

Pantheon Report

Generated at 2018-09-07 11:58:07 (UTC).

Data path: AWS India 1 on `ens5` (*local*) → India on `em1` (*remote*).

Repeated the test of 18 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

System info:

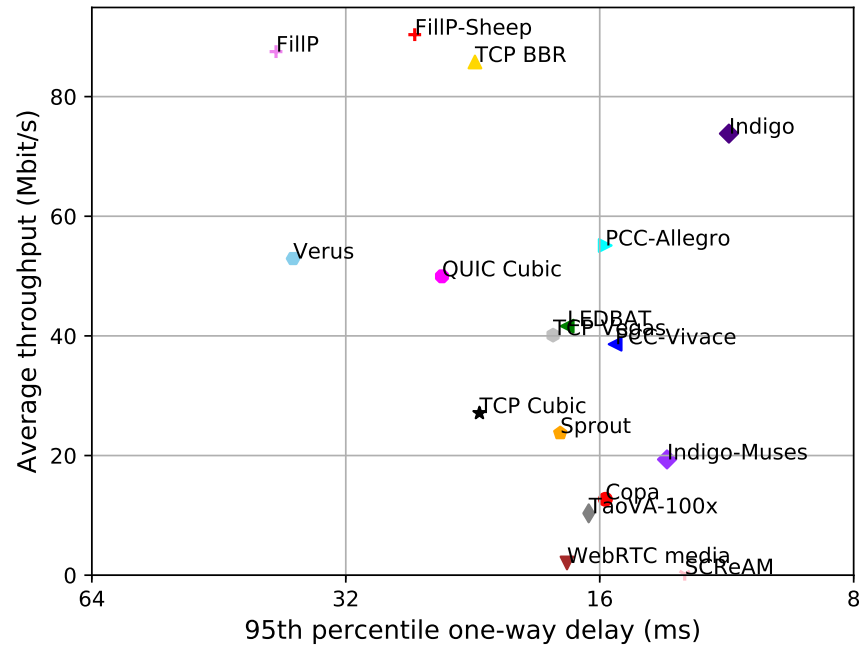
```
Linux 4.15.0-1020-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 536870912 536870912 536870912
```

Git summary:

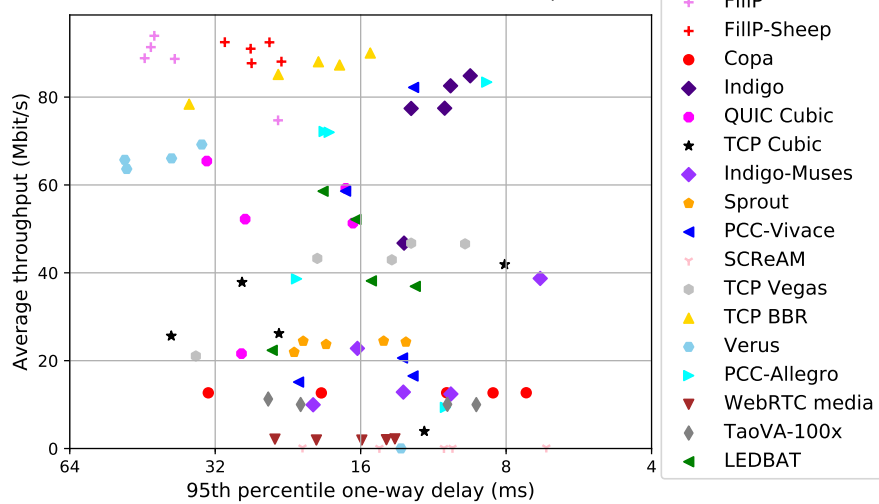
```
branch: muses @ e0a9b05ad97d268013b7cc9a9c95637b593a1b4c
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 7631aea3923a3598767c87765ae5103aca0678d3
third_party/pantheon-tunnel @ cbfce6db5ff5740dafa1771f813cd646339e1952
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 AWS India 1 to India, 5 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS India 1 to India, 5 runs of 30s each per scheme



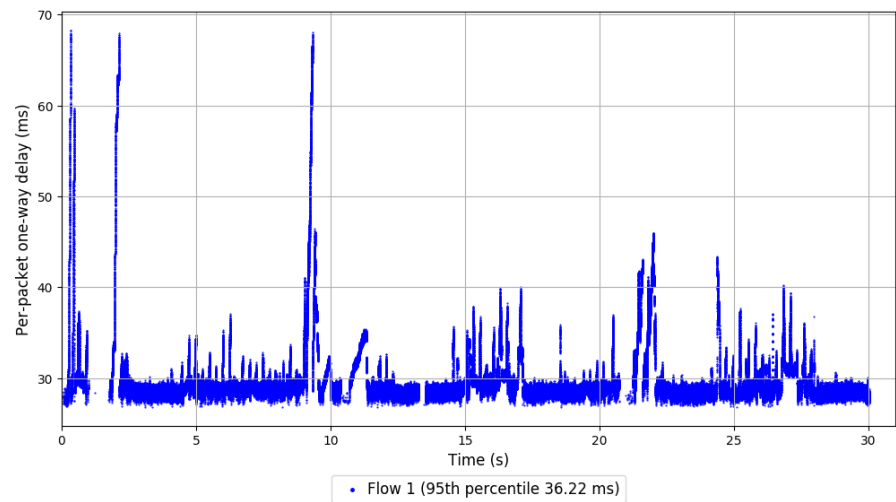
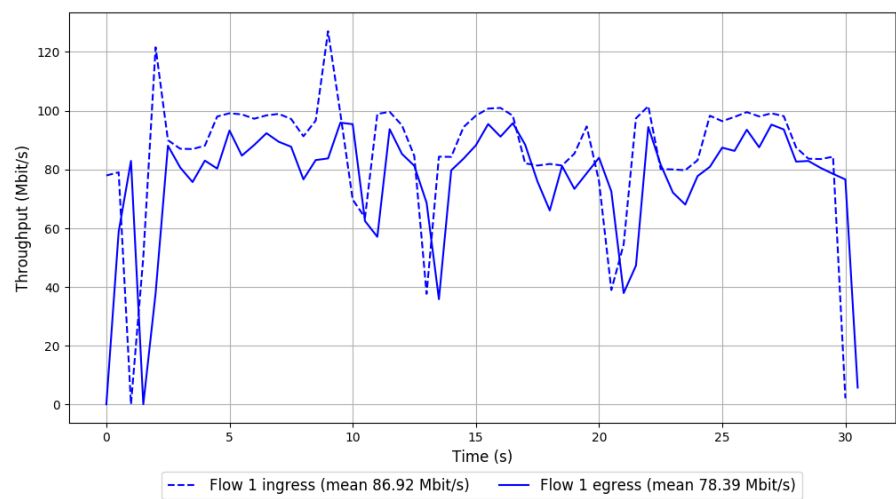
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	85.79	22.49	7.12
Copa	5	12.68	15.75	38.00
TCP Cubic	5	27.10	22.22	0.71
FillP	5	87.52	38.71	10.30
FillP-Sheep	5	90.35	26.51	7.38
Indigo	5	73.81	11.25	3.72
LEDBAT	5	41.63	17.49	0.07
Indigo-Muses	5	19.35	13.32	1.36
PCC-Allegro	5	55.11	15.76	3.73
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	49.96	24.61	0.81
SCReAM	5	0.16	12.69	0.31
Sprout	5	23.76	17.82	0.23
TaoVA-100x	4	10.34	16.49	61.48
TCP Vegas	5	40.13	18.17	0.65
Verus	5	52.93	36.94	9.28
PCC-Vivace	5	38.61	15.34	2.44
WebRTC media	5	2.04	17.50	0.04

Run 1: Statistics of TCP BBR

Start at: 2018-09-07 10:19:42
End at: 2018-09-07 10:20:12
Local clock offset: -0.065 ms
Remote clock offset: 11.024 ms

Below is generated by plot.py at 2018-09-07 11:52:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 78.39 Mbit/s
95th percentile per-packet one-way delay: 36.223 ms
Loss rate: 9.82%
-- Flow 1:
Average throughput: 78.39 Mbit/s
95th percentile per-packet one-way delay: 36.223 ms
Loss rate: 9.82%

Run 1: Report of TCP BBR — Data Link

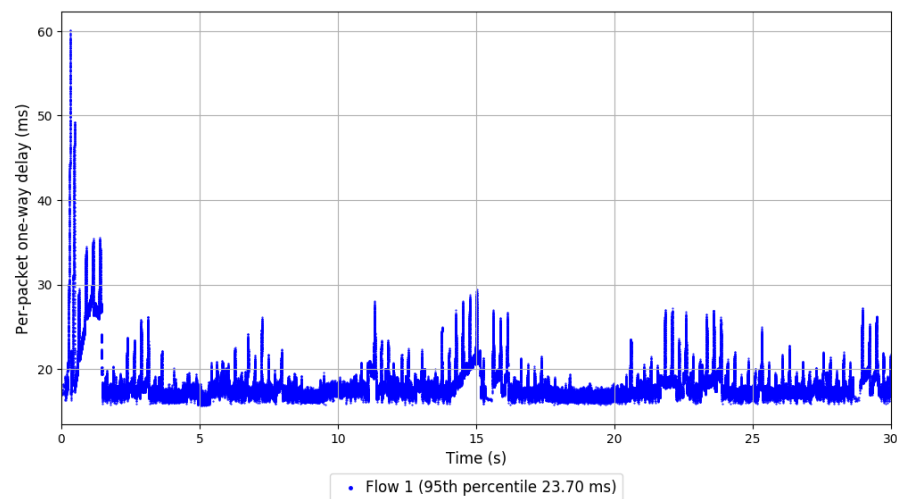
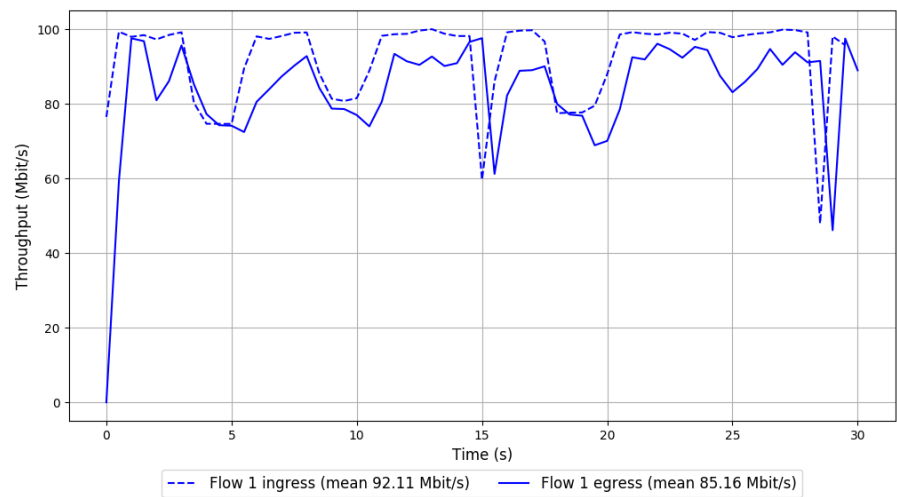


Run 2: Statistics of TCP BBR

Start at: 2018-09-07 10:40:17
End at: 2018-09-07 10:40:47
Local clock offset: -1.414 ms
Remote clock offset: -2.164 ms

Below is generated by plot.py at 2018-09-07 11:52:58
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.16 Mbit/s
95th percentile per-packet one-way delay: 23.697 ms
Loss rate: 7.55%
-- Flow 1:
Average throughput: 85.16 Mbit/s
95th percentile per-packet one-way delay: 23.697 ms
Loss rate: 7.55%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-09-07 11:00:47

End at: 2018-09-07 11:01:17

Local clock offset: -1.932 ms

Remote clock offset: -1.76 ms

Below is generated by plot.py at 2018-09-07 11:53:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.31 Mbit/s

95th percentile per-packet one-way delay: 17.690 ms

Loss rate: 7.67%

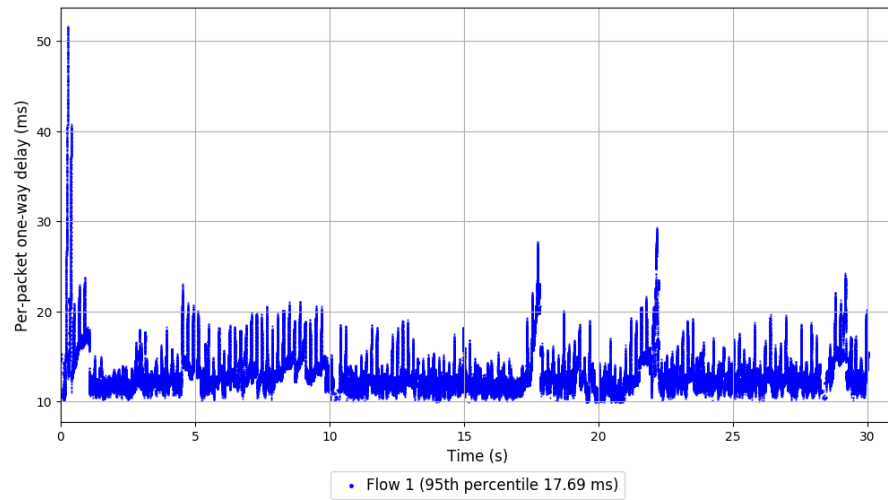
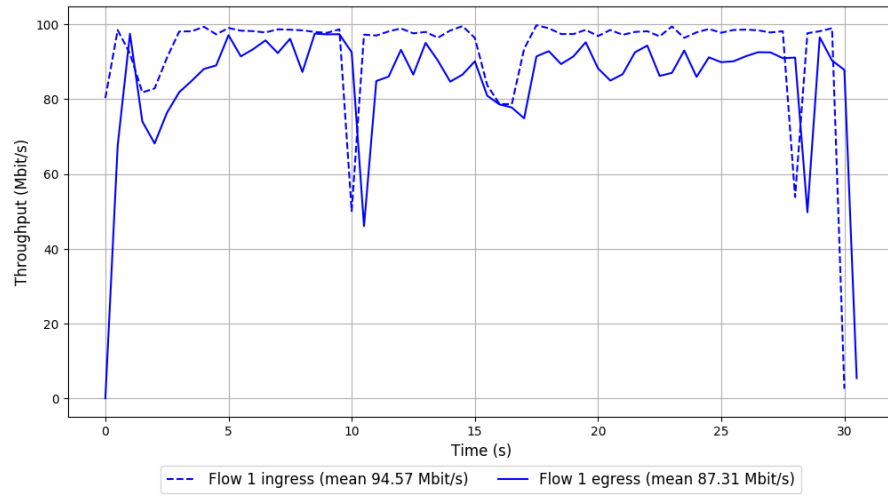
-- Flow 1:

Average throughput: 87.31 Mbit/s

95th percentile per-packet one-way delay: 17.690 ms

Loss rate: 7.67%

Run 3: Report of TCP BBR — Data Link

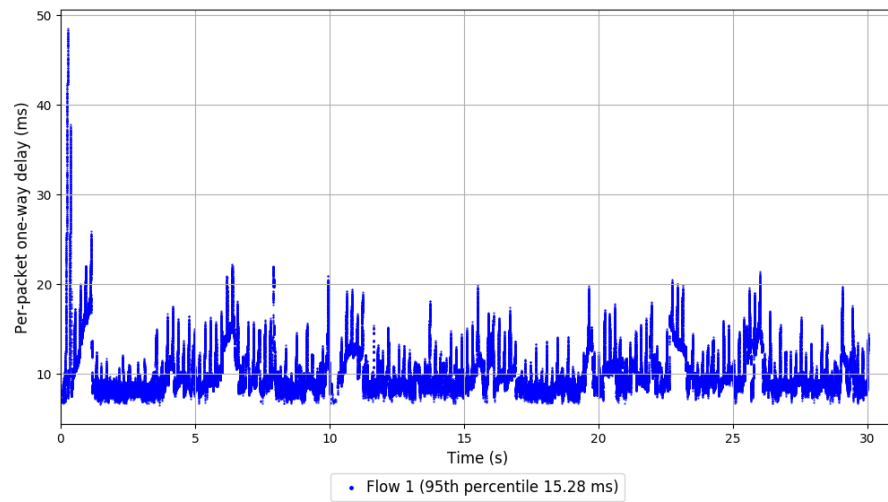
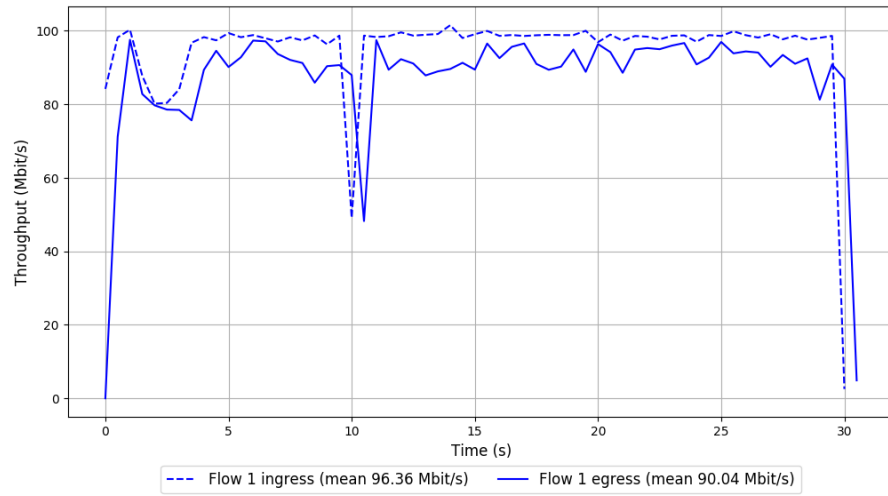


Run 4: Statistics of TCP BBR

Start at: 2018-09-07 11:21:05
End at: 2018-09-07 11:21:35
Local clock offset: -5.478 ms
Remote clock offset: -8.442 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.04 Mbit/s
95th percentile per-packet one-way delay: 15.283 ms
Loss rate: 6.54%
-- Flow 1:
Average throughput: 90.04 Mbit/s
95th percentile per-packet one-way delay: 15.283 ms
Loss rate: 6.54%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-09-07 11:41:26

End at: 2018-09-07 11:41:56

Local clock offset: 0.967 ms

Remote clock offset: -1.303 ms

Below is generated by plot.py at 2018-09-07 11:53:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.05 Mbit/s

95th percentile per-packet one-way delay: 19.566 ms

Loss rate: 4.04%

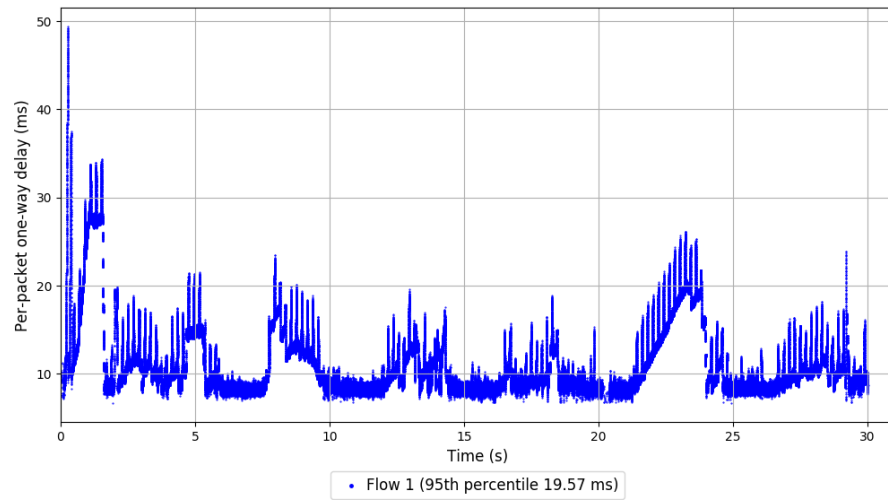
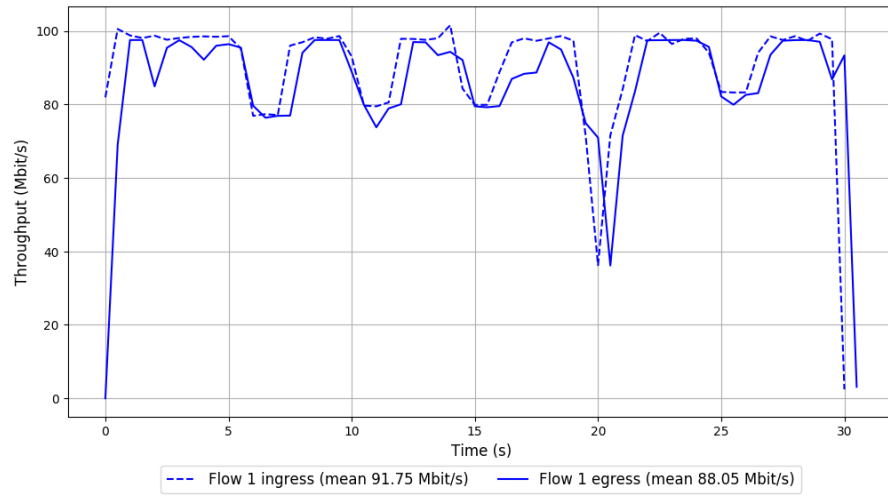
-- Flow 1:

Average throughput: 88.05 Mbit/s

95th percentile per-packet one-way delay: 19.566 ms

Loss rate: 4.04%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-09-07 10:23:14

End at: 2018-09-07 10:23:44

Local clock offset: -0.046 ms

Remote clock offset: 14.68 ms

Below is generated by plot.py at 2018-09-07 11:53:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 33.073 ms

Loss rate: 49.23%

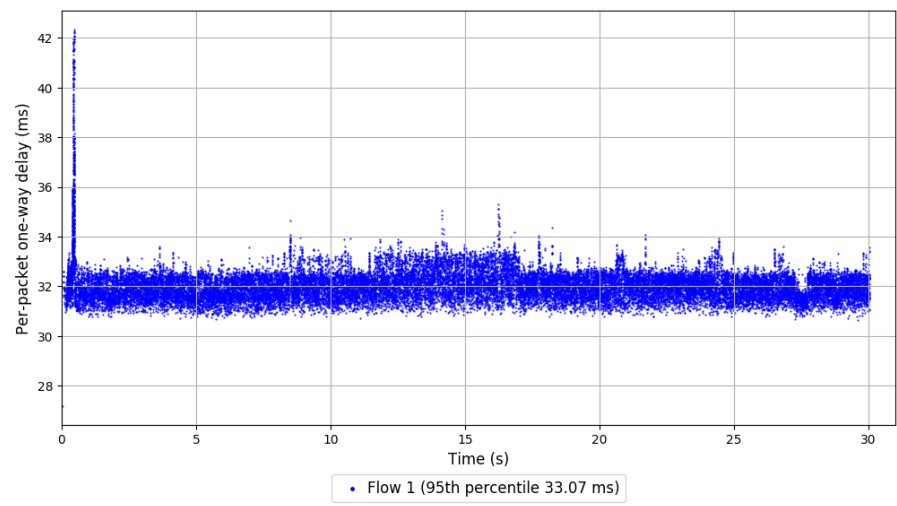
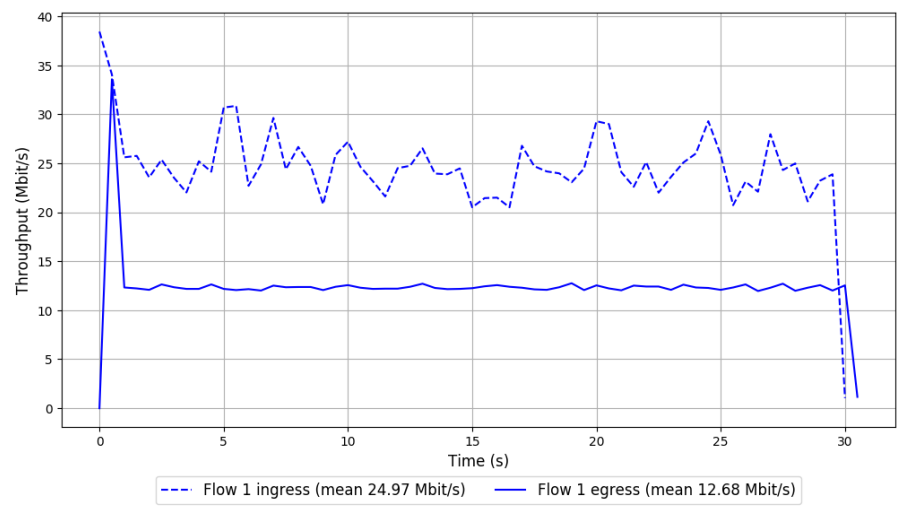
-- Flow 1:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 33.073 ms

Loss rate: 49.23%

Run 1: Report of Copa — Data Link

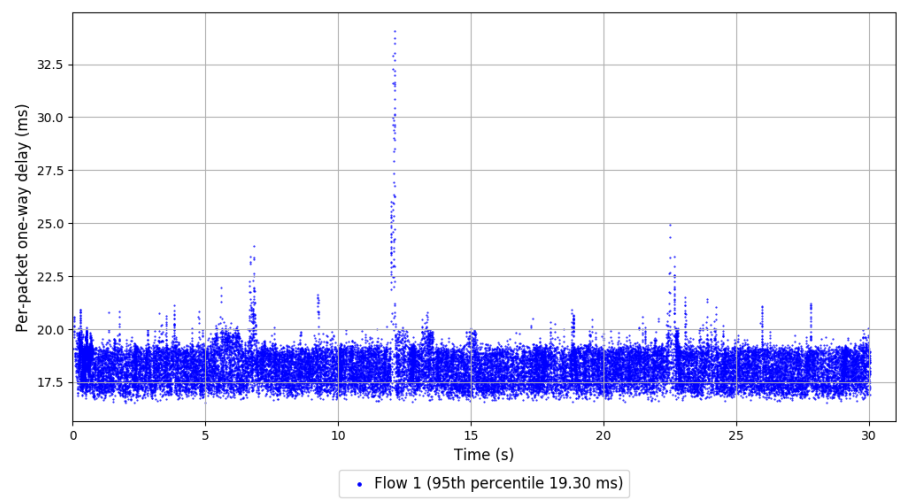
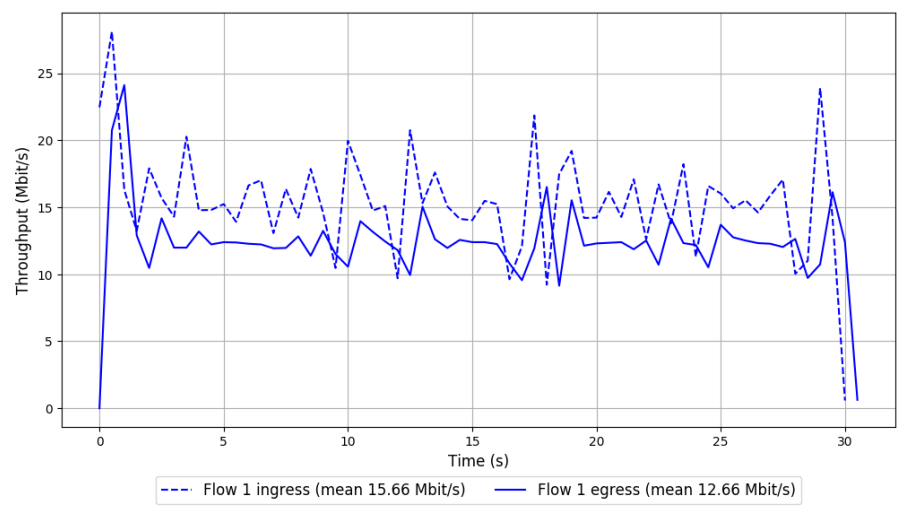


Run 2: Statistics of Copa

Start at: 2018-09-07 10:43:44
End at: 2018-09-07 10:44:14
Local clock offset: -0.963 ms
Remote clock offset: -1.083 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.66 Mbit/s
95th percentile per-packet one-way delay: 19.297 ms
Loss rate: 19.18%
-- Flow 1:
Average throughput: 12.66 Mbit/s
95th percentile per-packet one-way delay: 19.297 ms
Loss rate: 19.18%

Run 2: Report of Copa — Data Link

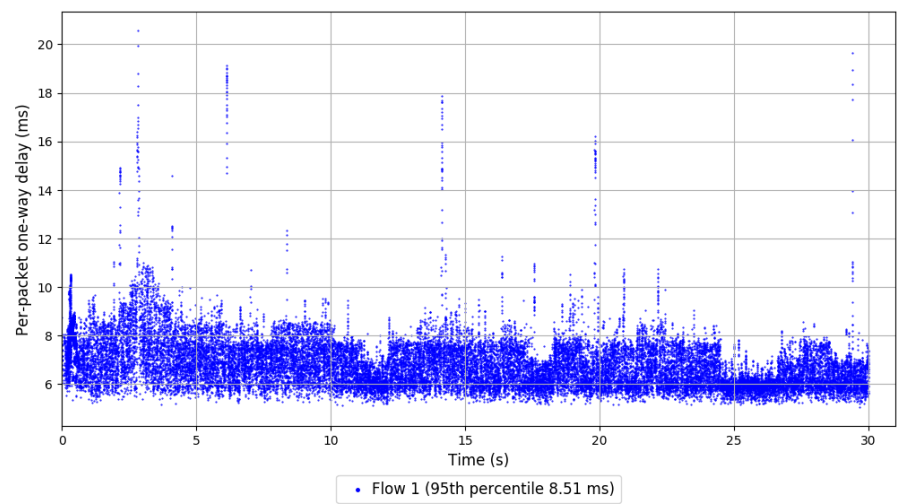
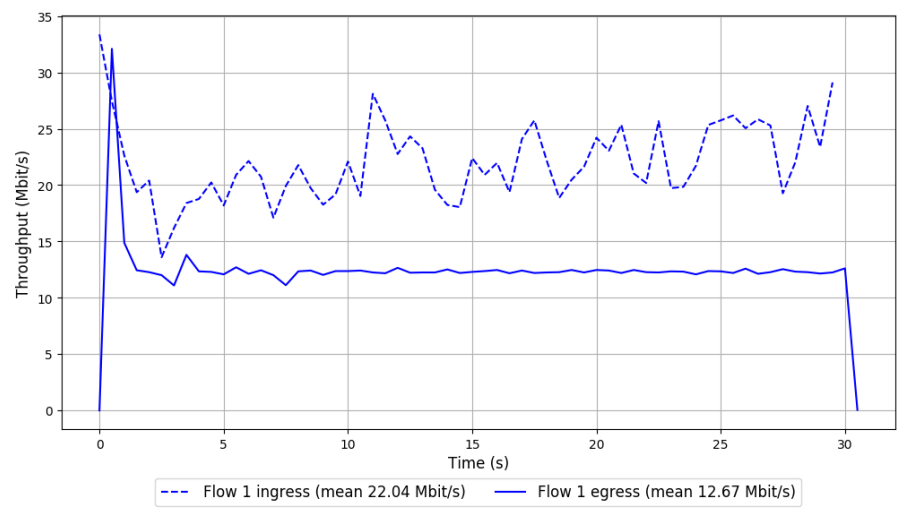


Run 3: Statistics of Copa

Start at: 2018-09-07 11:04:11
End at: 2018-09-07 11:04:41
Local clock offset: 2.97 ms
Remote clock offset: -1.809 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.67 Mbit/s
95th percentile per-packet one-way delay: 8.514 ms
Loss rate: 42.51%
-- Flow 1:
Average throughput: 12.67 Mbit/s
95th percentile per-packet one-way delay: 8.514 ms
Loss rate: 42.51%

Run 3: Report of Copa — Data Link

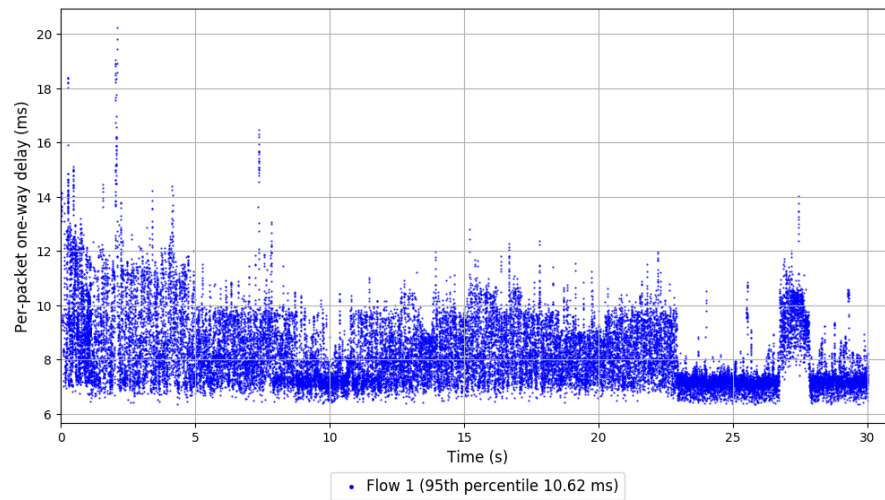
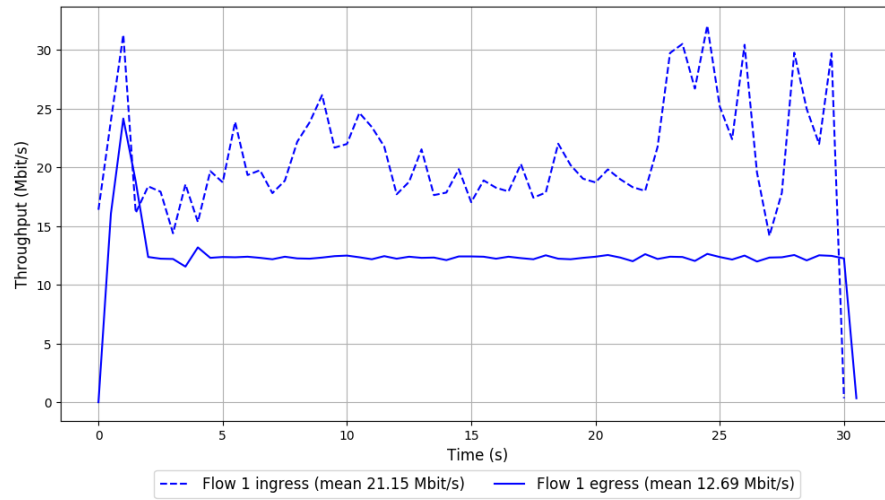


Run 4: Statistics of Copa

Start at: 2018-09-07 11:24:29
End at: 2018-09-07 11:24:59
Local clock offset: 0.832 ms
Remote clock offset: -2.031 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 10.620 ms
Loss rate: 40.00%
-- Flow 1:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 10.620 ms
Loss rate: 40.00%

Run 4: Report of Copa — Data Link

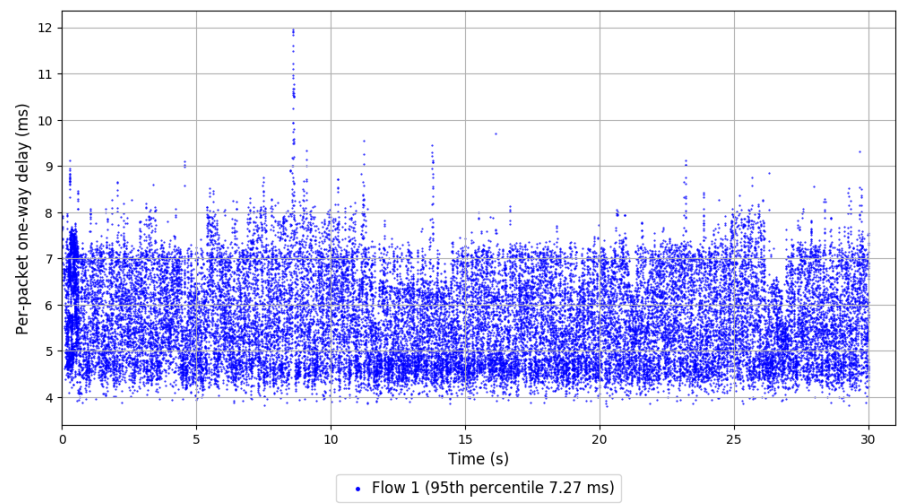
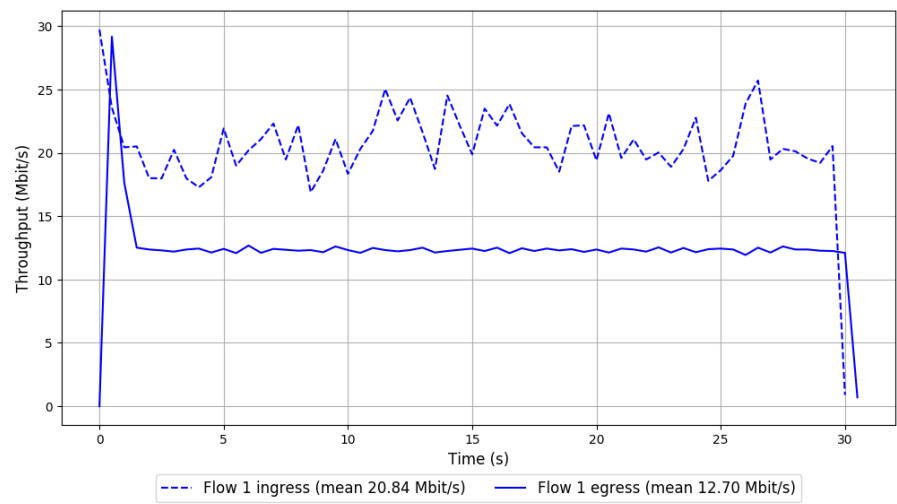


Run 5: Statistics of Copa

Start at: 2018-09-07 11:44:53
End at: 2018-09-07 11:45:23
Local clock offset: 2.513 ms
Remote clock offset: -2.415 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 7.269 ms
Loss rate: 39.07%
-- Flow 1:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 7.269 ms
Loss rate: 39.07%

Run 5: Report of Copa — Data Link

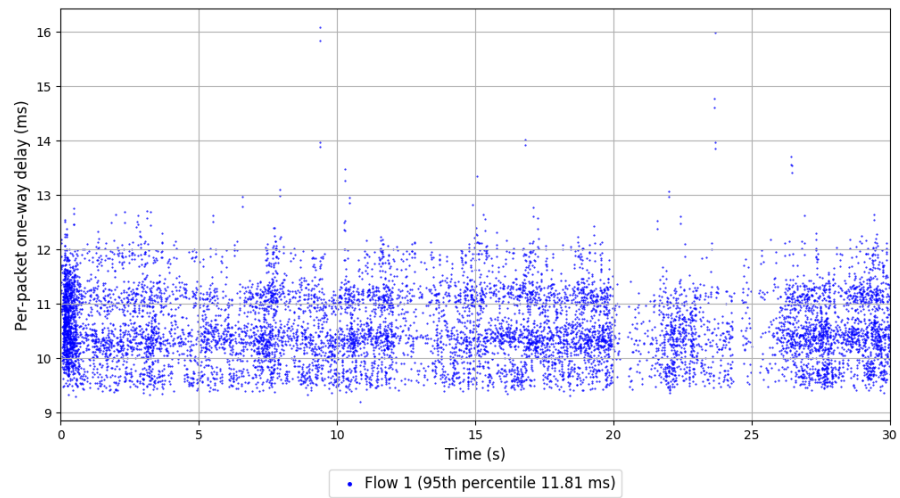
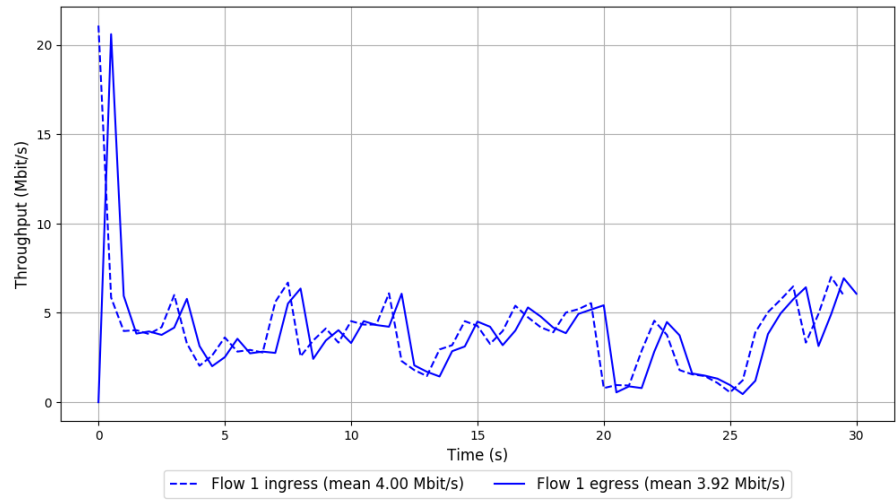


Run 1: Statistics of TCP Cubic

Start at: 2018-09-07 10:15:11
End at: 2018-09-07 10:15:41
Local clock offset: -0.422 ms
Remote clock offset: -1.912 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 11.812 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 11.812 ms
Loss rate: 2.05%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-09-07 10:35:42

End at: 2018-09-07 10:36:12

Local clock offset: 0.019 ms

Remote clock offset: 2.731 ms

Below is generated by plot.py at 2018-09-07 11:53:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 26.19 Mbit/s

95th percentile per-packet one-way delay: 23.615 ms

Loss rate: 0.07%

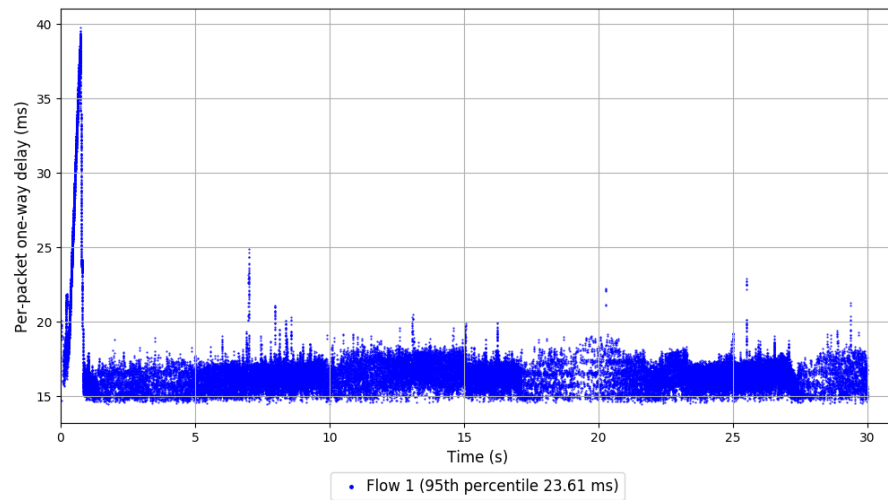
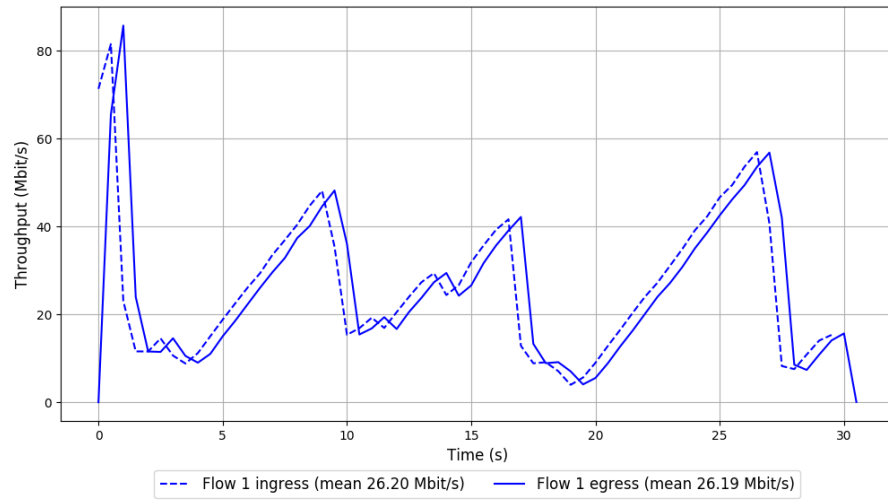
-- Flow 1:

Average throughput: 26.19 Mbit/s

95th percentile per-packet one-way delay: 23.615 ms

Loss rate: 0.07%

Run 2: Report of TCP Cubic — Data Link

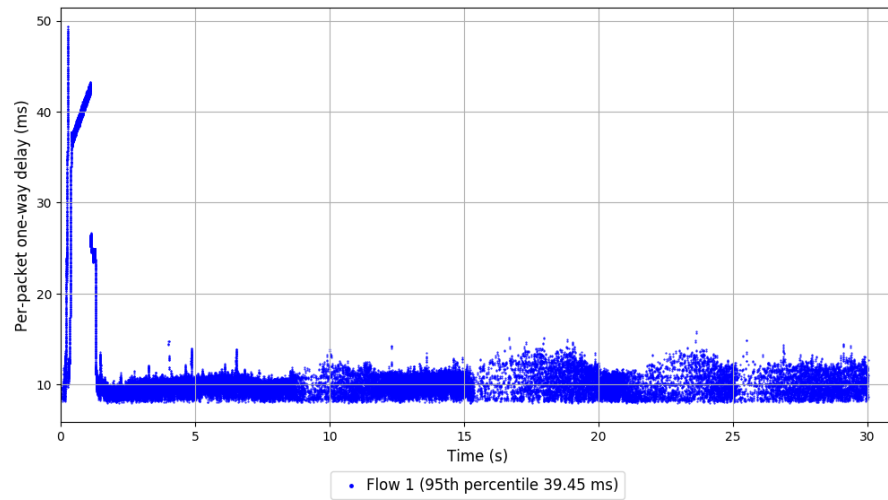
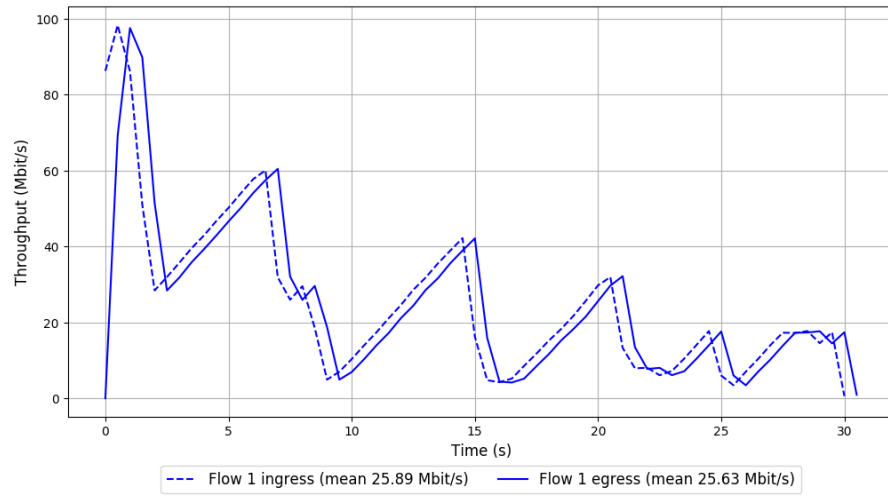


Run 3: Statistics of TCP Cubic

Start at: 2018-09-07 10:56:14
End at: 2018-09-07 10:56:44
Local clock offset: 2.085 ms
Remote clock offset: -2.055 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 25.63 Mbit/s
95th percentile per-packet one-way delay: 39.450 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 25.63 Mbit/s
95th percentile per-packet one-way delay: 39.450 ms
Loss rate: 0.99%

Run 3: Report of TCP Cubic — Data Link

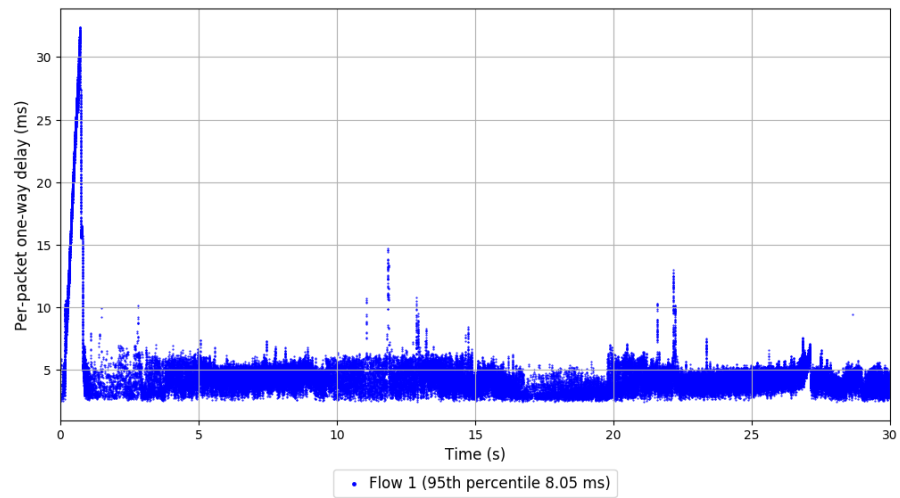
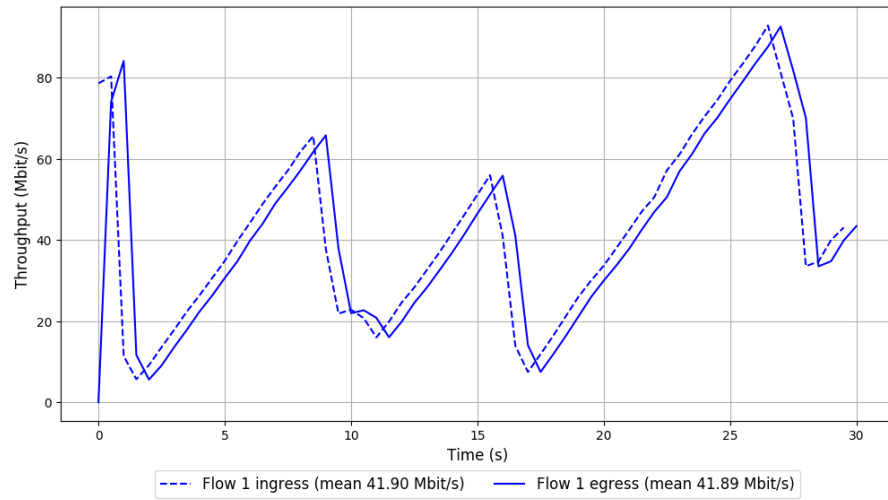


Run 4: Statistics of TCP Cubic

Start at: 2018-09-07 11:16:37
End at: 2018-09-07 11:17:07
Local clock offset: 3.898 ms
Remote clock offset: -3.466 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 41.89 Mbit/s
95th percentile per-packet one-way delay: 8.054 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 41.89 Mbit/s
95th percentile per-packet one-way delay: 8.054 ms
Loss rate: 0.03%

Run 4: Report of TCP Cubic — Data Link

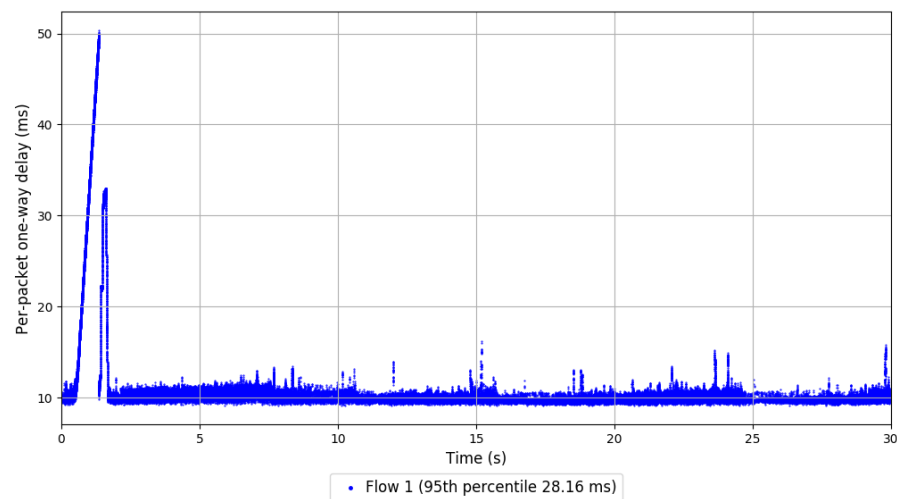
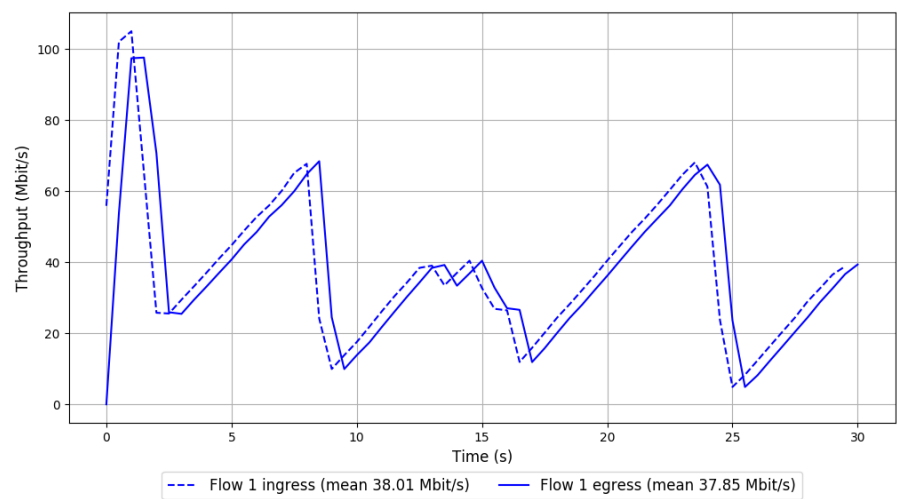


Run 5: Statistics of TCP Cubic

Start at: 2018-09-07 11:36:53
End at: 2018-09-07 11:37:23
Local clock offset: -0.301 ms
Remote clock offset: -2.387 ms

Below is generated by plot.py at 2018-09-07 11:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 37.85 Mbit/s
95th percentile per-packet one-way delay: 28.160 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 37.85 Mbit/s
95th percentile per-packet one-way delay: 28.160 ms
Loss rate: 0.43%

Run 5: Report of TCP Cubic — Data Link

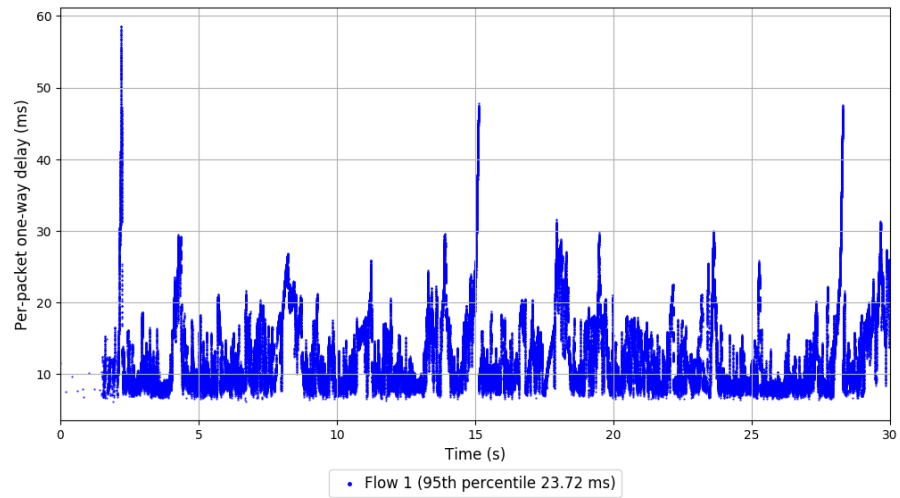
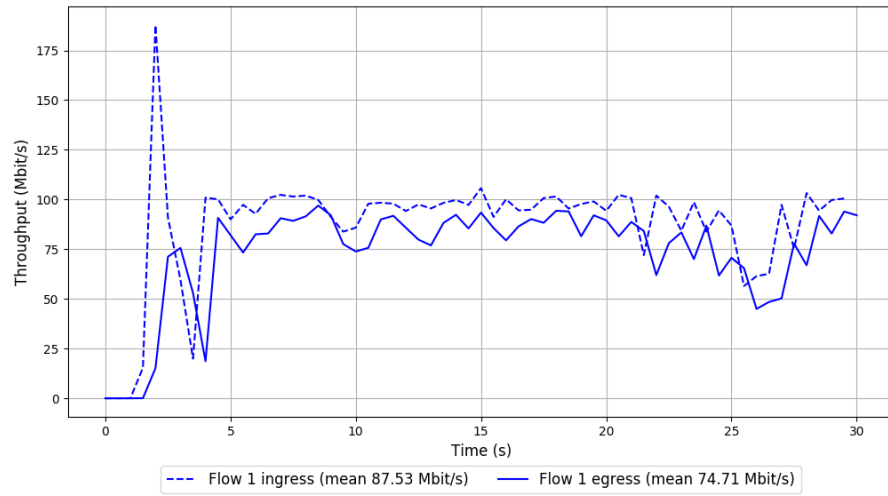


Run 1: Statistics of FillP

Start at: 2018-09-07 10:05:50
End at: 2018-09-07 10:06:20
Local clock offset: -1.049 ms
Remote clock offset: -2.803 ms

Below is generated by plot.py at 2018-09-07 11:53:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 74.71 Mbit/s
95th percentile per-packet one-way delay: 23.717 ms
Loss rate: 14.62%
-- Flow 1:
Average throughput: 74.71 Mbit/s
95th percentile per-packet one-way delay: 23.717 ms
Loss rate: 14.62%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-09-07 10:32:15

End at: 2018-09-07 10:32:45

Local clock offset: 0.272 ms

Remote clock offset: 1.934 ms

Below is generated by plot.py at 2018-09-07 11:54:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.85 Mbit/s

95th percentile per-packet one-way delay: 44.780 ms

Loss rate: 10.65%

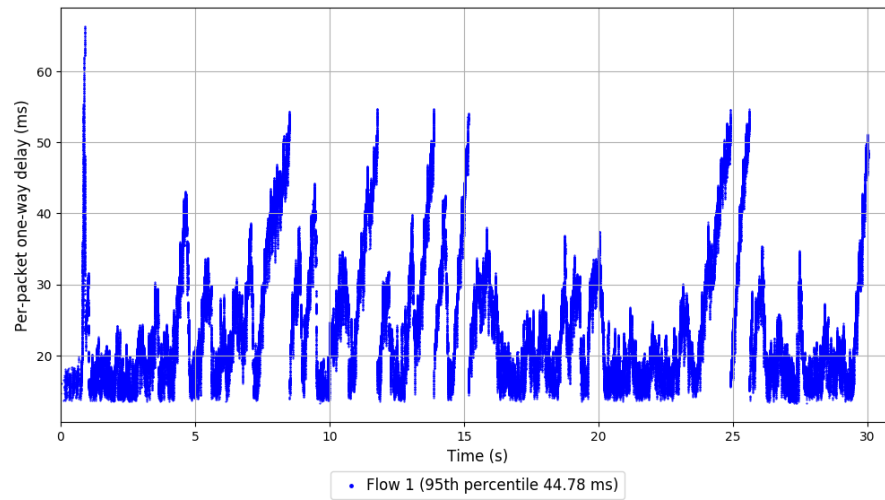
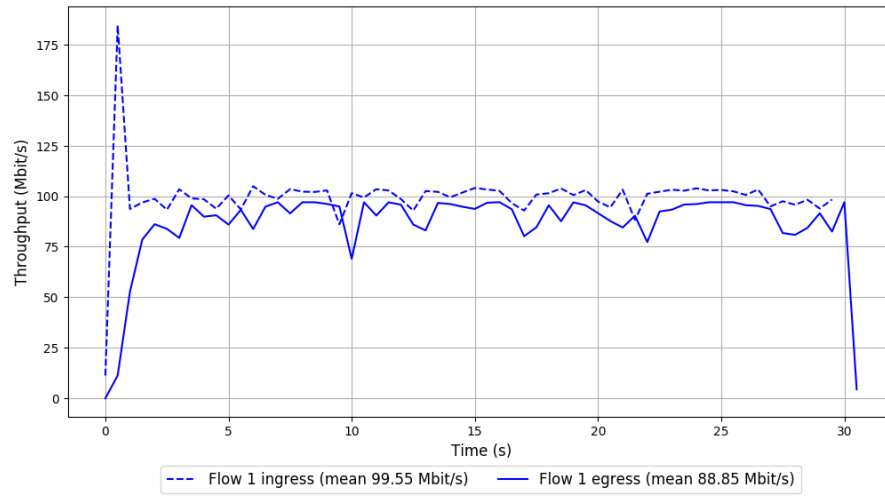
-- Flow 1:

Average throughput: 88.85 Mbit/s

95th percentile per-packet one-way delay: 44.780 ms

Loss rate: 10.65%

Run 2: Report of FillP — Data Link

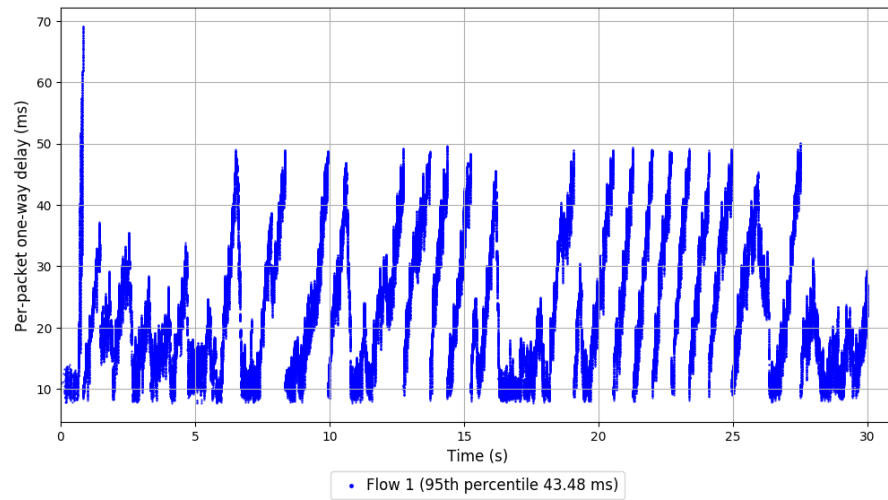
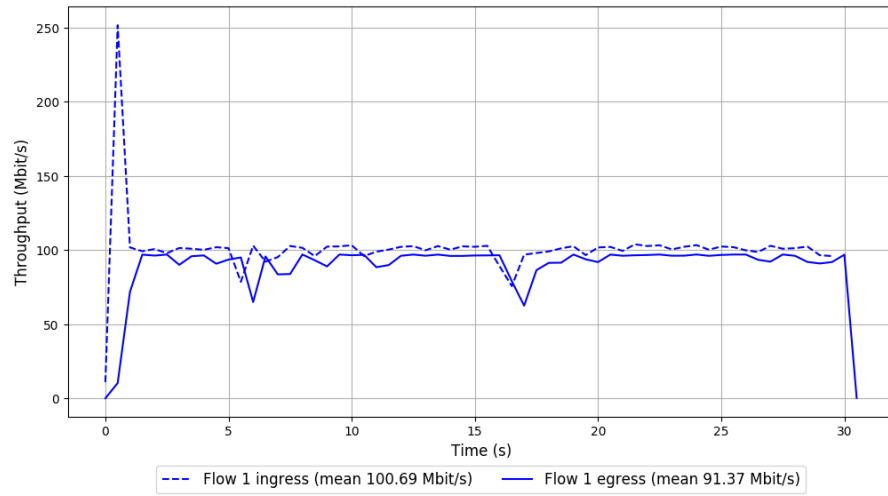


Run 3: Statistics of FillP

Start at: 2018-09-07 10:52:48
End at: 2018-09-07 10:53:18
Local clock offset: 2.261 ms
Remote clock offset: -1.955 ms

Below is generated by plot.py at 2018-09-07 11:54:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.37 Mbit/s
95th percentile per-packet one-way delay: 43.484 ms
Loss rate: 9.21%
-- Flow 1:
Average throughput: 91.37 Mbit/s
95th percentile per-packet one-way delay: 43.484 ms
Loss rate: 9.21%

Run 3: Report of FillP — Data Link

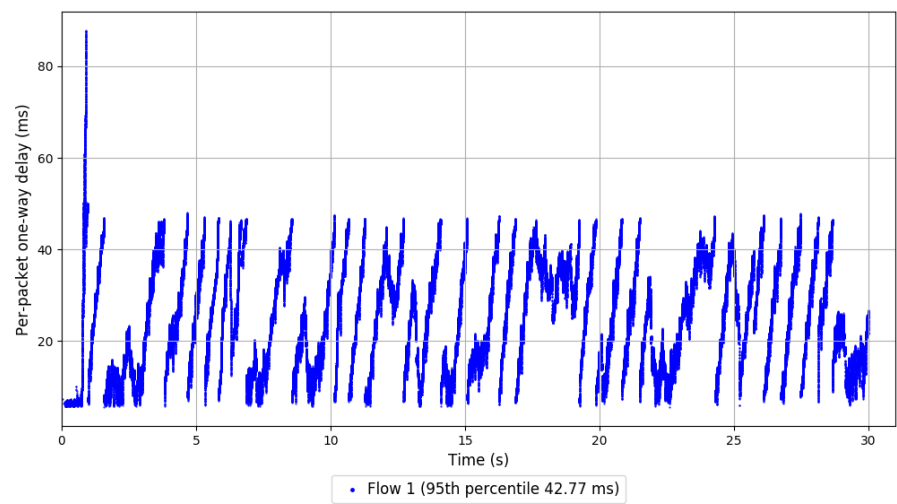
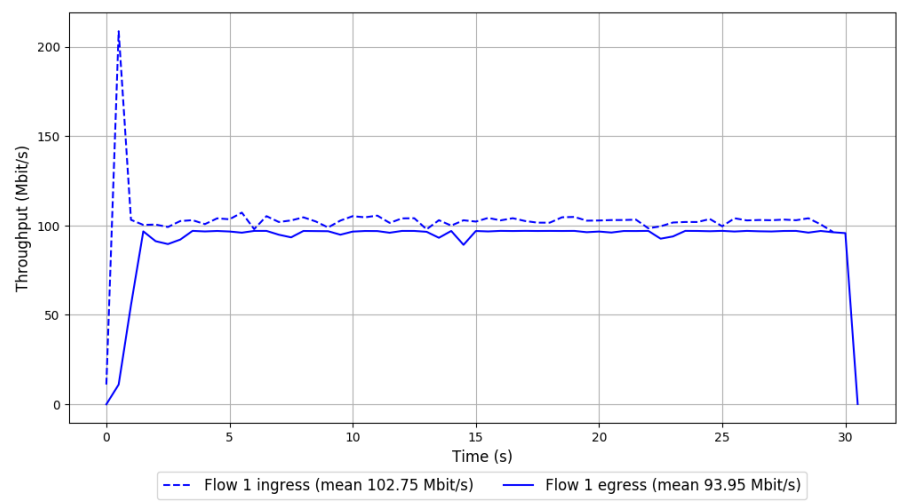


Run 4: Statistics of FillP

Start at: 2018-09-07 11:13:12
End at: 2018-09-07 11:13:42
Local clock offset: 2.27 ms
Remote clock offset: -1.995 ms

Below is generated by plot.py at 2018-09-07 11:54:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.95 Mbit/s
95th percentile per-packet one-way delay: 42.774 ms
Loss rate: 8.50%
-- Flow 1:
Average throughput: 93.95 Mbit/s
95th percentile per-packet one-way delay: 42.774 ms
Loss rate: 8.50%

Run 4: Report of FillP — Data Link

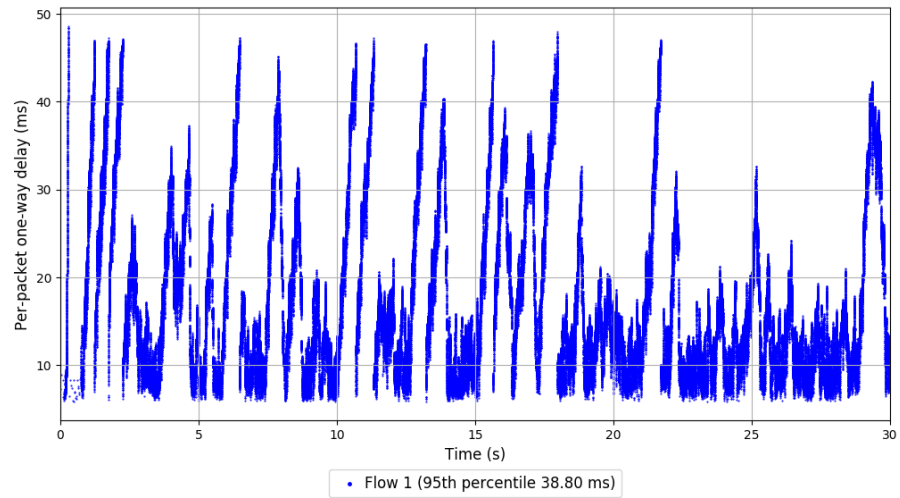
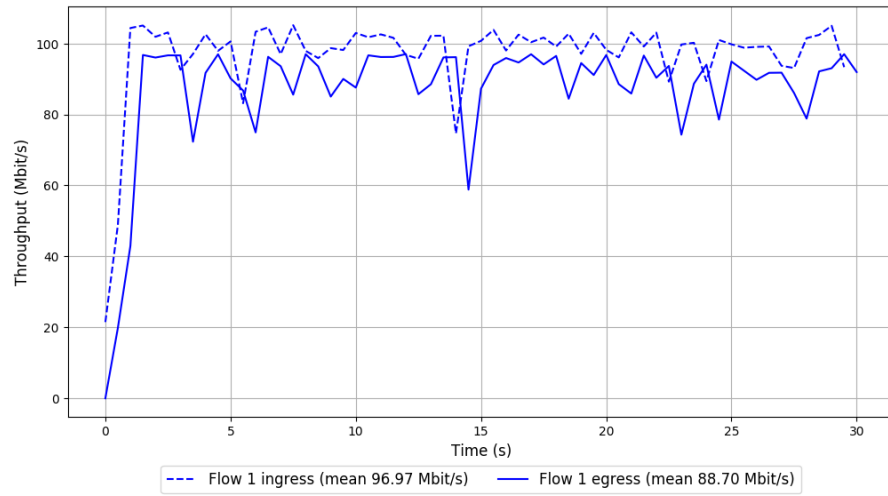


Run 5: Statistics of FillP

Start at: 2018-09-07 11:33:29
End at: 2018-09-07 11:33:59
Local clock offset: 0.575 ms
Remote clock offset: -2.511 ms

Below is generated by plot.py at 2018-09-07 11:54:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 88.70 Mbit/s
95th percentile per-packet one-way delay: 38.800 ms
Loss rate: 8.52%
-- Flow 1:
Average throughput: 88.70 Mbit/s
95th percentile per-packet one-way delay: 38.800 ms
Loss rate: 8.52%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2018-09-07 10:28:50

End at: 2018-09-07 10:29:20

Local clock offset: 1.835 ms

Remote clock offset: -2.945 ms

Below is generated by plot.py at 2018-09-07 11:54:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.71 Mbit/s

95th percentile per-packet one-way delay: 26.906 ms

Loss rate: 10.16%

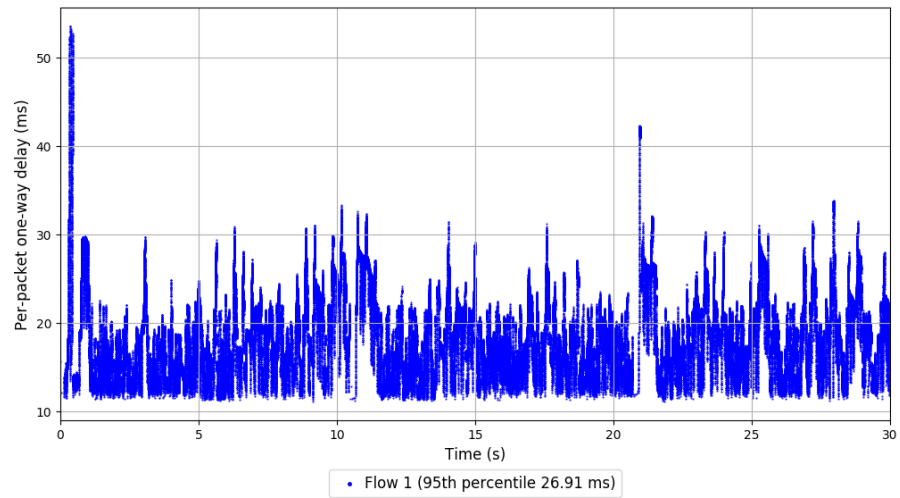
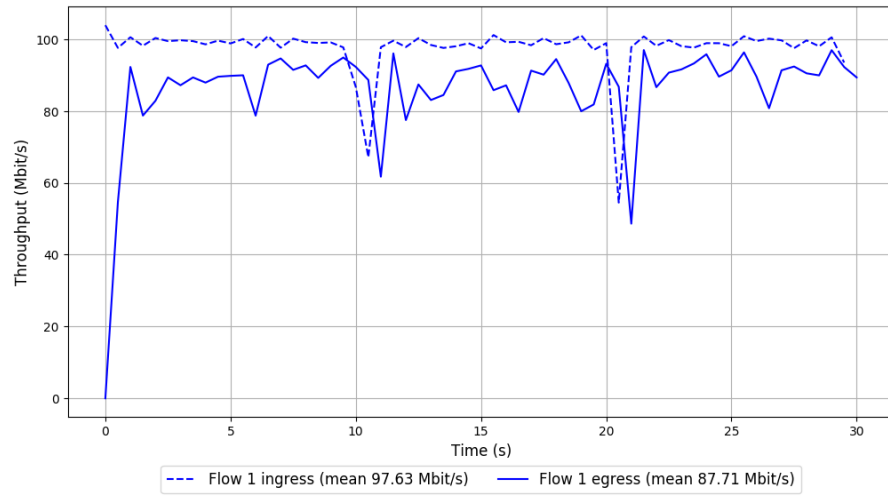
-- Flow 1:

Average throughput: 87.71 Mbit/s

95th percentile per-packet one-way delay: 26.906 ms

Loss rate: 10.16%

Run 1: Report of FillP-Sheep — Data Link

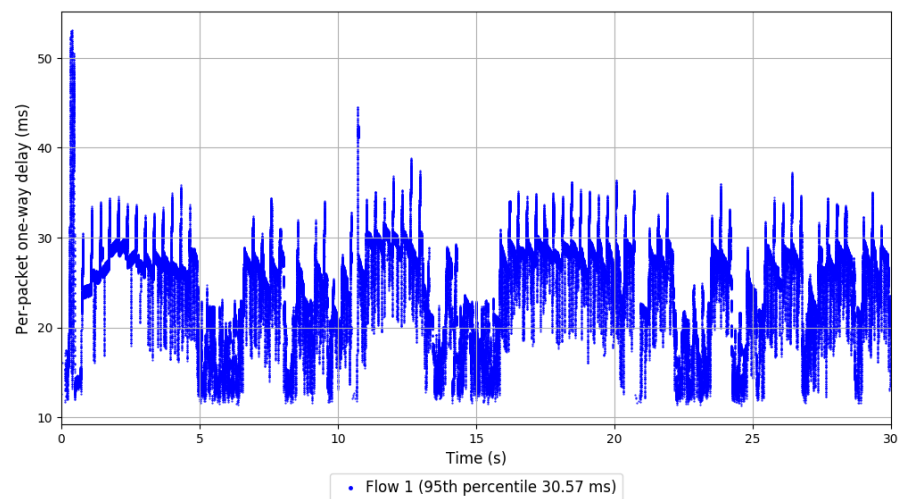
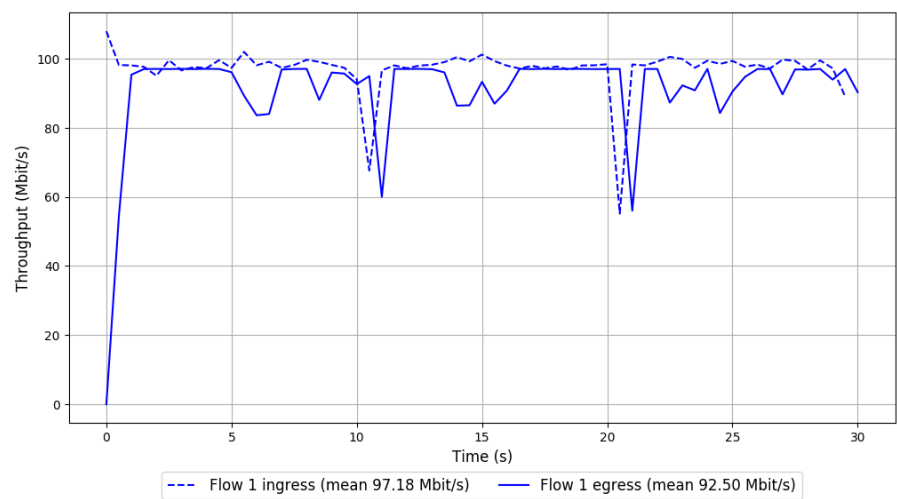


Run 2: Statistics of FillP-Sheep

Start at: 2018-09-07 10:49:19
End at: 2018-09-07 10:49:49
Local clock offset: -1.376 ms
Remote clock offset: -1.879 ms

Below is generated by plot.py at 2018-09-07 11:54:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.50 Mbit/s
95th percentile per-packet one-way delay: 30.566 ms
Loss rate: 4.78%
-- Flow 1:
Average throughput: 92.50 Mbit/s
95th percentile per-packet one-way delay: 30.566 ms
Loss rate: 4.78%

Run 2: Report of FillP-Sheep — Data Link

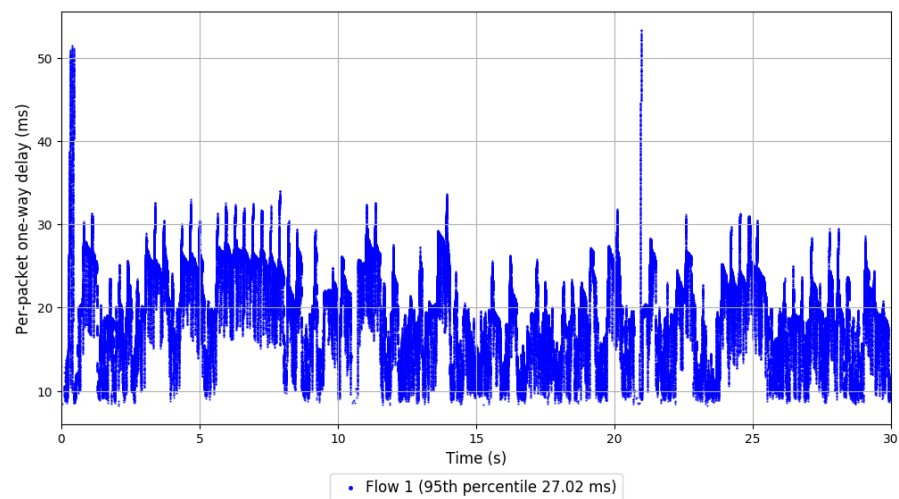
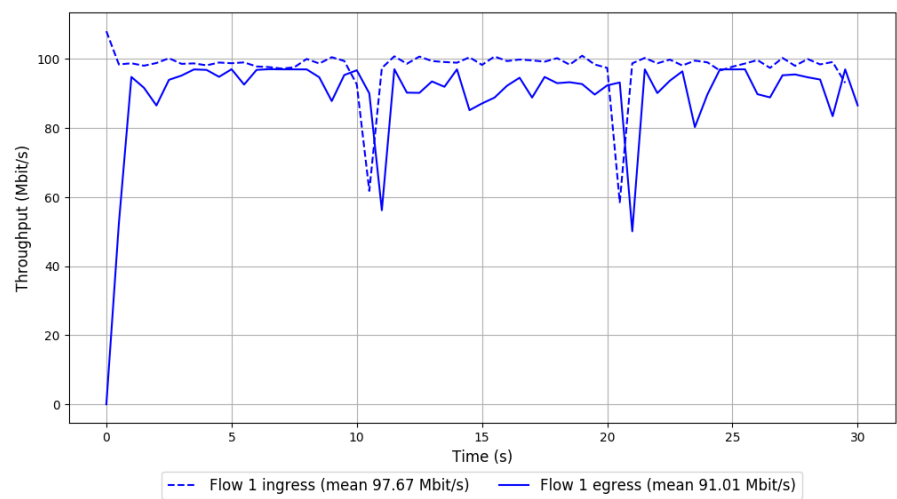


Run 3: Statistics of FillP-Sheep

Start at: 2018-09-07 11:09:46
End at: 2018-09-07 11:10:16
Local clock offset: 1.733 ms
Remote clock offset: -2.132 ms

Below is generated by plot.py at 2018-09-07 11:54:21
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.01 Mbit/s
95th percentile per-packet one-way delay: 27.025 ms
Loss rate: 6.82%
-- Flow 1:
Average throughput: 91.01 Mbit/s
95th percentile per-packet one-way delay: 27.025 ms
Loss rate: 6.82%

Run 3: Report of FillP-Sheep — Data Link

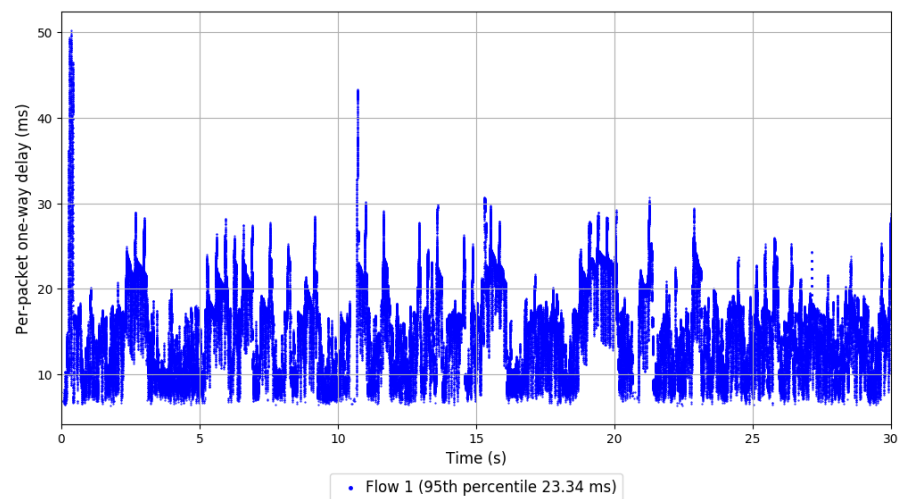
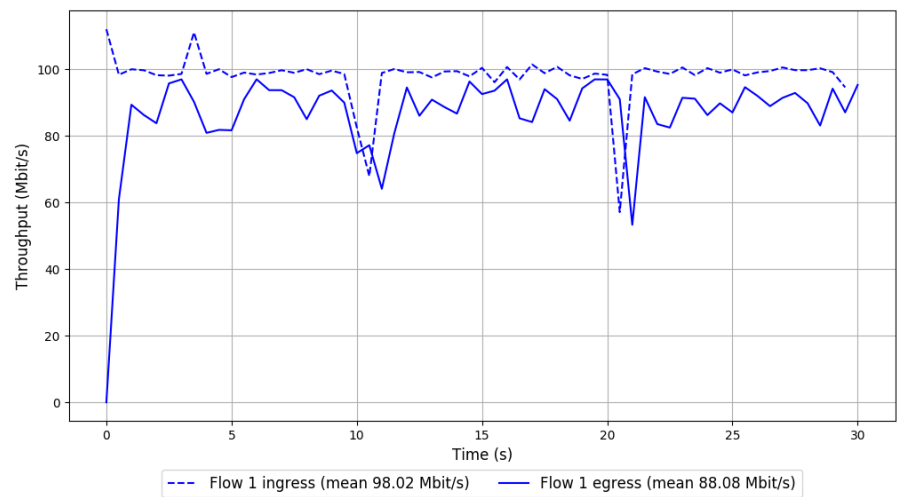


Run 4: Statistics of FillP-Sheep

Start at: 2018-09-07 11:30:03
End at: 2018-09-07 11:30:33
Local clock offset: -0.078 ms
Remote clock offset: -2.683 ms

Below is generated by plot.py at 2018-09-07 11:55:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 88.08 Mbit/s
95th percentile per-packet one-way delay: 23.339 ms
Loss rate: 10.10%
-- Flow 1:
Average throughput: 88.08 Mbit/s
95th percentile per-packet one-way delay: 23.339 ms
Loss rate: 10.10%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-09-07 11:50:26

End at: 2018-09-07 11:50:56

Local clock offset: 1.235 ms

Remote clock offset: -2.006 ms

Below is generated by plot.py at 2018-09-07 11:55:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.47 Mbit/s

95th percentile per-packet one-way delay: 24.711 ms

Loss rate: 5.03%

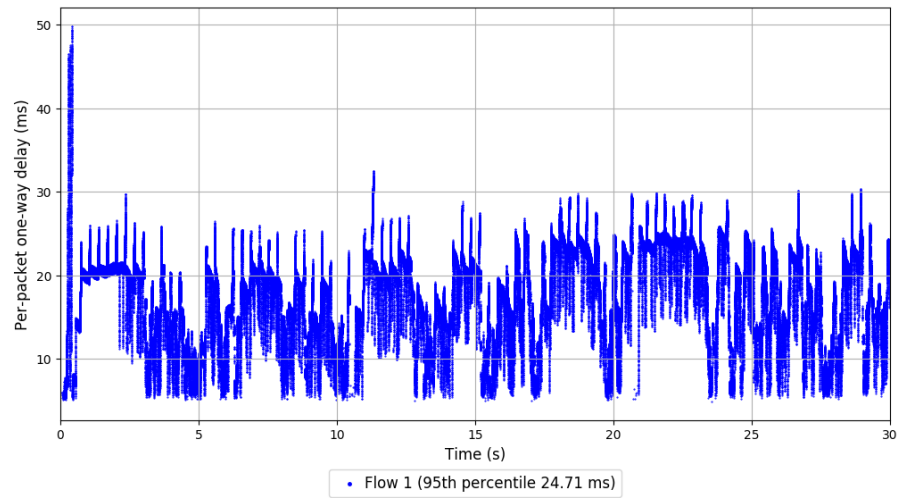
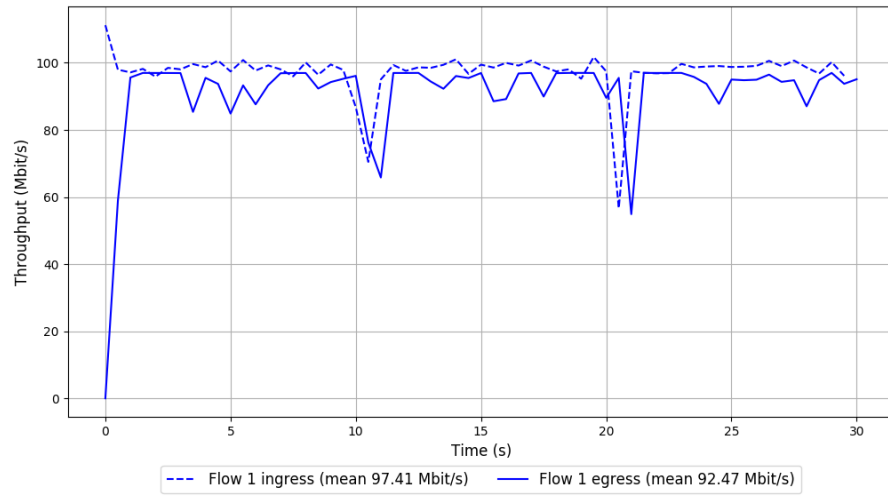
-- Flow 1:

Average throughput: 92.47 Mbit/s

95th percentile per-packet one-way delay: 24.711 ms

Loss rate: 5.03%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2018-09-07 10:12:55

End at: 2018-09-07 10:13:25

Local clock offset: -0.009 ms

Remote clock offset: -1.65 ms

Below is generated by plot.py at 2018-09-07 11:55:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 46.76 Mbit/s

95th percentile per-packet one-way delay: 13.012 ms

Loss rate: 1.70%

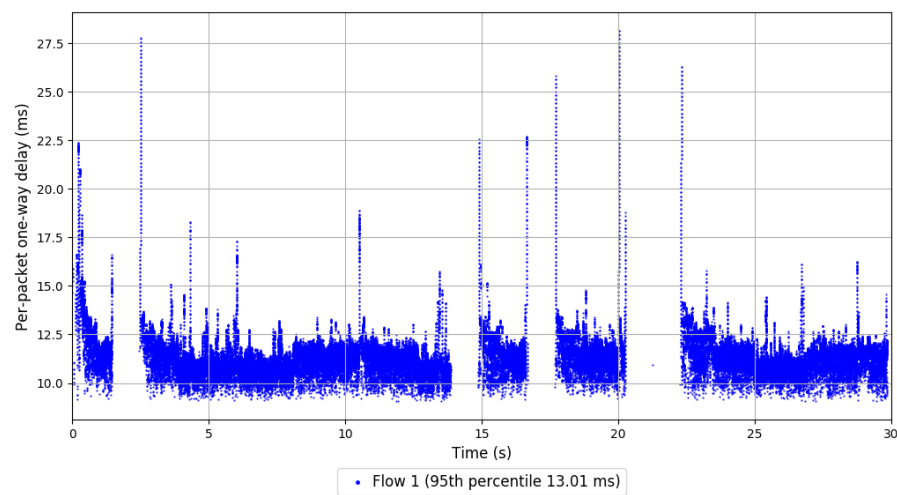
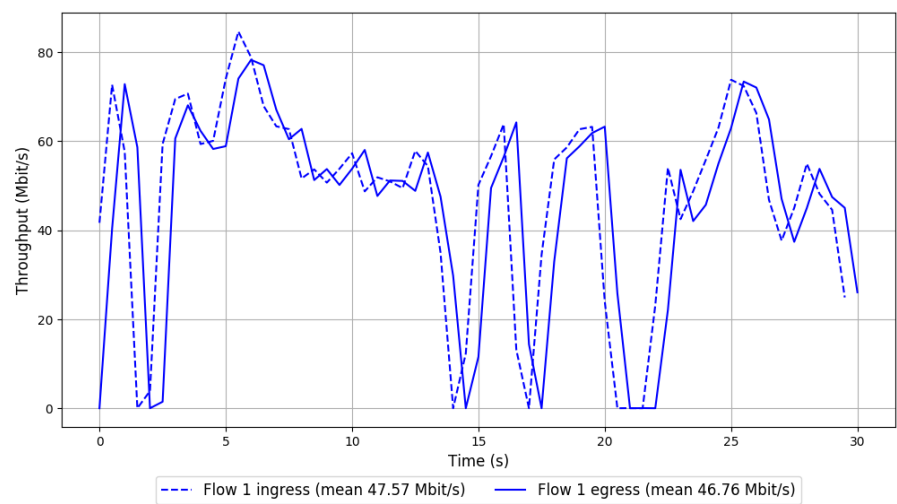
-- Flow 1:

Average throughput: 46.76 Mbit/s

95th percentile per-packet one-way delay: 13.012 ms

Loss rate: 1.70%

Run 1: Report of Indigo — Data Link

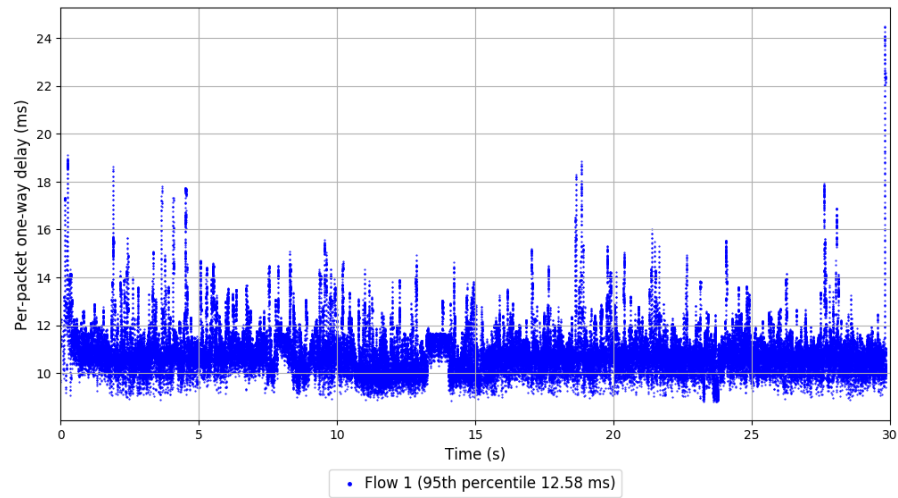
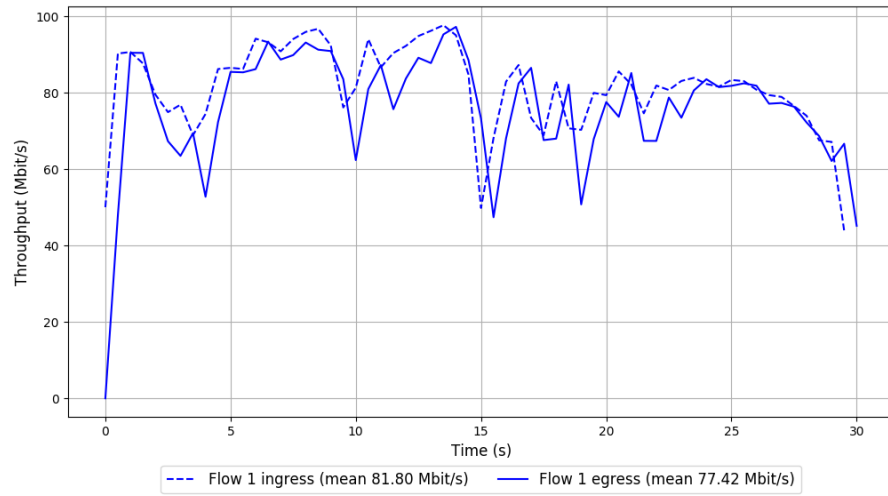


Run 2: Statistics of Indigo

Start at: 2018-09-07 10:33:24
End at: 2018-09-07 10:33:54
Local clock offset: 0.839 ms
Remote clock offset: -2.212 ms

Below is generated by plot.py at 2018-09-07 11:55:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 77.42 Mbit/s
95th percentile per-packet one-way delay: 12.578 ms
Loss rate: 5.35%
-- Flow 1:
Average throughput: 77.42 Mbit/s
95th percentile per-packet one-way delay: 12.578 ms
Loss rate: 5.35%

Run 2: Report of Indigo — Data Link

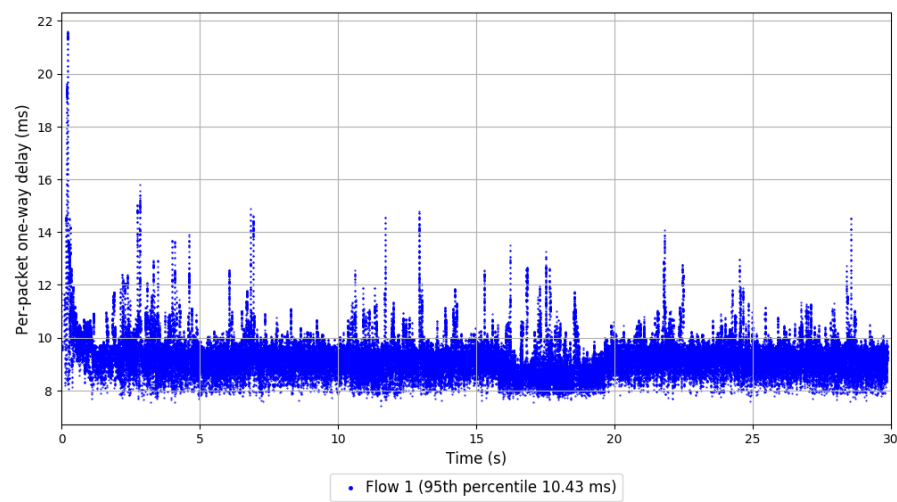
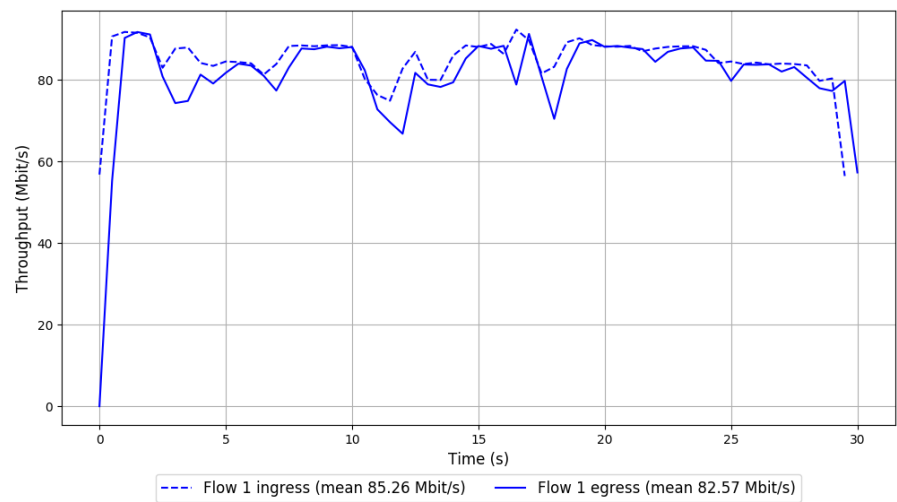


Run 3: Statistics of Indigo

Start at: 2018-09-07 10:53:58
End at: 2018-09-07 10:54:28
Local clock offset: 2.24 ms
Remote clock offset: -2.344 ms

Below is generated by plot.py at 2018-09-07 11:55:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.57 Mbit/s
95th percentile per-packet one-way delay: 10.425 ms
Loss rate: 3.16%
-- Flow 1:
Average throughput: 82.57 Mbit/s
95th percentile per-packet one-way delay: 10.425 ms
Loss rate: 3.16%

Run 3: Report of Indigo — Data Link

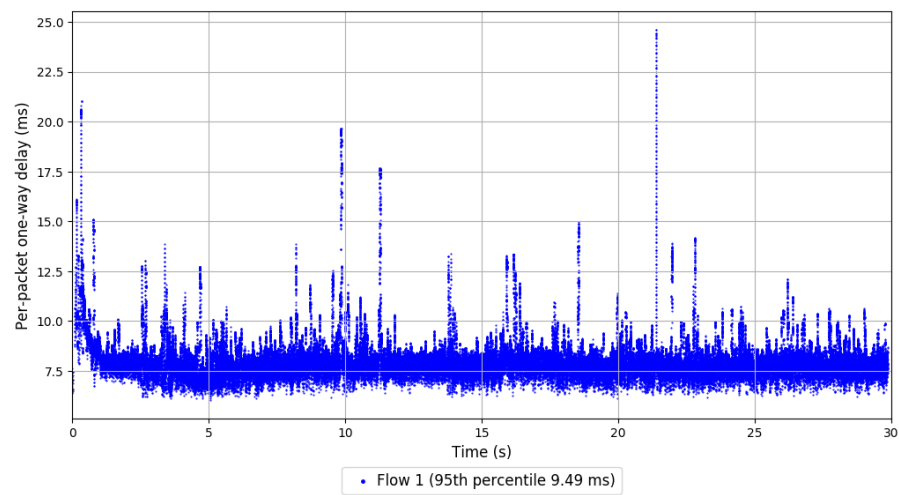
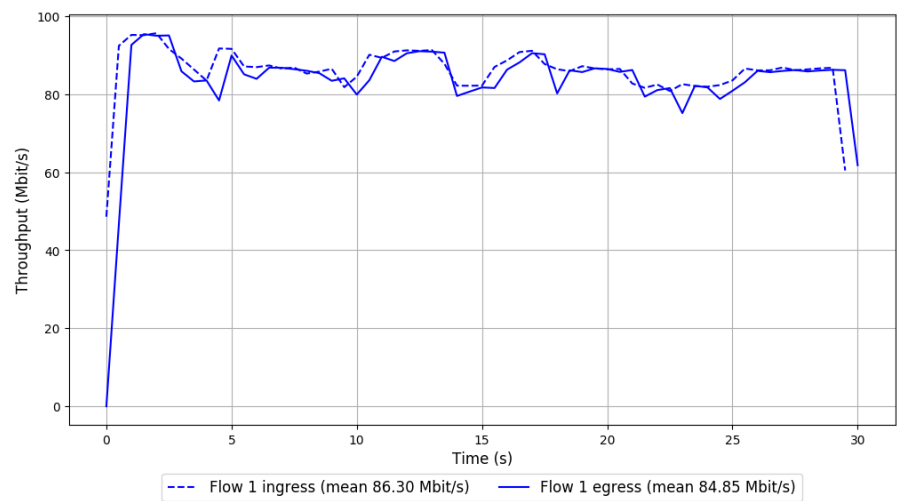


Run 4: Statistics of Indigo

Start at: 2018-09-07 11:14:21
End at: 2018-09-07 11:14:51
Local clock offset: 2.527 ms
Remote clock offset: -1.592 ms

Below is generated by plot.py at 2018-09-07 11:55:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.85 Mbit/s
95th percentile per-packet one-way delay: 9.491 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 84.85 Mbit/s
95th percentile per-packet one-way delay: 9.491 ms
Loss rate: 1.68%

Run 4: Report of Indigo — Data Link

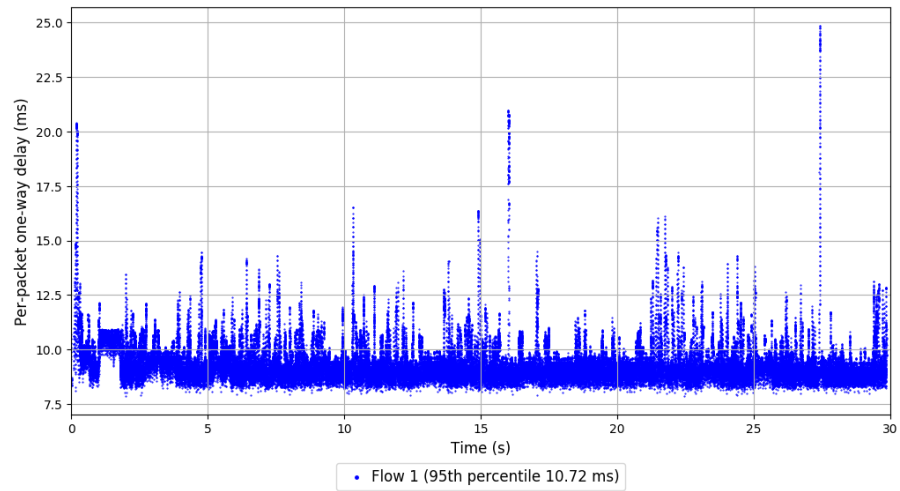
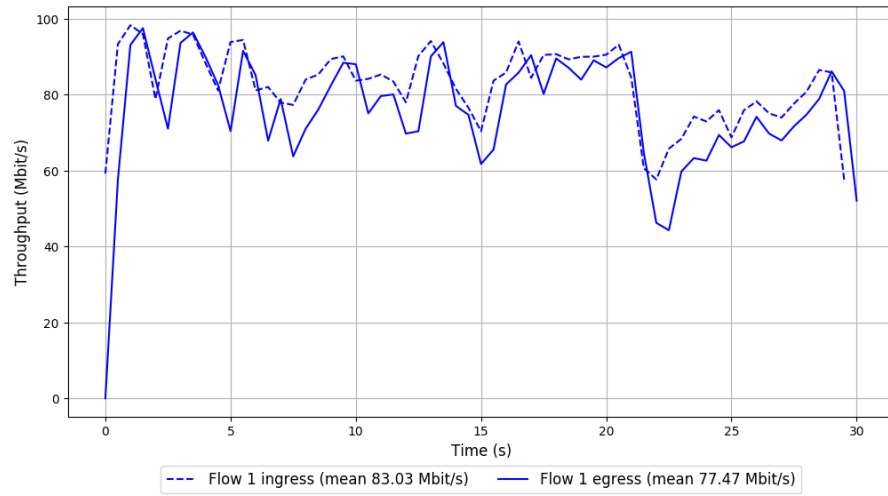


Run 5: Statistics of Indigo

Start at: 2018-09-07 11:34:38
End at: 2018-09-07 11:35:08
Local clock offset: 1.741 ms
Remote clock offset: -1.629 ms

Below is generated by plot.py at 2018-09-07 11:55:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 77.47 Mbit/s
95th percentile per-packet one-way delay: 10.722 ms
Loss rate: 6.69%
-- Flow 1:
Average throughput: 77.47 Mbit/s
95th percentile per-packet one-way delay: 10.722 ms
Loss rate: 6.69%

Run 5: Report of Indigo — Data Link

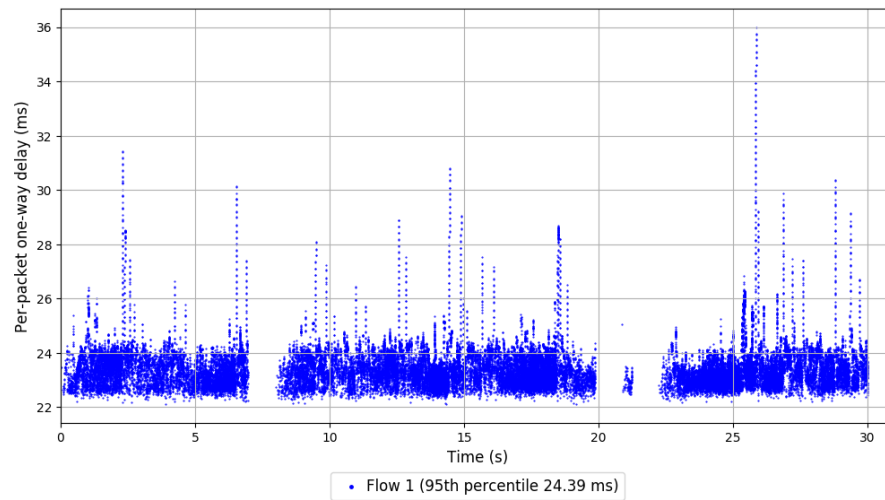
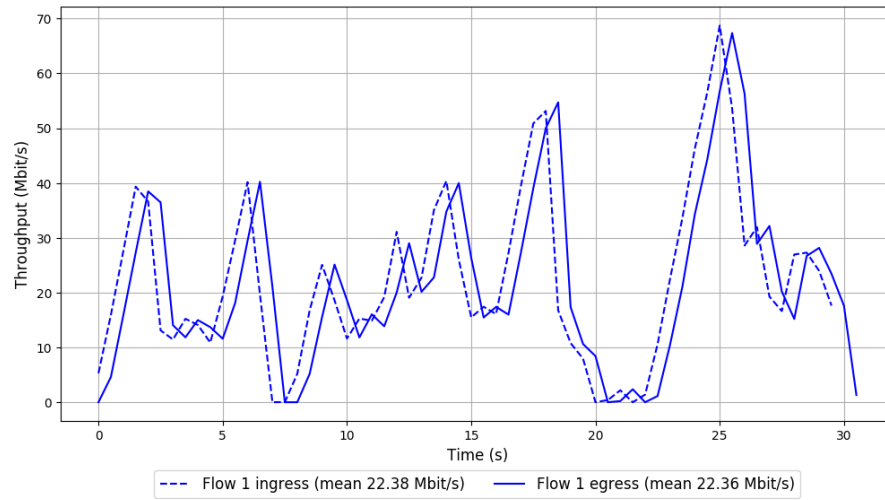


```
Run 1: Statistics of LEDBAT

Start at: 2018-09-07 10:18:35
End at: 2018-09-07 10:19:05
Local clock offset: -0.335 ms
Remote clock offset: 6.115 ms

# Below is generated by plot.py at 2018-09-07 11:55:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.36 Mbit/s
95th percentile per-packet one-way delay: 24.391 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 22.36 Mbit/s
95th percentile per-packet one-way delay: 24.391 ms
Loss rate: 0.09%
```

Run 1: Report of LEDBAT — Data Link

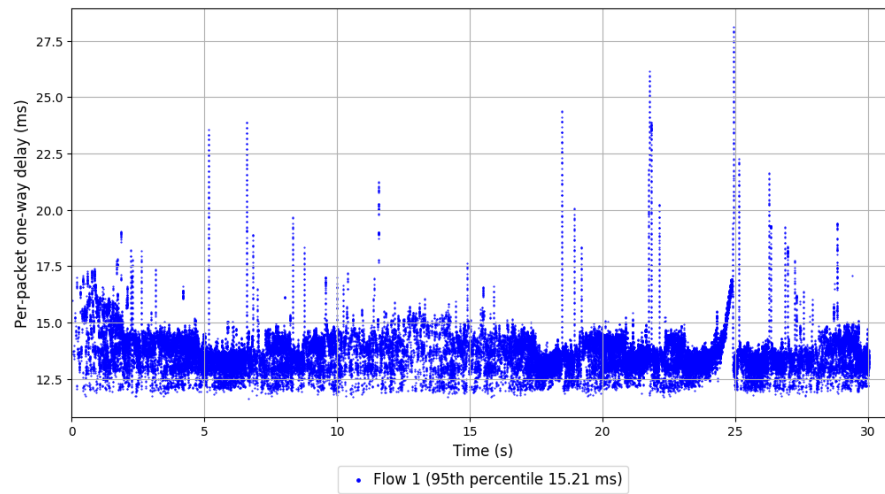
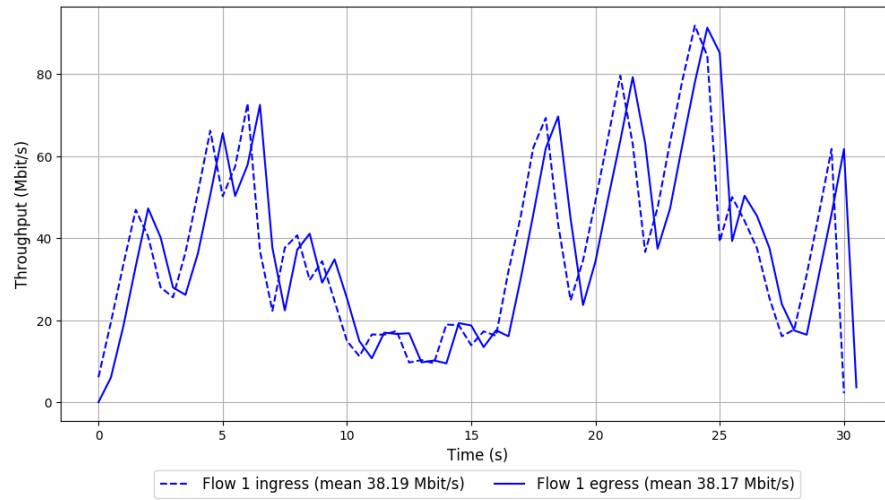


Run 2: Statistics of LEDBAT

Start at: 2018-09-07 10:39:08
End at: 2018-09-07 10:39:38
Local clock offset: -2.748 ms
Remote clock offset: -2.931 ms

Below is generated by plot.py at 2018-09-07 11:55:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 38.17 Mbit/s
95th percentile per-packet one-way delay: 15.205 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 38.17 Mbit/s
95th percentile per-packet one-way delay: 15.205 ms
Loss rate: 0.06%

Run 2: Report of LEDBAT — Data Link

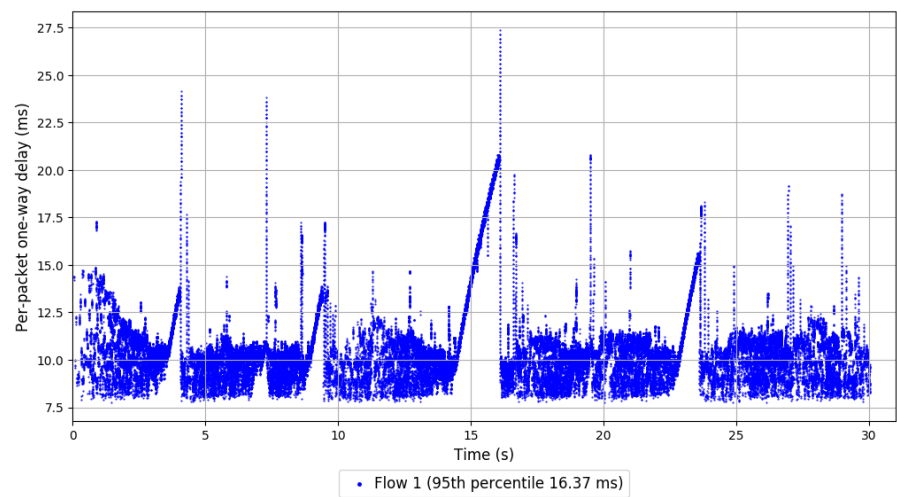
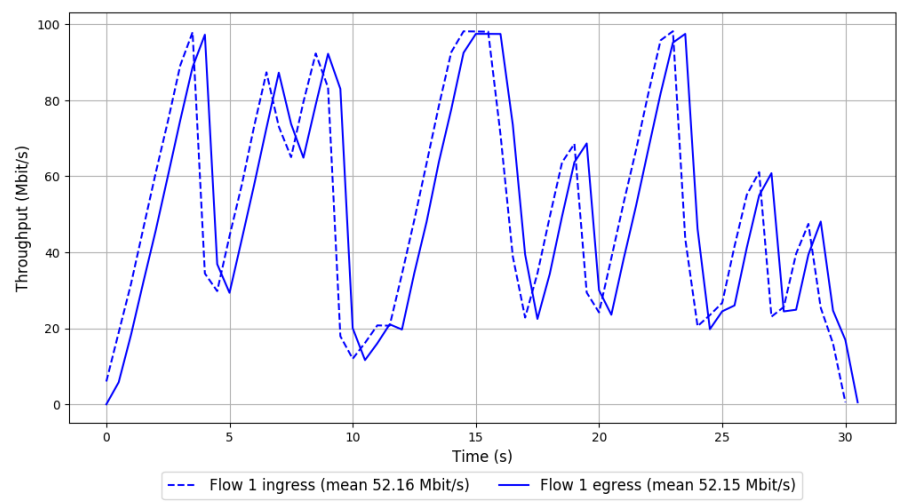


Run 3: Statistics of LEDBAT

Start at: 2018-09-07 10:59:36
End at: 2018-09-07 11:00:06
Local clock offset: 2.719 ms
Remote clock offset: -1.732 ms

Below is generated by plot.py at 2018-09-07 11:55:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.15 Mbit/s
95th percentile per-packet one-way delay: 16.367 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 52.15 Mbit/s
95th percentile per-packet one-way delay: 16.367 ms
Loss rate: 0.04%

Run 3: Report of LEDBAT — Data Link

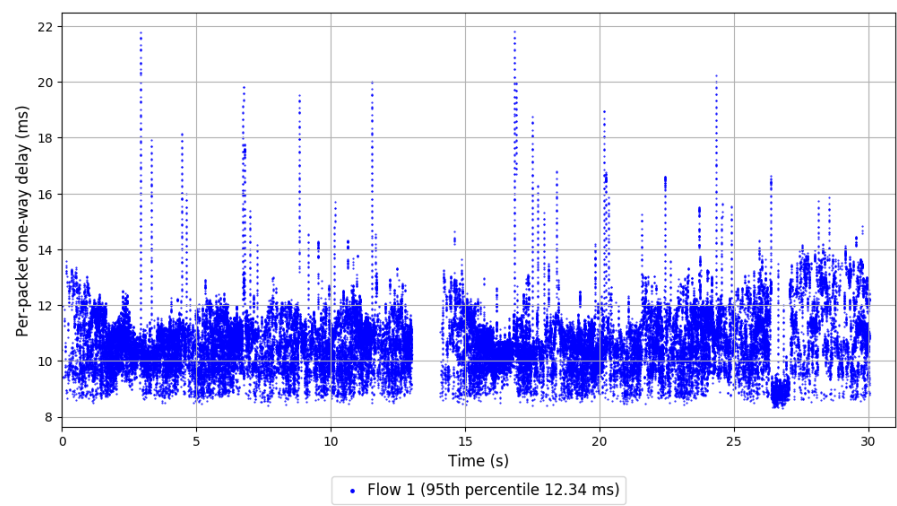
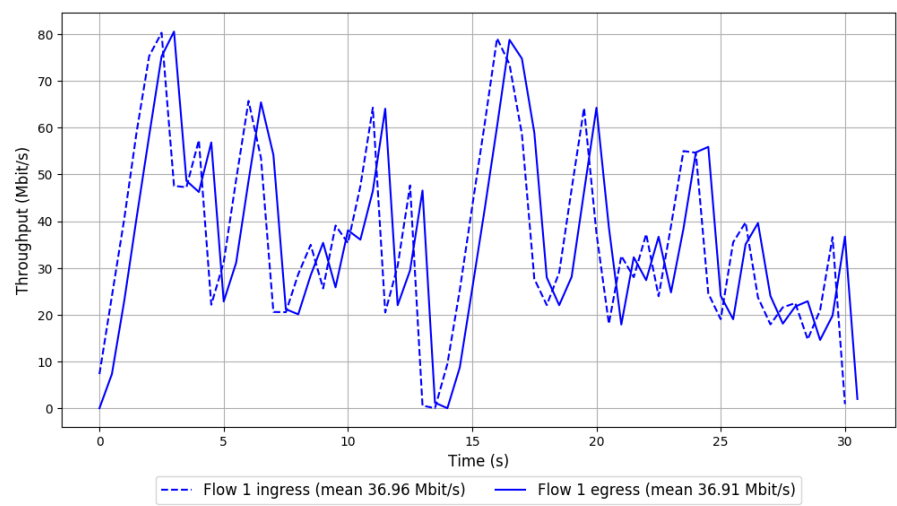


Run 4: Statistics of LEDBAT

Start at: 2018-09-07 11:19:57
End at: 2018-09-07 11:20:27
Local clock offset: 0.355 ms
Remote clock offset: -0.765 ms

Below is generated by plot.py at 2018-09-07 11:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 36.91 Mbit/s
95th percentile per-packet one-way delay: 12.335 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 36.91 Mbit/s
95th percentile per-packet one-way delay: 12.335 ms
Loss rate: 0.12%

Run 4: Report of LEDBAT — Data Link

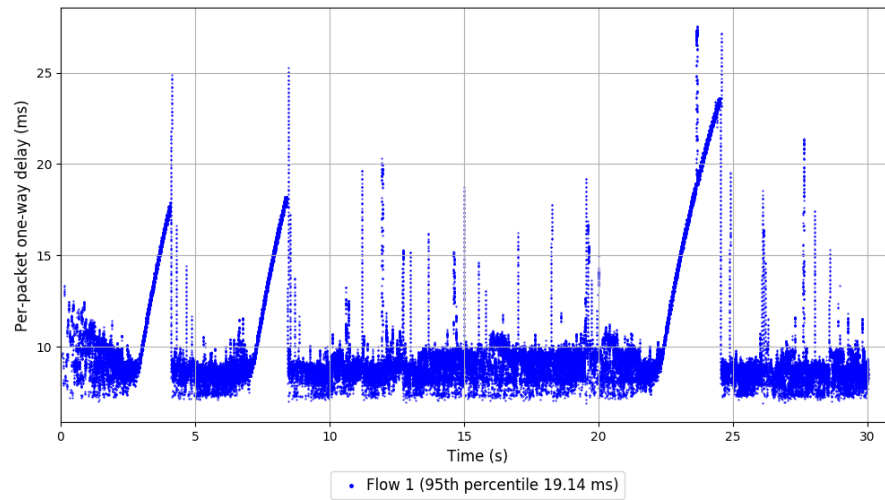
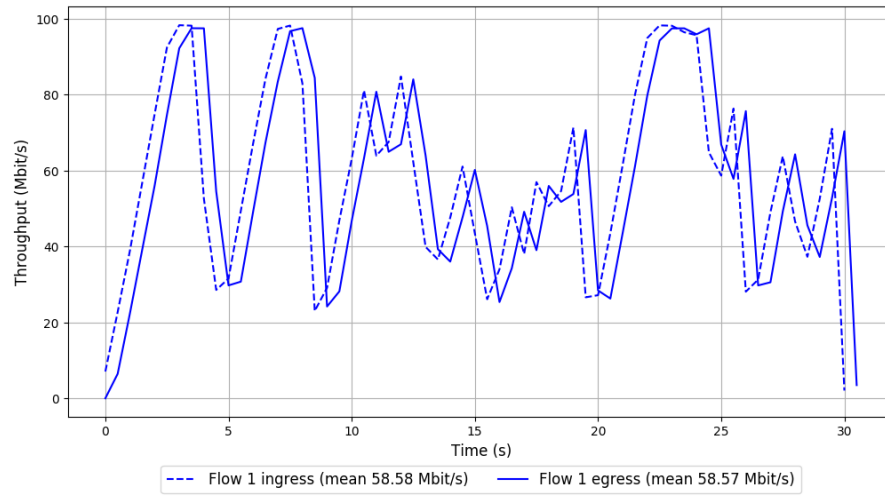


Run 5: Statistics of LEDBAT

Start at: 2018-09-07 11:40:15
End at: 2018-09-07 11:40:45
Local clock offset: 0.385 ms
Remote clock offset: -1.501 ms

Below is generated by plot.py at 2018-09-07 11:55:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 58.57 Mbit/s
95th percentile per-packet one-way delay: 19.141 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 58.57 Mbit/s
95th percentile per-packet one-way delay: 19.141 ms
Loss rate: 0.02%

Run 5: Report of LEDBAT — Data Link

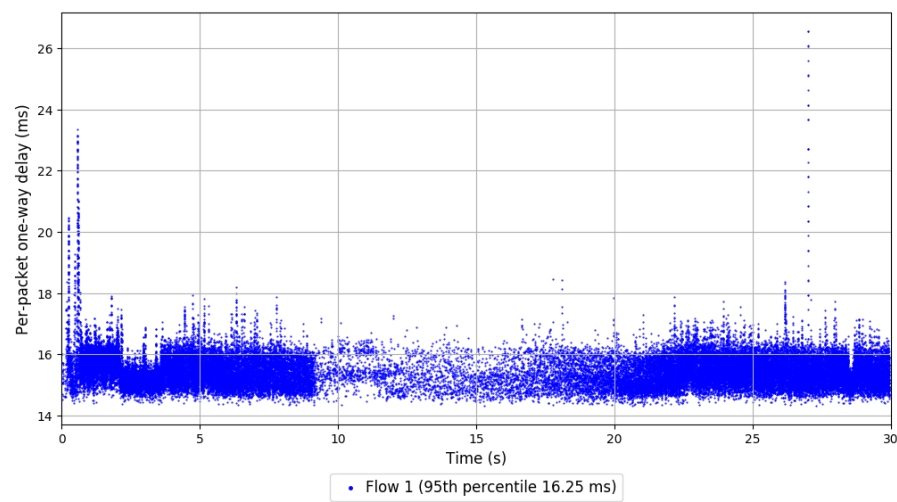
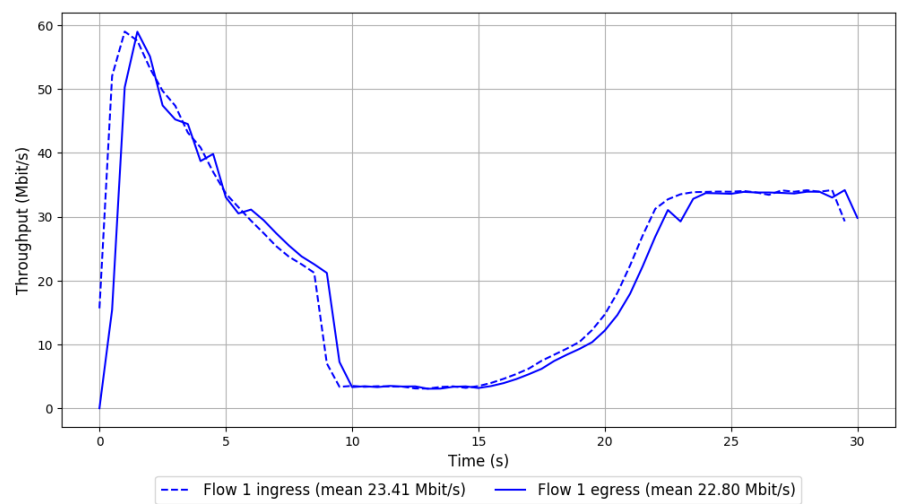


```
Run 1: Statistics of Indigo-Muses

Start at: 2018-09-07 10:25:27
End at: 2018-09-07 10:25:57
Local clock offset: 2.61 ms
Remote clock offset: 0.861 ms

# Below is generated by plot.py at 2018-09-07 11:55:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.80 Mbit/s
95th percentile per-packet one-way delay: 16.250 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 22.80 Mbit/s
95th percentile per-packet one-way delay: 16.250 ms
Loss rate: 2.66%
```

Run 1: Report of Indigo-Muses — Data Link

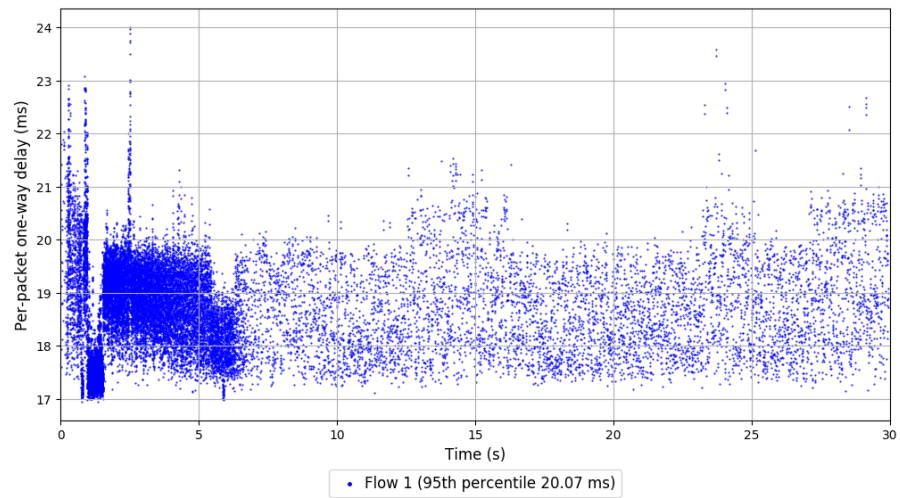
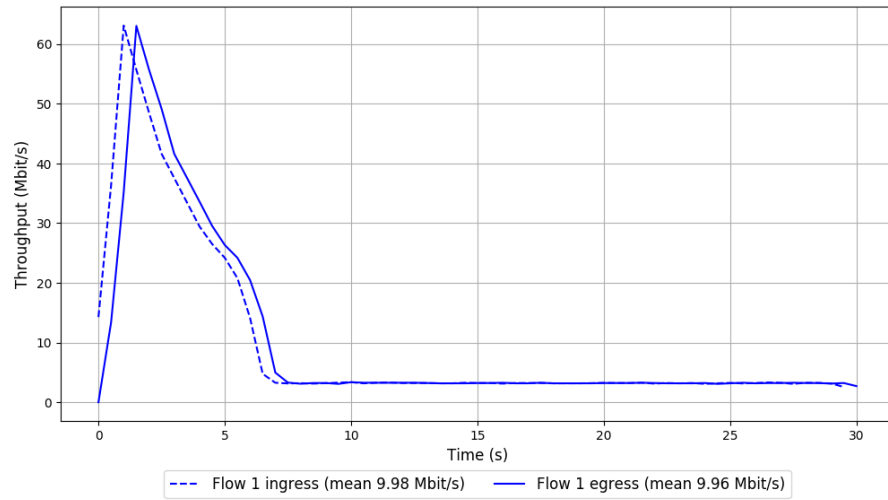


Run 2: Statistics of Indigo-Muses

Start at: 2018-09-07 10:45:55
End at: 2018-09-07 10:46:25
Local clock offset: -0.548 ms
Remote clock offset: -0.104 ms

Below is generated by plot.py at 2018-09-07 11:55:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 20.065 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 20.065 ms
Loss rate: 0.17%

Run 2: Report of Indigo-Muses — Data Link

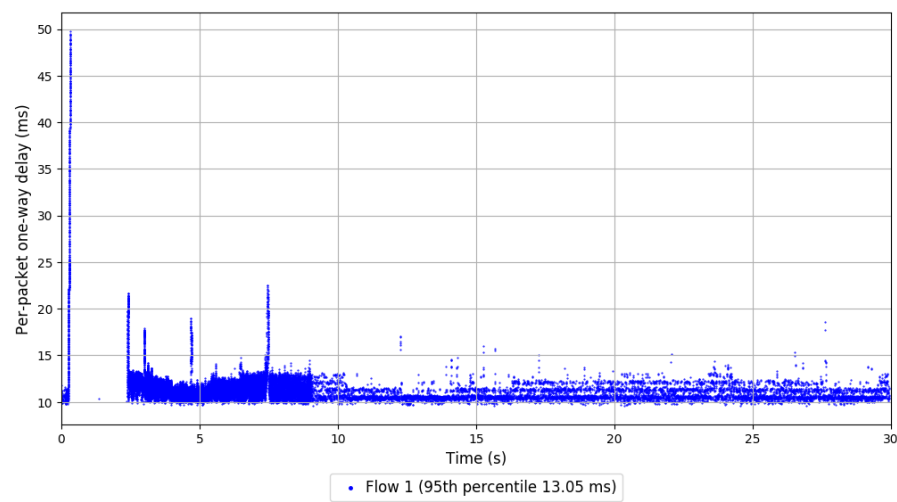
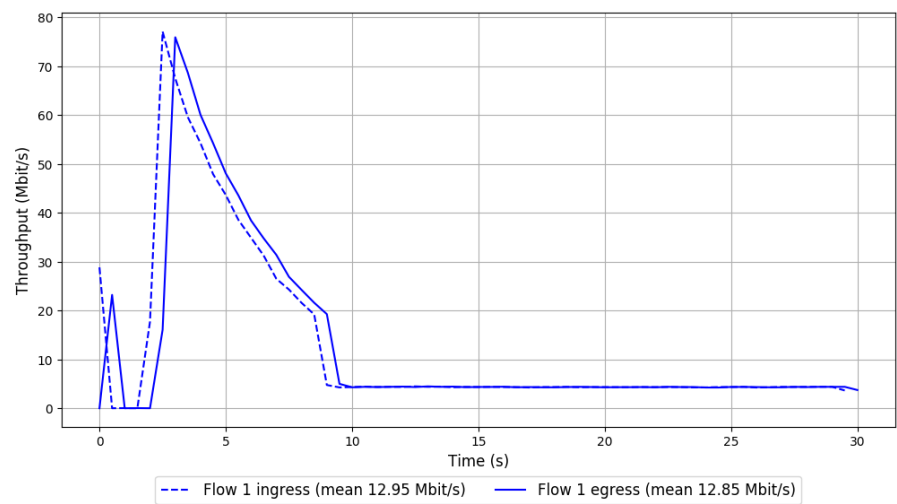


Run 3: Statistics of Indigo-Muses

Start at: 2018-09-07 11:06:23
End at: 2018-09-07 11:06:53
Local clock offset: -1.221 ms
Remote clock offset: -1.545 ms

Below is generated by plot.py at 2018-09-07 11:55:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.85 Mbit/s
95th percentile per-packet one-way delay: 13.055 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 12.85 Mbit/s
95th percentile per-packet one-way delay: 13.055 ms
Loss rate: 0.78%

Run 3: Report of Indigo-Muses — Data Link

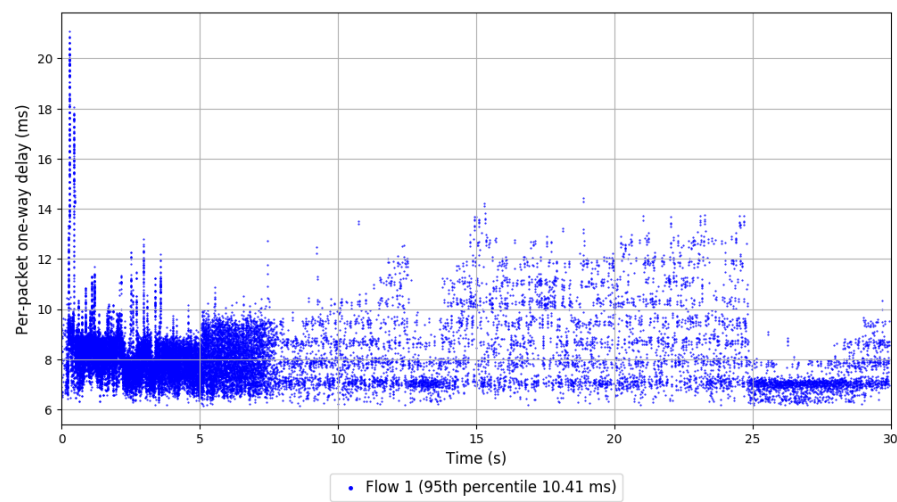
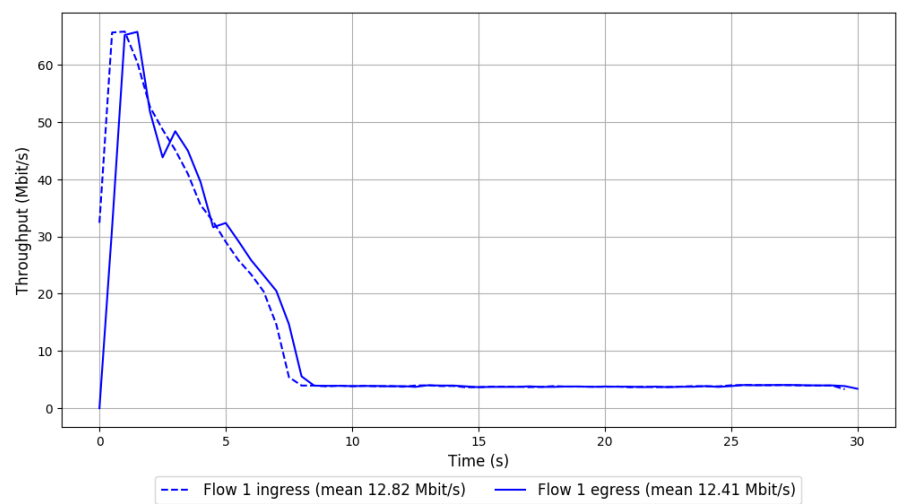


Run 4: Statistics of Indigo-Muses

Start at: 2018-09-07 11:26:41
End at: 2018-09-07 11:27:11
Local clock offset: 3.475 ms
Remote clock offset: -1.905 ms

Below is generated by plot.py at 2018-09-07 11:55:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 10.409 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 10.409 ms
Loss rate: 3.18%

Run 4: Report of Indigo-Muses — Data Link

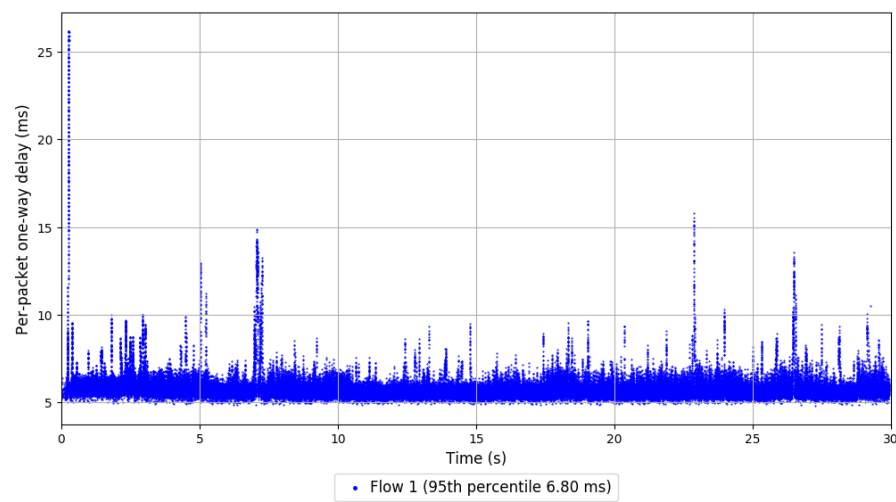
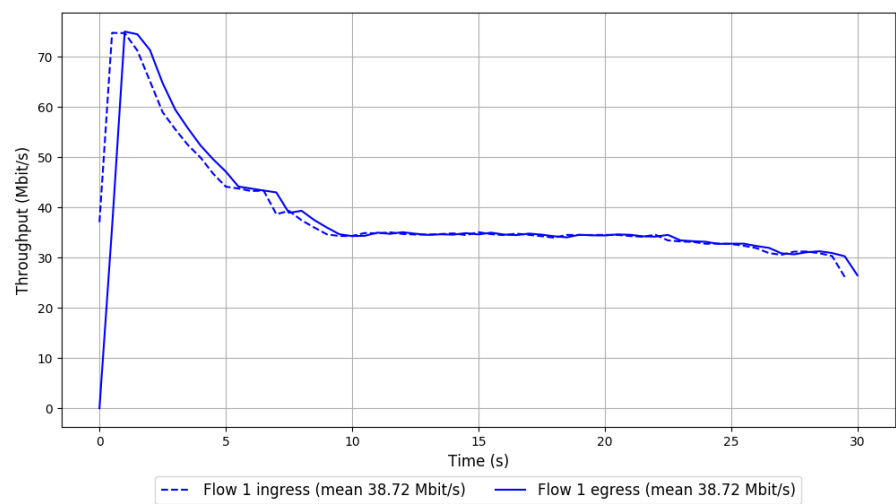


Run 5: Statistics of Indigo-Muses

Start at: 2018-09-07 11:47:04
End at: 2018-09-07 11:47:34
Local clock offset: 1.619 ms
Remote clock offset: -2.008 ms

Below is generated by plot.py at 2018-09-07 11:55:58
Datalink statistics
-- Total of 1 flow:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 6.800 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 6.800 ms
Loss rate: 0.00%

Run 5: Report of Indigo-Muses — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-09-07 10:16:16

End at: 2018-09-07 10:16:46

Local clock offset: -1.141 ms

Remote clock offset: -1.467 ms

Below is generated by plot.py at 2018-09-07 11:56:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.18 Mbit/s

95th percentile per-packet one-way delay: 19.041 ms

Loss rate: 6.19%

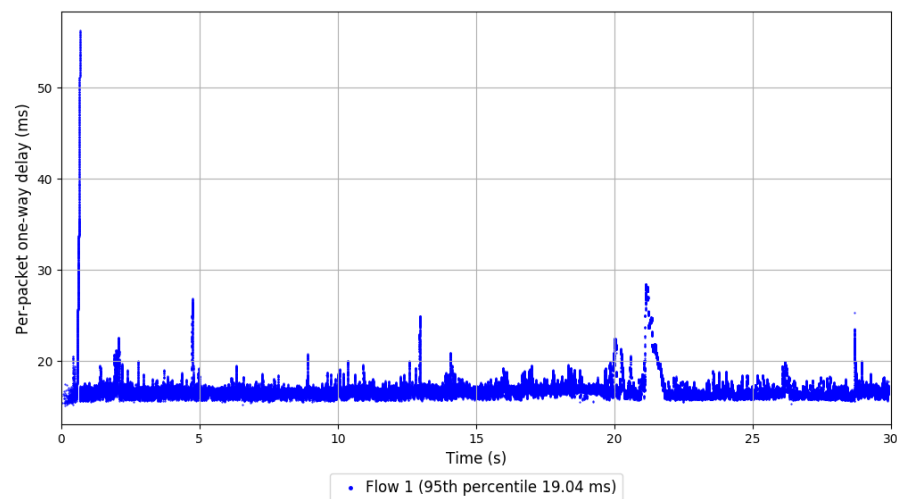
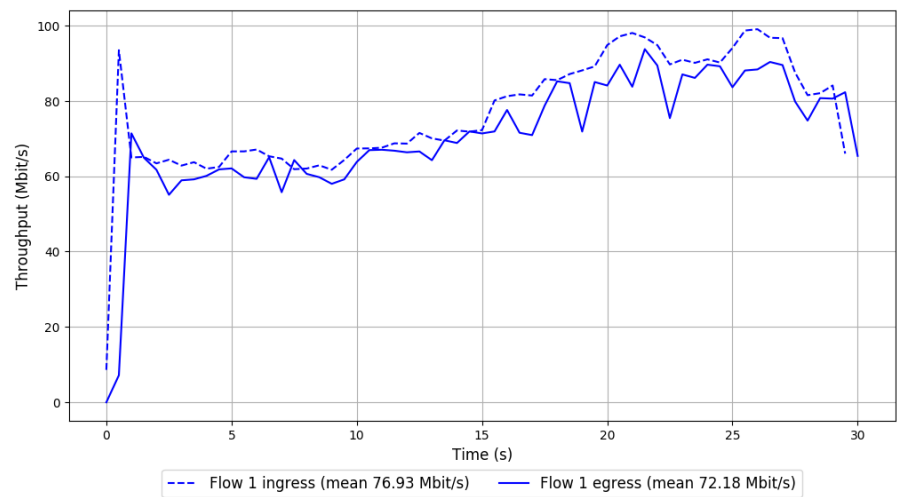
-- Flow 1:

Average throughput: 72.18 Mbit/s

95th percentile per-packet one-way delay: 19.041 ms

Loss rate: 6.19%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-09-07 10:36:49

End at: 2018-09-07 10:37:19

Local clock offset: 0.22 ms

Remote clock offset: -0.338 ms

Below is generated by plot.py at 2018-09-07 11:56:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.98 Mbit/s

95th percentile per-packet one-way delay: 18.590 ms

Loss rate: 5.63%

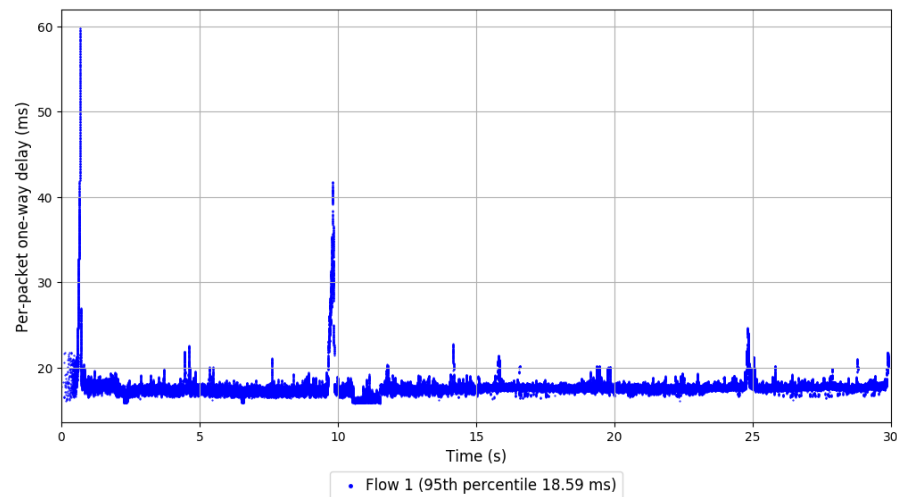
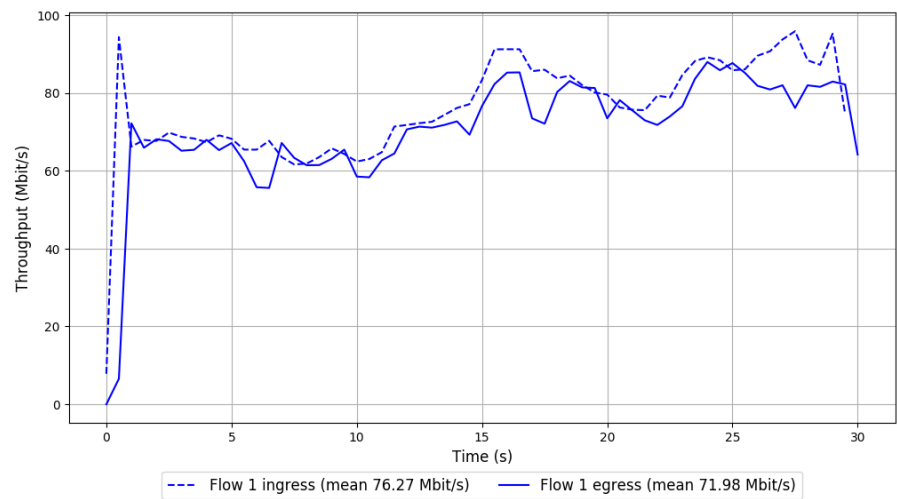
-- Flow 1:

Average throughput: 71.98 Mbit/s

95th percentile per-packet one-way delay: 18.590 ms

Loss rate: 5.63%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-09-07 10:57:21

End at: 2018-09-07 10:57:51

Local clock offset: -4.364 ms

Remote clock offset: -2.56 ms

Below is generated by plot.py at 2018-09-07 11:56:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.63 Mbit/s

95th percentile per-packet one-way delay: 21.718 ms

Loss rate: 1.41%

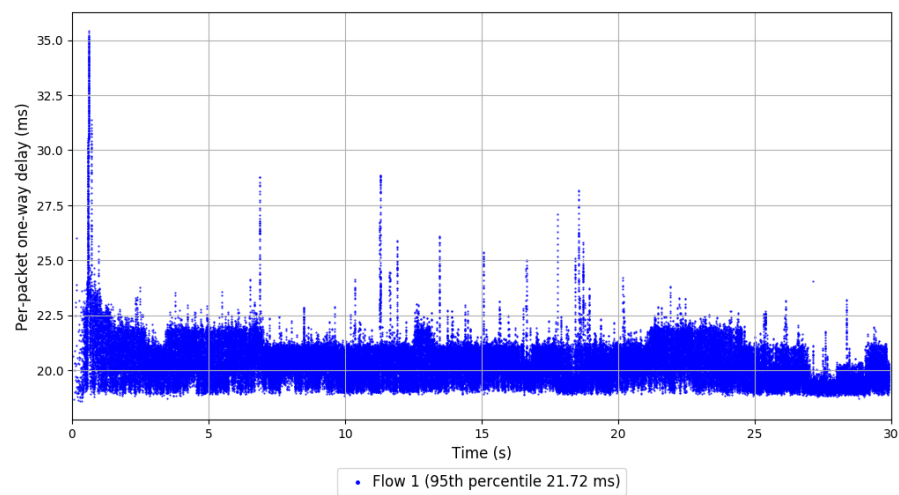
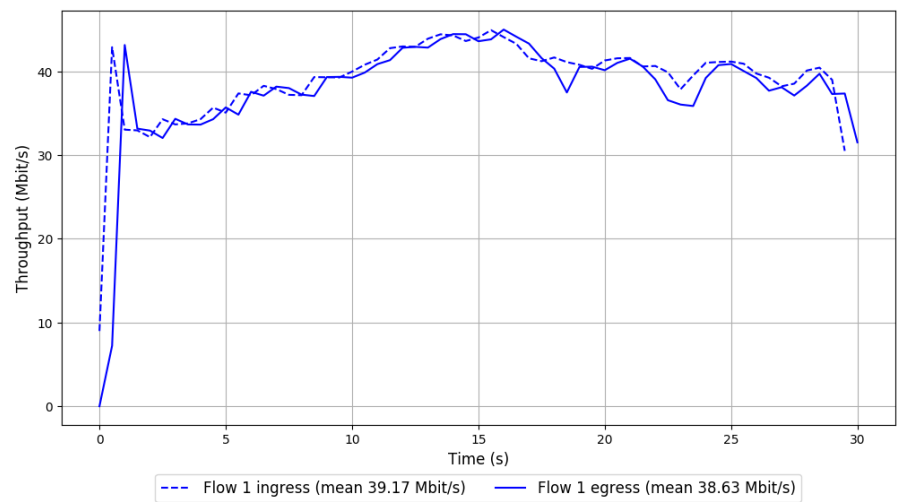
-- Flow 1:

Average throughput: 38.63 Mbit/s

95th percentile per-packet one-way delay: 21.718 ms

Loss rate: 1.41%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-09-07 11:17:44

End at: 2018-09-07 11:18:14

Local clock offset: 1.765 ms

Remote clock offset: -1.983 ms

Below is generated by plot.py at 2018-09-07 11:56:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.37 Mbit/s

95th percentile per-packet one-way delay: 10.683 ms

Loss rate: 0.17%

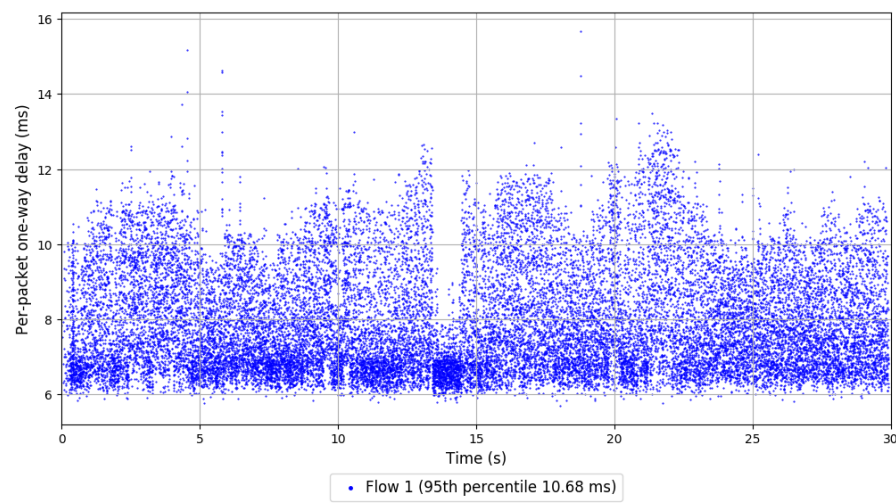
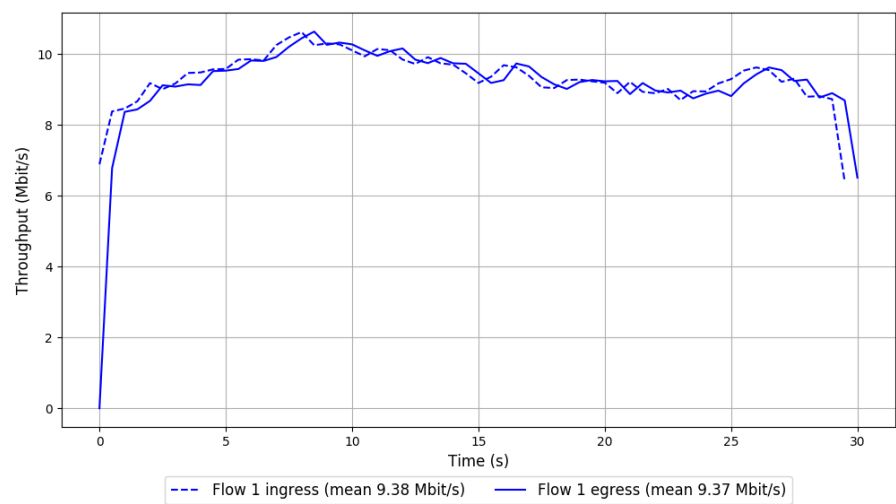
-- Flow 1:

Average throughput: 9.37 Mbit/s

95th percentile per-packet one-way delay: 10.683 ms

Loss rate: 0.17%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-09-07 11:38:00

End at: 2018-09-07 11:38:30

Local clock offset: 3.145 ms

Remote clock offset: -1.992 ms

Below is generated by plot.py at 2018-09-07 11:56:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.40 Mbit/s

95th percentile per-packet one-way delay: 8.774 ms

Loss rate: 5.24%

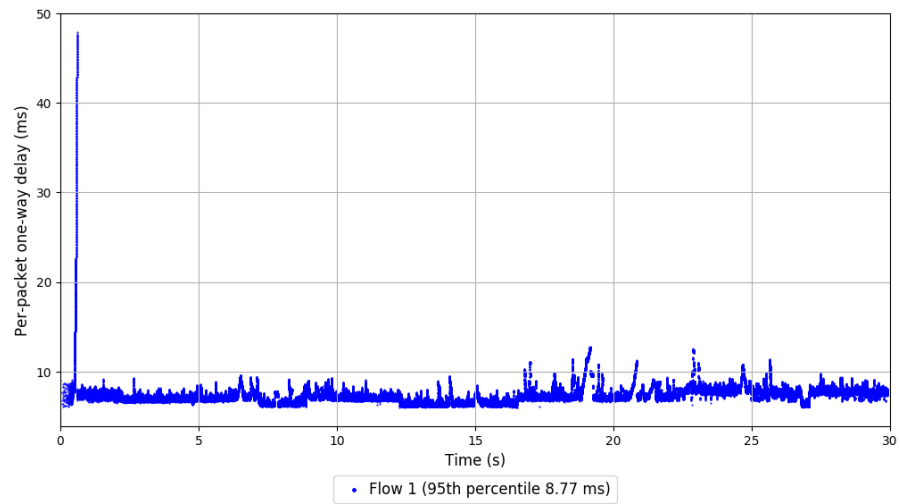
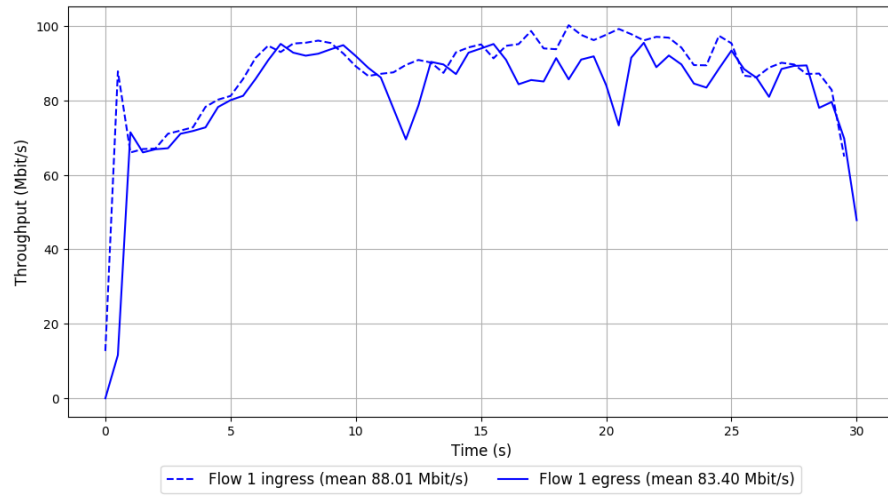
-- Flow 1:

Average throughput: 83.40 Mbit/s

95th percentile per-packet one-way delay: 8.774 ms

Loss rate: 5.24%

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

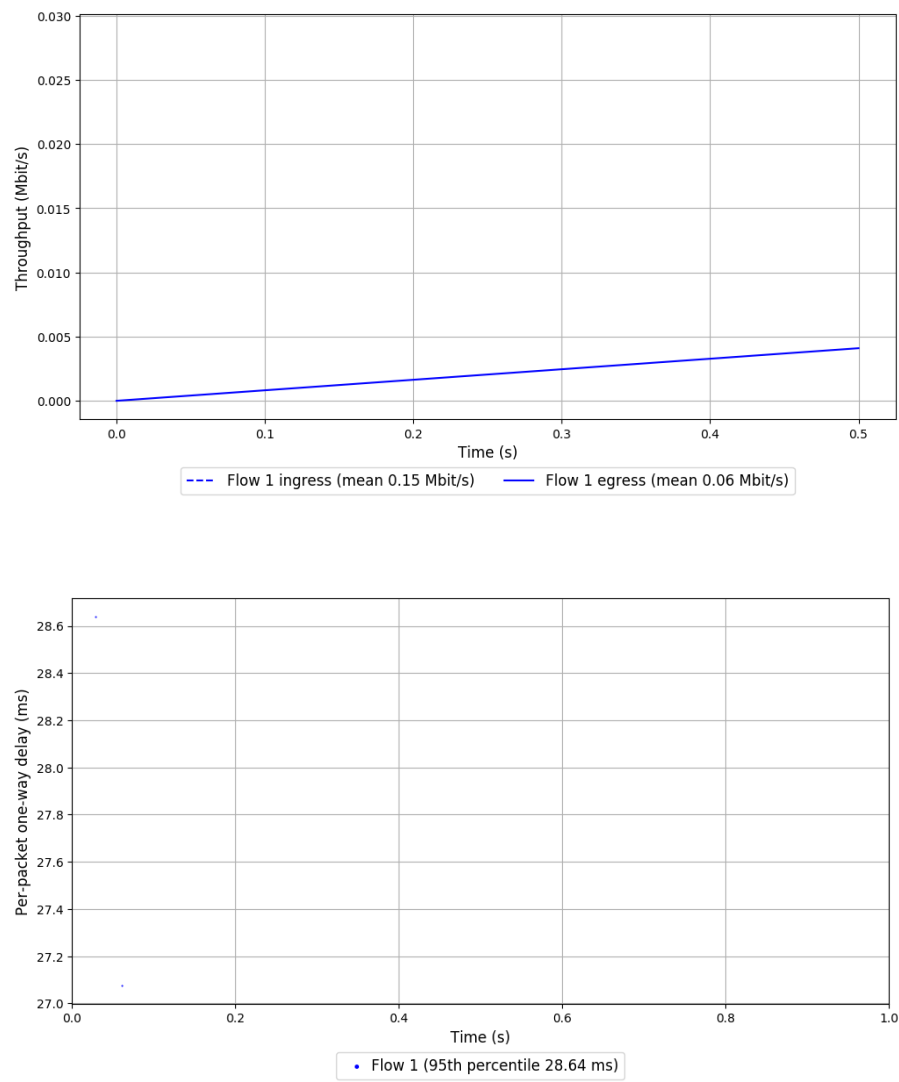
Start at: 2018-09-07 10:22:09

End at: 2018-09-07 10:22:39

Local clock offset: 0.305 ms

Remote clock offset: 11.147 ms

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

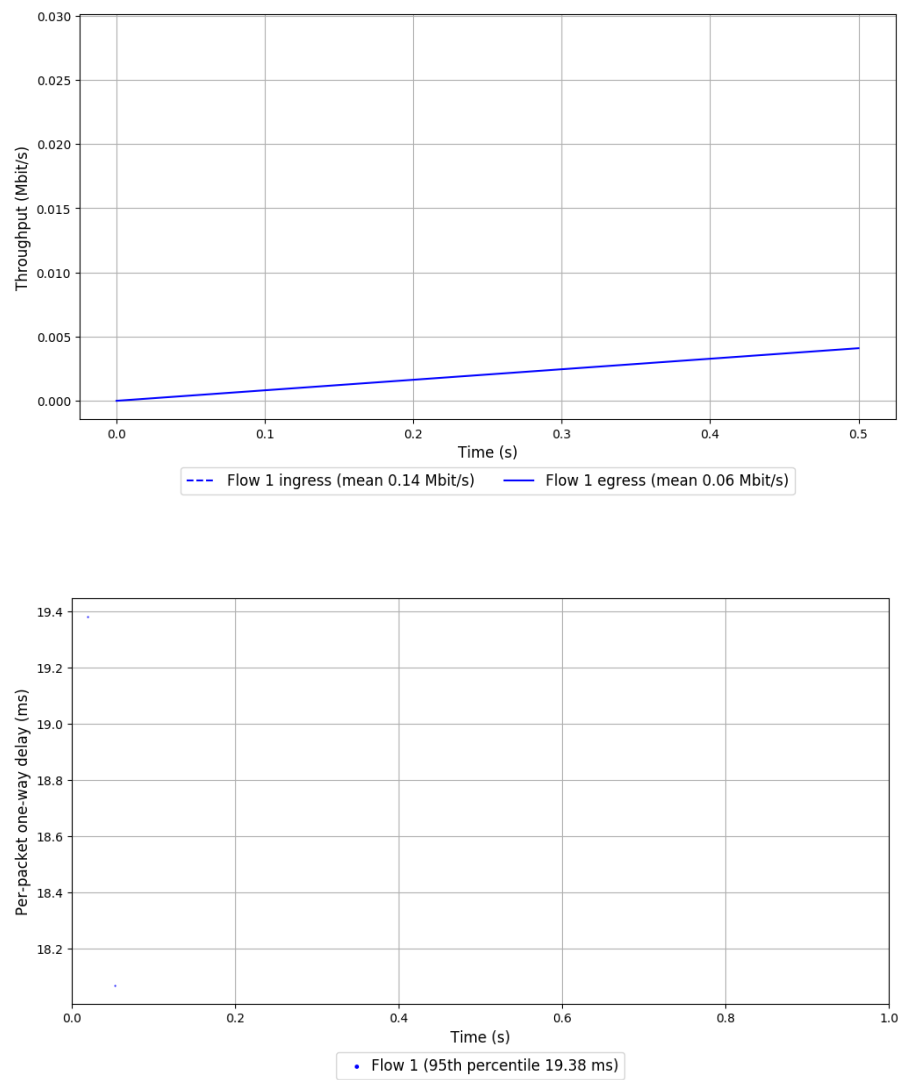
Start at: 2018-09-07 10:42:39

End at: 2018-09-07 10:43:09

Local clock offset: -2.215 ms

Remote clock offset: -2.422 ms

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

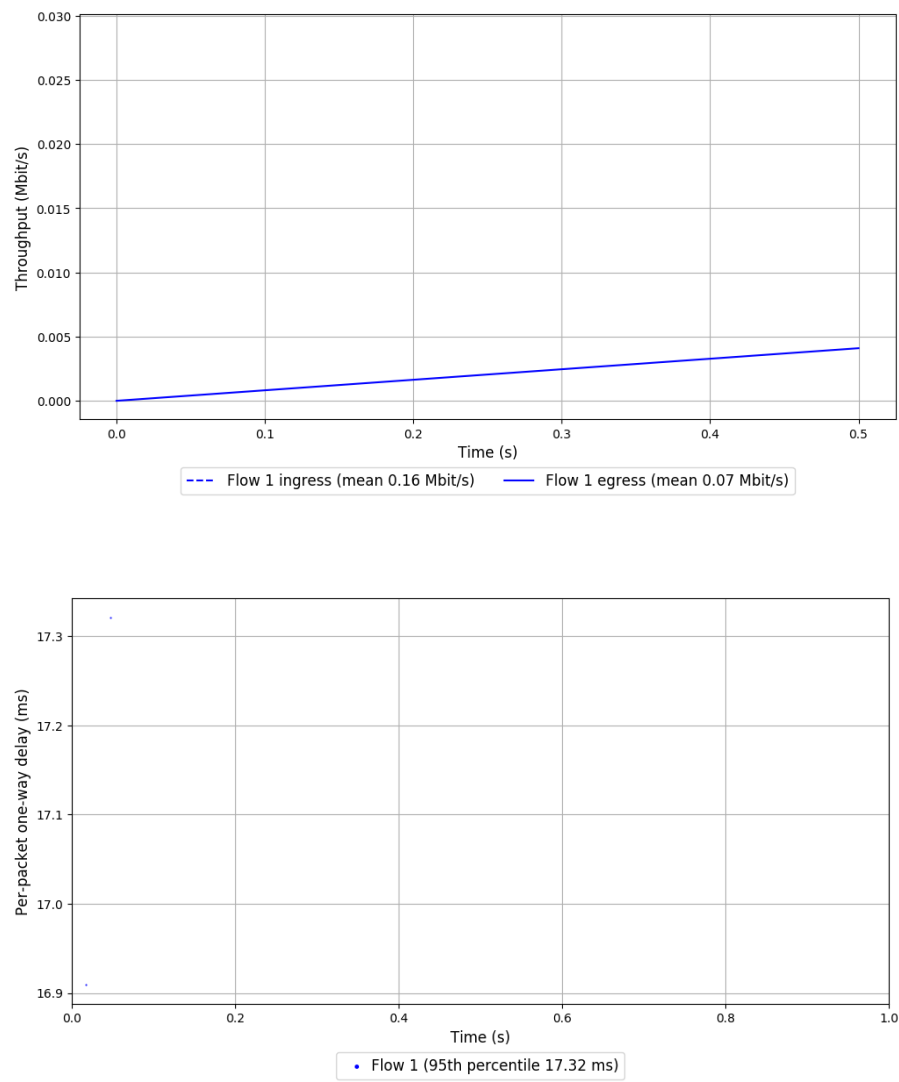
Start at: 2018-09-07 11:03:06

End at: 2018-09-07 11:03:36

Local clock offset: -3.271 ms

Remote clock offset: -1.503 ms

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

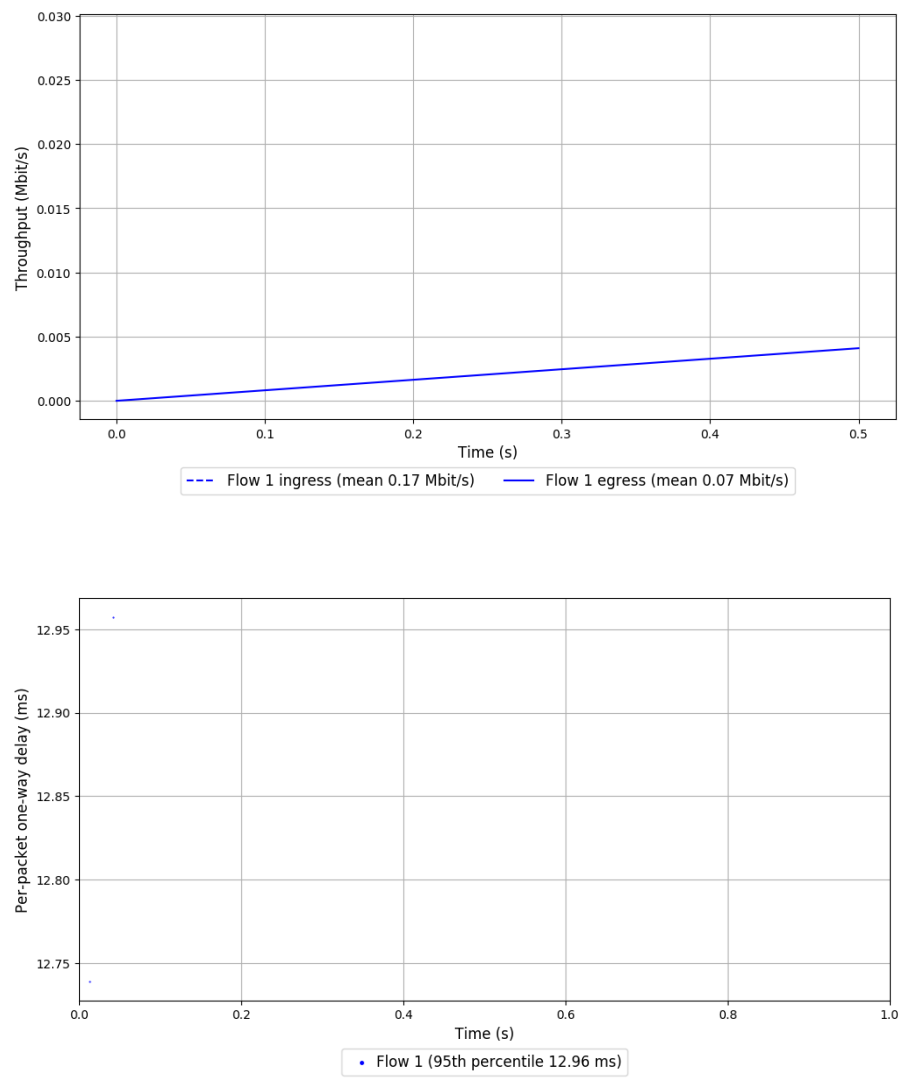
Start at: 2018-09-07 11:23:24

End at: 2018-09-07 11:23:54

Local clock offset: -1.465 ms

Remote clock offset: -1.946 ms

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

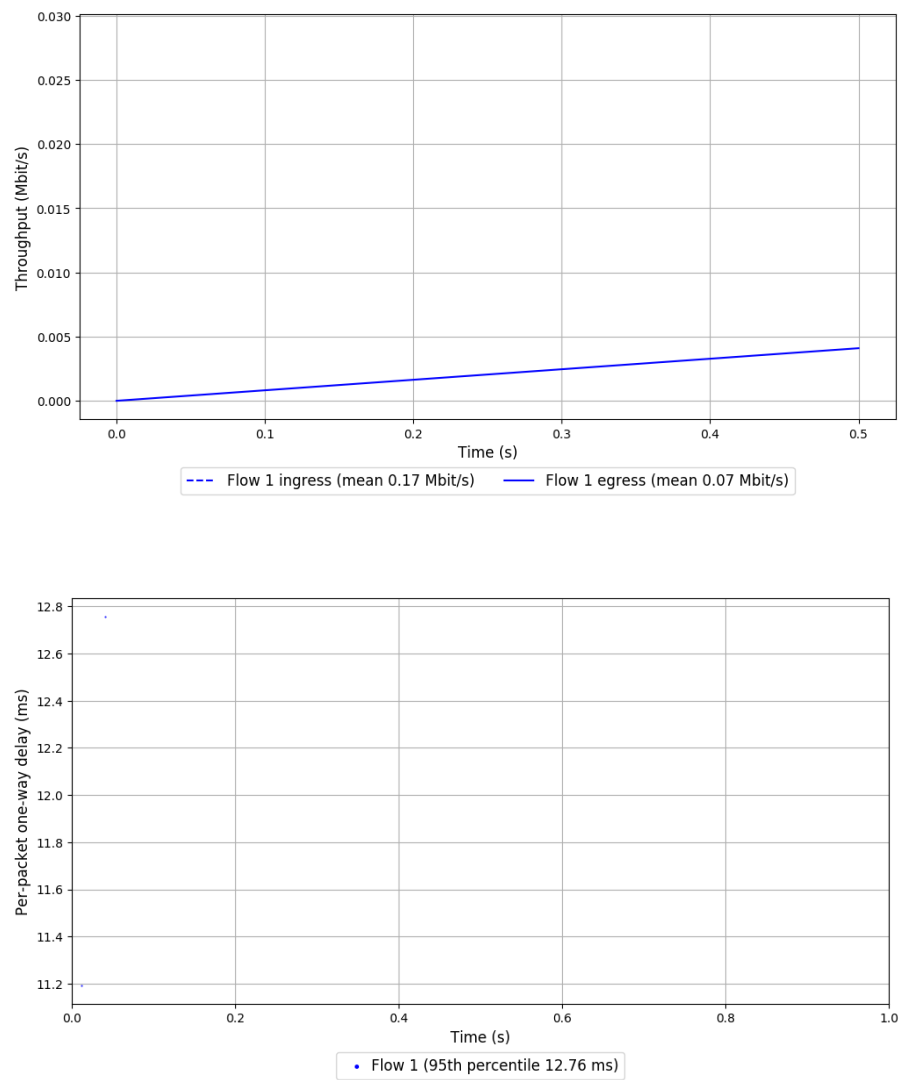
Start at: 2018-09-07 11:43:48

End at: 2018-09-07 11:44:18

Local clock offset: -1.994 ms

Remote clock offset: -2.802 ms

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-09-07 10:27:43

End at: 2018-09-07 10:28:13

Local clock offset: -1.551 ms

Remote clock offset: 7.072 ms

Below is generated by plot.py at 2018-09-07 11:56:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.60 Mbit/s

95th percentile per-packet one-way delay: 28.232 ms

Loss rate: 2.05%

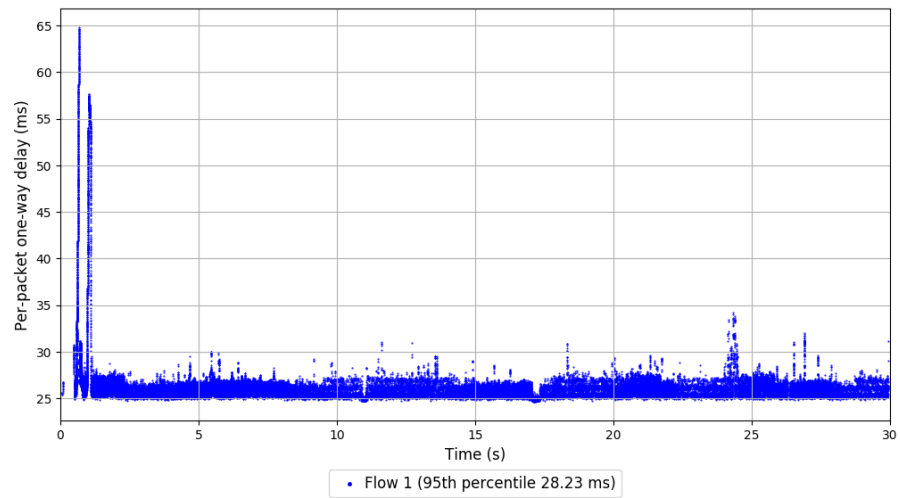
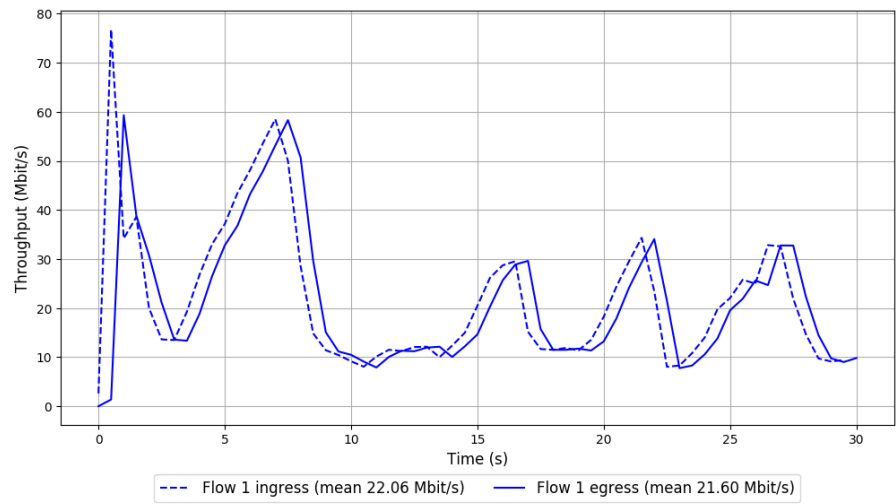
-- Flow 1:

Average throughput: 21.60 Mbit/s

95th percentile per-packet one-way delay: 28.232 ms

Loss rate: 2.05%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-09-07 10:48:08

End at: 2018-09-07 10:48:38

Local clock offset: 0.853 ms

Remote clock offset: -0.414 ms

Below is generated by plot.py at 2018-09-07 11:56:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.22 Mbit/s

95th percentile per-packet one-way delay: 27.745 ms

Loss rate: 0.33%

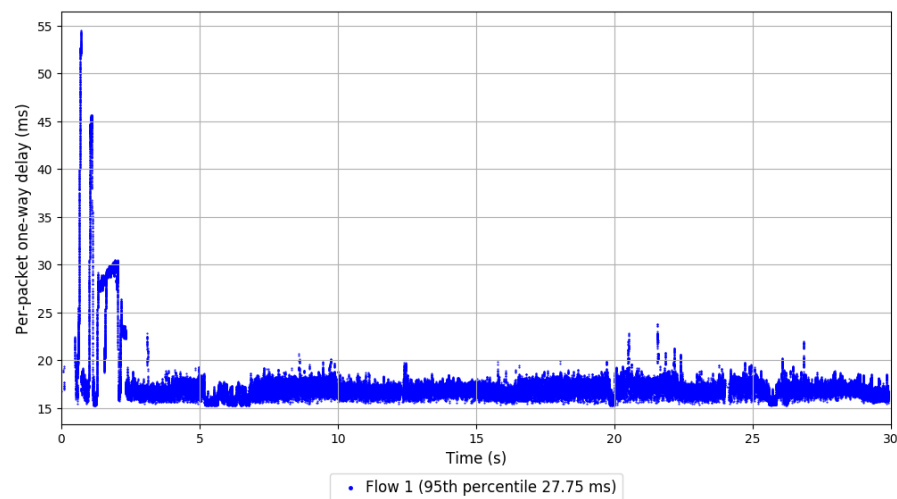
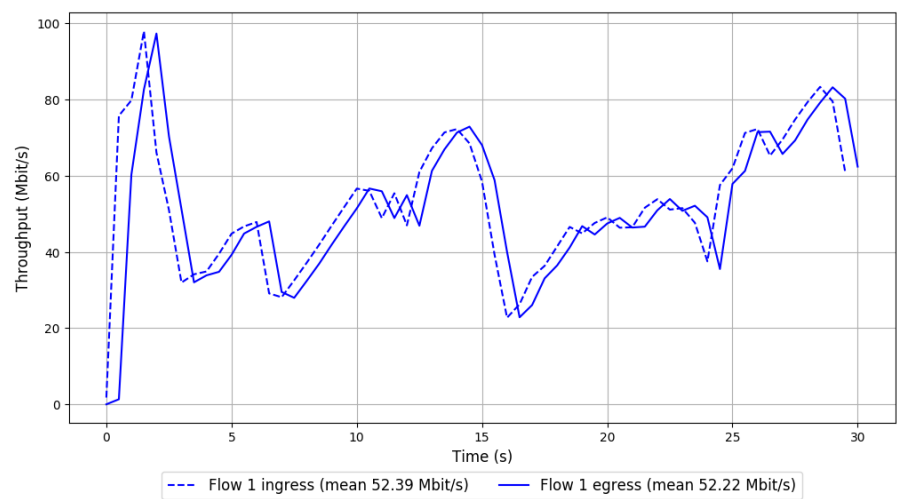
-- Flow 1:

Average throughput: 52.22 Mbit/s

95th percentile per-packet one-way delay: 27.745 ms

Loss rate: 0.33%

Run 2: Report of QUIC Cubic — Data Link

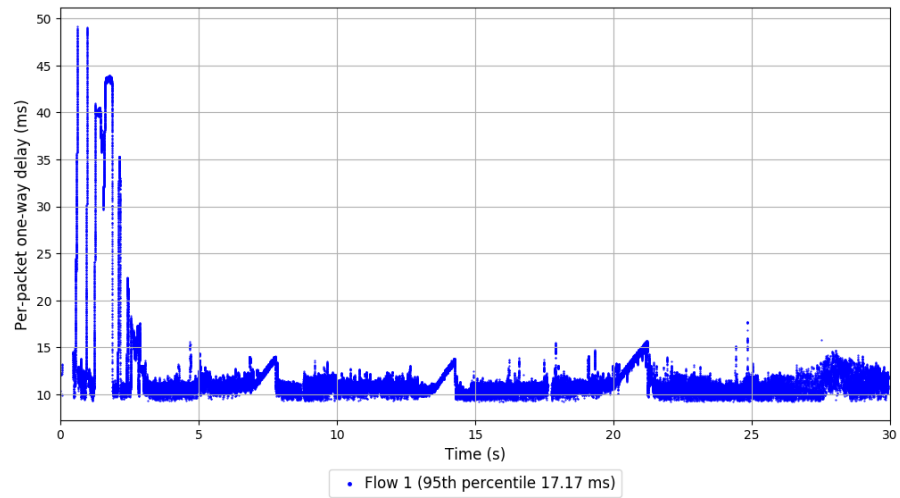
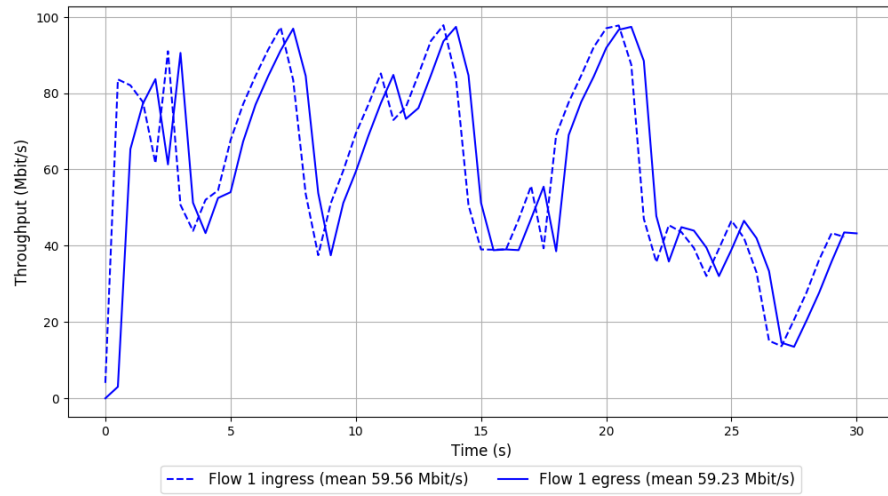


Run 3: Statistics of QUIC Cubic

Start at: 2018-09-07 11:08:36
End at: 2018-09-07 11:09:06
Local clock offset: -1.159 ms
Remote clock offset: -1.846 ms

Below is generated by plot.py at 2018-09-07 11:56:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 17.173 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 17.173 ms
Loss rate: 0.55%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-09-07 11:28:54

End at: 2018-09-07 11:29:24

Local clock offset: -0.258 ms

Remote clock offset: -2.154 ms

Below is generated by plot.py at 2018-09-07 11:56:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.31 Mbit/s

95th percentile per-packet one-way delay: 16.600 ms

Loss rate: 0.60%

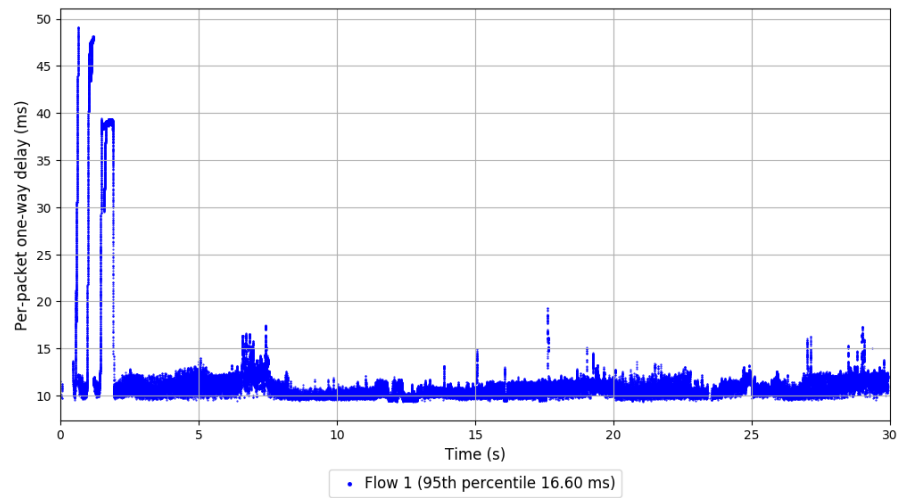
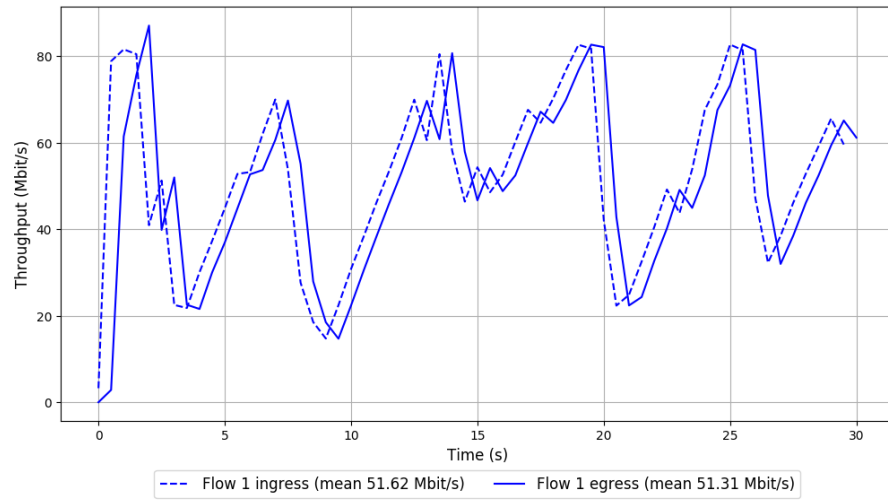
-- Flow 1:

Average throughput: 51.31 Mbit/s

95th percentile per-packet one-way delay: 16.600 ms

Loss rate: 0.60%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-09-07 11:49:17

End at: 2018-09-07 11:49:47

Local clock offset: 0.94 ms

Remote clock offset: -2.958 ms

Below is generated by plot.py at 2018-09-07 11:56:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.44 Mbit/s

95th percentile per-packet one-way delay: 33.309 ms

Loss rate: 0.54%

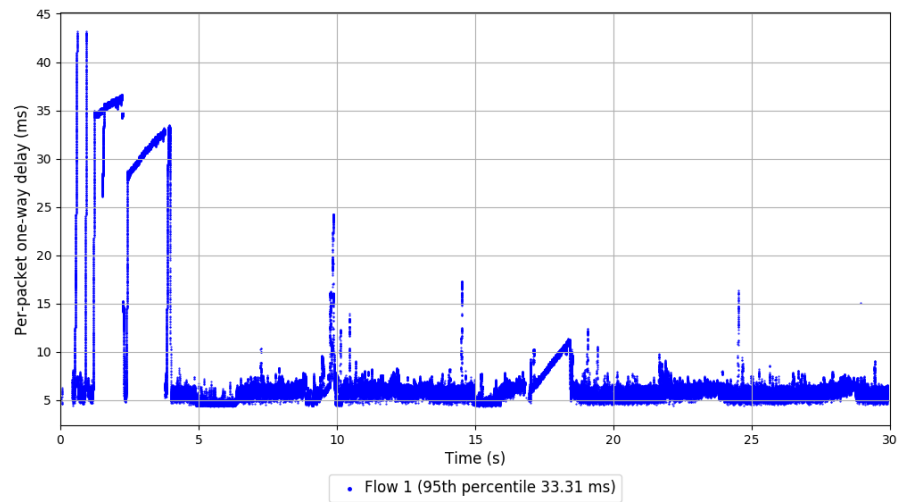
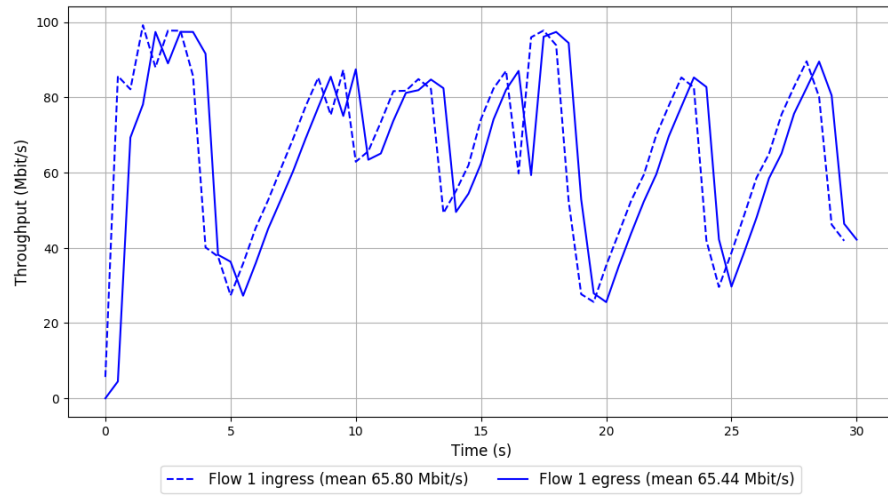
-- Flow 1:

Average throughput: 65.44 Mbit/s

95th percentile per-packet one-way delay: 33.309 ms

Loss rate: 0.54%

Run 5: Report of QUIC Cubic — Data Link

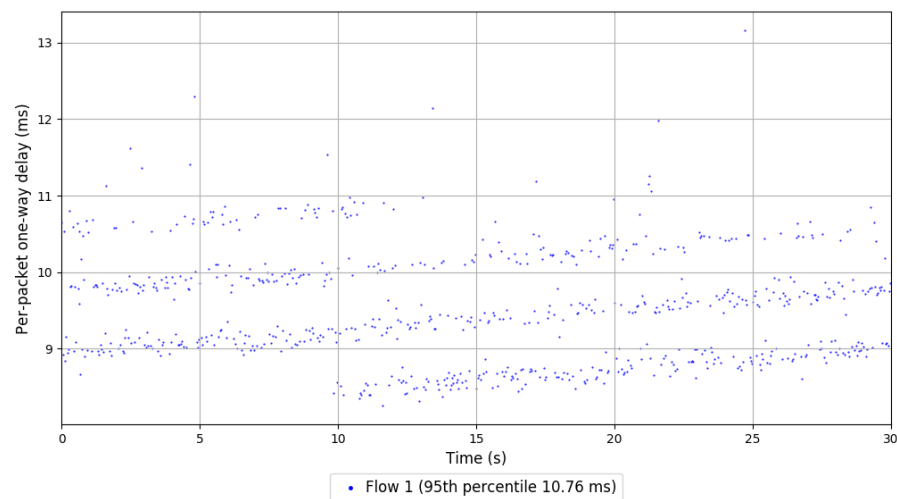
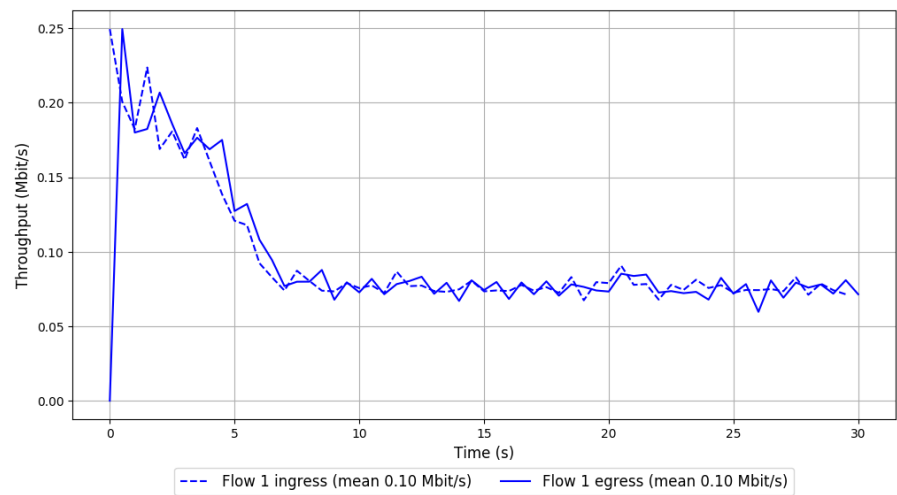


Run 1: Statistics of SCReAM

Start at: 2018-09-07 10:14:06
End at: 2018-09-07 10:14:36
Local clock offset: -1.352 ms
Remote clock offset: -3.661 ms

Below is generated by plot.py at 2018-09-07 11:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 10.758 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 10.758 ms
Loss rate: 0.86%

Run 1: Report of SReAM — Data Link

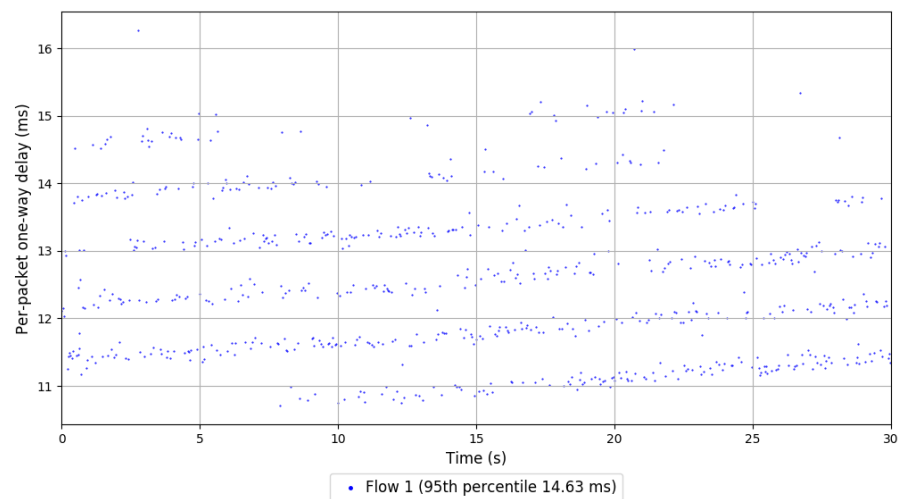
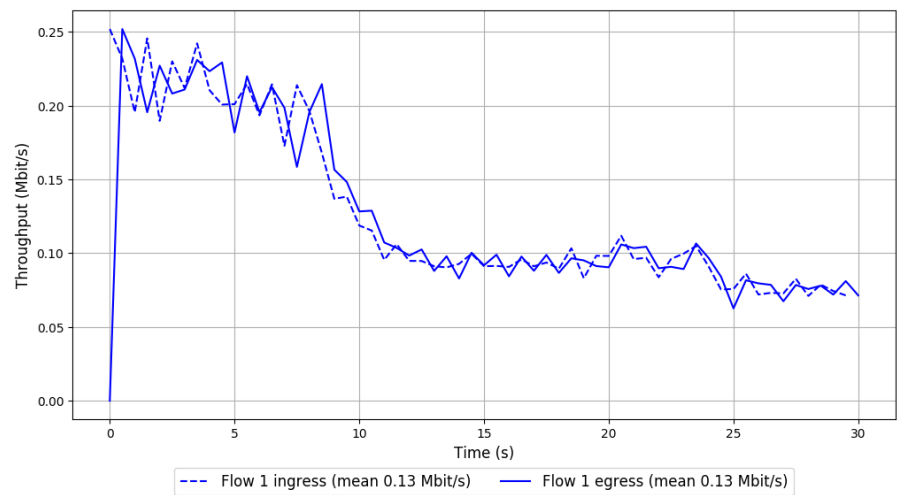


Run 2: Statistics of SCReAM

Start at: 2018-09-07 10:34:37
End at: 2018-09-07 10:35:07
Local clock offset: -3.103 ms
Remote clock offset: -4.175 ms

Below is generated by plot.py at 2018-09-07 11:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 14.635 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 14.635 ms
Loss rate: 0.68%

Run 2: Report of SReAM — Data Link

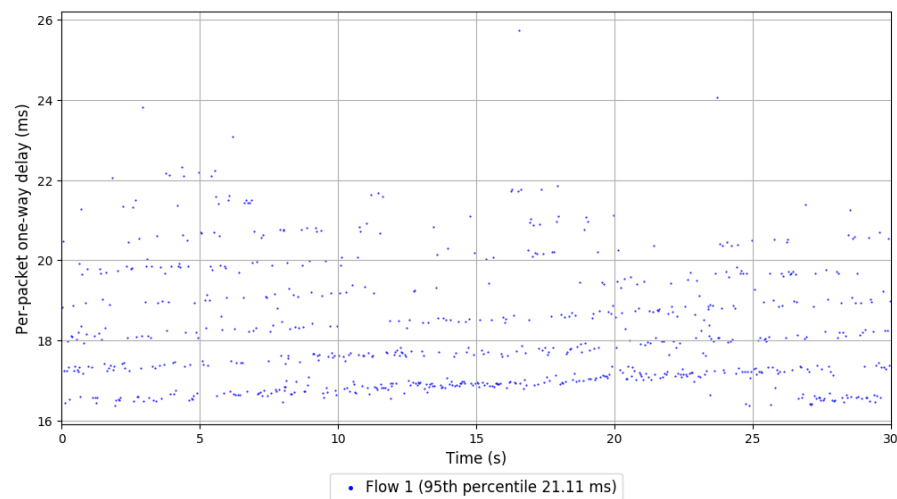
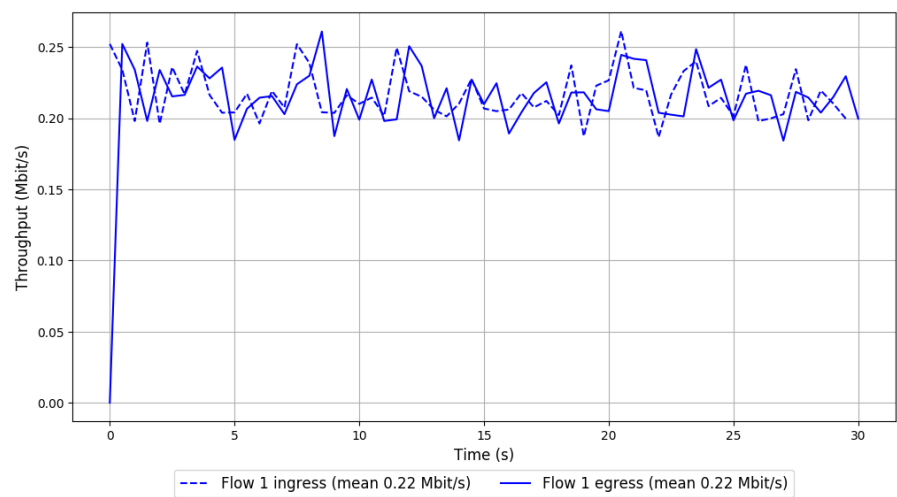


Run 3: Statistics of SCReAM

Start at: 2018-09-07 10:55:09
End at: 2018-09-07 10:55:39
Local clock offset: -0.672 ms
Remote clock offset: -1.135 ms

Below is generated by plot.py at 2018-09-07 11:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 21.110 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 21.110 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

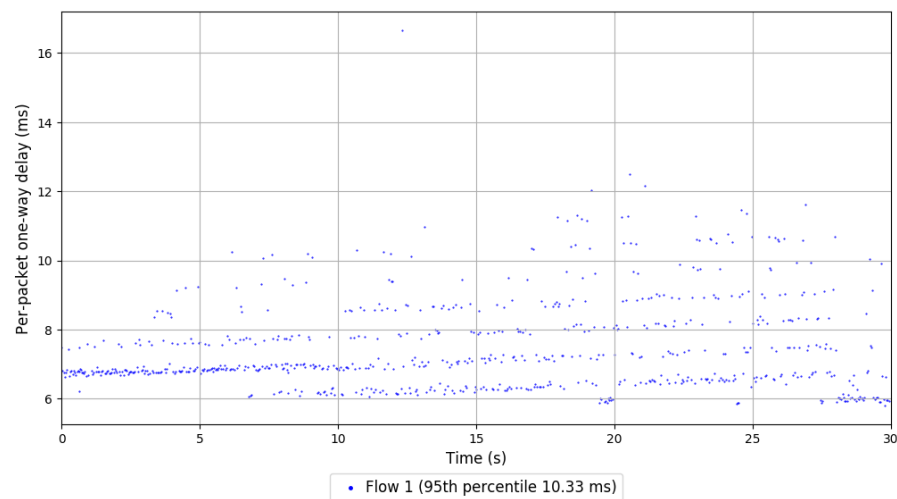
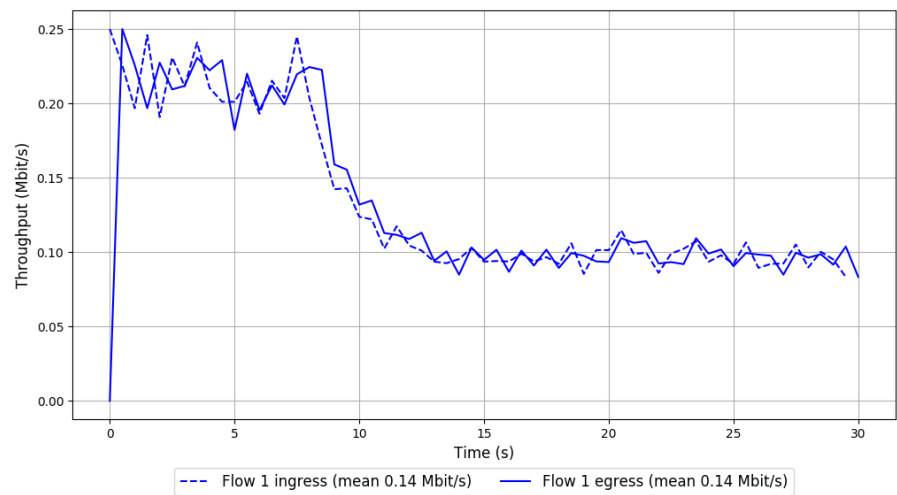


Run 4: Statistics of SCReAM

Start at: 2018-09-07 11:15:32
End at: 2018-09-07 11:16:02
Local clock offset: 1.885 ms
Remote clock offset: -2.083 ms

Below is generated by plot.py at 2018-09-07 11:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 10.330 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 10.330 ms
Loss rate: 0.02%

Run 4: Report of SReAM — Data Link

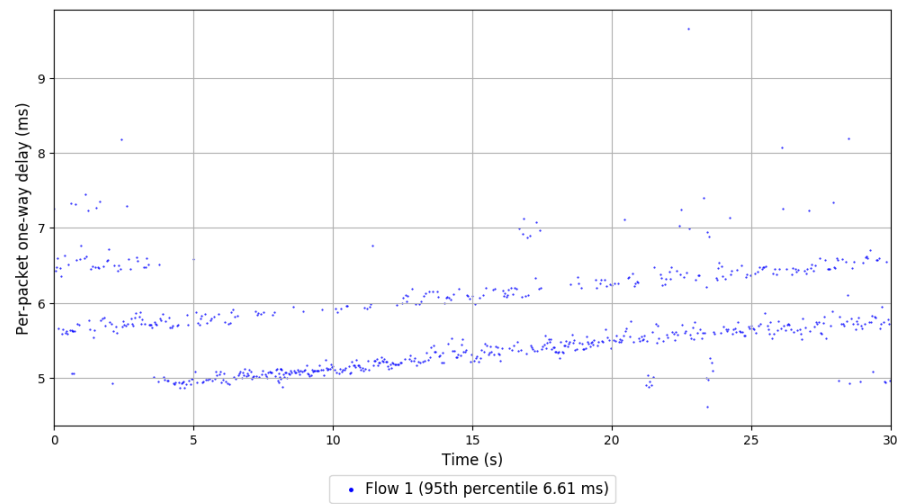
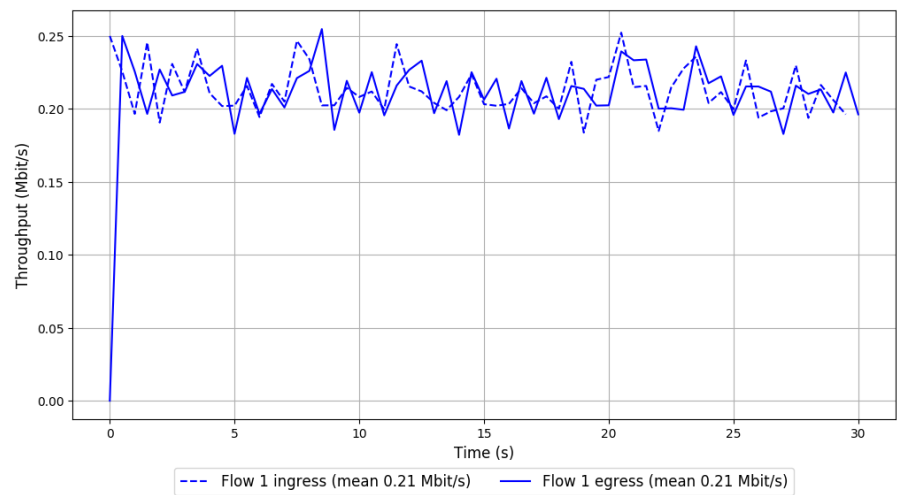


Run 5: Statistics of SCReAM

Start at: 2018-09-07 11:35:48
End at: 2018-09-07 11:36:18
Local clock offset: 1.555 ms
Remote clock offset: -2.529 ms

Below is generated by plot.py at 2018-09-07 11:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 6.606 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 6.606 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-09-07 10:26:36

End at: 2018-09-07 10:27:06

Local clock offset: 0.716 ms

Remote clock offset: -2.54 ms

Below is generated by plot.py at 2018-09-07 11:56:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.72 Mbit/s

95th percentile per-packet one-way delay: 18.866 ms

Loss rate: 0.42%

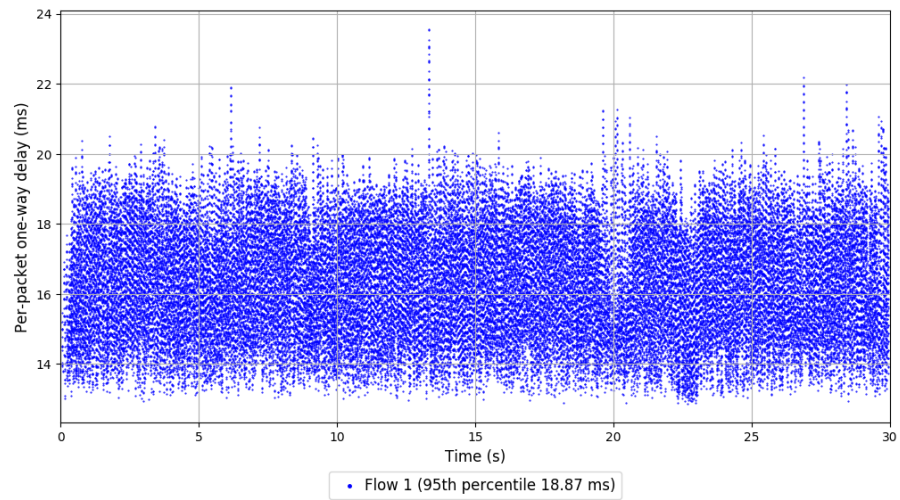
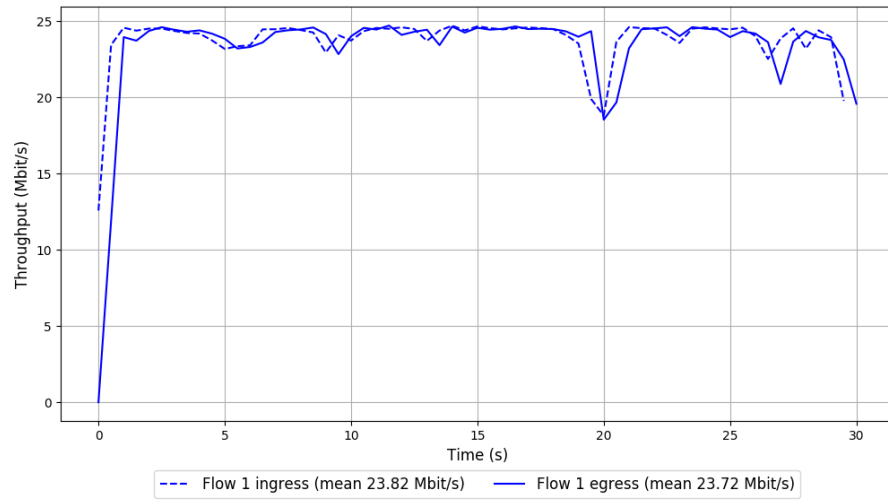
-- Flow 1:

Average throughput: 23.72 Mbit/s

95th percentile per-packet one-way delay: 18.866 ms

Loss rate: 0.42%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-09-07 10:47:02

End at: 2018-09-07 10:47:32

Local clock offset: 1.944 ms

Remote clock offset: 0.511 ms

Below is generated by plot.py at 2018-09-07 11:56:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.92 Mbit/s

95th percentile per-packet one-way delay: 21.965 ms

Loss rate: 0.23%

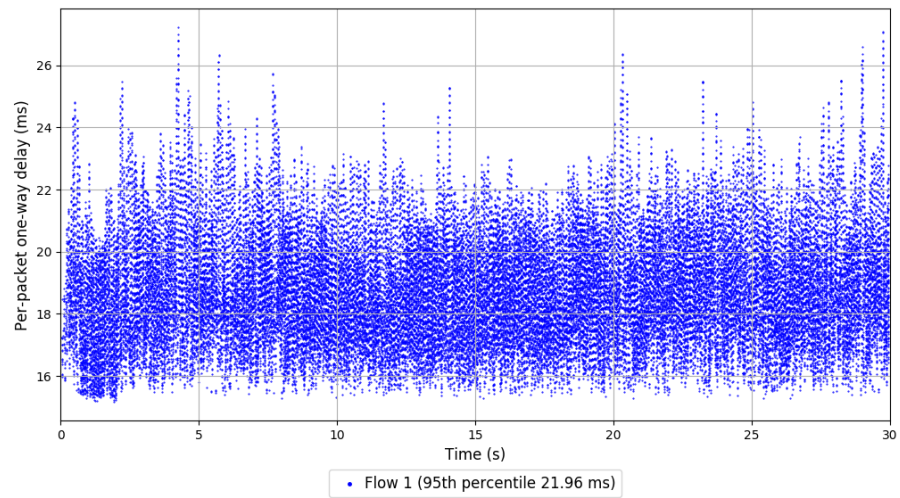
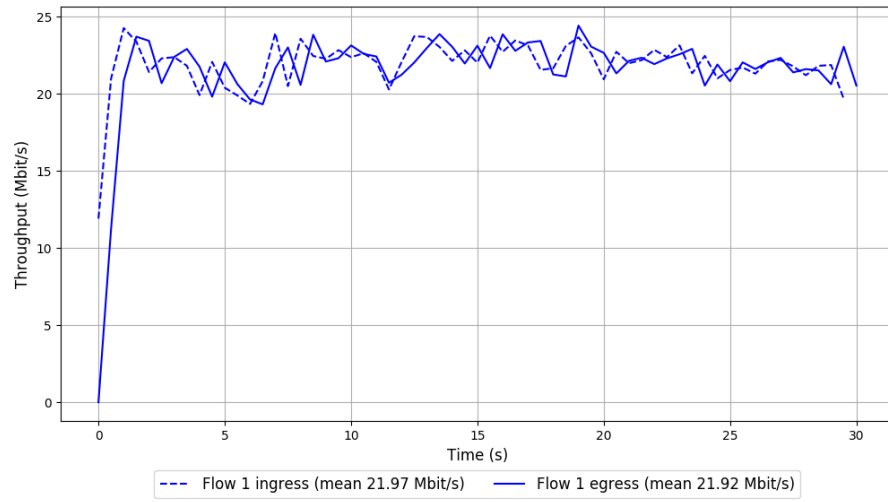
-- Flow 1:

Average throughput: 21.92 Mbit/s

95th percentile per-packet one-way delay: 21.965 ms

Loss rate: 0.23%

Run 2: Report of Sprout — Data Link

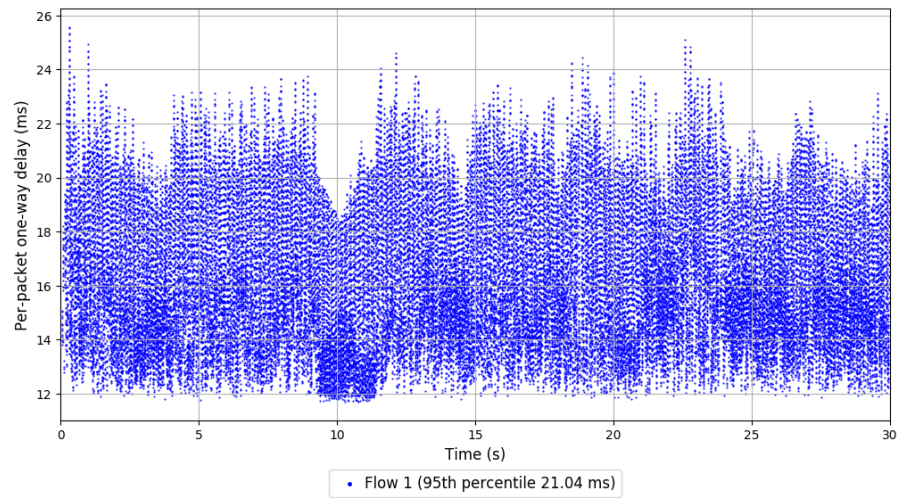
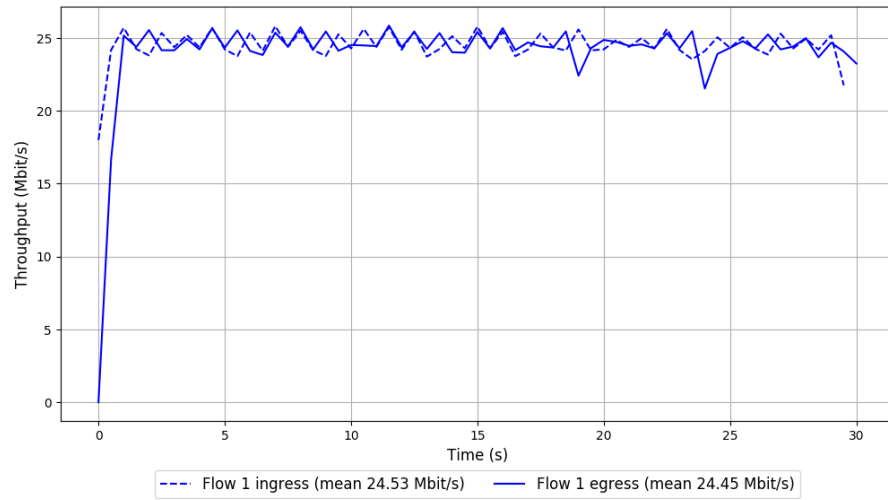


Run 3: Statistics of Sprout

Start at: 2018-09-07 11:07:30
End at: 2018-09-07 11:08:00
Local clock offset: -4.092 ms
Remote clock offset: -2.303 ms

Below is generated by plot.py at 2018-09-07 11:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 21.039 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 21.039 ms
Loss rate: 0.31%

Run 3: Report of Sprout — Data Link

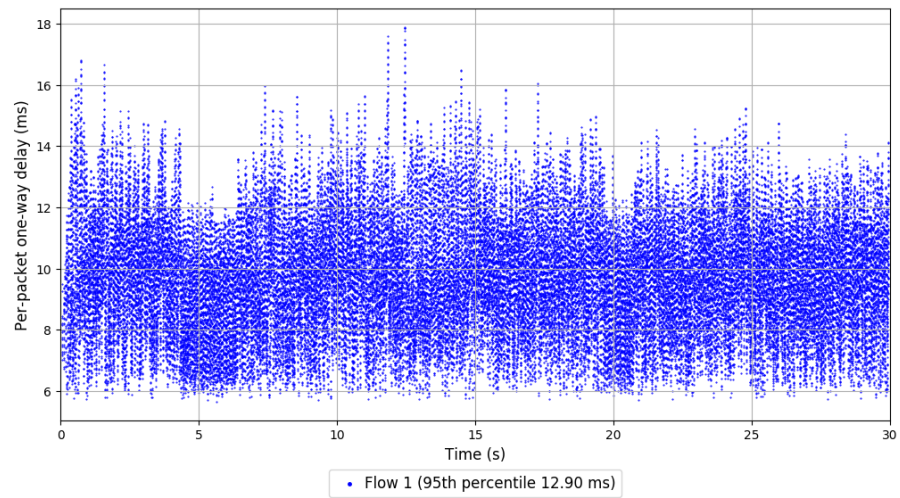
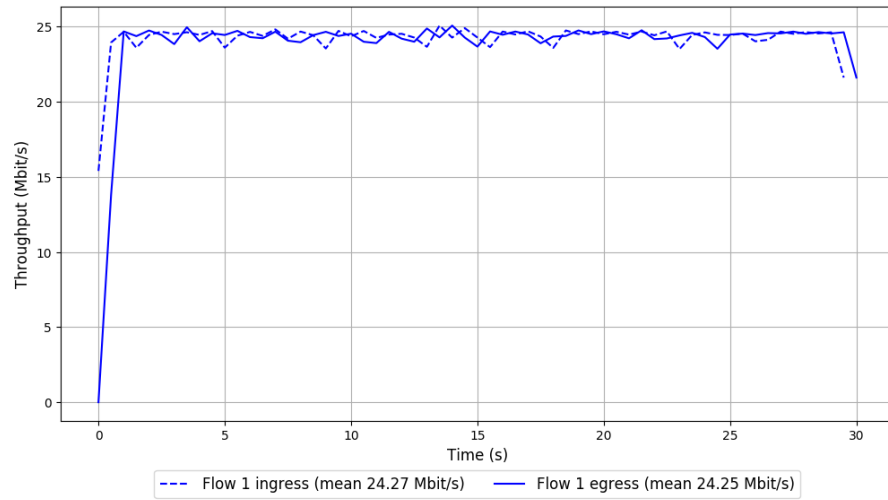


Run 4: Statistics of Sprout

Start at: 2018-09-07 11:27:47
End at: 2018-09-07 11:28:17
Local clock offset: 2.964 ms
Remote clock offset: -2.861 ms

Below is generated by plot.py at 2018-09-07 11:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 24.25 Mbit/s
95th percentile per-packet one-way delay: 12.897 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 24.25 Mbit/s
95th percentile per-packet one-way delay: 12.897 ms
Loss rate: 0.08%

Run 4: Report of Sprout — Data Link

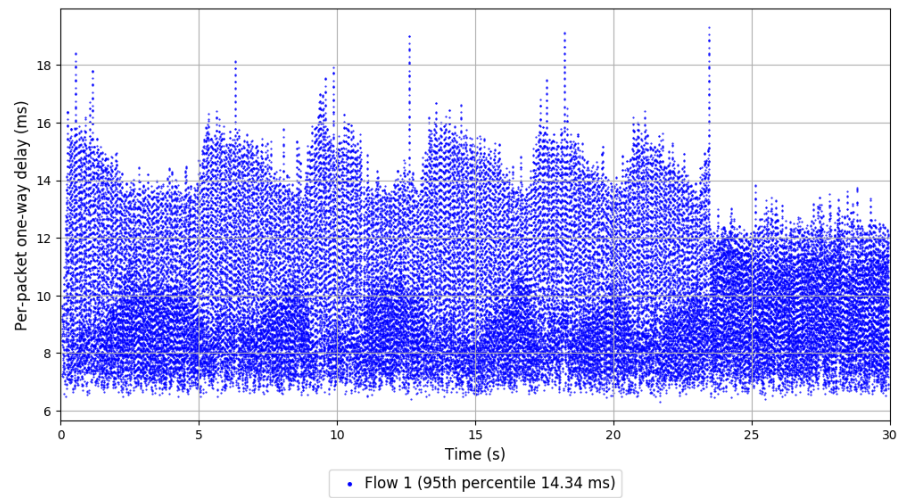
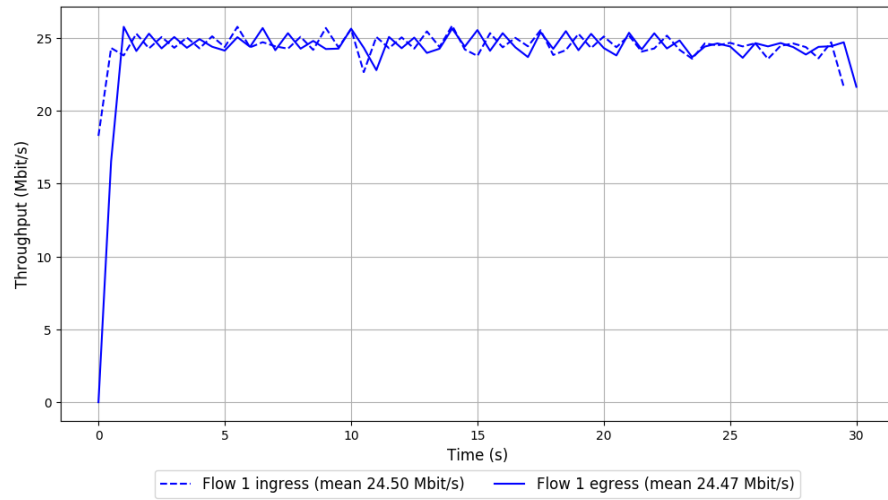


Run 5: Statistics of Sprout

Start at: 2018-09-07 11:48:11
End at: 2018-09-07 11:48:41
Local clock offset: -0.263 ms
Remote clock offset: -2.344 ms

Below is generated by plot.py at 2018-09-07 11:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 24.47 Mbit/s
95th percentile per-packet one-way delay: 14.341 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 24.47 Mbit/s
95th percentile per-packet one-way delay: 14.341 ms
Loss rate: 0.10%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

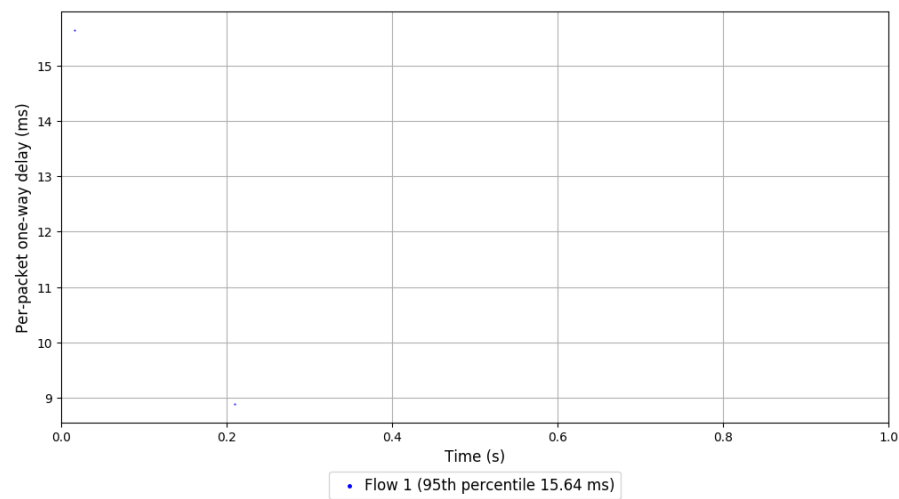
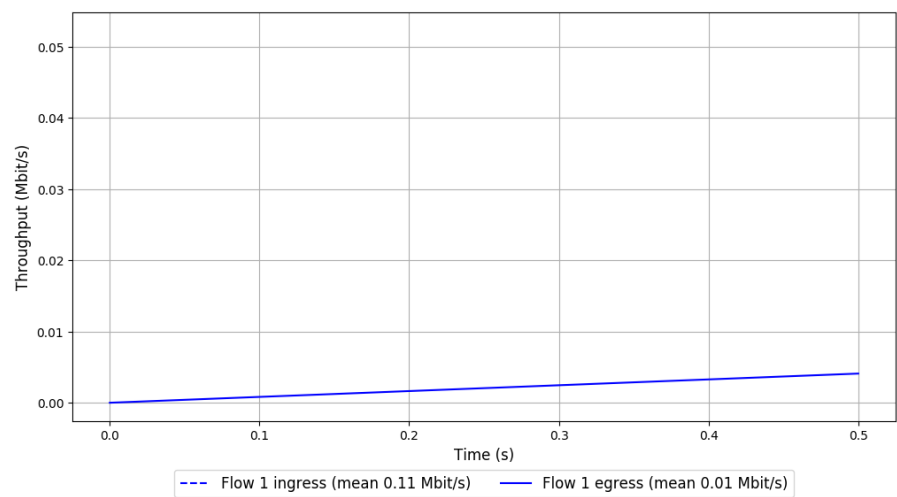
Start at: 2018-09-07 10:04:34

End at: 2018-09-07 10:05:04

Local clock offset: 1.202 ms

Remote clock offset: -2.139 ms

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-09-07 10:31:09

End at: 2018-09-07 10:31:39

Local clock offset: 0.103 ms

Remote clock offset: 3.887 ms

Below is generated by plot.py at 2018-09-07 11:56:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.26 Mbit/s

95th percentile per-packet one-way delay: 24.853 ms

Loss rate: 2.32%

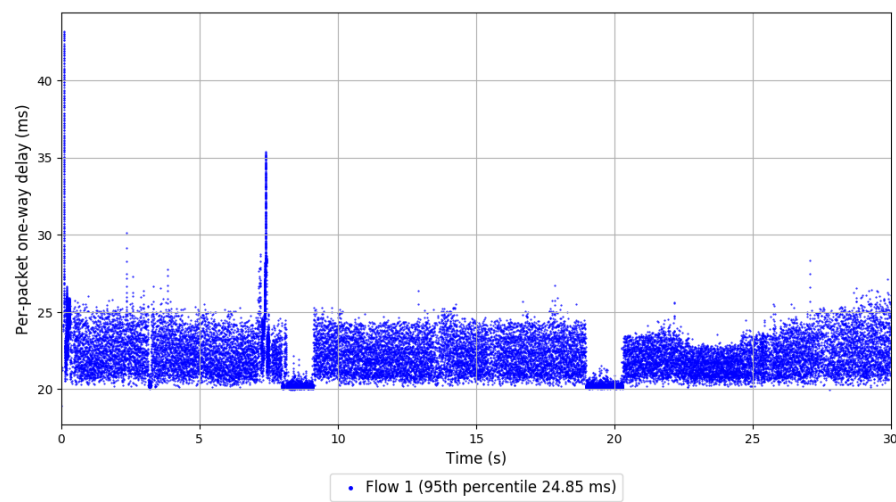
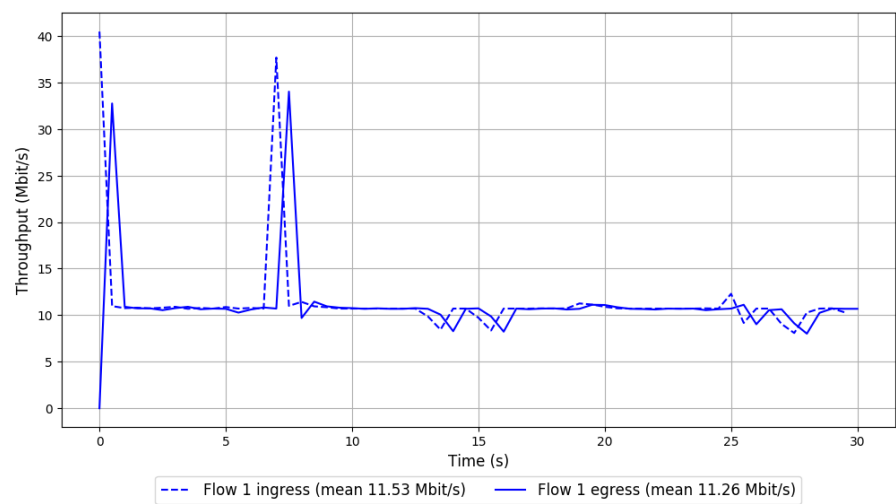
-- Flow 1:

Average throughput: 11.26 Mbit/s

95th percentile per-packet one-way delay: 24.853 ms

Loss rate: 2.32%

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

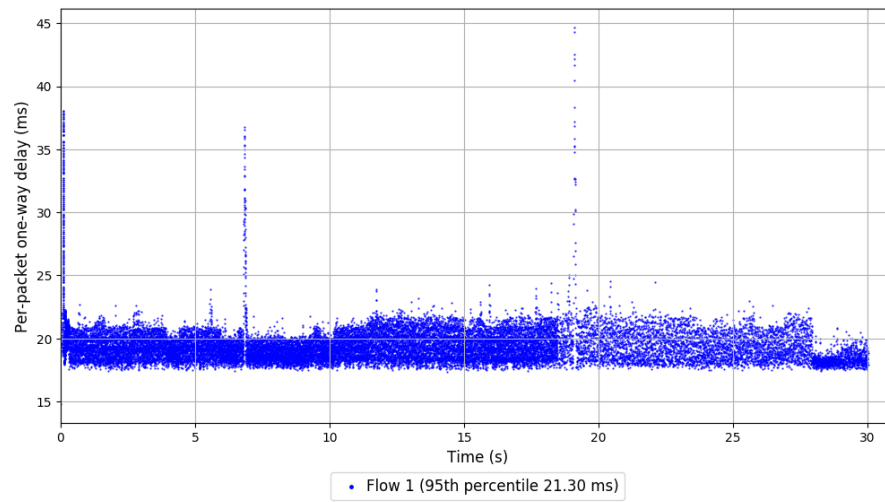
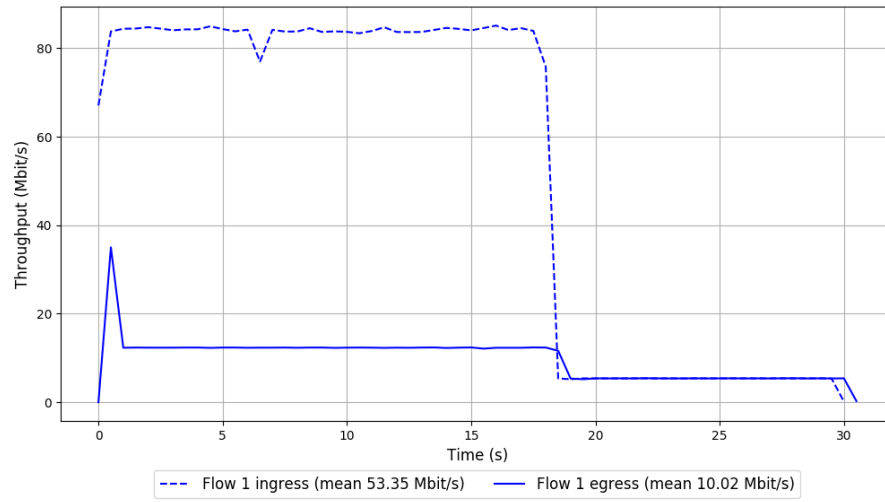


Run 3: Statistics of TaoVA-100x

Start at: 2018-09-07 10:51:42
End at: 2018-09-07 10:52:12
Local clock offset: -2.093 ms
Remote clock offset: -1.353 ms

Below is generated by plot.py at 2018-09-07 11:57:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 21.297 ms
Loss rate: 81.22%
-- Flow 1:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 21.297 ms
Loss rate: 81.22%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-09-07 11:12:06

End at: 2018-09-07 11:12:36

Local clock offset: 1.432 ms

Remote clock offset: -1.393 ms

Below is generated by plot.py at 2018-09-07 11:57:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.06 Mbit/s

95th percentile per-packet one-way delay: 10.582 ms

Loss rate: 81.15%

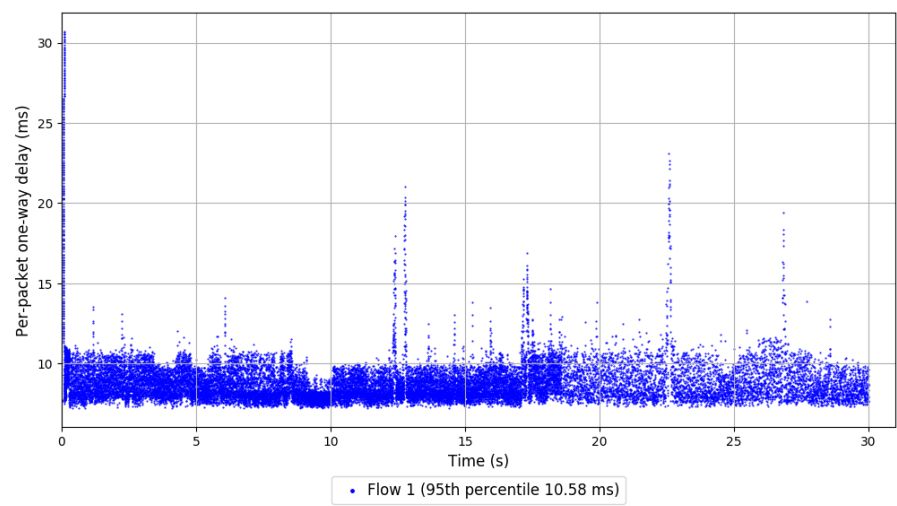
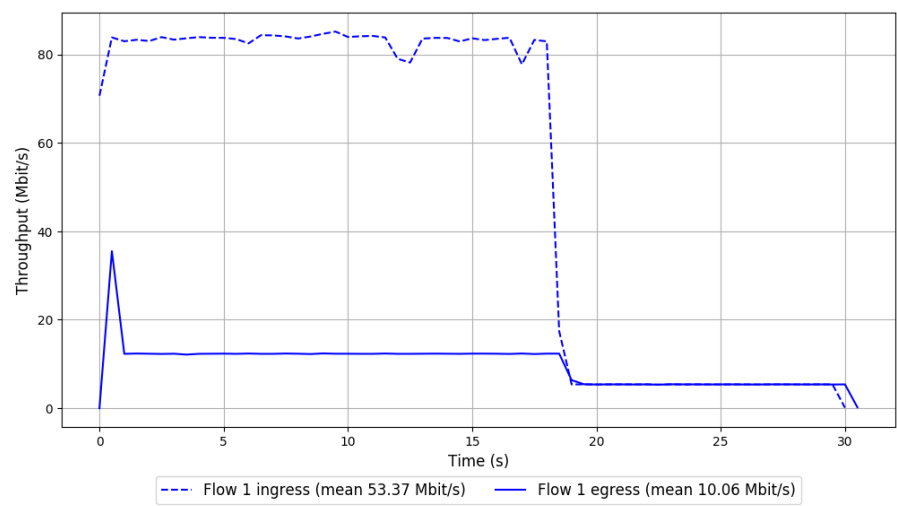
-- Flow 1:

Average throughput: 10.06 Mbit/s

95th percentile per-packet one-way delay: 10.582 ms

Loss rate: 81.15%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-09-07 11:32:23

End at: 2018-09-07 11:32:53

Local clock offset: 1.694 ms

Remote clock offset: -2.451 ms

Below is generated by plot.py at 2018-09-07 11:57:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.00 Mbit/s

95th percentile per-packet one-way delay: 9.221 ms

Loss rate: 81.25%

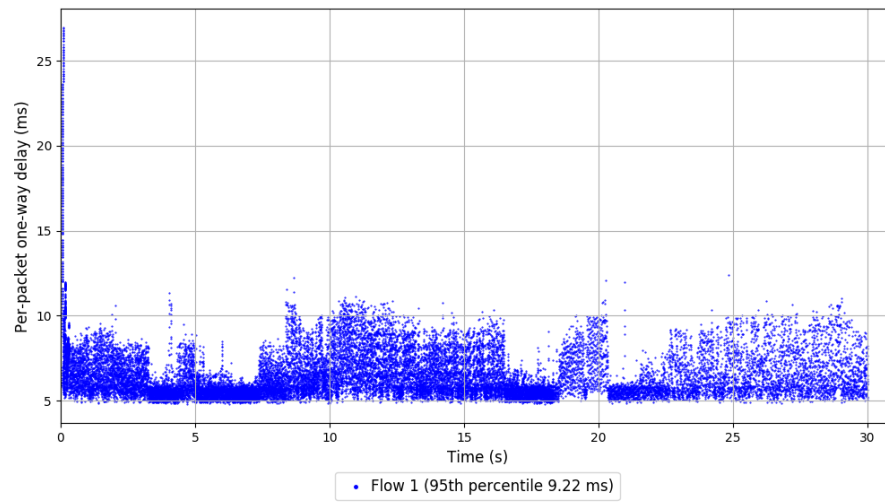
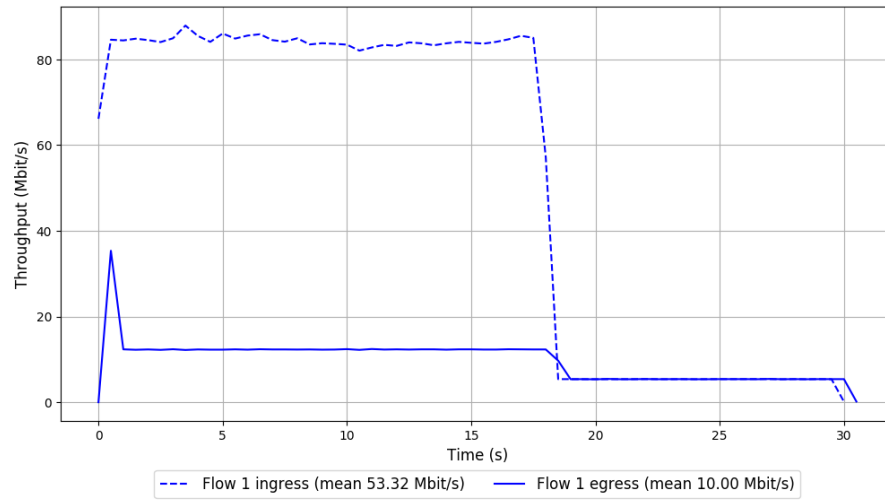
-- Flow 1:

Average throughput: 10.00 Mbit/s

95th percentile per-packet one-way delay: 9.221 ms

Loss rate: 81.25%

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

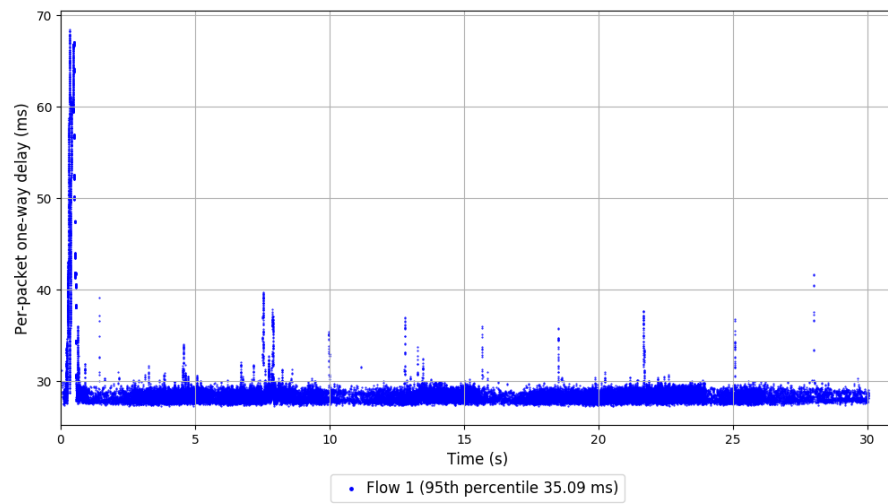
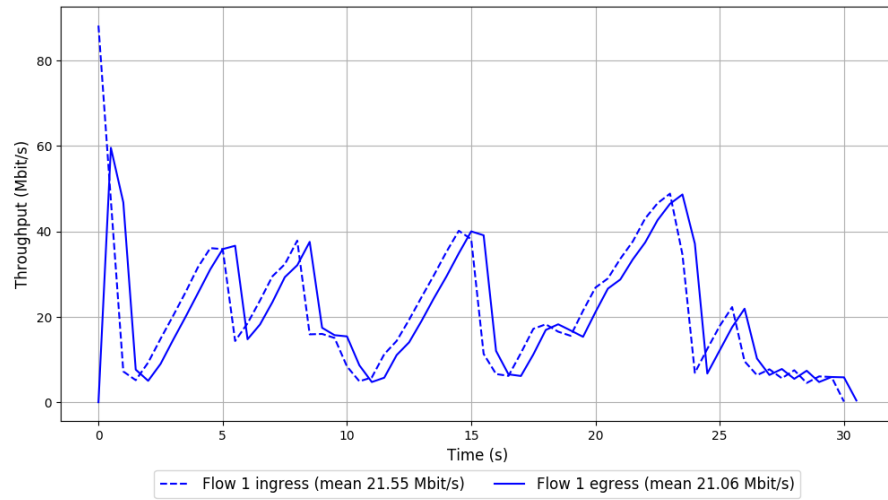


Run 1: Statistics of TCP Vegas

Start at: 2018-09-07 10:17:27
End at: 2018-09-07 10:17:57
Local clock offset: 1.817 ms
Remote clock offset: 13.579 ms

Below is generated by plot.py at 2018-09-07 11:57:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 21.06 Mbit/s
95th percentile per-packet one-way delay: 35.093 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 21.06 Mbit/s
95th percentile per-packet one-way delay: 35.093 ms
Loss rate: 2.30%

Run 1: Report of TCP Vegas — Data Link

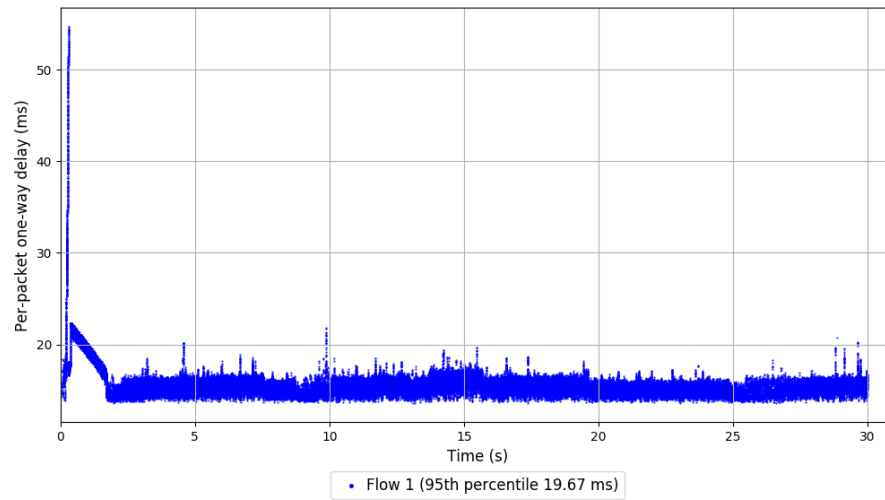
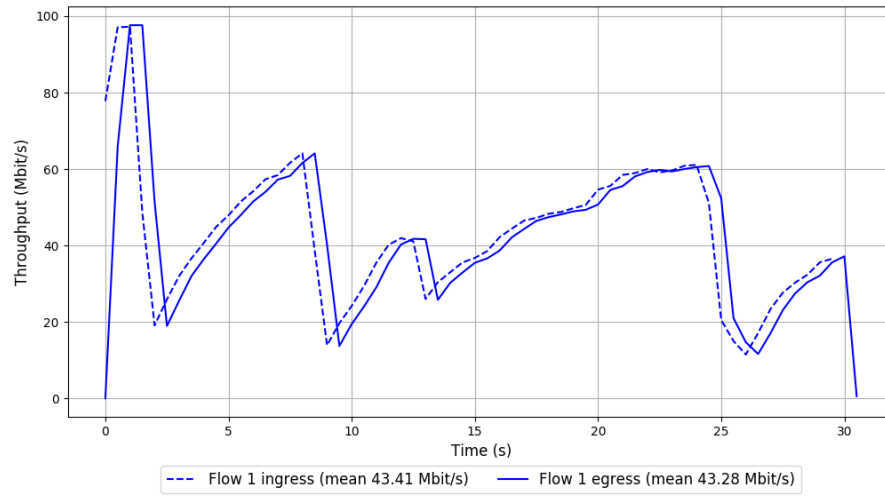


Run 2: Statistics of TCP Vegas

Start at: 2018-09-07 10:37:57
End at: 2018-09-07 10:38:27
Local clock offset: -3.55 ms
Remote clock offset: -1.753 ms

Below is generated by plot.py at 2018-09-07 11:57:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 43.28 Mbit/s
95th percentile per-packet one-way delay: 19.674 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 43.28 Mbit/s
95th percentile per-packet one-way delay: 19.674 ms
Loss rate: 0.31%

Run 2: Report of TCP Vegas — Data Link

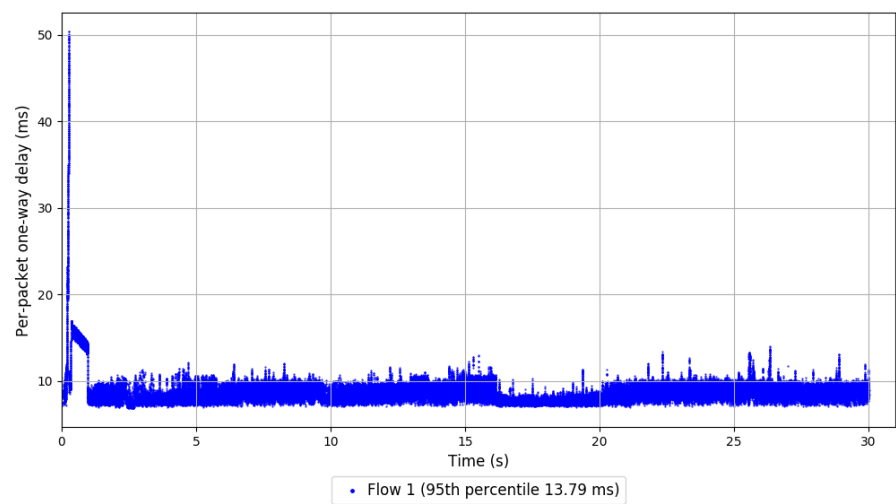
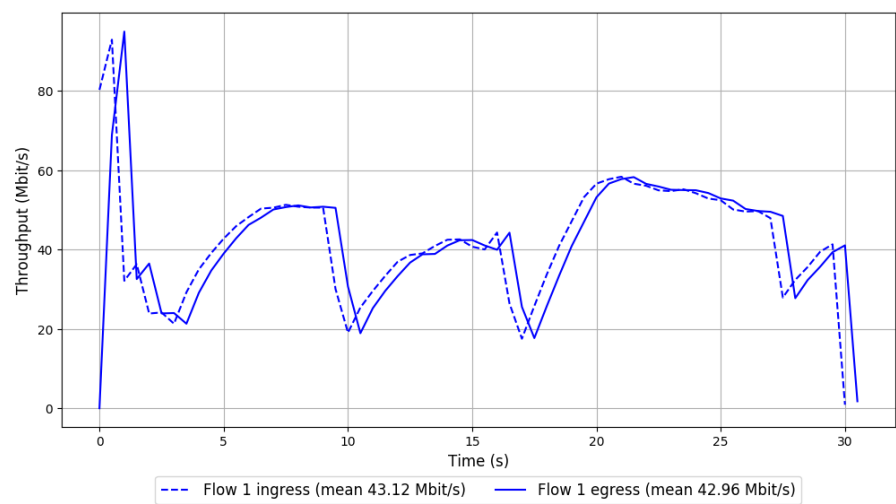


Run 3: Statistics of TCP Vegas

Start at: 2018-09-07 10:58:28
End at: 2018-09-07 10:58:58
Local clock offset: 2.808 ms
Remote clock offset: -2.315 ms

Below is generated by plot.py at 2018-09-07 11:57:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 42.96 Mbit/s
95th percentile per-packet one-way delay: 13.793 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 42.96 Mbit/s
95th percentile per-packet one-way delay: 13.793 ms
Loss rate: 0.38%

Run 3: Report of TCP Vegas — Data Link

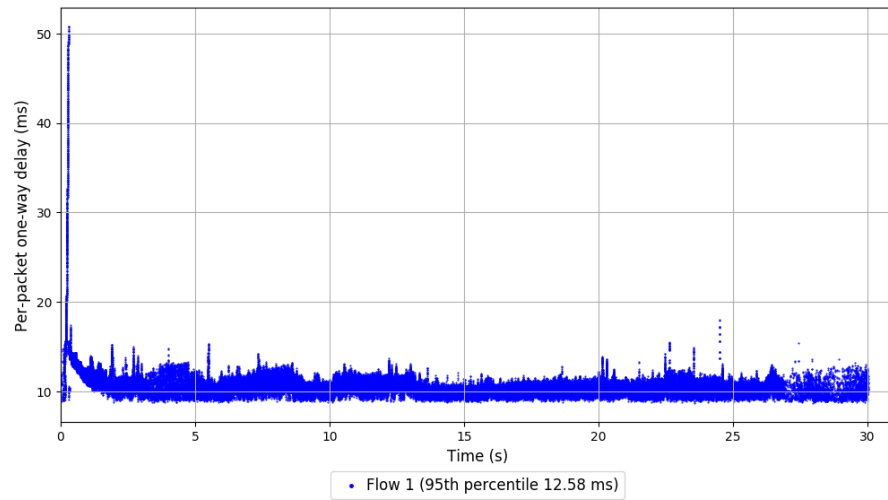
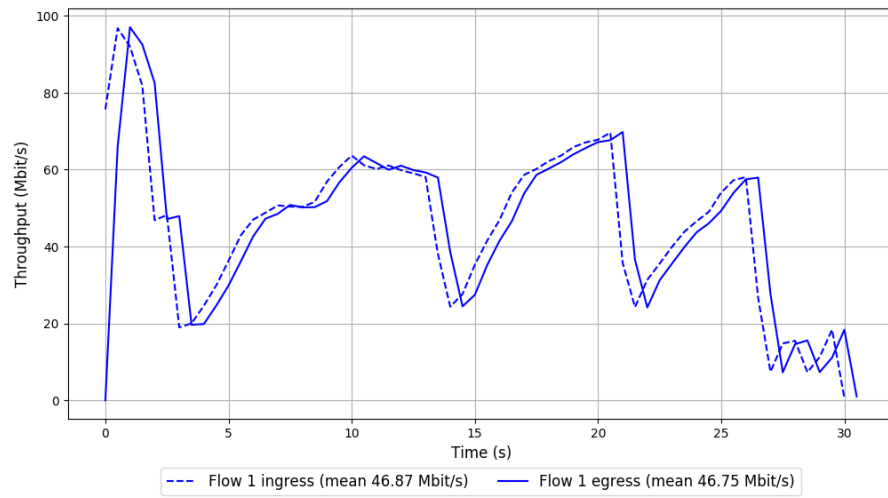


Run 4: Statistics of TCP Vegas

Start at: 2018-09-07 11:18:50
End at: 2018-09-07 11:19:20
Local clock offset: 1.801 ms
Remote clock offset: -1.357 ms

Below is generated by plot.py at 2018-09-07 11:57:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 46.75 Mbit/s
95th percentile per-packet one-way delay: 12.579 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 46.75 Mbit/s
95th percentile per-packet one-way delay: 12.579 ms
Loss rate: 0.26%

Run 4: Report of TCP Vegas — Data Link

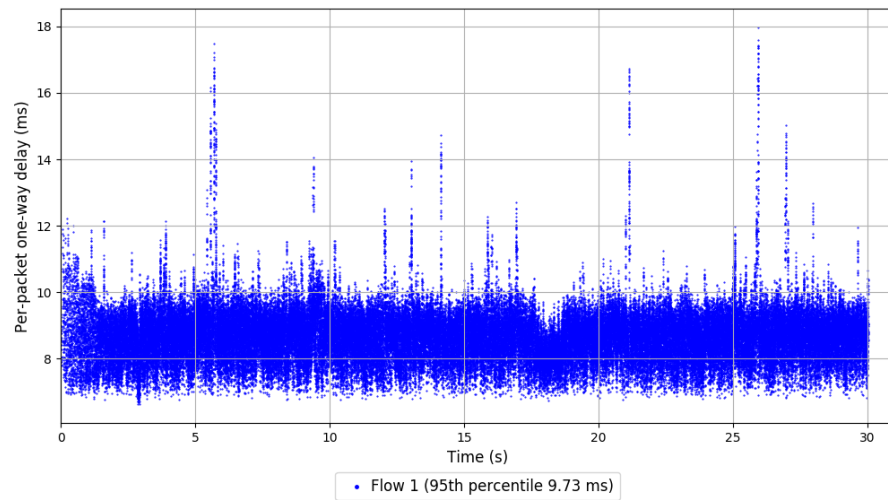
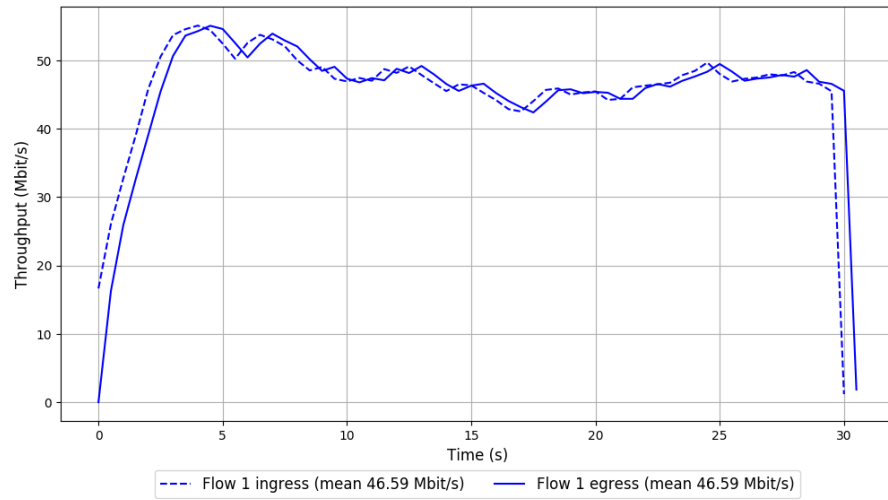


Run 5: Statistics of TCP Vegas

Start at: 2018-09-07 11:39:08
End at: 2018-09-07 11:39:38
Local clock offset: 0.888 ms
Remote clock offset: -1.244 ms

Below is generated by plot.py at 2018-09-07 11:57:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 46.59 Mbit/s
95th percentile per-packet one-way delay: 9.729 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.59 Mbit/s
95th percentile per-packet one-way delay: 9.729 ms
Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

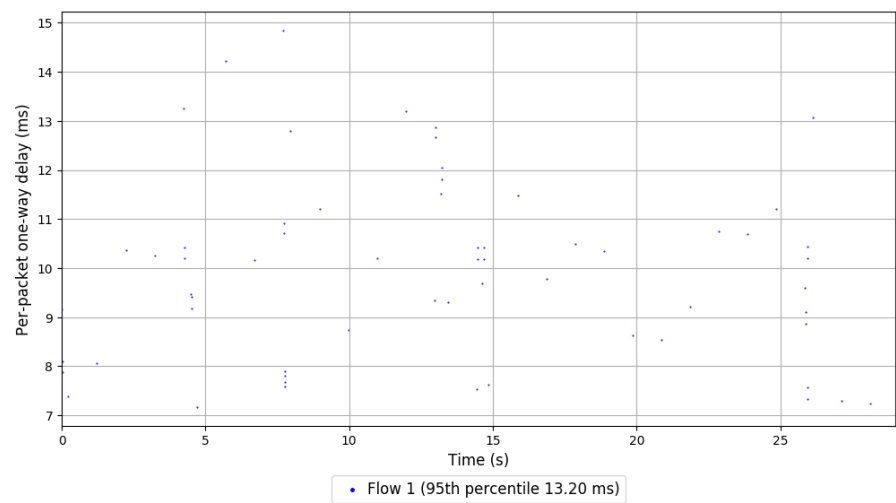
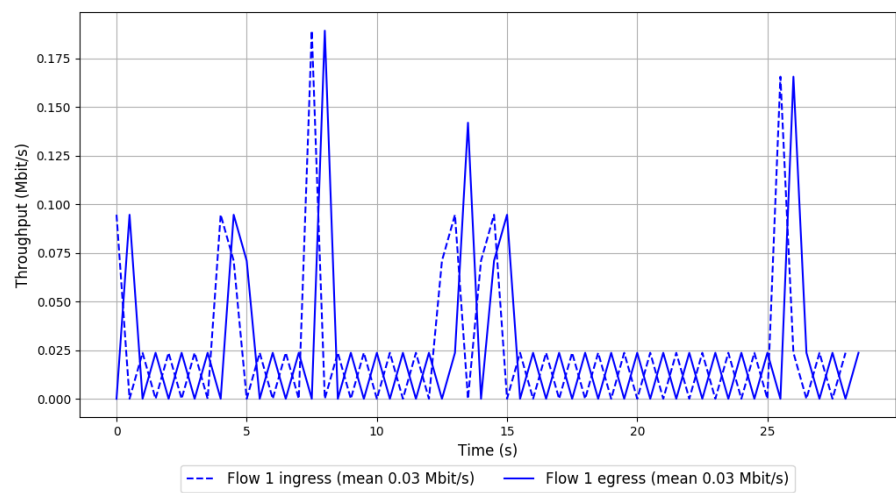


Run 1: Statistics of Verus

Start at: 2018-09-07 09:59:07
End at: 2018-09-07 09:59:37
Local clock offset: 0.057 ms
Remote clock offset: -3.673 ms

Below is generated by plot.py at 2018-09-07 11:57:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 13.202 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 13.202 ms
Loss rate: 0.00%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-09-07 10:30:00

End at: 2018-09-07 10:30:30

Local clock offset: -1.097 ms

Remote clock offset: 6.488 ms

Below is generated by plot.py at 2018-09-07 11:57:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.64 Mbit/s

95th percentile per-packet one-way delay: 48.785 ms

Loss rate: 8.43%

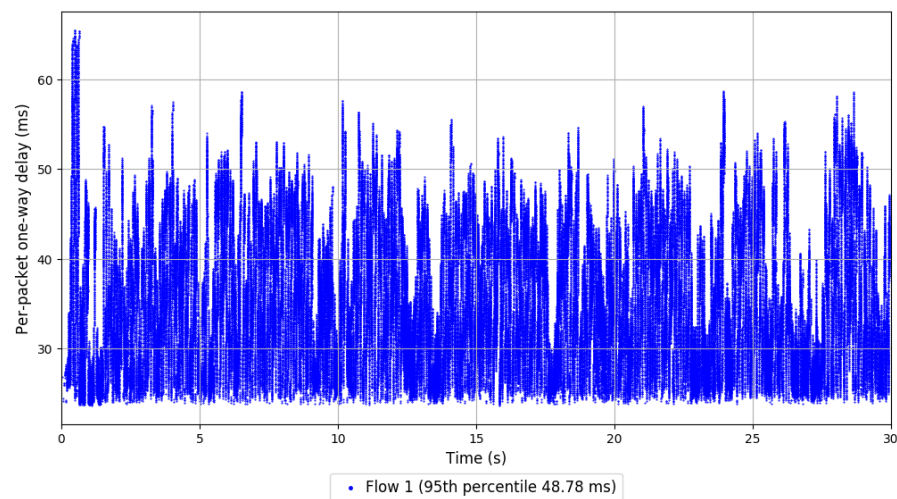
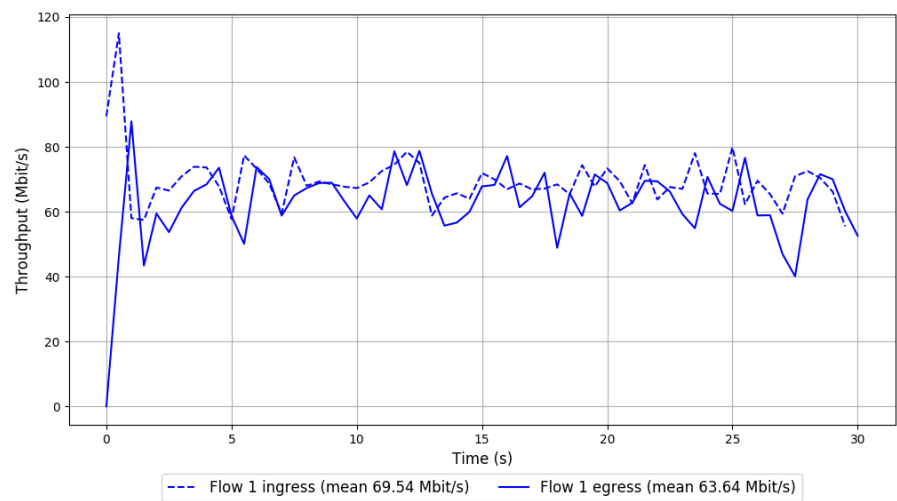
-- Flow 1:

Average throughput: 63.64 Mbit/s

95th percentile per-packet one-way delay: 48.785 ms

Loss rate: 8.43%

Run 2: Report of Verus — Data Link

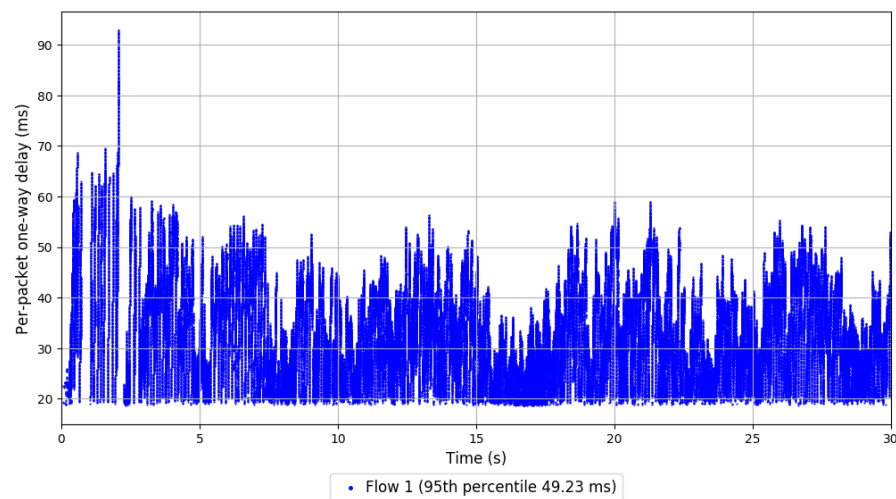
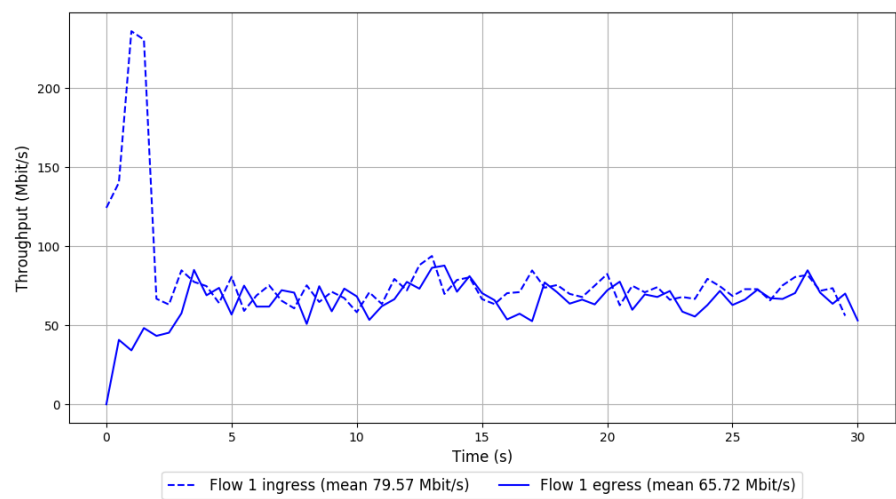


Run 3: Statistics of Verus

Start at: 2018-09-07 10:50:31
End at: 2018-09-07 10:51:01
Local clock offset: -3.585 ms
Remote clock offset: -1.505 ms

Below is generated by plot.py at 2018-09-07 11:57:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 65.72 Mbit/s
95th percentile per-packet one-way delay: 49.230 ms
Loss rate: 17.34%
-- Flow 1:
Average throughput: 65.72 Mbit/s
95th percentile per-packet one-way delay: 49.230 ms
Loss rate: 17.34%

Run 3: Report of Verus — Data Link

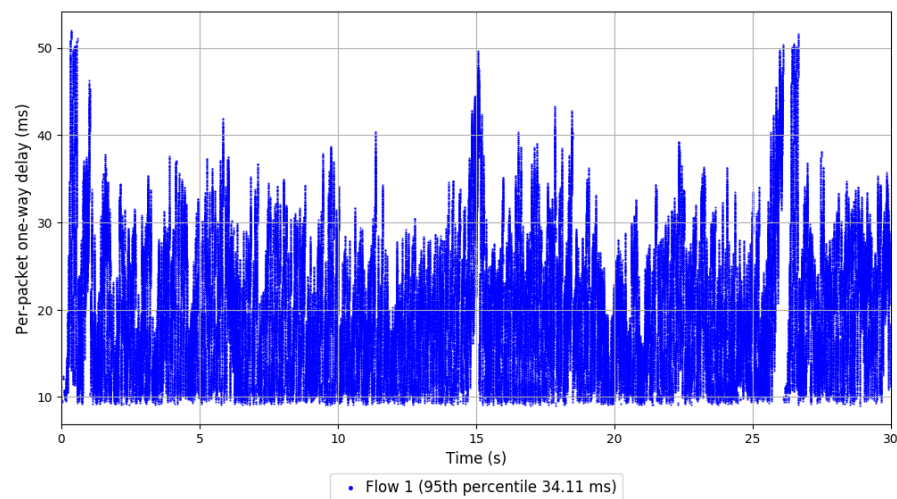
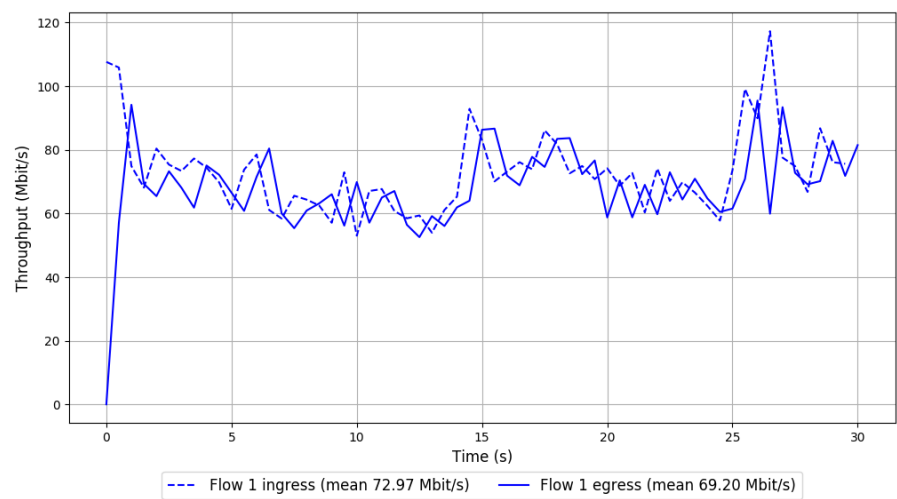


Run 4: Statistics of Verus

Start at: 2018-09-07 11:10:56
End at: 2018-09-07 11:11:26
Local clock offset: 1.471 ms
Remote clock offset: -1.799 ms

Below is generated by plot.py at 2018-09-07 11:57:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 69.20 Mbit/s
95th percentile per-packet one-way delay: 34.110 ms
Loss rate: 5.14%
-- Flow 1:
Average throughput: 69.20 Mbit/s
95th percentile per-packet one-way delay: 34.110 ms
Loss rate: 5.14%

Run 4: Report of Verus — Data Link

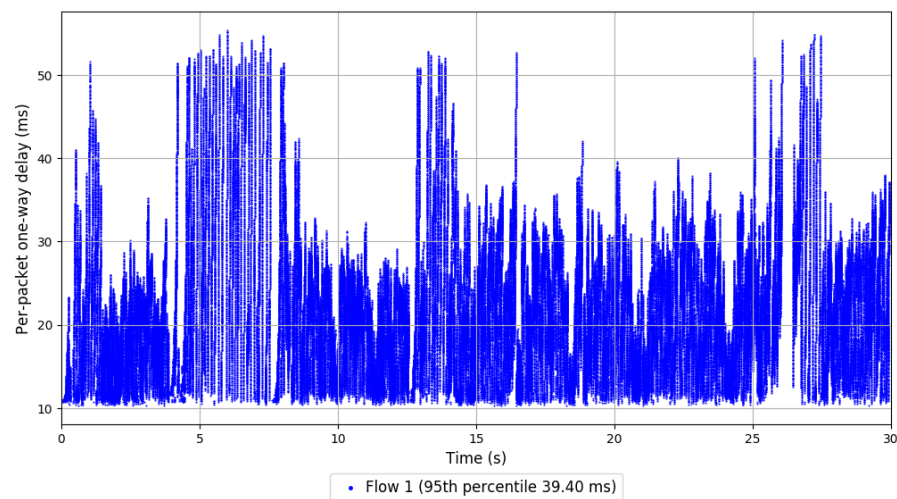
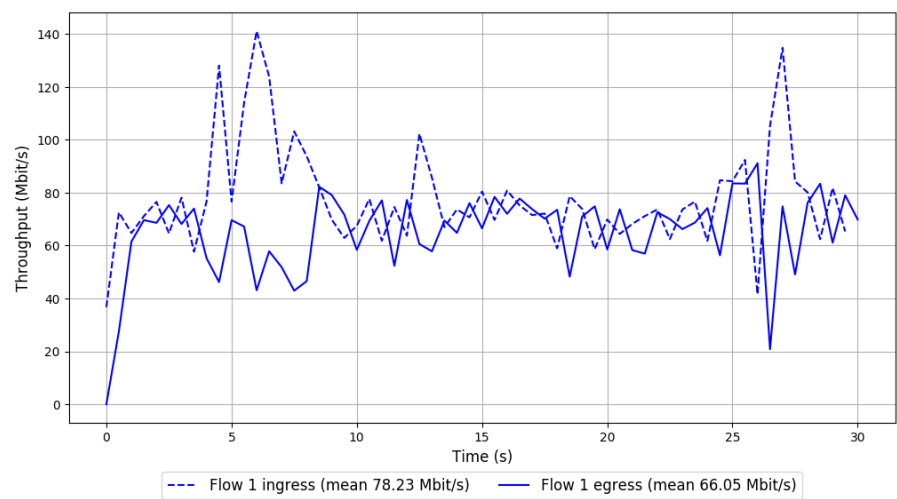


Run 5: Statistics of Verus

Start at: 2018-09-07 11:31:13
End at: 2018-09-07 11:31:43
Local clock offset: 0.384 ms
Remote clock offset: -0.621 ms

Below is generated by plot.py at 2018-09-07 11:58:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 66.05 Mbit/s
95th percentile per-packet one-way delay: 39.397 ms
Loss rate: 15.49%
-- Flow 1:
Average throughput: 66.05 Mbit/s
95th percentile per-packet one-way delay: 39.397 ms
Loss rate: 15.49%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-09-07 10:20:59

End at: 2018-09-07 10:21:29

Local clock offset: 0.11 ms

Remote clock offset: 2.57 ms

Below is generated by plot.py at 2018-09-07 11:58:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 15.13 Mbit/s

95th percentile per-packet one-way delay: 21.510 ms

Loss rate: 4.06%

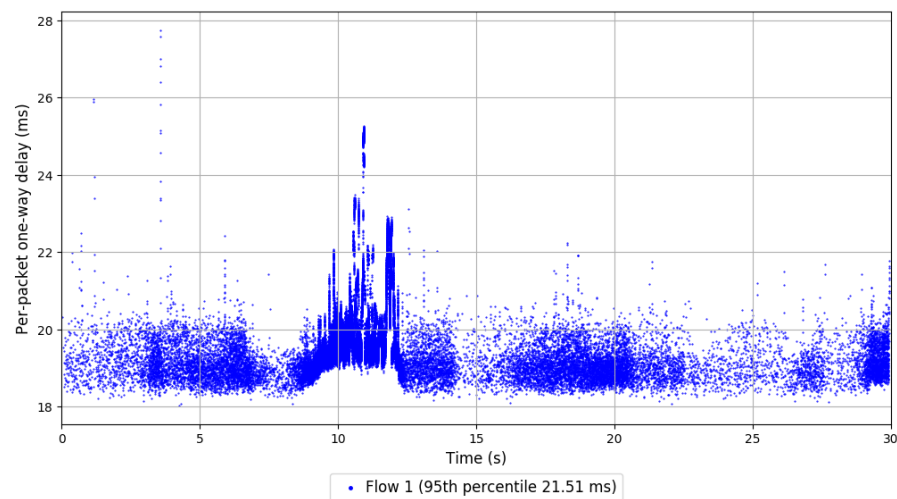
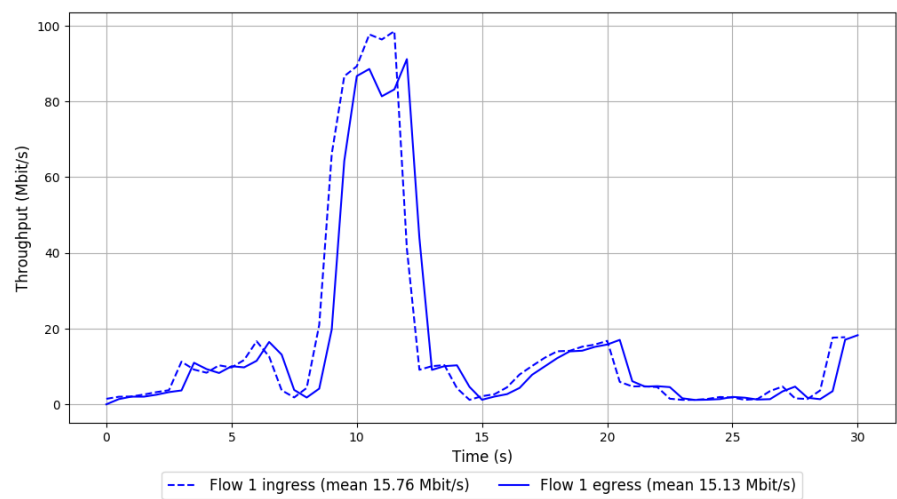
-- Flow 1:

Average throughput: 15.13 Mbit/s

95th percentile per-packet one-way delay: 21.510 ms

Loss rate: 4.06%

Run 1: Report of PCC-Vivace — Data Link

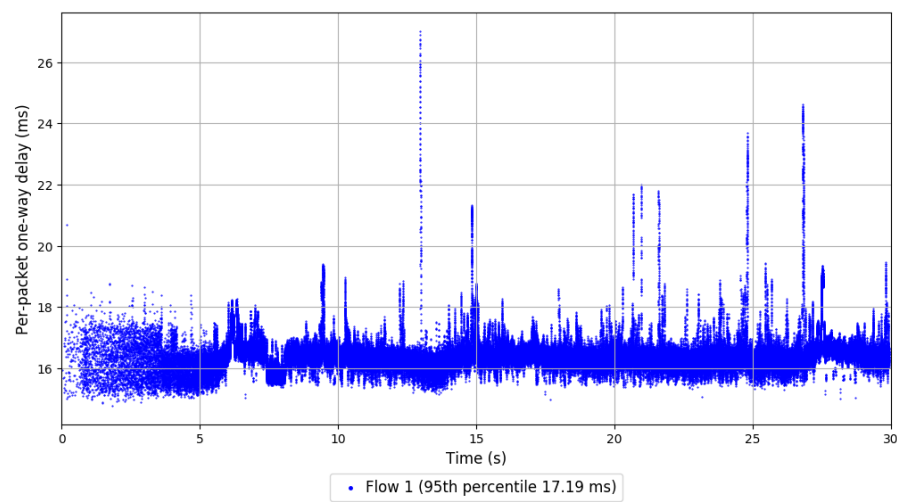
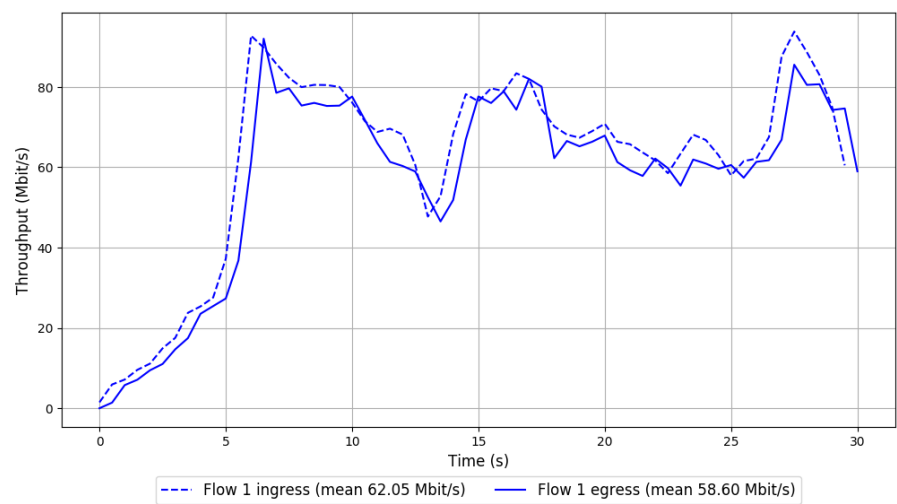


Run 2: Statistics of PCC-Vivace

Start at: 2018-09-07 10:41:29
End at: 2018-09-07 10:41:59
Local clock offset: -0.815 ms
Remote clock offset: -2.547 ms

Below is generated by plot.py at 2018-09-07 11:58:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 17.194 ms
Loss rate: 5.58%
-- Flow 1:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 17.194 ms
Loss rate: 5.58%

Run 2: Report of PCC-Vivace — Data Link

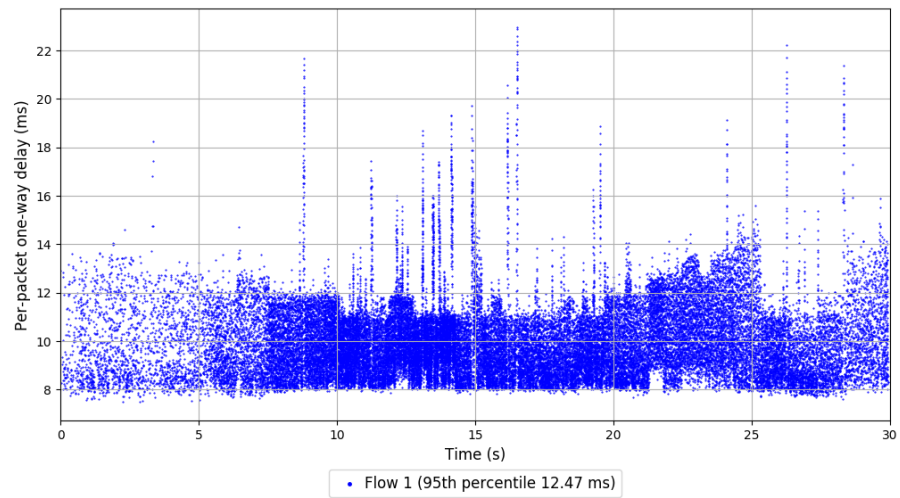
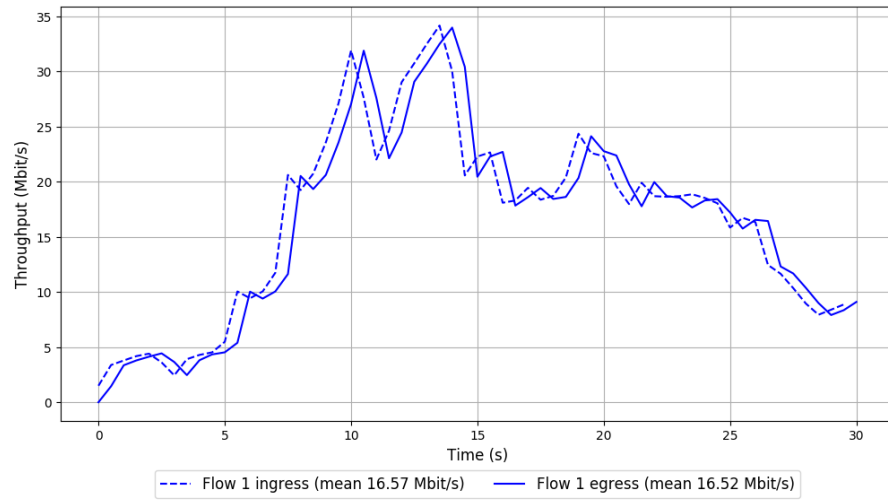


Run 3: Statistics of PCC-Vivace

Start at: 2018-09-07 11:01:59
End at: 2018-09-07 11:02:29
Local clock offset: -0.151 ms
Remote clock offset: -2.273 ms

Below is generated by plot.py at 2018-09-07 11:58:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 12.468 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 12.468 ms
Loss rate: 0.31%

Run 3: Report of PCC-Vivace — Data Link

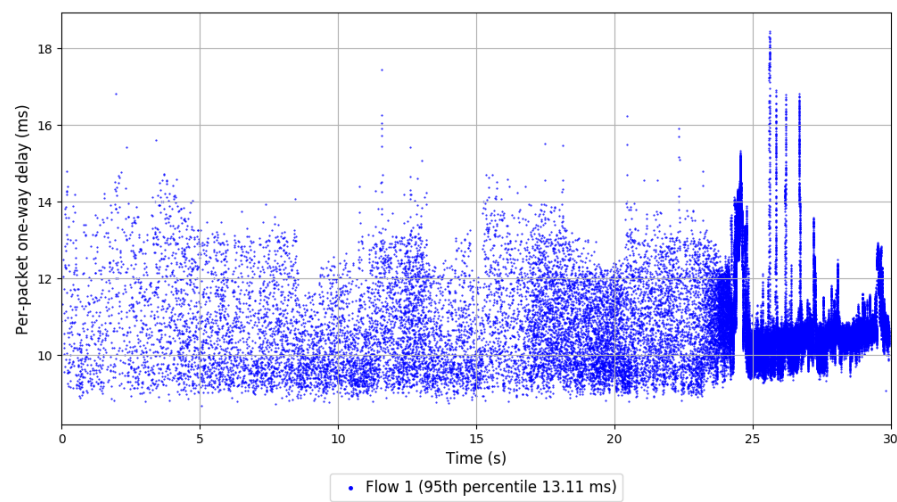
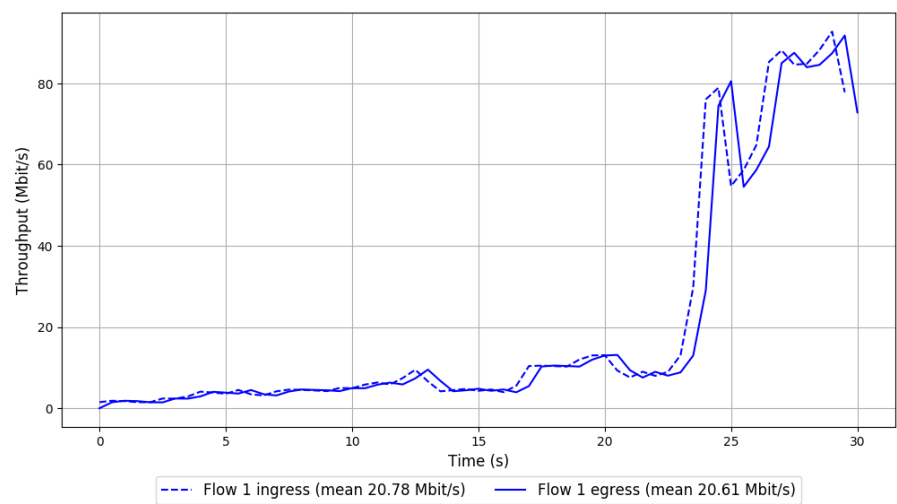


Run 4: Statistics of PCC-Vivace

Start at: 2018-09-07 11:22:17
End at: 2018-09-07 11:22:47
Local clock offset: -1.7 ms
Remote clock offset: -2.173 ms

Below is generated by plot.py at 2018-09-07 11:58:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 20.61 Mbit/s
95th percentile per-packet one-way delay: 13.107 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 20.61 Mbit/s
95th percentile per-packet one-way delay: 13.107 ms
Loss rate: 0.81%

Run 4: Report of PCC-Vivace — Data Link

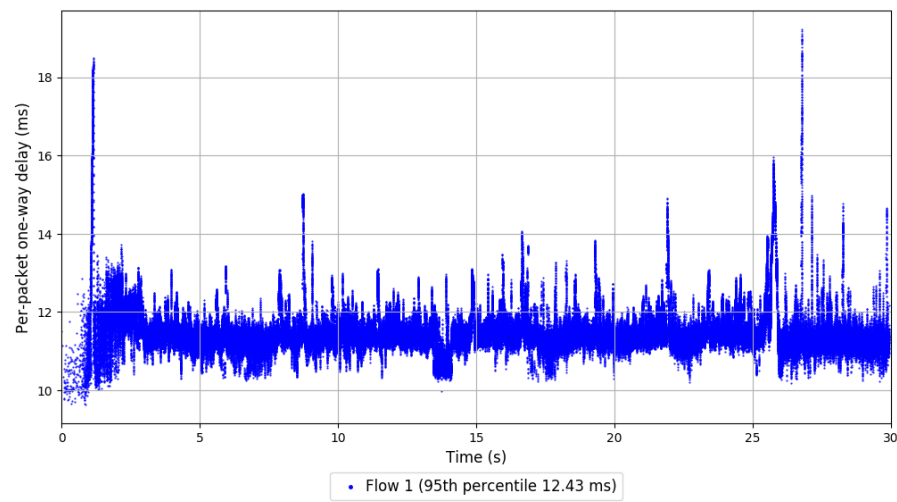
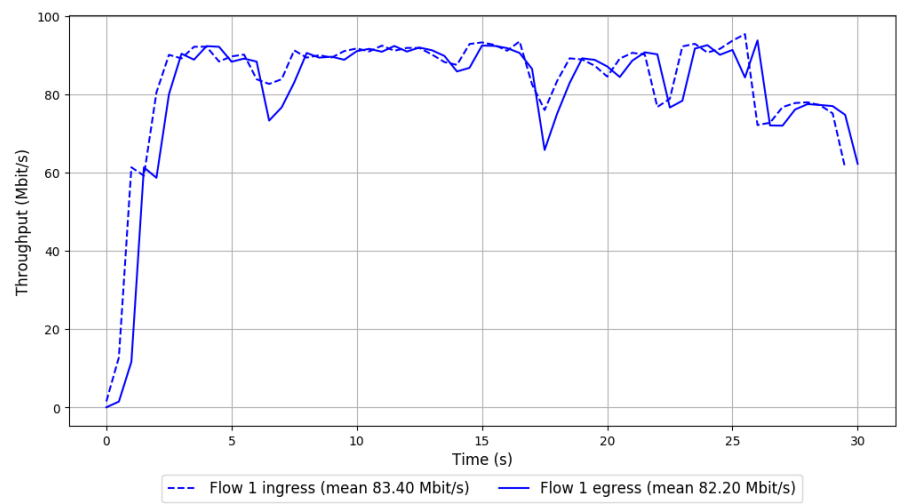


Run 5: Statistics of PCC-Vivace

Start at: 2018-09-07 11:42:37
End at: 2018-09-07 11:43:07
Local clock offset: -0.463 ms
Remote clock offset: -1.907 ms

Below is generated by plot.py at 2018-09-07 11:58:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.20 Mbit/s
95th percentile per-packet one-way delay: 12.433 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 82.20 Mbit/s
95th percentile per-packet one-way delay: 12.433 ms
Loss rate: 1.44%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-09-07 10:24:22

End at: 2018-09-07 10:24:52

Local clock offset: -0.121 ms

Remote clock offset: 5.723 ms

Below is generated by plot.py at 2018-09-07 11:58:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.14 Mbit/s

95th percentile per-packet one-way delay: 24.070 ms

Loss rate: 0.11%

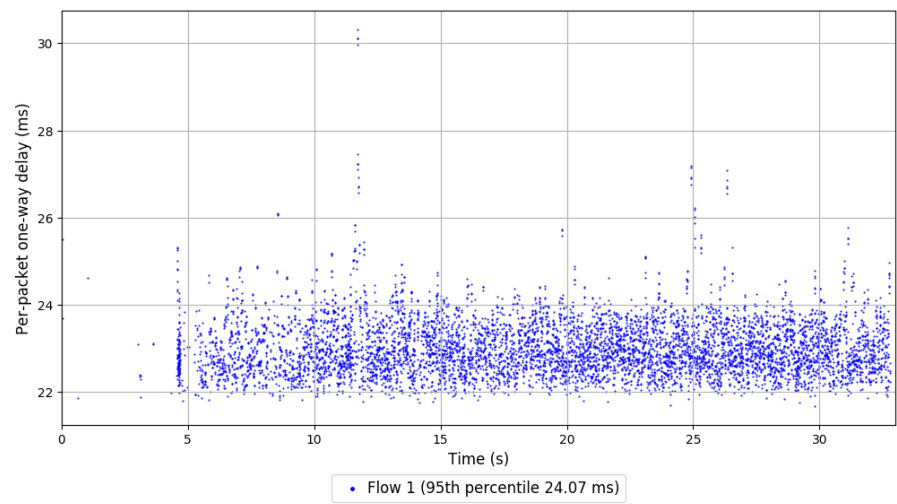
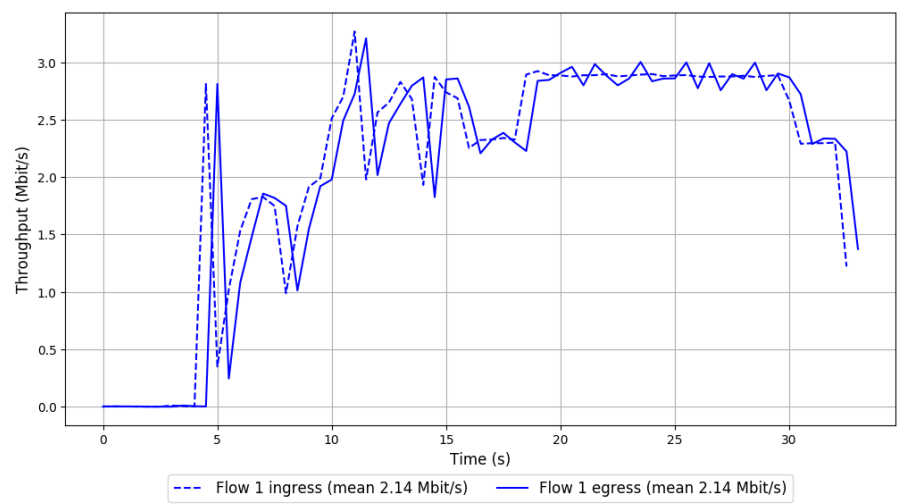
-- Flow 1:

Average throughput: 2.14 Mbit/s

95th percentile per-packet one-way delay: 24.070 ms

Loss rate: 0.11%

Run 1: Report of WebRTC media — Data Link

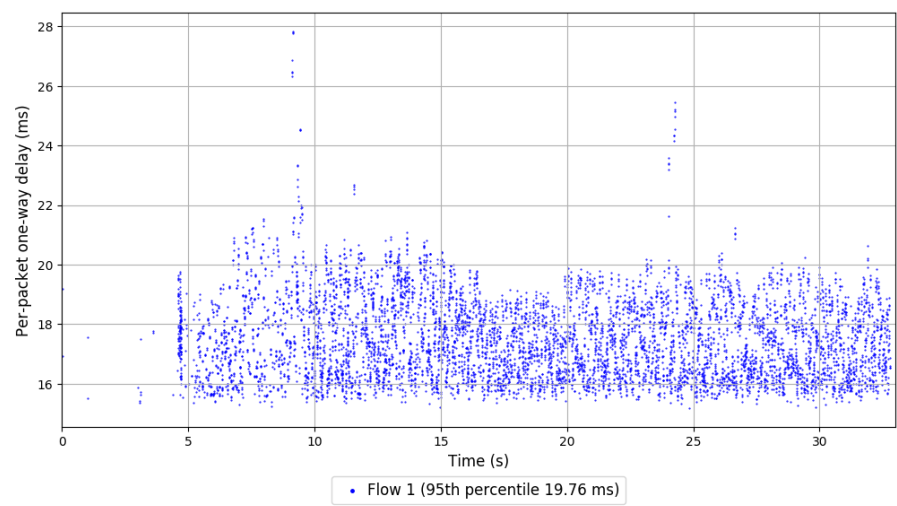
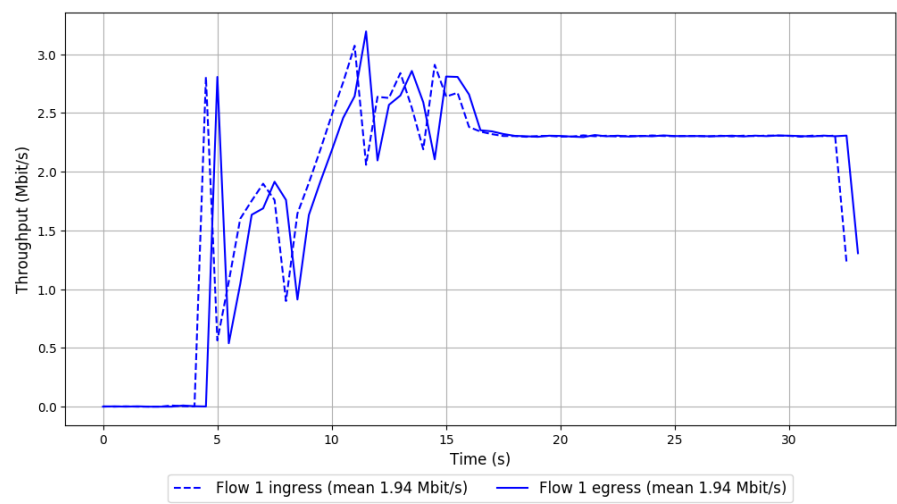


Run 2: Statistics of WebRTC media

Start at: 2018-09-07 10:44:50
End at: 2018-09-07 10:45:20
Local clock offset: -1.48 ms
Remote clock offset: -2.787 ms

Below is generated by plot.py at 2018-09-07 11:58:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 19.757 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 19.757 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

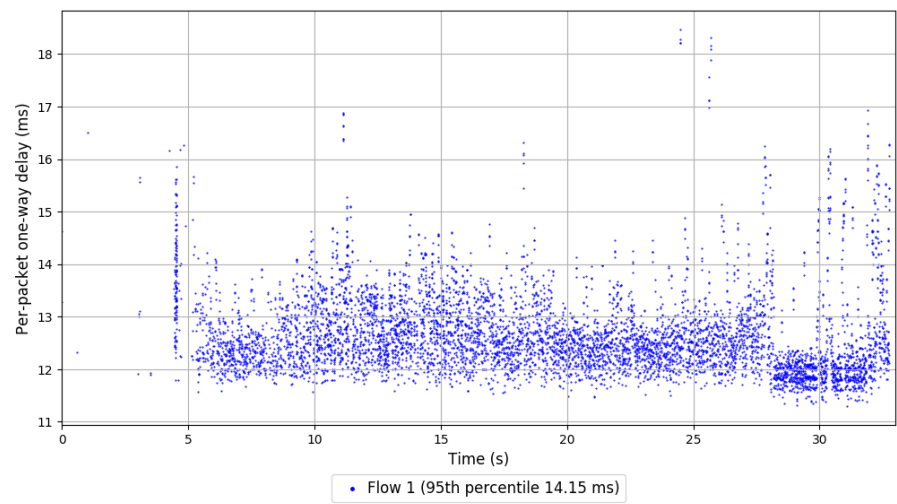
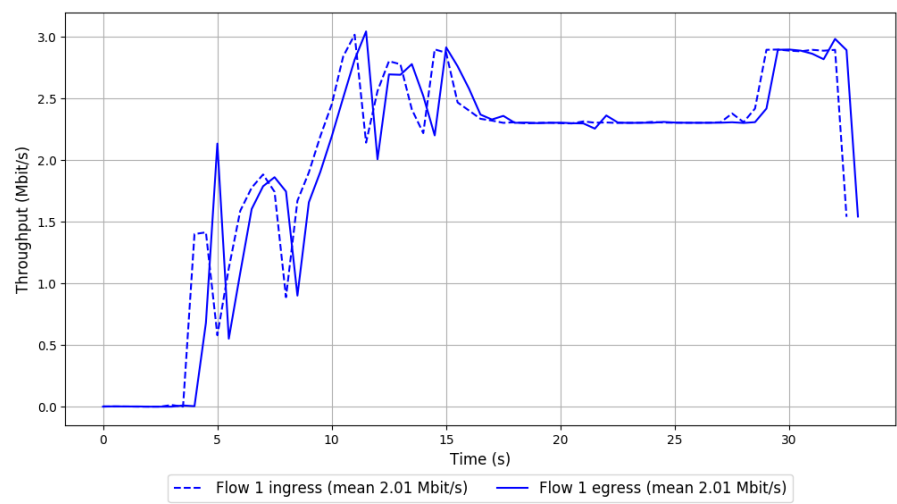


Run 3: Statistics of WebRTC media

Start at: 2018-09-07 11:05:18
End at: 2018-09-07 11:05:48
Local clock offset: -3.88 ms
Remote clock offset: -2.131 ms

Below is generated by plot.py at 2018-09-07 11:58:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 14.150 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 14.150 ms
Loss rate: 0.06%

Run 3: Report of WebRTC media — Data Link

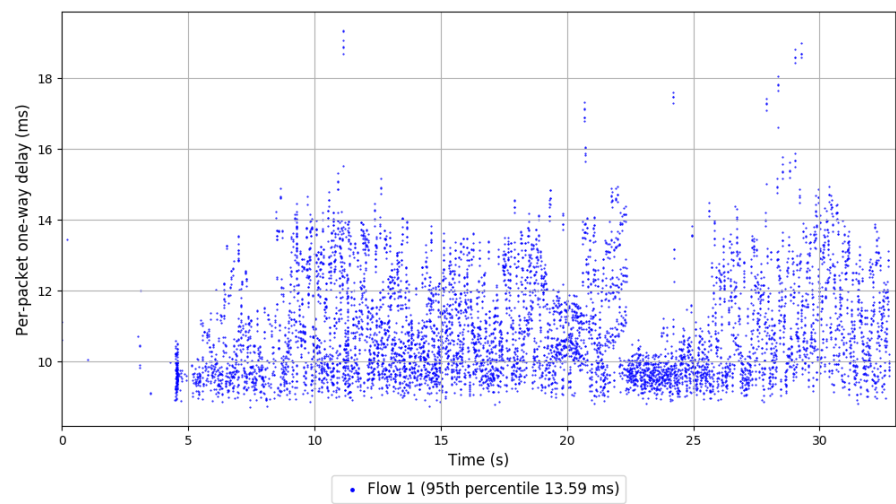
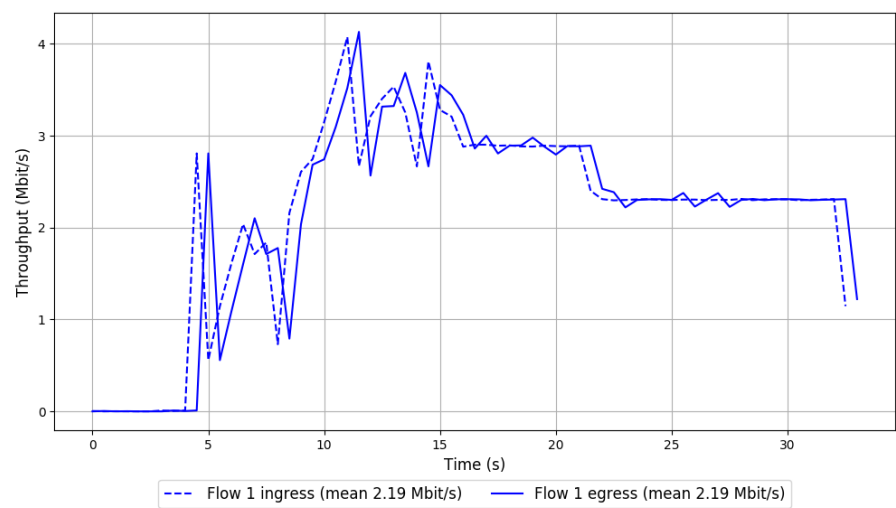


Run 4: Statistics of WebRTC media

Start at: 2018-09-07 11:25:35
End at: 2018-09-07 11:26:05
Local clock offset: -0.719 ms
Remote clock offset: -1.067 ms

Below is generated by plot.py at 2018-09-07 11:58:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 13.590 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 13.590 ms
Loss rate: 0.03%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-07 11:45:59
End at: 2018-09-07 11:46:29
Local clock offset: -2.382 ms
Remote clock offset: -2.824 ms

Below is generated by plot.py at 2018-09-07 11:58:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 15.911 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 15.911 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

