

Pantheon Report

Generated at 2018-12-11 10:58:18 (UTC).

Data path: AWS California 2 on **ens5** (*local*) → Mexico on **em1** (*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.stanford.edu** and have been applied to correct the timestamps in logs.

System info:

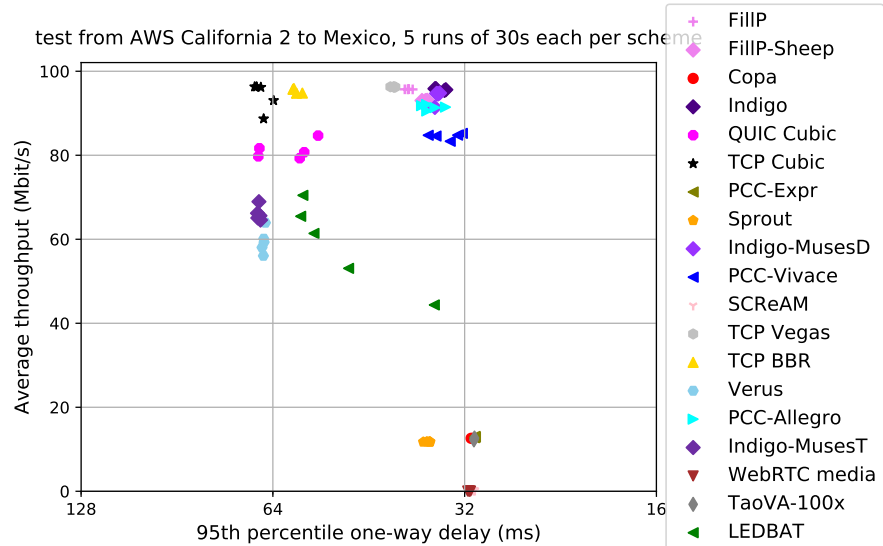
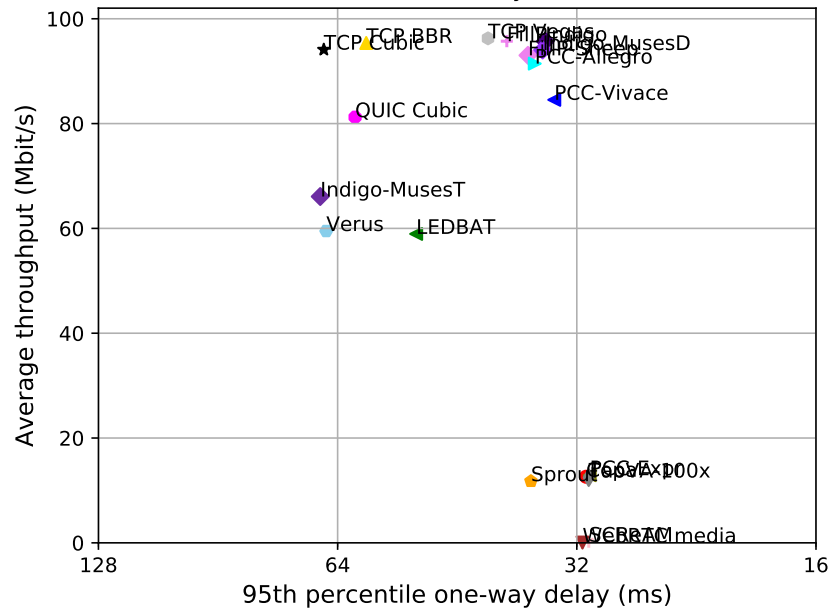
```
Linux 4.15.0-1029-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

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 AWS California 2 to Mexico, 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	95.38	58.91	1.06
Copa	2	12.61	31.15	71.91
TCP Cubic	5	94.11	66.62	0.46
FillP	5	95.72	39.20	0.68
FillP-Sheep	5	93.02	36.87	0.59
Indigo	5	95.70	35.06	0.01
Indigo-MusesD	5	94.04	35.34	0.40
Indigo-MusesT	5	66.08	67.31	38.10
LEDBAT	5	58.95	50.98	0.03
PCC-Allegro	5	91.44	36.15	0.69
PCC-Expr	3	12.91	30.83	50.51
QUIC Cubic	5	81.22	60.84	1.38
SCReAM	5	0.21	30.91	0.00
Sprout	5	11.77	36.55	0.04
TaoVA-100x	2	12.46	30.91	70.70
TCP Vegas	5	96.26	41.39	0.27
Verus	5	59.50	66.15	26.44
PCC-Vivace	5	84.53	34.16	0.00
WebRTC media	5	0.05	31.48	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-12-11 09:00:17

End at: 2018-12-11 09:00:47

Local clock offset: 2.248 ms

Remote clock offset: -3.719 ms

Below is generated by plot.py at 2018-12-11 10:50:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.73 Mbit/s

95th percentile per-packet one-way delay: 59.507 ms

Loss rate: 1.09%

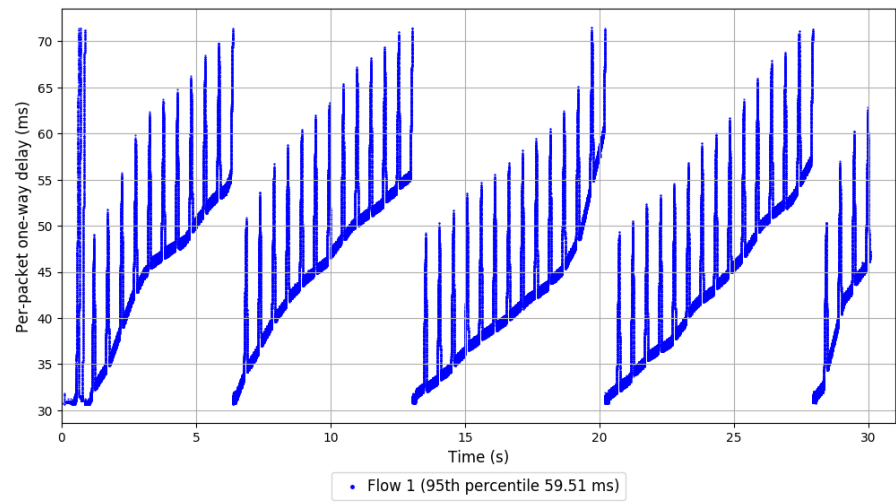
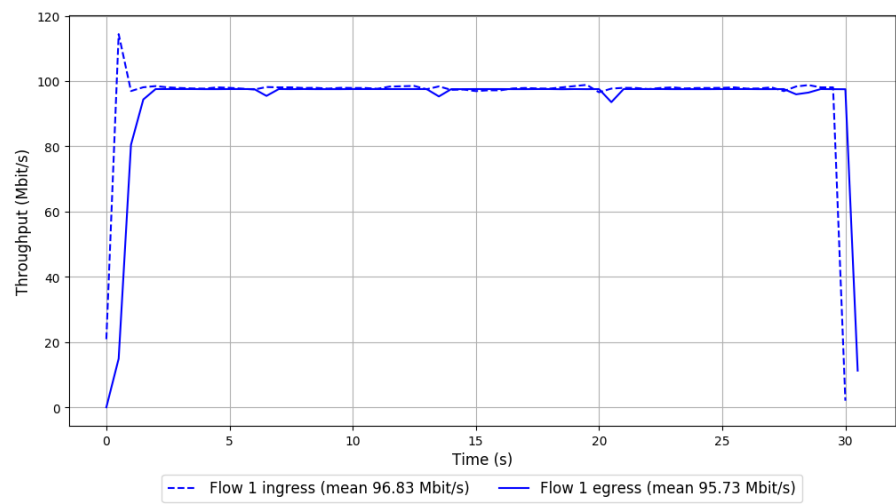
-- Flow 1:

Average throughput: 95.73 Mbit/s

95th percentile per-packet one-way delay: 59.507 ms

Loss rate: 1.09%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-12-11 09:22:01

End at: 2018-12-11 09:22:31

Local clock offset: 1.275 ms

Remote clock offset: -3.051 ms

Below is generated by plot.py at 2018-12-11 10:50:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.88 Mbit/s

95th percentile per-packet one-way delay: 59.312 ms

Loss rate: 1.11%

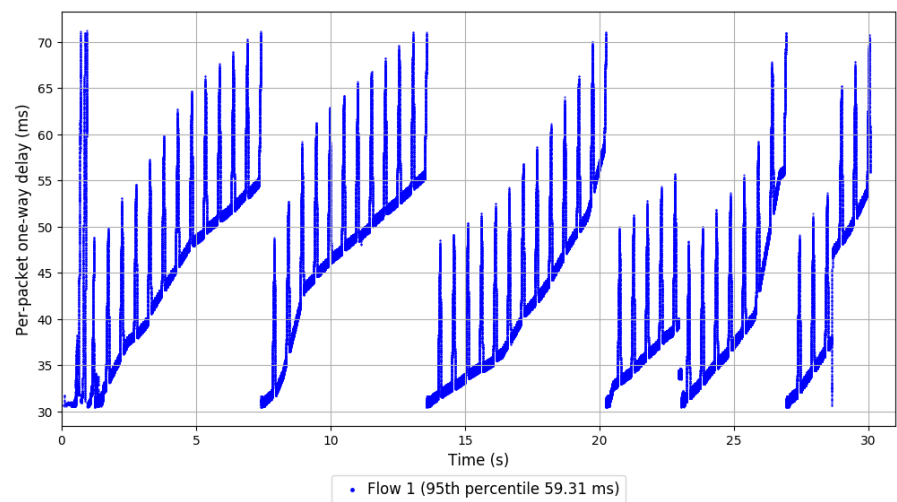
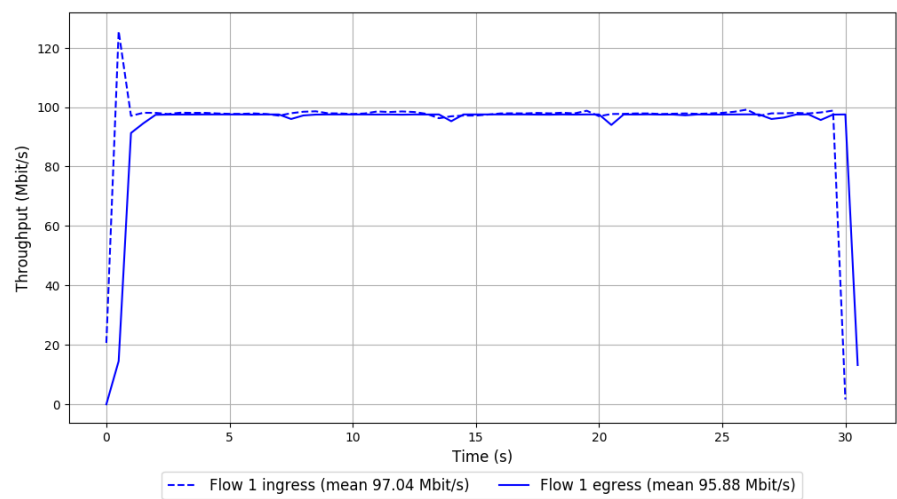
-- Flow 1:

Average throughput: 95.88 Mbit/s

95th percentile per-packet one-way delay: 59.312 ms

Loss rate: 1.11%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-12-11 09:43:50

End at: 2018-12-11 09:44:20

Local clock offset: 0.711 ms

Remote clock offset: -2.157 ms

Below is generated by plot.py at 2018-12-11 10:50:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.80 Mbit/s

95th percentile per-packet one-way delay: 57.527 ms

Loss rate: 0.94%

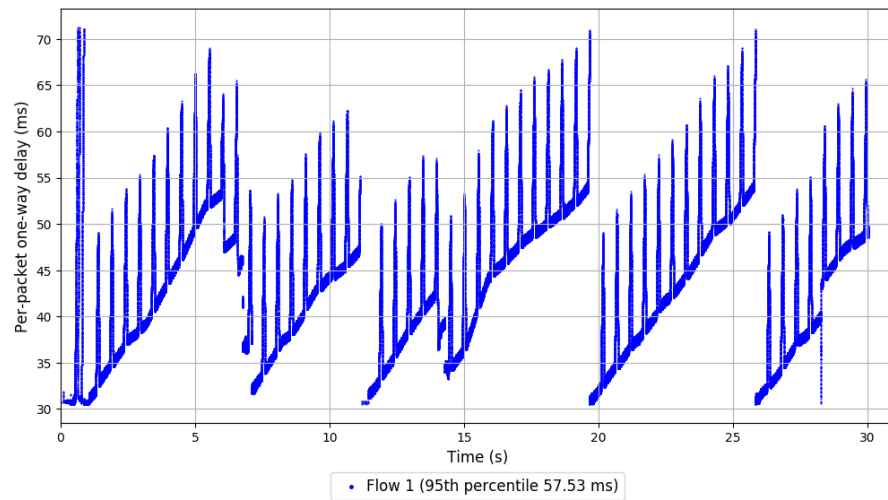
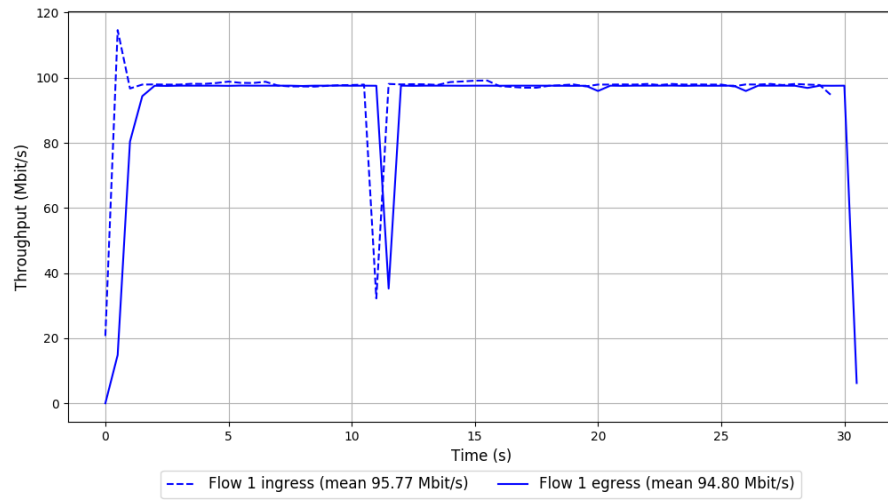
-- Flow 1:

Average throughput: 94.80 Mbit/s

95th percentile per-packet one-way delay: 57.527 ms

Loss rate: 0.94%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-12-11 10:05:50

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

Local clock offset: 0.504 ms

Remote clock offset: -1.339 ms

Below is generated by plot.py at 2018-12-11 10:50:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.74 Mbit/s

95th percentile per-packet one-way delay: 59.431 ms

Loss rate: 1.15%

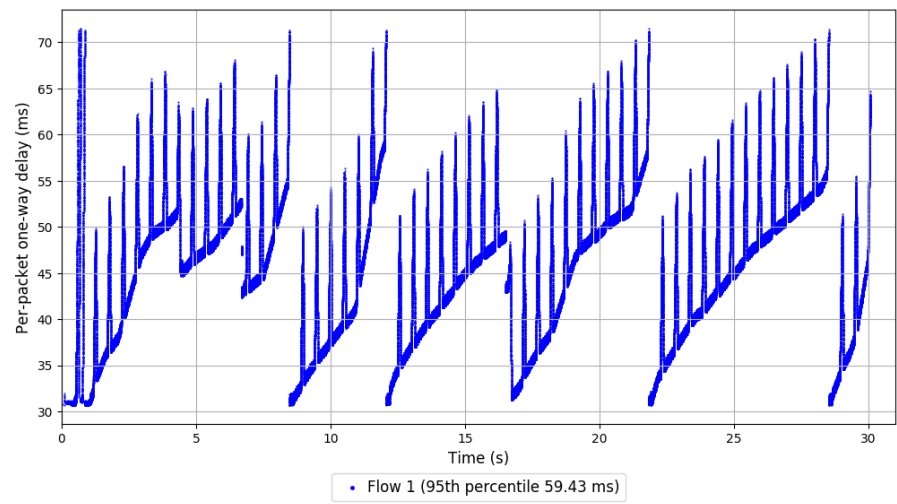
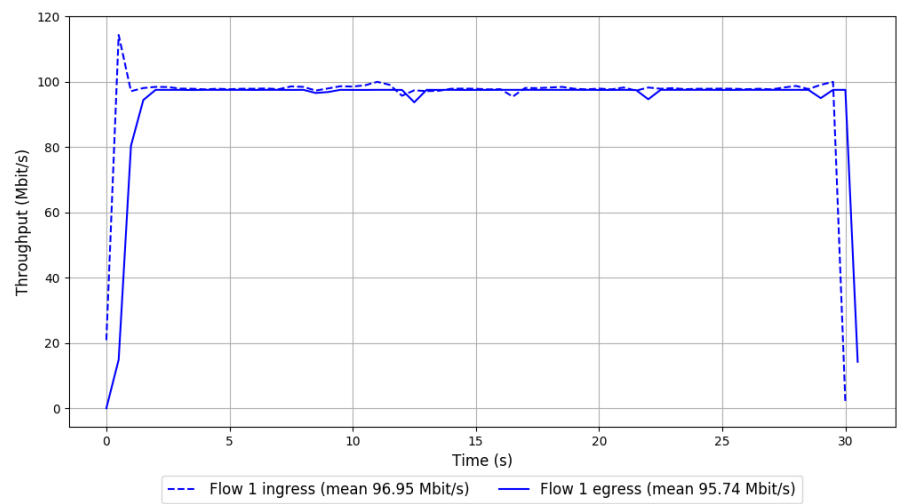
-- Flow 1:

Average throughput: 95.74 Mbit/s

95th percentile per-packet one-way delay: 59.431 ms

Loss rate: 1.15%

Run 4: Report of TCP BBR — Data Link

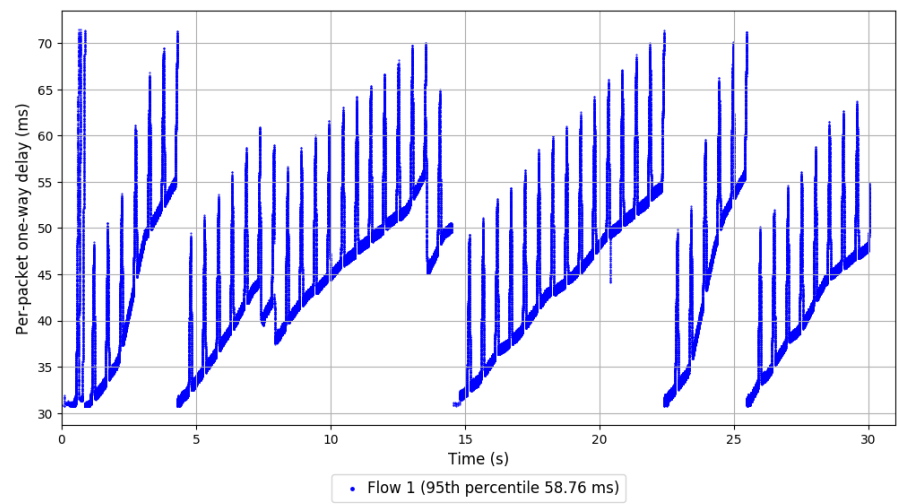
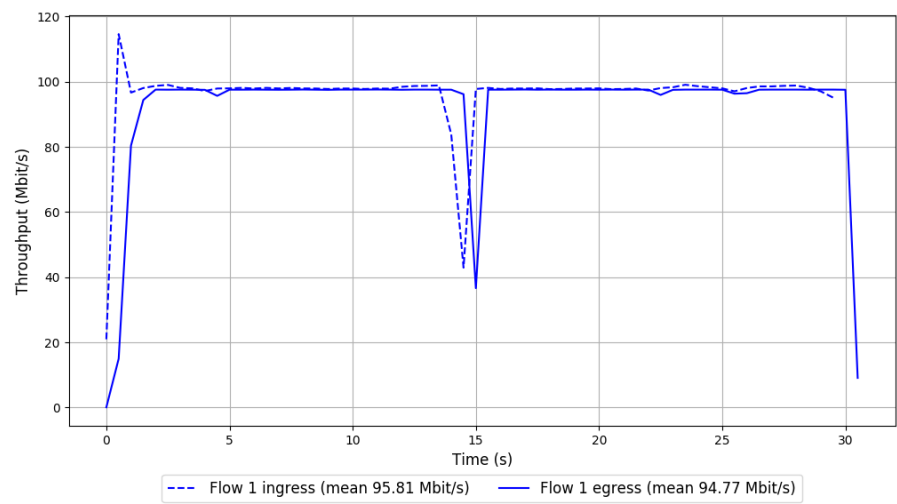


Run 5: Statistics of TCP BBR

Start at: 2018-12-11 10:27:47
End at: 2018-12-11 10:28:17
Local clock offset: 0.437 ms
Remote clock offset: -1.292 ms

Below is generated by plot.py at 2018-12-11 10:50:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 58.756 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 58.756 ms
Loss rate: 1.01%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

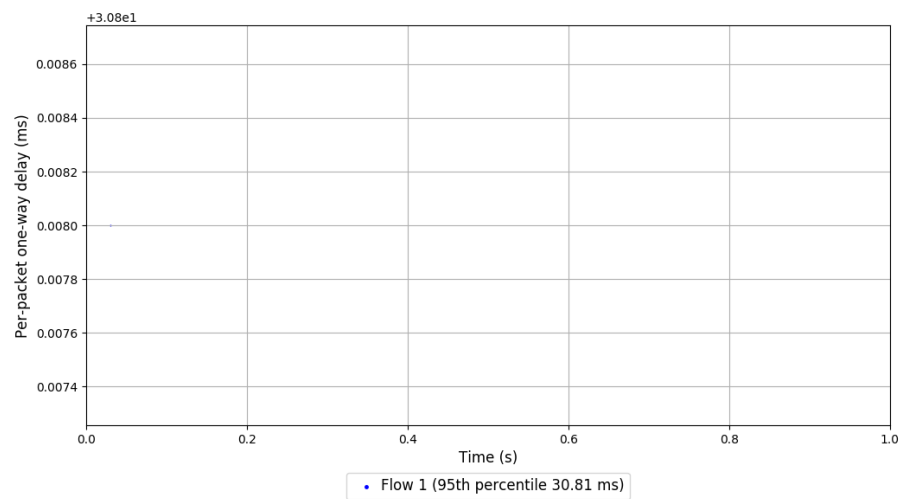
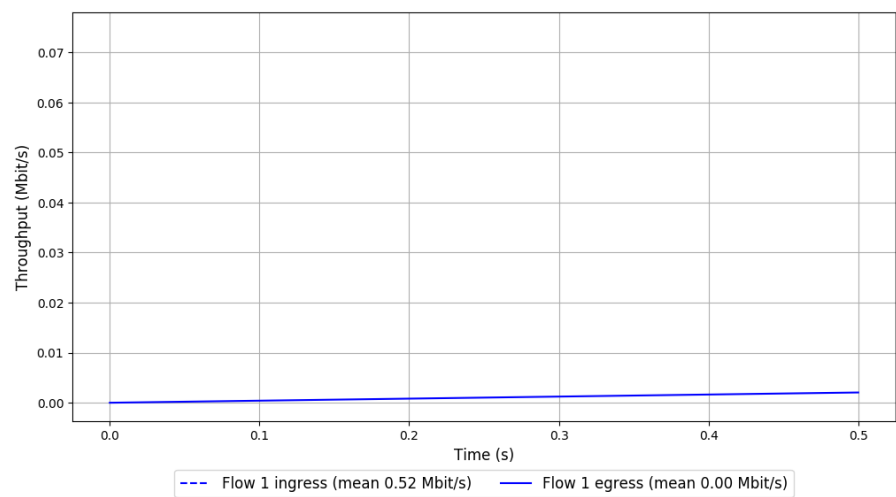
Start at: 2018-12-11 09:17:25

End at: 2018-12-11 09:17:55

Local clock offset: 1.661 ms

Remote clock offset: -2.963 ms

Run 1: Report of Copa — Data Link

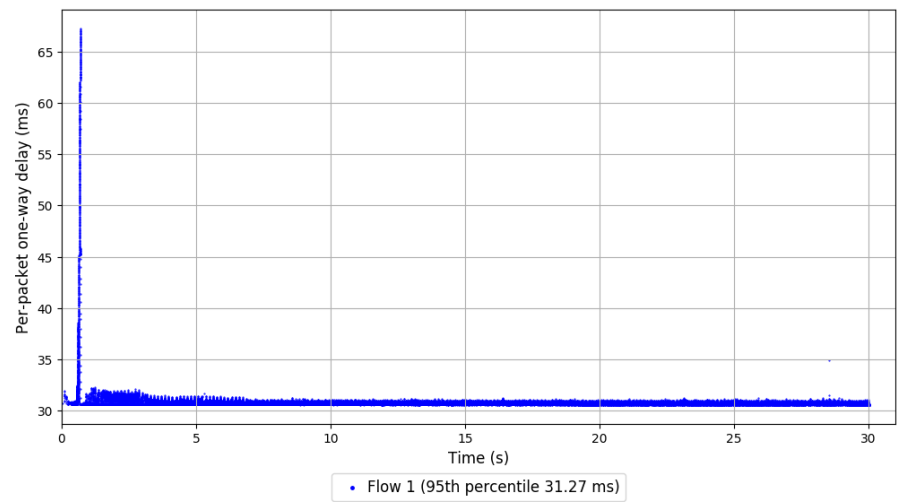
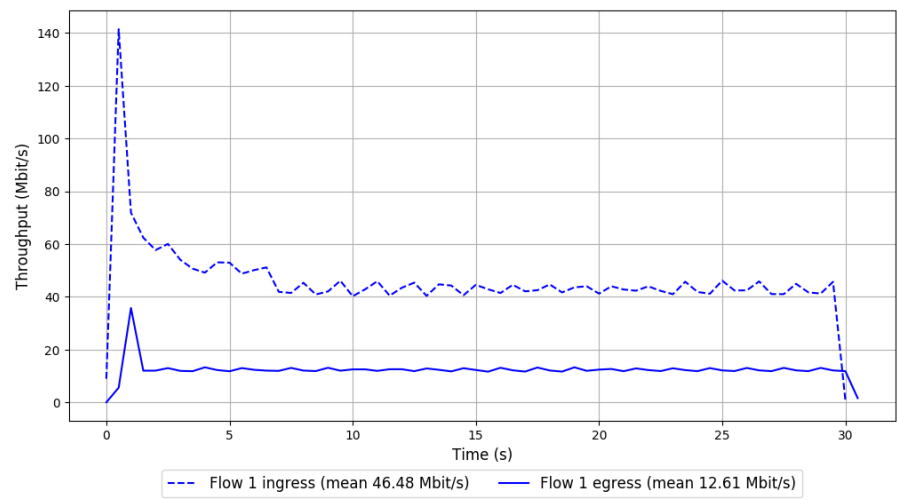


Run 2: Statistics of Copa

Start at: 2018-12-11 09:39:14
End at: 2018-12-11 09:39:44
Local clock offset: 1.044 ms
Remote clock offset: -2.229 ms

Below is generated by plot.py at 2018-12-11 10:50:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.269 ms
Loss rate: 72.87%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.269 ms
Loss rate: 72.87%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

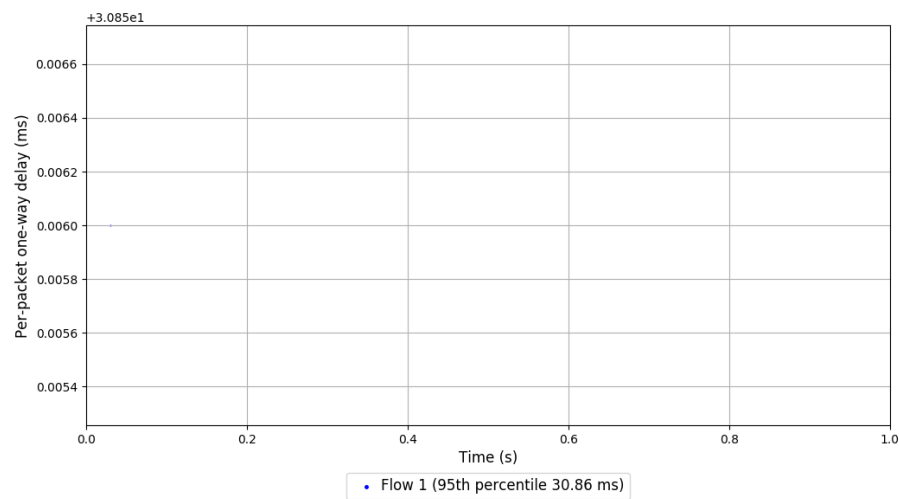
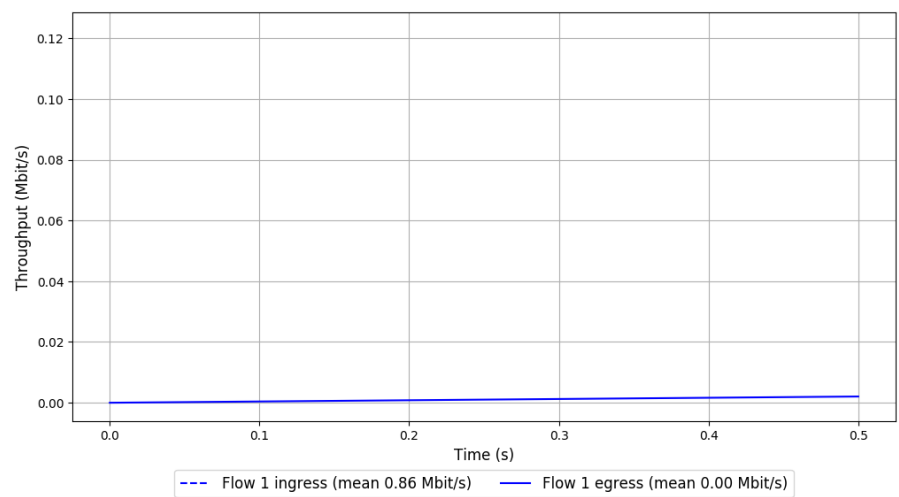
Start at: 2018-12-11 10:01:12

End at: 2018-12-11 10:01:42

Local clock offset: 0.469 ms

Remote clock offset: -1.389 ms

Run 3: Report of Copa — Data Link

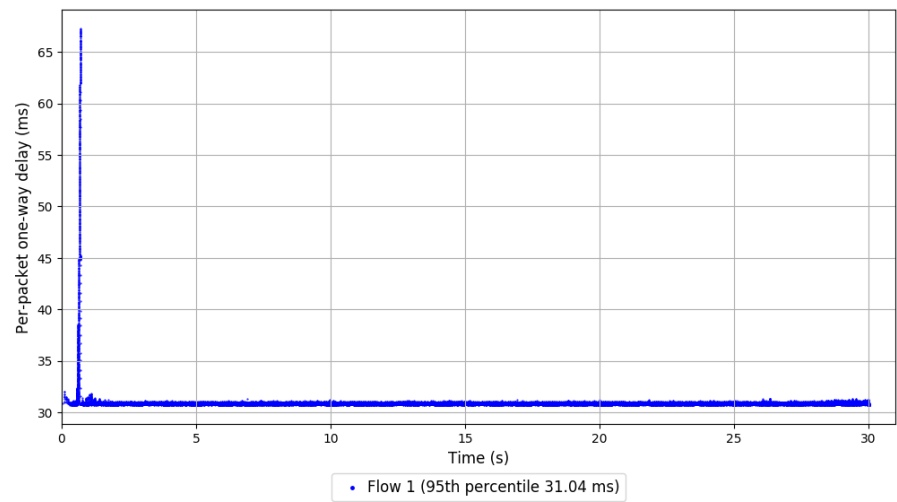
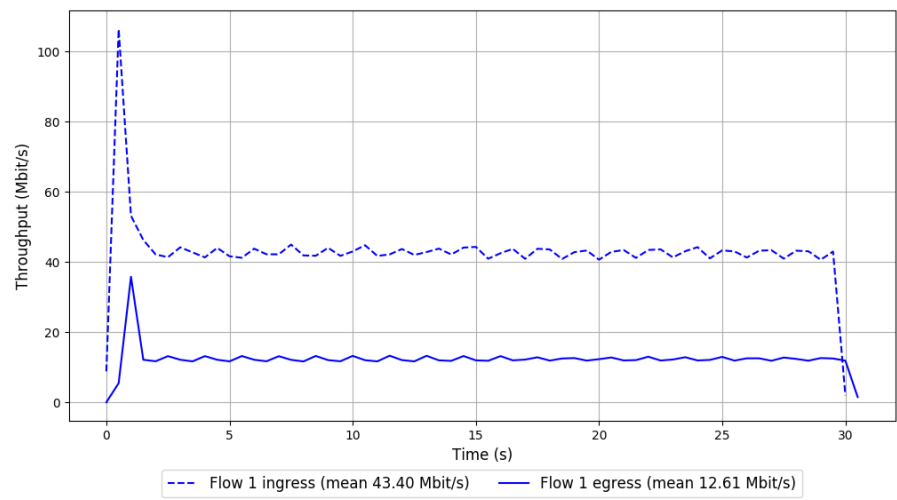


Run 4: Statistics of Copa

Start at: 2018-12-11 10:23:09
End at: 2018-12-11 10:23:39
Local clock offset: 0.416 ms
Remote clock offset: -1.258 ms

Below is generated by plot.py at 2018-12-11 10:50:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.035 ms
Loss rate: 70.94%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.035 ms
Loss rate: 70.94%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

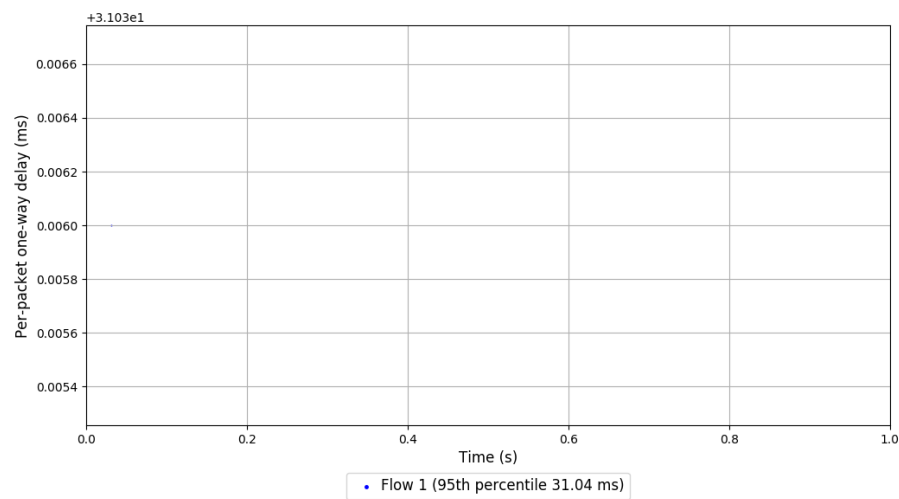
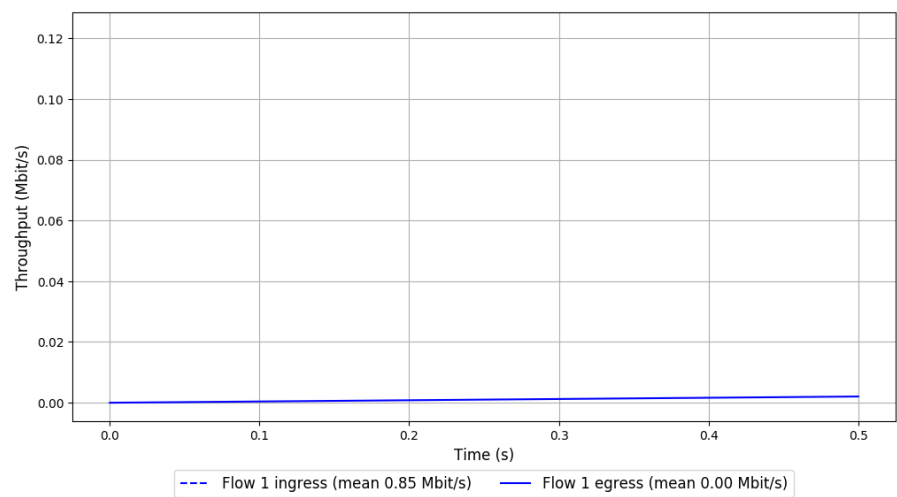
Start at: 2018-12-11 10:45:06

End at: 2018-12-11 10:45:36

Local clock offset: 2.158 ms

Remote clock offset: -1.418 ms

Run 5: Report of Copa — Data Link

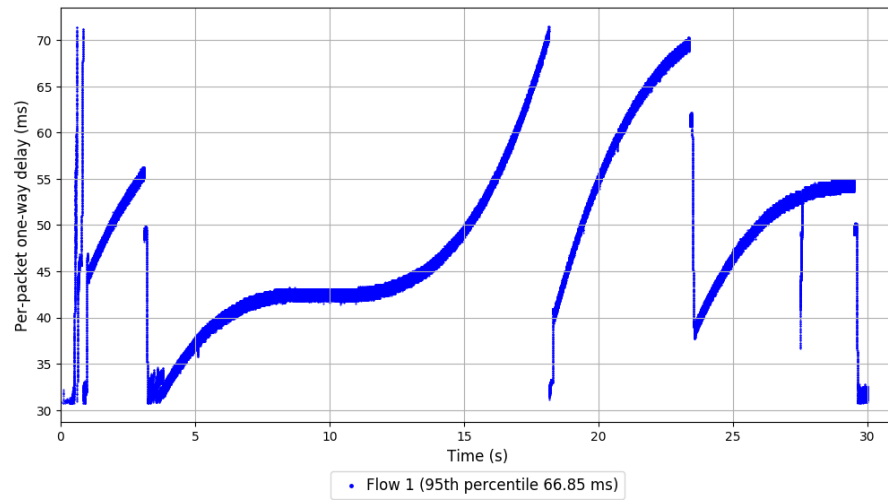
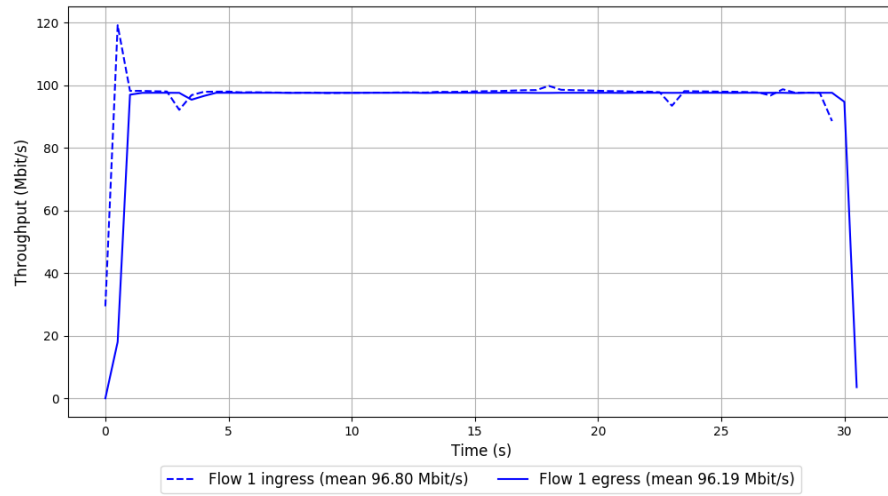


Run 1: Statistics of TCP Cubic

Start at: 2018-12-11 09:05:59
End at: 2018-12-11 09:06:29
Local clock offset: 3.388 ms
Remote clock offset: -3.457 ms

Below is generated by plot.py at 2018-12-11 10:50:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.19 Mbit/s
95th percentile per-packet one-way delay: 66.854 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 96.19 Mbit/s
95th percentile per-packet one-way delay: 66.854 ms
Loss rate: 0.63%

Run 1: Report of TCP Cubic — Data Link

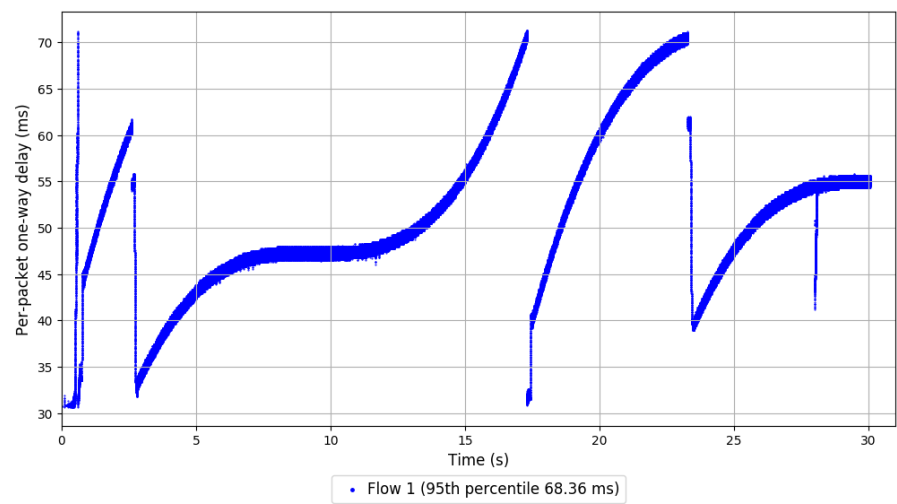
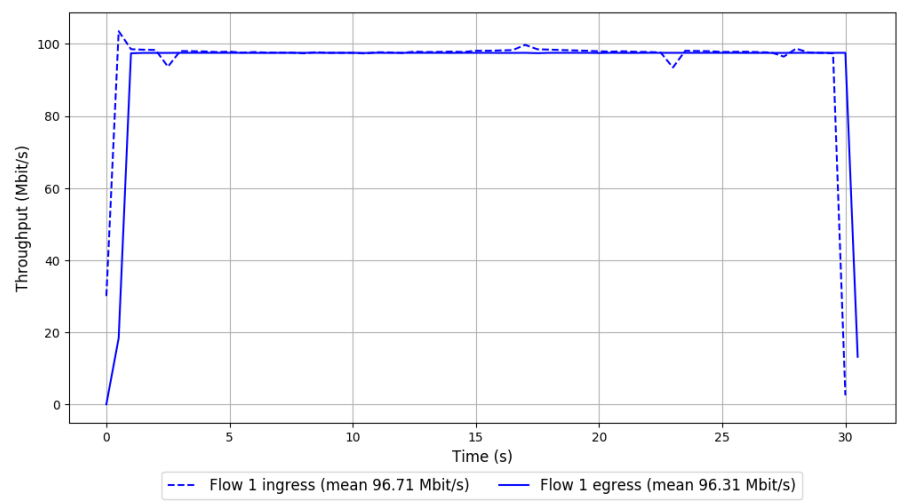


Run 2: Statistics of TCP Cubic

Start at: 2018-12-11 09:27:45
End at: 2018-12-11 09:28:15
Local clock offset: 1.063 ms
Remote clock offset: -2.625 ms

Below is generated by plot.py at 2018-12-11 10:50:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.31 Mbit/s
95th percentile per-packet one-way delay: 68.356 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 96.31 Mbit/s
95th percentile per-packet one-way delay: 68.356 ms
Loss rate: 0.34%

Run 2: Report of TCP Cubic — Data Link

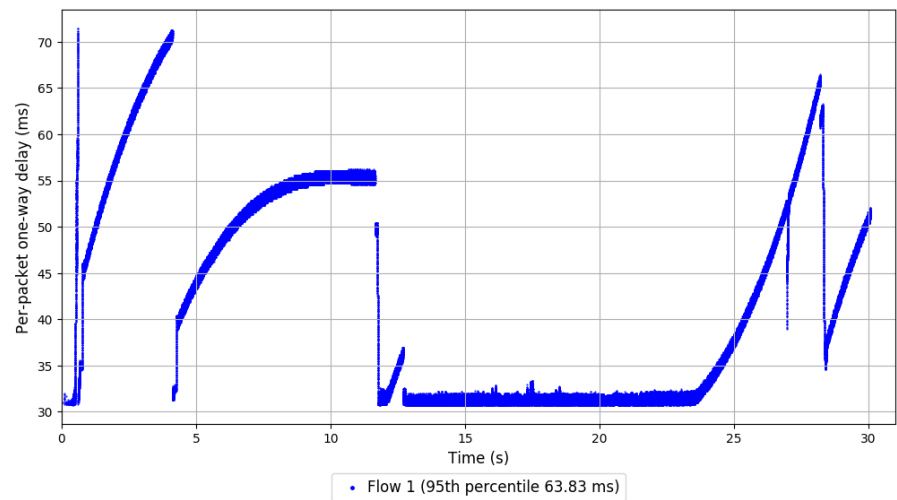
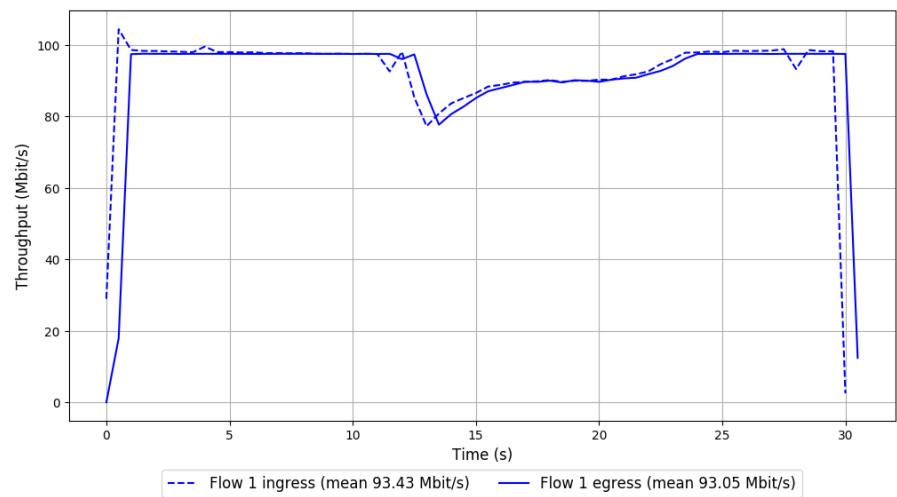


Run 3: Statistics of TCP Cubic

Start at: 2018-12-11 09:49:35
End at: 2018-12-11 09:50:05
Local clock offset: 0.544 ms
Remote clock offset: -1.751 ms

Below is generated by plot.py at 2018-12-11 10:50:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.05 Mbit/s
95th percentile per-packet one-way delay: 63.831 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 93.05 Mbit/s
95th percentile per-packet one-way delay: 63.831 ms
Loss rate: 0.35%

Run 3: Report of TCP Cubic — Data Link

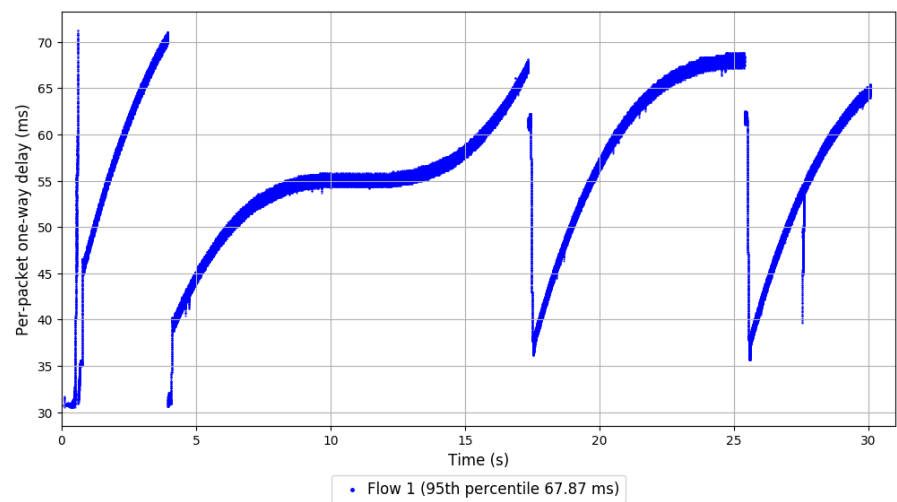
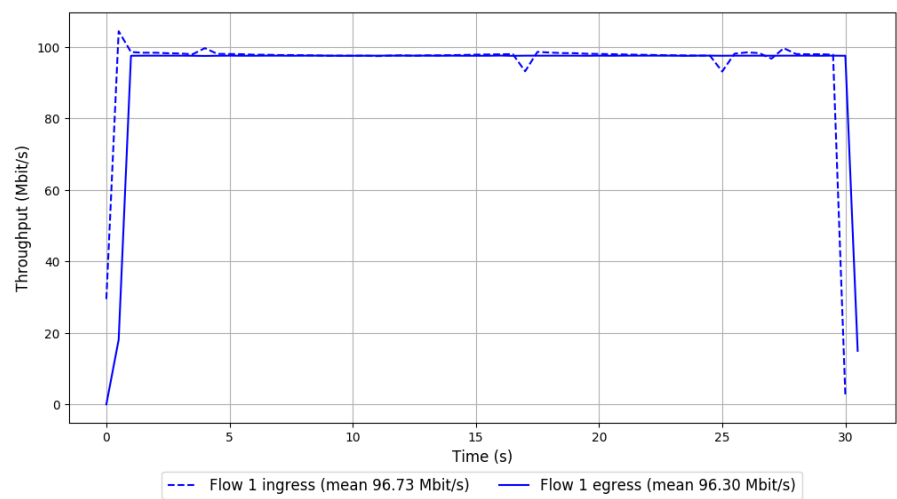


Run 4: Statistics of TCP Cubic

Start at: 2018-12-11 10:11:42
End at: 2018-12-11 10:12:12
Local clock offset: 0.48 ms
Remote clock offset: -1.441 ms

Below is generated by plot.py at 2018-12-11 10:51:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 67.866 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 67.866 ms
Loss rate: 0.33%

Run 4: Report of TCP Cubic — Data Link

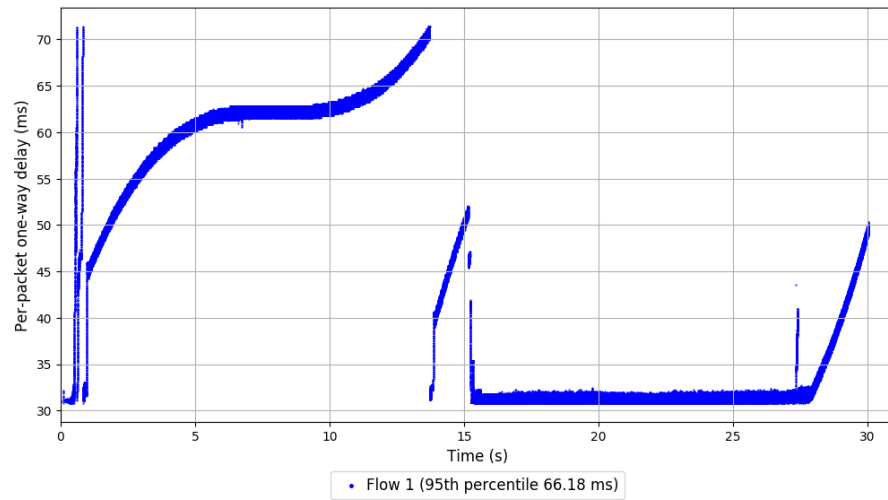
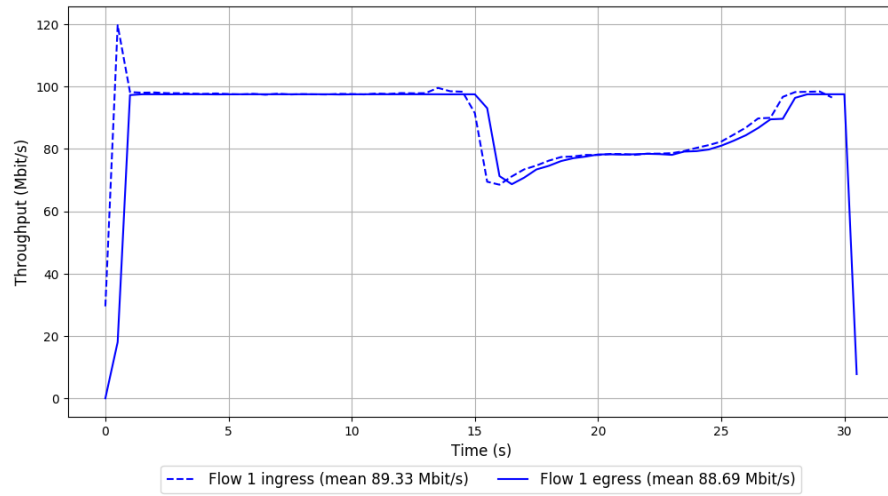


Run 5: Statistics of TCP Cubic

Start at: 2018-12-11 10:33:33
End at: 2018-12-11 10:34:03
Local clock offset: 0.464 ms
Remote clock offset: -1.318 ms

Below is generated by plot.py at 2018-12-11 10:51:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 88.69 Mbit/s
95th percentile per-packet one-way delay: 66.176 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 88.69 Mbit/s
95th percentile per-packet one-way delay: 66.176 ms
Loss rate: 0.65%

Run 5: Report of TCP Cubic — Data Link

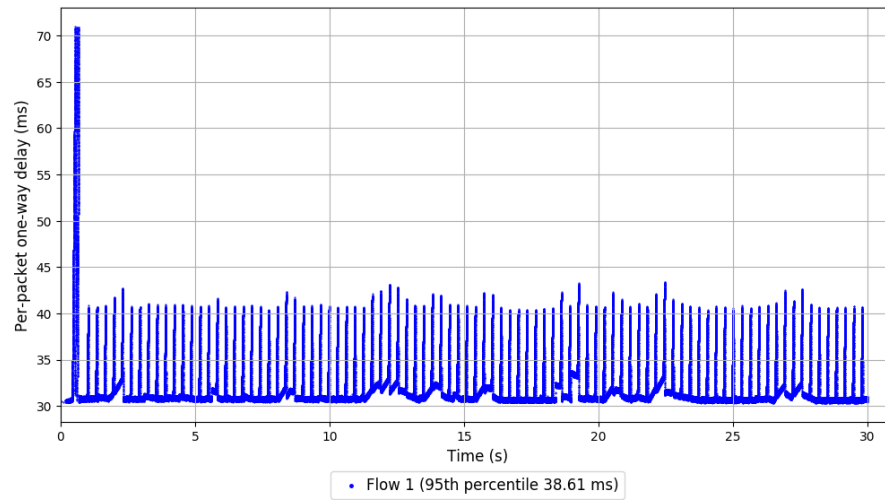
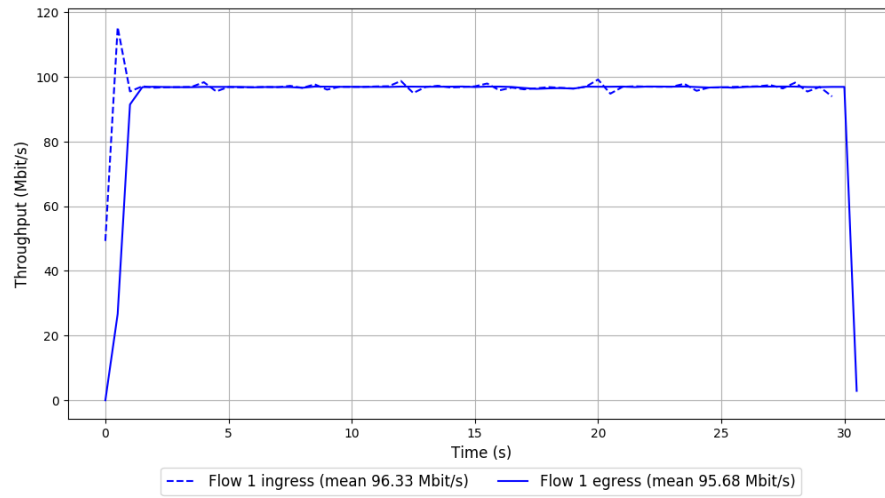


Run 1: Statistics of FillP

Start at: 2018-12-11 09:10:31
End at: 2018-12-11 09:11:01
Local clock offset: 2.999 ms
Remote clock offset: -3.258 ms

Below is generated by plot.py at 2018-12-11 10:51:40
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.68 Mbit/s
95th percentile per-packet one-way delay: 38.613 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 95.68 Mbit/s
95th percentile per-packet one-way delay: 38.613 ms
Loss rate: 0.68%

Run 1: Report of FillP — Data Link

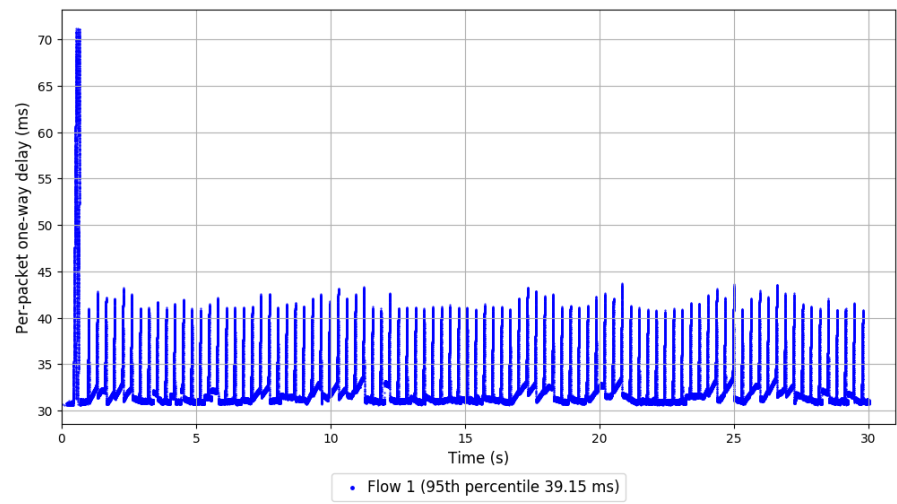
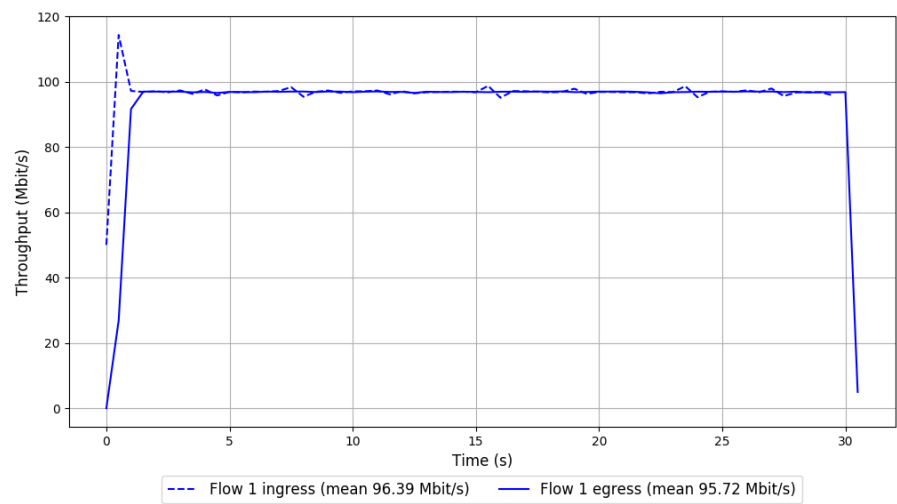


Run 2: Statistics of FillP

Start at: 2018-12-11 09:32:22
End at: 2018-12-11 09:32:52
Local clock offset: 1.047 ms
Remote clock offset: -2.432 ms

Below is generated by plot.py at 2018-12-11 10:51:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.72 Mbit/s
95th percentile per-packet one-way delay: 39.147 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 95.72 Mbit/s
95th percentile per-packet one-way delay: 39.147 ms
Loss rate: 0.69%

Run 2: Report of FillP — Data Link

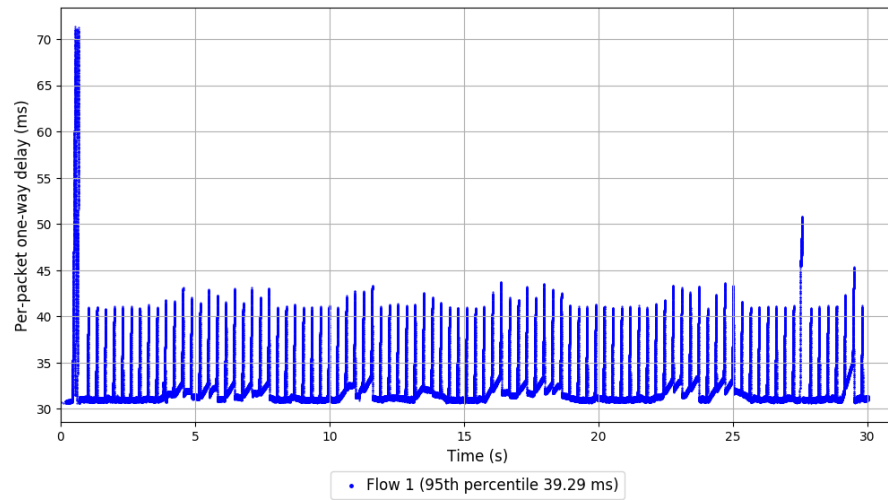
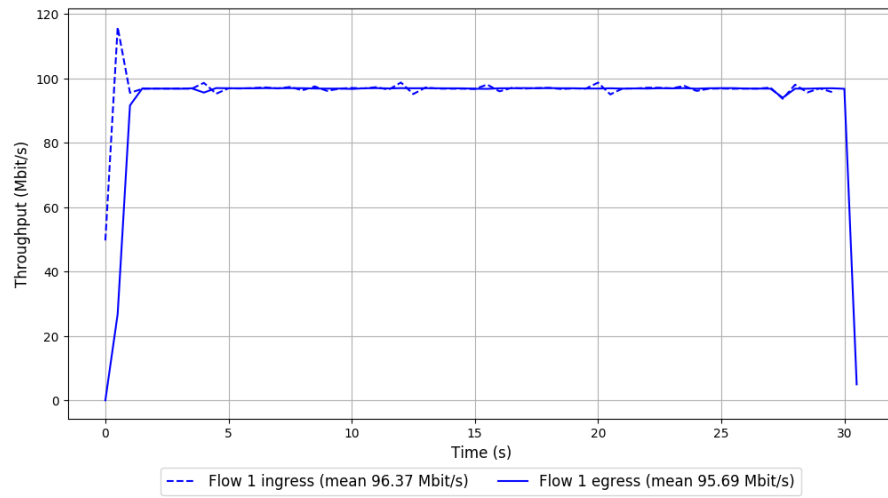


Run 3: Statistics of FillP

Start at: 2018-12-11 09:54:11
End at: 2018-12-11 09:54:41
Local clock offset: 0.452 ms
Remote clock offset: -1.571 ms

Below is generated by plot.py at 2018-12-11 10:51:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.69 Mbit/s
95th percentile per-packet one-way delay: 39.293 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 95.69 Mbit/s
95th percentile per-packet one-way delay: 39.293 ms
Loss rate: 0.71%

Run 3: Report of FillP — Data Link

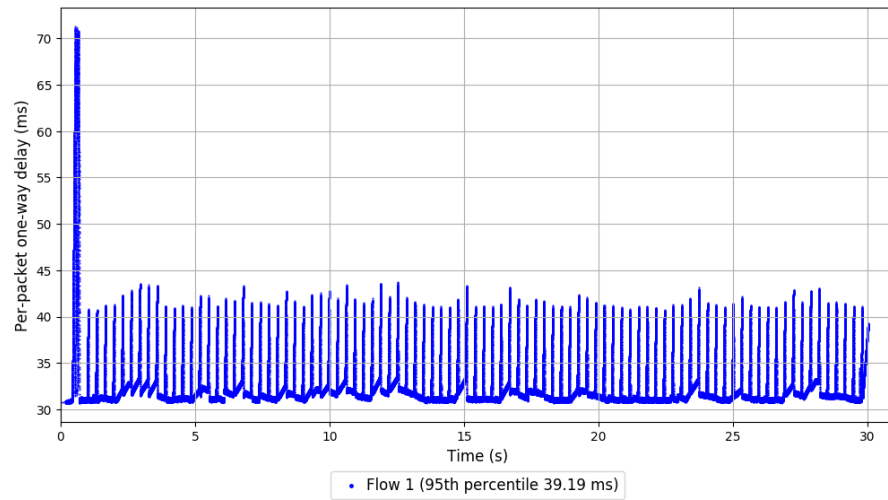
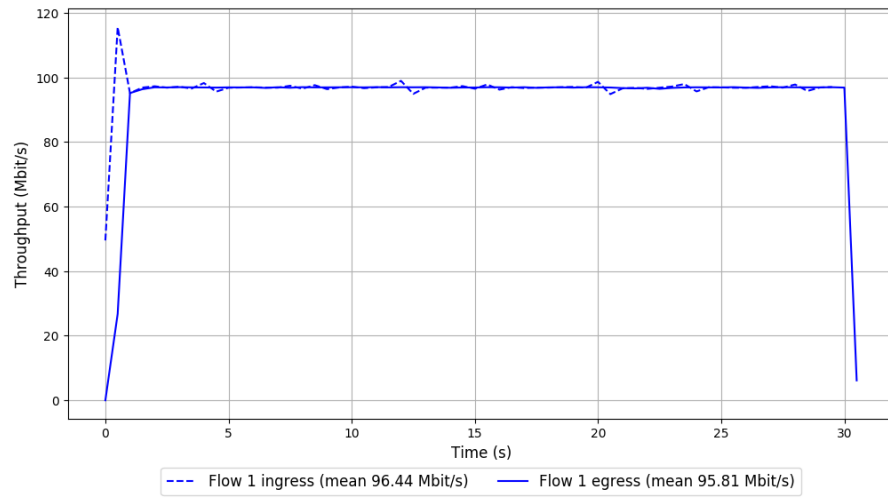


Run 4: Statistics of FillP

Start at: 2018-12-11 10:16:14
End at: 2018-12-11 10:16:44
Local clock offset: 0.424 ms
Remote clock offset: -1.092 ms

Below is generated by plot.py at 2018-12-11 10:51:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 39.194 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 39.194 ms
Loss rate: 0.62%

Run 4: Report of FillP — Data Link

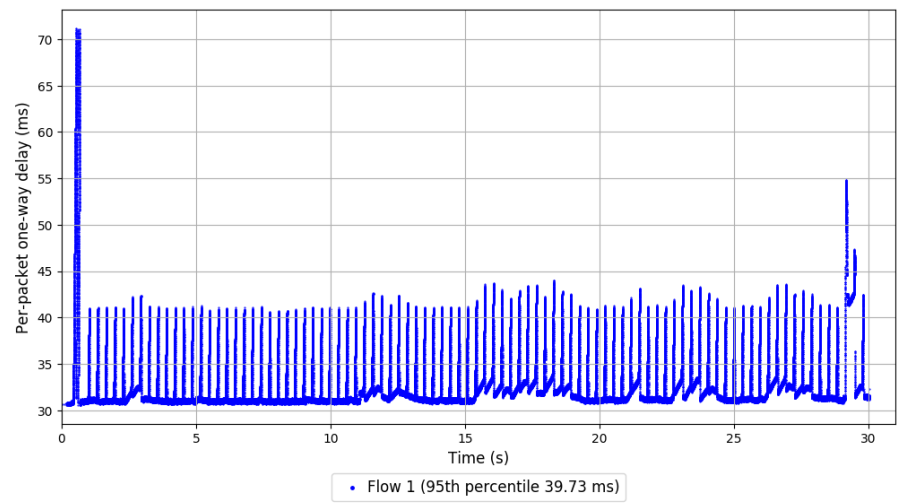
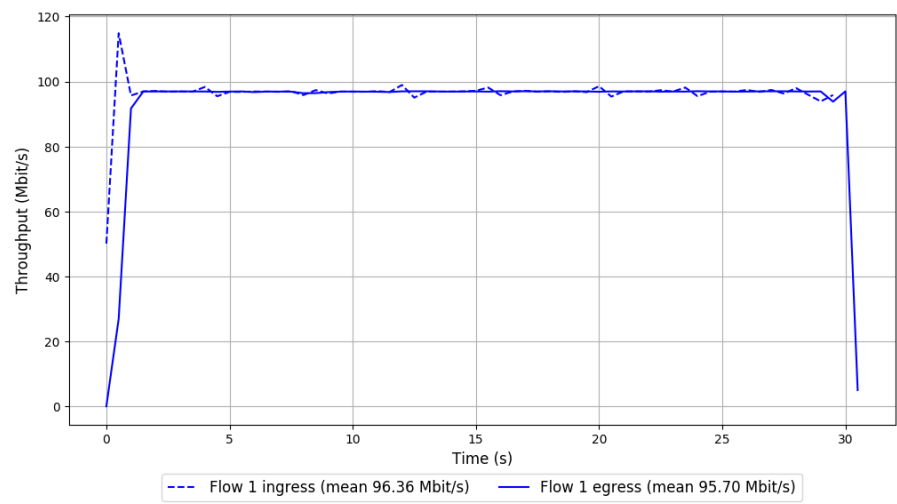


Run 5: Statistics of FillP

Start at: 2018-12-11 10:38:08
End at: 2018-12-11 10:38:38
Local clock offset: 0.503 ms
Remote clock offset: -1.418 ms

Below is generated by plot.py at 2018-12-11 10:51:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 39.732 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 39.732 ms
Loss rate: 0.68%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2018-12-11 09:01:27

End at: 2018-12-11 09:01:57

Local clock offset: 2.532 ms

Remote clock offset: -3.579 ms

Below is generated by plot.py at 2018-12-11 10:51:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.04 Mbit/s

95th percentile per-packet one-way delay: 37.331 ms

Loss rate: 0.59%

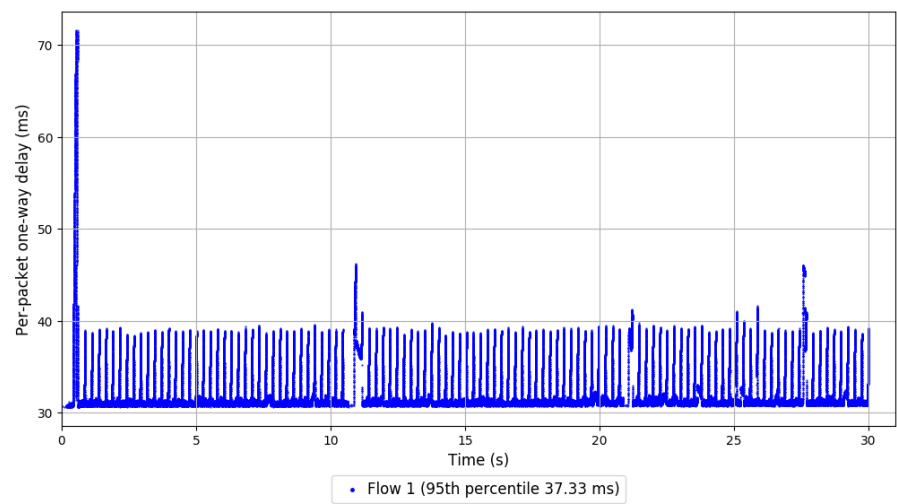
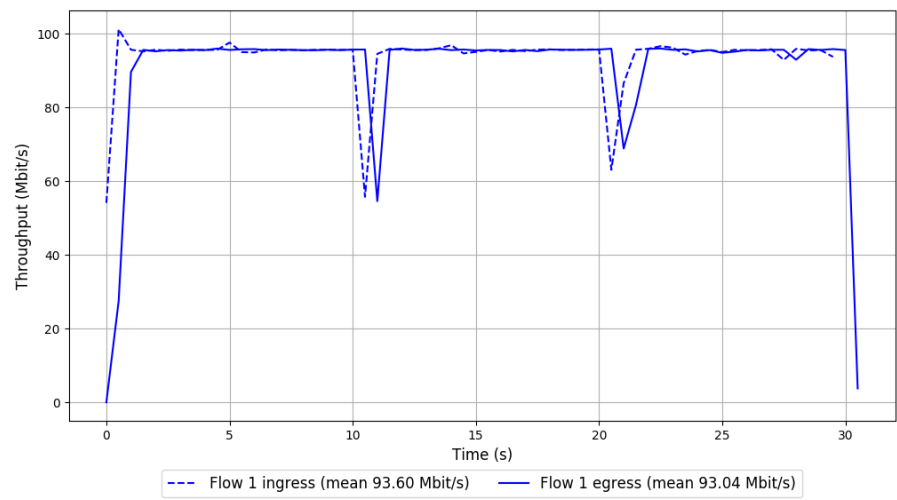
-- Flow 1:

Average throughput: 93.04 Mbit/s

95th percentile per-packet one-way delay: 37.331 ms

Loss rate: 0.59%

Run 1: Report of FillP-Sheep — Data Link

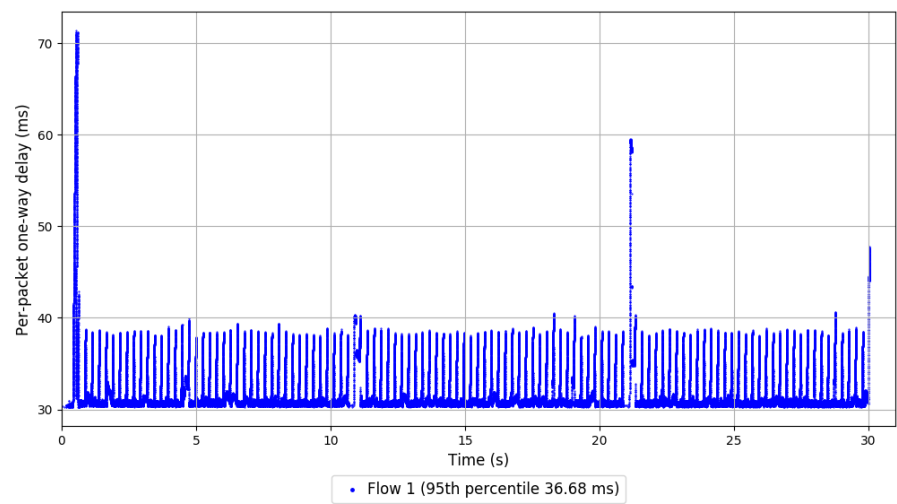
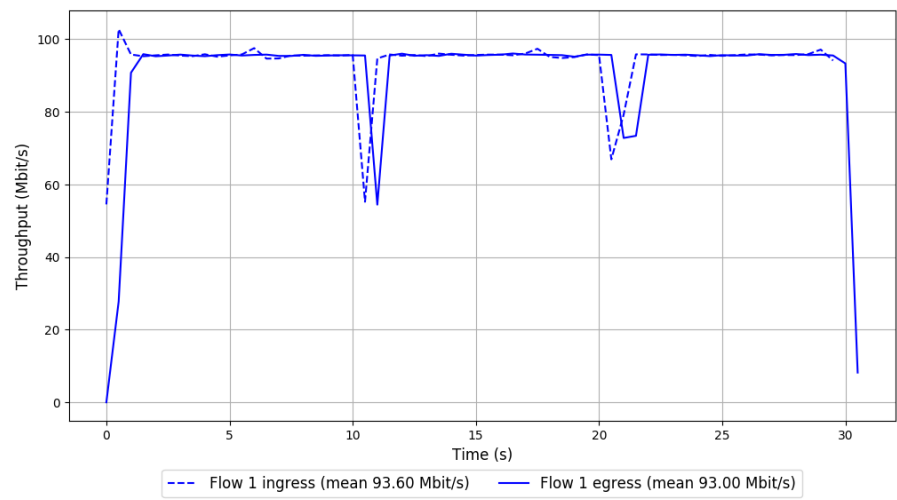


Run 2: Statistics of FillP-Sheep

Start at: 2018-12-11 09:23:11
End at: 2018-12-11 09:23:41
Local clock offset: 1.213 ms
Remote clock offset: -2.991 ms

Below is generated by plot.py at 2018-12-11 10:52:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.00 Mbit/s
95th percentile per-packet one-way delay: 36.682 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 93.00 Mbit/s
95th percentile per-packet one-way delay: 36.682 ms
Loss rate: 0.58%

Run 2: Report of FillP-Sheep — Data Link

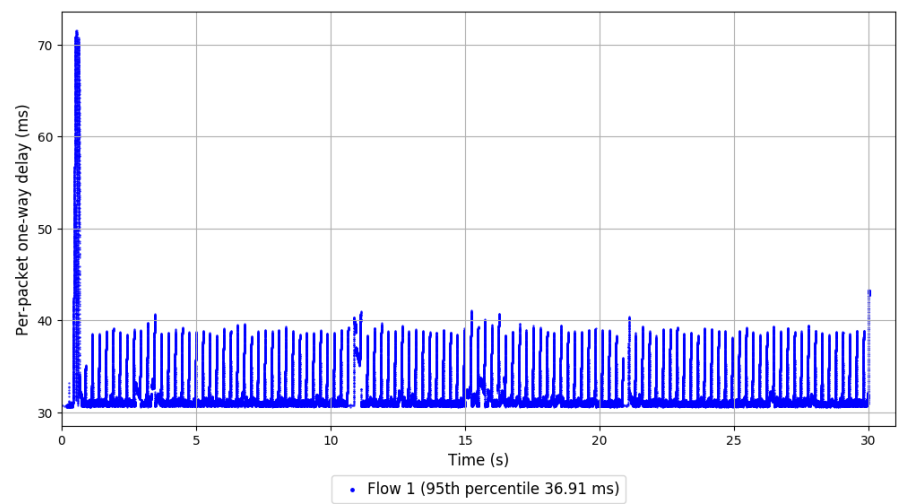
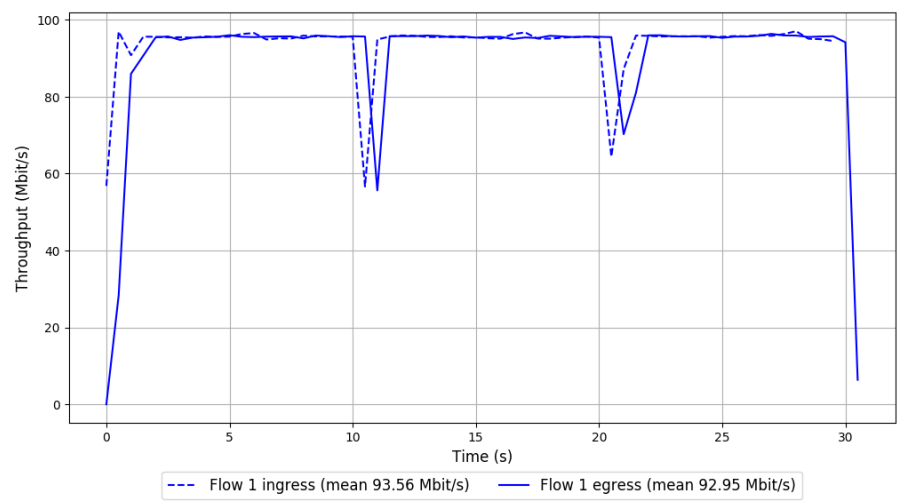


Run 3: Statistics of FillP-Sheep

Start at: 2018-12-11 09:45:00
End at: 2018-12-11 09:45:30
Local clock offset: 0.66 ms
Remote clock offset: -1.945 ms

Below is generated by plot.py at 2018-12-11 10:52:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 36.910 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 36.910 ms
Loss rate: 0.62%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2018-12-11 10:07:05

End at: 2018-12-11 10:07:35

Local clock offset: 0.523 ms

Remote clock offset: -1.319 ms

Below is generated by plot.py at 2018-12-11 10:52:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.04 Mbit/s

95th percentile per-packet one-way delay: 36.785 ms

Loss rate: 0.58%

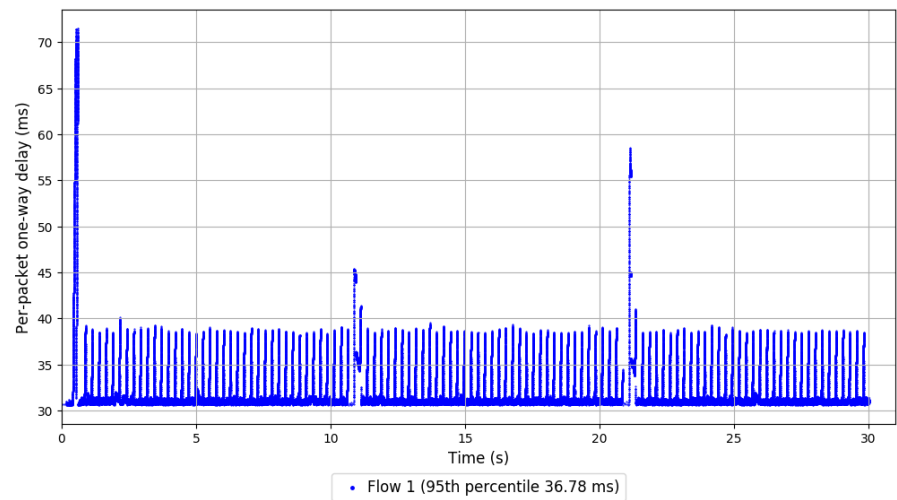
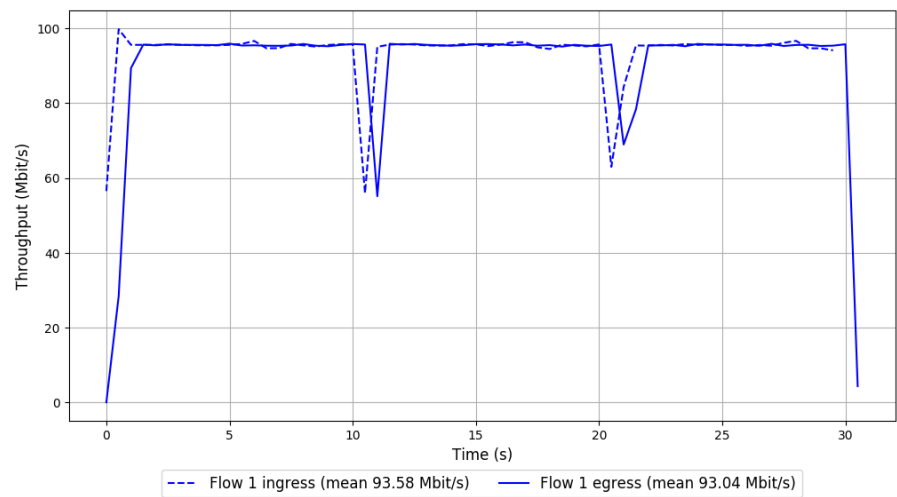
-- Flow 1:

Average throughput: 93.04 Mbit/s

95th percentile per-packet one-way delay: 36.785 ms

Loss rate: 0.58%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-12-11 10:28:58

End at: 2018-12-11 10:29:28

Local clock offset: 0.437 ms

Remote clock offset: -1.258 ms

Below is generated by plot.py at 2018-12-11 10:52:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.08 Mbit/s

95th percentile per-packet one-way delay: 36.619 ms

Loss rate: 0.60%

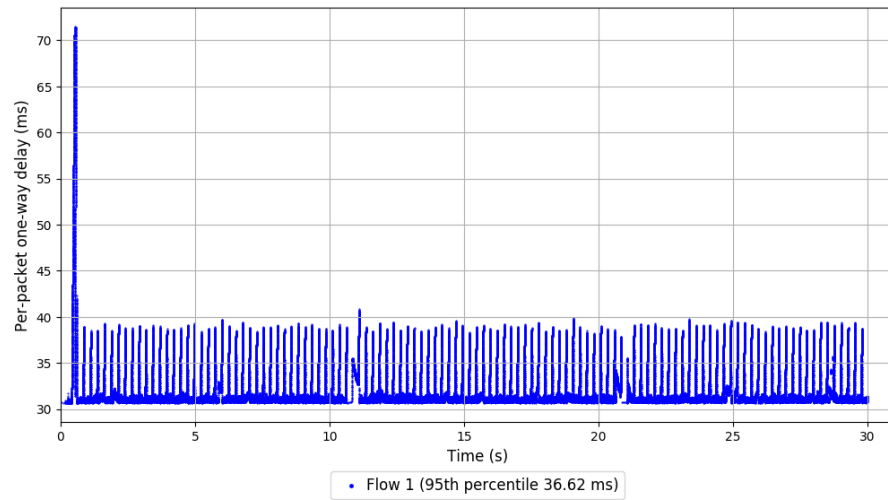
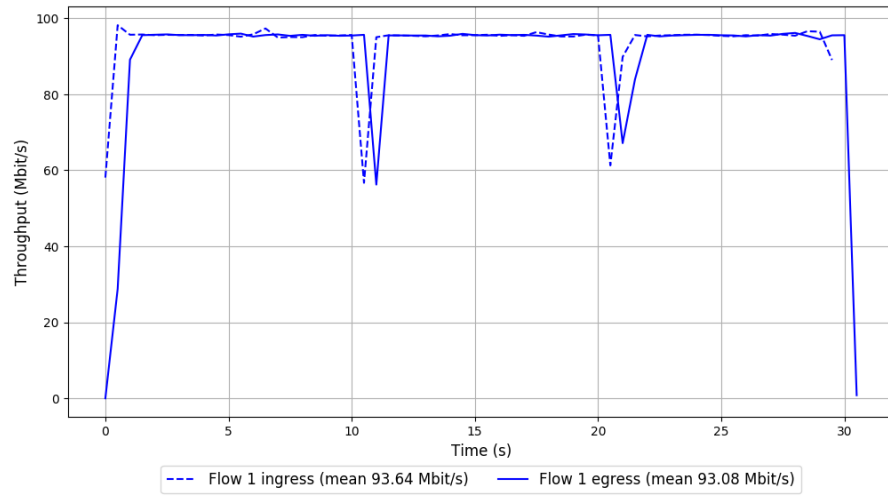
-- Flow 1:

Average throughput: 93.08 Mbit/s

95th percentile per-packet one-way delay: 36.619 ms

Loss rate: 0.60%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2018-12-11 09:04:48

End at: 2018-12-11 09:05:18

Local clock offset: 3.215 ms

Remote clock offset: -3.558 ms

Below is generated by plot.py at 2018-12-11 10:52:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.85 Mbit/s

95th percentile per-packet one-way delay: 35.627 ms

Loss rate: 0.03%

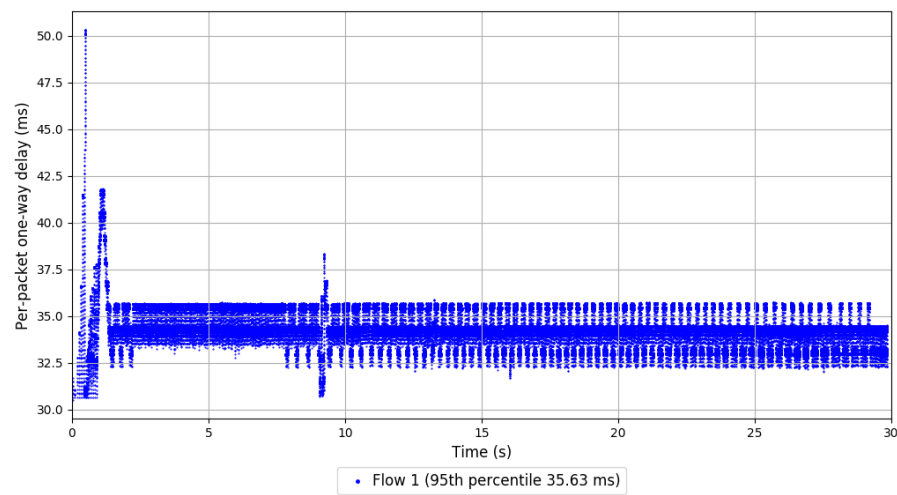
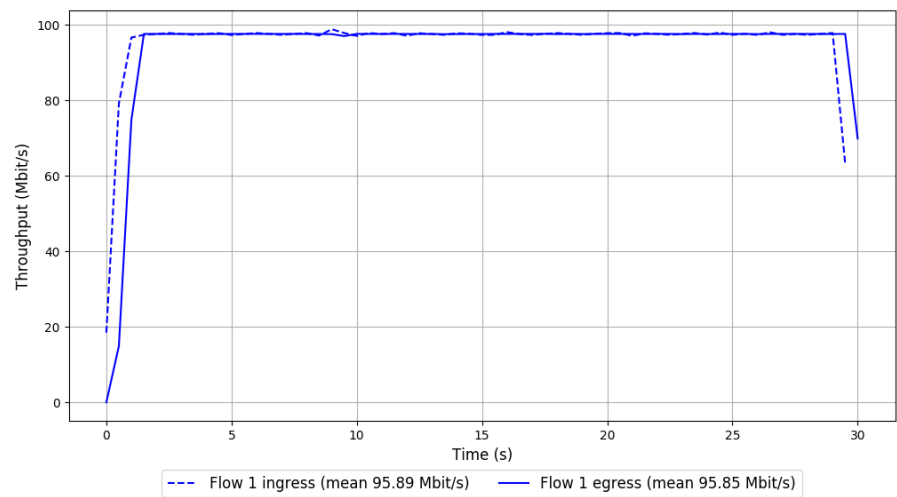
-- Flow 1:

Average throughput: 95.85 Mbit/s

95th percentile per-packet one-way delay: 35.627 ms

Loss rate: 0.03%

Run 1: Report of Indigo — Data Link

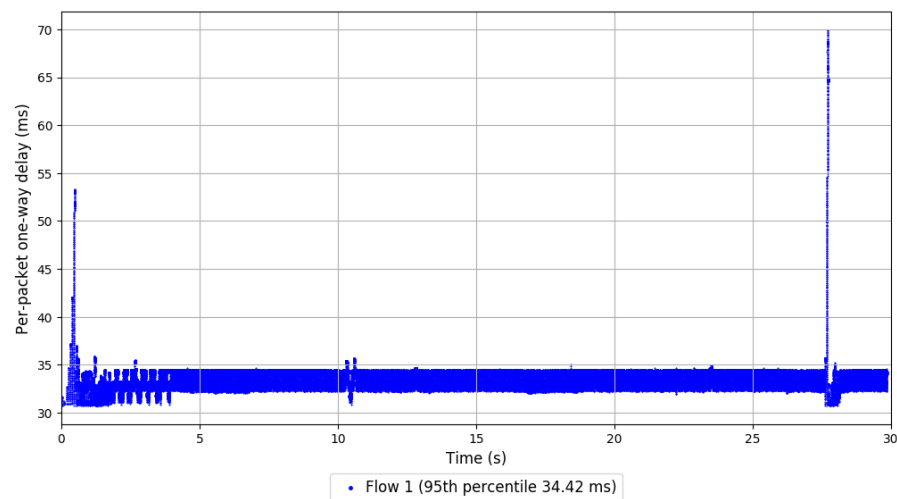
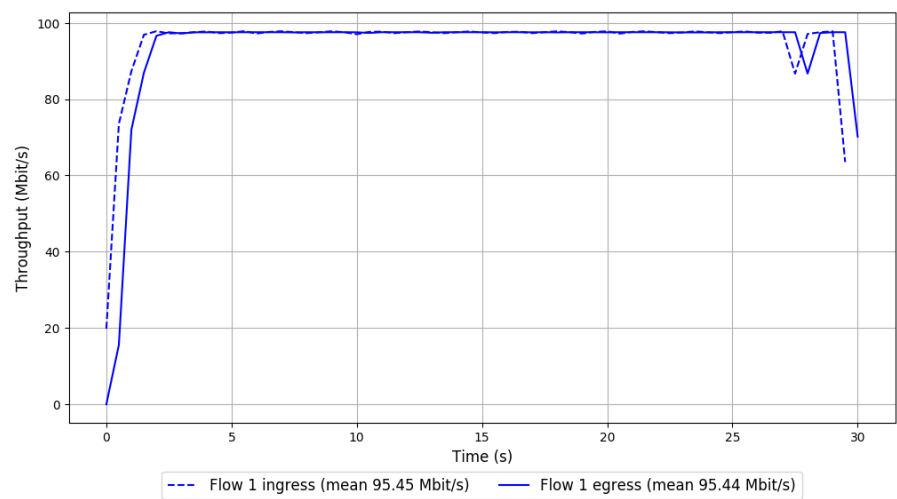


Run 2: Statistics of Indigo

Start at: 2018-12-11 09:26:33
End at: 2018-12-11 09:27:03
Local clock offset: 1.088 ms
Remote clock offset: -2.644 ms

Below is generated by plot.py at 2018-12-11 10:52:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.44 Mbit/s
95th percentile per-packet one-way delay: 34.420 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.44 Mbit/s
95th percentile per-packet one-way delay: 34.420 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-12-11 09:48:22

End at: 2018-12-11 09:48:52

Local clock offset: 0.558 ms

Remote clock offset: -1.792 ms

Below is generated by plot.py at 2018-12-11 10:53:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.85 Mbit/s

95th percentile per-packet one-way delay: 35.500 ms

Loss rate: 0.00%

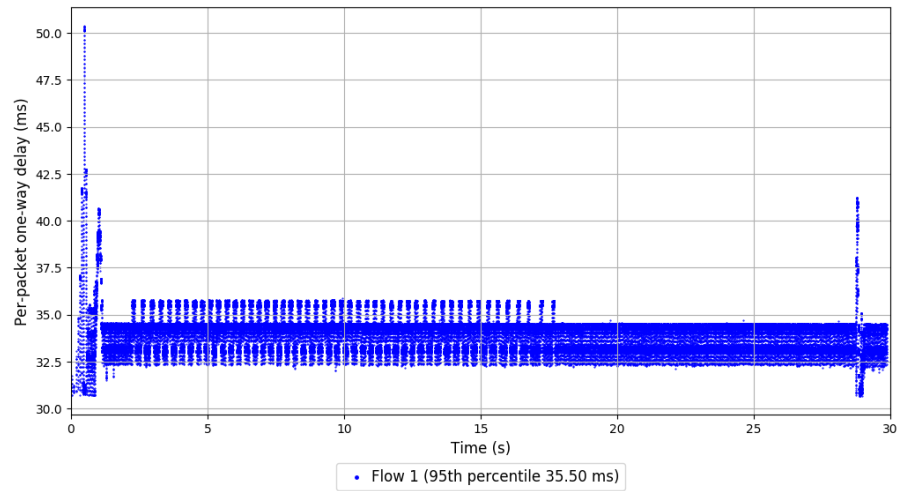
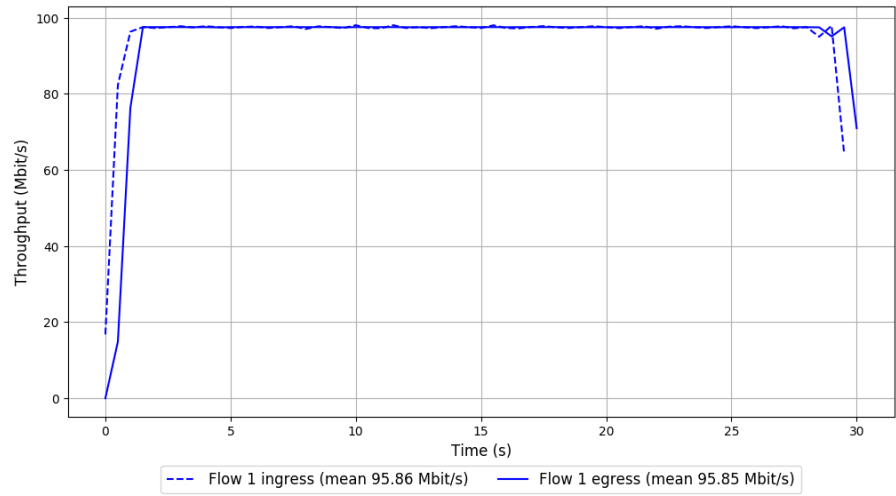
-- Flow 1:

Average throughput: 95.85 Mbit/s

95th percentile per-packet one-way delay: 35.500 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link

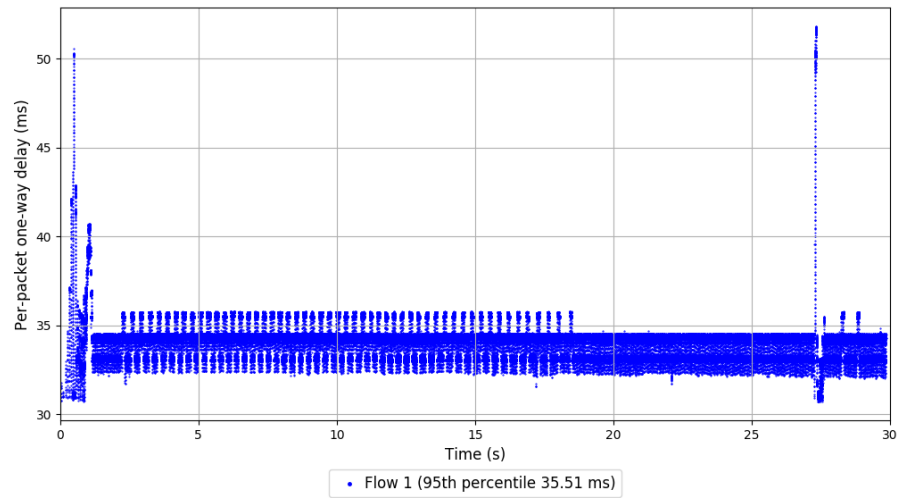
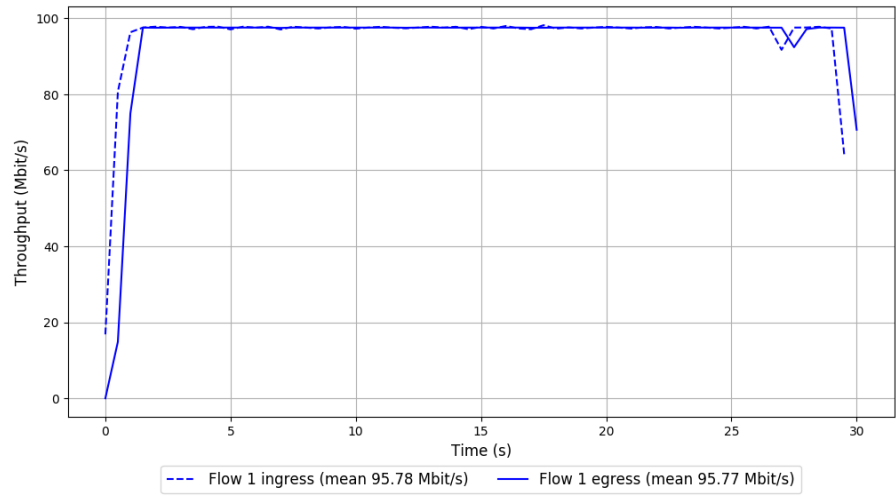


Run 4: Statistics of Indigo

Start at: 2018-12-11 10:10:30
End at: 2018-12-11 10:11:00
Local clock offset: 0.498 ms
Remote clock offset: -1.249 ms

Below is generated by plot.py at 2018-12-11 10:53:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 35.505 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 35.505 ms
Loss rate: 0.00%

Run 4: Report of Indigo — Data Link

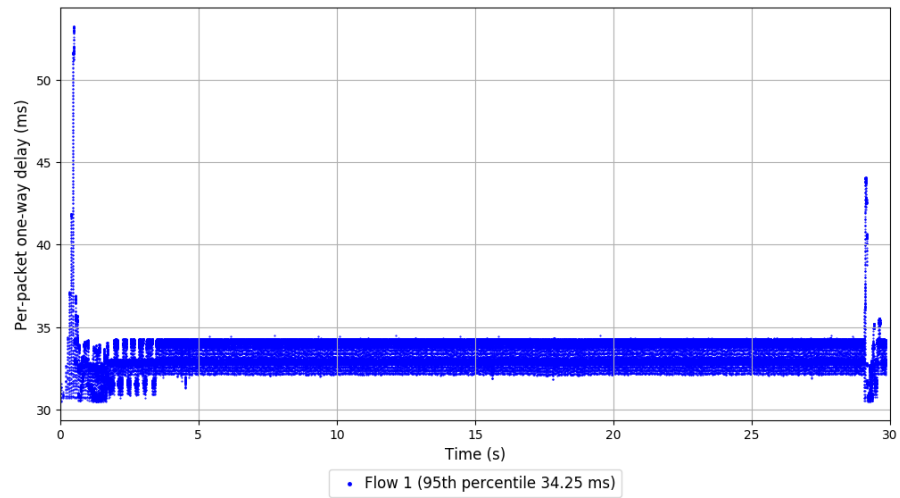
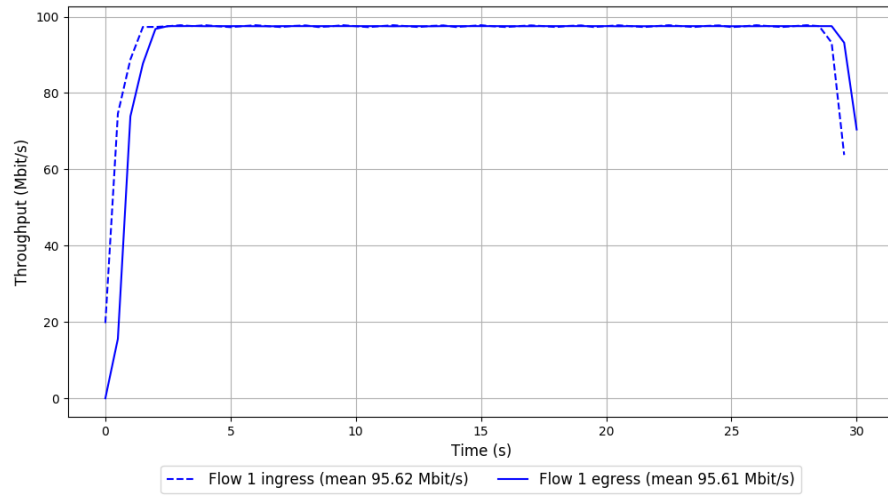


Run 5: Statistics of Indigo

Start at: 2018-12-11 10:32:20
End at: 2018-12-11 10:32:50
Local clock offset: 0.453 ms
Remote clock offset: -1.553 ms

Below is generated by plot.py at 2018-12-11 10:53:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 34.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 34.254 ms
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2018-12-11 08:59:07

End at: 2018-12-11 08:59:38

Local clock offset: 1.785 ms

Remote clock offset: -3.582 ms

Below is generated by plot.py at 2018-12-11 10:53:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.39 Mbit/s

95th percentile per-packet one-way delay: 35.633 ms

Loss rate: 0.52%

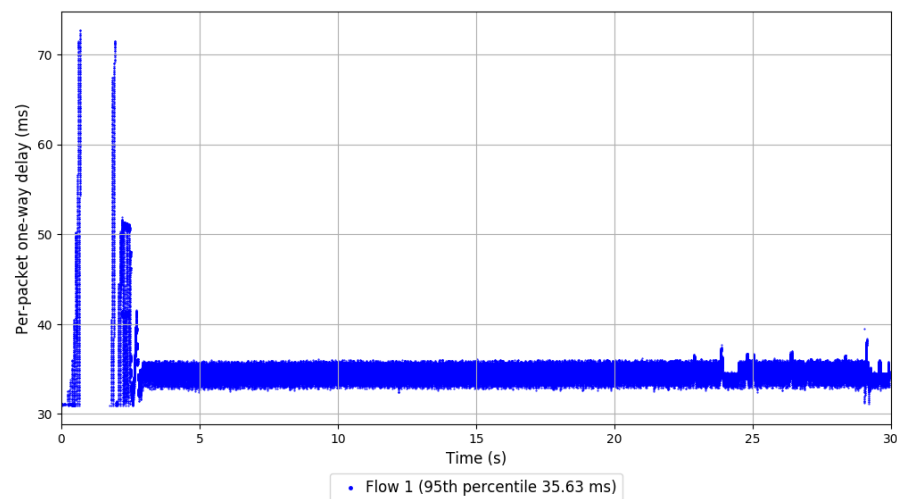
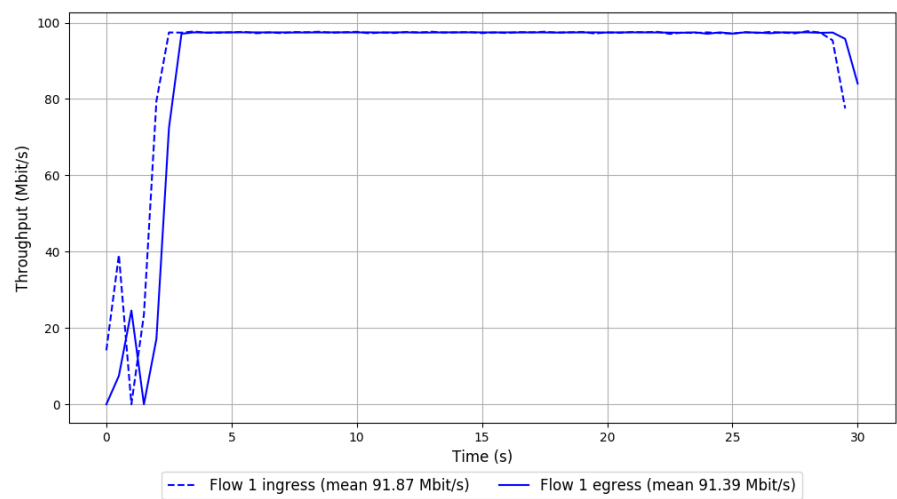
-- Flow 1:

Average throughput: 91.39 Mbit/s

95th percentile per-packet one-way delay: 35.633 ms

Loss rate: 0.52%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2018-12-11 09:20:50

End at: 2018-12-11 09:21:20

Local clock offset: 1.357 ms

Remote clock offset: -2.801 ms

Below is generated by plot.py at 2018-12-11 10:53:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.73 Mbit/s

95th percentile per-packet one-way delay: 35.401 ms

Loss rate: 0.21%

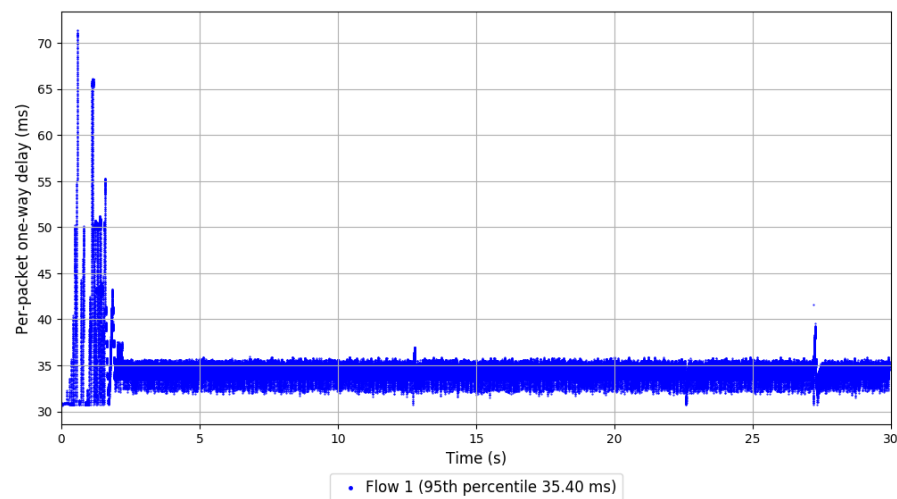
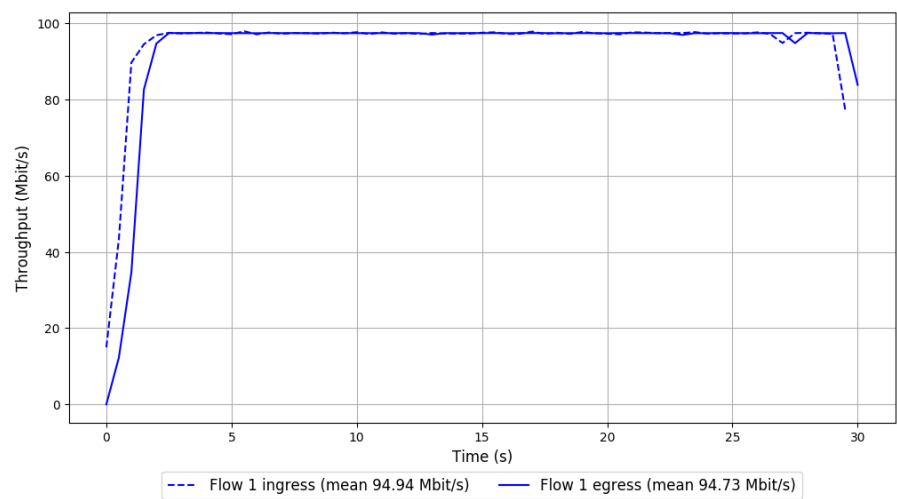
-- Flow 1:

Average throughput: 94.73 Mbit/s

95th percentile per-packet one-way delay: 35.401 ms

Loss rate: 0.21%

Run 2: Report of Indigo-MusesD — Data Link

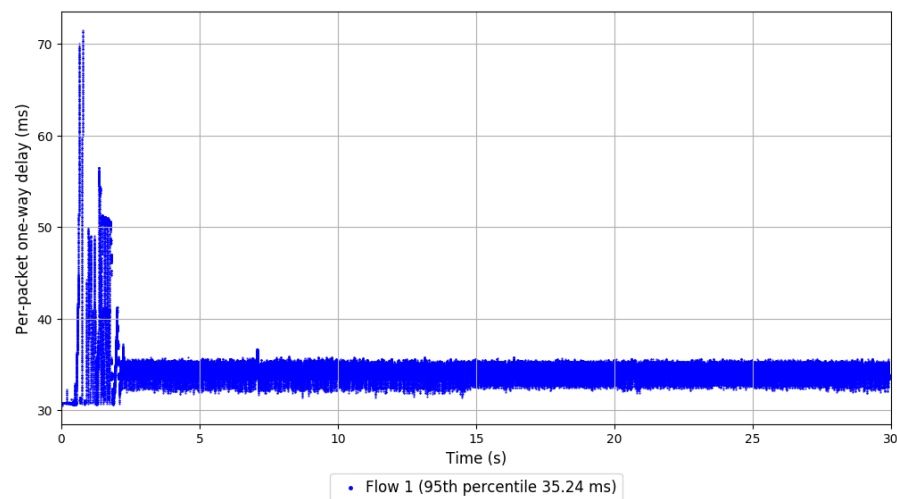
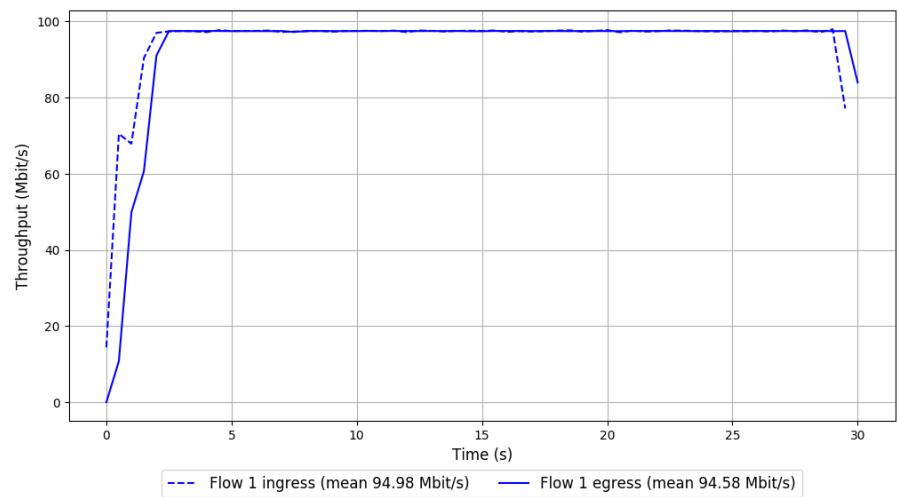


Run 3: Statistics of Indigo-MusesD

Start at: 2018-12-11 09:42:41
End at: 2018-12-11 09:43:11
Local clock offset: 0.769 ms
Remote clock offset: -2.066 ms

Below is generated by plot.py at 2018-12-11 10:53:54
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.58 Mbit/s
95th percentile per-packet one-way delay: 35.241 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 94.58 Mbit/s
95th percentile per-packet one-way delay: 35.241 ms
Loss rate: 0.41%

Run 3: Report of Indigo-MusesD — Data Link

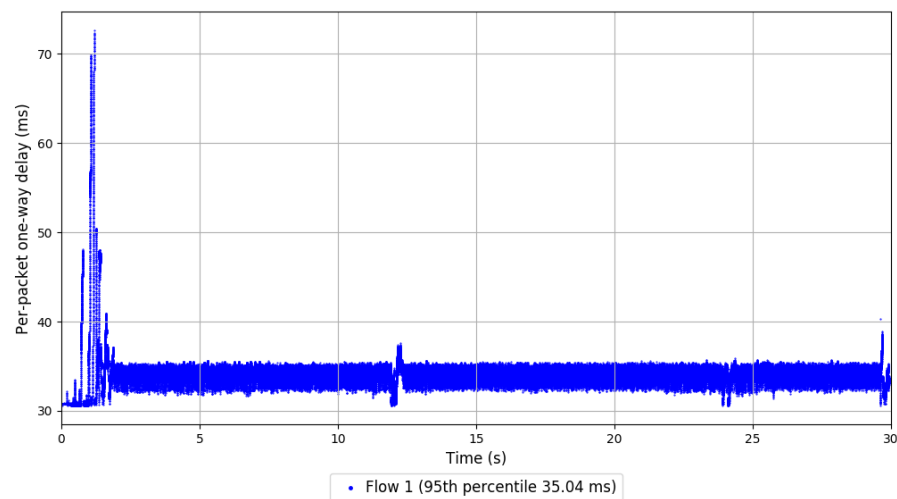
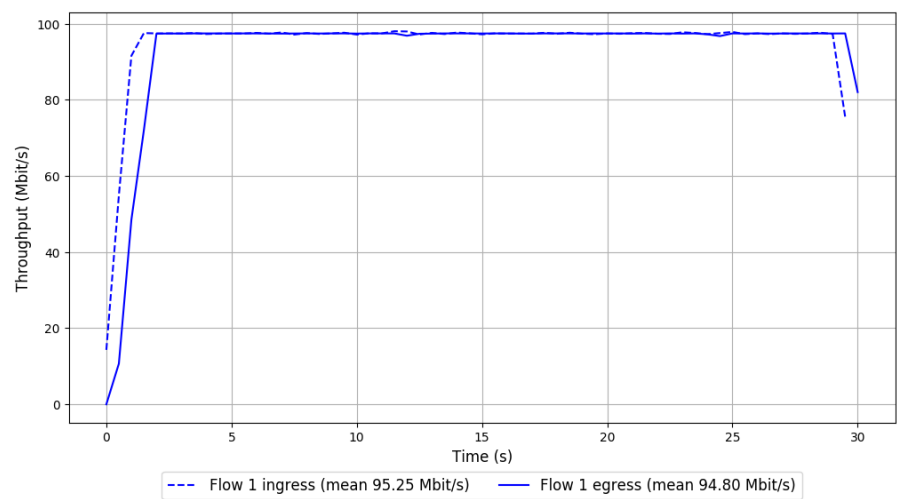


Run 4: Statistics of Indigo-MusesD

Start at: 2018-12-11 10:04:39
End at: 2018-12-11 10:05:09
Local clock offset: 0.51 ms
Remote clock offset: -1.539 ms

Below is generated by plot.py at 2018-12-11 10:54:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.80 Mbit/s
95th percentile per-packet one-way delay: 35.043 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 94.80 Mbit/s
95th percentile per-packet one-way delay: 35.043 ms
Loss rate: 0.46%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2018-12-11 10:26:37

End at: 2018-12-11 10:27:07

Local clock offset: 0.427 ms

Remote clock offset: -1.266 ms

Below is generated by plot.py at 2018-12-11 10:54:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.71 Mbit/s

95th percentile per-packet one-way delay: 35.367 ms

Loss rate: 0.41%

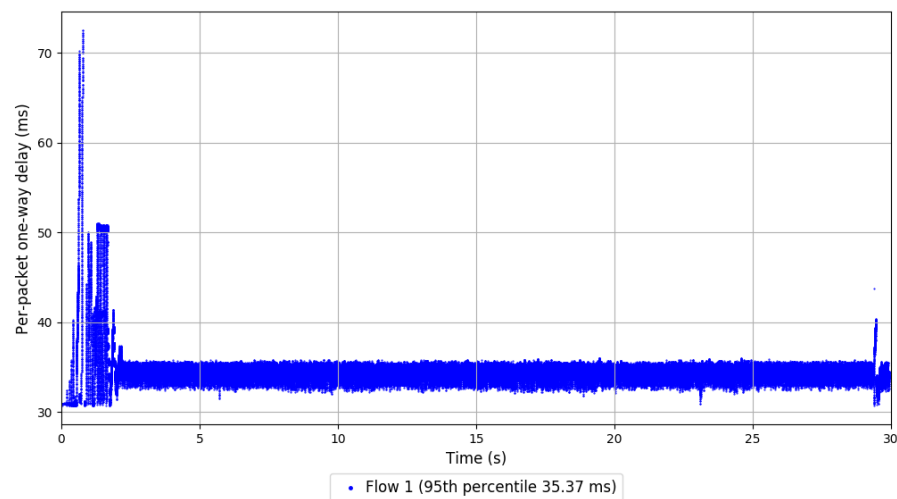
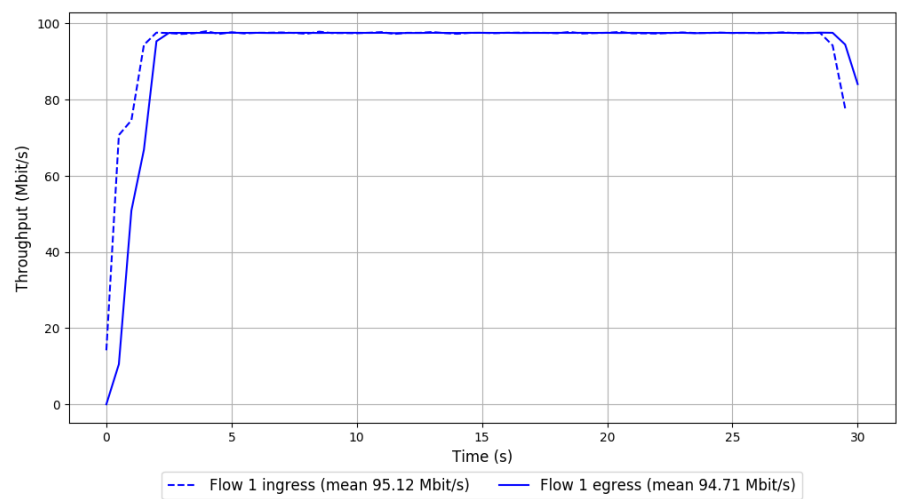
-- Flow 1:

Average throughput: 94.71 Mbit/s

95th percentile per-packet one-way delay: 35.367 ms

Loss rate: 0.41%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2018-12-11 09:09:22

End at: 2018-12-11 09:09:52

Local clock offset: 3.382 ms

Remote clock offset: -3.469 ms

Below is generated by plot.py at 2018-12-11 10:54:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.57 Mbit/s

95th percentile per-packet one-way delay: 66.929 ms

Loss rate: 38.65%

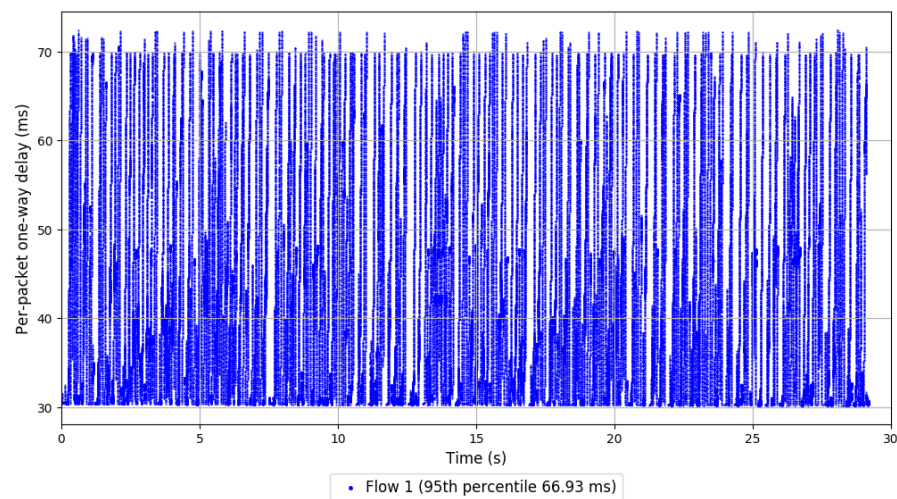
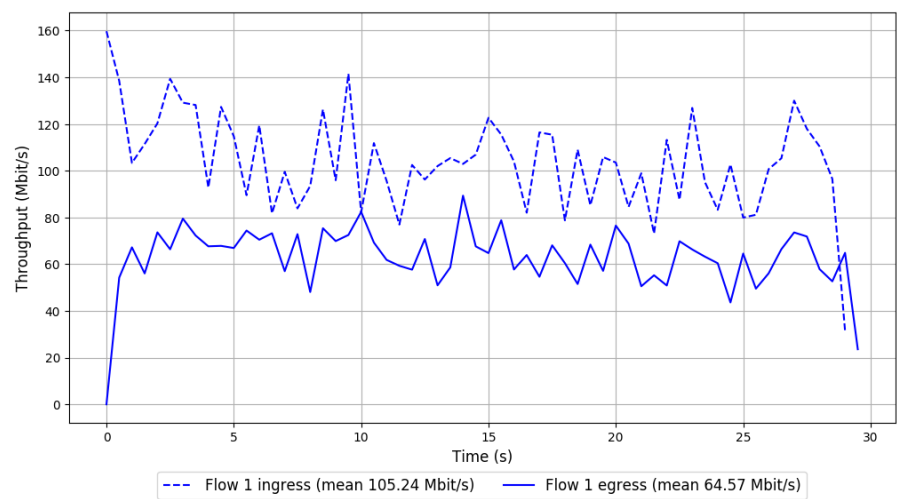
-- Flow 1:

Average throughput: 64.57 Mbit/s

95th percentile per-packet one-way delay: 66.929 ms

Loss rate: 38.65%

Run 1: Report of Indigo-MusesT — Data Link

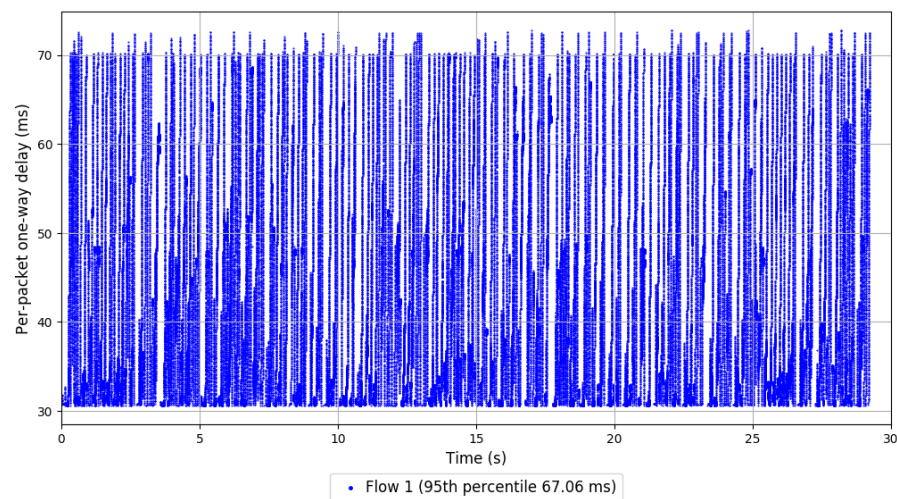
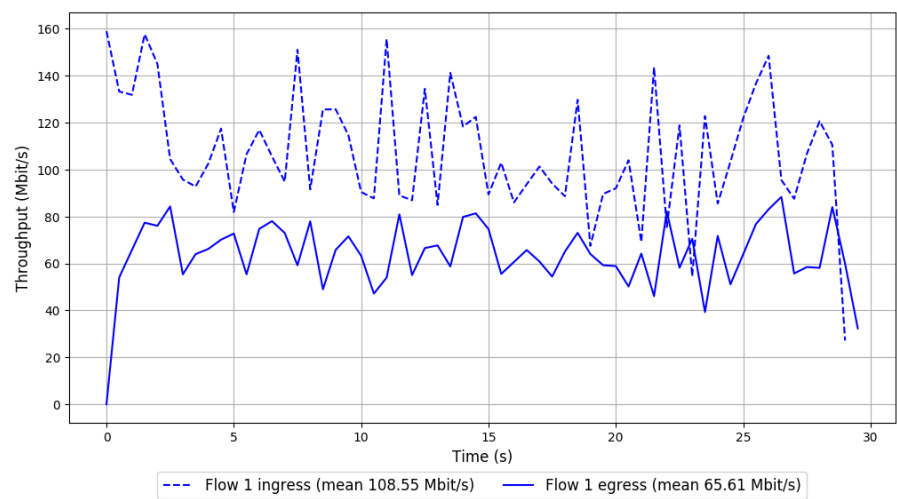


Run 2: Statistics of Indigo-MusesT

Start at: 2018-12-11 09:31:12
End at: 2018-12-11 09:31:42
Local clock offset: 1.034 ms
Remote clock offset: -2.695 ms

Below is generated by plot.py at 2018-12-11 10:54:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 65.61 Mbit/s
95th percentile per-packet one-way delay: 67.059 ms
Loss rate: 39.49%
-- Flow 1:
Average throughput: 65.61 Mbit/s
95th percentile per-packet one-way delay: 67.059 ms
Loss rate: 39.49%

Run 2: Report of Indigo-MusesT — Data Link

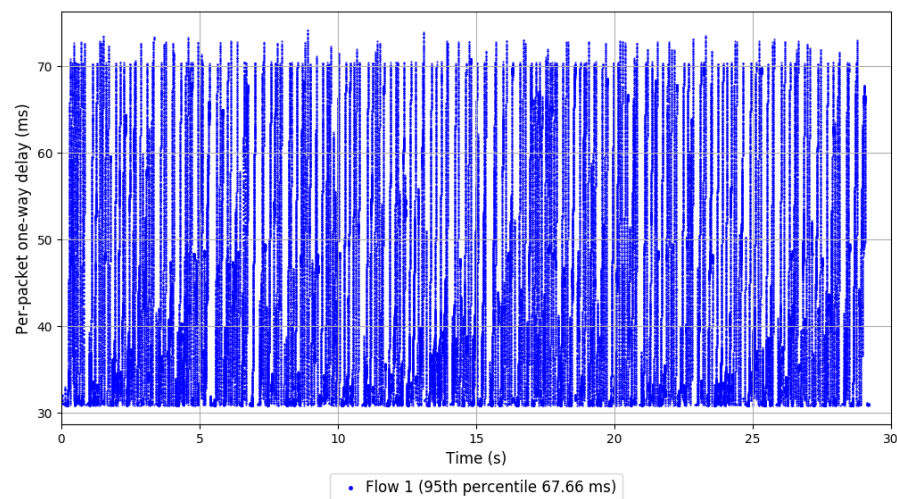
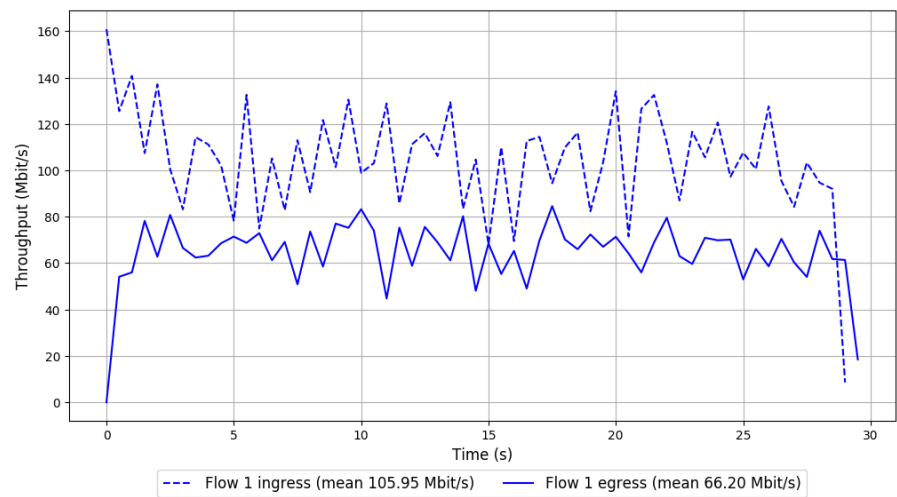


Run 3: Statistics of Indigo-MusesT

Start at: 2018-12-11 09:53:01
End at: 2018-12-11 09:53:31
Local clock offset: 0.481 ms
Remote clock offset: -1.534 ms

Below is generated by plot.py at 2018-12-11 10:54:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 66.20 Mbit/s
95th percentile per-packet one-way delay: 67.657 ms
Loss rate: 37.52%
-- Flow 1:
Average throughput: 66.20 Mbit/s
95th percentile per-packet one-way delay: 67.657 ms
Loss rate: 37.52%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2018-12-11 10:15:04

End at: 2018-12-11 10:15:34

Local clock offset: 0.44 ms

Remote clock offset: -1.185 ms

Below is generated by plot.py at 2018-12-11 10:54:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.95 Mbit/s

95th percentile per-packet one-way delay: 67.306 ms

Loss rate: 38.13%

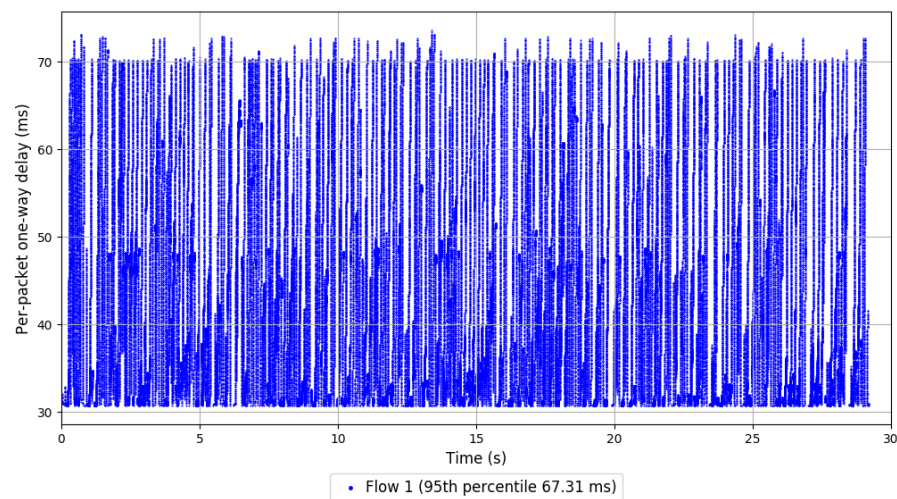
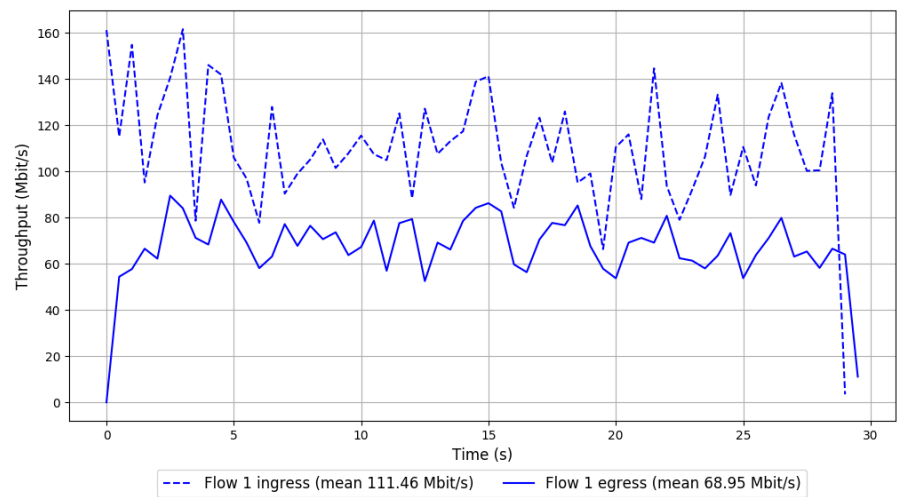
-- Flow 1:

Average throughput: 68.95 Mbit/s

95th percentile per-packet one-way delay: 67.306 ms

Loss rate: 38.13%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2018-12-11 10:36:58

End at: 2018-12-11 10:37:28

Local clock offset: 0.501 ms

Remote clock offset: -1.389 ms

Below is generated by plot.py at 2018-12-11 10:54:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.07 Mbit/s

95th percentile per-packet one-way delay: 67.582 ms

Loss rate: 36.72%

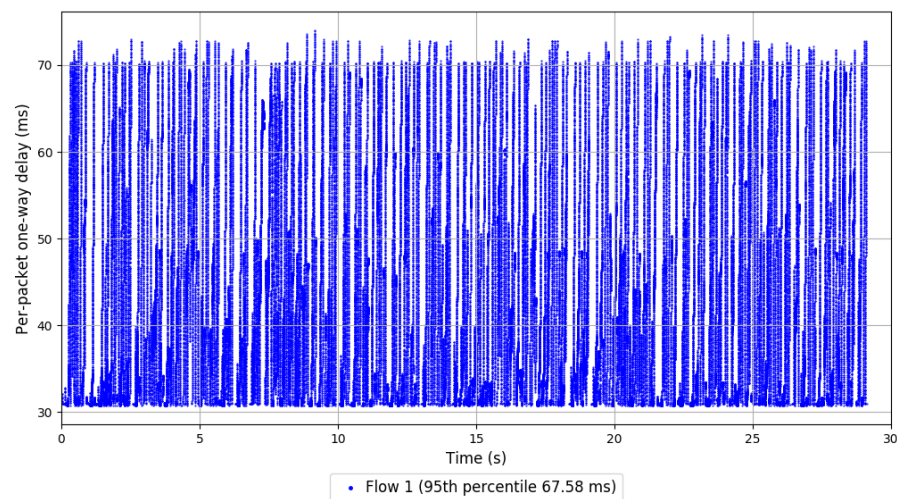
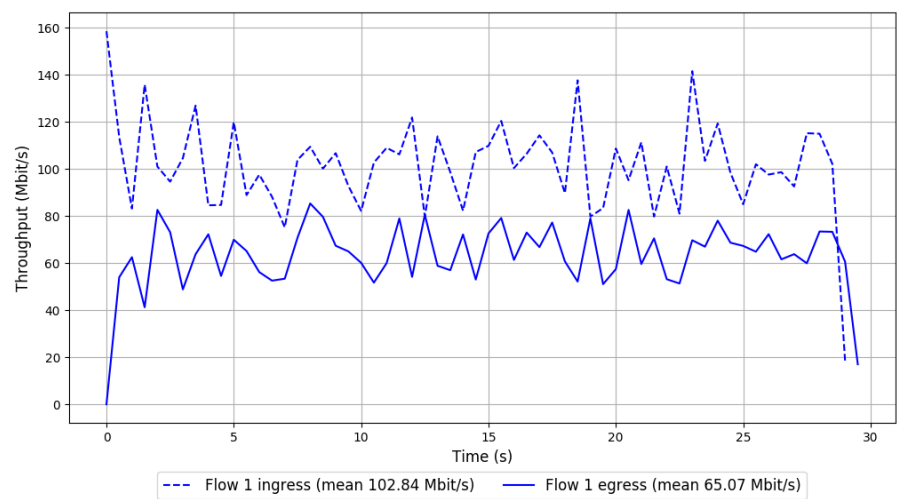
-- Flow 1:

Average throughput: 65.07 Mbit/s

95th percentile per-packet one-way delay: 67.582 ms

Loss rate: 36.72%

Run 5: Report of Indigo-MusesT — Data Link

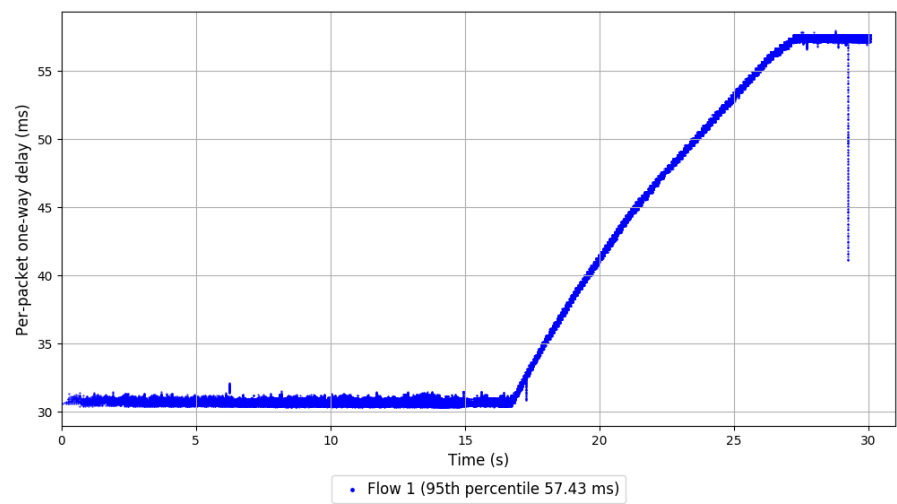
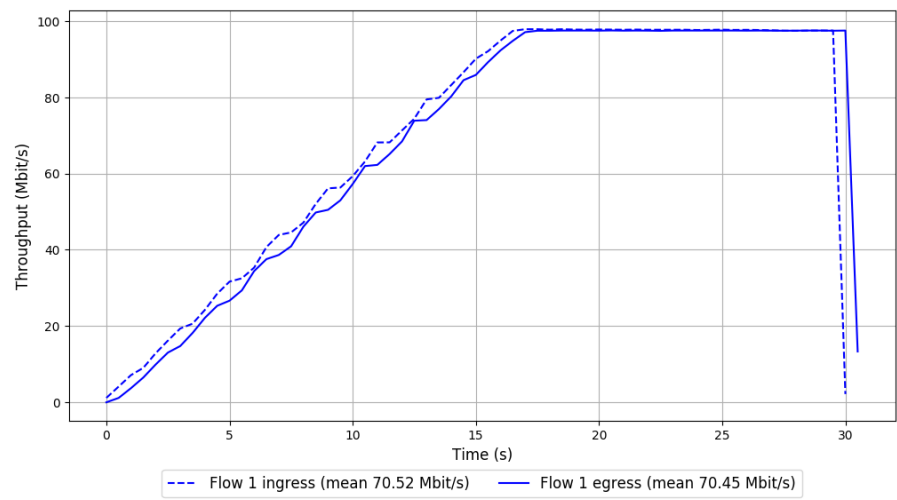


Run 1: Statistics of LEDBAT

Start at: 2018-12-11 09:11:40
End at: 2018-12-11 09:12:10
Local clock offset: 2.722 ms
Remote clock offset: -3.367 ms

Below is generated by plot.py at 2018-12-11 10:54:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.45 Mbit/s
95th percentile per-packet one-way delay: 57.427 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.45 Mbit/s
95th percentile per-packet one-way delay: 57.427 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

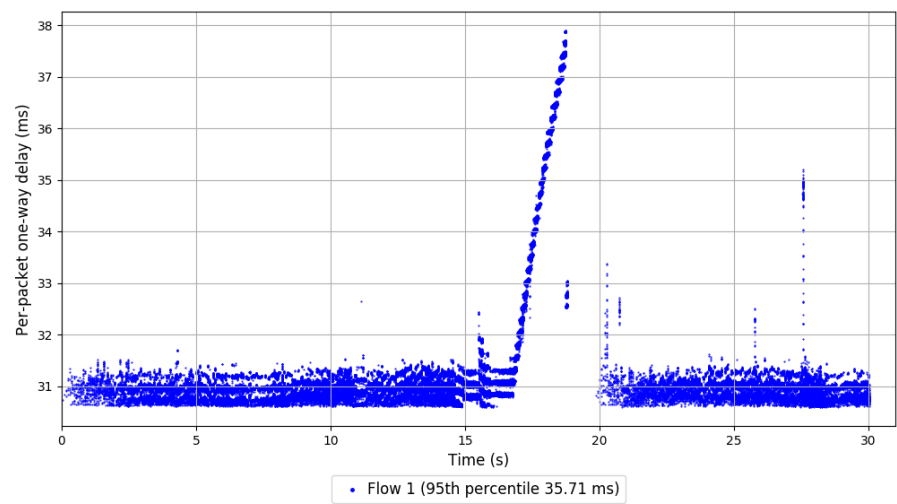
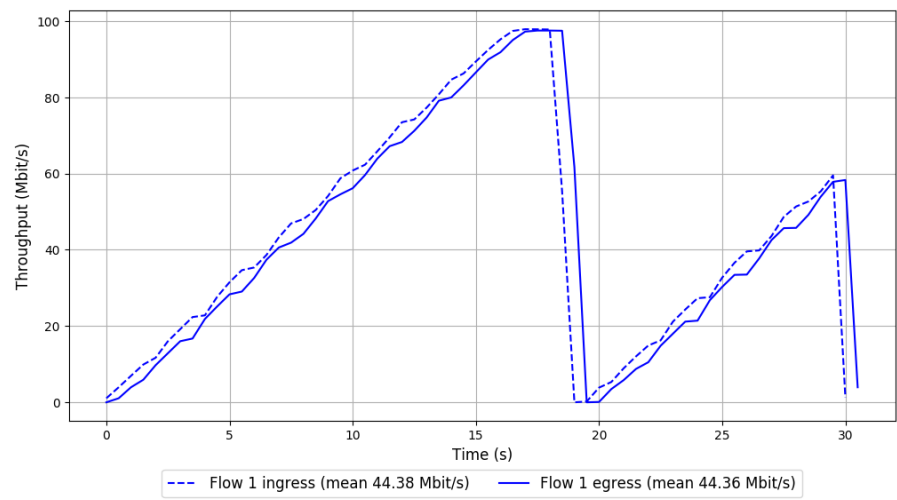


Run 2: Statistics of LEDBAT

Start at: 2018-12-11 09:33:31
End at: 2018-12-11 09:34:01
Local clock offset: 1.063 ms
Remote clock offset: -2.441 ms

Below is generated by plot.py at 2018-12-11 10:54:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 44.36 Mbit/s
95th percentile per-packet one-way delay: 35.713 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 44.36 Mbit/s
95th percentile per-packet one-way delay: 35.713 ms
Loss rate: 0.04%

Run 2: Report of LEDBAT — Data Link

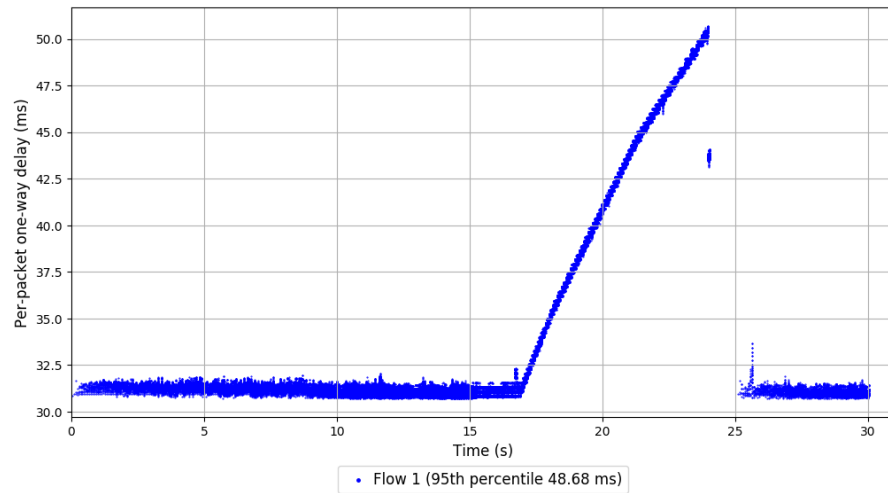
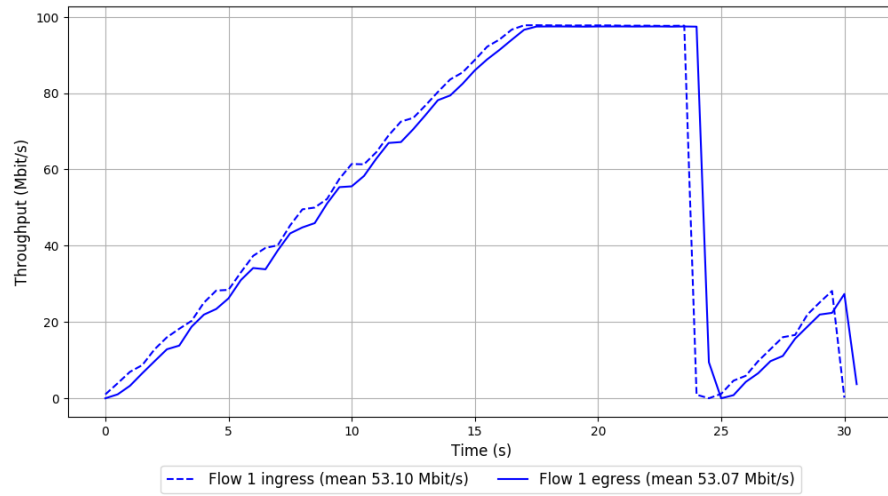


Run 3: Statistics of LEDBAT

Start at: 2018-12-11 09:55:22
End at: 2018-12-11 09:55:52
Local clock offset: 0.467 ms
Remote clock offset: -1.501 ms

Below is generated by plot.py at 2018-12-11 10:54:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 53.07 Mbit/s
95th percentile per-packet one-way delay: 48.683 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 53.07 Mbit/s
95th percentile per-packet one-way delay: 48.683 ms
Loss rate: 0.04%

Run 3: Report of LEDBAT — Data Link

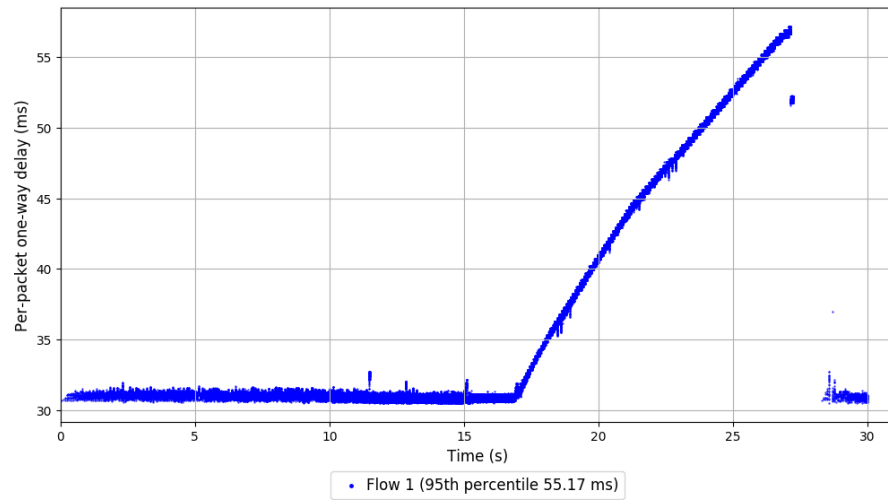
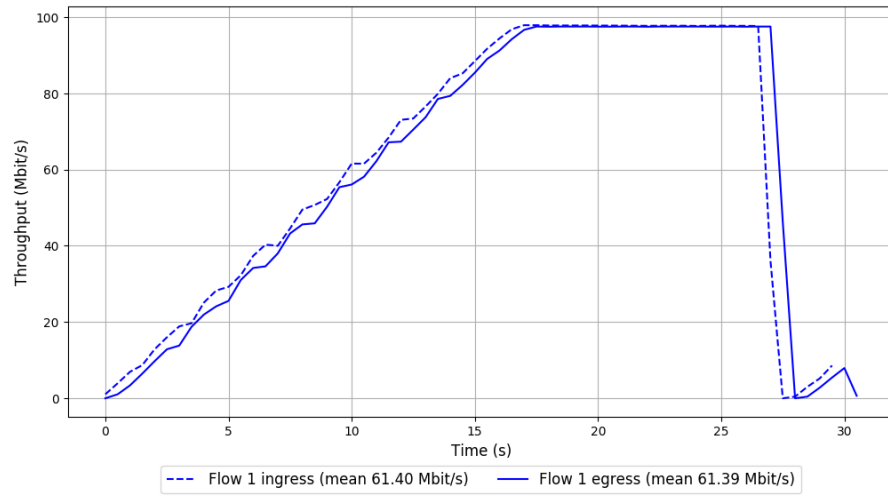


Run 4: Statistics of LEDBAT

Start at: 2018-12-11 10:17:24
End at: 2018-12-11 10:17:54
Local clock offset: 0.423 ms
Remote clock offset: -1.415 ms

Below is generated by plot.py at 2018-12-11 10:54:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 61.39 Mbit/s
95th percentile per-packet one-way delay: 55.174 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 61.39 Mbit/s
95th percentile per-packet one-way delay: 55.174 ms
Loss rate: 0.03%

Run 4: Report of LEDBAT — Data Link

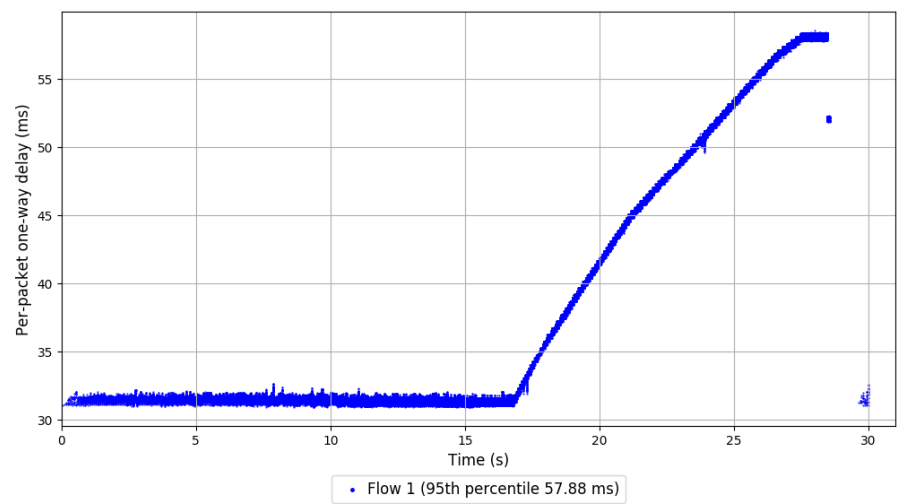
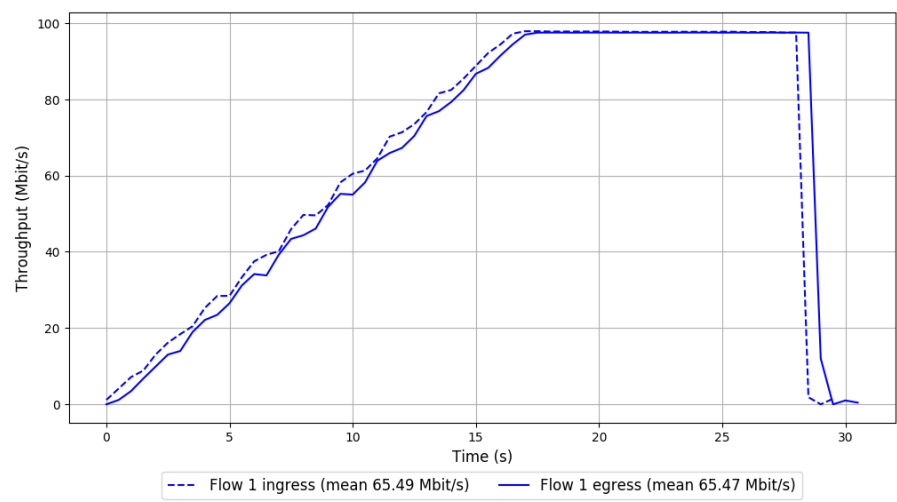


Run 5: Statistics of LEDBAT

Start at: 2018-12-11 10:39:18
End at: 2018-12-11 10:39:48
Local clock offset: 0.779 ms
Remote clock offset: -1.386 ms

Below is generated by plot.py at 2018-12-11 10:54:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 65.47 Mbit/s
95th percentile per-packet one-way delay: 57.884 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 65.47 Mbit/s
95th percentile per-packet one-way delay: 57.884 ms
Loss rate: 0.03%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-12-11 09:13:56

End at: 2018-12-11 09:14:26

Local clock offset: 2.174 ms

Remote clock offset: -3.169 ms

Below is generated by plot.py at 2018-12-11 10:55:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.80 Mbit/s

95th percentile per-packet one-way delay: 37.390 ms

Loss rate: 0.59%

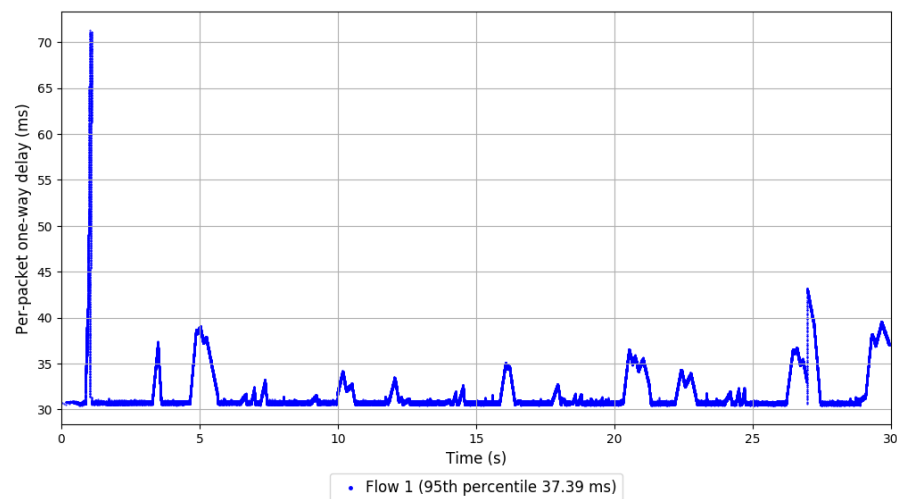
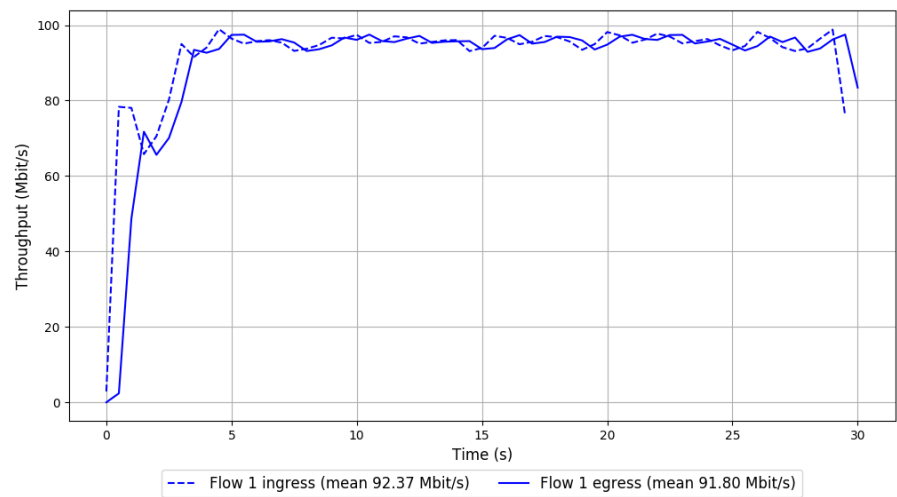
-- Flow 1:

Average throughput: 91.80 Mbit/s

95th percentile per-packet one-way delay: 37.390 ms

Loss rate: 0.59%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-12-11 09:35:45

End at: 2018-12-11 09:36:15

Local clock offset: 1.071 ms

Remote clock offset: -2.343 ms

Below is generated by plot.py at 2018-12-11 10:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.54 Mbit/s

95th percentile per-packet one-way delay: 36.693 ms

Loss rate: 0.74%

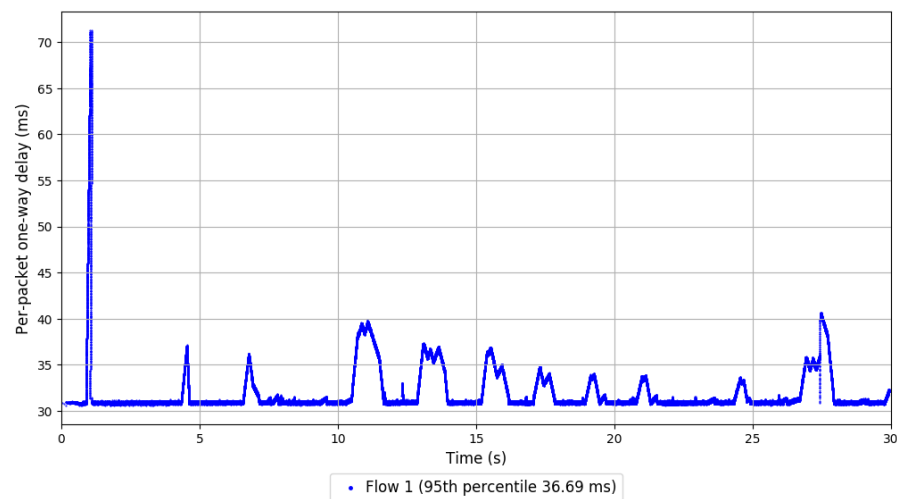
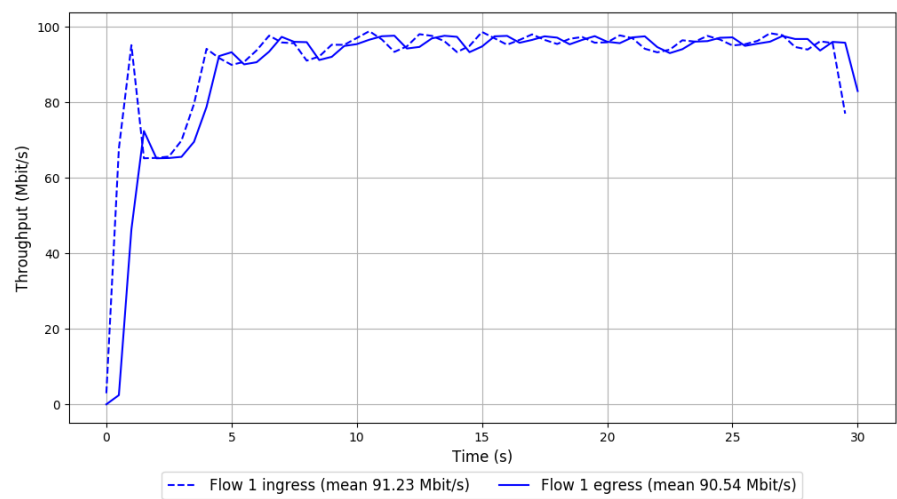
-- Flow 1:

Average throughput: 90.54 Mbit/s

95th percentile per-packet one-way delay: 36.693 ms

Loss rate: 0.74%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-12-11 09:57:38

End at: 2018-12-11 09:58:08

Local clock offset: 0.453 ms

Remote clock offset: -1.428 ms

Below is generated by plot.py at 2018-12-11 10:55:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.07 Mbit/s

95th percentile per-packet one-way delay: 36.721 ms

Loss rate: 0.70%

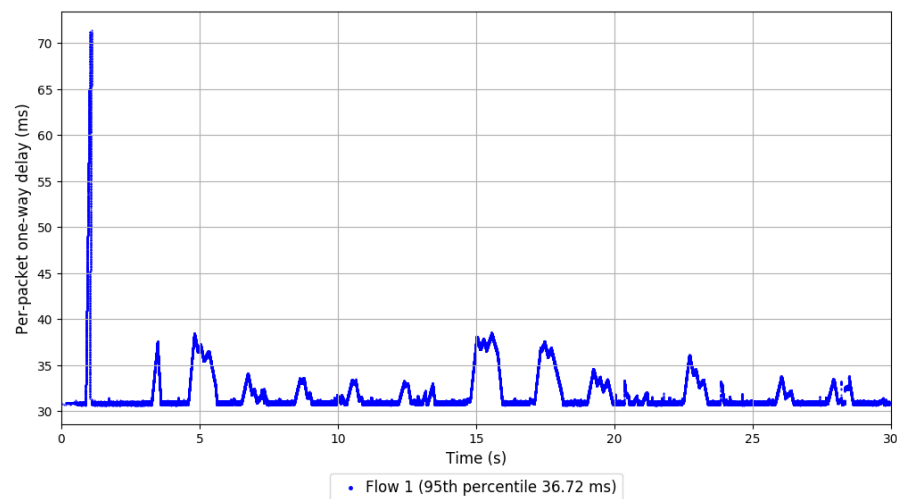
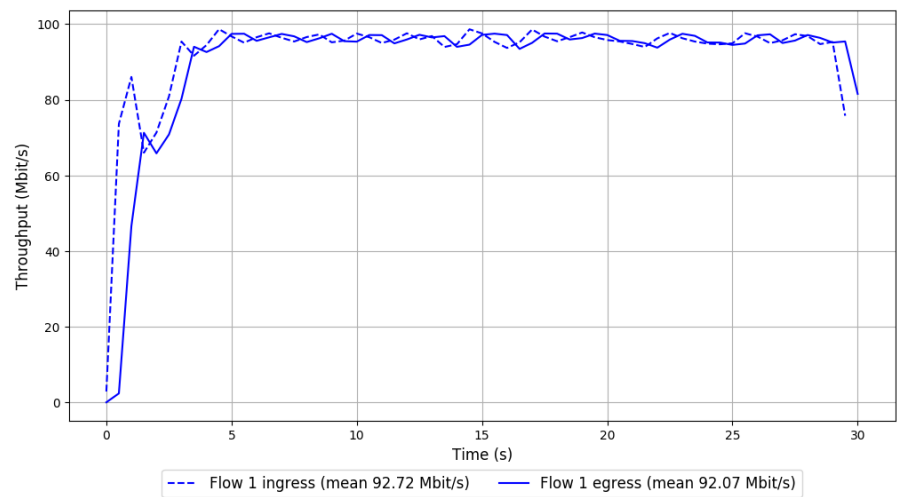
-- Flow 1:

Average throughput: 92.07 Mbit/s

95th percentile per-packet one-way delay: 36.721 ms

Loss rate: 0.70%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-12-11 10:19:39

End at: 2018-12-11 10:20:09

Local clock offset: 0.405 ms

Remote clock offset: -1.44 ms

Below is generated by plot.py at 2018-12-11 10:55:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.34 Mbit/s

95th percentile per-packet one-way delay: 35.634 ms

Loss rate: 0.73%

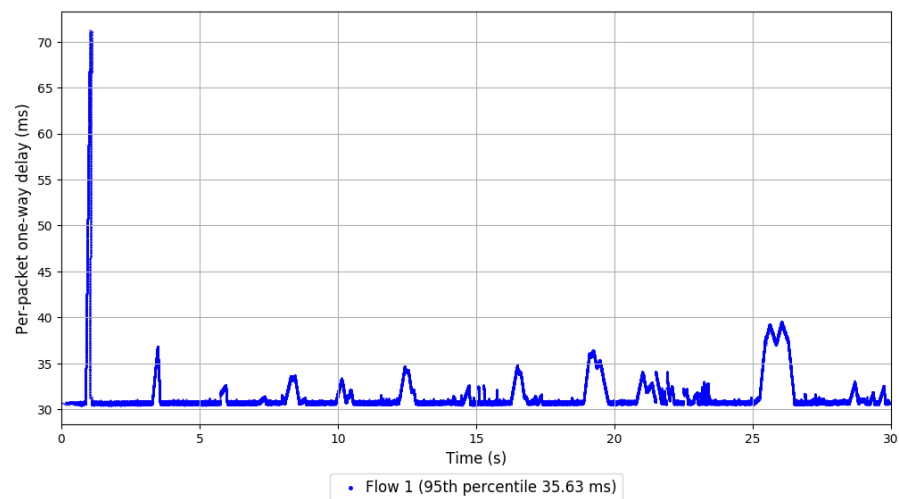
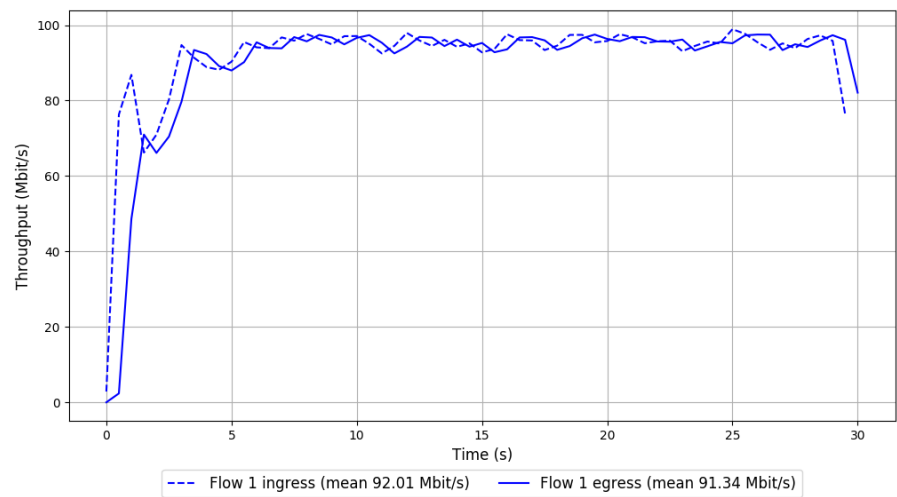
-- Flow 1:

Average throughput: 91.34 Mbit/s

95th percentile per-packet one-way delay: 35.634 ms

Loss rate: 0.73%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-12-11 10:41:34

End at: 2018-12-11 10:42:04

Local clock offset: 1.423 ms

Remote clock offset: -1.406 ms

Below is generated by plot.py at 2018-12-11 10:55:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.46 Mbit/s

95th percentile per-packet one-way delay: 34.295 ms

Loss rate: 0.69%

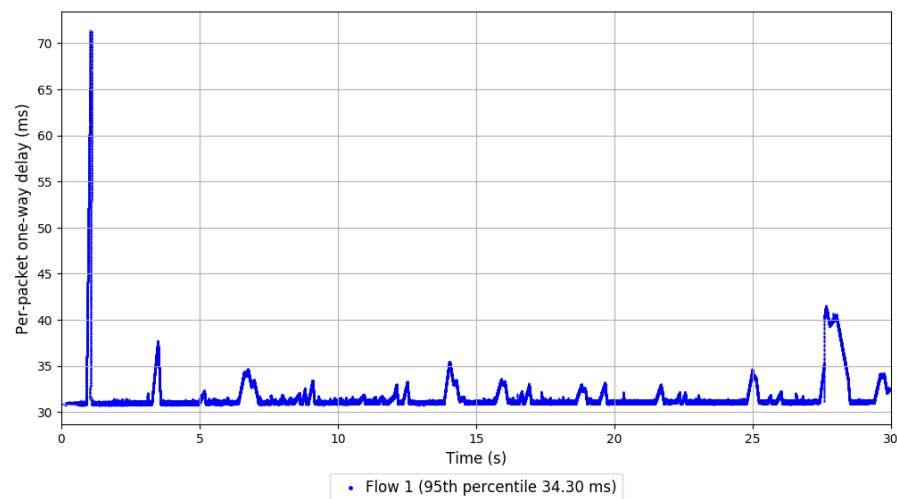
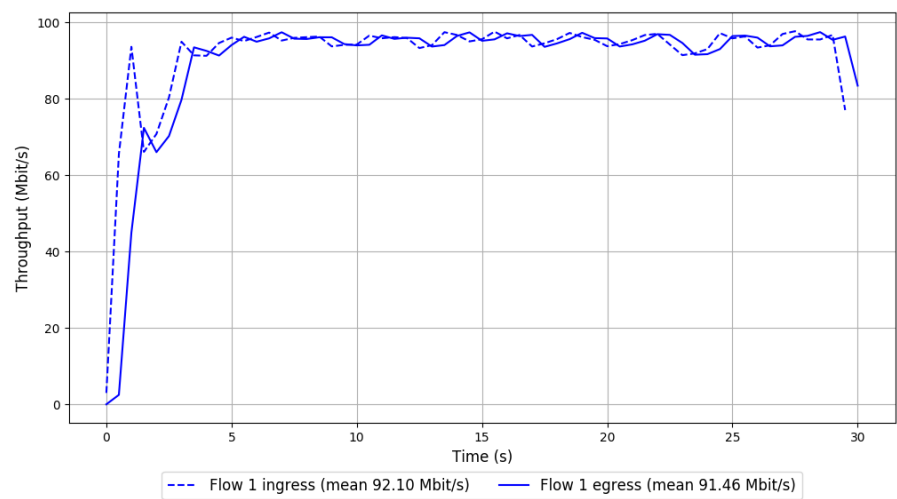
-- Flow 1:

Average throughput: 91.46 Mbit/s

95th percentile per-packet one-way delay: 34.295 ms

Loss rate: 0.69%

Run 5: Report of PCC-Allegro — Data Link

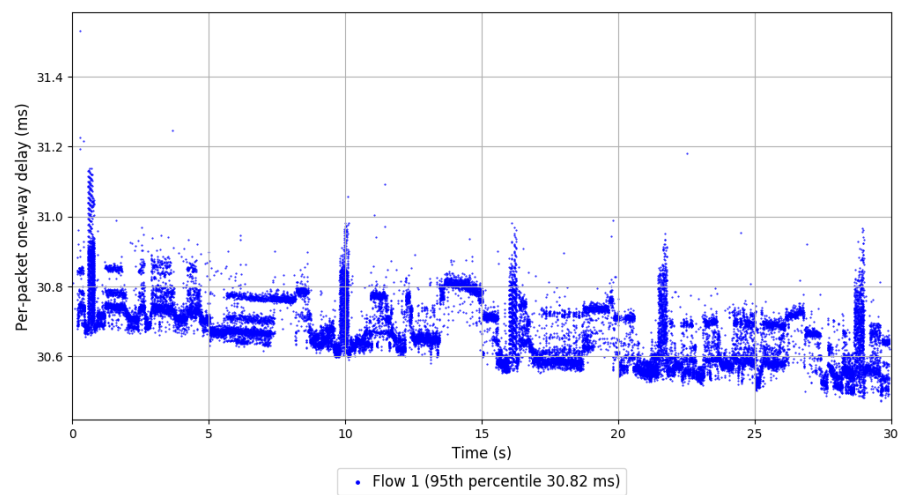
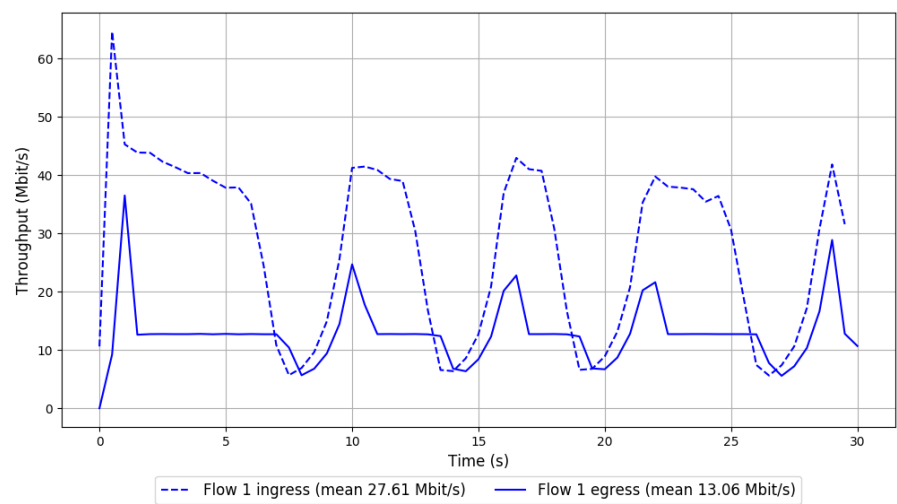


```
Run 1: Statistics of PCC-Expr

Start at: 2018-12-11 09:08:15
End at: 2018-12-11 09:08:45
Local clock offset: 3.646 ms
Remote clock offset: -3.3 ms

# Below is generated by plot.py at 2018-12-11 10:55:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.819 ms
Loss rate: 52.69%
-- Flow 1:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.819 ms
Loss rate: 52.69%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

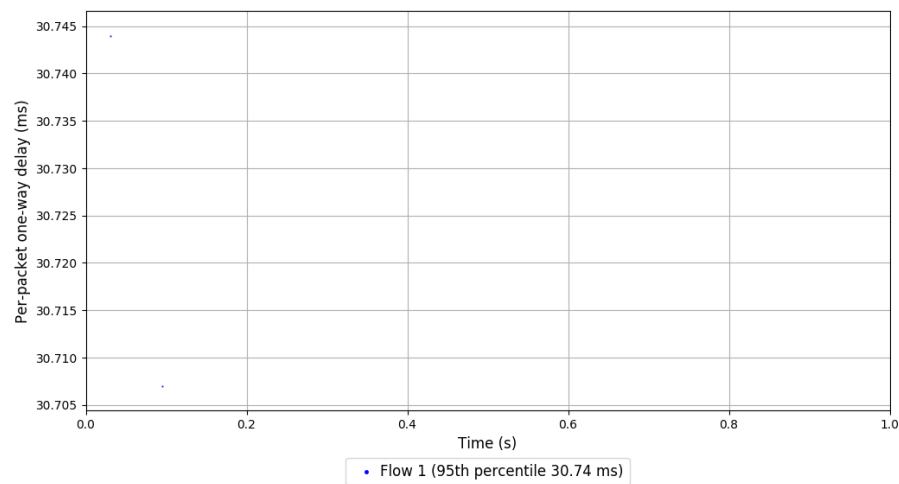
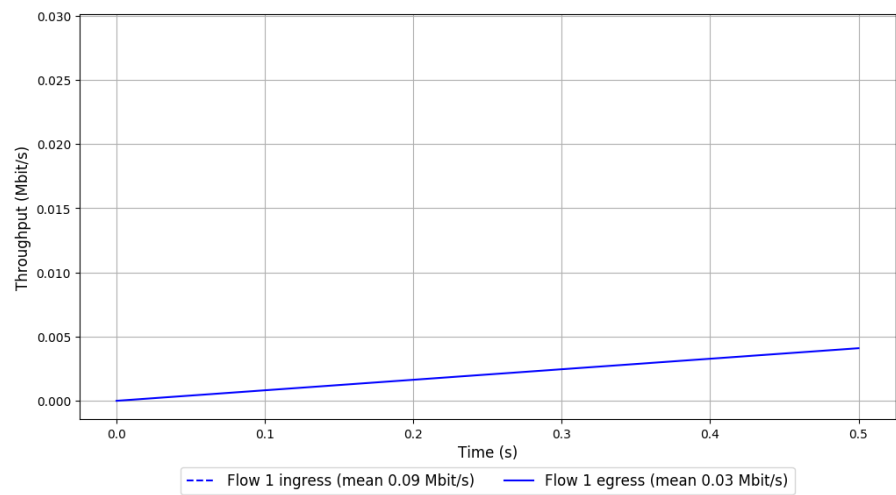
Start at: 2018-12-11 09:30:06

End at: 2018-12-11 09:30:36

Local clock offset: 1.054 ms

Remote clock offset: -2.553 ms

Run 2: Report of PCC-Expr — Data Link

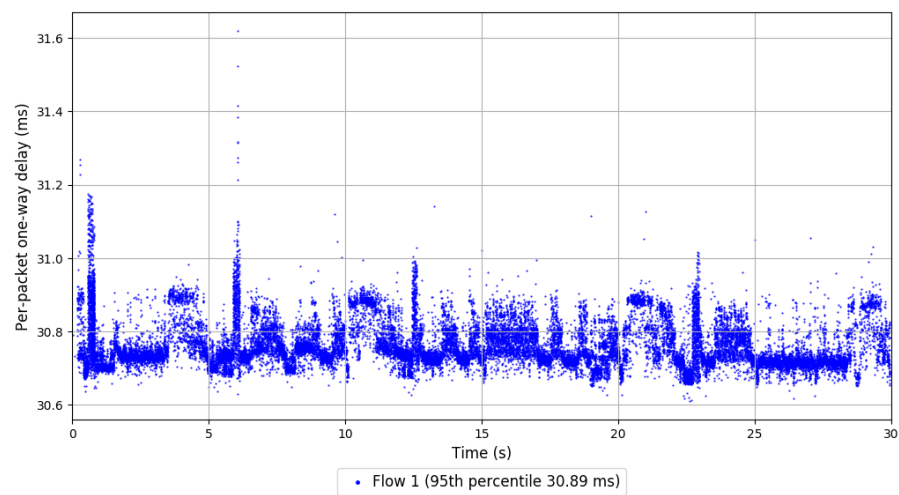
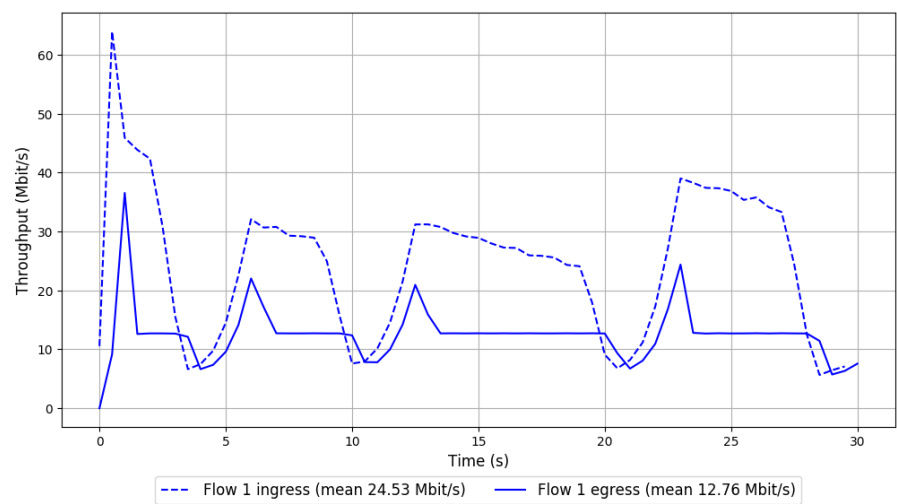


Run 3: Statistics of PCC-Expr

Start at: 2018-12-11 09:51:54
End at: 2018-12-11 09:52:24
Local clock offset: 0.494 ms
Remote clock offset: -1.667 ms

Below is generated by plot.py at 2018-12-11 10:55:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.76 Mbit/s
95th percentile per-packet one-way delay: 30.887 ms
Loss rate: 48.01%
-- Flow 1:
Average throughput: 12.76 Mbit/s
95th percentile per-packet one-way delay: 30.887 ms
Loss rate: 48.01%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

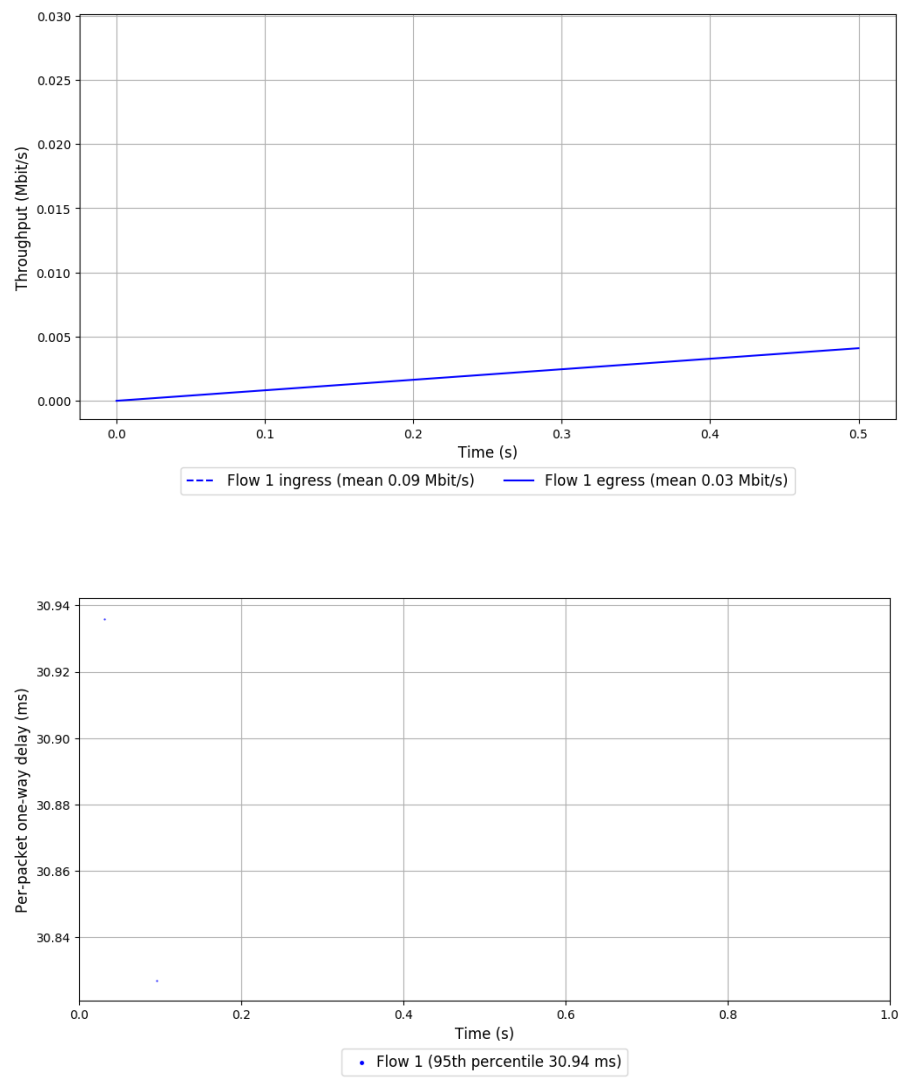
Start at: 2018-12-11 10:13:59

End at: 2018-12-11 10:14:29

Local clock offset: 0.435 ms

Remote clock offset: -1.2 ms

Run 4: Report of PCC-Expr — Data Link

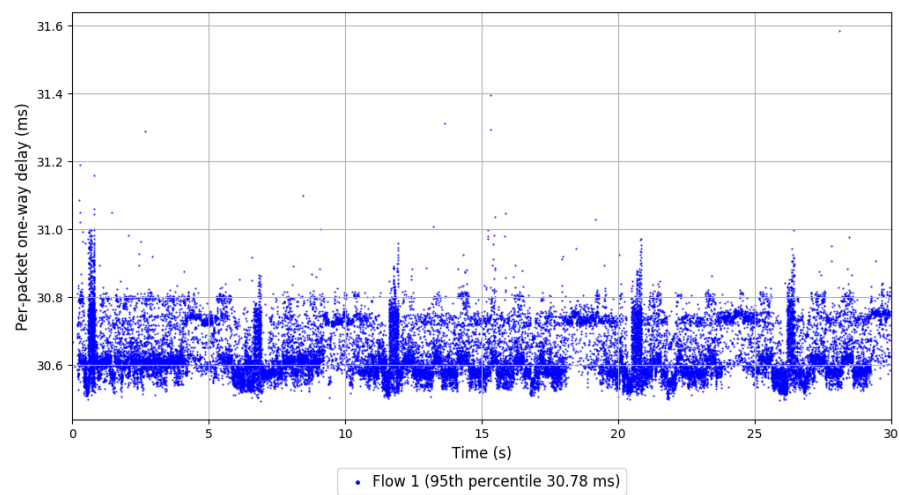
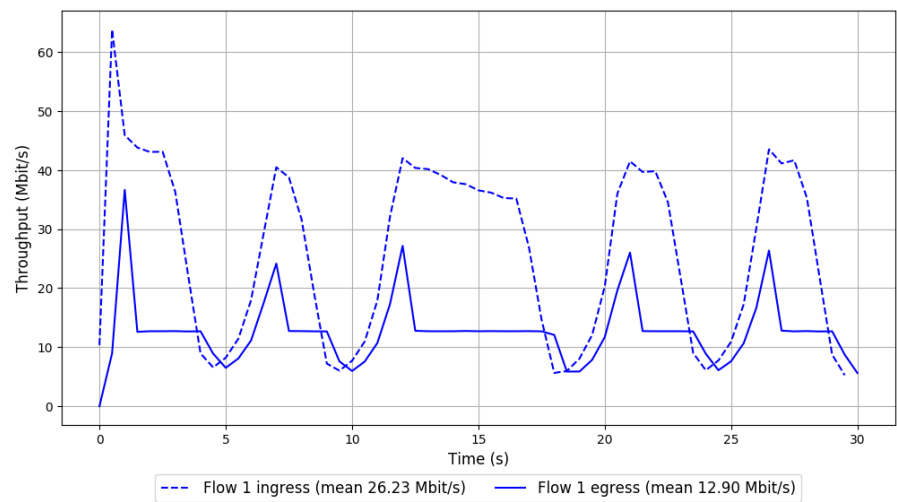


Run 5: Statistics of PCC-Expr

Start at: 2018-12-11 10:35:51
End at: 2018-12-11 10:36:21
Local clock offset: 0.474 ms
Remote clock offset: -1.581 ms

Below is generated by plot.py at 2018-12-11 10:55:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 30.781 ms
Loss rate: 50.82%
-- Flow 1:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 30.781 ms
Loss rate: 50.82%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-12-11 09:16:15

End at: 2018-12-11 09:16:45

Local clock offset: 1.805 ms

Remote clock offset: -2.993 ms

Below is generated by plot.py at 2018-12-11 10:56:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.66 Mbit/s

95th percentile per-packet one-way delay: 67.194 ms

Loss rate: 1.21%

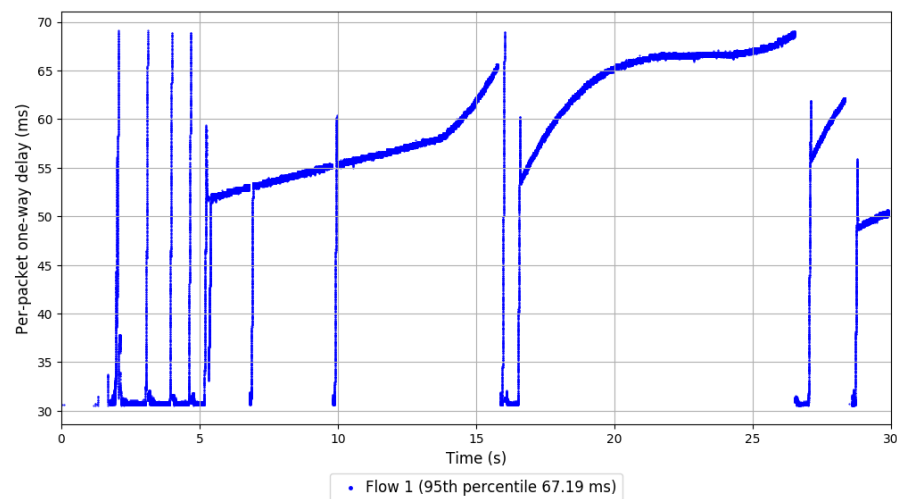
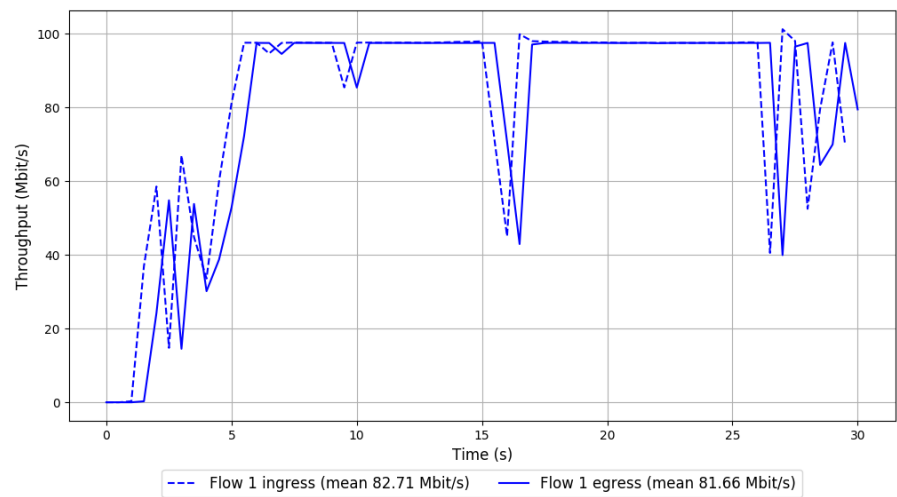
-- Flow 1:

Average throughput: 81.66 Mbit/s

95th percentile per-packet one-way delay: 67.194 ms

Loss rate: 1.21%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-12-11 09:38:04

End at: 2018-12-11 09:38:34

Local clock offset: 1.078 ms

Remote clock offset: -2.223 ms

Below is generated by plot.py at 2018-12-11 10:56:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.30 Mbit/s

95th percentile per-packet one-way delay: 58.079 ms

Loss rate: 1.70%

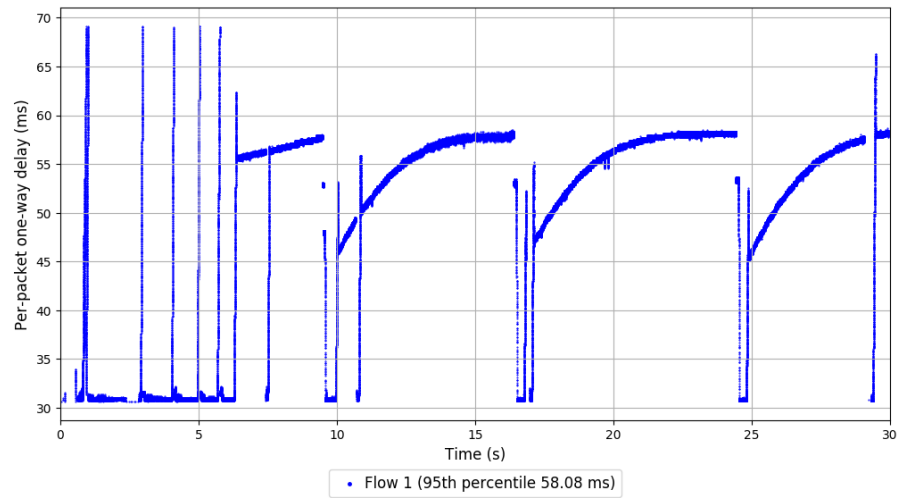
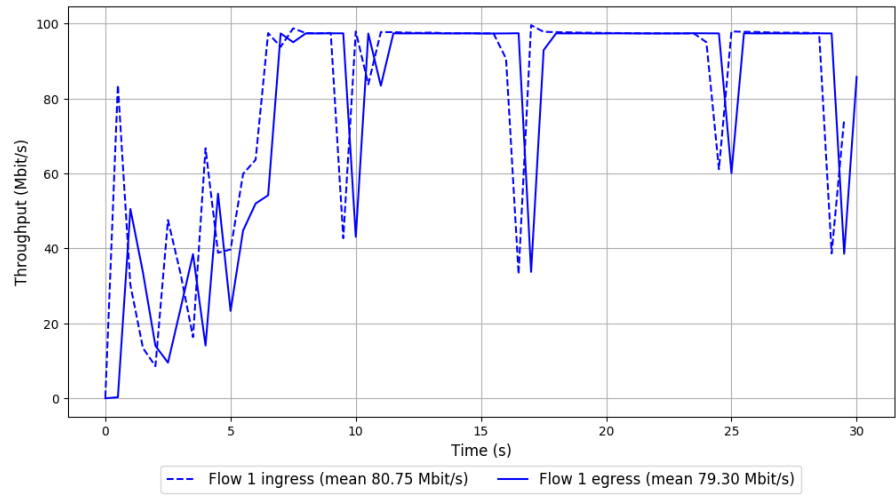
-- Flow 1:

Average throughput: 79.30 Mbit/s

95th percentile per-packet one-way delay: 58.079 ms

Loss rate: 1.70%

Run 2: Report of QUIC Cubic — Data Link

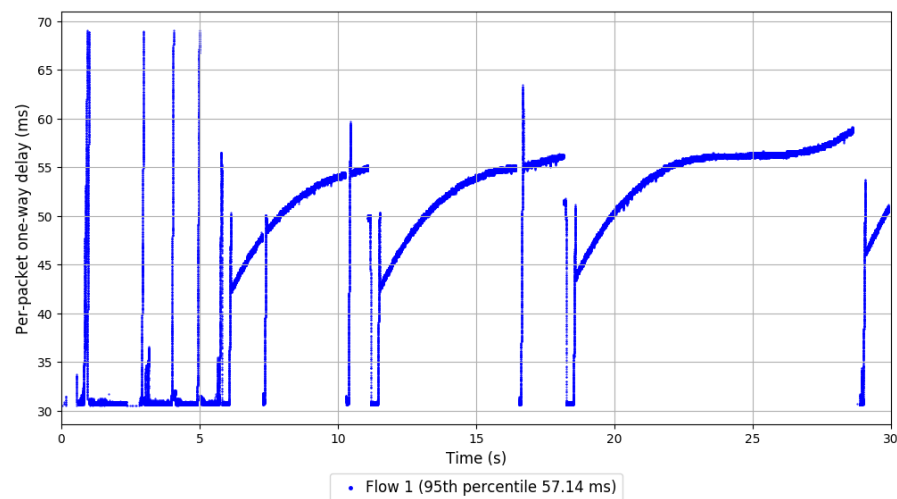
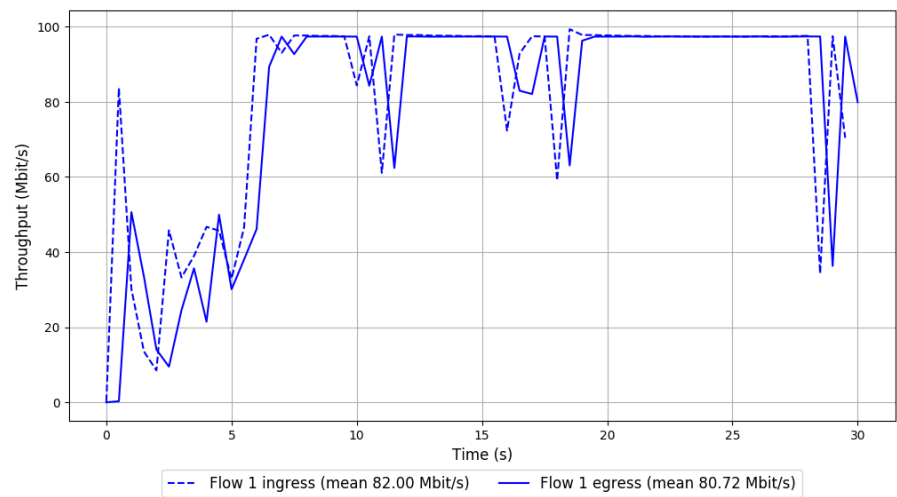


Run 3: Statistics of QUIC Cubic

Start at: 2018-12-11 10:00:01
End at: 2018-12-11 10:00:31
Local clock offset: 0.473 ms
Remote clock offset: -1.351 ms

Below is generated by plot.py at 2018-12-11 10:56:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 80.72 Mbit/s
95th percentile per-packet one-way delay: 57.144 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 80.72 Mbit/s
95th percentile per-packet one-way delay: 57.144 ms
Loss rate: 1.49%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-12-11 10:22:00

End at: 2018-12-11 10:22:30

Local clock offset: 0.462 ms

Remote clock offset: -1.271 ms

Below is generated by plot.py at 2018-12-11 10:56:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.74 Mbit/s

95th percentile per-packet one-way delay: 67.454 ms

Loss rate: 1.80%

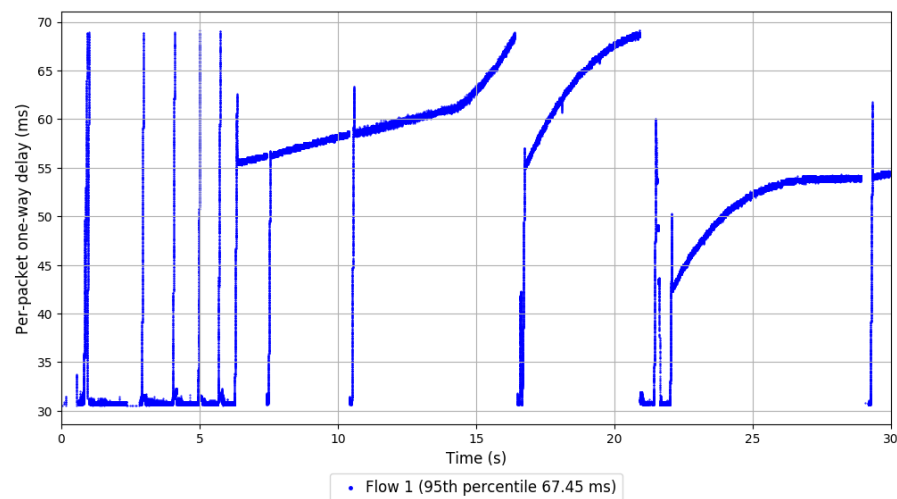
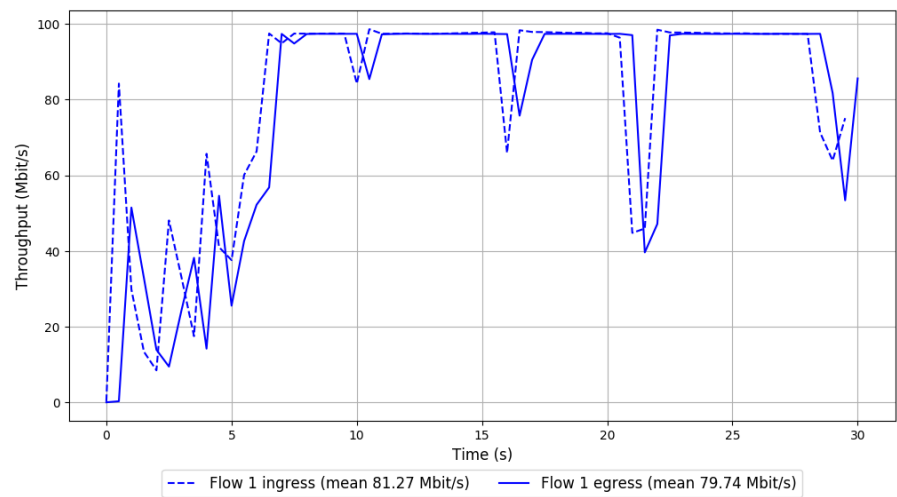
-- Flow 1:

Average throughput: 79.74 Mbit/s

95th percentile per-packet one-way delay: 67.454 ms

Loss rate: 1.80%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-12-11 10:43:56

End at: 2018-12-11 10:44:26

Local clock offset: 1.929 ms

Remote clock offset: -1.477 ms

Below is generated by plot.py at 2018-12-11 10:56:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.68 Mbit/s

95th percentile per-packet one-way delay: 54.347 ms

Loss rate: 0.70%

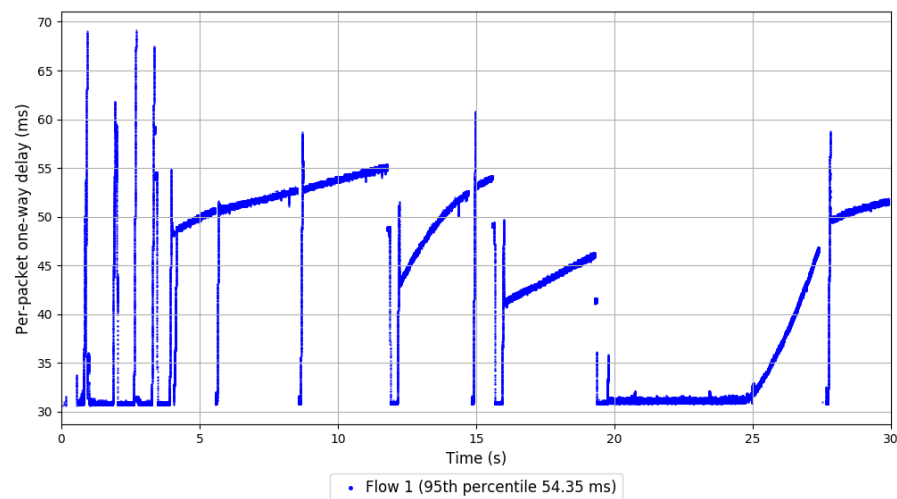
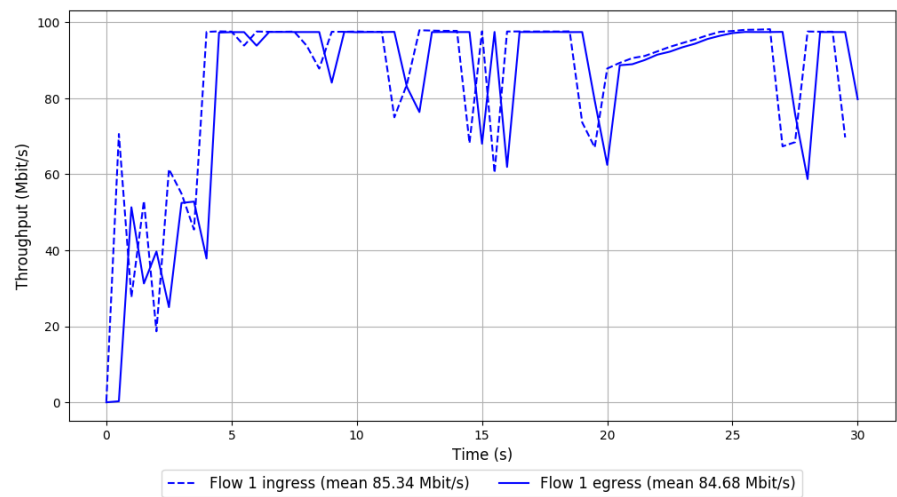
-- Flow 1:

Average throughput: 84.68 Mbit/s

95th percentile per-packet one-way delay: 54.347 ms

Loss rate: 0.70%

Run 5: Report of QUIC Cubic — Data Link

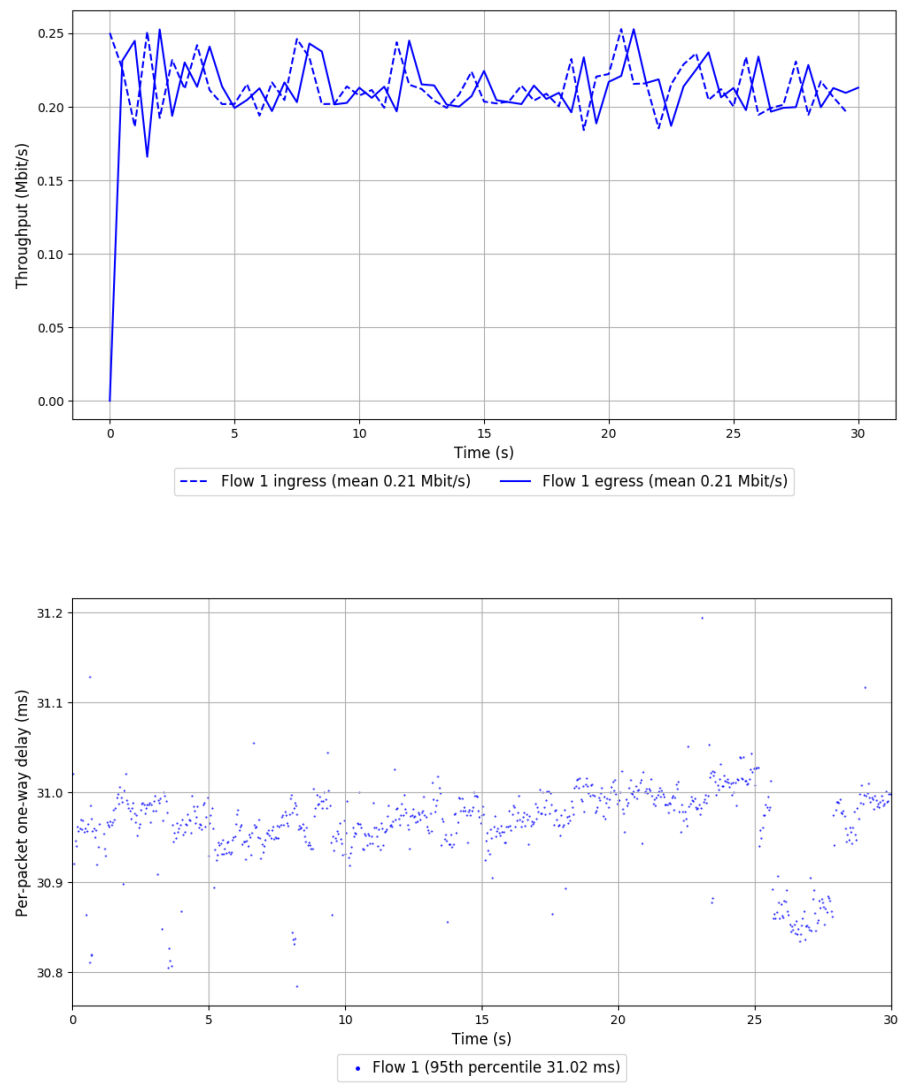


Run 1: Statistics of SCReAM

Start at: 2018-12-11 09:03:42
End at: 2018-12-11 09:04:12
Local clock offset: 3.02 ms
Remote clock offset: -3.411 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.015 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.015 ms
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

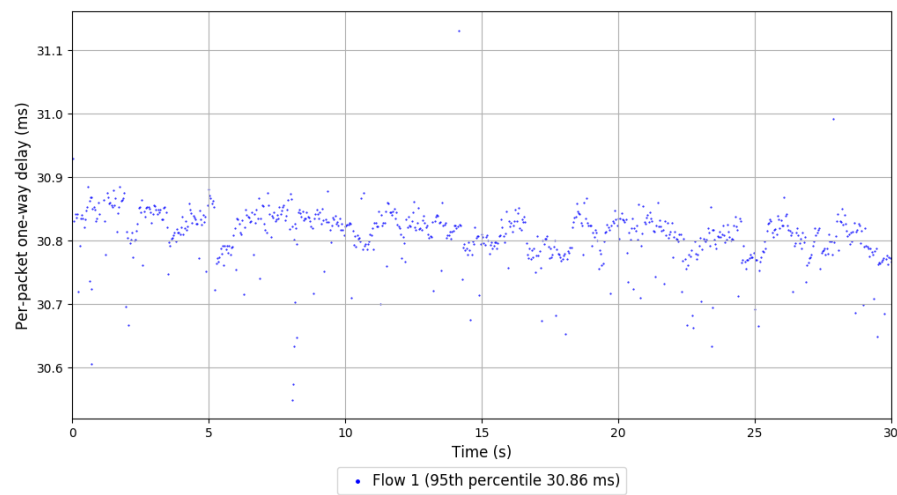
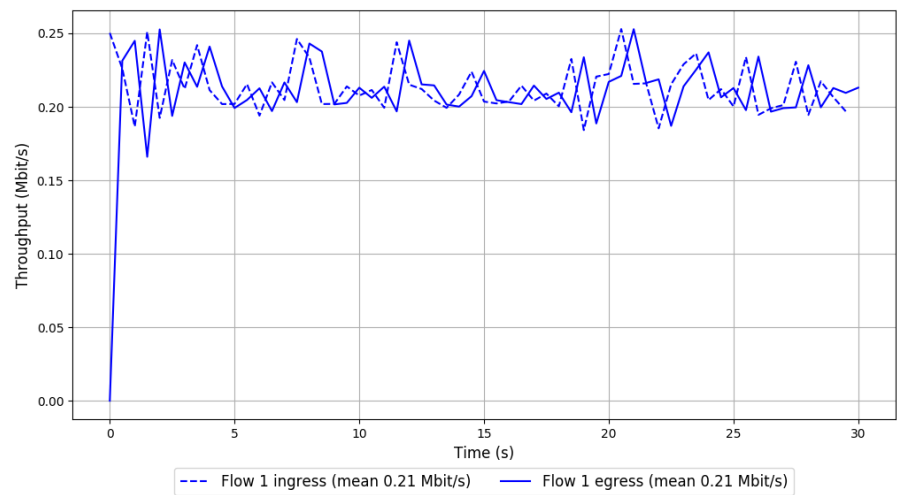


Run 2: Statistics of SCReAM

Start at: 2018-12-11 09:25:27
End at: 2018-12-11 09:25:57
Local clock offset: 1.127 ms
Remote clock offset: -2.646 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.859 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.859 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

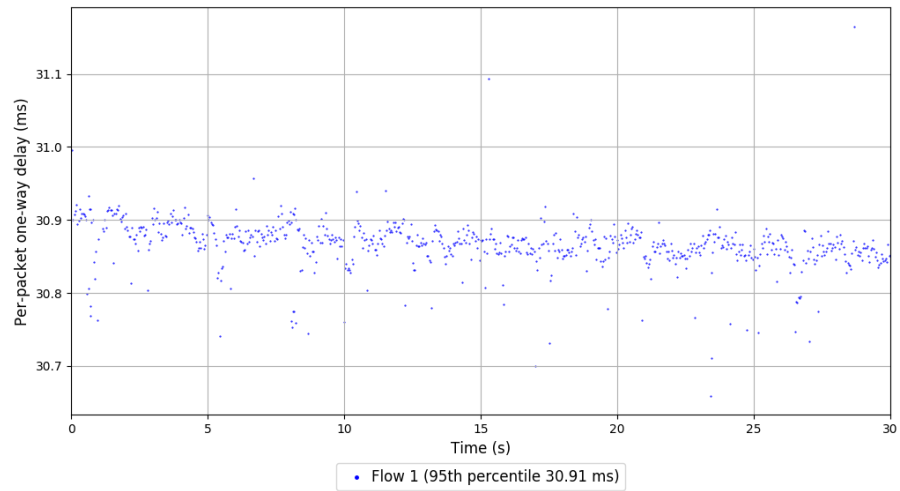
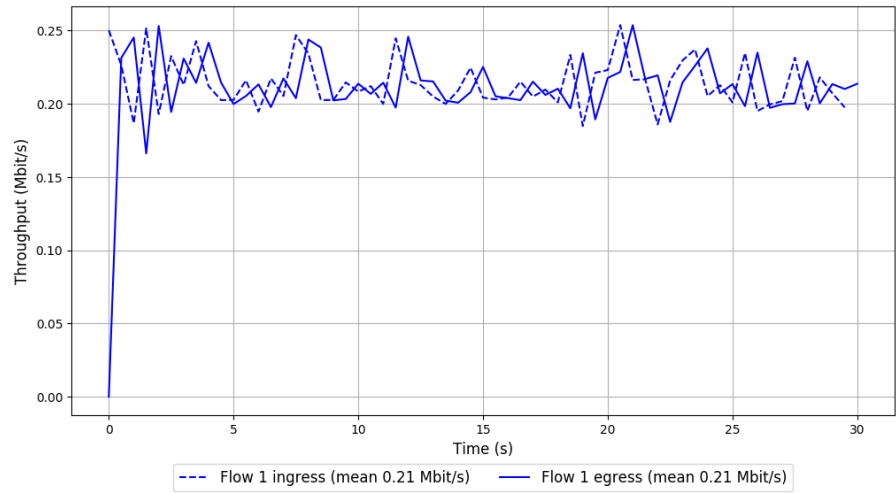


Run 3: Statistics of SCReAM

Start at: 2018-12-11 09:47:16
End at: 2018-12-11 09:47:46
Local clock offset: 0.579 ms
Remote clock offset: -1.842 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.908 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.908 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

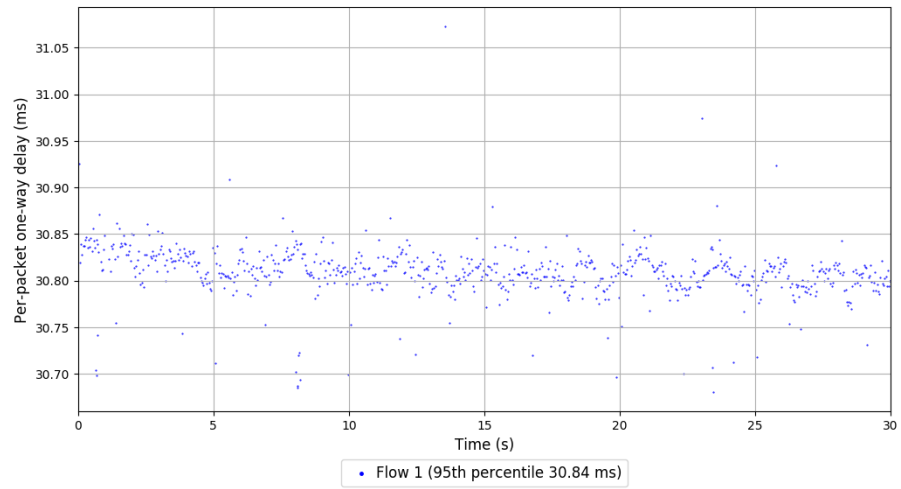
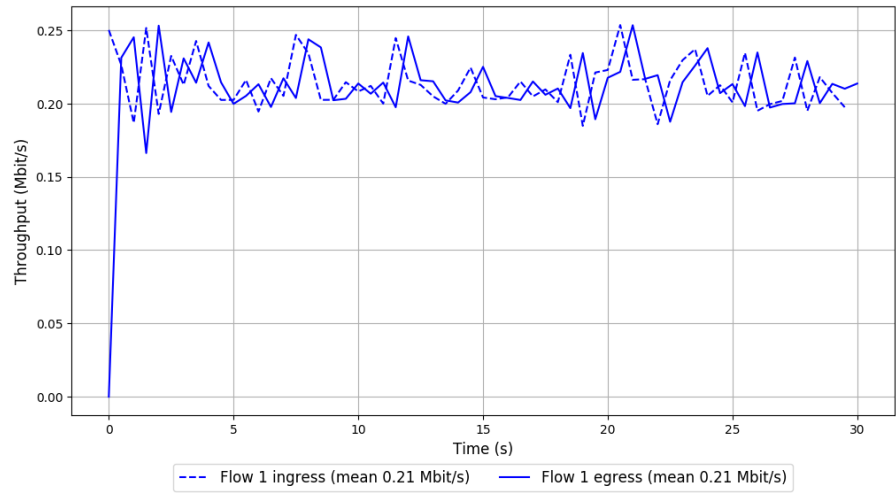


Run 4: Statistics of SCReAM

Start at: 2018-12-11 10:09:24
End at: 2018-12-11 10:09:54
Local clock offset: 0.513 ms
Remote clock offset: -1.283 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.844 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.844 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

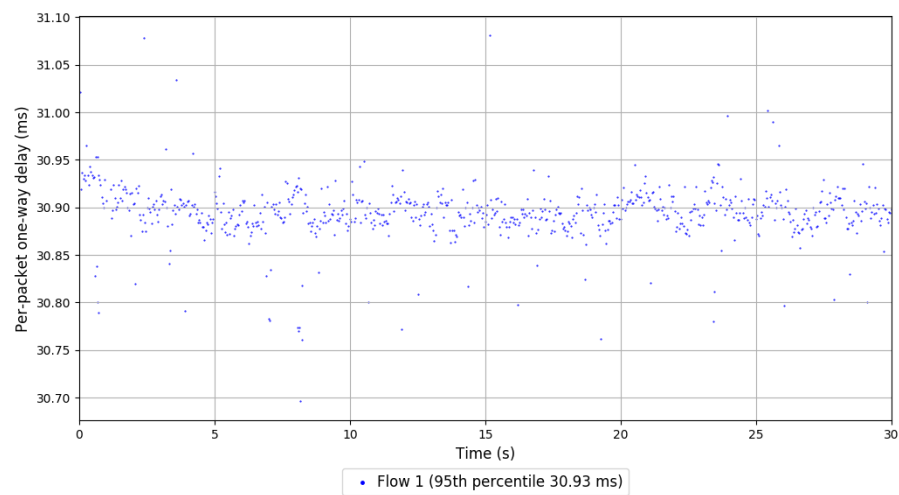
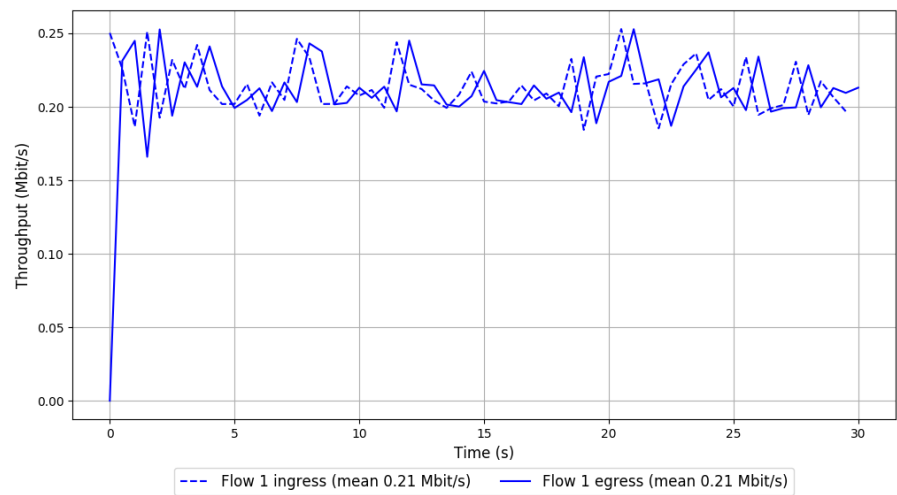


Run 5: Statistics of SCReAM

Start at: 2018-12-11 10:31:14
End at: 2018-12-11 10:31:44
Local clock offset: 0.457 ms
Remote clock offset: -1.317 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.929 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.929 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

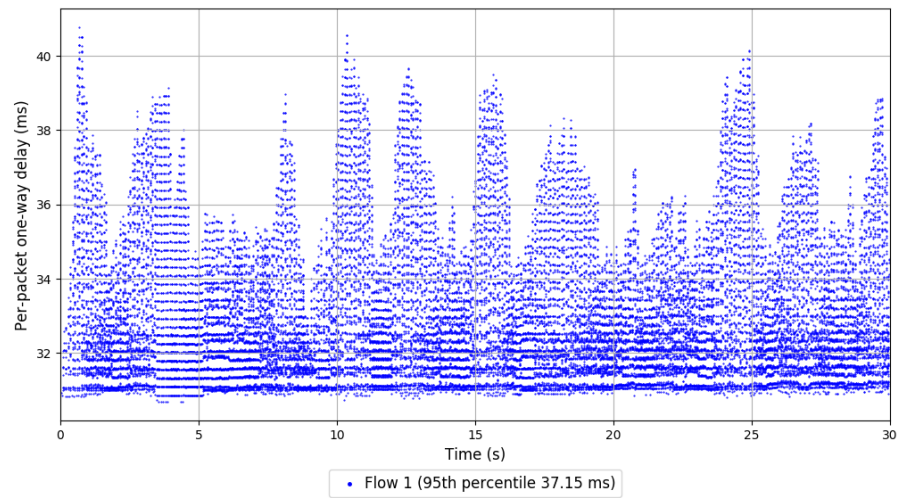
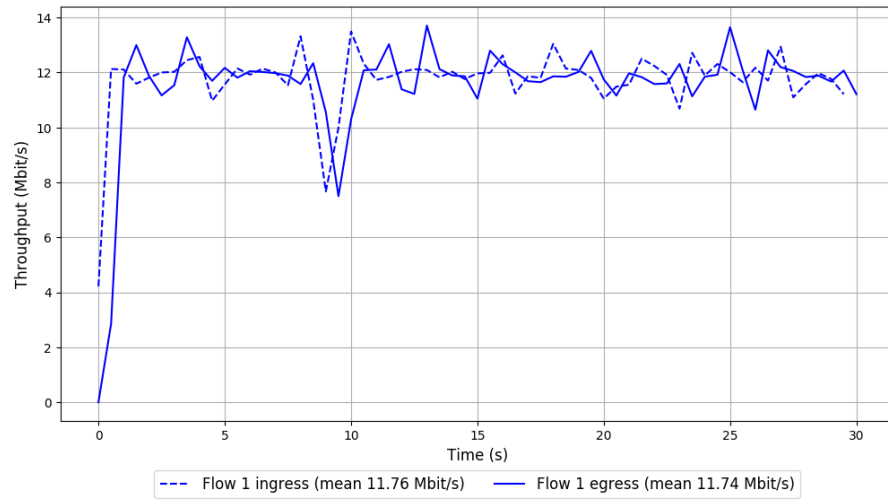


Run 1: Statistics of Sprout

Start at: 2018-12-11 09:07:09
End at: 2018-12-11 09:07:39
Local clock offset: 3.518 ms
Remote clock offset: -3.256 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 37.150 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 37.150 ms
Loss rate: 0.17%

Run 1: Report of Sprout — Data Link

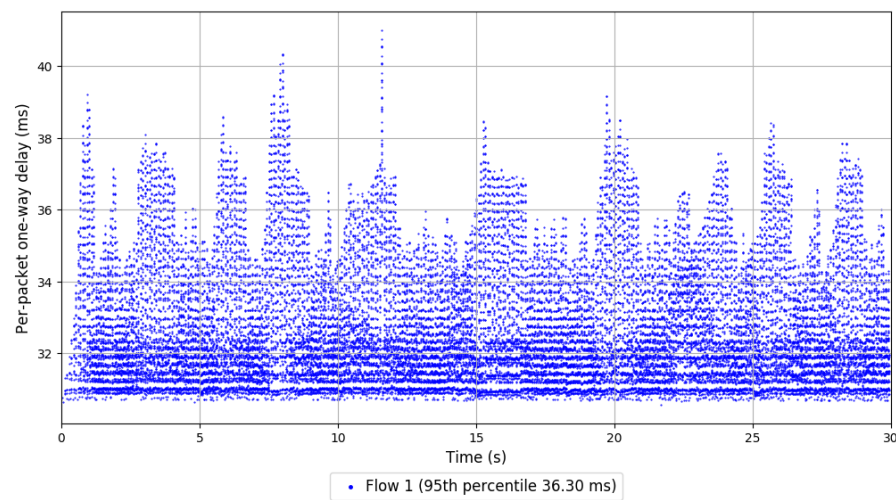
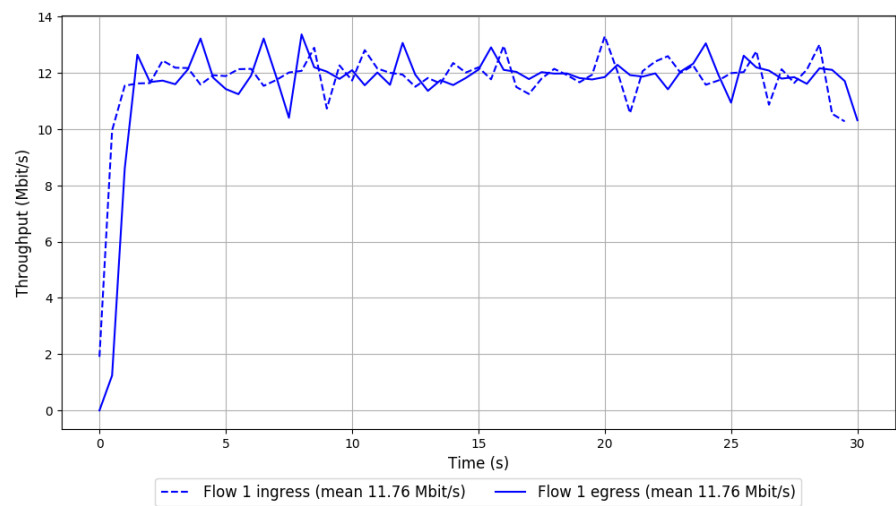


Run 2: Statistics of Sprout

Start at: 2018-12-11 09:28:55
End at: 2018-12-11 09:29:25
Local clock offset: 1.049 ms
Remote clock offset: -2.607 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.76 Mbit/s
95th percentile per-packet one-way delay: 36.302 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.76 Mbit/s
95th percentile per-packet one-way delay: 36.302 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

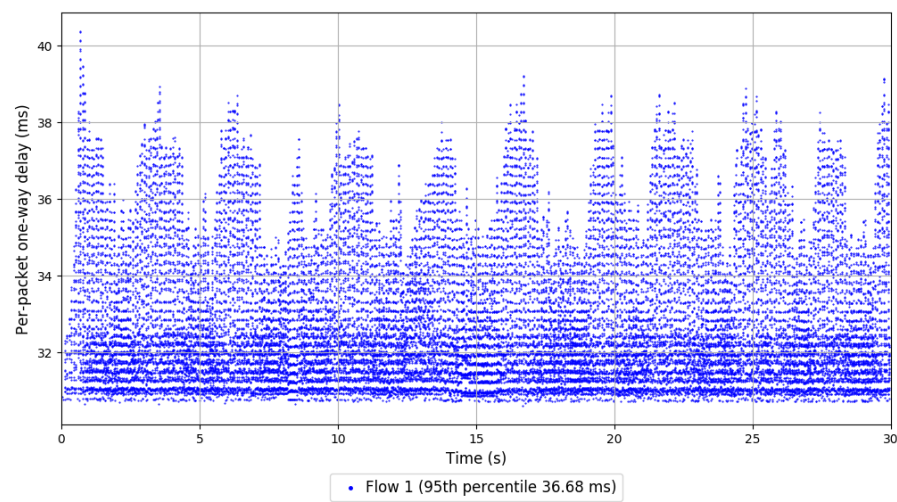
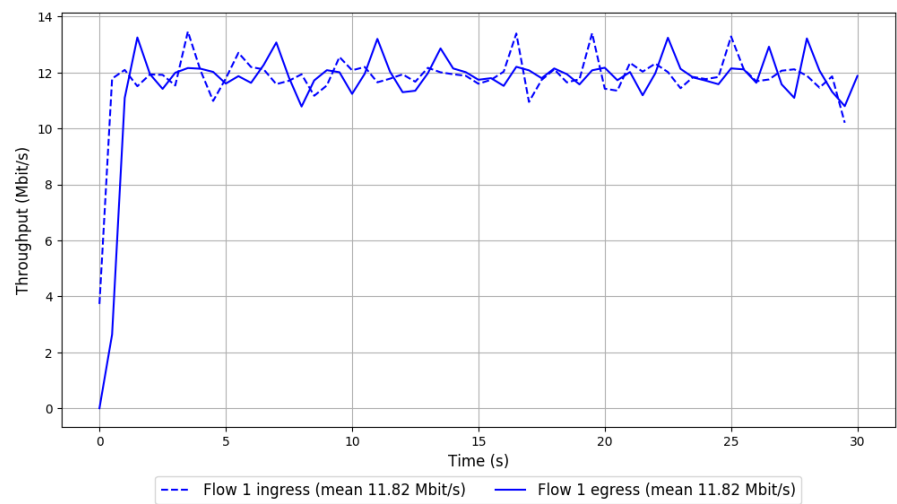


Run 3: Statistics of Sprout

Start at: 2018-12-11 09:50:47
End at: 2018-12-11 09:51:17
Local clock offset: 0.511 ms
Remote clock offset: -1.693 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 36.678 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 36.678 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

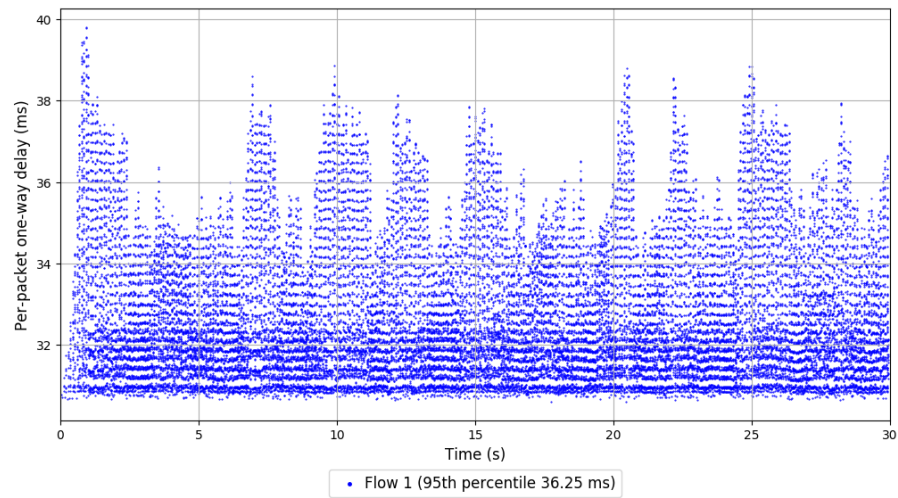
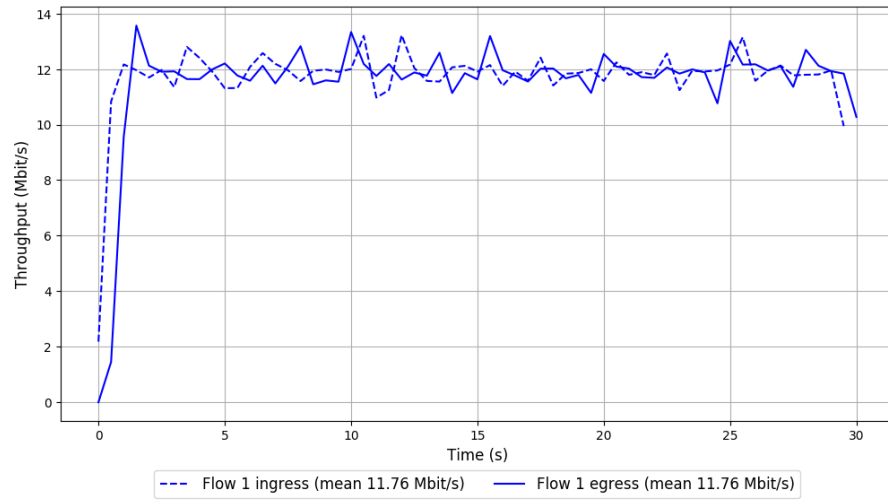


Run 4: Statistics of Sprout

Start at: 2018-12-11 10:12:52
End at: 2018-12-11 10:13:22
Local clock offset: 0.454 ms
Remote clock offset: -1.255 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.76 Mbit/s
95th percentile per-packet one-way delay: 36.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.76 Mbit/s
95th percentile per-packet one-way delay: 36.254 ms
Loss rate: 0.00%

Run 4: Report of Sprout — Data Link

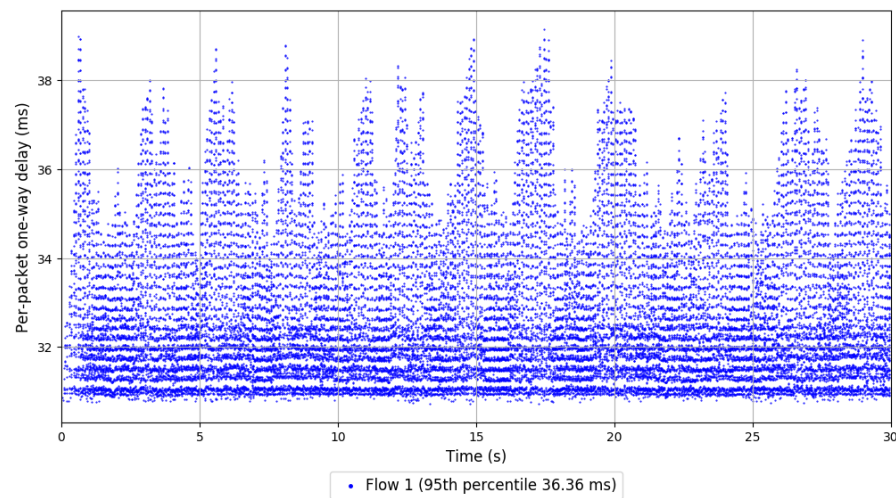
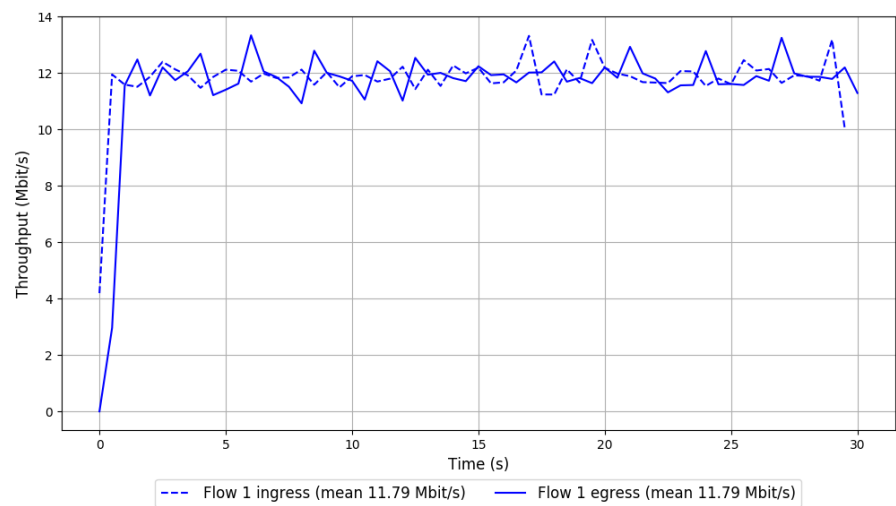


Run 5: Statistics of Sprout

Start at: 2018-12-11 10:34:44
End at: 2018-12-11 10:35:14
Local clock offset: 0.491 ms
Remote clock offset: -1.382 ms

Below is generated by plot.py at 2018-12-11 10:56:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 36.364 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 36.364 ms
Loss rate: 0.03%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

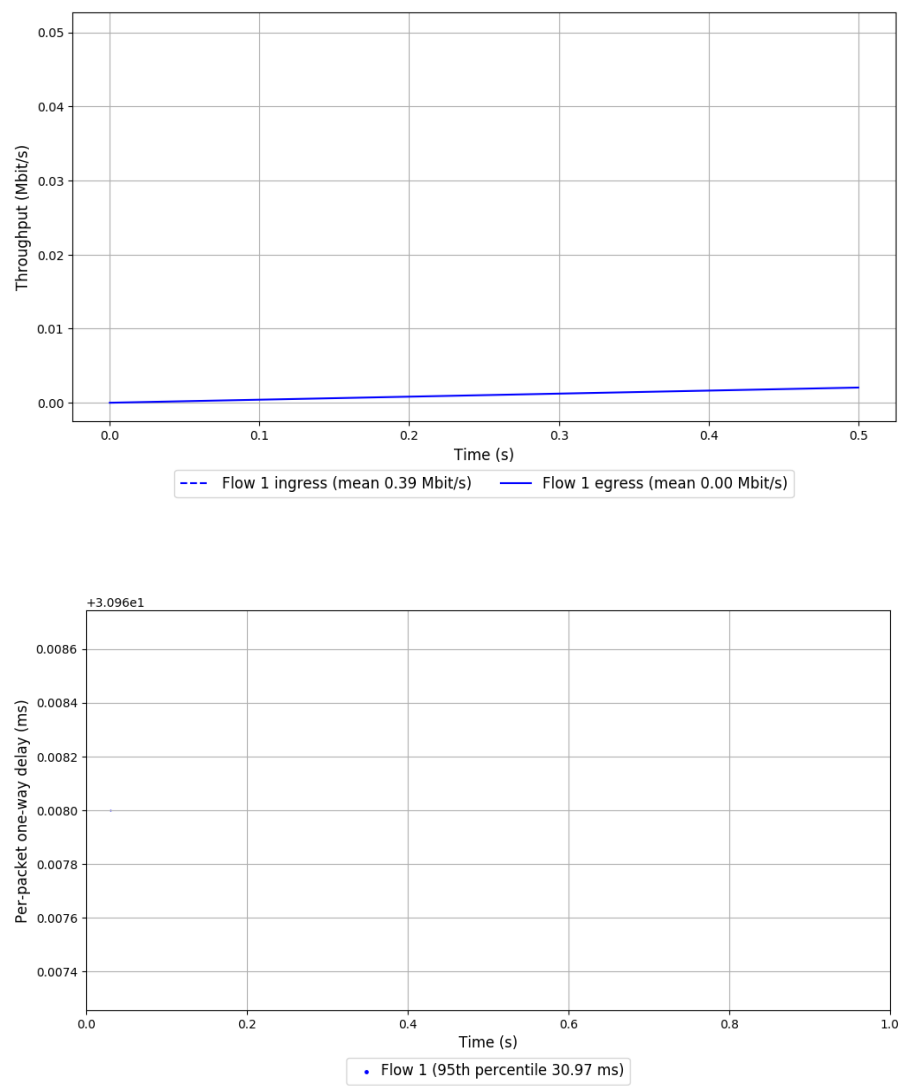
Start at: 2018-12-11 09:02:36

End at: 2018-12-11 09:03:06

Local clock offset: 2.852 ms

Remote clock offset: -3.464 ms

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-12-11 09:24:20

End at: 2018-12-11 09:24:50

Local clock offset: 1.153 ms

Remote clock offset: -2.704 ms

Below is generated by plot.py at 2018-12-11 10:56:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 30.882 ms

Loss rate: 63.37%

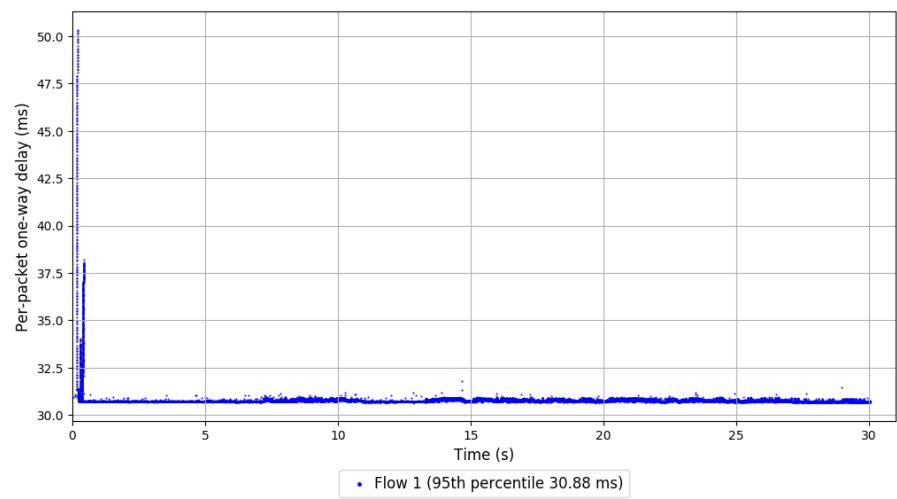
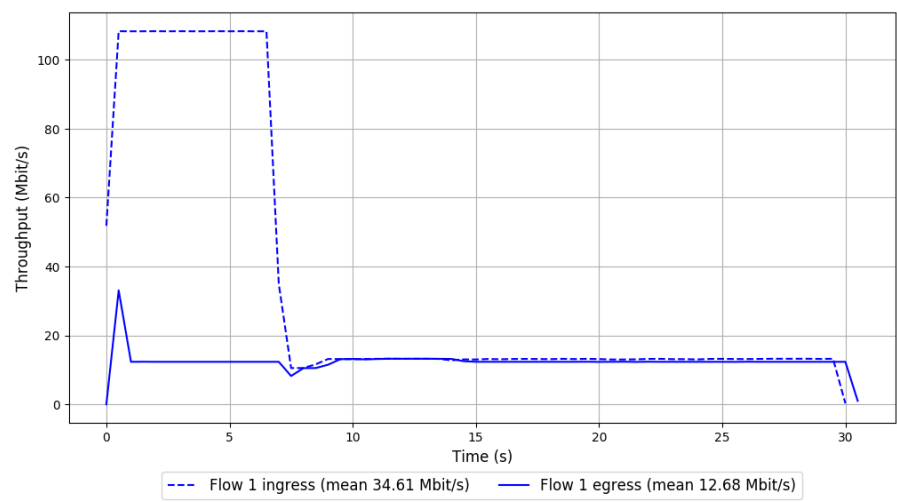
-- Flow 1:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 30.882 ms

Loss rate: 63.37%

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



Run 3: Statistics of TaoVA-100x

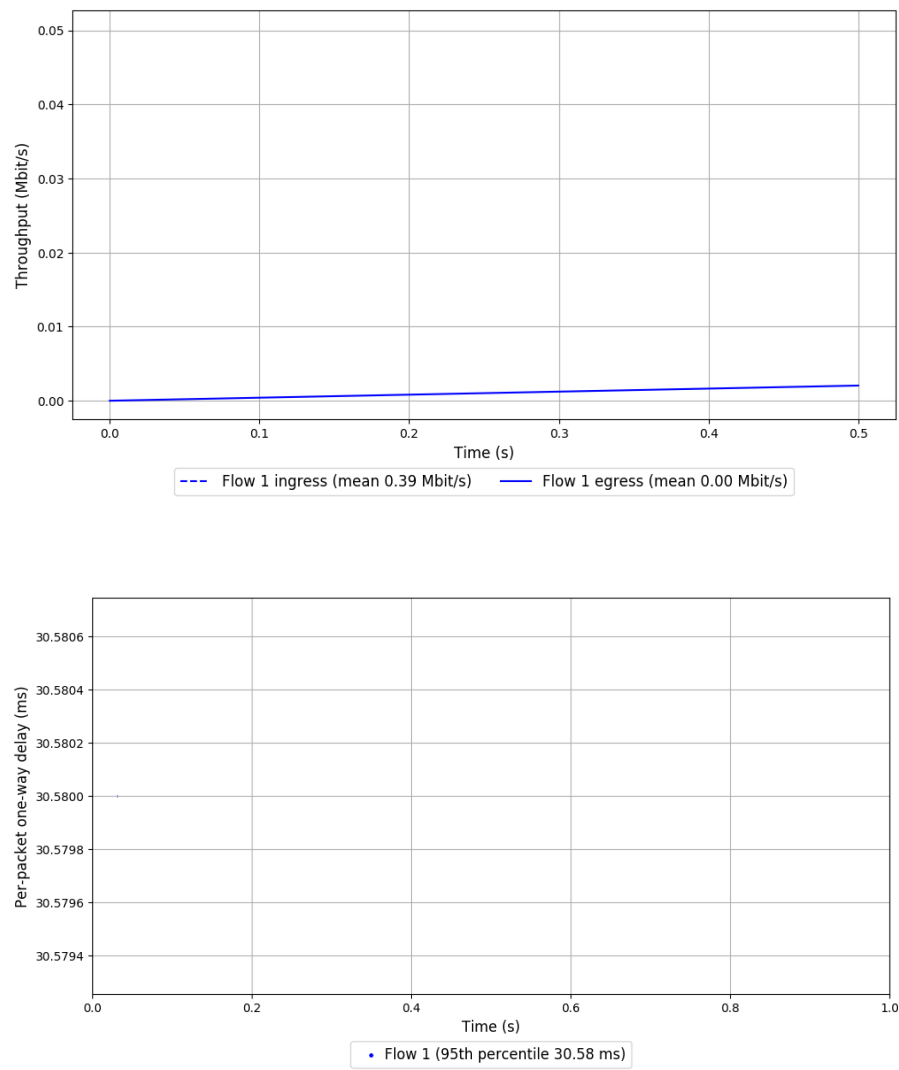
Start at: 2018-12-11 09:46:10

End at: 2018-12-11 09:46:40

Local clock offset: 0.623 ms

Remote clock offset: -2.099 ms

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-12-11 10:08:16

End at: 2018-12-11 10:08:46

Local clock offset: 0.523 ms

Remote clock offset: -1.273 ms

Below is generated by plot.py at 2018-12-11 10:56:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.23 Mbit/s

95th percentile per-packet one-way delay: 30.946 ms

Loss rate: 78.04%

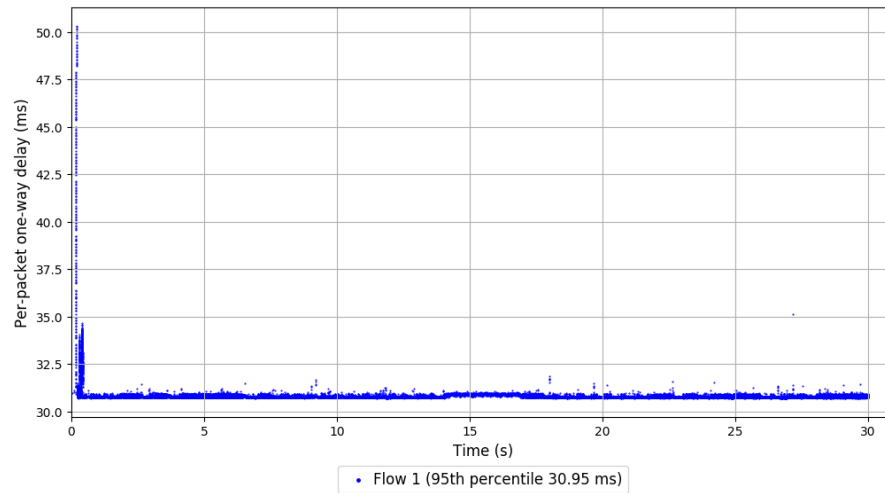
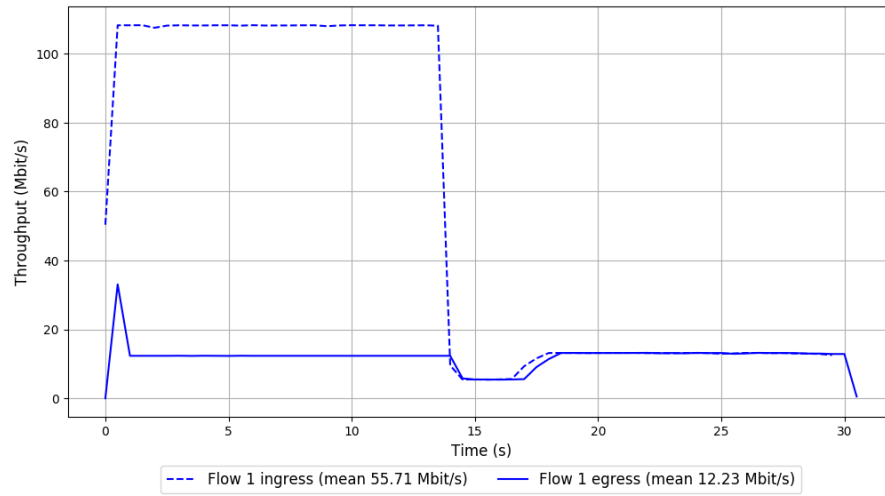
-- Flow 1:

Average throughput: 12.23 Mbit/s

95th percentile per-packet one-way delay: 30.946 ms

Loss rate: 78.04%

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



Run 5: Statistics of TaoVA-100x

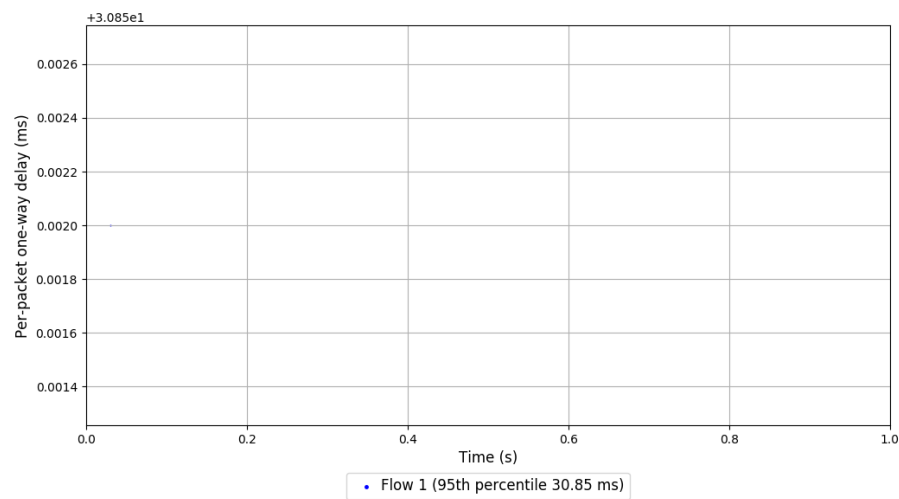
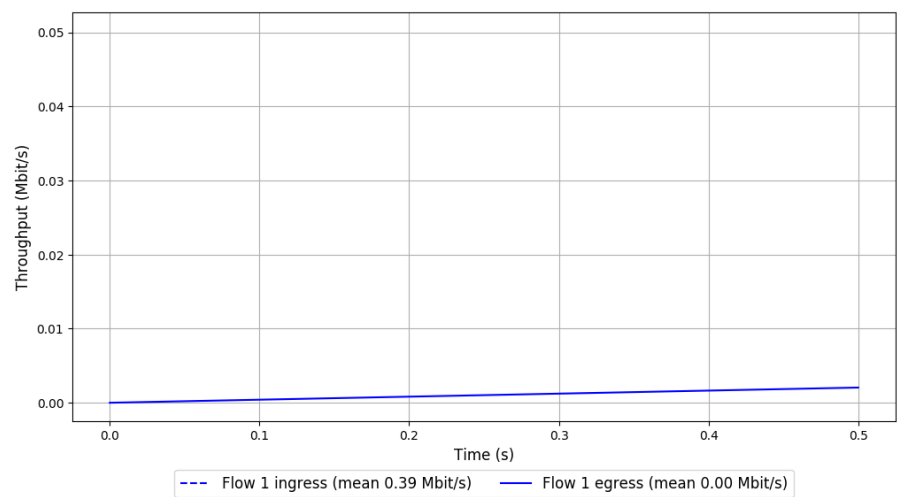
Start at: 2018-12-11 10:30:08

End at: 2018-12-11 10:30:38

Local clock offset: 0.457 ms

Remote clock offset: -1.327 ms

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

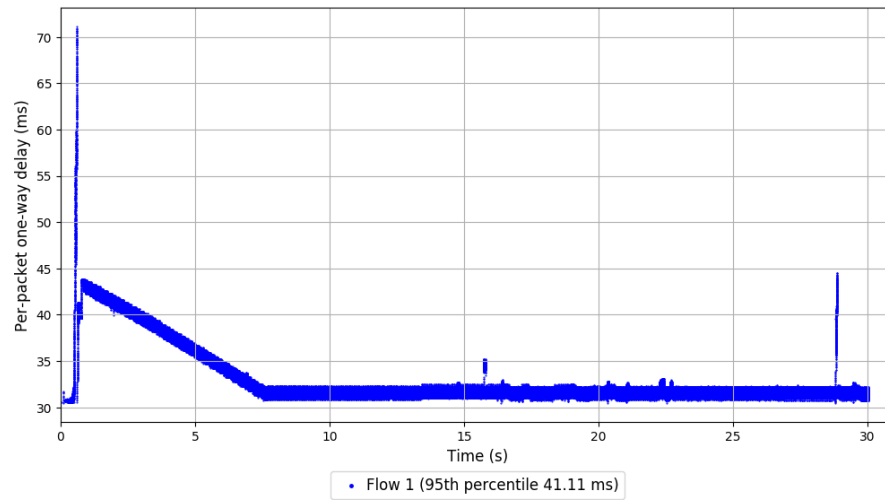
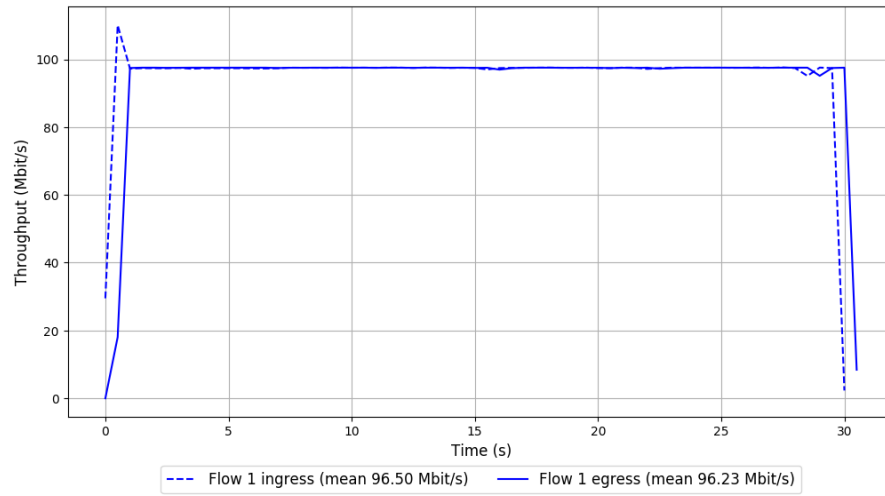


Run 1: Statistics of TCP Vegas

Start at: 2018-12-11 09:18:30
End at: 2018-12-11 09:19:00
Local clock offset: 1.545 ms
Remote clock offset: -3.154 ms

Below is generated by plot.py at 2018-12-11 10:57:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.23 Mbit/s
95th percentile per-packet one-way delay: 41.107 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.23 Mbit/s
95th percentile per-packet one-way delay: 41.107 ms
Loss rate: 0.27%

Run 1: Report of TCP Vegas — Data Link

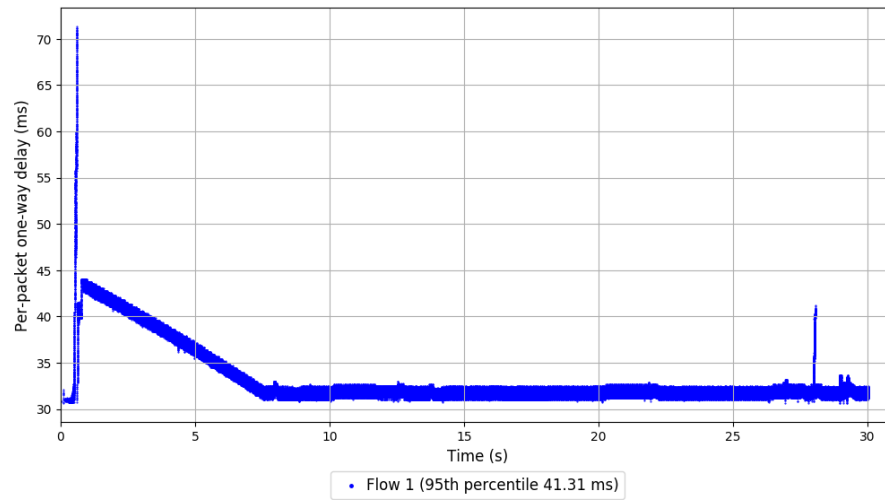
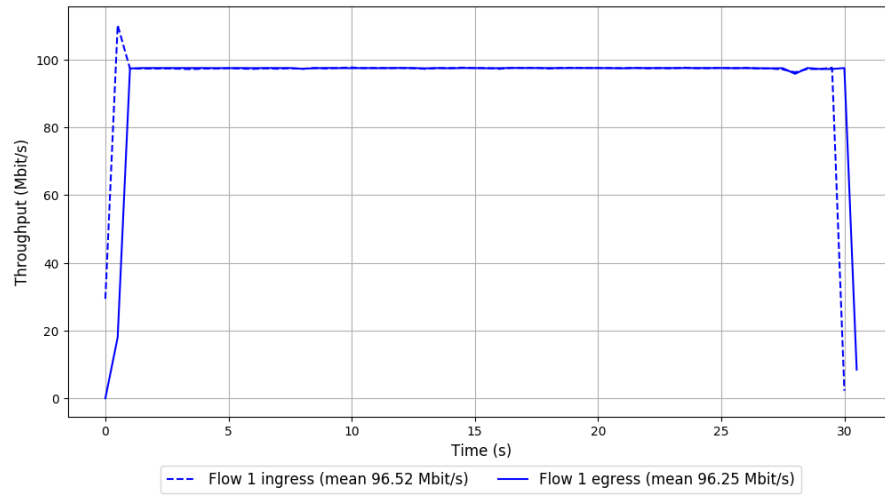


Run 2: Statistics of TCP Vegas

Start at: 2018-12-11 09:40:21
End at: 2018-12-11 09:40:51
Local clock offset: 0.932 ms
Remote clock offset: -2.158 ms

Below is generated by plot.py at 2018-12-11 10:57:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 41.306 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 41.306 ms
Loss rate: 0.27%

Run 2: Report of TCP Vegas — Data Link

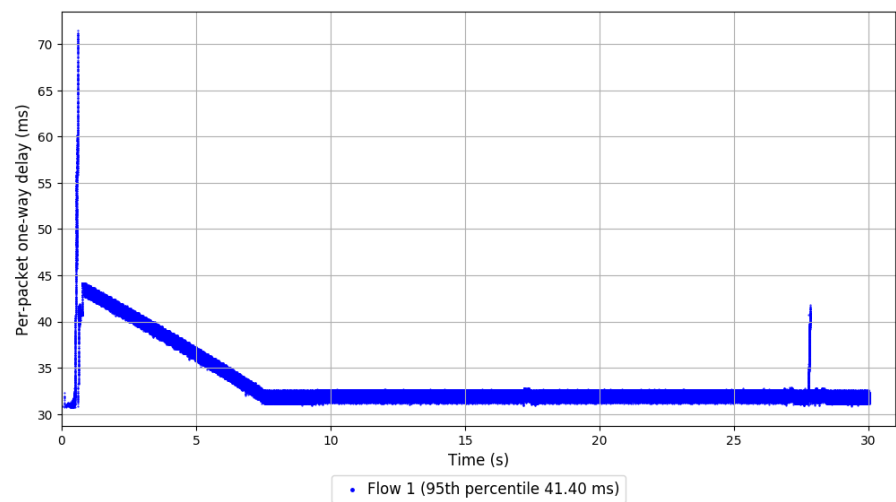
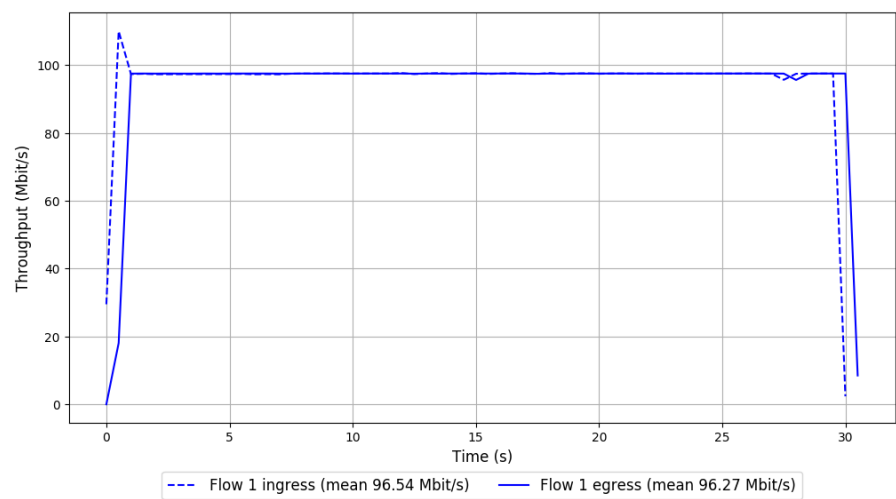


Run 3: Statistics of TCP Vegas

Start at: 2018-12-11 10:02:17
End at: 2018-12-11 10:02:47
Local clock offset: 0.483 ms
Remote clock offset: -1.356 ms

Below is generated by plot.py at 2018-12-11 10:57:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 41.403 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 41.403 ms
Loss rate: 0.27%

Run 3: Report of TCP Vegas — Data Link

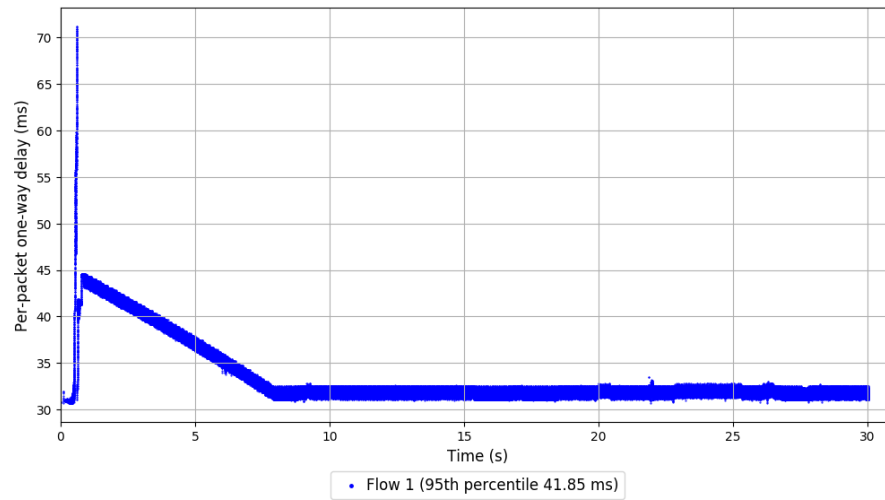
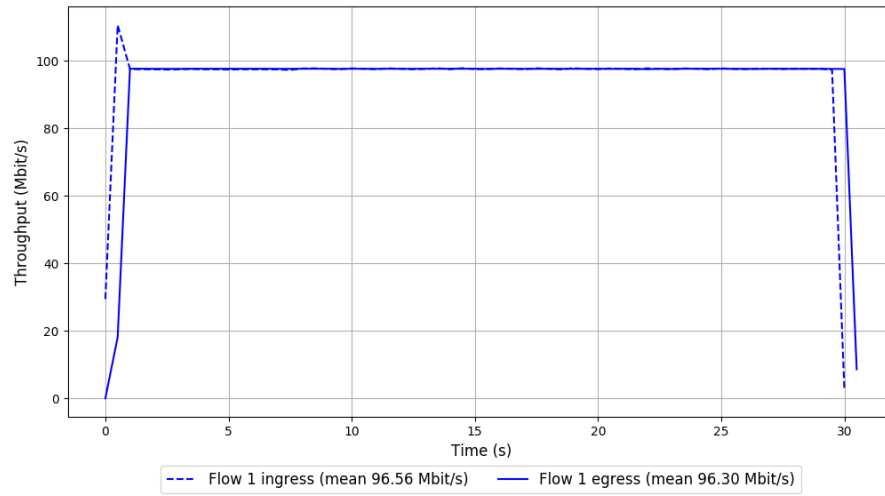


Run 4: Statistics of TCP Vegas

Start at: 2018-12-11 10:24:16
End at: 2018-12-11 10:24:46
Local clock offset: 0.414 ms
Remote clock offset: -1.293 ms

Below is generated by plot.py at 2018-12-11 10:57:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 41.850 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 41.850 ms
Loss rate: 0.27%

Run 4: Report of TCP Vegas — Data Link

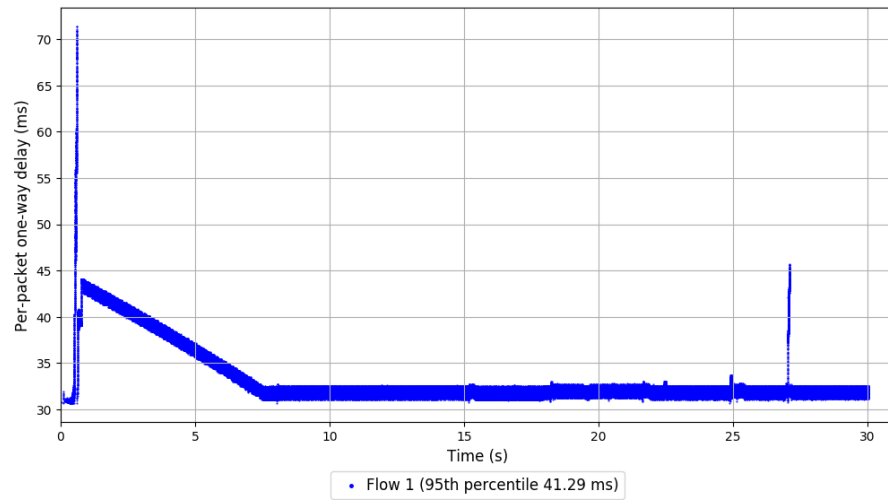
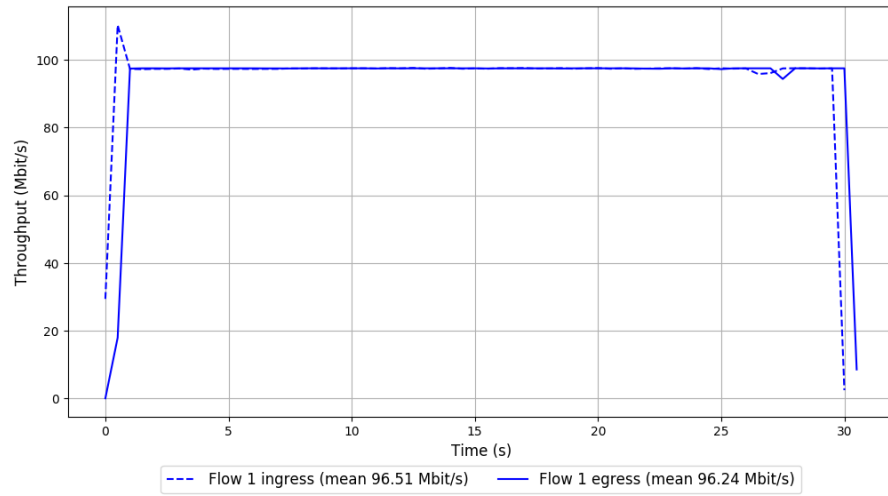


Run 5: Statistics of TCP Vegas

Start at: 2018-12-11 10:46:12
End at: 2018-12-11 10:46:42
Local clock offset: 2.373 ms
Remote clock offset: -1.601 ms

Below is generated by plot.py at 2018-12-11 10:57:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 41.289 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 41.289 ms
Loss rate: 0.27%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-12-11 09:19:40

End at: 2018-12-11 09:20:10

Local clock offset: 1.434 ms

Remote clock offset: -2.91 ms

Below is generated by plot.py at 2018-12-11 10:57:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.94 Mbit/s

95th percentile per-packet one-way delay: 65.747 ms

Loss rate: 32.62%

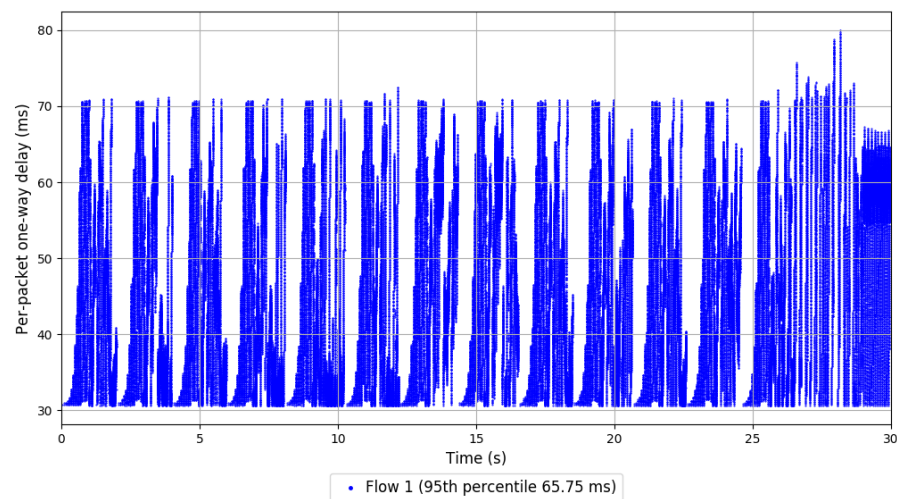
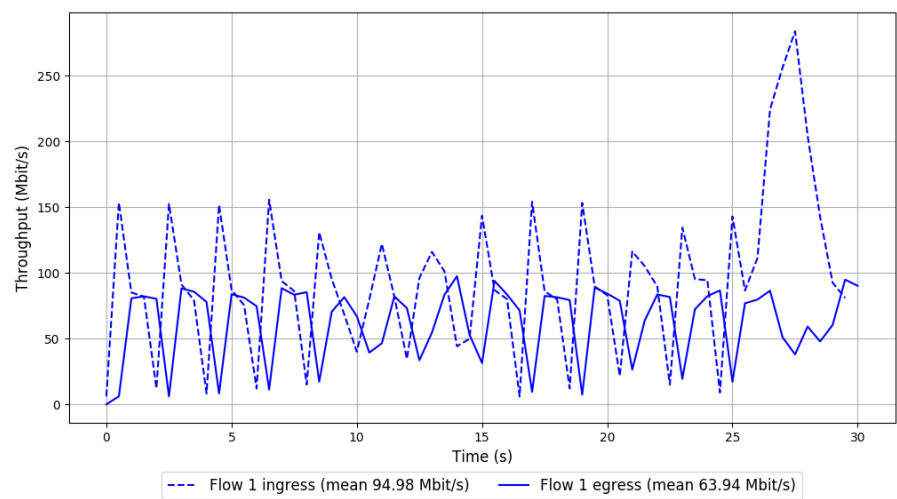
-- Flow 1:

Average throughput: 63.94 Mbit/s

95th percentile per-packet one-way delay: 65.747 ms

Loss rate: 32.62%

Run 1: Report of Verus — Data Link

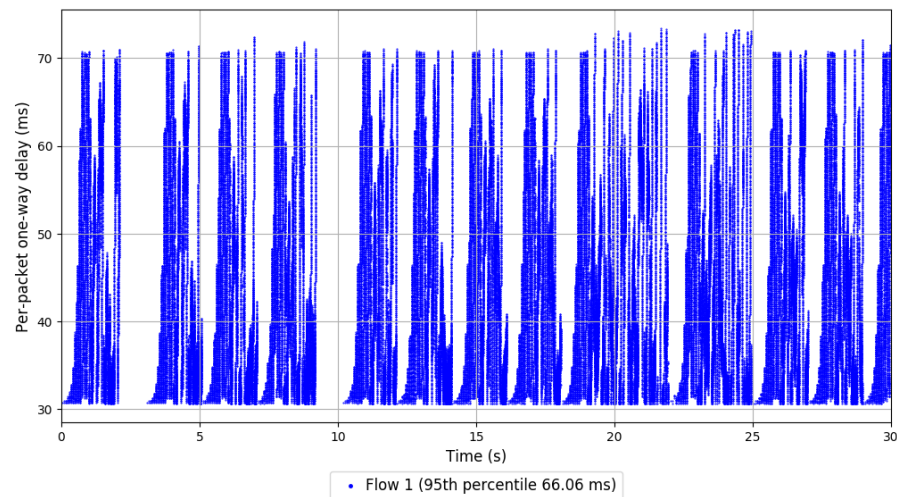
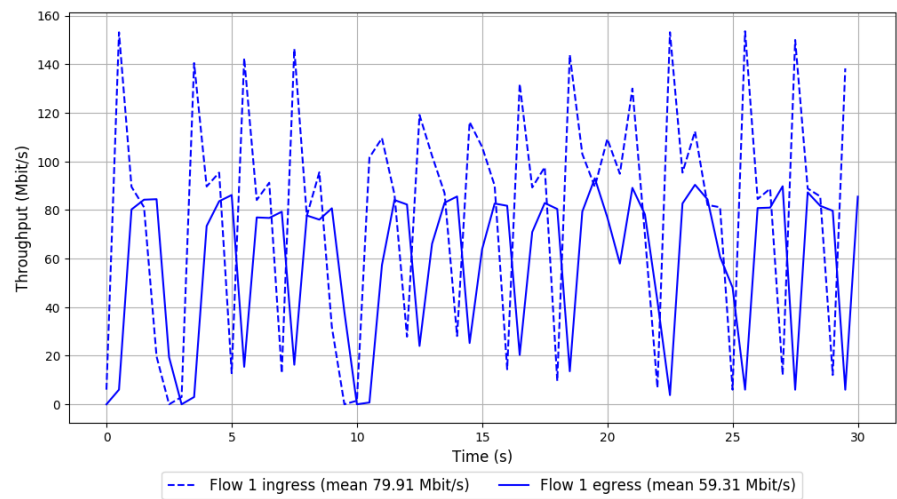


Run 2: Statistics of Verus

Start at: 2018-12-11 09:41:31
End at: 2018-12-11 09:42:01
Local clock offset: 0.84 ms
Remote clock offset: -2.079 ms

Below is generated by plot.py at 2018-12-11 10:57:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 59.31 Mbit/s
95th percentile per-packet one-way delay: 66.063 ms
Loss rate: 25.70%
-- Flow 1:
Average throughput: 59.31 Mbit/s
95th percentile per-packet one-way delay: 66.063 ms
Loss rate: 25.70%

Run 2: Report of Verus — Data Link

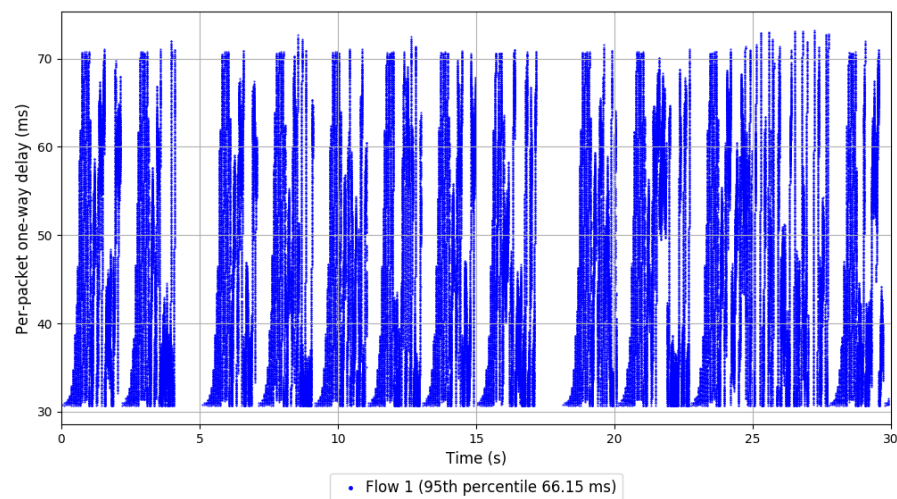
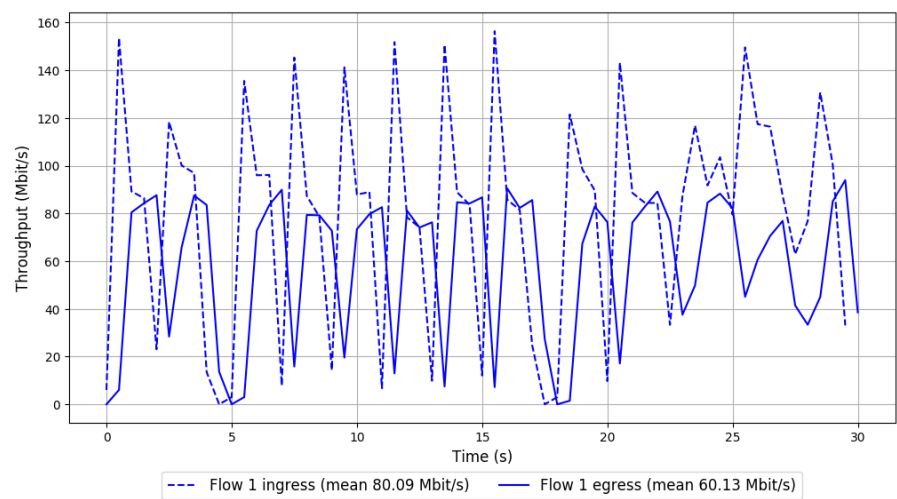


Run 3: Statistics of Verus

Start at: 2018-12-11 10:03:28
End at: 2018-12-11 10:03:58
Local clock offset: 0.491 ms
Remote clock offset: -1.329 ms

Below is generated by plot.py at 2018-12-11 10:57:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 60.13 Mbit/s
95th percentile per-packet one-way delay: 66.146 ms
Loss rate: 24.92%
-- Flow 1:
Average throughput: 60.13 Mbit/s
95th percentile per-packet one-way delay: 66.146 ms
Loss rate: 24.92%

Run 3: Report of Verus — Data Link

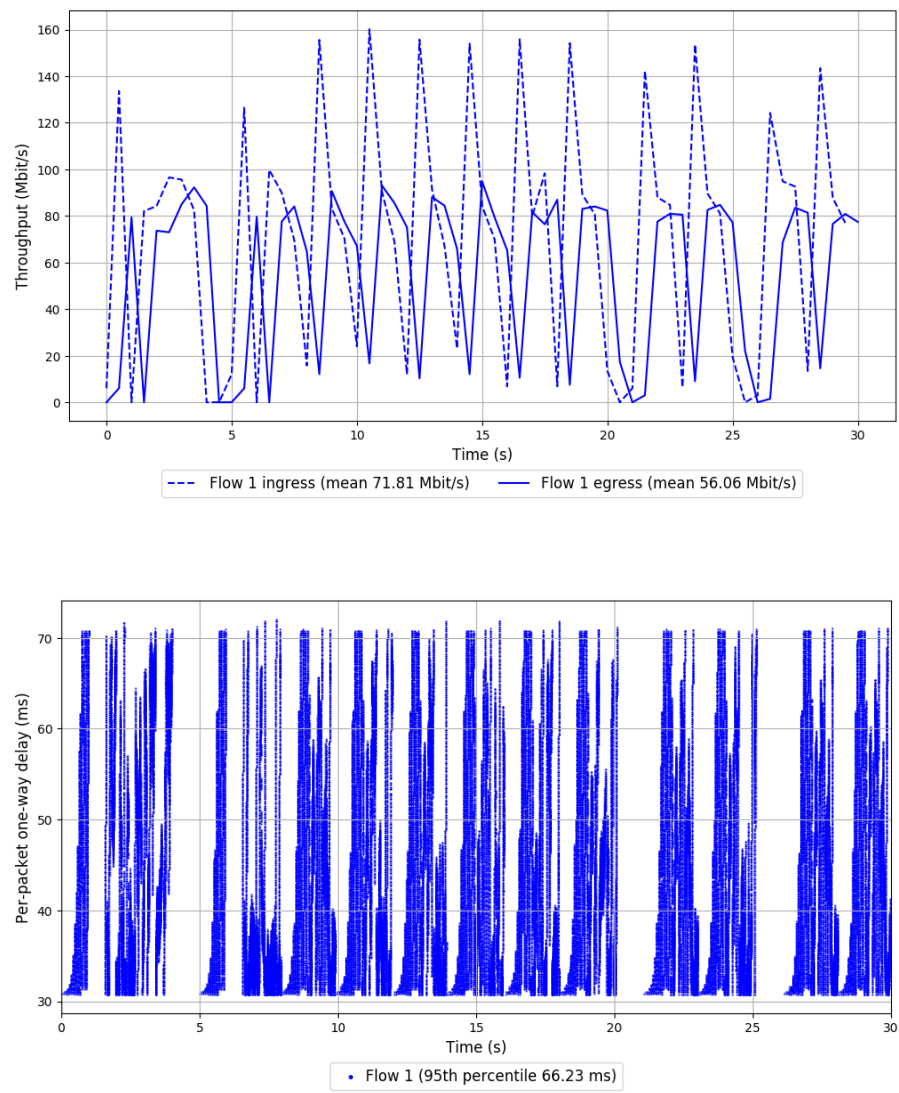


Run 4: Statistics of Verus

Start at: 2018-12-11 10:25:27
End at: 2018-12-11 10:25:57
Local clock offset: 0.418 ms
Remote clock offset: -1.277 ms

Below is generated by plot.py at 2018-12-11 10:57:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 56.06 Mbit/s
95th percentile per-packet one-way delay: 66.226 ms
Loss rate: 21.90%
-- Flow 1:
Average throughput: 56.06 Mbit/s
95th percentile per-packet one-way delay: 66.226 ms
Loss rate: 21.90%

Run 4: Report of Verus — Data Link

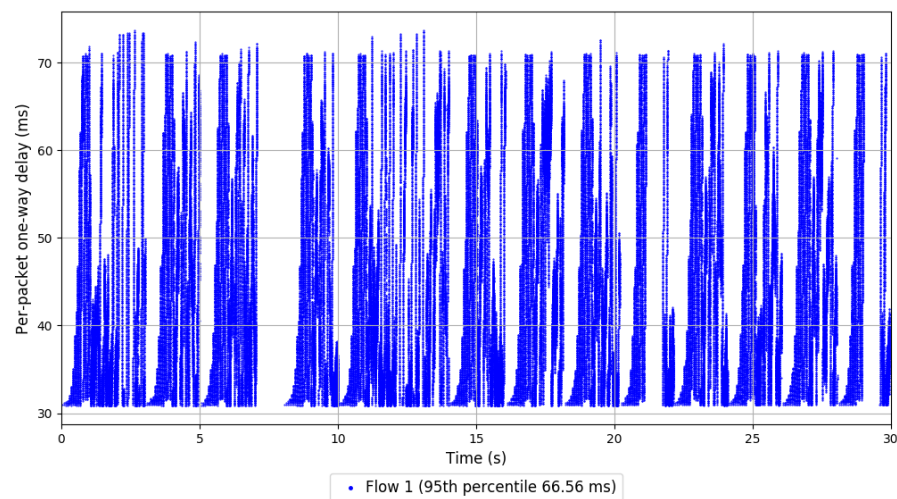
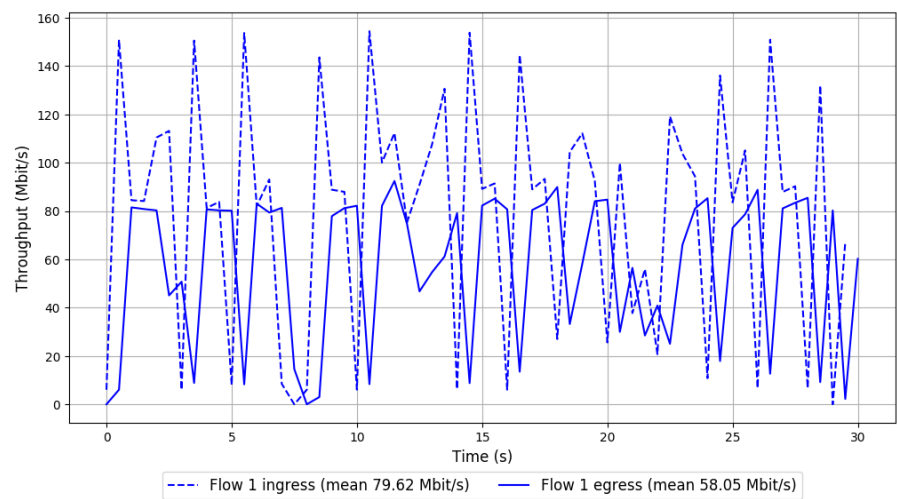


Run 5: Statistics of Verus

Start at: 2018-12-11 10:47:22
End at: 2018-12-11 10:47:52
Local clock offset: 2.528 ms
Remote clock offset: -1.464 ms

Below is generated by plot.py at 2018-12-11 10:57:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 66.558 ms
Loss rate: 27.06%
-- Flow 1:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 66.558 ms
Loss rate: 27.06%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-12-11 09:15:04

End at: 2018-12-11 09:15:34

Local clock offset: 1.974 ms

Remote clock offset: -3.098 ms

Below is generated by plot.py at 2018-12-11 10:58:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.33 Mbit/s

95th percentile per-packet one-way delay: 33.718 ms

Loss rate: 0.00%

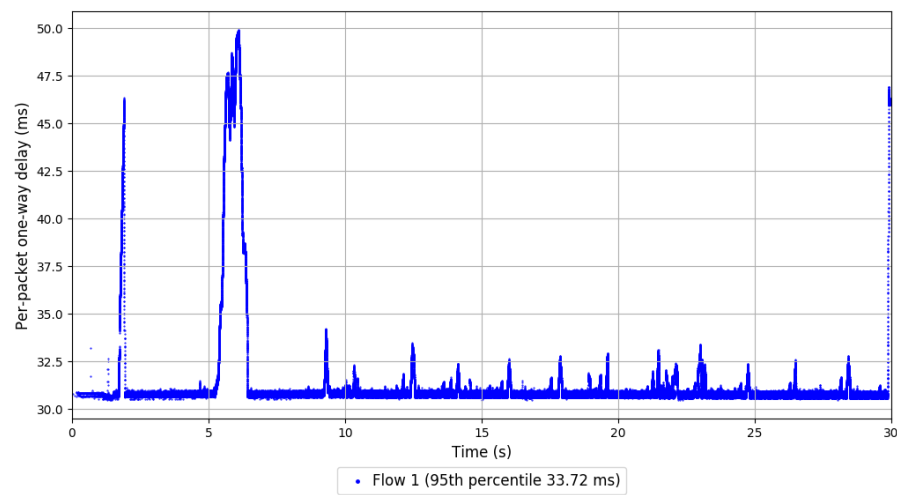
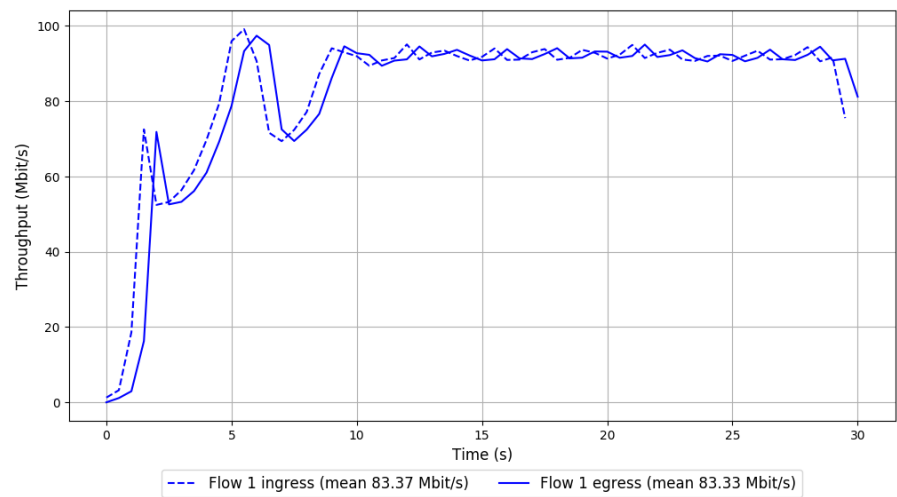
-- Flow 1:

Average throughput: 83.33 Mbit/s

95th percentile per-packet one-way delay: 33.718 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-12-11 09:36:54

End at: 2018-12-11 09:37:24

Local clock offset: 1.058 ms

Remote clock offset: -2.477 ms

Below is generated by plot.py at 2018-12-11 10:58:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.79 Mbit/s

95th percentile per-packet one-way delay: 32.825 ms

Loss rate: 0.00%

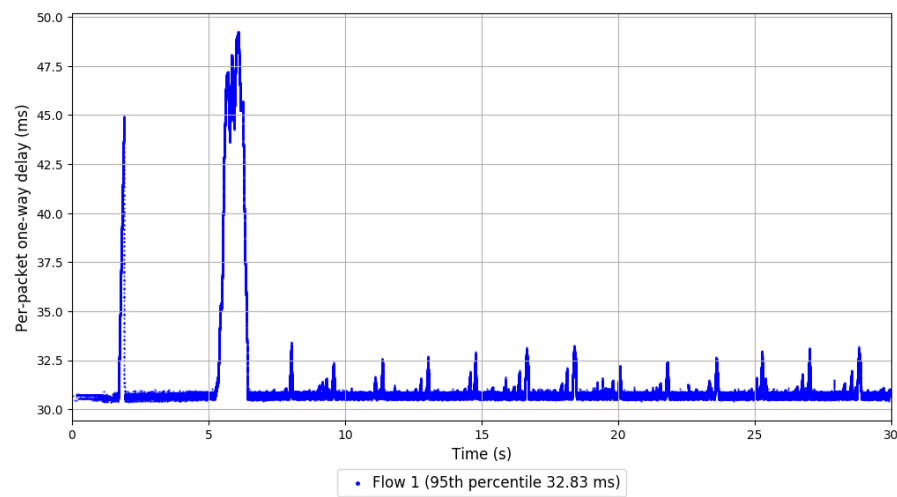
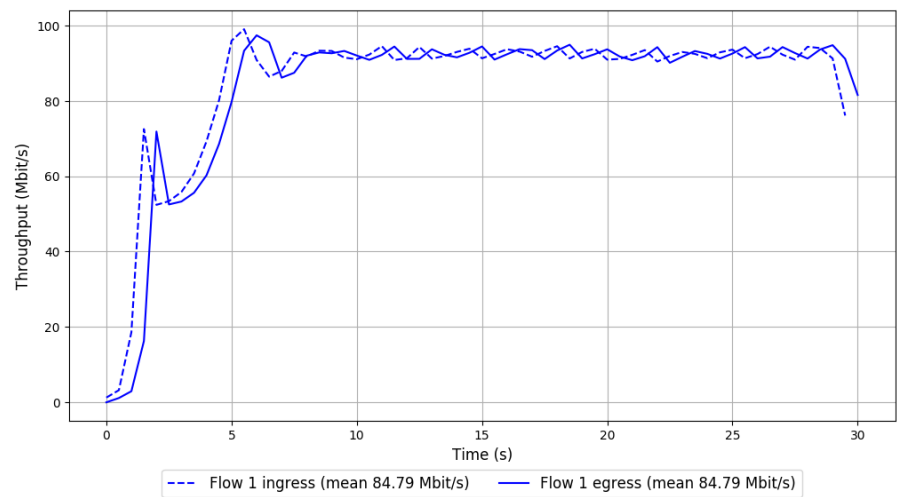
-- Flow 1:

Average throughput: 84.79 Mbit/s

95th percentile per-packet one-way delay: 32.825 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-12-11 09:58:48

End at: 2018-12-11 09:59:18

Local clock offset: 0.476 ms

Remote clock offset: -1.391 ms

Below is generated by plot.py at 2018-12-11 10:58:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.76 Mbit/s

95th percentile per-packet one-way delay: 36.508 ms

Loss rate: 0.00%

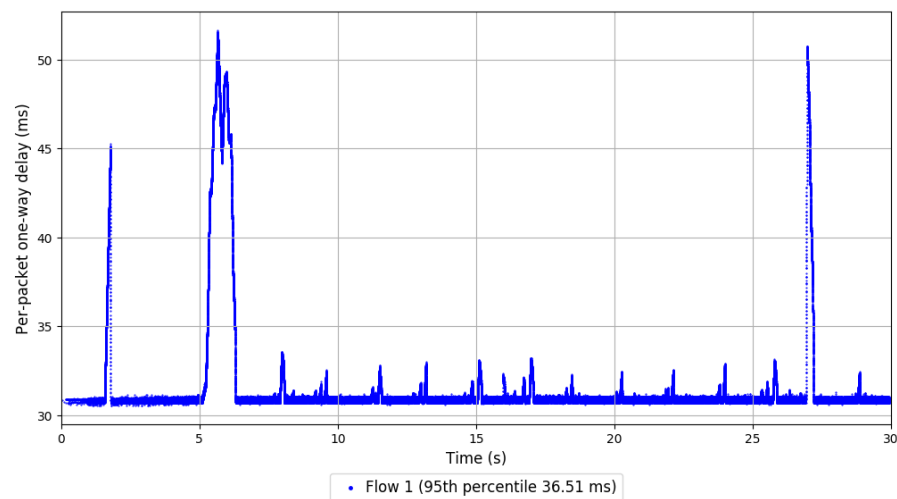
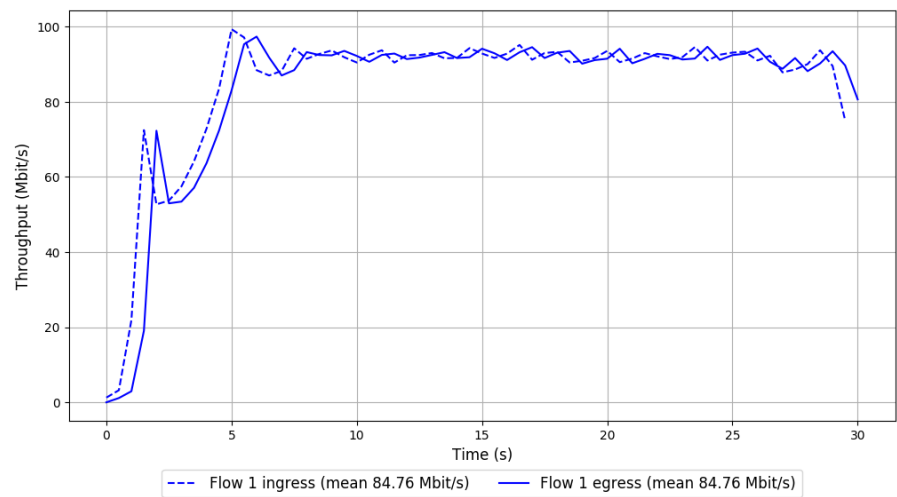
-- Flow 1:

Average throughput: 84.76 Mbit/s

95th percentile per-packet one-way delay: 36.508 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-12-11 10:20:48

End at: 2018-12-11 10:21:18

Local clock offset: 0.402 ms

Remote clock offset: -1.209 ms

Below is generated by plot.py at 2018-12-11 10:58:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.21 Mbit/s

95th percentile per-packet one-way delay: 32.271 ms

Loss rate: 0.00%

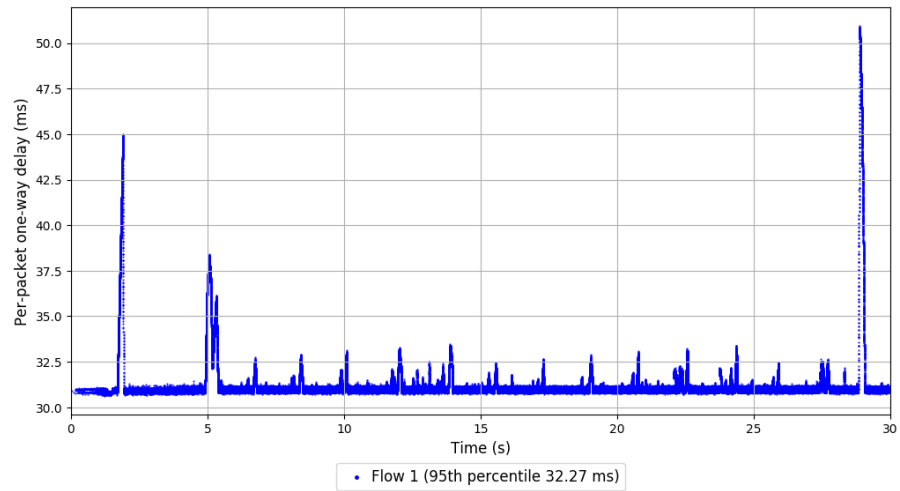
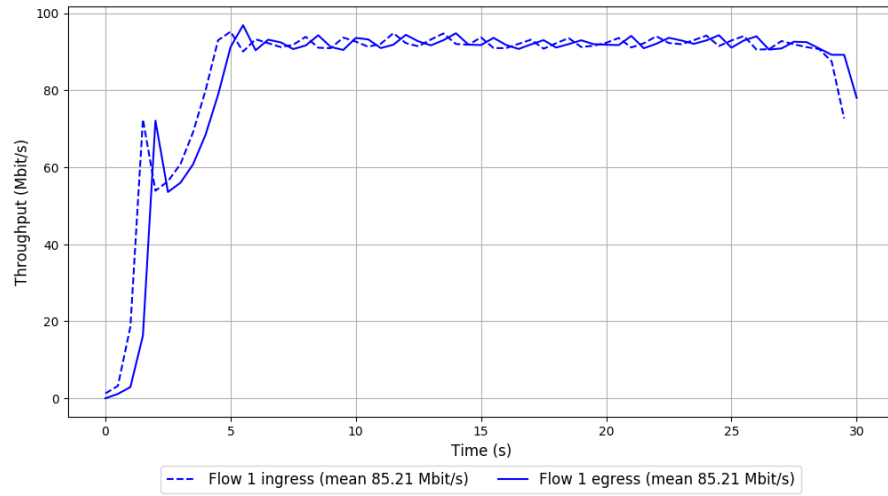
-- Flow 1:

Average throughput: 85.21 Mbit/s

95th percentile per-packet one-way delay: 32.271 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-12-11 10:42:44

End at: 2018-12-11 10:43:14

Local clock offset: 1.69 ms

Remote clock offset: -1.443 ms

Below is generated by plot.py at 2018-12-11 10:58:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.57 Mbit/s

95th percentile per-packet one-way delay: 35.490 ms

Loss rate: 0.02%

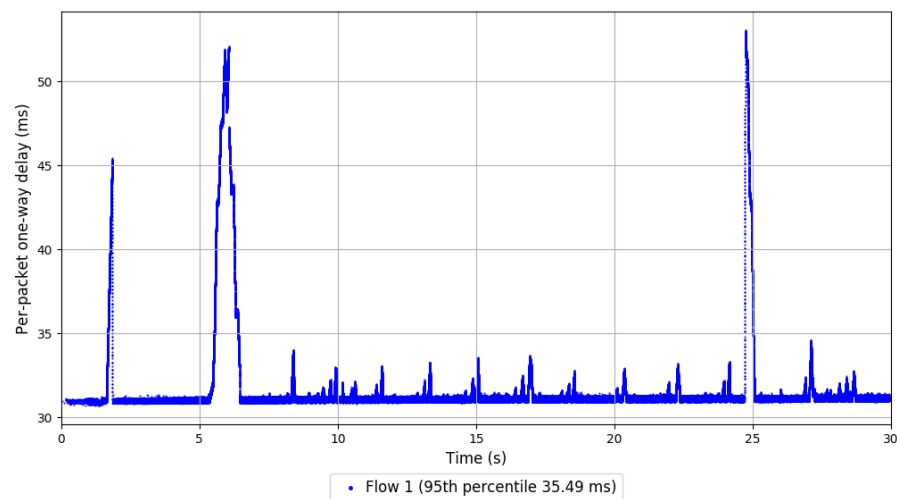
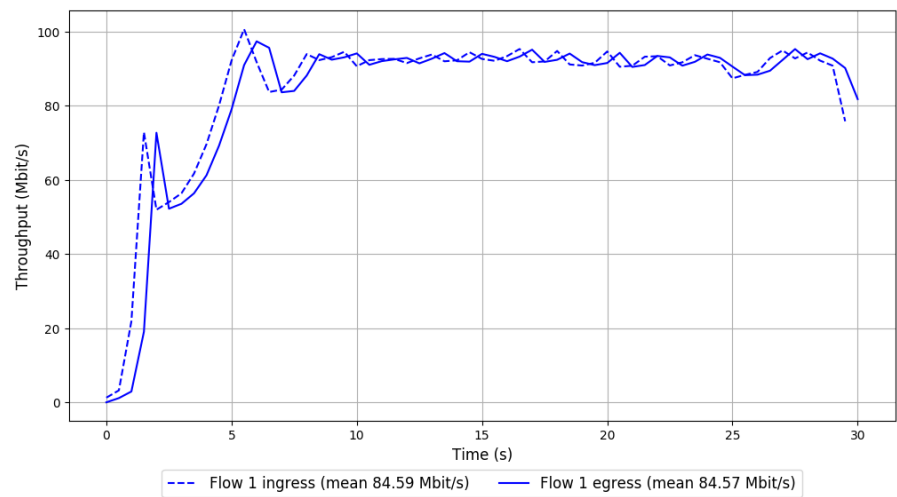
-- Flow 1:

Average throughput: 84.57 Mbit/s

95th percentile per-packet one-way delay: 35.490 ms

Loss rate: 0.02%

Run 5: Report of PCC-Vivace — Data Link

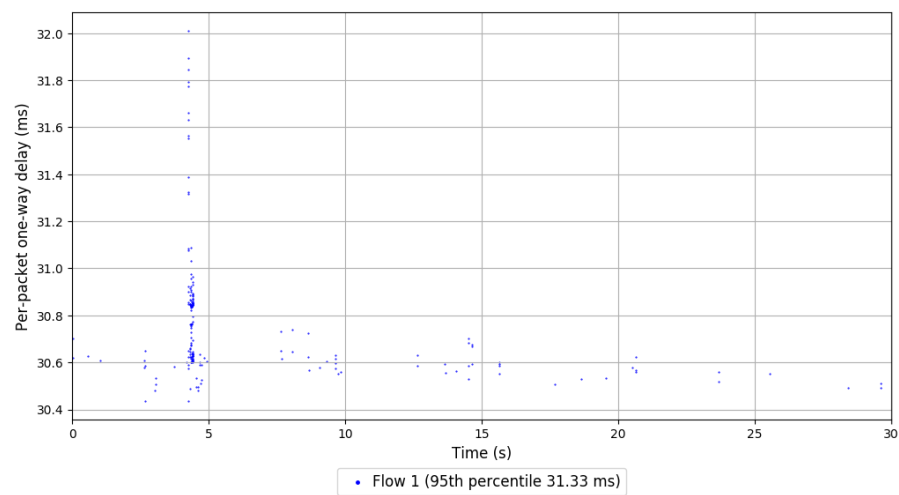
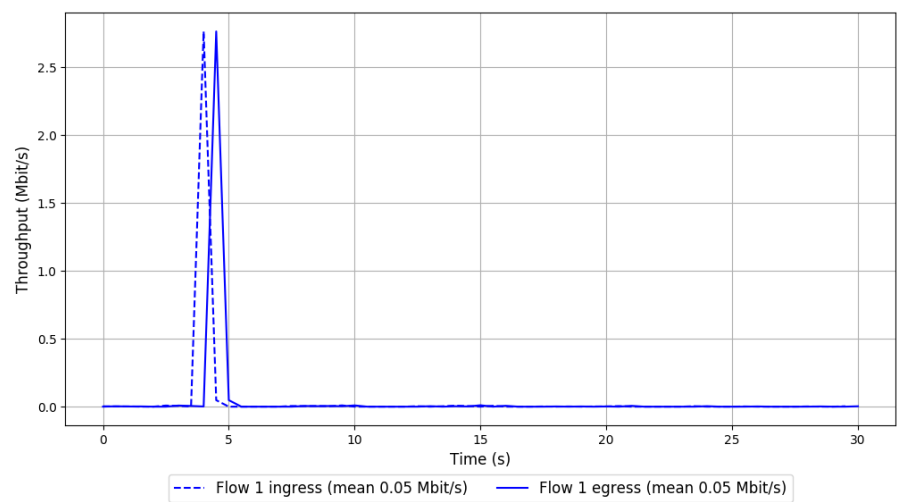


```
Run 1: Statistics of WebRTC media

Start at: 2018-12-11 09:12:50
End at: 2018-12-11 09:13:20
Local clock offset: 2.417 ms
Remote clock offset: -3.153 ms

# Below is generated by plot.py at 2018-12-11 10:58:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.326 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.326 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

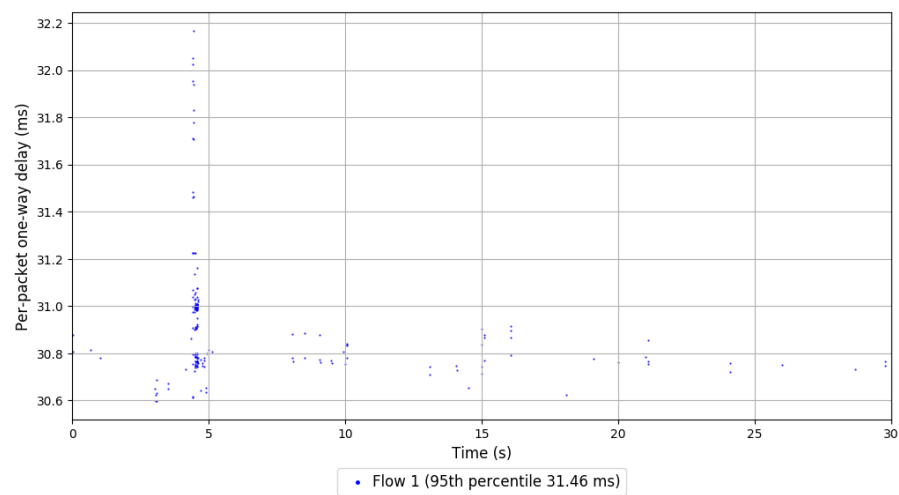
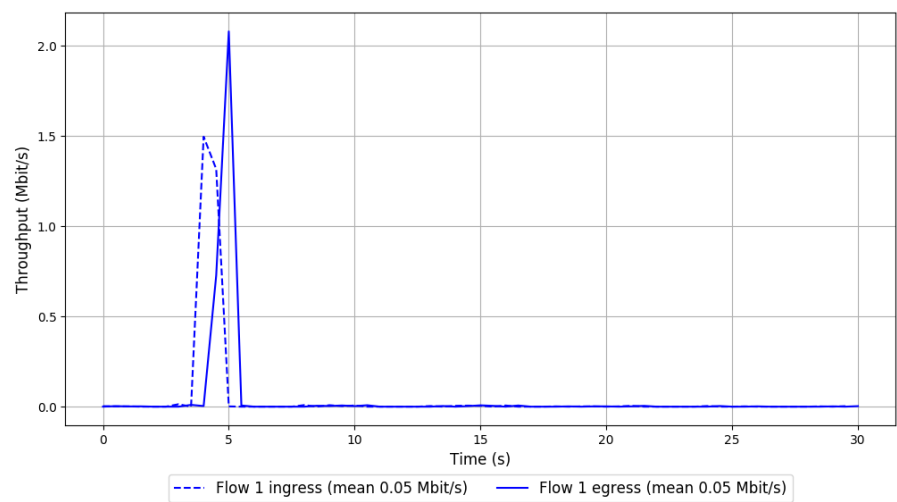


Run 2: Statistics of WebRTC media

Start at: 2018-12-11 09:34:39
End at: 2018-12-11 09:35:09
Local clock offset: 1.049 ms
Remote clock offset: -2.378 ms

Below is generated by plot.py at 2018-12-11 10:58:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.464 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.464 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-12-11 09:56:32

End at: 2018-12-11 09:57:02

Local clock offset: 0.472 ms

Remote clock offset: -1.51 ms

Below is generated by plot.py at 2018-12-11 10:58:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.463 ms

Loss rate: 0.00%

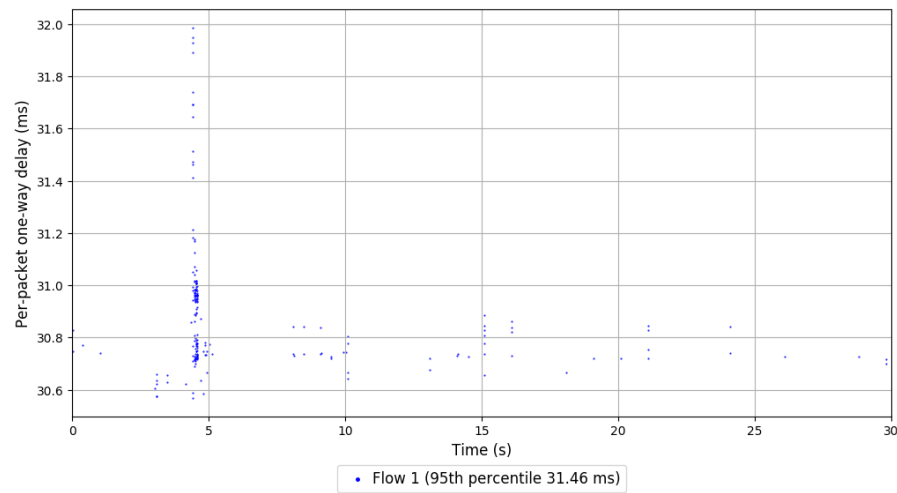
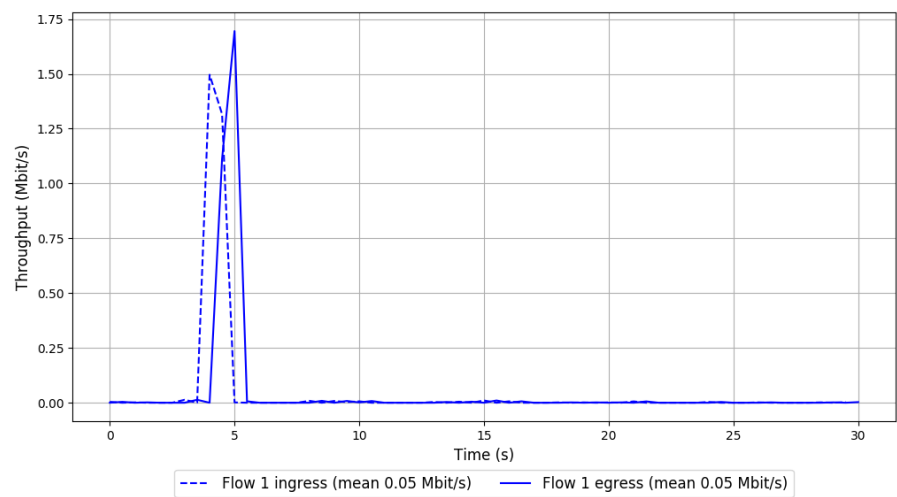
-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.463 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

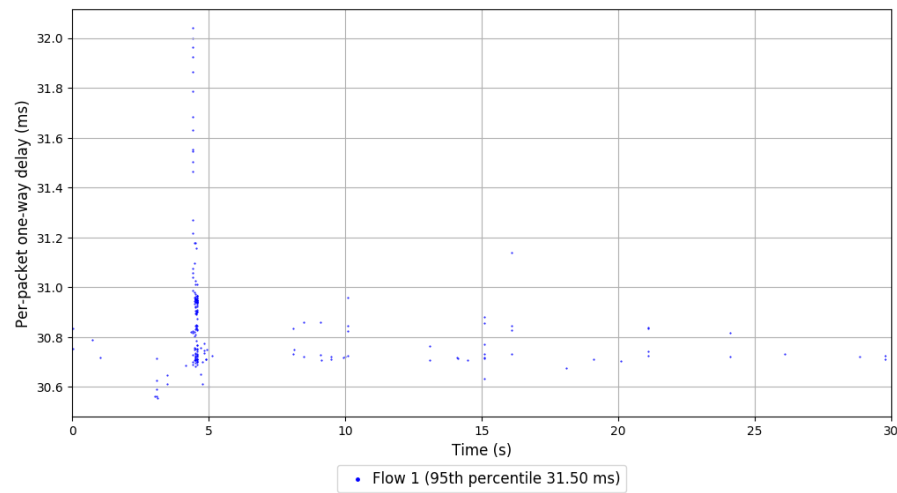
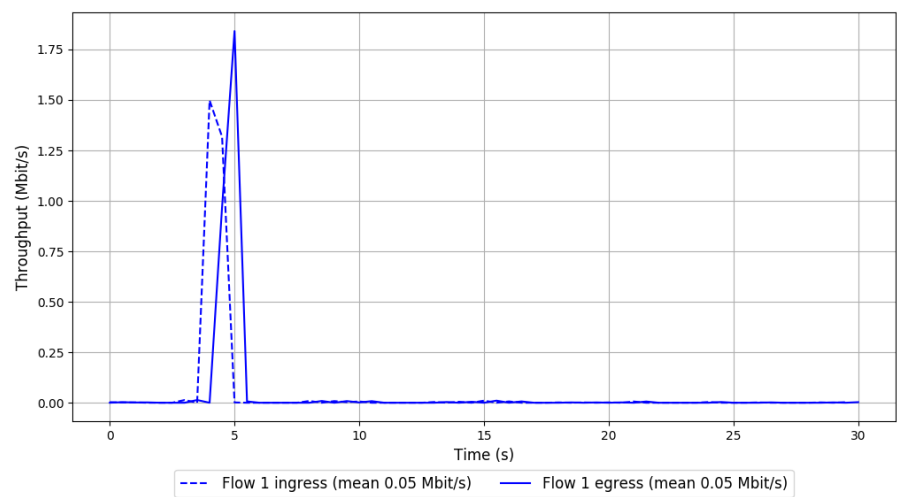


Run 4: Statistics of WebRTC media

Start at: 2018-12-11 10:18:33
End at: 2018-12-11 10:19:03
Local clock offset: 0.423 ms
Remote clock offset: -1.262 ms

Below is generated by plot.py at 2018-12-11 10:58:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.502 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.502 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-12-11 10:40:28
End at: 2018-12-11 10:40:58
Local clock offset: 1.076 ms
Remote clock offset: -1.421 ms

Below is generated by plot.py at 2018-12-11 10:58:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.646 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.646 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

