

## Pantheon Report

Generated at 2019-06-28 14:04:26 (UTC).

Data path: Mexico on `em1` (*remote*) → AWS California 2 on `ens5` (*local*).

Repeated the test of 22 congestion control schemes 5 times.

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

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

### System info:

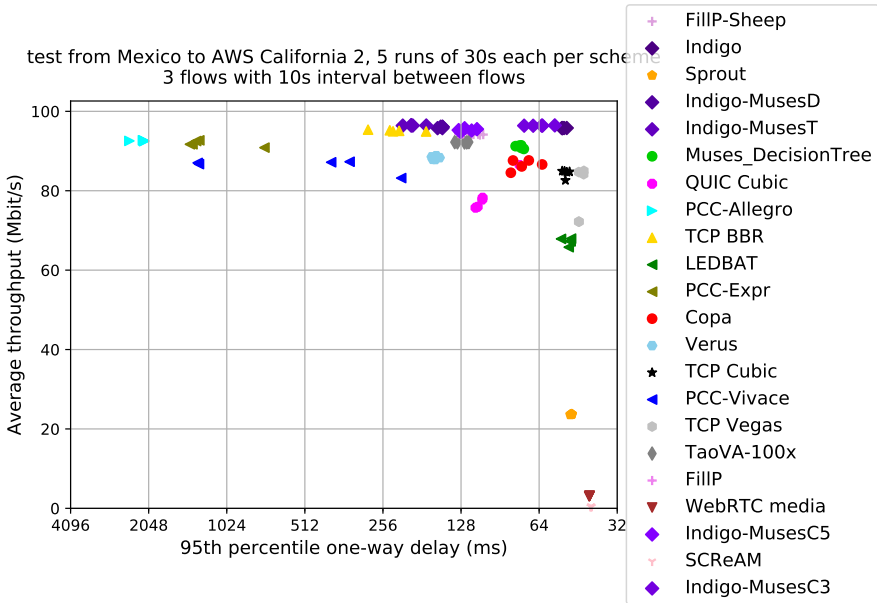
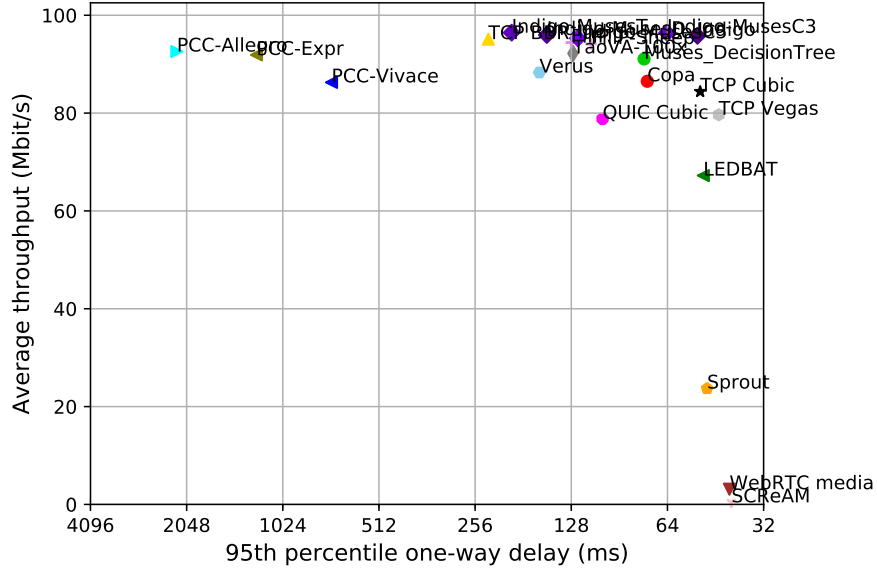
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd9c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
M helpers/__init__.pyc
M helpers/context.pyc
M helpers/utls.pyc
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
```

```
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from Mexico to AWS California 2, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	58.04	39.69	32.18	202.52	193.42	442.18	0.82	1.34	4.01
Copa	5	50.34	38.11	32.57	102.23	54.25	47.81	0.18	0.25	0.82
TCP Cubic	5	48.03	40.17	29.09	54.30	48.51	61.09	0.22	0.32	0.75
FillP	5	58.30	41.55	25.55	89.37	146.44	132.93	0.24	3.53	3.45
FillP-Sheep	5	56.90	40.07	32.00	101.96	111.01	133.12	0.22	0.61	1.70
Indigo	5	60.00	39.19	29.87	52.23	51.40	49.73	0.22	0.29	0.74
Indigo-MusesC3	5	59.45	41.07	36.03	63.00	67.59	66.54	0.22	0.49	0.98
Indigo-MusesC5	5	57.85	43.63	31.02	107.37	113.94	138.90	1.31	2.58	5.44
Indigo-MusesD	5	60.52	41.86	28.96	154.52	109.83	91.53	5.75	5.86	4.27
Indigo-MusesT	5	60.86	41.18	31.09	151.56	220.86	252.77	2.36	5.49	7.73
LEDBAT	5	38.92	32.13	20.94	48.89	50.37	50.04	0.16	0.39	0.75
Muses_DecisionTree	5	52.31	42.52	32.65	85.95	60.54	53.00	0.19	0.35	0.76
PCC-Allegro	5	57.16	39.03	28.86	2238.61	1633.73	678.90	10.62	10.87	7.86
PCC-Expr	5	58.02	36.62	28.97	892.03	1419.54	142.47	32.36	17.38	1.46
QUIC Cubic	5	44.37	36.78	30.43	95.59	112.49	128.22	0.18	0.39	1.13
SCReAM	5	0.21	0.21	0.22	40.36	40.35	40.31	0.23	0.39	0.71
Sprout	5	11.98	11.89	11.60	47.67	48.26	48.99	0.26	0.20	0.70
TaoVA-100x	5	56.64	36.39	34.20	114.46	143.37	150.49	0.48	1.12	2.65
TCP Vegas	5	45.20	33.81	36.12	51.98	42.29	44.46	0.17	0.30	0.74
Verus	5	54.94	36.47	27.52	153.04	153.65	253.29	0.42	0.54	1.70
PCC-Vivace	5	56.21	30.20	30.39	563.03	730.43	110.97	1.48	7.53	1.06
WebRTC media	5	1.75	0.98	0.39	40.92	40.96	40.90	0.11	0.21	0.45



Run 1: Statistics of TCP BBR

Start at: 2019-06-28 11:56:02

End at: 2019-06-28 11:56:32

Local clock offset: -3.629 ms

Remote clock offset: -3.96 ms

# Below is generated by plot.py at 2019-06-28 13:49:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.97 Mbit/s

95th percentile per-packet one-way delay: 234.078 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 55.44 Mbit/s

95th percentile per-packet one-way delay: 233.968 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 35.88 Mbit/s

95th percentile per-packet one-way delay: 221.240 ms

Loss rate: 1.42%

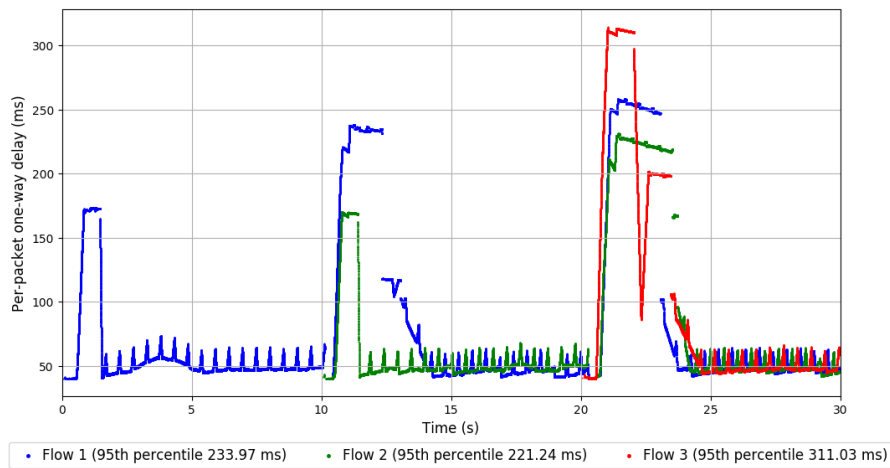
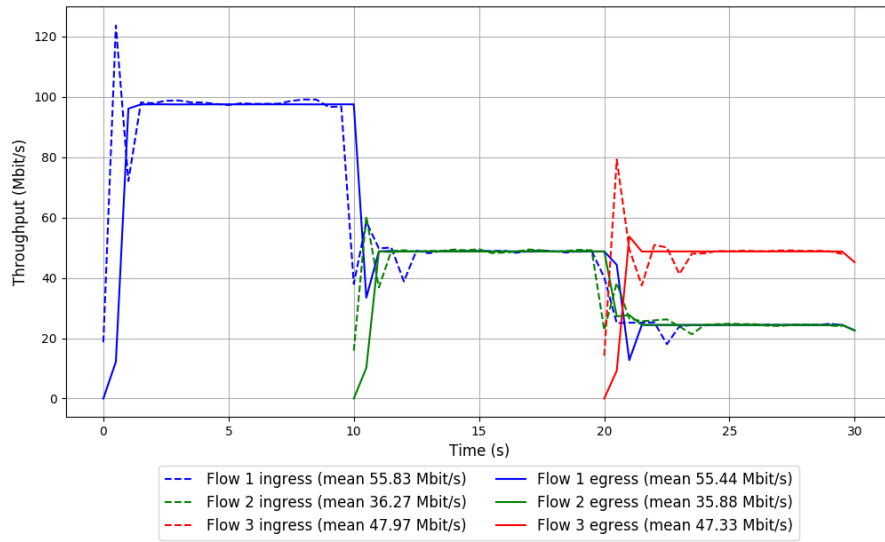
-- Flow 3:

Average throughput: 47.33 Mbit/s

95th percentile per-packet one-way delay: 311.033 ms

Loss rate: 2.00%

# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-06-28 12:23:06  
End at: 2019-06-28 12:23:36  
Local clock offset: -0.834 ms  
Remote clock offset: -2.226 ms

# Below is generated by plot.py at 2019-06-28 13:49:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.92 Mbit/s  
95th percentile per-packet one-way delay: 174.513 ms  
Loss rate: 0.97%

-- Flow 1:

Average throughput: 57.84 Mbit/s  
95th percentile per-packet one-way delay: 172.048 ms  
Loss rate: 0.74%

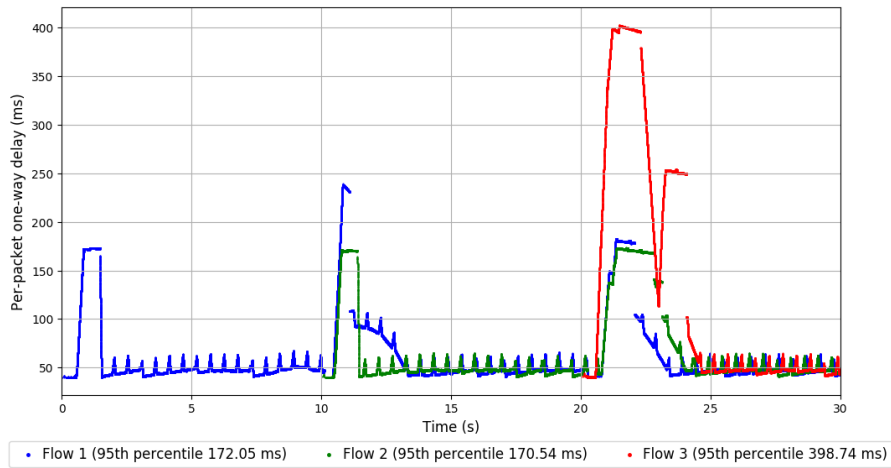
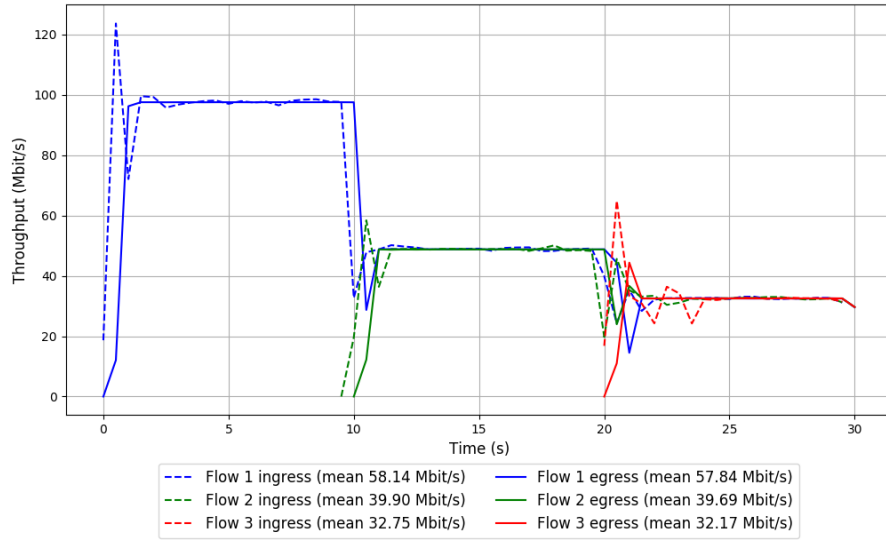
-- Flow 2:

Average throughput: 39.69 Mbit/s  
95th percentile per-packet one-way delay: 170.542 ms  
Loss rate: 0.87%

-- Flow 3:

Average throughput: 32.17 Mbit/s  
95th percentile per-packet one-way delay: 398.738 ms  
Loss rate: 2.43%

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



Run 3: Statistics of TCP BBR

Start at: 2019-06-28 12:50:10  
End at: 2019-06-28 12:50:40  
Local clock offset: 3.628 ms  
Remote clock offset: -1.654 ms

# Below is generated by plot.py at 2019-06-28 13:49:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.23 Mbit/s  
95th percentile per-packet one-way delay: 240.851 ms  
Loss rate: 1.66%

-- Flow 1:

Average throughput: 63.03 Mbit/s  
95th percentile per-packet one-way delay: 172.759 ms  
Loss rate: 0.57%

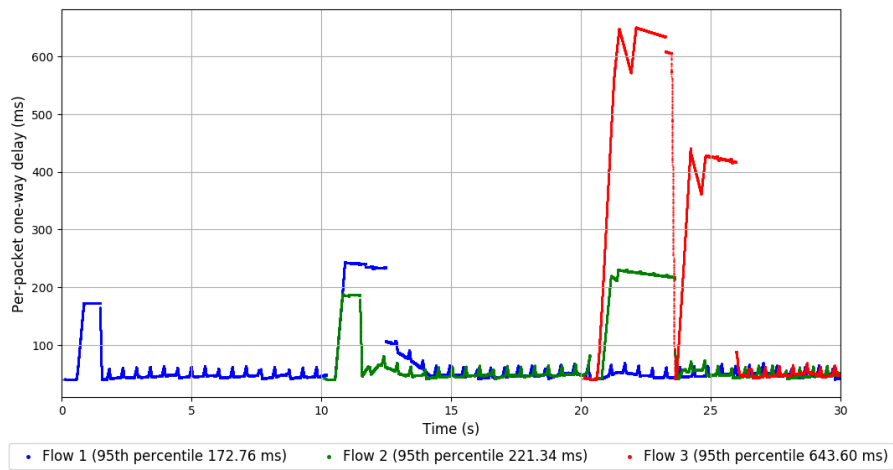
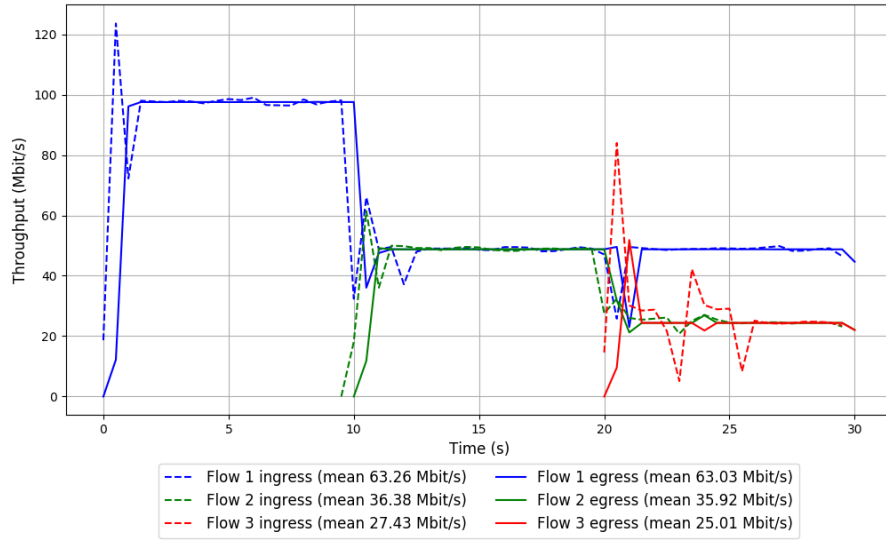
-- Flow 2:

Average throughput: 35.92 Mbit/s  
95th percentile per-packet one-way delay: 221.337 ms  
Loss rate: 1.59%

-- Flow 3:

Average throughput: 25.01 Mbit/s  
95th percentile per-packet one-way delay: 643.599 ms  
Loss rate: 9.43%

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

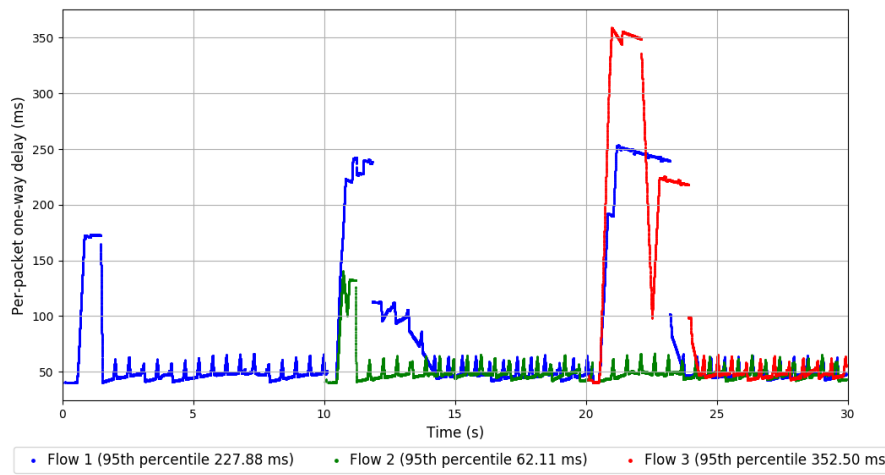
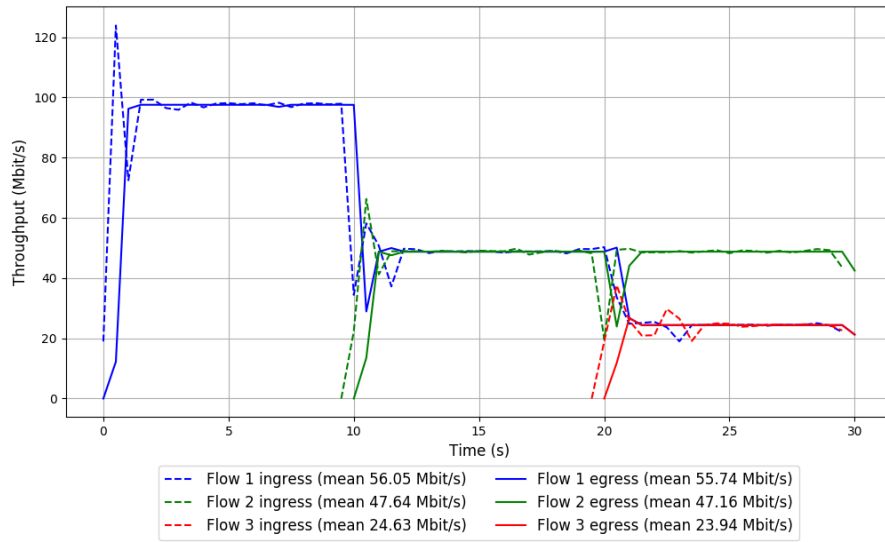


Run 4: Statistics of TCP BBR

Start at: 2019-06-28 13:17:31  
End at: 2019-06-28 13:18:01  
Local clock offset: 5.18 ms  
Remote clock offset: -1.265 ms

```
# Below is generated by plot.py at 2019-06-28 13:49:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.09 Mbit/s
95th percentile per-packet one-way delay: 221.736 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 55.74 Mbit/s
95th percentile per-packet one-way delay: 227.880 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 47.16 Mbit/s
95th percentile per-packet one-way delay: 62.108 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 23.94 Mbit/s
95th percentile per-packet one-way delay: 352.504 ms
Loss rate: 3.45%
```

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



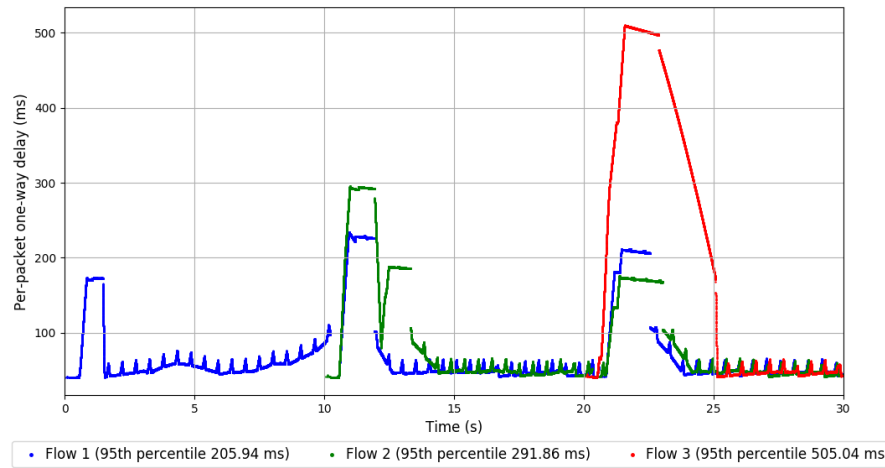
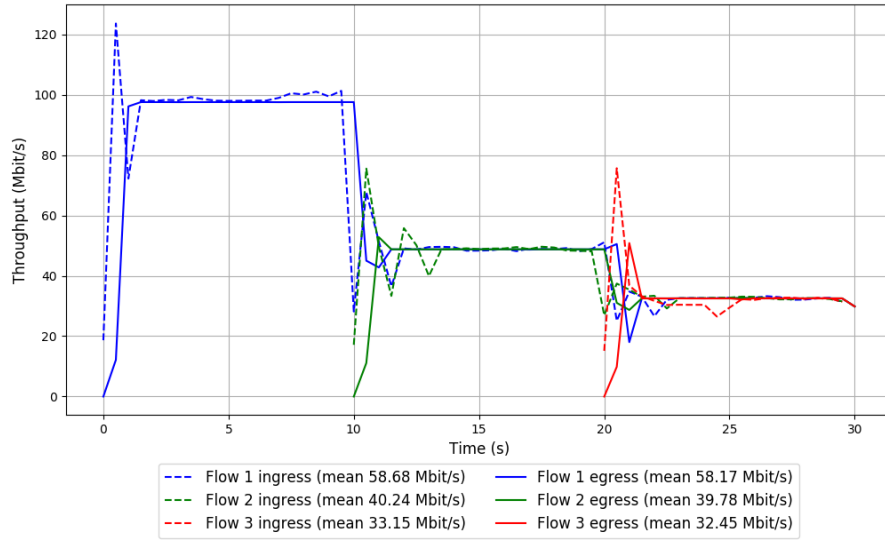


Run 5: Statistics of TCP BBR

Start at: 2019-06-28 13:44:58  
End at: 2019-06-28 13:45:28  
Local clock offset: -0.852 ms  
Remote clock offset: -1.445 ms

```
# Below is generated by plot.py at 2019-06-28 13:49:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.39 Mbit/s
95th percentile per-packet one-way delay: 292.162 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 58.17 Mbit/s
95th percentile per-packet one-way delay: 205.937 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 39.78 Mbit/s
95th percentile per-packet one-way delay: 291.855 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 505.037 ms
Loss rate: 2.76%
```

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

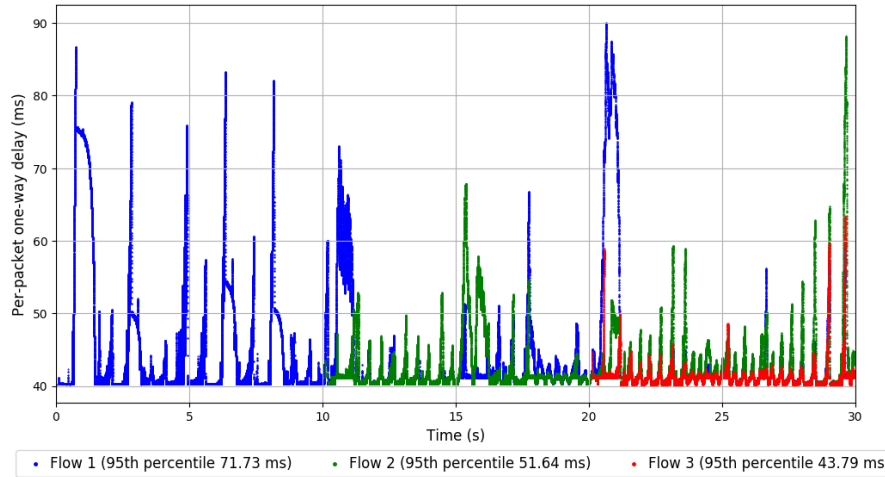
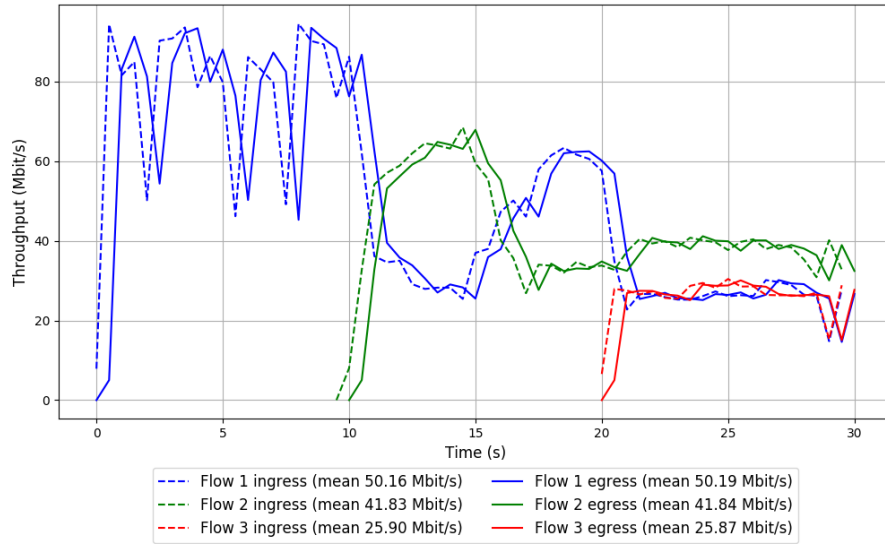


Run 1: Statistics of Copa

Start at: 2019-06-28 11:51:05  
End at: 2019-06-28 11:51:35  
Local clock offset: -3.88 ms  
Remote clock offset: -4.408 ms

```
# Below is generated by plot.py at 2019-06-28 13:50:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.62 Mbit/s
95th percentile per-packet one-way delay: 62.301 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 71.729 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 51.644 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 25.87 Mbit/s
95th percentile per-packet one-way delay: 43.789 ms
Loss rate: 0.77%
```

# Run 1: Report of Copa — Data Link

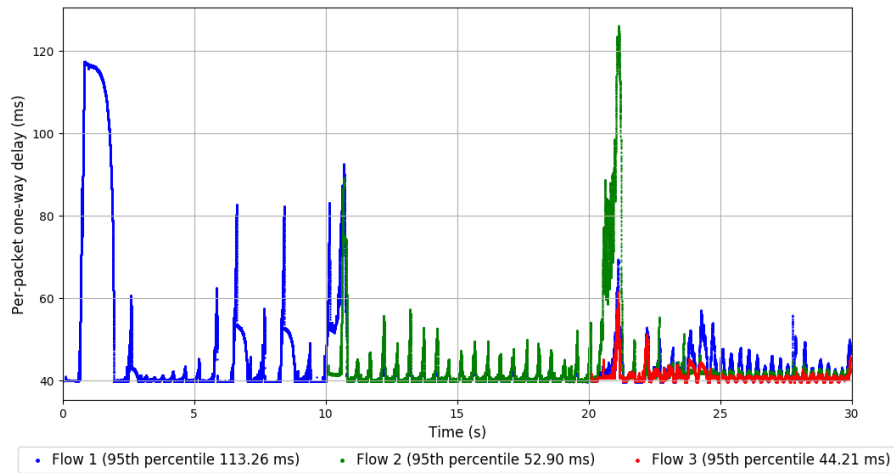
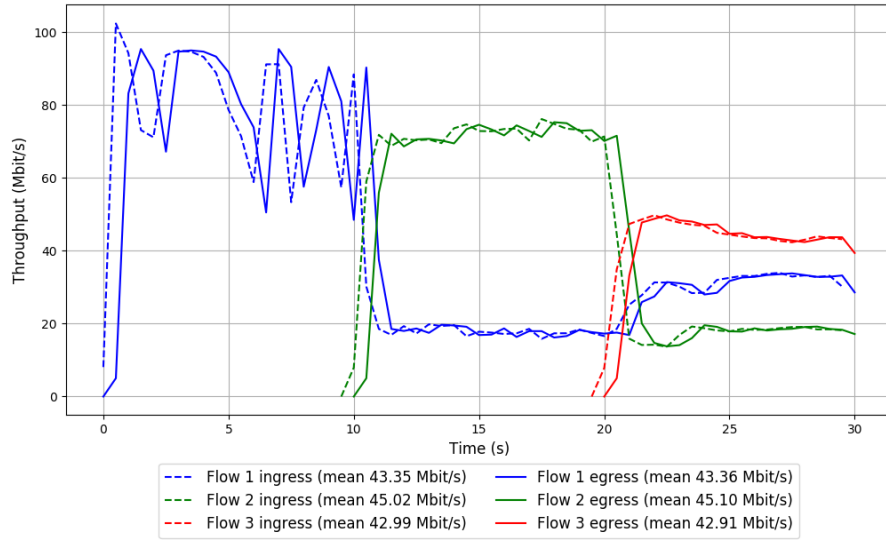


Run 2: Statistics of Copa

Start at: 2019-06-28 12:18:09  
End at: 2019-06-28 12:18:39  
Local clock offset: -3.682 ms  
Remote clock offset: -2.526 ms

```
# Below is generated by plot.py at 2019-06-28 13:50:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.62 Mbit/s
95th percentile per-packet one-way delay: 80.688 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 43.36 Mbit/s
95th percentile per-packet one-way delay: 113.258 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 45.10 Mbit/s
95th percentile per-packet one-way delay: 52.903 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 42.91 Mbit/s
95th percentile per-packet one-way delay: 44.210 ms
Loss rate: 0.84%
```

## Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-06-28 12:45:14  
End at: 2019-06-28 12:45:44  
Local clock offset: 3.268 ms  
Remote clock offset: -1.652 ms

# Below is generated by plot.py at 2019-06-28 13:50:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.53 Mbit/s  
95th percentile per-packet one-way delay: 82.262 ms  
Loss rate: 0.30%

-- Flow 1:

Average throughput: 53.40 Mbit/s  
95th percentile per-packet one-way delay: 108.716 ms  
Loss rate: 0.21%

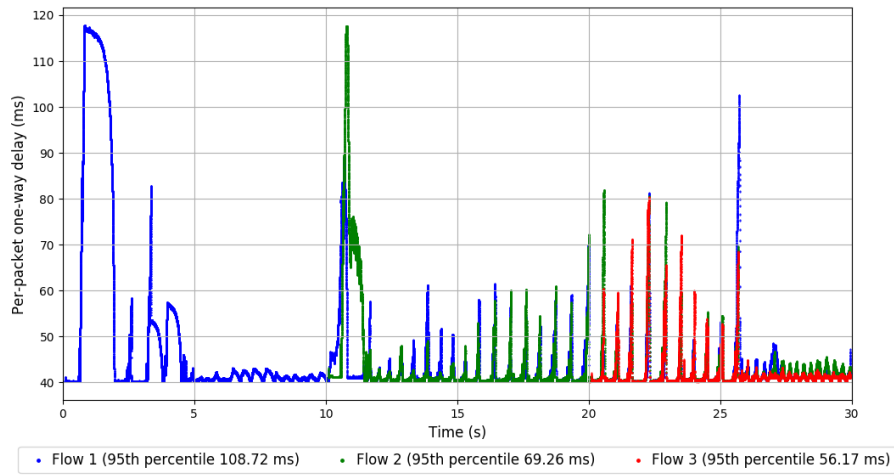
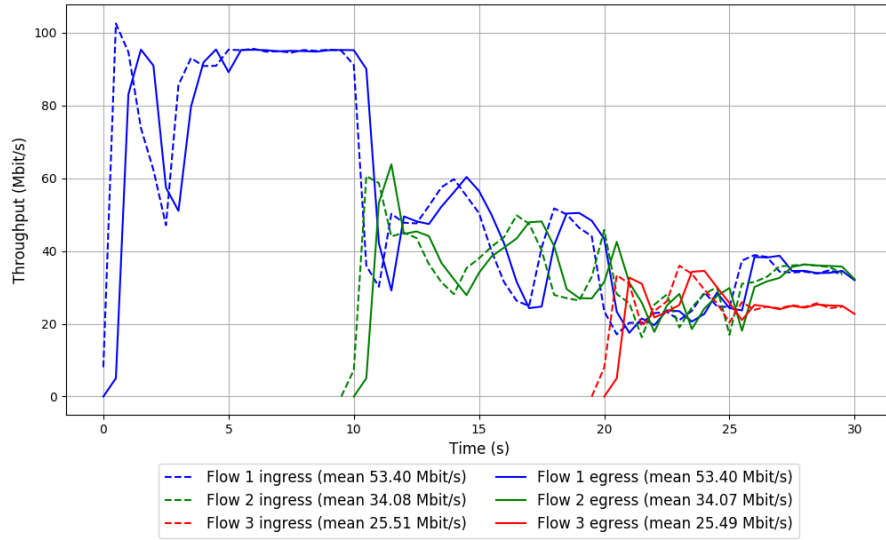
-- Flow 2:

Average throughput: 34.07 Mbit/s  
95th percentile per-packet one-way delay: 69.257 ms  
Loss rate: 0.35%

-- Flow 3:

Average throughput: 25.49 Mbit/s  
95th percentile per-packet one-way delay: 56.166 ms  
Loss rate: 0.72%

### Run 3: Report of Copa — Data Link



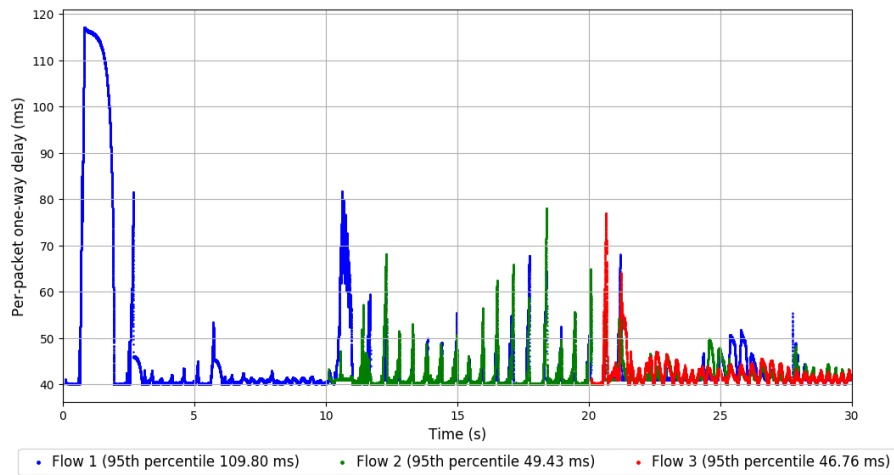
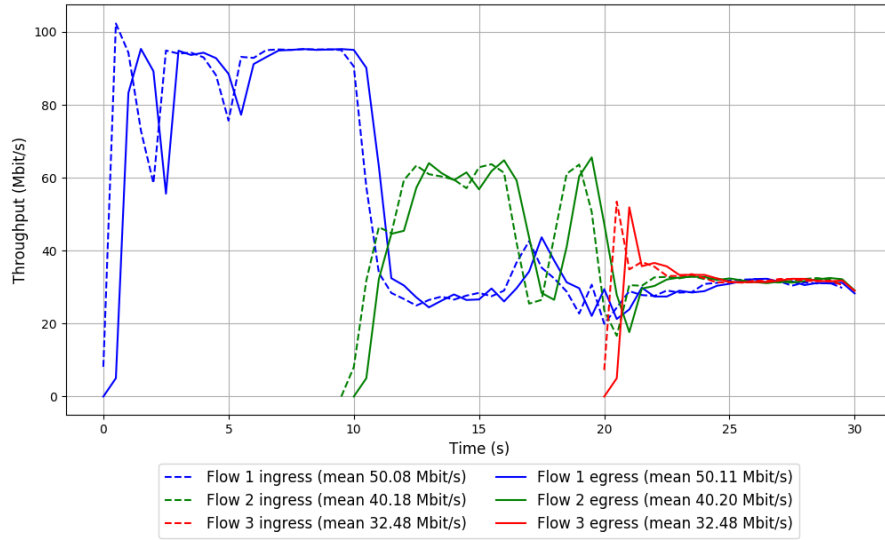


Run 4: Statistics of Copa

Start at: 2019-06-28 13:12:30  
End at: 2019-06-28 13:13:00  
Local clock offset: 4.934 ms  
Remote clock offset: -1.022 ms

```
# Below is generated by plot.py at 2019-06-28 13:51:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.63 Mbit/s
95th percentile per-packet one-way delay: 70.144 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 50.11 Mbit/s
95th percentile per-packet one-way delay: 109.797 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 40.20 Mbit/s
95th percentile per-packet one-way delay: 49.434 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 46.764 ms
Loss rate: 0.66%
```

### Run 4: Report of Copa — Data Link

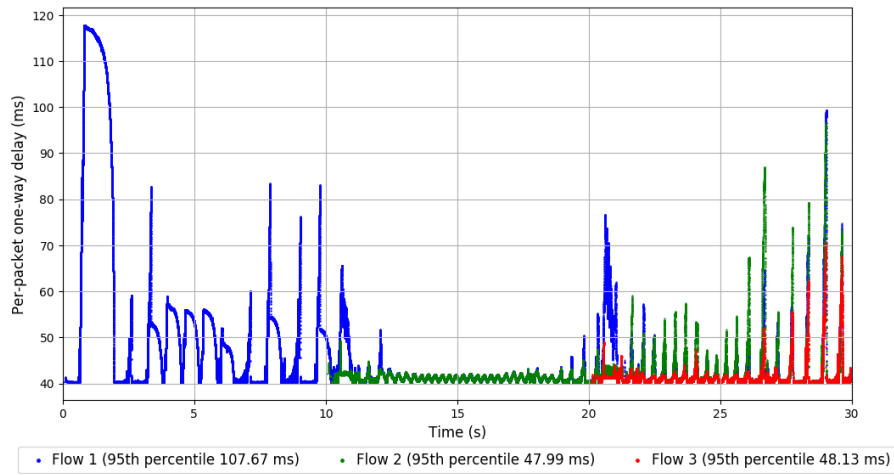
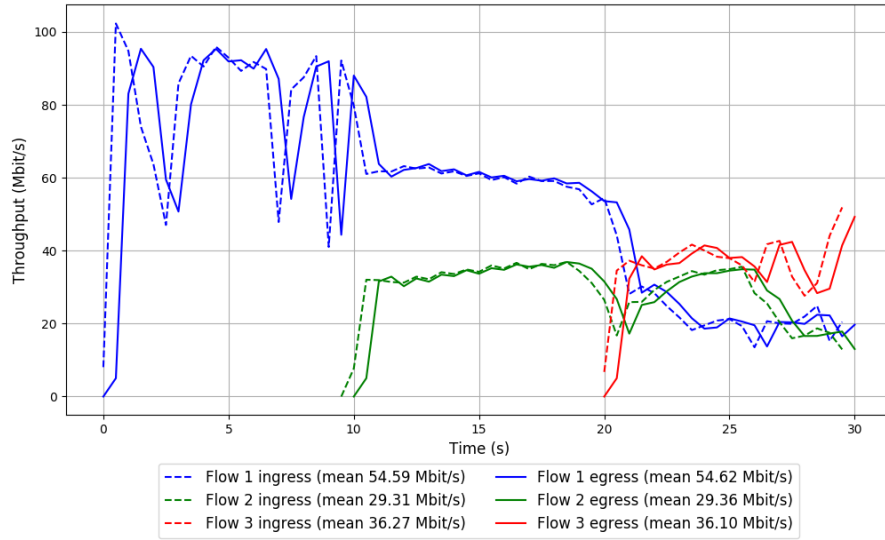


Run 5: Statistics of Copa

Start at: 2019-06-28 13:39:55  
End at: 2019-06-28 13:40:25  
Local clock offset: -0.457 ms  
Remote clock offset: -1.406 ms

```
# Below is generated by plot.py at 2019-06-28 13:51:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.12 Mbit/s
95th percentile per-packet one-way delay: 74.706 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 54.62 Mbit/s
95th percentile per-packet one-way delay: 107.674 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 47.992 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 36.10 Mbit/s
95th percentile per-packet one-way delay: 48.127 ms
Loss rate: 1.10%
```

### Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 11:49:52  
End at: 2019-06-28 11:50:22  
Local clock offset: -4.016 ms  
Remote clock offset: -4.519 ms

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.90 Mbit/s  
95th percentile per-packet one-way delay: 51.068 ms  
Loss rate: 0.28%

-- Flow 1:

Average throughput: 46.46 Mbit/s  
95th percentile per-packet one-way delay: 56.067 ms  
Loss rate: 0.13%

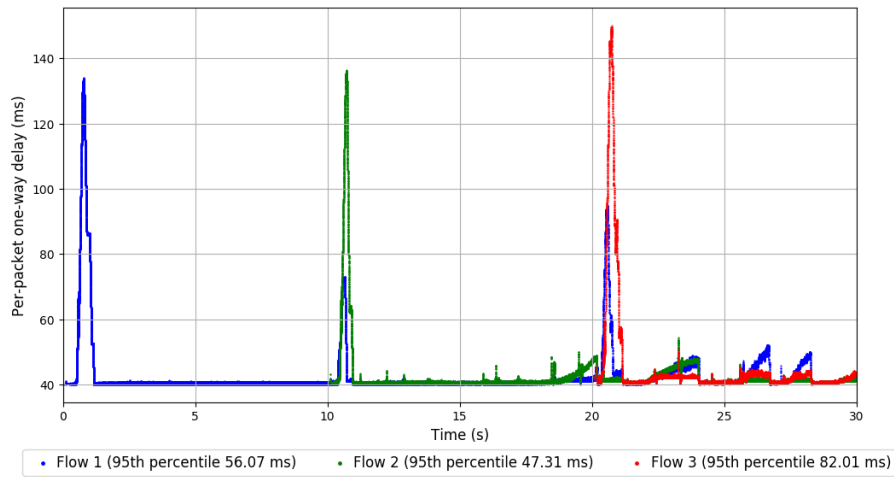
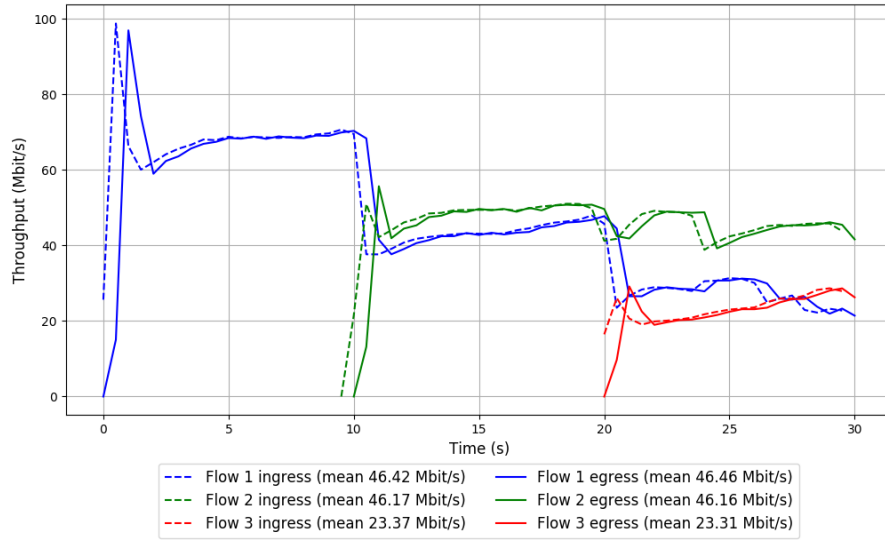
-- Flow 2:

Average throughput: 46.16 Mbit/s  
95th percentile per-packet one-way delay: 47.310 ms  
Loss rate: 0.34%

-- Flow 3:

Average throughput: 23.31 Mbit/s  
95th percentile per-packet one-way delay: 82.006 ms  
Loss rate: 0.92%

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



Run 2: Statistics of TCP Cubic

Start at: 2019-06-28 12:16:56  
End at: 2019-06-28 12:17:26  
Local clock offset: -3.845 ms  
Remote clock offset: -2.592 ms

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 82.63 Mbit/s  
95th percentile per-packet one-way delay: 50.680 ms  
Loss rate: 0.29%

-- Flow 1:

Average throughput: 45.46 Mbit/s  
95th percentile per-packet one-way delay: 57.326 ms  
Loss rate: 0.18%

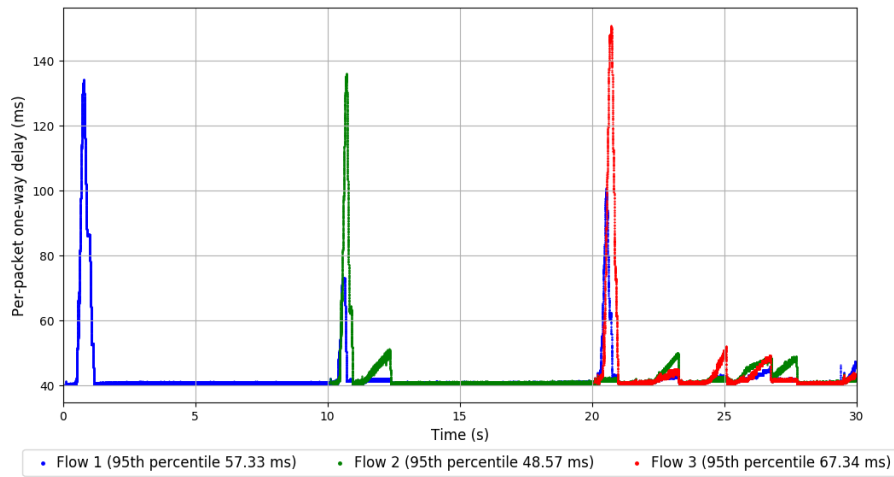
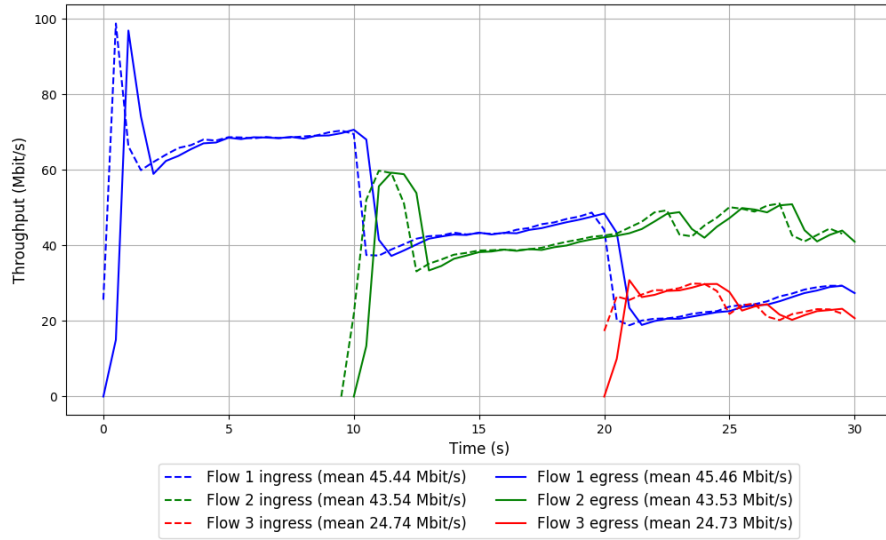
-- Flow 2:

Average throughput: 43.53 Mbit/s  
95th percentile per-packet one-way delay: 48.573 ms  
Loss rate: 0.36%

-- Flow 3:

Average throughput: 24.73 Mbit/s  
95th percentile per-packet one-way delay: 67.344 ms  
Loss rate: 0.67%

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





Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 12:44:00  
End at: 2019-06-28 12:44:30  
Local clock offset: 3.192 ms  
Remote clock offset: -1.773 ms

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.96 Mbit/s  
95th percentile per-packet one-way delay: 52.131 ms  
Loss rate: 0.42%

-- Flow 1:

Average throughput: 47.98 Mbit/s  
95th percentile per-packet one-way delay: 55.883 ms  
Loss rate: 0.41%

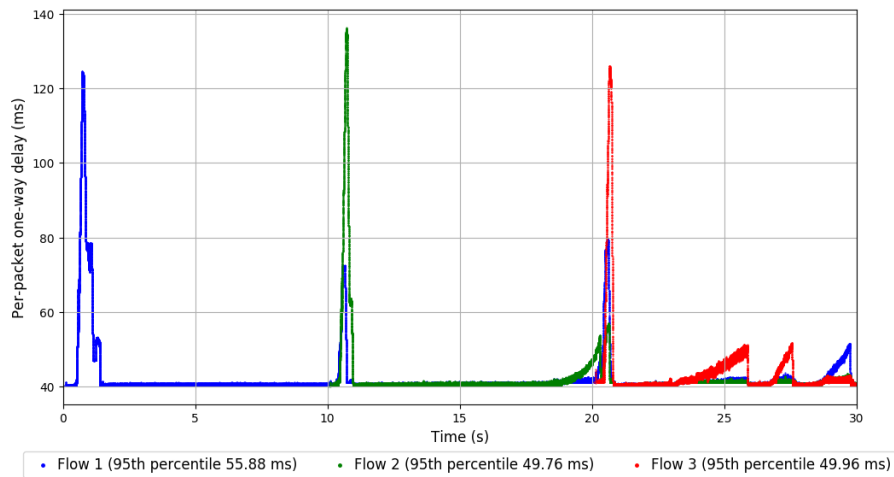
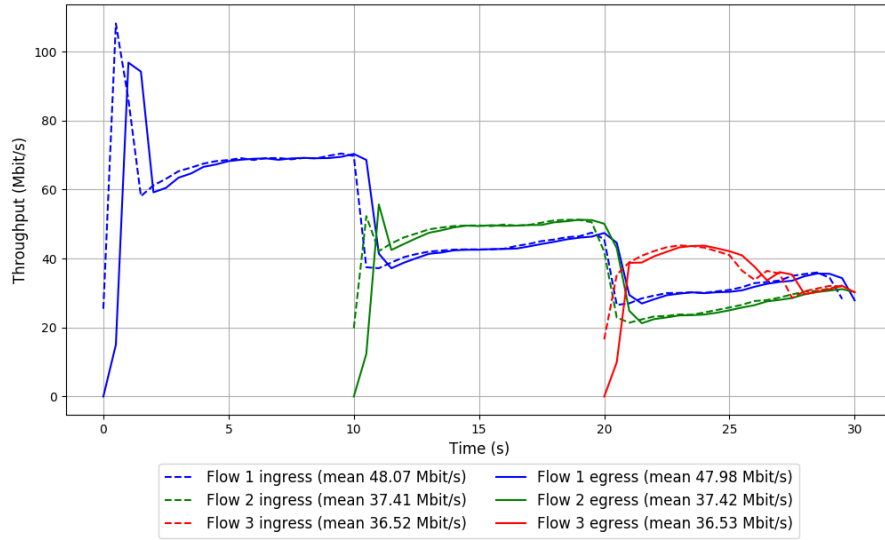
-- Flow 2:

Average throughput: 37.42 Mbit/s  
95th percentile per-packet one-way delay: 49.756 ms  
Loss rate: 0.32%

-- Flow 3:

Average throughput: 36.53 Mbit/s  
95th percentile per-packet one-way delay: 49.958 ms  
Loss rate: 0.63%

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



Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 13:11:14  
End at: 2019-06-28 13:11:44  
Local clock offset: 4.879 ms  
Remote clock offset: -1.119 ms

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.68 Mbit/s  
95th percentile per-packet one-way delay: 50.040 ms  
Loss rate: 0.27%

-- Flow 1:

Average throughput: 47.71 Mbit/s  
95th percentile per-packet one-way delay: 53.354 ms  
Loss rate: 0.15%

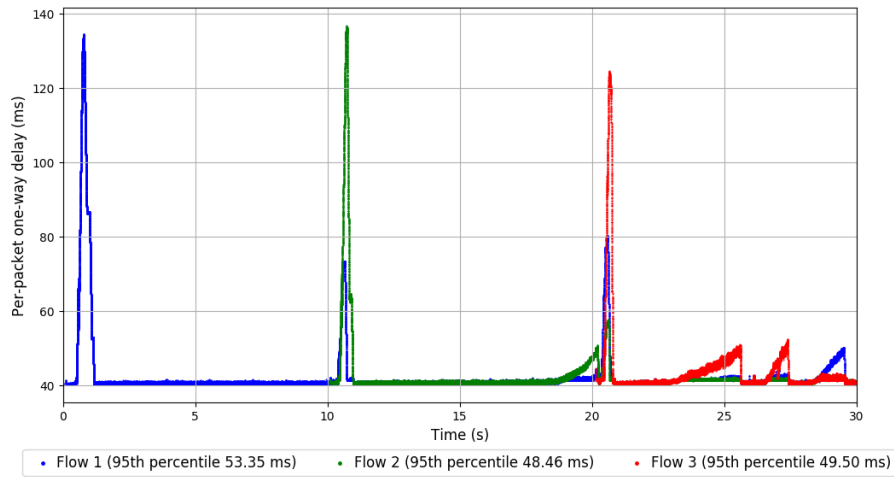
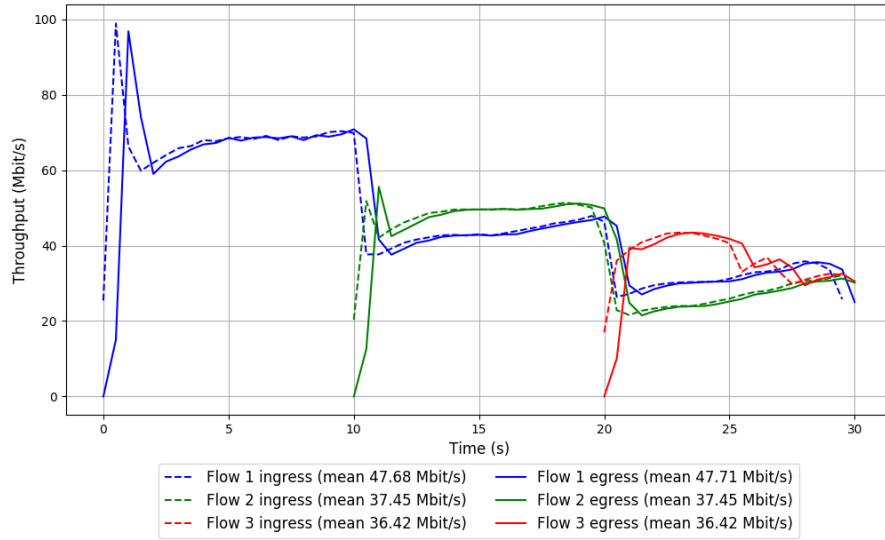
-- Flow 2:

Average throughput: 37.45 Mbit/s  
95th percentile per-packet one-way delay: 48.460 ms  
Loss rate: 0.33%

-- Flow 3:

Average throughput: 36.42 Mbit/s  
95th percentile per-packet one-way delay: 49.503 ms  
Loss rate: 0.67%

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



Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 13:38:41  
End at: 2019-06-28 13:39:11  
Local clock offset: -0.338 ms  
Remote clock offset: -1.499 ms

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.77 Mbit/s  
95th percentile per-packet one-way delay: 48.850 ms  
Loss rate: 0.29%

-- Flow 1:

Average throughput: 52.53 Mbit/s  
95th percentile per-packet one-way delay: 48.863 ms  
Loss rate: 0.21%

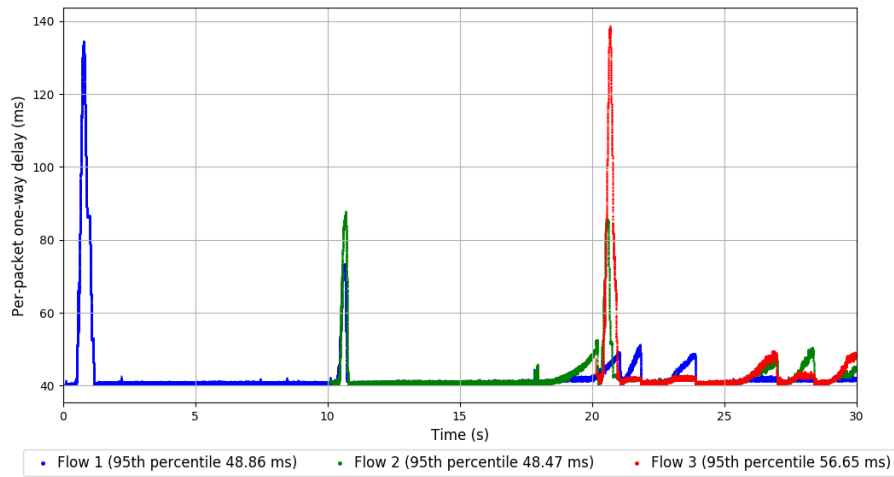
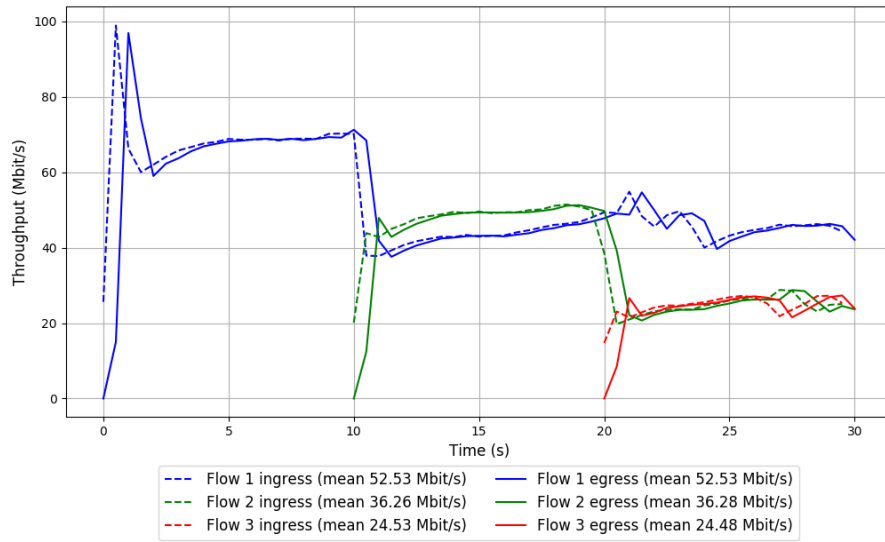
-- Flow 2:

Average throughput: 36.28 Mbit/s  
95th percentile per-packet one-way delay: 48.466 ms  
Loss rate: 0.27%

-- Flow 3:

Average throughput: 24.48 Mbit/s  
95th percentile per-packet one-way delay: 56.646 ms  
Loss rate: 0.88%

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

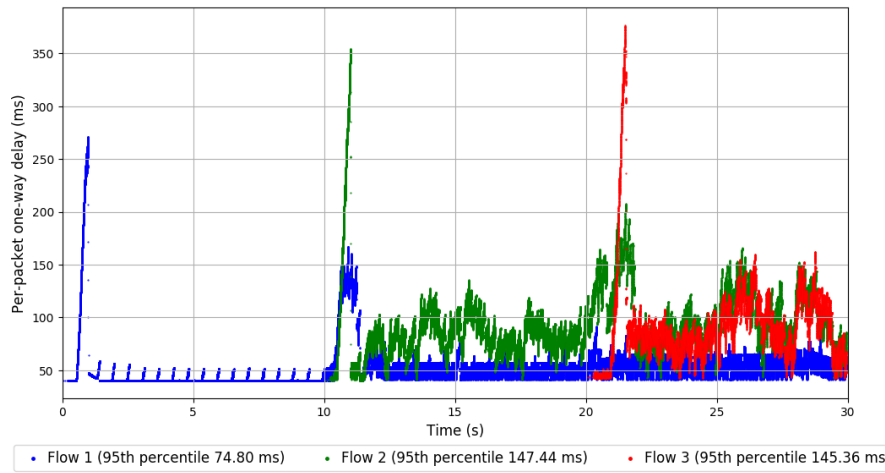
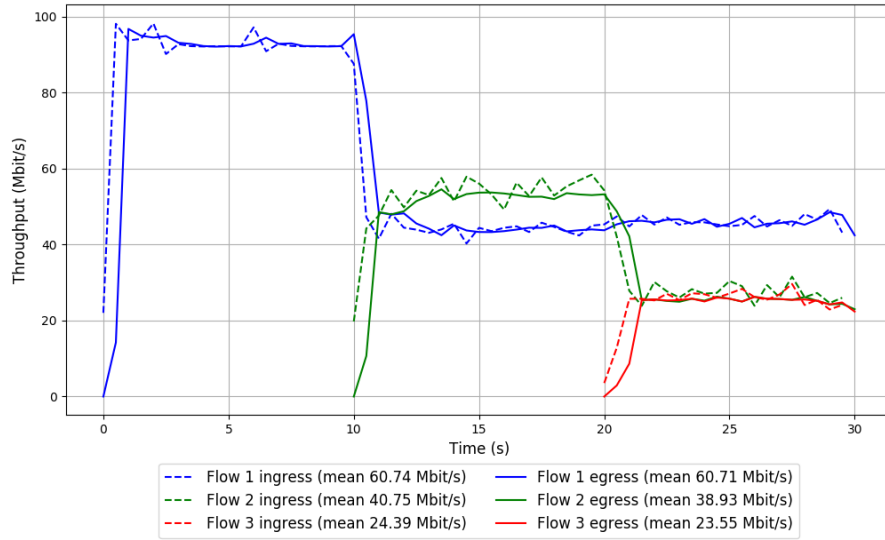


Run 1: Statistics of FillP

Start at: 2019-06-28 11:31:26  
End at: 2019-06-28 11:31:56  
Local clock offset: -2.932 ms  
Remote clock offset: -6.034 ms

```
# Below is generated by plot.py at 2019-06-28 13:51:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 130.830 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 60.71 Mbit/s
95th percentile per-packet one-way delay: 74.803 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 147.437 ms
Loss rate: 4.75%
-- Flow 3:
Average throughput: 23.55 Mbit/s
95th percentile per-packet one-way delay: 145.359 ms
Loss rate: 4.09%
```

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





Run 2: Statistics of FillP

Start at: 2019-06-28 11:58:30  
End at: 2019-06-28 11:59:00  
Local clock offset: -3.595 ms  
Remote clock offset: -3.816 ms

# Below is generated by plot.py at 2019-06-28 13:51:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.39 Mbit/s  
95th percentile per-packet one-way delay: 129.534 ms  
Loss rate: 1.17%

-- Flow 1:

Average throughput: 60.63 Mbit/s  
95th percentile per-packet one-way delay: 79.140 ms  
Loss rate: 0.27%

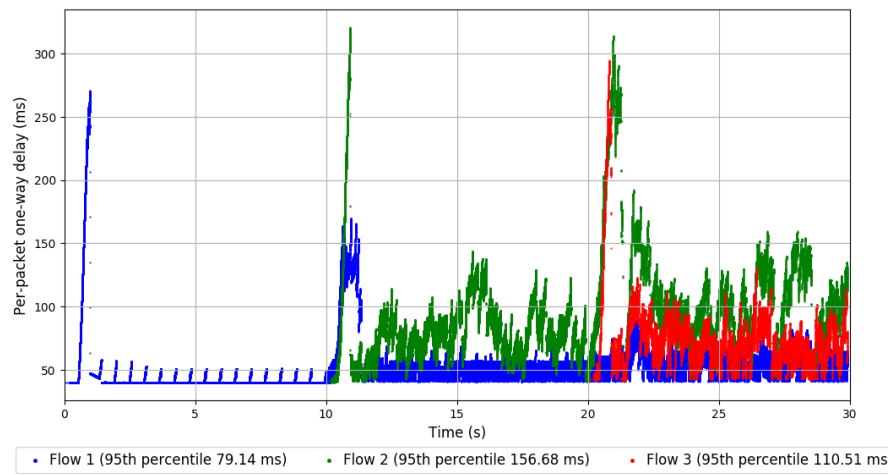
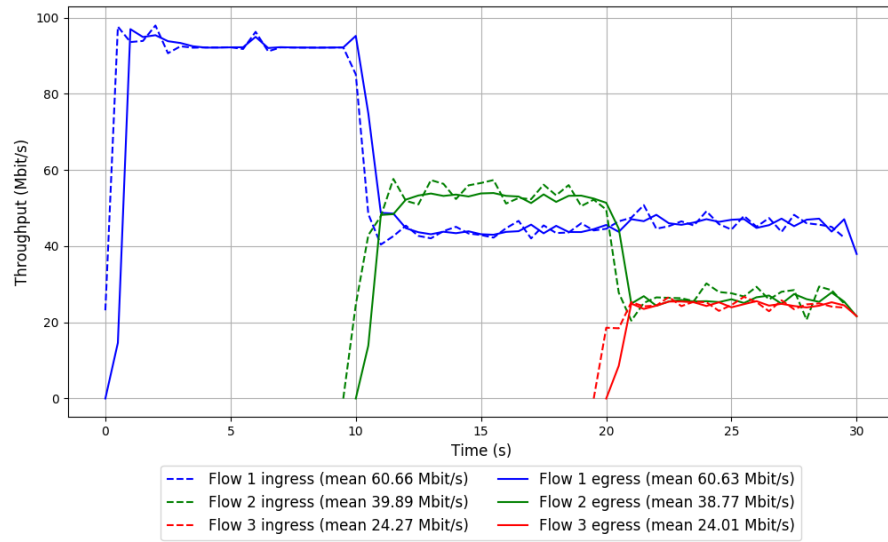
-- Flow 2:

Average throughput: 38.77 Mbit/s  
95th percentile per-packet one-way delay: 156.683 ms  
Loss rate: 3.12%

-- Flow 3:

Average throughput: 24.01 Mbit/s  
95th percentile per-packet one-way delay: 110.514 ms  
Loss rate: 1.51%

## Run 2: Report of FillP — Data Link

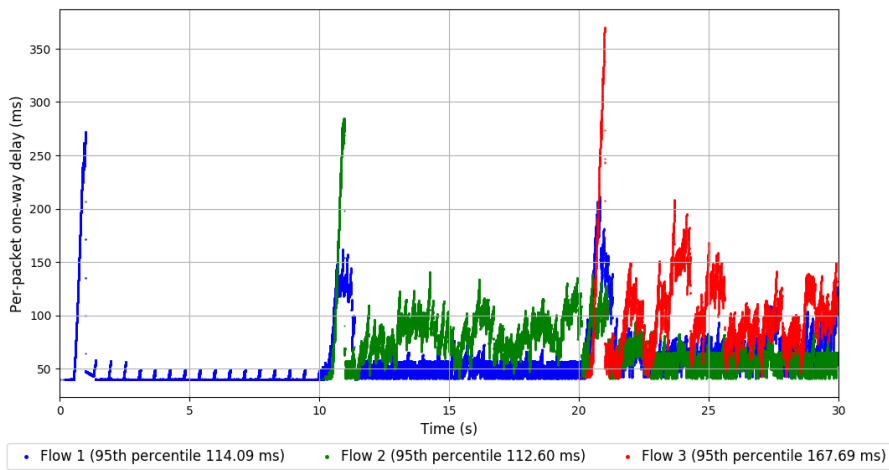
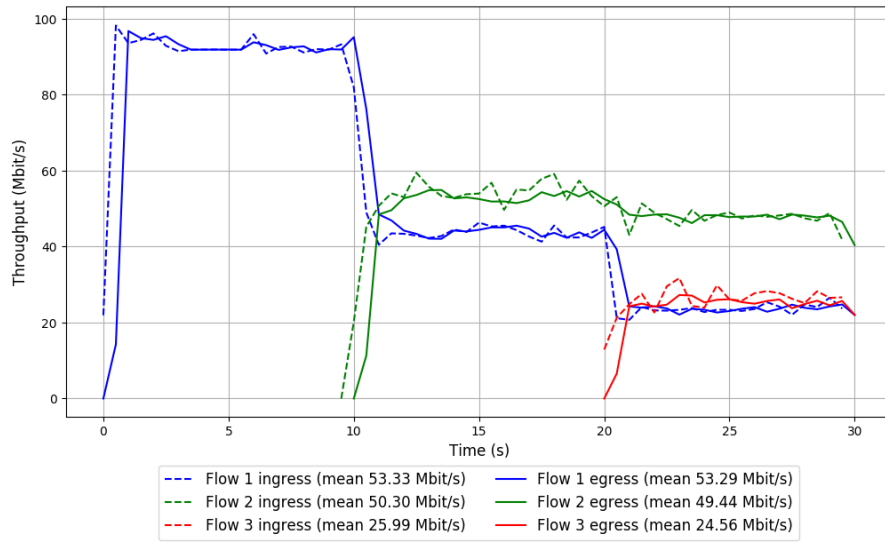


Run 3: Statistics of FillP

Start at: 2019-06-28 12:25:34  
End at: 2019-06-28 12:26:04  
Local clock offset: 0.072 ms  
Remote clock offset: -2.181 ms

```
# Below is generated by plot.py at 2019-06-28 13:51:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.32 Mbit/s
95th percentile per-packet one-way delay: 125.804 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 53.29 Mbit/s
95th percentile per-packet one-way delay: 114.087 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 49.44 Mbit/s
95th percentile per-packet one-way delay: 112.599 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 24.56 Mbit/s
95th percentile per-packet one-way delay: 167.691 ms
Loss rate: 6.11%
```

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

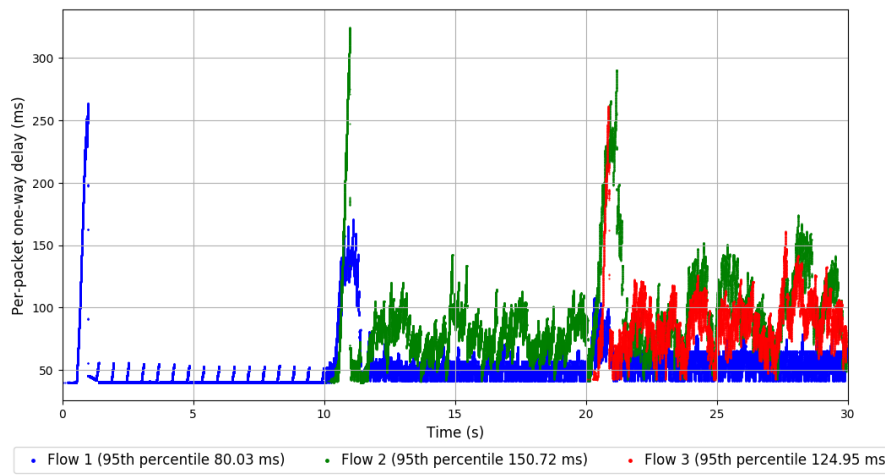
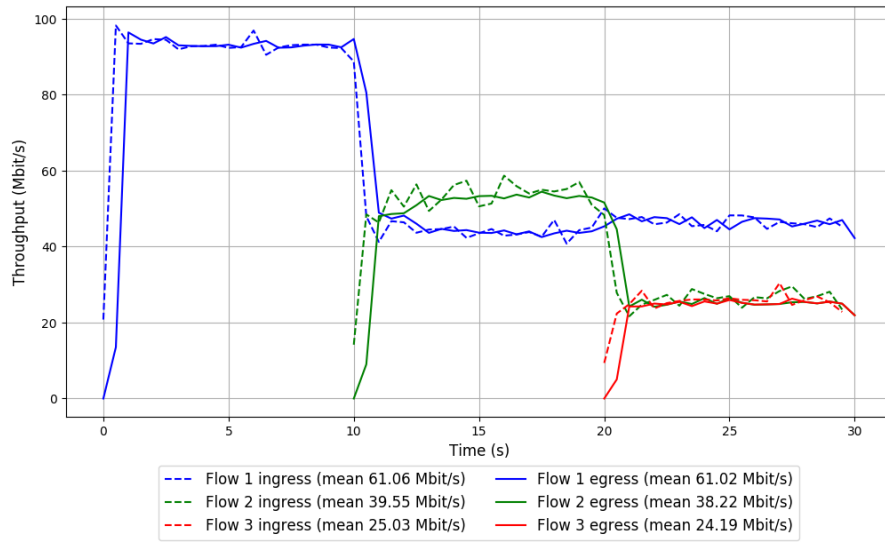


Run 4: Statistics of FillP

Start at: 2019-06-28 12:52:39  
End at: 2019-06-28 12:53:09  
Local clock offset: 3.794 ms  
Remote clock offset: -1.636 ms

```
# Below is generated by plot.py at 2019-06-28 13:51:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.46 Mbit/s
95th percentile per-packet one-way delay: 125.515 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 61.02 Mbit/s
95th percentile per-packet one-way delay: 80.034 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 150.722 ms
Loss rate: 3.68%
-- Flow 3:
Average throughput: 24.19 Mbit/s
95th percentile per-packet one-way delay: 124.953 ms
Loss rate: 3.78%
```

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

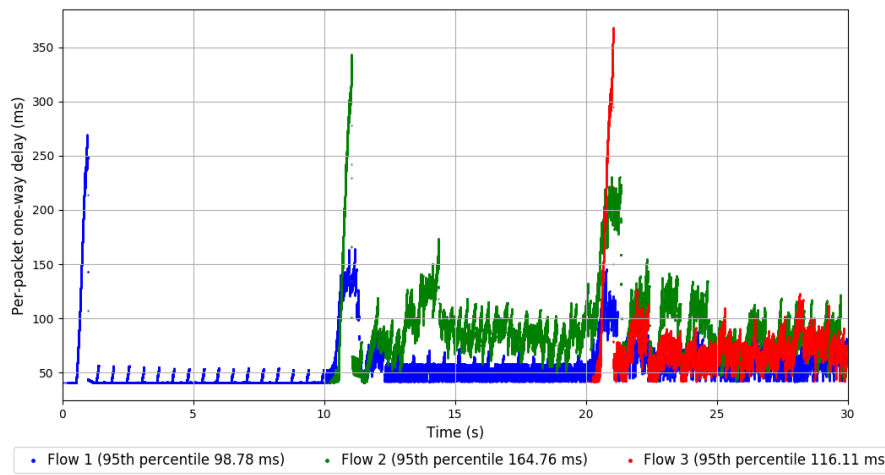
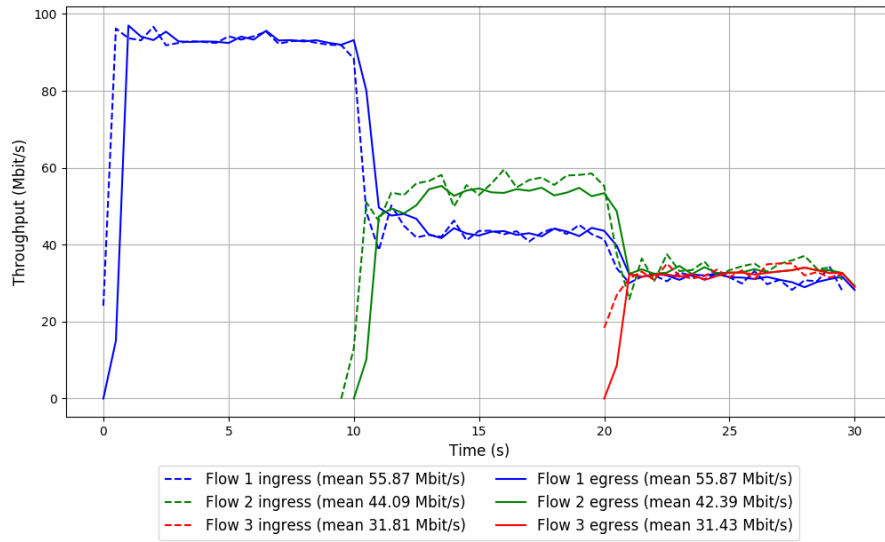


Run 5: Statistics of FillP

Start at: 2019-06-28 13:19:59  
End at: 2019-06-28 13:20:29  
Local clock offset: 3.949 ms  
Remote clock offset: -1.216 ms

```
# Below is generated by plot.py at 2019-06-28 13:52:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.50 Mbit/s
95th percentile per-packet one-way delay: 128.389 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 55.87 Mbit/s
95th percentile per-packet one-way delay: 98.776 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 42.39 Mbit/s
95th percentile per-packet one-way delay: 164.757 ms
Loss rate: 4.07%
-- Flow 3:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 116.110 ms
Loss rate: 1.78%
```

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





Run 1: Statistics of FillP-Sheep

Start at: 2019-06-28 11:40:10  
End at: 2019-06-28 11:40:40  
Local clock offset: -3.718 ms  
Remote clock offset: -5.465 ms

# Below is generated by plot.py at 2019-06-28 13:52:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.23 Mbit/s  
95th percentile per-packet one-way delay: 109.982 ms  
Loss rate: 0.52%

-- Flow 1:

Average throughput: 55.00 Mbit/s  
95th percentile per-packet one-way delay: 109.149 ms  
Loss rate: 0.22%

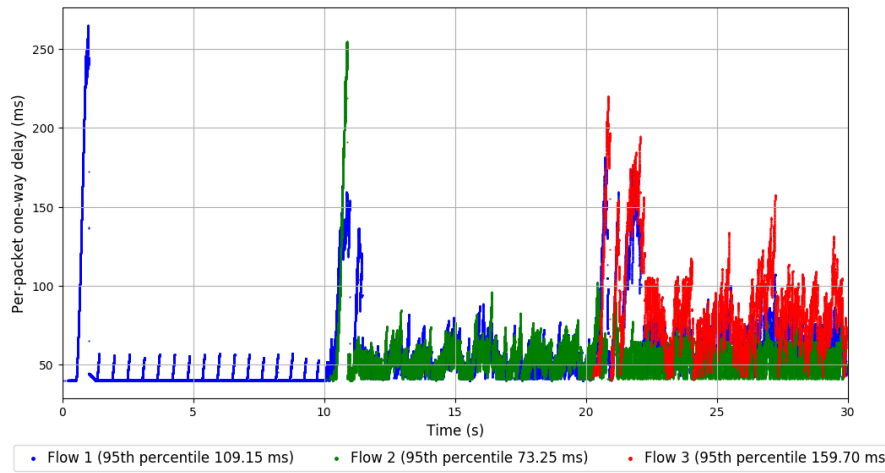
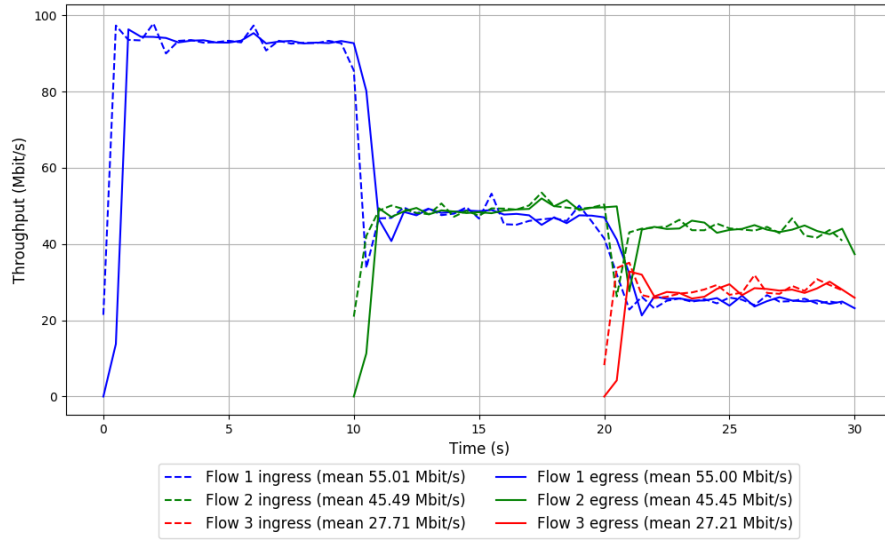
-- Flow 2:

Average throughput: 45.45 Mbit/s  
95th percentile per-packet one-way delay: 73.246 ms  
Loss rate: 0.45%

-- Flow 3:

Average throughput: 27.21 Mbit/s  
95th percentile per-packet one-way delay: 159.699 ms  
Loss rate: 2.50%

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

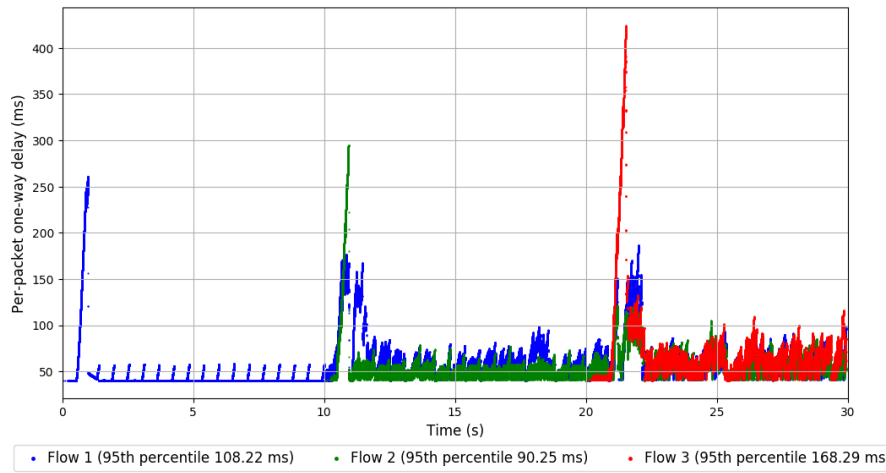
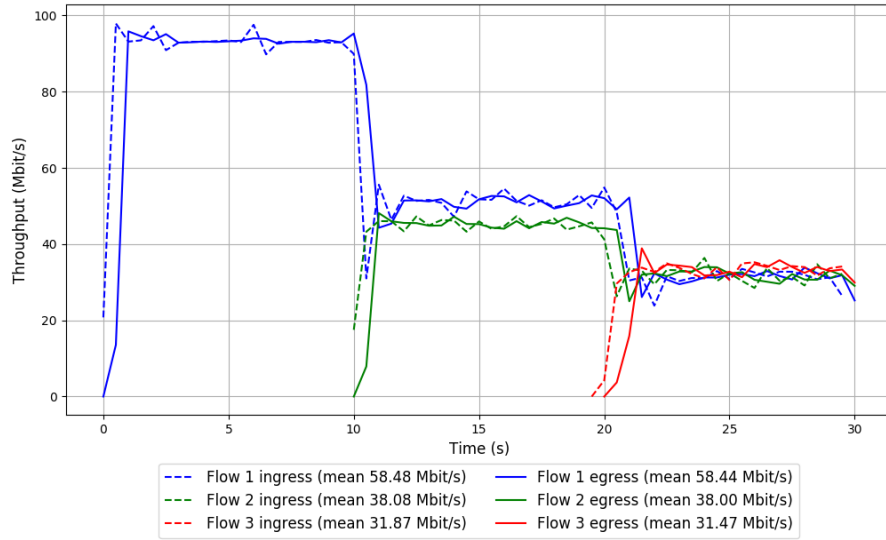


Run 2: Statistics of FillP-Sheep

Start at: 2019-06-28 12:07:15  
End at: 2019-06-28 12:07:45  
Local clock offset: -3.641 ms  
Remote clock offset: -3.165 ms

```
# Below is generated by plot.py at 2019-06-28 13:52:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.14 Mbit/s
95th percentile per-packet one-way delay: 105.127 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 58.44 Mbit/s
95th percentile per-packet one-way delay: 108.224 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 38.00 Mbit/s
95th percentile per-packet one-way delay: 90.254 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 168.287 ms
Loss rate: 1.91%
```

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

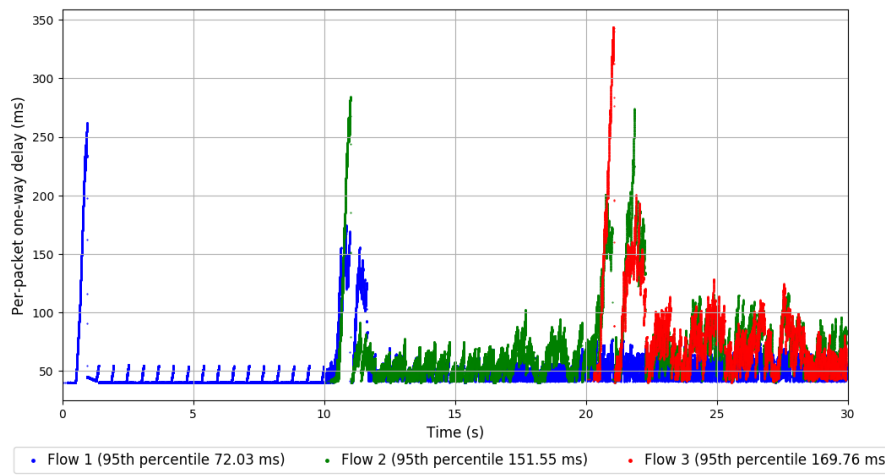
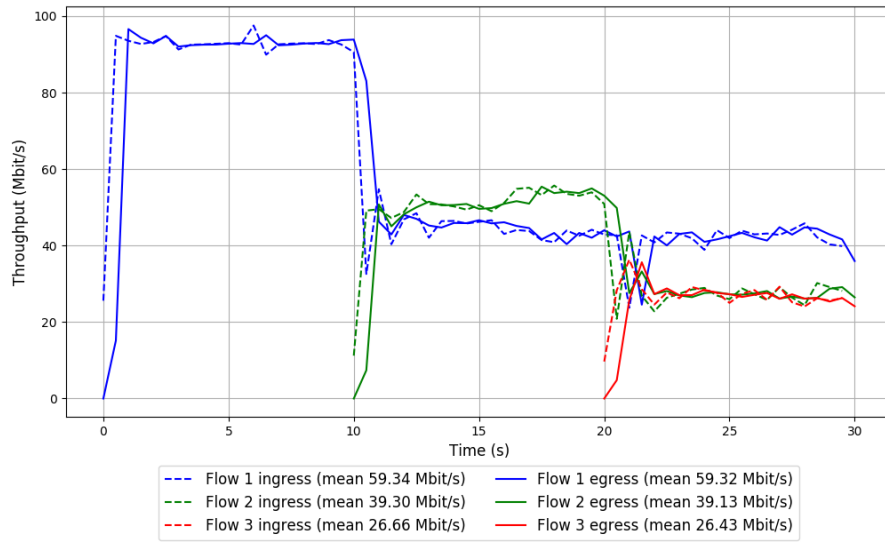


Run 3: Statistics of FillP-Sheep

Start at: 2019-06-28 12:34:19  
End at: 2019-06-28 12:34:49  
Local clock offset: 2.044 ms  
Remote clock offset: -1.946 ms

```
# Below is generated by plot.py at 2019-06-28 13:52:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.08 Mbit/s
95th percentile per-packet one-way delay: 117.056 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 59.32 Mbit/s
95th percentile per-packet one-way delay: 72.028 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 39.13 Mbit/s
95th percentile per-packet one-way delay: 151.546 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 26.43 Mbit/s
95th percentile per-packet one-way delay: 169.759 ms
Loss rate: 1.34%
```

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

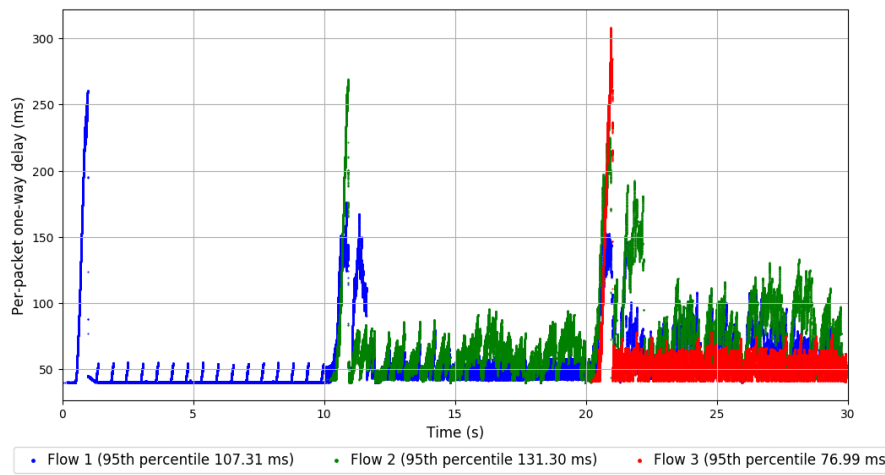
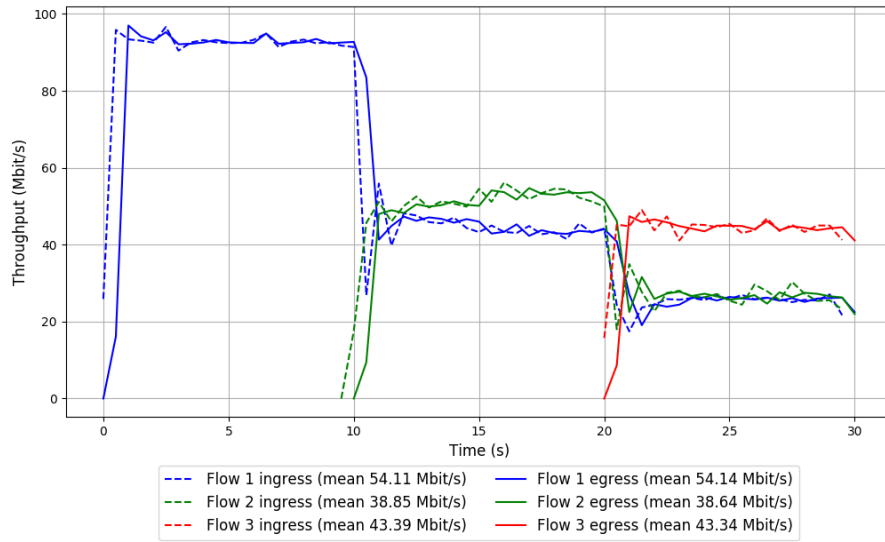


Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 13:01:27  
End at: 2019-06-28 13:01:57  
Local clock offset: 4.331 ms  
Remote clock offset: -1.356 ms

```
# Below is generated by plot.py at 2019-06-28 13:53:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.18 Mbit/s
95th percentile per-packet one-way delay: 114.584 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 54.14 Mbit/s
95th percentile per-packet one-way delay: 107.307 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 38.64 Mbit/s
95th percentile per-packet one-way delay: 131.300 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 43.34 Mbit/s
95th percentile per-packet one-way delay: 76.993 ms
Loss rate: 0.69%
```

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



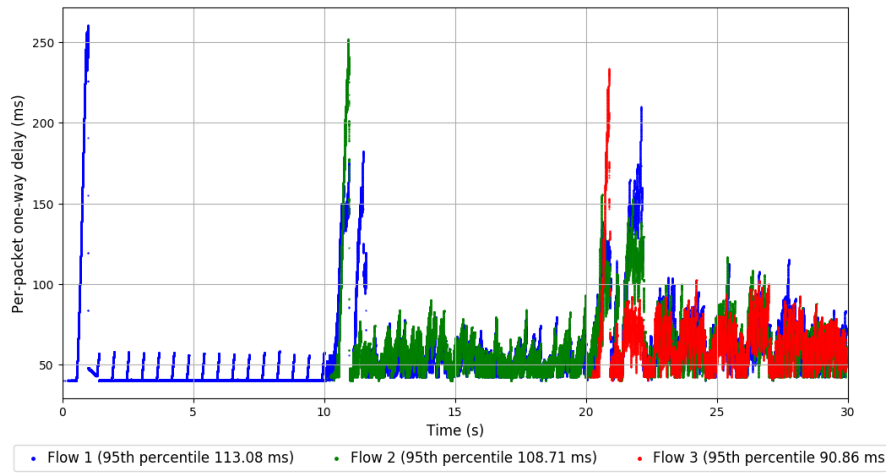
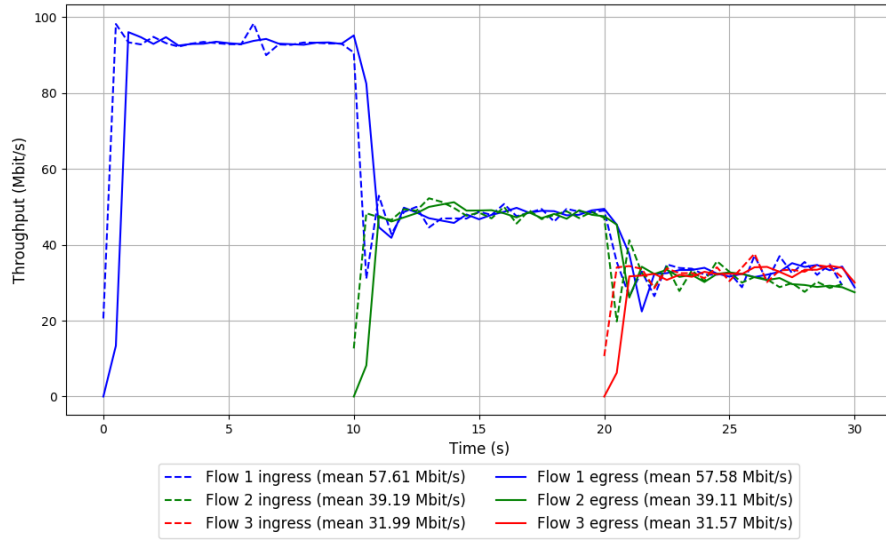


Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 13:28:51  
End at: 2019-06-28 13:29:21  
Local clock offset: 1.042 ms  
Remote clock offset: -1.389 ms

```
# Below is generated by plot.py at 2019-06-28 13:53:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.03 Mbit/s
95th percentile per-packet one-way delay: 108.211 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 57.58 Mbit/s
95th percentile per-packet one-way delay: 113.085 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 39.11 Mbit/s
95th percentile per-packet one-way delay: 108.708 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 90.857 ms
Loss rate: 2.07%
```

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-06-28 11:38:55

End at: 2019-06-28 11:39:25

Local clock offset: -3.58 ms

Remote clock offset: -5.59 ms

# Below is generated by plot.py at 2019-06-28 13:53:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.80 Mbit/s

95th percentile per-packet one-way delay: 51.287 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 59.05 Mbit/s

95th percentile per-packet one-way delay: 53.087 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 39.89 Mbit/s

95th percentile per-packet one-way delay: 48.662 ms

Loss rate: 0.27%

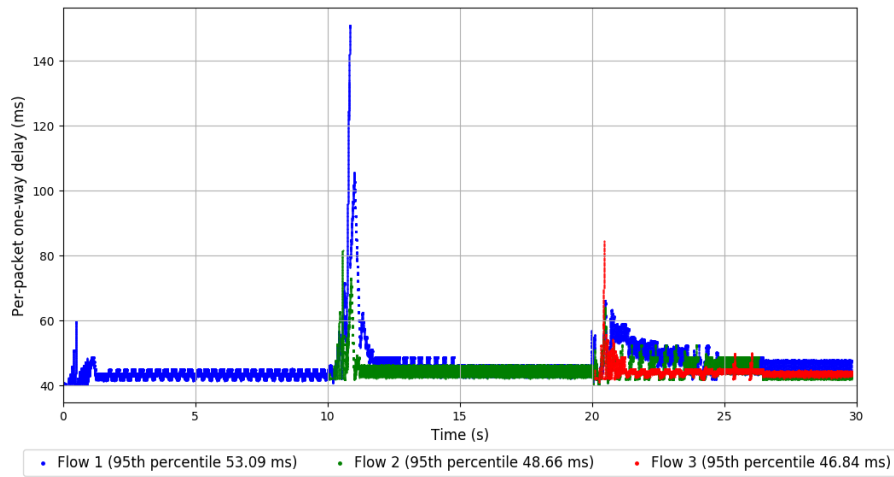
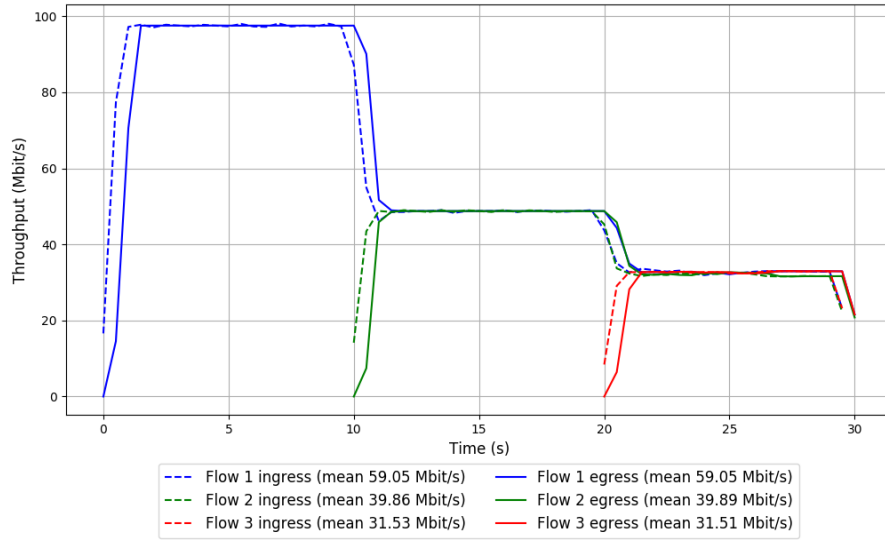
-- Flow 3:

Average throughput: 31.51 Mbit/s

95th percentile per-packet one-way delay: 46.836 ms

Loss rate: 0.73%

# Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-06-28 12:06:00  
End at: 2019-06-28 12:06:30  
Local clock offset: -3.62 ms  
Remote clock offset: -3.277 ms

# Below is generated by plot.py at 2019-06-28 13:53:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.78 Mbit/s  
95th percentile per-packet one-way delay: 52.070 ms  
Loss rate: 0.29%

-- Flow 1:

Average throughput: 58.92 Mbit/s  
95th percentile per-packet one-way delay: 53.268 ms  
Loss rate: 0.21%

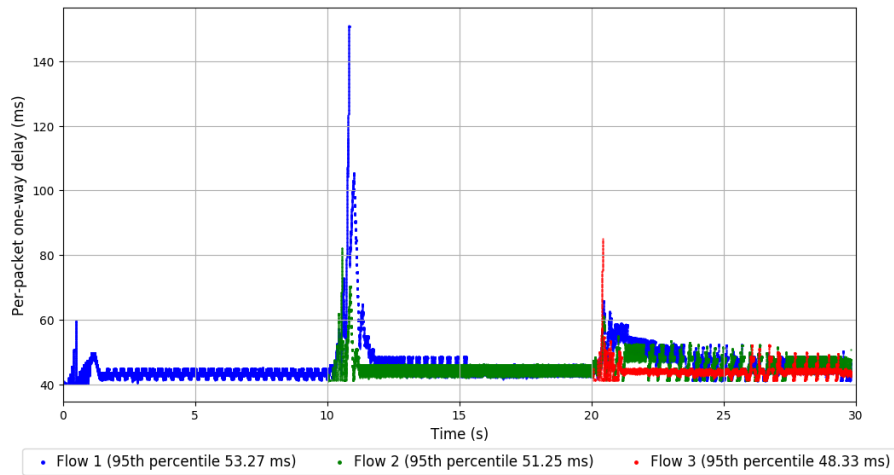
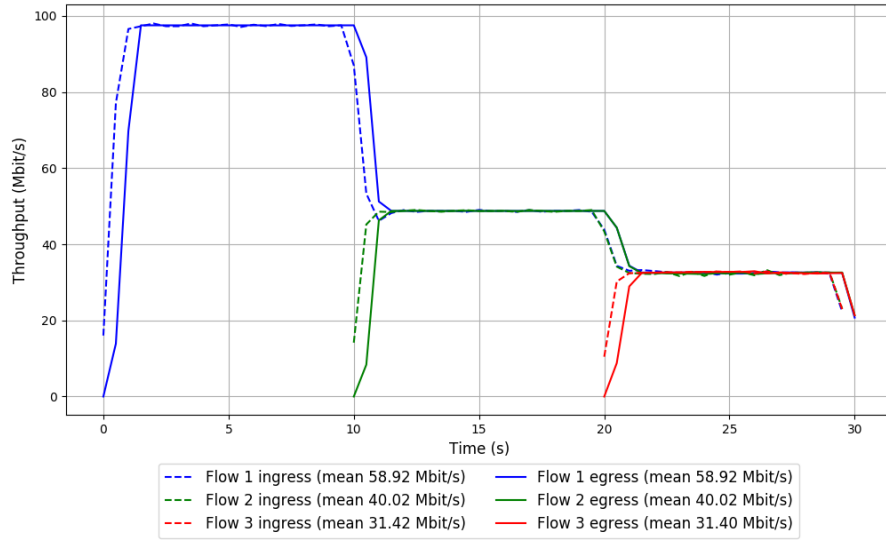
-- Flow 2:

Average throughput: 40.02 Mbit/s  
95th percentile per-packet one-way delay: 51.251 ms  
Loss rate: 0.30%

-- Flow 3:

Average throughput: 31.40 Mbit/s  
95th percentile per-packet one-way delay: 48.332 ms  
Loss rate: 0.73%

## Run 2: Report of Indigo — Data Link

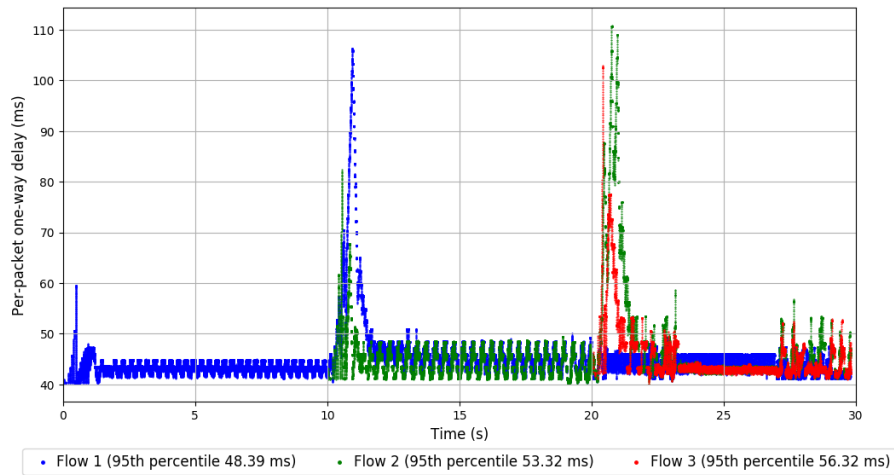
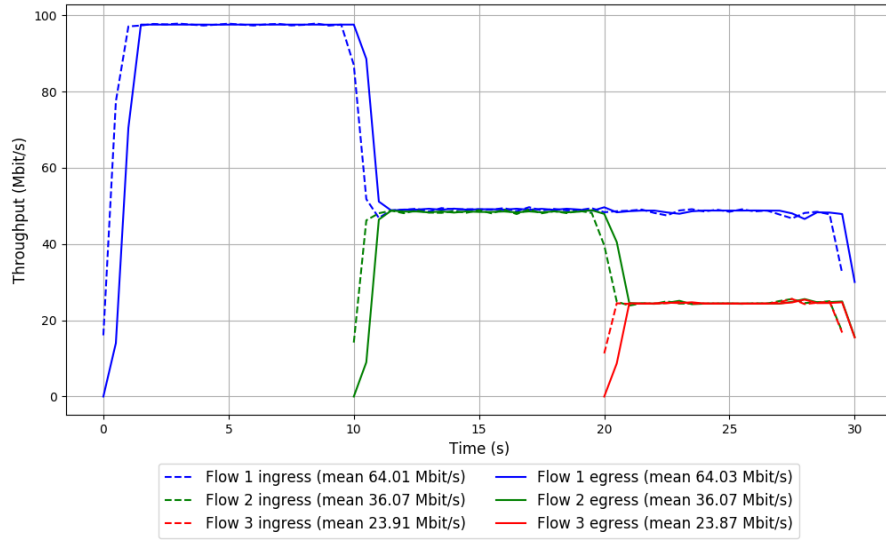


Run 3: Statistics of Indigo

Start at: 2019-06-28 12:33:04  
End at: 2019-06-28 12:33:34  
Local clock offset: 1.889 ms  
Remote clock offset: -2.032 ms

```
# Below is generated by plot.py at 2019-06-28 13:53:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 50.083 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 64.03 Mbit/s
95th percentile per-packet one-way delay: 48.393 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 36.07 Mbit/s
95th percentile per-packet one-way delay: 53.324 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 23.87 Mbit/s
95th percentile per-packet one-way delay: 56.318 ms
Loss rate: 0.82%
```

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





Run 4: Statistics of Indigo

Start at: 2019-06-28 13:00:11  
End at: 2019-06-28 13:00:41  
Local clock offset: 4.233 ms  
Remote clock offset: -1.361 ms

# Below is generated by plot.py at 2019-06-28 13:53:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.78 Mbit/s  
95th percentile per-packet one-way delay: 51.992 ms  
Loss rate: 0.28%

-- Flow 1:

Average throughput: 58.93 Mbit/s  
95th percentile per-packet one-way delay: 53.182 ms  
Loss rate: 0.21%

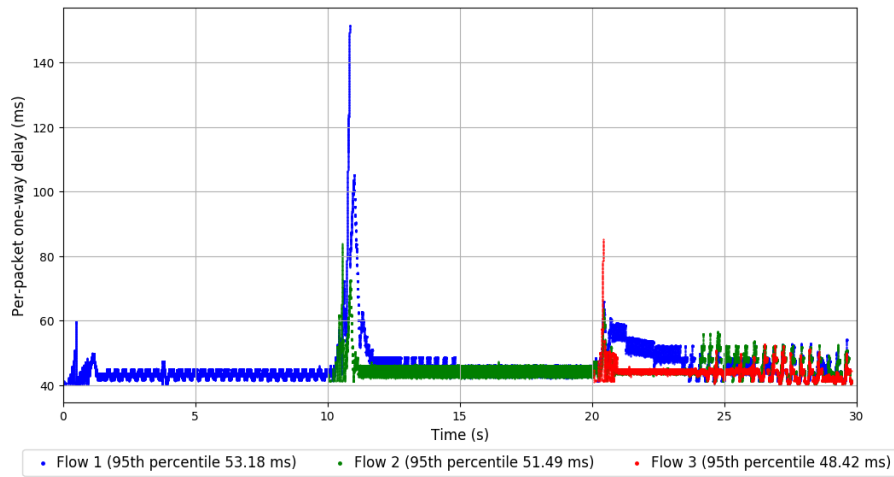
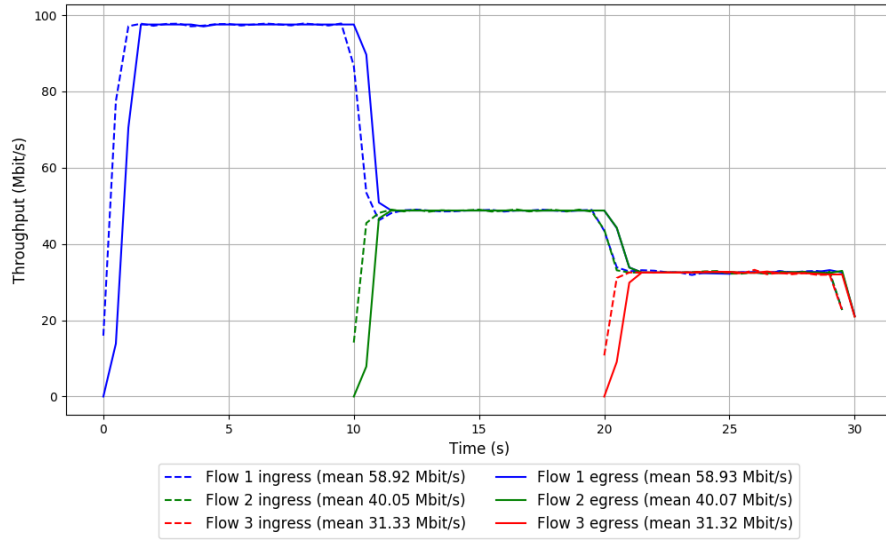
-- Flow 2:

Average throughput: 40.07 Mbit/s  
95th percentile per-packet one-way delay: 51.492 ms  
Loss rate: 0.29%

-- Flow 3:

Average throughput: 31.32 Mbit/s  
95th percentile per-packet one-way delay: 48.425 ms  
Loss rate: 0.70%

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



Run 5: Statistics of Indigo

Start at: 2019-06-28 13:27:36

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

Local clock offset: 1.364 ms

Remote clock offset: -1.46 ms

# Below is generated by plot.py at 2019-06-28 13:53:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.78 Mbit/s

95th percentile per-packet one-way delay: 52.338 ms

Loss rate: 0.32%

-- Flow 1:

Average throughput: 59.07 Mbit/s

95th percentile per-packet one-way delay: 53.210 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 39.89 Mbit/s

95th percentile per-packet one-way delay: 52.264 ms

Loss rate: 0.29%

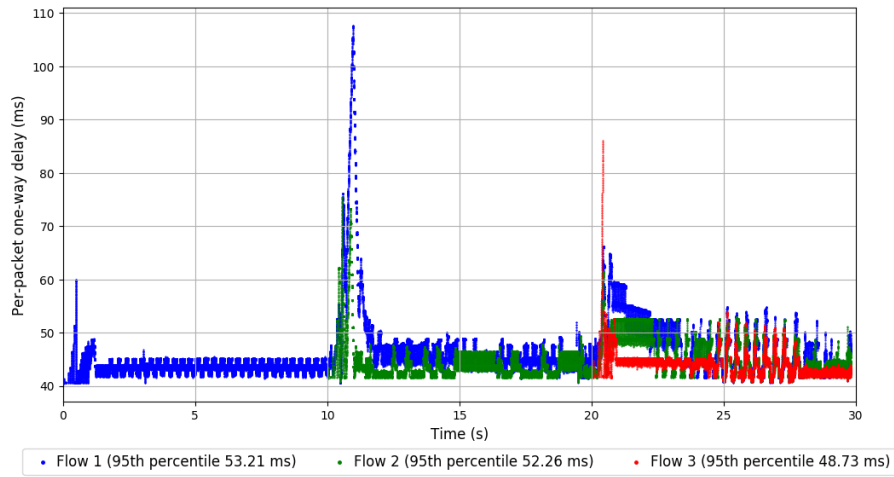
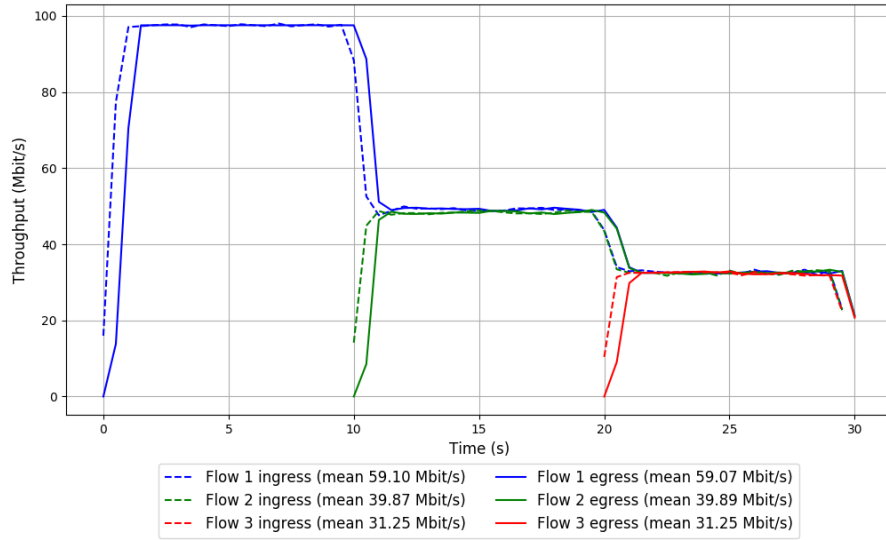
-- Flow 3:

Average throughput: 31.25 Mbit/s

95th percentile per-packet one-way delay: 48.725 ms

Loss rate: 0.70%

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



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-28 11:37:41  
End at: 2019-06-28 11:38:11  
Local clock offset: -3.508 ms  
Remote clock offset: -5.645 ms

# Below is generated by plot.py at 2019-06-28 13:53:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.40 Mbit/s  
95th percentile per-packet one-way delay: 62.136 ms  
Loss rate: 0.43%

-- Flow 1:

Average throughput: 60.84 Mbit/s  
95th percentile per-packet one-way delay: 63.732 ms  
Loss rate: 0.19%

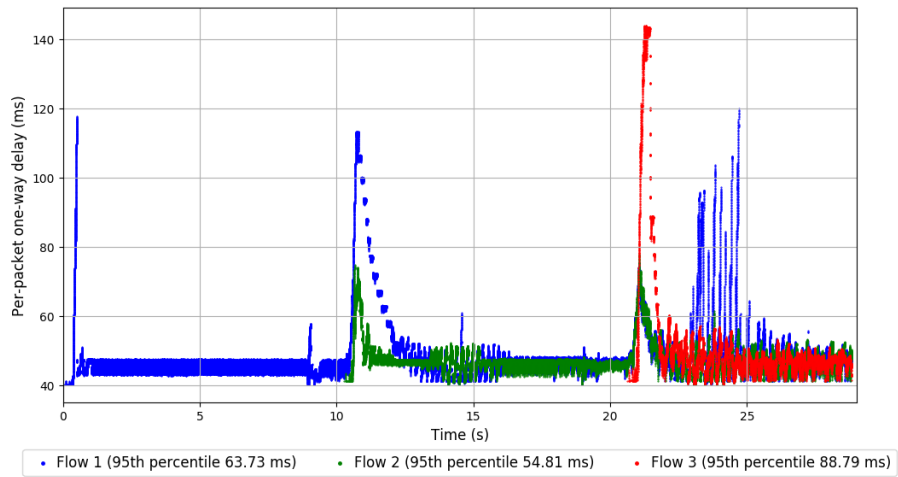
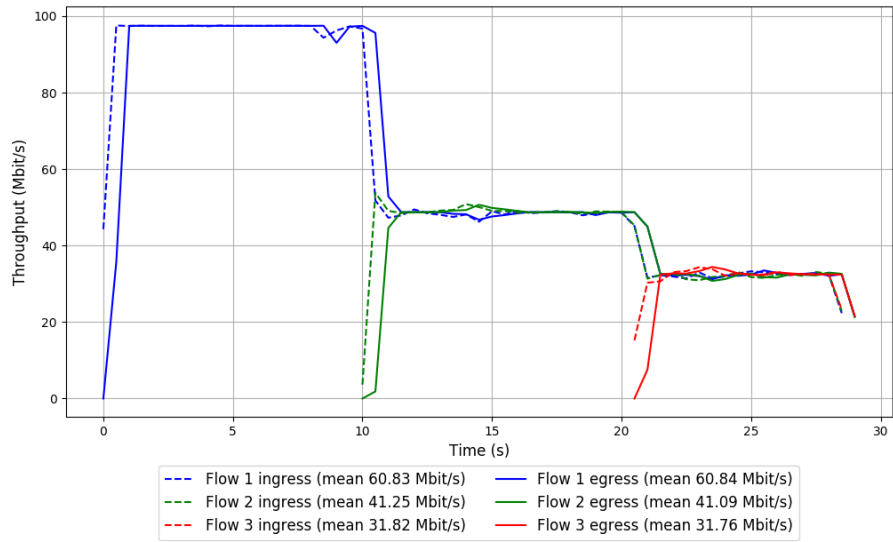
-- Flow 2:

Average throughput: 41.09 Mbit/s  
95th percentile per-packet one-way delay: 54.814 ms  
Loss rate: 0.75%

-- Flow 3:

Average throughput: 31.76 Mbit/s  
95th percentile per-packet one-way delay: 88.794 ms  
Loss rate: 1.01%

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

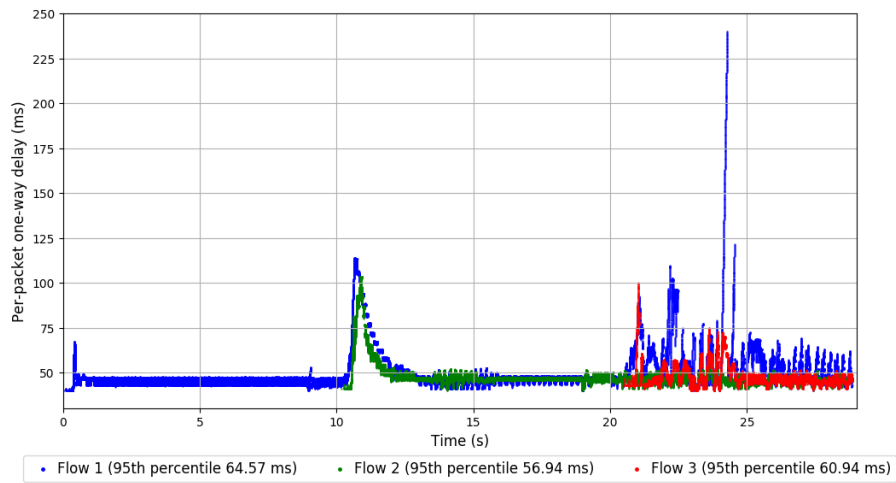
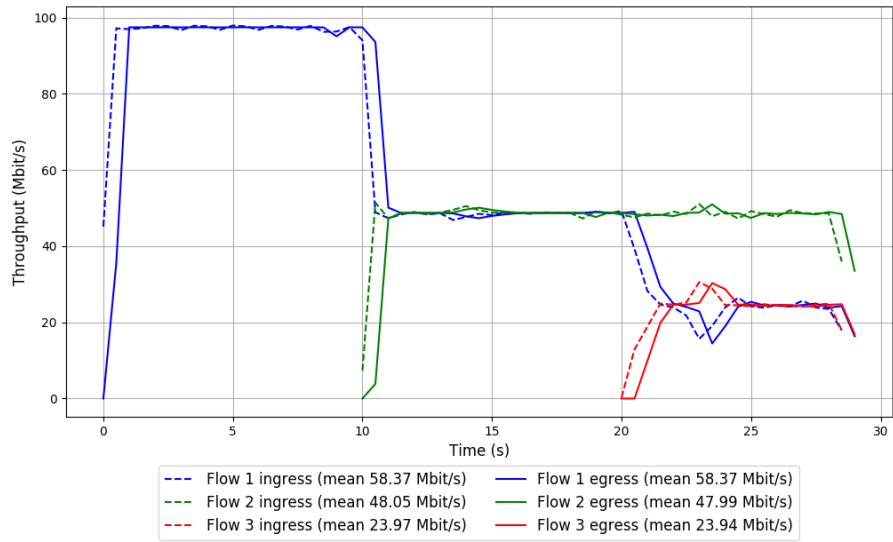


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-28 12:04:46  
End at: 2019-06-28 12:05:16  
Local clock offset: -3.603 ms  
Remote clock offset: -3.391 ms

```
# Below is generated by plot.py at 2019-06-28 13:54:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.41 Mbit/s
95th percentile per-packet one-way delay: 62.542 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 58.37 Mbit/s
95th percentile per-packet one-way delay: 64.566 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 47.99 Mbit/s
95th percentile per-packet one-way delay: 56.942 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 23.94 Mbit/s
95th percentile per-packet one-way delay: 60.942 ms
Loss rate: 0.93%
```

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





Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-28 12:31:50  
End at: 2019-06-28 12:32:20  
Local clock offset: 1.654 ms  
Remote clock offset: -2.031 ms

# Below is generated by plot.py at 2019-06-28 13:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.37 Mbit/s  
95th percentile per-packet one-way delay: 67.477 ms  
Loss rate: 0.37%

-- Flow 1:

Average throughput: 58.59 Mbit/s  
95th percentile per-packet one-way delay: 63.944 ms  
Loss rate: 0.23%

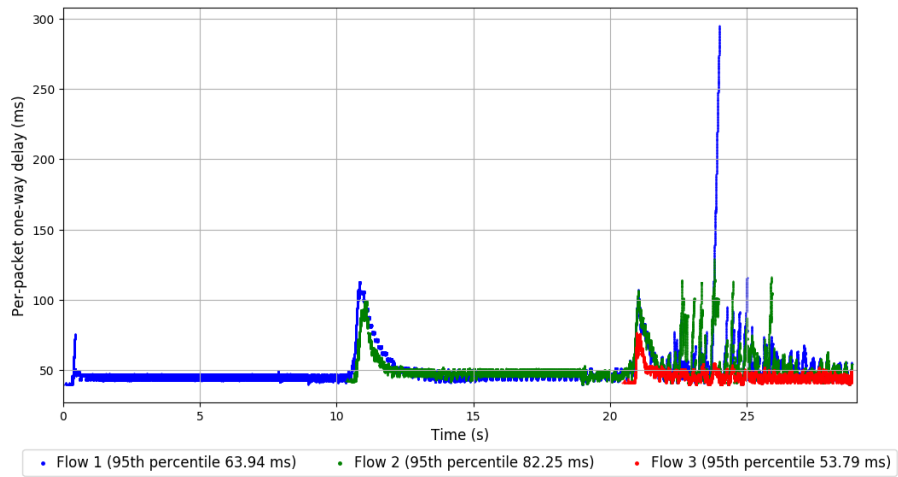
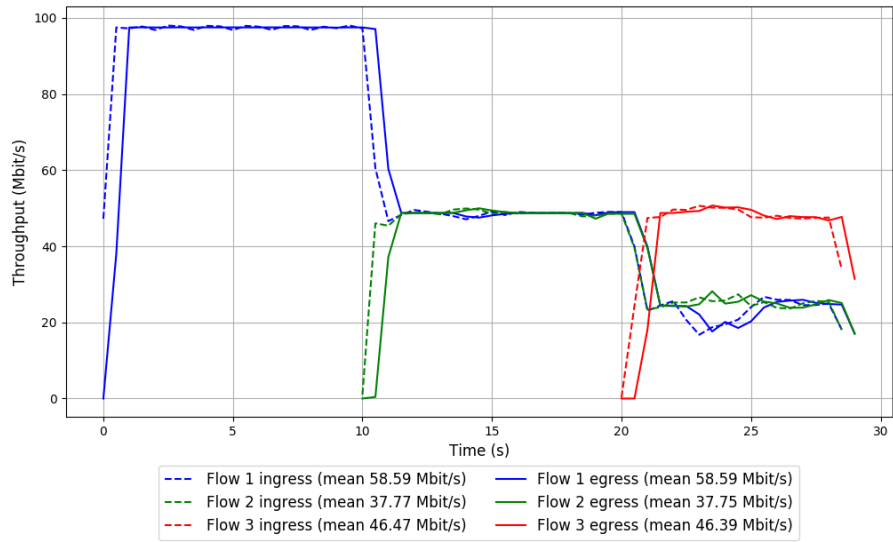
-- Flow 2:

Average throughput: 37.75 Mbit/s  
95th percentile per-packet one-way delay: 82.251 ms  
Loss rate: 0.40%

-- Flow 3:

Average throughput: 46.39 Mbit/s  
95th percentile per-packet one-way delay: 53.792 ms  
Loss rate: 0.94%

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



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 12:58:57  
End at: 2019-06-28 12:59:27  
Local clock offset: 4.164 ms  
Remote clock offset: -1.427 ms

# Below is generated by plot.py at 2019-06-28 13:54:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.39 Mbit/s  
95th percentile per-packet one-way delay: 73.095 ms  
Loss rate: 0.39%

-- Flow 1:

Average throughput: 58.67 Mbit/s  
95th percentile per-packet one-way delay: 66.226 ms  
Loss rate: 0.21%

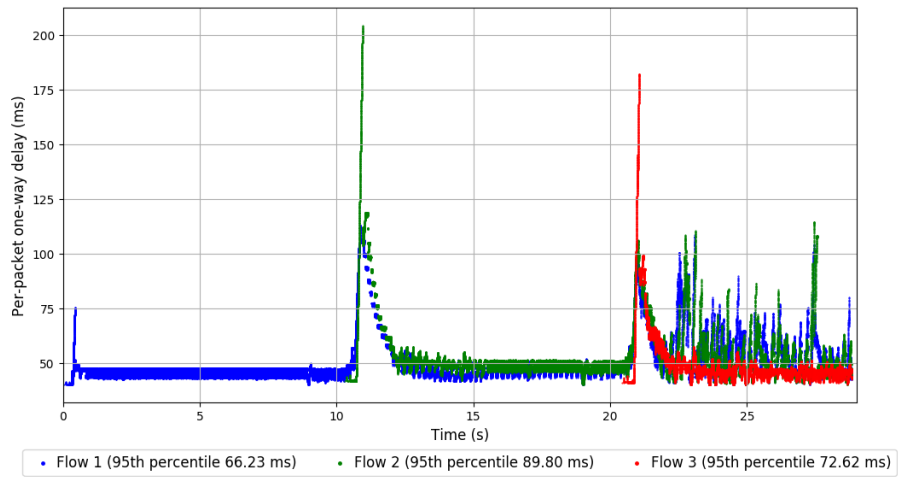
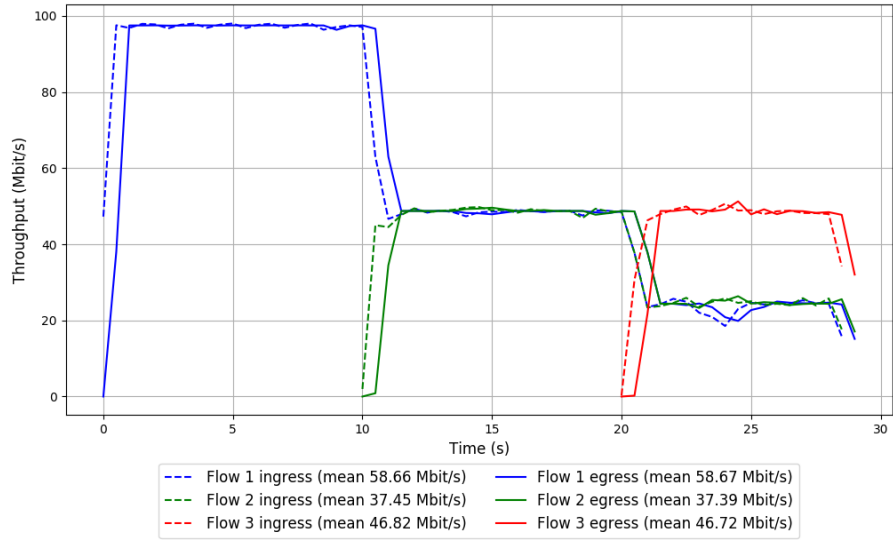
-- Flow 2:

Average throughput: 37.39 Mbit/s  
95th percentile per-packet one-way delay: 89.799 ms  
Loss rate: 0.50%

-- Flow 3:

Average throughput: 46.72 Mbit/s  
95th percentile per-packet one-way delay: 72.625 ms  
Loss rate: 0.99%

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

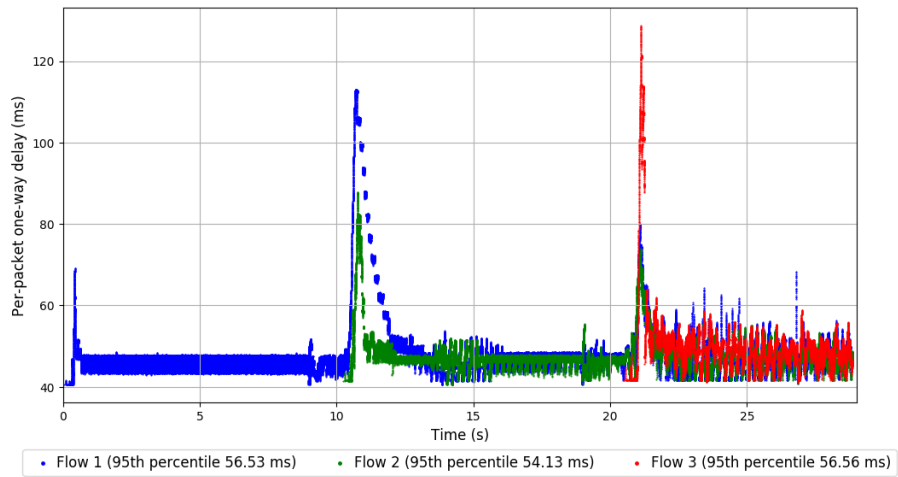
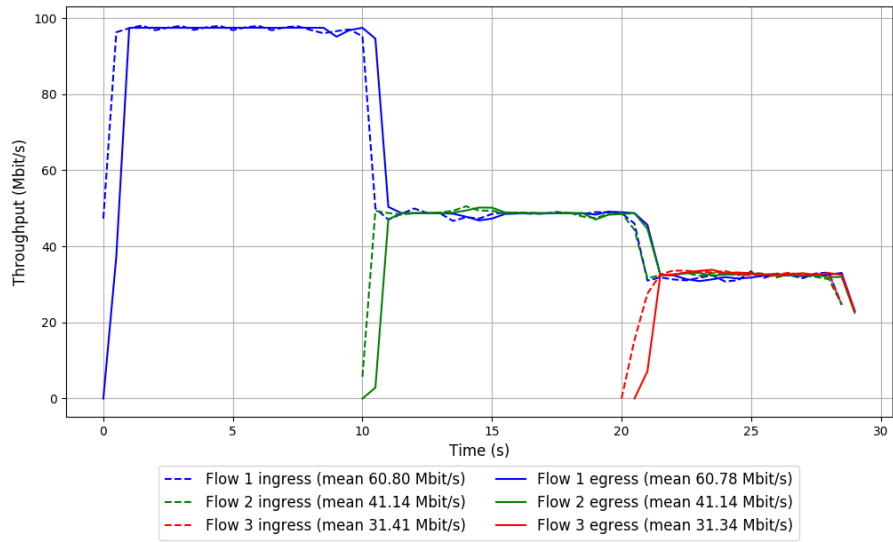


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 13:26:21  
End at: 2019-06-28 13:26:51  
Local clock offset: 1.661 ms  
Remote clock offset: -1.426 ms

```
# Below is generated by plot.py at 2019-06-28 13:54:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 55.694 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 60.78 Mbit/s
95th percentile per-packet one-way delay: 56.534 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 54.131 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 31.34 Mbit/s
95th percentile per-packet one-way delay: 56.565 ms
Loss rate: 1.04%
```

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

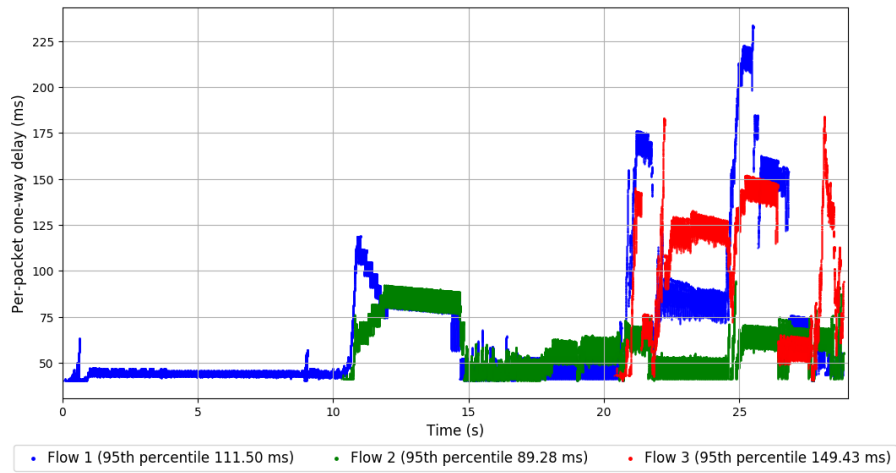
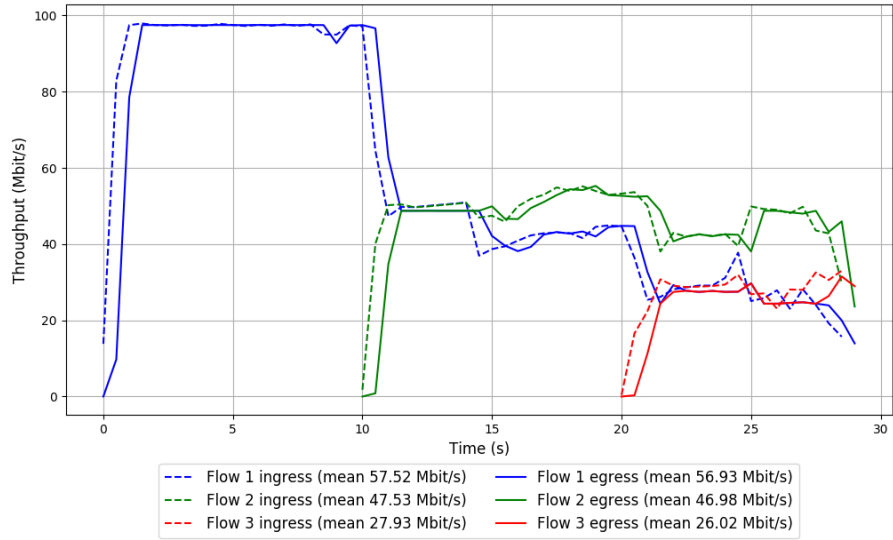


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-28 11:30:12  
End at: 2019-06-28 11:30:42  
Local clock offset: -2.809 ms  
Remote clock offset: -6.088 ms

```
# Below is generated by plot.py at 2019-06-28 13:54:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 128.370 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 56.93 Mbit/s
95th percentile per-packet one-way delay: 111.503 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 46.98 Mbit/s
95th percentile per-packet one-way delay: 89.275 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 26.02 Mbit/s
95th percentile per-packet one-way delay: 149.430 ms
Loss rate: 7.58%
```

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



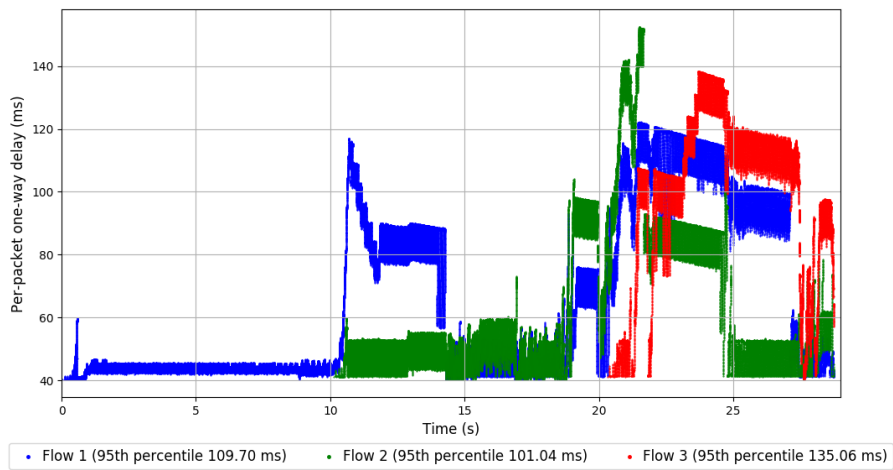
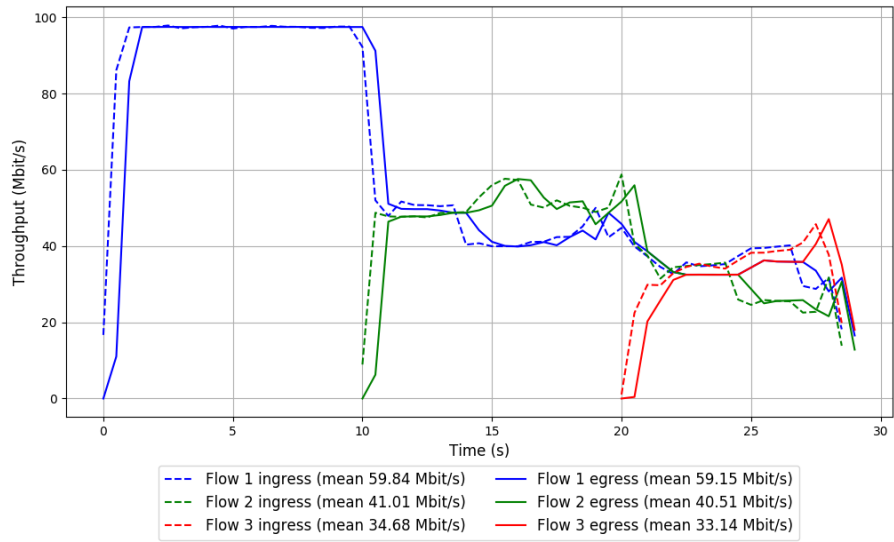


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-28 11:57:16  
End at: 2019-06-28 11:57:46  
Local clock offset: -3.599 ms  
Remote clock offset: -3.888 ms

```
# Below is generated by plot.py at 2019-06-28 13:54:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.17 Mbit/s
95th percentile per-packet one-way delay: 116.510 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 59.15 Mbit/s
95th percentile per-packet one-way delay: 109.700 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 40.51 Mbit/s
95th percentile per-packet one-way delay: 101.037 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 33.14 Mbit/s
95th percentile per-packet one-way delay: 135.056 ms
Loss rate: 5.14%
```

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

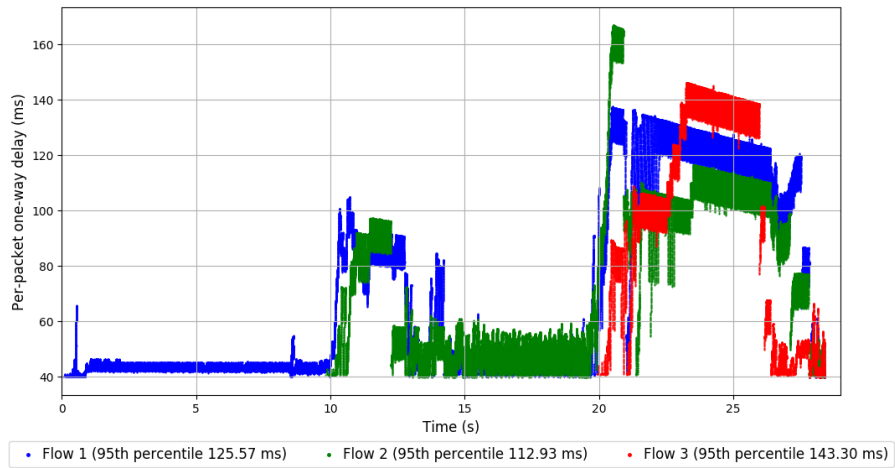
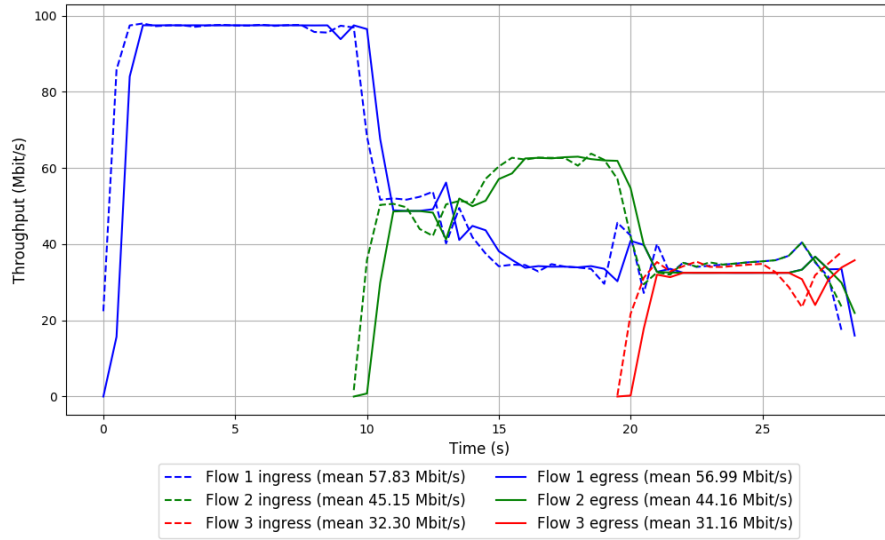


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-28 12:24:20  
End at: 2019-06-28 12:24:50  
Local clock offset: -0.408 ms  
Remote clock offset: -2.161 ms

```
# Below is generated by plot.py at 2019-06-28 13:55:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 130.748 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 125.570 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 44.16 Mbit/s
95th percentile per-packet one-way delay: 112.933 ms
Loss rate: 2.53%
-- Flow 3:
Average throughput: 31.16 Mbit/s
95th percentile per-packet one-way delay: 143.297 ms
Loss rate: 4.26%
```

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

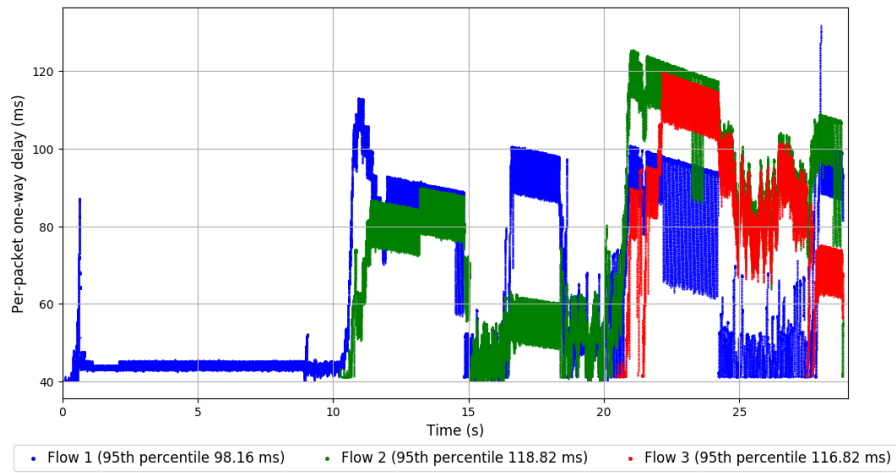
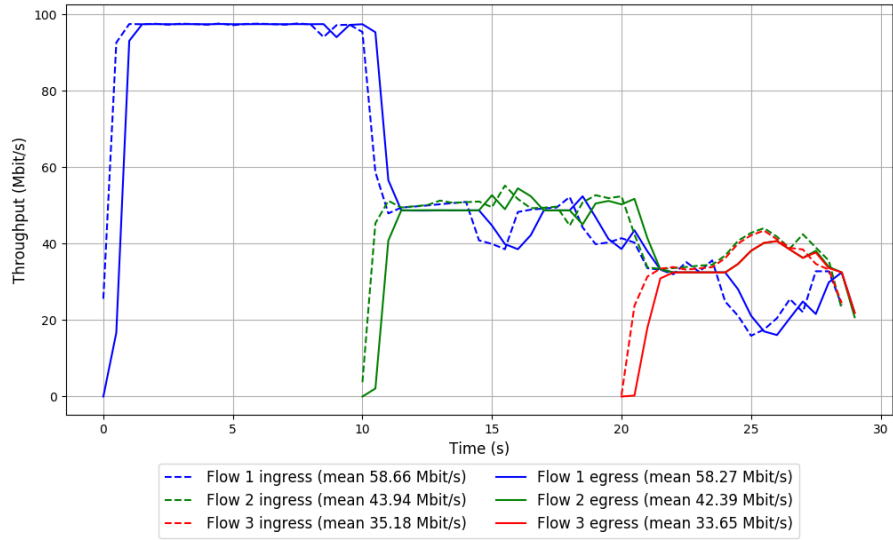


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 12:51:25  
End at: 2019-06-28 12:51:55  
Local clock offset: 3.709 ms  
Remote clock offset: -1.624 ms

```
# Below is generated by plot.py at 2019-06-28 13:55:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.51 Mbit/s
95th percentile per-packet one-way delay: 111.103 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 58.27 Mbit/s
95th percentile per-packet one-way delay: 98.157 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 42.39 Mbit/s
95th percentile per-packet one-way delay: 118.818 ms
Loss rate: 3.86%
-- Flow 3:
Average throughput: 33.65 Mbit/s
95th percentile per-packet one-way delay: 116.823 ms
Loss rate: 5.10%
```

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

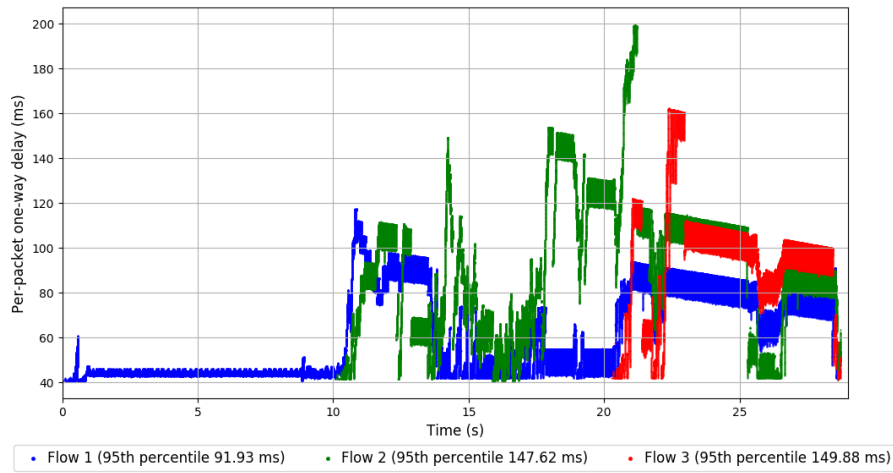
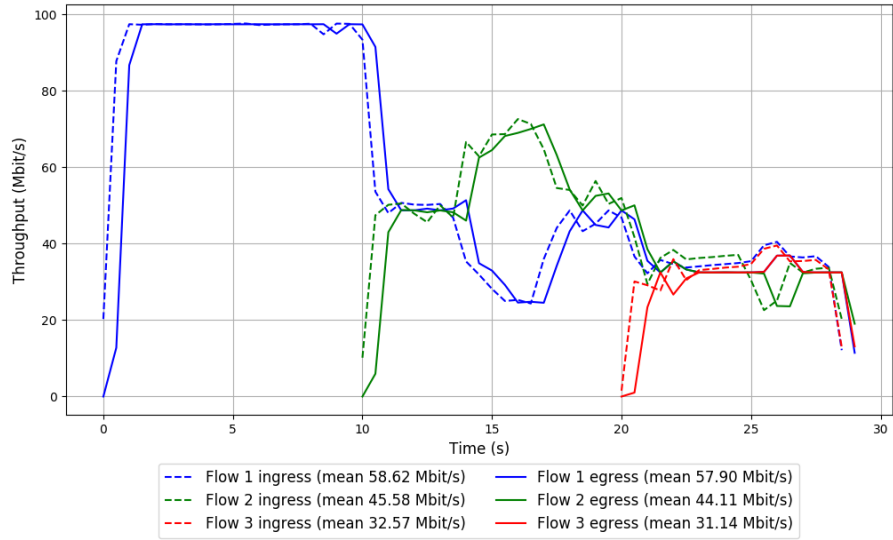


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 13:18:45  
End at: 2019-06-28 13:19:15  
Local clock offset: 4.658 ms  
Remote clock offset: -1.232 ms

```
# Below is generated by plot.py at 2019-06-28 13:55:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 123.983 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 57.90 Mbit/s
95th percentile per-packet one-way delay: 91.931 ms
Loss rate: 1.41%
-- Flow 2:
Average throughput: 44.11 Mbit/s
95th percentile per-packet one-way delay: 147.621 ms
Loss rate: 3.46%
-- Flow 3:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 149.880 ms
Loss rate: 5.12%
```

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



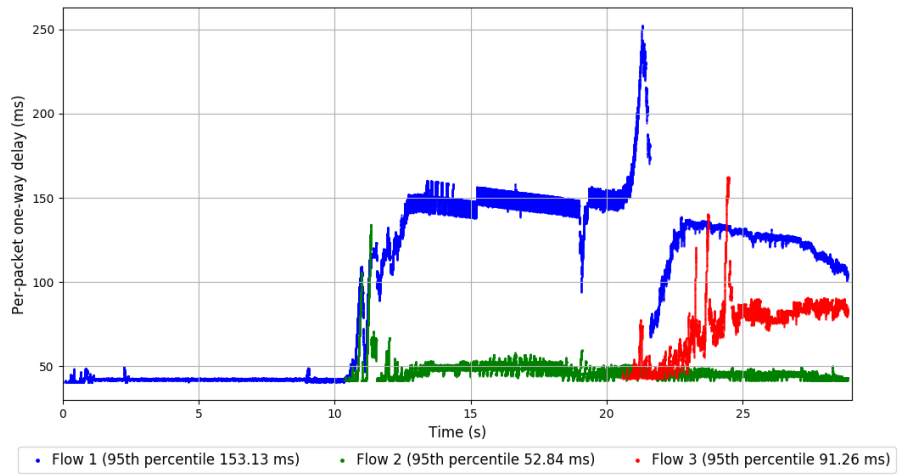
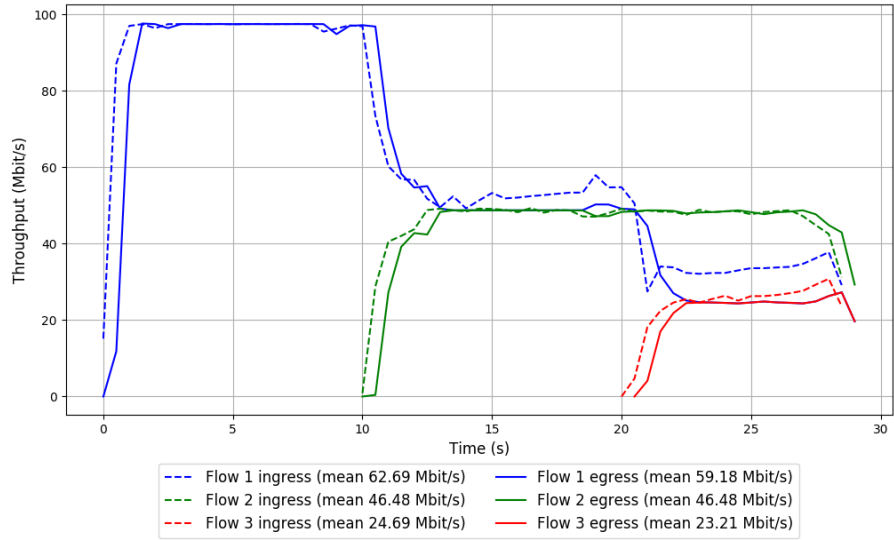


Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-28 11:43:47  
End at: 2019-06-28 11:44:17  
Local clock offset: -3.953 ms  
Remote clock offset: -5.105 ms

# Below is generated by plot.py at 2019-06-28 13:55:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.76 Mbit/s  
95th percentile per-packet one-way delay: 151.036 ms  
Loss rate: 4.23%  
-- Flow 1:  
Average throughput: 59.18 Mbit/s  
95th percentile per-packet one-way delay: 153.129 ms  
Loss rate: 5.80%  
-- Flow 2:  
Average throughput: 46.48 Mbit/s  
95th percentile per-packet one-way delay: 52.841 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 23.21 Mbit/s  
95th percentile per-packet one-way delay: 91.260 ms  
Loss rate: 6.71%

Run 1: Report of Indigo-MusesD — Data Link

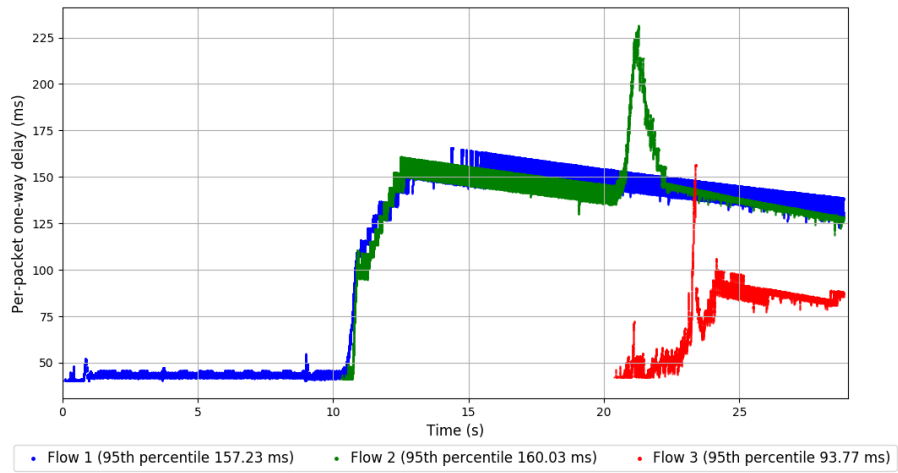
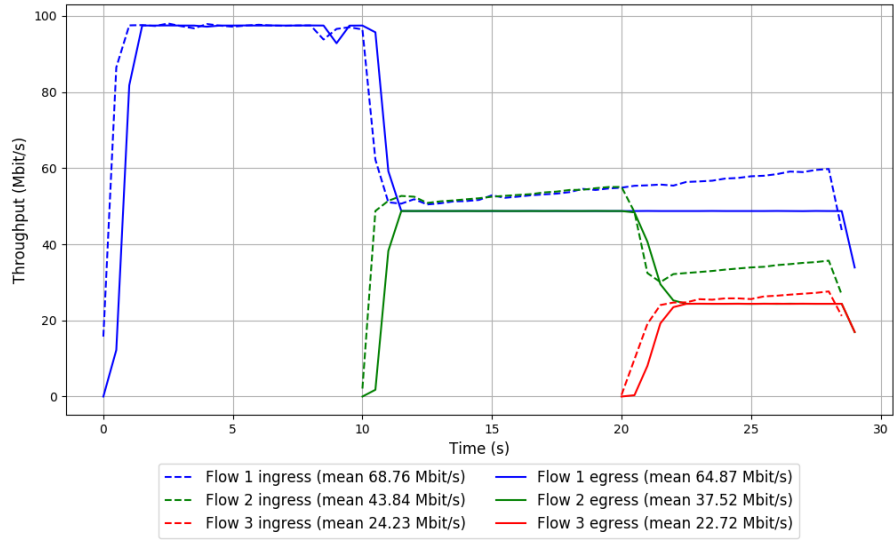


Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-28 12:10:52  
End at: 2019-06-28 12:11:22  
Local clock offset: -3.708 ms  
Remote clock offset: -2.998 ms

```
# Below is generated by plot.py at 2019-06-28 13:55:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 157.668 ms
Loss rate: 8.33%
-- Flow 1:
Average throughput: 64.87 Mbit/s
95th percentile per-packet one-way delay: 157.232 ms
Loss rate: 5.84%
-- Flow 2:
Average throughput: 37.52 Mbit/s
95th percentile per-packet one-way delay: 160.031 ms
Loss rate: 14.73%
-- Flow 3:
Average throughput: 22.72 Mbit/s
95th percentile per-packet one-way delay: 93.765 ms
Loss rate: 6.94%
```

Run 2: Report of Indigo-MusesD — Data Link

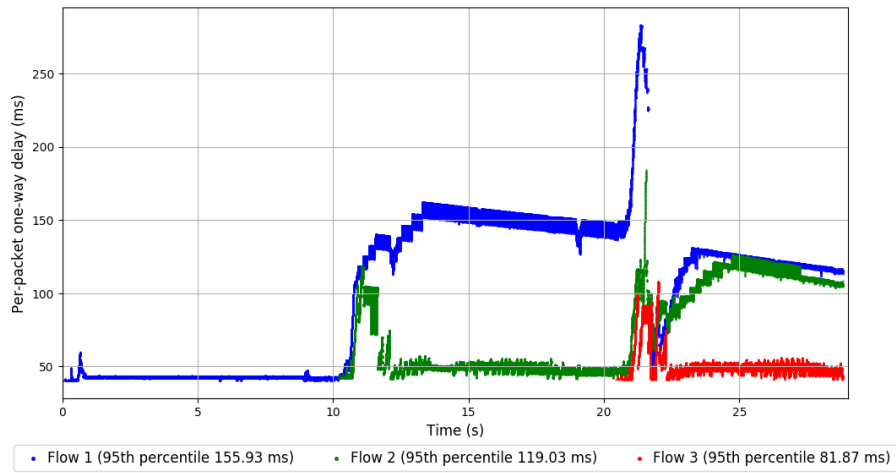
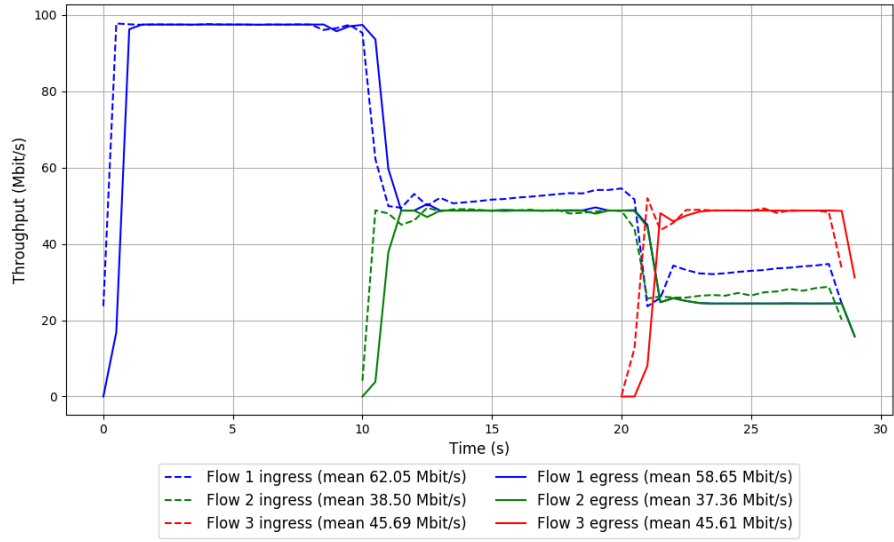


Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 12:37:55  
End at: 2019-06-28 12:38:25  
Local clock offset: 2.595 ms  
Remote clock offset: -1.805 ms

```
# Below is generated by plot.py at 2019-06-28 13:55:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.13 Mbit/s
95th percentile per-packet one-way delay: 153.302 ms
Loss rate: 4.47%
-- Flow 1:
Average throughput: 58.65 Mbit/s
95th percentile per-packet one-way delay: 155.929 ms
Loss rate: 5.69%
-- Flow 2:
Average throughput: 37.36 Mbit/s
95th percentile per-packet one-way delay: 119.025 ms
Loss rate: 3.30%
-- Flow 3:
Average throughput: 45.61 Mbit/s
95th percentile per-packet one-way delay: 81.866 ms
Loss rate: 0.96%
```

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

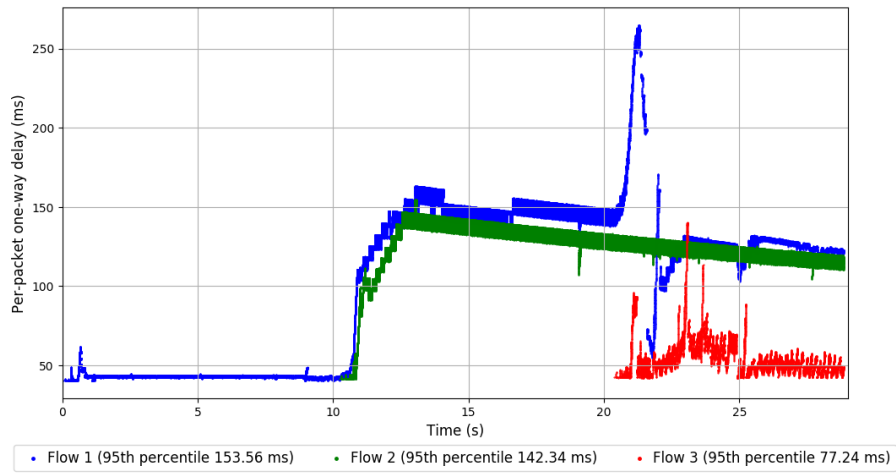
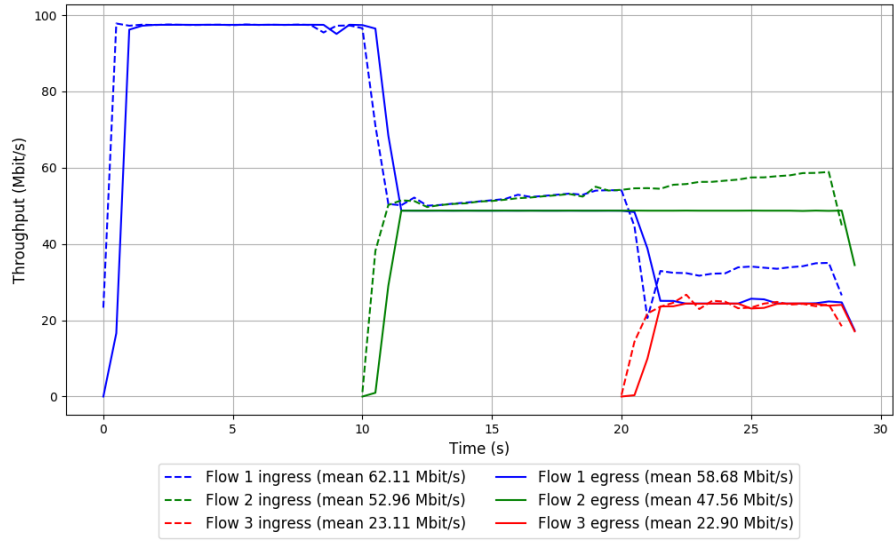


Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 13:05:05  
End at: 2019-06-28 13:05:35  
Local clock offset: 4.528 ms  
Remote clock offset: -1.274 ms

```
# Below is generated by plot.py at 2019-06-28 13:56:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.13 Mbit/s
95th percentile per-packet one-way delay: 150.918 ms
Loss rate: 7.05%
-- Flow 1:
Average throughput: 58.68 Mbit/s
95th percentile per-packet one-way delay: 153.557 ms
Loss rate: 5.74%
-- Flow 2:
Average throughput: 47.56 Mbit/s
95th percentile per-packet one-way delay: 142.335 ms
Loss rate: 10.52%
-- Flow 3:
Average throughput: 22.90 Mbit/s
95th percentile per-packet one-way delay: 77.237 ms
Loss rate: 1.66%
```

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



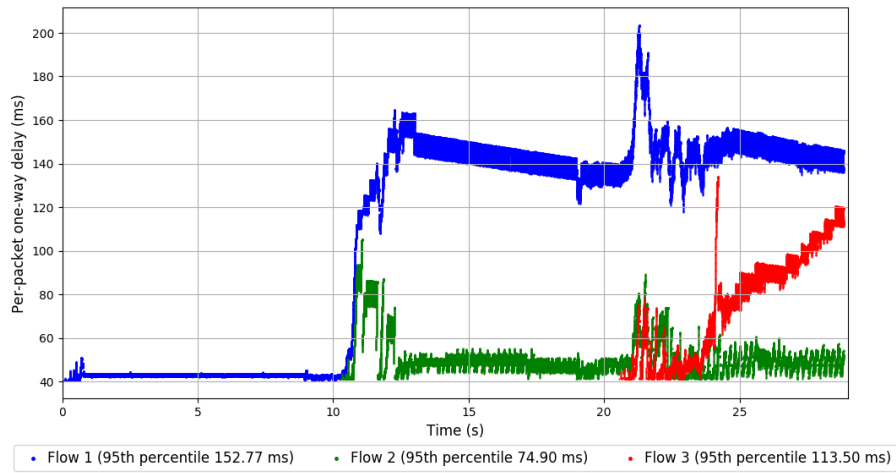
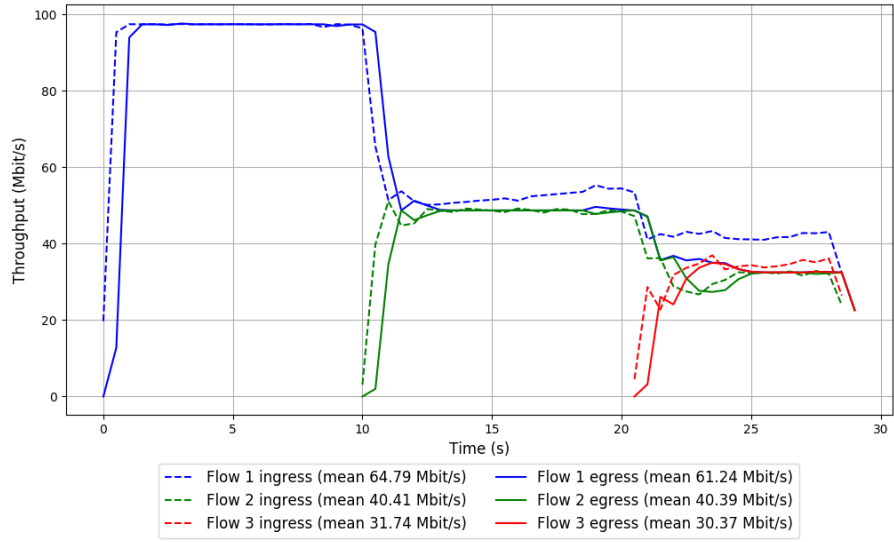


Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 13:32:27  
End at: 2019-06-28 13:32:57  
Local clock offset: 0.419 ms  
Remote clock offset: -1.377 ms

```
# Below is generated by plot.py at 2019-06-28 13:56:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 150.705 ms
Loss rate: 4.26%
-- Flow 1:
Average throughput: 61.24 Mbit/s
95th percentile per-packet one-way delay: 152.767 ms
Loss rate: 5.70%
-- Flow 2:
Average throughput: 40.39 Mbit/s
95th percentile per-packet one-way delay: 74.903 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 113.502 ms
Loss rate: 5.07%
```

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

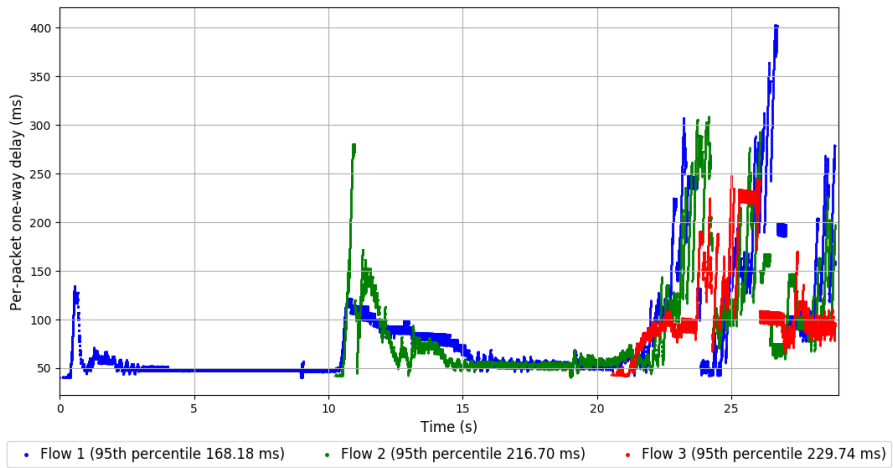
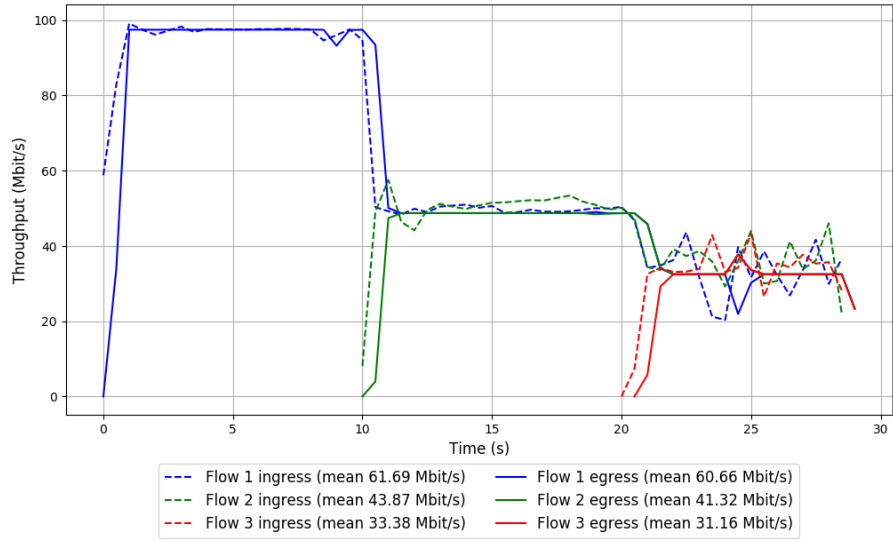


Run 1: Statistics of Indigo-MuseST

Start at: 2019-06-28 11:45:01  
End at: 2019-06-28 11:45:31  
Local clock offset: -4.047 ms  
Remote clock offset: -4.888 ms

```
# Below is generated by plot.py at 2019-06-28 13:56:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.42 Mbit/s
95th percentile per-packet one-way delay: 199.201 ms
Loss rate: 3.60%
-- Flow 1:
Average throughput: 60.66 Mbit/s
95th percentile per-packet one-way delay: 168.179 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 41.32 Mbit/s
95th percentile per-packet one-way delay: 216.696 ms
Loss rate: 6.05%
-- Flow 3:
Average throughput: 31.16 Mbit/s
95th percentile per-packet one-way delay: 229.744 ms
Loss rate: 7.40%
```

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

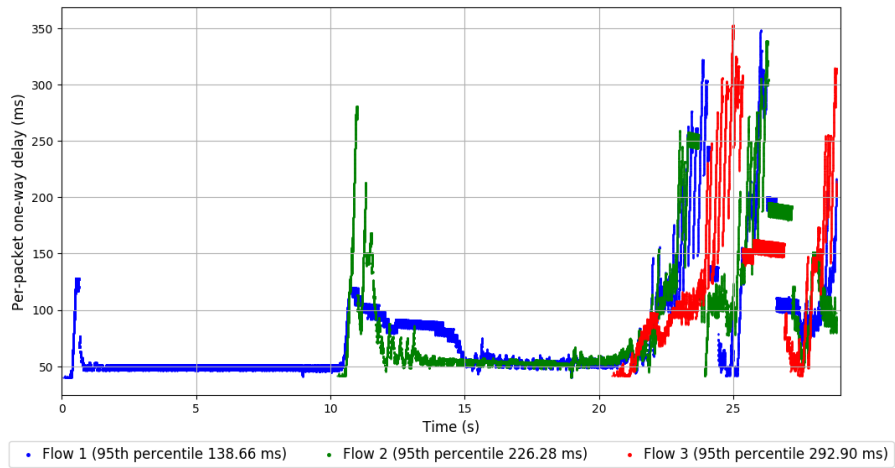
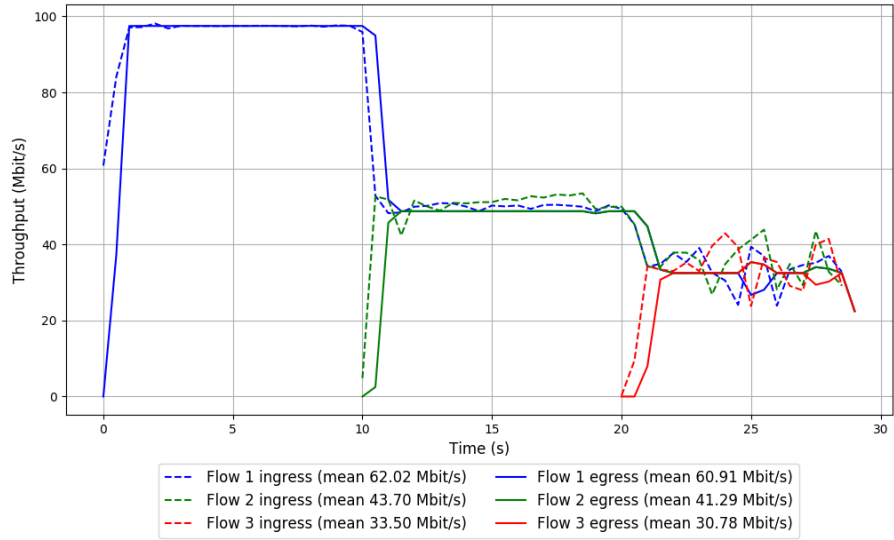


Run 2: Statistics of Indigo-MuseST

Start at: 2019-06-28 12:12:06  
End at: 2019-06-28 12:12:36  
Local clock offset: -3.722 ms  
Remote clock offset: -2.935 ms

```
# Below is generated by plot.py at 2019-06-28 13:56:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.53 Mbit/s
95th percentile per-packet one-way delay: 199.219 ms
Loss rate: 3.71%
-- Flow 1:
Average throughput: 60.91 Mbit/s
95th percentile per-packet one-way delay: 138.663 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 41.29 Mbit/s
95th percentile per-packet one-way delay: 226.284 ms
Loss rate: 5.83%
-- Flow 3:
Average throughput: 30.78 Mbit/s
95th percentile per-packet one-way delay: 292.902 ms
Loss rate: 8.50%
```

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

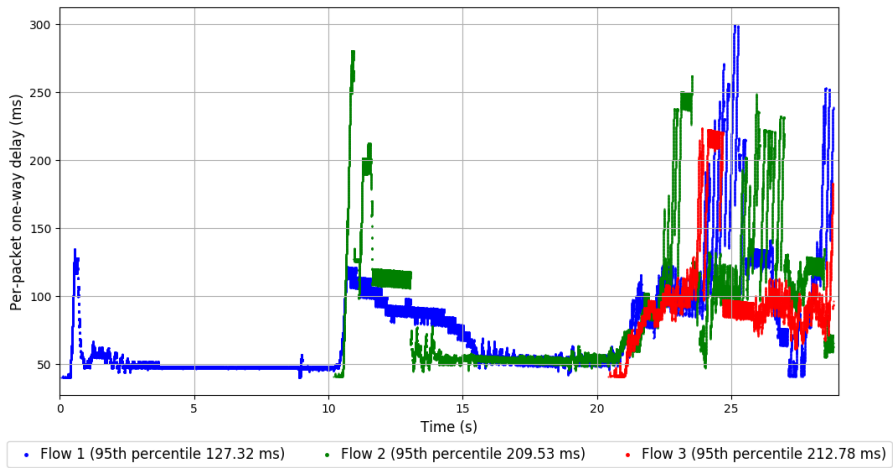
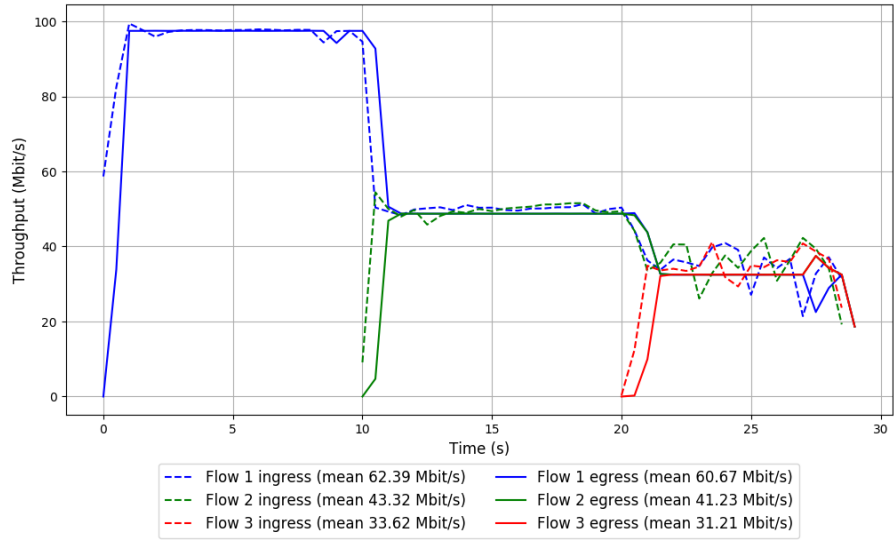


Run 3: Statistics of Indigo-MuseST

Start at: 2019-06-28 12:39:09  
End at: 2019-06-28 12:39:39  
Local clock offset: 2.695 ms  
Remote clock offset: -1.768 ms

```
# Below is generated by plot.py at 2019-06-28 13:56:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.43 Mbit/s
95th percentile per-packet one-way delay: 174.230 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 60.67 Mbit/s
95th percentile per-packet one-way delay: 127.320 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 209.531 ms
Loss rate: 5.10%
-- Flow 3:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 212.777 ms
Loss rate: 7.86%
```

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



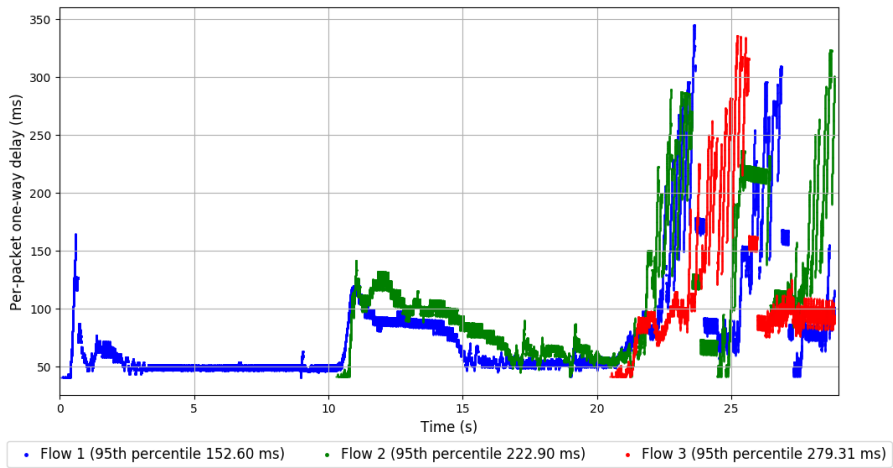
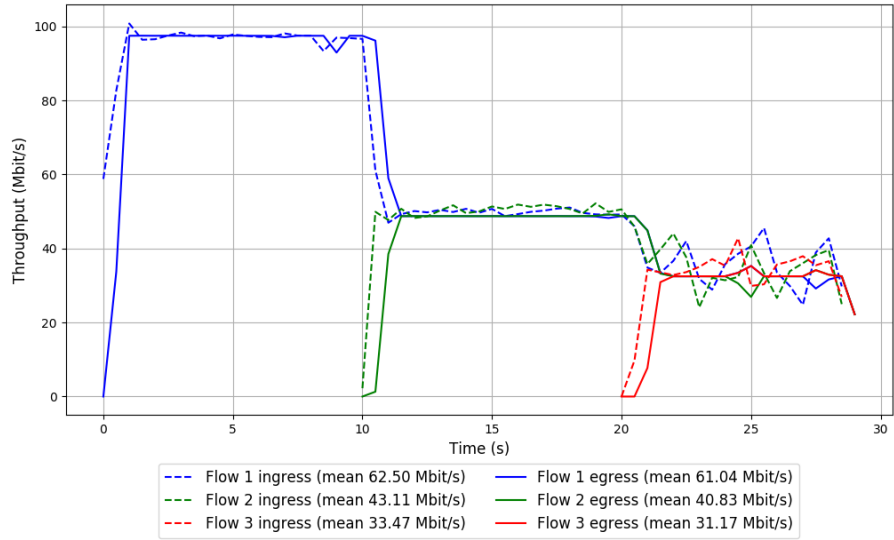


Run 4: Statistics of Indigo-MuseST

Start at: 2019-06-28 13:06:20  
End at: 2019-06-28 13:06:50  
Local clock offset: 4.587 ms  
Remote clock offset: -1.285 ms

```
# Below is generated by plot.py at 2019-06-28 13:56:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.41 Mbit/s
95th percentile per-packet one-way delay: 214.719 ms
Loss rate: 3.89%
-- Flow 1:
Average throughput: 61.04 Mbit/s
95th percentile per-packet one-way delay: 152.600 ms
Loss rate: 2.55%
-- Flow 2:
Average throughput: 40.83 Mbit/s
95th percentile per-packet one-way delay: 222.896 ms
Loss rate: 5.63%
-- Flow 3:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 279.305 ms
Loss rate: 7.46%
```

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

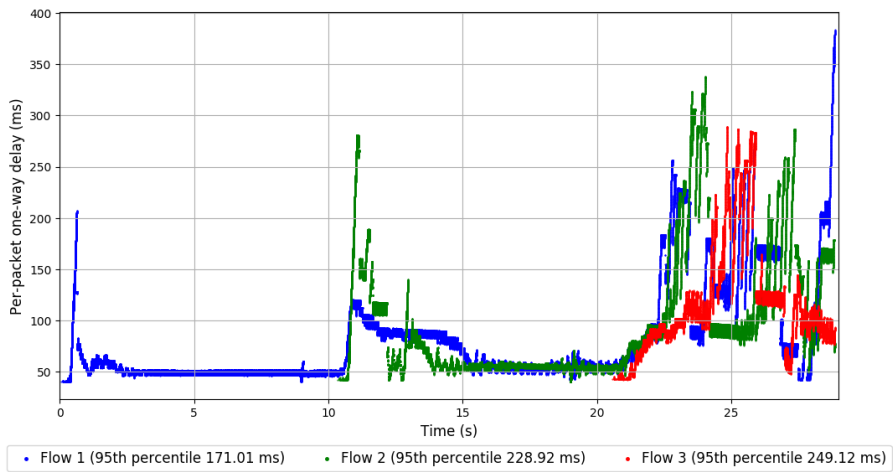
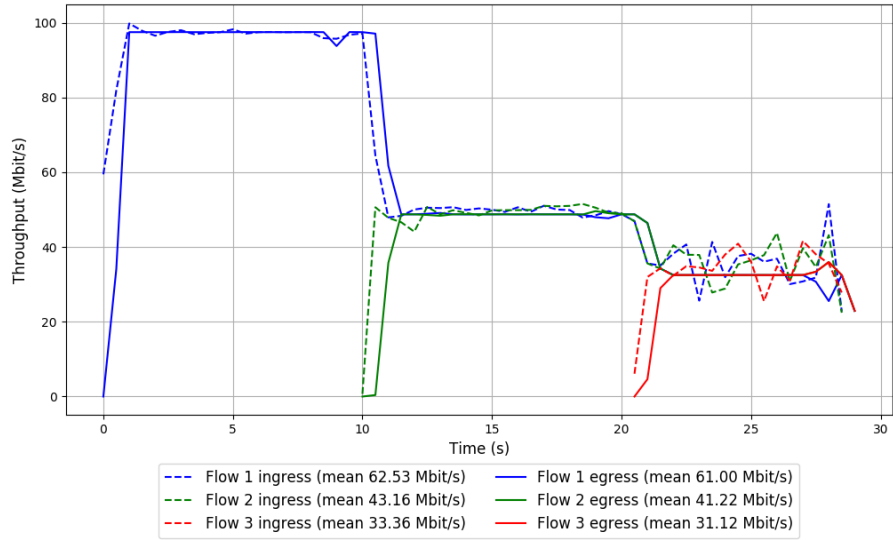


Run 5: Statistics of Indigo-MuseST

Start at: 2019-06-28 13:33:41  
End at: 2019-06-28 13:34:11  
Local clock offset: 0.247 ms  
Remote clock offset: -1.412 ms

```
# Below is generated by plot.py at 2019-06-28 13:56:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.42 Mbit/s
95th percentile per-packet one-way delay: 196.437 ms
Loss rate: 3.69%
-- Flow 1:
Average throughput: 61.00 Mbit/s
95th percentile per-packet one-way delay: 171.015 ms
Loss rate: 2.60%
-- Flow 2:
Average throughput: 41.22 Mbit/s
95th percentile per-packet one-way delay: 228.918 ms
Loss rate: 4.84%
-- Flow 3:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 249.115 ms
Loss rate: 7.41%
```

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



Run 1: Statistics of LEDBAT

Start at: 2019-06-28 11:41:23  
End at: 2019-06-28 11:41:53  
Local clock offset: -3.766 ms  
Remote clock offset: -5.383 ms

# Below is generated by plot.py at 2019-06-28 13:56:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.27 Mbit/s  
95th percentile per-packet one-way delay: 48.409 ms  
Loss rate: 0.29%

-- Flow 1:

Average throughput: 39.69 Mbit/s  
95th percentile per-packet one-way delay: 48.614 ms  
Loss rate: 0.12%

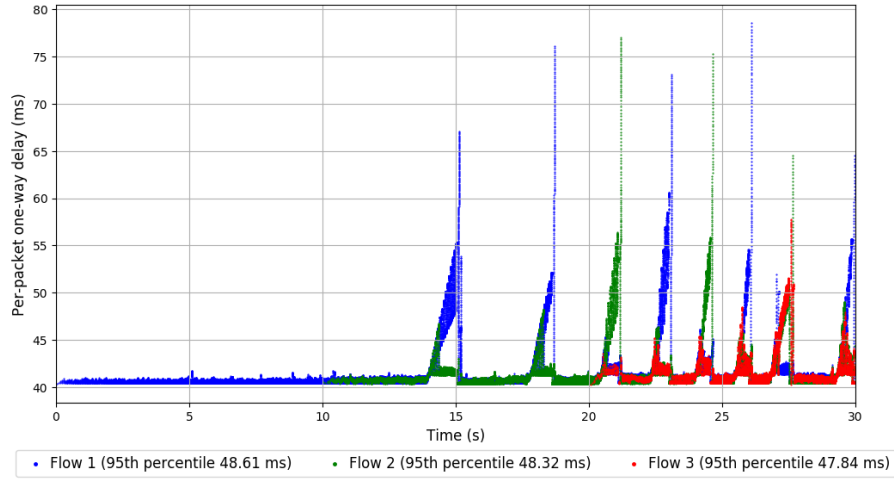
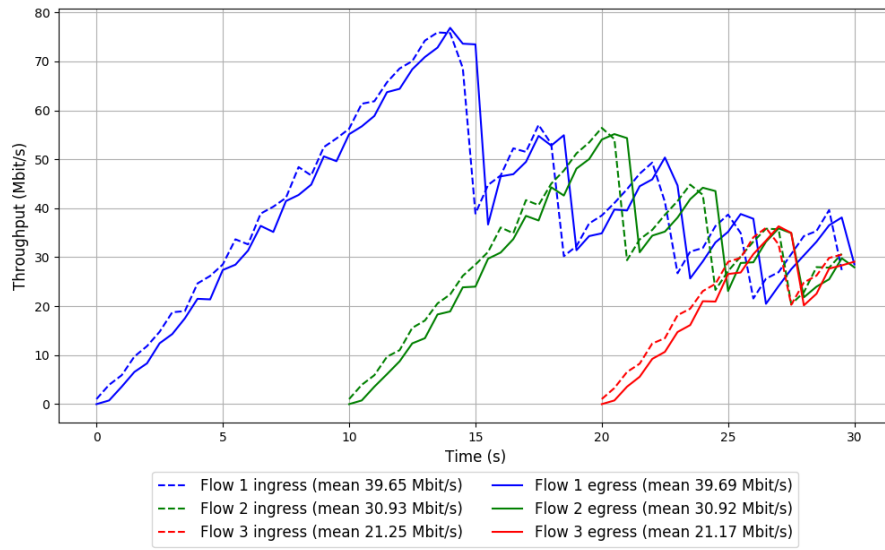
-- Flow 2:

Average throughput: 30.92 Mbit/s  
95th percentile per-packet one-way delay: 48.320 ms  
Loss rate: 0.36%

-- Flow 3:

Average throughput: 21.17 Mbit/s  
95th percentile per-packet one-way delay: 47.842 ms  
Loss rate: 1.05%

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



Run 2: Statistics of LEDBAT

Start at: 2019-06-28 12:08:28  
End at: 2019-06-28 12:08:58  
Local clock offset: -3.641 ms  
Remote clock offset: -3.194 ms

# Below is generated by plot.py at 2019-06-28 13:57:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.87 Mbit/s  
95th percentile per-packet one-way delay: 52.708 ms  
Loss rate: 0.31%

-- Flow 1:

Average throughput: 39.53 Mbit/s  
95th percentile per-packet one-way delay: 49.920 ms  
Loss rate: 0.22%

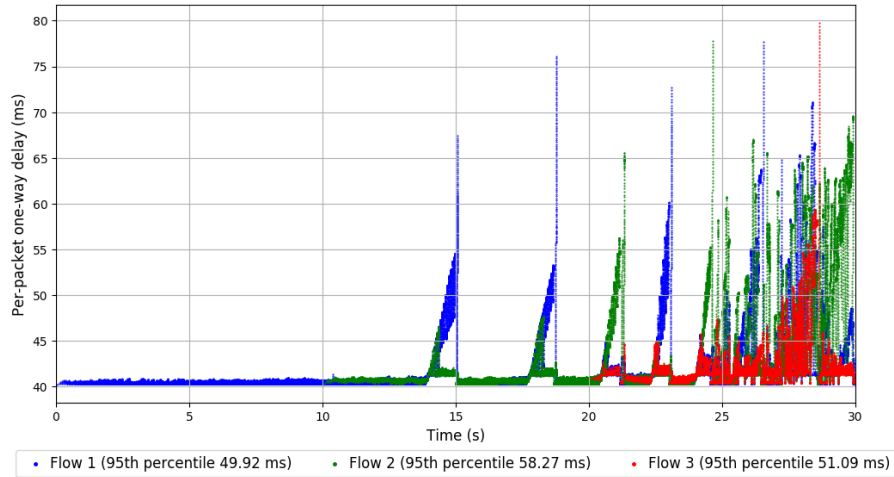
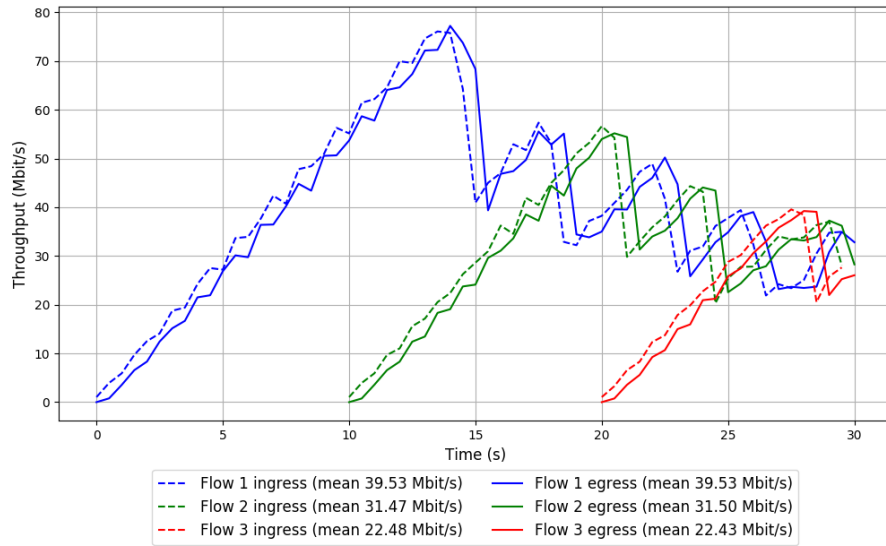
-- Flow 2:

Average throughput: 31.50 Mbit/s  
95th percentile per-packet one-way delay: 58.272 ms  
Loss rate: 0.26%

-- Flow 3:

Average throughput: 22.43 Mbit/s  
95th percentile per-packet one-way delay: 51.093 ms  
Loss rate: 0.88%

## Run 2: Report of LEDBAT — Data Link





Run 3: Statistics of LEDBAT

Start at: 2019-06-28 12:35:32

End at: 2019-06-28 12:36:02

Local clock offset: 2.258 ms

Remote clock offset: -1.92 ms

# Below is generated by plot.py at 2019-06-28 13:57:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 65.77 Mbit/s

95th percentile per-packet one-way delay: 49.229 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 37.24 Mbit/s

95th percentile per-packet one-way delay: 48.115 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 32.99 Mbit/s

95th percentile per-packet one-way delay: 49.796 ms

Loss rate: 0.50%

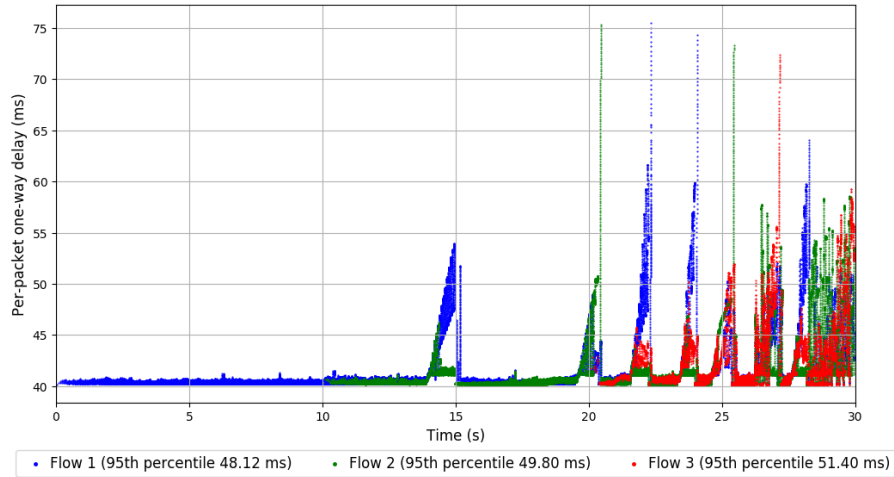
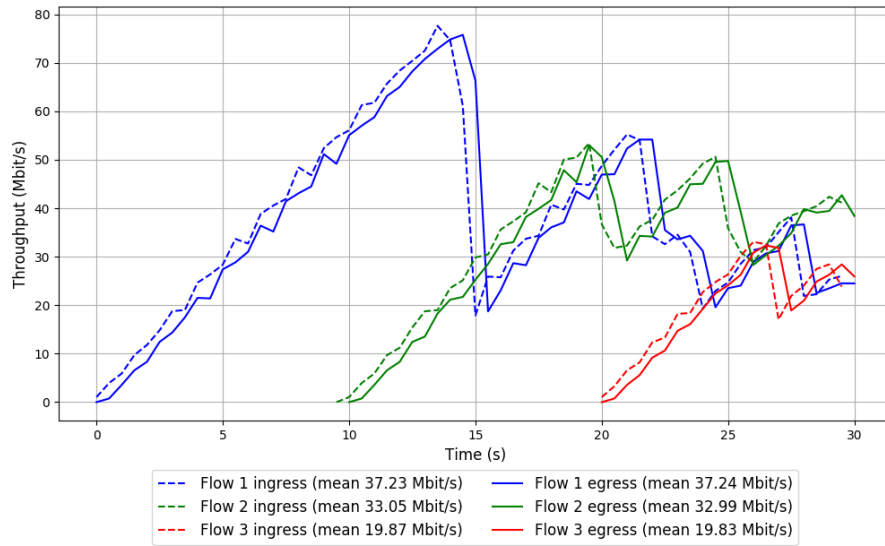
-- Flow 3:

Average throughput: 19.83 Mbit/s

95th percentile per-packet one-way delay: 51.401 ms

Loss rate: 0.21%

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



Run 4: Statistics of LEDBAT

Start at: 2019-06-28 13:02:41  
End at: 2019-06-28 13:03:11  
Local clock offset: 4.377 ms  
Remote clock offset: -1.265 ms

# Below is generated by plot.py at 2019-06-28 13:57:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.94 Mbit/s  
95th percentile per-packet one-way delay: 48.202 ms  
Loss rate: 0.31%

-- Flow 1:

Average throughput: 38.48 Mbit/s  
95th percentile per-packet one-way delay: 48.952 ms  
Loss rate: 0.15%

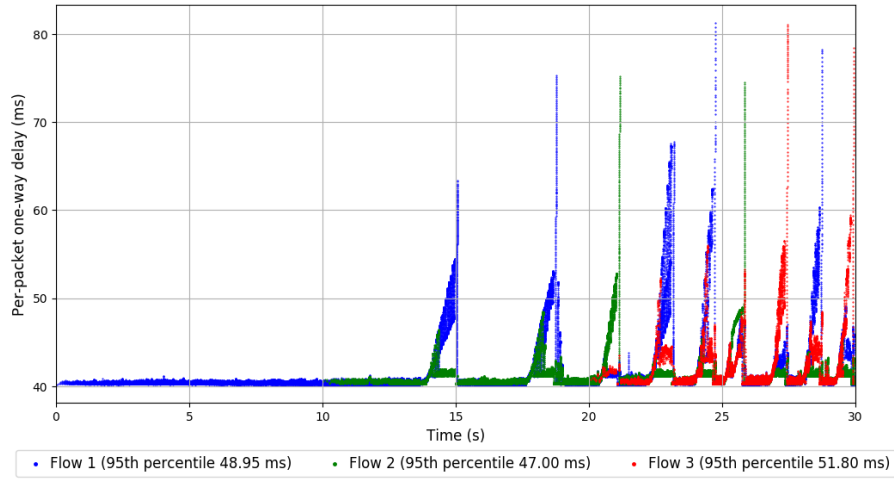
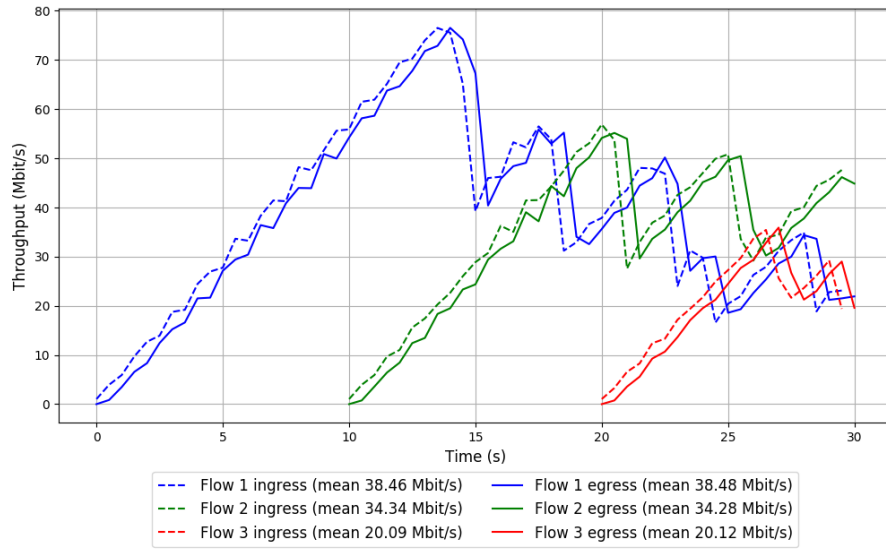
-- Flow 2:

Average throughput: 34.28 Mbit/s  
95th percentile per-packet one-way delay: 47.003 ms  
Loss rate: 0.49%

-- Flow 3:

Average throughput: 20.12 Mbit/s  
95th percentile per-packet one-way delay: 51.799 ms  
Loss rate: 0.56%

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



Run 5: Statistics of LEDBAT

Start at: 2019-06-28 13:30:04  
End at: 2019-06-28 13:30:34  
Local clock offset: 0.848 ms  
Remote clock offset: -1.392 ms

# Below is generated by plot.py at 2019-06-28 13:57:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.28 Mbit/s  
95th percentile per-packet one-way delay: 48.579 ms  
Loss rate: 0.30%

-- Flow 1:

Average throughput: 39.67 Mbit/s  
95th percentile per-packet one-way delay: 48.839 ms  
Loss rate: 0.15%

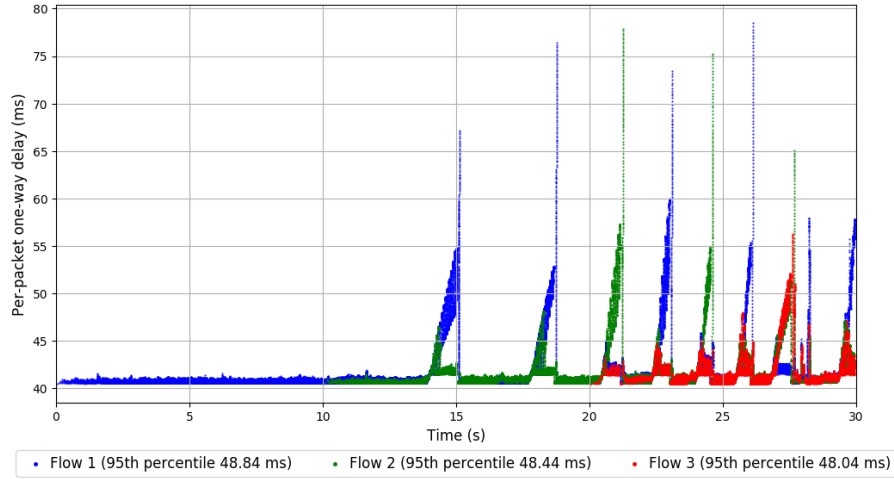
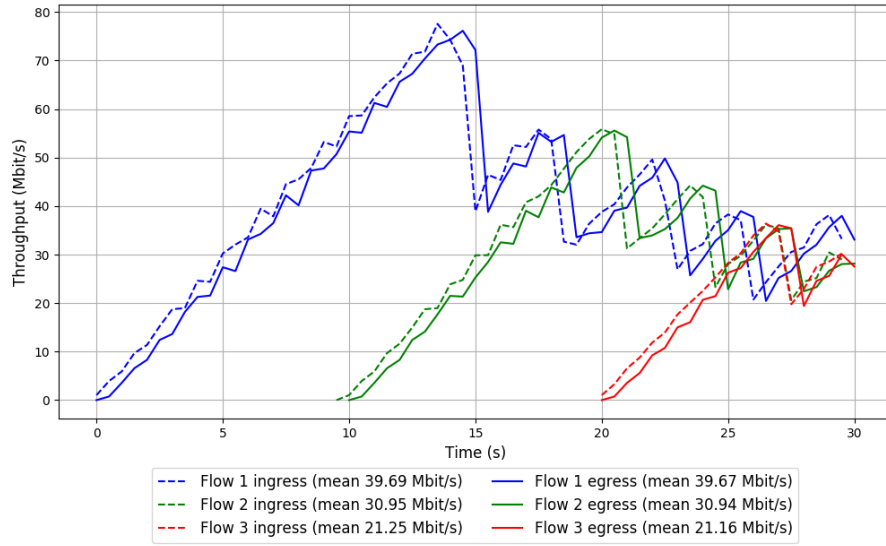
-- Flow 2:

Average throughput: 30.94 Mbit/s  
95th percentile per-packet one-way delay: 48.441 ms  
Loss rate: 0.36%

-- Flow 3:

Average throughput: 21.16 Mbit/s  
95th percentile per-packet one-way delay: 48.044 ms  
Loss rate: 1.04%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 11:47:28  
End at: 2019-06-28 11:47:58  
Local clock offset: -4.166 ms  
Remote clock offset: -4.799 ms

# Below is generated by plot.py at 2019-06-28 13:57:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.82 Mbit/s  
95th percentile per-packet one-way delay: 75.130 ms  
Loss rate: 0.25%

-- Flow 1:

Average throughput: 52.98 Mbit/s  
95th percentile per-packet one-way delay: 81.965 ms  
Loss rate: 0.16%

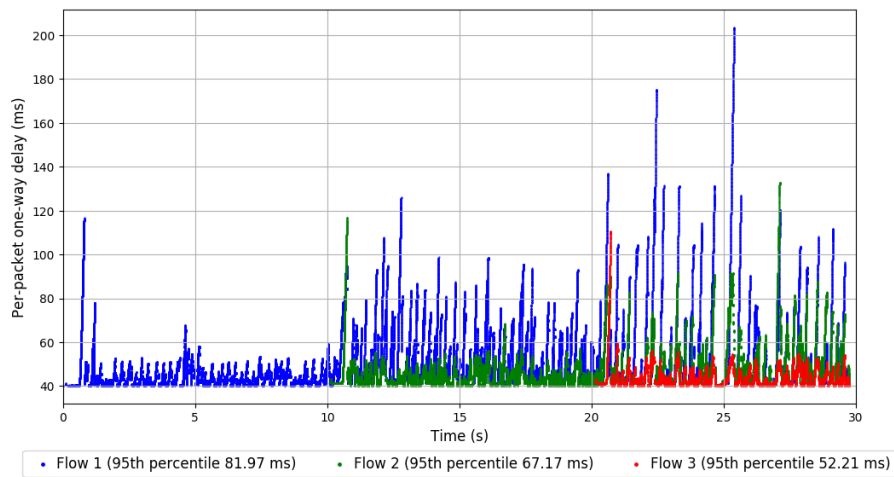
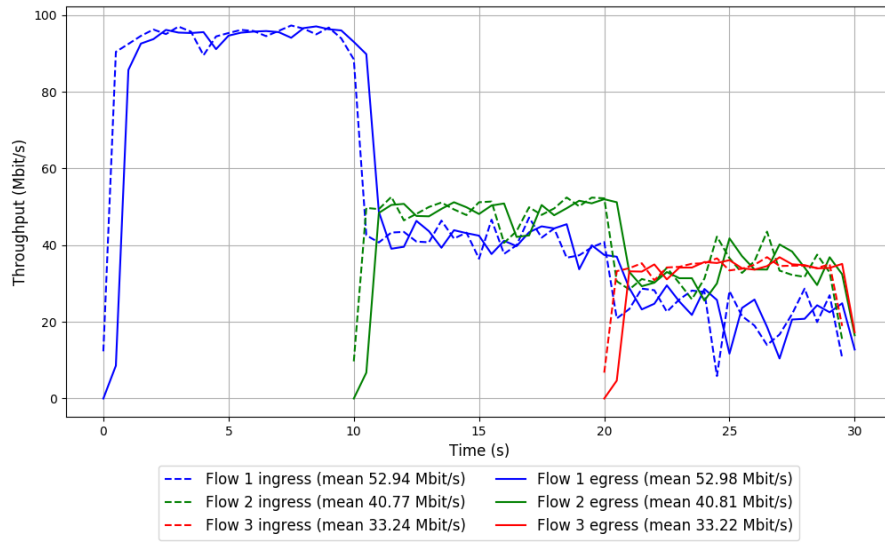
-- Flow 2:

Average throughput: 40.81 Mbit/s  
95th percentile per-packet one-way delay: 67.169 ms  
Loss rate: 0.24%

-- Flow 3:

Average throughput: 33.22 Mbit/s  
95th percentile per-packet one-way delay: 52.211 ms  
Loss rate: 0.76%

Run 1: Report of Muses\_DecisionTree — Data Link





Run 2: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 12:14:32  
End at: 2019-06-28 12:15:02  
Local clock offset: -3.808 ms  
Remote clock offset: -2.719 ms

# Below is generated by plot.py at 2019-06-28 13:57:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.43 Mbit/s  
95th percentile per-packet one-way delay: 75.043 ms  
Loss rate: 0.22%

-- Flow 1:

Average throughput: 51.91 Mbit/s  
95th percentile per-packet one-way delay: 86.807 ms  
Loss rate: 0.05%

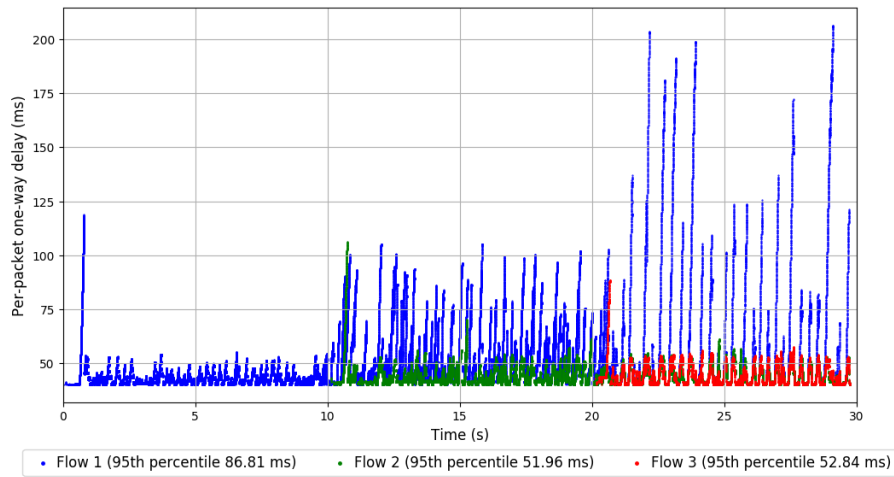
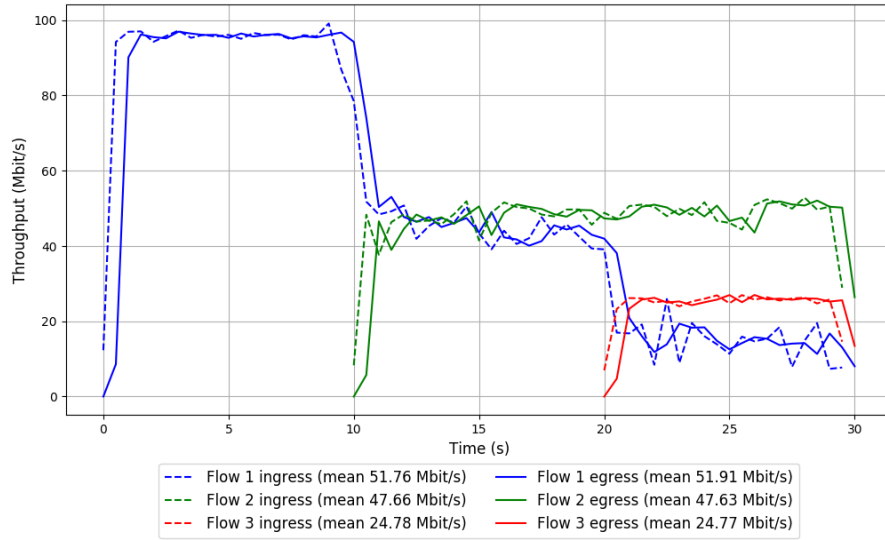
-- Flow 2:

Average throughput: 47.63 Mbit/s  
95th percentile per-packet one-way delay: 51.960 ms  
Loss rate: 0.38%

-- Flow 3:

Average throughput: 24.77 Mbit/s  
95th percentile per-packet one-way delay: 52.838 ms  
Loss rate: 0.74%

Run 2: Report of Muses\_DecisionTree — Data Link



Run 3: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 12:41:36  
End at: 2019-06-28 12:42:06  
Local clock offset: 2.929 ms  
Remote clock offset: -1.814 ms

# Below is generated by plot.py at 2019-06-28 13:57:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.23 Mbit/s  
95th percentile per-packet one-way delay: 78.865 ms  
Loss rate: 0.34%

-- Flow 1:

Average throughput: 52.28 Mbit/s  
95th percentile per-packet one-way delay: 91.974 ms  
Loss rate: 0.23%

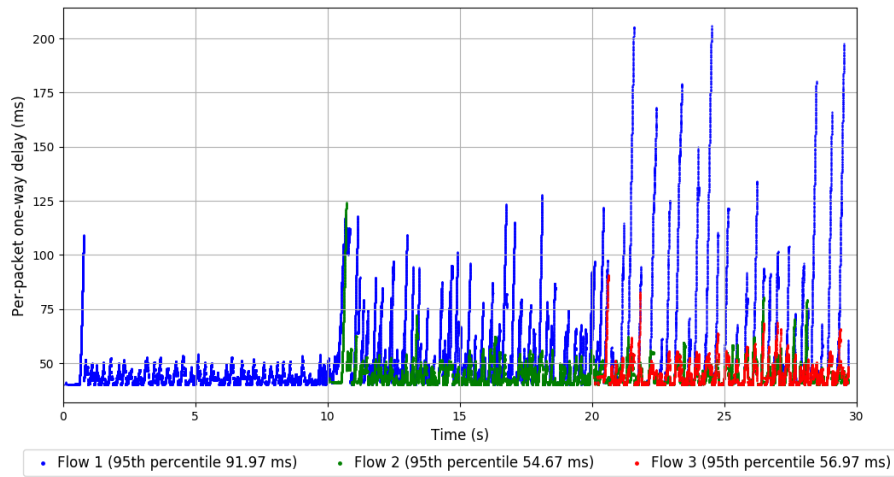
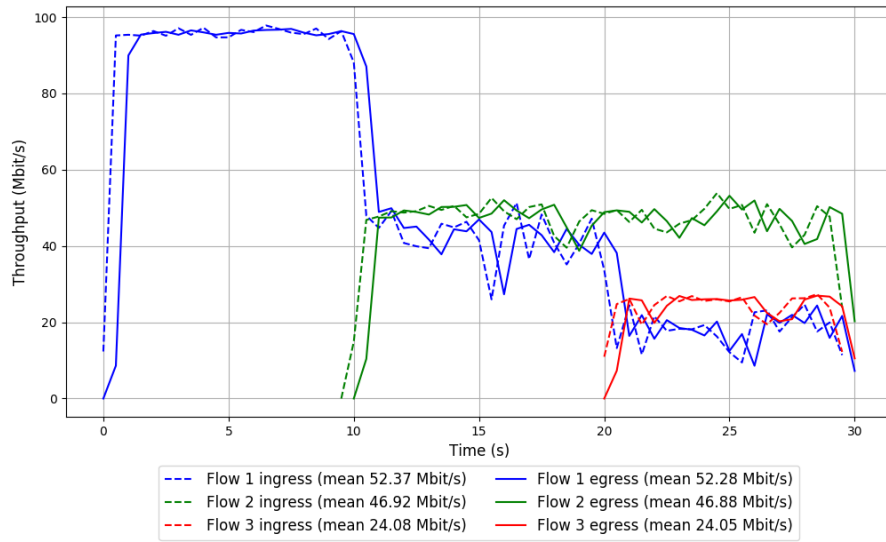
-- Flow 2:

Average throughput: 46.88 Mbit/s  
95th percentile per-packet one-way delay: 54.673 ms  
Loss rate: 0.41%

-- Flow 3:

Average throughput: 24.05 Mbit/s  
95th percentile per-packet one-way delay: 56.974 ms  
Loss rate: 0.83%

### Run 3: Report of Muses\_DecisionTree — Data Link

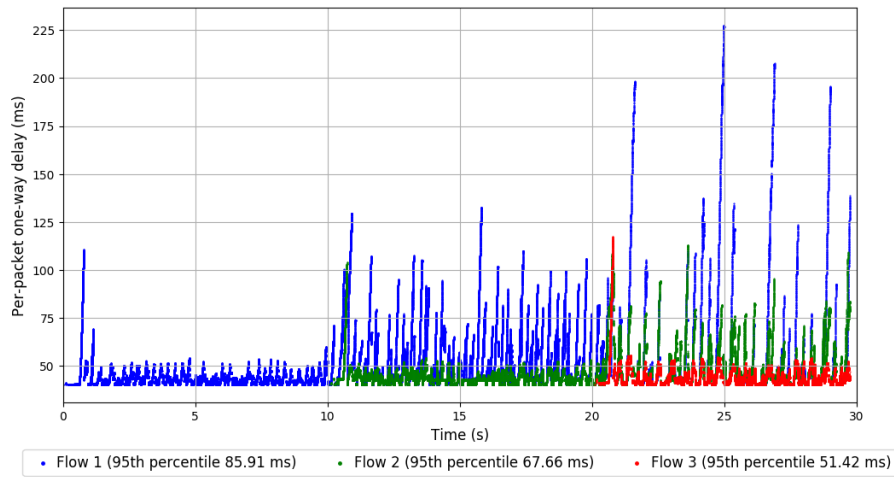
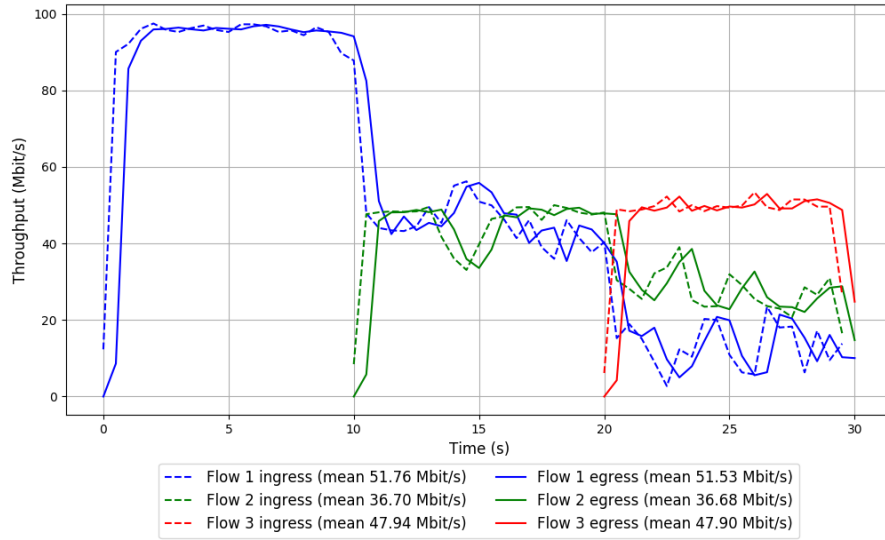


Run 4: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 13:08:49  
End at: 2019-06-28 13:09:19  
Local clock offset: 4.712 ms  
Remote clock offset: -0.998 ms

```
# Below is generated by plot.py at 2019-06-28 13:58:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.36 Mbit/s
95th percentile per-packet one-way delay: 76.358 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 51.53 Mbit/s
95th percentile per-packet one-way delay: 85.912 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 36.68 Mbit/s
95th percentile per-packet one-way delay: 67.655 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 47.90 Mbit/s
95th percentile per-packet one-way delay: 51.421 ms
Loss rate: 0.71%
```

Run 4: Report of Muses\_DecisionTree — Data Link



Run 5: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 13:36:17  
End at: 2019-06-28 13:36:47  
Local clock offset: -0.043 ms  
Remote clock offset: -1.391 ms

# Below is generated by plot.py at 2019-06-28 13:58:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.54 Mbit/s  
95th percentile per-packet one-way delay: 73.315 ms  
Loss rate: 0.36%

-- Flow 1:

Average throughput: 52.86 Mbit/s  
95th percentile per-packet one-way delay: 83.072 ms  
Loss rate: 0.32%

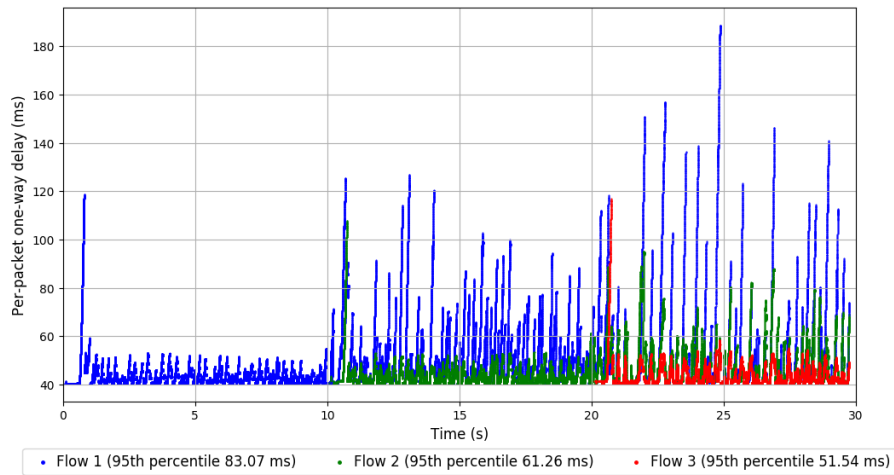
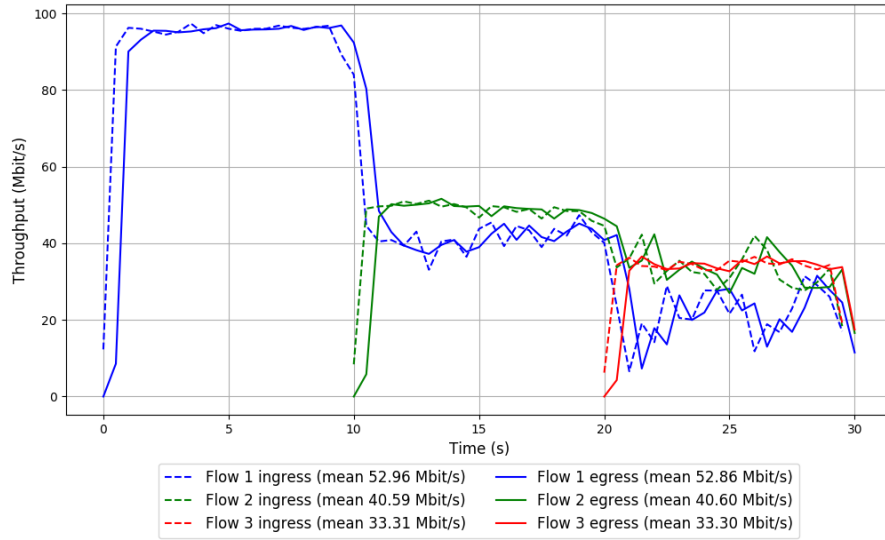
-- Flow 2:

Average throughput: 40.60 Mbit/s  
95th percentile per-packet one-way delay: 61.257 ms  
Loss rate: 0.30%

-- Flow 3:

Average throughput: 33.30 Mbit/s  
95th percentile per-packet one-way delay: 51.542 ms  
Loss rate: 0.74%

Run 5: Report of Muses\_DecisionTree — Data Link



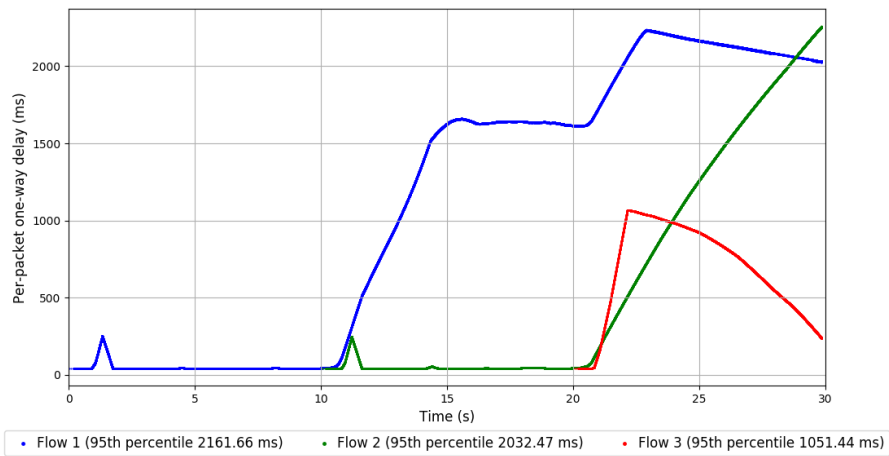
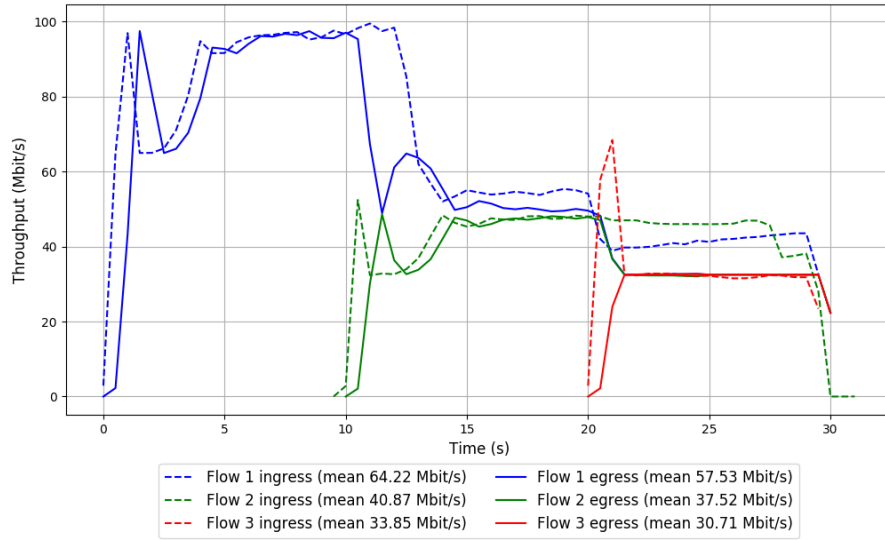


Run 1: Statistics of PCC-Allegro

Start at: 2019-06-28 11:36:28  
End at: 2019-06-28 11:36:58  
Local clock offset: -3.409 ms  
Remote clock offset: -5.709 ms

```
# Below is generated by plot.py at 2019-06-28 13:58:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.54 Mbit/s
95th percentile per-packet one-way delay: 2136.193 ms
Loss rate: 11.35%
-- Flow 1:
Average throughput: 57.53 Mbit/s
95th percentile per-packet one-way delay: 2161.657 ms
Loss rate: 10.61%
-- Flow 2:
Average throughput: 37.52 Mbit/s
95th percentile per-packet one-way delay: 2032.467 ms
Loss rate: 13.59%
-- Flow 3:
Average throughput: 30.71 Mbit/s
95th percentile per-packet one-way delay: 1051.438 ms
Loss rate: 9.86%
```

Run 1: Report of PCC-Allegro — Data Link

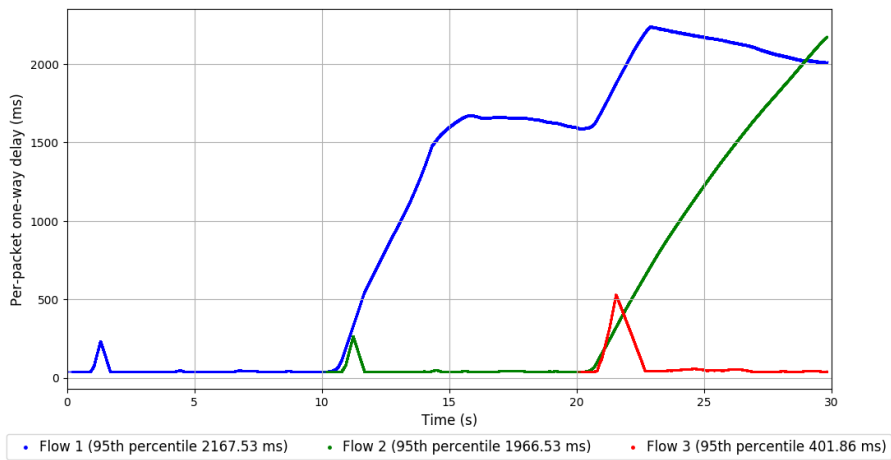
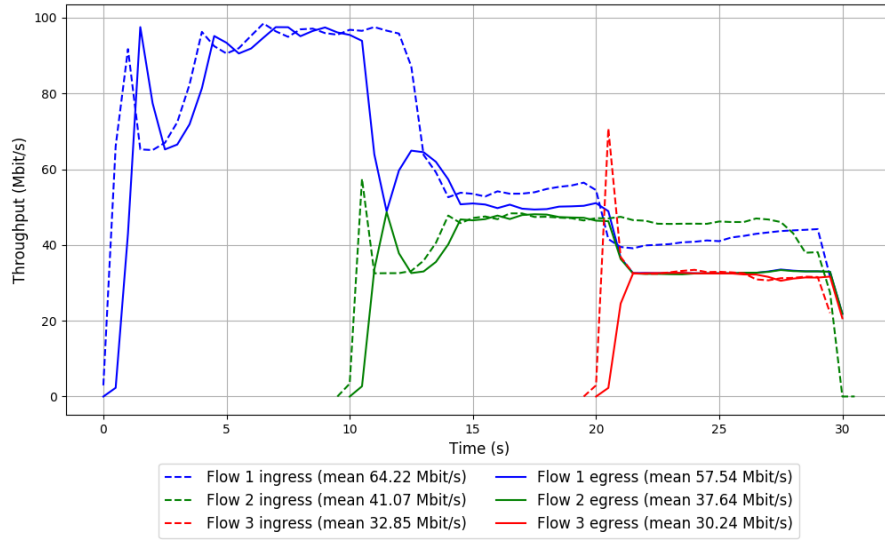


Run 2: Statistics of PCC-Allegro

Start at: 2019-06-28 12:03:32  
End at: 2019-06-28 12:04:02  
Local clock offset: -3.562 ms  
Remote clock offset: -3.474 ms

# Below is generated by plot.py at 2019-06-28 13:58:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.50 Mbit/s  
95th percentile per-packet one-way delay: 2130.051 ms  
Loss rate: 11.16%  
-- Flow 1:  
Average throughput: 57.54 Mbit/s  
95th percentile per-packet one-way delay: 2167.532 ms  
Loss rate: 10.58%  
-- Flow 2:  
Average throughput: 37.64 Mbit/s  
95th percentile per-packet one-way delay: 1966.531 ms  
Loss rate: 13.44%  
-- Flow 3:  
Average throughput: 30.24 Mbit/s  
95th percentile per-packet one-way delay: 401.860 ms  
Loss rate: 8.55%

Run 2: Report of PCC-Allegro — Data Link

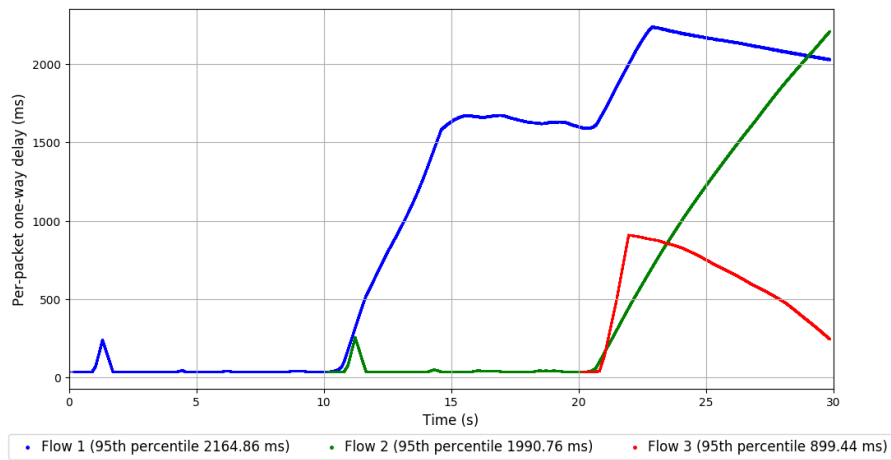
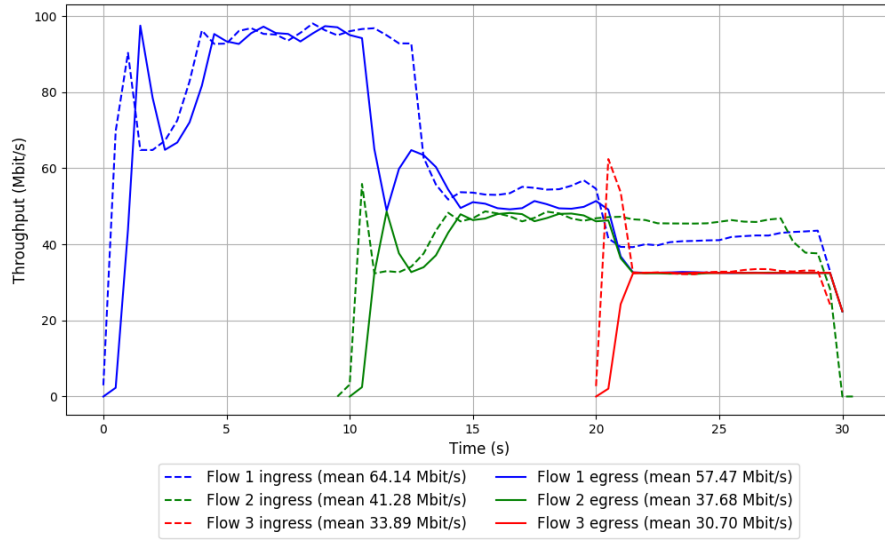


Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 12:30:36  
End at: 2019-06-28 12:31:06  
Local clock offset: 1.441 ms  
Remote clock offset: -2.087 ms

```
# Below is generated by plot.py at 2019-06-28 13:58:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.59 Mbit/s
95th percentile per-packet one-way delay: 2135.316 ms
Loss rate: 11.32%
-- Flow 1:
Average throughput: 57.47 Mbit/s
95th percentile per-packet one-way delay: 2164.861 ms
Loss rate: 10.60%
-- Flow 2:
Average throughput: 37.68 Mbit/s
95th percentile per-packet one-way delay: 1990.760 ms
Loss rate: 13.43%
-- Flow 3:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 899.440 ms
Loss rate: 10.02%
```

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



Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 12:57:43

End at: 2019-06-28 12:58:13

Local clock offset: 4.111 ms

Remote clock offset: -1.442 ms

# Below is generated by plot.py at 2019-06-28 13:58:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.55 Mbit/s

95th percentile per-packet one-way delay: 2430.567 ms

Loss rate: 6.97%

-- Flow 1:

Average throughput: 55.64 Mbit/s

95th percentile per-packet one-way delay: 2529.380 ms

Loss rate: 10.82%

-- Flow 2:

Average throughput: 44.69 Mbit/s

95th percentile per-packet one-way delay: 48.179 ms

Loss rate: 0.40%

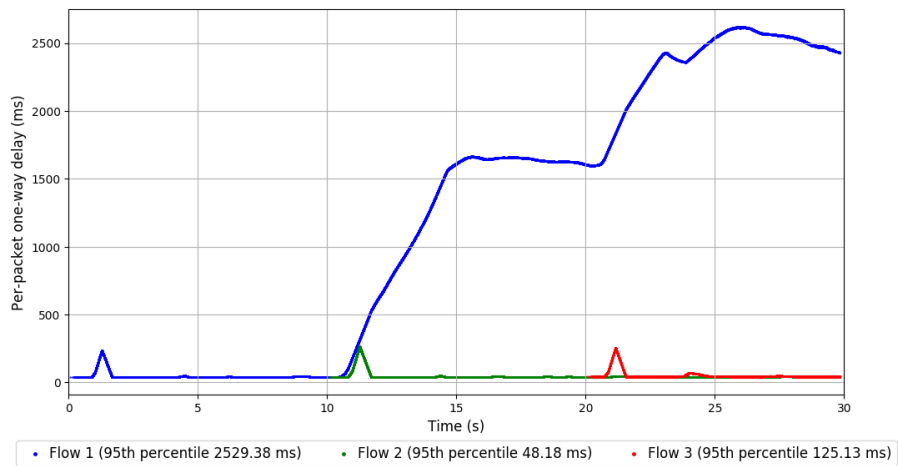
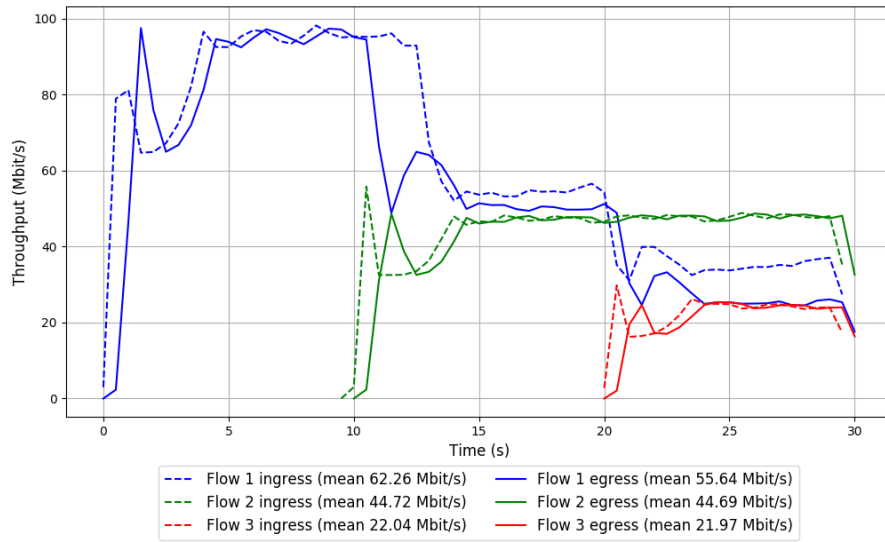
-- Flow 3:

Average throughput: 21.97 Mbit/s

95th percentile per-packet one-way delay: 125.133 ms

Loss rate: 0.97%

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





Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 13:25:01

End at: 2019-06-28 13:25:31

Local clock offset: 1.987 ms

Remote clock offset: -1.434 ms

# Below is generated by plot.py at 2019-06-28 13:58:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.72 Mbit/s

95th percentile per-packet one-way delay: 2155.131 ms

Loss rate: 11.27%

-- Flow 1:

Average throughput: 57.64 Mbit/s

95th percentile per-packet one-way delay: 2169.608 ms

Loss rate: 10.51%

-- Flow 2:

Average throughput: 37.60 Mbit/s

95th percentile per-packet one-way delay: 2130.734 ms

Loss rate: 13.49%

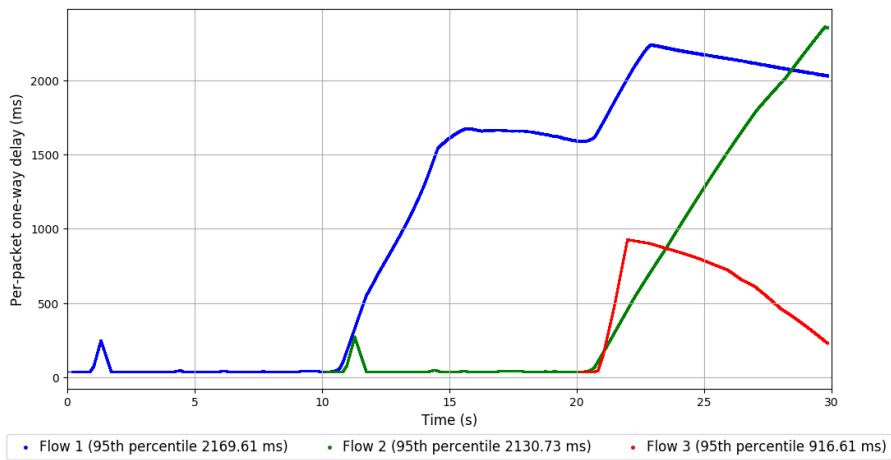
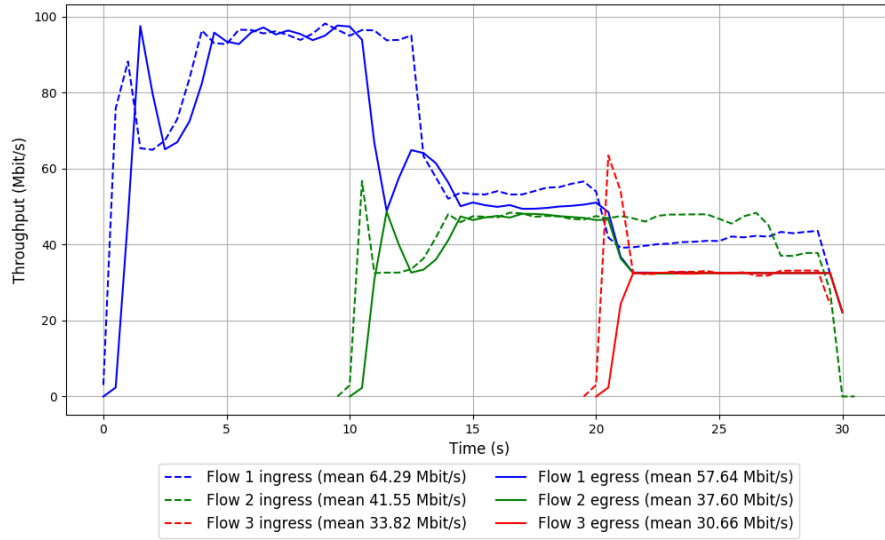
-- Flow 3:

Average throughput: 30.66 Mbit/s

95th percentile per-packet one-way delay: 916.611 ms

Loss rate: 9.91%

Run 5: Report of PCC-Allegro — Data Link

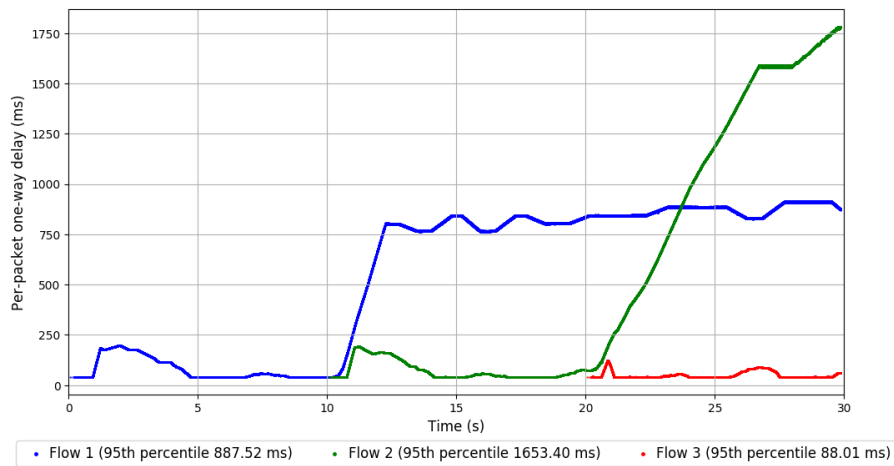
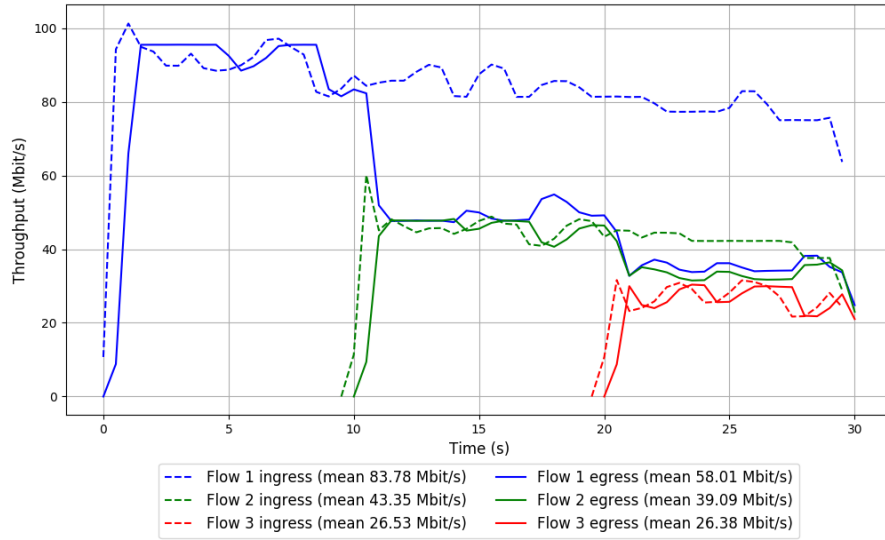


Run 1: Statistics of PCC-Expr

Start at: 2019-06-28 11:35:09  
End at: 2019-06-28 11:35:39  
Local clock offset: -3.285 ms  
Remote clock offset: -5.781 ms

# Below is generated by plot.py at 2019-06-28 14:00:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.69 Mbit/s  
95th percentile per-packet one-way delay: 1306.541 ms  
Loss rate: 23.82%  
-- Flow 1:  
Average throughput: 58.01 Mbit/s  
95th percentile per-packet one-way delay: 887.521 ms  
Loss rate: 30.91%  
-- Flow 2:  
Average throughput: 39.09 Mbit/s  
95th percentile per-packet one-way delay: 1653.396 ms  
Loss rate: 10.12%  
-- Flow 3:  
Average throughput: 26.38 Mbit/s  
95th percentile per-packet one-way delay: 88.012 ms  
Loss rate: 1.24%

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

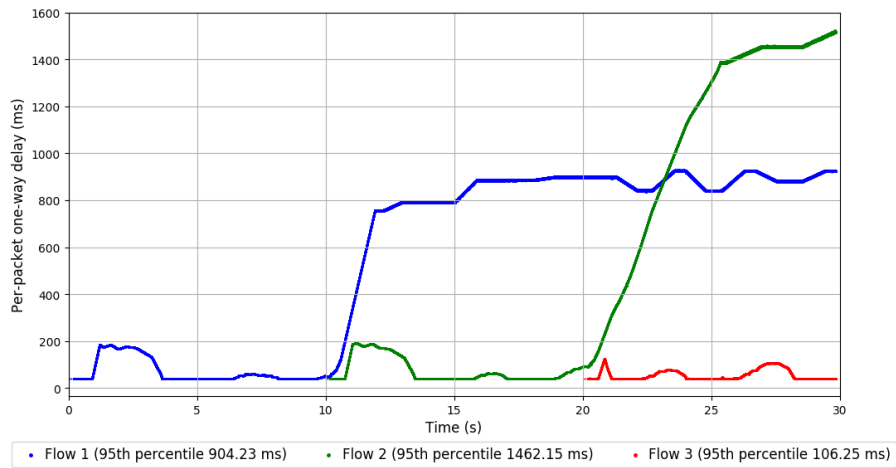
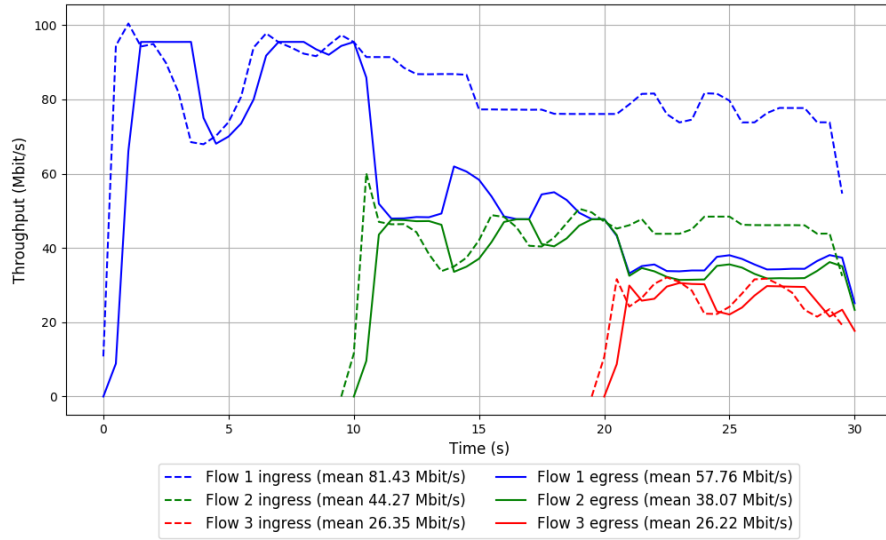


Run 2: Statistics of PCC-Expr

Start at: 2019-06-28 12:02:14  
End at: 2019-06-28 12:02:44  
Local clock offset: -3.557 ms  
Remote clock offset: -3.579 ms

```
# Below is generated by plot.py at 2019-06-28 14:00:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.70 Mbit/s
95th percentile per-packet one-way delay: 1388.483 ms
Loss rate: 23.50%
-- Flow 1:
Average throughput: 57.76 Mbit/s
95th percentile per-packet one-way delay: 904.232 ms
Loss rate: 29.22%
-- Flow 2:
Average throughput: 38.07 Mbit/s
95th percentile per-packet one-way delay: 1462.153 ms
Loss rate: 14.28%
-- Flow 3:
Average throughput: 26.22 Mbit/s
95th percentile per-packet one-way delay: 106.254 ms
Loss rate: 1.16%
```

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

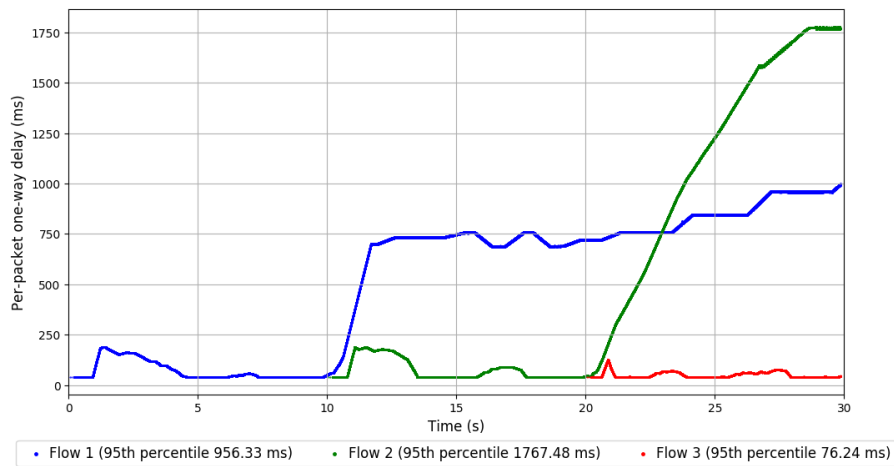
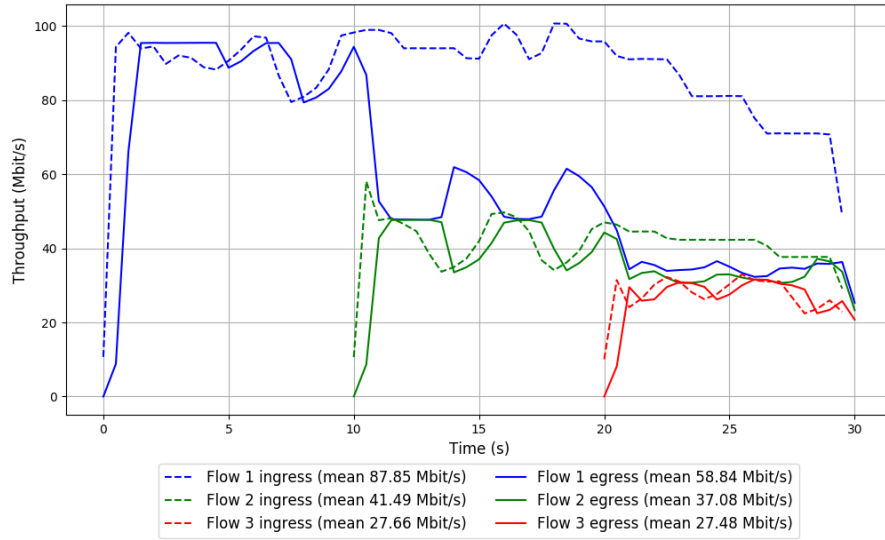


Run 3: Statistics of PCC-Expr

Start at: 2019-06-28 12:29:17  
End at: 2019-06-28 12:29:47  
Local clock offset: 1.122 ms  
Remote clock offset: -2.108 ms

```
# Below is generated by plot.py at 2019-06-28 14:00:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.51 Mbit/s
95th percentile per-packet one-way delay: 1343.555 ms
Loss rate: 25.90%
-- Flow 1:
Average throughput: 58.84 Mbit/s
95th percentile per-packet one-way delay: 956.327 ms
Loss rate: 33.16%
-- Flow 2:
Average throughput: 37.08 Mbit/s
95th percentile per-packet one-way delay: 1767.480 ms
Loss rate: 10.92%
-- Flow 3:
Average throughput: 27.48 Mbit/s
95th percentile per-packet one-way delay: 76.239 ms
Loss rate: 1.30%
```

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



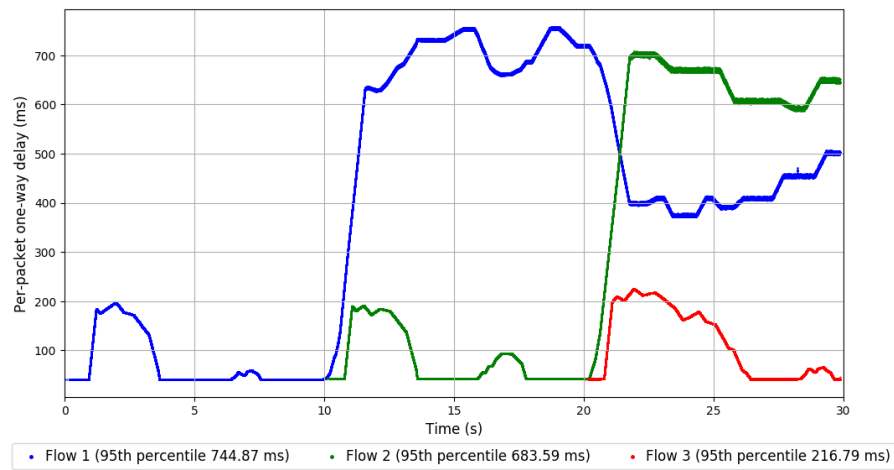
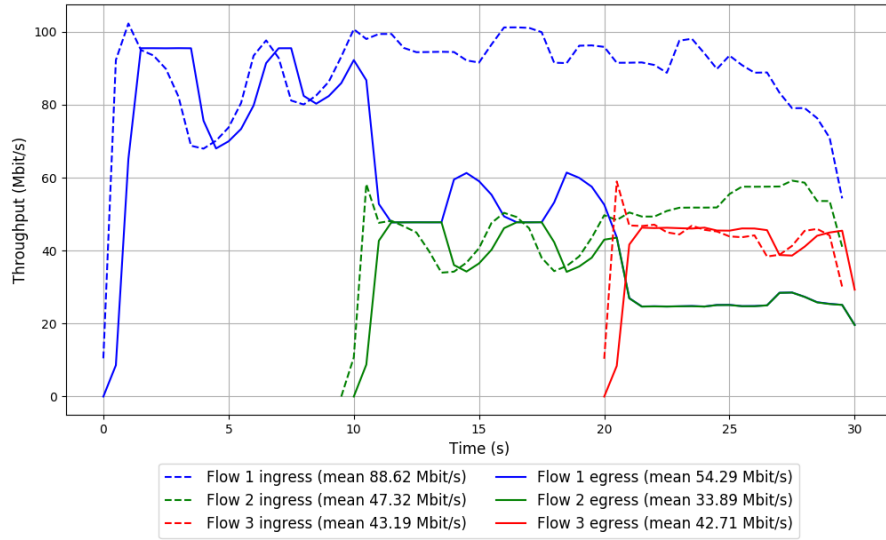


Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 12:56:23  
End at: 2019-06-28 12:56:53  
Local clock offset: 4.03 ms  
Remote clock offset: -1.527 ms

```
# Below is generated by plot.py at 2019-06-28 14:00:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.86 Mbit/s
95th percentile per-packet one-way delay: 733.086 ms
Loss rate: 32.53%
-- Flow 1:
Average throughput: 54.29 Mbit/s
95th percentile per-packet one-way delay: 744.871 ms
Loss rate: 38.87%
-- Flow 2:
Average throughput: 33.89 Mbit/s
95th percentile per-packet one-way delay: 683.594 ms
Loss rate: 28.63%
-- Flow 3:
Average throughput: 42.71 Mbit/s
95th percentile per-packet one-way delay: 216.791 ms
Loss rate: 1.74%
```

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

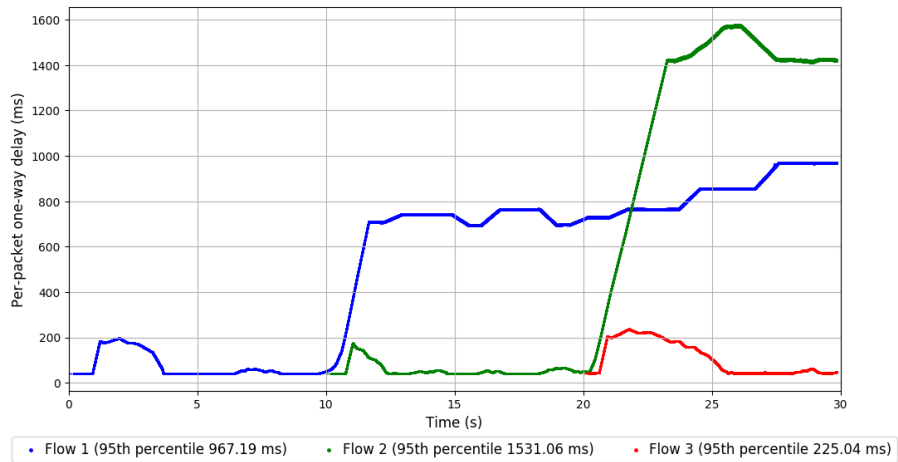
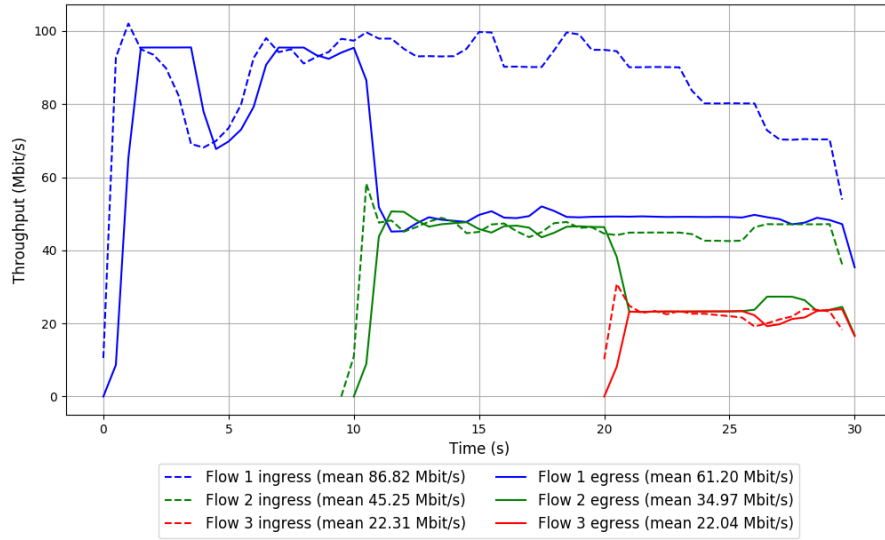


Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 13:23:42  
End at: 2019-06-28 13:24:12  
Local clock offset: 2.398 ms  
Remote clock offset: -1.363 ms

```
# Below is generated by plot.py at 2019-06-28 14:00:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.70 Mbit/s
95th percentile per-packet one-way delay: 1420.772 ms
Loss rate: 26.39%
-- Flow 1:
Average throughput: 61.20 Mbit/s
95th percentile per-packet one-way delay: 967.193 ms
Loss rate: 29.66%
-- Flow 2:
Average throughput: 34.97 Mbit/s
95th percentile per-packet one-way delay: 1531.063 ms
Loss rate: 22.97%
-- Flow 3:
Average throughput: 22.04 Mbit/s
95th percentile per-packet one-way delay: 225.036 ms
Loss rate: 1.88%
```

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



Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 11:54:48  
End at: 2019-06-28 11:55:18  
Local clock offset: -3.679 ms  
Remote clock offset: -4.031 ms

# Below is generated by plot.py at 2019-06-28 14:00:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.77 Mbit/s  
95th percentile per-packet one-way delay: 106.013 ms  
Loss rate: 0.35%

-- Flow 1:

Average throughput: 43.73 Mbit/s  
95th percentile per-packet one-way delay: 101.050 ms  
Loss rate: 0.20%

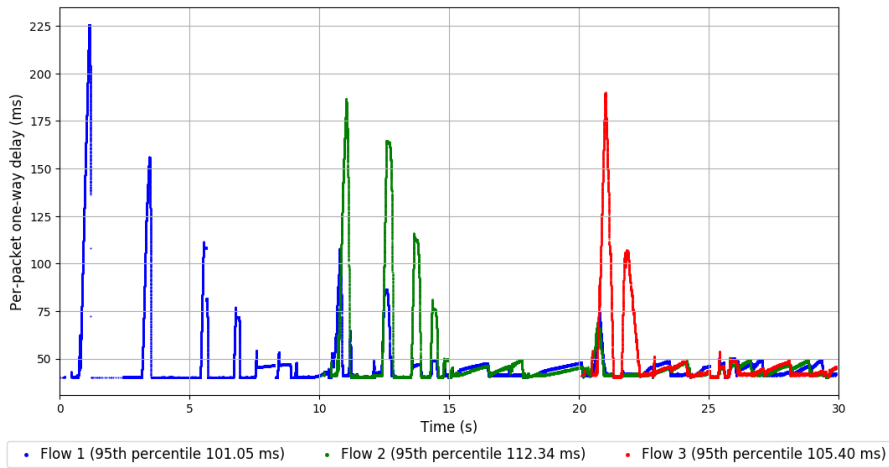
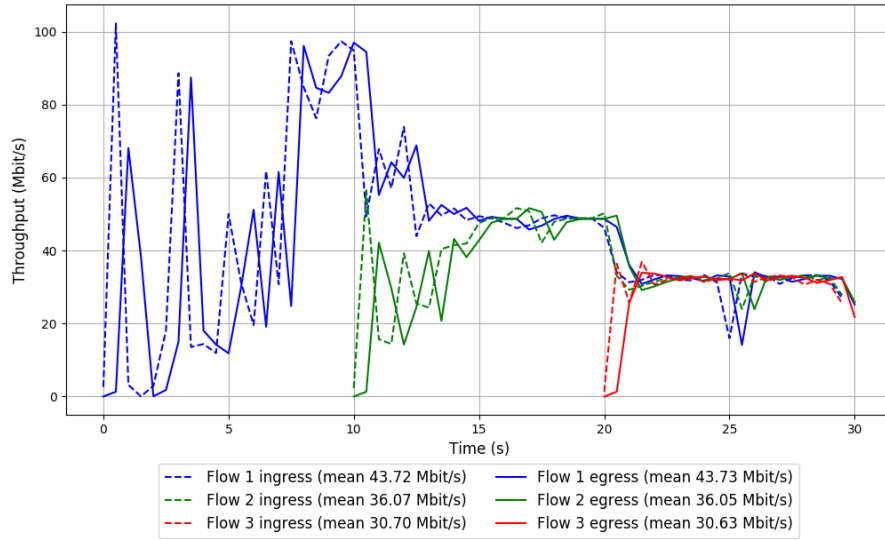
-- Flow 2:

Average throughput: 36.05 Mbit/s  
95th percentile per-packet one-way delay: 112.336 ms  
Loss rate: 0.40%

-- Flow 3:

Average throughput: 30.63 Mbit/s  
95th percentile per-packet one-way delay: 105.399 ms  
Loss rate: 0.90%

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

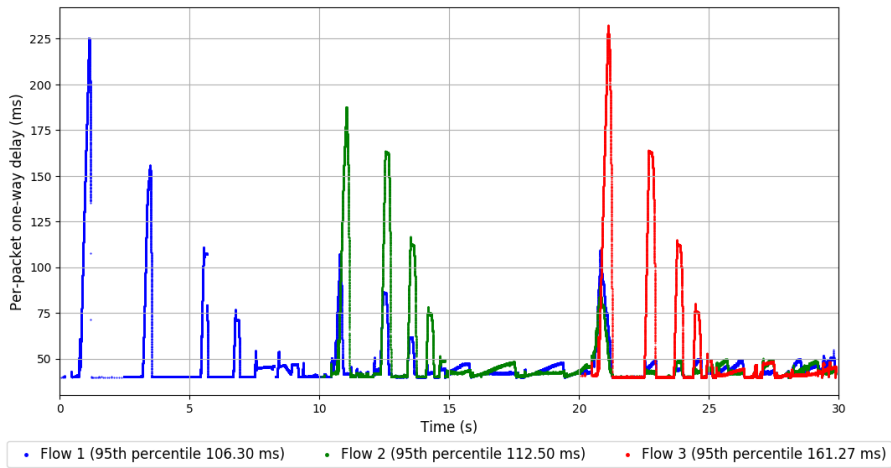
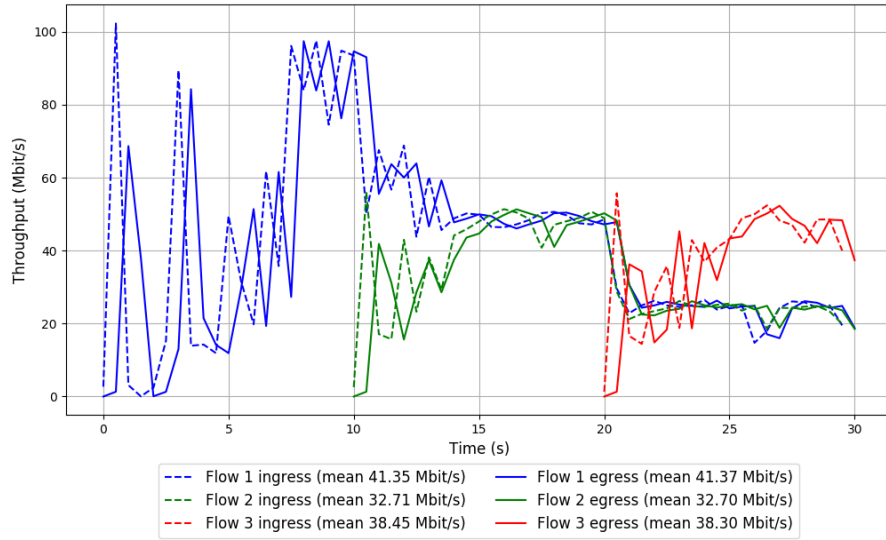


Run 2: Statistics of QUIC Cubic

Start at: 2019-06-28 12:21:53  
End at: 2019-06-28 12:22:23  
Local clock offset: -1.477 ms  
Remote clock offset: -2.368 ms

```
# Below is generated by plot.py at 2019-06-28 14:00:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.72 Mbit/s
95th percentile per-packet one-way delay: 112.544 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 41.37 Mbit/s
95th percentile per-packet one-way delay: 106.303 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 32.70 Mbit/s
95th percentile per-packet one-way delay: 112.504 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 38.30 Mbit/s
95th percentile per-packet one-way delay: 161.271 ms
Loss rate: 1.04%
```

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



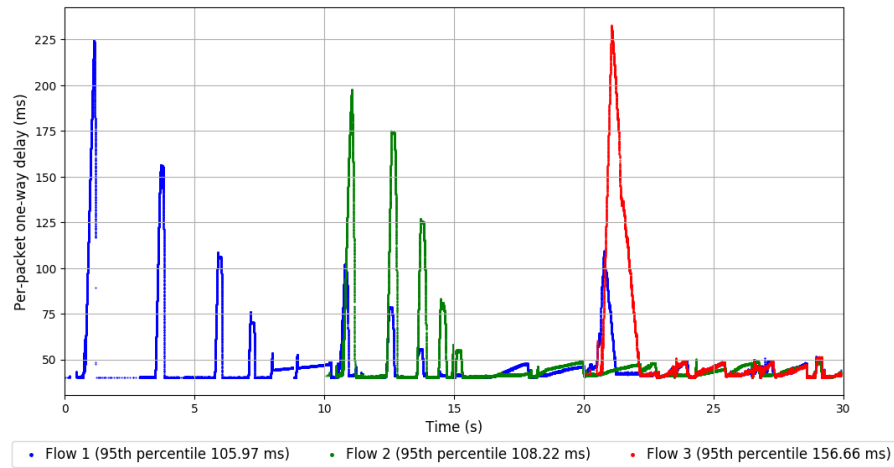
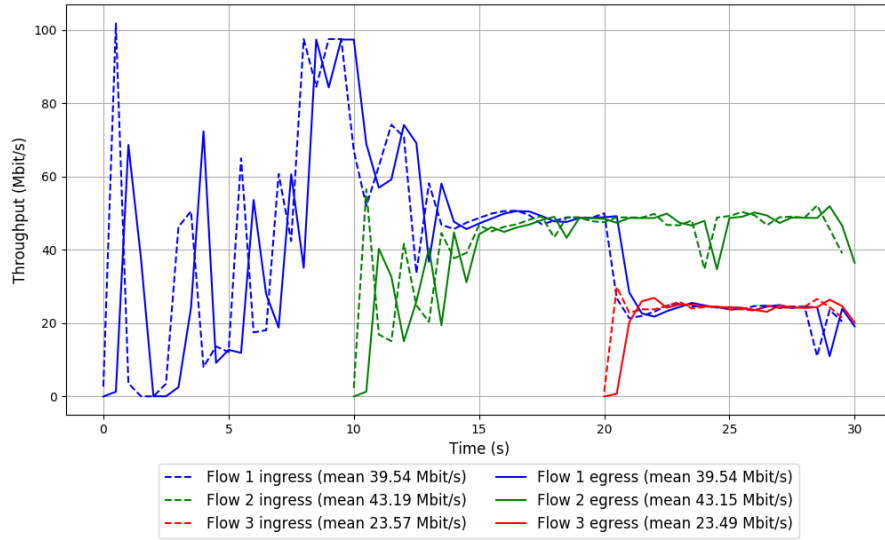


Run 3: Statistics of QUIC Cubic

Start at: 2019-06-28 12:48:57  
End at: 2019-06-28 12:49:27  
Local clock offset: 3.526 ms  
Remote clock offset: -1.657 ms

```
# Below is generated by plot.py at 2019-06-28 14:00:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.95 Mbit/s
95th percentile per-packet one-way delay: 110.437 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 39.54 Mbit/s
95th percentile per-packet one-way delay: 105.971 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 43.15 Mbit/s
95th percentile per-packet one-way delay: 108.221 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 23.49 Mbit/s
95th percentile per-packet one-way delay: 156.658 ms
Loss rate: 1.02%
```

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

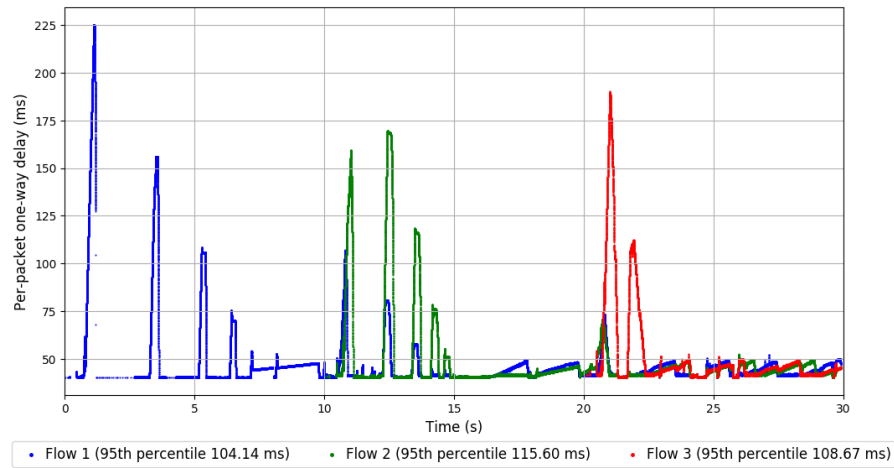
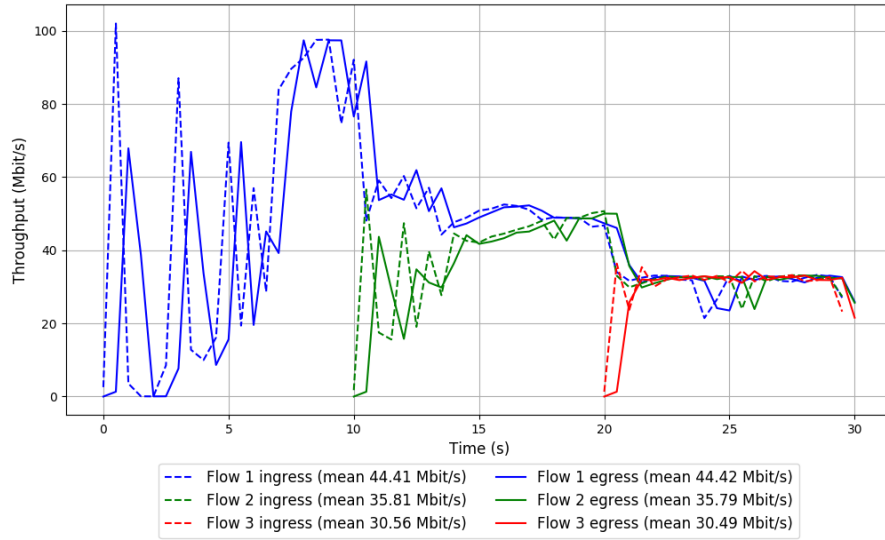


Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 13:16:17  
End at: 2019-06-28 13:16:47  
Local clock offset: 5.136 ms  
Remote clock offset: -1.231 ms

```
# Below is generated by plot.py at 2019-06-28 14:00:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.24 Mbit/s
95th percentile per-packet one-way delay: 105.687 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 44.42 Mbit/s
95th percentile per-packet one-way delay: 104.137 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 35.79 Mbit/s
95th percentile per-packet one-way delay: 115.600 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 108.665 ms
Loss rate: 0.90%
```

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



Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 13:43:42  
End at: 2019-06-28 13:44:12  
Local clock offset: -0.761 ms  
Remote clock offset: -1.523 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.47 Mbit/s  
95th percentile per-packet one-way delay: 76.062 ms  
Loss rate: 0.41%

-- Flow 1:

Average throughput: 52.78 Mbit/s  
95th percentile per-packet one-way delay: 60.499 ms  
Loss rate: 0.15%

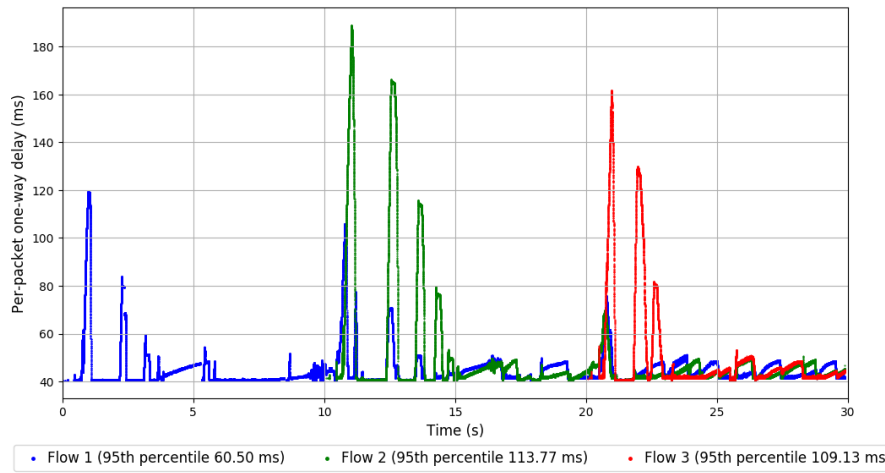
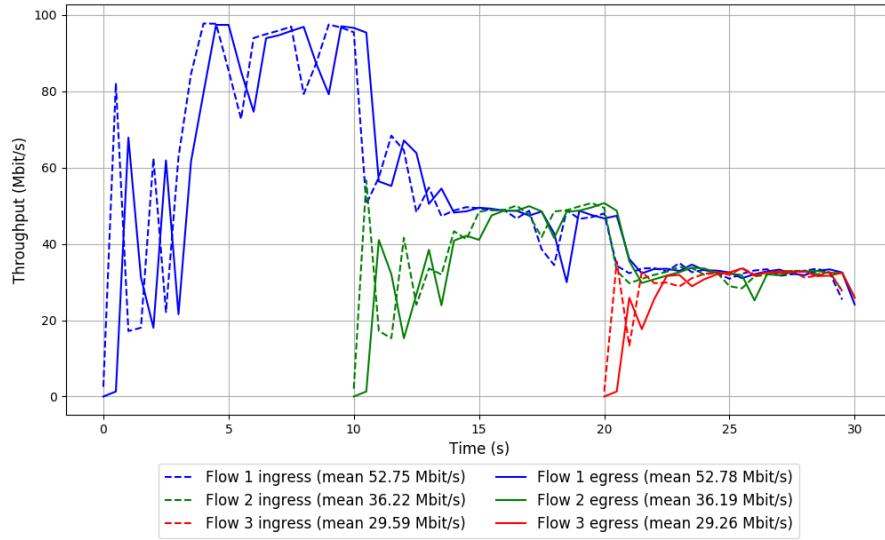
-- Flow 2:

Average throughput: 36.19 Mbit/s  
95th percentile per-packet one-way delay: 113.769 ms  
Loss rate: 0.40%

-- Flow 3:

Average throughput: 29.26 Mbit/s  
95th percentile per-packet one-way delay: 109.127 ms  
Loss rate: 1.78%

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



Run 1: Statistics of SCReAM

Start at: 2019-06-28 11:53:39  
End at: 2019-06-28 11:54:09  
Local clock offset: -3.733 ms  
Remote clock offset: -4.218 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 40.395 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.357 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.418 ms

Loss rate: 0.39%

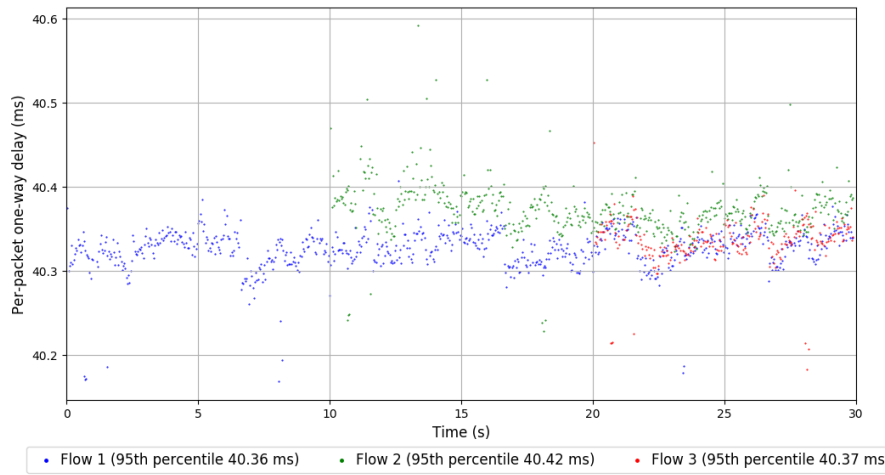
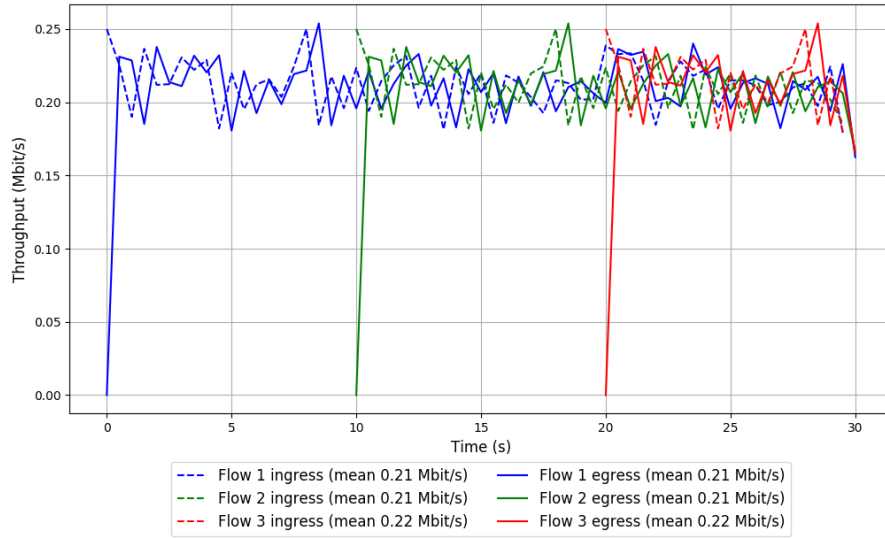
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 40.369 ms

Loss rate: 0.71%

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





Run 2: Statistics of SCReAM

Start at: 2019-06-28 12:20:43  
End at: 2019-06-28 12:21:13  
Local clock offset: -1.953 ms  
Remote clock offset: -2.431 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 40.099 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.113 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.030 ms

Loss rate: 0.39%

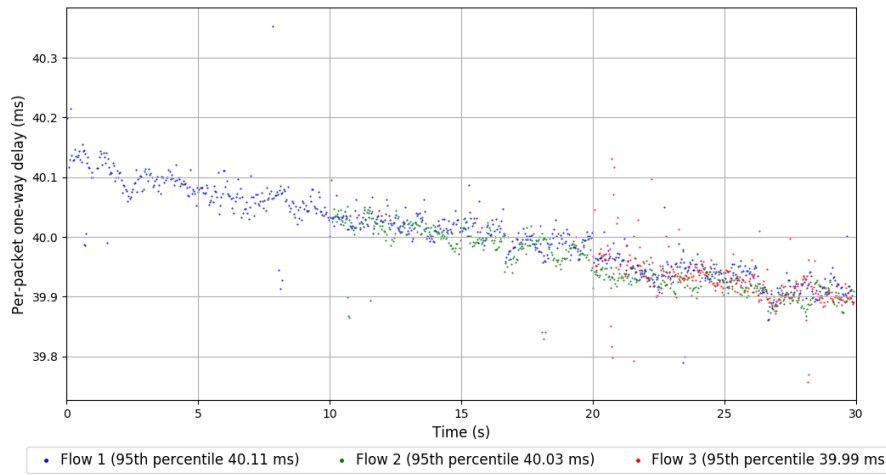
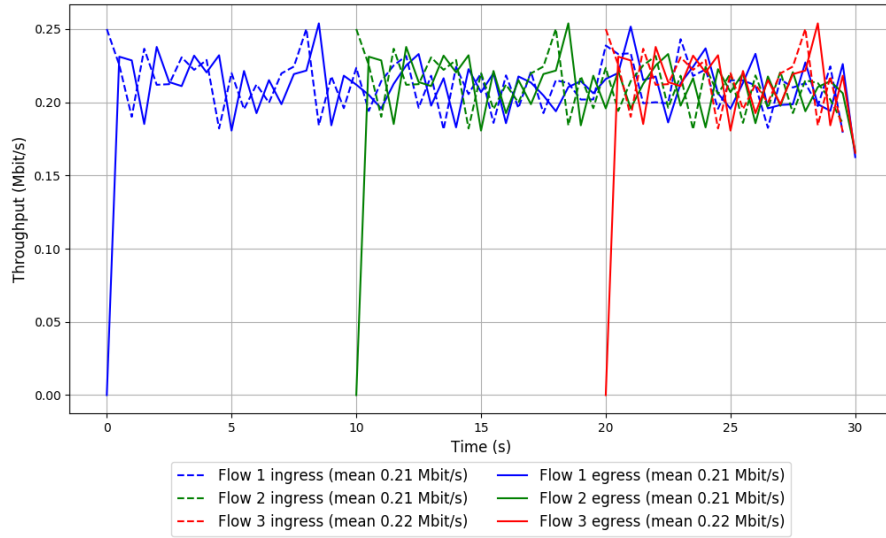
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 39.986 ms

Loss rate: 0.71%

## Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-06-28 12:47:48  
End at: 2019-06-28 12:48:18  
Local clock offset: 3.454 ms  
Remote clock offset: -1.737 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 40.407 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.415 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.389 ms

Loss rate: 0.39%

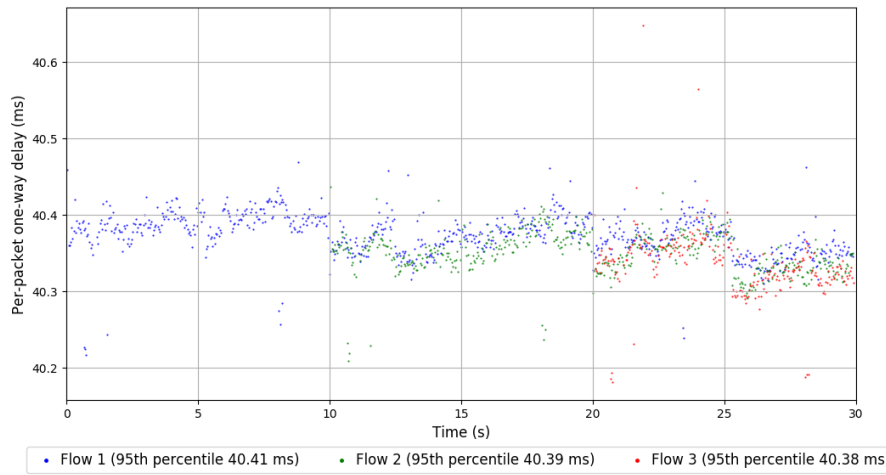
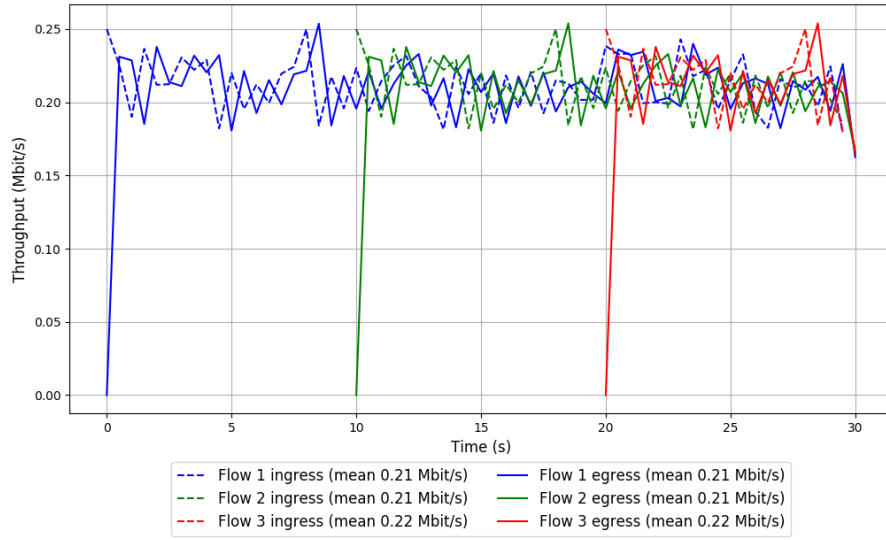
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 40.385 ms

Loss rate: 0.71%

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



Run 4: Statistics of SCReAM

Start at: 2019-06-28 13:15:08  
End at: 2019-06-28 13:15:38  
Local clock offset: 5.072 ms  
Remote clock offset: -1.254 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 40.444 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.452 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.386 ms

Loss rate: 0.39%

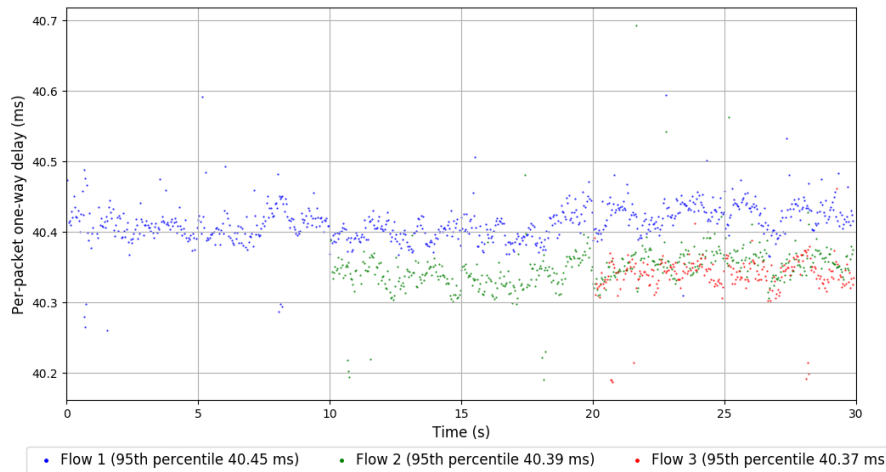
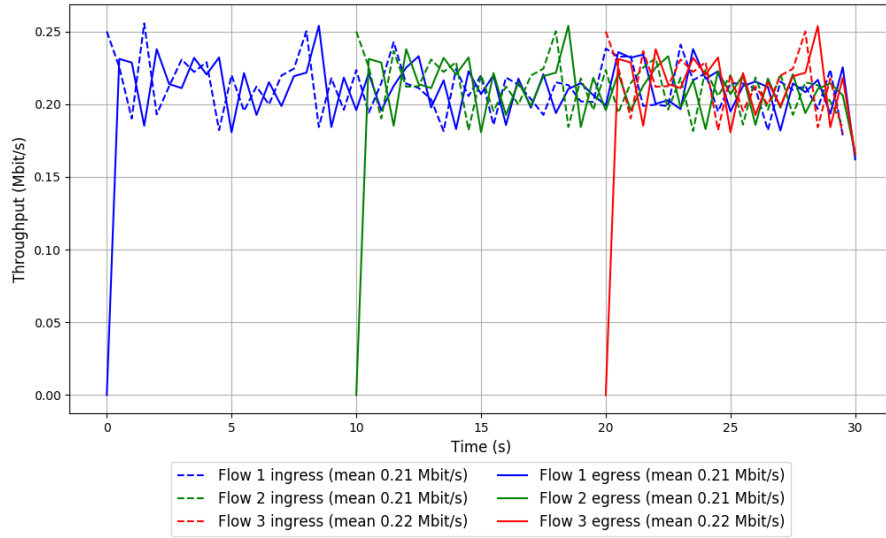
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 40.367 ms

Loss rate: 0.71%

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



Run 5: Statistics of SCReAM

Start at: 2019-06-28 13:42:33  
End at: 2019-06-28 13:43:03  
Local clock offset: -0.634 ms  
Remote clock offset: -1.421 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 40.517 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.471 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 40.535 ms

Loss rate: 0.39%

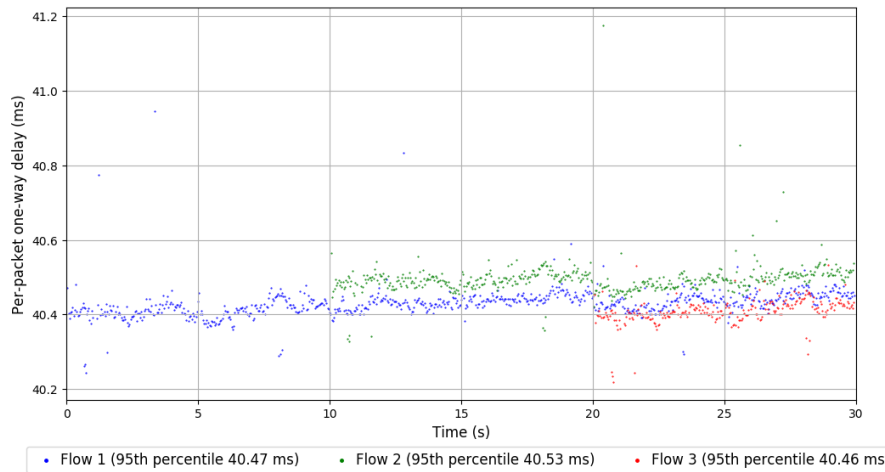
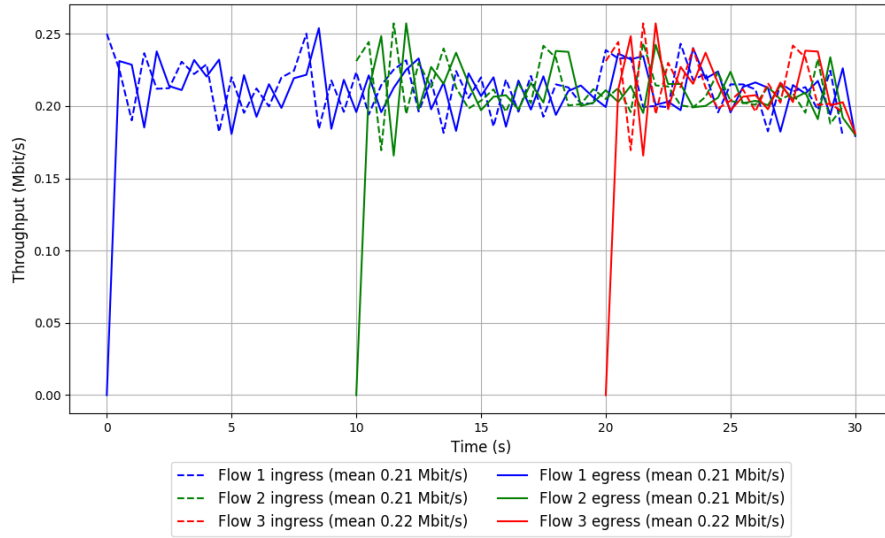
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 40.458 ms

Loss rate: 0.71%

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





Run 1: Statistics of Sprout

Start at: 2019-06-28 11:48:41  
End at: 2019-06-28 11:49:11  
Local clock offset: -4.119 ms  
Remote clock offset: -4.653 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.71 Mbit/s  
95th percentile per-packet one-way delay: 47.916 ms  
Loss rate: 0.31%

-- Flow 1:

Average throughput: 11.97 Mbit/s  
95th percentile per-packet one-way delay: 47.610 ms  
Loss rate: 0.22%

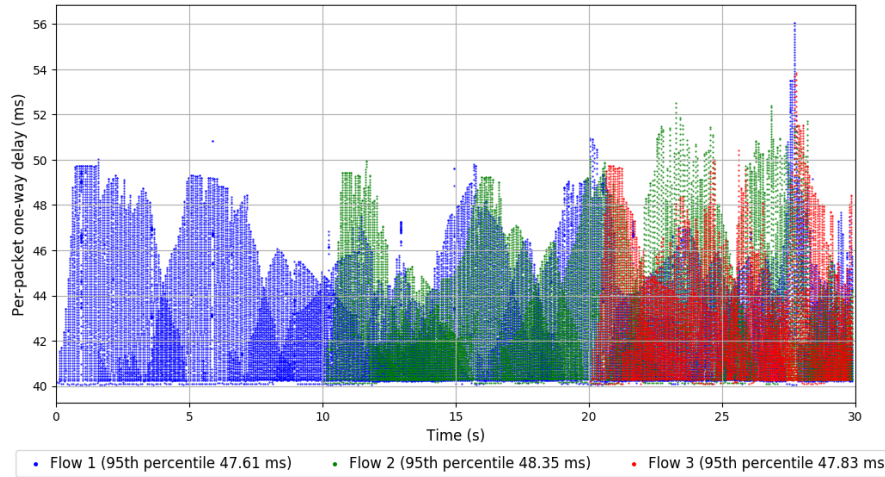
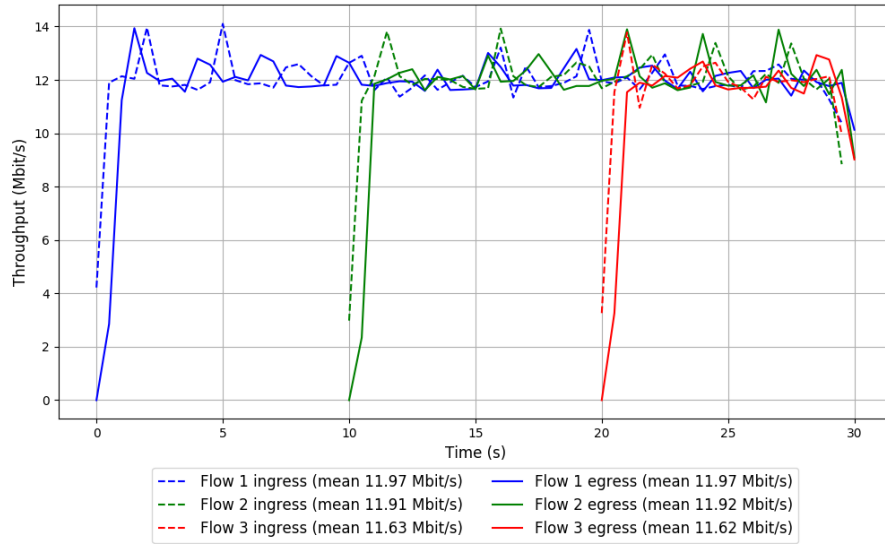
-- Flow 2:

Average throughput: 11.92 Mbit/s  
95th percentile per-packet one-way delay: 48.355 ms  
Loss rate: 0.18%

-- Flow 3:

Average throughput: 11.62 Mbit/s  
95th percentile per-packet one-way delay: 47.830 ms  
Loss rate: 0.86%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2019-06-28 12:15:46  
End at: 2019-06-28 12:16:16  
Local clock offset: -3.828 ms  
Remote clock offset: -2.651 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.57 Mbit/s  
95th percentile per-packet one-way delay: 48.508 ms  
Loss rate: 0.33%

-- Flow 1:

Average throughput: 12.00 Mbit/s  
95th percentile per-packet one-way delay: 48.047 ms  
Loss rate: 0.26%

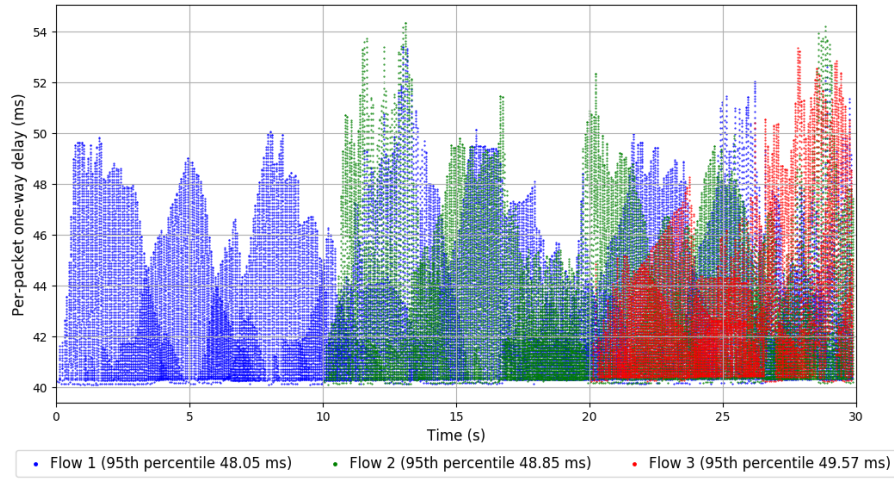
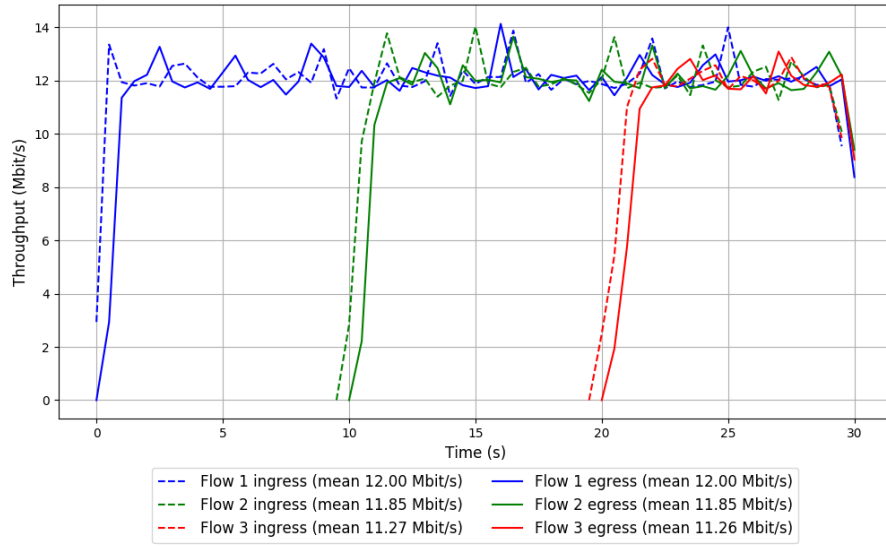
-- Flow 2:

Average throughput: 11.85 Mbit/s  
95th percentile per-packet one-way delay: 48.850 ms  
Loss rate: 0.16%

-- Flow 3:

Average throughput: 11.26 Mbit/s  
95th percentile per-packet one-way delay: 49.566 ms  
Loss rate: 0.88%

## Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2019-06-28 12:42:50  
End at: 2019-06-28 12:43:20  
Local clock offset: 3.043 ms  
Remote clock offset: -1.816 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.70 Mbit/s  
95th percentile per-packet one-way delay: 47.850 ms  
Loss rate: 0.33%

-- Flow 1:

Average throughput: 11.95 Mbit/s  
95th percentile per-packet one-way delay: 46.624 ms  
Loss rate: 0.27%

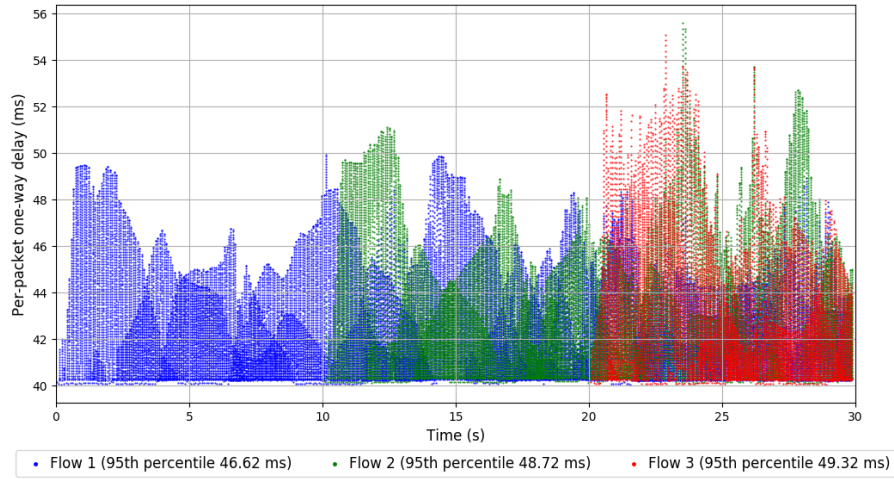
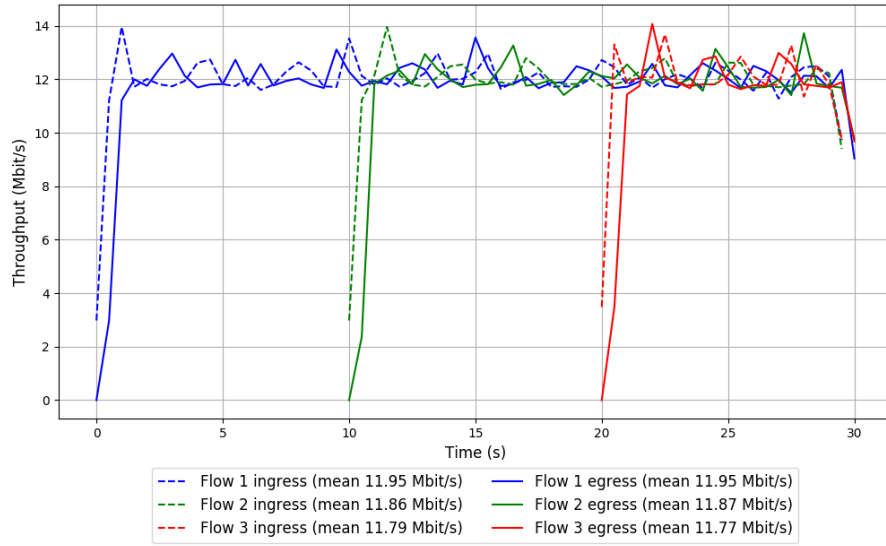
-- Flow 2:

Average throughput: 11.87 Mbit/s  
95th percentile per-packet one-way delay: 48.718 ms  
Loss rate: 0.17%

-- Flow 3:

Average throughput: 11.77 Mbit/s  
95th percentile per-packet one-way delay: 49.321 ms  
Loss rate: 0.81%

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



Run 4: Statistics of Sprout

Start at: 2019-06-28 13:10:03  
End at: 2019-06-28 13:10:33  
Local clock offset: 4.83 ms  
Remote clock offset: -1.092 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.76 Mbit/s  
95th percentile per-packet one-way delay: 47.917 ms  
Loss rate: 0.30%

-- Flow 1:

Average throughput: 12.00 Mbit/s  
95th percentile per-packet one-way delay: 47.715 ms  
Loss rate: 0.27%

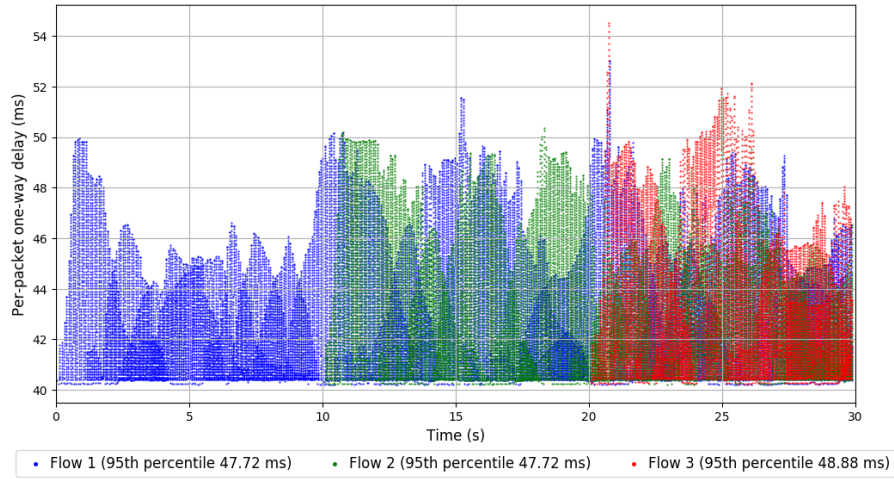
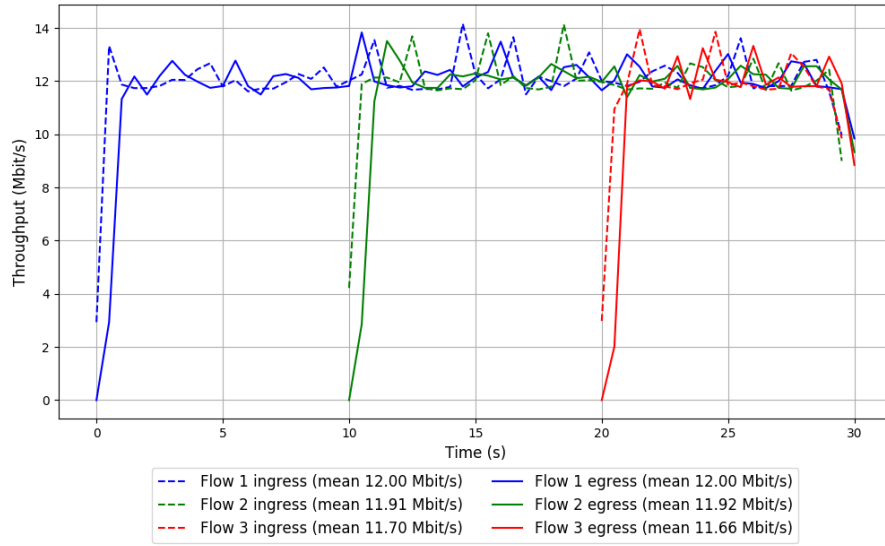
-- Flow 2:

Average throughput: 11.92 Mbit/s  
95th percentile per-packet one-way delay: 47.717 ms  
Loss rate: 0.13%

-- Flow 3:

Average throughput: 11.66 Mbit/s  
95th percentile per-packet one-way delay: 48.882 ms  
Loss rate: 0.71%

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





Run 5: Statistics of Sprout

Start at: 2019-06-28 13:37:31  
End at: 2019-06-28 13:38:01  
Local clock offset: -0.22 ms  
Remote clock offset: -1.451 ms

# Below is generated by plot.py at 2019-06-28 14:01:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.71 Mbit/s  
95th percentile per-packet one-way delay: 48.315 ms  
Loss rate: 0.30%

-- Flow 1:

Average throughput: 11.97 Mbit/s  
95th percentile per-packet one-way delay: 48.330 ms  
Loss rate: 0.26%

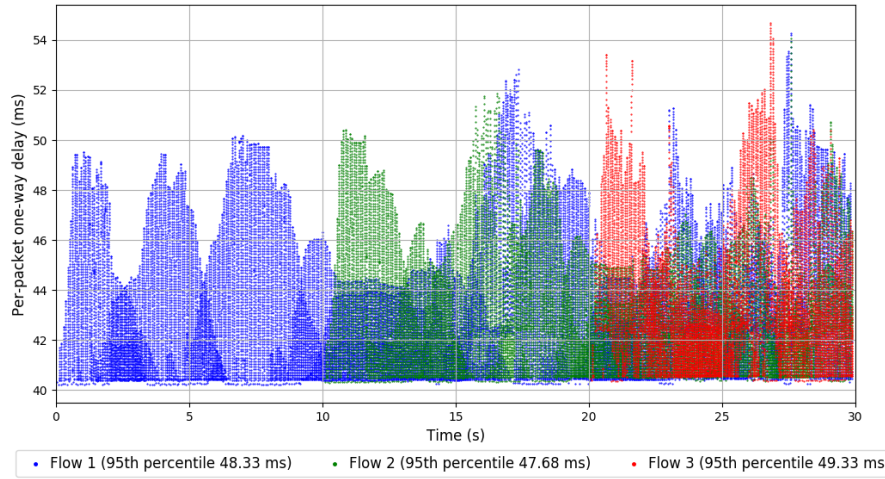
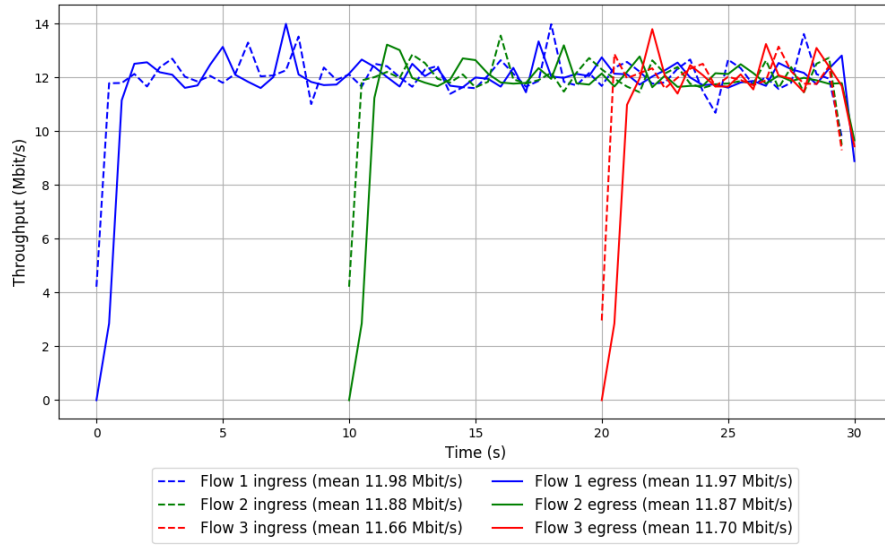
-- Flow 2:

Average throughput: 11.87 Mbit/s  
95th percentile per-packet one-way delay: 47.681 ms  
Loss rate: 0.38%

-- Flow 3:

Average throughput: 11.70 Mbit/s  
95th percentile per-packet one-way delay: 49.327 ms  
Loss rate: 0.26%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-06-28 11:52:22  
End at: 2019-06-28 11:52:52  
Local clock offset: -3.806 ms  
Remote clock offset: -4.287 ms

# Below is generated by plot.py at 2019-06-28 14:02:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.17 Mbit/s  
95th percentile per-packet one-way delay: 121.678 ms  
Loss rate: 0.79%

-- Flow 1:

Average throughput: 60.43 Mbit/s  
95th percentile per-packet one-way delay: 107.178 ms  
Loss rate: 0.42%

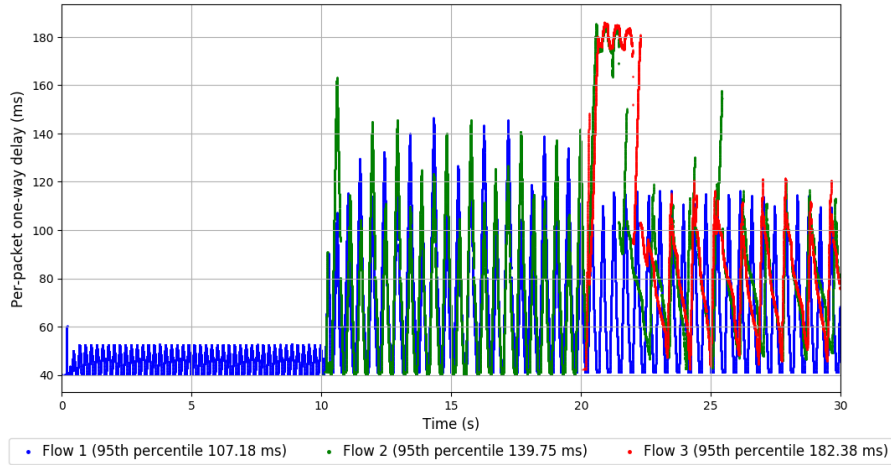
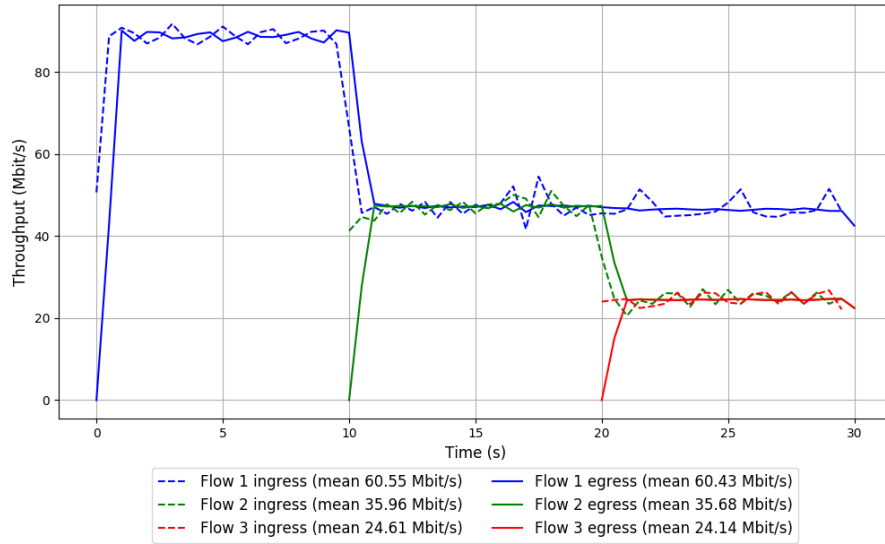
-- Flow 2:

Average throughput: 35.68 Mbit/s  
95th percentile per-packet one-way delay: 139.754 ms  
Loss rate: 1.11%

-- Flow 3:

Average throughput: 24.14 Mbit/s  
95th percentile per-packet one-way delay: 182.379 ms  
Loss rate: 2.58%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-06-28 12:19:26  
End at: 2019-06-28 12:19:56  
Local clock offset: -2.867 ms  
Remote clock offset: -2.451 ms

# Below is generated by plot.py at 2019-06-28 14:02:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.15 Mbit/s  
95th percentile per-packet one-way delay: 124.121 ms  
Loss rate: 0.72%

-- Flow 1:

Average throughput: 60.41 Mbit/s  
95th percentile per-packet one-way delay: 108.226 ms  
Loss rate: 0.32%

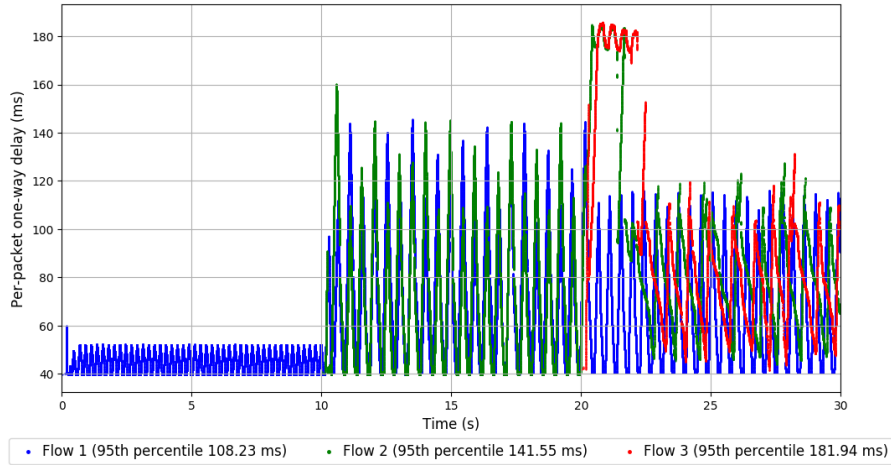
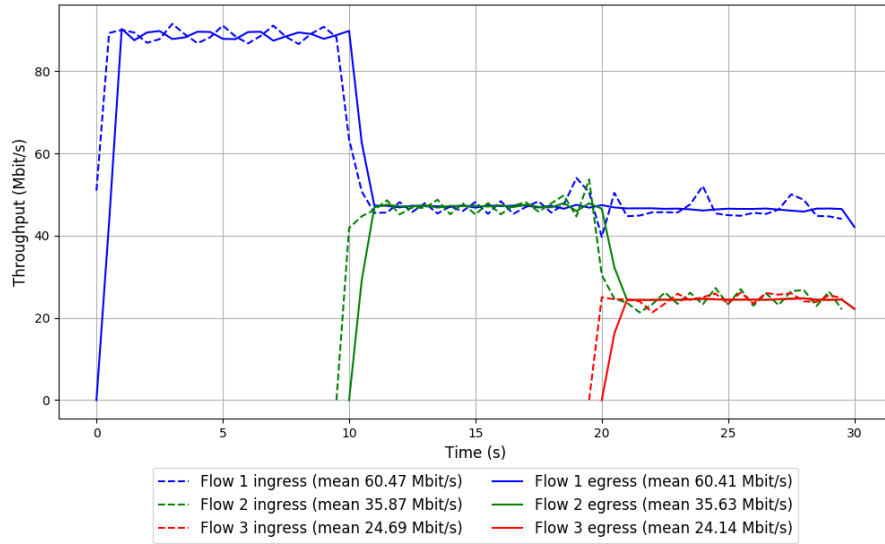
-- Flow 2:

Average throughput: 35.63 Mbit/s  
95th percentile per-packet one-way delay: 141.553 ms  
Loss rate: 0.99%

-- Flow 3:

Average throughput: 24.14 Mbit/s  
95th percentile per-packet one-way delay: 181.937 ms  
Loss rate: 2.88%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-06-28 12:46:31

End at: 2019-06-28 12:47:01

Local clock offset: 3.392 ms

Remote clock offset: -1.772 ms

# Below is generated by plot.py at 2019-06-28 14:02:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.18 Mbit/s

95th percentile per-packet one-way delay: 132.162 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 55.70 Mbit/s

95th percentile per-packet one-way delay: 130.664 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 39.28 Mbit/s

95th percentile per-packet one-way delay: 132.506 ms

Loss rate: 1.92%

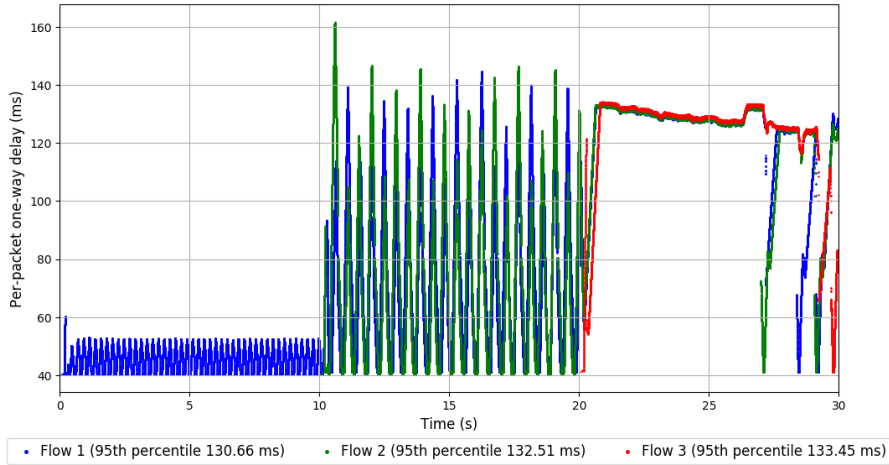
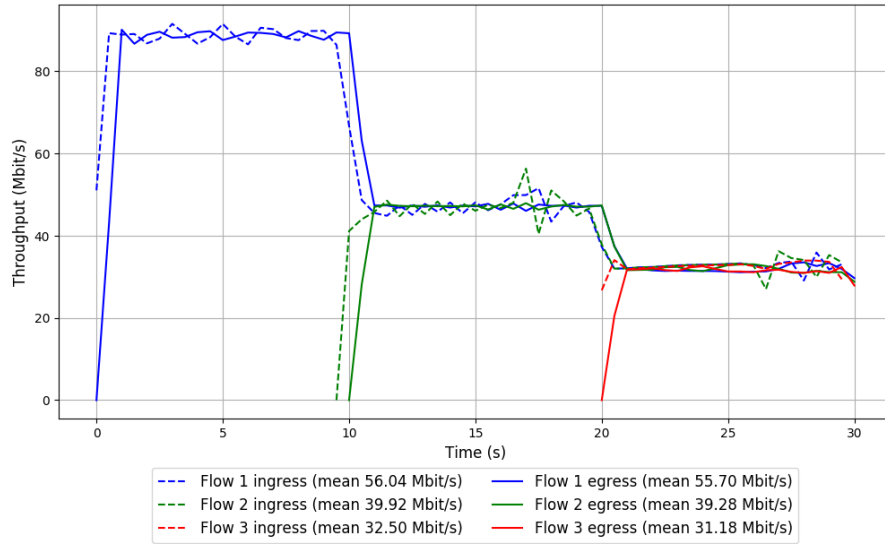
-- Flow 3:

Average throughput: 31.18 Mbit/s

95th percentile per-packet one-way delay: 133.449 ms

Loss rate: 4.69%

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



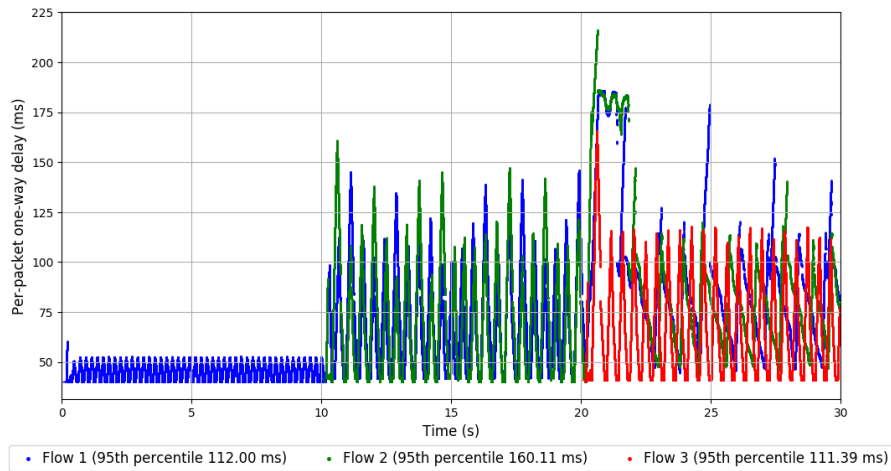
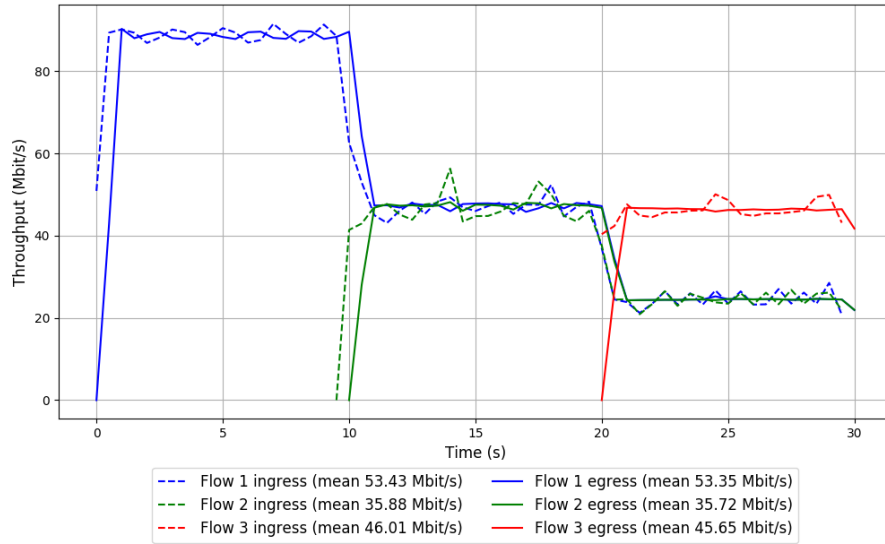


Run 4: Statistics of TaoVA-100x

Start at: 2019-06-28 13:13:50  
End at: 2019-06-28 13:14:20  
Local clock offset: 4.988 ms  
Remote clock offset: -1.175 ms

```
# Below is generated by plot.py at 2019-06-28 14:02:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 119.398 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 53.35 Mbit/s
95th percentile per-packet one-way delay: 112.001 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 35.72 Mbit/s
95th percentile per-packet one-way delay: 160.111 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 45.65 Mbit/s
95th percentile per-packet one-way delay: 111.391 ms
Loss rate: 1.45%
```

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

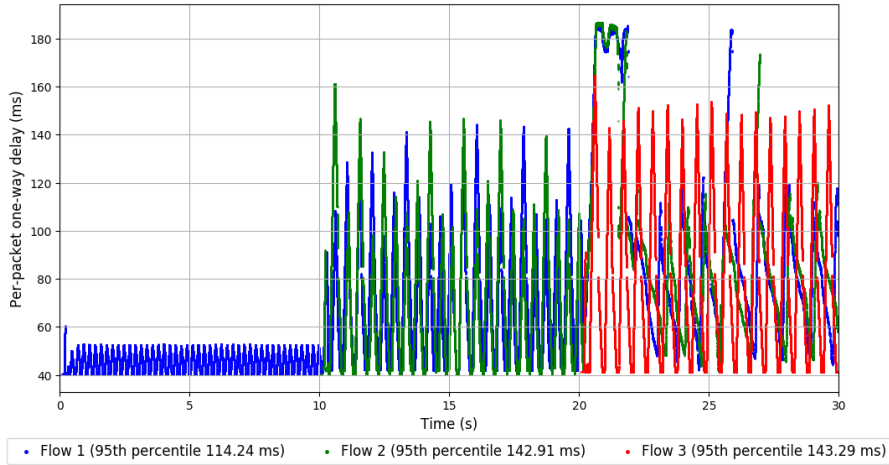
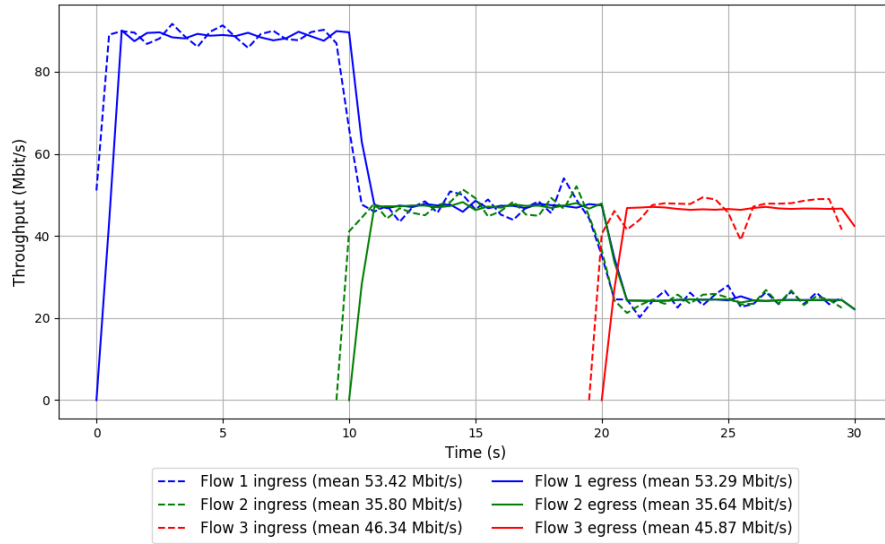


Run 5: Statistics of TaoVA-100x

Start at: 2019-06-28 13:41:13  
End at: 2019-06-28 13:41:43  
Local clock offset: -0.547 ms  
Remote clock offset: -1.395 ms

```
# Below is generated by plot.py at 2019-06-28 14:03:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.23 Mbit/s
95th percentile per-packet one-way delay: 135.398 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 53.29 Mbit/s
95th percentile per-packet one-way delay: 114.239 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 35.64 Mbit/s
95th percentile per-packet one-way delay: 142.911 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 45.87 Mbit/s
95th percentile per-packet one-way delay: 143.290 ms
Loss rate: 1.66%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2019-06-28 11:46:15  
End at: 2019-06-28 11:46:45  
Local clock offset: -4.117 ms  
Remote clock offset: -4.906 ms

# Below is generated by plot.py at 2019-06-28 14:03:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.14 Mbit/s  
95th percentile per-packet one-way delay: 43.102 ms  
Loss rate: 0.27%

-- Flow 1:

Average throughput: 51.22 Mbit/s  
95th percentile per-packet one-way delay: 43.152 ms  
Loss rate: 0.16%

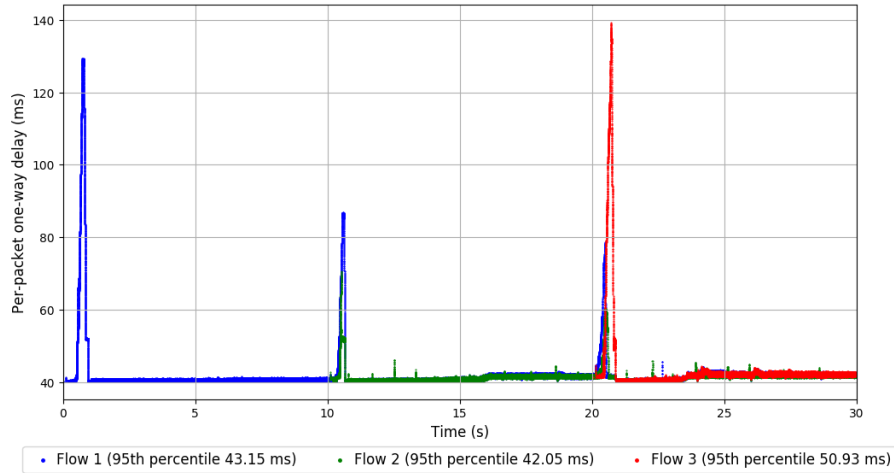
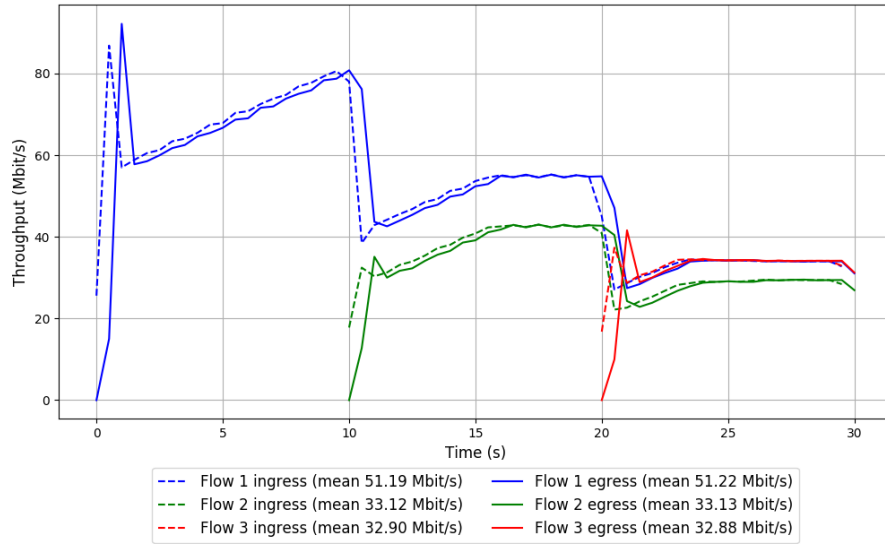
-- Flow 2:

Average throughput: 33.13 Mbit/s  
95th percentile per-packet one-way delay: 42.054 ms  
Loss rate: 0.30%

-- Flow 3:

Average throughput: 32.88 Mbit/s  
95th percentile per-packet one-way delay: 50.928 ms  
Loss rate: 0.72%

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



Run 2: Statistics of TCP Vegas

Start at: 2019-06-28 12:13:19  
End at: 2019-06-28 12:13:49  
Local clock offset: -3.763 ms  
Remote clock offset: -2.861 ms

# Below is generated by plot.py at 2019-06-28 14:03:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 72.23 Mbit/s  
95th percentile per-packet one-way delay: 45.060 ms  
Loss rate: 0.33%

-- Flow 1:

Average throughput: 36.76 Mbit/s  
95th percentile per-packet one-way delay: 60.752 ms  
Loss rate: 0.19%

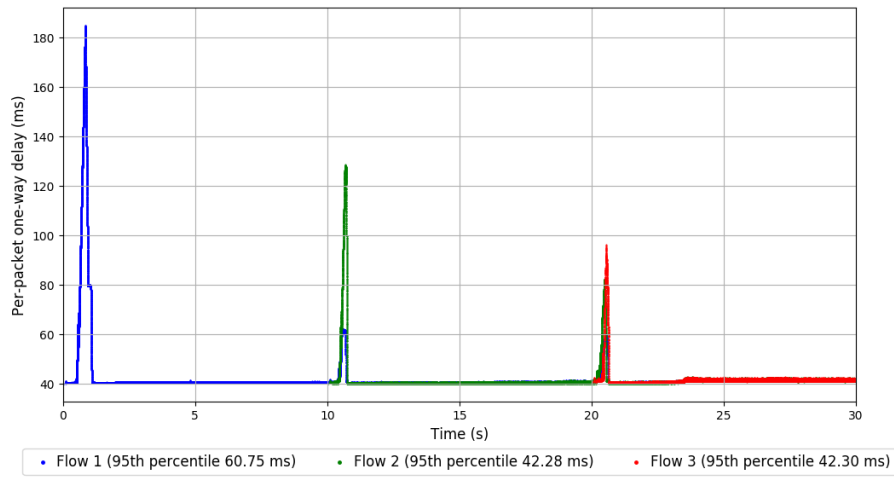
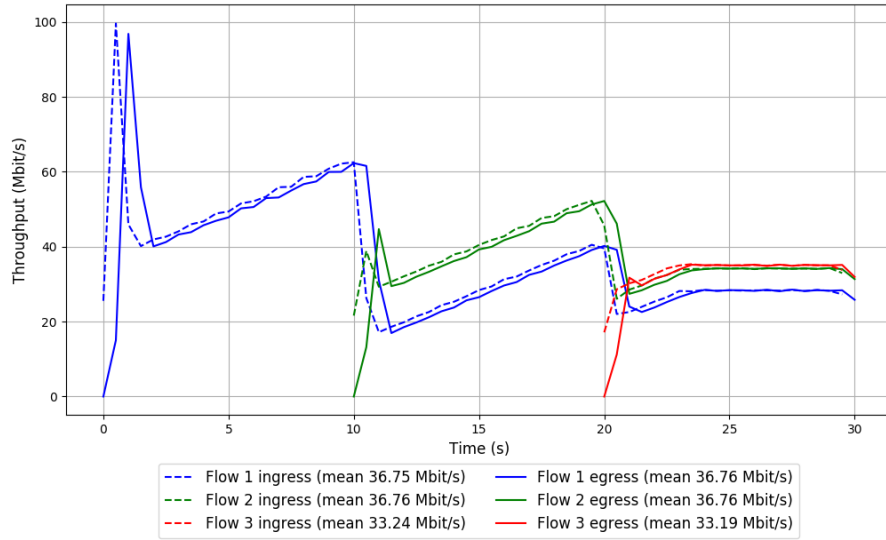
-- Flow 2:

Average throughput: 36.76 Mbit/s  
95th percentile per-packet one-way delay: 42.281 ms  
Loss rate: 0.33%

-- Flow 3:

Average throughput: 33.19 Mbit/s  
95th percentile per-packet one-way delay: 42.295 ms  
Loss rate: 0.81%

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





Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 12:40:23

End at: 2019-06-28 12:40:53

Local clock offset: 2.844 ms

Remote clock offset: -1.84 ms

# Below is generated by plot.py at 2019-06-28 14:03:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.70 Mbit/s

95th percentile per-packet one-way delay: 45.053 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 48.89 Mbit/s

95th percentile per-packet one-way delay: 50.287 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 31.14 Mbit/s

95th percentile per-packet one-way delay: 42.254 ms

Loss rate: 0.27%

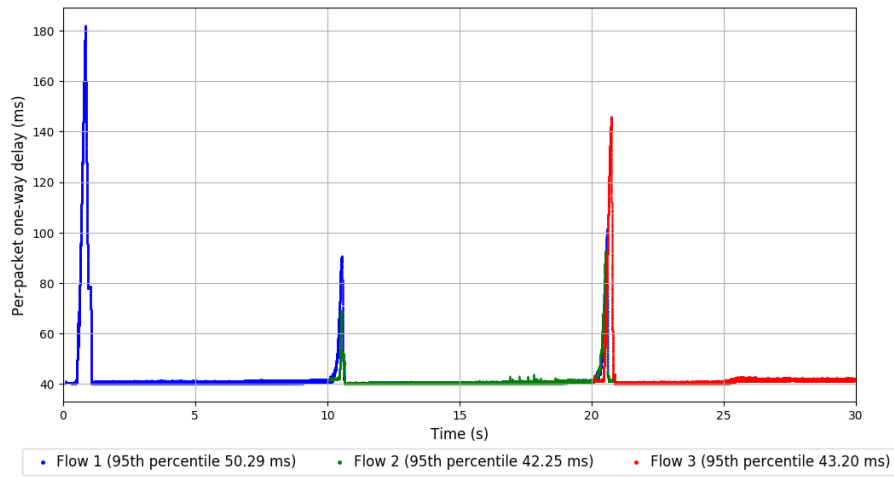
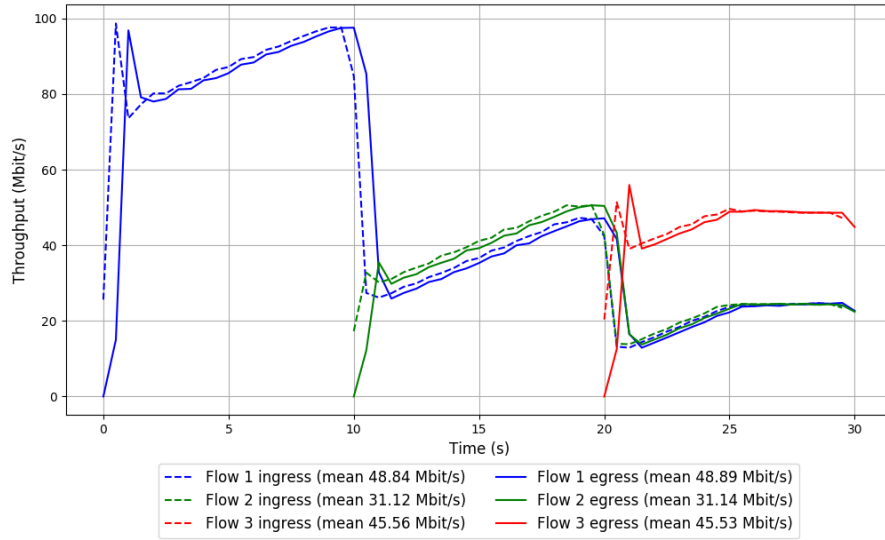
-- Flow 3:

Average throughput: 45.53 Mbit/s

95th percentile per-packet one-way delay: 43.205 ms

Loss rate: 0.73%

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



Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 13:07:35  
End at: 2019-06-28 13:08:05  
Local clock offset: 4.664 ms  
Remote clock offset: -1.169 ms

# Below is generated by plot.py at 2019-06-28 14:03:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 72.20 Mbit/s  
95th percentile per-packet one-way delay: 44.884 ms  
Loss rate: 0.32%

-- Flow 1:

Average throughput: 36.75 Mbit/s  
95th percentile per-packet one-way delay: 59.496 ms  
Loss rate: 0.20%

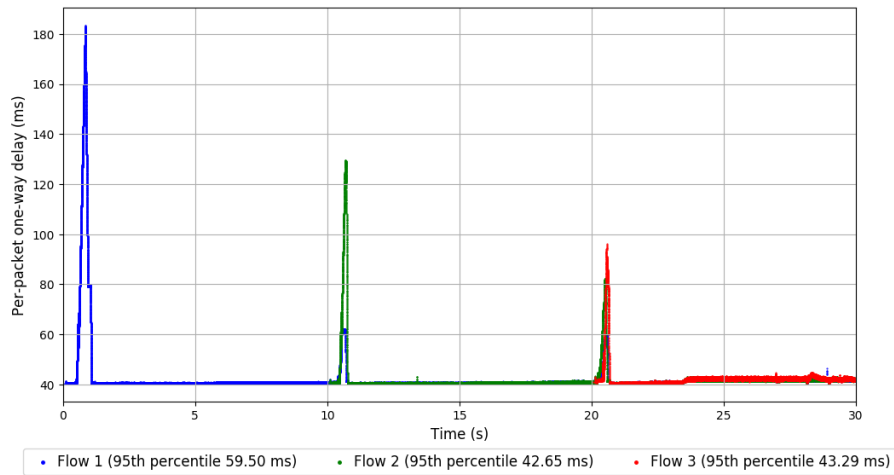
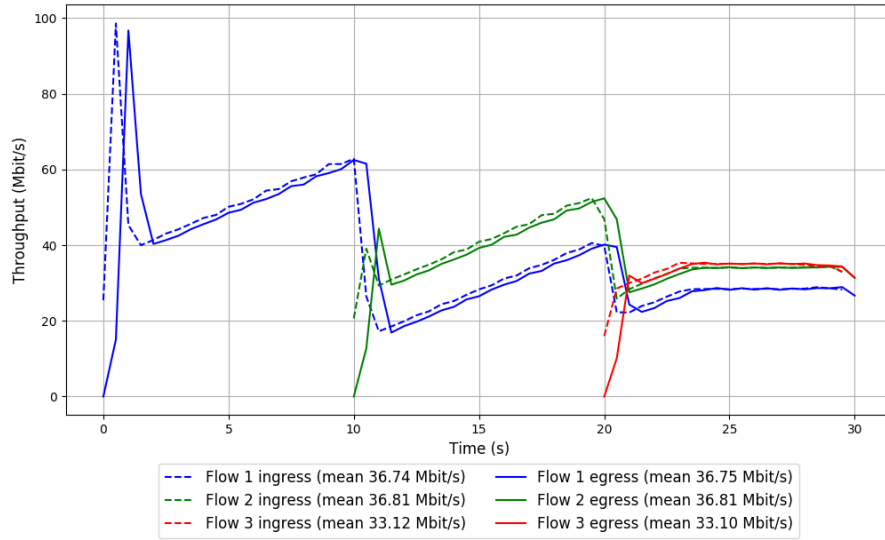
-- Flow 2:

Average throughput: 36.81 Mbit/s  
95th percentile per-packet one-way delay: 42.653 ms  
Loss rate: 0.32%

-- Flow 3:

Average throughput: 33.10 Mbit/s  
95th percentile per-packet one-way delay: 43.290 ms  
Loss rate: 0.69%

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



Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 13:35:03

End at: 2019-06-28 13:35:33

Local clock offset: 0.074 ms

Remote clock offset: -1.44 ms

# Below is generated by plot.py at 2019-06-28 14:03:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.01 Mbit/s

95th percentile per-packet one-way delay: 43.030 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 52.36 Mbit/s

95th percentile per-packet one-way delay: 46.204 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 31.20 Mbit/s

95th percentile per-packet one-way delay: 42.222 ms

Loss rate: 0.27%

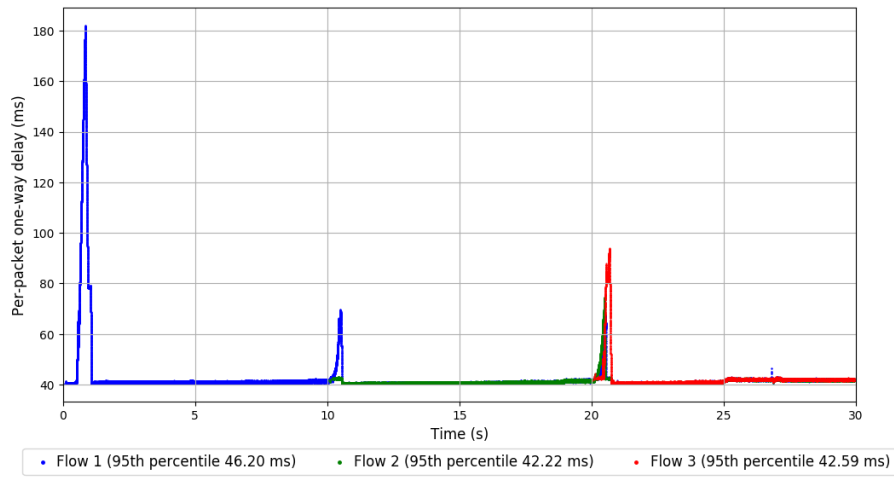
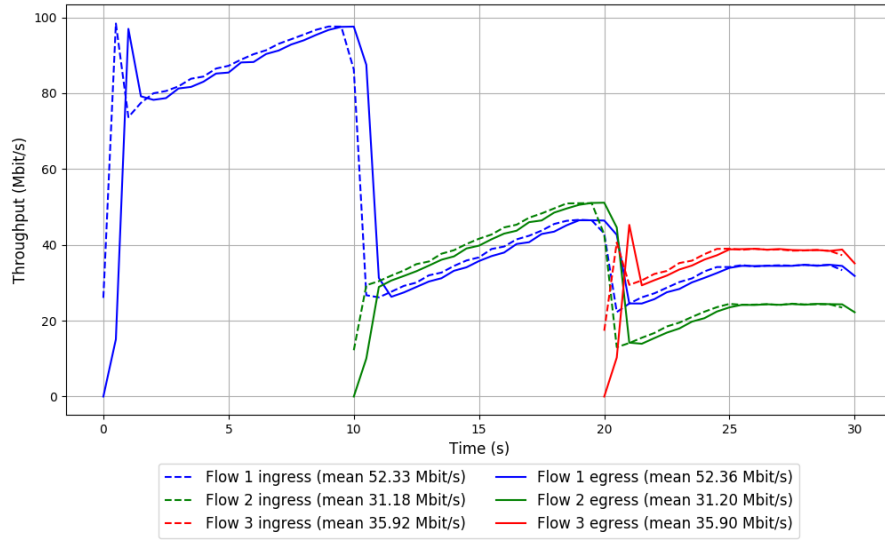
-- Flow 3:

Average throughput: 35.90 Mbit/s

95th percentile per-packet one-way delay: 42.590 ms

Loss rate: 0.73%

Run 5: Report of TCP Vegas — Data Link

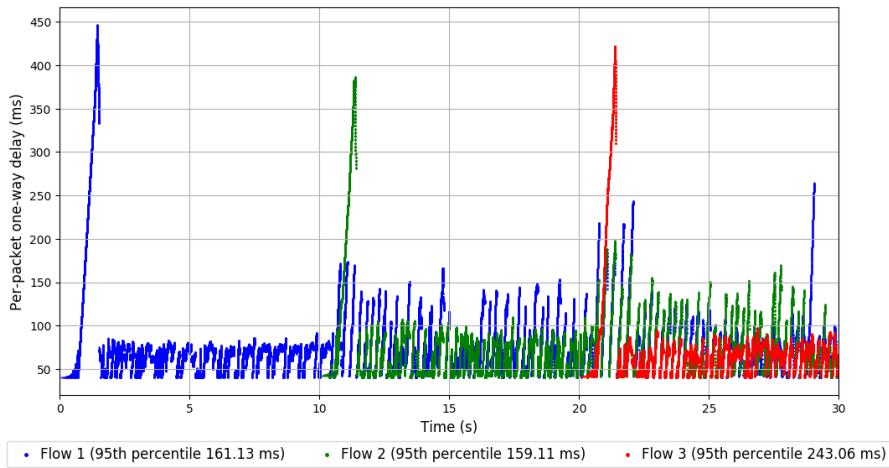
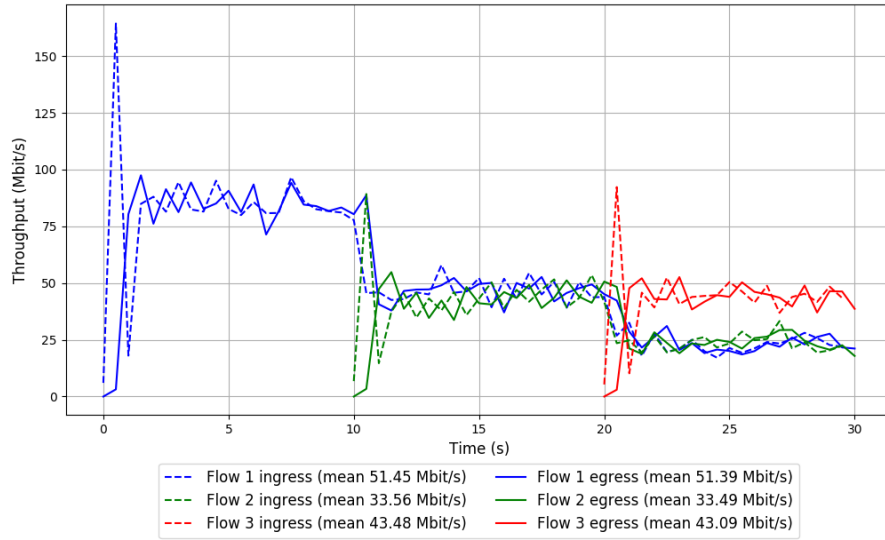


Run 1: Statistics of Verus

Start at: 2019-06-28 11:32:39  
End at: 2019-06-28 11:33:09  
Local clock offset: -3.051 ms  
Remote clock offset: -5.984 ms

# Below is generated by plot.py at 2019-06-28 14:03:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.91 Mbit/s  
95th percentile per-packet one-way delay: 164.567 ms  
Loss rate: 0.57%  
-- Flow 1:  
Average throughput: 51.39 Mbit/s  
95th percentile per-packet one-way delay: 161.135 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 33.49 Mbit/s  
95th percentile per-packet one-way delay: 159.111 ms  
Loss rate: 0.50%  
-- Flow 3:  
Average throughput: 43.09 Mbit/s  
95th percentile per-packet one-way delay: 243.059 ms  
Loss rate: 1.55%

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



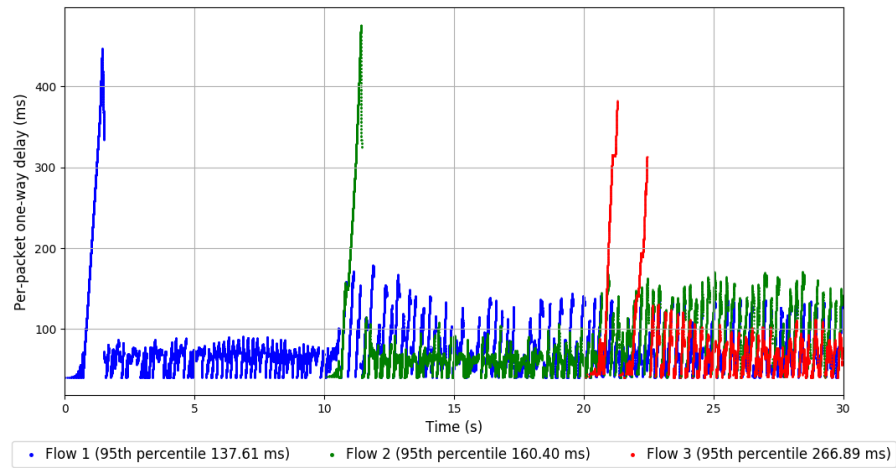
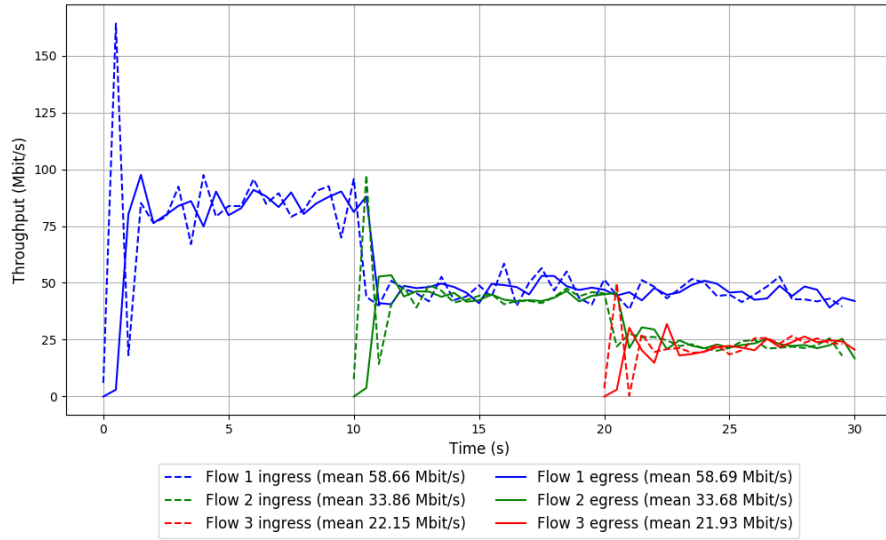


Run 2: Statistics of Verus

Start at: 2019-06-28 11:59:44  
End at: 2019-06-28 12:00:14  
Local clock offset: -3.593 ms  
Remote clock offset: -3.769 ms

```
# Below is generated by plot.py at 2019-06-28 14:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.32 Mbit/s
95th percentile per-packet one-way delay: 154.762 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 58.69 Mbit/s
95th percentile per-packet one-way delay: 137.609 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 33.68 Mbit/s
95th percentile per-packet one-way delay: 160.403 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 21.93 Mbit/s
95th percentile per-packet one-way delay: 266.887 ms
Loss rate: 1.63%
```

## Run 2: Report of Verus — Data Link

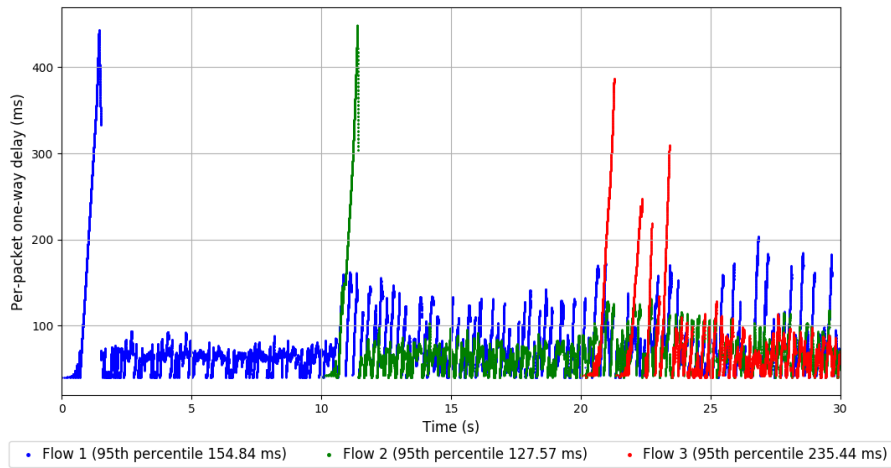
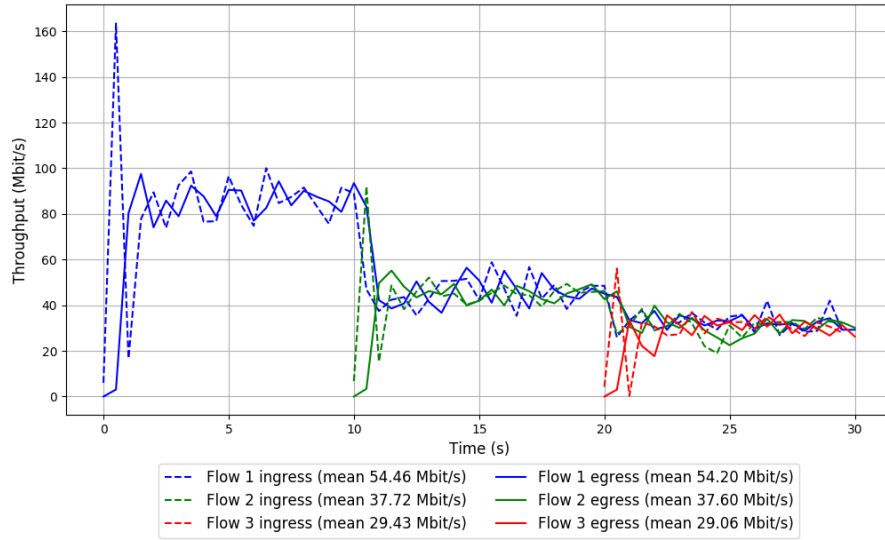


Run 3: Statistics of Verus

Start at: 2019-06-28 12:26:47  
End at: 2019-06-28 12:27:17  
Local clock offset: 0.466 ms  
Remote clock offset: -2.146 ms

```
# Below is generated by plot.py at 2019-06-28 14:03:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.82 Mbit/s
95th percentile per-packet one-way delay: 159.454 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 54.20 Mbit/s
95th percentile per-packet one-way delay: 154.839 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 37.60 Mbit/s
95th percentile per-packet one-way delay: 127.572 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 29.06 Mbit/s
95th percentile per-packet one-way delay: 235.436 ms
Loss rate: 1.88%
```

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

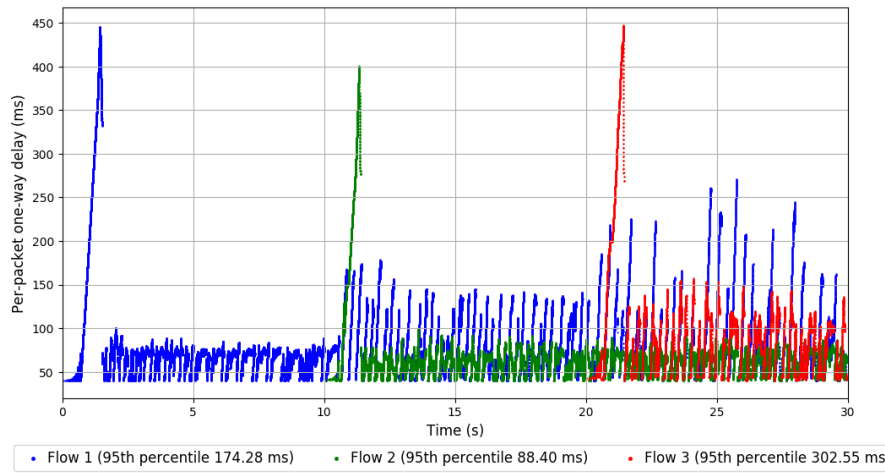
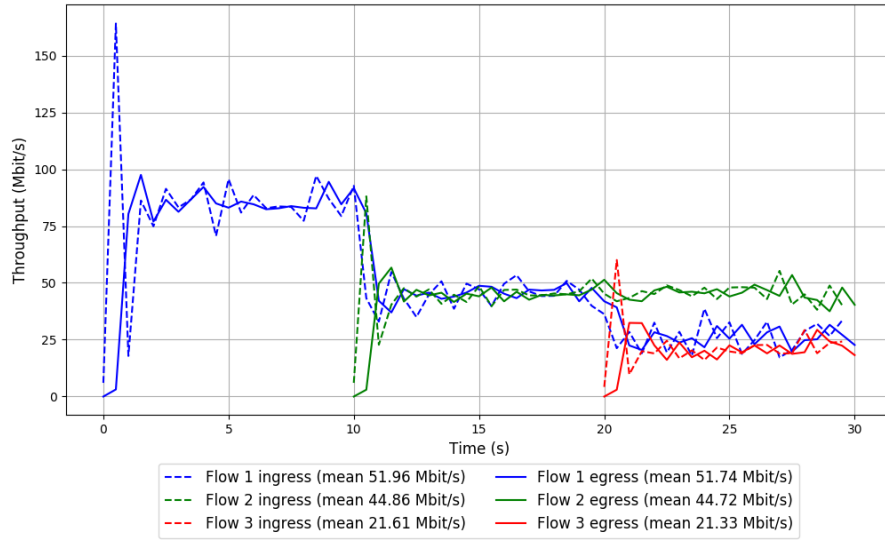


Run 4: Statistics of Verus

Start at: 2019-06-28 12:53:53  
End at: 2019-06-28 12:54:23  
Local clock offset: 3.891 ms  
Remote clock offset: -1.489 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.55 Mbit/s
95th percentile per-packet one-way delay: 165.999 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 51.74 Mbit/s
95th percentile per-packet one-way delay: 174.275 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 44.72 Mbit/s
95th percentile per-packet one-way delay: 88.396 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 21.33 Mbit/s
95th percentile per-packet one-way delay: 302.547 ms
Loss rate: 1.94%
```

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

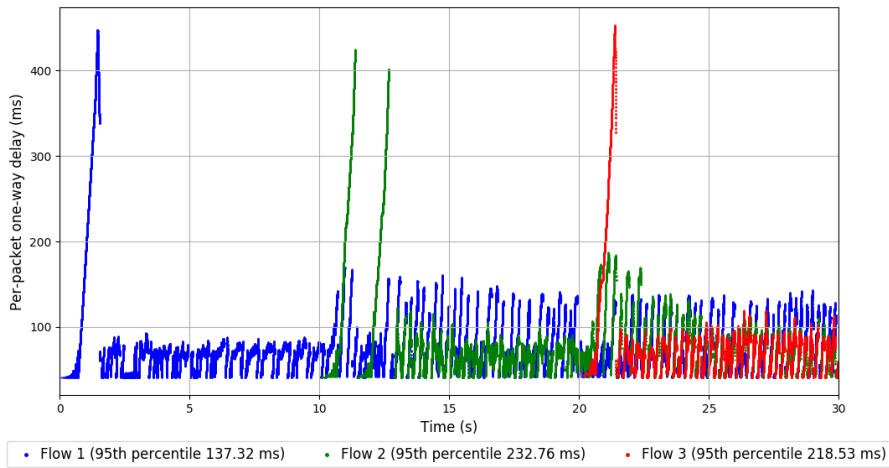
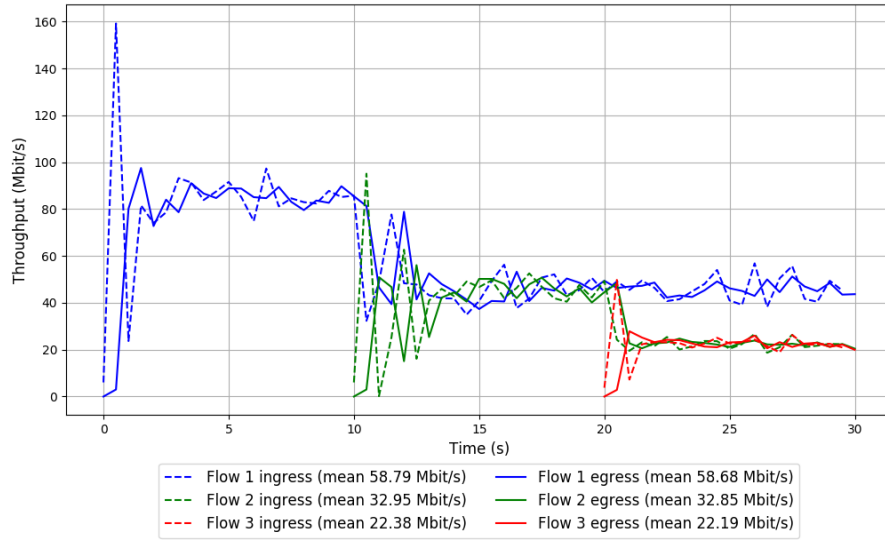


Run 5: Statistics of Verus

Start at: 2019-06-28 13:21:12  
End at: 2019-06-28 13:21:42  
Local clock offset: 3.475 ms  
Remote clock offset: -1.348 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.86 Mbit/s
95th percentile per-packet one-way delay: 160.881 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 58.68 Mbit/s
95th percentile per-packet one-way delay: 137.324 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 32.85 Mbit/s
95th percentile per-packet one-way delay: 232.758 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 22.19 Mbit/s
95th percentile per-packet one-way delay: 218.525 ms
Loss rate: 1.51%
```

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



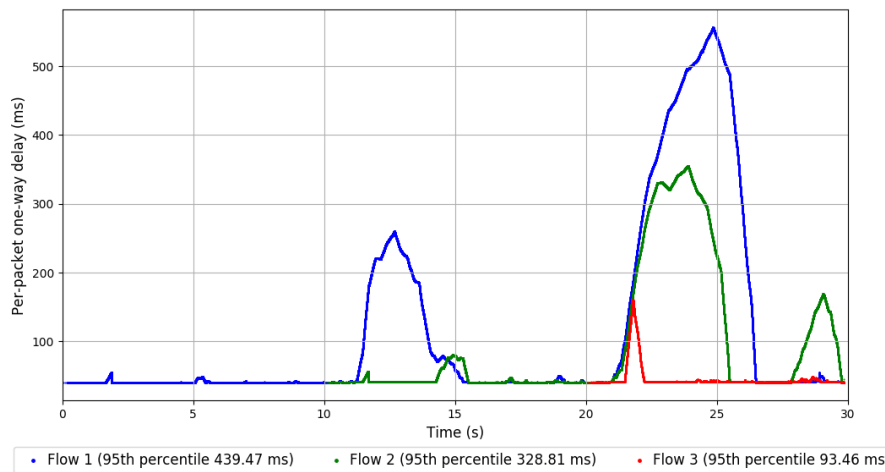
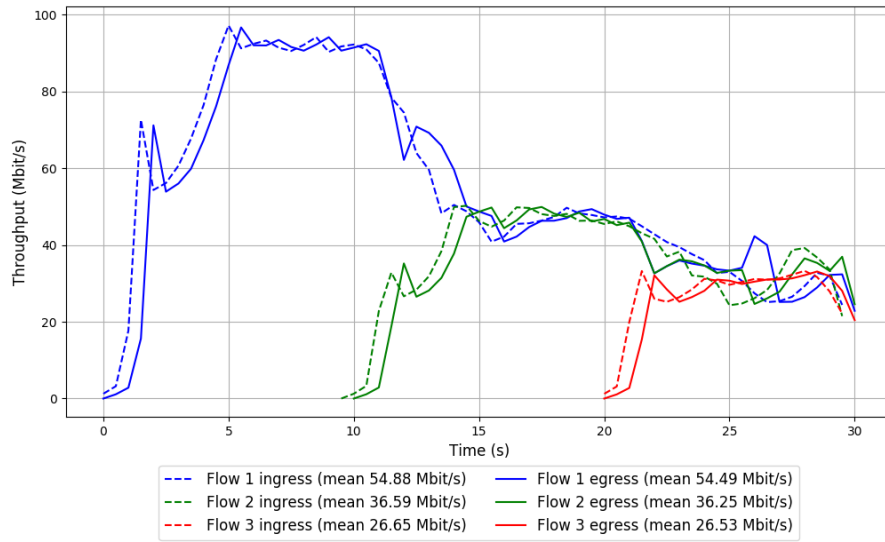


Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 11:33:54  
End at: 2019-06-28 11:34:24  
Local clock offset: -3.203 ms  
Remote clock offset: -5.845 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.30 Mbit/s
95th percentile per-packet one-way delay: 344.268 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 54.49 Mbit/s
95th percentile per-packet one-way delay: 439.466 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 36.25 Mbit/s
95th percentile per-packet one-way delay: 328.812 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 26.53 Mbit/s
95th percentile per-packet one-way delay: 93.456 ms
Loss rate: 1.09%
```

Run 1: Report of PCC-Vivace — Data Link

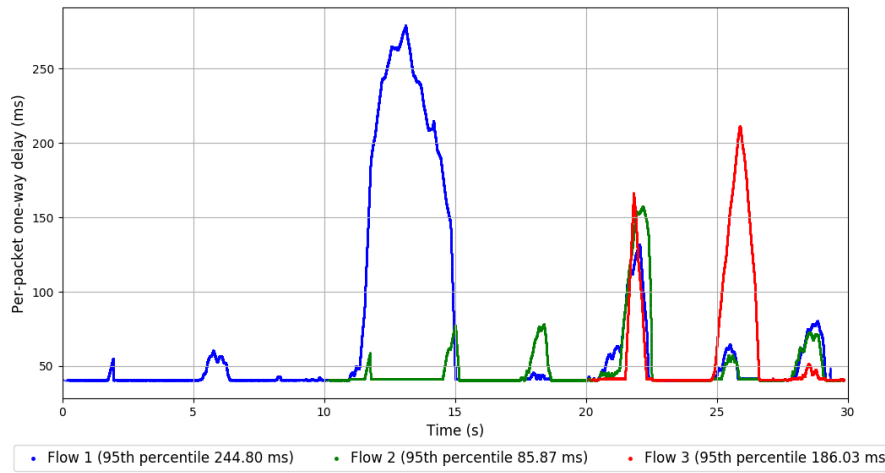
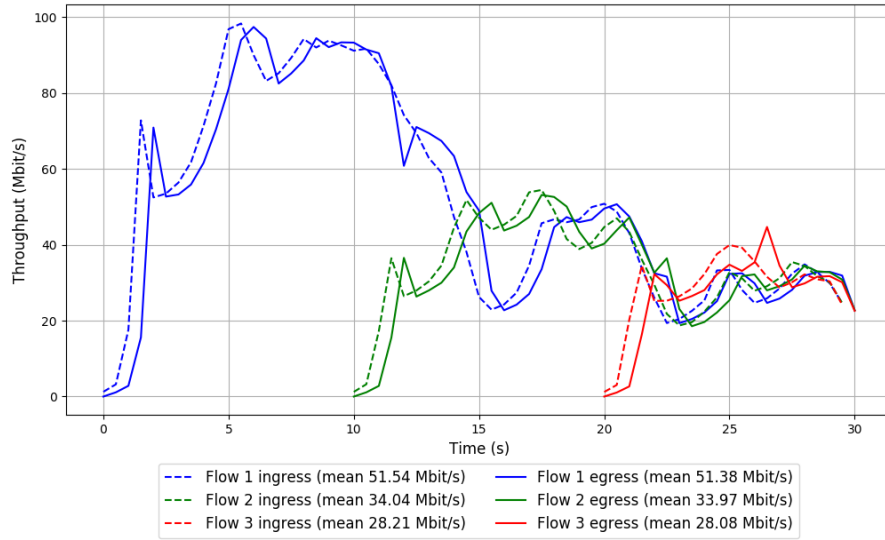


Run 2: Statistics of PCC-Vivace

Start at: 2019-06-28 12:00:59  
End at: 2019-06-28 12:01:29  
Local clock offset: -3.584 ms  
Remote clock offset: -3.724 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.19 Mbit/s
95th percentile per-packet one-way delay: 217.745 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 51.38 Mbit/s
95th percentile per-packet one-way delay: 244.804 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 33.97 Mbit/s
95th percentile per-packet one-way delay: 85.867 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 28.08 Mbit/s
95th percentile per-packet one-way delay: 186.032 ms
Loss rate: 1.14%
```

Run 2: Report of PCC-Vivace — Data Link

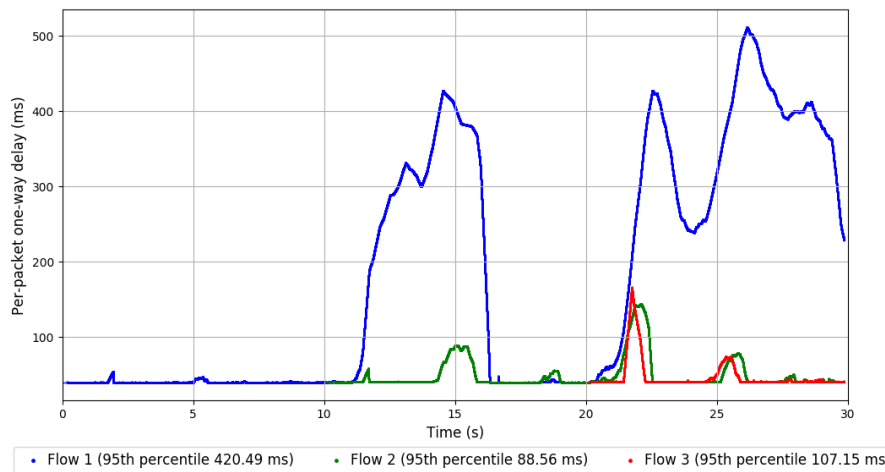
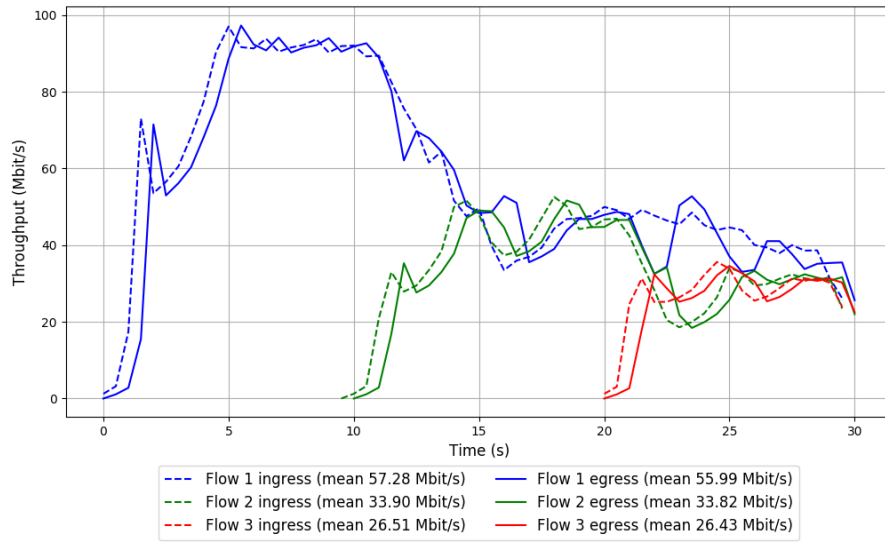


Run 3: Statistics of PCC-Vivace

Start at: 2019-06-28 12:28:02  
End at: 2019-06-28 12:28:32  
Local clock offset: 0.787 ms  
Remote clock offset: -2.109 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.17 Mbit/s
95th percentile per-packet one-way delay: 405.455 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 420.486 ms
Loss rate: 2.46%
-- Flow 2:
Average throughput: 33.82 Mbit/s
95th percentile per-packet one-way delay: 88.558 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 26.43 Mbit/s
95th percentile per-packet one-way delay: 107.153 ms
Loss rate: 0.95%
```

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

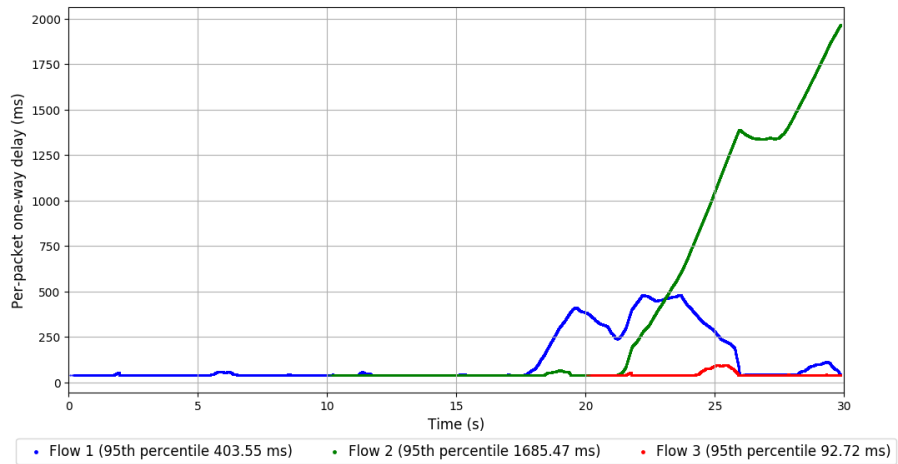
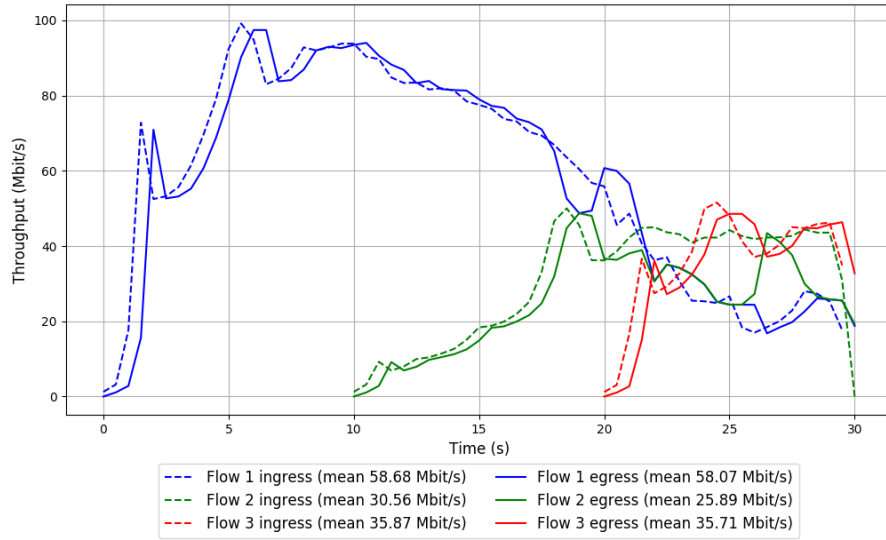


Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 12:55:08  
End at: 2019-06-28 12:55:38  
Local clock offset: 3.925 ms  
Remote clock offset: -1.604 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 1326.083 ms
Loss rate: 4.90%
-- Flow 1:
Average throughput: 58.07 Mbit/s
95th percentile per-packet one-way delay: 403.554 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 25.89 Mbit/s
95th percentile per-packet one-way delay: 1685.474 ms
Loss rate: 17.34%
-- Flow 3:
Average throughput: 35.71 Mbit/s
95th percentile per-packet one-way delay: 92.723 ms
Loss rate: 1.11%
```

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





Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 13:22:27

End at: 2019-06-28 13:22:57

Local clock offset: 2.835 ms

Remote clock offset: -1.355 ms

# Below is generated by plot.py at 2019-06-28 14:04:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.71 Mbit/s

95th percentile per-packet one-way delay: 1310.621 ms

Loss rate: 5.02%

-- Flow 1:

Average throughput: 61.10 Mbit/s

95th percentile per-packet one-way delay: 1306.842 ms

Loss rate: 2.21%

-- Flow 2:

Average throughput: 21.08 Mbit/s

95th percentile per-packet one-way delay: 1463.421 ms

Loss rate: 18.01%

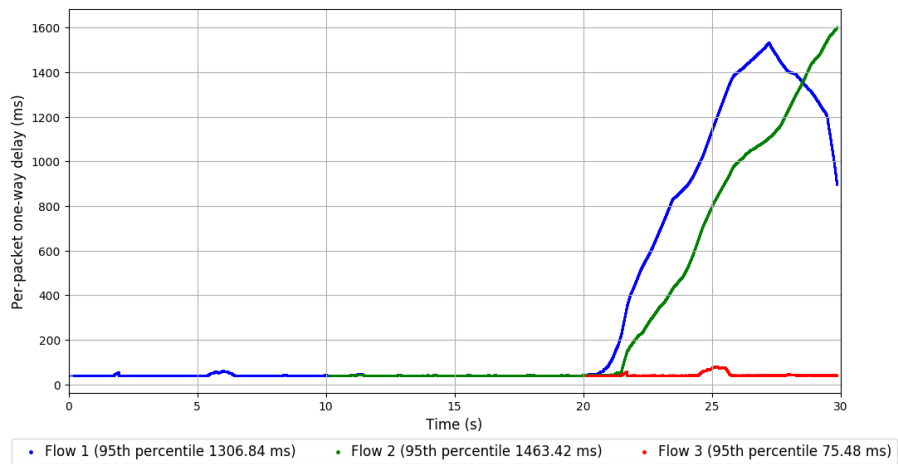
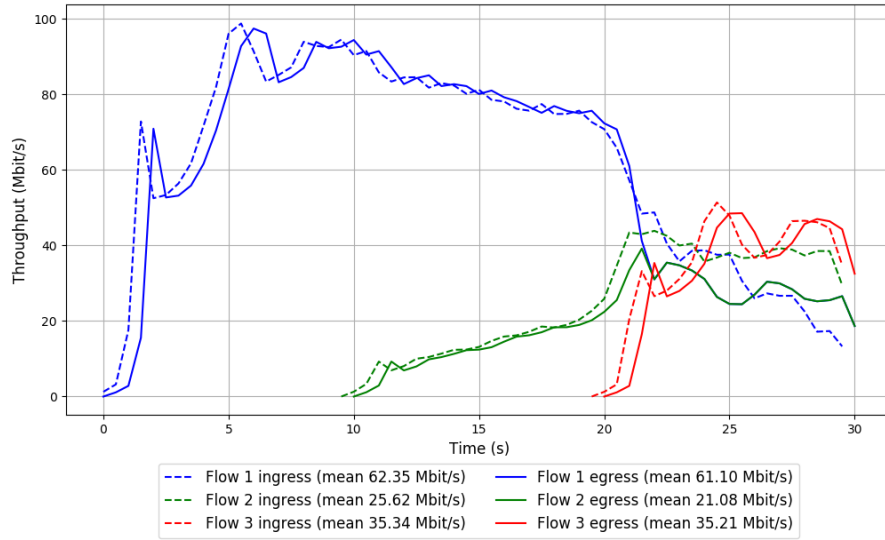
-- Flow 3:

Average throughput: 35.21 Mbit/s

95th percentile per-packet one-way delay: 75.483 ms

Loss rate: 1.03%

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



Run 1: Statistics of WebRTC media

Start at: 2019-06-28 11:42:37  
End at: 2019-06-28 11:43:07  
Local clock offset: -3.848 ms  
Remote clock offset: -5.217 ms

# Below is generated by plot.py at 2019-06-28 14:04:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.11 Mbit/s  
95th percentile per-packet one-way delay: 40.949 ms  
Loss rate: 0.16%

-- Flow 1:

Average throughput: 1.75 Mbit/s  
95th percentile per-packet one-way delay: 40.993 ms  
Loss rate: 0.12%

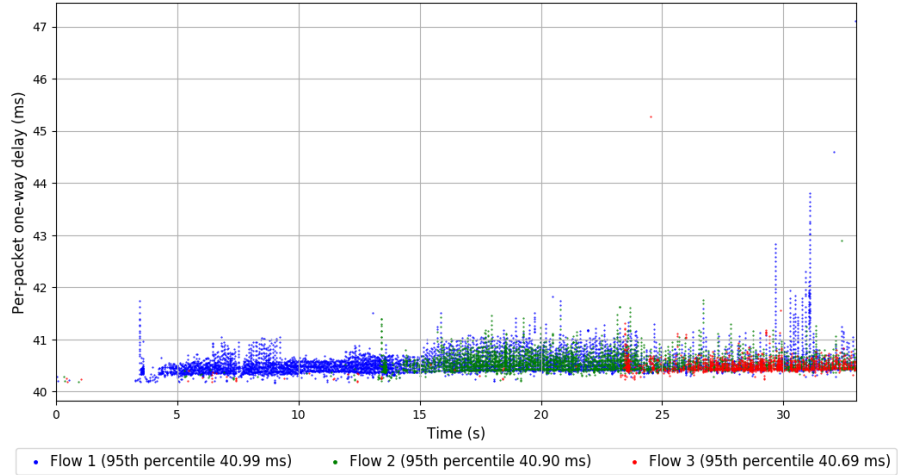
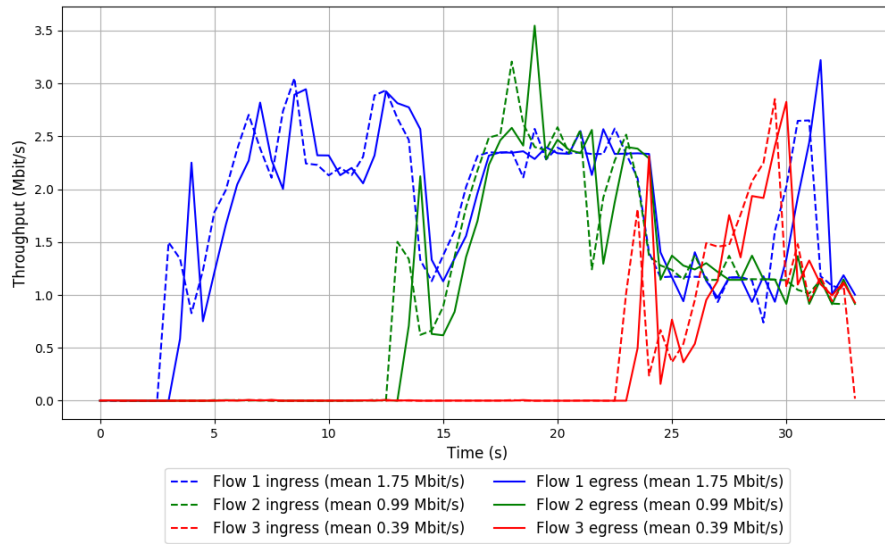
-- Flow 2:

Average throughput: 0.99 Mbit/s  
95th percentile per-packet one-way delay: 40.899 ms  
Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.39 Mbit/s  
95th percentile per-packet one-way delay: 40.693 ms  
Loss rate: 0.75%

Run 1: Report of WebRTC media — Data Link

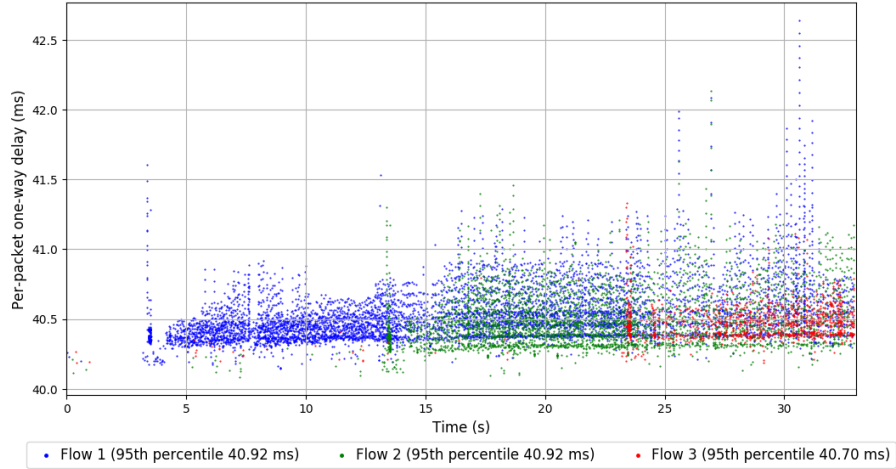
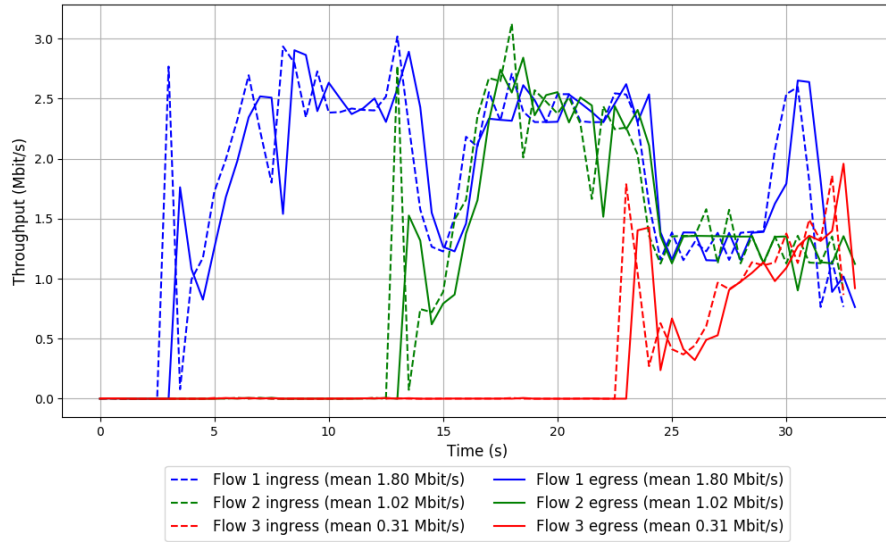


Run 2: Statistics of WebRTC media

Start at: 2019-06-28 12:09:42  
End at: 2019-06-28 12:10:12  
Local clock offset: -3.659 ms  
Remote clock offset: -3.069 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 40.908 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 40.920 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 40.920 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 40.700 ms
Loss rate: 0.00%
```

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

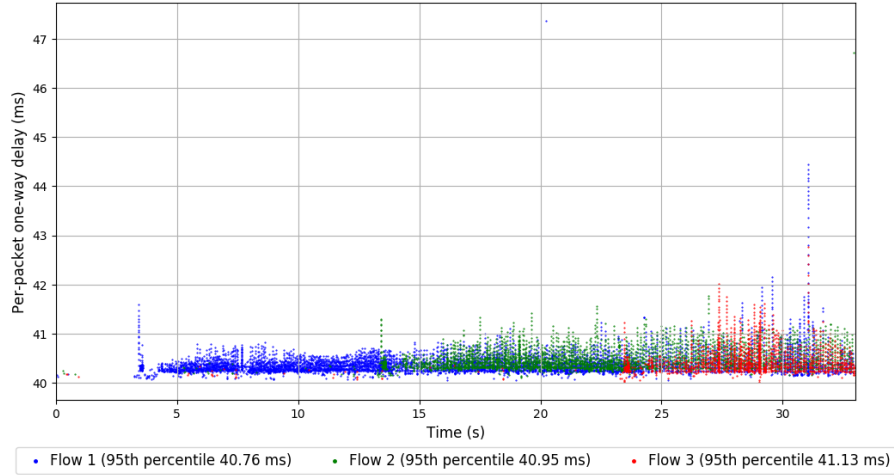
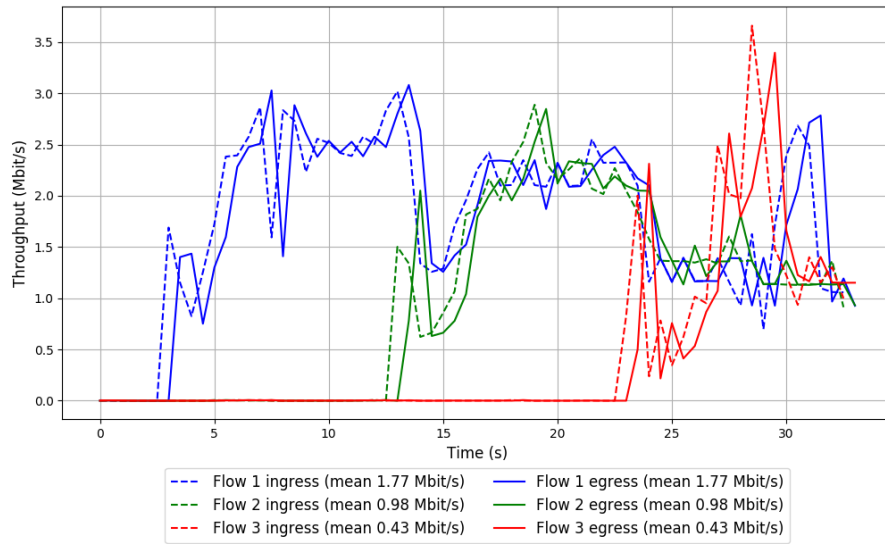


Run 3: Statistics of WebRTC media

Start at: 2019-06-28 12:36:46  
End at: 2019-06-28 12:37:16  
Local clock offset: 2.422 ms  
Remote clock offset: -1.912 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 40.901 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 40.757 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 40.946 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 41.129 ms
Loss rate: 0.00%
```

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





Run 4: Statistics of WebRTC media

Start at: 2019-06-28 13:03:55

End at: 2019-06-28 13:04:25

Local clock offset: 4.447 ms

Remote clock offset: -1.29 ms

# Below is generated by plot.py at 2019-06-28 14:04:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 40.910 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 40.877 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 40.941 ms

Loss rate: 0.35%

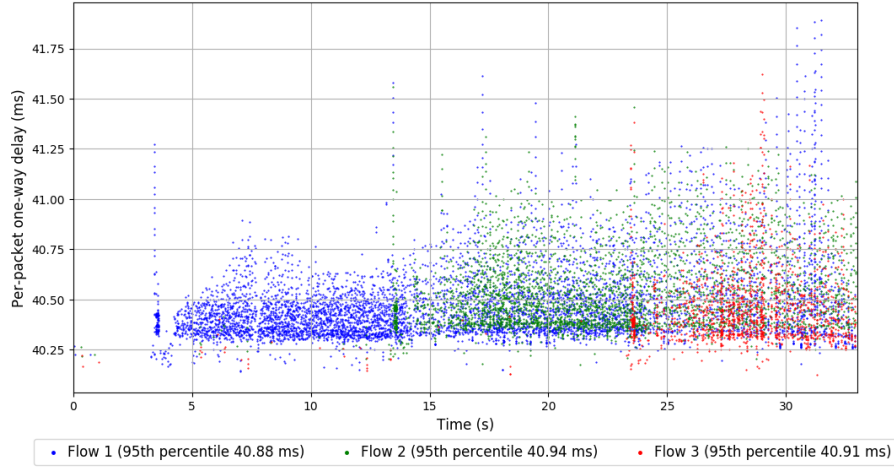
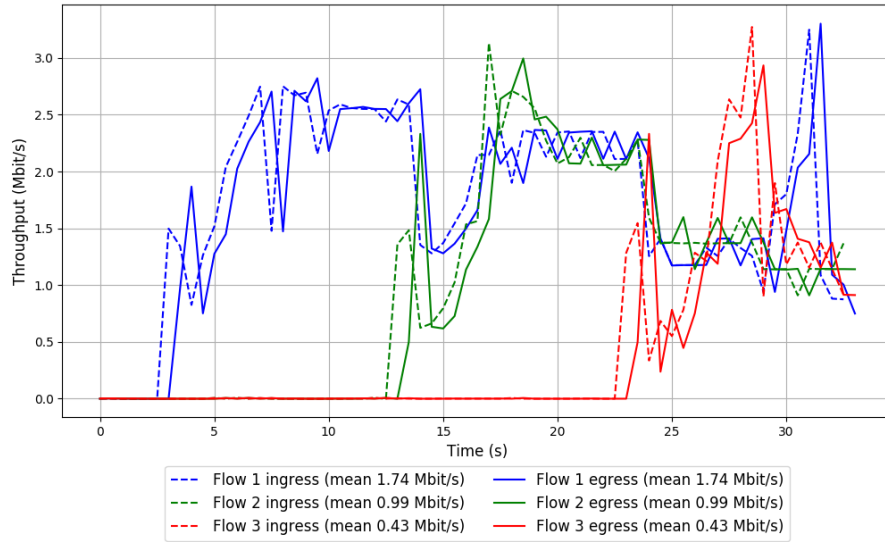
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 40.915 ms

Loss rate: 0.81%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-06-28 13:31:18  
End at: 2019-06-28 13:31:48  
Local clock offset: 0.623 ms  
Remote clock offset: -1.409 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 41.050 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 41.029 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 41.075 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 41.071 ms
Loss rate: 0.71%
```

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

