

## Pantheon Report

Generated at 2019-01-21 23:20:35 (UTC).

Data path: Colombia on **p4p1** (*remote*) → AWS Brazil 2 on **ens5** (*local*).

Repeated the test of 21 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against **gps.ntp.br** and have been applied to correct the timestamps in logs.

### System info:

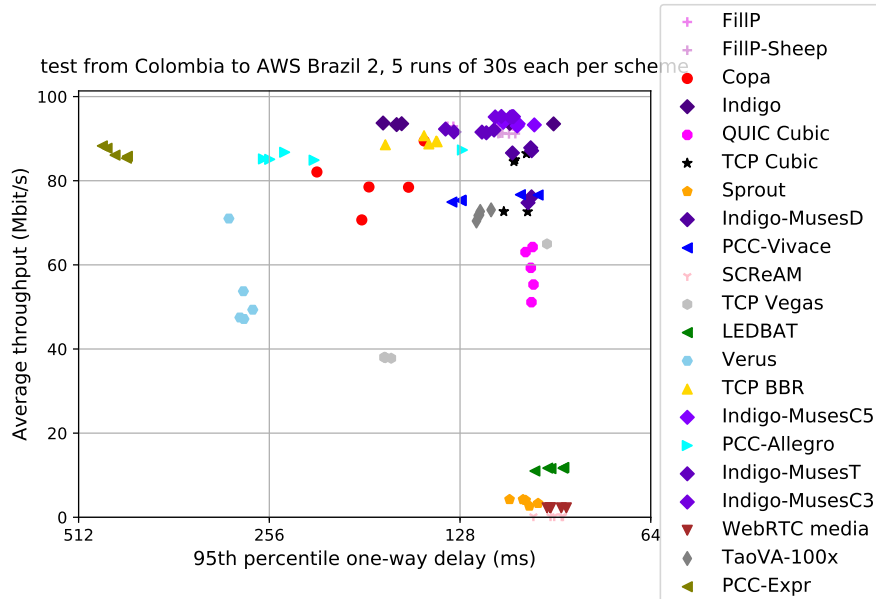
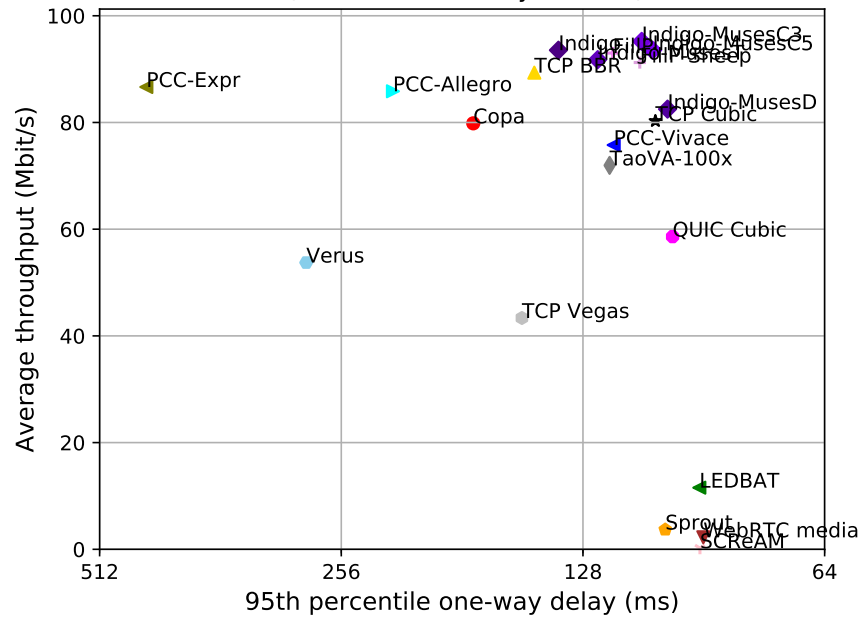
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ 89d24e57783e7fbfec537a619071de937b639e38
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 1ddcff131048c6962f123bcd22b4d166a422adde
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 Colombia to AWS Brazil 2, 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	89.34	147.17	1.15
Copa	5	79.84	175.33	0.79
TCP Cubic	5	80.27	103.99	0.62
FillP	5	93.01	117.55	0.65
FillP-Sheep	5	91.23	108.75	0.64
Indigo	5	93.55	137.33	1.56
Indigo-MusesC3	5	95.20	108.16	6.76
Indigo-MusesC5	5	93.55	104.83	3.69
Indigo-MusesD	5	82.50	100.43	0.75
Indigo-MusesT	5	91.78	122.70	7.17
LEDBAT	5	11.56	91.68	1.17
PCC-Allegro	5	85.85	220.74	0.86
PCC-Expr	5	86.65	447.81	1.33
QUIC Cubic	5	58.61	98.99	0.91
SCReAM	5	0.22	91.51	0.59
Sprout	5	3.70	101.09	0.75
TaoVA-100x	5	71.96	118.58	0.60
TCP Vegas	5	43.35	152.49	0.68
Verus	5	53.74	283.08	0.75
PCC-Vivace	5	75.77	117.22	0.77
WebRTC media	5	2.24	90.64	0.34



Run 1: Statistics of TCP BBR

Start at: 2019-01-21 21:09:51

End at: 2019-01-21 21:10:21

Local clock offset: -6.854 ms

Remote clock offset: 7.914 ms

# Below is generated by plot.py at 2019-01-21 23:09:36

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.56 Mbit/s

95th percentile per-packet one-way delay: 167.916 ms

Loss rate: 1.11%

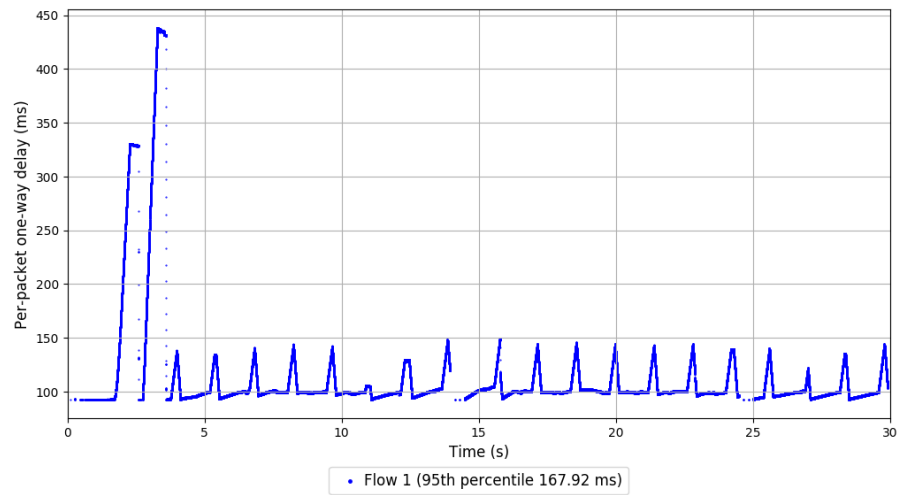
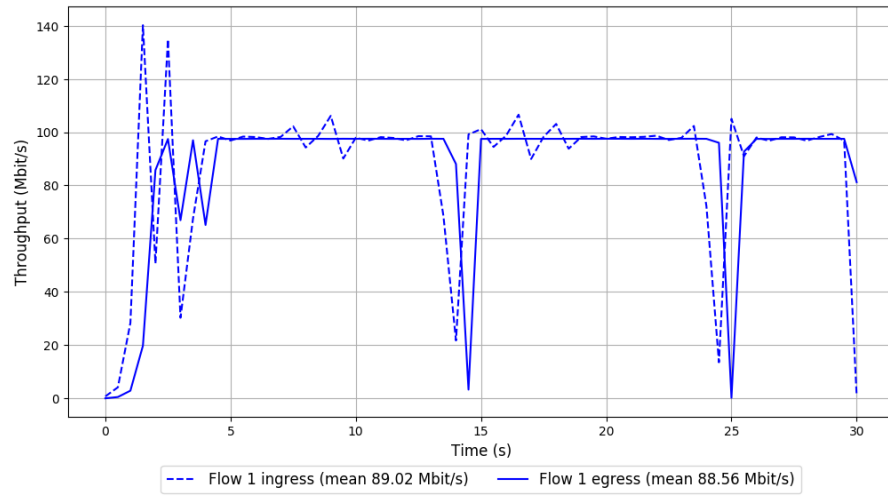
-- Flow 1:

Average throughput: 88.56 Mbit/s

95th percentile per-packet one-way delay: 167.916 ms

Loss rate: 1.11%

# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-01-21 21:34:51

End at: 2019-01-21 21:35:21

Local clock offset: -6.571 ms

Remote clock offset: 7.904 ms

# Below is generated by plot.py at 2019-01-21 23:09:37

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.43 Mbit/s

95th percentile per-packet one-way delay: 139.543 ms

Loss rate: 1.31%

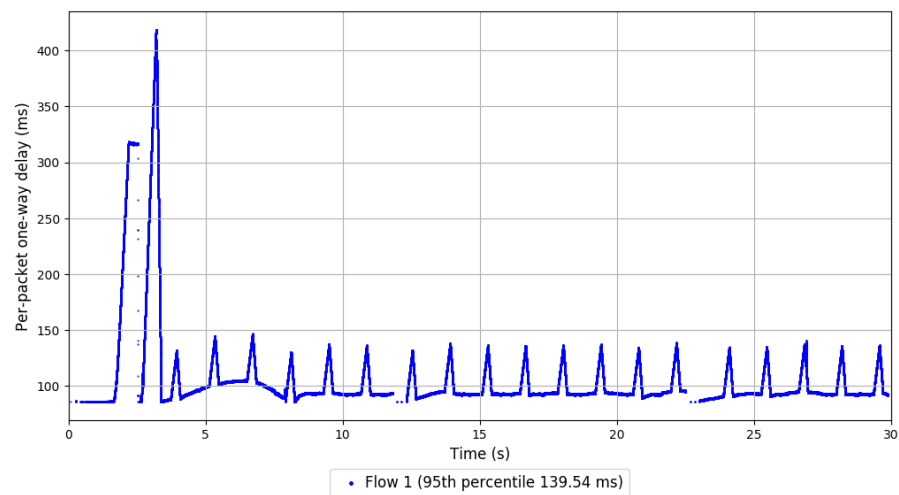
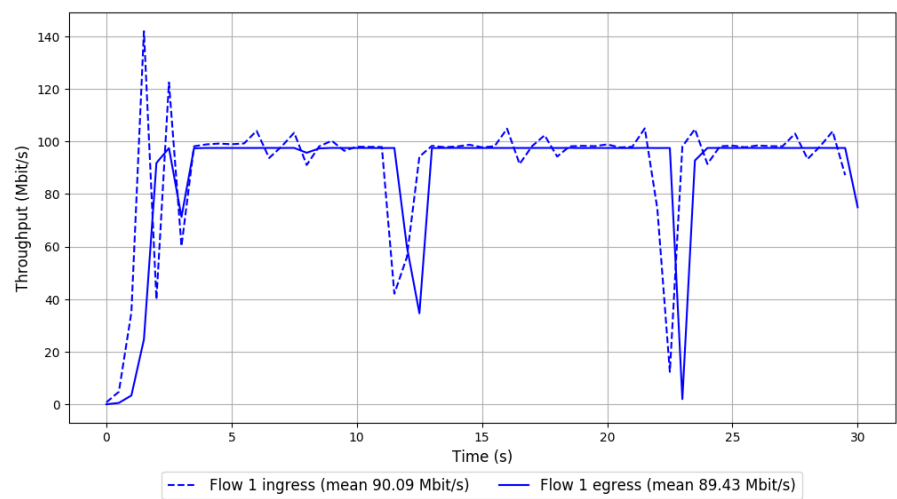
-- Flow 1:

Average throughput: 89.43 Mbit/s

95th percentile per-packet one-way delay: 139.543 ms

Loss rate: 1.31%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-01-21 21:59:50

End at: 2019-01-21 22:00:20

Local clock offset: -7.193 ms

Remote clock offset: 1.896 ms

# Below is generated by plot.py at 2019-01-21 23:09:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 90.71 Mbit/s

95th percentile per-packet one-way delay: 145.891 ms

Loss rate: 1.10%

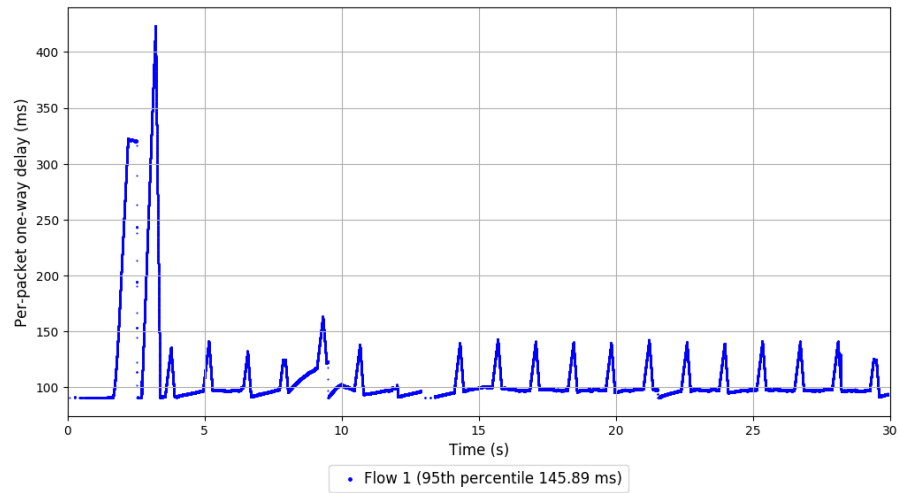
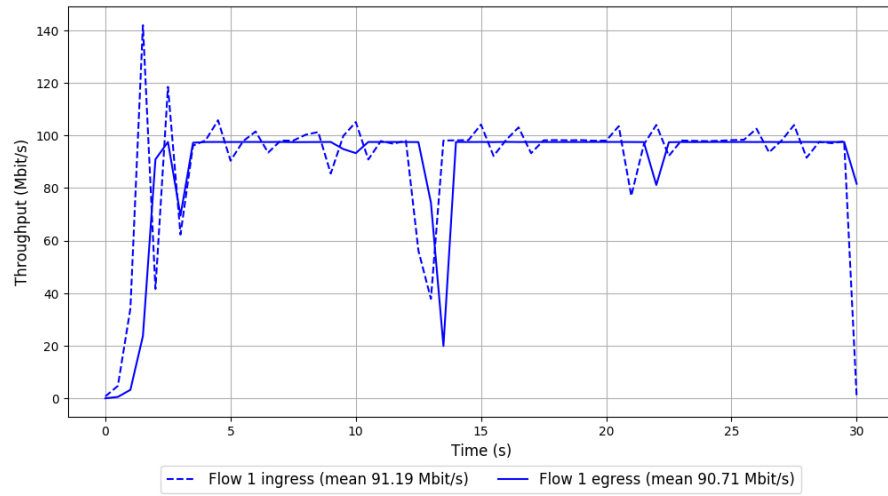
-- Flow 1:

Average throughput: 90.71 Mbit/s

95th percentile per-packet one-way delay: 145.891 ms

Loss rate: 1.10%

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



Run 4: Statistics of TCP BBR

Start at: 2019-01-21 22:24:49

End at: 2019-01-21 22:25:19

Local clock offset: -3.041 ms

Remote clock offset: 1.378 ms

# Below is generated by plot.py at 2019-01-21 23:09:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.75 Mbit/s

95th percentile per-packet one-way delay: 143.376 ms

Loss rate: 1.33%

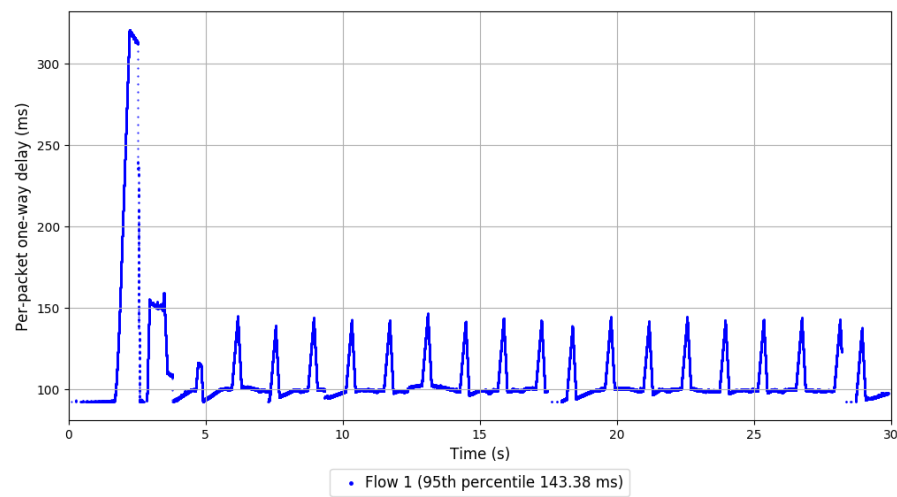
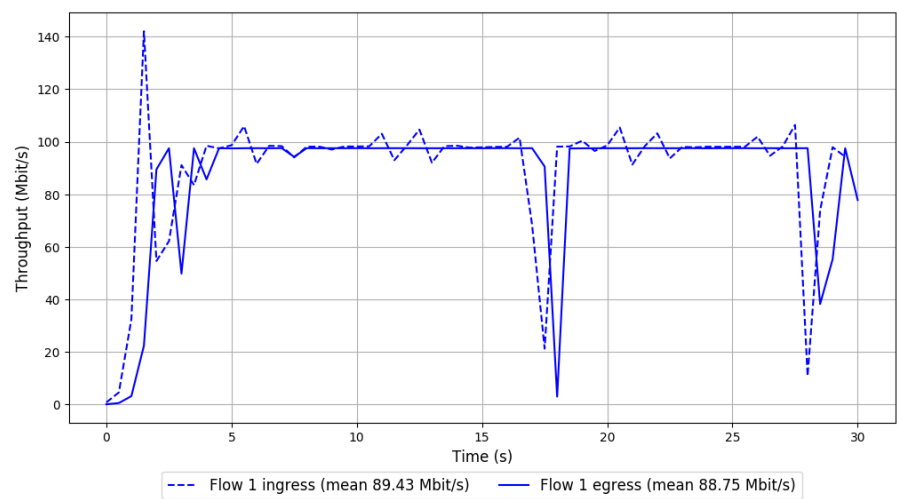
-- Flow 1:

Average throughput: 88.75 Mbit/s

95th percentile per-packet one-way delay: 143.376 ms

Loss rate: 1.33%

Run 4: Report of TCP BBR — Data Link





Run 5: Statistics of TCP BBR

Start at: 2019-01-21 22:49:47

End at: 2019-01-21 22:50:17

Local clock offset: -1.129 ms

Remote clock offset: 3.304 ms

# Below is generated by plot.py at 2019-01-21 23:09:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.27 Mbit/s

95th percentile per-packet one-way delay: 139.109 ms

Loss rate: 0.92%

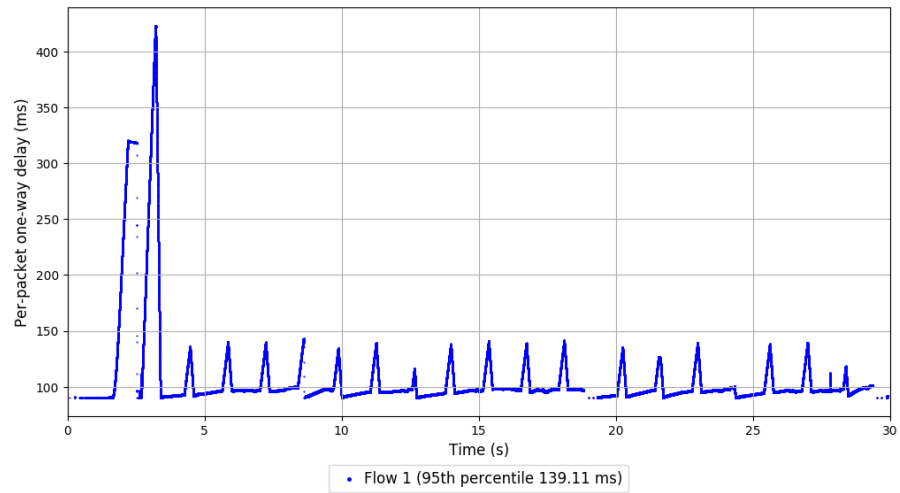
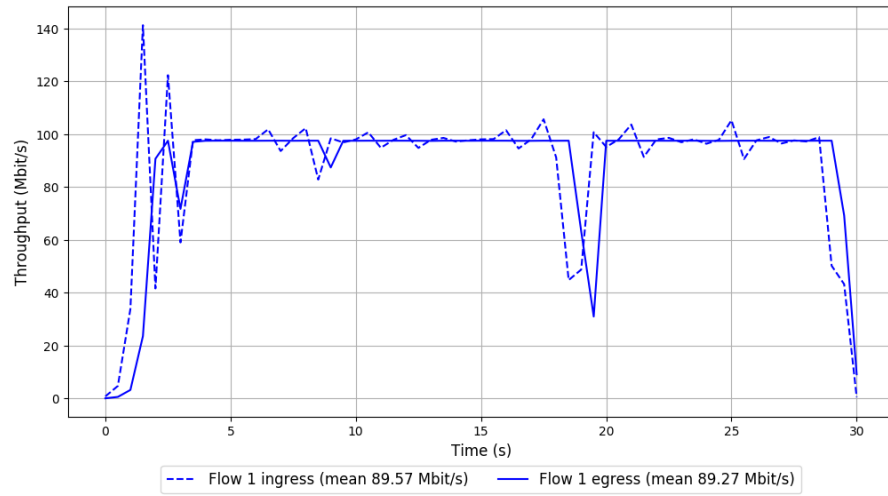
-- Flow 1:

Average throughput: 89.27 Mbit/s

95th percentile per-packet one-way delay: 139.109 ms

Loss rate: 0.92%

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



Run 1: Statistics of Copa

Start at: 2019-01-21 21:03:48

End at: 2019-01-21 21:04:18

Local clock offset: -6.793 ms

Remote clock offset: 3.59 ms

# Below is generated by plot.py at 2019-01-21 23:10:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.45 Mbit/s

95th percentile per-packet one-way delay: 145.802 ms

Loss rate: 0.64%

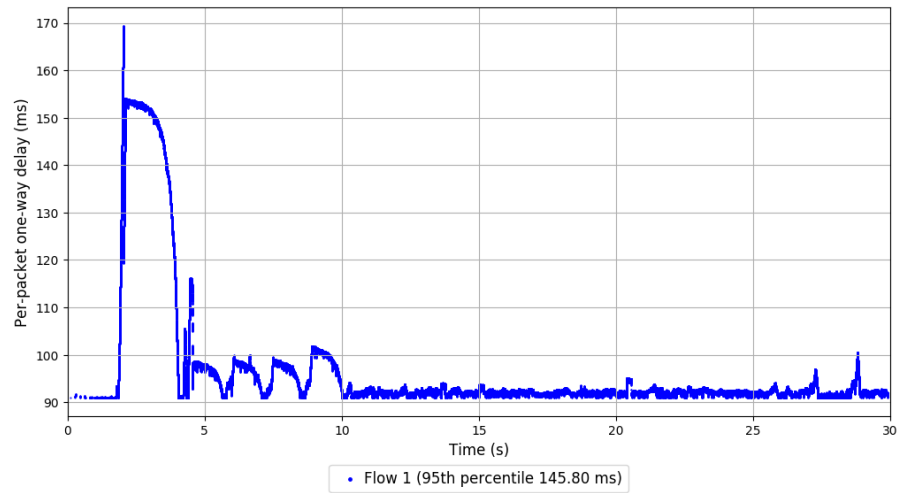
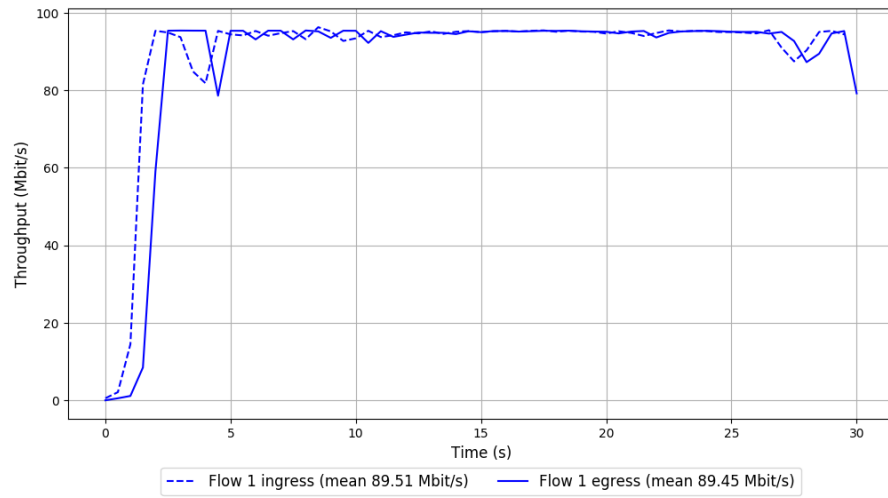
-- Flow 1:

Average throughput: 89.45 Mbit/s

95th percentile per-packet one-way delay: 145.802 ms

Loss rate: 0.64%

## Run 1: Report of Copa — Data Link

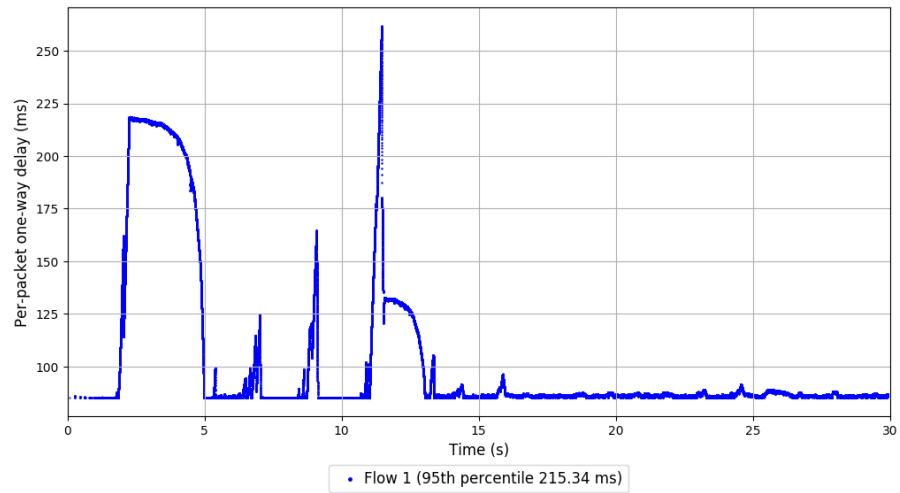
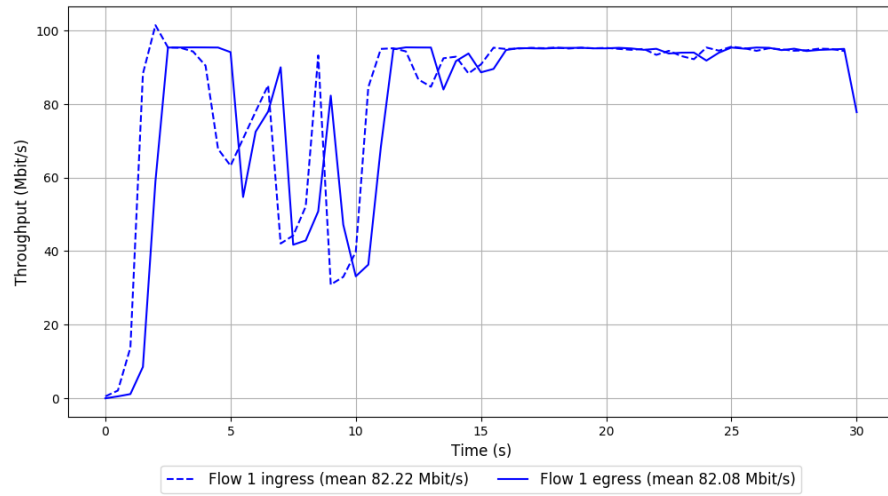


Run 2: Statistics of Copa

Start at: 2019-01-21 21:28:48  
End at: 2019-01-21 21:29:18  
Local clock offset: -6.561 ms  
Remote clock offset: 8.838 ms

# Below is generated by plot.py at 2019-01-21 23:10:34  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 82.08 Mbit/s  
95th percentile per-packet one-way delay: 215.342 ms  
Loss rate: 0.75%  
-- Flow 1:  
Average throughput: 82.08 Mbit/s  
95th percentile per-packet one-way delay: 215.342 ms  
Loss rate: 0.75%

## Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-01-21 21:53:47

End at: 2019-01-21 21:54:17

Local clock offset: -6.261 ms

Remote clock offset: 5.014 ms

# Below is generated by plot.py at 2019-01-21 23:10:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 78.52 Mbit/s

95th percentile per-packet one-way delay: 178.229 ms

Loss rate: 0.81%

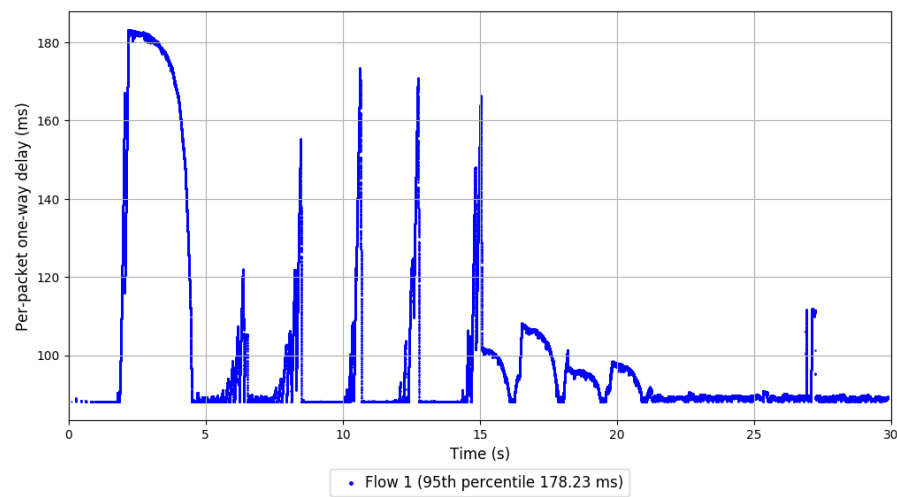
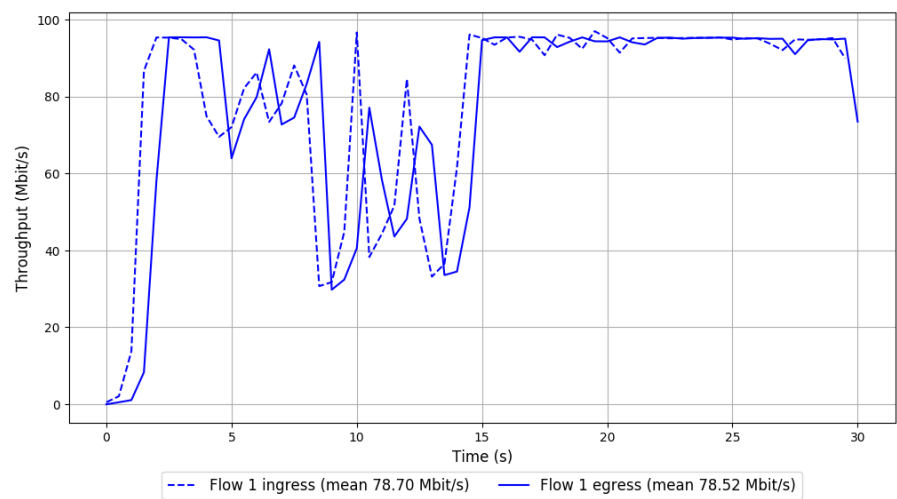
-- Flow 1:

Average throughput: 78.52 Mbit/s

95th percentile per-packet one-way delay: 178.229 ms

Loss rate: 0.81%

Run 3: Report of Copa — Data Link





Run 4: Statistics of Copa

Start at: 2019-01-21 22:18:47

End at: 2019-01-21 22:19:17

Local clock offset: -6.085 ms

Remote clock offset: 6.03 ms

# Below is generated by plot.py at 2019-01-21 23:11:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 78.45 Mbit/s

95th percentile per-packet one-way delay: 154.349 ms

Loss rate: 0.86%

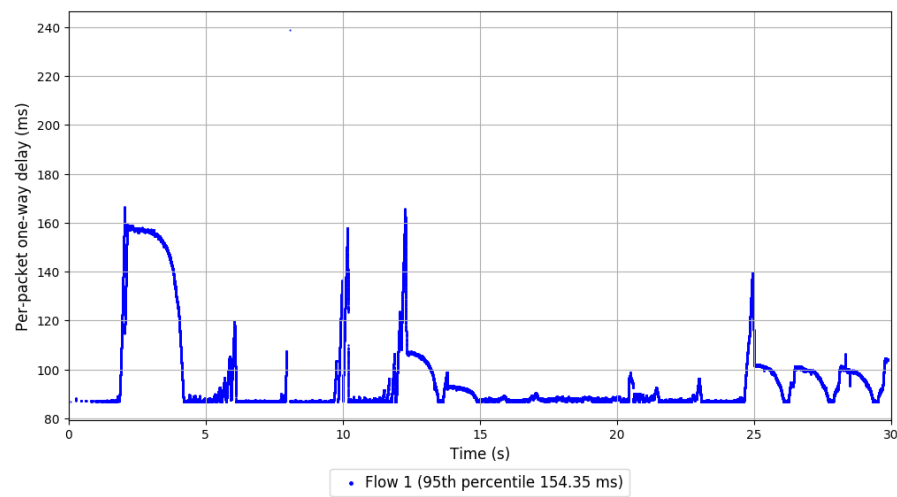
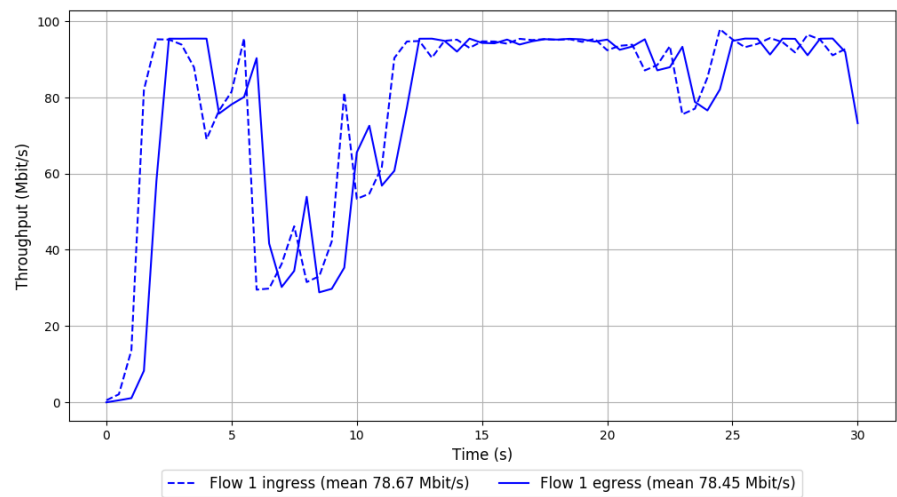
-- Flow 1:

Average throughput: 78.45 Mbit/s

95th percentile per-packet one-way delay: 154.349 ms

Loss rate: 0.86%

Run 4: Report of Copa — Data Link

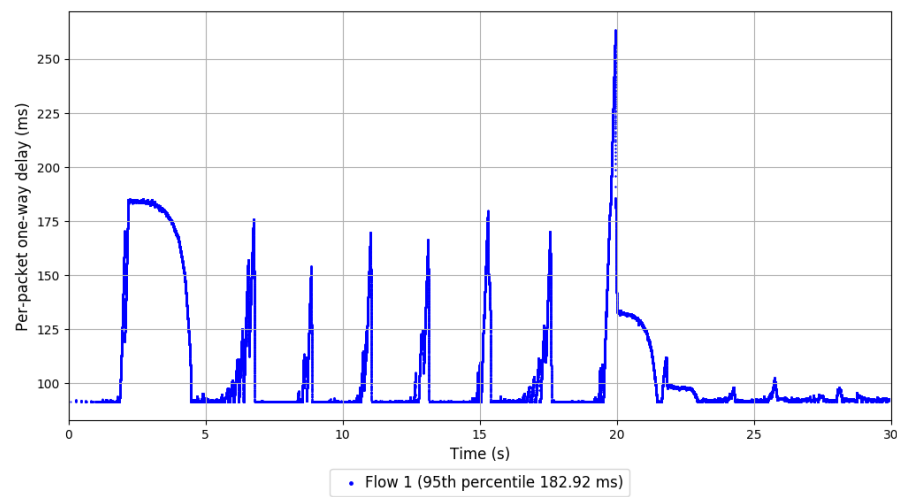
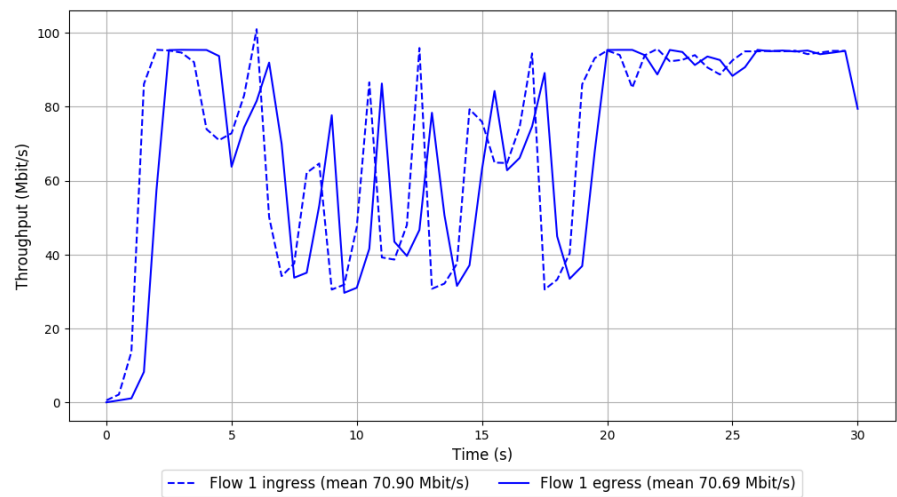


Run 5: Statistics of Copa

Start at: 2019-01-21 22:43:46  
End at: 2019-01-21 22:44:16  
Local clock offset: -0.926 ms  
Remote clock offset: 2.005 ms

# Below is generated by plot.py at 2019-01-21 23:11:16  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 70.69 Mbit/s  
95th percentile per-packet one-way delay: 182.923 ms  
Loss rate: 0.88%  
-- Flow 1:  
Average throughput: 70.69 Mbit/s  
95th percentile per-packet one-way delay: 182.923 ms  
Loss rate: 0.88%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-01-21 21:26:25

End at: 2019-01-21 21:26:55

Local clock offset: -5.825 ms

Remote clock offset: 8.152 ms

# Below is generated by plot.py at 2019-01-21 23:11:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 72.64 Mbit/s

95th percentile per-packet one-way delay: 100.114 ms

Loss rate: 0.65%

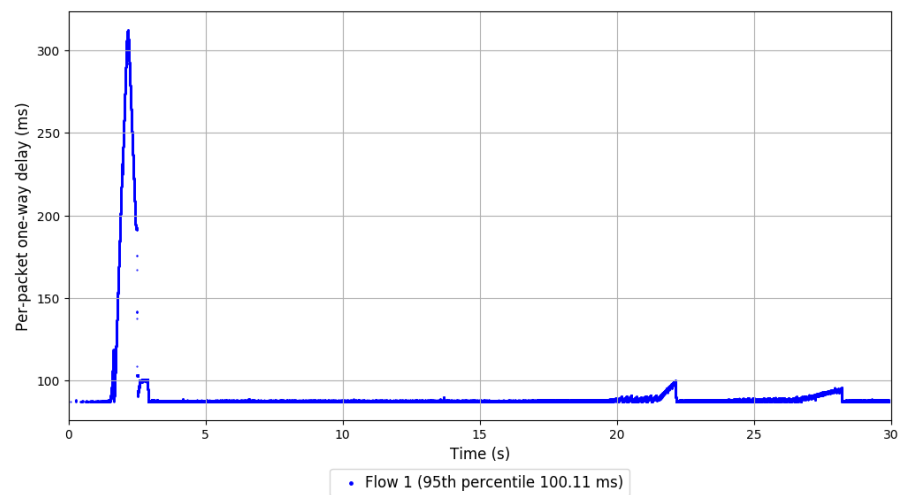
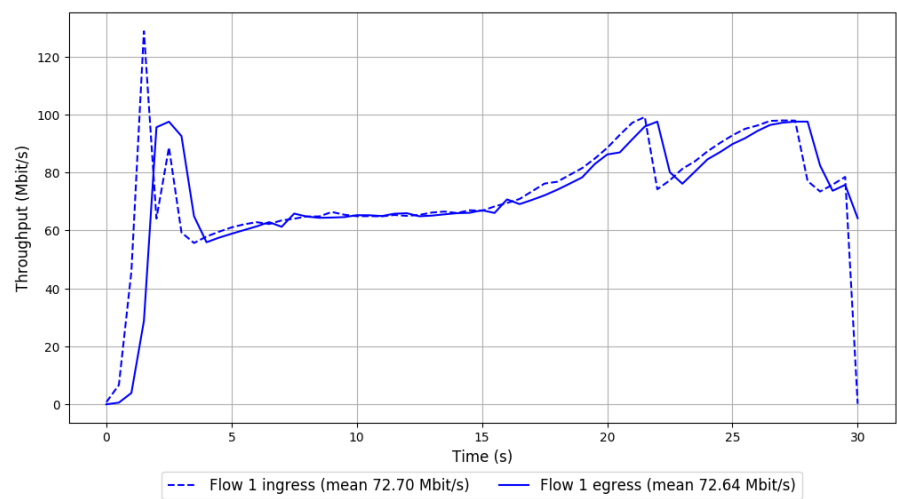
-- Flow 1:

Average throughput: 72.64 Mbit/s

95th percentile per-packet one-way delay: 100.114 ms

Loss rate: 0.65%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-01-21 21:51:23

End at: 2019-01-21 21:51:53

Local clock offset: -6.169 ms

Remote clock offset: 5.791 ms

# Below is generated by plot.py at 2019-01-21 23:11:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 86.46 Mbit/s

95th percentile per-packet one-way delay: 100.531 ms

Loss rate: 0.62%

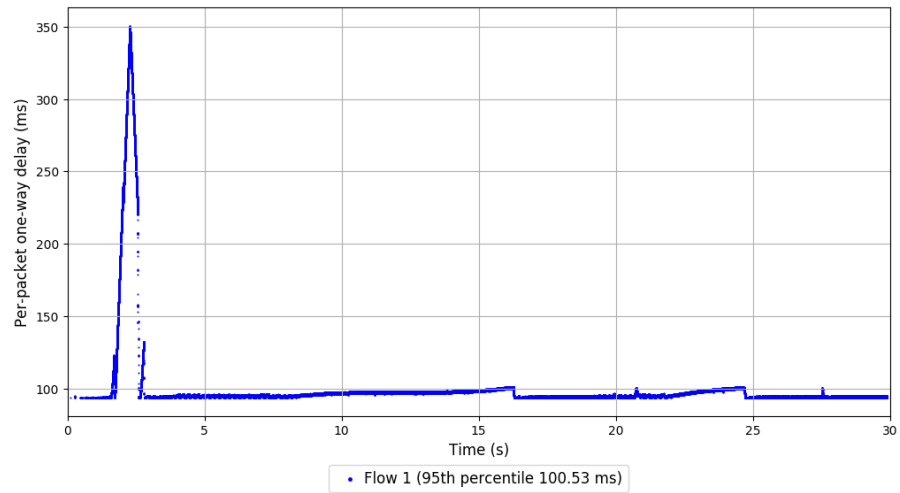
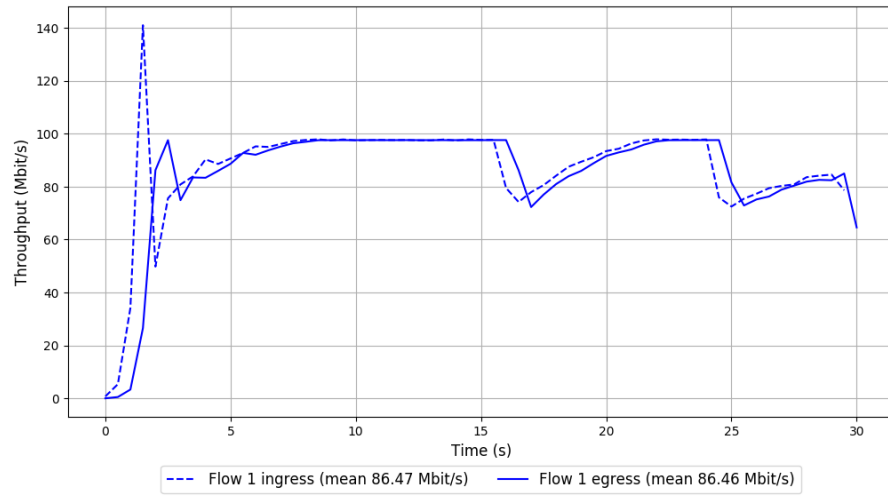
-- Flow 1:

Average throughput: 86.46 Mbit/s

95th percentile per-packet one-way delay: 100.531 ms

Loss rate: 0.62%

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





Run 3: Statistics of TCP Cubic

Start at: 2019-01-21 22:16:23

End at: 2019-01-21 22:16:53

Local clock offset: -6.642 ms

Remote clock offset: 1.297 ms

# Below is generated by plot.py at 2019-01-21 23:11:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 84.56 Mbit/s

95th percentile per-packet one-way delay: 105.238 ms

Loss rate: 0.60%

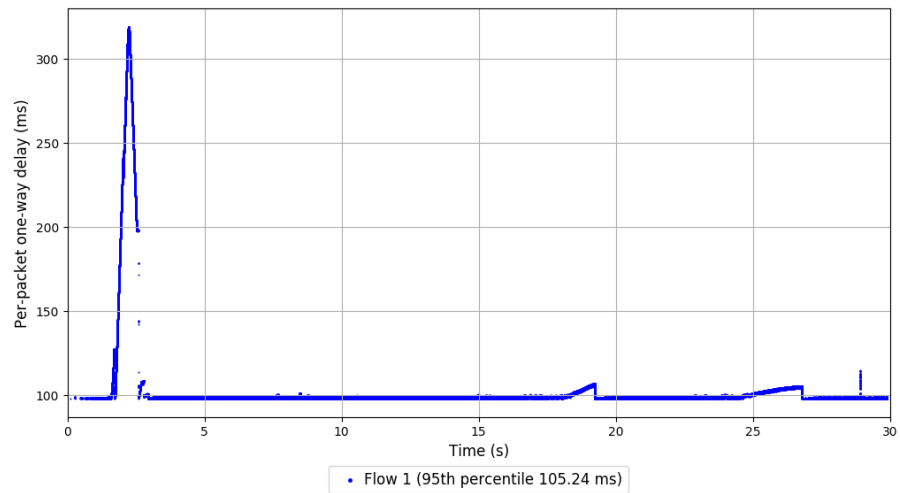
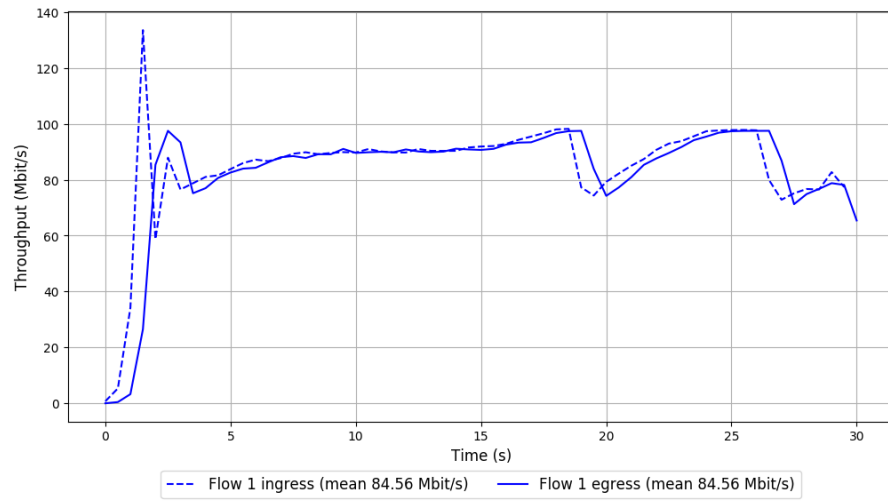
-- Flow 1:

Average throughput: 84.56 Mbit/s

95th percentile per-packet one-way delay: 105.238 ms

Loss rate: 0.60%

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



Run 4: Statistics of TCP Cubic

Start at: 2019-01-21 22:41:22

End at: 2019-01-21 22:41:52

Local clock offset: -0.369 ms

Remote clock offset: 6.99 ms

# Below is generated by plot.py at 2019-01-21 23:11:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 72.68 Mbit/s

95th percentile per-packet one-way delay: 109.177 ms

Loss rate: 0.63%

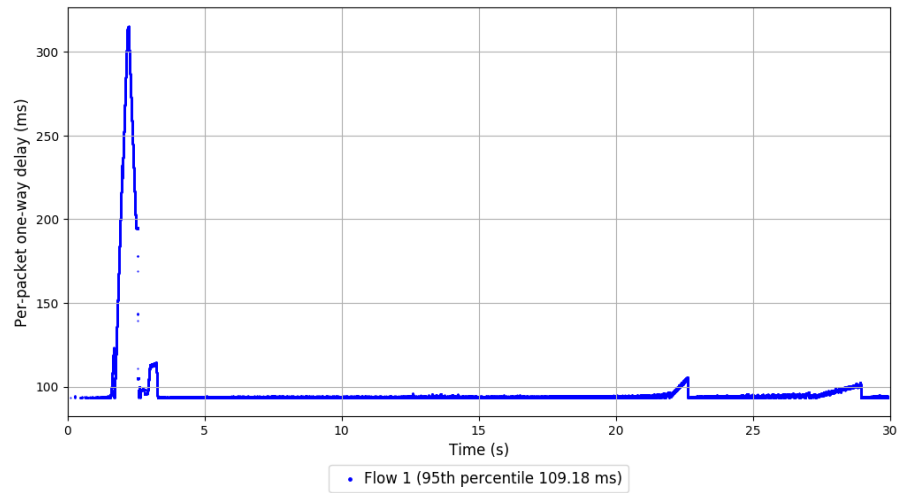
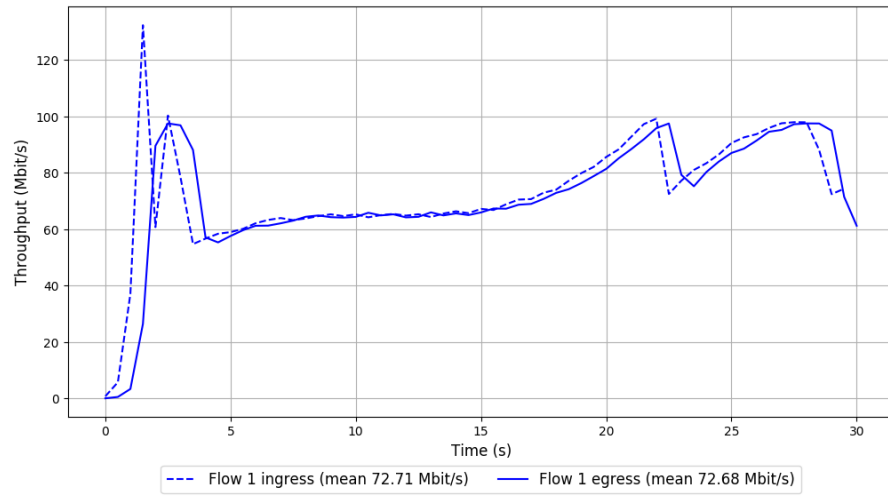
-- Flow 1:

Average throughput: 72.68 Mbit/s

95th percentile per-packet one-way delay: 109.177 ms

Loss rate: 0.63%

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



Run 5: Statistics of TCP Cubic

Start at: 2019-01-21 23:06:22

End at: 2019-01-21 23:06:52

Local clock offset: -0.692 ms

Remote clock offset: 3.467 ms

# Below is generated by plot.py at 2019-01-21 23:11:18

# Datalink statistics

-- Total of 1 flow:

Average throughput: 85.01 Mbit/s

95th percentile per-packet one-way delay: 104.885 ms

Loss rate: 0.59%

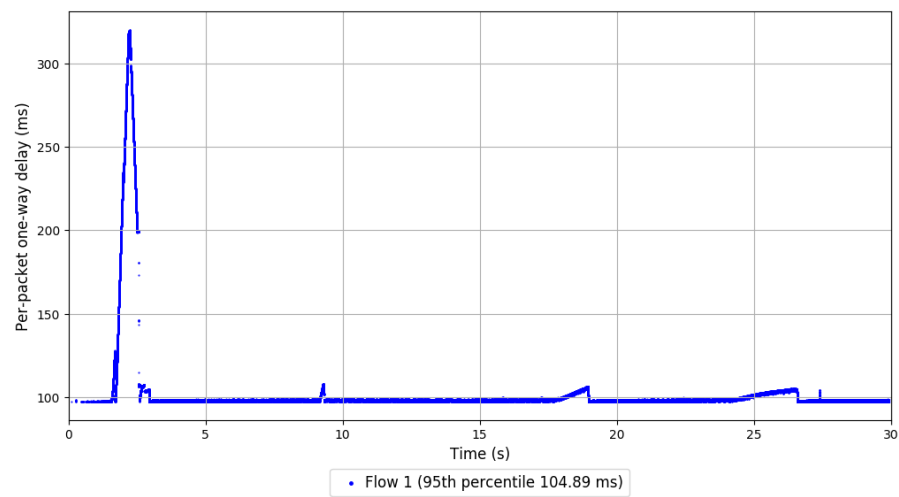
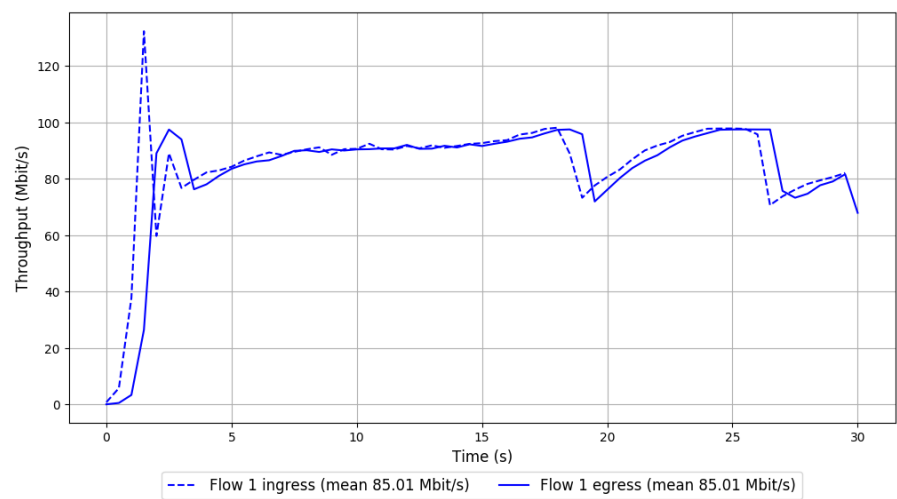
-- Flow 1:

Average throughput: 85.01 Mbit/s

95th percentile per-packet one-way delay: 104.885 ms

Loss rate: 0.59%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-01-21 21:06:16

End at: 2019-01-21 21:06:46

Local clock offset: -6.802 ms

Remote clock offset: 7.51 ms

# Below is generated by plot.py at 2019-01-21 23:11:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.13 Mbit/s

95th percentile per-packet one-way delay: 105.927 ms

Loss rate: 0.68%

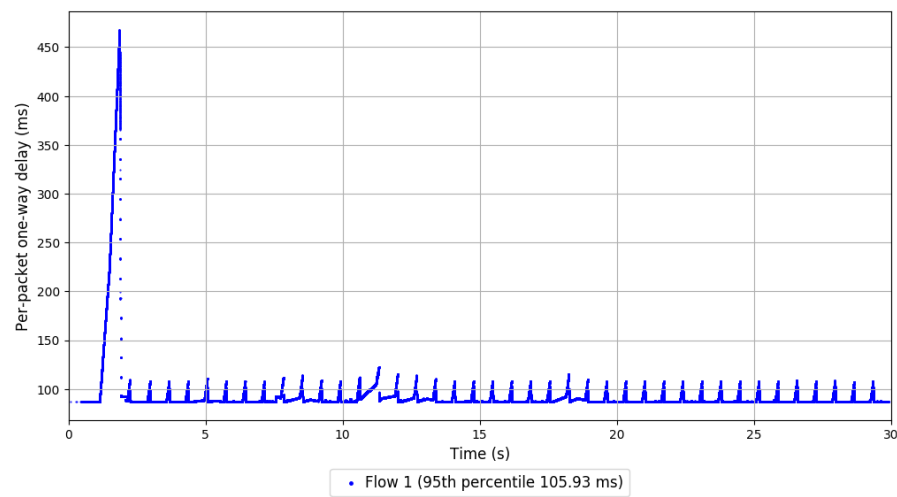
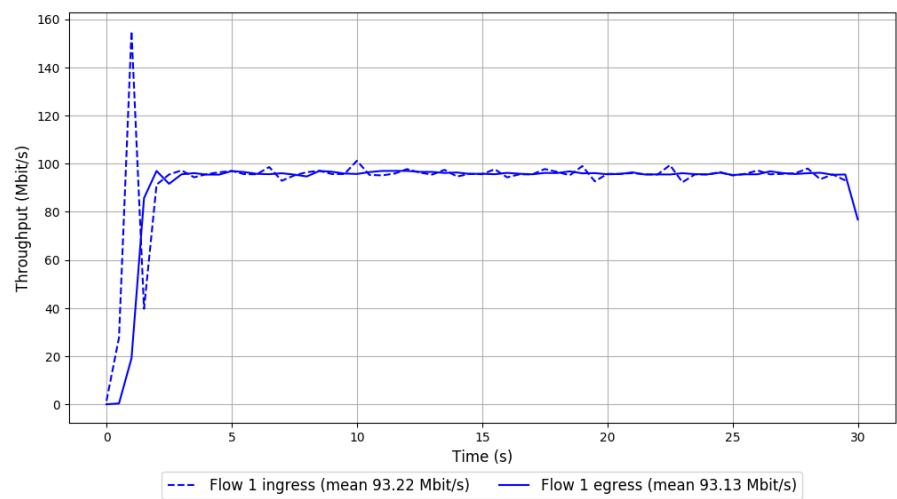
-- Flow 1:

Average throughput: 93.13 Mbit/s

95th percentile per-packet one-way delay: 105.927 ms

Loss rate: 0.68%

Run 1: Report of FillP — Data Link





Run 2: Statistics of FillP

Start at: 2019-01-21 21:31:15

End at: 2019-01-21 21:31:45

Local clock offset: -5.797 ms

Remote clock offset: 7.235 ms

# Below is generated by plot.py at 2019-01-21 23:11:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.95 Mbit/s

95th percentile per-packet one-way delay: 105.326 ms

Loss rate: 0.61%

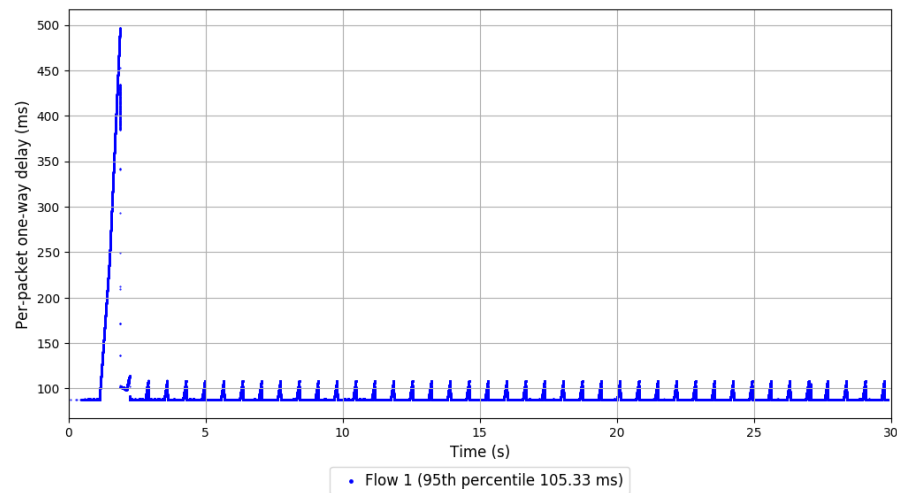
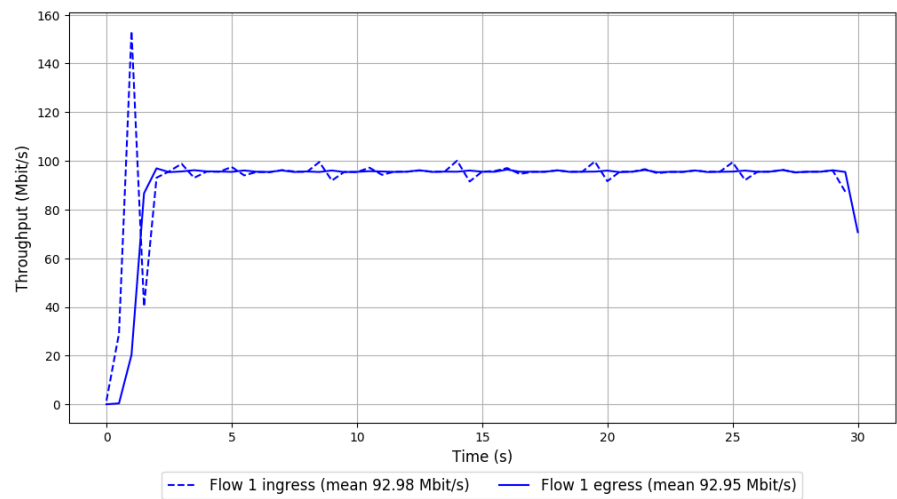
-- Flow 1:

Average throughput: 92.95 Mbit/s

95th percentile per-packet one-way delay: 105.326 ms

Loss rate: 0.61%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-01-21 21:56:14

End at: 2019-01-21 21:56:44

Local clock offset: -7.095 ms

Remote clock offset: 1.877 ms

# Below is generated by plot.py at 2019-01-21 23:11:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.94 Mbit/s

95th percentile per-packet one-way delay: 133.994 ms

Loss rate: 0.71%

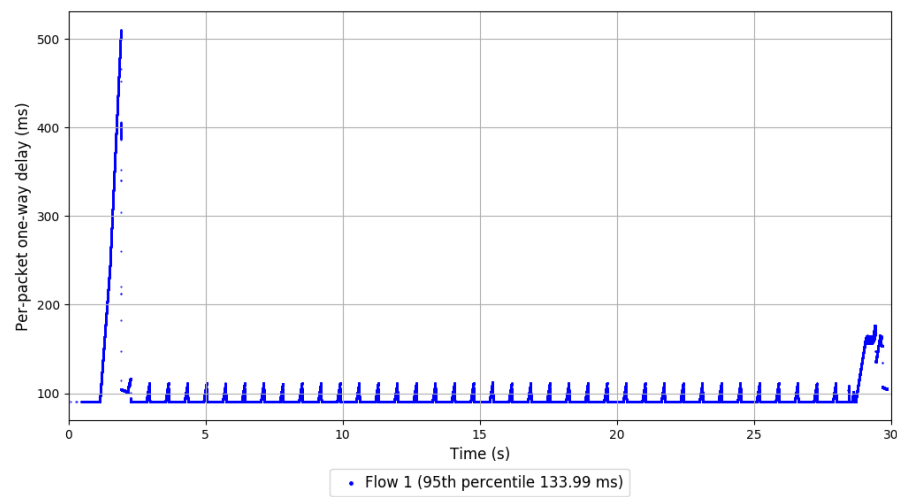
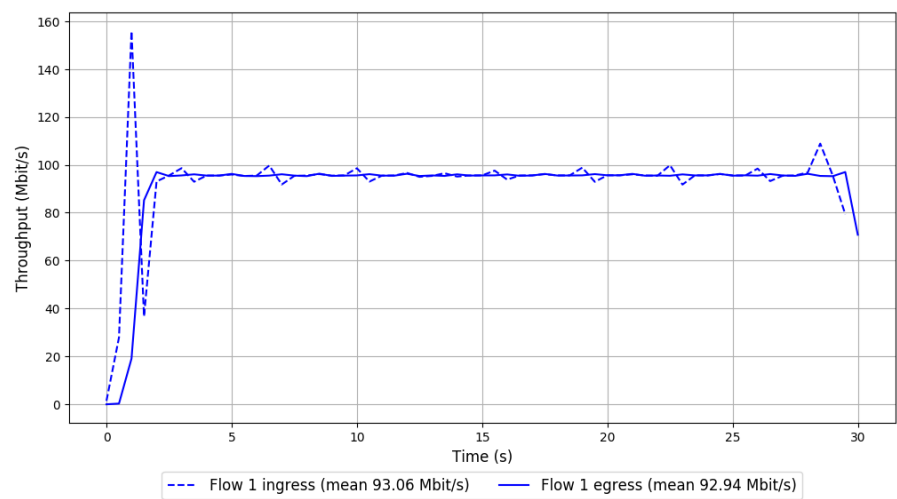
-- Flow 1:

Average throughput: 92.94 Mbit/s

95th percentile per-packet one-way delay: 133.994 ms

Loss rate: 0.71%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-01-21 22:21:14

End at: 2019-01-21 22:21:44

Local clock offset: -4.225 ms

Remote clock offset: 2.389 ms

# Below is generated by plot.py at 2019-01-21 23:11:52

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.09 Mbit/s

95th percentile per-packet one-way delay: 111.337 ms

Loss rate: 0.61%

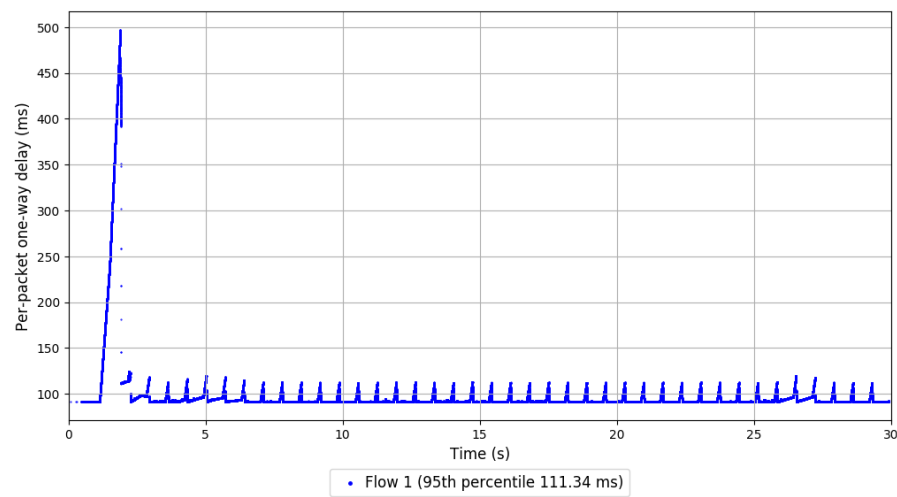
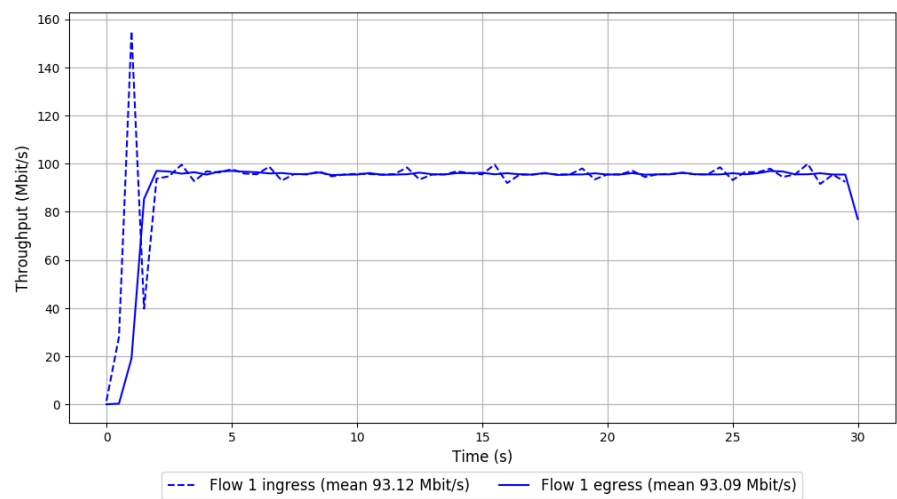
-- Flow 1:

Average throughput: 93.09 Mbit/s

95th percentile per-packet one-way delay: 111.337 ms

Loss rate: 0.61%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-01-21 22:46:12

End at: 2019-01-21 22:46:42

Local clock offset: 0.002 ms

Remote clock offset: 2.067 ms

# Below is generated by plot.py at 2019-01-21 23:12:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.93 Mbit/s

95th percentile per-packet one-way delay: 131.150 ms

Loss rate: 0.64%

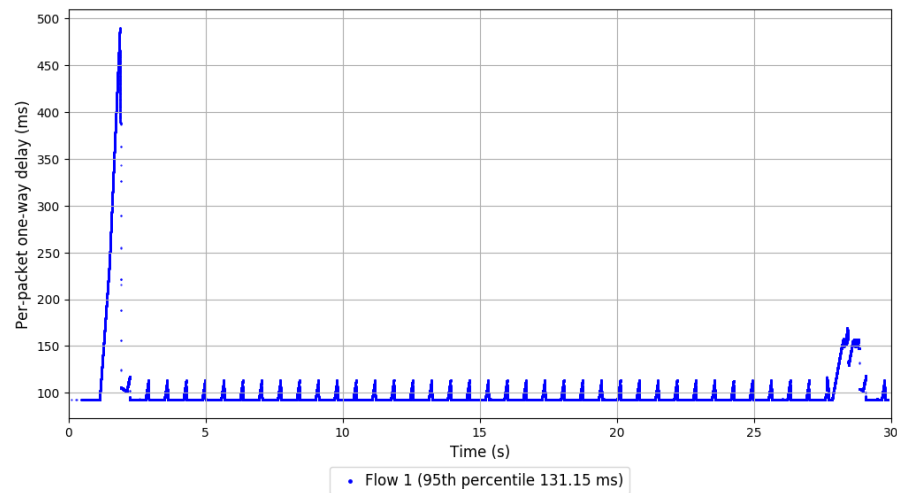
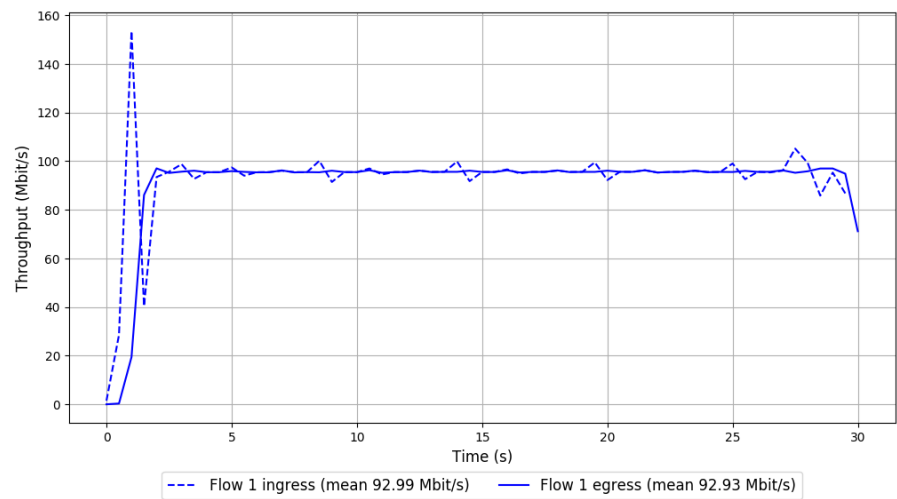
-- Flow 1:

Average throughput: 92.93 Mbit/s

95th percentile per-packet one-way delay: 131.150 ms

Loss rate: 0.64%

Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2019-01-21 21:11:04

End at: 2019-01-21 21:11:34

Local clock offset: -6.883 ms

Remote clock offset: 7.666 ms

# Below is generated by plot.py at 2019-01-21 23:12:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.19 Mbit/s

95th percentile per-packet one-way delay: 104.697 ms

Loss rate: 0.62%

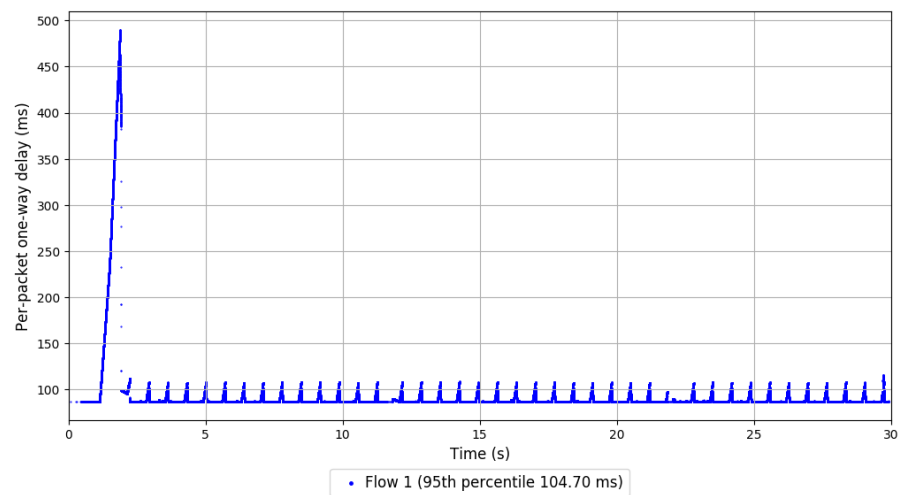
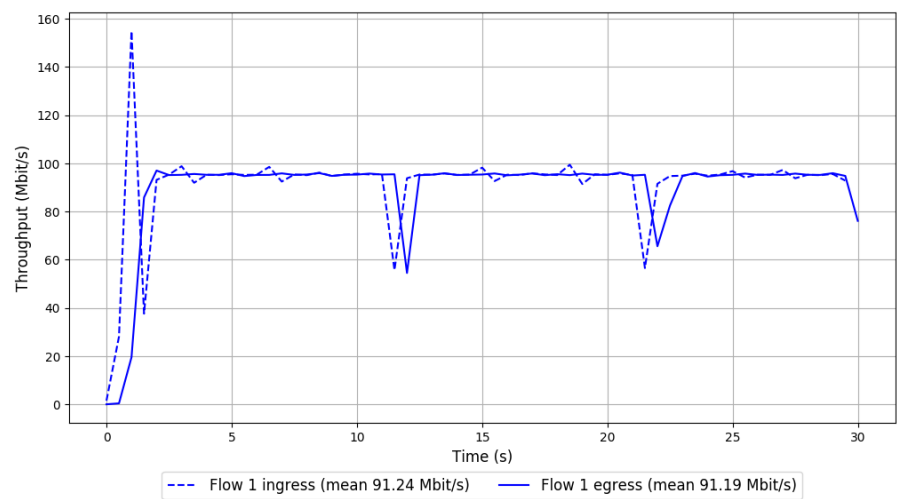
-- Flow 1:

Average throughput: 91.19 Mbit/s

95th percentile per-packet one-way delay: 104.697 ms

Loss rate: 0.62%

Run 1: Report of FillP-Sheep — Data Link

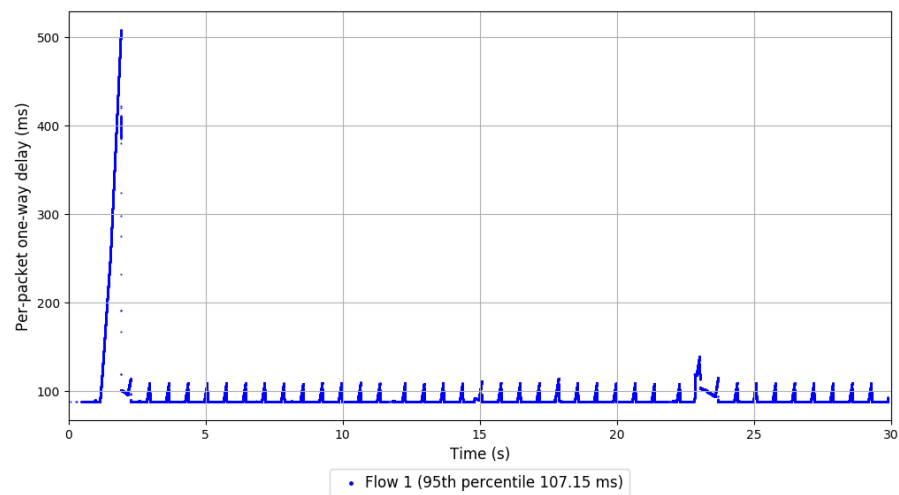
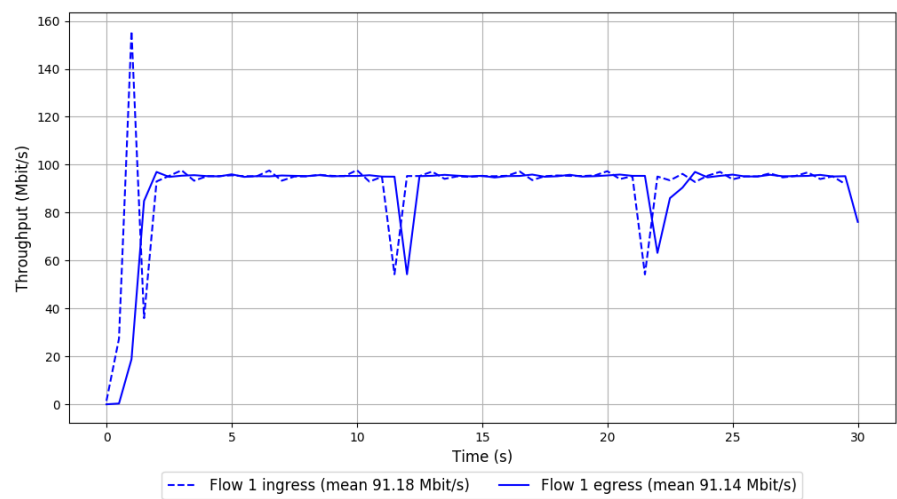


Run 2: Statistics of FillP-Sheep

Start at: 2019-01-21 21:36:03  
End at: 2019-01-21 21:36:34  
Local clock offset: -6.575 ms  
Remote clock offset: 5.435 ms

# Below is generated by plot.py at 2019-01-21 23:12:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.14 Mbit/s  
95th percentile per-packet one-way delay: 107.147 ms  
Loss rate: 0.62%  
-- Flow 1:  
Average throughput: 91.14 Mbit/s  
95th percentile per-packet one-way delay: 107.147 ms  
Loss rate: 0.62%

Run 2: Report of FillP-Sheep — Data Link

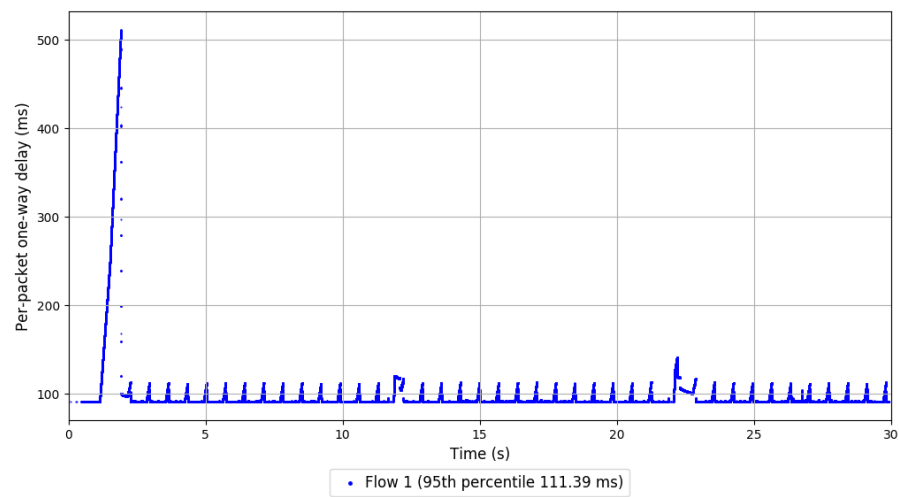
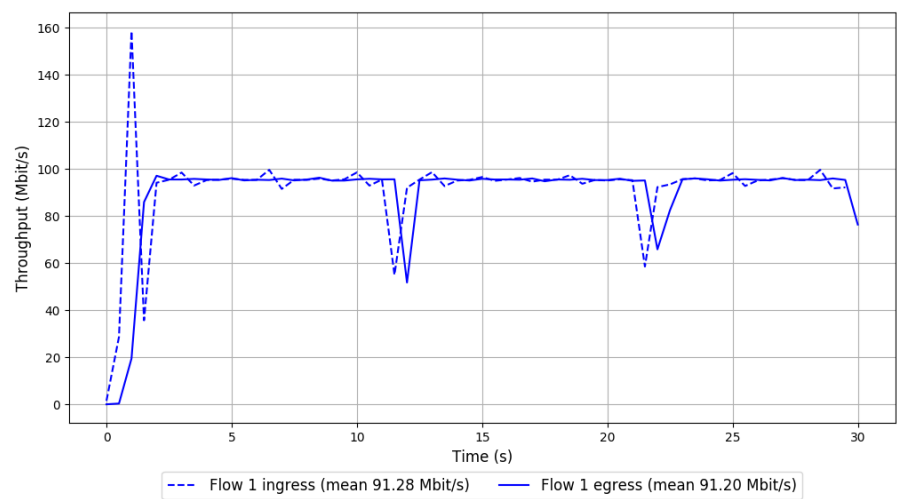


Run 3: Statistics of FillP-Sheep

Start at: 2019-01-21 22:01:03  
End at: 2019-01-21 22:01:33  
Local clock offset: -6.464 ms  
Remote clock offset: 1.867 ms

# Below is generated by plot.py at 2019-01-21 23:12:36  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.20 Mbit/s  
95th percentile per-packet one-way delay: 111.391 ms  
Loss rate: 0.66%  
-- Flow 1:  
Average throughput: 91.20 Mbit/s  
95th percentile per-packet one-way delay: 111.391 ms  
Loss rate: 0.66%

Run 3: Report of FillP-Sheep — Data Link

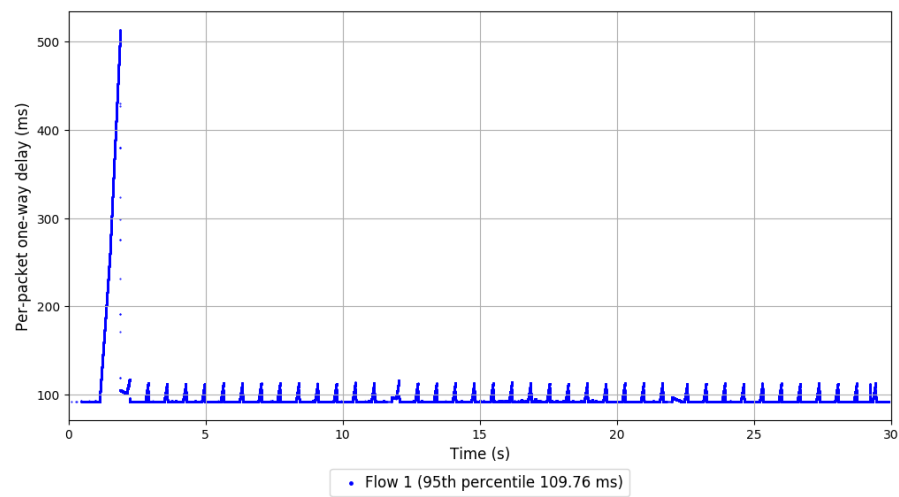
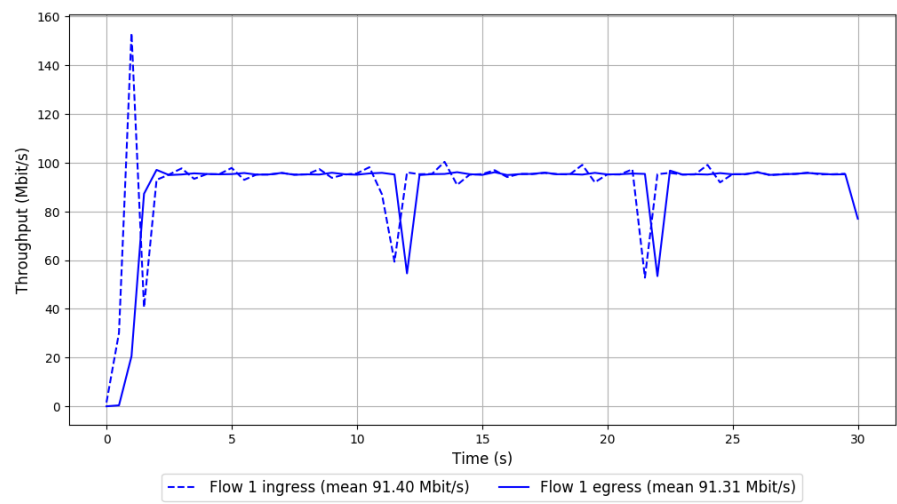


Run 4: Statistics of FillP-Sheep

Start at: 2019-01-21 22:26:02  
End at: 2019-01-21 22:26:32  
Local clock offset: -2.643 ms  
Remote clock offset: 1.388 ms

# Below is generated by plot.py at 2019-01-21 23:12:59  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.31 Mbit/s  
95th percentile per-packet one-way delay: 109.762 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 91.31 Mbit/s  
95th percentile per-packet one-way delay: 109.762 ms  
Loss rate: 0.67%

Run 4: Report of FillP-Sheep — Data Link



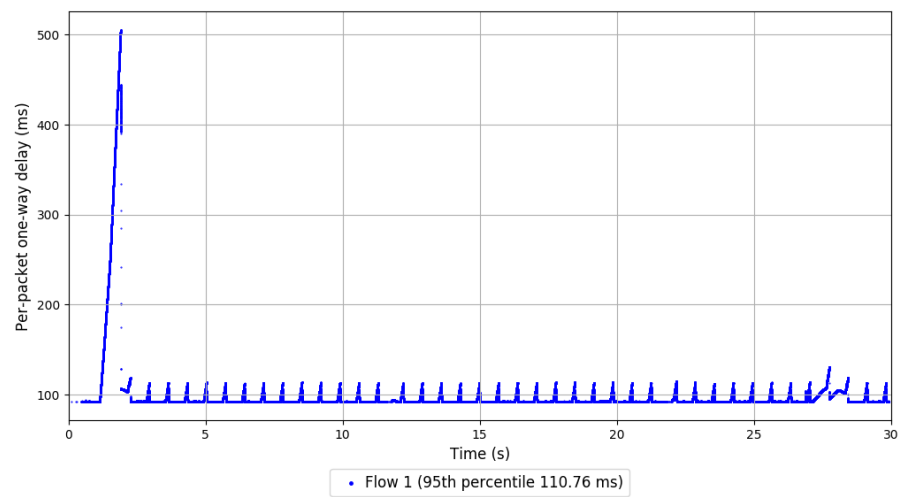
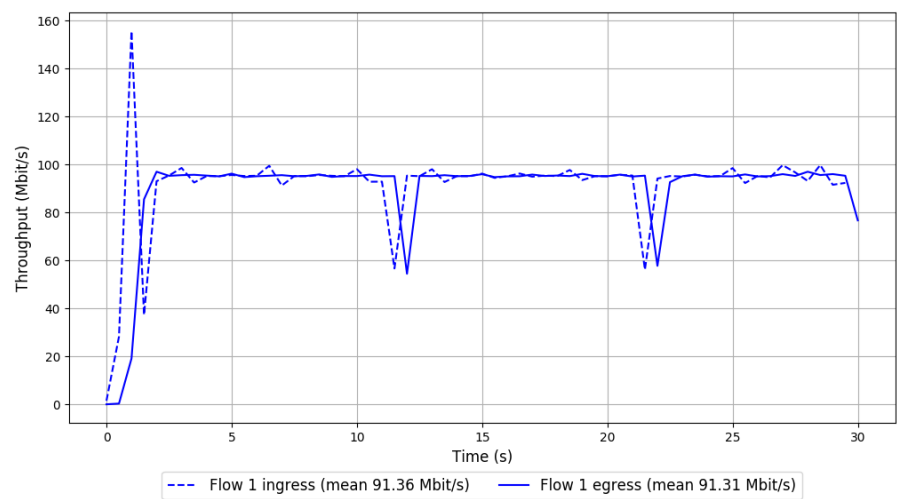


Run 5: Statistics of FillP-Sheep

Start at: 2019-01-21 22:51:00  
End at: 2019-01-21 22:51:30  
Local clock offset: -0.455 ms  
Remote clock offset: 2.196 ms

# Below is generated by plot.py at 2019-01-21 23:13:06  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.31 Mbit/s  
95th percentile per-packet one-way delay: 110.758 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 91.31 Mbit/s  
95th percentile per-packet one-way delay: 110.758 ms  
Loss rate: 0.63%

Run 5: Report of FillP-Sheep — Data Link

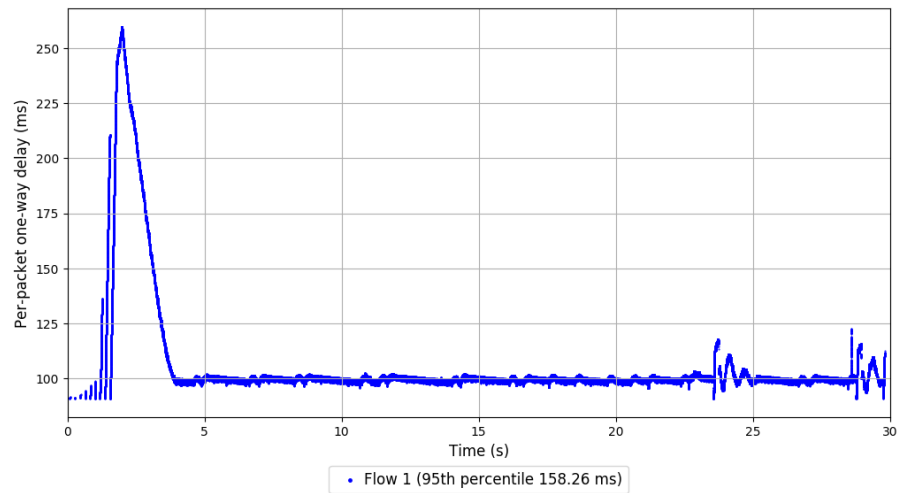
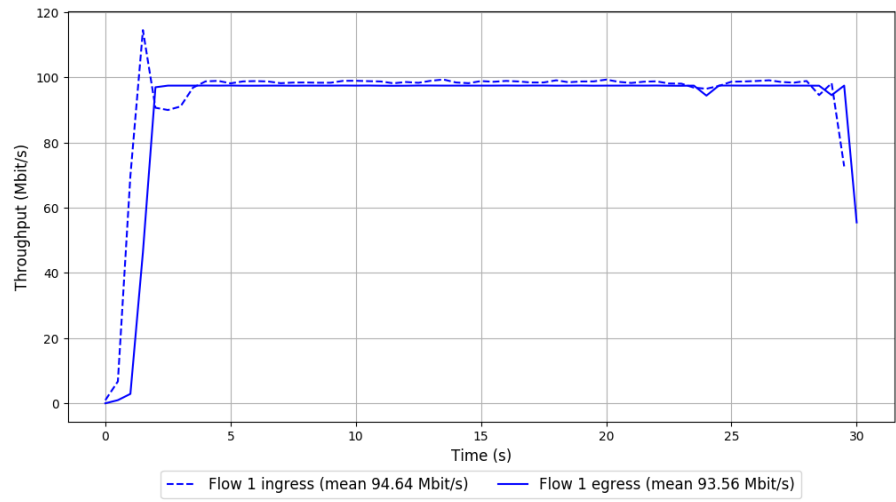


```
Run 1: Statistics of Indigo

Start at: 2019-01-21 21:13:23
End at: 2019-01-21 21:13:53
Local clock offset: -6.833 ms
Remote clock offset: 3.99 ms

# Below is generated by plot.py at 2019-01-21 23:13:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 158.261 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 158.261 ms
Loss rate: 1.71%
```

### Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-01-21 21:38:23

End at: 2019-01-21 21:38:53

Local clock offset: -6.607 ms

Remote clock offset: 7.628 ms

# Below is generated by plot.py at 2019-01-21 23:13:06

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.51 Mbit/s

95th percentile per-packet one-way delay: 91.114 ms

Loss rate: 0.62%

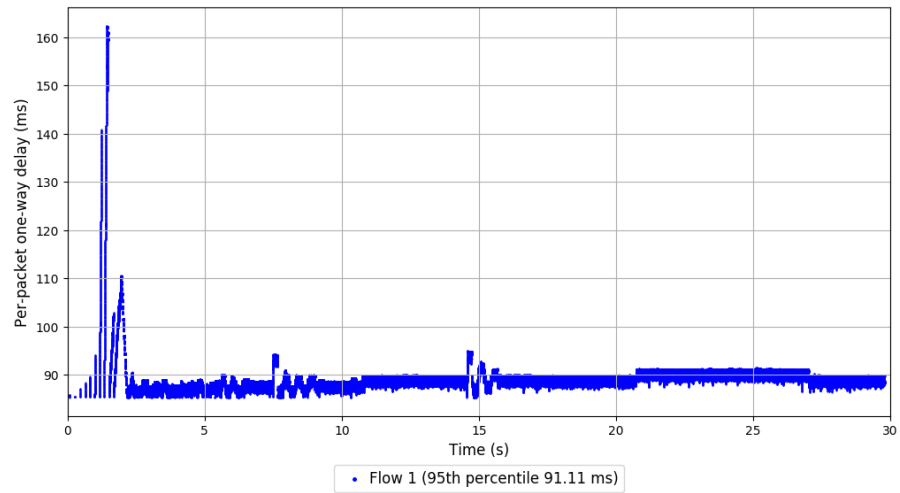
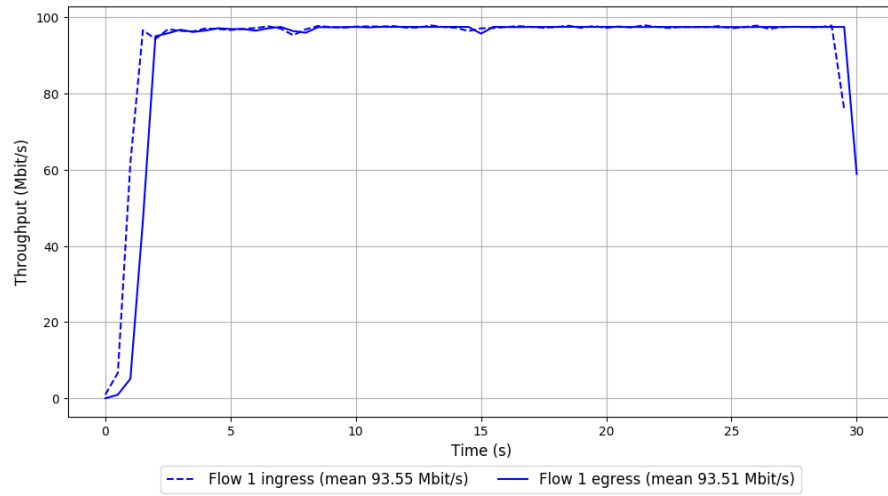
-- Flow 1:

Average throughput: 93.51 Mbit/s

95th percentile per-packet one-way delay: 91.114 ms

Loss rate: 0.62%

## Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-01-21 22:03:22

End at: 2019-01-21 22:03:52

Local clock offset: -6.522 ms

Remote clock offset: 4.847 ms

# Below is generated by plot.py at 2019-01-21 23:13:30

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.34 Mbit/s

95th percentile per-packet one-way delay: 161.177 ms

Loss rate: 1.79%

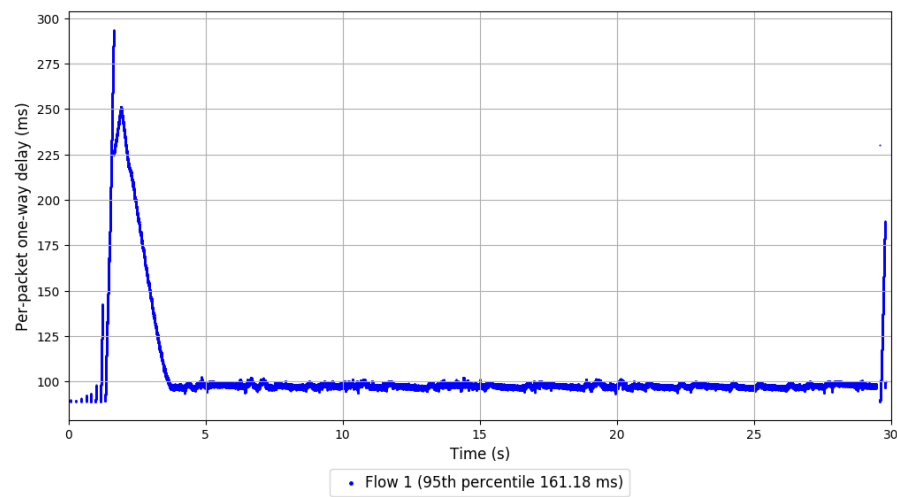
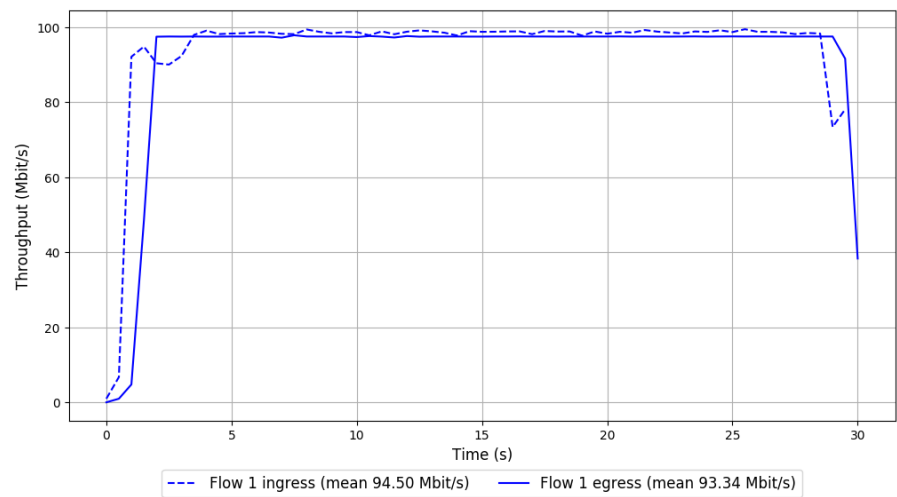
-- Flow 1:

Average throughput: 93.34 Mbit/s

95th percentile per-packet one-way delay: 161.177 ms

Loss rate: 1.79%

Run 3: Report of Indigo — Data Link





Run 4: Statistics of Indigo

Start at: 2019-01-21 22:28:21

End at: 2019-01-21 22:28:51

Local clock offset: -2.911 ms

Remote clock offset: 5.121 ms

# Below is generated by plot.py at 2019-01-21 23:13:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.72 Mbit/s

95th percentile per-packet one-way delay: 169.300 ms

Loss rate: 2.96%

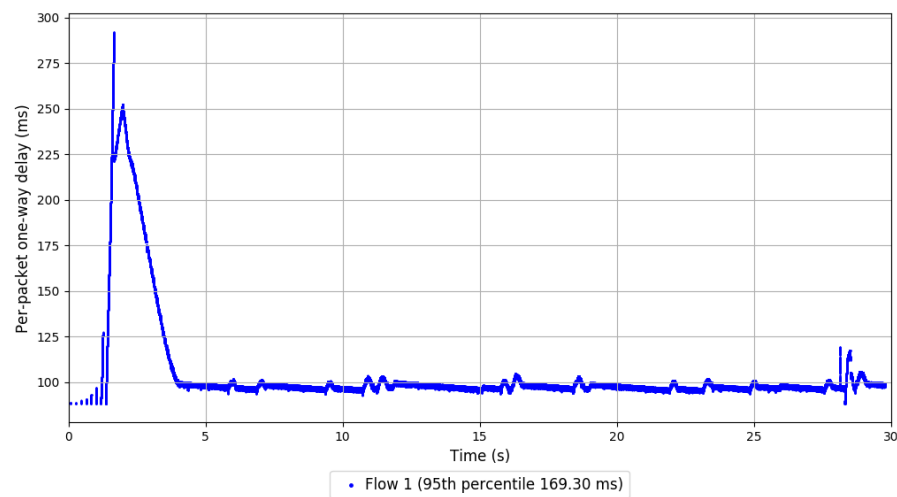
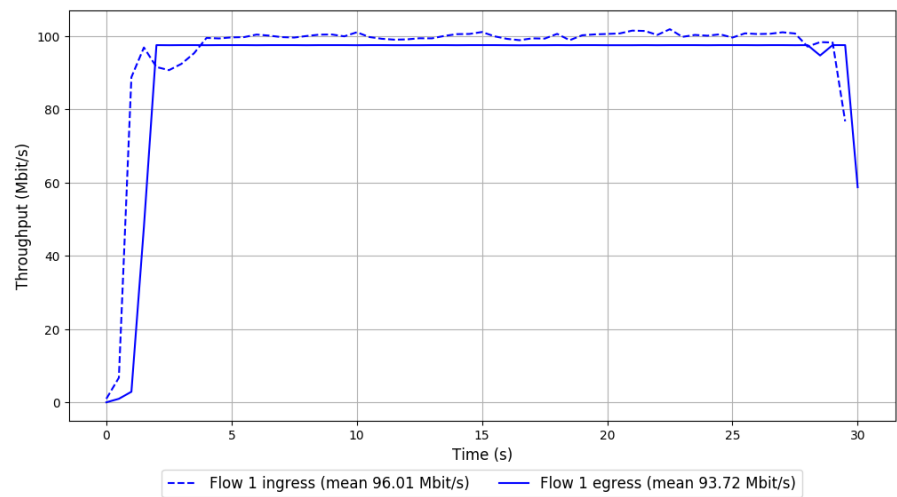
-- Flow 1:

Average throughput: 93.72 Mbit/s

95th percentile per-packet one-way delay: 169.300 ms

Loss rate: 2.96%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-01-21 22:53:19

End at: 2019-01-21 22:53:49

Local clock offset: -0.575 ms

Remote clock offset: 3.141 ms

# Below is generated by plot.py at 2019-01-21 23:13:36

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.63 Mbit/s

95th percentile per-packet one-way delay: 106.816 ms

Loss rate: 0.72%

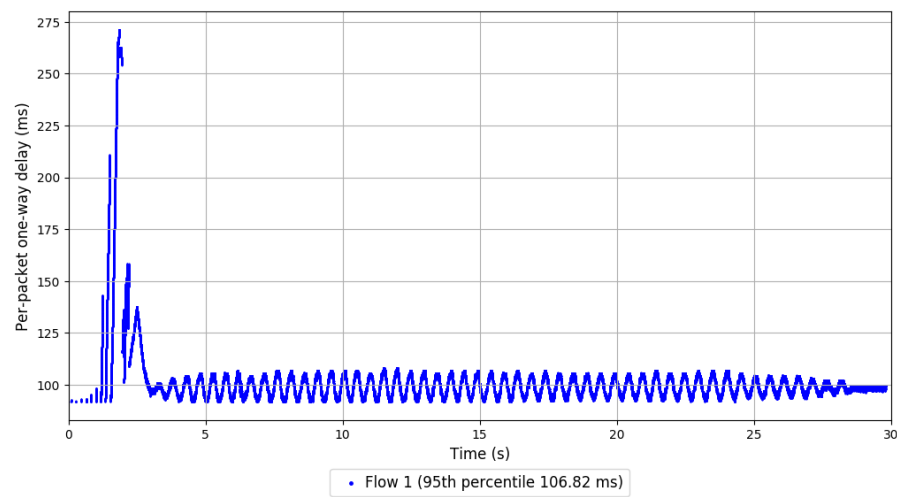
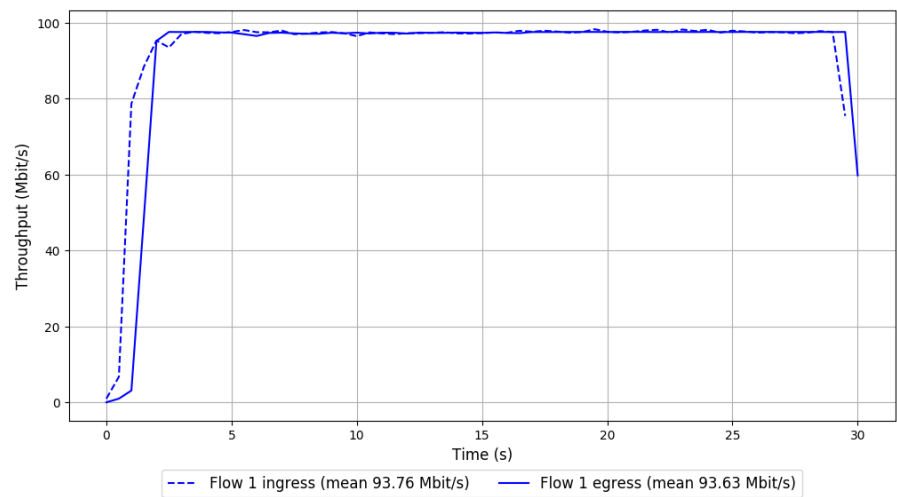
-- Flow 1:

Average throughput: 93.63 Mbit/s

95th percentile per-packet one-way delay: 106.816 ms

Loss rate: 0.72%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-21 21:02:36

End at: 2019-01-21 21:03:06

Local clock offset: -6.137 ms

Remote clock offset: 2.608 ms

# Below is generated by plot.py at 2019-01-21 23:13:42

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.28 Mbit/s

95th percentile per-packet one-way delay: 110.136 ms

Loss rate: 5.75%

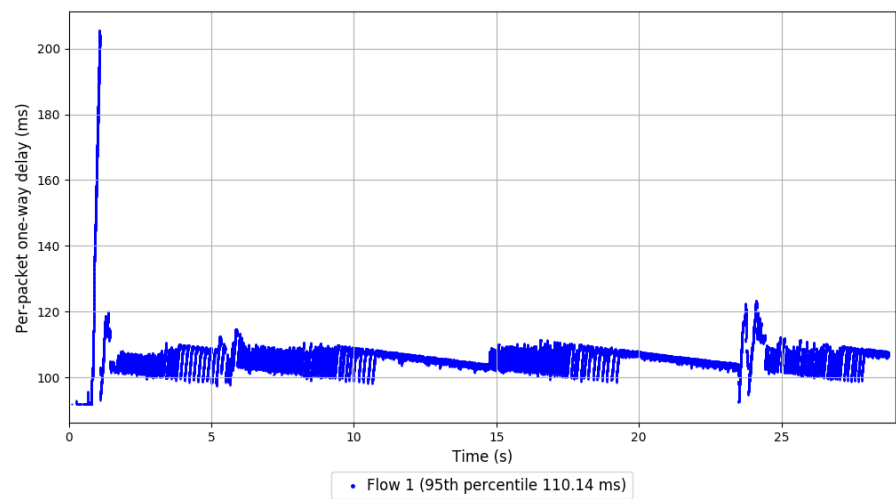
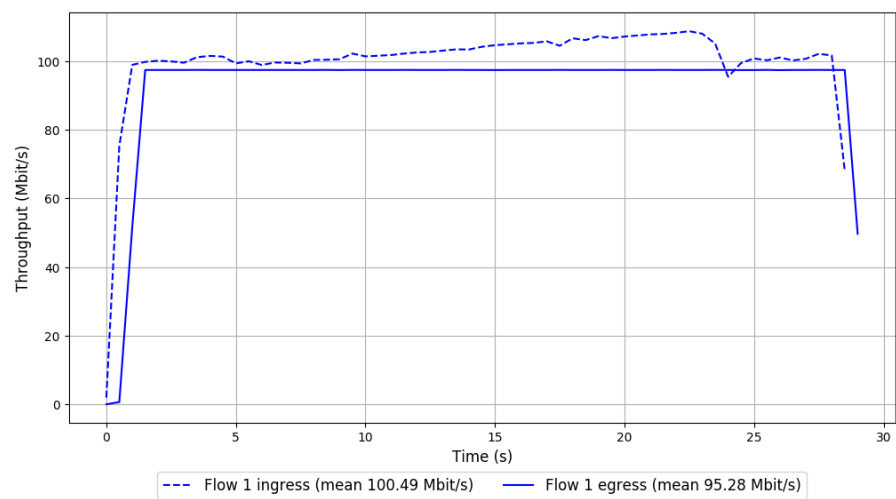
-- Flow 1:

Average throughput: 95.28 Mbit/s

95th percentile per-packet one-way delay: 110.136 ms

Loss rate: 5.75%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-21 21:27:36

End at: 2019-01-21 21:28:06

Local clock offset: -6.564 ms

Remote clock offset: 6.793 ms

# Below is generated by plot.py at 2019-01-21 23:14:00

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.10 Mbit/s

95th percentile per-packet one-way delay: 106.639 ms

Loss rate: 5.81%

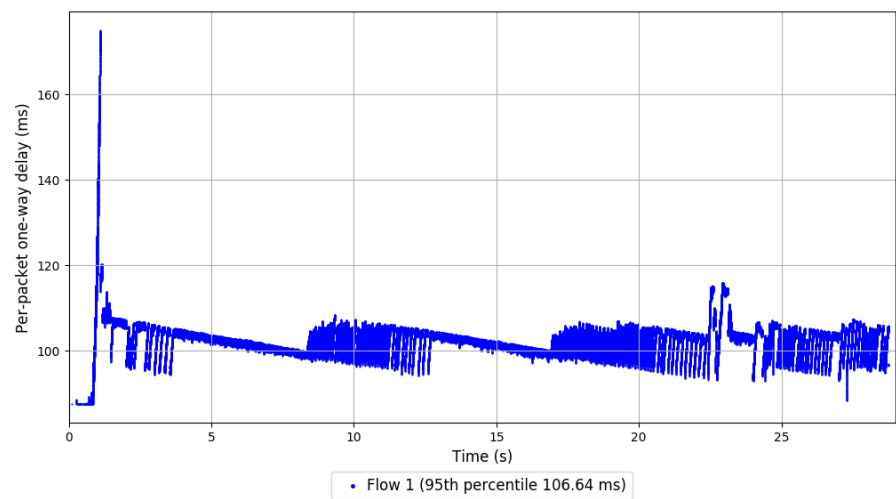
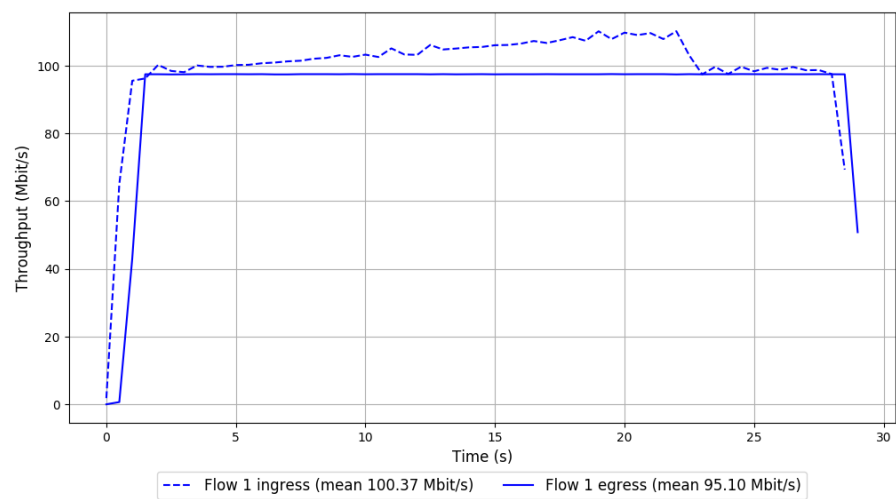
-- Flow 1:

Average throughput: 95.10 Mbit/s

95th percentile per-packet one-way delay: 106.639 ms

Loss rate: 5.81%

Run 2: Report of Indigo-MusesC3 — Data Link





Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-21 21:52:35

End at: 2019-01-21 21:53:05

Local clock offset: -6.2 ms

Remote clock offset: 5.968 ms

# Below is generated by plot.py at 2019-01-21 23:14:02

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.25 Mbit/s

95th percentile per-packet one-way delay: 105.944 ms

Loss rate: 6.19%

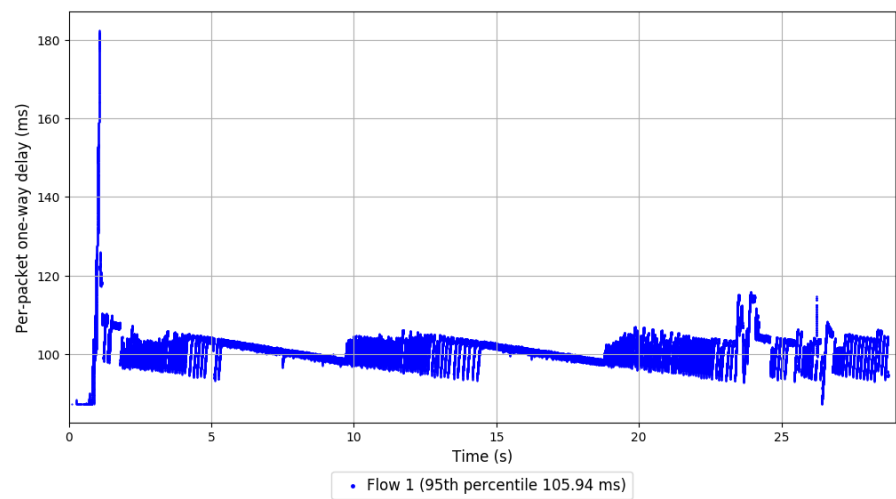
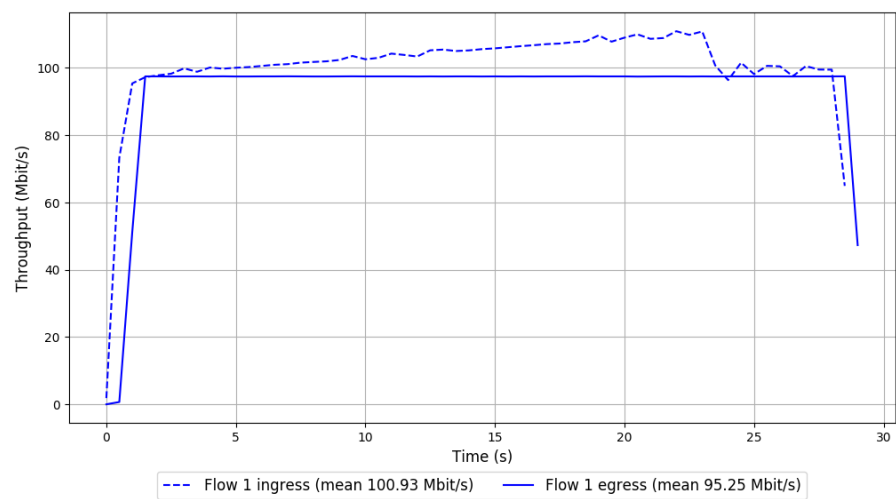
-- Flow 1:

Average throughput: 95.25 Mbit/s

95th percentile per-packet one-way delay: 105.944 ms

Loss rate: 6.19%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-21 22:17:35

End at: 2019-01-21 22:18:05

Local clock offset: -5.974 ms

Remote clock offset: 5.1 ms

# Below is generated by plot.py at 2019-01-21 23:14:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.17 Mbit/s

95th percentile per-packet one-way delay: 112.644 ms

Loss rate: 7.78%

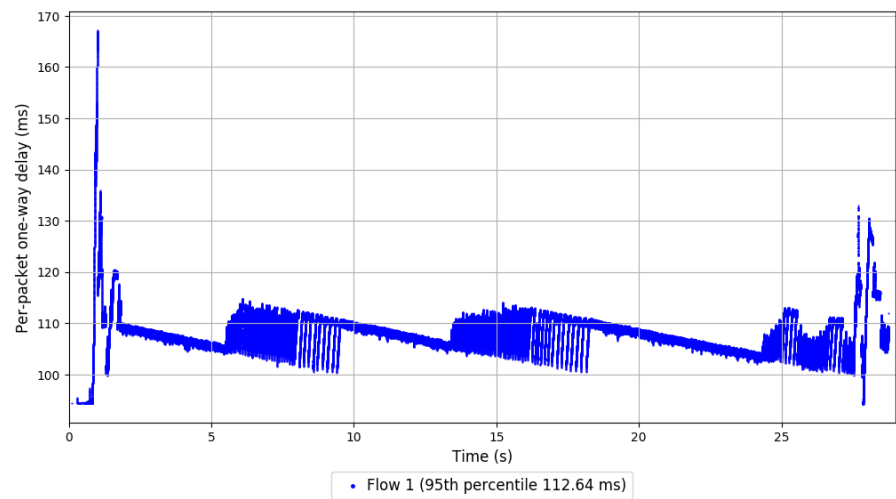
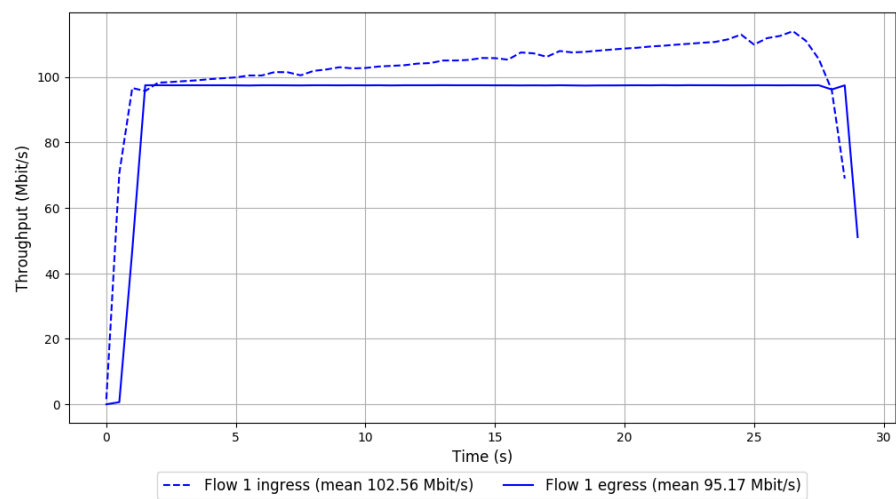
-- Flow 1:

Average throughput: 95.17 Mbit/s

95th percentile per-packet one-way delay: 112.644 ms

Loss rate: 7.78%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-21 22:42:34

End at: 2019-01-21 22:43:04

Local clock offset: -1.05 ms

Remote clock offset: 6.777 ms

# Below is generated by plot.py at 2019-01-21 23:14:12

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.22 Mbit/s

95th percentile per-packet one-way delay: 105.418 ms

Loss rate: 8.28%

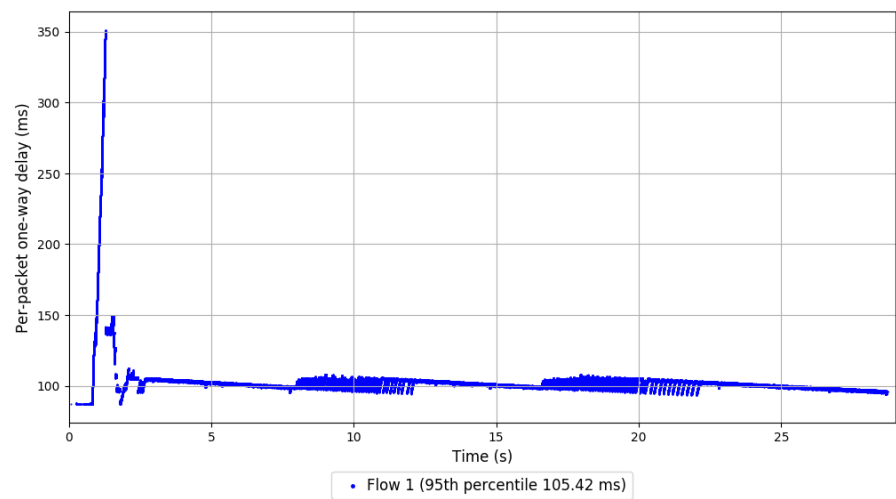
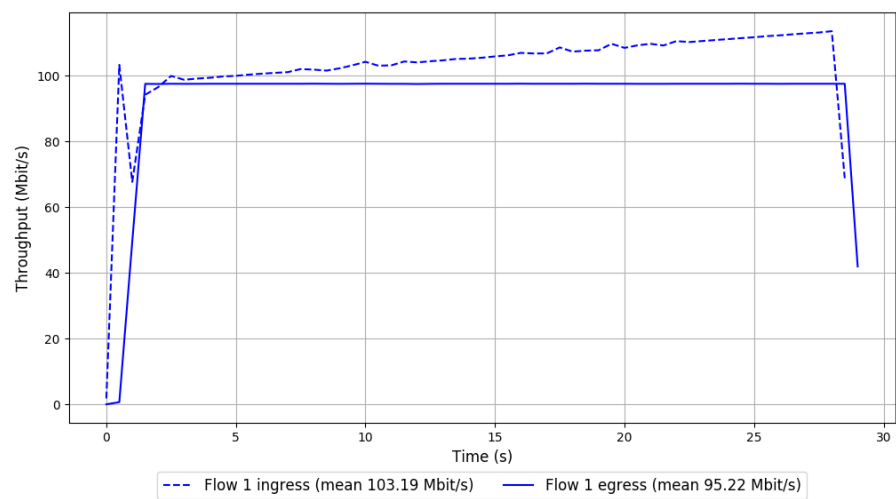
-- Flow 1:

Average throughput: 95.22 Mbit/s

95th percentile per-packet one-way delay: 105.418 ms

Loss rate: 8.28%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-21 21:20:29

End at: 2019-01-21 21:20:59

Local clock offset: -5.935 ms

Remote clock offset: 2.996 ms

# Below is generated by plot.py at 2019-01-21 23:14:33

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.53 Mbit/s

95th percentile per-packet one-way delay: 103.627 ms

Loss rate: 1.51%

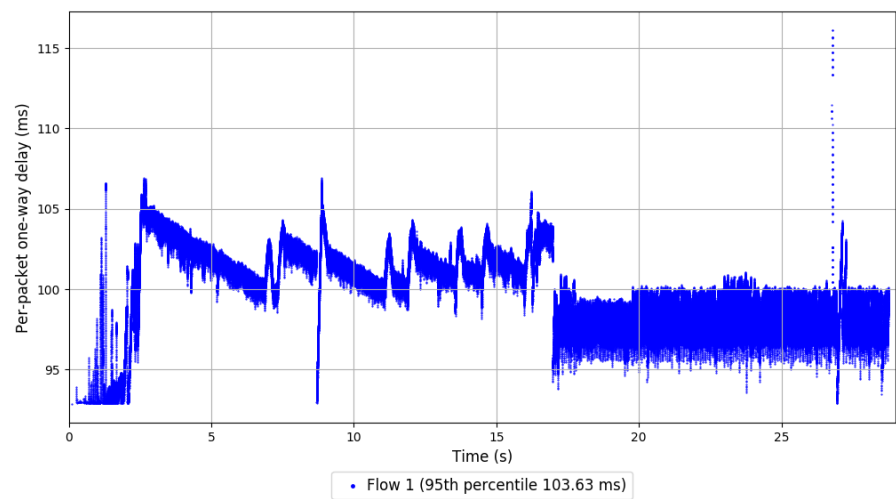
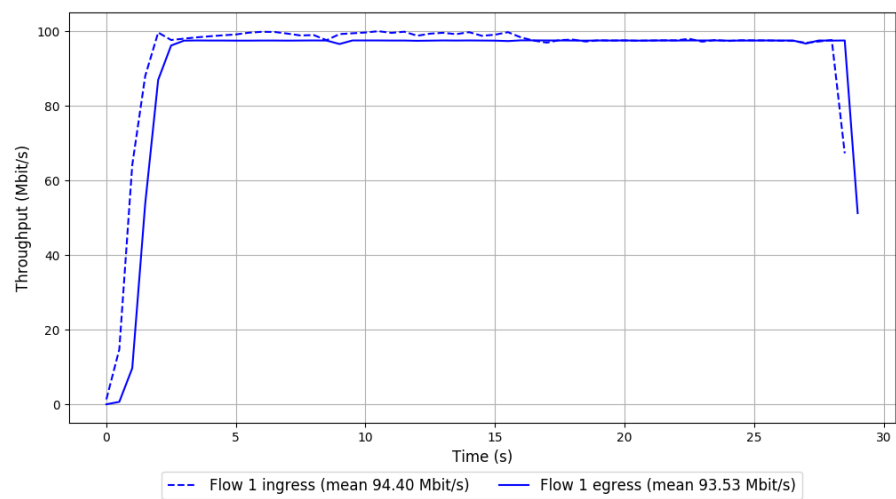
-- Flow 1:

Average throughput: 93.53 Mbit/s

95th percentile per-packet one-way delay: 103.627 ms

Loss rate: 1.51%

Run 1: Report of Indigo-MusesC5 — Data Link





Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-21 21:45:27

End at: 2019-01-21 21:45:57

Local clock offset: -6.755 ms

Remote clock offset: 7.234 ms

# Below is generated by plot.py at 2019-01-21 23:14:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.03 Mbit/s

95th percentile per-packet one-way delay: 103.973 ms

Loss rate: 0.69%

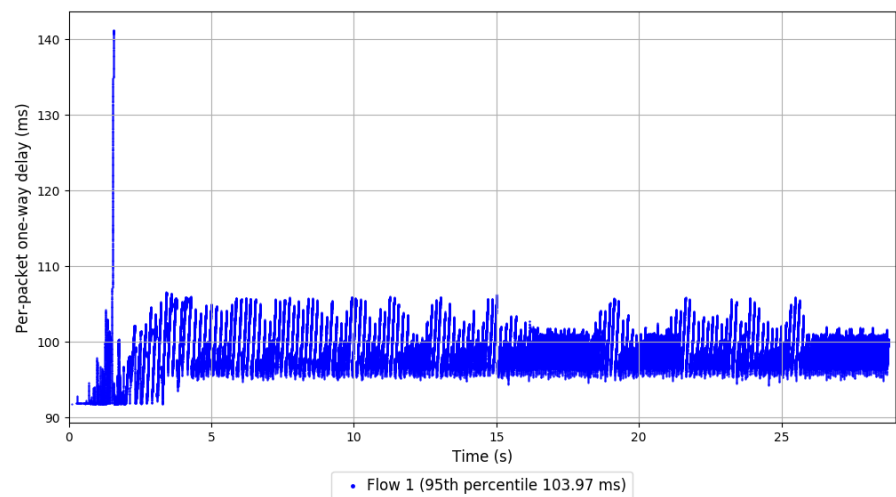
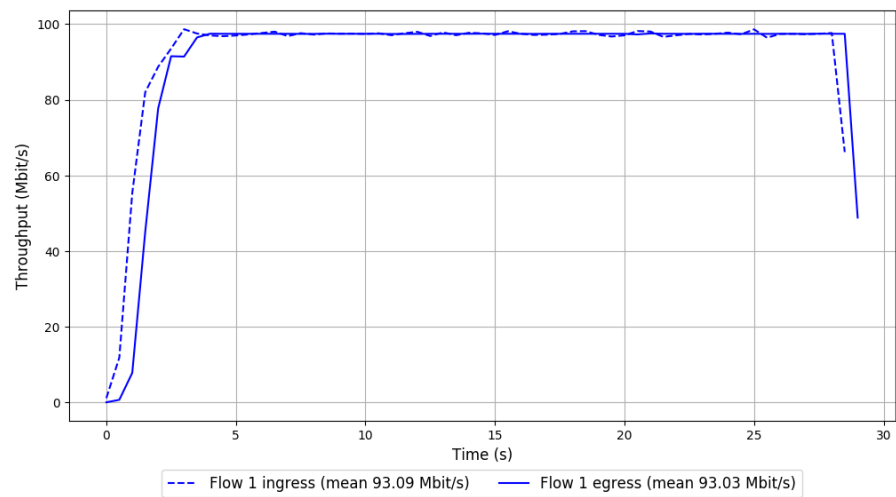
-- Flow 1:

Average throughput: 93.03 Mbit/s

95th percentile per-packet one-way delay: 103.973 ms

Loss rate: 0.69%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-21 22:10:27

End at: 2019-01-21 22:10:57

Local clock offset: -7.507 ms

Remote clock offset: 6.125 ms

# Below is generated by plot.py at 2019-01-21 23:14:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.27 Mbit/s

95th percentile per-packet one-way delay: 97.713 ms

Loss rate: 2.29%

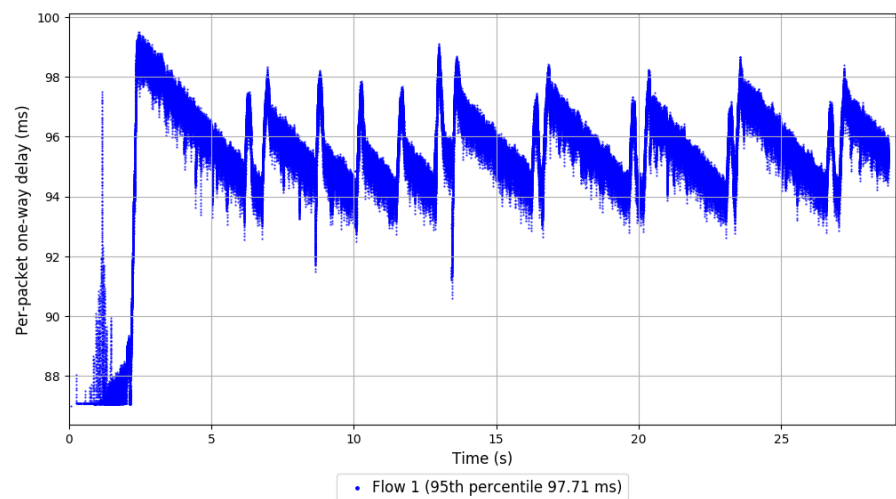
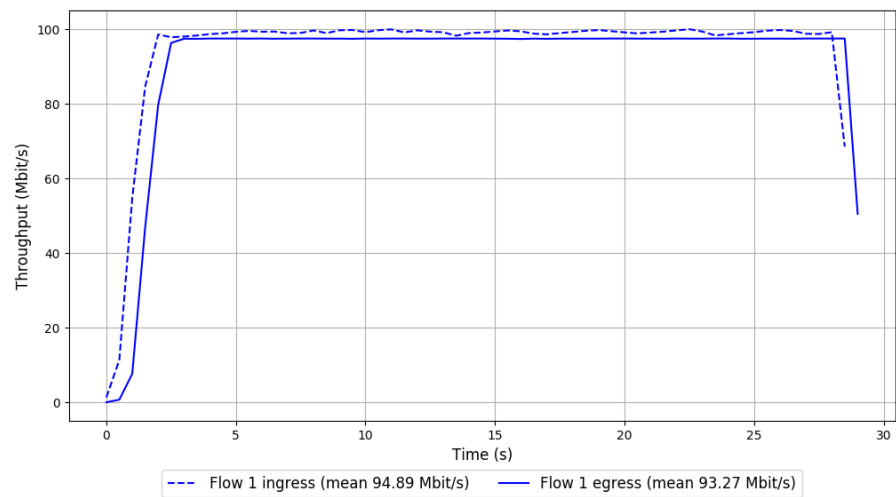
-- Flow 1:

Average throughput: 93.27 Mbit/s

95th percentile per-packet one-way delay: 97.713 ms

Loss rate: 2.29%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-21 22:35:26

End at: 2019-01-21 22:35:56

Local clock offset: -1.842 ms

Remote clock offset: 1.558 ms

# Below is generated by plot.py at 2019-01-21 23:14:51

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.97 Mbit/s

95th percentile per-packet one-way delay: 109.489 ms

Loss rate: 6.65%

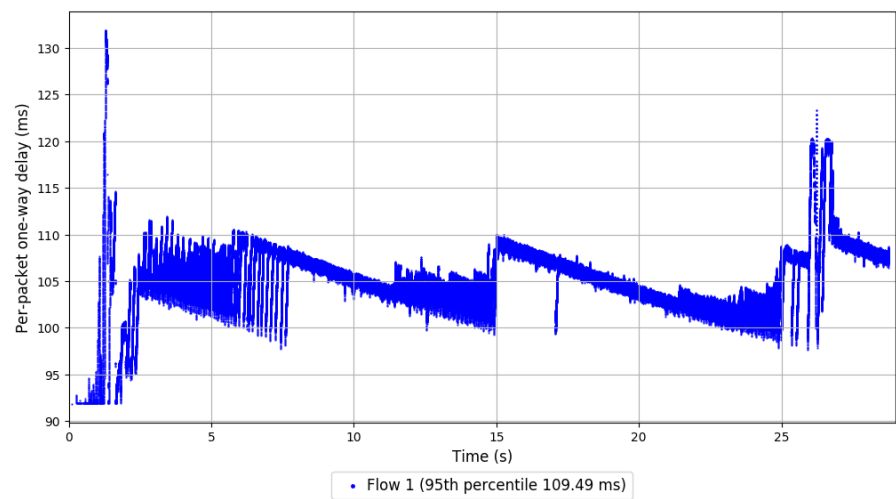
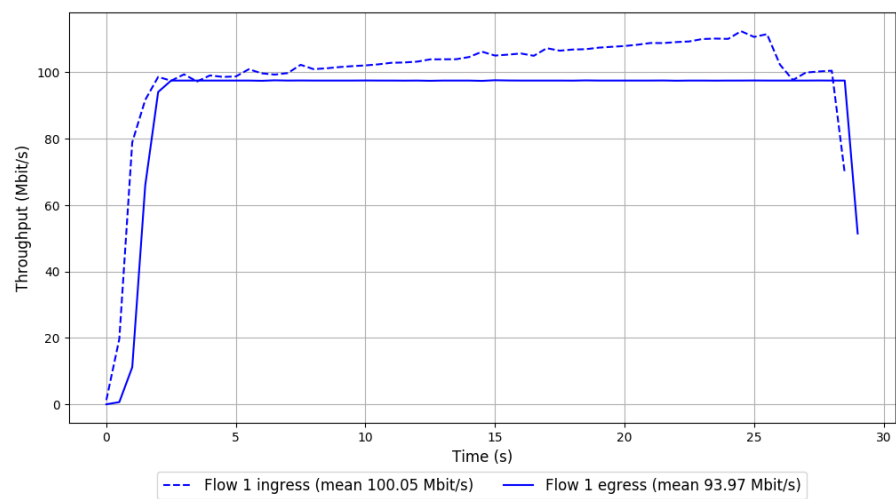
-- Flow 1:

Average throughput: 93.97 Mbit/s

95th percentile per-packet one-way delay: 109.489 ms

Loss rate: 6.65%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-21 23:00:25

End at: 2019-01-21 23:00:55

Local clock offset: -1.532 ms

Remote clock offset: 8.452 ms

# Below is generated by plot.py at 2019-01-21 23:15:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.93 Mbit/s

95th percentile per-packet one-way delay: 109.333 ms

Loss rate: 7.33%

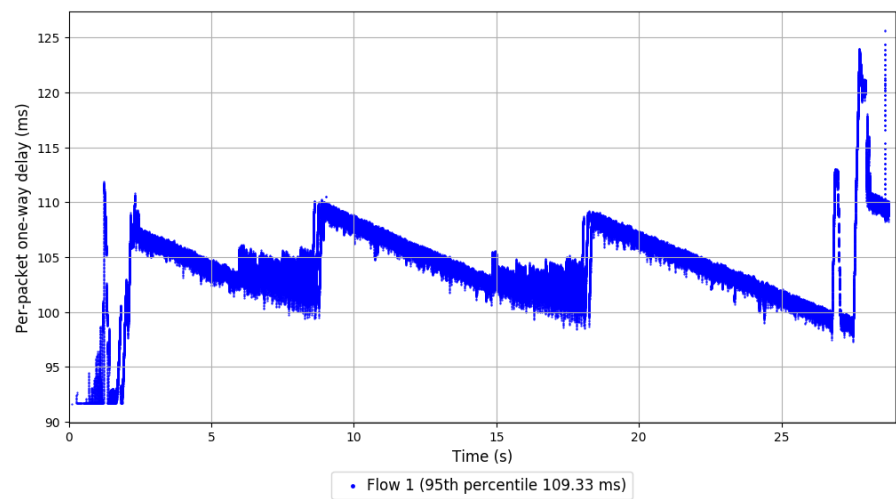
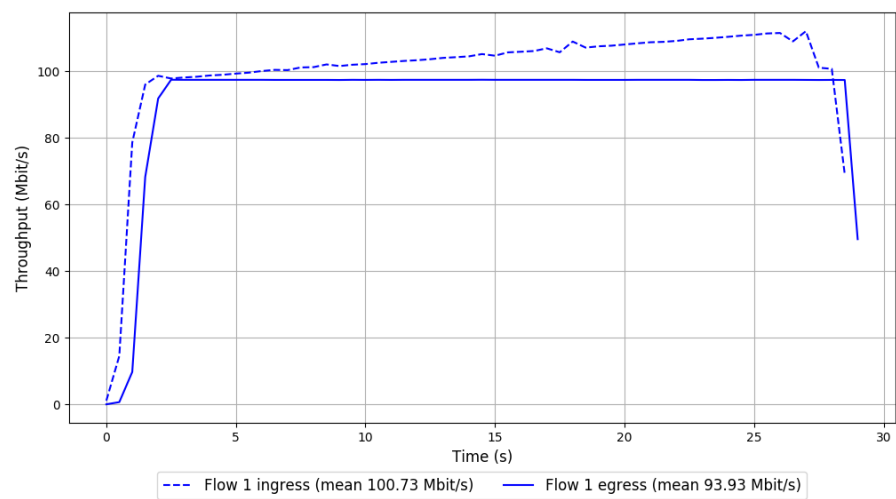
-- Flow 1:

Average throughput: 93.93 Mbit/s

95th percentile per-packet one-way delay: 109.333 ms

Loss rate: 7.33%

Run 5: Report of Indigo-MusesC5 — Data Link



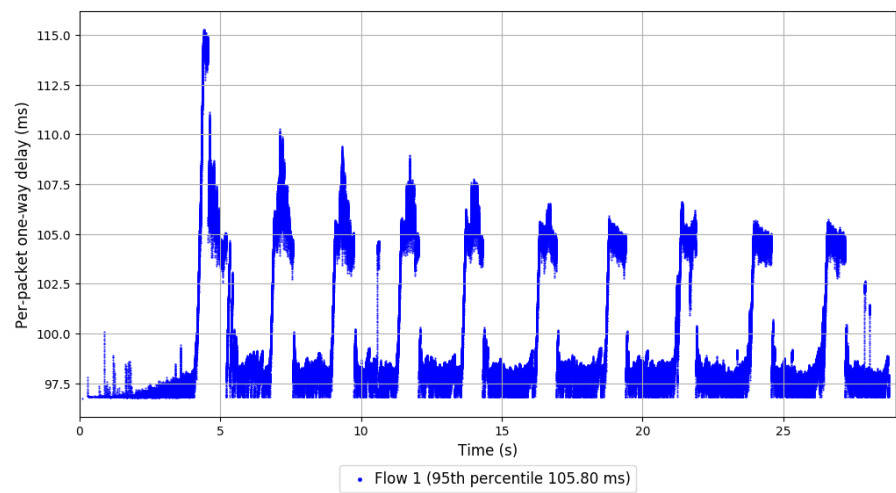
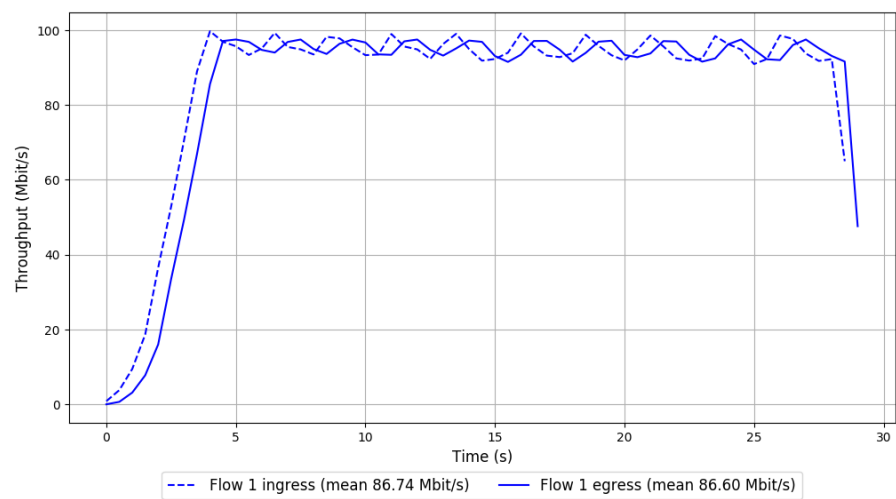


```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-21 21:07:27
End at: 2019-01-21 21:07:57
Local clock offset: -6.795 ms
Remote clock offset: 3.761 ms

# Below is generated by plot.py at 2019-01-21 23:15:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.60 Mbit/s
95th percentile per-packet one-way delay: 105.802 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 86.60 Mbit/s
95th percentile per-packet one-way delay: 105.802 ms
Loss rate: 0.78%
```

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-21 21:32:27

End at: 2019-01-21 21:32:57

Local clock offset: -5.816 ms

Remote clock offset: 3.304 ms

# Below is generated by plot.py at 2019-01-21 23:15:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 87.13 Mbit/s

95th percentile per-packet one-way delay: 98.676 ms

Loss rate: 0.70%

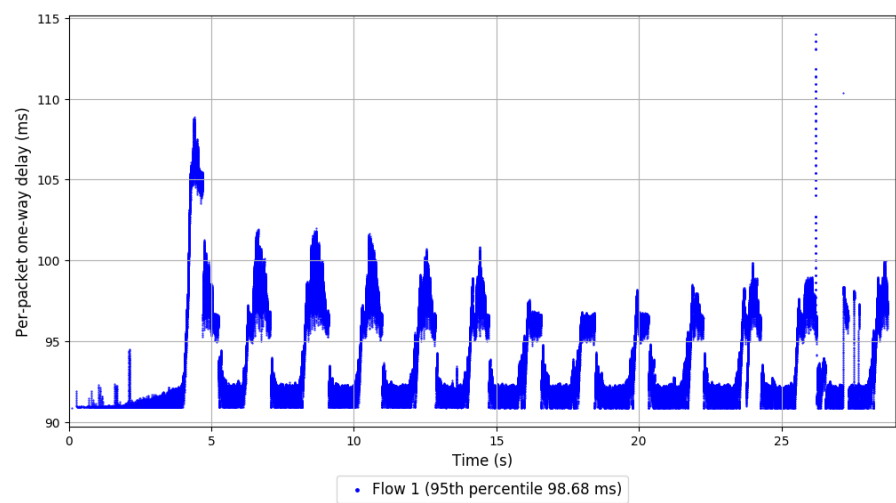
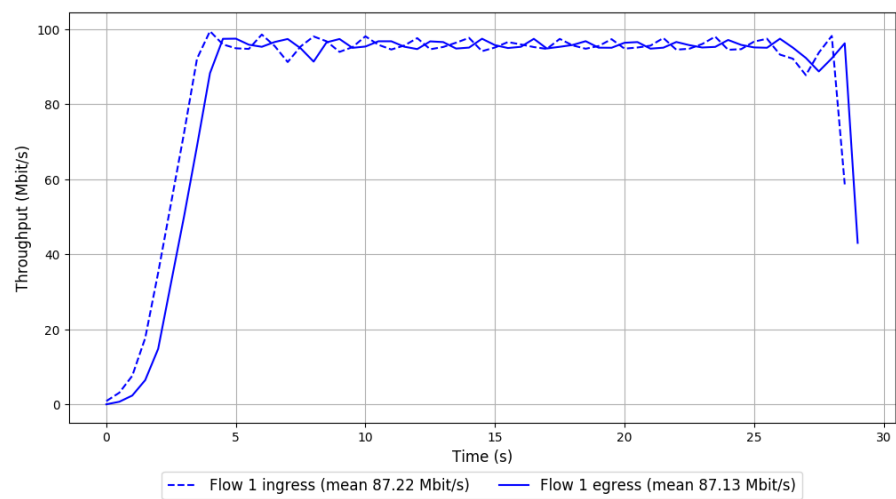
-- Flow 1:

Average throughput: 87.13 Mbit/s

95th percentile per-packet one-way delay: 98.676 ms

Loss rate: 0.70%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-21 21:57:26

End at: 2019-01-21 21:57:56

Local clock offset: -7.201 ms

Remote clock offset: 0.936 ms

# Below is generated by plot.py at 2019-01-21 23:15:15

# Datalink statistics

-- Total of 1 flow:

Average throughput: 87.84 Mbit/s

95th percentile per-packet one-way delay: 99.007 ms

Loss rate: 0.70%

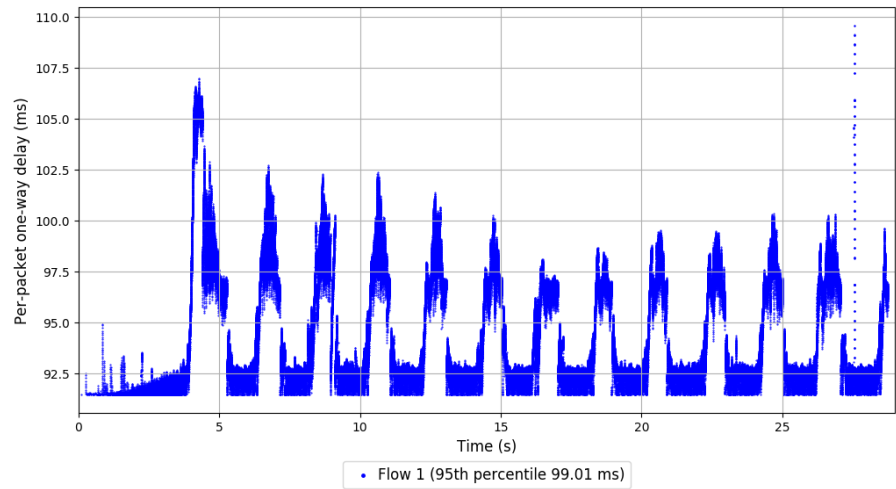
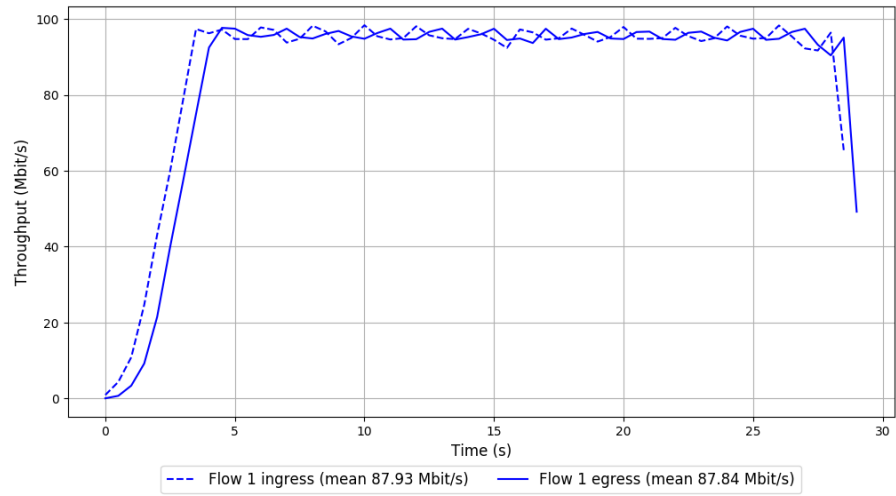
-- Flow 1:

Average throughput: 87.84 Mbit/s

95th percentile per-packet one-way delay: 99.007 ms

Loss rate: 0.70%

### Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-21 22:22:25

End at: 2019-01-21 22:22:55

Local clock offset: -3.684 ms

Remote clock offset: 1.103 ms

# Below is generated by plot.py at 2019-01-21 23:15:22

# Datalink statistics

-- Total of 1 flow:

Average throughput: 74.77 Mbit/s

95th percentile per-packet one-way delay: 99.977 ms

Loss rate: 0.77%

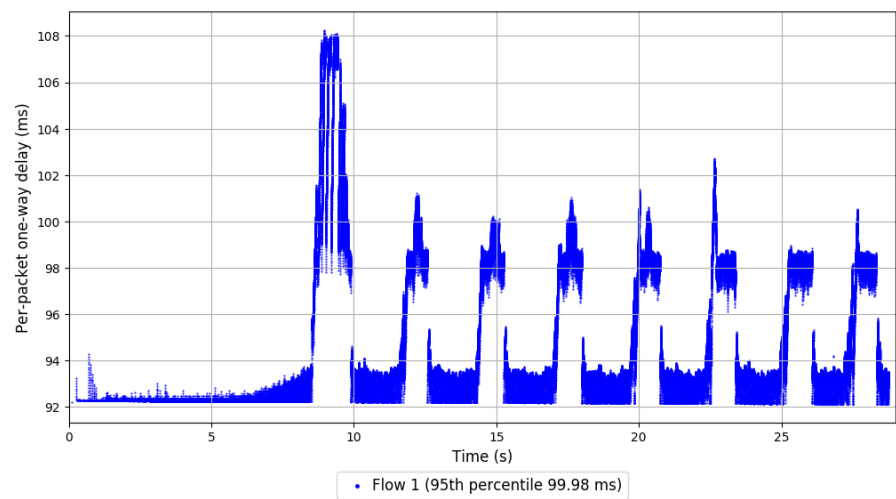
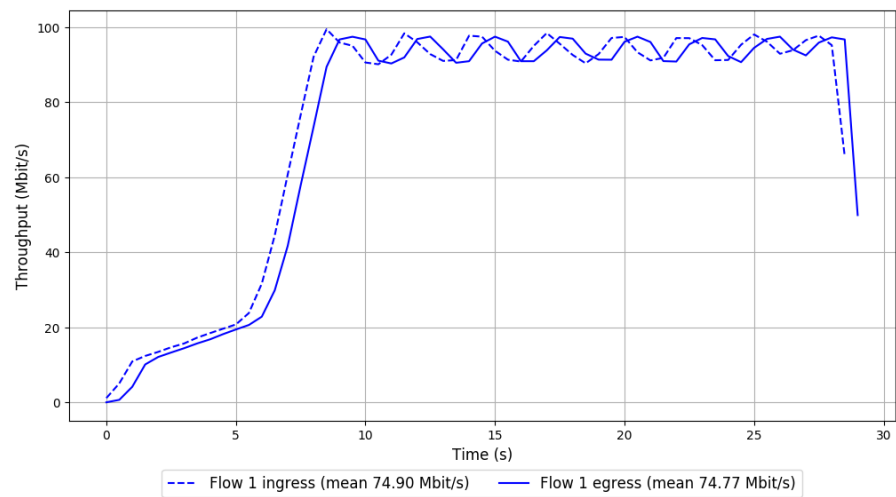
-- Flow 1:

Average throughput: 74.77 Mbit/s

95th percentile per-packet one-way delay: 99.977 ms

Loss rate: 0.77%

Run 4: Report of Indigo-MusesD — Data Link





Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-21 22:47:24

End at: 2019-01-21 22:47:54

Local clock offset: -0.968 ms

Remote clock offset: 3.278 ms

# Below is generated by plot.py at 2019-01-21 23:15:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 76.17 Mbit/s

95th percentile per-packet one-way delay: 98.711 ms

Loss rate: 0.80%

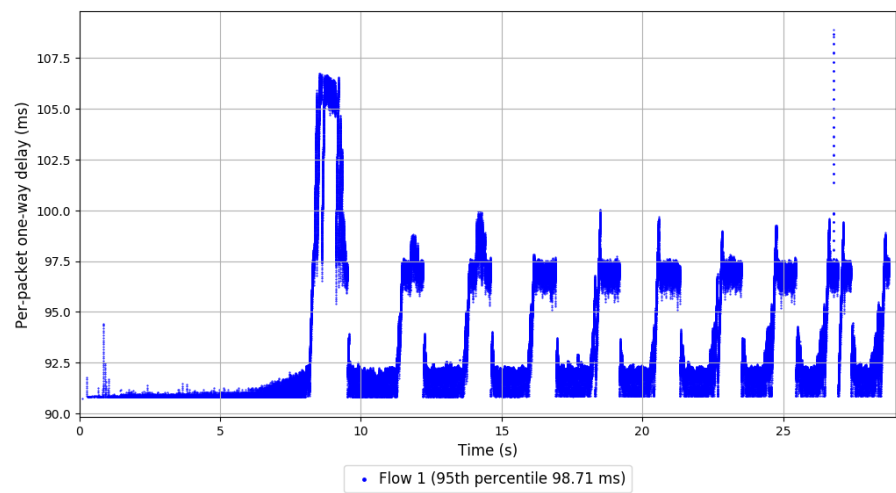
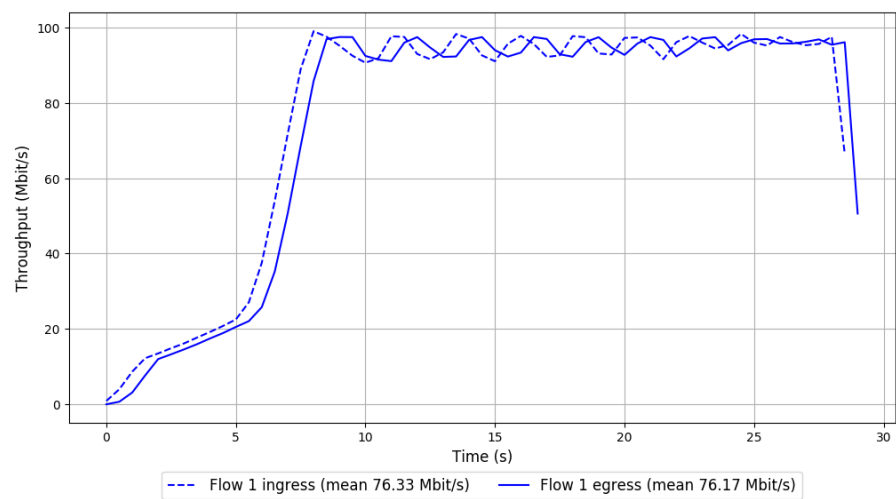
-- Flow 1:

Average throughput: 76.17 Mbit/s

95th percentile per-packet one-way delay: 98.711 ms

Loss rate: 0.80%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-21 21:08:39

End at: 2019-01-21 21:09:09

Local clock offset: -6.023 ms

Remote clock offset: 3.77 ms

# Below is generated by plot.py at 2019-01-21 23:15:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.40 Mbit/s

95th percentile per-packet one-way delay: 116.322 ms

Loss rate: 7.23%

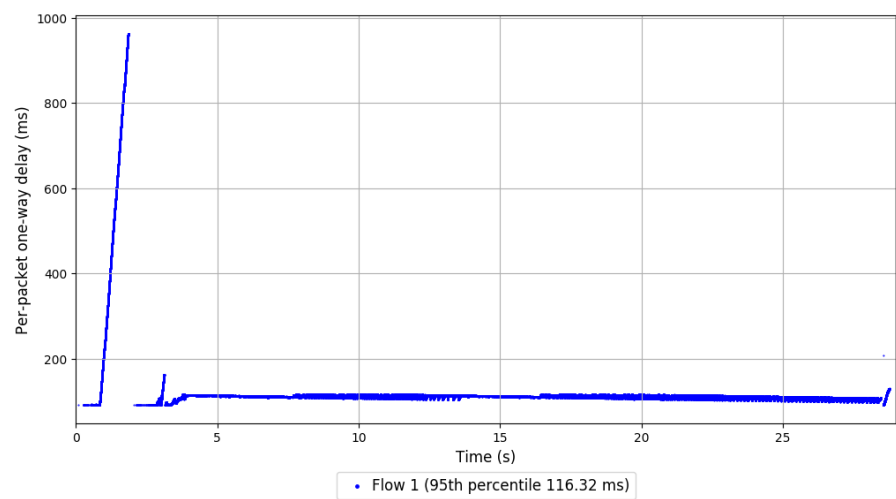
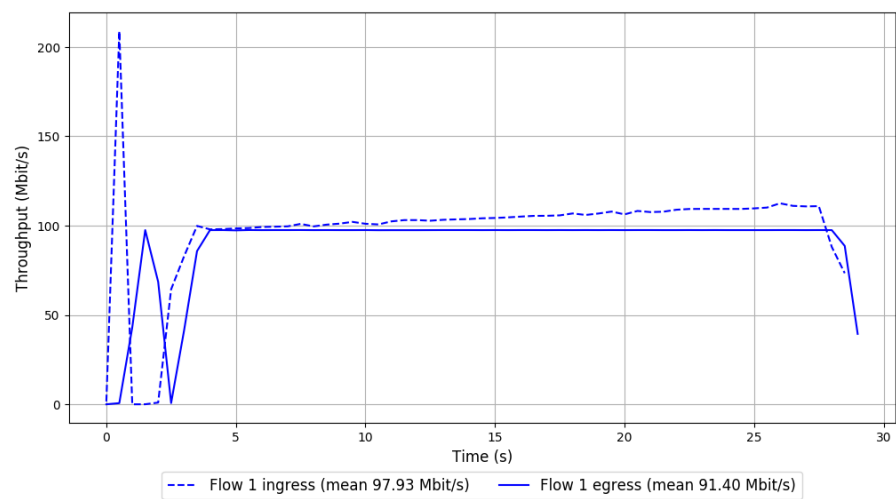
-- Flow 1:

Average throughput: 91.40 Mbit/s

95th percentile per-packet one-way delay: 116.322 ms

Loss rate: 7.23%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-21 21:33:38

End at: 2019-01-21 21:34:09

Local clock offset: -6.623 ms

Remote clock offset: 5.826 ms

# Below is generated by plot.py at 2019-01-21 23:15:56

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.60 Mbit/s

95th percentile per-packet one-way delay: 130.897 ms

Loss rate: 7.21%

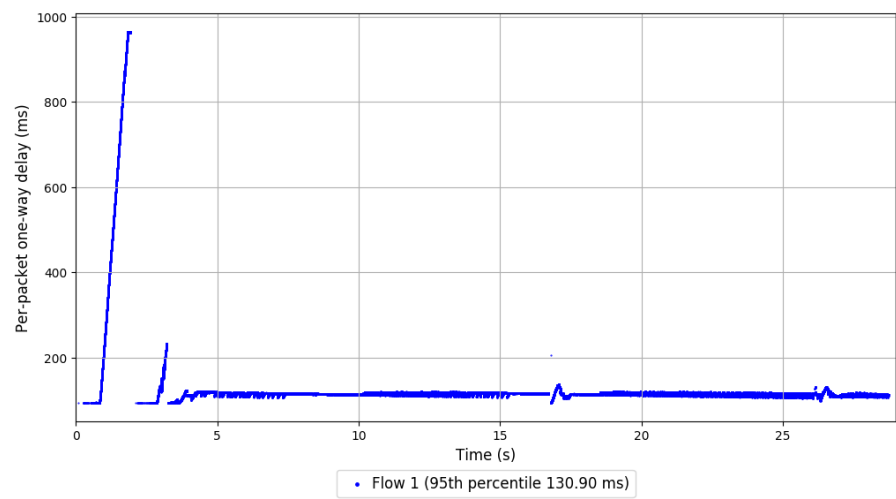
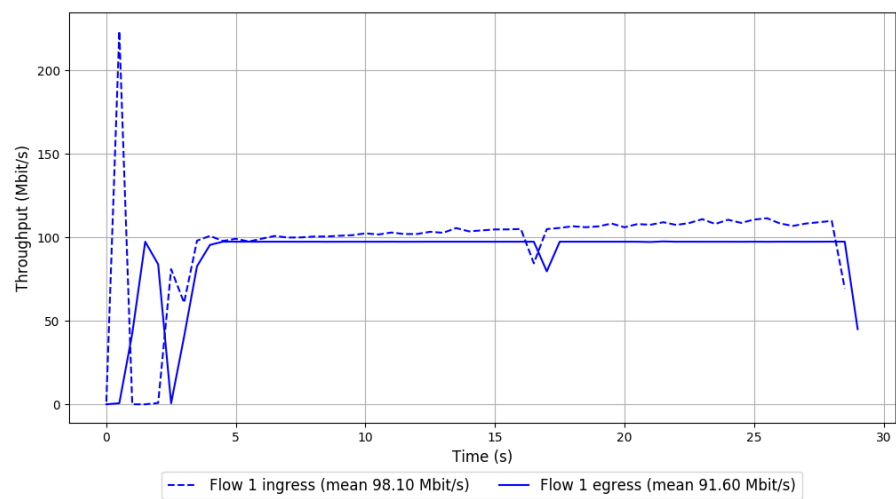
-- Flow 1:

Average throughput: 91.60 Mbit/s

95th percentile per-packet one-way delay: 130.897 ms

Loss rate: 7.21%

Run 2: Report of Indigo-MusesT — Data Link

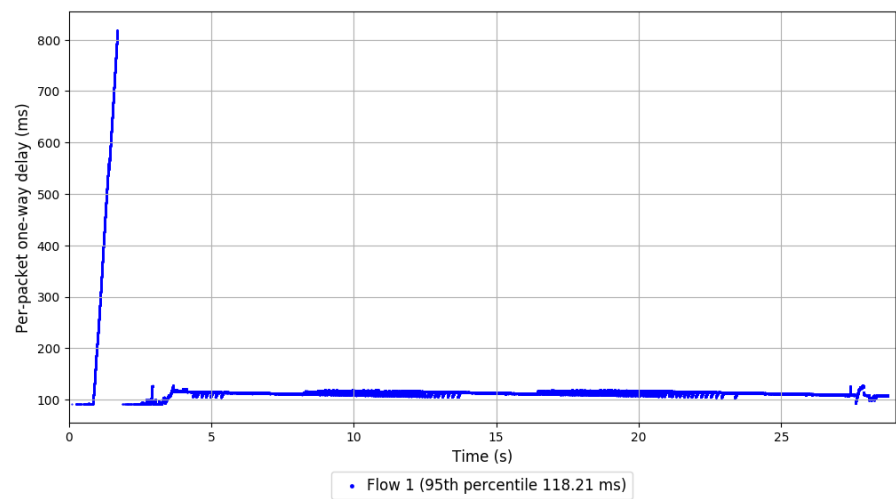
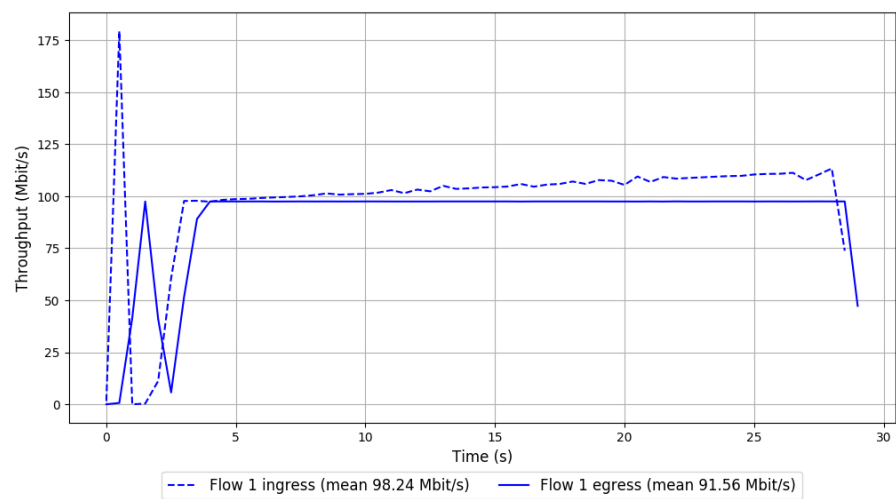


Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-21 21:58:38  
End at: 2019-01-21 21:59:08  
Local clock offset: -7.234 ms  
Remote clock offset: 7.199 ms

# Below is generated by plot.py at 2019-01-21 23:16:03  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.56 Mbit/s  
95th percentile per-packet one-way delay: 118.208 ms  
Loss rate: 7.38%  
-- Flow 1:  
Average throughput: 91.56 Mbit/s  
95th percentile per-packet one-way delay: 118.208 ms  
Loss rate: 7.38%

Run 3: Report of Indigo-MusesT — Data Link





Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-21 22:23:37

End at: 2019-01-21 22:24:07

Local clock offset: -3.265 ms

Remote clock offset: 5.112 ms

# Below is generated by plot.py at 2019-01-21 23:16:05

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.05 Mbit/s

95th percentile per-packet one-way delay: 113.119 ms

Loss rate: 7.26%

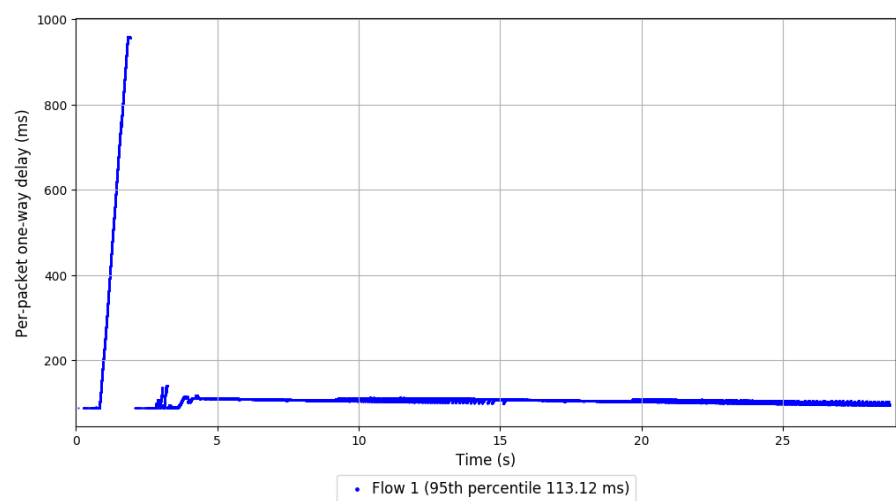
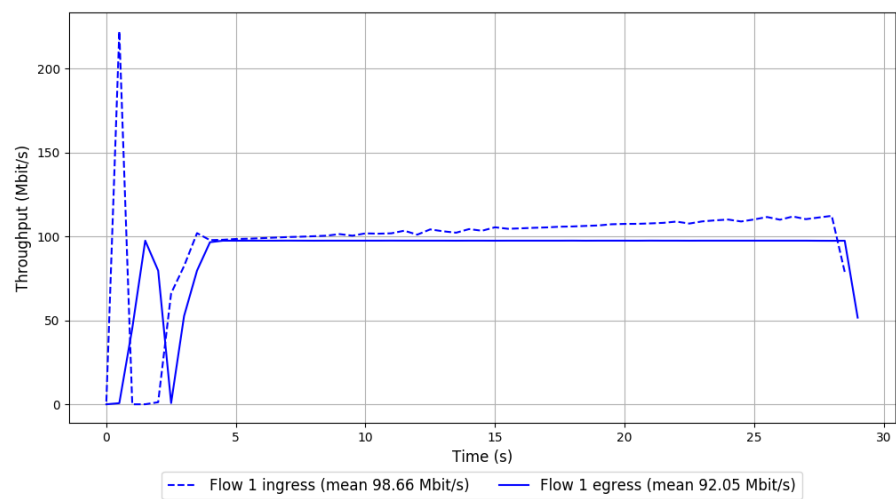
-- Flow 1:

Average throughput: 92.05 Mbit/s

95th percentile per-packet one-way delay: 113.119 ms

Loss rate: 7.26%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-21 22:48:35

End at: 2019-01-21 22:49:05

Local clock offset: -1.023 ms

Remote clock offset: 1.97 ms

# Below is generated by plot.py at 2019-01-21 23:16:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.29 Mbit/s

95th percentile per-packet one-way delay: 134.939 ms

Loss rate: 6.79%

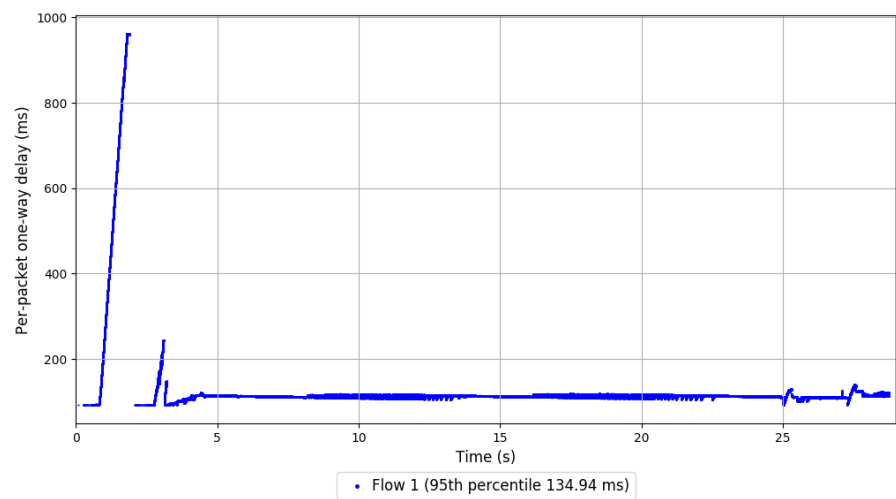
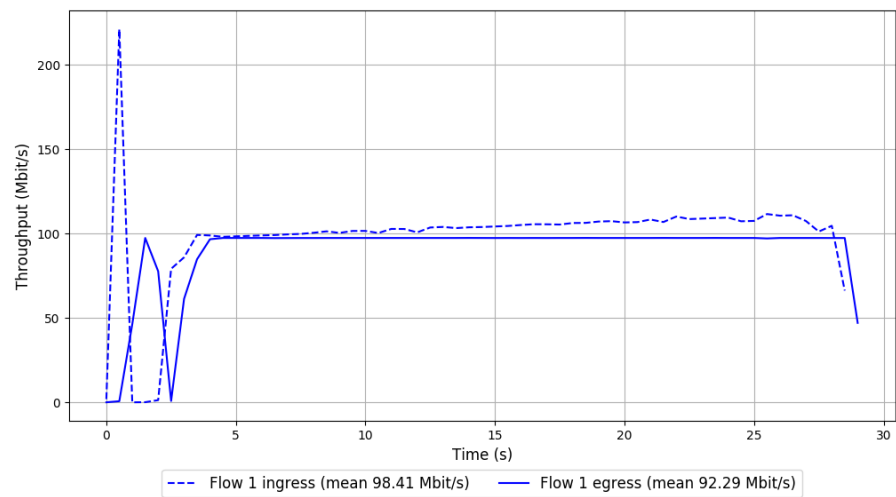
-- Flow 1:

Average throughput: 92.29 Mbit/s

95th percentile per-packet one-way delay: 134.939 ms

Loss rate: 6.79%

Run 5: Report of Indigo-MusesT — Data Link

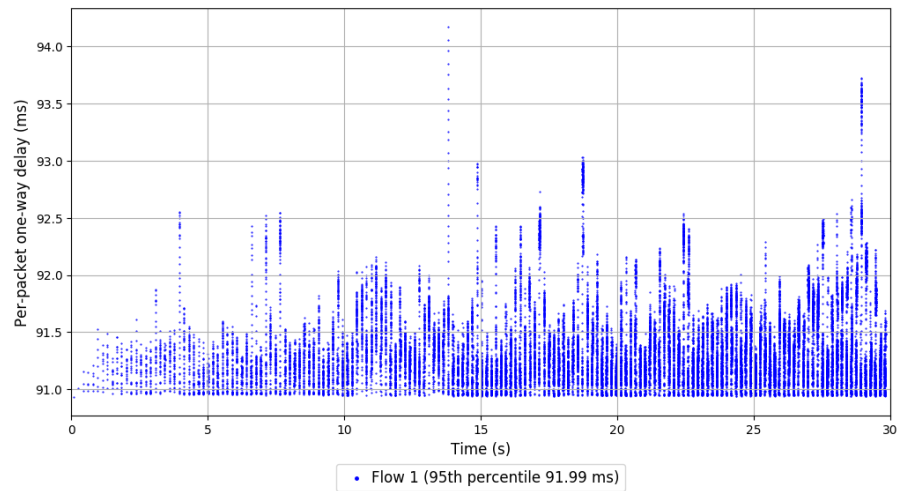
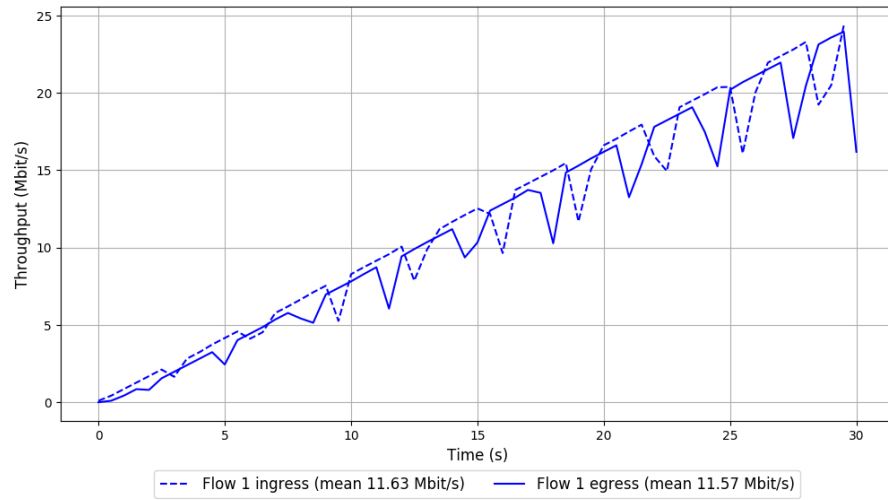


```
Run 1: Statistics of LEDBAT

Start at: 2019-01-21 21:18:08
End at: 2019-01-21 21:18:38
Local clock offset: -6.776 ms
Remote clock offset: 4.17 ms

# Below is generated by plot.py at 2019-01-21 23:16:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 91.988 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 91.988 ms
Loss rate: 1.17%
```

# Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-01-21 21:43:07

End at: 2019-01-21 21:43:37

Local clock offset: -6.665 ms

Remote clock offset: 6.334 ms

# Below is generated by plot.py at 2019-01-21 23:16:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 11.68 Mbit/s

95th percentile per-packet one-way delay: 88.055 ms

Loss rate: 1.17%

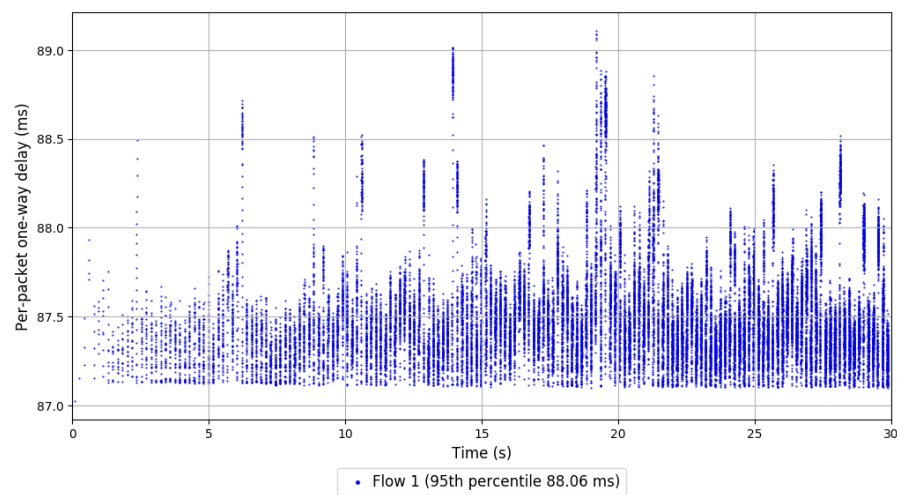
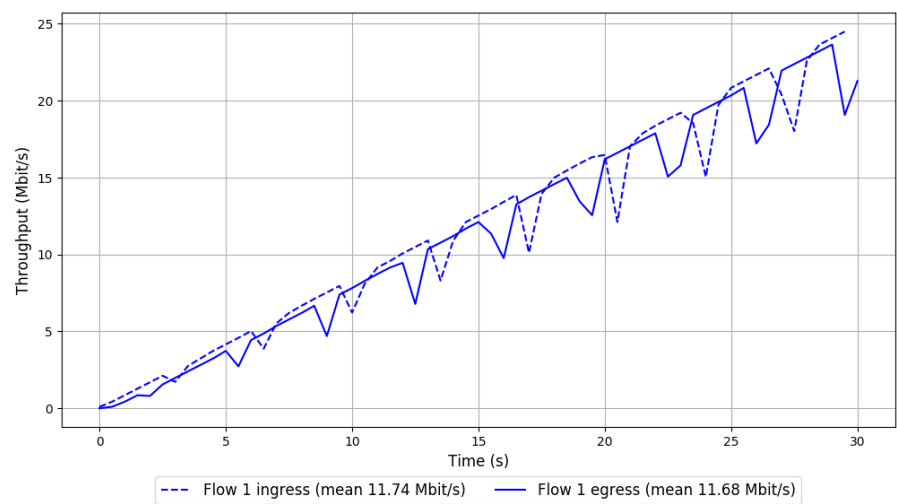
-- Flow 1:

Average throughput: 11.68 Mbit/s

95th percentile per-packet one-way delay: 88.055 ms

Loss rate: 1.17%

Run 2: Report of LEDBAT — Data Link





Run 3: Statistics of LEDBAT

Start at: 2019-01-21 22:08:07

End at: 2019-01-21 22:08:37

Local clock offset: -6.692 ms

Remote clock offset: 7.248 ms

# Below is generated by plot.py at 2019-01-21 23:16:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 11.84 Mbit/s

95th percentile per-packet one-way delay: 87.781 ms

Loss rate: 1.16%

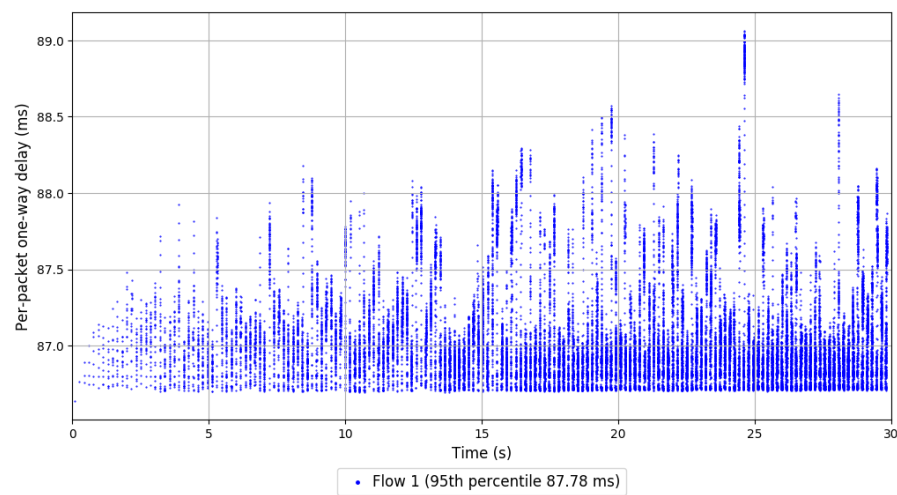
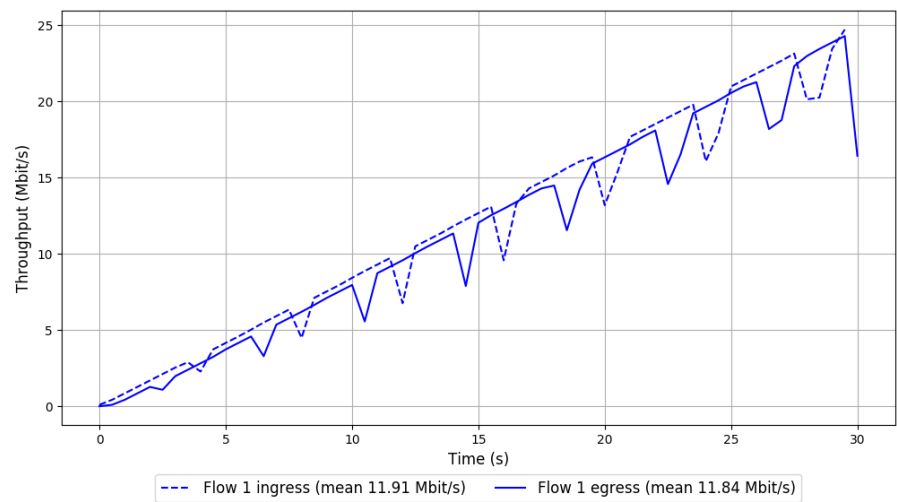
-- Flow 1:

Average throughput: 11.84 Mbit/s

95th percentile per-packet one-way delay: 87.781 ms

Loss rate: 1.16%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-01-21 22:33:06

End at: 2019-01-21 22:33:36

Local clock offset: -2.069 ms

Remote clock offset: 2.639 ms

# Below is generated by plot.py at 2019-01-21 23:16:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 11.00 Mbit/s

95th percentile per-packet one-way delay: 97.519 ms

Loss rate: 1.20%

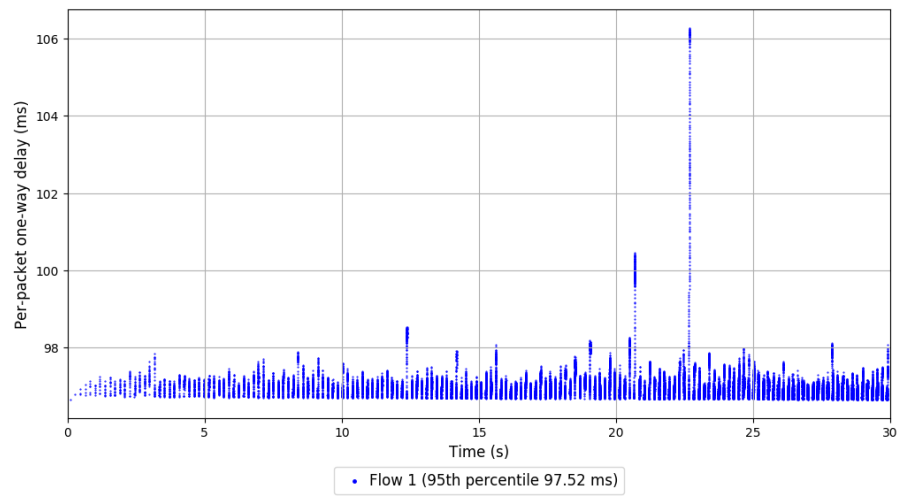
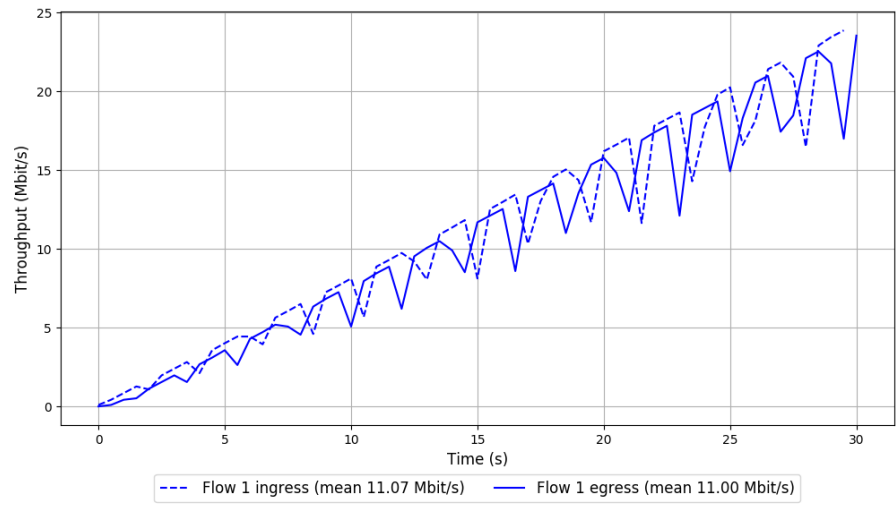
-- Flow 1:

Average throughput: 11.00 Mbit/s

95th percentile per-packet one-way delay: 97.519 ms

Loss rate: 1.20%

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



Run 5: Statistics of LEDBAT

Start at: 2019-01-21 22:58:05

End at: 2019-01-21 22:58:35

Local clock offset: -0.686 ms

Remote clock offset: 3.514 ms

# Below is generated by plot.py at 2019-01-21 23:16:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 11.69 Mbit/s

95th percentile per-packet one-way delay: 93.065 ms

Loss rate: 1.17%

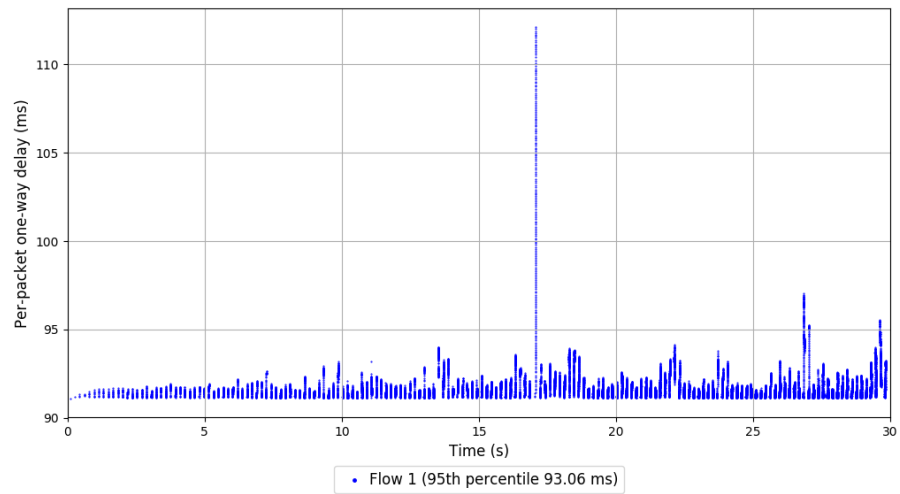
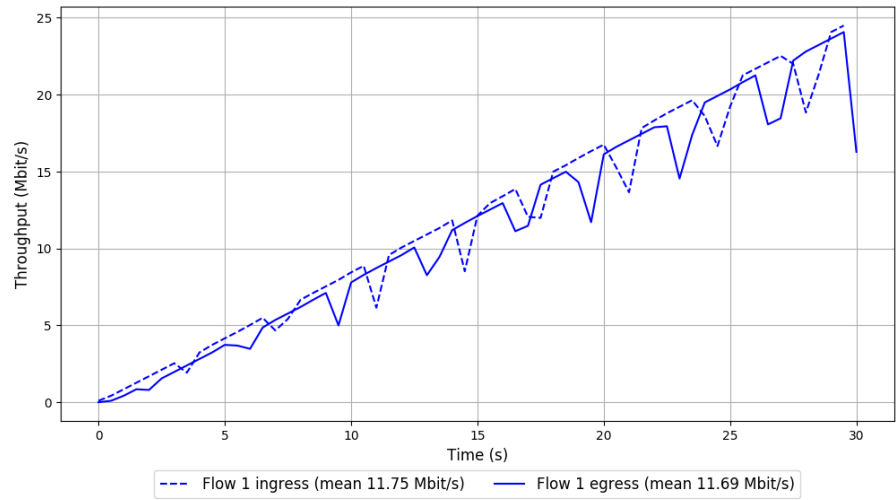
-- Flow 1:

Average throughput: 11.69 Mbit/s

95th percentile per-packet one-way delay: 93.065 ms

Loss rate: 1.17%

## Run 5: Report of LEDBAT — Data Link

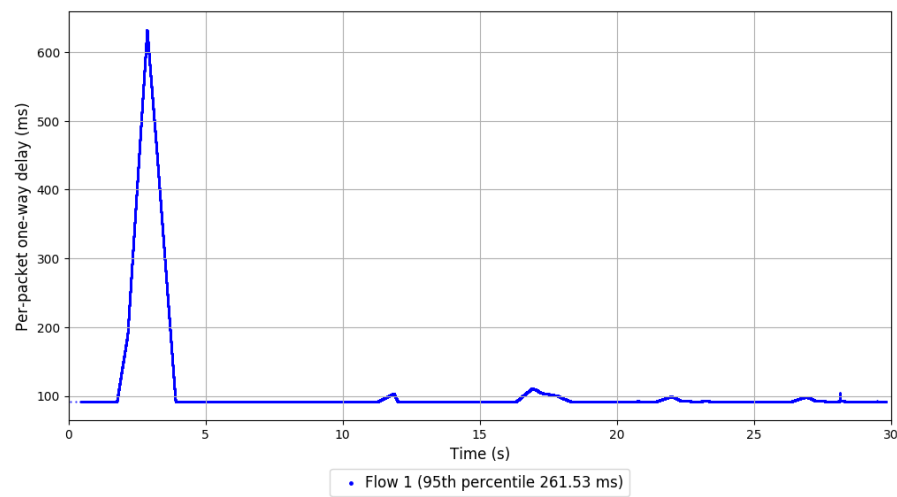
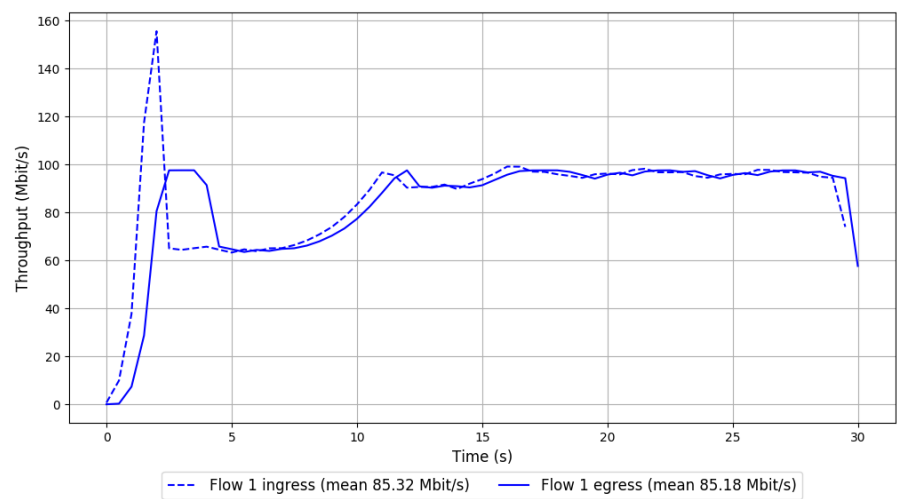


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-01-21 21:15:47
End at: 2019-01-21 21:16:17
Local clock offset: -6.107 ms
Remote clock offset: 4.037 ms

# Below is generated by plot.py at 2019-01-21 23:16:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.18 Mbit/s
95th percentile per-packet one-way delay: 261.530 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 85.18 Mbit/s
95th percentile per-packet one-way delay: 261.530 ms
Loss rate: 0.75%
```

Run 1: Report of PCC-Allegro — Data Link





Run 2: Statistics of PCC-Allegro

Start at: 2019-01-21 21:40:47

End at: 2019-01-21 21:41:17

Local clock offset: -5.86 ms

Remote clock offset: 6.478 ms

# Below is generated by plot.py at 2019-01-21 23:16:35

# Datalink statistics

-- Total of 1 flow:

Average throughput: 84.89 Mbit/s

95th percentile per-packet one-way delay: 217.552 ms

Loss rate: 0.87%

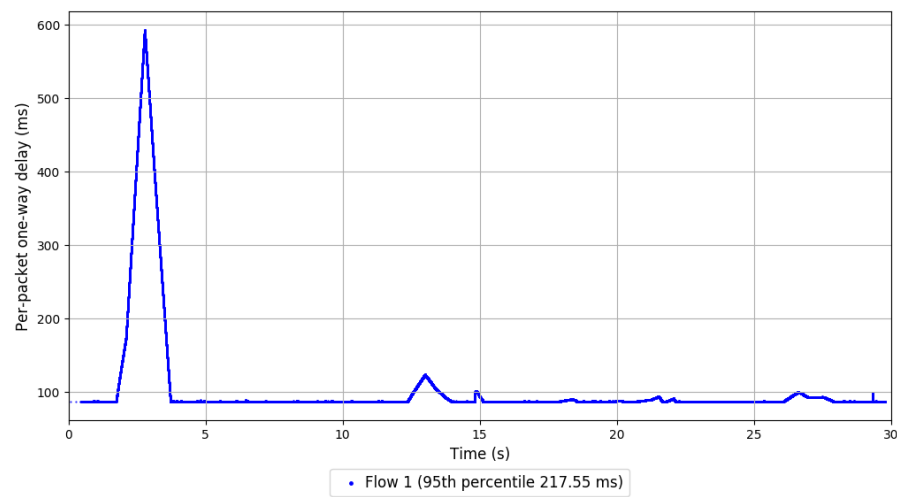
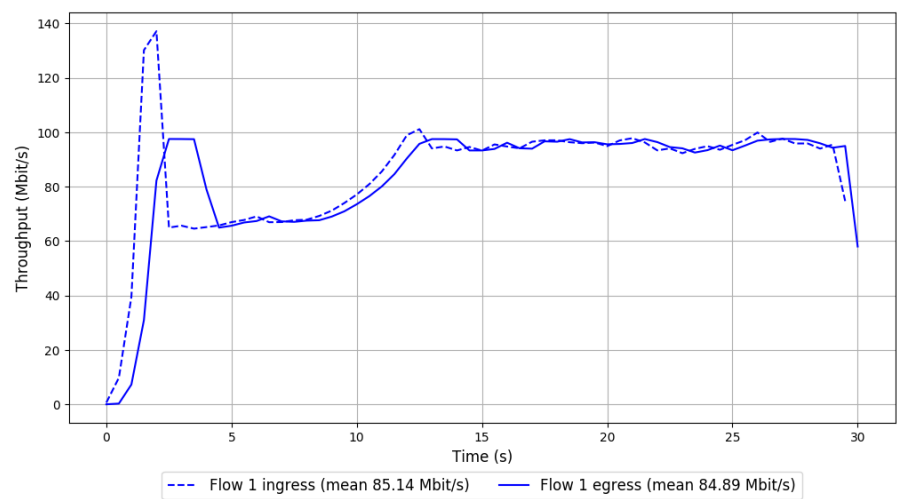
-- Flow 1:

Average throughput: 84.89 Mbit/s

95th percentile per-packet one-way delay: 217.552 ms

Loss rate: 0.87%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-01-21 22:05:46

End at: 2019-01-21 22:06:16

Local clock offset: -7.341 ms

Remote clock offset: 5.047 ms

# Below is generated by plot.py at 2019-01-21 23:16:41

# Datalink statistics

-- Total of 1 flow:

Average throughput: 85.09 Mbit/s

95th percentile per-packet one-way delay: 255.612 ms

Loss rate: 0.74%

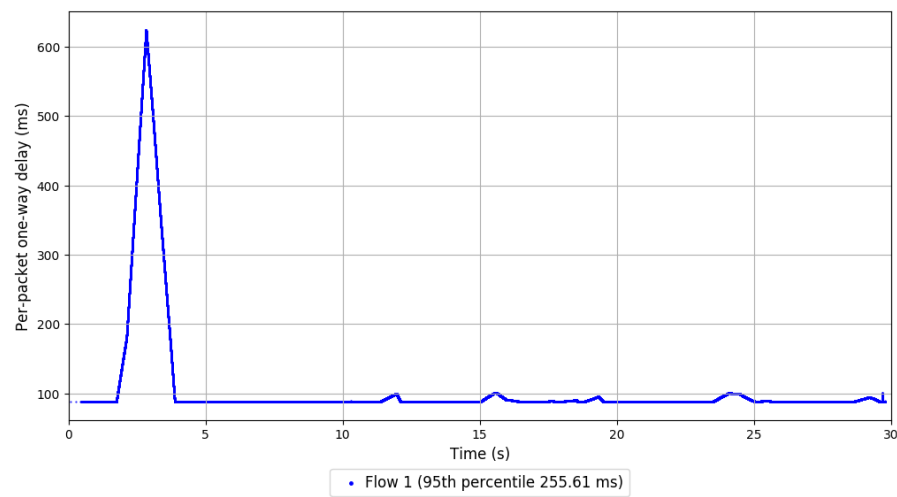
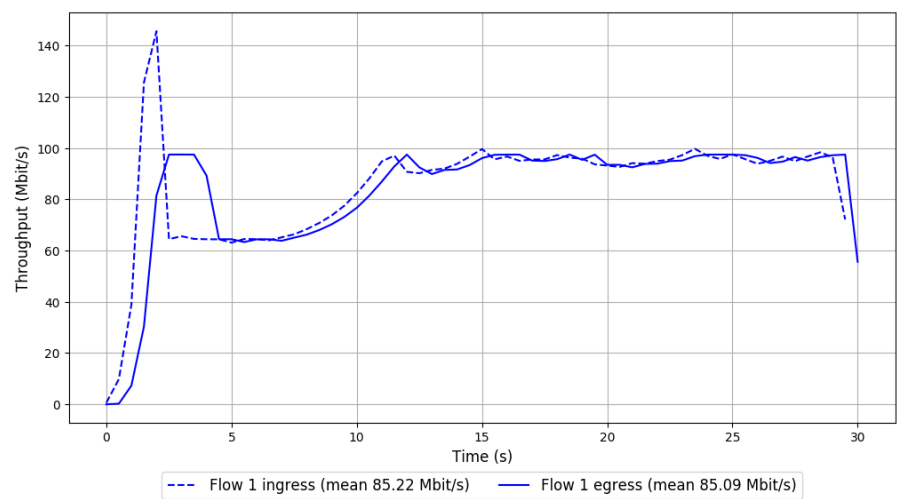
-- Flow 1:

Average throughput: 85.09 Mbit/s

95th percentile per-packet one-way delay: 255.612 ms

Loss rate: 0.74%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-01-21 22:30:45

End at: 2019-01-21 22:31:15

Local clock offset: -1.664 ms

Remote clock offset: 7.56 ms

# Below is generated by plot.py at 2019-01-21 23:16:45

# Datalink statistics

-- Total of 1 flow:

Average throughput: 86.77 Mbit/s

95th percentile per-packet one-way delay: 242.108 ms

Loss rate: 0.72%

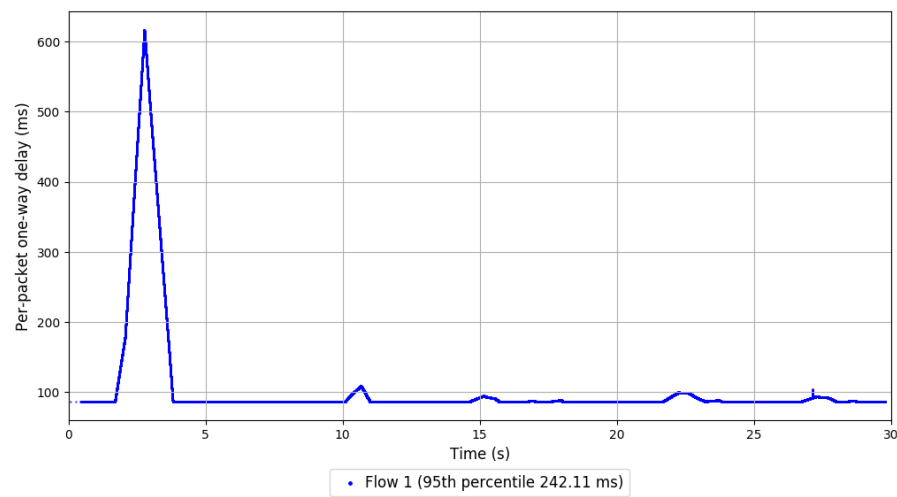
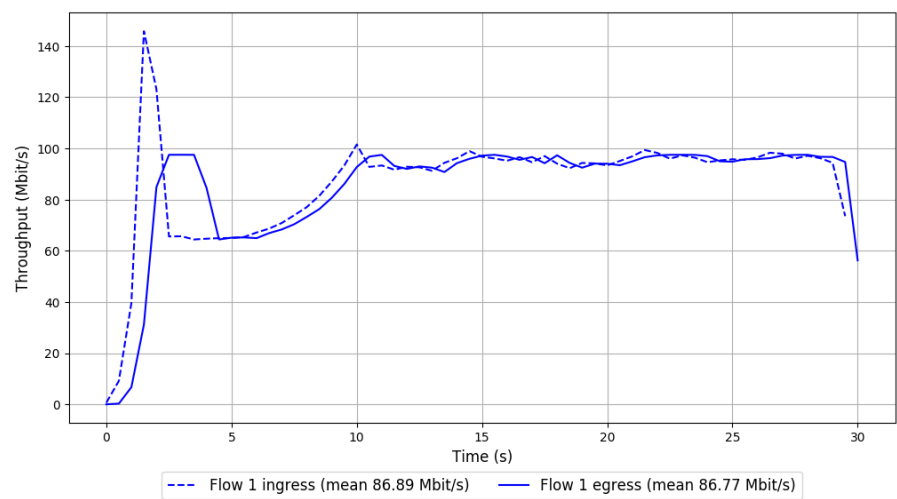
-- Flow 1:

Average throughput: 86.77 Mbit/s

95th percentile per-packet one-way delay: 242.108 ms

Loss rate: 0.72%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-01-21 22:55:43

End at: 2019-01-21 22:56:13

Local clock offset: -0.67 ms

Remote clock offset: 2.305 ms

# Below is generated by plot.py at 2019-01-21 23:16:51

# Datalink statistics

-- Total of 1 flow:

Average throughput: 87.31 Mbit/s

95th percentile per-packet one-way delay: 126.904 ms

Loss rate: 1.22%

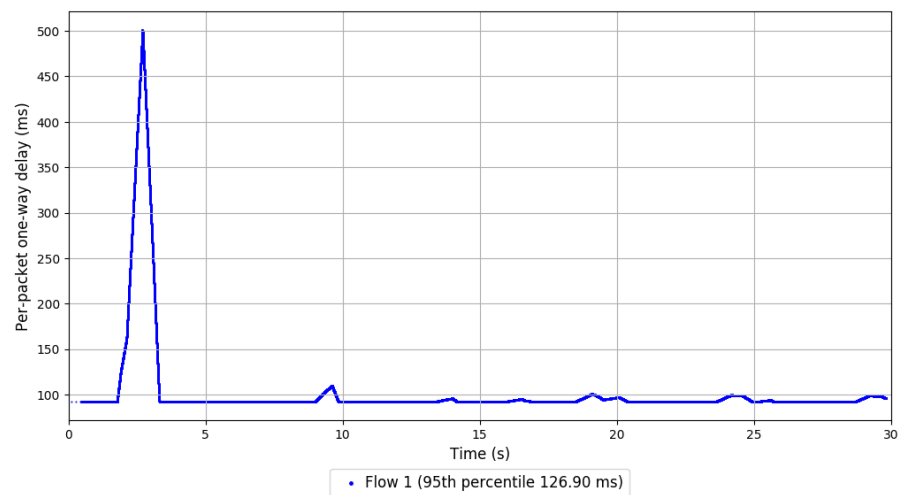
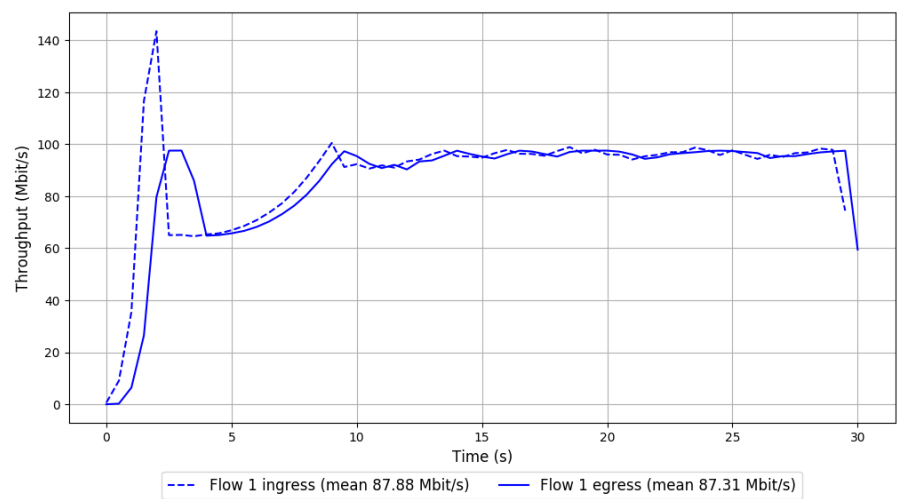
-- Flow 1:

Average throughput: 87.31 Mbit/s

95th percentile per-packet one-way delay: 126.904 ms

Loss rate: 1.22%

Run 5: Report of PCC-Allegro — Data Link





Run 1: Statistics of PCC-Expr

Start at: 2019-01-21 21:21:41

End at: 2019-01-21 21:22:11

Local clock offset: -5.955 ms

Remote clock offset: 9.373 ms

# Below is generated by plot.py at 2019-01-21 23:17:53

# Datalink statistics

-- Total of 1 flow:

Average throughput: 85.35 Mbit/s

95th percentile per-packet one-way delay: 430.243 ms

Loss rate: 1.22%

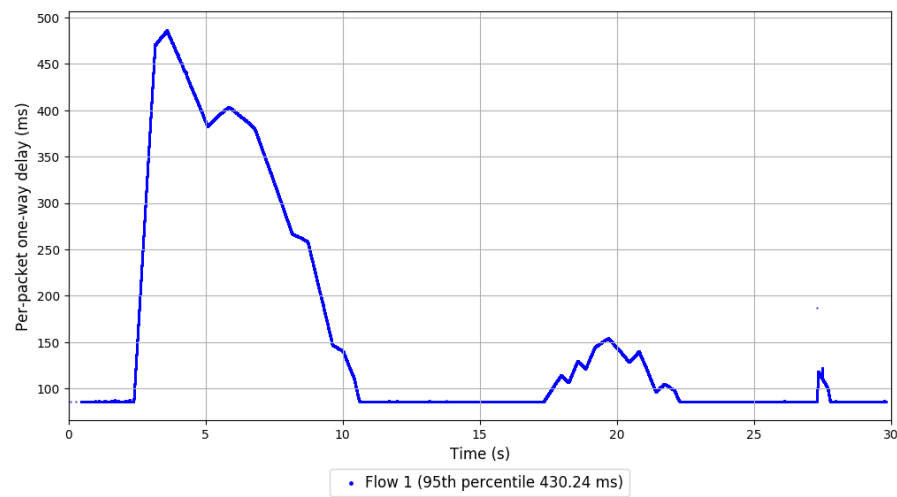
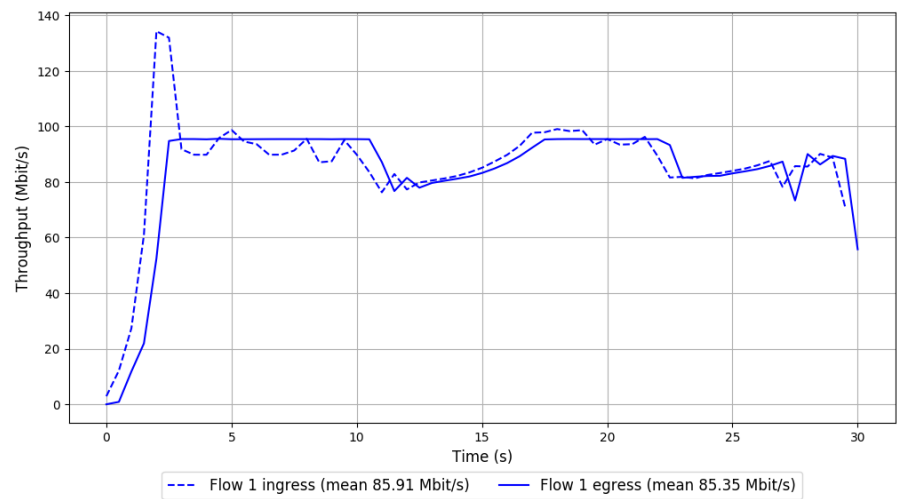
-- Flow 1:

Average throughput: 85.35 Mbit/s

95th percentile per-packet one-way delay: 430.243 ms

Loss rate: 1.22%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-01-21 21:46:39

End at: 2019-01-21 21:47:09

Local clock offset: -6.019 ms

Remote clock offset: 1.263 ms

# Below is generated by plot.py at 2019-01-21 23:18:02

# Datalink statistics

-- Total of 1 flow:

Average throughput: 87.72 Mbit/s

95th percentile per-packet one-way delay: 461.727 ms

Loss rate: 1.24%

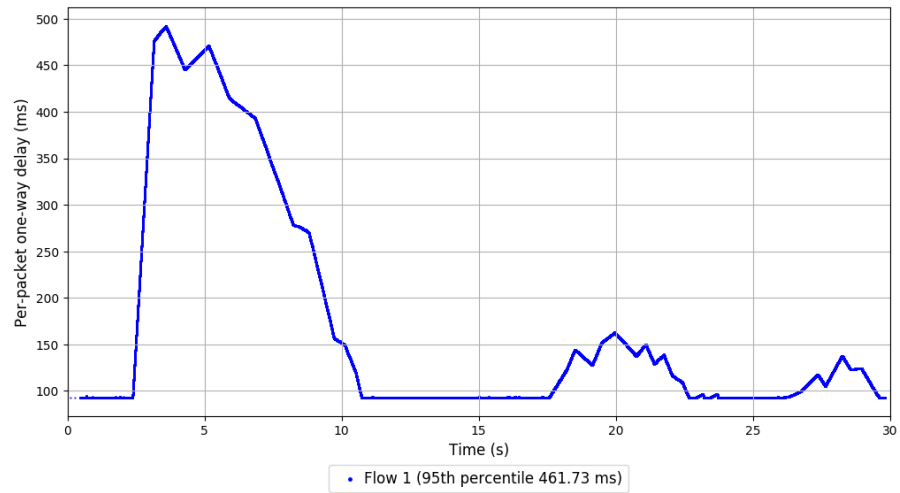
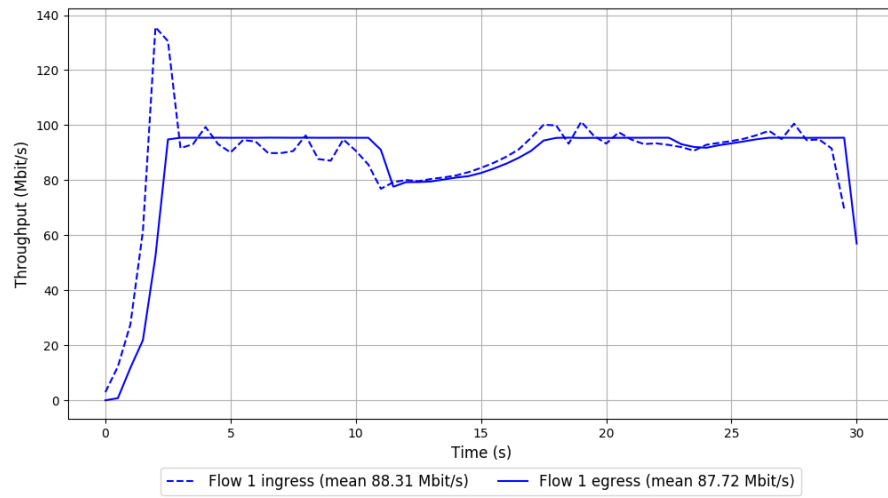
-- Flow 1:

Average throughput: 87.72 Mbit/s

95th percentile per-packet one-way delay: 461.727 ms

Loss rate: 1.24%

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



Run 3: Statistics of PCC-Expr

Start at: 2019-01-21 22:11:39

End at: 2019-01-21 22:12:09

Local clock offset: -6.749 ms

Remote clock offset: 5.197 ms

# Below is generated by plot.py at 2019-01-21 23:18:02

# Datalink statistics

-- Total of 1 flow:

Average throughput: 85.81 Mbit/s

95th percentile per-packet one-way delay: 428.862 ms

Loss rate: 1.66%

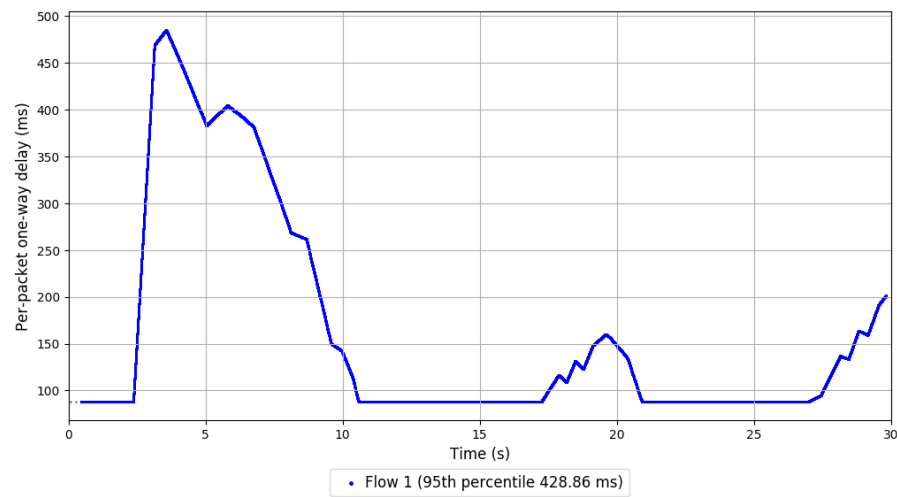
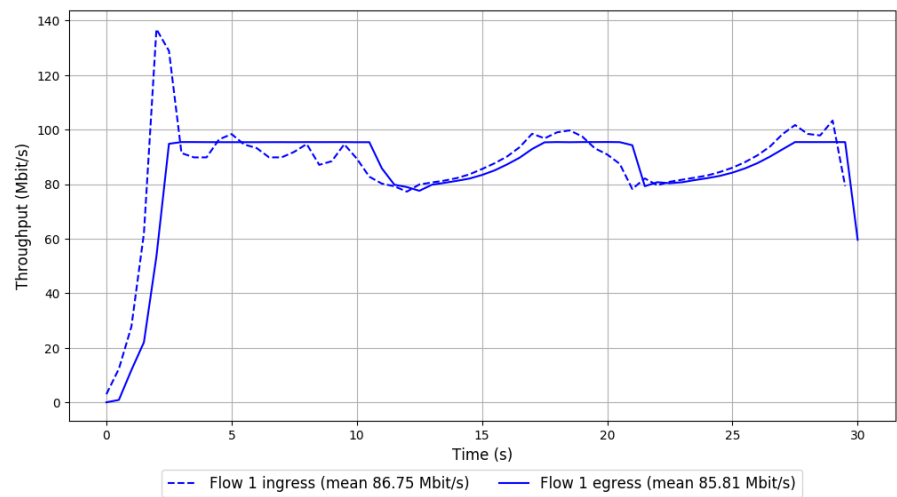
-- Flow 1:

Average throughput: 85.81 Mbit/s

95th percentile per-packet one-way delay: 428.862 ms

Loss rate: 1.66%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-01-21 22:36:38

End at: 2019-01-21 22:37:08

Local clock offset: -0.839 ms

Remote clock offset: 7.882 ms

# Below is generated by plot.py at 2019-01-21 23:18:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 86.08 Mbit/s

95th percentile per-packet one-way delay: 448.514 ms

Loss rate: 1.43%

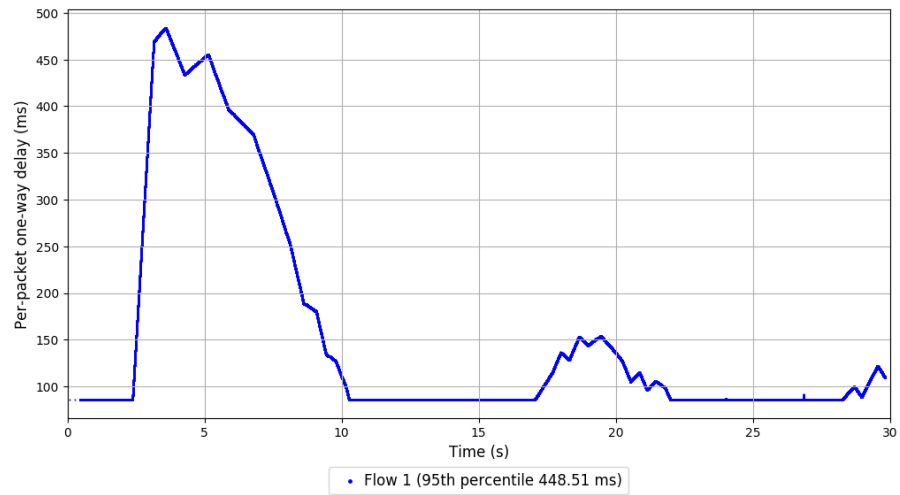
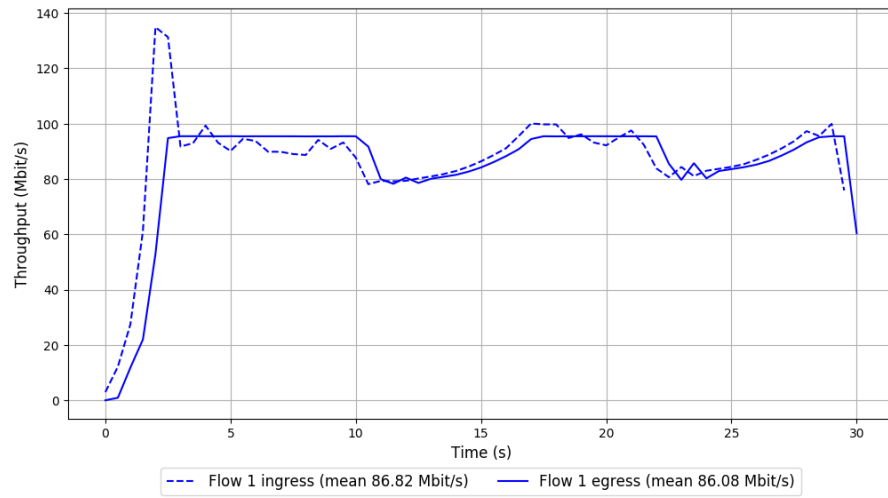
-- Flow 1:

Average throughput: 86.08 Mbit/s

95th percentile per-packet one-way delay: 448.514 ms

Loss rate: 1.43%

#### Run 4: Report of PCC-Expr — Data Link





Run 5: Statistics of PCC-Expr

Start at: 2019-01-21 23:01:38

End at: 2019-01-21 23:02:08

Local clock offset: -1.512 ms

Remote clock offset: 2.54 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.28 Mbit/s

95th percentile per-packet one-way delay: 469.693 ms

Loss rate: 1.12%

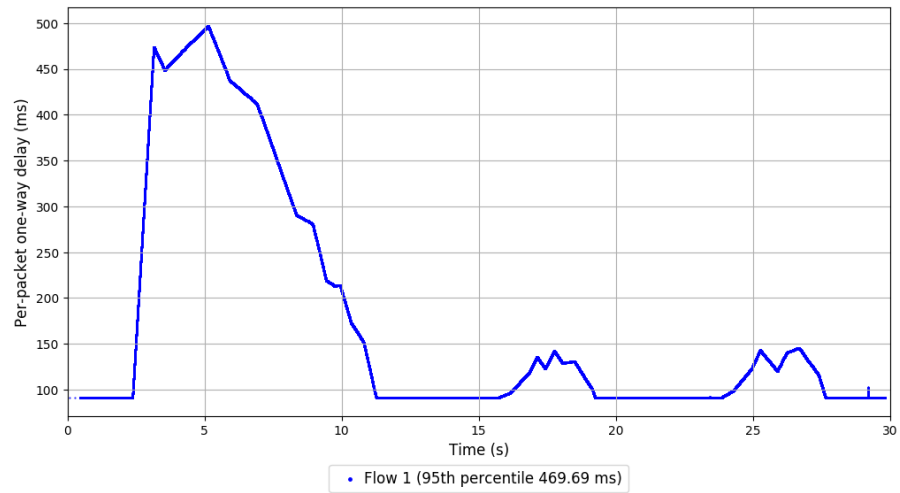
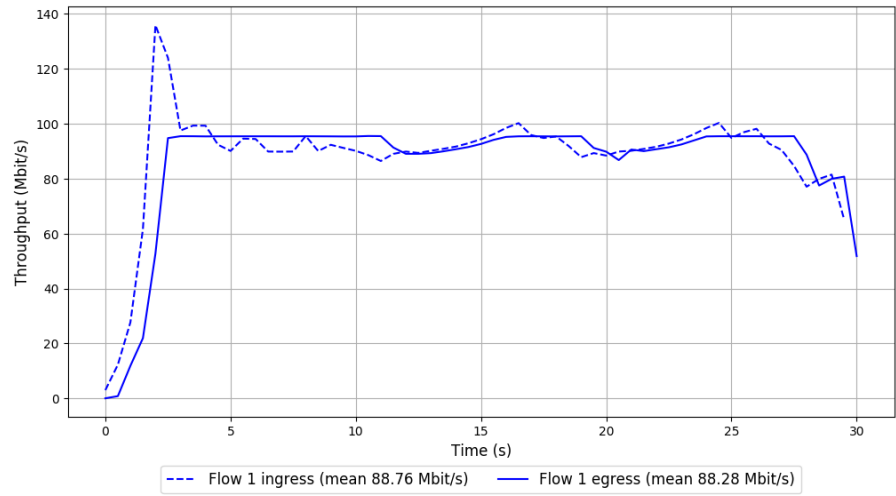
-- Flow 1:

Average throughput: 88.28 Mbit/s

95th percentile per-packet one-way delay: 469.693 ms

Loss rate: 1.12%

## Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-01-21 21:14:36

End at: 2019-01-21 21:15:06

Local clock offset: -6.156 ms

Remote clock offset: 4.133 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 51.12 Mbit/s

95th percentile per-packet one-way delay: 98.739 ms

Loss rate: 1.14%

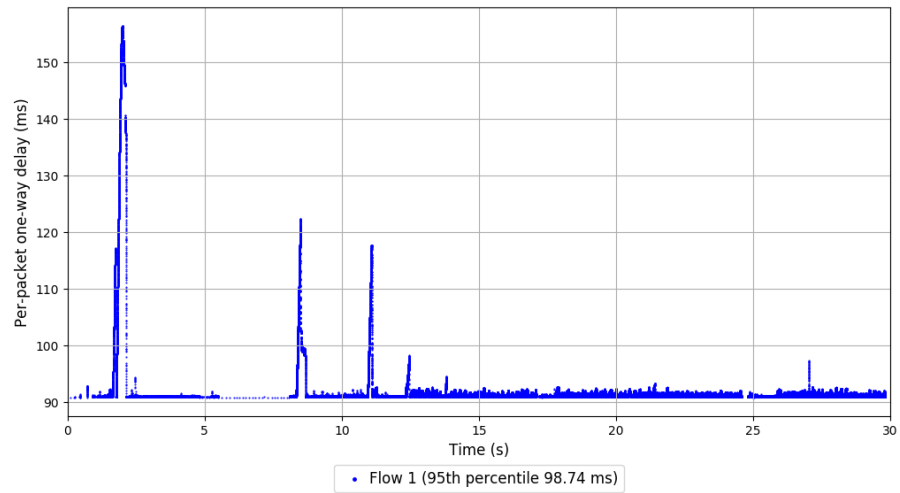
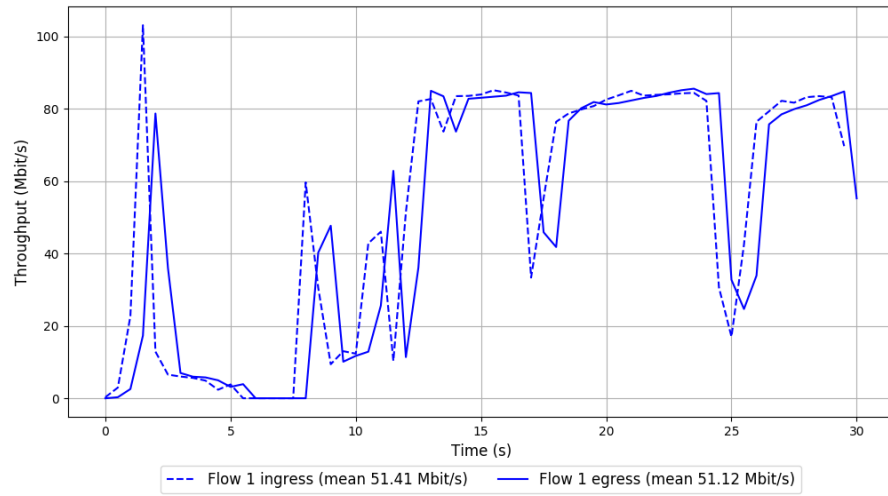
-- Flow 1:

Average throughput: 51.12 Mbit/s

95th percentile per-packet one-way delay: 98.739 ms

Loss rate: 1.14%

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



Run 2: Statistics of QUIC Cubic

Start at: 2019-01-21 21:39:36

End at: 2019-01-21 21:40:06

Local clock offset: -6.613 ms

Remote clock offset: 2.418 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 55.33 Mbit/s

95th percentile per-packet one-way delay: 98.013 ms

Loss rate: 0.86%

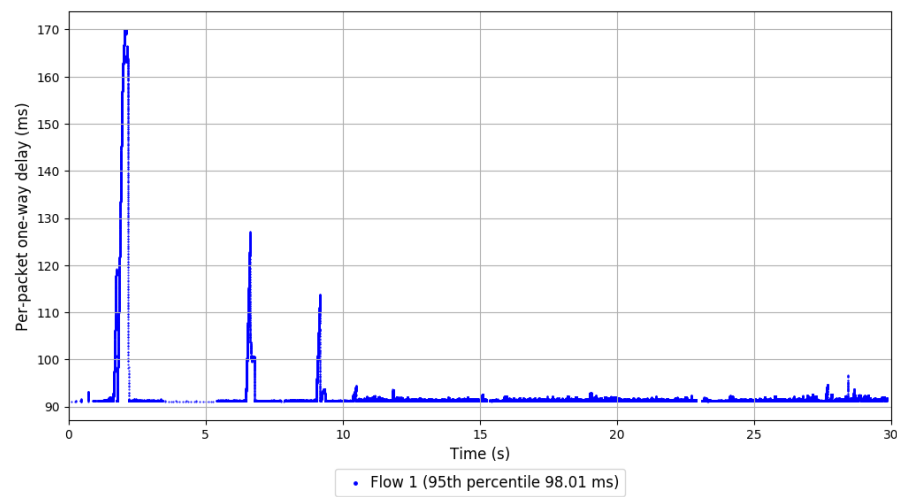
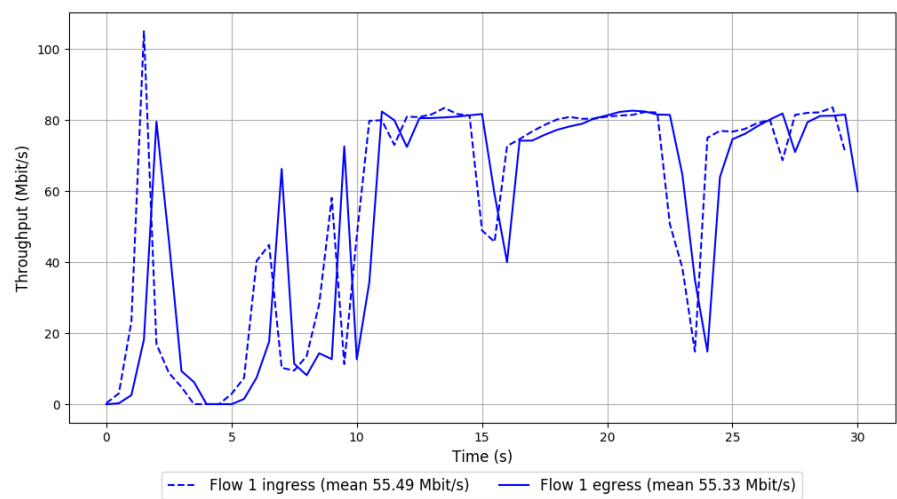
-- Flow 1:

Average throughput: 55.33 Mbit/s

95th percentile per-packet one-way delay: 98.013 ms

Loss rate: 0.86%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-01-21 22:04:35

End at: 2019-01-21 22:05:05

Local clock offset: -7.315 ms

Remote clock offset: 5.944 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 64.24 Mbit/s

95th percentile per-packet one-way delay: 98.327 ms

Loss rate: 0.86%

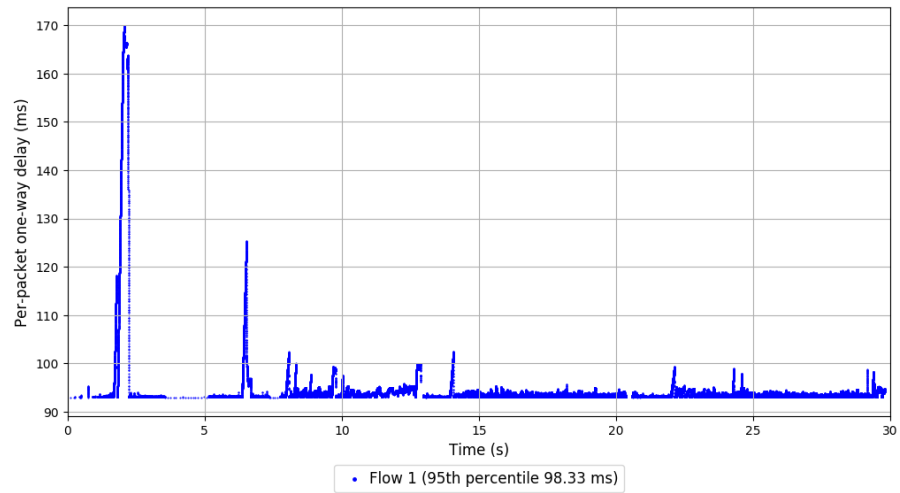
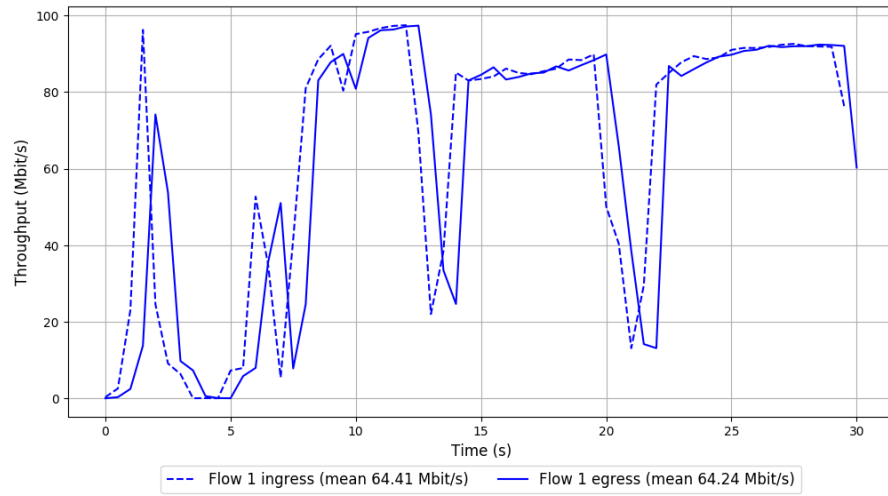
-- Flow 1:

Average throughput: 64.24 Mbit/s

95th percentile per-packet one-way delay: 98.327 ms

Loss rate: 0.86%

### Run 3: Report of QUIC Cubic — Data Link





Run 4: Statistics of QUIC Cubic

Start at: 2019-01-21 22:29:34

End at: 2019-01-21 22:30:04

Local clock offset: -1.894 ms

Remote clock offset: 1.532 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 63.04 Mbit/s

95th percentile per-packet one-way delay: 100.891 ms

Loss rate: 0.83%

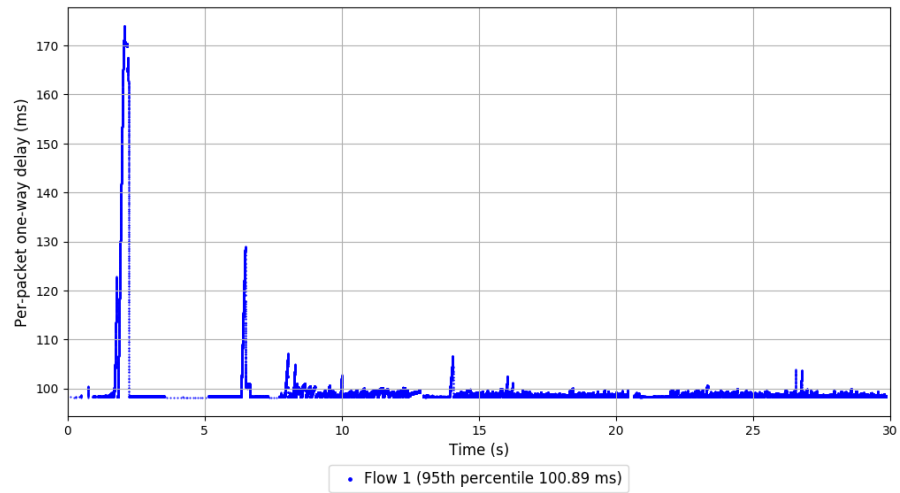
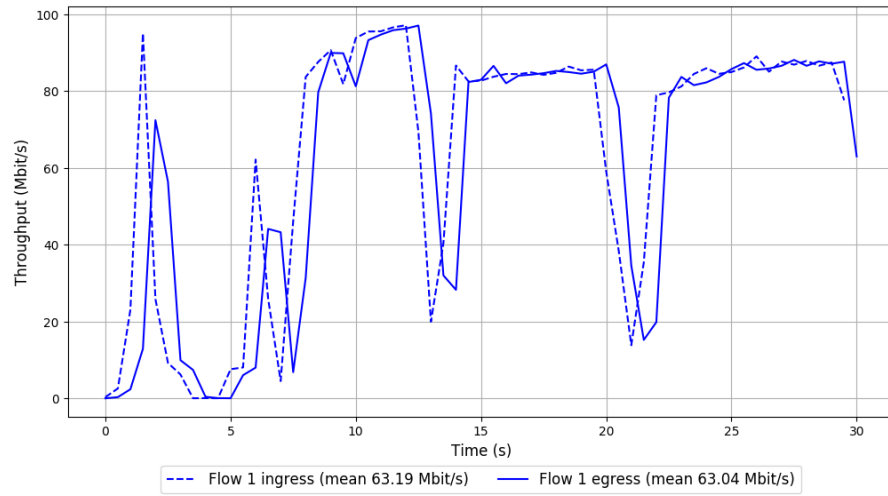
-- Flow 1:

Average throughput: 63.04 Mbit/s

95th percentile per-packet one-way delay: 100.891 ms

Loss rate: 0.83%

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



Run 5: Statistics of QUIC Cubic

Start at: 2019-01-21 22:54:33

End at: 2019-01-21 22:55:03

Local clock offset: -0.635 ms

Remote clock offset: 2.341 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 59.30 Mbit/s

95th percentile per-packet one-way delay: 98.964 ms

Loss rate: 0.85%

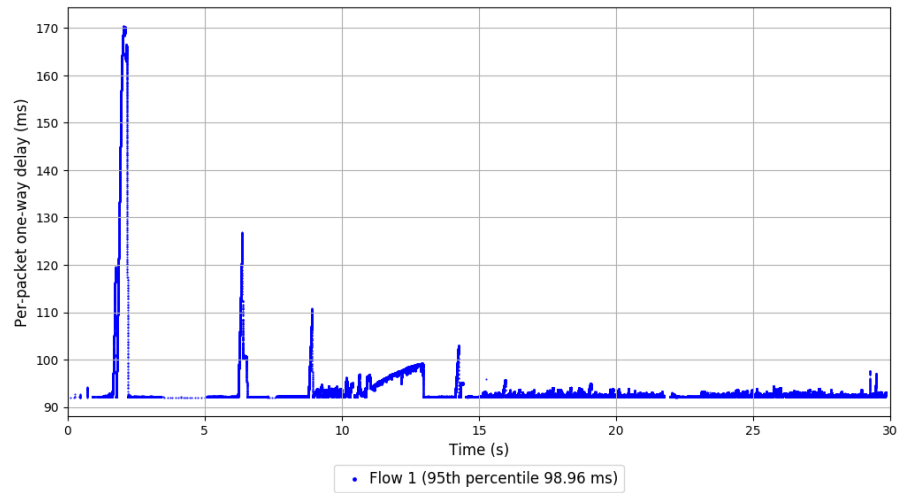
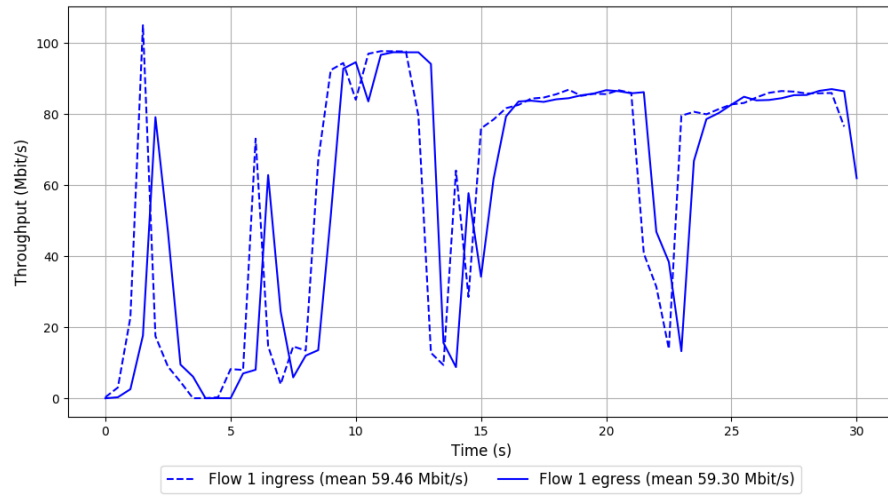
-- Flow 1:

Average throughput: 59.30 Mbit/s

95th percentile per-packet one-way delay: 98.964 ms

Loss rate: 0.85%

## Run 5: Report of QUIC Cubic — Data Link

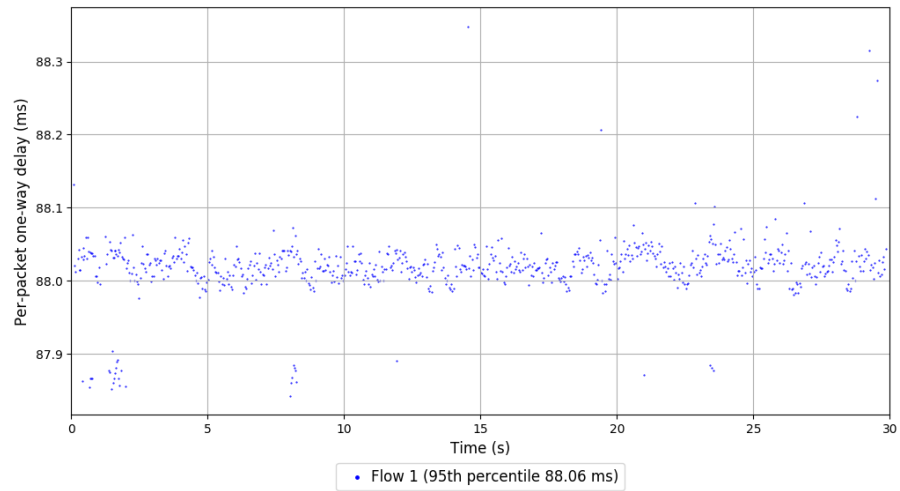
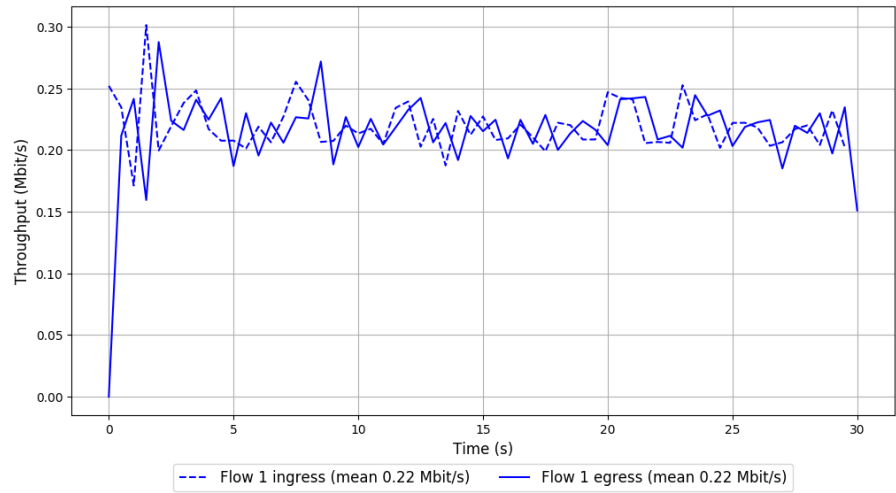


```
Run 1: Statistics of SCReAM

Start at: 2019-01-21 21:25:17
End at: 2019-01-21 21:25:47
Local clock offset: -6.591 ms
Remote clock offset: 7.252 ms

# Below is generated by plot.py at 2019-01-21 23:18:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.056 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.056 ms
Loss rate: 0.64%
```

# Run 1: Report of SReAM — Data Link

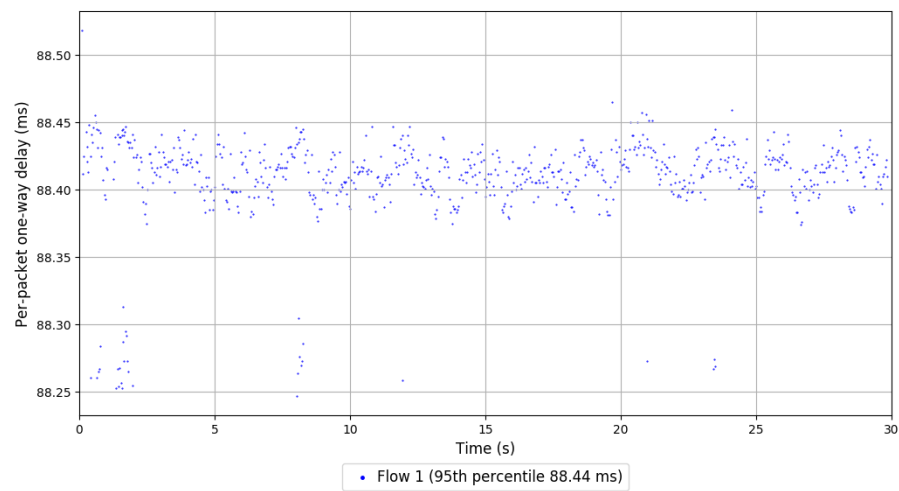
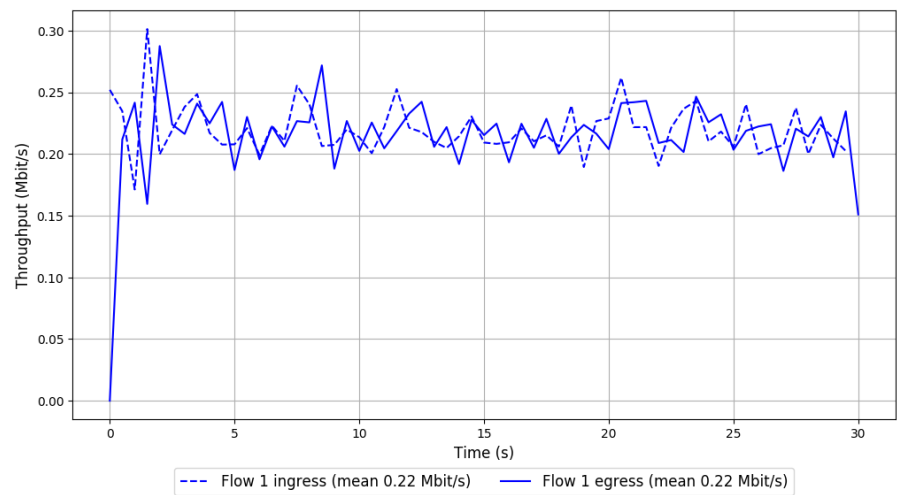


Run 2: Statistics of SCReAM

Start at: 2019-01-21 21:50:16  
End at: 2019-01-21 21:50:46  
Local clock offset: -6.125 ms  
Remote clock offset: 4.912 ms

# Below is generated by plot.py at 2019-01-21 23:18:32  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 88.441 ms  
Loss rate: 0.64%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 88.441 ms  
Loss rate: 0.64%

Run 2: Report of SReAM — Data Link





Run 3: Statistics of SCReAM

Start at: 2019-01-21 22:15:16

End at: 2019-01-21 22:15:46

Local clock offset: -7.537 ms

Remote clock offset: 2.464 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 90.895 ms

Loss rate: 0.51%

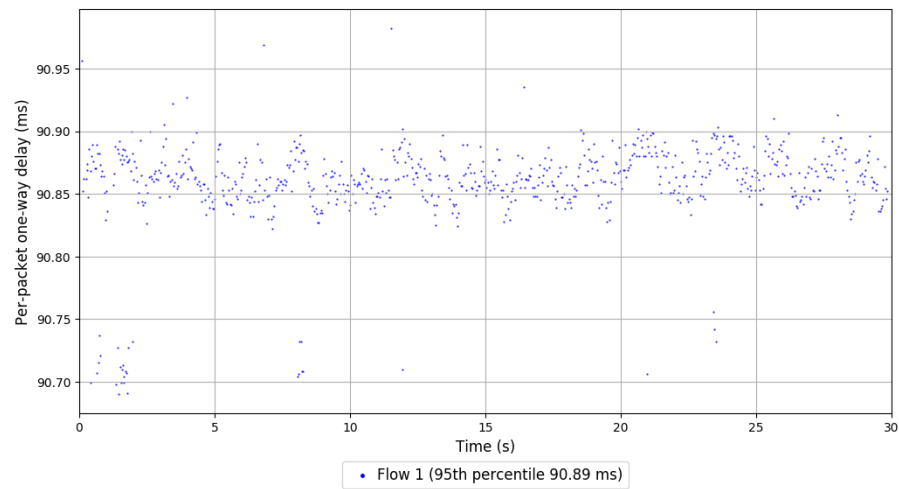
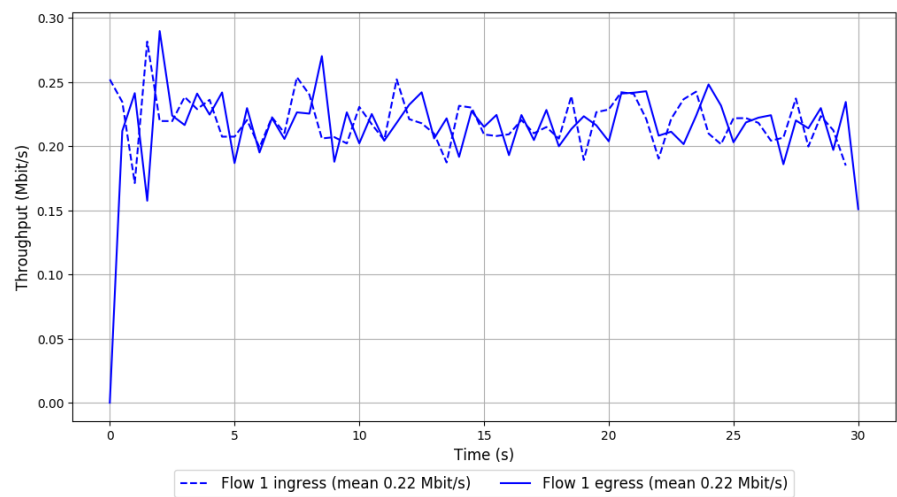
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 90.895 ms

Loss rate: 0.51%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2019-01-21 22:40:15

End at: 2019-01-21 22:40:45

Local clock offset: -1.207 ms

Remote clock offset: 1.843 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 98.043 ms

Loss rate: 0.64%

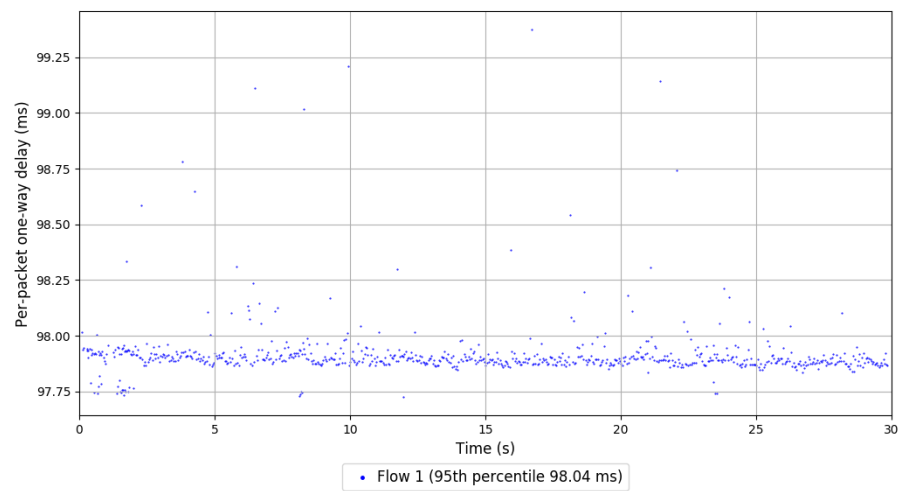
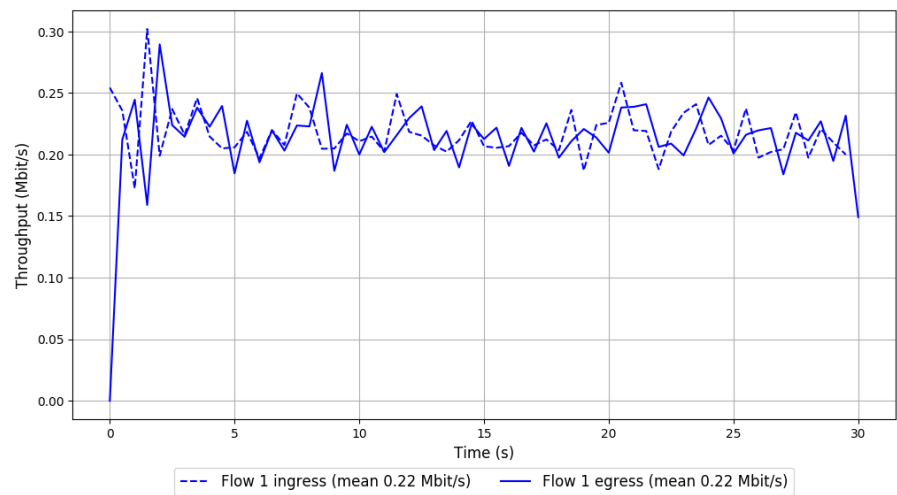
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 98.043 ms

Loss rate: 0.64%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2019-01-21 23:05:14

End at: 2019-01-21 23:05:44

Local clock offset: -0.651 ms

Remote clock offset: 2.555 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 92.131 ms

Loss rate: 0.51%

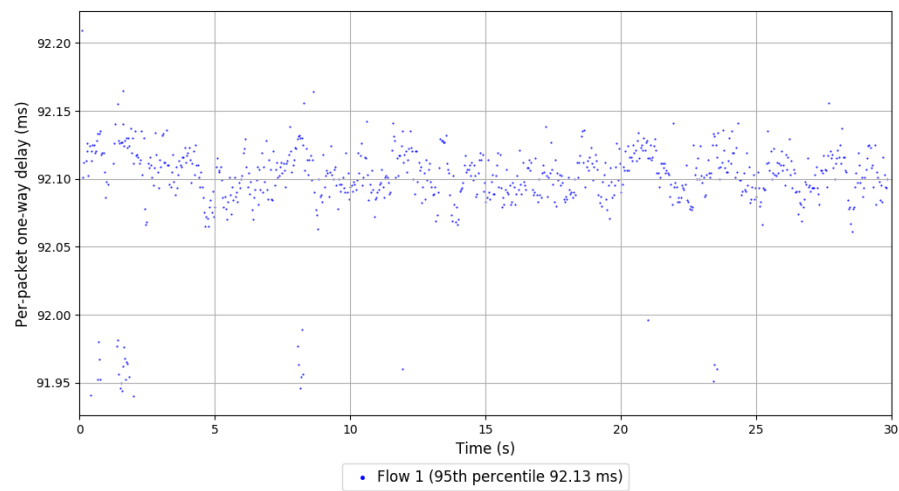
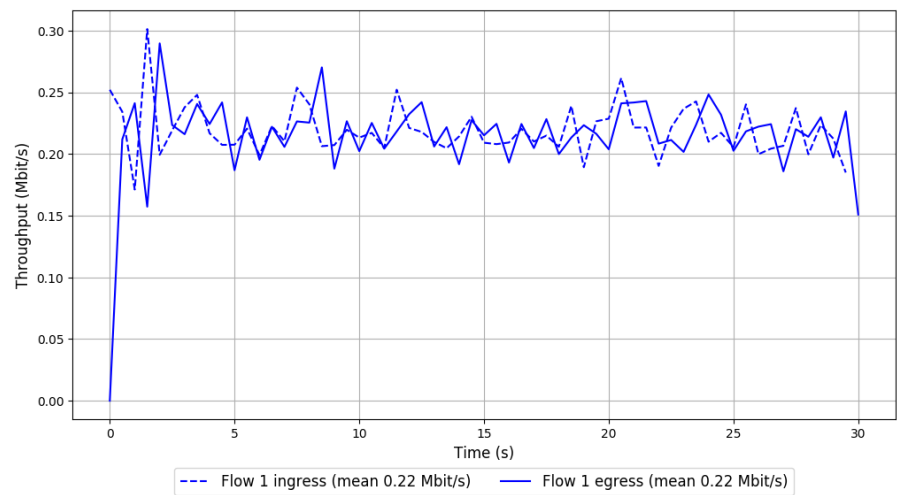
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 92.131 ms

Loss rate: 0.51%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-01-21 21:22:55

End at: 2019-01-21 21:23:25

Local clock offset: -5.908 ms

Remote clock offset: 7.88 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 101.801 ms

Loss rate: 0.79%

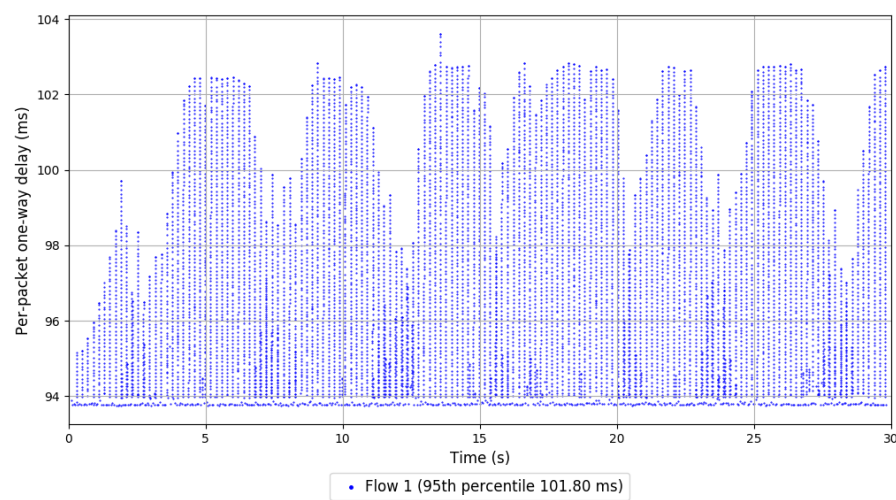
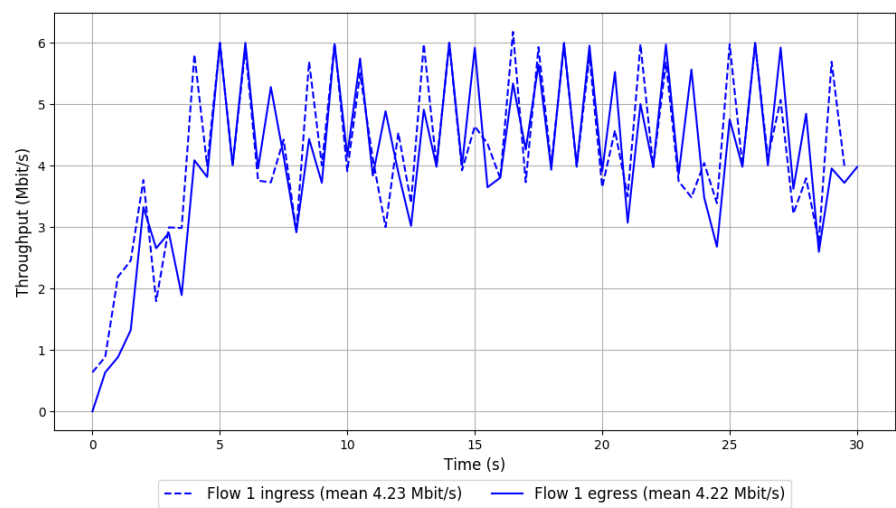
-- Flow 1:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 101.801 ms

Loss rate: 0.79%

Run 1: Report of Sprout — Data Link



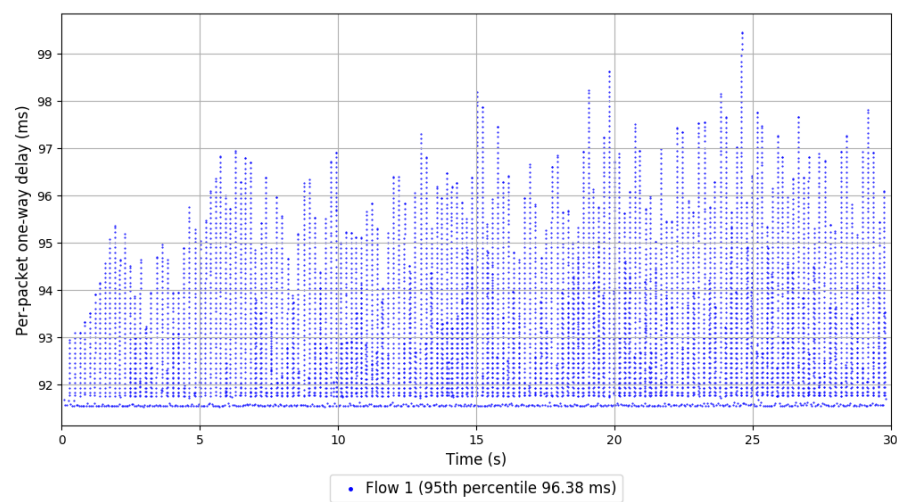
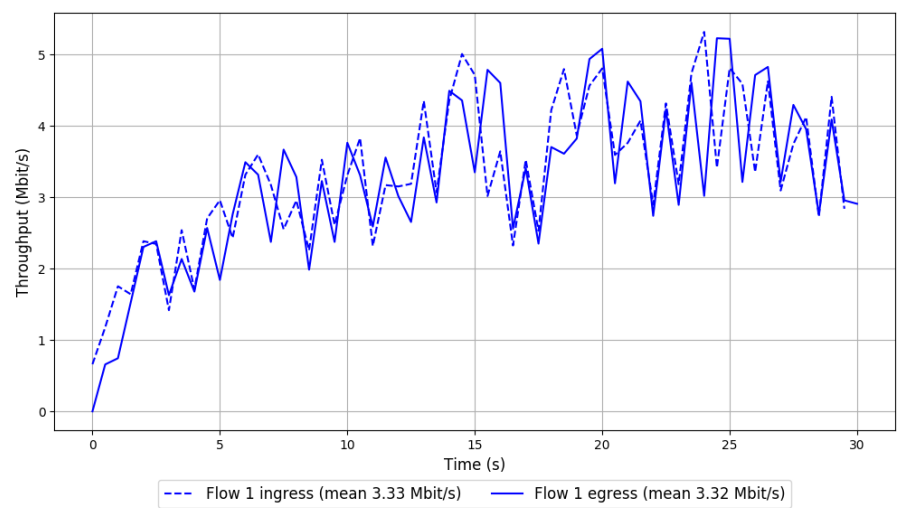


Run 2: Statistics of Sprout

Start at: 2019-01-21 21:47:54  
End at: 2019-01-21 21:48:24  
Local clock offset: -6.023 ms  
Remote clock offset: 2.261 ms

# Below is generated by plot.py at 2019-01-21 23:18:32  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 3.32 Mbit/s  
95th percentile per-packet one-way delay: 96.380 ms  
Loss rate: 0.70%  
-- Flow 1:  
Average throughput: 3.32 Mbit/s  
95th percentile per-packet one-way delay: 96.380 ms  
Loss rate: 0.70%

Run 2: Report of Sprout — Data Link

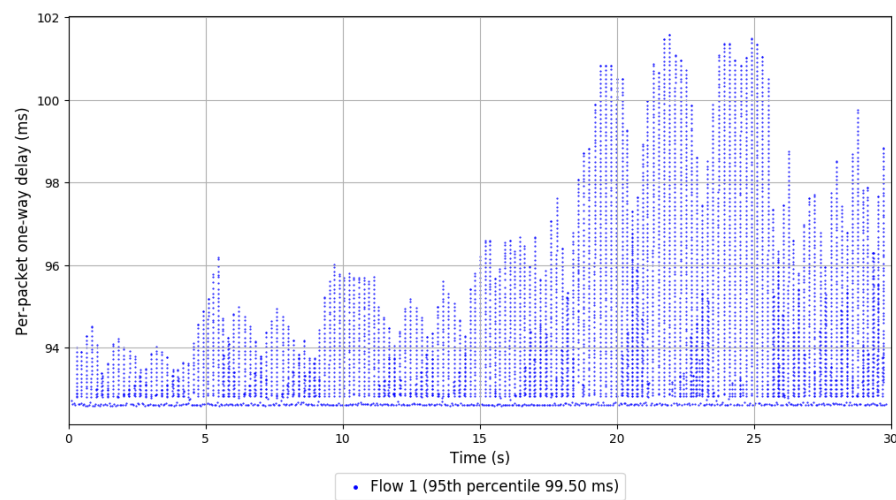
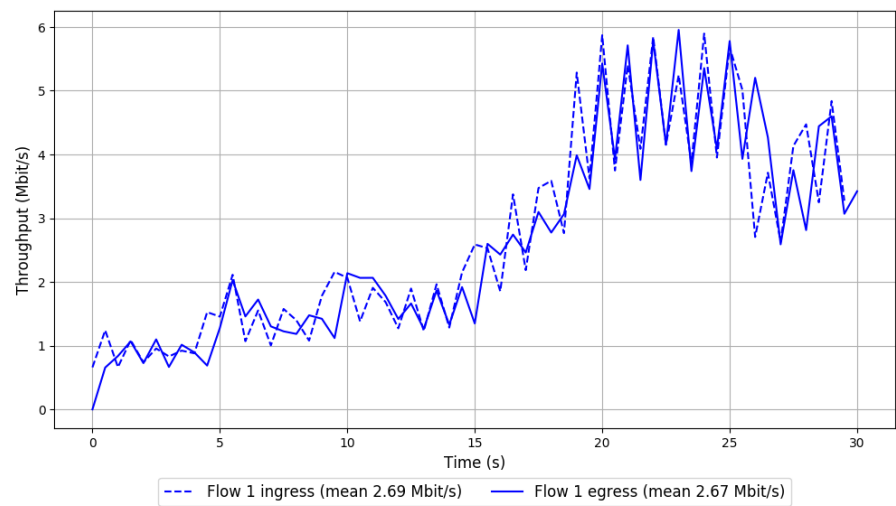


Run 3: Statistics of Sprout

Start at: 2019-01-21 22:12:54  
End at: 2019-01-21 22:13:24  
Local clock offset: -6.765 ms  
Remote clock offset: 1.269 ms

# Below is generated by plot.py at 2019-01-21 23:18:32  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.67 Mbit/s  
95th percentile per-packet one-way delay: 99.497 ms  
Loss rate: 1.01%  
-- Flow 1:  
Average throughput: 2.67 Mbit/s  
95th percentile per-packet one-way delay: 99.497 ms  
Loss rate: 1.01%

Run 3: Report of Sprout — Data Link

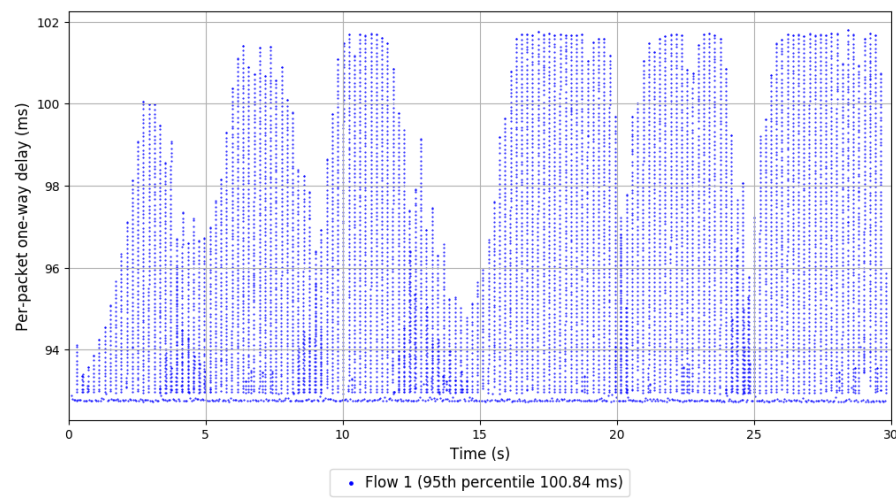
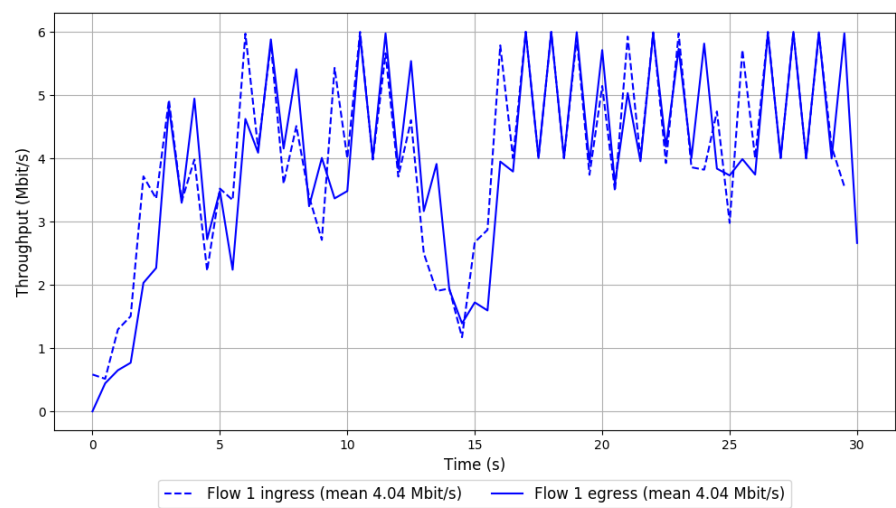


Run 4: Statistics of Sprout

Start at: 2019-01-21 22:37:53  
End at: 2019-01-21 22:38:23  
Local clock offset: -1.454 ms  
Remote clock offset: 6.678 ms

# Below is generated by plot.py at 2019-01-21 23:18:32  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 4.04 Mbit/s  
95th percentile per-packet one-way delay: 100.836 ms  
Loss rate: 0.45%  
-- Flow 1:  
Average throughput: 4.04 Mbit/s  
95th percentile per-packet one-way delay: 100.836 ms  
Loss rate: 0.45%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-01-21 23:02:52

End at: 2019-01-21 23:03:22

Local clock offset: -0.688 ms

Remote clock offset: 2.48 ms

# Below is generated by plot.py at 2019-01-21 23:18:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 106.921 ms

Loss rate: 0.79%

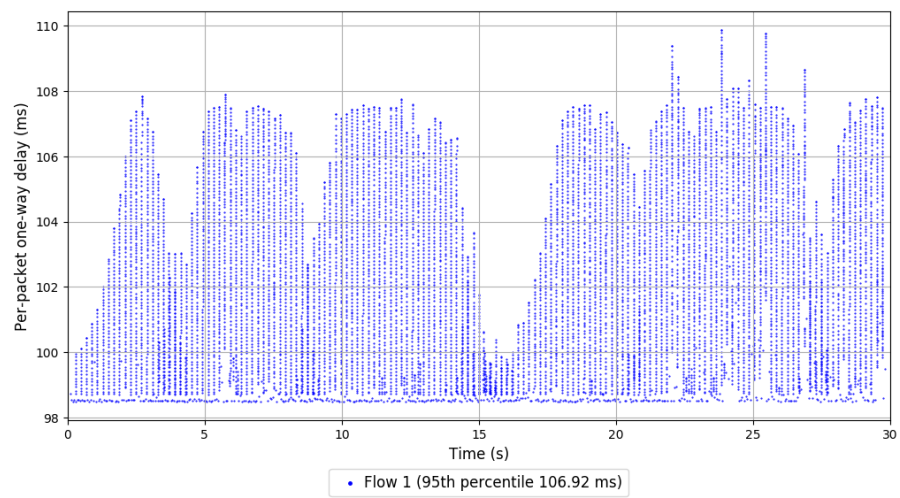
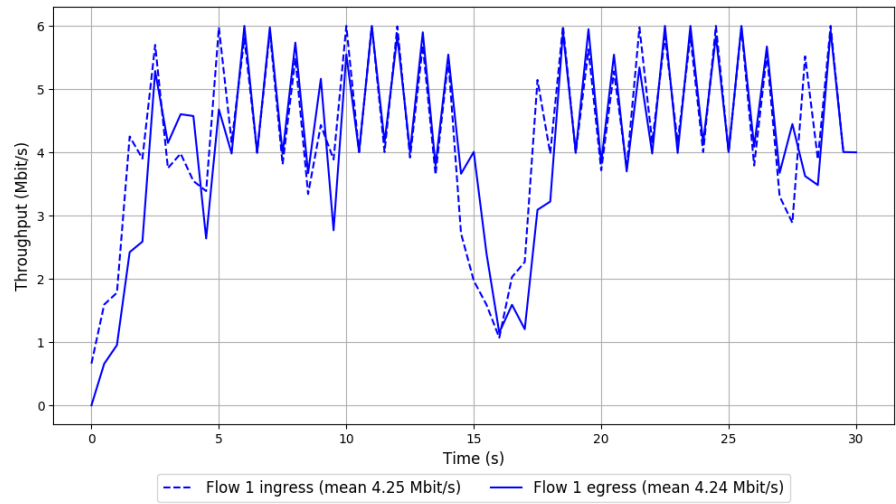
-- Flow 1:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 106.921 ms

Loss rate: 0.79%

## Run 5: Report of Sprout — Data Link





Run 1: Statistics of TaoVA-100x

Start at: 2019-01-21 21:24:03

End at: 2019-01-21 21:24:33

Local clock offset: -6.66 ms

Remote clock offset: 3.341 ms

# Below is generated by plot.py at 2019-01-21 23:19:33

# Datalink statistics

-- Total of 1 flow:

Average throughput: 71.87 Mbit/s

95th percentile per-packet one-way delay: 119.225 ms

Loss rate: 0.63%

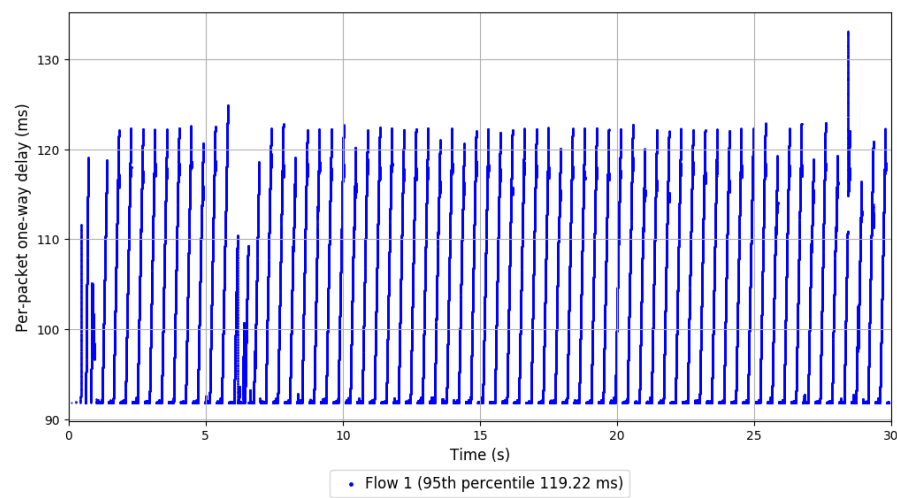
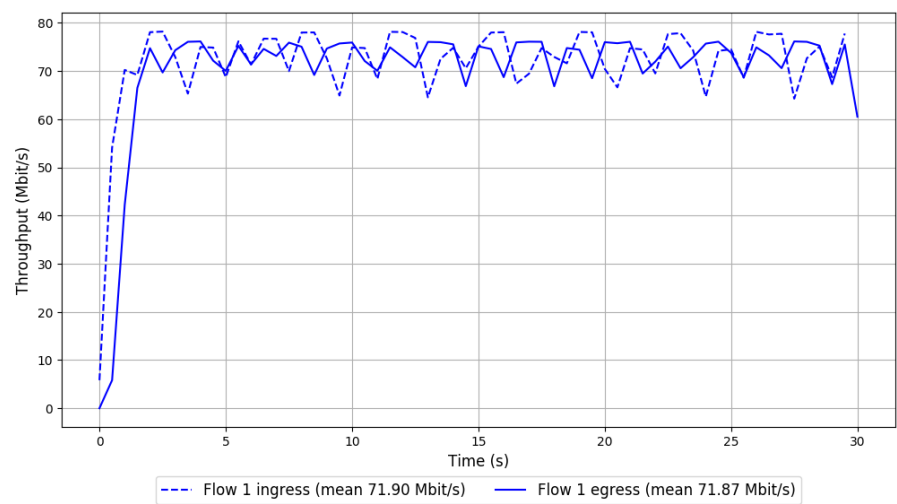
-- Flow 1:

Average throughput: 71.87 Mbit/s

95th percentile per-packet one-way delay: 119.225 ms

Loss rate: 0.63%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-01-21 21:49:02

End at: 2019-01-21 21:49:32

Local clock offset: -6.852 ms

Remote clock offset: 7.206 ms

# Below is generated by plot.py at 2019-01-21 23:19:33

# Datalink statistics

-- Total of 1 flow:

Average throughput: 70.43 Mbit/s

95th percentile per-packet one-way delay: 120.583 ms

Loss rate: 0.43%

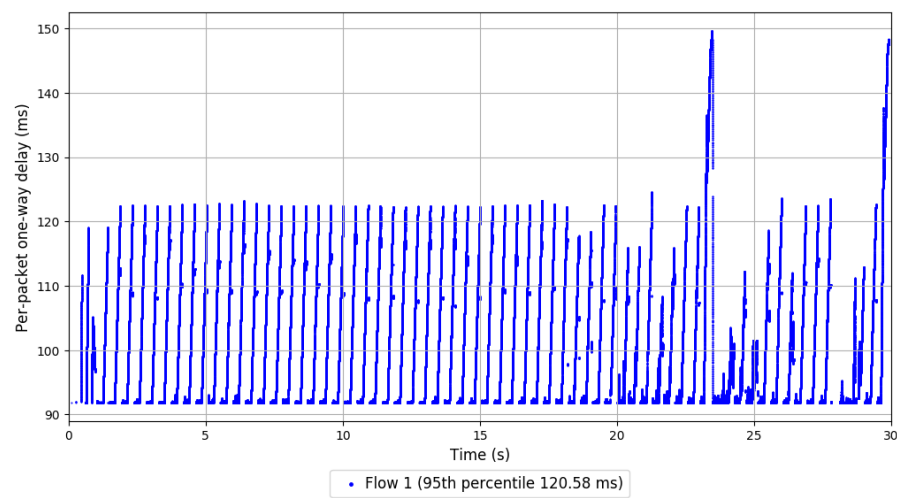
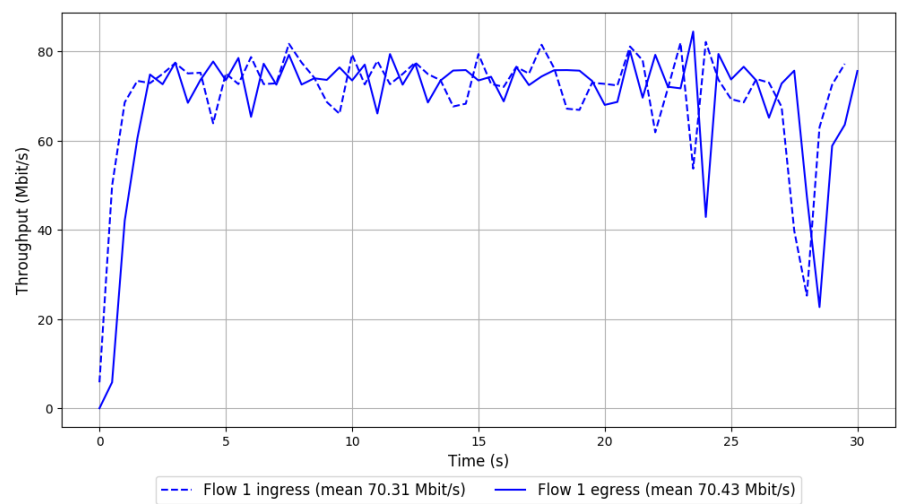
-- Flow 1:

Average throughput: 70.43 Mbit/s

95th percentile per-packet one-way delay: 120.583 ms

Loss rate: 0.43%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-01-21 22:14:02

End at: 2019-01-21 22:14:32

Local clock offset: -7.584 ms

Remote clock offset: 5.015 ms

# Below is generated by plot.py at 2019-01-21 23:19:35

# Datalink statistics

-- Total of 1 flow:

Average throughput: 73.07 Mbit/s

95th percentile per-packet one-way delay: 114.325 ms

Loss rate: 0.56%

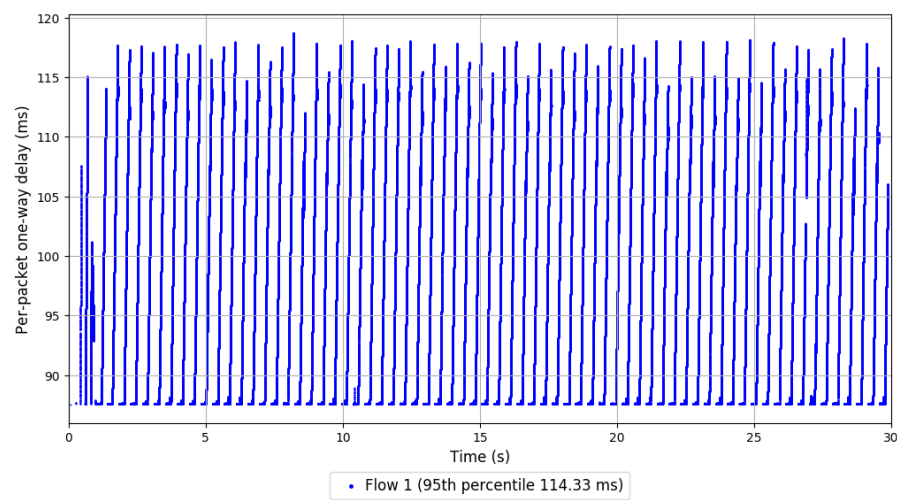
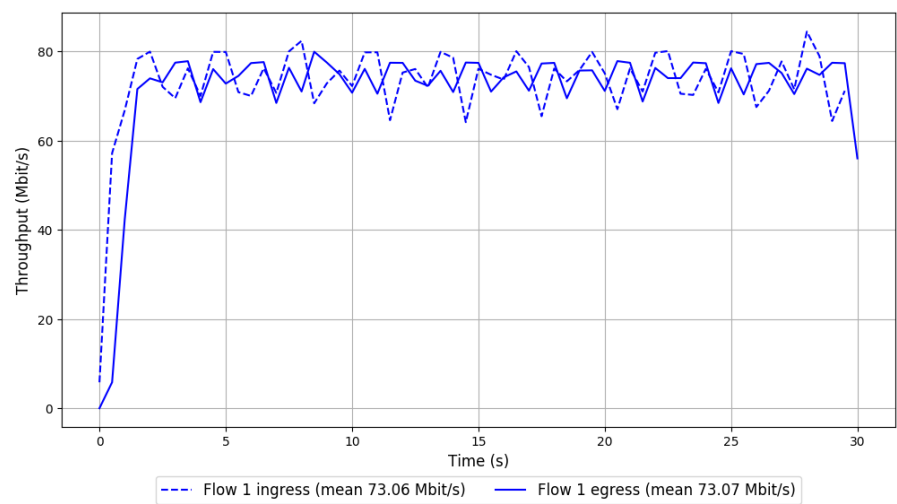
-- Flow 1:

Average throughput: 73.07 Mbit/s

95th percentile per-packet one-way delay: 114.325 ms

Loss rate: 0.56%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-01-21 22:39:01

End at: 2019-01-21 22:39:31

Local clock offset: -0.584 ms

Remote clock offset: 2.686 ms

# Below is generated by plot.py at 2019-01-21 23:19:37

# Datalink statistics

-- Total of 1 flow:

Average throughput: 72.70 Mbit/s

95th percentile per-packet one-way delay: 118.932 ms

Loss rate: 0.61%

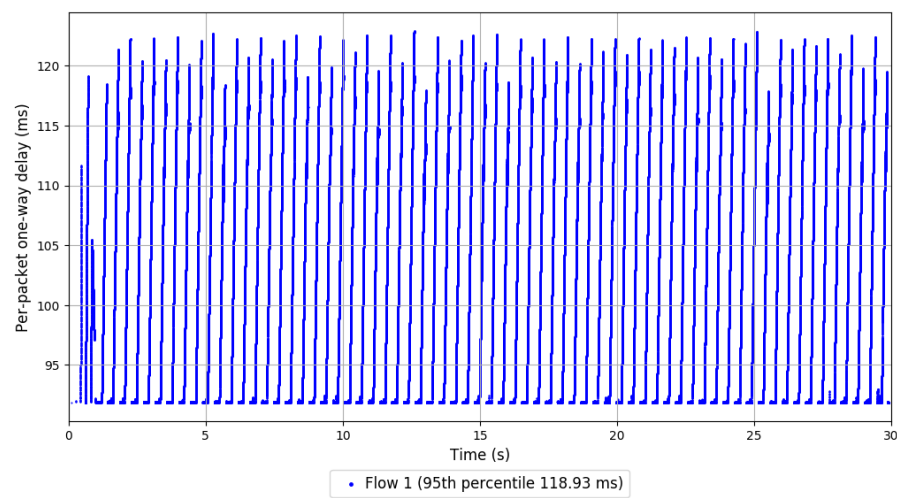
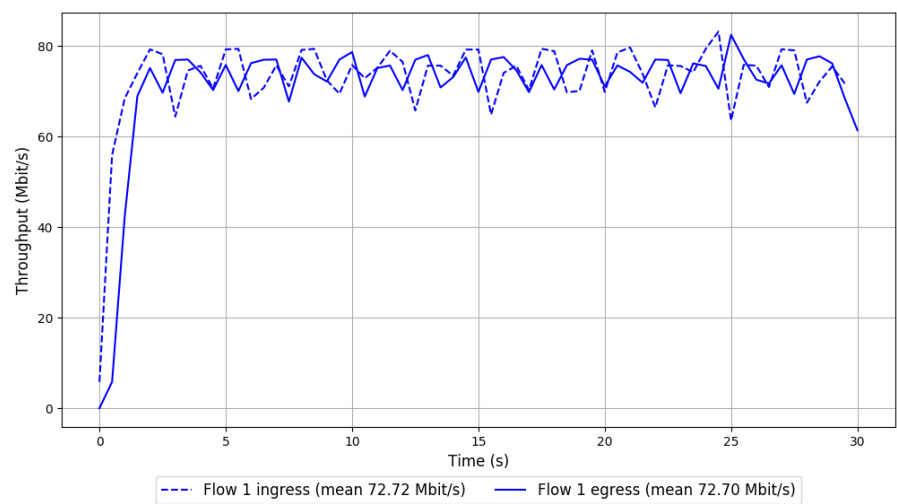
-- Flow 1:

Average throughput: 72.70 Mbit/s

95th percentile per-packet one-way delay: 118.932 ms

Loss rate: 0.61%

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





Run 5: Statistics of TaoVA-100x

Start at: 2019-01-21 23:04:01

End at: 2019-01-21 23:04:31

Local clock offset: -1.482 ms

Remote clock offset: 8.609 ms

# Below is generated by plot.py at 2019-01-21 23:19:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 71.72 Mbit/s

95th percentile per-packet one-way delay: 119.846 ms

Loss rate: 0.77%

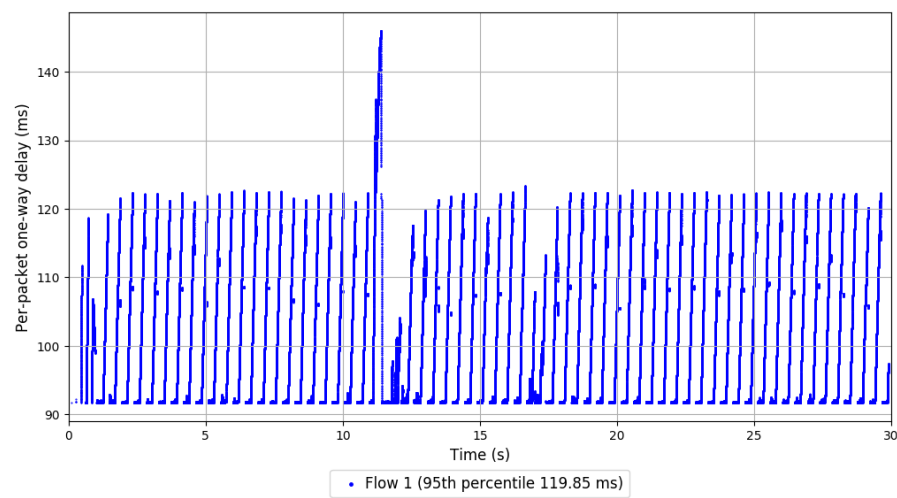
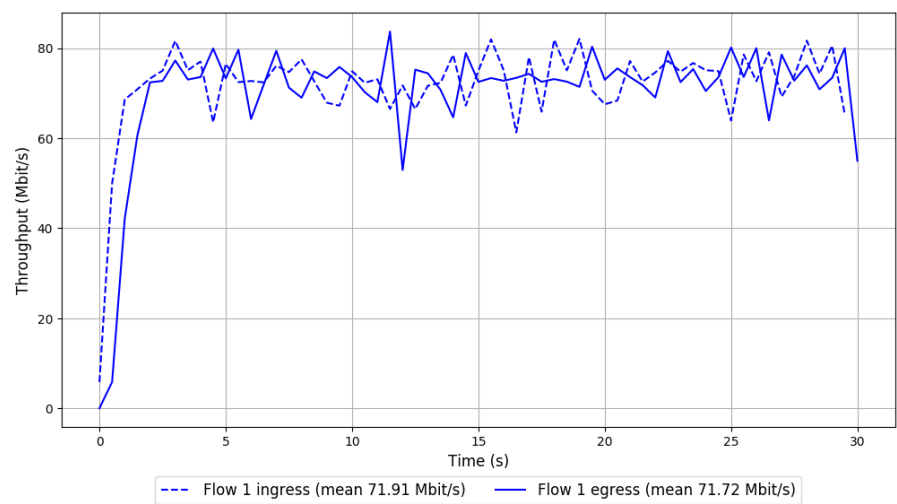
-- Flow 1:

Average throughput: 71.72 Mbit/s

95th percentile per-packet one-way delay: 119.846 ms

Loss rate: 0.77%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-01-21 21:16:58

End at: 2019-01-21 21:17:28

Local clock offset: -6.83 ms

Remote clock offset: 4.116 ms

# Below is generated by plot.py at 2019-01-21 23:19:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 37.94 Mbit/s

95th percentile per-packet one-way delay: 167.896 ms

Loss rate: 0.66%

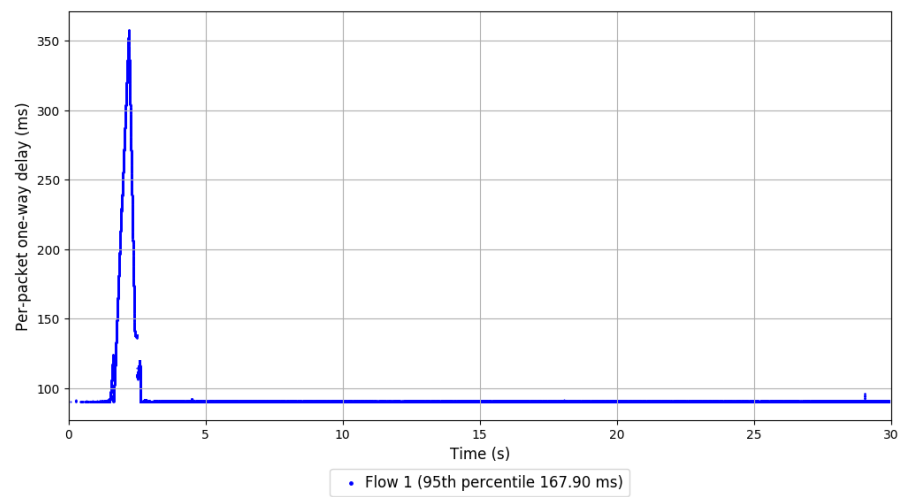
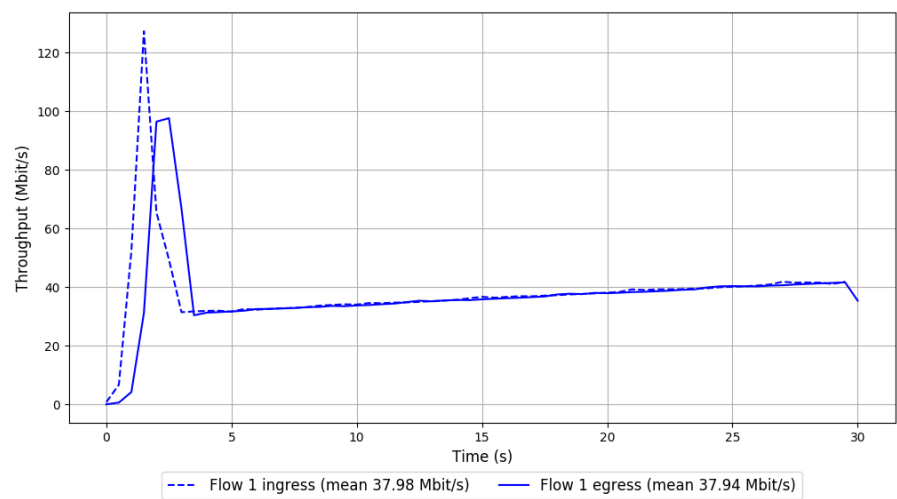
-- Flow 1:

Average throughput: 37.94 Mbit/s

95th percentile per-packet one-way delay: 167.896 ms

Loss rate: 0.66%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-01-21 21:41:58

End at: 2019-01-21 21:42:28

Local clock offset: -5.952 ms

Remote clock offset: 7.473 ms

# Below is generated by plot.py at 2019-01-21 23:19:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 37.80 Mbit/s

95th percentile per-packet one-way delay: 164.410 ms

Loss rate: 0.66%

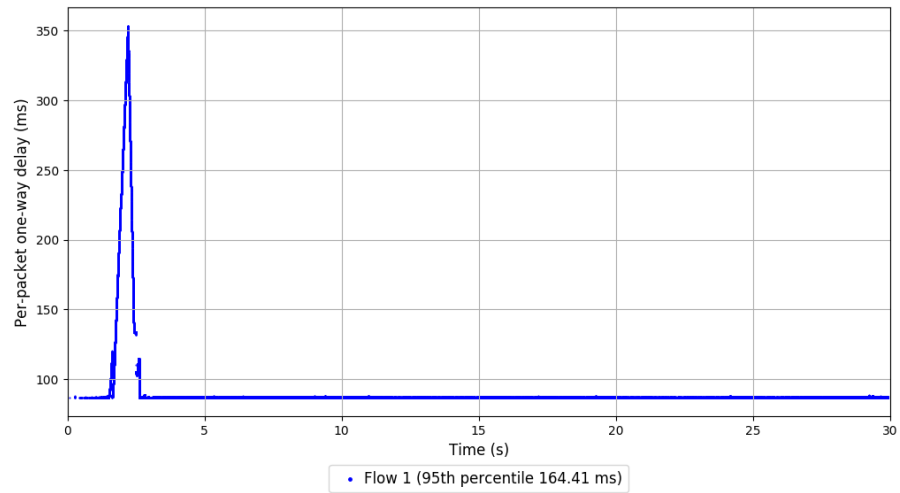
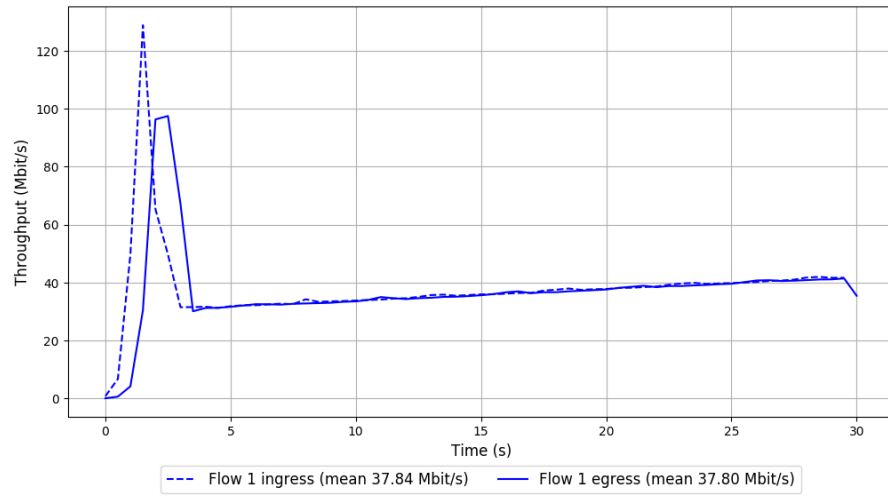
-- Flow 1:

Average throughput: 37.80 Mbit/s

95th percentile per-packet one-way delay: 164.410 ms

Loss rate: 0.66%

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



Run 3: Statistics of TCP Vegas

Start at: 2019-01-21 22:06:57

End at: 2019-01-21 22:07:27

Local clock offset: -6.601 ms

Remote clock offset: 2.319 ms

# Below is generated by plot.py at 2019-01-21 23:19:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 38.03 Mbit/s

95th percentile per-packet one-way delay: 168.191 ms

Loss rate: 0.66%

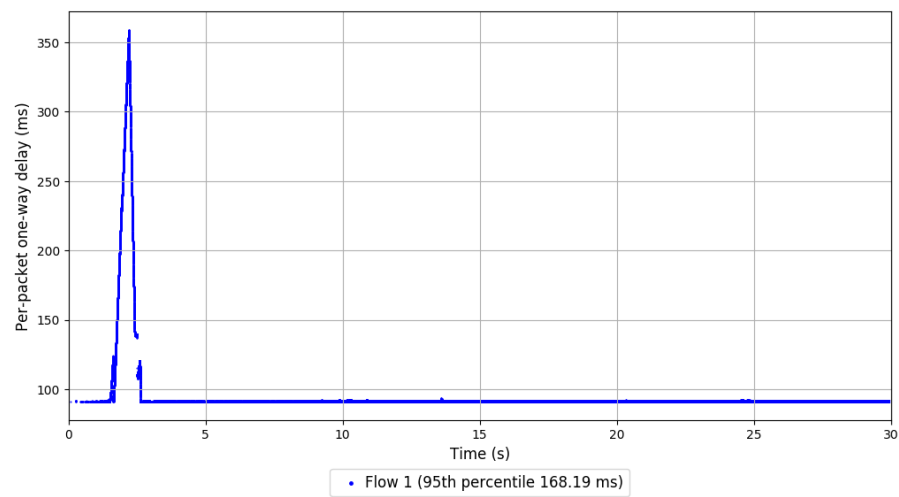
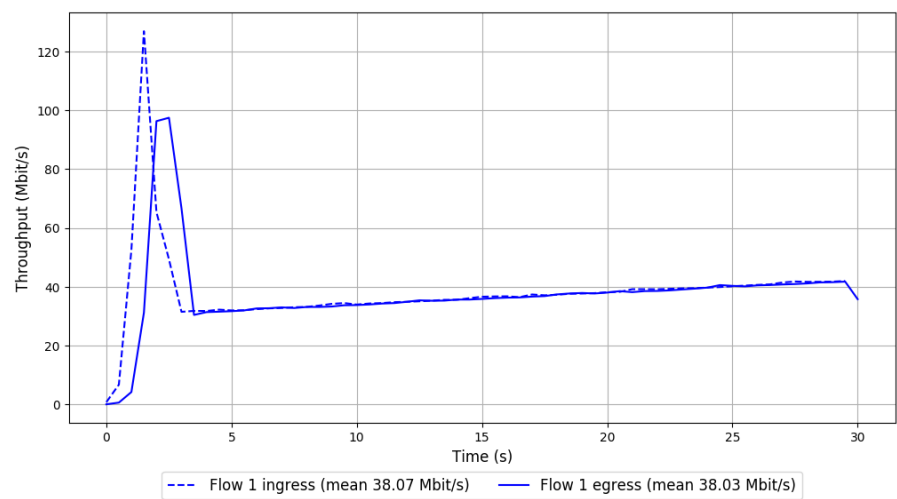
-- Flow 1:

Average throughput: 38.03 Mbit/s

95th percentile per-packet one-way delay: 168.191 ms

Loss rate: 0.66%

Run 3: Report of TCP Vegas — Data Link





Run 4: Statistics of TCP Vegas

Start at: 2019-01-21 22:31:56

End at: 2019-01-21 22:32:26

Local clock offset: -2.283 ms

Remote clock offset: 1.452 ms

# Below is generated by plot.py at 2019-01-21 23:19:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 38.01 Mbit/s

95th percentile per-packet one-way delay: 168.638 ms

Loss rate: 0.69%

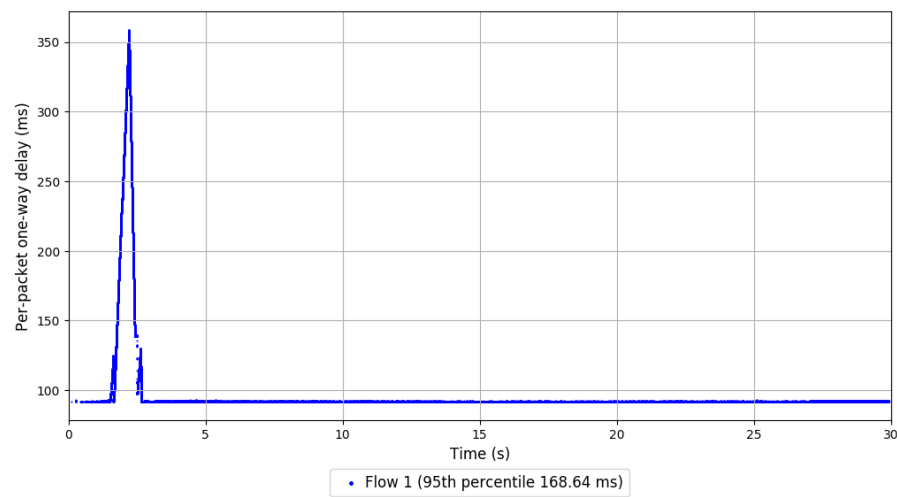
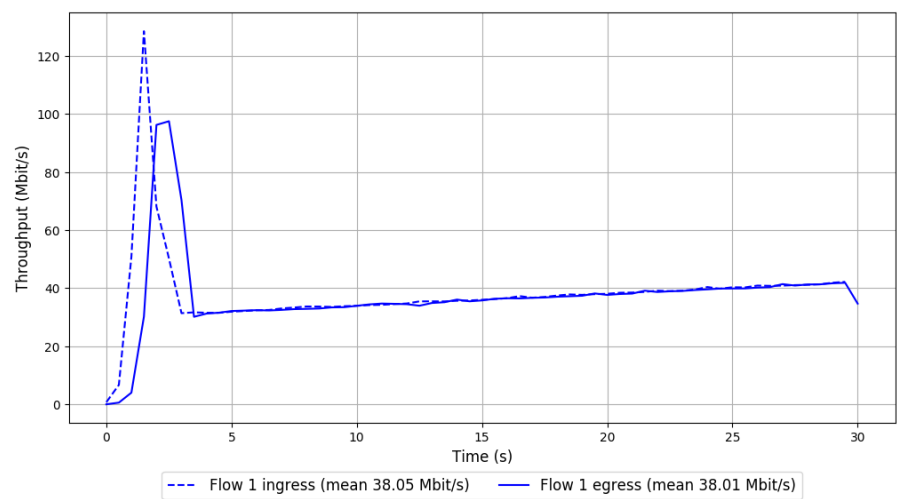
-- Flow 1:

Average throughput: 38.01 Mbit/s

95th percentile per-packet one-way delay: 168.638 ms

Loss rate: 0.69%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-01-21 22:56:54

End at: 2019-01-21 22:57:24

Local clock offset: -1.449 ms

Remote clock offset: 2.073 ms

# Below is generated by plot.py at 2019-01-21 23:19:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 64.98 Mbit/s

95th percentile per-packet one-way delay: 93.317 ms

Loss rate: 0.74%

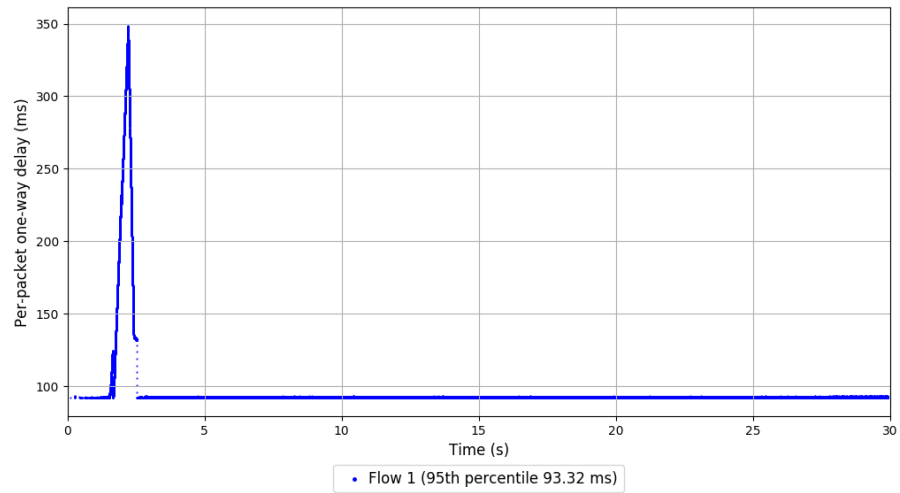
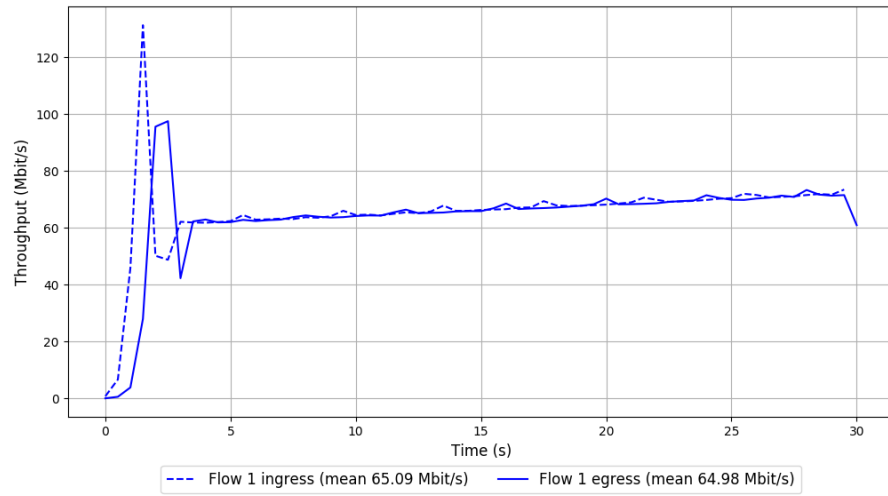
-- Flow 1:

Average throughput: 64.98 Mbit/s

95th percentile per-packet one-way delay: 93.317 ms

Loss rate: 0.74%

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



Run 1: Statistics of Verus

Start at: 2019-01-21 21:19:16

End at: 2019-01-21 21:19:46

Local clock offset: -6.724 ms

Remote clock offset: 2.957 ms

# Below is generated by plot.py at 2019-01-21 23:19:52

# Datalink statistics

-- Total of 1 flow:

Average throughput: 71.01 Mbit/s

95th percentile per-packet one-way delay: 296.539 ms

Loss rate: 1.05%

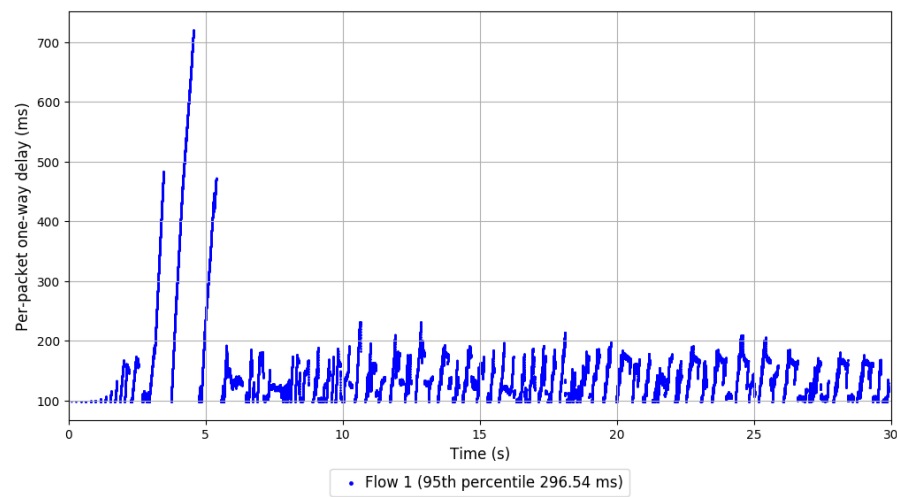
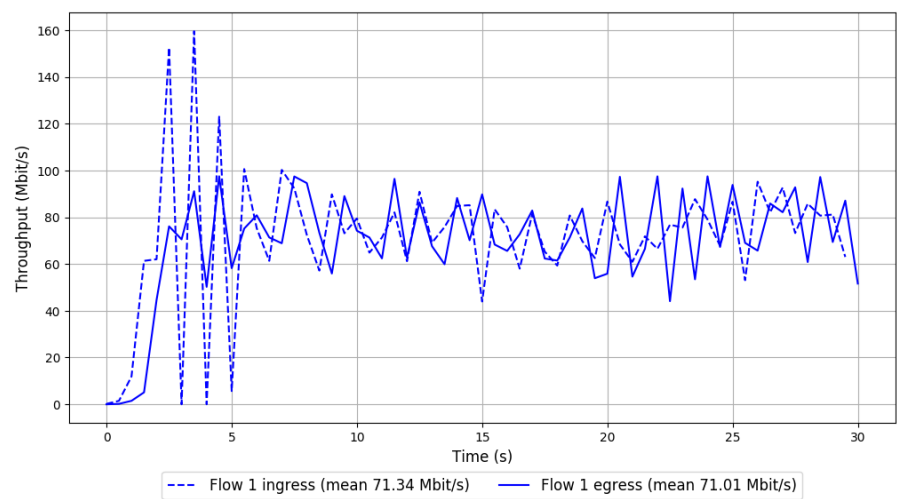
-- Flow 1:

Average throughput: 71.01 Mbit/s

95th percentile per-packet one-way delay: 296.539 ms

Loss rate: 1.05%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-01-21 21:44:16

End at: 2019-01-21 21:44:46

Local clock offset: -5.902 ms

Remote clock offset: 6.258 ms

# Below is generated by plot.py at 2019-01-21 23:19:52

# Datalink statistics

-- Total of 1 flow:

Average throughput: 49.34 Mbit/s

95th percentile per-packet one-way delay: 271.887 ms

Loss rate: 0.07%

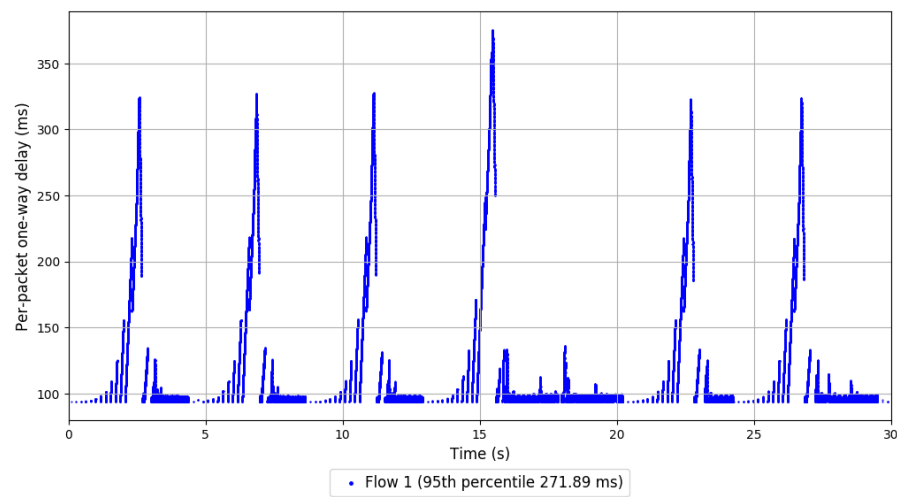
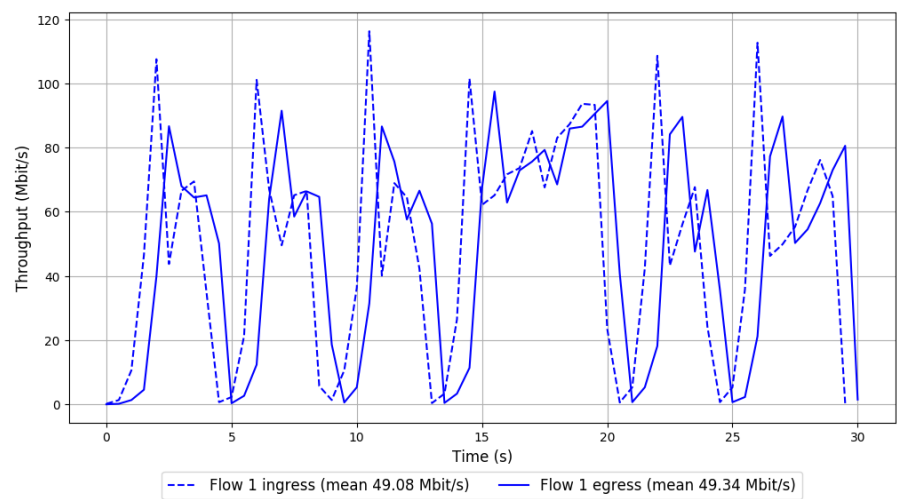
-- Flow 1:

Average throughput: 49.34 Mbit/s

95th percentile per-packet one-way delay: 271.887 ms

Loss rate: 0.07%

Run 2: Report of Verus — Data Link



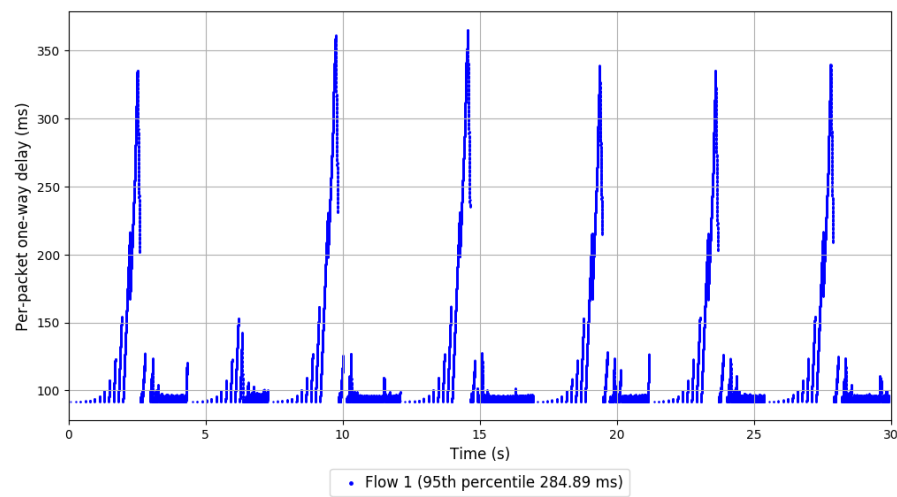
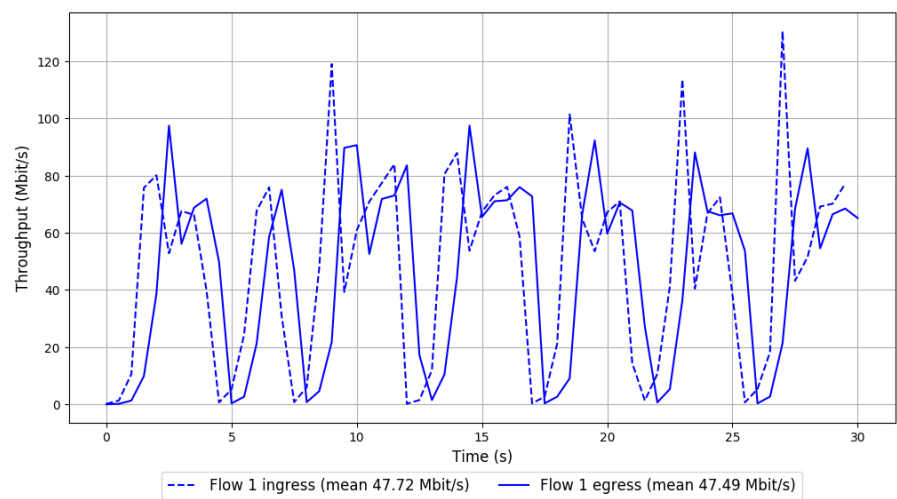


Run 3: Statistics of Verus

Start at: 2019-01-21 22:09:16  
End at: 2019-01-21 22:09:46  
Local clock offset: -6.655 ms  
Remote clock offset: 2.373 ms

# Below is generated by plot.py at 2019-01-21 23:20:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 47.49 Mbit/s  
95th percentile per-packet one-way delay: 284.889 ms  
Loss rate: 1.07%  
-- Flow 1:  
Average throughput: 47.49 Mbit/s  
95th percentile per-packet one-way delay: 284.889 ms  
Loss rate: 1.07%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-01-21 22:34:15

End at: 2019-01-21 22:34:45

Local clock offset: -1.895 ms

Remote clock offset: 5.126 ms

# Below is generated by plot.py at 2019-01-21 23:20:09

# Datalink statistics

-- Total of 1 flow:

Average throughput: 53.74 Mbit/s

95th percentile per-packet one-way delay: 281.300 ms

Loss rate: 0.65%

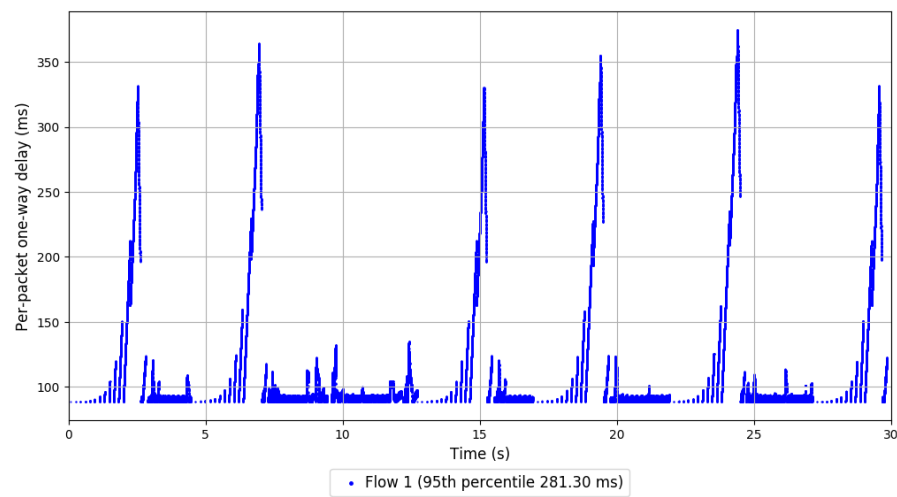
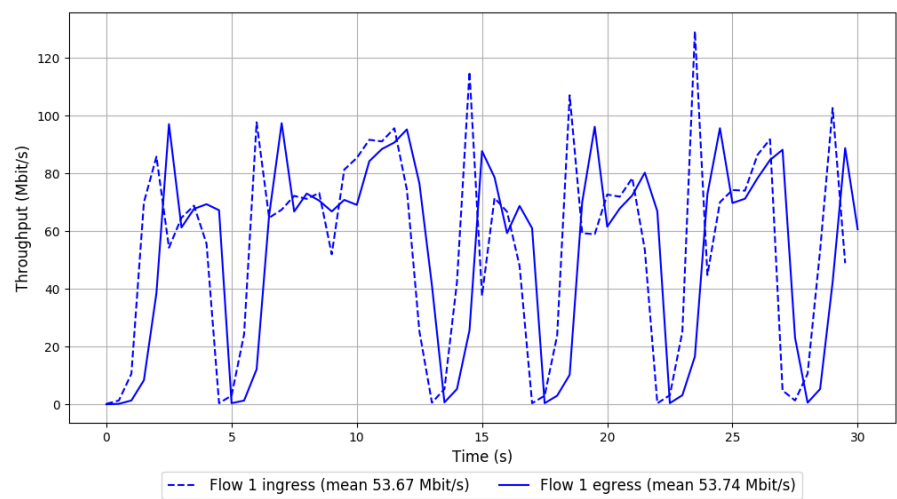
-- Flow 1:

Average throughput: 53.74 Mbit/s

95th percentile per-packet one-way delay: 281.300 ms

Loss rate: 0.65%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-01-21 22:59:14

End at: 2019-01-21 22:59:44

Local clock offset: -1.459 ms

Remote clock offset: 8.473 ms

# Below is generated by plot.py at 2019-01-21 23:20:09

# Datalink statistics

-- Total of 1 flow:

Average throughput: 47.14 Mbit/s

95th percentile per-packet one-way delay: 280.766 ms

Loss rate: 0.93%

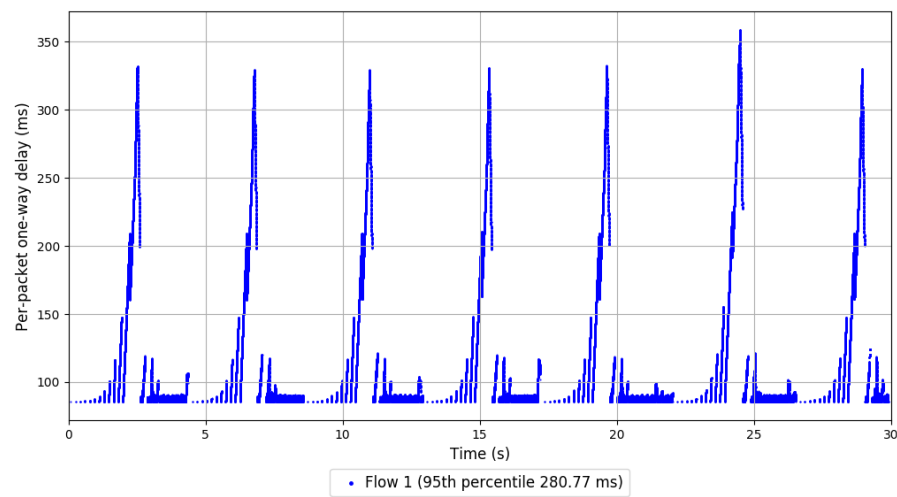
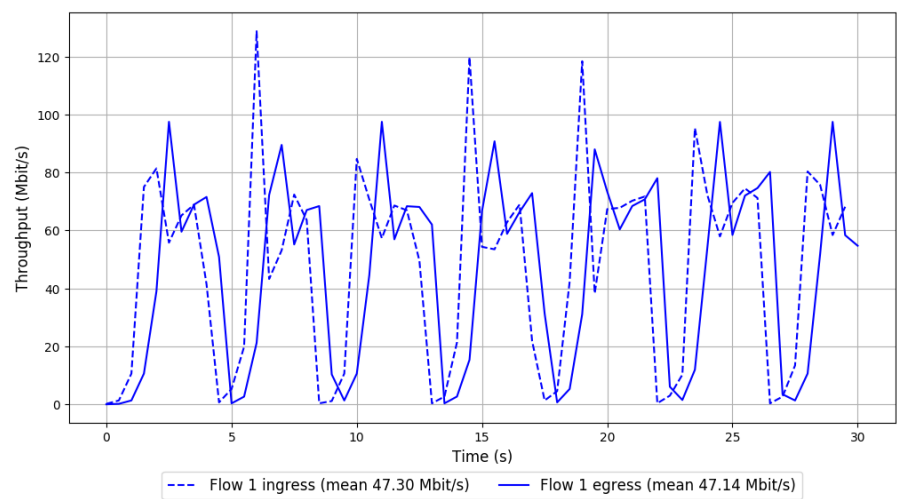
-- Flow 1:

Average throughput: 47.14 Mbit/s

95th percentile per-packet one-way delay: 280.766 ms

Loss rate: 0.93%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-01-21 21:05:03

End at: 2019-01-21 21:05:33

Local clock offset: -6.048 ms

Remote clock offset: 2.582 ms

# Below is generated by plot.py at 2019-01-21 23:20:28

# Datalink statistics

-- Total of 1 flow:

Average throughput: 75.26 Mbit/s

95th percentile per-packet one-way delay: 127.477 ms

Loss rate: 0.75%

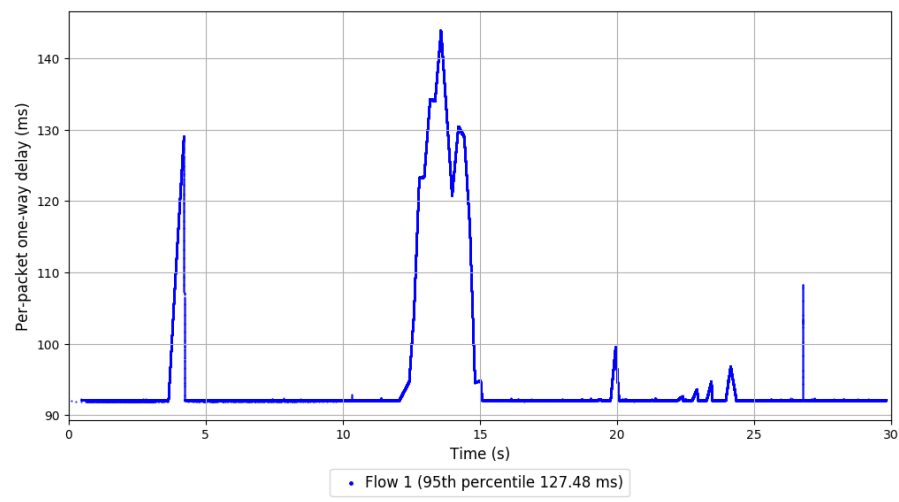
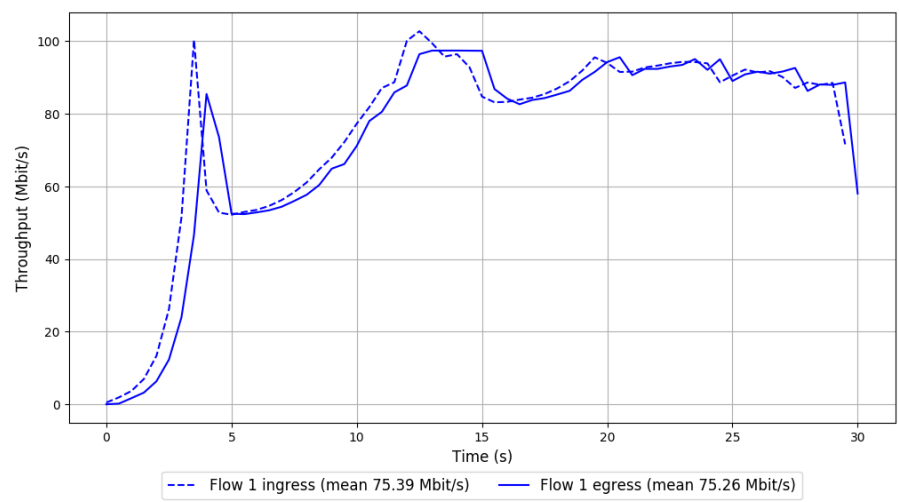
-- Flow 1:

Average throughput: 75.26 Mbit/s

95th percentile per-packet one-way delay: 127.477 ms

Loss rate: 0.75%

Run 1: Report of PCC-Vivace — Data Link





Run 2: Statistics of PCC-Vivace

Start at: 2019-01-21 21:30:03

End at: 2019-01-21 21:30:33

Local clock offset: -5.805 ms

Remote clock offset: 2.499 ms

# Below is generated by plot.py at 2019-01-21 23:20:29

# Datalink statistics

-- Total of 1 flow:

Average throughput: 74.93 Mbit/s

95th percentile per-packet one-way delay: 131.857 ms

Loss rate: 0.86%

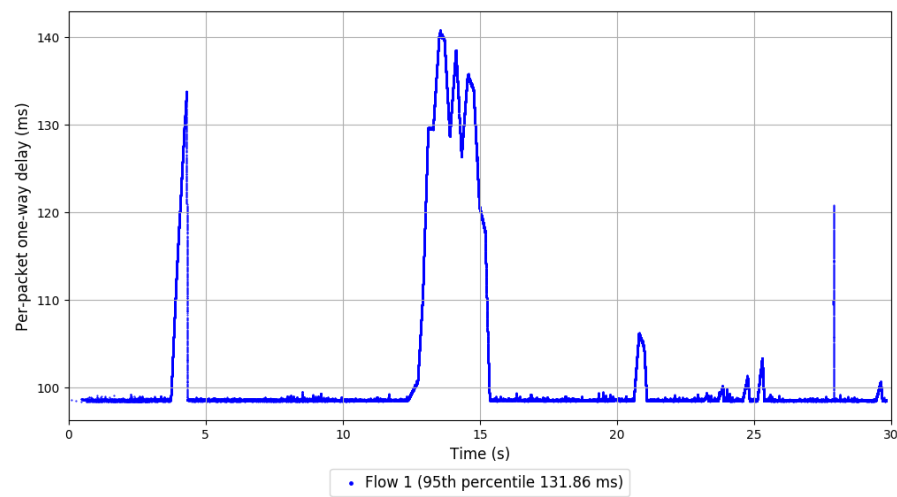
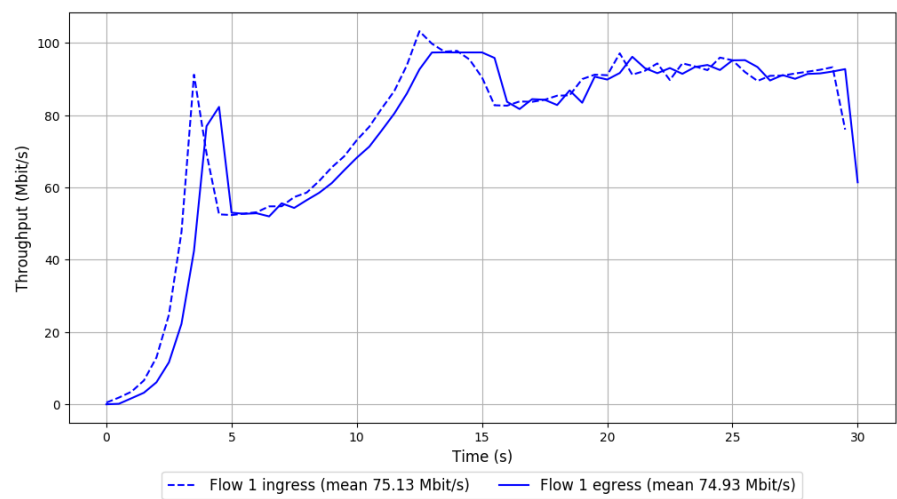
-- Flow 1:

Average throughput: 74.93 Mbit/s

95th percentile per-packet one-way delay: 131.857 ms

Loss rate: 0.86%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-01-21 21:55:02

End at: 2019-01-21 21:55:32

Local clock offset: -7.034 ms

Remote clock offset: 0.791 ms

# Below is generated by plot.py at 2019-01-21 23:20:33

# Datalink statistics

-- Total of 1 flow:

Average throughput: 76.68 Mbit/s

95th percentile per-packet one-way delay: 102.796 ms

Loss rate: 0.73%

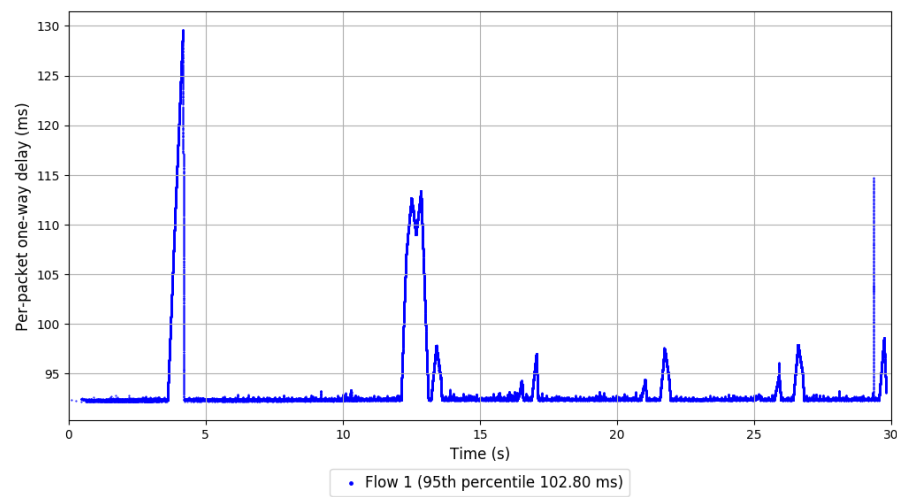
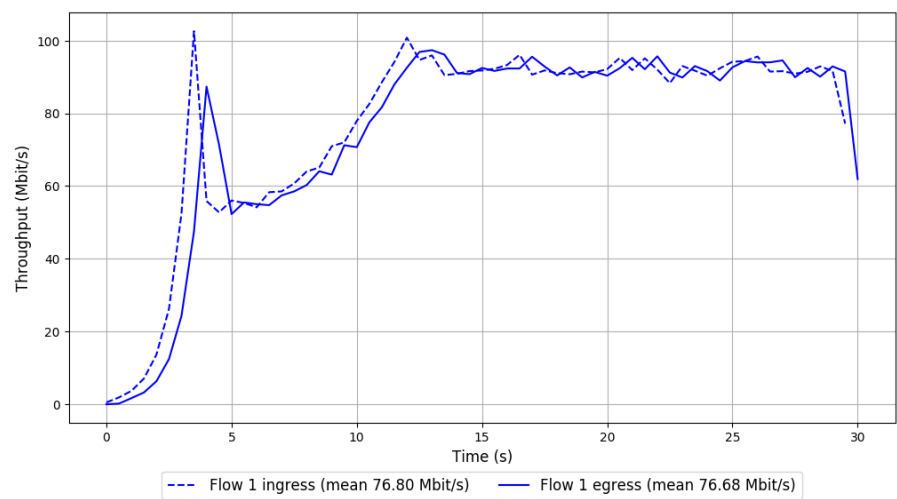
-- Flow 1:

Average throughput: 76.68 Mbit/s

95th percentile per-packet one-way delay: 102.796 ms

Loss rate: 0.73%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-01-21 22:20:01

End at: 2019-01-21 22:20:31

Local clock offset: -4.661 ms

Remote clock offset: 1.367 ms

# Below is generated by plot.py at 2019-01-21 23:20:33

# Datalink statistics

-- Total of 1 flow:

Average throughput: 75.38 Mbit/s

95th percentile per-packet one-way delay: 127.585 ms

Loss rate: 0.76%

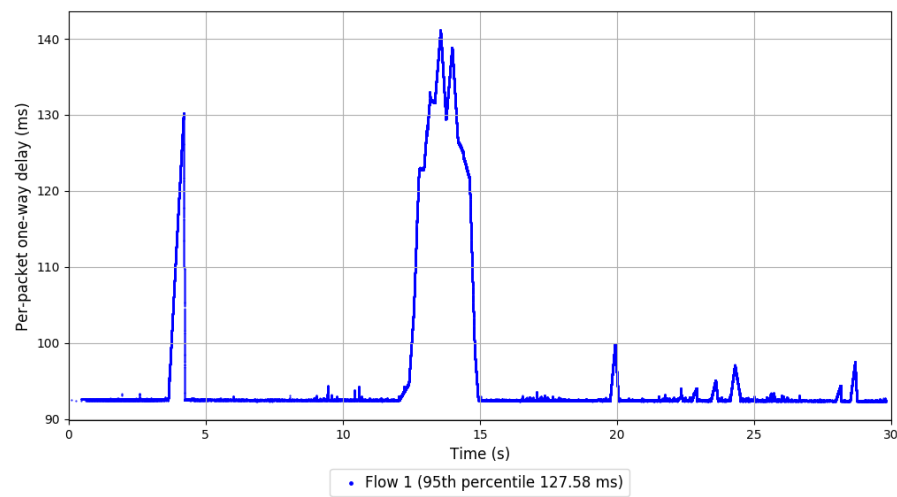
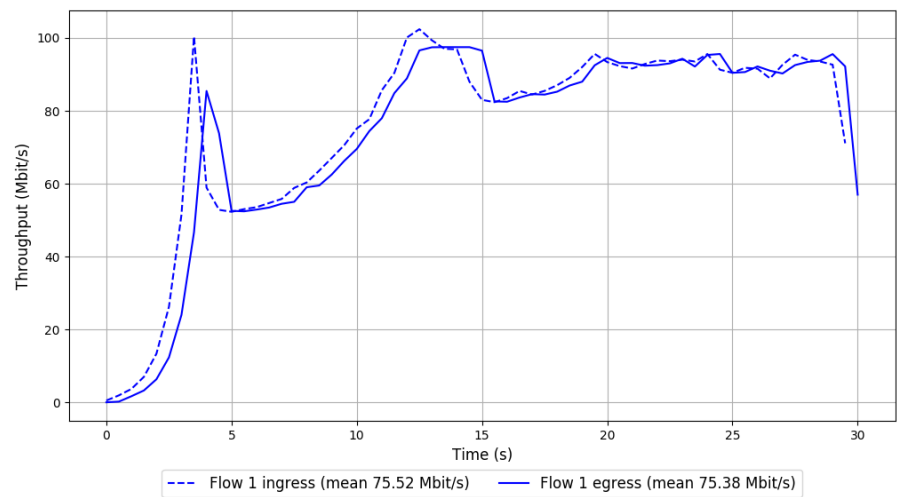
-- Flow 1:

Average throughput: 75.38 Mbit/s

95th percentile per-packet one-way delay: 127.585 ms

Loss rate: 0.76%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-01-21 22:45:00

End at: 2019-01-21 22:45:30

Local clock offset: -0.832 ms

Remote clock offset: 7.179 ms

# Below is generated by plot.py at 2019-01-21 23:20:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 76.60 Mbit/s

95th percentile per-packet one-way delay: 96.379 ms

Loss rate: 0.75%

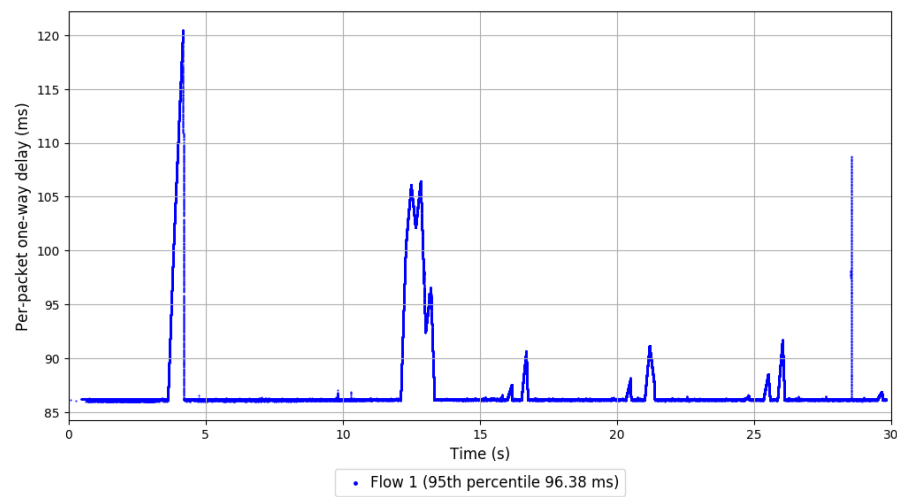
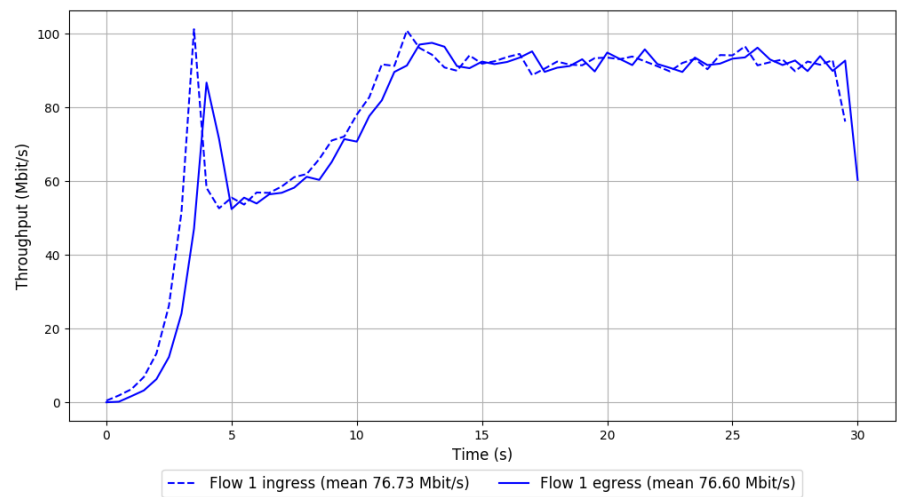
-- Flow 1:

Average throughput: 76.60 Mbit/s

95th percentile per-packet one-way delay: 96.379 ms

Loss rate: 0.75%

Run 5: Report of PCC-Vivace — Data Link





Run 1: Statistics of WebRTC media

Start at: 2019-01-21 21:12:15

End at: 2019-01-21 21:12:45

Local clock offset: -6.068 ms

Remote clock offset: 3.965 ms

# Below is generated by plot.py at 2019-01-21 23:20:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 92.075 ms

Loss rate: 0.29%

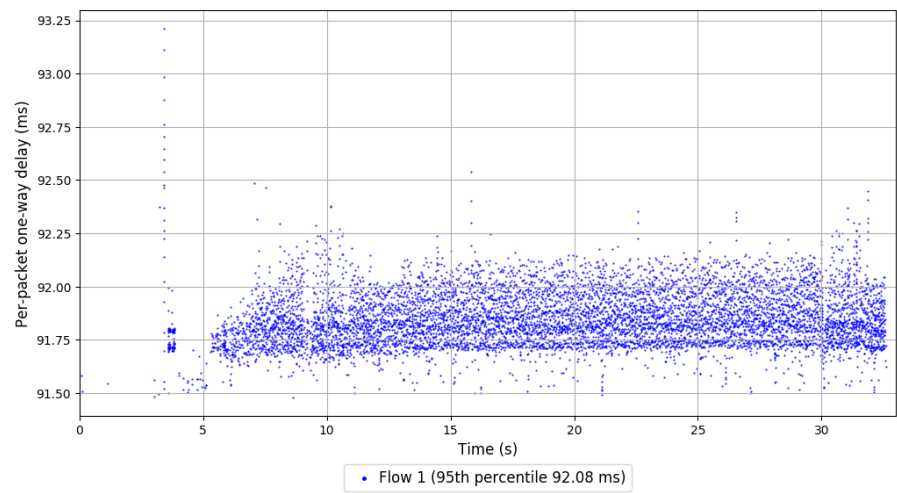
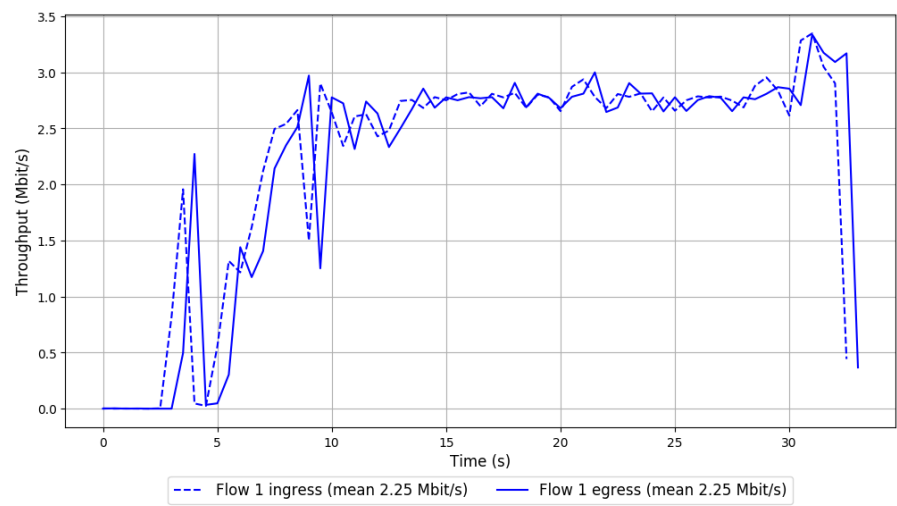
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 92.075 ms

Loss rate: 0.29%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-01-21 21:37:15

End at: 2019-01-21 21:37:45

Local clock offset: -5.895 ms

Remote clock offset: 5.622 ms

# Below is generated by plot.py at 2019-01-21 23:20:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 88.587 ms

Loss rate: 0.33%

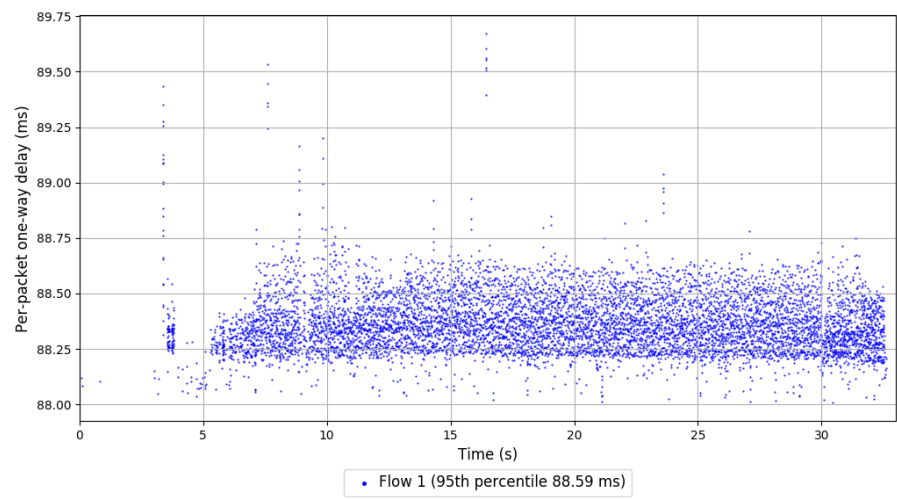
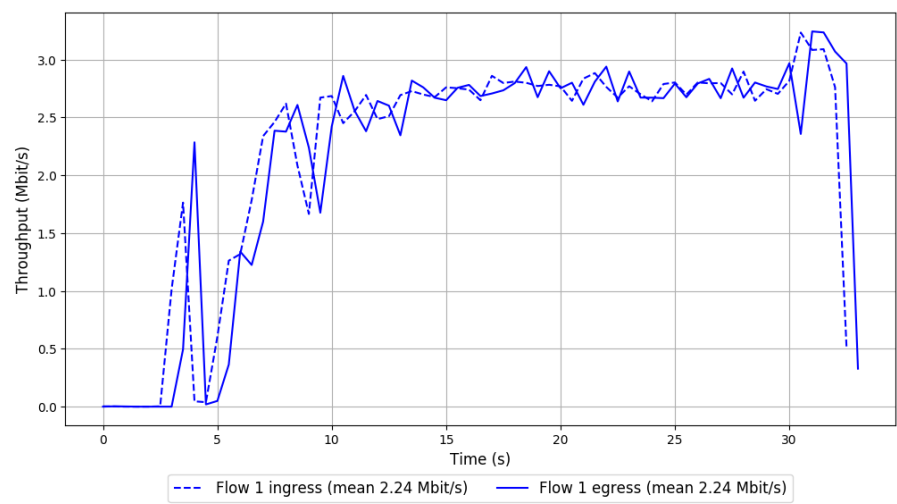
-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 88.587 ms

Loss rate: 0.33%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-01-21 22:02:14

End at: 2019-01-21 22:02:44

Local clock offset: -6.483 ms

Remote clock offset: 1.982 ms

# Below is generated by plot.py at 2019-01-21 23:20:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 92.281 ms

Loss rate: 0.37%

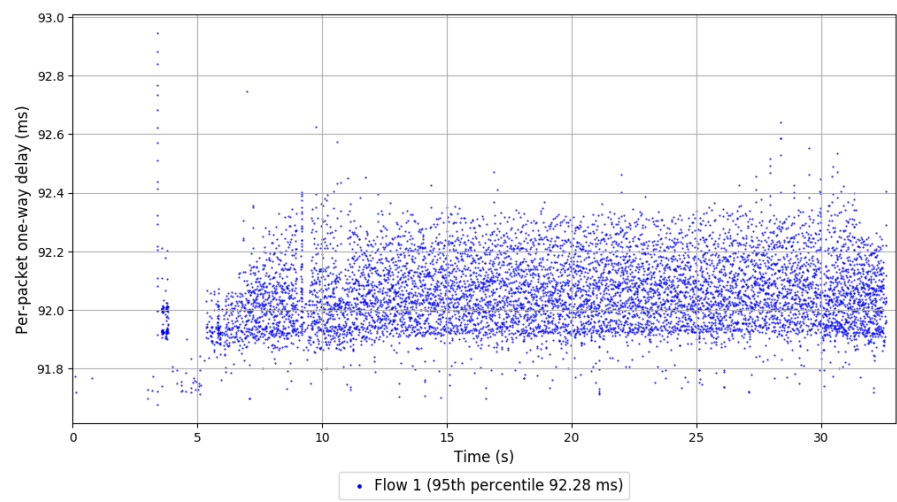
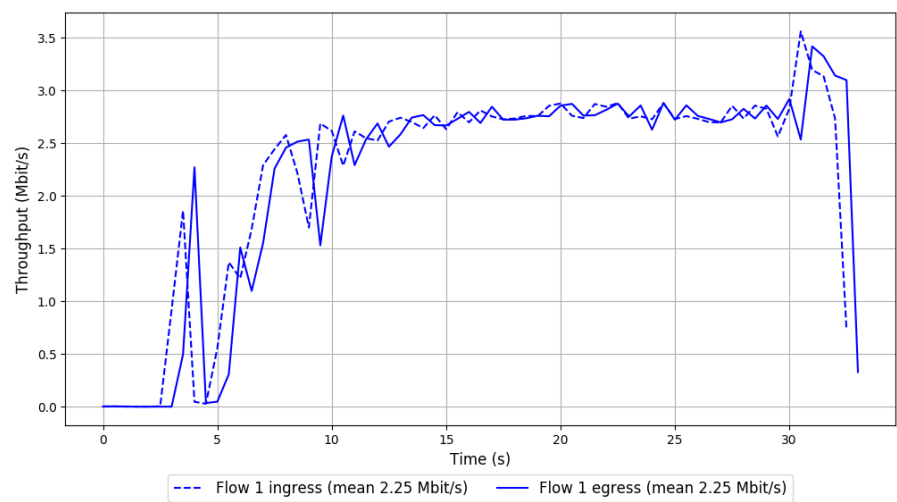
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 92.281 ms

Loss rate: 0.37%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-01-21 22:27:13

End at: 2019-01-21 22:27:43

Local clock offset: -2.361 ms

Remote clock offset: 7.565 ms

# Below is generated by plot.py at 2019-01-21 23:20:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 86.970 ms

Loss rate: 0.39%

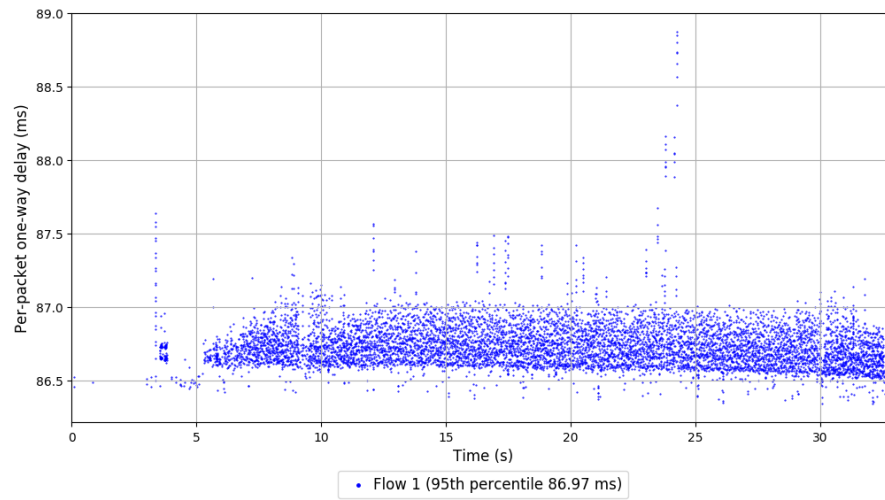
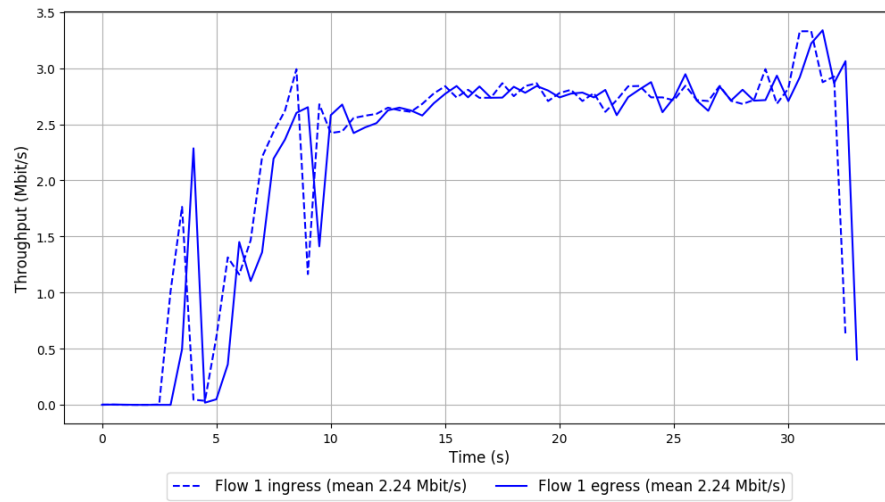
-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 86.970 ms

Loss rate: 0.39%

#### Run 4: Report of WebRTC media — Data Link





Run 5: Statistics of WebRTC media

Start at: 2019-01-21 22:52:11

End at: 2019-01-21 22:52:41

Local clock offset: -0.544 ms

Remote clock offset: 2.159 ms

# Below is generated by plot.py at 2019-01-21 23:20:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 93.275 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 93.275 ms

Loss rate: 0.34%

### Run 5: Report of WebRTC media — Data Link

