

Pantheon Report

Generated at 2019-06-27 10:03:35 (UTC).

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

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:

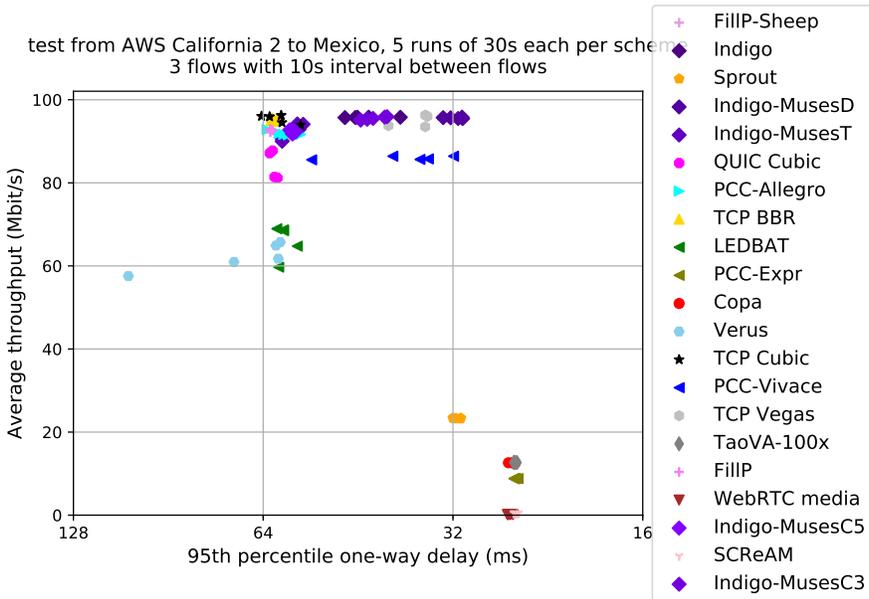
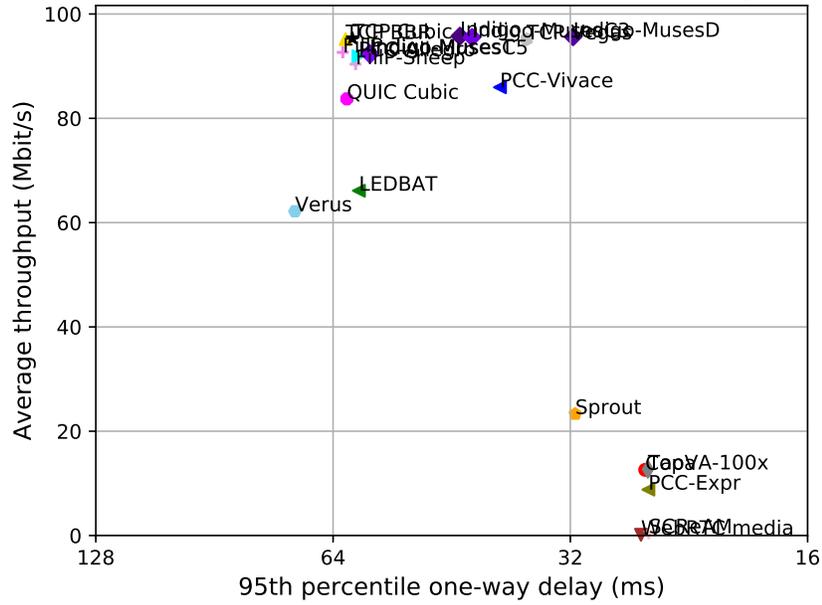
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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 AWS California 2 to Mexico, 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	58.19	38.28	35.47	60.38	62.72	62.87	5.91	10.11	10.43
Copa	5	8.73	5.81	0.00	25.81	25.49	25.40	70.57	75.17	96.92
TCP Cubic	5	67.82	29.49	23.64	59.38	59.40	60.97	0.77	0.44	0.48
FillP	5	57.48	41.96	21.95	60.84	63.29	62.95	30.43	47.39	53.37
FillP-Sheep	5	56.73	39.92	21.42	58.30	61.68	60.43	9.49	16.82	16.36
Indigo	5	66.07	28.06	33.91	39.53	46.87	51.38	0.13	0.23	0.66
Indigo-MusesC3	5	54.11	47.48	35.73	39.14	42.43	52.32	0.44	0.88	2.73
Indigo-MusesC5	5	56.70	50.75	8.96	54.90	59.37	60.29	9.88	16.83	28.08
Indigo-MusesD	5	55.47	45.57	35.69	31.39	32.00	32.36	0.01	0.00	0.00
Indigo-MusesT	5	52.34	53.55	17.93	53.60	59.00	60.96	11.43	21.45	30.08
LEDBAT	5	38.24	33.48	17.30	59.36	59.62	55.52	0.16	0.06	0.13
Muses_DecisionTree	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCC-Allegro	5	79.97	13.60	8.79	59.09	60.55	60.15	4.62	5.89	7.41
PCC-Expr	5	0.03	9.81	6.90	25.40	25.47	25.50	85.71	48.27	36.78
QUIC Cubic	5	61.20	25.43	17.19	61.26	61.70	61.58	2.54	1.08	1.08
SCReAM	5	0.21	0.21	0.22	25.42	25.43	25.39	0.00	0.00	0.00
Sprout	5	11.76	11.68	11.43	31.18	31.81	32.14	0.02	0.02	0.01
TaoVA-100x	5	6.79	7.71	5.40	26.75	25.47	25.39	85.84	77.94	96.38
TCP Vegas	5	72.95	20.95	24.81	36.65	35.01	31.67	0.37	0.03	0.18
Verus	5	38.69	27.54	20.70	68.28	74.13	66.49	41.71	47.64	50.95
PCC-Vivace	5	64.47	25.30	14.09	38.58	39.60	37.48	0.03	0.06	0.00
WebRTC media	5	0.05	0.05	0.05	25.97	25.98	26.04	0.02	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-06-27 07:43:11
End at: 2019-06-27 07:43:41
Local clock offset: -0.046 ms
Remote clock offset: -7.306 ms

Below is generated by plot.py at 2019-06-27 09:51:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.96 Mbit/s
95th percentile per-packet one-way delay: 62.144 ms
Loss rate: 8.27%

-- Flow 1:

Average throughput: 51.83 Mbit/s
95th percentile per-packet one-way delay: 60.603 ms
Loss rate: 6.31%

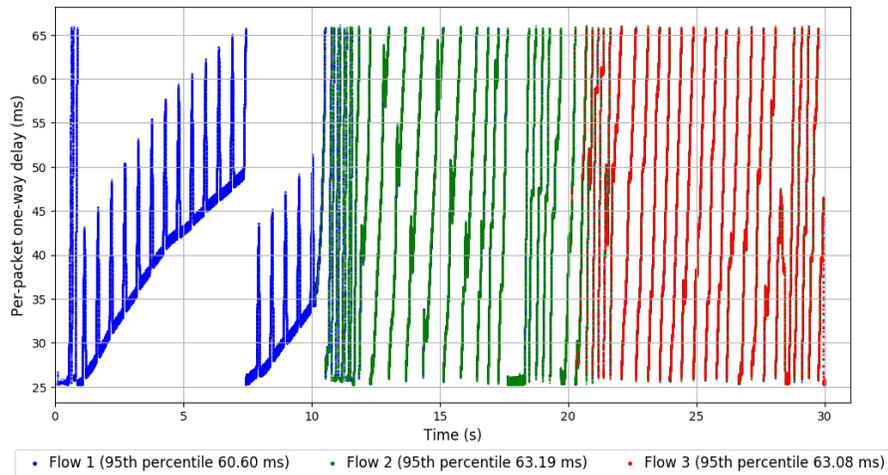
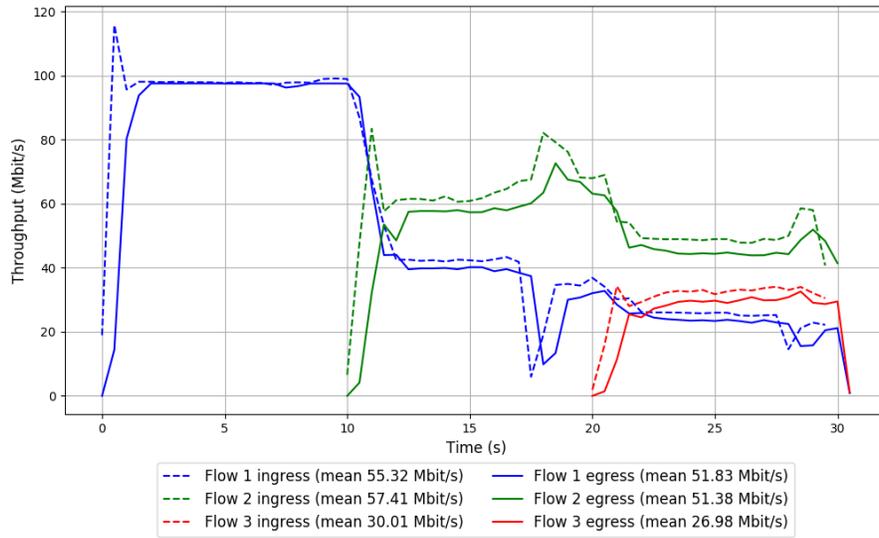
-- Flow 2:

Average throughput: 51.38 Mbit/s
95th percentile per-packet one-way delay: 63.194 ms
Loss rate: 10.58%

-- Flow 3:

Average throughput: 26.98 Mbit/s
95th percentile per-packet one-way delay: 63.076 ms
Loss rate: 10.24%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-06-27 08:10:03

End at: 2019-06-27 08:10:33

Local clock offset: 3.604 ms

Remote clock offset: -8.06 ms

Below is generated by plot.py at 2019-06-27 09:51:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.59 Mbit/s

95th percentile per-packet one-way delay: 62.000 ms

Loss rate: 7.98%

-- Flow 1:

Average throughput: 54.70 Mbit/s

95th percentile per-packet one-way delay: 60.444 ms

Loss rate: 5.78%

-- Flow 2:

Average throughput: 43.24 Mbit/s

95th percentile per-packet one-way delay: 63.175 ms

Loss rate: 12.09%

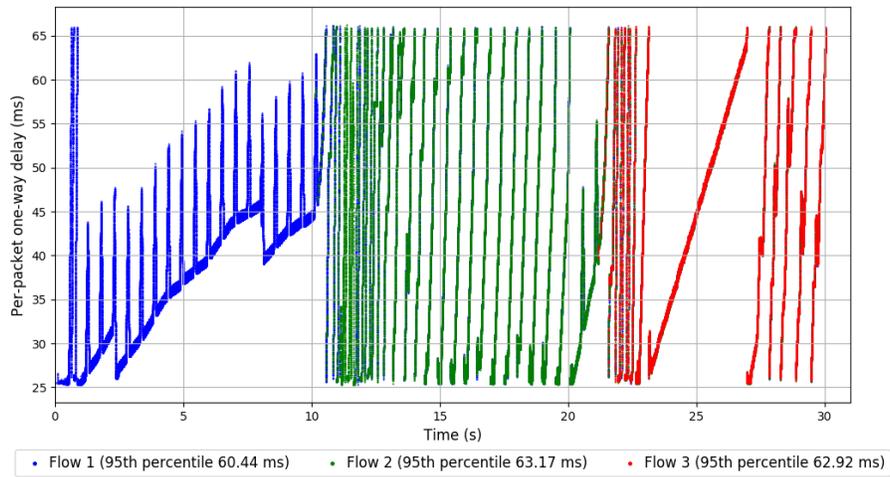
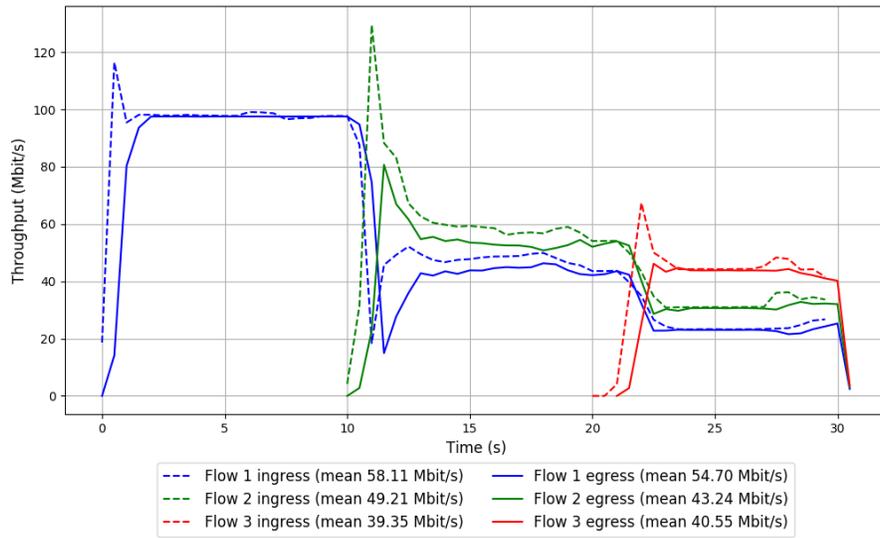
-- Flow 3:

Average throughput: 40.55 Mbit/s

95th percentile per-packet one-way delay: 62.924 ms

Loss rate: 7.42%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-06-27 08:36:45
End at: 2019-06-27 08:37:15
Local clock offset: 4.981 ms
Remote clock offset: -8.646 ms

Below is generated by plot.py at 2019-06-27 09:51:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.88 Mbit/s
95th percentile per-packet one-way delay: 61.363 ms
Loss rate: 7.20%

-- Flow 1:

Average throughput: 59.33 Mbit/s
95th percentile per-packet one-way delay: 60.276 ms
Loss rate: 5.67%

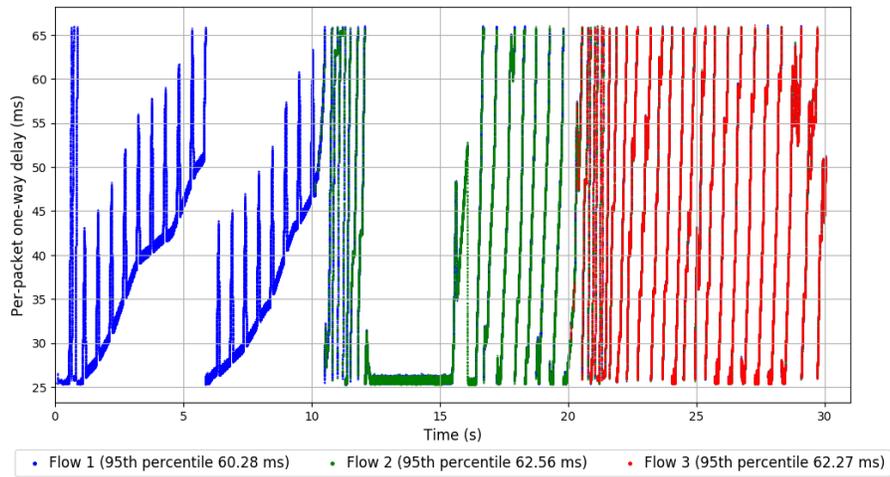
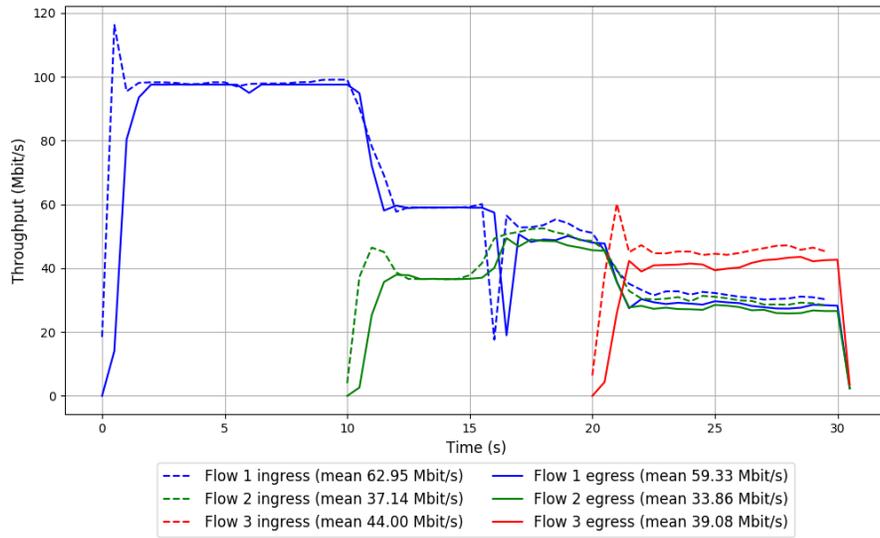
-- Flow 2:

Average throughput: 33.86 Mbit/s
95th percentile per-packet one-way delay: 62.556 ms
Loss rate: 8.87%

-- Flow 3:

Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 62.268 ms
Loss rate: 10.98%

Run 3: Report of TCP BBR — Data Link

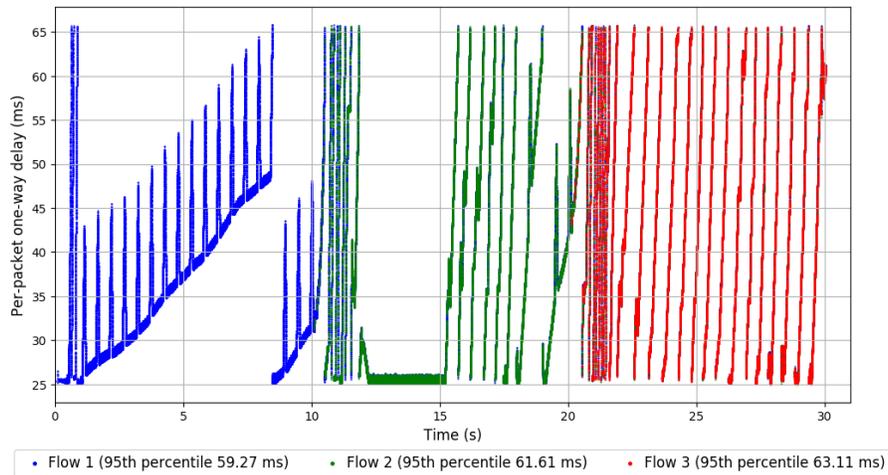
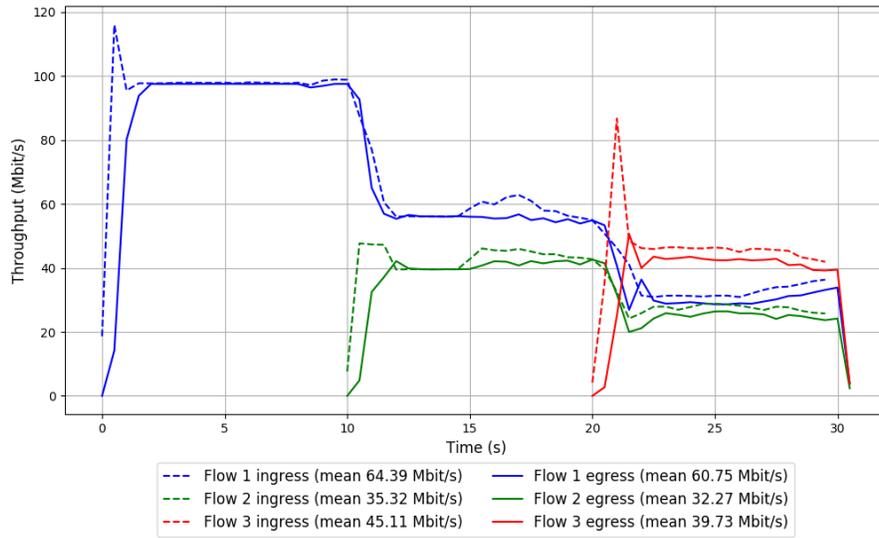


Run 4: Statistics of TCP BBR

Start at: 2019-06-27 09:03:27
End at: 2019-06-27 09:03:57
Local clock offset: -2.708 ms
Remote clock offset: -8.827 ms

```
# Below is generated by plot.py at 2019-06-27 09:52:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.46 Mbit/s
95th percentile per-packet one-way delay: 60.859 ms
Loss rate: 7.16%
-- Flow 1:
Average throughput: 60.75 Mbit/s
95th percentile per-packet one-way delay: 59.273 ms
Loss rate: 5.54%
-- Flow 2:
Average throughput: 32.27 Mbit/s
95th percentile per-packet one-way delay: 61.611 ms
Loss rate: 8.55%
-- Flow 3:
Average throughput: 39.73 Mbit/s
95th percentile per-packet one-way delay: 63.114 ms
Loss rate: 11.91%
```

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-06-27 09:30:06
End at: 2019-06-27 09:30:36
Local clock offset: -6.879 ms
Remote clock offset: -8.713 ms

Below is generated by plot.py at 2019-06-27 09:52:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.04 Mbit/s
95th percentile per-packet one-way delay: 62.127 ms
Loss rate: 7.79%

-- Flow 1:

Average throughput: 64.33 Mbit/s
95th percentile per-packet one-way delay: 61.319 ms
Loss rate: 6.25%

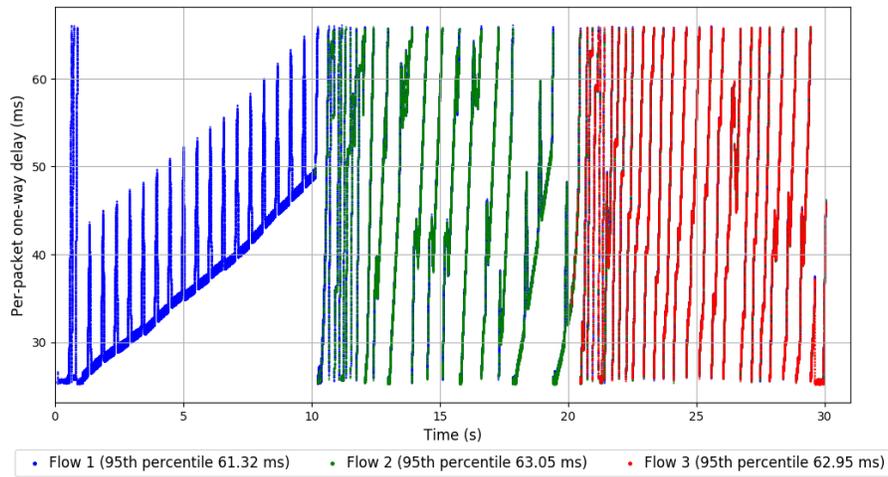
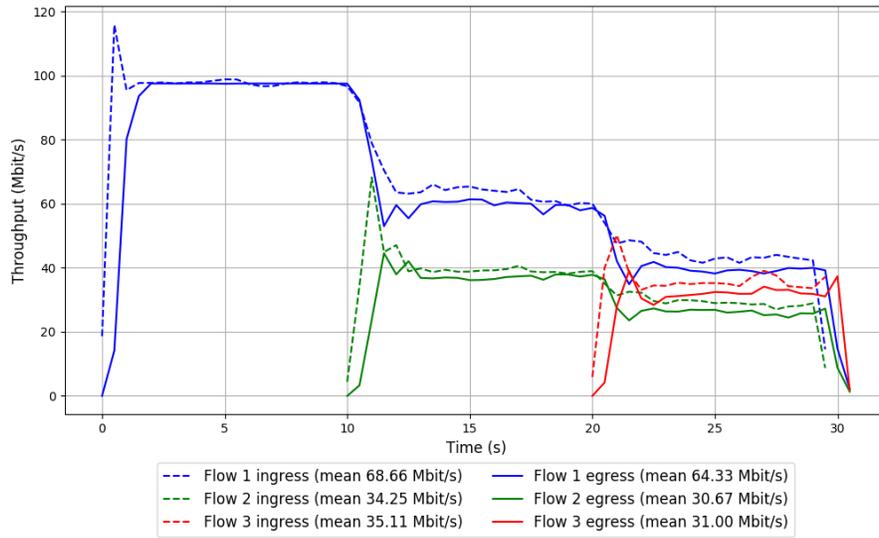
-- Flow 2:

Average throughput: 30.67 Mbit/s
95th percentile per-packet one-way delay: 63.045 ms
Loss rate: 10.48%

-- Flow 3:

Average throughput: 31.00 Mbit/s
95th percentile per-packet one-way delay: 62.951 ms
Loss rate: 11.58%

Run 5: Report of TCP BBR — Data Link

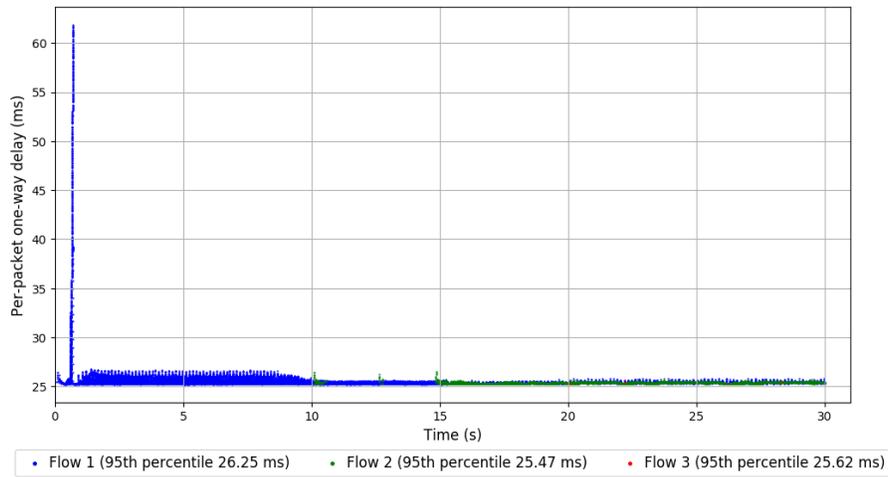
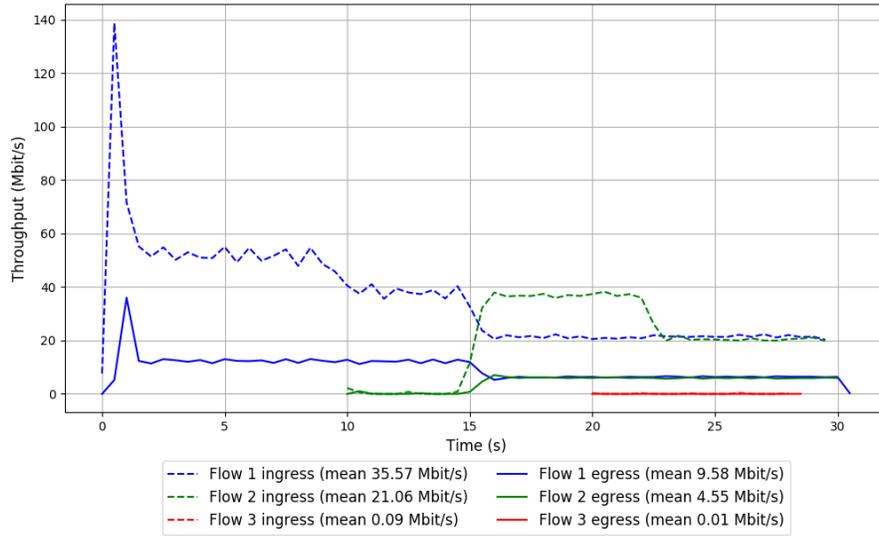


Run 1: Statistics of Copa

Start at: 2019-06-27 07:44:25
End at: 2019-06-27 07:44:55
Local clock offset: -0.015 ms
Remote clock offset: -7.355 ms

```
# Below is generated by plot.py at 2019-06-27 09:52:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 26.131 ms
Loss rate: 74.58%
-- Flow 1:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 26.250 ms
Loss rate: 73.06%
-- Flow 2:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 25.466 ms
Loss rate: 78.42%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 25.624 ms
Loss rate: 92.07%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-06-27 08:11:19
End at: 2019-06-27 08:11:49
Local clock offset: 3.657 ms
Remote clock offset: -8.143 ms

Below is generated by plot.py at 2019-06-27 09:52:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 25.706 ms
Loss rate: 70.32%

-- Flow 1:

Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 25.800 ms
Loss rate: 69.51%

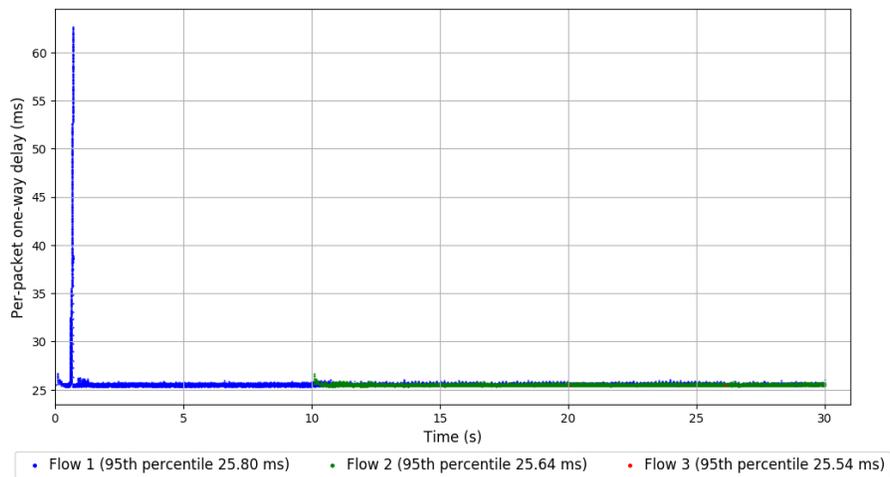
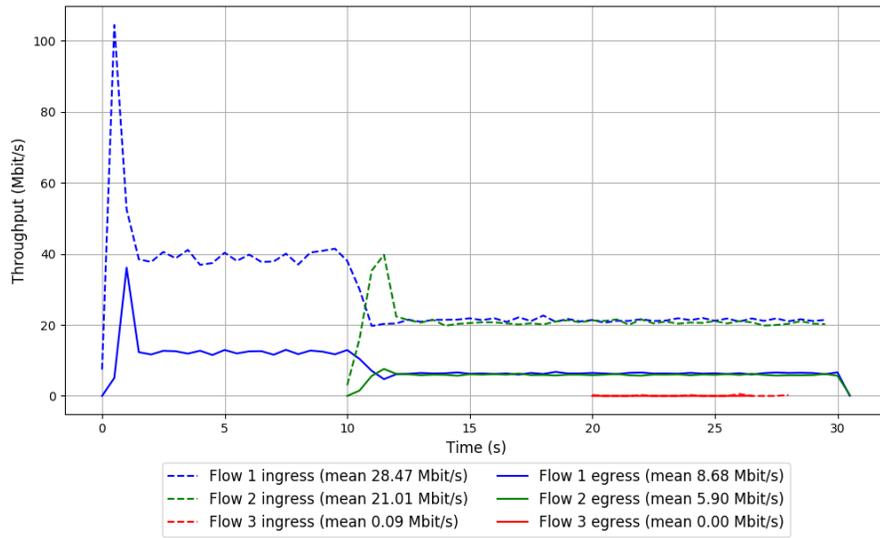
-- Flow 2:

Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 25.645 ms
Loss rate: 71.92%

-- Flow 3:

Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 25.536 ms
Loss rate: 96.64%

Run 2: Report of Copa — Data Link

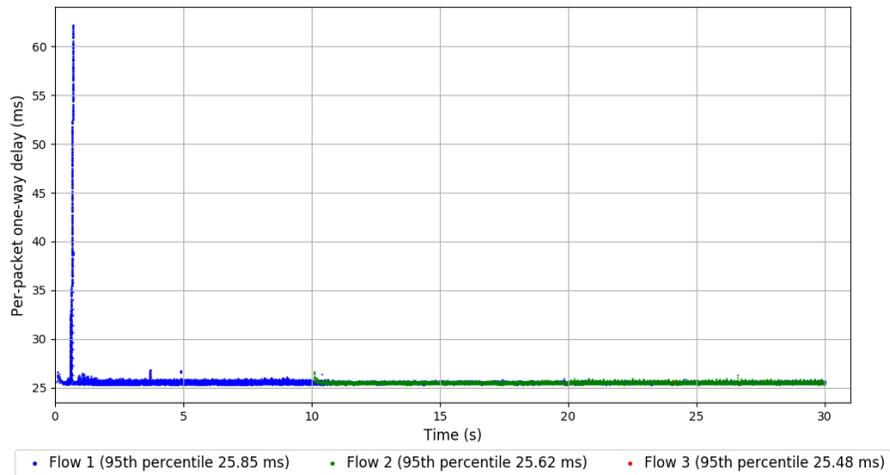
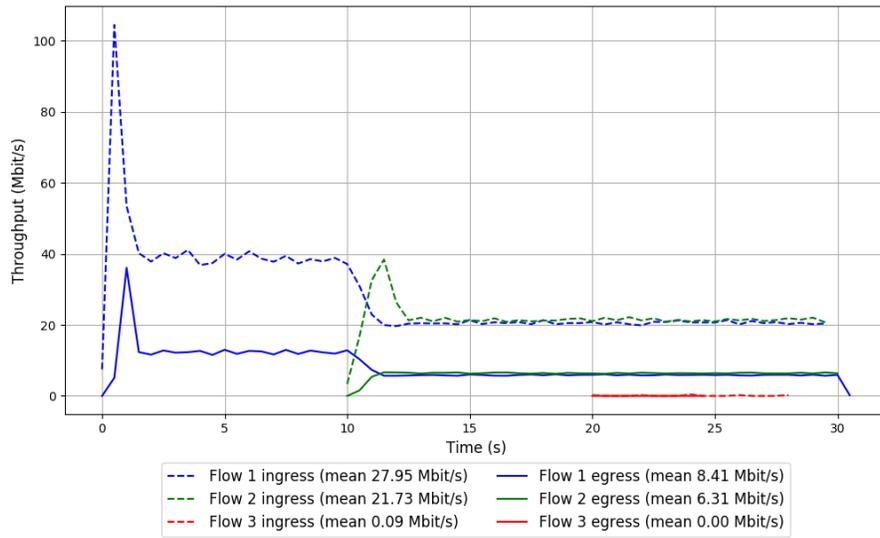


Run 3: Statistics of Copa

Start at: 2019-06-27 08:37:59
End at: 2019-06-27 08:38:29
Local clock offset: 5.068 ms
Remote clock offset: -8.617 ms

```
# Below is generated by plot.py at 2019-06-27 09:52:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 25.746 ms
Loss rate: 70.28%
-- Flow 1:
Average throughput: 8.41 Mbit/s
95th percentile per-packet one-way delay: 25.849 ms
Loss rate: 69.91%
-- Flow 2:
Average throughput: 6.31 Mbit/s
95th percentile per-packet one-way delay: 25.622 ms
Loss rate: 70.97%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 25.482 ms
Loss rate: 98.13%
```

Run 3: Report of Copa — Data Link

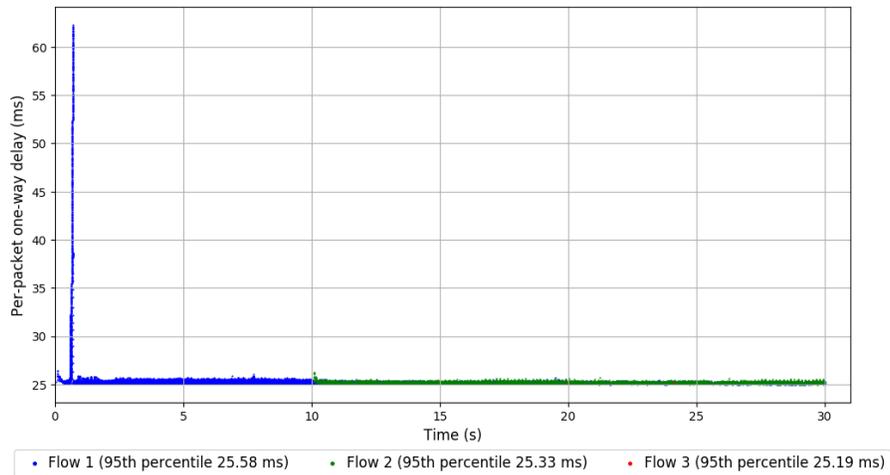
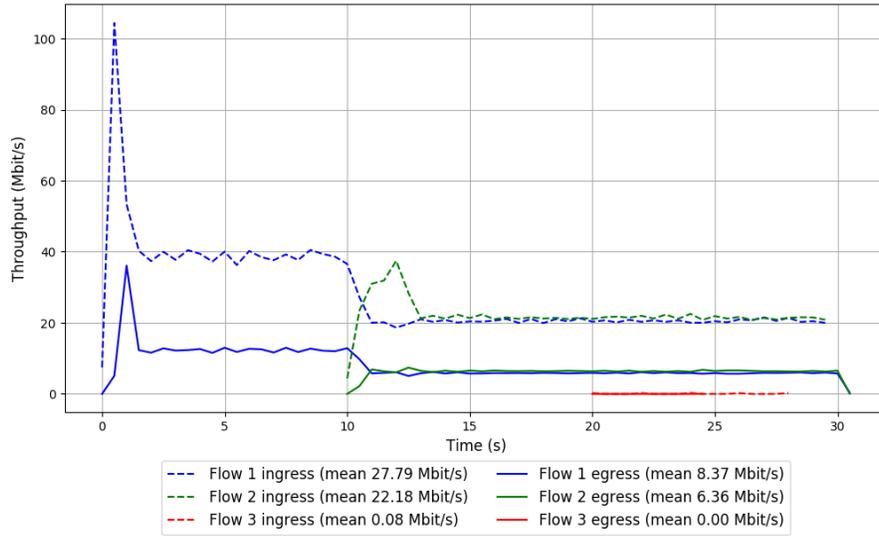


Run 4: Statistics of Copa

Start at: 2019-06-27 09:04:42
End at: 2019-06-27 09:05:12
Local clock offset: -2.986 ms
Remote clock offset: -8.843 ms

```
# Below is generated by plot.py at 2019-06-27 09:52:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 25.479 ms
Loss rate: 70.40%
-- Flow 1:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 25.576 ms
Loss rate: 69.88%
-- Flow 2:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 25.327 ms
Loss rate: 71.34%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 25.192 ms
Loss rate: 97.92%
```

Run 4: Report of Copa — Data Link

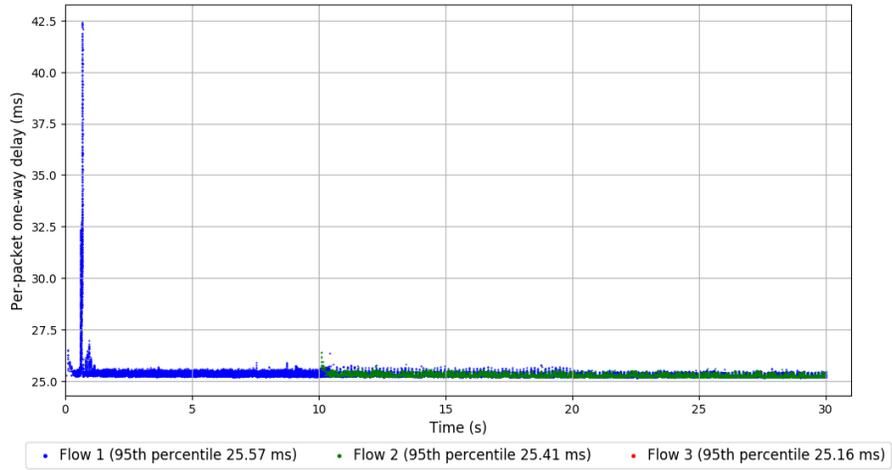
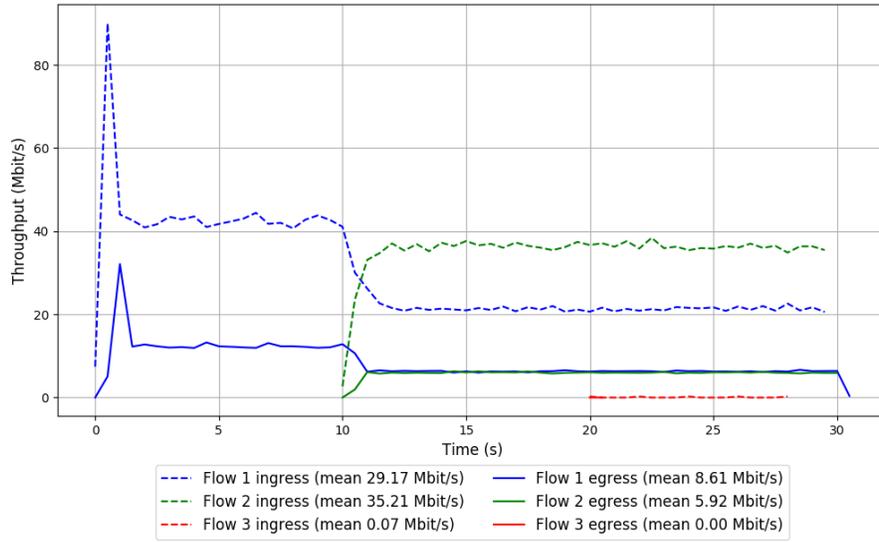


Run 5: Statistics of Copa

Start at: 2019-06-27 09:31:20
End at: 2019-06-27 09:31:50
Local clock offset: -7.024 ms
Remote clock offset: -8.734 ms

```
# Below is generated by plot.py at 2019-06-27 09:52:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 25.510 ms
Loss rate: 76.15%
-- Flow 1:
Average throughput: 8.61 Mbit/s
95th percentile per-packet one-way delay: 25.571 ms
Loss rate: 70.48%
-- Flow 2:
Average throughput: 5.92 Mbit/s
95th percentile per-packet one-way delay: 25.411 ms
Loss rate: 83.20%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 25.158 ms
Loss rate: 99.83%
```

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-06-27 07:51:48

End at: 2019-06-27 07:52:18

Local clock offset: 1.093 ms

Remote clock offset: -7.66 ms

Below is generated by plot.py at 2019-06-27 09:52:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.05 Mbit/s

95th percentile per-packet one-way delay: 64.398 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 73.44 Mbit/s

95th percentile per-packet one-way delay: 63.368 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 22.10 Mbit/s

95th percentile per-packet one-way delay: 64.905 ms

Loss rate: 0.44%

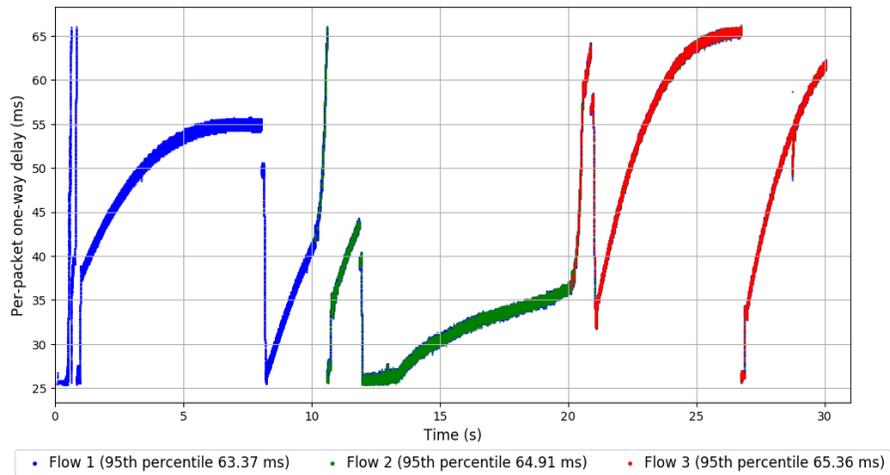
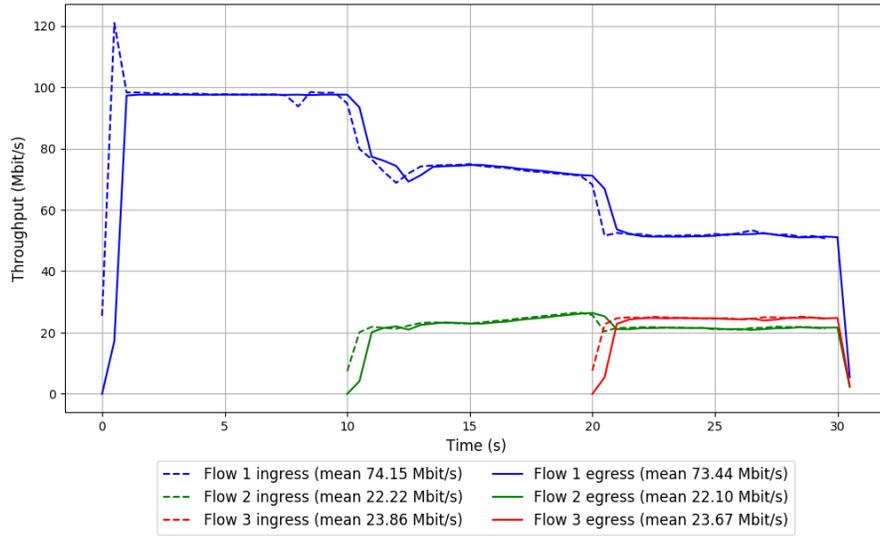
-- Flow 3:

Average throughput: 23.67 Mbit/s

95th percentile per-packet one-way delay: 65.365 ms

Loss rate: 0.52%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-06-27 08:18:42
End at: 2019-06-27 08:19:12
Local clock offset: 4.128 ms
Remote clock offset: -8.228 ms

Below is generated by plot.py at 2019-06-27 09:52:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.93 Mbit/s
95th percentile per-packet one-way delay: 62.528 ms
Loss rate: 0.64%

-- Flow 1:

Average throughput: 75.13 Mbit/s
95th percentile per-packet one-way delay: 61.354 ms
Loss rate: 0.77%

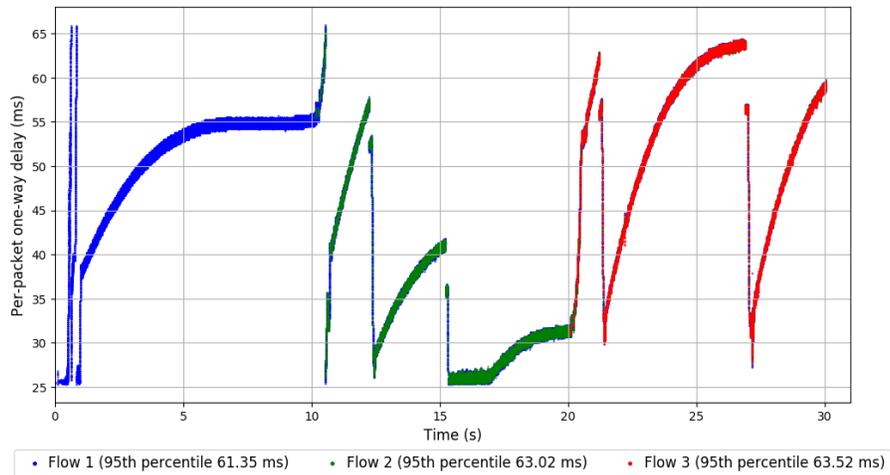
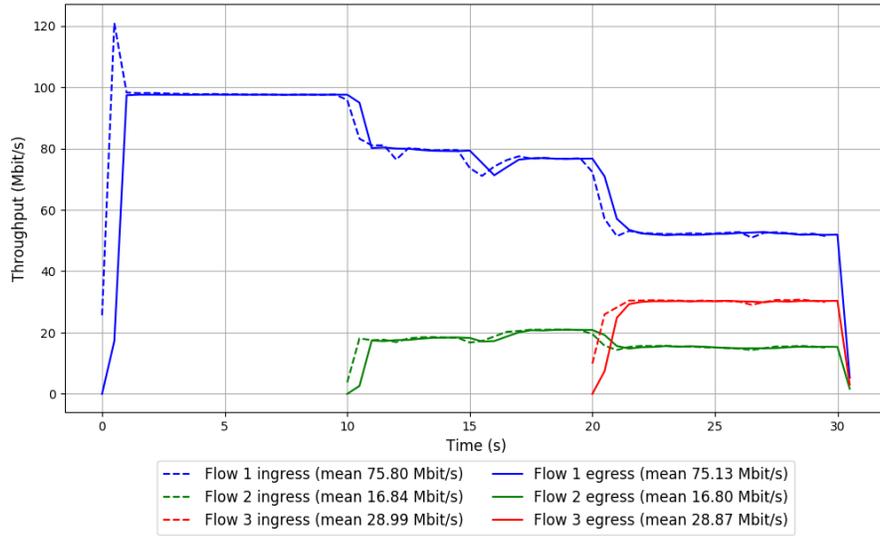
-- Flow 2:

Average throughput: 16.80 Mbit/s
95th percentile per-packet one-way delay: 63.017 ms
Loss rate: 0.18%

-- Flow 3:

Average throughput: 28.87 Mbit/s
95th percentile per-packet one-way delay: 63.517 ms
Loss rate: 0.15%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-06-27 08:45:22
End at: 2019-06-27 08:45:52
Local clock offset: 5.352 ms
Remote clock offset: -8.678 ms

Below is generated by plot.py at 2019-06-27 09:52:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 59.924 ms
Loss rate: 0.83%

-- Flow 1:

Average throughput: 74.71 Mbit/s
95th percentile per-packet one-way delay: 58.931 ms
Loss rate: 0.90%

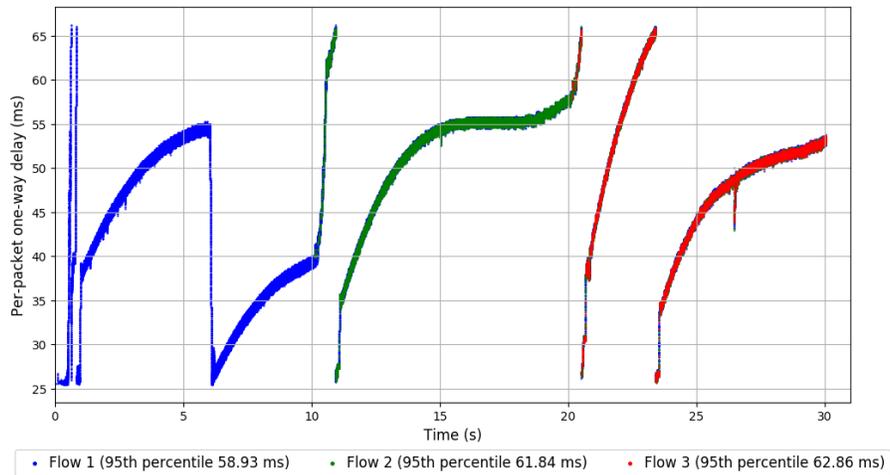
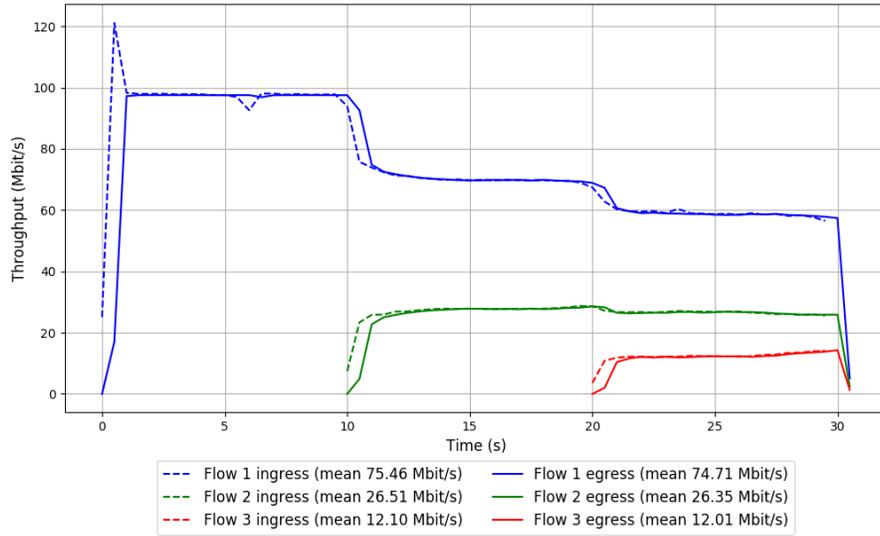
-- Flow 2:

Average throughput: 26.35 Mbit/s
95th percentile per-packet one-way delay: 61.839 ms
Loss rate: 0.54%

-- Flow 3:

Average throughput: 12.01 Mbit/s
95th percentile per-packet one-way delay: 62.860 ms
Loss rate: 0.86%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-06-27 09:12:04
End at: 2019-06-27 09:12:34
Local clock offset: -4.483 ms
Remote clock offset: -8.812 ms

Below is generated by plot.py at 2019-06-27 09:53:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.91 Mbit/s
95th percentile per-packet one-way delay: 55.813 ms
Loss rate: 0.62%

-- Flow 1:

Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 52.150 ms
Loss rate: 0.63%

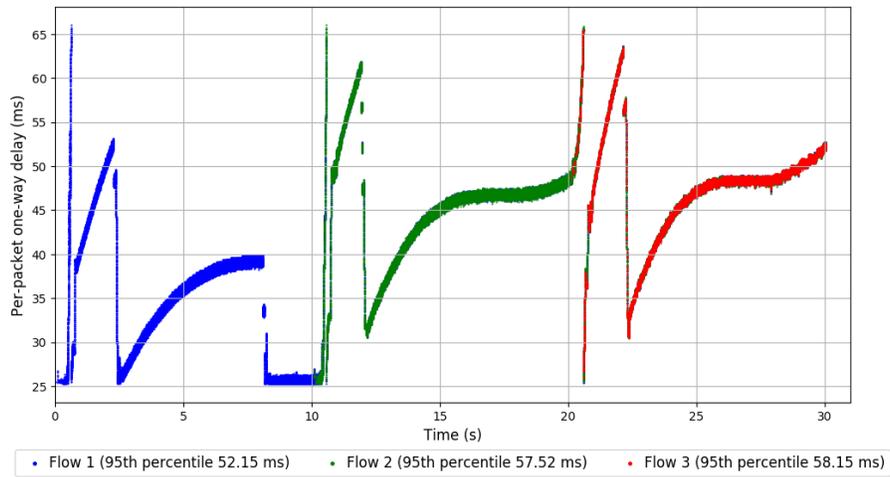
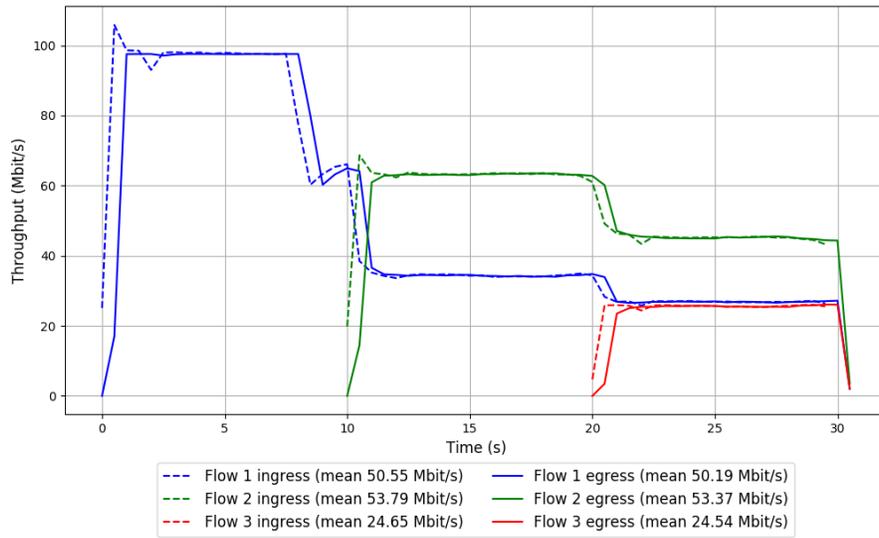
-- Flow 2:

Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 57.518 ms
Loss rate: 0.65%

-- Flow 3:

Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: 58.151 ms
Loss rate: 0.39%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-06-27 09:38:41
End at: 2019-06-27 09:39:11
Local clock offset: -7.849 ms
Remote clock offset: -8.793 ms

Below is generated by plot.py at 2019-06-27 09:53:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.51 Mbit/s
95th percentile per-packet one-way delay: 59.760 ms
Loss rate: 0.62%

-- Flow 1:

Average throughput: 65.65 Mbit/s
95th percentile per-packet one-way delay: 61.118 ms
Loss rate: 0.71%

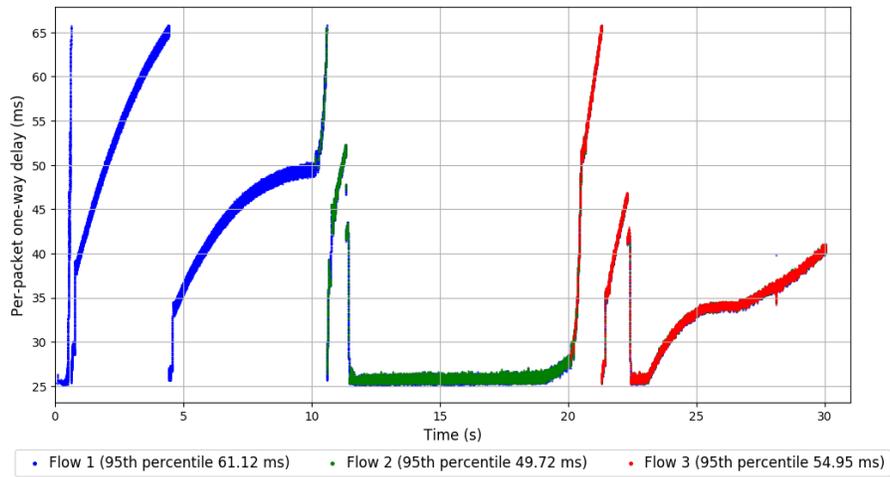
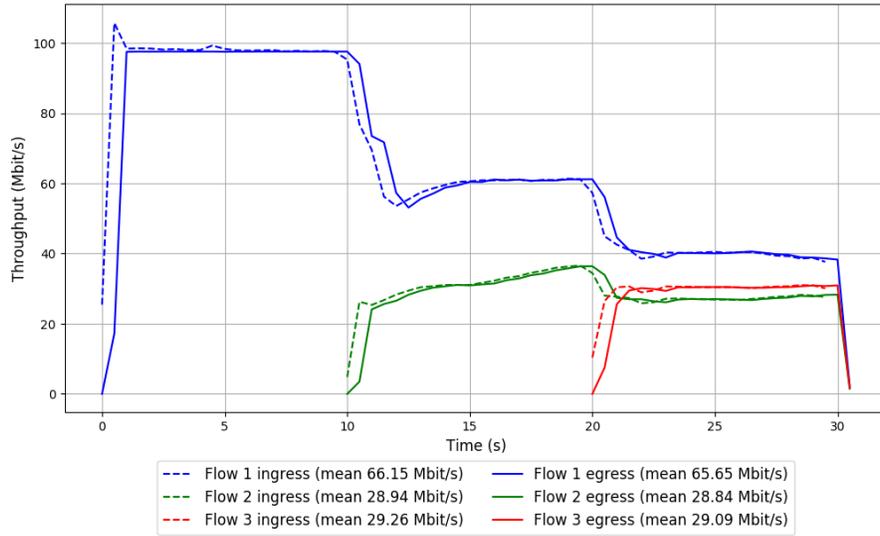
-- Flow 2:

Average throughput: 28.84 Mbit/s
95th percentile per-packet one-way delay: 49.716 ms
Loss rate: 0.38%

-- Flow 3:

Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 54.949 ms
Loss rate: 0.47%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-06-27 07:46:49
End at: 2019-06-27 07:47:19
Local clock offset: -0.046 ms
Remote clock offset: -7.391 ms

Below is generated by plot.py at 2019-06-27 09:53:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.79 Mbit/s
95th percentile per-packet one-way delay: 62.232 ms
Loss rate: 39.26%

-- Flow 1:

Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 60.867 ms
Loss rate: 30.58%

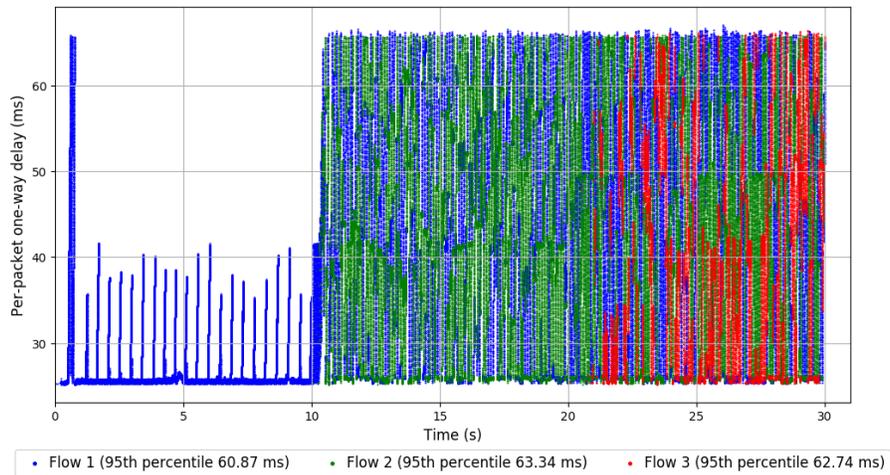
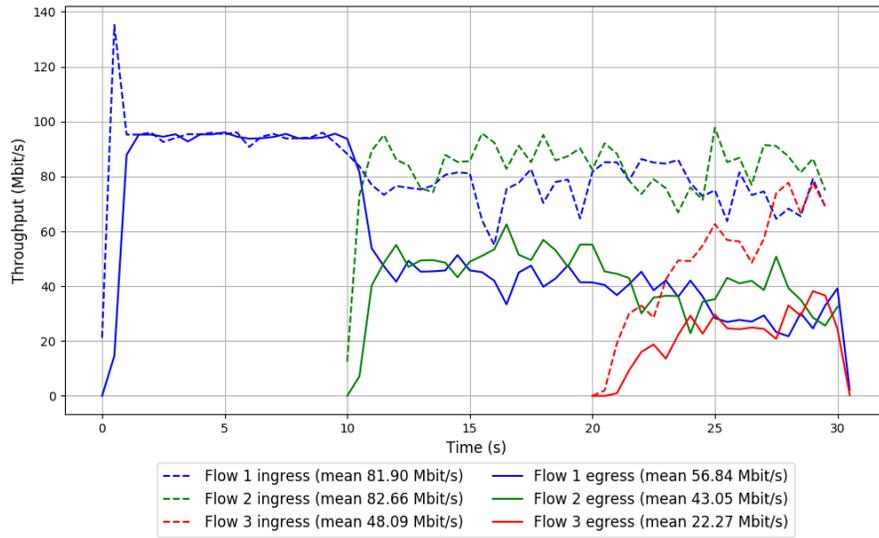
-- Flow 2:

Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 63.340 ms
Loss rate: 48.05%

-- Flow 3:

Average throughput: 22.27 Mbit/s
95th percentile per-packet one-way delay: 62.745 ms
Loss rate: 53.56%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-06-27 08:13:44
End at: 2019-06-27 08:14:14
Local clock offset: 3.863 ms
Remote clock offset: -8.169 ms

Below is generated by plot.py at 2019-06-27 09:53:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.70 Mbit/s
95th percentile per-packet one-way delay: 62.163 ms
Loss rate: 37.71%

-- Flow 1:

Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 61.420 ms
Loss rate: 30.34%

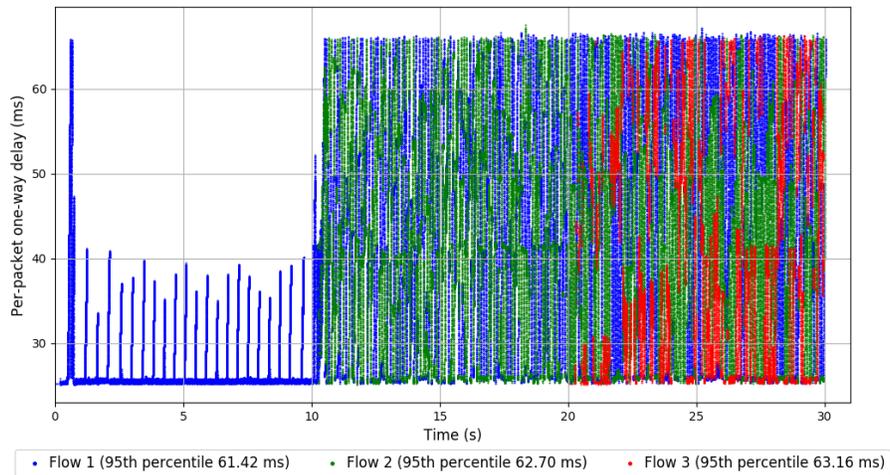
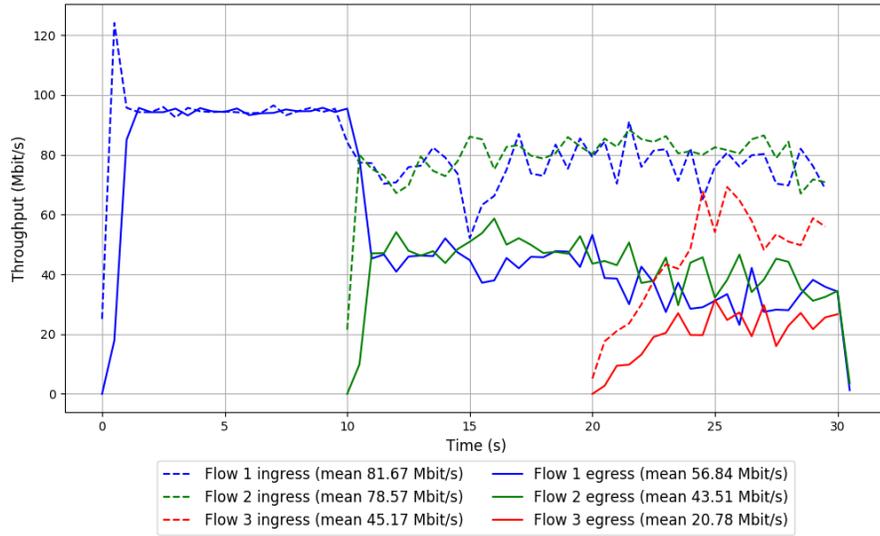
-- Flow 2:

Average throughput: 43.51 Mbit/s
95th percentile per-packet one-way delay: 62.701 ms
Loss rate: 44.53%

-- Flow 3:

Average throughput: 20.78 Mbit/s
95th percentile per-packet one-way delay: 63.158 ms
Loss rate: 54.06%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-06-27 08:40:24
End at: 2019-06-27 08:40:54
Local clock offset: 5.139 ms
Remote clock offset: -8.696 ms

Below is generated by plot.py at 2019-06-27 09:53:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.18 Mbit/s
95th percentile per-packet one-way delay: 62.333 ms
Loss rate: 38.79%

-- Flow 1:

Average throughput: 58.89 Mbit/s
95th percentile per-packet one-way delay: 60.753 ms
Loss rate: 29.87%

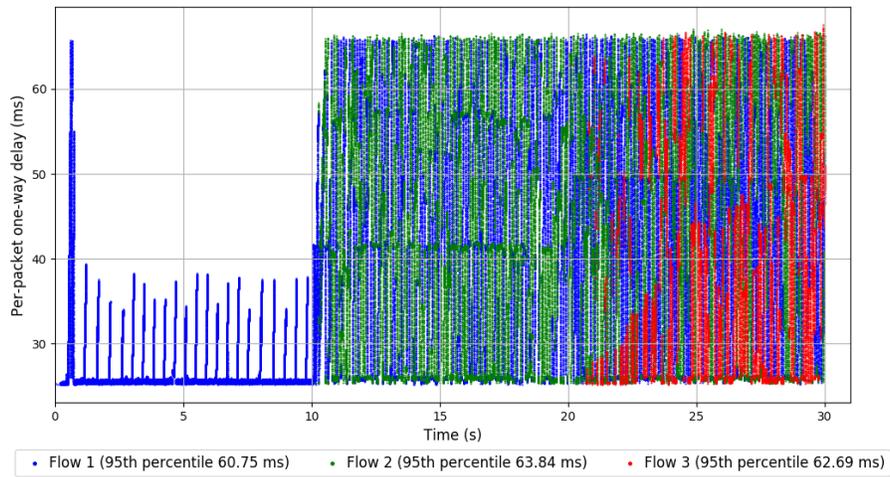
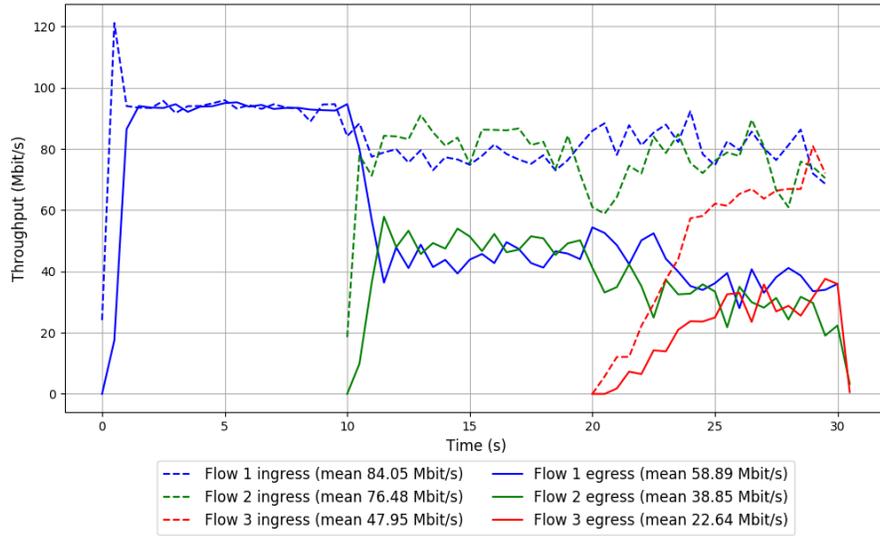
-- Flow 2:

Average throughput: 38.85 Mbit/s
95th percentile per-packet one-way delay: 63.844 ms
Loss rate: 49.12%

-- Flow 3:

Average throughput: 22.64 Mbit/s
95th percentile per-packet one-way delay: 62.685 ms
Loss rate: 52.83%

Run 3: Report of FillP — Data Link

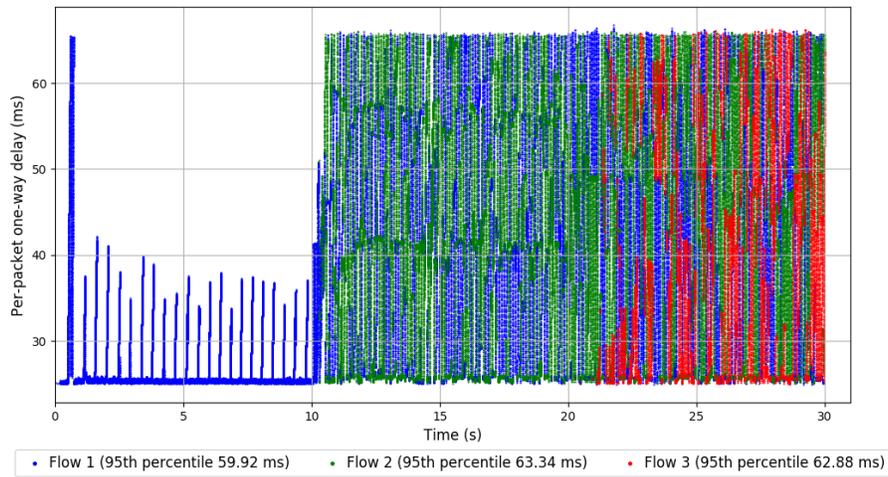
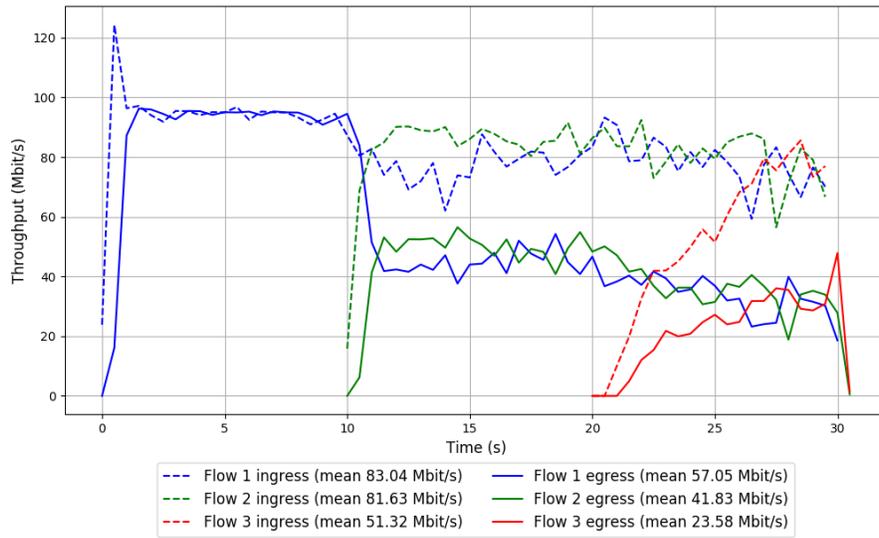


Run 4: Statistics of FillP

Start at: 2019-06-27 09:07:06
End at: 2019-06-27 09:07:36
Local clock offset: -3.611 ms
Remote clock offset: -8.931 ms

```
# Below is generated by plot.py at 2019-06-27 09:53:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 61.845 ms
Loss rate: 39.93%
-- Flow 1:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 59.925 ms
Loss rate: 31.30%
-- Flow 2:
Average throughput: 41.83 Mbit/s
95th percentile per-packet one-way delay: 63.339 ms
Loss rate: 48.67%
-- Flow 3:
Average throughput: 23.58 Mbit/s
95th percentile per-packet one-way delay: 62.882 ms
Loss rate: 54.07%
```

Run 4: Report of FillP — Data Link

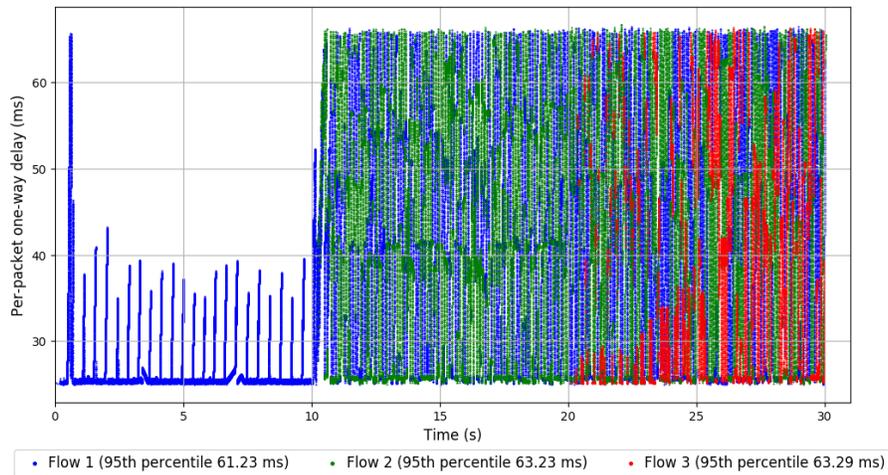
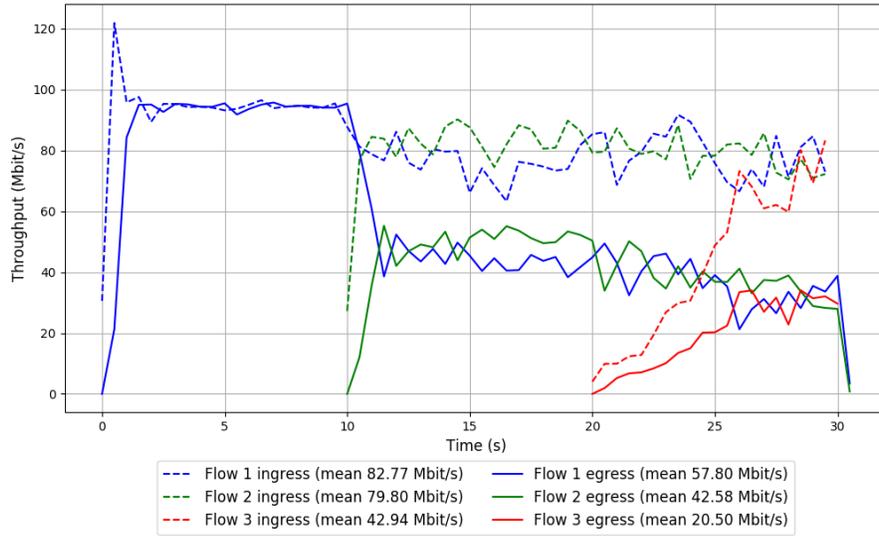


Run 5: Statistics of FillP

Start at: 2019-06-27 09:33:44
End at: 2019-06-27 09:34:14
Local clock offset: -7.291 ms
Remote clock offset: -8.756 ms

```
# Below is generated by plot.py at 2019-06-27 09:54:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 62.445 ms
Loss rate: 38.03%
-- Flow 1:
Average throughput: 57.80 Mbit/s
95th percentile per-packet one-way delay: 61.234 ms
Loss rate: 30.08%
-- Flow 2:
Average throughput: 42.58 Mbit/s
95th percentile per-packet one-way delay: 63.233 ms
Loss rate: 46.56%
-- Flow 3:
Average throughput: 20.50 Mbit/s
95th percentile per-packet one-way delay: 63.286 ms
Loss rate: 52.35%
```

Run 5: Report of FillP — Data Link

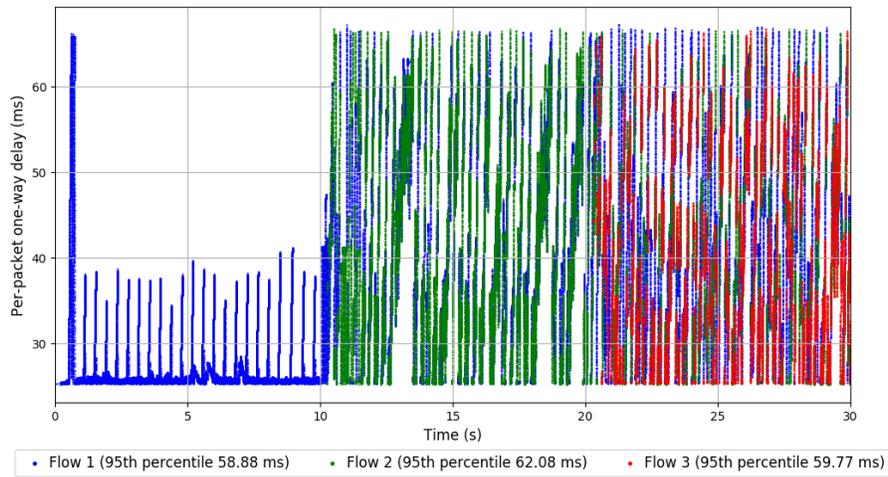
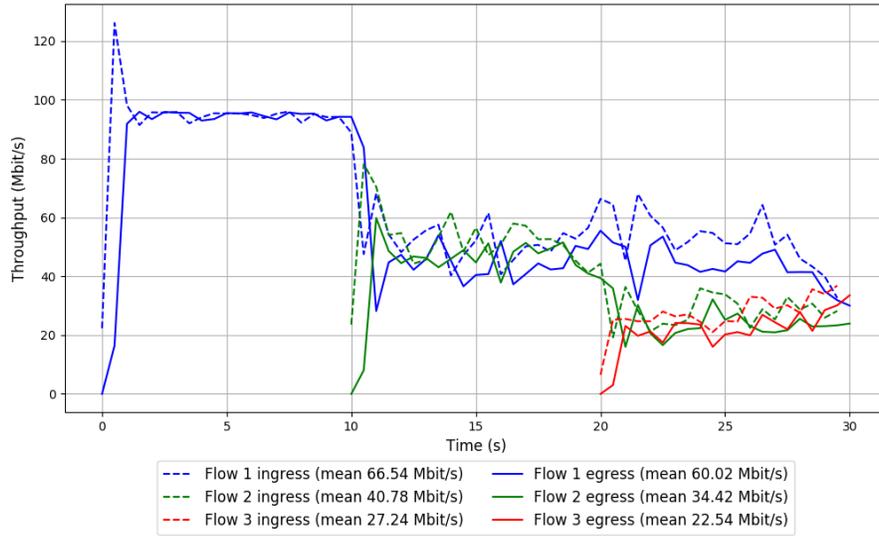


Run 1: Statistics of FillP-Sheep

Start at: 2019-06-27 07:35:57
End at: 2019-06-27 07:36:27
Local clock offset: -0.108 ms
Remote clock offset: -6.944 ms

```
# Below is generated by plot.py at 2019-06-27 09:54:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.36 Mbit/s
95th percentile per-packet one-way delay: 60.083 ms
Loss rate: 11.98%
-- Flow 1:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 58.875 ms
Loss rate: 9.79%
-- Flow 2:
Average throughput: 34.42 Mbit/s
95th percentile per-packet one-way delay: 62.078 ms
Loss rate: 15.58%
-- Flow 3:
Average throughput: 22.54 Mbit/s
95th percentile per-packet one-way delay: 59.775 ms
Loss rate: 17.24%
```

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-06-27 08:02:40
End at: 2019-06-27 08:03:10
Local clock offset: 2.926 ms
Remote clock offset: -7.834 ms

Below is generated by plot.py at 2019-06-27 09:54:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.01 Mbit/s
95th percentile per-packet one-way delay: 60.164 ms
Loss rate: 12.42%

-- Flow 1:

Average throughput: 55.31 Mbit/s
95th percentile per-packet one-way delay: 58.548 ms
Loss rate: 9.73%

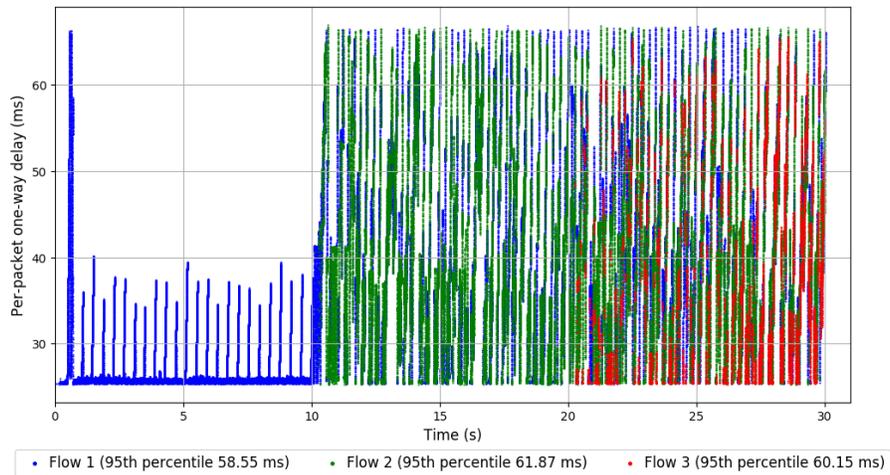
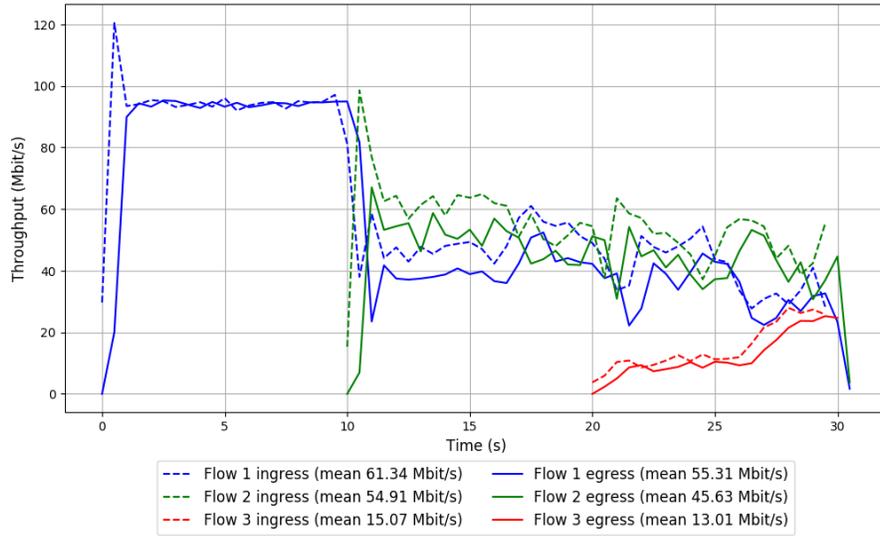
-- Flow 2:

Average throughput: 45.63 Mbit/s
95th percentile per-packet one-way delay: 61.867 ms
Loss rate: 16.78%

-- Flow 3:

Average throughput: 13.01 Mbit/s
95th percentile per-packet one-way delay: 60.148 ms
Loss rate: 13.55%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-06-27 08:29:29
End at: 2019-06-27 08:29:59
Local clock offset: 4.651 ms
Remote clock offset: -8.537 ms

Below is generated by plot.py at 2019-06-27 09:54:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.34 Mbit/s
95th percentile per-packet one-way delay: 60.263 ms
Loss rate: 13.63%

-- Flow 1:

Average throughput: 55.97 Mbit/s
95th percentile per-packet one-way delay: 58.246 ms
Loss rate: 9.96%

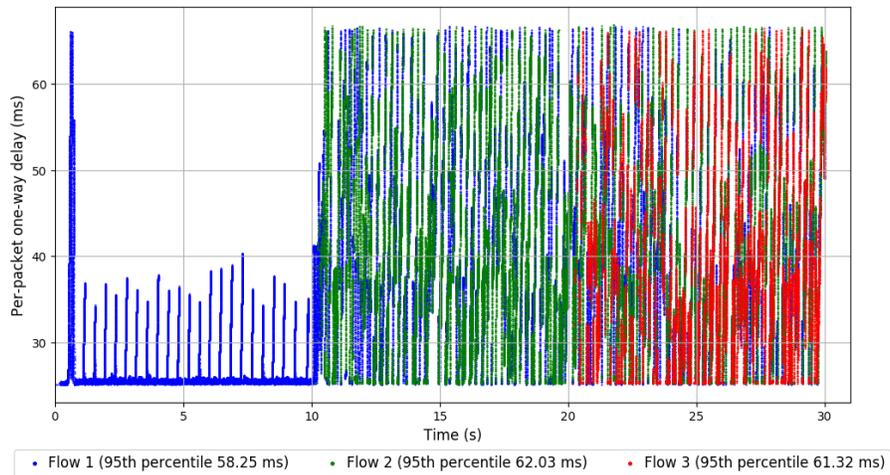
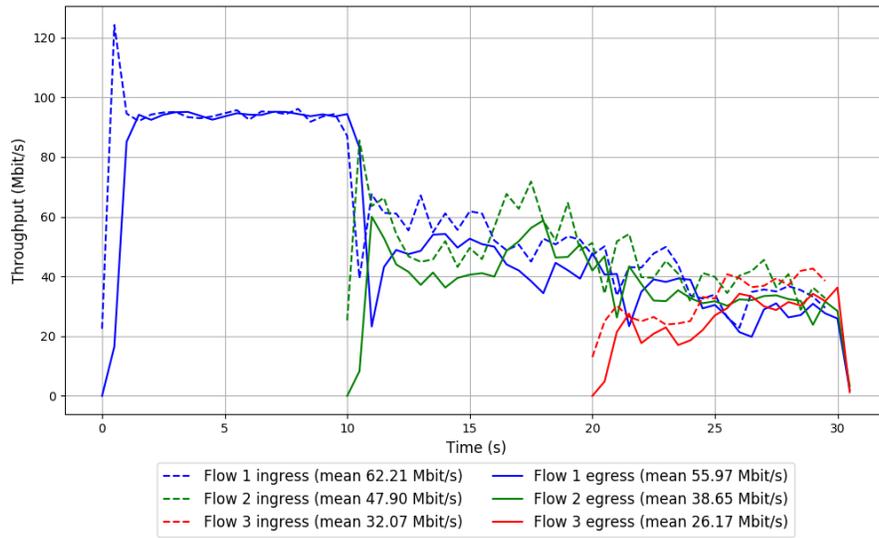
-- Flow 2:

Average throughput: 38.65 Mbit/s
95th percentile per-packet one-way delay: 62.030 ms
Loss rate: 19.19%

-- Flow 3:

Average throughput: 26.17 Mbit/s
95th percentile per-packet one-way delay: 61.322 ms
Loss rate: 18.37%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-06-27 08:56:11
End at: 2019-06-27 08:56:41
Local clock offset: -0.093 ms
Remote clock offset: -8.834 ms

Below is generated by plot.py at 2019-06-27 09:55:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.44 Mbit/s
95th percentile per-packet one-way delay: 58.961 ms
Loss rate: 11.55%

-- Flow 1:

Average throughput: 56.46 Mbit/s
95th percentile per-packet one-way delay: 57.335 ms
Loss rate: 8.95%

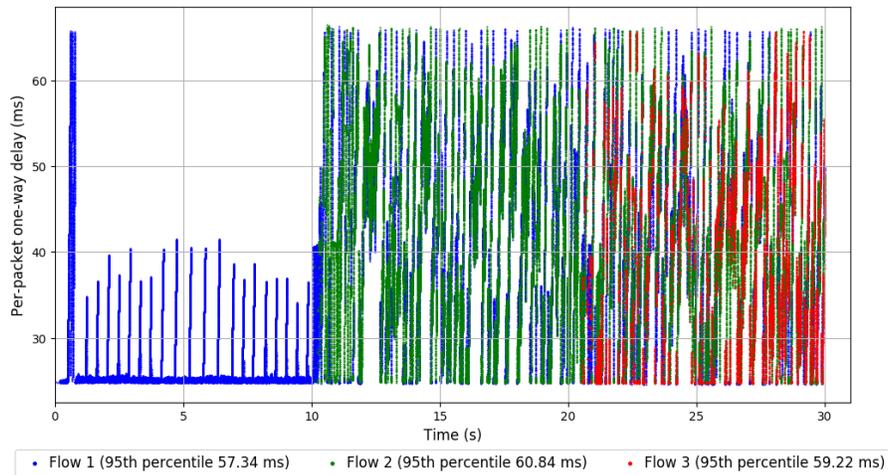
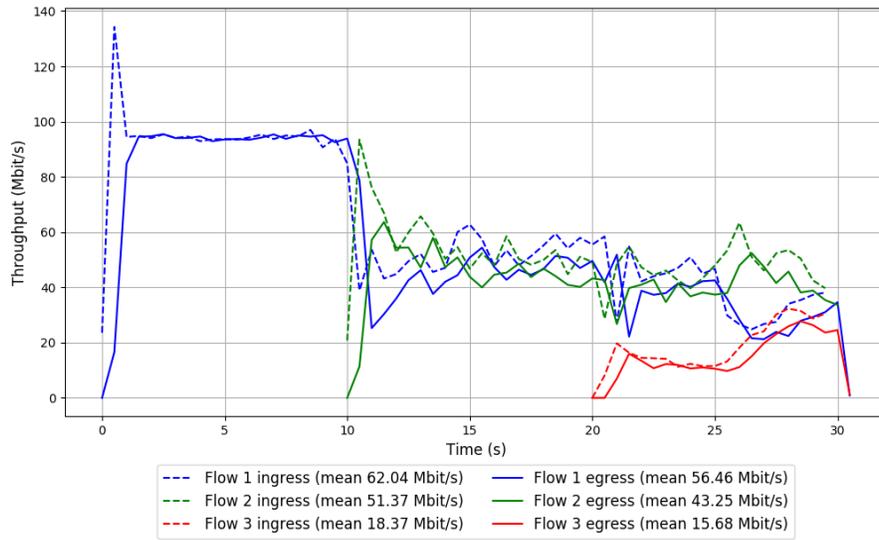
-- Flow 2:

Average throughput: 43.25 Mbit/s
95th percentile per-packet one-way delay: 60.836 ms
Loss rate: 15.72%

-- Flow 3:

Average throughput: 15.68 Mbit/s
95th percentile per-packet one-way delay: 59.222 ms
Loss rate: 14.61%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-06-27 09:22:51
End at: 2019-06-27 09:23:21
Local clock offset: -5.994 ms
Remote clock offset: -8.913 ms

Below is generated by plot.py at 2019-06-27 09:55:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.77 Mbit/s
95th percentile per-packet one-way delay: 60.127 ms
Loss rate: 12.33%

-- Flow 1:

Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 58.498 ms
Loss rate: 9.02%

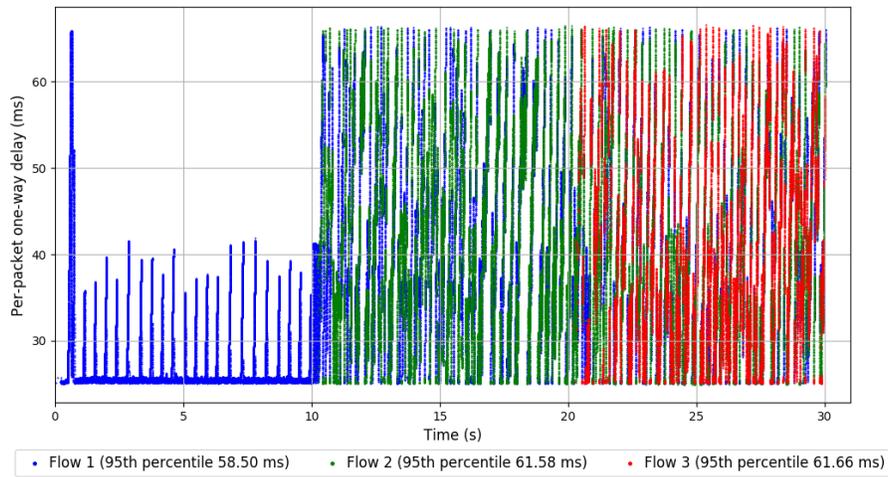
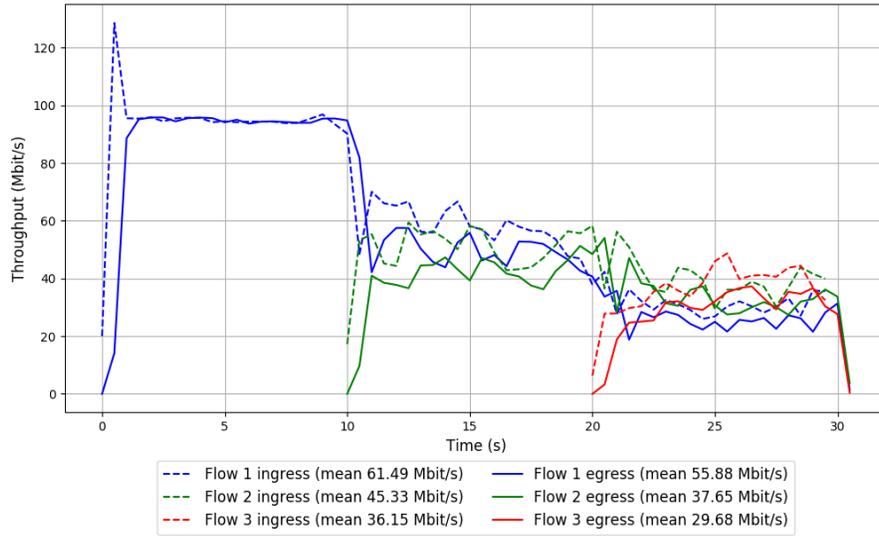
-- Flow 2:

Average throughput: 37.65 Mbit/s
95th percentile per-packet one-way delay: 61.584 ms
Loss rate: 16.81%

-- Flow 3:

Average throughput: 29.68 Mbit/s
95th percentile per-packet one-way delay: 61.661 ms
Loss rate: 18.05%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-06-27 08:01:25
End at: 2019-06-27 08:01:55
Local clock offset: 2.803 ms
Remote clock offset: -7.821 ms

Below is generated by plot.py at 2019-06-27 09:55:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 45.368 ms
Loss rate: 0.03%

-- Flow 1:

Average throughput: 63.54 Mbit/s
95th percentile per-packet one-way delay: 40.504 ms
Loss rate: 0.02%

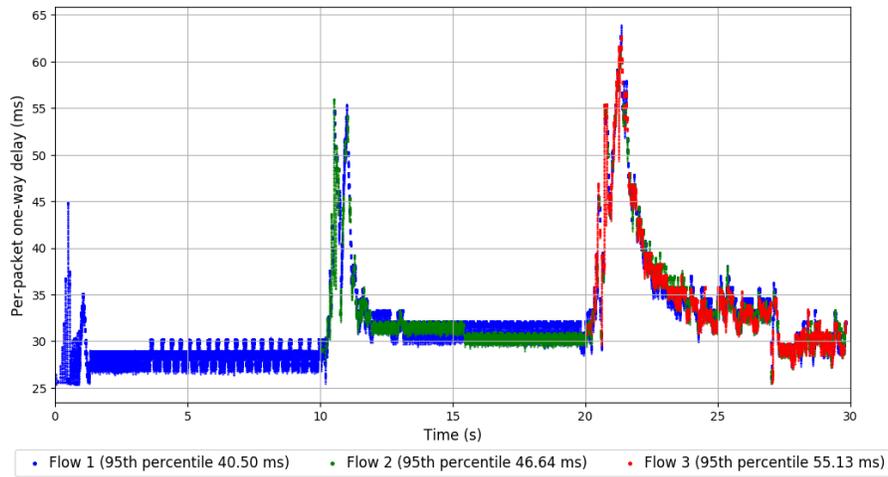
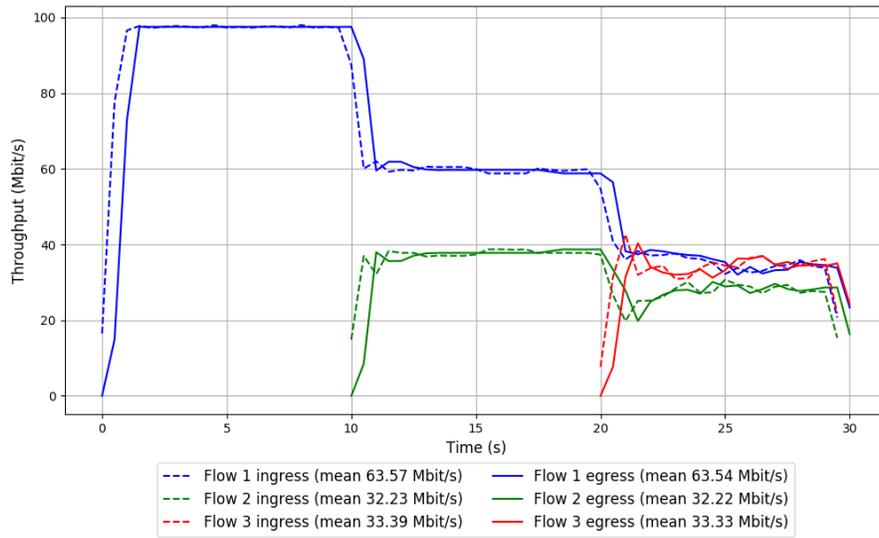
-- Flow 2:

Average throughput: 32.22 Mbit/s
95th percentile per-packet one-way delay: 46.636 ms
Loss rate: 0.01%

-- Flow 3:

Average throughput: 33.33 Mbit/s
95th percentile per-packet one-way delay: 55.135 ms
Loss rate: 0.14%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-06-27 08:28:14
End at: 2019-06-27 08:28:44
Local clock offset: 4.608 ms
Remote clock offset: -8.514 ms

Below is generated by plot.py at 2019-06-27 09:55:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 45.725 ms
Loss rate: 0.40%

-- Flow 1:

Average throughput: 67.07 Mbit/s
95th percentile per-packet one-way delay: 40.509 ms
Loss rate: 0.26%

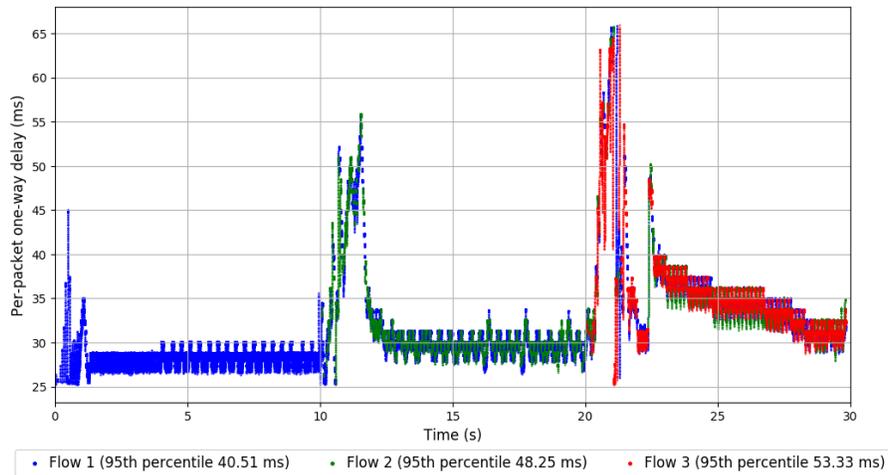
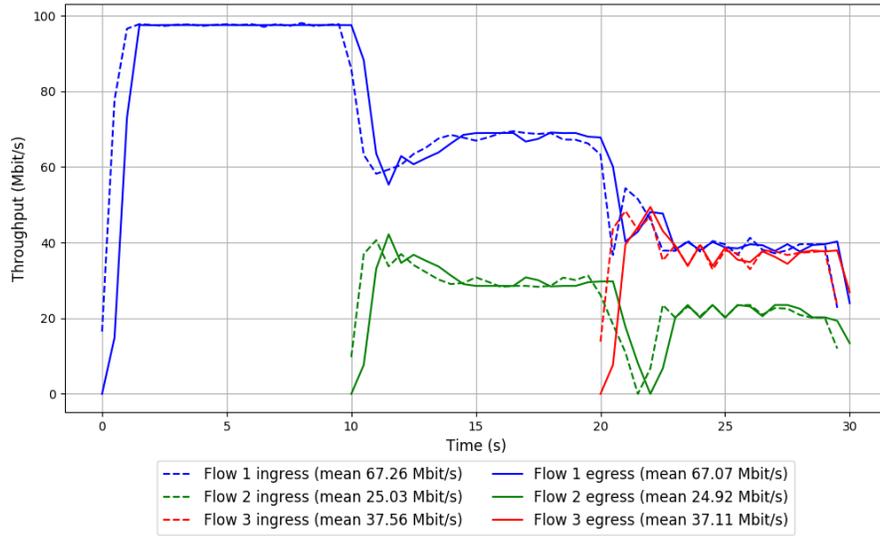
-- Flow 2:

Average throughput: 24.92 Mbit/s
95th percentile per-packet one-way delay: 48.249 ms
Loss rate: 0.43%

-- Flow 3:

Average throughput: 37.11 Mbit/s
95th percentile per-packet one-way delay: 53.334 ms
Loss rate: 1.17%

Run 2: Report of Indigo — Data Link

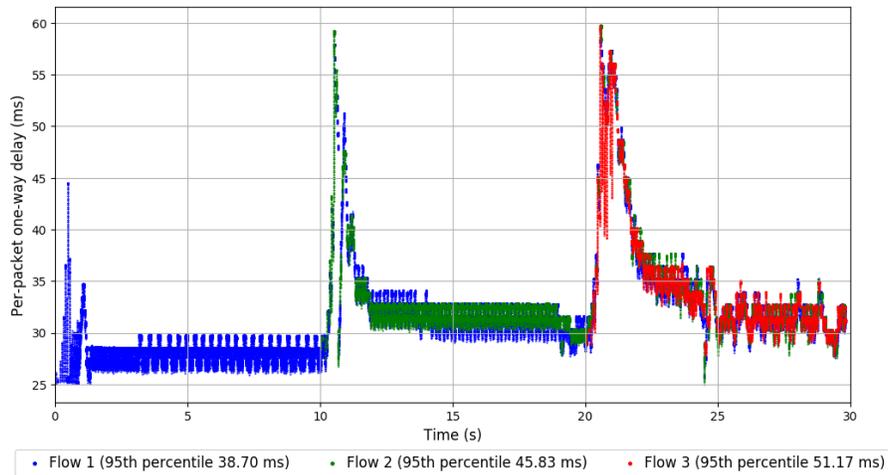
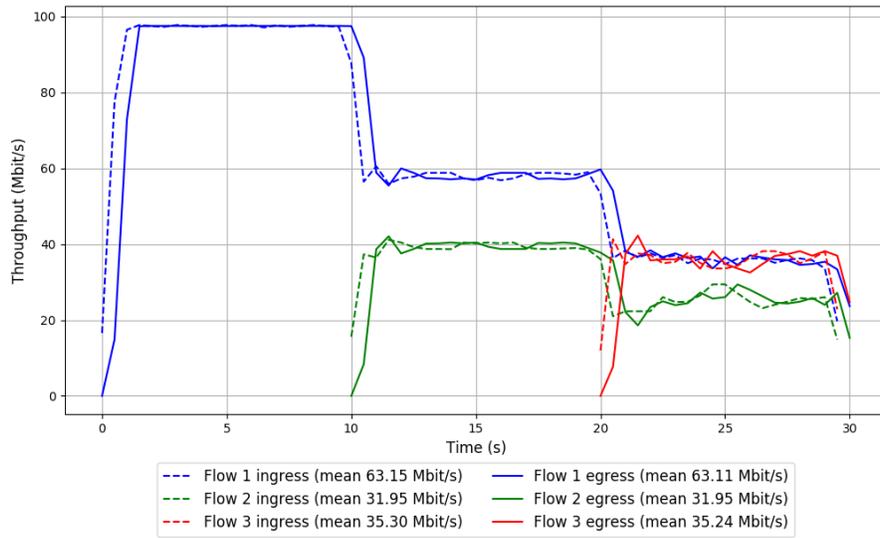


Run 3: Statistics of Indigo

Start at: 2019-06-27 08:54:56
End at: 2019-06-27 08:55:26
Local clock offset: 0.559 ms
Remote clock offset: -8.691 ms

```
# Below is generated by plot.py at 2019-06-27 09:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 43.540 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 63.11 Mbit/s
95th percentile per-packet one-way delay: 38.699 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 31.95 Mbit/s
95th percentile per-packet one-way delay: 45.834 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.24 Mbit/s
95th percentile per-packet one-way delay: 51.169 ms
Loss rate: 0.14%
```

Run 3: Report of Indigo — Data Link

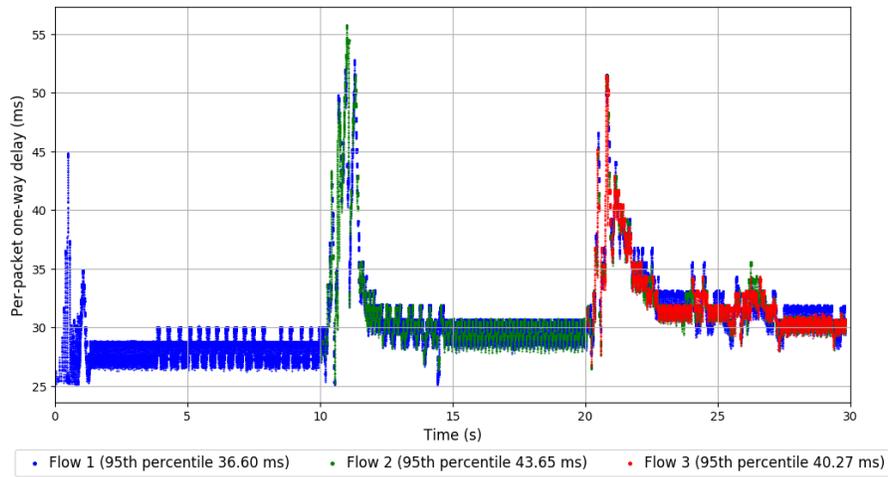
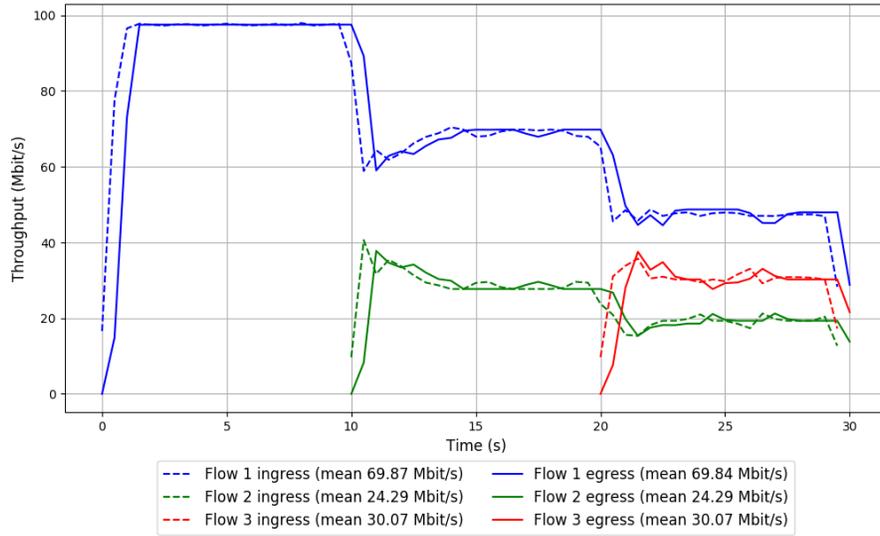


Run 4: Statistics of Indigo

Start at: 2019-06-27 09:21:36
End at: 2019-06-27 09:22:06
Local clock offset: -5.841 ms
Remote clock offset: -8.971 ms

```
# Below is generated by plot.py at 2019-06-27 09:55:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 38.779 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 69.84 Mbit/s
95th percentile per-packet one-way delay: 36.598 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 24.29 Mbit/s
95th percentile per-packet one-way delay: 43.646 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.07 Mbit/s
95th percentile per-packet one-way delay: 40.266 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link

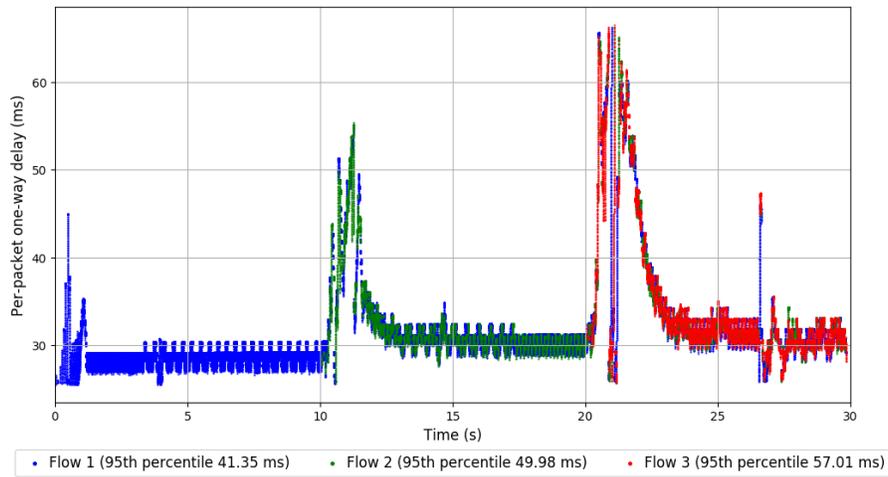
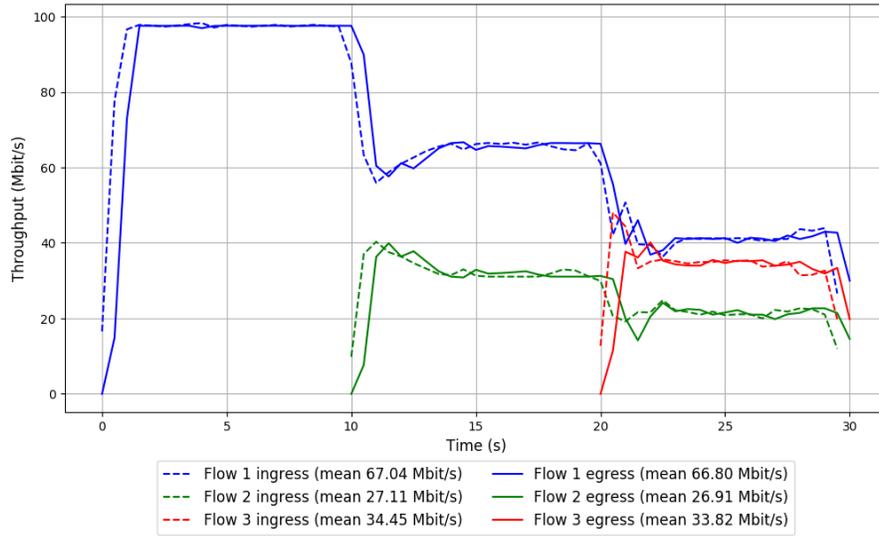


Run 5: Statistics of Indigo

Start at: 2019-06-27 09:48:22
End at: 2019-06-27 09:48:52
Local clock offset: -8.835 ms
Remote clock offset: -8.725 ms

```
# Below is generated by plot.py at 2019-06-27 09:55:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 47.485 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 66.80 Mbit/s
95th percentile per-packet one-way delay: 41.351 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 26.91 Mbit/s
95th percentile per-packet one-way delay: 49.976 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 33.82 Mbit/s
95th percentile per-packet one-way delay: 57.011 ms
Loss rate: 1.84%
```

Run 5: Report of Indigo — Data Link

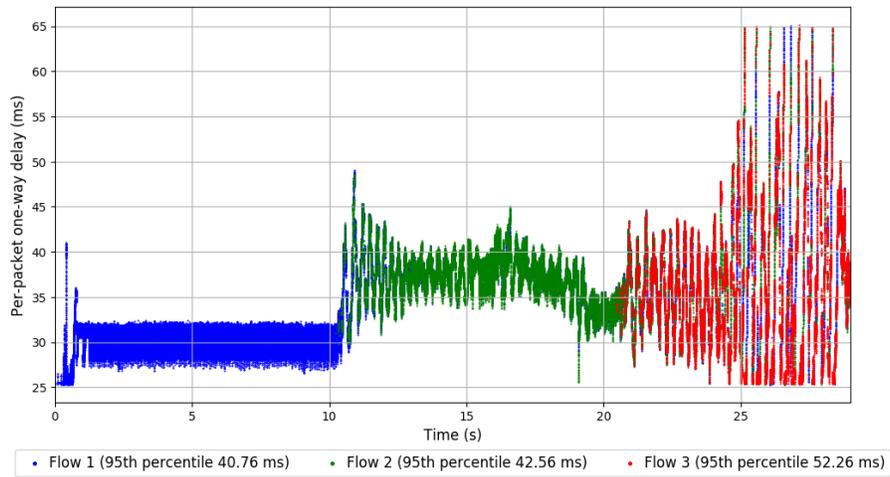
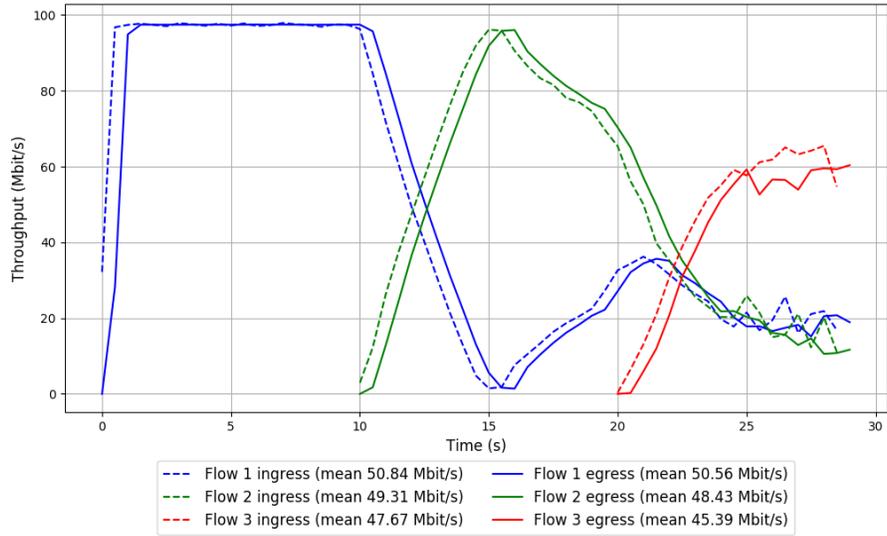


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-27 07:37:10
End at: 2019-06-27 07:37:40
Local clock offset: -0.078 ms
Remote clock offset: -7.048 ms

```
# Below is generated by plot.py at 2019-06-27 09:55:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.30 Mbit/s
95th percentile per-packet one-way delay: 43.786 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 50.56 Mbit/s
95th percentile per-packet one-way delay: 40.758 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 48.43 Mbit/s
95th percentile per-packet one-way delay: 42.561 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 45.39 Mbit/s
95th percentile per-packet one-way delay: 52.260 ms
Loss rate: 4.78%
```

Run 1: Report of Indigo-MusesC3 — Data Link

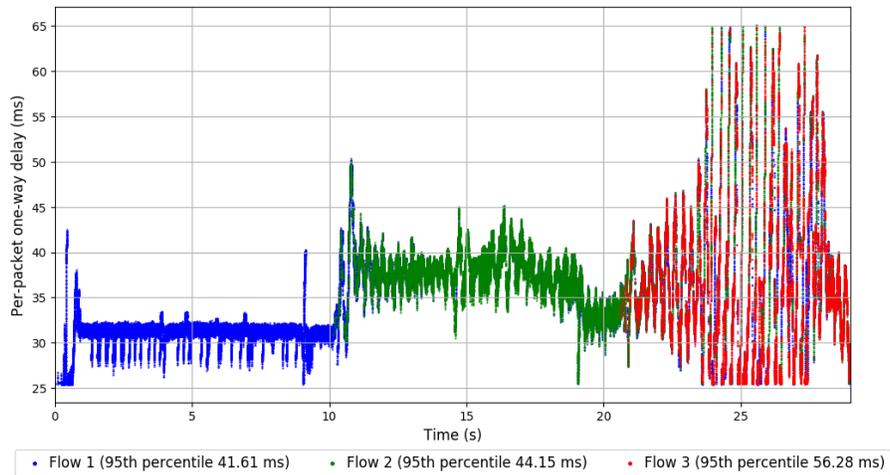
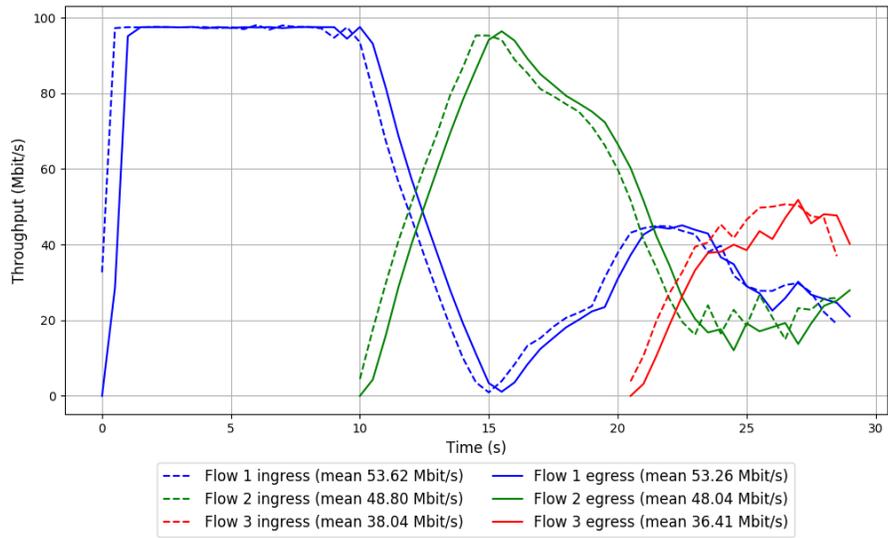


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-27 08:03:53
End at: 2019-06-27 08:04:23
Local clock offset: 3.051 ms
Remote clock offset: -7.878 ms

```
# Below is generated by plot.py at 2019-06-27 09:56:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.10 Mbit/s
95th percentile per-packet one-way delay: 44.832 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 53.26 Mbit/s
95th percentile per-packet one-way delay: 41.614 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 48.04 Mbit/s
95th percentile per-packet one-way delay: 44.148 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 36.41 Mbit/s
95th percentile per-packet one-way delay: 56.277 ms
Loss rate: 4.37%
```

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-27 08:30:42
End at: 2019-06-27 08:31:12
Local clock offset: 4.713 ms
Remote clock offset: -8.593 ms

Below is generated by plot.py at 2019-06-27 09:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.51 Mbit/s
95th percentile per-packet one-way delay: 42.854 ms
Loss rate: 0.97%

-- Flow 1:

Average throughput: 51.77 Mbit/s
95th percentile per-packet one-way delay: 38.044 ms
Loss rate: 0.79%

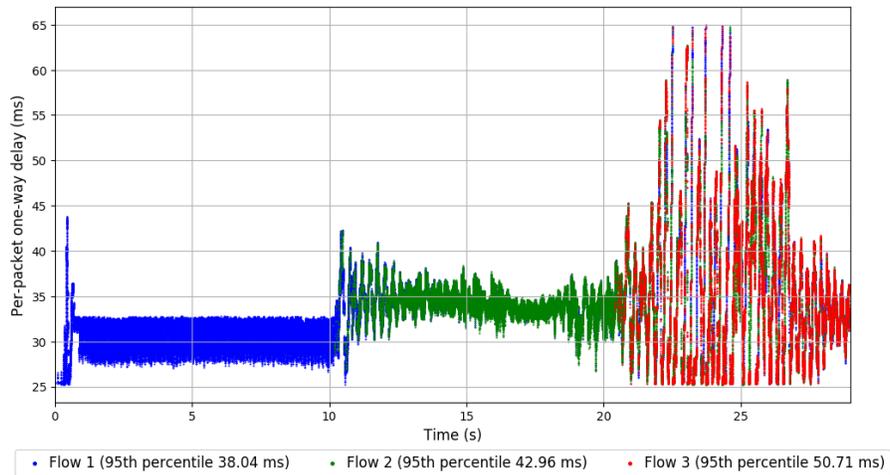
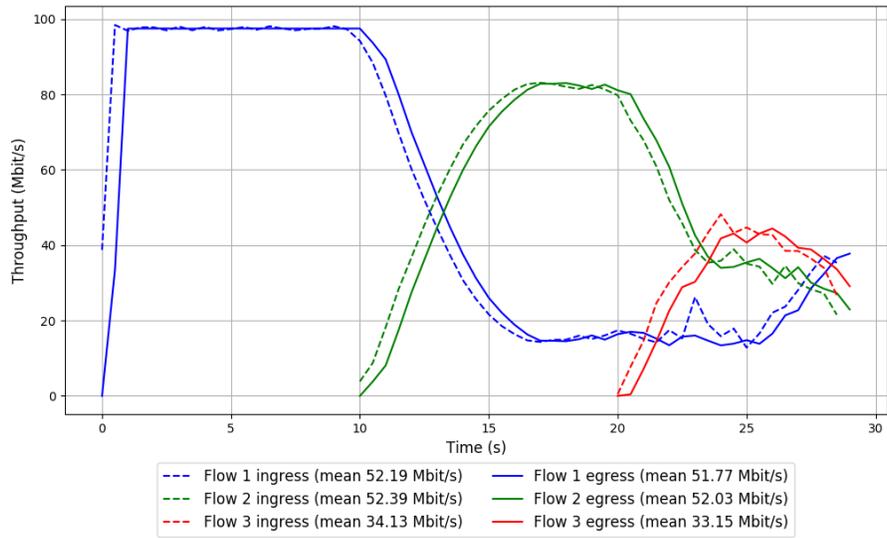
-- Flow 2:

Average throughput: 52.03 Mbit/s
95th percentile per-packet one-way delay: 42.960 ms
Loss rate: 0.67%

-- Flow 3:

Average throughput: 33.15 Mbit/s
95th percentile per-packet one-way delay: 50.713 ms
Loss rate: 2.87%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-27 08:57:25
End at: 2019-06-27 08:57:55
Local clock offset: -0.621 ms
Remote clock offset: -8.826 ms

Below is generated by plot.py at 2019-06-27 09:56:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.93 Mbit/s
95th percentile per-packet one-way delay: 40.709 ms
Loss rate: 0.18%

-- Flow 1:

Average throughput: 56.29 Mbit/s
95th percentile per-packet one-way delay: 37.546 ms
Loss rate: 0.13%

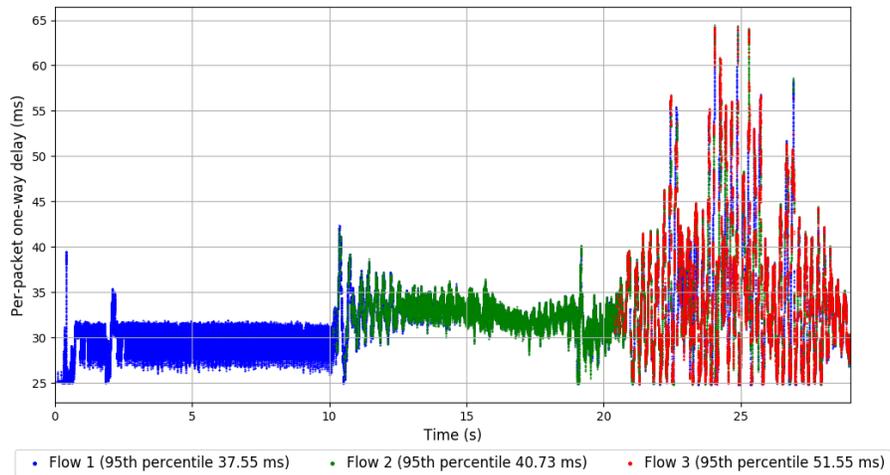
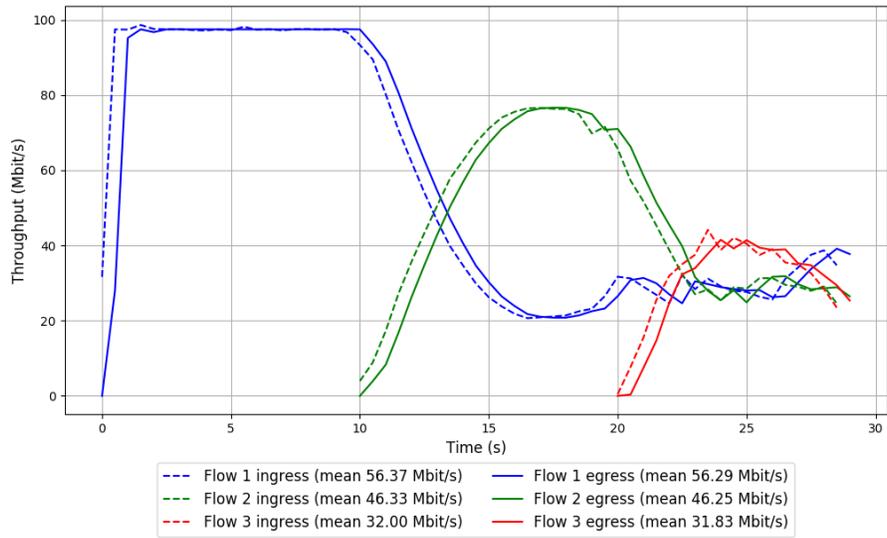
-- Flow 2:

Average throughput: 46.25 Mbit/s
95th percentile per-packet one-way delay: 40.733 ms
Loss rate: 0.16%

-- Flow 3:

Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 51.549 ms
Loss rate: 0.55%

Run 4: Report of Indigo-MusesC3 — Data Link

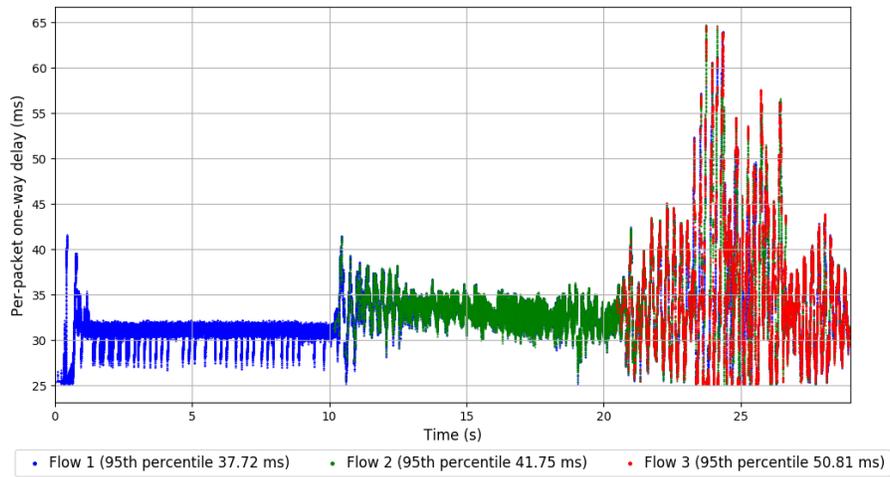
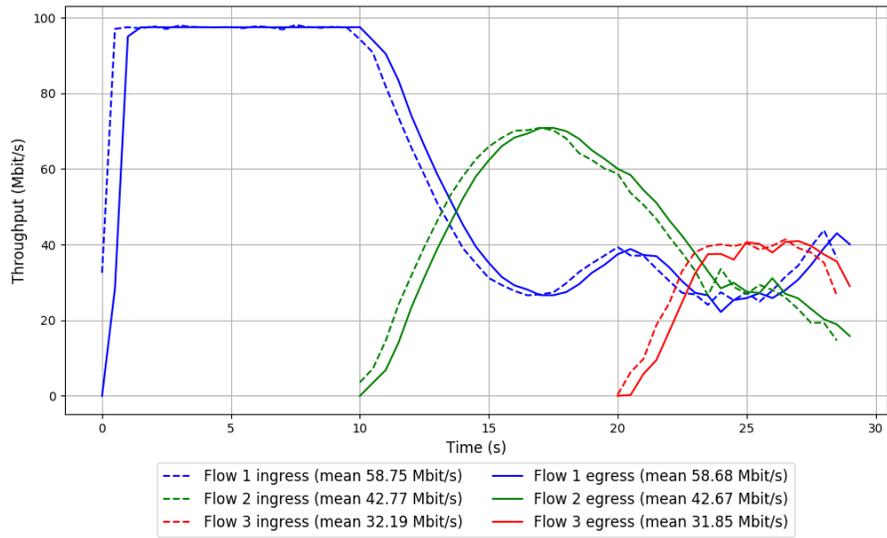


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-27 09:24:05
End at: 2019-06-27 09:24:35
Local clock offset: -6.178 ms
Remote clock offset: -8.855 ms

```
# Below is generated by plot.py at 2019-06-27 09:56:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 41.066 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 58.68 Mbit/s
95th percentile per-packet one-way delay: 37.723 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 42.67 Mbit/s
95th percentile per-packet one-way delay: 41.753 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 50.815 ms
Loss rate: 1.09%
```

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-27 07:56:37
End at: 2019-06-27 07:57:07
Local clock offset: 2.155 ms
Remote clock offset: -7.712 ms

Below is generated by plot.py at 2019-06-27 09:56:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.95 Mbit/s
95th percentile per-packet one-way delay: 57.472 ms
Loss rate: 13.38%

-- Flow 1:

Average throughput: 57.77 Mbit/s
95th percentile per-packet one-way delay: 55.587 ms
Loss rate: 10.94%

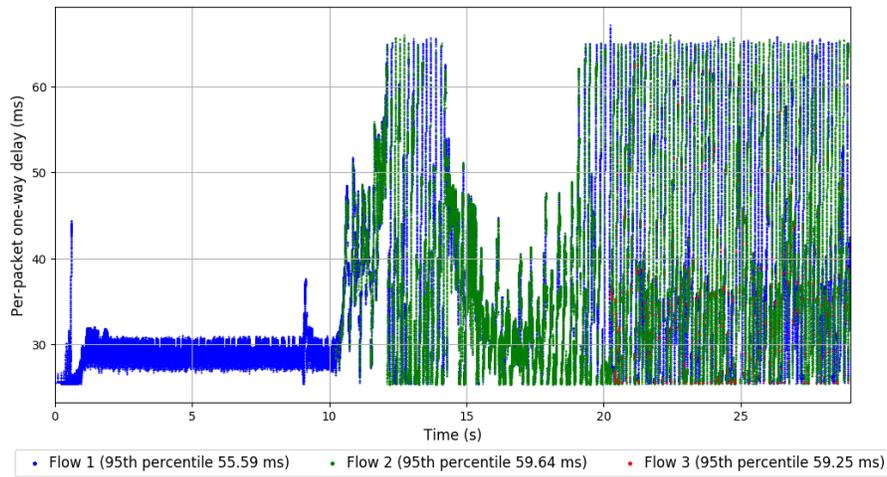
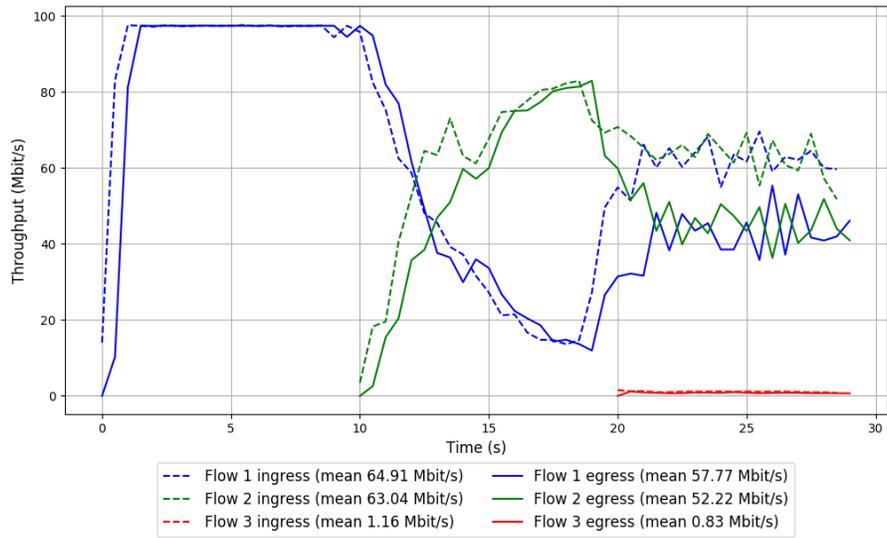
-- Flow 2:

Average throughput: 52.22 Mbit/s
95th percentile per-packet one-way delay: 59.638 ms
Loss rate: 17.11%

-- Flow 3:

Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 59.247 ms
Loss rate: 27.71%

Run 1: Report of Indigo-MusesC5 — Data Link

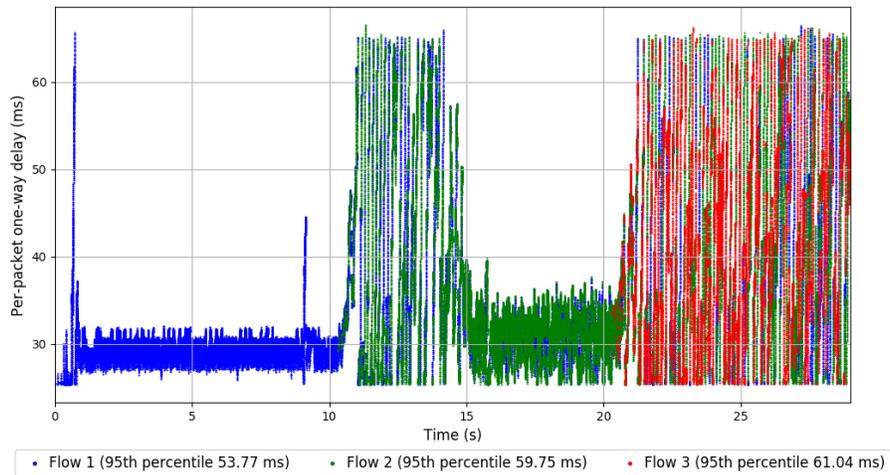
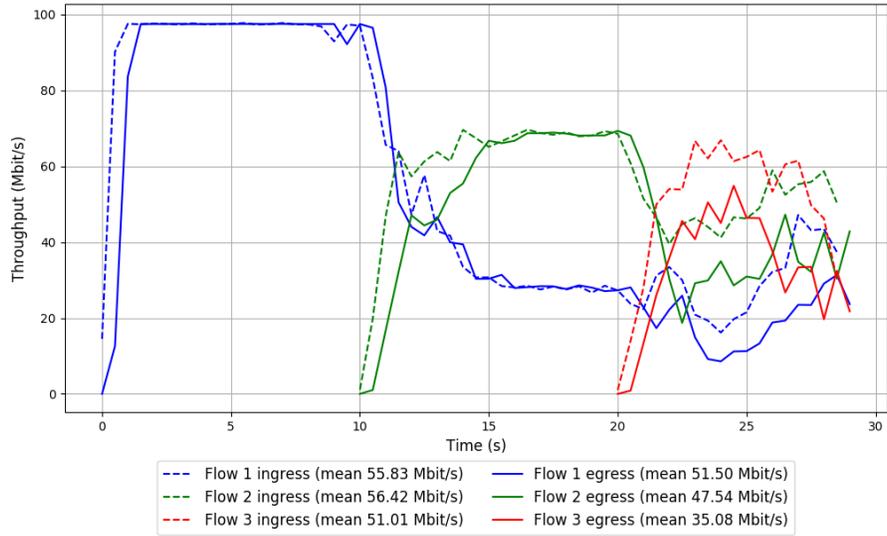


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-27 08:23:28
End at: 2019-06-27 08:23:58
Local clock offset: 4.376 ms
Remote clock offset: -8.405 ms

```
# Below is generated by plot.py at 2019-06-27 09:56:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.77 Mbit/s
95th percentile per-packet one-way delay: 58.087 ms
Loss rate: 13.70%
-- Flow 1:
Average throughput: 51.50 Mbit/s
95th percentile per-packet one-way delay: 53.775 ms
Loss rate: 7.69%
-- Flow 2:
Average throughput: 47.54 Mbit/s
95th percentile per-packet one-way delay: 59.747 ms
Loss rate: 15.62%
-- Flow 3:
Average throughput: 35.08 Mbit/s
95th percentile per-packet one-way delay: 61.037 ms
Loss rate: 31.07%
```

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-27 08:50:10
End at: 2019-06-27 08:50:40
Local clock offset: 3.856 ms
Remote clock offset: -8.613 ms

Below is generated by plot.py at 2019-06-27 09:57:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.27 Mbit/s
95th percentile per-packet one-way delay: 56.852 ms
Loss rate: 13.53%

-- Flow 1:

Average throughput: 58.16 Mbit/s
95th percentile per-packet one-way delay: 55.499 ms
Loss rate: 11.42%

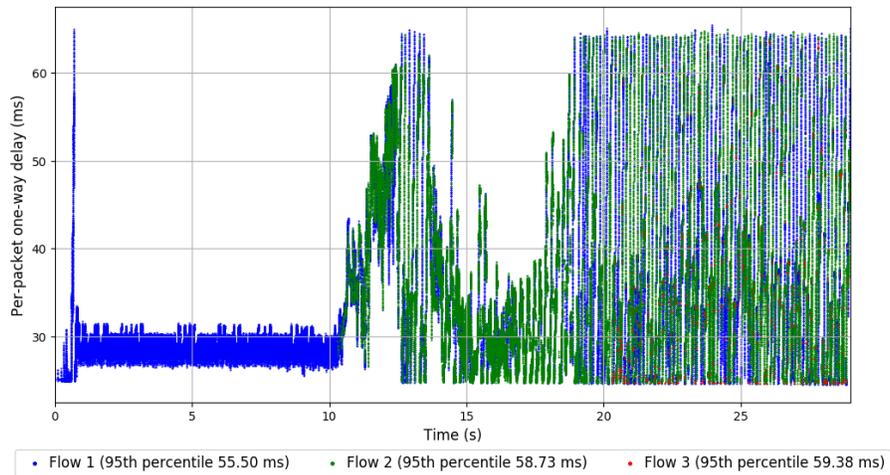
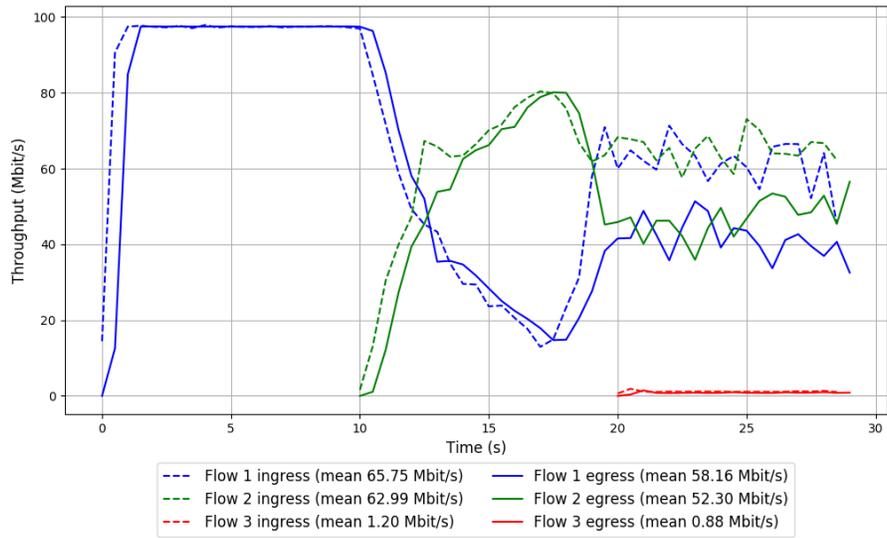
-- Flow 2:

Average throughput: 52.30 Mbit/s
95th percentile per-packet one-way delay: 58.729 ms
Loss rate: 16.83%

-- Flow 3:

Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 59.376 ms
Loss rate: 26.65%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-27 09:16:50
End at: 2019-06-27 09:17:20
Local clock offset: -5.238 ms
Remote clock offset: -8.924 ms

Below is generated by plot.py at 2019-06-27 09:57:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.76 Mbit/s
95th percentile per-packet one-way delay: 57.500 ms
Loss rate: 14.17%

-- Flow 1:

Average throughput: 58.23 Mbit/s
95th percentile per-packet one-way delay: 55.083 ms
Loss rate: 10.70%

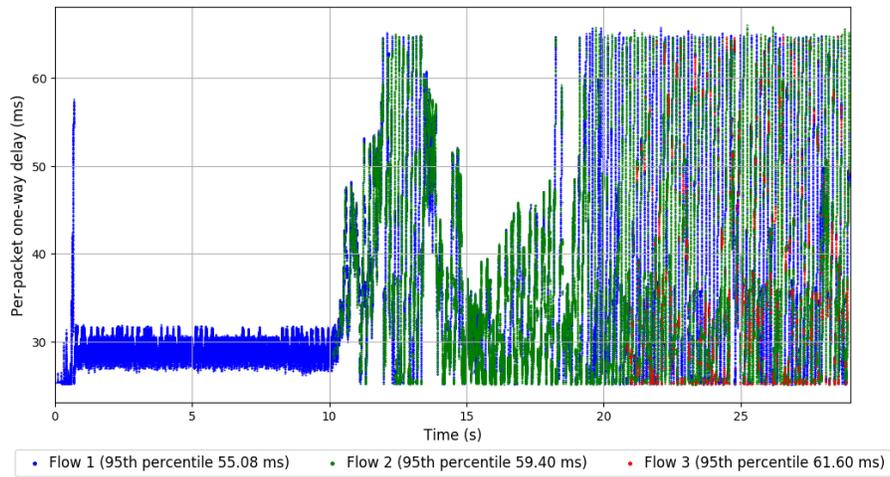
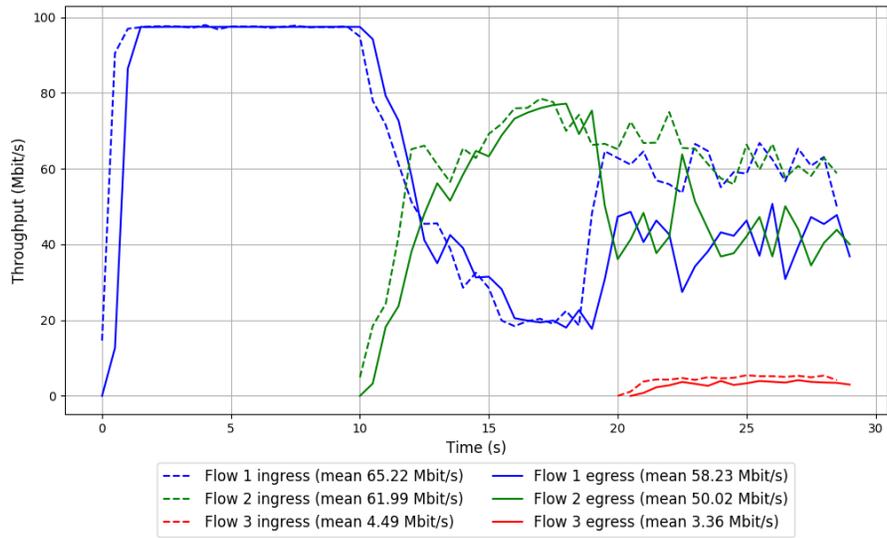
-- Flow 2:

Average throughput: 50.02 Mbit/s
95th percentile per-packet one-way delay: 59.398 ms
Loss rate: 19.27%

-- Flow 3:

Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 61.603 ms
Loss rate: 29.50%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-27 09:43:28
End at: 2019-06-27 09:43:58
Local clock offset: -8.363 ms
Remote clock offset: -8.818 ms

Below is generated by plot.py at 2019-06-27 09:57:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.68 Mbit/s
95th percentile per-packet one-way delay: 57.247 ms
Loss rate: 11.47%

-- Flow 1:

Average throughput: 57.84 Mbit/s
95th percentile per-packet one-way delay: 54.554 ms
Loss rate: 8.66%

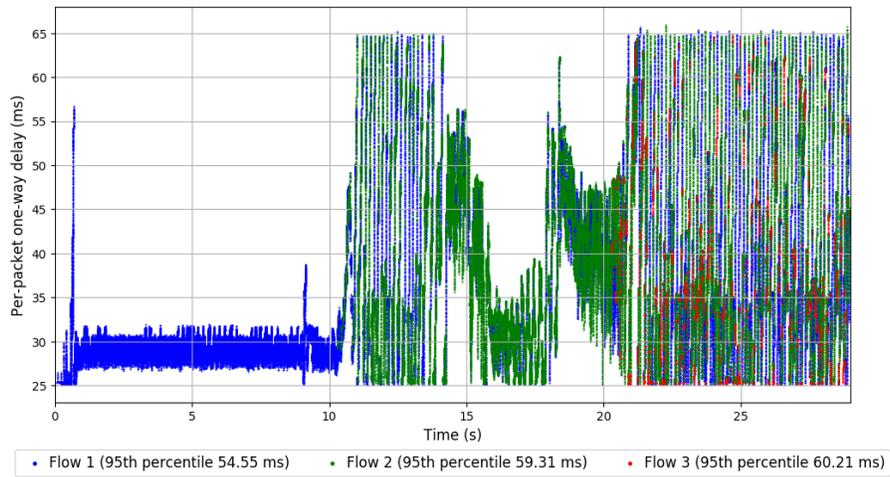
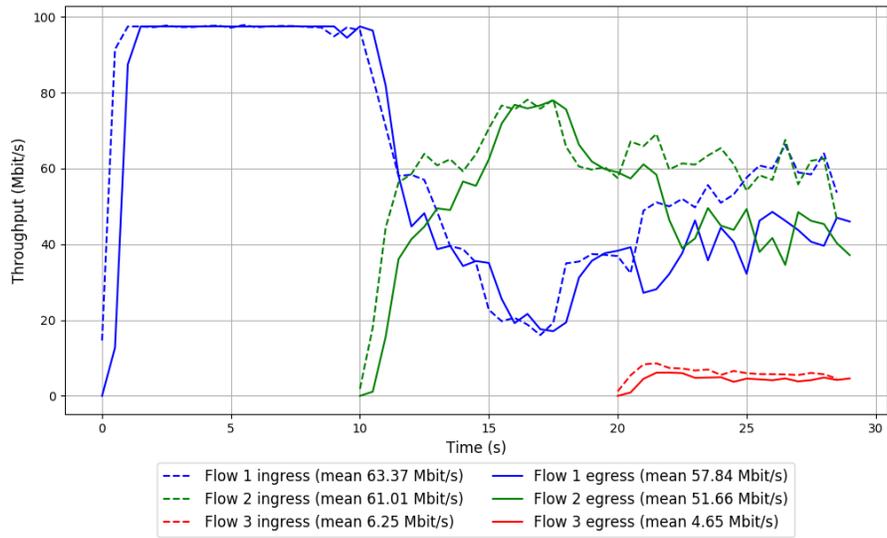
-- Flow 2:

Average throughput: 51.66 Mbit/s
95th percentile per-packet one-way delay: 59.314 ms
Loss rate: 15.30%

-- Flow 3:

Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 60.207 ms
Loss rate: 25.49%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-27 07:45:36
End at: 2019-06-27 07:46:06
Local clock offset: -0.066 ms
Remote clock offset: -7.385 ms

Below is generated by plot.py at 2019-06-27 09:57:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.47 Mbit/s
95th percentile per-packet one-way delay: 30.891 ms
Loss rate: 0.03%

-- Flow 1:

Average throughput: 55.05 Mbit/s
95th percentile per-packet one-way delay: 30.736 ms
Loss rate: 0.05%

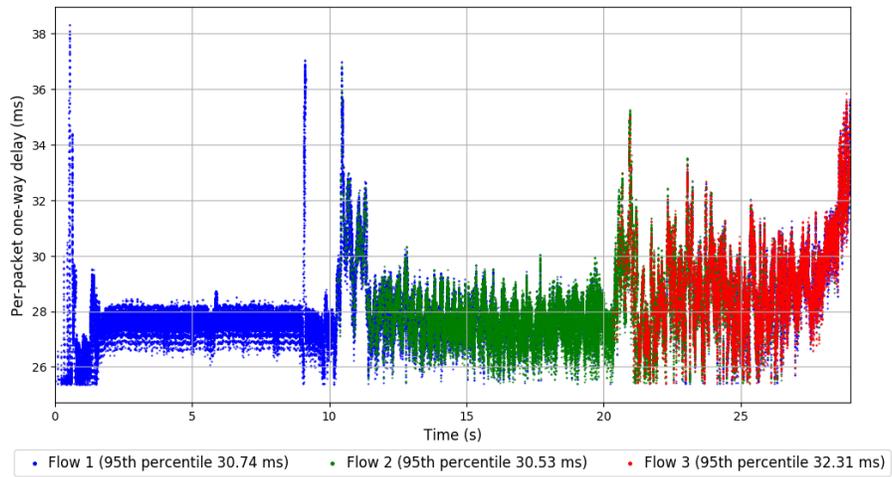
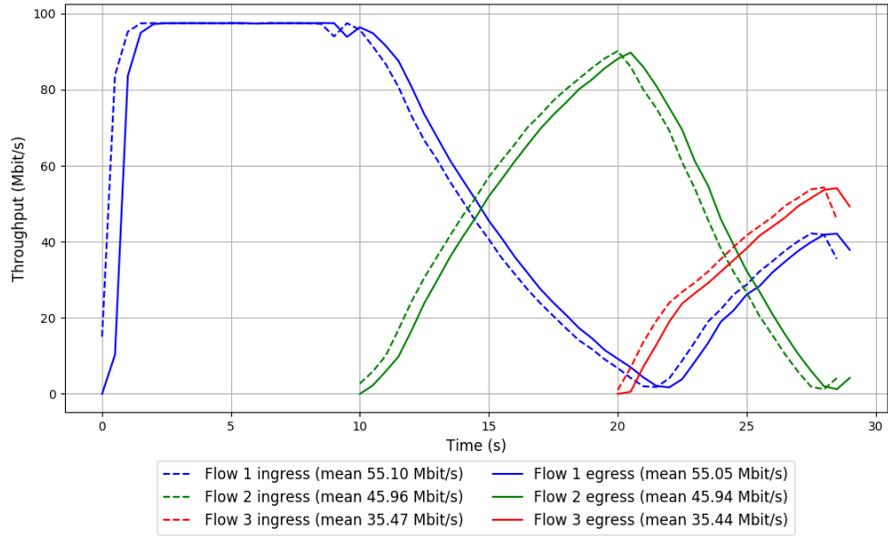
-- Flow 2:

Average throughput: 45.94 Mbit/s
95th percentile per-packet one-way delay: 30.530 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 35.44 Mbit/s
95th percentile per-packet one-way delay: 32.315 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-27 08:12:30
End at: 2019-06-27 08:13:00
Local clock offset: 3.793 ms
Remote clock offset: -8.146 ms

Below is generated by plot.py at 2019-06-27 09:57:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 31.405 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.27 Mbit/s
95th percentile per-packet one-way delay: 31.152 ms
Loss rate: 0.00%

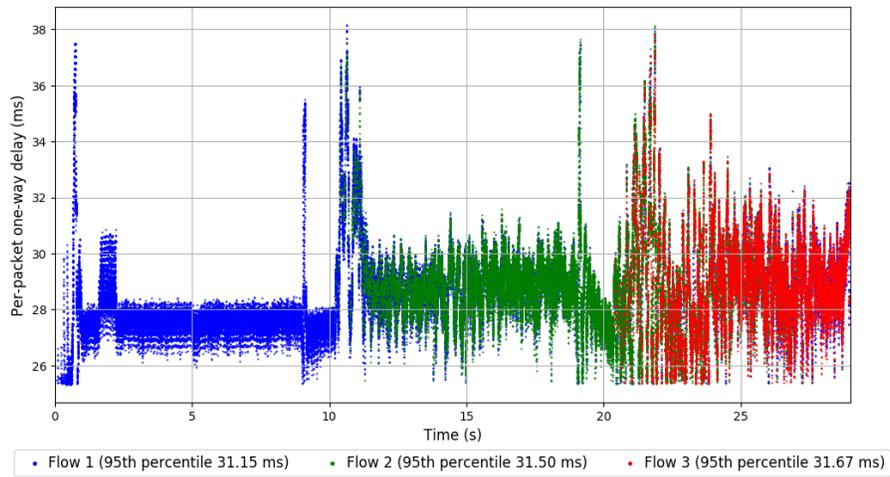
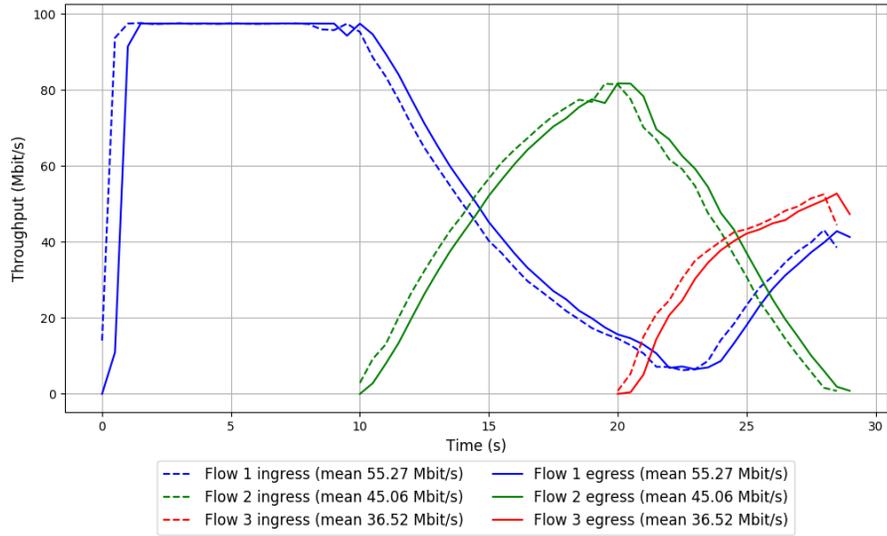
-- Flow 2:

Average throughput: 45.06 Mbit/s
95th percentile per-packet one-way delay: 31.498 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 36.52 Mbit/s
95th percentile per-packet one-way delay: 31.669 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-27 08:39:10

End at: 2019-06-27 08:39:40

Local clock offset: 5.075 ms

Remote clock offset: -8.61 ms

Below is generated by plot.py at 2019-06-27 09:57:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.66 Mbit/s

95th percentile per-packet one-way delay: 32.279 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.44 Mbit/s

95th percentile per-packet one-way delay: 32.406 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.66 Mbit/s

95th percentile per-packet one-way delay: 32.079 ms

Loss rate: 0.00%

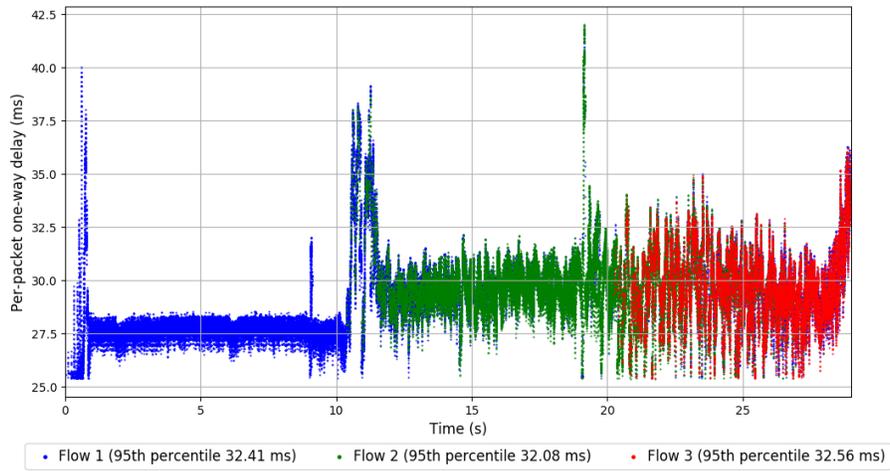
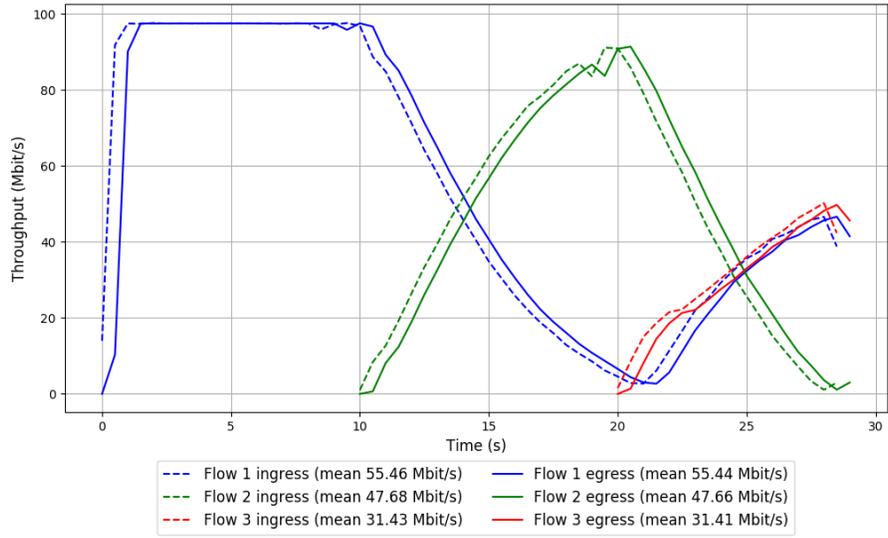
-- Flow 3:

Average throughput: 31.41 Mbit/s

95th percentile per-packet one-way delay: 32.560 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link

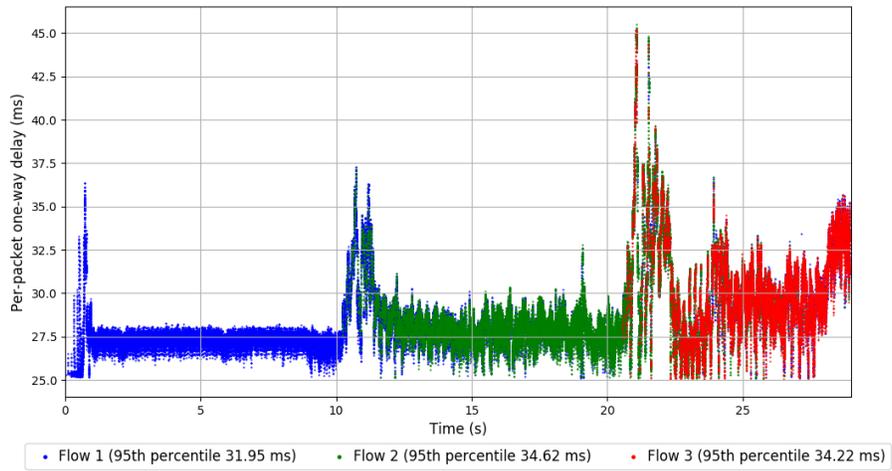
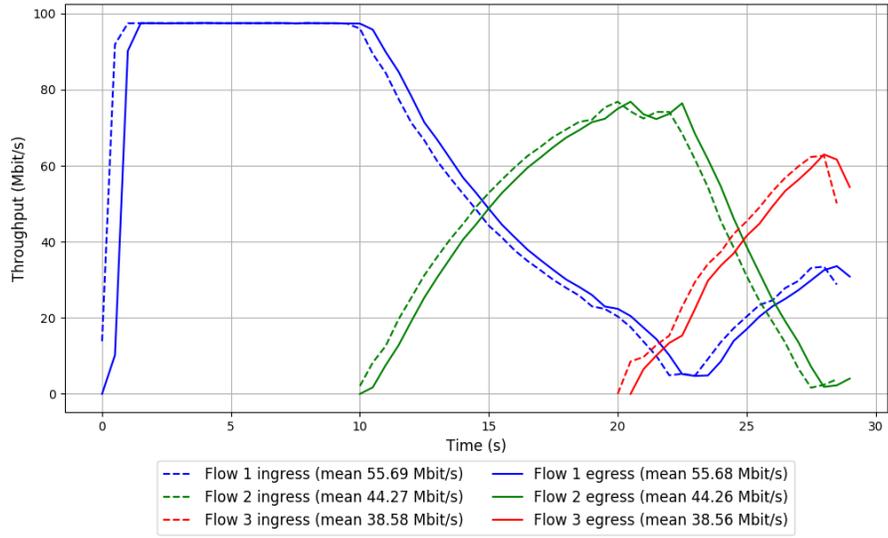


Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-27 09:05:52
End at: 2019-06-27 09:06:22
Local clock offset: -3.32 ms
Remote clock offset: -8.908 ms

```
# Below is generated by plot.py at 2019-06-27 09:57:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 33.171 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.68 Mbit/s
95th percentile per-packet one-way delay: 31.954 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.26 Mbit/s
95th percentile per-packet one-way delay: 34.625 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.56 Mbit/s
95th percentile per-packet one-way delay: 34.224 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesD — Data Link

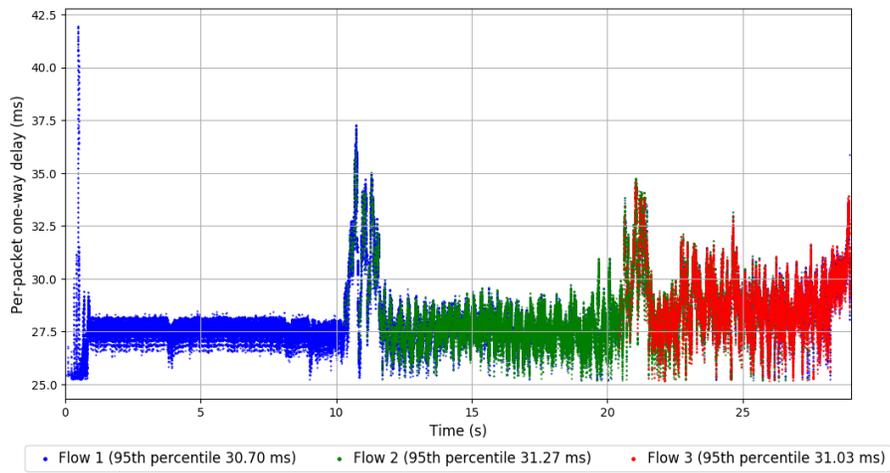
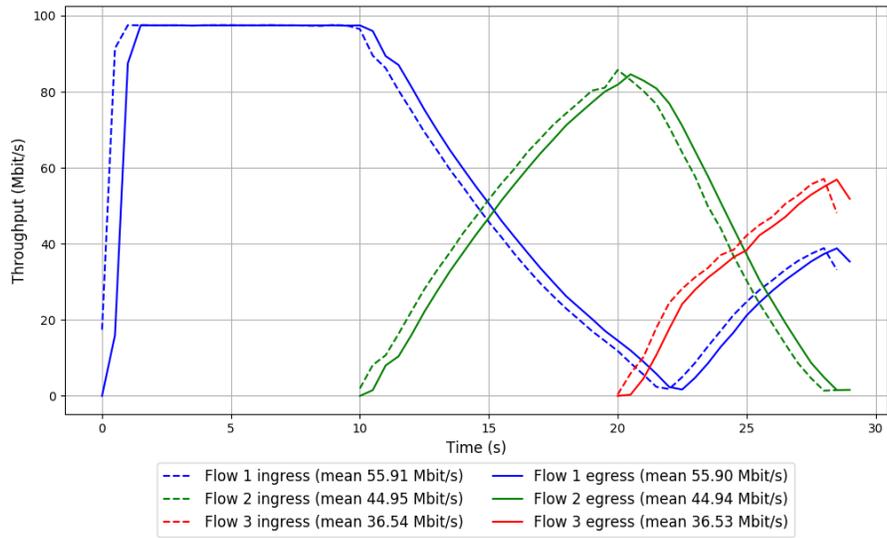


Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-27 09:32:31
End at: 2019-06-27 09:33:01
Local clock offset: -7.137 ms
Remote clock offset: -8.738 ms

```
# Below is generated by plot.py at 2019-06-27 09:58:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 30.957 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.90 Mbit/s
95th percentile per-packet one-way delay: 30.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.94 Mbit/s
95th percentile per-packet one-way delay: 31.275 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.53 Mbit/s
95th percentile per-packet one-way delay: 31.027 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MuseST

Start at: 2019-06-27 07:48:04
End at: 2019-06-27 07:48:34
Local clock offset: -0.008 ms
Remote clock offset: -7.529 ms

Below is generated by plot.py at 2019-06-27 09:58:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.18 Mbit/s
95th percentile per-packet one-way delay: 56.492 ms
Loss rate: 11.36%

-- Flow 1:

Average throughput: 50.32 Mbit/s
95th percentile per-packet one-way delay: 52.099 ms
Loss rate: 5.02%

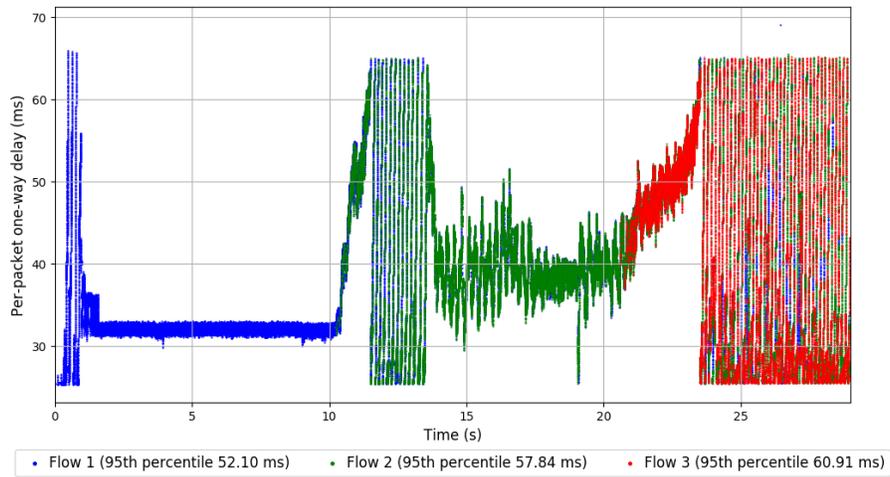
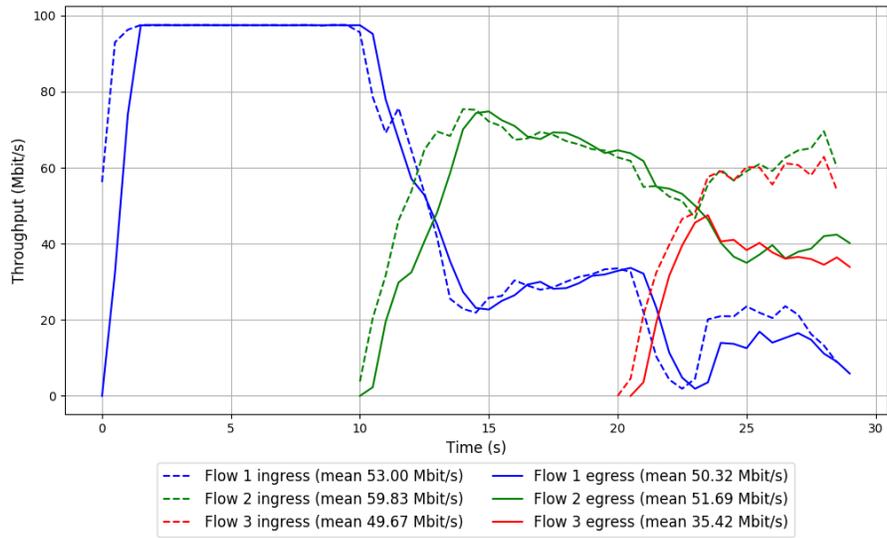
-- Flow 2:

Average throughput: 51.69 Mbit/s
95th percentile per-packet one-way delay: 57.845 ms
Loss rate: 13.56%

-- Flow 3:

Average throughput: 35.42 Mbit/s
95th percentile per-packet one-way delay: 60.907 ms
Loss rate: 28.64%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MuseST

Start at: 2019-06-27 08:14:59

End at: 2019-06-27 08:15:29

Local clock offset: 3.917 ms

Remote clock offset: -8.2 ms

Below is generated by plot.py at 2019-06-27 09:58:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.87 Mbit/s

95th percentile per-packet one-way delay: 56.132 ms

Loss rate: 17.40%

-- Flow 1:

Average throughput: 45.33 Mbit/s

95th percentile per-packet one-way delay: 48.597 ms

Loss rate: 7.92%

-- Flow 2:

Average throughput: 55.87 Mbit/s

95th percentile per-packet one-way delay: 56.946 ms

Loss rate: 18.84%

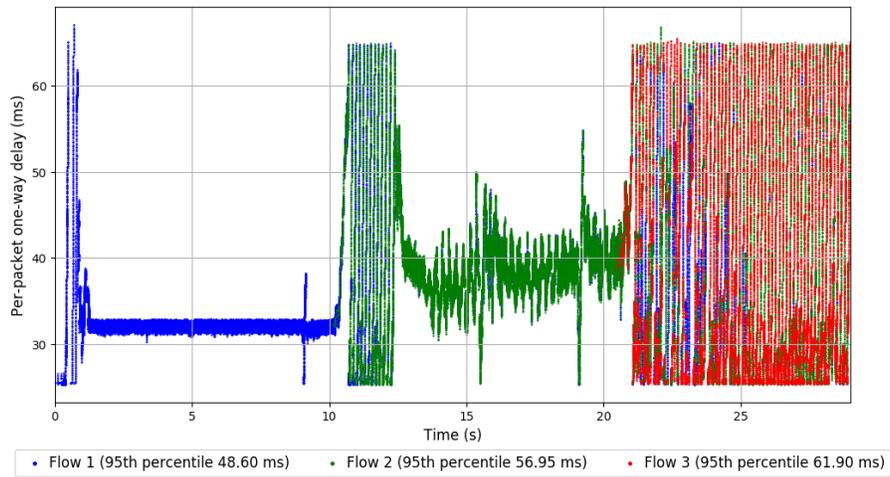
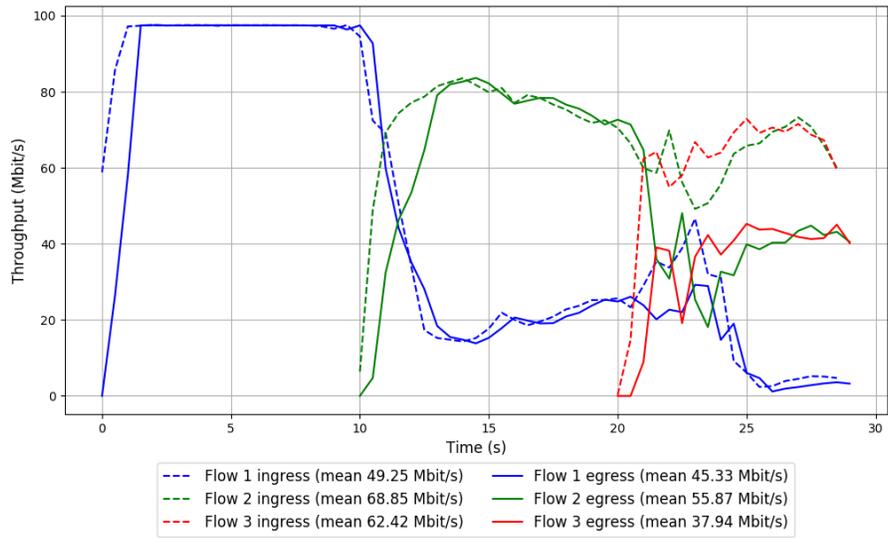
-- Flow 3:

Average throughput: 37.94 Mbit/s

95th percentile per-packet one-way delay: 61.895 ms

Loss rate: 39.25%

Run 2: Report of Indigo-MusesT — Data Link

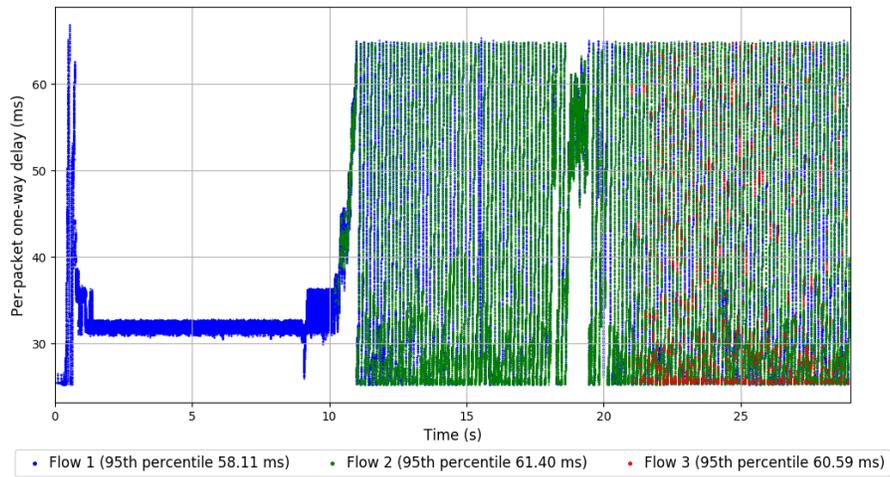
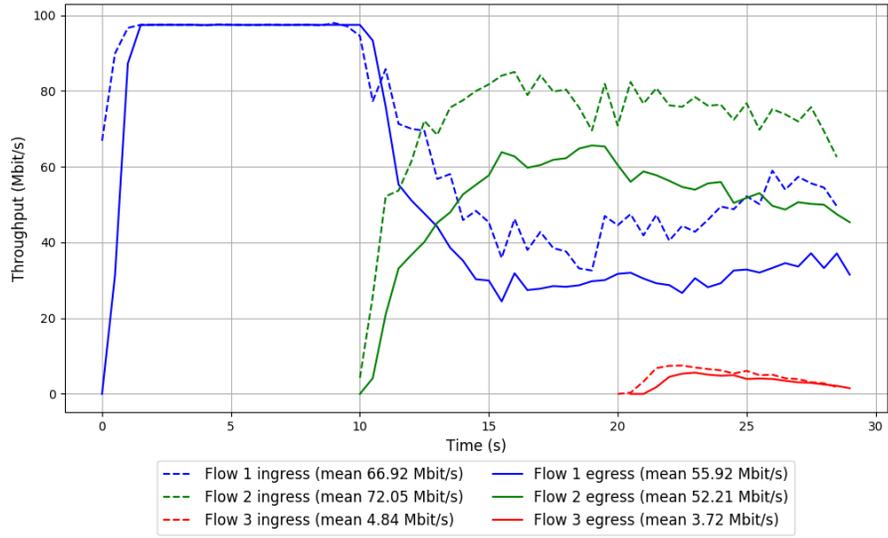


Run 3: Statistics of Indigo-MuseST

Start at: 2019-06-27 08:41:38
End at: 2019-06-27 08:42:08
Local clock offset: 5.196 ms
Remote clock offset: -8.723 ms

```
# Below is generated by plot.py at 2019-06-27 09:58:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.95 Mbit/s
95th percentile per-packet one-way delay: 59.966 ms
Loss rate: 21.06%
-- Flow 1:
Average throughput: 55.92 Mbit/s
95th percentile per-packet one-way delay: 58.107 ms
Loss rate: 16.39%
-- Flow 2:
Average throughput: 52.21 Mbit/s
95th percentile per-packet one-way delay: 61.403 ms
Loss rate: 27.51%
-- Flow 3:
Average throughput: 3.72 Mbit/s
95th percentile per-packet one-way delay: 60.591 ms
Loss rate: 27.57%
```

Run 3: Report of Indigo-MusesT — Data Link

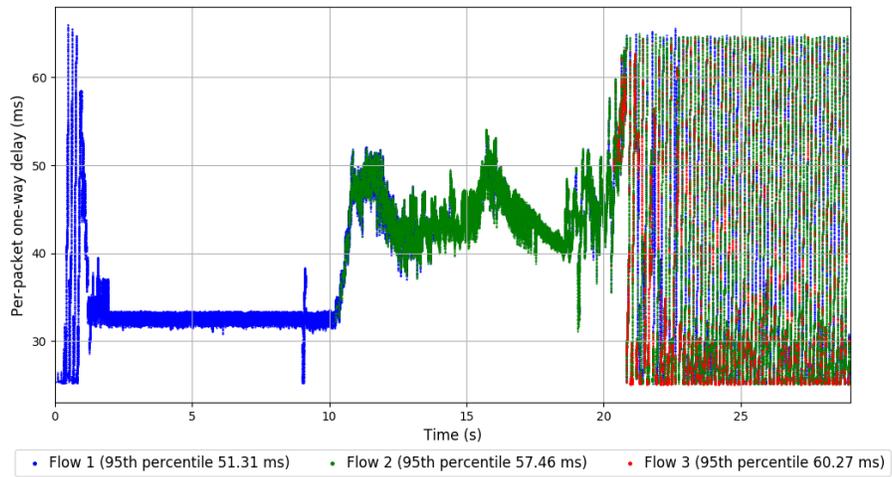
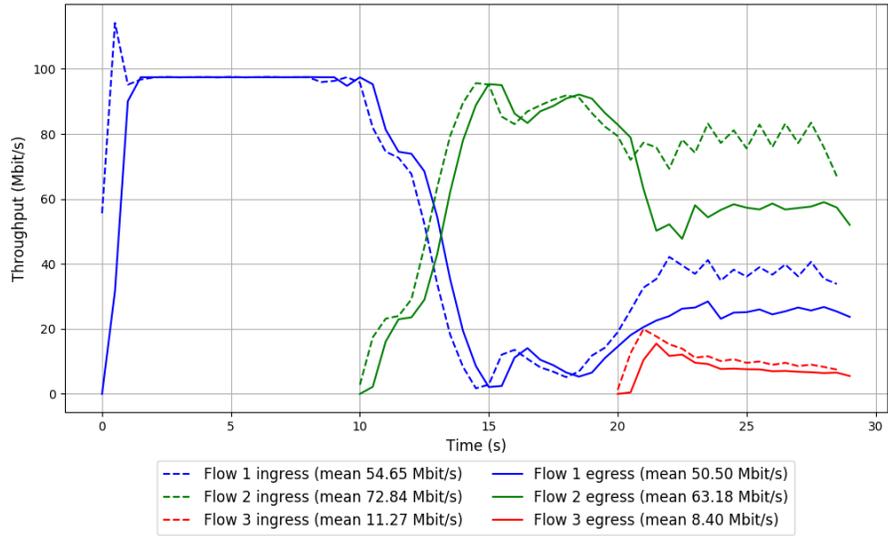


Run 4: Statistics of Indigo-MuseST

Start at: 2019-06-27 09:08:21
End at: 2019-06-27 09:08:51
Local clock offset: -3.867 ms
Remote clock offset: -8.937 ms

```
# Below is generated by plot.py at 2019-06-27 09:58:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 55.300 ms
Loss rate: 10.71%
-- Flow 1:
Average throughput: 50.50 Mbit/s
95th percentile per-packet one-way delay: 51.309 ms
Loss rate: 7.58%
-- Flow 2:
Average throughput: 63.18 Mbit/s
95th percentile per-packet one-way delay: 57.462 ms
Loss rate: 13.27%
-- Flow 3:
Average throughput: 8.40 Mbit/s
95th percentile per-packet one-way delay: 60.273 ms
Loss rate: 25.53%
```

Run 4: Report of Indigo-MusesT — Data Link

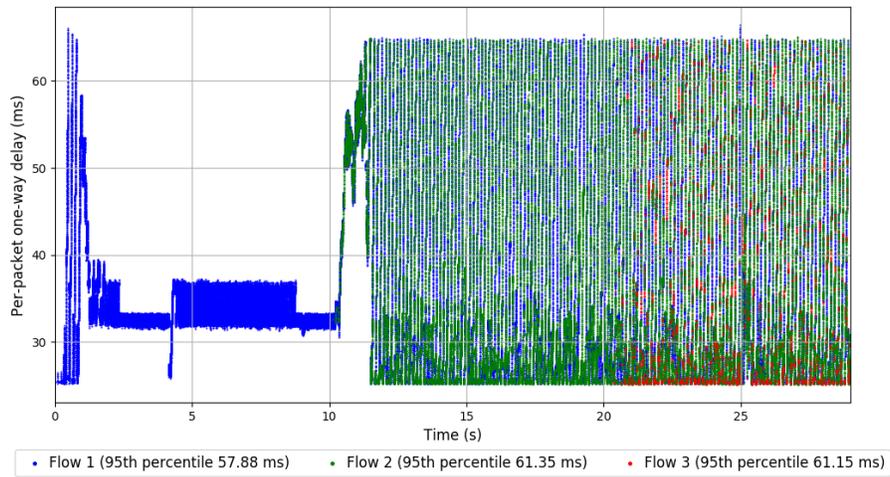
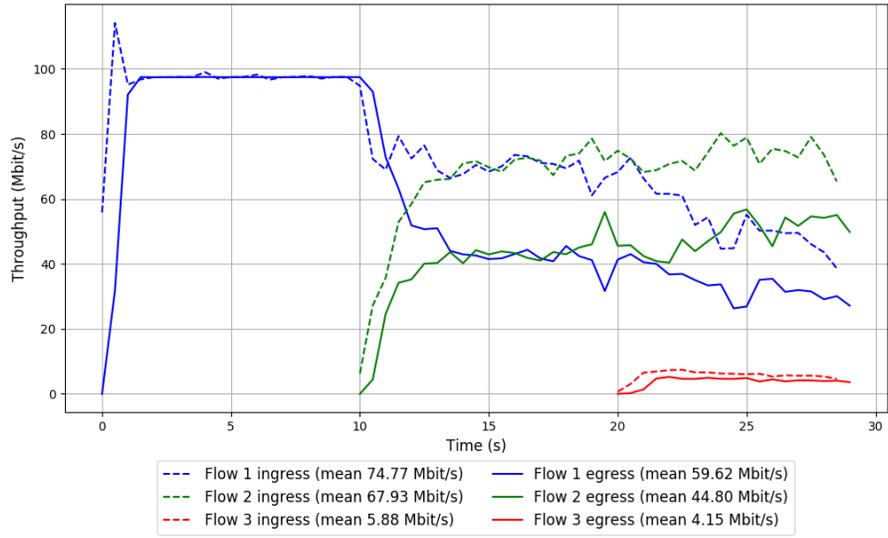


Run 5: Statistics of Indigo-MuseST

Start at: 2019-06-27 09:34:59
End at: 2019-06-27 09:35:29
Local clock offset: -7.42 ms
Remote clock offset: -8.784 ms

```
# Below is generated by plot.py at 2019-06-27 09:58:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.00 Mbit/s
95th percentile per-packet one-way delay: 59.719 ms
Loss rate: 25.44%
-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 57.877 ms
Loss rate: 20.25%
-- Flow 2:
Average throughput: 44.80 Mbit/s
95th percentile per-packet one-way delay: 61.353 ms
Loss rate: 34.06%
-- Flow 3:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 61.149 ms
Loss rate: 29.39%
```

Run 5: Report of Indigo-MusesT — Data Link



Run 1: Statistics of LEDBAT

Start at: 2019-06-27 07:54:14
End at: 2019-06-27 07:54:44
Local clock offset: 1.634 ms
Remote clock offset: -7.709 ms

Below is generated by plot.py at 2019-06-27 09:58:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.70 Mbit/s
95th percentile per-packet one-way delay: 60.479 ms
Loss rate: 0.21%

-- Flow 1:

Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 60.676 ms
Loss rate: 0.31%

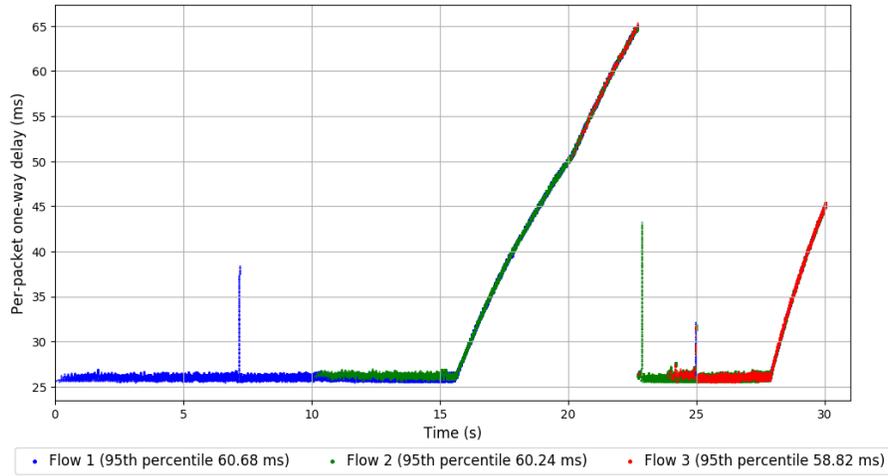
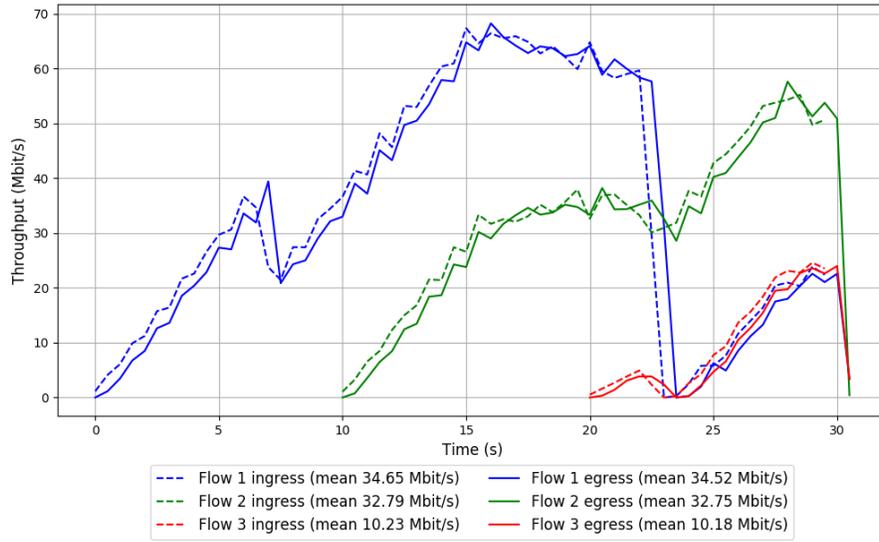
-- Flow 2:

Average throughput: 32.75 Mbit/s
95th percentile per-packet one-way delay: 60.242 ms
Loss rate: 0.02%

-- Flow 3:

Average throughput: 10.18 Mbit/s
95th percentile per-packet one-way delay: 58.822 ms
Loss rate: 0.52%

Run 1: Report of LEDBAT — Data Link

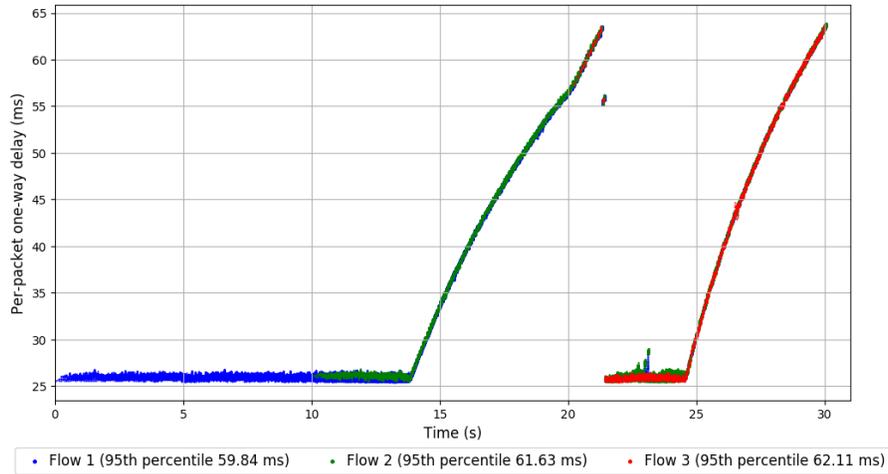
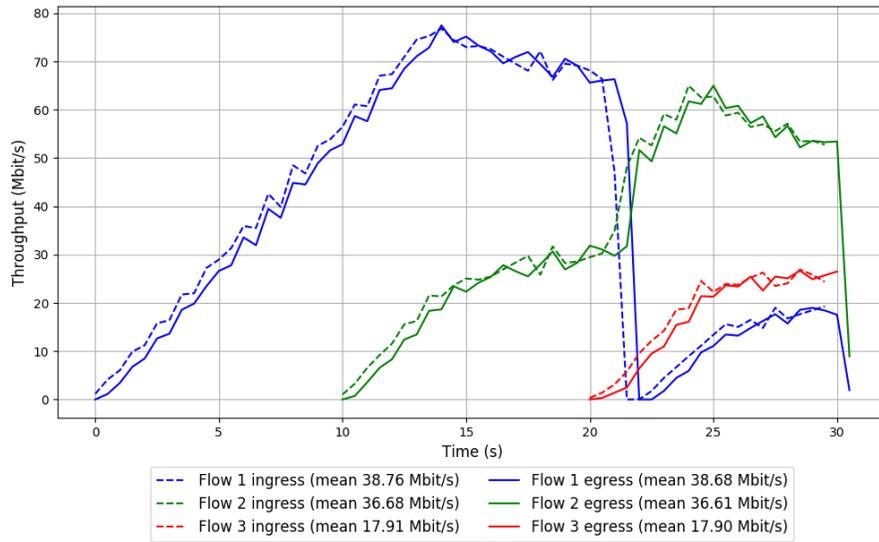


Run 2: Statistics of LEDBAT

Start at: 2019-06-27 08:21:06
End at: 2019-06-27 08:21:36
Local clock offset: 4.219 ms
Remote clock offset: -8.316 ms

```
# Below is generated by plot.py at 2019-06-27 09:58:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.94 Mbit/s
95th percentile per-packet one-way delay: 60.905 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 38.68 Mbit/s
95th percentile per-packet one-way delay: 59.838 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 36.61 Mbit/s
95th percentile per-packet one-way delay: 61.630 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.90 Mbit/s
95th percentile per-packet one-way delay: 62.114 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2019-06-27 08:47:47

End at: 2019-06-27 08:48:17

Local clock offset: 5.479 ms

Remote clock offset: -8.76 ms

Below is generated by plot.py at 2019-06-27 09:58:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.76 Mbit/s

95th percentile per-packet one-way delay: 56.510 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 40.10 Mbit/s

95th percentile per-packet one-way delay: 56.964 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 25.20 Mbit/s

95th percentile per-packet one-way delay: 57.240 ms

Loss rate: 0.10%

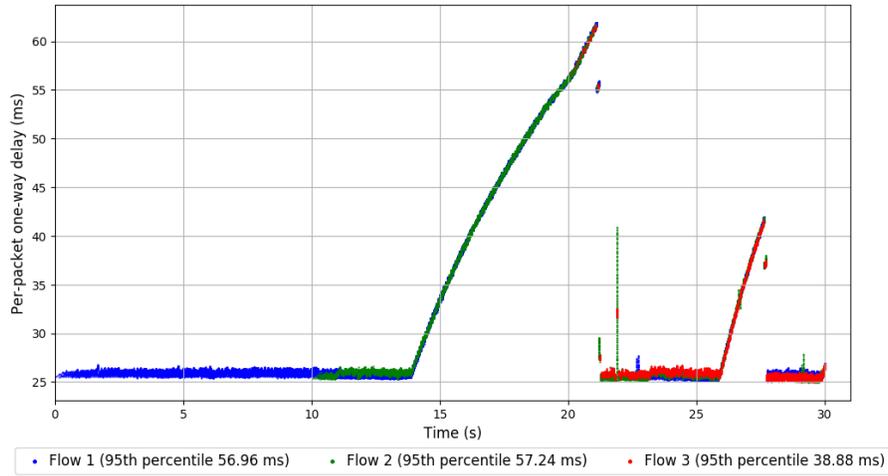
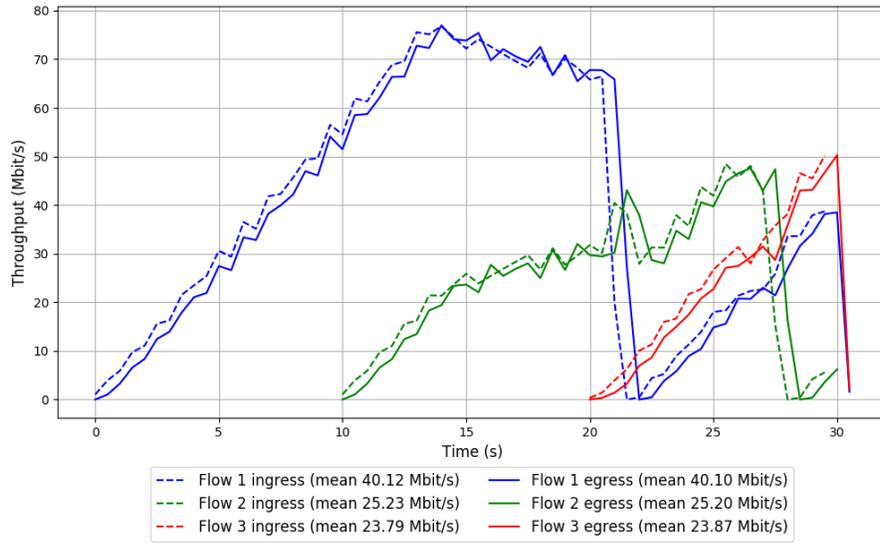
-- Flow 3:

Average throughput: 23.87 Mbit/s

95th percentile per-packet one-way delay: 38.882 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-06-27 09:14:28
End at: 2019-06-27 09:14:58
Local clock offset: -4.895 ms
Remote clock offset: -8.893 ms

Below is generated by plot.py at 2019-06-27 09:59:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.67 Mbit/s
95th percentile per-packet one-way delay: 59.445 ms
Loss rate: 0.07%

-- Flow 1:

Average throughput: 39.02 Mbit/s
95th percentile per-packet one-way delay: 59.380 ms
Loss rate: 0.07%

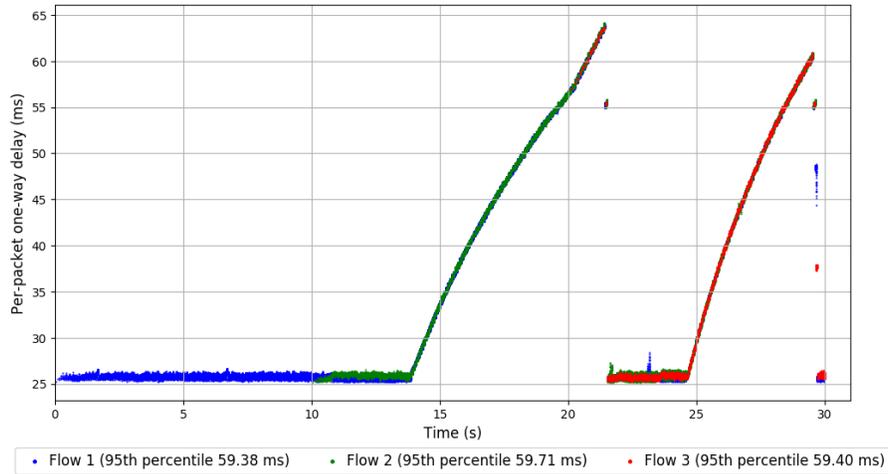
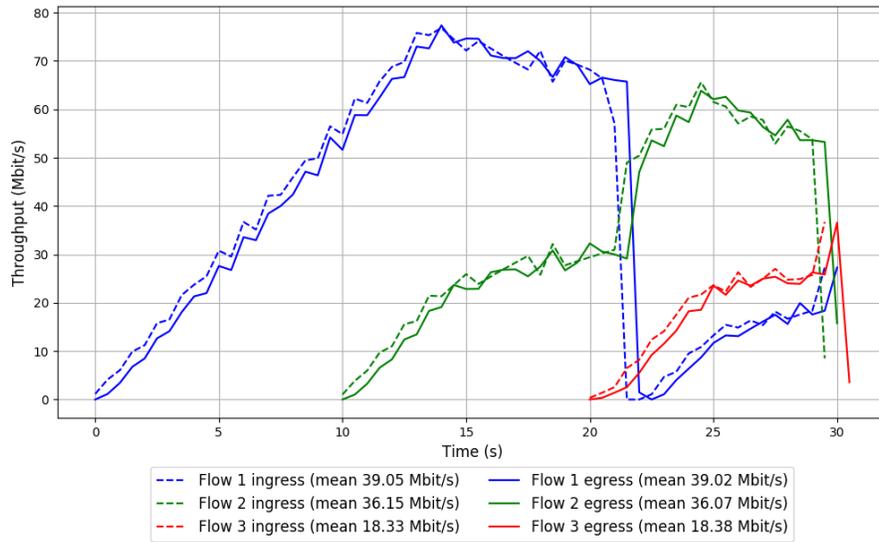
-- Flow 2:

Average throughput: 36.07 Mbit/s
95th percentile per-packet one-way delay: 59.709 ms
Loss rate: 0.08%

-- Flow 3:

Average throughput: 18.38 Mbit/s
95th percentile per-packet one-way delay: 59.402 ms
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

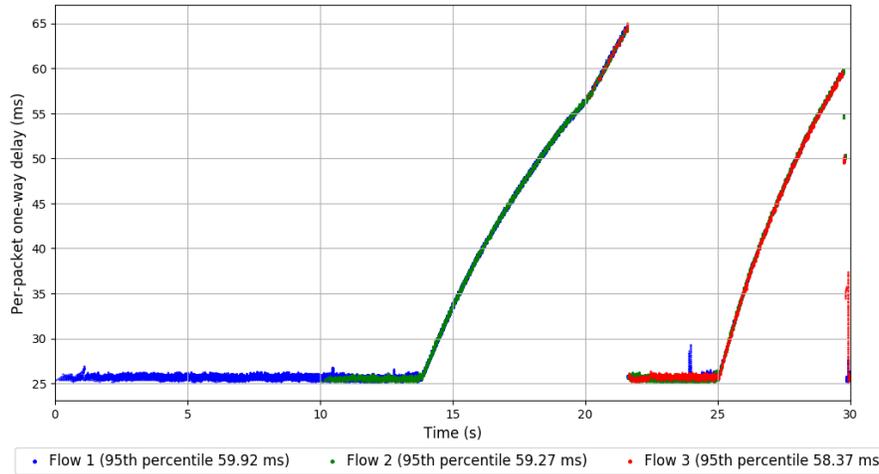
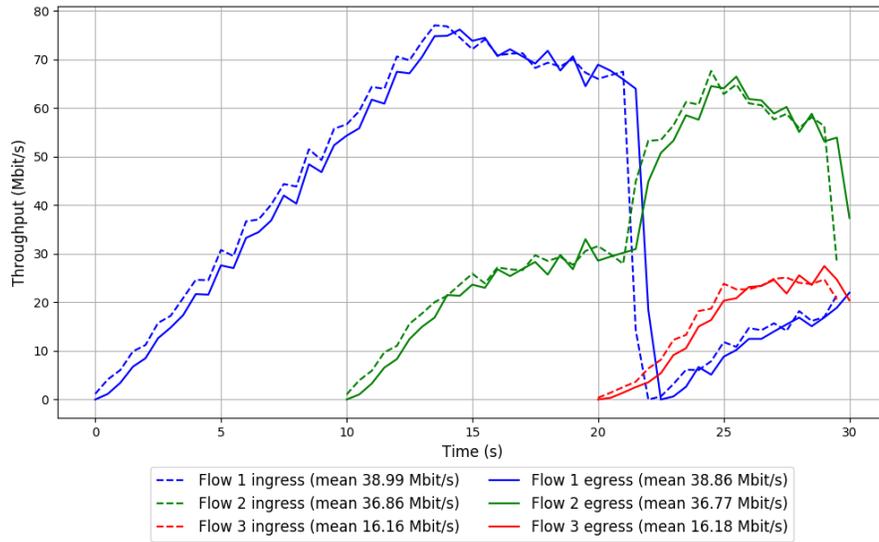


Run 5: Statistics of LEDBAT

Start at: 2019-06-27 09:41:05
End at: 2019-06-27 09:41:35
Local clock offset: -8.11 ms
Remote clock offset: -8.826 ms

```
# Below is generated by plot.py at 2019-06-27 09:59:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.49 Mbit/s
95th percentile per-packet one-way delay: 59.421 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 38.86 Mbit/s
95th percentile per-packet one-way delay: 59.920 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 36.77 Mbit/s
95th percentile per-packet one-way delay: 59.272 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 16.18 Mbit/s
95th percentile per-packet one-way delay: 58.370 ms
Loss rate: 0.13%
```

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of Muses_DecisionTree

Start at: 2019-06-27 07:59:06

End at: 2019-06-27 07:59:37

Local clock offset: 2.544 ms

Remote clock offset: -7.773 ms

Run 1: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of Muses_DecisionTree

Start at: 2019-06-27 08:25:56

End at: 2019-06-27 08:26:26

Local clock offset: 4.485 ms

Remote clock offset: -8.471 ms

Run 2: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of Muses_DecisionTree

Start at: 2019-06-27 08:52:38

End at: 2019-06-27 08:53:08

Local clock offset: 1.87 ms

Remote clock offset: -8.695 ms

Run 3: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of Muses_DecisionTree

Start at: 2019-06-27 09:19:17

End at: 2019-06-27 09:19:47

Local clock offset: -5.565 ms

Remote clock offset: -8.949 ms

Run 4: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of Muses_DecisionTree

Start at: 2019-06-27 09:46:04

End at: 2019-06-27 09:46:34

Local clock offset: -8.668 ms

Remote clock offset: -8.699 ms

Run 5: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 1: Statistics of PCC-Allegro

Start at: 2019-06-27 07:41:58
End at: 2019-06-27 07:42:28
Local clock offset: -0.032 ms
Remote clock offset: -7.294 ms

Below is generated by plot.py at 2019-06-27 09:59:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.56 Mbit/s
95th percentile per-packet one-way delay: 58.406 ms
Loss rate: 1.61%

-- Flow 1:

Average throughput: 82.95 Mbit/s
95th percentile per-packet one-way delay: 58.136 ms
Loss rate: 1.58%

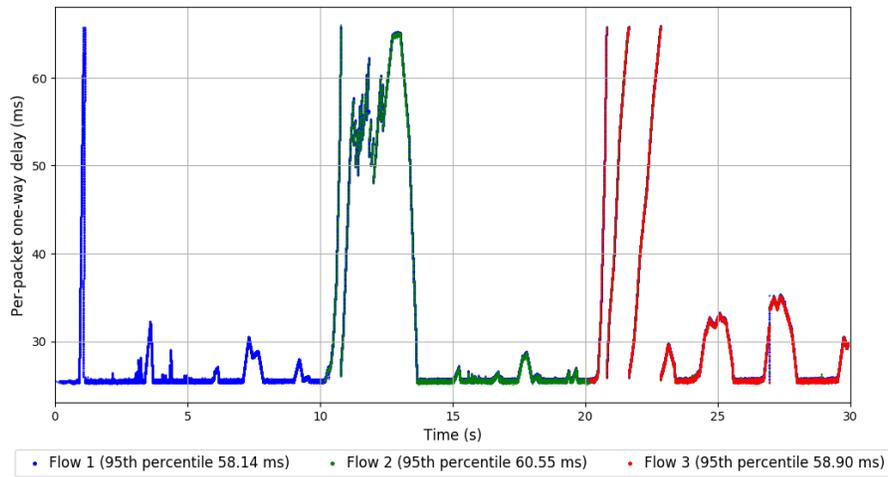
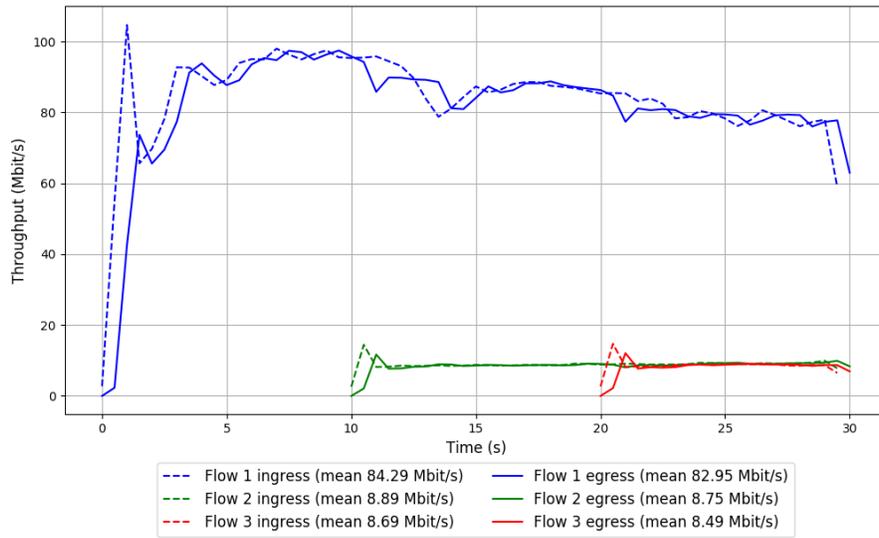
-- Flow 2:

Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 60.553 ms
Loss rate: 1.62%

-- Flow 3:

Average throughput: 8.49 Mbit/s
95th percentile per-packet one-way delay: 58.903 ms
Loss rate: 2.25%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-06-27 08:08:48
End at: 2019-06-27 08:09:18
Local clock offset: 3.51 ms
Remote clock offset: -7.953 ms

Below is generated by plot.py at 2019-06-27 09:59:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.66 Mbit/s
95th percentile per-packet one-way delay: 55.843 ms
Loss rate: 1.40%

-- Flow 1:

Average throughput: 80.48 Mbit/s
95th percentile per-packet one-way delay: 55.814 ms
Loss rate: 1.43%

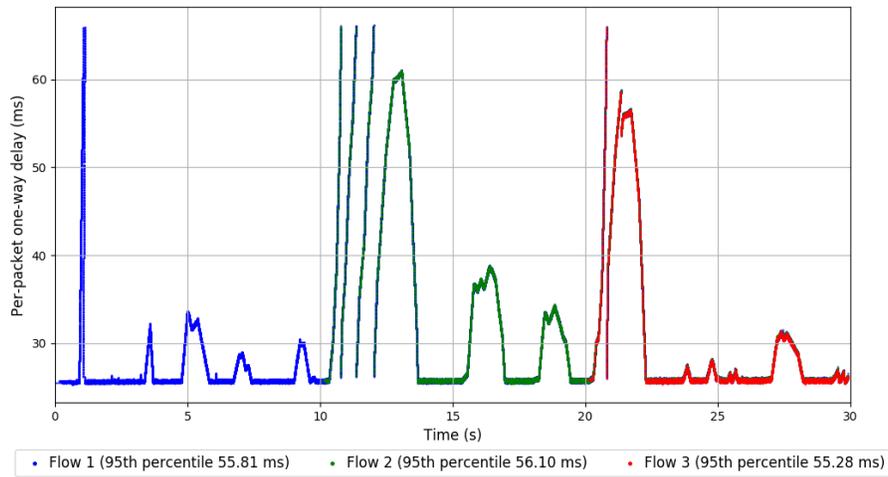
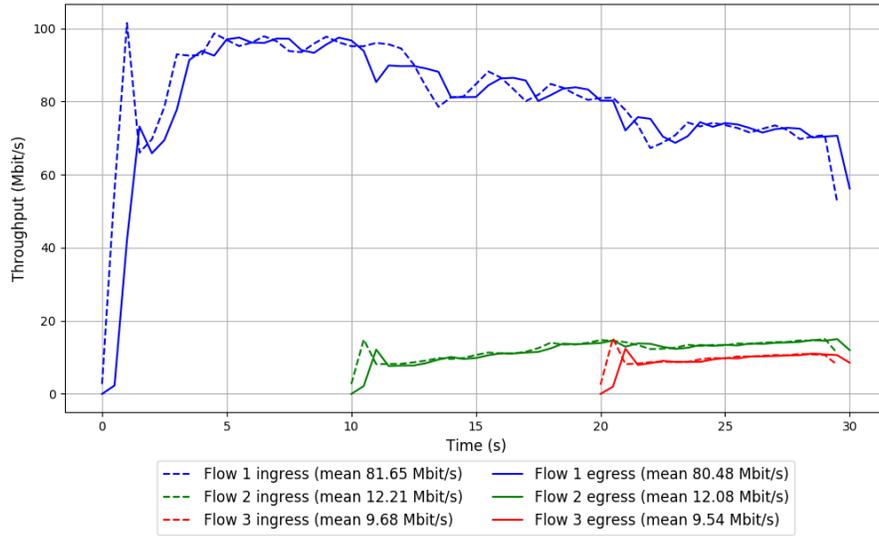
-- Flow 2:

Average throughput: 12.08 Mbit/s
95th percentile per-packet one-way delay: 56.105 ms
Loss rate: 1.06%

-- Flow 3:

Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 55.279 ms
Loss rate: 1.40%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-06-27 08:35:32

End at: 2019-06-27 08:36:02

Local clock offset: 4.913 ms

Remote clock offset: -8.63 ms

Below is generated by plot.py at 2019-06-27 10:00:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.80 Mbit/s

95th percentile per-packet one-way delay: 63.098 ms

Loss rate: 12.35%

-- Flow 1:

Average throughput: 83.78 Mbit/s

95th percentile per-packet one-way delay: 62.954 ms

Loss rate: 11.88%

-- Flow 2:

Average throughput: 12.76 Mbit/s

95th percentile per-packet one-way delay: 63.971 ms

Loss rate: 16.26%

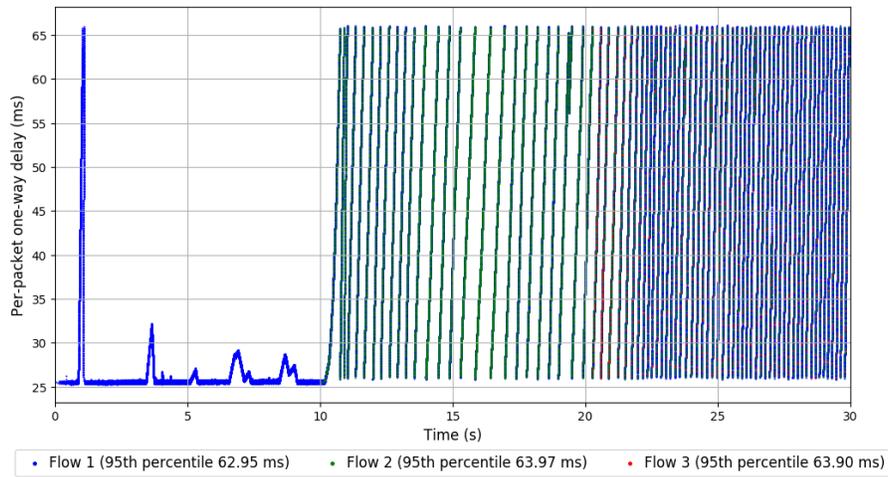
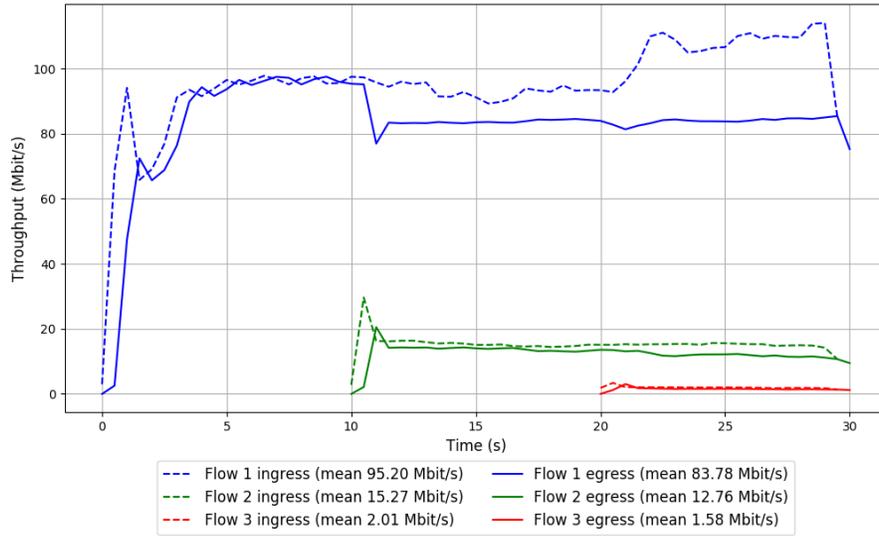
-- Flow 3:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 63.895 ms

Loss rate: 21.21%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-06-27 09:02:15
End at: 2019-06-27 09:02:45
Local clock offset: -2.371 ms
Remote clock offset: -8.767 ms

Below is generated by plot.py at 2019-06-27 10:00:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.66 Mbit/s
95th percentile per-packet one-way delay: 59.365 ms
Loss rate: 5.00%

-- Flow 1:

Average throughput: 75.75 Mbit/s
95th percentile per-packet one-way delay: 58.326 ms
Loss rate: 4.43%

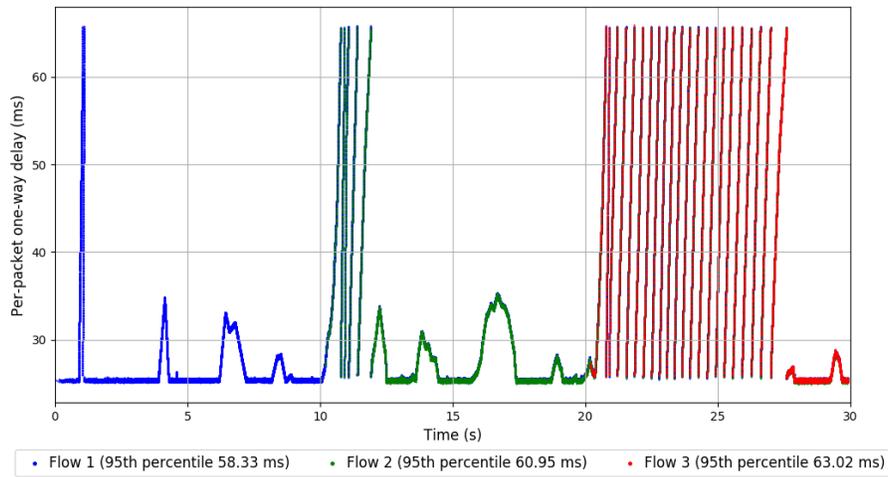
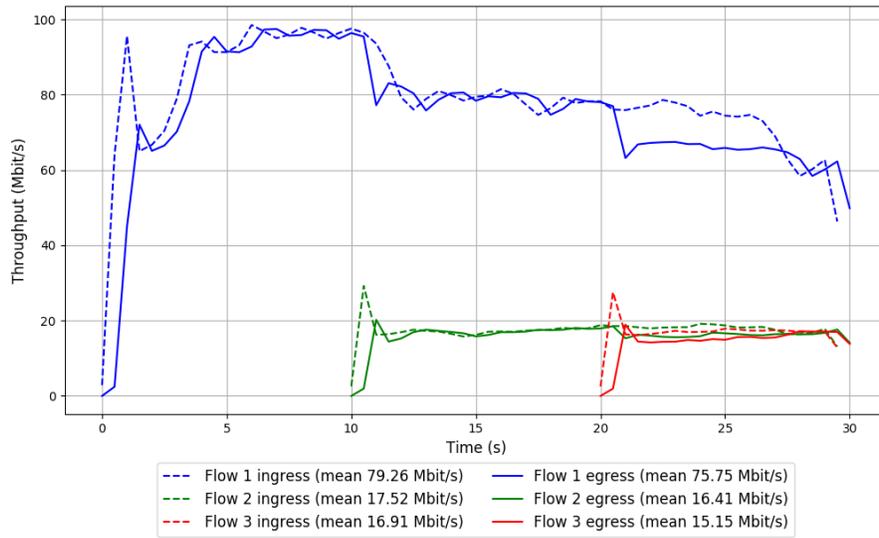
-- Flow 2:

Average throughput: 16.41 Mbit/s
95th percentile per-packet one-way delay: 60.950 ms
Loss rate: 6.31%

-- Flow 3:

Average throughput: 15.15 Mbit/s
95th percentile per-packet one-way delay: 63.015 ms
Loss rate: 10.45%

Run 4: Report of PCC-Allegro — Data Link

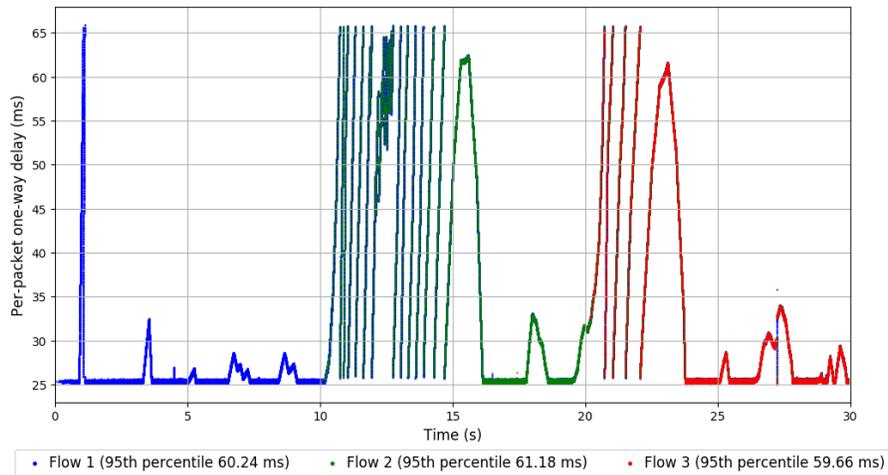
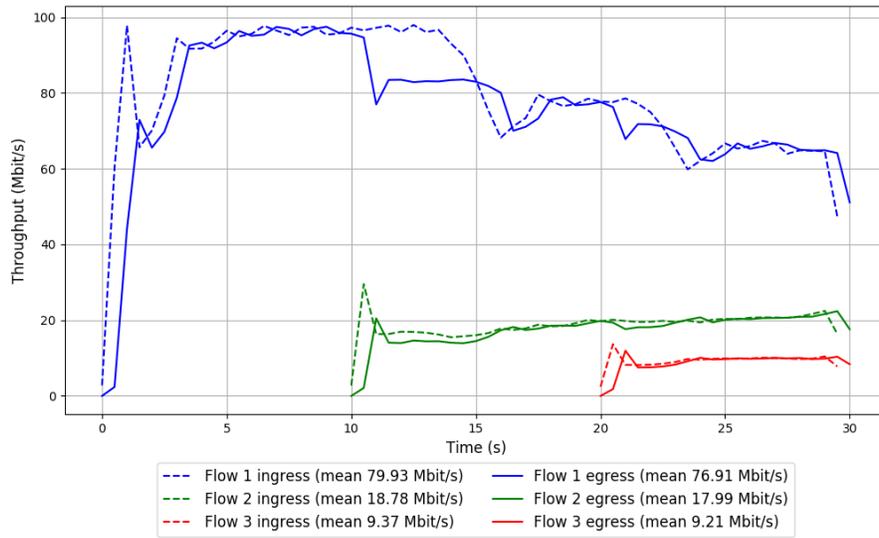


Run 5: Statistics of PCC-Allegro

Start at: 2019-06-27 09:28:53
End at: 2019-06-27 09:29:23
Local clock offset: -6.747 ms
Remote clock offset: -8.728 ms

```
# Below is generated by plot.py at 2019-06-27 10:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.91 Mbit/s
95th percentile per-packet one-way delay: 60.367 ms
Loss rate: 3.77%
-- Flow 1:
Average throughput: 76.91 Mbit/s
95th percentile per-packet one-way delay: 60.244 ms
Loss rate: 3.78%
-- Flow 2:
Average throughput: 17.99 Mbit/s
95th percentile per-packet one-way delay: 61.177 ms
Loss rate: 4.18%
-- Flow 3:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 59.661 ms
Loss rate: 1.76%
```

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2019-06-27 07:39:37
End at: 2019-06-27 07:40:07
Local clock offset: -0.054 ms
Remote clock offset: -7.235 ms

Below is generated by plot.py at 2019-06-27 10:00:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 25.541 ms

Loss rate: 44.27%

-- Flow 1:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 25.384 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 9.19 Mbit/s

95th percentile per-packet one-way delay: 25.531 ms

Loss rate: 49.95%

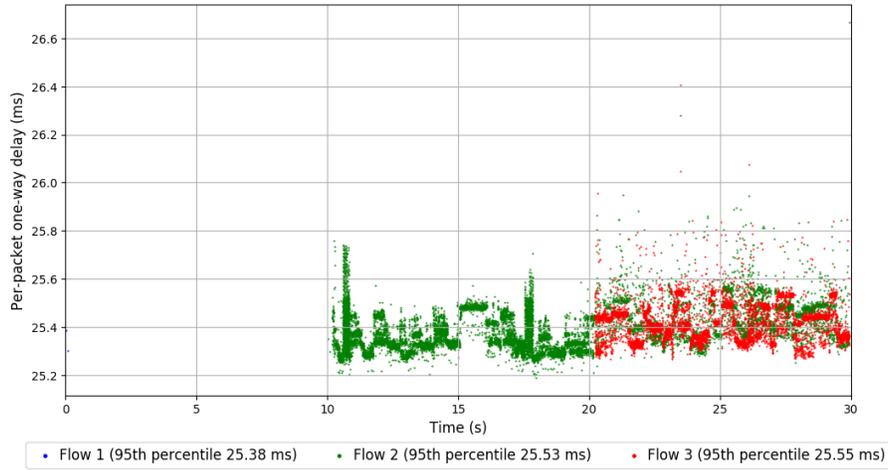
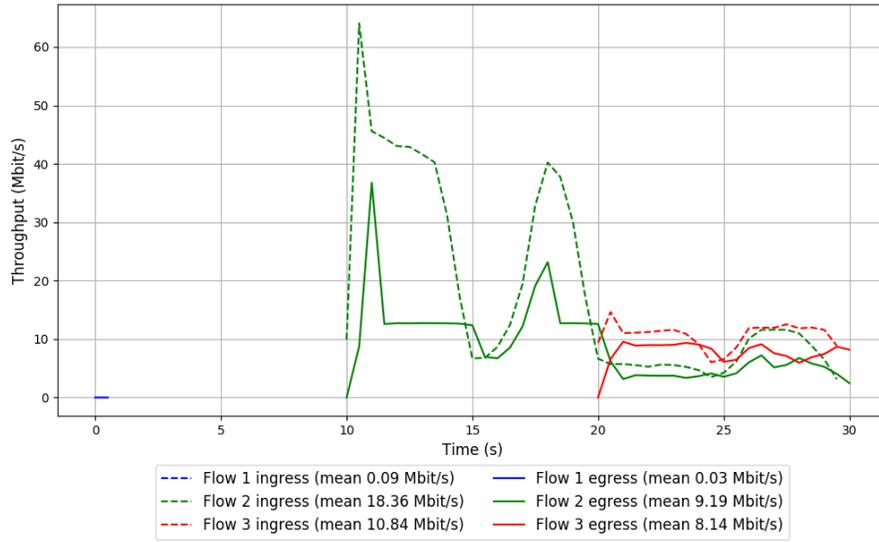
-- Flow 3:

Average throughput: 8.14 Mbit/s

95th percentile per-packet one-way delay: 25.545 ms

Loss rate: 24.89%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-06-27 08:06:24

End at: 2019-06-27 08:06:54

Local clock offset: 3.328 ms

Remote clock offset: -7.94 ms

Below is generated by plot.py at 2019-06-27 10:00:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 25.614 ms

Loss rate: 44.10%

-- Flow 1:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 25.522 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 10.46 Mbit/s

95th percentile per-packet one-way delay: 25.608 ms

Loss rate: 45.25%

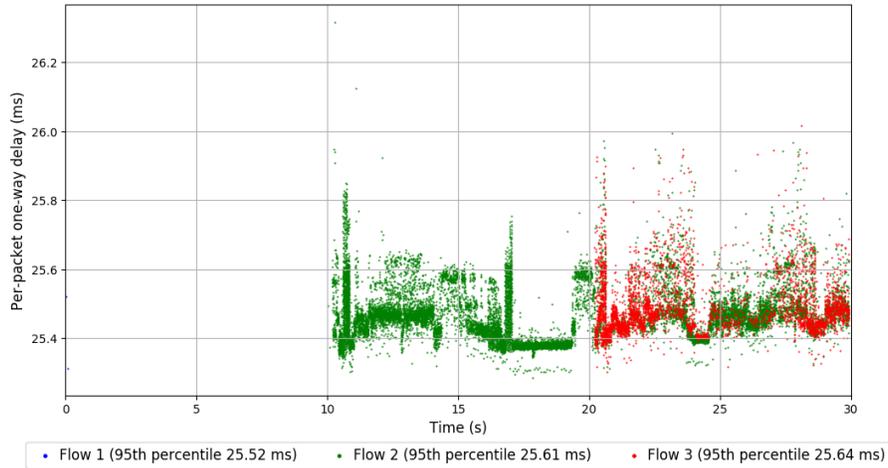
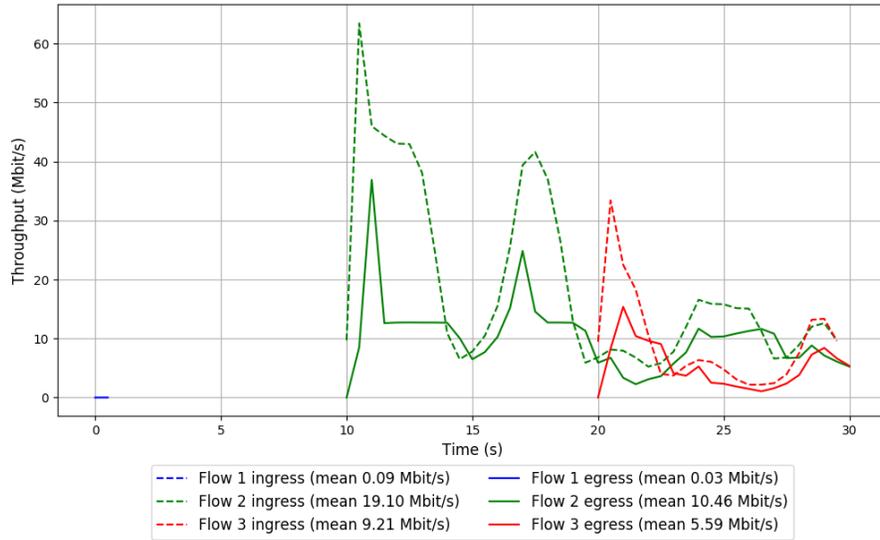
-- Flow 3:

Average throughput: 5.59 Mbit/s

95th percentile per-packet one-way delay: 25.642 ms

Loss rate: 39.29%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-06-27 08:33:10
End at: 2019-06-27 08:33:40
Local clock offset: 4.832 ms
Remote clock offset: -8.643 ms

Below is generated by plot.py at 2019-06-27 10:00:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 25.592 ms

Loss rate: 44.49%

-- Flow 1:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 25.467 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 9.17 Mbit/s

95th percentile per-packet one-way delay: 25.577 ms

Loss rate: 48.59%

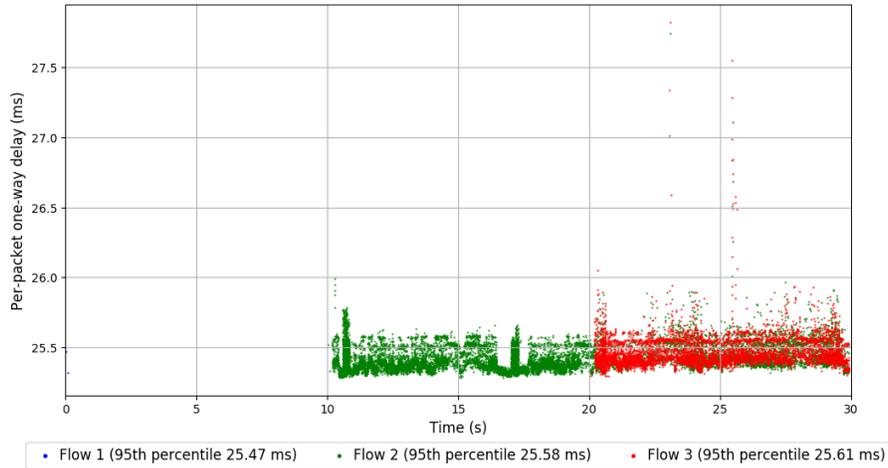
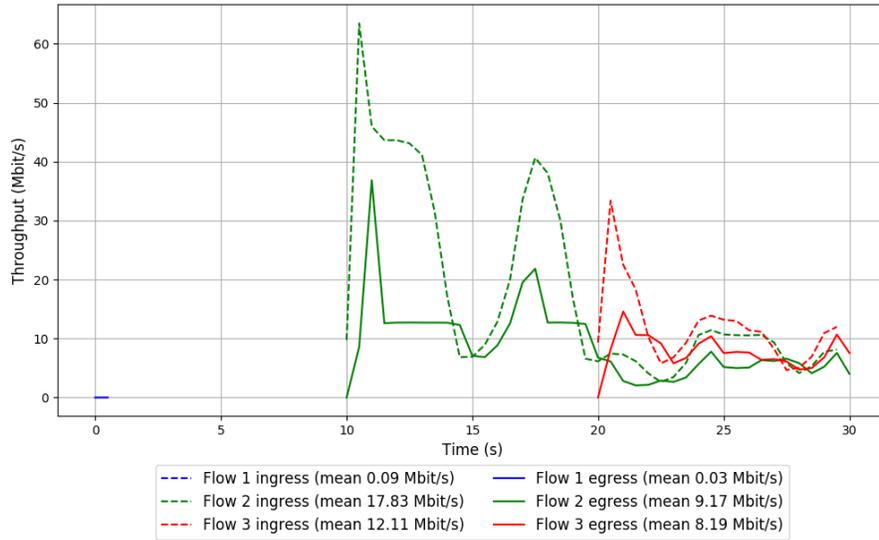
-- Flow 3:

Average throughput: 8.19 Mbit/s

95th percentile per-packet one-way delay: 25.614 ms

Loss rate: 32.35%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-06-27 08:59:53

End at: 2019-06-27 09:00:23

Local clock offset: -1.615 ms

Remote clock offset: -8.79 ms

Below is generated by plot.py at 2019-06-27 10:00:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 25.232 ms

Loss rate: 45.91%

-- Flow 1:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 25.228 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 11.05 Mbit/s

95th percentile per-packet one-way delay: 25.230 ms

Loss rate: 46.69%

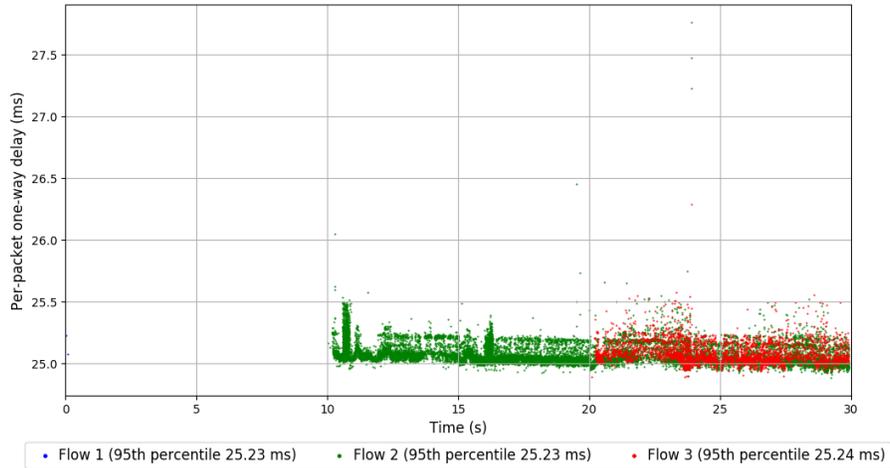
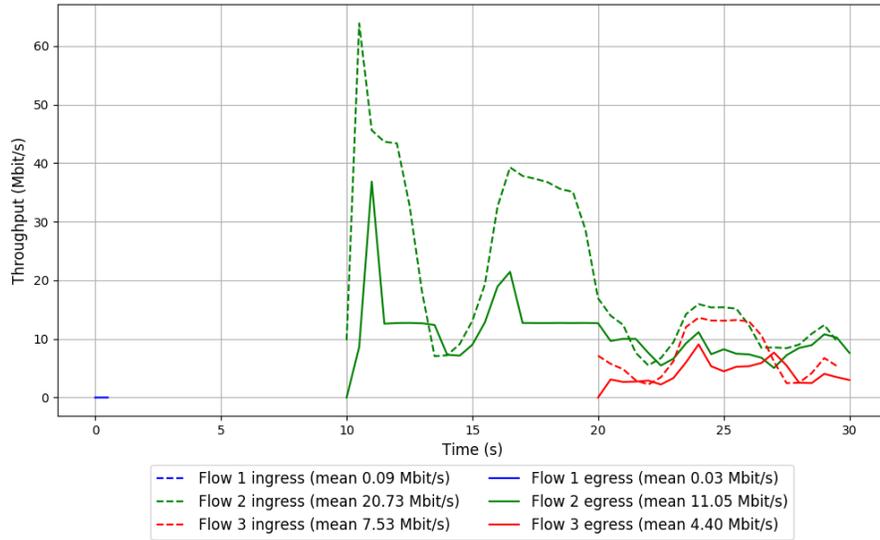
-- Flow 3:

Average throughput: 4.40 Mbit/s

95th percentile per-packet one-way delay: 25.243 ms

Loss rate: 41.57%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-06-27 09:26:32
End at: 2019-06-27 09:27:02
Local clock offset: -6.463 ms
Remote clock offset: -8.765 ms

Below is generated by plot.py at 2019-06-27 10:00:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 25.424 ms

Loss rate: 49.43%

-- Flow 1:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 25.388 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 9.16 Mbit/s

95th percentile per-packet one-way delay: 25.401 ms

Loss rate: 50.89%

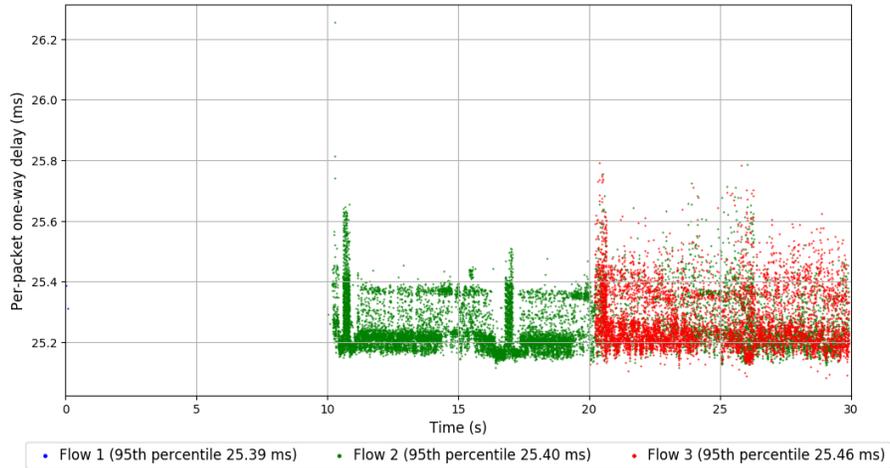
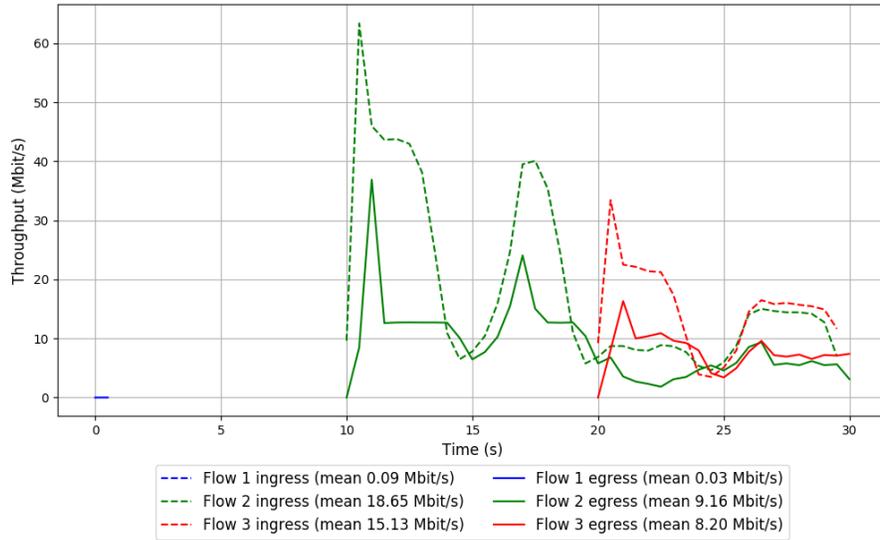
-- Flow 3:

Average throughput: 8.20 Mbit/s

95th percentile per-packet one-way delay: 25.458 ms

Loss rate: 45.79%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-06-27 07:38:24

End at: 2019-06-27 07:38:54

Local clock offset: -0.1 ms

Remote clock offset: -7.169 ms

Below is generated by plot.py at 2019-06-27 10:00:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.19 Mbit/s

95th percentile per-packet one-way delay: 60.850 ms

Loss rate: 2.56%

-- Flow 1:

Average throughput: 57.90 Mbit/s

95th percentile per-packet one-way delay: 61.018 ms

Loss rate: 3.16%

-- Flow 2:

Average throughput: 23.31 Mbit/s

95th percentile per-packet one-way delay: 61.403 ms

Loss rate: 1.17%

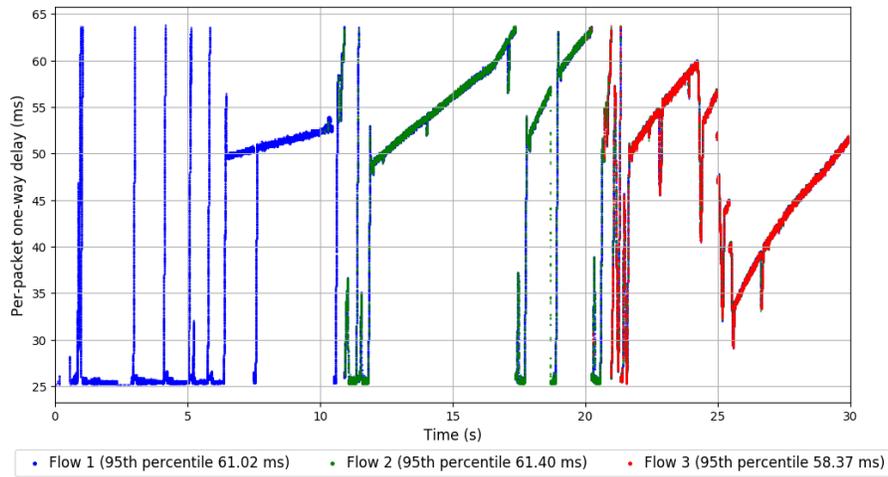
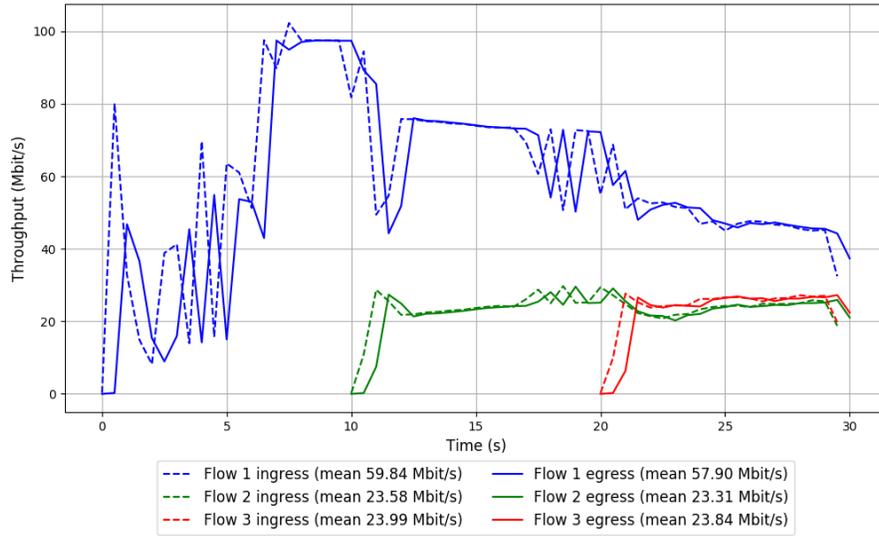
-- Flow 3:

Average throughput: 23.84 Mbit/s

95th percentile per-packet one-way delay: 58.368 ms

Loss rate: 0.75%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-06-27 08:05:07

End at: 2019-06-27 08:05:37

Local clock offset: 3.218 ms

Remote clock offset: -7.97 ms

Below is generated by plot.py at 2019-06-27 10:00:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.75 Mbit/s

95th percentile per-packet one-way delay: 61.850 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 63.05 Mbit/s

95th percentile per-packet one-way delay: 61.756 ms

Loss rate: 1.81%

-- Flow 2:

Average throughput: 24.92 Mbit/s

95th percentile per-packet one-way delay: 61.682 ms

Loss rate: 1.16%

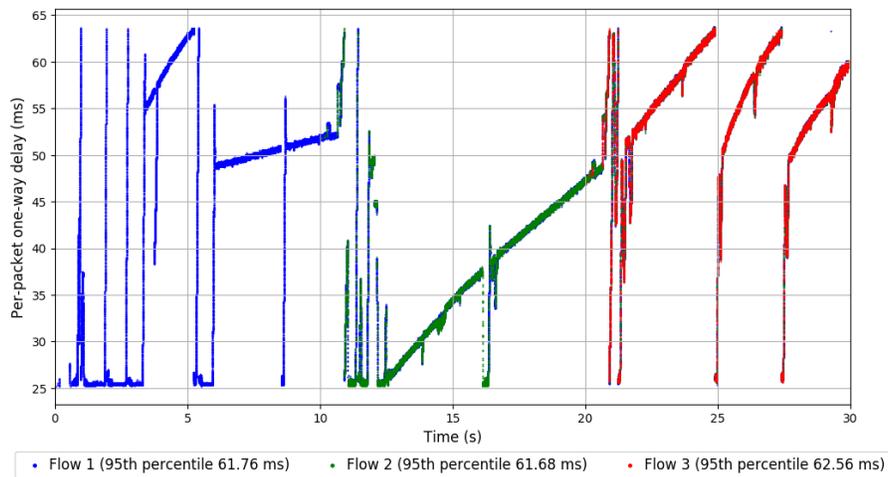
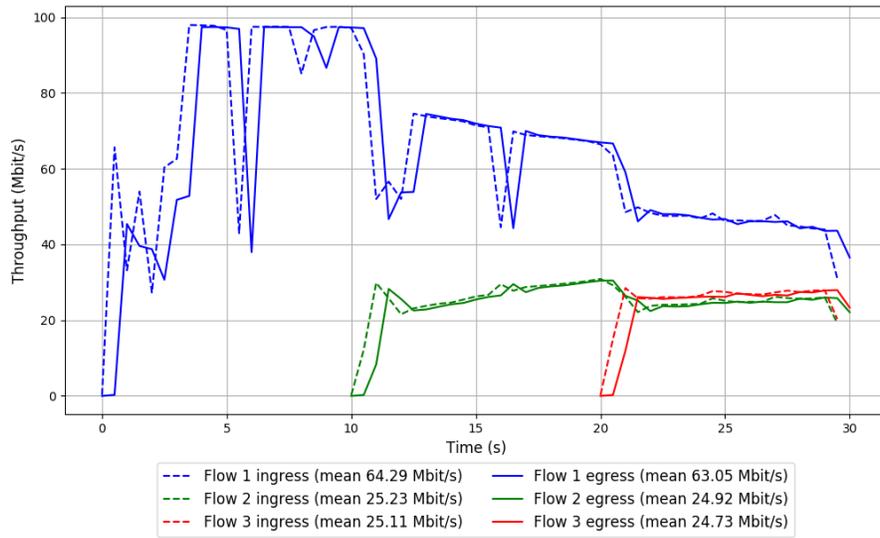
-- Flow 3:

Average throughput: 24.73 Mbit/s

95th percentile per-packet one-way delay: 62.561 ms

Loss rate: 1.39%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-06-27 08:31:56

End at: 2019-06-27 08:32:26

Local clock offset: 4.772 ms

Remote clock offset: -8.624 ms

Below is generated by plot.py at 2019-06-27 10:00:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.15 Mbit/s

95th percentile per-packet one-way delay: 62.497 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 65.15 Mbit/s

95th percentile per-packet one-way delay: 62.439 ms

Loss rate: 1.88%

-- Flow 2:

Average throughput: 29.30 Mbit/s

95th percentile per-packet one-way delay: 62.554 ms

Loss rate: 1.07%

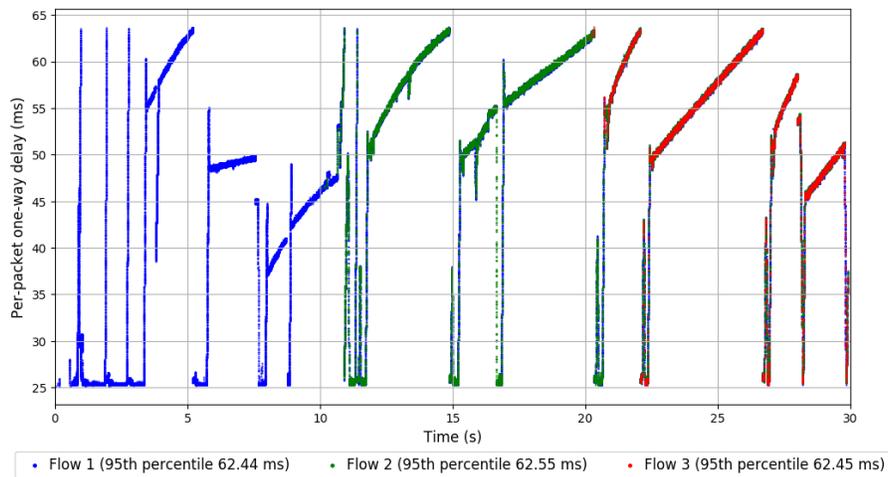
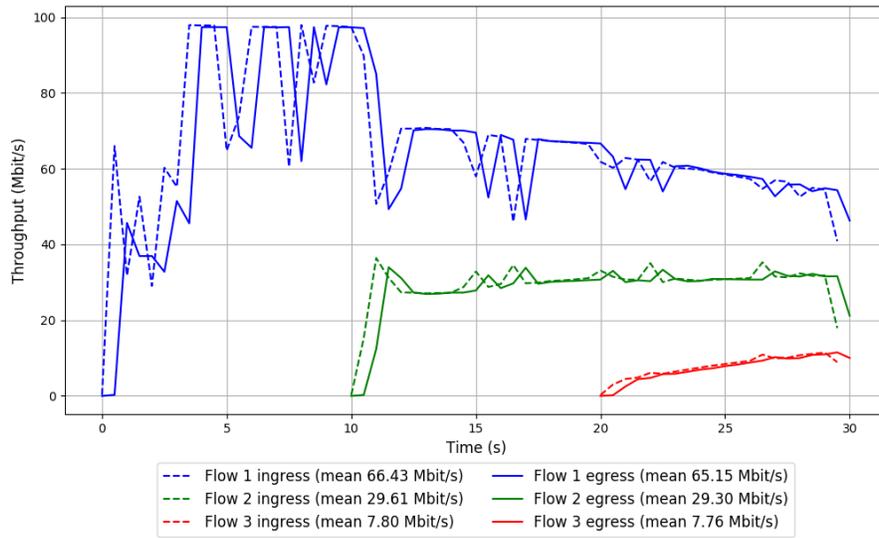
-- Flow 3:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 62.451 ms

Loss rate: 0.81%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-06-27 08:58:39
End at: 2019-06-27 08:59:09
Local clock offset: -1.233 ms
Remote clock offset: -8.732 ms

Below is generated by plot.py at 2019-06-27 10:01:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.16 Mbit/s
95th percentile per-packet one-way delay: 60.772 ms
Loss rate: 2.46%

-- Flow 1:

Average throughput: 58.95 Mbit/s
95th percentile per-packet one-way delay: 59.941 ms
Loss rate: 2.99%

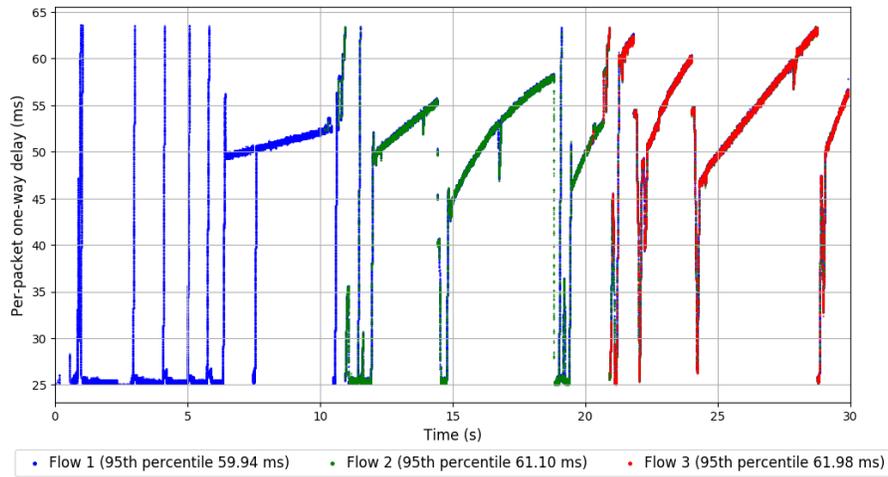
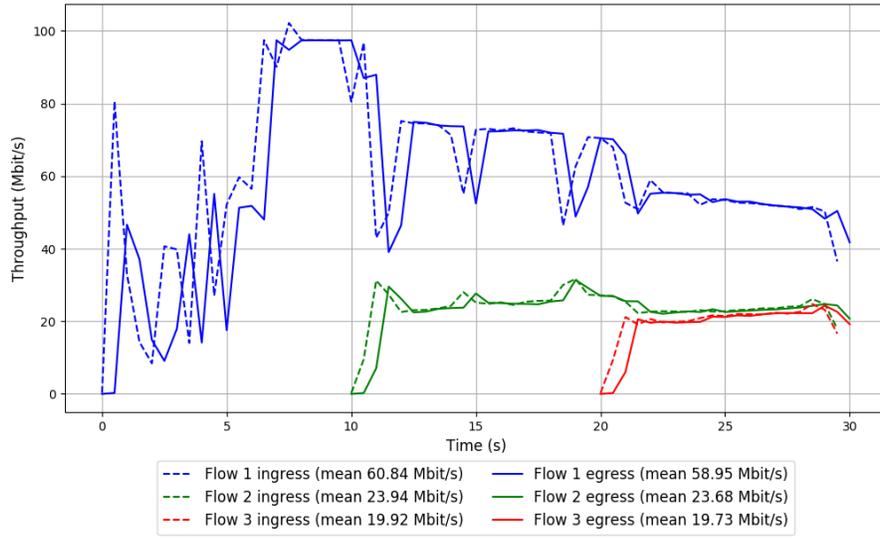
-- Flow 2:

Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 61.100 ms
Loss rate: 1.07%

-- Flow 3:

Average throughput: 19.73 Mbit/s
95th percentile per-packet one-way delay: 61.981 ms
Loss rate: 0.90%

Run 4: Report of QUIC Cubic — Data Link

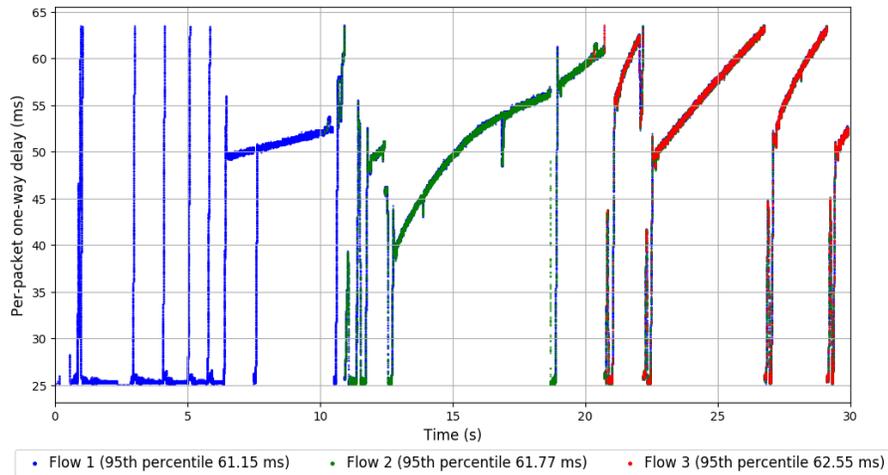
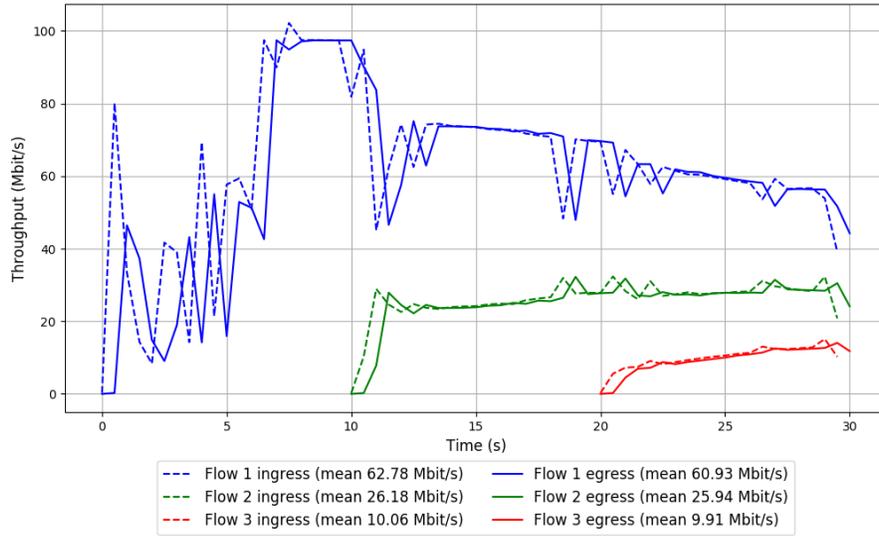


Run 5: Statistics of QUIC Cubic

Start at: 2019-06-27 09:25:18
End at: 2019-06-27 09:25:48
Local clock offset: -6.307 ms
Remote clock offset: -8.805 ms

```
# Below is generated by plot.py at 2019-06-27 10:01:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.41 Mbit/s
95th percentile per-packet one-way delay: 61.401 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 60.93 Mbit/s
95th percentile per-packet one-way delay: 61.149 ms
Loss rate: 2.85%
-- Flow 2:
Average throughput: 25.94 Mbit/s
95th percentile per-packet one-way delay: 61.773 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 9.91 Mbit/s
95th percentile per-packet one-way delay: 62.548 ms
Loss rate: 1.56%
```

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2019-06-27 08:00:16
End at: 2019-06-27 08:00:46
Local clock offset: 2.661 ms
Remote clock offset: -7.779 ms

Below is generated by plot.py at 2019-06-27 10:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 25.625 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.598 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.636 ms

Loss rate: 0.00%

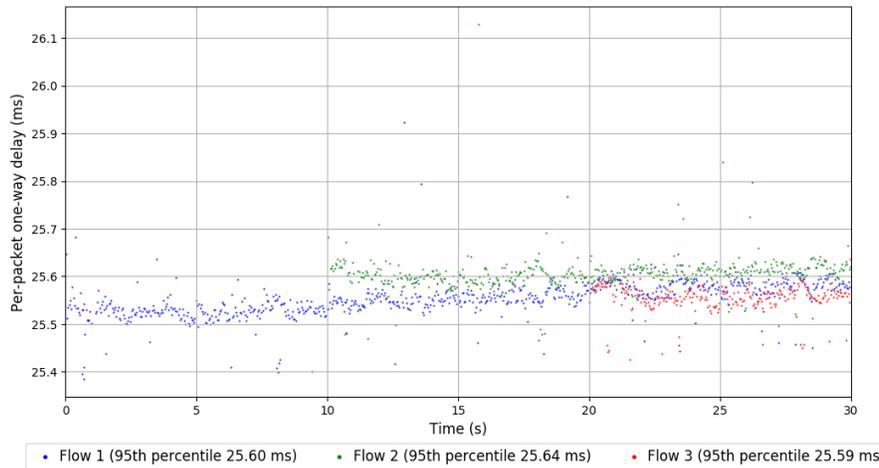
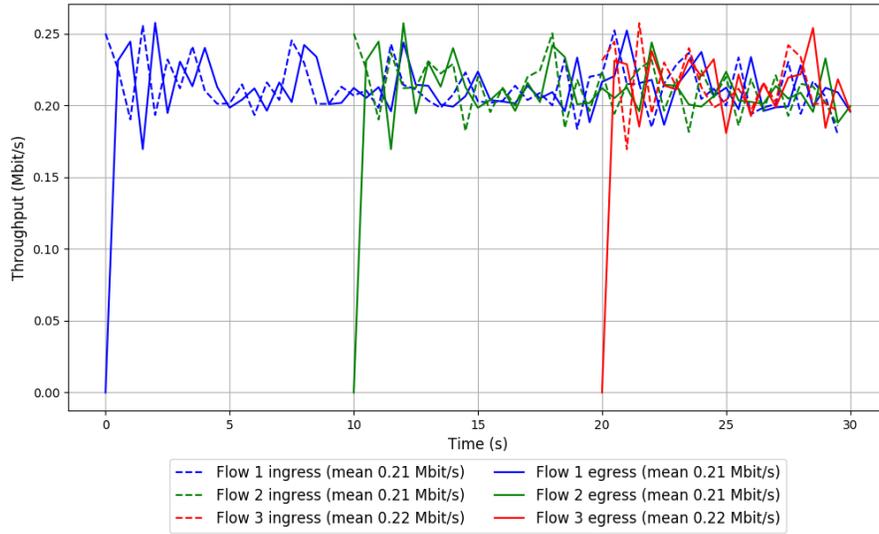
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 25.588 ms

Loss rate: 0.00%

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2019-06-27 08:27:05
End at: 2019-06-27 08:27:35
Local clock offset: 4.545 ms
Remote clock offset: -8.479 ms

Below is generated by plot.py at 2019-06-27 10:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 25.571 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.509 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.522 ms

Loss rate: 0.00%

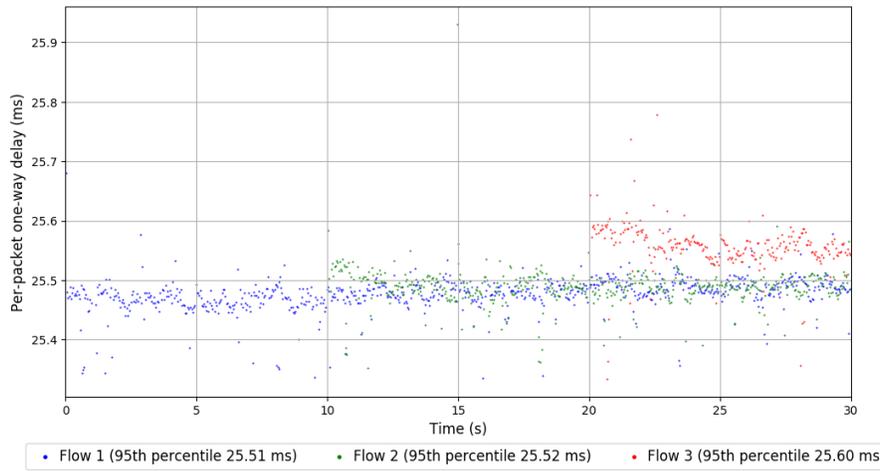
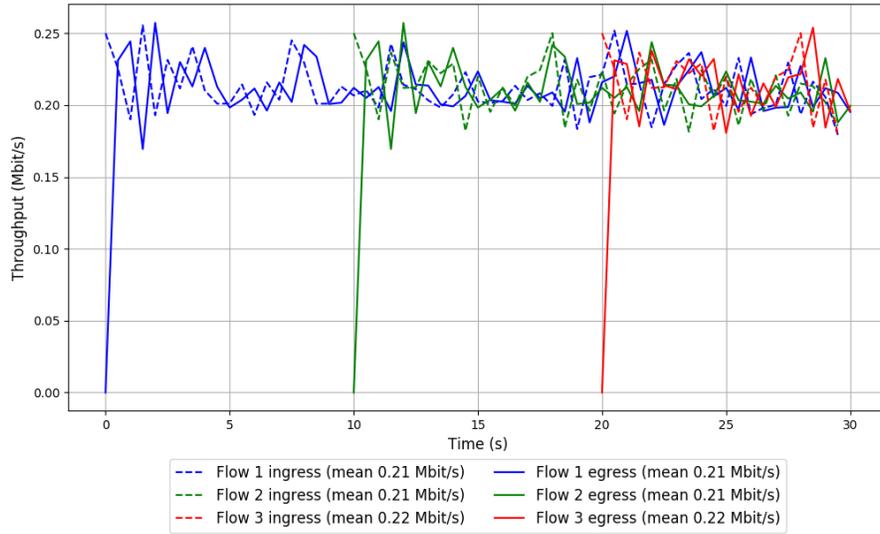
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 25.599 ms

Loss rate: 0.00%

Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-06-27 08:53:47

End at: 2019-06-27 08:54:17

Local clock offset: 1.212 ms

Remote clock offset: -8.65 ms

Below is generated by plot.py at 2019-06-27 10:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 25.182 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.205 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.134 ms

Loss rate: 0.00%

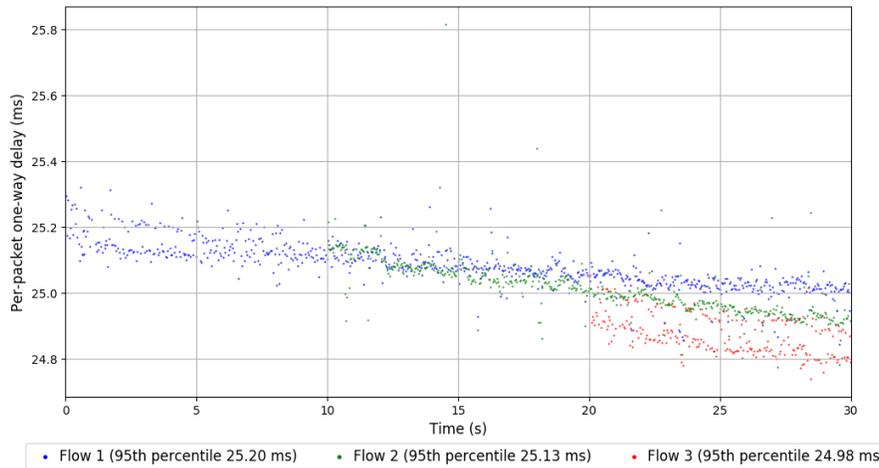
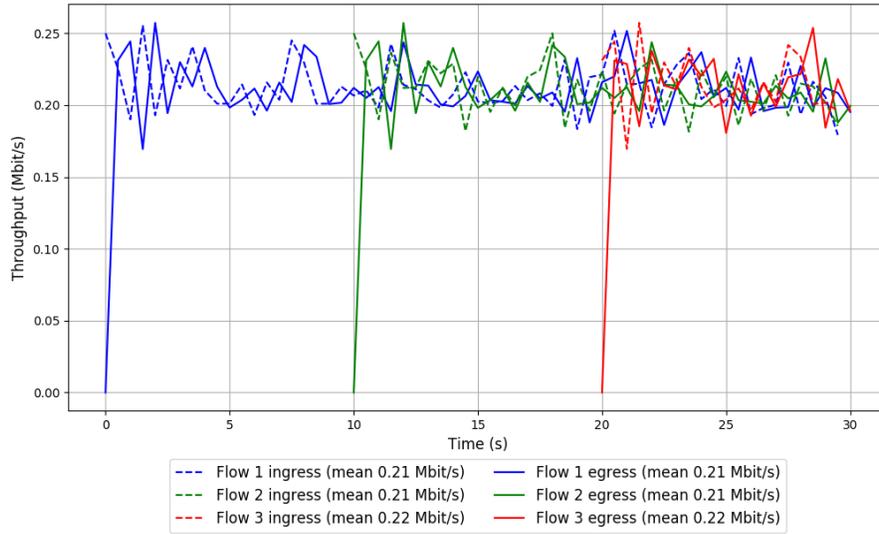
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 24.976 ms

Loss rate: 0.00%

Run 3: Report of SCReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2019-06-27 09:20:27
End at: 2019-06-27 09:20:57
Local clock offset: -5.681 ms
Remote clock offset: -8.896 ms

Below is generated by plot.py at 2019-06-27 10:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 25.407 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.414 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.402 ms

Loss rate: 0.00%

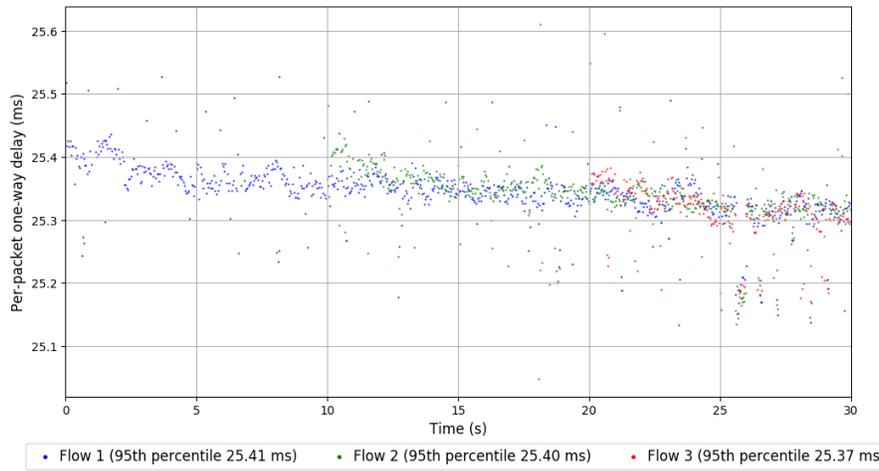
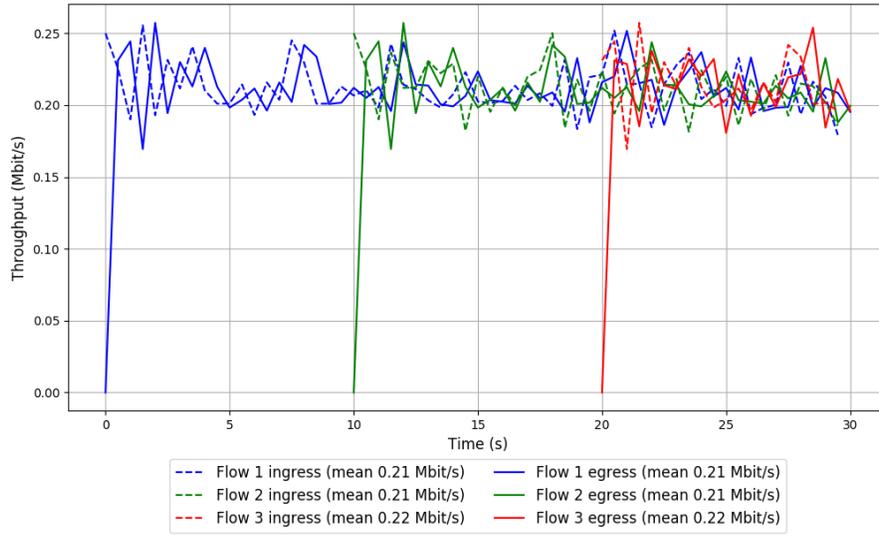
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 25.374 ms

Loss rate: 0.00%

Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2019-06-27 09:47:13
End at: 2019-06-27 09:47:43
Local clock offset: -8.775 ms
Remote clock offset: -8.729 ms

Below is generated by plot.py at 2019-06-27 10:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 25.428 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.387 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 25.446 ms

Loss rate: 0.00%

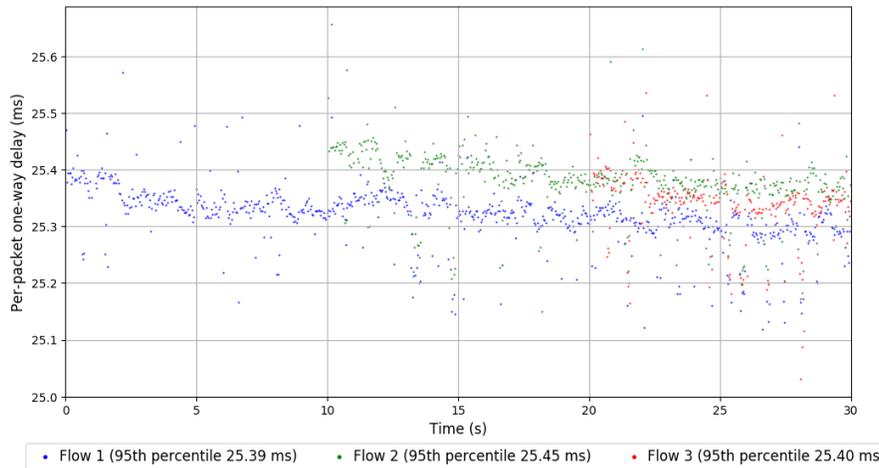
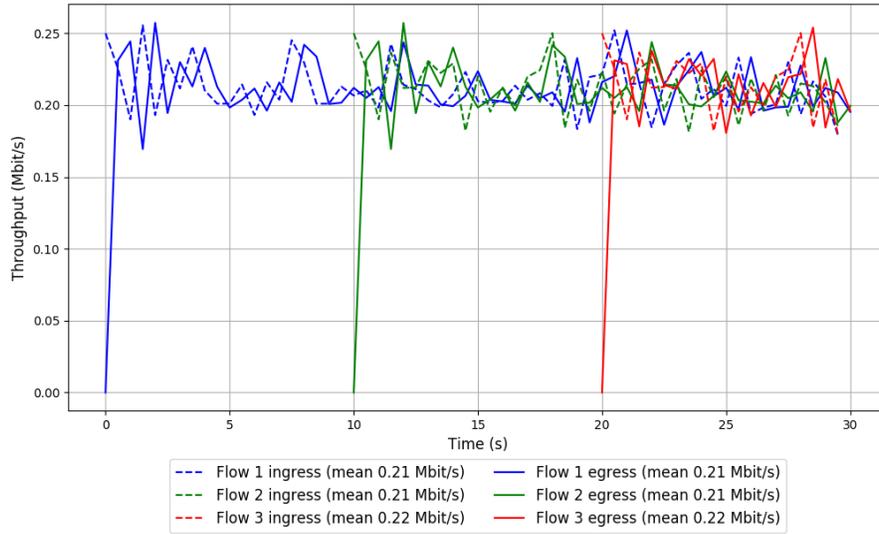
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 25.399 ms

Loss rate: 0.00%

Run 5: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-06-27 07:53:03
End at: 2019-06-27 07:53:33
Local clock offset: 1.417 ms
Remote clock offset: -7.631 ms

Below is generated by plot.py at 2019-06-27 10:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.33 Mbit/s
95th percentile per-packet one-way delay: 31.657 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 31.076 ms
Loss rate: 0.00%

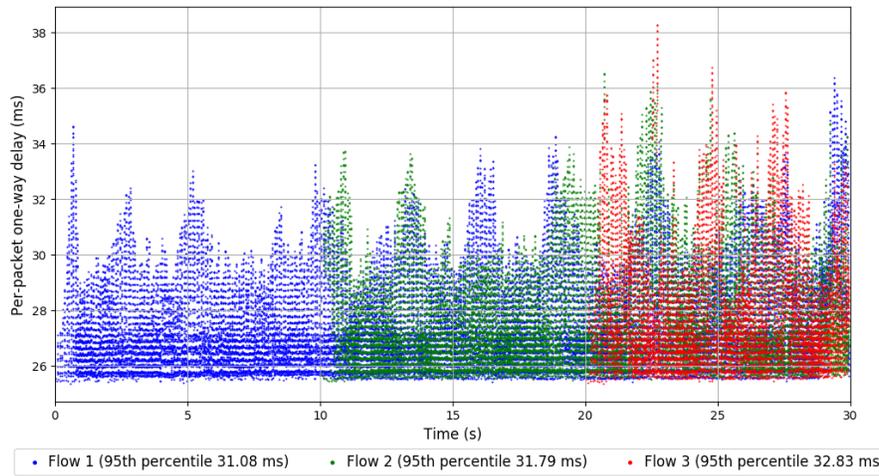
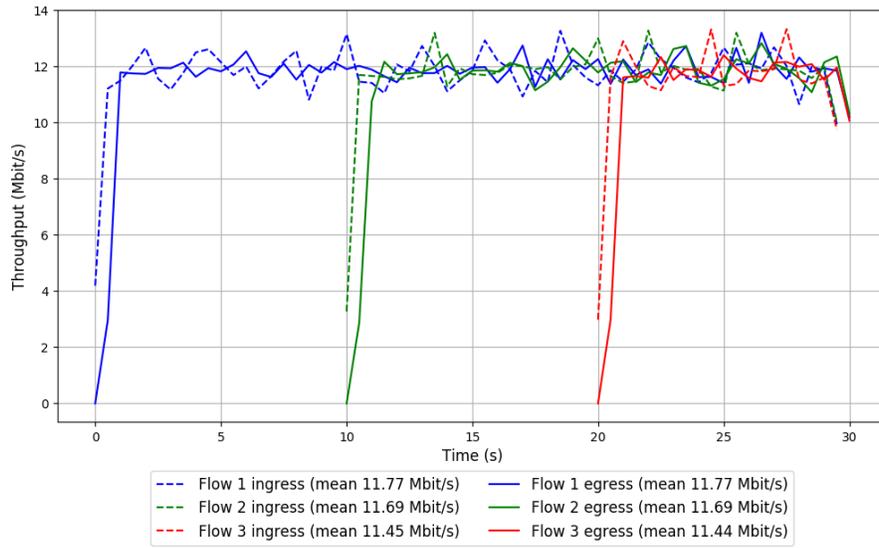
-- Flow 2:

Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 31.792 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 11.44 Mbit/s
95th percentile per-packet one-way delay: 32.829 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

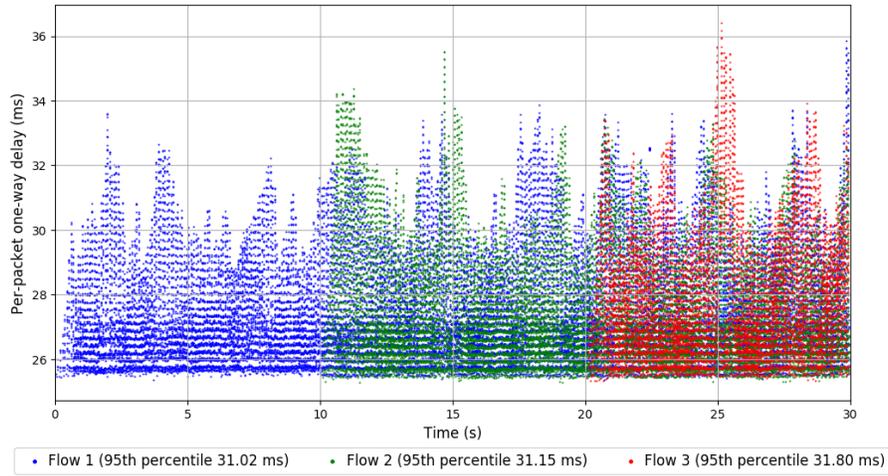
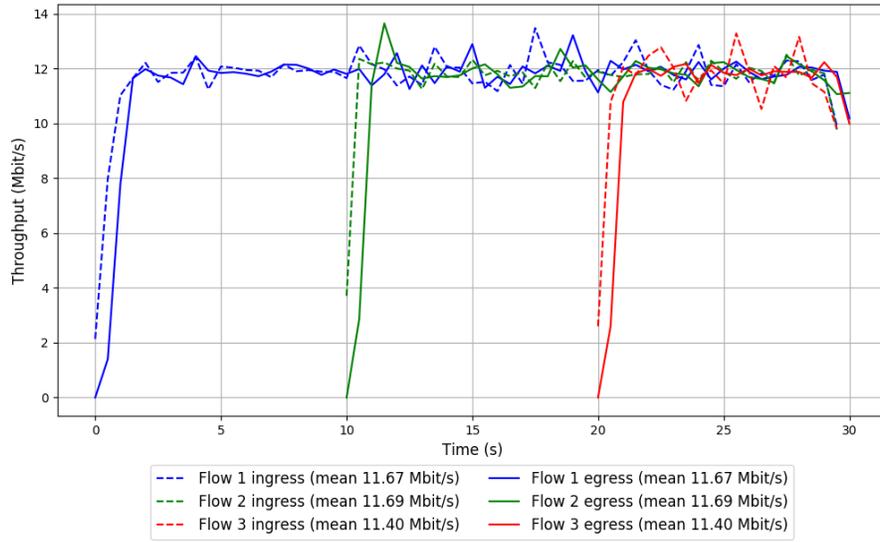


Run 2: Statistics of Sprout

Start at: 2019-06-27 08:19:55
End at: 2019-06-27 08:20:25
Local clock offset: 4.23 ms
Remote clock offset: -8.218 ms

```
# Below is generated by plot.py at 2019-06-27 10:01:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.21 Mbit/s
95th percentile per-packet one-way delay: 31.157 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 31.021 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 31.152 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.40 Mbit/s
95th percentile per-packet one-way delay: 31.795 ms
Loss rate: 0.03%
```

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2019-06-27 08:46:37

End at: 2019-06-27 08:47:07

Local clock offset: 5.432 ms

Remote clock offset: -8.78 ms

Below is generated by plot.py at 2019-06-27 10:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.23 Mbit/s

95th percentile per-packet one-way delay: 31.812 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 11.75 Mbit/s

95th percentile per-packet one-way delay: 31.236 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 11.60 Mbit/s

95th percentile per-packet one-way delay: 32.462 ms

Loss rate: 0.12%

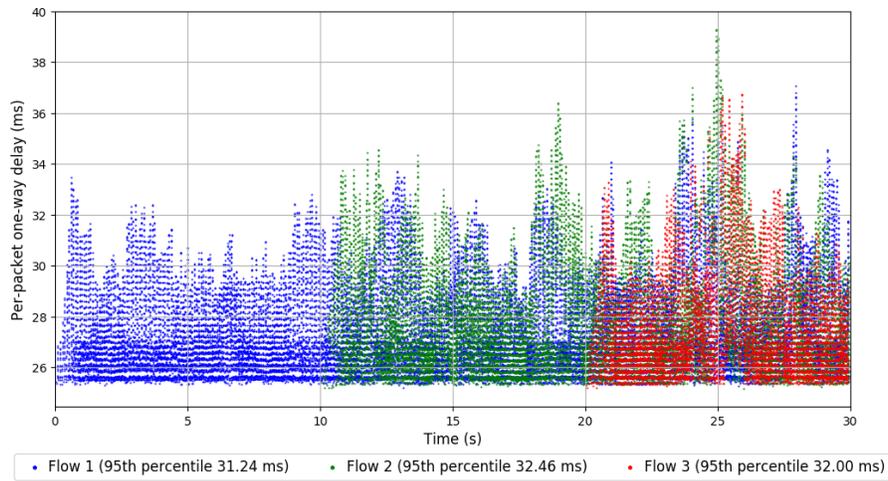
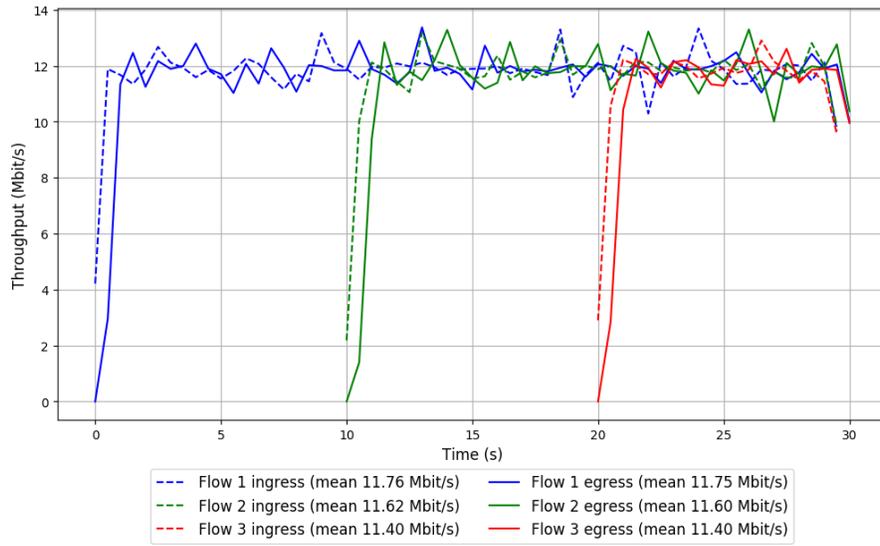
-- Flow 3:

Average throughput: 11.40 Mbit/s

95th percentile per-packet one-way delay: 31.998 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

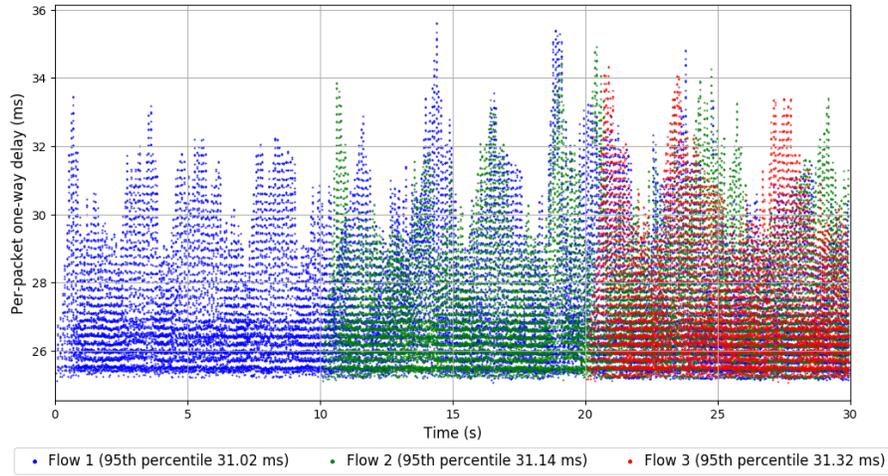
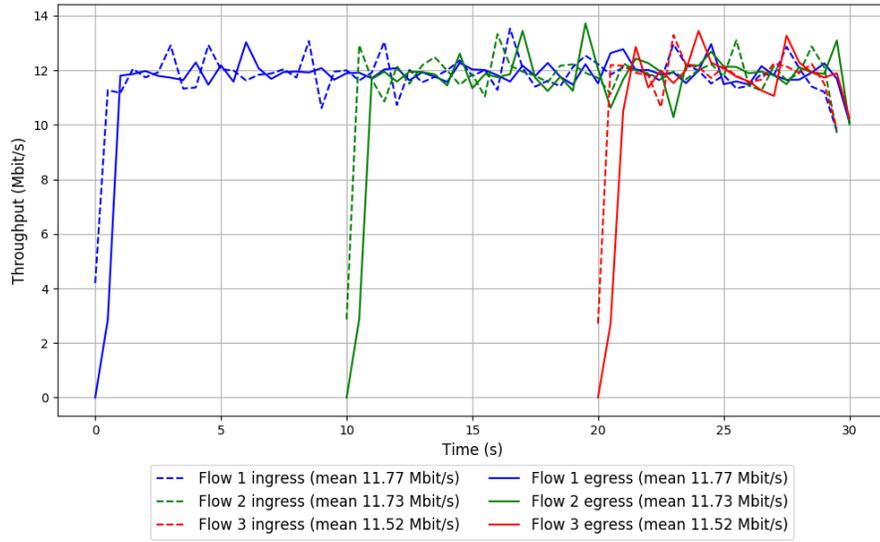


Run 4: Statistics of Sprout

Start at: 2019-06-27 09:13:17
End at: 2019-06-27 09:13:47
Local clock offset: -4.723 ms
Remote clock offset: -8.855 ms

```
# Below is generated by plot.py at 2019-06-27 10:01:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 31.091 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 31.017 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 31.140 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.52 Mbit/s
95th percentile per-packet one-way delay: 31.323 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

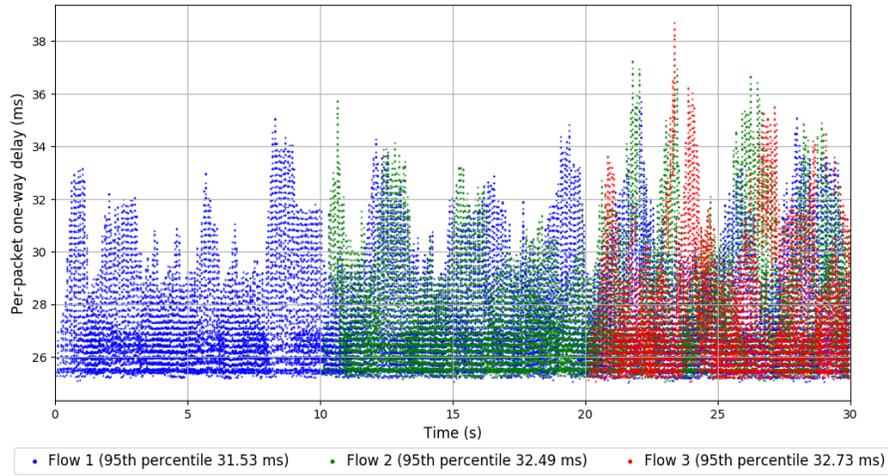
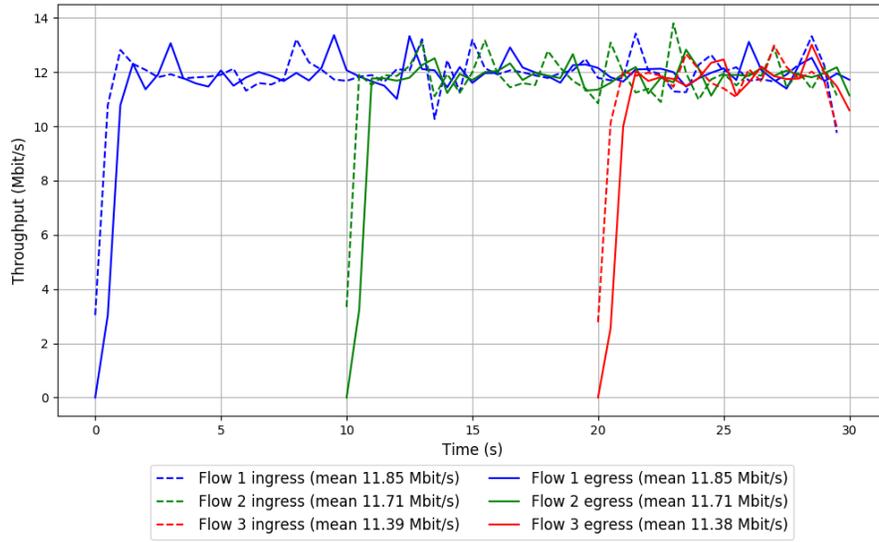


Run 5: Statistics of Sprout

Start at: 2019-06-27 09:39:55
End at: 2019-06-27 09:40:25
Local clock offset: -7.984 ms
Remote clock offset: -8.793 ms

```
# Below is generated by plot.py at 2019-06-27 10:01:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.39 Mbit/s
95th percentile per-packet one-way delay: 32.021 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 31.529 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 32.492 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.38 Mbit/s
95th percentile per-packet one-way delay: 32.732 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-06-27 07:40:47
End at: 2019-06-27 07:41:17
Local clock offset: -0.034 ms
Remote clock offset: -7.227 ms

Below is generated by plot.py at 2019-06-27 10:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 25.627 ms
Loss rate: 81.32%

-- Flow 1:

Average throughput: 5.16 Mbit/s
95th percentile per-packet one-way delay: 27.549 ms
Loss rate: 82.91%

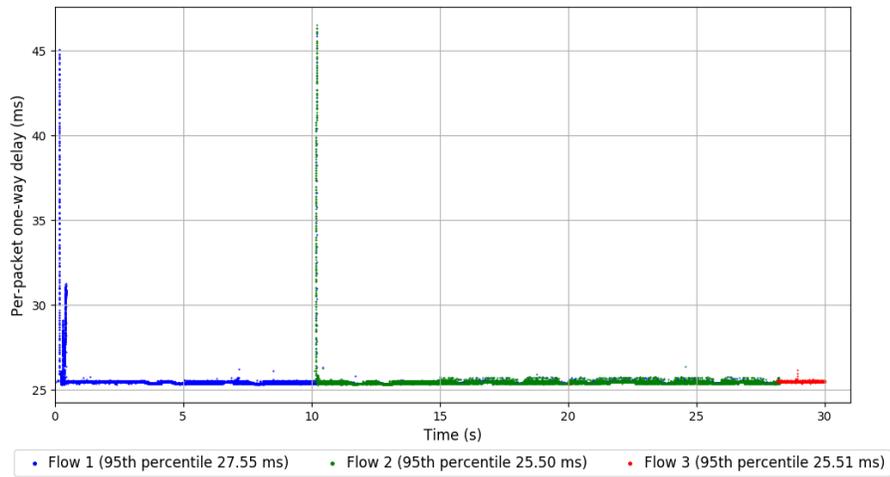
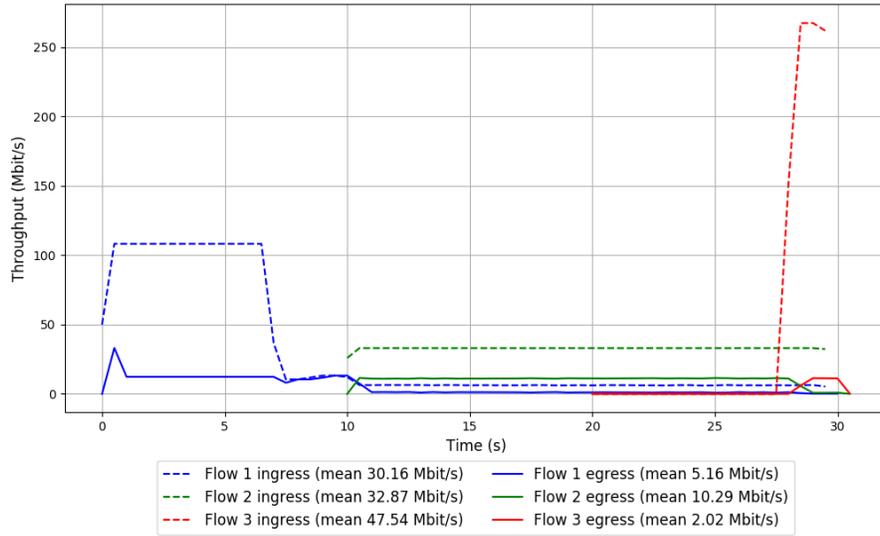
-- Flow 2:

Average throughput: 10.29 Mbit/s
95th percentile per-packet one-way delay: 25.503 ms
Loss rate: 68.71%

-- Flow 3:

Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 25.513 ms
Loss rate: 95.75%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-06-27 08:07:34

End at: 2019-06-27 08:08:04

Local clock offset: 3.437 ms

Remote clock offset: -7.993 ms

Below is generated by plot.py at 2019-06-27 10:01:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 25.530 ms

Loss rate: 95.22%

-- Flow 1:

Average throughput: 6.92 Mbit/s

95th percentile per-packet one-way delay: 26.010 ms

Loss rate: 93.54%

-- Flow 2:

Average throughput: 8.64 Mbit/s

95th percentile per-packet one-way delay: 25.524 ms

Loss rate: 96.36%

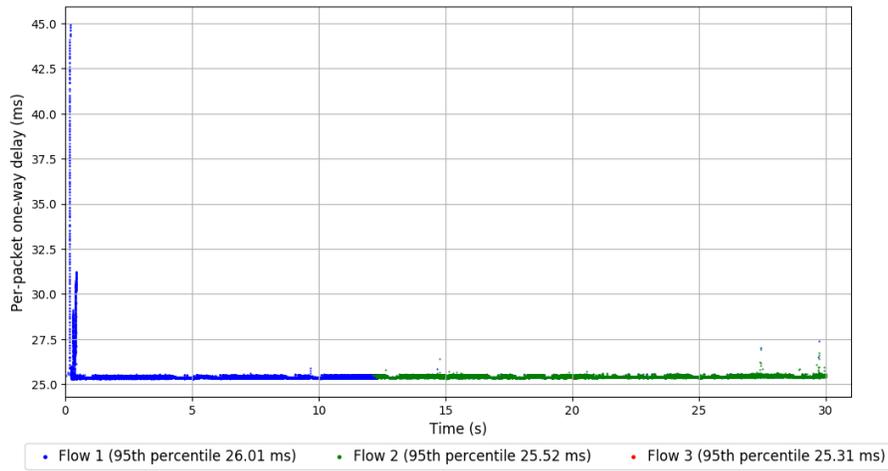
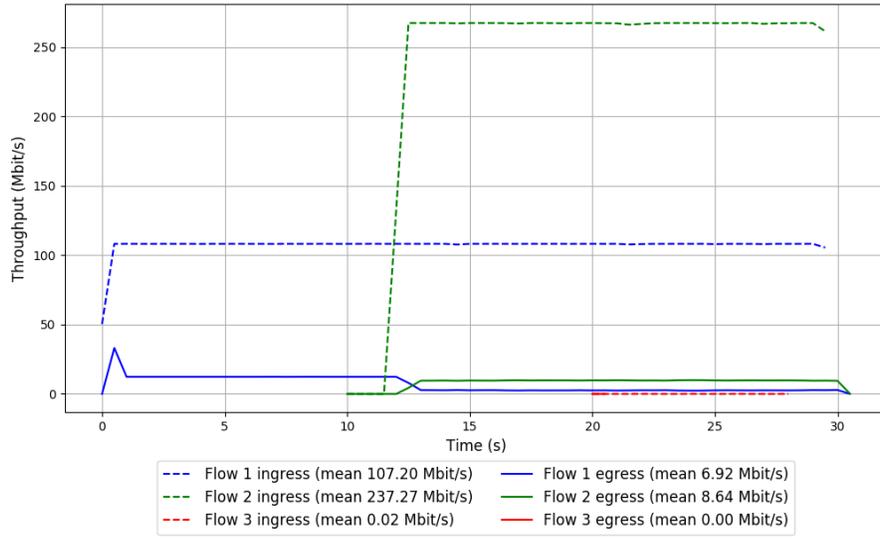
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 25.313 ms

Loss rate: 99.16%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-06-27 08:34:20
End at: 2019-06-27 08:34:50
Local clock offset: 4.895 ms
Remote clock offset: -8.696 ms

Below is generated by plot.py at 2019-06-27 10:01:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 25.570 ms
Loss rate: 89.99%

-- Flow 1:

Average throughput: 5.89 Mbit/s
95th percentile per-packet one-way delay: 27.395 ms
Loss rate: 83.49%

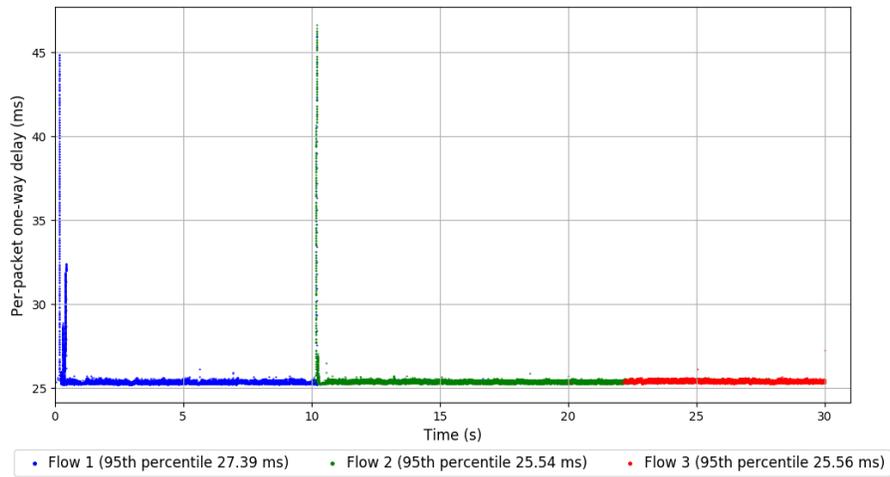
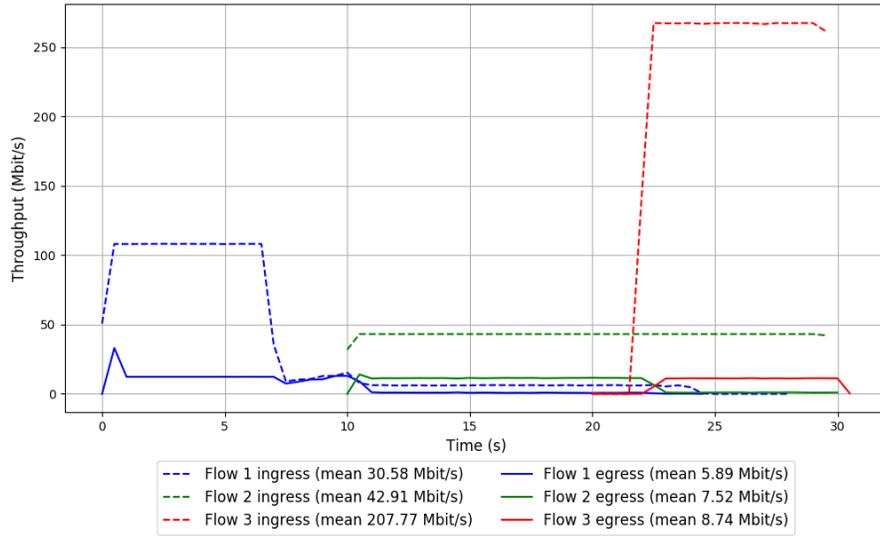
-- Flow 2:

Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 25.537 ms
Loss rate: 82.55%

-- Flow 3:

Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 25.561 ms
Loss rate: 95.79%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-06-27 09:01:03
End at: 2019-06-27 09:01:33
Local clock offset: -2.034 ms
Remote clock offset: -8.806 ms

Below is generated by plot.py at 2019-06-27 10:01:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 25.337 ms
Loss rate: 91.09%

-- Flow 1:

Average throughput: 10.63 Mbit/s
95th percentile per-packet one-way delay: 25.630 ms
Loss rate: 85.73%

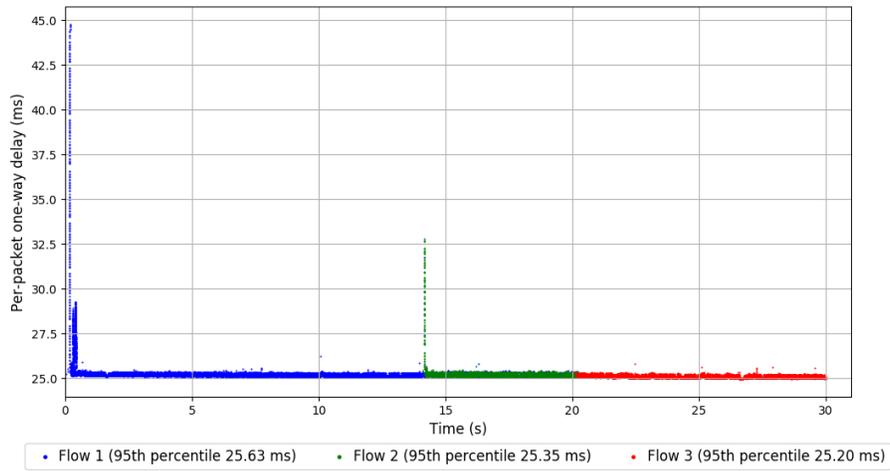
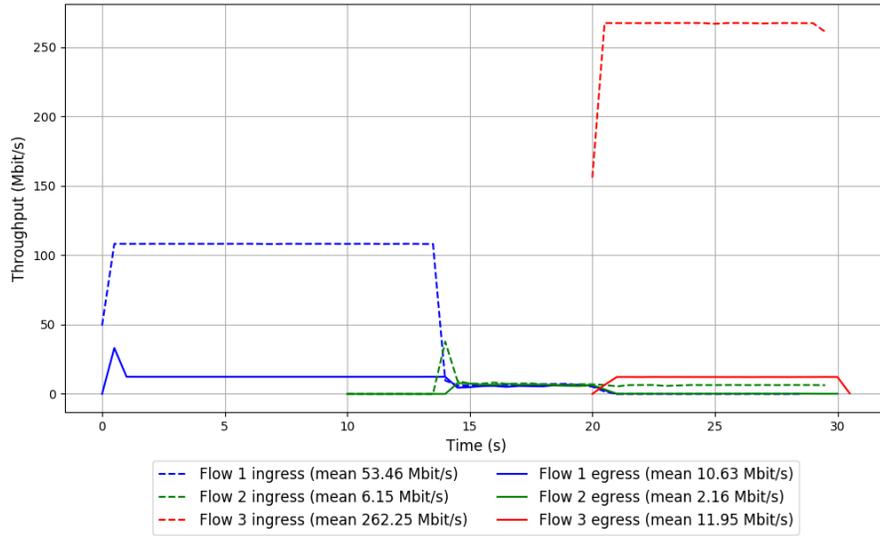
-- Flow 2:

Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 25.346 ms
Loss rate: 65.09%

-- Flow 3:

Average throughput: 11.95 Mbit/s
95th percentile per-packet one-way delay: 25.199 ms
Loss rate: 95.44%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-06-27 09:27:42
End at: 2019-06-27 09:28:12
Local clock offset: -6.596 ms
Remote clock offset: -8.704 ms

Below is generated by plot.py at 2019-06-27 10:01:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 25.510 ms
Loss rate: 86.02%

-- Flow 1:

Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 27.143 ms
Loss rate: 83.53%

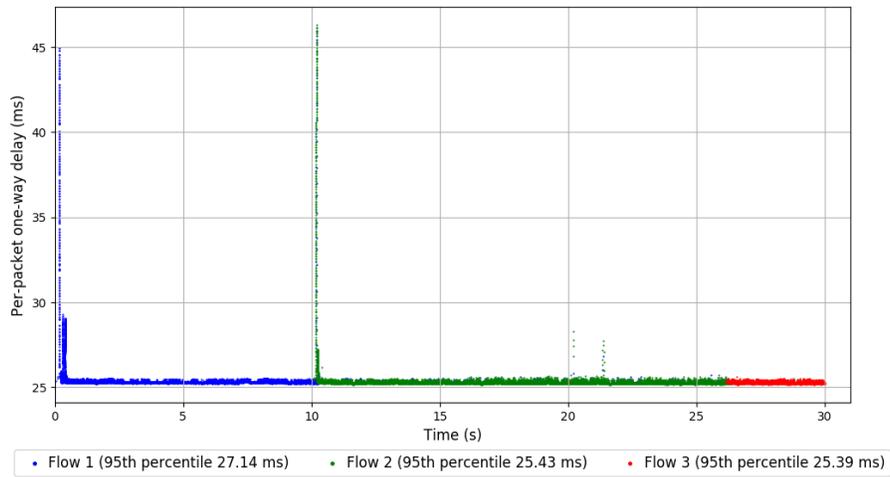
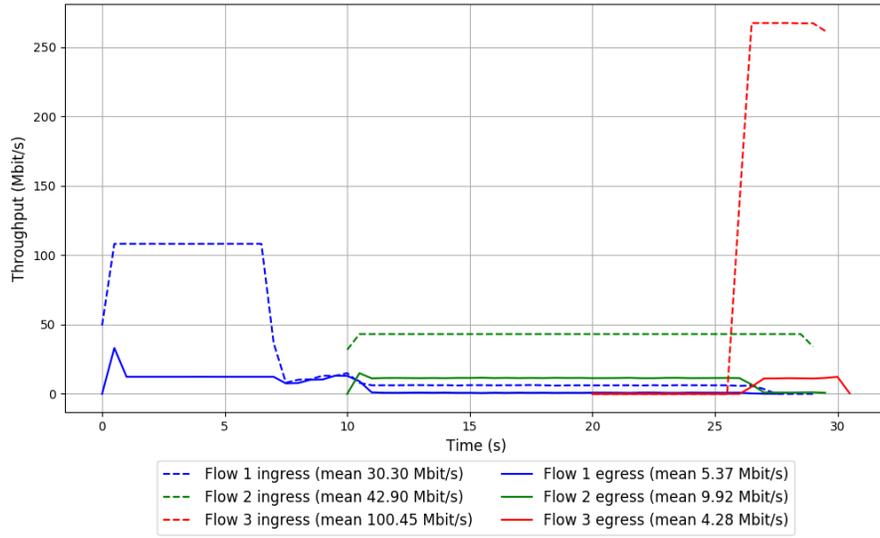
-- Flow 2:

Average throughput: 9.92 Mbit/s
95th percentile per-packet one-way delay: 25.428 ms
Loss rate: 76.97%

-- Flow 3:

Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 25.387 ms
Loss rate: 95.74%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-06-27 07:50:32
End at: 2019-06-27 07:51:02
Local clock offset: 0.736 ms
Remote clock offset: -7.632 ms

Below is generated by plot.py at 2019-06-27 10:02:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.50 Mbit/s
95th percentile per-packet one-way delay: 35.415 ms
Loss rate: 0.49%

-- Flow 1:

Average throughput: 65.32 Mbit/s
95th percentile per-packet one-way delay: 35.886 ms
Loss rate: 0.46%

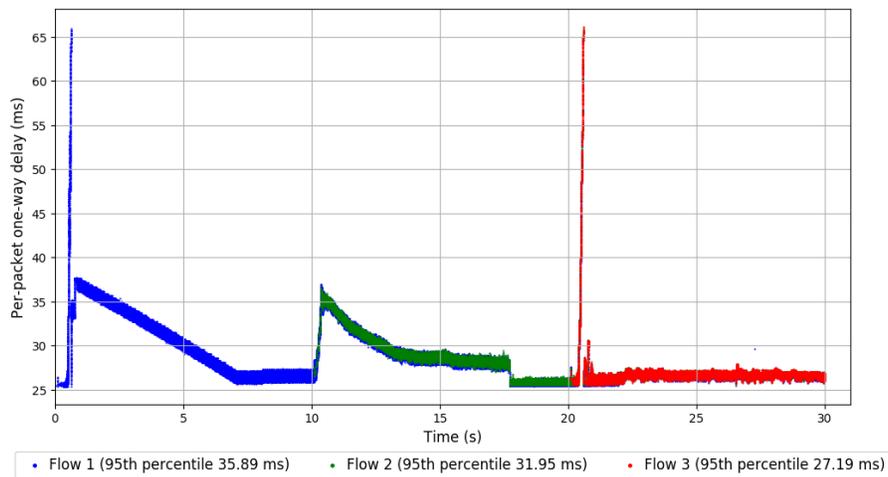
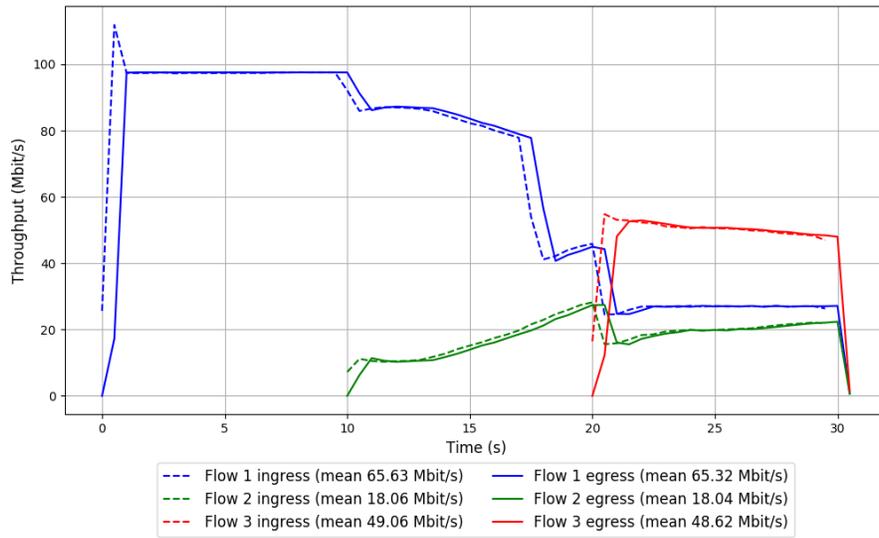
-- Flow 2:

Average throughput: 18.04 Mbit/s
95th percentile per-packet one-way delay: 31.948 ms
Loss rate: 0.14%

-- Flow 3:

Average throughput: 48.62 Mbit/s
95th percentile per-packet one-way delay: 27.188 ms
Loss rate: 0.88%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-06-27 08:17:28
End at: 2019-06-27 08:17:58
Local clock offset: 4.053 ms
Remote clock offset: -8.232 ms

Below is generated by plot.py at 2019-06-27 10:02:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.75 Mbit/s
95th percentile per-packet one-way delay: 40.505 ms
Loss rate: 0.27%

-- Flow 1:

Average throughput: 67.48 Mbit/s
95th percentile per-packet one-way delay: 40.956 ms
Loss rate: 0.37%

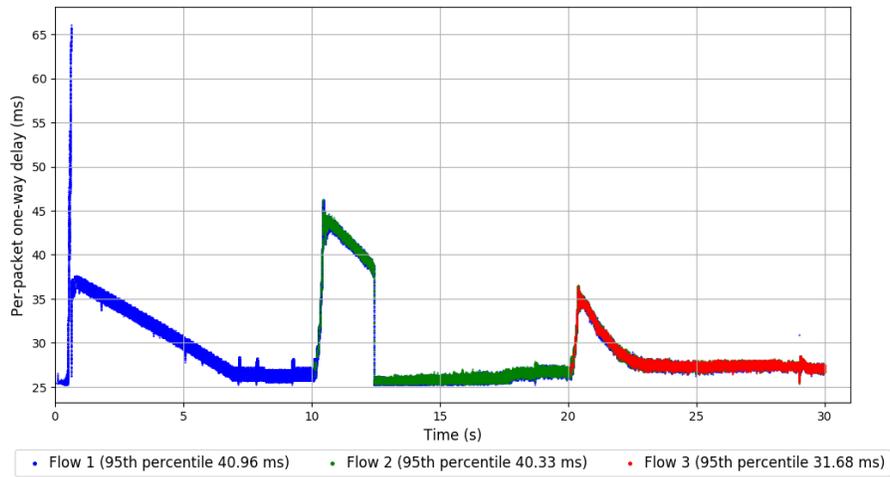
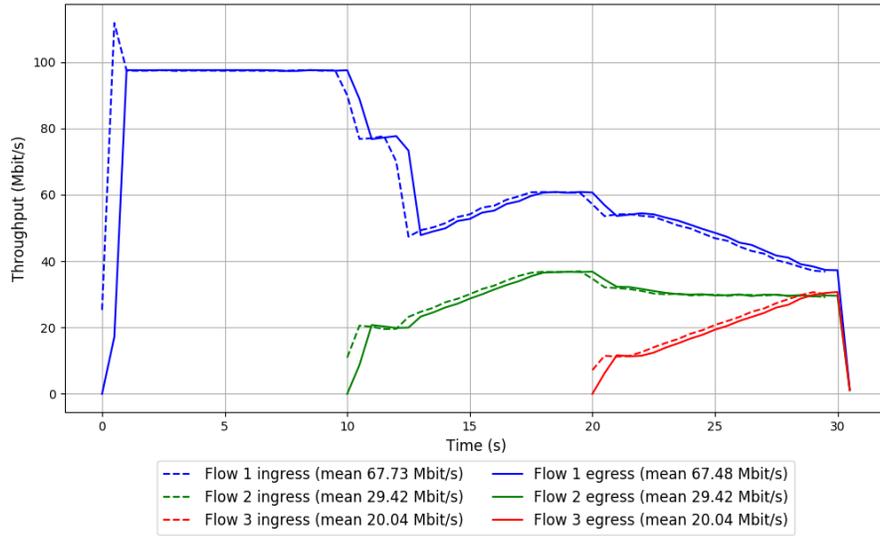
-- Flow 2:

Average throughput: 29.42 Mbit/s
95th percentile per-packet one-way delay: 40.326 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 31.680 ms
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-06-27 08:44:08
End at: 2019-06-27 08:44:38
Local clock offset: 5.288 ms
Remote clock offset: -8.691 ms

Below is generated by plot.py at 2019-06-27 10:02:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 35.363 ms
Loss rate: 0.27%

-- Flow 1:

Average throughput: 77.44 Mbit/s
95th percentile per-packet one-way delay: 35.570 ms
Loss rate: 0.33%

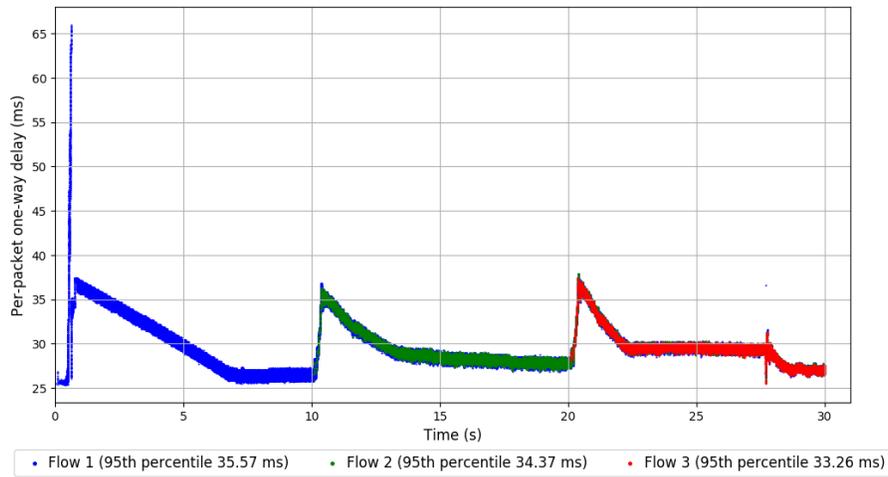
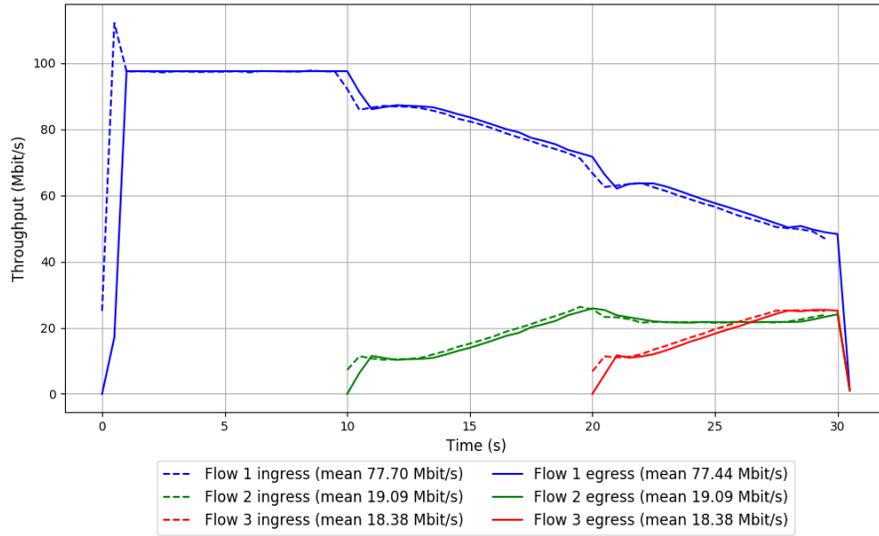
-- Flow 2:

Average throughput: 19.09 Mbit/s
95th percentile per-packet one-way delay: 34.374 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 18.38 Mbit/s
95th percentile per-packet one-way delay: 33.257 ms
Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-06-27 09:10:50

End at: 2019-06-27 09:11:20

Local clock offset: -4.259 ms

Remote clock offset: -8.9 ms

Below is generated by plot.py at 2019-06-27 10:02:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.99 Mbit/s

95th percentile per-packet one-way delay: 35.129 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 77.04 Mbit/s

95th percentile per-packet one-way delay: 35.333 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 19.24 Mbit/s

95th percentile per-packet one-way delay: 34.097 ms

Loss rate: 0.00%

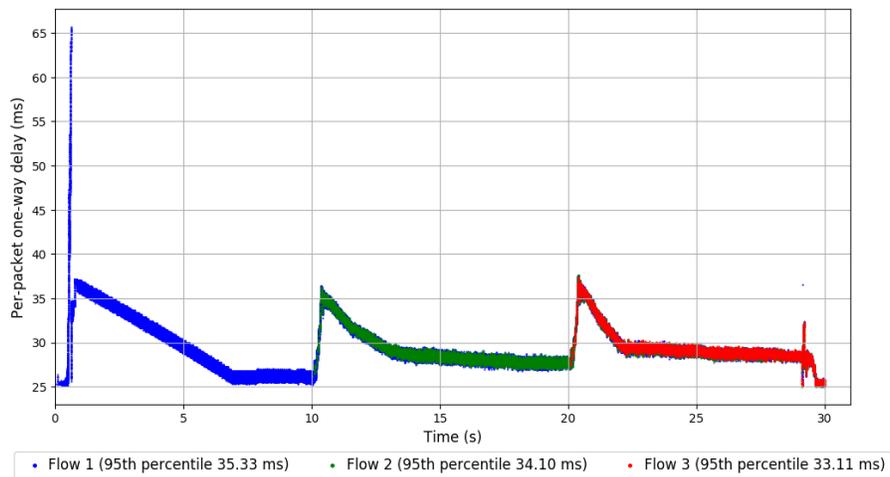
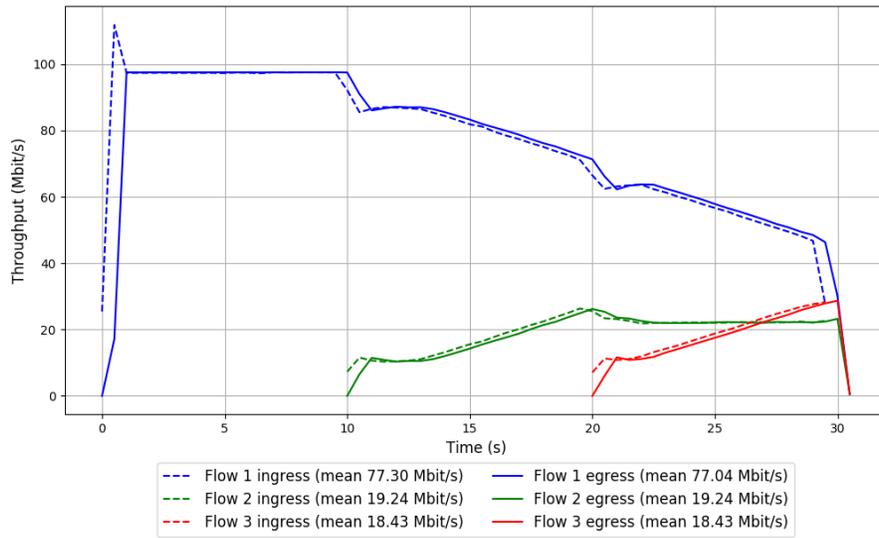
-- Flow 3:

Average throughput: 18.43 Mbit/s

95th percentile per-packet one-way delay: 33.114 ms

Loss rate: 0.01%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-06-27 09:37:27
End at: 2019-06-27 09:37:57
Local clock offset: -7.703 ms
Remote clock offset: -8.707 ms

Below is generated by plot.py at 2019-06-27 10:02:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 35.394 ms
Loss rate: 0.27%

-- Flow 1:

Average throughput: 77.47 Mbit/s
95th percentile per-packet one-way delay: 35.516 ms
Loss rate: 0.34%

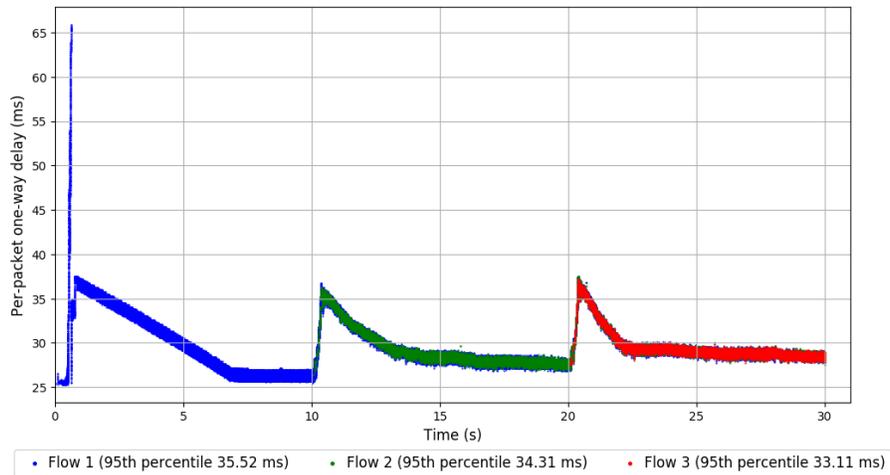
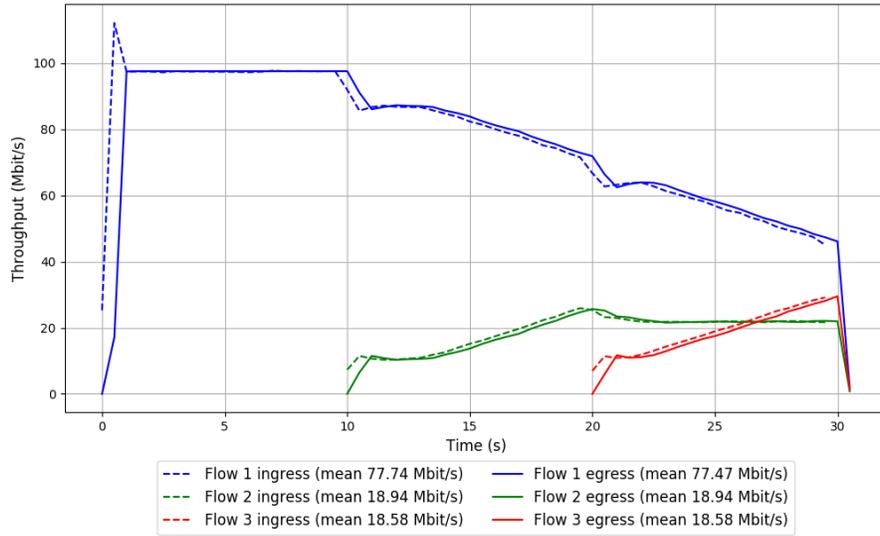
-- Flow 2:

Average throughput: 18.94 Mbit/s
95th percentile per-packet one-way delay: 34.310 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 18.58 Mbit/s
95th percentile per-packet one-way delay: 33.109 ms
Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-06-27 07:57:51
End at: 2019-06-27 07:58:21
Local clock offset: 2.319 ms
Remote clock offset: -7.726 ms

Below is generated by plot.py at 2019-06-27 10:02:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.95 Mbit/s
95th percentile per-packet one-way delay: 71.200 ms
Loss rate: 66.42%

-- Flow 1:

Average throughput: 36.16 Mbit/s
95th percentile per-packet one-way delay: 62.396 ms
Loss rate: 40.88%

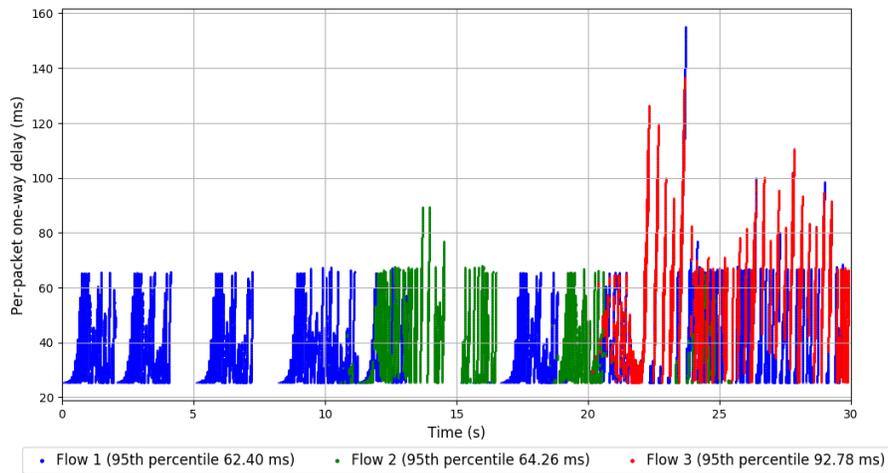
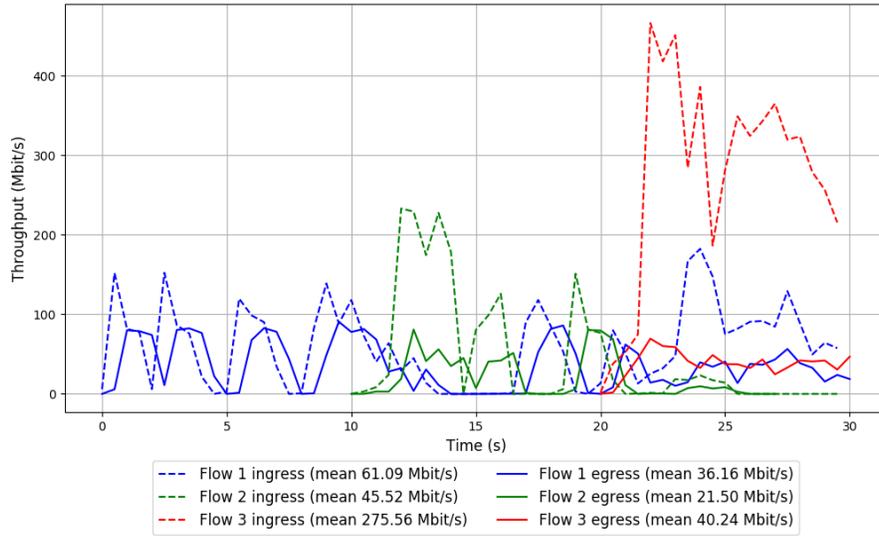
-- Flow 2:

Average throughput: 21.50 Mbit/s
95th percentile per-packet one-way delay: 64.264 ms
Loss rate: 60.89%

-- Flow 3:

Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 92.781 ms
Loss rate: 85.37%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-06-27 08:24:42
End at: 2019-06-27 08:25:12
Local clock offset: 4.428 ms
Remote clock offset: -8.382 ms

Below is generated by plot.py at 2019-06-27 10:02:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.89 Mbit/s
95th percentile per-packet one-way delay: 61.090 ms
Loss rate: 30.94%

-- Flow 1:

Average throughput: 42.24 Mbit/s
95th percentile per-packet one-way delay: 60.805 ms
Loss rate: 34.28%

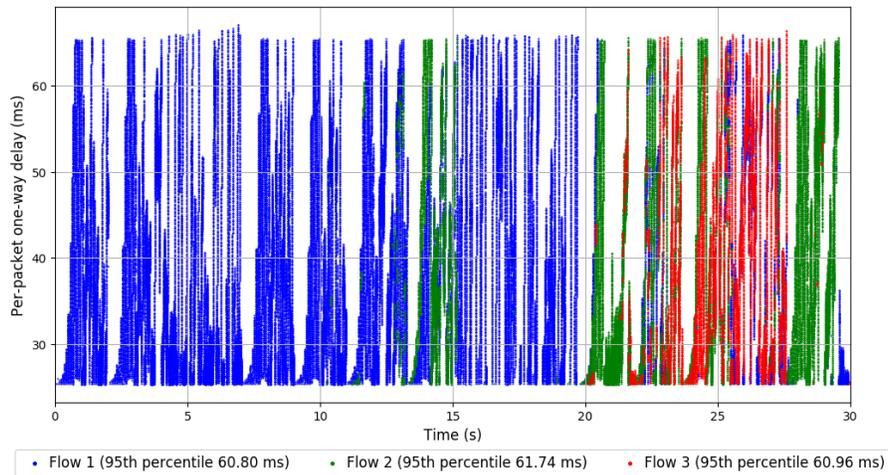
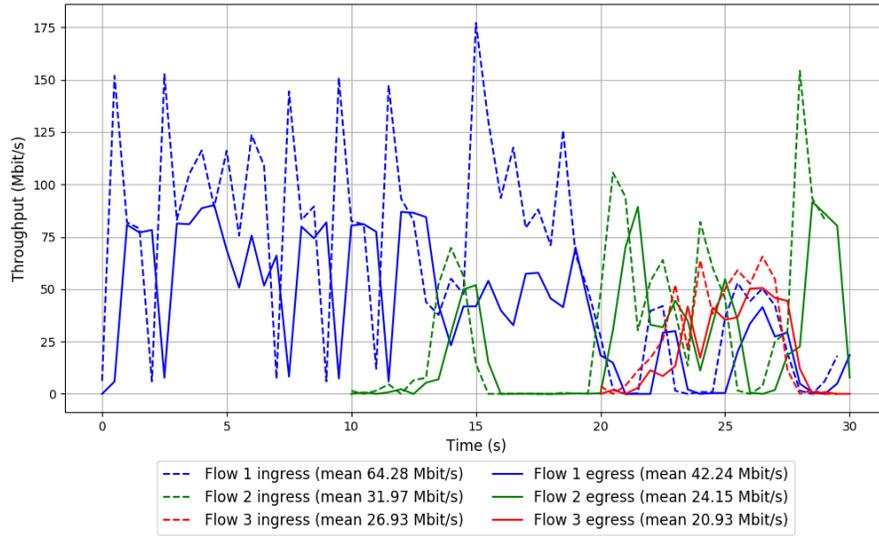
-- Flow 2:

Average throughput: 24.15 Mbit/s
95th percentile per-packet one-way delay: 61.741 ms
Loss rate: 24.33%

-- Flow 3:

Average throughput: 20.93 Mbit/s
95th percentile per-packet one-way delay: 60.956 ms
Loss rate: 22.26%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-06-27 08:51:24

End at: 2019-06-27 08:51:54

Local clock offset: 2.909 ms

Remote clock offset: -8.68 ms

Below is generated by plot.py at 2019-06-27 10:02:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 65.72 Mbit/s

95th percentile per-packet one-way delay: 60.126 ms

Loss rate: 27.66%

-- Flow 1:

Average throughput: 35.24 Mbit/s

95th percentile per-packet one-way delay: 60.399 ms

Loss rate: 24.33%

-- Flow 2:

Average throughput: 38.26 Mbit/s

95th percentile per-packet one-way delay: 59.683 ms

Loss rate: 24.94%

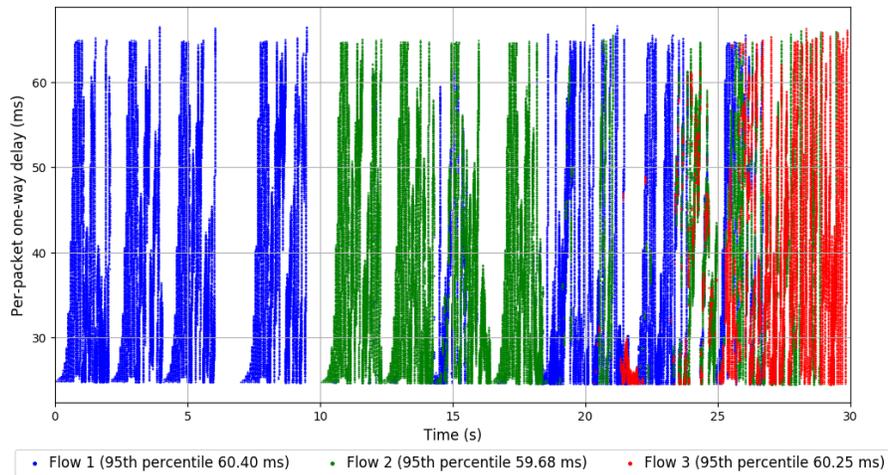
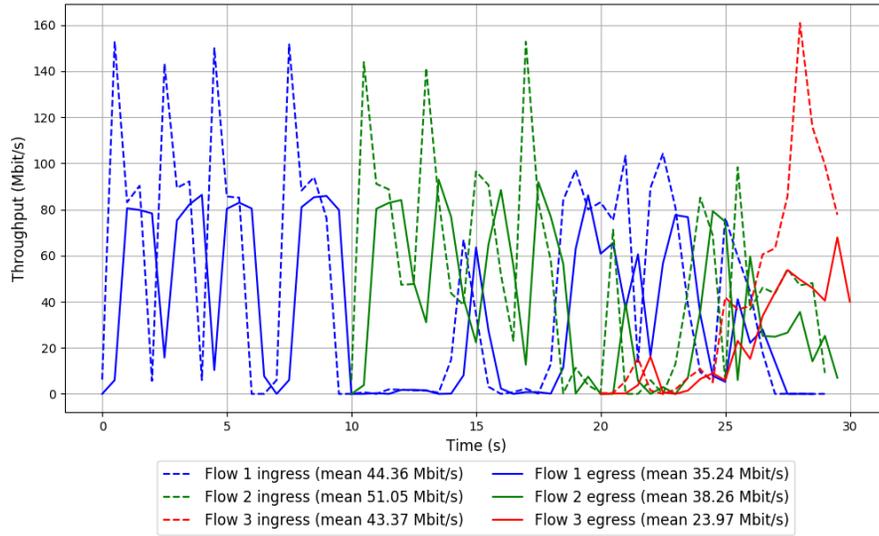
-- Flow 3:

Average throughput: 23.97 Mbit/s

95th percentile per-packet one-way delay: 60.254 ms

Loss rate: 44.71%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-06-27 09:18:04
End at: 2019-06-27 09:18:34
Local clock offset: -5.422 ms
Remote clock offset: -8.964 ms

Below is generated by plot.py at 2019-06-27 10:02:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.75 Mbit/s
95th percentile per-packet one-way delay: 60.567 ms
Loss rate: 28.87%

-- Flow 1:

Average throughput: 38.15 Mbit/s
95th percentile per-packet one-way delay: 60.135 ms
Loss rate: 23.57%

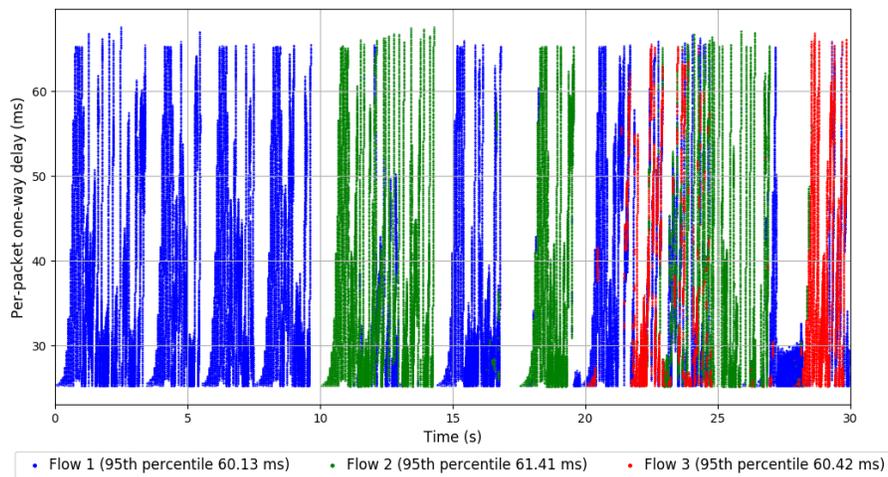
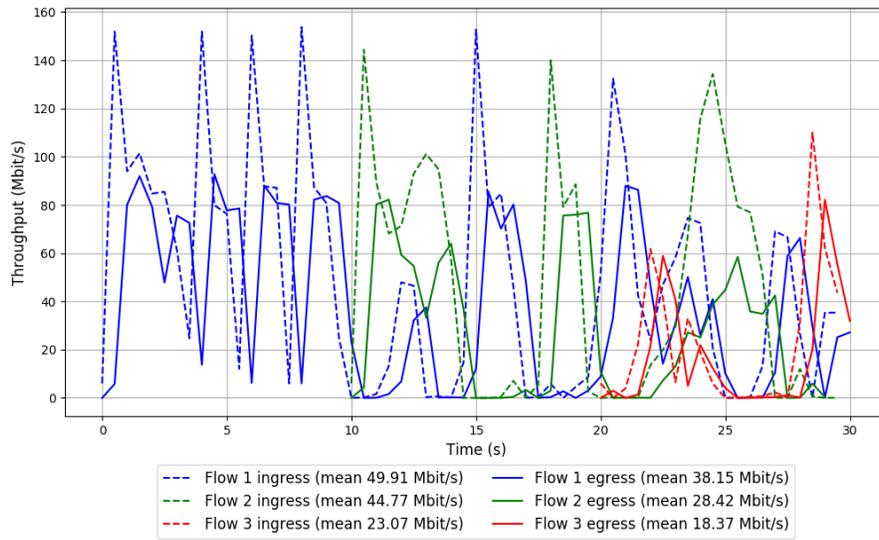
-- Flow 2:

Average throughput: 28.42 Mbit/s
95th percentile per-packet one-way delay: 61.407 ms
Loss rate: 40.12%

-- Flow 3:

Average throughput: 18.37 Mbit/s
95th percentile per-packet one-way delay: 60.417 ms
Loss rate: 20.07%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-06-27 09:44:41
End at: 2019-06-27 09:45:11
Local clock offset: -8.488 ms
Remote clock offset: -8.781 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.57 Mbit/s
95th percentile per-packet one-way delay: 104.711 ms
Loss rate: 86.27%

-- Flow 1:

Average throughput: 41.64 Mbit/s
95th percentile per-packet one-way delay: 97.687 ms
Loss rate: 85.51%

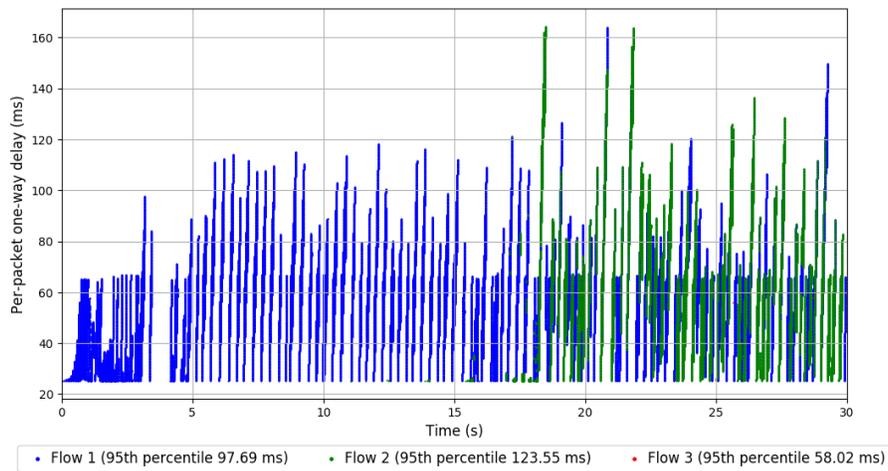
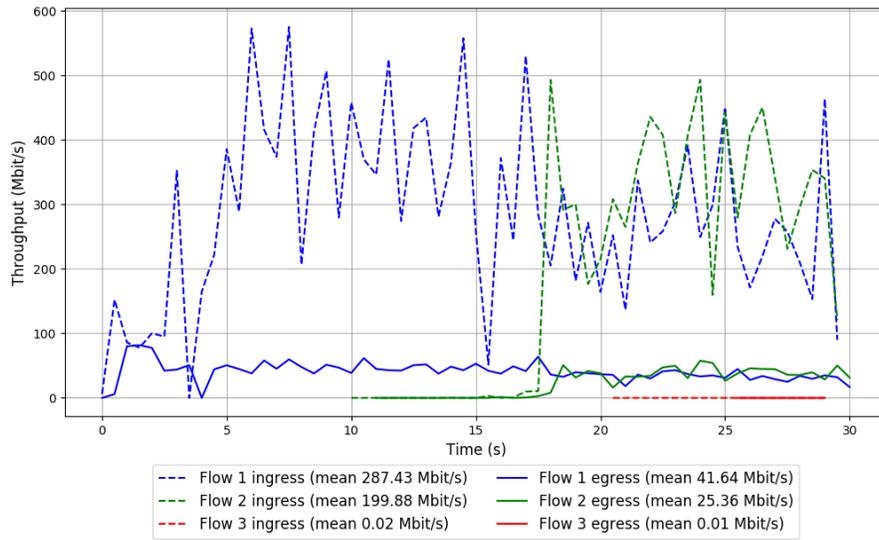
-- Flow 2:

Average throughput: 25.36 Mbit/s
95th percentile per-packet one-way delay: 123.548 ms
Loss rate: 87.92%

-- Flow 3:

Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 58.021 ms
Loss rate: 82.35%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-06-27 07:49:18
End at: 2019-06-27 07:49:48
Local clock offset: 0.231 ms
Remote clock offset: -7.586 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.54 Mbit/s
95th percentile per-packet one-way delay: 53.626 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.58 Mbit/s
95th percentile per-packet one-way delay: 47.985 ms
Loss rate: 0.00%

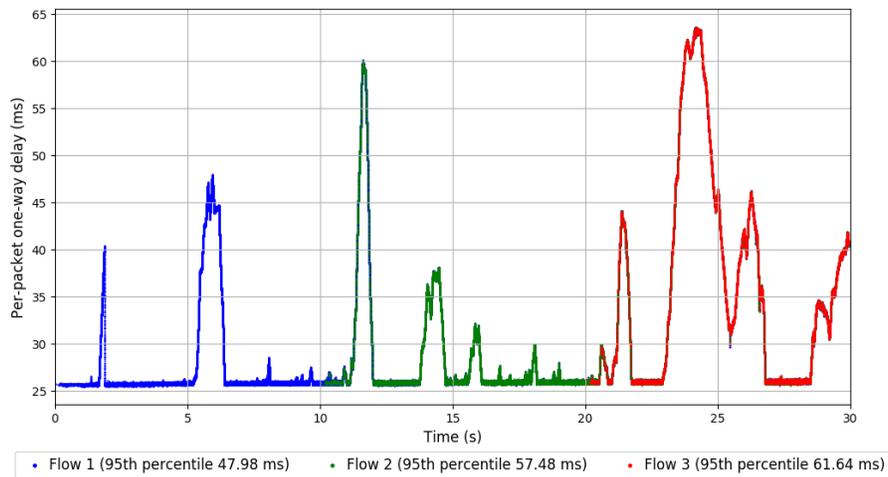
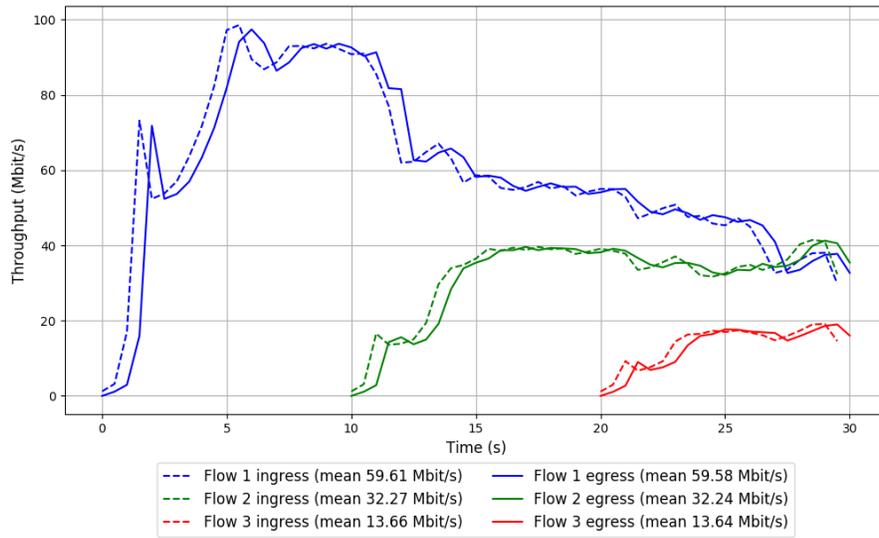
-- Flow 2:

Average throughput: 32.24 Mbit/s
95th percentile per-packet one-way delay: 57.476 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 13.64 Mbit/s
95th percentile per-packet one-way delay: 61.643 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-06-27 08:16:13
End at: 2019-06-27 08:16:43
Local clock offset: 3.959 ms
Remote clock offset: -8.248 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.42 Mbit/s
95th percentile per-packet one-way delay: 31.934 ms
Loss rate: 0.03%

-- Flow 1:

Average throughput: 67.74 Mbit/s
95th percentile per-packet one-way delay: 31.768 ms
Loss rate: 0.03%

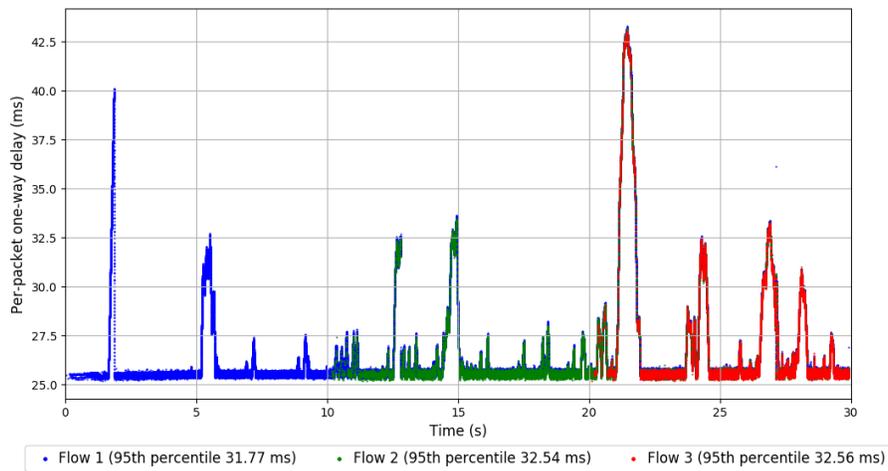
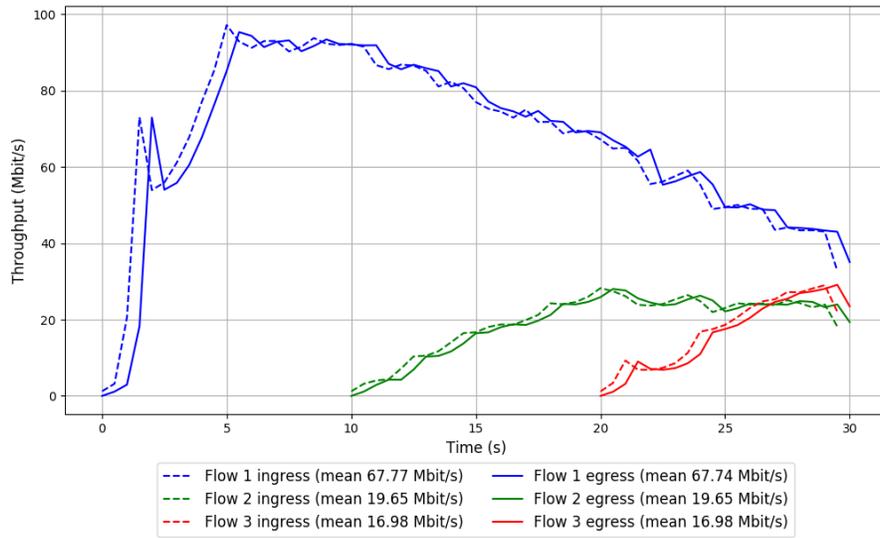
-- Flow 2:

Average throughput: 19.65 Mbit/s
95th percentile per-packet one-way delay: 32.541 ms
Loss rate: 0.02%

-- Flow 3:

Average throughput: 16.98 Mbit/s
95th percentile per-packet one-way delay: 32.564 ms
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-06-27 08:42:53
End at: 2019-06-27 08:43:23
Local clock offset: 5.257 ms
Remote clock offset: -8.734 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.76 Mbit/s
95th percentile per-packet one-way delay: 35.011 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 67.03 Mbit/s
95th percentile per-packet one-way delay: 36.099 ms
Loss rate: 0.00%

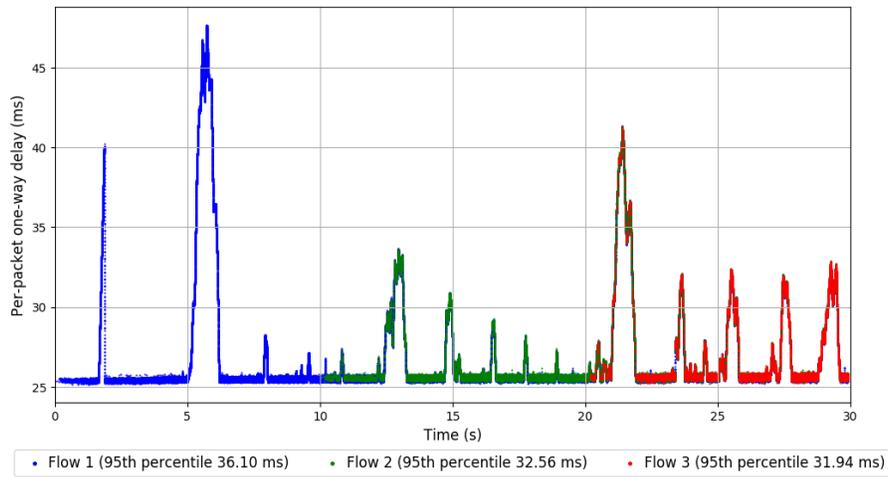
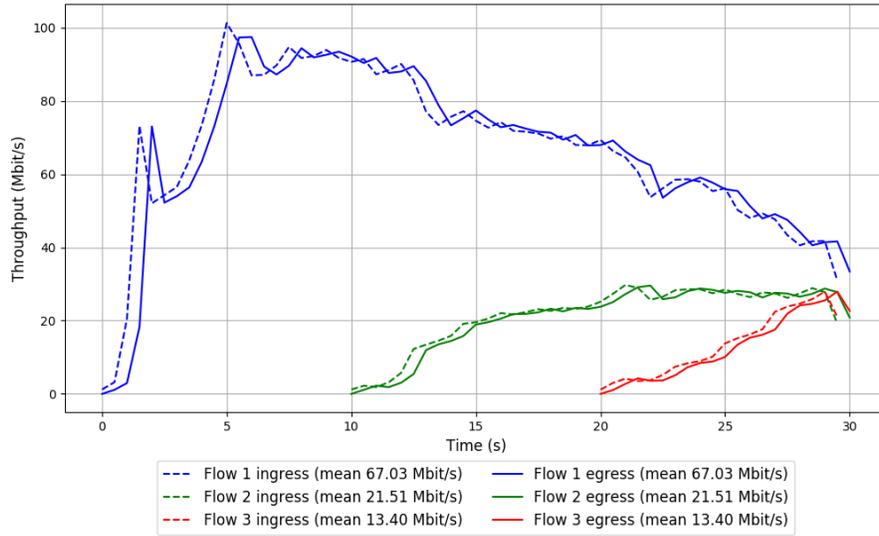
-- Flow 2:

Average throughput: 21.51 Mbit/s
95th percentile per-packet one-way delay: 32.559 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 13.40 Mbit/s
95th percentile per-packet one-way delay: 31.941 ms
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-06-27 09:09:35
End at: 2019-06-27 09:10:05
Local clock offset: -4.031 ms
Remote clock offset: -8.931 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.42 Mbit/s
95th percentile per-packet one-way delay: 39.860 ms
Loss rate: 0.15%

-- Flow 1:

Average throughput: 64.68 Mbit/s
95th percentile per-packet one-way delay: 40.580 ms
Loss rate: 0.13%

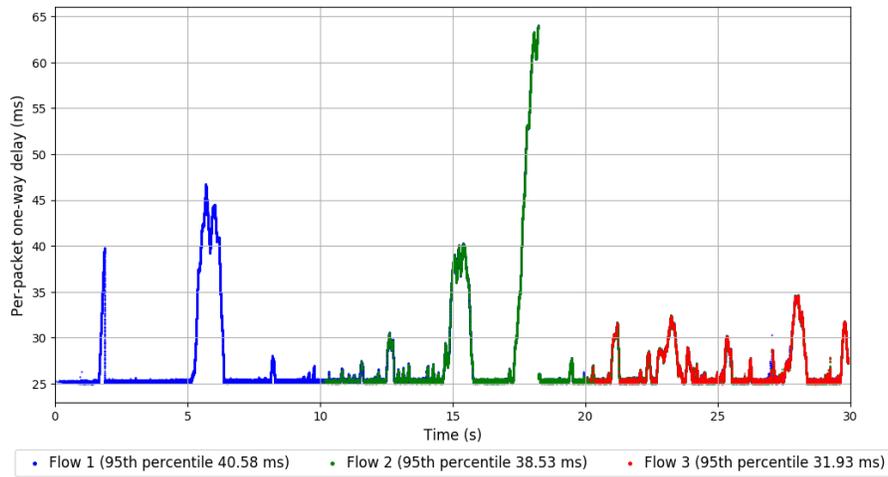
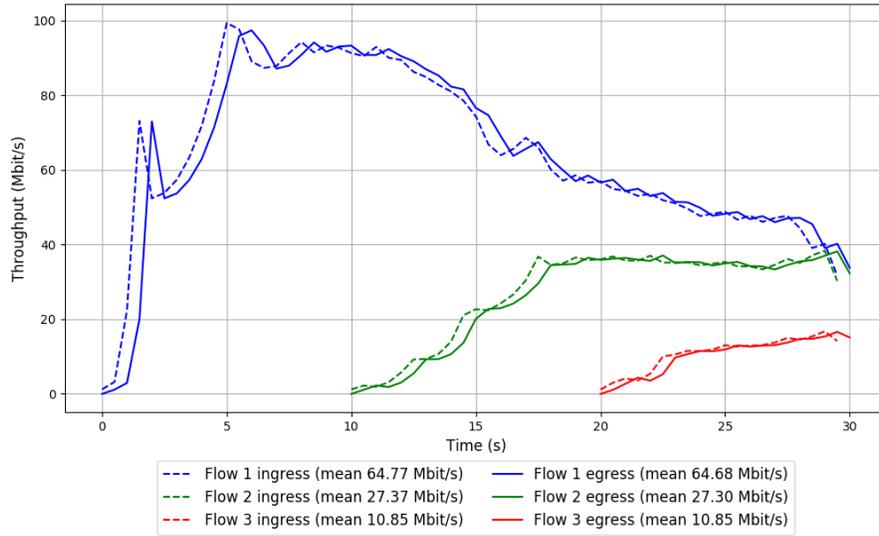
-- Flow 2:

Average throughput: 27.30 Mbit/s
95th percentile per-packet one-way delay: 38.529 ms
Loss rate: 0.26%

-- Flow 3:

Average throughput: 10.85 Mbit/s
95th percentile per-packet one-way delay: 31.932 ms
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-06-27 09:36:13

End at: 2019-06-27 09:36:43

Local clock offset: -7.576 ms

Remote clock offset: -8.75 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.64 Mbit/s

95th percentile per-packet one-way delay: 36.101 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.34 Mbit/s

95th percentile per-packet one-way delay: 36.471 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.80 Mbit/s

95th percentile per-packet one-way delay: 36.887 ms

Loss rate: 0.00%

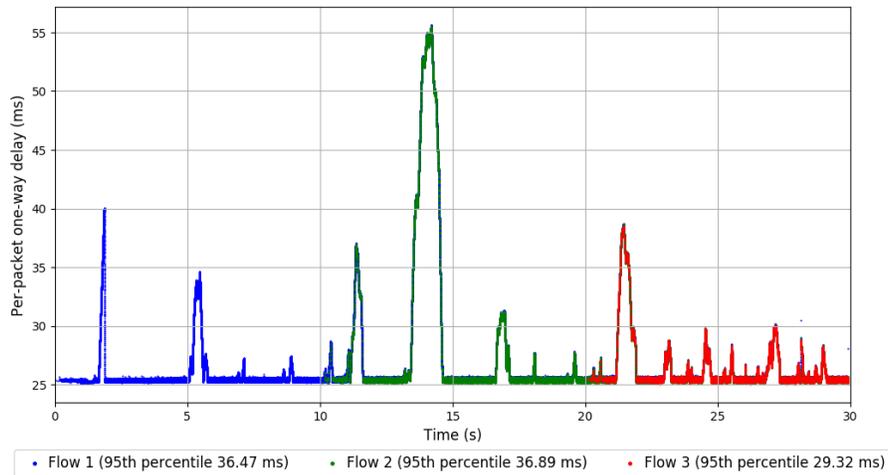
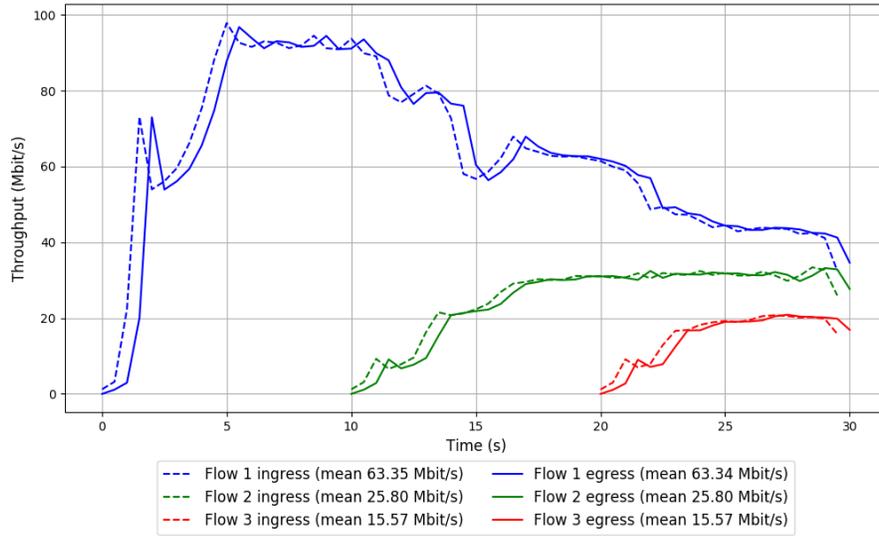
-- Flow 3:

Average throughput: 15.57 Mbit/s

95th percentile per-packet one-way delay: 29.323 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-06-27 07:55:28
End at: 2019-06-27 07:55:58
Local clock offset: 1.936 ms
Remote clock offset: -7.723 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 26.229 ms
Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 26.151 ms
Loss rate: 0.05%

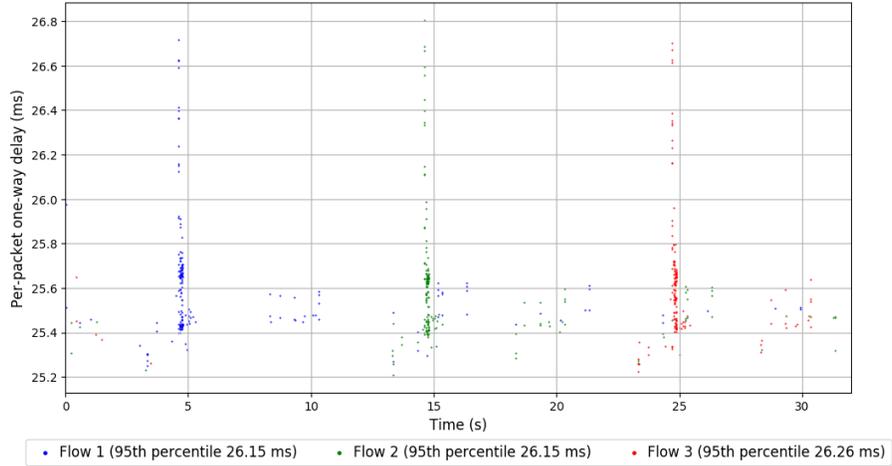
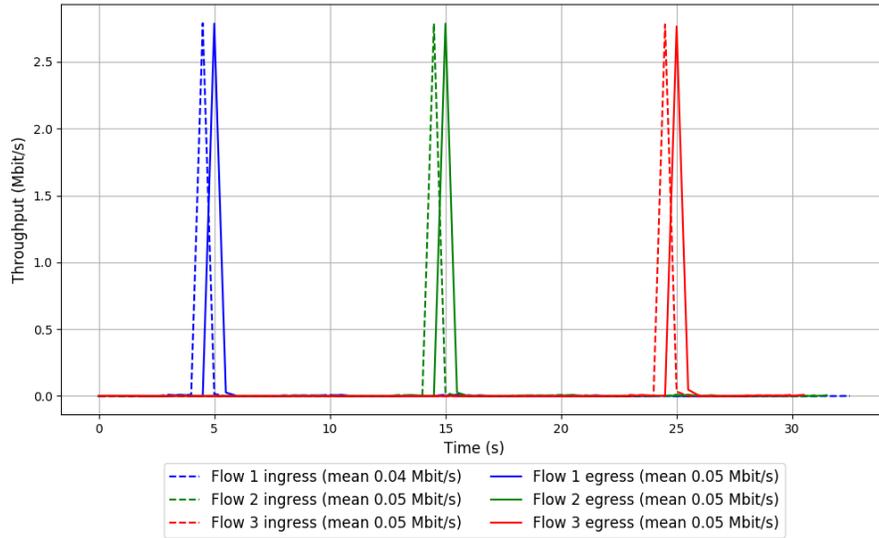
-- Flow 2:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 26.147 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 26.264 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-06-27 08:22:19
End at: 2019-06-27 08:22:49
Local clock offset: 4.287 ms
Remote clock offset: -8.391 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 26.192 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 26.125 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 26.103 ms

Loss rate: 0.00%

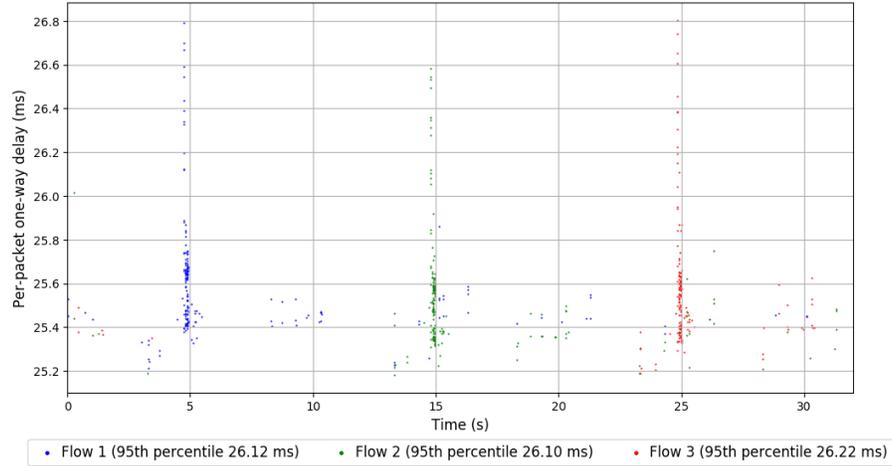
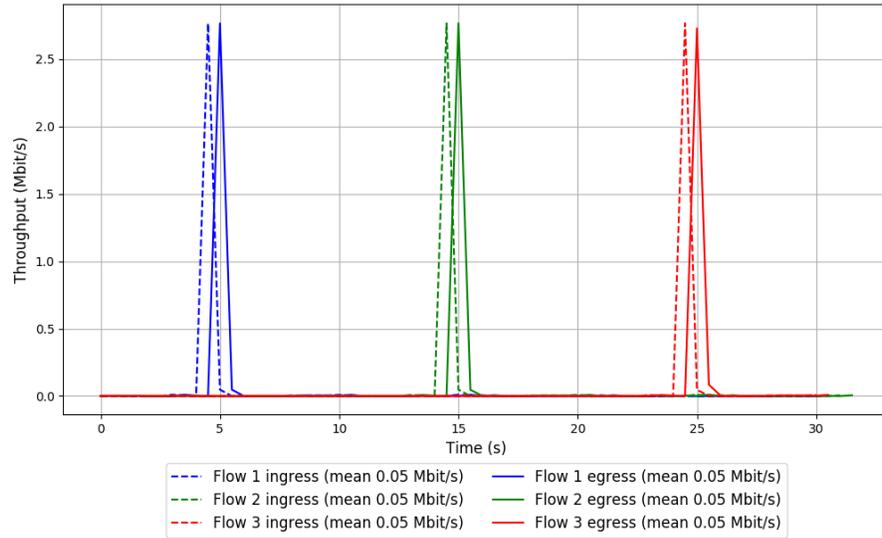
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 26.222 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-06-27 08:49:00
End at: 2019-06-27 08:49:30
Local clock offset: 4.745 ms
Remote clock offset: -8.742 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 25.704 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 25.752 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 25.704 ms

Loss rate: 0.00%

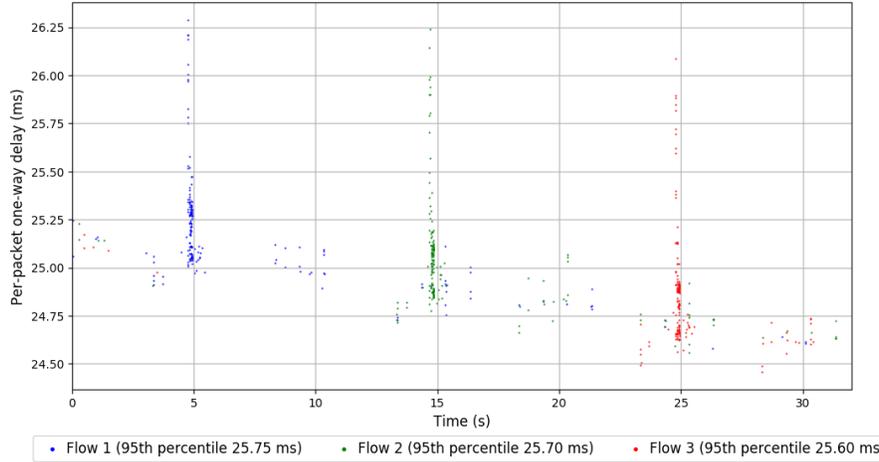
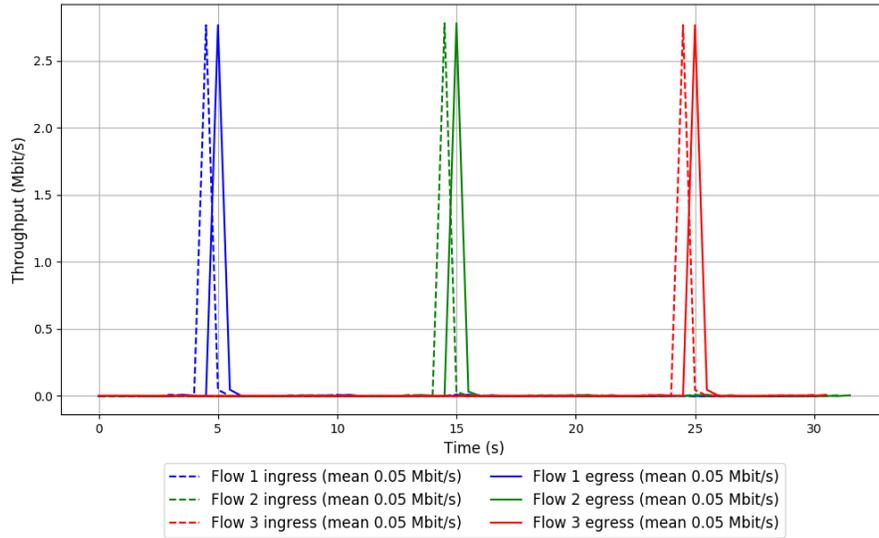
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 25.596 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-06-27 09:15:41
End at: 2019-06-27 09:16:11
Local clock offset: -5.088 ms
Remote clock offset: -8.955 ms

Below is generated by plot.py at 2019-06-27 10:03:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 25.945 ms
Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 25.916 ms
Loss rate: 0.05%

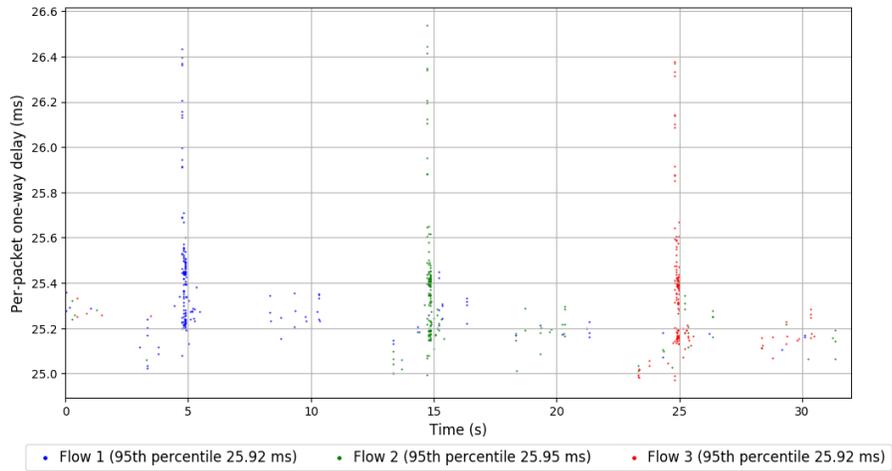
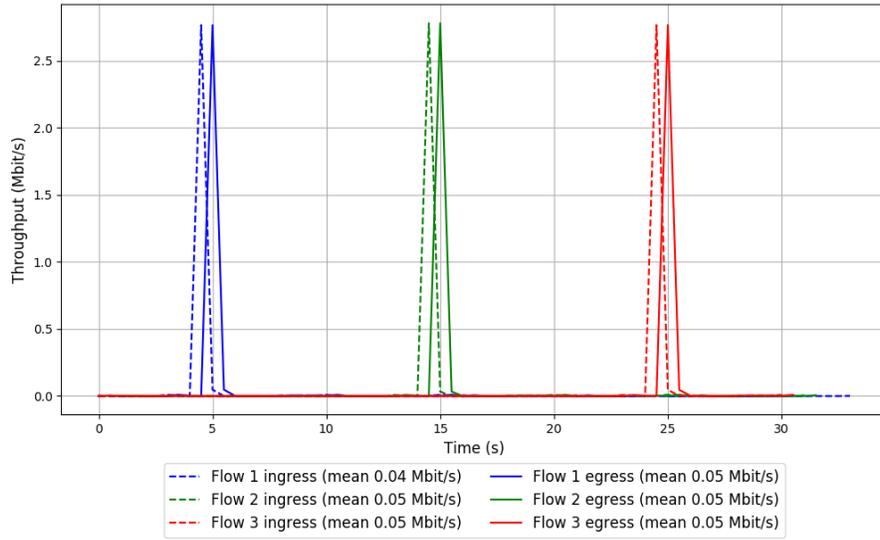
-- Flow 2:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 25.953 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 25.916 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-06-27 09:42:18
End at: 2019-06-27 09:42:48
Local clock offset: -8.217 ms
Remote clock offset: -8.788 ms

```
# Below is generated by plot.py at 2019-06-27 10:03:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 26.108 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 25.926 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 26.006 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 26.177 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

