

## Pantheon Report

Generated at 2019-04-24 03:38:16 (UTC).

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

Repeated the test of 21 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:

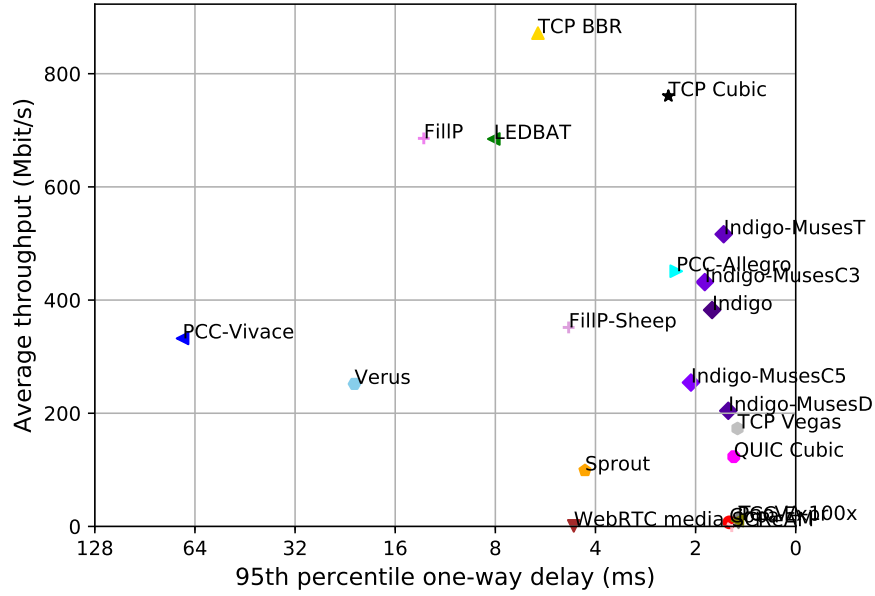
```
Linux 4.15.0-1034-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

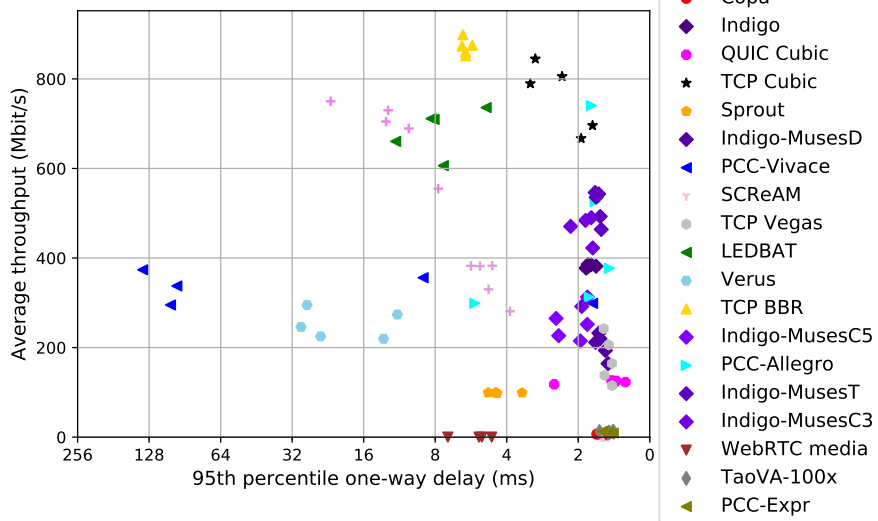
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

third\_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4  
third\_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from AWS California 1 to Stanford, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS California 1 to Stanford, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows



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	505.87	380.84	345.95	5.88	5.99	4.82	4.43	9.92	11.42
Copa	5	0.00	8.27	7.61	1.19	1.41	1.25	98.03	48.66	57.62
TCP Cubic	5	423.55	355.28	301.69	2.56	1.93	1.96	0.06	0.07	0.08
FillP	5	479.91	245.80	128.07	13.86	8.39	8.58	8.17	16.04	7.41
FillP-Sheep	5	295.97	68.85	30.22	5.25	2.01	2.35	2.69	2.58	5.58
Indigo	5	198.34	188.41	182.34	1.51	1.63	2.04	0.03	0.04	0.06
Indigo-MusesC3	5	215.36	236.30	211.82	1.74	1.80	1.96	0.05	0.06	0.08
Indigo-MusesC5	5	105.29	128.61	215.25	1.48	2.48	1.89	0.06	0.14	0.07
Indigo-MusesD	5	114.62	92.05	99.11	1.36	1.24	1.45	0.03	0.02	0.04
Indigo-MusesT	5	279.53	271.05	205.82	1.37	1.43	1.70	0.02	0.03	0.04
LEDBAT	5	411.85	299.58	246.49	8.72	6.39	4.78	0.14	0.25	0.34
PCC-Allegro	5	150.53	317.61	270.55	1.46	1.58	2.55	0.12	0.14	0.21
PCC-Expr	5	5.84	6.05	5.73	1.18	1.13	1.11	57.37	48.71	58.08
QUIC Cubic	5	65.92	60.87	51.37	0.96	1.53	3.48	0.02	0.01	0.01
SCReAM	5	0.21	0.22	0.22	1.28	1.26	1.29	0.03	0.00	0.00
Sprout	5	49.69	49.56	49.38	4.32	4.30	4.18	0.43	0.44	0.44
TaoVA-100x	5	4.83	8.63	2.67	1.19	1.11	1.03	64.25	77.09	95.64
TCP Vegas	5	88.19	64.82	125.38	1.18	1.11	1.15	0.02	0.02	0.02
Verus	5	136.52	109.27	129.88	18.18	21.08	38.57	2.73	4.97	4.11
PCC-Vivace	5	178.17	167.99	128.28	37.79	74.27	2.09	0.11	0.88	0.15
WebRTC media	5	0.47	0.33	0.16	4.86	3.41	3.53	0.00	0.01	0.02



Run 1: Statistics of TCP BBR

Start at: 2019-04-24 00:26:12

End at: 2019-04-24 00:26:42

Local clock offset: 2.734 ms

Remote clock offset: 2.043 ms

# Below is generated by plot.py at 2019-04-24 02:56:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 851.63 Mbit/s

95th percentile per-packet one-way delay: 5.956 ms

Loss rate: 7.65%

-- Flow 1:

Average throughput: 511.33 Mbit/s

95th percentile per-packet one-way delay: 6.006 ms

Loss rate: 4.77%

-- Flow 2:

Average throughput: 321.69 Mbit/s

95th percentile per-packet one-way delay: 4.967 ms

Loss rate: 11.90%

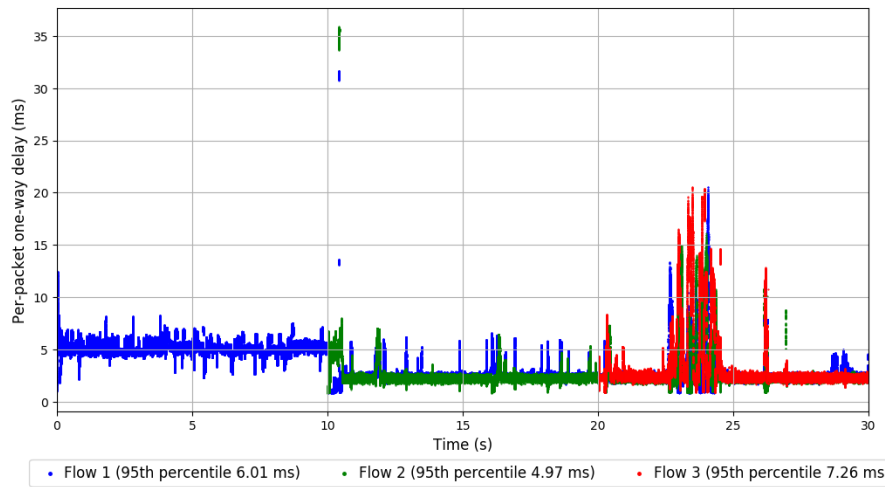
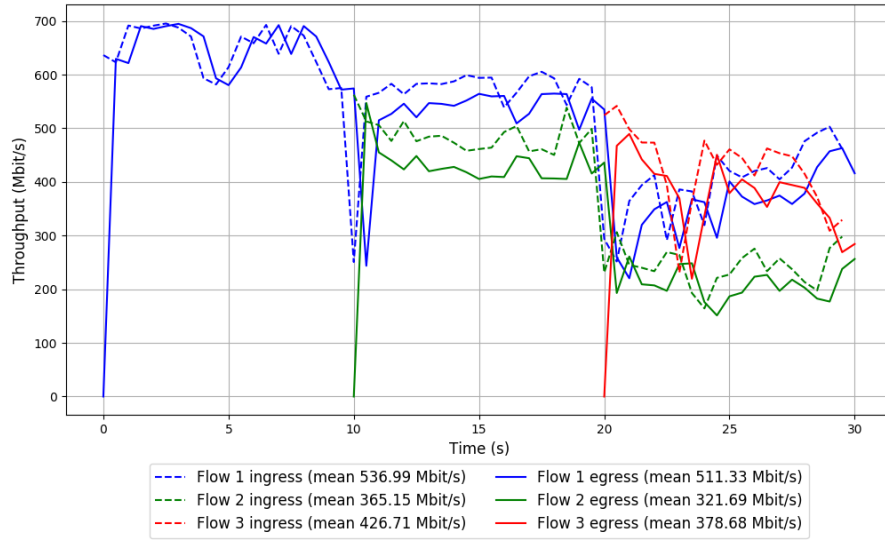
-- Flow 3:

Average throughput: 378.68 Mbit/s

95th percentile per-packet one-way delay: 7.264 ms

Loss rate: 11.26%

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



Run 2: Statistics of TCP BBR

Start at: 2019-04-24 00:55:54

End at: 2019-04-24 00:56:24

Local clock offset: 1.419 ms

Remote clock offset: 2.038 ms

# Below is generated by plot.py at 2019-04-24 02:56:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 875.20 Mbit/s

95th percentile per-packet one-way delay: 5.585 ms

Loss rate: 7.40%

-- Flow 1:

Average throughput: 493.38 Mbit/s

95th percentile per-packet one-way delay: 5.211 ms

Loss rate: 5.23%

-- Flow 2:

Average throughput: 375.95 Mbit/s

95th percentile per-packet one-way delay: 5.937 ms

Loss rate: 9.79%

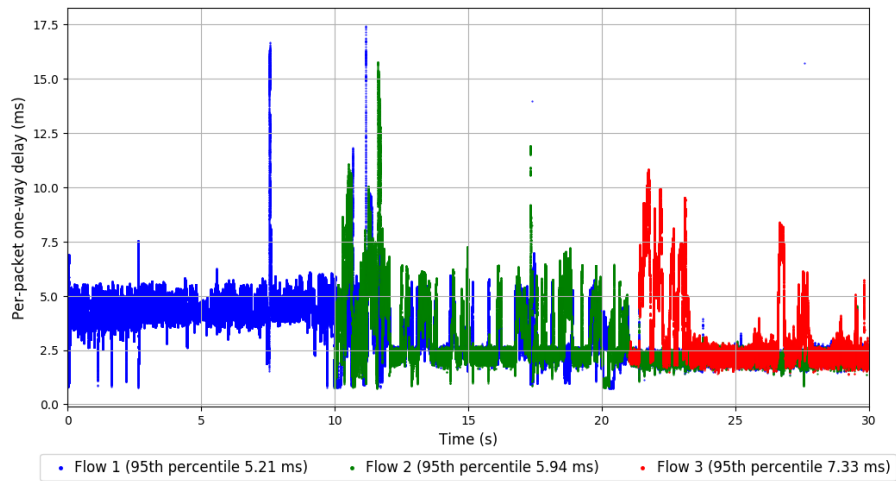
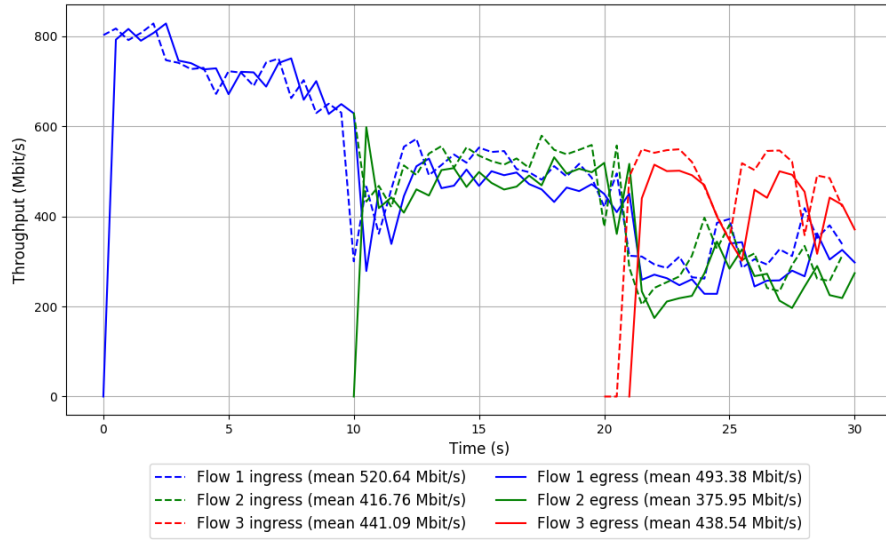
-- Flow 3:

Average throughput: 438.54 Mbit/s

95th percentile per-packet one-way delay: 7.331 ms

Loss rate: 10.59%

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



Run 3: Statistics of TCP BBR

Start at: 2019-04-24 01:25:52

End at: 2019-04-24 01:26:22

Local clock offset: 0.232 ms

Remote clock offset: 1.844 ms

# Below is generated by plot.py at 2019-04-24 02:56:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 859.74 Mbit/s

95th percentile per-packet one-way delay: 5.961 ms

Loss rate: 6.63%

-- Flow 1:

Average throughput: 434.45 Mbit/s

95th percentile per-packet one-way delay: 5.919 ms

Loss rate: 5.27%

-- Flow 2:

Average throughput: 432.79 Mbit/s

95th percentile per-packet one-way delay: 6.328 ms

Loss rate: 7.61%

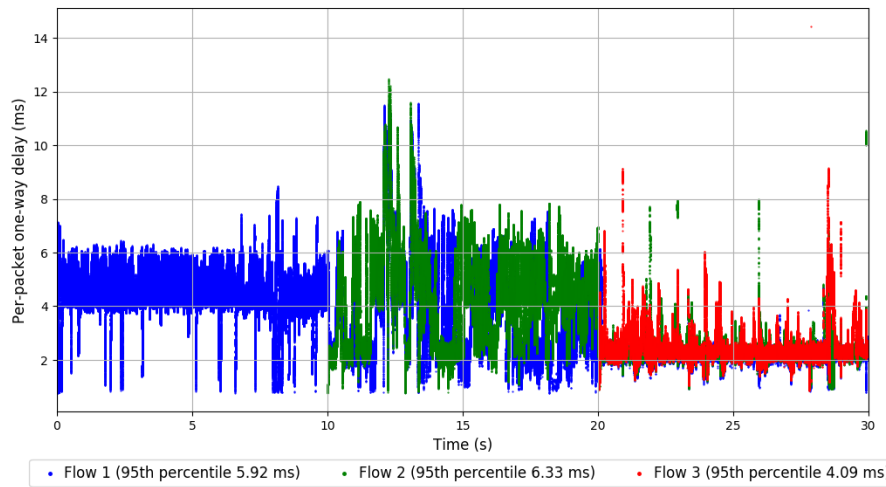
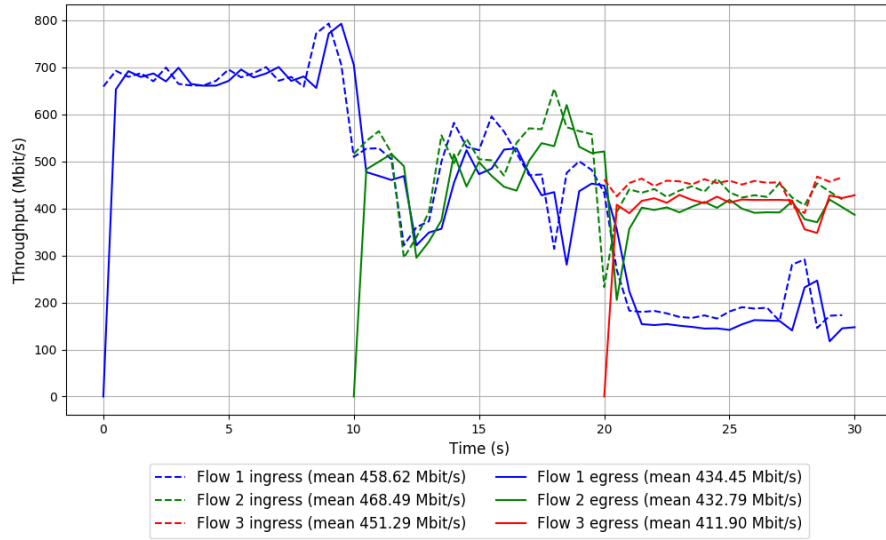
-- Flow 3:

Average throughput: 411.90 Mbit/s

95th percentile per-packet one-way delay: 4.090 ms

Loss rate: 8.73%

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



Run 4: Statistics of TCP BBR

Start at: 2019-04-24 01:55:52

End at: 2019-04-24 01:56:22

Local clock offset: 0.274 ms

Remote clock offset: 0.987 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 898.72 Mbit/s

95th percentile per-packet one-way delay: 6.112 ms

Loss rate: 6.76%

-- Flow 1:

Average throughput: 529.84 Mbit/s

95th percentile per-packet one-way delay: 6.016 ms

Loss rate: 4.30%

-- Flow 2:

Average throughput: 415.41 Mbit/s

95th percentile per-packet one-way delay: 6.467 ms

Loss rate: 9.03%

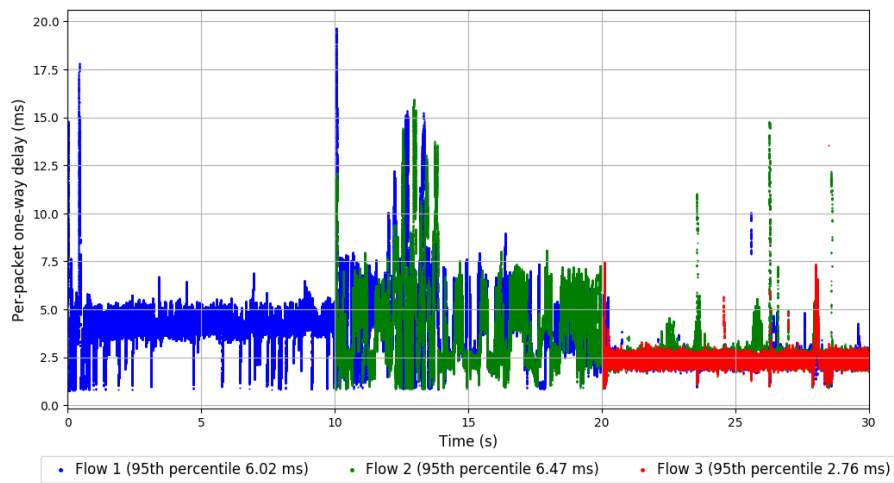
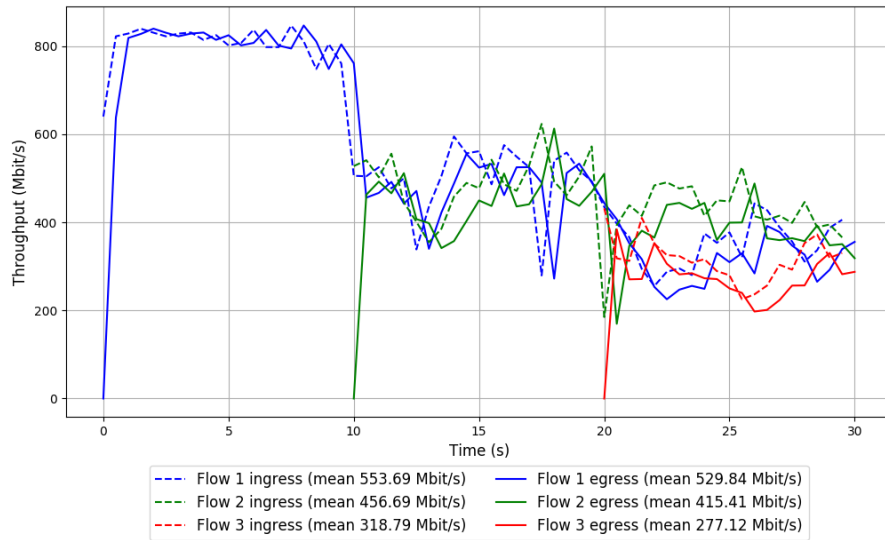
-- Flow 3:

Average throughput: 277.12 Mbit/s

95th percentile per-packet one-way delay: 2.763 ms

Loss rate: 13.06%

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





Run 5: Statistics of TCP BBR

Start at: 2019-04-24 02:25:52  
End at: 2019-04-24 02:26:22  
Local clock offset: 0.418 ms  
Remote clock offset: -2.109 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 873.44 Mbit/s  
95th percentile per-packet one-way delay: 6.170 ms  
Loss rate: 6.08%

-- Flow 1:

Average throughput: 560.37 Mbit/s  
95th percentile per-packet one-way delay: 6.254 ms  
Loss rate: 2.56%

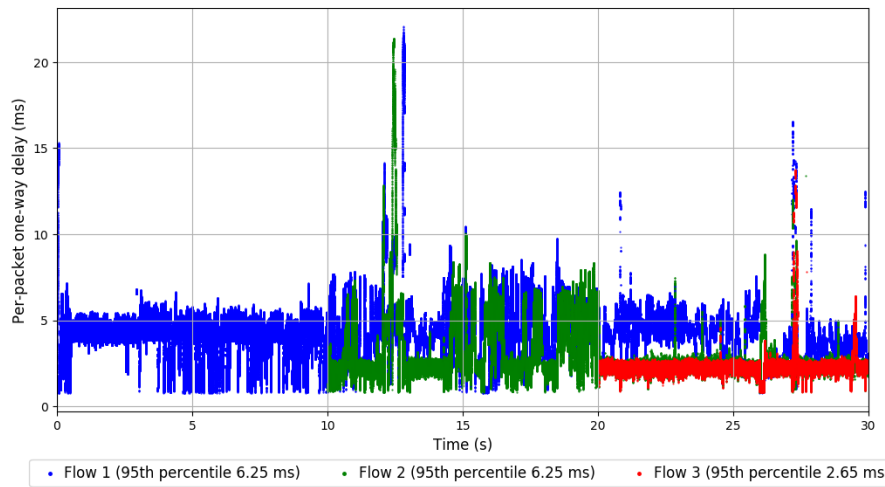
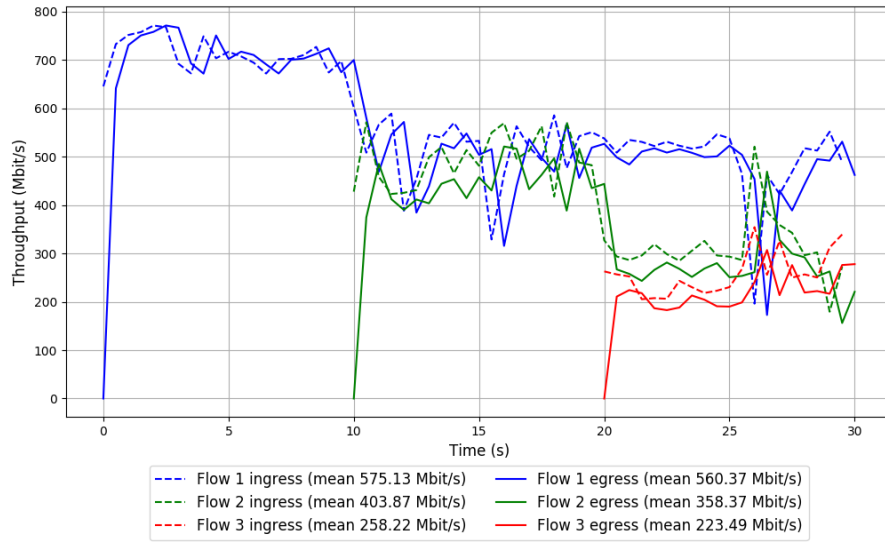
-- Flow 2:

Average throughput: 358.37 Mbit/s  
95th percentile per-packet one-way delay: 6.246 ms  
Loss rate: 11.26%

-- Flow 3:

Average throughput: 223.49 Mbit/s  
95th percentile per-packet one-way delay: 2.649 ms  
Loss rate: 13.45%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-04-24 00:12:44

End at: 2019-04-24 00:13:14

Local clock offset: 0.03 ms

Remote clock offset: 1.936 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.32 Mbit/s

95th percentile per-packet one-way delay: 1.158 ms

Loss rate: 57.91%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 1.233 ms

Loss rate: 98.33%

-- Flow 2:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 1.165 ms

Loss rate: 49.12%

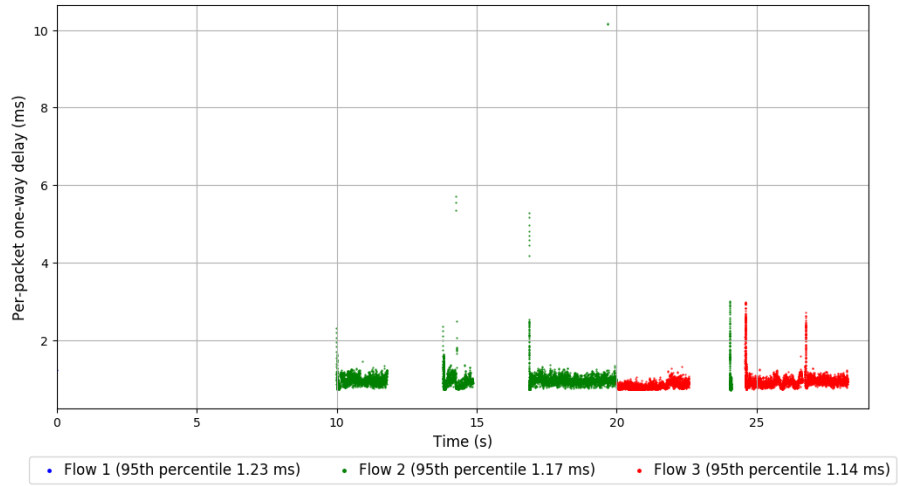
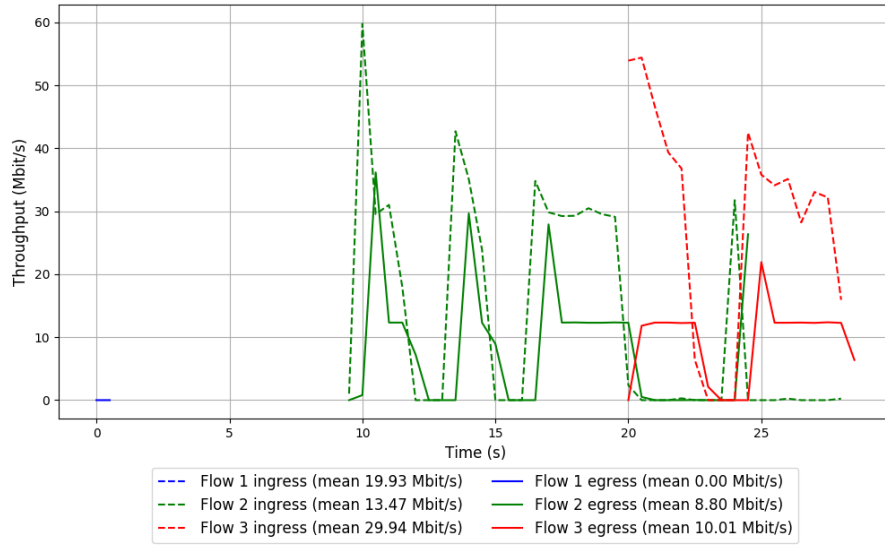
-- Flow 3:

Average throughput: 10.01 Mbit/s

95th percentile per-packet one-way delay: 1.136 ms

Loss rate: 66.58%

# Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-04-24 00:42:27

End at: 2019-04-24 00:42:57

Local clock offset: 4.268 ms

Remote clock offset: 2.477 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.61 Mbit/s

95th percentile per-packet one-way delay: 1.480 ms

Loss rate: 44.71%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 1.328 ms

Loss rate: 98.33%

-- Flow 2:

Average throughput: 7.04 Mbit/s

95th percentile per-packet one-way delay: 1.670 ms

Loss rate: 42.94%

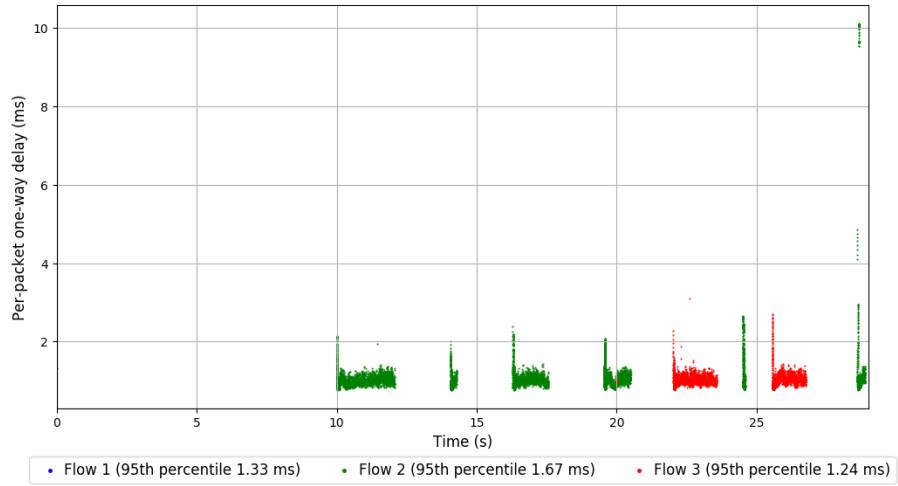
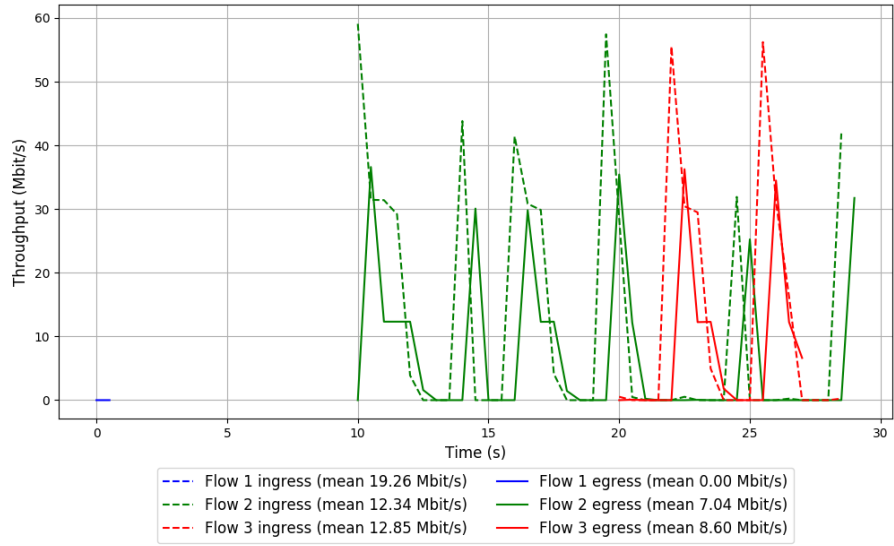
-- Flow 3:

Average throughput: 8.60 Mbit/s

95th percentile per-packet one-way delay: 1.239 ms

Loss rate: 48.37%

## Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-04-24 01:12:14

End at: 2019-04-24 01:12:44

Local clock offset: 0.184 ms

Remote clock offset: 1.916 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.78 Mbit/s

95th percentile per-packet one-way delay: 1.262 ms

Loss rate: 53.62%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 1.118 ms

Loss rate: 98.33%

-- Flow 2:

Average throughput: 6.67 Mbit/s

95th percentile per-packet one-way delay: 1.453 ms

Loss rate: 39.42%

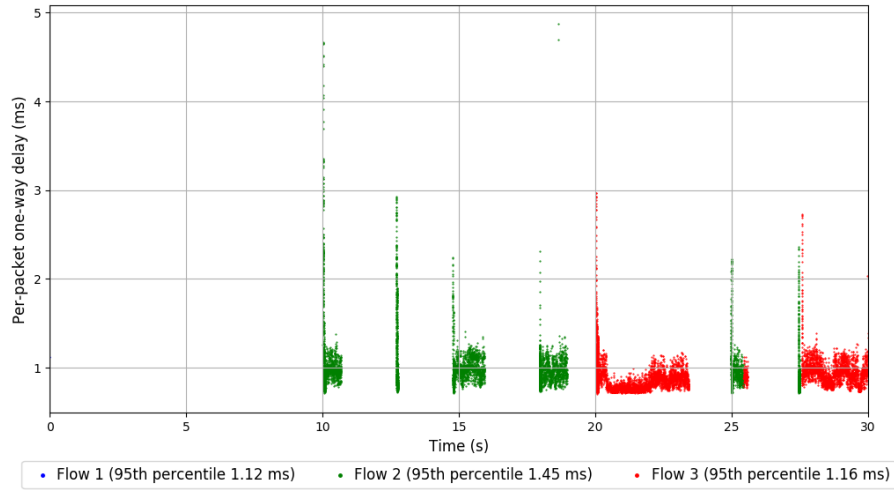
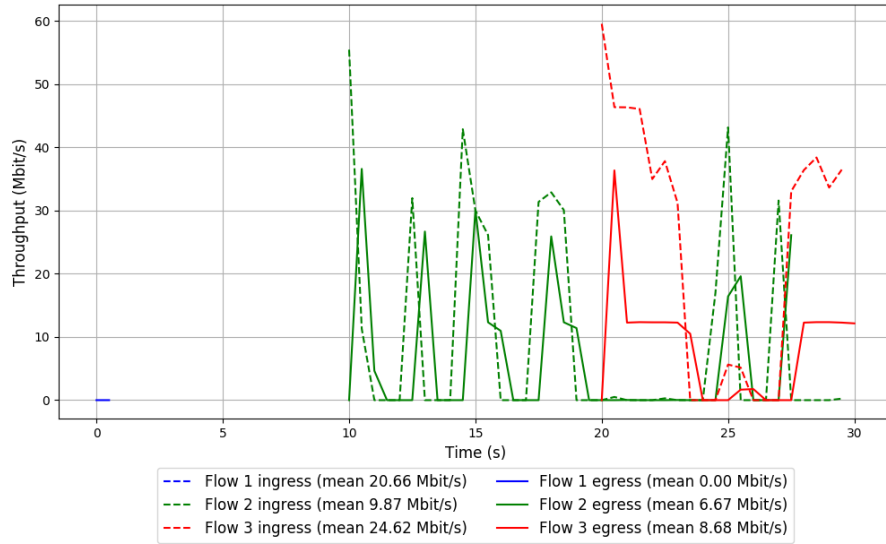
-- Flow 3:

Average throughput: 8.68 Mbit/s

95th percentile per-packet one-way delay: 1.162 ms

Loss rate: 64.74%

### Run 3: Report of Copa — Data Link





Run 4: Statistics of Copa

Start at: 2019-04-24 01:42:17

End at: 2019-04-24 01:42:47

Local clock offset: 0.101 ms

Remote clock offset: 1.793 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 1.321 ms

Loss rate: 53.42%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 1.123 ms

Loss rate: 97.24%

-- Flow 2:

Average throughput: 9.93 Mbit/s

95th percentile per-packet one-way delay: 1.336 ms

Loss rate: 52.71%

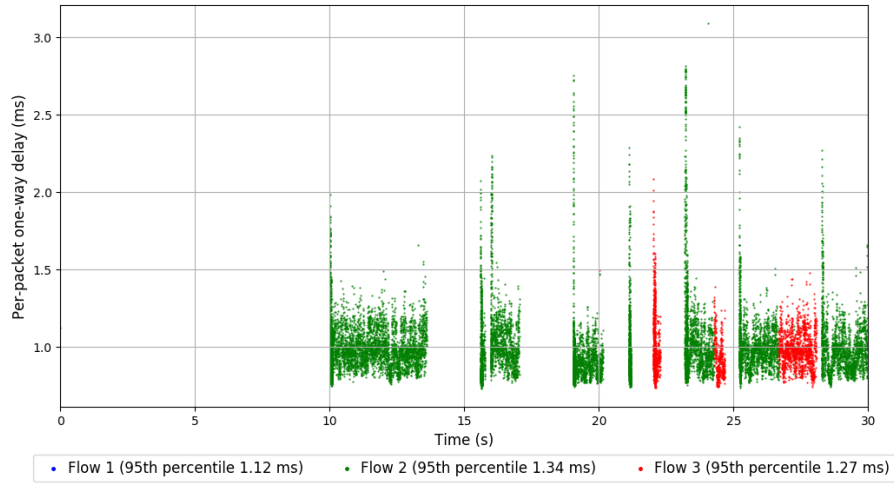
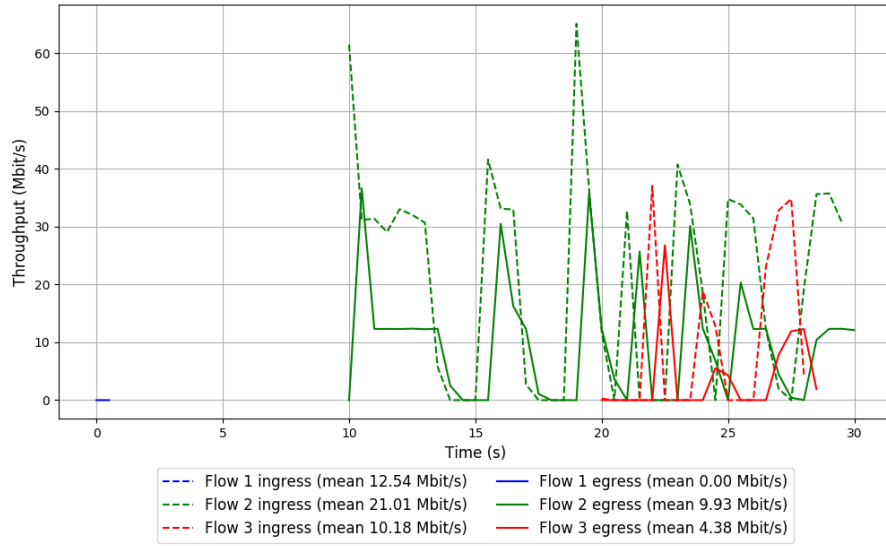
-- Flow 3:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 1.273 ms

Loss rate: 57.00%

### Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-04-24 02:12:20

End at: 2019-04-24 02:12:50

Local clock offset: 0.268 ms

Remote clock offset: -1.36 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 1.414 ms

Loss rate: 57.39%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 1.153 ms

Loss rate: 97.92%

-- Flow 2:

Average throughput: 8.91 Mbit/s

95th percentile per-packet one-way delay: 1.402 ms

Loss rate: 59.10%

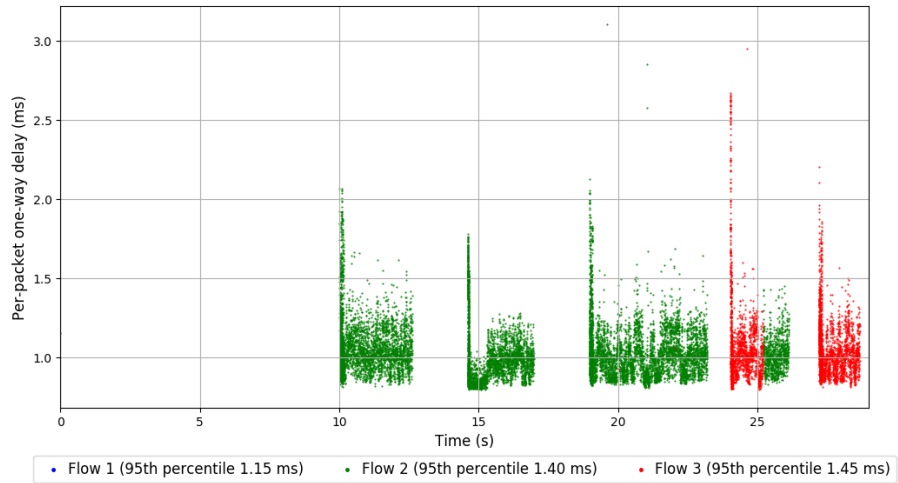
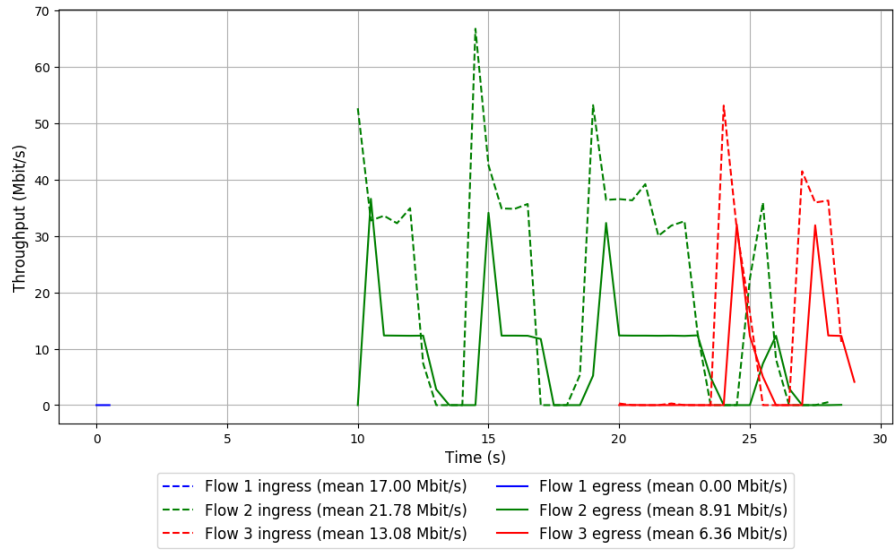
-- Flow 3:

Average throughput: 6.36 Mbit/s

95th percentile per-packet one-way delay: 1.445 ms

Loss rate: 51.39%

### Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-04-24 00:30:48

End at: 2019-04-24 00:31:18

Local clock offset: 3.387 ms

Remote clock offset: 2.206 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 666.87 Mbit/s

95th percentile per-packet one-way delay: 1.920 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 344.80 Mbit/s

95th percentile per-packet one-way delay: 1.810 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 335.88 Mbit/s

95th percentile per-packet one-way delay: 2.053 ms

Loss rate: 0.08%

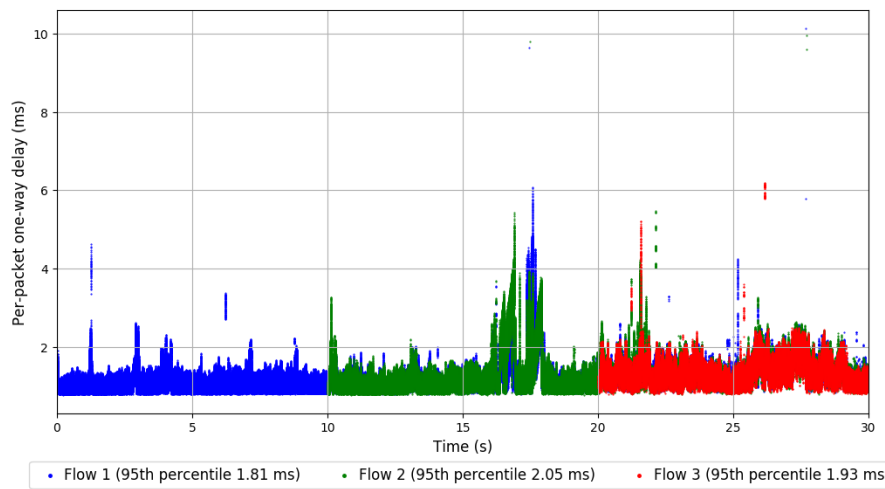
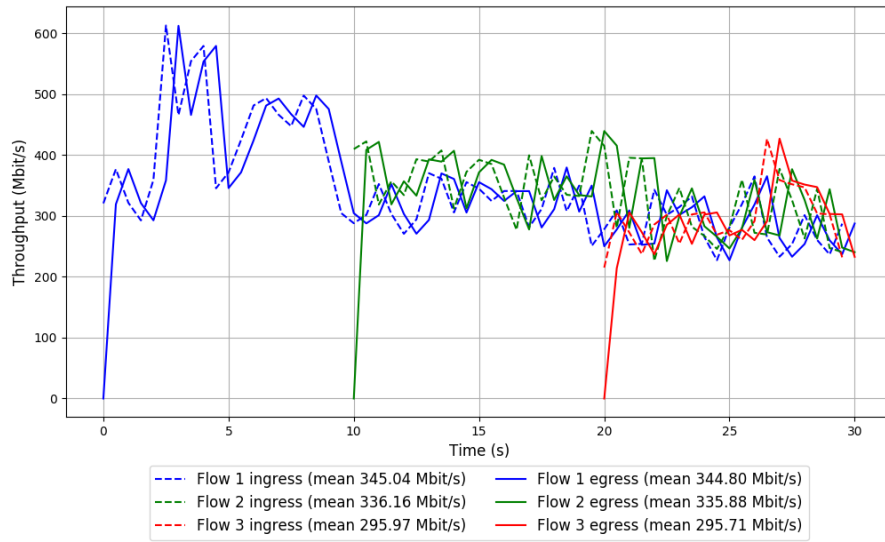
-- Flow 3:

Average throughput: 295.71 Mbit/s

95th percentile per-packet one-way delay: 1.933 ms

Loss rate: 0.08%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-04-24 01:00:34

End at: 2019-04-24 01:01:04

Local clock offset: 0.842 ms

Remote clock offset: 1.825 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 695.97 Mbit/s

95th percentile per-packet one-way delay: 1.600 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 370.55 Mbit/s

95th percentile per-packet one-way delay: 1.524 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 338.61 Mbit/s

95th percentile per-packet one-way delay: 1.681 ms

Loss rate: 0.08%

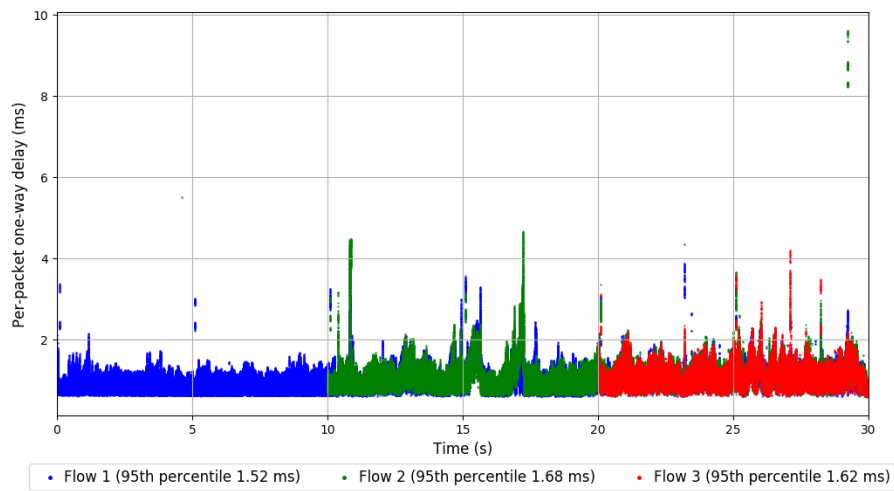
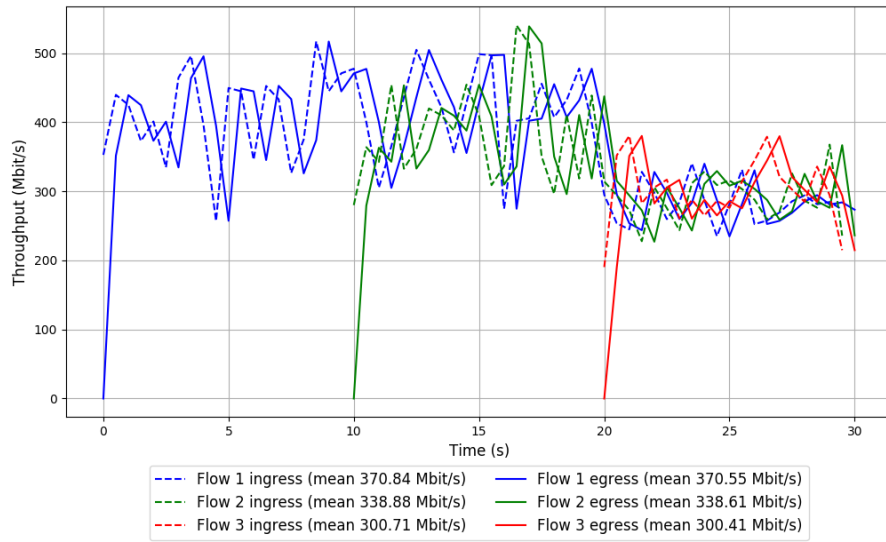
-- Flow 3:

Average throughput: 300.41 Mbit/s

95th percentile per-packet one-way delay: 1.617 ms

Loss rate: 0.11%

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





Run 3: Statistics of TCP Cubic

Start at: 2019-04-24 01:30:30

End at: 2019-04-24 01:31:00

Local clock offset: 0.213 ms

Remote clock offset: 1.677 ms

# Below is generated by plot.py at 2019-04-24 02:57:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 805.43 Mbit/s

95th percentile per-packet one-way delay: 2.339 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 459.64 Mbit/s

95th percentile per-packet one-way delay: 2.654 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 365.28 Mbit/s

95th percentile per-packet one-way delay: 1.778 ms

Loss rate: 0.06%

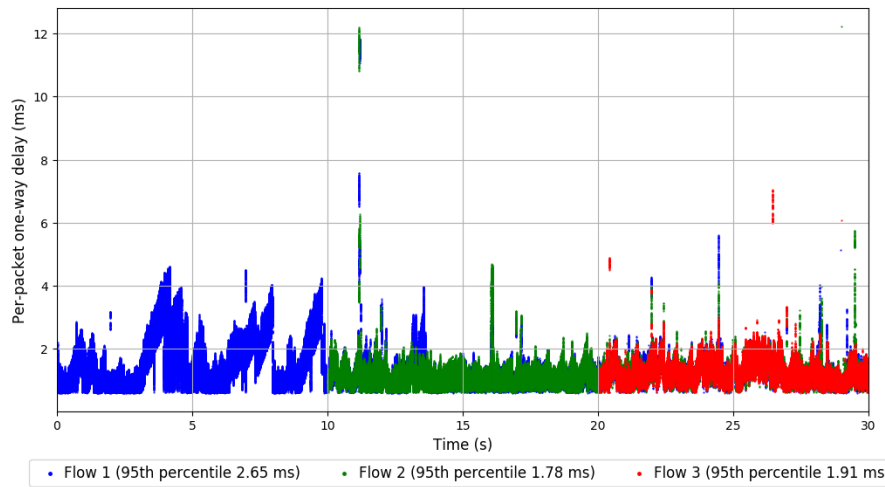
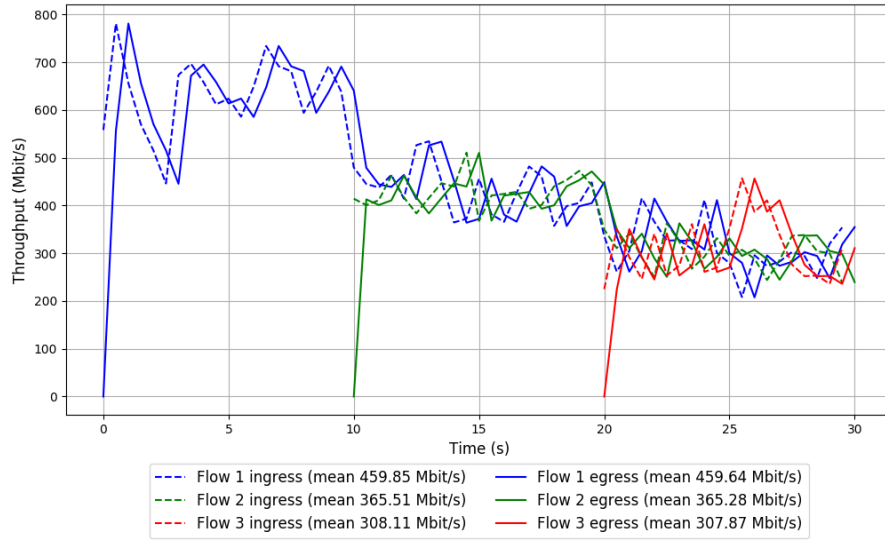
-- Flow 3:

Average throughput: 307.87 Mbit/s

95th percentile per-packet one-way delay: 1.912 ms

Loss rate: 0.07%

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



Run 4: Statistics of TCP Cubic

Start at: 2019-04-24 02:00:35  
End at: 2019-04-24 02:01:05  
Local clock offset: 0.301 ms  
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2019-04-24 03:04:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 844.72 Mbit/s  
95th percentile per-packet one-way delay: 3.031 ms  
Loss rate: 0.05%

-- Flow 1:

Average throughput: 477.19 Mbit/s  
95th percentile per-packet one-way delay: 3.305 ms  
Loss rate: 0.05%

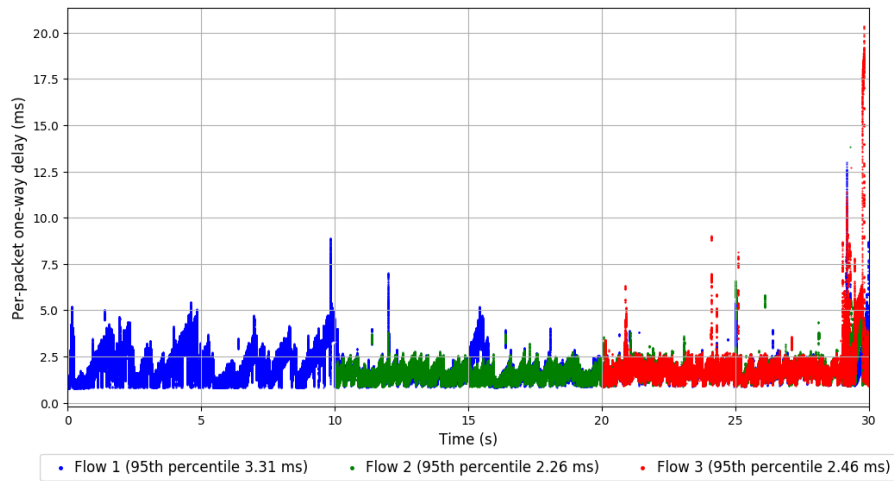
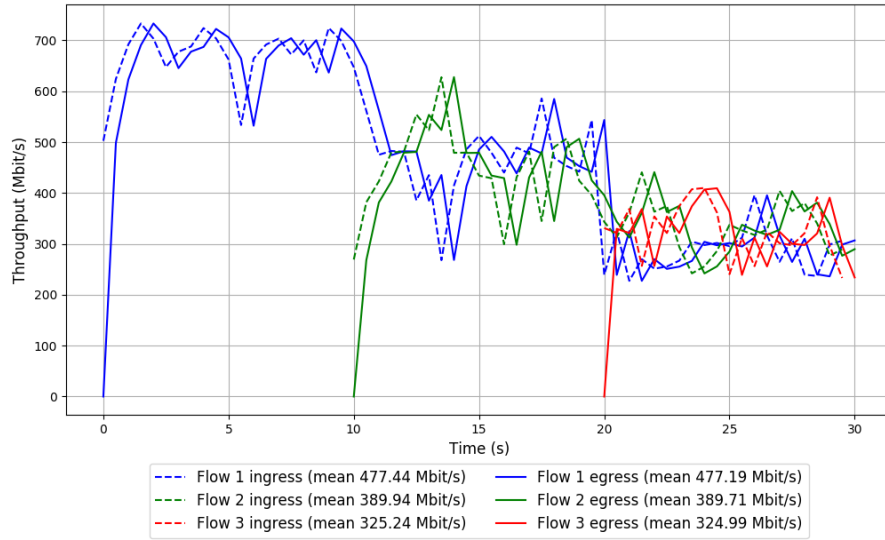
-- Flow 2:

Average throughput: 389.71 Mbit/s  
95th percentile per-packet one-way delay: 2.260 ms  
Loss rate: 0.06%

-- Flow 3:

Average throughput: 324.99 Mbit/s  
95th percentile per-packet one-way delay: 2.458 ms  
Loss rate: 0.07%

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



Run 5: Statistics of TCP Cubic

Start at: 2019-04-24 02:30:31  
End at: 2019-04-24 02:31:01  
Local clock offset: 0.478 ms  
Remote clock offset: -0.645 ms

# Below is generated by plot.py at 2019-04-24 03:04:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 789.49 Mbit/s  
95th percentile per-packet one-way delay: 3.182 ms  
Loss rate: 0.07%

-- Flow 1:

Average throughput: 465.55 Mbit/s  
95th percentile per-packet one-way delay: 3.530 ms  
Loss rate: 0.06%

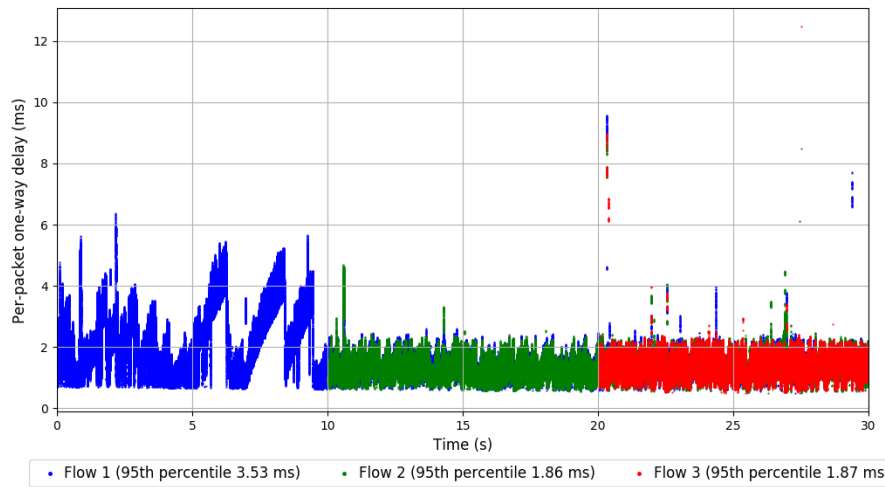
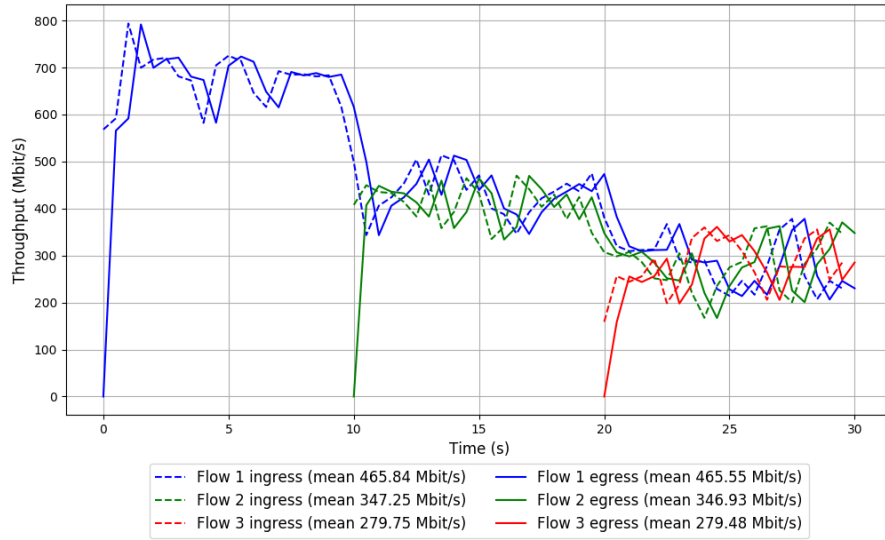
-- Flow 2:

Average throughput: 346.93 Mbit/s  
95th percentile per-packet one-way delay: 1.865 ms  
Loss rate: 0.09%

-- Flow 3:

Average throughput: 279.48 Mbit/s  
95th percentile per-packet one-way delay: 1.873 ms  
Loss rate: 0.09%

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



Run 1: Statistics of FillP

Start at: 2019-04-24 00:32:24

End at: 2019-04-24 00:32:54

Local clock offset: 3.51 ms

Remote clock offset: 2.302 ms

# Below is generated by plot.py at 2019-04-24 03:06:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 689.21 Mbit/s

95th percentile per-packet one-way delay: 10.332 ms

Loss rate: 8.25%

-- Flow 1:

Average throughput: 519.32 Mbit/s

95th percentile per-packet one-way delay: 11.801 ms

Loss rate: 5.70%

-- Flow 2:

Average throughput: 219.03 Mbit/s

95th percentile per-packet one-way delay: 5.087 ms

Loss rate: 17.01%

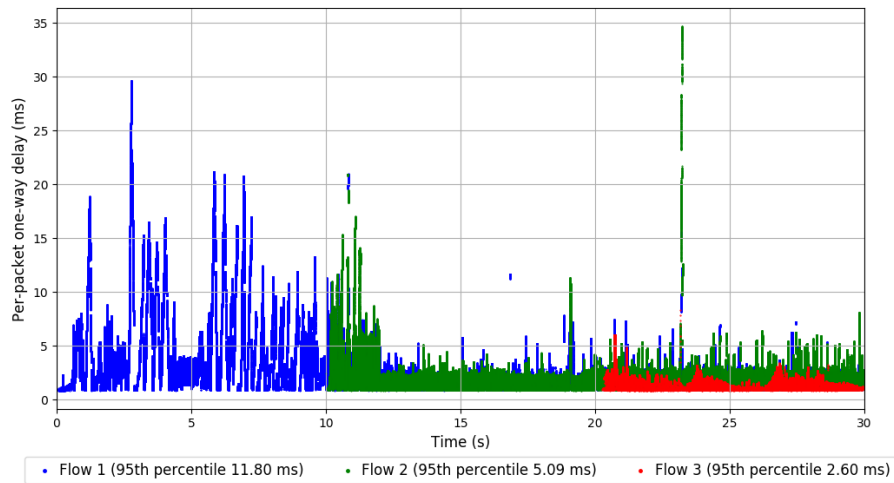
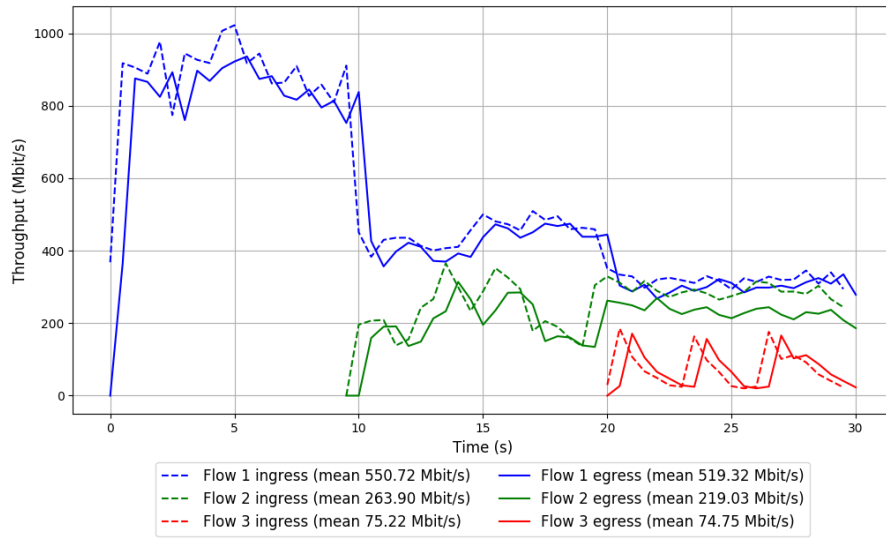
-- Flow 3:

Average throughput: 74.75 Mbit/s

95th percentile per-packet one-way delay: 2.602 ms

Loss rate: 2.86%

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





Run 2: Statistics of FillP

Start at: 2019-04-24 01:02:11

End at: 2019-04-24 01:02:41

Local clock offset: 0.71 ms

Remote clock offset: 1.918 ms

# Below is generated by plot.py at 2019-04-24 03:07:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 750.03 Mbit/s

95th percentile per-packet one-way delay: 22.039 ms

Loss rate: 12.36%

-- Flow 1:

Average throughput: 459.34 Mbit/s

95th percentile per-packet one-way delay: 23.664 ms

Loss rate: 11.92%

-- Flow 2:

Average throughput: 327.31 Mbit/s

95th percentile per-packet one-way delay: 7.004 ms

Loss rate: 10.26%

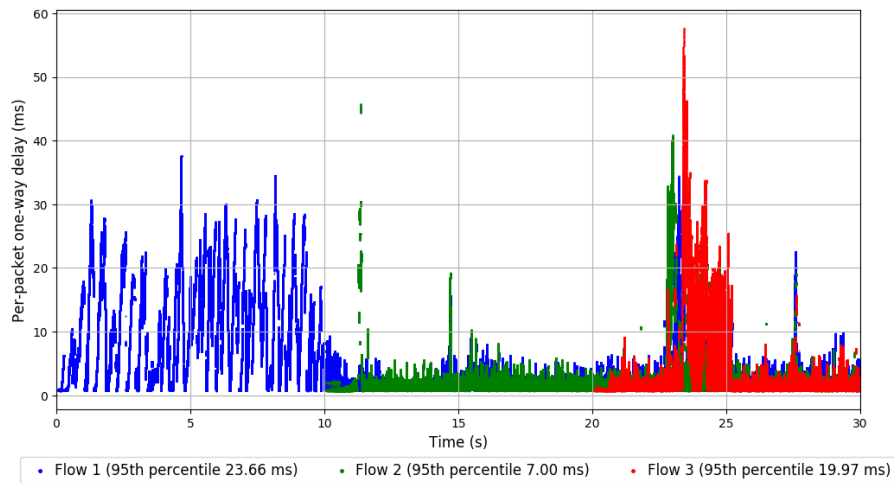
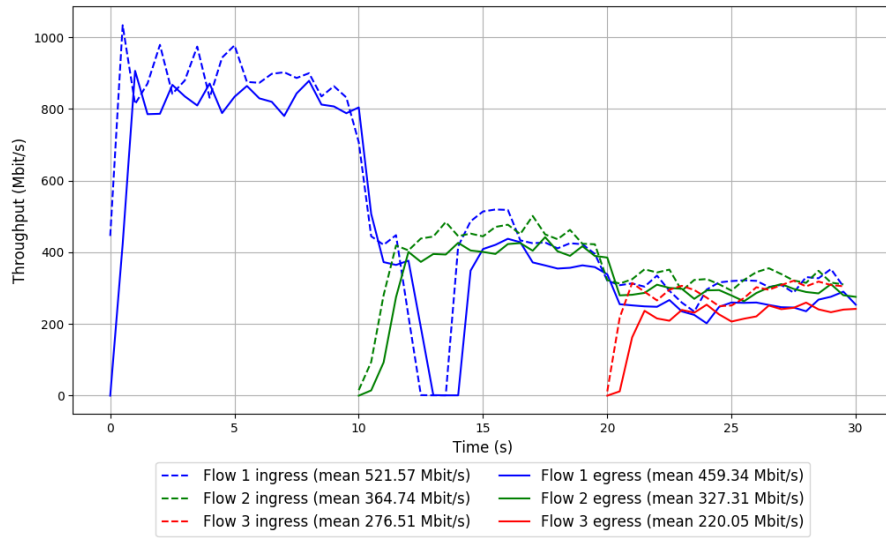
-- Flow 3:

Average throughput: 220.05 Mbit/s

95th percentile per-packet one-way delay: 19.968 ms

Loss rate: 20.42%

## Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-04-24 01:32:11

End at: 2019-04-24 01:32:41

Local clock offset: 0.188 ms

Remote clock offset: 1.773 ms

# Below is generated by plot.py at 2019-04-24 03:07:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 704.70 Mbit/s

95th percentile per-packet one-way delay: 12.874 ms

Loss rate: 10.05%

-- Flow 1:

Average throughput: 488.05 Mbit/s

95th percentile per-packet one-way delay: 14.012 ms

Loss rate: 8.22%

-- Flow 2:

Average throughput: 258.96 Mbit/s

95th percentile per-packet one-way delay: 5.666 ms

Loss rate: 16.59%

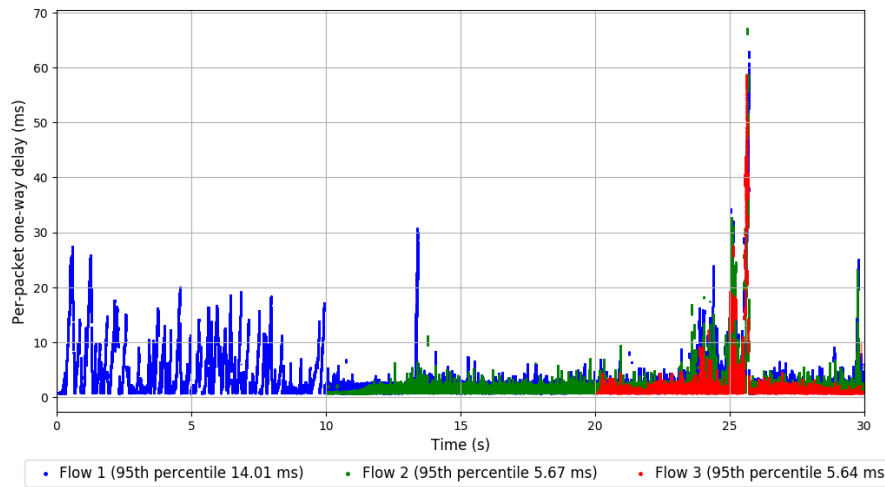
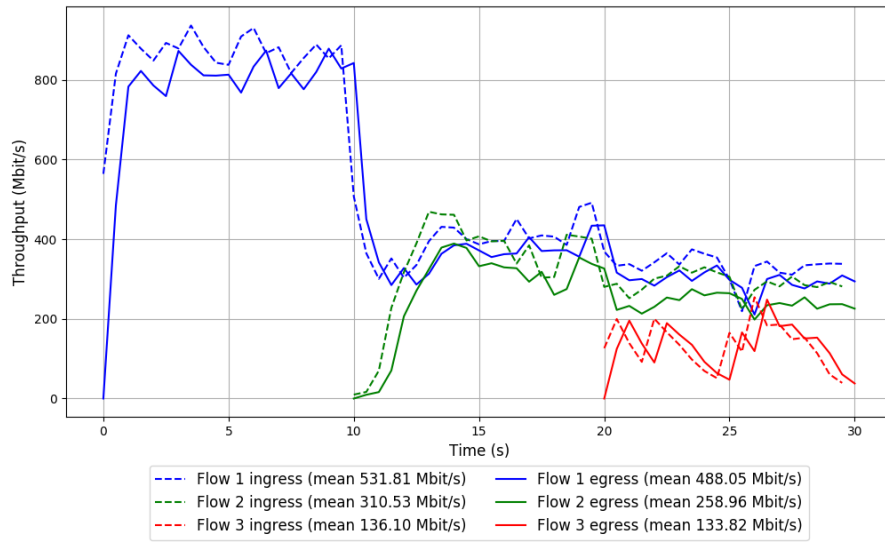
-- Flow 3:

Average throughput: 133.82 Mbit/s

95th percentile per-packet one-way delay: 5.645 ms

Loss rate: 1.68%

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



Run 4: Statistics of FillP

Start at: 2019-04-24 02:02:17  
End at: 2019-04-24 02:02:47  
Local clock offset: 0.298 ms  
Remote clock offset: -0.404 ms

# Below is generated by plot.py at 2019-04-24 03:07:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 729.88 Mbit/s  
95th percentile per-packet one-way delay: 12.625 ms  
Loss rate: 10.75%

-- Flow 1:

Average throughput: 503.43 Mbit/s  
95th percentile per-packet one-way delay: 12.000 ms  
Loss rate: 8.03%

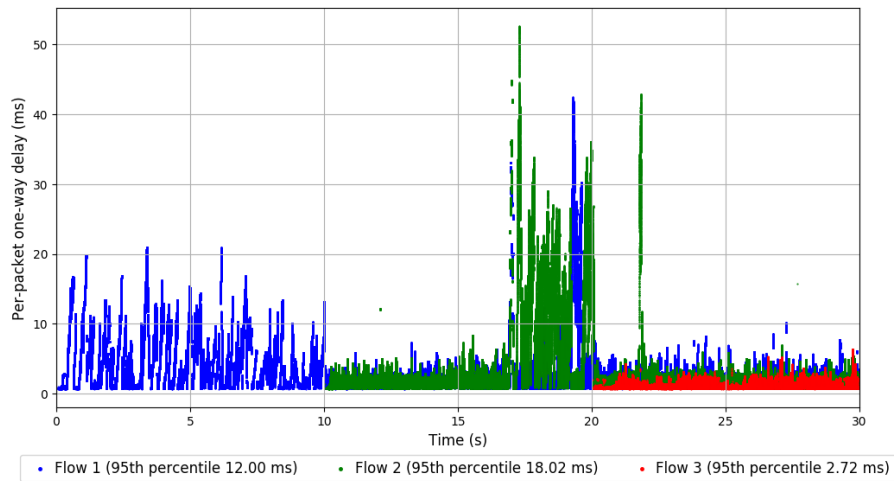
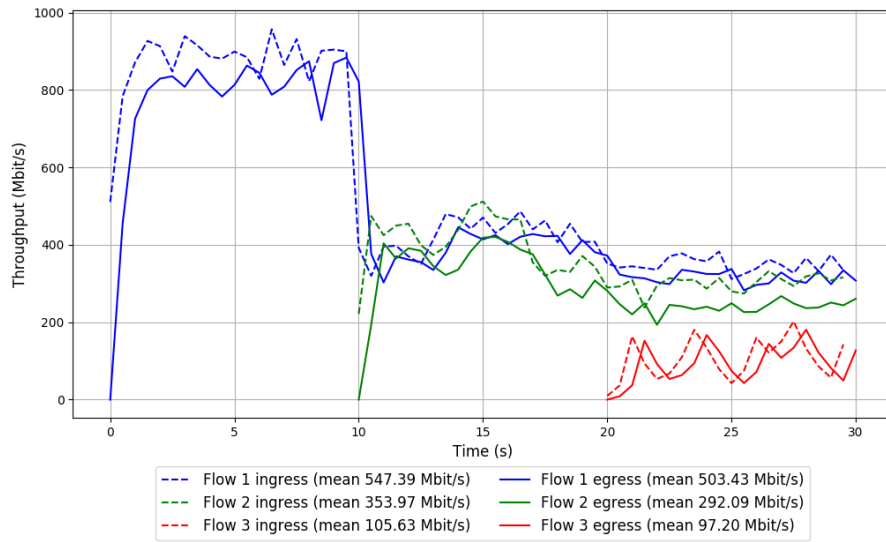
-- Flow 2:

Average throughput: 292.09 Mbit/s  
95th percentile per-packet one-way delay: 18.018 ms  
Loss rate: 17.48%

-- Flow 3:

Average throughput: 97.20 Mbit/s  
95th percentile per-packet one-way delay: 2.717 ms  
Loss rate: 7.99%

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



Run 5: Statistics of FillP

Start at: 2019-04-24 02:32:11  
End at: 2019-04-24 02:32:41  
Local clock offset: 0.452 ms  
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2019-04-24 03:07:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 554.88 Mbit/s  
95th percentile per-packet one-way delay: 7.771 ms  
Loss rate: 8.89%

-- Flow 1:

Average throughput: 429.40 Mbit/s  
95th percentile per-packet one-way delay: 7.817 ms  
Loss rate: 6.97%

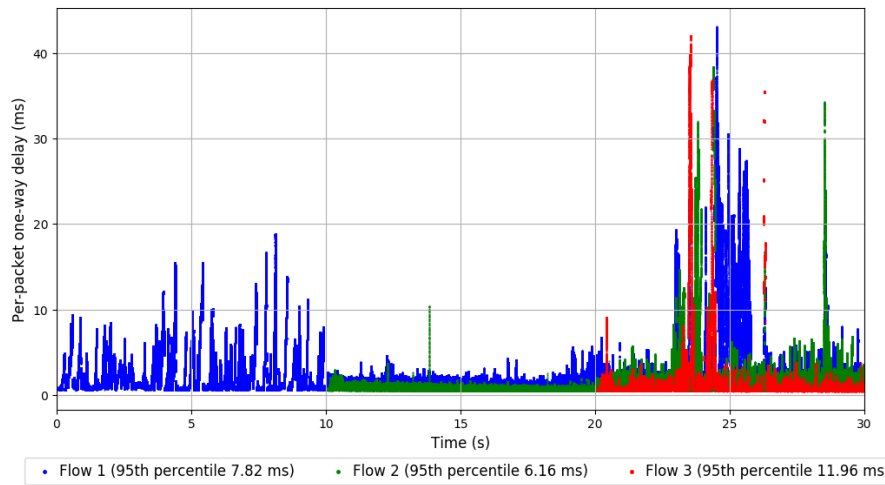
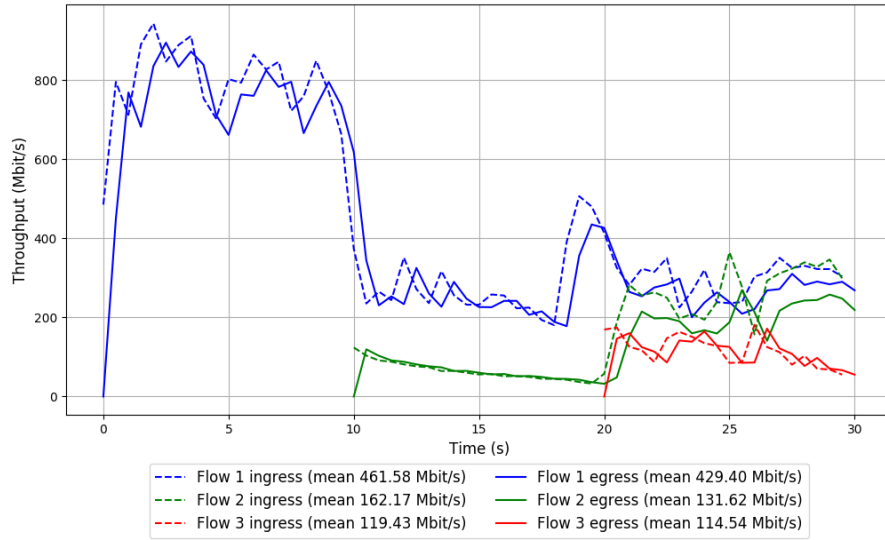
-- Flow 2:

Average throughput: 131.62 Mbit/s  
95th percentile per-packet one-way delay: 6.162 ms  
Loss rate: 18.84%

-- Flow 3:

Average throughput: 114.54 Mbit/s  
95th percentile per-packet one-way delay: 11.956 ms  
Loss rate: 4.10%

### Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2019-04-24 00:39:21

End at: 2019-04-24 00:39:51

Local clock offset: 4.033 ms

Remote clock offset: 2.291 ms

# Below is generated by plot.py at 2019-04-24 03:07:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 281.11 Mbit/s

95th percentile per-packet one-way delay: 3.874 ms

Loss rate: 2.05%

-- Flow 1:

Average throughput: 230.63 Mbit/s

95th percentile per-packet one-way delay: 4.061 ms

Loss rate: 2.20%

-- Flow 2:

Average throughput: 57.85 Mbit/s

95th percentile per-packet one-way delay: 2.005 ms

Loss rate: 1.51%

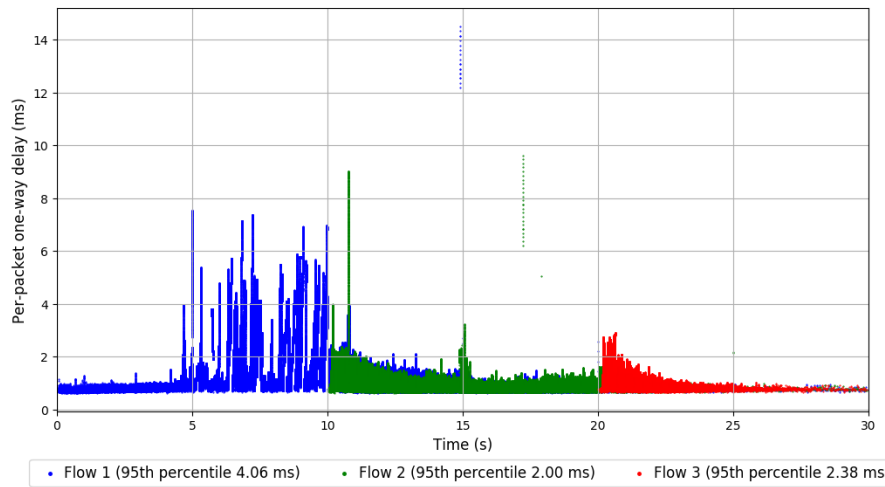
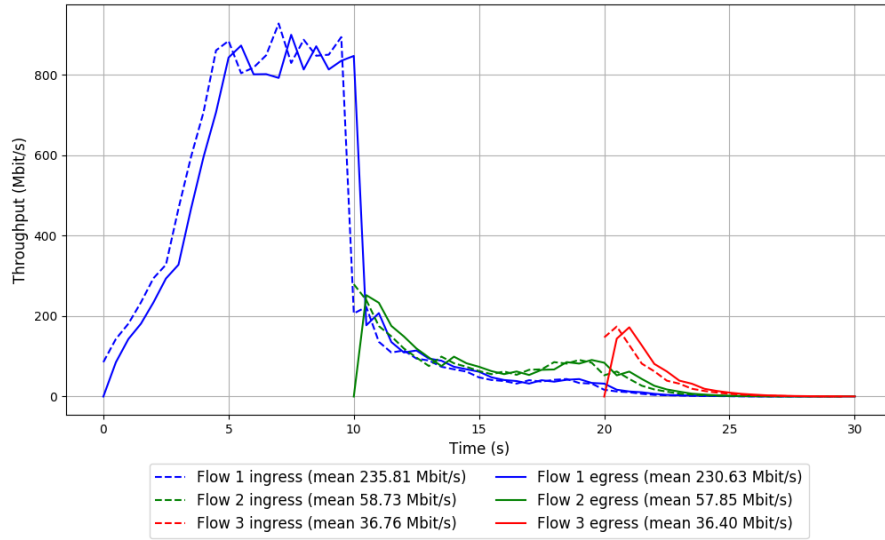
-- Flow 3:

Average throughput: 36.40 Mbit/s

95th percentile per-packet one-way delay: 2.376 ms

Loss rate: 0.98%

# Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-04-24 01:09:09

End at: 2019-04-24 01:09:39

Local clock offset: 0.284 ms

Remote clock offset: 1.868 ms

# Below is generated by plot.py at 2019-04-24 03:07:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 381.93 Mbit/s

95th percentile per-packet one-way delay: 5.183 ms

Loss rate: 2.38%

-- Flow 1:

Average throughput: 317.29 Mbit/s

95th percentile per-packet one-way delay: 5.717 ms

Loss rate: 2.56%

-- Flow 2:

Average throughput: 81.19 Mbit/s

95th percentile per-packet one-way delay: 2.024 ms

Loss rate: 1.73%

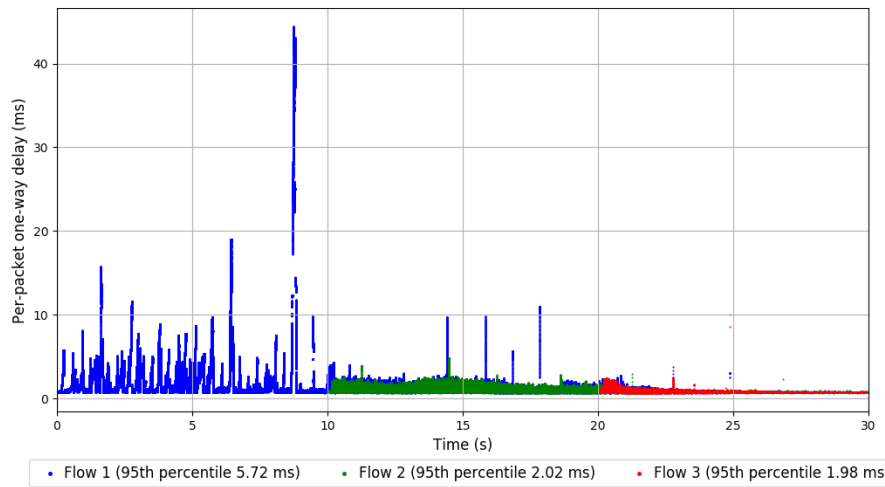
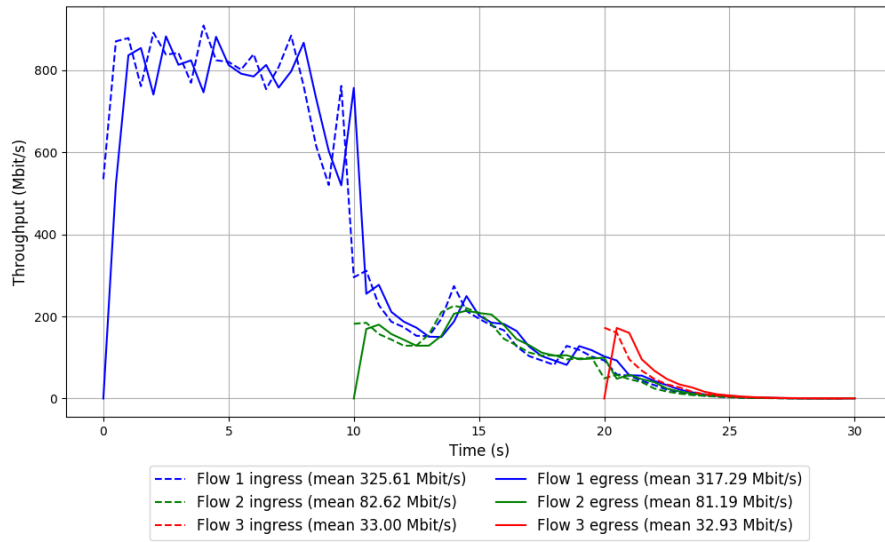
-- Flow 3:

Average throughput: 32.93 Mbit/s

95th percentile per-packet one-way delay: 1.979 ms

Loss rate: 0.21%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-04-24 01:39:07

End at: 2019-04-24 01:39:37

Local clock offset: 0.12 ms

Remote clock offset: 1.73 ms

# Below is generated by plot.py at 2019-04-24 03:09:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 382.63 Mbit/s

95th percentile per-packet one-way delay: 4.599 ms

Loss rate: 3.24%

-- Flow 1:

Average throughput: 328.90 Mbit/s

95th percentile per-packet one-way delay: 4.912 ms

Loss rate: 3.18%

-- Flow 2:

Average throughput: 67.80 Mbit/s

95th percentile per-packet one-way delay: 2.018 ms

Loss rate: 2.50%

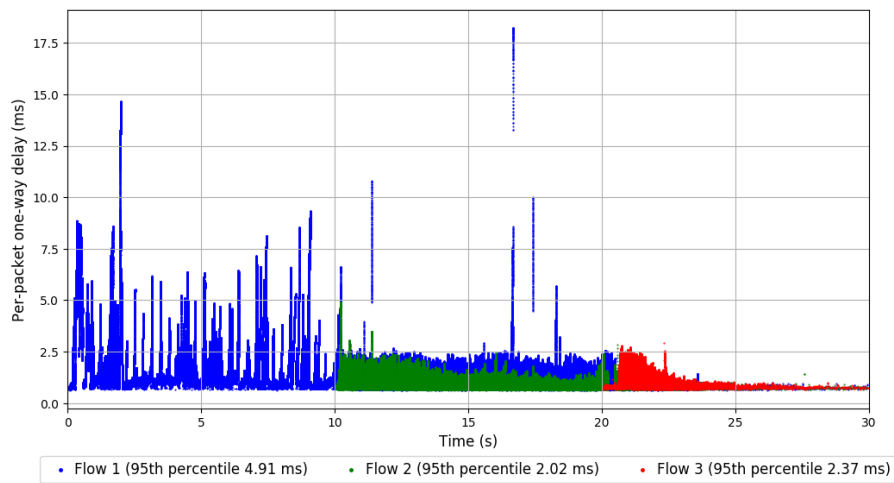
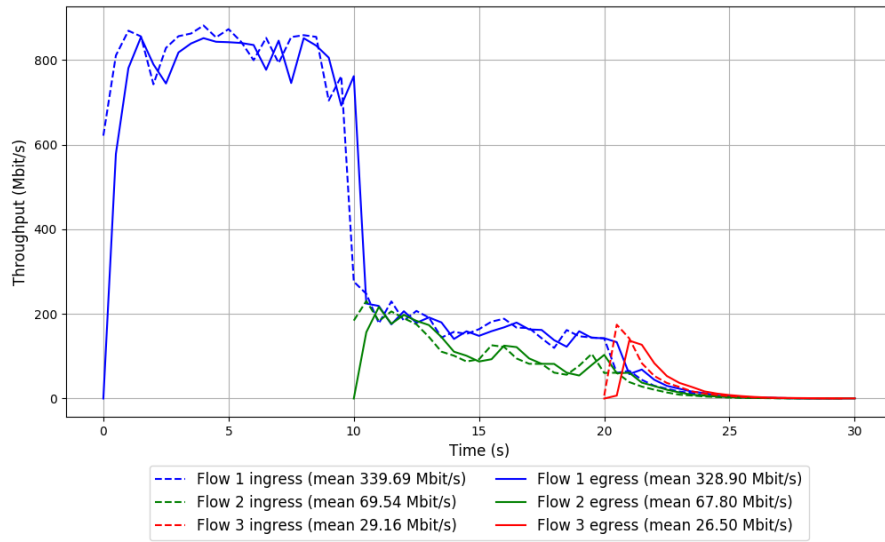
-- Flow 3:

Average throughput: 26.50 Mbit/s

95th percentile per-packet one-way delay: 2.372 ms

Loss rate: 9.10%

### Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-04-24 02:09:16  
End at: 2019-04-24 02:09:46  
Local clock offset: 0.291 ms  
Remote clock offset: -1.136 ms

# Below is generated by plot.py at 2019-04-24 03:09:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 330.04 Mbit/s  
95th percentile per-packet one-way delay: 4.769 ms  
Loss rate: 2.58%

-- Flow 1:

Average throughput: 294.65 Mbit/s  
95th percentile per-packet one-way delay: 4.946 ms  
Loss rate: 2.54%

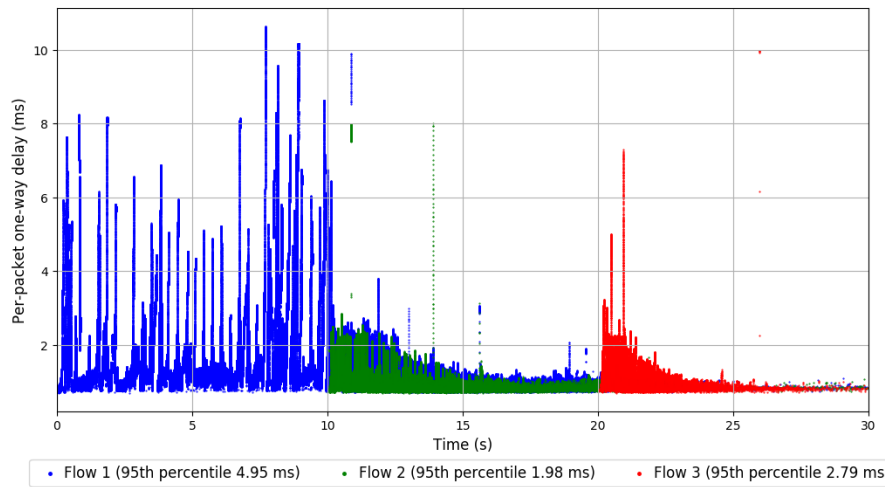
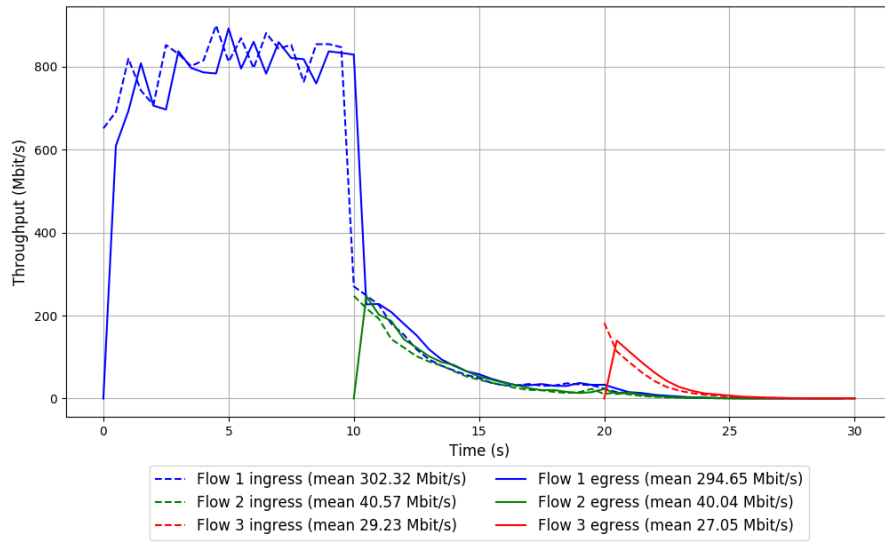
-- Flow 2:

Average throughput: 40.04 Mbit/s  
95th percentile per-packet one-way delay: 1.981 ms  
Loss rate: 1.30%

-- Flow 3:

Average throughput: 27.05 Mbit/s  
95th percentile per-packet one-way delay: 2.794 ms  
Loss rate: 7.46%

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





Run 5: Statistics of FillP-Sheep

Start at: 2019-04-24 02:39:01

End at: 2019-04-24 02:39:31

Local clock offset: 0.452 ms

Remote clock offset: 1.791 ms

# Below is generated by plot.py at 2019-04-24 03:10:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 382.50 Mbit/s

95th percentile per-packet one-way delay: 5.655 ms

Loss rate: 3.65%

-- Flow 1:

Average throughput: 308.38 Mbit/s

95th percentile per-packet one-way delay: 6.603 ms

Loss rate: 2.96%

-- Flow 2:

Average throughput: 97.39 Mbit/s

95th percentile per-packet one-way delay: 2.010 ms

Loss rate: 5.85%

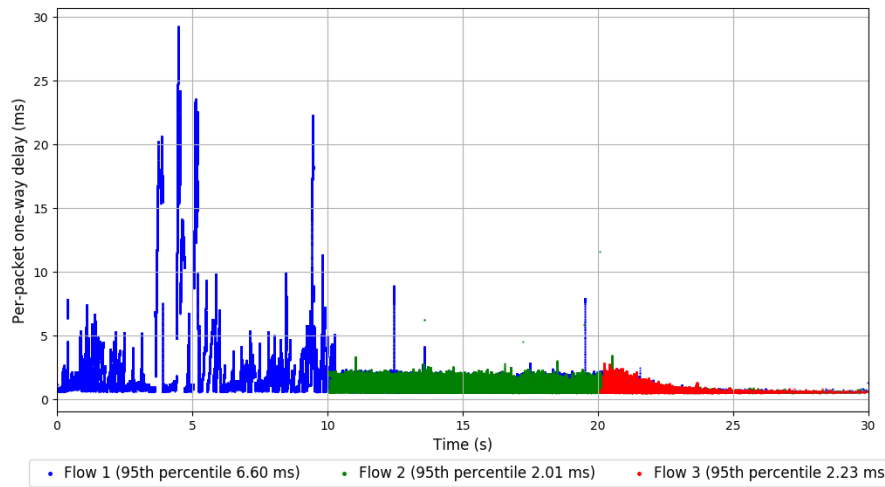
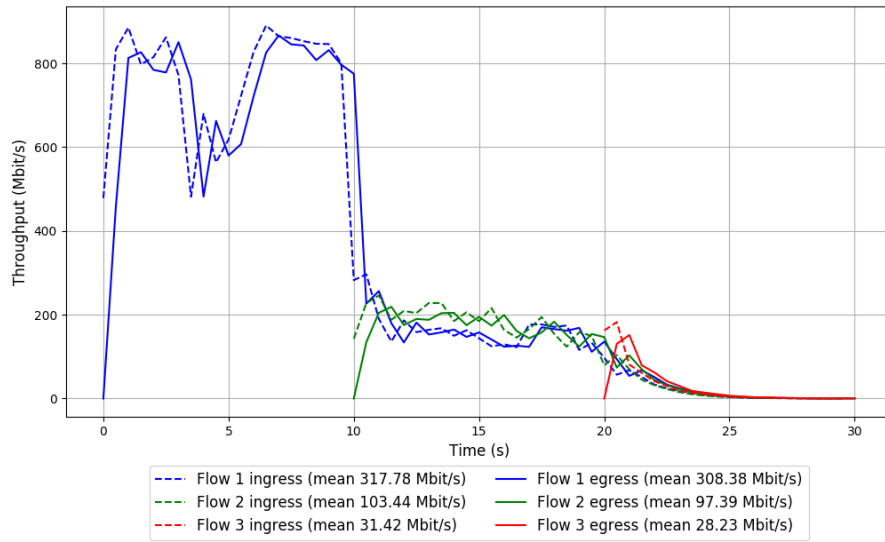
-- Flow 3:

Average throughput: 28.23 Mbit/s

95th percentile per-packet one-way delay: 2.230 ms

Loss rate: 10.15%

### Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-04-24 00:13:59

End at: 2019-04-24 00:14:29

Local clock offset: -0.015 ms

Remote clock offset: 1.906 ms

# Below is generated by plot.py at 2019-04-24 03:10:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 381.64 Mbit/s

95th percentile per-packet one-way delay: 1.501 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 195.03 Mbit/s

95th percentile per-packet one-way delay: 1.386 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 191.46 Mbit/s

95th percentile per-packet one-way delay: 1.449 ms

Loss rate: 0.05%

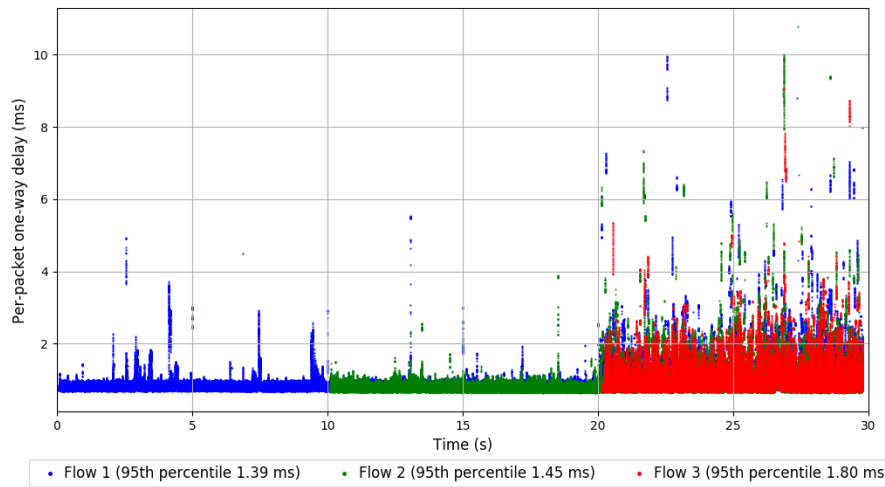
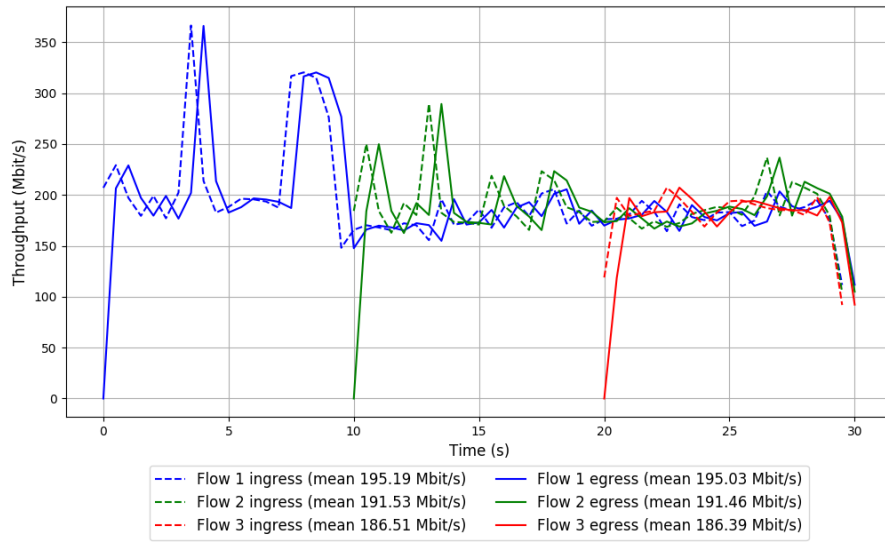
-- Flow 3:

Average throughput: 186.39 Mbit/s

95th percentile per-packet one-way delay: 1.802 ms

Loss rate: 0.07%

# Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-04-24 00:43:42

End at: 2019-04-24 00:44:12

Local clock offset: 4.301 ms

Remote clock offset: 2.519 ms

# Below is generated by plot.py at 2019-04-24 03:11:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 377.51 Mbit/s

95th percentile per-packet one-way delay: 1.781 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 196.38 Mbit/s

95th percentile per-packet one-way delay: 1.618 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 190.29 Mbit/s

95th percentile per-packet one-way delay: 1.753 ms

Loss rate: 0.08%

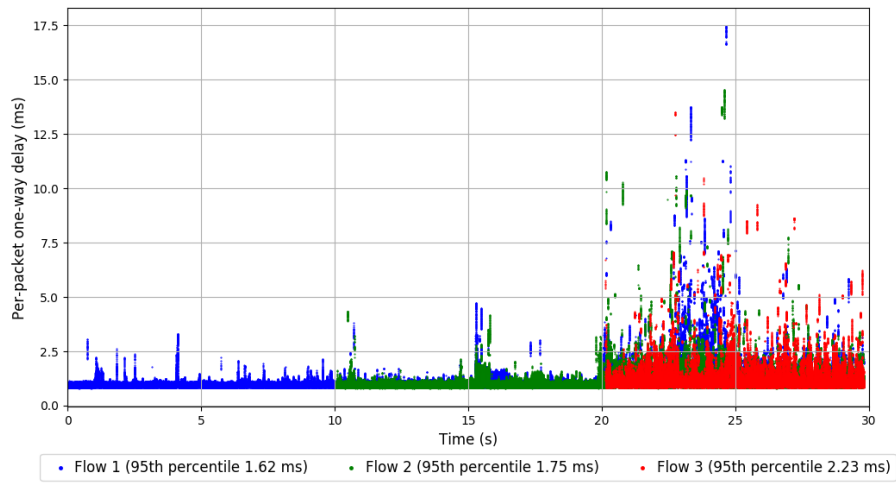
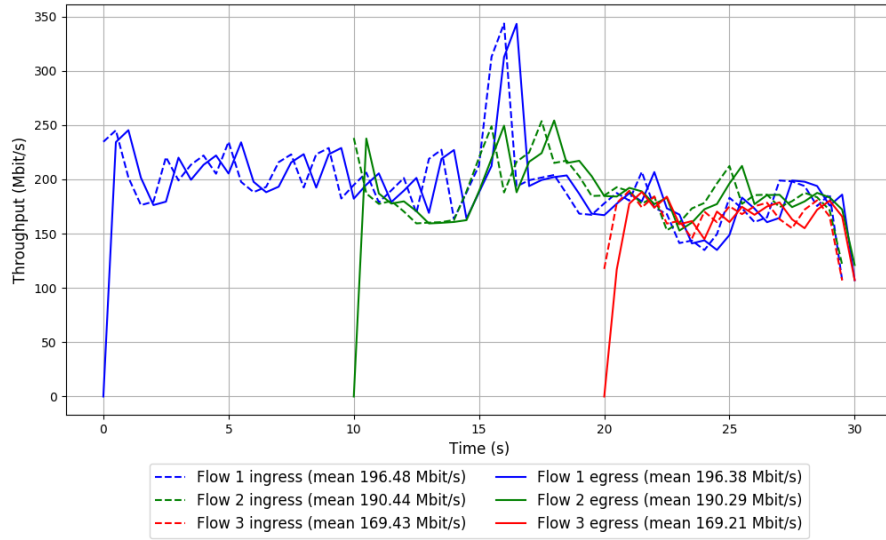
-- Flow 3:

Average throughput: 169.21 Mbit/s

95th percentile per-packet one-way delay: 2.233 ms

Loss rate: 0.15%

## Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-04-24 01:13:28

End at: 2019-04-24 01:13:58

Local clock offset: 0.133 ms

Remote clock offset: 1.906 ms

# Below is generated by plot.py at 2019-04-24 03:11:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 381.99 Mbit/s

95th percentile per-packet one-way delay: 1.710 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 198.87 Mbit/s

95th percentile per-packet one-way delay: 1.574 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 183.58 Mbit/s

95th percentile per-packet one-way delay: 1.558 ms

Loss rate: 0.04%

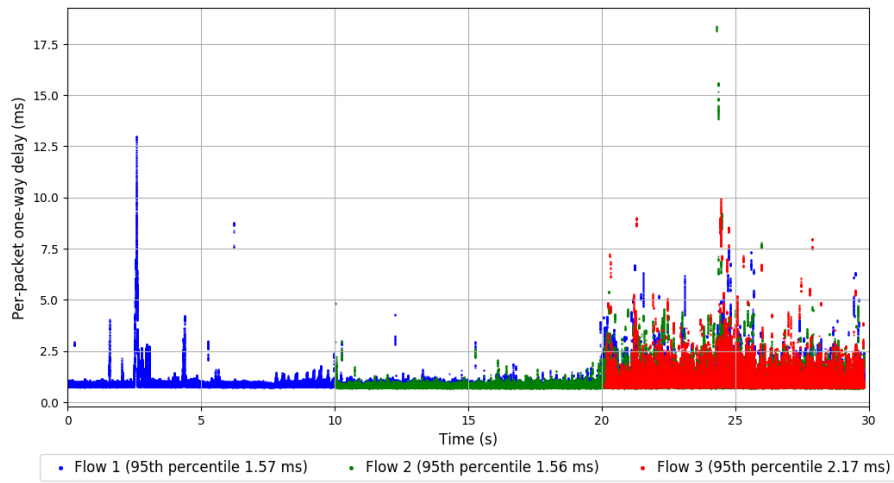
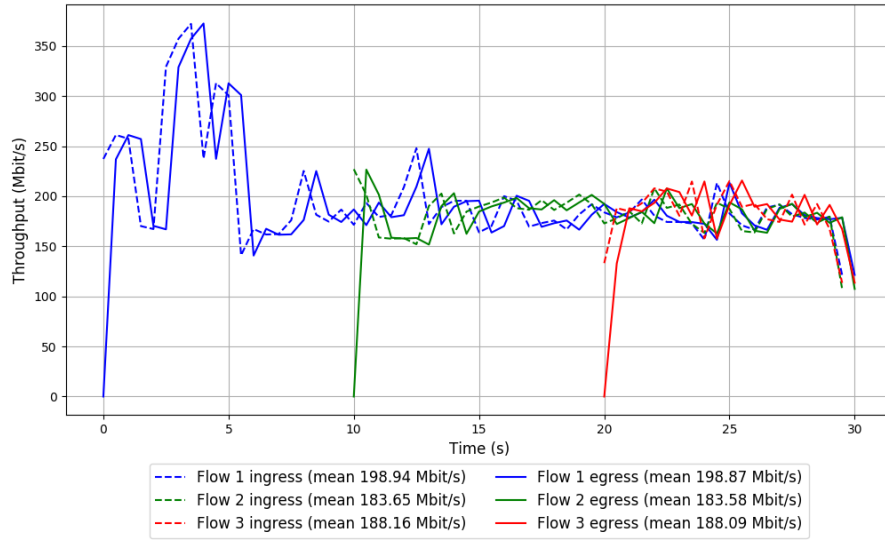
-- Flow 3:

Average throughput: 188.09 Mbit/s

95th percentile per-packet one-way delay: 2.170 ms

Loss rate: 0.04%

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





Run 4: Statistics of Indigo

Start at: 2019-04-24 01:43:31

End at: 2019-04-24 01:44:01

Local clock offset: 0.054 ms

Remote clock offset: 1.832 ms

# Below is generated by plot.py at 2019-04-24 03:12:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 385.81 Mbit/s

95th percentile per-packet one-way delay: 1.722 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 202.28 Mbit/s

95th percentile per-packet one-way delay: 1.567 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 188.34 Mbit/s

95th percentile per-packet one-way delay: 1.724 ms

Loss rate: 0.02%

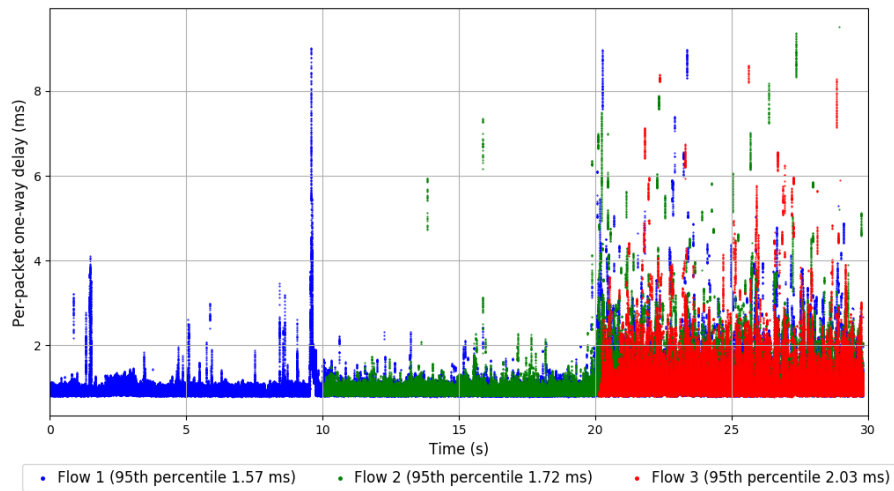
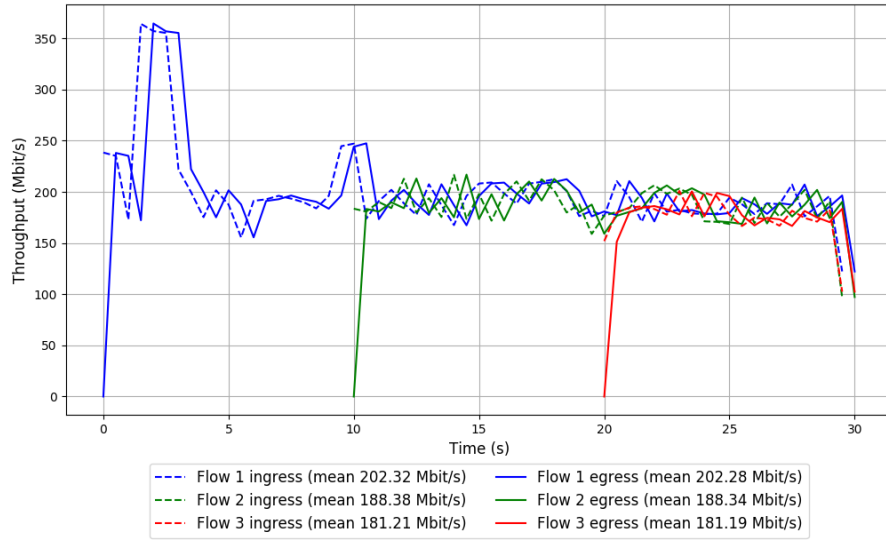
-- Flow 3:

Average throughput: 181.19 Mbit/s

95th percentile per-packet one-way delay: 2.027 ms

Loss rate: 0.01%

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



Run 5: Statistics of Indigo

Start at: 2019-04-24 02:13:35  
End at: 2019-04-24 02:14:05  
Local clock offset: 0.262 ms  
Remote clock offset: -1.543 ms

# Below is generated by plot.py at 2019-04-24 03:12:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 385.04 Mbit/s  
95th percentile per-packet one-way delay: 1.639 ms  
Loss rate: 0.01%

-- Flow 1:

Average throughput: 199.12 Mbit/s  
95th percentile per-packet one-way delay: 1.409 ms  
Loss rate: 0.01%

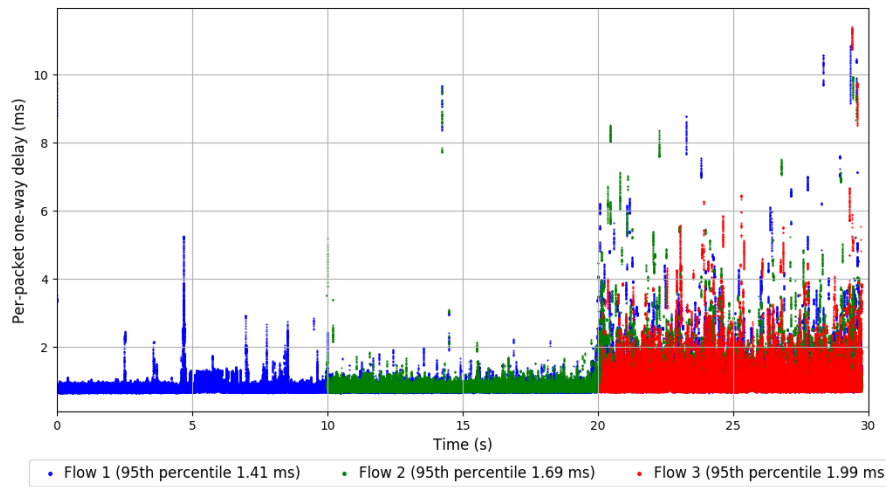
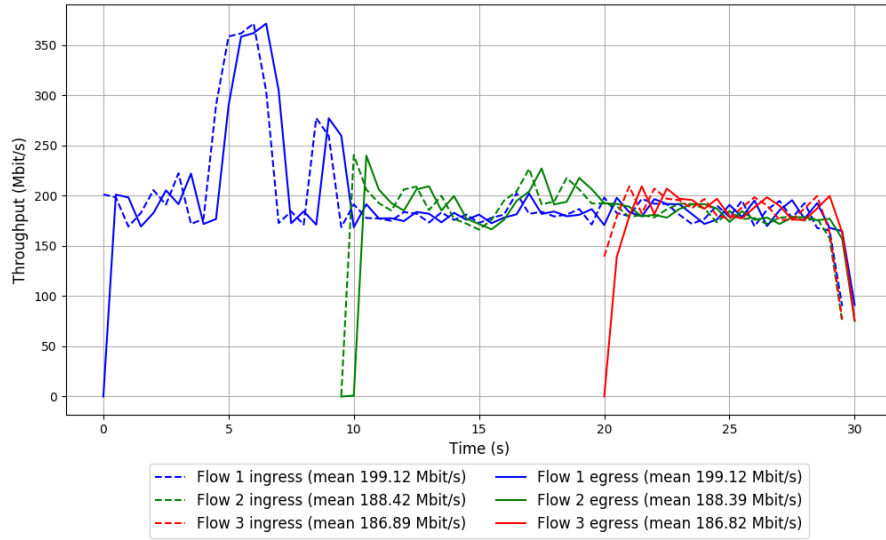
-- Flow 2:

Average throughput: 188.39 Mbit/s  
95th percentile per-packet one-way delay: 1.688 ms  
Loss rate: 0.01%

-- Flow 3:

Average throughput: 186.82 Mbit/s  
95th percentile per-packet one-way delay: 1.993 ms  
Loss rate: 0.04%

### Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-04-24 00:20:45

End at: 2019-04-24 00:21:15

Local clock offset: 1.663 ms

Remote clock offset: 2.037 ms

# Below is generated by plot.py at 2019-04-24 03:12:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 291.75 Mbit/s

95th percentile per-packet one-way delay: 1.902 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 128.23 Mbit/s

95th percentile per-packet one-way delay: 1.519 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 155.86 Mbit/s

95th percentile per-packet one-way delay: 1.963 ms

Loss rate: 0.07%

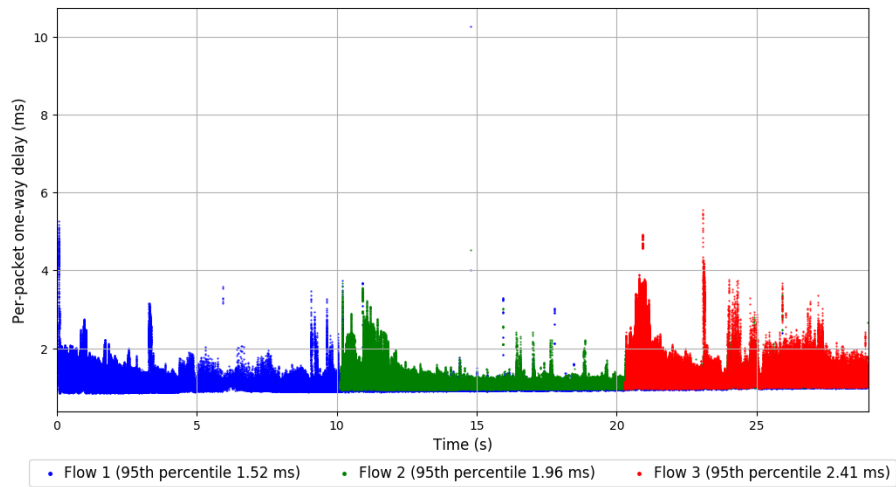
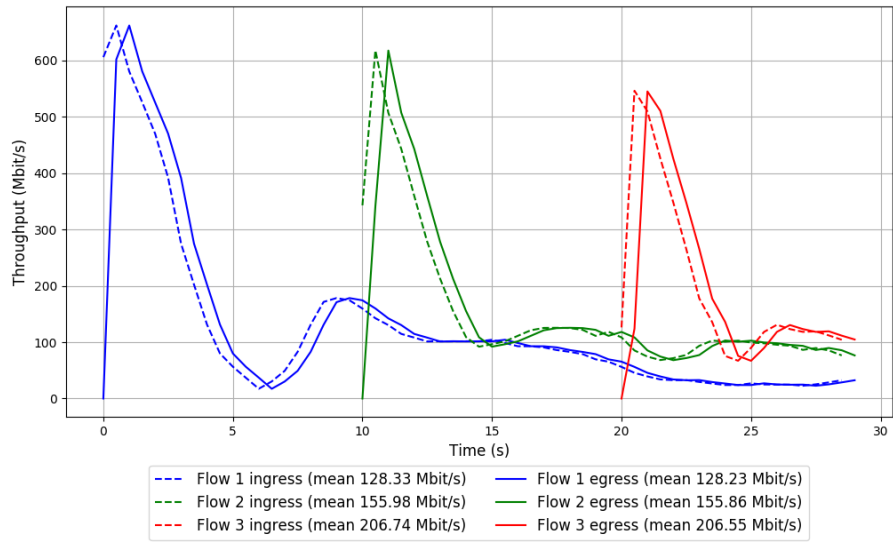
-- Flow 3:

Average throughput: 206.55 Mbit/s

95th percentile per-packet one-way delay: 2.407 ms

Loss rate: 0.09%

# Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-04-24 00:50:29

End at: 2019-04-24 00:50:59

Local clock offset: 2.532 ms

Remote clock offset: 2.179 ms

# Below is generated by plot.py at 2019-04-24 03:15:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 490.07 Mbit/s

95th percentile per-packet one-way delay: 1.637 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 301.15 Mbit/s

95th percentile per-packet one-way delay: 1.612 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 198.42 Mbit/s

95th percentile per-packet one-way delay: 1.619 ms

Loss rate: 0.08%

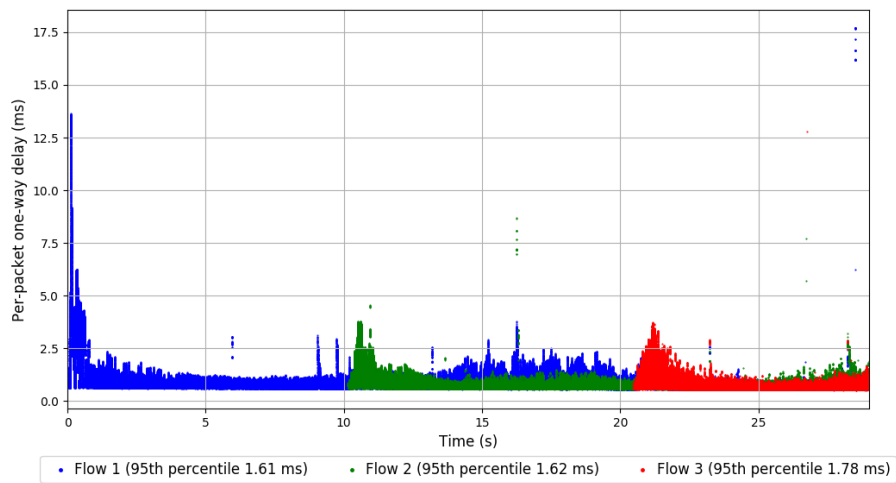
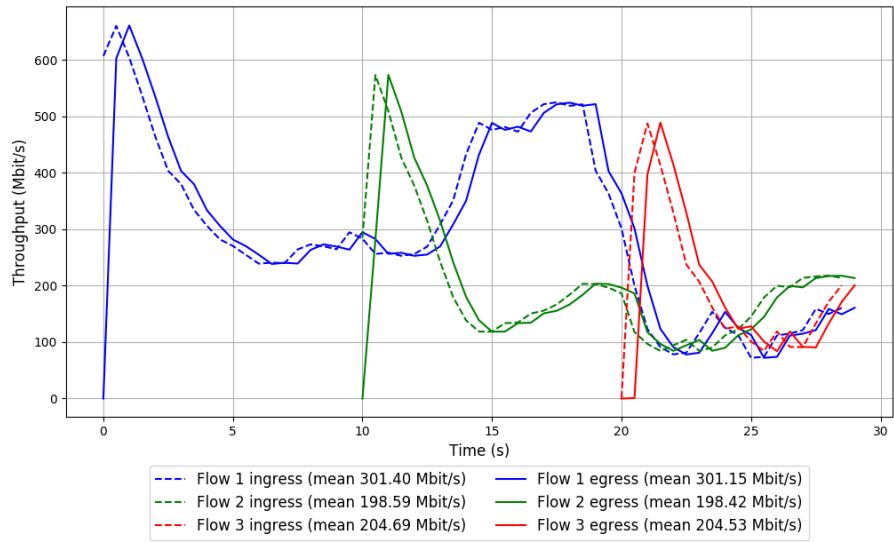
-- Flow 3:

Average throughput: 204.53 Mbit/s

95th percentile per-packet one-way delay: 1.784 ms

Loss rate: 0.08%

## Run 2: Report of Indigo-MusesC3 — Data Link





Run 3: Statistics of Indigo-MusesC3

Start at: 2019-04-24 01:20:28

End at: 2019-04-24 01:20:58

Local clock offset: 0.151 ms

Remote clock offset: 1.924 ms

# Below is generated by plot.py at 2019-04-24 03:16:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 483.87 Mbit/s

95th percentile per-packet one-way delay: 1.796 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 287.42 Mbit/s

95th percentile per-packet one-way delay: 1.697 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 205.21 Mbit/s

95th percentile per-packet one-way delay: 1.720 ms

Loss rate: 0.04%

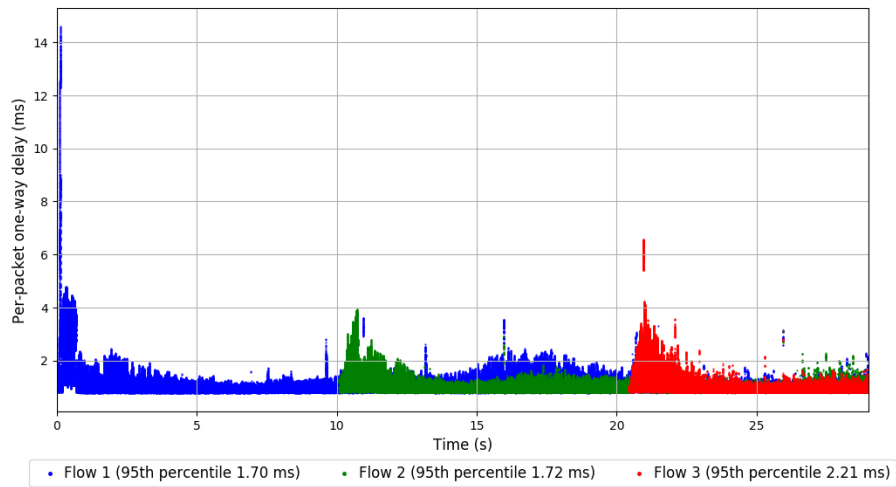
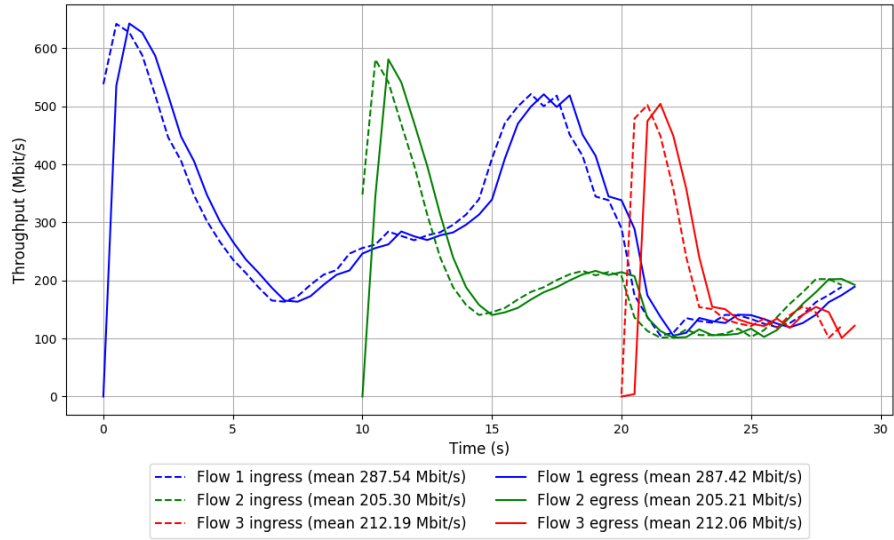
-- Flow 3:

Average throughput: 212.06 Mbit/s

95th percentile per-packet one-way delay: 2.215 ms

Loss rate: 0.06%

### Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-04-24 01:50:23

End at: 2019-04-24 01:50:53

Local clock offset: 0.185 ms

Remote clock offset: 1.84 ms

# Below is generated by plot.py at 2019-04-24 03:16:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 470.60 Mbit/s

95th percentile per-packet one-way delay: 2.153 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 204.27 Mbit/s

95th percentile per-packet one-way delay: 2.626 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 286.83 Mbit/s

95th percentile per-packet one-way delay: 1.795 ms

Loss rate: 0.03%

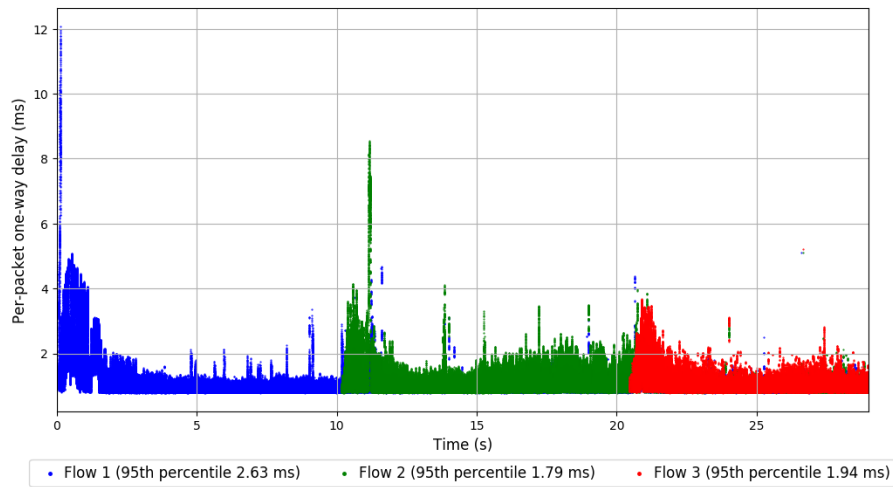
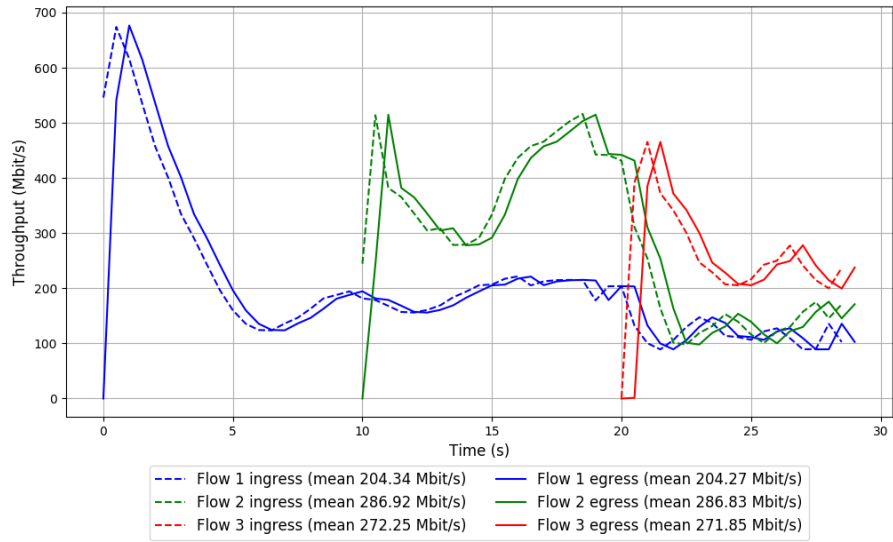
-- Flow 3:

Average throughput: 271.85 Mbit/s

95th percentile per-packet one-way delay: 1.944 ms

Loss rate: 0.15%

### Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-04-24 02:20:27

End at: 2019-04-24 02:20:57

Local clock offset: 0.358 ms

Remote clock offset: -1.98 ms

# Below is generated by plot.py at 2019-04-24 03:16:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 422.42 Mbit/s

95th percentile per-packet one-way delay: 1.595 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 155.75 Mbit/s

95th percentile per-packet one-way delay: 1.251 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 335.19 Mbit/s

95th percentile per-packet one-way delay: 1.892 ms

Loss rate: 0.06%

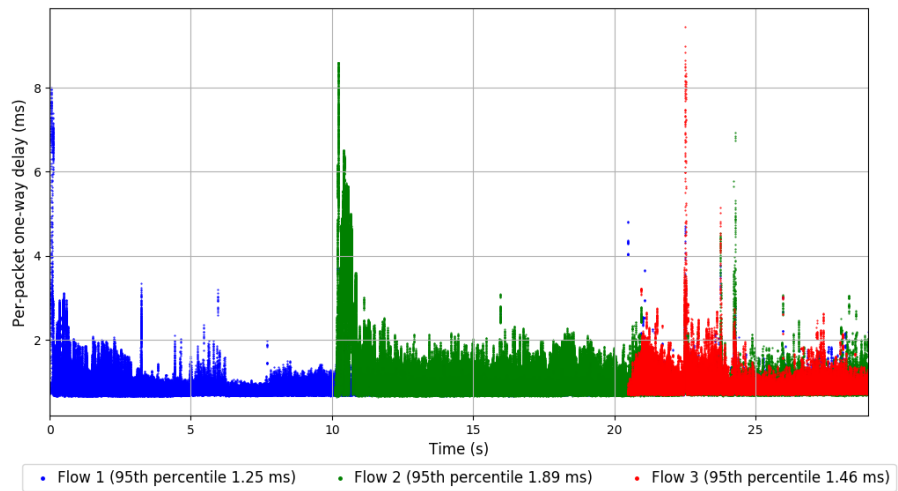
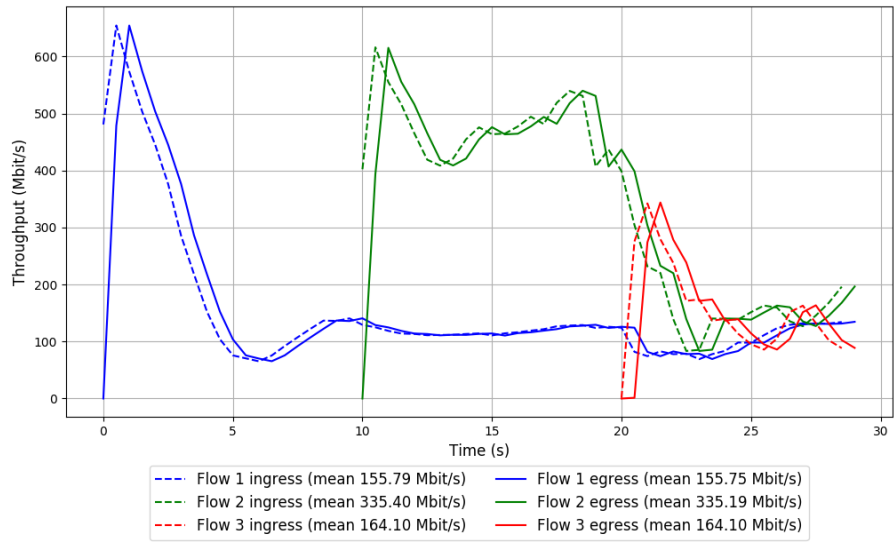
-- Flow 3:

Average throughput: 164.10 Mbit/s

95th percentile per-packet one-way delay: 1.462 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-04-24 00:18:09

End at: 2019-04-24 00:18:39

Local clock offset: 0.9 ms

Remote clock offset: 2.06 ms

# Below is generated by plot.py at 2019-04-24 03:16:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 214.91 Mbit/s

95th percentile per-packet one-way delay: 1.941 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 78.43 Mbit/s

95th percentile per-packet one-way delay: 2.352 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 89.74 Mbit/s

95th percentile per-packet one-way delay: 1.708 ms

Loss rate: 0.22%

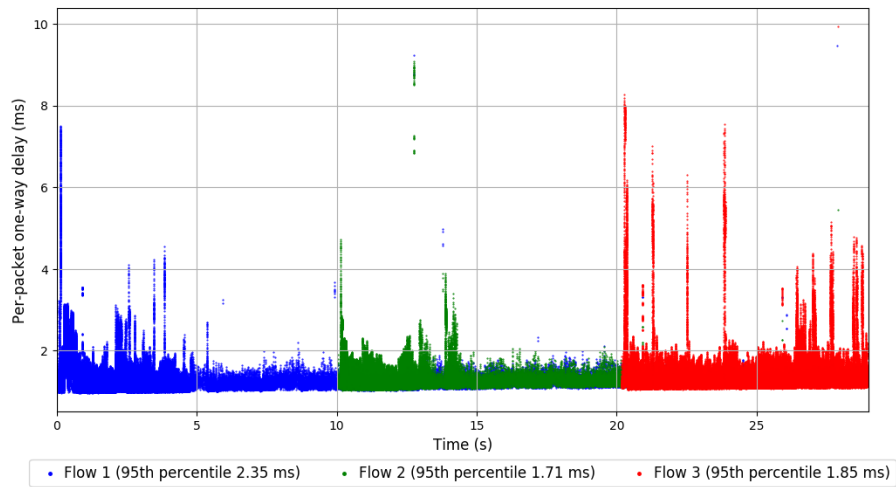
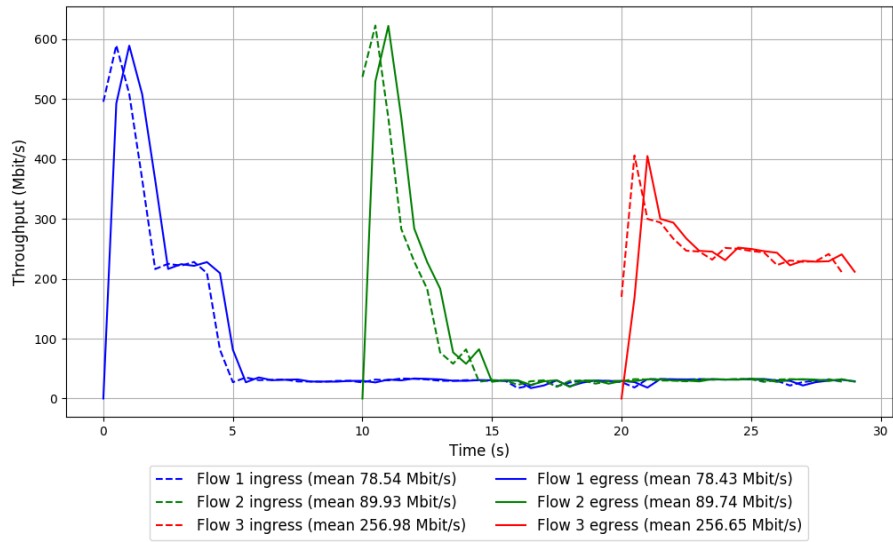
-- Flow 3:

Average throughput: 256.65 Mbit/s

95th percentile per-packet one-way delay: 1.847 ms

Loss rate: 0.12%

# Run 1: Report of Indigo-MusesC5 — Data Link





Run 2: Statistics of Indigo-MusesC5

Start at: 2019-04-24 00:47:52

End at: 2019-04-24 00:48:22

Local clock offset: 3.377 ms

Remote clock offset: 2.25 ms

# Below is generated by plot.py at 2019-04-24 03:16:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 251.79 Mbit/s

95th percentile per-packet one-way delay: 1.748 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 67.14 Mbit/s

95th percentile per-packet one-way delay: 1.185 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 187.82 Mbit/s

95th percentile per-packet one-way delay: 1.737 ms

Loss rate: 0.06%

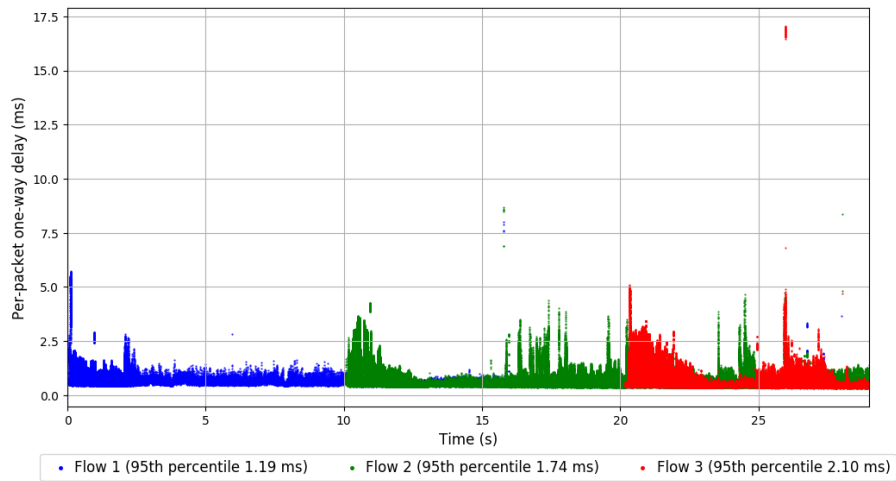
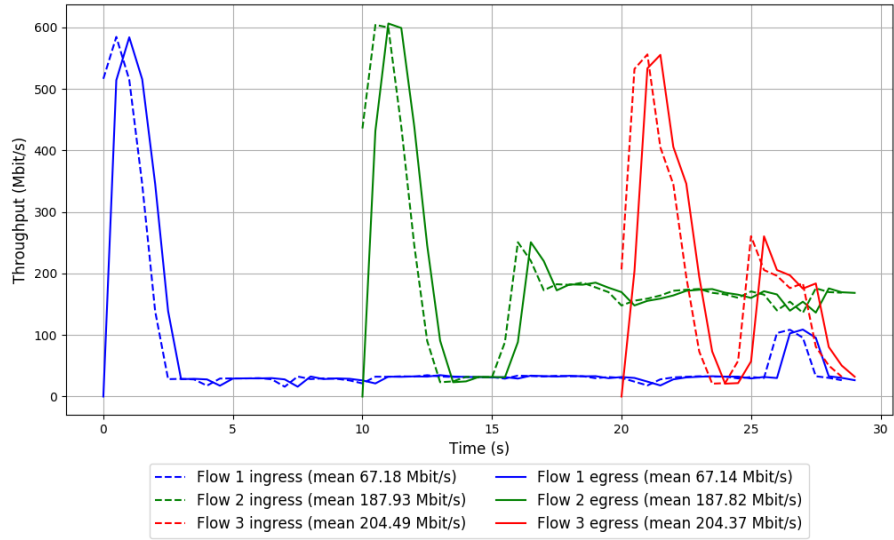
-- Flow 3:

Average throughput: 204.37 Mbit/s

95th percentile per-packet one-way delay: 2.104 ms

Loss rate: 0.06%

## Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-04-24 01:17:49

End at: 2019-04-24 01:18:19

Local clock offset: 0.139 ms

Remote clock offset: 1.957 ms

# Below is generated by plot.py at 2019-04-24 03:16:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 265.12 Mbit/s

95th percentile per-packet one-way delay: 2.478 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 77.22 Mbit/s

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

Loss rate: 0.05%

-- Flow 2:

Average throughput: 167.15 Mbit/s

95th percentile per-packet one-way delay: 3.250 ms

Loss rate: 0.07%

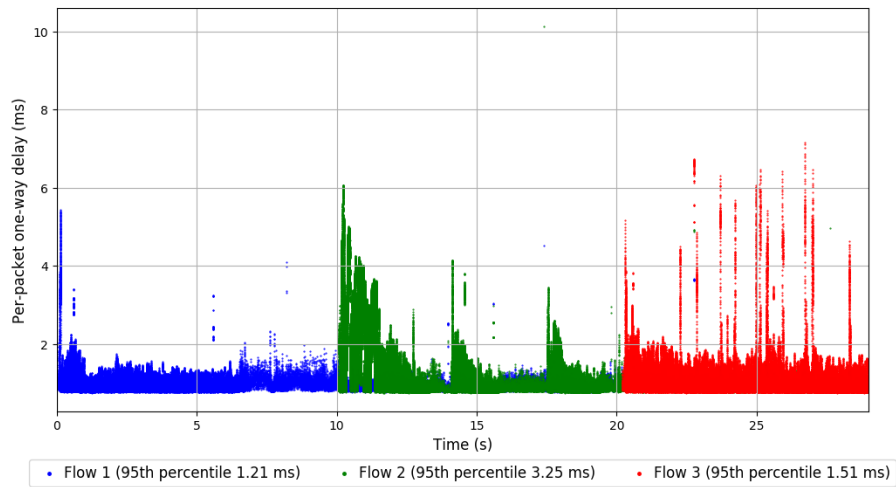
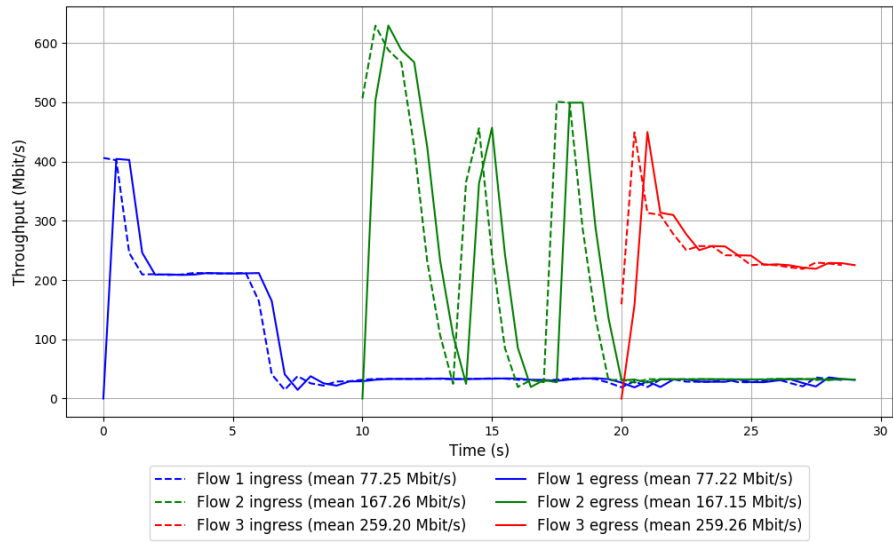
-- Flow 3:

Average throughput: 259.26 Mbit/s

95th percentile per-packet one-way delay: 1.506 ms

Loss rate: 0.05%

### Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-04-24 01:47:44

End at: 2019-04-24 01:48:14

Local clock offset: 0.139 ms

Remote clock offset: 1.812 ms

# Below is generated by plot.py at 2019-04-24 03:16:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 312.77 Mbit/s

95th percentile per-packet one-way delay: 1.744 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 191.46 Mbit/s

95th percentile per-packet one-way delay: 1.335 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 87.39 Mbit/s

95th percentile per-packet one-way delay: 2.638 ms

Loss rate: 0.09%

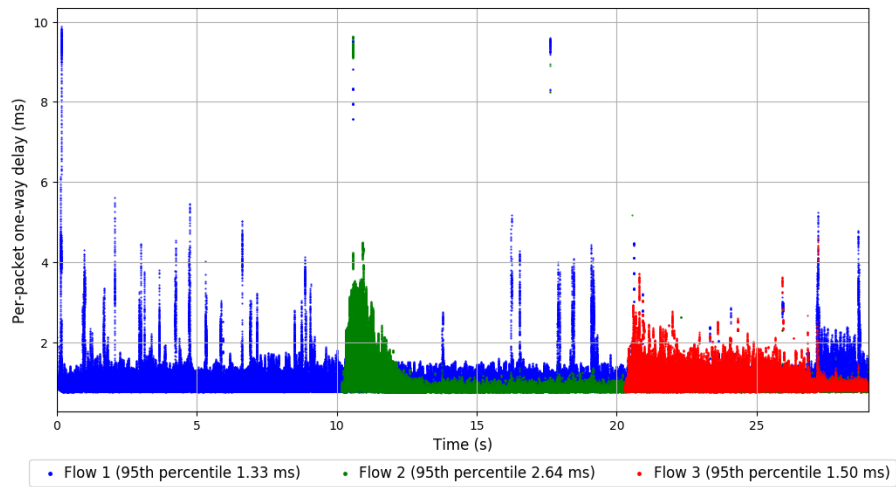
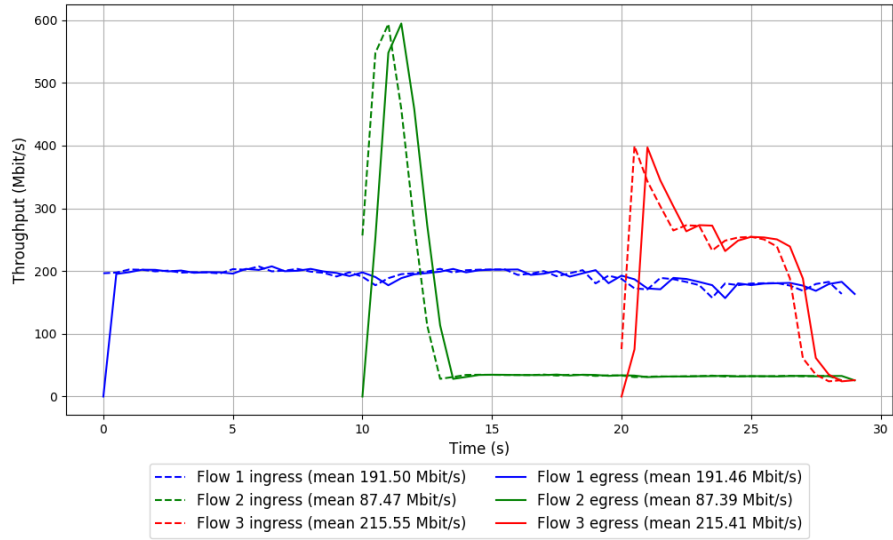
-- Flow 3:

Average throughput: 215.41 Mbit/s

95th percentile per-packet one-way delay: 1.503 ms

Loss rate: 0.07%

### Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-04-24 02:17:51  
End at: 2019-04-24 02:18:21  
Local clock offset: 0.309 ms  
Remote clock offset: -1.718 ms

# Below is generated by plot.py at 2019-04-24 03:17:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 226.55 Mbit/s  
95th percentile per-packet one-way delay: 2.417 ms  
Loss rate: 0.12%

-- Flow 1:

Average throughput: 112.22 Mbit/s  
95th percentile per-packet one-way delay: 1.303 ms  
Loss rate: 0.05%

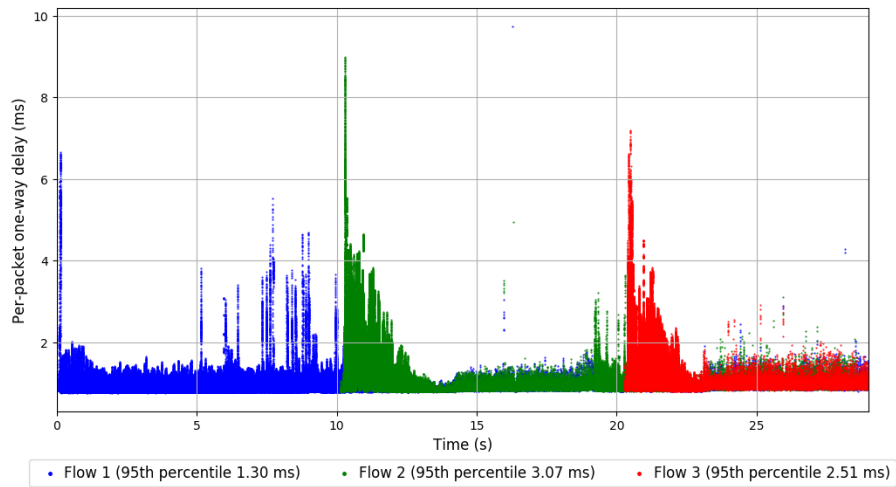
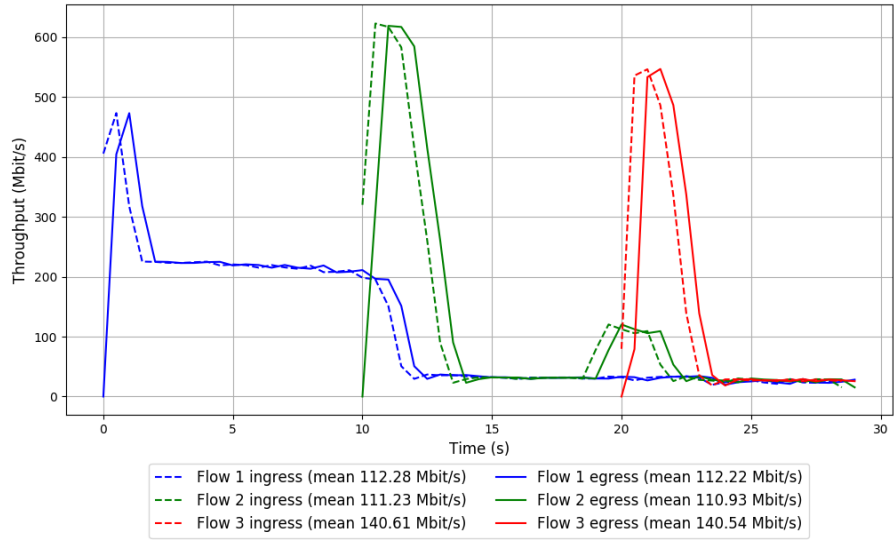
-- Flow 2:

Average throughput: 110.93 Mbit/s  
95th percentile per-packet one-way delay: 3.073 ms  
Loss rate: 0.27%

-- Flow 3:

Average throughput: 140.54 Mbit/s  
95th percentile per-packet one-way delay: 2.509 ms  
Loss rate: 0.05%

### Run 5: Report of Indigo-MusesC5 — Data Link





Run 1: Statistics of Indigo-MusesD

Start at: 2019-04-24 00:38:00

End at: 2019-04-24 00:38:30

Local clock offset: 3.963 ms

Remote clock offset: 2.378 ms

# Below is generated by plot.py at 2019-04-24 03:17:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 211.71 Mbit/s

95th percentile per-packet one-way delay: 1.515 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 137.25 Mbit/s

95th percentile per-packet one-way delay: 1.520 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 72.87 Mbit/s

95th percentile per-packet one-way delay: 1.320 ms

Loss rate: 0.08%

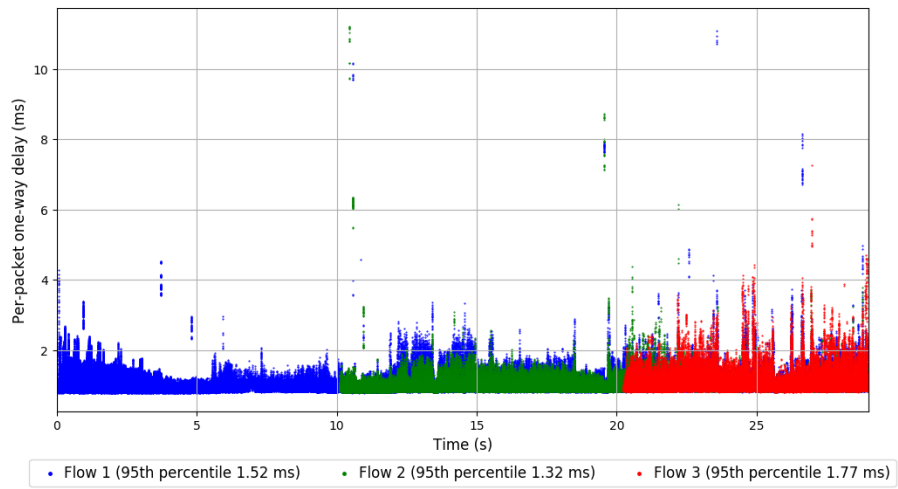
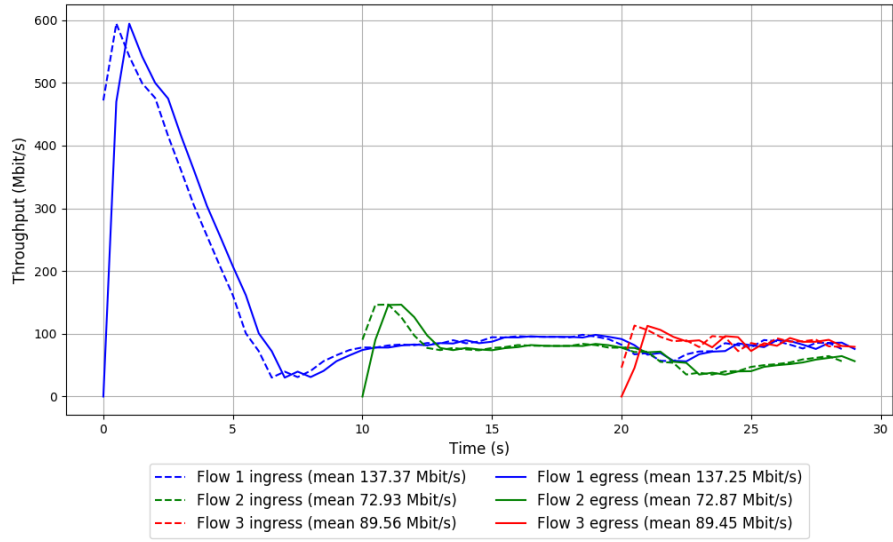
-- Flow 3:

Average throughput: 89.45 Mbit/s

95th percentile per-packet one-way delay: 1.768 ms

Loss rate: 0.12%

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



Run 2: Statistics of Indigo-MusesD

Start at: 2019-04-24 01:07:48

End at: 2019-04-24 01:08:18

Local clock offset: 0.339 ms

Remote clock offset: 1.898 ms

# Below is generated by plot.py at 2019-04-24 03:18:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 232.30 Mbit/s

95th percentile per-packet one-way delay: 1.423 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 135.92 Mbit/s

95th percentile per-packet one-way delay: 1.456 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 94.53 Mbit/s

95th percentile per-packet one-way delay: 1.236 ms

Loss rate: 0.02%

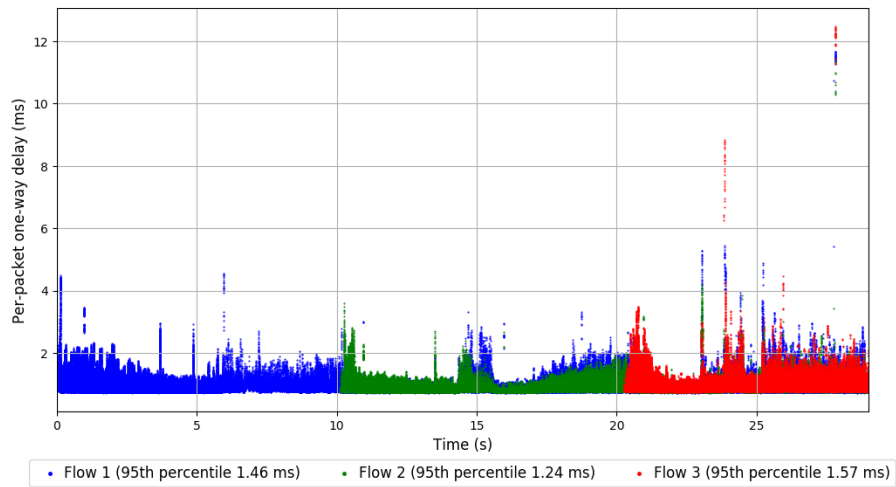
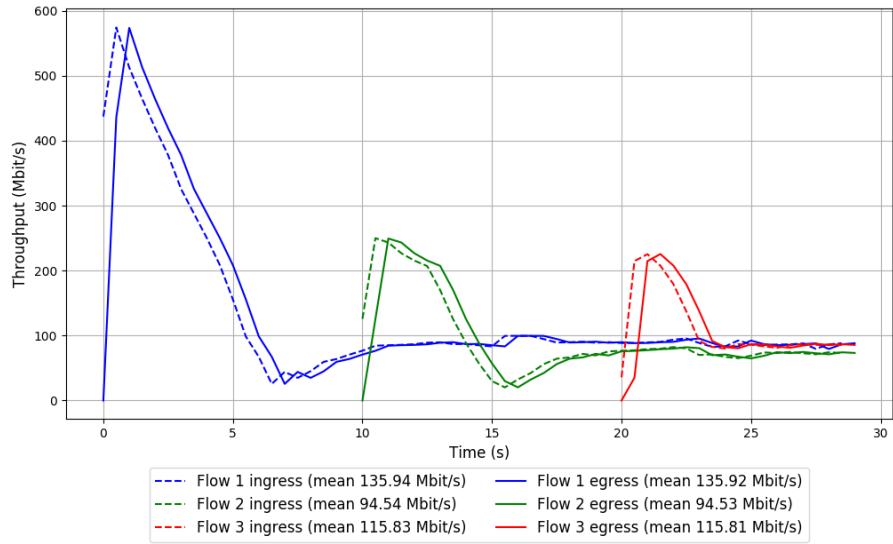
-- Flow 3:

Average throughput: 115.81 Mbit/s

95th percentile per-packet one-way delay: 1.569 ms

Loss rate: 0.01%

## Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-04-24 01:37:47

End at: 2019-04-24 01:38:17

Local clock offset: 0.157 ms

Remote clock offset: 1.756 ms

# Below is generated by plot.py at 2019-04-24 03:18:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 193.60 Mbit/s

95th percentile per-packet one-way delay: 1.241 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 100.70 Mbit/s

95th percentile per-packet one-way delay: 1.205 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 84.02 Mbit/s

95th percentile per-packet one-way delay: 1.211 ms

Loss rate: 0.01%

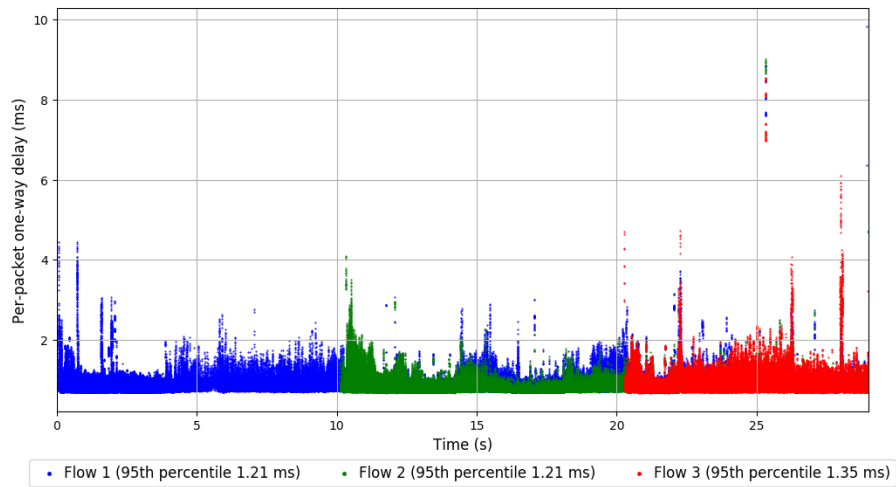
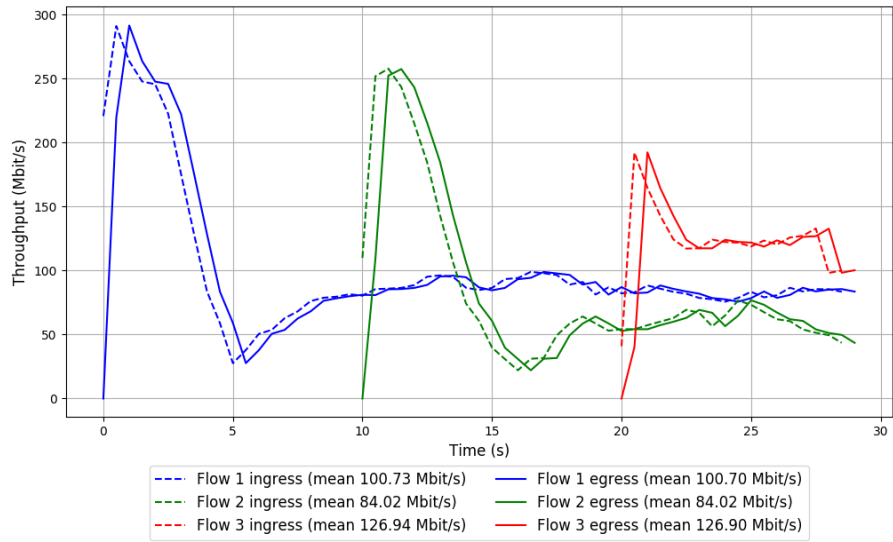
-- Flow 3:

Average throughput: 126.90 Mbit/s

95th percentile per-packet one-way delay: 1.346 ms

Loss rate: 0.03%

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



Run 4: Statistics of Indigo-MusesD

Start at: 2019-04-24 02:07:54  
End at: 2019-04-24 02:08:24  
Local clock offset: 0.274 ms  
Remote clock offset: -0.988 ms

# Below is generated by plot.py at 2019-04-24 03:18:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 219.88 Mbit/s  
95th percentile per-packet one-way delay: 1.391 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 115.26 Mbit/s  
95th percentile per-packet one-way delay: 1.378 ms  
Loss rate: 0.00%

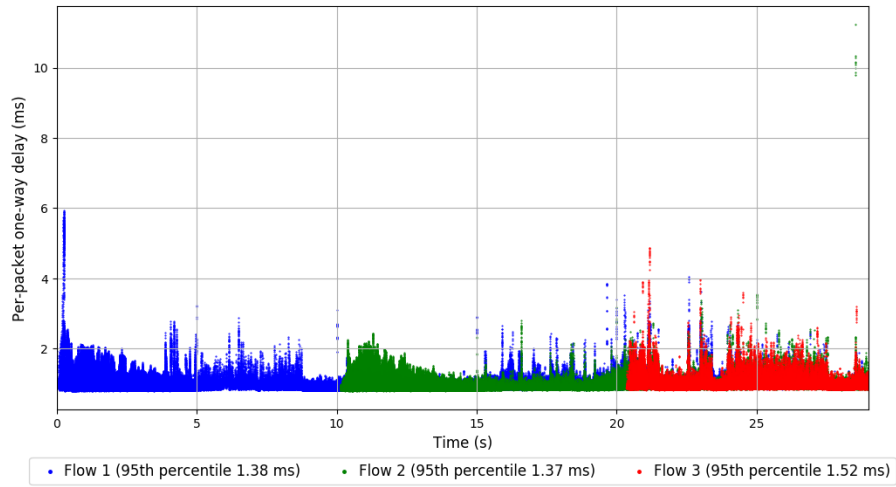
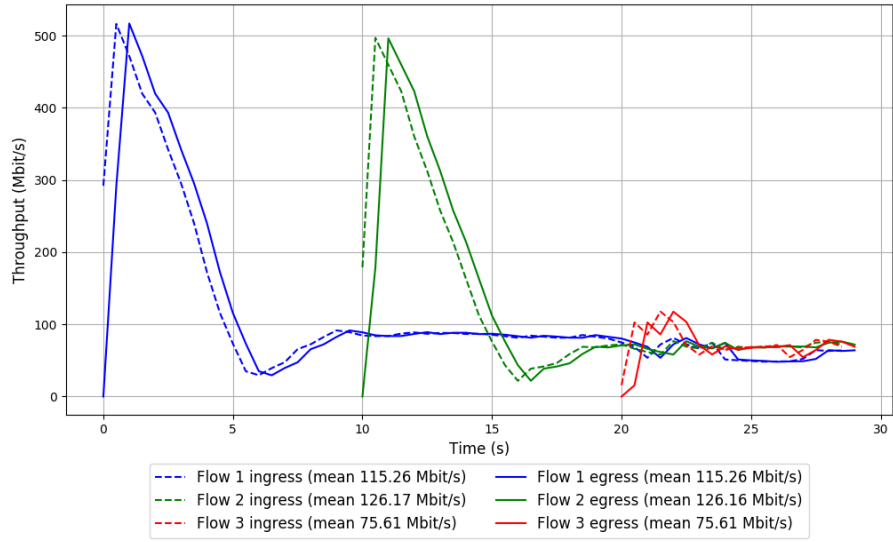
-- Flow 2:

Average throughput: 126.16 Mbit/s  
95th percentile per-packet one-way delay: 1.372 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 75.61 Mbit/s  
95th percentile per-packet one-way delay: 1.516 ms  
Loss rate: 0.00%

### Run 4: Report of Indigo-MusesD — Data Link





Run 5: Statistics of Indigo-MusesD

Start at: 2019-04-24 02:37:41

End at: 2019-04-24 02:38:11

Local clock offset: 0.449 ms

Remote clock offset: 1.57 ms

# Below is generated by plot.py at 2019-04-24 03:18:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 164.24 Mbit/s

95th percentile per-packet one-way delay: 1.167 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 83.96 Mbit/s

95th percentile per-packet one-way delay: 1.266 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 82.69 Mbit/s

95th percentile per-packet one-way delay: 1.077 ms

Loss rate: 0.01%

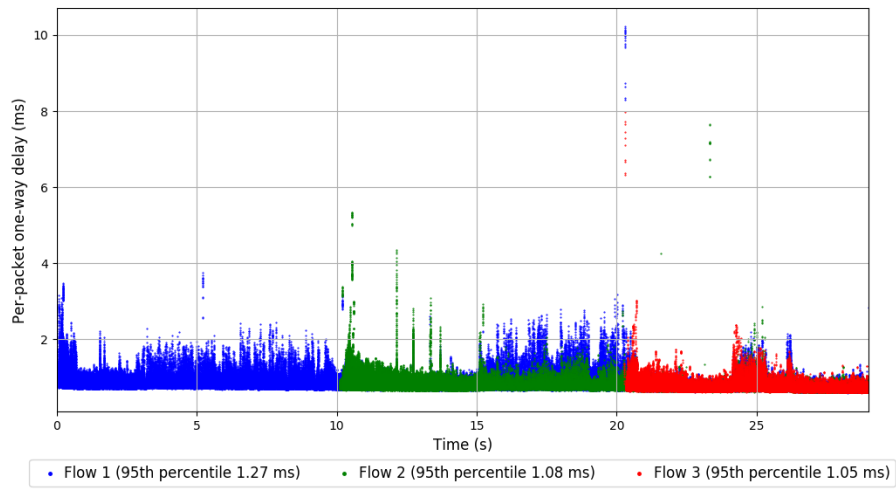
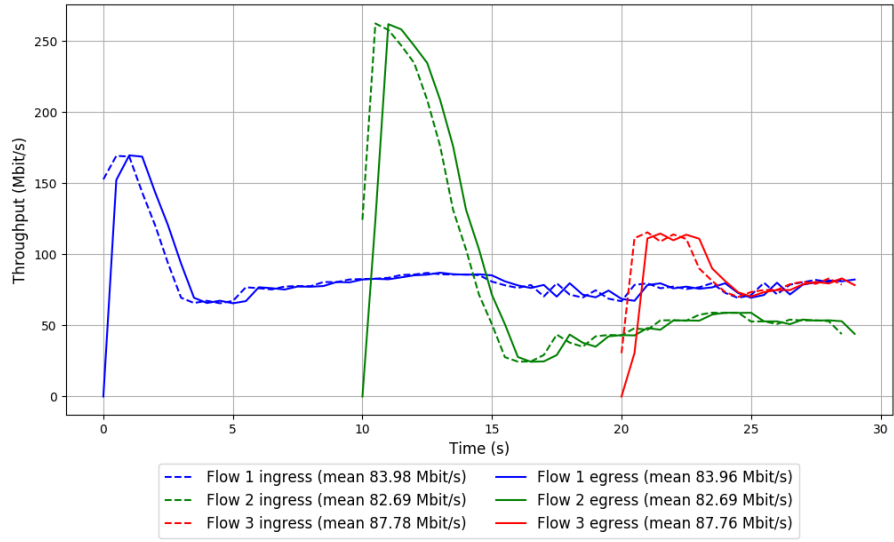
-- Flow 3:

Average throughput: 87.76 Mbit/s

95th percentile per-packet one-way delay: 1.046 ms

Loss rate: 0.03%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MuseST

Start at: 2019-04-24 00:35:14

End at: 2019-04-24 00:35:44

Local clock offset: 3.752 ms

Remote clock offset: 2.324 ms

# Below is generated by plot.py at 2019-04-24 03:22:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 546.31 Mbit/s

95th percentile per-packet one-way delay: 1.529 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 308.11 Mbit/s

95th percentile per-packet one-way delay: 1.479 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 275.33 Mbit/s

95th percentile per-packet one-way delay: 1.517 ms

Loss rate: 0.06%

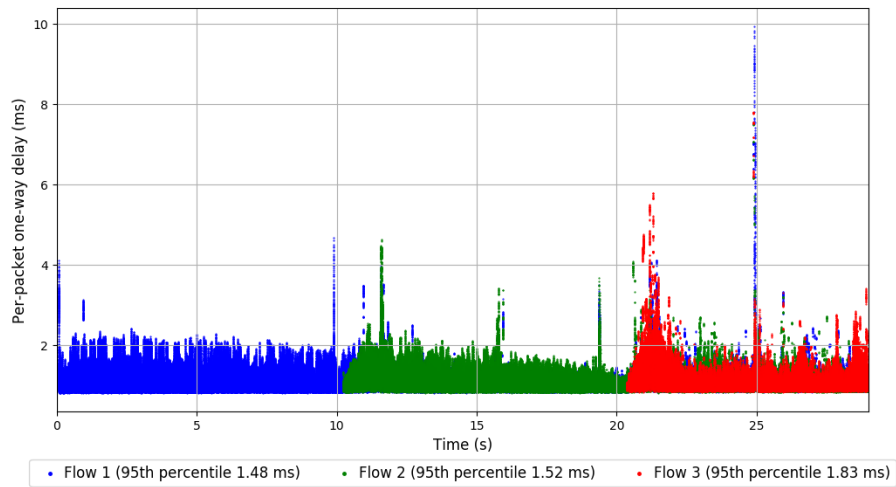
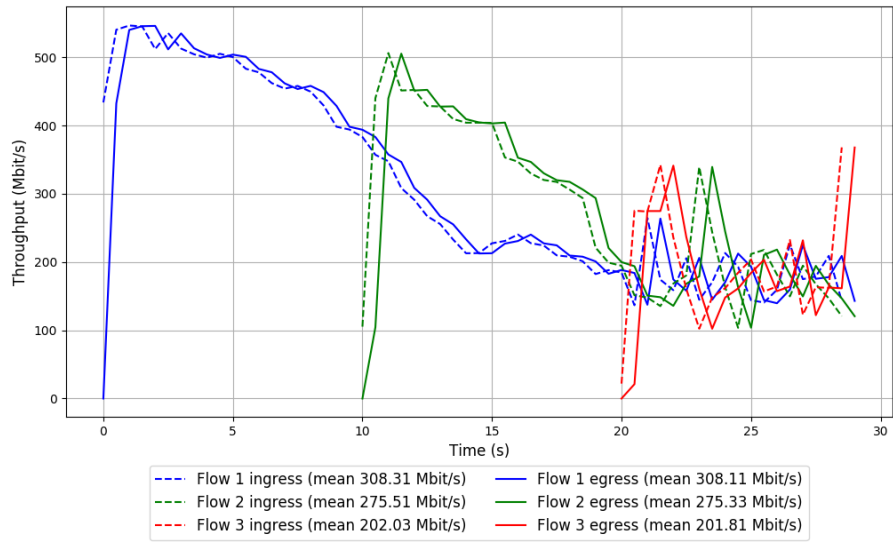
-- Flow 3:

Average throughput: 201.81 Mbit/s

95th percentile per-packet one-way delay: 1.833 ms

Loss rate: 0.11%

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



Run 2: Statistics of Indigo-MuseST

Start at: 2019-04-24 01:05:04

End at: 2019-04-24 01:05:34

Local clock offset: 0.503 ms

Remote clock offset: 1.82 ms

# Below is generated by plot.py at 2019-04-24 03:22:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 463.77 Mbit/s

95th percentile per-packet one-way delay: 1.356 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 230.56 Mbit/s

95th percentile per-packet one-way delay: 1.220 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 262.24 Mbit/s

95th percentile per-packet one-way delay: 1.316 ms

Loss rate: 0.01%

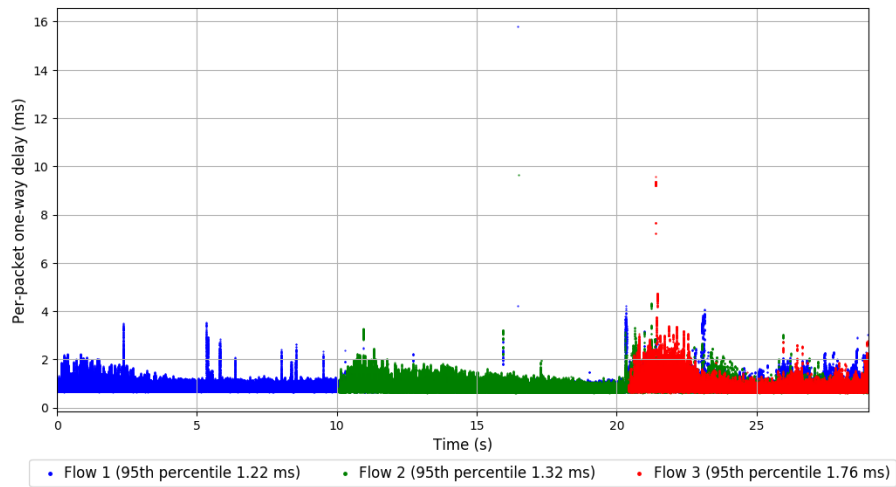
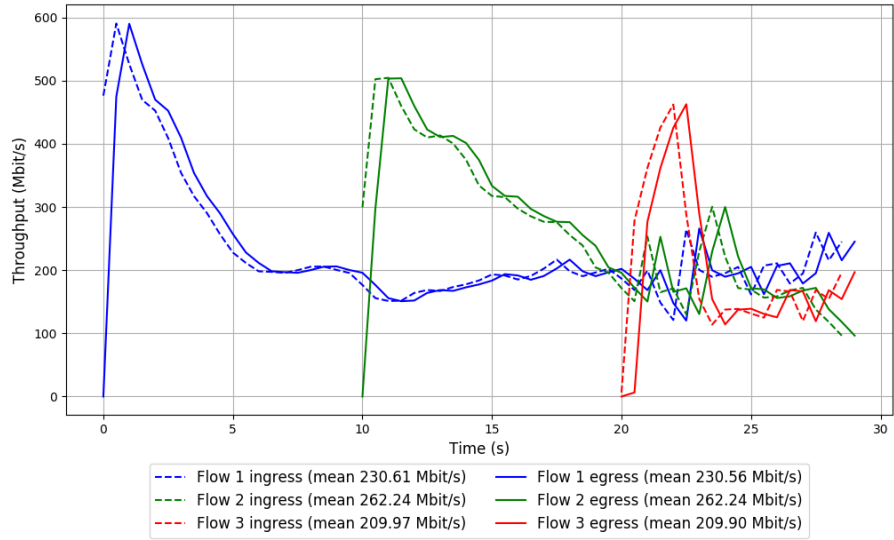
-- Flow 3:

Average throughput: 209.90 Mbit/s

95th percentile per-packet one-way delay: 1.763 ms

Loss rate: 0.01%

## Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MuseST

Start at: 2019-04-24 01:35:01

End at: 2019-04-24 01:35:31

Local clock offset: 0.162 ms

Remote clock offset: 1.776 ms

# Below is generated by plot.py at 2019-04-24 03:22:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 543.14 Mbit/s

95th percentile per-packet one-way delay: 1.429 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 284.73 Mbit/s

95th percentile per-packet one-way delay: 1.339 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 302.07 Mbit/s

95th percentile per-packet one-way delay: 1.449 ms

Loss rate: 0.02%

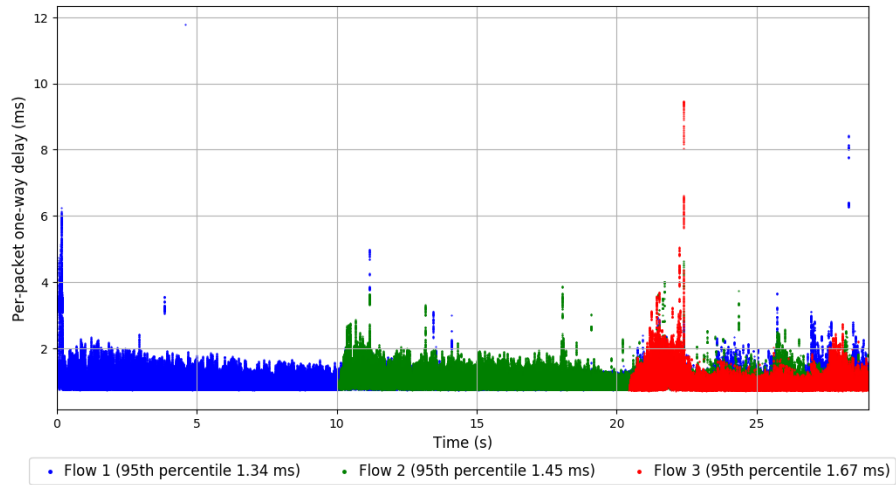
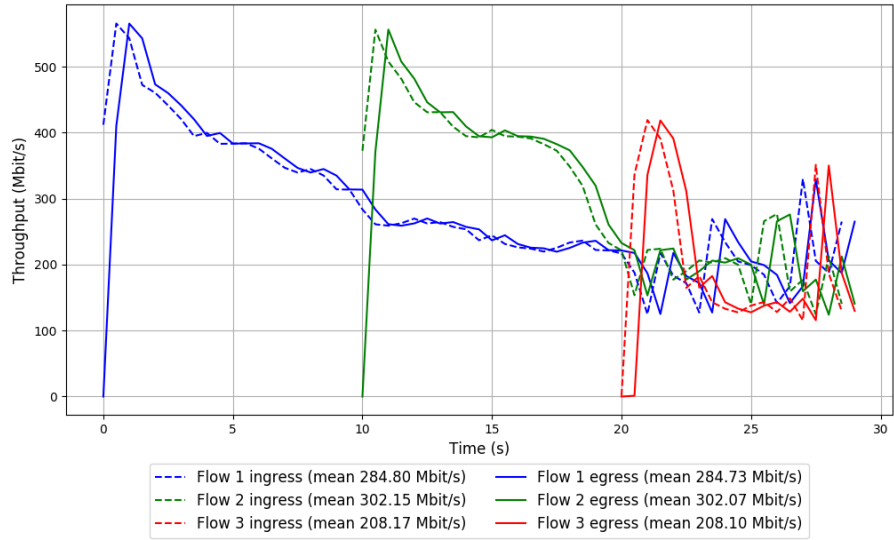
-- Flow 3:

Average throughput: 208.10 Mbit/s

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

Loss rate: 0.03%

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





Run 4: Statistics of Indigo-MuseST

Start at: 2019-04-24 02:05:09  
End at: 2019-04-24 02:05:39  
Local clock offset: 0.287 ms  
Remote clock offset: -0.721 ms

# Below is generated by plot.py at 2019-04-24 03:23:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 535.72 Mbit/s  
95th percentile per-packet one-way delay: 1.499 ms  
Loss rate: 0.01%

-- Flow 1:

Average throughput: 300.86 Mbit/s  
95th percentile per-packet one-way delay: 1.448 ms  
Loss rate: 0.01%

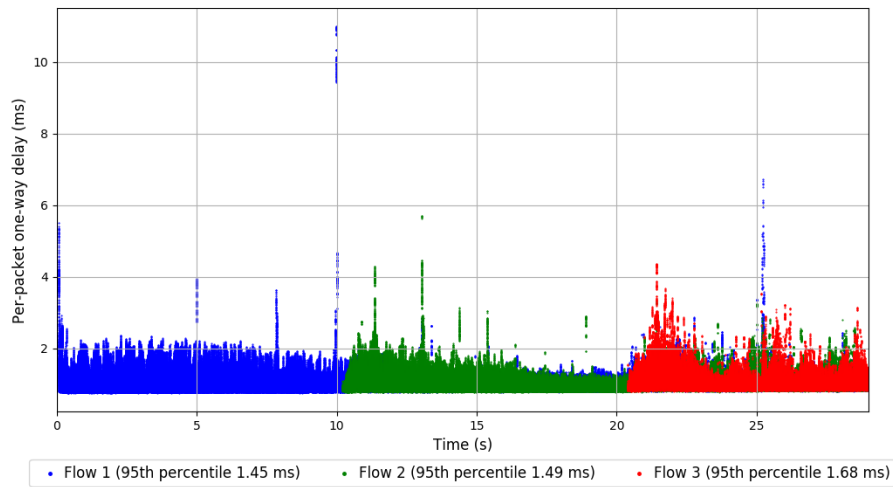
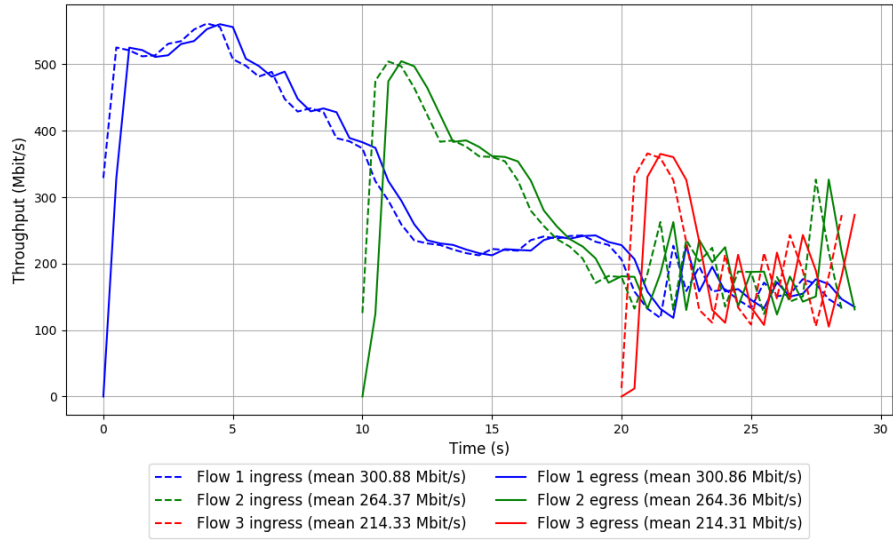
-- Flow 2:

Average throughput: 264.36 Mbit/s  
95th percentile per-packet one-way delay: 1.494 ms  
Loss rate: 0.01%

-- Flow 3:

Average throughput: 214.31 Mbit/s  
95th percentile per-packet one-way delay: 1.684 ms  
Loss rate: 0.01%

### Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MuseST

Start at: 2019-04-24 02:34:57

End at: 2019-04-24 02:35:27

Local clock offset: 0.462 ms

Remote clock offset: 0.85 ms

# Below is generated by plot.py at 2019-04-24 03:23:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 492.80 Mbit/s

95th percentile per-packet one-way delay: 1.385 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 273.41 Mbit/s

95th percentile per-packet one-way delay: 1.365 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 251.24 Mbit/s

95th percentile per-packet one-way delay: 1.367 ms

Loss rate: 0.03%

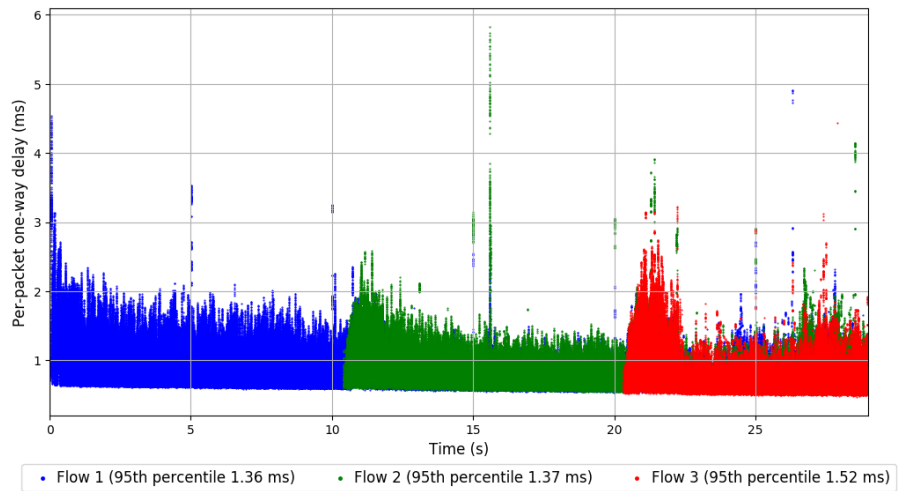
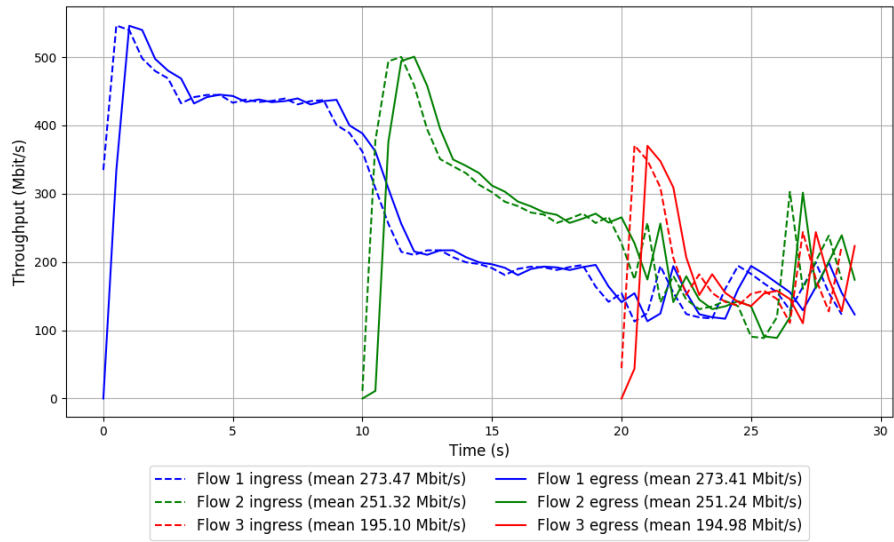
-- Flow 3:

Average throughput: 194.98 Mbit/s

95th percentile per-packet one-way delay: 1.524 ms

Loss rate: 0.06%

### Run 5: Report of Indigo-MusesT — Data Link



Run 1: Statistics of LEDBAT

Start at: 2019-04-24 00:10:57

End at: 2019-04-24 00:11:27

Local clock offset: 0.054 ms

Remote clock offset: 1.923 ms

# Below is generated by plot.py at 2019-04-24 03:26:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 735.94 Mbit/s

95th percentile per-packet one-way delay: 4.883 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 440.63 Mbit/s

95th percentile per-packet one-way delay: 5.243 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 253.10 Mbit/s

95th percentile per-packet one-way delay: 4.421 ms

Loss rate: 0.27%

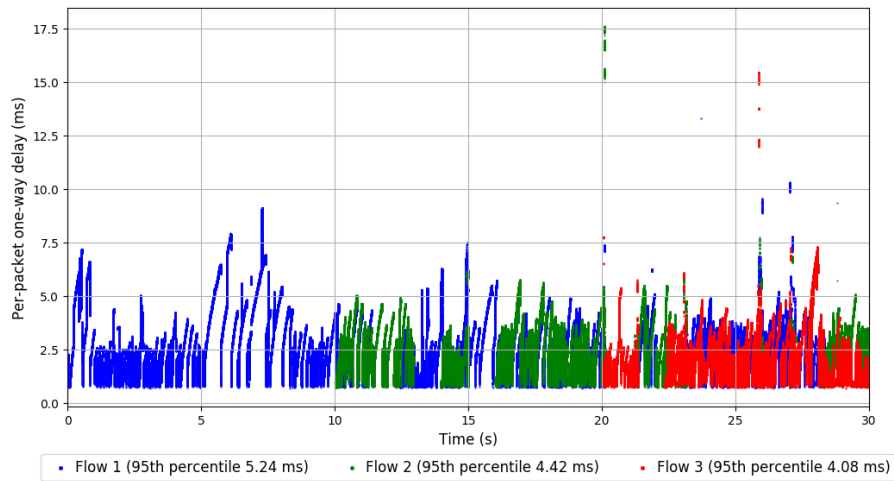
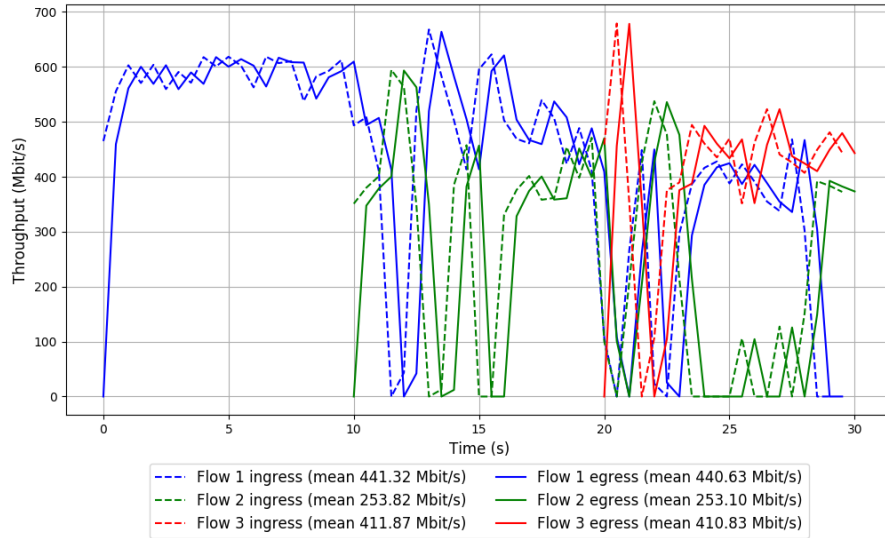
-- Flow 3:

Average throughput: 410.83 Mbit/s

95th percentile per-packet one-way delay: 4.084 ms

Loss rate: 0.25%

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



Run 2: Statistics of LEDBAT

Start at: 2019-04-24 00:40:43

End at: 2019-04-24 00:41:13

Local clock offset: 4.094 ms

Remote clock offset: 2.434 ms

# Below is generated by plot.py at 2019-04-24 03:26:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 709.51 Mbit/s

95th percentile per-packet one-way delay: 8.086 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 441.84 Mbit/s

95th percentile per-packet one-way delay: 8.355 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 304.25 Mbit/s

95th percentile per-packet one-way delay: 8.123 ms

Loss rate: 0.22%

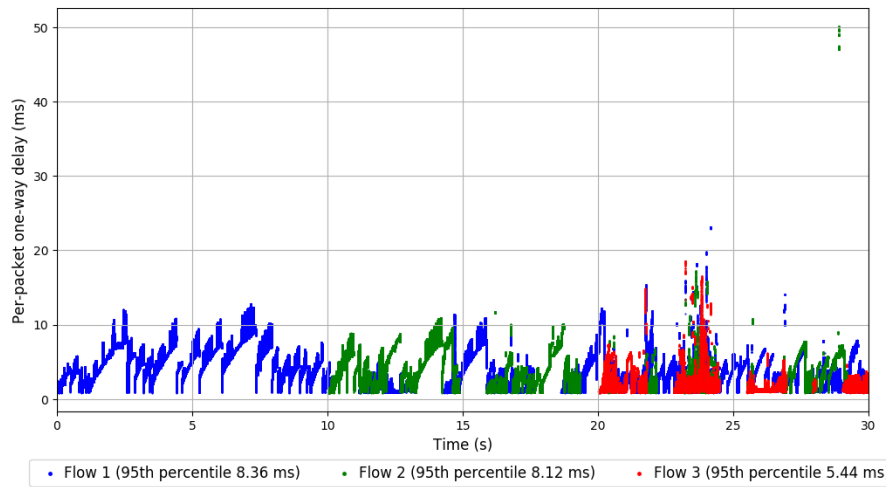
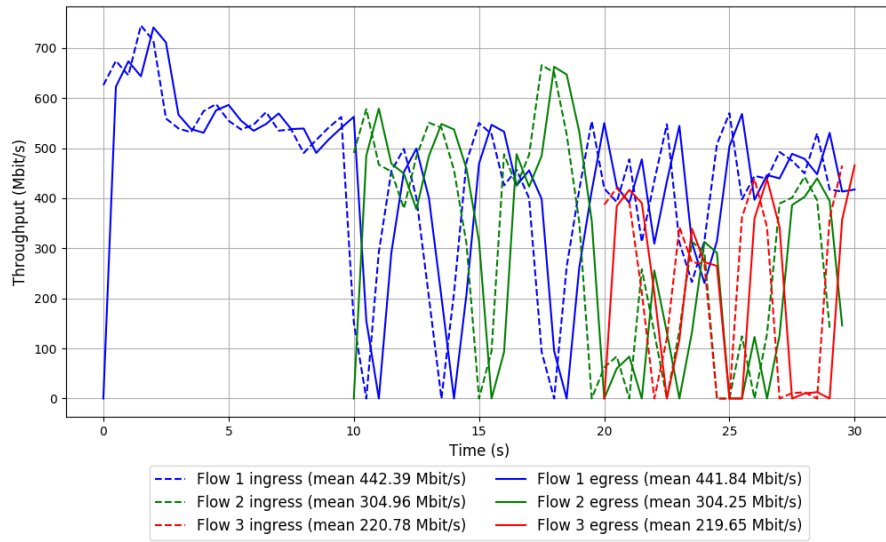
-- Flow 3:

Average throughput: 219.65 Mbit/s

95th percentile per-packet one-way delay: 5.437 ms

Loss rate: 0.50%

## Run 2: Report of LEDBAT — Data Link





Run 3: Statistics of LEDBAT

Start at: 2019-04-24 01:10:34

End at: 2019-04-24 01:11:04

Local clock offset: 0.251 ms

Remote clock offset: 1.817 ms

# Below is generated by plot.py at 2019-04-24 03:26:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 606.24 Mbit/s

95th percentile per-packet one-way delay: 7.397 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 376.44 Mbit/s

95th percentile per-packet one-way delay: 8.519 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 263.22 Mbit/s

95th percentile per-packet one-way delay: 4.097 ms

Loss rate: 0.31%

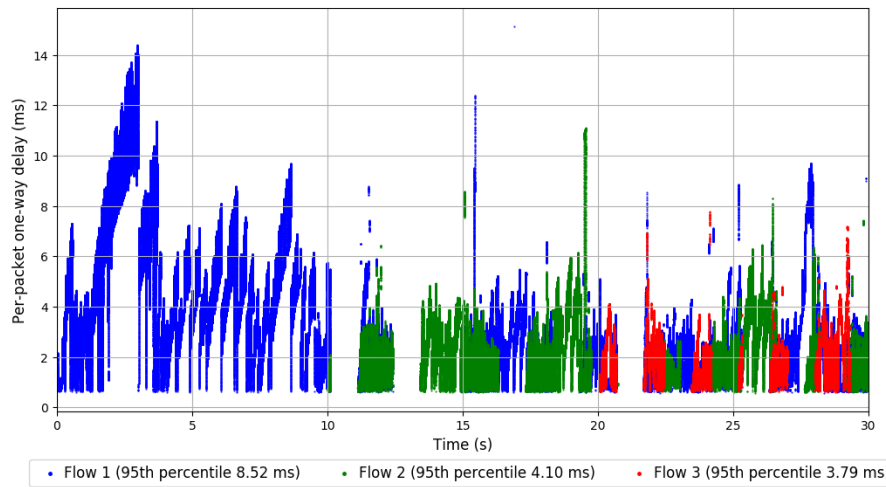
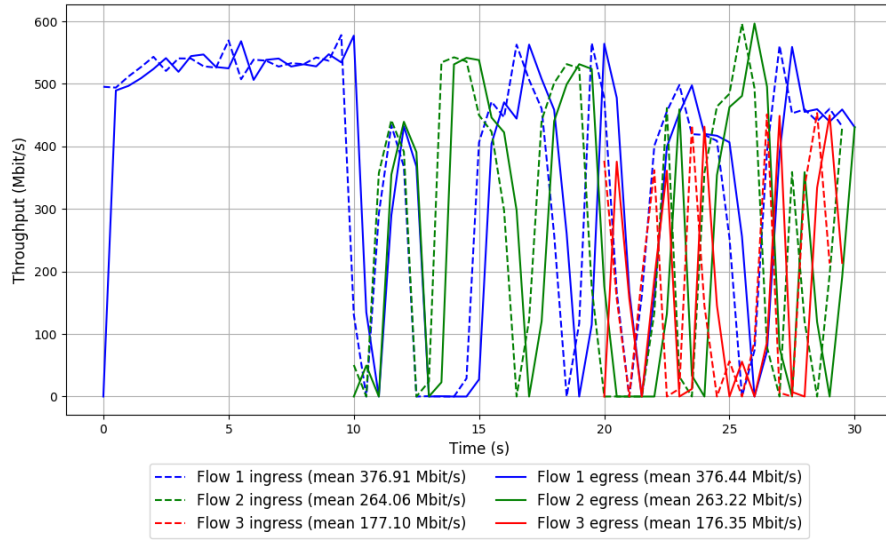
-- Flow 3:

Average throughput: 176.35 Mbit/s

95th percentile per-packet one-way delay: 3.788 ms

Loss rate: 0.42%

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



Run 4: Statistics of LEDBAT

Start at: 2019-04-24 01:40:32

End at: 2019-04-24 01:41:02

Local clock offset: 0.091 ms

Remote clock offset: 1.683 ms

# Below is generated by plot.py at 2019-04-24 03:30:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 711.30 Mbit/s

95th percentile per-packet one-way delay: 8.329 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 373.43 Mbit/s

95th percentile per-packet one-way delay: 8.653 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 413.82 Mbit/s

95th percentile per-packet one-way delay: 8.195 ms

Loss rate: 0.20%

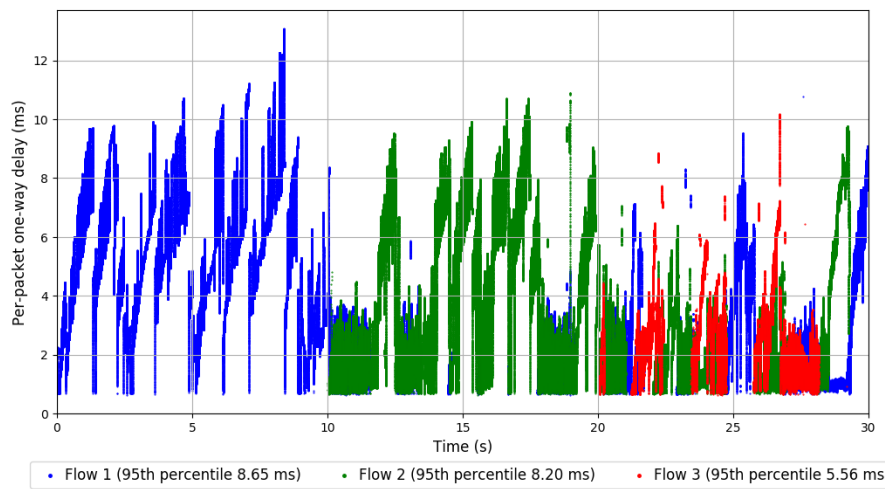
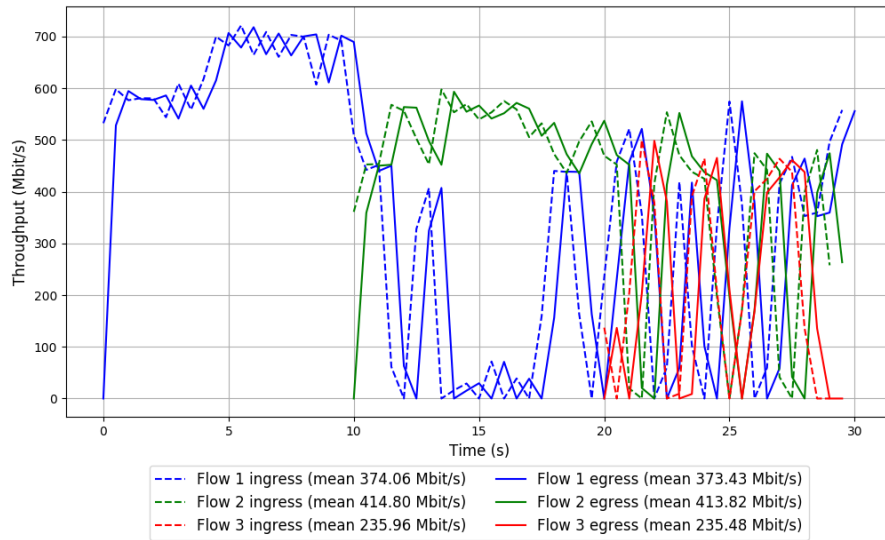
-- Flow 3:

Average throughput: 235.48 Mbit/s

95th percentile per-packet one-way delay: 5.557 ms

Loss rate: 0.20%

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



Run 5: Statistics of LEDBAT

Start at: 2019-04-24 02:10:39  
End at: 2019-04-24 02:11:09  
Local clock offset: 0.267 ms  
Remote clock offset: -1.304 ms

# Below is generated by plot.py at 2019-04-24 03:30:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 660.37 Mbit/s  
95th percentile per-packet one-way delay: 11.737 ms  
Loss rate: 0.18%

-- Flow 1:

Average throughput: 426.92 Mbit/s  
95th percentile per-packet one-way delay: 12.815 ms  
Loss rate: 0.13%

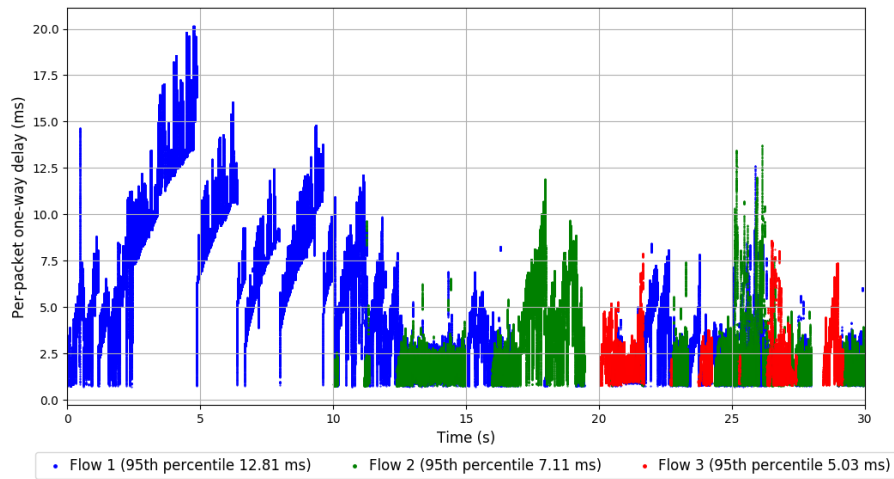
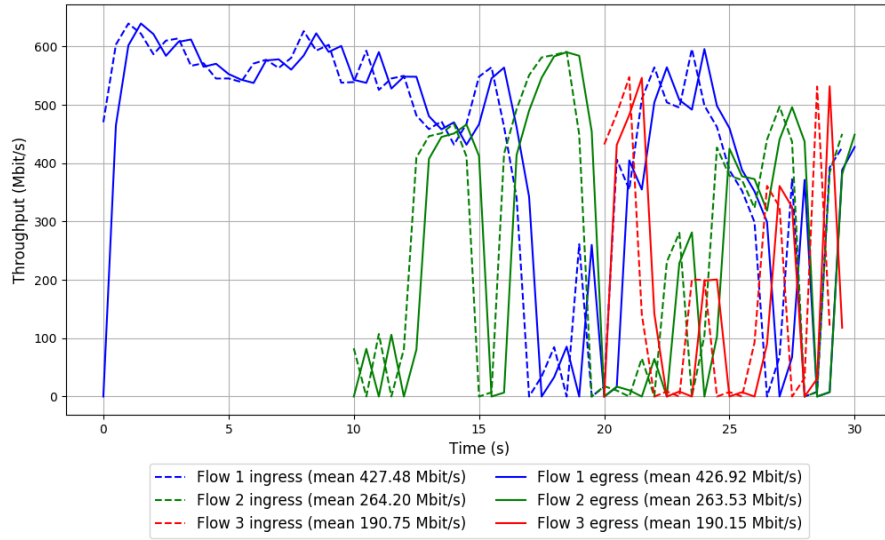
-- Flow 2:

Average throughput: 263.53 Mbit/s  
95th percentile per-packet one-way delay: 7.106 ms  
Loss rate: 0.25%

-- Flow 3:

Average throughput: 190.15 Mbit/s  
95th percentile per-packet one-way delay: 5.029 ms  
Loss rate: 0.32%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-04-24 00:16:48

End at: 2019-04-24 00:17:18

Local clock offset: 0.349 ms

Remote clock offset: 2.001 ms

# Below is generated by plot.py at 2019-04-24 03:30:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 298.79 Mbit/s

95th percentile per-packet one-way delay: 5.451 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 22.08 Mbit/s

95th percentile per-packet one-way delay: 2.181 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 114.59 Mbit/s

95th percentile per-packet one-way delay: 2.428 ms

Loss rate: 0.30%

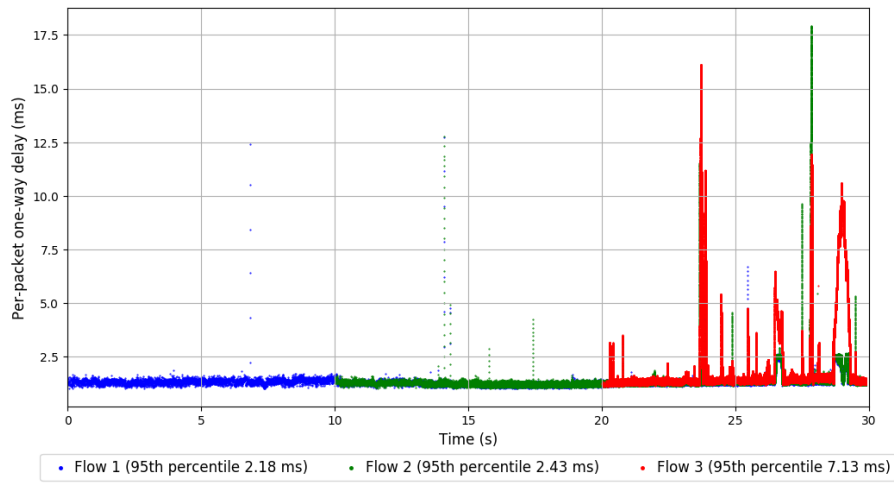
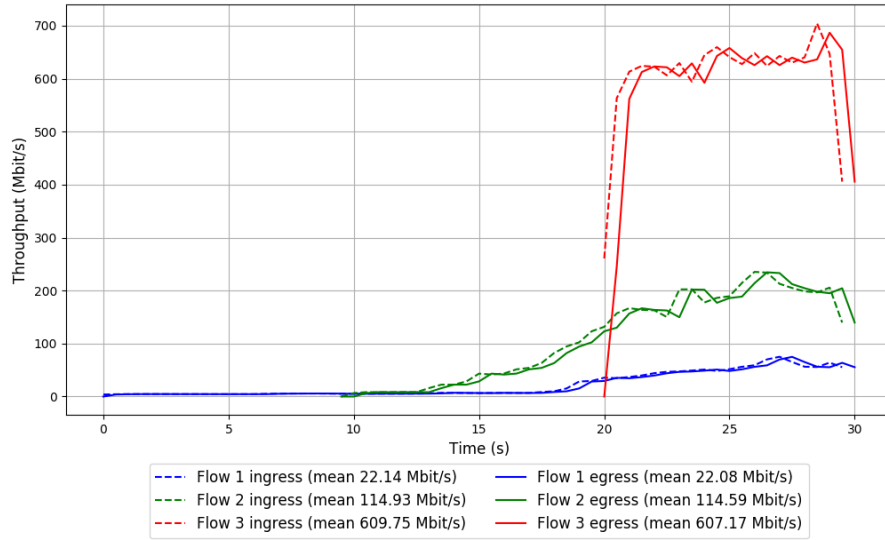
-- Flow 3:

Average throughput: 607.17 Mbit/s

95th percentile per-packet one-way delay: 7.133 ms

Loss rate: 0.42%

# Run 1: Report of PCC-Allegro — Data Link





Run 2: Statistics of PCC-Allegro

Start at: 2019-04-24 00:46:30

End at: 2019-04-24 00:47:00

Local clock offset: 3.914 ms

Remote clock offset: 2.435 ms

# Below is generated by plot.py at 2019-04-24 03:30:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 312.57 Mbit/s

95th percentile per-packet one-way delay: 1.691 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 27.20 Mbit/s

95th percentile per-packet one-way delay: 1.180 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 239.25 Mbit/s

95th percentile per-packet one-way delay: 1.488 ms

Loss rate: 0.21%

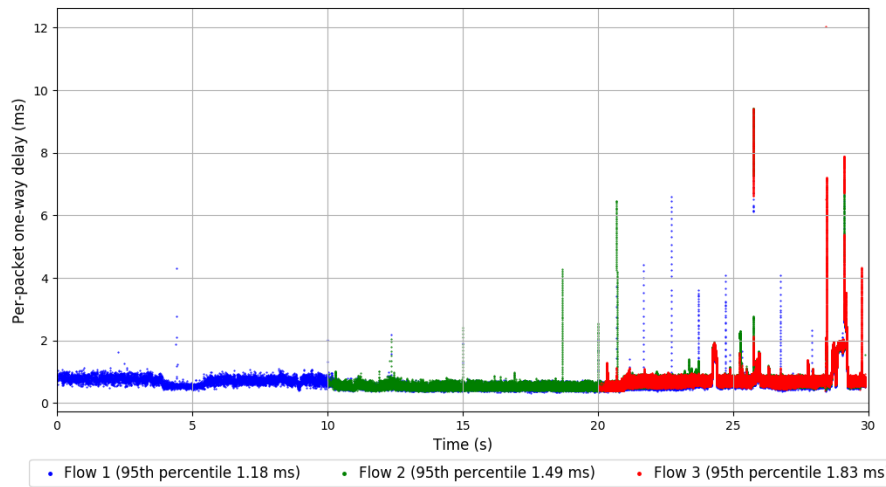
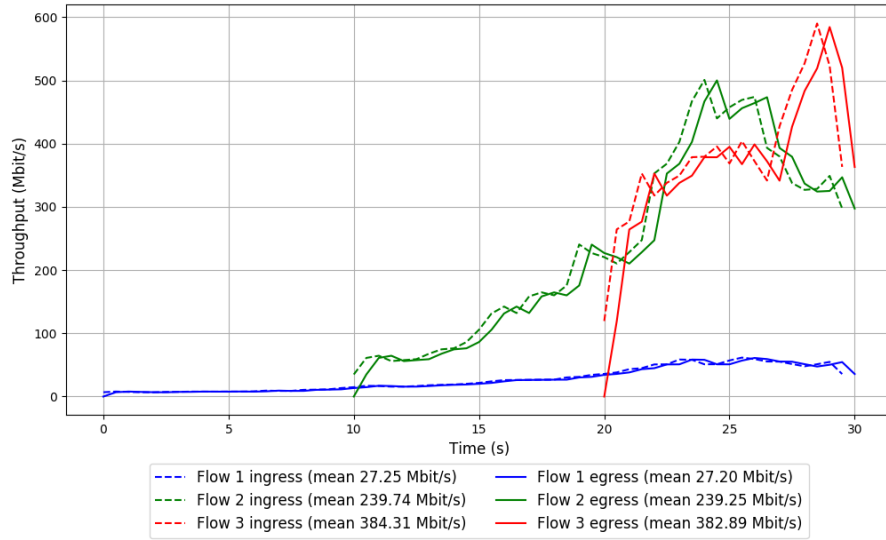
-- Flow 3:

Average throughput: 382.89 Mbit/s

95th percentile per-packet one-way delay: 1.827 ms

Loss rate: 0.38%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-04-24 01:16:18

End at: 2019-04-24 01:16:48

Local clock offset: 0.106 ms

Remote clock offset: 1.908 ms

# Below is generated by plot.py at 2019-04-24 03:33:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 740.45 Mbit/s

95th percentile per-packet one-way delay: 1.633 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 592.49 Mbit/s

95th percentile per-packet one-way delay: 1.684 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 53.87 Mbit/s

95th percentile per-packet one-way delay: 1.249 ms

Loss rate: 0.09%

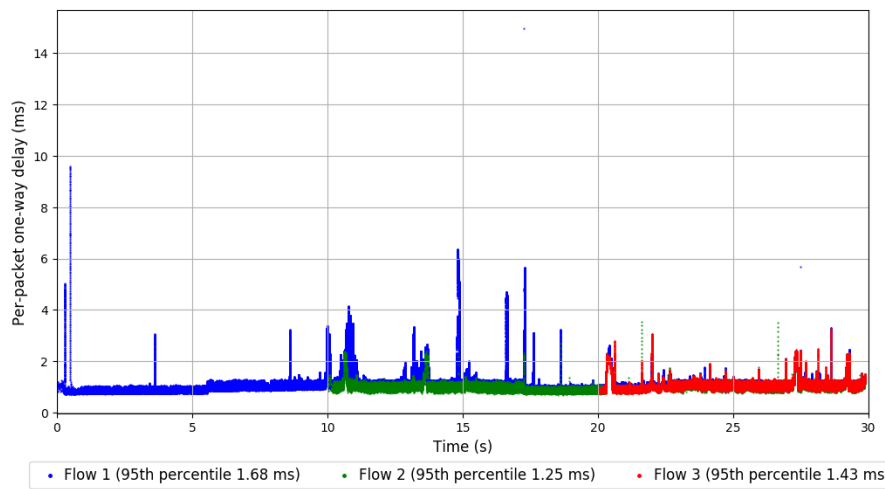
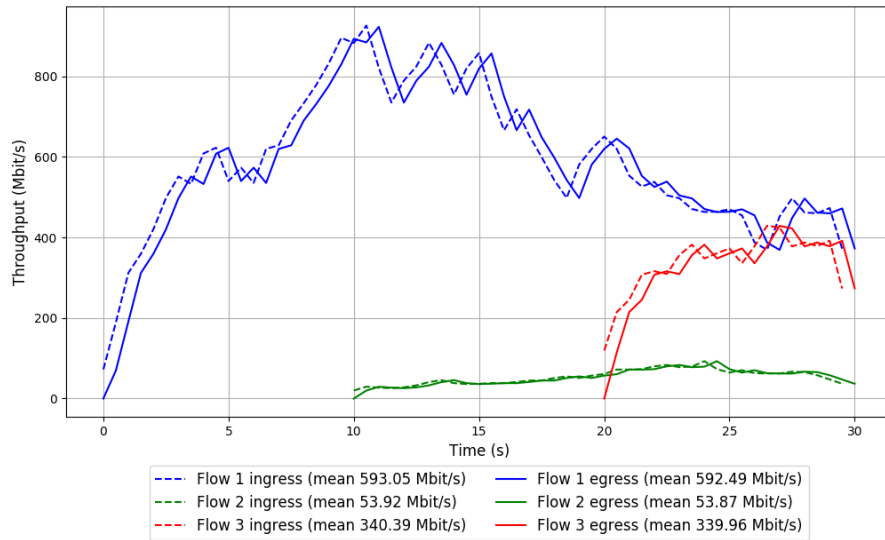
-- Flow 3:

Average throughput: 339.96 Mbit/s

95th percentile per-packet one-way delay: 1.425 ms

Loss rate: 0.13%

### Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-04-24 01:46:21

End at: 2019-04-24 01:46:51

Local clock offset: 0.127 ms

Remote clock offset: 1.737 ms

# Below is generated by plot.py at 2019-04-24 03:33:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 377.03 Mbit/s

95th percentile per-packet one-way delay: 1.130 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 65.53 Mbit/s

95th percentile per-packet one-way delay: 1.007 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 464.48 Mbit/s

95th percentile per-packet one-way delay: 1.139 ms

Loss rate: 0.02%

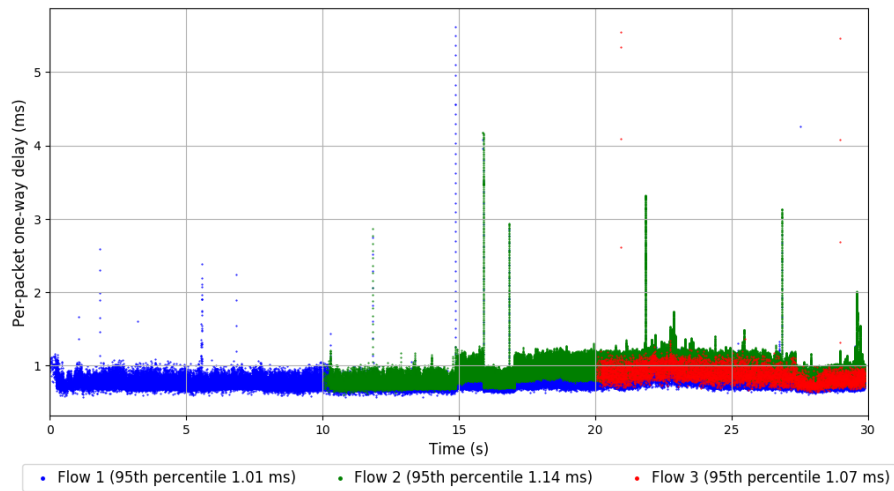
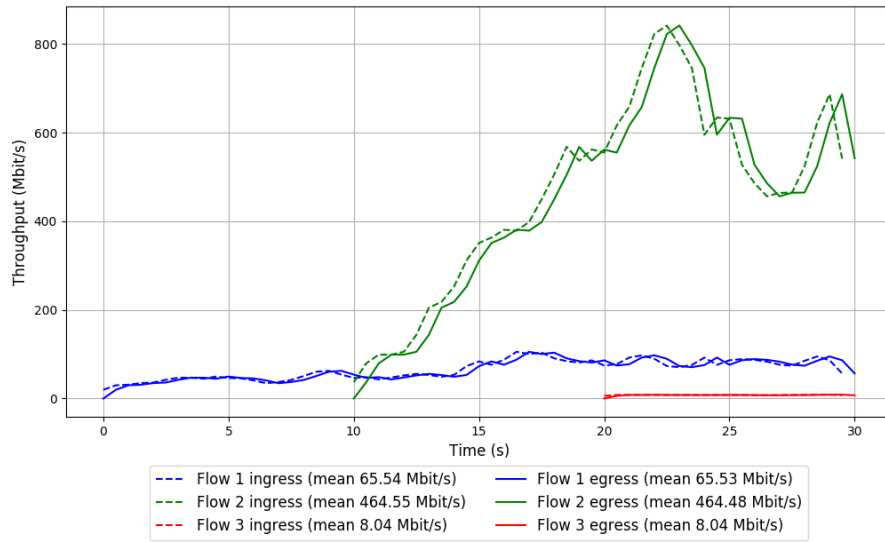
-- Flow 3:

Average throughput: 8.04 Mbit/s

95th percentile per-packet one-way delay: 1.066 ms

Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-04-24 02:16:24  
End at: 2019-04-24 02:16:54  
Local clock offset: 0.268 ms  
Remote clock offset: -1.619 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 526.09 Mbit/s  
95th percentile per-packet one-way delay: 1.530 ms  
Loss rate: 0.08%

-- Flow 1:

Average throughput: 45.33 Mbit/s  
95th percentile per-packet one-way delay: 1.226 ms  
Loss rate: 0.04%

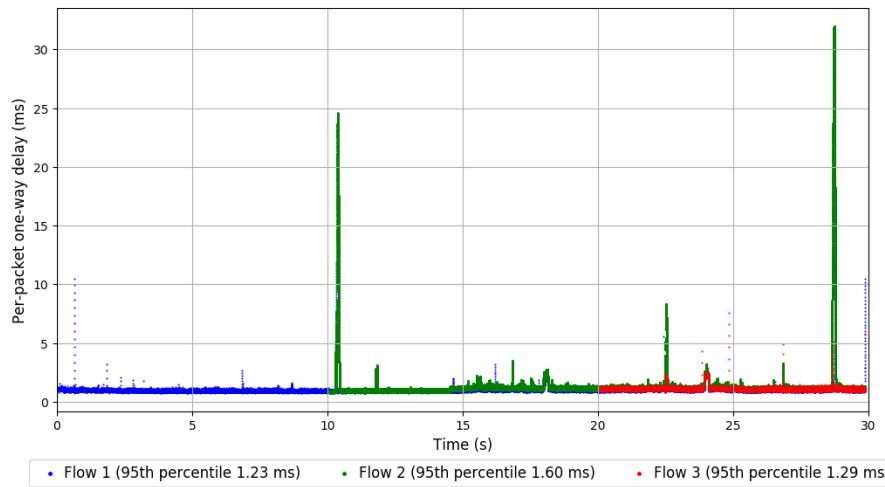
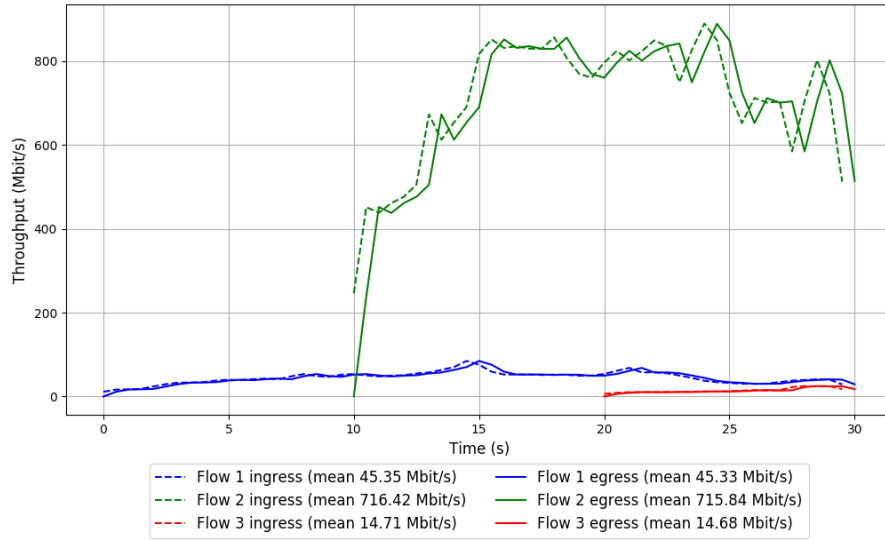
-- Flow 2:

Average throughput: 715.84 Mbit/s  
95th percentile per-packet one-way delay: 1.597 ms  
Loss rate: 0.08%

-- Flow 3:

Average throughput: 14.68 Mbit/s  
95th percentile per-packet one-way delay: 1.291 ms  
Loss rate: 0.12%

Run 5: Report of PCC-Allegro — Data Link





Run 1: Statistics of PCC-Expr

Start at: 2019-04-24 00:22:09

End at: 2019-04-24 00:22:39

Local clock offset: 2.0 ms

Remote clock offset: 2.118 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.09 Mbit/s

95th percentile per-packet one-way delay: 1.322 ms

Loss rate: 97.82%

-- Flow 1:

Average throughput: 8.15 Mbit/s

95th percentile per-packet one-way delay: 1.313 ms

Loss rate: 95.99%

-- Flow 2:

Average throughput: 5.04 Mbit/s

95th percentile per-packet one-way delay: 1.337 ms

Loss rate: 98.36%

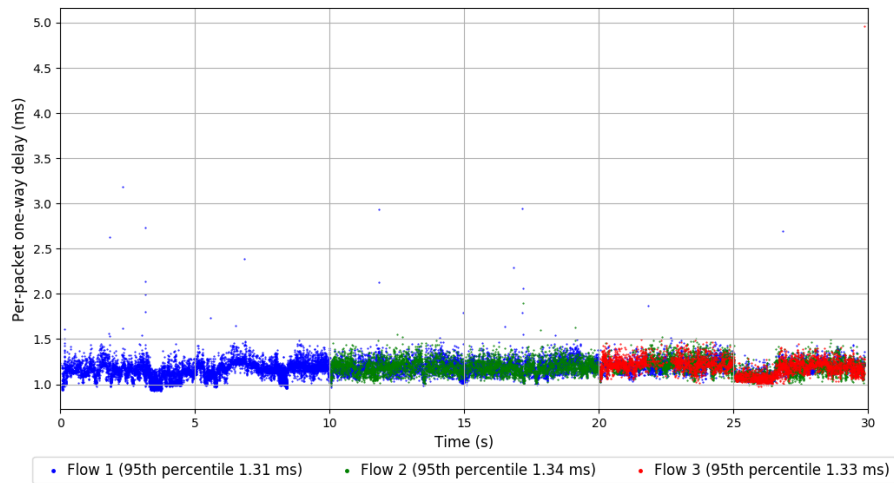
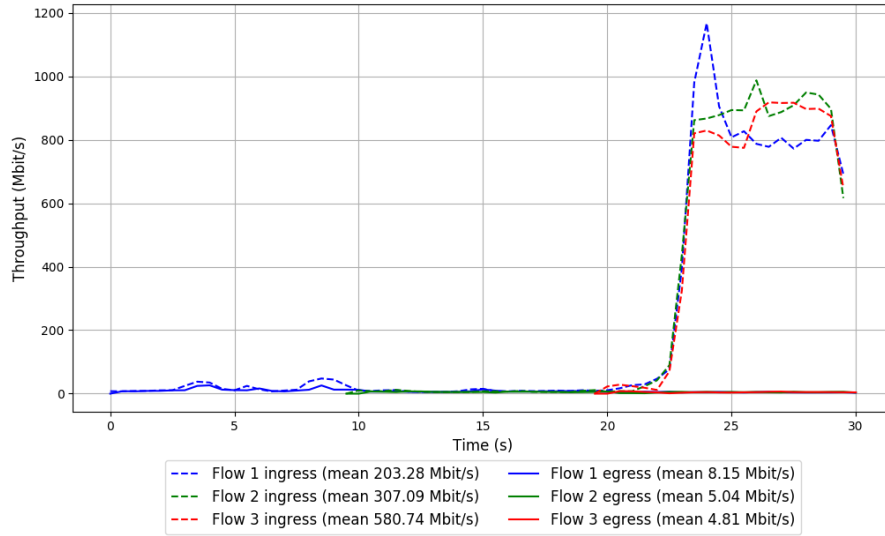
-- Flow 3:

Average throughput: 4.81 Mbit/s

95th percentile per-packet one-way delay: 1.334 ms

Loss rate: 99.17%

# Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-04-24 00:51:59

End at: 2019-04-24 00:52:29

Local clock offset: 2.111 ms

Remote clock offset: 2.059 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.05 Mbit/s

95th percentile per-packet one-way delay: 1.022 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 1.058 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 5.21 Mbit/s

95th percentile per-packet one-way delay: 0.974 ms

Loss rate: 0.04%

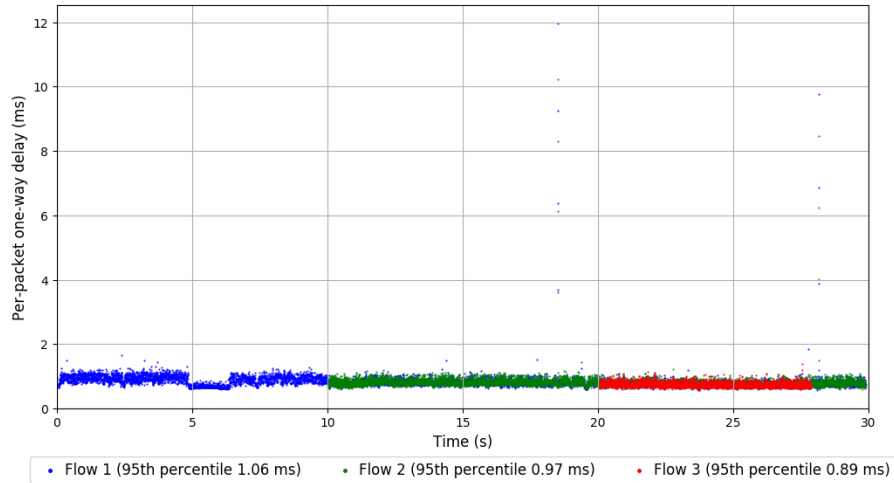
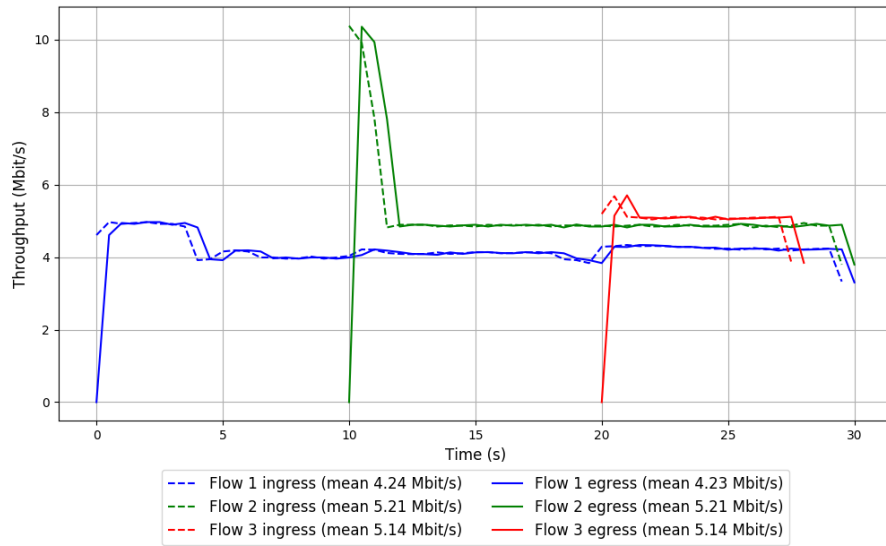
-- Flow 3:

Average throughput: 5.14 Mbit/s

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

Loss rate: 0.09%

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



Run 3: Statistics of PCC-Expr

Start at: 2019-04-24 01:21:57

End at: 2019-04-24 01:22:27

Local clock offset: 0.21 ms

Remote clock offset: 1.878 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.52 Mbit/s

95th percentile per-packet one-way delay: 1.161 ms

Loss rate: 14.01%

-- Flow 1:

Average throughput: 6.49 Mbit/s

95th percentile per-packet one-way delay: 1.171 ms

Loss rate: 16.41%

-- Flow 2:

Average throughput: 7.70 Mbit/s

95th percentile per-packet one-way delay: 1.107 ms

Loss rate: 14.52%

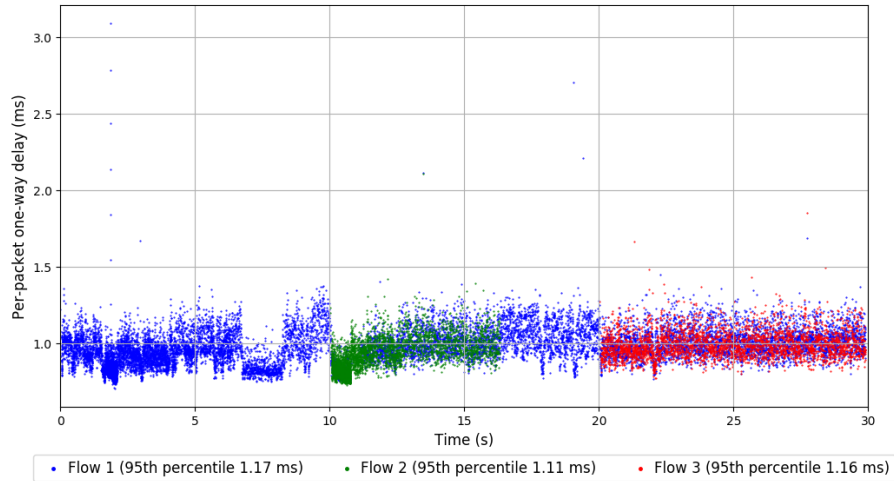
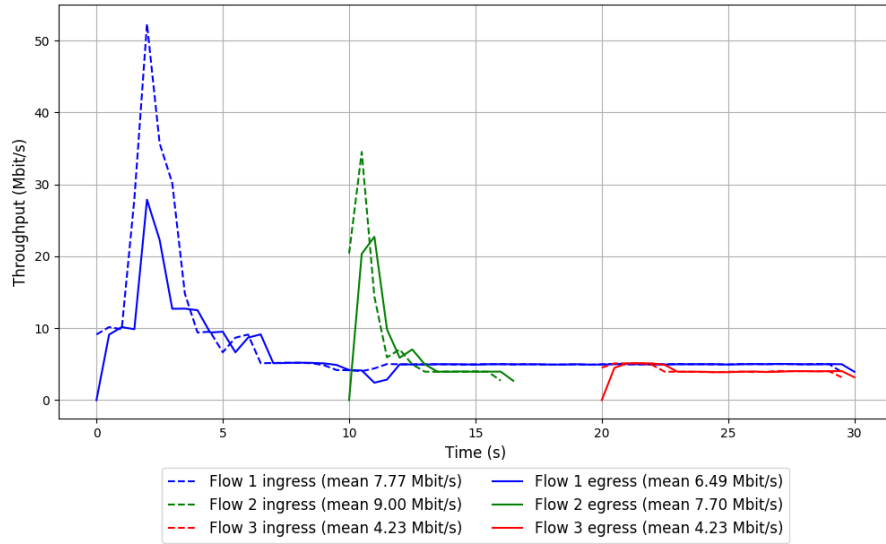
-- Flow 3:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 1.155 ms

Loss rate: 0.03%

### Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-04-24 01:51:53

End at: 2019-04-24 01:52:23

Local clock offset: 0.228 ms

Remote clock offset: 1.826 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.18 Mbit/s

95th percentile per-packet one-way delay: 1.170 ms

Loss rate: 93.22%

-- Flow 1:

Average throughput: 5.45 Mbit/s

95th percentile per-packet one-way delay: 1.200 ms

Loss rate: 94.59%

-- Flow 2:

Average throughput: 7.08 Mbit/s

95th percentile per-packet one-way delay: 1.134 ms

Loss rate: 45.42%

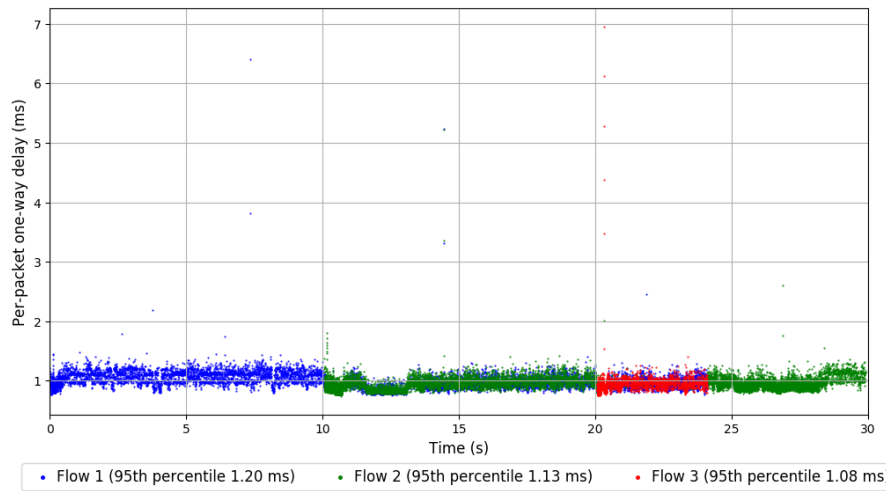
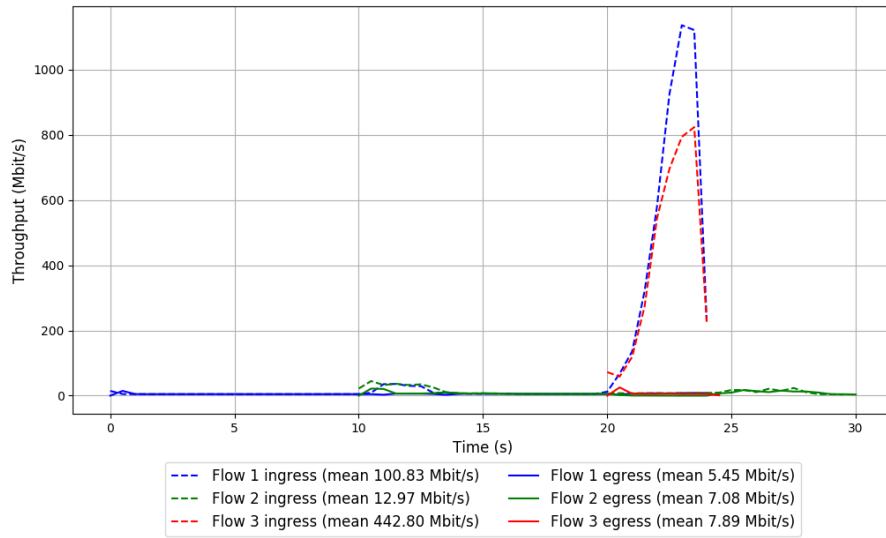
-- Flow 3:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 1.076 ms

Loss rate: 98.22%

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





Run 5: Statistics of PCC-Expr

Start at: 2019-04-24 02:21:55  
End at: 2019-04-24 02:22:25  
Local clock offset: 0.389 ms  
Remote clock offset: -1.953 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.46 Mbit/s  
95th percentile per-packet one-way delay: 1.155 ms  
Loss rate: 85.54%

-- Flow 1:

Average throughput: 4.87 Mbit/s  
95th percentile per-packet one-way delay: 1.181 ms  
Loss rate: 79.80%

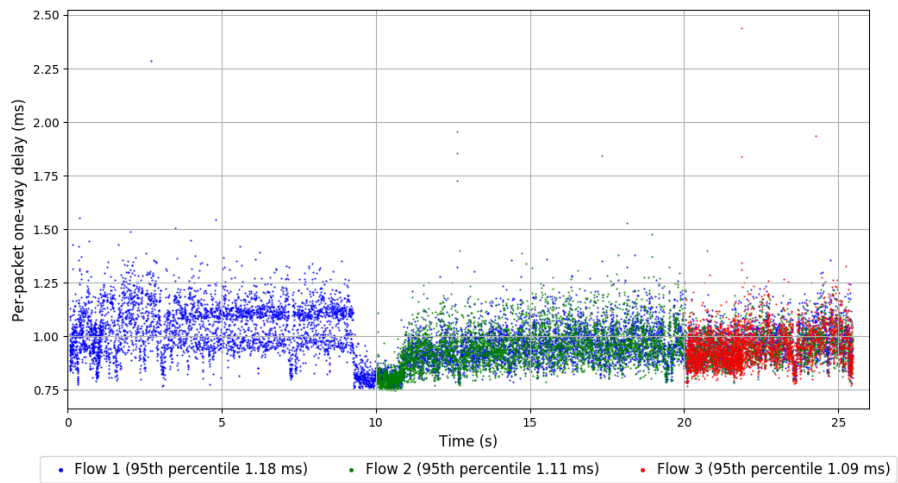
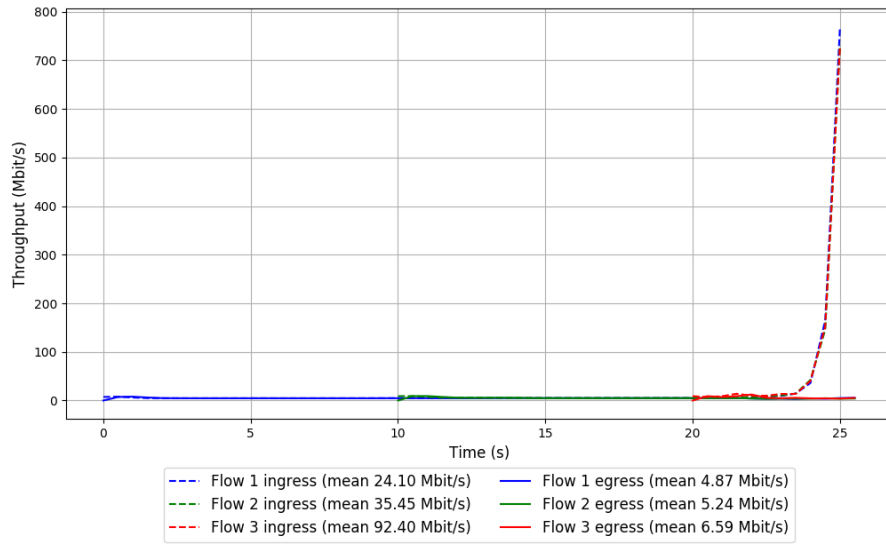
-- Flow 2:

Average throughput: 5.24 Mbit/s  
95th percentile per-packet one-way delay: 1.107 ms  
Loss rate: 85.22%

-- Flow 3:

Average throughput: 6.59 Mbit/s  
95th percentile per-packet one-way delay: 1.089 ms  
Loss rate: 92.87%

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



Run 1: Statistics of QUIC Cubic

Start at: 2019-04-24 00:15:29

End at: 2019-04-24 00:15:59

Local clock offset: -0.109 ms

Remote clock offset: 1.965 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 117.99 Mbit/s

95th percentile per-packet one-way delay: 2.524 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 58.55 Mbit/s

95th percentile per-packet one-way delay: 1.292 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 61.04 Mbit/s

95th percentile per-packet one-way delay: 3.226 ms

Loss rate: 0.04%

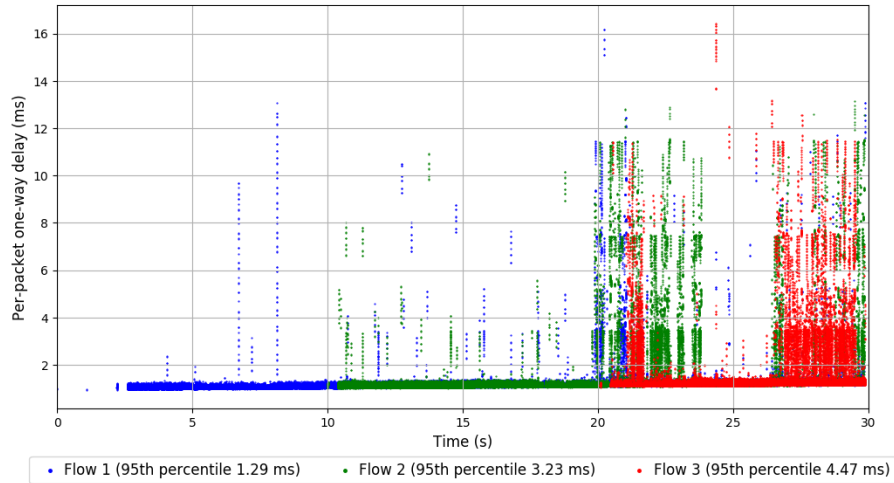
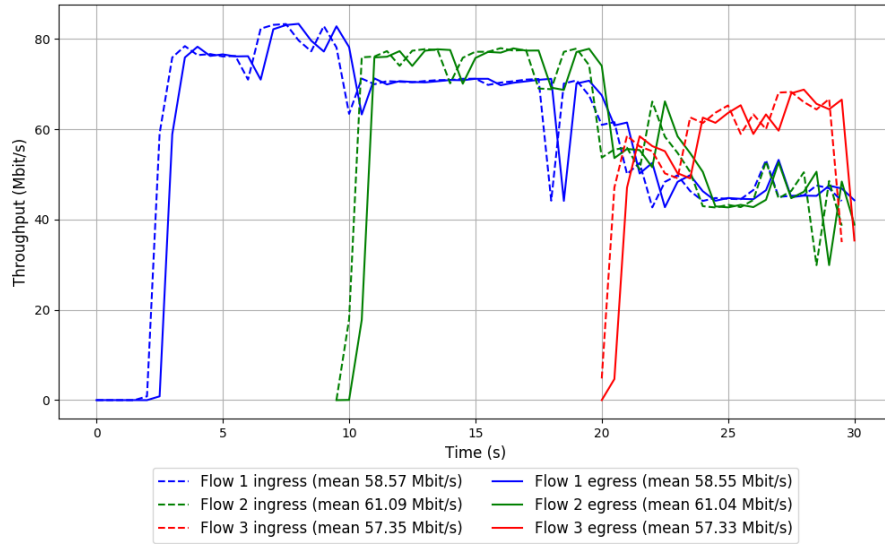
-- Flow 3:

Average throughput: 57.33 Mbit/s

95th percentile per-packet one-way delay: 4.468 ms

Loss rate: 0.03%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-04-24 00:45:12

End at: 2019-04-24 00:45:42

Local clock offset: 4.403 ms

Remote clock offset: 2.511 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 122.99 Mbit/s

95th percentile per-packet one-way delay: 0.681 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 71.14 Mbit/s

95th percentile per-packet one-way delay: 0.682 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 54.80 Mbit/s

95th percentile per-packet one-way delay: 0.659 ms

Loss rate: 0.01%

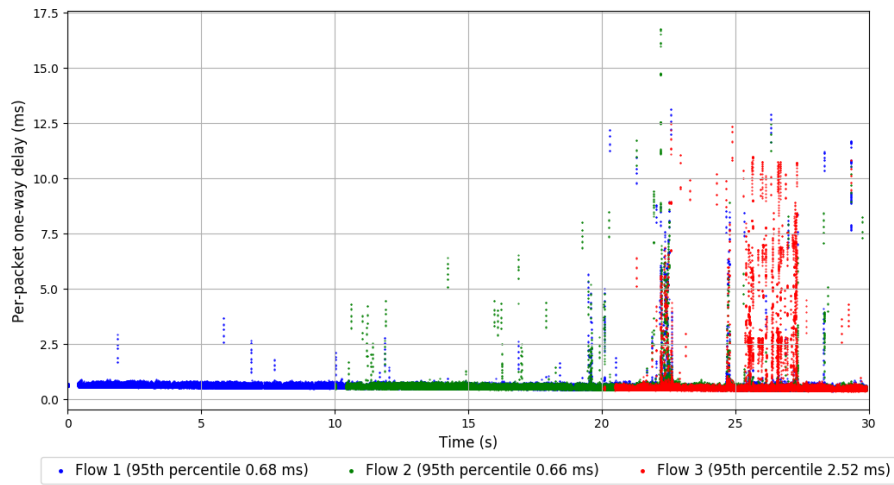
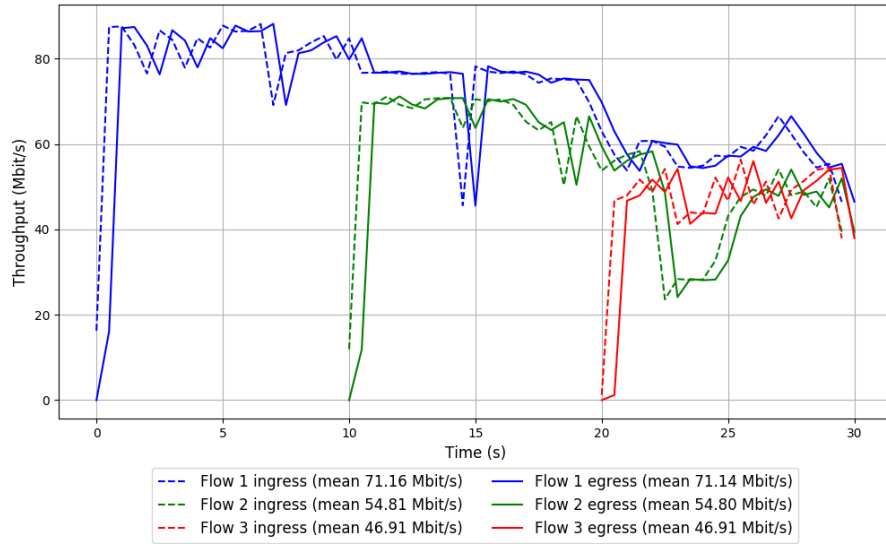
-- Flow 3:

Average throughput: 46.91 Mbit/s

95th percentile per-packet one-way delay: 2.515 ms

Loss rate: 0.01%

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



Run 3: Statistics of QUIC Cubic

Start at: 2019-04-24 01:14:59

End at: 2019-04-24 01:15:29

Local clock offset: 0.053 ms

Remote clock offset: 1.848 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 125.54 Mbit/s

95th percentile per-packet one-way delay: 0.935 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 67.97 Mbit/s

95th percentile per-packet one-way delay: 0.919 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 64.54 Mbit/s

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

Loss rate: 0.00%

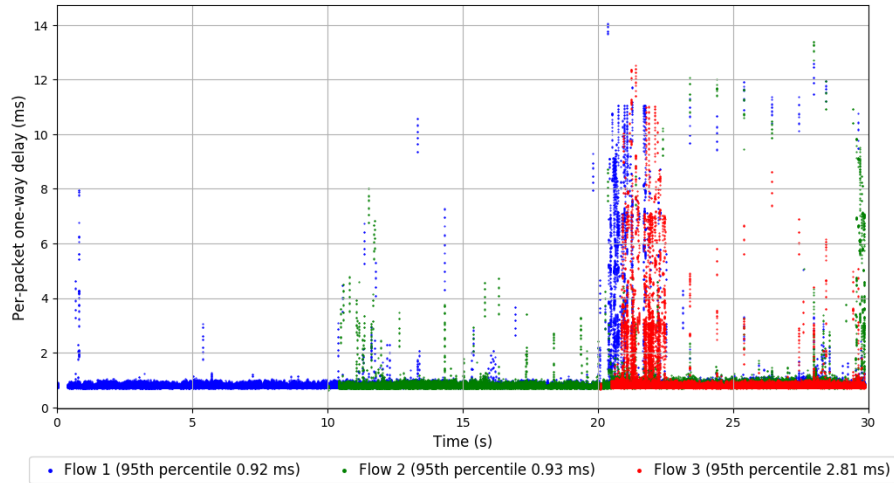
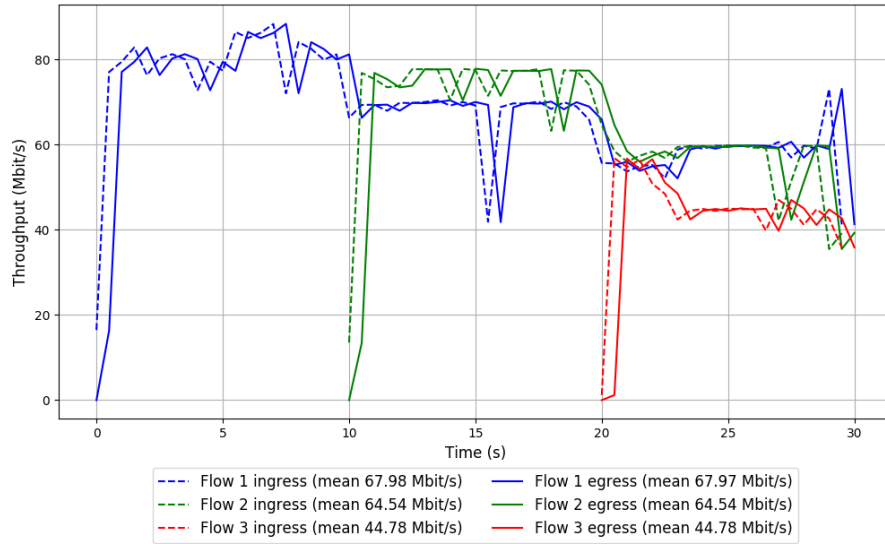
-- Flow 3:

Average throughput: 44.78 Mbit/s

95th percentile per-packet one-way delay: 2.809 ms

Loss rate: 0.00%

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





Run 4: Statistics of QUIC Cubic

Start at: 2019-04-24 01:45:02

End at: 2019-04-24 01:45:32

Local clock offset: 0.047 ms

Remote clock offset: 1.767 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 126.79 Mbit/s

95th percentile per-packet one-way delay: 1.070 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 69.88 Mbit/s

95th percentile per-packet one-way delay: 0.958 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 59.30 Mbit/s

95th percentile per-packet one-way delay: 1.858 ms

Loss rate: 0.02%

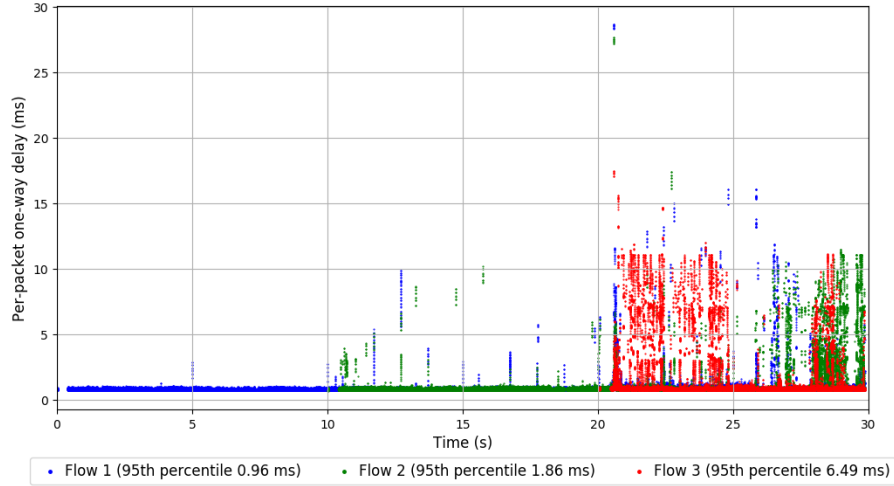
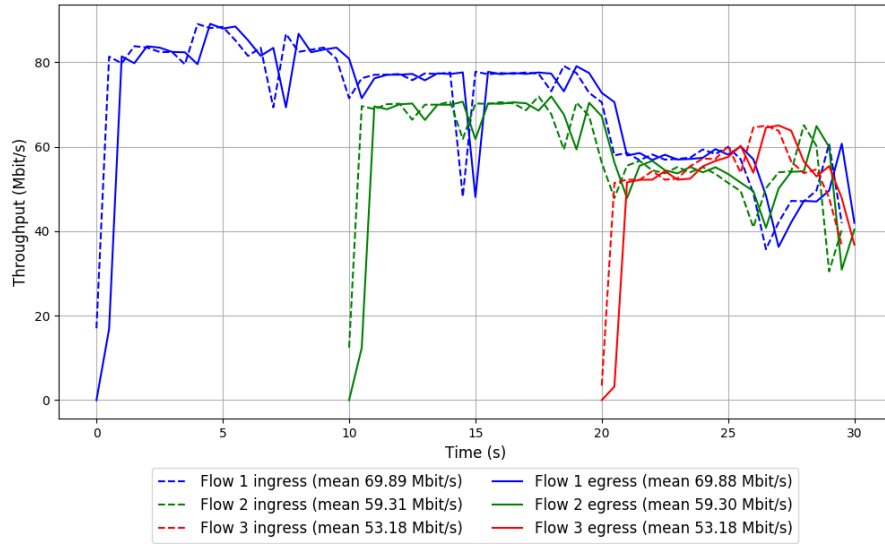
-- Flow 3:

Average throughput: 53.18 Mbit/s

95th percentile per-packet one-way delay: 6.491 ms

Loss rate: 0.00%

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



Run 5: Statistics of QUIC Cubic

Start at: 2019-04-24 02:15:06

End at: 2019-04-24 02:15:36

Local clock offset: 0.251 ms

Remote clock offset: -1.597 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 122.97 Mbit/s

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

Loss rate: 0.01%

-- Flow 1:

Average throughput: 62.08 Mbit/s

95th percentile per-packet one-way delay: 0.941 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 64.68 Mbit/s

95th percentile per-packet one-way delay: 0.981 ms

Loss rate: 0.00%

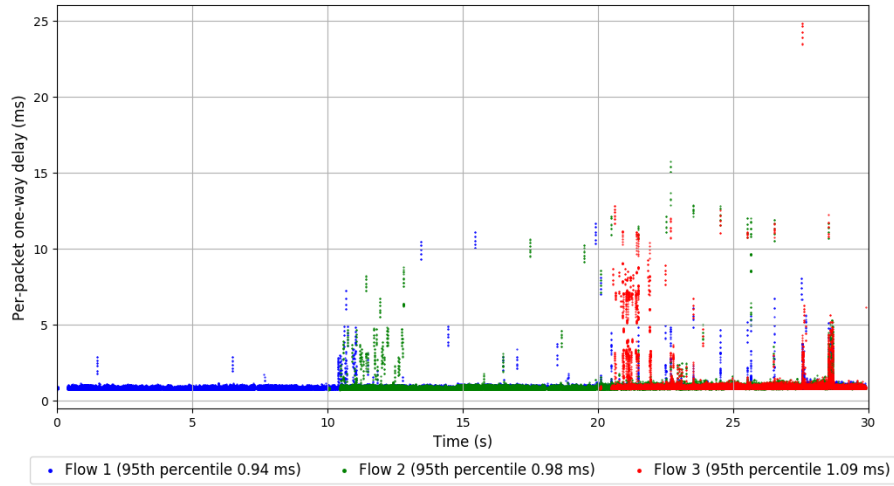
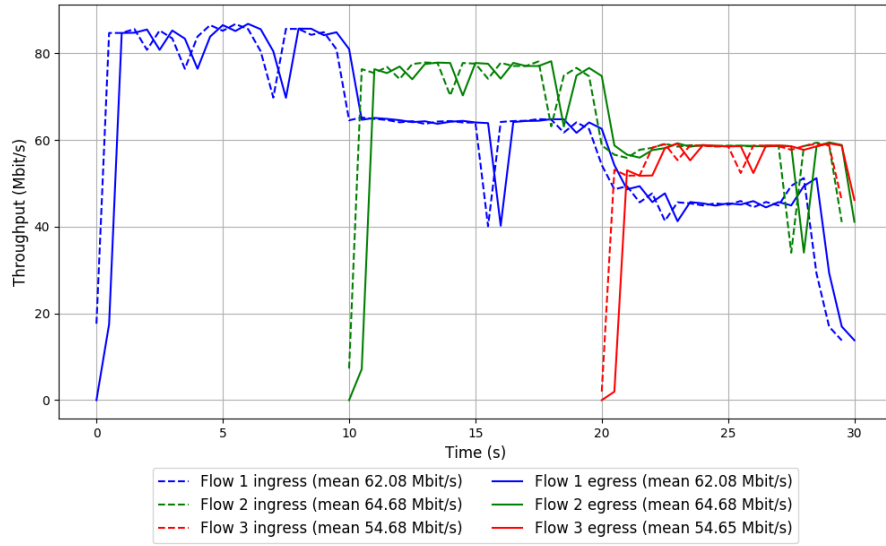
-- Flow 3:

Average throughput: 54.65 Mbit/s

95th percentile per-packet one-way delay: 1.093 ms

Loss rate: 0.01%

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



Run 1: Statistics of SCReAM

Start at: 2019-04-24 00:36:46

End at: 2019-04-24 00:37:16

Local clock offset: 3.882 ms

Remote clock offset: 2.347 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 1.285 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 1.283 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.280 ms

Loss rate: 0.00%

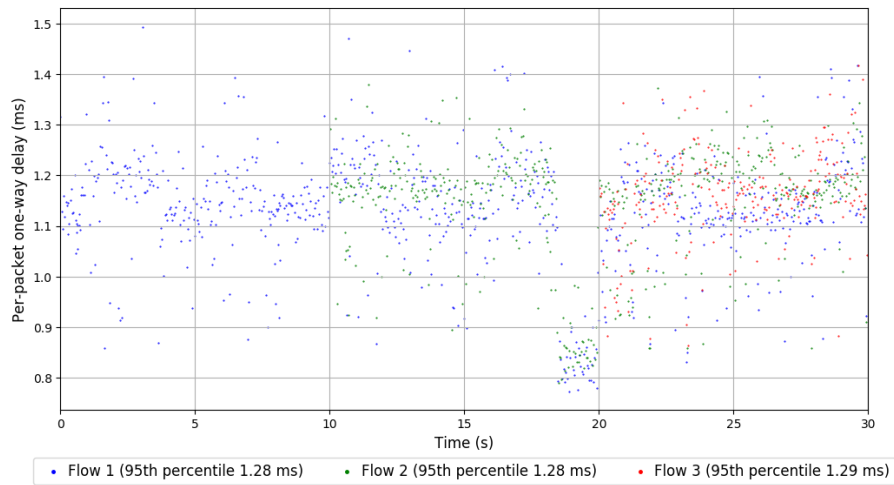
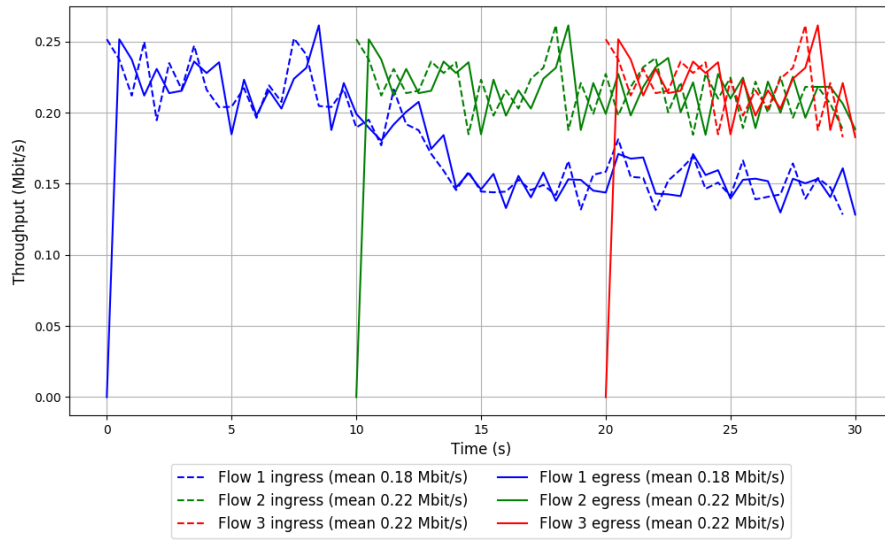
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.295 ms

Loss rate: 0.00%

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



Run 2: Statistics of SCReAM

Start at: 2019-04-24 01:06:34

End at: 2019-04-24 01:07:04

Local clock offset: 0.451 ms

Remote clock offset: 1.888 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.158 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.161 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.154 ms

Loss rate: 0.00%

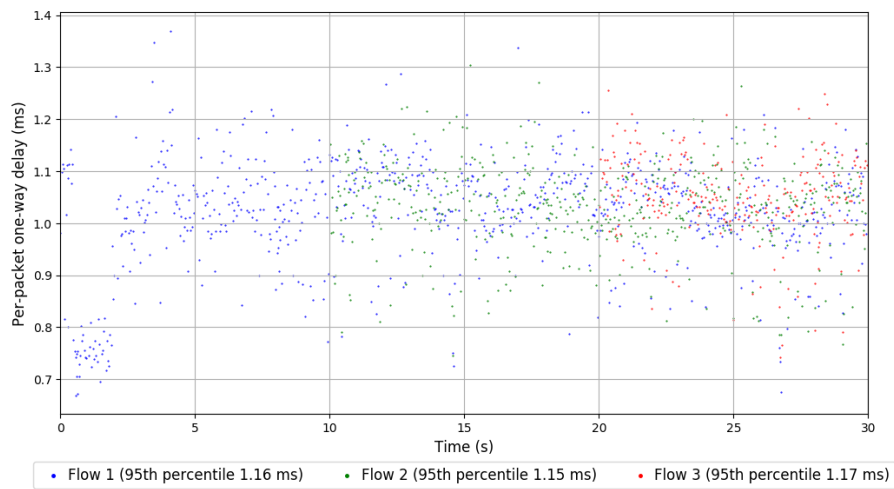
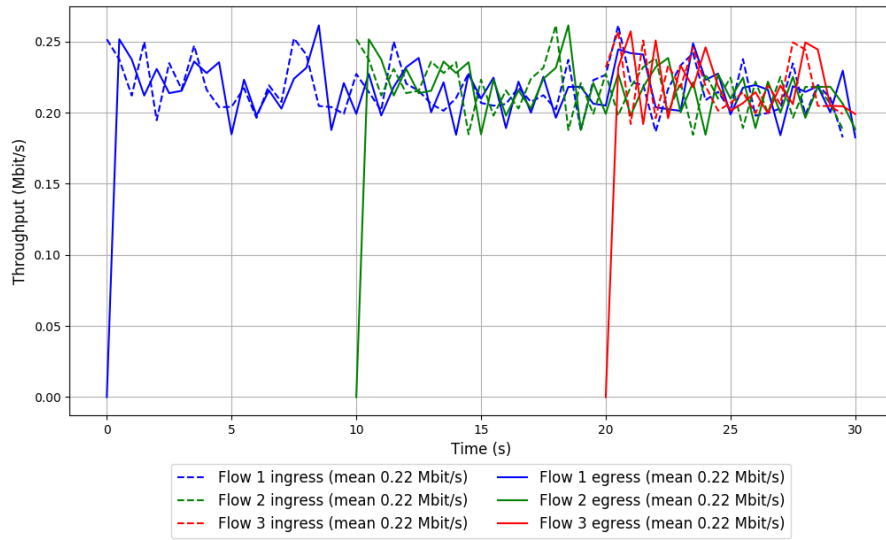
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.165 ms

Loss rate: 0.00%

## Run 2: Report of SReAM — Data Link





Run 3: Statistics of SCReAM

Start at: 2019-04-24 01:36:33

End at: 2019-04-24 01:37:03

Local clock offset: 0.136 ms

Remote clock offset: 1.82 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.309 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.321 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.266 ms

Loss rate: 0.00%

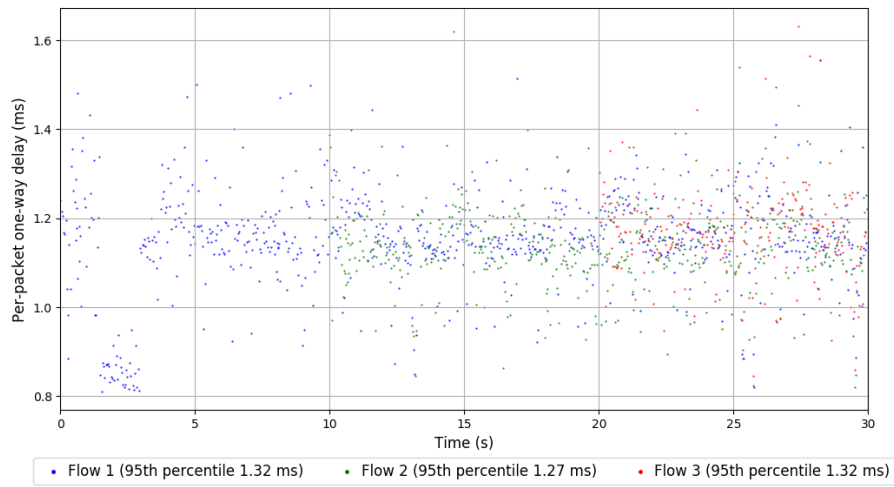
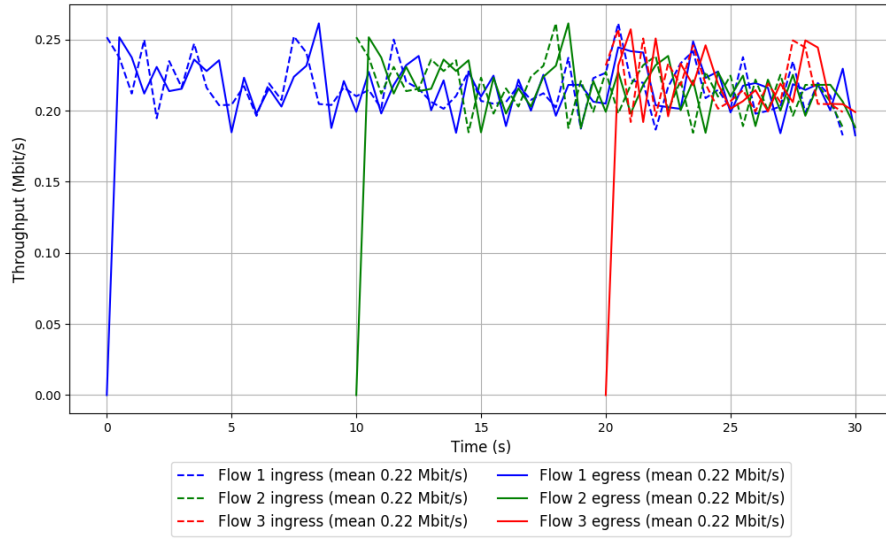
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.325 ms

Loss rate: 0.00%

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



Run 4: Statistics of SCReAM

Start at: 2019-04-24 02:06:40  
End at: 2019-04-24 02:07:10  
Local clock offset: 0.263 ms  
Remote clock offset: -0.898 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.344 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.326 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.384 ms

Loss rate: 0.00%

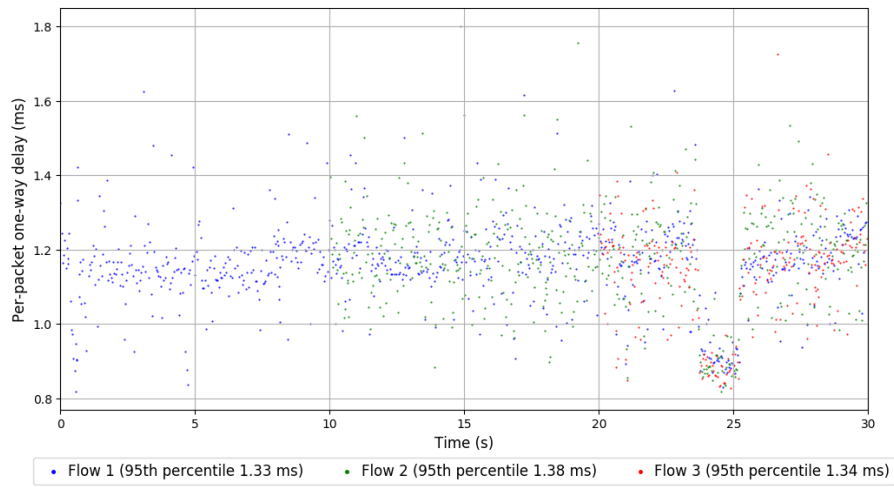
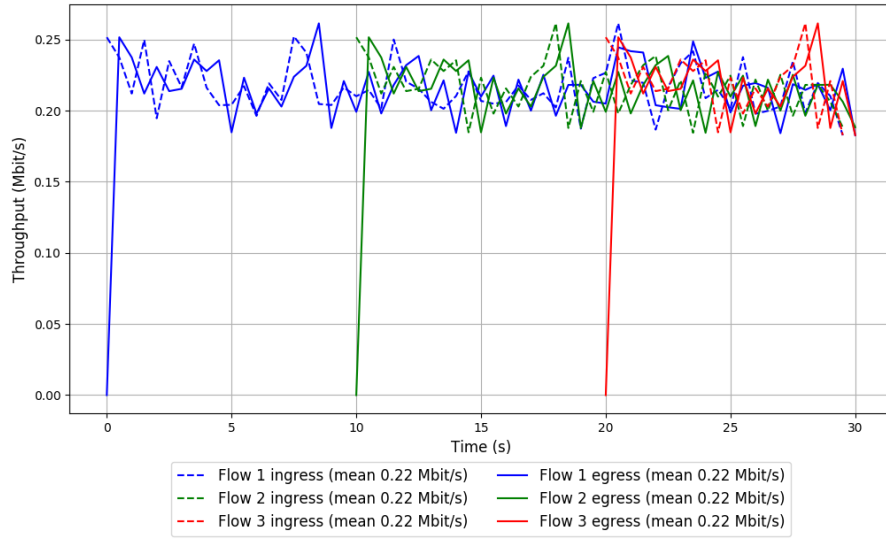
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.338 ms

Loss rate: 0.00%

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



Run 5: Statistics of SCReAM

Start at: 2019-04-24 02:36:27

End at: 2019-04-24 02:36:57

Local clock offset: 0.437 ms

Remote clock offset: 1.311 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.293 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.312 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.236 ms

Loss rate: 0.00%

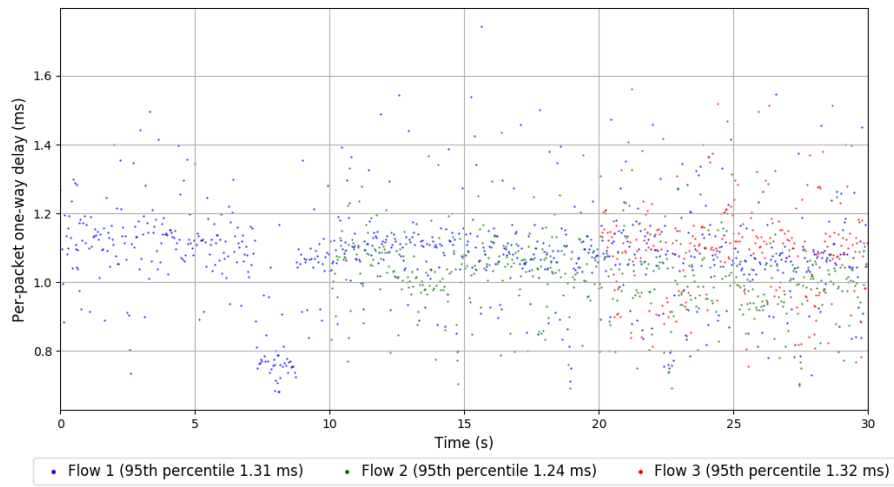
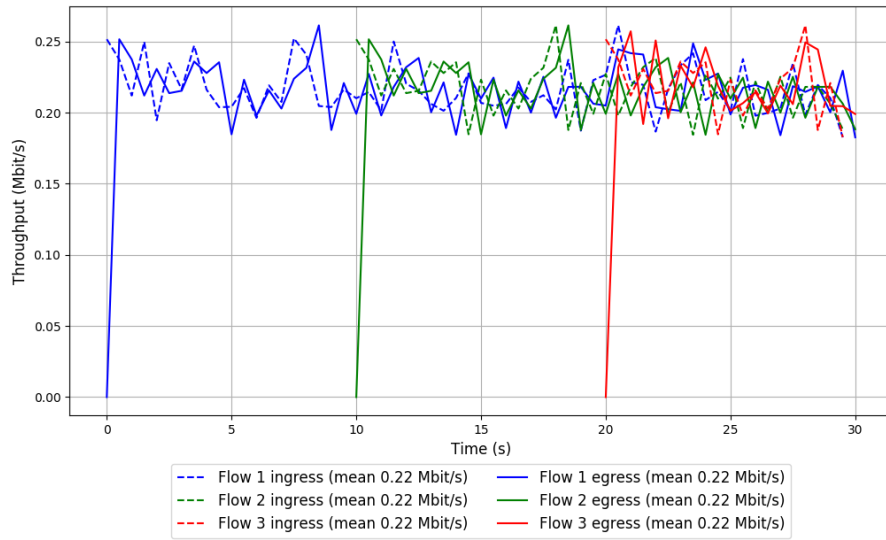
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.323 ms

Loss rate: 0.00%

### Run 5: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-04-24 00:23:31

End at: 2019-04-24 00:24:01

Local clock offset: 2.265 ms

Remote clock offset: 2.114 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.68 Mbit/s

95th percentile per-packet one-way delay: 4.387 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 48.91 Mbit/s

95th percentile per-packet one-way delay: 4.473 ms

Loss rate: 1.31%

-- Flow 2:

Average throughput: 49.00 Mbit/s

95th percentile per-packet one-way delay: 4.329 ms

Loss rate: 1.12%

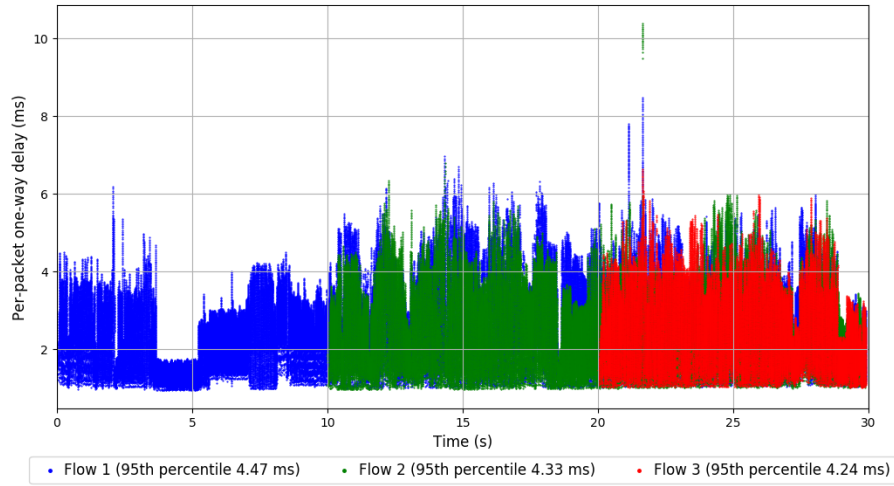
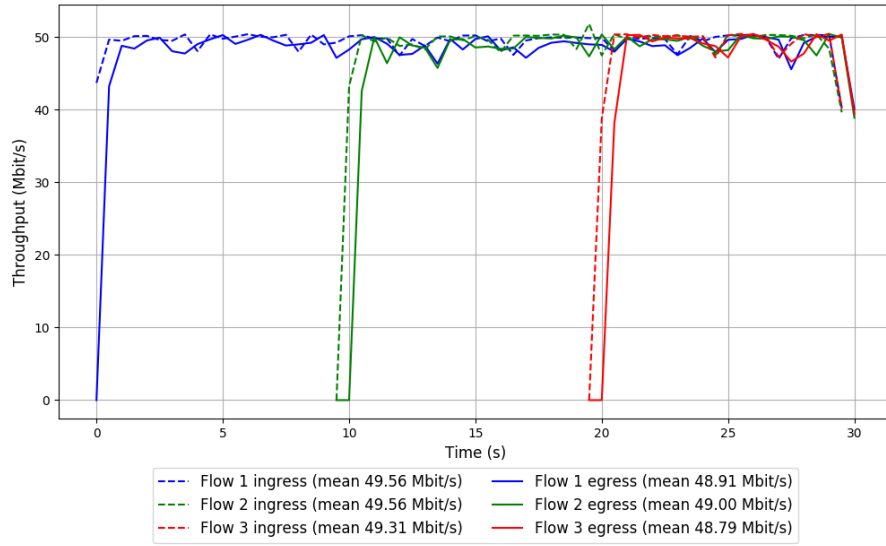
-- Flow 3:

Average throughput: 48.79 Mbit/s

95th percentile per-packet one-way delay: 4.236 ms

Loss rate: 1.03%

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





Run 2: Statistics of Sprout

Start at: 2019-04-24 00:53:14

End at: 2019-04-24 00:53:44

Local clock offset: 1.878 ms

Remote clock offset: 2.079 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.00 Mbit/s

95th percentile per-packet one-way delay: 3.446 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 49.82 Mbit/s

95th percentile per-packet one-way delay: 3.368 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 49.48 Mbit/s

95th percentile per-packet one-way delay: 3.443 ms

Loss rate: 0.59%

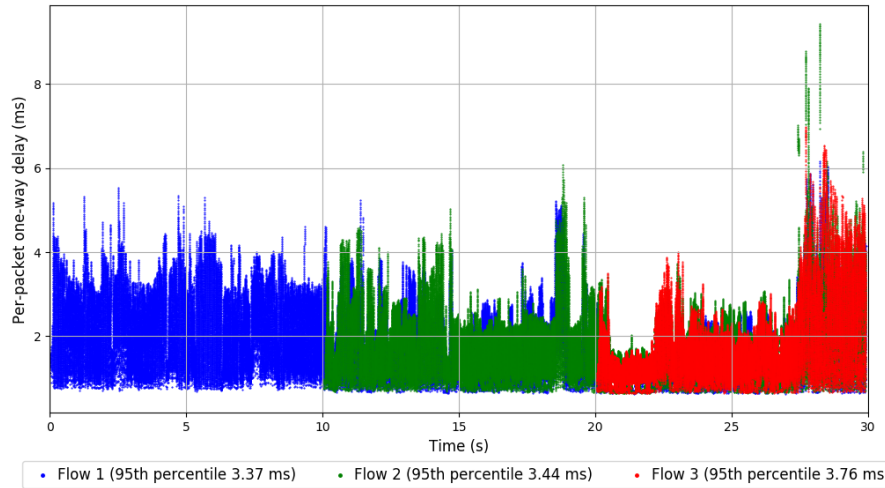
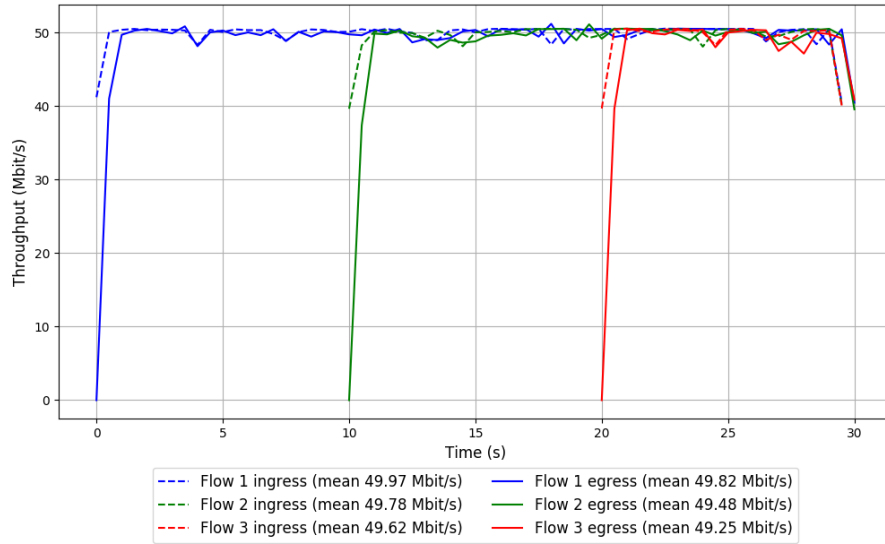
-- Flow 3:

Average throughput: 49.25 Mbit/s

95th percentile per-packet one-way delay: 3.759 ms

Loss rate: 0.72%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2019-04-24 01:23:12

End at: 2019-04-24 01:23:42

Local clock offset: 0.199 ms

Remote clock offset: 1.885 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.29 Mbit/s

95th percentile per-packet one-way delay: 4.446 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 49.78 Mbit/s

95th percentile per-packet one-way delay: 4.540 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 49.74 Mbit/s

95th percentile per-packet one-way delay: 4.329 ms

Loss rate: 0.36%

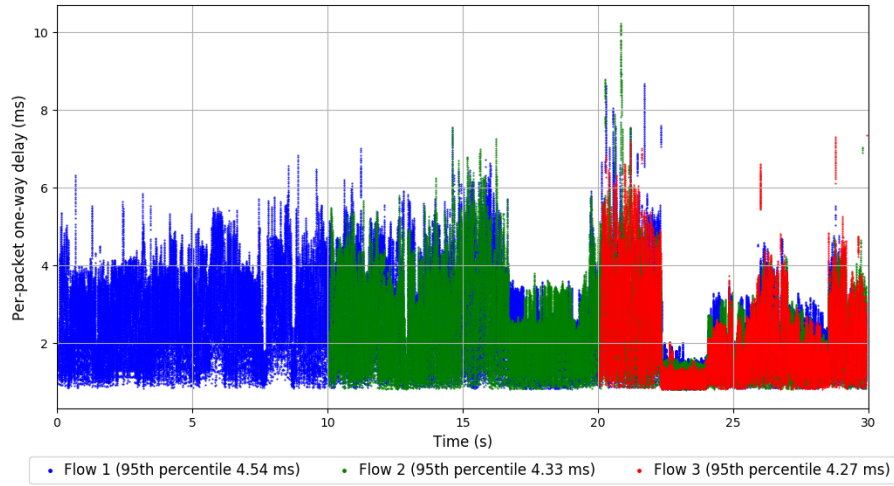
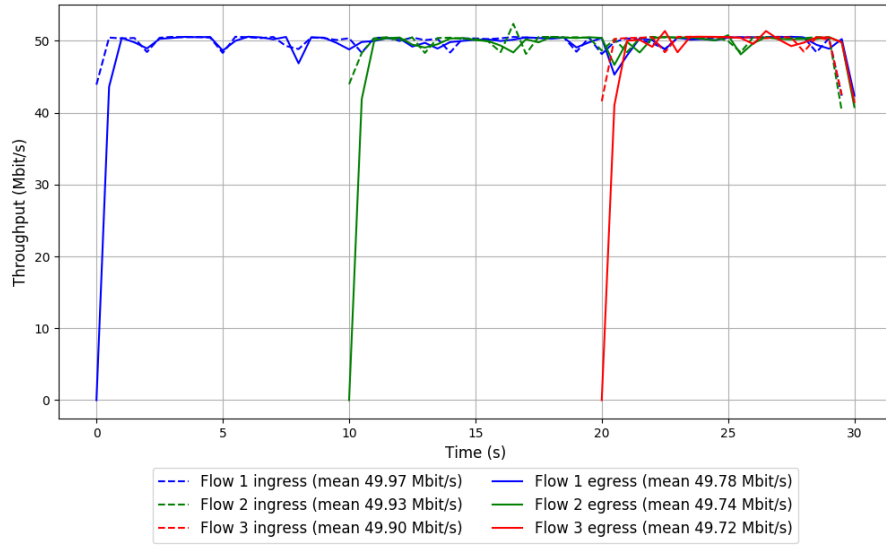
-- Flow 3:

Average throughput: 49.72 Mbit/s

95th percentile per-packet one-way delay: 4.268 ms

Loss rate: 0.31%

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



Run 4: Statistics of Sprout

Start at: 2019-04-24 01:53:09

End at: 2019-04-24 01:53:39

Local clock offset: 0.261 ms

Remote clock offset: 1.834 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.59 Mbit/s

95th percentile per-packet one-way delay: 4.438 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 50.03 Mbit/s

95th percentile per-packet one-way delay: 4.465 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 49.88 Mbit/s

95th percentile per-packet one-way delay: 4.386 ms

Loss rate: 0.04%

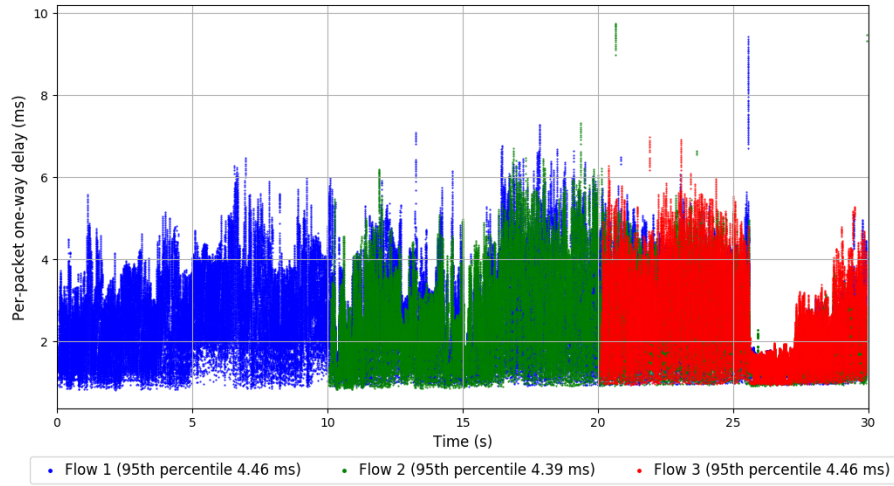
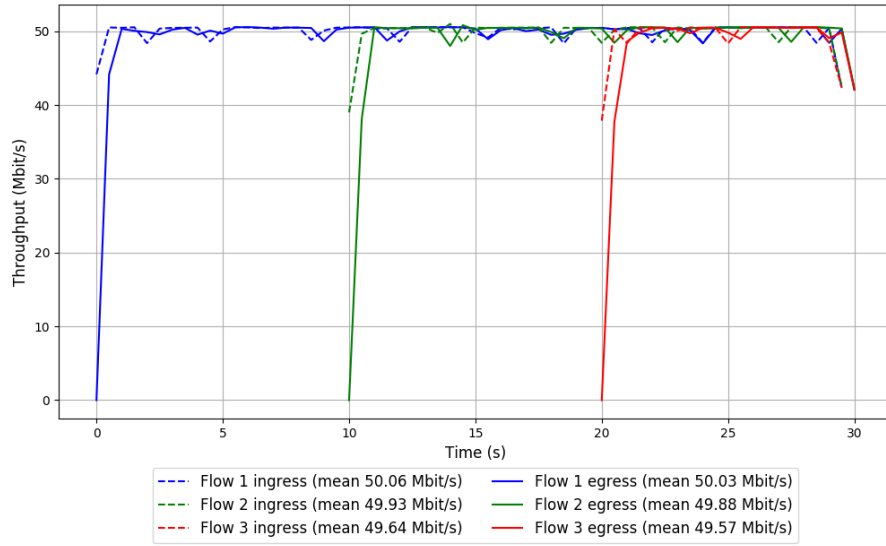
-- Flow 3:

Average throughput: 49.57 Mbit/s

95th percentile per-packet one-way delay: 4.458 ms

Loss rate: 0.12%

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



Run 5: Statistics of Sprout

Start at: 2019-04-24 02:23:10  
End at: 2019-04-24 02:23:40  
Local clock offset: 0.418 ms  
Remote clock offset: -2.033 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.34 Mbit/s  
95th percentile per-packet one-way delay: 4.789 ms  
Loss rate: 0.10%

-- Flow 1:

Average throughput: 49.90 Mbit/s  
95th percentile per-packet one-way delay: 4.763 ms  
Loss rate: 0.11%

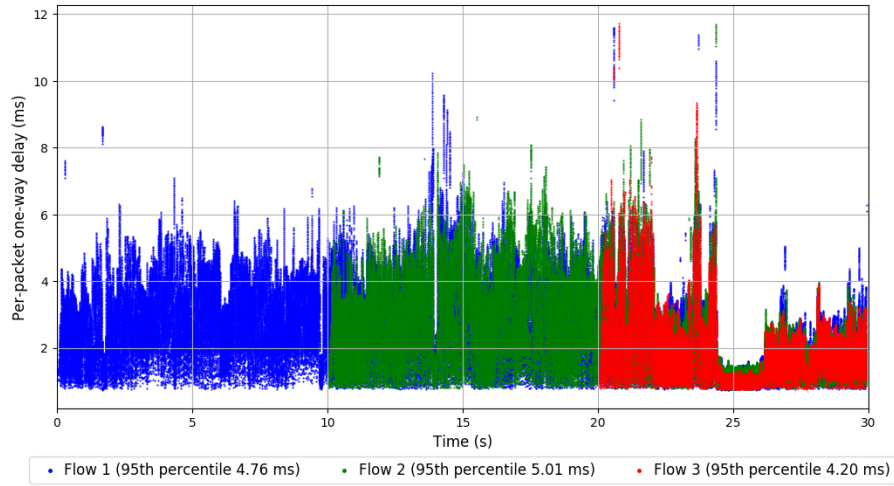
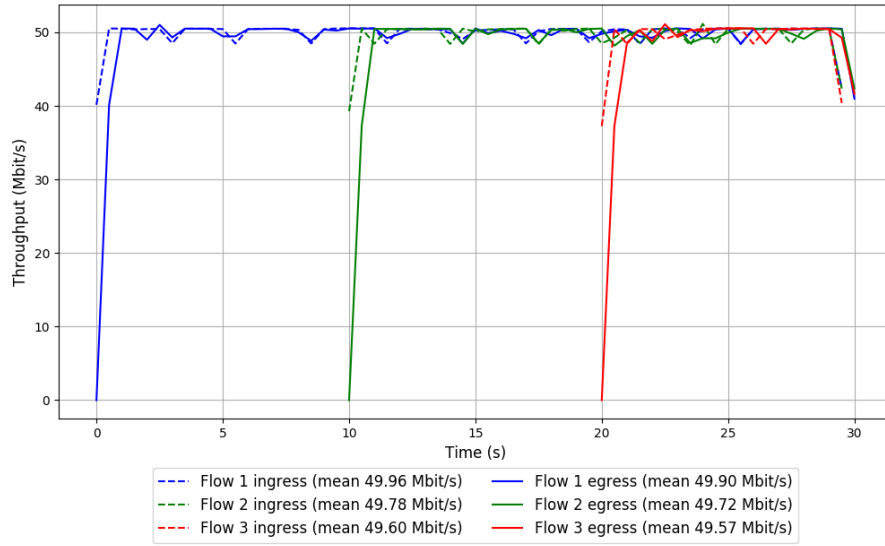
-- Flow 2:

Average throughput: 49.72 Mbit/s  
95th percentile per-packet one-way delay: 5.006 ms  
Loss rate: 0.11%

-- Flow 3:

Average throughput: 49.57 Mbit/s  
95th percentile per-packet one-way delay: 4.198 ms  
Loss rate: 0.02%

### Run 5: Report of Sprout — Data Link





Run 1: Statistics of TaoVA-100x

Start at: 2019-04-24 00:19:30

End at: 2019-04-24 00:20:00

Local clock offset: 1.301 ms

Remote clock offset: 2.091 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.42 Mbit/s

95th percentile per-packet one-way delay: 1.407 ms

Loss rate: 83.40%

-- Flow 1:

Average throughput: 4.58 Mbit/s

95th percentile per-packet one-way delay: 1.411 ms

Loss rate: 85.20%

-- Flow 2:

Average throughput: 9.65 Mbit/s

95th percentile per-packet one-way delay: 1.404 ms

Loss rate: 74.28%

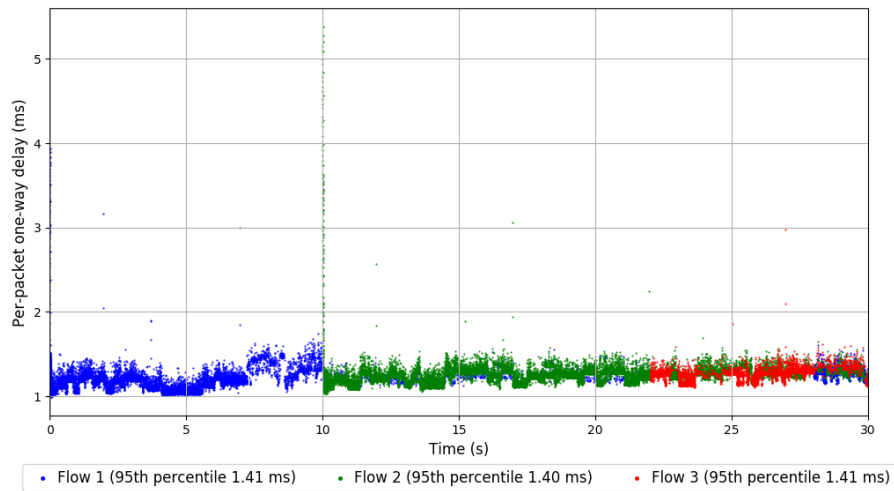
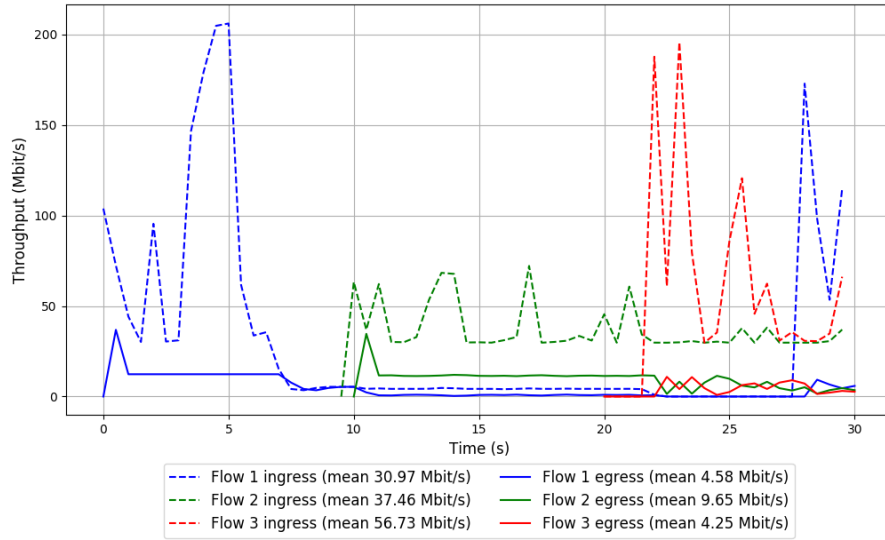
-- Flow 3:

Average throughput: 4.25 Mbit/s

95th percentile per-packet one-way delay: 1.411 ms

Loss rate: 92.51%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-04-24 00:49:14

End at: 2019-04-24 00:49:44

Local clock offset: 2.853 ms

Remote clock offset: 2.268 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.02 Mbit/s

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

Loss rate: 77.67%

-- Flow 1:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 1.046 ms

Loss rate: 60.73%

-- Flow 2:

Average throughput: 4.31 Mbit/s

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

Loss rate: 73.03%

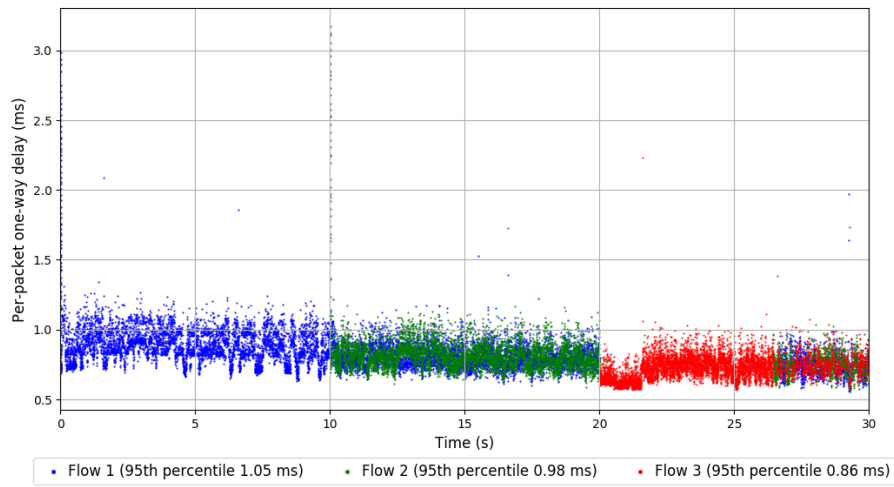
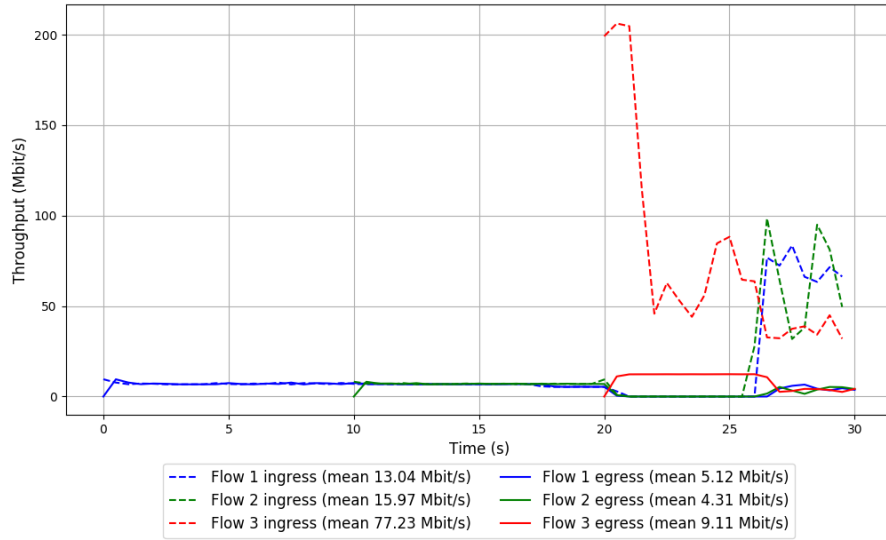
-- Flow 3:

Average throughput: 9.11 Mbit/s

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

Loss rate: 88.20%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-04-24 01:19:12

End at: 2019-04-24 01:19:42

Local clock offset: 0.161 ms

Remote clock offset: 1.891 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 1.029 ms

Loss rate: 84.26%

-- Flow 1:

Average throughput: 9.42 Mbit/s

95th percentile per-packet one-way delay: 1.036 ms

Loss rate: 77.64%

-- Flow 2:

Average throughput: 4.97 Mbit/s

95th percentile per-packet one-way delay: 1.012 ms

Loss rate: 91.45%

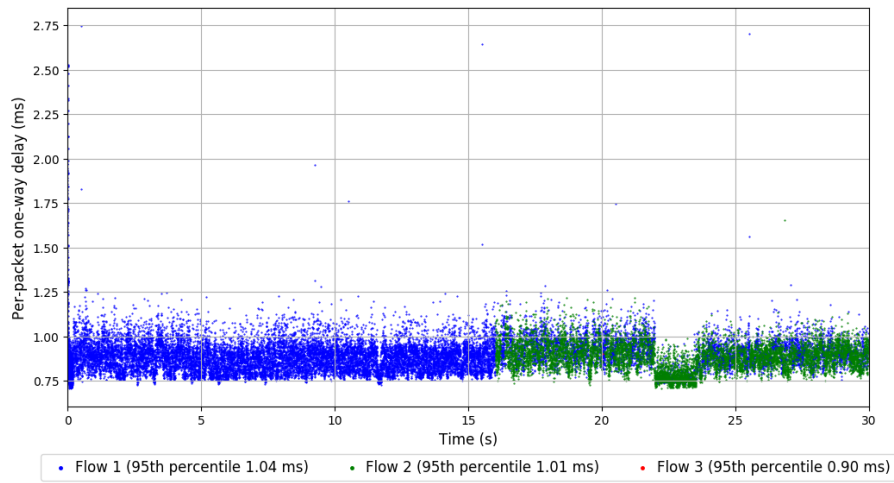
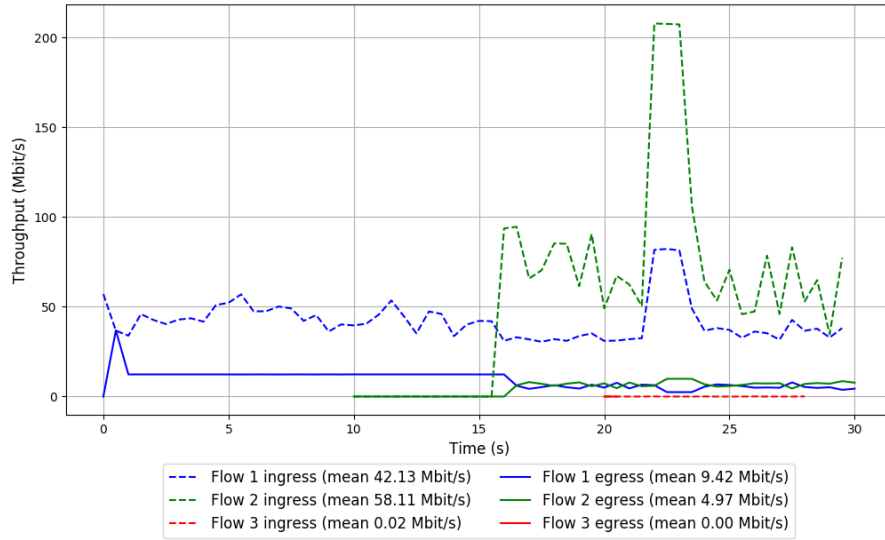
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 0.902 ms

Loss rate: 99.16%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-04-24 01:49:08

End at: 2019-04-24 01:49:38

Local clock offset: 0.174 ms

Remote clock offset: 1.816 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.96 Mbit/s

95th percentile per-packet one-way delay: 1.134 ms

Loss rate: 67.46%

-- Flow 1:

Average throughput: 2.92 Mbit/s

95th percentile per-packet one-way delay: 1.206 ms

Loss rate: 44.72%

-- Flow 2:

Average throughput: 12.07 Mbit/s

95th percentile per-packet one-way delay: 1.071 ms

Loss rate: 71.69%

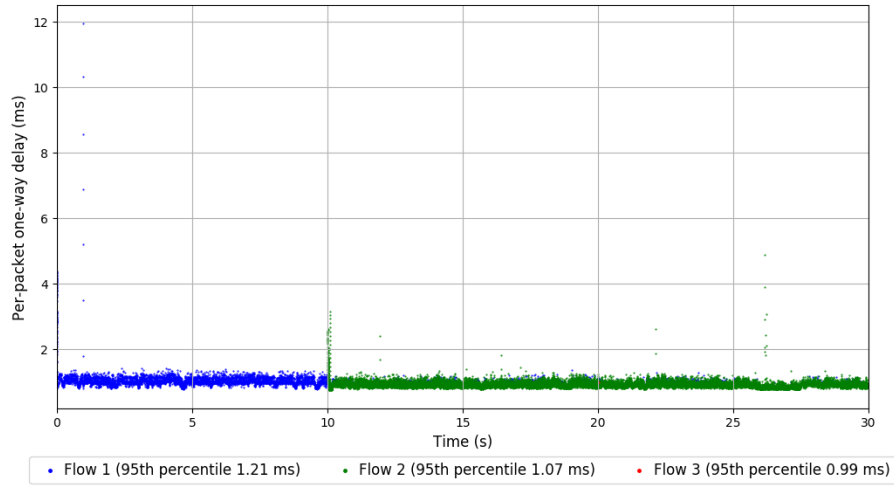
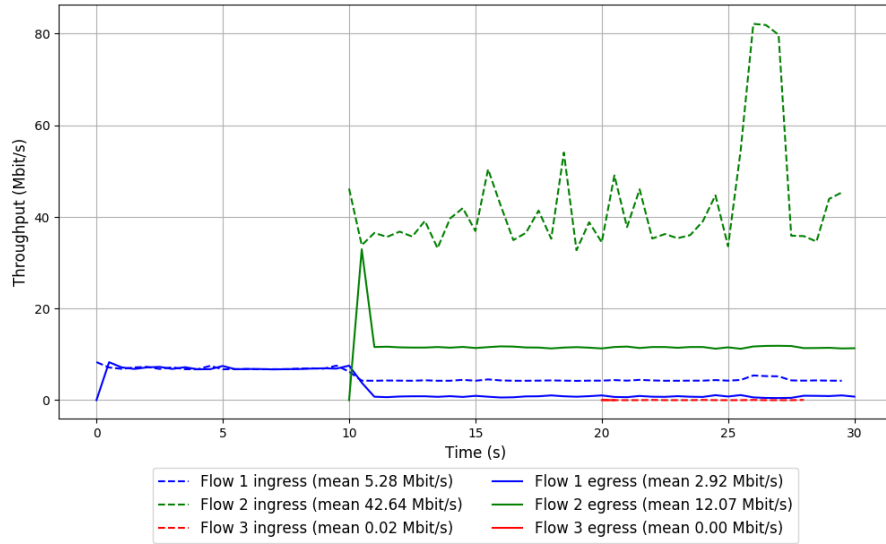
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 0.988 ms

Loss rate: 99.16%

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





Run 5: Statistics of TaoVA-100x

Start at: 2019-04-24 02:19:12  
End at: 2019-04-24 02:19:42  
Local clock offset: 0.329 ms  
Remote clock offset: -1.821 ms

# Below is generated by plot.py at 2019-04-24 03:33:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.24 Mbit/s  
95th percentile per-packet one-way delay: 1.144 ms  
Loss rate: 72.29%

-- Flow 1:

Average throughput: 2.13 Mbit/s  
95th percentile per-packet one-way delay: 1.232 ms  
Loss rate: 52.97%

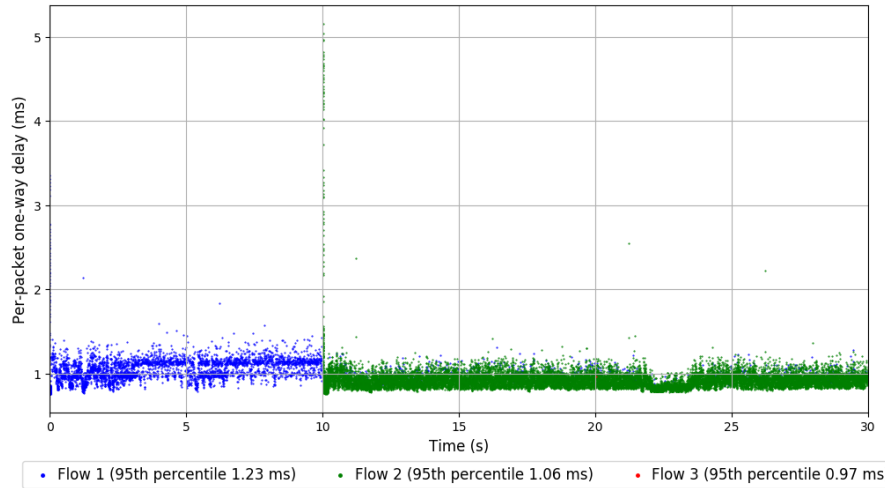
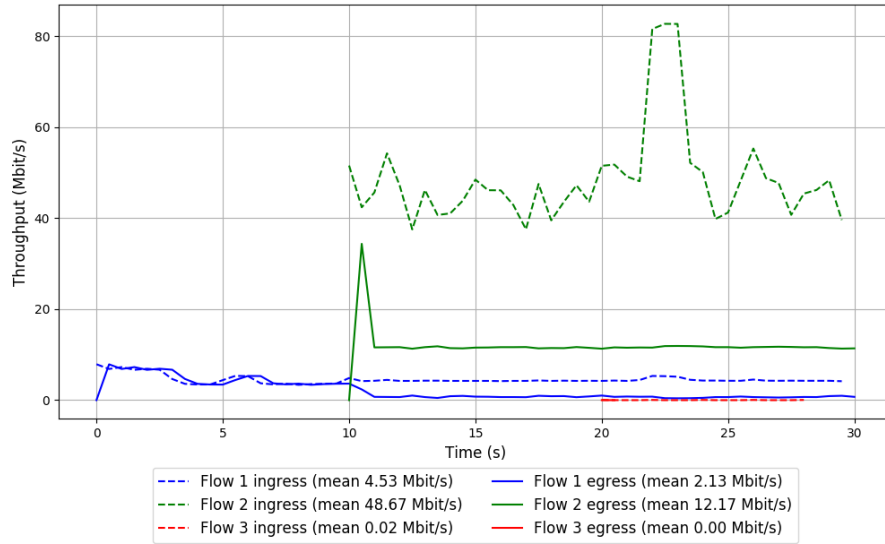
-- Flow 2:

Average throughput: 12.17 Mbit/s  
95th percentile per-packet one-way delay: 1.065 ms  
Loss rate: 74.98%

-- Flow 3:

Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 0.969 ms  
Loss rate: 99.16%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-04-24 00:29:30

End at: 2019-04-24 00:30:00

Local clock offset: 3.193 ms

Remote clock offset: 2.188 ms

# Below is generated by plot.py at 2019-04-24 03:33:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 138.04 Mbit/s

95th percentile per-packet one-way delay: 1.267 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 74.32 Mbit/s

95th percentile per-packet one-way delay: 1.289 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 37.83 Mbit/s

95th percentile per-packet one-way delay: 1.177 ms

Loss rate: 0.03%

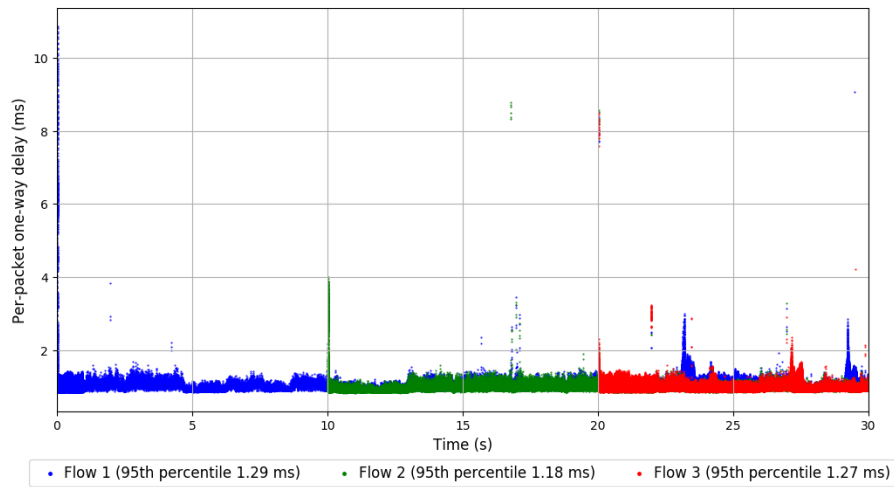
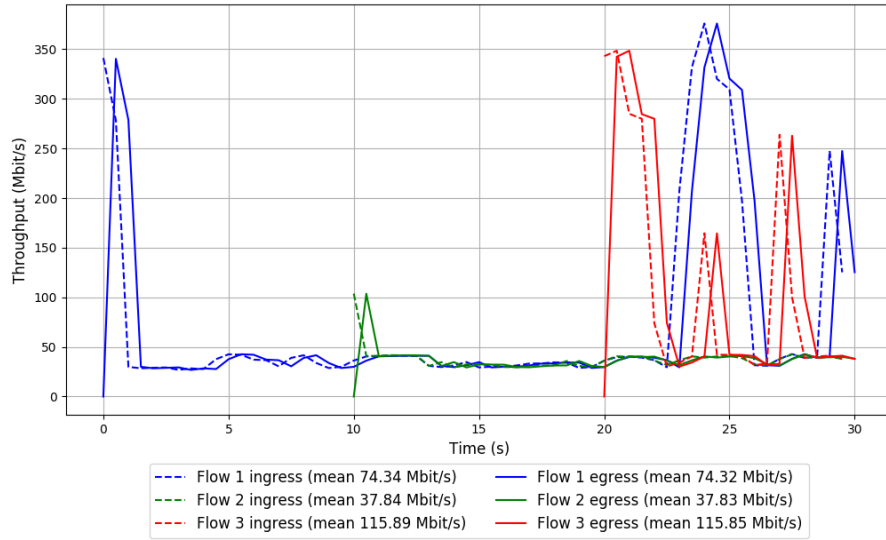
-- Flow 3:

Average throughput: 115.85 Mbit/s

95th percentile per-packet one-way delay: 1.267 ms

Loss rate: 0.03%

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



Run 2: Statistics of TCP Vegas

Start at: 2019-04-24 00:59:16

End at: 2019-04-24 00:59:46

Local clock offset: 0.98 ms

Remote clock offset: 1.893 ms

# Below is generated by plot.py at 2019-04-24 03:33:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.00 Mbit/s

95th percentile per-packet one-way delay: 1.054 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 64.97 Mbit/s

95th percentile per-packet one-way delay: 1.061 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 50.78 Mbit/s

95th percentile per-packet one-way delay: 1.035 ms

Loss rate: 0.03%

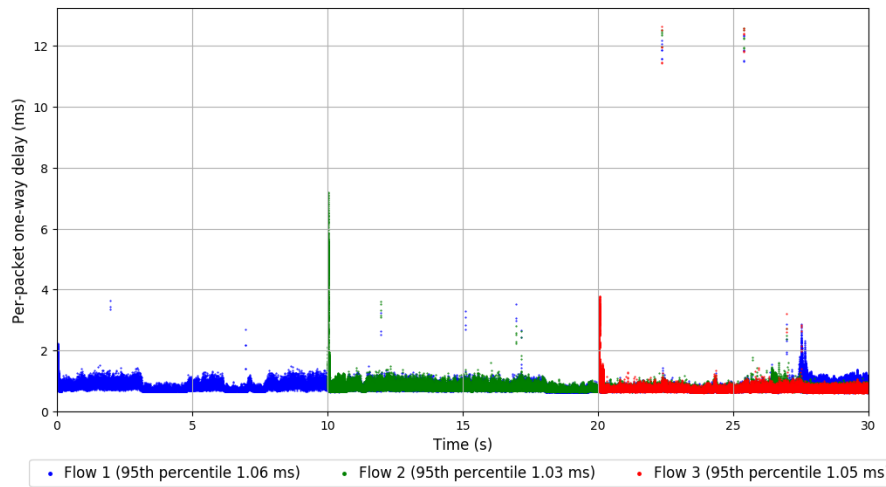
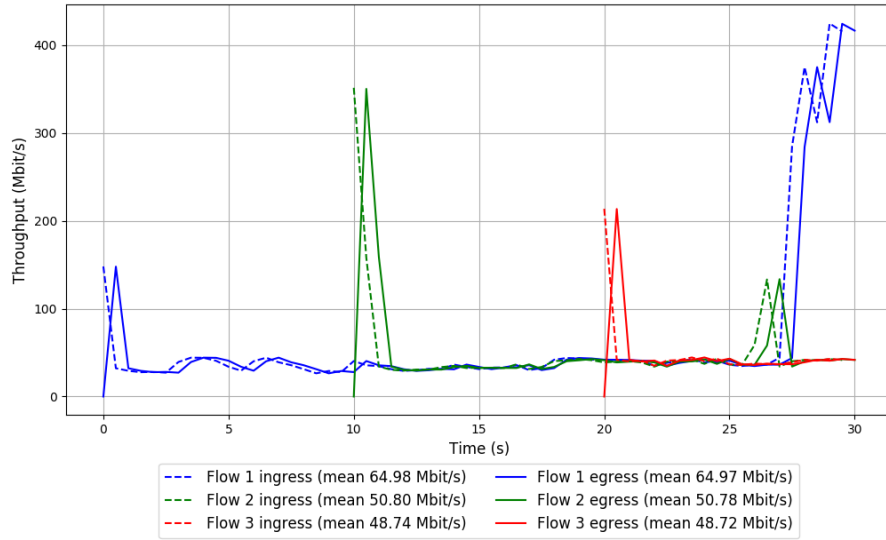
-- Flow 3:

Average throughput: 48.72 Mbit/s

95th percentile per-packet one-way delay: 1.054 ms

Loss rate: 0.04%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-04-24 01:29:09

End at: 2019-04-24 01:29:39

Local clock offset: 0.205 ms

Remote clock offset: 1.74 ms

# Below is generated by plot.py at 2019-04-24 03:34:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 205.93 Mbit/s

95th percentile per-packet one-way delay: 1.148 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 110.29 Mbit/s

95th percentile per-packet one-way delay: 1.173 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 74.24 Mbit/s

95th percentile per-packet one-way delay: 1.128 ms

Loss rate: 0.01%

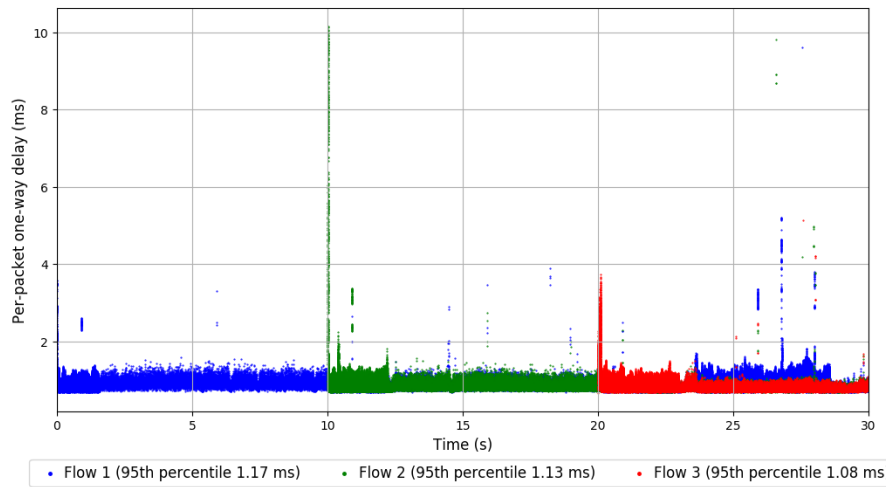
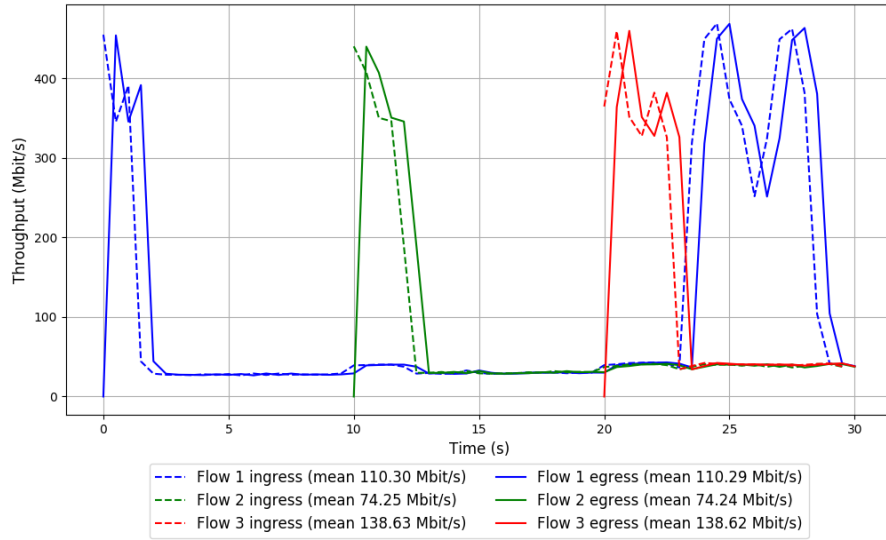
-- Flow 3:

Average throughput: 138.62 Mbit/s

95th percentile per-packet one-way delay: 1.085 ms

Loss rate: 0.01%

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





Run 4: Statistics of TCP Vegas

Start at: 2019-04-24 01:59:13

End at: 2019-04-24 01:59:43

Local clock offset: 0.301 ms

Remote clock offset: 0.234 ms

# Below is generated by plot.py at 2019-04-24 03:34:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 242.06 Mbit/s

95th percentile per-packet one-way delay: 1.289 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 129.01 Mbit/s

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

Loss rate: 0.01%

-- Flow 2:

Average throughput: 114.67 Mbit/s

95th percentile per-packet one-way delay: 1.302 ms

Loss rate: 0.00%

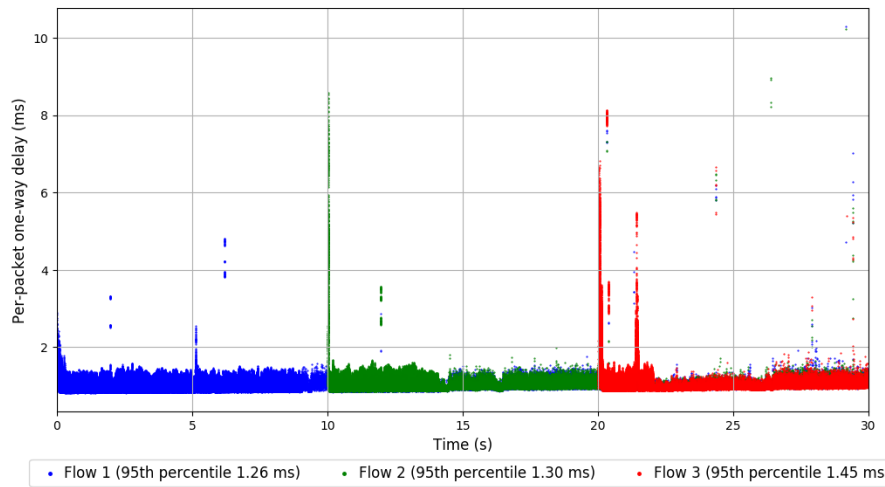
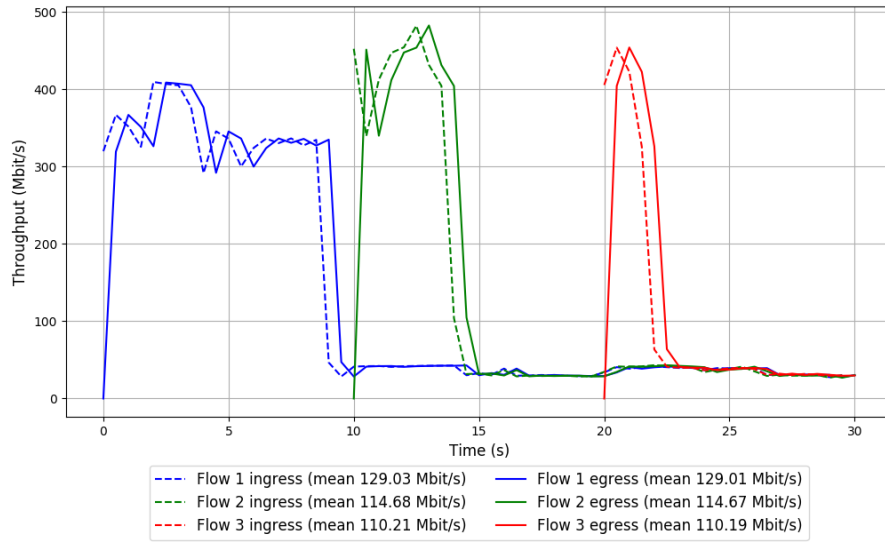
-- Flow 3:

Average throughput: 110.19 Mbit/s

95th percentile per-packet one-way delay: 1.445 ms

Loss rate: 0.01%

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



Run 5: Statistics of TCP Vegas

Start at: 2019-04-24 02:29:11  
End at: 2019-04-24 02:29:41  
Local clock offset: 0.443 ms  
Remote clock offset: -1.287 ms

# Below is generated by plot.py at 2019-04-24 03:34:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 164.39 Mbit/s  
95th percentile per-packet one-way delay: 1.055 ms  
Loss rate: 0.01%

-- Flow 1:

Average throughput: 62.34 Mbit/s  
95th percentile per-packet one-way delay: 1.118 ms  
Loss rate: 0.01%

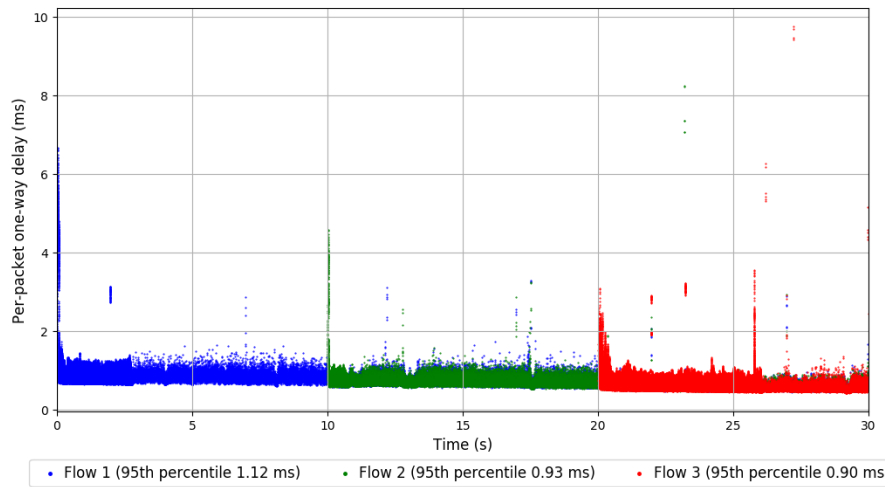
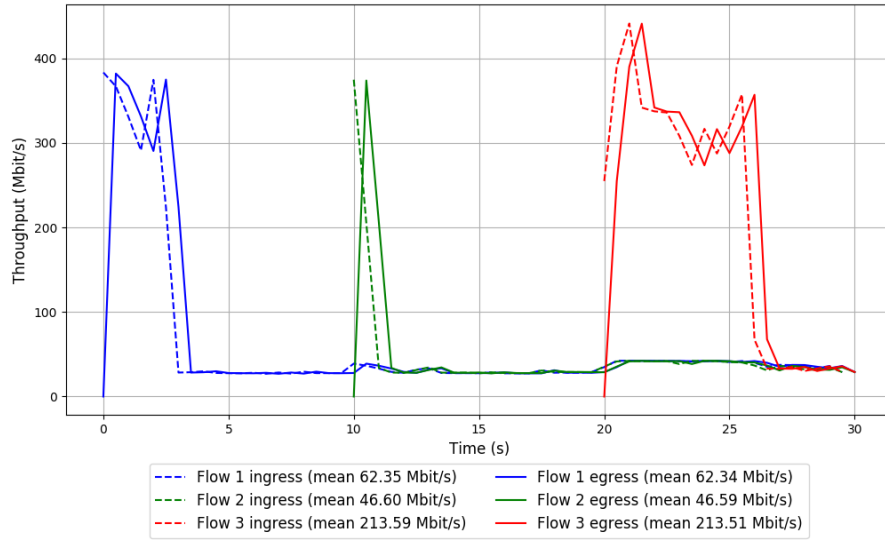
-- Flow 2:

Average throughput: 46.59 Mbit/s  
95th percentile per-packet one-way delay: 0.925 ms  
Loss rate: 0.01%

-- Flow 3:

Average throughput: 213.51 Mbit/s  
95th percentile per-packet one-way delay: 0.899 ms  
Loss rate: 0.02%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-04-24 00:24:47

End at: 2019-04-24 00:25:17

Local clock offset: 2.536 ms

Remote clock offset: 2.015 ms

# Below is generated by plot.py at 2019-04-24 03:35:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 245.99 Mbit/s

95th percentile per-packet one-way delay: 29.368 ms

Loss rate: 4.16%

-- Flow 1:

Average throughput: 125.98 Mbit/s

95th percentile per-packet one-way delay: 41.912 ms

Loss rate: 3.51%

-- Flow 2:

Average throughput: 119.61 Mbit/s

95th percentile per-packet one-way delay: 15.534 ms

Loss rate: 5.30%

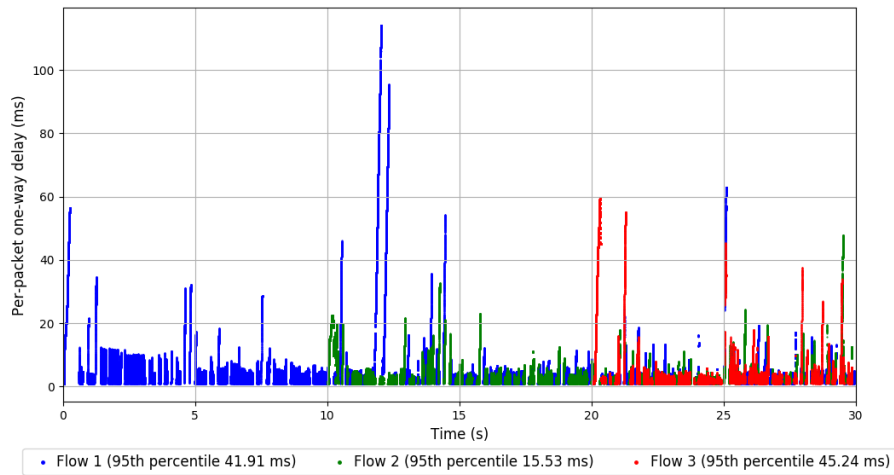
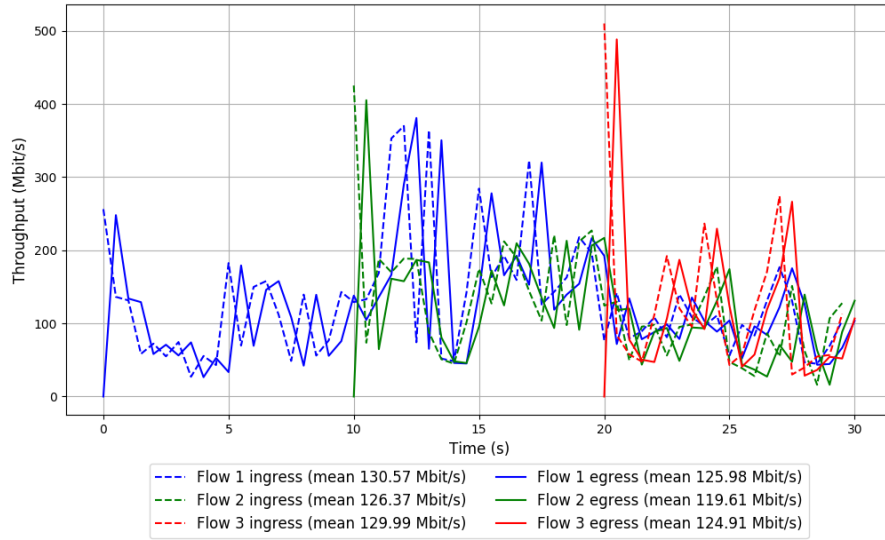
-- Flow 3:

Average throughput: 124.91 Mbit/s

95th percentile per-packet one-way delay: 45.241 ms

Loss rate: 3.91%

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



Run 2: Statistics of Verus

Start at: 2019-04-24 00:54:30

End at: 2019-04-24 00:55:00

Local clock offset: 1.63 ms

Remote clock offset: 1.935 ms

# Below is generated by plot.py at 2019-04-24 03:35:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 219.67 Mbit/s

95th percentile per-packet one-way delay: 13.194 ms

Loss rate: 3.75%

-- Flow 1:

Average throughput: 122.03 Mbit/s

95th percentile per-packet one-way delay: 8.823 ms

Loss rate: 2.57%

-- Flow 2:

Average throughput: 90.64 Mbit/s

95th percentile per-packet one-way delay: 15.770 ms

Loss rate: 5.76%

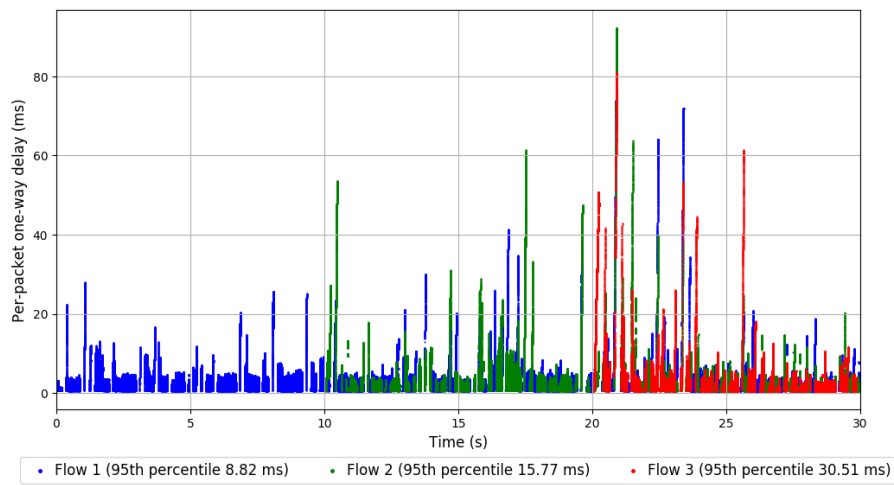
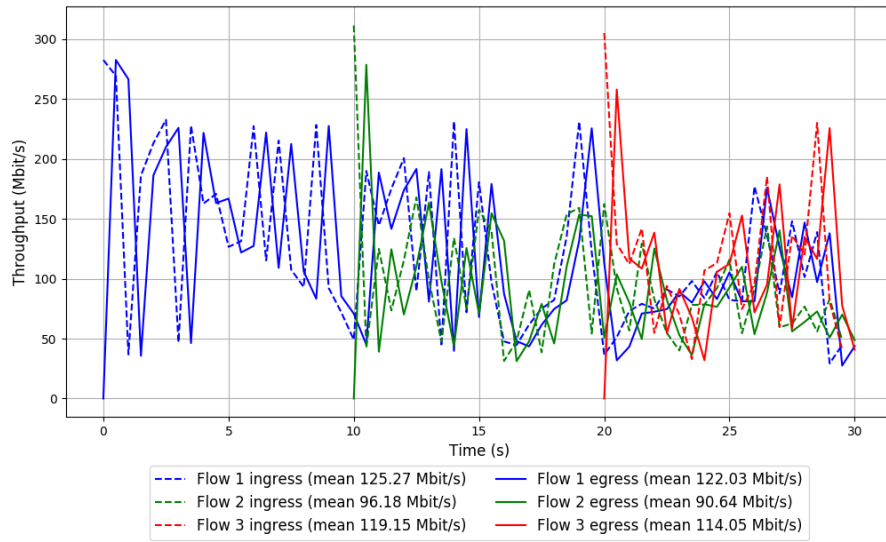
-- Flow 3:

Average throughput: 114.05 Mbit/s

95th percentile per-packet one-way delay: 30.510 ms

Loss rate: 4.28%

## Run 2: Report of Verus — Data Link





Run 3: Statistics of Verus

Start at: 2019-04-24 01:24:28

End at: 2019-04-24 01:24:58

Local clock offset: 0.173 ms

Remote clock offset: 1.873 ms

# Below is generated by plot.py at 2019-04-24 03:36:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 225.04 Mbit/s

95th percentile per-packet one-way delay: 24.279 ms

Loss rate: 4.10%

-- Flow 1:

Average throughput: 114.67 Mbit/s

95th percentile per-packet one-way delay: 21.371 ms

Loss rate: 3.73%

-- Flow 2:

Average throughput: 103.10 Mbit/s

95th percentile per-packet one-way delay: 23.385 ms

Loss rate: 4.16%

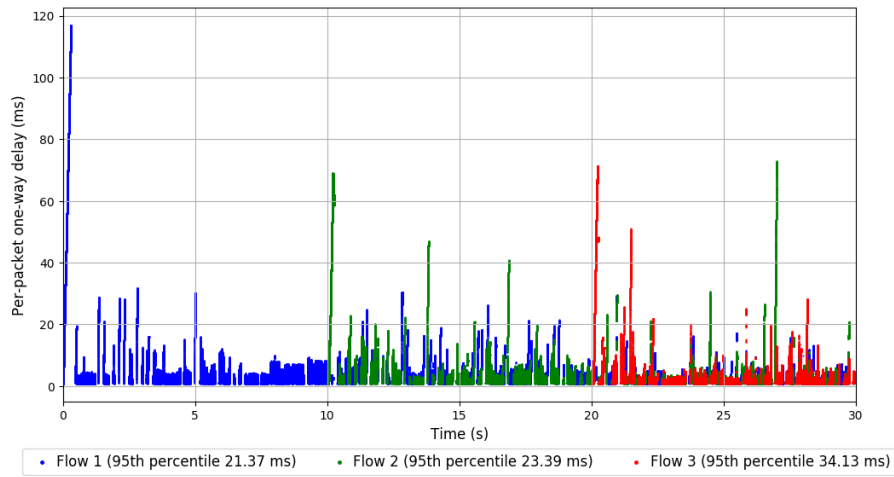
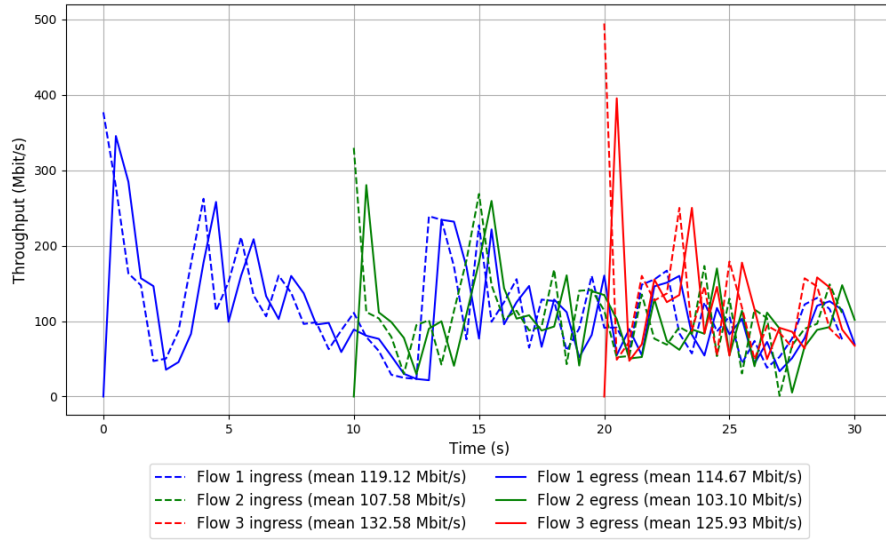
-- Flow 3:

Average throughput: 125.93 Mbit/s

95th percentile per-packet one-way delay: 34.134 ms

Loss rate: 4.99%

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



Run 4: Statistics of Verus

Start at: 2019-04-24 01:54:25

End at: 2019-04-24 01:54:55

Local clock offset: 0.278 ms

Remote clock offset: 1.414 ms

# Below is generated by plot.py at 2019-04-24 03:36:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 294.92 Mbit/s

95th percentile per-packet one-way delay: 27.694 ms

Loss rate: 2.94%

-- Flow 1:

Average throughput: 164.49 Mbit/s

95th percentile per-packet one-way delay: 11.221 ms

Loss rate: 1.79%

-- Flow 2:

Average throughput: 122.64 Mbit/s

95th percentile per-packet one-way delay: 37.132 ms

Loss rate: 3.94%

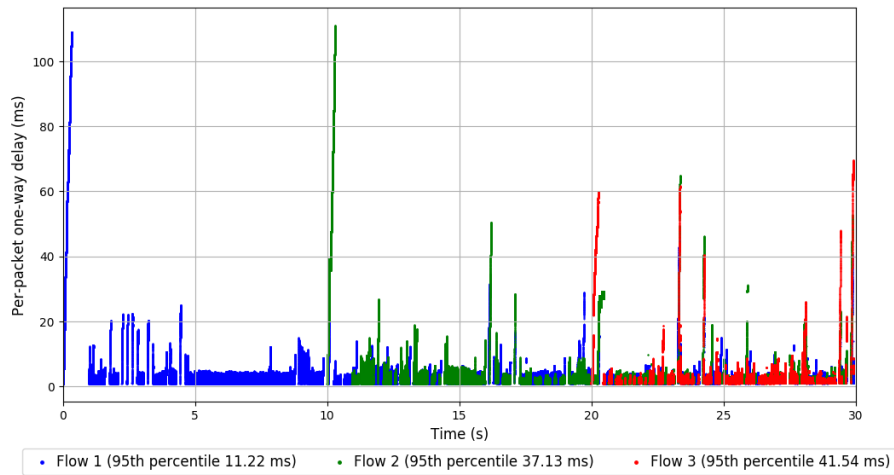
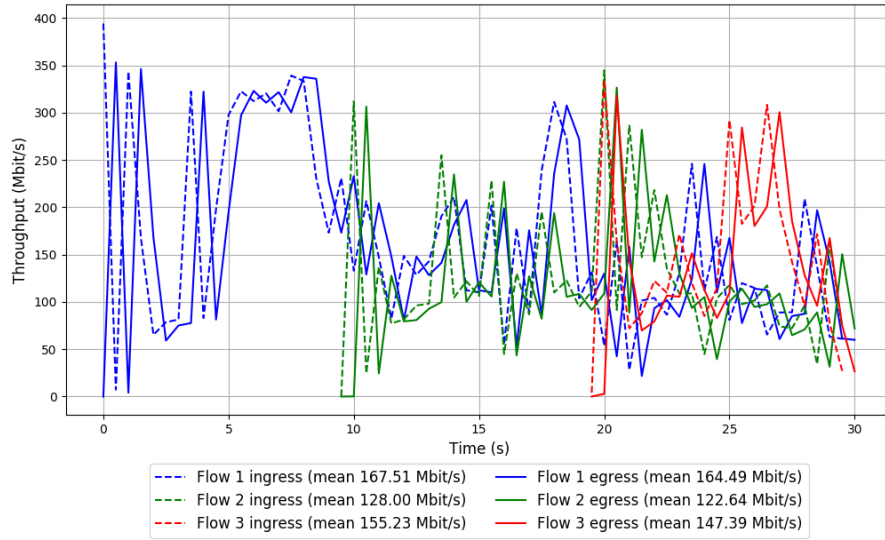
-- Flow 3:

Average throughput: 147.39 Mbit/s

95th percentile per-packet one-way delay: 41.538 ms

Loss rate: 5.00%

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



Run 5: Statistics of Verus

Start at: 2019-04-24 02:24:26  
End at: 2019-04-24 02:24:56  
Local clock offset: 0.452 ms  
Remote clock offset: -2.047 ms

# Below is generated by plot.py at 2019-04-24 03:36:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 273.77 Mbit/s  
95th percentile per-packet one-way delay: 11.539 ms  
Loss rate: 3.11%

-- Flow 1:

Average throughput: 155.44 Mbit/s  
95th percentile per-packet one-way delay: 7.573 ms  
Loss rate: 2.04%

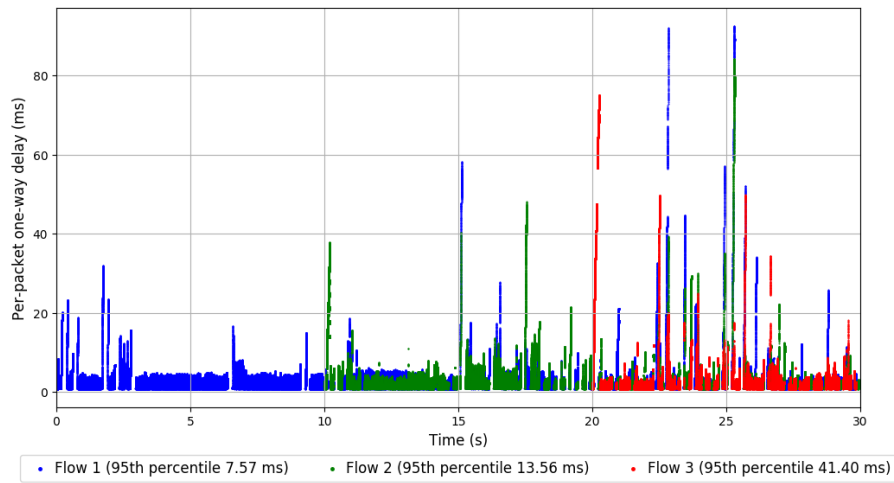
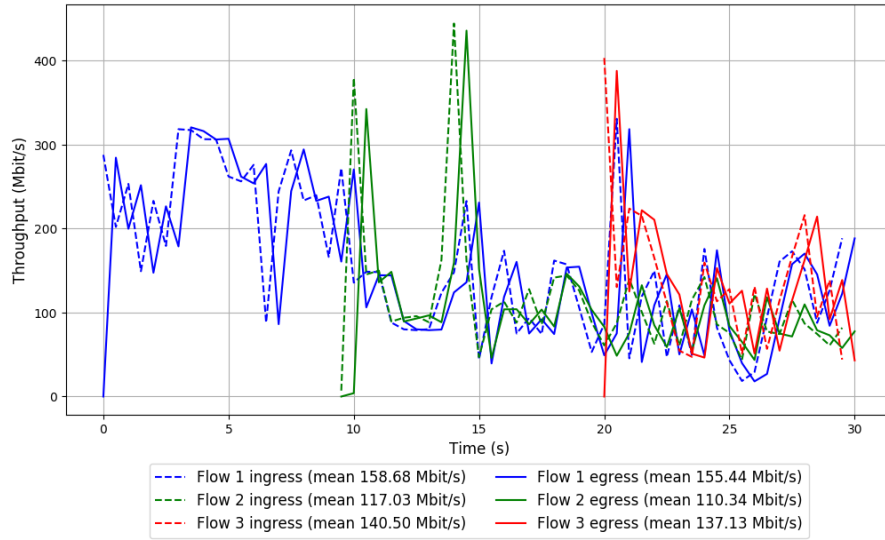
-- Flow 2:

Average throughput: 110.34 Mbit/s  
95th percentile per-packet one-way delay: 13.561 ms  
Loss rate: 5.71%

-- Flow 3:

Average throughput: 137.13 Mbit/s  
95th percentile per-packet one-way delay: 41.404 ms  
Loss rate: 2.39%

### Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-04-24 00:28:02

End at: 2019-04-24 00:28:32

Local clock offset: 3.016 ms

Remote clock offset: 2.193 ms

# Below is generated by plot.py at 2019-04-24 03:37:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 298.66 Mbit/s

95th percentile per-packet one-way delay: 1.599 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 184.06 Mbit/s

95th percentile per-packet one-way delay: 1.393 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 93.81 Mbit/s

95th percentile per-packet one-way delay: 1.190 ms

Loss rate: 0.06%

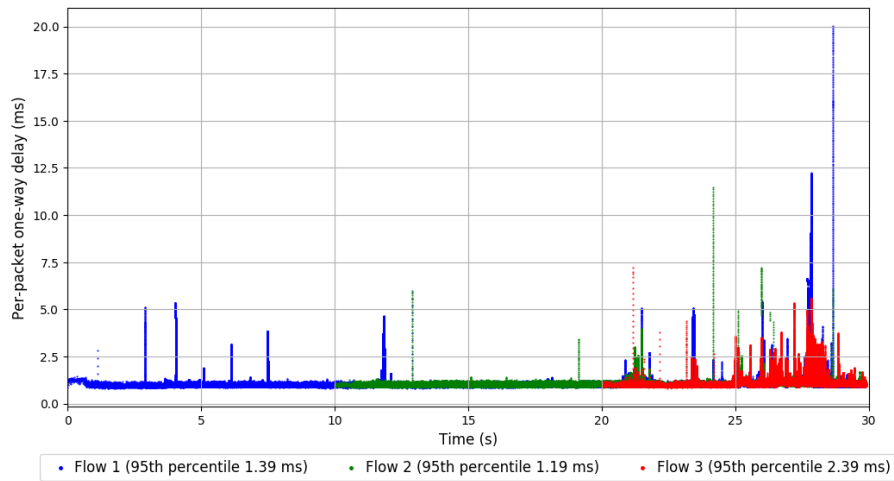
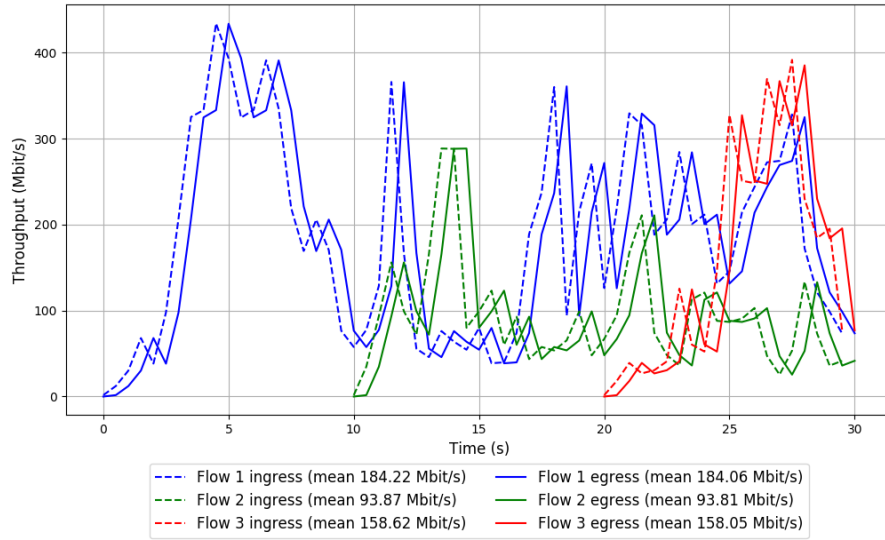
-- Flow 3:

Average throughput: 158.05 Mbit/s

95th percentile per-packet one-way delay: 2.387 ms

Loss rate: 0.36%

Run 1: Report of PCC-Vivace — Data Link





Run 2: Statistics of PCC-Vivace

Start at: 2019-04-24 00:57:45

End at: 2019-04-24 00:58:15

Local clock offset: 1.167 ms

Remote clock offset: 1.872 ms

# Below is generated by plot.py at 2019-04-24 03:38:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 373.70 Mbit/s

95th percentile per-packet one-way delay: 136.161 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 168.25 Mbit/s

95th percentile per-packet one-way delay: 6.033 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 249.82 Mbit/s

95th percentile per-packet one-way delay: 164.462 ms

Loss rate: 1.43%

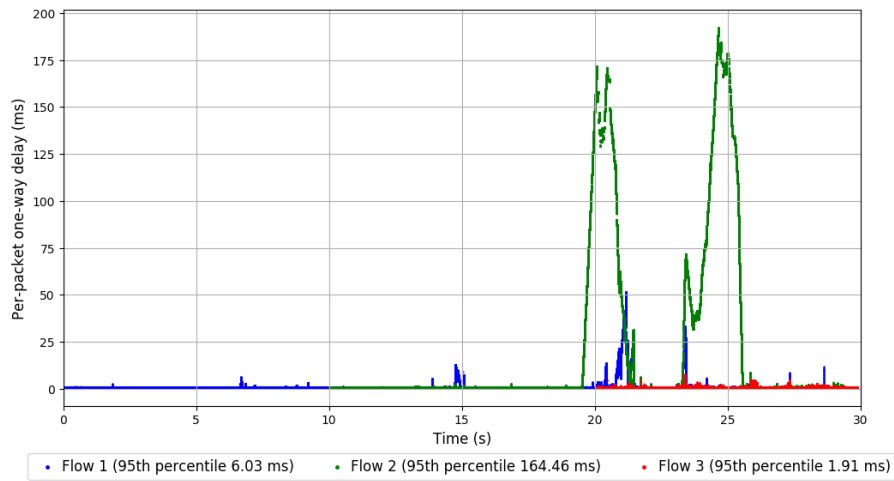
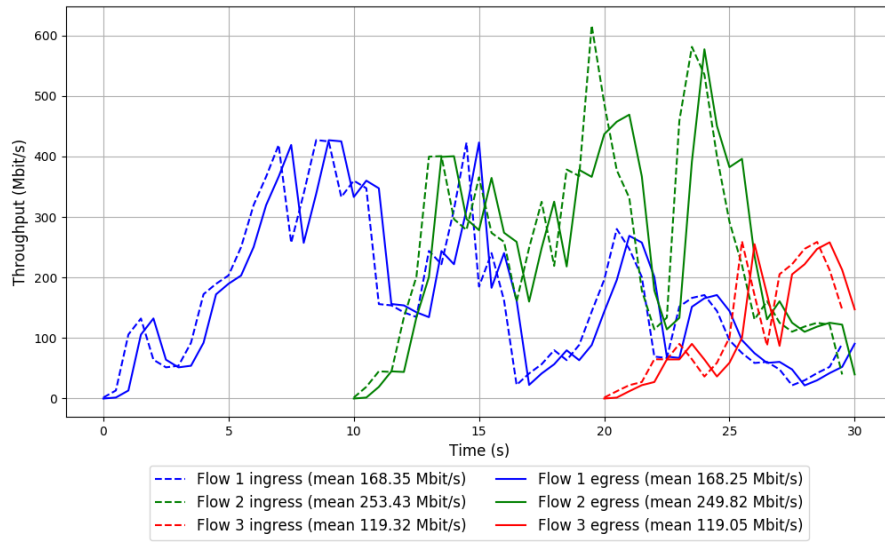
-- Flow 3:

Average throughput: 119.05 Mbit/s

95th percentile per-packet one-way delay: 1.912 ms

Loss rate: 0.23%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-04-24 01:27:41

End at: 2019-04-24 01:28:11

Local clock offset: 0.2 ms

Remote clock offset: 1.757 ms

# Below is generated by plot.py at 2019-04-24 03:38:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 295.16 Mbit/s

95th percentile per-packet one-way delay: 104.078 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 162.96 Mbit/s

95th percentile per-packet one-way delay: 144.732 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 144.99 Mbit/s

95th percentile per-packet one-way delay: 1.038 ms

Loss rate: 0.02%

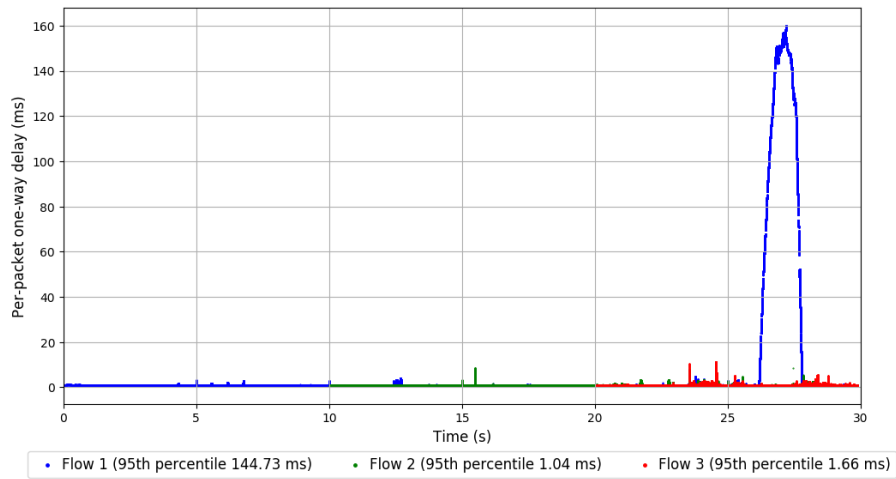
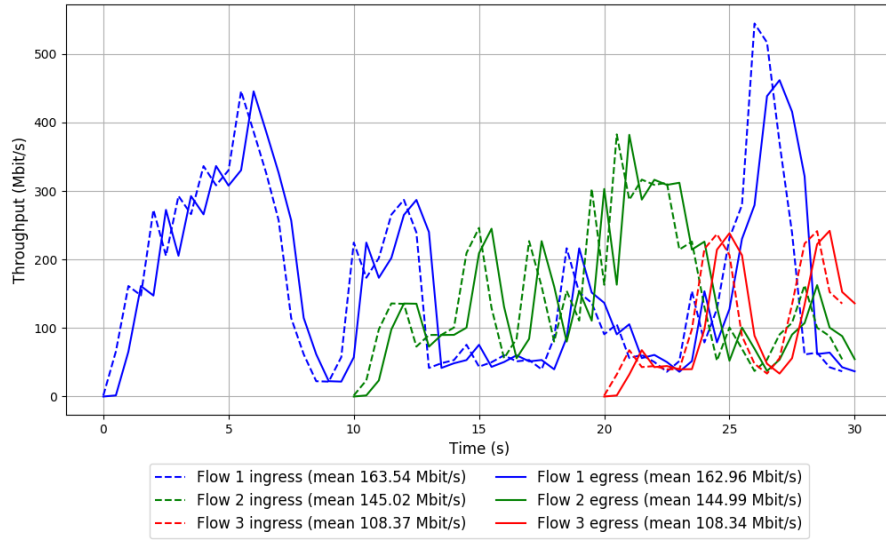
-- Flow 3:

Average throughput: 108.34 Mbit/s

95th percentile per-packet one-way delay: 1.655 ms

Loss rate: 0.02%

### Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-04-24 01:57:42

End at: 2019-04-24 01:58:12

Local clock offset: 0.266 ms

Remote clock offset: 0.539 ms

# Below is generated by plot.py at 2019-04-24 03:38:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 356.08 Mbit/s

95th percentile per-packet one-way delay: 8.995 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 195.84 Mbit/s

95th percentile per-packet one-way delay: 34.776 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 163.34 Mbit/s

95th percentile per-packet one-way delay: 2.895 ms

Loss rate: 0.05%

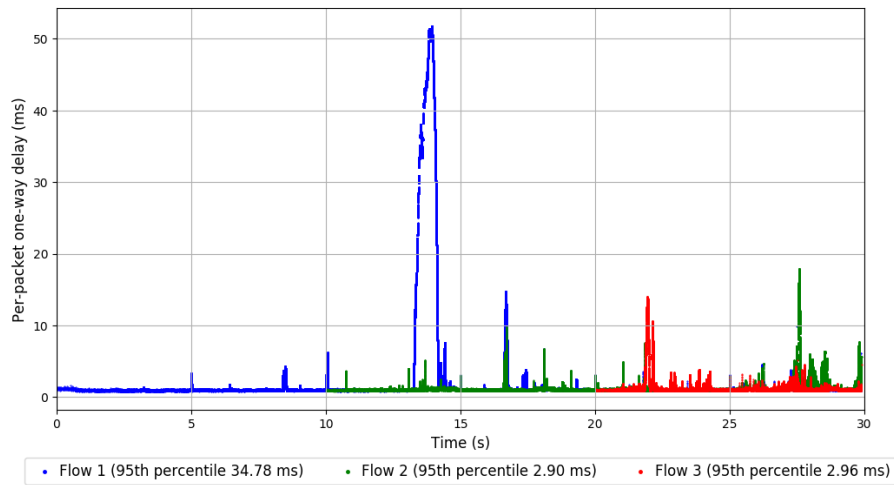
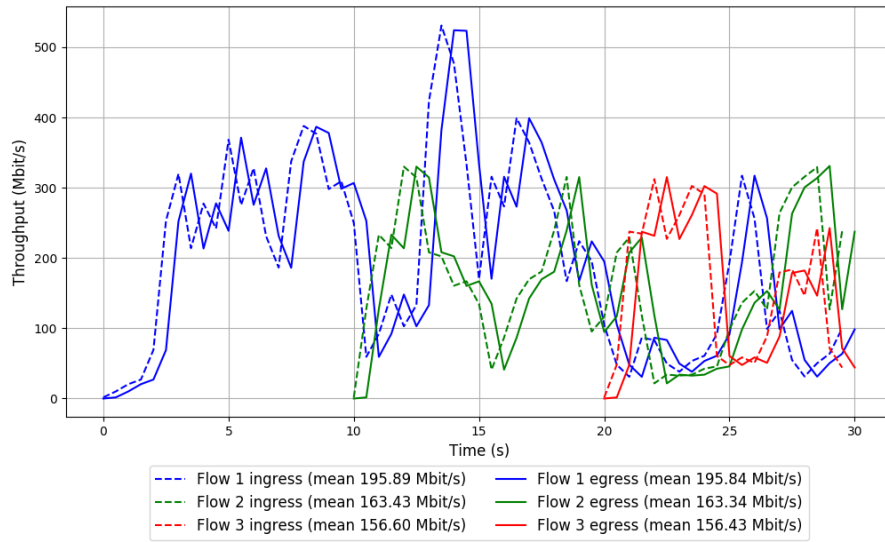
-- Flow 3:

Average throughput: 156.43 Mbit/s

95th percentile per-packet one-way delay: 2.959 ms

Loss rate: 0.07%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-04-24 02:27:41  
End at: 2019-04-24 02:28:11  
Local clock offset: 0.432 ms  
Remote clock offset: -2.109 ms

# Below is generated by plot.py at 2019-04-24 03:38:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 337.62 Mbit/s  
95th percentile per-packet one-way delay: 97.872 ms  
Loss rate: 1.08%

-- Flow 1:

Average throughput: 179.73 Mbit/s  
95th percentile per-packet one-way delay: 2.021 ms  
Loss rate: 0.02%

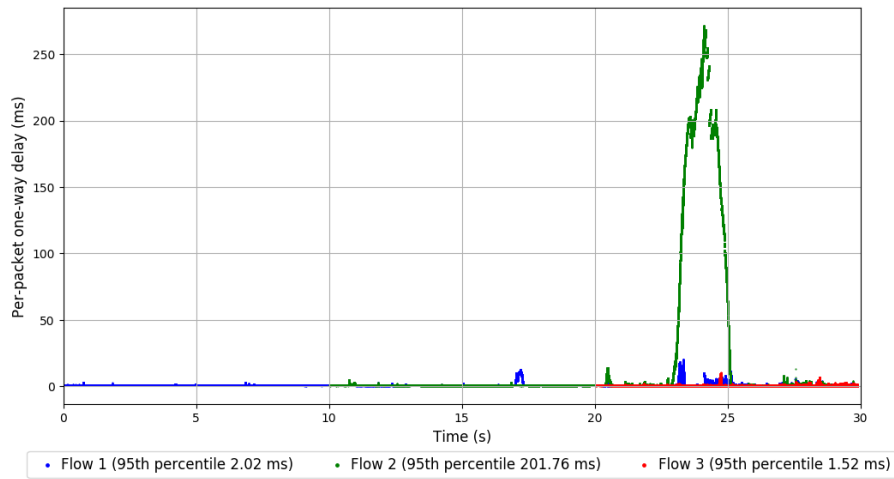
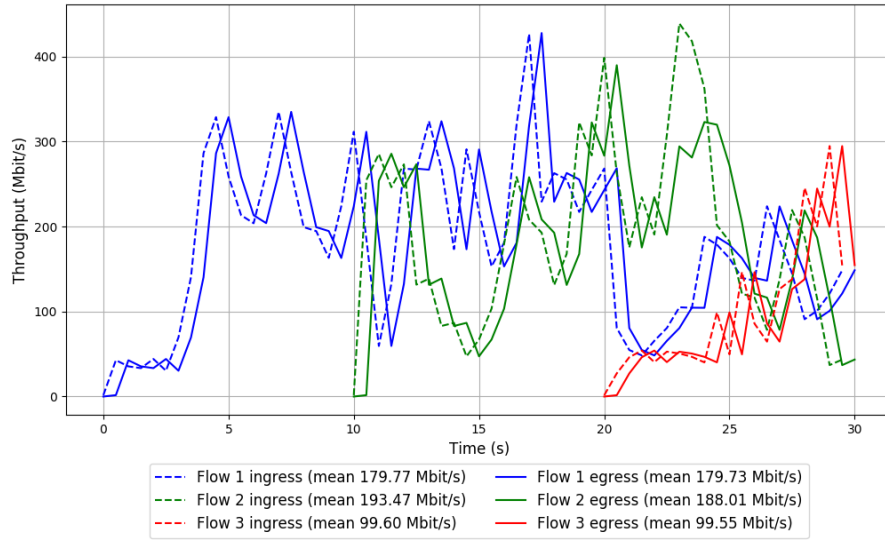
-- Flow 2:

Average throughput: 188.01 Mbit/s  
95th percentile per-packet one-way delay: 201.761 ms  
Loss rate: 2.83%

-- Flow 3:

Average throughput: 99.55 Mbit/s  
95th percentile per-packet one-way delay: 1.517 ms  
Loss rate: 0.05%

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





Run 1: Statistics of WebRTC media

Start at: 2019-04-24 00:34:00

End at: 2019-04-24 00:34:30

Local clock offset: 3.677 ms

Remote clock offset: 2.248 ms

# Below is generated by plot.py at 2019-04-24 03:38:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 1.216 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 1.217 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.44 Mbit/s

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

Loss rate: 0.00%

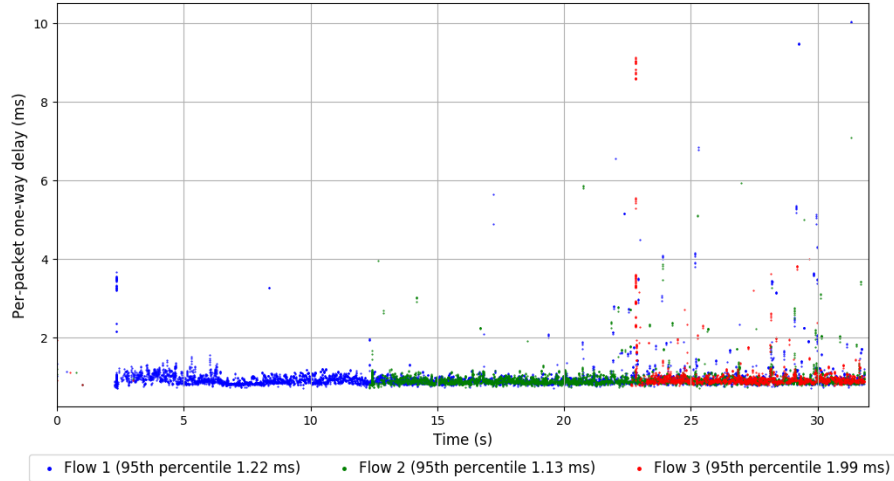
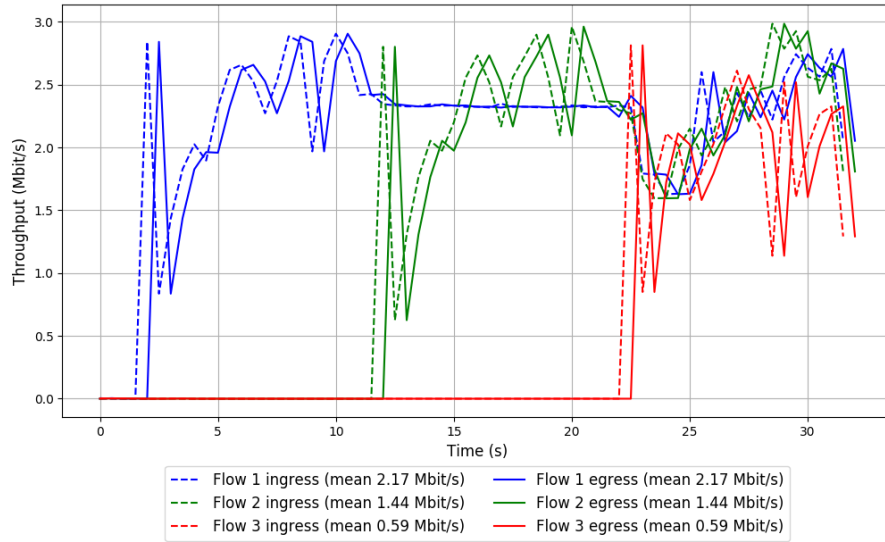
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 1.986 ms

Loss rate: 0.09%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-04-24 01:03:50

End at: 2019-04-24 01:04:20

Local clock offset: 0.595 ms

Remote clock offset: 1.878 ms

# Below is generated by plot.py at 2019-04-24 03:38:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 5.231 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 5.758 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.796 ms

Loss rate: 0.00%

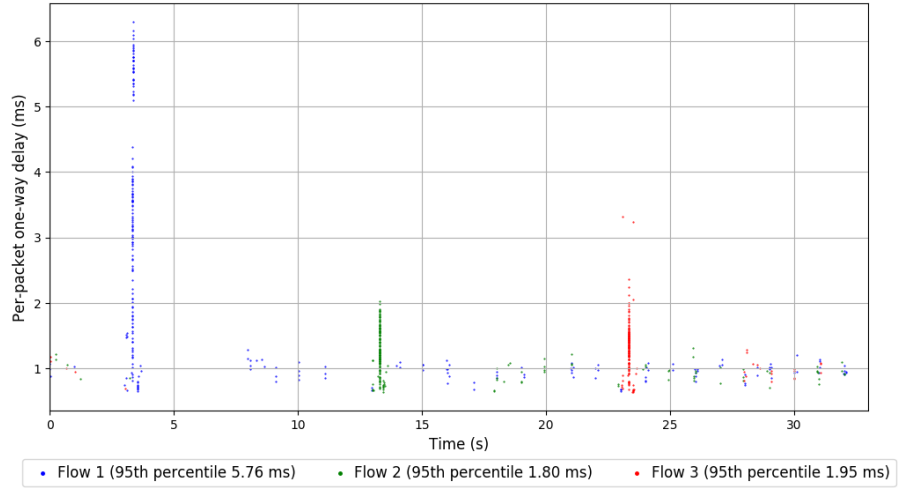
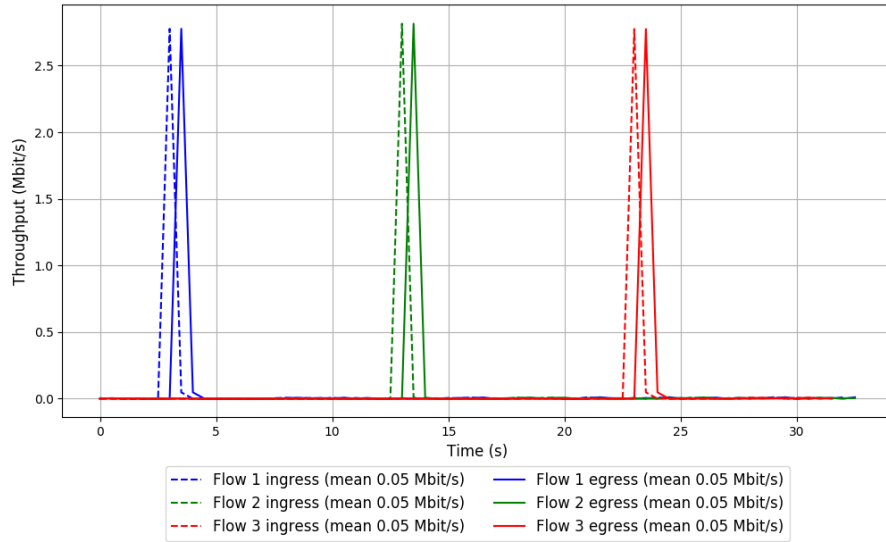
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.952 ms

Loss rate: 0.00%

## Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-04-24 01:33:47

End at: 2019-04-24 01:34:17

Local clock offset: 0.181 ms

Remote clock offset: 1.769 ms

# Below is generated by plot.py at 2019-04-24 03:38:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 5.090 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 5.274 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 5.509 ms

Loss rate: 0.05%

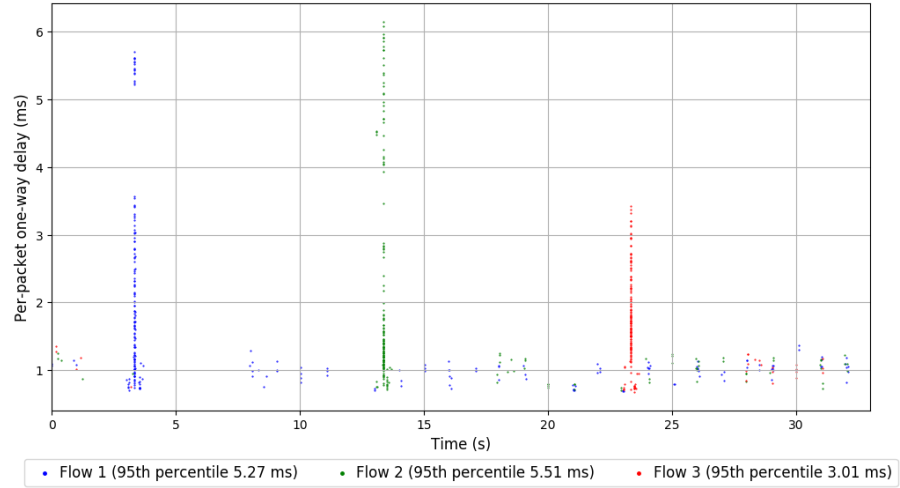
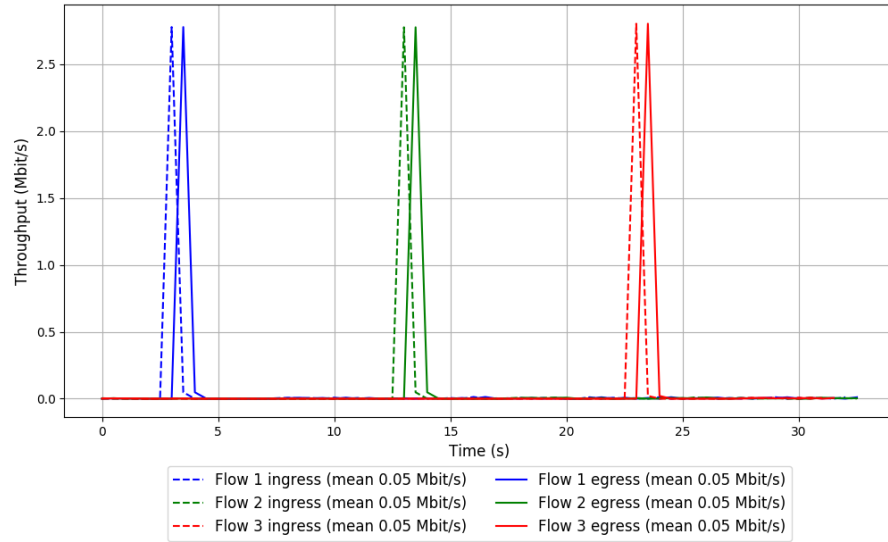
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.008 ms

Loss rate: 0.00%

### Run 3: Report of WebRTC media — Data Link

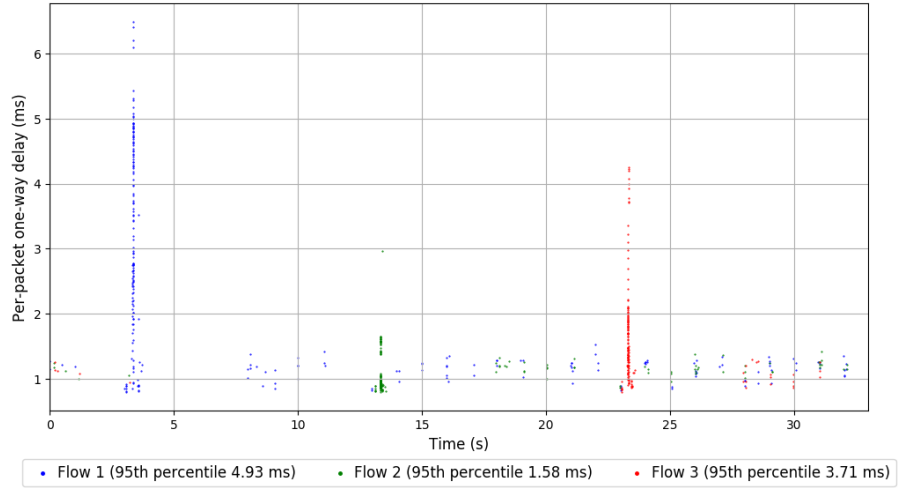
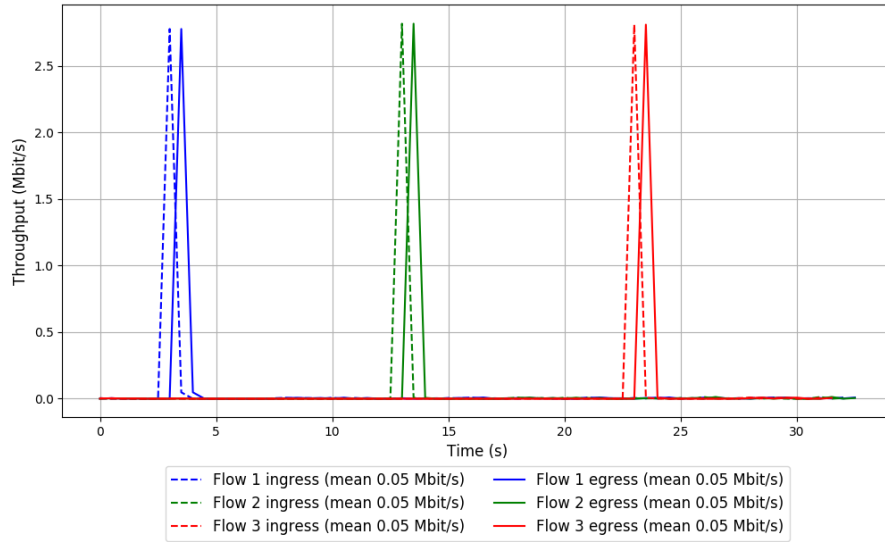


Run 4: Statistics of WebRTC media

Start at: 2019-04-24 02:03:55  
End at: 2019-04-24 02:04:25  
Local clock offset: 0.29 ms  
Remote clock offset: -0.524 ms

```
# Below is generated by plot.py at 2019-04-24 03:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.629 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.931 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.581 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.711 ms
Loss rate: 0.00%
```

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





Run 5: Statistics of WebRTC media

Start at: 2019-04-24 02:33:43

End at: 2019-04-24 02:34:13

Local clock offset: 0.471 ms

Remote clock offset: 0.591 ms

# Below is generated by plot.py at 2019-04-24 03:38:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 7.076 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 7.105 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 7.044 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 7.001 ms

Loss rate: 0.00%

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

