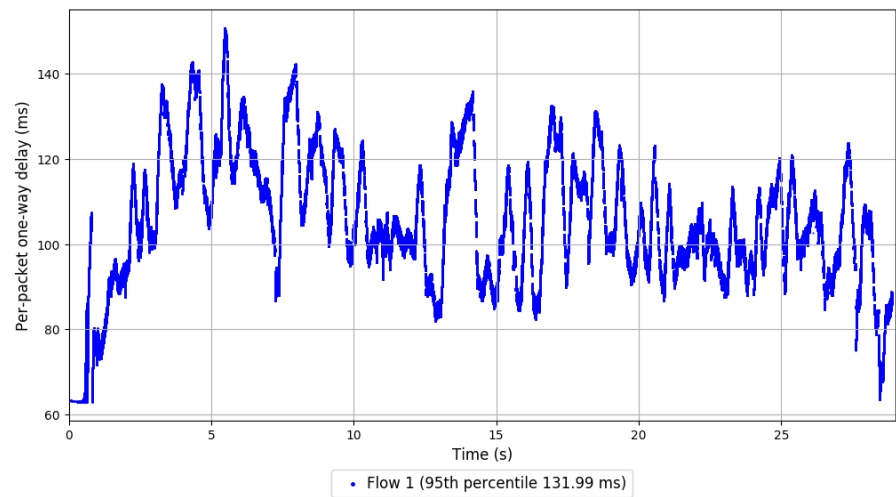
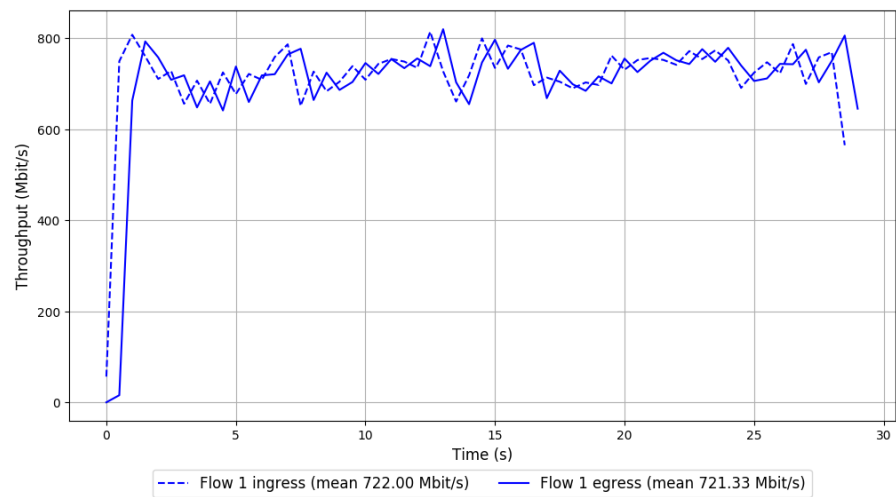
-- Flow 1:

Average throughput: 721.33 Mbit/s

95th percentile per-packet one-way delay: 131.986 ms

Loss rate: 0.09%

Run 2: Report of Indigo-MusesT — Data Link

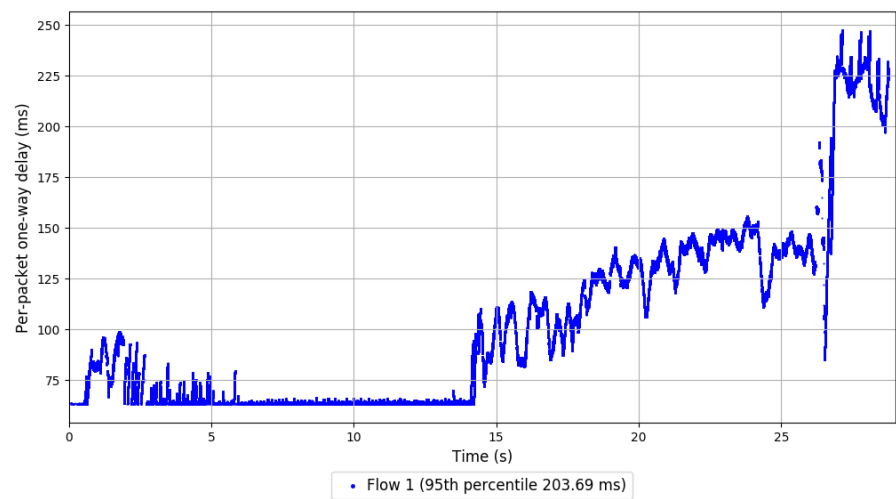
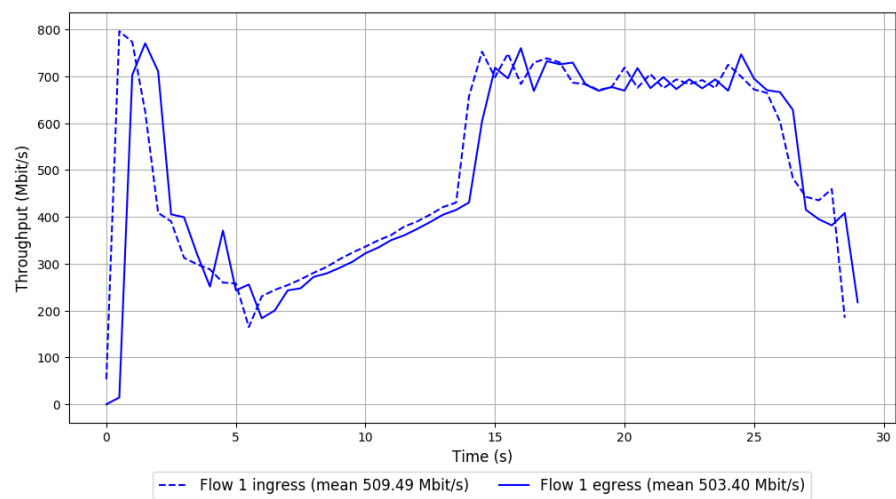


Run 3: Statistics of Indigo-MusesT

Start at: 2018-12-20 09:28:51
End at: 2018-12-20 09:29:21
Local clock offset: -0.032 ms
Remote clock offset: -0.029 ms

Below is generated by plot.py at 2018-12-20 12:00:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 503.40 Mbit/s
95th percentile per-packet one-way delay: 203.687 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 503.40 Mbit/s
95th percentile per-packet one-way delay: 203.687 ms
Loss rate: 1.19%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2018-12-20 09:56:59

End at: 2018-12-20 09:57:29

Local clock offset: -0.055 ms

Remote clock offset: -1.01 ms

Below is generated by plot.py at 2018-12-20 12:00:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 583.05 Mbit/s

95th percentile per-packet one-way delay: 128.410 ms

Loss rate: 0.24%

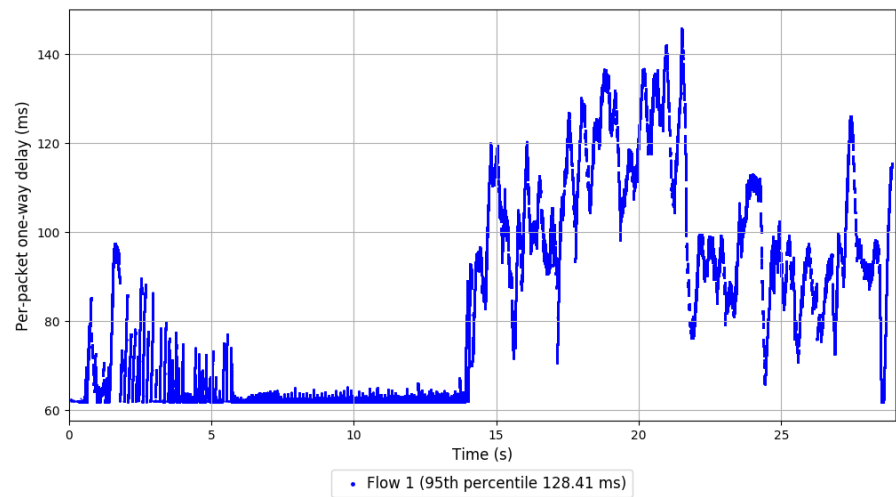
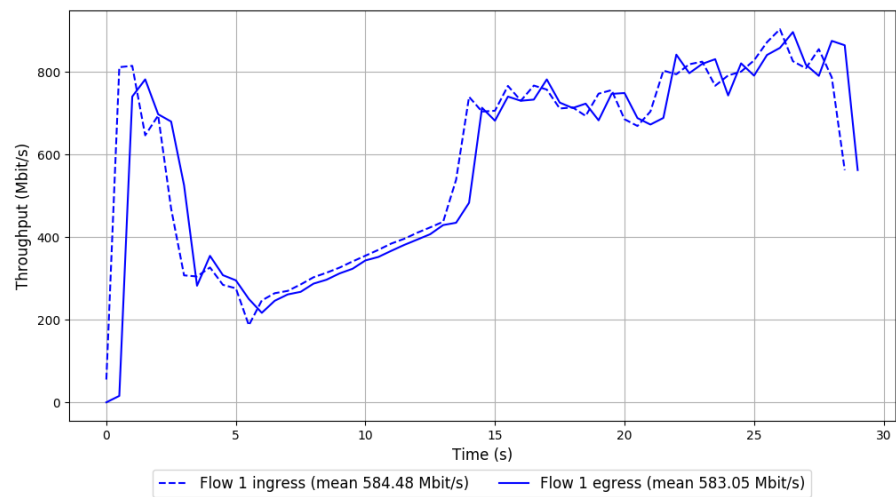
-- Flow 1:

Average throughput: 583.05 Mbit/s

95th percentile per-packet one-way delay: 128.410 ms

Loss rate: 0.24%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2018-12-20 10:25:11

End at: 2018-12-20 10:25:41

Local clock offset: -0.099 ms

Remote clock offset: 0.084 ms

Below is generated by plot.py at 2018-12-20 12:04:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 687.08 Mbit/s

95th percentile per-packet one-way delay: 169.699 ms

Loss rate: 0.70%

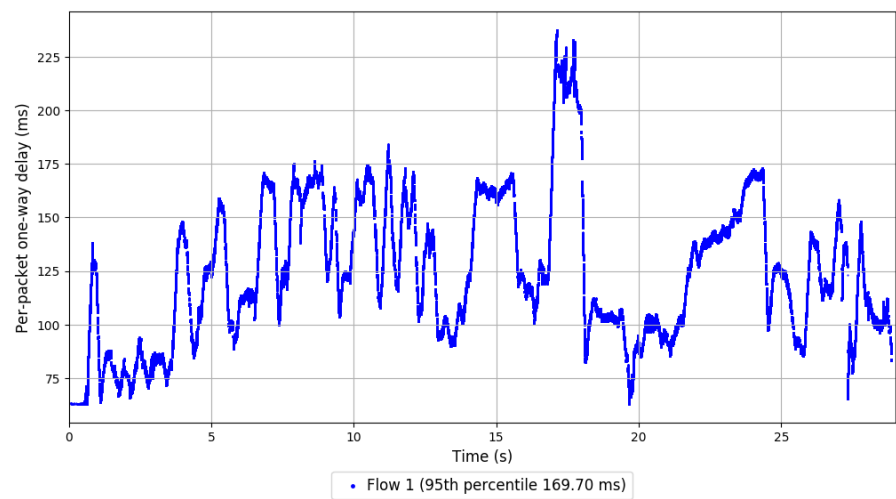
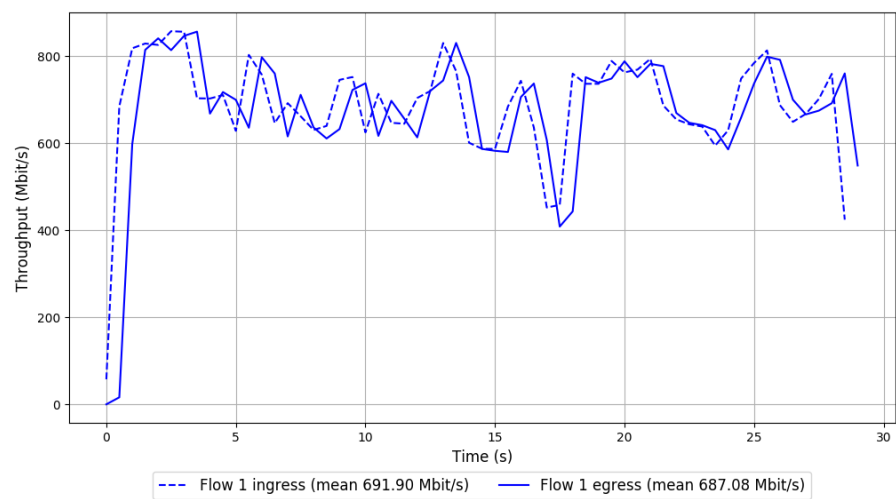
-- Flow 1:

Average throughput: 687.08 Mbit/s

95th percentile per-packet one-way delay: 169.699 ms

Loss rate: 0.70%

Run 5: Report of Indigo-MusesT — Data Link

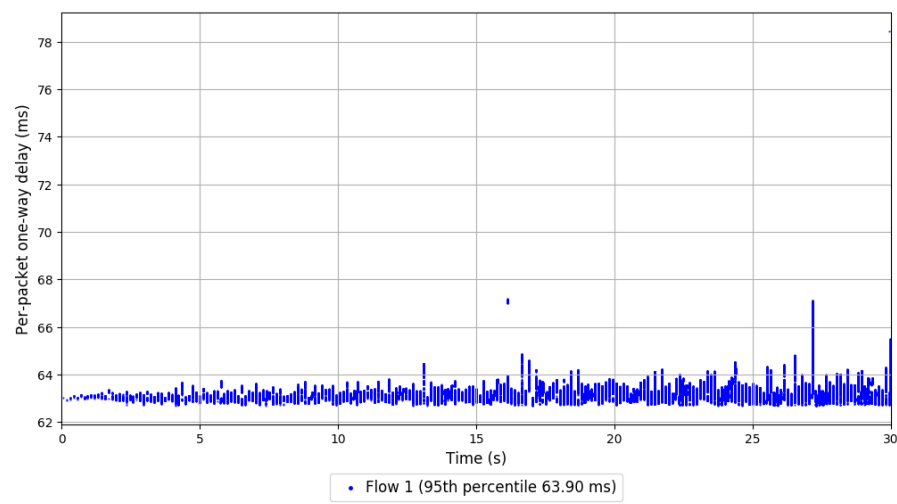
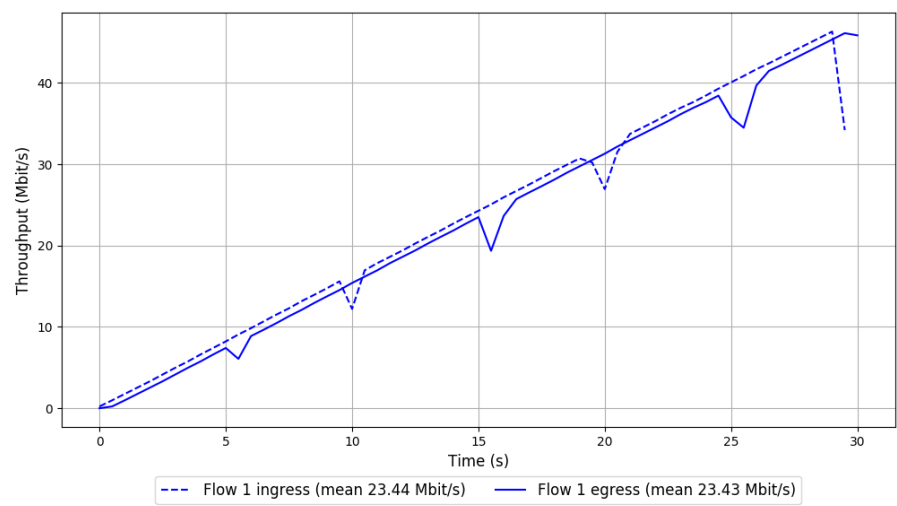


```
Run 1: Statistics of LEDBAT

Start at: 2018-12-20 08:38:46
End at: 2018-12-20 08:39:16
Local clock offset: -0.077 ms
Remote clock offset: -0.22 ms

# Below is generated by plot.py at 2018-12-20 12:04:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.43 Mbit/s
95th percentile per-packet one-way delay: 63.895 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.43 Mbit/s
95th percentile per-packet one-way delay: 63.895 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-12-20 09:07:10

End at: 2018-12-20 09:07:40

Local clock offset: -0.033 ms

Remote clock offset: 0.243 ms

Below is generated by plot.py at 2018-12-20 12:04:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.41 Mbit/s

95th percentile per-packet one-way delay: 64.459 ms

Loss rate: 0.00%

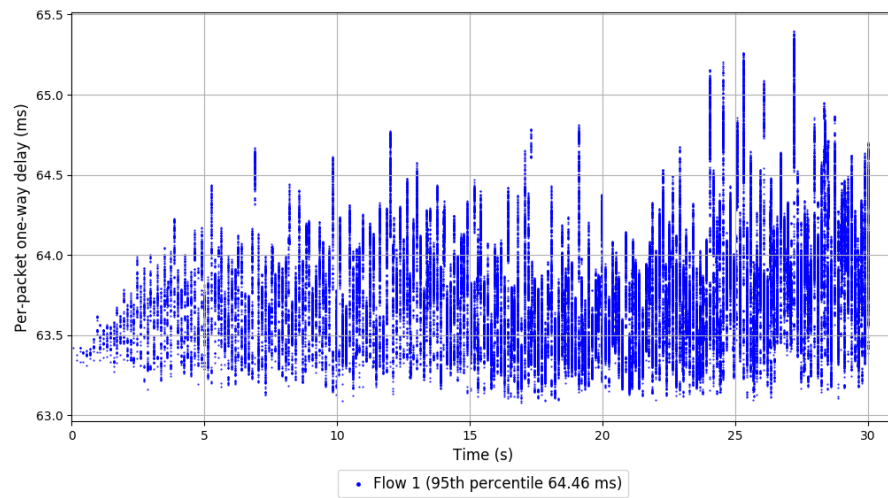
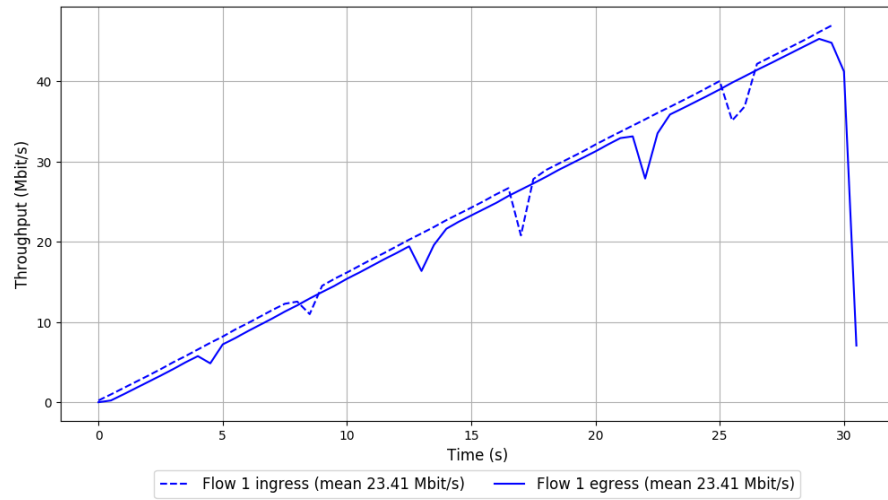
-- Flow 1:

Average throughput: 23.41 Mbit/s

95th percentile per-packet one-way delay: 64.459 ms

Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

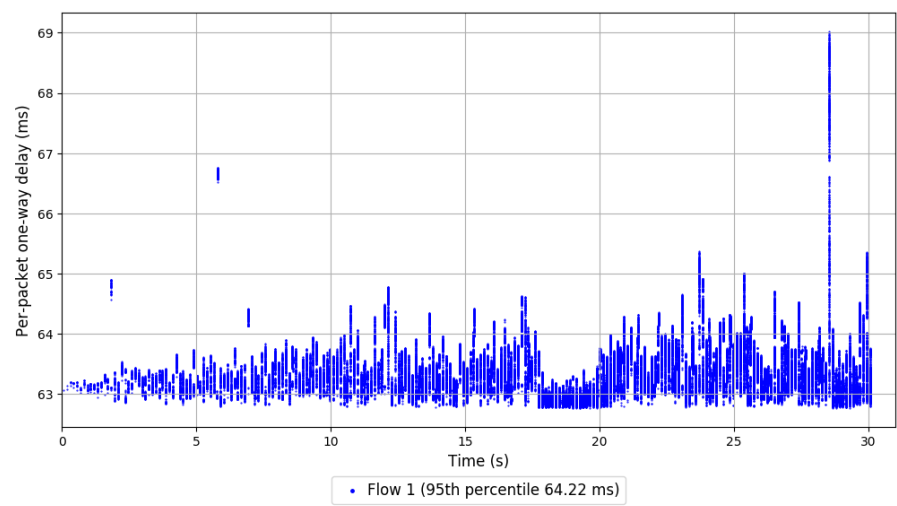
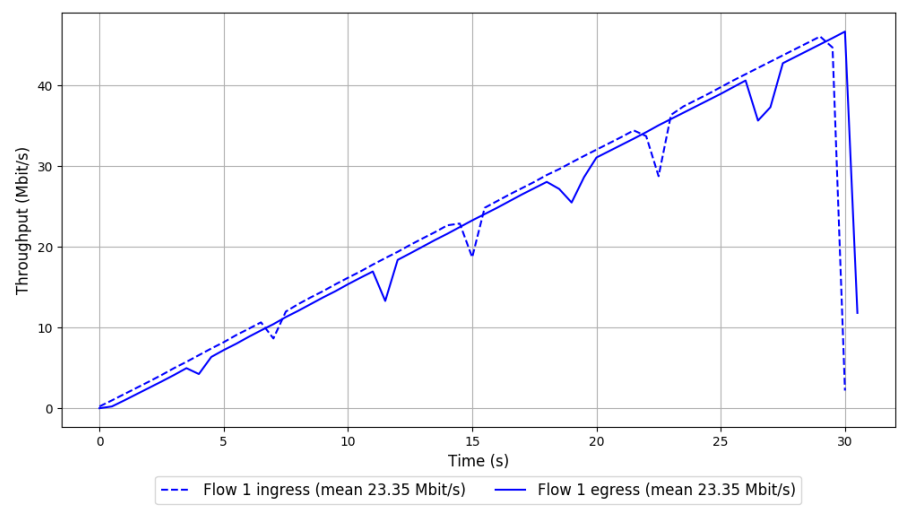


Run 3: Statistics of LEDBAT

Start at: 2018-12-20 09:35:24
End at: 2018-12-20 09:35:54
Local clock offset: -0.052 ms
Remote clock offset: -0.263 ms

Below is generated by plot.py at 2018-12-20 12:04:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 23.35 Mbit/s
95th percentile per-packet one-way delay: 64.222 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.35 Mbit/s
95th percentile per-packet one-way delay: 64.222 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

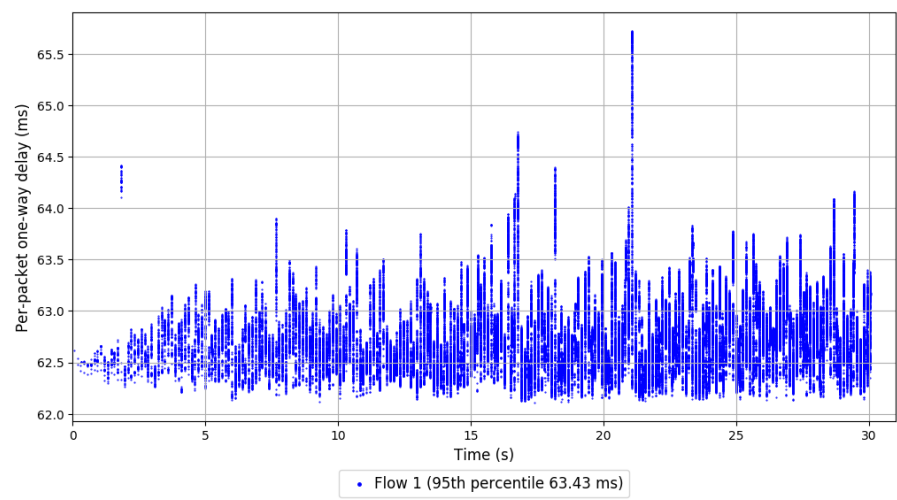
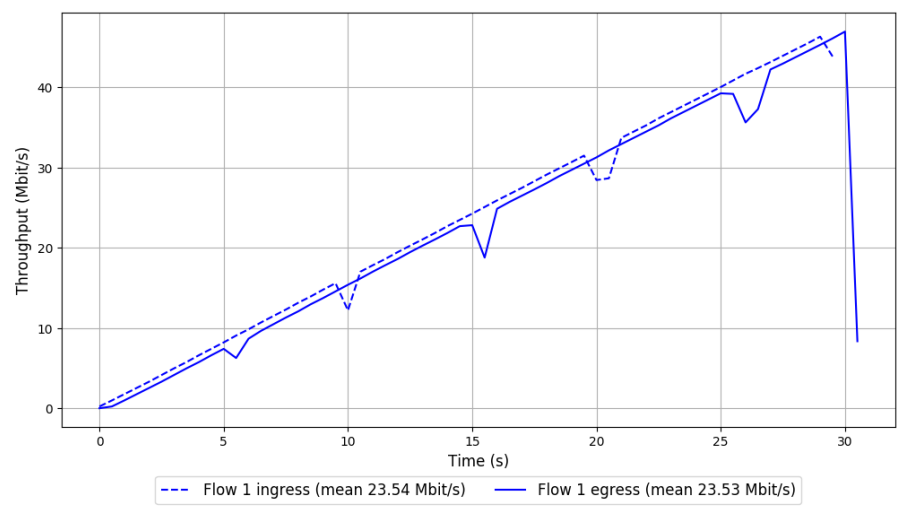


Run 4: Statistics of LEDBAT

Start at: 2018-12-20 10:03:39
End at: 2018-12-20 10:04:09
Local clock offset: -0.087 ms
Remote clock offset: -0.721 ms

Below is generated by plot.py at 2018-12-20 12:04:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 23.53 Mbit/s
95th percentile per-packet one-way delay: 63.432 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 23.53 Mbit/s
95th percentile per-packet one-way delay: 63.432 ms
Loss rate: 0.02%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-12-20 10:31:51

End at: 2018-12-20 10:32:22

Local clock offset: -0.119 ms

Remote clock offset: 0.089 ms

Below is generated by plot.py at 2018-12-20 12:04:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.46 Mbit/s

95th percentile per-packet one-way delay: 64.310 ms

Loss rate: 0.00%

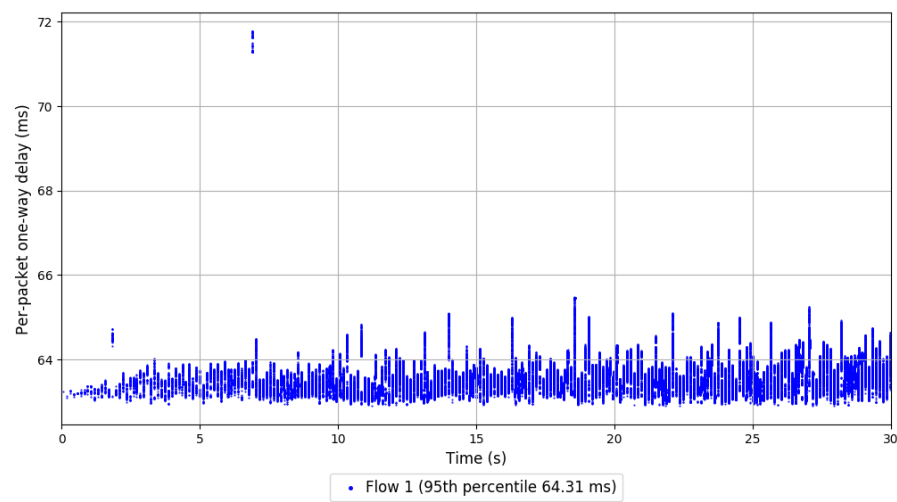
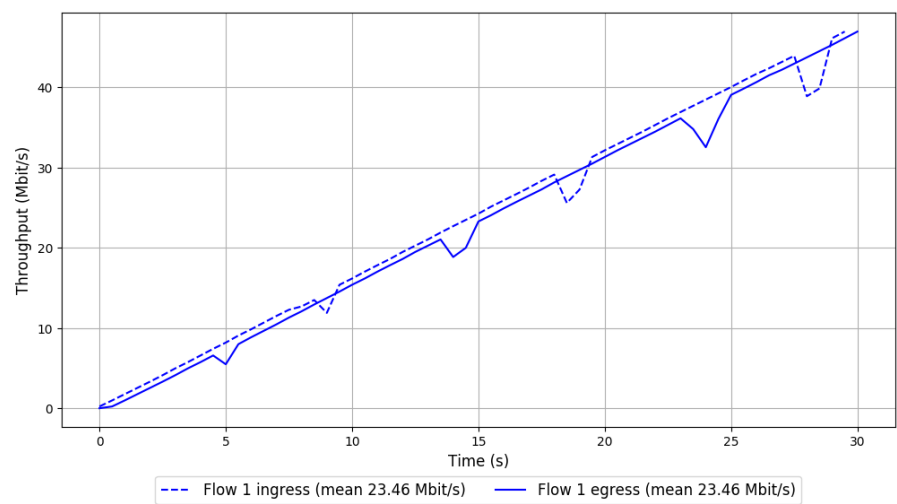
-- Flow 1:

Average throughput: 23.46 Mbit/s

95th percentile per-packet one-way delay: 64.310 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

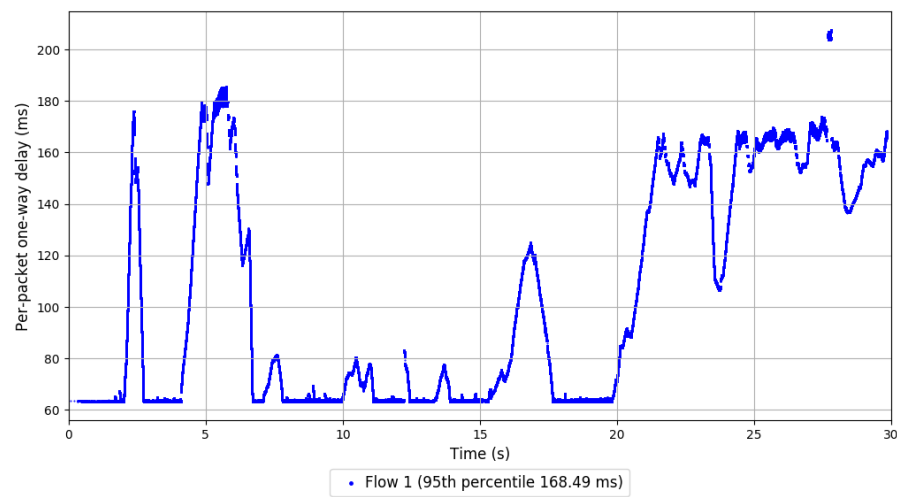
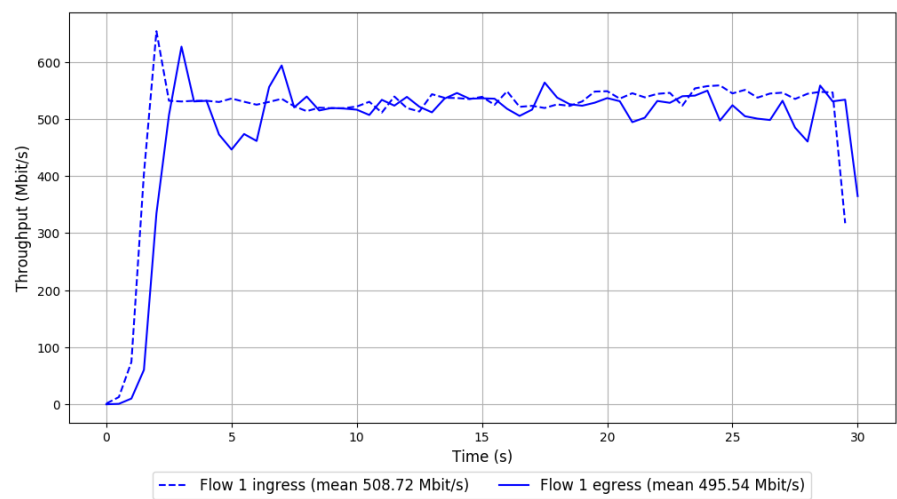


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-12-20 08:46:10
End at: 2018-12-20 08:46:40
Local clock offset: -0.072 ms
Remote clock offset: 0.147 ms

# Below is generated by plot.py at 2018-12-20 12:15:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 495.54 Mbit/s
95th percentile per-packet one-way delay: 168.486 ms
Loss rate: 2.59%
-- Flow 1:
Average throughput: 495.54 Mbit/s
95th percentile per-packet one-way delay: 168.486 ms
Loss rate: 2.59%
```

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-12-20 09:14:37

End at: 2018-12-20 09:15:07

Local clock offset: -0.044 ms

Remote clock offset: 0.197 ms

Below is generated by plot.py at 2018-12-20 12:15:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 475.08 Mbit/s

95th percentile per-packet one-way delay: 170.515 ms

Loss rate: 1.51%

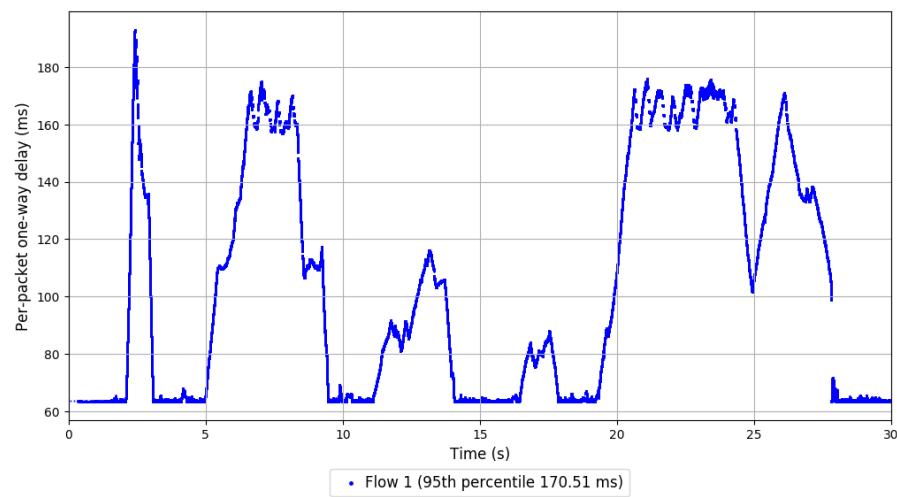
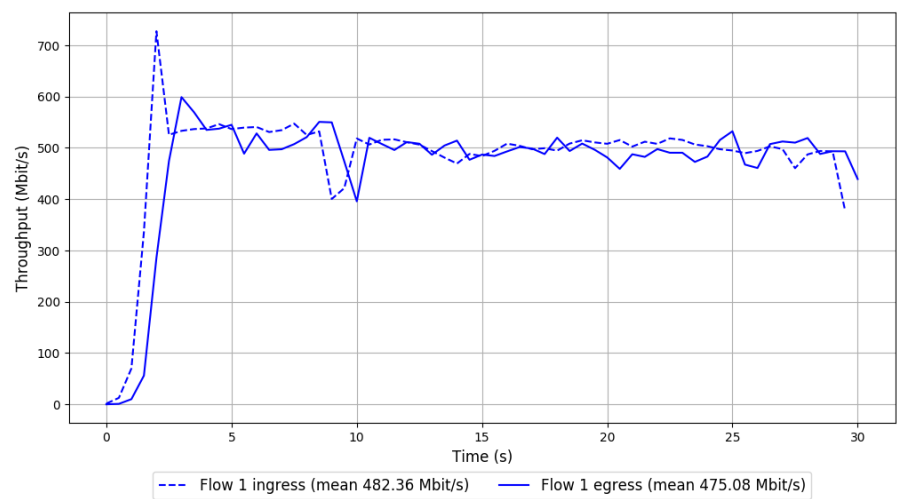
-- Flow 1:

Average throughput: 475.08 Mbit/s

95th percentile per-packet one-way delay: 170.515 ms

Loss rate: 1.51%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-12-20 09:42:48

End at: 2018-12-20 09:43:18

Local clock offset: -0.061 ms

Remote clock offset: 0.011 ms

Below is generated by plot.py at 2018-12-20 12:15:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 478.83 Mbit/s

95th percentile per-packet one-way delay: 159.796 ms

Loss rate: 1.28%

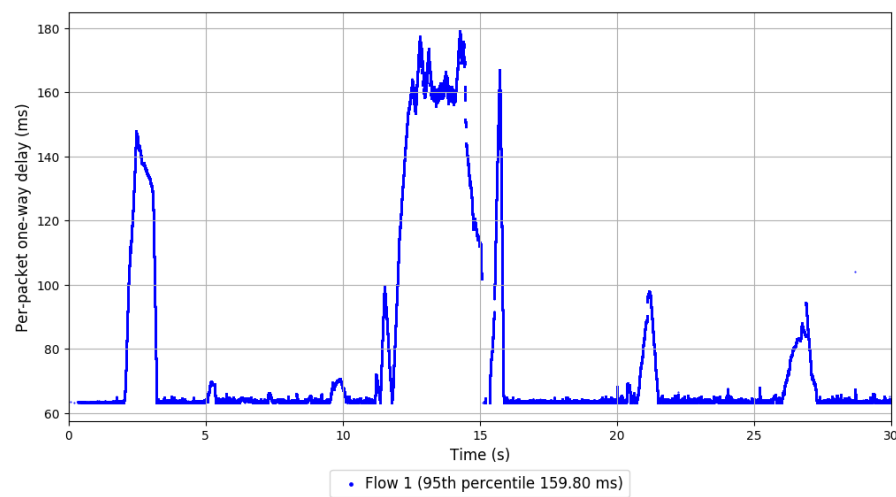
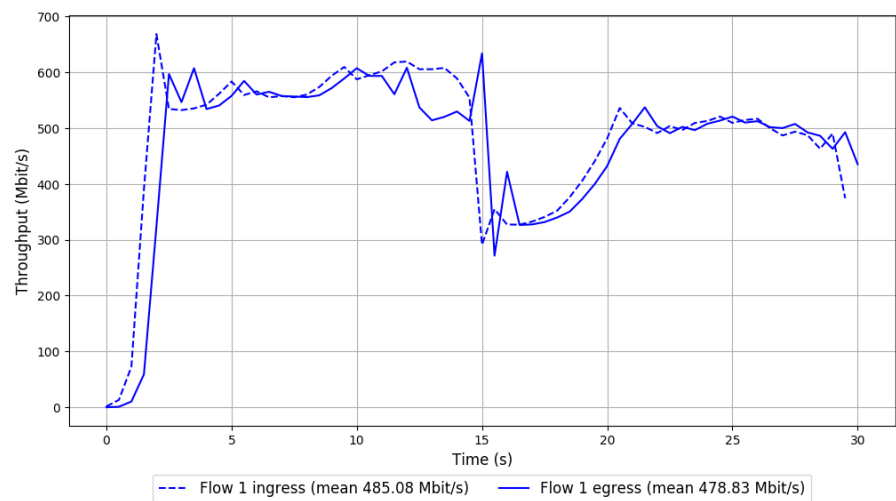
-- Flow 1:

Average throughput: 478.83 Mbit/s

95th percentile per-packet one-way delay: 159.796 ms

Loss rate: 1.28%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-12-20 10:11:06

End at: 2018-12-20 10:11:36

Local clock offset: -0.095 ms

Remote clock offset: -0.111 ms

Below is generated by plot.py at 2018-12-20 12:15:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 464.19 Mbit/s

95th percentile per-packet one-way delay: 169.565 ms

Loss rate: 1.84%

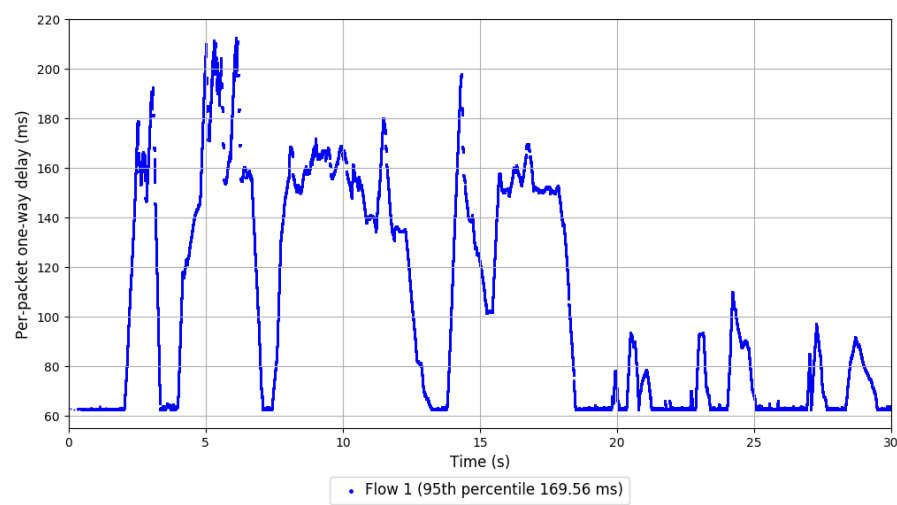
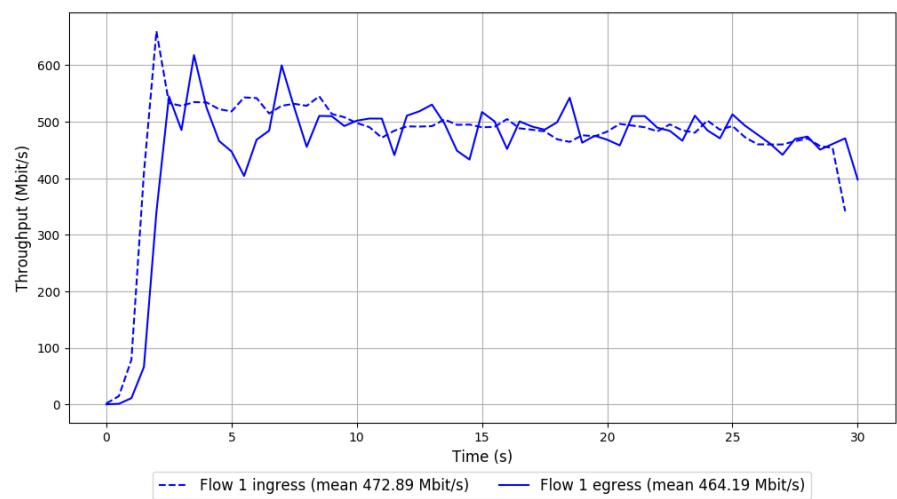
-- Flow 1:

Average throughput: 464.19 Mbit/s

95th percentile per-packet one-way delay: 169.565 ms

Loss rate: 1.84%

Run 4: Report of PCC-Allegro — Data Link

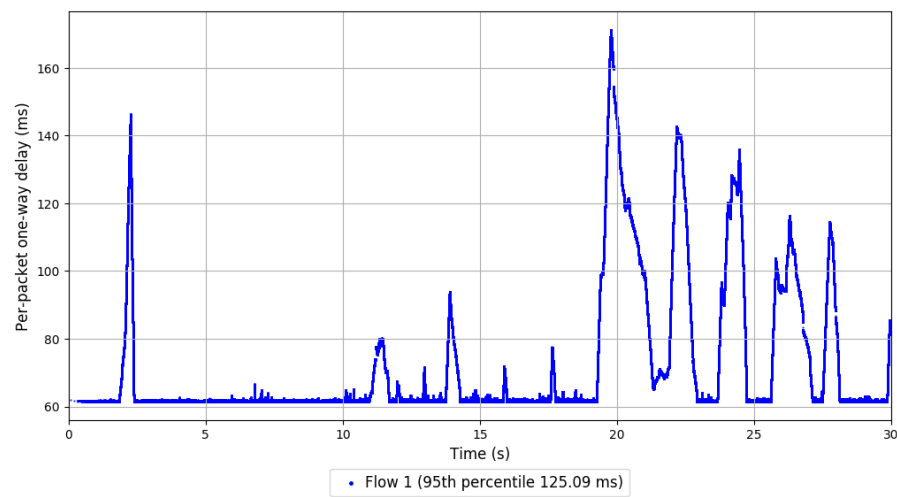
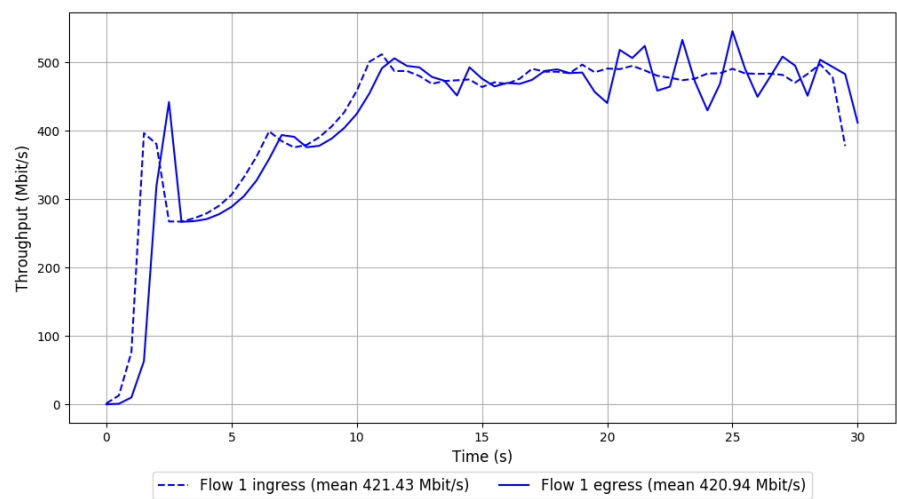


Run 5: Statistics of PCC-Allegro

Start at: 2018-12-20 10:39:20
End at: 2018-12-20 10:39:50
Local clock offset: -0.077 ms
Remote clock offset: -1.377 ms

Below is generated by plot.py at 2018-12-20 12:15:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 420.94 Mbit/s
95th percentile per-packet one-way delay: 125.092 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 420.94 Mbit/s
95th percentile per-packet one-way delay: 125.092 ms
Loss rate: 0.11%

Run 5: Report of PCC-Allegro — Data Link

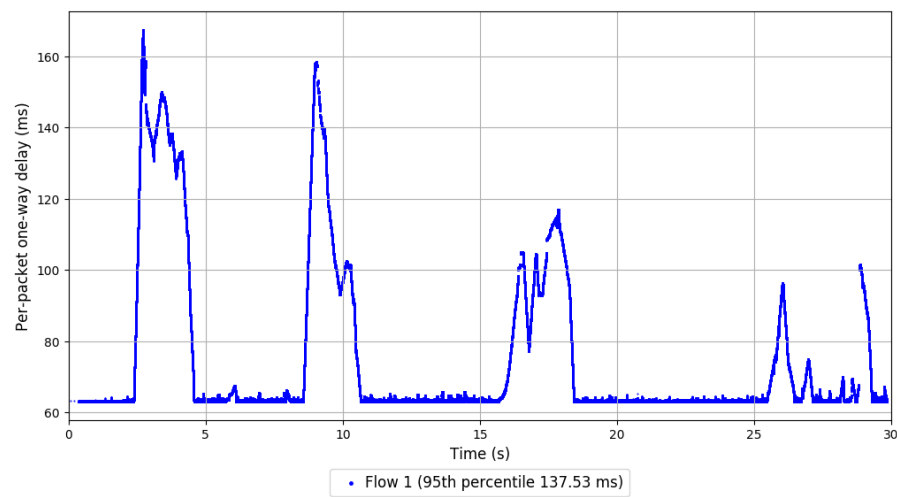
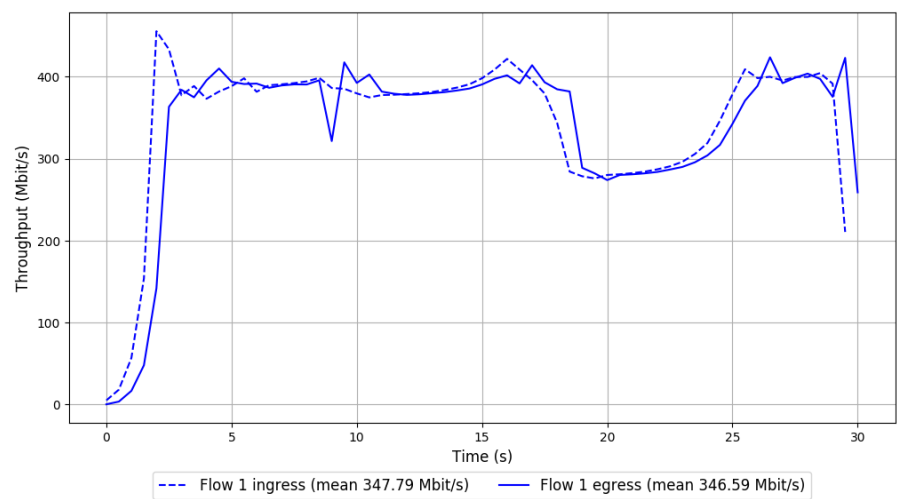



```
Run 1: Statistics of PCC-Expr

Start at: 2018-12-20 08:26:27
End at: 2018-12-20 08:26:57
Local clock offset: -0.06 ms
Remote clock offset: 0.136 ms

# Below is generated by plot.py at 2018-12-20 12:15:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 346.59 Mbit/s
95th percentile per-packet one-way delay: 137.535 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 346.59 Mbit/s
95th percentile per-packet one-way delay: 137.535 ms
Loss rate: 0.34%
```

Run 1: Report of PCC-Expr — Data Link

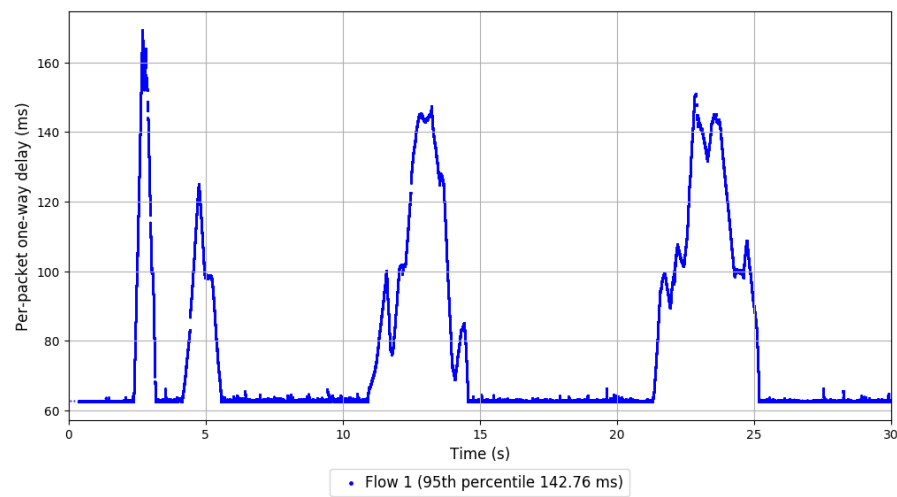
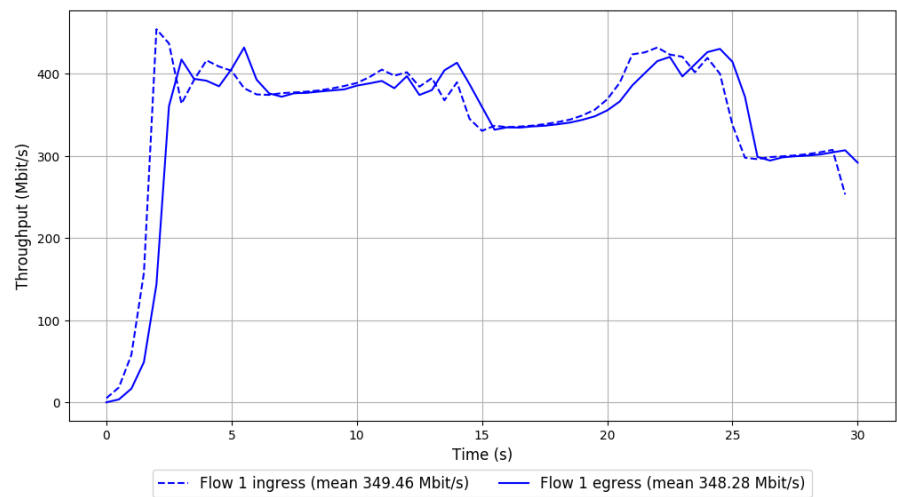


Run 2: Statistics of PCC-Expr

Start at: 2018-12-20 08:54:25
End at: 2018-12-20 08:54:55
Local clock offset: -0.035 ms
Remote clock offset: -0.483 ms

Below is generated by plot.py at 2018-12-20 12:15:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 348.28 Mbit/s
95th percentile per-packet one-way delay: 142.765 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 348.28 Mbit/s
95th percentile per-packet one-way delay: 142.765 ms
Loss rate: 0.34%

Run 2: Report of PCC-Expr — Data Link

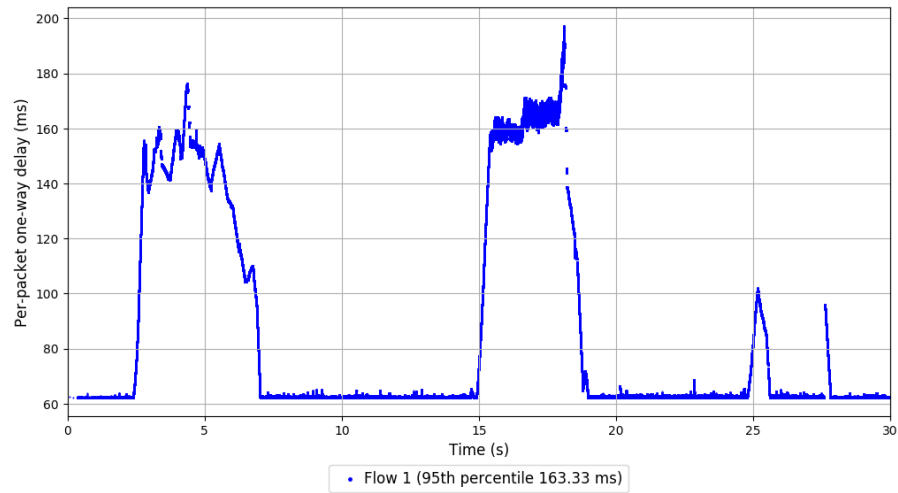
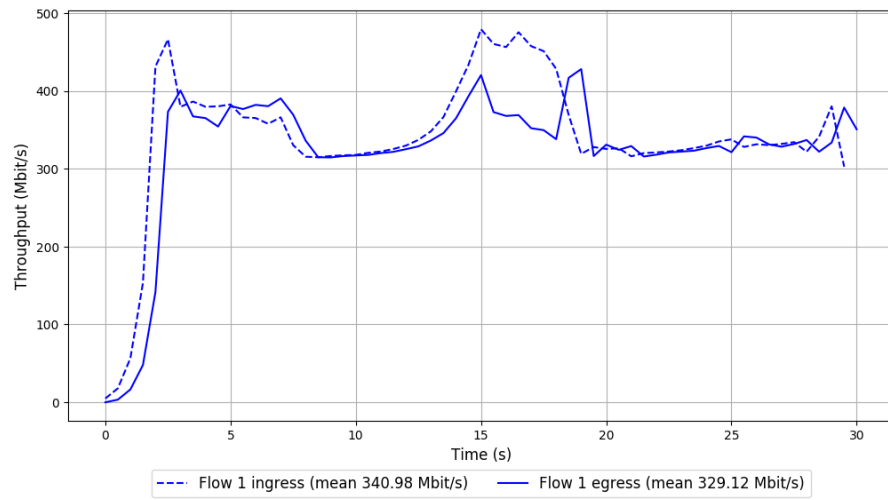


Run 3: Statistics of PCC-Expr

Start at: 2018-12-20 09:22:50
End at: 2018-12-20 09:23:20
Local clock offset: -0.011 ms
Remote clock offset: -0.861 ms

Below is generated by plot.py at 2018-12-20 12:17:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 329.12 Mbit/s
95th percentile per-packet one-way delay: 163.326 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 329.12 Mbit/s
95th percentile per-packet one-way delay: 163.326 ms
Loss rate: 3.48%

Run 3: Report of PCC-Expr — Data Link

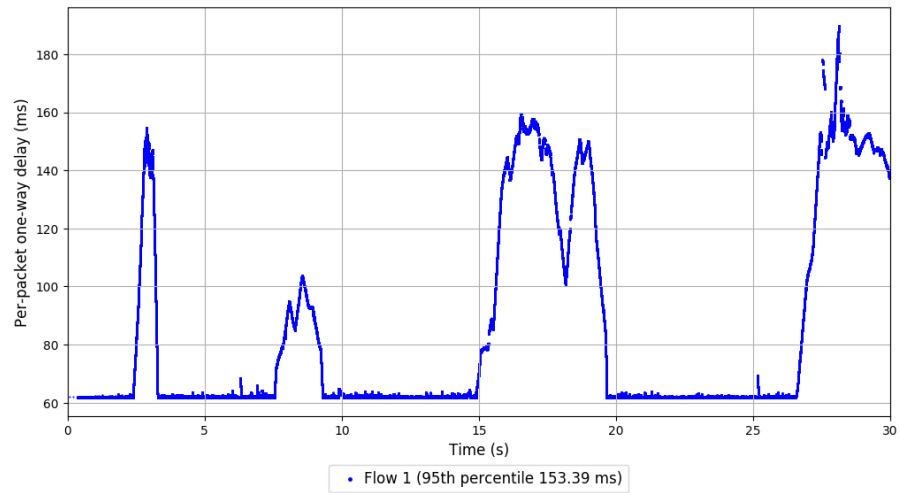
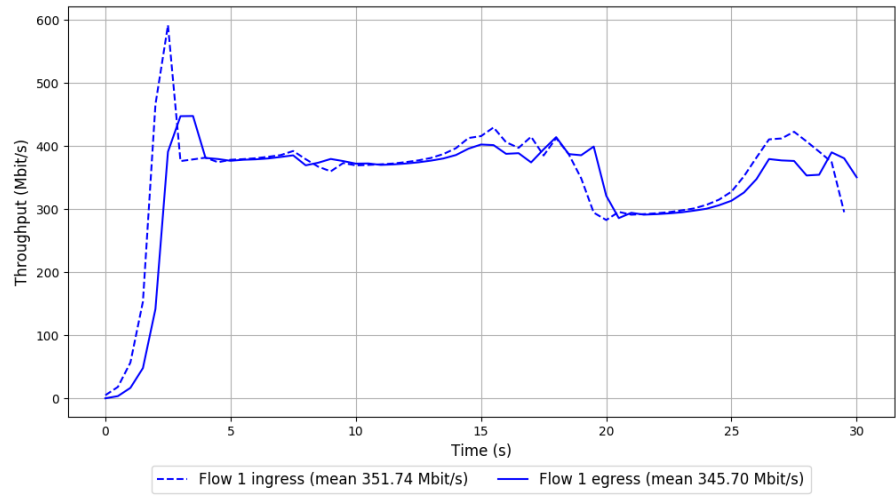


Run 4: Statistics of PCC-Expr

Start at: 2018-12-20 09:51:01
End at: 2018-12-20 09:51:31
Local clock offset: -0.049 ms
Remote clock offset: -1.348 ms

Below is generated by plot.py at 2018-12-20 12:25:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 345.70 Mbit/s
95th percentile per-packet one-way delay: 153.386 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 345.70 Mbit/s
95th percentile per-packet one-way delay: 153.386 ms
Loss rate: 1.72%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-12-20 10:19:15

End at: 2018-12-20 10:19:45

Local clock offset: -0.12 ms

Remote clock offset: 1.265 ms

Below is generated by plot.py at 2018-12-20 12:25:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 349.62 Mbit/s

95th percentile per-packet one-way delay: 160.330 ms

Loss rate: 0.98%

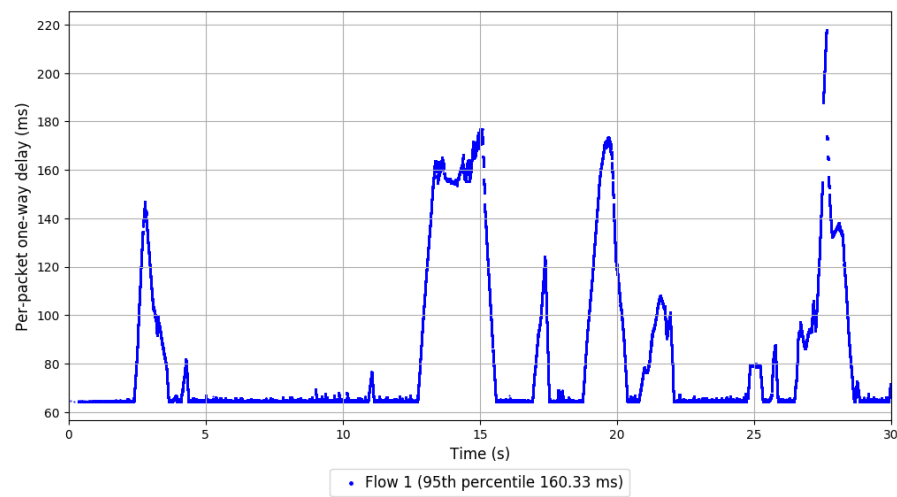
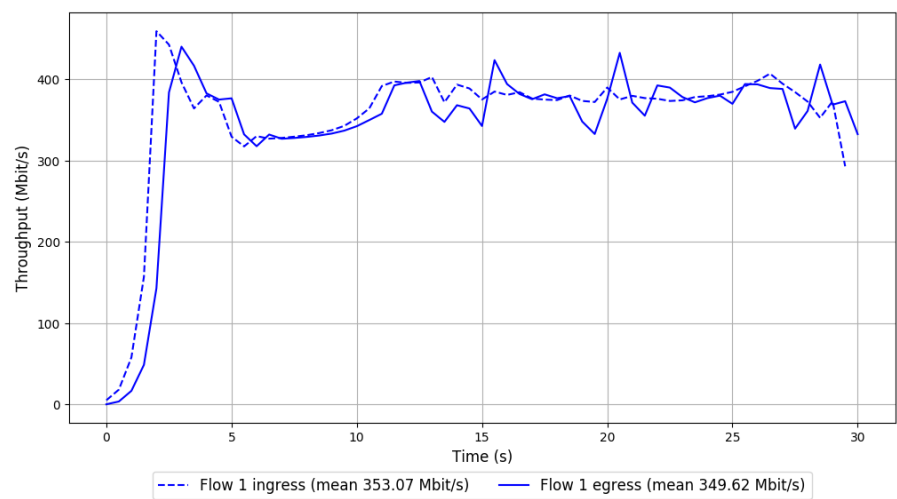
-- Flow 1:

Average throughput: 349.62 Mbit/s

95th percentile per-packet one-way delay: 160.330 ms

Loss rate: 0.98%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

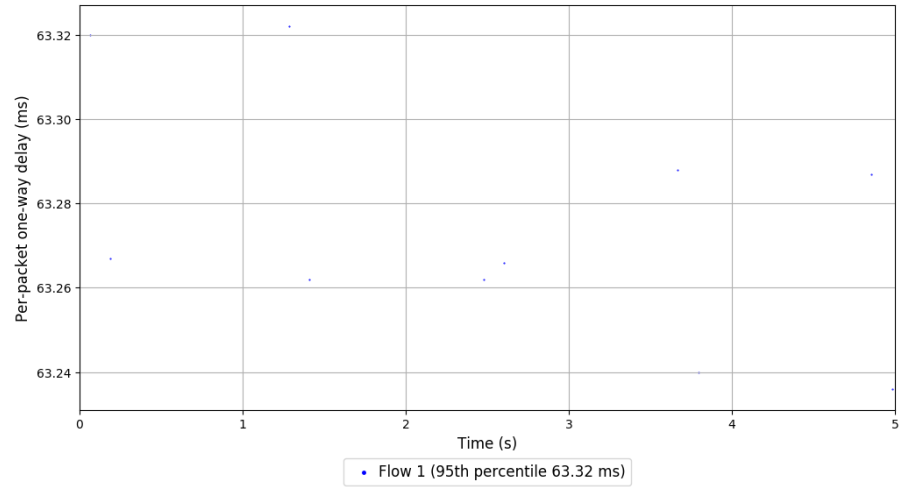
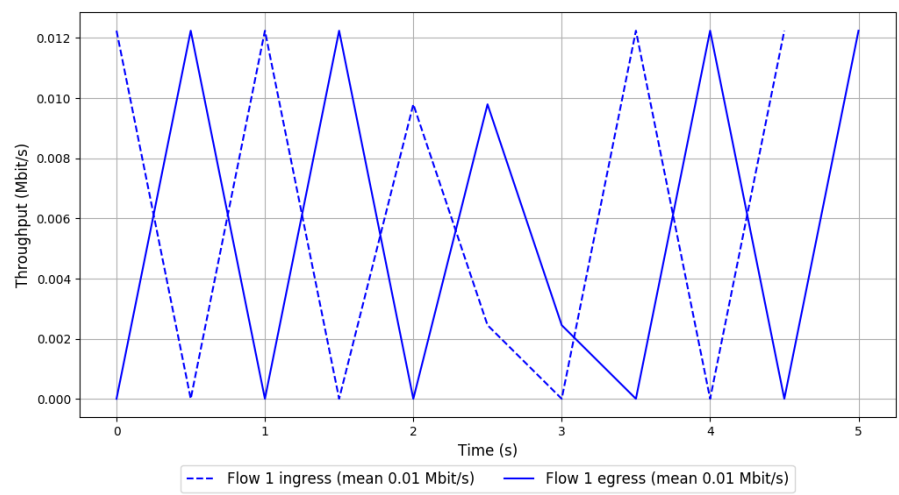
Start at: 2018-12-20 08:22:46

End at: 2018-12-20 08:23:16

Local clock offset: -0.052 ms

Remote clock offset: 0.036 ms

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-12-20 08:50:41

End at: 2018-12-20 08:51:11

Local clock offset: -0.059 ms

Remote clock offset: 0.081 ms

Below is generated by plot.py at 2018-12-20 12:25:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.35 Mbit/s

95th percentile per-packet one-way delay: 63.096 ms

Loss rate: 0.00%

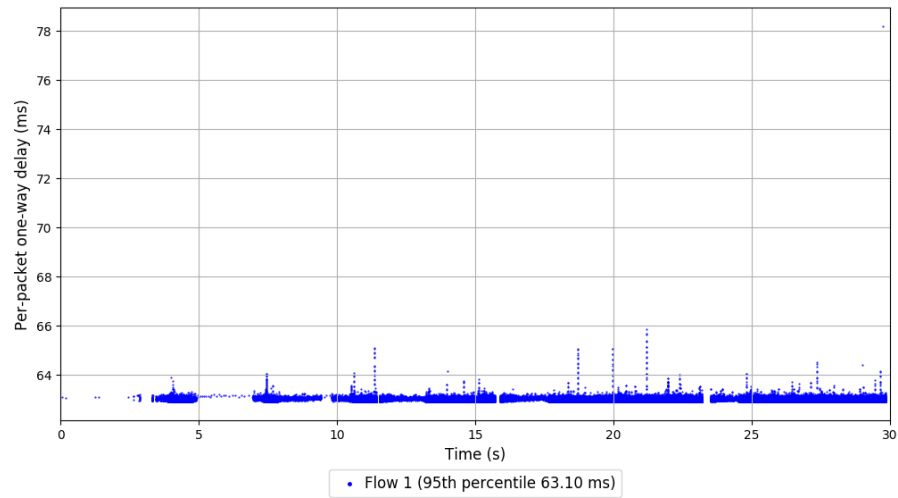
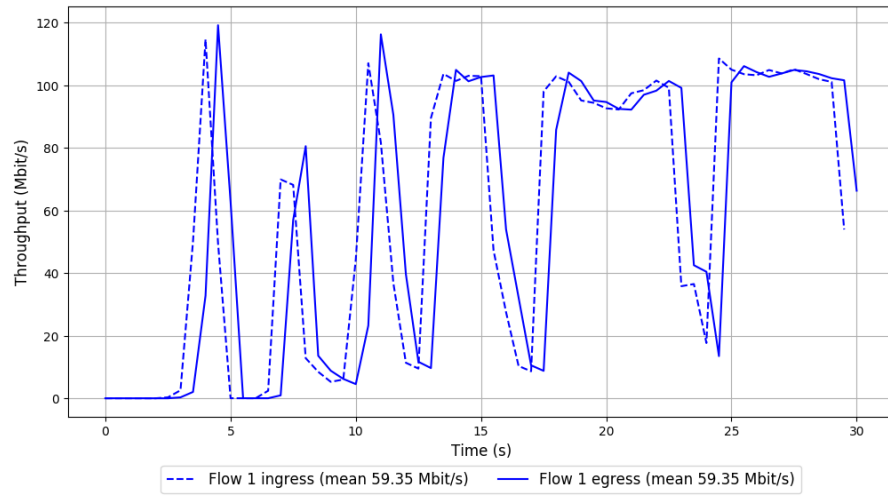
-- Flow 1:

Average throughput: 59.35 Mbit/s

95th percentile per-packet one-way delay: 63.096 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-12-20 09:19:04

End at: 2018-12-20 09:19:34

Local clock offset: -0.058 ms

Remote clock offset: -1.196 ms

Below is generated by plot.py at 2018-12-20 12:25:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.70 Mbit/s

95th percentile per-packet one-way delay: 61.607 ms

Loss rate: 0.00%

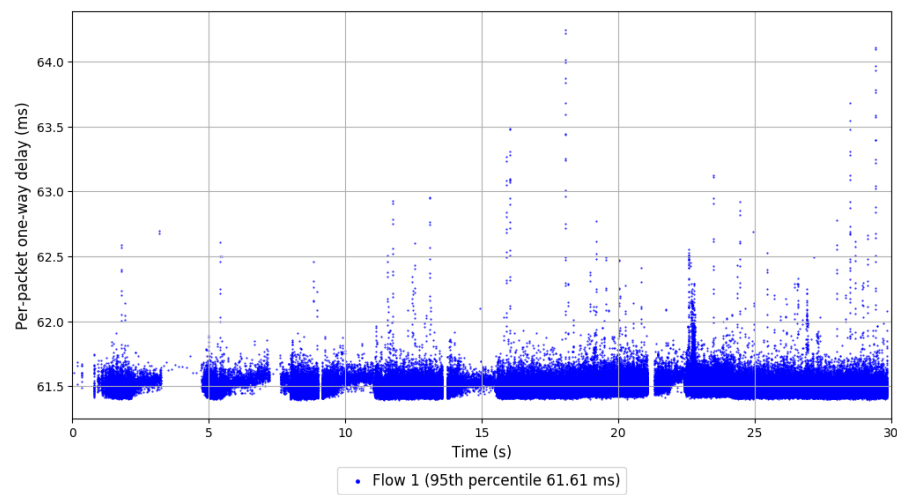
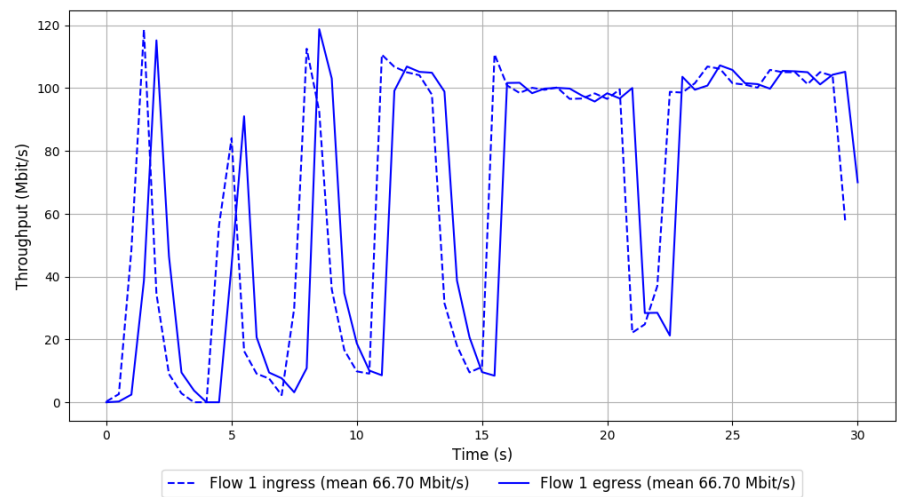
-- Flow 1:

Average throughput: 66.70 Mbit/s

95th percentile per-packet one-way delay: 61.607 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-12-20 09:47:14

End at: 2018-12-20 09:47:44

Local clock offset: -0.123 ms

Remote clock offset: -0.397 ms

Below is generated by plot.py at 2018-12-20 12:25:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.10 Mbit/s

95th percentile per-packet one-way delay: 62.679 ms

Loss rate: 0.00%

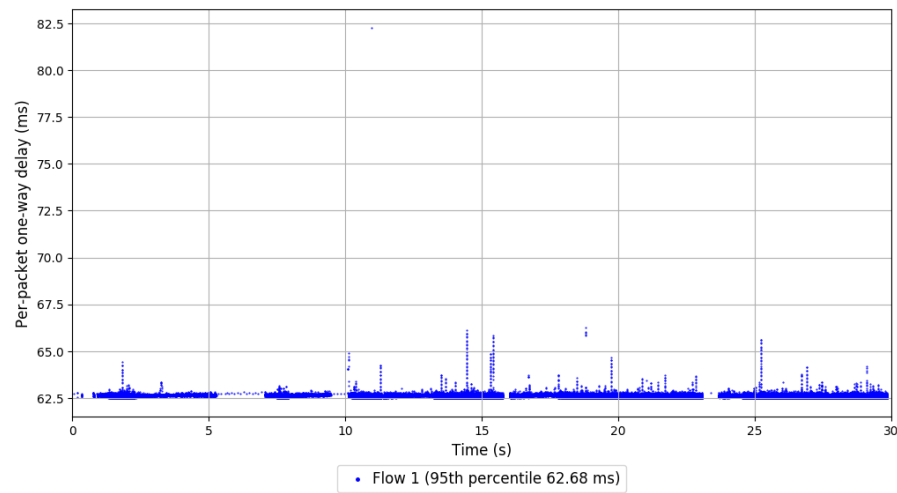
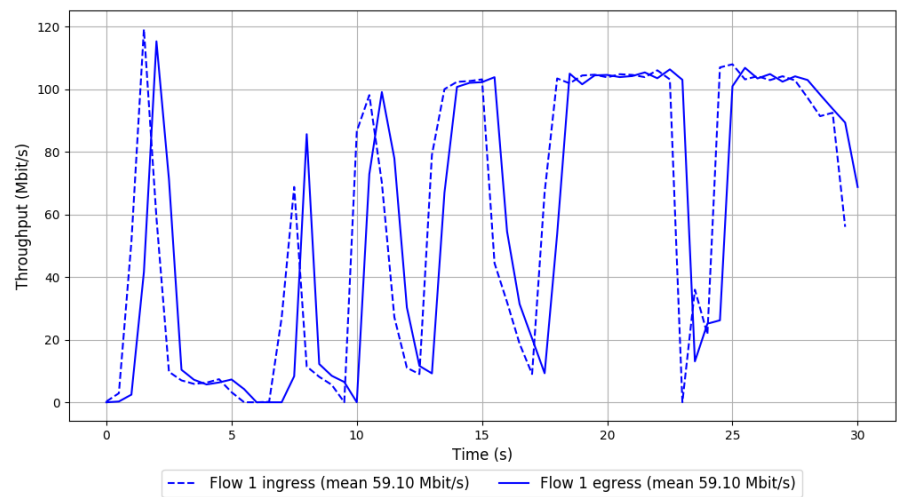
-- Flow 1:

Average throughput: 59.10 Mbit/s

95th percentile per-packet one-way delay: 62.679 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-12-20 10:15:34

End at: 2018-12-20 10:16:04

Local clock offset: -0.124 ms

Remote clock offset: -0.364 ms

Below is generated by plot.py at 2018-12-20 12:25:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.36 Mbit/s

95th percentile per-packet one-way delay: 62.802 ms

Loss rate: 0.00%

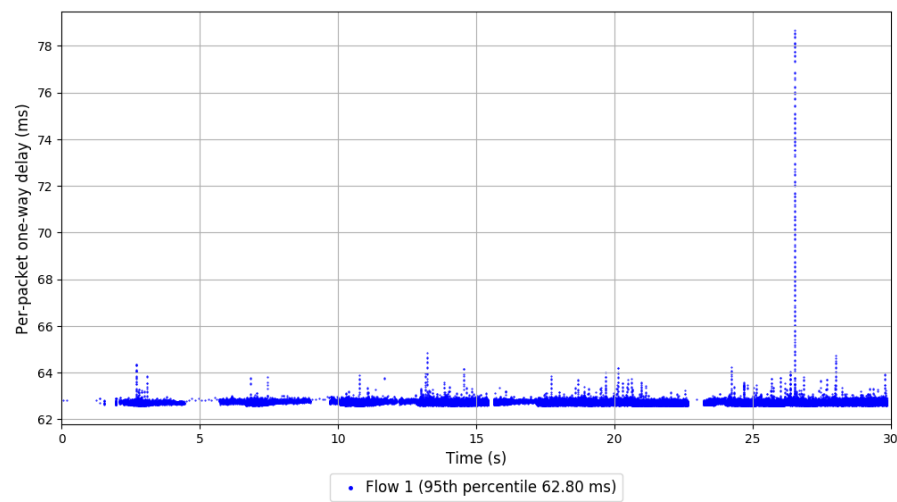
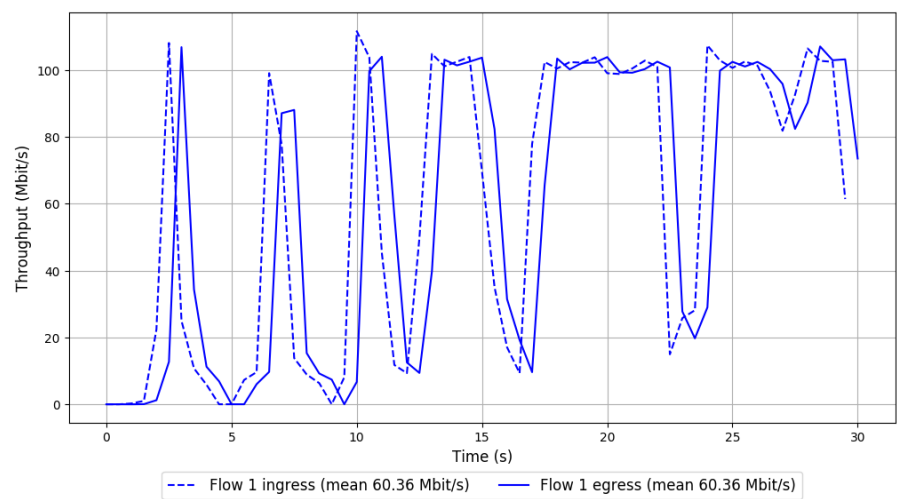
-- Flow 1:

Average throughput: 60.36 Mbit/s

95th percentile per-packet one-way delay: 62.802 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link

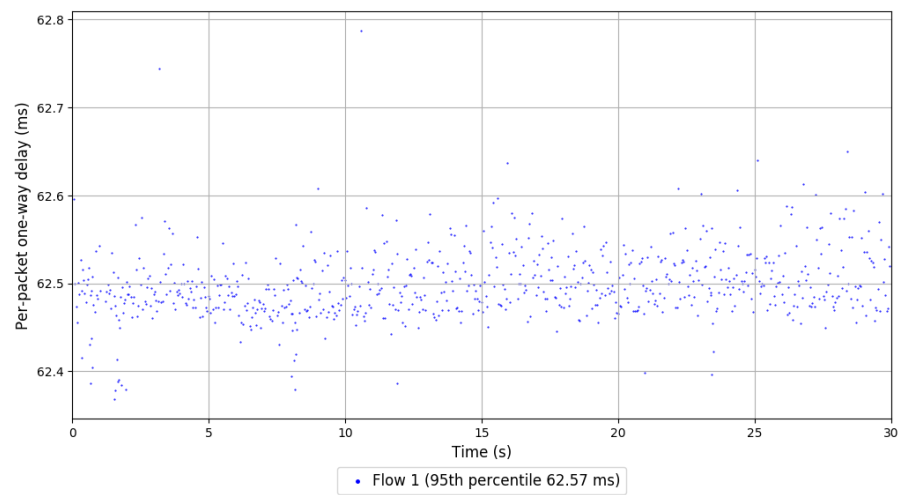
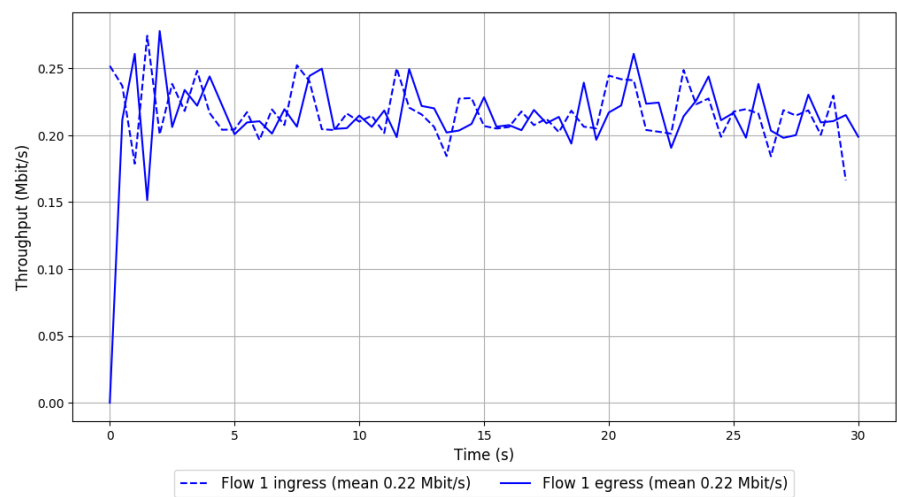


Run 1: Statistics of SCReAM

Start at: 2018-12-20 08:49:33
End at: 2018-12-20 08:50:03
Local clock offset: -0.1 ms
Remote clock offset: -0.798 ms

Below is generated by plot.py at 2018-12-20 12:25:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.566 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.566 ms
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

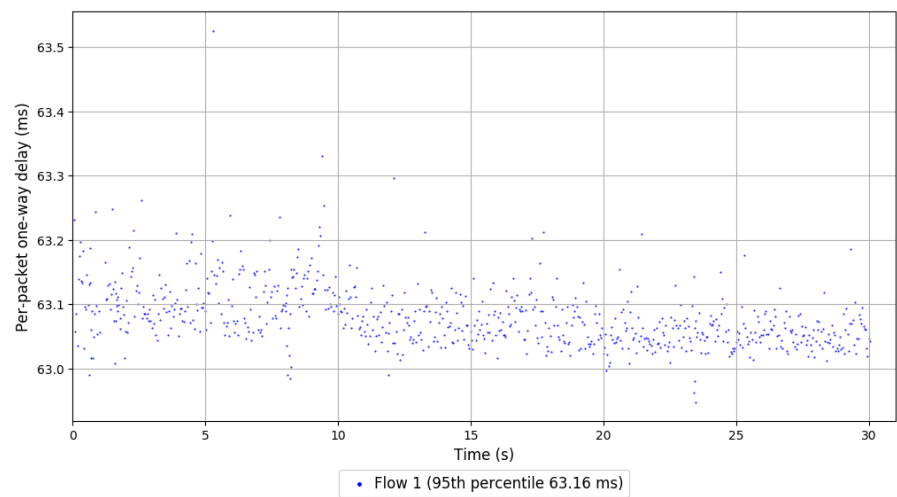
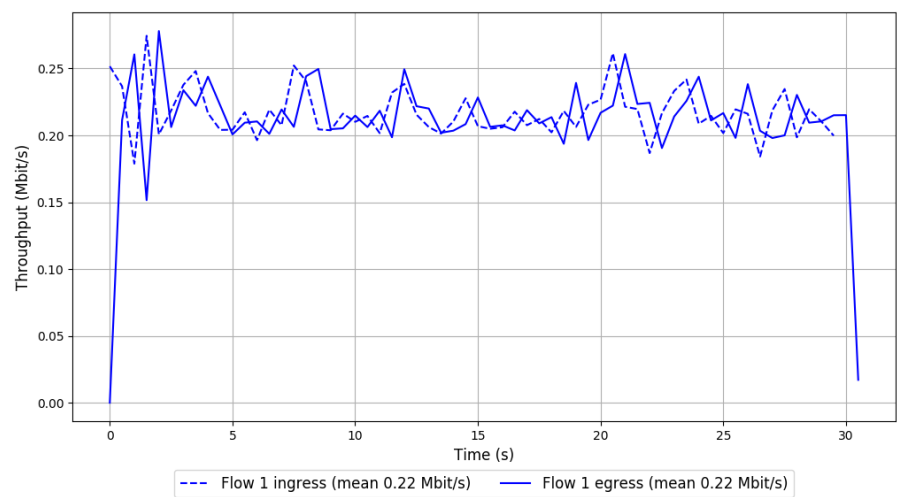


Run 2: Statistics of SCReAM

Start at: 2018-12-20 09:17:56
End at: 2018-12-20 09:18:26
Local clock offset: -0.006 ms
Remote clock offset: -0.026 ms

Below is generated by plot.py at 2018-12-20 12:25:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.165 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.165 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

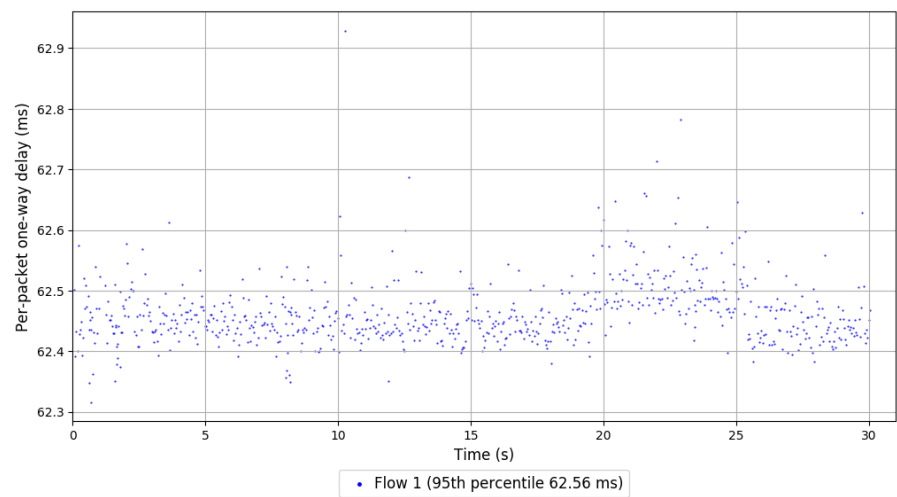
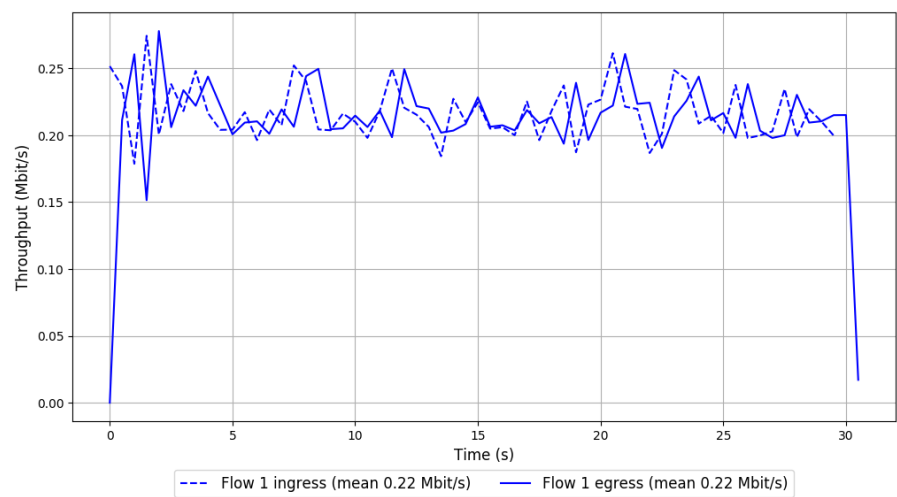


Run 3: Statistics of SCReAM

Start at: 2018-12-20 09:46:06
End at: 2018-12-20 09:46:36
Local clock offset: -0.071 ms
Remote clock offset: -0.796 ms

Below is generated by plot.py at 2018-12-20 12:25:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.558 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.558 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

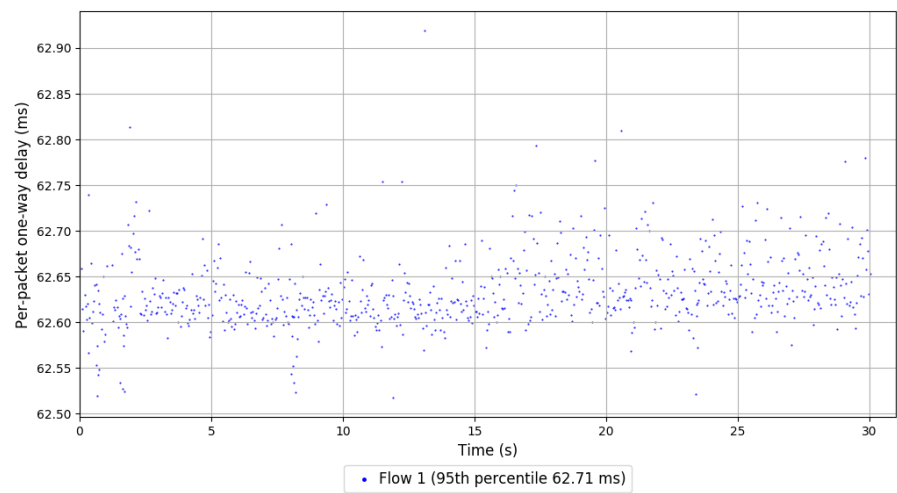
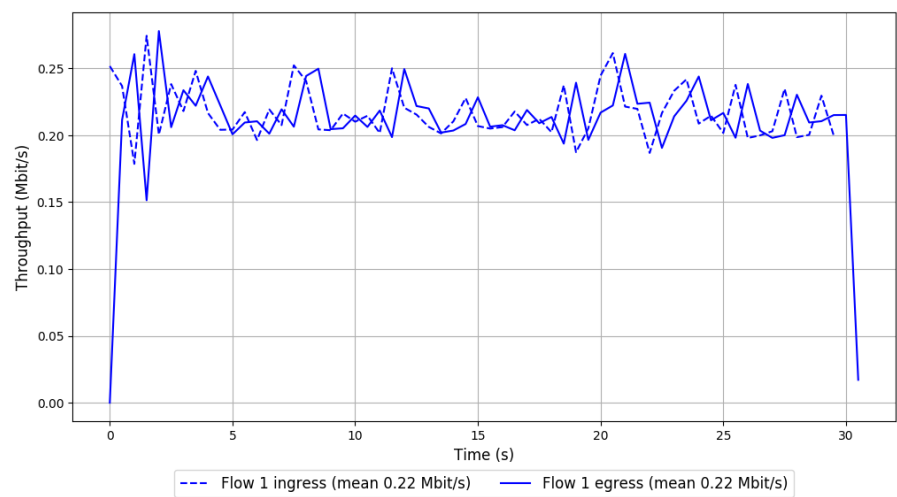


Run 4: Statistics of SCReAM

Start at: 2018-12-20 10:14:26
End at: 2018-12-20 10:14:56
Local clock offset: -0.12 ms
Remote clock offset: -0.827 ms

Below is generated by plot.py at 2018-12-20 12:25:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.707 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.707 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

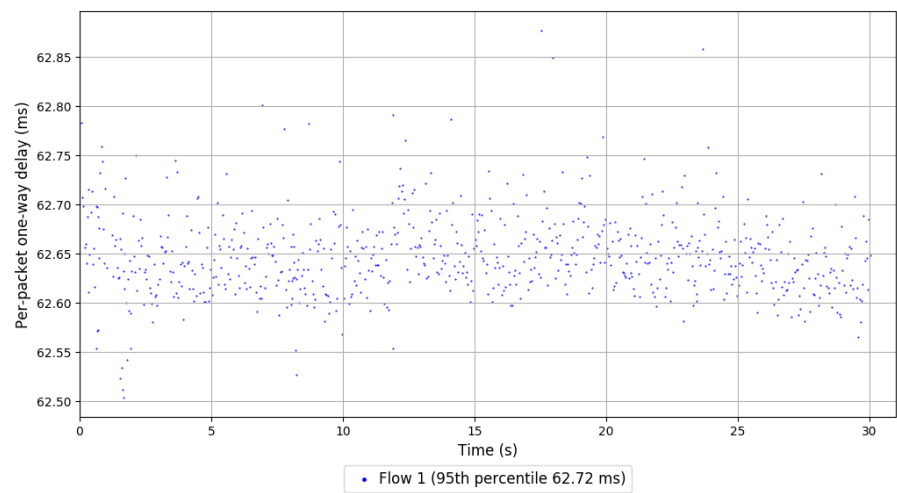
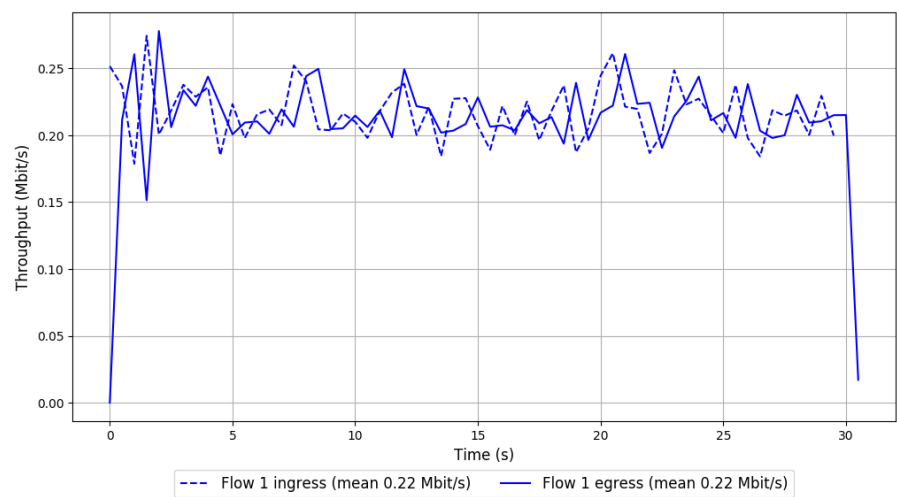


Run 5: Statistics of SCReAM

Start at: 2018-12-20 10:42:37
End at: 2018-12-20 10:43:07
Local clock offset: -0.055 ms
Remote clock offset: -0.406 ms

Below is generated by plot.py at 2018-12-20 12:25:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.718 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.718 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

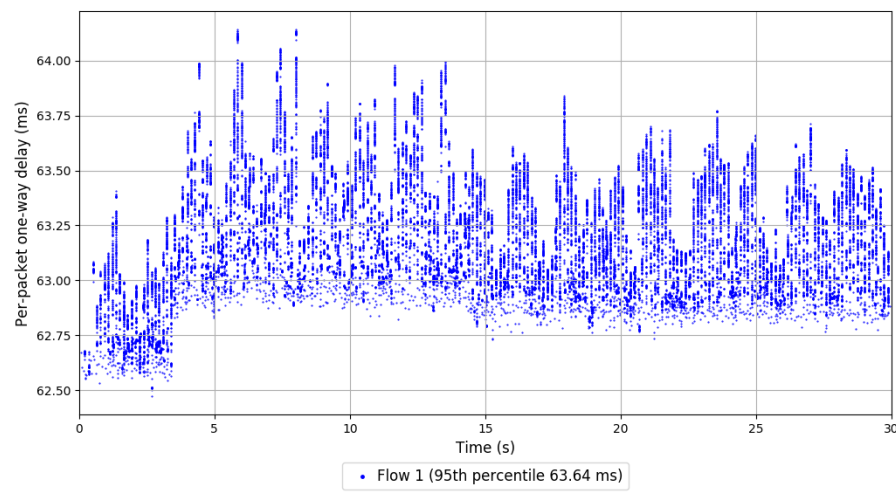
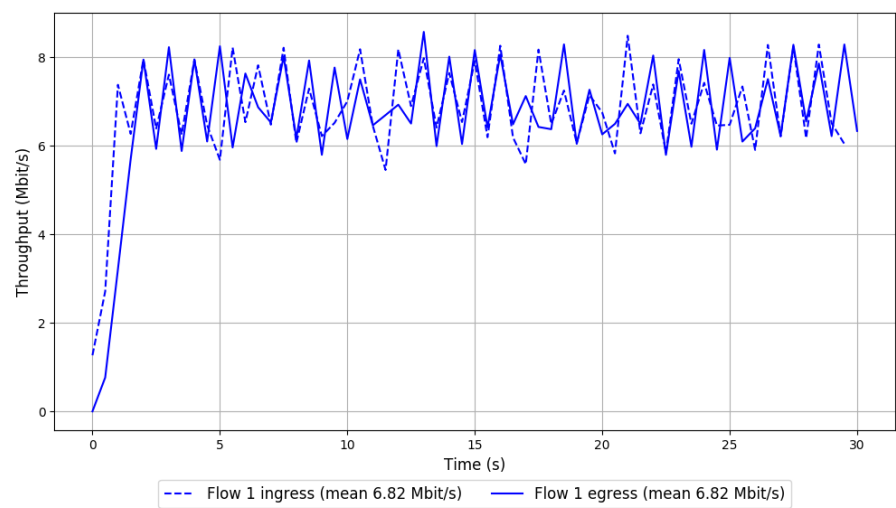


Run 1: Statistics of Sprout

Start at: 2018-12-20 08:31:14
End at: 2018-12-20 08:31:44
Local clock offset: -0.072 ms
Remote clock offset: -0.275 ms

Below is generated by plot.py at 2018-12-20 12:25:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 63.644 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 63.644 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

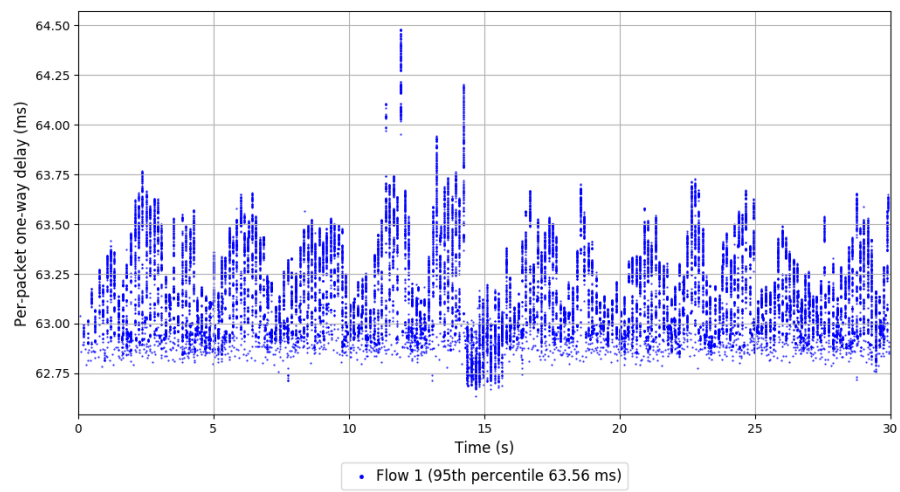
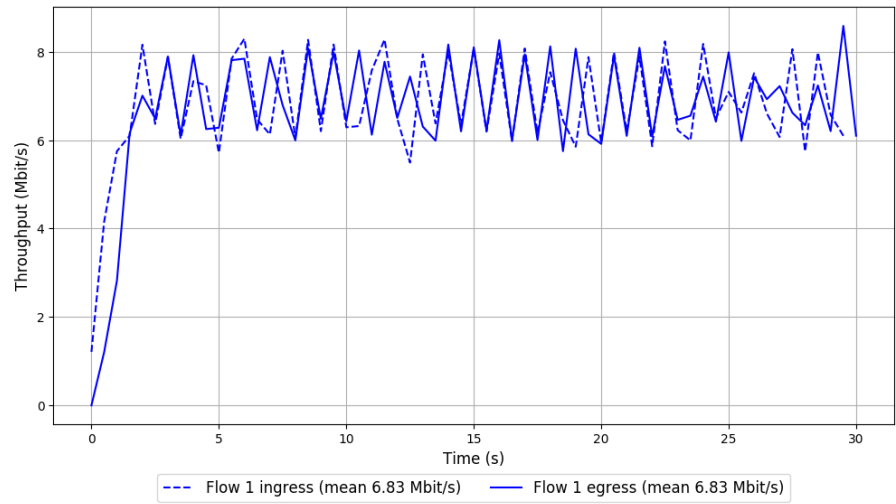


Run 2: Statistics of Sprout

Start at: 2018-12-20 08:59:20
End at: 2018-12-20 08:59:50
Local clock offset: -0.068 ms
Remote clock offset: -0.257 ms

Below is generated by plot.py at 2018-12-20 12:25:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 63.560 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 63.560 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

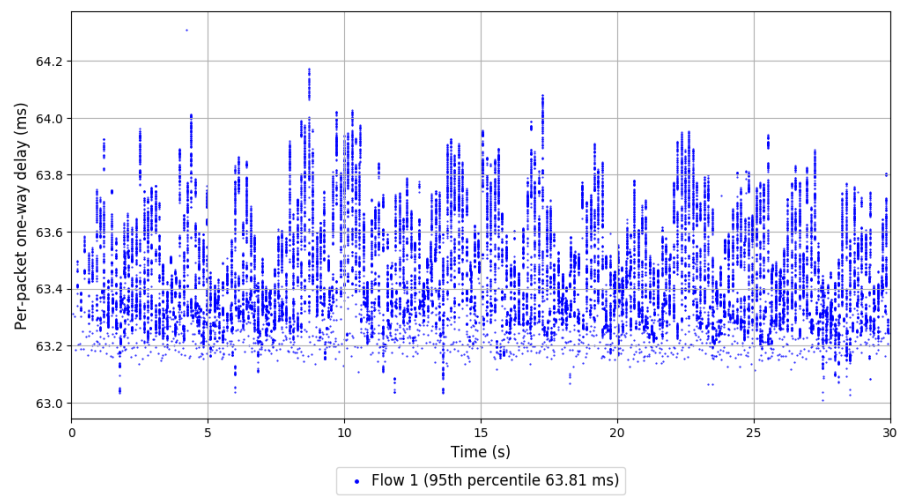
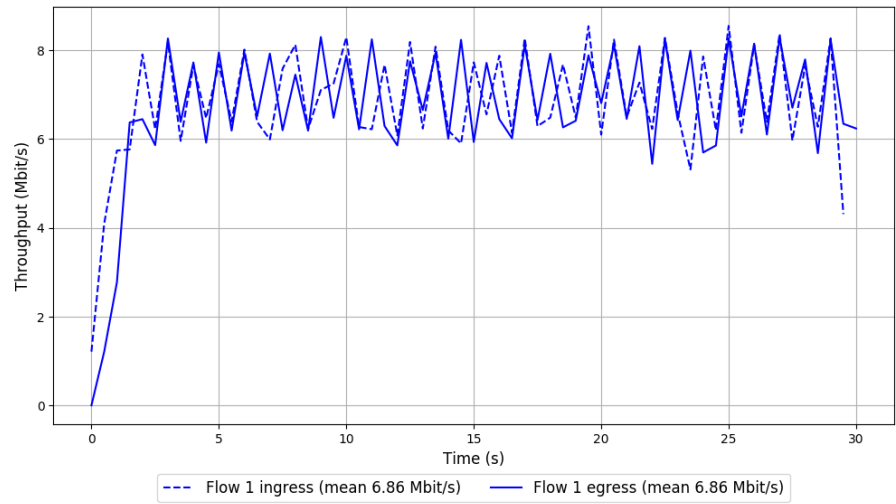


Run 3: Statistics of Sprout

Start at: 2018-12-20 09:27:42
End at: 2018-12-20 09:28:12
Local clock offset: -0.014 ms
Remote clock offset: -0.023 ms

Below is generated by plot.py at 2018-12-20 12:25:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.86 Mbit/s
95th percentile per-packet one-way delay: 63.811 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.86 Mbit/s
95th percentile per-packet one-way delay: 63.811 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

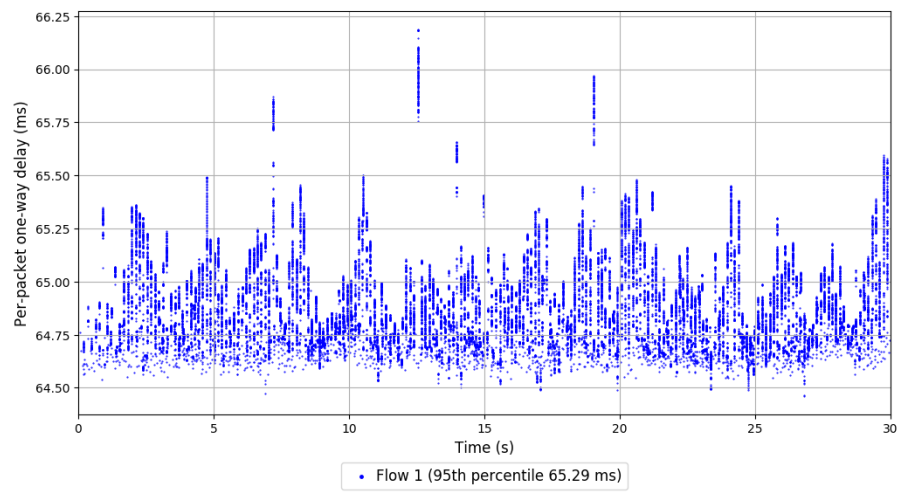
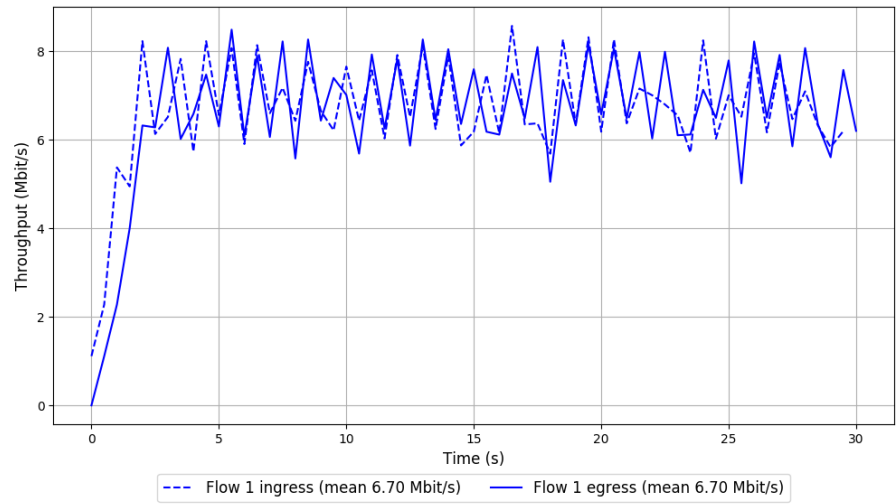


Run 4: Statistics of Sprout

Start at: 2018-12-20 09:55:50
End at: 2018-12-20 09:56:20
Local clock offset: -0.093 ms
Remote clock offset: 1.156 ms

Below is generated by plot.py at 2018-12-20 12:25:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 65.286 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 65.286 ms
Loss rate: 0.00%

Run 4: Report of Sprout — Data Link

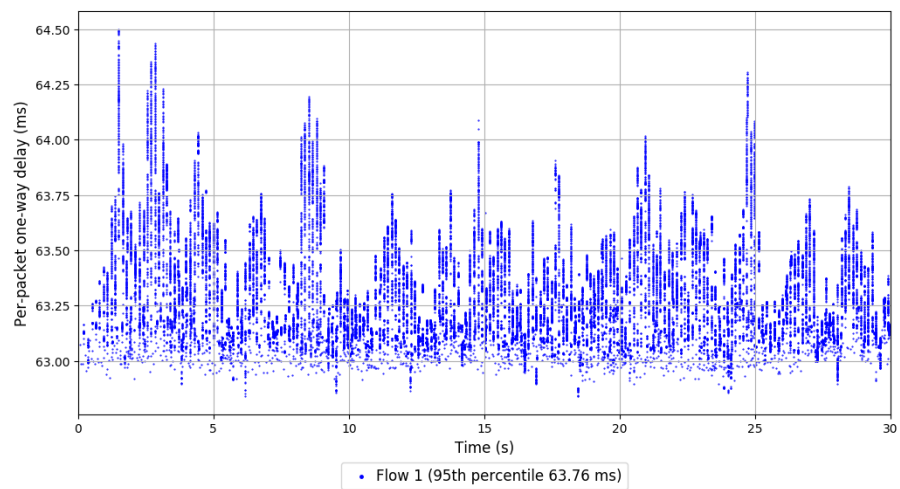
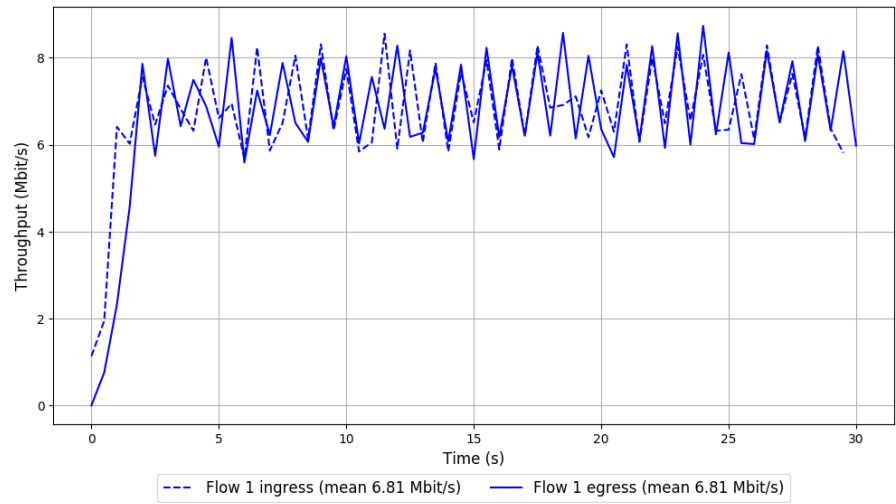


Run 5: Statistics of Sprout

Start at: 2018-12-20 10:24:02
End at: 2018-12-20 10:24:32
Local clock offset: -0.117 ms
Remote clock offset: -0.176 ms

Below is generated by plot.py at 2018-12-20 12:25:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.81 Mbit/s
95th percentile per-packet one-way delay: 63.757 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.81 Mbit/s
95th percentile per-packet one-way delay: 63.757 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

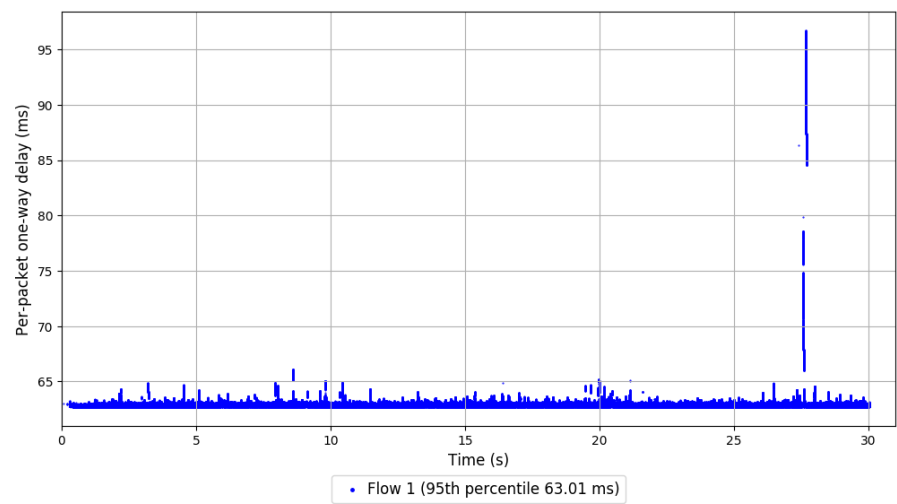
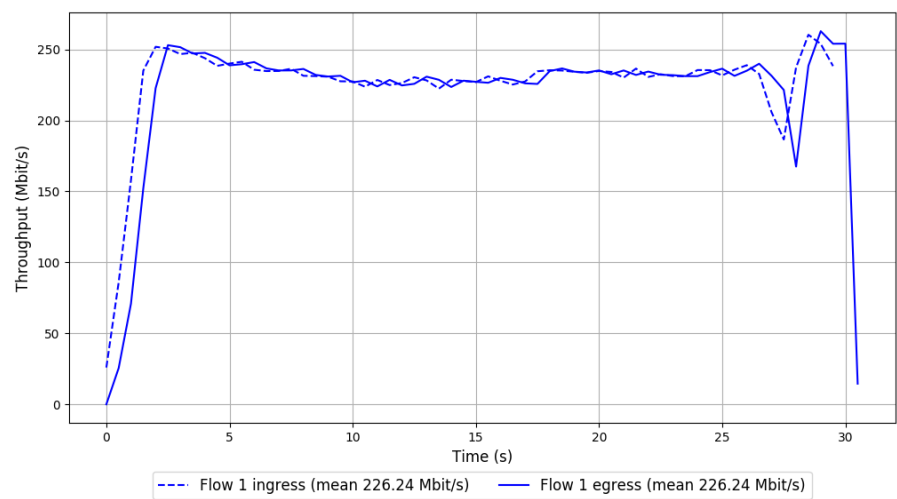


Run 1: Statistics of TaoVA-100x

Start at: 2018-12-20 08:33:41
End at: 2018-12-20 08:34:11
Local clock offset: -0.074 ms
Remote clock offset: -0.087 ms

Below is generated by plot.py at 2018-12-20 12:25:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 226.24 Mbit/s
95th percentile per-packet one-way delay: 63.011 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.24 Mbit/s
95th percentile per-packet one-way delay: 63.011 ms
Loss rate: 0.00%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-12-20 09:02:12

End at: 2018-12-20 09:02:42

Local clock offset: -0.062 ms

Remote clock offset: -0.1 ms

Below is generated by plot.py at 2018-12-20 12:25:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 227.03 Mbit/s

95th percentile per-packet one-way delay: 63.002 ms

Loss rate: 0.00%

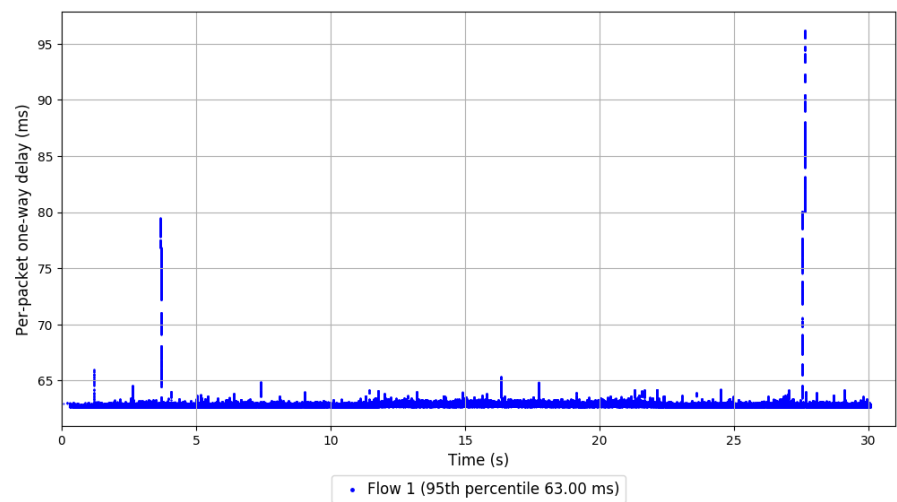
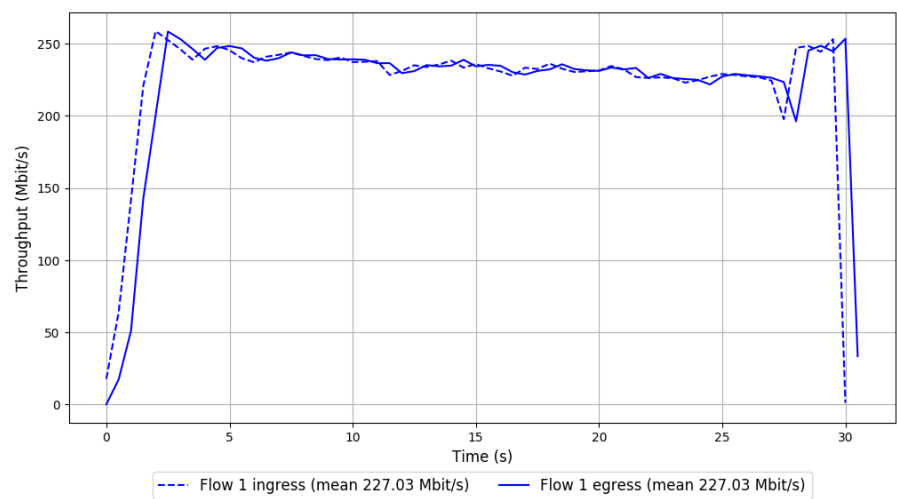
-- Flow 1:

Average throughput: 227.03 Mbit/s

95th percentile per-packet one-way delay: 63.002 ms

Loss rate: 0.00%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-12-20 09:30:23

End at: 2018-12-20 09:30:53

Local clock offset: -0.047 ms

Remote clock offset: 0.077 ms

Below is generated by plot.py at 2018-12-20 12:25:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 229.59 Mbit/s

95th percentile per-packet one-way delay: 63.585 ms

Loss rate: 0.00%

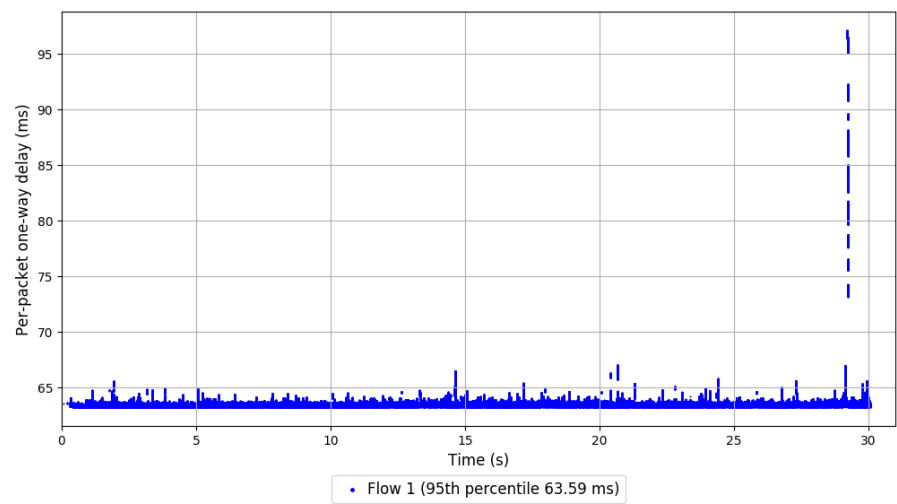
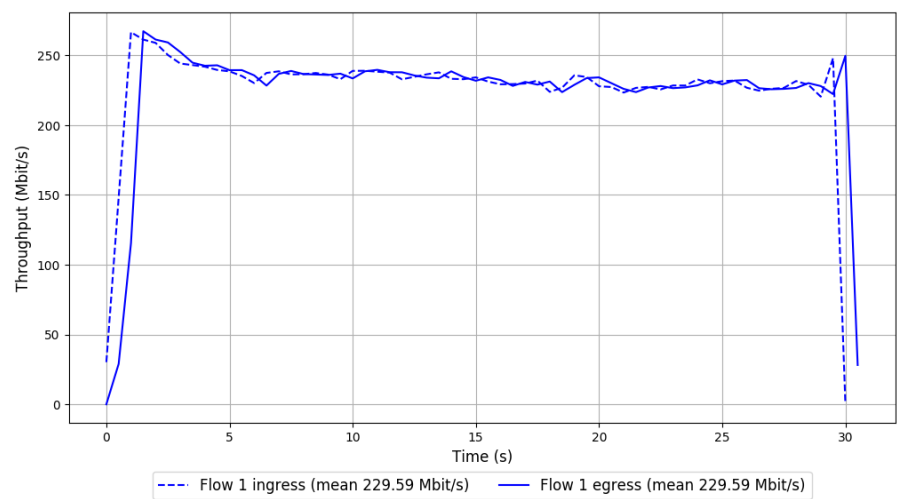
-- Flow 1:

Average throughput: 229.59 Mbit/s

95th percentile per-packet one-way delay: 63.585 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-12-20 09:58:35

End at: 2018-12-20 09:59:05

Local clock offset: -0.073 ms

Remote clock offset: -0.84 ms

Below is generated by plot.py at 2018-12-20 12:25:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 224.11 Mbit/s

95th percentile per-packet one-way delay: 62.404 ms

Loss rate: 0.00%

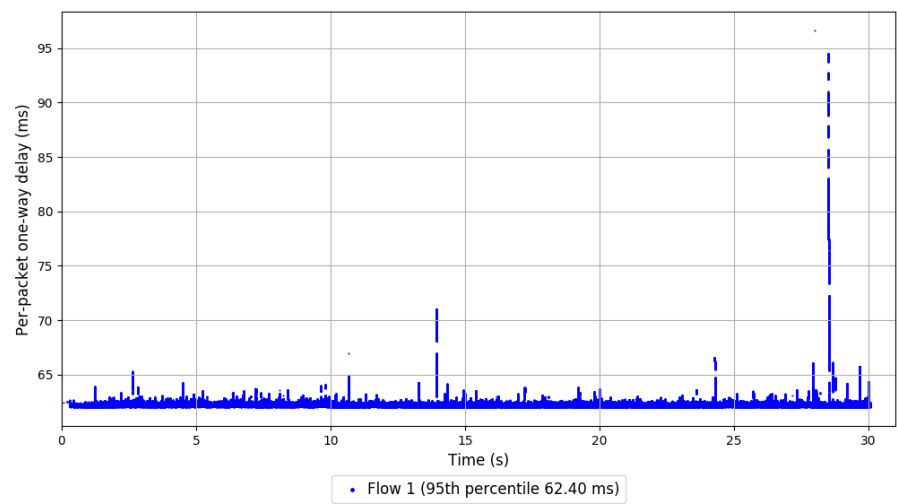
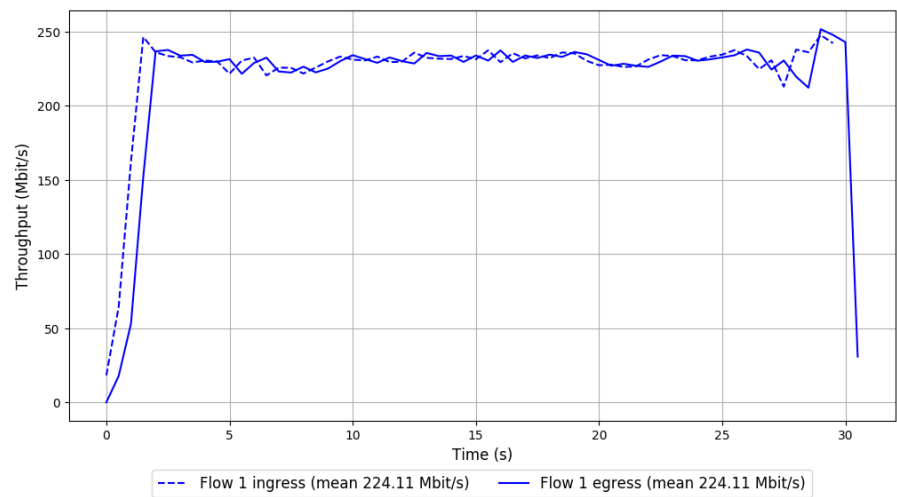
-- Flow 1:

Average throughput: 224.11 Mbit/s

95th percentile per-packet one-way delay: 62.404 ms

Loss rate: 0.00%

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

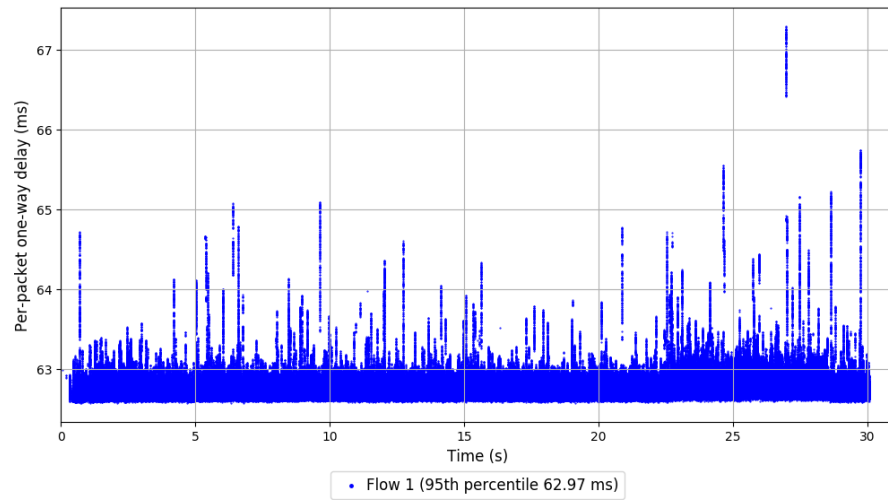
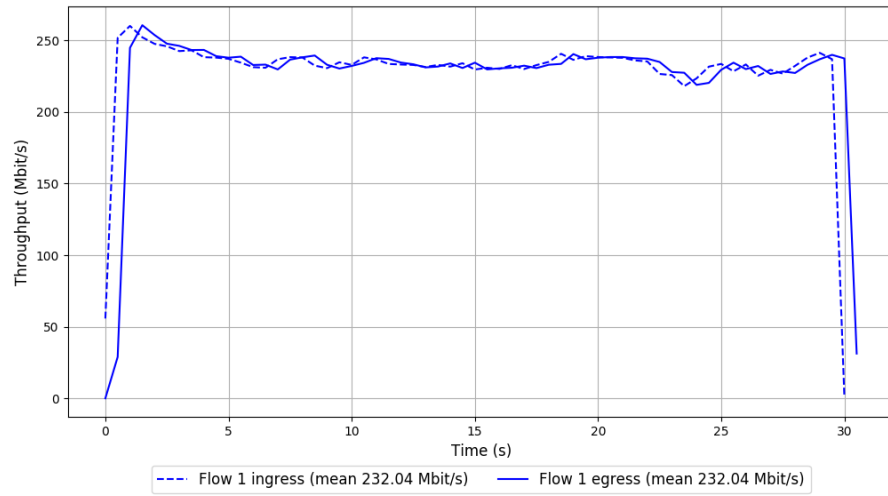


Run 5: Statistics of TaoVA-100x

Start at: 2018-12-20 10:26:51
End at: 2018-12-20 10:27:21
Local clock offset: -0.095 ms
Remote clock offset: -0.242 ms

Below is generated by plot.py at 2018-12-20 12:25:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 232.04 Mbit/s
95th percentile per-packet one-way delay: 62.967 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 232.04 Mbit/s
95th percentile per-packet one-way delay: 62.967 ms
Loss rate: 0.00%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-12-20 08:28:05

End at: 2018-12-20 08:28:35

Local clock offset: -0.075 ms

Remote clock offset: 0.075 ms

Below is generated by plot.py at 2018-12-20 12:26:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 447.87 Mbit/s

95th percentile per-packet one-way delay: 63.641 ms

Loss rate: 0.00%

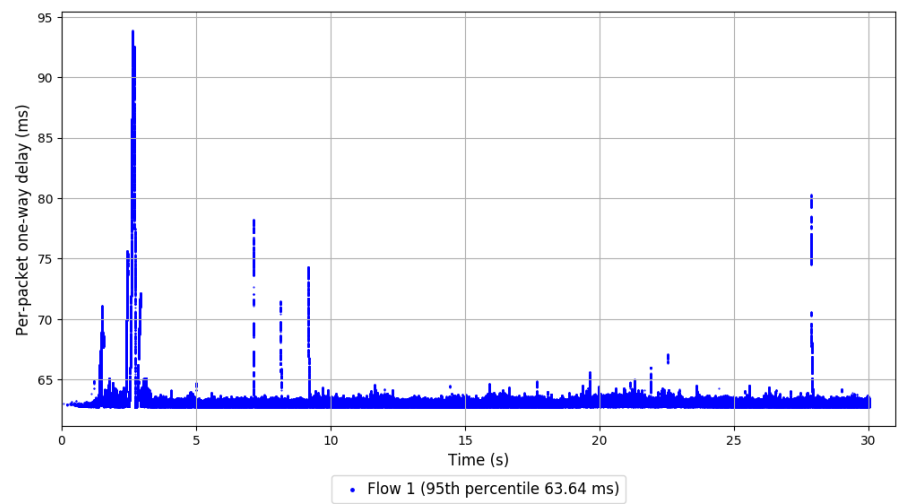
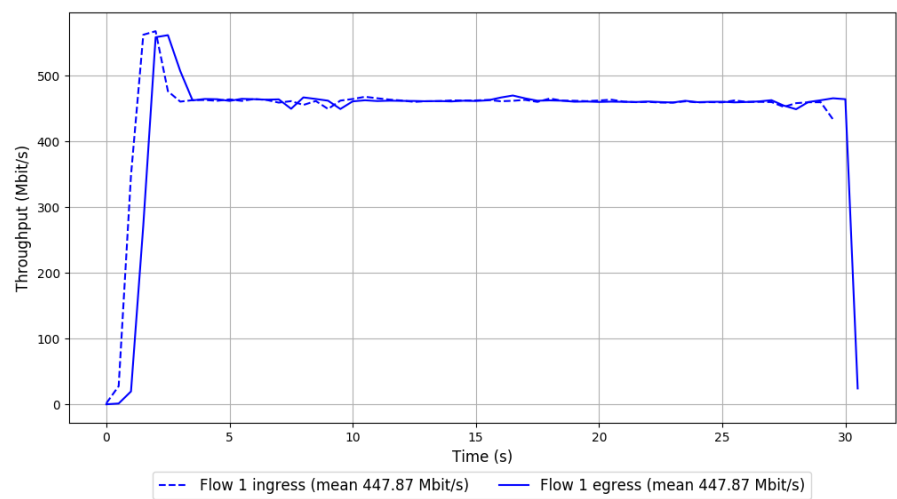
-- Flow 1:

Average throughput: 447.87 Mbit/s

95th percentile per-packet one-way delay: 63.641 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link

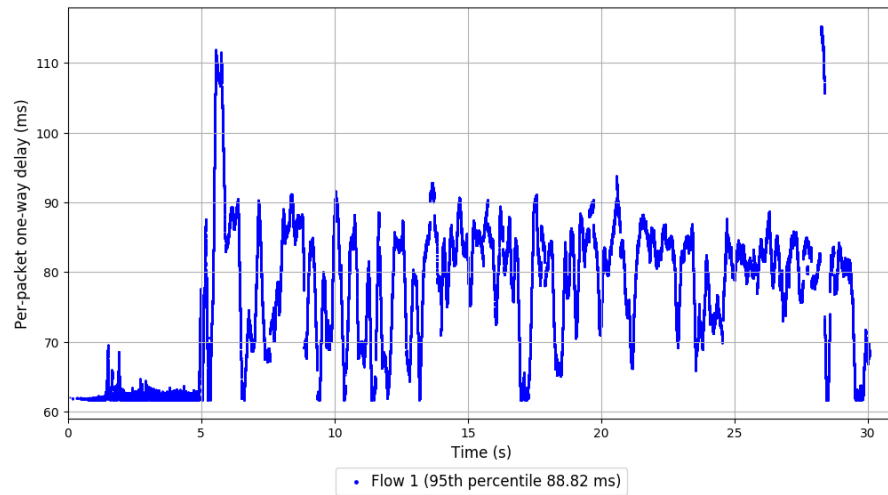
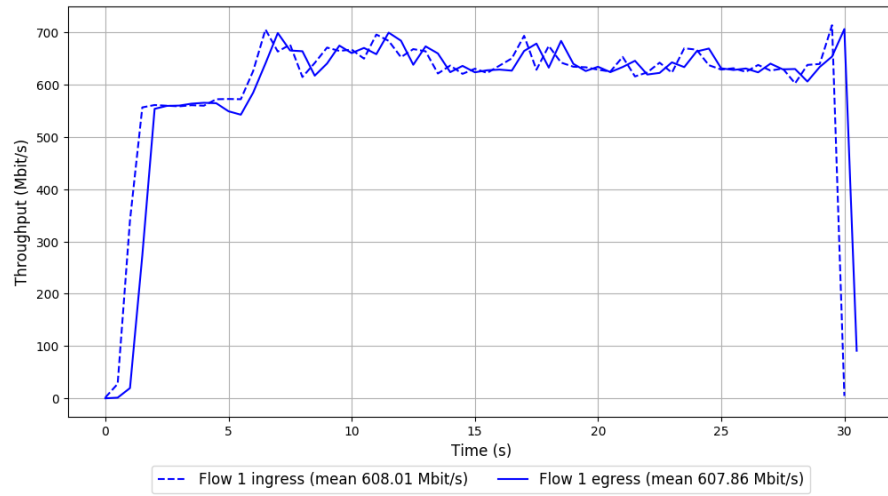


Run 2: Statistics of TCP Vegas

Start at: 2018-12-20 08:56:04
End at: 2018-12-20 08:56:34
Local clock offset: -0.079 ms
Remote clock offset: -1.35 ms

Below is generated by plot.py at 2018-12-20 12:34:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 607.86 Mbit/s
95th percentile per-packet one-way delay: 88.817 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 607.86 Mbit/s
95th percentile per-packet one-way delay: 88.817 ms
Loss rate: 0.02%

Run 2: Report of TCP Vegas — Data Link

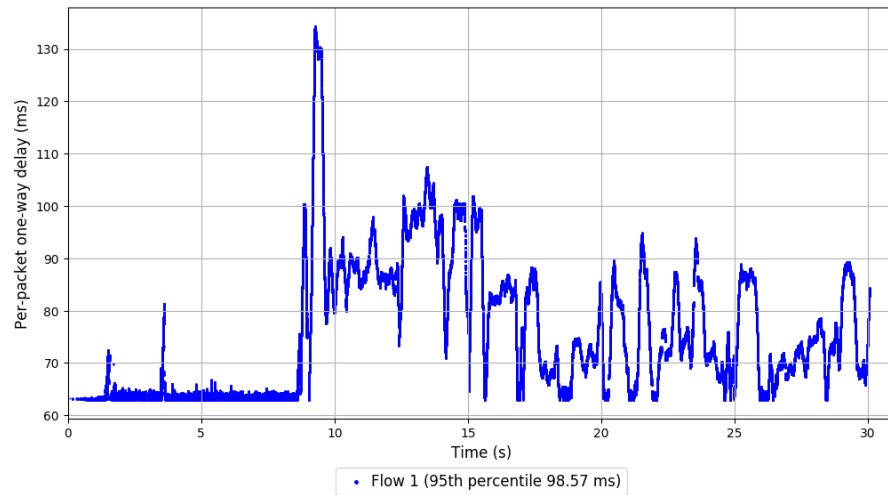
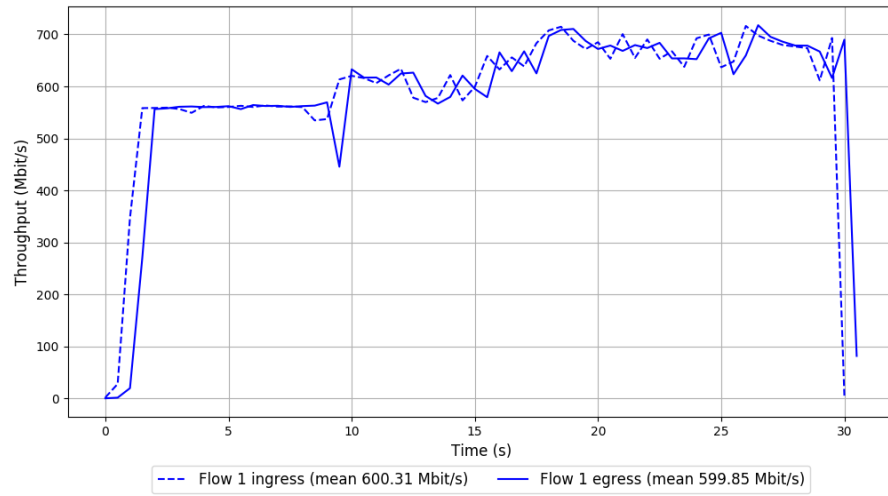


Run 3: Statistics of TCP Vegas

Start at: 2018-12-20 09:24:28
End at: 2018-12-20 09:24:58
Local clock offset: -0.038 ms
Remote clock offset: -0.162 ms

Below is generated by plot.py at 2018-12-20 12:34:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 599.85 Mbit/s
95th percentile per-packet one-way delay: 98.570 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 599.85 Mbit/s
95th percentile per-packet one-way delay: 98.570 ms
Loss rate: 0.07%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-12-20 09:52:40

End at: 2018-12-20 09:53:10

Local clock offset: -0.077 ms

Remote clock offset: 0.027 ms

Below is generated by plot.py at 2018-12-20 12:34:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 457.04 Mbit/s

95th percentile per-packet one-way delay: 64.950 ms

Loss rate: 0.00%

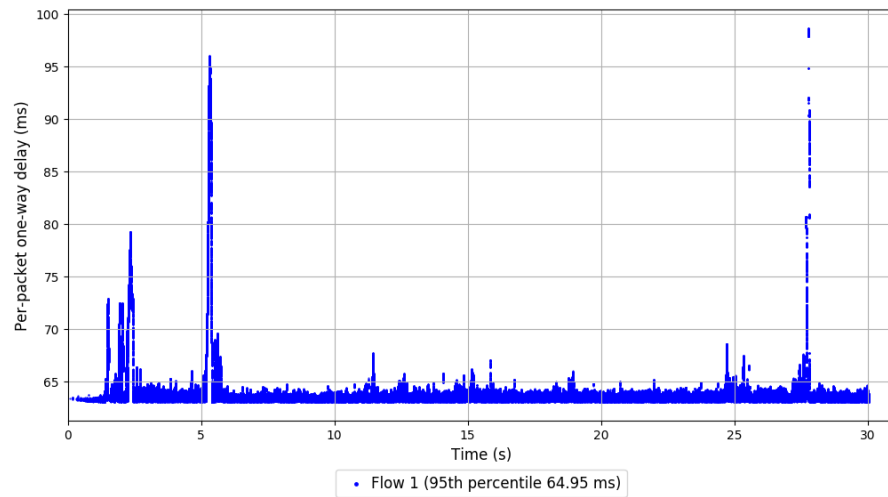
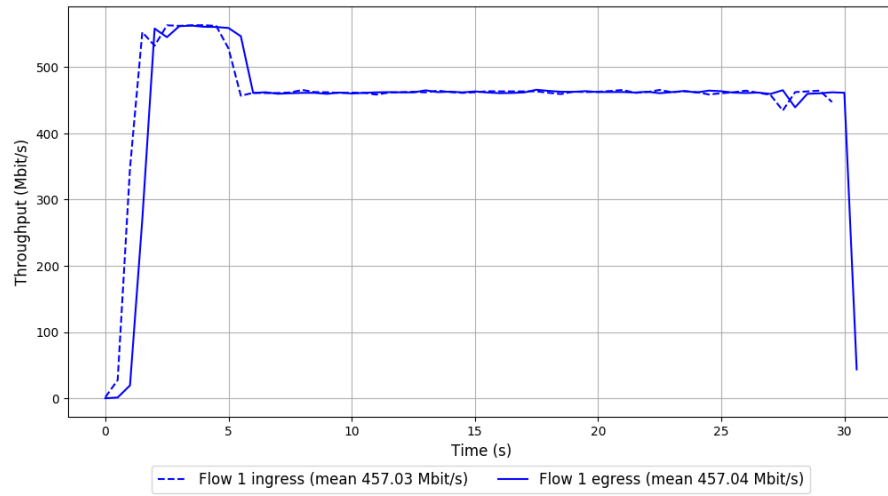
-- Flow 1:

Average throughput: 457.04 Mbit/s

95th percentile per-packet one-way delay: 64.950 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link

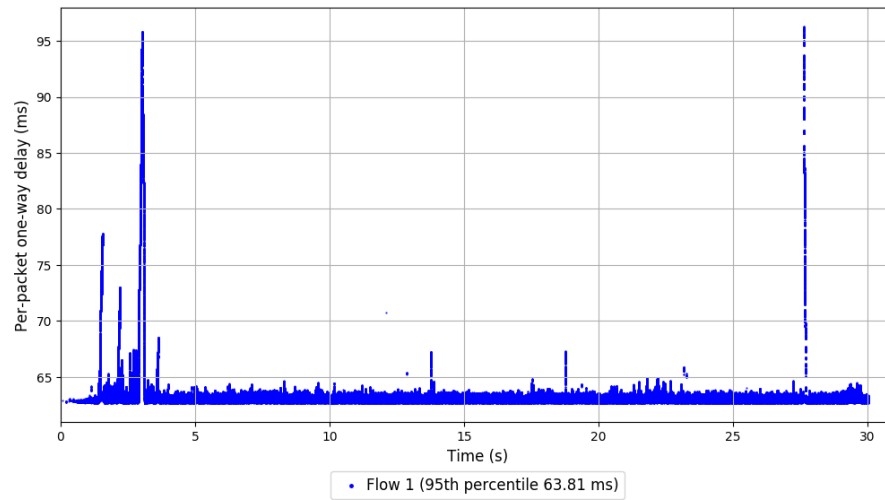
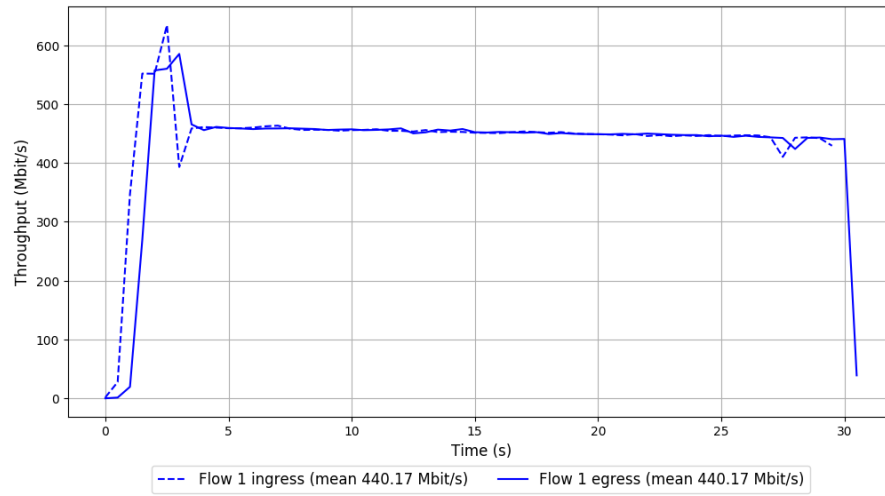


Run 5: Statistics of TCP Vegas

Start at: 2018-12-20 10:20:54
End at: 2018-12-20 10:21:24
Local clock offset: -0.094 ms
Remote clock offset: -0.163 ms

Below is generated by plot.py at 2018-12-20 12:34:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 440.17 Mbit/s
95th percentile per-packet one-way delay: 63.810 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 440.17 Mbit/s
95th percentile per-packet one-way delay: 63.810 ms
Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

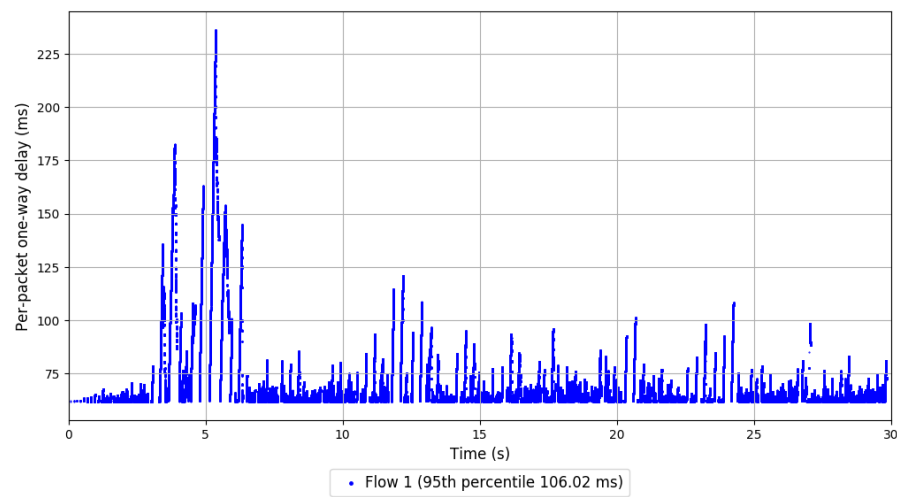
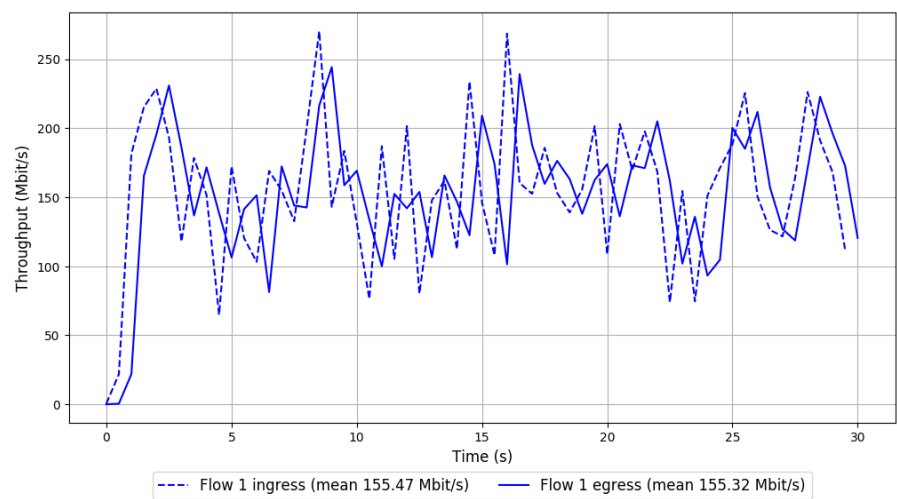


Run 1: Statistics of Verus

Start at: 2018-12-20 08:25:04
End at: 2018-12-20 08:25:34
Local clock offset: -0.08 ms
Remote clock offset: -0.804 ms

Below is generated by plot.py at 2018-12-20 12:34:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 155.32 Mbit/s
95th percentile per-packet one-way delay: 106.016 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 155.32 Mbit/s
95th percentile per-packet one-way delay: 106.016 ms
Loss rate: 0.09%

Run 1: Report of Verus — Data Link

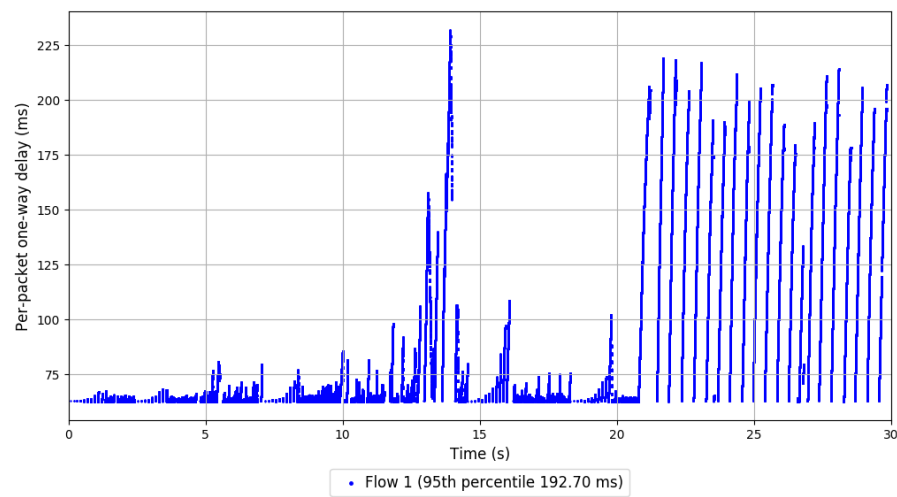
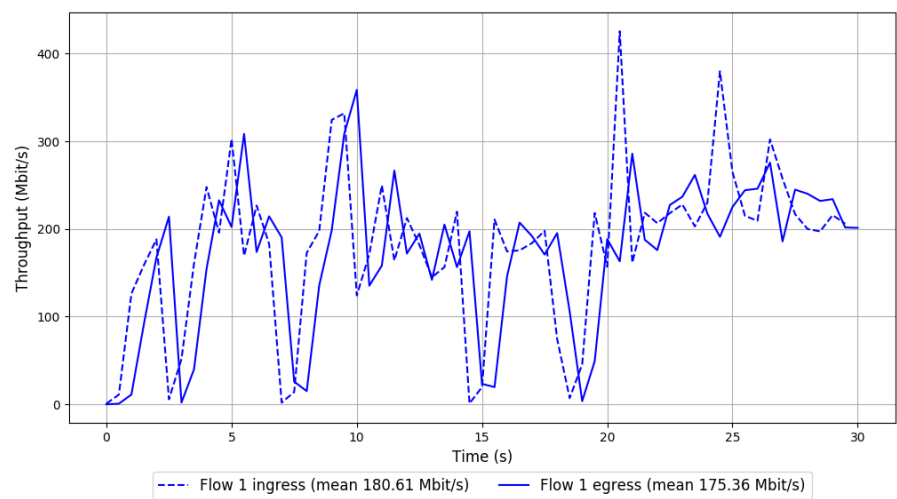


Run 2: Statistics of Verus

Start at: 2018-12-20 08:53:00
End at: 2018-12-20 08:53:31
Local clock offset: -0.009 ms
Remote clock offset: -0.183 ms

Below is generated by plot.py at 2018-12-20 12:34:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 175.36 Mbit/s
95th percentile per-packet one-way delay: 192.702 ms
Loss rate: 2.47%
-- Flow 1:
Average throughput: 175.36 Mbit/s
95th percentile per-packet one-way delay: 192.702 ms
Loss rate: 2.47%

Run 2: Report of Verus — Data Link

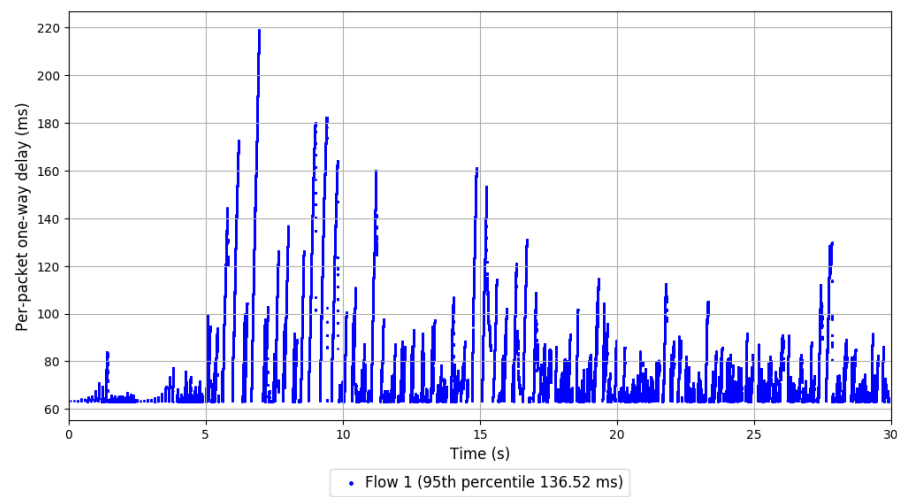
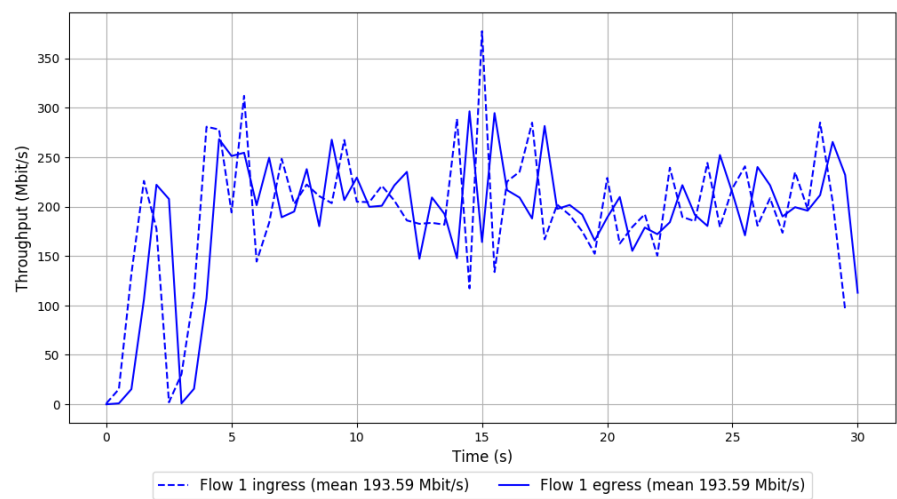


Run 3: Statistics of Verus

Start at: 2018-12-20 09:21:24
End at: 2018-12-20 09:21:54
Local clock offset: 0.006 ms
Remote clock offset: -0.011 ms

Below is generated by plot.py at 2018-12-20 12:34:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 193.59 Mbit/s
95th percentile per-packet one-way delay: 136.524 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.59 Mbit/s
95th percentile per-packet one-way delay: 136.524 ms
Loss rate: 0.00%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-12-20 09:49:33

End at: 2018-12-20 09:50:04

Local clock offset: -0.058 ms

Remote clock offset: 0.067 ms

Below is generated by plot.py at 2018-12-20 12:34:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 204.69 Mbit/s

95th percentile per-packet one-way delay: 204.960 ms

Loss rate: 5.38%

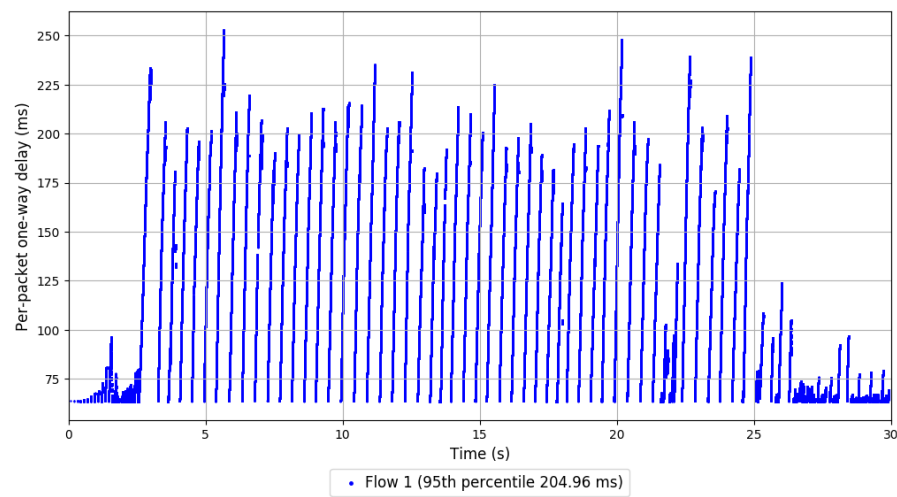
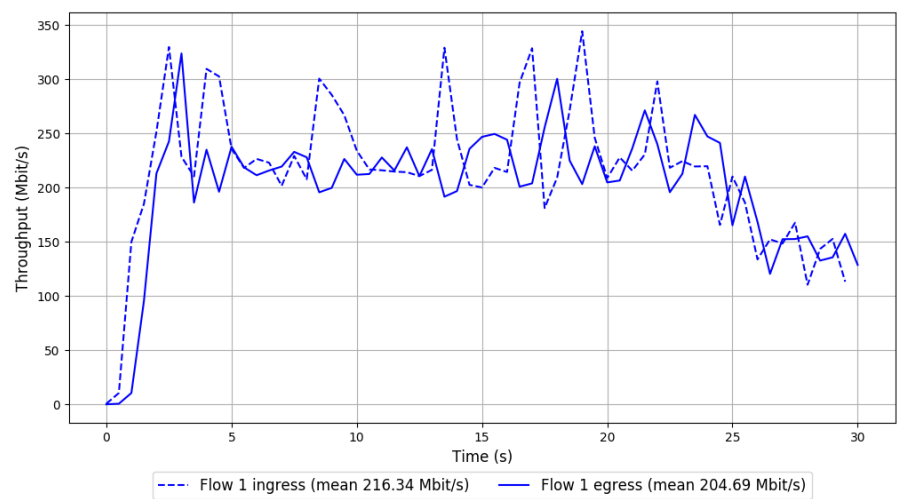
-- Flow 1:

Average throughput: 204.69 Mbit/s

95th percentile per-packet one-way delay: 204.960 ms

Loss rate: 5.38%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-12-20 10:17:54

End at: 2018-12-20 10:18:24

Local clock offset: -0.092 ms

Remote clock offset: 0.103 ms

Below is generated by plot.py at 2018-12-20 12:34:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 128.67 Mbit/s

95th percentile per-packet one-way delay: 84.998 ms

Loss rate: 0.37%

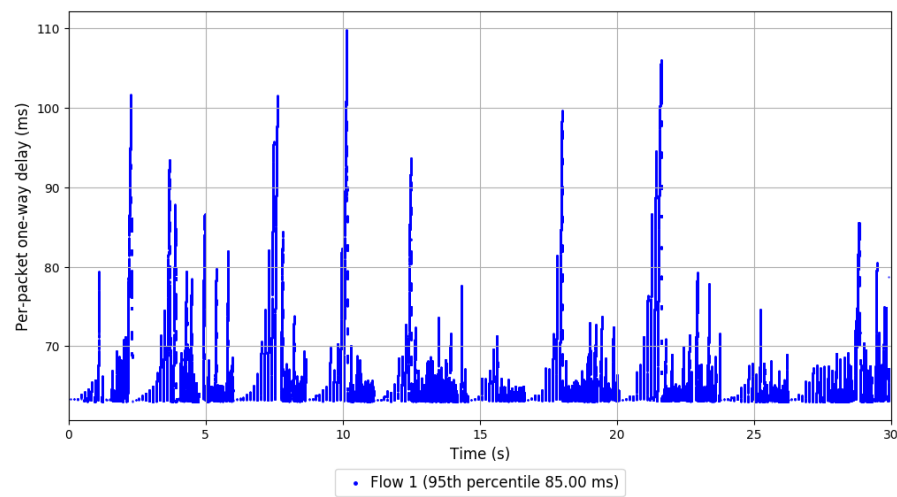
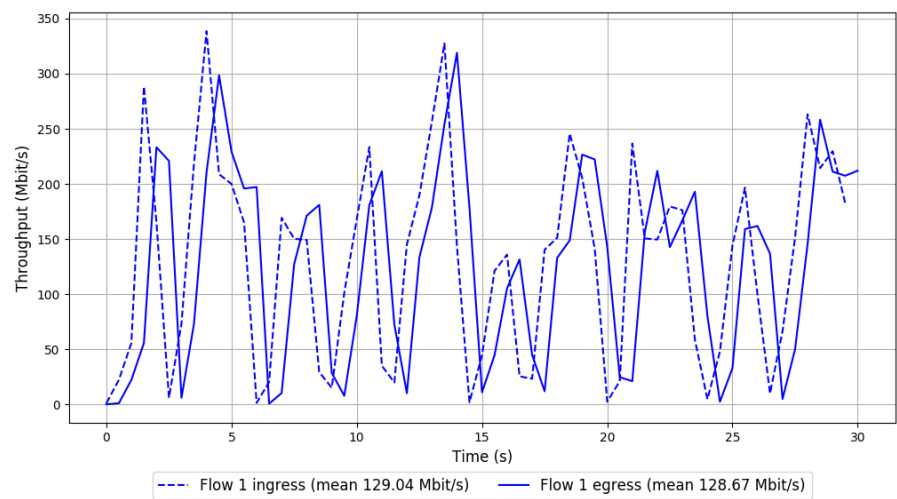
-- Flow 1:

Average throughput: 128.67 Mbit/s

95th percentile per-packet one-way delay: 84.998 ms

Loss rate: 0.37%

Run 5: Report of Verus — Data Link

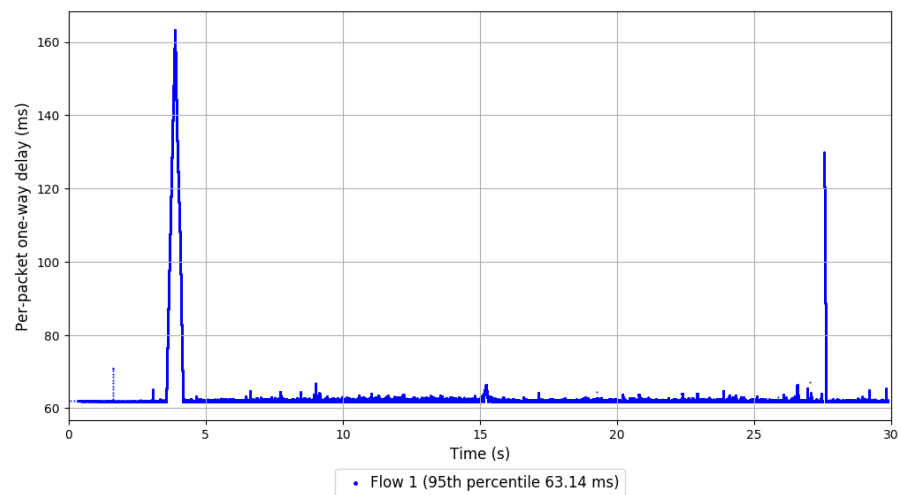
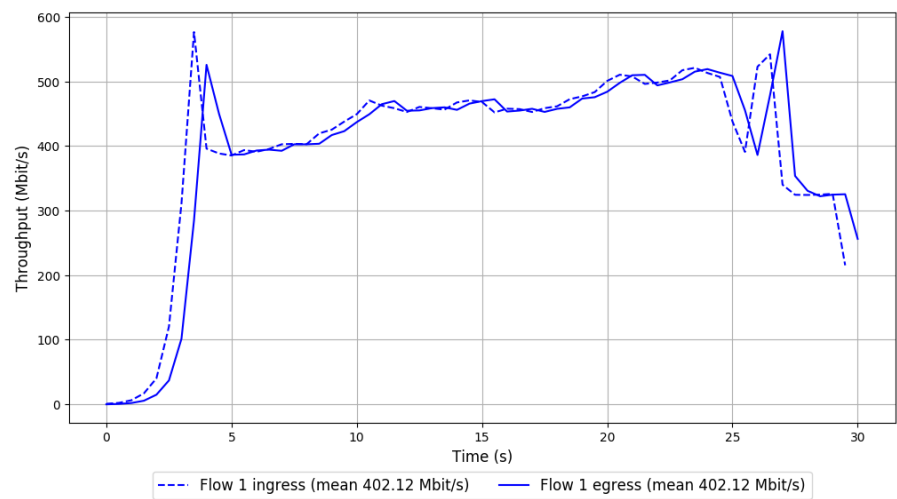


Run 1: Statistics of PCC-Vivace

Start at: 2018-12-20 08:41:34
End at: 2018-12-20 08:42:04
Local clock offset: -0.061 ms
Remote clock offset: -1.251 ms

Below is generated by plot.py at 2018-12-20 12:37:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 402.12 Mbit/s
95th percentile per-packet one-way delay: 63.139 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 402.12 Mbit/s
95th percentile per-packet one-way delay: 63.139 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-12-20 09:10:00

End at: 2018-12-20 09:10:30

Local clock offset: -0.035 ms

Remote clock offset: 0.074 ms

Below is generated by plot.py at 2018-12-20 12:37:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 413.63 Mbit/s

95th percentile per-packet one-way delay: 63.612 ms

Loss rate: 0.00%

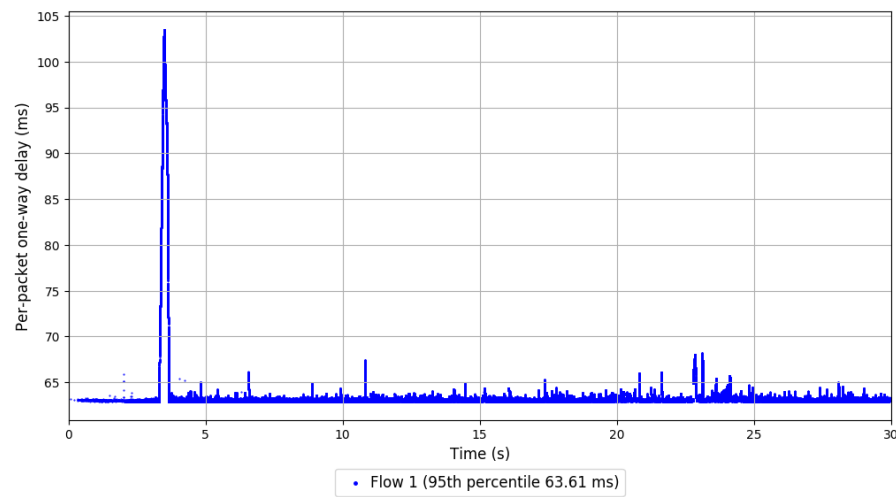
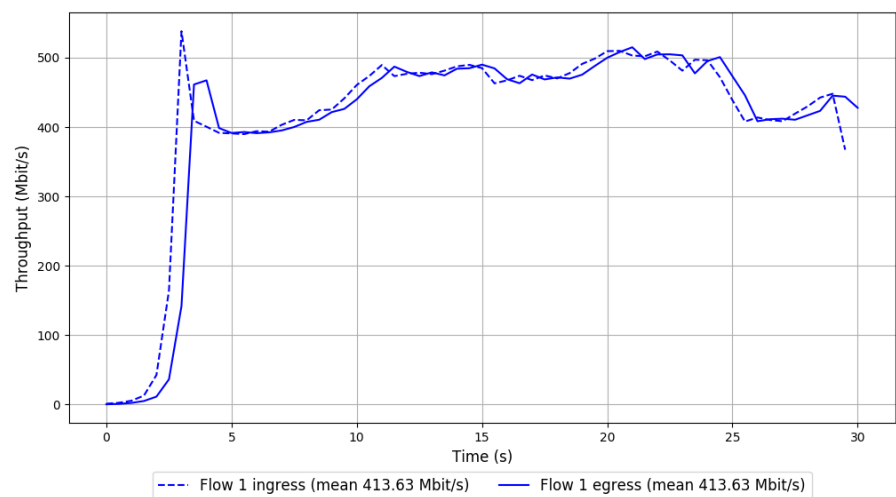
-- Flow 1:

Average throughput: 413.63 Mbit/s

95th percentile per-packet one-way delay: 63.612 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-12-20 09:38:12

End at: 2018-12-20 09:38:42

Local clock offset: -0.064 ms

Remote clock offset: 0.55 ms

Below is generated by plot.py at 2018-12-20 12:37:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 363.40 Mbit/s

95th percentile per-packet one-way delay: 118.273 ms

Loss rate: 0.00%

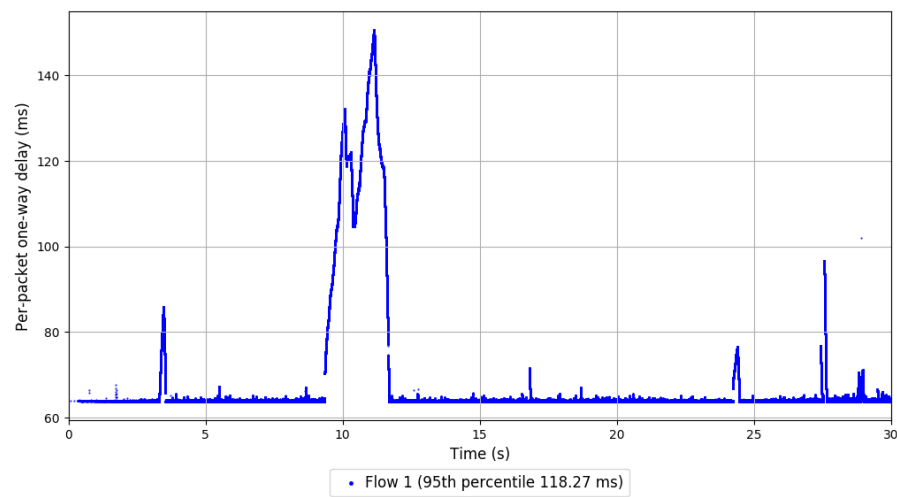
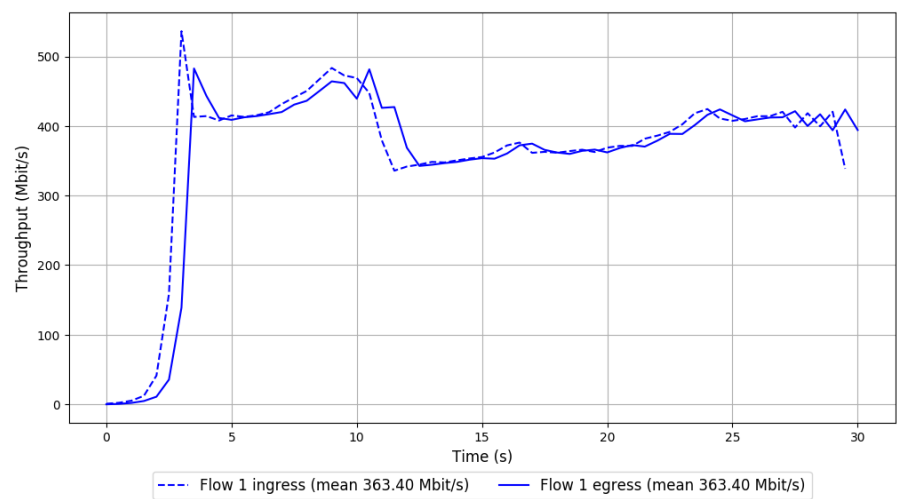
-- Flow 1:

Average throughput: 363.40 Mbit/s

95th percentile per-packet one-way delay: 118.273 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-12-20 10:06:28

End at: 2018-12-20 10:06:58

Local clock offset: -0.113 ms

Remote clock offset: 1.19 ms

Below is generated by plot.py at 2018-12-20 12:37:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 421.34 Mbit/s

95th percentile per-packet one-way delay: 69.528 ms

Loss rate: 0.00%

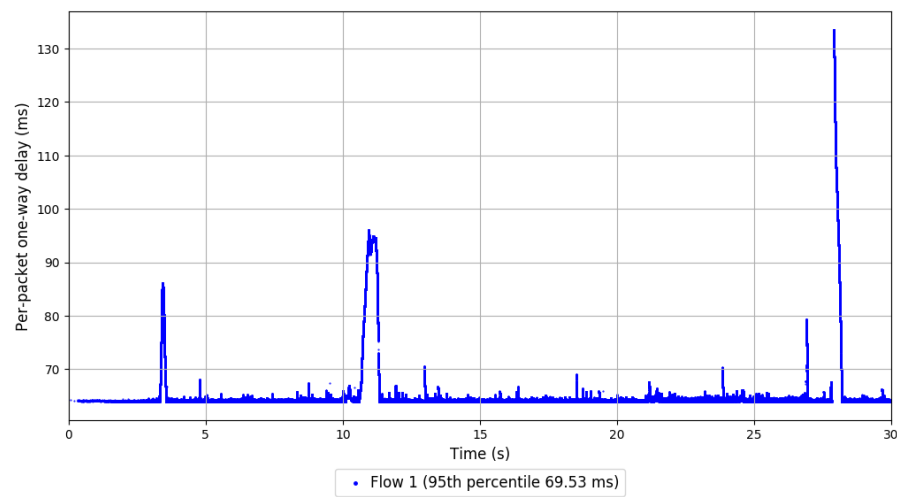
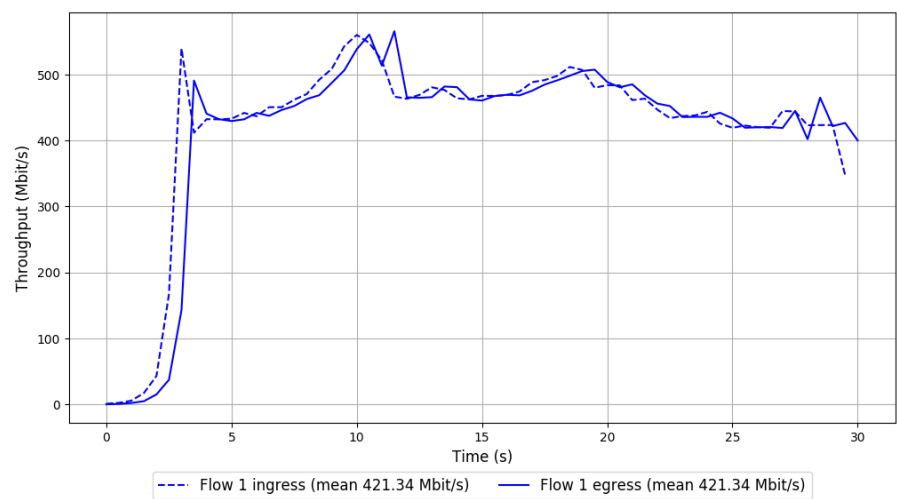
-- Flow 1:

Average throughput: 421.34 Mbit/s

95th percentile per-packet one-way delay: 69.528 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

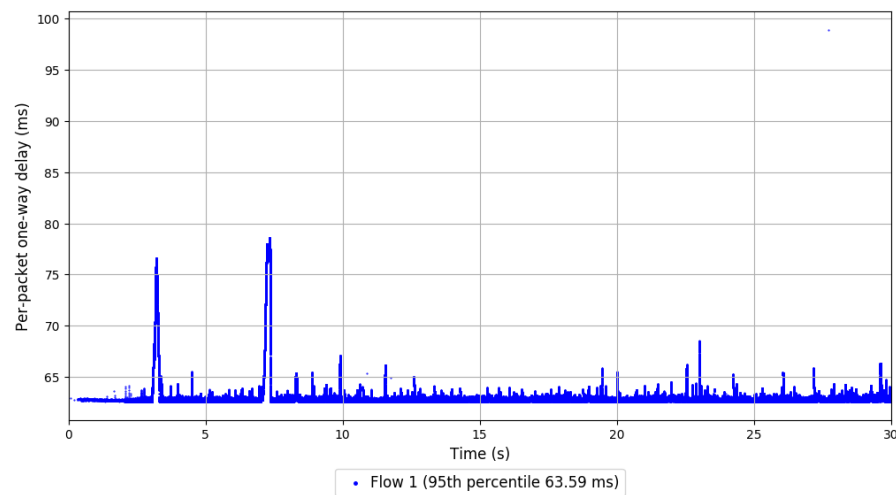
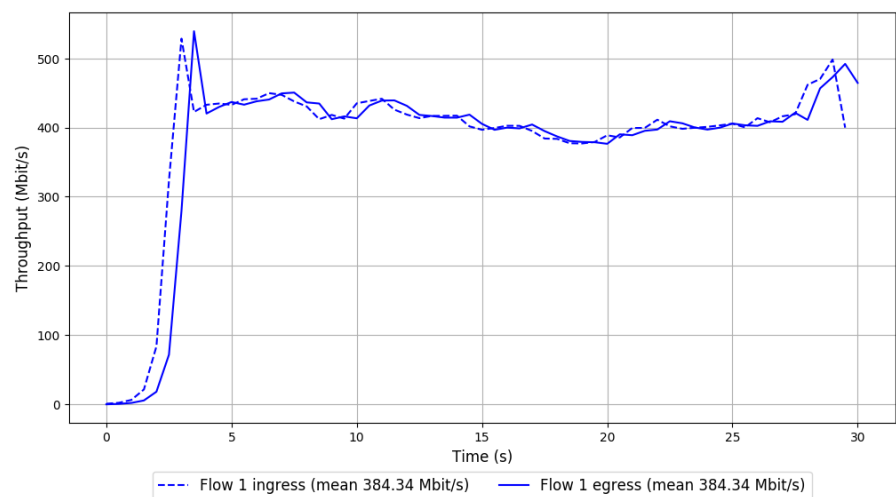


Run 5: Statistics of PCC-Vivace

Start at: 2018-12-20 10:34:38
End at: 2018-12-20 10:35:08
Local clock offset: -0.104 ms
Remote clock offset: -0.438 ms

Below is generated by plot.py at 2018-12-20 12:37:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 384.34 Mbit/s
95th percentile per-packet one-way delay: 63.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 384.34 Mbit/s
95th percentile per-packet one-way delay: 63.589 ms
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

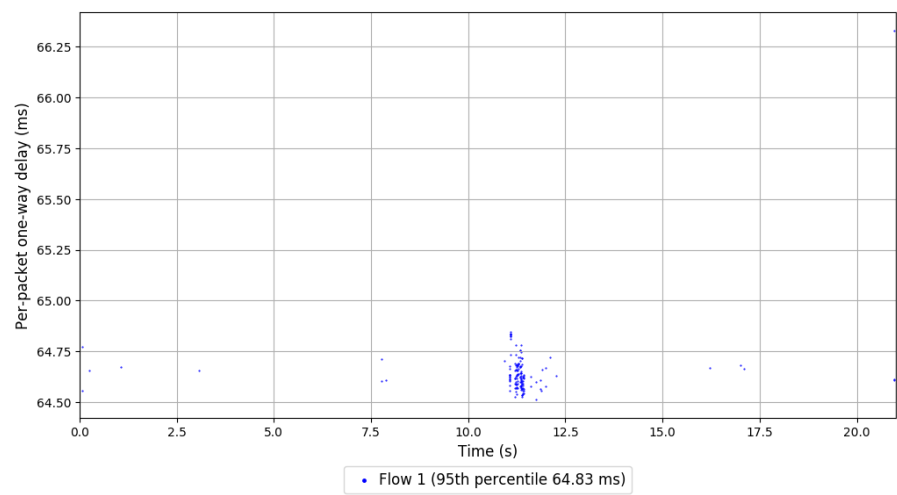
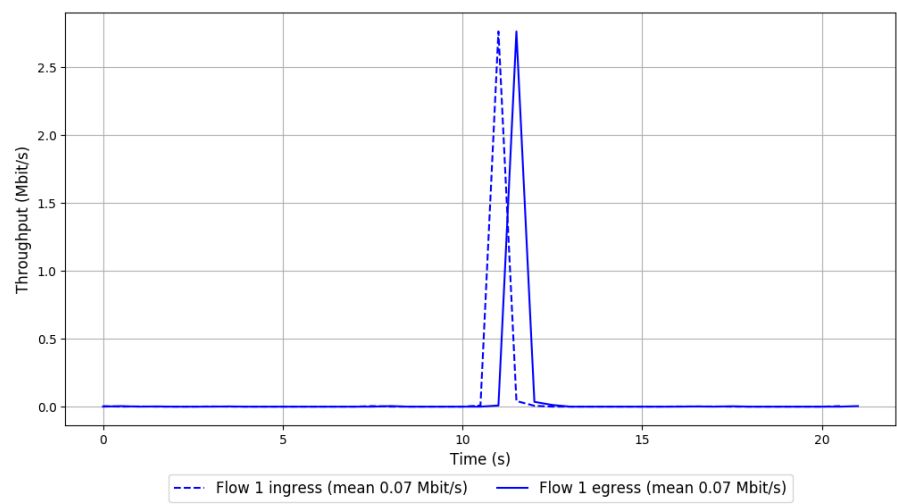
Start at: 2018-12-20 08:23:56

End at: 2018-12-20 08:24:26

Local clock offset: -0.055 ms

Remote clock offset: 1.355 ms

Run 1: Report of WebRTC media — Data Link

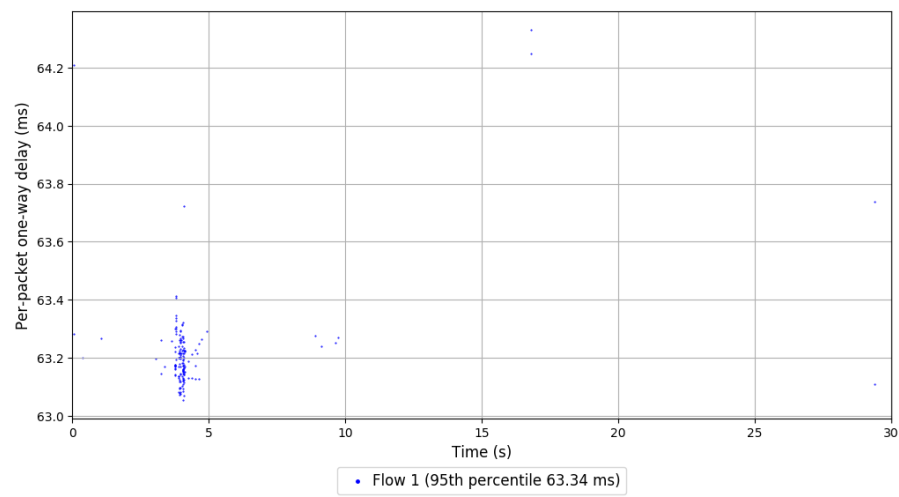
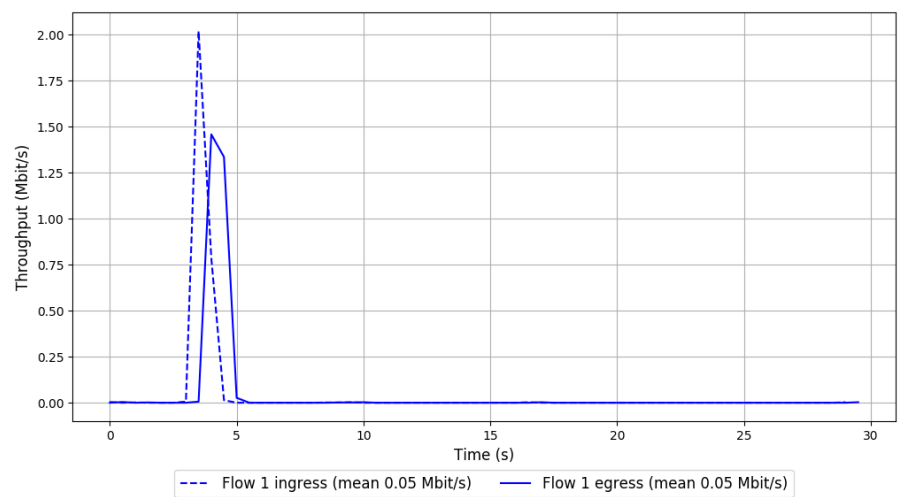


Run 2: Statistics of WebRTC media

Start at: 2018-12-20 08:51:53
End at: 2018-12-20 08:52:23
Local clock offset: -0.079 ms
Remote clock offset: -0.011 ms

Below is generated by plot.py at 2018-12-20 12:37:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.336 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.336 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-12-20 09:20:16

End at: 2018-12-20 09:20:46

Local clock offset: -0.029 ms

Remote clock offset: 1.468 ms

Below is generated by plot.py at 2018-12-20 12:37:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 64.639 ms

Loss rate: 0.00%

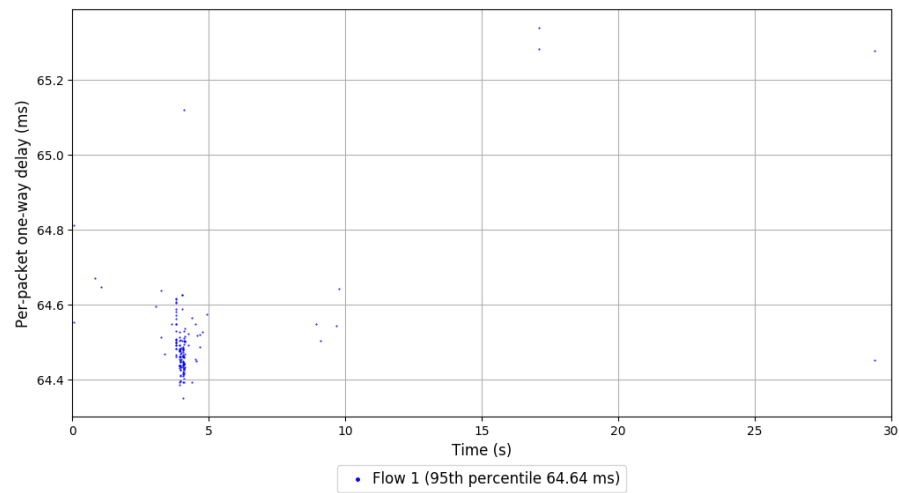
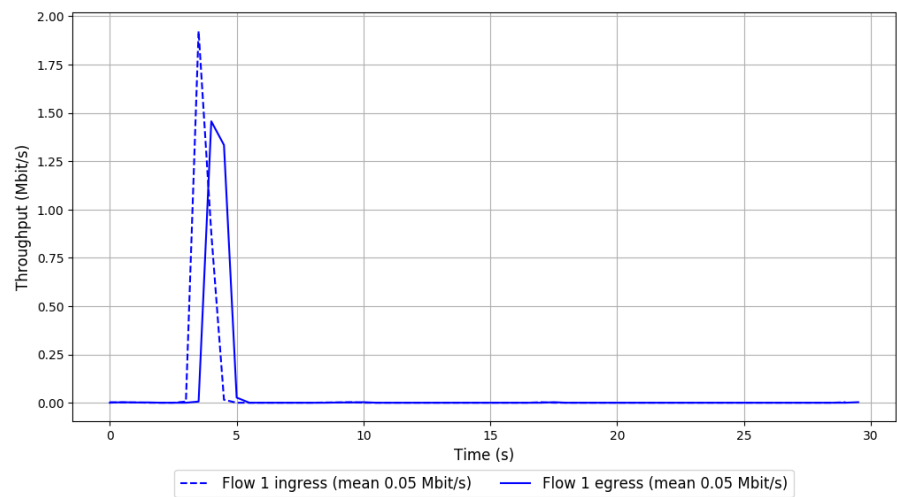
-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 64.639 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

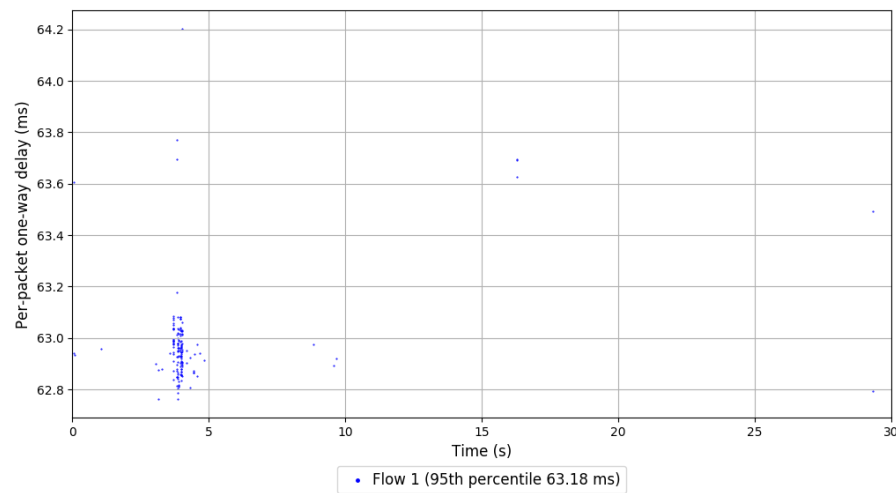
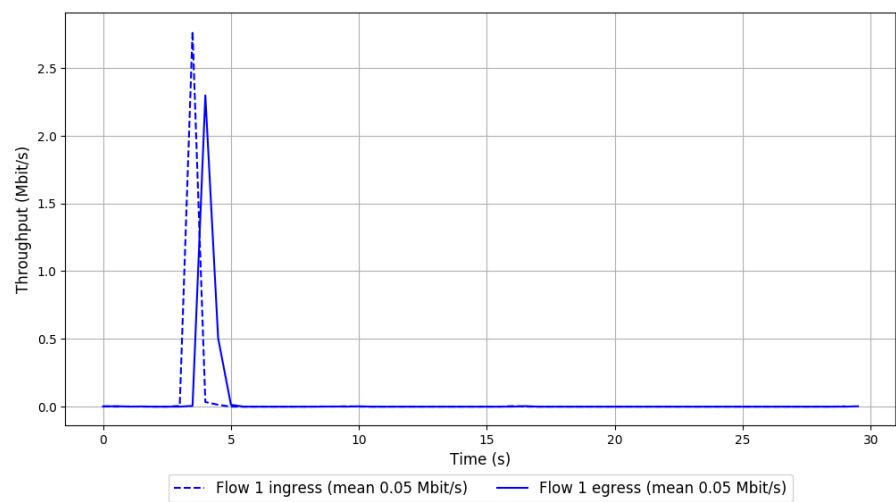


Run 4: Statistics of WebRTC media

Start at: 2018-12-20 09:48:26
End at: 2018-12-20 09:48:56
Local clock offset: -0.083 ms
Remote clock offset: -0.128 ms

Below is generated by plot.py at 2018-12-20 12:37:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.178 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.178 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-12-20 10:16:46

End at: 2018-12-20 10:17:16

Local clock offset: -0.101 ms

Remote clock offset: 1.173 ms

Below is generated by plot.py at 2018-12-20 12:37:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 64.797 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 64.797 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

