

## Pantheon Report

Generated at 2019-06-28 15:17:12 (UTC).

Data path: Stanford on `eno1` (*remote*) → AWS California 1 on `ens5` (*local*).

Repeated the test of 22 congestion control schemes 5 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

### System info:

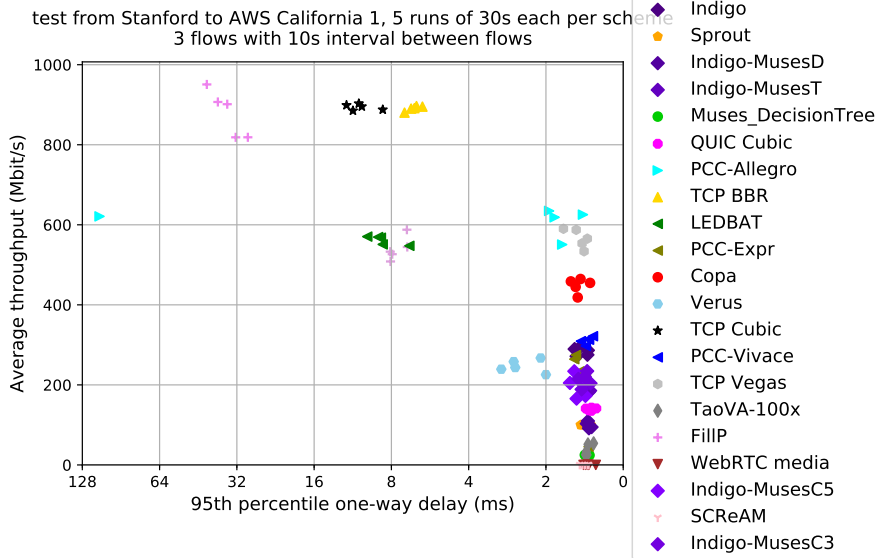
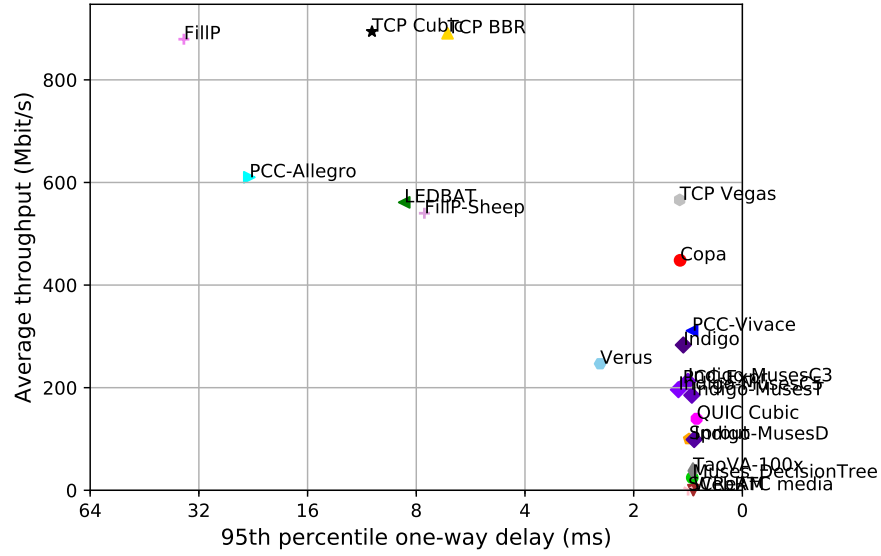
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
M helpers/__init__.pyc
M helpers/context.pyc
M helpers/utils.pyc
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 Stanford to AWS California 1, 5 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	512.09	404.27	329.37	6.40	5.71	6.29	0.01	0.02	0.06
Copa	5	263.19	212.49	131.32	1.21	1.02	0.92	0.00	0.01	0.01
TCP Cubic	5	519.57	402.08	320.33	11.15	7.90	7.88	0.03	0.03	0.08
FillP	5	513.81	401.84	296.27	33.98	35.48	28.44	0.12	0.18	0.14
FillP-Sheep	5	406.05	177.30	49.28	8.03	4.05	2.46	0.00	0.00	0.00
Indigo	5	153.05	137.59	117.94	1.02	1.12	1.19	0.00	0.01	0.01
Indigo-MusesC3	5	150.93	82.46	39.84	1.00	1.03	0.92	0.00	0.00	0.05
Indigo-MusesC5	5	125.19	98.21	36.80	1.13	1.28	0.88	0.00	0.00	0.01
Indigo-MusesD	5	63.29	36.11	49.93	0.89	0.87	0.87	0.00	0.00	0.01
Indigo-MusesT	5	136.08	64.54	35.59	0.92	0.96	0.86	0.00	0.00	0.06
LEDBAT	5	338.87	248.12	178.32	9.53	3.91	2.26	0.00	0.00	0.02
Muses_DecisionTree	5	12.66	12.41	11.82	0.92	0.92	0.91	0.00	0.00	0.02
PCC-Allegro	5	492.86	124.82	104.25	23.40	1.53	1.32	0.04	0.01	0.02
PCC-Expr	5	157.64	35.75	82.19	1.14	0.94	0.96	0.00	0.01	0.02
QUIC Cubic	5	75.06	68.47	56.71	0.84	0.83	0.82	0.00	0.01	0.01
SCReAM	5	0.22	0.22	0.22	1.00	0.99	0.98	0.00	0.00	0.07
Sprout	5	50.25	50.14	49.91	0.98	0.99	0.98	0.01	0.00	0.00
TaoVA-100x	5	24.76	14.95	9.80	0.91	0.91	0.91	0.01	0.00	0.04
TCP Vegas	5	291.56	277.97	268.96	1.11	1.43	1.76	0.01	0.01	0.01
Verus	5	161.17	88.23	81.29	2.59	2.34	1.39	0.00	0.00	0.01
PCC-Vivace	5	203.75	121.48	80.36	0.88	0.98	1.10	0.07	0.01	0.04
WebRTC media	5	0.05	0.05	0.05	0.90	0.88	0.95	0.00	0.02	0.00



Run 1: Statistics of TCP BBR

Start at: 2019-06-28 11:42:47

End at: 2019-06-28 11:43:17

Local clock offset: 2.042 ms

Remote clock offset: 1.52 ms

# Below is generated by plot.py at 2019-06-28 14:26:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 891.51 Mbit/s

95th percentile per-packet one-way delay: 6.509 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 513.30 Mbit/s

95th percentile per-packet one-way delay: 5.304 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 404.20 Mbit/s

95th percentile per-packet one-way delay: 5.547 ms

Loss rate: 0.02%

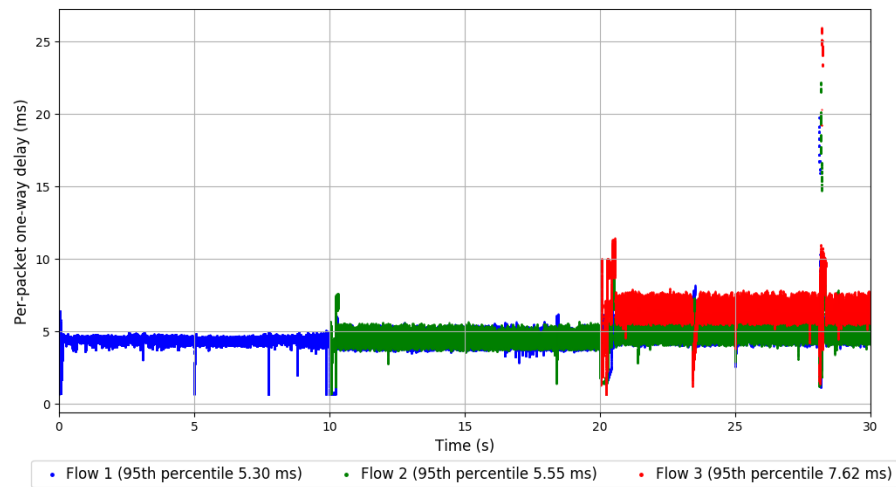
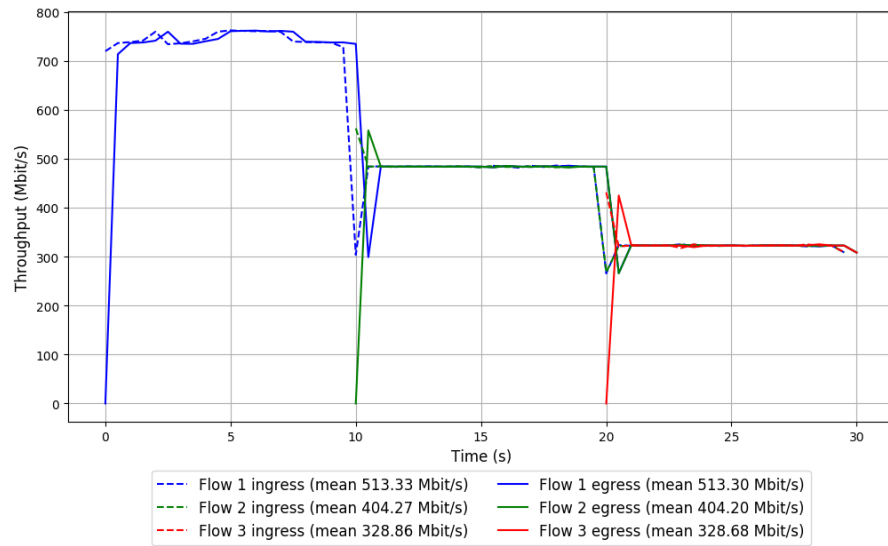
-- Flow 3:

Average throughput: 328.68 Mbit/s

95th percentile per-packet one-way delay: 7.623 ms

Loss rate: 0.07%

## Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-06-28 12:14:31

End at: 2019-06-28 12:15:01

Local clock offset: 0.391 ms

Remote clock offset: 3.327 ms

# Below is generated by plot.py at 2019-06-28 14:26:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 896.58 Mbit/s

95th percentile per-packet one-way delay: 6.388 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 518.08 Mbit/s

95th percentile per-packet one-way delay: 6.366 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 404.36 Mbit/s

95th percentile per-packet one-way delay: 6.319 ms

Loss rate: 0.02%

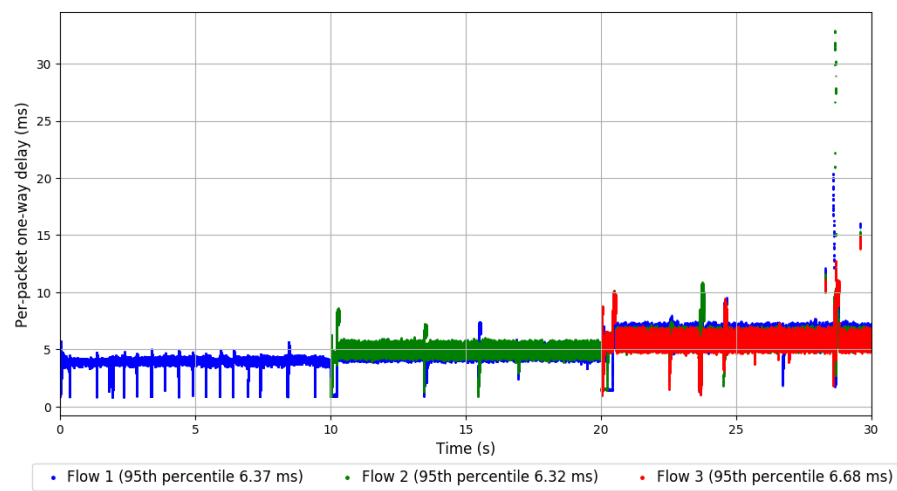
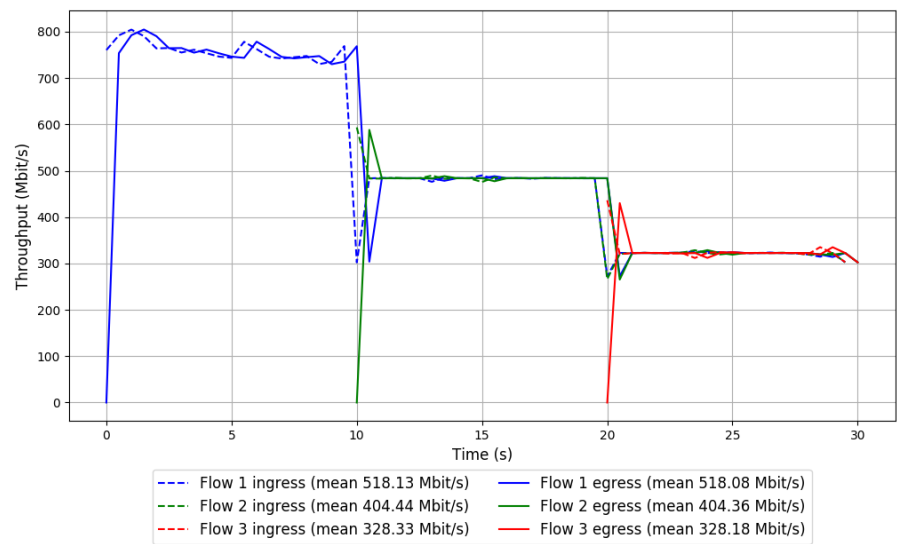
-- Flow 3:

Average throughput: 328.18 Mbit/s

95th percentile per-packet one-way delay: 6.684 ms

Loss rate: 0.06%

Run 2: Report of TCP BBR — Data Link

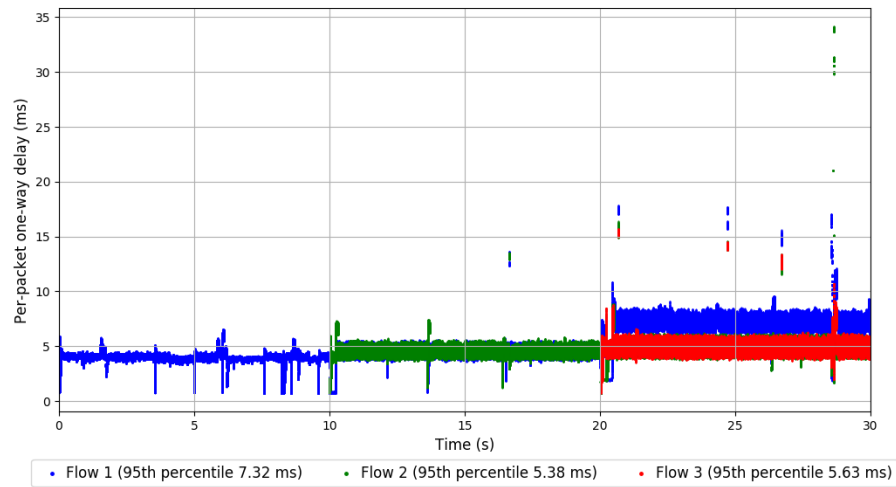
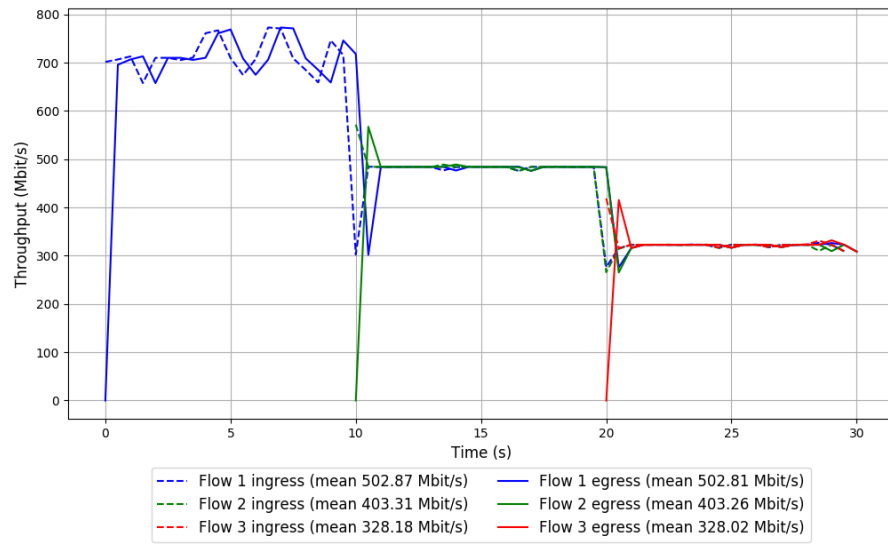


Run 3: Statistics of TCP BBR

Start at: 2019-06-28 12:46:17  
End at: 2019-06-28 12:46:47  
Local clock offset: 1.2 ms  
Remote clock offset: -5.165 ms

# Below is generated by plot.py at 2019-06-28 14:26:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 880.29 Mbit/s  
95th percentile per-packet one-way delay: 7.111 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 502.81 Mbit/s  
95th percentile per-packet one-way delay: 7.319 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 403.26 Mbit/s  
95th percentile per-packet one-way delay: 5.385 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 328.02 Mbit/s  
95th percentile per-packet one-way delay: 5.631 ms  
Loss rate: 0.06%

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

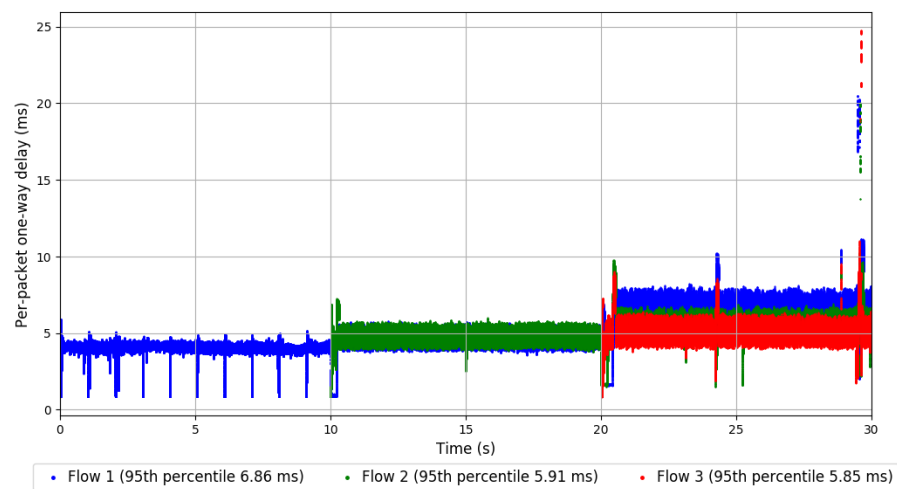
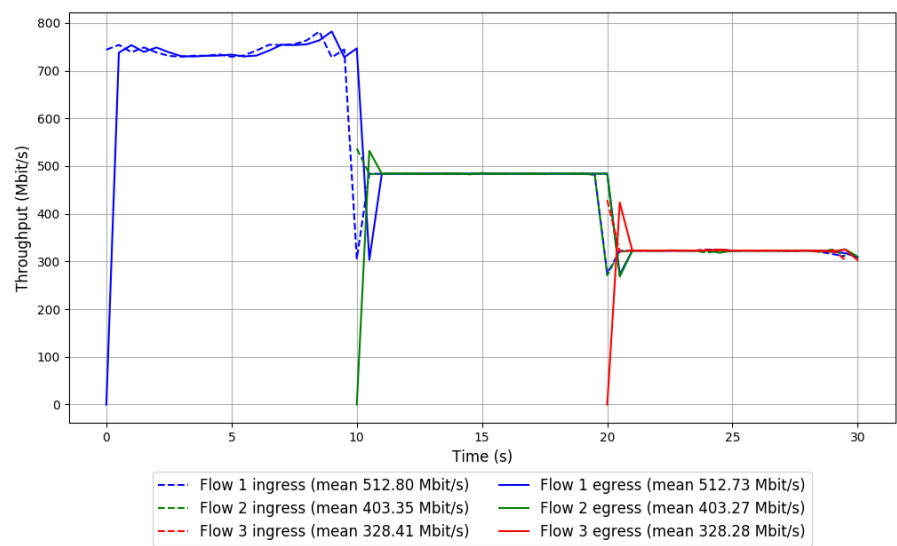


Run 4: Statistics of TCP BBR

Start at: 2019-06-28 13:17:58  
End at: 2019-06-28 13:18:28  
Local clock offset: 0.458 ms  
Remote clock offset: -4.201 ms

# Below is generated by plot.py at 2019-06-28 14:26:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 890.40 Mbit/s  
95th percentile per-packet one-way delay: 6.704 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 512.73 Mbit/s  
95th percentile per-packet one-way delay: 6.856 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 403.27 Mbit/s  
95th percentile per-packet one-way delay: 5.906 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 328.28 Mbit/s  
95th percentile per-packet one-way delay: 5.853 ms  
Loss rate: 0.06%

Run 4: Report of TCP BBR — Data Link



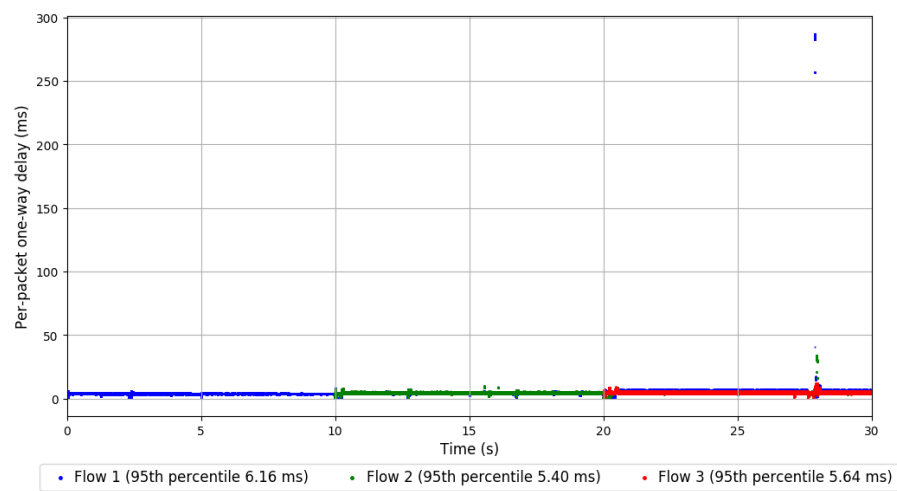
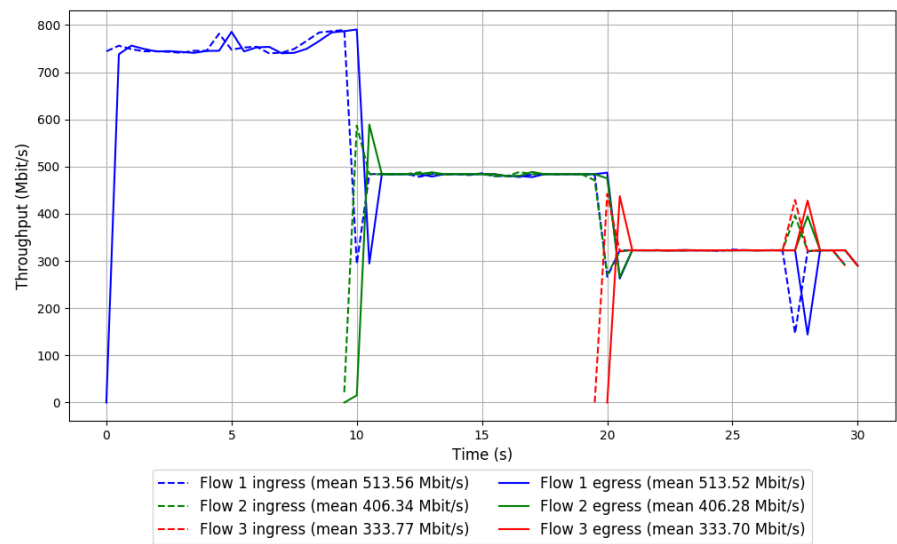


Run 5: Statistics of TCP BBR

Start at: 2019-06-28 13:49:49  
End at: 2019-06-28 13:50:19  
Local clock offset: 1.097 ms  
Remote clock offset: -3.469 ms

# Below is generated by plot.py at 2019-06-28 14:26:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 895.29 Mbit/s  
95th percentile per-packet one-way delay: 6.056 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 513.52 Mbit/s  
95th percentile per-packet one-way delay: 6.156 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 406.28 Mbit/s  
95th percentile per-packet one-way delay: 5.404 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 333.70 Mbit/s  
95th percentile per-packet one-way delay: 5.638 ms  
Loss rate: 0.05%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-06-28 11:33:03

End at: 2019-06-28 11:33:33

Local clock offset: 0.035 ms

Remote clock offset: 0.791 ms

# Below is generated by plot.py at 2019-06-28 14:26:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 454.87 Mbit/s

95th percentile per-packet one-way delay: 0.858 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 274.19 Mbit/s

95th percentile per-packet one-way delay: 0.946 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 220.42 Mbit/s

95th percentile per-packet one-way delay: 0.687 ms

Loss rate: 0.00%

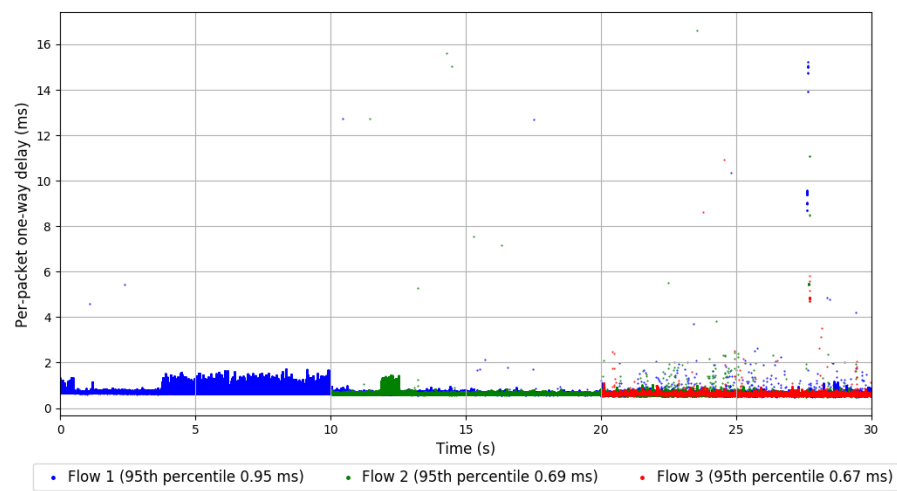
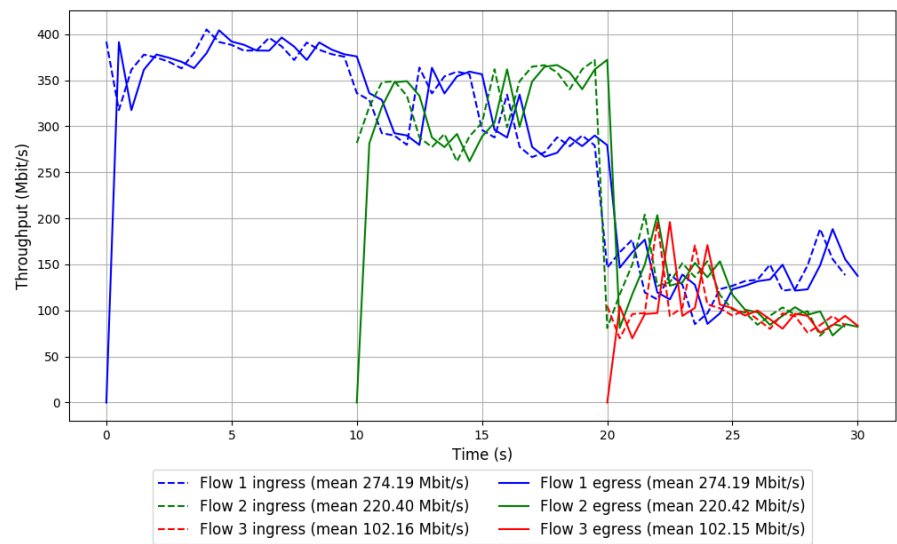
-- Flow 3:

Average throughput: 102.15 Mbit/s

95th percentile per-packet one-way delay: 0.667 ms

Loss rate: 0.02%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-06-28 12:04:51

End at: 2019-06-28 12:05:21

Local clock offset: 0.427 ms

Remote clock offset: 2.699 ms

# Below is generated by plot.py at 2019-06-28 14:26:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 418.47 Mbit/s

95th percentile per-packet one-way delay: 1.178 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 241.28 Mbit/s

95th percentile per-packet one-way delay: 1.156 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 182.43 Mbit/s

95th percentile per-packet one-way delay: 1.230 ms

Loss rate: 0.01%

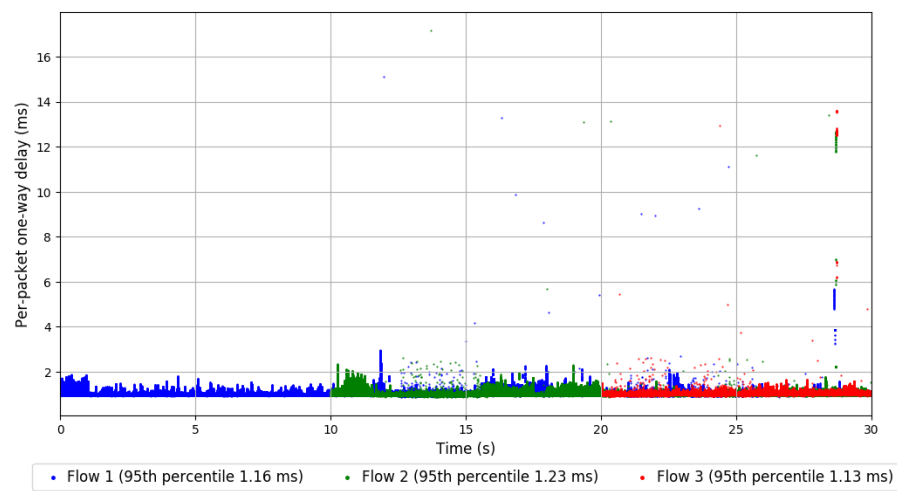
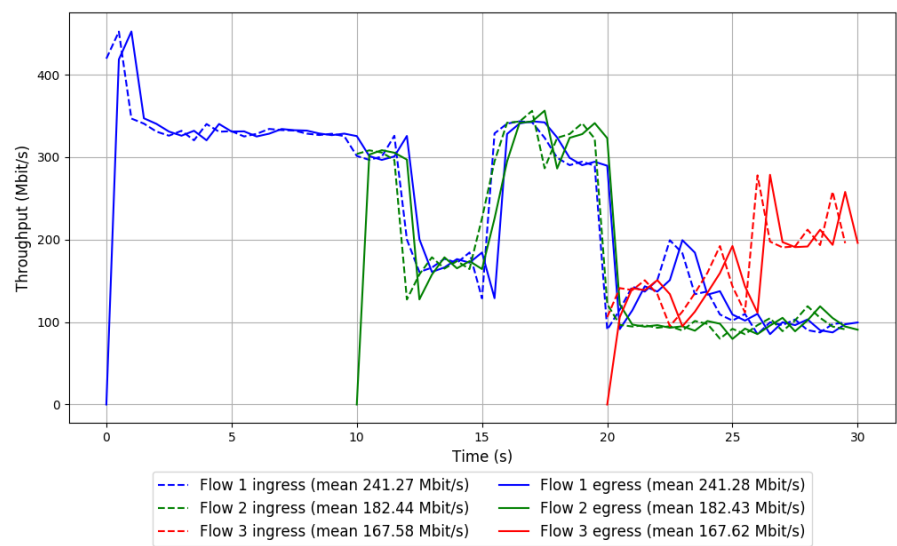
-- Flow 3:

Average throughput: 167.62 Mbit/s

95th percentile per-packet one-way delay: 1.131 ms

Loss rate: 0.01%

Run 2: Report of Copa — Data Link

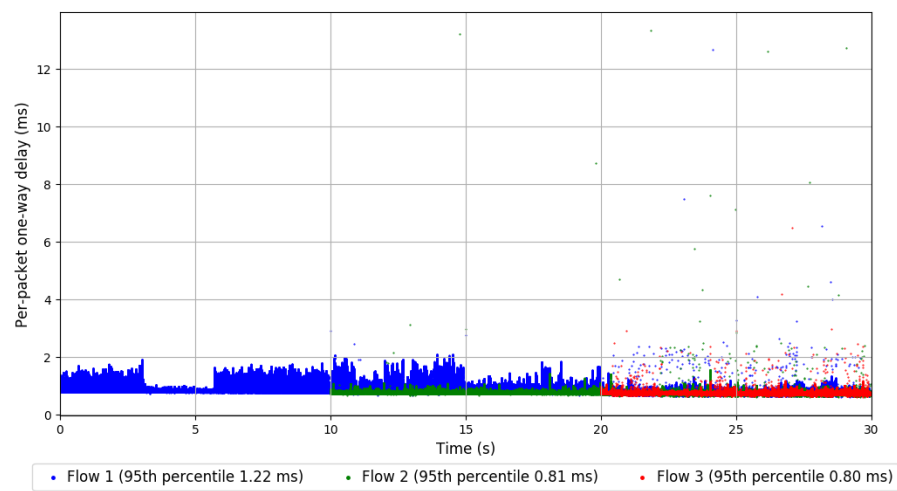
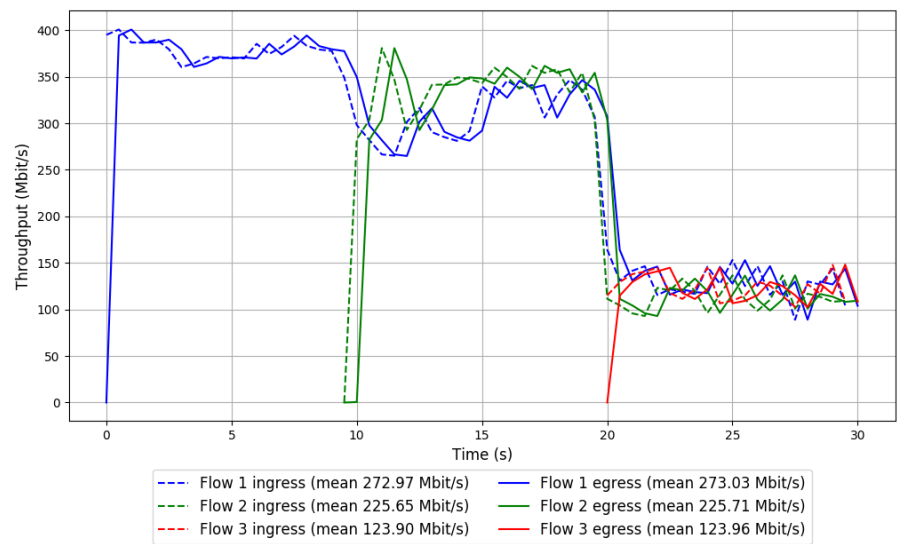


Run 3: Statistics of Copa

Start at: 2019-06-28 12:36:30  
End at: 2019-06-28 12:37:00  
Local clock offset: 0.878 ms  
Remote clock offset: -3.929 ms

# Below is generated by plot.py at 2019-06-28 14:26:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 464.59 Mbit/s  
95th percentile per-packet one-way delay: 1.105 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 273.03 Mbit/s  
95th percentile per-packet one-way delay: 1.222 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 225.71 Mbit/s  
95th percentile per-packet one-way delay: 0.805 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 123.96 Mbit/s  
95th percentile per-packet one-way delay: 0.804 ms  
Loss rate: 0.02%

Run 3: Report of Copa — Data Link



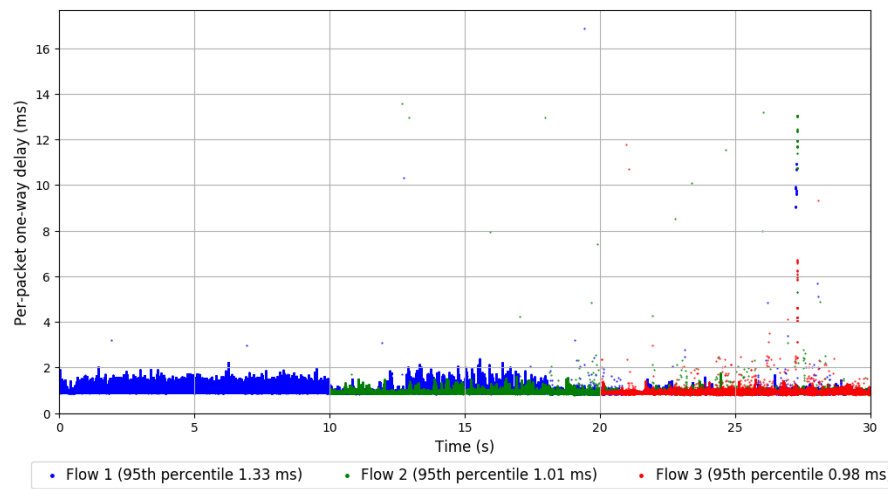
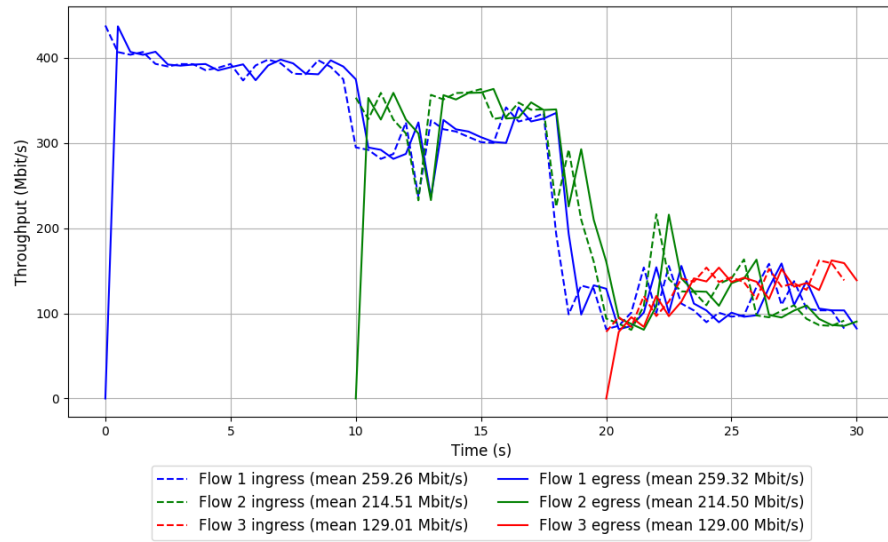


Run 4: Statistics of Copa

Start at: 2019-06-28 13:08:15  
End at: 2019-06-28 13:08:45  
Local clock offset: 0.417 ms  
Remote clock offset: -4.063 ms

```
# Below is generated by plot.py at 2019-06-28 14:35:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 444.82 Mbit/s
95th percentile per-packet one-way delay: 1.231 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 259.32 Mbit/s
95th percentile per-packet one-way delay: 1.331 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 214.50 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 129.00 Mbit/s
95th percentile per-packet one-way delay: 0.985 ms
Loss rate: 0.00%
```

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



Run 5: Statistics of Copa

Start at: 2019-06-28 13:40:05

End at: 2019-06-28 13:40:35

Local clock offset: 0.455 ms

Remote clock offset: -3.51 ms

# Below is generated by plot.py at 2019-06-28 14:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 458.58 Mbit/s

95th percentile per-packet one-way delay: 1.355 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 268.12 Mbit/s

95th percentile per-packet one-way delay: 1.375 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 219.41 Mbit/s

95th percentile per-packet one-way delay: 1.388 ms

Loss rate: 0.01%

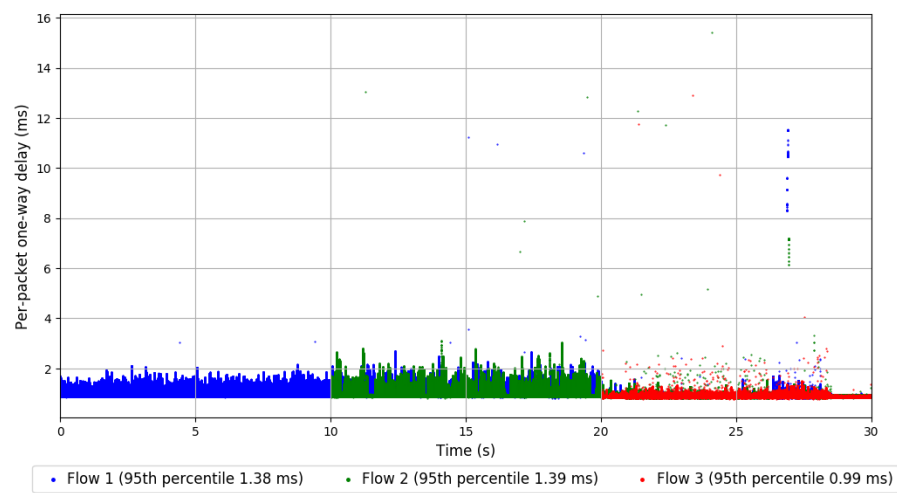
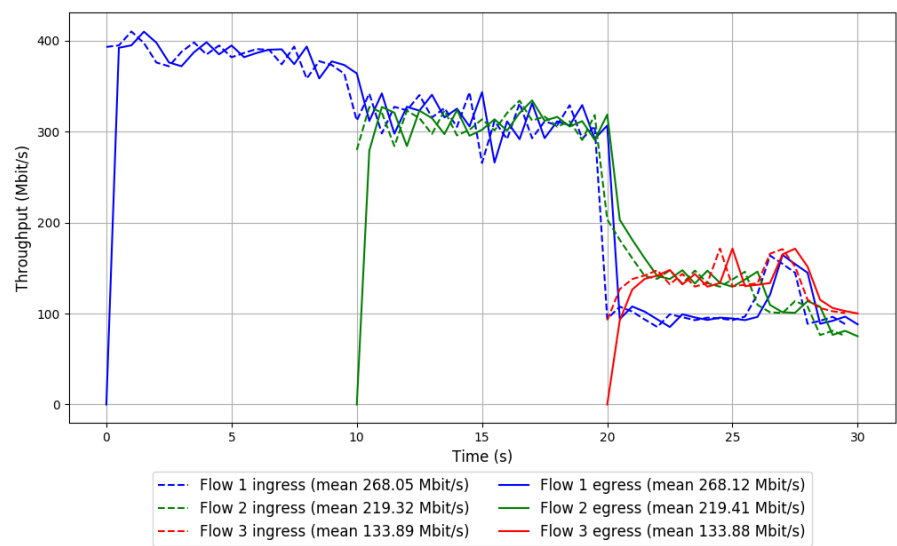
-- Flow 3:

Average throughput: 133.88 Mbit/s

95th percentile per-packet one-way delay: 0.990 ms

Loss rate: 0.02%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 11:53:24

End at: 2019-06-28 11:53:54

Local clock offset: 1.438 ms

Remote clock offset: 2.033 ms

# Below is generated by plot.py at 2019-06-28 14:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 902.92 Mbit/s

95th percentile per-packet one-way delay: 10.717 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 528.80 Mbit/s

95th percentile per-packet one-way delay: 11.018 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 401.35 Mbit/s

95th percentile per-packet one-way delay: 8.116 ms

Loss rate: 0.03%

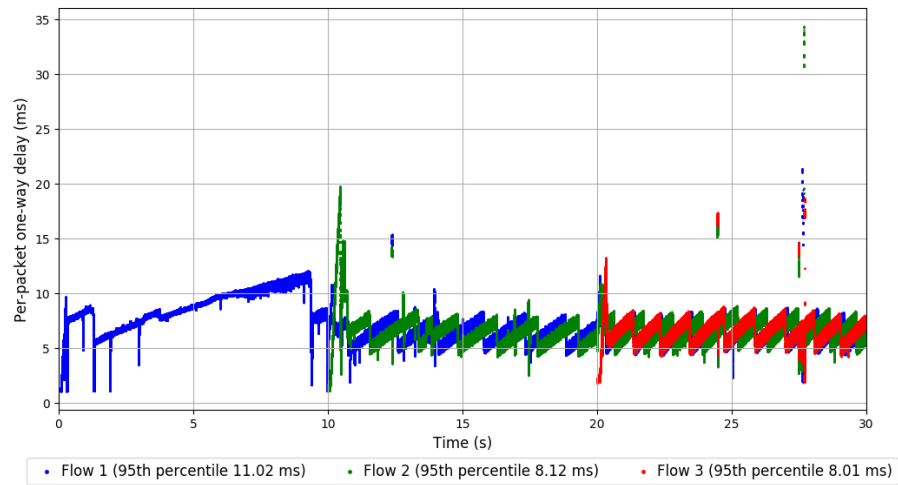
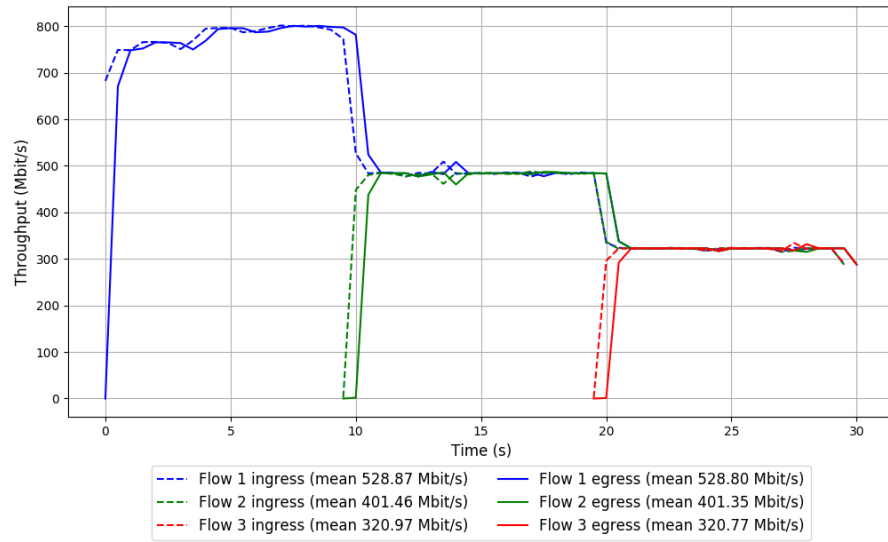
-- Flow 3:

Average throughput: 320.77 Mbit/s

95th percentile per-packet one-way delay: 8.010 ms

Loss rate: 0.09%

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

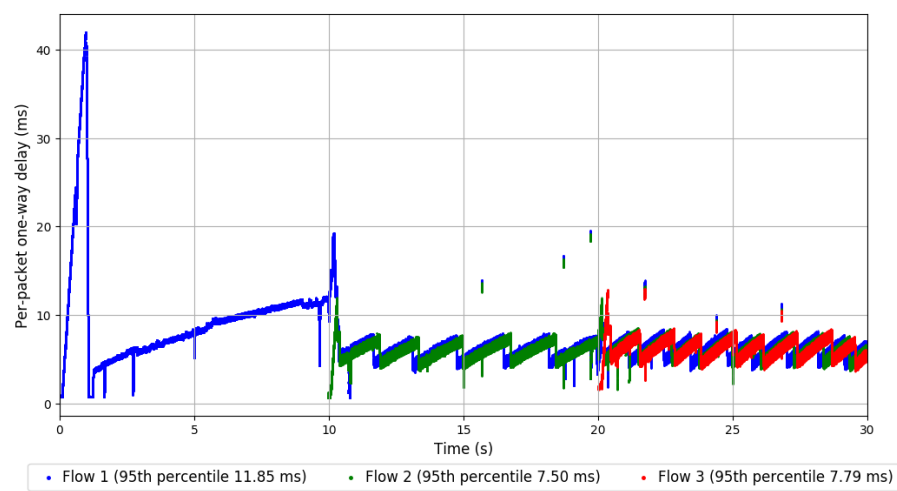
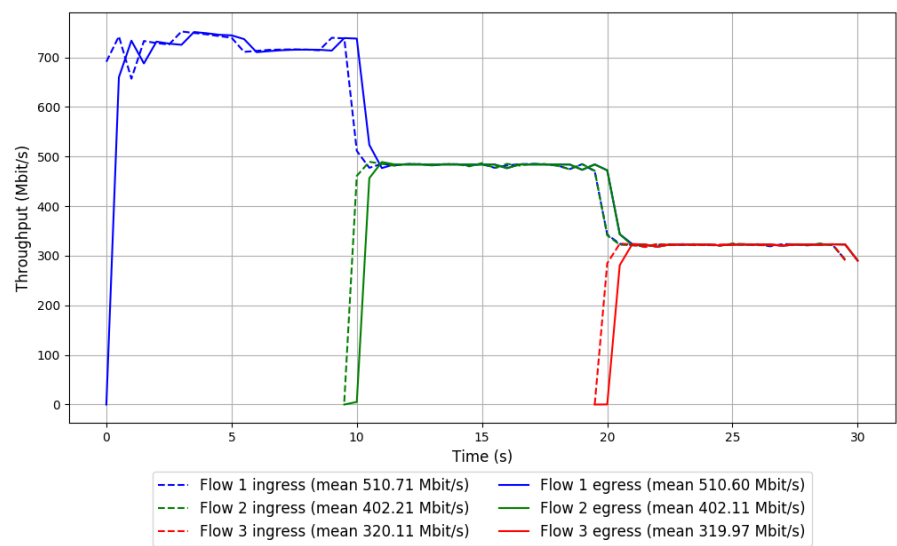


Run 2: Statistics of TCP Cubic

Start at: 2019-06-28 12:25:14  
End at: 2019-06-28 12:25:44  
Local clock offset: 0.497 ms  
Remote clock offset: -1.244 ms

# Below is generated by plot.py at 2019-06-28 14:36:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 885.15 Mbit/s  
95th percentile per-packet one-way delay: 11.297 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 510.60 Mbit/s  
95th percentile per-packet one-way delay: 11.845 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 402.11 Mbit/s  
95th percentile per-packet one-way delay: 7.504 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 319.97 Mbit/s  
95th percentile per-packet one-way delay: 7.790 ms  
Loss rate: 0.07%

Run 2: Report of TCP Cubic — Data Link





Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 12:56:56

End at: 2019-06-28 12:57:26

Local clock offset: 0.589 ms

Remote clock offset: -4.42 ms

# Below is generated by plot.py at 2019-06-28 14:36:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 898.83 Mbit/s

95th percentile per-packet one-way delay: 11.967 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 523.77 Mbit/s

95th percentile per-packet one-way delay: 12.664 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 402.39 Mbit/s

95th percentile per-packet one-way delay: 7.464 ms

Loss rate: 0.03%

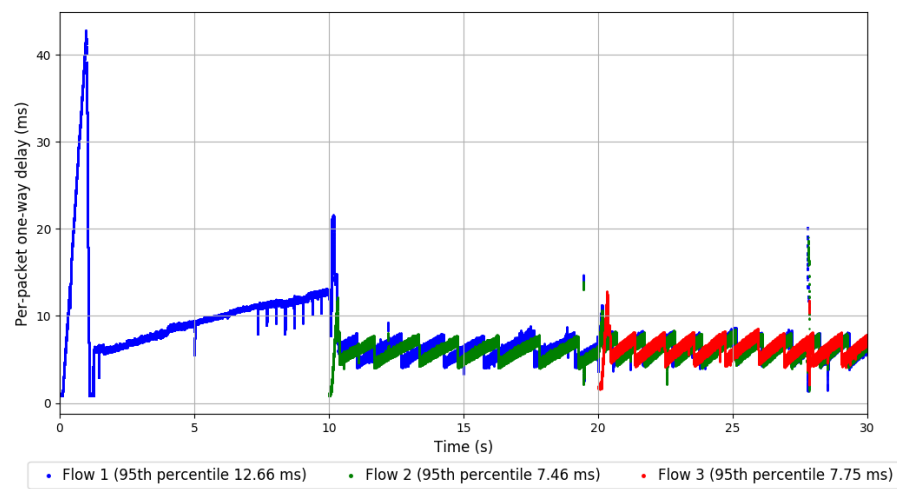
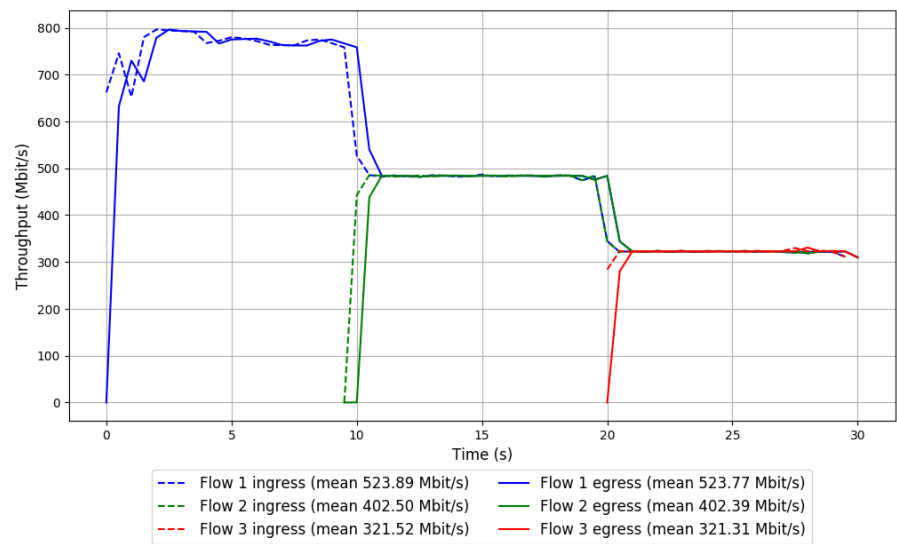
-- Flow 3:

Average throughput: 321.31 Mbit/s

95th percentile per-packet one-way delay: 7.749 ms

Loss rate: 0.09%

Run 3: Report of TCP Cubic — Data Link

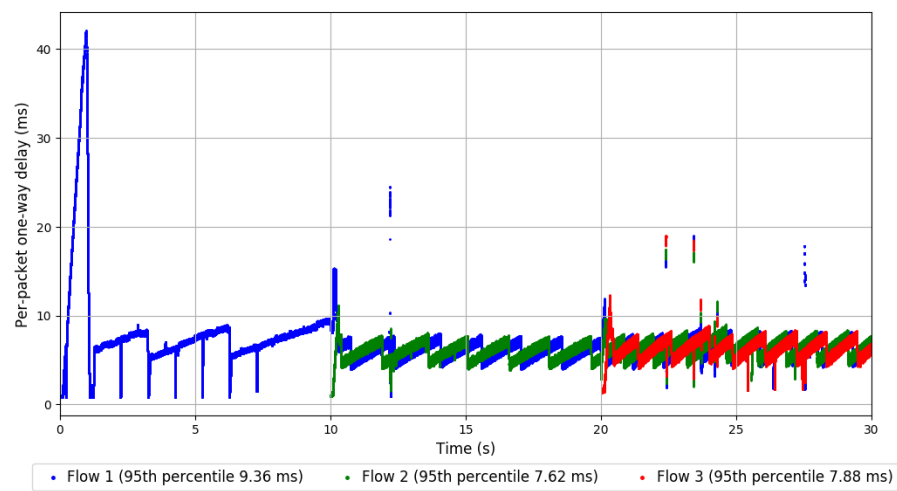
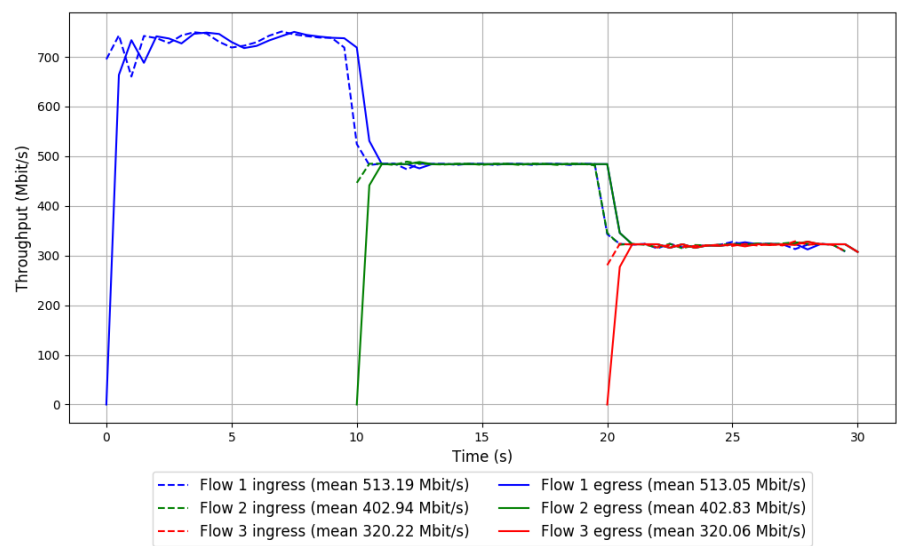


Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 13:28:38  
End at: 2019-06-28 13:29:08  
Local clock offset: 0.304 ms  
Remote clock offset: -3.918 ms

# Below is generated by plot.py at 2019-06-28 14:36:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 887.68 Mbit/s  
95th percentile per-packet one-way delay: 8.645 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 513.05 Mbit/s  
95th percentile per-packet one-way delay: 9.359 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 402.83 Mbit/s  
95th percentile per-packet one-way delay: 7.619 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 320.06 Mbit/s  
95th percentile per-packet one-way delay: 7.883 ms  
Loss rate: 0.08%

Run 4: Report of TCP Cubic — Data Link

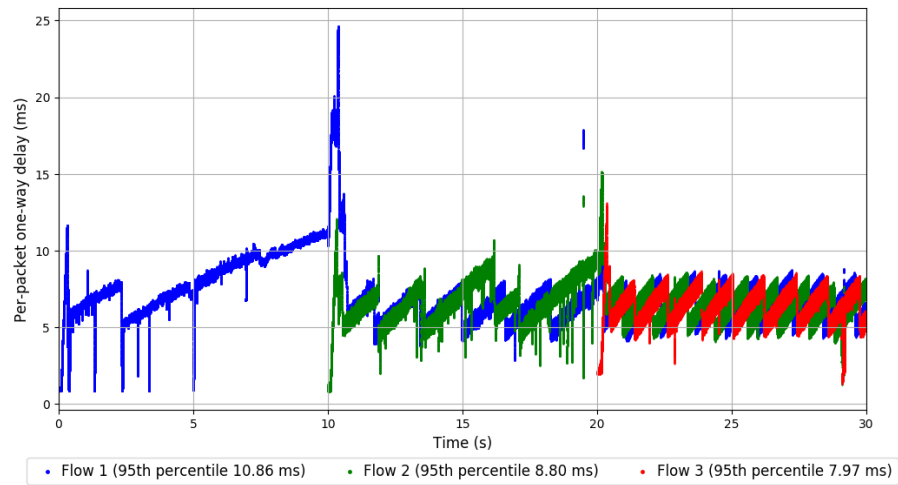
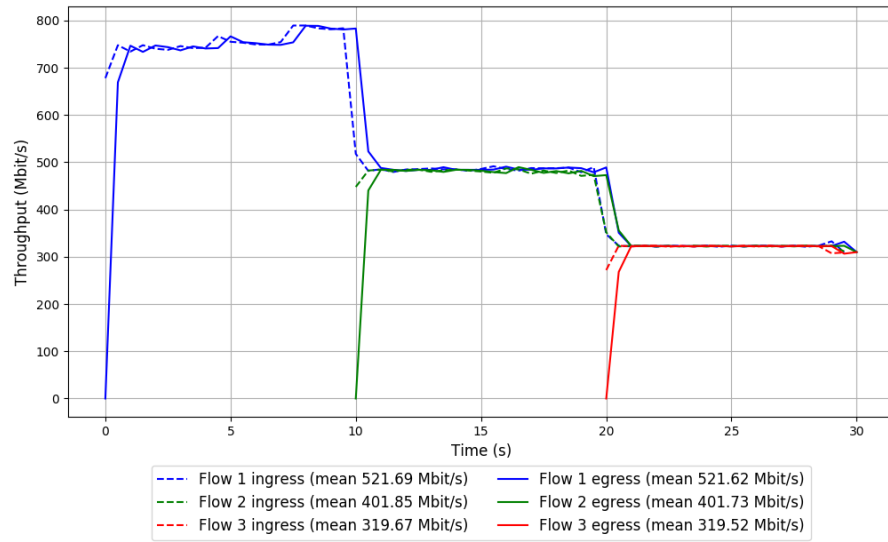


Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 14:00:29  
End at: 2019-06-28 14:00:59  
Local clock offset: 2.978 ms  
Remote clock offset: -3.582 ms

# Below is generated by plot.py at 2019-06-28 14:36:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 895.51 Mbit/s  
95th percentile per-packet one-way delay: 10.432 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 521.62 Mbit/s  
95th percentile per-packet one-way delay: 10.859 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 401.73 Mbit/s  
95th percentile per-packet one-way delay: 8.804 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 319.52 Mbit/s  
95th percentile per-packet one-way delay: 7.967 ms  
Loss rate: 0.07%

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



Run 1: Statistics of FillP

Start at: 2019-06-28 11:48:52

End at: 2019-06-28 11:49:22

Local clock offset: 2.59 ms

Remote clock offset: 1.849 ms

# Below is generated by plot.py at 2019-06-28 14:39:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 901.33 Mbit/s

95th percentile per-packet one-way delay: 34.888 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 554.79 Mbit/s

95th percentile per-packet one-way delay: 35.501 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 372.40 Mbit/s

95th percentile per-packet one-way delay: 27.658 ms

Loss rate: 0.12%

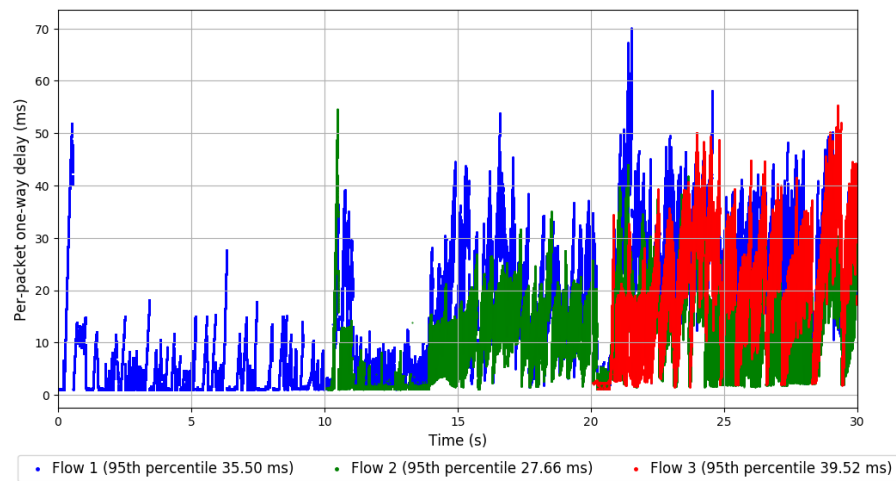
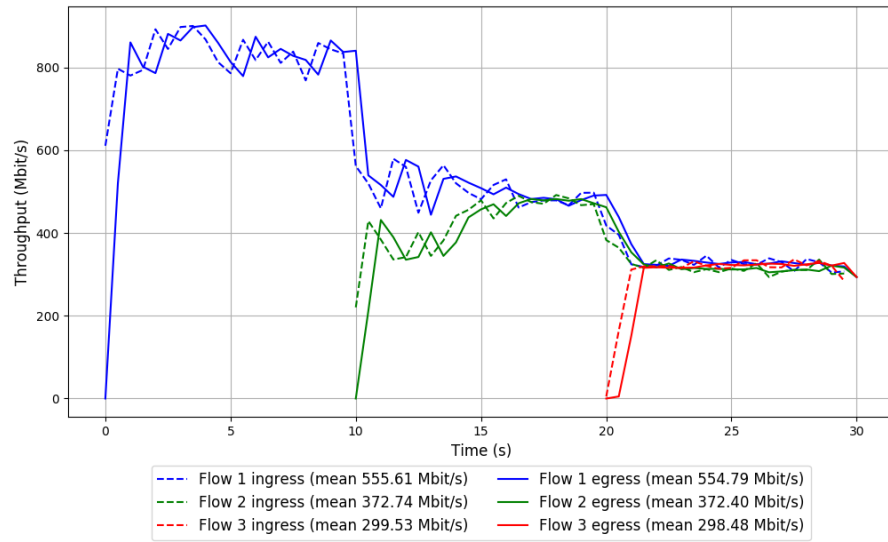
-- Flow 3:

Average throughput: 298.48 Mbit/s

95th percentile per-packet one-way delay: 39.521 ms

Loss rate: 0.25%

## Run 1: Report of FillP — Data Link





Run 2: Statistics of FillP

Start at: 2019-06-28 12:20:38

End at: 2019-06-28 12:21:08

Local clock offset: 0.422 ms

Remote clock offset: 0.678 ms

# Below is generated by plot.py at 2019-06-28 14:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 950.70 Mbit/s

95th percentile per-packet one-way delay: 41.897 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 585.60 Mbit/s

95th percentile per-packet one-way delay: 44.233 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 396.58 Mbit/s

95th percentile per-packet one-way delay: 38.173 ms

Loss rate: 0.23%

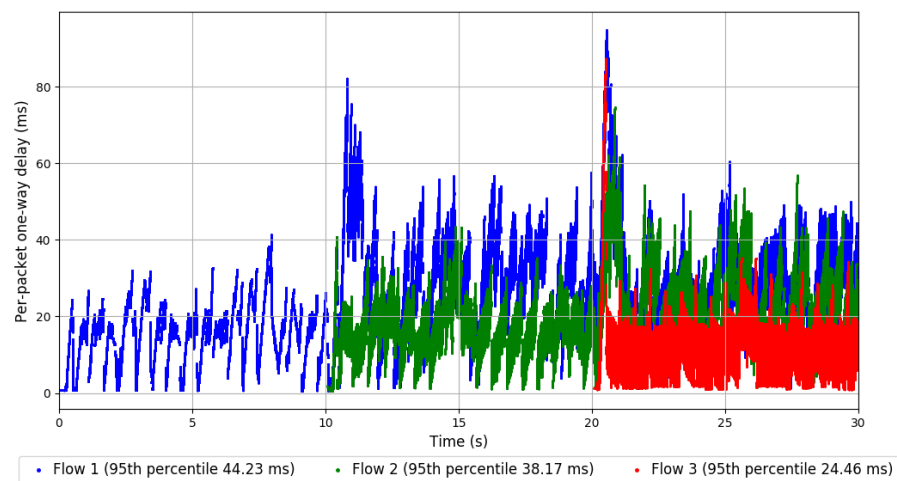
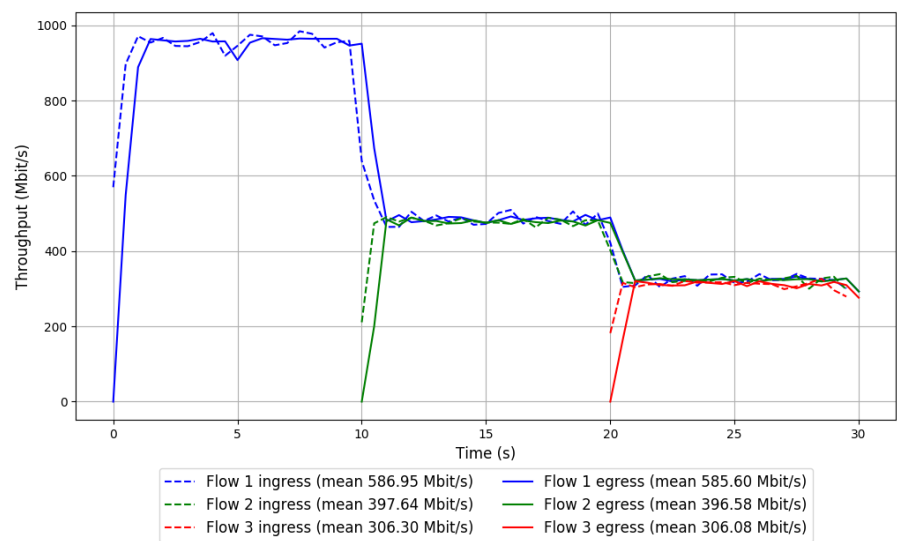
-- Flow 3:

Average throughput: 306.08 Mbit/s

95th percentile per-packet one-way delay: 24.461 ms

Loss rate: 0.11%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-06-28 12:52:23

End at: 2019-06-28 12:52:53

Local clock offset: 0.845 ms

Remote clock offset: -5.24 ms

# Below is generated by plot.py at 2019-06-28 14:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 818.66 Mbit/s

95th percentile per-packet one-way delay: 28.995 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 432.07 Mbit/s

95th percentile per-packet one-way delay: 26.242 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 436.67 Mbit/s

95th percentile per-packet one-way delay: 32.776 ms

Loss rate: 0.11%

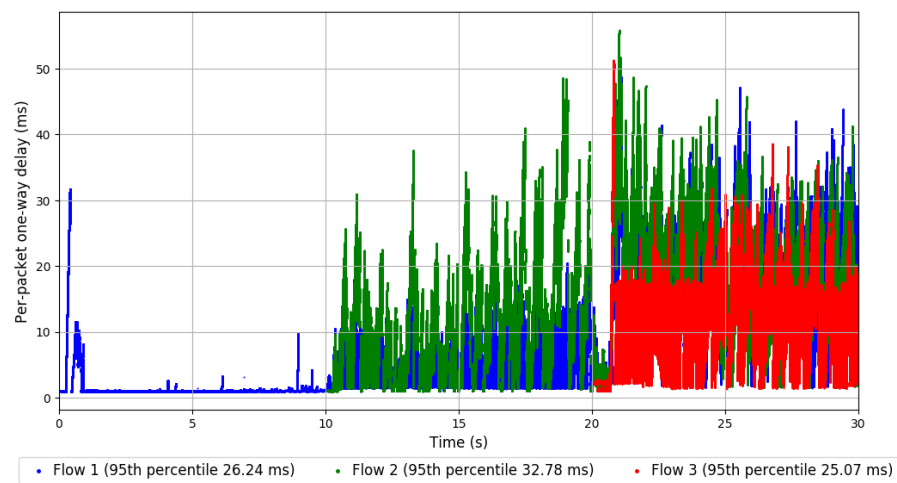
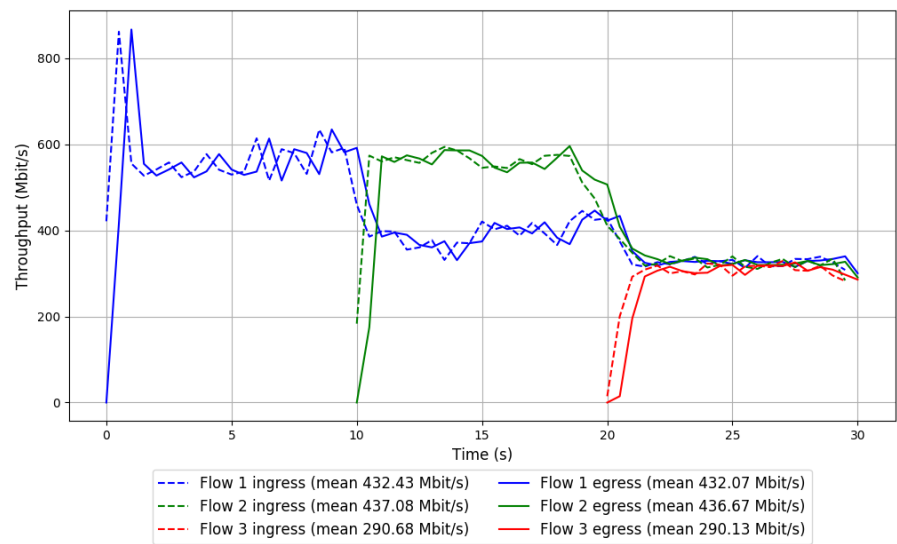
-- Flow 3:

Average throughput: 290.13 Mbit/s

95th percentile per-packet one-way delay: 25.073 ms

Loss rate: 0.07%

Run 3: Report of FillP — Data Link

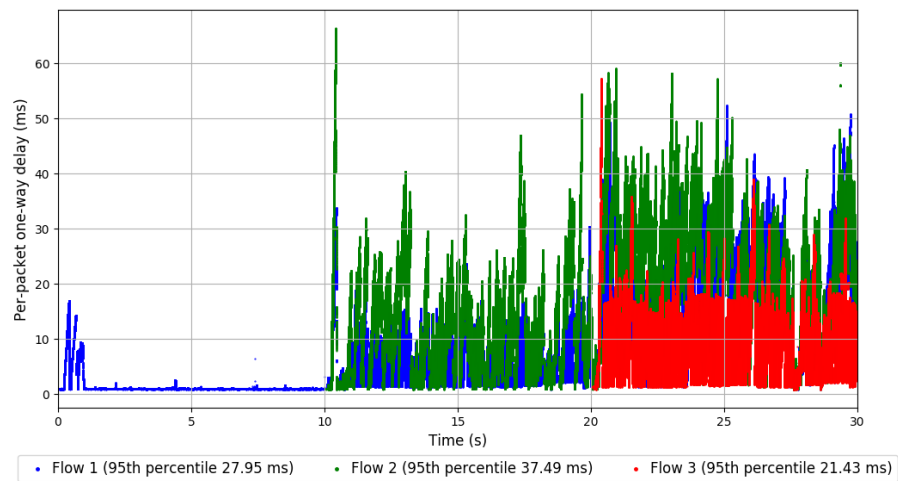
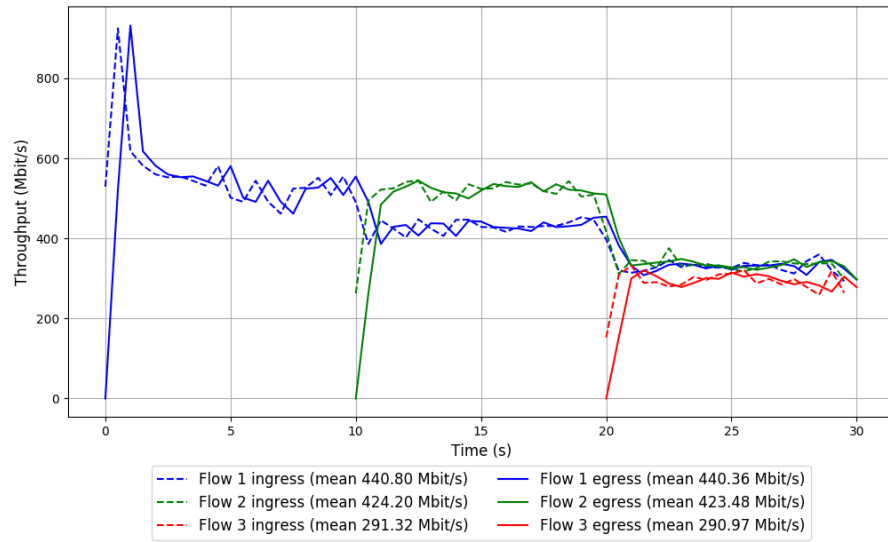


Run 4: Statistics of FillP

Start at: 2019-06-28 13:24:06  
End at: 2019-06-28 13:24:36  
Local clock offset: 0.34 ms  
Remote clock offset: -4.428 ms

# Below is generated by plot.py at 2019-06-28 14:48:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 818.58 Mbit/s  
95th percentile per-packet one-way delay: 32.332 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 440.36 Mbit/s  
95th percentile per-packet one-way delay: 27.951 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 423.48 Mbit/s  
95th percentile per-packet one-way delay: 37.495 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 290.97 Mbit/s  
95th percentile per-packet one-way delay: 21.433 ms  
Loss rate: 0.00%

# Run 4: Report of FillP — Data Link

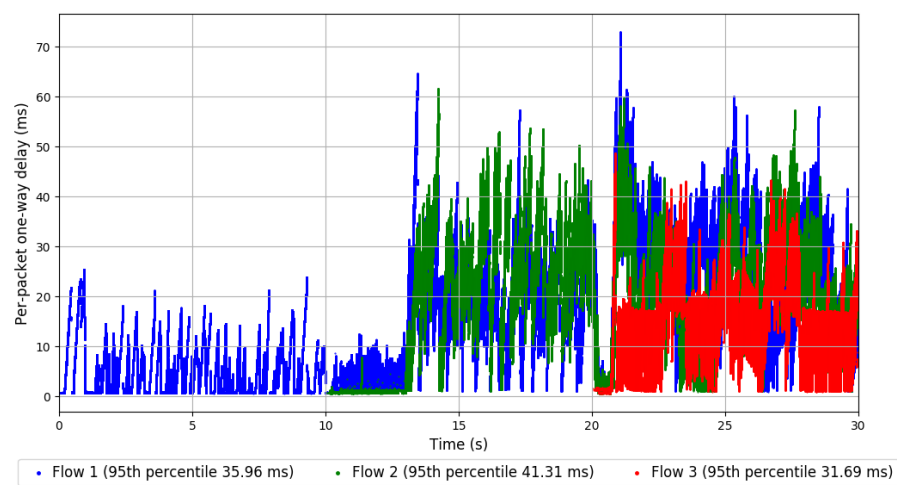
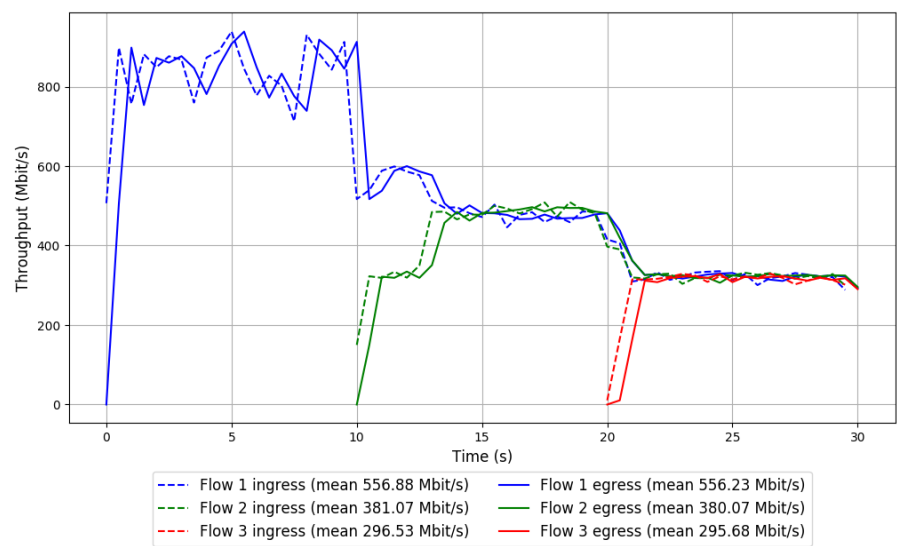


Run 5: Statistics of FillP

Start at: 2019-06-28 13:55:53  
End at: 2019-06-28 13:56:23  
Local clock offset: 2.384 ms  
Remote clock offset: -3.549 ms

# Below is generated by plot.py at 2019-06-28 14:49:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 906.88 Mbit/s  
95th percentile per-packet one-way delay: 37.948 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 556.23 Mbit/s  
95th percentile per-packet one-way delay: 35.960 ms  
Loss rate: 0.09%  
-- Flow 2:  
Average throughput: 380.07 Mbit/s  
95th percentile per-packet one-way delay: 41.309 ms  
Loss rate: 0.27%  
-- Flow 3:  
Average throughput: 295.68 Mbit/s  
95th percentile per-packet one-way delay: 31.693 ms  
Loss rate: 0.29%

Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2019-06-28 11:45:51

End at: 2019-06-28 11:46:21

Local clock offset: 2.517 ms

Remote clock offset: 1.685 ms

# Below is generated by plot.py at 2019-06-28 14:49:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 526.54 Mbit/s

95th percentile per-packet one-way delay: 7.941 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 399.22 Mbit/s

95th percentile per-packet one-way delay: 8.293 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 177.84 Mbit/s

95th percentile per-packet one-way delay: 4.705 ms

Loss rate: 0.00%

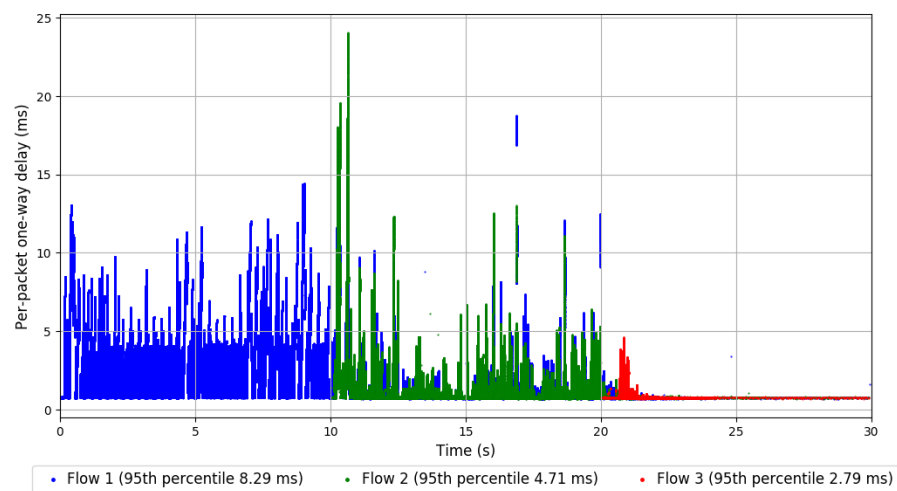
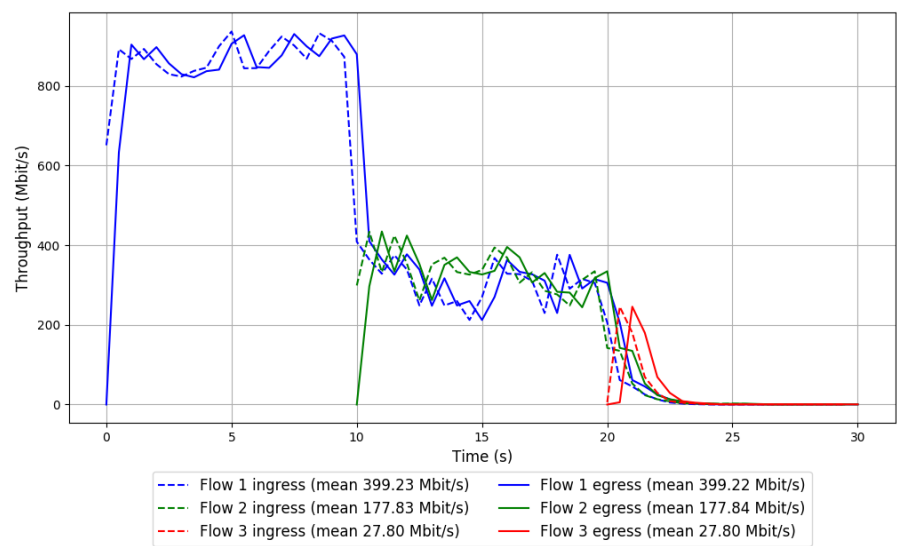
-- Flow 3:

Average throughput: 27.80 Mbit/s

95th percentile per-packet one-way delay: 2.795 ms

Loss rate: 0.00%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-06-28 12:17:35

End at: 2019-06-28 12:18:05

Local clock offset: 0.447 ms

Remote clock offset: 2.68 ms

# Below is generated by plot.py at 2019-06-28 14:49:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 544.56 Mbit/s

95th percentile per-packet one-way delay: 6.938 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 403.34 Mbit/s

95th percentile per-packet one-way delay: 7.434 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 162.63 Mbit/s

95th percentile per-packet one-way delay: 3.010 ms

Loss rate: 0.00%

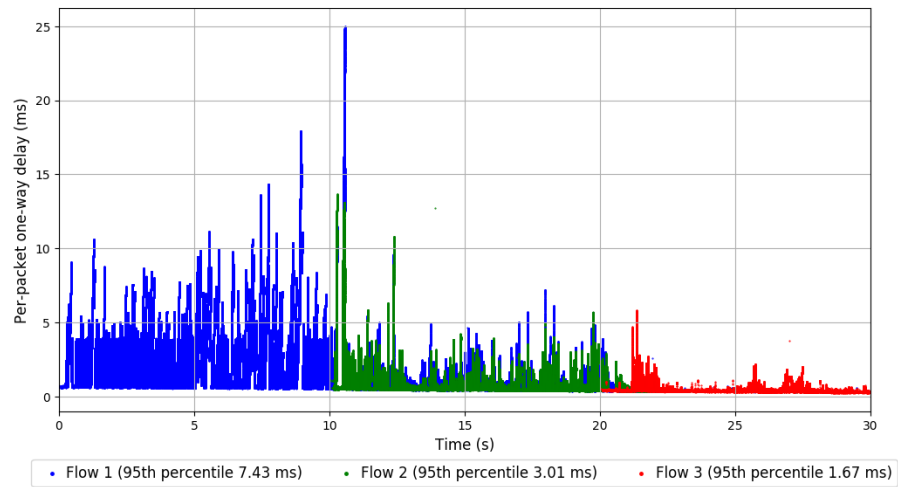
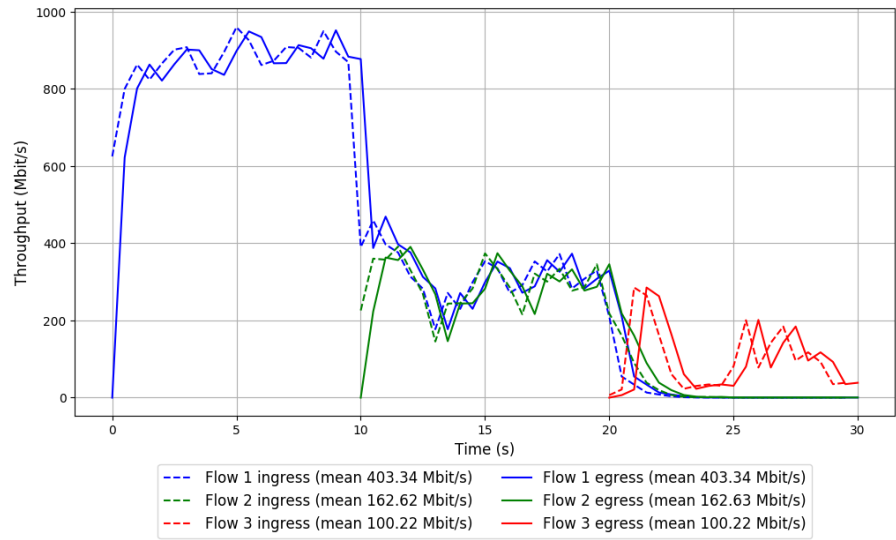
-- Flow 3:

Average throughput: 100.22 Mbit/s

95th percentile per-packet one-way delay: 1.673 ms

Loss rate: 0.00%

## Run 2: Report of FillP-Sheep — Data Link

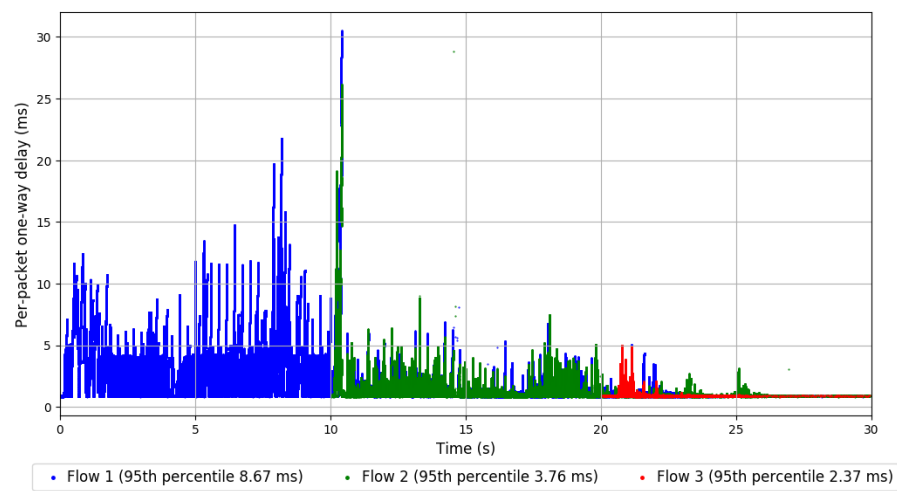
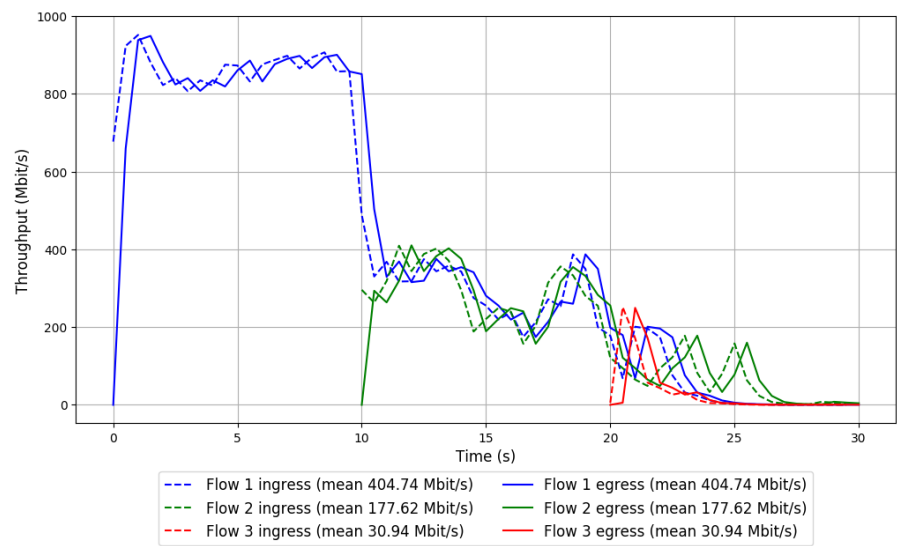


Run 3: Statistics of FillP-Sheep

Start at: 2019-06-28 12:49:20  
End at: 2019-06-28 12:49:50  
Local clock offset: 1.105 ms  
Remote clock offset: -5.524 ms

# Below is generated by plot.py at 2019-06-28 14:49:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 532.88 Mbit/s  
95th percentile per-packet one-way delay: 8.083 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 404.74 Mbit/s  
95th percentile per-packet one-way delay: 8.668 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 177.62 Mbit/s  
95th percentile per-packet one-way delay: 3.764 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 30.94 Mbit/s  
95th percentile per-packet one-way delay: 2.371 ms  
Loss rate: 0.00%

Run 3: Report of FillP-Sheep — Data Link

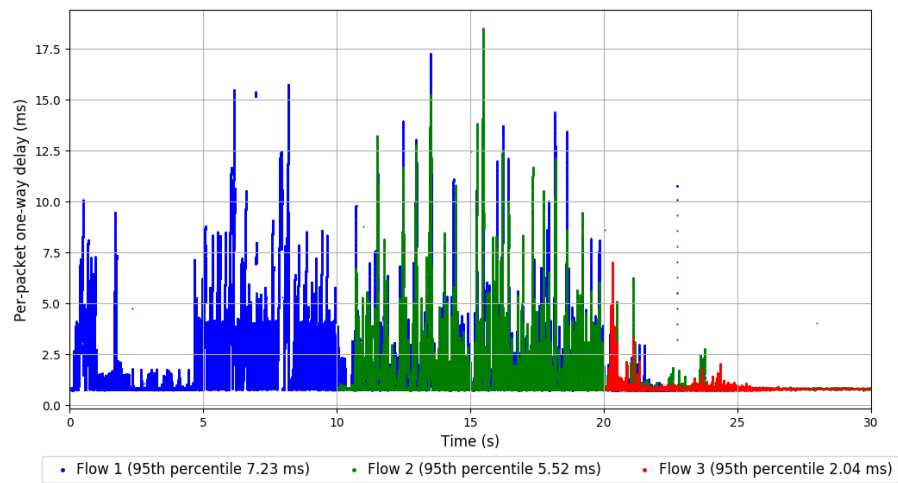
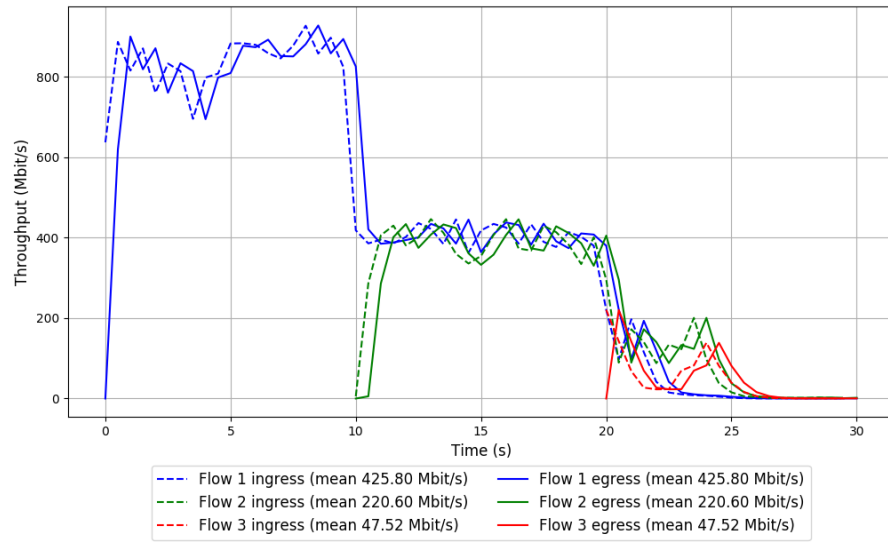


Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 13:21:01  
End at: 2019-06-28 13:21:31  
Local clock offset: 0.344 ms  
Remote clock offset: -4.283 ms

# Below is generated by plot.py at 2019-06-28 14:49:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 587.76 Mbit/s  
95th percentile per-packet one-way delay: 6.962 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 425.80 Mbit/s  
95th percentile per-packet one-way delay: 7.234 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 220.60 Mbit/s  
95th percentile per-packet one-way delay: 5.516 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 47.52 Mbit/s  
95th percentile per-packet one-way delay: 2.037 ms  
Loss rate: 0.00%

#### Run 4: Report of FillP-Sheep — Data Link



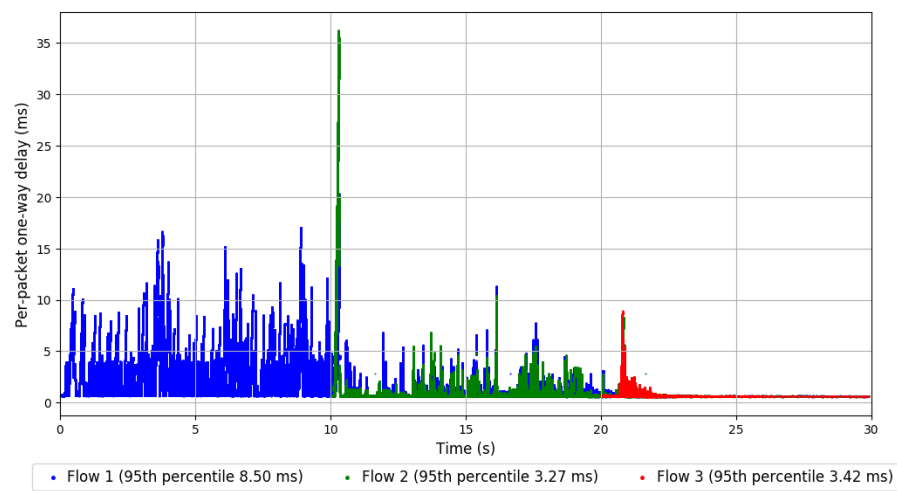
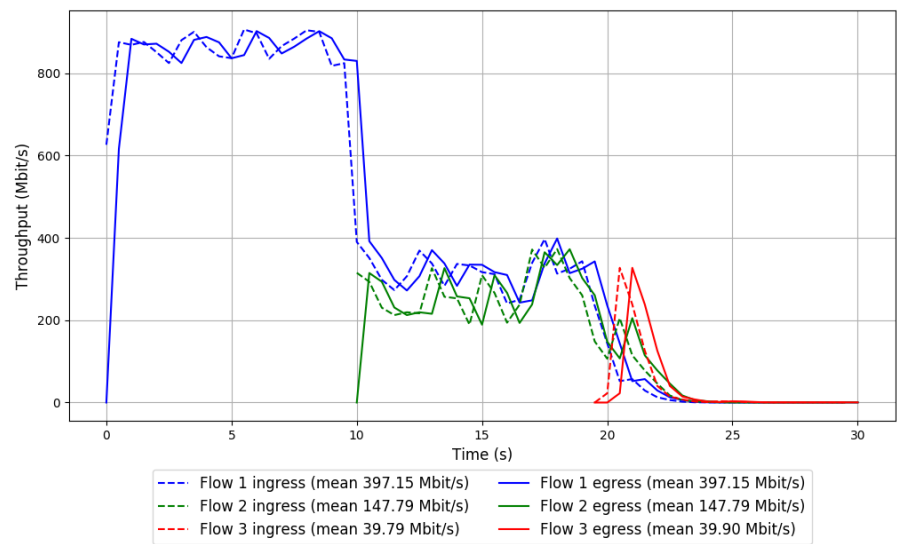


Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 13:52:52  
End at: 2019-06-28 13:53:22  
Local clock offset: 1.856 ms  
Remote clock offset: -3.463 ms

# Below is generated by plot.py at 2019-06-28 14:51:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 508.38 Mbit/s  
95th percentile per-packet one-way delay: 8.063 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 397.15 Mbit/s  
95th percentile per-packet one-way delay: 8.504 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 147.79 Mbit/s  
95th percentile per-packet one-way delay: 3.269 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 39.90 Mbit/s  
95th percentile per-packet one-way delay: 3.425 ms  
Loss rate: 0.00%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-06-28 11:58:02

End at: 2019-06-28 11:58:32

Local clock offset: 0.772 ms

Remote clock offset: 2.316 ms

# Below is generated by plot.py at 2019-06-28 14:51:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 289.52 Mbit/s

95th percentile per-packet one-way delay: 1.258 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 153.89 Mbit/s

95th percentile per-packet one-way delay: 1.168 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 142.90 Mbit/s

95th percentile per-packet one-way delay: 1.252 ms

Loss rate: 0.02%

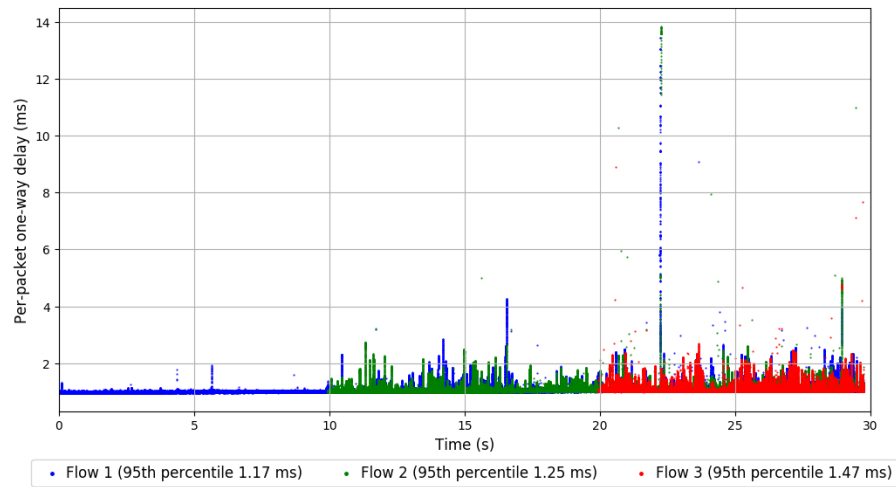
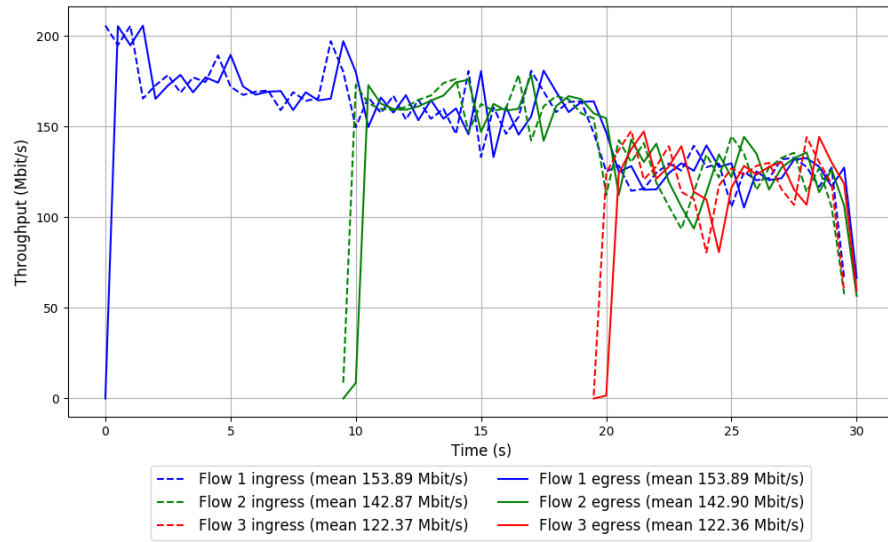
-- Flow 3:

Average throughput: 122.36 Mbit/s

95th percentile per-packet one-way delay: 1.468 ms

Loss rate: 0.00%

## Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-06-28 12:29:52

End at: 2019-06-28 12:30:22

Local clock offset: 0.625 ms

Remote clock offset: -2.6 ms

# Below is generated by plot.py at 2019-06-28 14:51:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 286.38 Mbit/s

95th percentile per-packet one-way delay: 0.914 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 152.70 Mbit/s

95th percentile per-packet one-way delay: 0.854 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 140.76 Mbit/s

95th percentile per-packet one-way delay: 1.002 ms

Loss rate: 0.01%

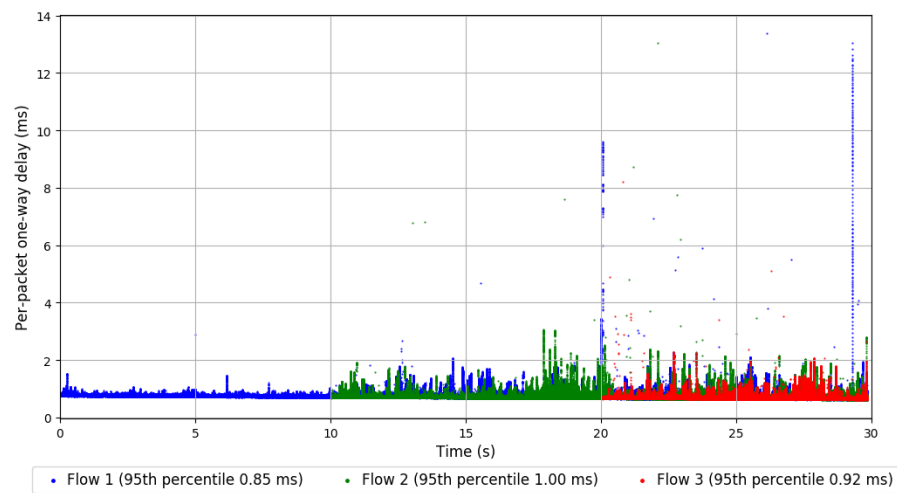
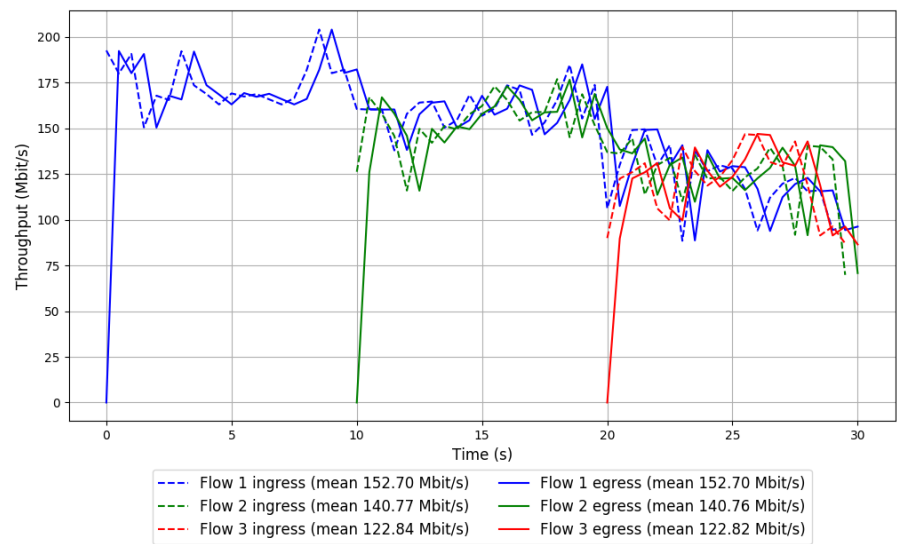
-- Flow 3:

Average throughput: 122.82 Mbit/s

95th percentile per-packet one-way delay: 0.917 ms

Loss rate: 0.03%

Run 2: Report of Indigo — Data Link

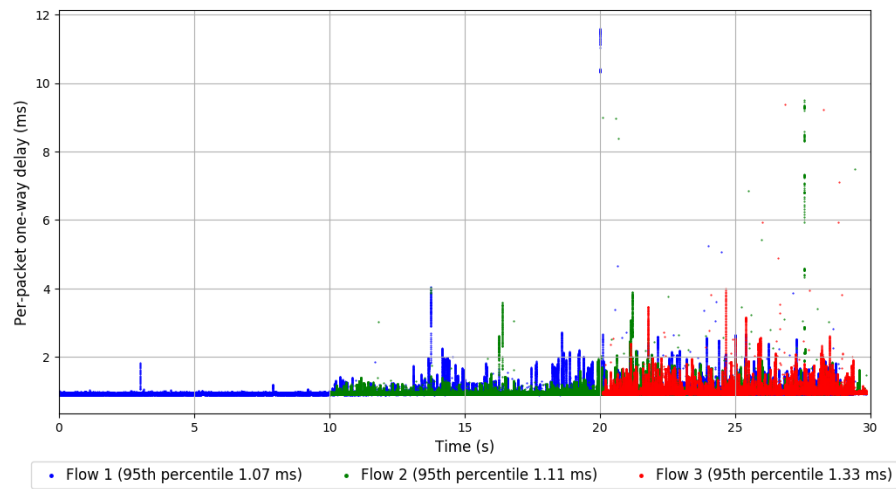
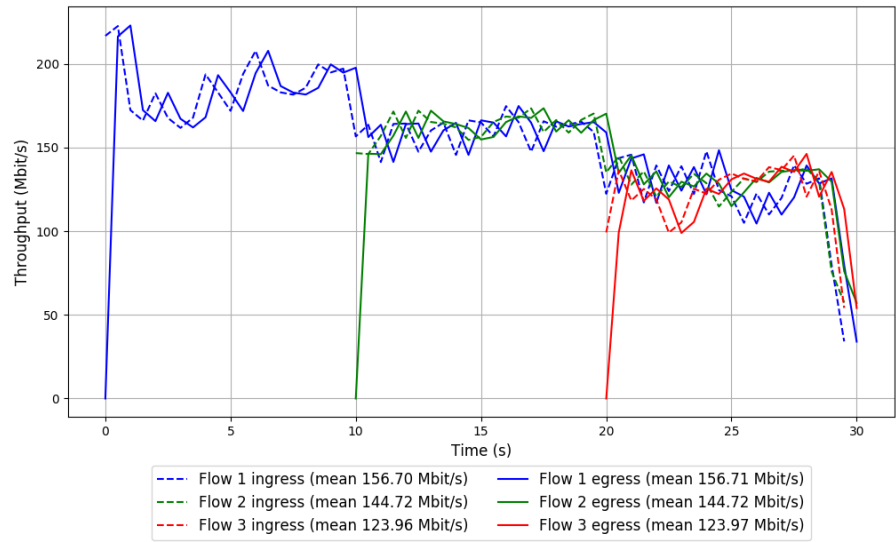


Run 3: Statistics of Indigo

Start at: 2019-06-28 13:01:34  
End at: 2019-06-28 13:02:04  
Local clock offset: 0.478 ms  
Remote clock offset: -4.134 ms

```
# Below is generated by plot.py at 2019-06-28 14:51:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 293.38 Mbit/s
95th percentile per-packet one-way delay: 1.127 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.71 Mbit/s
95th percentile per-packet one-way delay: 1.066 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 144.72 Mbit/s
95th percentile per-packet one-way delay: 1.108 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 123.97 Mbit/s
95th percentile per-packet one-way delay: 1.329 ms
Loss rate: 0.01%
```

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





Run 4: Statistics of Indigo

Start at: 2019-06-28 13:33:15

End at: 2019-06-28 13:33:45

Local clock offset: 0.401 ms

Remote clock offset: -3.69 ms

# Below is generated by plot.py at 2019-06-28 14:51:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 271.57 Mbit/s

95th percentile per-packet one-way delay: 1.207 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 149.52 Mbit/s

95th percentile per-packet one-way delay: 1.099 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 129.25 Mbit/s

95th percentile per-packet one-way delay: 1.306 ms

Loss rate: 0.00%

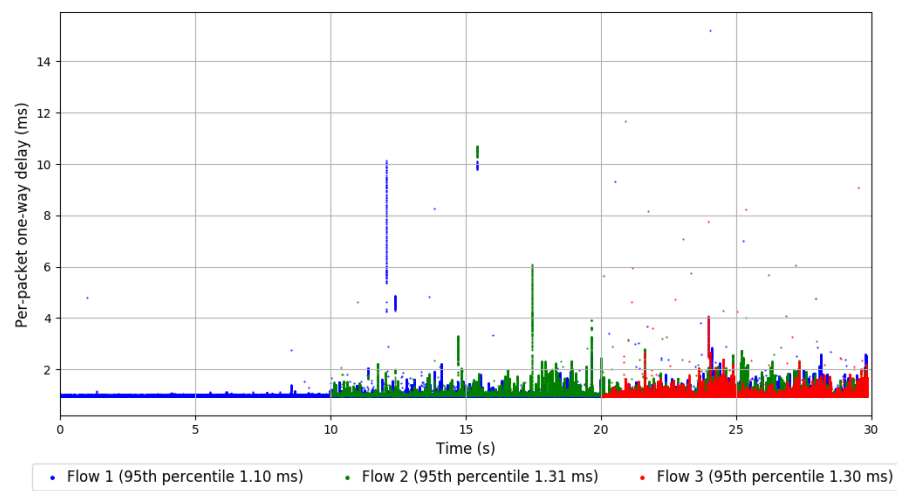
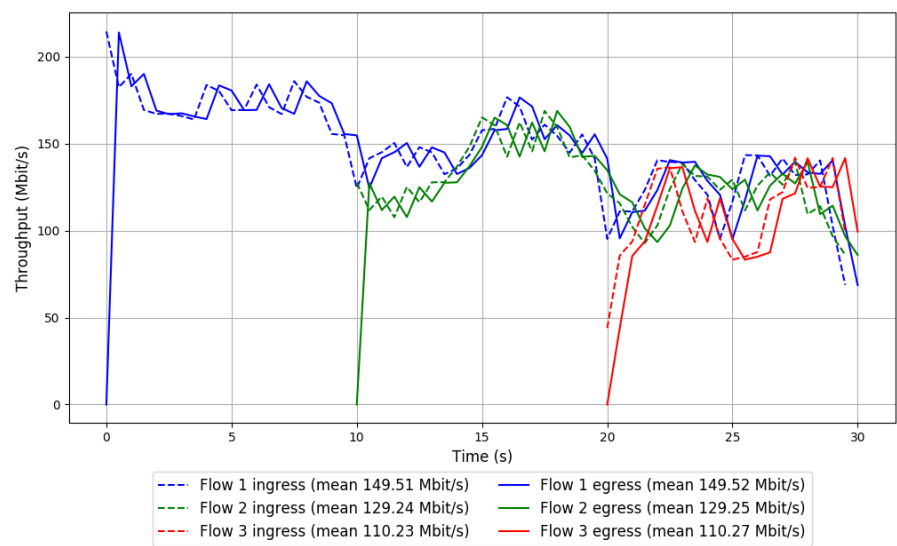
-- Flow 3:

Average throughput: 110.27 Mbit/s

95th percentile per-packet one-way delay: 1.304 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link

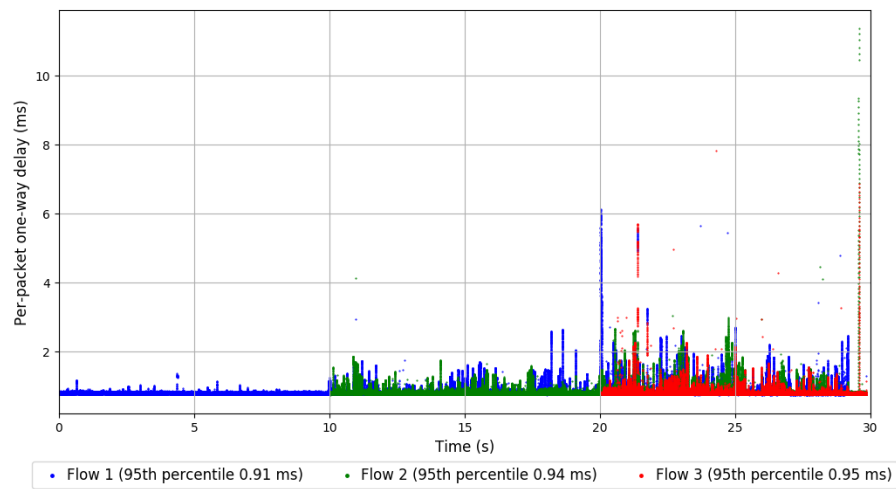
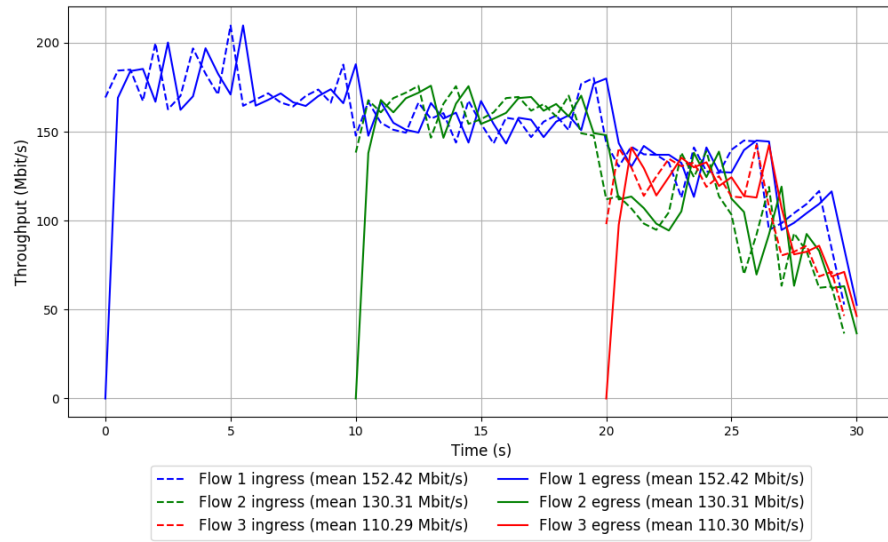


Run 5: Statistics of Indigo

Start at: 2019-06-28 14:05:06  
End at: 2019-06-28 14:05:36  
Local clock offset: 3.414 ms  
Remote clock offset: -3.261 ms

# Below is generated by plot.py at 2019-06-28 14:51:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 275.17 Mbit/s  
95th percentile per-packet one-way delay: 0.926 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 152.42 Mbit/s  
95th percentile per-packet one-way delay: 0.906 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 130.31 Mbit/s  
95th percentile per-packet one-way delay: 0.944 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 110.30 Mbit/s  
95th percentile per-packet one-way delay: 0.946 ms  
Loss rate: 0.01%

## Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-28 12:00:46

End at: 2019-06-28 12:01:16

Local clock offset: 0.597 ms

Remote clock offset: 2.464 ms

# Below is generated by plot.py at 2019-06-28 14:51:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 215.03 Mbit/s

95th percentile per-packet one-way delay: 1.160 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 150.74 Mbit/s

95th percentile per-packet one-way delay: 1.125 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 89.19 Mbit/s

95th percentile per-packet one-way delay: 1.317 ms

Loss rate: 0.00%

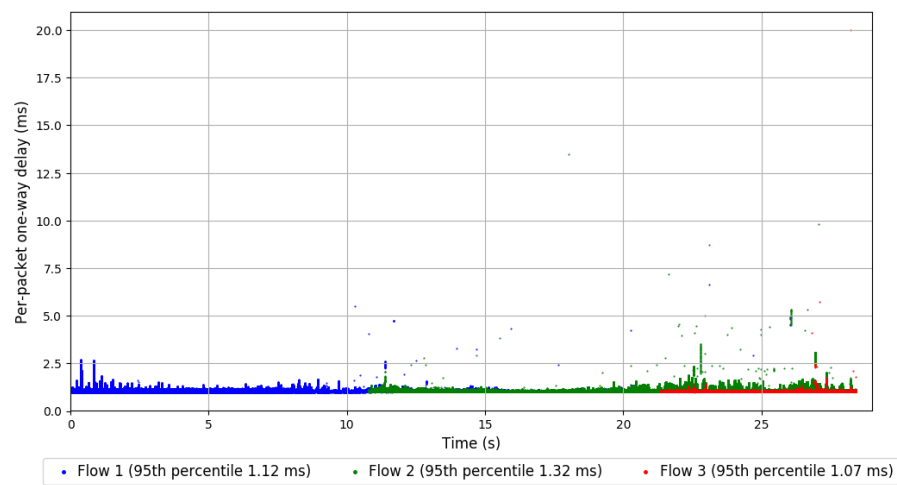
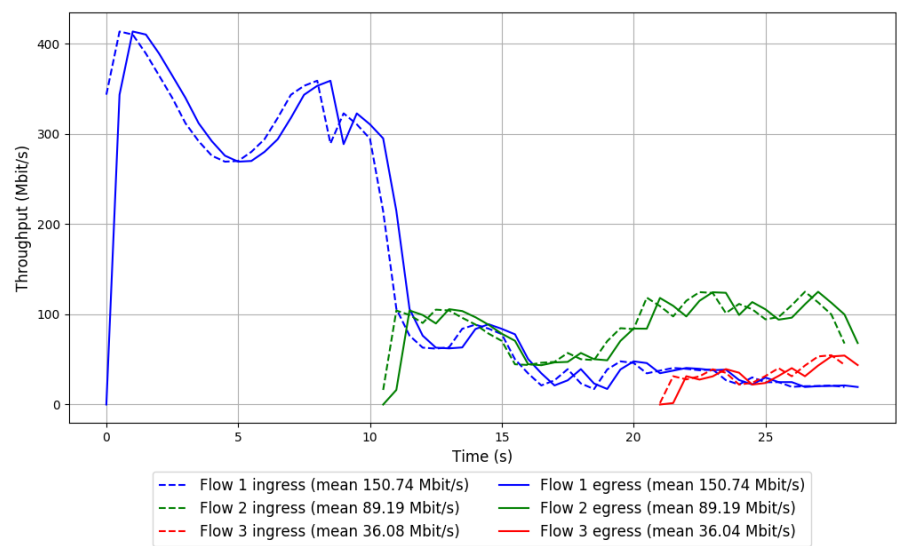
-- Flow 3:

Average throughput: 36.04 Mbit/s

95th percentile per-packet one-way delay: 1.074 ms

Loss rate: 0.14%

Run 1: Report of Indigo-MusesC3 — Data Link

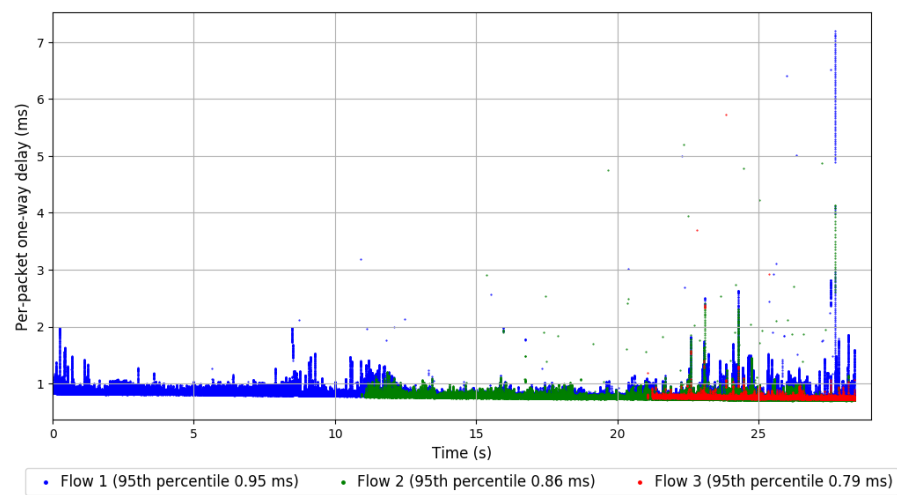
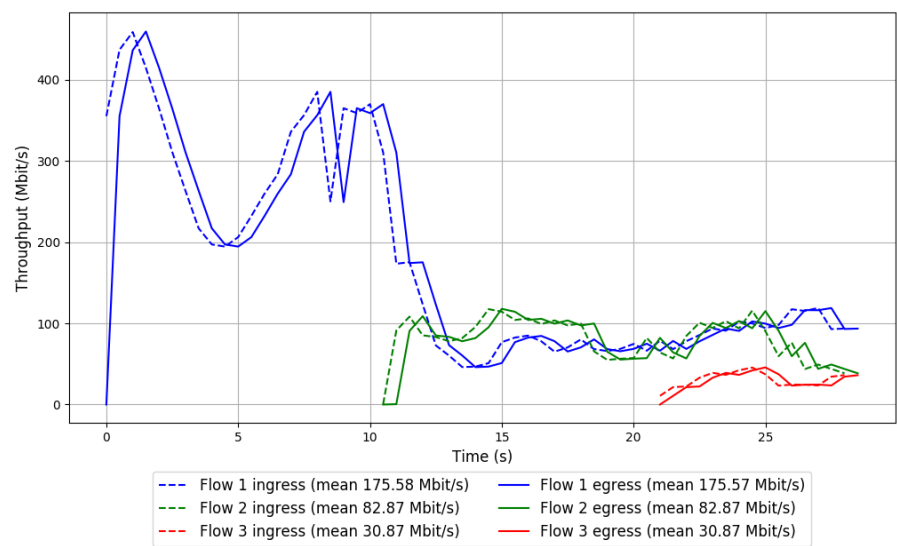


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-28 12:32:36  
End at: 2019-06-28 12:33:06  
Local clock offset: 0.735 ms  
Remote clock offset: -3.259 ms

# Below is generated by plot.py at 2019-06-28 14:51:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 234.48 Mbit/s  
95th percentile per-packet one-way delay: 0.933 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 175.57 Mbit/s  
95th percentile per-packet one-way delay: 0.948 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 82.87 Mbit/s  
95th percentile per-packet one-way delay: 0.856 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 30.87 Mbit/s  
95th percentile per-packet one-way delay: 0.792 ms  
Loss rate: 0.02%

Run 2: Report of Indigo-MusesC3 — Data Link



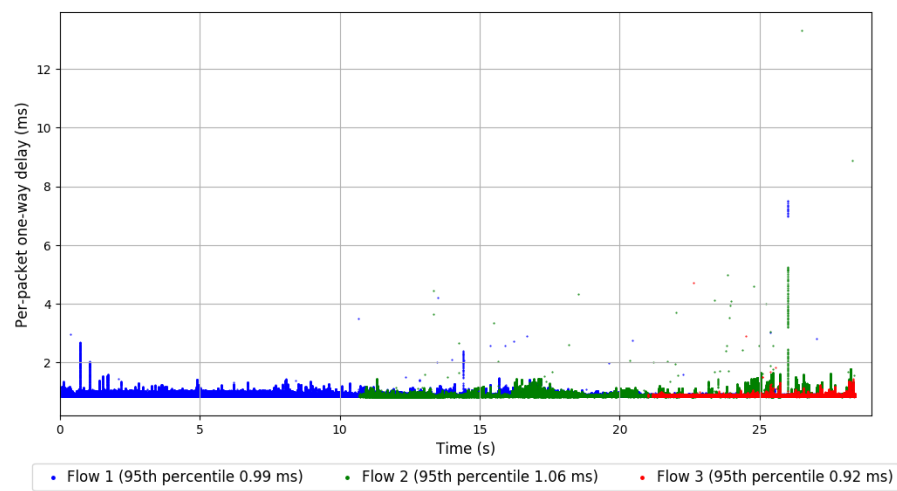
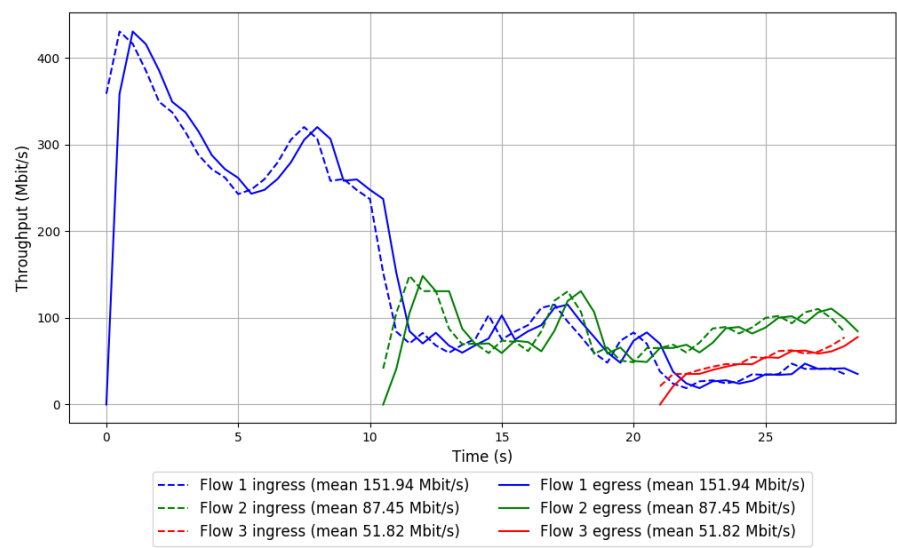


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-28 13:04:18  
End at: 2019-06-28 13:04:48  
Local clock offset: 0.439 ms  
Remote clock offset: -4.015 ms

# Below is generated by plot.py at 2019-06-28 14:51:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 219.89 Mbit/s  
95th percentile per-packet one-way delay: 0.995 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 151.94 Mbit/s  
95th percentile per-packet one-way delay: 0.989 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 87.45 Mbit/s  
95th percentile per-packet one-way delay: 1.063 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 51.82 Mbit/s  
95th percentile per-packet one-way delay: 0.921 ms  
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link

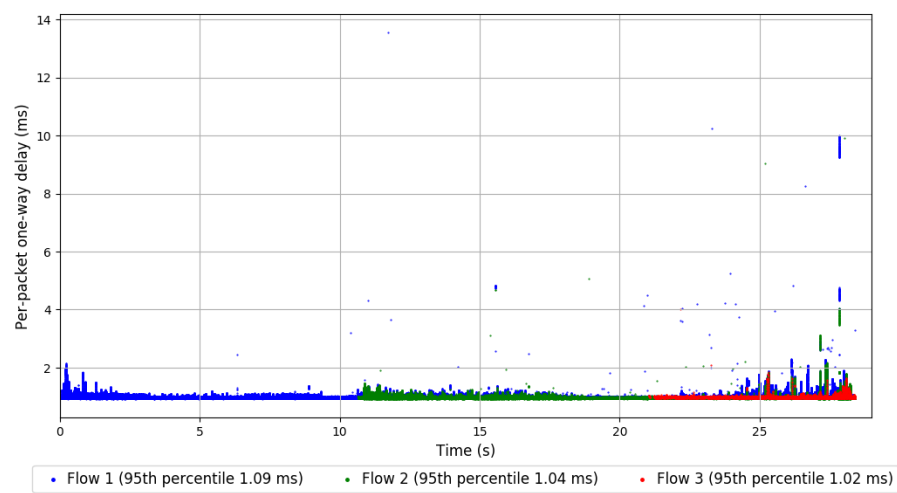
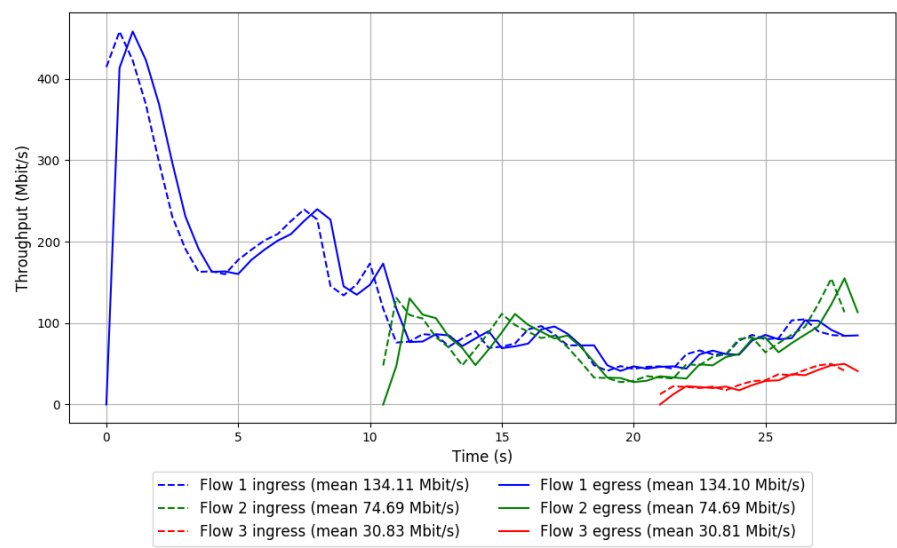


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 13:35:58  
End at: 2019-06-28 13:36:28  
Local clock offset: 0.426 ms  
Remote clock offset: -3.586 ms

# Below is generated by plot.py at 2019-06-28 14:51:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 188.76 Mbit/s  
95th percentile per-packet one-way delay: 1.077 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 134.10 Mbit/s  
95th percentile per-packet one-way delay: 1.086 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 74.69 Mbit/s  
95th percentile per-packet one-way delay: 1.040 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 30.81 Mbit/s  
95th percentile per-packet one-way delay: 1.024 ms  
Loss rate: 0.09%

Run 4: Report of Indigo-MusesC3 — Data Link

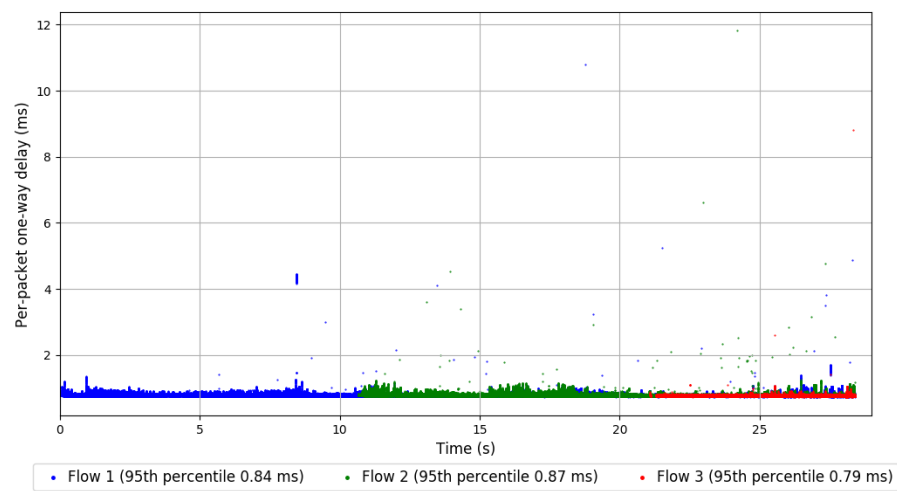
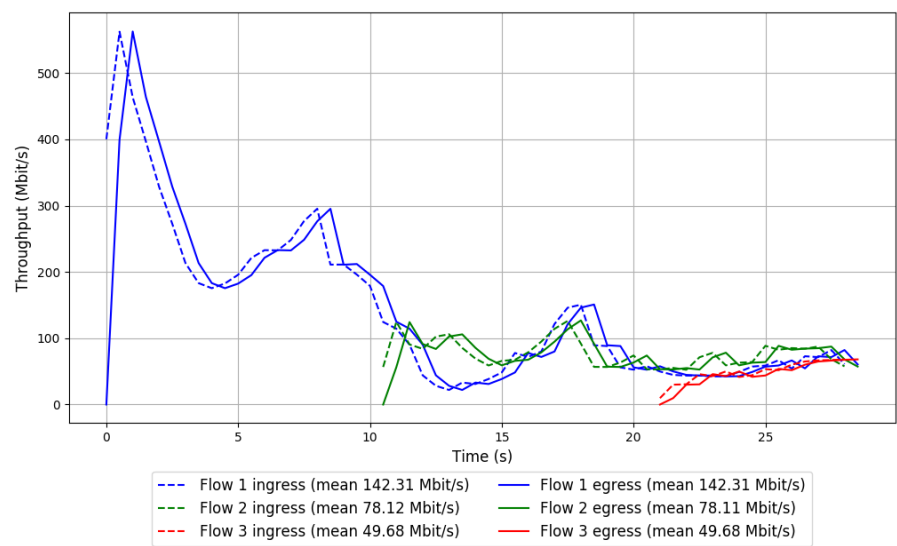


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 14:07:50  
End at: 2019-06-28 14:08:20  
Local clock offset: 3.626 ms  
Remote clock offset: -3.161 ms

# Below is generated by plot.py at 2019-06-28 14:52:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 203.88 Mbit/s  
95th percentile per-packet one-way delay: 0.846 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 142.31 Mbit/s  
95th percentile per-packet one-way delay: 0.844 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 78.11 Mbit/s  
95th percentile per-packet one-way delay: 0.867 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 49.68 Mbit/s  
95th percentile per-packet one-way delay: 0.790 ms  
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-28 11:34:46

End at: 2019-06-28 11:35:16

Local clock offset: 0.521 ms

Remote clock offset: 0.862 ms

# Below is generated by plot.py at 2019-06-28 14:52:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 172.54 Mbit/s

95th percentile per-packet one-way delay: 0.978 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 110.82 Mbit/s

95th percentile per-packet one-way delay: 1.016 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 82.08 Mbit/s

95th percentile per-packet one-way delay: 0.936 ms

Loss rate: 0.00%

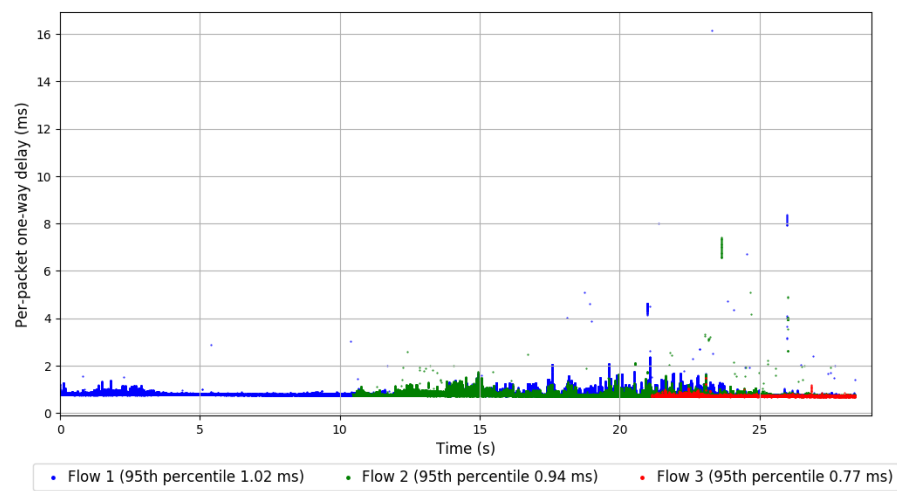
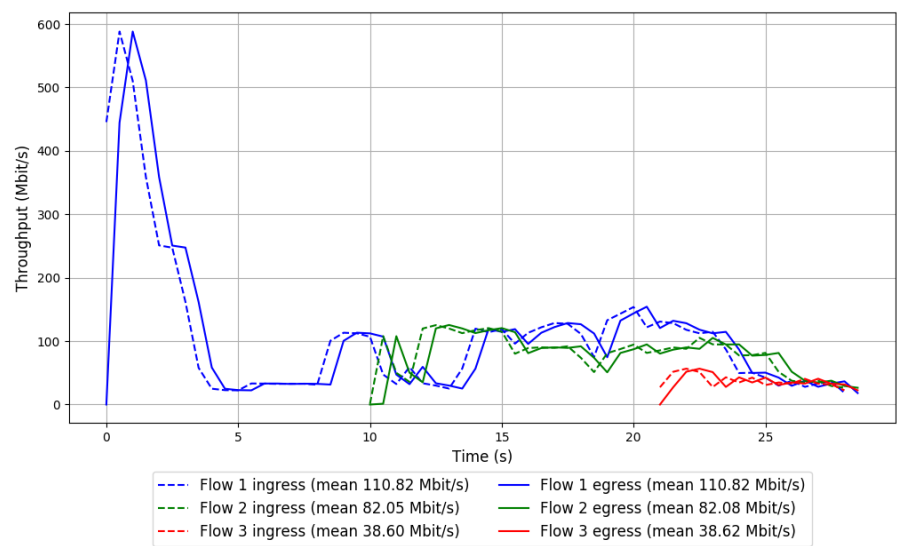
-- Flow 3:

Average throughput: 38.62 Mbit/s

95th percentile per-packet one-way delay: 0.765 ms

Loss rate: 0.01%

Run 1: Report of Indigo-MusesC5 — Data Link





Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-28 12:06:32

End at: 2019-06-28 12:07:02

Local clock offset: 0.373 ms

Remote clock offset: 2.782 ms

# Below is generated by plot.py at 2019-06-28 14:52:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 165.64 Mbit/s

95th percentile per-packet one-way delay: 1.208 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 89.65 Mbit/s

95th percentile per-packet one-way delay: 1.106 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 107.16 Mbit/s

95th percentile per-packet one-way delay: 1.342 ms

Loss rate: 0.00%

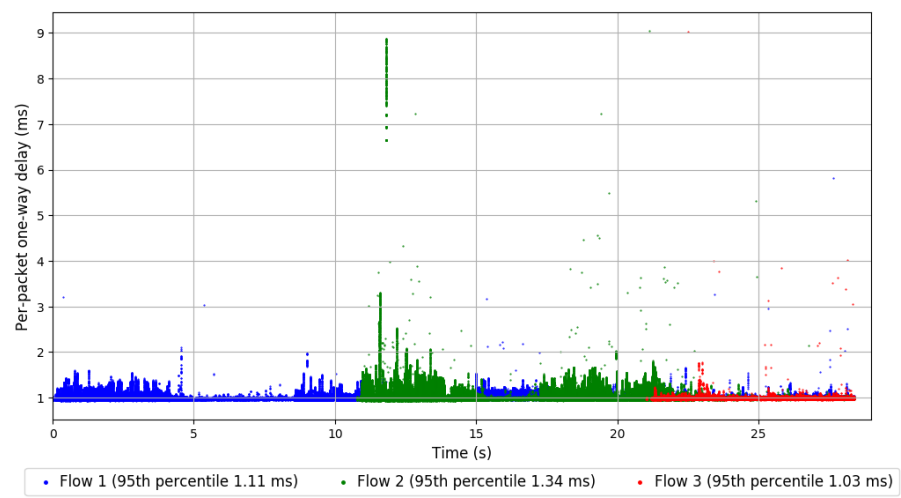
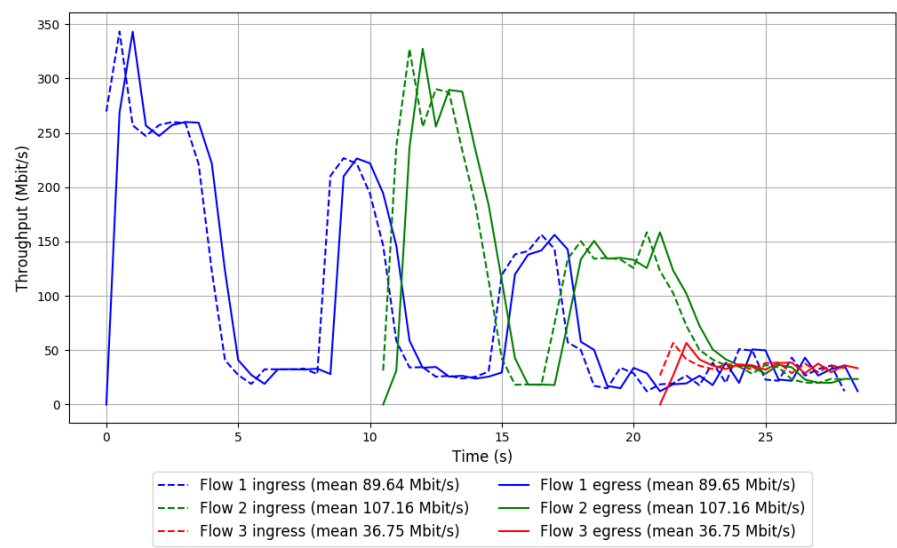
-- Flow 3:

Average throughput: 36.75 Mbit/s

95th percentile per-packet one-way delay: 1.031 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC5 — Data Link

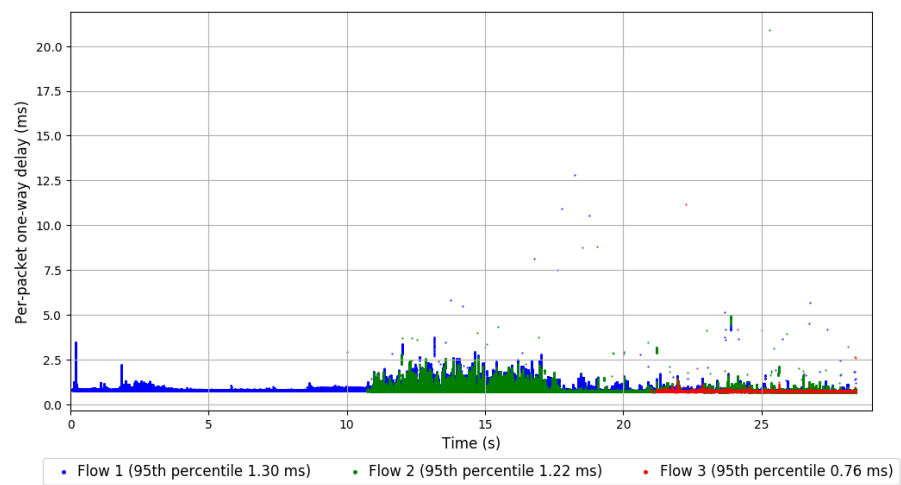
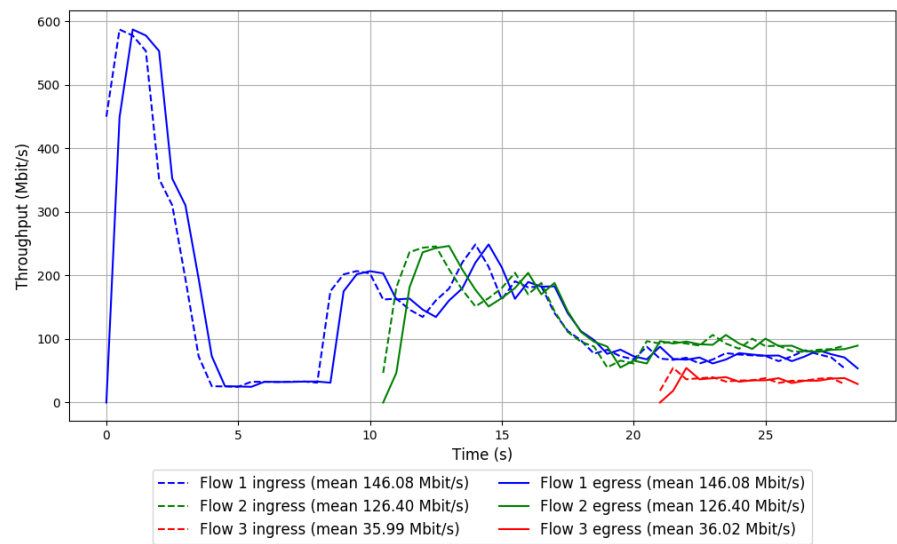


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-28 12:38:14  
End at: 2019-06-28 12:38:44  
Local clock offset: 0.932 ms  
Remote clock offset: -4.178 ms

# Below is generated by plot.py at 2019-06-28 14:53:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 234.10 Mbit/s  
95th percentile per-packet one-way delay: 1.266 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 146.08 Mbit/s  
95th percentile per-packet one-way delay: 1.303 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 126.40 Mbit/s  
95th percentile per-packet one-way delay: 1.216 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 36.02 Mbit/s  
95th percentile per-packet one-way delay: 0.758 ms  
Loss rate: 0.02%

Run 3: Report of Indigo-MusesC5 — Data Link

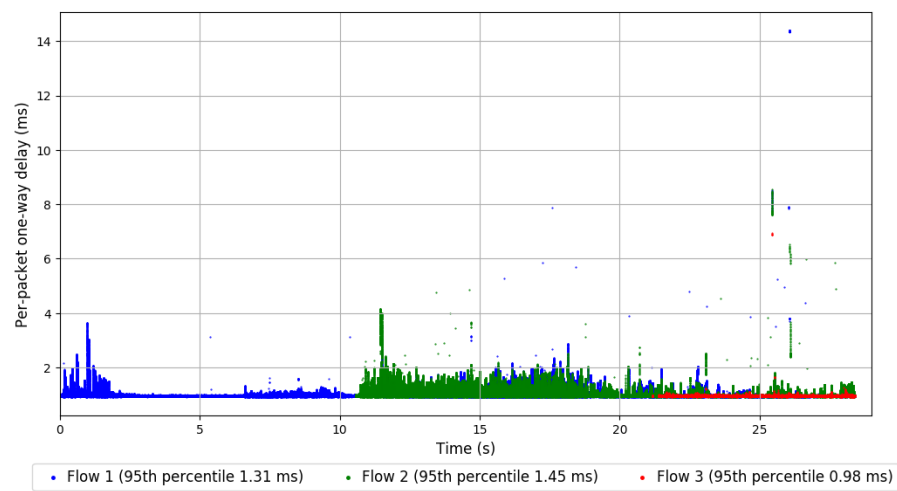
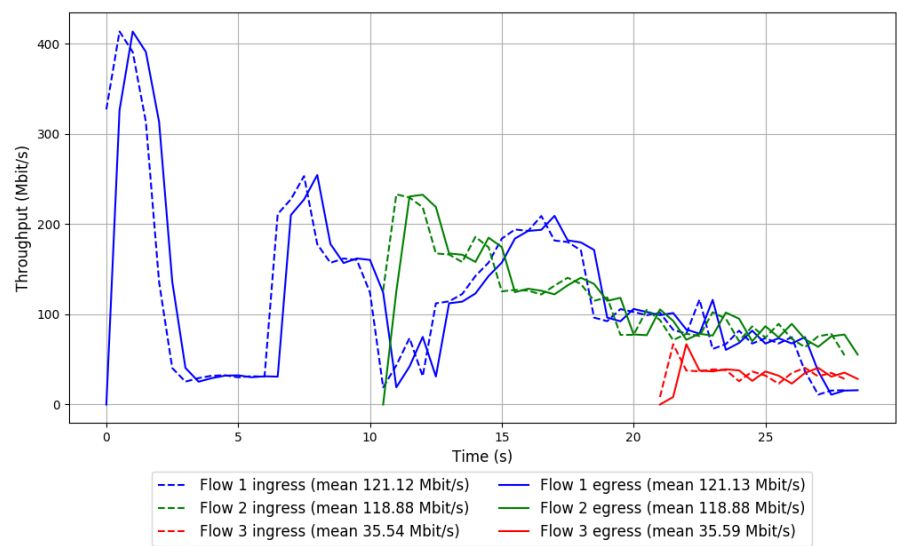


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 13:09:58  
End at: 2019-06-28 13:10:28  
Local clock offset: 0.411 ms  
Remote clock offset: -4.124 ms

# Below is generated by plot.py at 2019-06-28 14:53:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 204.84 Mbit/s  
95th percentile per-packet one-way delay: 1.380 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 121.13 Mbit/s  
95th percentile per-packet one-way delay: 1.312 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 118.88 Mbit/s  
95th percentile per-packet one-way delay: 1.454 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 35.59 Mbit/s  
95th percentile per-packet one-way delay: 0.978 ms  
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC5 — Data Link

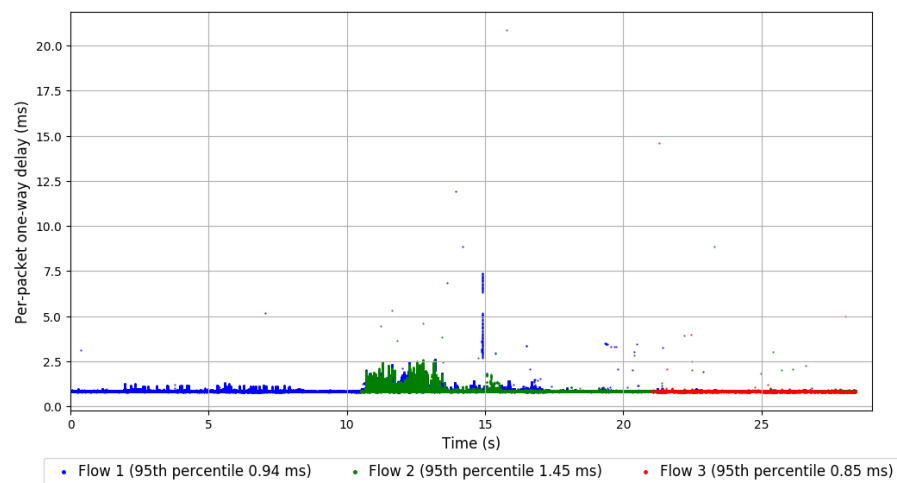
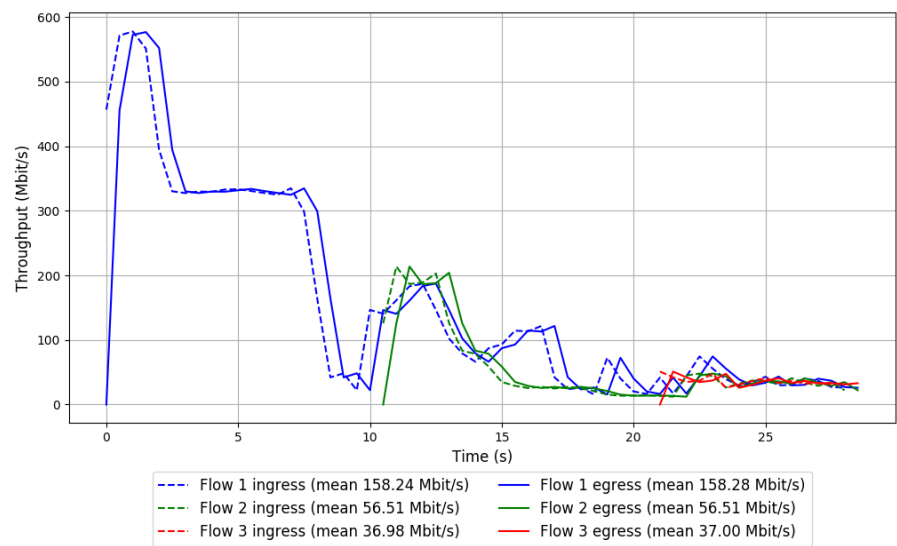


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 13:41:48  
End at: 2019-06-28 13:42:18  
Local clock offset: 0.528 ms  
Remote clock offset: -3.398 ms

# Below is generated by plot.py at 2019-06-28 14:53:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 203.48 Mbit/s  
95th percentile per-packet one-way delay: 1.053 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 158.28 Mbit/s  
95th percentile per-packet one-way delay: 0.936 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 56.51 Mbit/s  
95th percentile per-packet one-way delay: 1.454 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 37.00 Mbit/s  
95th percentile per-packet one-way delay: 0.851 ms  
Loss rate: 0.02%

Run 5: Report of Indigo-MusesC5 — Data Link





Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-28 11:40:00

End at: 2019-06-28 11:40:30

Local clock offset: 1.63 ms

Remote clock offset: 1.309 ms

# Below is generated by plot.py at 2019-06-28 14:53:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.55 Mbit/s

95th percentile per-packet one-way delay: 0.819 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 68.65 Mbit/s

95th percentile per-packet one-way delay: 0.825 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.71 Mbit/s

95th percentile per-packet one-way delay: 0.812 ms

Loss rate: 0.00%

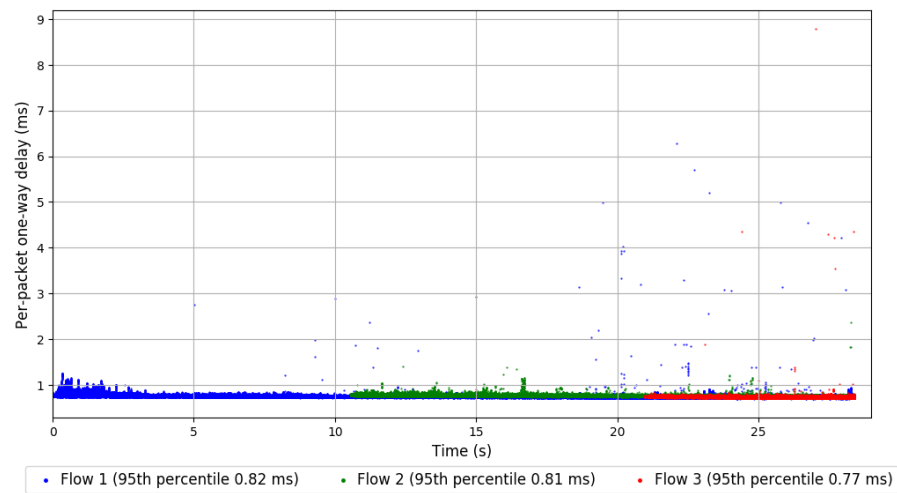
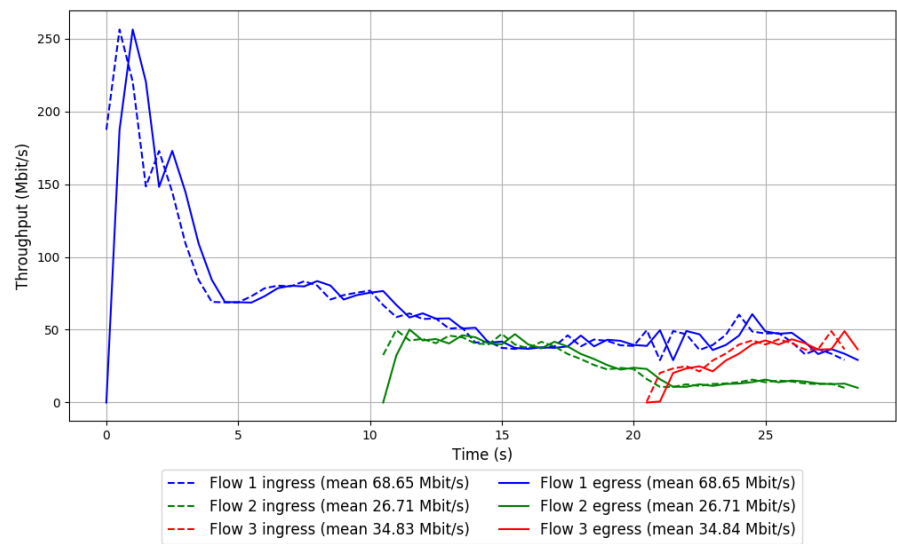
-- Flow 3:

Average throughput: 34.84 Mbit/s

95th percentile per-packet one-way delay: 0.772 ms

Loss rate: 0.01%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-28 12:11:44

End at: 2019-06-28 12:12:14

Local clock offset: 0.368 ms

Remote clock offset: 3.164 ms

# Below is generated by plot.py at 2019-06-28 14:53:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.20 Mbit/s

95th percentile per-packet one-way delay: 0.943 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 64.76 Mbit/s

95th percentile per-packet one-way delay: 0.938 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 44.51 Mbit/s

95th percentile per-packet one-way delay: 0.959 ms

Loss rate: 0.00%

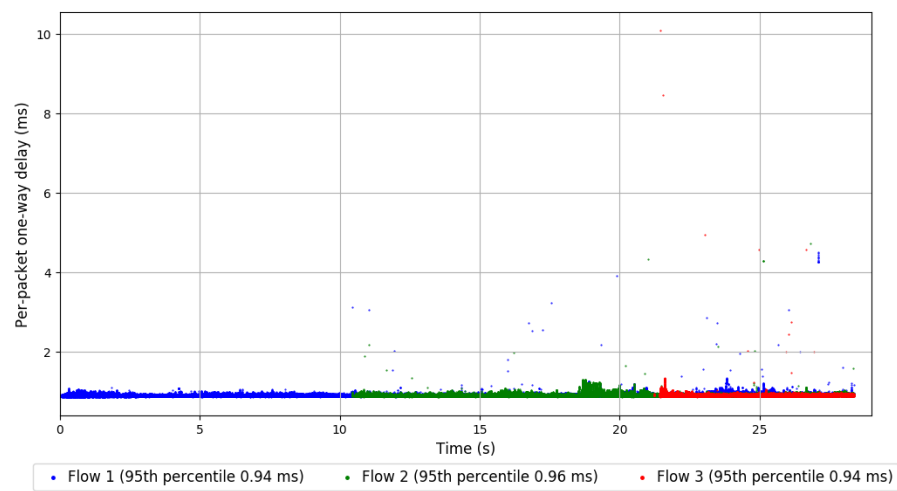
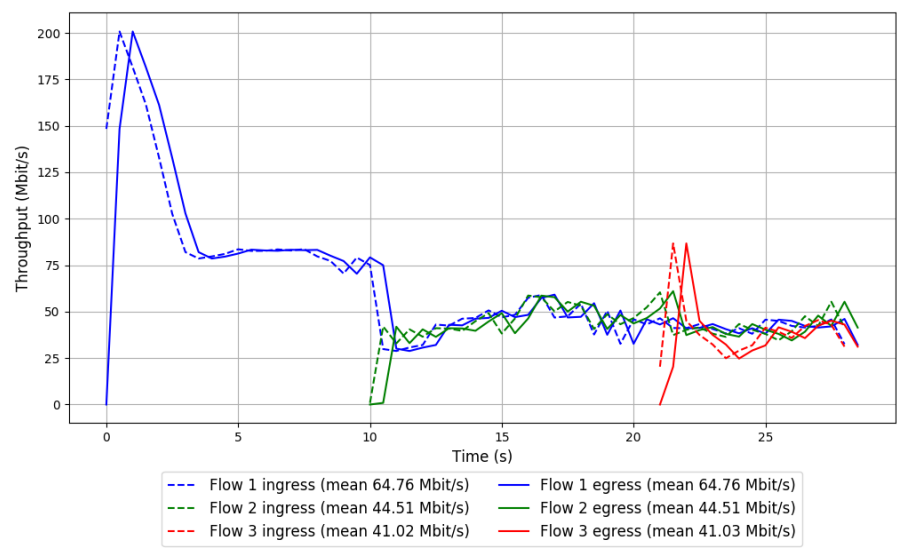
-- Flow 3:

Average throughput: 41.03 Mbit/s

95th percentile per-packet one-way delay: 0.943 ms

Loss rate: 0.03%

Run 2: Report of Indigo-MusesD — Data Link

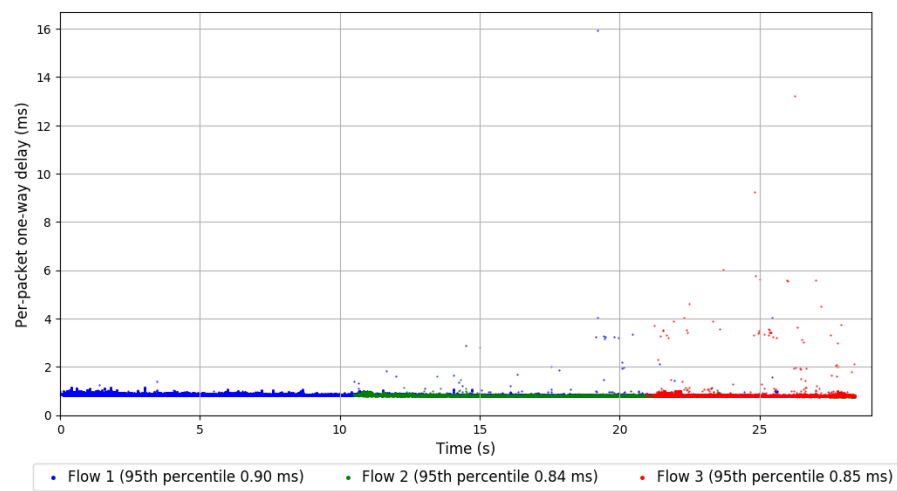
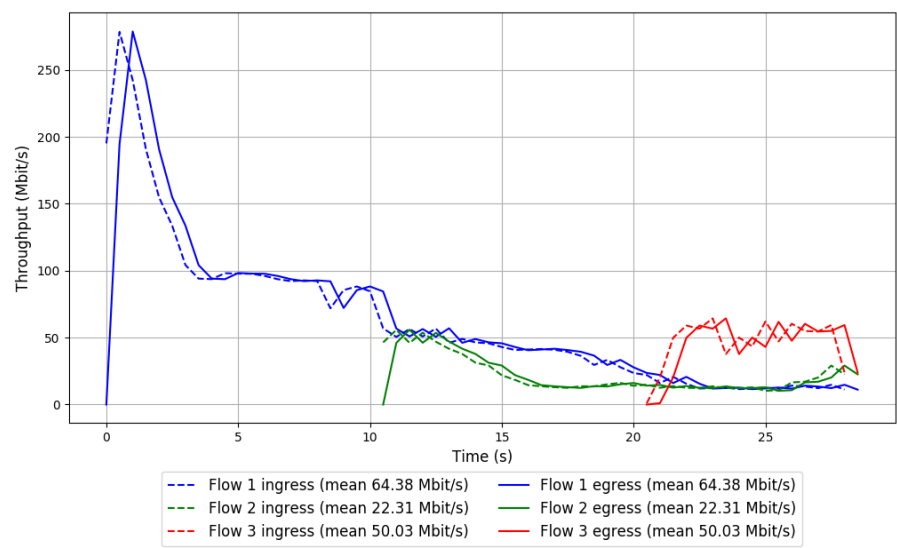


Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 12:43:30  
End at: 2019-06-28 12:44:00  
Local clock offset: 1.123 ms  
Remote clock offset: -4.909 ms

# Below is generated by plot.py at 2019-06-28 14:53:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.54 Mbit/s  
95th percentile per-packet one-way delay: 0.888 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 64.38 Mbit/s  
95th percentile per-packet one-way delay: 0.895 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 22.31 Mbit/s  
95th percentile per-packet one-way delay: 0.842 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 50.03 Mbit/s  
95th percentile per-packet one-way delay: 0.854 ms  
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link

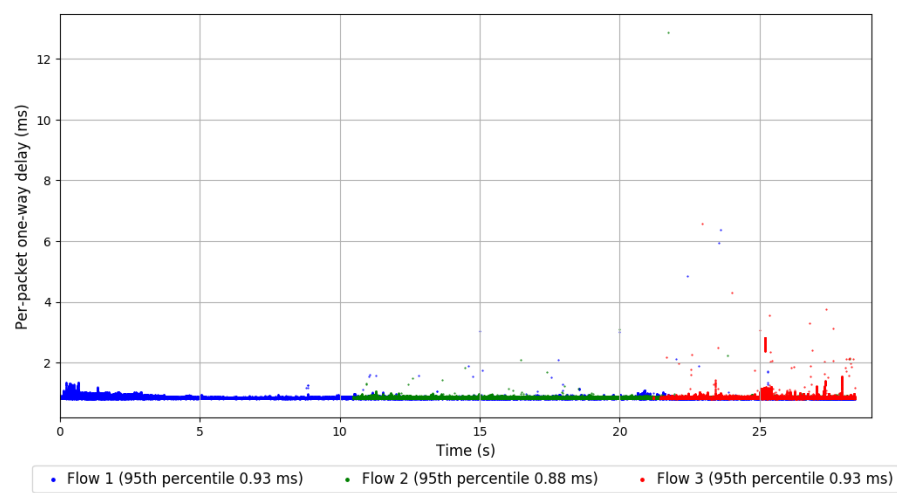
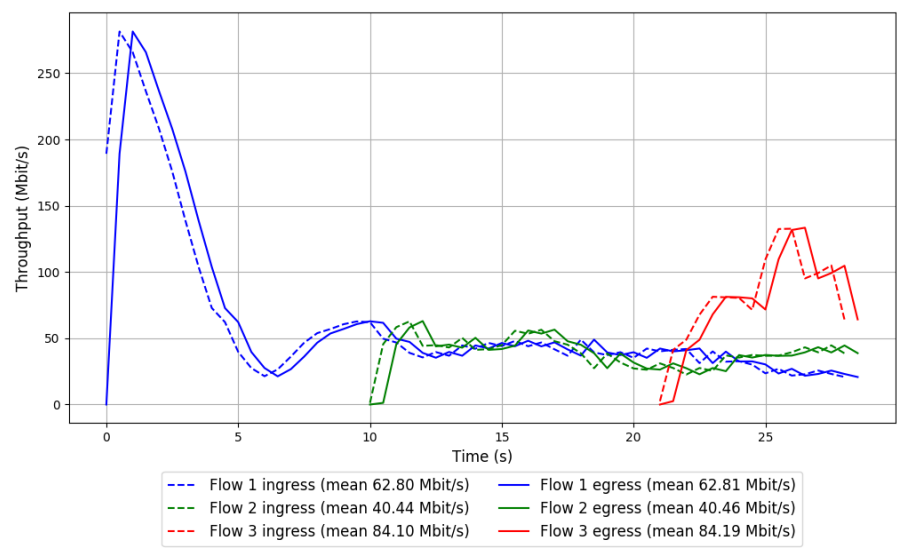


Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 13:15:11  
End at: 2019-06-28 13:15:41  
Local clock offset: 0.431 ms  
Remote clock offset: -4.127 ms

# Below is generated by plot.py at 2019-06-28 14:53:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 109.68 Mbit/s  
95th percentile per-packet one-way delay: 0.913 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 62.81 Mbit/s  
95th percentile per-packet one-way delay: 0.926 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 40.46 Mbit/s  
95th percentile per-packet one-way delay: 0.875 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 84.19 Mbit/s  
95th percentile per-packet one-way delay: 0.930 ms  
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



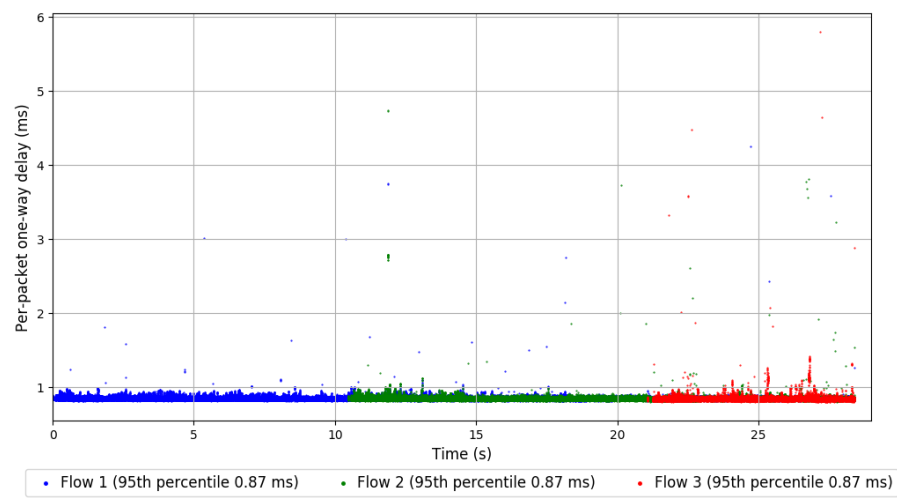
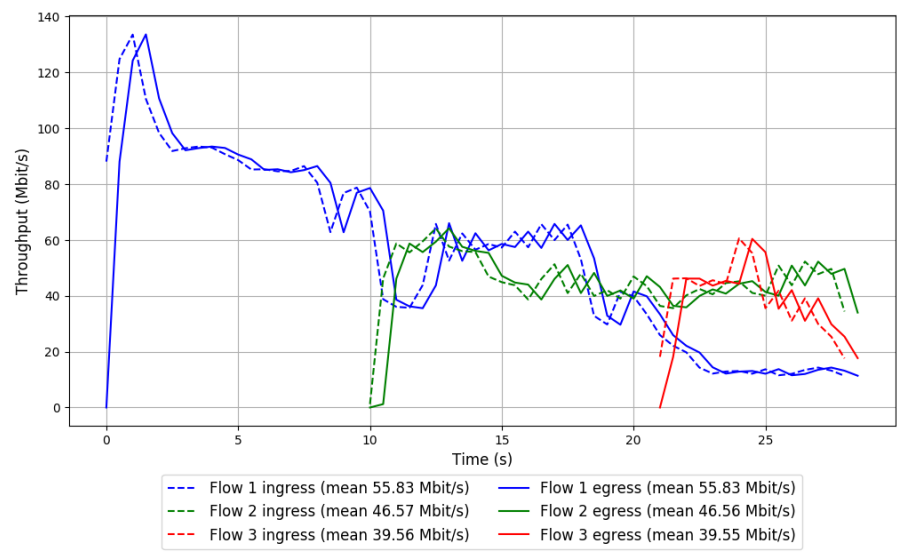


Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 13:47:02  
End at: 2019-06-28 13:47:32  
Local clock offset: 0.589 ms  
Remote clock offset: -3.436 ms

# Below is generated by plot.py at 2019-06-28 14:53:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.45 Mbit/s  
95th percentile per-packet one-way delay: 0.873 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 55.83 Mbit/s  
95th percentile per-packet one-way delay: 0.874 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 46.56 Mbit/s  
95th percentile per-packet one-way delay: 0.871 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 39.55 Mbit/s  
95th percentile per-packet one-way delay: 0.873 ms  
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-28 11:37:24

End at: 2019-06-28 11:37:54

Local clock offset: 1.139 ms

Remote clock offset: 1.118 ms

# Below is generated by plot.py at 2019-06-28 14:54:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 185.59 Mbit/s

95th percentile per-packet one-way delay: 0.857 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 137.46 Mbit/s

95th percentile per-packet one-way delay: 0.858 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.98 Mbit/s

95th percentile per-packet one-way delay: 0.869 ms

Loss rate: 0.00%

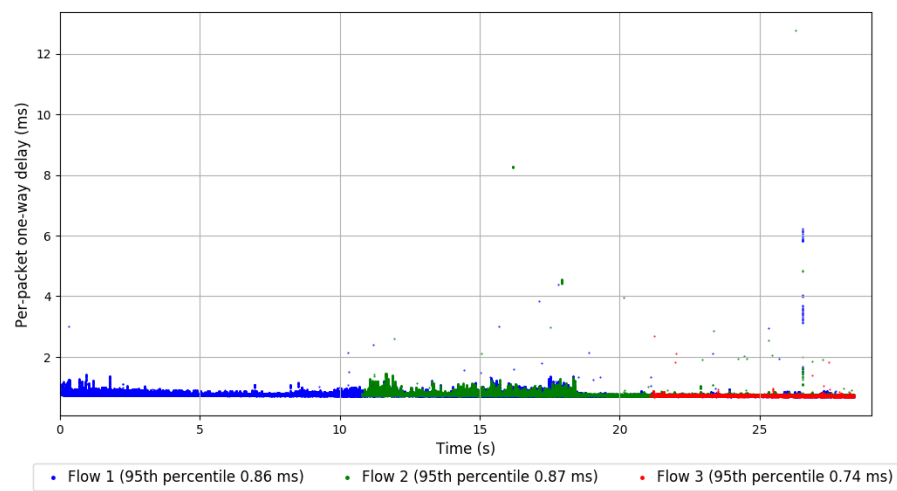
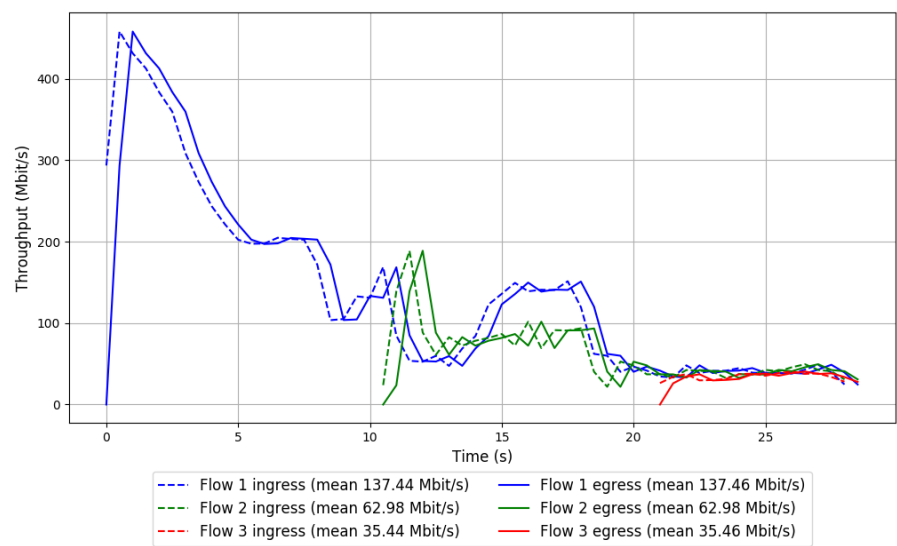
-- Flow 3:

Average throughput: 35.46 Mbit/s

95th percentile per-packet one-way delay: 0.740 ms

Loss rate: 0.07%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-28 12:09:08

End at: 2019-06-28 12:09:38

Local clock offset: 0.378 ms

Remote clock offset: 3.064 ms

# Below is generated by plot.py at 2019-06-28 14:54:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 188.24 Mbit/s

95th percentile per-packet one-way delay: 0.932 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 137.48 Mbit/s

95th percentile per-packet one-way delay: 0.922 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 64.98 Mbit/s

95th percentile per-packet one-way delay: 0.976 ms

Loss rate: 0.00%

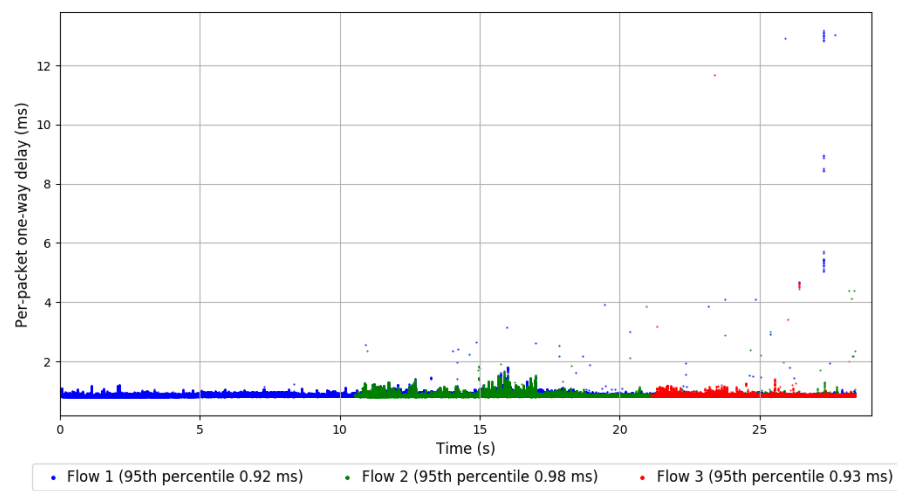
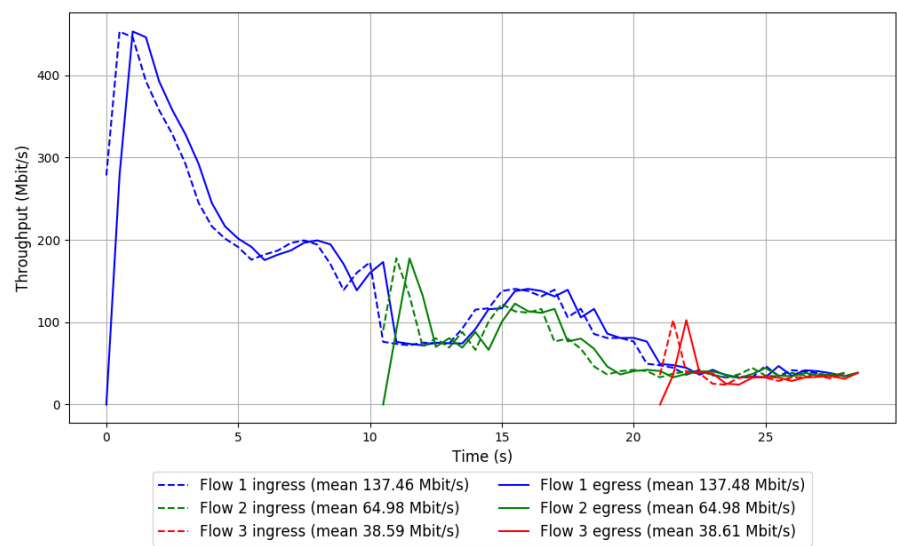
-- Flow 3:

Average throughput: 38.61 Mbit/s

95th percentile per-packet one-way delay: 0.933 ms

Loss rate: 0.02%

Run 2: Report of Indigo-MusesT — Data Link

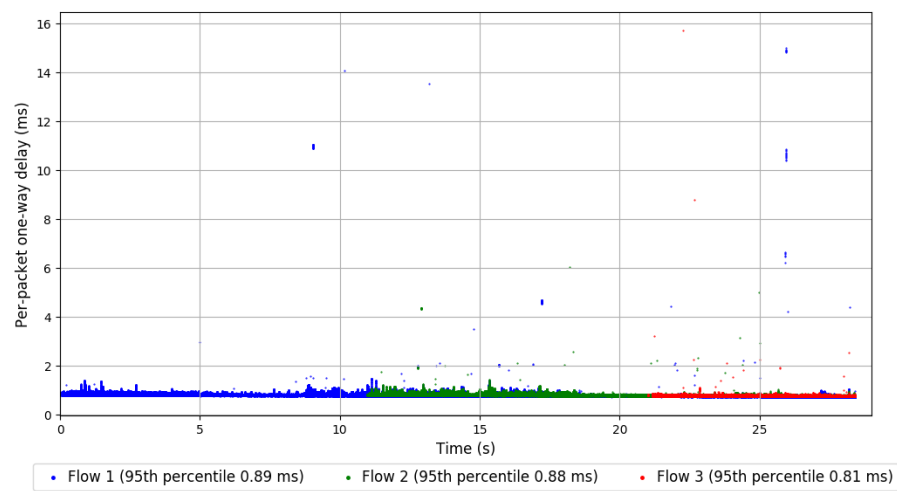
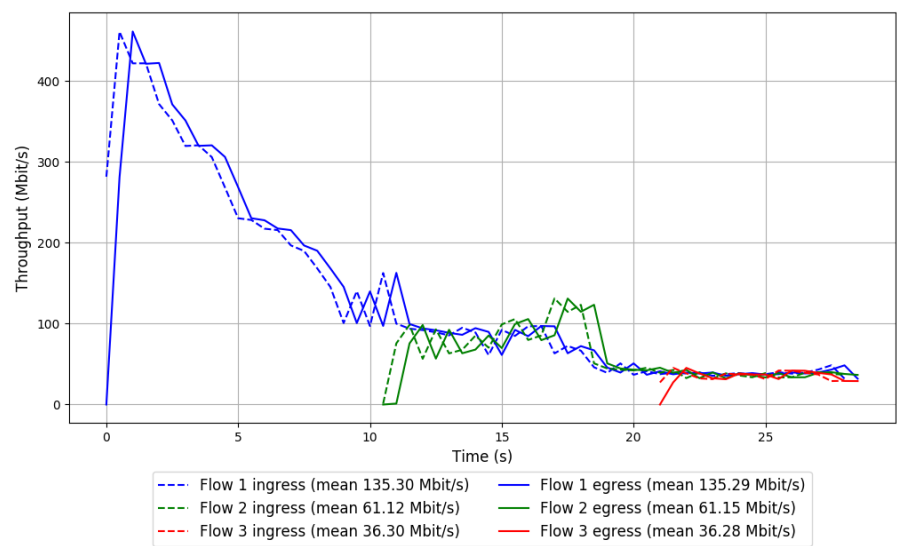


Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-28 12:40:54  
End at: 2019-06-28 12:41:24  
Local clock offset: 1.025 ms  
Remote clock offset: -4.578 ms

# Below is generated by plot.py at 2019-06-28 14:55:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 182.24 Mbit/s  
95th percentile per-packet one-way delay: 0.889 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 135.29 Mbit/s  
95th percentile per-packet one-way delay: 0.894 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 61.15 Mbit/s  
95th percentile per-packet one-way delay: 0.875 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 36.28 Mbit/s  
95th percentile per-packet one-way delay: 0.812 ms  
Loss rate: 0.07%

Run 3: Report of Indigo-MusesT — Data Link



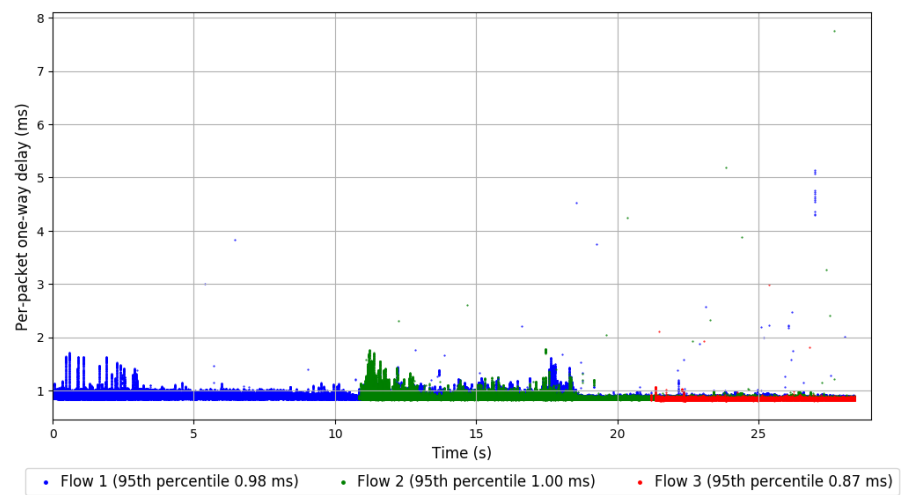
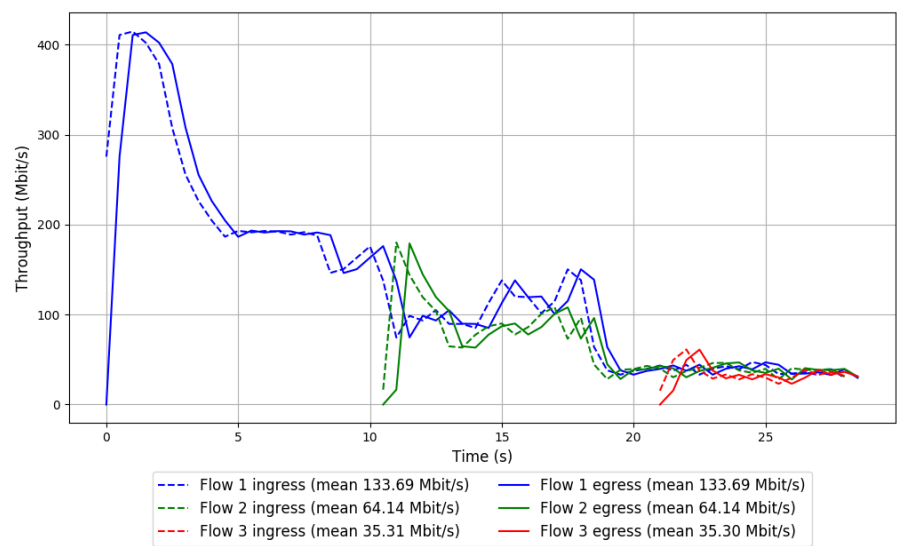


Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-28 13:12:36  
End at: 2019-06-28 13:13:06  
Local clock offset: 0.437 ms  
Remote clock offset: -4.064 ms

# Below is generated by plot.py at 2019-06-28 14:55:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 182.26 Mbit/s  
95th percentile per-packet one-way delay: 0.981 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 133.69 Mbit/s  
95th percentile per-packet one-way delay: 0.980 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 64.14 Mbit/s  
95th percentile per-packet one-way delay: 1.004 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 35.30 Mbit/s  
95th percentile per-packet one-way delay: 0.868 ms  
Loss rate: 0.09%

Run 4: Report of Indigo-MusesT — Data Link

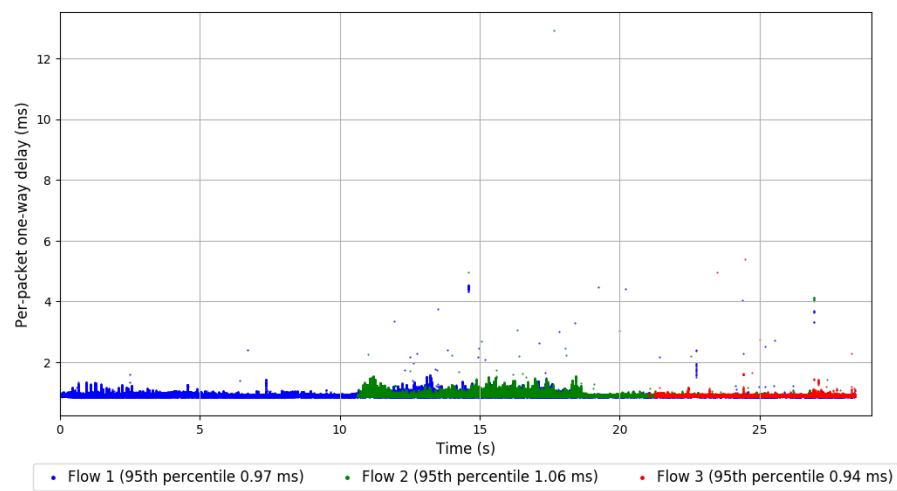
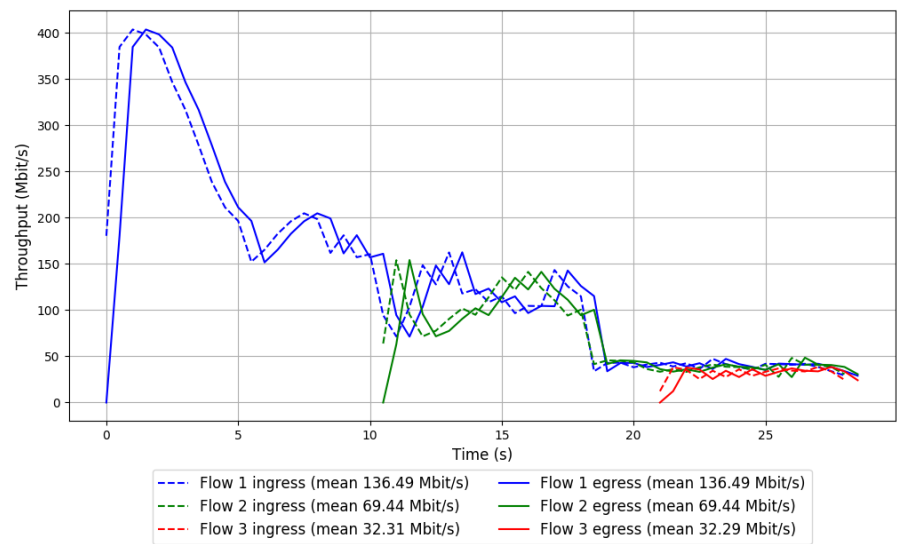


Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-28 13:44:26  
End at: 2019-06-28 13:44:56  
Local clock offset: 0.549 ms  
Remote clock offset: -3.479 ms

# Below is generated by plot.py at 2019-06-28 14:55:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 188.23 Mbit/s  
95th percentile per-packet one-way delay: 0.991 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 136.49 Mbit/s  
95th percentile per-packet one-way delay: 0.969 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 69.44 Mbit/s  
95th percentile per-packet one-way delay: 1.064 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.29 Mbit/s  
95th percentile per-packet one-way delay: 0.940 ms  
Loss rate: 0.07%

Run 5: Report of Indigo-MusesT — Data Link

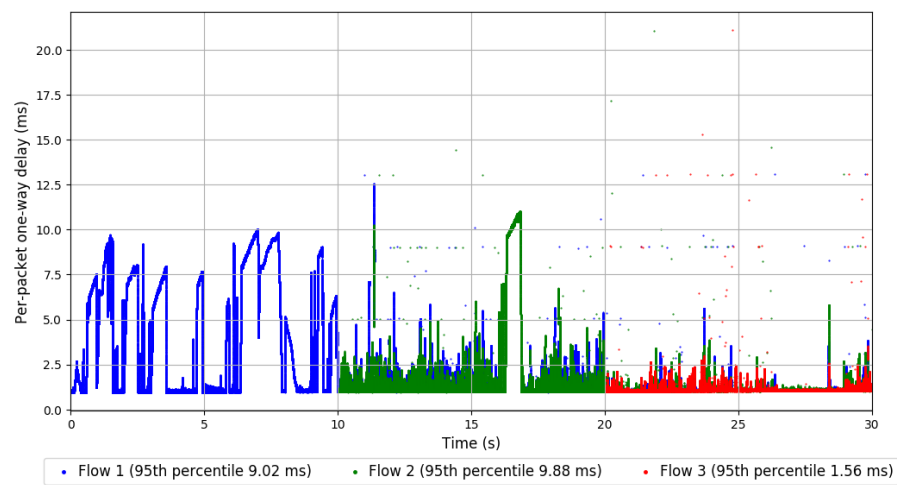
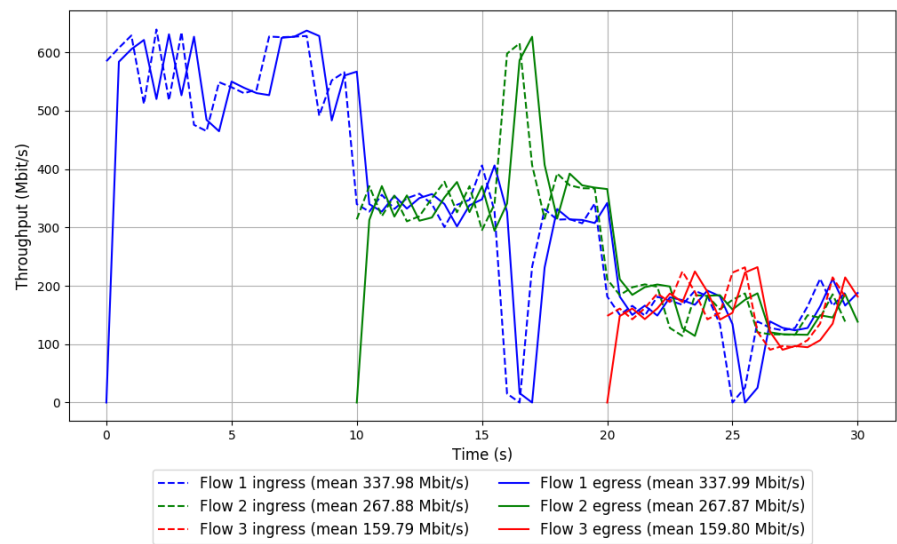


```
Run 1: Statistics of LEDBAT

Start at: 2019-06-28 11:55:08
End at: 2019-06-28 11:55:38
Local clock offset: 1.137 ms
Remote clock offset: 2.223 ms

# Below is generated by plot.py at 2019-06-28 14:59:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 569.32 Mbit/s
95th percentile per-packet one-way delay: 9.011 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 337.99 Mbit/s
95th percentile per-packet one-way delay: 9.023 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 267.87 Mbit/s
95th percentile per-packet one-way delay: 9.875 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 159.80 Mbit/s
95th percentile per-packet one-way delay: 1.565 ms
Loss rate: 0.02%
```

Run 1: Report of LEDBAT — Data Link

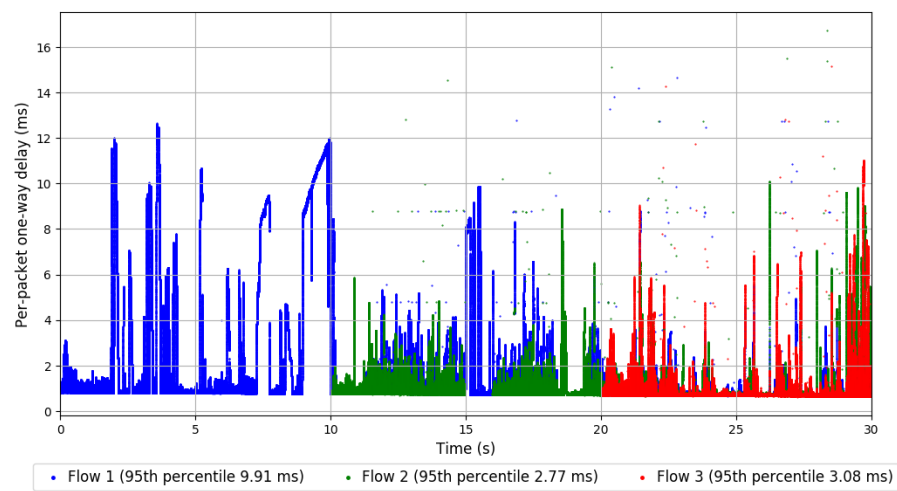
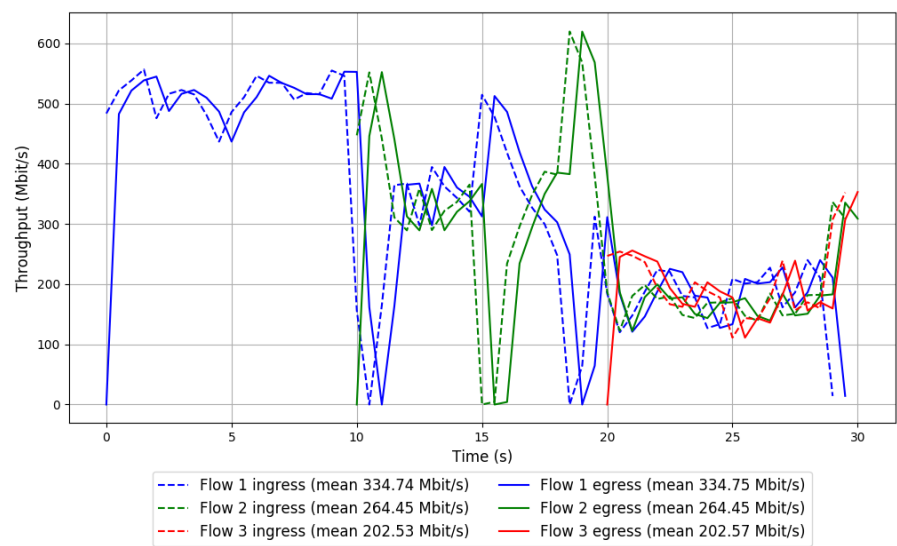


Run 2: Statistics of LEDBAT

Start at: 2019-06-28 12:26:58  
End at: 2019-06-28 12:27:28  
Local clock offset: 0.534 ms  
Remote clock offset: -1.891 ms

# Below is generated by plot.py at 2019-06-28 14:59:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 567.70 Mbit/s  
95th percentile per-packet one-way delay: 8.794 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 334.75 Mbit/s  
95th percentile per-packet one-way delay: 9.911 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 264.45 Mbit/s  
95th percentile per-packet one-way delay: 2.771 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 202.57 Mbit/s  
95th percentile per-packet one-way delay: 3.079 ms  
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link



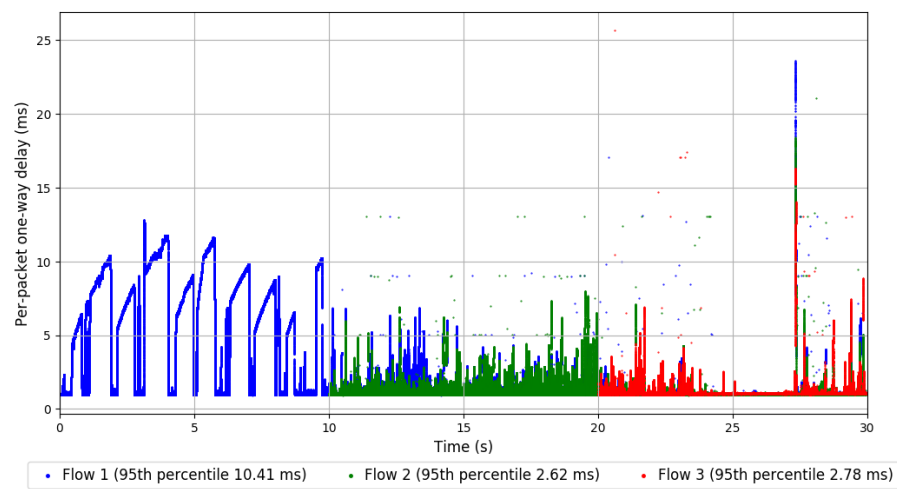
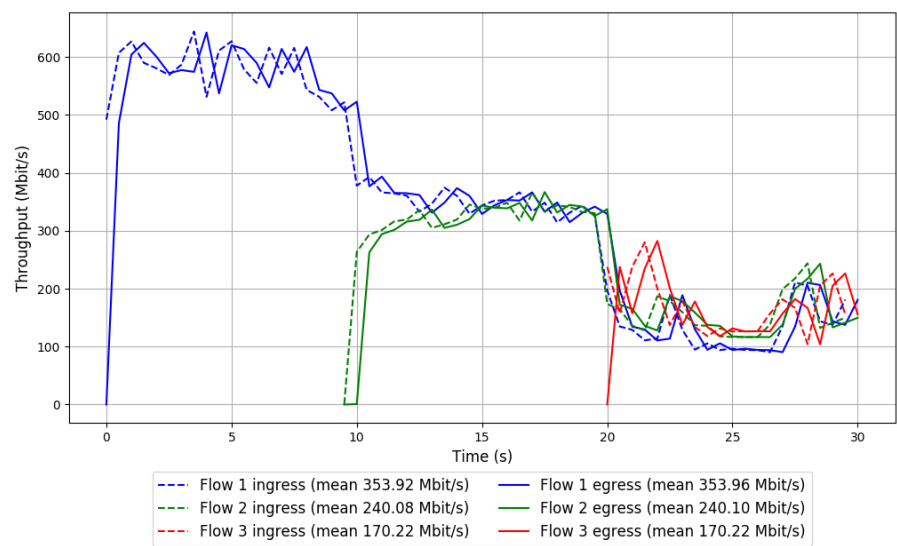


Run 3: Statistics of LEDBAT

Start at: 2019-06-28 12:58:40  
End at: 2019-06-28 12:59:10  
Local clock offset: 0.517 ms  
Remote clock offset: -4.356 ms

# Below is generated by plot.py at 2019-06-28 14:59:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 570.54 Mbit/s  
95th percentile per-packet one-way delay: 9.936 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 353.96 Mbit/s  
95th percentile per-packet one-way delay: 10.414 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 240.10 Mbit/s  
95th percentile per-packet one-way delay: 2.623 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 170.22 Mbit/s  
95th percentile per-packet one-way delay: 2.779 ms  
Loss rate: 0.02%

Run 3: Report of LEDBAT — Data Link

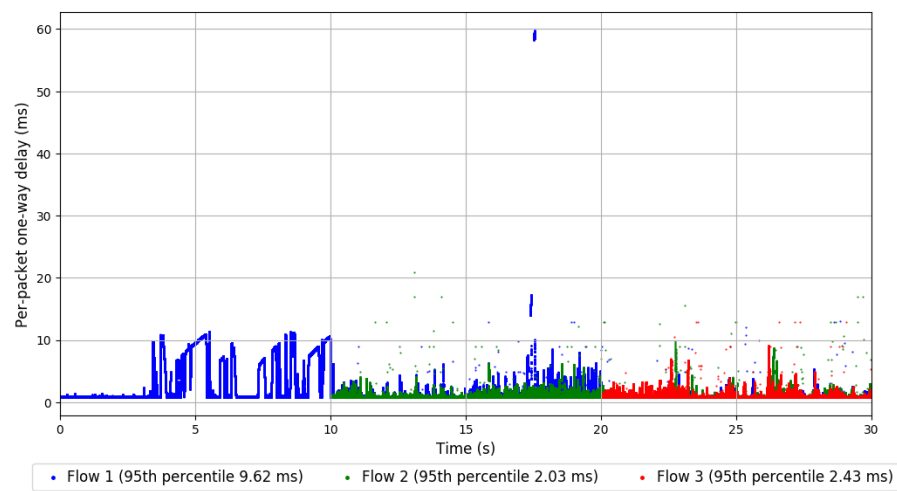
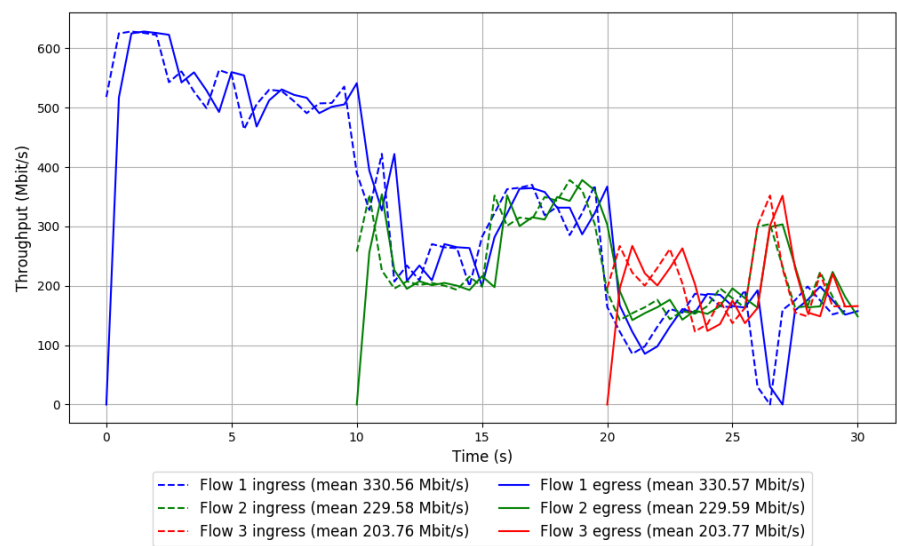


Run 4: Statistics of LEDBAT

Start at: 2019-06-28 13:30:21  
End at: 2019-06-28 13:30:51  
Local clock offset: 0.345 ms  
Remote clock offset: -3.775 ms

# Below is generated by plot.py at 2019-06-28 15:00:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 551.00 Mbit/s  
95th percentile per-packet one-way delay: 8.652 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 330.57 Mbit/s  
95th percentile per-packet one-way delay: 9.622 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 229.59 Mbit/s  
95th percentile per-packet one-way delay: 2.027 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 203.77 Mbit/s  
95th percentile per-packet one-way delay: 2.431 ms  
Loss rate: 0.01%

Run 4: Report of LEDBAT — Data Link

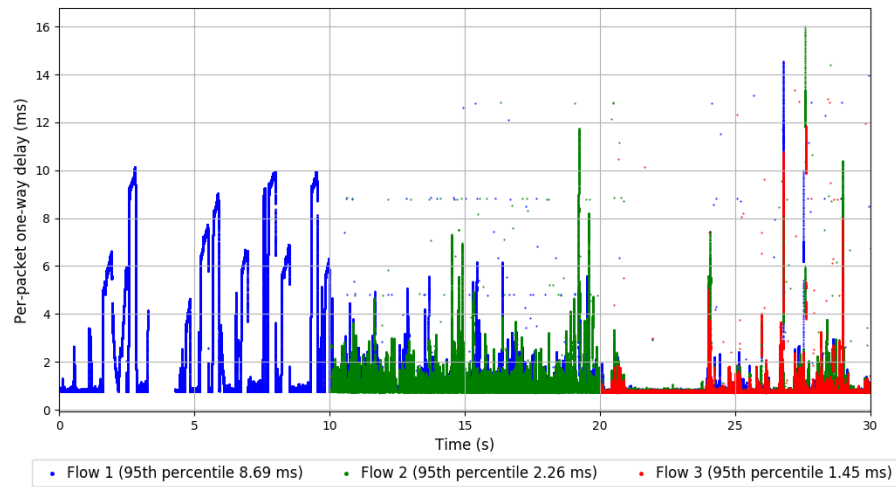
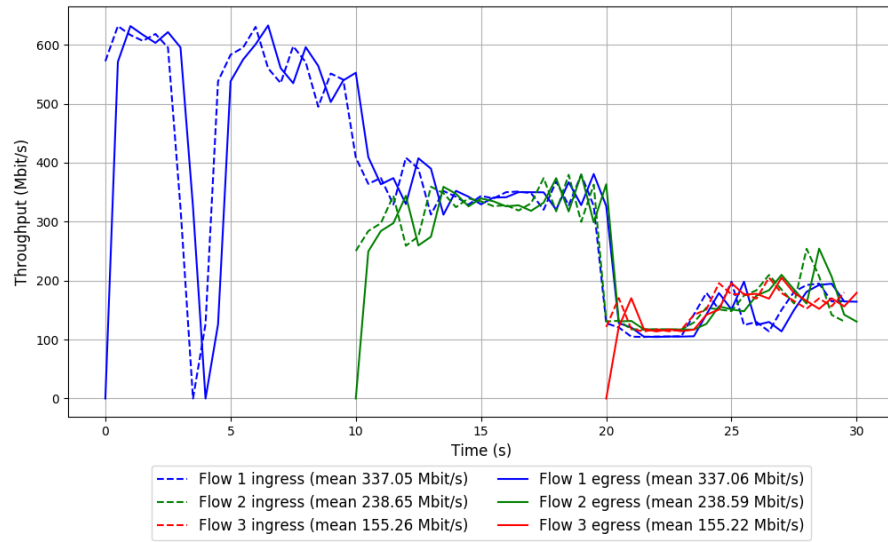


Run 5: Statistics of LEDBAT

Start at: 2019-06-28 14:02:13  
End at: 2019-06-28 14:02:43  
Local clock offset: 3.173 ms  
Remote clock offset: -3.367 ms

# Below is generated by plot.py at 2019-06-28 15:01:19  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 547.44 Mbit/s  
95th percentile per-packet one-way delay: 6.811 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 337.06 Mbit/s  
95th percentile per-packet one-way delay: 8.694 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 238.59 Mbit/s  
95th percentile per-packet one-way delay: 2.264 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 155.22 Mbit/s  
95th percentile per-packet one-way delay: 1.445 ms  
Loss rate: 0.03%

## Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 11:38:45

End at: 2019-06-28 11:39:15

Local clock offset: 1.47 ms

Remote clock offset: 1.155 ms

# Below is generated by plot.py at 2019-06-28 15:01:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 24.84 Mbit/s

95th percentile per-packet one-way delay: 0.910 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.87 Mbit/s

95th percentile per-packet one-way delay: 0.916 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 12.55 Mbit/s

95th percentile per-packet one-way delay: 0.892 ms

Loss rate: 0.00%

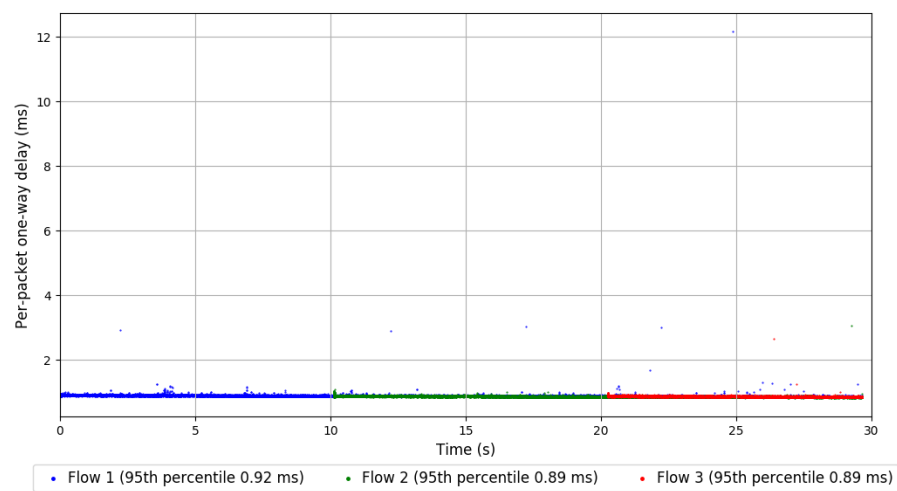
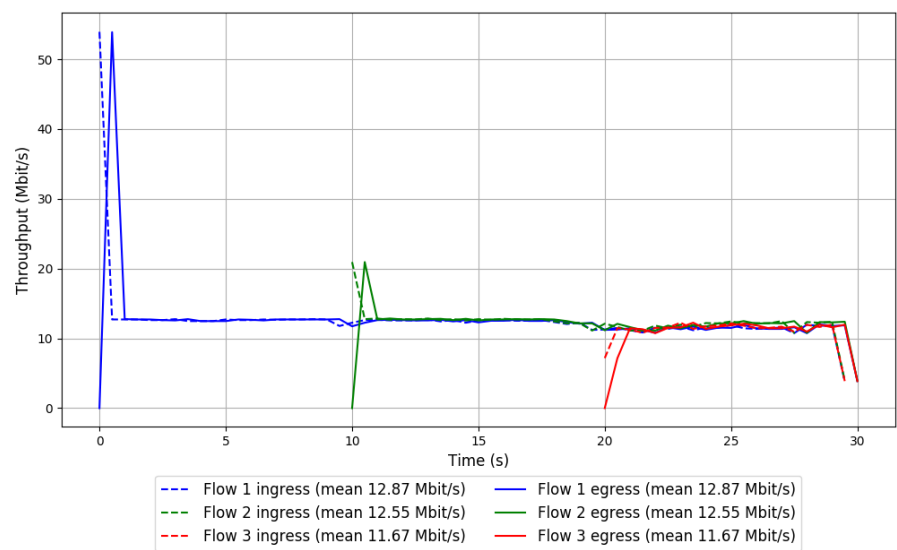
-- Flow 3:

Average throughput: 11.67 Mbit/s

95th percentile per-packet one-way delay: 0.893 ms

Loss rate: 0.02%

Run 1: Report of Muses\_DecisionTree — Data Link





Run 2: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 12:10:29

End at: 2019-06-28 12:10:59

Local clock offset: 0.373 ms

Remote clock offset: 3.019 ms

# Below is generated by plot.py at 2019-06-28 15:01:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 24.98 Mbit/s

95th percentile per-packet one-way delay: 0.994 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 13.00 Mbit/s

95th percentile per-packet one-way delay: 0.993 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 12.33 Mbit/s

95th percentile per-packet one-way delay: 0.993 ms

Loss rate: 0.01%

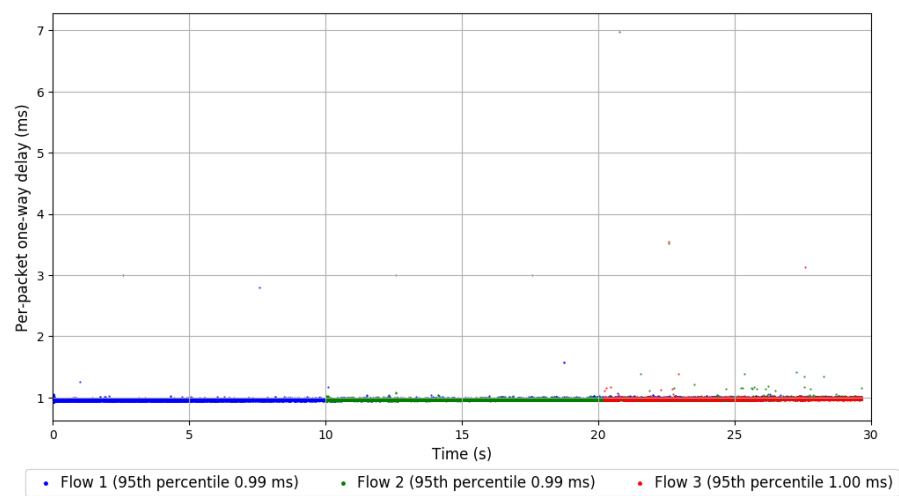
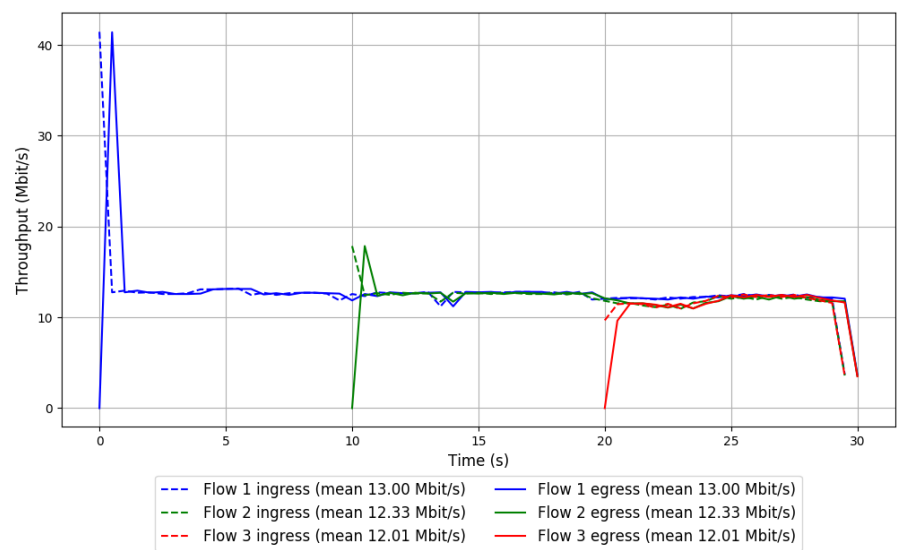
-- Flow 3:

Average throughput: 12.01 Mbit/s

95th percentile per-packet one-way delay: 0.997 ms

Loss rate: 0.02%

Run 2: Report of Muses\_DecisionTree — Data Link

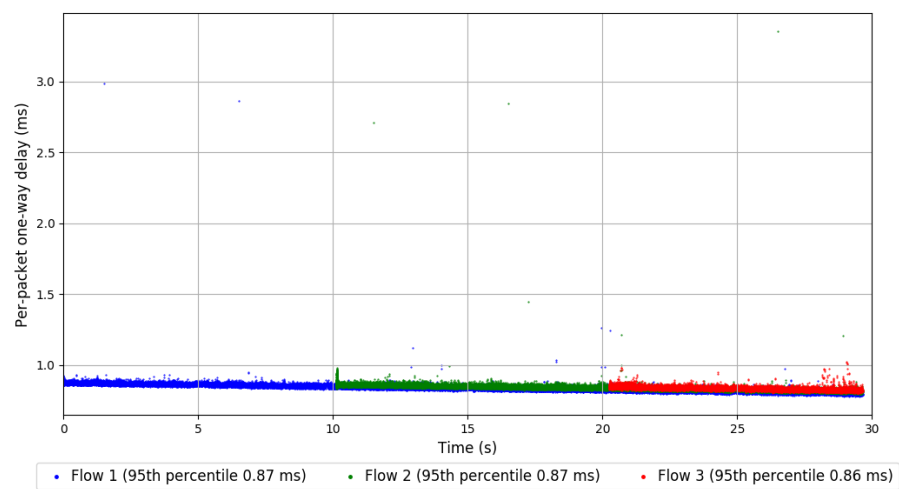
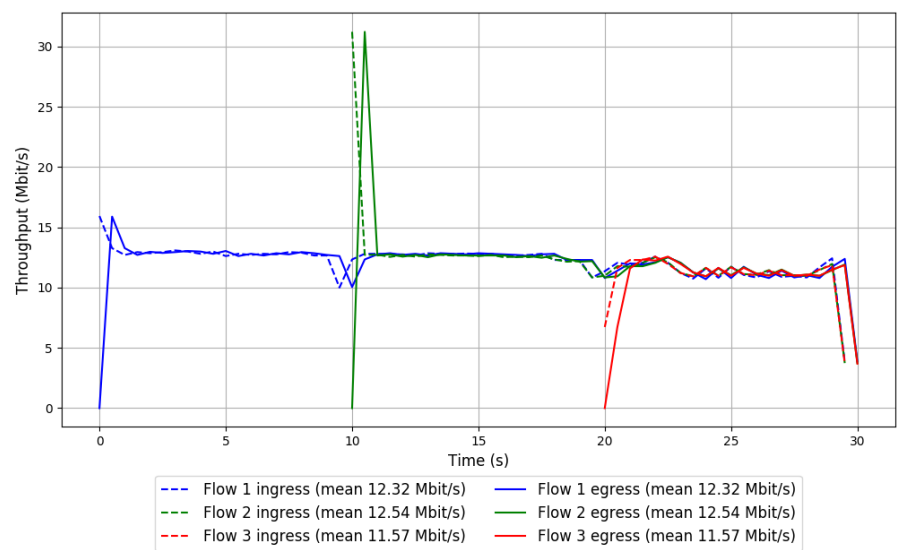


Run 3: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 12:42:14  
End at: 2019-06-28 12:42:44  
Local clock offset: 1.055 ms  
Remote clock offset: -4.814 ms

# Below is generated by plot.py at 2019-06-28 15:01:19  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 24.25 Mbit/s  
95th percentile per-packet one-way delay: 0.872 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 12.32 Mbit/s  
95th percentile per-packet one-way delay: 0.874 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 12.54 Mbit/s  
95th percentile per-packet one-way delay: 0.869 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 11.57 Mbit/s  
95th percentile per-packet one-way delay: 0.859 ms  
Loss rate: 0.02%

Run 3: Report of Muses\_DecisionTree — Data Link

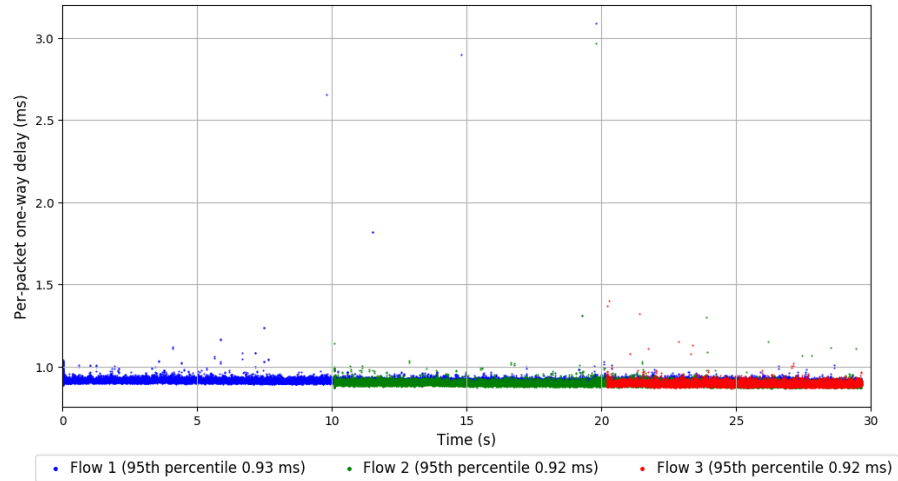
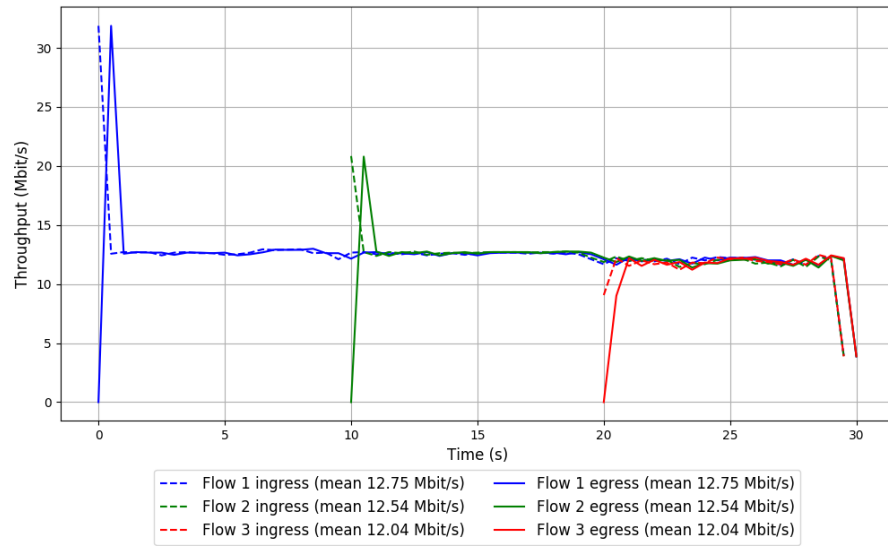


Run 4: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 13:13:56  
End at: 2019-06-28 13:14:26  
Local clock offset: 0.444 ms  
Remote clock offset: -4.141 ms

# Below is generated by plot.py at 2019-06-28 15:01:19  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 24.86 Mbit/s  
95th percentile per-packet one-way delay: 0.929 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 12.75 Mbit/s  
95th percentile per-packet one-way delay: 0.933 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 12.54 Mbit/s  
95th percentile per-packet one-way delay: 0.920 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 12.04 Mbit/s  
95th percentile per-packet one-way delay: 0.919 ms  
Loss rate: 0.02%

#### Run 4: Report of Muses\_DecisionTree — Data Link

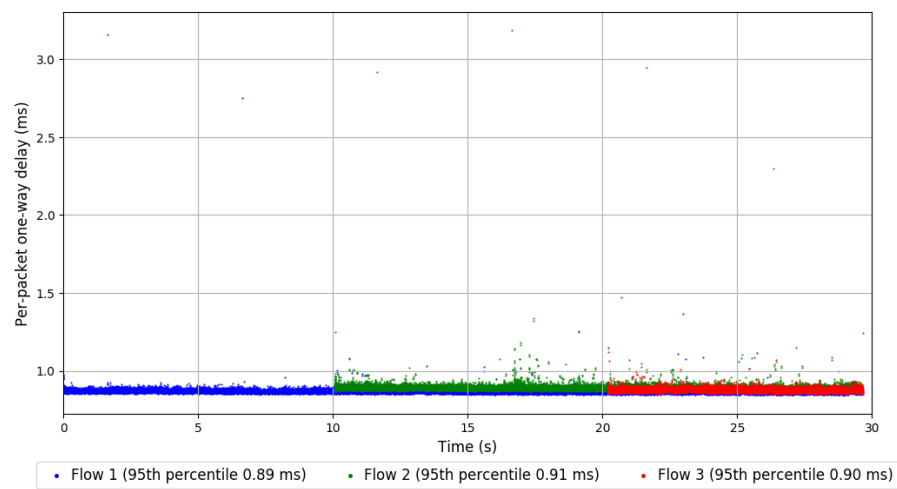
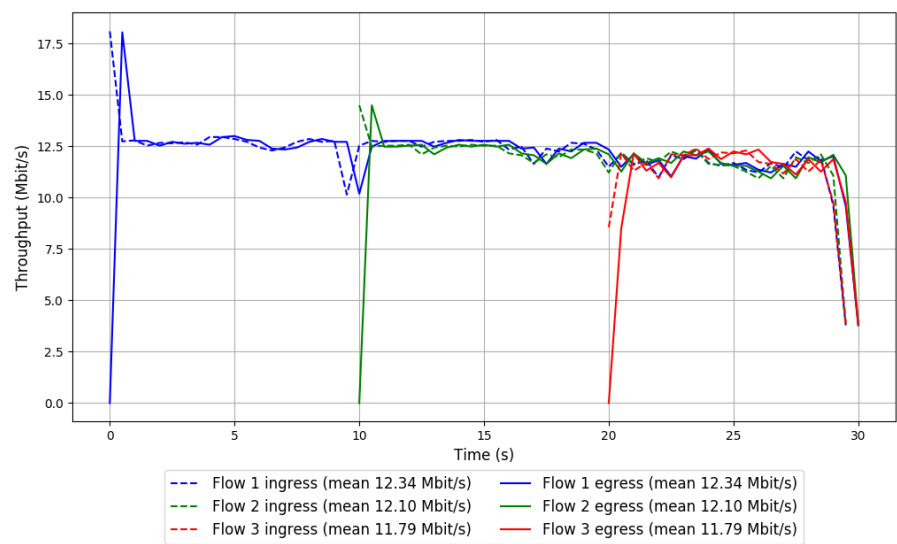


Run 5: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 13:45:46  
End at: 2019-06-28 13:46:16  
Local clock offset: 0.571 ms  
Remote clock offset: -3.472 ms

# Below is generated by plot.py at 2019-06-28 15:01:19  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 24.08 Mbit/s  
95th percentile per-packet one-way delay: 0.904 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 12.34 Mbit/s  
95th percentile per-packet one-way delay: 0.888 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 12.10 Mbit/s  
95th percentile per-packet one-way delay: 0.914 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 11.79 Mbit/s  
95th percentile per-packet one-way delay: 0.900 ms  
Loss rate: 0.02%

Run 5: Report of Muses\_DecisionTree — Data Link



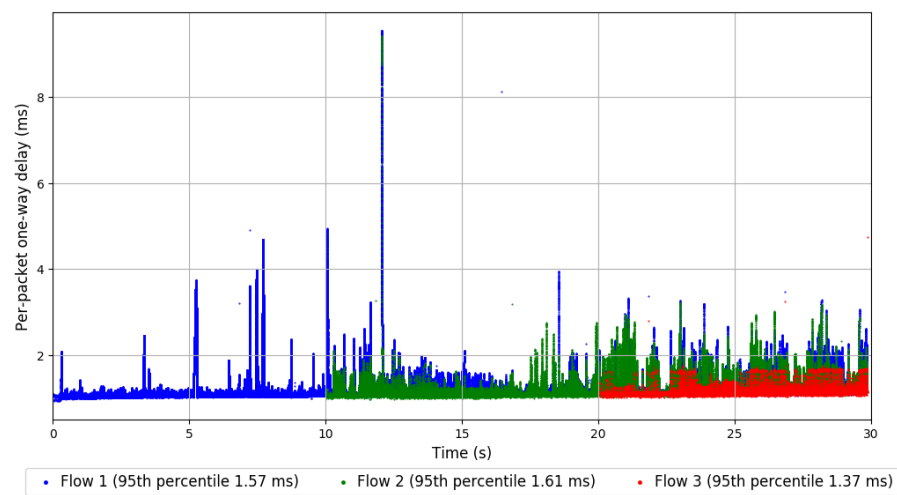
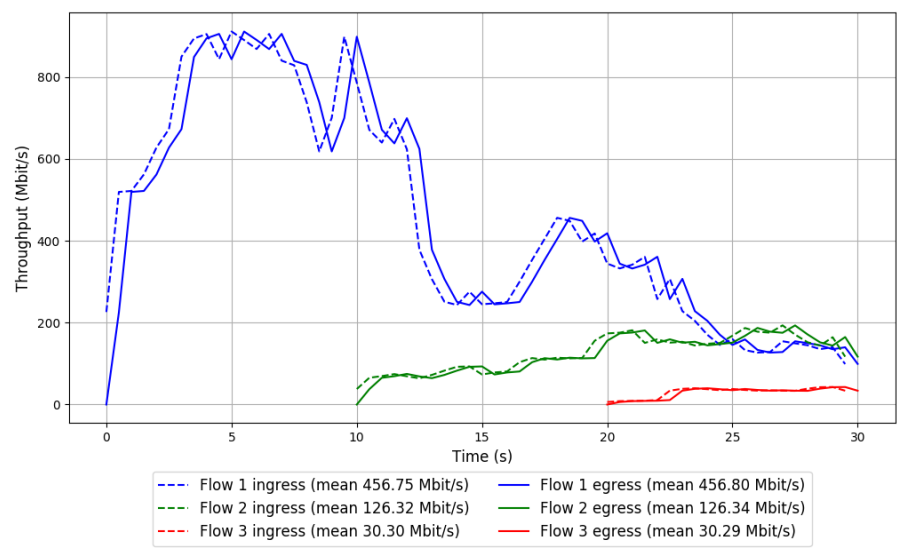


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-06-28 11:51:56
End at: 2019-06-28 11:52:26
Local clock offset: 1.721 ms
Remote clock offset: 2.024 ms

# Below is generated by plot.py at 2019-06-28 15:02:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 550.66 Mbit/s
95th percentile per-packet one-way delay: 1.579 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 456.80 Mbit/s
95th percentile per-packet one-way delay: 1.573 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 126.34 Mbit/s
95th percentile per-packet one-way delay: 1.610 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.29 Mbit/s
95th percentile per-packet one-way delay: 1.366 ms
Loss rate: 0.02%
```

Run 1: Report of PCC-Allegro — Data Link

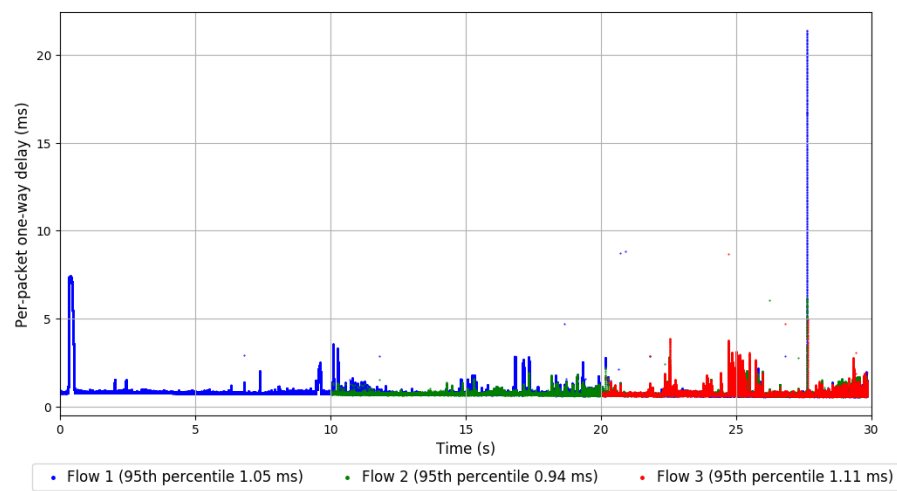
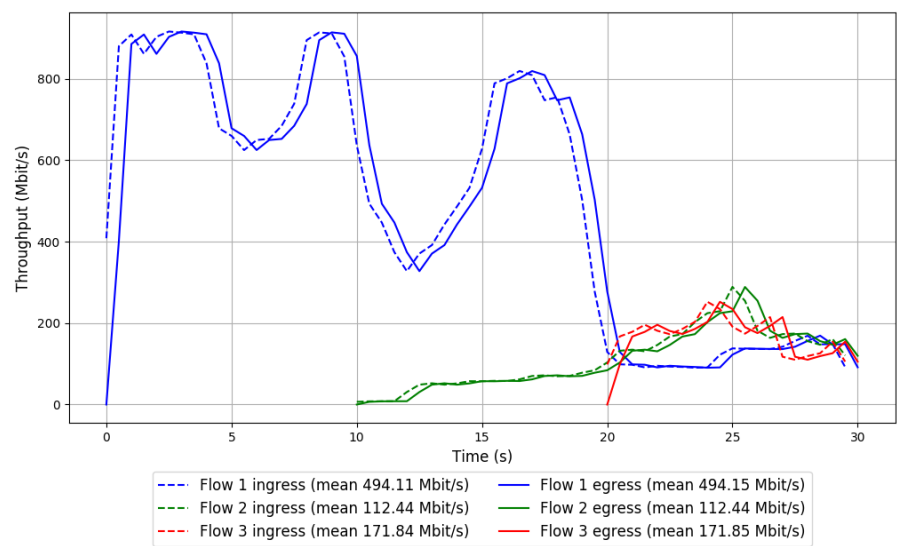


Run 2: Statistics of PCC-Allegro

Start at: 2019-06-28 12:23:44  
End at: 2019-06-28 12:24:14  
Local clock offset: 0.458 ms  
Remote clock offset: -0.778 ms

# Below is generated by plot.py at 2019-06-28 15:03:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 625.40 Mbit/s  
95th percentile per-packet one-way delay: 1.042 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 494.15 Mbit/s  
95th percentile per-packet one-way delay: 1.053 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 112.44 Mbit/s  
95th percentile per-packet one-way delay: 0.941 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 171.85 Mbit/s  
95th percentile per-packet one-way delay: 1.108 ms  
Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link

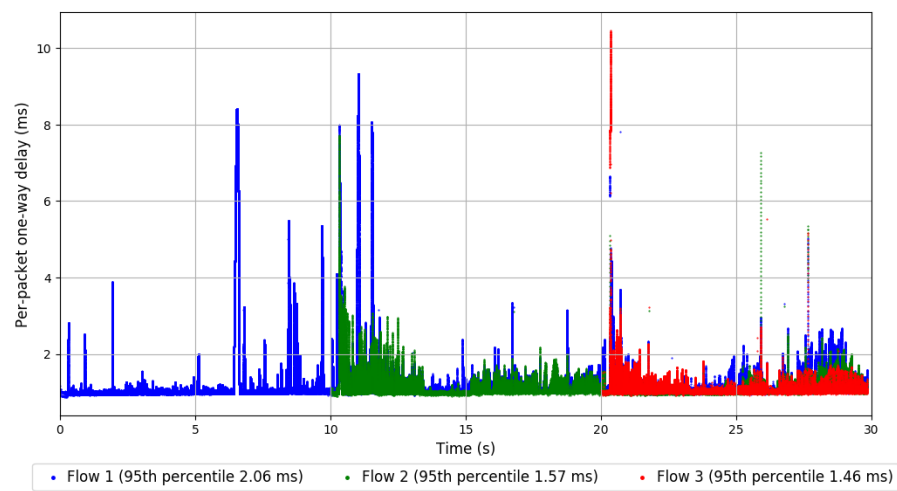
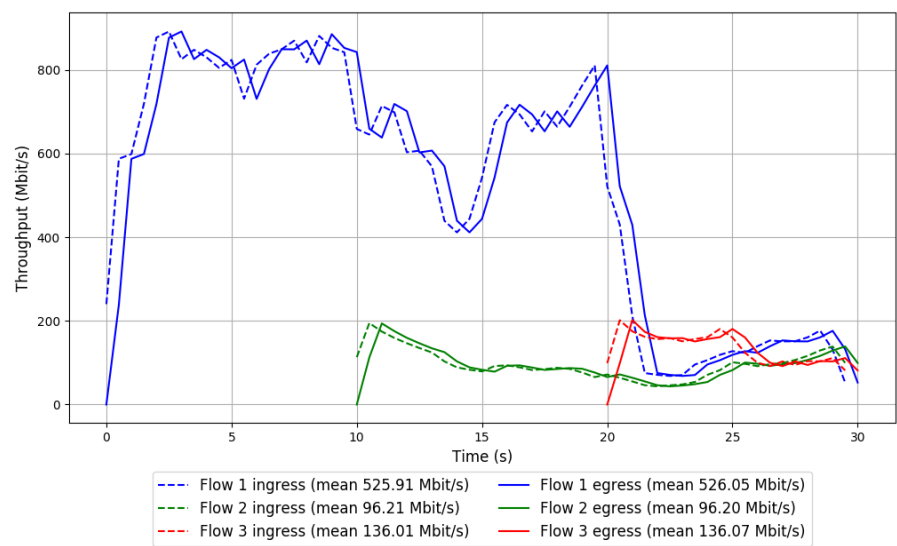


Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 12:55:25  
End at: 2019-06-28 12:55:55  
Local clock offset: 0.68 ms  
Remote clock offset: -4.657 ms

# Below is generated by plot.py at 2019-06-28 15:03:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 634.69 Mbit/s  
95th percentile per-packet one-way delay: 1.918 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 526.05 Mbit/s  
95th percentile per-packet one-way delay: 2.063 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 96.20 Mbit/s  
95th percentile per-packet one-way delay: 1.567 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 136.07 Mbit/s  
95th percentile per-packet one-way delay: 1.457 ms  
Loss rate: 0.01%

Run 3: Report of PCC-Allegro — Data Link

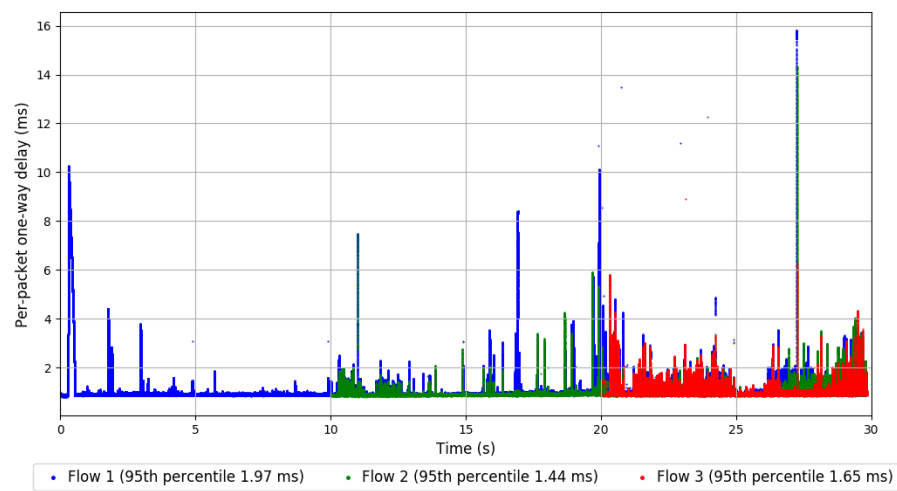
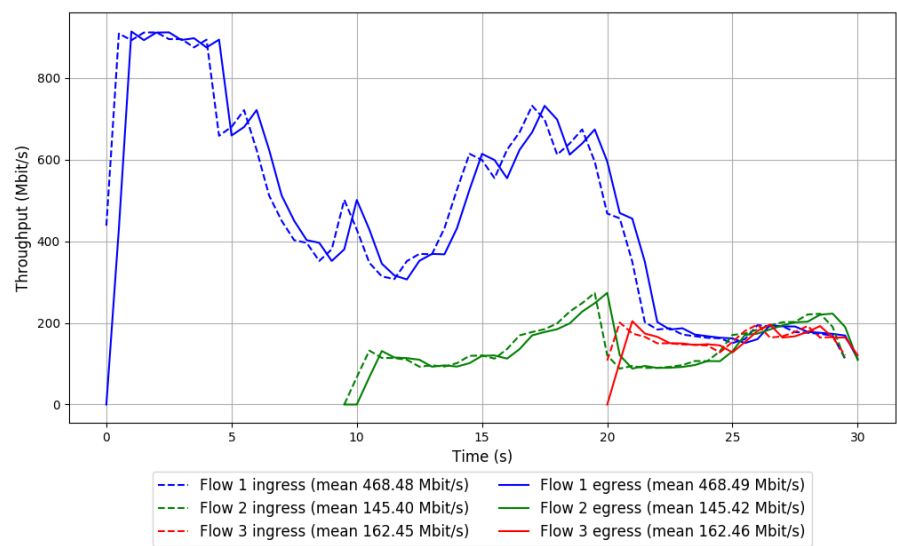


Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 13:27:08  
End at: 2019-06-28 13:27:38  
Local clock offset: 0.293 ms  
Remote clock offset: -4.112 ms

# Below is generated by plot.py at 2019-06-28 15:07:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 618.72 Mbit/s  
95th percentile per-packet one-way delay: 1.775 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 468.49 Mbit/s  
95th percentile per-packet one-way delay: 1.970 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 145.42 Mbit/s  
95th percentile per-packet one-way delay: 1.444 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 162.46 Mbit/s  
95th percentile per-packet one-way delay: 1.647 ms  
Loss rate: 0.03%

Run 4: Report of PCC-Allegro — Data Link



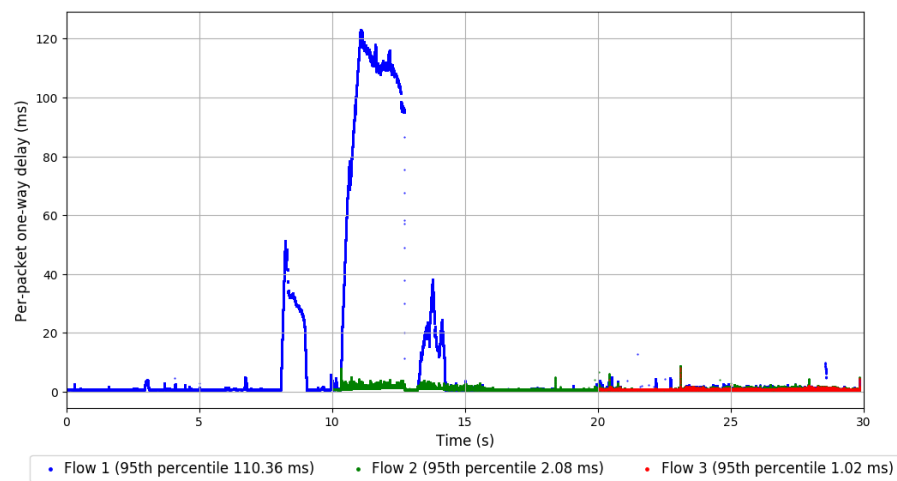
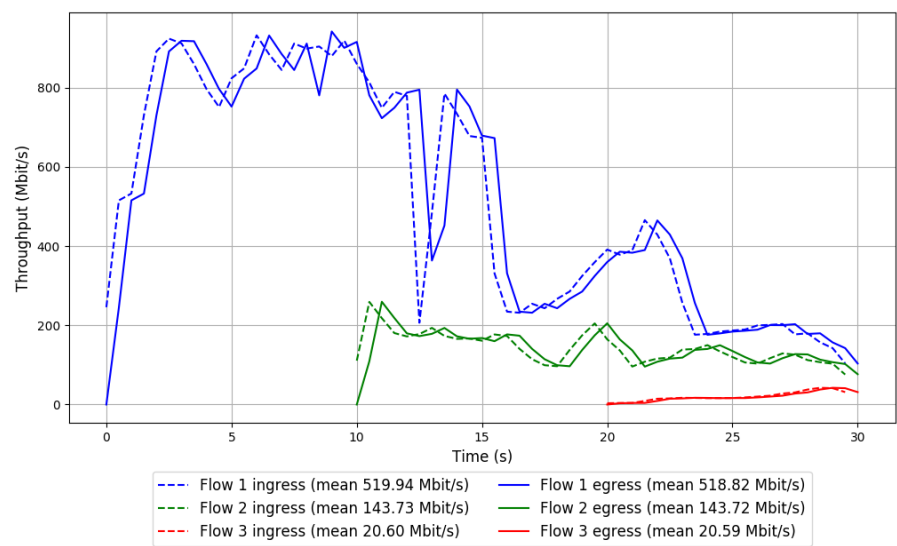


Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 13:58:59  
End at: 2019-06-28 13:59:29  
Local clock offset: 2.79 ms  
Remote clock offset: -3.631 ms

# Below is generated by plot.py at 2019-06-28 15:07:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 621.03 Mbit/s  
95th percentile per-packet one-way delay: 109.652 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 518.82 Mbit/s  
95th percentile per-packet one-way delay: 110.358 ms  
Loss rate: 0.21%  
-- Flow 2:  
Average throughput: 143.72 Mbit/s  
95th percentile per-packet one-way delay: 2.084 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 20.59 Mbit/s  
95th percentile per-packet one-way delay: 1.024 ms  
Loss rate: 0.03%

Run 5: Report of PCC-Allegro — Data Link

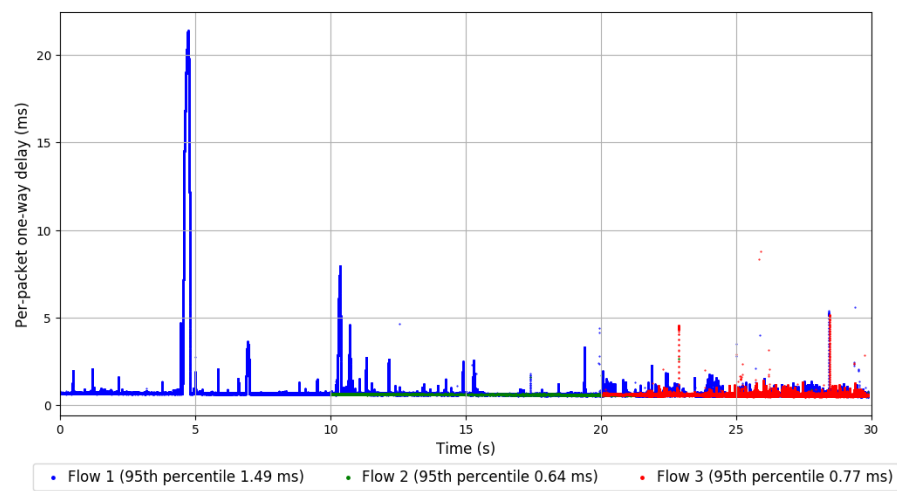
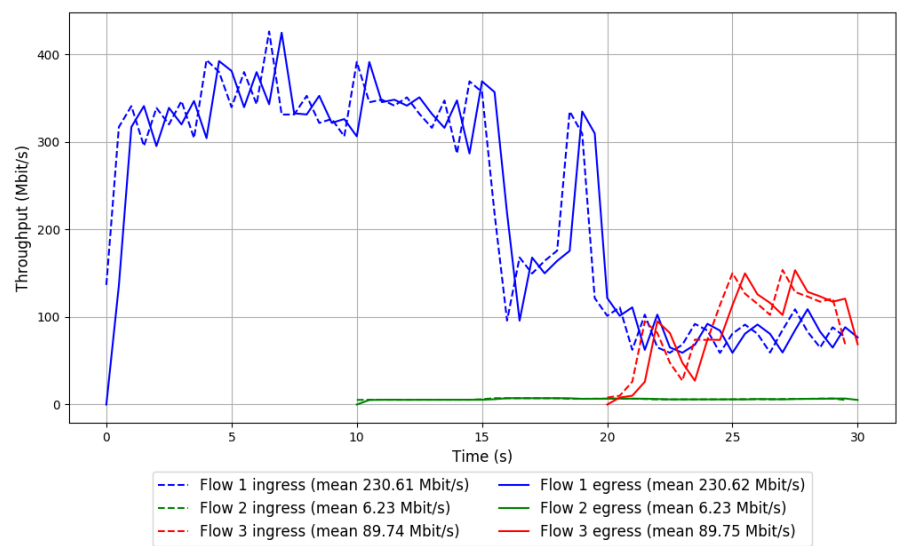


```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-28 11:31:32
End at: 2019-06-28 11:32:02
Local clock offset: -0.376 ms
Remote clock offset: 0.727 ms

# Below is generated by plot.py at 2019-06-28 15:07:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 264.29 Mbit/s
95th percentile per-packet one-way delay: 1.267 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.62 Mbit/s
95th percentile per-packet one-way delay: 1.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.23 Mbit/s
95th percentile per-packet one-way delay: 0.636 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.75 Mbit/s
95th percentile per-packet one-way delay: 0.769 ms
Loss rate: 0.01%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-06-28 12:03:22

End at: 2019-06-28 12:03:52

Local clock offset: 0.451 ms

Remote clock offset: 2.707 ms

# Below is generated by plot.py at 2019-06-28 15:07:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 233.73 Mbit/s

95th percentile per-packet one-way delay: 1.132 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 171.01 Mbit/s

95th percentile per-packet one-way delay: 1.109 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 63.70 Mbit/s

95th percentile per-packet one-way delay: 1.208 ms

Loss rate: 0.04%

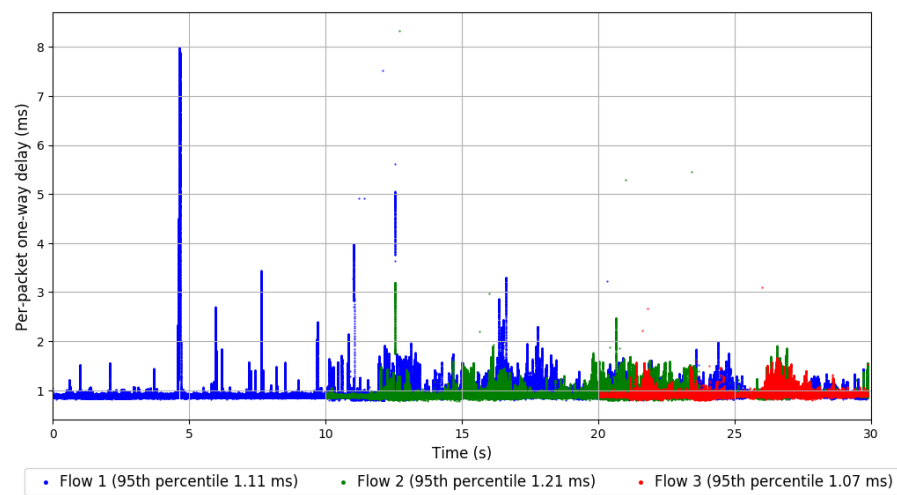
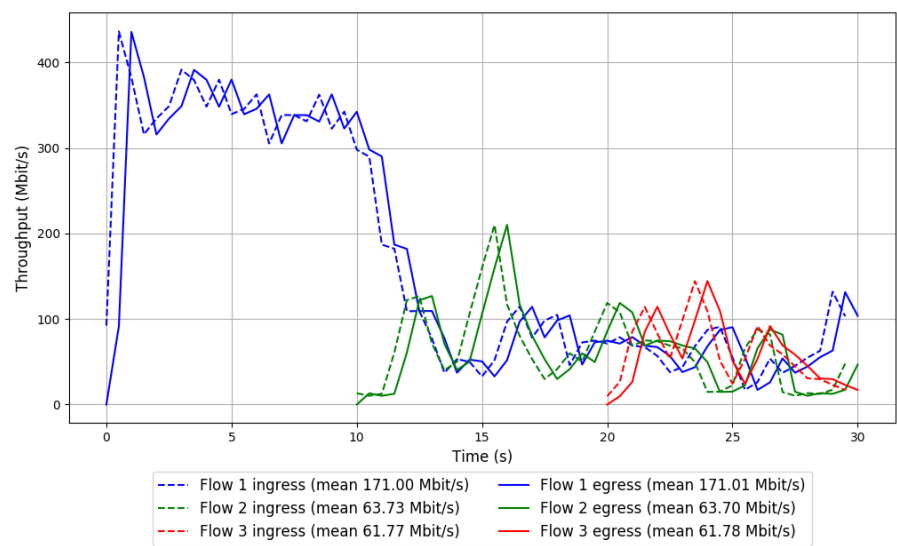
-- Flow 3:

Average throughput: 61.78 Mbit/s

95th percentile per-packet one-way delay: 1.068 ms

Loss rate: 0.01%

Run 2: Report of PCC-Expr — Data Link

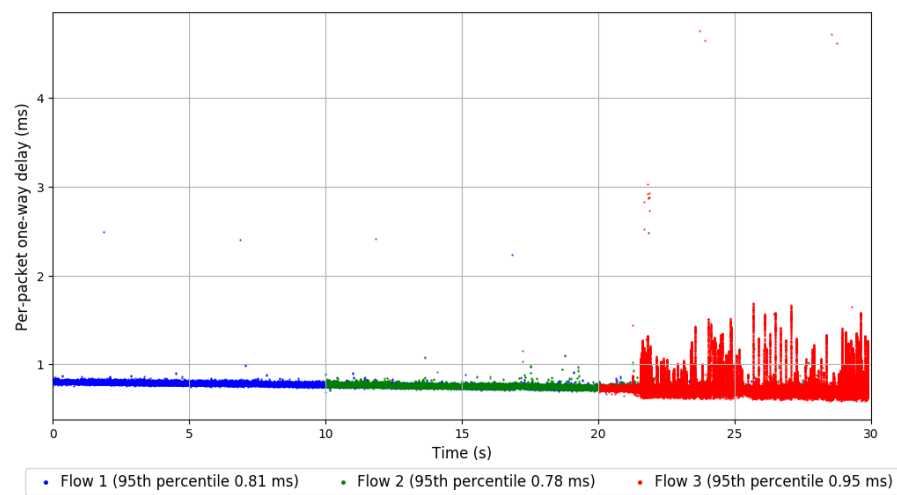
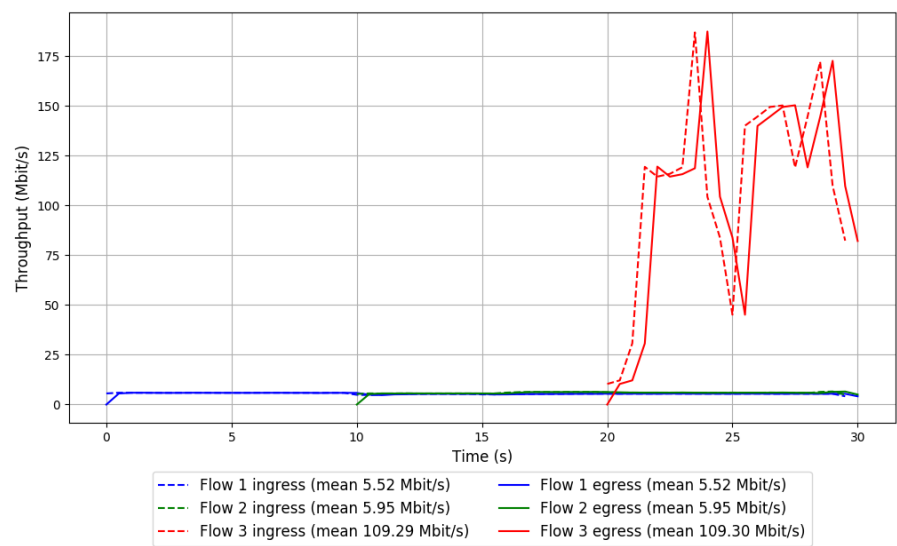


Run 3: Statistics of PCC-Expr

Start at: 2019-06-28 12:35:13  
End at: 2019-06-28 12:35:43  
Local clock offset: 0.802 ms  
Remote clock offset: -3.714 ms

# Below is generated by plot.py at 2019-06-28 15:07:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 45.55 Mbit/s  
95th percentile per-packet one-way delay: 0.898 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 5.52 Mbit/s  
95th percentile per-packet one-way delay: 0.807 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 5.95 Mbit/s  
95th percentile per-packet one-way delay: 0.781 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 109.30 Mbit/s  
95th percentile per-packet one-way delay: 0.947 ms  
Loss rate: 0.01%

Run 3: Report of PCC-Expr — Data Link



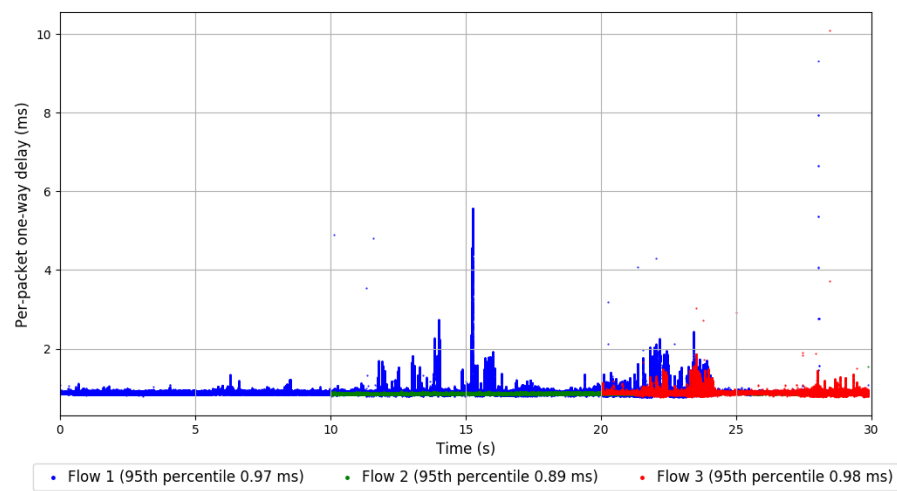
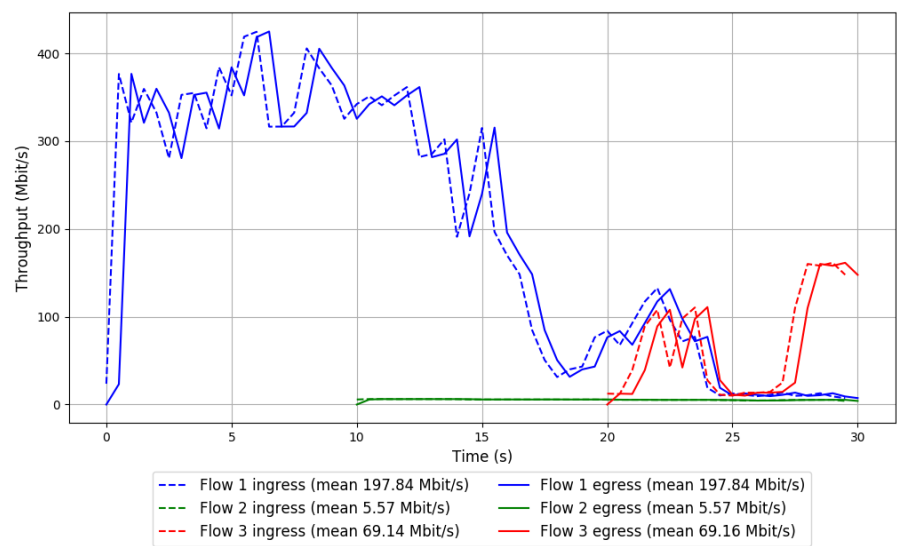


Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 13:06:46  
End at: 2019-06-28 13:07:16  
Local clock offset: 0.434 ms  
Remote clock offset: -3.999 ms

# Below is generated by plot.py at 2019-06-28 15:07:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 224.37 Mbit/s  
95th percentile per-packet one-way delay: 0.967 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 197.84 Mbit/s  
95th percentile per-packet one-way delay: 0.968 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 5.57 Mbit/s  
95th percentile per-packet one-way delay: 0.892 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 69.16 Mbit/s  
95th percentile per-packet one-way delay: 0.984 ms  
Loss rate: 0.03%

Run 4: Report of PCC-Expr — Data Link

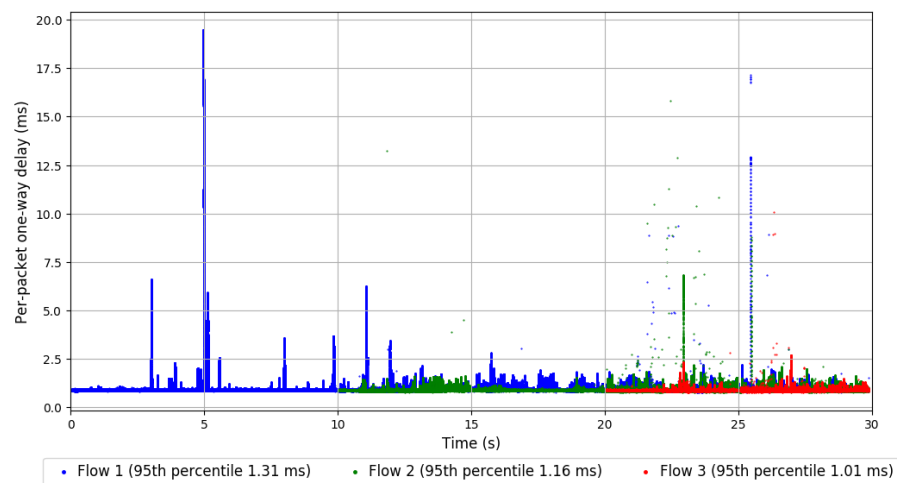
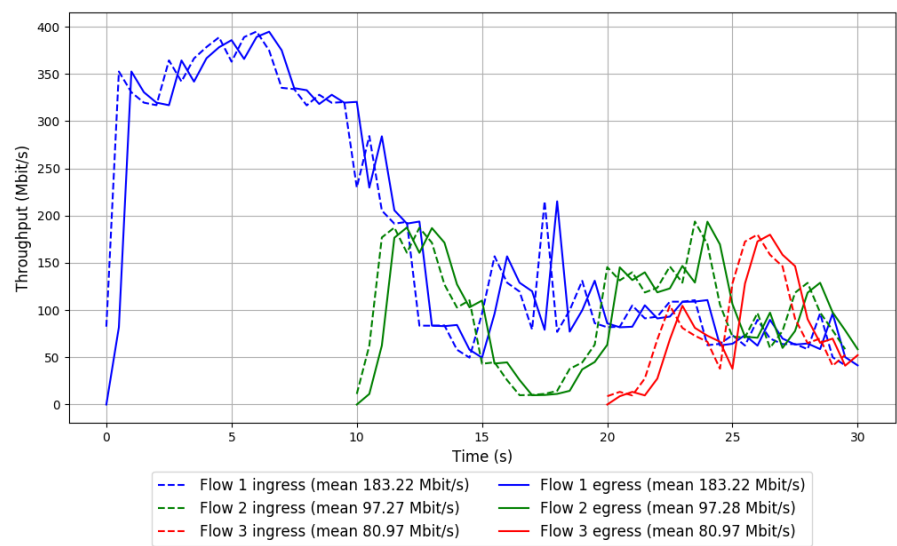


Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 13:38:33  
End at: 2019-06-28 13:39:03  
Local clock offset: 0.448 ms  
Remote clock offset: -3.494 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 274.61 Mbit/s  
95th percentile per-packet one-way delay: 1.223 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 183.22 Mbit/s  
95th percentile per-packet one-way delay: 1.306 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 97.28 Mbit/s  
95th percentile per-packet one-way delay: 1.164 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 80.97 Mbit/s  
95th percentile per-packet one-way delay: 1.007 ms  
Loss rate: 0.02%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 11:44:31

End at: 2019-06-28 11:45:01

Local clock offset: 2.35 ms

Remote clock offset: 1.609 ms

# Below is generated by plot.py at 2019-06-28 15:08:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 143.21 Mbit/s

95th percentile per-packet one-way delay: 0.825 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 78.89 Mbit/s

95th percentile per-packet one-way delay: 0.817 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.07 Mbit/s

95th percentile per-packet one-way delay: 0.823 ms

Loss rate: 0.01%

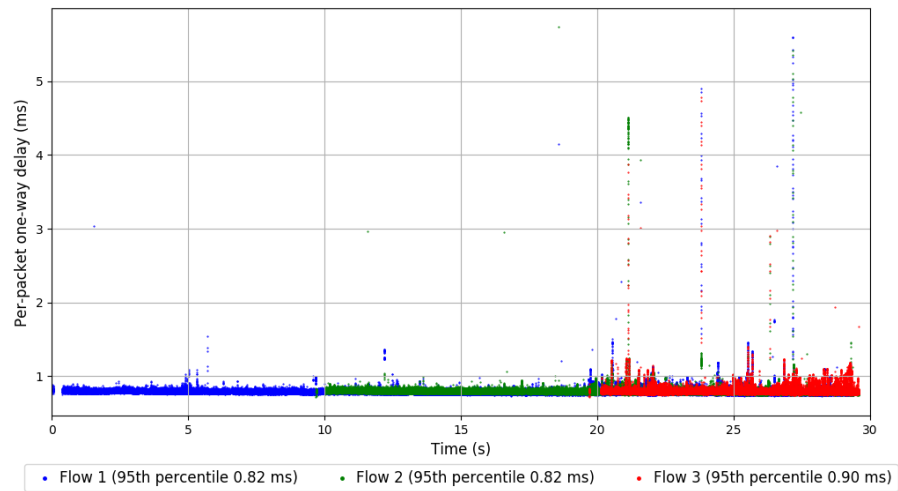
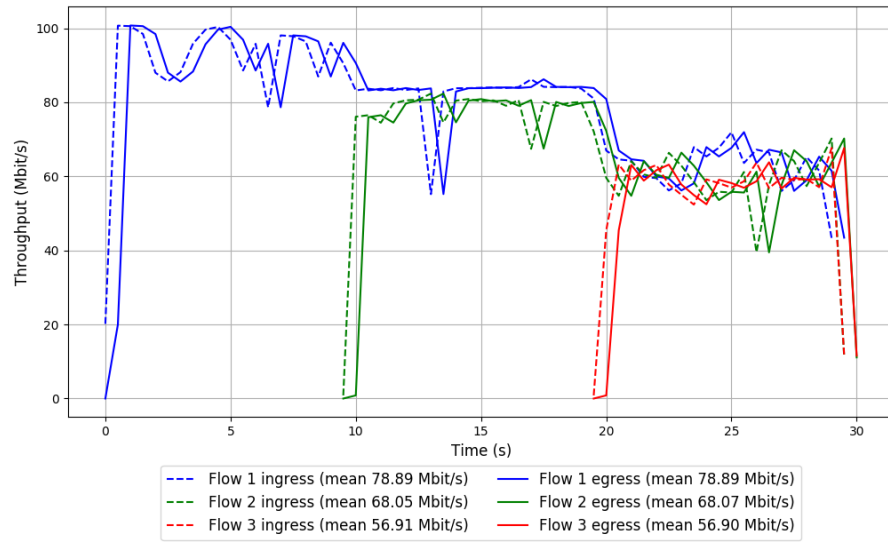
-- Flow 3:

Average throughput: 56.90 Mbit/s

95th percentile per-packet one-way delay: 0.895 ms

Loss rate: 0.02%

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



Run 2: Statistics of QUIC Cubic

Start at: 2019-06-28 12:16:15

End at: 2019-06-28 12:16:45

Local clock offset: 0.408 ms

Remote clock offset: 3.454 ms

# Below is generated by plot.py at 2019-06-28 15:08:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 135.15 Mbit/s

95th percentile per-packet one-way delay: 0.823 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 71.44 Mbit/s

95th percentile per-packet one-way delay: 0.830 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 66.62 Mbit/s

95th percentile per-packet one-way delay: 0.783 ms

Loss rate: 0.01%

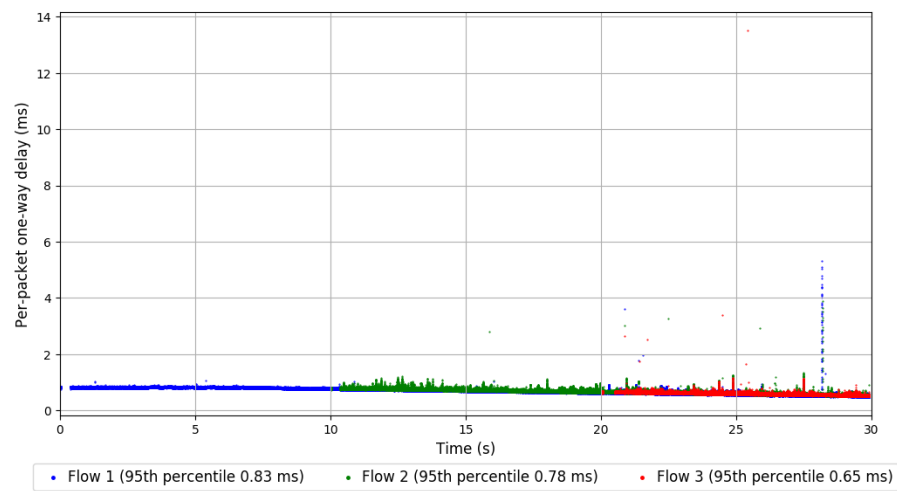
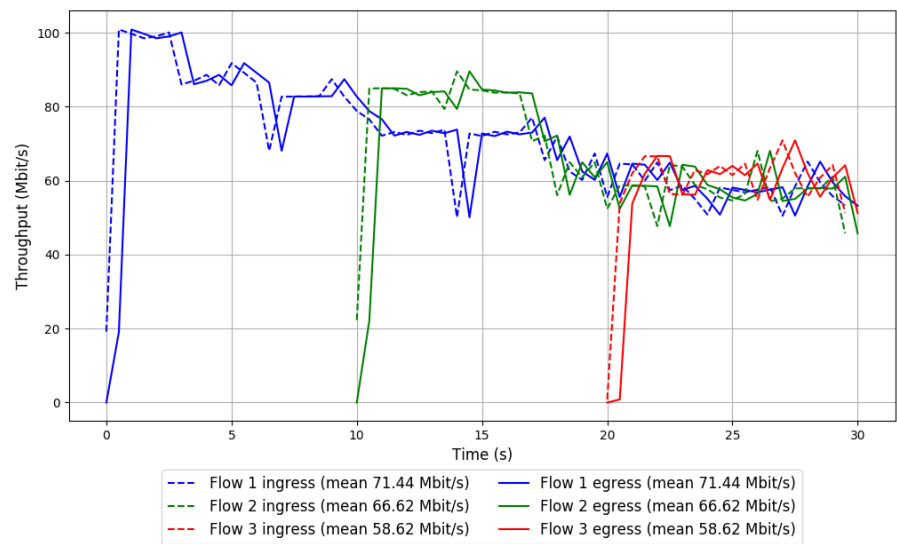
-- Flow 3:

Average throughput: 58.62 Mbit/s

95th percentile per-packet one-way delay: 0.653 ms

Loss rate: 0.02%

Run 2: Report of QUIC Cubic — Data Link



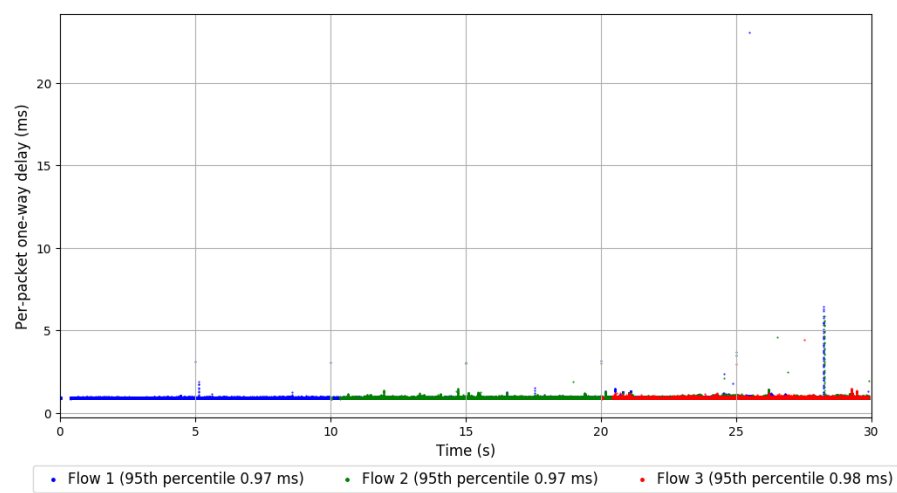
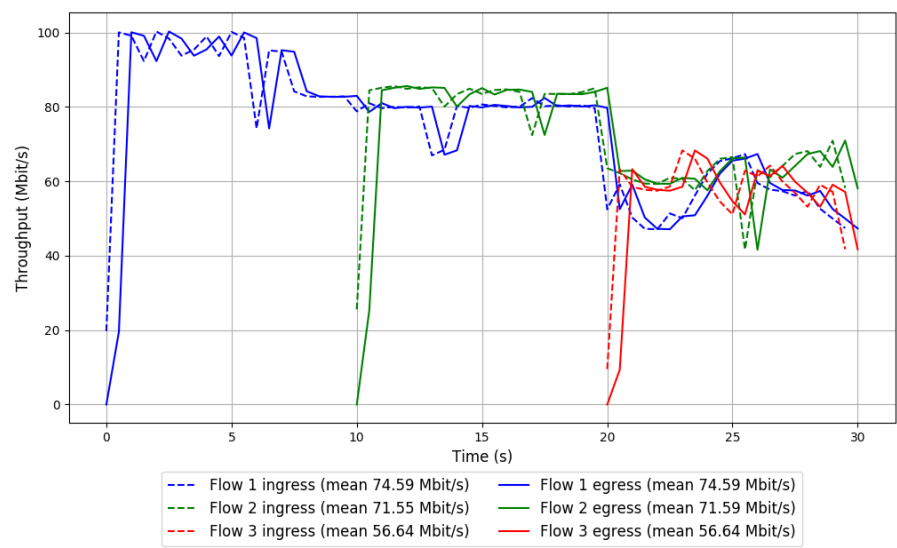


Run 3: Statistics of QUIC Cubic

Start at: 2019-06-28 12:48:00  
End at: 2019-06-28 12:48:30  
Local clock offset: 1.243 ms  
Remote clock offset: -5.428 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 140.98 Mbit/s  
95th percentile per-packet one-way delay: 0.970 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 74.59 Mbit/s  
95th percentile per-packet one-way delay: 0.966 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 71.59 Mbit/s  
95th percentile per-packet one-way delay: 0.973 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 56.64 Mbit/s  
95th percentile per-packet one-way delay: 0.976 ms  
Loss rate: 0.01%

Run 3: Report of QUIC Cubic — Data Link

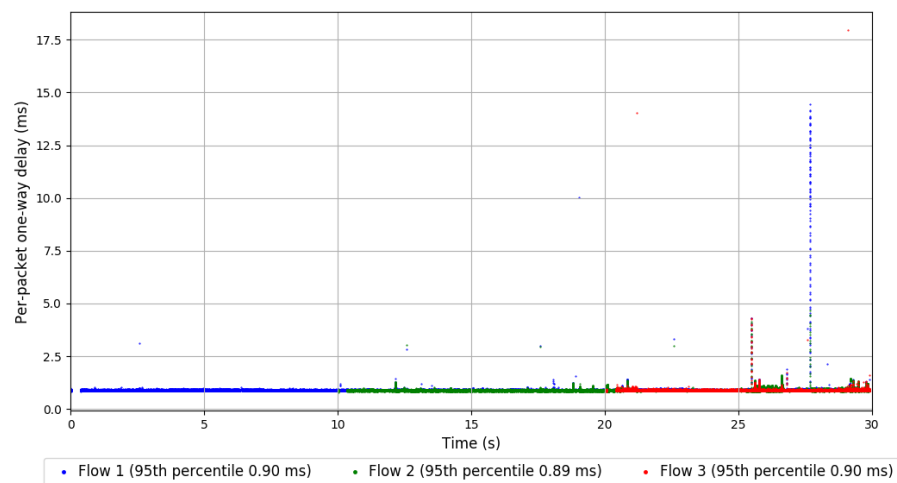
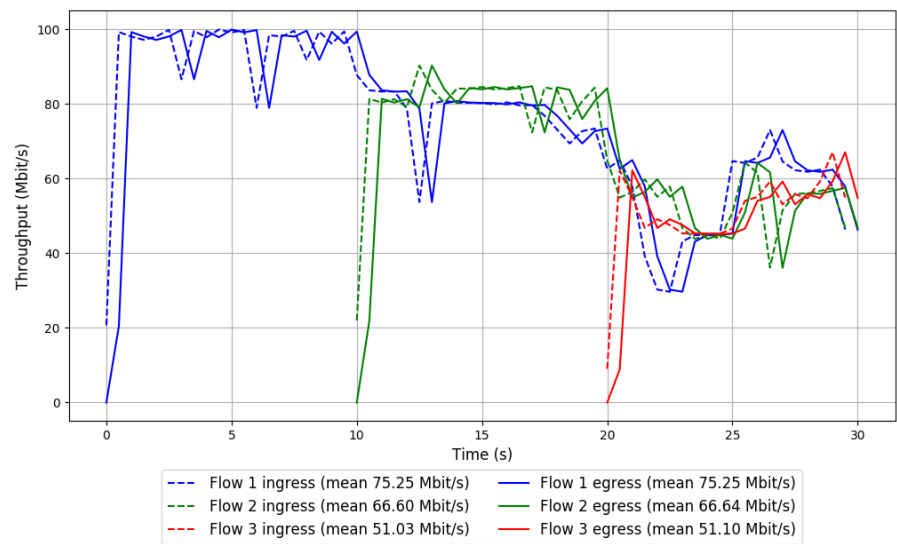


Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 13:19:42  
End at: 2019-06-28 13:20:12  
Local clock offset: 0.395 ms  
Remote clock offset: -4.254 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 136.48 Mbit/s  
95th percentile per-packet one-way delay: 0.894 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 75.25 Mbit/s  
95th percentile per-packet one-way delay: 0.895 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 66.64 Mbit/s  
95th percentile per-packet one-way delay: 0.888 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 51.10 Mbit/s  
95th percentile per-packet one-way delay: 0.899 ms  
Loss rate: 0.02%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 13:51:33

End at: 2019-06-28 13:52:03

Local clock offset: 1.506 ms

Remote clock offset: -3.49 ms

# Below is generated by plot.py at 2019-06-28 15:08:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 141.23 Mbit/s

95th percentile per-packet one-way delay: 0.696 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 75.11 Mbit/s

95th percentile per-packet one-way delay: 0.705 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.43 Mbit/s

95th percentile per-packet one-way delay: 0.665 ms

Loss rate: 0.04%

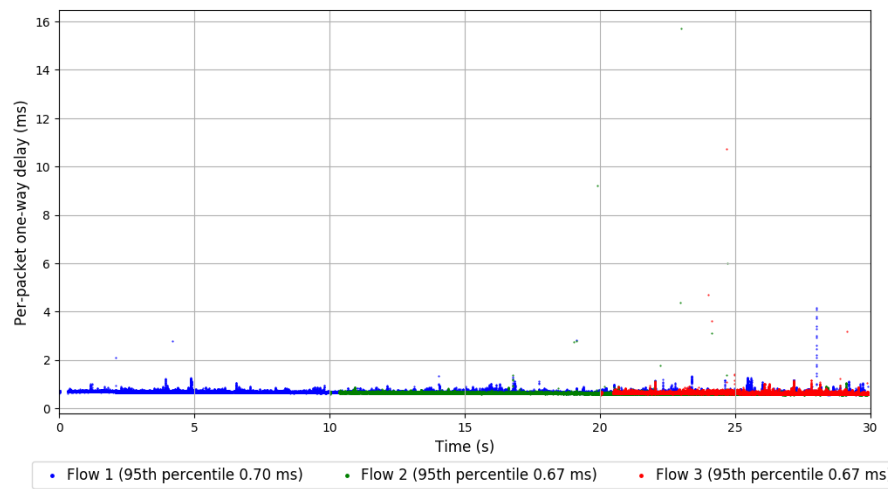
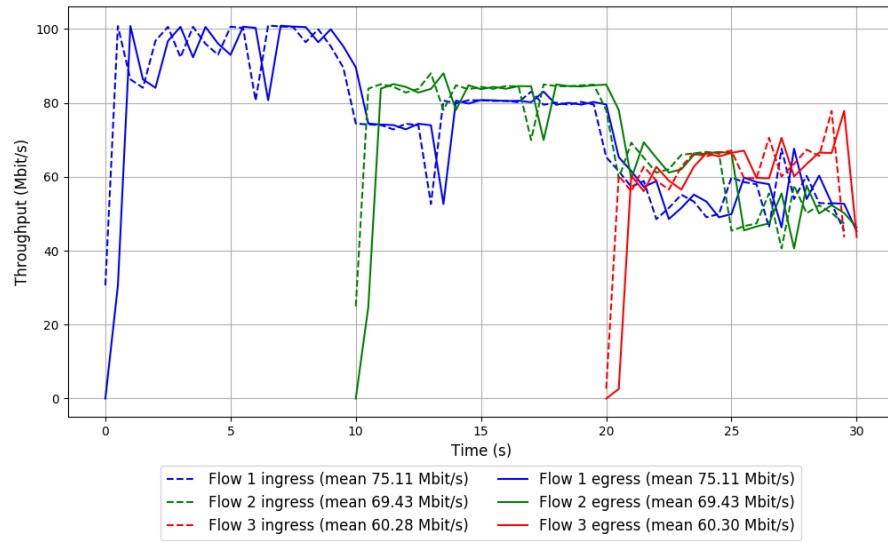
-- Flow 3:

Average throughput: 60.30 Mbit/s

95th percentile per-packet one-way delay: 0.672 ms

Loss rate: 0.00%

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

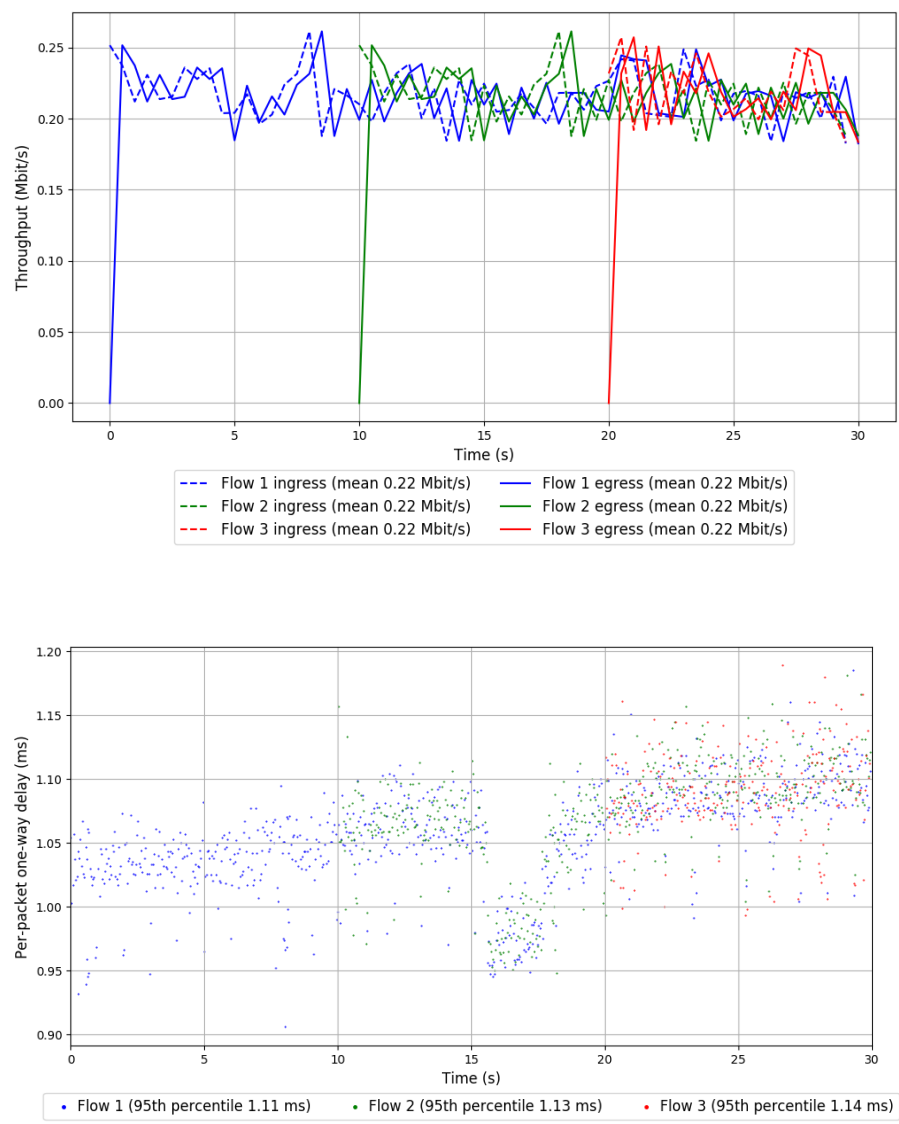


```
Run 1: Statistics of SReAM

Start at: 2019-06-28 11:56:47
End at: 2019-06-28 11:57:17
Local clock offset: 0.921 ms
Remote clock offset: 2.333 ms

# Below is generated by plot.py at 2019-06-28 15:08:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.111 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.128 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.143 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link



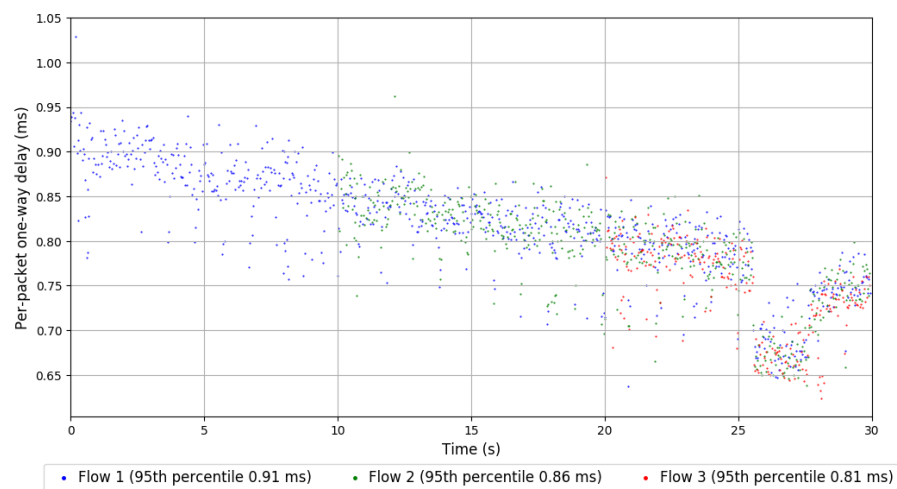
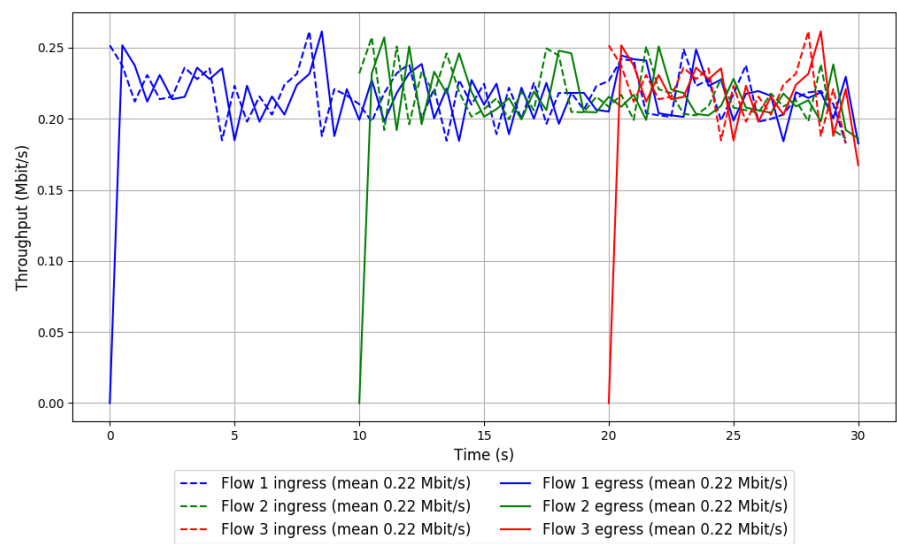


Run 2: Statistics of SReAM

Start at: 2019-06-28 12:28:37  
End at: 2019-06-28 12:29:07  
Local clock offset: 0.582 ms  
Remote clock offset: -2.321 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 0.896 ms  
Loss rate: 0.06%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.909 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.862 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.808 ms  
Loss rate: 0.35%

Run 2: Report of SReAM — Data Link

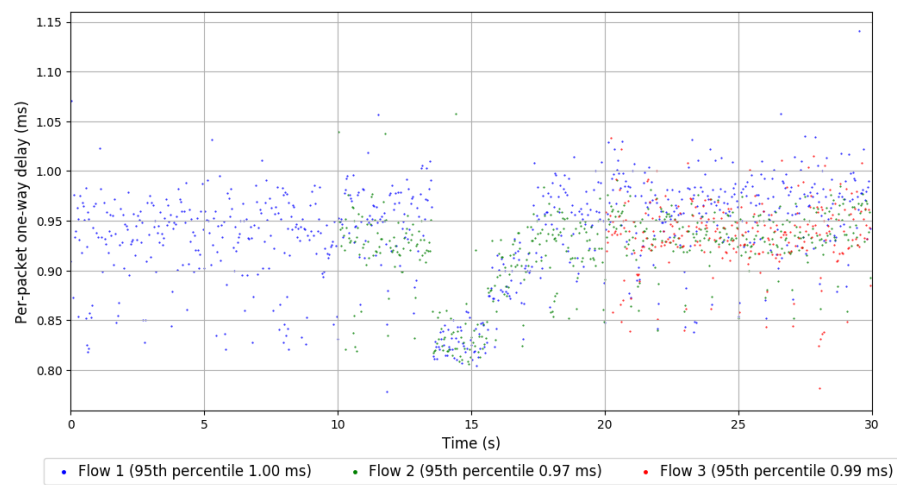
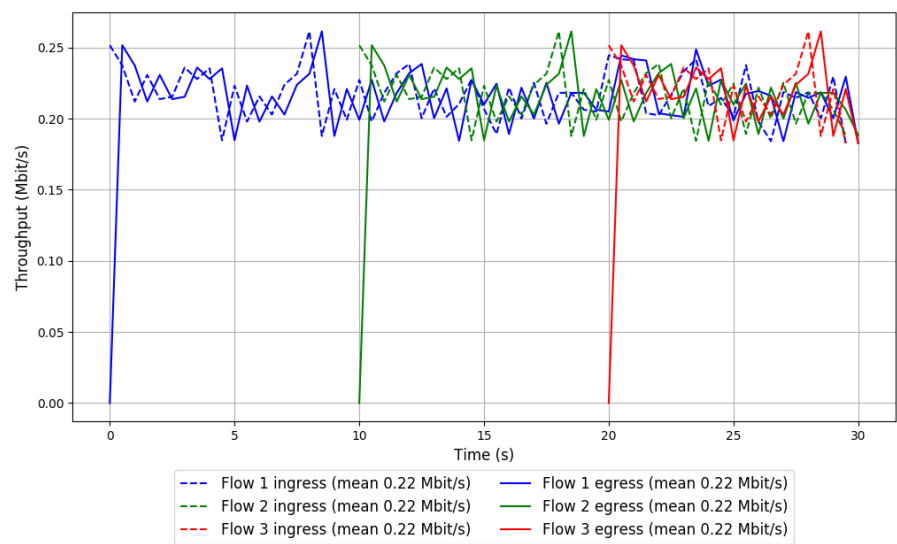


Run 3: Statistics of SReAM

Start at: 2019-06-28 13:00:19  
End at: 2019-06-28 13:00:49  
Local clock offset: 0.484 ms  
Remote clock offset: -4.098 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 0.993 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.001 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.967 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.989 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

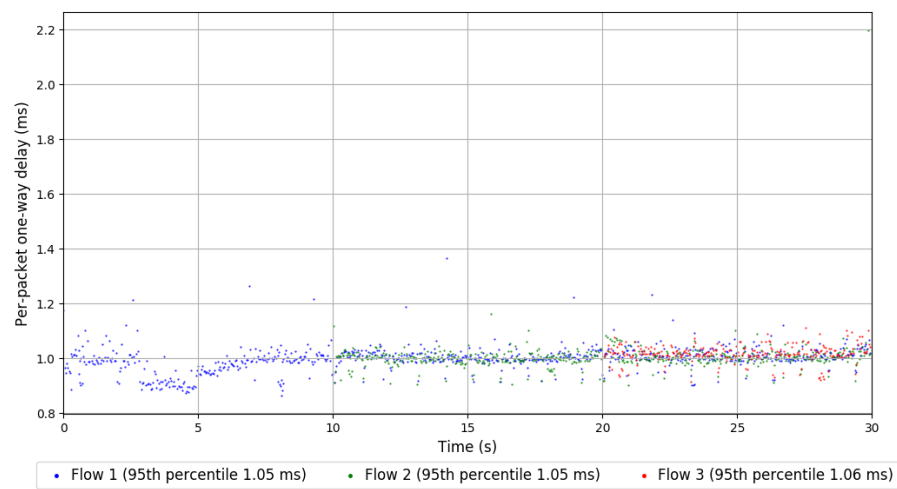
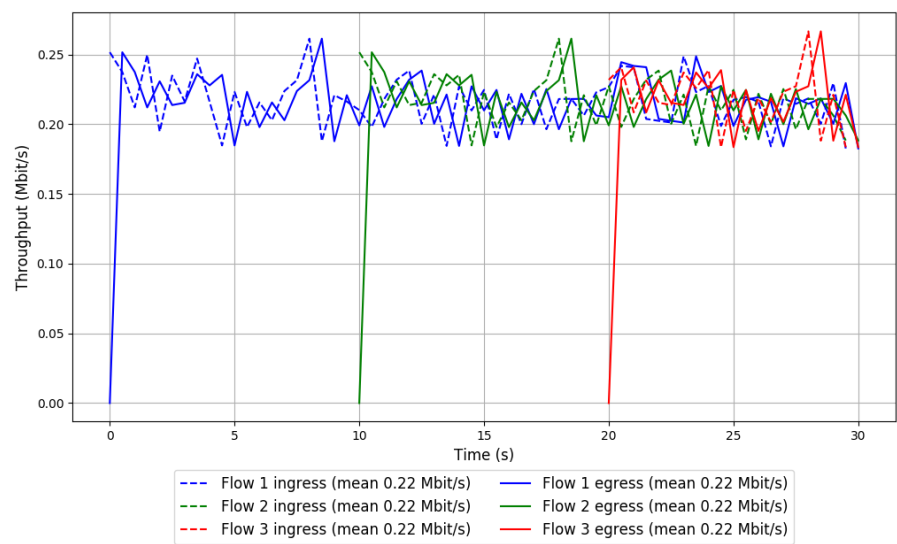


Run 4: Statistics of SReAM

Start at: 2019-06-28 13:32:00  
End at: 2019-06-28 13:32:30  
Local clock offset: 0.343 ms  
Remote clock offset: -3.71 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 1.057 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.053 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.050 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.064 ms  
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

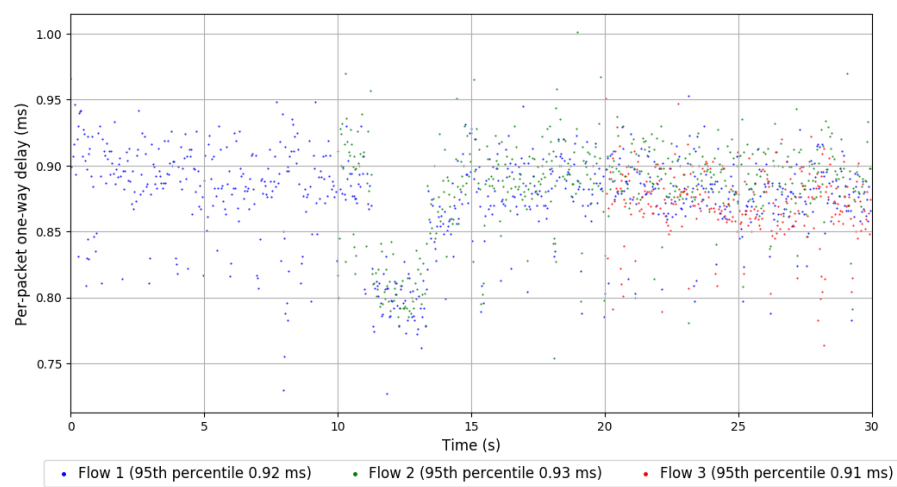
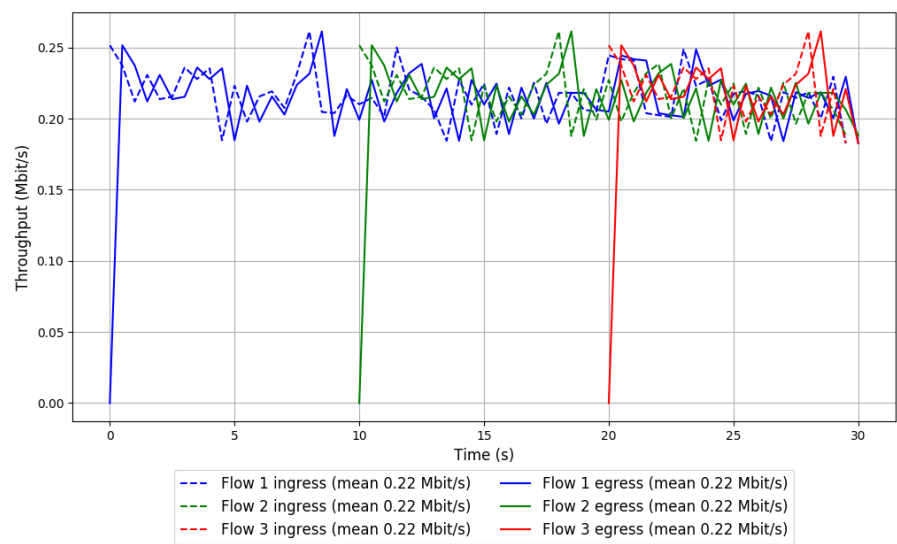


Run 5: Statistics of SReAM

Start at: 2019-06-28 14:03:52  
End at: 2019-06-28 14:04:22  
Local clock offset: 3.348 ms  
Remote clock offset: -3.279 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 0.924 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.923 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.929 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.909 ms  
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link





Run 1: Statistics of Sprout

Start at: 2019-06-28 11:59:29

End at: 2019-06-28 11:59:59

Local clock offset: 0.676 ms

Remote clock offset: 2.379 ms

# Below is generated by plot.py at 2019-06-28 15:08:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.00 Mbit/s

95th percentile per-packet one-way delay: 1.104 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.25 Mbit/s

95th percentile per-packet one-way delay: 1.111 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.13 Mbit/s

95th percentile per-packet one-way delay: 1.091 ms

Loss rate: 0.00%

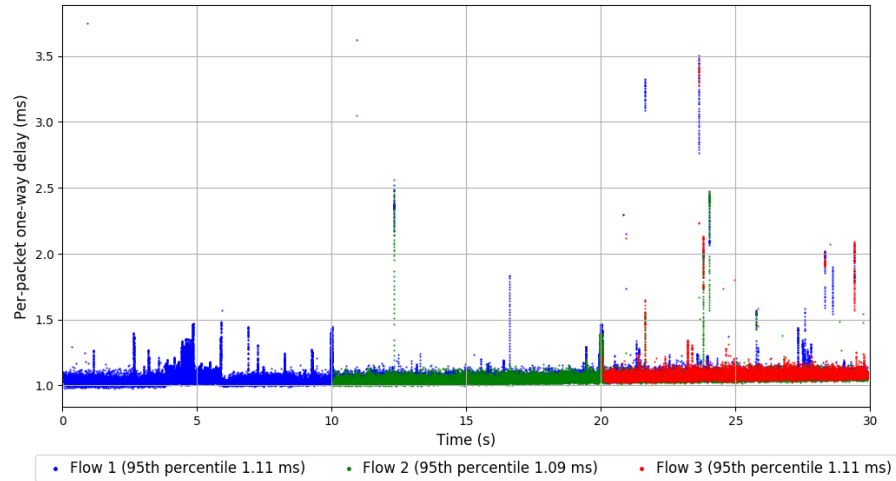
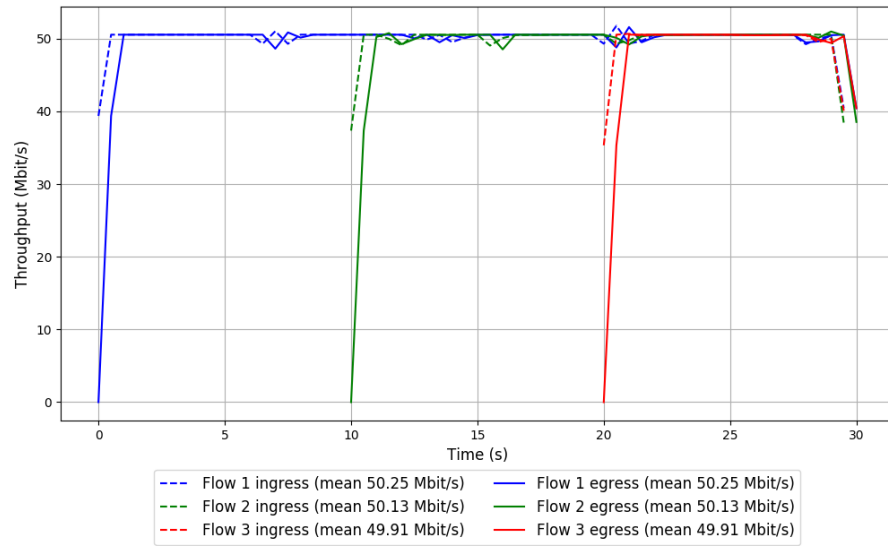
-- Flow 3:

Average throughput: 49.91 Mbit/s

95th percentile per-packet one-way delay: 1.110 ms

Loss rate: 0.00%

## Run 1: Report of Sprout — Data Link

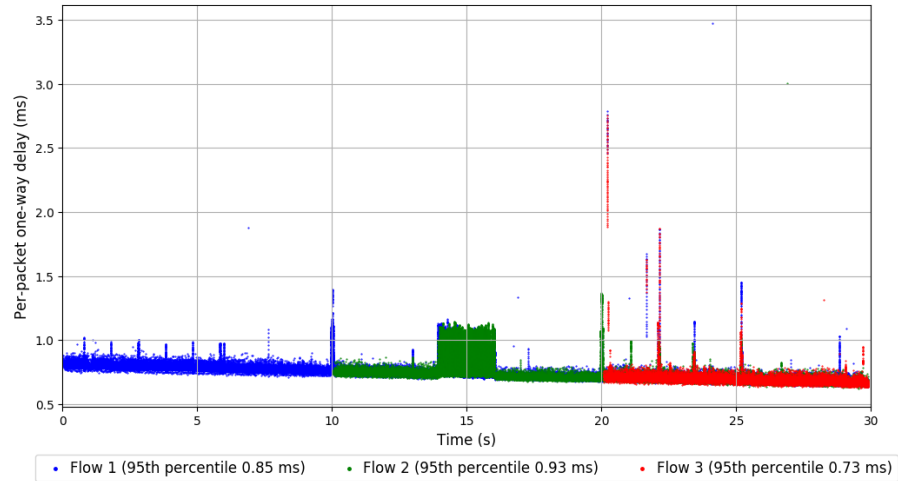
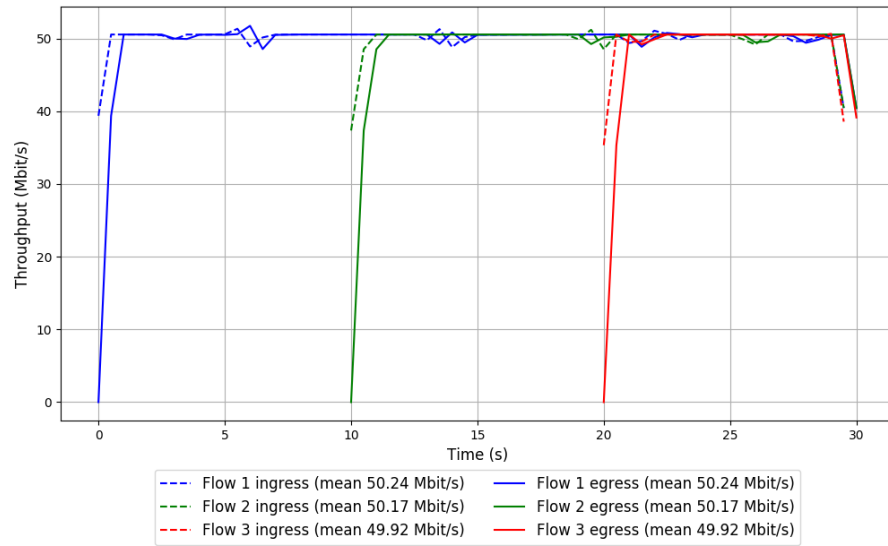


Run 2: Statistics of Sprout

Start at: 2019-06-28 12:31:19  
End at: 2019-06-28 12:31:49  
Local clock offset: 0.654 ms  
Remote clock offset: -2.964 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 99.98 Mbit/s  
95th percentile per-packet one-way delay: 0.853 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 50.24 Mbit/s  
95th percentile per-packet one-way delay: 0.848 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 50.17 Mbit/s  
95th percentile per-packet one-way delay: 0.930 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 49.92 Mbit/s  
95th percentile per-packet one-way delay: 0.734 ms  
Loss rate: 0.00%

## Run 2: Report of Sprout — Data Link

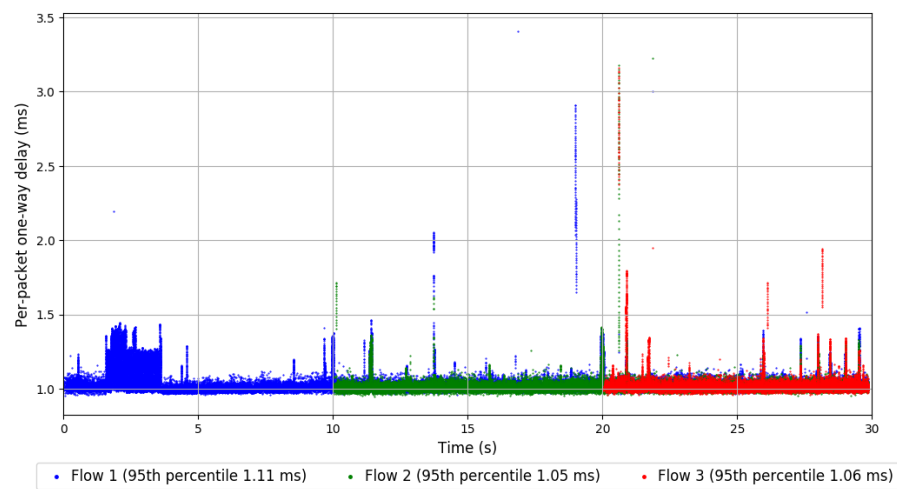
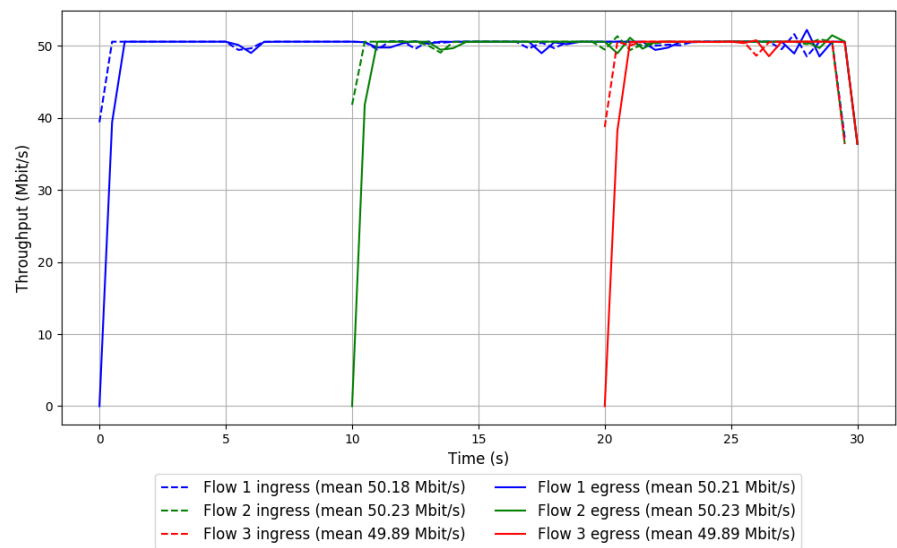


Run 3: Statistics of Sprout

Start at: 2019-06-28 13:03:01  
End at: 2019-06-28 13:03:31  
Local clock offset: 0.466 ms  
Remote clock offset: -4.144 ms

# Below is generated by plot.py at 2019-06-28 15:08:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 100.03 Mbit/s  
95th percentile per-packet one-way delay: 1.072 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 50.21 Mbit/s  
95th percentile per-packet one-way delay: 1.114 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 50.23 Mbit/s  
95th percentile per-packet one-way delay: 1.050 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 49.89 Mbit/s  
95th percentile per-packet one-way delay: 1.059 ms  
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

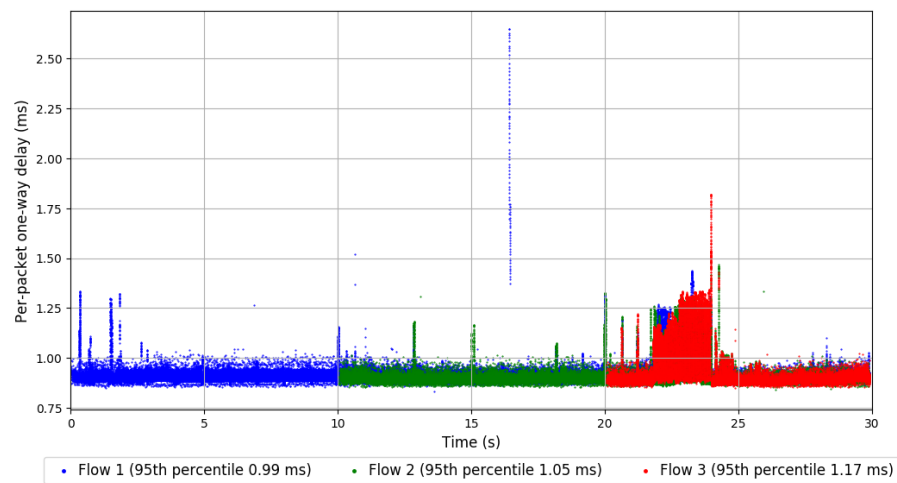
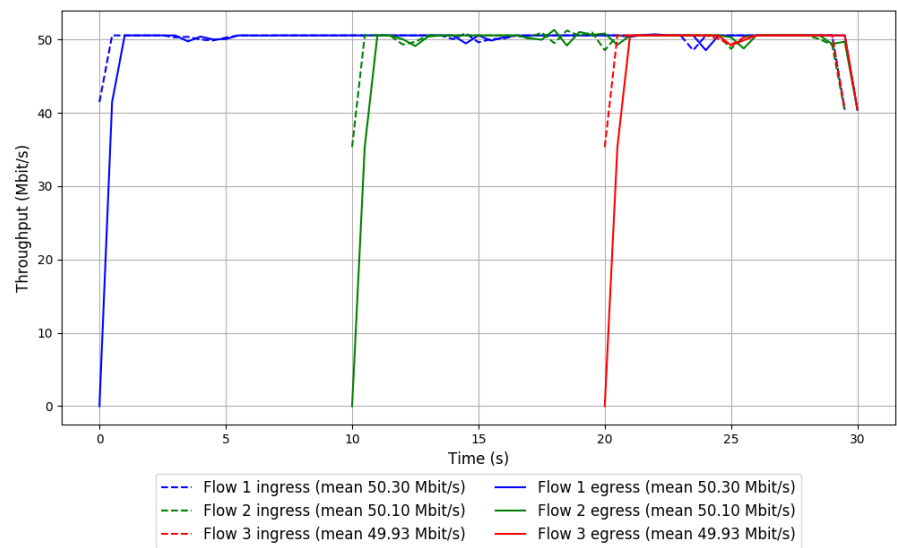


#### Run 4: Statistics of Sprout

Start at: 2019-06-28 13:34:41  
End at: 2019-06-28 13:35:11  
Local clock offset: 0.391 ms  
Remote clock offset: -3.567 ms

```
# Below is generated by plot.py at 2019-06-28 15:08:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.00 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.30 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.10 Mbit/s
95th percentile per-packet one-way delay: 1.050 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.93 Mbit/s
95th percentile per-packet one-way delay: 1.172 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link



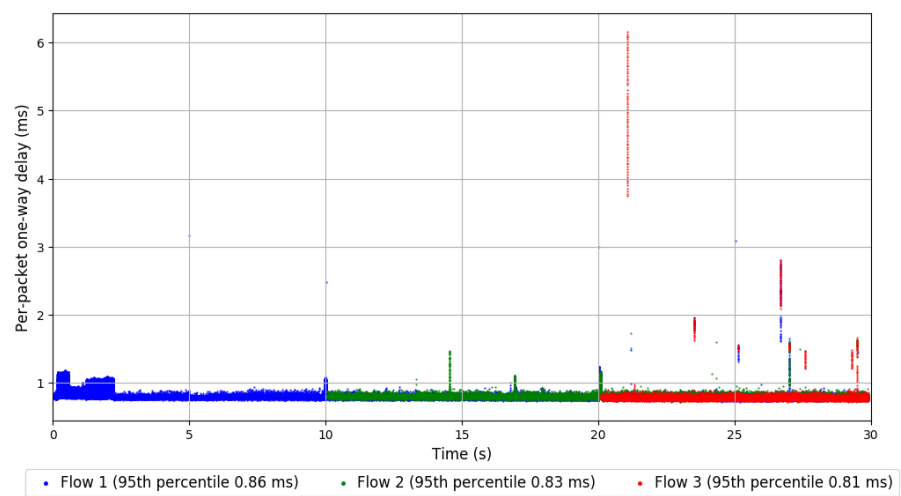
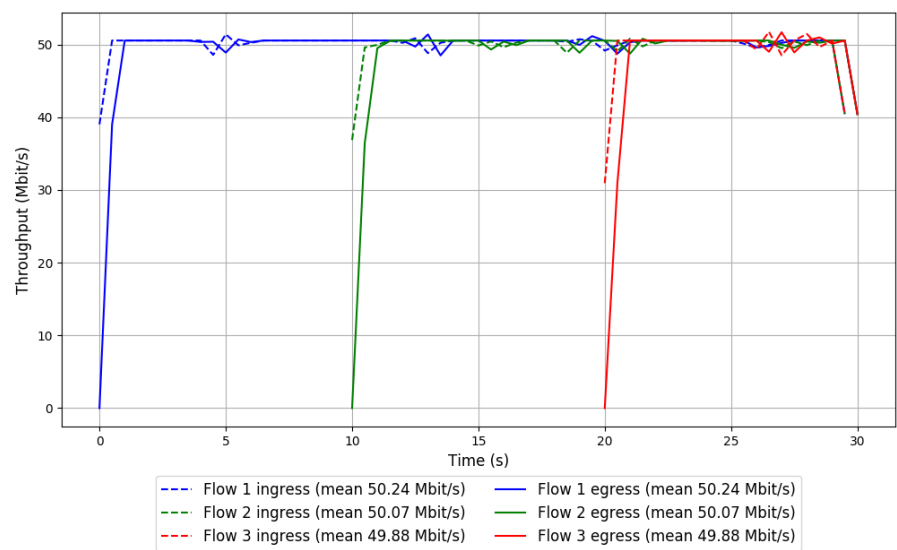


Run 5: Statistics of Sprout

Start at: 2019-06-28 14:06:33  
End at: 2019-06-28 14:07:03  
Local clock offset: 3.544 ms  
Remote clock offset: -3.192 ms

# Below is generated by plot.py at 2019-06-28 15:08:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 99.88 Mbit/s  
95th percentile per-packet one-way delay: 0.836 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 50.24 Mbit/s  
95th percentile per-packet one-way delay: 0.857 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 50.07 Mbit/s  
95th percentile per-packet one-way delay: 0.833 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 49.88 Mbit/s  
95th percentile per-packet one-way delay: 0.810 ms  
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-06-28 11:36:06

End at: 2019-06-28 11:36:36

Local clock offset: 0.858 ms

Remote clock offset: 1.032 ms

# Below is generated by plot.py at 2019-06-28 15:08:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 54.01 Mbit/s

95th percentile per-packet one-way delay: 0.766 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 39.57 Mbit/s

95th percentile per-packet one-way delay: 0.765 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 17.08 Mbit/s

95th percentile per-packet one-way delay: 0.772 ms

Loss rate: 0.00%

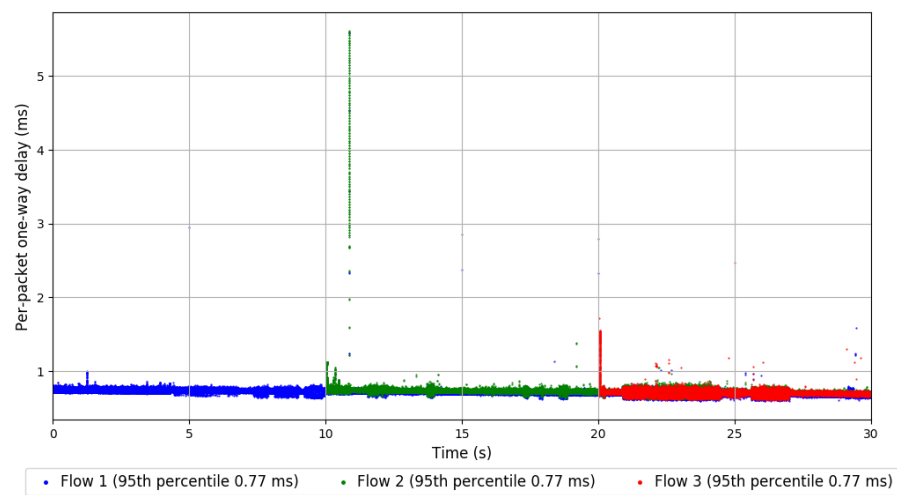
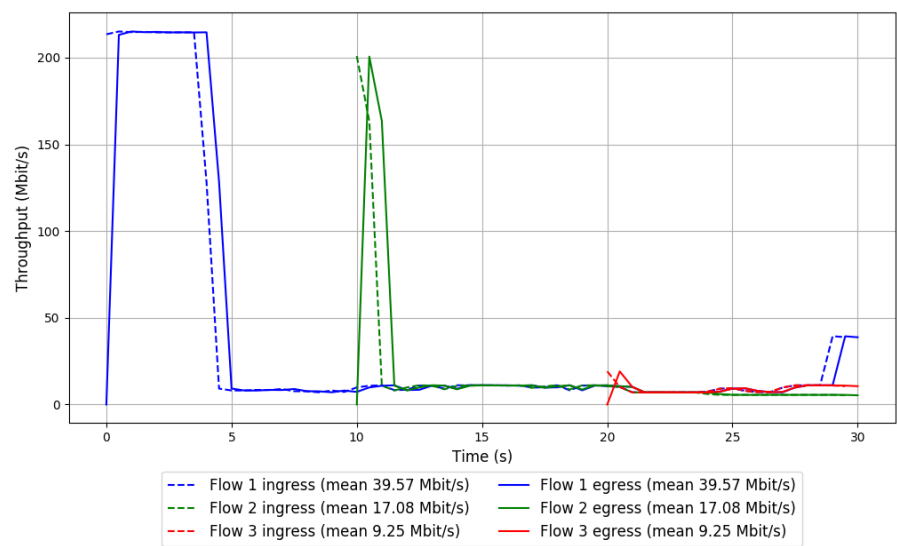
-- Flow 3:

Average throughput: 9.25 Mbit/s

95th percentile per-packet one-way delay: 0.774 ms

Loss rate: 0.03%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-06-28 12:07:52

End at: 2019-06-28 12:08:22

Local clock offset: 0.381 ms

Remote clock offset: 2.927 ms

# Below is generated by plot.py at 2019-06-28 15:08:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 25.72 Mbit/s

95th percentile per-packet one-way delay: 0.976 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 15.44 Mbit/s

95th percentile per-packet one-way delay: 0.962 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.56 Mbit/s

95th percentile per-packet one-way delay: 0.969 ms

Loss rate: 0.01%

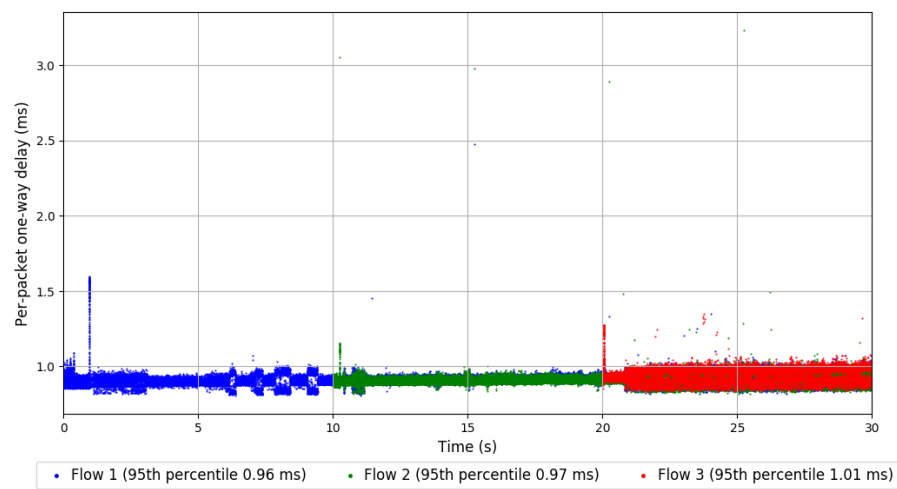
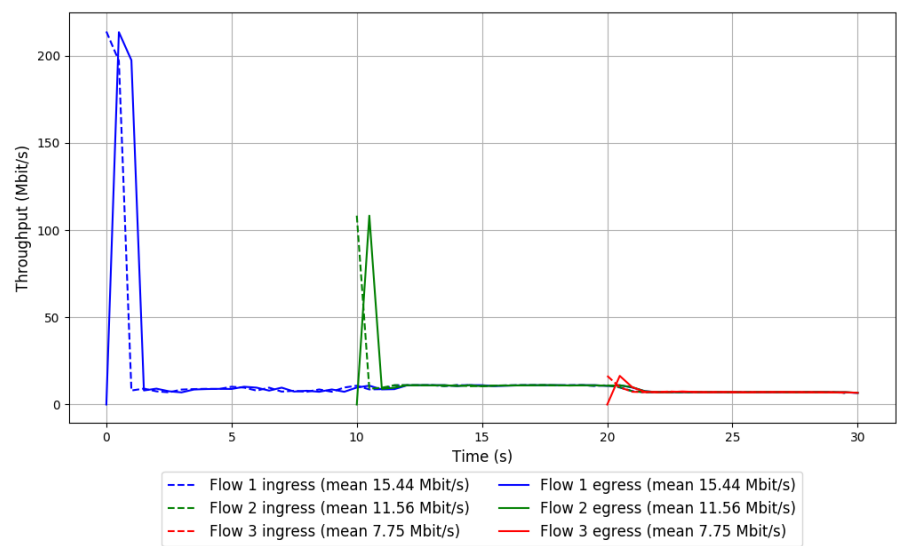
-- Flow 3:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 1.010 ms

Loss rate: 0.02%

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

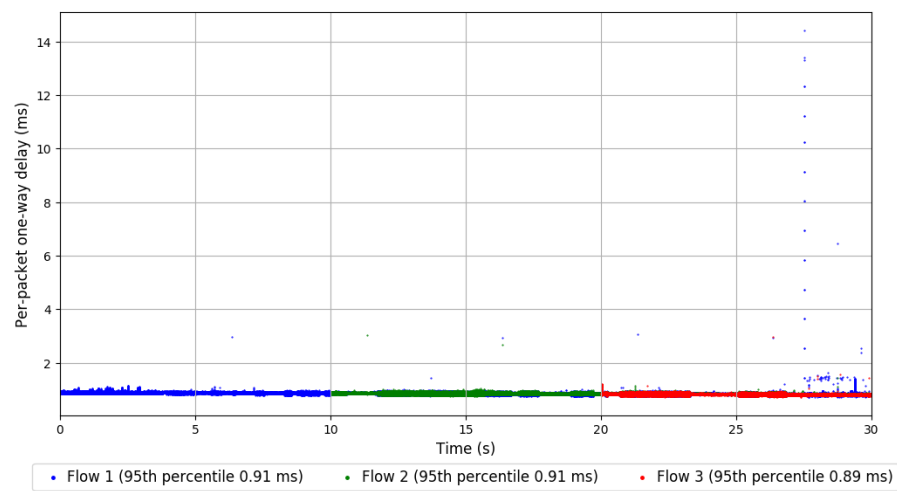
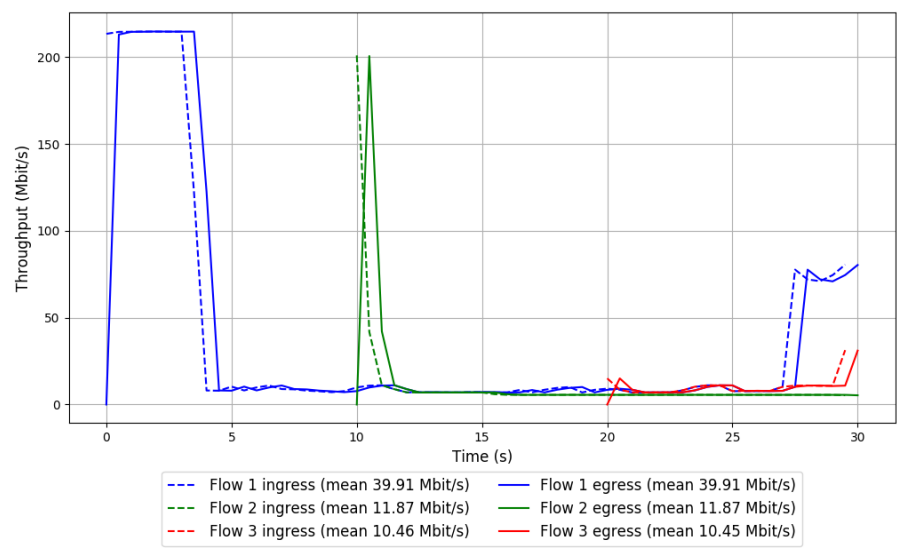


Run 3: Statistics of TaoVA-100x

Start at: 2019-06-28 12:39:36  
End at: 2019-06-28 12:40:06  
Local clock offset: 0.973 ms  
Remote clock offset: -4.479 ms

# Below is generated by plot.py at 2019-06-28 15:09:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 51.28 Mbit/s  
95th percentile per-packet one-way delay: 0.913 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 39.91 Mbit/s  
95th percentile per-packet one-way delay: 0.914 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 11.87 Mbit/s  
95th percentile per-packet one-way delay: 0.913 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 10.45 Mbit/s  
95th percentile per-packet one-way delay: 0.891 ms  
Loss rate: 0.13%

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



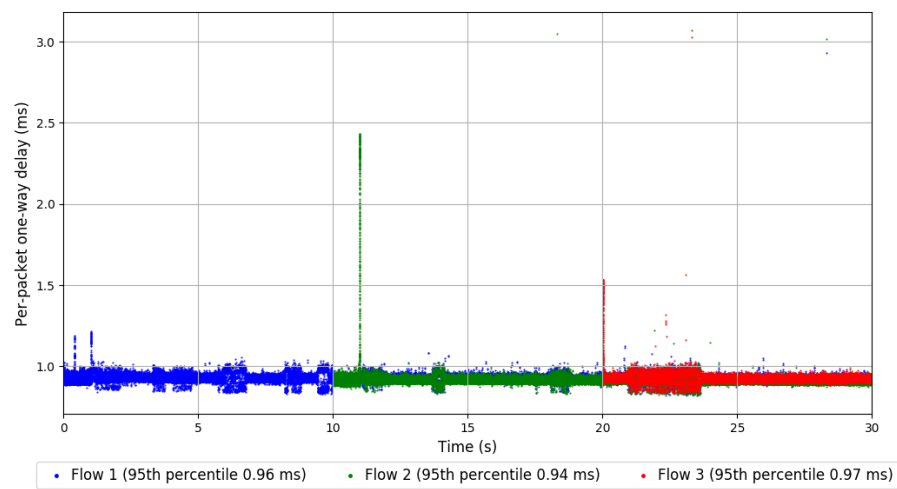
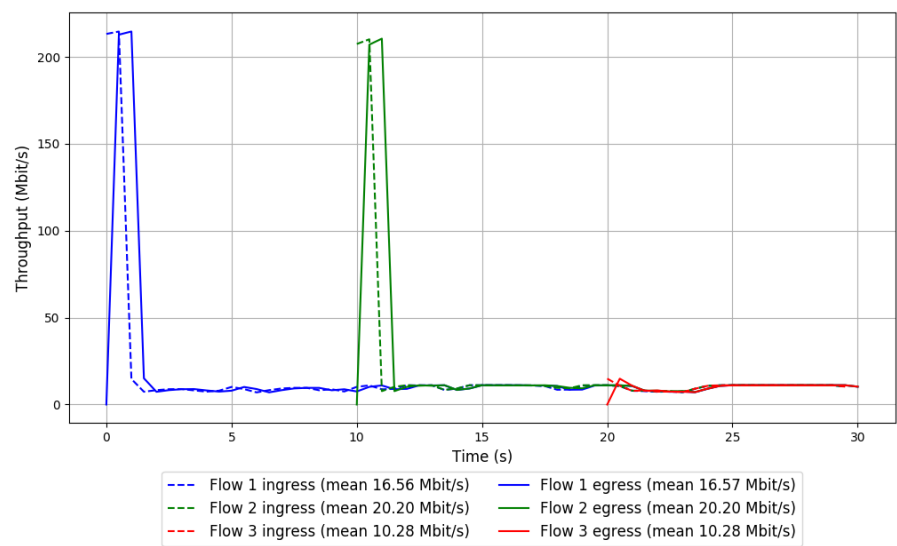


Run 4: Statistics of TaoVA-100x

Start at: 2019-06-28 13:11:19  
End at: 2019-06-28 13:11:49  
Local clock offset: 0.412 ms  
Remote clock offset: -4.126 ms

# Below is generated by plot.py at 2019-06-28 15:09:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 33.43 Mbit/s  
95th percentile per-packet one-way delay: 0.955 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 16.57 Mbit/s  
95th percentile per-packet one-way delay: 0.958 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 20.20 Mbit/s  
95th percentile per-packet one-way delay: 0.943 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 10.28 Mbit/s  
95th percentile per-packet one-way delay: 0.968 ms  
Loss rate: 0.01%

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

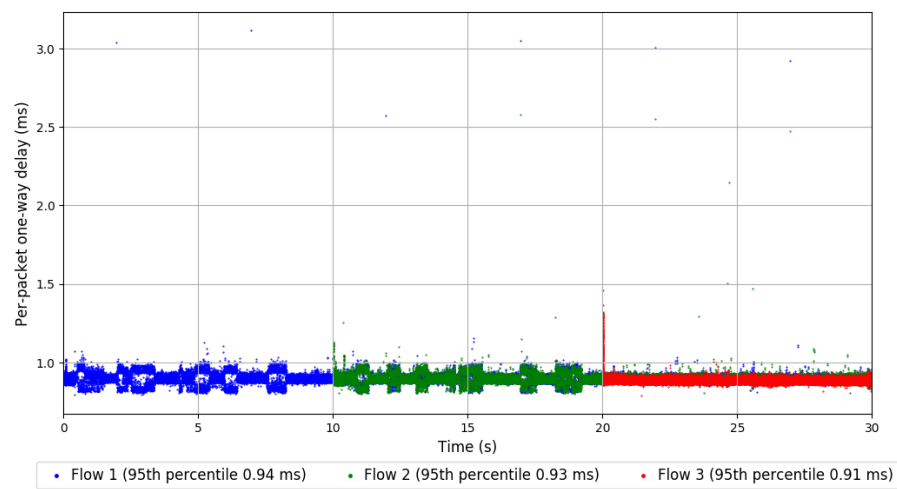
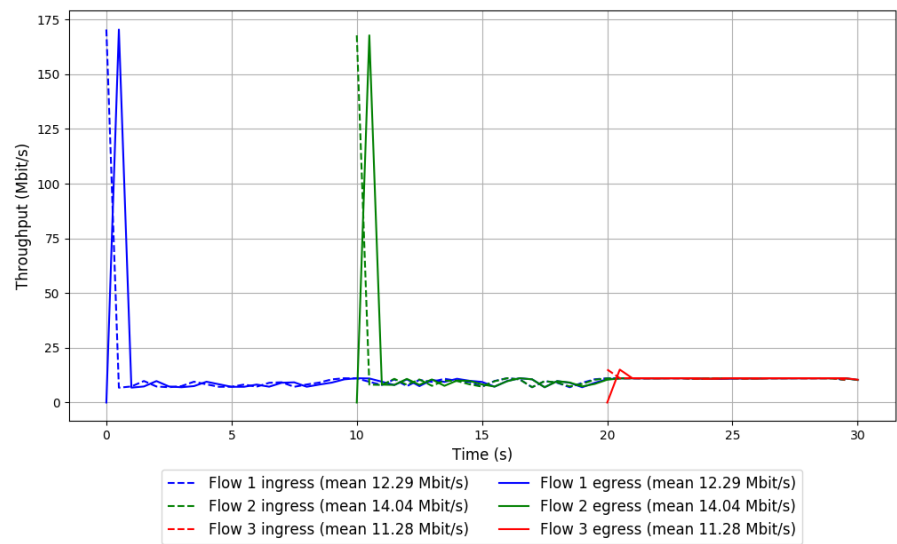


Run 5: Statistics of TaoVA-100x

Start at: 2019-06-28 13:43:10  
End at: 2019-06-28 13:43:40  
Local clock offset: 0.514 ms  
Remote clock offset: -3.489 ms

# Below is generated by plot.py at 2019-06-28 15:09:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 25.39 Mbit/s  
95th percentile per-packet one-way delay: 0.935 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 12.29 Mbit/s  
95th percentile per-packet one-way delay: 0.942 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 14.04 Mbit/s  
95th percentile per-packet one-way delay: 0.931 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 11.28 Mbit/s  
95th percentile per-packet one-way delay: 0.914 ms  
Loss rate: 0.01%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-06-28 11:47:19

End at: 2019-06-28 11:47:49

Local clock offset: 2.684 ms

Remote clock offset: 1.729 ms

# Below is generated by plot.py at 2019-06-28 15:14:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 553.65 Mbit/s

95th percentile per-packet one-way delay: 1.065 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 287.61 Mbit/s

95th percentile per-packet one-way delay: 1.067 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 278.41 Mbit/s

95th percentile per-packet one-way delay: 1.044 ms

Loss rate: 0.01%

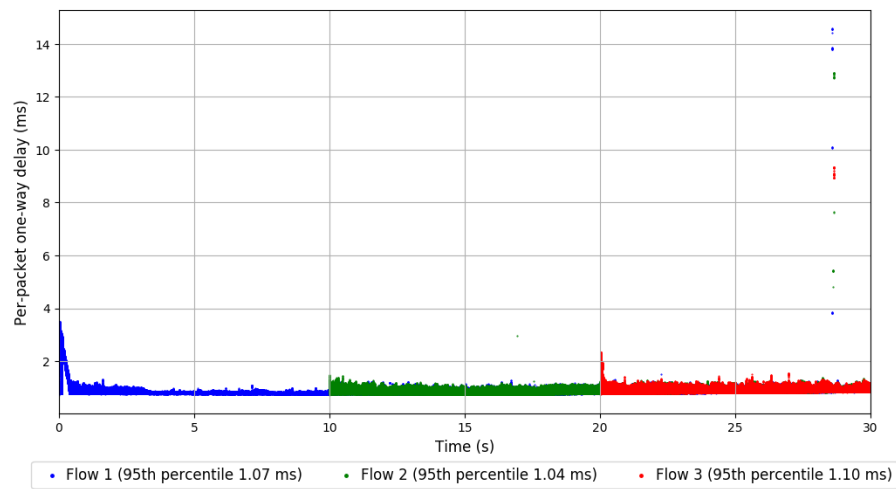
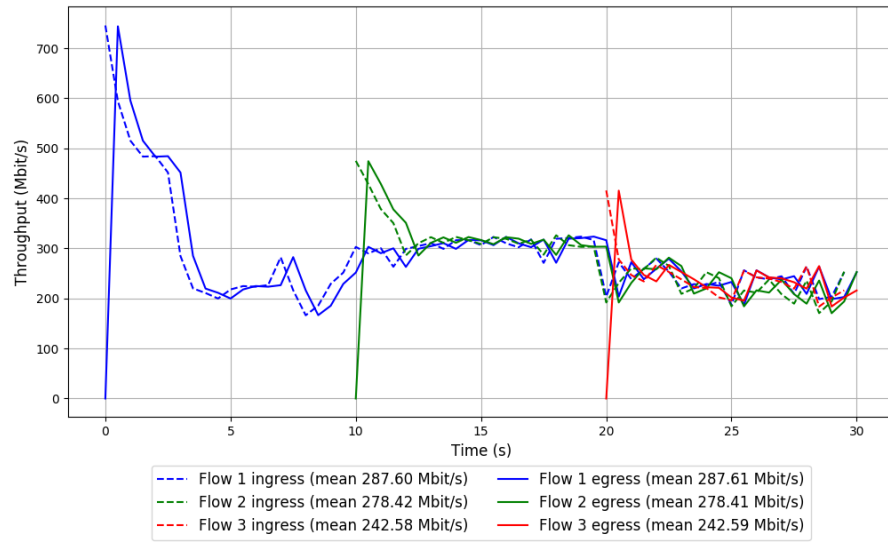
-- Flow 3:

Average throughput: 242.59 Mbit/s

95th percentile per-packet one-way delay: 1.103 ms

Loss rate: 0.01%

## Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-06-28 12:19:04

End at: 2019-06-28 12:19:34

Local clock offset: 0.416 ms

Remote clock offset: 1.577 ms

# Below is generated by plot.py at 2019-06-28 15:14:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 565.38 Mbit/s

95th percentile per-packet one-way delay: 0.929 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 295.12 Mbit/s

95th percentile per-packet one-way delay: 0.924 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 268.81 Mbit/s

95th percentile per-packet one-way delay: 0.857 ms

Loss rate: 0.01%

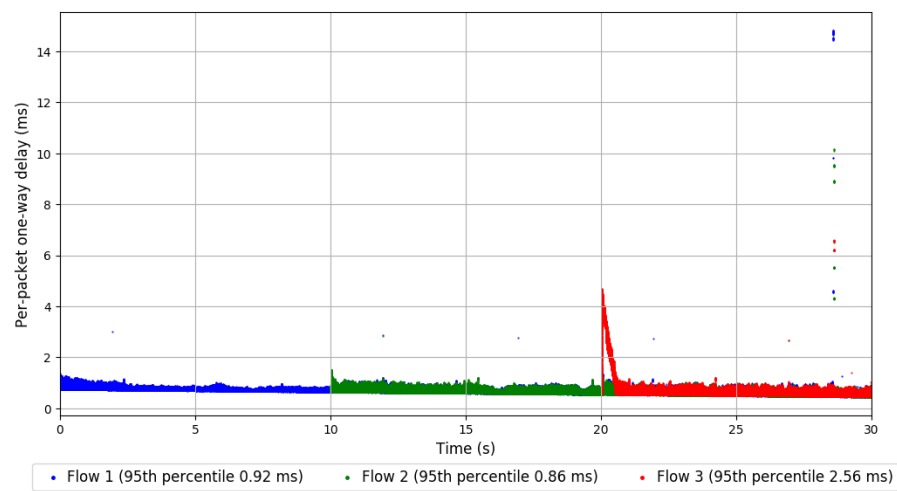
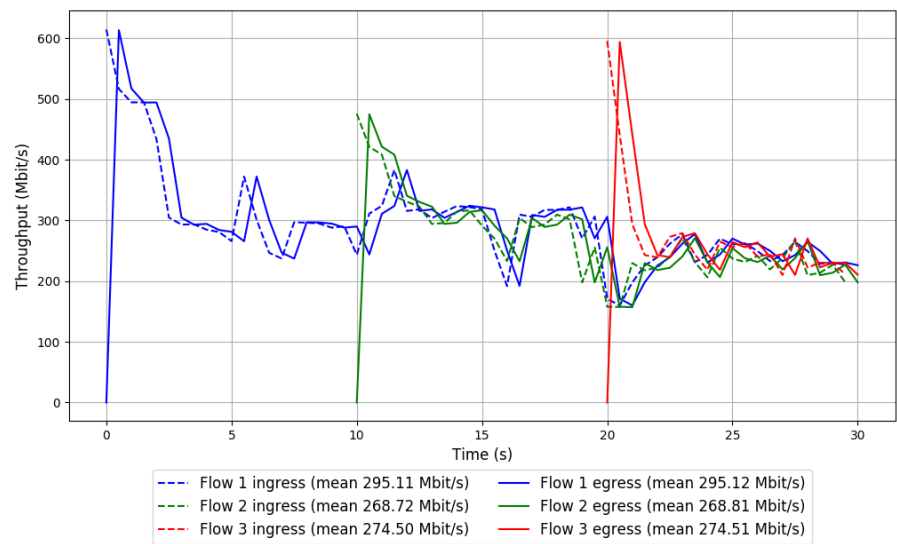
-- Flow 3:

Average throughput: 274.51 Mbit/s

95th percentile per-packet one-way delay: 2.556 ms

Loss rate: 0.01%

Run 2: Report of TCP Vegas — Data Link



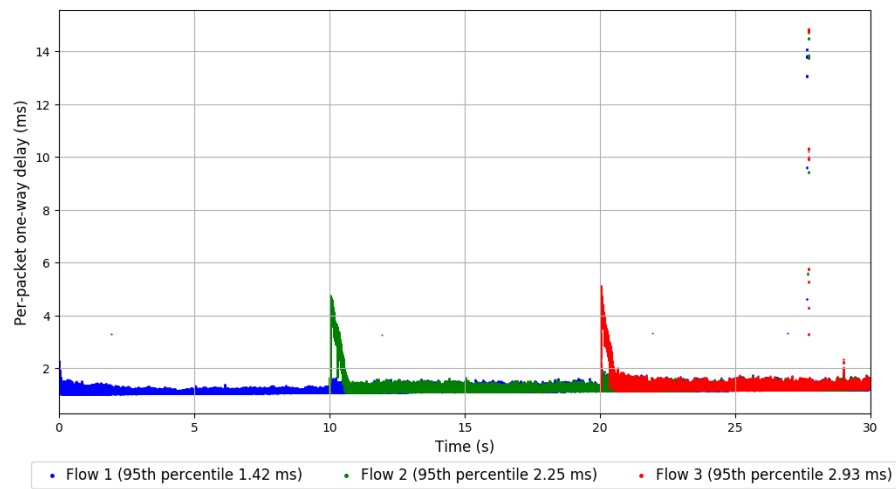
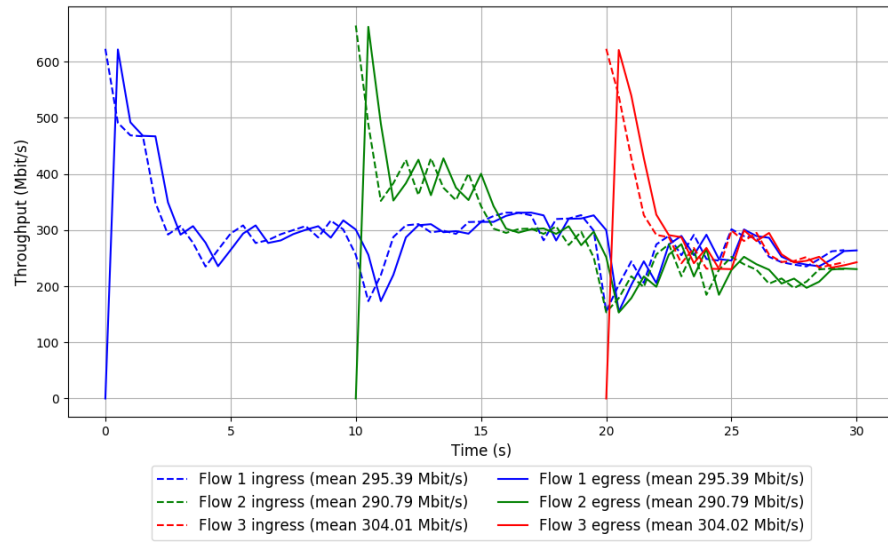


Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 12:50:49  
End at: 2019-06-28 12:51:19  
Local clock offset: 0.965 ms  
Remote clock offset: -5.687 ms

# Below is generated by plot.py at 2019-06-28 15:15:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 590.03 Mbit/s  
95th percentile per-packet one-way delay: 1.547 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 295.39 Mbit/s  
95th percentile per-packet one-way delay: 1.421 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 290.79 Mbit/s  
95th percentile per-packet one-way delay: 2.245 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 304.02 Mbit/s  
95th percentile per-packet one-way delay: 2.929 ms  
Loss rate: 0.02%

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

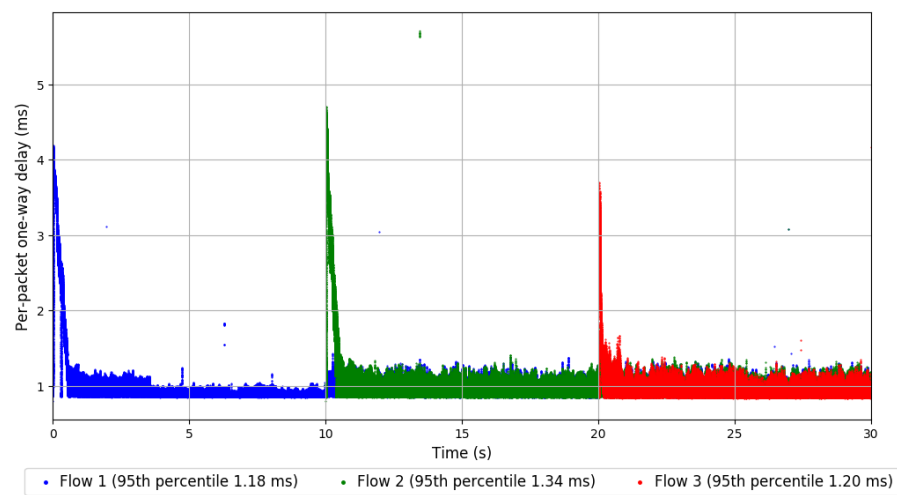
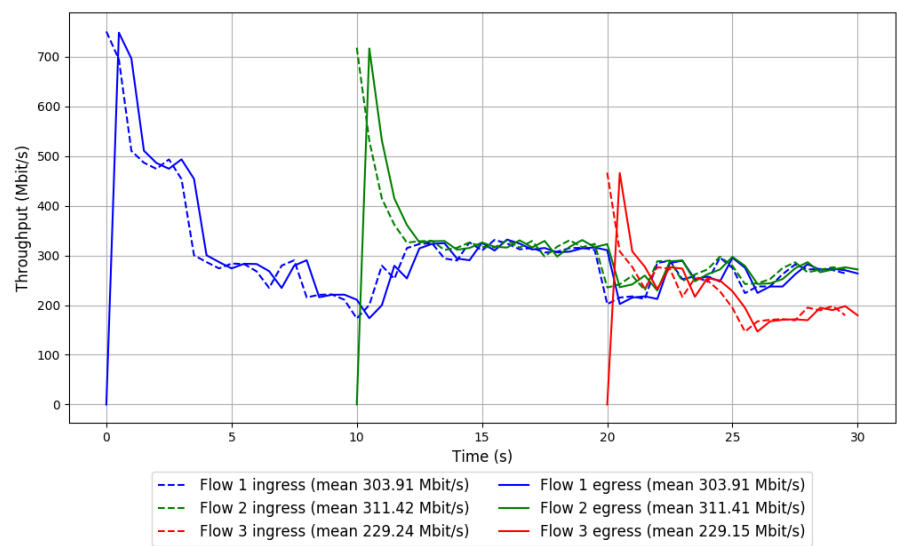


Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 13:22:32  
End at: 2019-06-28 13:23:02  
Local clock offset: 0.343 ms  
Remote clock offset: -4.372 ms

# Below is generated by plot.py at 2019-06-28 15:15:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 587.41 Mbit/s  
95th percentile per-packet one-way delay: 1.217 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 303.91 Mbit/s  
95th percentile per-packet one-way delay: 1.182 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 311.41 Mbit/s  
95th percentile per-packet one-way delay: 1.343 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 229.15 Mbit/s  
95th percentile per-packet one-way delay: 1.195 ms  
Loss rate: 0.01%

Run 4: Report of TCP Vegas — Data Link

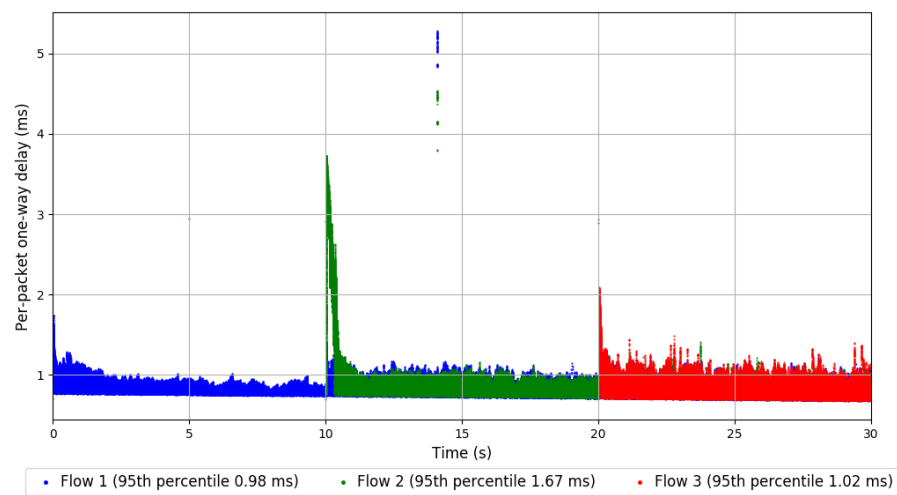
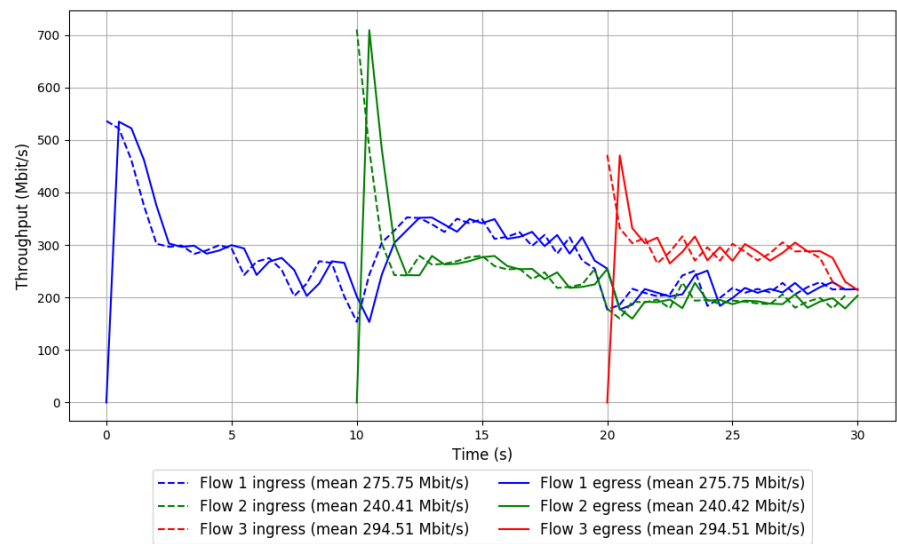


Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 13:54:21  
End at: 2019-06-28 13:54:51  
Local clock offset: 2.128 ms  
Remote clock offset: -3.564 ms

# Below is generated by plot.py at 2019-06-28 15:15:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 533.78 Mbit/s  
95th percentile per-packet one-way delay: 1.013 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 275.75 Mbit/s  
95th percentile per-packet one-way delay: 0.979 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 240.42 Mbit/s  
95th percentile per-packet one-way delay: 1.669 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 294.51 Mbit/s  
95th percentile per-packet one-way delay: 1.022 ms  
Loss rate: 0.02%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-06-28 11:50:31

End at: 2019-06-28 11:51:01

Local clock offset: 2.104 ms

Remote clock offset: 1.876 ms

# Below is generated by plot.py at 2019-06-28 15:15:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 239.20 Mbit/s

95th percentile per-packet one-way delay: 2.985 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 149.15 Mbit/s

95th percentile per-packet one-way delay: 3.182 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 101.98 Mbit/s

95th percentile per-packet one-way delay: 2.630 ms

Loss rate: 0.00%

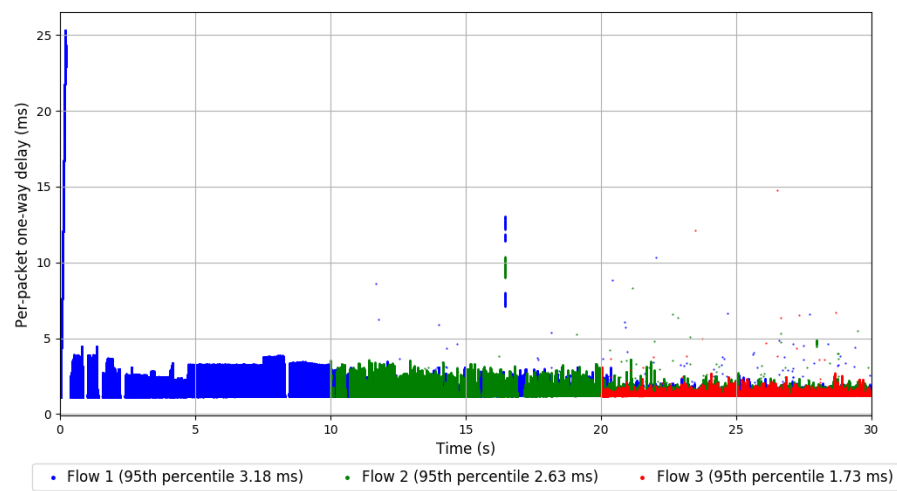
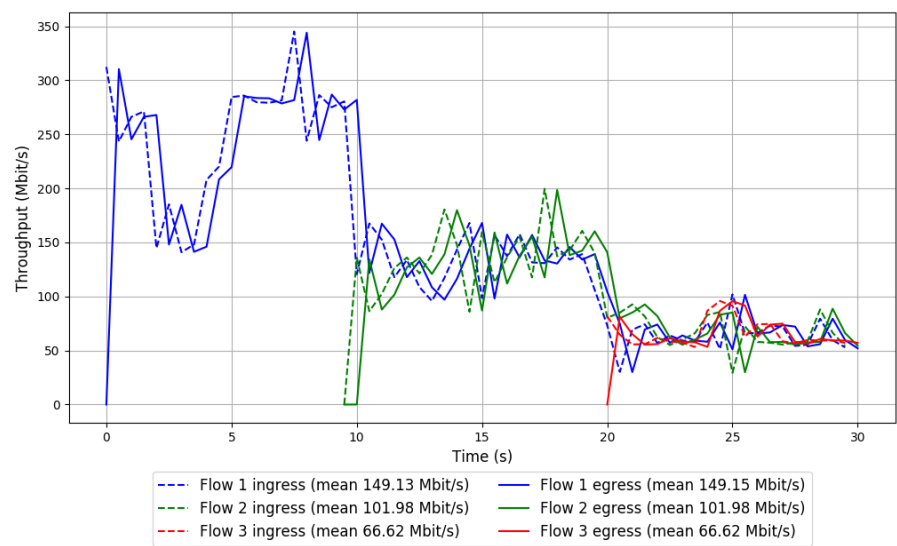
-- Flow 3:

Average throughput: 66.62 Mbit/s

95th percentile per-packet one-way delay: 1.725 ms

Loss rate: 0.00%

Run 1: Report of Verus — Data Link



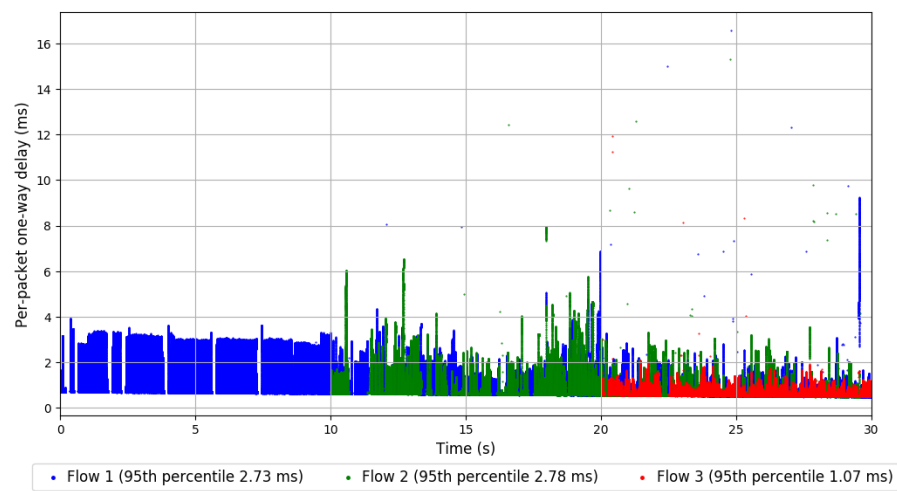
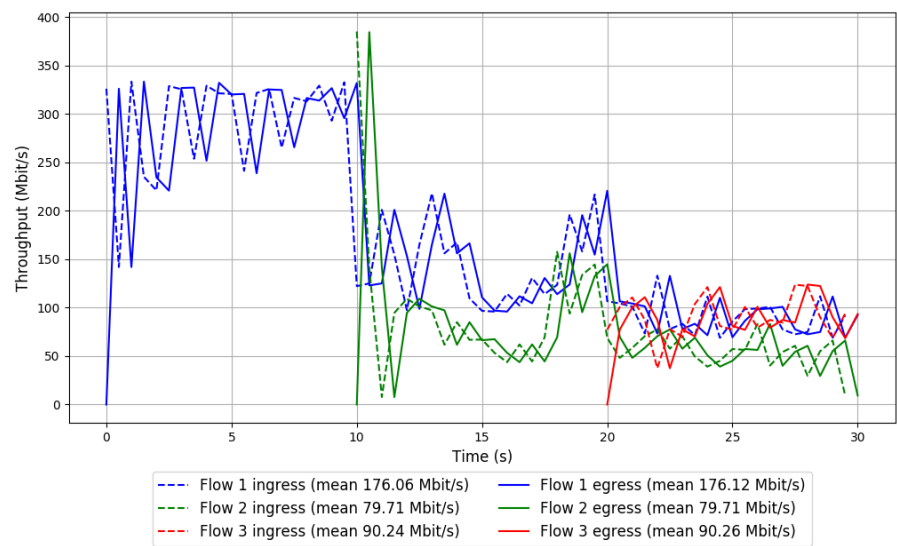


Run 2: Statistics of Verus

Start at: 2019-06-28 12:22:18  
End at: 2019-06-28 12:22:48  
Local clock offset: 0.442 ms  
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2019-06-28 15:15:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 258.05 Mbit/s  
95th percentile per-packet one-way delay: 2.671 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 176.12 Mbit/s  
95th percentile per-packet one-way delay: 2.725 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 79.71 Mbit/s  
95th percentile per-packet one-way delay: 2.776 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 90.26 Mbit/s  
95th percentile per-packet one-way delay: 1.074 ms  
Loss rate: 0.03%

Run 2: Report of Verus — Data Link

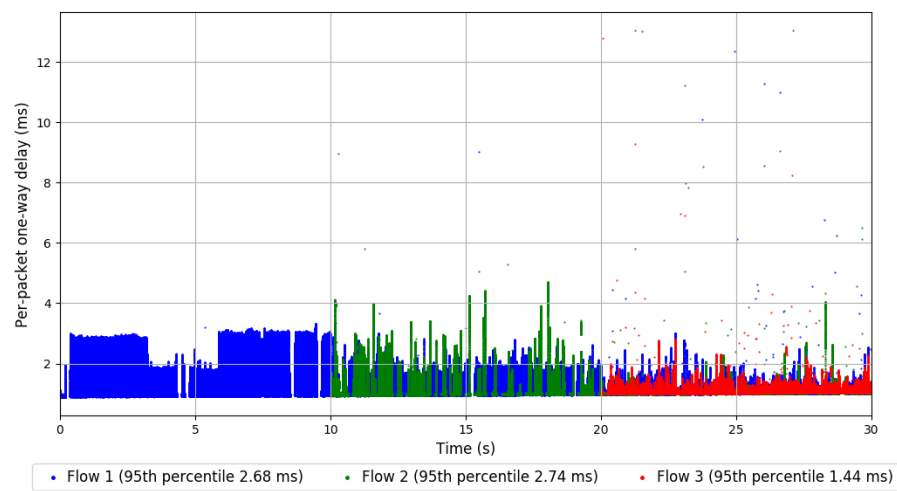
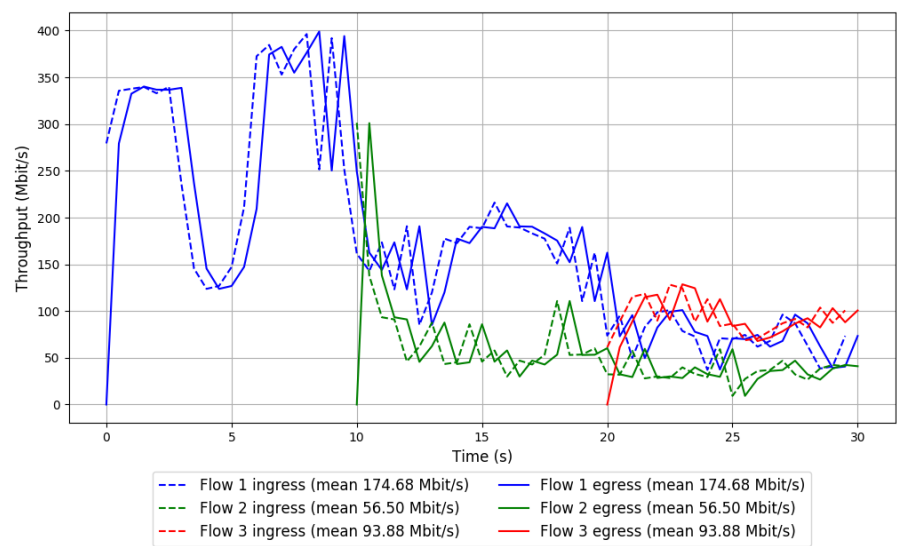


Run 3: Statistics of Verus

Start at: 2019-06-28 12:54:00  
End at: 2019-06-28 12:54:30  
Local clock offset: 0.73 ms  
Remote clock offset: -4.878 ms

# Below is generated by plot.py at 2019-06-28 15:15:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 243.41 Mbit/s  
95th percentile per-packet one-way delay: 2.634 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 174.68 Mbit/s  
95th percentile per-packet one-way delay: 2.679 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 56.50 Mbit/s  
95th percentile per-packet one-way delay: 2.739 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 93.88 Mbit/s  
95th percentile per-packet one-way delay: 1.437 ms  
Loss rate: 0.00%

Run 3: Report of Verus — Data Link

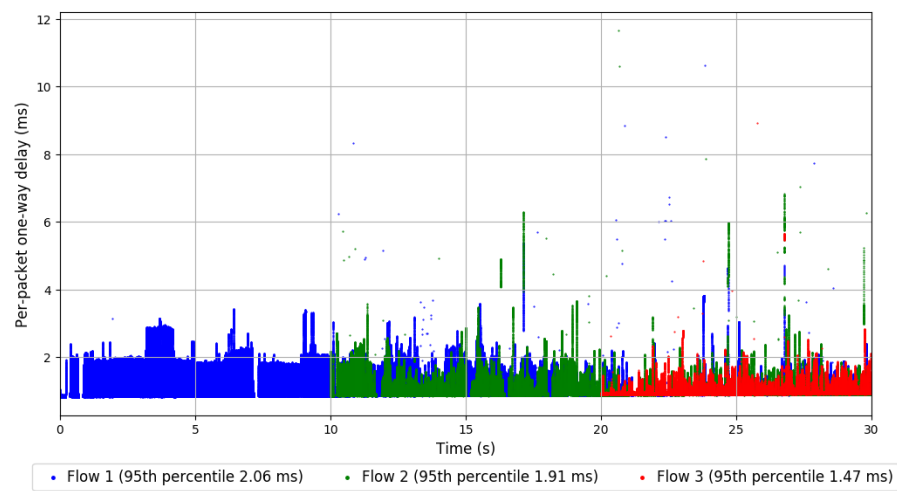
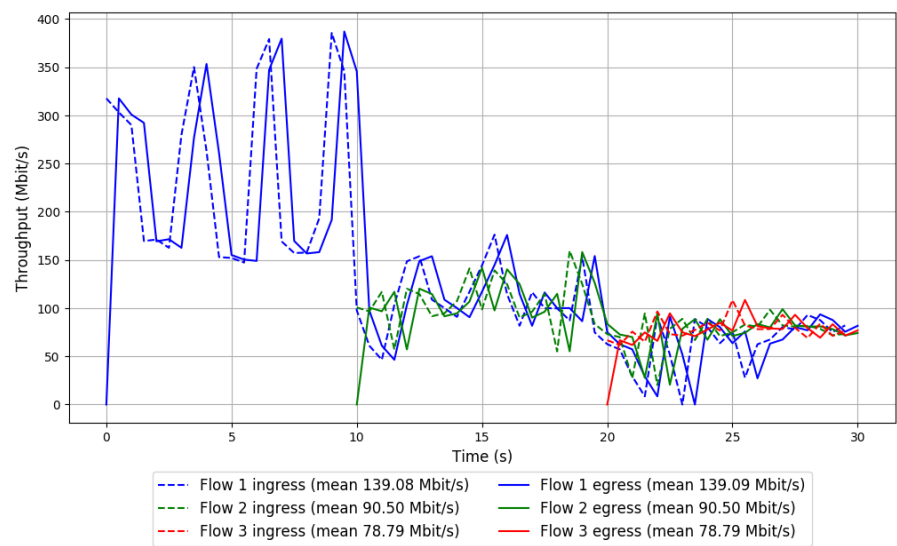


Run 4: Statistics of Verus

Start at: 2019-06-28 13:25:43  
End at: 2019-06-28 13:26:13  
Local clock offset: 0.29 ms  
Remote clock offset: -4.291 ms

# Below is generated by plot.py at 2019-06-28 15:15:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 225.57 Mbit/s  
95th percentile per-packet one-way delay: 2.000 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 139.09 Mbit/s  
95th percentile per-packet one-way delay: 2.058 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 90.50 Mbit/s  
95th percentile per-packet one-way delay: 1.907 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 78.79 Mbit/s  
95th percentile per-packet one-way delay: 1.465 ms  
Loss rate: 0.00%

Run 4: Report of Verus — Data Link

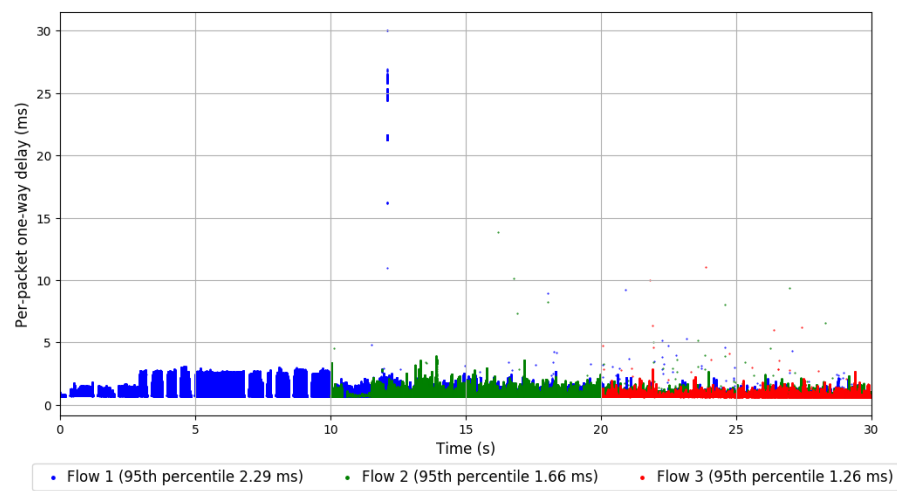
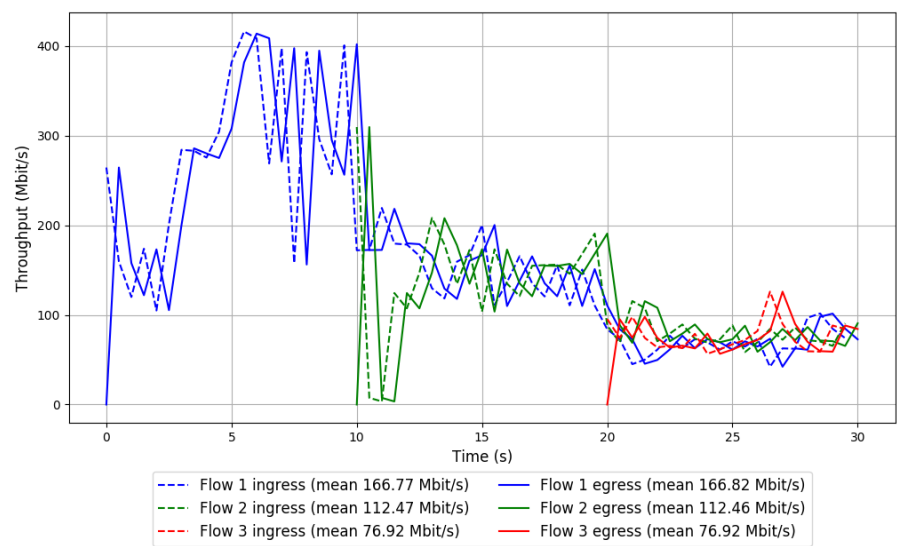


Run 5: Statistics of Verus

Start at: 2019-06-28 13:57:33  
End at: 2019-06-28 13:58:03  
Local clock offset: 2.608 ms  
Remote clock offset: -3.573 ms

# Below is generated by plot.py at 2019-06-28 15:15:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 267.17 Mbit/s  
95th percentile per-packet one-way delay: 2.097 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 166.82 Mbit/s  
95th percentile per-packet one-way delay: 2.287 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 112.46 Mbit/s  
95th percentile per-packet one-way delay: 1.657 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 76.92 Mbit/s  
95th percentile per-packet one-way delay: 1.263 ms  
Loss rate: 0.00%

Run 5: Report of Verus — Data Link





Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 11:41:18

End at: 2019-06-28 11:41:48

Local clock offset: 1.822 ms

Remote clock offset: 1.456 ms

# Below is generated by plot.py at 2019-06-28 15:15:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 321.60 Mbit/s

95th percentile per-packet one-way delay: 0.783 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 211.71 Mbit/s

95th percentile per-packet one-way delay: 0.771 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 125.32 Mbit/s

95th percentile per-packet one-way delay: 0.791 ms

Loss rate: 0.00%

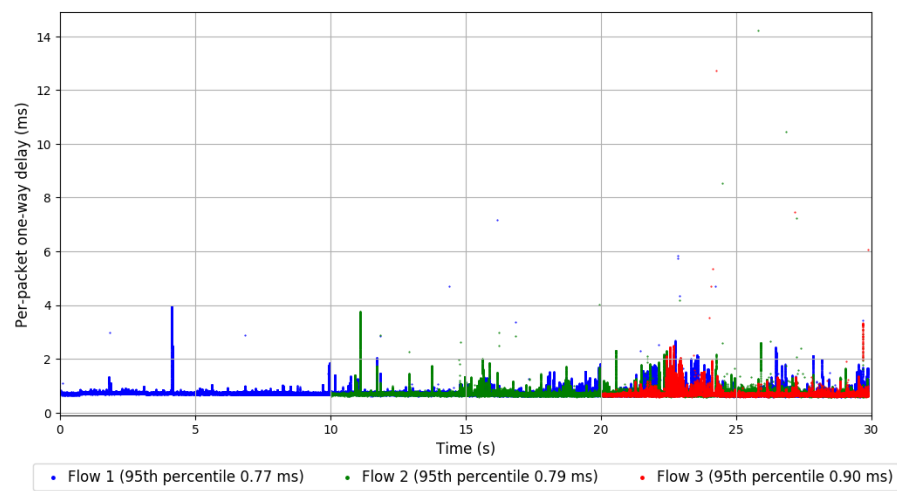
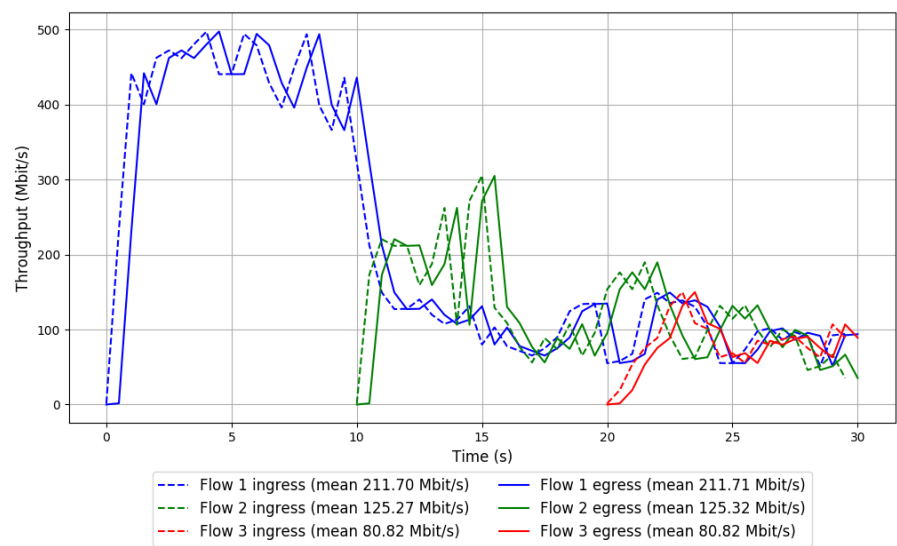
-- Flow 3:

Average throughput: 80.82 Mbit/s

95th percentile per-packet one-way delay: 0.897 ms

Loss rate: 0.01%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-06-28 12:13:02

End at: 2019-06-28 12:13:32

Local clock offset: 0.364 ms

Remote clock offset: 3.164 ms

# Below is generated by plot.py at 2019-06-28 15:16:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 309.20 Mbit/s

95th percentile per-packet one-way delay: 1.096 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 215.91 Mbit/s

95th percentile per-packet one-way delay: 1.037 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 102.97 Mbit/s

95th percentile per-packet one-way delay: 1.183 ms

Loss rate: 0.01%

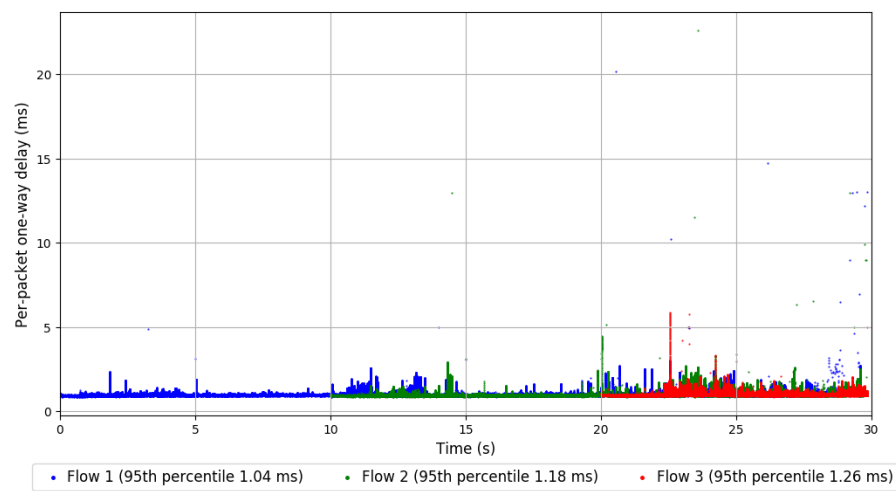
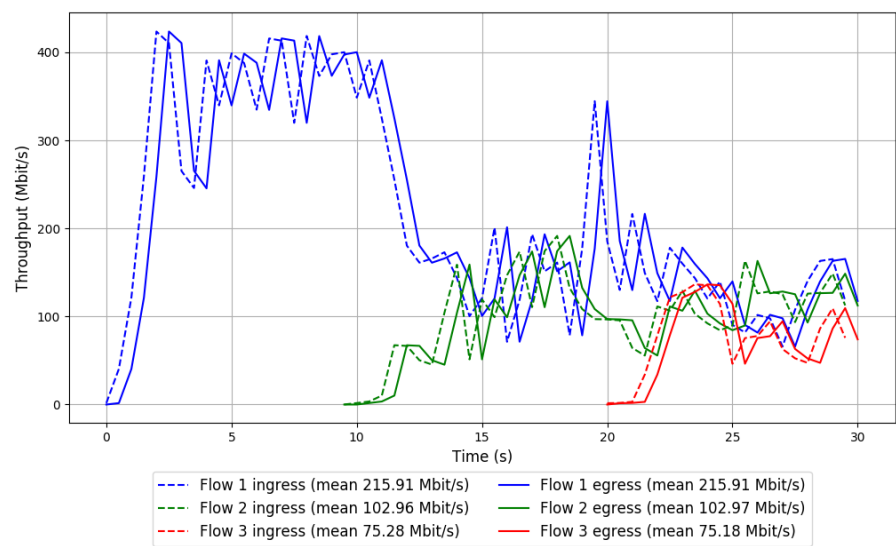
-- Flow 3:

Average throughput: 75.18 Mbit/s

95th percentile per-packet one-way delay: 1.259 ms

Loss rate: 0.12%

Run 2: Report of PCC-Vivace — Data Link

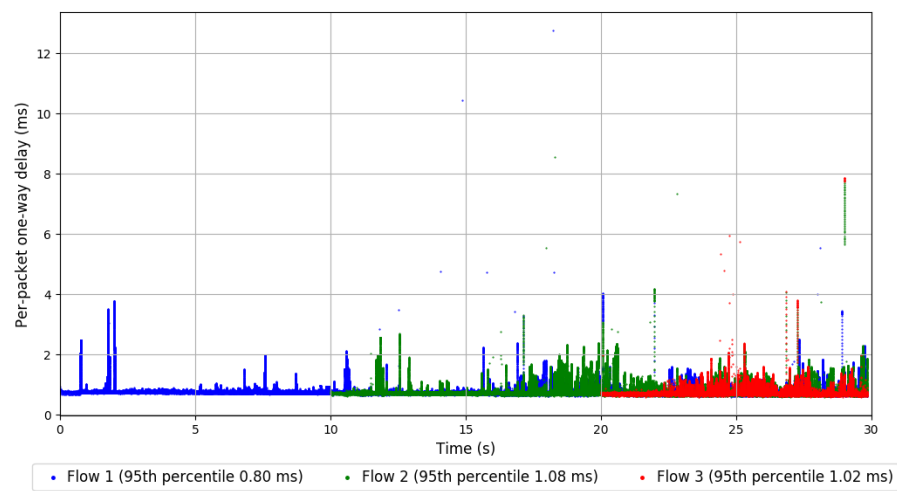
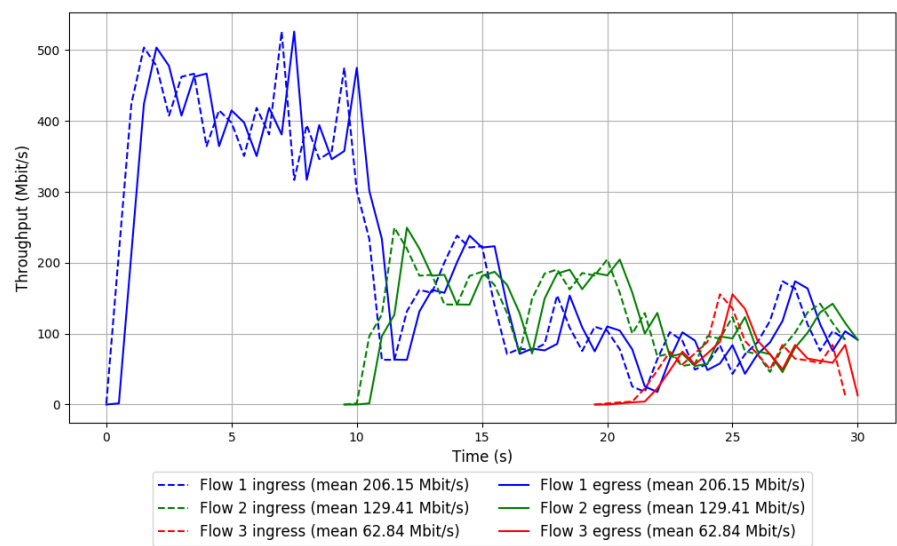


Run 3: Statistics of PCC-Vivace

Start at: 2019-06-28 12:44:47  
End at: 2019-06-28 12:45:17  
Local clock offset: 1.133 ms  
Remote clock offset: -4.978 ms

# Below is generated by plot.py at 2019-06-28 15:17:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 313.02 Mbit/s  
95th percentile per-packet one-way delay: 0.884 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 206.15 Mbit/s  
95th percentile per-packet one-way delay: 0.798 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 129.41 Mbit/s  
95th percentile per-packet one-way delay: 1.083 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 62.84 Mbit/s  
95th percentile per-packet one-way delay: 1.024 ms  
Loss rate: 0.01%

Run 3: Report of PCC-Vivace — Data Link

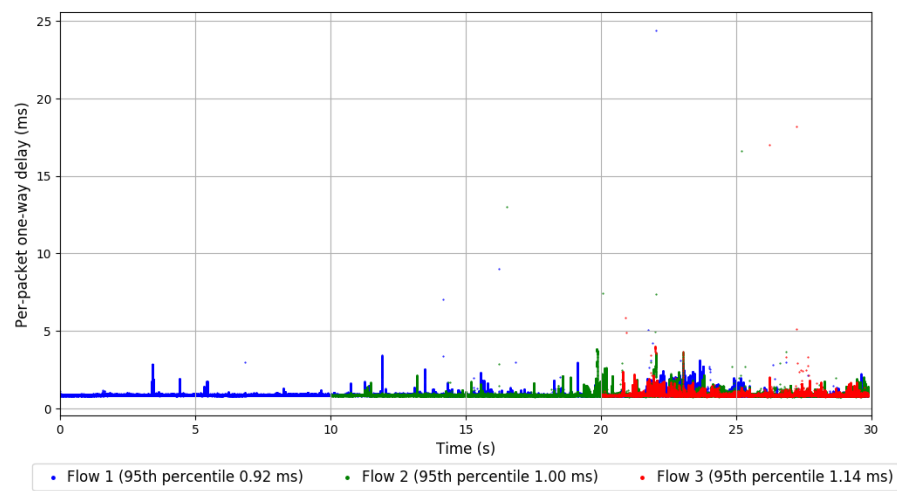
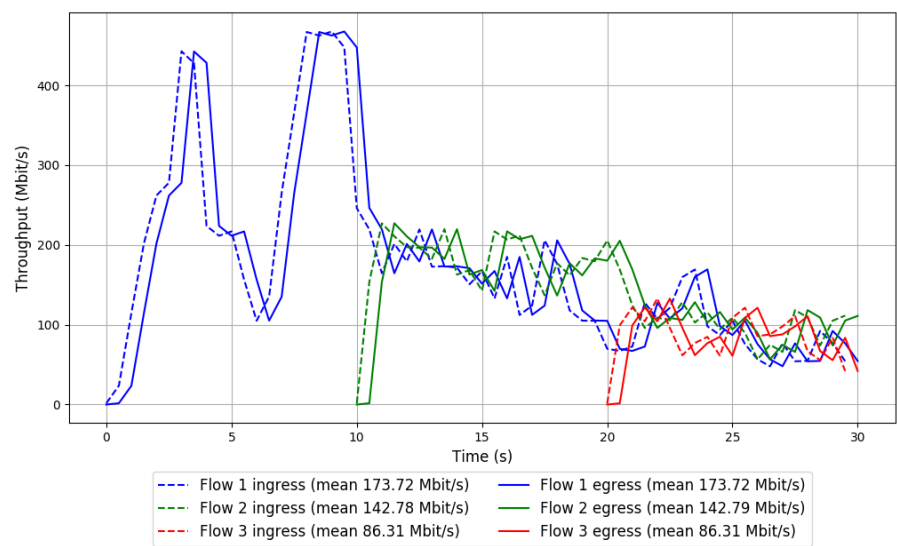


Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 13:16:29  
End at: 2019-06-28 13:16:59  
Local clock offset: 0.446 ms  
Remote clock offset: -4.157 ms

# Below is generated by plot.py at 2019-06-28 15:17:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 297.13 Mbit/s  
95th percentile per-packet one-way delay: 0.967 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 173.72 Mbit/s  
95th percentile per-packet one-way delay: 0.920 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 142.79 Mbit/s  
95th percentile per-packet one-way delay: 1.003 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 86.31 Mbit/s  
95th percentile per-packet one-way delay: 1.144 ms  
Loss rate: 0.01%

Run 4: Report of PCC-Vivace — Data Link



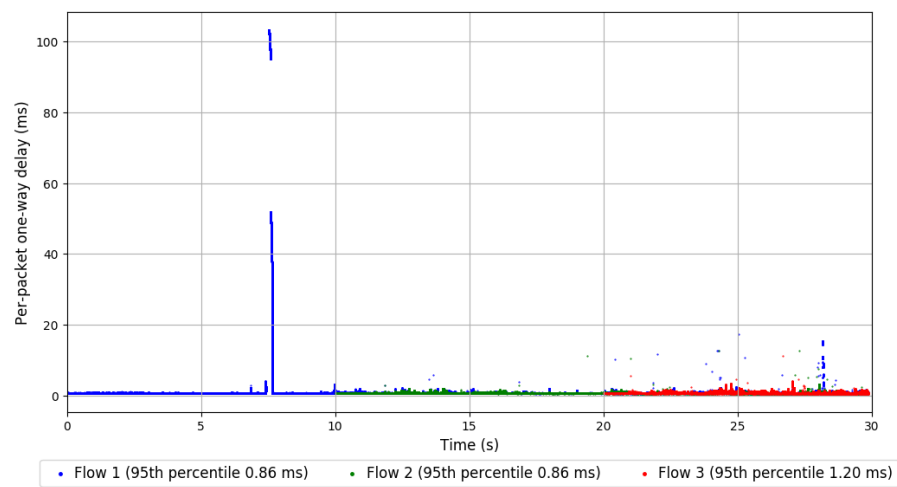
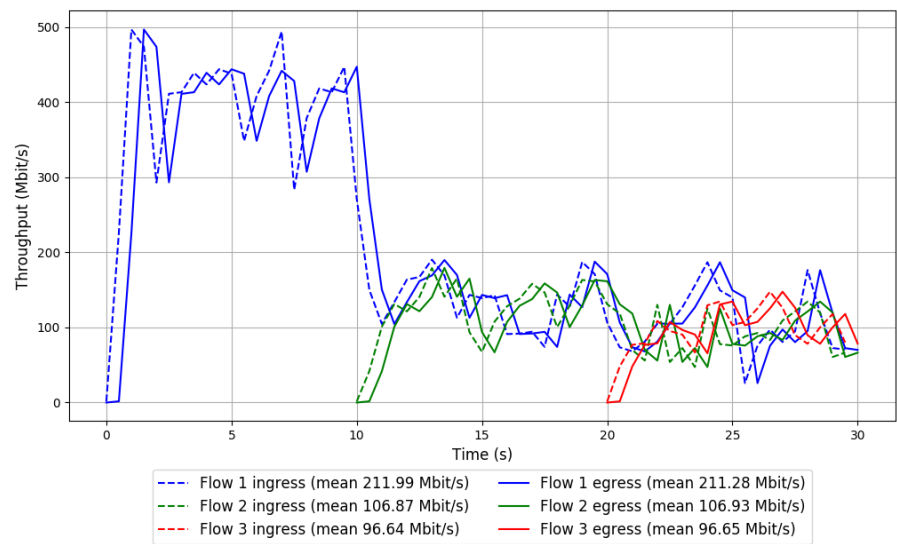


Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 13:48:19  
End at: 2019-06-28 13:48:49  
Local clock offset: 0.7 ms  
Remote clock offset: -3.554 ms

# Below is generated by plot.py at 2019-06-28 15:17:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 314.25 Mbit/s  
95th percentile per-packet one-way delay: 0.902 ms  
Loss rate: 0.24%  
-- Flow 1:  
Average throughput: 211.28 Mbit/s  
95th percentile per-packet one-way delay: 0.861 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 106.93 Mbit/s  
95th percentile per-packet one-way delay: 0.860 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 96.65 Mbit/s  
95th percentile per-packet one-way delay: 1.196 ms  
Loss rate: 0.07%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-06-28 11:30:17

End at: 2019-06-28 11:30:47

Local clock offset: -0.847 ms

Remote clock offset: 0.637 ms

# Below is generated by plot.py at 2019-06-28 15:17:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 0.710 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.708 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.672 ms

Loss rate: 0.00%

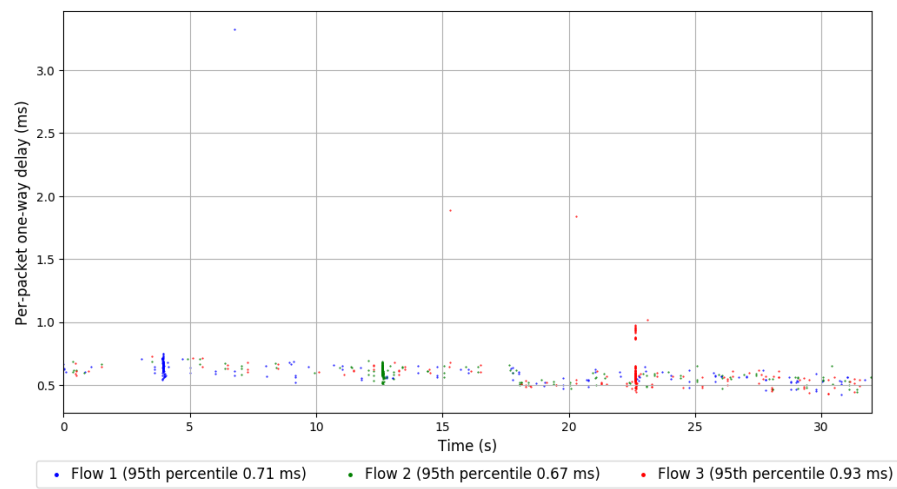
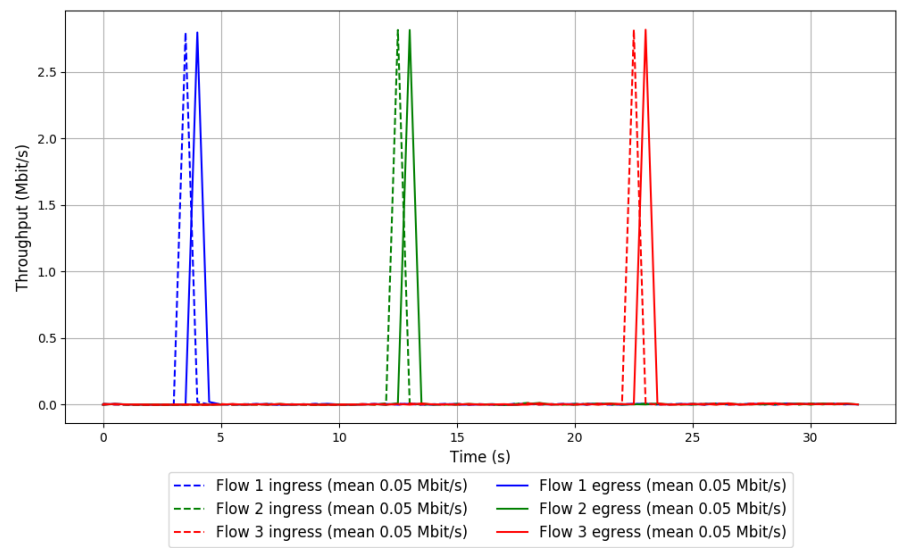
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.926 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-06-28 12:02:08

End at: 2019-06-28 12:02:38

Local clock offset: 0.513 ms

Remote clock offset: 2.651 ms

# Below is generated by plot.py at 2019-06-28 15:17:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 0.970 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.960 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.972 ms

Loss rate: 0.05%

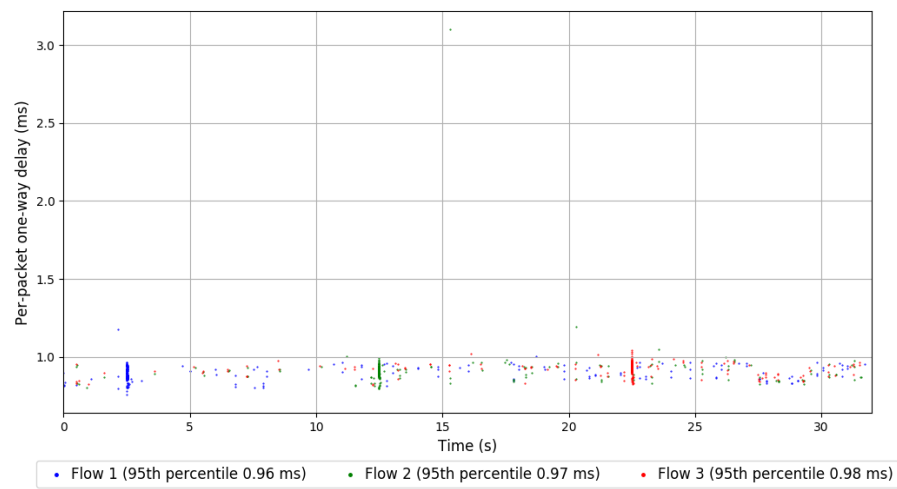
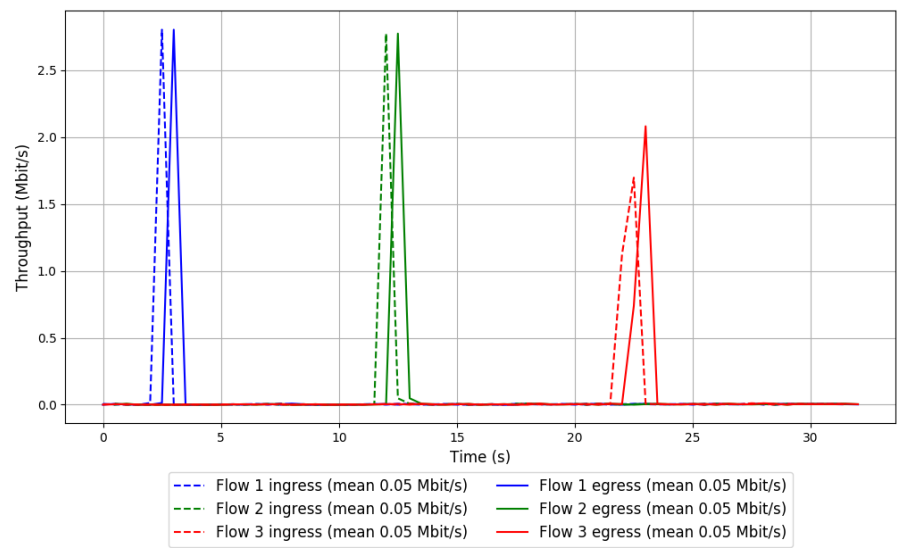
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.978 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

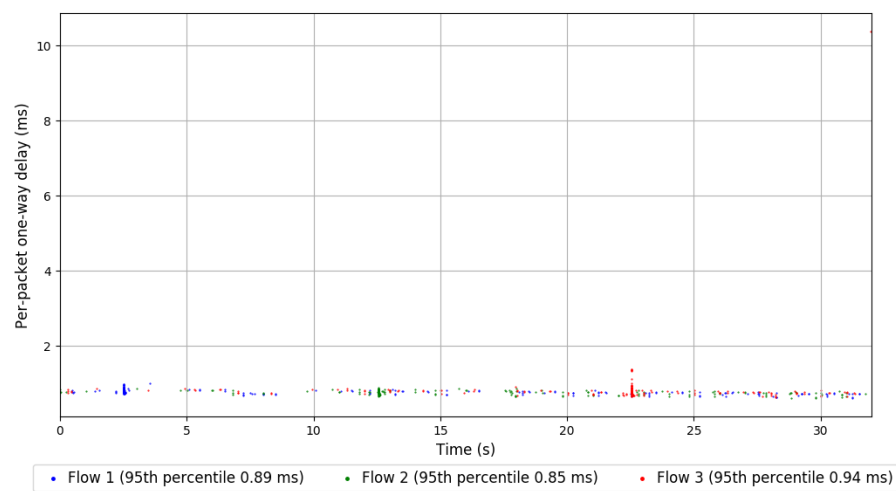
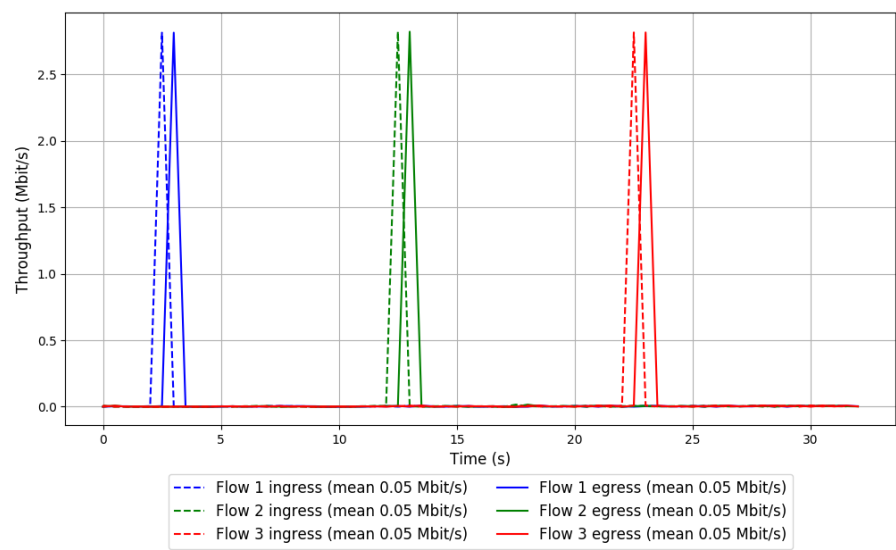


Run 3: Statistics of WebRTC media

Start at: 2019-06-28 12:33:58  
End at: 2019-06-28 12:34:28  
Local clock offset: 0.772 ms  
Remote clock offset: -3.489 ms

# Below is generated by plot.py at 2019-06-28 15:17:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 0.891 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 0.893 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 0.847 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 0.945 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link





Run 4: Statistics of WebRTC media

Start at: 2019-06-28 13:05:40

End at: 2019-06-28 13:06:10

Local clock offset: 0.456 ms

Remote clock offset: -4.05 ms

# Below is generated by plot.py at 2019-06-28 15:17:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1.027 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.025 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.034 ms

Loss rate: 0.05%

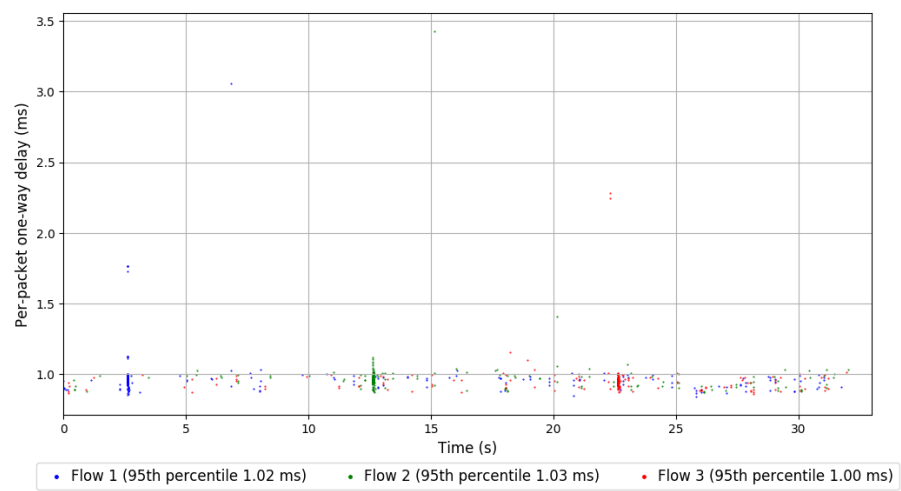
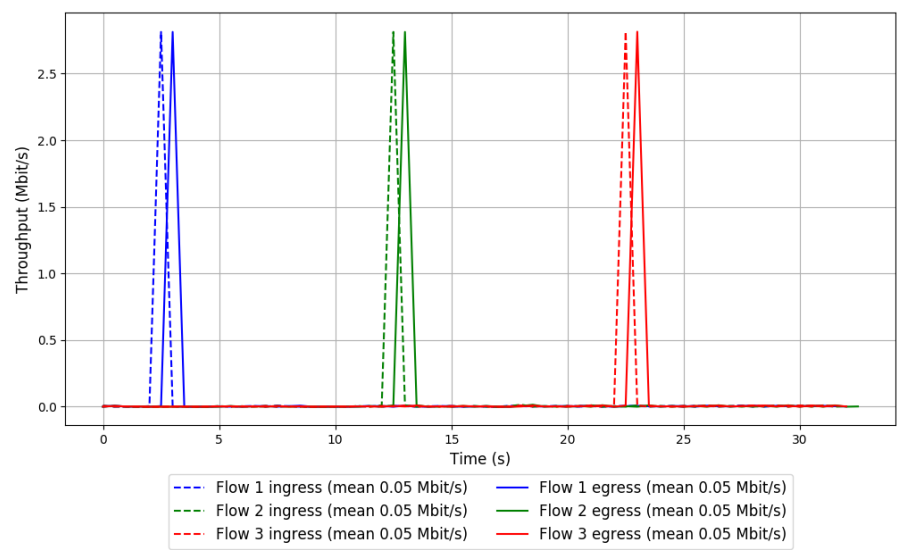
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.002 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-06-28 13:37:18  
End at: 2019-06-28 13:37:48  
Local clock offset: 0.419 ms  
Remote clock offset: -3.451 ms

# Below is generated by plot.py at 2019-06-28 15:17:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 0.911 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 0.916 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 0.888 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 0.914 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

