

## Pantheon Report

Generated at 2019-05-30 02:37:11 (UTC).

Data path: AWS Brazil 1 on *ens5 (local)* →Brazil on *p4p1 (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 *gps.ntp.br* and have been applied to correct the timestamps in logs.

### System info:

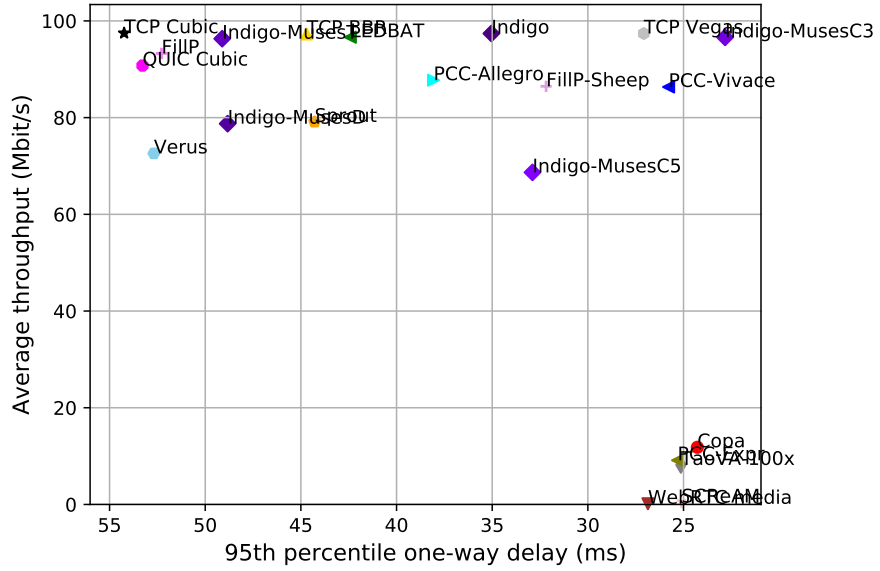
```
Linux 4.15.0-1035-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

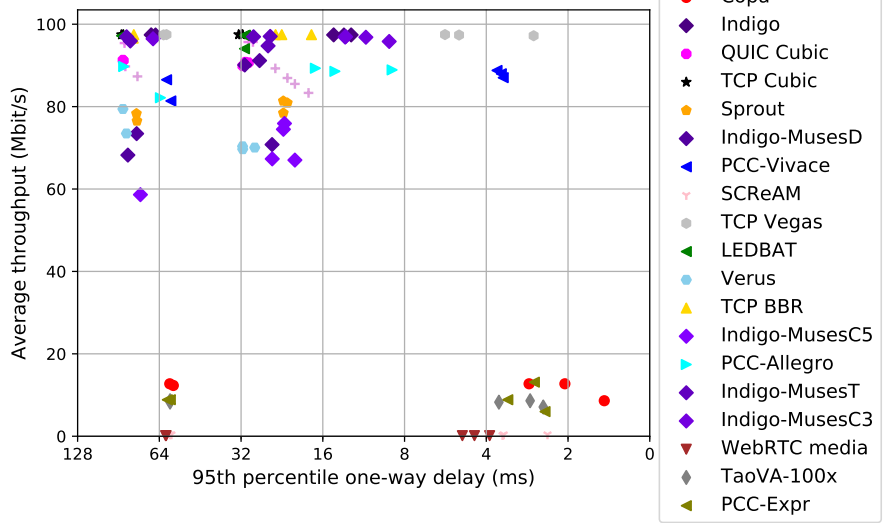
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
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 Brazil 1 to Brazil, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Brazil 1 to Brazil, 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	64.62	38.68	20.78	44.03	46.10	47.10	0.03	0.06	0.09
Copa	5	8.22	4.88	1.38	23.99	23.90	24.27	73.10	78.76	84.69
TCP Cubic	5	65.28	35.68	25.40	54.04	54.12	54.63	0.04	0.04	0.04
FillP	5	49.30	46.53	39.17	51.12	52.04	52.51	11.36	18.25	40.23
FillP-Sheep	5	54.16	30.35	36.55	28.85	32.04	35.87	0.77	1.49	3.10
Indigo	5	47.26	41.00	70.44	33.15	34.75	35.88	0.00	0.00	0.00
Indigo-MusesC3	5	57.00	40.61	43.24	21.74	22.90	22.47	0.00	0.00	0.00
Indigo-MusesC5	5	33.79	37.14	35.21	31.78	33.02	33.91	0.00	0.00	0.00
Indigo-MusesD	5	46.83	32.52	35.05	48.30	48.23	50.03	0.11	0.28	1.16
Indigo-MusesT	5	57.82	46.13	27.96	46.94	49.79	52.02	0.18	0.46	0.94
LEDBAT	5	63.12	34.26	32.20	42.27	42.95	42.23	0.03	0.08	0.14
PCC-Allegro	5	64.55	28.69	12.48	36.48	42.74	34.81	0.12	0.28	0.08
PCC-Expr	5	1.82	8.32	6.55	24.38	26.27	24.38	72.84	24.26	26.98
QUIC Cubic	5	58.75	35.03	26.53	53.17	53.03	53.56	0.14	0.17	0.25
SCReAM	5	0.20	0.20	0.22	24.18	24.16	24.44	0.00	0.00	0.00
Sprout	5	43.33	36.79	34.19	42.89	44.62	45.68	0.00	0.00	0.00
TaoVA-100x	5	0.00	9.99	4.57	24.40	25.15	24.42	95.92	81.56	94.68
TCP Vegas	5	47.77	45.25	58.61	27.78	26.18	26.65	0.00	0.00	0.00
Verus	5	39.26	36.05	28.42	50.93	53.18	54.50	16.03	8.00	27.99
PCC-Vivace	5	54.99	34.29	25.87	25.21	25.98	26.63	0.03	0.03	0.06
WebRTC media	5	0.05	0.05	0.05	26.89	27.22	26.71	0.00	0.00	0.02



Run 1: Statistics of TCP BBR

Start at: 2019-05-30 00:36:47  
End at: 2019-05-30 00:37:17  
Local clock offset: -4.526 ms  
Remote clock offset: -0.632 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 23.887 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 64.67 Mbit/s  
95th percentile per-packet one-way delay: 23.666 ms  
Loss rate: 0.00%

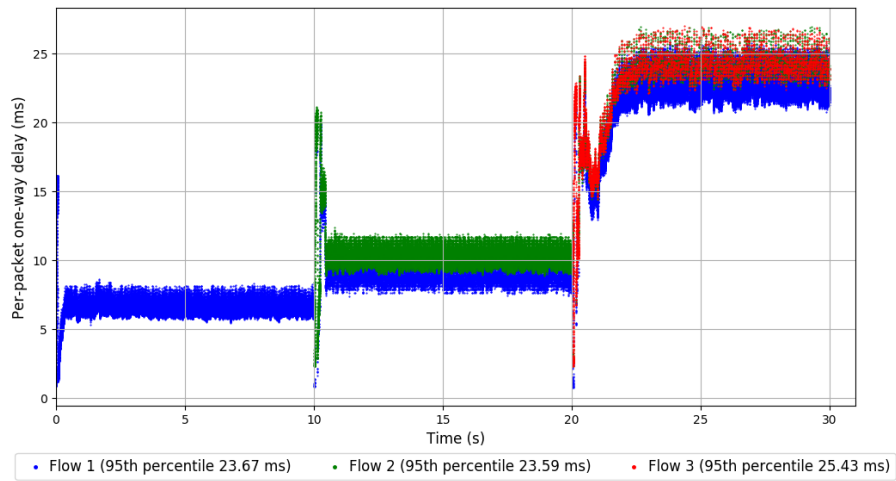
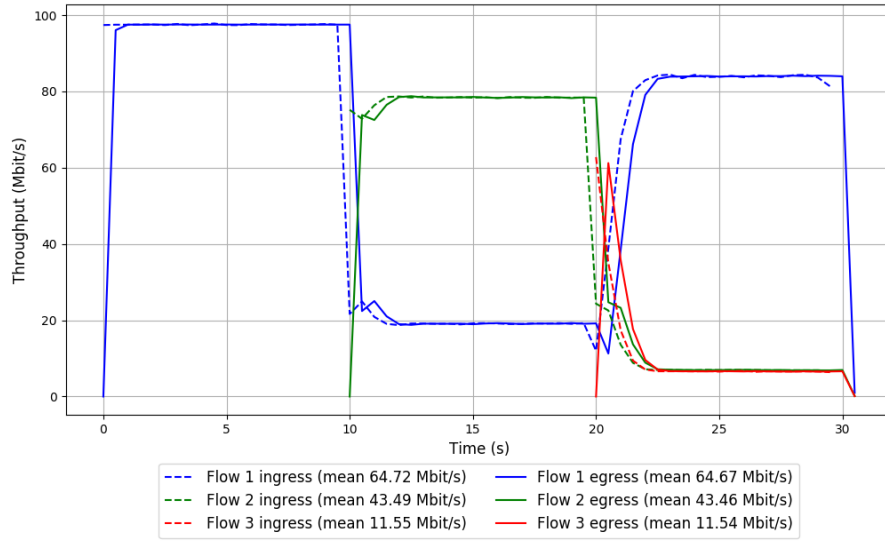
-- Flow 2:

Average throughput: 43.46 Mbit/s  
95th percentile per-packet one-way delay: 23.589 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 11.54 Mbit/s  
95th percentile per-packet one-way delay: 25.434 ms  
Loss rate: 0.00%

# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-05-30 01:00:39  
End at: 2019-05-30 01:01:09  
Local clock offset: -5.025 ms  
Remote clock offset: -0.321 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s  
95th percentile per-packet one-way delay: 17.616 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 69.09 Mbit/s  
95th percentile per-packet one-way delay: 17.069 ms  
Loss rate: 0.00%

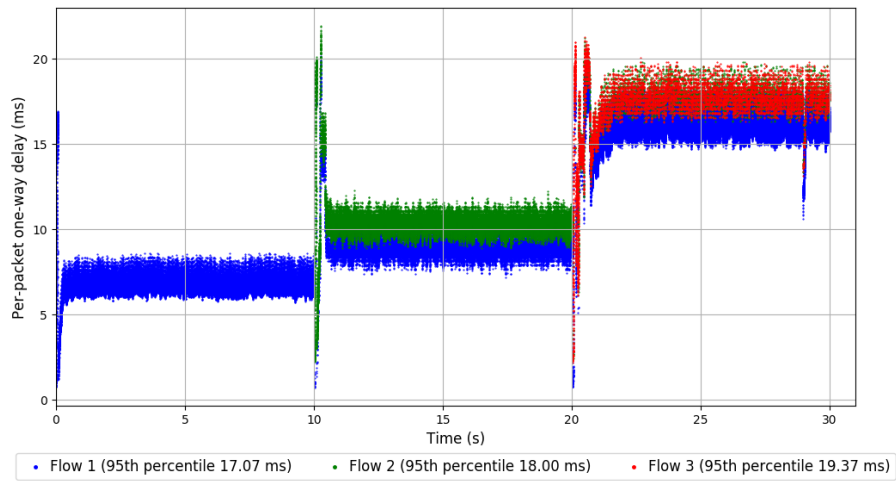
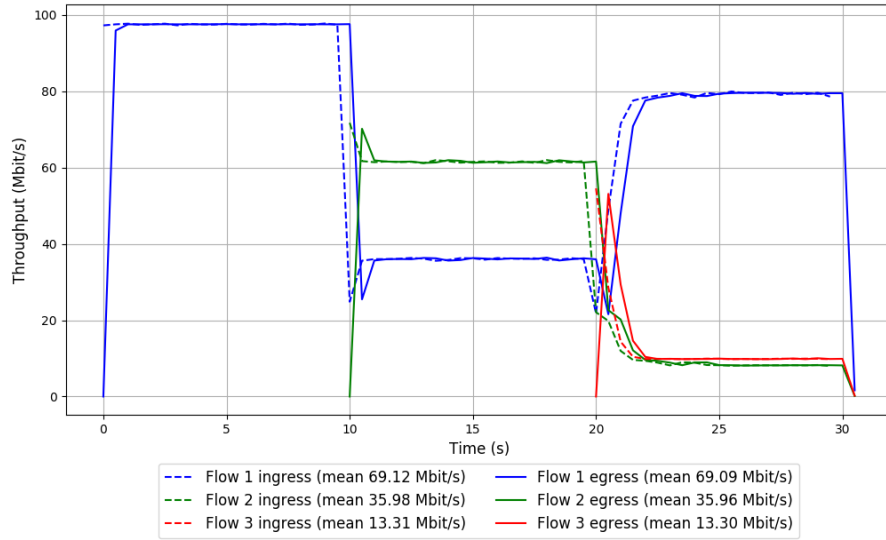
-- Flow 2:

Average throughput: 35.96 Mbit/s  
95th percentile per-packet one-way delay: 17.997 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 13.30 Mbit/s  
95th percentile per-packet one-way delay: 19.367 ms  
Loss rate: 0.00%

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



Run 3: Statistics of TCP BBR

Start at: 2019-05-30 01:24:33

End at: 2019-05-30 01:25:03

Local clock offset: -4.444 ms

Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 22.663 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.81 Mbit/s

95th percentile per-packet one-way delay: 22.294 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.48 Mbit/s

95th percentile per-packet one-way delay: 22.665 ms

Loss rate: 0.00%

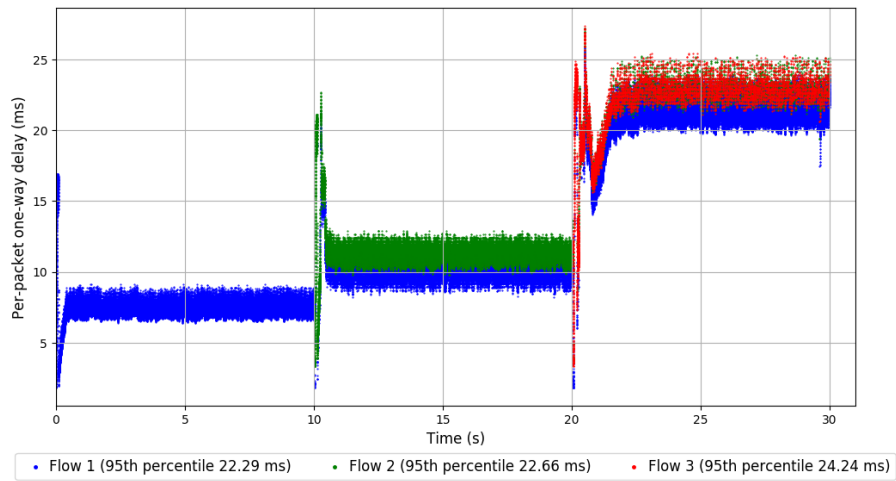
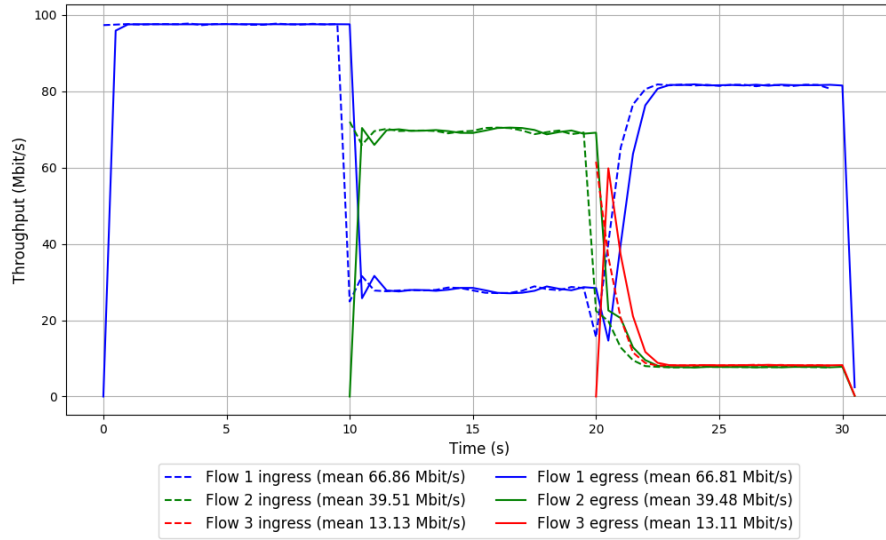
-- Flow 3:

Average throughput: 13.11 Mbit/s

95th percentile per-packet one-way delay: 24.237 ms

Loss rate: 0.00%

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



Run 4: Statistics of TCP BBR

Start at: 2019-05-30 01:48:26  
End at: 2019-05-30 01:48:56  
Local clock offset: -58.303 ms  
Remote clock offset: 0.324 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.63 Mbit/s  
95th percentile per-packet one-way delay: 79.869 ms  
Loss rate: 0.26%

-- Flow 1:

Average throughput: 57.51 Mbit/s  
95th percentile per-packet one-way delay: 77.820 ms  
Loss rate: 0.17%

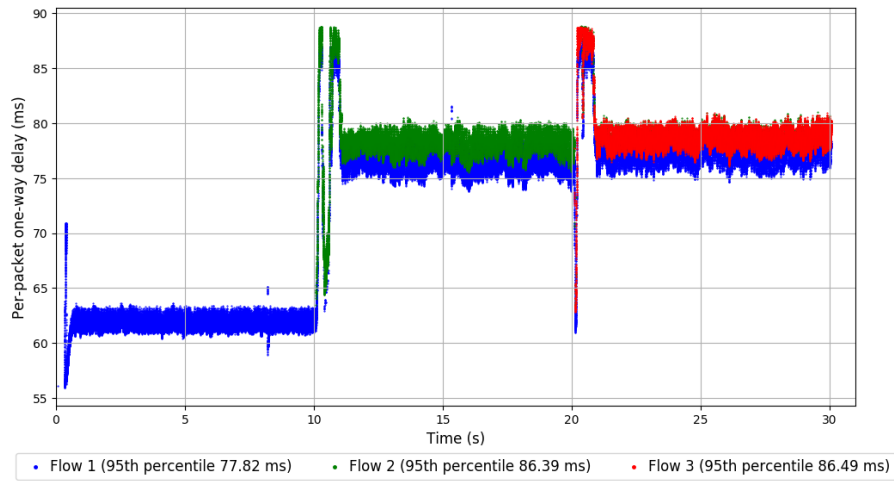
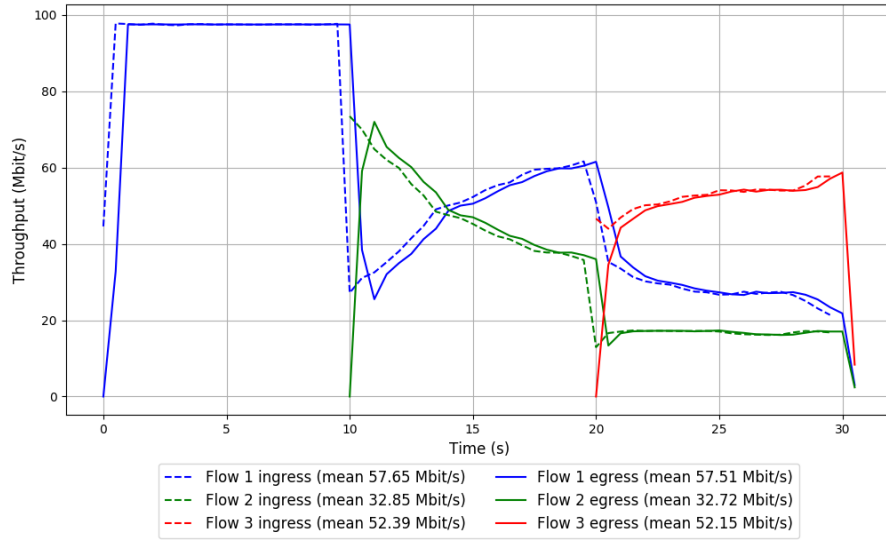
-- Flow 2:

Average throughput: 32.72 Mbit/s  
95th percentile per-packet one-way delay: 86.389 ms  
Loss rate: 0.32%

-- Flow 3:

Average throughput: 52.15 Mbit/s  
95th percentile per-packet one-way delay: 86.486 ms  
Loss rate: 0.45%

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





Run 5: Statistics of TCP BBR

Start at: 2019-05-30 02:12:20

End at: 2019-05-30 02:12:50

Local clock offset: -59.03 ms

Remote clock offset: 0.414 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 79.466 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.04 Mbit/s

95th percentile per-packet one-way delay: 79.277 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.80 Mbit/s

95th percentile per-packet one-way delay: 79.861 ms

Loss rate: 0.00%

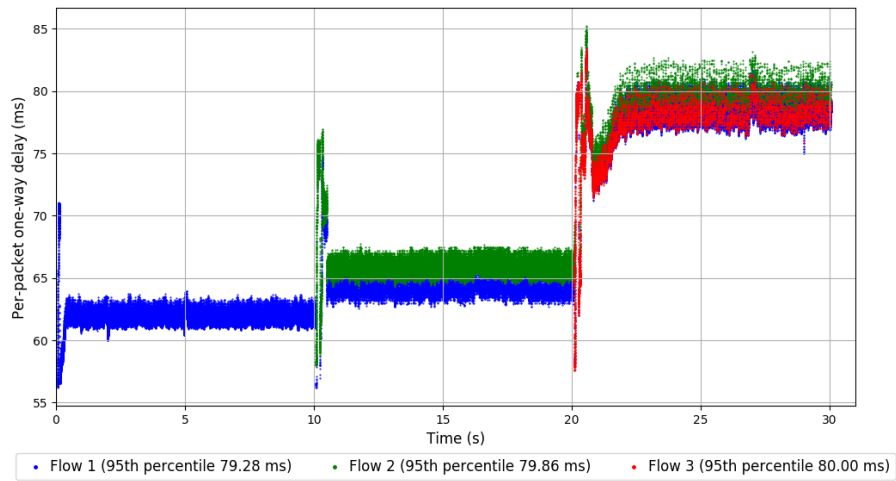
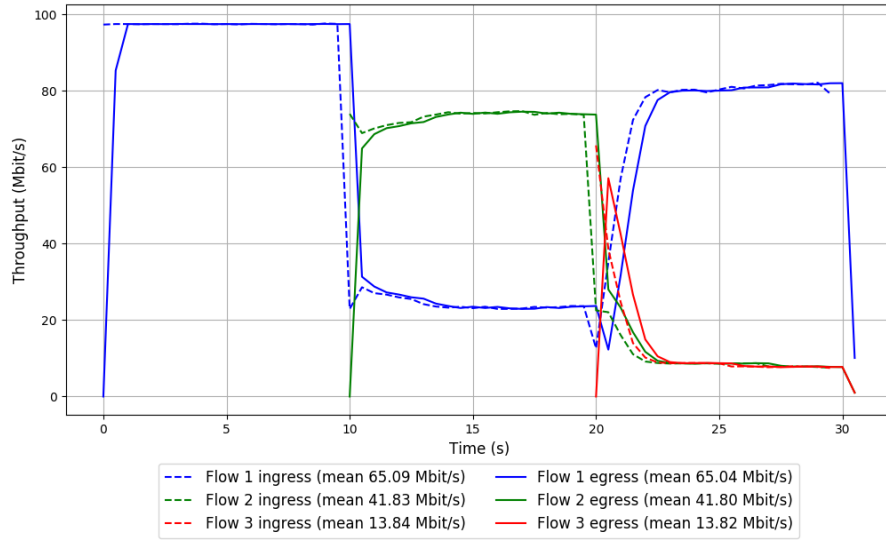
-- Flow 3:

Average throughput: 13.82 Mbit/s

95th percentile per-packet one-way delay: 79.998 ms

Loss rate: 0.00%

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



Run 1: Statistics of Copa

Start at: 2019-05-30 00:30:03  
End at: 2019-05-30 00:30:33  
Local clock offset: -4.486 ms  
Remote clock offset: -0.616 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s  
95th percentile per-packet one-way delay: 1.113 ms  
Loss rate: 65.20%

-- Flow 1:

Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 1.038 ms  
Loss rate: 98.33%

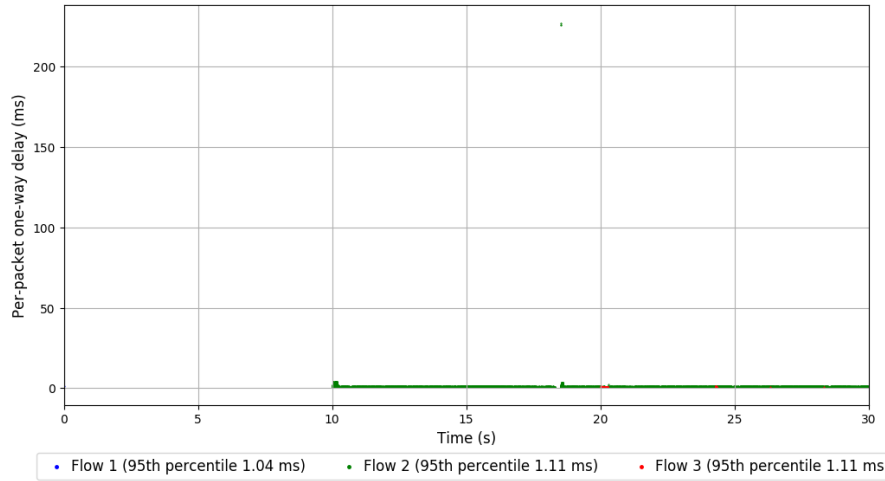
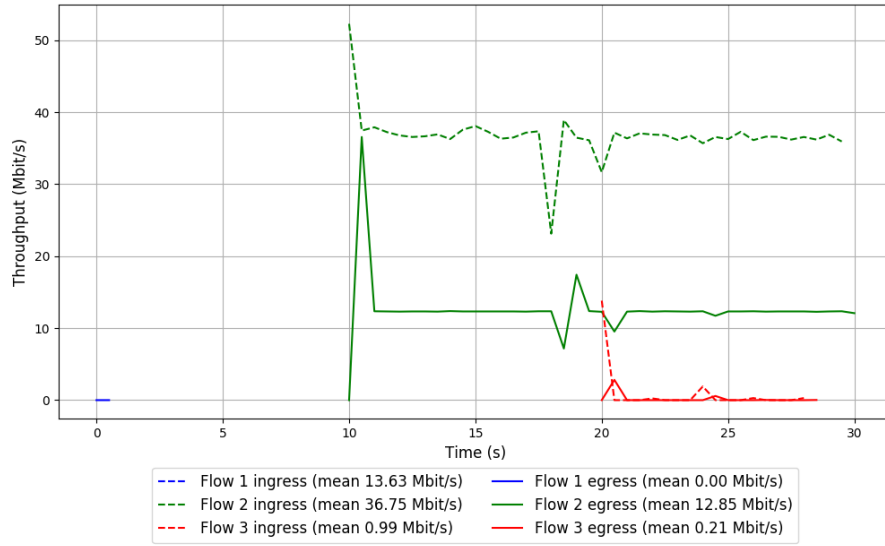
-- Flow 2:

Average throughput: 12.85 Mbit/s  
95th percentile per-packet one-way delay: 1.113 ms  
Loss rate: 65.04%

-- Flow 3:

Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 1.108 ms  
Loss rate: 79.18%

### Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-05-30 00:53:55

End at: 2019-05-30 00:54:25

Local clock offset: -5.954 ms

Remote clock offset: -0.35 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 2.054 ms

Loss rate: 68.91%

-- Flow 1:

Average throughput: 10.79 Mbit/s

95th percentile per-packet one-way delay: 2.065 ms

Loss rate: 68.32%

-- Flow 2:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 2.014 ms

Loss rate: 71.71%

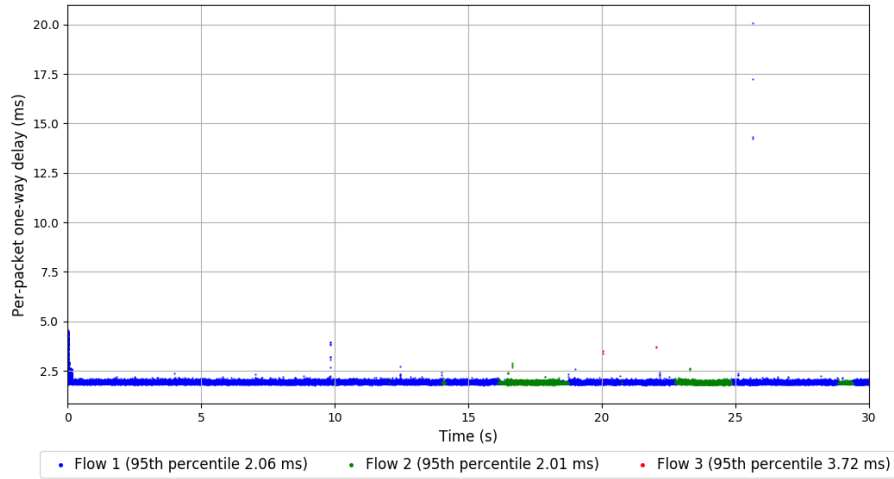
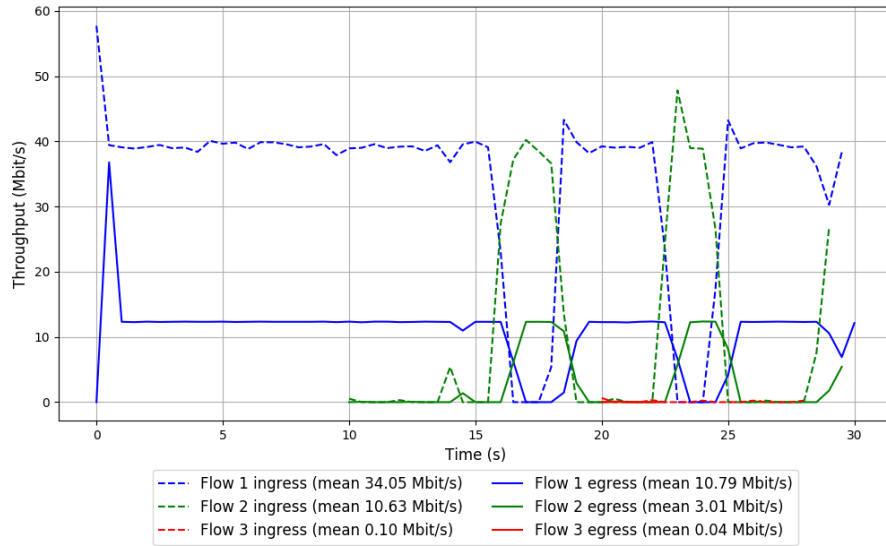
-- Flow 3:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 3.717 ms

Loss rate: 91.19%

## Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-05-30 01:17:49  
End at: 2019-05-30 01:18:19  
Local clock offset: -4.015 ms  
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s  
95th percentile per-packet one-way delay: 2.783 ms  
Loss rate: 64.03%

-- Flow 1:

Average throughput: 12.73 Mbit/s  
95th percentile per-packet one-way delay: 2.783 ms  
Loss rate: 63.97%

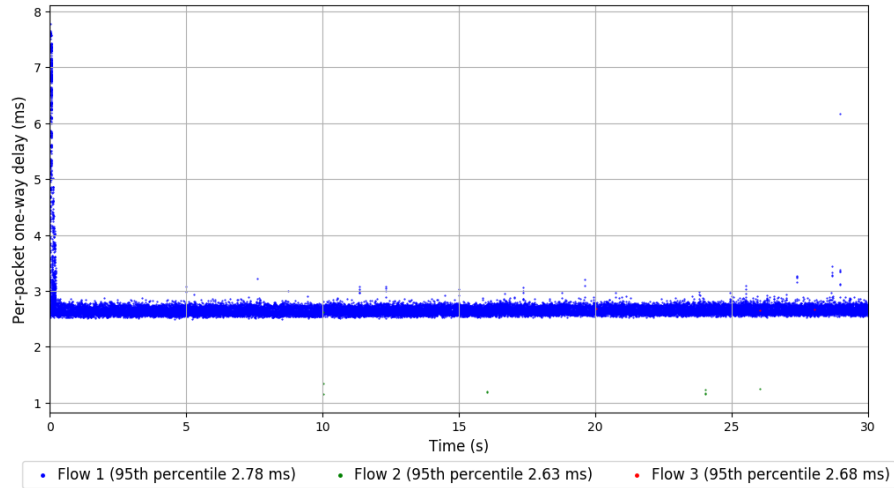
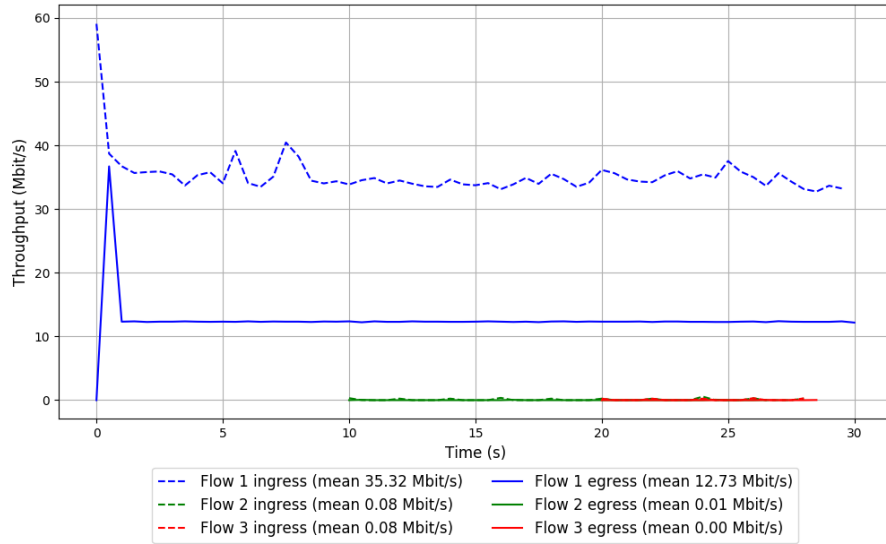
-- Flow 2:

Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 2.628 ms  
Loss rate: 93.43%

-- Flow 3:

Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 2.678 ms  
Loss rate: 96.21%

### Run 3: Report of Copa — Data Link





Run 4: Statistics of Copa

Start at: 2019-05-30 01:41:42  
End at: 2019-05-30 01:42:12  
Local clock offset: -57.534 ms  
Remote clock offset: 0.134 ms

# Below is generated by plot.py at 2019-05-30 02:27:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.32 Mbit/s  
95th percentile per-packet one-way delay: 56.851 ms  
Loss rate: 67.49%

-- Flow 1:

Average throughput: 7.05 Mbit/s  
95th percentile per-packet one-way delay: 55.489 ms  
Loss rate: 65.01%

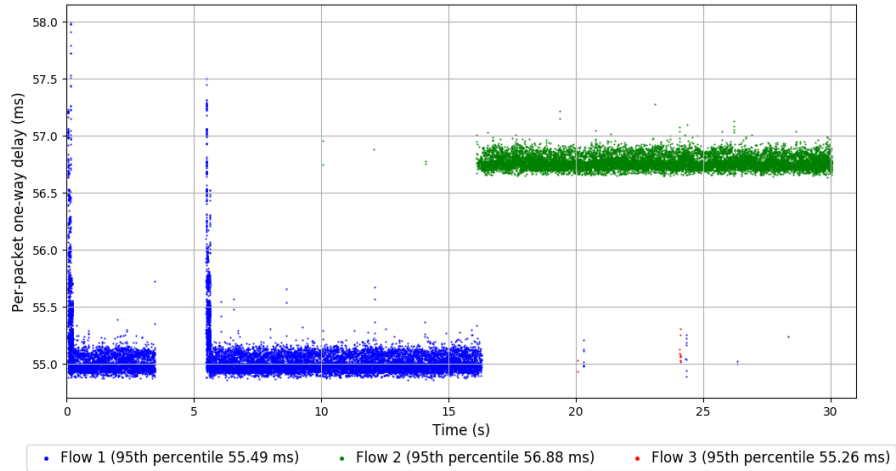
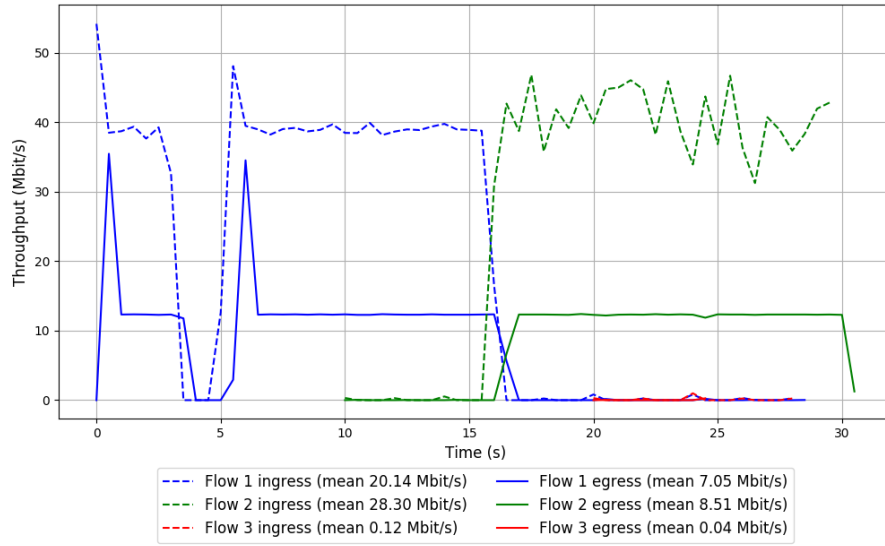
-- Flow 2:

Average throughput: 8.51 Mbit/s  
95th percentile per-packet one-way delay: 56.877 ms  
Loss rate: 69.95%

-- Flow 3:

Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 55.258 ms  
Loss rate: 85.45%

### Run 4: Report of Copa — Data Link

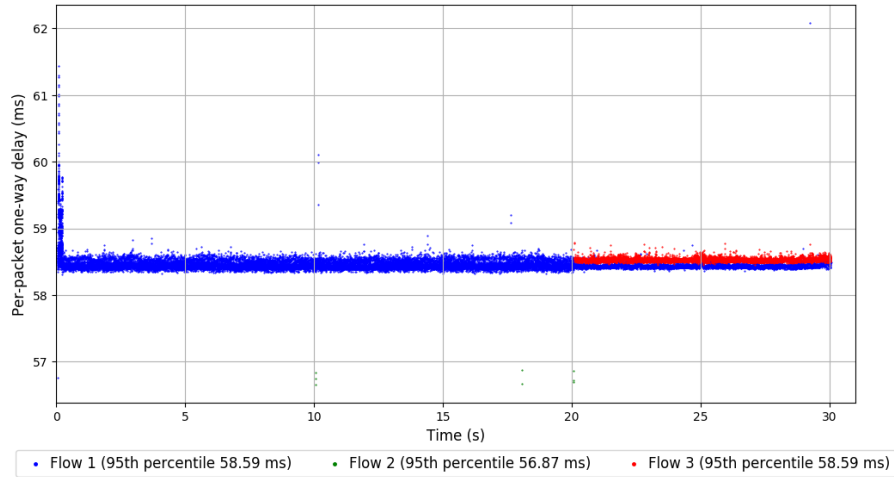
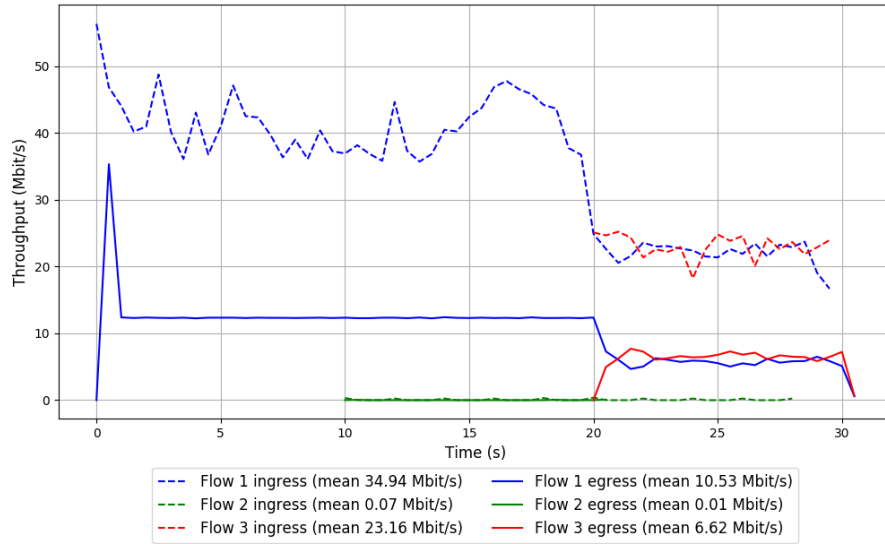


Run 5: Statistics of Copa

Start at: 2019-05-30 02:05:35  
End at: 2019-05-30 02:06:05  
Local clock offset: -58.884 ms  
Remote clock offset: 0.415 ms

```
# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 70.17%
-- Flow 1:
Average throughput: 10.53 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 69.87%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 56.871 ms
Loss rate: 93.68%
-- Flow 3:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 71.42%
```

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-05-30 00:37:56  
End at: 2019-05-30 00:38:26  
Local clock offset: -5.34 ms  
Remote clock offset: -0.706 ms

# Below is generated by plot.py at 2019-05-30 02:27:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s  
95th percentile per-packet one-way delay: 31.824 ms  
Loss rate: 0.03%

-- Flow 1:

Average throughput: 66.92 Mbit/s  
95th percentile per-packet one-way delay: 31.617 ms  
Loss rate: 0.03%

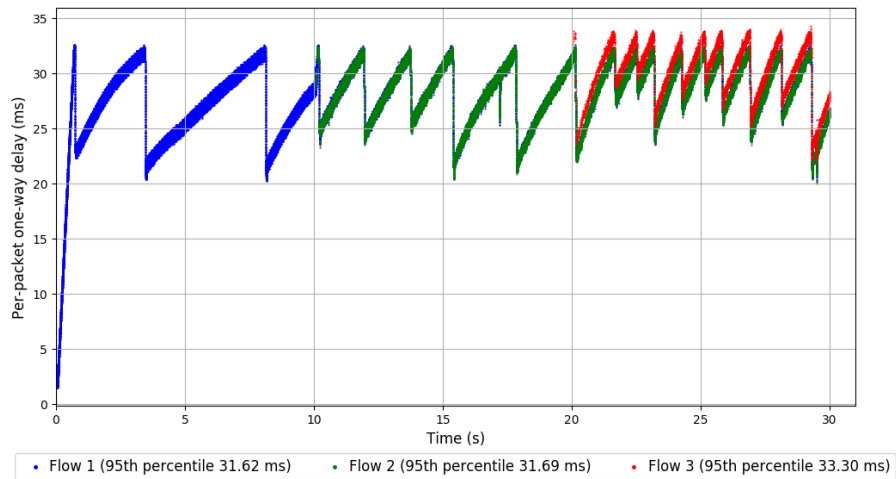
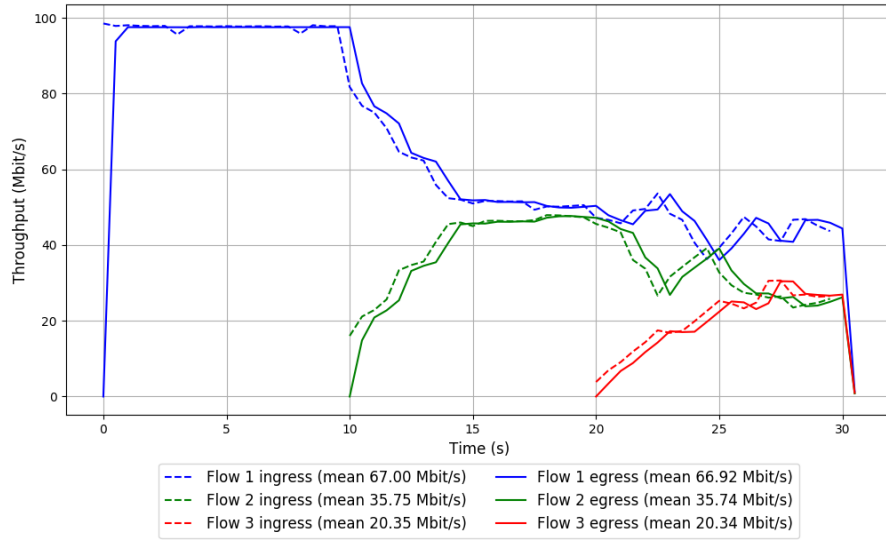
-- Flow 2:

Average throughput: 35.74 Mbit/s  
95th percentile per-packet one-way delay: 31.690 ms  
Loss rate: 0.04%

-- Flow 3:

Average throughput: 20.34 Mbit/s  
95th percentile per-packet one-way delay: 33.304 ms  
Loss rate: 0.06%

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



Run 2: Statistics of TCP Cubic

Start at: 2019-05-30 01:01:48  
End at: 2019-05-30 01:02:18  
Local clock offset: -5.276 ms  
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2019-05-30 02:27:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 32.668 ms  
Loss rate: 0.06%

-- Flow 1:

Average throughput: 61.73 Mbit/s  
95th percentile per-packet one-way delay: 32.901 ms  
Loss rate: 0.05%

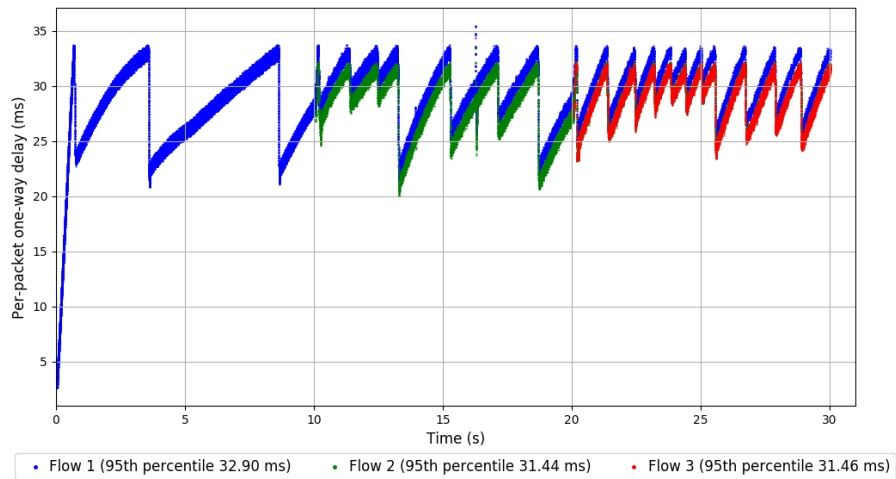
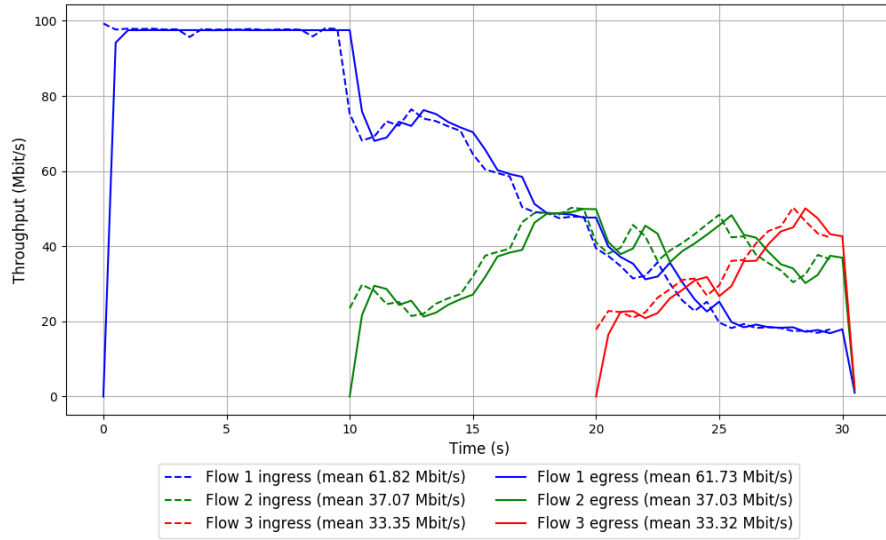
-- Flow 2:

Average throughput: 37.03 Mbit/s  
95th percentile per-packet one-way delay: 31.438 ms  
Loss rate: 0.07%

-- Flow 3:

Average throughput: 33.32 Mbit/s  
95th percentile per-packet one-way delay: 31.463 ms  
Loss rate: 0.04%

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





Run 3: Statistics of TCP Cubic

Start at: 2019-05-30 01:25:42

End at: 2019-05-30 01:26:12

Local clock offset: -3.382 ms

Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2019-05-30 02:27:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 31.579 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 64.62 Mbit/s

95th percentile per-packet one-way delay: 30.899 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 34.18 Mbit/s

95th percentile per-packet one-way delay: 32.599 ms

Loss rate: 0.04%

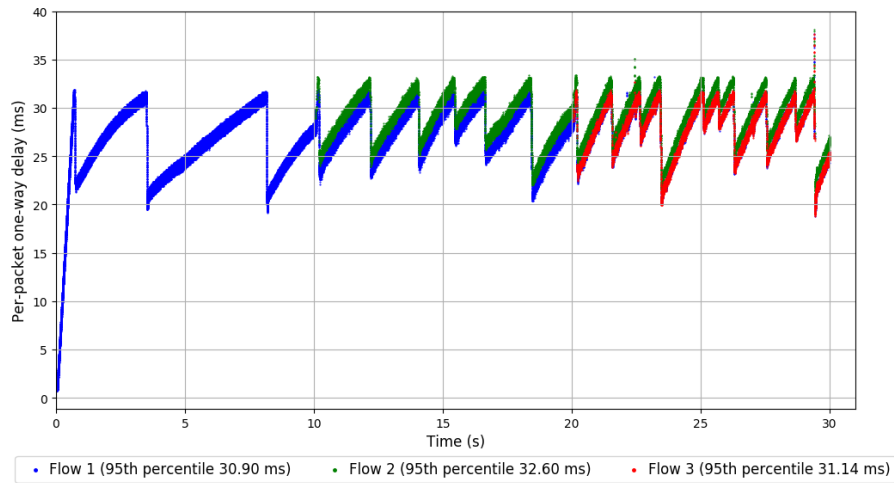
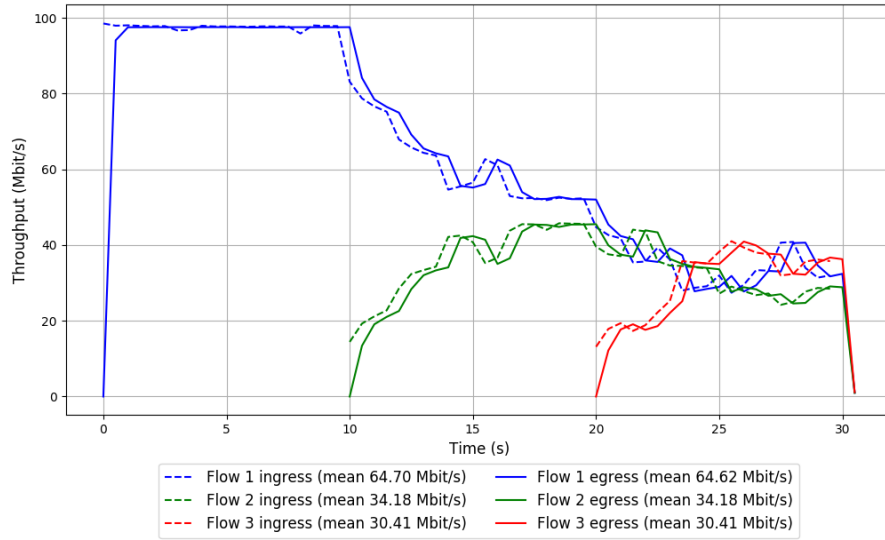
-- Flow 3:

Average throughput: 30.41 Mbit/s

95th percentile per-packet one-way delay: 31.138 ms

Loss rate: 0.03%

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



Run 4: Statistics of TCP Cubic

Start at: 2019-05-30 01:49:35  
End at: 2019-05-30 01:50:05  
Local clock offset: -58.659 ms  
Remote clock offset: 0.359 ms

# Below is generated by plot.py at 2019-05-30 02:28:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s  
95th percentile per-packet one-way delay: 88.255 ms  
Loss rate: 0.03%

-- Flow 1:

Average throughput: 68.40 Mbit/s  
95th percentile per-packet one-way delay: 88.184 ms  
Loss rate: 0.03%

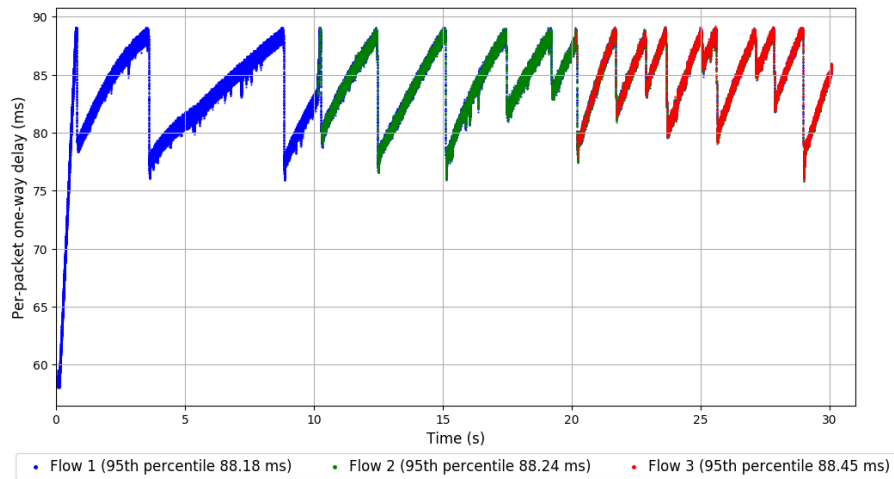
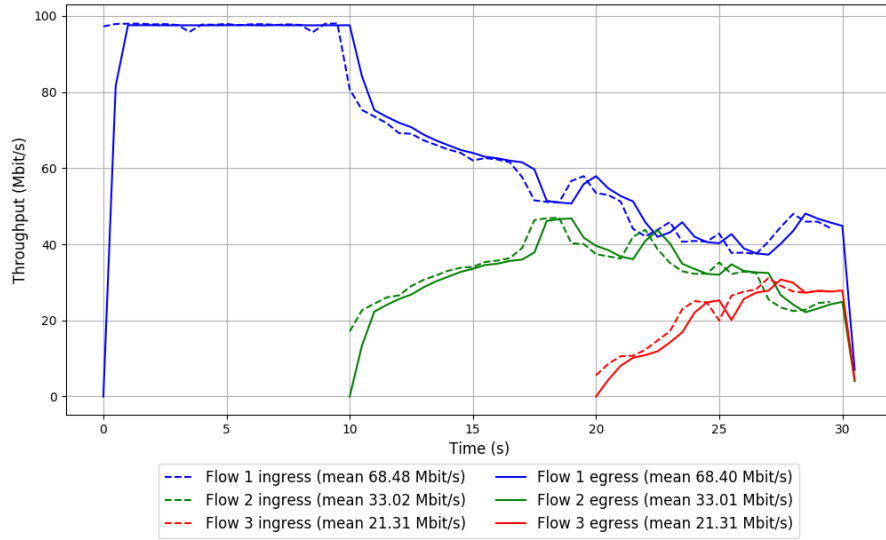
-- Flow 2:

Average throughput: 33.01 Mbit/s  
95th percentile per-packet one-way delay: 88.243 ms  
Loss rate: 0.03%

-- Flow 3:

Average throughput: 21.31 Mbit/s  
95th percentile per-packet one-way delay: 88.451 ms  
Loss rate: 0.04%

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



Run 5: Statistics of TCP Cubic

Start at: 2019-05-30 02:13:29  
End at: 2019-05-30 02:13:59  
Local clock offset: -59.396 ms  
Remote clock offset: 0.405 ms

# Below is generated by plot.py at 2019-05-30 02:28:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 86.861 ms  
Loss rate: 0.03%

-- Flow 1:

Average throughput: 64.71 Mbit/s  
95th percentile per-packet one-way delay: 86.606 ms  
Loss rate: 0.04%

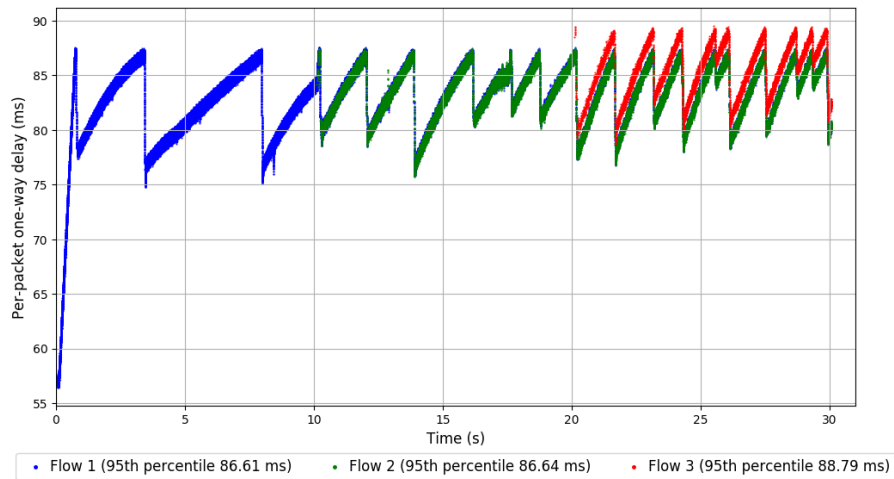
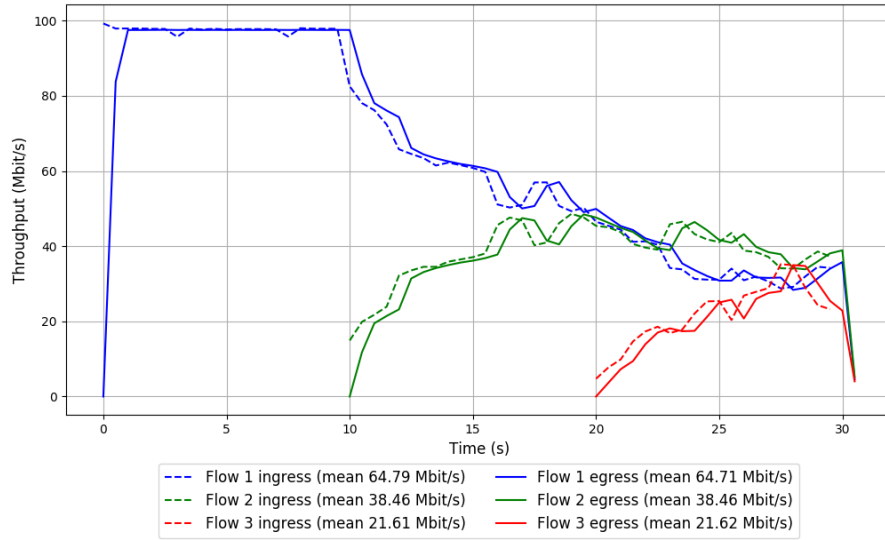
-- Flow 2:

Average throughput: 38.46 Mbit/s  
95th percentile per-packet one-way delay: 86.642 ms  
Loss rate: 0.02%

-- Flow 3:

Average throughput: 21.62 Mbit/s  
95th percentile per-packet one-way delay: 88.790 ms  
Loss rate: 0.04%

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



Run 1: Statistics of FillP

Start at: 2019-05-30 00:33:22  
End at: 2019-05-30 00:33:52  
Local clock offset: -4.532 ms  
Remote clock offset: -0.663 ms

# Below is generated by plot.py at 2019-05-30 02:28:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.69 Mbit/s  
95th percentile per-packet one-way delay: 28.933 ms  
Loss rate: 19.33%

-- Flow 1:

Average throughput: 46.56 Mbit/s  
95th percentile per-packet one-way delay: 28.316 ms  
Loss rate: 13.10%

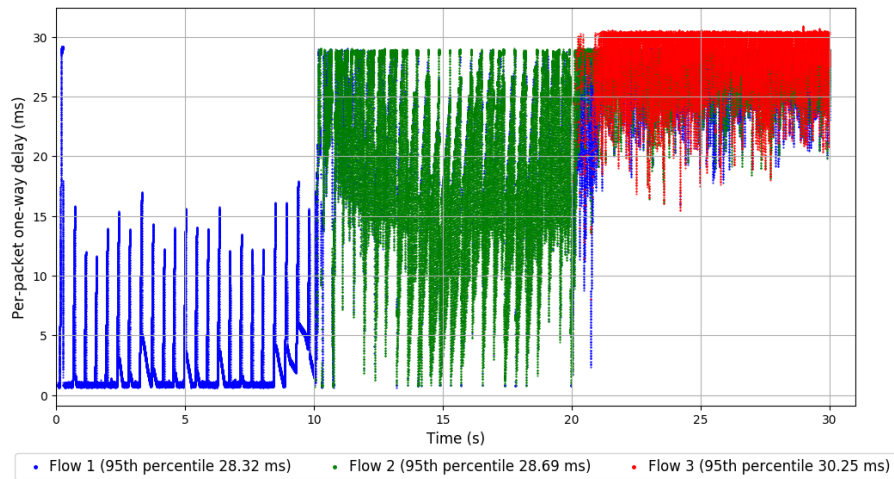
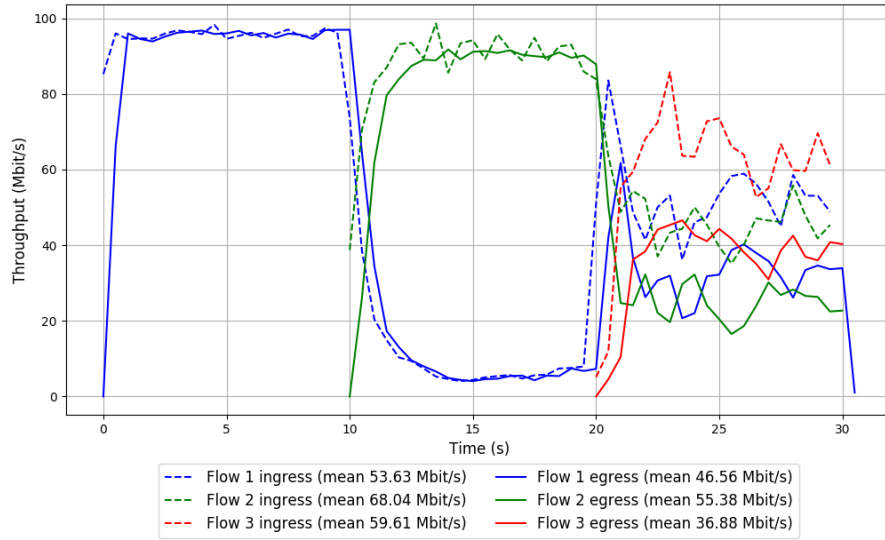
-- Flow 2:

Average throughput: 55.38 Mbit/s  
95th percentile per-packet one-way delay: 28.687 ms  
Loss rate: 18.52%

-- Flow 3:

Average throughput: 36.88 Mbit/s  
95th percentile per-packet one-way delay: 30.250 ms  
Loss rate: 38.06%

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





Run 2: Statistics of FillP

Start at: 2019-05-30 00:57:14  
End at: 2019-05-30 00:57:44  
Local clock offset: -5.004 ms  
Remote clock offset: -0.324 ms

# Below is generated by plot.py at 2019-05-30 02:28:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.67 Mbit/s  
95th percentile per-packet one-way delay: 30.114 ms  
Loss rate: 20.70%

-- Flow 1:

Average throughput: 42.75 Mbit/s  
95th percentile per-packet one-way delay: 28.198 ms  
Loss rate: 13.89%

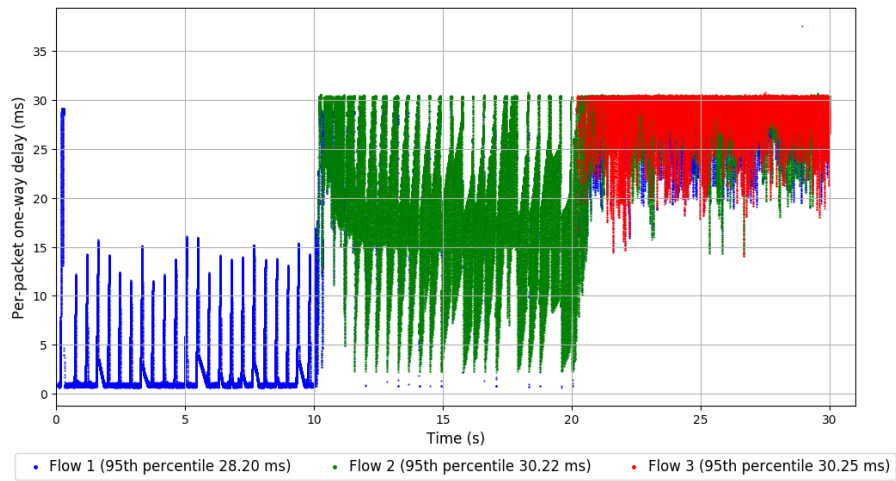
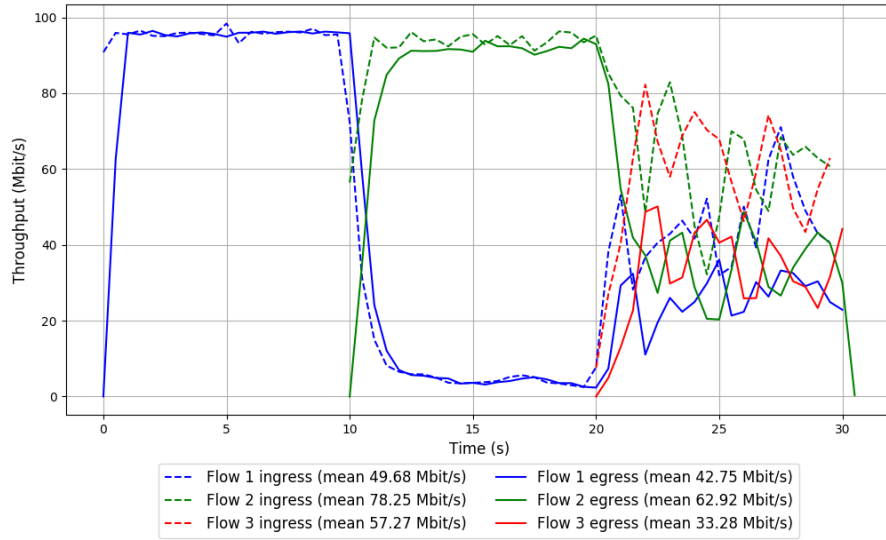
-- Flow 2:

Average throughput: 62.92 Mbit/s  
95th percentile per-packet one-way delay: 30.224 ms  
Loss rate: 19.49%

-- Flow 3:

Average throughput: 33.28 Mbit/s  
95th percentile per-packet one-way delay: 30.252 ms  
Loss rate: 41.85%

## Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-05-30 01:21:08

End at: 2019-05-30 01:21:38

Local clock offset: -4.439 ms

Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2019-05-30 02:28:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.84 Mbit/s

95th percentile per-packet one-way delay: 31.019 ms

Loss rate: 16.25%

-- Flow 1:

Average throughput: 41.21 Mbit/s

95th percentile per-packet one-way delay: 27.596 ms

Loss rate: 5.16%

-- Flow 2:

Average throughput: 50.91 Mbit/s

95th percentile per-packet one-way delay: 31.002 ms

Loss rate: 14.97%

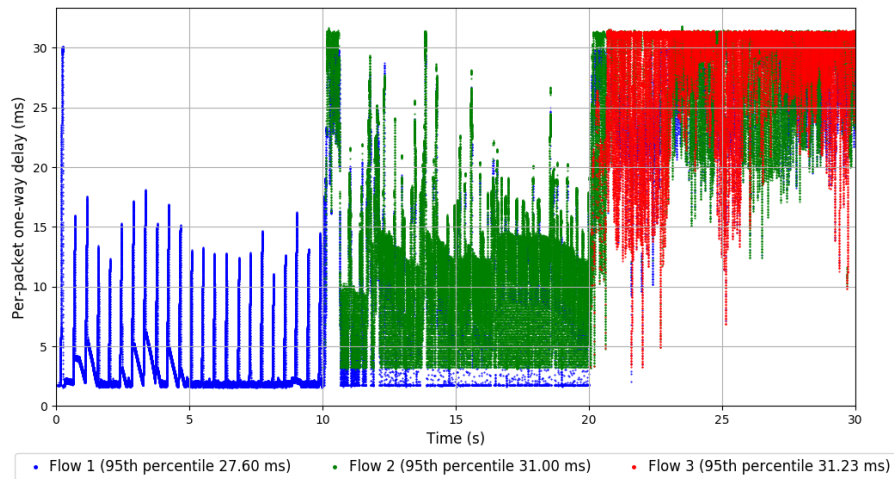
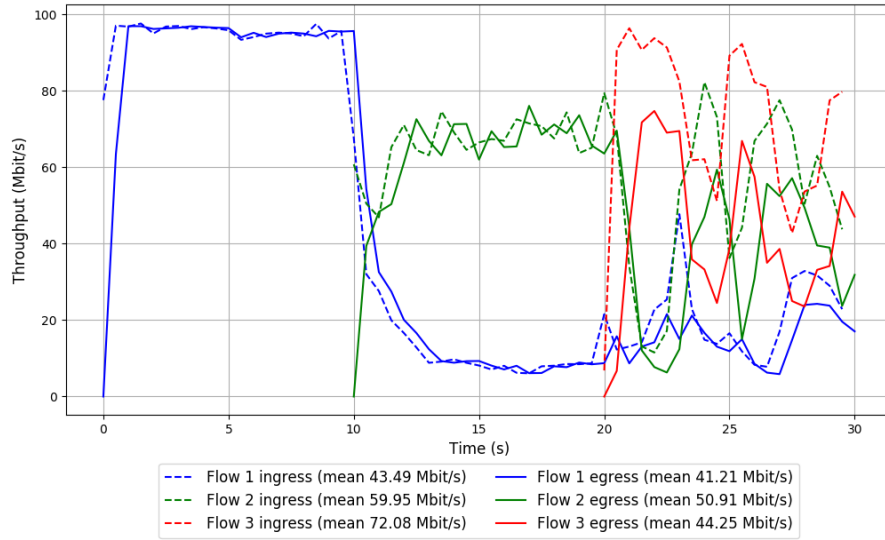
-- Flow 3:

Average throughput: 44.25 Mbit/s

95th percentile per-packet one-way delay: 31.226 ms

Loss rate: 38.50%

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

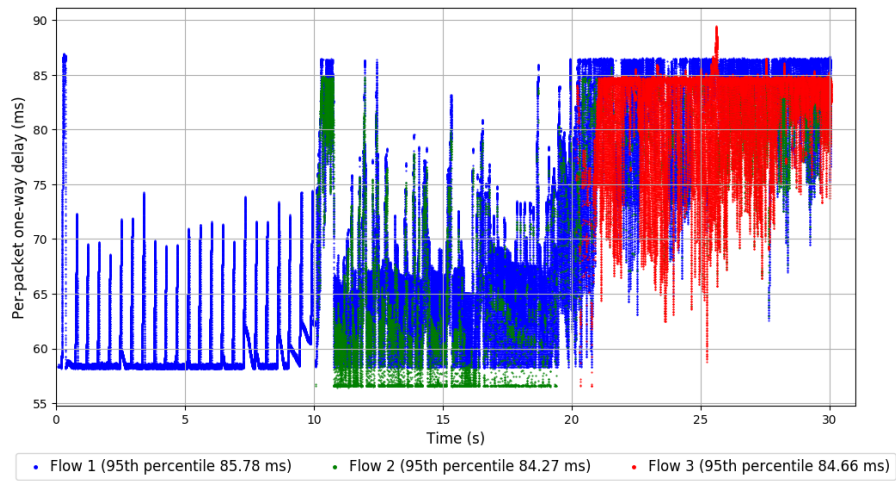
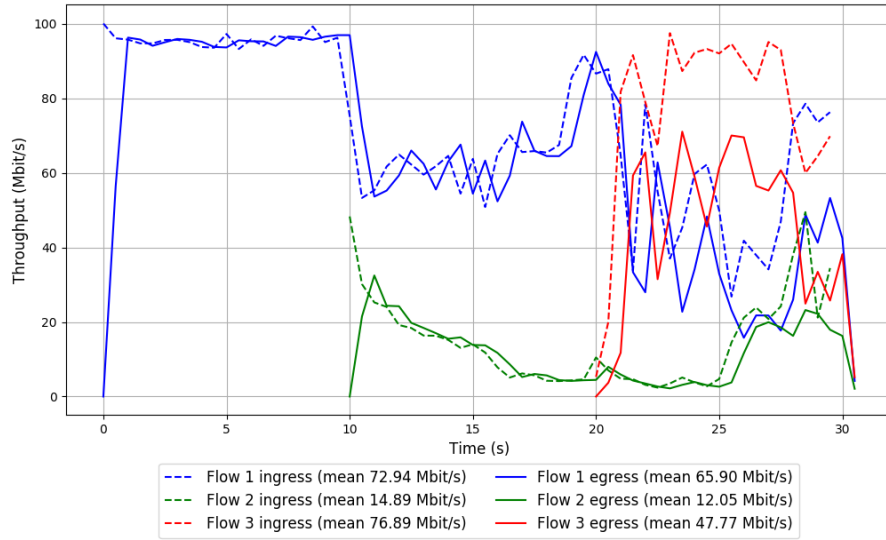


Run 4: Statistics of FillP

Start at: 2019-05-30 01:45:01  
End at: 2019-05-30 01:45:31  
Local clock offset: -59.067 ms  
Remote clock offset: 0.25 ms

# Below is generated by plot.py at 2019-05-30 02:28:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.76 Mbit/s  
95th percentile per-packet one-way delay: 85.383 ms  
Loss rate: 17.10%  
-- Flow 1:  
Average throughput: 65.90 Mbit/s  
95th percentile per-packet one-way delay: 85.782 ms  
Loss rate: 9.57%  
-- Flow 2:  
Average throughput: 12.05 Mbit/s  
95th percentile per-packet one-way delay: 84.268 ms  
Loss rate: 19.02%  
-- Flow 3:  
Average throughput: 47.77 Mbit/s  
95th percentile per-packet one-way delay: 84.664 ms  
Loss rate: 37.84%

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

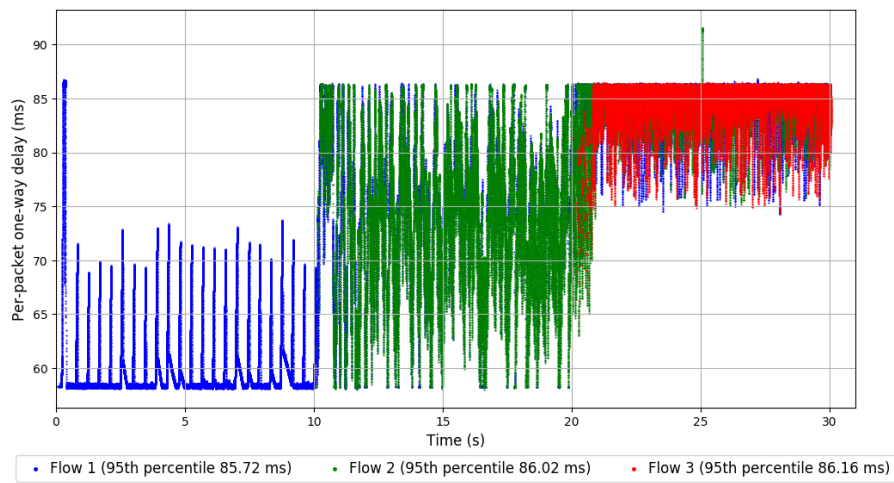
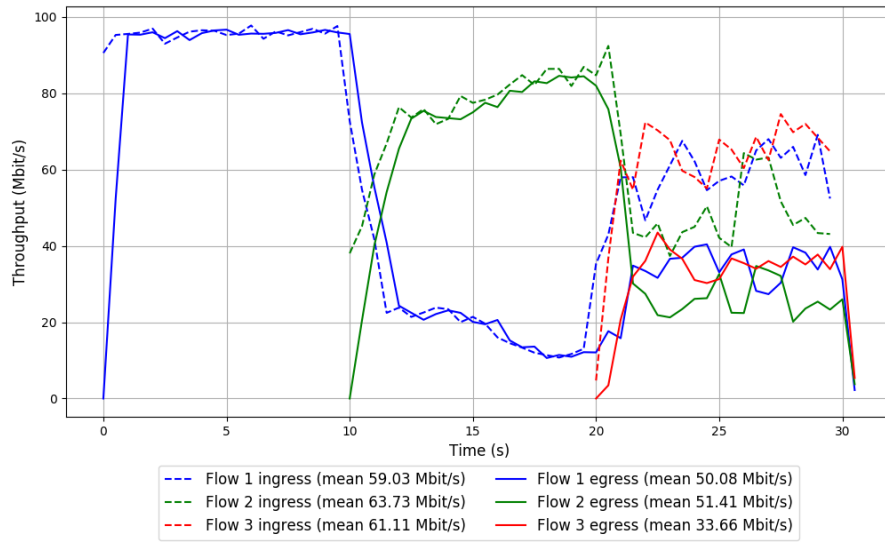


Run 5: Statistics of FillP

Start at: 2019-05-30 02:08:55  
End at: 2019-05-30 02:09:25  
Local clock offset: -58.929 ms  
Remote clock offset: 0.386 ms

```
# Below is generated by plot.py at 2019-05-30 02:28:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 85.977 ms
Loss rate: 21.51%
-- Flow 1:
Average throughput: 50.08 Mbit/s
95th percentile per-packet one-way delay: 85.723 ms
Loss rate: 15.10%
-- Flow 2:
Average throughput: 51.41 Mbit/s
95th percentile per-packet one-way delay: 86.023 ms
Loss rate: 19.25%
-- Flow 3:
Average throughput: 33.66 Mbit/s
95th percentile per-packet one-way delay: 86.161 ms
Loss rate: 44.91%
```

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





Run 1: Statistics of FillP-Sheep

Start at: 2019-05-30 00:25:27  
End at: 2019-05-30 00:25:57  
Local clock offset: -4.509 ms  
Remote clock offset: -0.674 ms

# Below is generated by plot.py at 2019-05-30 02:28:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.51 Mbit/s  
95th percentile per-packet one-way delay: 20.275 ms  
Loss rate: 1.33%

-- Flow 1:

Average throughput: 63.47 Mbit/s  
95th percentile per-packet one-way delay: 19.344 ms  
Loss rate: 0.76%

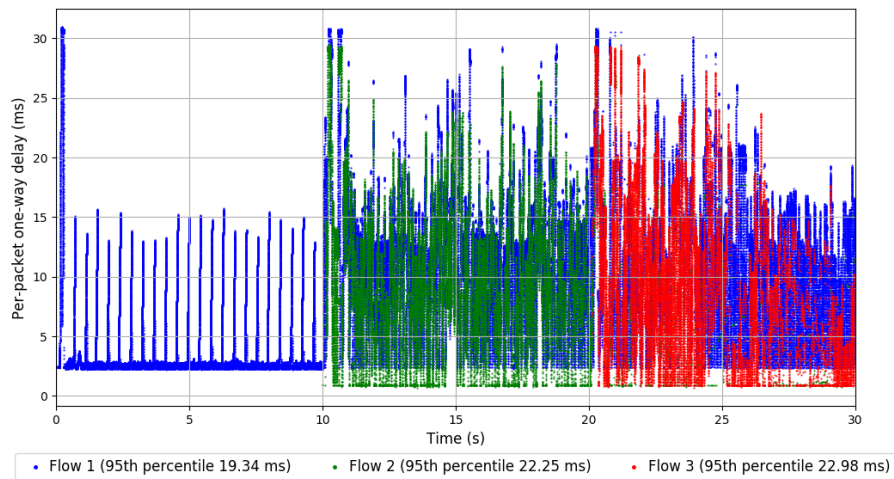
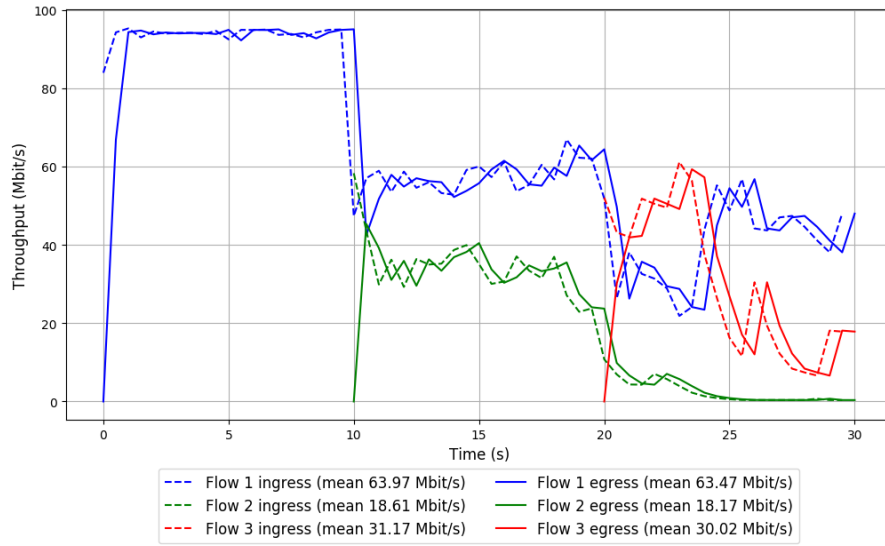
-- Flow 2:

Average throughput: 18.17 Mbit/s  
95th percentile per-packet one-way delay: 22.246 ms  
Loss rate: 2.31%

-- Flow 3:

Average throughput: 30.02 Mbit/s  
95th percentile per-packet one-way delay: 22.985 ms  
Loss rate: 3.70%

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



Run 2: Statistics of FillP-Sheep

Start at: 2019-05-30 00:49:19

End at: 2019-05-30 00:49:49

Local clock offset: -4.932 ms

Remote clock offset: -0.4 ms

# Below is generated by plot.py at 2019-05-30 02:29:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 83.33 Mbit/s

95th percentile per-packet one-way delay: 18.060 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 42.59 Mbit/s

95th percentile per-packet one-way delay: 13.418 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 36.00 Mbit/s

95th percentile per-packet one-way delay: 18.328 ms

Loss rate: 1.43%

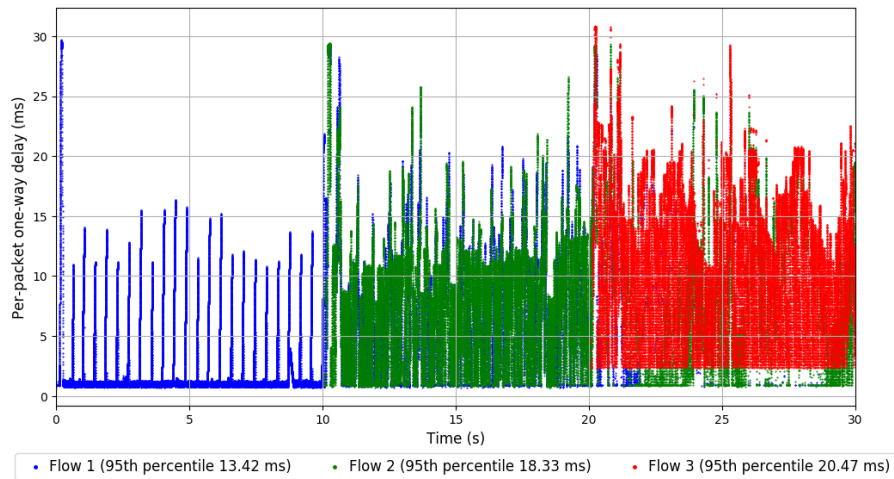
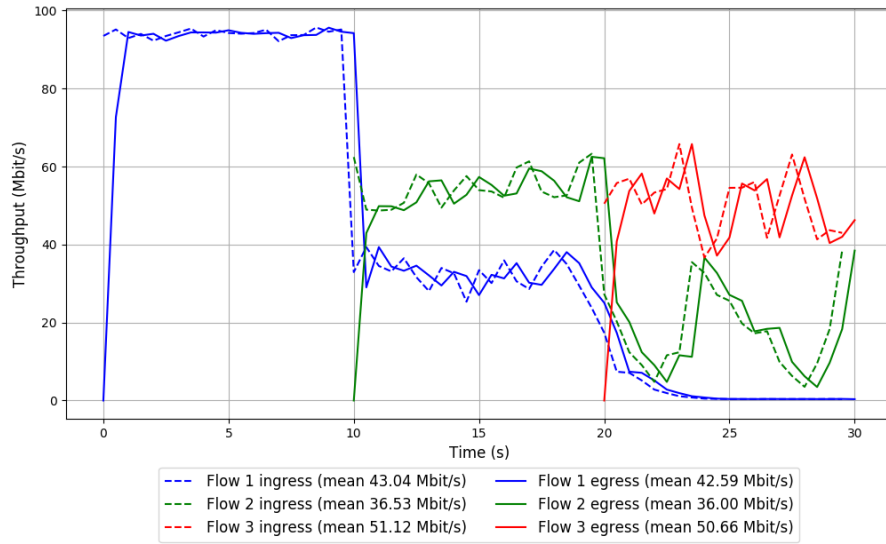
-- Flow 3:

Average throughput: 50.66 Mbit/s

95th percentile per-packet one-way delay: 20.471 ms

Loss rate: 0.89%

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



Run 3: Statistics of FillP-Sheep

Start at: 2019-05-30 01:13:13  
End at: 2019-05-30 01:13:43  
Local clock offset: -4.276 ms  
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-05-30 02:29:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.27 Mbit/s  
95th percentile per-packet one-way delay: 23.933 ms  
Loss rate: 1.66%

-- Flow 1:

Average throughput: 38.22 Mbit/s  
95th percentile per-packet one-way delay: 14.463 ms  
Loss rate: 0.99%

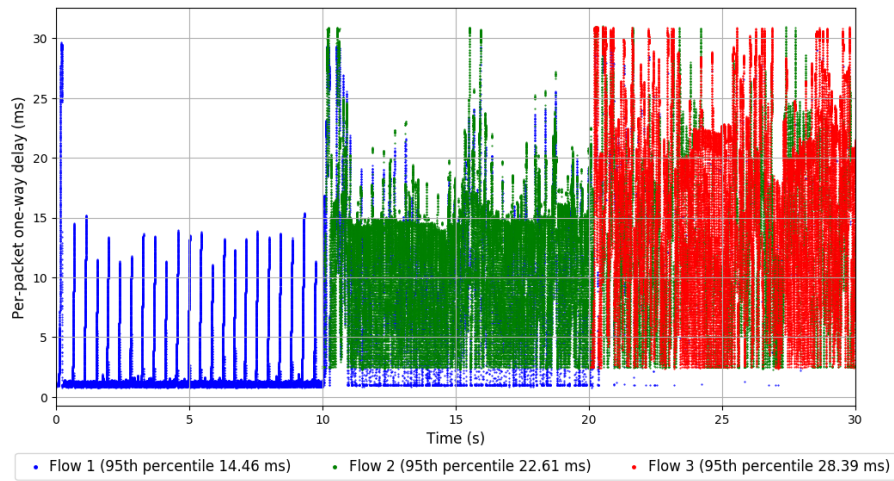
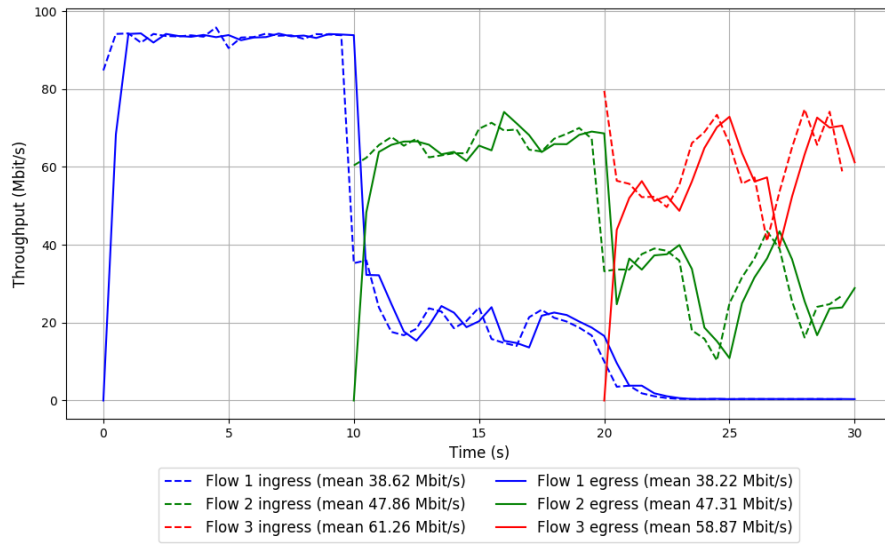
-- Flow 2:

Average throughput: 47.31 Mbit/s  
95th percentile per-packet one-way delay: 22.612 ms  
Loss rate: 1.13%

-- Flow 3:

Average throughput: 58.87 Mbit/s  
95th percentile per-packet one-way delay: 28.393 ms  
Loss rate: 3.77%

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



Run 4: Statistics of FillP-Sheep

Start at: 2019-05-30 01:37:06

End at: 2019-05-30 01:37:36

Local clock offset: -3.805 ms

Remote clock offset: 0.171 ms

# Below is generated by plot.py at 2019-05-30 02:29:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.94 Mbit/s

95th percentile per-packet one-way delay: 21.600 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 61.33 Mbit/s

95th percentile per-packet one-way delay: 20.638 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 34.12 Mbit/s

95th percentile per-packet one-way delay: 22.182 ms

Loss rate: 0.23%

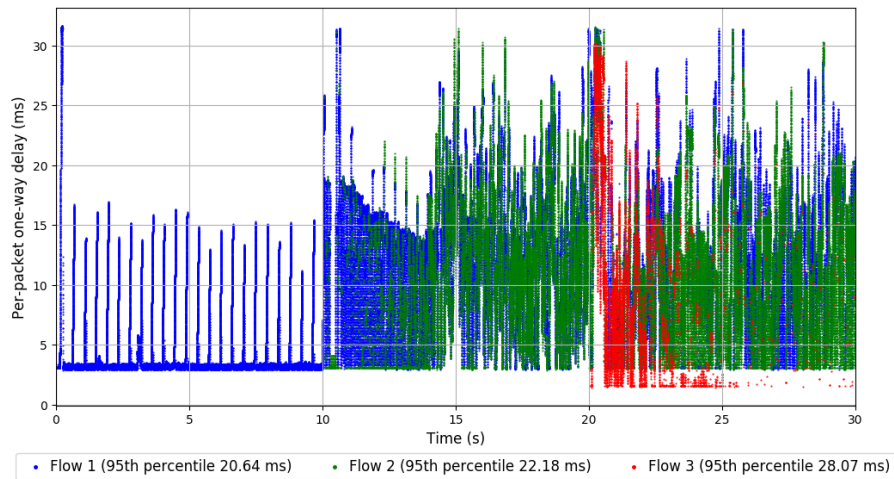
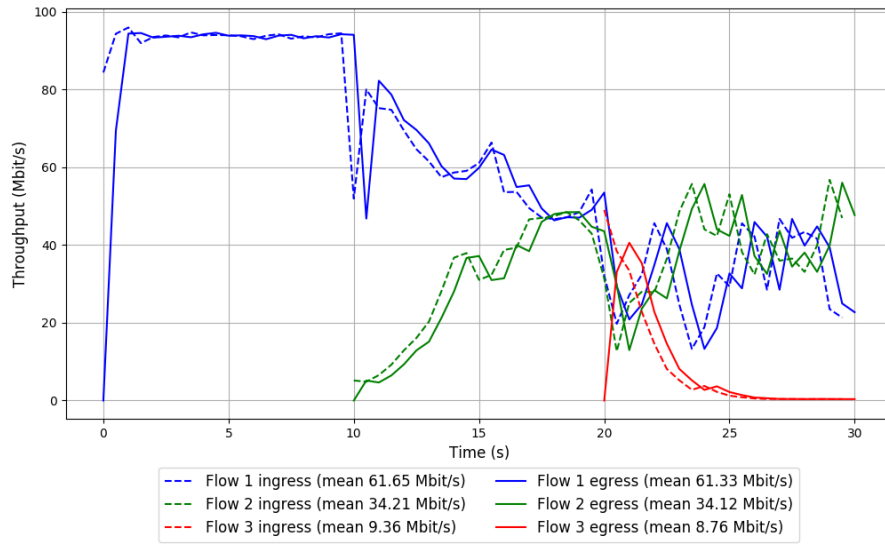
-- Flow 3:

Average throughput: 8.76 Mbit/s

95th percentile per-packet one-way delay: 28.074 ms

Loss rate: 6.39%

Run 4: Report of FillP-Sheep — Data Link





Run 5: Statistics of FillP-Sheep

Start at: 2019-05-30 02:00:59  
End at: 2019-05-30 02:01:29  
Local clock offset: -58.936 ms  
Remote clock offset: 0.424 ms

# Below is generated by plot.py at 2019-05-30 02:29:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.33 Mbit/s  
95th percentile per-packet one-way delay: 77.044 ms  
Loss rate: 0.84%

-- Flow 1:

Average throughput: 65.17 Mbit/s  
95th percentile per-packet one-way delay: 76.383 ms  
Loss rate: 0.61%

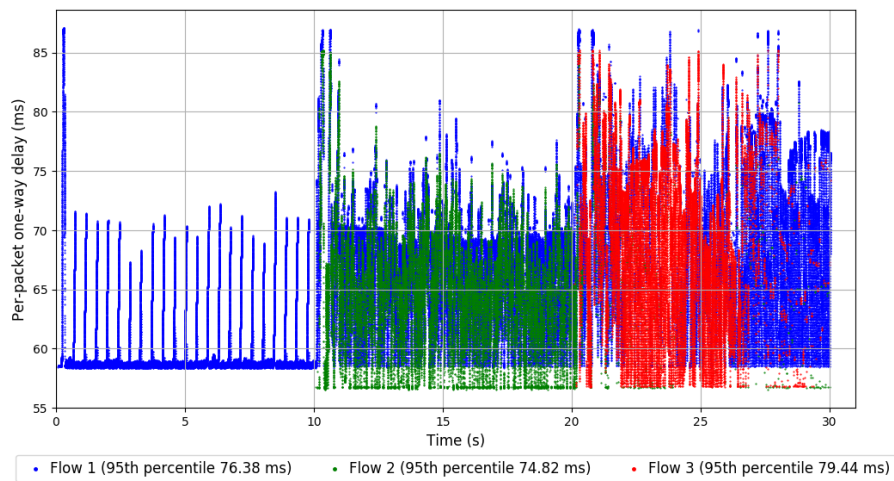
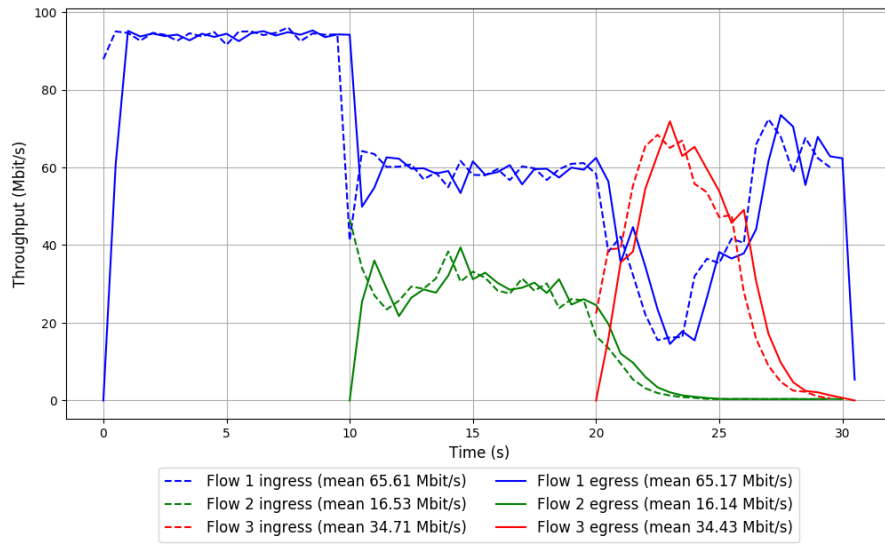
-- Flow 2:

Average throughput: 16.14 Mbit/s  
95th percentile per-packet one-way delay: 74.816 ms  
Loss rate: 2.34%

-- Flow 3:

Average throughput: 34.43 Mbit/s  
95th percentile per-packet one-way delay: 79.442 ms  
Loss rate: 0.73%

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



Run 1: Statistics of Indigo

Start at: 2019-05-30 00:35:36  
End at: 2019-05-30 00:36:06  
Local clock offset: -4.538 ms  
Remote clock offset: -0.638 ms

# Below is generated by plot.py at 2019-05-30 02:29:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.40 Mbit/s  
95th percentile per-packet one-way delay: 12.581 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.87 Mbit/s  
95th percentile per-packet one-way delay: 9.778 ms  
Loss rate: 0.00%

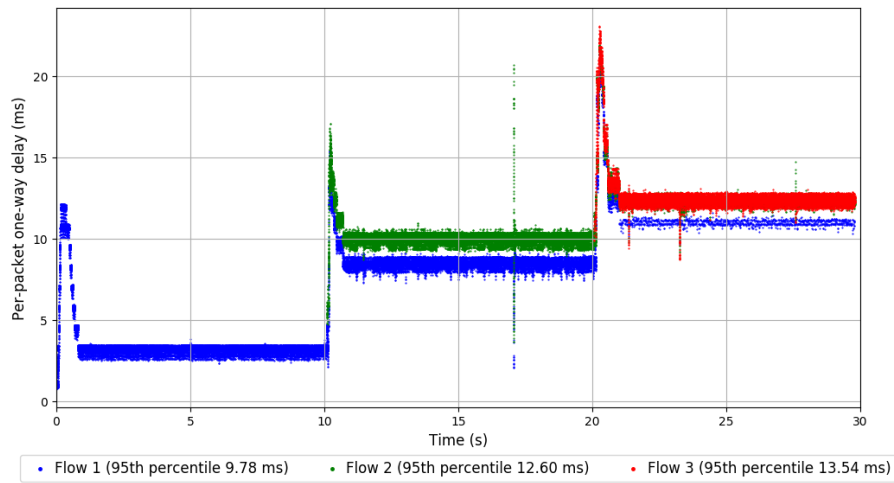
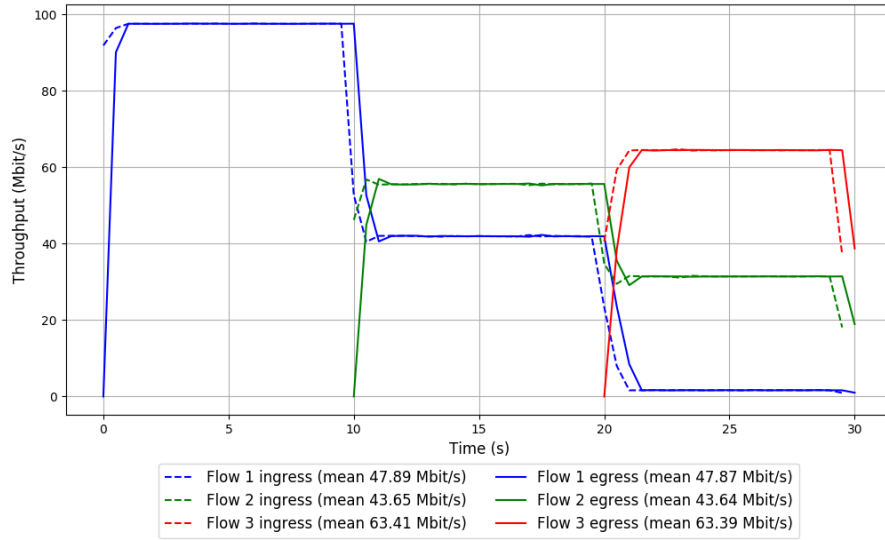
-- Flow 2:

Average throughput: 43.64 Mbit/s  
95th percentile per-packet one-way delay: 12.595 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 63.39 Mbit/s  
95th percentile per-packet one-way delay: 13.545 ms  
Loss rate: 0.00%

# Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-05-30 00:59:29  
End at: 2019-05-30 00:59:59  
Local clock offset: -5.808 ms  
Remote clock offset: -0.279 ms

# Below is generated by plot.py at 2019-05-30 02:29:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.38 Mbit/s  
95th percentile per-packet one-way delay: 13.378 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.72 Mbit/s  
95th percentile per-packet one-way delay: 11.822 ms  
Loss rate: 0.00%

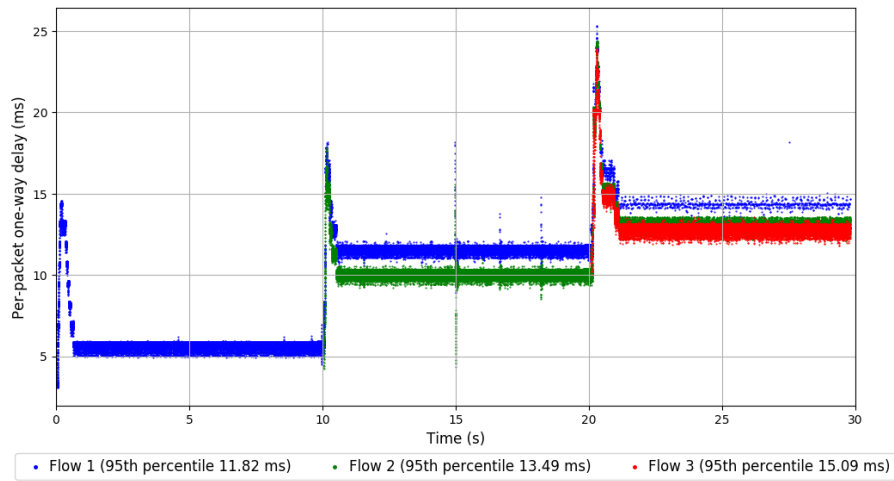
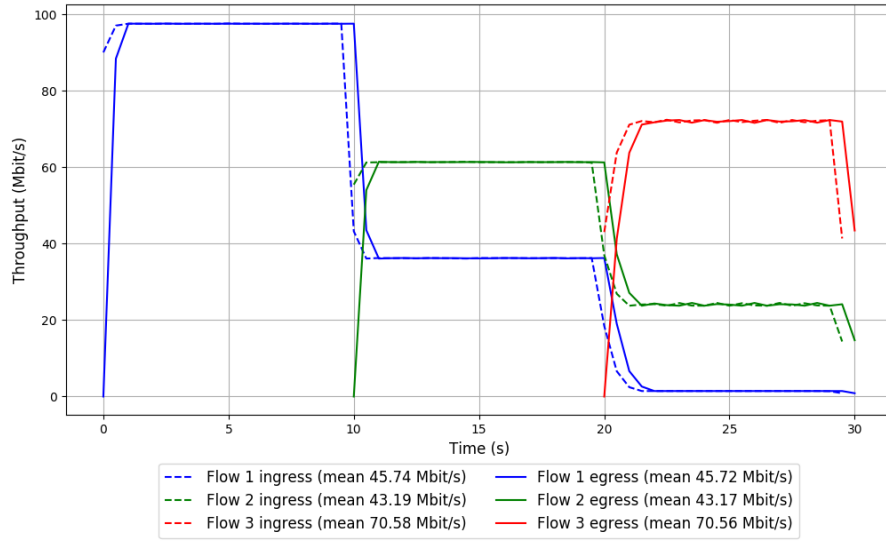
-- Flow 2:

Average throughput: 43.17 Mbit/s  
95th percentile per-packet one-way delay: 13.490 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 70.56 Mbit/s  
95th percentile per-packet one-way delay: 15.092 ms  
Loss rate: 0.00%

## Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-05-30 01:23:22

End at: 2019-05-30 01:23:52

Local clock offset: -4.27 ms

Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-05-30 02:29:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 14.595 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.64 Mbit/s

95th percentile per-packet one-way delay: 11.077 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.40 Mbit/s

95th percentile per-packet one-way delay: 14.648 ms

Loss rate: 0.00%

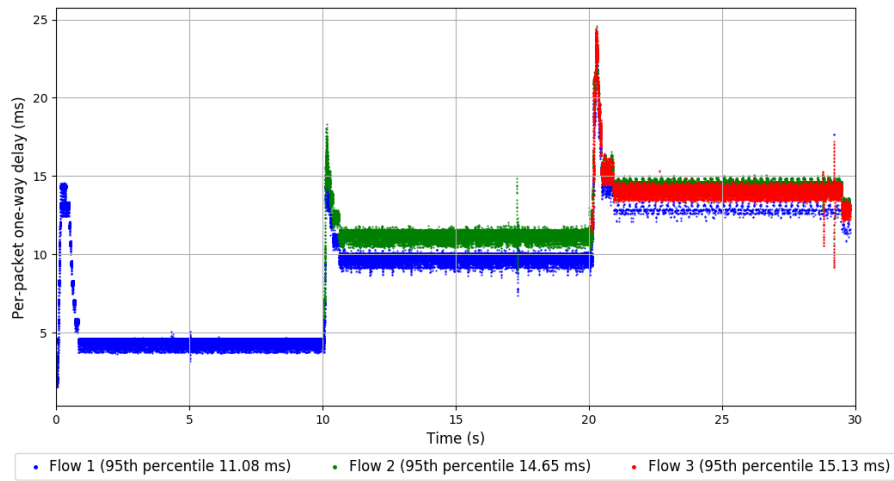
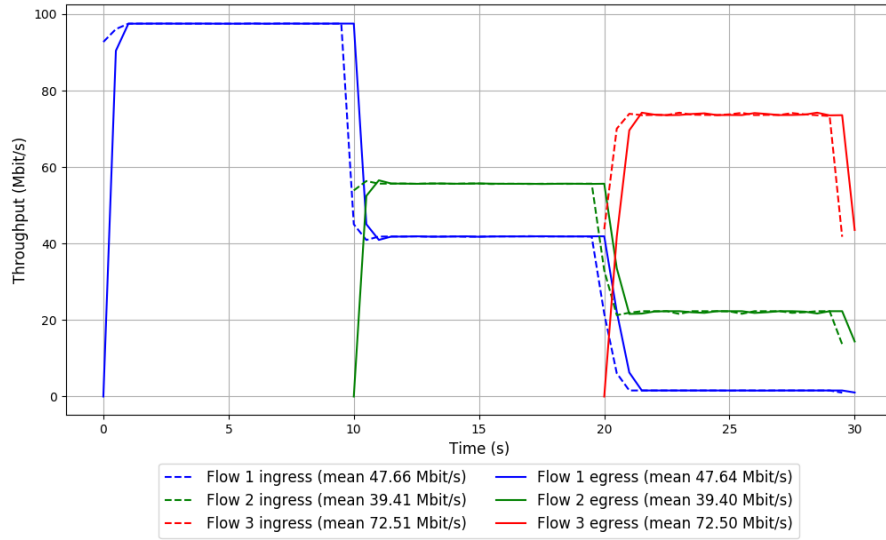
-- Flow 3:

Average throughput: 72.50 Mbit/s

95th percentile per-packet one-way delay: 15.131 ms

Loss rate: 0.00%

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



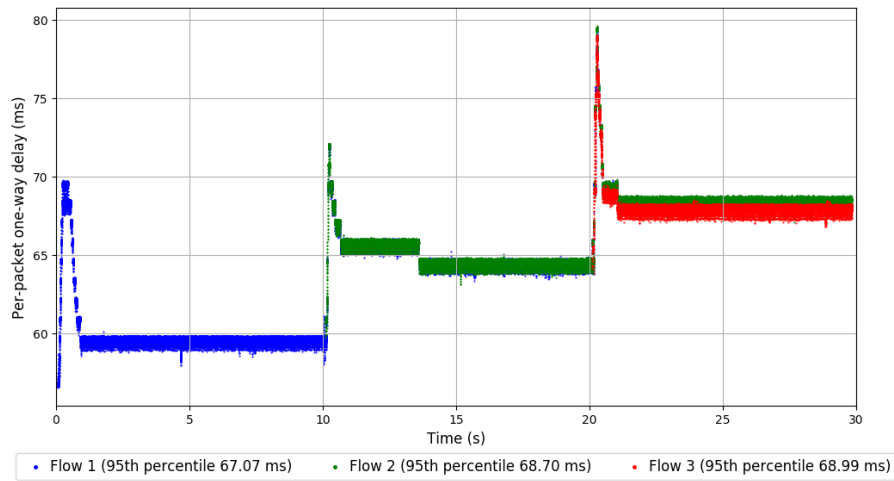
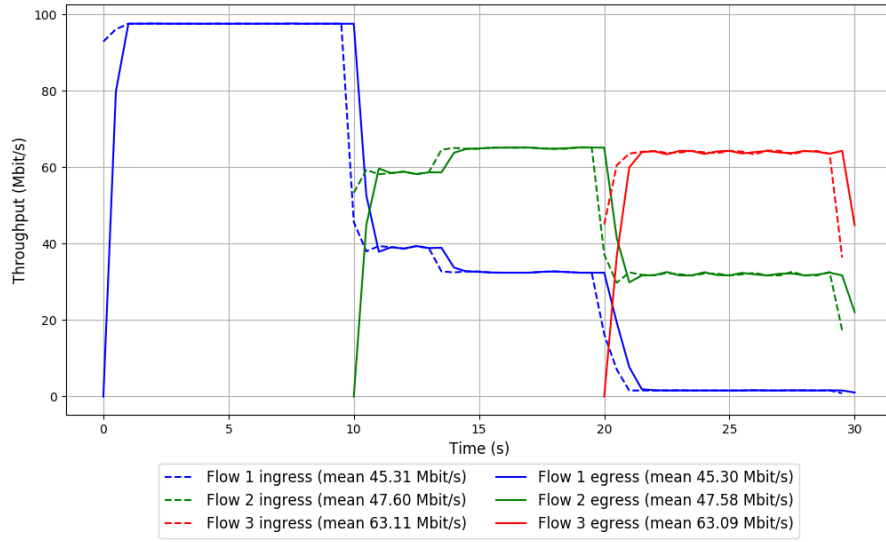


Run 4: Statistics of Indigo

Start at: 2019-05-30 01:47:16  
End at: 2019-05-30 01:47:46  
Local clock offset: -58.989 ms  
Remote clock offset: 0.274 ms

```
# Below is generated by plot.py at 2019-05-30 02:30:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 68.573 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.30 Mbit/s
95th percentile per-packet one-way delay: 67.068 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.58 Mbit/s
95th percentile per-packet one-way delay: 68.699 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.09 Mbit/s
95th percentile per-packet one-way delay: 68.989 ms
Loss rate: 0.00%
```

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

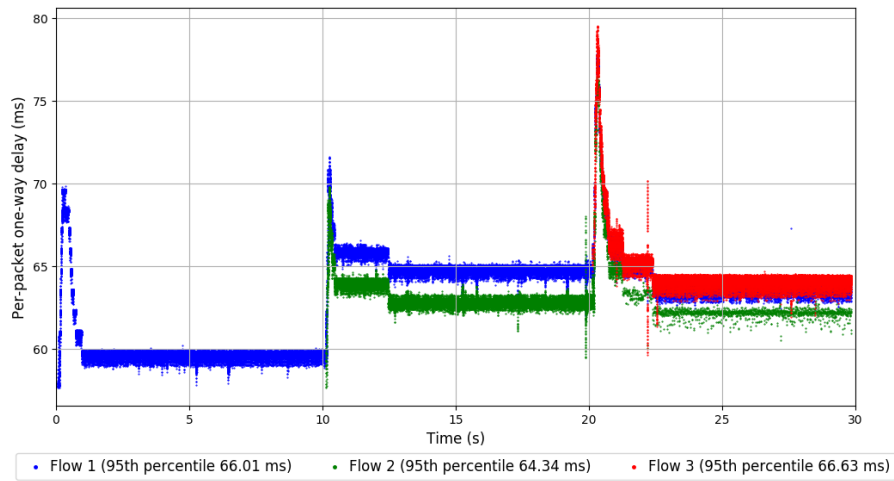
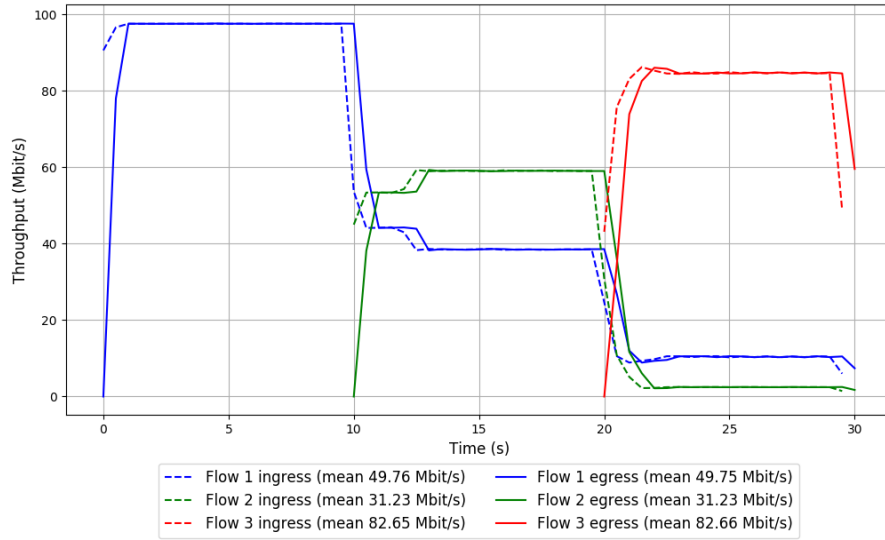


Run 5: Statistics of Indigo

Start at: 2019-05-30 02:11:09  
End at: 2019-05-30 02:11:39  
Local clock offset: -58.557 ms  
Remote clock offset: 0.322 ms

```
# Below is generated by plot.py at 2019-05-30 02:30:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 66.095 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.75 Mbit/s
95th percentile per-packet one-way delay: 66.012 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.23 Mbit/s
95th percentile per-packet one-way delay: 64.338 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 82.66 Mbit/s
95th percentile per-packet one-way delay: 66.633 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-05-30 00:27:43  
End at: 2019-05-30 00:28:13  
Local clock offset: -5.256 ms  
Remote clock offset: -0.689 ms

# Below is generated by plot.py at 2019-05-30 02:30:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.84 Mbit/s  
95th percentile per-packet one-way delay: 11.105 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 62.49 Mbit/s  
95th percentile per-packet one-way delay: 9.345 ms  
Loss rate: 0.00%

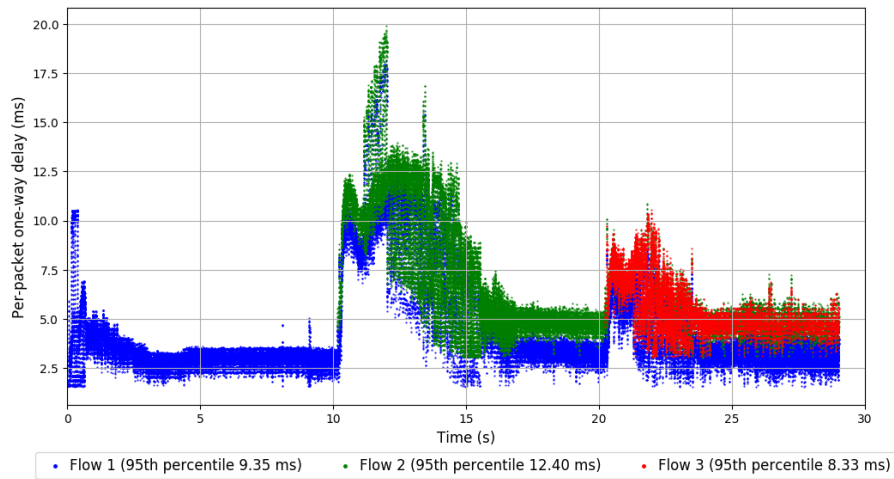
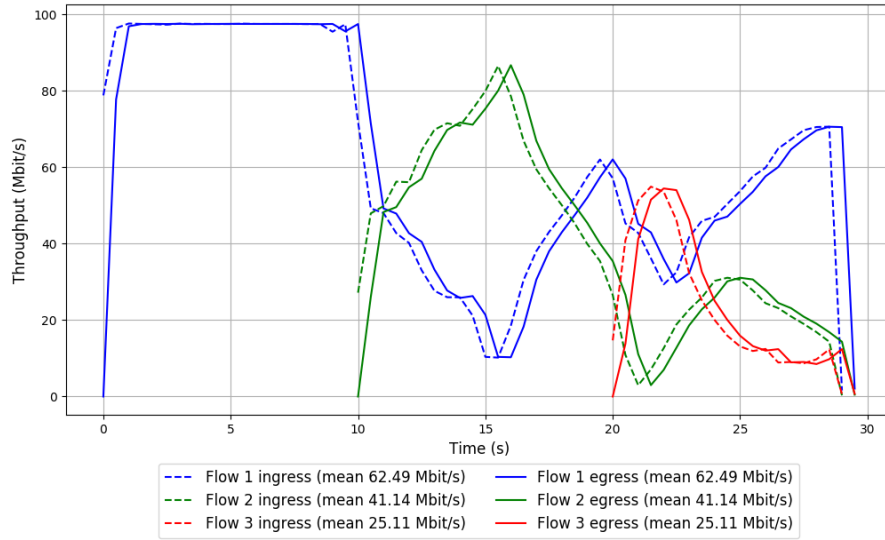
-- Flow 2:

Average throughput: 41.14 Mbit/s  
95th percentile per-packet one-way delay: 12.402 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 25.11 Mbit/s  
95th percentile per-packet one-way delay: 8.330 ms  
Loss rate: 0.00%

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



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-05-30 00:51:36  
End at: 2019-05-30 00:52:06  
Local clock offset: -5.705 ms  
Remote clock offset: -0.452 ms

# Below is generated by plot.py at 2019-05-30 02:30:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.81 Mbit/s  
95th percentile per-packet one-way delay: 9.112 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 64.12 Mbit/s  
95th percentile per-packet one-way delay: 8.814 ms  
Loss rate: 0.00%

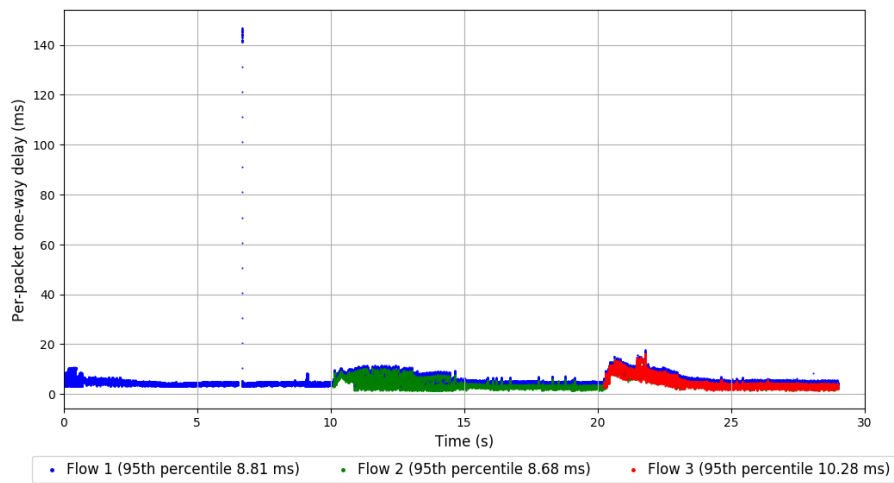
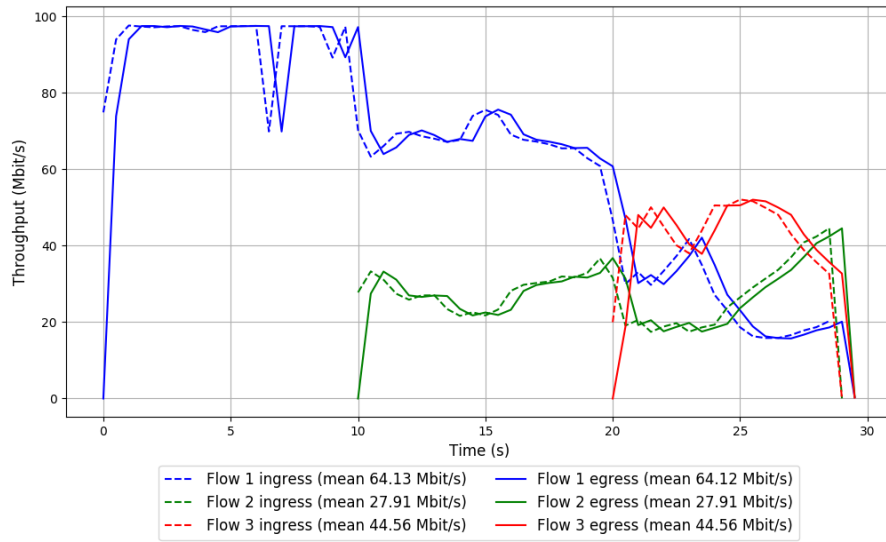
-- Flow 2:

Average throughput: 27.91 Mbit/s  
95th percentile per-packet one-way delay: 8.675 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 44.56 Mbit/s  
95th percentile per-packet one-way delay: 10.276 ms  
Loss rate: 0.00%

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





Run 3: Statistics of Indigo-MusesC3

Start at: 2019-05-30 01:15:29  
End at: 2019-05-30 01:15:59  
Local clock offset: -4.775 ms  
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-05-30 02:30:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.97 Mbit/s  
95th percentile per-packet one-way delay: 13.190 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 62.72 Mbit/s  
95th percentile per-packet one-way delay: 10.877 ms  
Loss rate: 0.00%

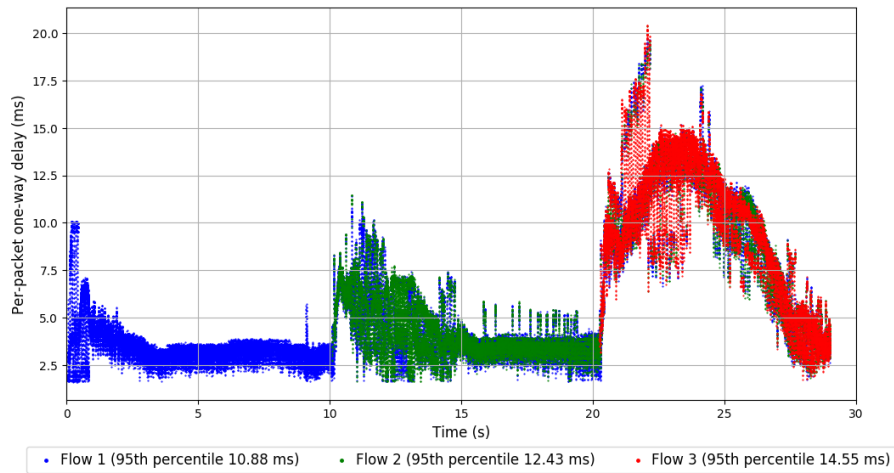
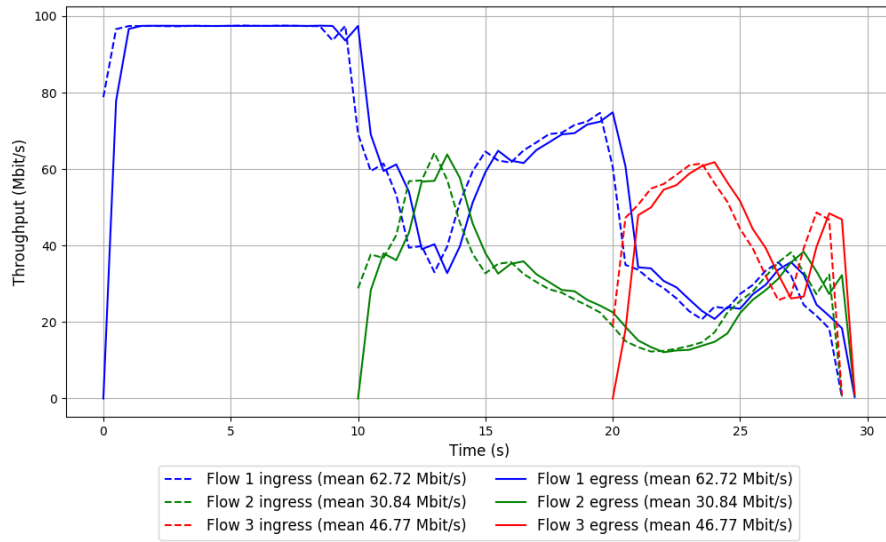
-- Flow 2:

Average throughput: 30.84 Mbit/s  
95th percentile per-packet one-way delay: 12.428 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 46.77 Mbit/s  
95th percentile per-packet one-way delay: 14.552 ms  
Loss rate: 0.00%

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



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-05-30 01:39:22

End at: 2019-05-30 01:39:52

Local clock offset: -3.017 ms

Remote clock offset: 0.188 ms

# Below is generated by plot.py at 2019-05-30 02:30:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.89 Mbit/s

95th percentile per-packet one-way delay: 13.246 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.95 Mbit/s

95th percentile per-packet one-way delay: 12.622 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 49.27 Mbit/s

95th percentile per-packet one-way delay: 14.371 ms

Loss rate: 0.00%

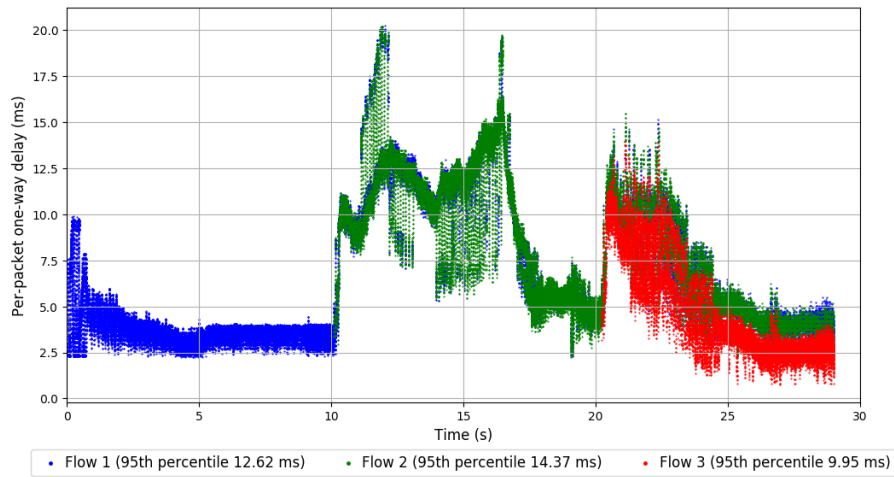
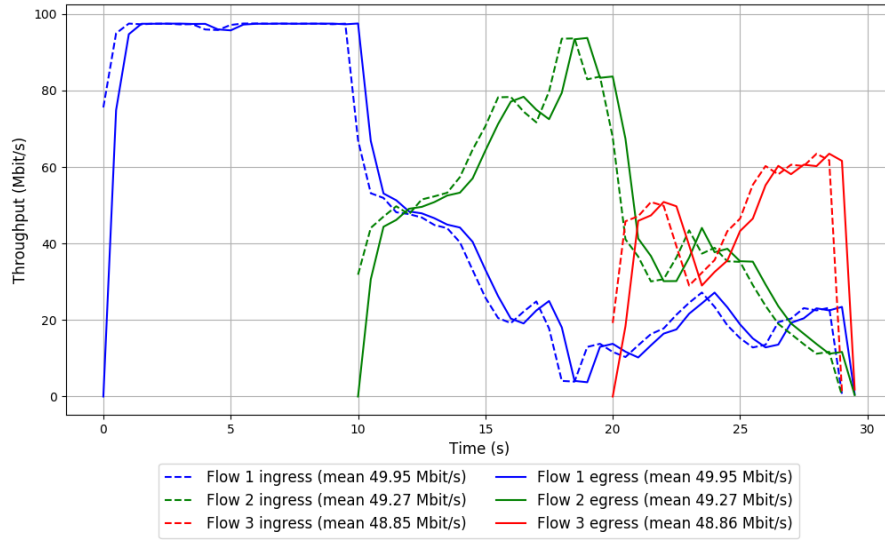
-- Flow 3:

Average throughput: 48.86 Mbit/s

95th percentile per-packet one-way delay: 9.946 ms

Loss rate: 0.00%

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

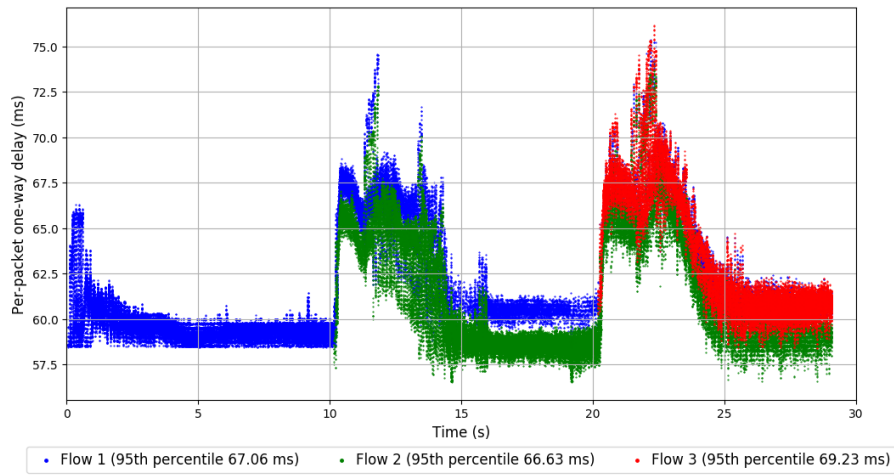
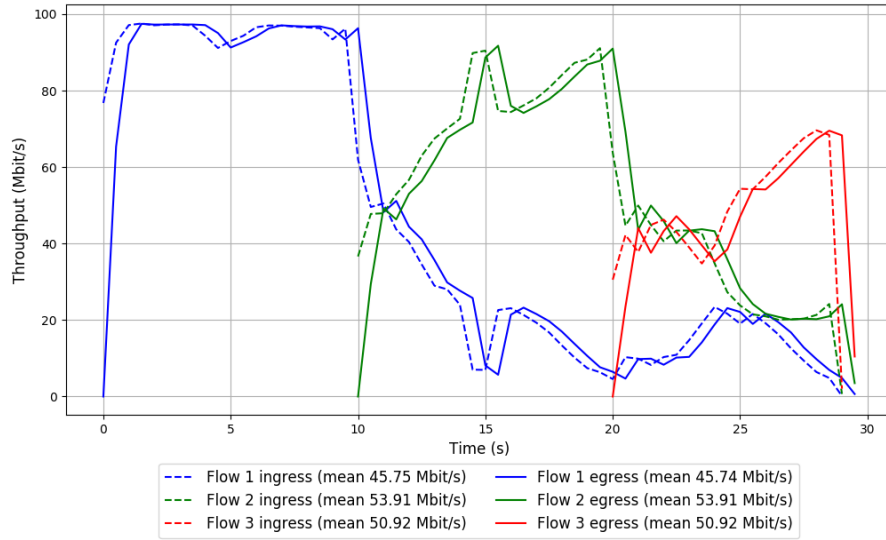


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-05-30 02:03:15  
End at: 2019-05-30 02:03:45  
Local clock offset: -58.899 ms  
Remote clock offset: 0.32 ms

```
# Below is generated by plot.py at 2019-05-30 02:30:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 67.494 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.74 Mbit/s
95th percentile per-packet one-way delay: 67.057 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.91 Mbit/s
95th percentile per-packet one-way delay: 66.633 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.92 Mbit/s
95th percentile per-packet one-way delay: 69.231 ms
Loss rate: 0.00%
```

### Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-05-30 00:26:35

End at: 2019-05-30 00:27:05

Local clock offset: -4.469 ms

Remote clock offset: -0.76 ms

# Below is generated by plot.py at 2019-05-30 02:30:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.02 Mbit/s

95th percentile per-packet one-way delay: 20.274 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 33.32 Mbit/s

95th percentile per-packet one-way delay: 19.380 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.61 Mbit/s

95th percentile per-packet one-way delay: 20.520 ms

Loss rate: 0.00%

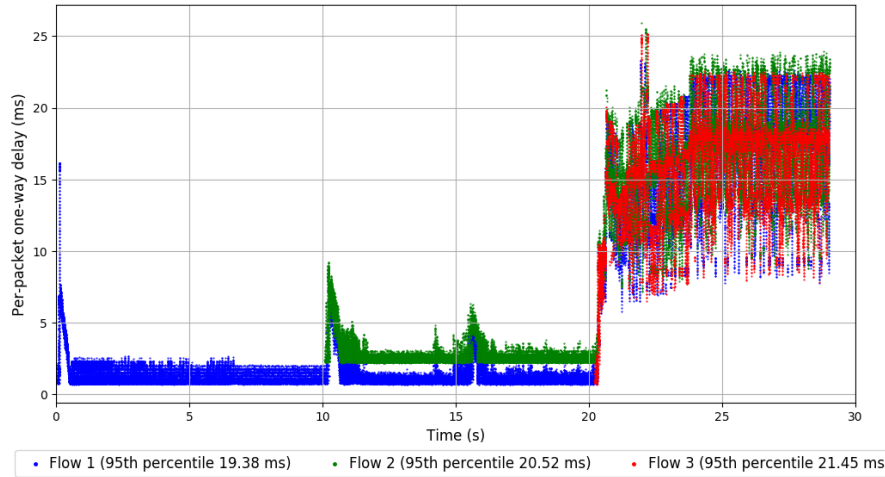
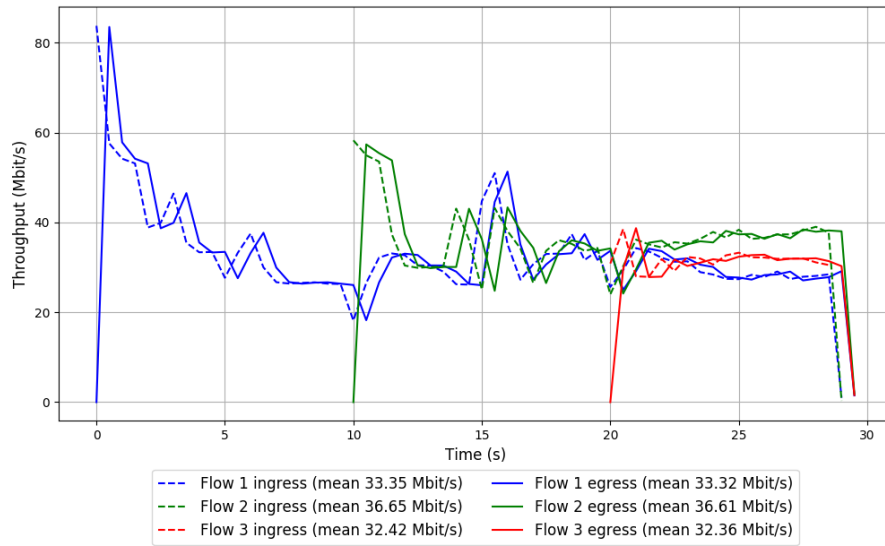
-- Flow 3:

Average throughput: 32.36 Mbit/s

95th percentile per-packet one-way delay: 21.448 ms

Loss rate: 0.00%

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



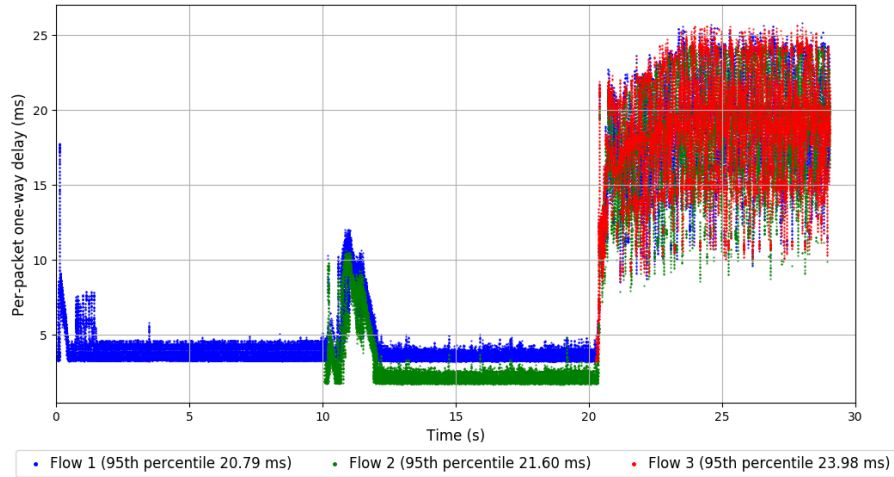
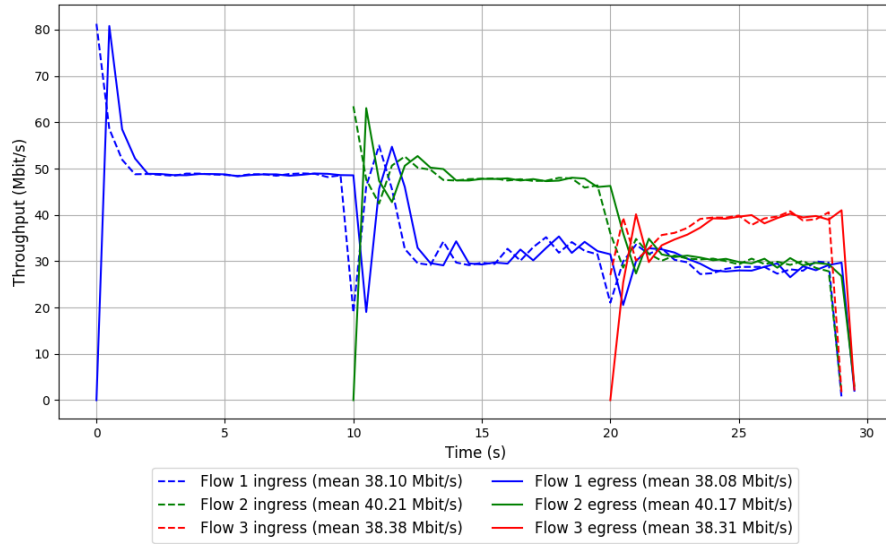


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-05-30 00:50:27  
End at: 2019-05-30 00:50:57  
Local clock offset: -5.88 ms  
Remote clock offset: -0.446 ms

```
# Below is generated by plot.py at 2019-05-30 02:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.91 Mbit/s
95th percentile per-packet one-way delay: 22.148 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.08 Mbit/s
95th percentile per-packet one-way delay: 20.790 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.17 Mbit/s
95th percentile per-packet one-way delay: 21.600 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.31 Mbit/s
95th percentile per-packet one-way delay: 23.982 ms
Loss rate: 0.00%
```

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

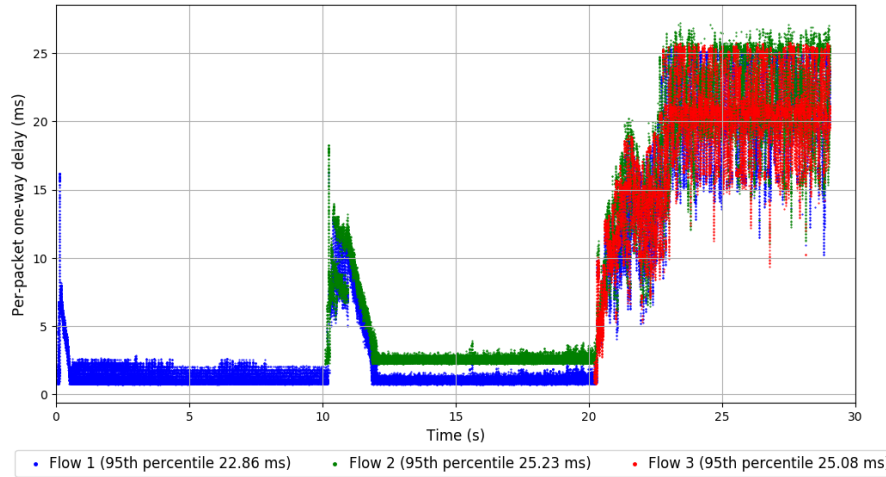
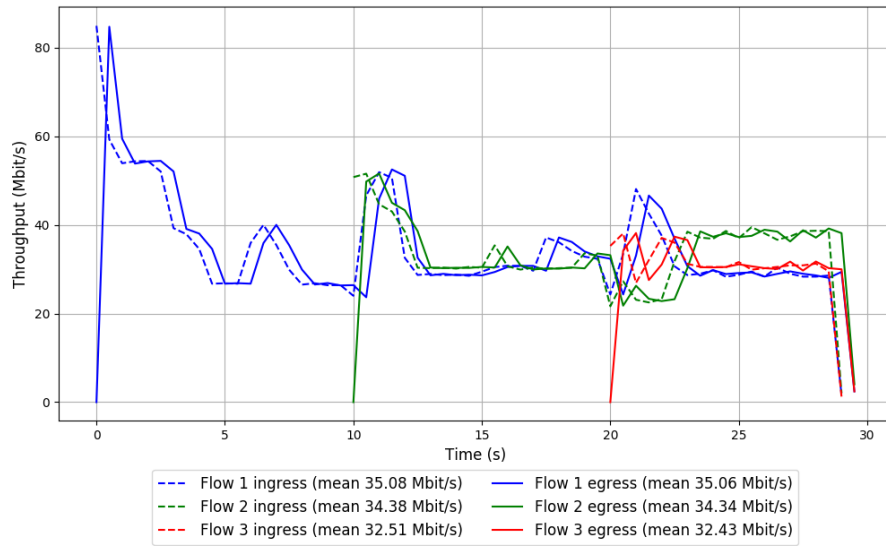


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-05-30 01:14:21  
End at: 2019-05-30 01:14:51  
Local clock offset: -4.085 ms  
Remote clock offset: -0.163 ms

```
# Below is generated by plot.py at 2019-05-30 02:31:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.32 Mbit/s
95th percentile per-packet one-way delay: 24.569 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.06 Mbit/s
95th percentile per-packet one-way delay: 22.858 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.34 Mbit/s
95th percentile per-packet one-way delay: 25.230 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 25.077 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-05-30 01:38:14

End at: 2019-05-30 01:38:44

Local clock offset: -4.028 ms

Remote clock offset: 0.199 ms

# Below is generated by plot.py at 2019-05-30 02:31:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.49 Mbit/s

95th percentile per-packet one-way delay: 22.352 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 38.46 Mbit/s

95th percentile per-packet one-way delay: 21.238 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.53 Mbit/s

95th percentile per-packet one-way delay: 22.452 ms

Loss rate: 0.00%

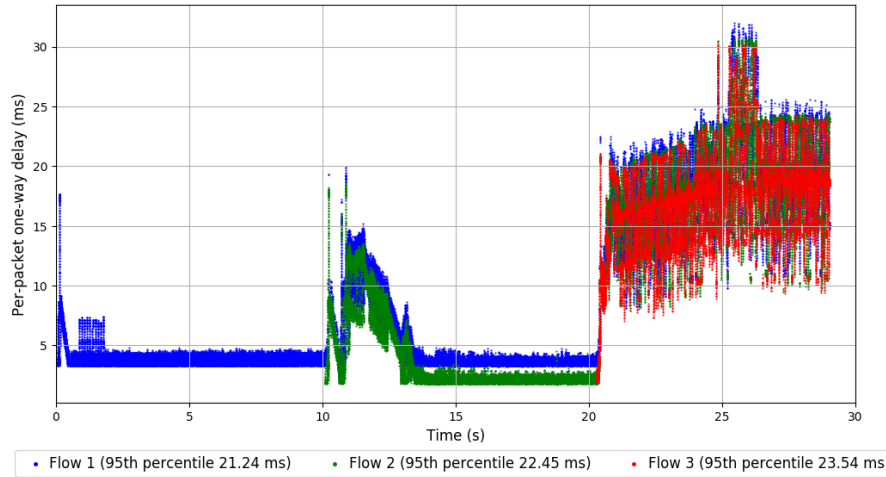
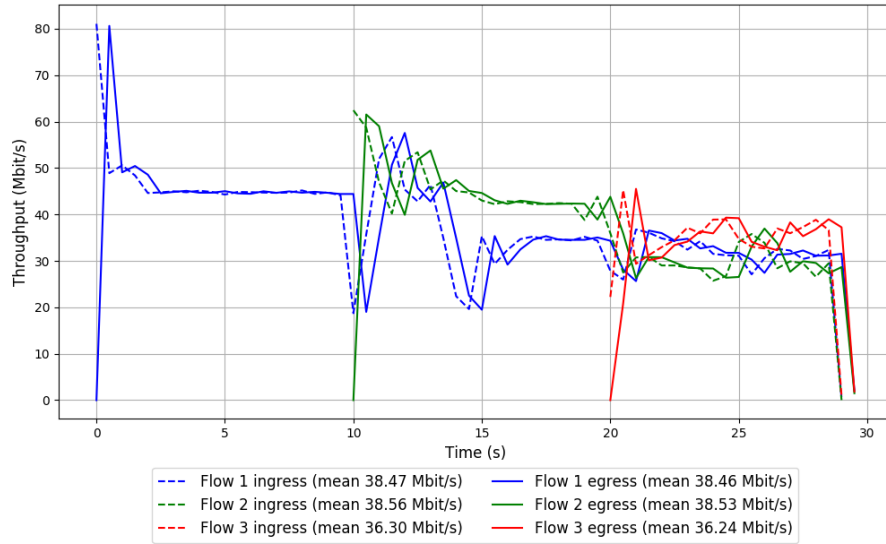
-- Flow 3:

Average throughput: 36.24 Mbit/s

95th percentile per-packet one-way delay: 23.537 ms

Loss rate: 0.00%

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

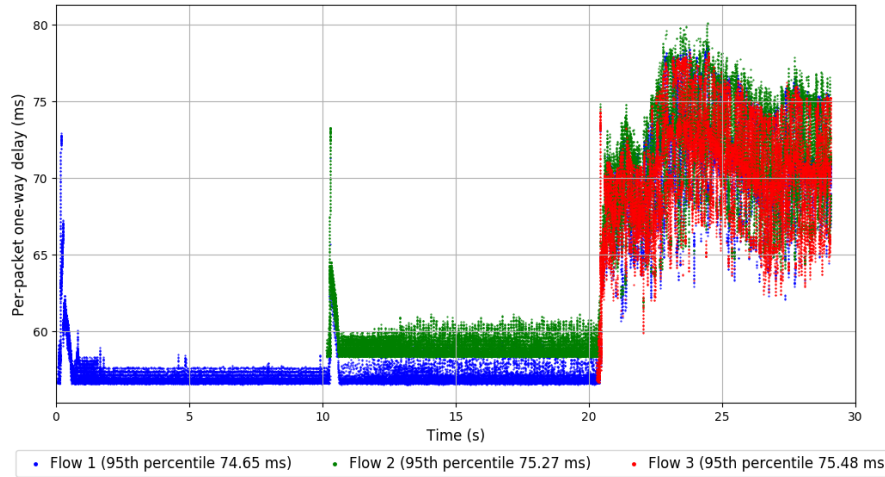
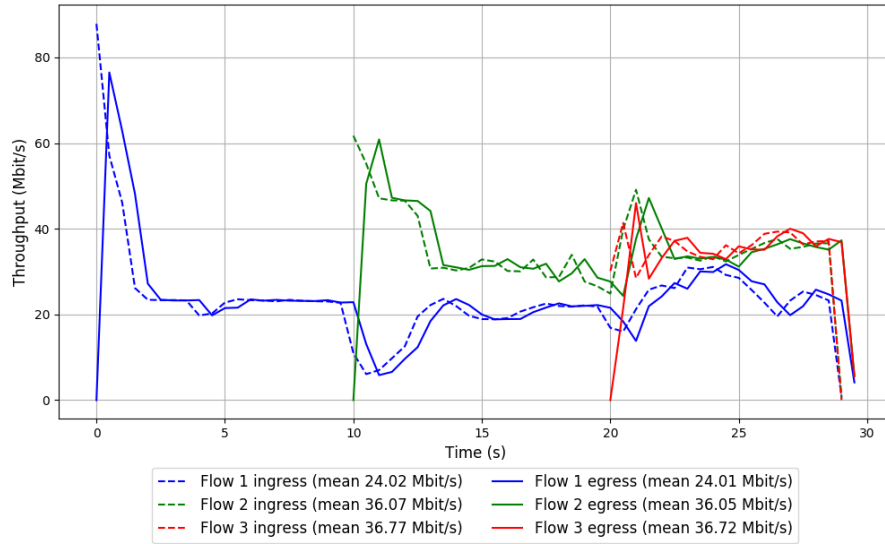


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-05-30 02:02:08  
End at: 2019-05-30 02:02:38  
Local clock offset: -58.919 ms  
Remote clock offset: 0.393 ms

```
# Below is generated by plot.py at 2019-05-30 02:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.63 Mbit/s
95th percentile per-packet one-way delay: 75.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.01 Mbit/s
95th percentile per-packet one-way delay: 74.647 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 75.274 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.72 Mbit/s
95th percentile per-packet one-way delay: 75.481 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC5 — Data Link



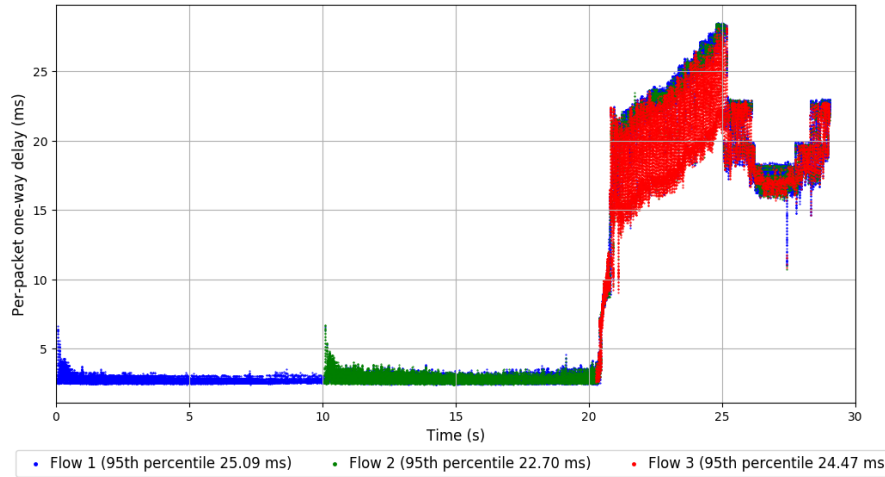
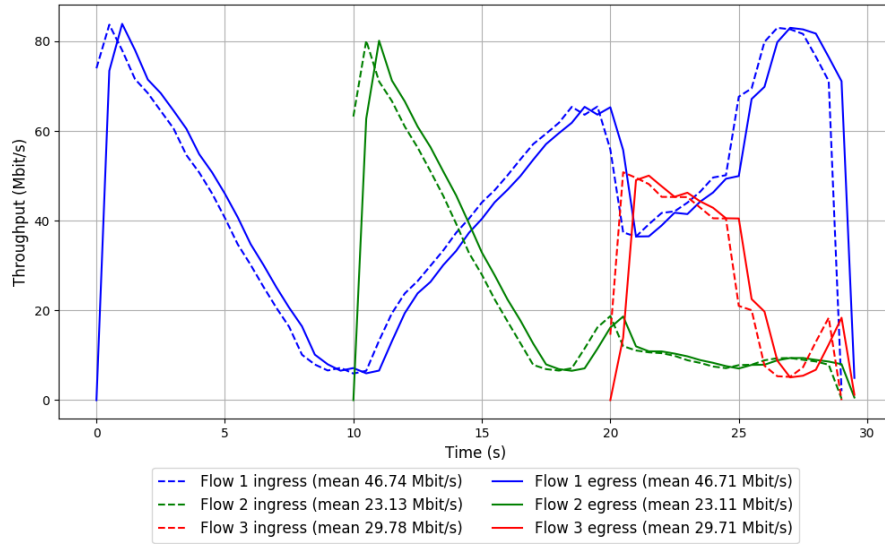


Run 1: Statistics of Indigo-MusesD

Start at: 2019-05-30 00:44:47  
End at: 2019-05-30 00:45:17  
Local clock offset: -4.979 ms  
Remote clock offset: -0.531 ms

```
# Below is generated by plot.py at 2019-05-30 02:31:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.79 Mbit/s
95th percentile per-packet one-way delay: 24.601 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.71 Mbit/s
95th percentile per-packet one-way delay: 25.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.11 Mbit/s
95th percentile per-packet one-way delay: 22.699 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 24.470 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-05-30 01:08:39

End at: 2019-05-30 01:09:09

Local clock offset: -5.73 ms

Remote clock offset: -0.22 ms

# Below is generated by plot.py at 2019-05-30 02:31:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.10 Mbit/s

95th percentile per-packet one-way delay: 31.023 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 66.66 Mbit/s

95th percentile per-packet one-way delay: 29.695 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 25.07 Mbit/s

95th percentile per-packet one-way delay: 31.688 ms

Loss rate: 1.27%

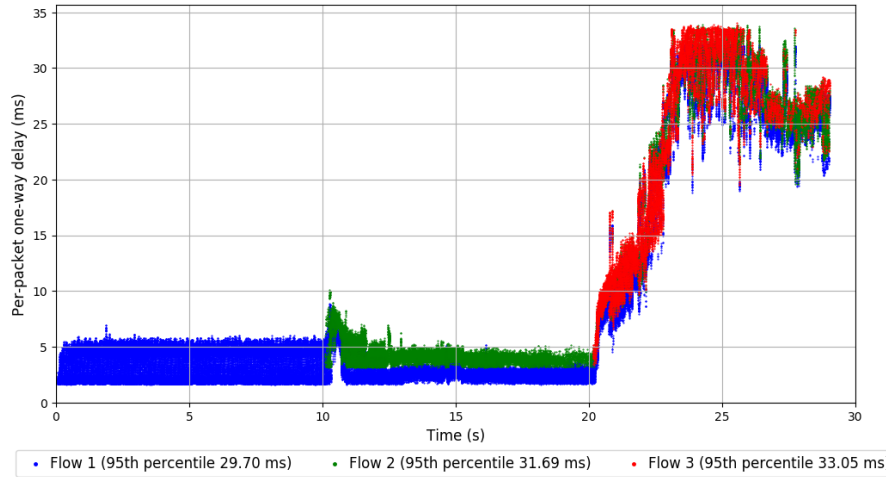
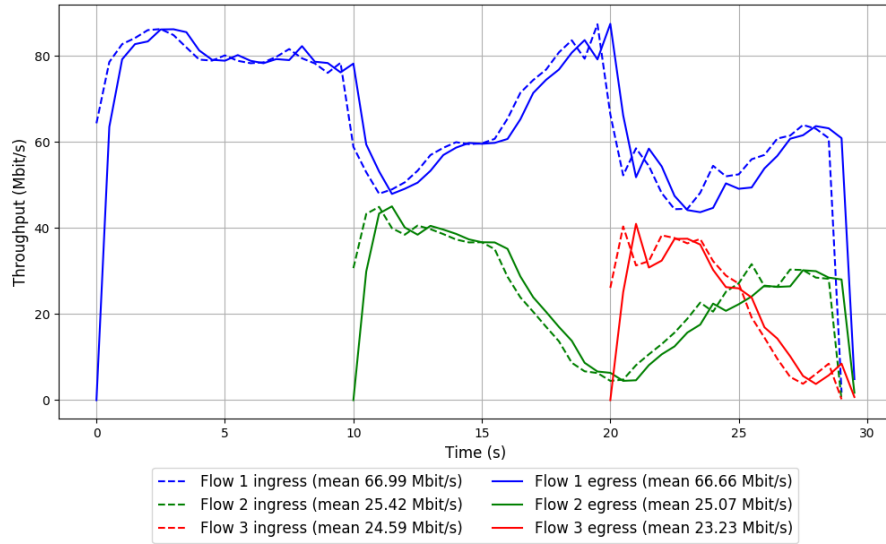
-- Flow 3:

Average throughput: 23.23 Mbit/s

95th percentile per-packet one-way delay: 33.045 ms

Loss rate: 5.28%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-05-30 01:32:32

End at: 2019-05-30 01:33:02

Local clock offset: -4.145 ms

Remote clock offset: 0.208 ms

# Below is generated by plot.py at 2019-05-30 02:31:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.17 Mbit/s

95th percentile per-packet one-way delay: 27.357 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 56.80 Mbit/s

95th percentile per-packet one-way delay: 26.994 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 35.59 Mbit/s

95th percentile per-packet one-way delay: 26.133 ms

Loss rate: 0.10%

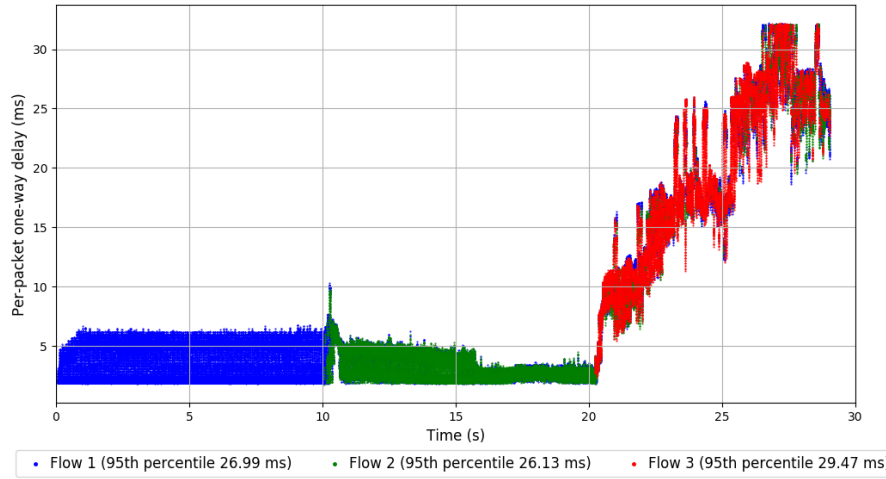
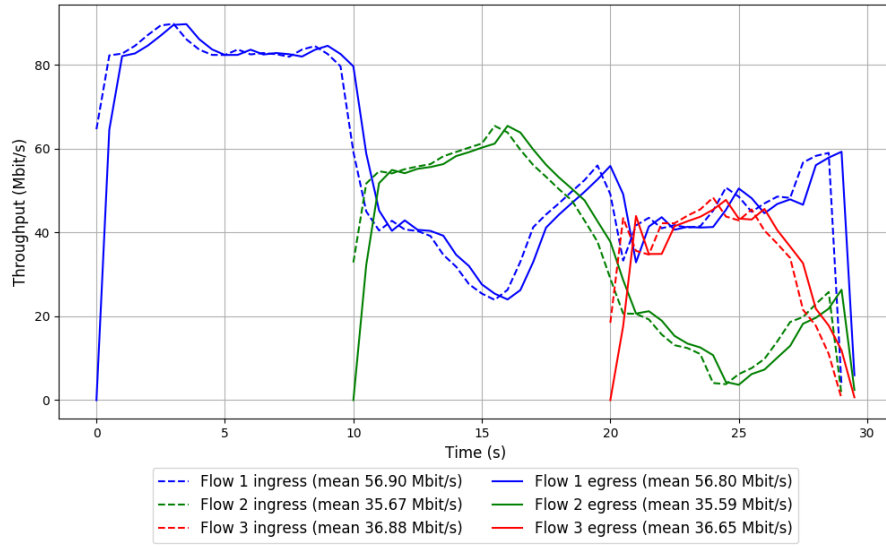
-- Flow 3:

Average throughput: 36.65 Mbit/s

95th percentile per-packet one-way delay: 29.469 ms

Loss rate: 0.40%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-05-30 01:56:26  
End at: 2019-05-30 01:56:56  
Local clock offset: -58.291 ms  
Remote clock offset: 0.327 ms

# Below is generated by plot.py at 2019-05-30 02:31:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 68.23 Mbit/s  
95th percentile per-packet one-way delay: 83.571 ms  
Loss rate: 0.05%

-- Flow 1:

Average throughput: 33.12 Mbit/s  
95th percentile per-packet one-way delay: 82.510 ms  
Loss rate: 0.03%

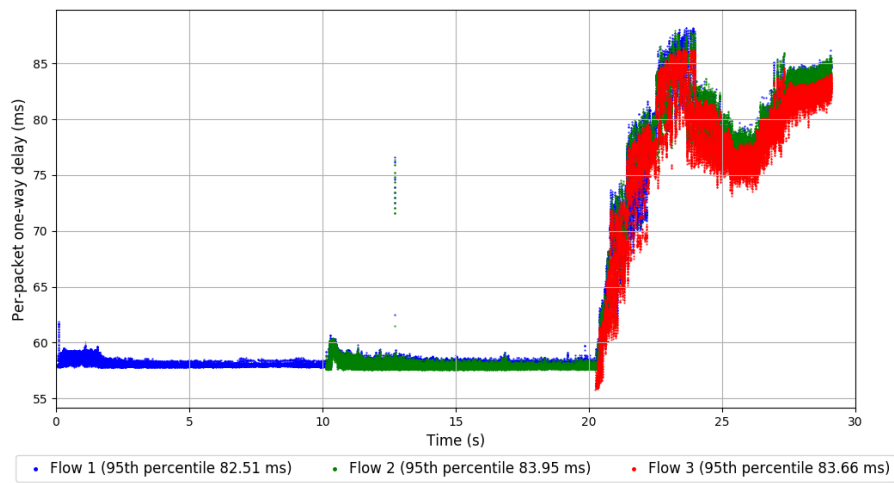
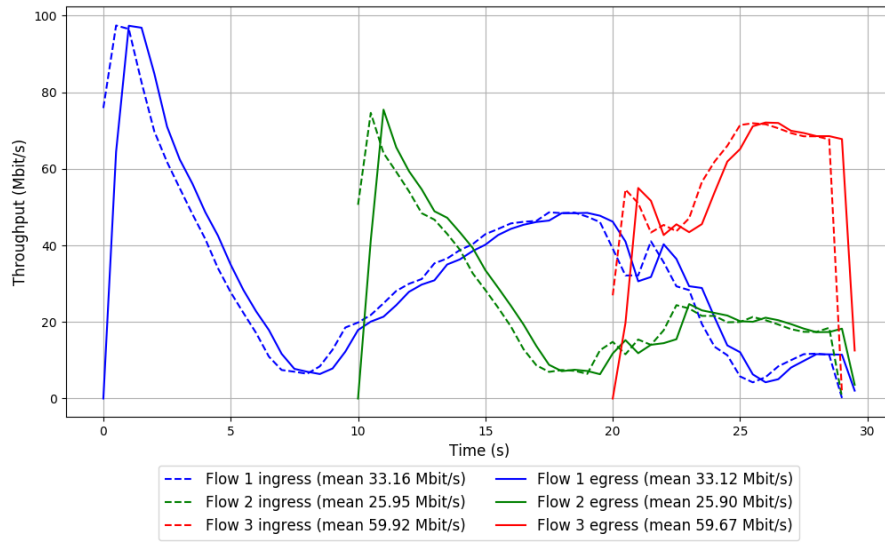
-- Flow 2:

Average throughput: 25.90 Mbit/s  
95th percentile per-packet one-way delay: 83.948 ms  
Loss rate: 0.03%

-- Flow 3:

Average throughput: 59.67 Mbit/s  
95th percentile per-packet one-way delay: 83.655 ms  
Loss rate: 0.11%

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



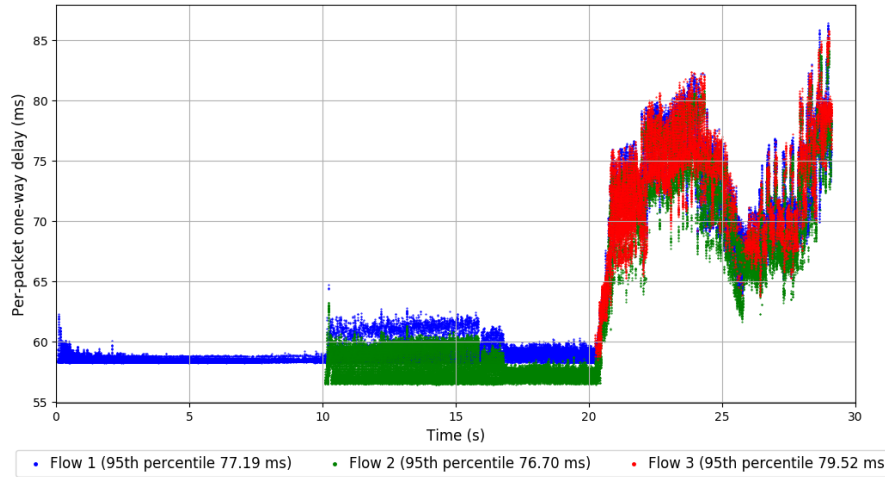
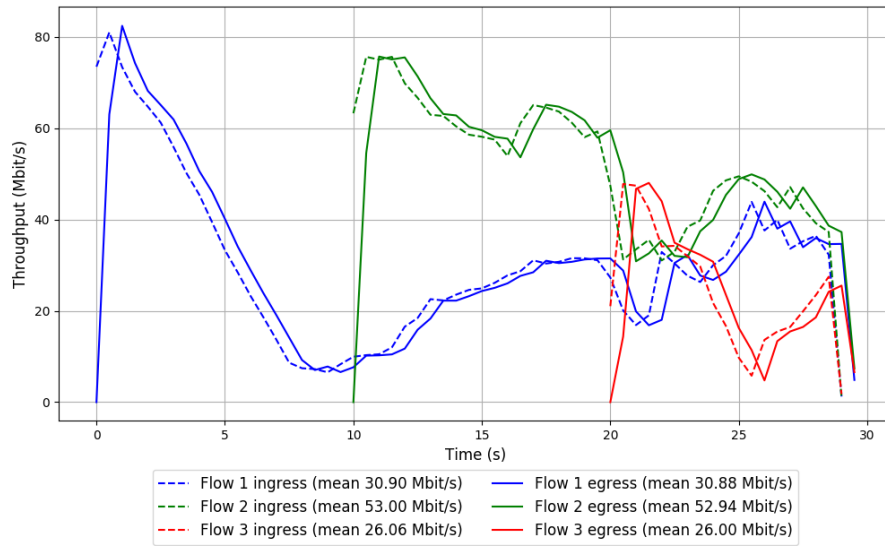


Run 5: Statistics of Indigo-MusesD

Start at: 2019-05-30 02:20:21  
End at: 2019-05-30 02:20:51  
Local clock offset: -59.789 ms  
Remote clock offset: 0.4 ms

```
# Below is generated by plot.py at 2019-05-30 02:31:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.44 Mbit/s
95th percentile per-packet one-way delay: 77.594 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.88 Mbit/s
95th percentile per-packet one-way delay: 77.194 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.94 Mbit/s
95th percentile per-packet one-way delay: 76.696 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.00 Mbit/s
95th percentile per-packet one-way delay: 79.523 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MuseST

Start at: 2019-05-30 00:42:33  
End at: 2019-05-30 00:43:03  
Local clock offset: -4.708 ms  
Remote clock offset: -0.617 ms

# Below is generated by plot.py at 2019-05-30 02:32:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.74 Mbit/s  
95th percentile per-packet one-way delay: 25.452 ms  
Loss rate: 0.26%

-- Flow 1:

Average throughput: 54.91 Mbit/s  
95th percentile per-packet one-way delay: 23.066 ms  
Loss rate: 0.13%

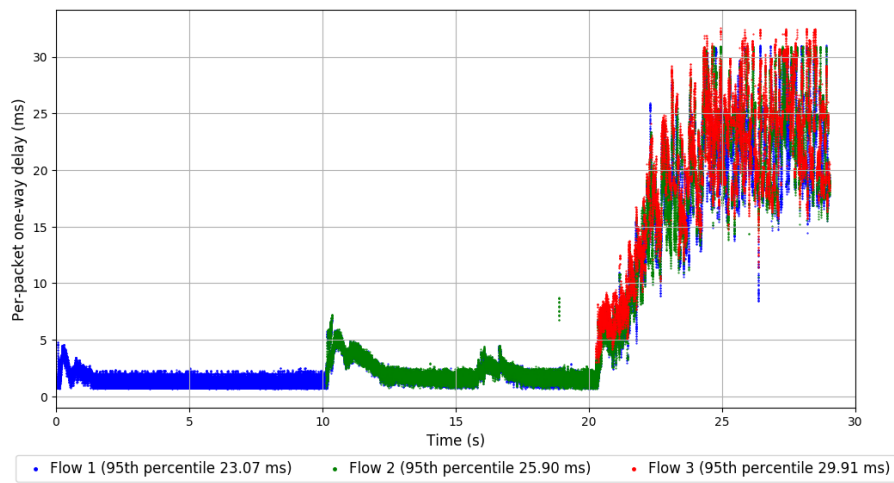
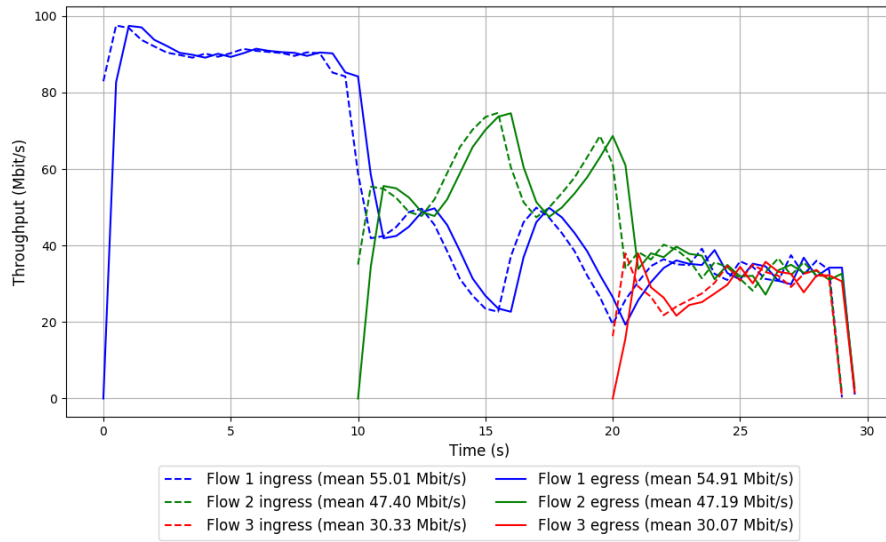
-- Flow 2:

Average throughput: 47.19 Mbit/s  
95th percentile per-packet one-way delay: 25.902 ms  
Loss rate: 0.35%

-- Flow 3:

Average throughput: 30.07 Mbit/s  
95th percentile per-packet one-way delay: 29.911 ms  
Loss rate: 0.69%

Run 1: Report of Indigo-MusesT — Data Link

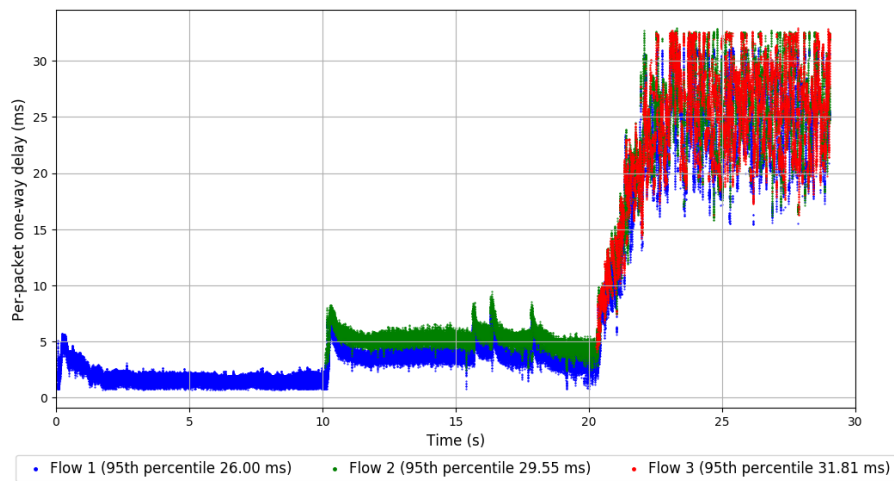
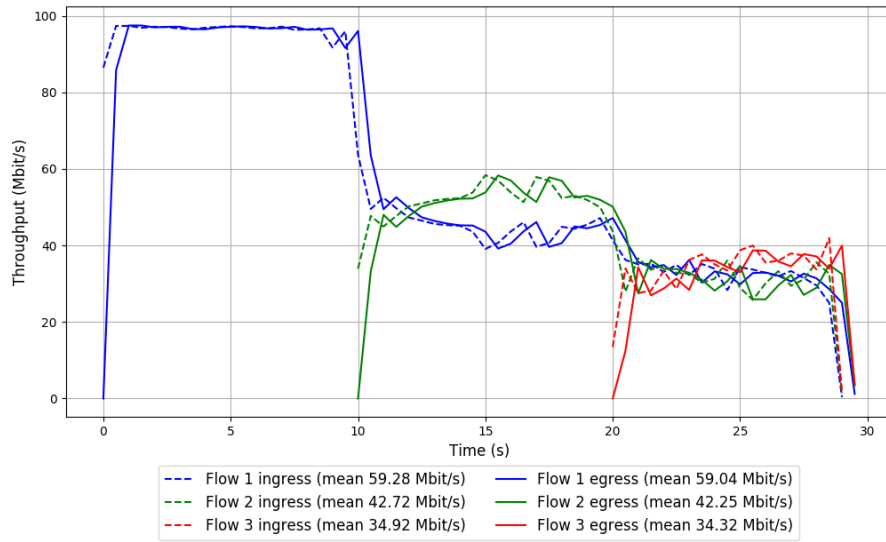


Run 2: Statistics of Indigo-MuseST

Start at: 2019-05-30 01:06:25  
End at: 2019-05-30 01:06:55  
Local clock offset: -5.091 ms  
Remote clock offset: -0.204 ms

```
# Below is generated by plot.py at 2019-05-30 02:32:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.96 Mbit/s
95th percentile per-packet one-way delay: 28.789 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 25.999 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 29.553 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 34.32 Mbit/s
95th percentile per-packet one-way delay: 31.812 ms
Loss rate: 1.40%
```

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



Run 3: Statistics of Indigo-MuseST

Start at: 2019-05-30 01:30:18

End at: 2019-05-30 01:30:48

Local clock offset: -3.484 ms

Remote clock offset: 0.108 ms

# Below is generated by plot.py at 2019-05-30 02:32:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.04 Mbit/s

95th percentile per-packet one-way delay: 24.995 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 61.07 Mbit/s

95th percentile per-packet one-way delay: 23.434 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 46.50 Mbit/s

95th percentile per-packet one-way delay: 26.496 ms

Loss rate: 0.02%

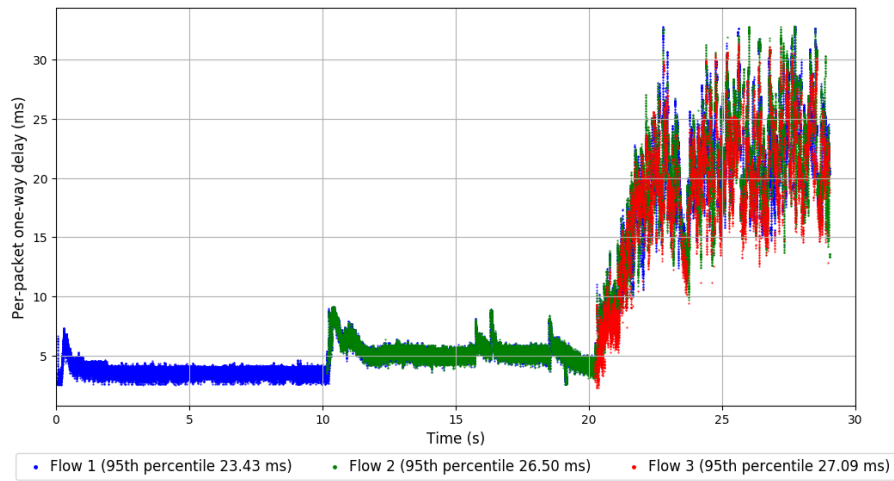
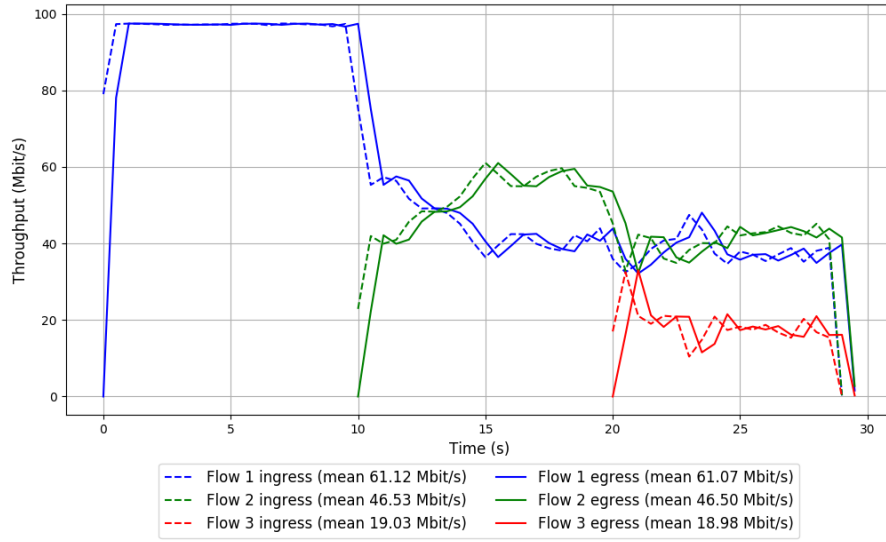
-- Flow 3:

Average throughput: 18.98 Mbit/s

95th percentile per-packet one-way delay: 27.086 ms

Loss rate: 0.07%

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





Run 4: Statistics of Indigo-MuseST

Start at: 2019-05-30 01:54:12  
End at: 2019-05-30 01:54:42  
Local clock offset: -58.948 ms  
Remote clock offset: 0.246 ms

# Below is generated by plot.py at 2019-05-30 02:32:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.92 Mbit/s  
95th percentile per-packet one-way delay: 81.861 ms  
Loss rate: 0.24%

-- Flow 1:

Average throughput: 56.78 Mbit/s  
95th percentile per-packet one-way delay: 79.532 ms  
Loss rate: 0.14%

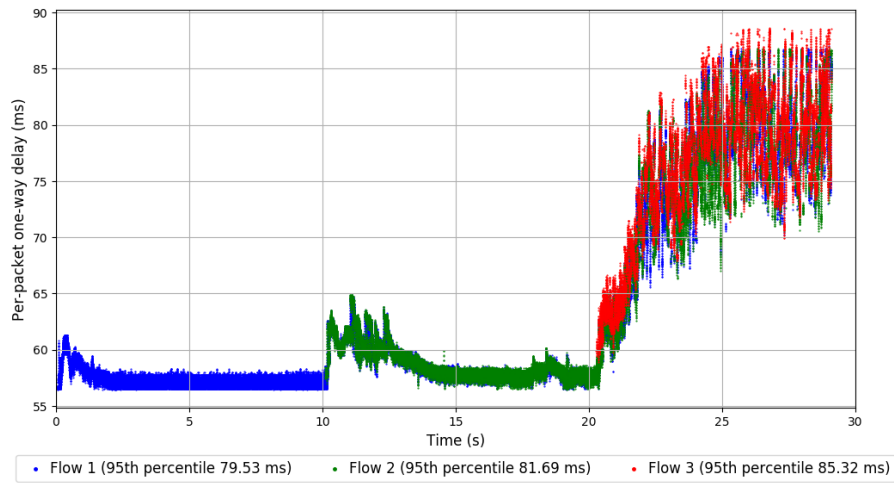
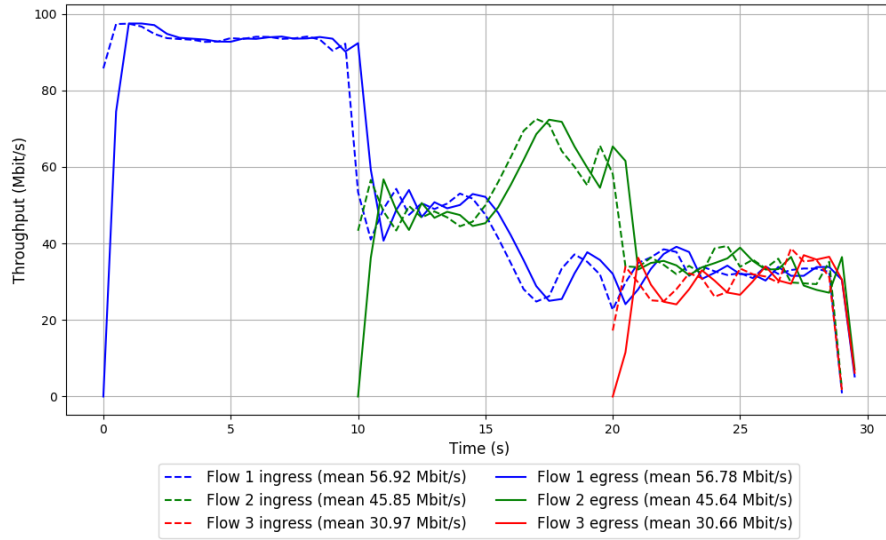
-- Flow 2:

Average throughput: 45.64 Mbit/s  
95th percentile per-packet one-way delay: 81.686 ms  
Loss rate: 0.31%

-- Flow 3:

Average throughput: 30.66 Mbit/s  
95th percentile per-packet one-way delay: 85.324 ms  
Loss rate: 0.67%

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



Run 5: Statistics of Indigo-MuseST

Start at: 2019-05-30 02:18:06  
End at: 2019-05-30 02:18:36  
Local clock offset: -59.756 ms  
Remote clock offset: 0.378 ms

# Below is generated by plot.py at 2019-05-30 02:32:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.95 Mbit/s  
95th percentile per-packet one-way delay: 84.469 ms  
Loss rate: 0.54%

-- Flow 1:

Average throughput: 57.29 Mbit/s  
95th percentile per-packet one-way delay: 82.650 ms  
Loss rate: 0.30%

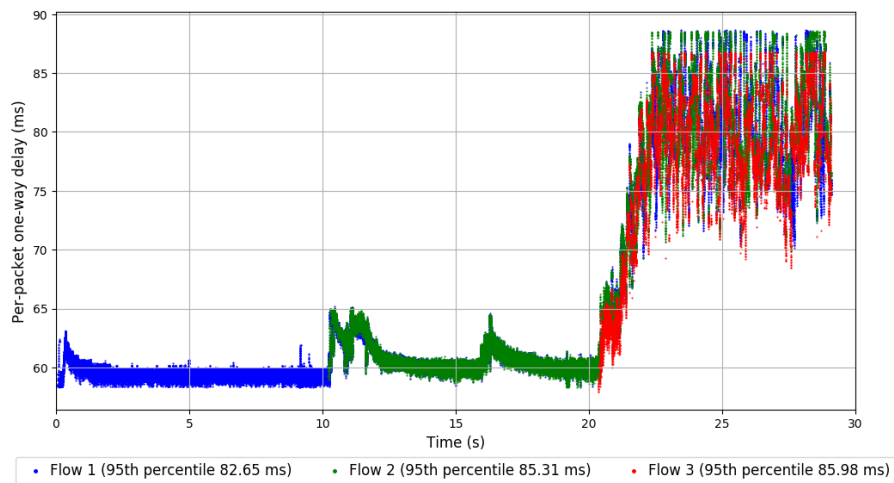
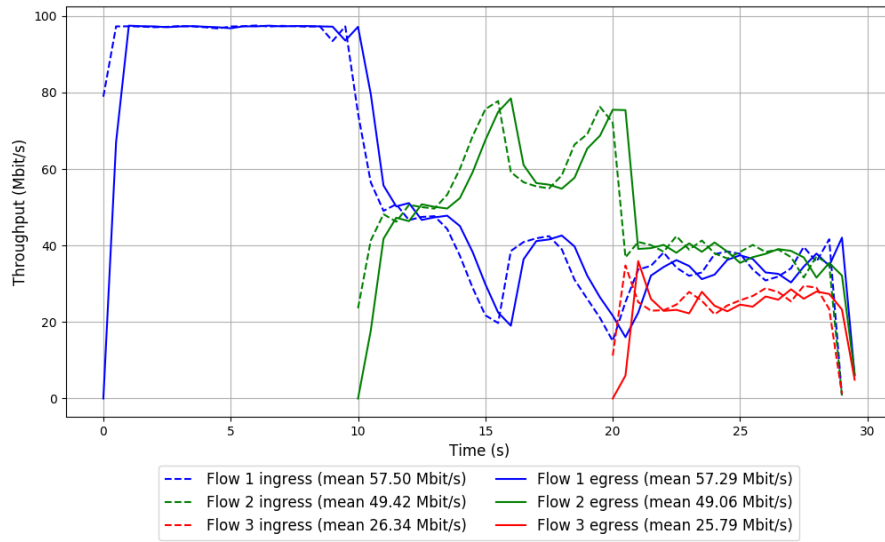
-- Flow 2:

Average throughput: 49.06 Mbit/s  
95th percentile per-packet one-way delay: 85.307 ms  
Loss rate: 0.64%

-- Flow 3:

Average throughput: 25.79 Mbit/s  
95th percentile per-packet one-way delay: 85.978 ms  
Loss rate: 1.87%

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



Run 1: Statistics of LEDBAT

Start at: 2019-05-30 00:28:52  
End at: 2019-05-30 00:29:22  
Local clock offset: -4.551 ms  
Remote clock offset: -0.669 ms

# Below is generated by plot.py at 2019-05-30 02:32:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.27 Mbit/s  
95th percentile per-packet one-way delay: 30.998 ms  
Loss rate: 0.05%

-- Flow 1:

Average throughput: 70.98 Mbit/s  
95th percentile per-packet one-way delay: 30.736 ms  
Loss rate: 0.02%

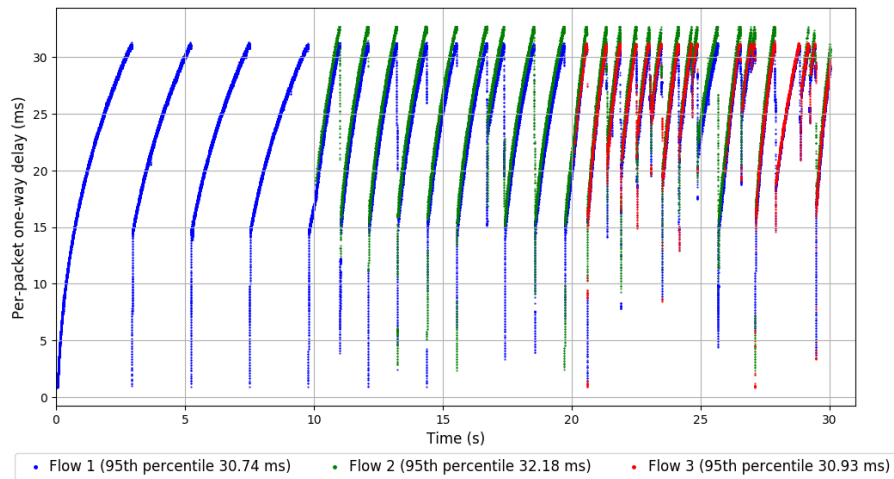
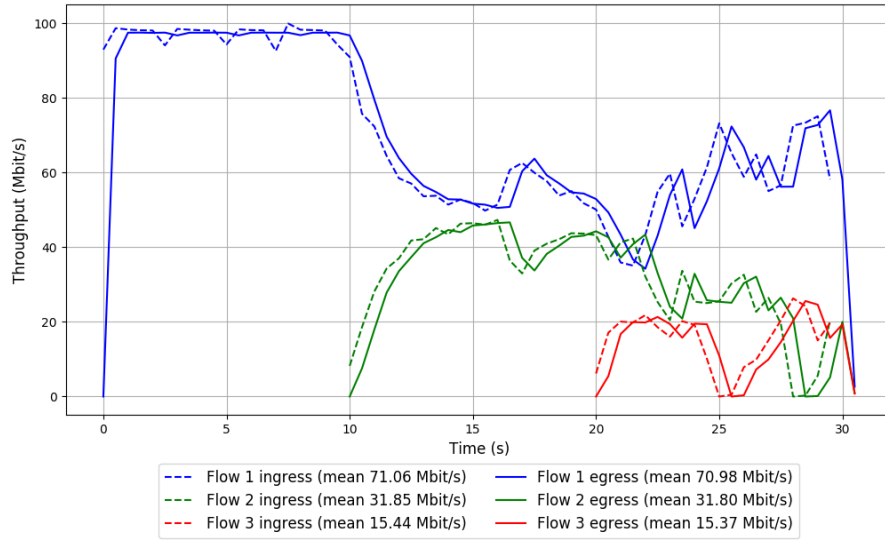
-- Flow 2:

Average throughput: 31.80 Mbit/s  
95th percentile per-packet one-way delay: 32.179 ms  
Loss rate: 0.08%

-- Flow 3:

Average throughput: 15.37 Mbit/s  
95th percentile per-packet one-way delay: 30.931 ms  
Loss rate: 0.43%

# Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-05-30 00:52:45  
End at: 2019-05-30 00:53:15  
Local clock offset: -5.14 ms  
Remote clock offset: -0.396 ms

# Below is generated by plot.py at 2019-05-30 02:32:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s  
95th percentile per-packet one-way delay: 30.892 ms  
Loss rate: 0.05%

-- Flow 1:

Average throughput: 58.47 Mbit/s  
95th percentile per-packet one-way delay: 30.867 ms  
Loss rate: 0.05%

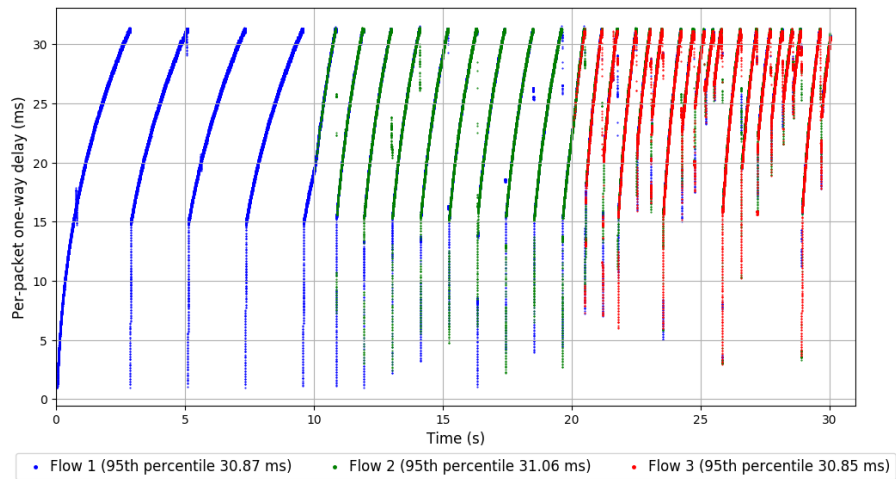
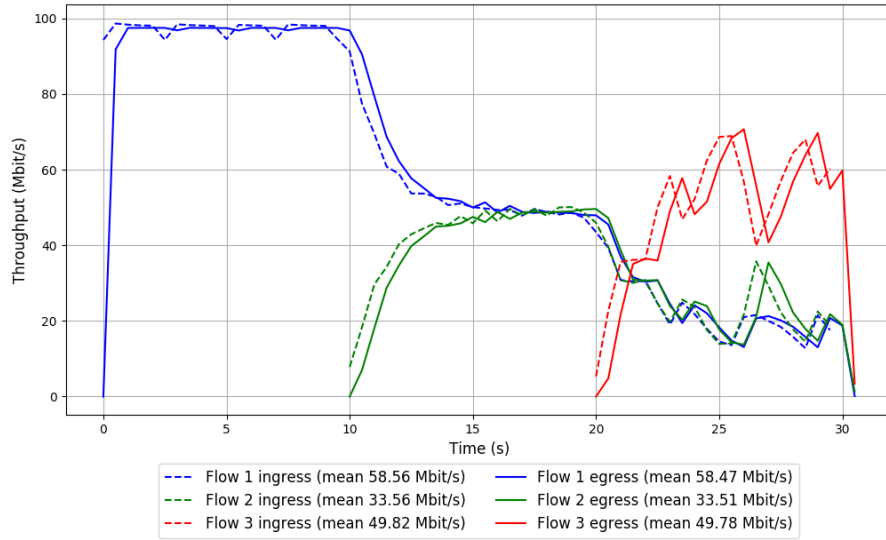
-- Flow 2:

Average throughput: 33.51 Mbit/s  
95th percentile per-packet one-way delay: 31.060 ms  
Loss rate: 0.09%

-- Flow 3:

Average throughput: 49.78 Mbit/s  
95th percentile per-packet one-way delay: 30.854 ms  
Loss rate: 0.01%

## Run 2: Report of LEDBAT — Data Link





Run 3: Statistics of LEDBAT

Start at: 2019-05-30 01:16:38  
End at: 2019-05-30 01:17:08  
Local clock offset: -3.884 ms  
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2019-05-30 02:32:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.29 Mbit/s  
95th percentile per-packet one-way delay: 30.898 ms  
Loss rate: 0.05%

-- Flow 1:

Average throughput: 62.38 Mbit/s  
95th percentile per-packet one-way delay: 30.673 ms  
Loss rate: 0.03%

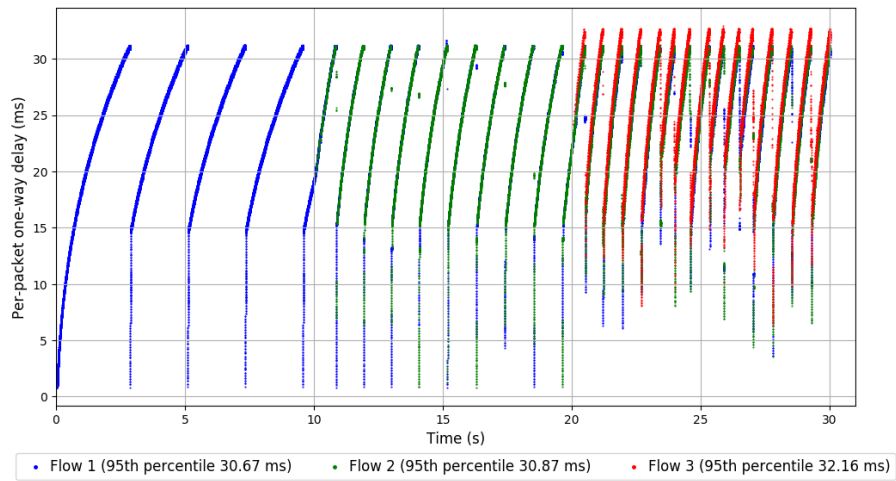
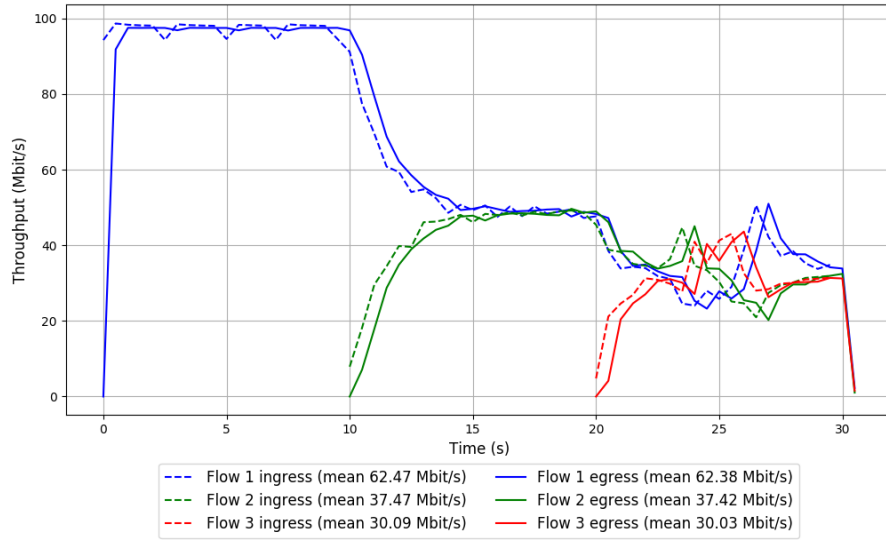
-- Flow 2:

Average throughput: 37.42 Mbit/s  
95th percentile per-packet one-way delay: 30.870 ms  
Loss rate: 0.06%

-- Flow 3:

Average throughput: 30.03 Mbit/s  
95th percentile per-packet one-way delay: 32.159 ms  
Loss rate: 0.12%

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



Run 4: Statistics of LEDBAT

Start at: 2019-05-30 01:40:31

End at: 2019-05-30 01:41:01

Local clock offset: -3.248 ms

Remote clock offset: 0.144 ms

# Below is generated by plot.py at 2019-05-30 02:33:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.05 Mbit/s

95th percentile per-packet one-way delay: 31.089 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 58.26 Mbit/s

95th percentile per-packet one-way delay: 30.749 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 35.89 Mbit/s

95th percentile per-packet one-way delay: 32.266 ms

Loss rate: 0.05%

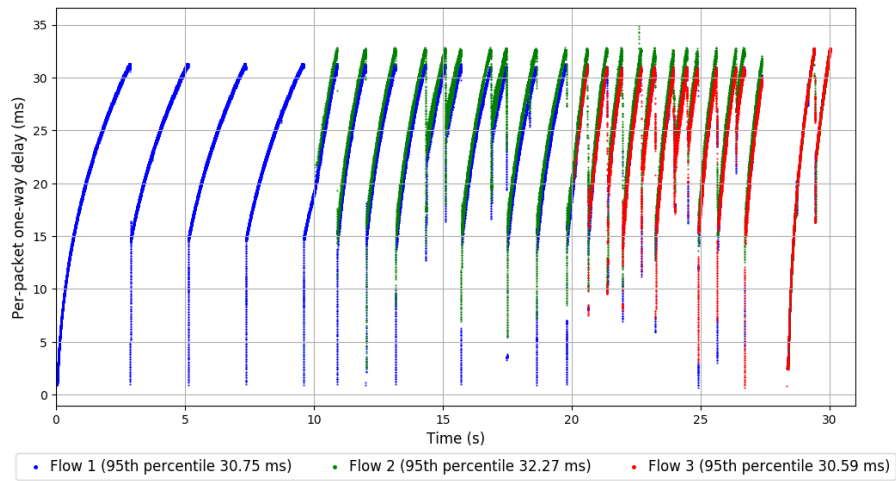
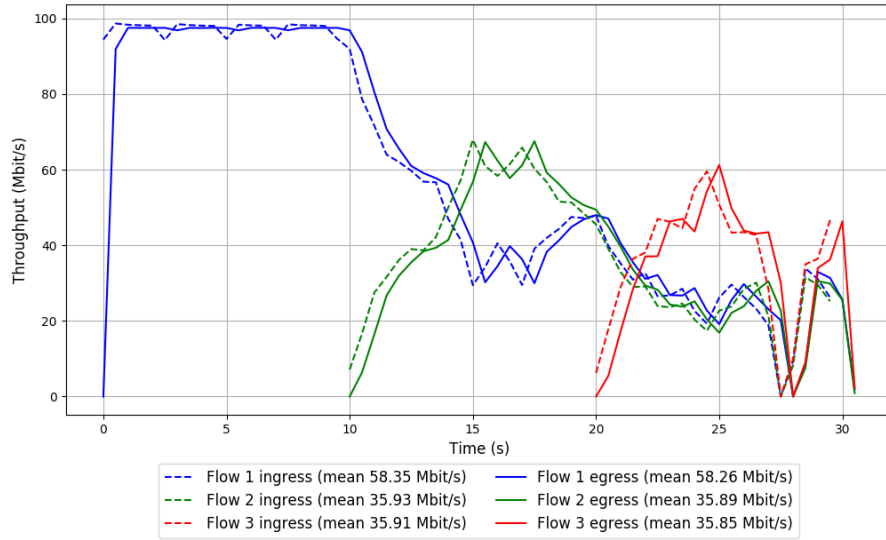
-- Flow 3:

Average throughput: 35.85 Mbit/s

95th percentile per-packet one-way delay: 30.587 ms

Loss rate: 0.04%

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



Run 5: Statistics of LEDBAT

Start at: 2019-05-30 02:04:25  
End at: 2019-05-30 02:04:55  
Local clock offset: -58.905 ms  
Remote clock offset: 0.335 ms

# Below is generated by plot.py at 2019-05-30 02:33:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.19 Mbit/s  
95th percentile per-packet one-way delay: 88.208 ms  
Loss rate: 0.05%

-- Flow 1:

Average throughput: 65.49 Mbit/s  
95th percentile per-packet one-way delay: 88.344 ms  
Loss rate: 0.02%

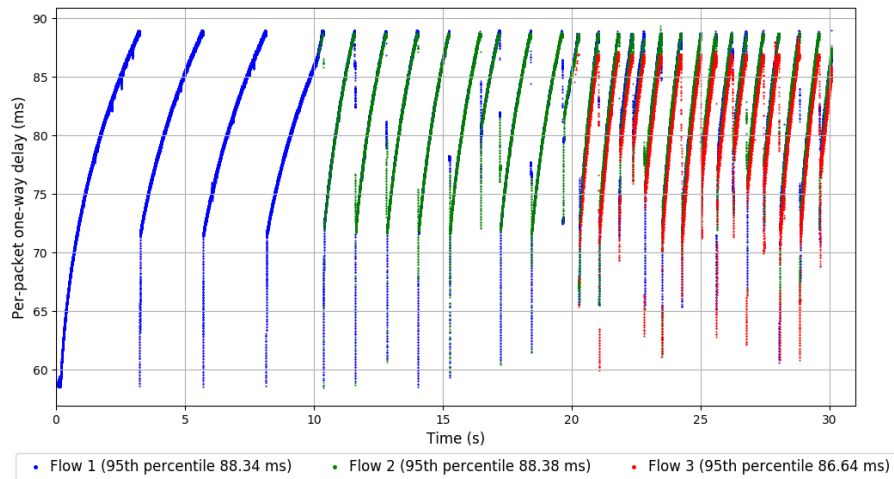
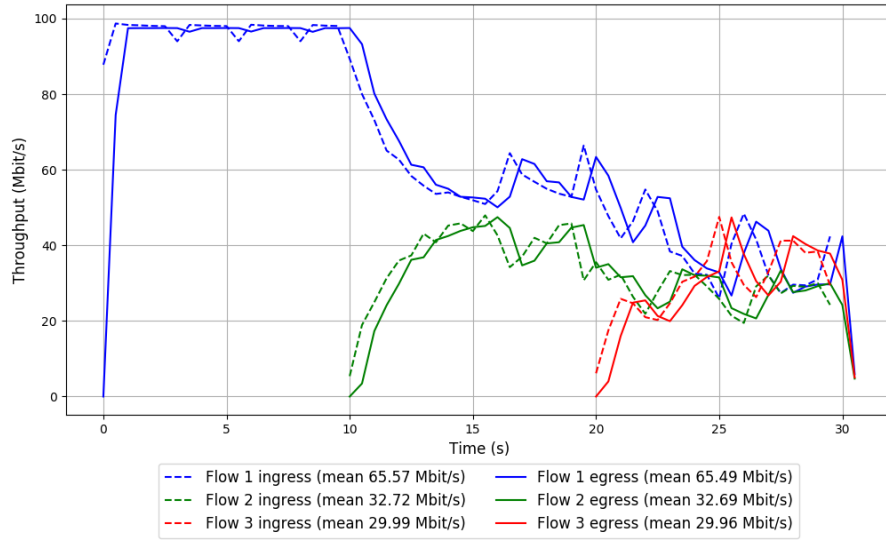
-- Flow 2:

Average throughput: 32.69 Mbit/s  
95th percentile per-packet one-way delay: 88.383 ms  
Loss rate: 0.12%

-- Flow 3:

Average throughput: 29.96 Mbit/s  
95th percentile per-packet one-way delay: 86.638 ms  
Loss rate: 0.10%

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



Run 1: Statistics of PCC-Allegro

Start at: 2019-05-30 00:39:05  
End at: 2019-05-30 00:39:35  
Local clock offset: -5.594 ms  
Remote clock offset: -0.704 ms

# Below is generated by plot.py at 2019-05-30 02:33:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.91 Mbit/s  
95th percentile per-packet one-way delay: 8.889 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 75.97 Mbit/s  
95th percentile per-packet one-way delay: 7.047 ms  
Loss rate: 0.00%

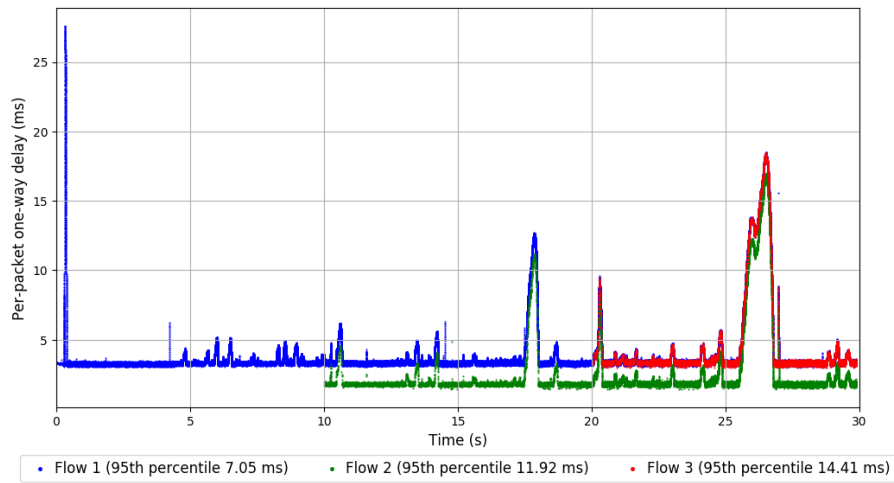
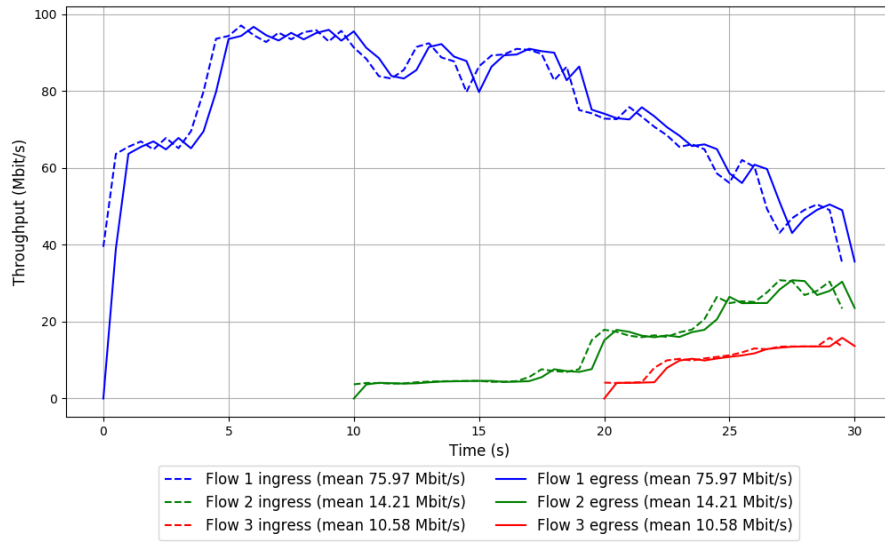
-- Flow 2:

Average throughput: 14.21 Mbit/s  
95th percentile per-packet one-way delay: 11.920 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 10.58 Mbit/s  
95th percentile per-packet one-way delay: 14.408 ms  
Loss rate: 0.00%

Run 1: Report of PCC-Allegro — Data Link



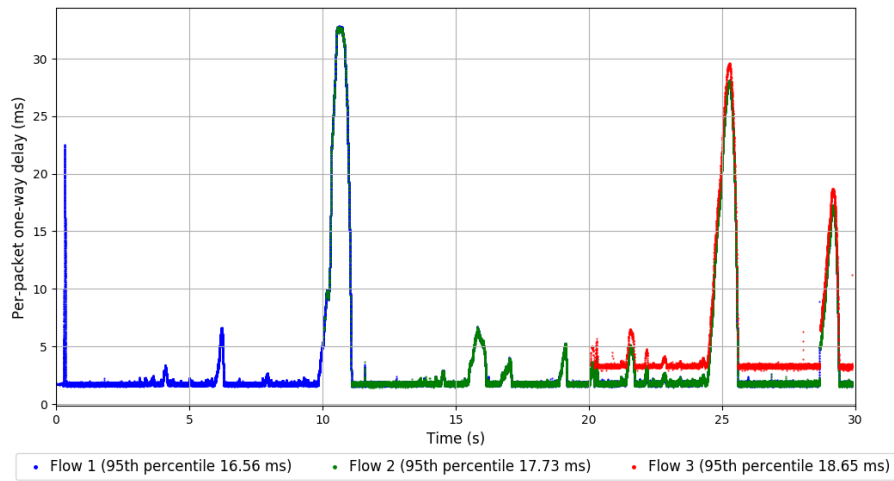
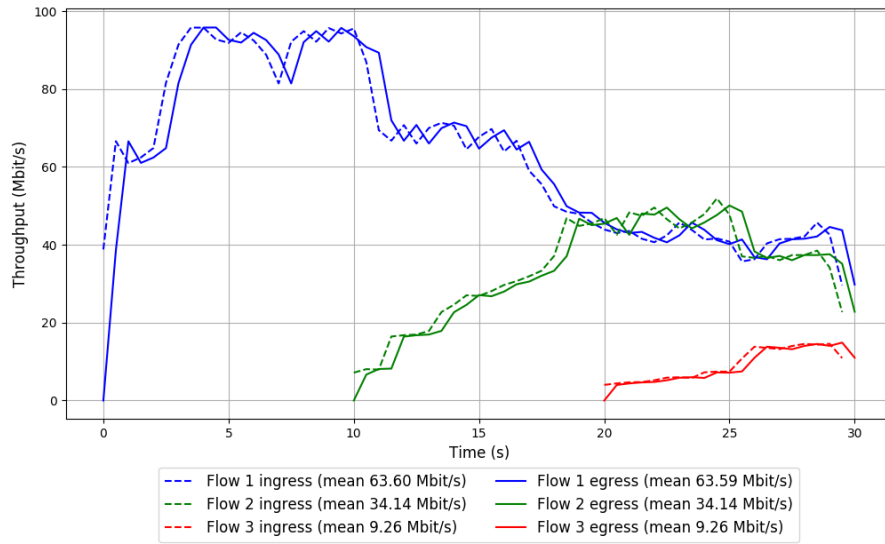


Run 2: Statistics of PCC-Allegro

Start at: 2019-05-30 01:02:58  
End at: 2019-05-30 01:03:28  
Local clock offset: -5.85 ms  
Remote clock offset: -0.158 ms

```
# Below is generated by plot.py at 2019-05-30 02:33:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.31 Mbit/s
95th percentile per-packet one-way delay: 17.041 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 63.59 Mbit/s
95th percentile per-packet one-way delay: 16.560 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 17.725 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 9.26 Mbit/s
95th percentile per-packet one-way delay: 18.653 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-05-30 01:26:51

End at: 2019-05-30 01:27:21

Local clock offset: -3.39 ms

Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2019-05-30 02:33:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.57 Mbit/s

95th percentile per-packet one-way delay: 14.434 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 61.88 Mbit/s

95th percentile per-packet one-way delay: 10.688 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 25.88 Mbit/s

95th percentile per-packet one-way delay: 33.174 ms

Loss rate: 0.47%

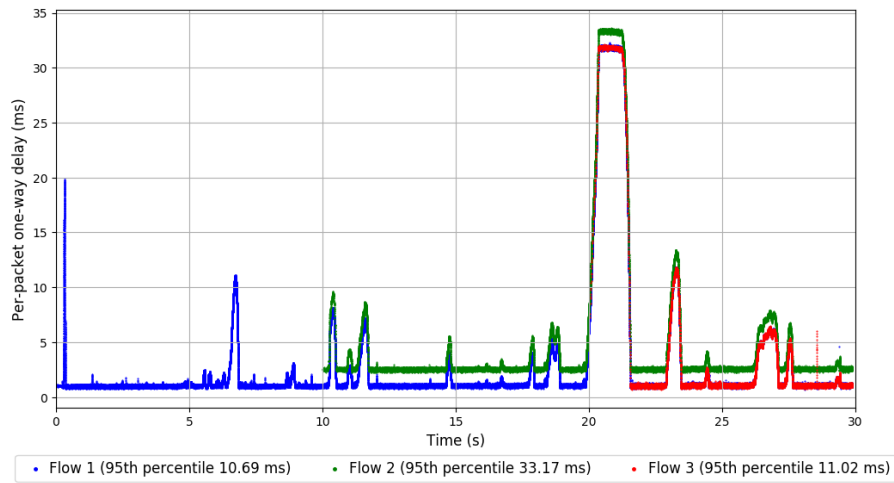
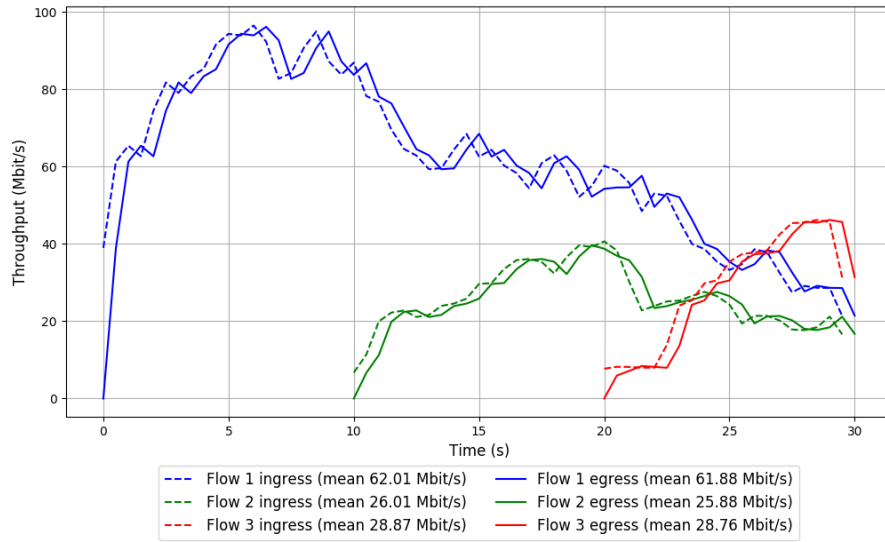
-- Flow 3:

Average throughput: 28.76 Mbit/s

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

Loss rate: 0.42%

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



Run 4: Statistics of PCC-Allegro

Start at: 2019-05-30 01:50:45  
End at: 2019-05-30 01:51:15  
Local clock offset: -59.085 ms  
Remote clock offset: 0.309 ms

# Below is generated by plot.py at 2019-05-30 02:33:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 82.15 Mbit/s  
95th percentile per-packet one-way delay: 63.413 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.17 Mbit/s  
95th percentile per-packet one-way delay: 60.474 ms  
Loss rate: 0.00%

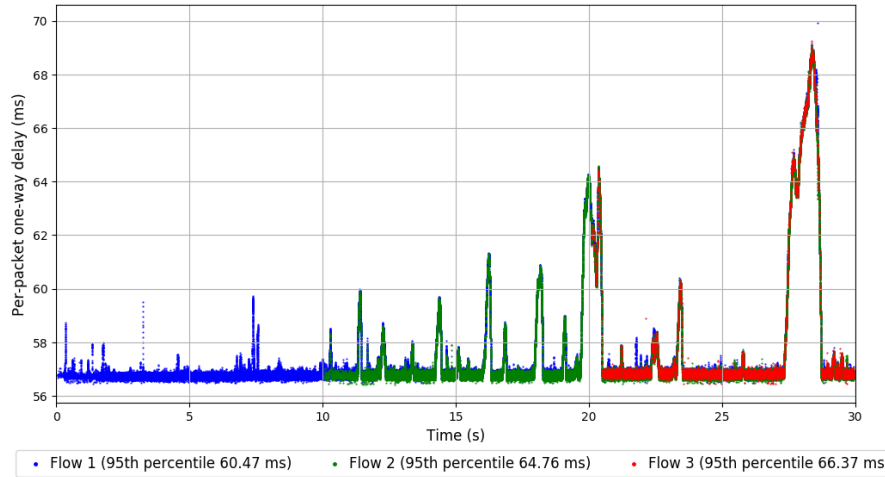
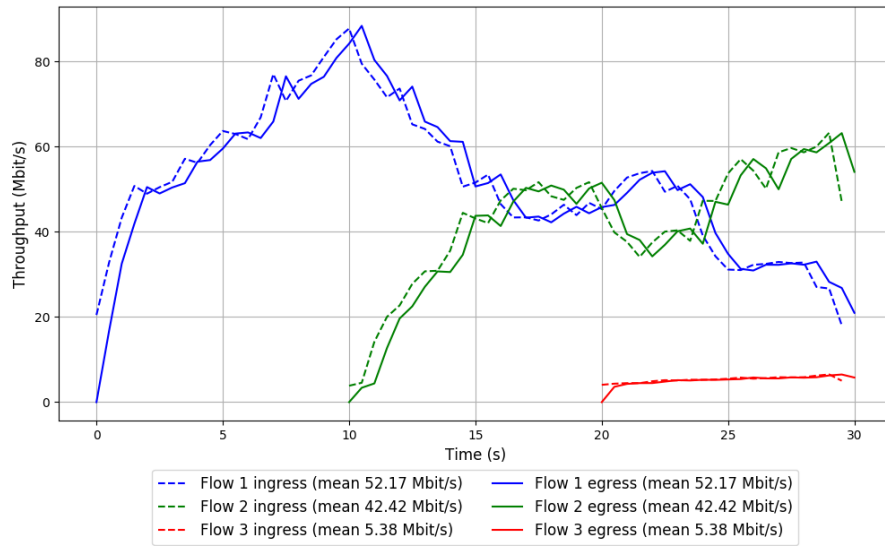
-- Flow 2:

Average throughput: 42.42 Mbit/s  
95th percentile per-packet one-way delay: 64.761 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 5.38 Mbit/s  
95th percentile per-packet one-way delay: 66.370 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-05-30 02:14:39  
End at: 2019-05-30 02:15:09  
Local clock offset: -59.276 ms  
Remote clock offset: 0.465 ms

# Below is generated by plot.py at 2019-05-30 02:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.73 Mbit/s  
95th percentile per-packet one-way delay: 86.554 ms  
Loss rate: 0.48%

-- Flow 1:

Average throughput: 69.13 Mbit/s  
95th percentile per-packet one-way delay: 87.619 ms  
Loss rate: 0.38%

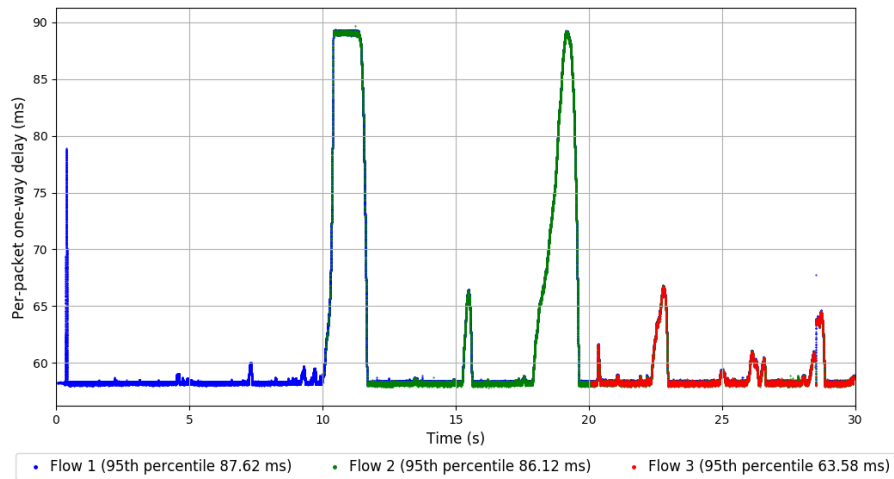
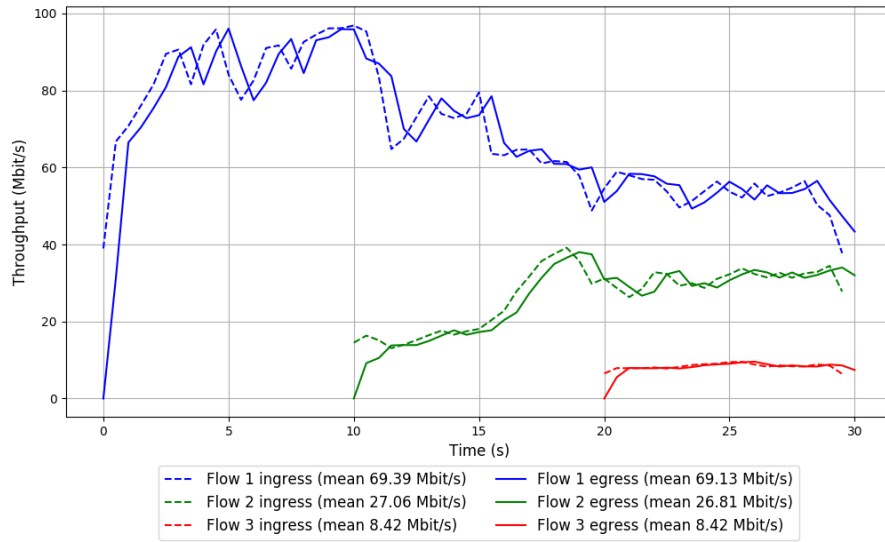
-- Flow 2:

Average throughput: 26.81 Mbit/s  
95th percentile per-packet one-way delay: 86.123 ms  
Loss rate: 0.94%

-- Flow 3:

Average throughput: 8.42 Mbit/s  
95th percentile per-packet one-way delay: 63.584 ms  
Loss rate: 0.00%

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





Run 1: Statistics of PCC-Expr

Start at: 2019-05-30 00:34:30  
End at: 2019-05-30 00:35:01  
Local clock offset: -4.737 ms  
Remote clock offset: -0.644 ms

# Below is generated by plot.py at 2019-05-30 02:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.12 Mbit/s  
95th percentile per-packet one-way delay: 2.661 ms  
Loss rate: 23.05%

-- Flow 1:

Average throughput: 7.17 Mbit/s  
95th percentile per-packet one-way delay: 2.647 ms  
Loss rate: 21.36%

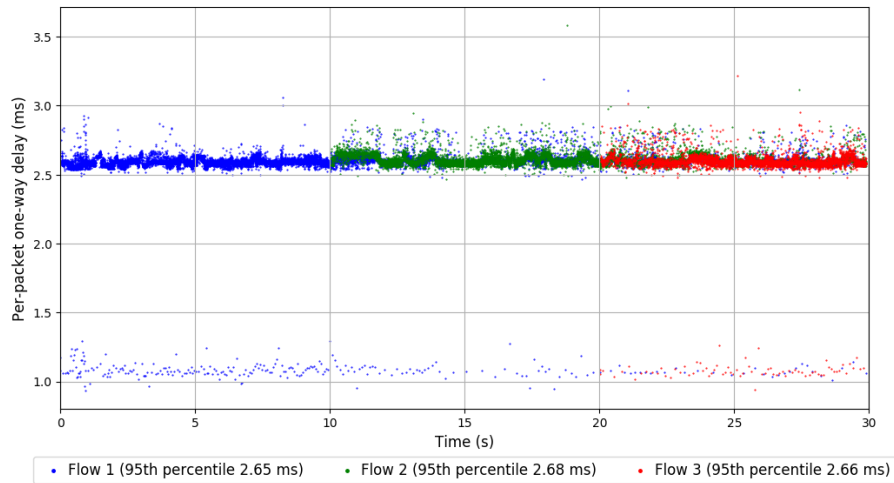
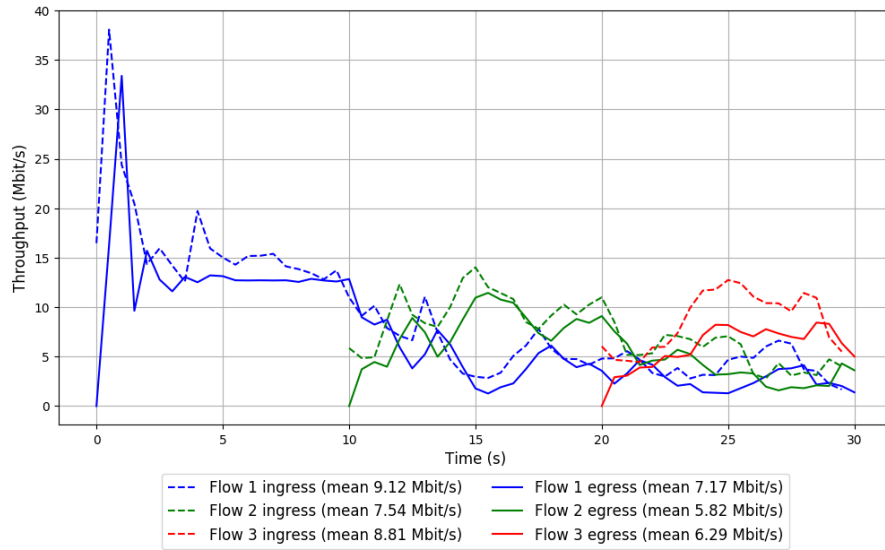
-- Flow 2:

Average throughput: 5.82 Mbit/s  
95th percentile per-packet one-way delay: 2.678 ms  
Loss rate: 22.92%

-- Flow 3:

Average throughput: 6.29 Mbit/s  
95th percentile per-packet one-way delay: 2.660 ms  
Loss rate: 28.58%

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



Run 2: Statistics of PCC-Expr

Start at: 2019-05-30 00:58:23  
End at: 2019-05-30 00:58:53  
Local clock offset: -4.996 ms  
Remote clock offset: -0.324 ms

# Below is generated by plot.py at 2019-05-30 02:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.98 Mbit/s  
95th percentile per-packet one-way delay: 2.431 ms  
Loss rate: 26.21%

-- Flow 1:

Average throughput: 0.42 Mbit/s  
95th percentile per-packet one-way delay: 2.481 ms  
Loss rate: 85.71%

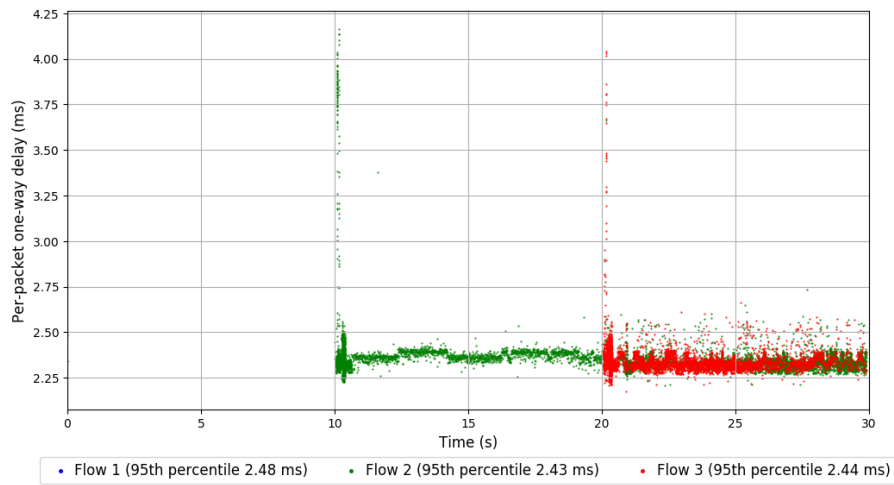
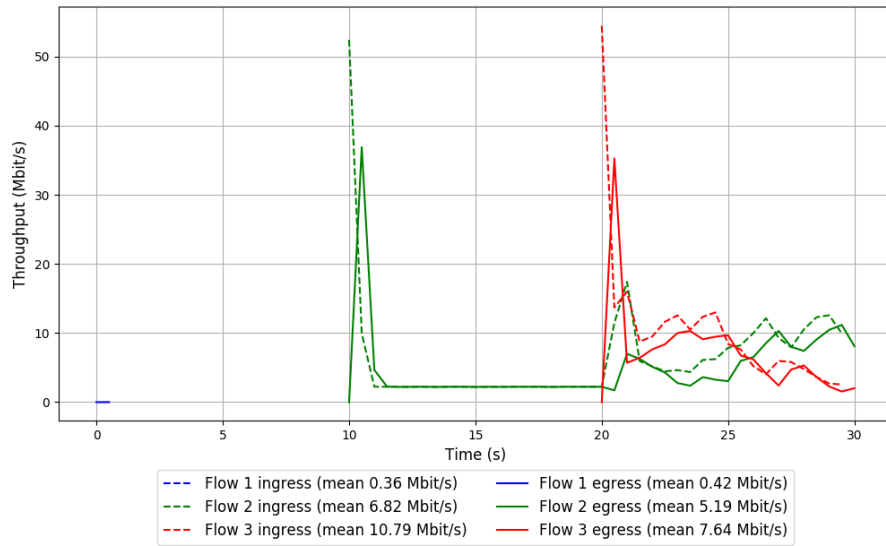
-- Flow 2:

Average throughput: 5.19 Mbit/s  
95th percentile per-packet one-way delay: 2.427 ms  
Loss rate: 23.86%

-- Flow 3:

Average throughput: 7.64 Mbit/s  
95th percentile per-packet one-way delay: 2.435 ms  
Loss rate: 29.18%

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



Run 3: Statistics of PCC-Expr

Start at: 2019-05-30 01:22:16

End at: 2019-05-30 01:22:46

Local clock offset: -4.407 ms

Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2019-05-30 02:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.86 Mbit/s

95th percentile per-packet one-way delay: 3.333 ms

Loss rate: 18.63%

-- Flow 1:

Average throughput: 0.51 Mbit/s

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

Loss rate: 85.71%

-- Flow 2:

Average throughput: 10.54 Mbit/s

95th percentile per-packet one-way delay: 3.329 ms

Loss rate: 18.04%

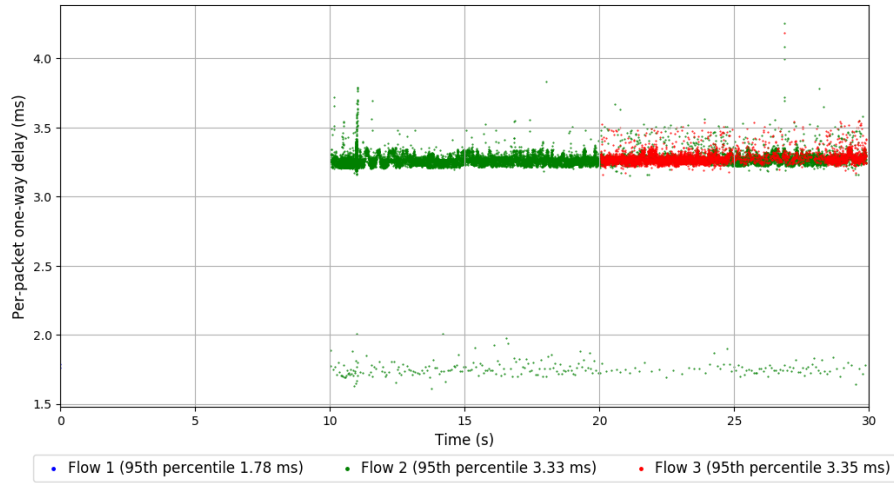
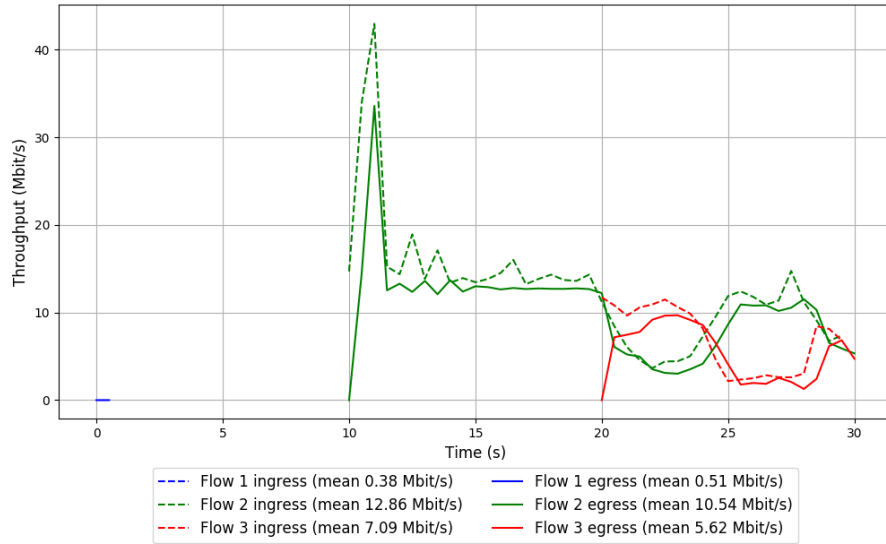
-- Flow 3:

Average throughput: 5.62 Mbit/s

95th percentile per-packet one-way delay: 3.353 ms

Loss rate: 20.77%

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



Run 4: Statistics of PCC-Expr

Start at: 2019-05-30 01:46:10  
End at: 2019-05-30 01:46:40  
Local clock offset: -58.985 ms  
Remote clock offset: 0.227 ms

# Below is generated by plot.py at 2019-05-30 02:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.86 Mbit/s  
95th percentile per-packet one-way delay: 58.327 ms  
Loss rate: 28.35%

-- Flow 1:

Average throughput: 0.61 Mbit/s  
95th percentile per-packet one-way delay: 56.548 ms  
Loss rate: 85.71%

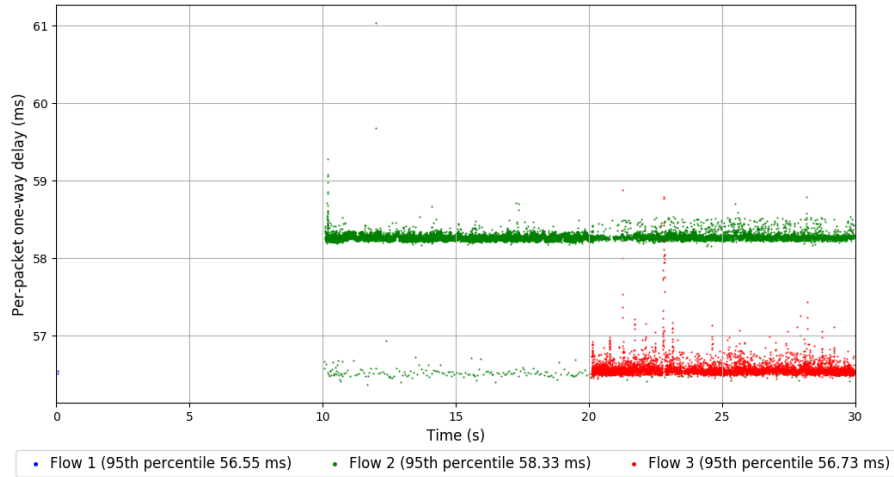
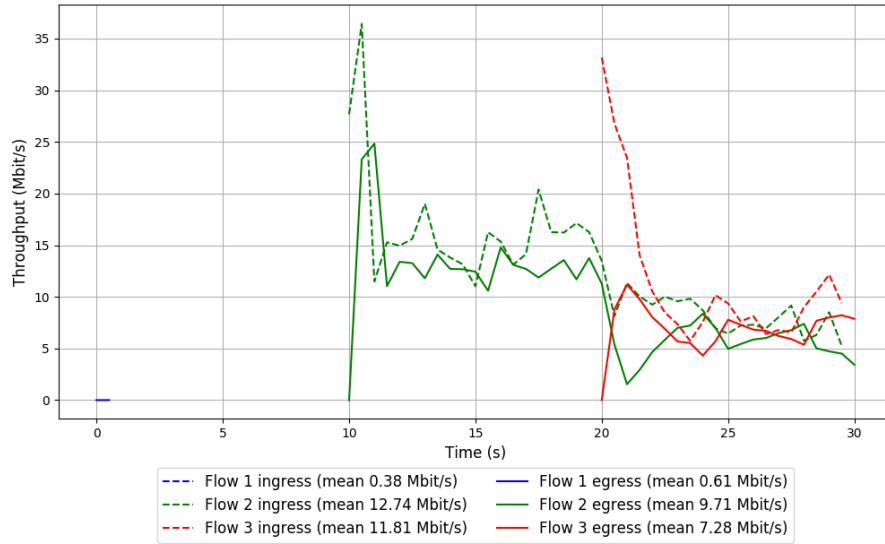
-- Flow 2:

Average throughput: 9.71 Mbit/s  
95th percentile per-packet one-way delay: 58.333 ms  
Loss rate: 23.74%

-- Flow 3:

Average throughput: 7.28 Mbit/s  
95th percentile per-packet one-way delay: 56.728 ms  
Loss rate: 38.35%

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





Run 5: Statistics of PCC-Expr

Start at: 2019-05-30 02:10:04  
End at: 2019-05-30 02:10:34  
Local clock offset: -59.139 ms  
Remote clock offset: 0.375 ms

# Below is generated by plot.py at 2019-05-30 02:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.84 Mbit/s  
95th percentile per-packet one-way delay: 59.812 ms  
Loss rate: 29.95%

-- Flow 1:

Average throughput: 0.37 Mbit/s  
95th percentile per-packet one-way delay: 58.443 ms  
Loss rate: 85.71%

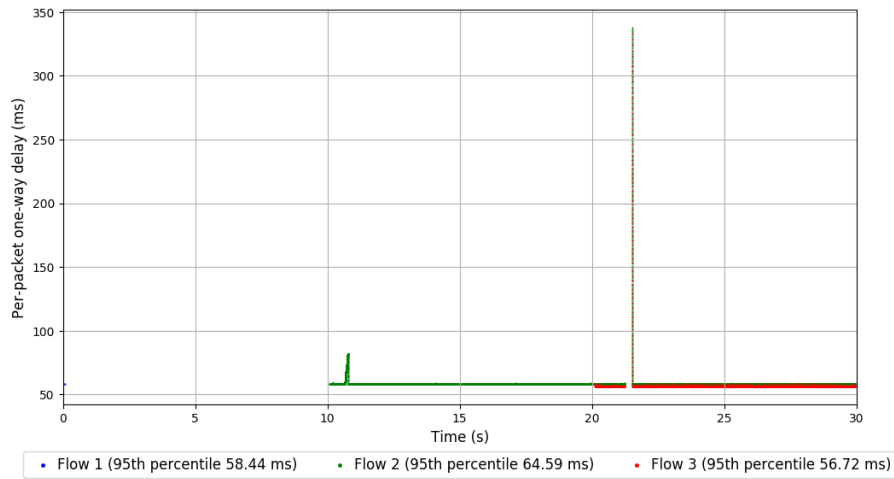
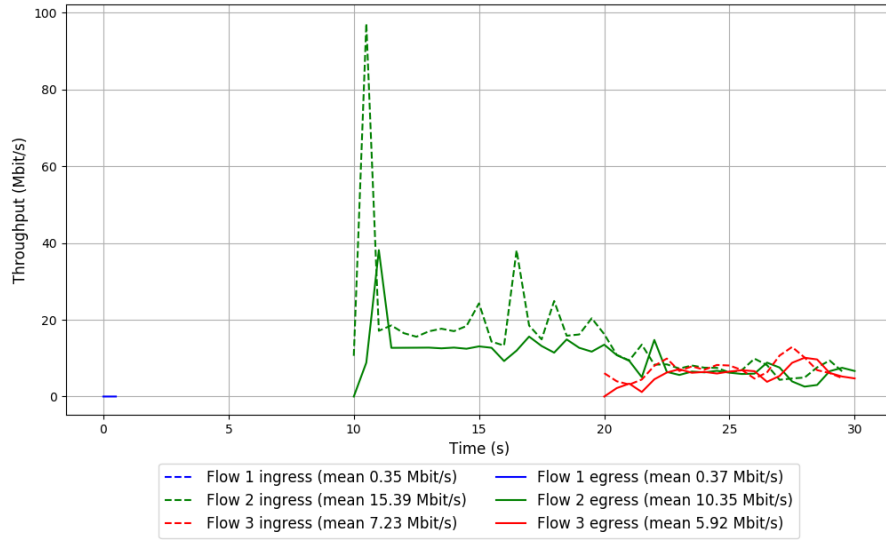
-- Flow 2:

Average throughput: 10.35 Mbit/s  
95th percentile per-packet one-way delay: 64.593 ms  
Loss rate: 32.73%

-- Flow 3:

Average throughput: 5.92 Mbit/s  
95th percentile per-packet one-way delay: 56.715 ms  
Loss rate: 18.03%

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



Run 1: Statistics of QUIC Cubic

Start at: 2019-05-30 00:48:10  
End at: 2019-05-30 00:48:40  
Local clock offset: -5.052 ms  
Remote clock offset: -0.479 ms

# Below is generated by plot.py at 2019-05-30 02:34:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.68 Mbit/s  
95th percentile per-packet one-way delay: 30.035 ms  
Loss rate: 0.18%

-- Flow 1:

Average throughput: 56.11 Mbit/s  
95th percentile per-packet one-way delay: 29.789 ms  
Loss rate: 0.18%

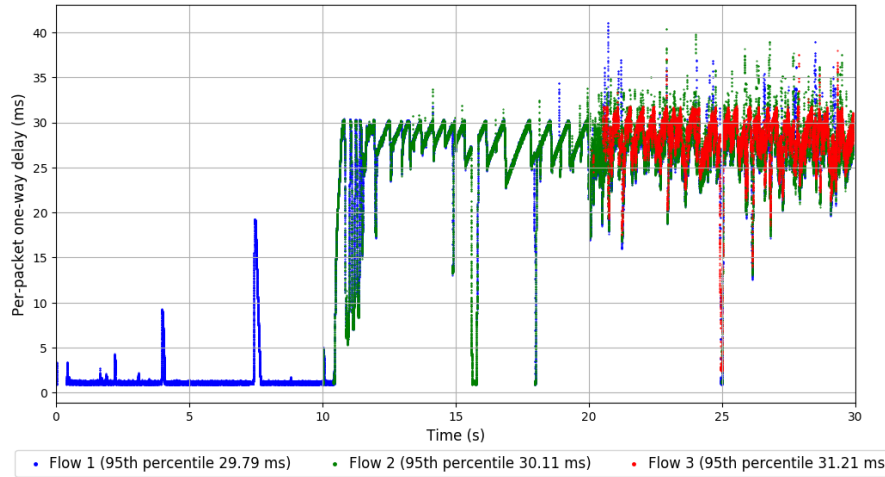
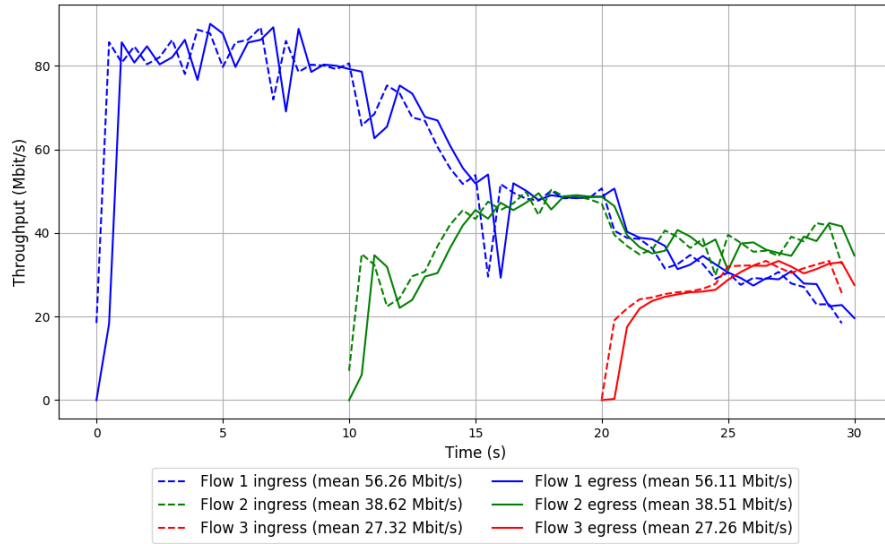
-- Flow 2:

Average throughput: 38.51 Mbit/s  
95th percentile per-packet one-way delay: 30.110 ms  
Loss rate: 0.17%

-- Flow 3:

Average throughput: 27.26 Mbit/s  
95th percentile per-packet one-way delay: 31.206 ms  
Loss rate: 0.20%

# Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-05-30 01:12:04  
End at: 2019-05-30 01:12:34  
Local clock offset: -5.15 ms  
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-05-30 02:34:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.81 Mbit/s  
95th percentile per-packet one-way delay: 30.847 ms  
Loss rate: 0.15%

-- Flow 1:

Average throughput: 60.56 Mbit/s  
95th percentile per-packet one-way delay: 30.572 ms  
Loss rate: 0.12%

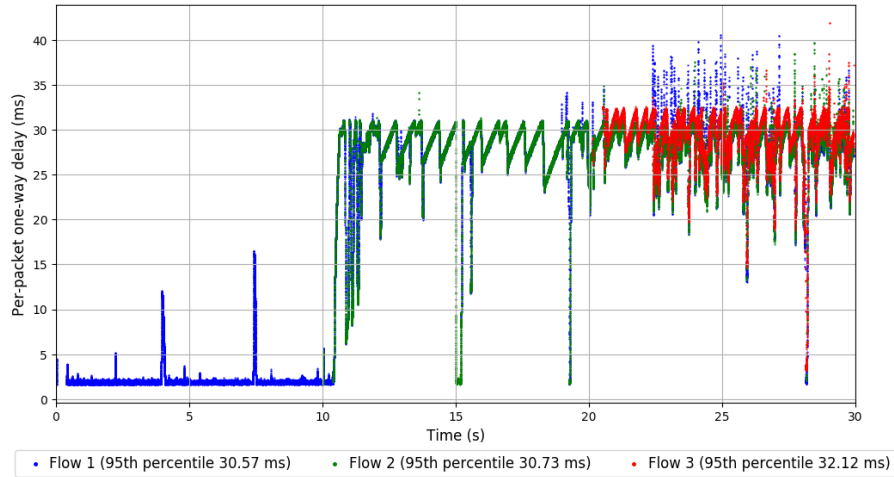
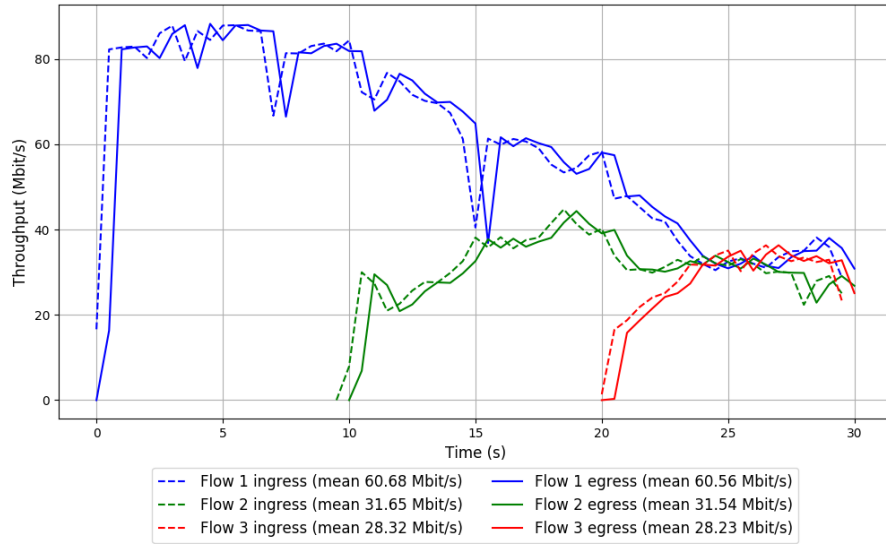
-- Flow 2:

Average throughput: 31.54 Mbit/s  
95th percentile per-packet one-way delay: 30.730 ms  
Loss rate: 0.22%

-- Flow 3:

Average throughput: 28.23 Mbit/s  
95th percentile per-packet one-way delay: 32.120 ms  
Loss rate: 0.23%

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



Run 3: Statistics of QUIC Cubic

Start at: 2019-05-30 01:35:57

End at: 2019-05-30 01:36:27

Local clock offset: -3.272 ms

Remote clock offset: 0.225 ms

# Below is generated by plot.py at 2019-05-30 02:34:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.87 Mbit/s

95th percentile per-packet one-way delay: 31.564 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 58.69 Mbit/s

95th percentile per-packet one-way delay: 31.489 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 34.15 Mbit/s

95th percentile per-packet one-way delay: 31.637 ms

Loss rate: 0.18%

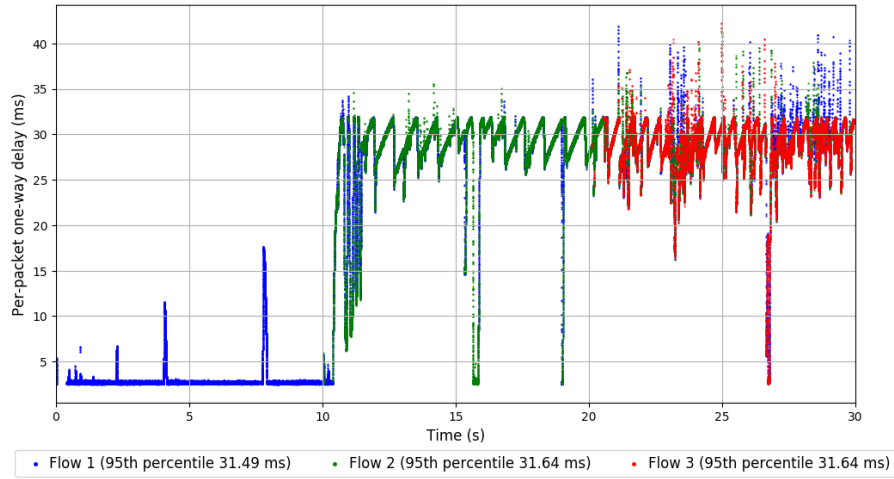
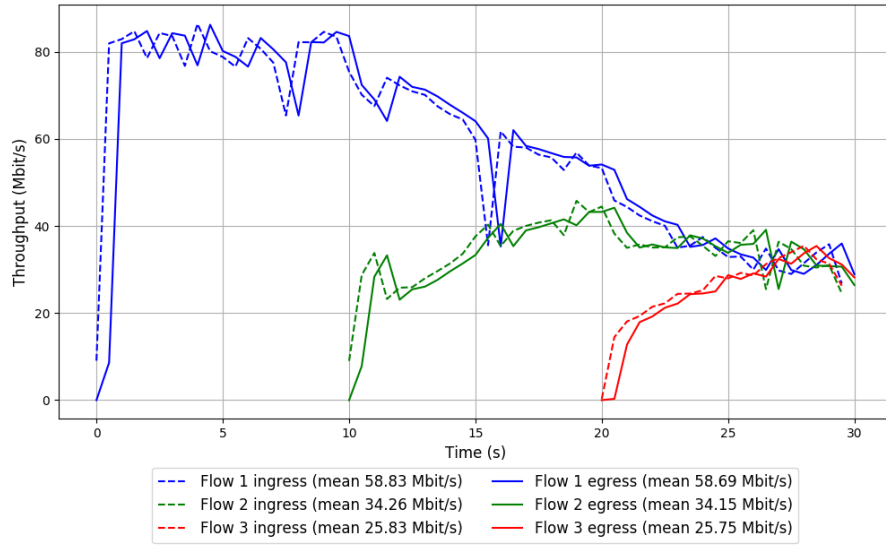
-- Flow 3:

Average throughput: 25.75 Mbit/s

95th percentile per-packet one-way delay: 31.637 ms

Loss rate: 0.27%

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





Run 4: Statistics of QUIC Cubic

Start at: 2019-05-30 01:59:50  
End at: 2019-05-30 02:00:20  
Local clock offset: -58.874 ms  
Remote clock offset: 0.325 ms

# Below is generated by plot.py at 2019-05-30 02:34:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.16 Mbit/s  
95th percentile per-packet one-way delay: 86.756 ms  
Loss rate: 0.15%

-- Flow 1:

Average throughput: 58.46 Mbit/s  
95th percentile per-packet one-way delay: 86.936 ms  
Loss rate: 0.13%

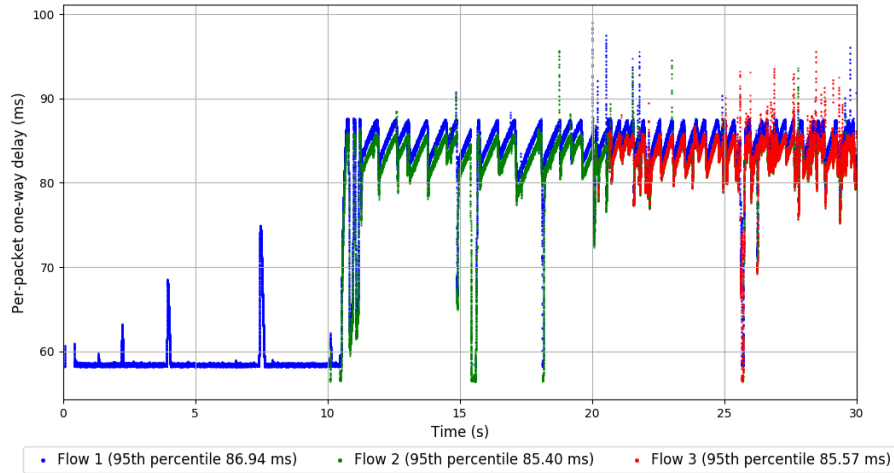
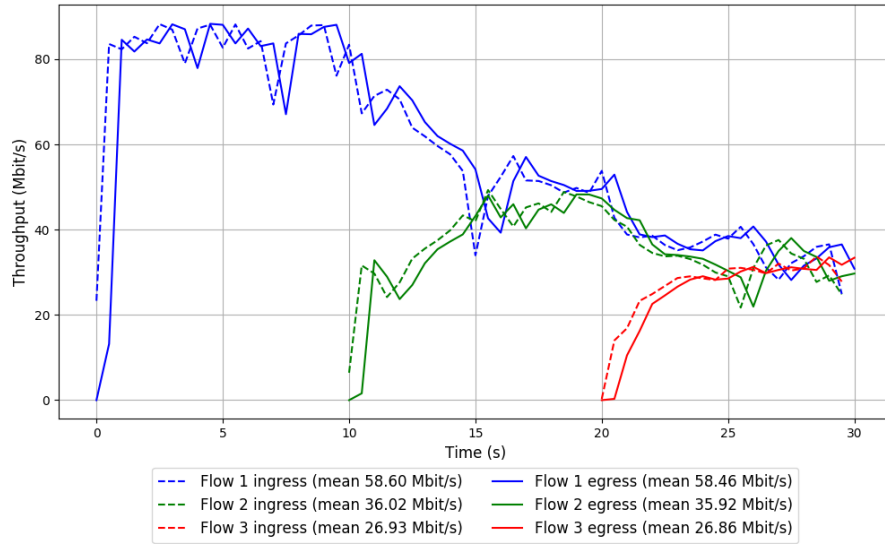
-- Flow 2:

Average throughput: 35.92 Mbit/s  
95th percentile per-packet one-way delay: 85.397 ms  
Loss rate: 0.14%

-- Flow 3:

Average throughput: 26.86 Mbit/s  
95th percentile per-packet one-way delay: 85.570 ms  
Loss rate: 0.27%

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



Run 5: Statistics of QUIC Cubic

Start at: 2019-05-30 02:23:46  
End at: 2019-05-30 02:24:16  
Local clock offset: -59.852 ms  
Remote clock offset: 0.35 ms

# Below is generated by plot.py at 2019-05-30 02:34:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.30 Mbit/s  
95th percentile per-packet one-way delay: 87.187 ms  
Loss rate: 0.15%

-- Flow 1:

Average throughput: 59.93 Mbit/s  
95th percentile per-packet one-way delay: 87.086 ms  
Loss rate: 0.14%

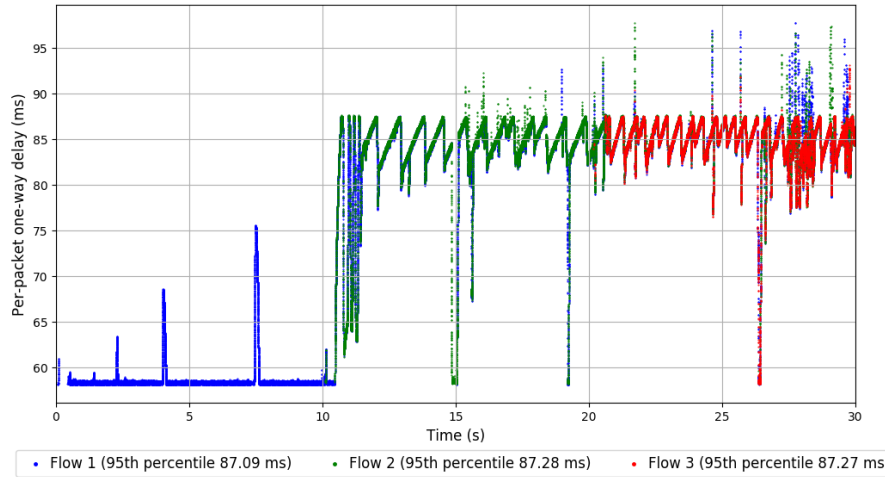
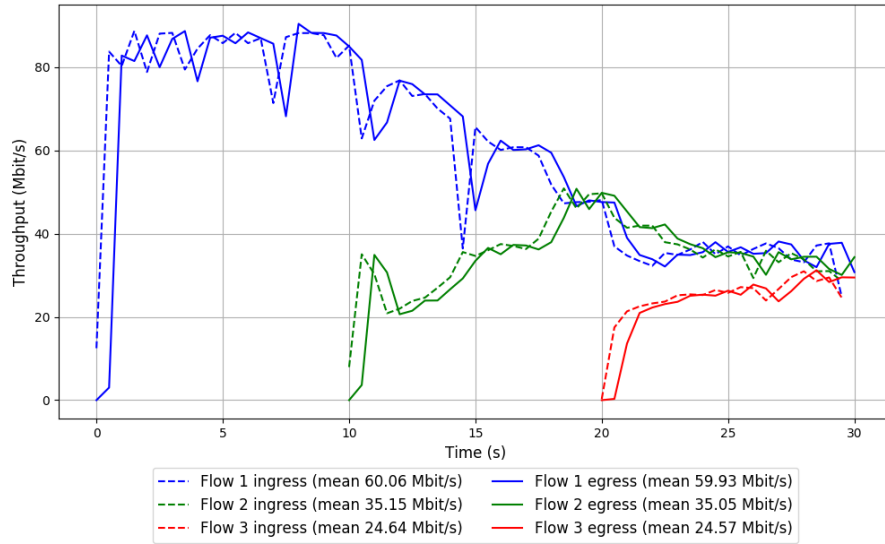
-- Flow 2:

Average throughput: 35.05 Mbit/s  
95th percentile per-packet one-way delay: 87.277 ms  
Loss rate: 0.16%

-- Flow 3:

Average throughput: 24.57 Mbit/s  
95th percentile per-packet one-way delay: 87.265 ms  
Loss rate: 0.28%

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



Run 1: Statistics of SCReAM

Start at: 2019-05-30 00:31:09  
End at: 2019-05-30 00:31:39  
Local clock offset: -4.502 ms  
Remote clock offset: -0.691 ms

# Below is generated by plot.py at 2019-05-30 02:34:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.380 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.891 ms

Loss rate: 0.00%

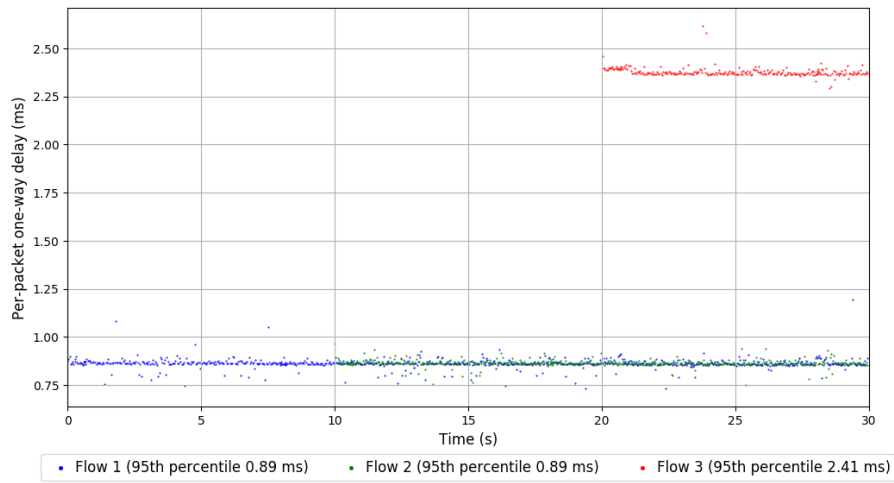
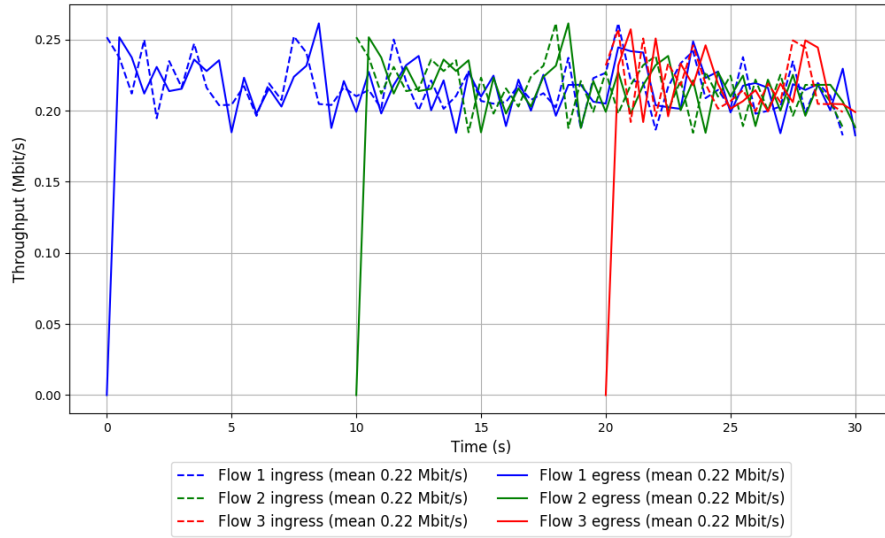
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.406 ms

Loss rate: 0.00%

# Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2019-05-30 00:55:01  
End at: 2019-05-30 00:55:32  
Local clock offset: -5.972 ms  
Remote clock offset: -0.309 ms

# Below is generated by plot.py at 2019-05-30 02:34:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 3.484 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 3.495 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 3.470 ms

Loss rate: 0.00%

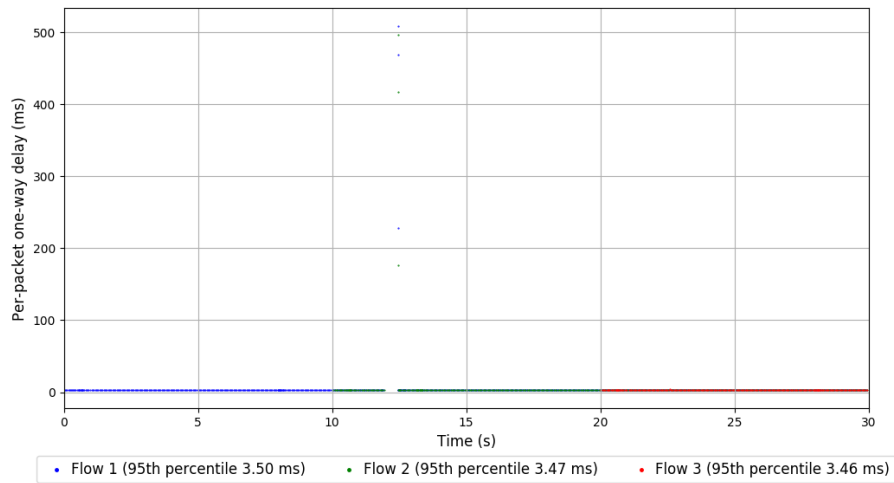
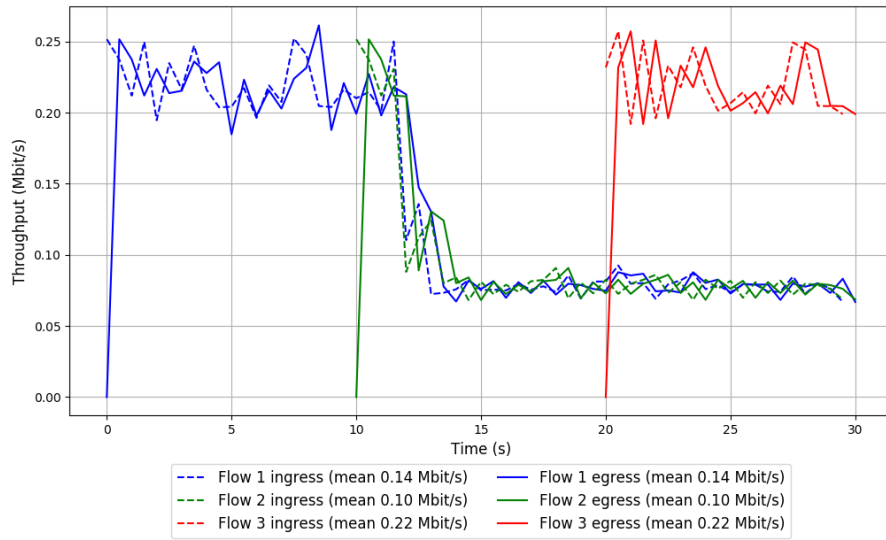
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3.462 ms

Loss rate: 0.00%

## Run 2: Report of SReAM — Data Link





Run 3: Statistics of SCReAM

Start at: 2019-05-30 01:18:55

End at: 2019-05-30 01:19:25

Local clock offset: -4.717 ms

Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-05-30 02:34:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 3.450 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.954 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.000 ms

Loss rate: 0.00%

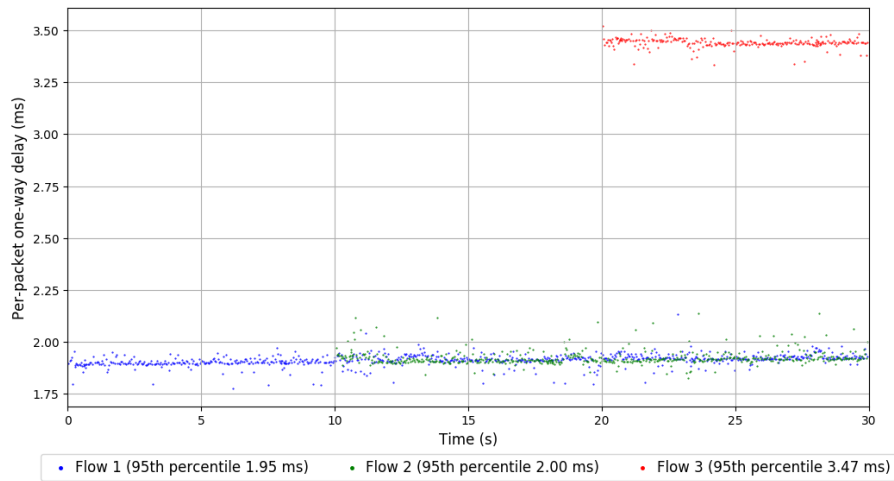
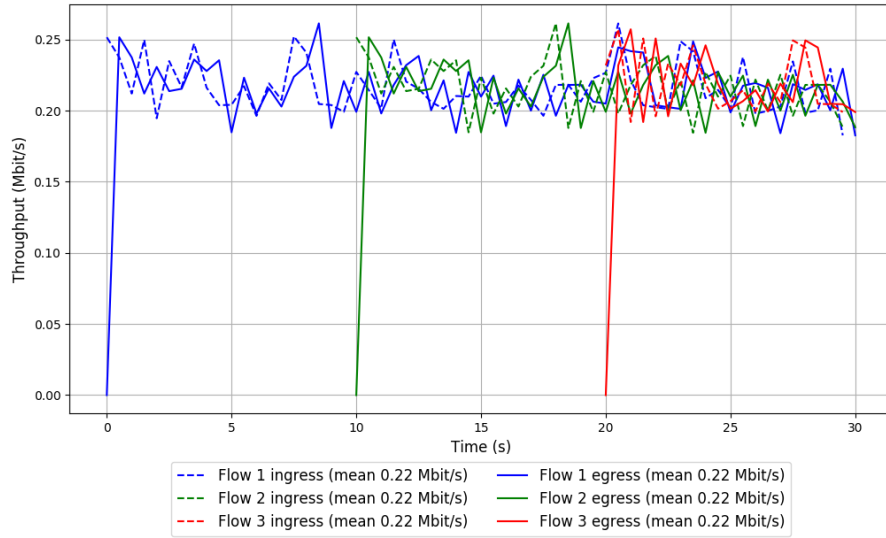
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3.472 ms

Loss rate: 0.00%

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



Run 4: Statistics of SCReAM

Start at: 2019-05-30 01:42:48  
End at: 2019-05-30 01:43:18  
Local clock offset: -59.021 ms  
Remote clock offset: 0.263 ms

# Below is generated by plot.py at 2019-05-30 02:34:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 58.455 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 58.468 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 56.679 ms

Loss rate: 0.00%

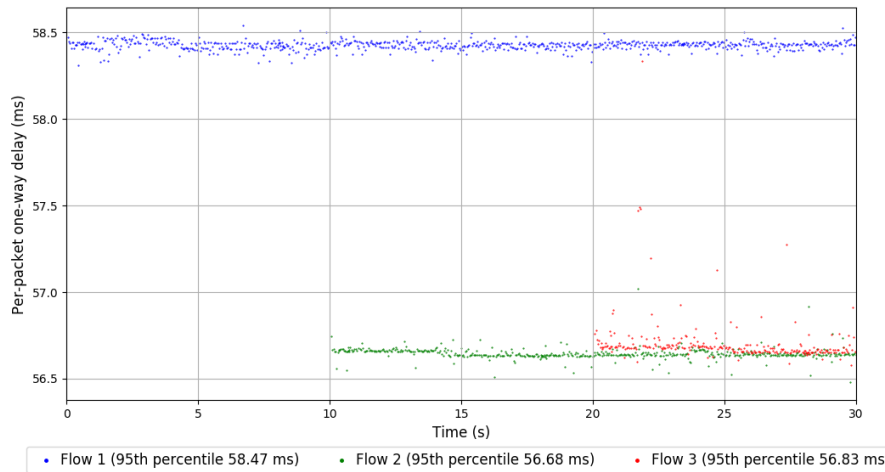
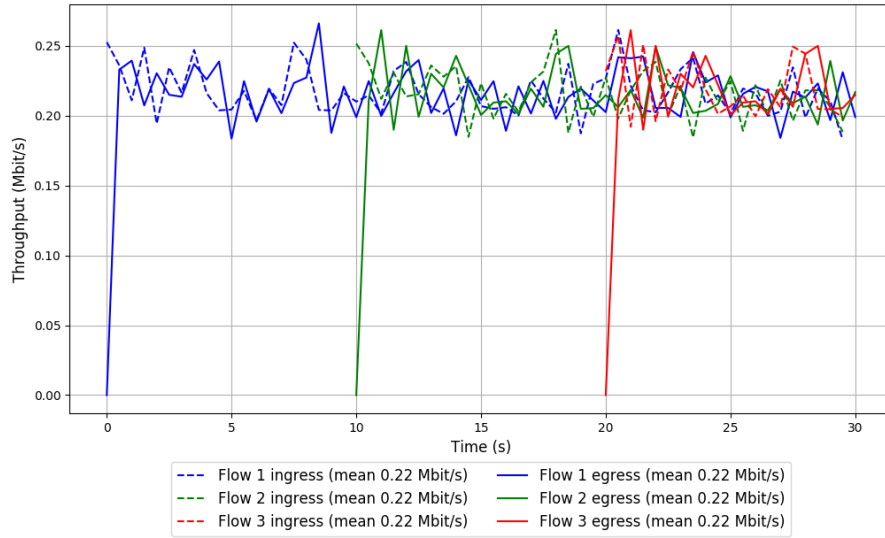
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 56.828 ms

Loss rate: 0.00%

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



Run 5: Statistics of SCReAM

Start at: 2019-05-30 02:06:42  
End at: 2019-05-30 02:07:12  
Local clock offset: -58.098 ms  
Remote clock offset: 0.366 ms

# Below is generated by plot.py at 2019-05-30 02:34:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 57.767 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 56.107 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.780 ms

Loss rate: 0.00%

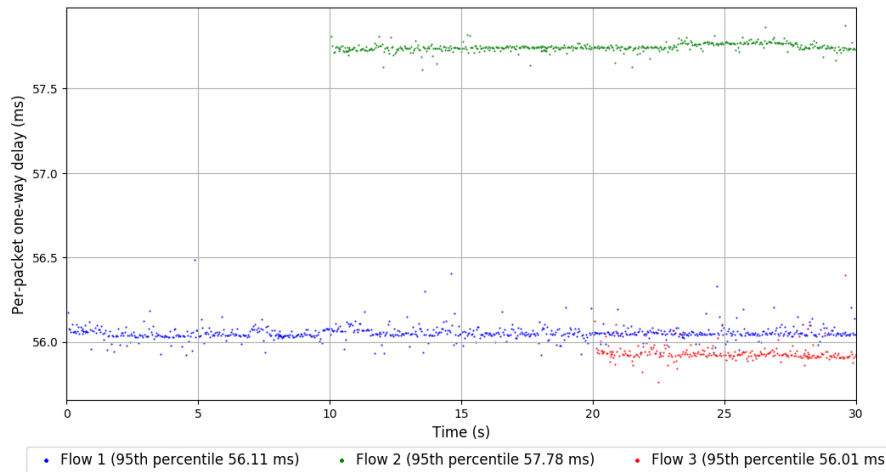
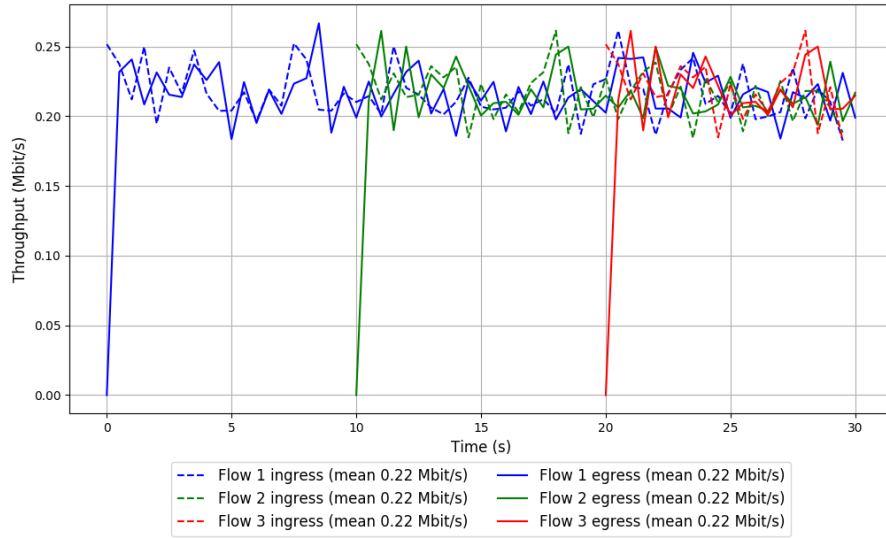
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 56.014 ms

Loss rate: 0.00%

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



Run 1: Statistics of Sprout

Start at: 2019-05-30 00:32:14  
End at: 2019-05-30 00:32:44  
Local clock offset: -4.514 ms  
Remote clock offset: -0.754 ms

# Below is generated by plot.py at 2019-05-30 02:34:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.90 Mbit/s  
95th percentile per-packet one-way delay: 21.615 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.82 Mbit/s  
95th percentile per-packet one-way delay: 18.749 ms  
Loss rate: 0.00%

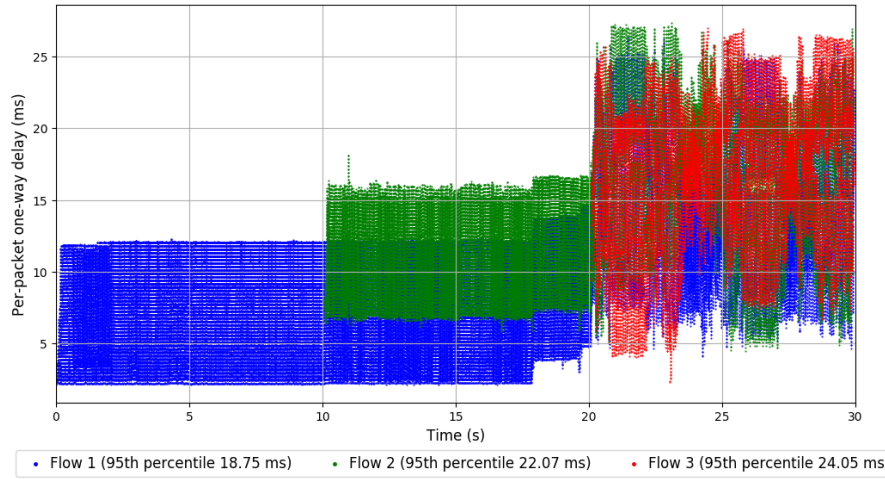
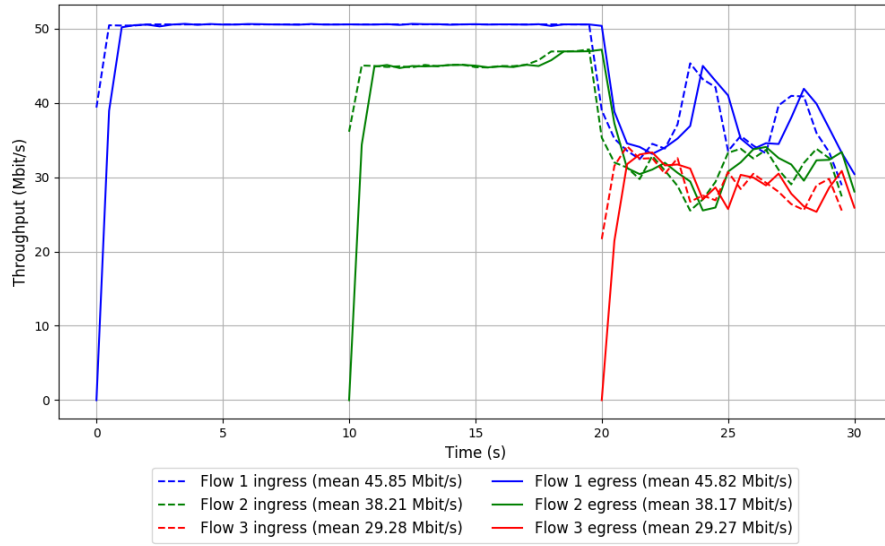
-- Flow 2:

Average throughput: 38.17 Mbit/s  
95th percentile per-packet one-way delay: 22.068 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 29.27 Mbit/s  
95th percentile per-packet one-way delay: 24.054 ms  
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link





Run 2: Statistics of Sprout

Start at: 2019-05-30 00:56:07  
End at: 2019-05-30 00:56:37  
Local clock offset: -5.996 ms  
Remote clock offset: -0.347 ms

# Below is generated by plot.py at 2019-05-30 02:34:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.44 Mbit/s  
95th percentile per-packet one-way delay: 22.358 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.78 Mbit/s  
95th percentile per-packet one-way delay: 21.890 ms  
Loss rate: 0.00%

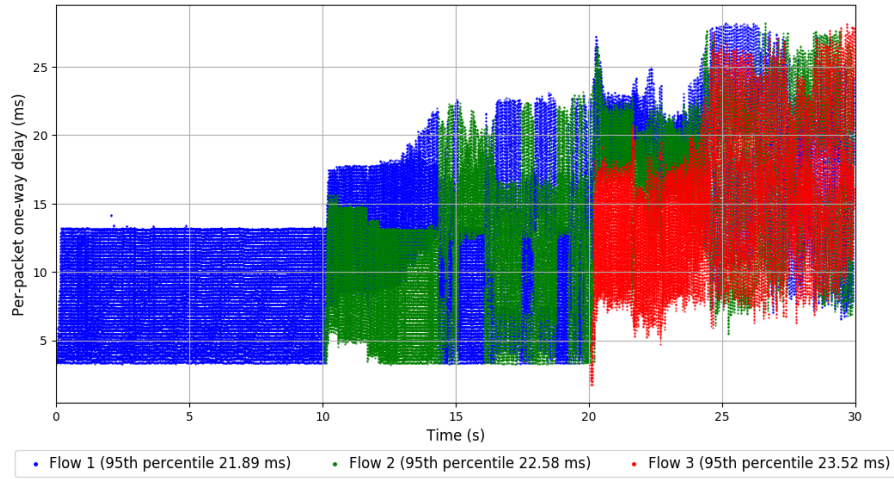
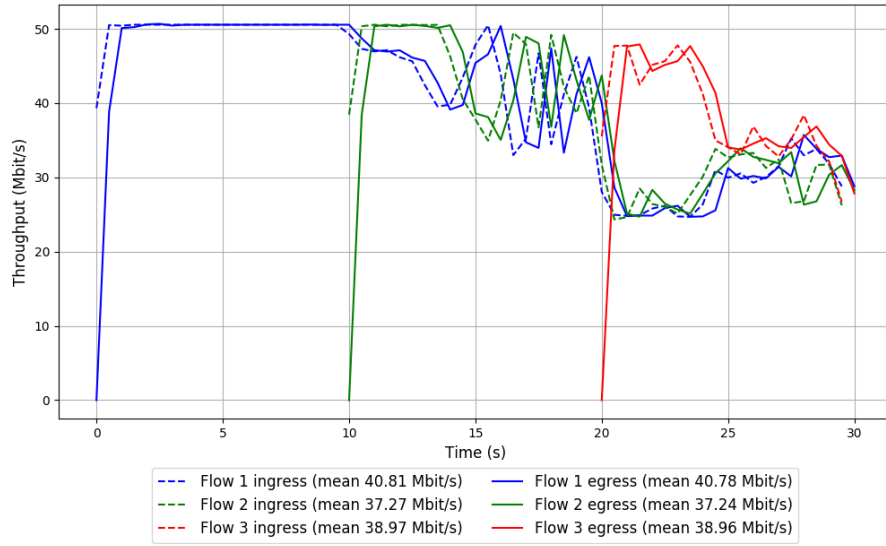
-- Flow 2:

Average throughput: 37.24 Mbit/s  
95th percentile per-packet one-way delay: 22.576 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 38.96 Mbit/s  
95th percentile per-packet one-way delay: 23.516 ms  
Loss rate: 0.00%

## Run 2: Report of Sprout — Data Link

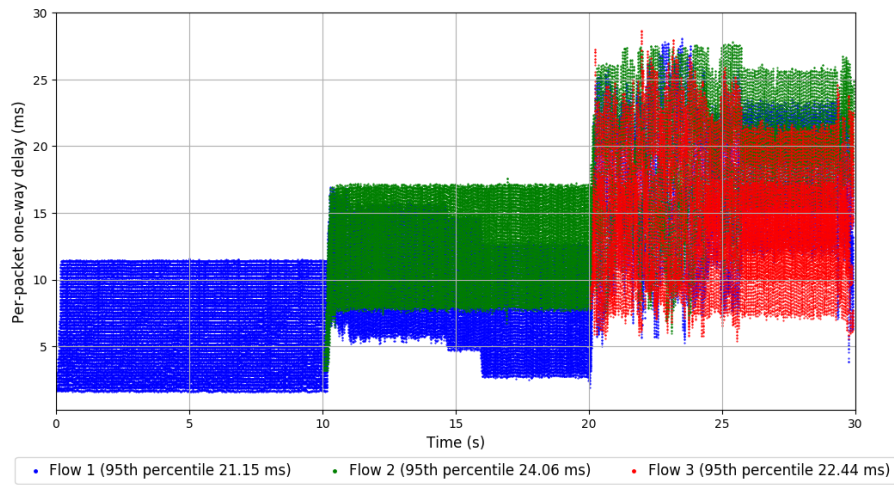
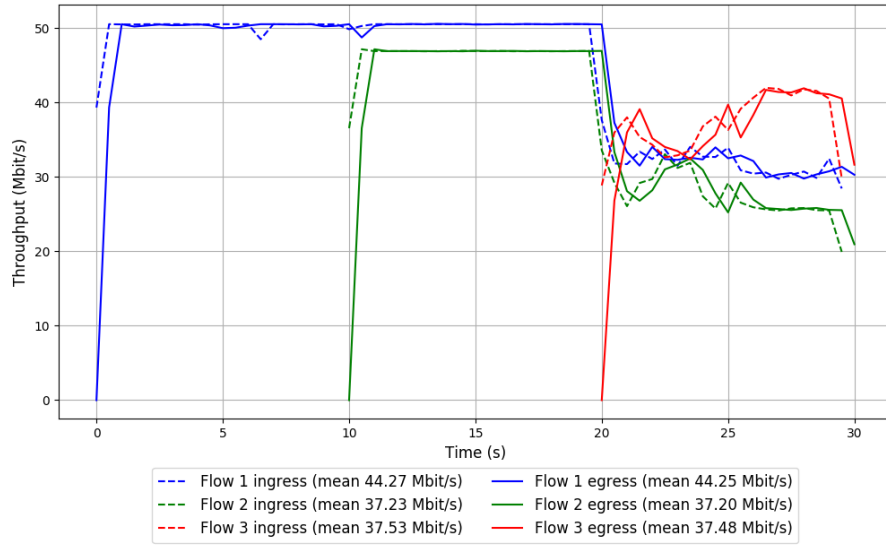


Run 3: Statistics of Sprout

Start at: 2019-05-30 01:20:00  
End at: 2019-05-30 01:20:30  
Local clock offset: -4.426 ms  
Remote clock offset: 0.012 ms

```
# Below is generated by plot.py at 2019-05-30 02:34:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.36 Mbit/s
95th percentile per-packet one-way delay: 22.368 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.25 Mbit/s
95th percentile per-packet one-way delay: 21.151 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.20 Mbit/s
95th percentile per-packet one-way delay: 24.057 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.48 Mbit/s
95th percentile per-packet one-way delay: 22.438 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of Sprout

Start at: 2019-05-30 01:43:53

End at: 2019-05-30 01:44:23

Local clock offset: -58.95 ms

Remote clock offset: 0.241 ms

# Below is generated by plot.py at 2019-05-30 02:35:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.31 Mbit/s

95th percentile per-packet one-way delay: 77.708 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 44.73 Mbit/s

95th percentile per-packet one-way delay: 75.009 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.07 Mbit/s

95th percentile per-packet one-way delay: 77.404 ms

Loss rate: 0.00%

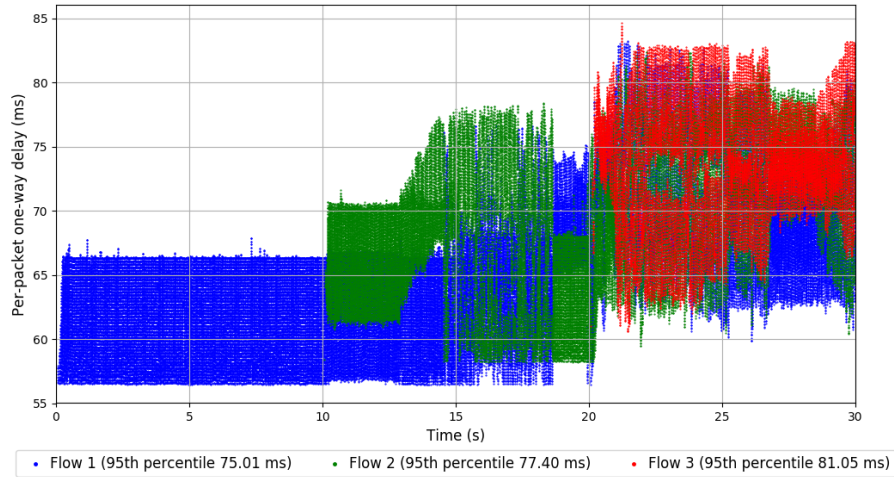
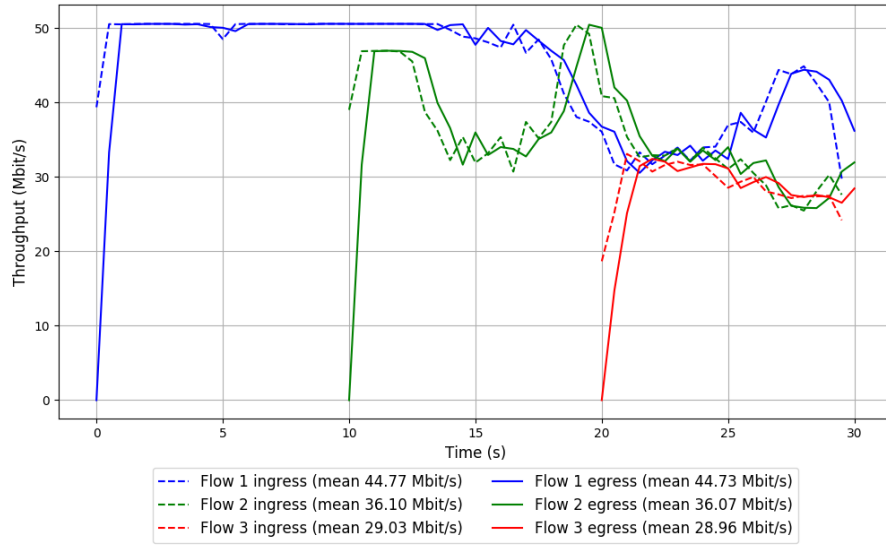
-- Flow 3:

Average throughput: 28.96 Mbit/s

95th percentile per-packet one-way delay: 81.046 ms

Loss rate: 0.00%

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

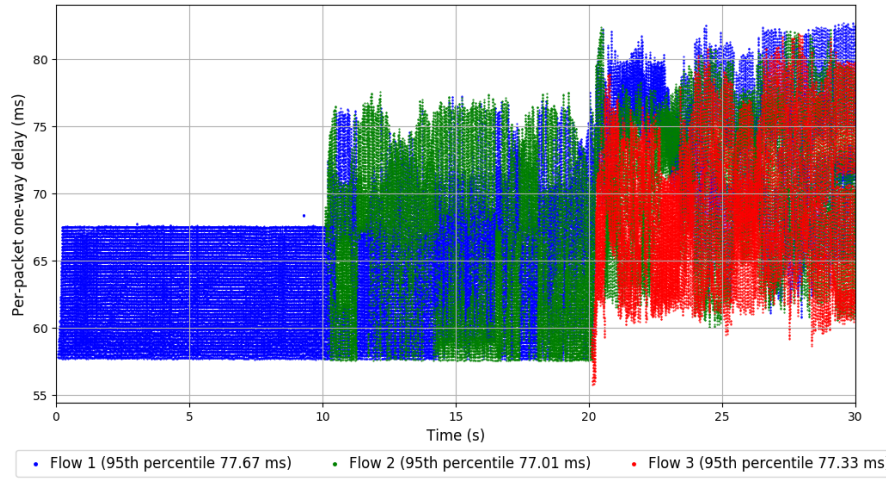
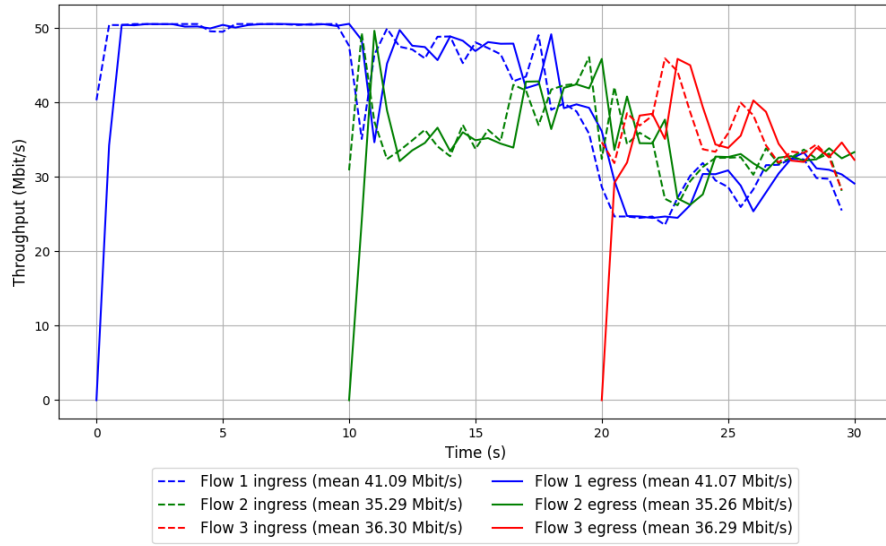


Run 5: Statistics of Sprout

Start at: 2019-05-30 02:07:47  
End at: 2019-05-30 02:08:17  
Local clock offset: -58.222 ms  
Remote clock offset: 0.383 ms

```
# Below is generated by plot.py at 2019-05-30 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.52 Mbit/s
95th percentile per-packet one-way delay: 77.375 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.07 Mbit/s
95th percentile per-packet one-way delay: 77.674 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.26 Mbit/s
95th percentile per-packet one-way delay: 77.012 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.29 Mbit/s
95th percentile per-packet one-way delay: 77.331 ms
Loss rate: 0.00%
```

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





Run 1: Statistics of TaoVA-100x

Start at: 2019-05-30 00:47:04

End at: 2019-05-30 00:47:34

Local clock offset: -4.82 ms

Remote clock offset: -0.51 ms

# Below is generated by plot.py at 2019-05-30 02:35:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.10 Mbit/s

95th percentile per-packet one-way delay: 2.467 ms

Loss rate: 80.08%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.245 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 2.503 ms

Loss rate: 65.14%

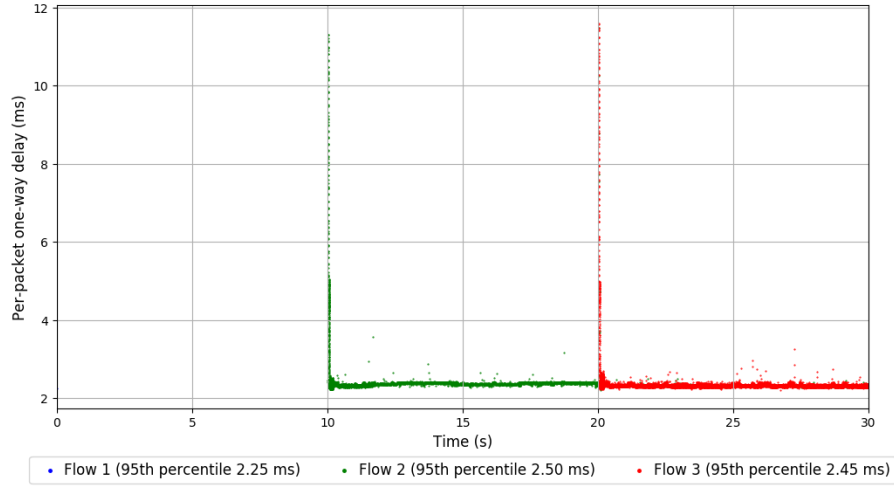
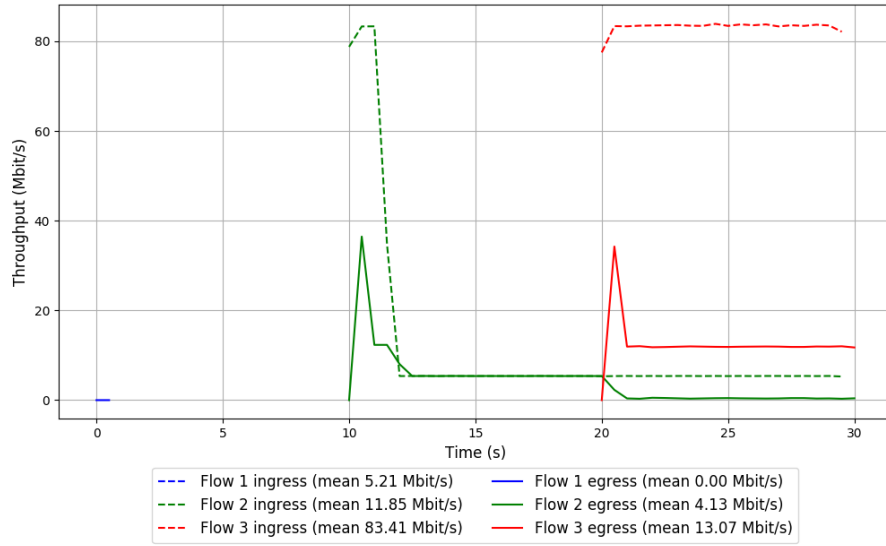
-- Flow 3:

Average throughput: 13.07 Mbit/s

95th percentile per-packet one-way delay: 2.451 ms

Loss rate: 84.34%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-05-30 01:10:57  
End at: 2019-05-30 01:11:27  
Local clock offset: -4.59 ms  
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2019-05-30 02:35:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s  
95th percentile per-packet one-way delay: 2.758 ms  
Loss rate: 91.18%

-- Flow 1:

Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 2.658 ms  
Loss rate: 95.92%

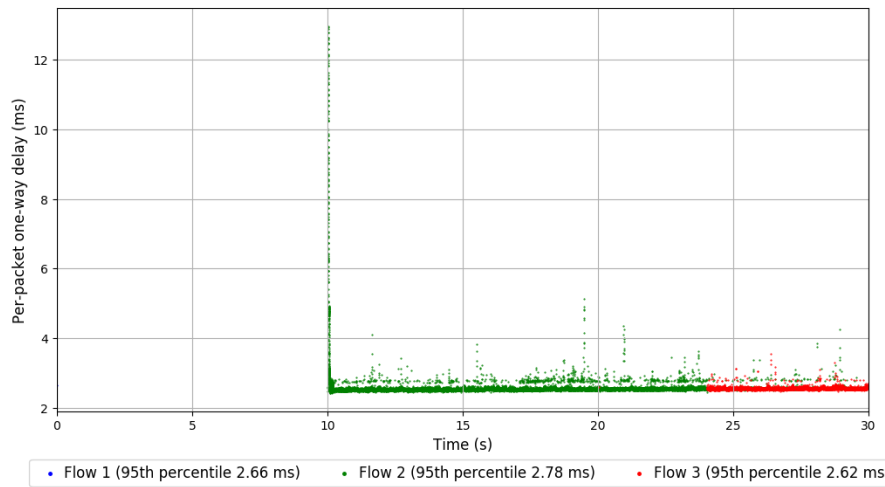
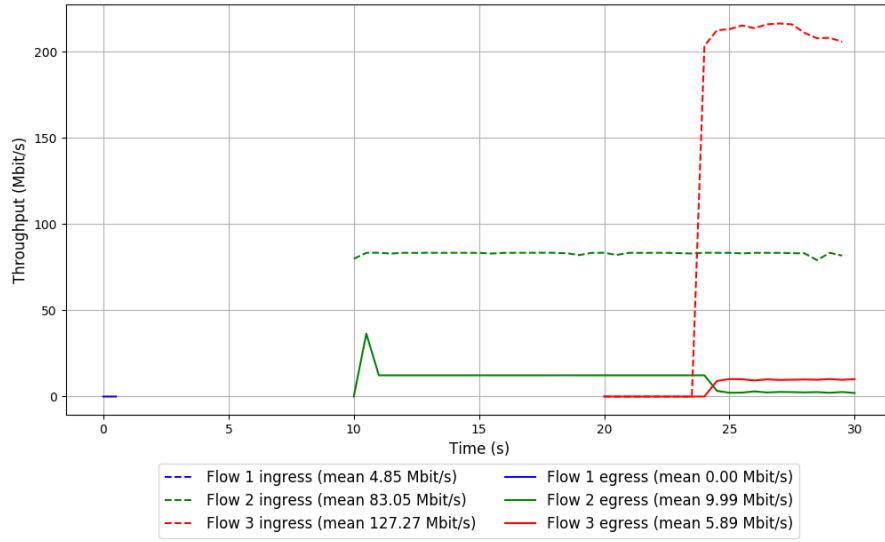
-- Flow 2:

Average throughput: 9.99 Mbit/s  
95th percentile per-packet one-way delay: 2.780 ms  
Loss rate: 87.97%

-- Flow 3:

Average throughput: 5.89 Mbit/s  
95th percentile per-packet one-way delay: 2.624 ms  
Loss rate: 95.37%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-05-30 01:34:50

End at: 2019-05-30 01:35:20

Local clock offset: -4.161 ms

Remote clock offset: 0.219 ms

# Below is generated by plot.py at 2019-05-30 02:35:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.27 Mbit/s

95th percentile per-packet one-way delay: 3.594 ms

Loss rate: 83.97%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.119 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 12.41 Mbit/s

95th percentile per-packet one-way delay: 3.594 ms

Loss rate: 83.97%

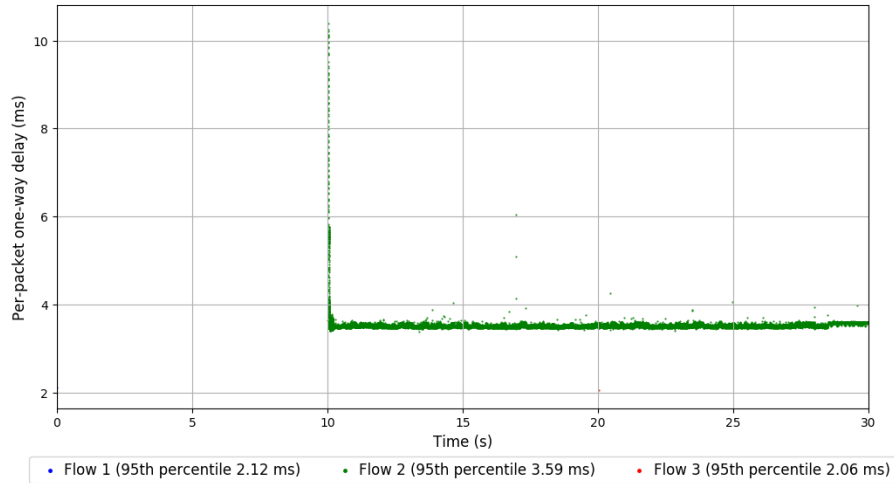
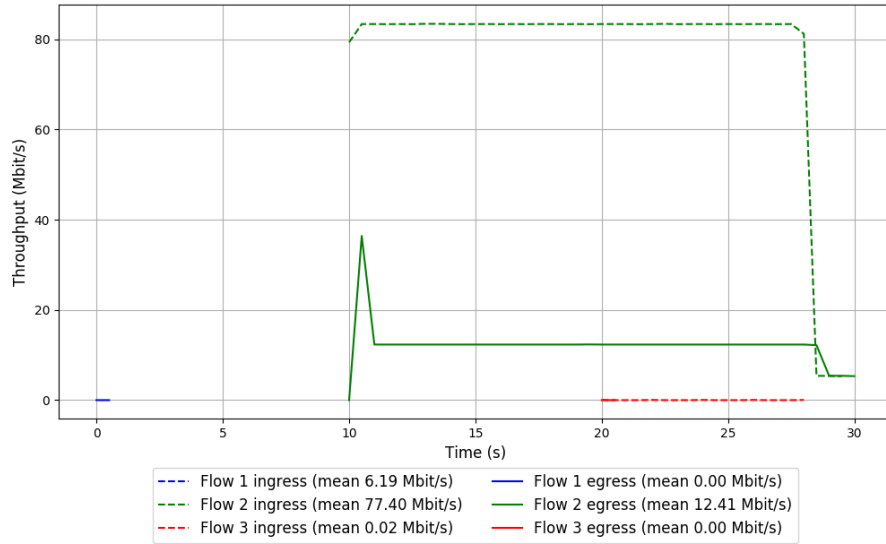
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.060 ms

Loss rate: 99.16%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-05-30 01:58:44  
End at: 2019-05-30 01:59:14  
Local clock offset: -58.838 ms  
Remote clock offset: 0.336 ms

# Below is generated by plot.py at 2019-05-30 02:35:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.28 Mbit/s  
95th percentile per-packet one-way delay: 58.440 ms  
Loss rate: 83.95%

-- Flow 1:

Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 58.374 ms  
Loss rate: 95.92%

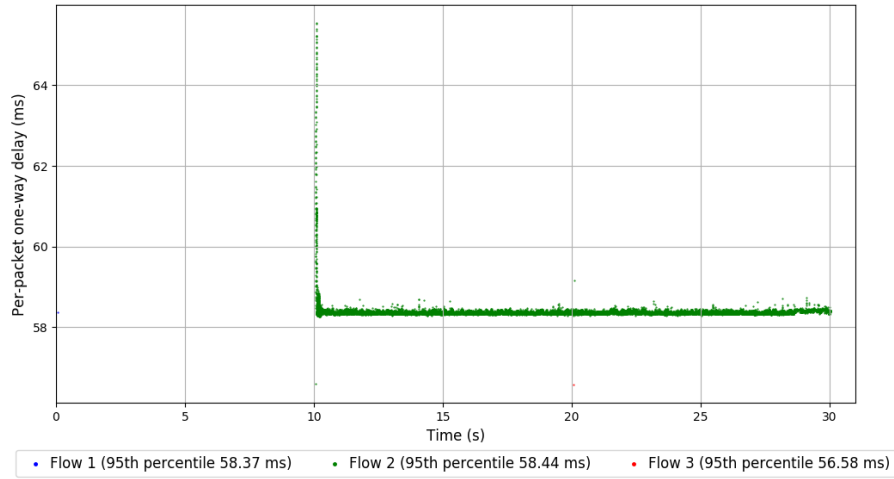
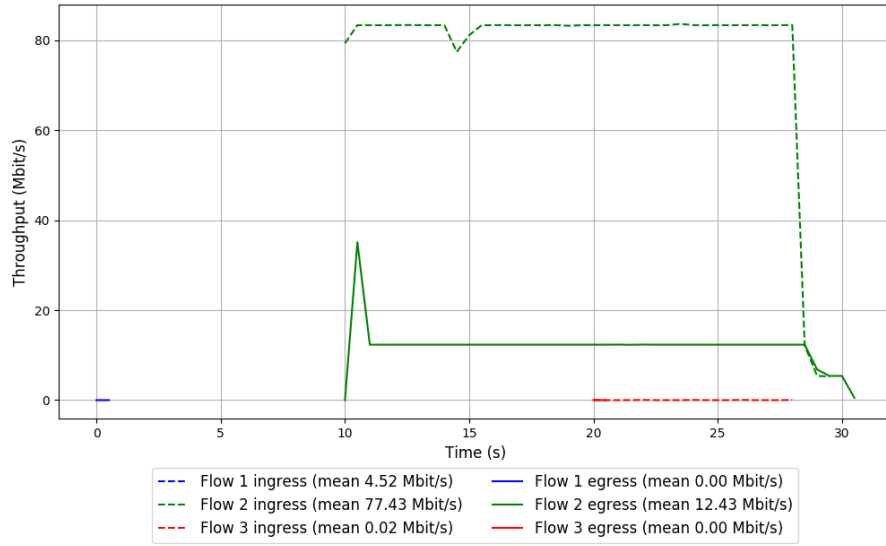
-- Flow 2:

Average throughput: 12.43 Mbit/s  
95th percentile per-packet one-way delay: 58.440 ms  
Loss rate: 83.94%

-- Flow 3:

Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 56.584 ms  
Loss rate: 99.16%

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



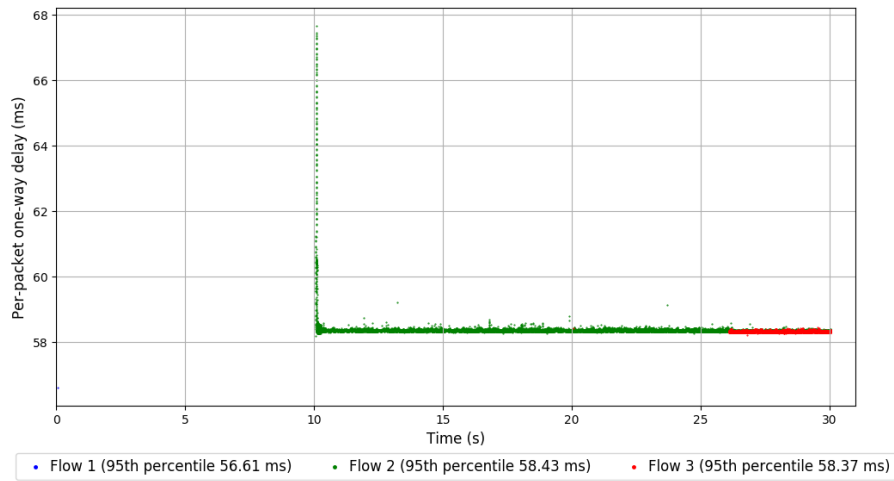
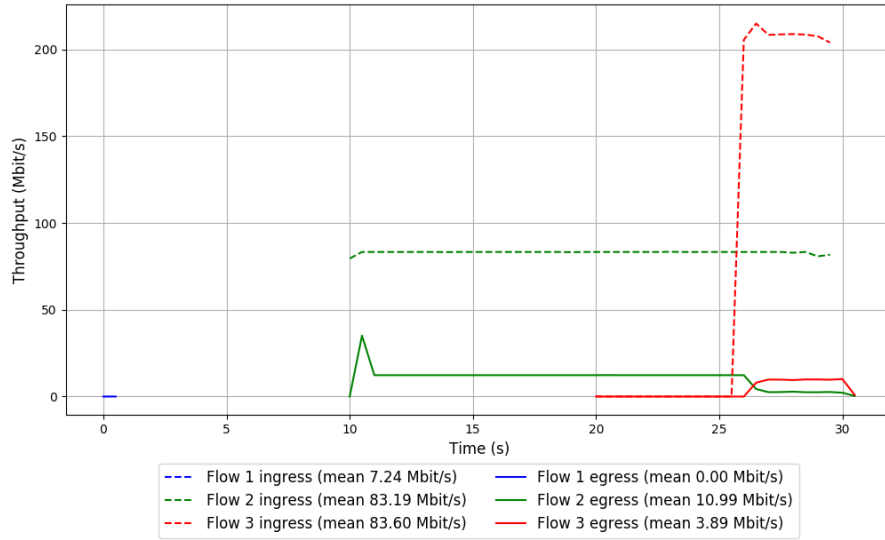


Run 5: Statistics of TaoVA-100x

Start at: 2019-05-30 02:22:39  
End at: 2019-05-30 02:23:09  
Local clock offset: -59.874 ms  
Remote clock offset: 0.332 ms

```
# Below is generated by plot.py at 2019-05-30 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 58.430 ms
Loss rate: 89.65%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 56.609 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 58.434 ms
Loss rate: 86.78%
-- Flow 3:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 58.374 ms
Loss rate: 95.35%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2019-05-30 00:40:13  
End at: 2019-05-30 00:40:43  
Local clock offset: -4.63 ms  
Remote clock offset: -0.655 ms

# Below is generated by plot.py at 2019-05-30 02:35:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.37 Mbit/s  
95th percentile per-packet one-way delay: 5.039 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.47 Mbit/s  
95th percentile per-packet one-way delay: 4.644 ms  
Loss rate: 0.00%

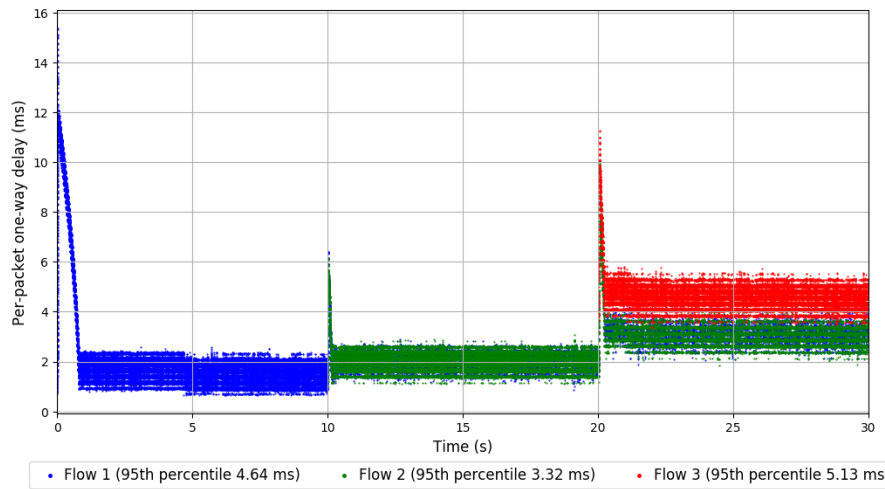
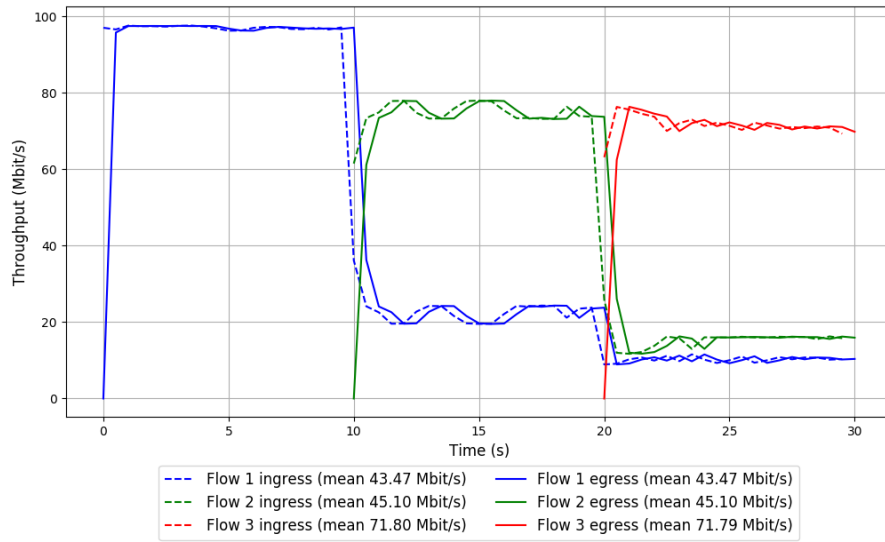
-- Flow 2:

Average throughput: 45.10 Mbit/s  
95th percentile per-packet one-way delay: 3.322 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 71.79 Mbit/s  
95th percentile per-packet one-way delay: 5.133 ms  
Loss rate: 0.00%

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



Run 2: Statistics of TCP Vegas

Start at: 2019-05-30 01:04:05  
End at: 2019-05-30 01:04:35  
Local clock offset: -5.856 ms  
Remote clock offset: -0.231 ms

# Below is generated by plot.py at 2019-05-30 02:36:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 5.677 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.65 Mbit/s  
95th percentile per-packet one-way delay: 4.709 ms  
Loss rate: 0.00%

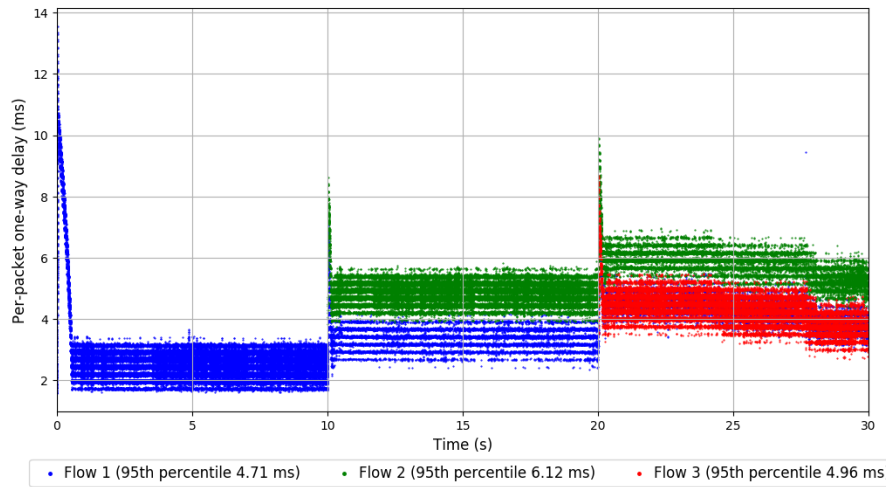
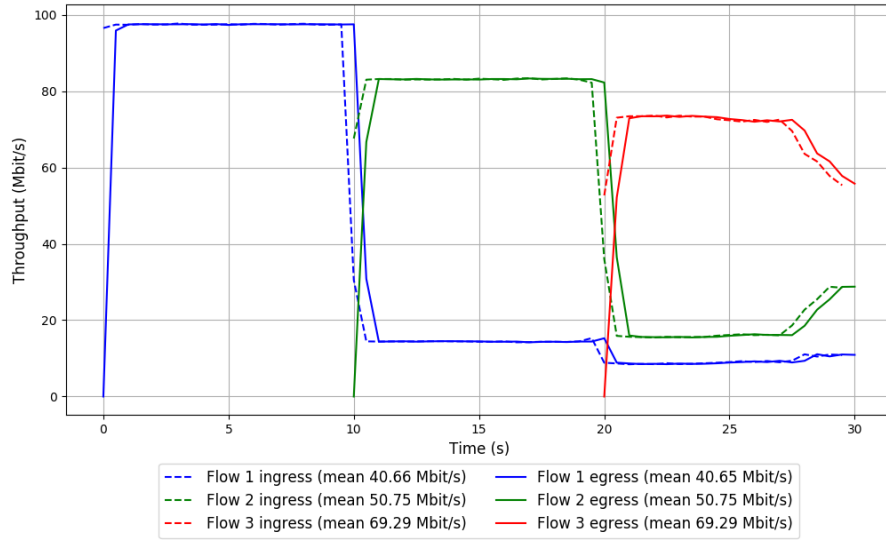
-- Flow 2:

Average throughput: 50.75 Mbit/s  
95th percentile per-packet one-way delay: 6.123 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 69.29 Mbit/s  
95th percentile per-packet one-way delay: 4.956 ms  
Loss rate: 0.00%

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



Run 3: Statistics of TCP Vegas

Start at: 2019-05-30 01:27:59

End at: 2019-05-30 01:28:29

Local clock offset: -3.296 ms

Remote clock offset: 0.076 ms

# Below is generated by plot.py at 2019-05-30 02:36:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.20 Mbit/s

95th percentile per-packet one-way delay: 2.677 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.96 Mbit/s

95th percentile per-packet one-way delay: 2.506 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.99 Mbit/s

95th percentile per-packet one-way delay: 2.304 ms

Loss rate: 0.00%

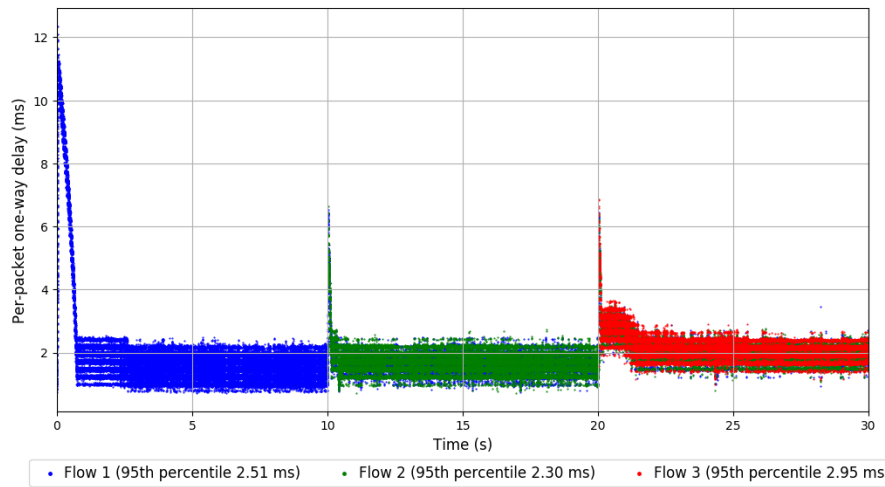
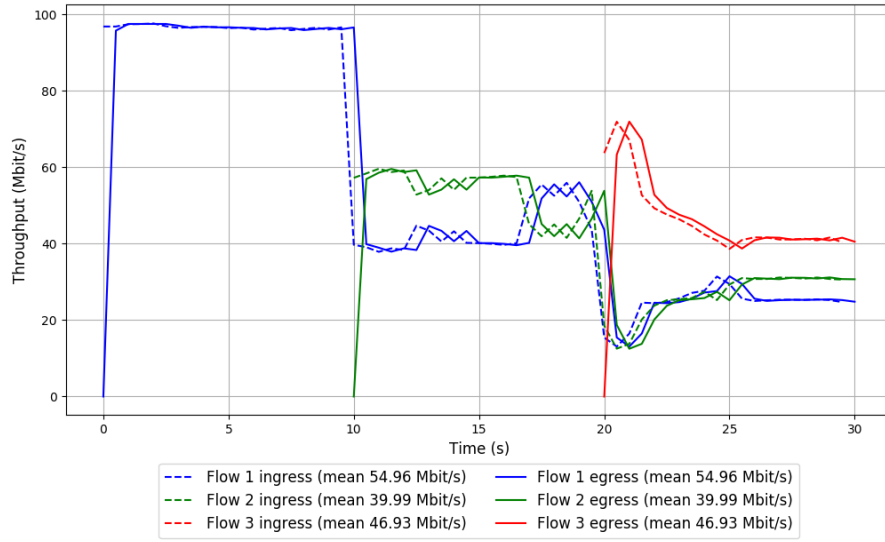
-- Flow 3:

Average throughput: 46.93 Mbit/s

95th percentile per-packet one-way delay: 2.951 ms

Loss rate: 0.00%

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





Run 4: Statistics of TCP Vegas

Start at: 2019-05-30 01:51:52  
End at: 2019-05-30 01:52:22  
Local clock offset: -59.105 ms  
Remote clock offset: 0.359 ms

# Below is generated by plot.py at 2019-05-30 02:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.41 Mbit/s  
95th percentile per-packet one-way delay: 61.747 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.04 Mbit/s  
95th percentile per-packet one-way delay: 66.758 ms  
Loss rate: 0.00%

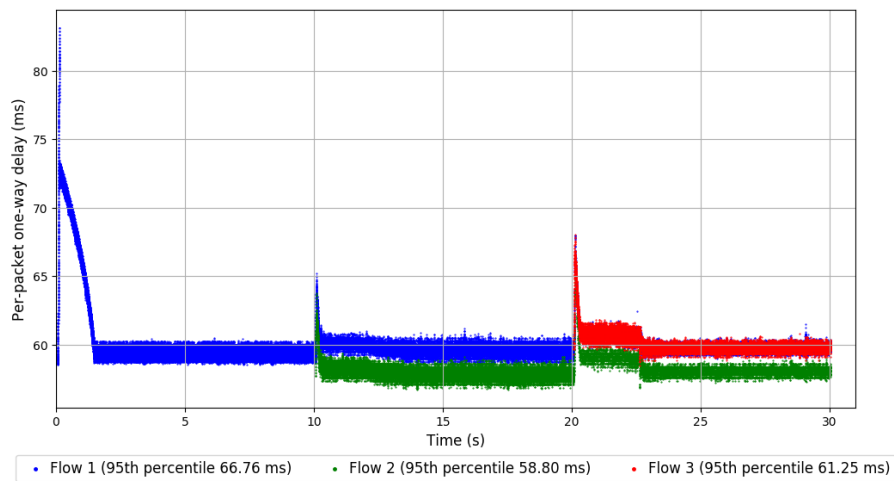
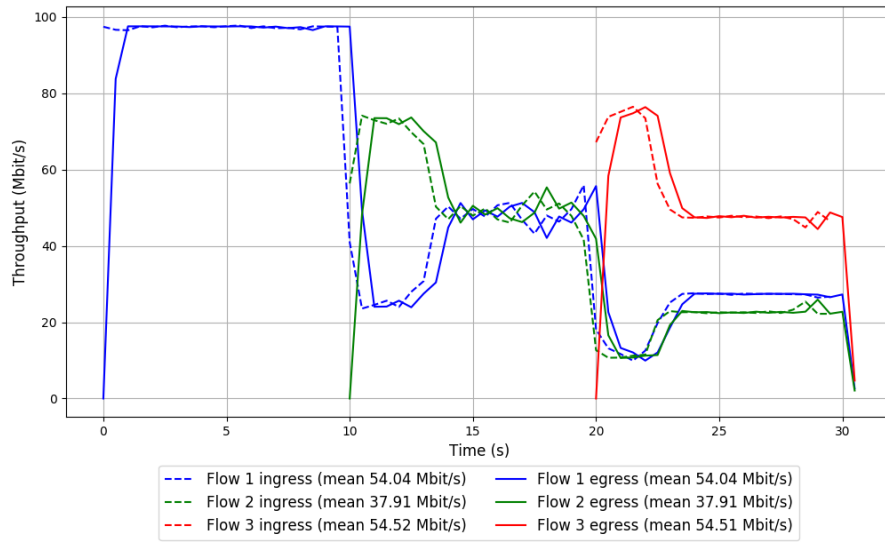
-- Flow 2:

Average throughput: 37.91 Mbit/s  
95th percentile per-packet one-way delay: 58.805 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 54.51 Mbit/s  
95th percentile per-packet one-way delay: 61.252 ms  
Loss rate: 0.00%

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



Run 5: Statistics of TCP Vegas

Start at: 2019-05-30 02:15:47  
End at: 2019-05-30 02:16:17  
Local clock offset: -59.521 ms  
Remote clock offset: 0.32 ms

# Below is generated by plot.py at 2019-05-30 02:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 60.245 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.71 Mbit/s  
95th percentile per-packet one-way delay: 60.287 ms  
Loss rate: 0.00%

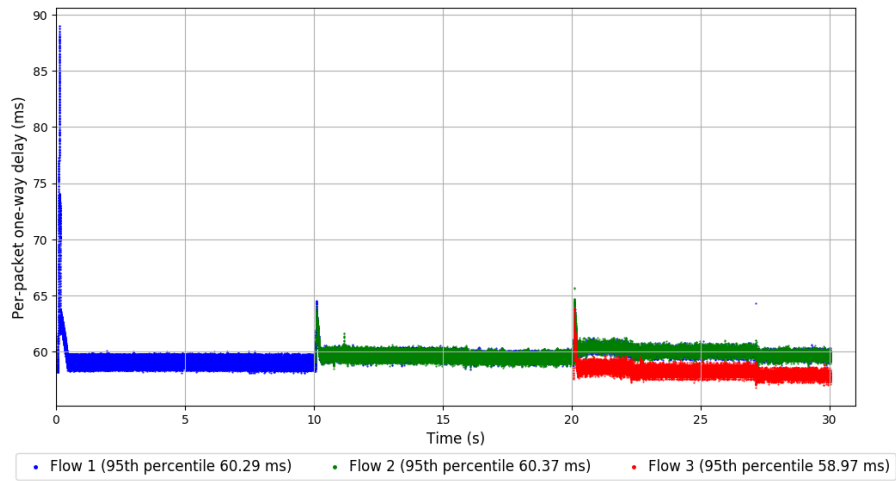
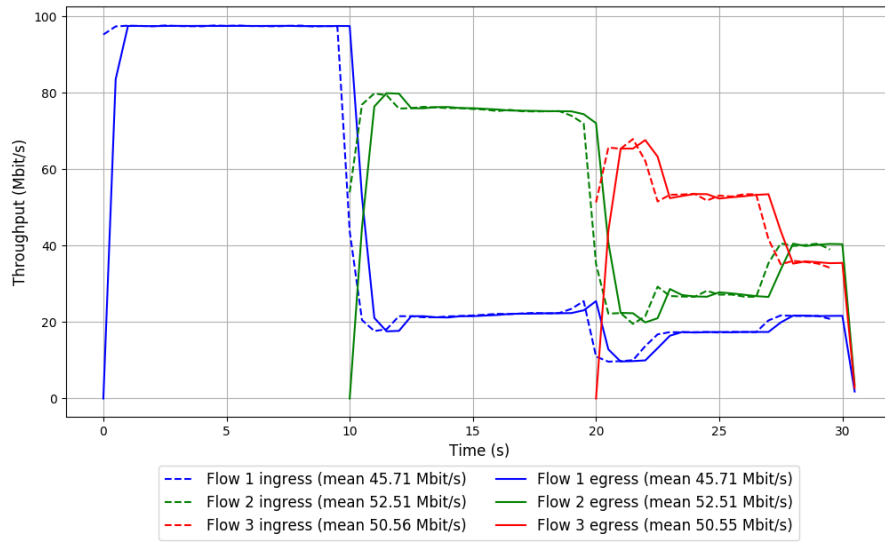
-- Flow 2:

Average throughput: 52.51 Mbit/s  
95th percentile per-packet one-way delay: 60.368 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 50.55 Mbit/s  
95th percentile per-packet one-way delay: 58.969 ms  
Loss rate: 0.00%

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



Run 1: Statistics of Verus

Start at: 2019-05-30 00:45:55  
End at: 2019-05-30 00:46:25  
Local clock offset: -5.036 ms  
Remote clock offset: -0.533 ms

# Below is generated by plot.py at 2019-05-30 02:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.66 Mbit/s  
95th percentile per-packet one-way delay: 31.558 ms  
Loss rate: 33.85%

-- Flow 1:

Average throughput: 34.03 Mbit/s  
95th percentile per-packet one-way delay: 31.508 ms  
Loss rate: 45.32%

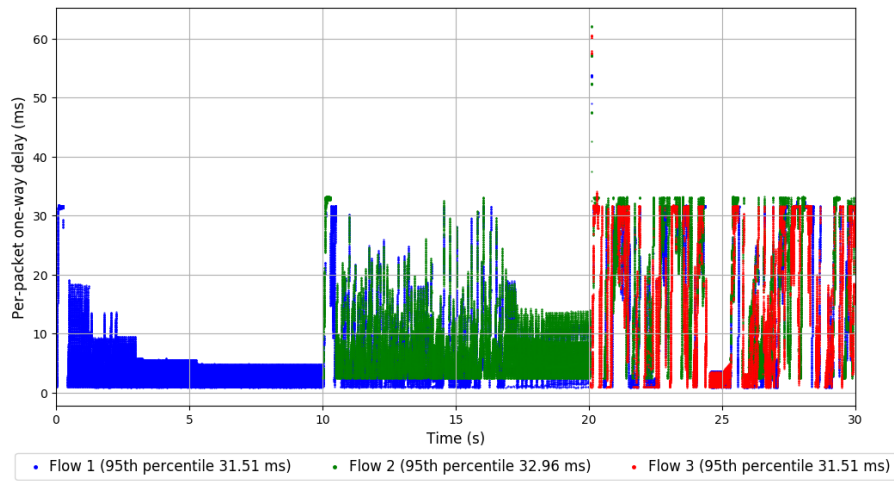
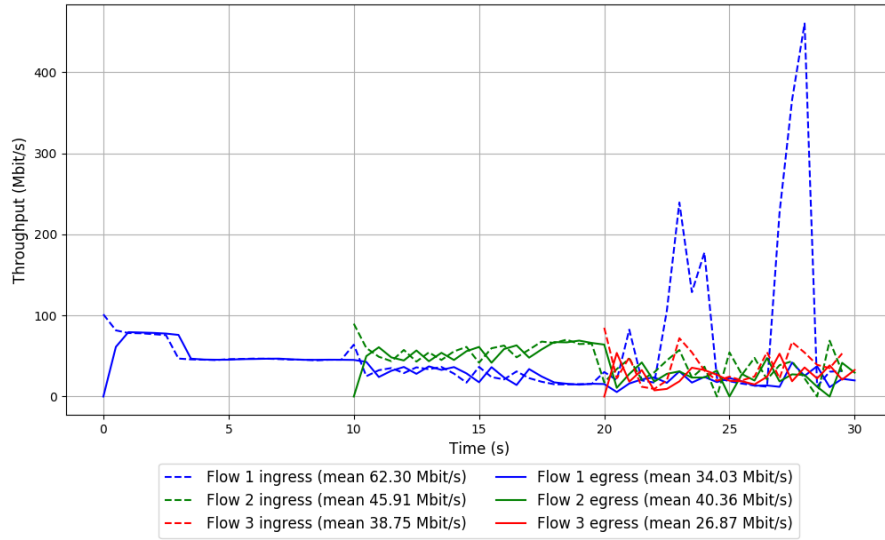
-- Flow 2:

Average throughput: 40.36 Mbit/s  
95th percentile per-packet one-way delay: 32.961 ms  
Loss rate: 11.96%

-- Flow 3:

Average throughput: 26.87 Mbit/s  
95th percentile per-packet one-way delay: 31.513 ms  
Loss rate: 30.47%

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



Run 2: Statistics of Verus

Start at: 2019-05-30 01:09:48  
End at: 2019-05-30 01:10:18  
Local clock offset: -4.692 ms  
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2019-05-30 02:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 70.37 Mbit/s  
95th percentile per-packet one-way delay: 31.595 ms  
Loss rate: 14.38%

-- Flow 1:

Average throughput: 31.29 Mbit/s  
95th percentile per-packet one-way delay: 31.191 ms  
Loss rate: 17.06%

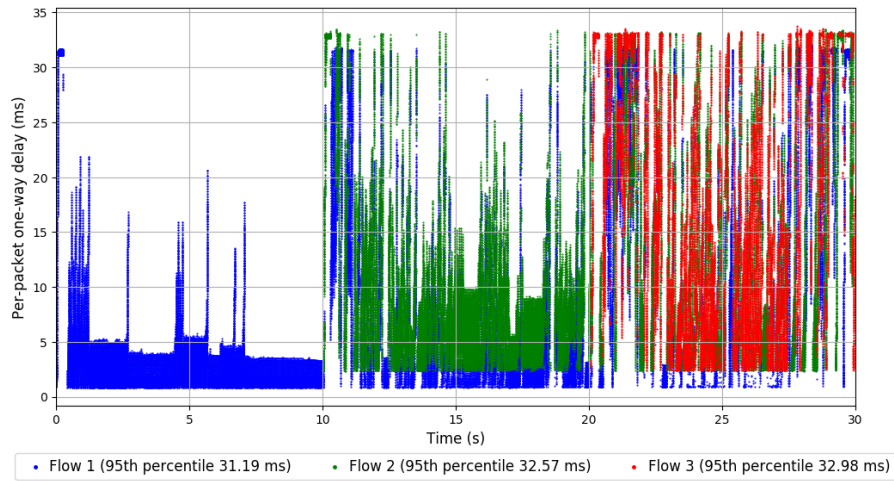
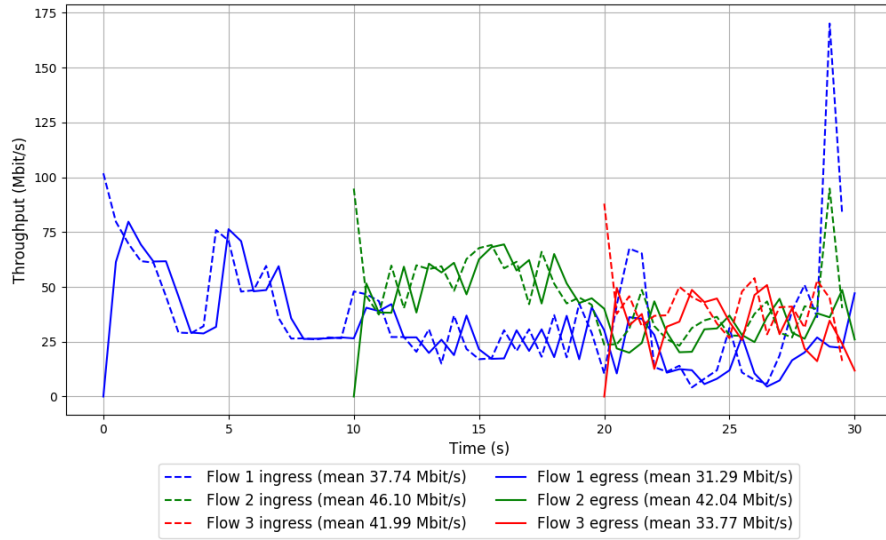
-- Flow 2:

Average throughput: 42.04 Mbit/s  
95th percentile per-packet one-way delay: 32.573 ms  
Loss rate: 8.68%

-- Flow 3:

Average throughput: 33.77 Mbit/s  
95th percentile per-packet one-way delay: 32.980 ms  
Loss rate: 19.66%

## Run 2: Report of Verus — Data Link





Run 3: Statistics of Verus

Start at: 2019-05-30 01:33:41

End at: 2019-05-30 01:34:11

Local clock offset: -3.949 ms

Remote clock offset: 0.121 ms

# Below is generated by plot.py at 2019-05-30 02:36:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 70.06 Mbit/s

95th percentile per-packet one-way delay: 28.497 ms

Loss rate: 4.72%

-- Flow 1:

Average throughput: 33.81 Mbit/s

95th percentile per-packet one-way delay: 27.071 ms

Loss rate: 4.31%

-- Flow 2:

Average throughput: 42.74 Mbit/s

95th percentile per-packet one-way delay: 25.741 ms

Loss rate: 3.97%

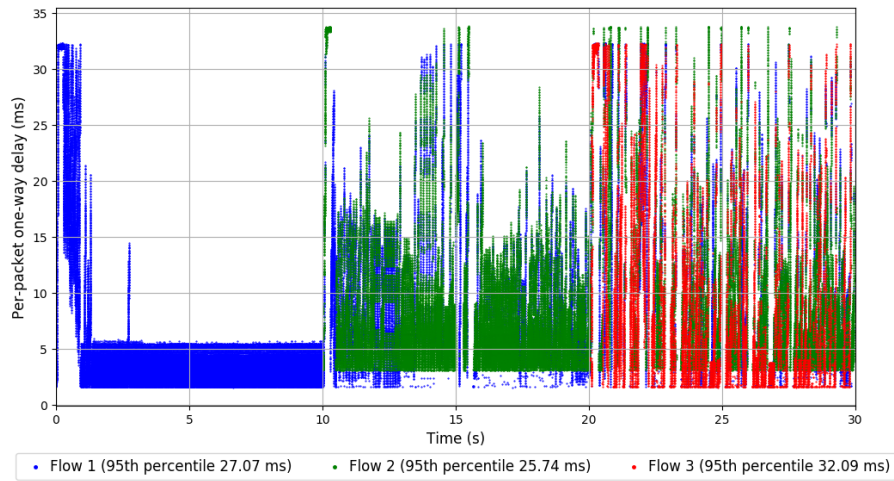
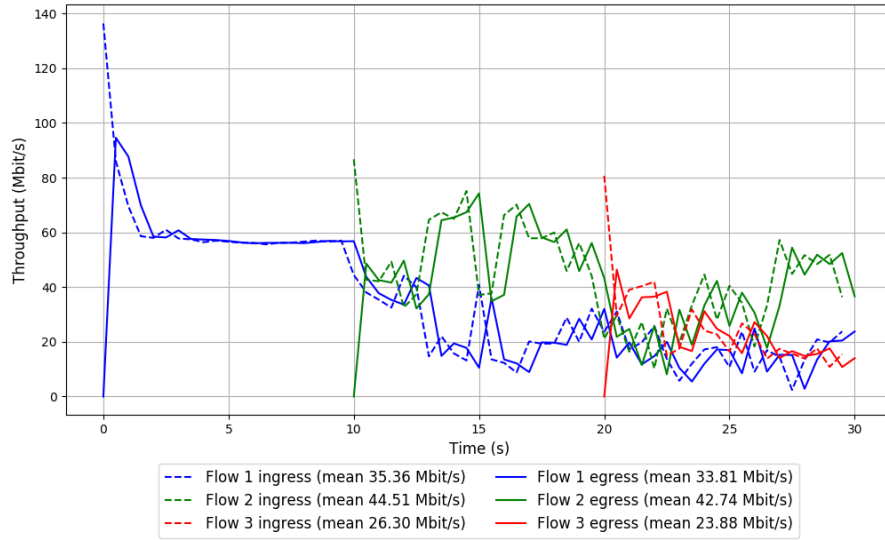
-- Flow 3:

Average throughput: 23.88 Mbit/s

95th percentile per-packet one-way delay: 32.088 ms

Loss rate: 8.98%

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



Run 4: Statistics of Verus

Start at: 2019-05-30 01:57:34  
End at: 2019-05-30 01:58:04  
Local clock offset: -58.908 ms  
Remote clock offset: 0.33 ms

# Below is generated by plot.py at 2019-05-30 02:36:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 73.48 Mbit/s  
95th percentile per-packet one-way delay: 84.621 ms  
Loss rate: 4.73%

-- Flow 1:

Average throughput: 48.82 Mbit/s  
95th percentile per-packet one-way delay: 78.408 ms  
Loss rate: 3.29%

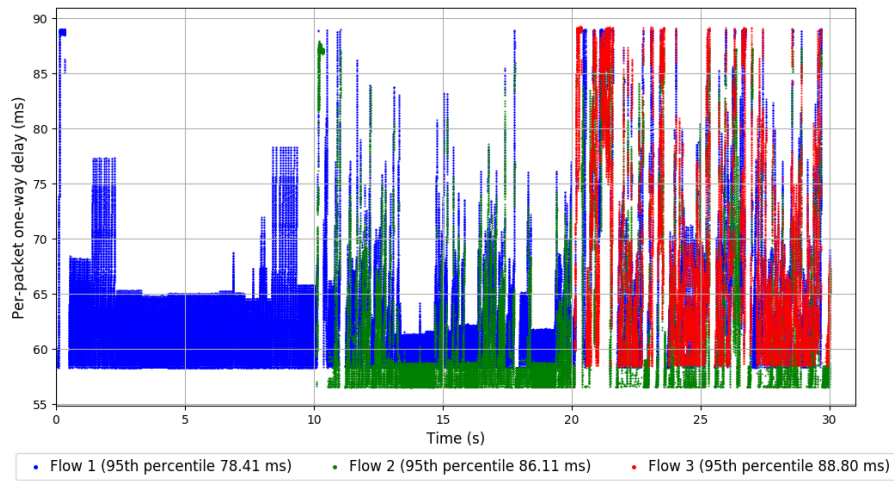
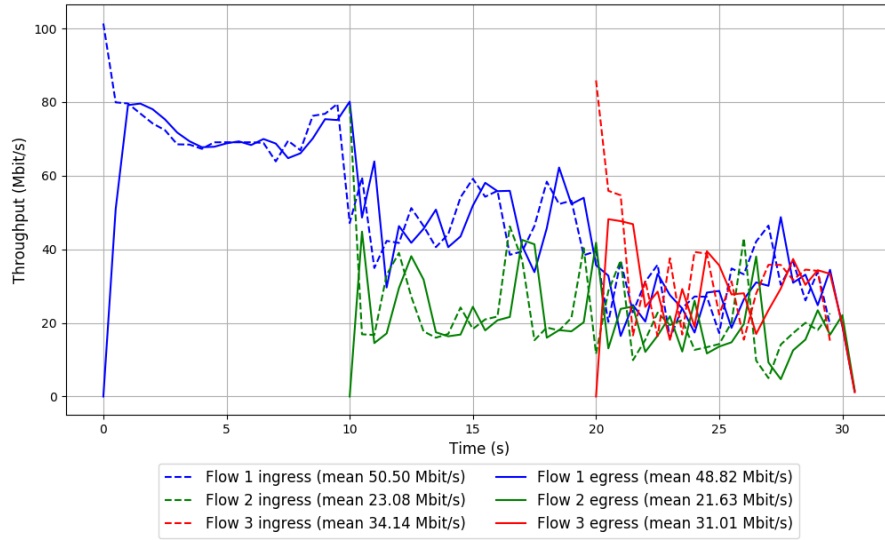
-- Flow 2:

Average throughput: 21.63 Mbit/s  
95th percentile per-packet one-way delay: 86.106 ms  
Loss rate: 6.27%

-- Flow 3:

Average throughput: 31.01 Mbit/s  
95th percentile per-packet one-way delay: 88.803 ms  
Loss rate: 9.08%

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



Run 5: Statistics of Verus

Start at: 2019-05-30 02:21:29  
End at: 2019-05-30 02:21:59  
Local clock offset: -59.785 ms  
Remote clock offset: 0.457 ms

# Below is generated by plot.py at 2019-05-30 02:37:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.42 Mbit/s  
95th percentile per-packet one-way delay: 87.152 ms  
Loss rate: 27.47%

-- Flow 1:

Average throughput: 48.36 Mbit/s  
95th percentile per-packet one-way delay: 86.482 ms  
Loss rate: 10.19%

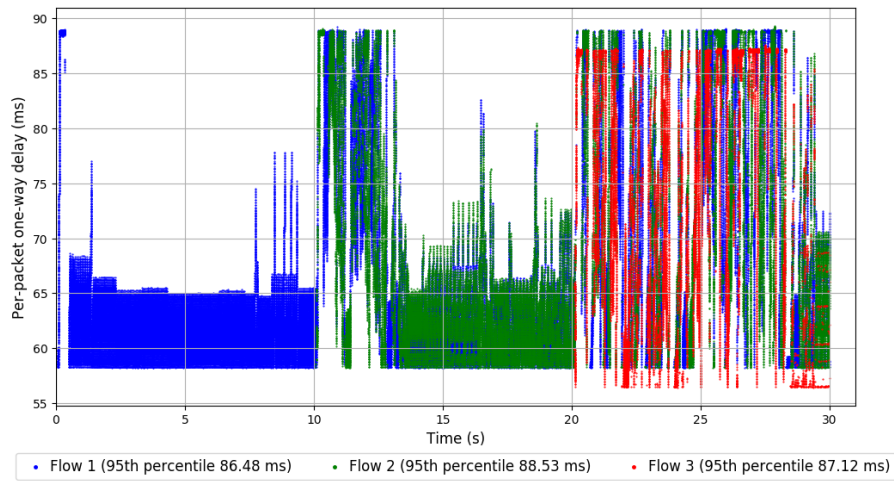
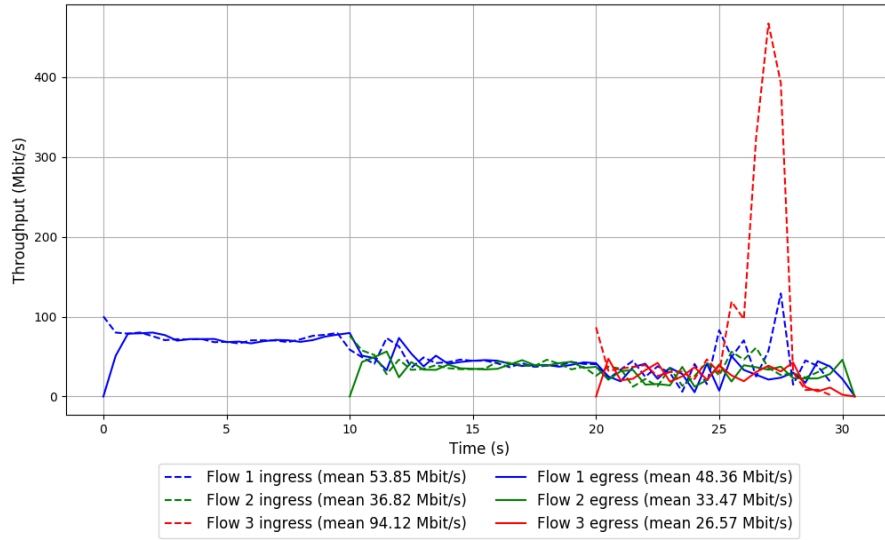
-- Flow 2:

Average throughput: 33.47 Mbit/s  
95th percentile per-packet one-way delay: 88.534 ms  
Loss rate: 9.10%

-- Flow 3:

Average throughput: 26.57 Mbit/s  
95th percentile per-packet one-way delay: 87.118 ms  
Loss rate: 71.77%

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



Run 1: Statistics of PCC-Vivace

Start at: 2019-05-30 00:41:22  
End at: 2019-05-30 00:41:52  
Local clock offset: -4.676 ms  
Remote clock offset: -0.589 ms

# Below is generated by plot.py at 2019-05-30 02:37:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.78 Mbit/s  
95th percentile per-packet one-way delay: 3.653 ms  
Loss rate: 0.03%

-- Flow 1:

Average throughput: 51.67 Mbit/s  
95th percentile per-packet one-way delay: 2.883 ms  
Loss rate: 0.02%

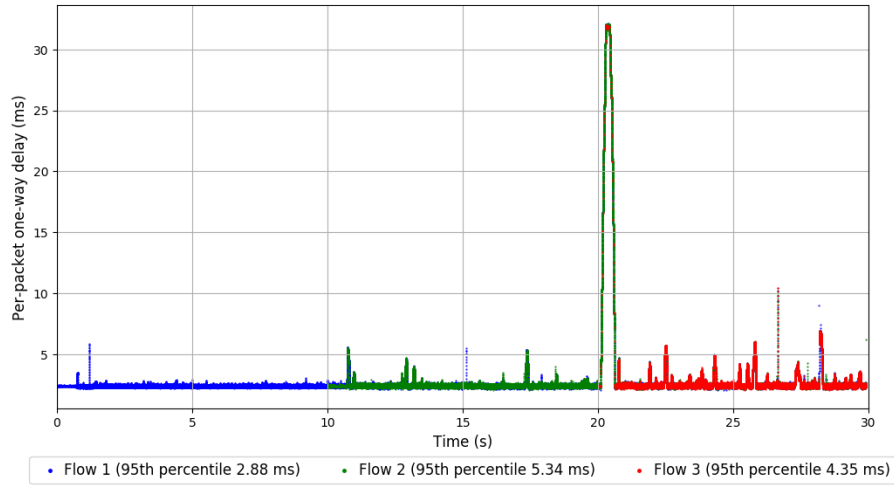
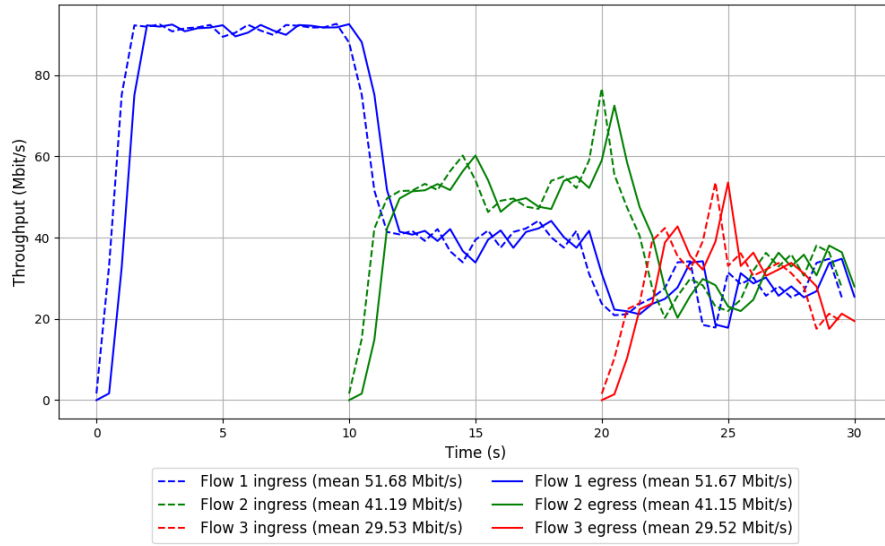
-- Flow 2:

Average throughput: 41.15 Mbit/s  
95th percentile per-packet one-way delay: 5.340 ms  
Loss rate: 0.07%

-- Flow 3:

Average throughput: 29.52 Mbit/s  
95th percentile per-packet one-way delay: 4.346 ms  
Loss rate: 0.01%

Run 1: Report of PCC-Vivace — Data Link





Run 2: Statistics of PCC-Vivace

Start at: 2019-05-30 01:05:15  
End at: 2019-05-30 01:05:45  
Local clock offset: -5.86 ms  
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2019-05-30 02:37:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.98 Mbit/s  
95th percentile per-packet one-way delay: 3.523 ms  
Loss rate: 0.00%

-- Flow 1:

Average throughput: 61.38 Mbit/s  
95th percentile per-packet one-way delay: 3.496 ms  
Loss rate: 0.00%

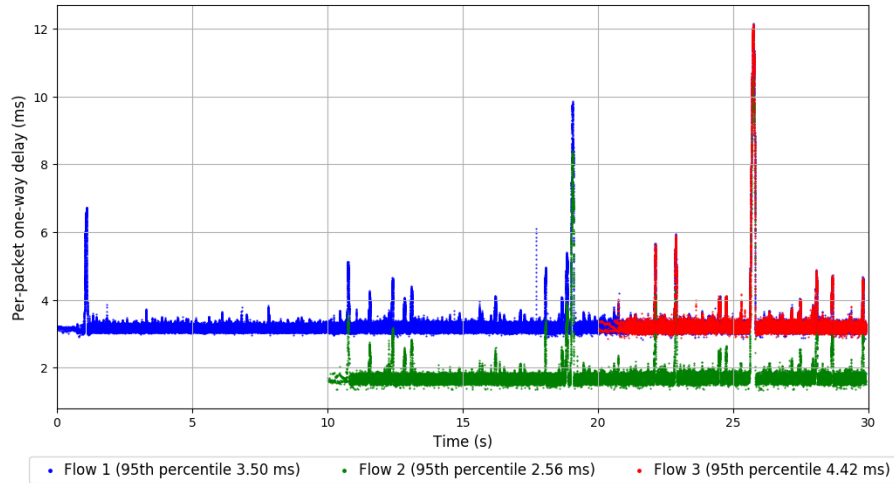
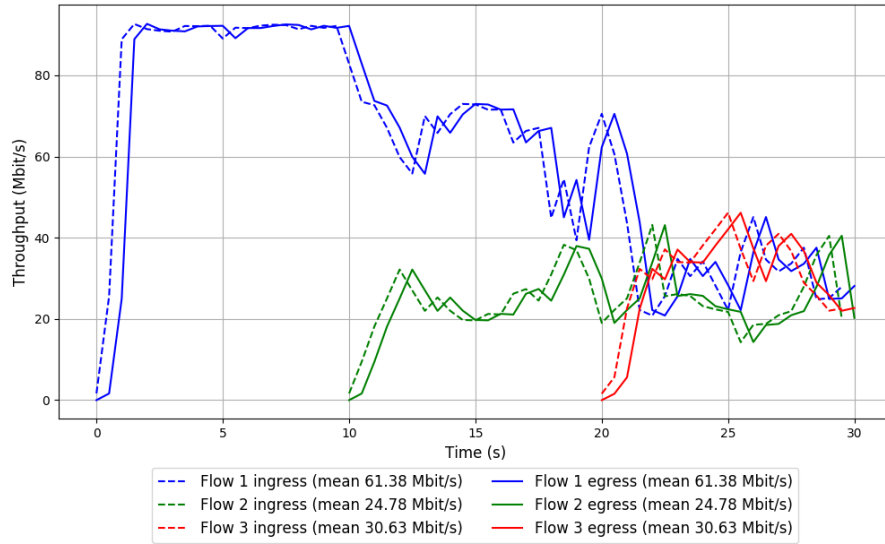
-- Flow 2:

Average throughput: 24.78 Mbit/s  
95th percentile per-packet one-way delay: 2.563 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 30.63 Mbit/s  
95th percentile per-packet one-way delay: 4.421 ms  
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-05-30 01:29:08

End at: 2019-05-30 01:29:38

Local clock offset: -4.044 ms

Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2019-05-30 02:37:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.03 Mbit/s

95th percentile per-packet one-way delay: 3.466 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.70 Mbit/s

95th percentile per-packet one-way delay: 3.461 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 30.31 Mbit/s

95th percentile per-packet one-way delay: 2.323 ms

Loss rate: 0.00%

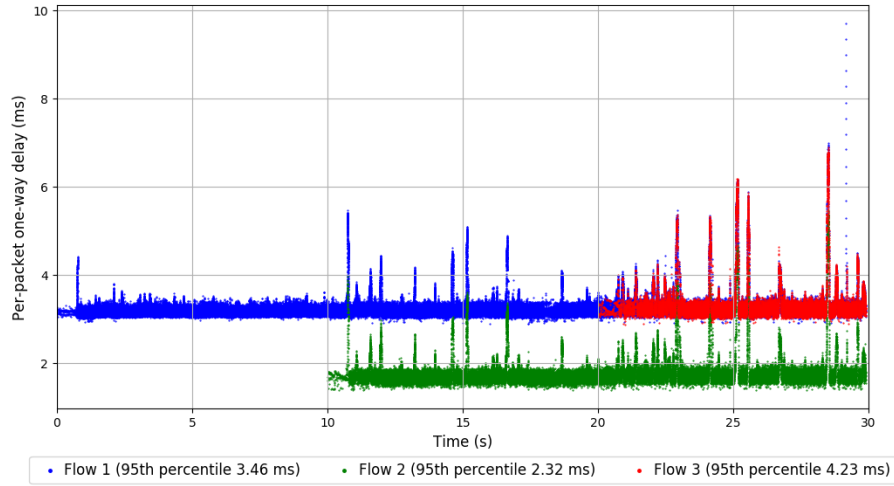
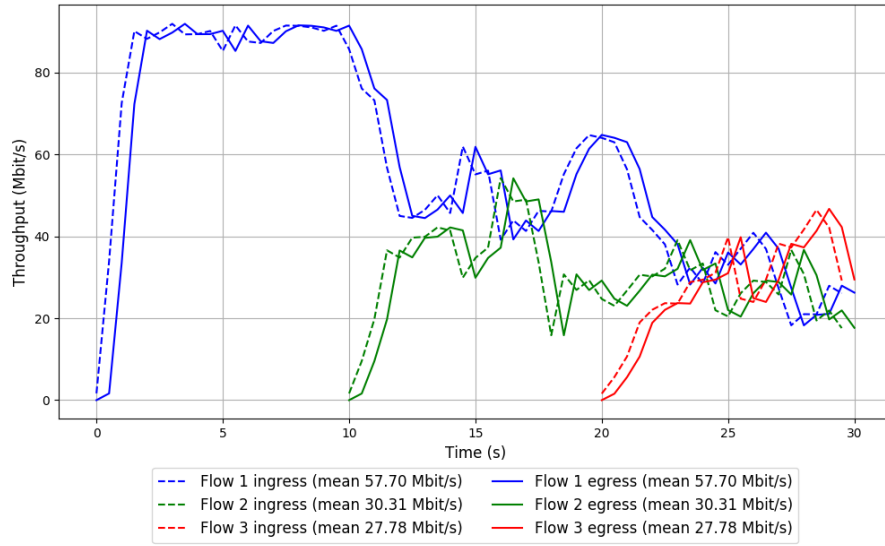
-- Flow 3:

Average throughput: 27.78 Mbit/s

95th percentile per-packet one-way delay: 4.226 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-05-30 01:53:02

End at: 2019-05-30 01:53:32

Local clock offset: -58.32 ms

Remote clock offset: 0.332 ms

# Below is generated by plot.py at 2019-05-30 02:37:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.38 Mbit/s

95th percentile per-packet one-way delay: 58.064 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.09 Mbit/s

95th percentile per-packet one-way delay: 56.585 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.10 Mbit/s

95th percentile per-packet one-way delay: 58.683 ms

Loss rate: 0.00%

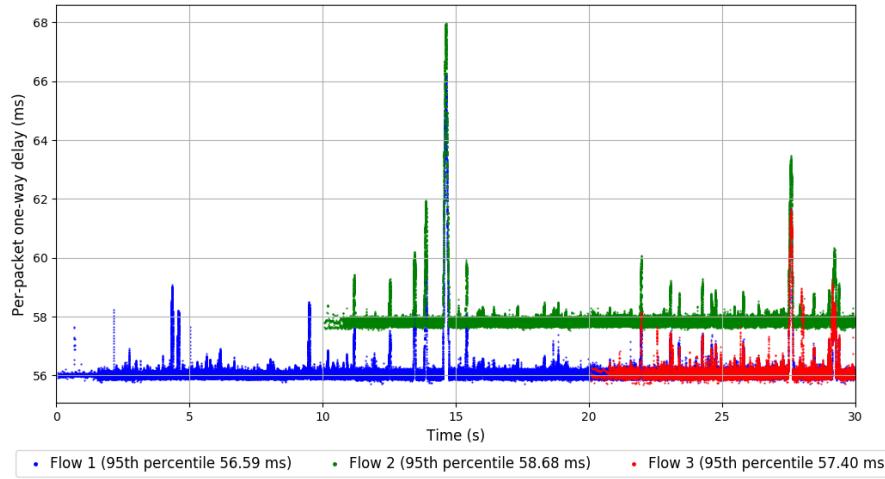
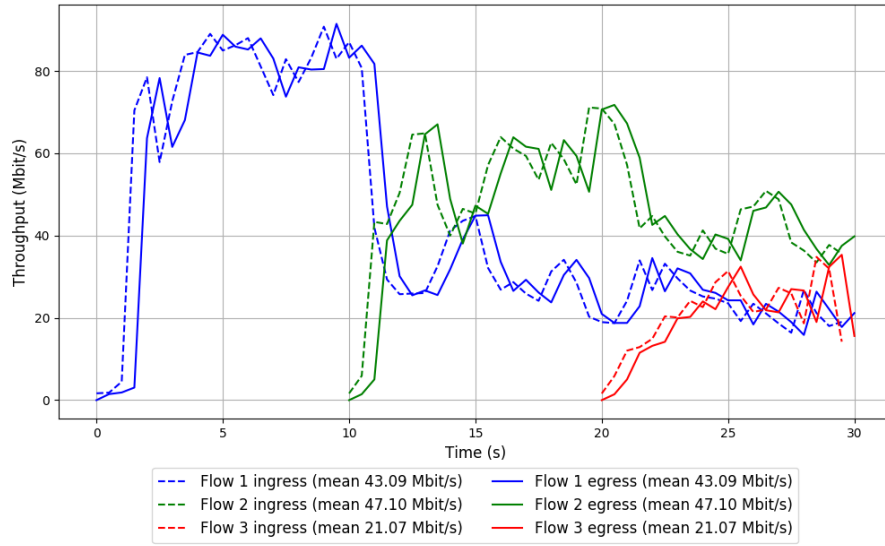
-- Flow 3:

Average throughput: 21.07 Mbit/s

95th percentile per-packet one-way delay: 57.404 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-05-30 02:16:56  
End at: 2019-05-30 02:17:26  
Local clock offset: -59.737 ms  
Remote clock offset: 0.384 ms

# Below is generated by plot.py at 2019-05-30 02:37:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.52 Mbit/s  
95th percentile per-packet one-way delay: 60.200 ms  
Loss rate: 0.14%

-- Flow 1:

Average throughput: 61.10 Mbit/s  
95th percentile per-packet one-way delay: 59.640 ms  
Loss rate: 0.15%

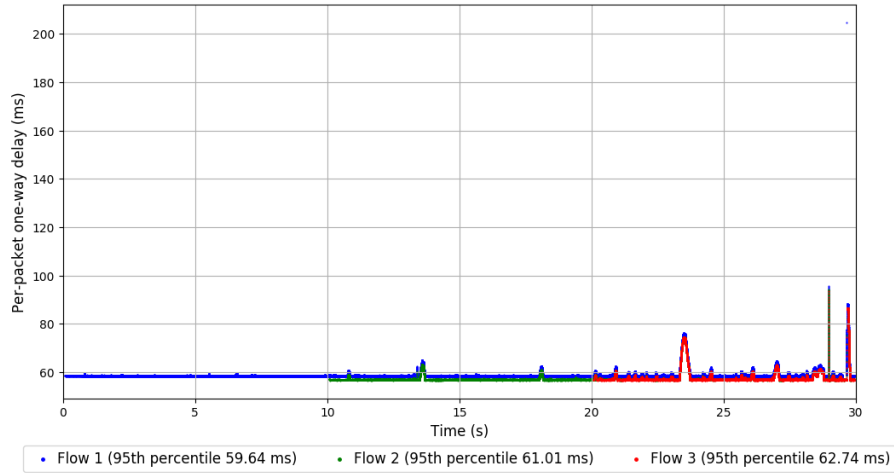
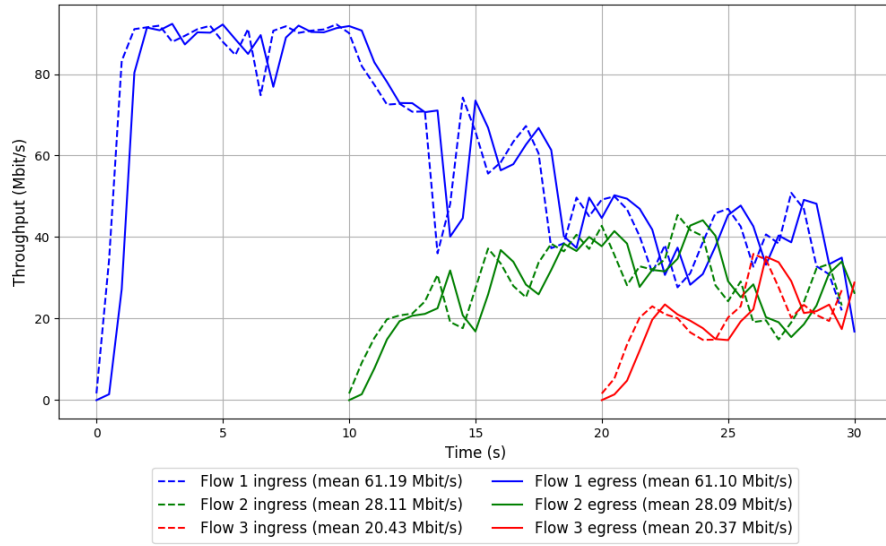
-- Flow 2:

Average throughput: 28.09 Mbit/s  
95th percentile per-packet one-way delay: 61.010 ms  
Loss rate: 0.07%

-- Flow 3:

Average throughput: 20.37 Mbit/s  
95th percentile per-packet one-way delay: 62.740 ms  
Loss rate: 0.30%

Run 5: Report of PCC-Vivace — Data Link





Run 1: Statistics of WebRTC media

Start at: 2019-05-30 00:43:42  
End at: 2019-05-30 00:44:12  
Local clock offset: -5.542 ms  
Remote clock offset: -0.547 ms

# Below is generated by plot.py at 2019-05-30 02:37:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 4.899 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 4.634 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 4.691 ms

Loss rate: 0.00%

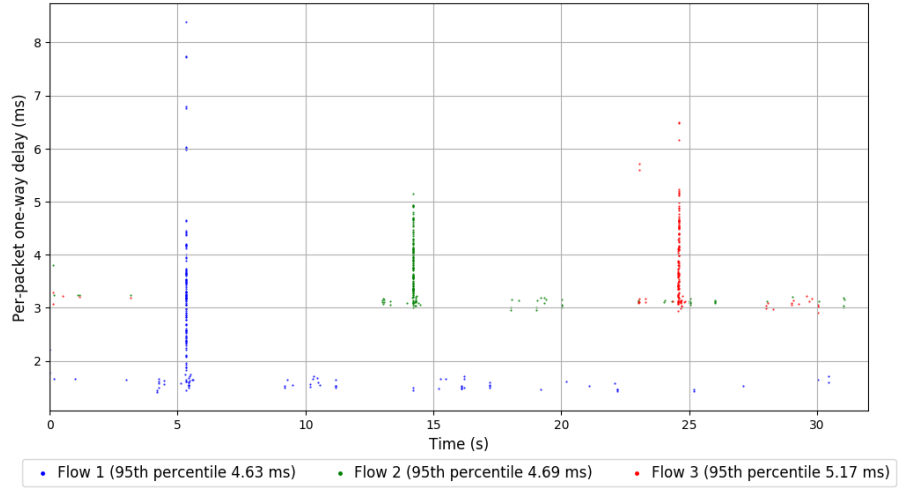
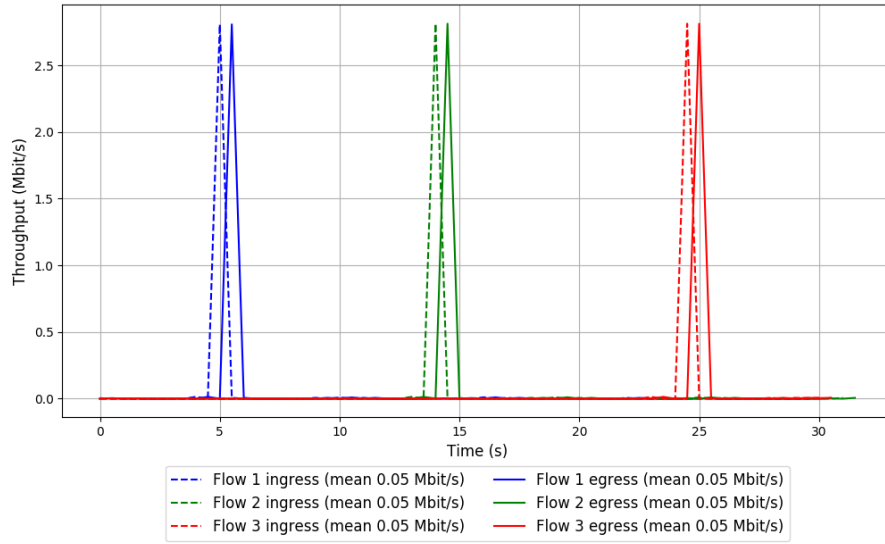
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 5.166 ms

Loss rate: 0.00%

# Run 1: Report of WebRTC media — Data Link

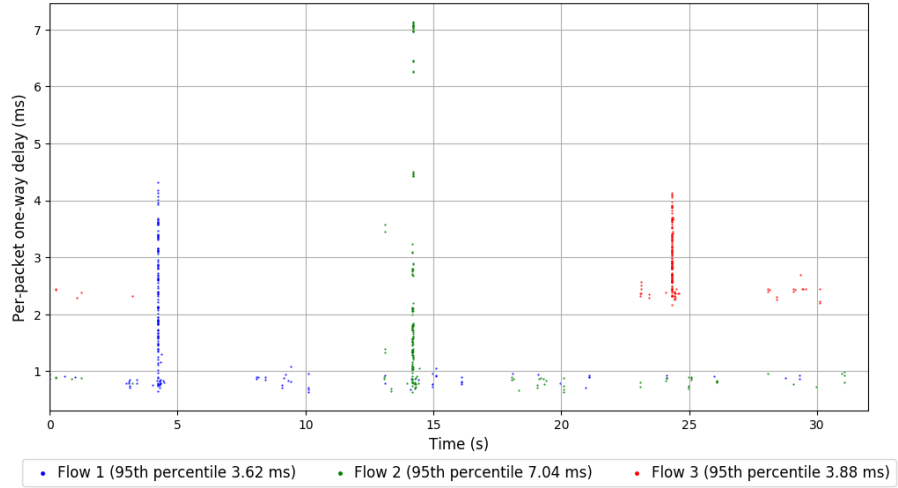
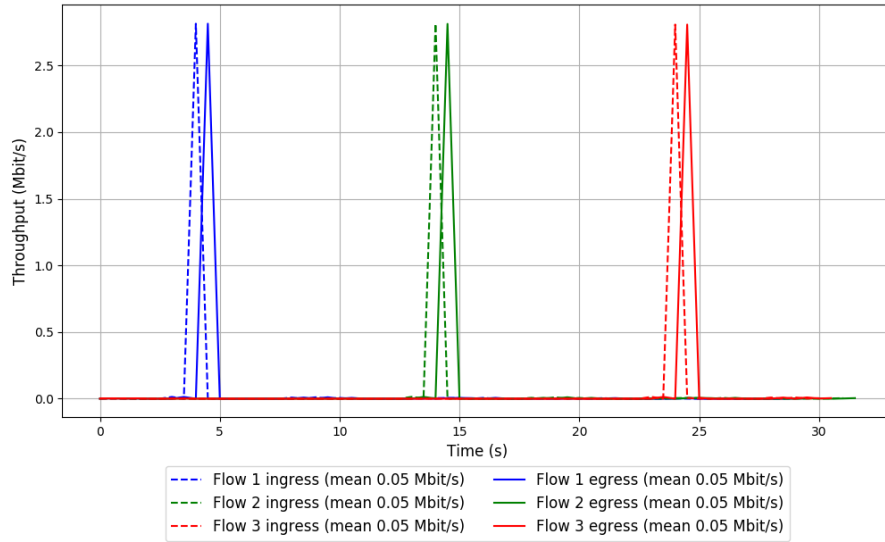


Run 2: Statistics of WebRTC media

Start at: 2019-05-30 01:07:34  
End at: 2019-05-30 01:08:04  
Local clock offset: -5.073 ms  
Remote clock offset: -0.284 ms

```
# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.422 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.624 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.040 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.881 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-05-30 01:31:27

End at: 2019-05-30 01:31:57

Local clock offset: -3.208 ms

Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2019-05-30 02:37:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 3.888 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 6.324 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 2.721 ms

Loss rate: 0.00%

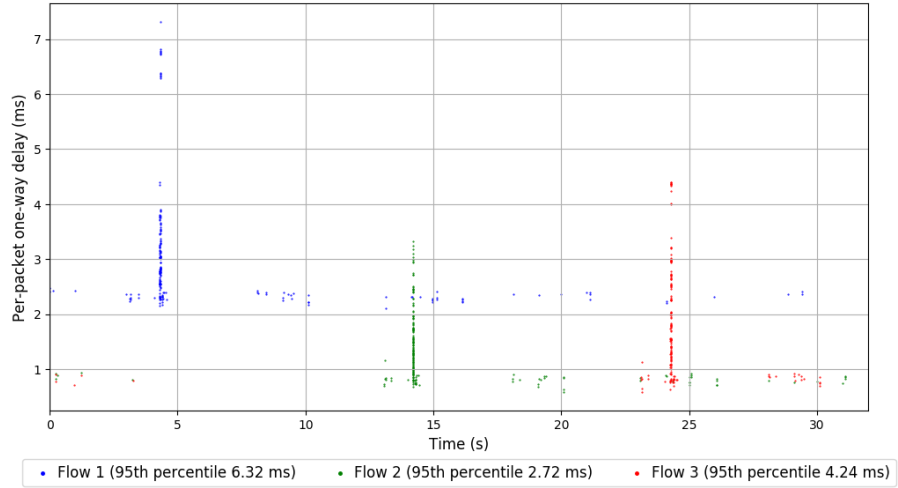
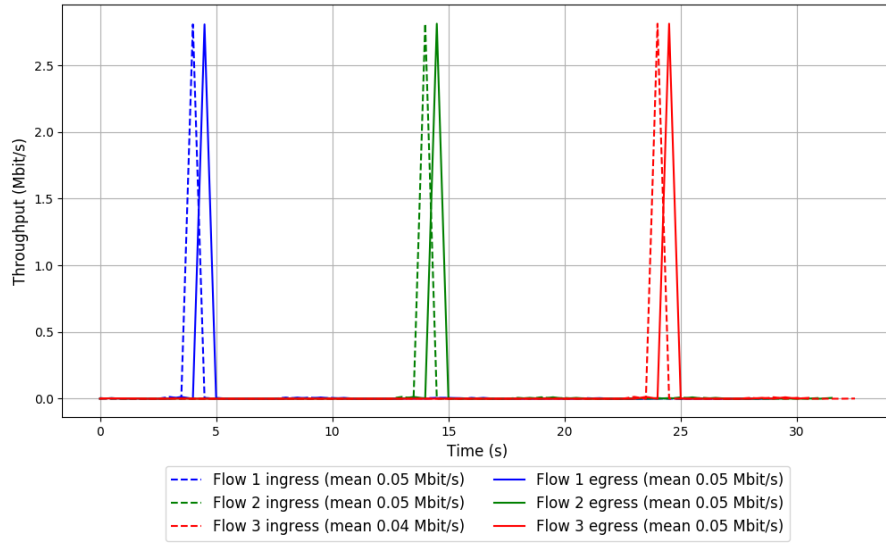
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 4.239 ms

Loss rate: 0.05%

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

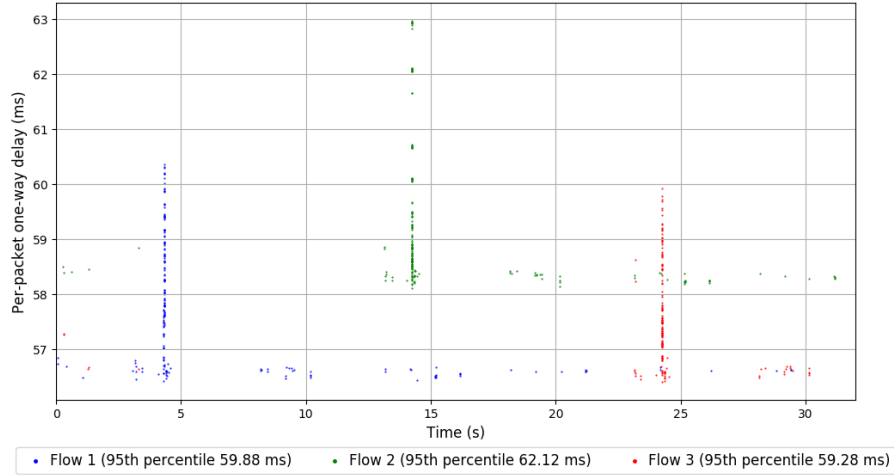
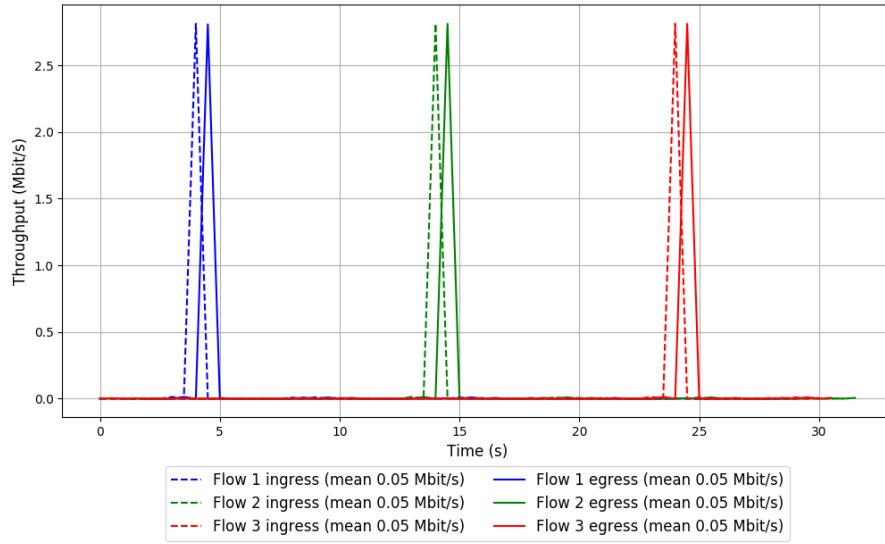


Run 4: Statistics of WebRTC media

Start at: 2019-05-30 01:55:21  
End at: 2019-05-30 01:55:51  
Local clock offset: -58.901 ms  
Remote clock offset: 0.357 ms

```
# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.663 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.884 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 62.118 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.278 ms
Loss rate: 0.00%
```

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





Run 5: Statistics of WebRTC media

Start at: 2019-05-30 02:19:15  
End at: 2019-05-30 02:19:45  
Local clock offset: -59.757 ms  
Remote clock offset: 0.468 ms

```
# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.428 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.545 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.983 ms
Loss rate: 0.05%
```

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

