

Pantheon Report

Generated at 2018-12-02 03:05:57 (UTC).

Data path: AWS California 1 on `ens5` (*local*) → Saudi Arabia on `enp2s0` (*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 `nets.org.sg` and have been applied to correct the timestamps in logs.

System info:

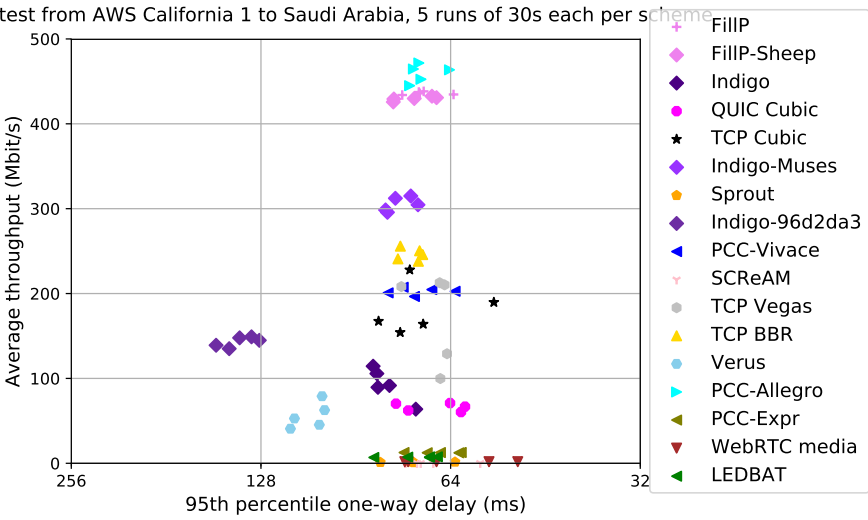
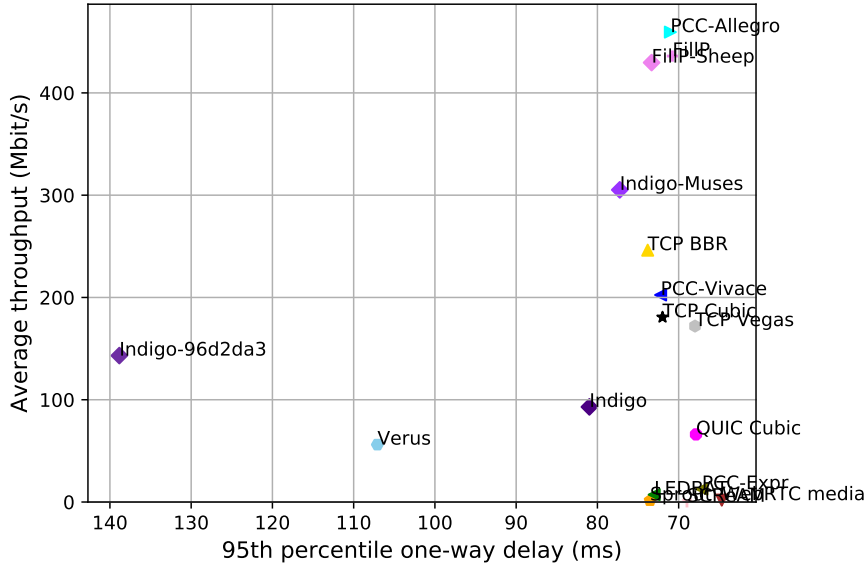
```
Linux 4.15.0-1027-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7b6dad87cde3ab65f7c4052140eb54098aa58e9d
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
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 1 to Saudi Arabia, 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 | 246.24 | 73.81 | 6.06 |
| Copa | 0 | N/A | N/A | N/A |
| TCP Cubic | 5 | 180.66 | 71.99 | 0.63 |
| FillP | 5 | 436.01 | 70.76 | 5.65 |
| FillP-Sheep | 5 | 429.63 | 73.33 | 5.21 |
| Indigo | 5 | 93.00 | 80.99 | 0.29 |
| Indigo-96d2da3 | 5 | 143.16 | 138.84 | 34.01 |
| LEDBAT | 5 | 7.21 | 73.02 | 0.08 |
| Indigo-Muses | 5 | 305.21 | 77.25 | 31.14 |
| PCC-Allegro | 5 | 459.44 | 71.02 | 4.09 |
| PCC-Expr | 5 | 12.57 | 67.14 | 30.61 |
| QUIC Cubic | 5 | 66.12 | 67.87 | 0.01 |
| SCReAM | 5 | 0.20 | 68.98 | 0.00 |
| Sprout | 5 | 1.50 | 73.53 | 0.00 |
| TaoVA-100x | 0 | N/A | N/A | N/A |
| TCP Vegas | 5 | 172.01 | 67.99 | 0.42 |
| Verus | 5 | 56.12 | 107.08 | 53.35 |
| PCC-Vivace | 5 | 202.43 | 72.22 | 0.93 |
| WebRTC media | 5 | 1.85 | 64.70 | 0.00 |

Run 1: Statistics of TCP BBR

Start at: 2018-12-02 00:22:37

End at: 2018-12-02 00:23:07

Local clock offset: 2.959 ms

Remote clock offset: -41.579 ms

Below is generated by plot.py at 2018-12-02 02:45:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 240.91 Mbit/s

95th percentile per-packet one-way delay: 77.594 ms

Loss rate: 6.30%

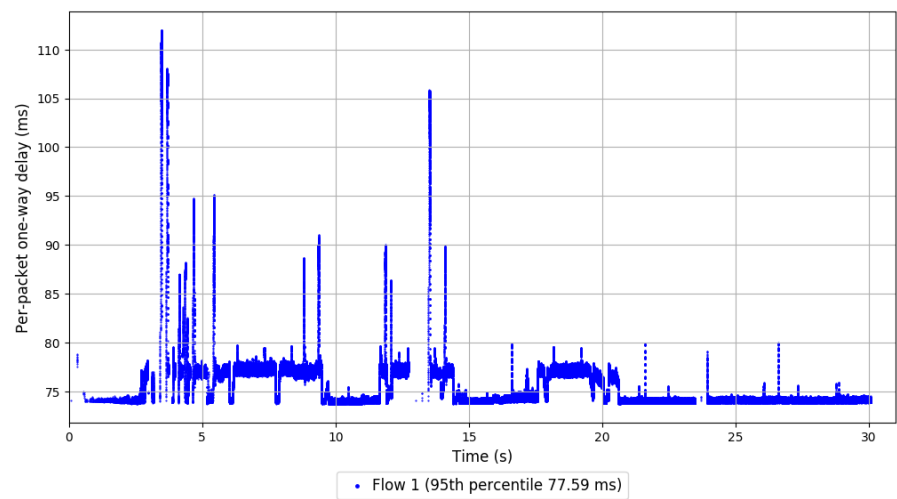
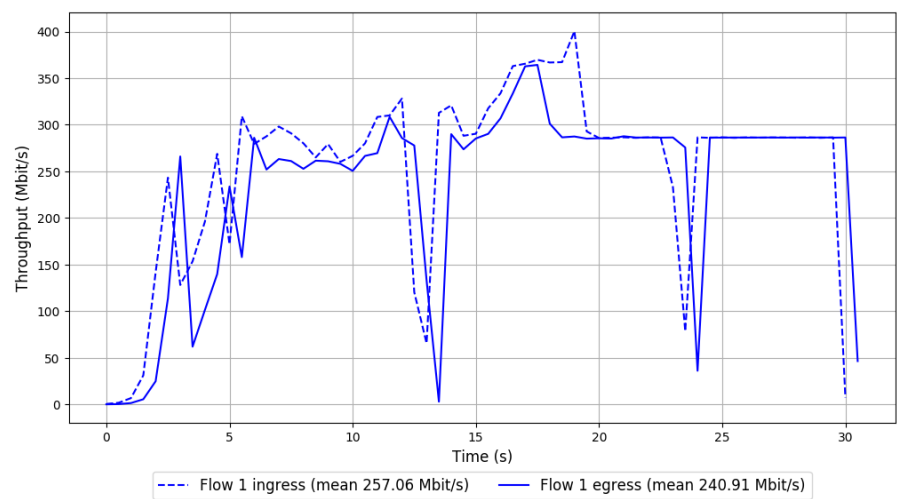
-- Flow 1:

Average throughput: 240.91 Mbit/s

95th percentile per-packet one-way delay: 77.594 ms

Loss rate: 6.30%

Run 1: Report of TCP BBR — Data Link

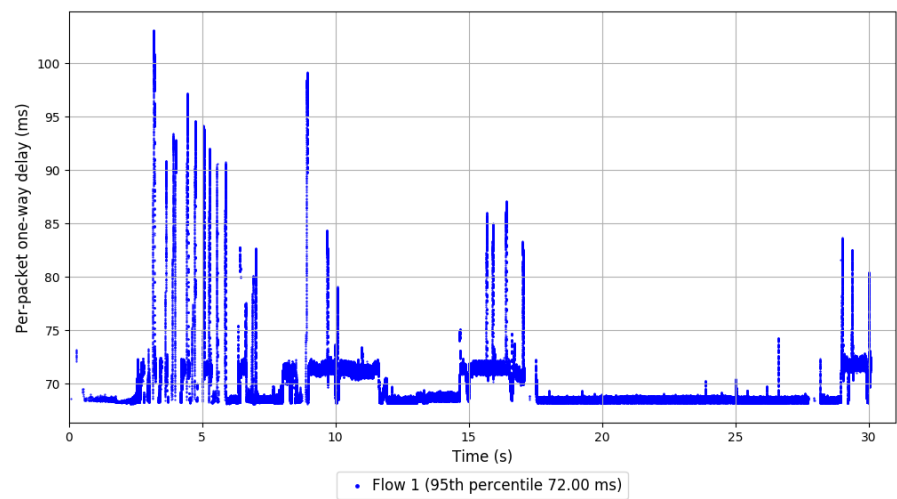
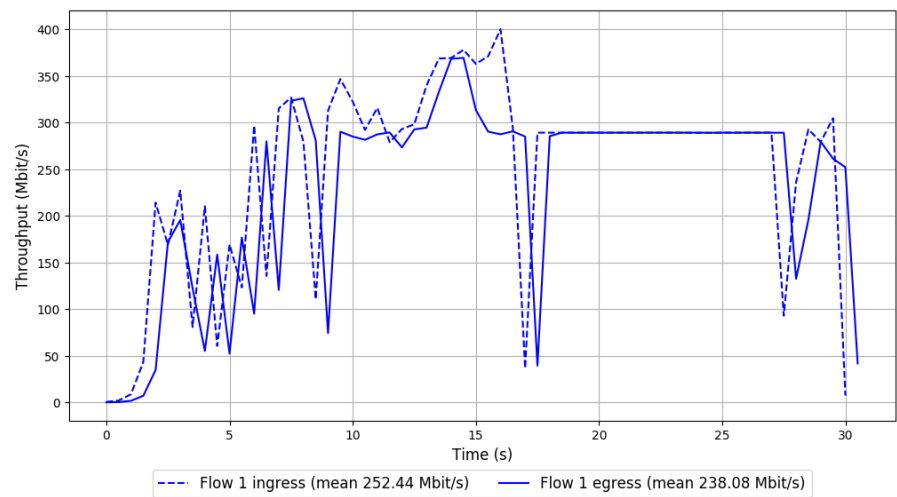


Run 2: Statistics of TCP BBR

Start at: 2018-12-02 00:53:13
End at: 2018-12-02 00:53:43
Local clock offset: 1.228 ms
Remote clock offset: -38.501 ms

Below is generated by plot.py at 2018-12-02 02:45:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 238.08 Mbit/s
95th percentile per-packet one-way delay: 71.996 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 238.08 Mbit/s
95th percentile per-packet one-way delay: 71.996 ms
Loss rate: 5.68%

Run 2: Report of TCP BBR — Data Link

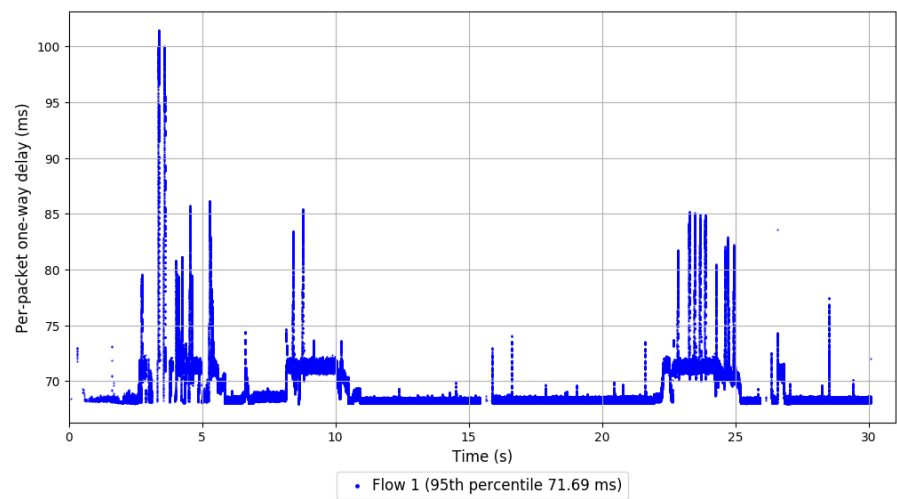
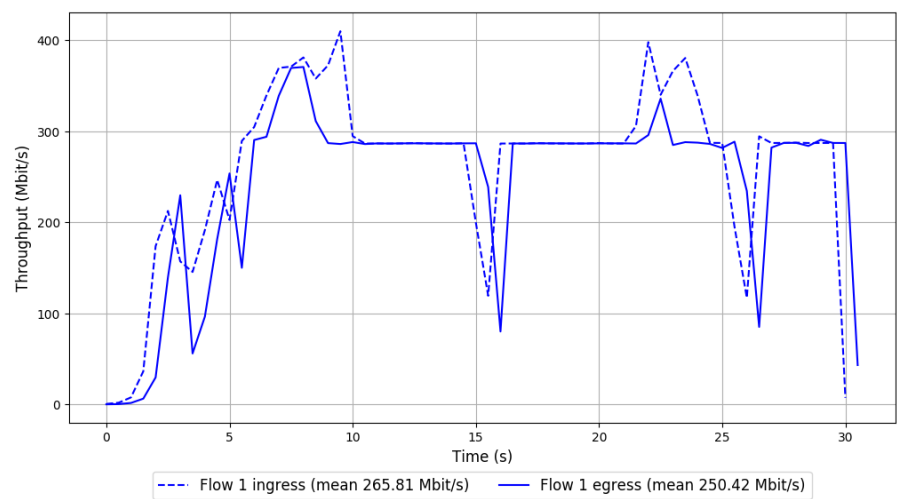


Run 3: Statistics of TCP BBR

Start at: 2018-12-02 01:23:45
End at: 2018-12-02 01:24:15
Local clock offset: -5.386 ms
Remote clock offset: -47.277 ms

Below is generated by plot.py at 2018-12-02 02:45:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 250.42 Mbit/s
95th percentile per-packet one-way delay: 71.687 ms
Loss rate: 5.79%
-- Flow 1:
Average throughput: 250.42 Mbit/s
95th percentile per-packet one-way delay: 71.687 ms
Loss rate: 5.79%

Run 3: Report of TCP BBR — Data Link

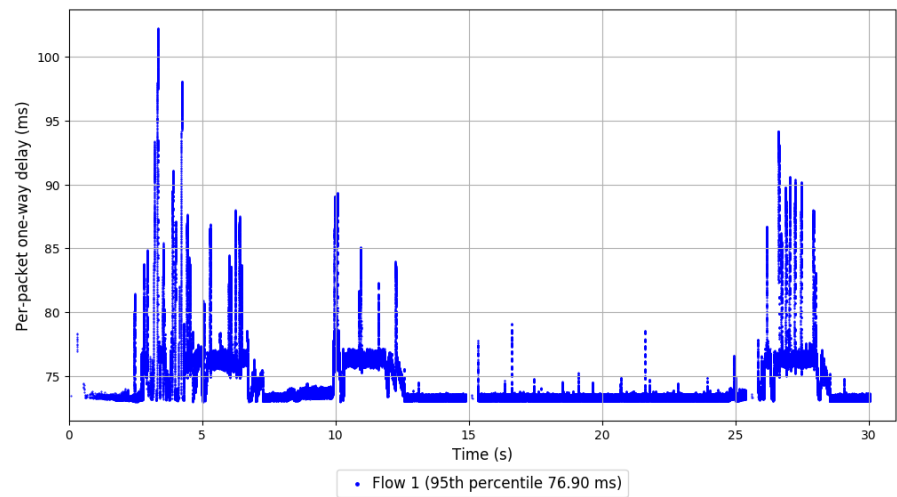
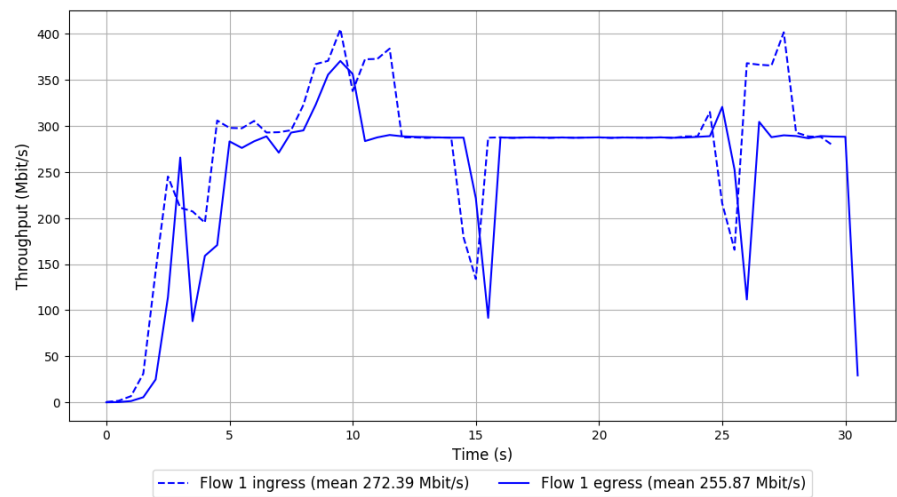


Run 4: Statistics of TCP BBR

Start at: 2018-12-02 01:48:27
End at: 2018-12-02 01:48:57
Local clock offset: 4.748 ms
Remote clock offset: -33.219 ms

Below is generated by plot.py at 2018-12-02 02:45:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 255.87 Mbit/s
95th percentile per-packet one-way delay: 76.901 ms
Loss rate: 6.08%
-- Flow 1:
Average throughput: 255.87 Mbit/s
95th percentile per-packet one-way delay: 76.901 ms
Loss rate: 6.08%

Run 4: Report of TCP BBR — Data Link

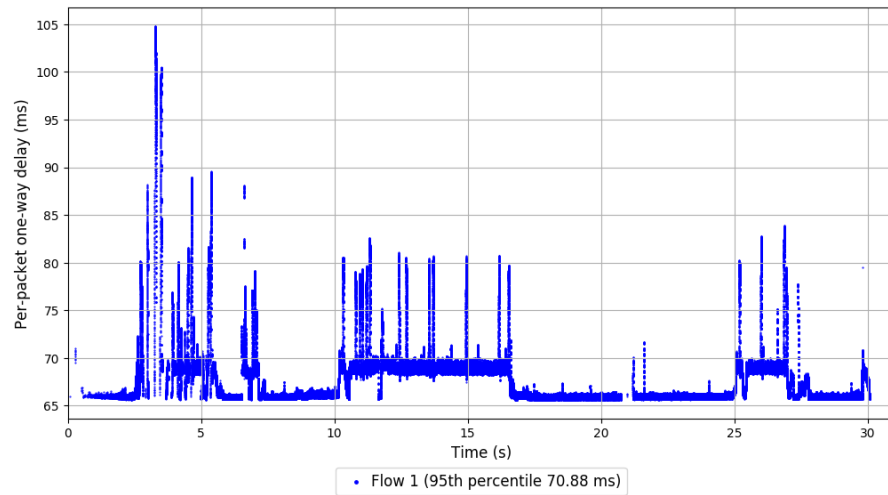
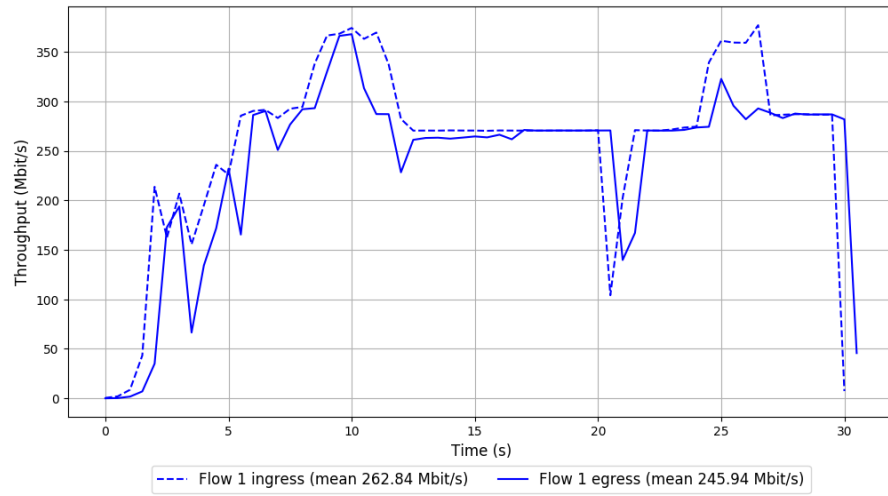


Run 5: Statistics of TCP BBR

Start at: 2018-12-02 02:13:09
End at: 2018-12-02 02:13:39
Local clock offset: -1.55 ms
Remote clock offset: -44.59 ms

Below is generated by plot.py at 2018-12-02 02:45:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 245.94 Mbit/s
95th percentile per-packet one-way delay: 70.880 ms
Loss rate: 6.43%
-- Flow 1:
Average throughput: 245.94 Mbit/s
95th percentile per-packet one-way delay: 70.880 ms
Loss rate: 6.43%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

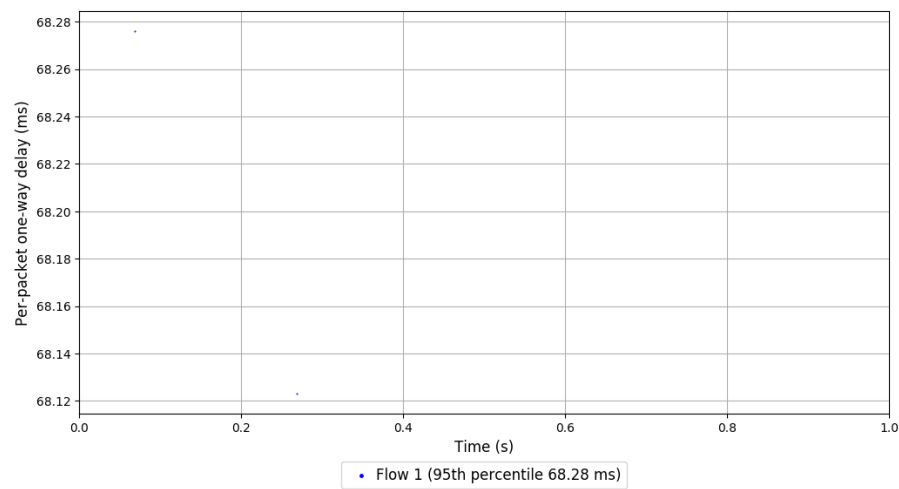
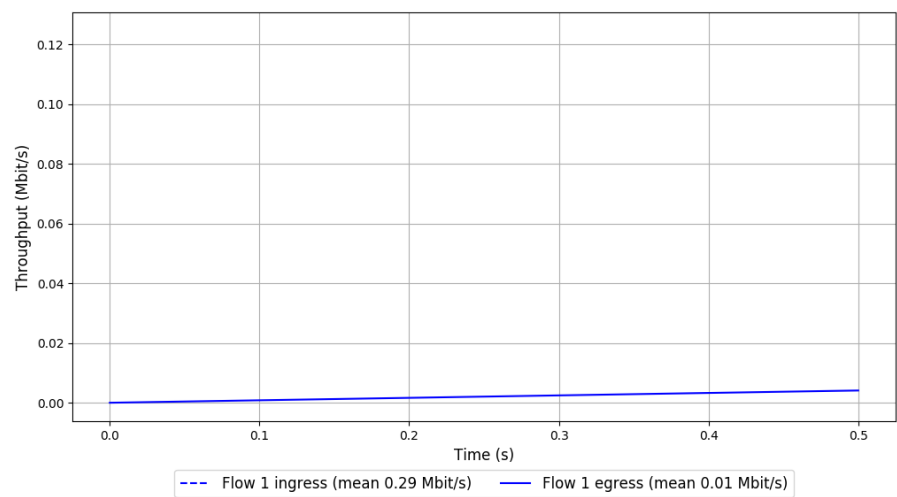
Start at: 2018-12-02 00:38:10

End at: 2018-12-02 00:38:40

Local clock offset: 2.855 ms

Remote clock offset: -38.489 ms

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

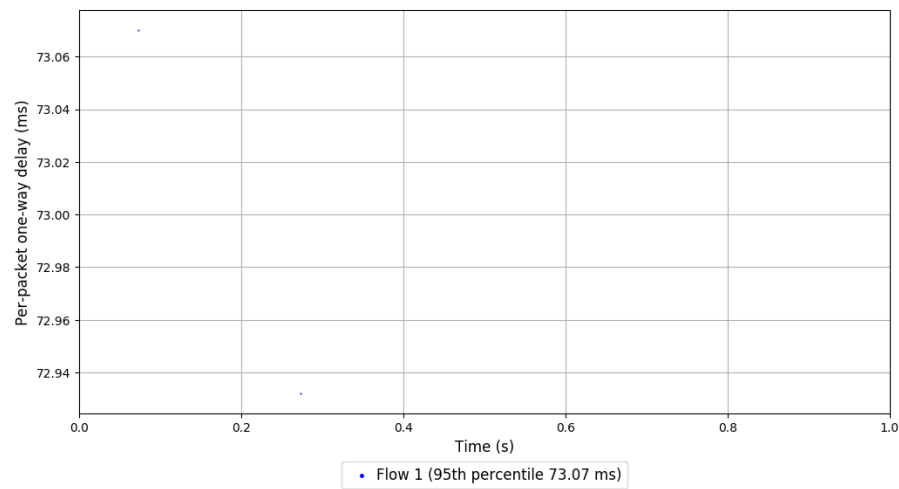
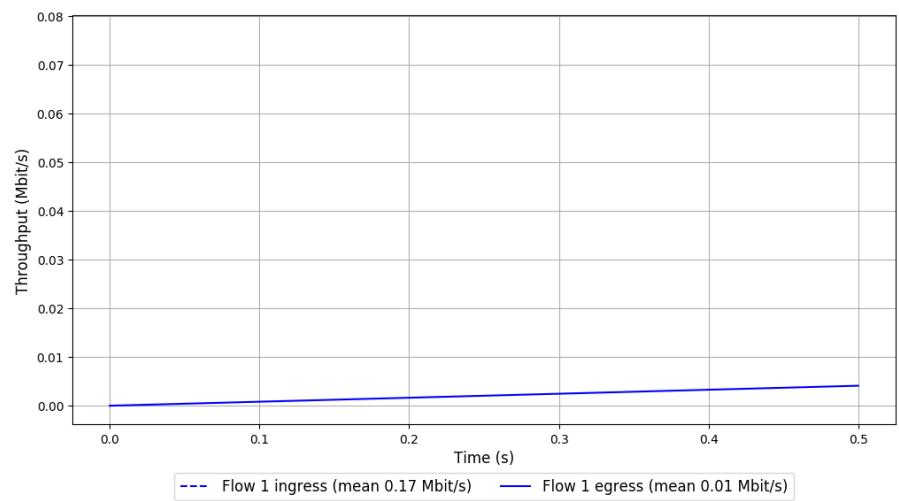
Start at: 2018-12-02 01:14:32

End at: 2018-12-02 01:15:02

Local clock offset: 4.678 ms

Remote clock offset: -32.897 ms

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

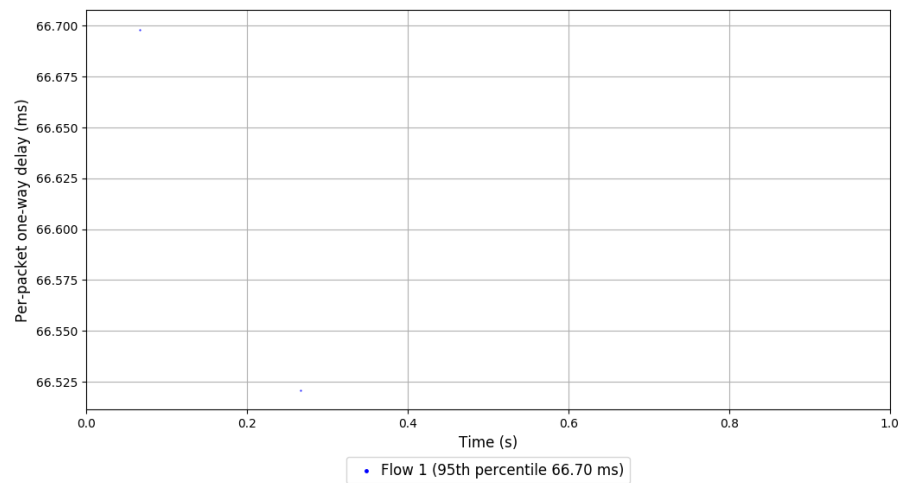
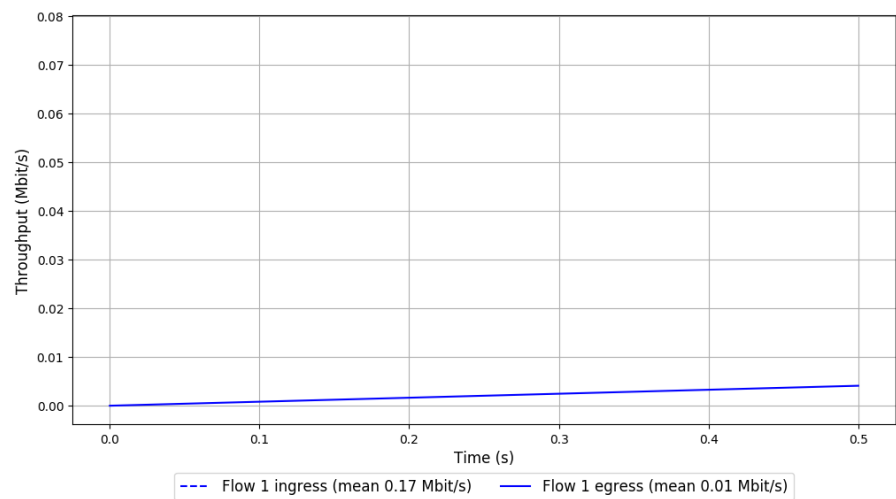
Start at: 2018-12-02 01:39:17

End at: 2018-12-02 01:39:47

Local clock offset: -9.703 ms

Remote clock offset: -48.914 ms

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

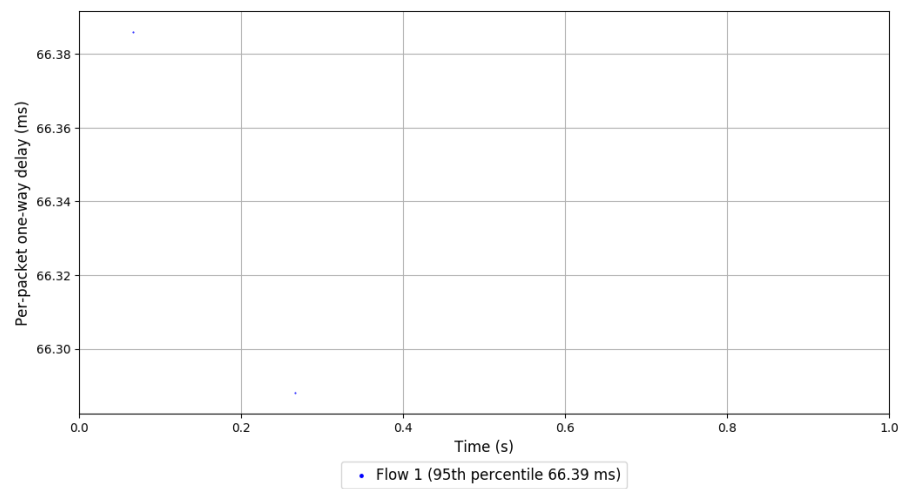
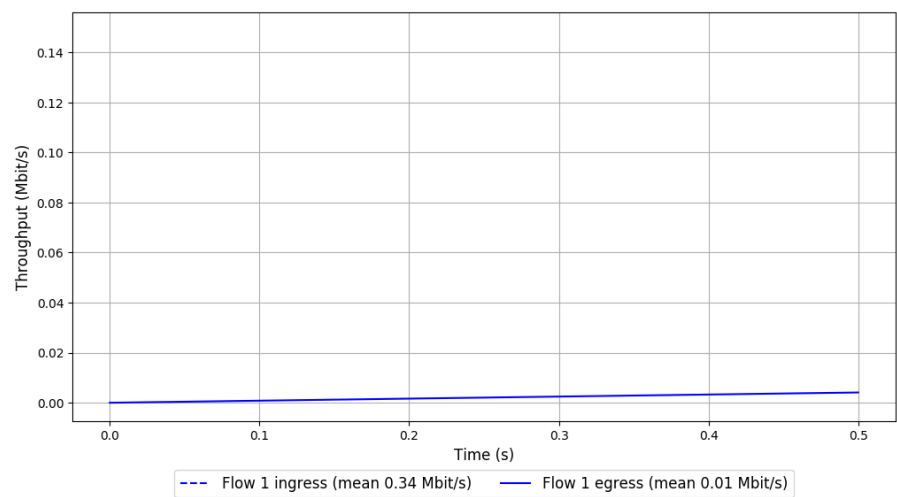
Start at: 2018-12-02 02:03:58

End at: 2018-12-02 02:04:28

Local clock offset: 0.016 ms

Remote clock offset: -41.439 ms

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

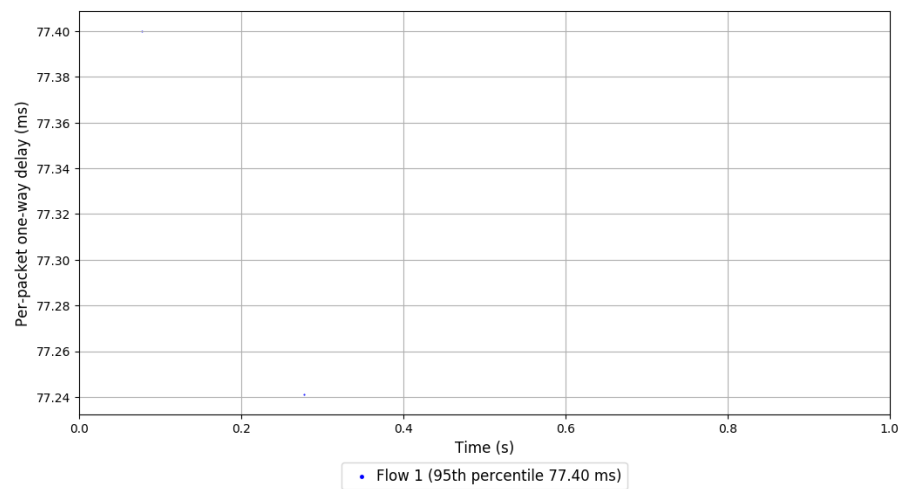
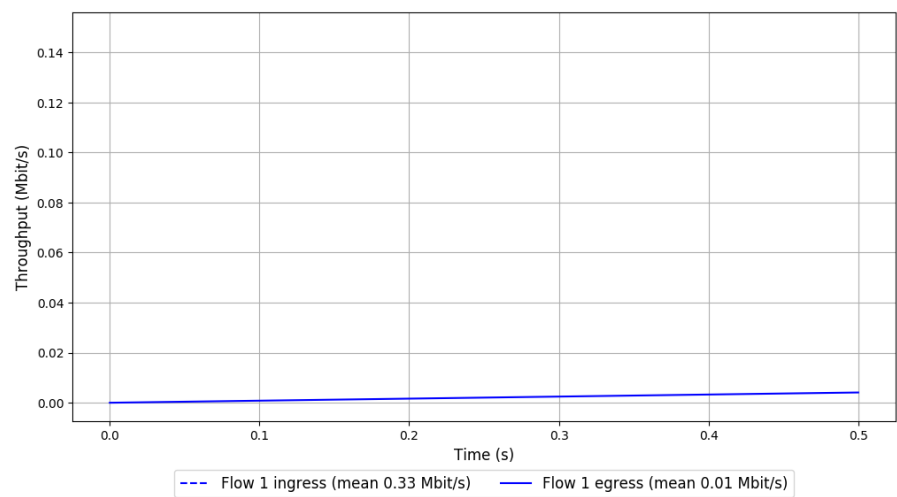
Start at: 2018-12-02 02:34:27

End at: 2018-12-02 02:34:57

Local clock offset: -2.664 ms

Remote clock offset: -40.532 ms

Run 5: Report of Copa — Data Link

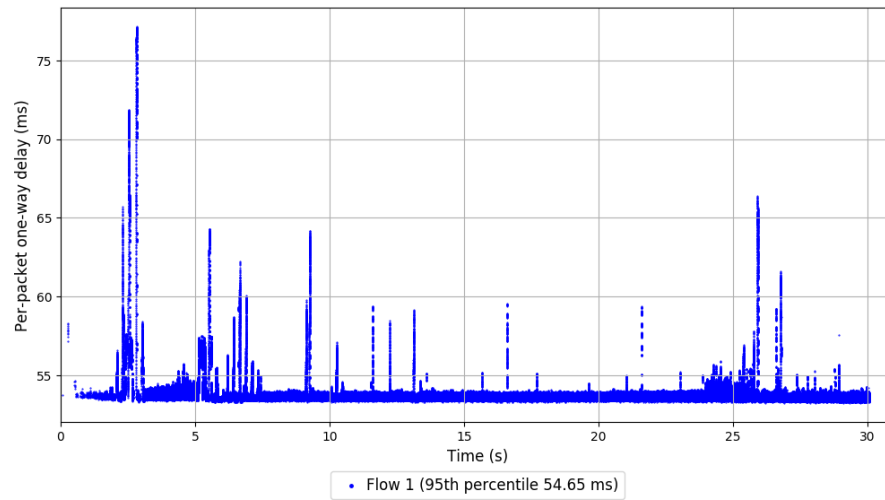
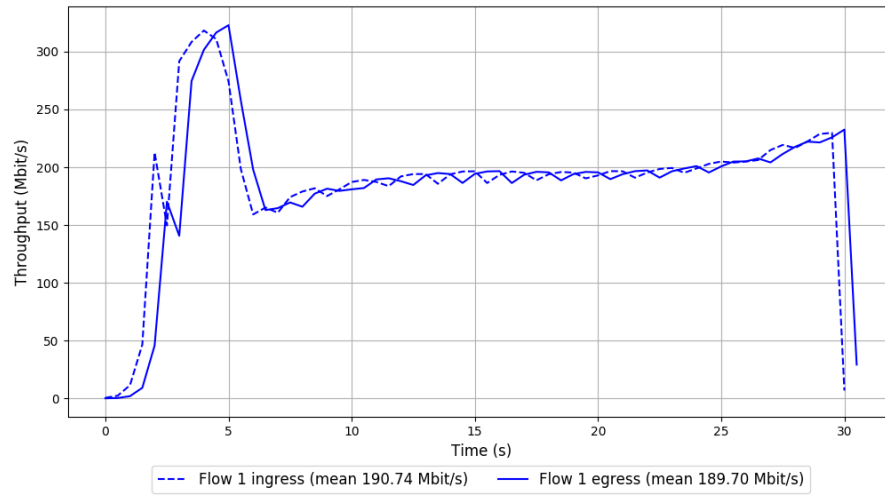


Run 1: Statistics of TCP Cubic

Start at: 2018-12-02 00:36:49
End at: 2018-12-02 00:37:19
Local clock offset: 9.935 ms
Remote clock offset: -45.968 ms

Below is generated by plot.py at 2018-12-02 02:45:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 189.70 Mbit/s
95th percentile per-packet one-way delay: 54.648 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 189.70 Mbit/s
95th percentile per-packet one-way delay: 54.648 ms
Loss rate: 0.54%

Run 1: Report of TCP Cubic — Data Link

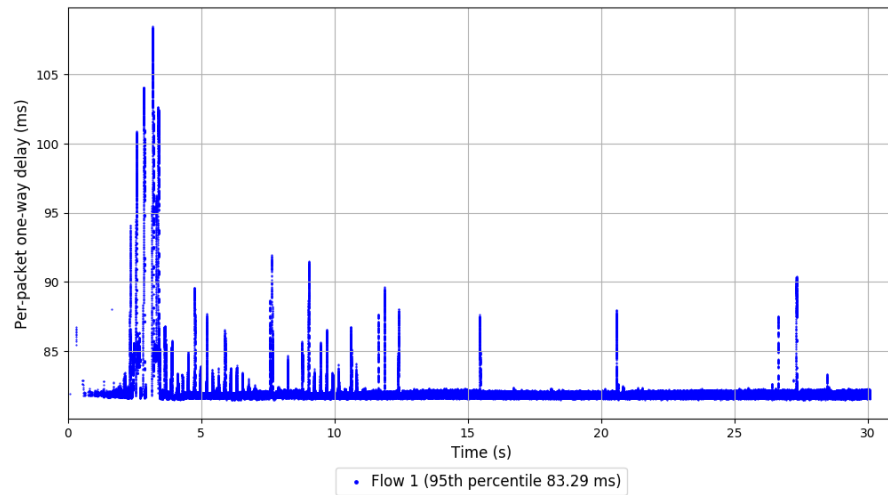
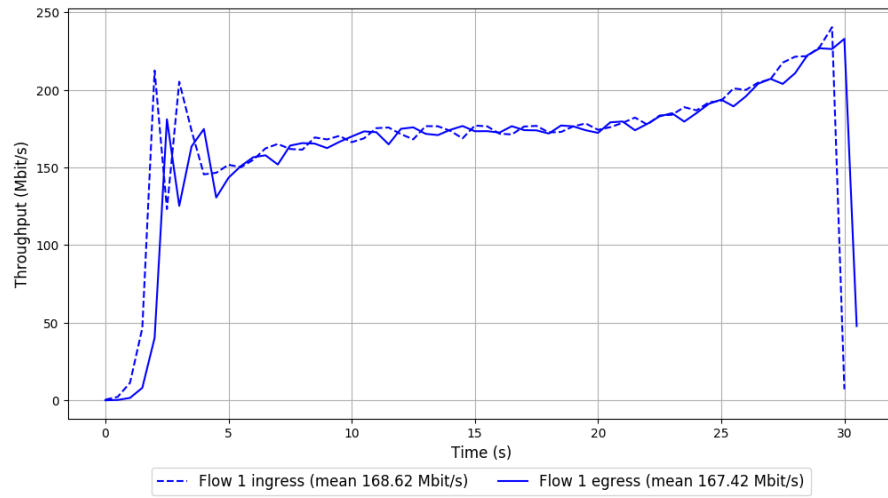


Run 2: Statistics of TCP Cubic

Start at: 2018-12-02 01:13:11
End at: 2018-12-02 01:13:41
Local clock offset: -8.7 ms
Remote clock offset: -37.318 ms

Below is generated by plot.py at 2018-12-02 02:45:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 167.42 Mbit/s
95th percentile per-packet one-way delay: 83.286 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 167.42 Mbit/s
95th percentile per-packet one-way delay: 83.286 ms
Loss rate: 0.73%

Run 2: Report of TCP Cubic — Data Link

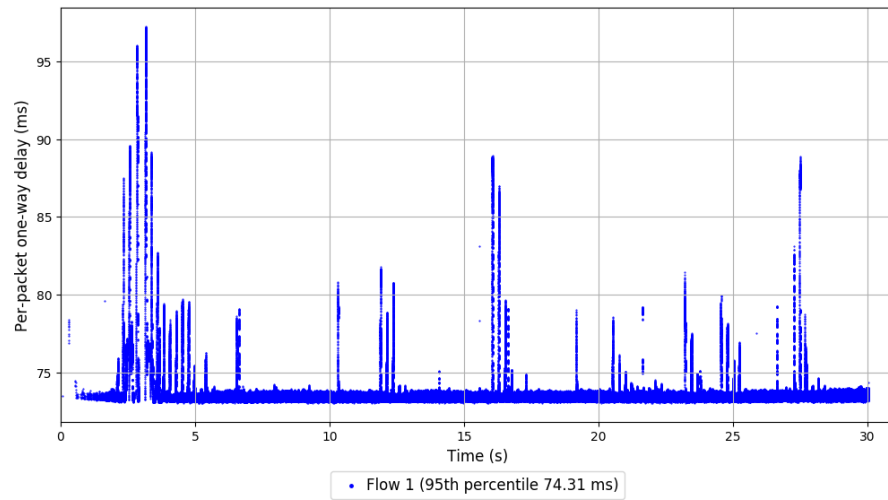
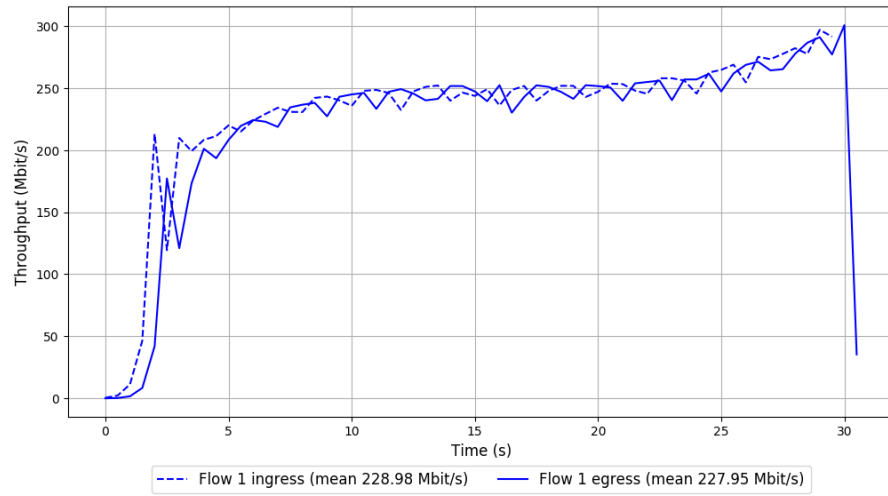


Run 3: Statistics of TCP Cubic

Start at: 2018-12-02 01:37:54
End at: 2018-12-02 01:38:24
Local clock offset: -1.625 ms
Remote clock offset: -39.409 ms

Below is generated by plot.py at 2018-12-02 02:45:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 227.95 Mbit/s
95th percentile per-packet one-way delay: 74.307 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 227.95 Mbit/s
95th percentile per-packet one-way delay: 74.307 ms
Loss rate: 0.46%

Run 3: Report of TCP Cubic — Data Link

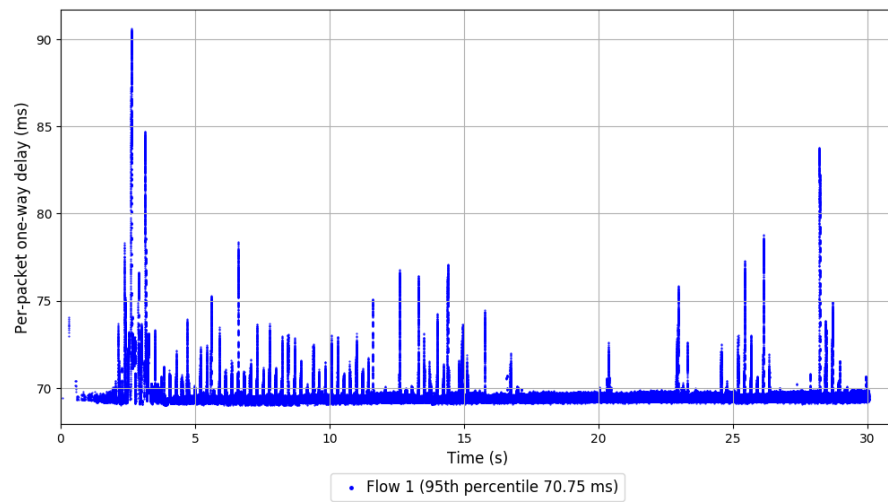
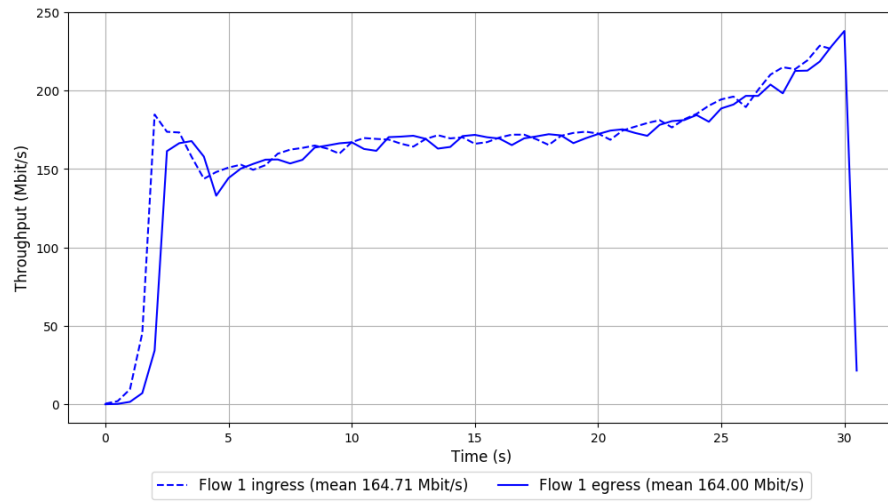


Run 4: Statistics of TCP Cubic

Start at: 2018-12-02 02:02:39
End at: 2018-12-02 02:03:09
Local clock offset: -1.808 ms
Remote clock offset: -45.516 ms

Below is generated by plot.py at 2018-12-02 02:46:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 164.00 Mbit/s
95th percentile per-packet one-way delay: 70.745 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 164.00 Mbit/s
95th percentile per-packet one-way delay: 70.745 ms
Loss rate: 0.45%

Run 4: Report of TCP Cubic — Data Link

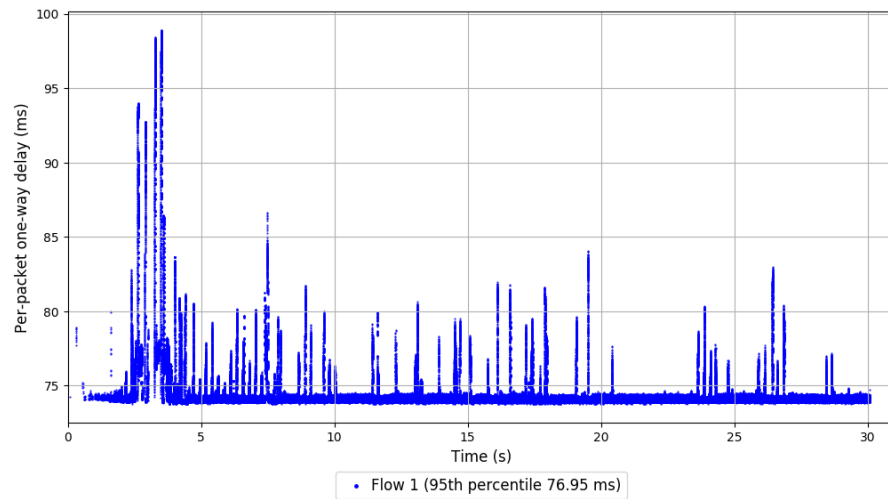
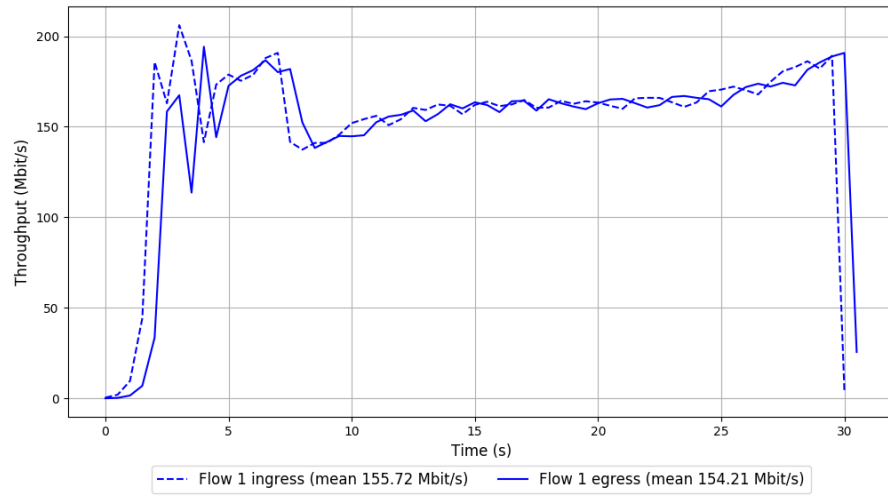


Run 5: Statistics of TCP Cubic

Start at: 2018-12-02 02:33:08
End at: 2018-12-02 02:33:38
Local clock offset: -2.928 ms
Remote clock offset: -43.793 ms

Below is generated by plot.py at 2018-12-02 02:46:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 154.21 Mbit/s
95th percentile per-packet one-way delay: 76.949 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 154.21 Mbit/s
95th percentile per-packet one-way delay: 76.949 ms
Loss rate: 0.99%

Run 5: Report of TCP Cubic — Data Link

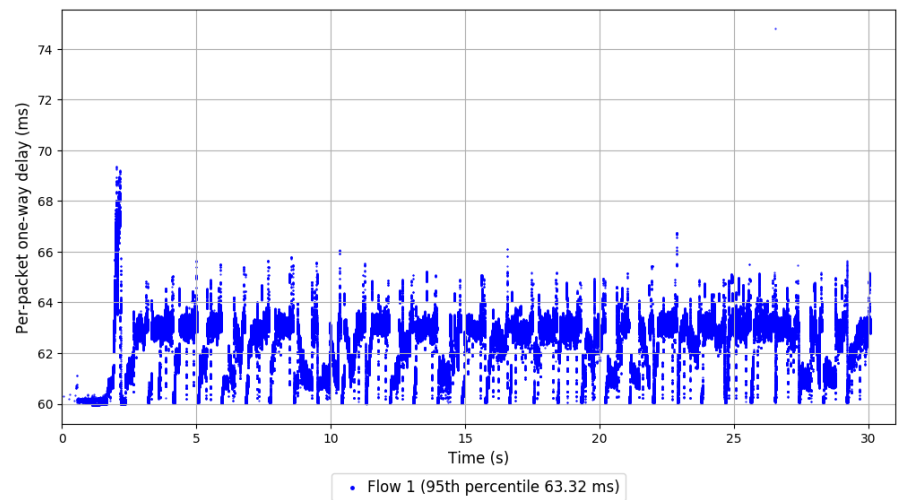
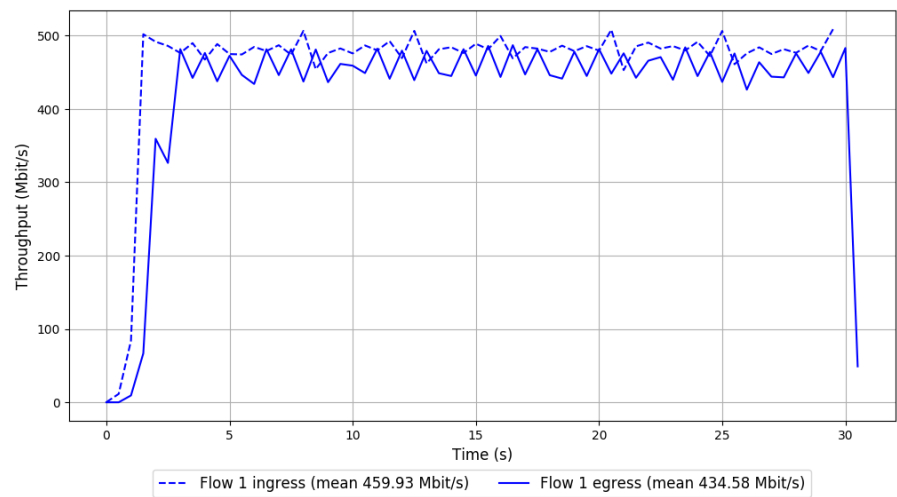


Run 1: Statistics of FillP

Start at: 2018-12-02 00:19:41
End at: 2018-12-02 00:20:11
Local clock offset: 5.002 ms
Remote clock offset: -47.215 ms

Below is generated by plot.py at 2018-12-02 02:51:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 434.58 Mbit/s
95th percentile per-packet one-way delay: 63.320 ms
Loss rate: 5.50%
-- Flow 1:
Average throughput: 434.58 Mbit/s
95th percentile per-packet one-way delay: 63.320 ms
Loss rate: 5.50%

Run 1: Report of FillP — Data Link

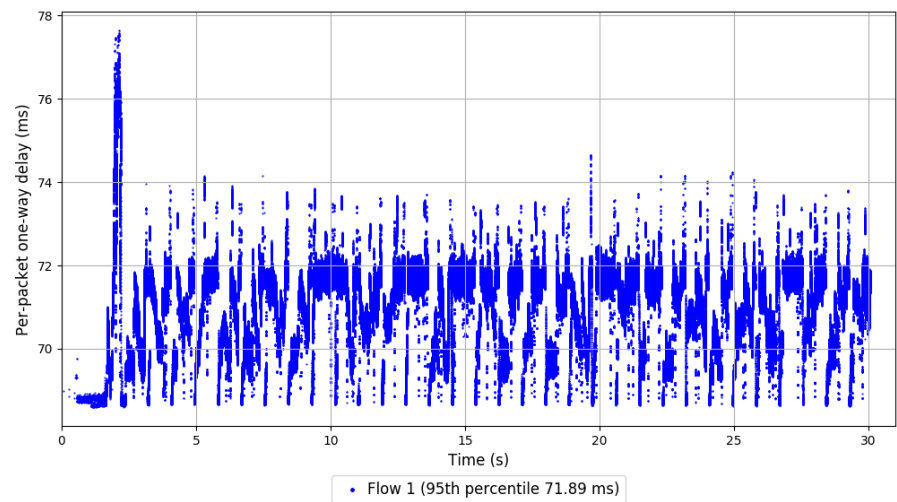
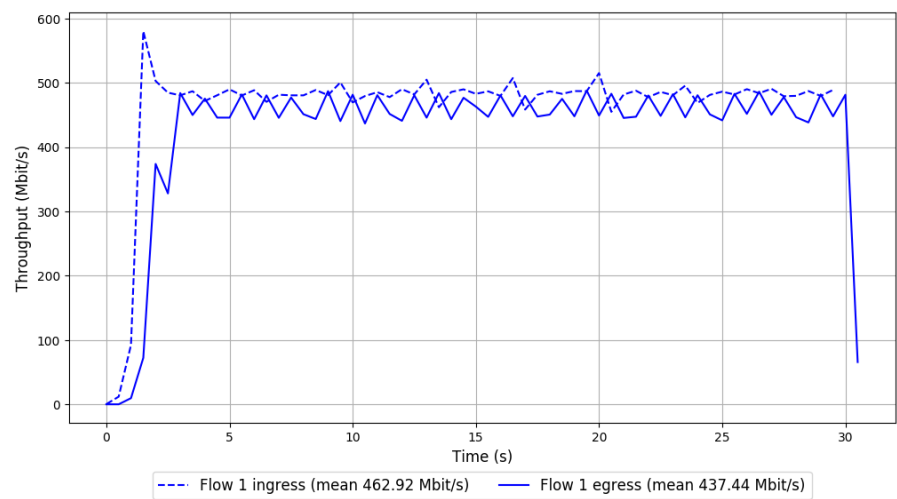


Run 2: Statistics of FillP

Start at: 2018-12-02 00:50:16
End at: 2018-12-02 00:50:46
Local clock offset: -0.993 ms
Remote clock offset: -40.143 ms

Below is generated by plot.py at 2018-12-02 02:52:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 437.44 Mbit/s
95th percentile per-packet one-way delay: 71.887 ms
Loss rate: 5.50%
-- Flow 1:
Average throughput: 437.44 Mbit/s
95th percentile per-packet one-way delay: 71.887 ms
Loss rate: 5.50%

Run 2: Report of FillP — Data Link

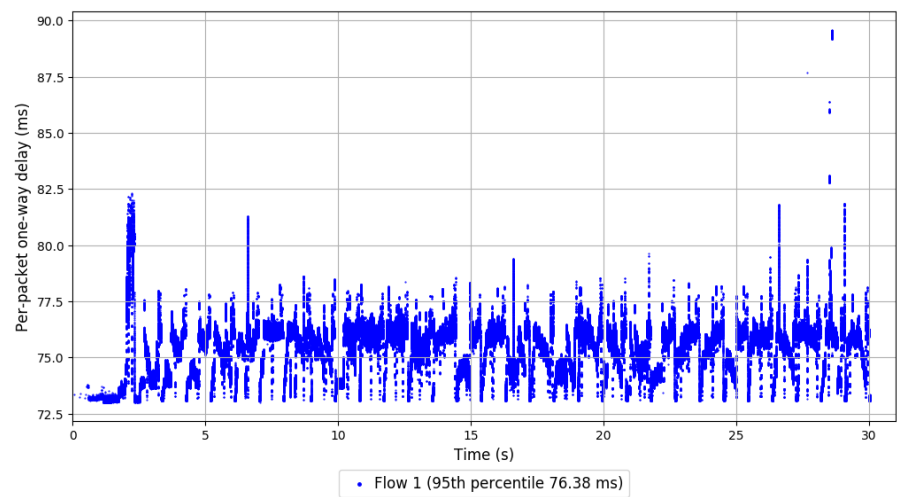
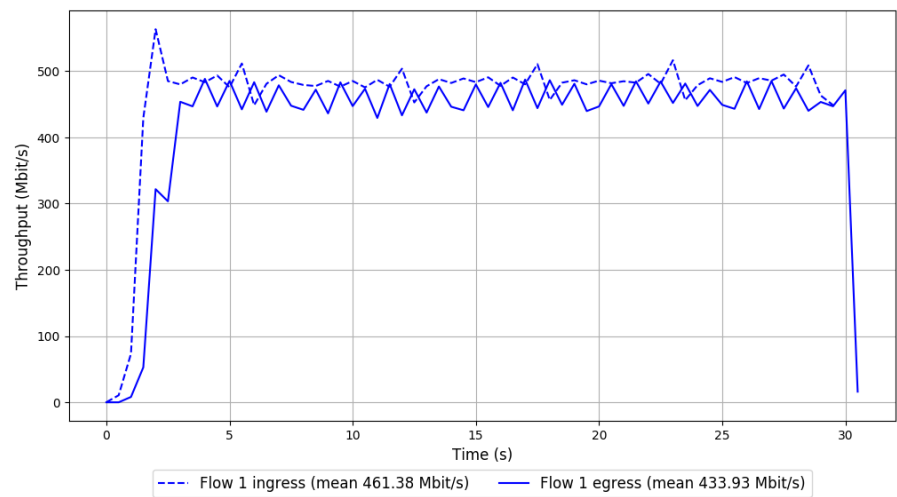


Run 3: Statistics of FillP

Start at: 2018-12-02 01:20:50
End at: 2018-12-02 01:21:20
Local clock offset: -7.566 ms
Remote clock offset: -44.388 ms

Below is generated by plot.py at 2018-12-02 02:52:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 433.93 Mbit/s
95th percentile per-packet one-way delay: 76.379 ms
Loss rate: 5.97%
-- Flow 1:
Average throughput: 433.93 Mbit/s
95th percentile per-packet one-way delay: 76.379 ms
Loss rate: 5.97%

Run 3: Report of FillP — Data Link

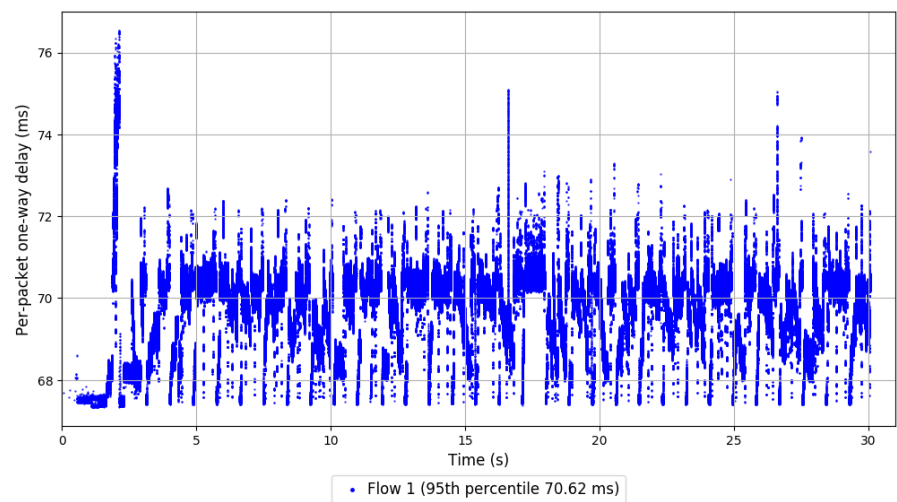
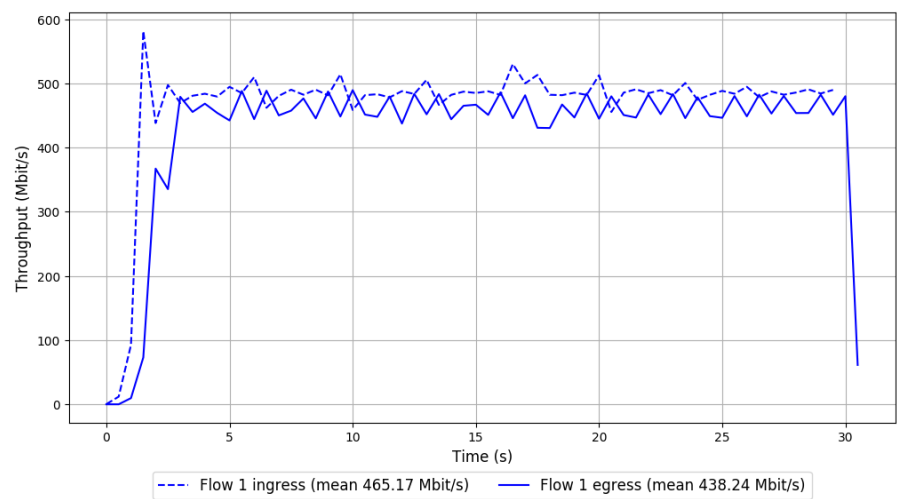


Run 4: Statistics of FillP

Start at: 2018-12-02 01:45:31
End at: 2018-12-02 01:46:01
Local clock offset: -4.535 ms
Remote clock offset: -42.477 ms

Below is generated by plot.py at 2018-12-02 02:52:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 438.24 Mbit/s
95th percentile per-packet one-way delay: 70.620 ms
Loss rate: 5.77%
-- Flow 1:
Average throughput: 438.24 Mbit/s
95th percentile per-packet one-way delay: 70.620 ms
Loss rate: 5.77%

Run 4: Report of FillP — Data Link

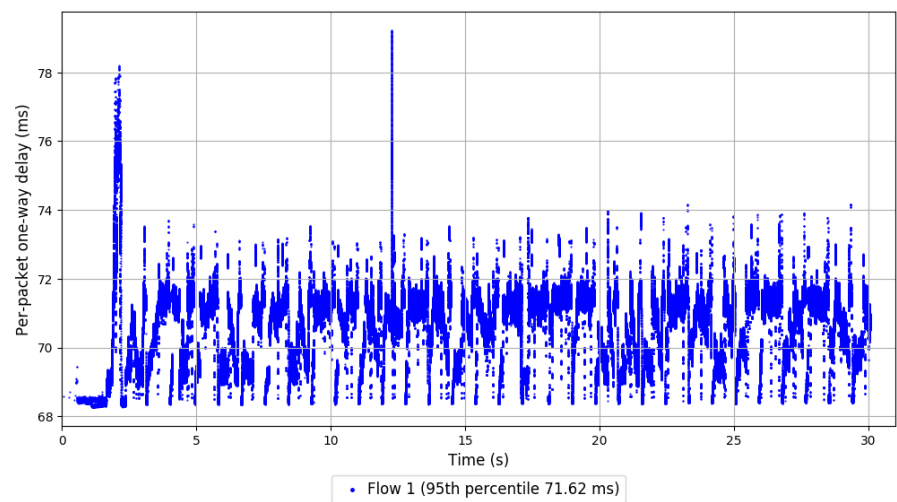
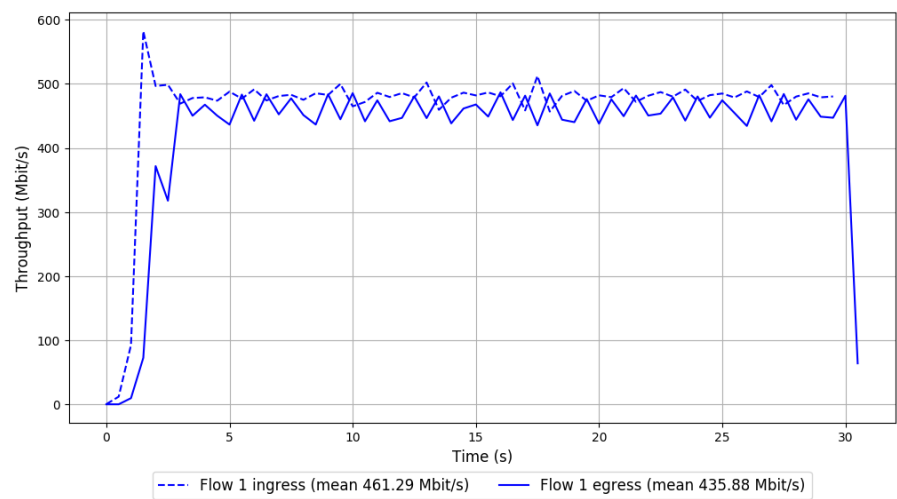


Run 5: Statistics of FillP

Start at: 2018-12-02 02:10:13
End at: 2018-12-02 02:10:43
Local clock offset: -0.156 ms
Remote clock offset: -40.001 ms

Below is generated by plot.py at 2018-12-02 02:52:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 435.88 Mbit/s
95th percentile per-packet one-way delay: 71.616 ms
Loss rate: 5.50%
-- Flow 1:
Average throughput: 435.88 Mbit/s
95th percentile per-packet one-way delay: 71.616 ms
Loss rate: 5.50%

Run 5: Report of FillP — Data Link

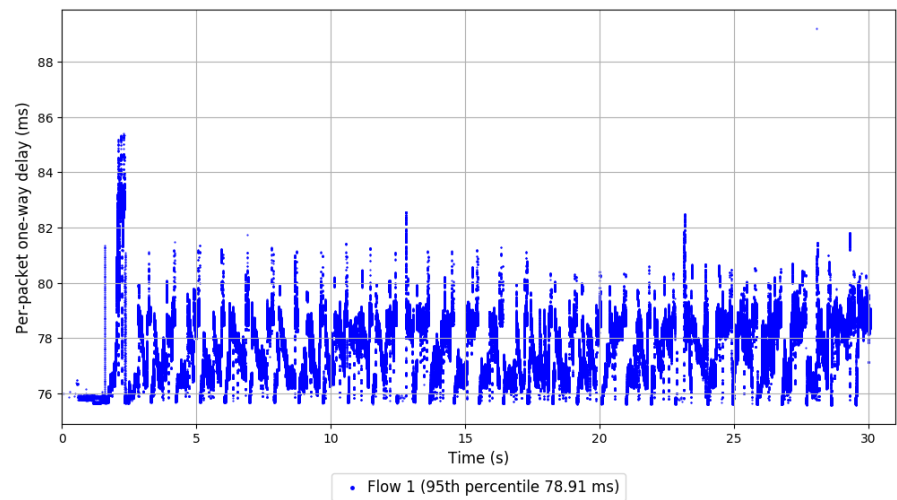
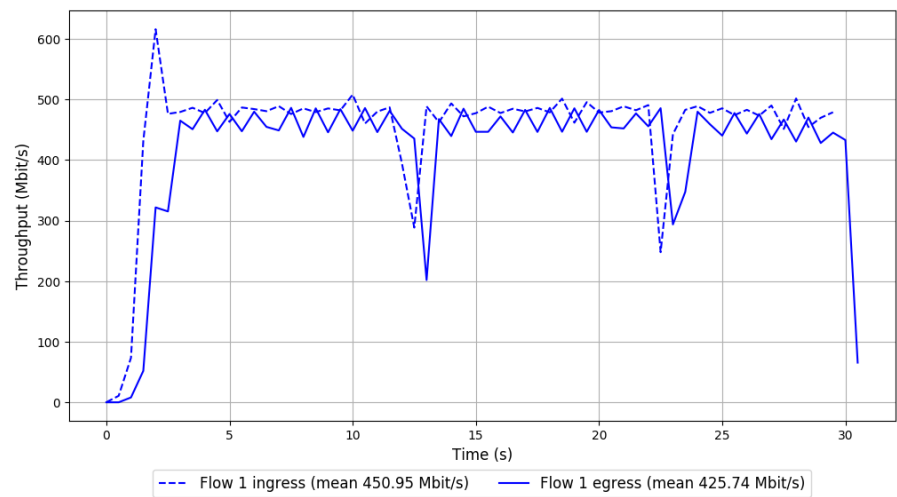


Run 1: Statistics of FillP-Sheep

Start at: 2018-12-02 00:34:01
End at: 2018-12-02 00:34:31
Local clock offset: -7.218 ms
Remote clock offset: -47.116 ms

Below is generated by plot.py at 2018-12-02 02:52:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 425.74 Mbit/s
95th percentile per-packet one-way delay: 78.914 ms
Loss rate: 5.60%
-- Flow 1:
Average throughput: 425.74 Mbit/s
95th percentile per-packet one-way delay: 78.914 ms
Loss rate: 5.60%

Run 1: Report of FillP-Sheep — Data Link

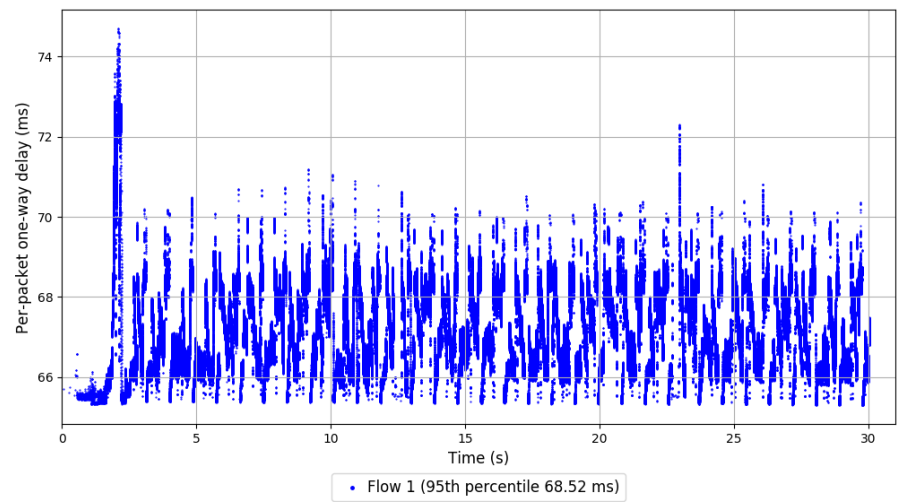
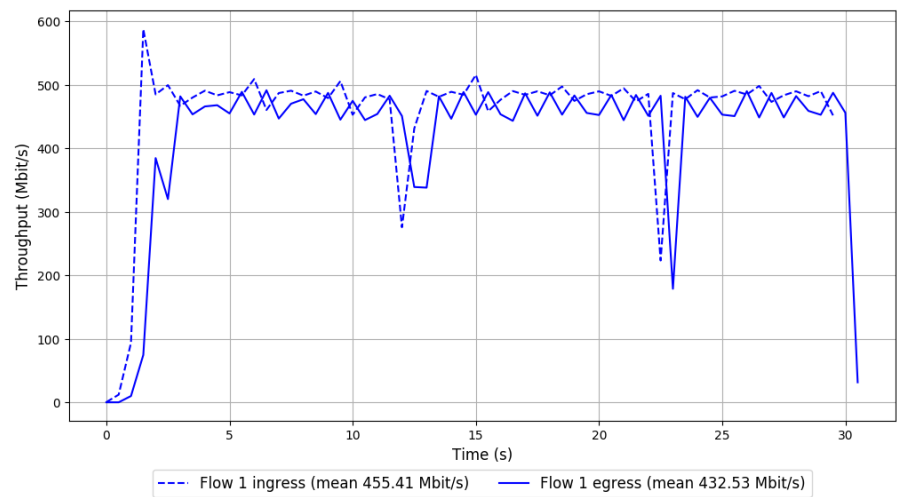


Run 2: Statistics of FillP-Sheep

Start at: 2018-12-02 01:04:36
End at: 2018-12-02 01:05:06
Local clock offset: -3.688 ms
Remote clock offset: -43.786 ms

Below is generated by plot.py at 2018-12-02 02:53:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 432.53 Mbit/s
95th percentile per-packet one-way delay: 68.517 ms
Loss rate: 5.02%
-- Flow 1:
Average throughput: 432.53 Mbit/s
95th percentile per-packet one-way delay: 68.517 ms
Loss rate: 5.02%

Run 2: Report of FillP-Sheep — Data Link

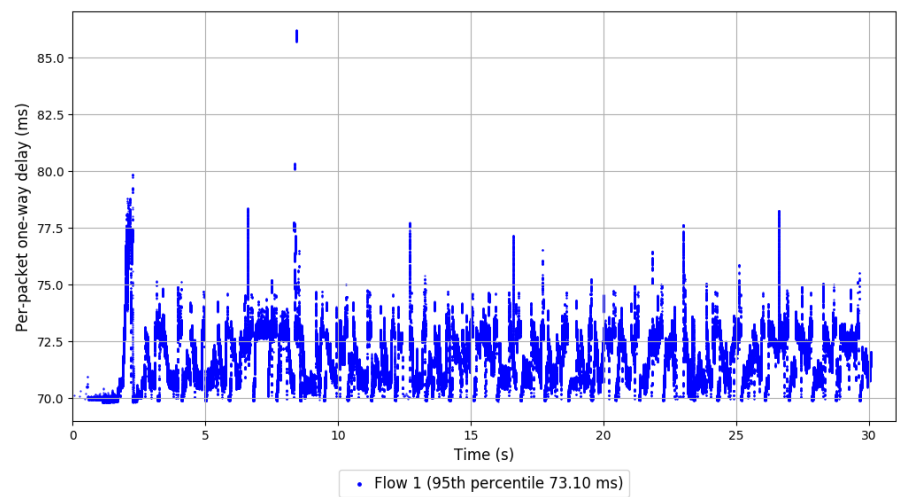
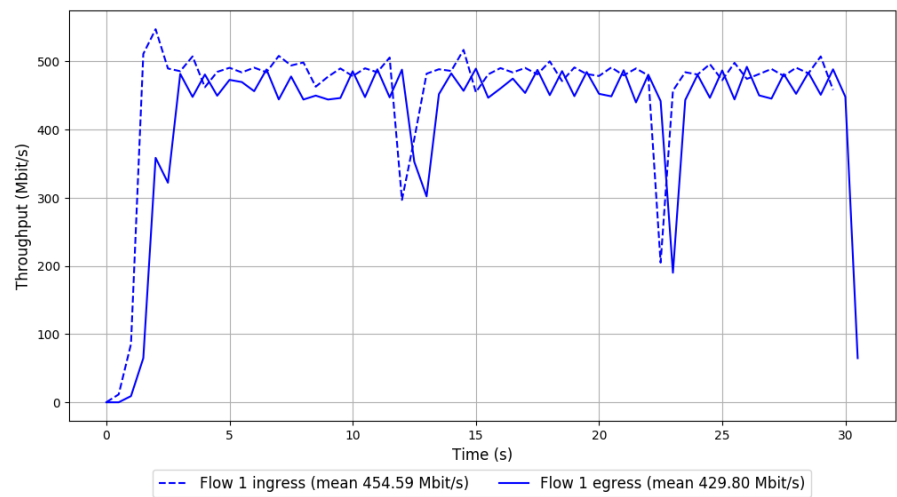


Run 3: Statistics of FillP-Sheep

Start at: 2018-12-02 01:35:09
End at: 2018-12-02 01:35:39
Local clock offset: -6.208 ms
Remote clock offset: -41.385 ms

Below is generated by plot.py at 2018-12-02 02:53:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 429.80 Mbit/s
95th percentile per-packet one-way delay: 73.097 ms
Loss rate: 5.45%
-- Flow 1:
Average throughput: 429.80 Mbit/s
95th percentile per-packet one-way delay: 73.097 ms
Loss rate: 5.45%

Run 3: Report of FillP-Sheep — Data Link

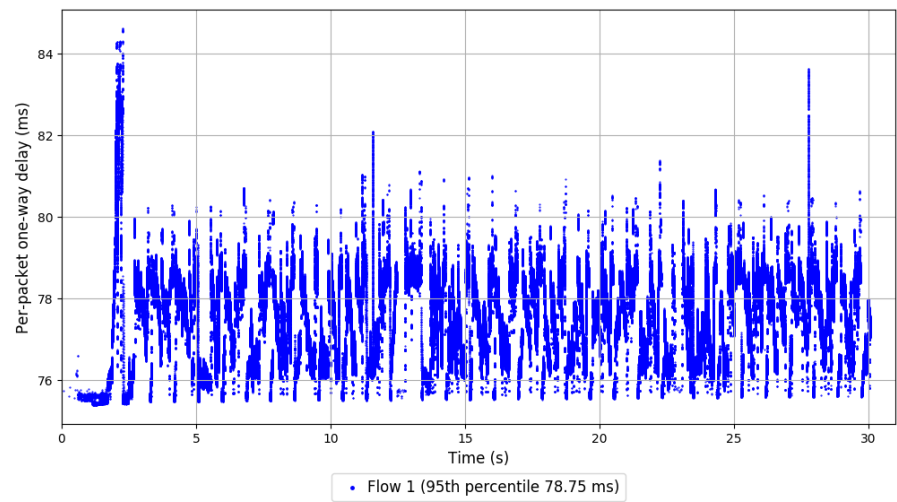
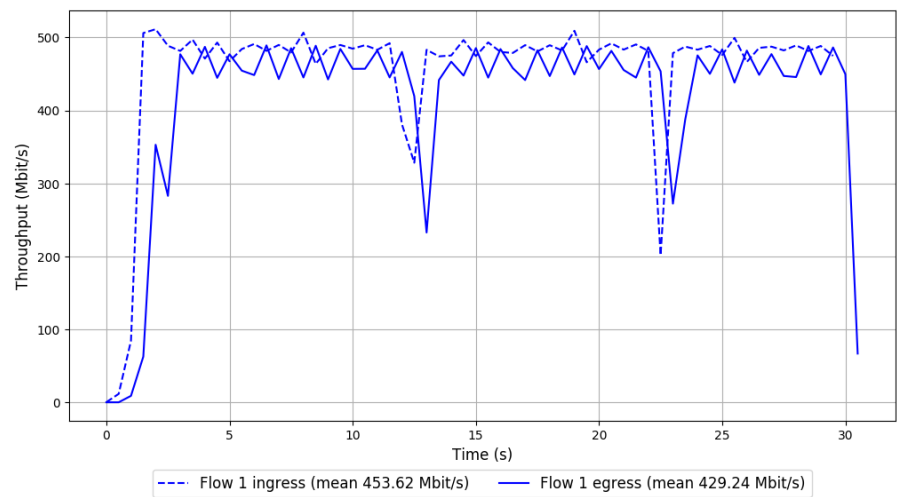


Run 4: Statistics of FillP-Sheep

Start at: 2018-12-02 01:59:50
End at: 2018-12-02 02:00:20
Local clock offset: -2.304 ms
Remote clock offset: -38.763 ms

Below is generated by plot.py at 2018-12-02 02:57:44
Datalink statistics
-- Total of 1 flow:
Average throughput: 429.24 Mbit/s
95th percentile per-packet one-way delay: 78.748 ms
Loss rate: 5.39%
-- Flow 1:
Average throughput: 429.24 Mbit/s
95th percentile per-packet one-way delay: 78.748 ms
Loss rate: 5.39%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-12-02 02:24:35

End at: 2018-12-02 02:25:05

Local clock offset: -0.27 ms

Remote clock offset: -45.211 ms

Below is generated by plot.py at 2018-12-02 02:58:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 430.82 Mbit/s

95th percentile per-packet one-way delay: 67.381 ms

Loss rate: 4.58%

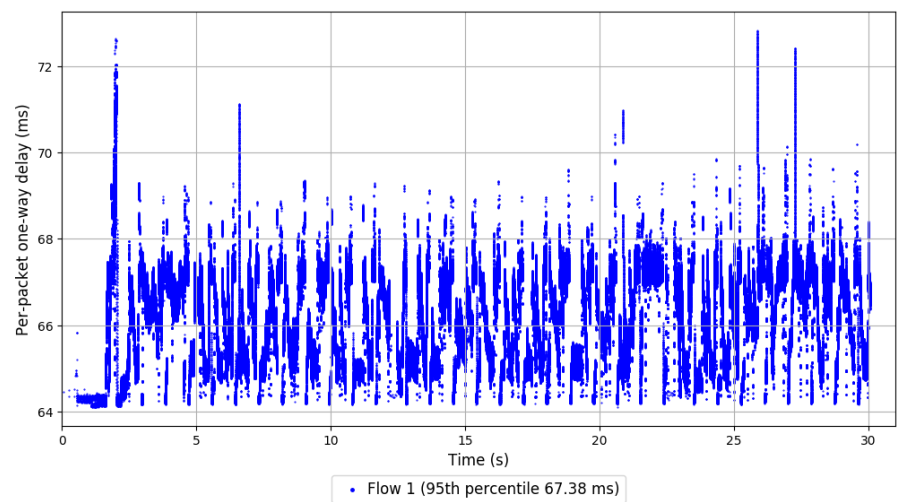
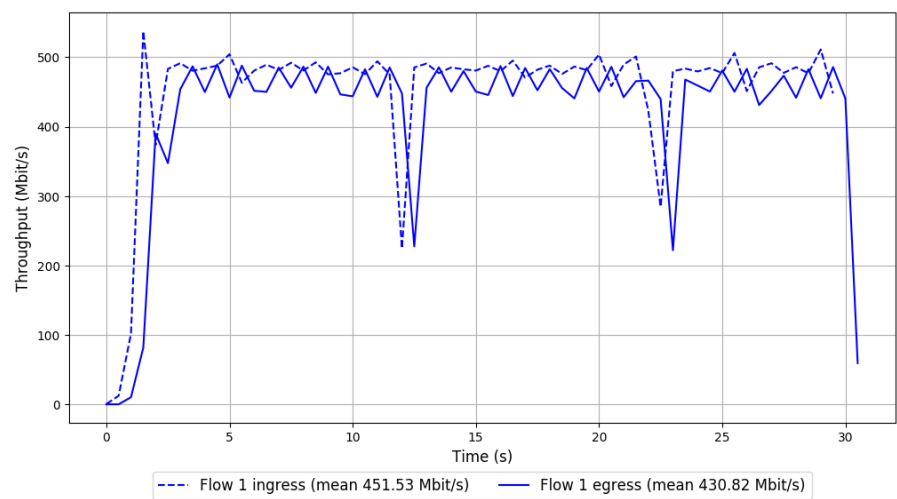
-- Flow 1:

Average throughput: 430.82 Mbit/s

95th percentile per-packet one-way delay: 67.381 ms

Loss rate: 4.58%

Run 5: Report of FillP-Sheep — Data Link

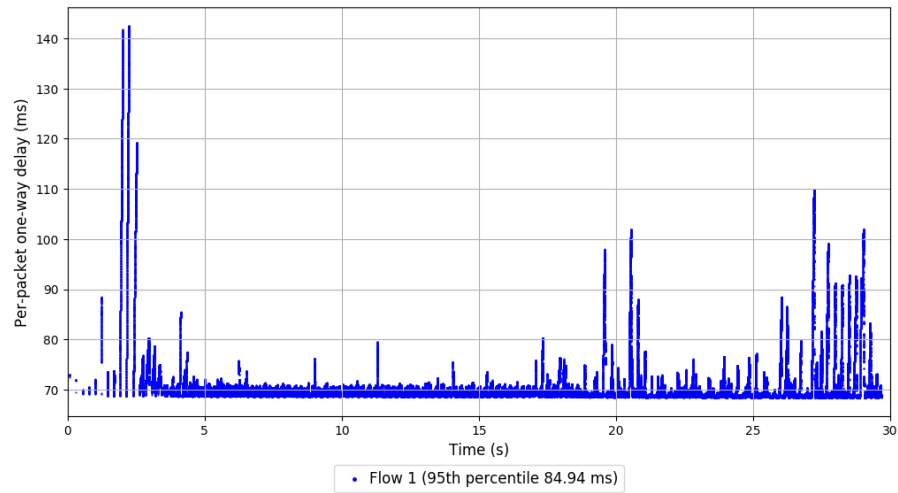
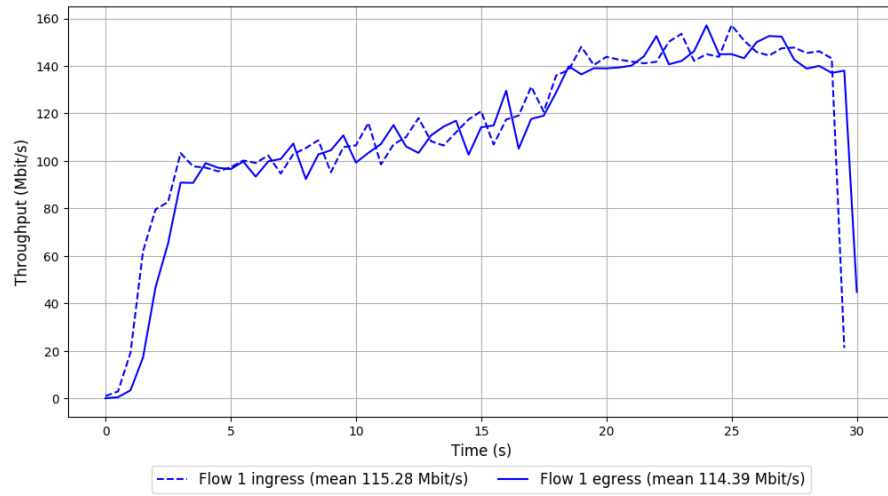


Run 1: Statistics of Indigo

Start at: 2018-12-02 00:27:40
End at: 2018-12-02 00:28:10
Local clock offset: 9.536 ms
Remote clock offset: -34.19 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 114.39 Mbit/s
95th percentile per-packet one-way delay: 84.945 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 114.39 Mbit/s
95th percentile per-packet one-way delay: 84.945 ms
Loss rate: 0.79%

Run 1: Report of Indigo — Data Link

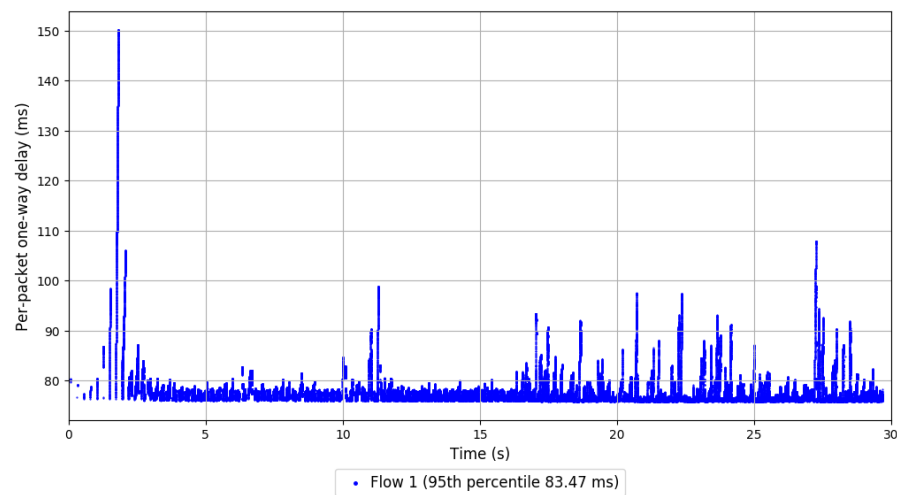
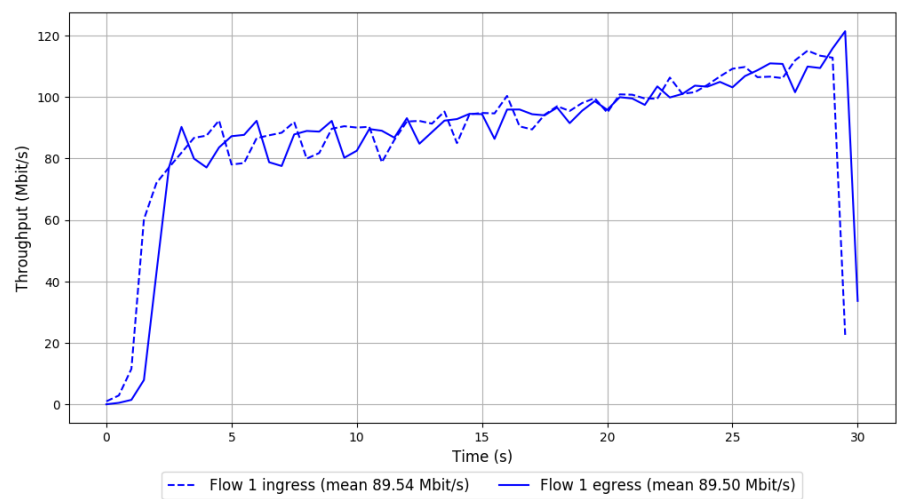


Run 2: Statistics of Indigo

Start at: 2018-12-02 00:58:16
End at: 2018-12-02 00:58:46
Local clock offset: 1.912 ms
Remote clock offset: -34.829 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.50 Mbit/s
95th percentile per-packet one-way delay: 83.473 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 89.50 Mbit/s
95th percentile per-packet one-way delay: 83.473 ms
Loss rate: 0.07%

Run 2: Report of Indigo — Data Link

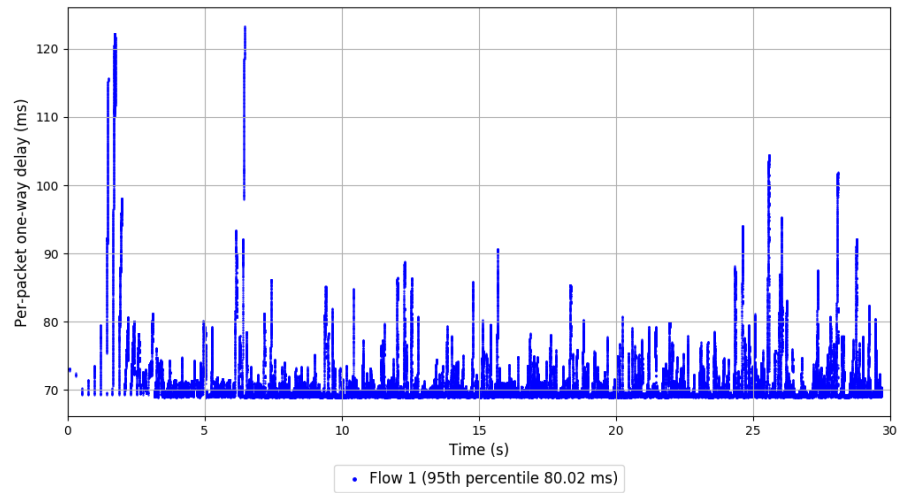
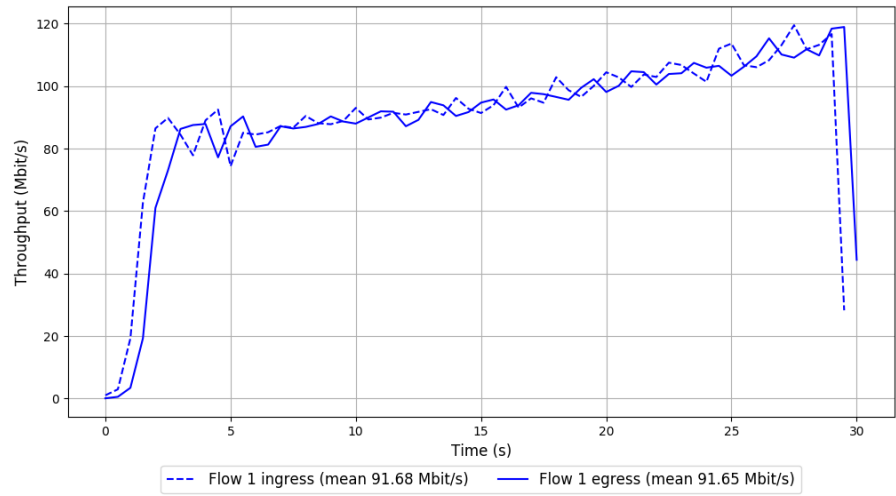


Run 3: Statistics of Indigo

Start at: 2018-12-02 01:28:50
End at: 2018-12-02 01:29:20
Local clock offset: -4.824 ms
Remote clock offset: -40.479 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.65 Mbit/s
95th percentile per-packet one-way delay: 80.022 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 91.65 Mbit/s
95th percentile per-packet one-way delay: 80.022 ms
Loss rate: 0.04%

Run 3: Report of Indigo — Data Link

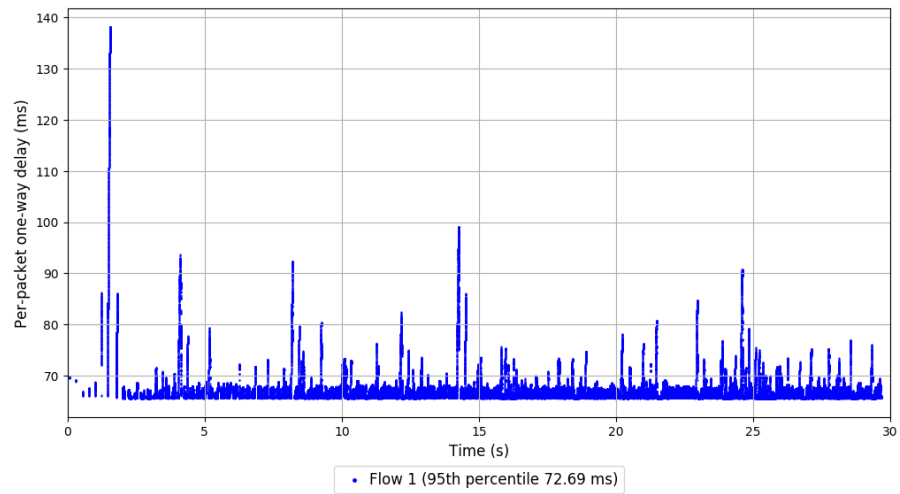
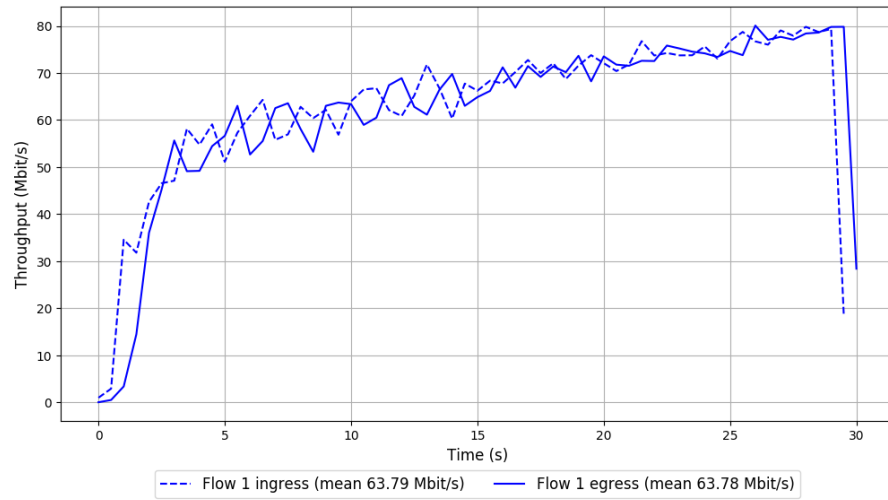


Run 4: Statistics of Indigo

Start at: 2018-12-02 01:53:32
End at: 2018-12-02 01:54:02
Local clock offset: -1.449 ms
Remote clock offset: -41.134 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.78 Mbit/s
95th percentile per-packet one-way delay: 72.690 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 63.78 Mbit/s
95th percentile per-packet one-way delay: 72.690 ms
Loss rate: 0.04%

Run 4: Report of Indigo — Data Link

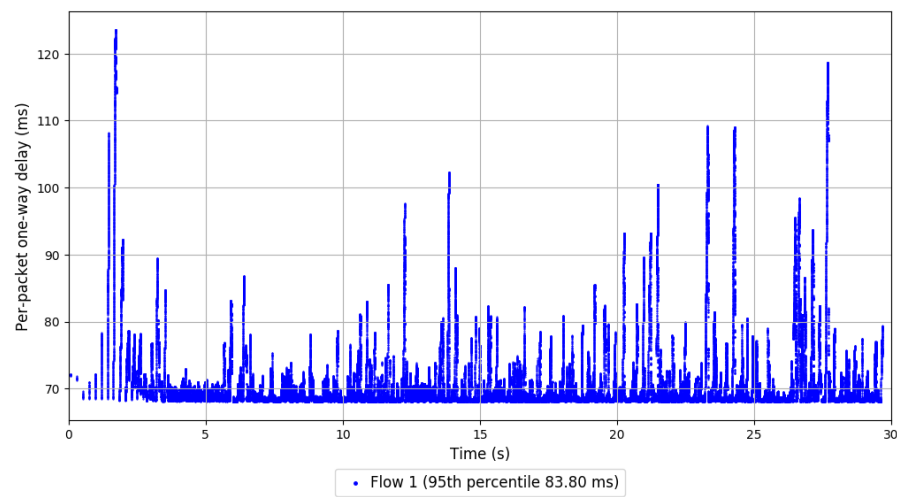
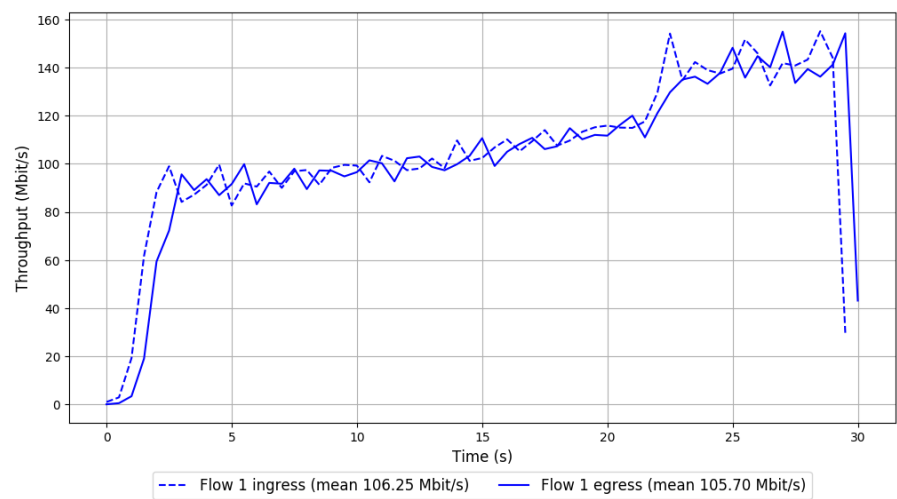


Run 5: Statistics of Indigo

Start at: 2018-12-02 02:18:14
End at: 2018-12-02 02:18:44
Local clock offset: -0.768 ms
Remote clock offset: -41.545 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 105.70 Mbit/s
95th percentile per-packet one-way delay: 83.799 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 105.70 Mbit/s
95th percentile per-packet one-way delay: 83.799 ms
Loss rate: 0.53%

Run 5: Report of Indigo — Data Link

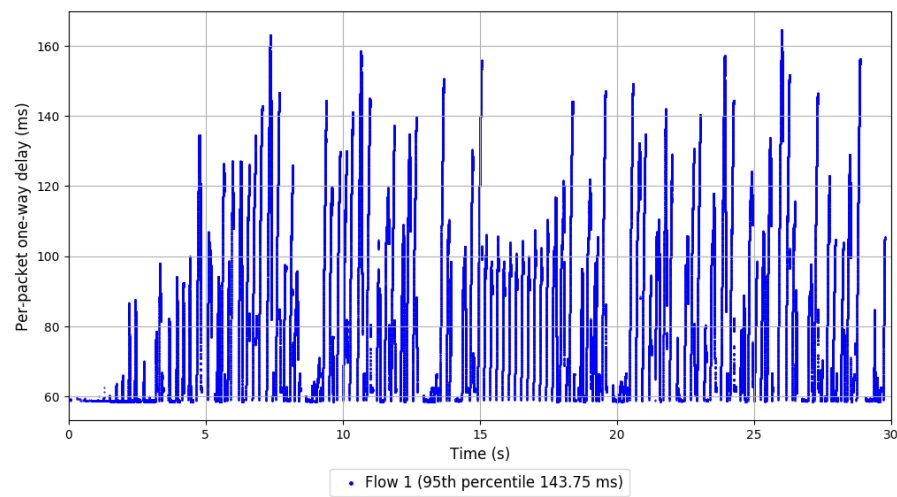
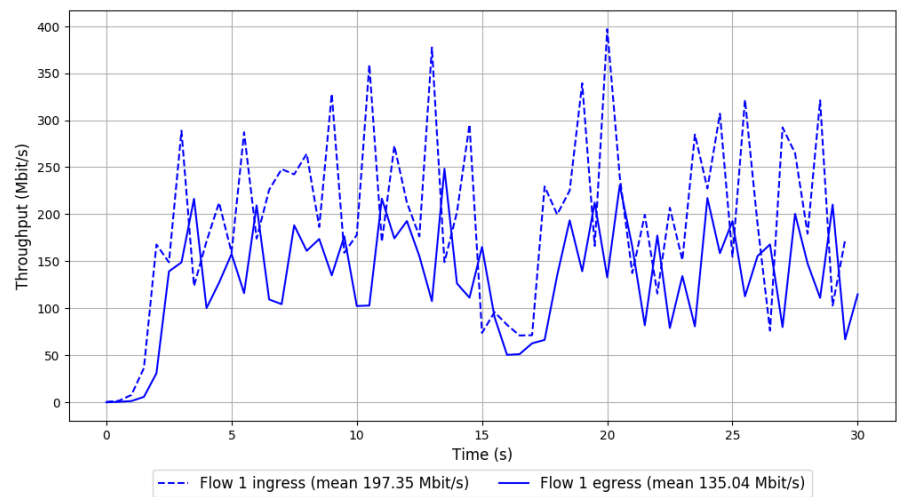


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-12-02 00:25:11
End at: 2018-12-02 00:25:41
Local clock offset: 12.905 ms
Remote clock offset: -46.958 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 135.04 Mbit/s
95th percentile per-packet one-way delay: 143.750 ms
Loss rate: 31.56%
-- Flow 1:
Average throughput: 135.04 Mbit/s
95th percentile per-packet one-way delay: 143.750 ms
Loss rate: 31.56%

Run 1: Report of Indigo-96d2da3 — Data Link

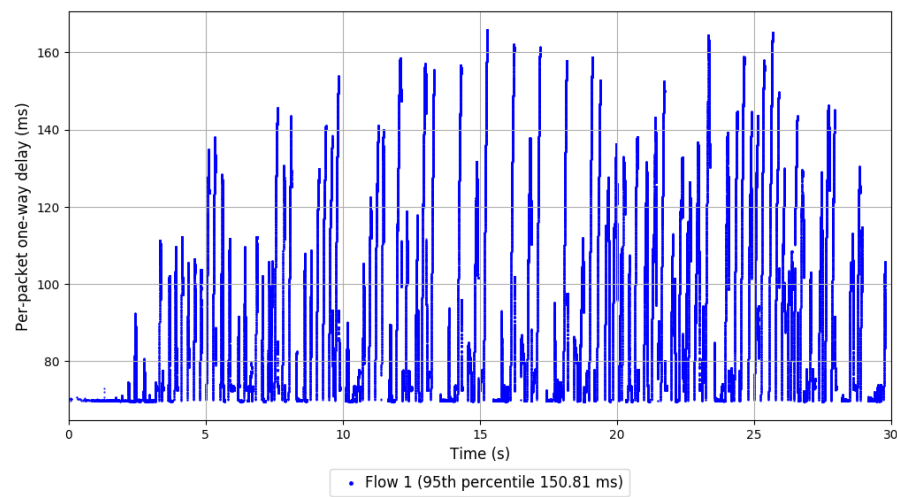
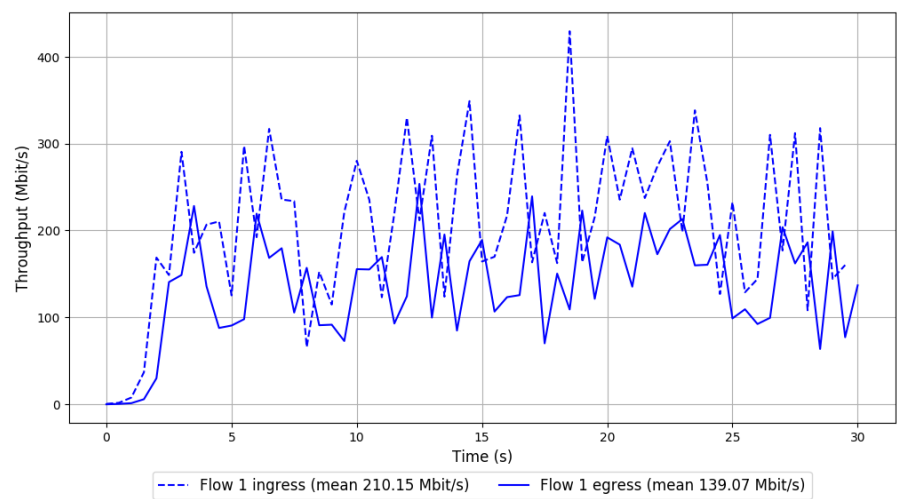


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-12-02 00:55:46
End at: 2018-12-02 00:56:16
Local clock offset: -3.712 ms
Remote clock offset: -41.943 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 139.07 Mbit/s
95th percentile per-packet one-way delay: 150.810 ms
Loss rate: 33.80%
-- Flow 1:
Average throughput: 139.07 Mbit/s
95th percentile per-packet one-way delay: 150.810 ms
Loss rate: 33.80%

Run 2: Report of Indigo-96d2da3 — Data Link

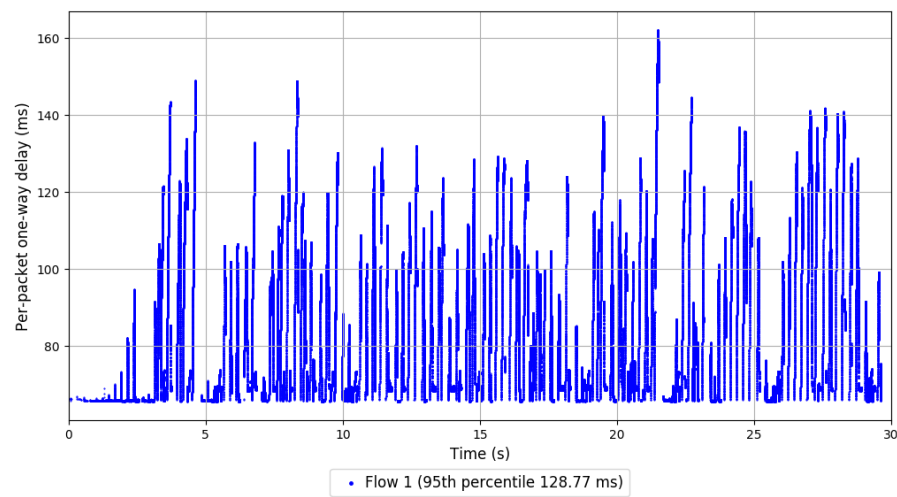
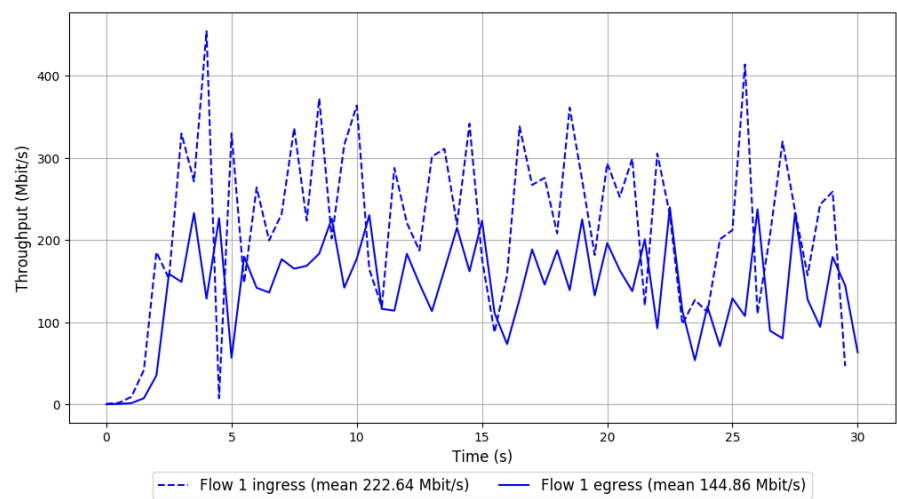


Run 3: Statistics of Indigo-96d2da3

Start at: 2018-12-02 01:26:19
End at: 2018-12-02 01:26:49
Local clock offset: -6.209 ms
Remote clock offset: -45.053 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 144.86 Mbit/s
95th percentile per-packet one-way delay: 128.773 ms
Loss rate: 34.92%
-- Flow 1:
Average throughput: 144.86 Mbit/s
95th percentile per-packet one-way delay: 128.773 ms
Loss rate: 34.92%

Run 3: Report of Indigo-96d2da3 — Data Link

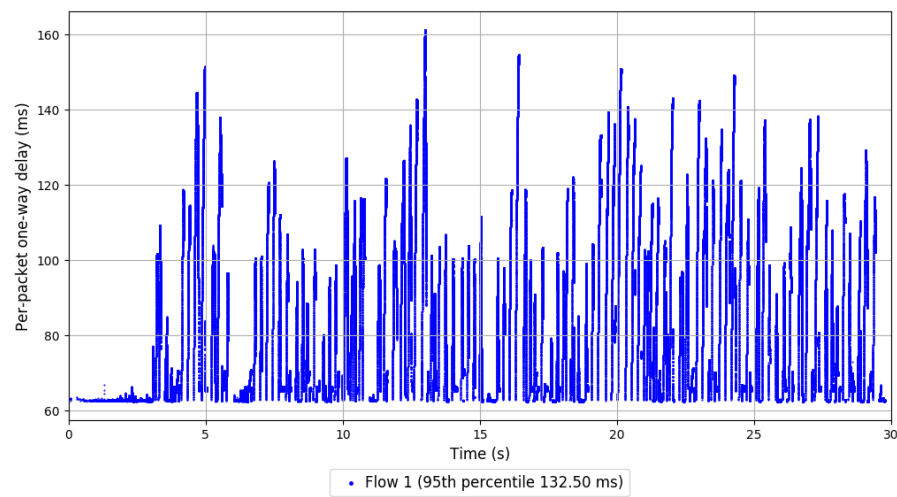
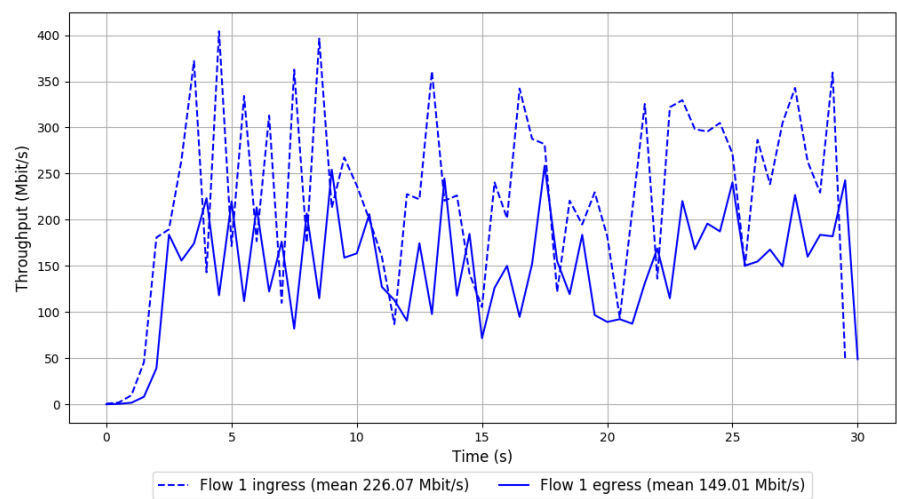


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-12-02 01:51:02
End at: 2018-12-02 01:51:32
Local clock offset: -4.858 ms
Remote clock offset: -47.639 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 149.01 Mbit/s
95th percentile per-packet one-way delay: 132.498 ms
Loss rate: 34.09%
-- Flow 1:
Average throughput: 149.01 Mbit/s
95th percentile per-packet one-way delay: 132.498 ms
Loss rate: 34.09%

Run 4: Report of Indigo-96d2da3 — Data Link

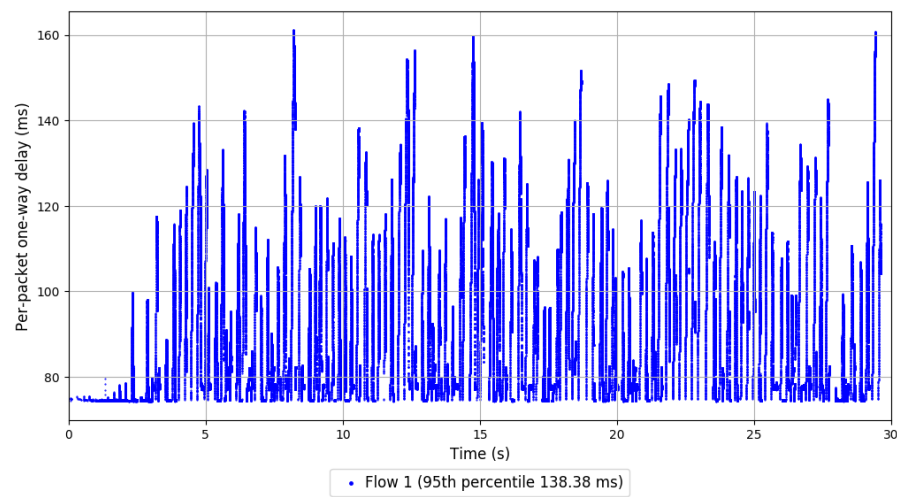
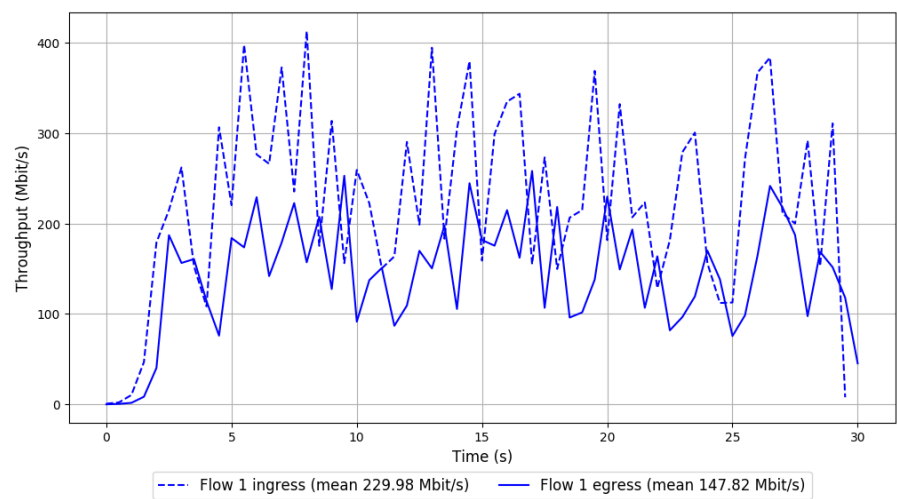


Run 5: Statistics of Indigo-96d2da3

Start at: 2018-12-02 02:15:44
End at: 2018-12-02 02:16:14
Local clock offset: -0.632 ms
Remote clock offset: -35.075 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 147.82 Mbit/s
95th percentile per-packet one-way delay: 138.381 ms
Loss rate: 35.66%
-- Flow 1:
Average throughput: 147.82 Mbit/s
95th percentile per-packet one-way delay: 138.381 ms
Loss rate: 35.66%

Run 5: Report of Indigo-96d2da3 — Data Link

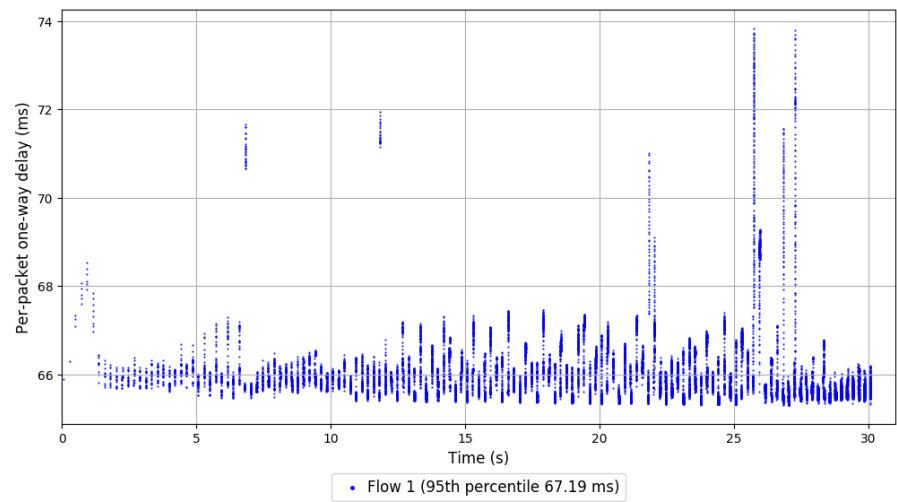
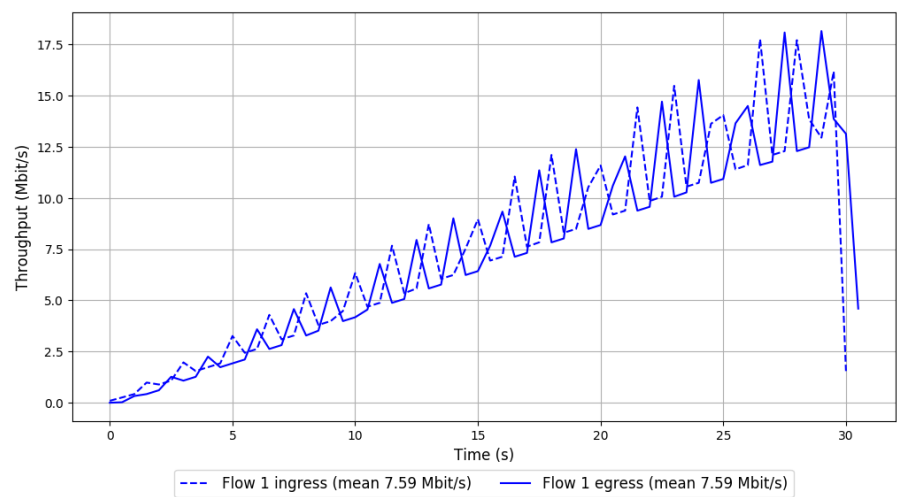


Run 1: Statistics of LEDBAT

Start at: 2018-12-02 00:30:09
End at: 2018-12-02 00:30:39
Local clock offset: 11.965 ms
Remote clock offset: -33.688 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 67.185 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 67.185 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

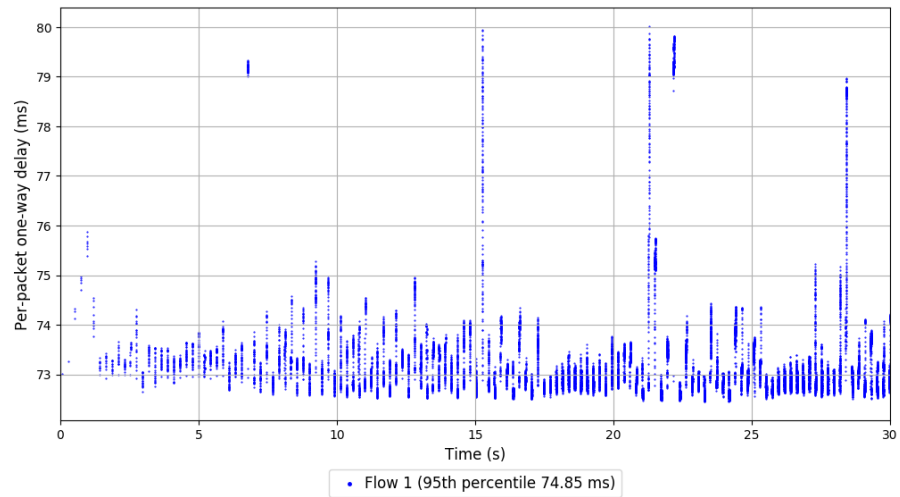
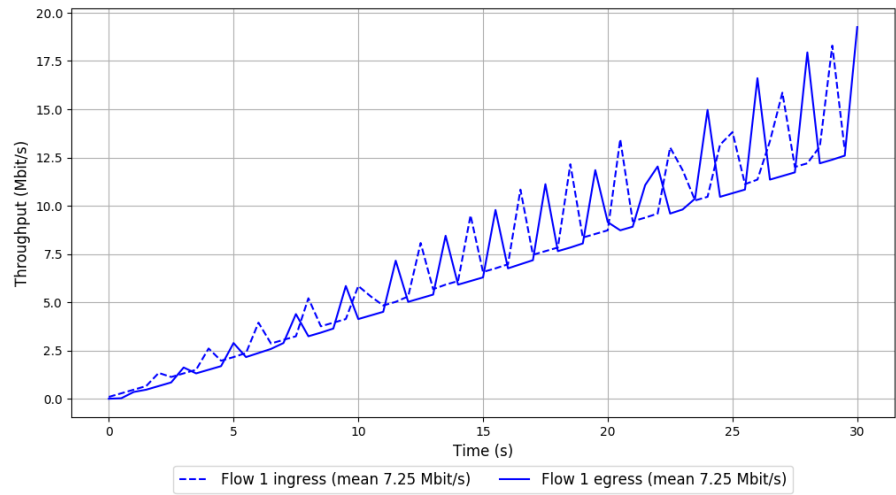


Run 2: Statistics of LEDBAT

Start at: 2018-12-02 01:00:44
End at: 2018-12-02 01:01:14
Local clock offset: -1.048 ms
Remote clock offset: -34.832 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 74.854 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 74.854 ms
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

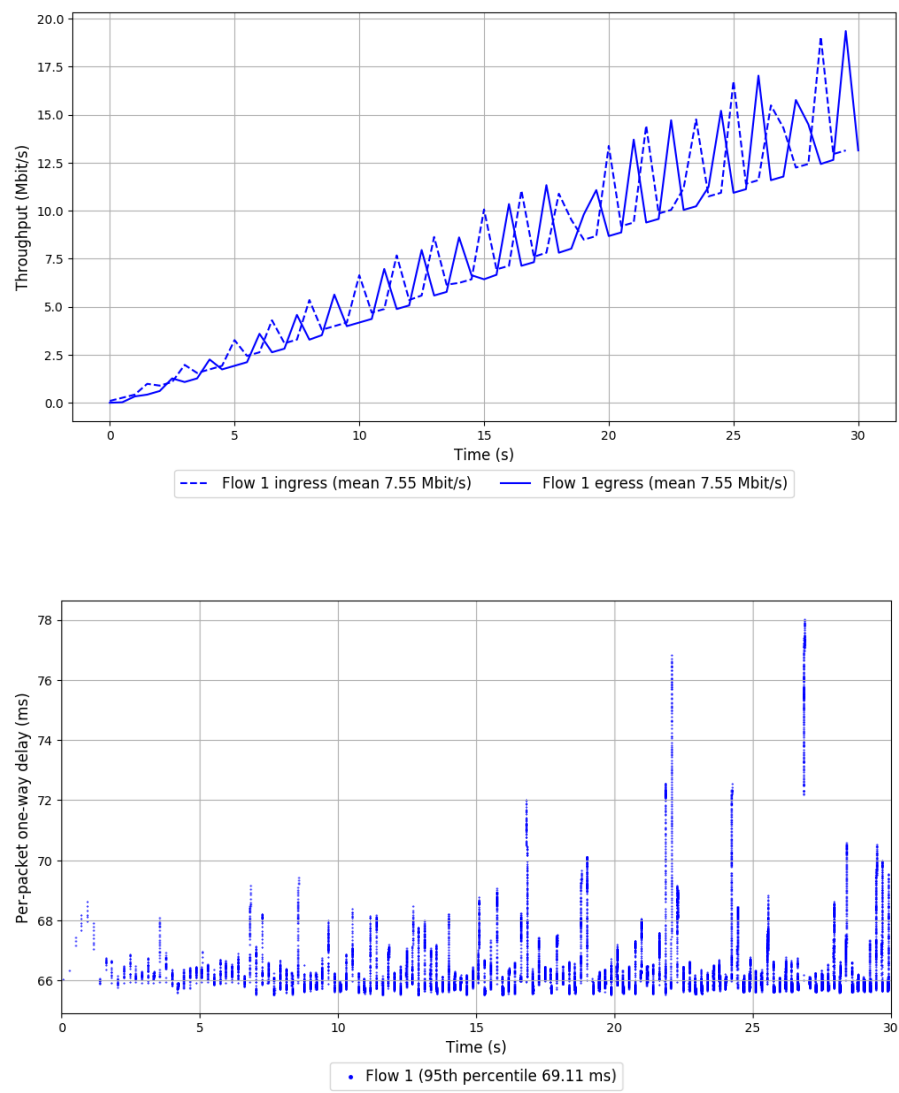


Run 3: Statistics of LEDBAT

Start at: 2018-12-02 01:31:17
End at: 2018-12-02 01:31:47
Local clock offset: -3.046 ms
Remote clock offset: -42.28 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 7.55 Mbit/s
95th percentile per-packet one-way delay: 69.112 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.55 Mbit/s
95th percentile per-packet one-way delay: 69.112 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

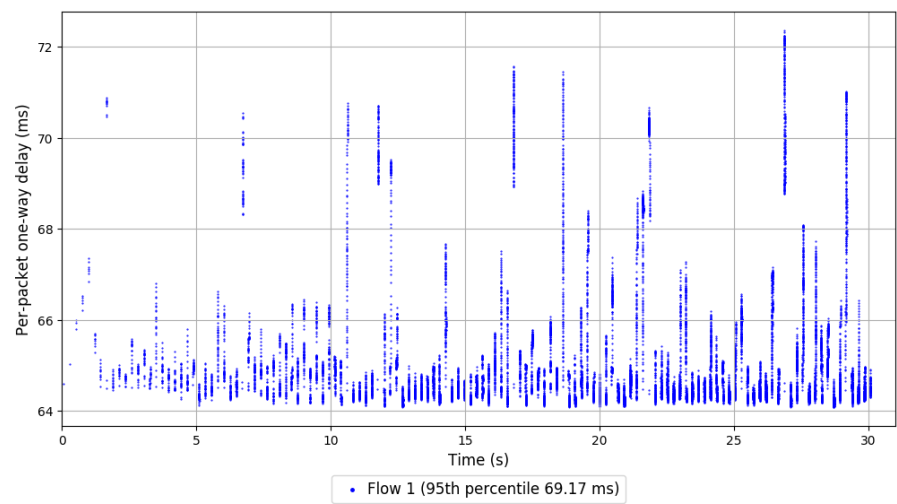
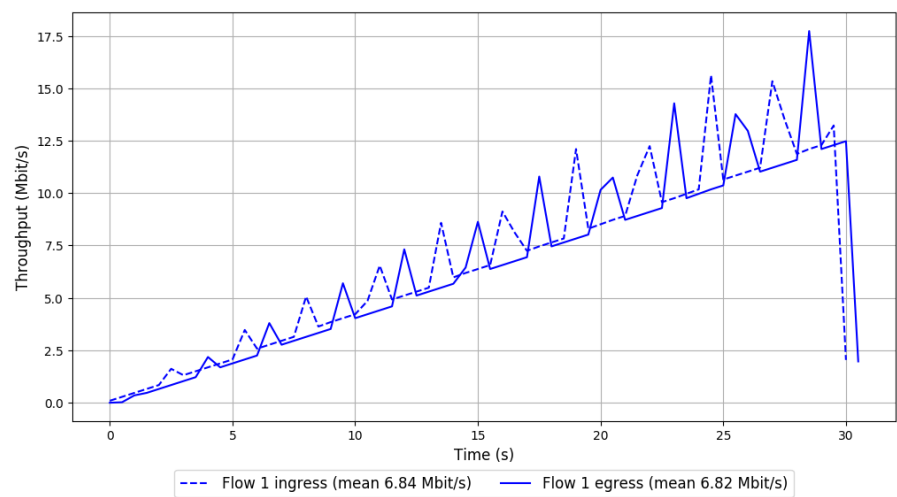


Run 4: Statistics of LEDBAT

Start at: 2018-12-02 01:55:59
End at: 2018-12-02 01:56:29
Local clock offset: 5.187 ms
Remote clock offset: -41.517 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 69.174 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 69.174 ms
Loss rate: 0.20%

Run 4: Report of LEDBAT — Data Link

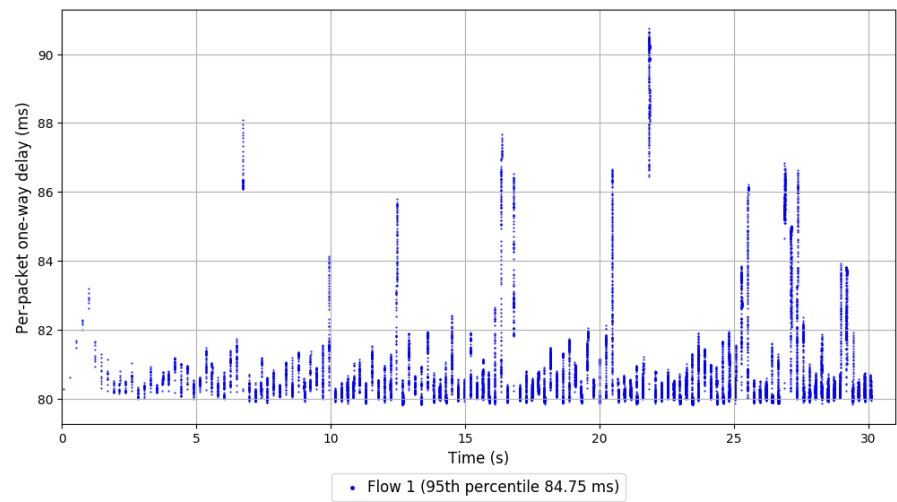
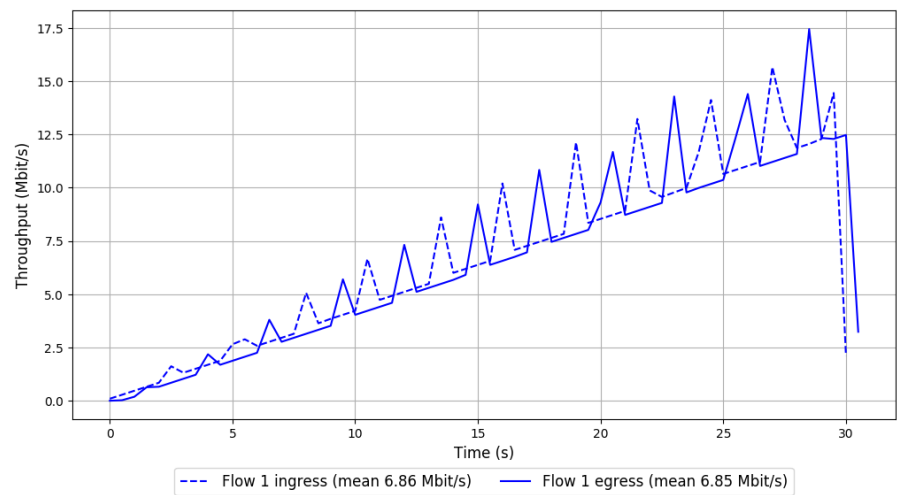


Run 5: Statistics of LEDBAT

Start at: 2018-12-02 02:20:43
End at: 2018-12-02 02:21:13
Local clock offset: -1.078 ms
Remote clock offset: -35.996 ms

Below is generated by plot.py at 2018-12-02 02:58:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.85 Mbit/s
95th percentile per-packet one-way delay: 84.752 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 6.85 Mbit/s
95th percentile per-packet one-way delay: 84.752 ms
Loss rate: 0.21%

Run 5: Report of LEDBAT — Data Link

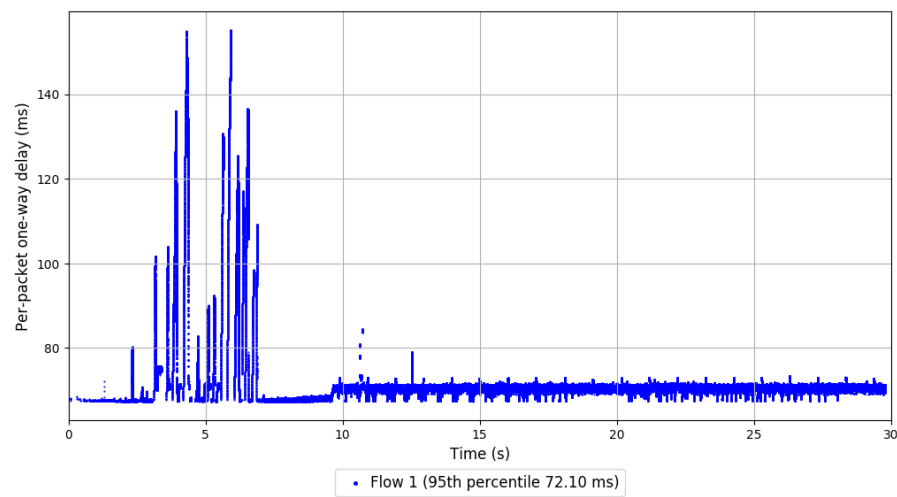
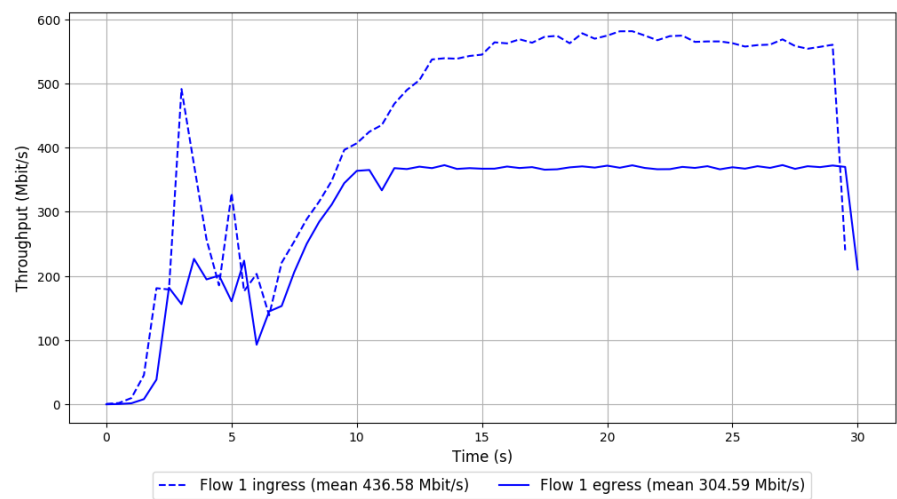


Run 1: Statistics of Indigo-Muses

Start at: 2018-12-02 00:21:10
End at: 2018-12-02 00:21:40
Local clock offset: 12.294 ms
Remote clock offset: -32.828 ms

Below is generated by plot.py at 2018-12-02 02:58:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 304.59 Mbit/s
95th percentile per-packet one-way delay: 72.104 ms
Loss rate: 30.22%
-- Flow 1:
Average throughput: 304.59 Mbit/s
95th percentile per-packet one-way delay: 72.104 ms
Loss rate: 30.22%

Run 1: Report of Indigo-Muses — Data Link

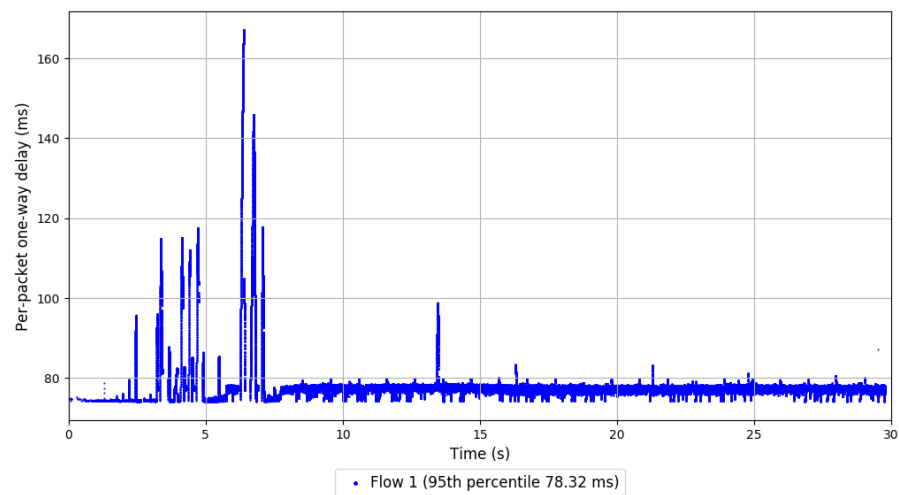
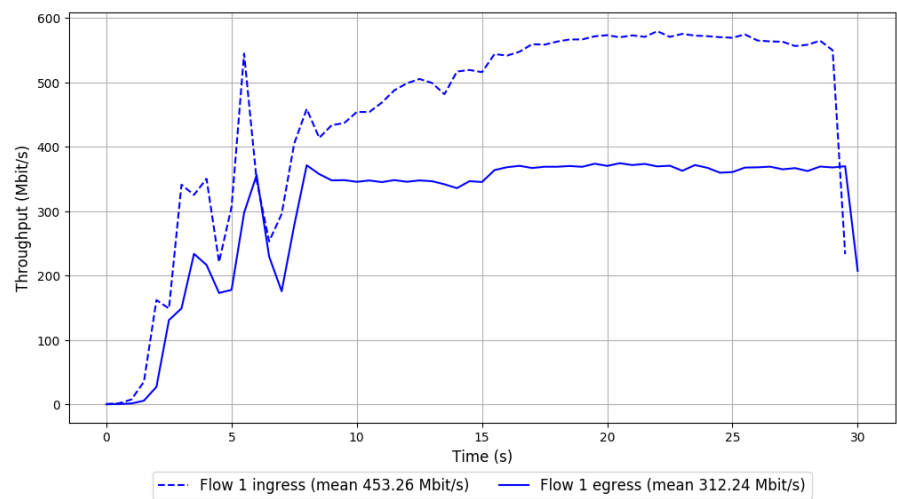


Run 2: Statistics of Indigo-Muses

Start at: 2018-12-02 00:51:45
End at: 2018-12-02 00:52:15
Local clock offset: -1.256 ms
Remote clock offset: -40.755 ms

Below is generated by plot.py at 2018-12-02 02:58:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 312.24 Mbit/s
95th percentile per-packet one-way delay: 78.317 ms
Loss rate: 31.11%
-- Flow 1:
Average throughput: 312.24 Mbit/s
95th percentile per-packet one-way delay: 78.317 ms
Loss rate: 31.11%

Run 2: Report of Indigo-Muses — Data Link

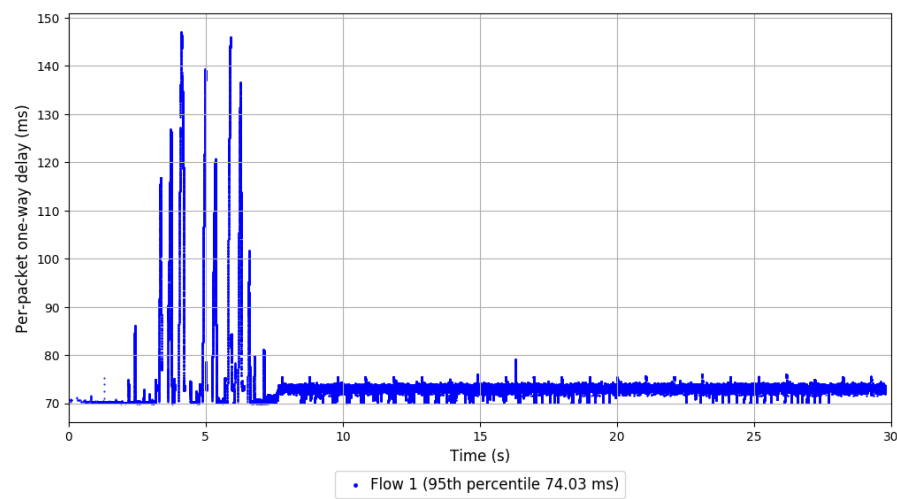
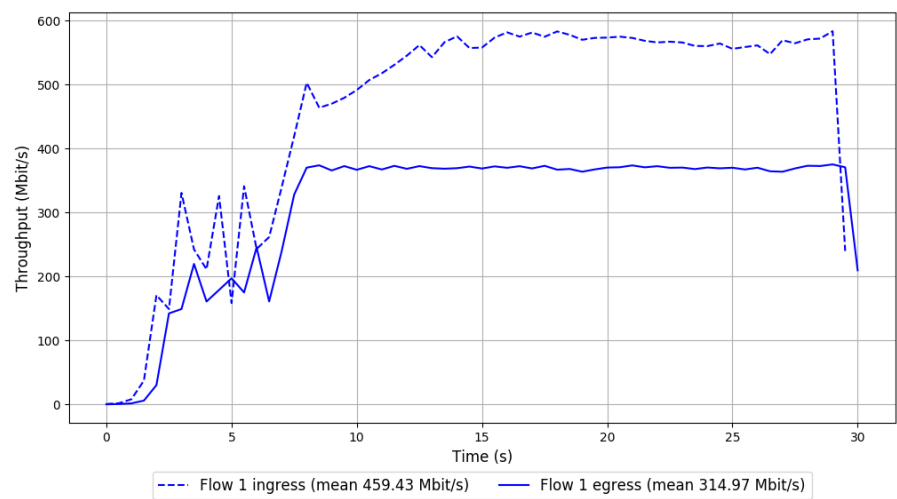


Run 3: Statistics of Indigo-Muses

Start at: 2018-12-02 01:22:18
End at: 2018-12-02 01:22:48
Local clock offset: -5.23 ms
Remote clock offset: -39.491 ms

Below is generated by plot.py at 2018-12-02 02:58:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 314.97 Mbit/s
95th percentile per-packet one-way delay: 74.030 ms
Loss rate: 31.44%
-- Flow 1:
Average throughput: 314.97 Mbit/s
95th percentile per-packet one-way delay: 74.030 ms
Loss rate: 31.44%

Run 3: Report of Indigo-Muses — Data Link

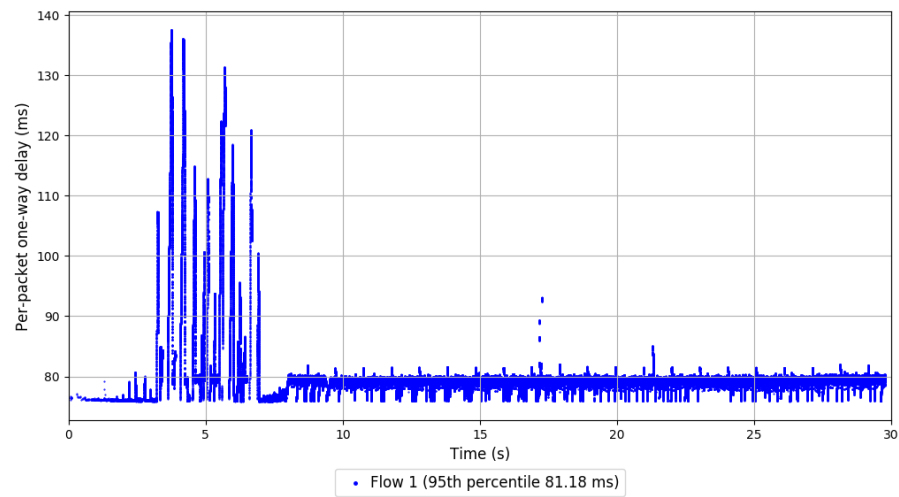
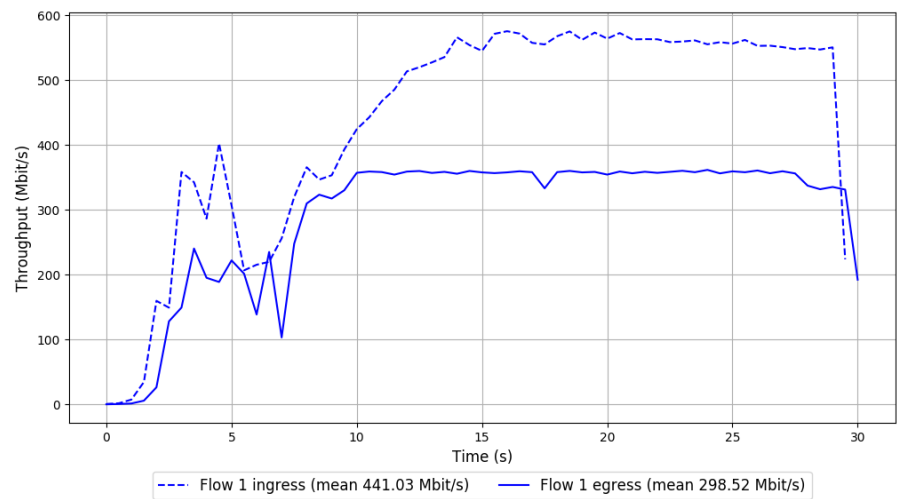


Run 4: Statistics of Indigo-Muses

Start at: 2018-12-02 01:46:59
End at: 2018-12-02 01:47:29
Local clock offset: -6.163 ms
Remote clock offset: -35.738 ms

Below is generated by plot.py at 2018-12-02 02:58:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 298.52 Mbit/s
95th percentile per-packet one-way delay: 81.178 ms
Loss rate: 32.31%
-- Flow 1:
Average throughput: 298.52 Mbit/s
95th percentile per-packet one-way delay: 81.178 ms
Loss rate: 32.31%

Run 4: Report of Indigo-Muses — Data Link

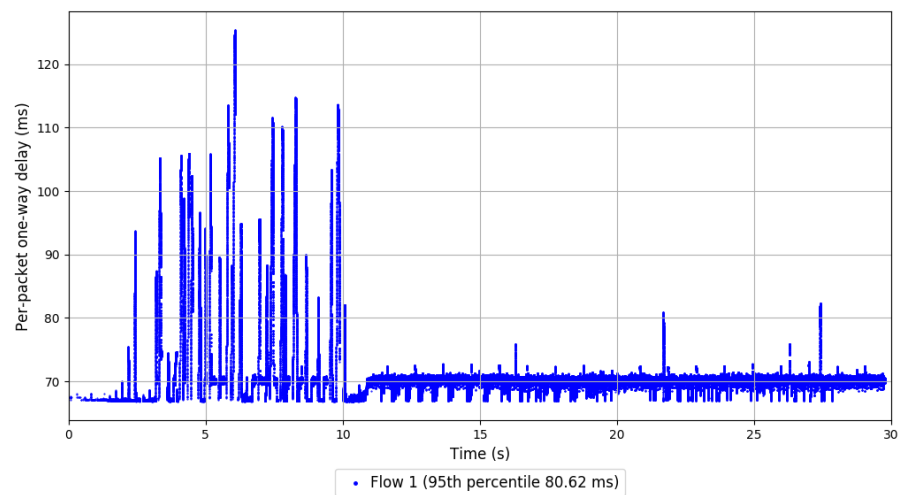
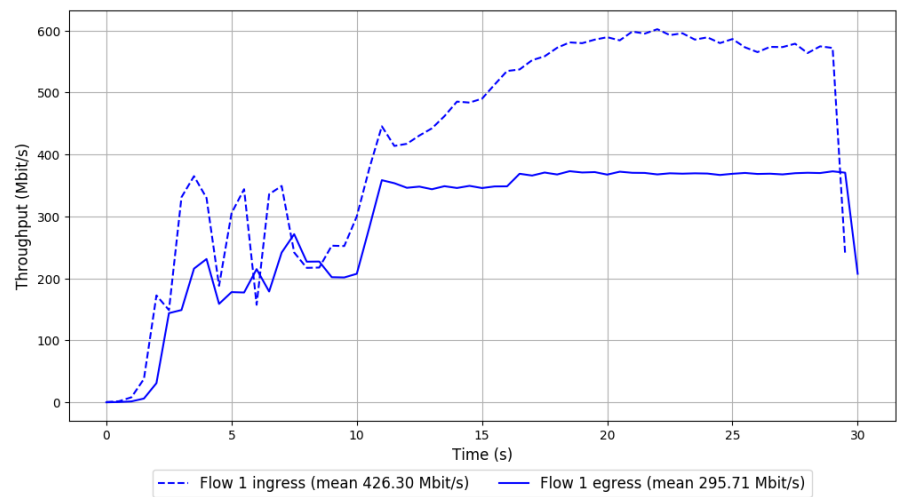


Run 5: Statistics of Indigo-Muses

Start at: 2018-12-02 02:11:42
End at: 2018-12-02 02:12:12
Local clock offset: -1.075 ms
Remote clock offset: -42.768 ms

Below is generated by plot.py at 2018-12-02 02:58:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 295.71 Mbit/s
95th percentile per-packet one-way delay: 80.622 ms
Loss rate: 30.62%
-- Flow 1:
Average throughput: 295.71 Mbit/s
95th percentile per-packet one-way delay: 80.622 ms
Loss rate: 30.62%

Run 5: Report of Indigo-Muses — Data Link

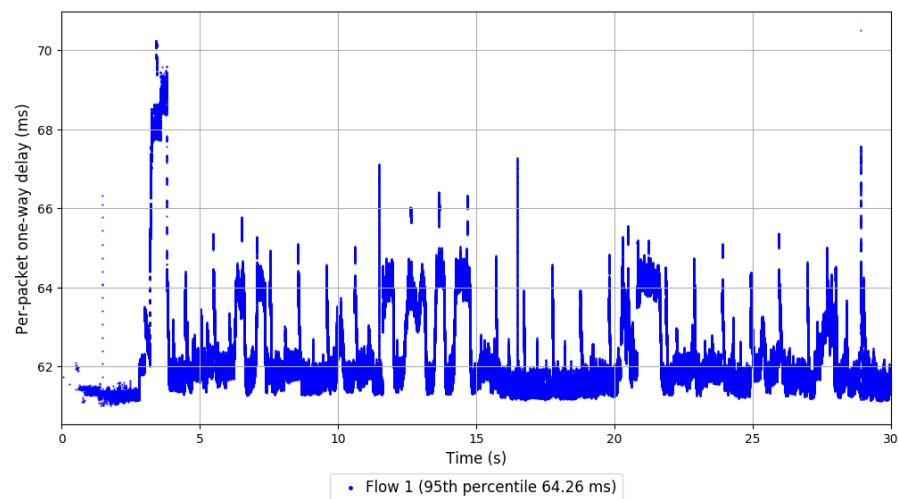
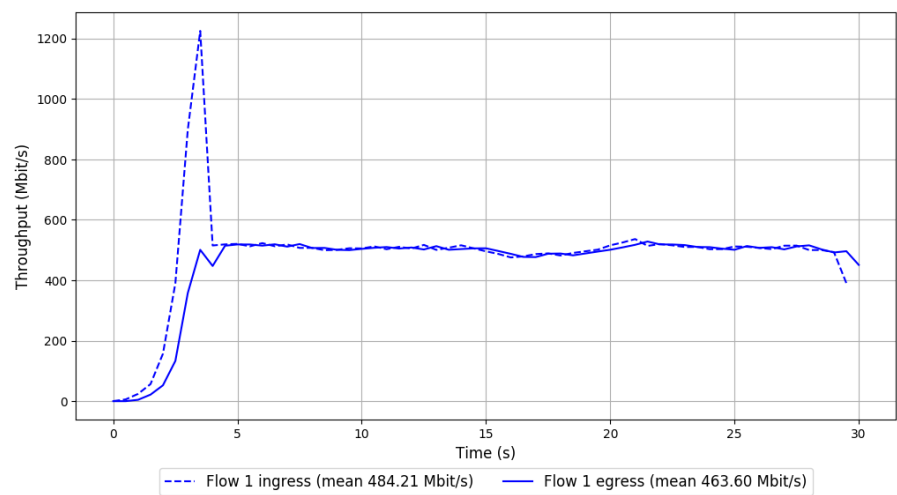


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-12-02 00:31:21
End at: 2018-12-02 00:31:51
Local clock offset: 3.114 ms
Remote clock offset: -46.44 ms

# Below is generated by plot.py at 2018-12-02 03:00:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 463.60 Mbit/s
95th percentile per-packet one-way delay: 64.259 ms
Loss rate: 4.26%
-- Flow 1:
Average throughput: 463.60 Mbit/s
95th percentile per-packet one-way delay: 64.259 ms
Loss rate: 4.26%
```

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-12-02 01:01:55

End at: 2018-12-02 01:02:25

Local clock offset: -2.657 ms

Remote clock offset: -40.093 ms

Below is generated by plot.py at 2018-12-02 03:03:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 471.65 Mbit/s

95th percentile per-packet one-way delay: 71.873 ms

Loss rate: 4.02%

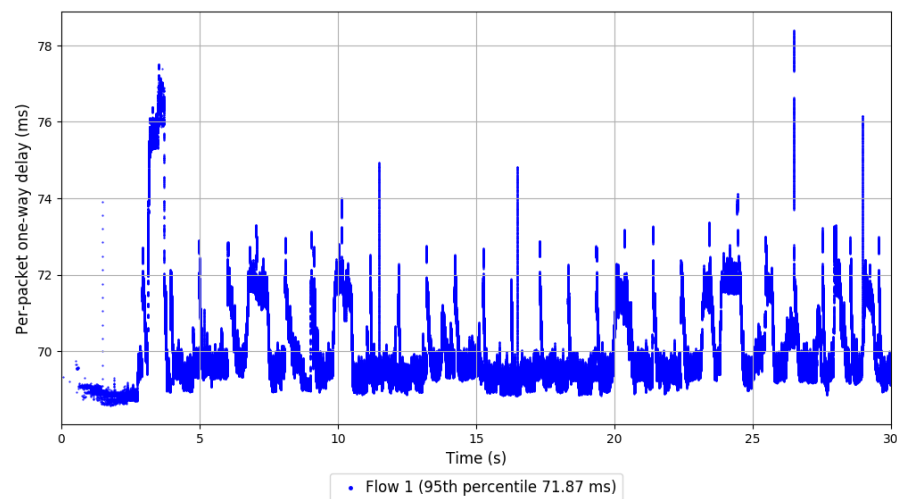
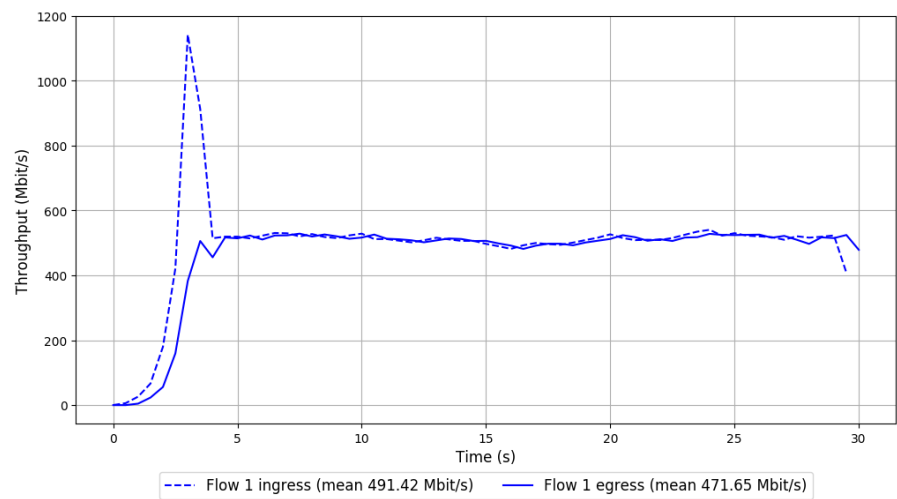
-- Flow 1:

Average throughput: 471.65 Mbit/s

95th percentile per-packet one-way delay: 71.873 ms

Loss rate: 4.02%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-12-02 01:32:29

End at: 2018-12-02 01:32:59

Local clock offset: -5.189 ms

Remote clock offset: -39.636 ms

Below is generated by plot.py at 2018-12-02 03:03:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 464.57 Mbit/s

95th percentile per-packet one-way delay: 73.317 ms

Loss rate: 4.04%

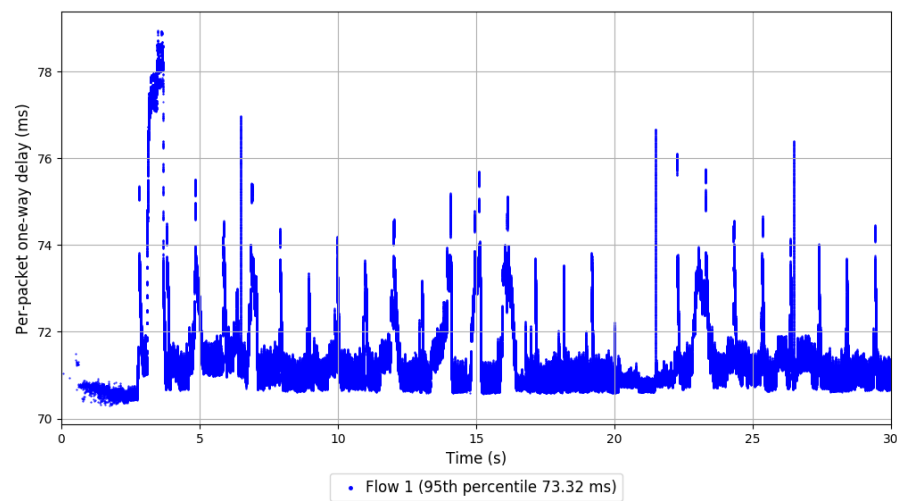
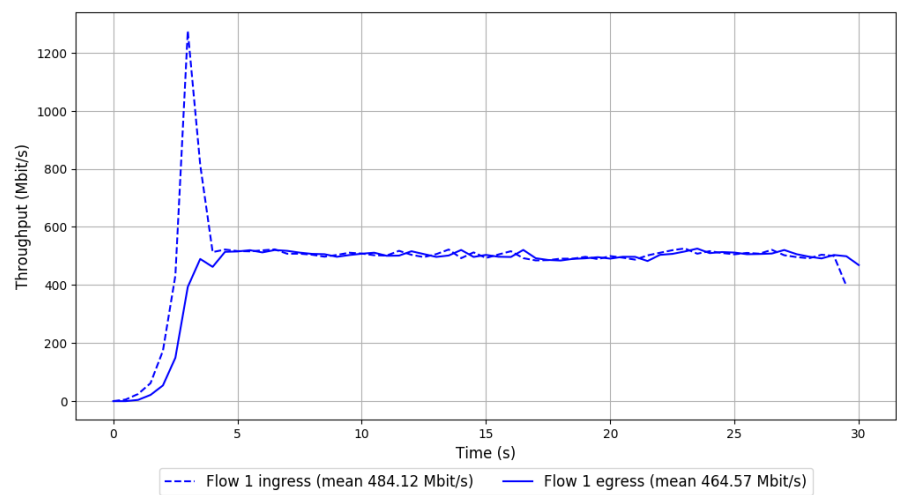
-- Flow 1:

Average throughput: 464.57 Mbit/s

95th percentile per-packet one-way delay: 73.317 ms

Loss rate: 4.04%

Run 3: Report of PCC-Allegro — Data Link

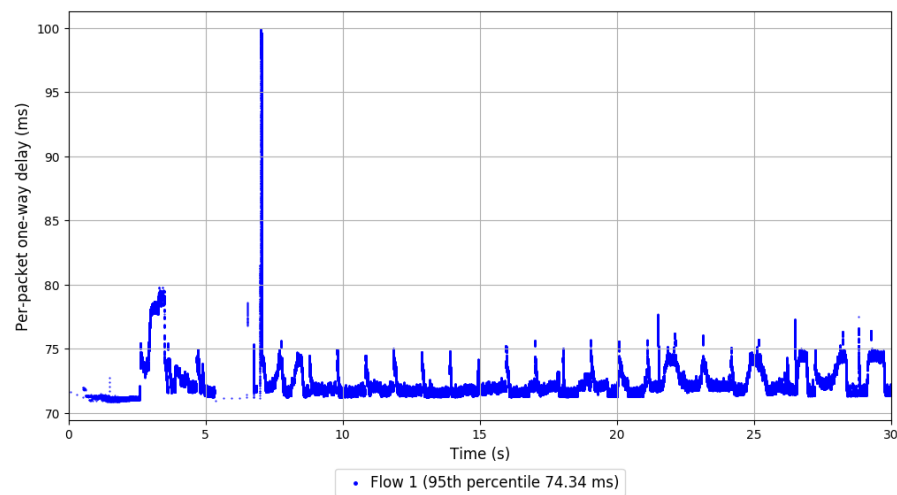
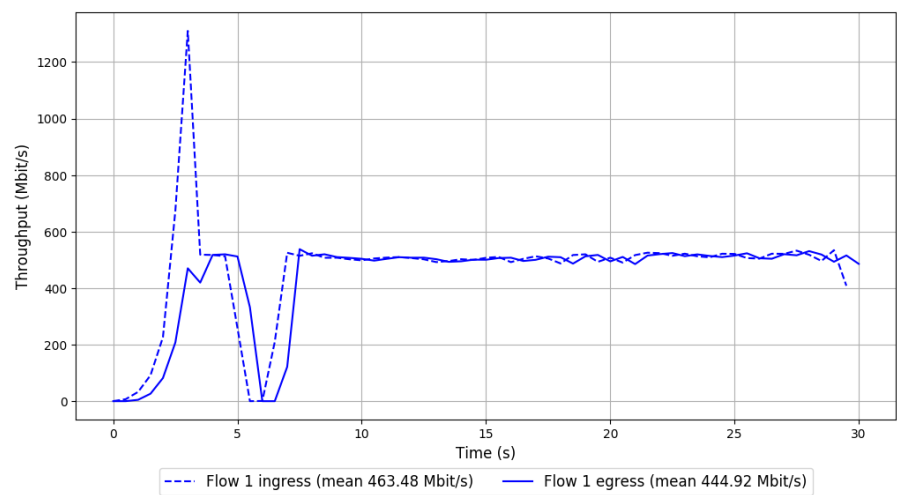


Run 4: Statistics of PCC-Allegro

Start at: 2018-12-02 01:57:11
End at: 2018-12-02 01:57:41
Local clock offset: -4.562 ms
Remote clock offset: -38.88 ms

Below is generated by plot.py at 2018-12-02 03:04:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 444.92 Mbit/s
95th percentile per-packet one-way delay: 74.342 ms
Loss rate: 4.00%
-- Flow 1:
Average throughput: 444.92 Mbit/s
95th percentile per-packet one-way delay: 74.342 ms
Loss rate: 4.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-12-02 02:21:56

End at: 2018-12-02 02:22:26

Local clock offset: -1.024 ms

Remote clock offset: -47.558 ms

Below is generated by plot.py at 2018-12-02 03:04:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 452.46 Mbit/s

95th percentile per-packet one-way delay: 71.318 ms

Loss rate: 4.11%

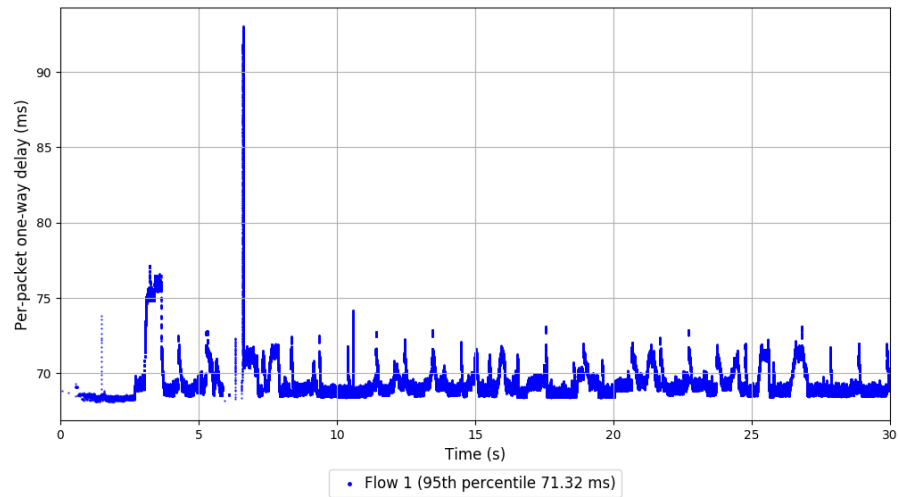
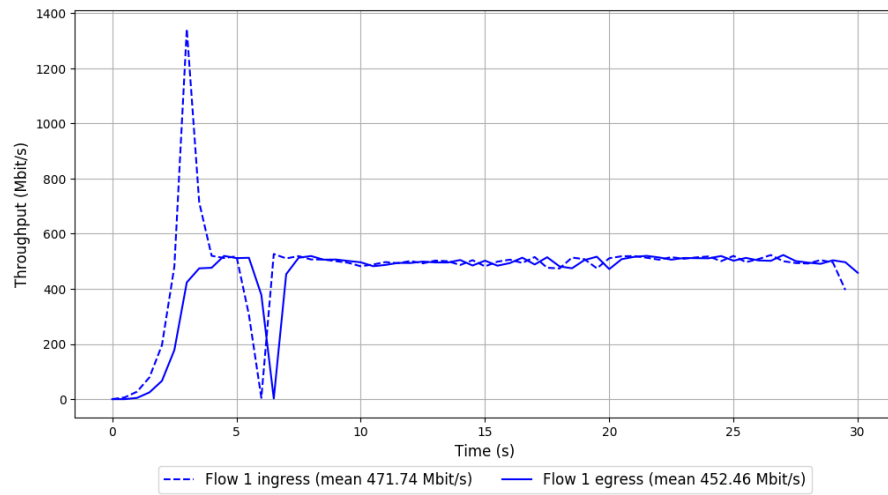
-- Flow 1:

Average throughput: 452.46 Mbit/s

95th percentile per-packet one-way delay: 71.318 ms

Loss rate: 4.11%

Run 5: Report of PCC-Allegro — Data Link

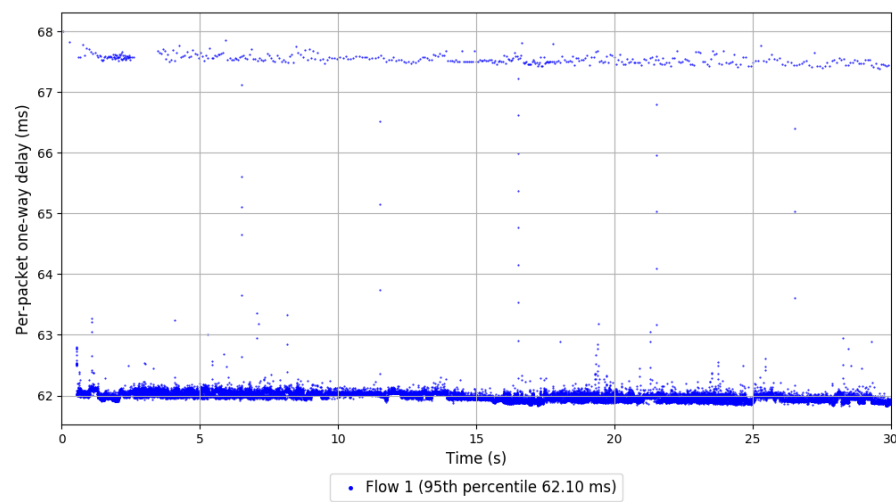
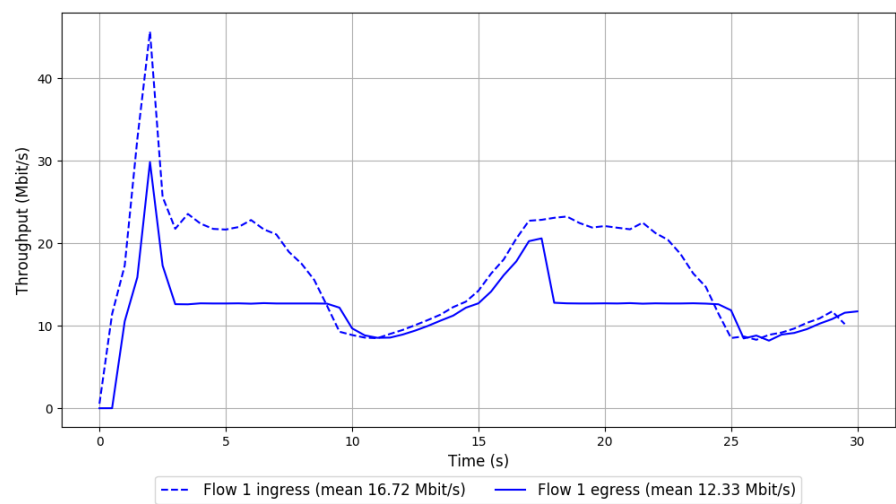


```
Run 1: Statistics of PCC-Expr

Start at: 2018-12-02 00:32:48
End at: 2018-12-02 00:33:18
Local clock offset: 1.475 ms
Remote clock offset: -46.995 ms

# Below is generated by plot.py at 2018-12-02 03:04:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.33 Mbit/s
95th percentile per-packet one-way delay: 62.103 ms
Loss rate: 26.26%
-- Flow 1:
Average throughput: 12.33 Mbit/s
95th percentile per-packet one-way delay: 62.103 ms
Loss rate: 26.26%
```

Run 1: Report of PCC-Expr — Data Link

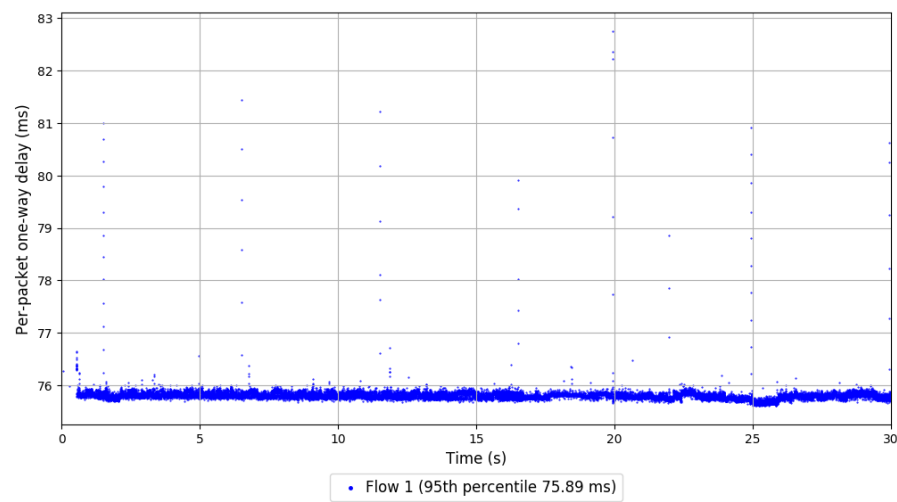
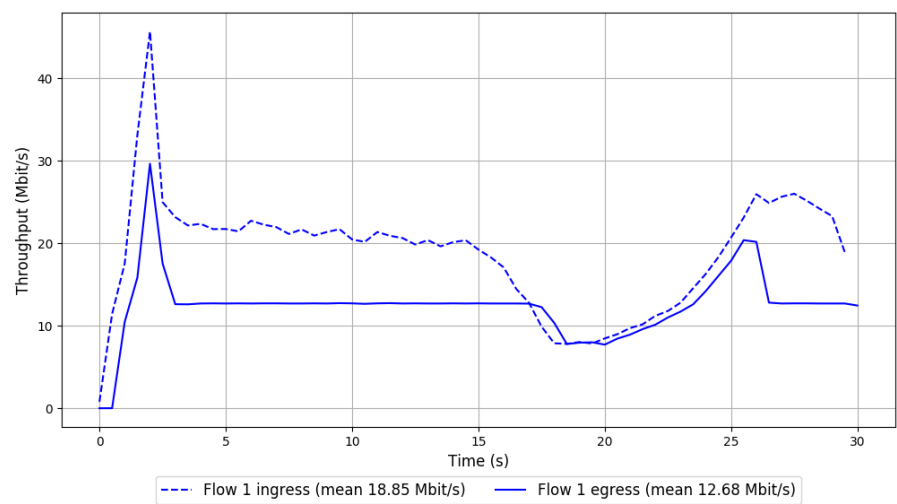


Run 2: Statistics of PCC-Expr

Start at: 2018-12-02 01:03:23
End at: 2018-12-02 01:03:53
Local clock offset: -10.595 ms
Remote clock offset: -40.856 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 75.888 ms
Loss rate: 32.72%
-- Flow 1:
Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 75.888 ms
Loss rate: 32.72%

Run 2: Report of PCC-Expr — Data Link

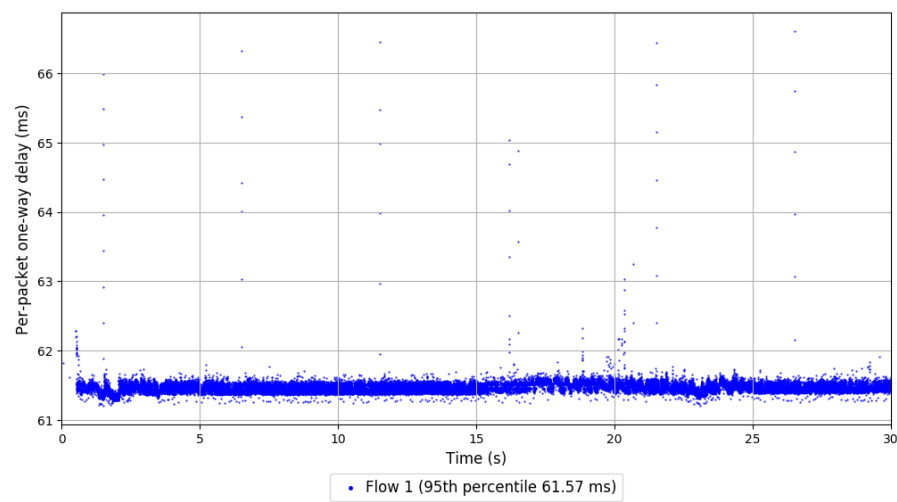
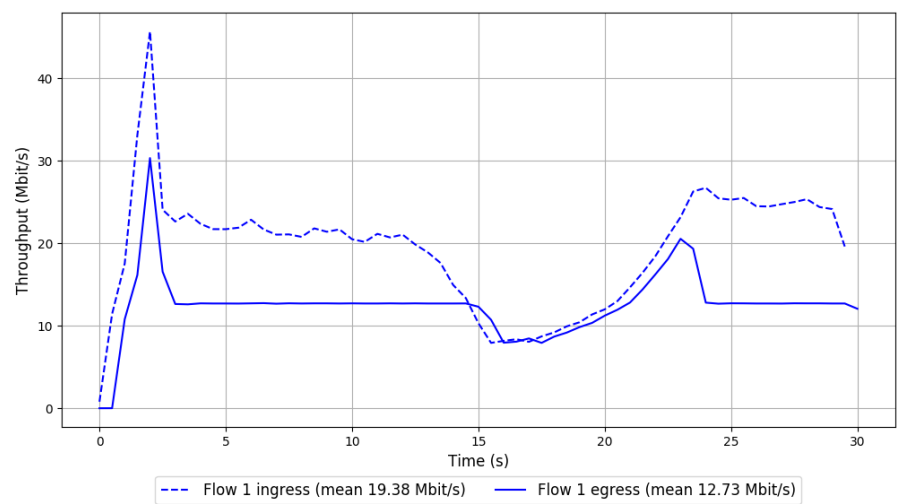


Run 3: Statistics of PCC-Expr

Start at: 2018-12-02 01:33:56
End at: 2018-12-02 01:34:26
Local clock offset: -4.486 ms
Remote clock offset: -48.363 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 61.571 ms
Loss rate: 34.34%
-- Flow 1:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 61.571 ms
Loss rate: 34.34%

Run 3: Report of PCC-Expr — Data Link

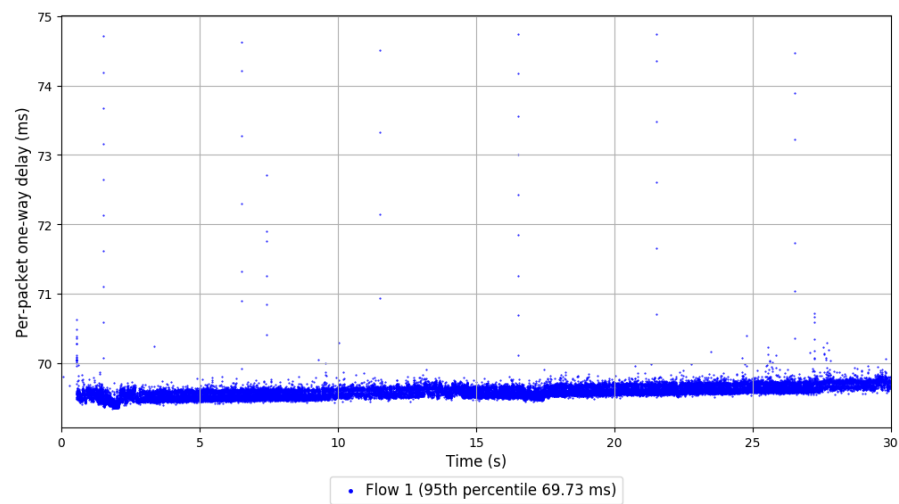
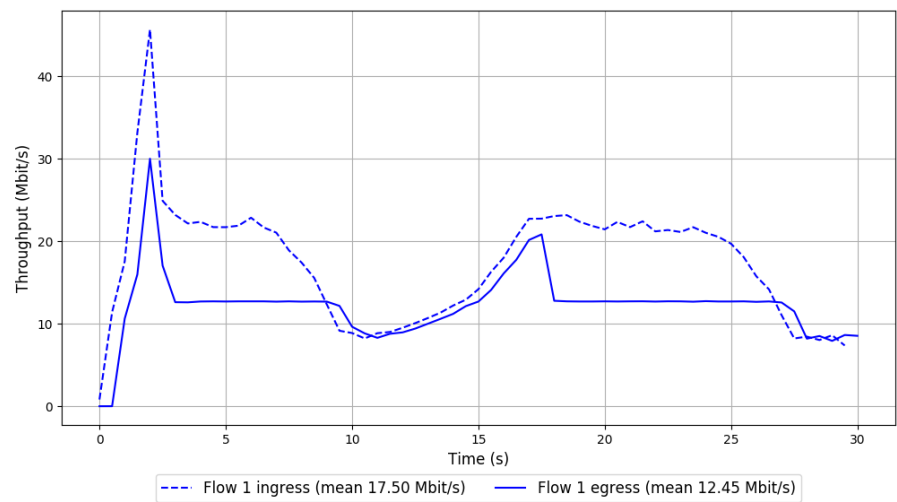


Run 4: Statistics of PCC-Expr

Start at: 2018-12-02 01:58:37
End at: 2018-12-02 01:59:07
Local clock offset: -2.49 ms
Remote clock offset: -39.125 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.45 Mbit/s
95th percentile per-packet one-way delay: 69.729 ms
Loss rate: 28.82%
-- Flow 1:
Average throughput: 12.45 Mbit/s
95th percentile per-packet one-way delay: 69.729 ms
Loss rate: 28.82%

Run 4: Report of PCC-Expr — Data Link

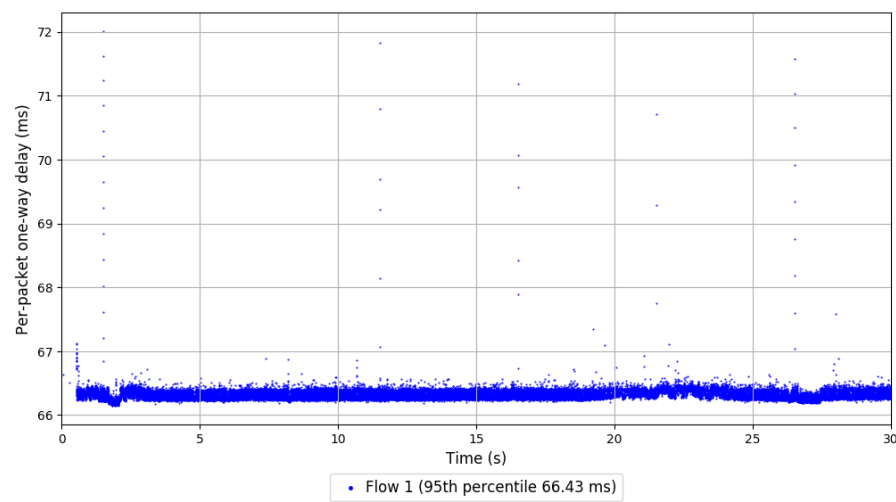
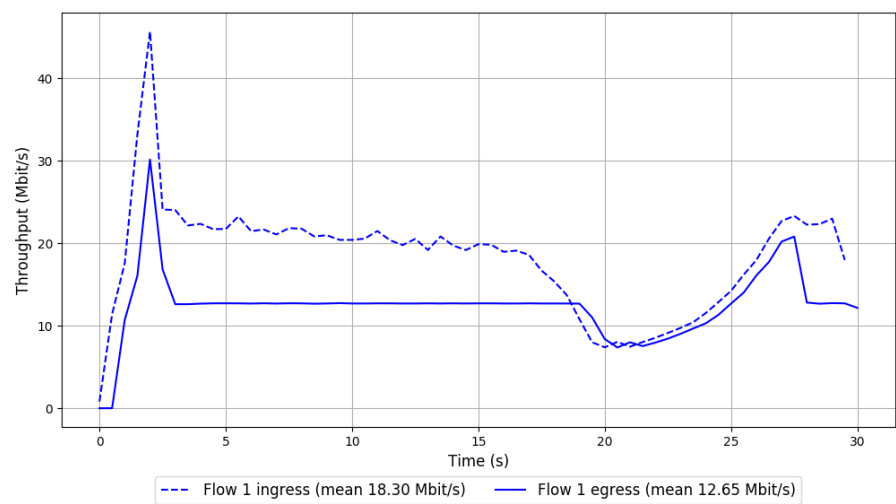


Run 5: Statistics of PCC-Expr

Start at: 2018-12-02 02:23:22
End at: 2018-12-02 02:23:52
Local clock offset: 1.232 ms
Remote clock offset: -41.918 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 66.429 ms
Loss rate: 30.89%
-- Flow 1:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 66.429 ms
Loss rate: 30.89%

Run 5: Report of PCC-Expr — Data Link

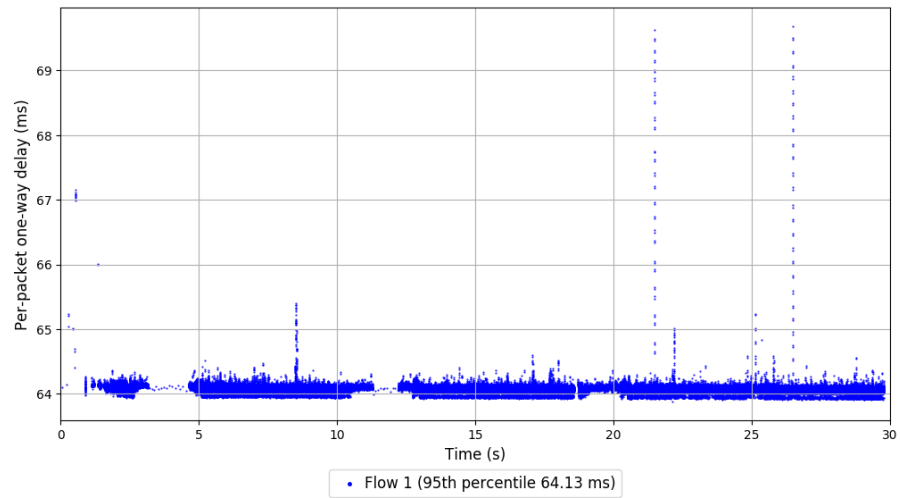
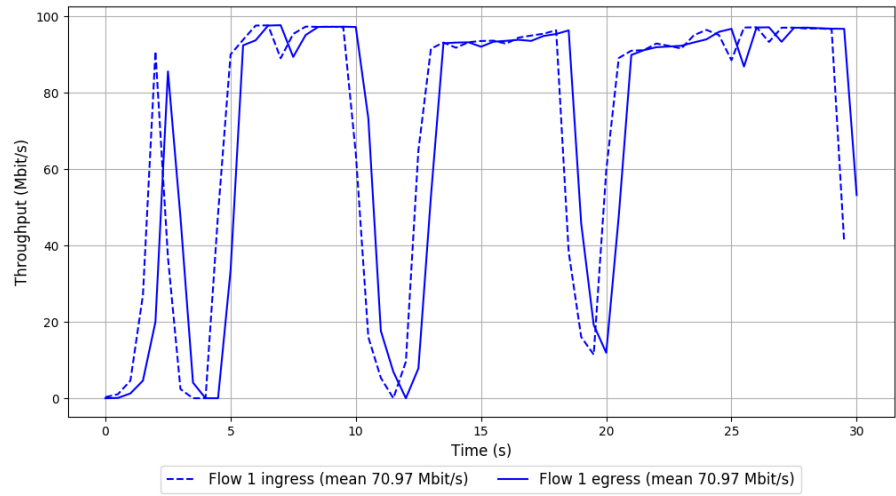


Run 1: Statistics of QUIC Cubic

Start at: 2018-12-02 00:46:25
End at: 2018-12-02 00:46:55
Local clock offset: -0.773 ms
Remote clock offset: -44.853 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.97 Mbit/s
95th percentile per-packet one-way delay: 64.130 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.97 Mbit/s
95th percentile per-packet one-way delay: 64.130 ms
Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link

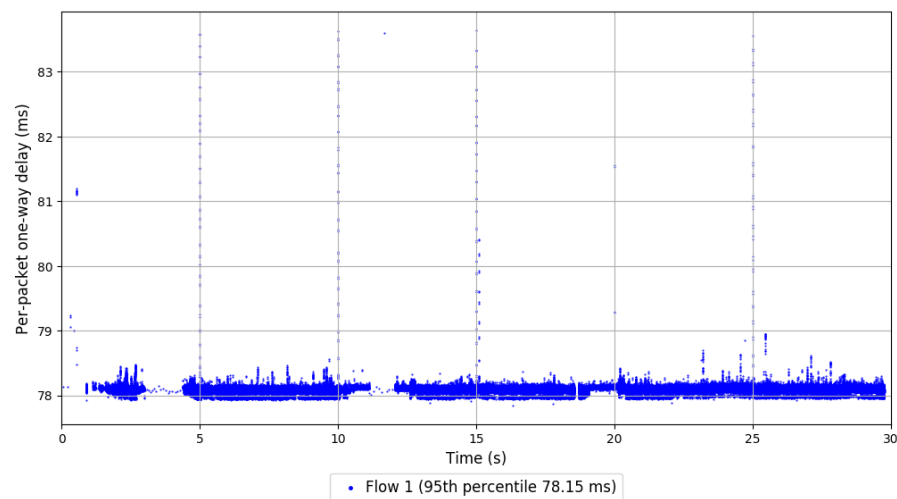
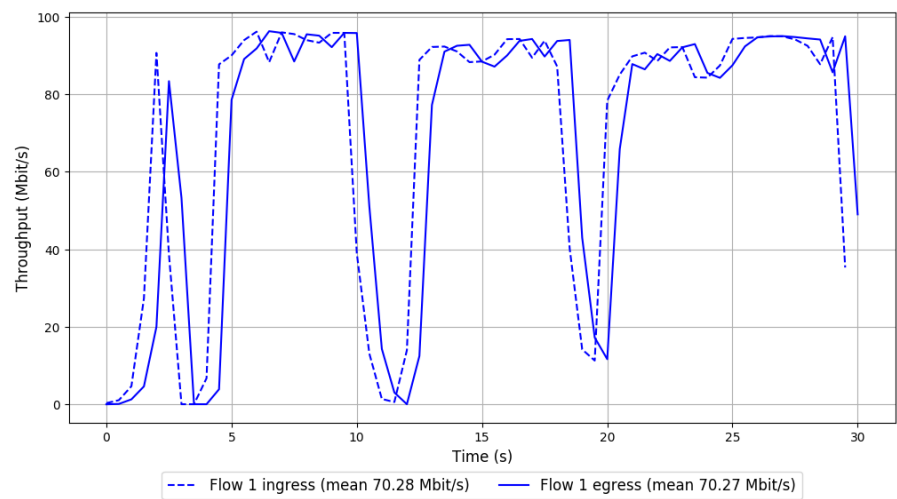


Run 2: Statistics of QUIC Cubic

Start at: 2018-12-02 01:17:06
End at: 2018-12-02 01:17:36
Local clock offset: -2.193 ms
Remote clock offset: -33.962 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.27 Mbit/s
95th percentile per-packet one-way delay: 78.146 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 70.27 Mbit/s
95th percentile per-packet one-way delay: 78.146 ms
Loss rate: 0.03%

Run 2: Report of QUIC Cubic — Data Link

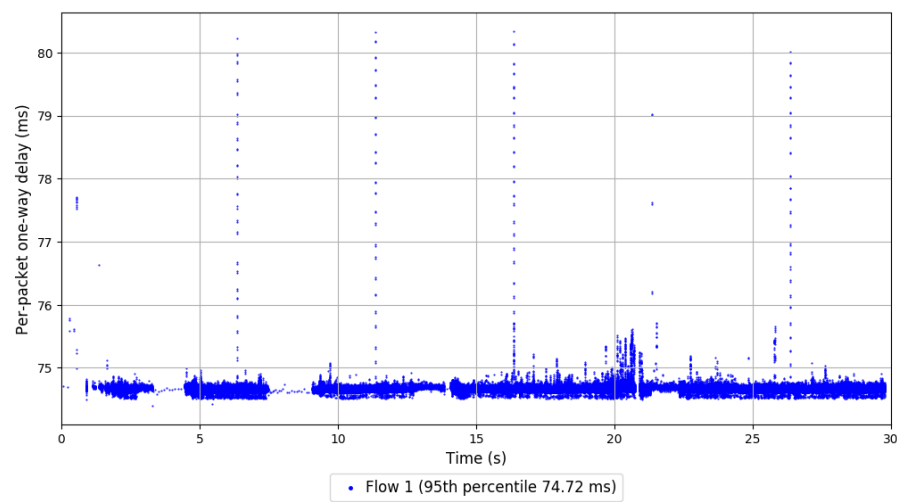
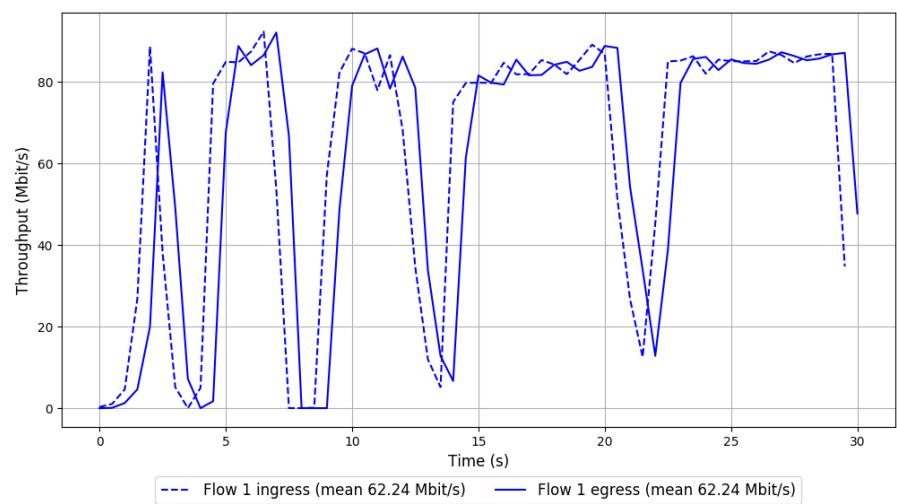


Run 3: Statistics of QUIC Cubic

Start at: 2018-12-02 01:41:51
End at: 2018-12-02 01:42:21
Local clock offset: -4.817 ms
Remote clock offset: -35.537 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 62.24 Mbit/s
95th percentile per-packet one-way delay: 74.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.24 Mbit/s
95th percentile per-packet one-way delay: 74.722 ms
Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link

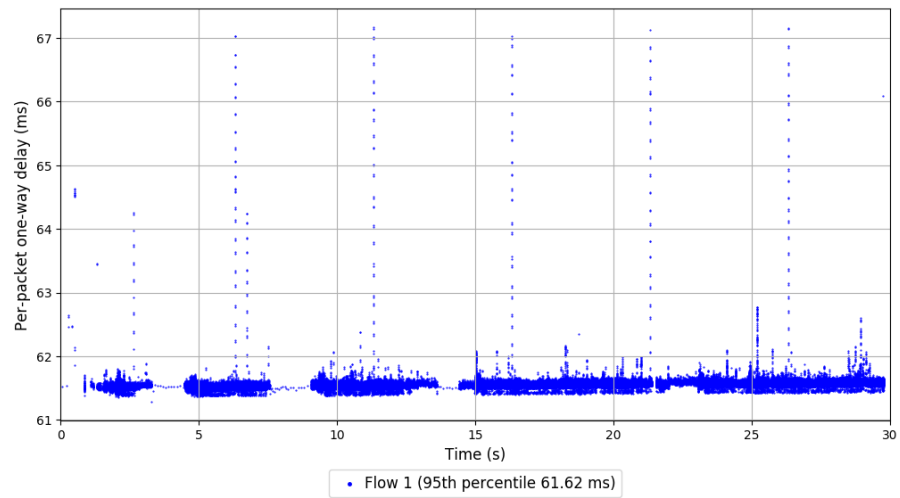
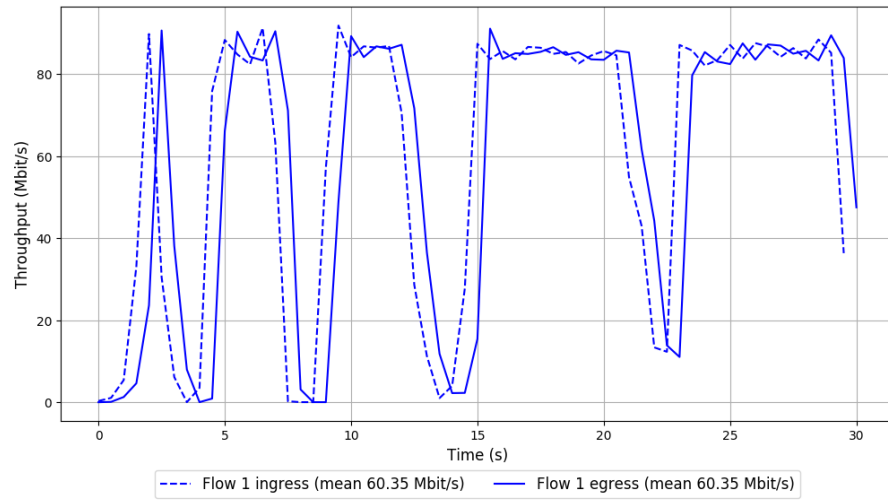


Run 4: Statistics of QUIC Cubic

Start at: 2018-12-02 02:06:33
End at: 2018-12-02 02:07:03
Local clock offset: 5.871 ms
Remote clock offset: -40.465 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 60.35 Mbit/s
95th percentile per-packet one-way delay: 61.620 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.35 Mbit/s
95th percentile per-packet one-way delay: 61.620 ms
Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link

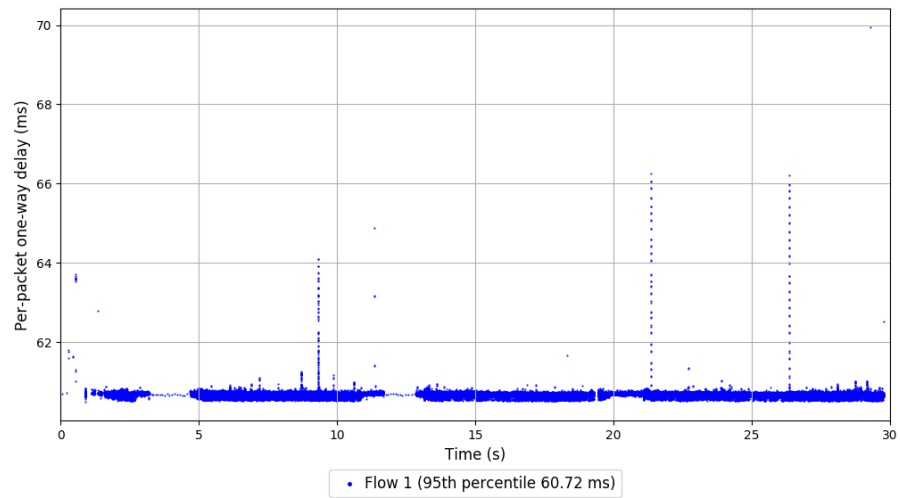
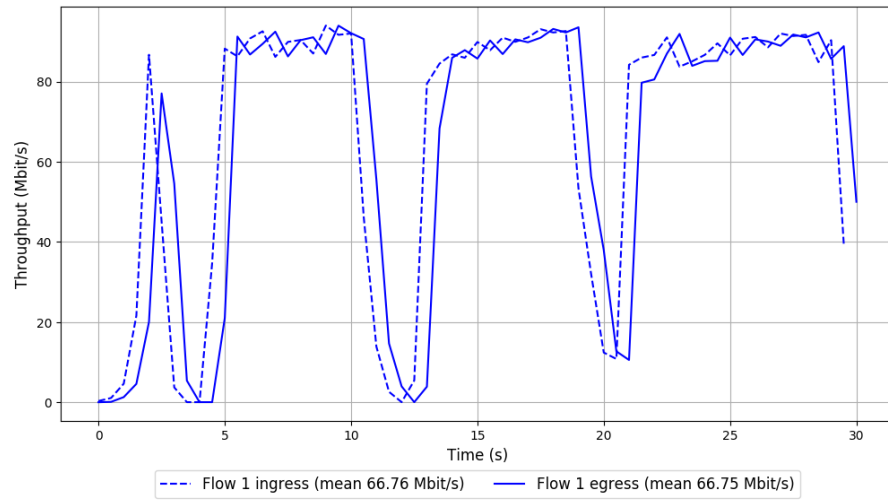


Run 5: Statistics of QUIC Cubic

Start at: 2018-12-02 02:37:03
End at: 2018-12-02 02:37:33
Local clock offset: 8.87 ms
Remote clock offset: -45.018 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 66.75 Mbit/s
95th percentile per-packet one-way delay: 60.718 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 66.75 Mbit/s
95th percentile per-packet one-way delay: 60.718 ms
Loss rate: 0.03%

Run 5: Report of QUIC Cubic — Data Link

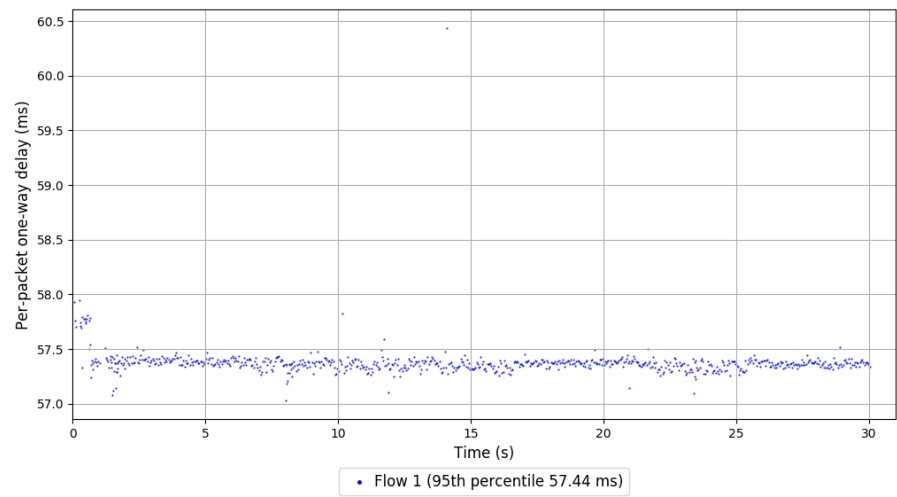
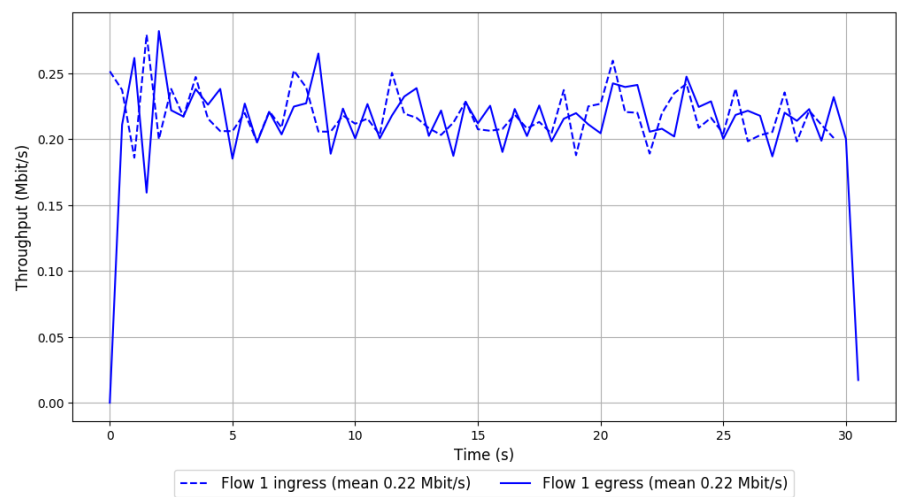


Run 1: Statistics of SCReAM

Start at: 2018-12-02 00:49:05
End at: 2018-12-02 00:49:35
Local clock offset: 7.928 ms
Remote clock offset: -42.993 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.440 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.440 ms
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

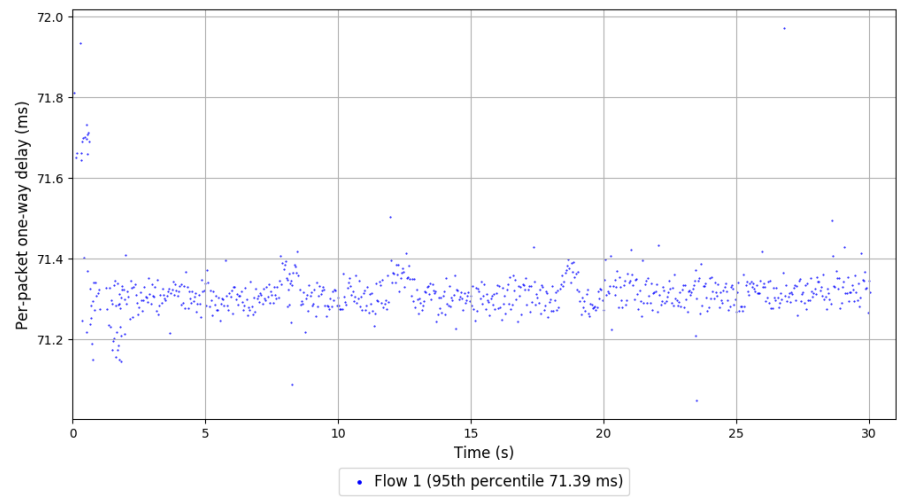
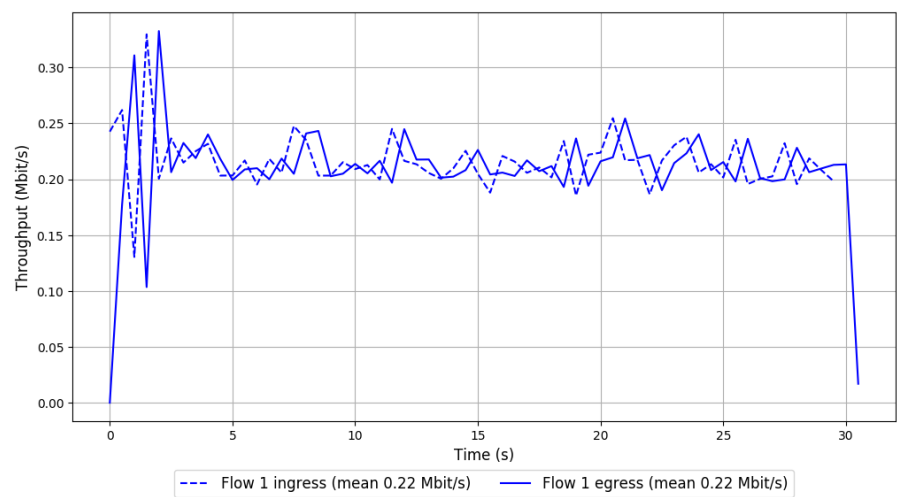


Run 2: Statistics of SCReAM

Start at: 2018-12-02 01:19:39
End at: 2018-12-02 01:20:09
Local clock offset: -8.249 ms
Remote clock offset: -41.514 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 71.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 71.389 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

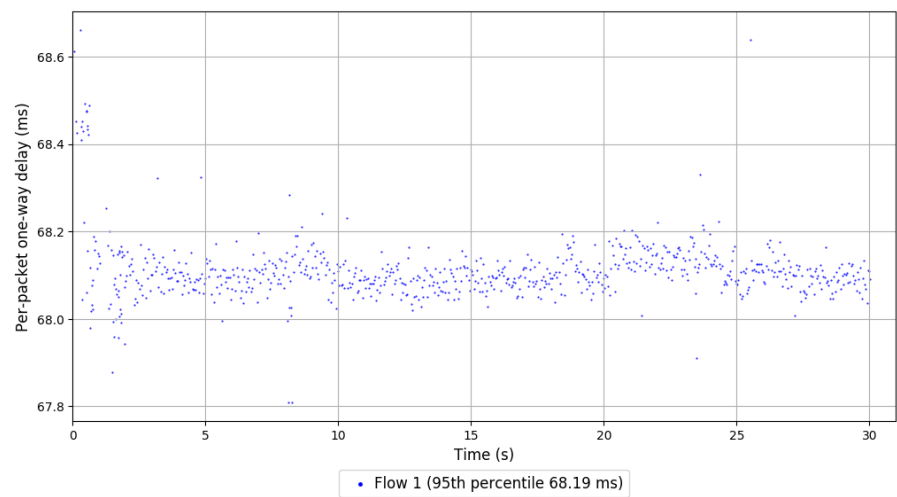
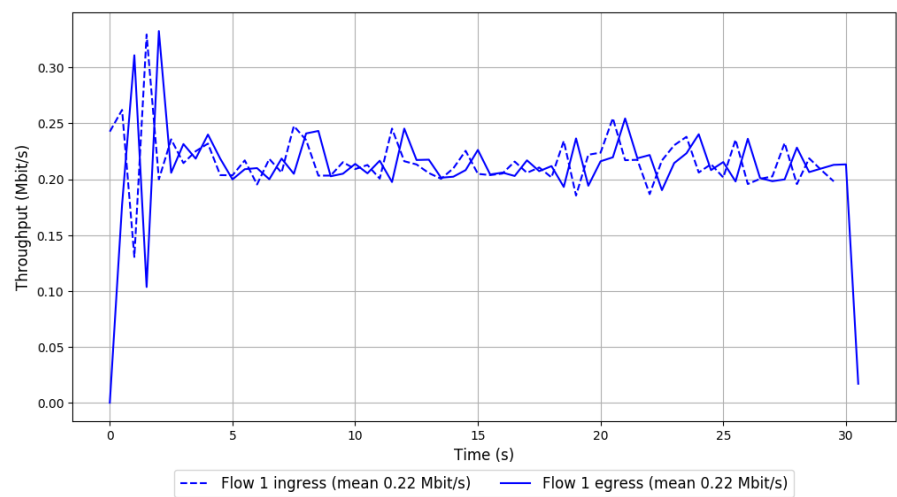


Run 3: Statistics of SCReAM

Start at: 2018-12-02 01:44:21
End at: 2018-12-02 01:44:51
Local clock offset: -1.545 ms
Remote clock offset: -39.055 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 68.189 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 68.189 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

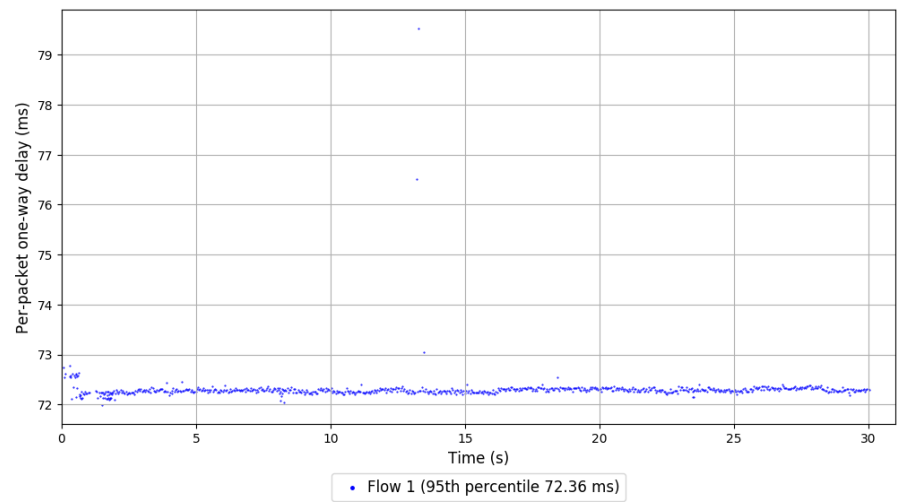
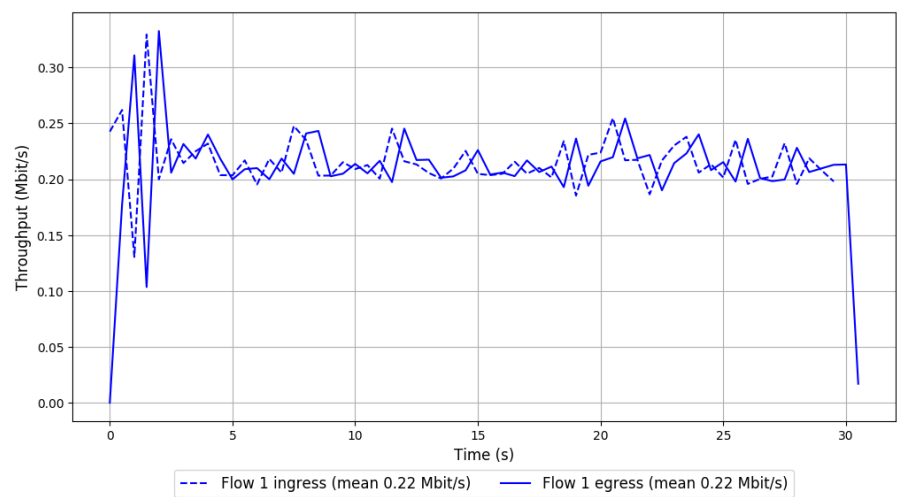


Run 4: Statistics of SCReAM

Start at: 2018-12-02 02:09:03
End at: 2018-12-02 02:09:33
Local clock offset: -9.992 ms
Remote clock offset: -46.252 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 72.358 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 72.358 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

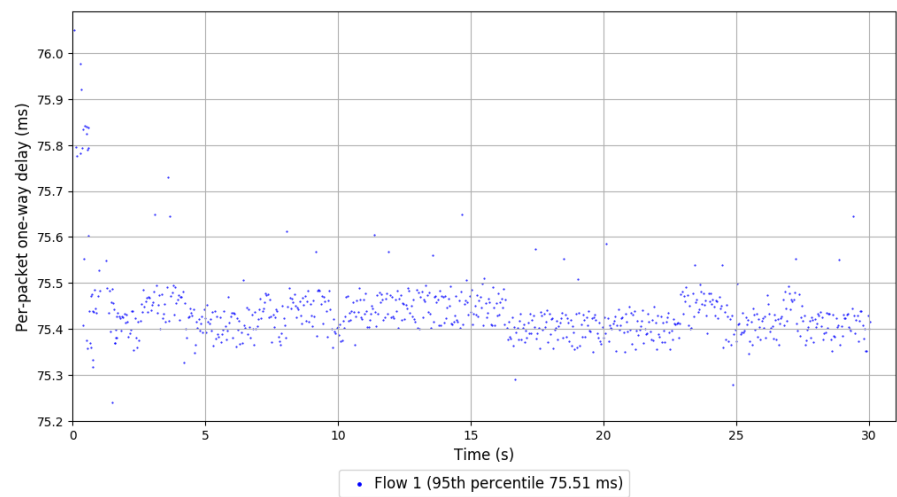
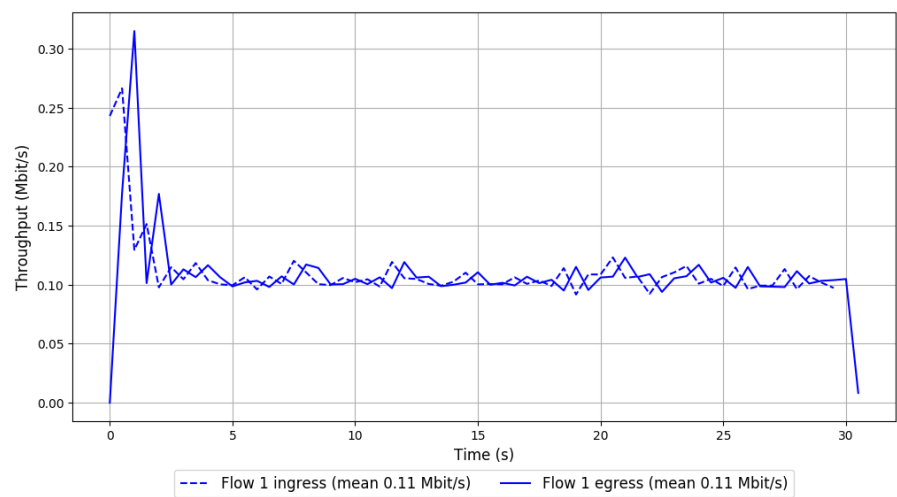


Run 5: Statistics of SCReAM

Start at: 2018-12-02 02:39:35
End at: 2018-12-02 02:40:05
Local clock offset: -1.547 ms
Remote clock offset: -40.814 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 75.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 75.506 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

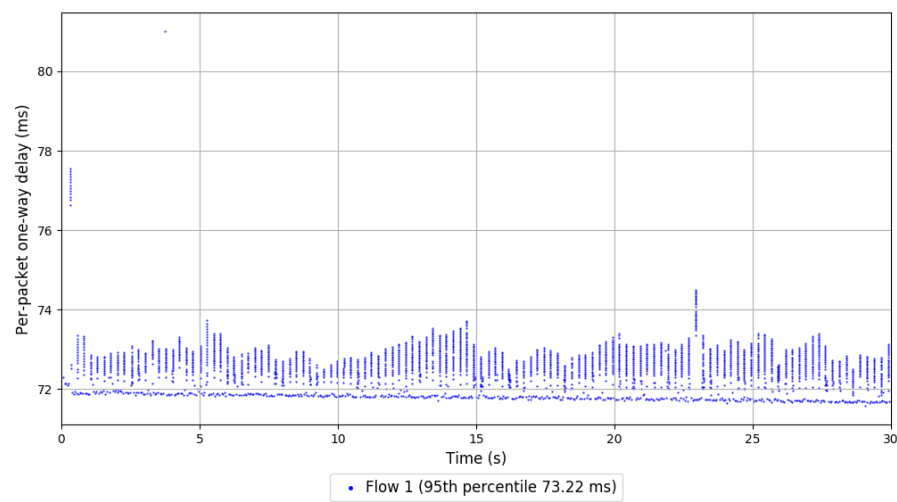
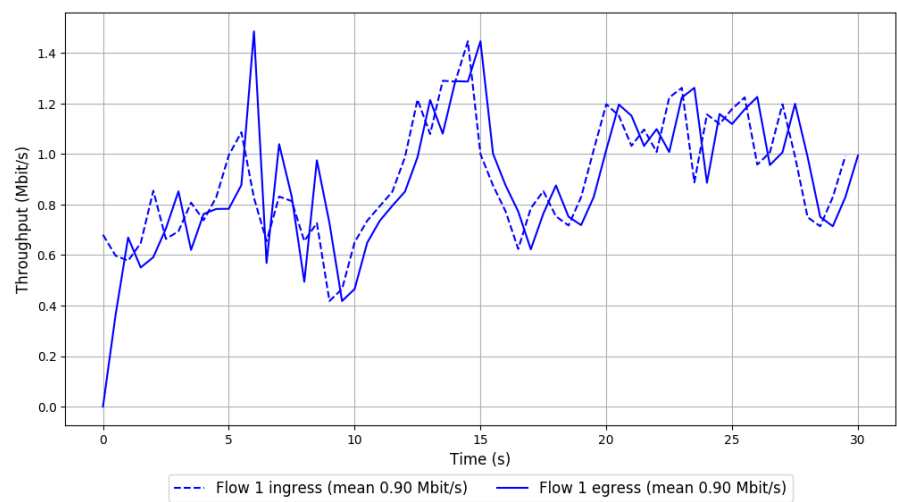


Run 1: Statistics of Sprout

Start at: 2018-12-02 00:28:58
End at: 2018-12-02 00:29:28
Local clock offset: 3.059 ms
Remote clock offset: -42.352 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 73.218 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 73.218 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

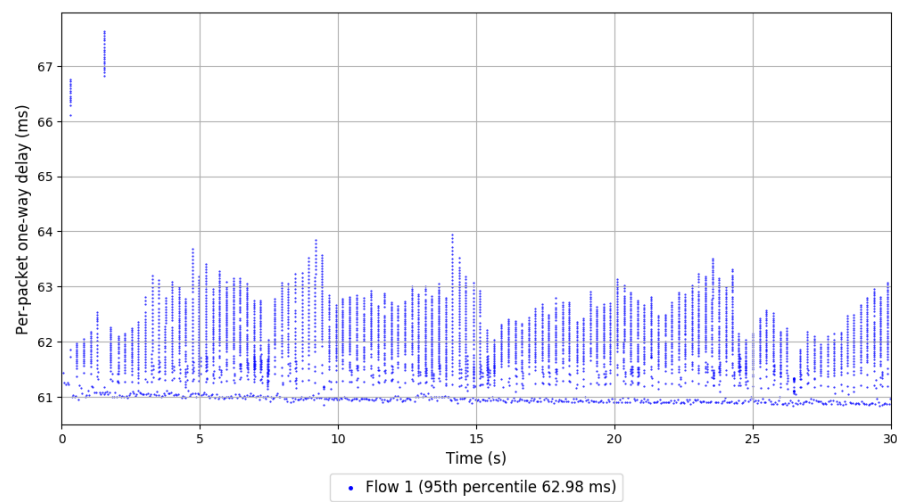
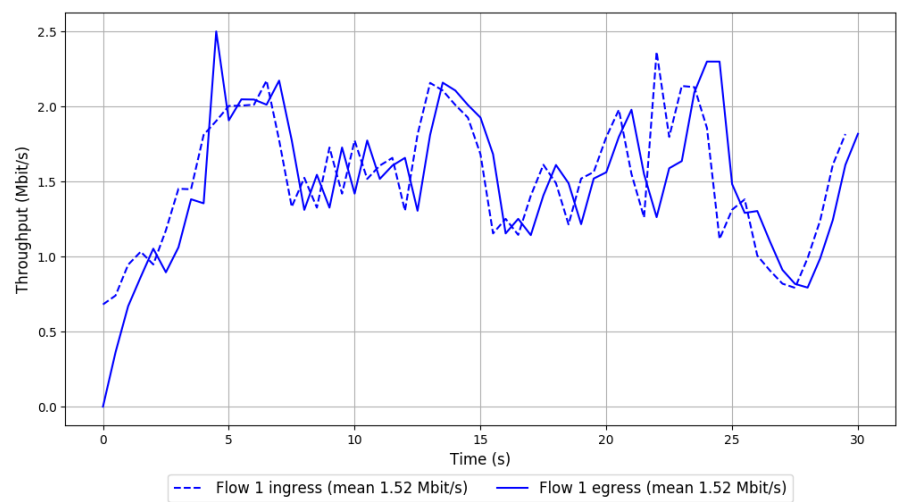


Run 2: Statistics of Sprout

Start at: 2018-12-02 00:59:33
End at: 2018-12-02 01:00:03
Local clock offset: 7.446 ms
Remote clock offset: -43.91 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 62.980 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 62.980 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

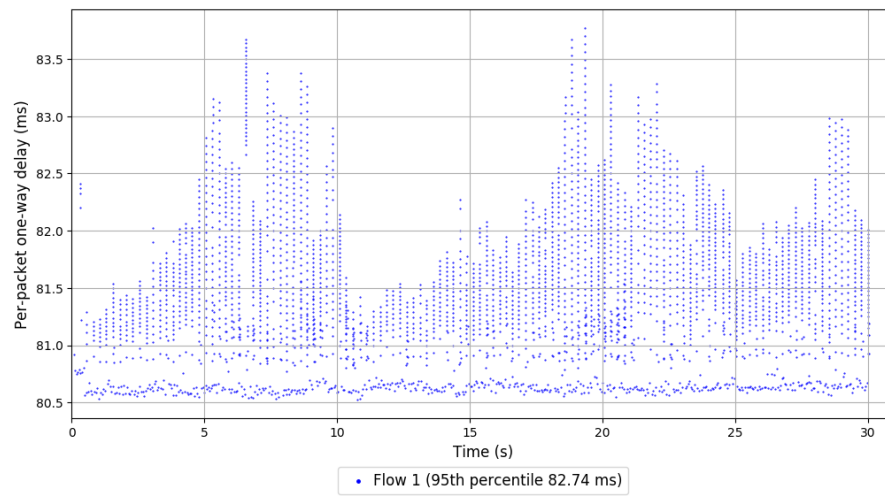
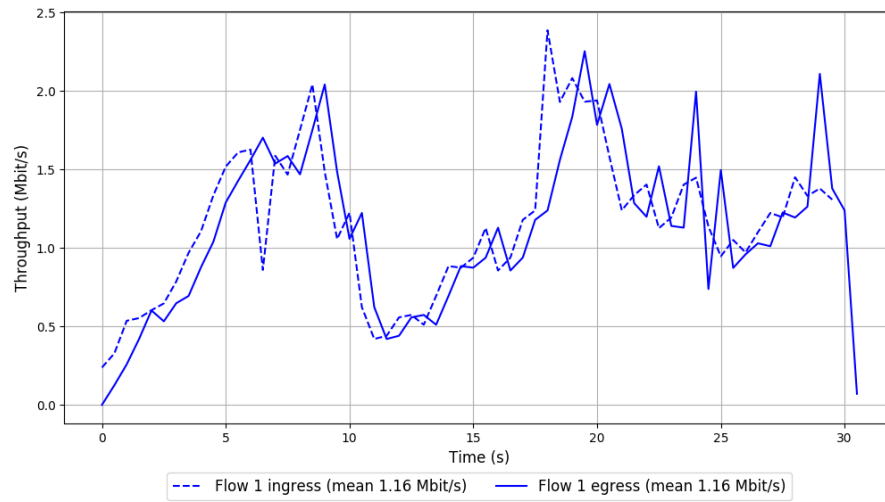


Run 3: Statistics of Sprout

Start at: 2018-12-02 01:30:06
End at: 2018-12-02 01:30:36
Local clock offset: -13.788 ms
Remote clock offset: -43.505 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 82.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 82.741 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

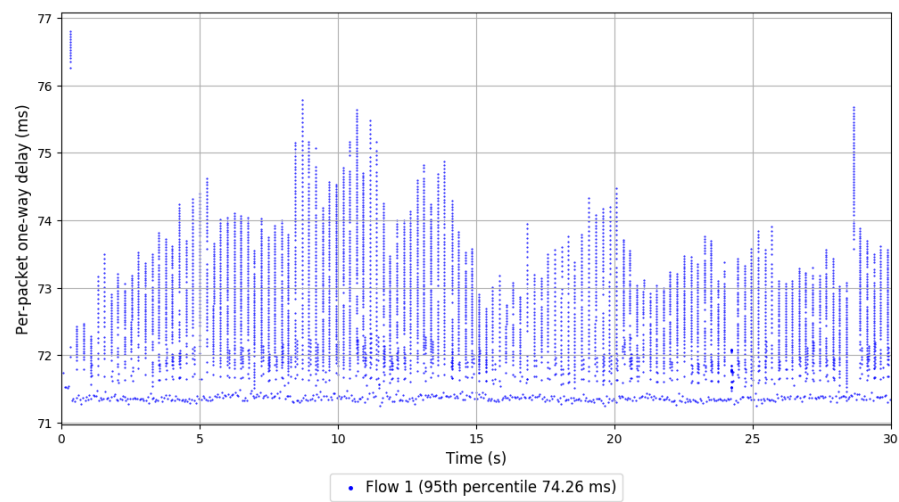
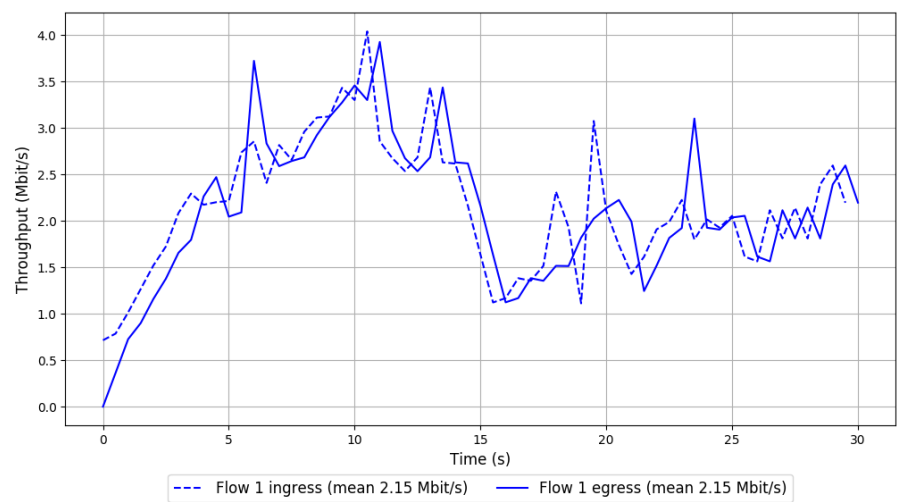


Run 4: Statistics of Sprout

Start at: 2018-12-02 01:54:48
End at: 2018-12-02 01:55:18
Local clock offset: -4.655 ms
Remote clock offset: -38.591 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 74.262 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 74.262 ms
Loss rate: 0.00%

Run 4: Report of Sprout — Data Link

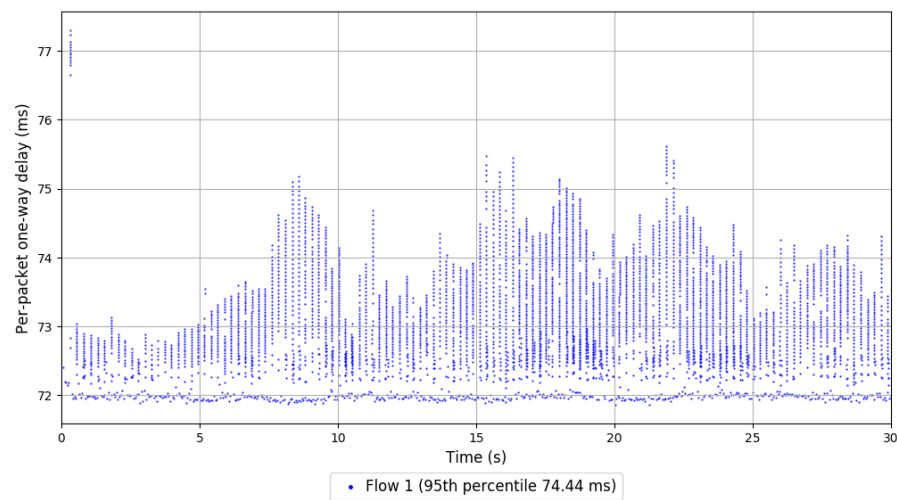
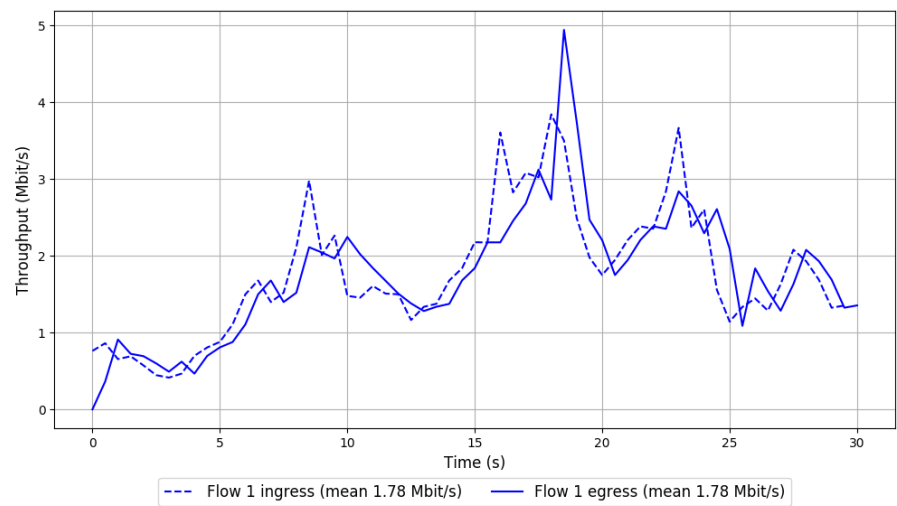


Run 5: Statistics of Sprout

Start at: 2018-12-02 02:19:32
End at: 2018-12-02 02:20:02
Local clock offset: -1.278 ms
Remote clock offset: -38.401 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 74.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 74.439 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

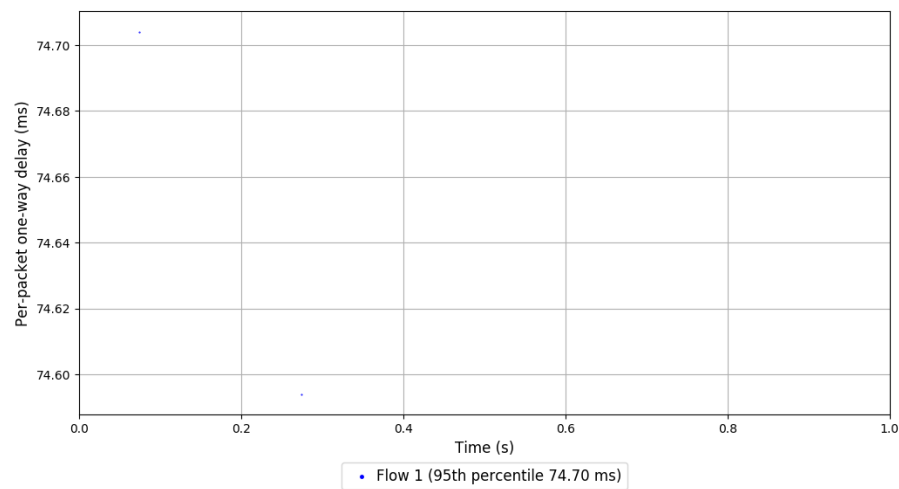
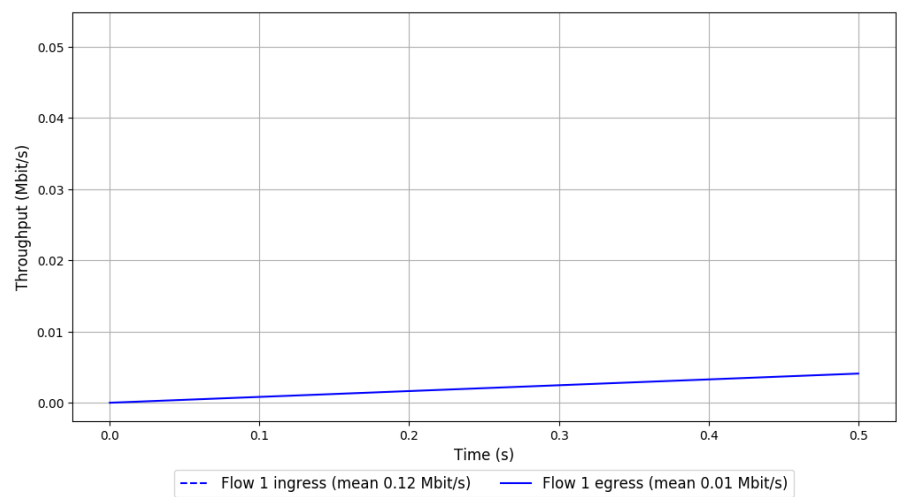
Start at: 2018-12-02 00:24:01

End at: 2018-12-02 00:24:31

Local clock offset: 3.04 ms

Remote clock offset: -41.073 ms

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



Run 2: Statistics of TaoVA-100x

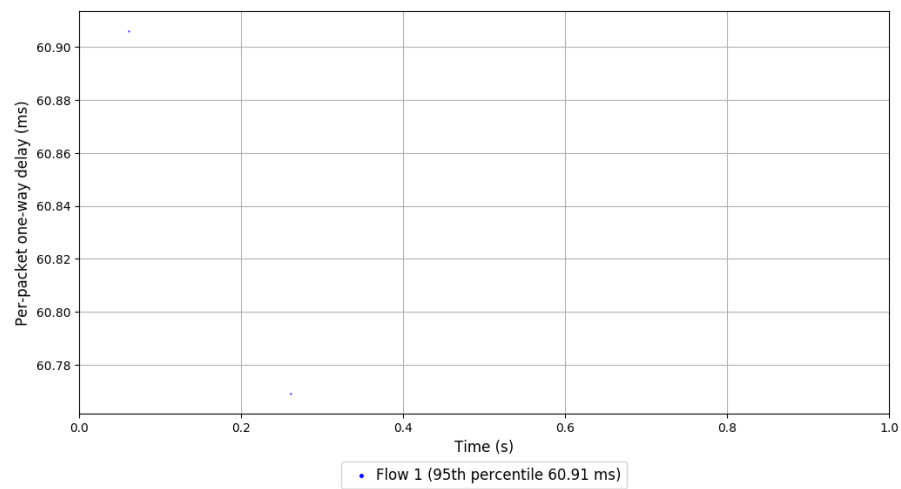
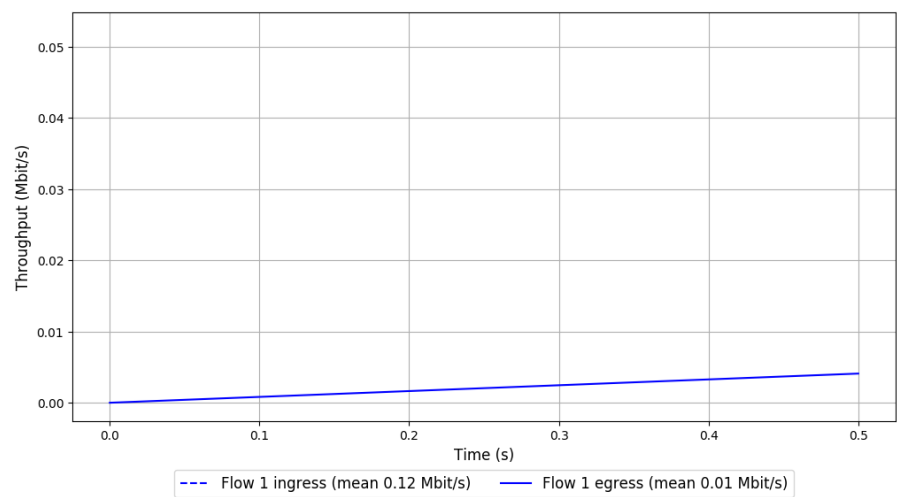
Start at: 2018-12-02 00:54:36

End at: 2018-12-02 00:55:06

Local clock offset: 0.642 ms

Remote clock offset: -46.686 ms

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



Run 3: Statistics of TaoVA-100x

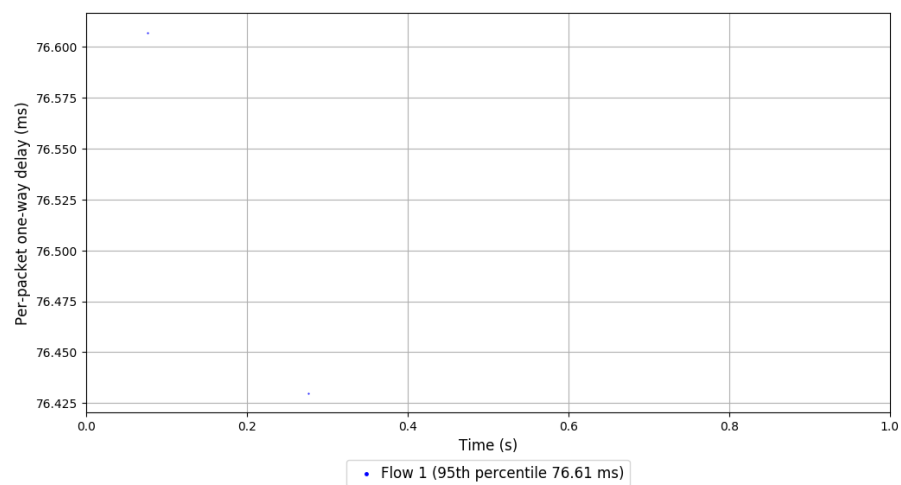
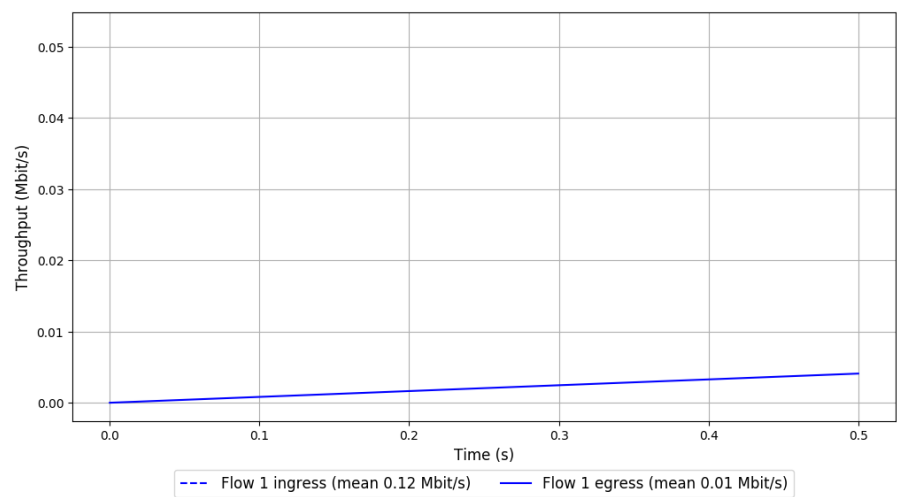
Start at: 2018-12-02 01:25:09

End at: 2018-12-02 01:25:39

Local clock offset: -9.242 ms

Remote clock offset: -43.074 ms

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



Run 4: Statistics of TaoVA-100x

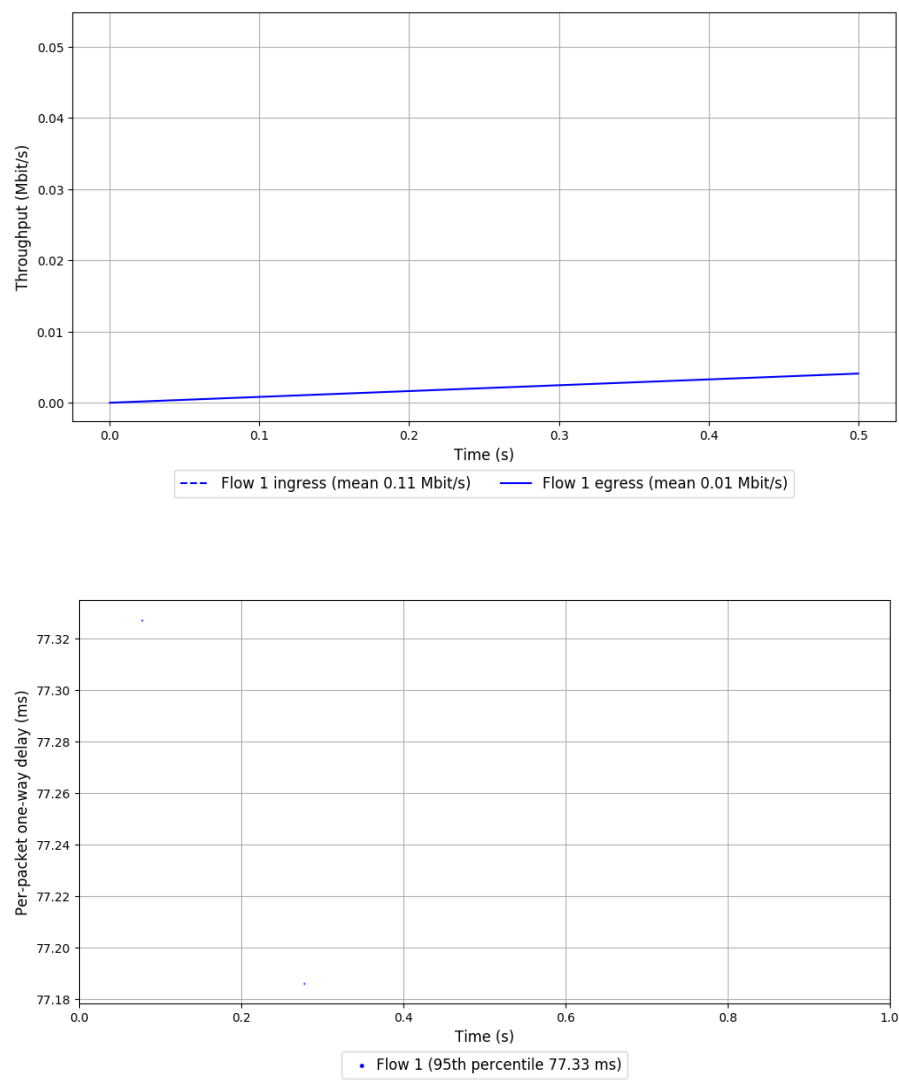
Start at: 2018-12-02 01:49:51

End at: 2018-12-02 01:50:21

Local clock offset: -5.126 ms

Remote clock offset: -33.624 ms

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



Run 5: Statistics of TaoVA-100x

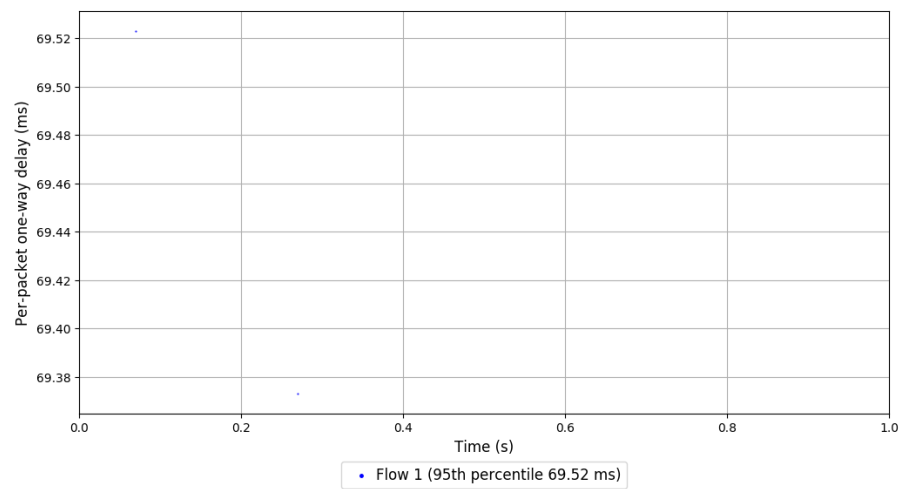
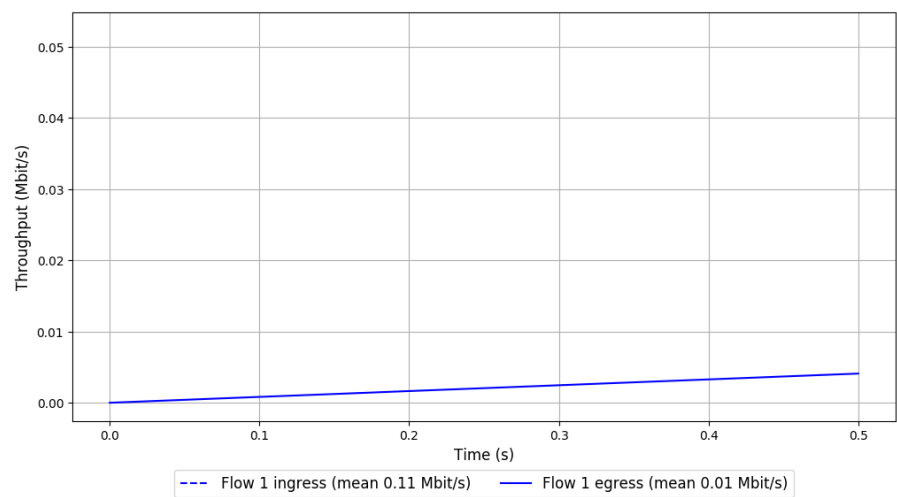
Start at: 2018-12-02 02:14:34

End at: 2018-12-02 02:15:04

Local clock offset: -1.592 ms

Remote clock offset: -47.035 ms

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

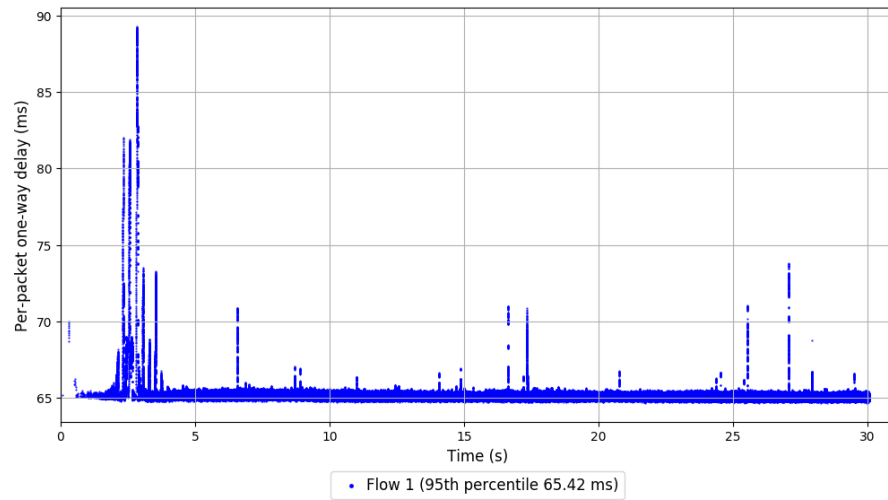
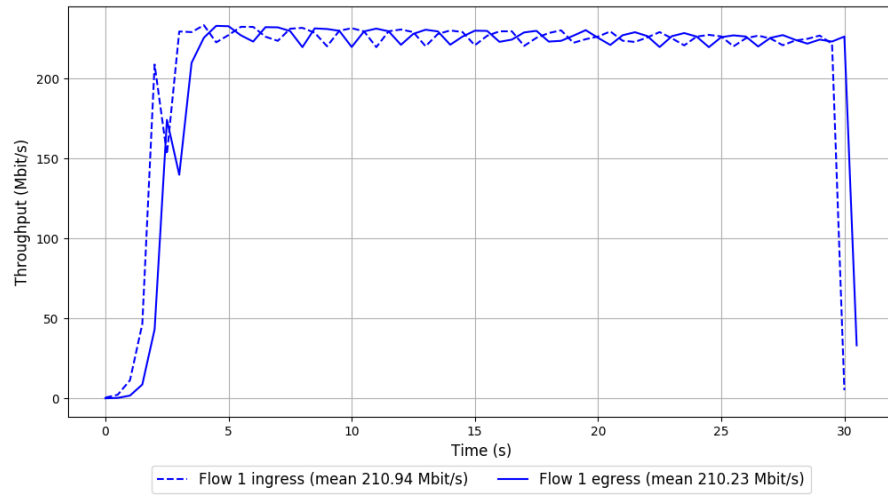


Run 1: Statistics of TCP Vegas

Start at: 2018-12-02 00:35:28
End at: 2018-12-02 00:35:58
Local clock offset: 0.094 ms
Remote clock offset: -44.742 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 210.23 Mbit/s
95th percentile per-packet one-way delay: 65.425 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 210.23 Mbit/s
95th percentile per-packet one-way delay: 65.425 ms
Loss rate: 0.34%

Run 1: Report of TCP Vegas — Data Link

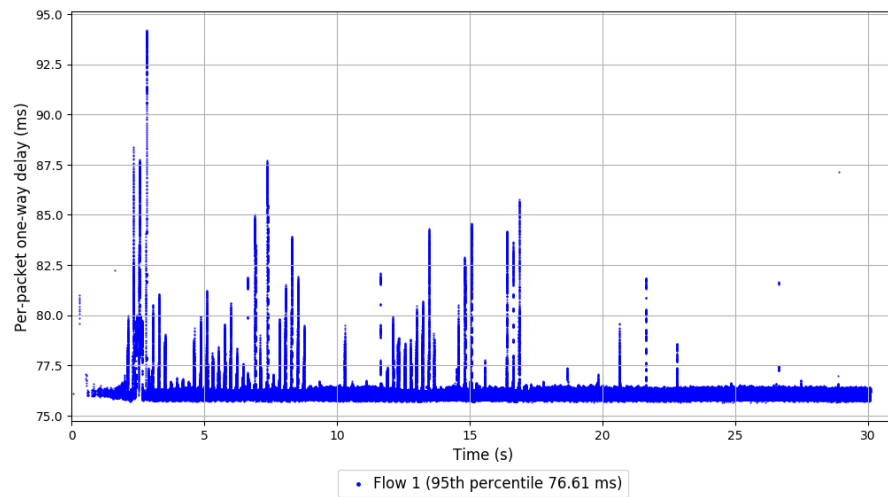
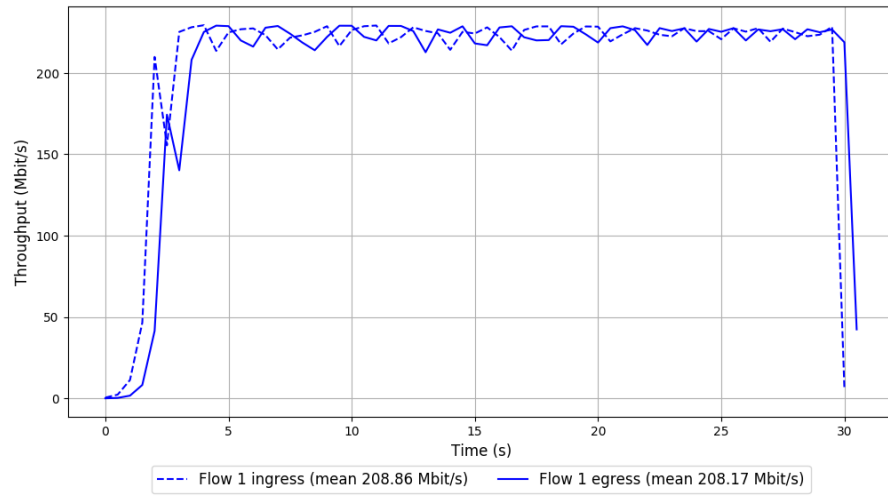


Run 2: Statistics of TCP Vegas

Start at: 2018-12-02 01:11:46
End at: 2018-12-02 01:12:16
Local clock offset: -8.193 ms
Remote clock offset: -42.661 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 208.17 Mbit/s
95th percentile per-packet one-way delay: 76.615 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 208.17 Mbit/s
95th percentile per-packet one-way delay: 76.615 ms
Loss rate: 0.35%

Run 2: Report of TCP Vegas — Data Link

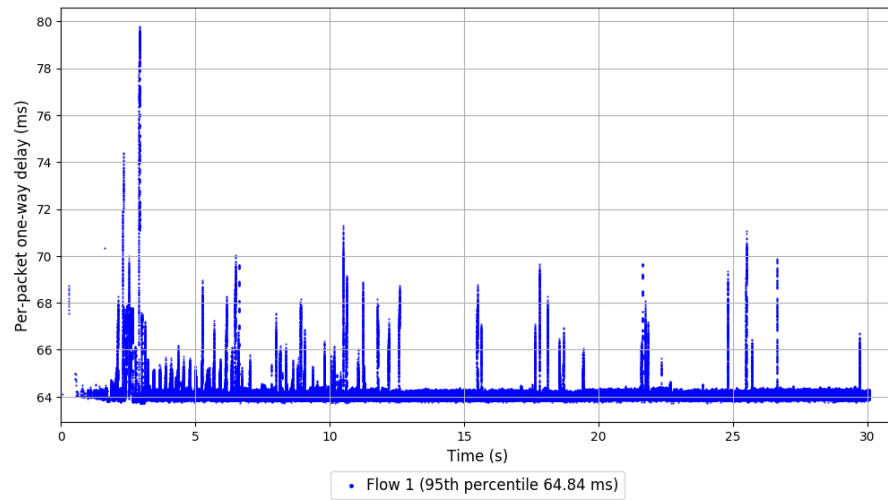
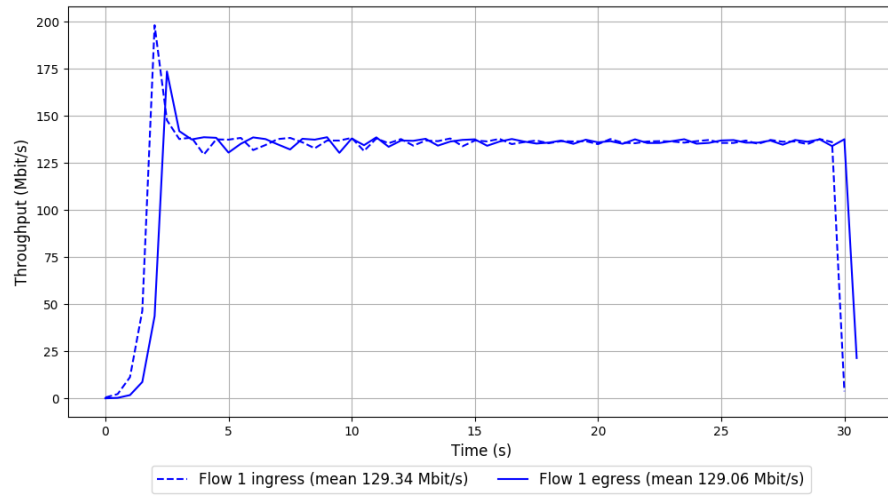


Run 3: Statistics of TCP Vegas

Start at: 2018-12-02 01:36:37
End at: 2018-12-02 01:37:07
Local clock offset: -3.927 ms
Remote clock offset: -45.426 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 129.06 Mbit/s
95th percentile per-packet one-way delay: 64.844 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 129.06 Mbit/s
95th percentile per-packet one-way delay: 64.844 ms
Loss rate: 0.21%

Run 3: Report of TCP Vegas — Data Link

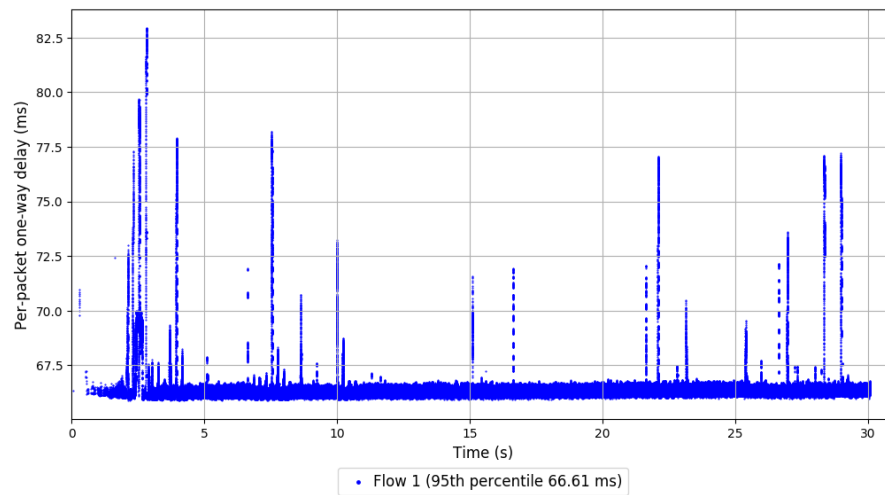
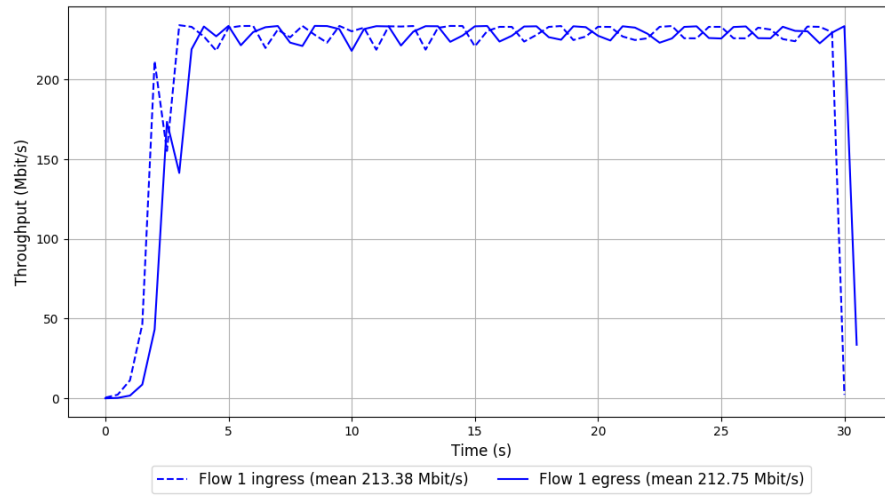


Run 4: Statistics of TCP Vegas

Start at: 2018-12-02 02:01:18
End at: 2018-12-02 02:01:48
Local clock offset: -2.873 ms
Remote clock offset: -43.66 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 212.75 Mbit/s
95th percentile per-packet one-way delay: 66.608 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 212.75 Mbit/s
95th percentile per-packet one-way delay: 66.608 ms
Loss rate: 0.30%

Run 4: Report of TCP Vegas — Data Link

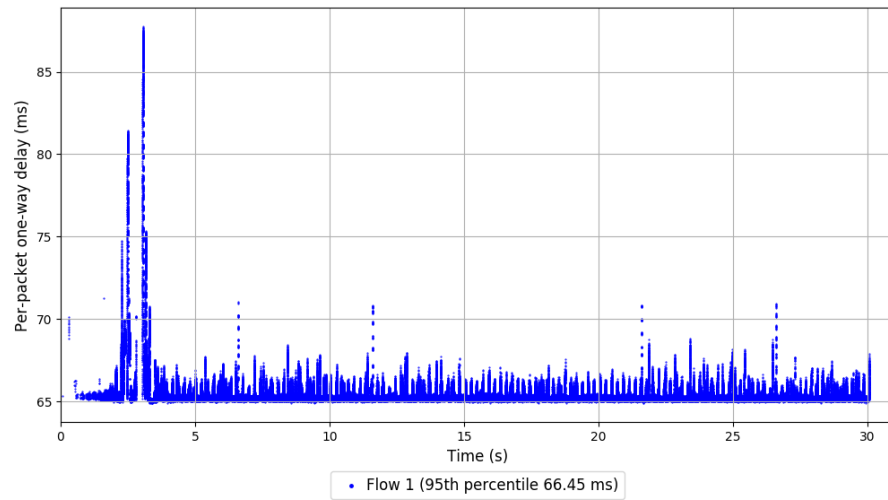
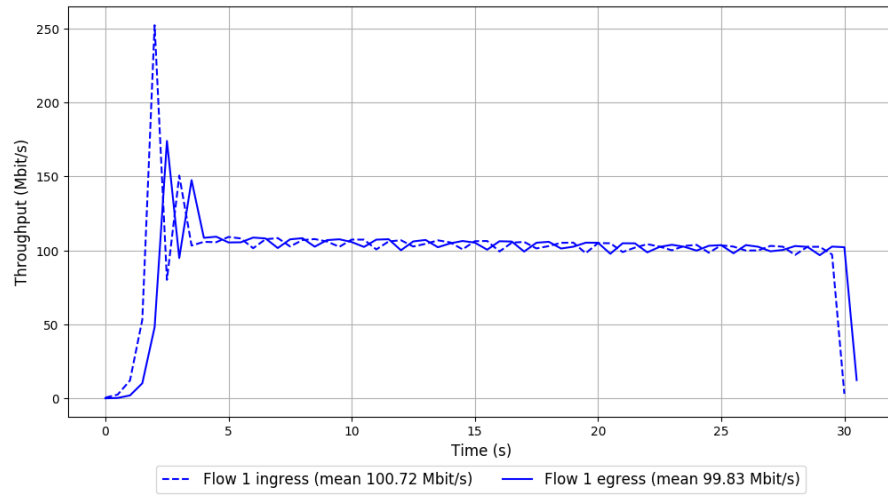


Run 5: Statistics of TCP Vegas

Start at: 2018-12-02 02:31:43
End at: 2018-12-02 02:32:13
Local clock offset: -1.75 ms
Remote clock offset: -45.921 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 99.83 Mbit/s
95th percentile per-packet one-way delay: 66.447 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 99.83 Mbit/s
95th percentile per-packet one-way delay: 66.447 ms
Loss rate: 0.89%

Run 5: Report of TCP Vegas — Data Link

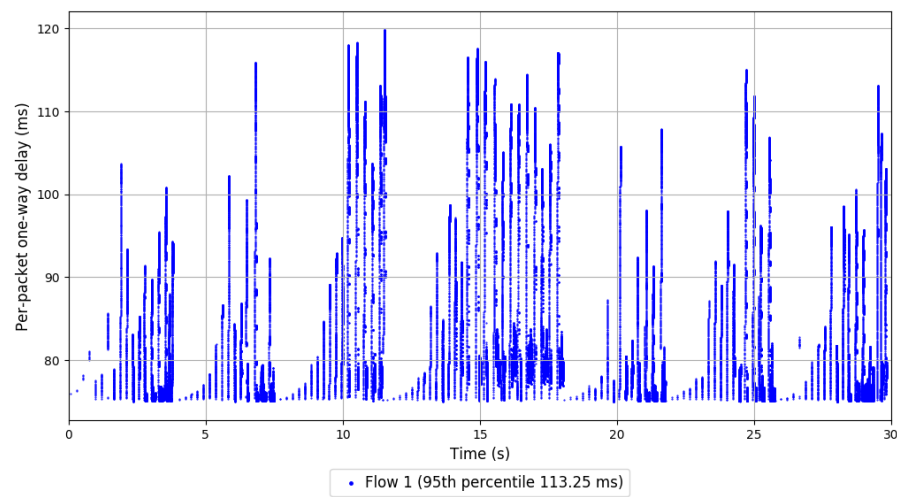
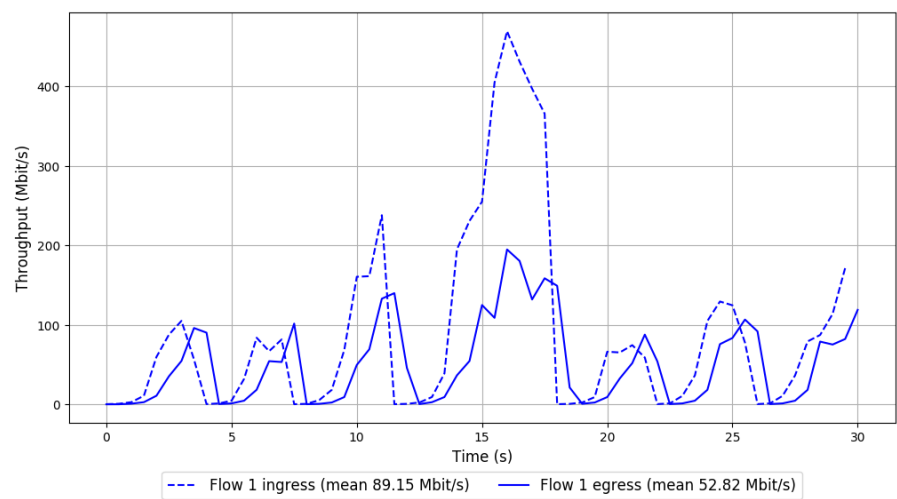


Run 1: Statistics of Verus

Start at: 2018-12-02 00:47:48
End at: 2018-12-02 00:48:18
Local clock offset: -0.967 ms
Remote clock offset: -39.74 ms

Below is generated by plot.py at 2018-12-02 03:04:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.82 Mbit/s
95th percentile per-packet one-way delay: 113.254 ms
Loss rate: 40.75%
-- Flow 1:
Average throughput: 52.82 Mbit/s
95th percentile per-packet one-way delay: 113.254 ms
Loss rate: 40.75%

Run 1: Report of Verus — Data Link

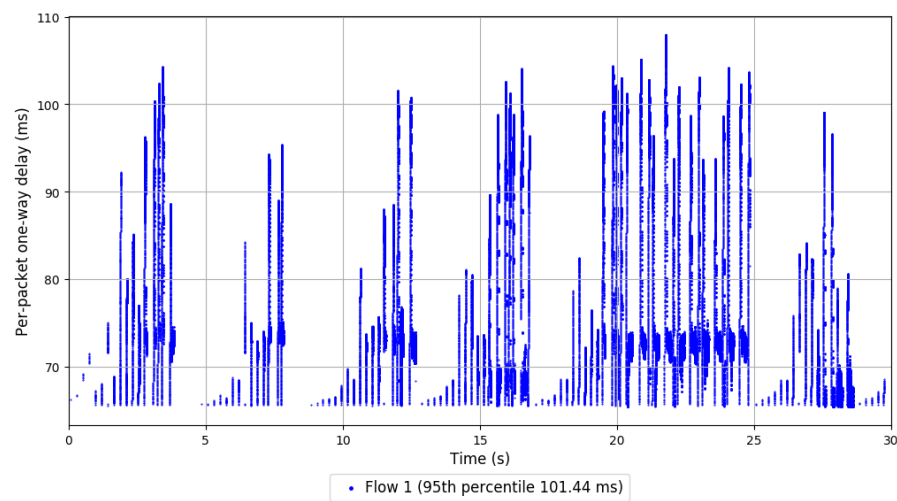
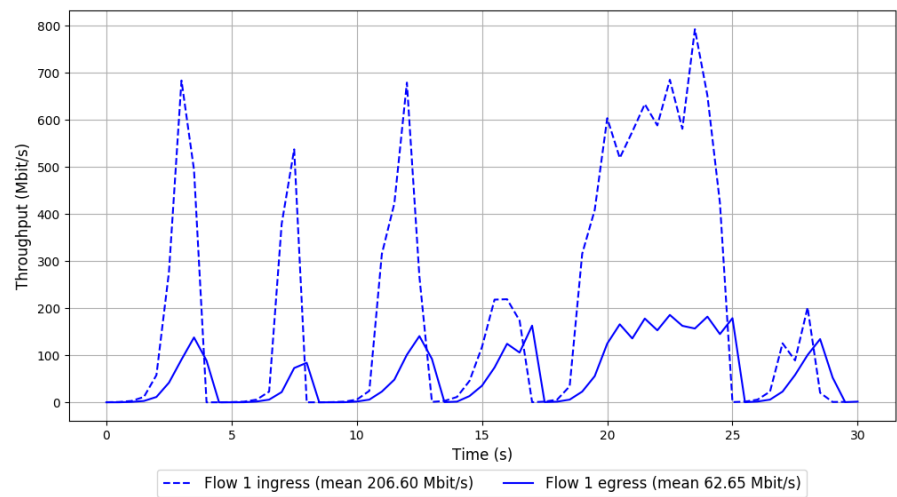


Run 2: Statistics of Verus

Start at: 2018-12-02 01:18:21
End at: 2018-12-02 01:18:51
Local clock offset: 5.148 ms
Remote clock offset: -39.425 ms

Below is generated by plot.py at 2018-12-02 03:04:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 62.65 Mbit/s
95th percentile per-packet one-way delay: 101.441 ms
Loss rate: 69.67%
-- Flow 1:
Average throughput: 62.65 Mbit/s
95th percentile per-packet one-way delay: 101.441 ms
Loss rate: 69.67%

Run 2: Report of Verus — Data Link

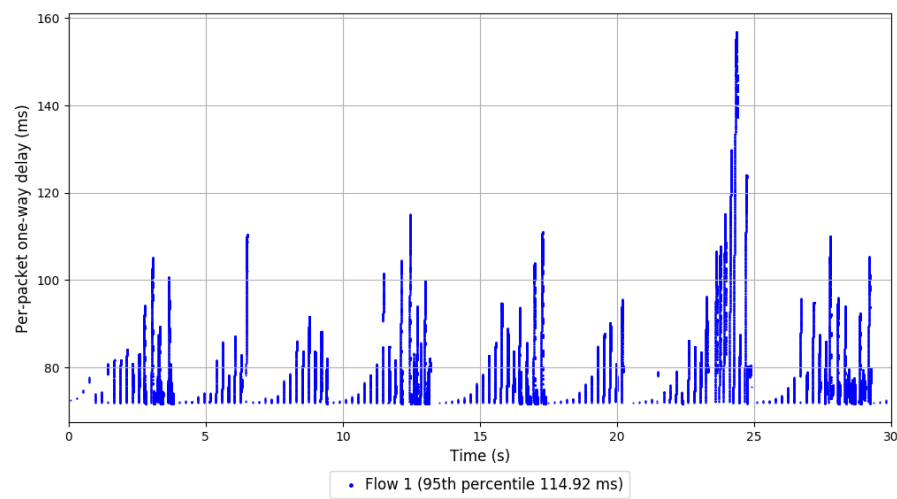
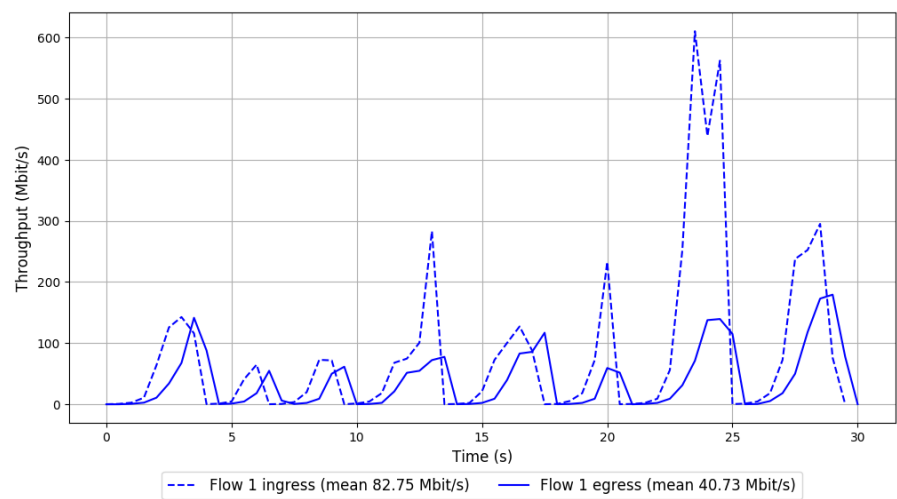


Run 3: Statistics of Verus

Start at: 2018-12-02 01:43:06
End at: 2018-12-02 01:43:36
Local clock offset: -11.029 ms
Remote clock offset: -44.725 ms

Below is generated by plot.py at 2018-12-02 03:04:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 40.73 Mbit/s
95th percentile per-packet one-way delay: 114.923 ms
Loss rate: 50.78%
-- Flow 1:
Average throughput: 40.73 Mbit/s
95th percentile per-packet one-way delay: 114.923 ms
Loss rate: 50.78%

Run 3: Report of Verus — Data Link

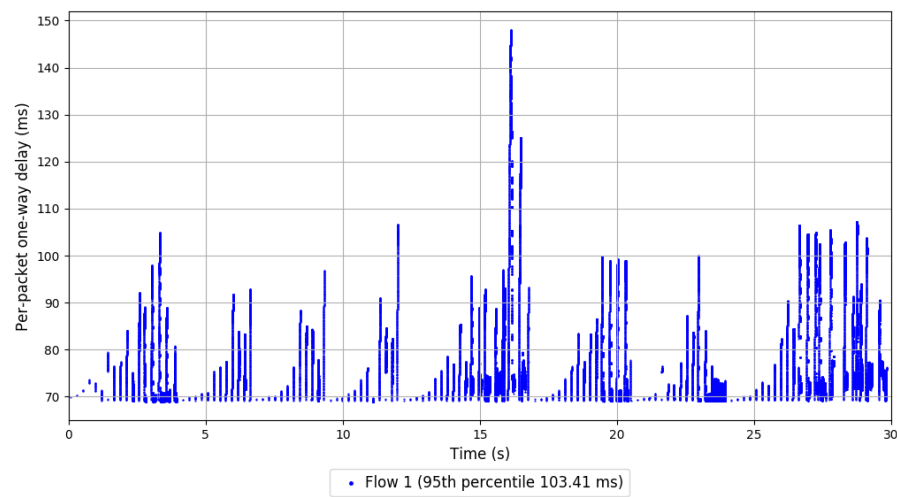
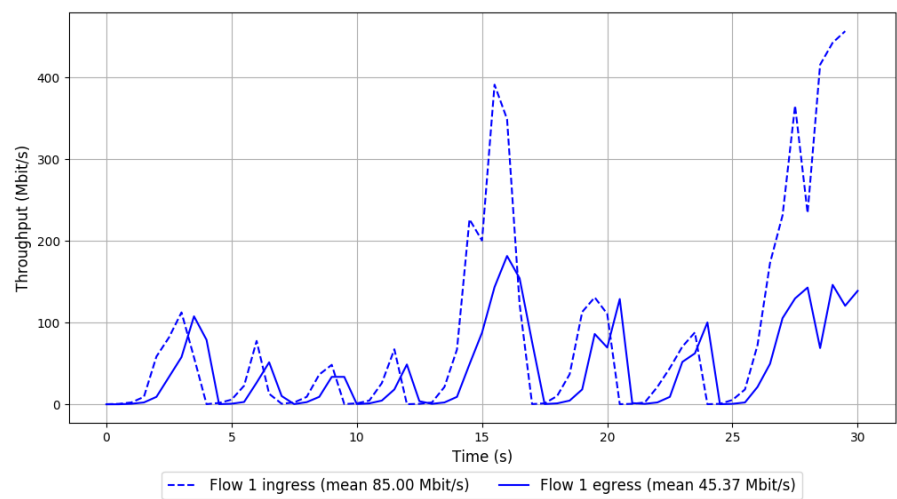


Run 4: Statistics of Verus

Start at: 2018-12-02 02:07:48
End at: 2018-12-02 02:08:18
Local clock offset: -1.961 ms
Remote clock offset: -41.224 ms

Below is generated by plot.py at 2018-12-02 03:04:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 45.37 Mbit/s
95th percentile per-packet one-way delay: 103.413 ms
Loss rate: 46.61%
-- Flow 1:
Average throughput: 45.37 Mbit/s
95th percentile per-packet one-way delay: 103.413 ms
Loss rate: 46.61%

Run 4: Report of Verus — Data Link

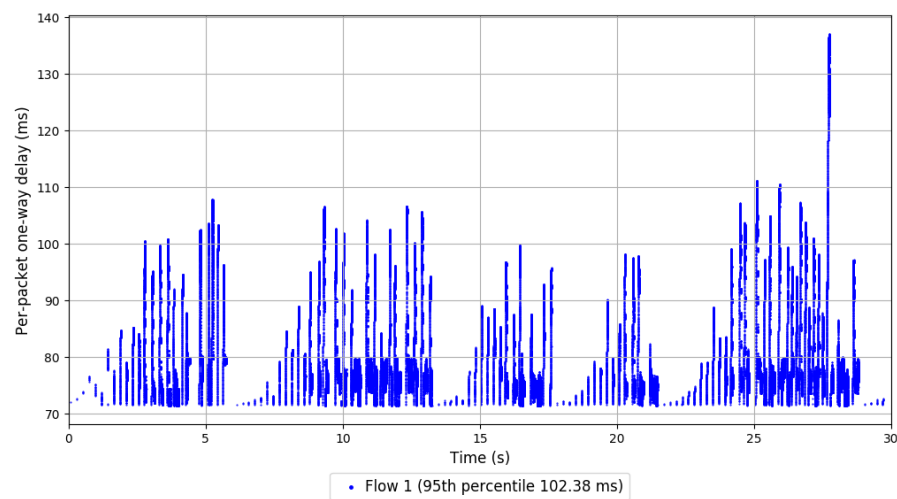
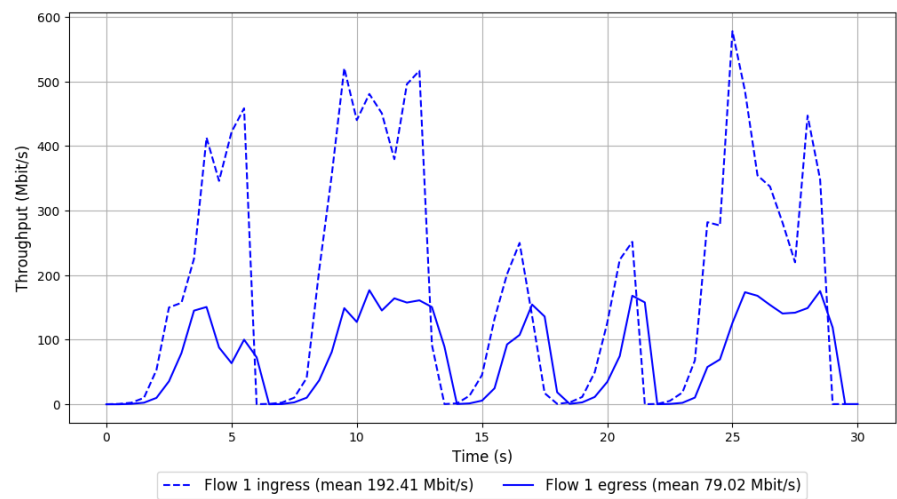


Run 5: Statistics of Verus

Start at: 2018-12-02 02:38:17
End at: 2018-12-02 02:38:47
Local clock offset: -0.374 ms
Remote clock offset: -37.985 ms

Below is generated by plot.py at 2018-12-02 03:04:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 79.02 Mbit/s
95th percentile per-packet one-way delay: 102.377 ms
Loss rate: 58.93%
-- Flow 1:
Average throughput: 79.02 Mbit/s
95th percentile per-packet one-way delay: 102.377 ms
Loss rate: 58.93%

Run 5: Report of Verus — Data Link

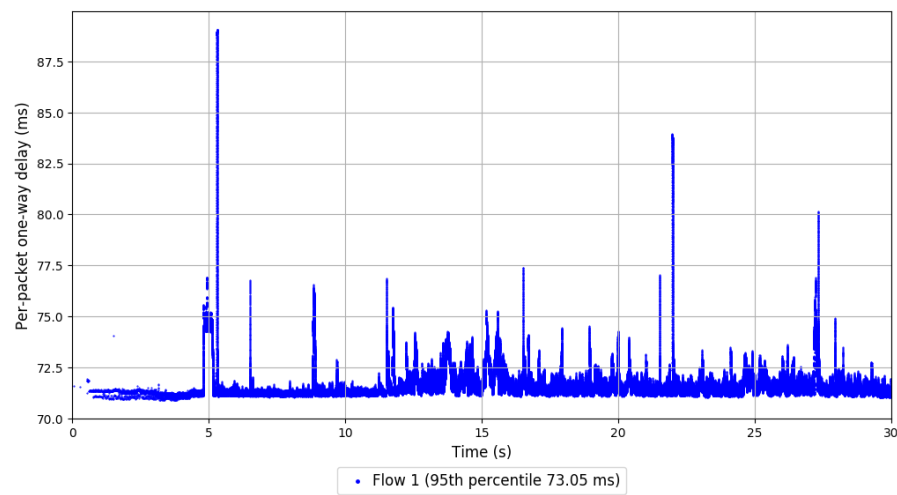
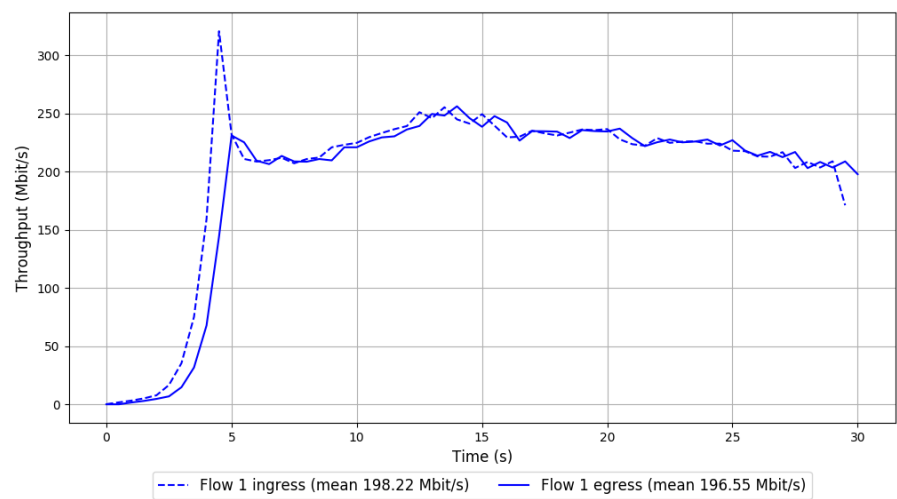


Run 1: Statistics of PCC-Vivace

Start at: 2018-12-02 00:39:20
End at: 2018-12-02 00:39:50
Local clock offset: -0.092 ms
Remote clock offset: -43.466 ms

Below is generated by plot.py at 2018-12-02 03:05:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 196.55 Mbit/s
95th percentile per-packet one-way delay: 73.045 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 196.55 Mbit/s
95th percentile per-packet one-way delay: 73.045 ms
Loss rate: 0.86%

Run 1: Report of PCC-Vivace — Data Link

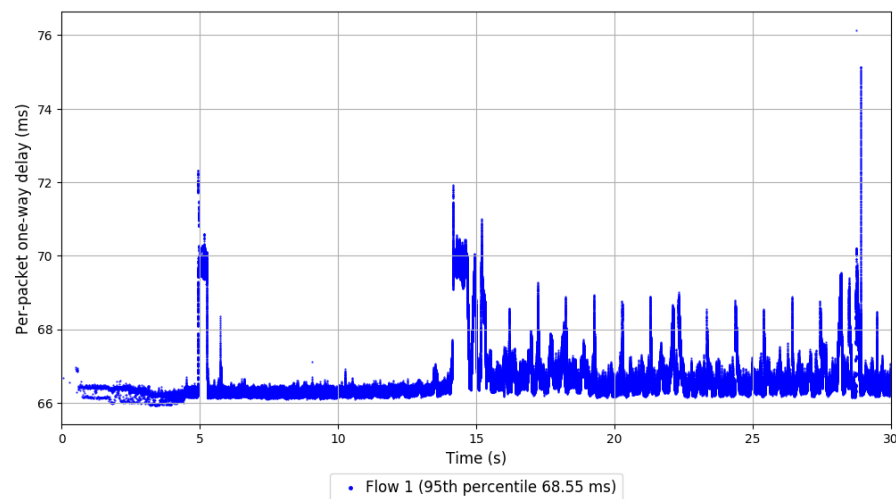
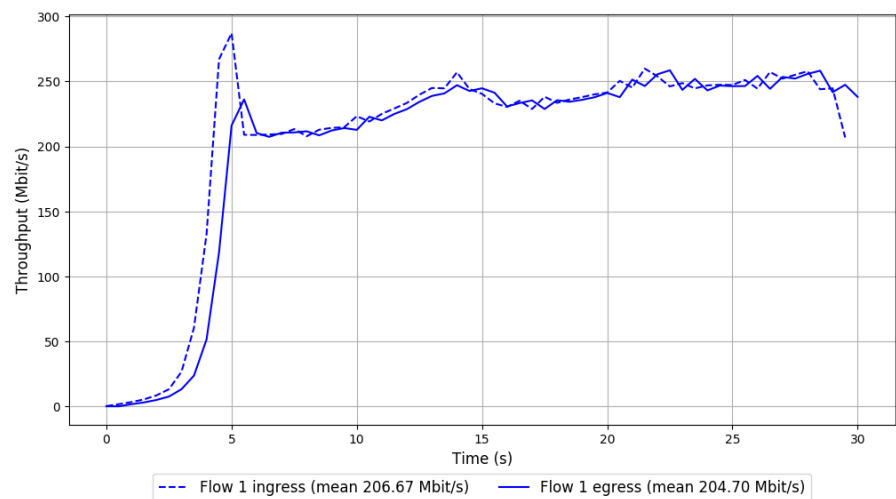


Run 2: Statistics of PCC-Vivace

Start at: 2018-12-02 01:15:42
End at: 2018-12-02 01:16:12
Local clock offset: -3.492 ms
Remote clock offset: -41.561 ms

Below is generated by plot.py at 2018-12-02 03:05:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 204.70 Mbit/s
95th percentile per-packet one-way delay: 68.551 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 204.70 Mbit/s
95th percentile per-packet one-way delay: 68.551 ms
Loss rate: 0.96%

Run 2: Report of PCC-Vivace — Data Link

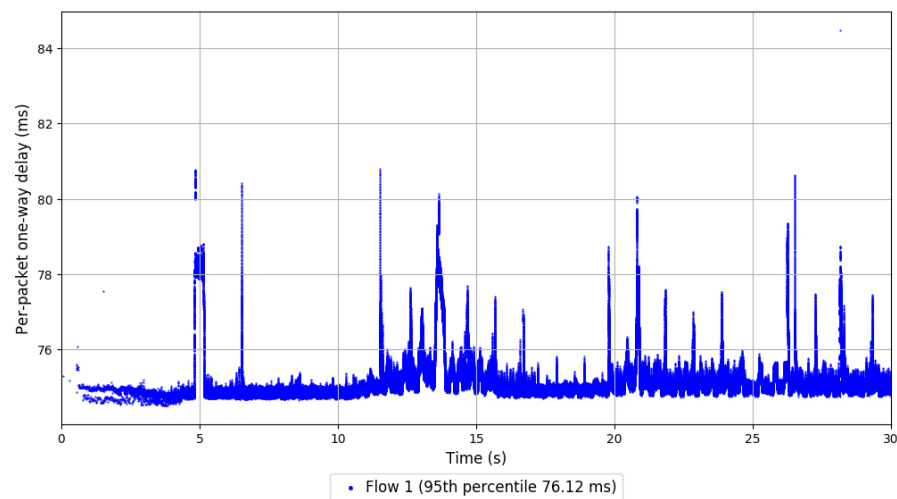
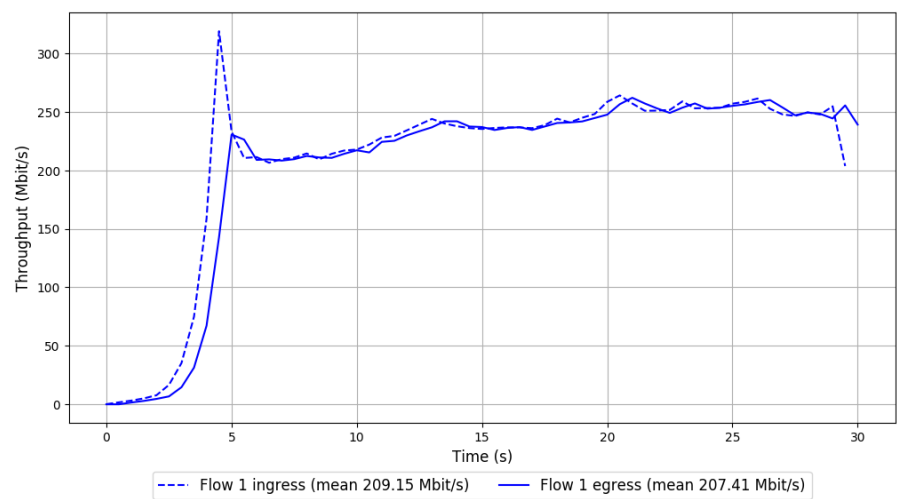


Run 3: Statistics of PCC-Vivace

Start at: 2018-12-02 01:40:27
End at: 2018-12-02 01:40:57
Local clock offset: -5.118 ms
Remote clock offset: -41.444 ms

Below is generated by plot.py at 2018-12-02 03:05:54
Datalink statistics
-- Total of 1 flow:
Average throughput: 207.41 Mbit/s
95th percentile per-packet one-way delay: 76.121 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 207.41 Mbit/s
95th percentile per-packet one-way delay: 76.121 ms
Loss rate: 0.85%

Run 3: Report of PCC-Vivace — Data Link

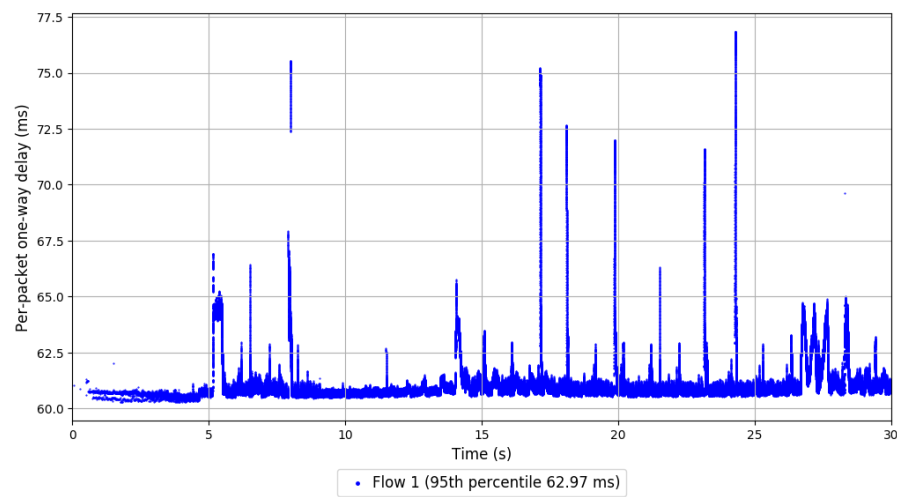
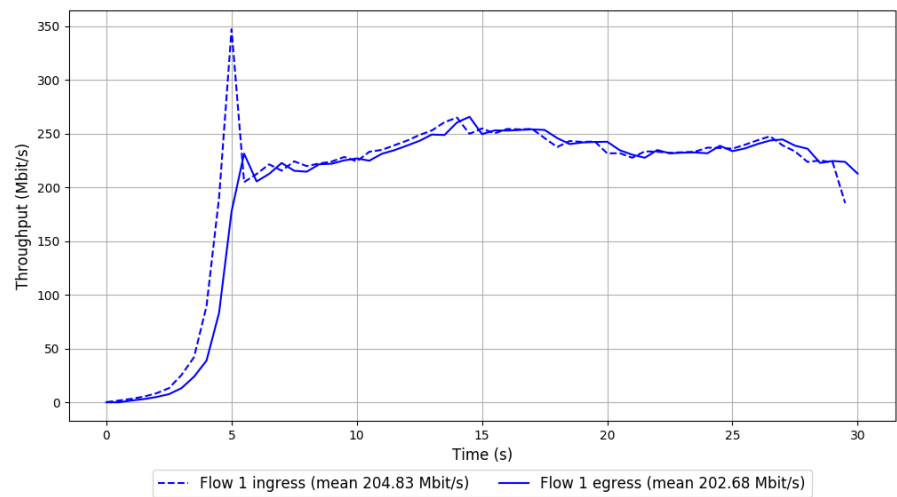


Run 4: Statistics of PCC-Vivace

Start at: 2018-12-02 02:05:08
End at: 2018-12-02 02:05:38
Local clock offset: 5.099 ms
Remote clock offset: -41.978 ms

Below is generated by plot.py at 2018-12-02 03:05:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 202.68 Mbit/s
95th percentile per-packet one-way delay: 62.966 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 202.68 Mbit/s
95th percentile per-packet one-way delay: 62.966 ms
Loss rate: 1.05%

Run 4: Report of PCC-Vivace — Data Link

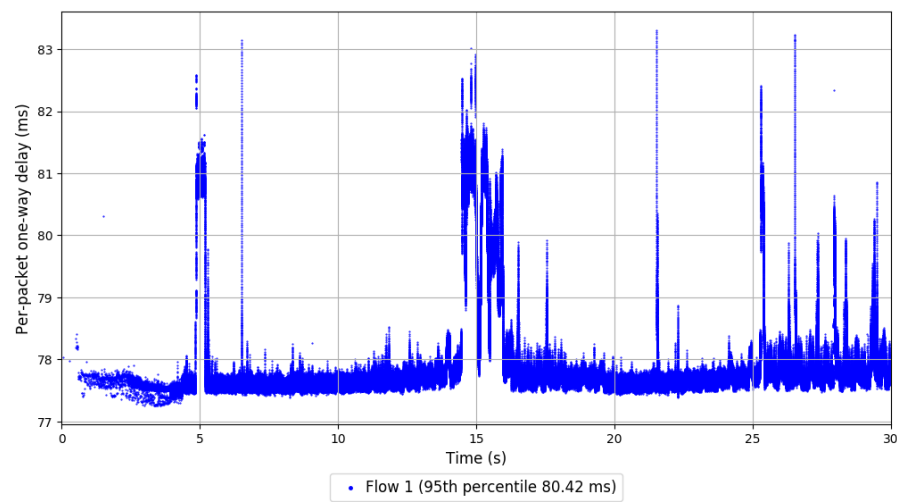
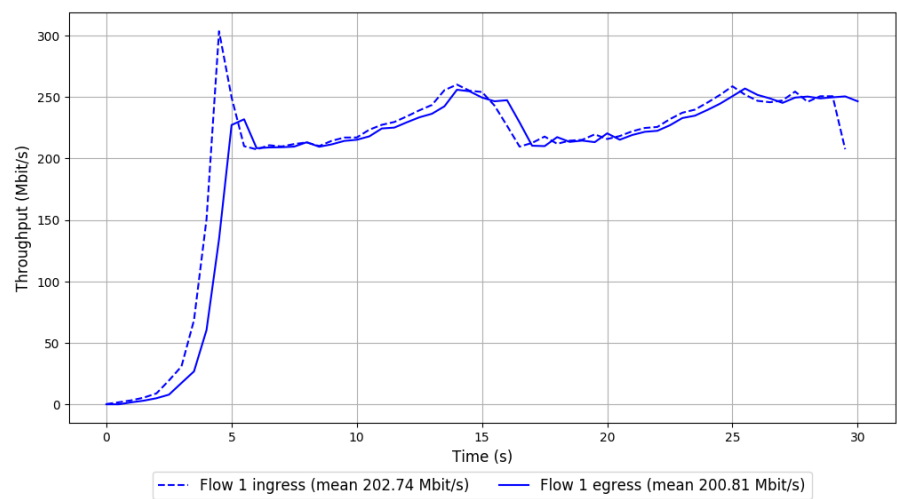


Run 5: Statistics of PCC-Vivace

Start at: 2018-12-02 02:35:37
End at: 2018-12-02 02:36:07
Local clock offset: -9.665 ms
Remote clock offset: -41.091 ms

Below is generated by plot.py at 2018-12-02 03:05:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 200.81 Mbit/s
95th percentile per-packet one-way delay: 80.423 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 200.81 Mbit/s
95th percentile per-packet one-way delay: 80.423 ms
Loss rate: 0.95%

Run 5: Report of PCC-Vivace — Data Link

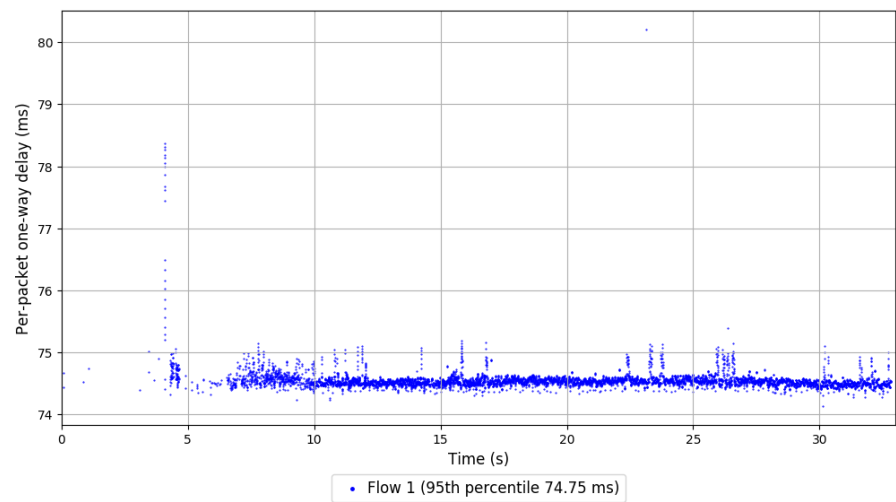
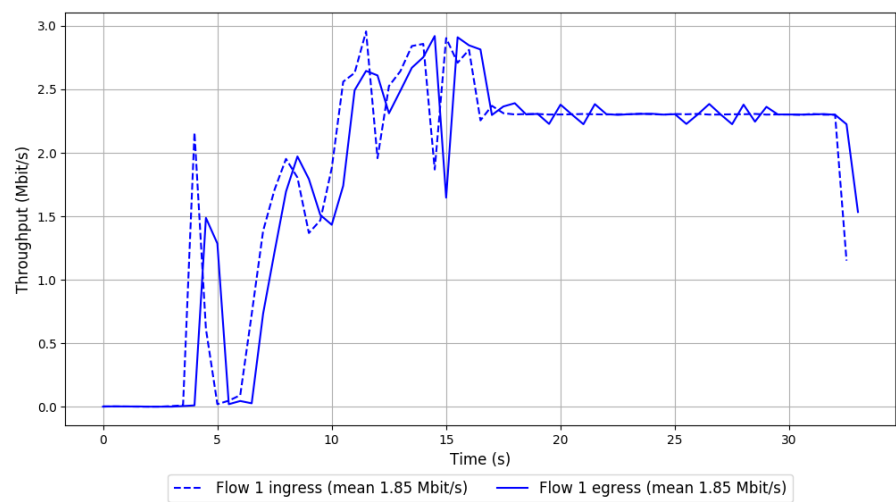


Run 1: Statistics of WebRTC media

Start at: 2018-12-02 00:26:29
End at: 2018-12-02 00:26:59
Local clock offset: 4.666 ms
Remote clock offset: -33.894 ms

Below is generated by plot.py at 2018-12-02 03:05:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 74.747 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 74.747 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

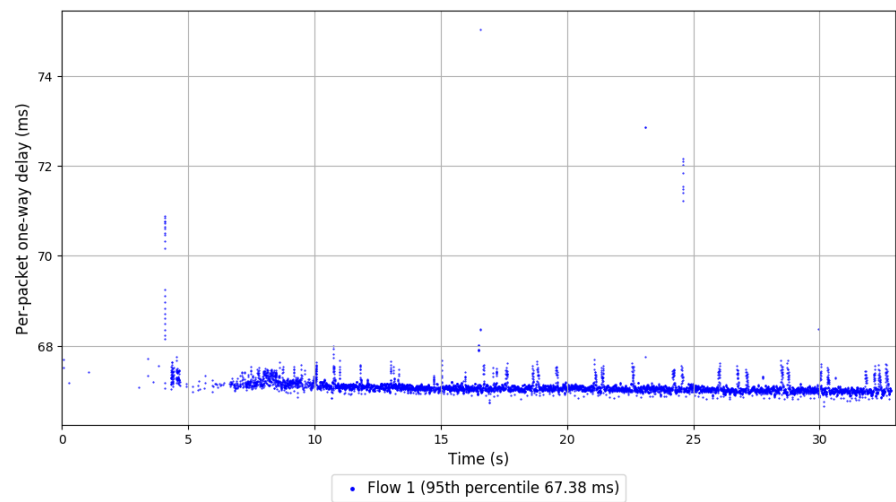
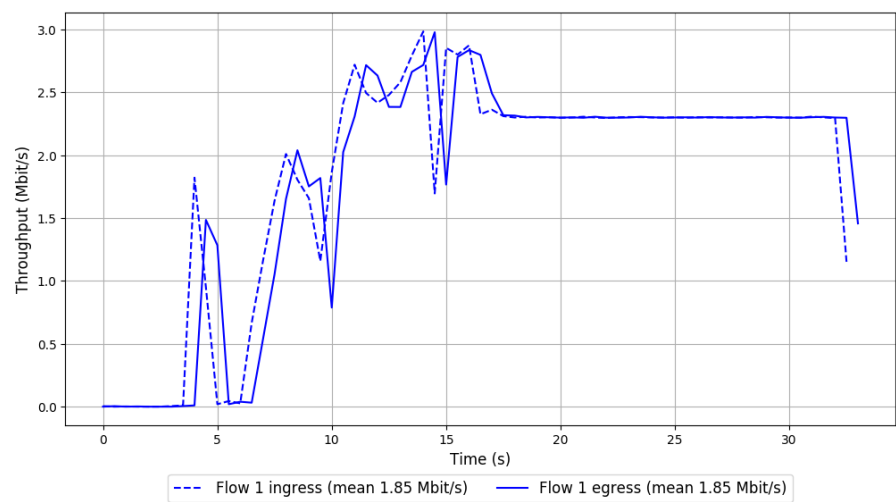


Run 2: Statistics of WebRTC media

Start at: 2018-12-02 00:57:05
End at: 2018-12-02 00:57:35
Local clock offset: -1.311 ms
Remote clock offset: -47.642 ms

Below is generated by plot.py at 2018-12-02 03:05:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 67.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 67.383 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

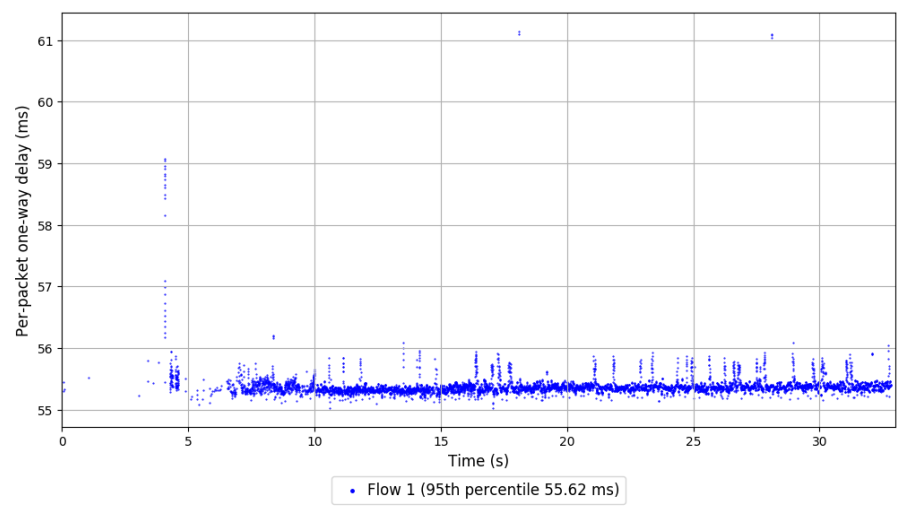
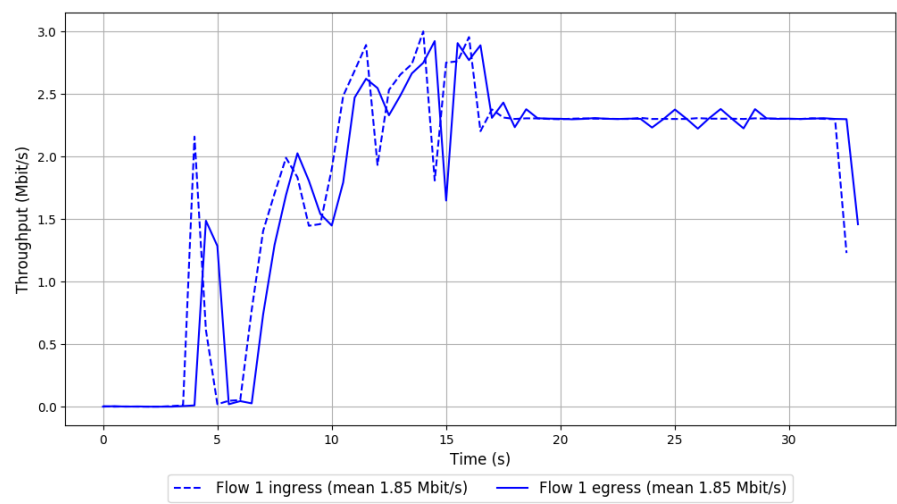


Run 3: Statistics of WebRTC media

Start at: 2018-12-02 01:27:39
End at: 2018-12-02 01:28:09
Local clock offset: 3.325 ms
Remote clock offset: -46.019 ms

Below is generated by plot.py at 2018-12-02 03:05:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 55.620 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 55.620 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

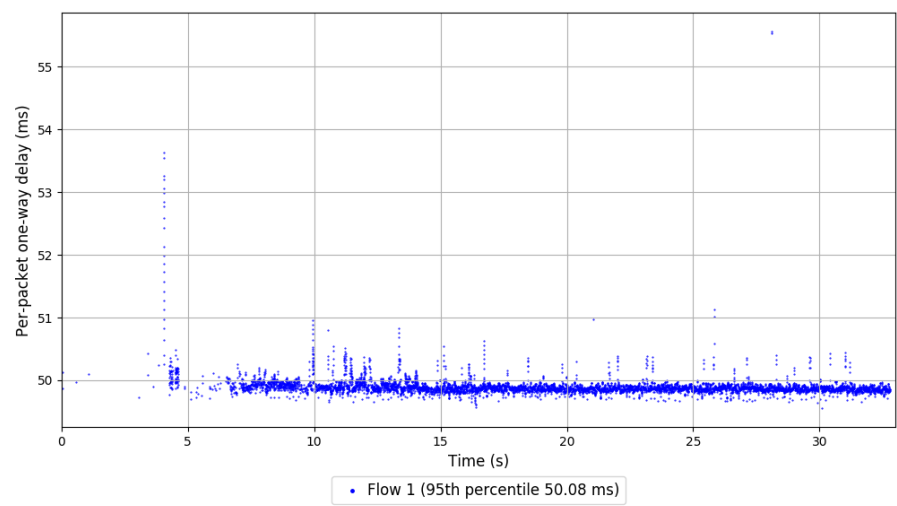
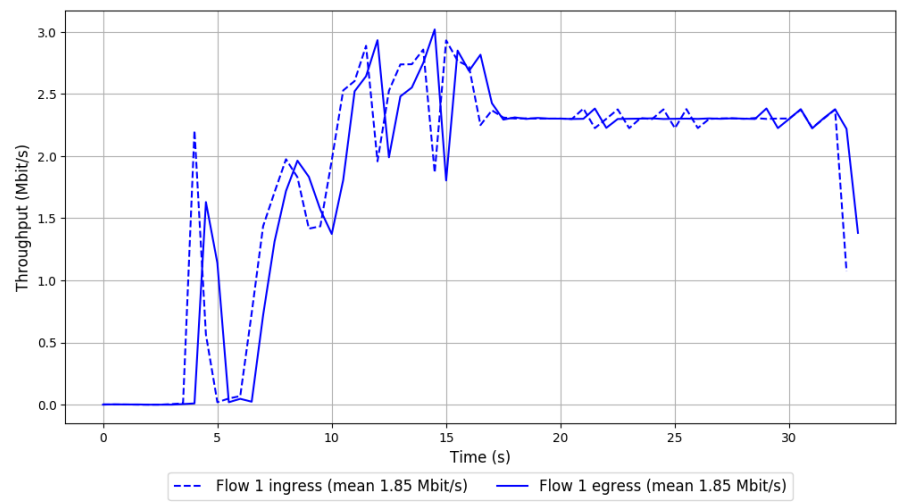


Run 4: Statistics of WebRTC media

Start at: 2018-12-02 01:52:21
End at: 2018-12-02 01:52:51
Local clock offset: 6.698 ms
Remote clock offset: -48.882 ms

Below is generated by plot.py at 2018-12-02 03:05:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 50.075 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 50.075 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-12-02 02:17:03
End at: 2018-12-02 02:17:33
Local clock offset: 0.664 ms
Remote clock offset: -38.653 ms

Below is generated by plot.py at 2018-12-02 03:05:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 75.660 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 75.660 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

