

## Pantheon Report

Generated at 2019-07-12 06:53:16 (UTC).

Data path: AWS India 1 on `ens5` (*local*) → India on `em1` (*remote*).

Repeated the test of 24 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 `nets.org.sg` and have been applied to correct the timestamps in logs.

### System info:

```
Linux 4.15.0-1041-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 @ 2076e1149a241f3edb4365d686df32342bf9561f
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 @ 8bb93ffff2b107204a92d8b72449fc0c55e15f00
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
```

Figure 10: Average throughput vs. 95th percentile one-way delay. The plot shows a trade-off between delay and throughput. Configurations like TCF, Cubic, and Indigo-MusesT are in the top-left (high throughput, high delay), while SCR and WRED are in the bottom-right (low throughput, low delay).



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	53.59	44.30	41.75	40.13	42.96	43.48	1.67	3.63	3.53
Copa	5	0.00	10.37	5.04	8.29	14.65	10.76	98.36	70.43	75.37
TCP Cubic	5	68.90	31.08	20.62	46.99	47.74	46.59	0.74	0.94	0.79
FillP	5	55.88	43.29	23.53	43.47	46.96	47.22	29.71	45.30	58.81
FillP-Sheep	5	44.09	43.41	35.36	37.86	42.49	45.28	8.05	8.00	13.88
Indigo	5	53.52	39.72	46.75	17.36	19.02	19.35	0.00	0.01	0.00
Indigo-MusesC3	5	51.96	50.44	39.62	14.39	16.43	15.68	0.02	0.00	0.00
Indigo-MusesC5	5	47.44	50.02	26.86	41.52	43.81	45.26	8.02	9.85	22.35
Indigo-MusesD	5	53.73	46.07	37.91	14.05	11.67	14.45	0.00	0.00	0.03
Indigo-MusesT	5	62.57	38.40	28.03	35.91	40.32	44.56	2.58	6.37	16.55
LEDBAT	5	48.42	37.49	17.84	45.23	46.60	44.58	0.32	0.59	8.15
Muses_DecisionTree	5	50.14	35.17	39.07	11.30	13.88	18.05	4.79	0.83	1.34
Muses_DecisionTreeH0	5	49.63	40.64	36.20	18.90	20.81	25.72	0.36	0.63	1.39
Muses_DecisionTreeR0	5	55.30	32.65	40.21	11.21	13.29	18.26	0.31	0.88	1.31
PCC-Allegro	5	81.46	12.10	4.71	24.52	25.69	25.57	0.57	0.32	5.54
PCC-Expr	5	6.49	6.28	4.81	9.65	9.67	9.67	57.68	30.85	28.06
QUIC Cubic	5	74.06	15.59	26.97	46.53	45.71	46.20	1.26	9.25	2.01
SCReAM	5	0.21	0.18	0.21	9.26	9.97	9.96	0.00	1.73	0.00
Sprout	5	24.37	24.14	23.96	18.30	18.68	18.59	0.00	0.00	0.07
TaoVA-100x	5	11.39	7.61	8.84	11.20	13.04	12.35	85.35	87.03	86.76
TCP Vegas	5	54.04	41.96	44.41	14.46	11.86	11.73	0.63	0.00	0.01
Verus	5	49.97	30.84	26.56	45.00	45.07	44.54	28.08	32.07	30.80
PCC-Vivace	5	65.29	25.81	19.95	12.16	12.95	14.17	0.00	3.62	0.01
WebRTC media	5	0.05	0.05	0.05	8.05	8.29	8.98	0.00	0.00	0.00

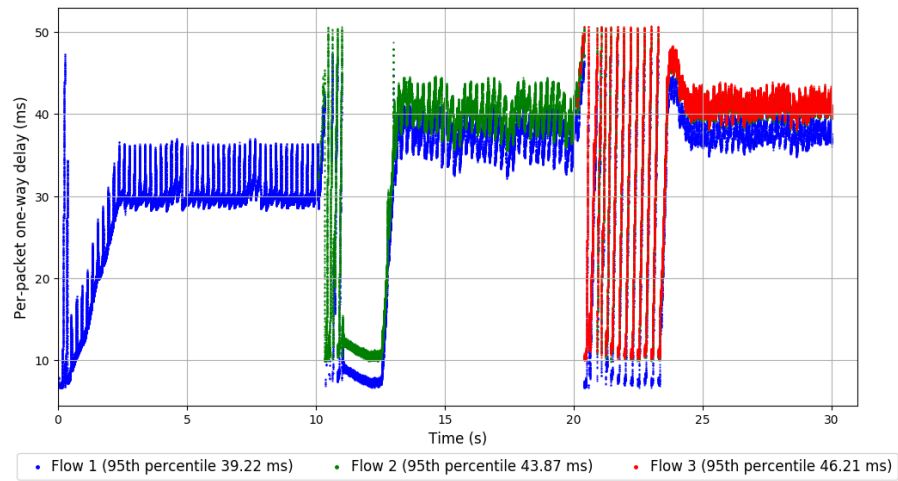
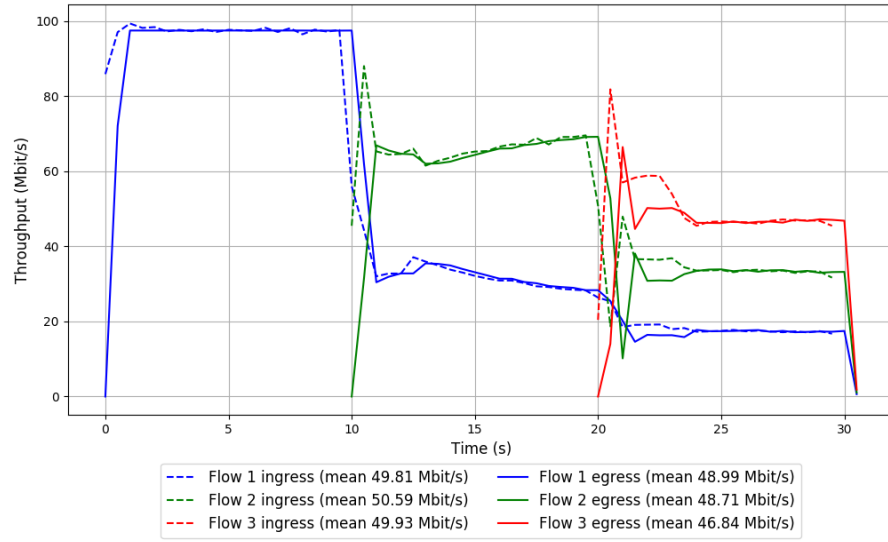


Run 1: Statistics of TCP BBR

Start at: 2019-07-12 04:24:18  
End at: 2019-07-12 04:24:48  
Local clock offset: -0.997 ms  
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-07-12 06:39:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.94 Mbit/s  
95th percentile per-packet one-way delay: 43.189 ms  
Loss rate: 3.05%  
-- Flow 1:  
Average throughput: 48.99 Mbit/s  
95th percentile per-packet one-way delay: 39.224 ms  
Loss rate: 1.54%  
-- Flow 2:  
Average throughput: 48.71 Mbit/s  
95th percentile per-packet one-way delay: 43.871 ms  
Loss rate: 3.71%  
-- Flow 3:  
Average throughput: 46.84 Mbit/s  
95th percentile per-packet one-way delay: 46.210 ms  
Loss rate: 6.24%

# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-07-12 04:53:27

End at: 2019-07-12 04:53:57

Local clock offset: -4.4 ms

Remote clock offset: 2.231 ms

# Below is generated by plot.py at 2019-07-12 06:39:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.97 Mbit/s

95th percentile per-packet one-way delay: 42.286 ms

Loss rate: 1.73%

-- Flow 1:

Average throughput: 51.52 Mbit/s

95th percentile per-packet one-way delay: 38.815 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 50.56 Mbit/s

95th percentile per-packet one-way delay: 43.326 ms

Loss rate: 2.62%

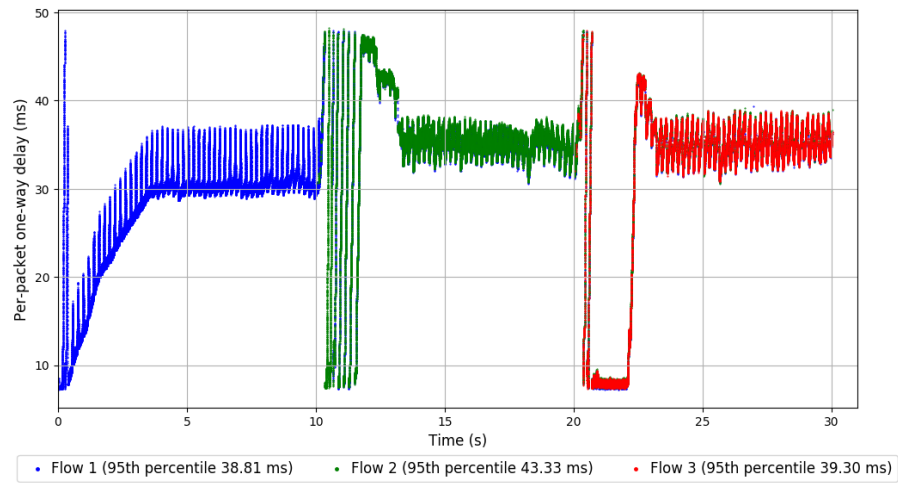
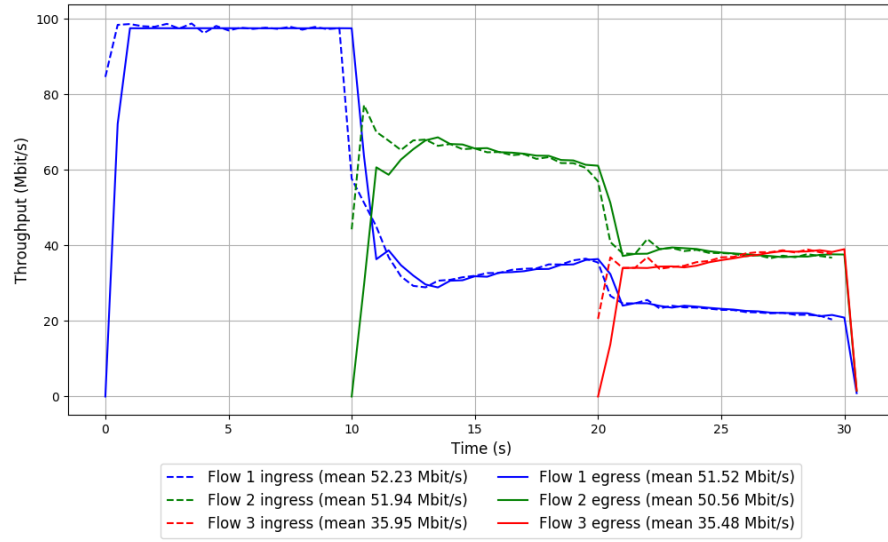
-- Flow 3:

Average throughput: 35.48 Mbit/s

95th percentile per-packet one-way delay: 39.299 ms

Loss rate: 1.26%

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



Run 3: Statistics of TCP BBR

Start at: 2019-07-12 05:22:47

End at: 2019-07-12 05:23:17

Local clock offset: -6.735 ms

Remote clock offset: 1.591 ms

# Below is generated by plot.py at 2019-07-12 06:39:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.95 Mbit/s

95th percentile per-packet one-way delay: 44.839 ms

Loss rate: 2.90%

-- Flow 1:

Average throughput: 56.86 Mbit/s

95th percentile per-packet one-way delay: 45.151 ms

Loss rate: 2.05%

-- Flow 2:

Average throughput: 39.87 Mbit/s

95th percentile per-packet one-way delay: 44.840 ms

Loss rate: 3.84%

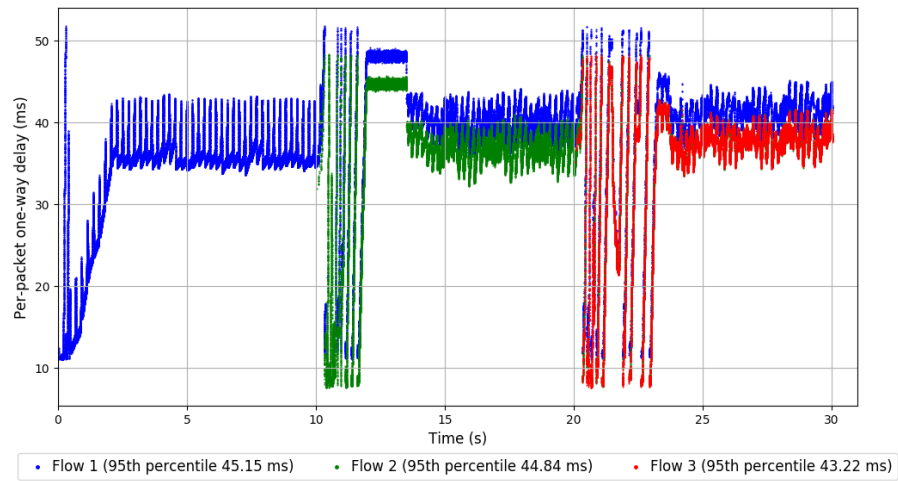
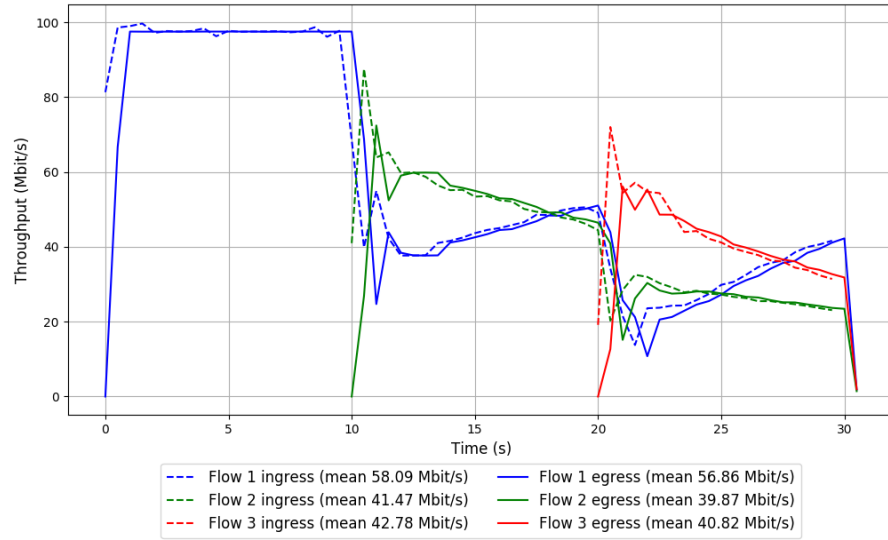
-- Flow 3:

Average throughput: 40.82 Mbit/s

95th percentile per-packet one-way delay: 43.217 ms

Loss rate: 4.57%

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

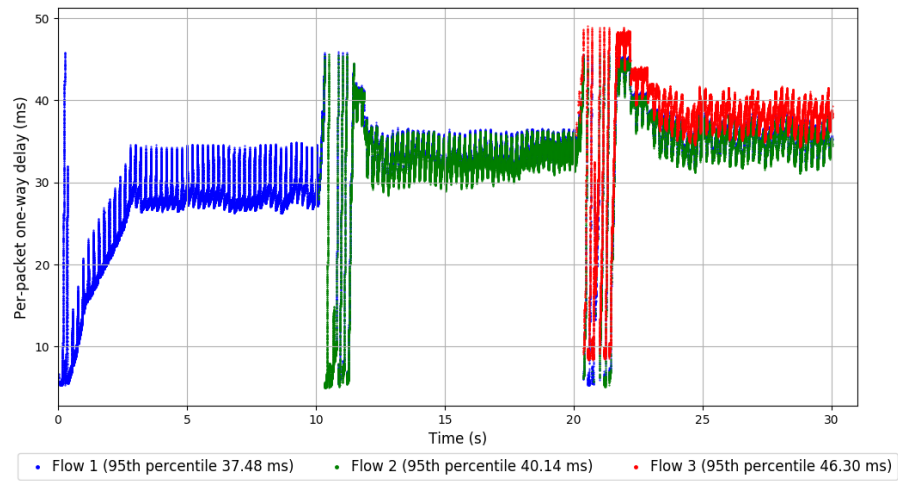
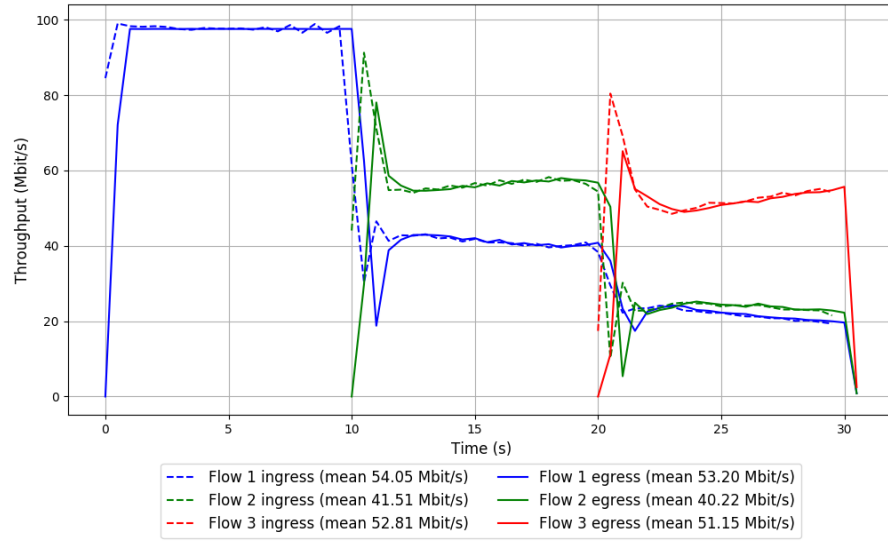


Run 4: Statistics of TCP BBR

Start at: 2019-07-12 05:51:46  
End at: 2019-07-12 05:52:16  
Local clock offset: -8.053 ms  
Remote clock offset: -1.111 ms

# Below is generated by plot.py at 2019-07-12 06:39:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.95 Mbit/s  
95th percentile per-packet one-way delay: 40.867 ms  
Loss rate: 2.22%  
-- Flow 1:  
Average throughput: 53.20 Mbit/s  
95th percentile per-packet one-way delay: 37.480 ms  
Loss rate: 1.47%  
-- Flow 2:  
Average throughput: 40.22 Mbit/s  
95th percentile per-packet one-way delay: 40.140 ms  
Loss rate: 3.11%  
-- Flow 3:  
Average throughput: 51.15 Mbit/s  
95th percentile per-packet one-way delay: 46.295 ms  
Loss rate: 3.12%

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



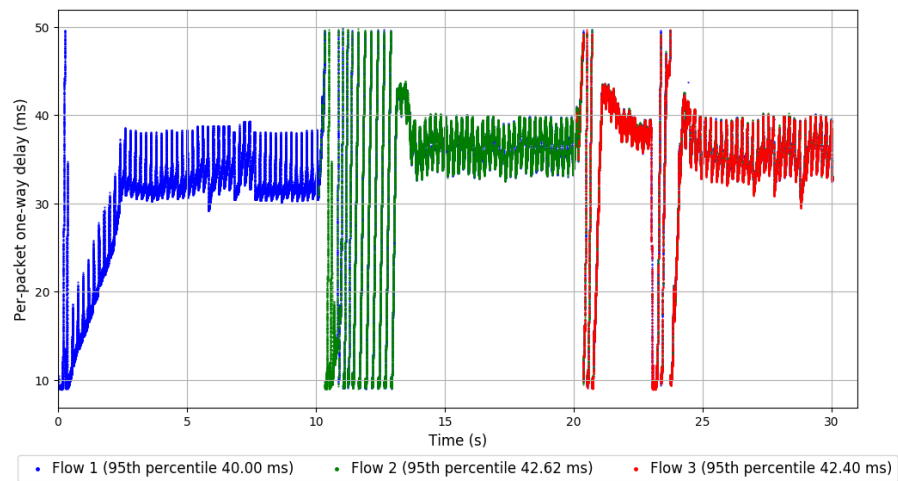
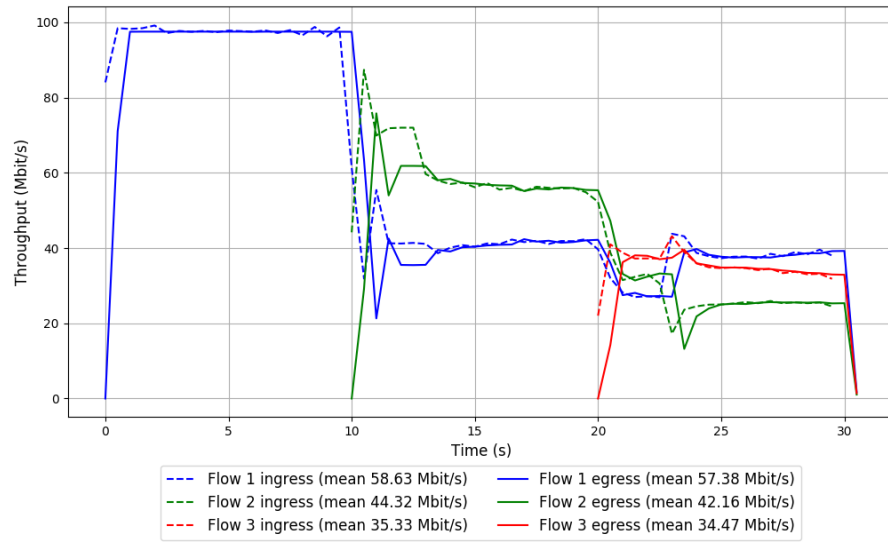


Run 5: Statistics of TCP BBR

Start at: 2019-07-12 06:21:03  
End at: 2019-07-12 06:21:33  
Local clock offset: -1.229 ms  
Remote clock offset: -0.385 ms

# Below is generated by plot.py at 2019-07-12 06:39:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.89 Mbit/s  
95th percentile per-packet one-way delay: 41.664 ms  
Loss rate: 2.93%  
-- Flow 1:  
Average throughput: 57.38 Mbit/s  
95th percentile per-packet one-way delay: 40.001 ms  
Loss rate: 2.05%  
-- Flow 2:  
Average throughput: 42.16 Mbit/s  
95th percentile per-packet one-way delay: 42.622 ms  
Loss rate: 4.88%  
-- Flow 3:  
Average throughput: 34.47 Mbit/s  
95th percentile per-packet one-way delay: 42.401 ms  
Loss rate: 2.45%

# Run 5: Report of TCP BBR — Data Link

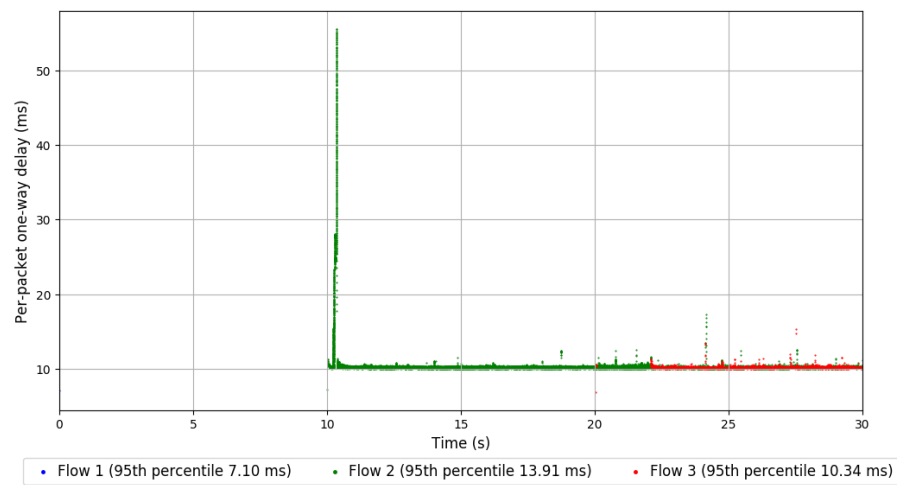
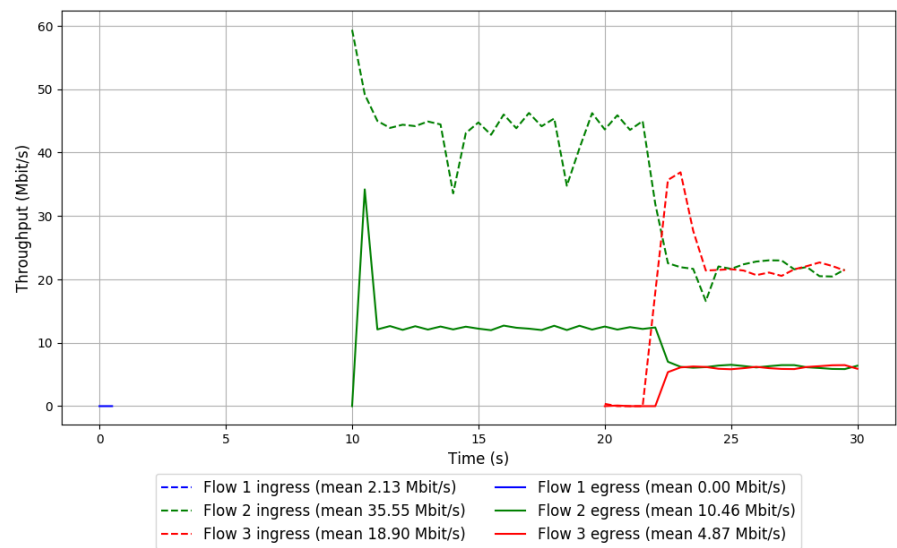


Run 1: Statistics of Copa

Start at: 2019-07-12 04:26:44  
End at: 2019-07-12 04:27:14  
Local clock offset: -1.235 ms  
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-07-12 06:39:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.58 Mbit/s  
95th percentile per-packet one-way delay: 11.089 ms  
Loss rate: 71.36%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 7.100 ms  
Loss rate: 98.33%  
-- Flow 2:  
Average throughput: 10.46 Mbit/s  
95th percentile per-packet one-way delay: 13.908 ms  
Loss rate: 70.59%  
-- Flow 3:  
Average throughput: 4.87 Mbit/s  
95th percentile per-packet one-way delay: 10.335 ms  
Loss rate: 74.25%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-07-12 04:55:50

End at: 2019-07-12 04:56:20

Local clock offset: -4.228 ms

Remote clock offset: 1.324 ms

# Below is generated by plot.py at 2019-07-12 06:39:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.58 Mbit/s

95th percentile per-packet one-way delay: 10.512 ms

Loss rate: 71.96%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 6.232 ms

Loss rate: 98.33%

-- Flow 2:

Average throughput: 9.72 Mbit/s

95th percentile per-packet one-way delay: 14.949 ms

Loss rate: 70.25%

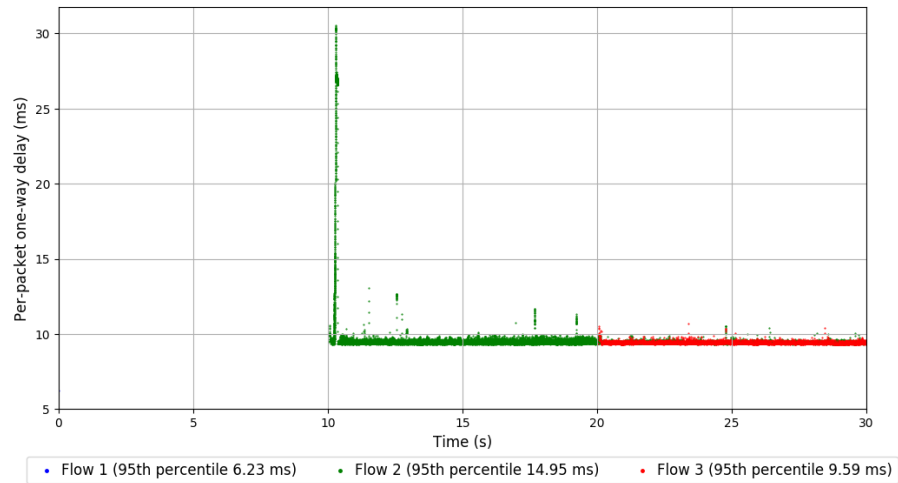
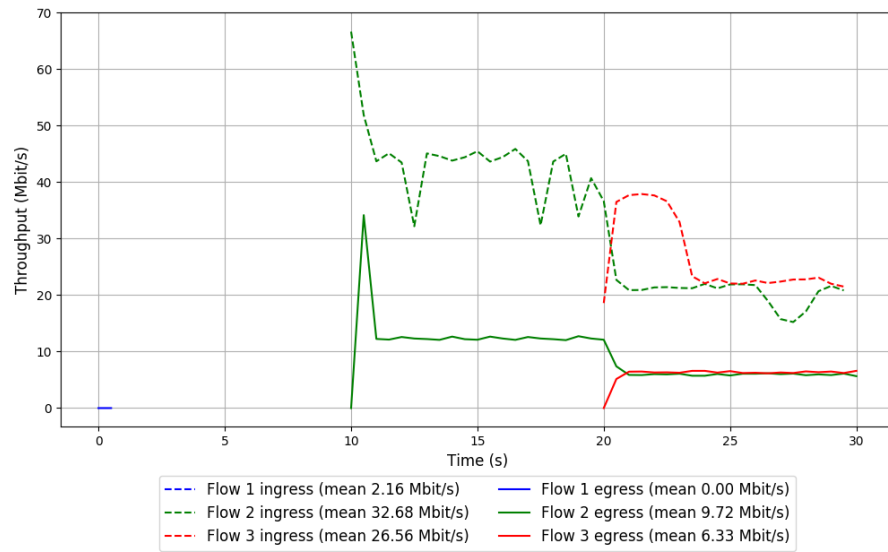
-- Flow 3:

Average throughput: 6.33 Mbit/s

95th percentile per-packet one-way delay: 9.586 ms

Loss rate: 76.17%

## Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-07-12 05:25:16

End at: 2019-07-12 05:25:46

Local clock offset: -6.464 ms

Remote clock offset: 2.593 ms

# Below is generated by plot.py at 2019-07-12 06:39:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.58 Mbit/s

95th percentile per-packet one-way delay: 12.374 ms

Loss rate: 71.51%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 8.479 ms

Loss rate: 98.60%

-- Flow 2:

Average throughput: 11.09 Mbit/s

95th percentile per-packet one-way delay: 13.918 ms

Loss rate: 70.63%

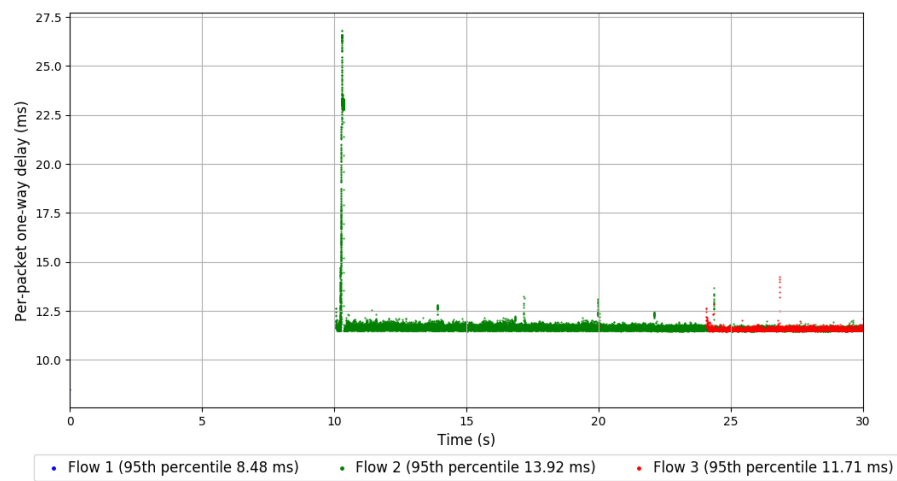
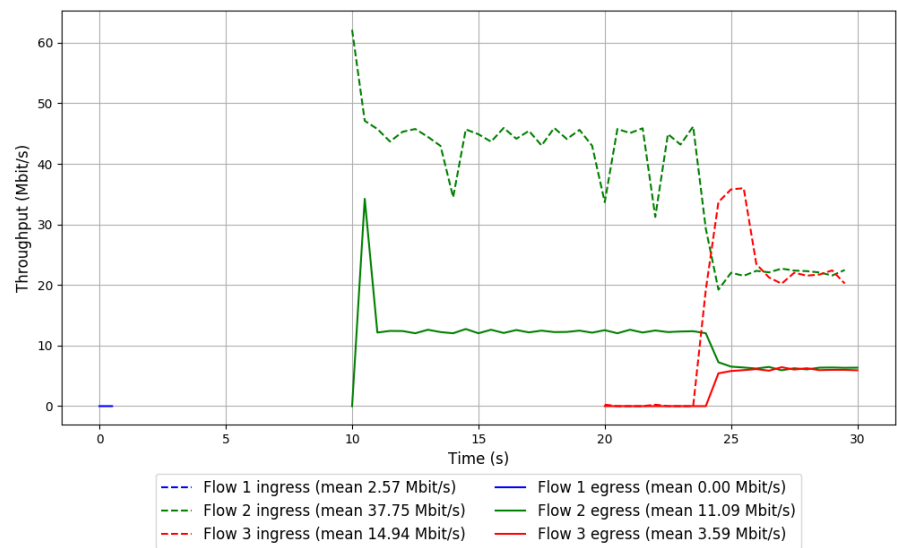
-- Flow 3:

Average throughput: 3.59 Mbit/s

95th percentile per-packet one-way delay: 11.706 ms

Loss rate: 75.94%

Run 3: Report of Copa — Data Link





Run 4: Statistics of Copa

Start at: 2019-07-12 05:54:12

End at: 2019-07-12 05:54:42

Local clock offset: -9.848 ms

Remote clock offset: 1.575 ms

# Below is generated by plot.py at 2019-07-12 06:39:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.58 Mbit/s

95th percentile per-packet one-way delay: 13.538 ms

Loss rate: 72.58%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 10.599 ms

Loss rate: 97.92%

-- Flow 2:

Average throughput: 10.62 Mbit/s

95th percentile per-packet one-way delay: 16.194 ms

Loss rate: 71.21%

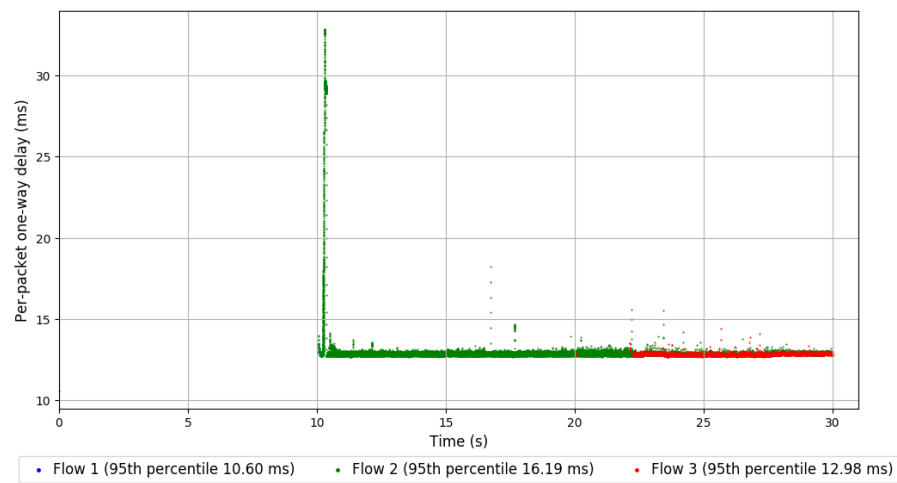
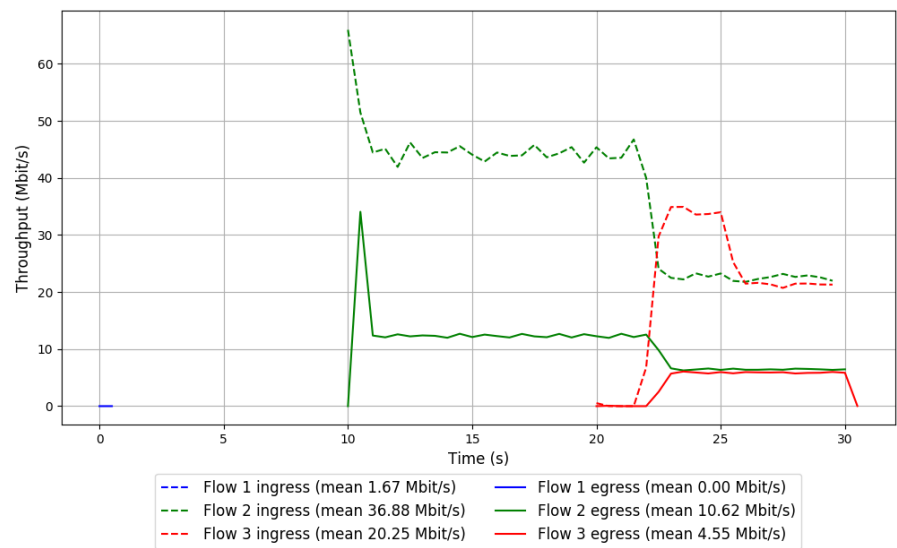
-- Flow 3:

Average throughput: 4.55 Mbit/s

95th percentile per-packet one-way delay: 12.977 ms

Loss rate: 77.56%

Run 4: Report of Copa — Data Link

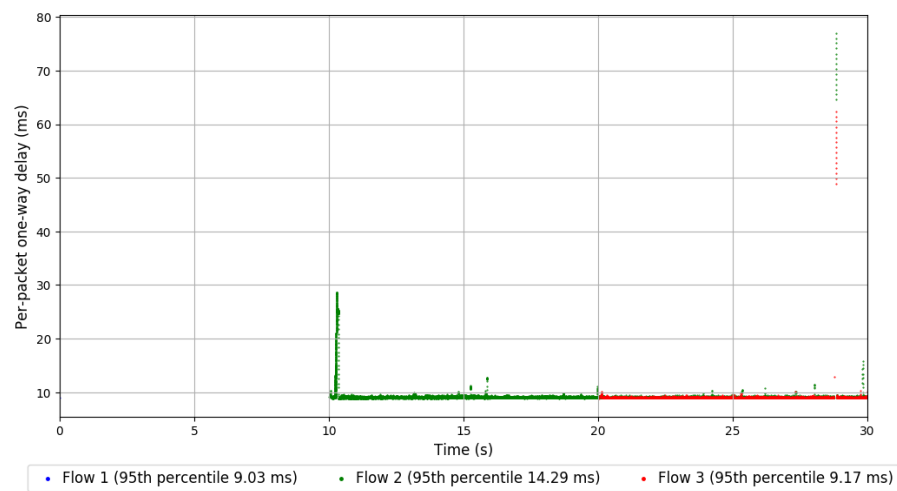
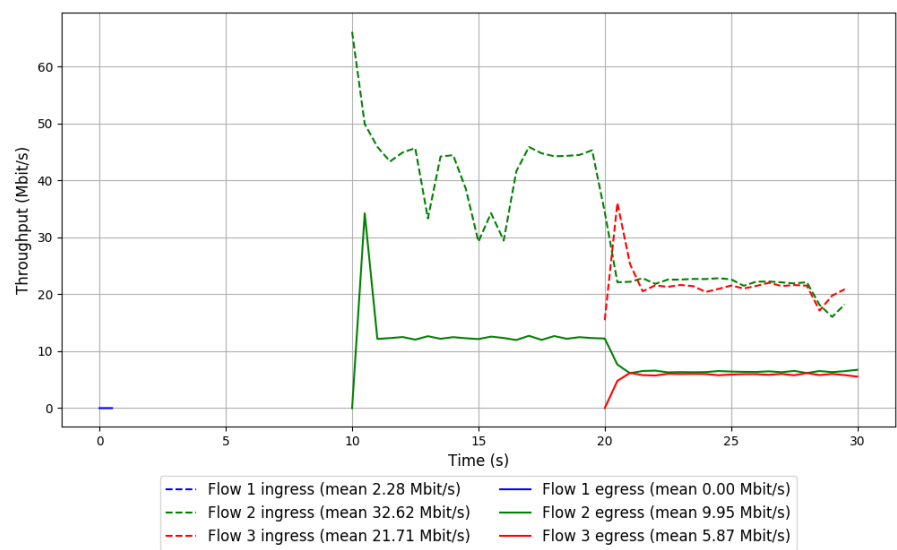


Run 5: Statistics of Copa

Start at: 2019-07-12 06:23:38  
End at: 2019-07-12 06:24:08  
Local clock offset: -0.162 ms  
Remote clock offset: -2.952 ms

# Below is generated by plot.py at 2019-07-12 06:39:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.58 Mbit/s  
95th percentile per-packet one-way delay: 10.200 ms  
Loss rate: 70.36%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 9.028 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 9.95 Mbit/s  
95th percentile per-packet one-way delay: 14.292 ms  
Loss rate: 69.49%  
-- Flow 3:  
Average throughput: 5.87 Mbit/s  
95th percentile per-packet one-way delay: 9.172 ms  
Loss rate: 72.95%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-07-12 04:16:54

End at: 2019-07-12 04:17:24

Local clock offset: -0.741 ms

Remote clock offset: 0.644 ms

# Below is generated by plot.py at 2019-07-12 06:39:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.40 Mbit/s

95th percentile per-packet one-way delay: 44.331 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 69.08 Mbit/s

95th percentile per-packet one-way delay: 43.851 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 27.00 Mbit/s

95th percentile per-packet one-way delay: 45.981 ms

Loss rate: 0.71%

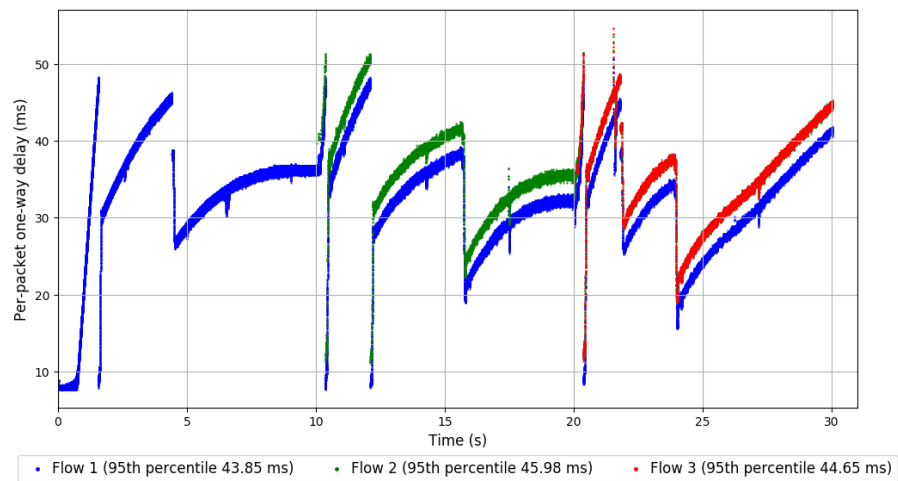
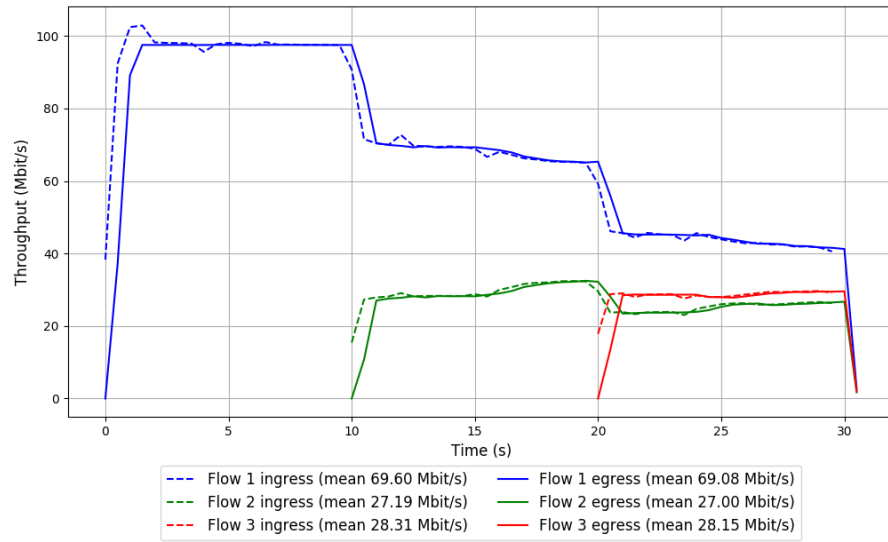
-- Flow 3:

Average throughput: 28.15 Mbit/s

95th percentile per-packet one-way delay: 44.649 ms

Loss rate: 0.51%

# Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-07-12 04:46:12

End at: 2019-07-12 04:46:42

Local clock offset: -4.652 ms

Remote clock offset: 0.826 ms

# Below is generated by plot.py at 2019-07-12 06:40:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.07 Mbit/s

95th percentile per-packet one-way delay: 46.639 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 59.71 Mbit/s

95th percentile per-packet one-way delay: 47.495 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 42.39 Mbit/s

95th percentile per-packet one-way delay: 45.374 ms

Loss rate: 0.71%

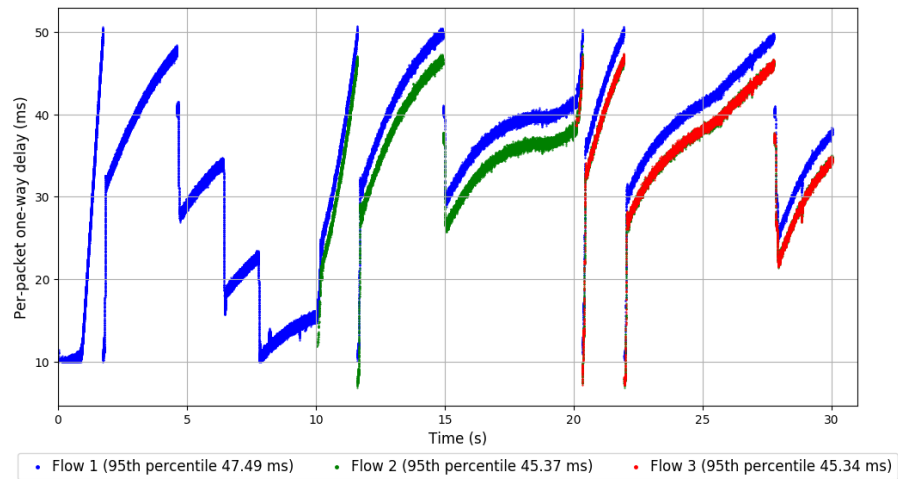
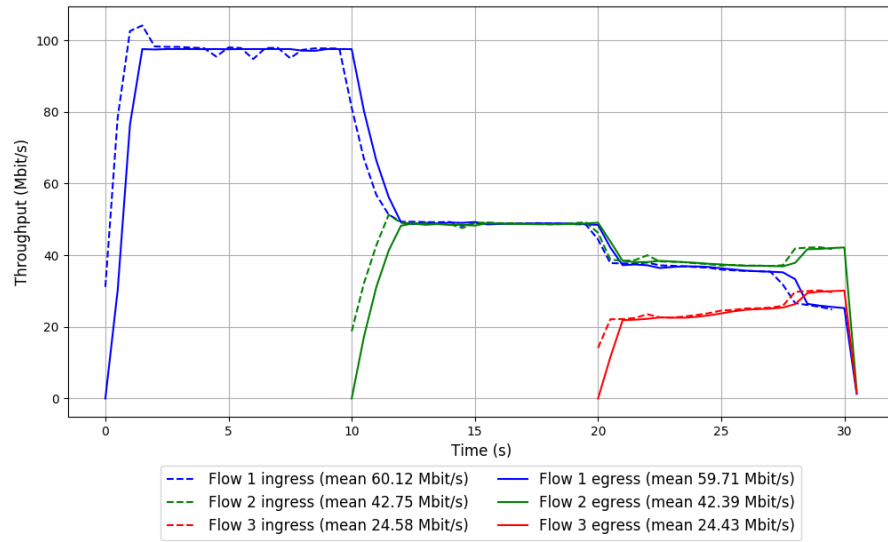
-- Flow 3:

Average throughput: 24.43 Mbit/s

95th percentile per-packet one-way delay: 45.341 ms

Loss rate: 0.66%

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





Run 3: Statistics of TCP Cubic

Start at: 2019-07-12 05:15:26

End at: 2019-07-12 05:15:56

Local clock offset: -6.425 ms

Remote clock offset: 0.163 ms

# Below is generated by plot.py at 2019-07-12 06:40:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.07 Mbit/s

95th percentile per-packet one-way delay: 47.796 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 73.35 Mbit/s

95th percentile per-packet one-way delay: 47.784 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 29.47 Mbit/s

95th percentile per-packet one-way delay: 48.134 ms

Loss rate: 1.10%

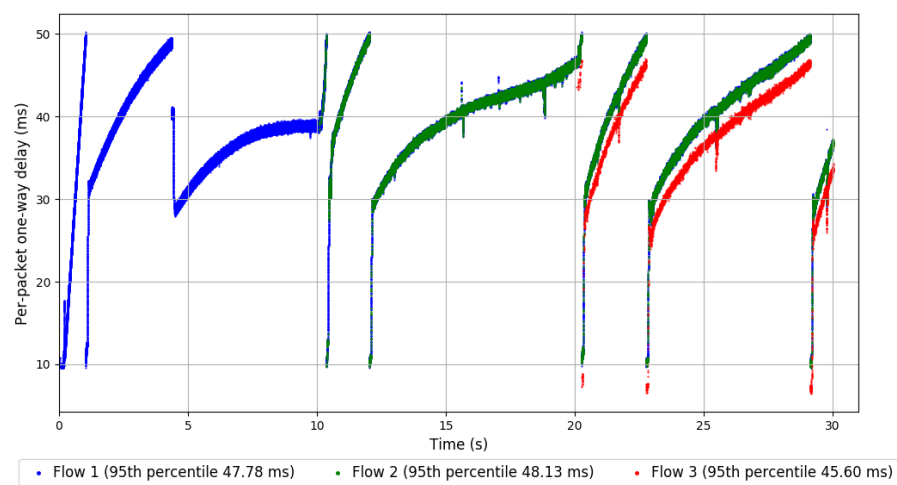
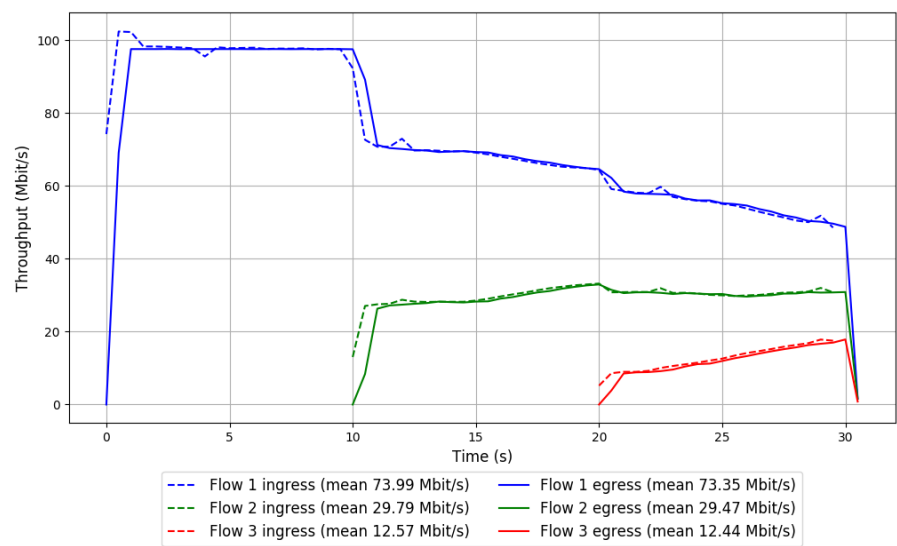
-- Flow 3:

Average throughput: 12.44 Mbit/s

95th percentile per-packet one-way delay: 45.596 ms

Loss rate: 1.18%

Run 3: Report of TCP Cubic — Data Link

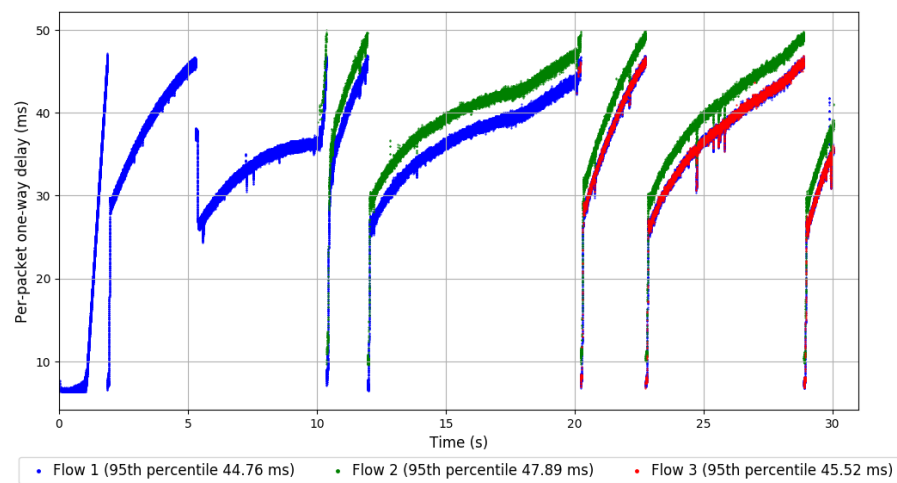
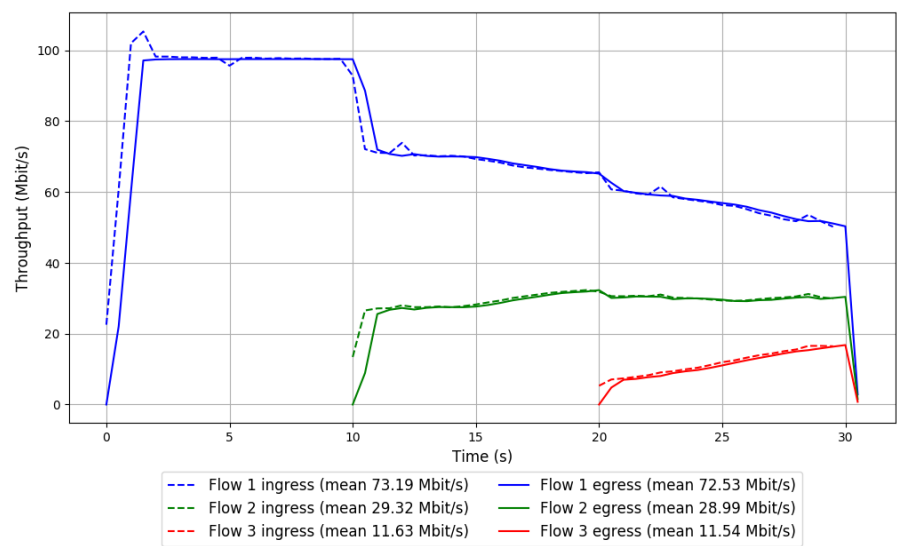


Run 4: Statistics of TCP Cubic

Start at: 2019-07-12 05:44:29  
End at: 2019-07-12 05:44:59  
Local clock offset: -8.917 ms  
Remote clock offset: -1.094 ms

# Below is generated by plot.py at 2019-07-12 06:40:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.65 Mbit/s  
95th percentile per-packet one-way delay: 45.689 ms  
Loss rate: 0.86%  
-- Flow 1:  
Average throughput: 72.53 Mbit/s  
95th percentile per-packet one-way delay: 44.755 ms  
Loss rate: 0.80%  
-- Flow 2:  
Average throughput: 28.99 Mbit/s  
95th percentile per-packet one-way delay: 47.890 ms  
Loss rate: 1.12%  
-- Flow 3:  
Average throughput: 11.54 Mbit/s  
95th percentile per-packet one-way delay: 45.524 ms  
Loss rate: 0.85%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-07-12 06:13:50

End at: 2019-07-12 06:14:20

Local clock offset: -5.756 ms

Remote clock offset: 0.122 ms

# Below is generated by plot.py at 2019-07-12 06:40:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.93 Mbit/s

95th percentile per-packet one-way delay: 51.224 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 69.82 Mbit/s

95th percentile per-packet one-way delay: 51.086 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 27.54 Mbit/s

95th percentile per-packet one-way delay: 51.340 ms

Loss rate: 1.08%

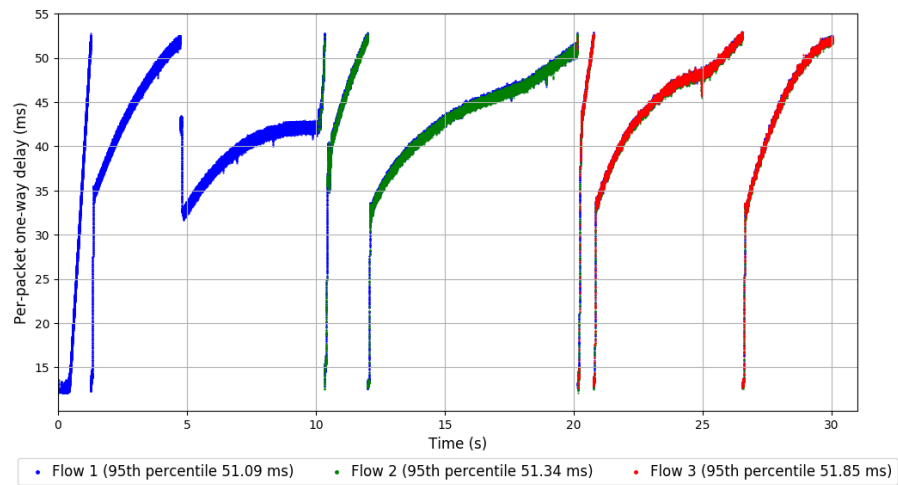
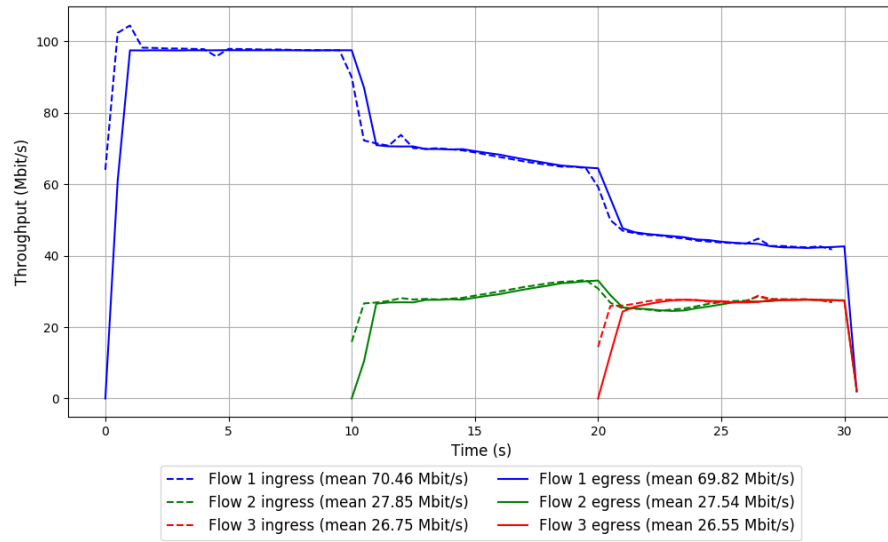
-- Flow 3:

Average throughput: 26.55 Mbit/s

95th percentile per-packet one-way delay: 51.851 ms

Loss rate: 0.75%

# Run 5: Report of TCP Cubic — Data Link

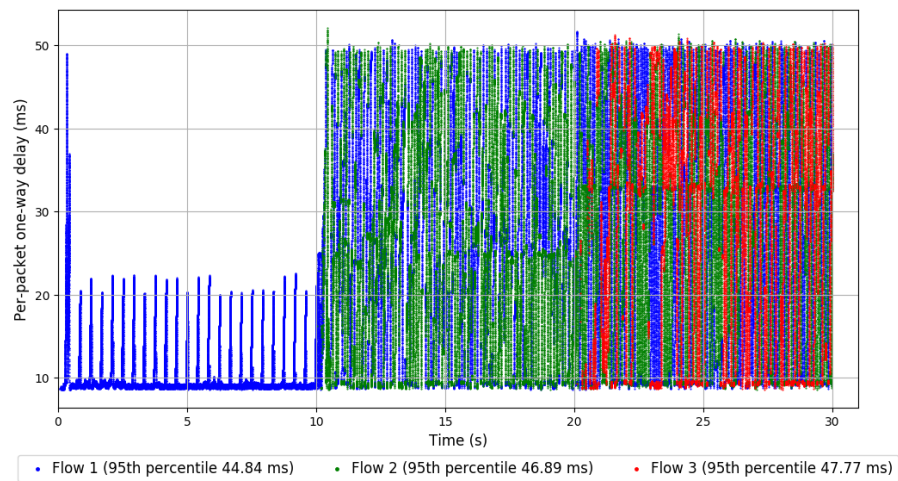
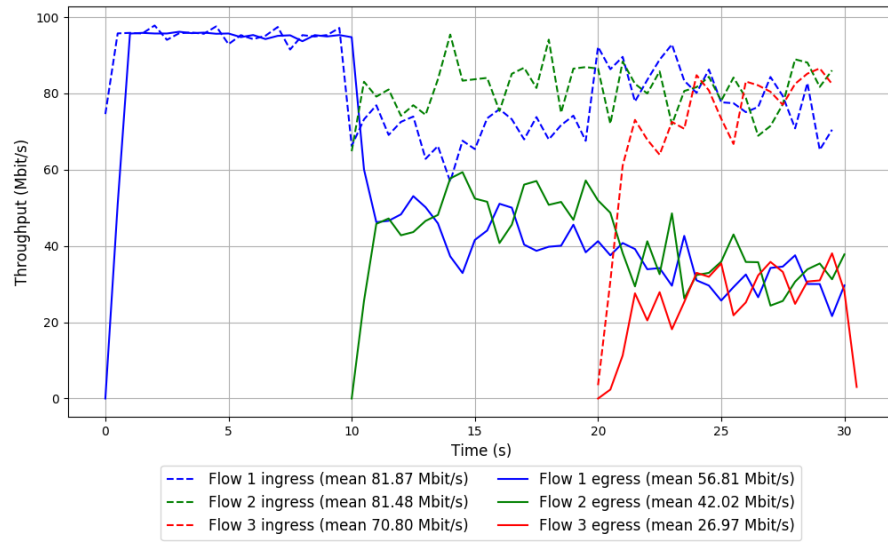


Run 1: Statistics of FillP

Start at: 2019-07-12 04:13:24  
End at: 2019-07-12 04:13:54  
Local clock offset: -0.915 ms  
Remote clock offset: -1.926 ms

# Below is generated by plot.py at 2019-07-12 06:41:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.61 Mbit/s  
95th percentile per-packet one-way delay: 46.030 ms  
Loss rate: 41.26%  
-- Flow 1:  
Average throughput: 56.81 Mbit/s  
95th percentile per-packet one-way delay: 44.838 ms  
Loss rate: 30.61%  
-- Flow 2:  
Average throughput: 42.02 Mbit/s  
95th percentile per-packet one-way delay: 46.889 ms  
Loss rate: 48.39%  
-- Flow 3:  
Average throughput: 26.97 Mbit/s  
95th percentile per-packet one-way delay: 47.775 ms  
Loss rate: 61.85%

# Run 1: Report of FillP — Data Link





Run 2: Statistics of FillP

Start at: 2019-07-12 04:42:42

End at: 2019-07-12 04:43:12

Local clock offset: -3.237 ms

Remote clock offset: 1.958 ms

# Below is generated by plot.py at 2019-07-12 06:41:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.06 Mbit/s

95th percentile per-packet one-way delay: 45.237 ms

Loss rate: 34.56%

-- Flow 1:

Average throughput: 54.42 Mbit/s

95th percentile per-packet one-way delay: 43.181 ms

Loss rate: 28.39%

-- Flow 2:

Average throughput: 49.01 Mbit/s

95th percentile per-packet one-way delay: 47.399 ms

Loss rate: 40.14%

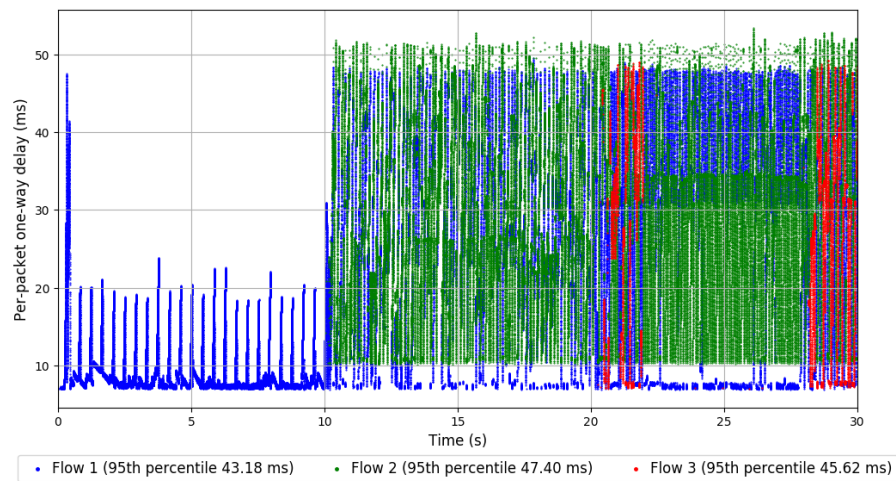
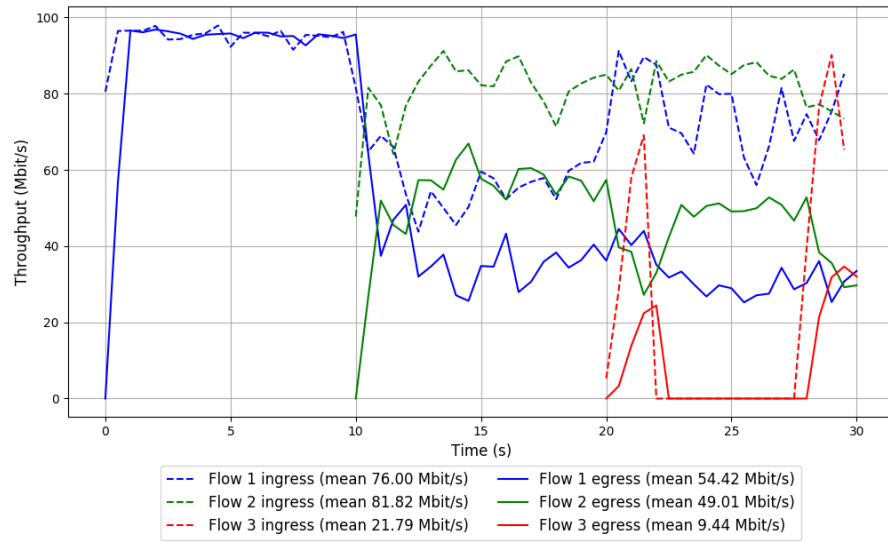
-- Flow 3:

Average throughput: 9.44 Mbit/s

95th percentile per-packet one-way delay: 45.617 ms

Loss rate: 57.47%

## Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-07-12 05:11:55

End at: 2019-07-12 05:12:25

Local clock offset: -5.843 ms

Remote clock offset: 1.475 ms

# Below is generated by plot.py at 2019-07-12 06:41:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.33 Mbit/s

95th percentile per-packet one-way delay: 46.152 ms

Loss rate: 38.12%

-- Flow 1:

Average throughput: 56.02 Mbit/s

95th percentile per-packet one-way delay: 42.356 ms

Loss rate: 29.21%

-- Flow 2:

Average throughput: 45.35 Mbit/s

95th percentile per-packet one-way delay: 48.736 ms

Loss rate: 44.43%

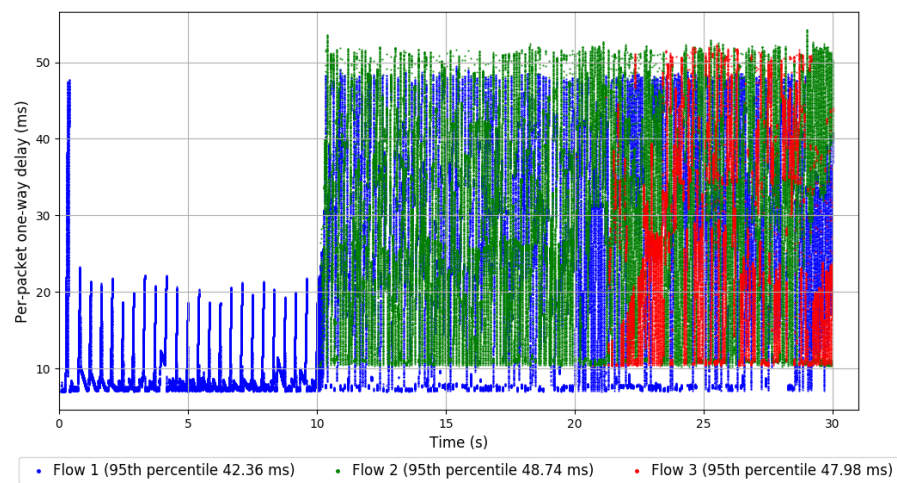
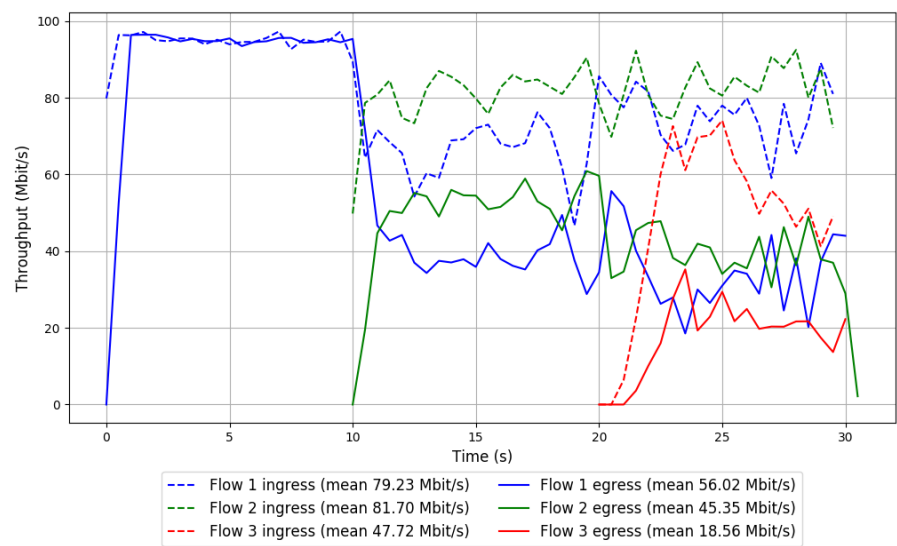
-- Flow 3:

Average throughput: 18.56 Mbit/s

95th percentile per-packet one-way delay: 47.975 ms

Loss rate: 61.07%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-07-12 05:41:02

End at: 2019-07-12 05:41:32

Local clock offset: -8.592 ms

Remote clock offset: 0.482 ms

# Below is generated by plot.py at 2019-07-12 06:41:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.91 Mbit/s

95th percentile per-packet one-way delay: 45.328 ms

Loss rate: 39.88%

-- Flow 1:

Average throughput: 55.63 Mbit/s

95th percentile per-packet one-way delay: 43.023 ms

Loss rate: 29.82%

-- Flow 2:

Average throughput: 40.16 Mbit/s

95th percentile per-packet one-way delay: 45.877 ms

Loss rate: 46.43%

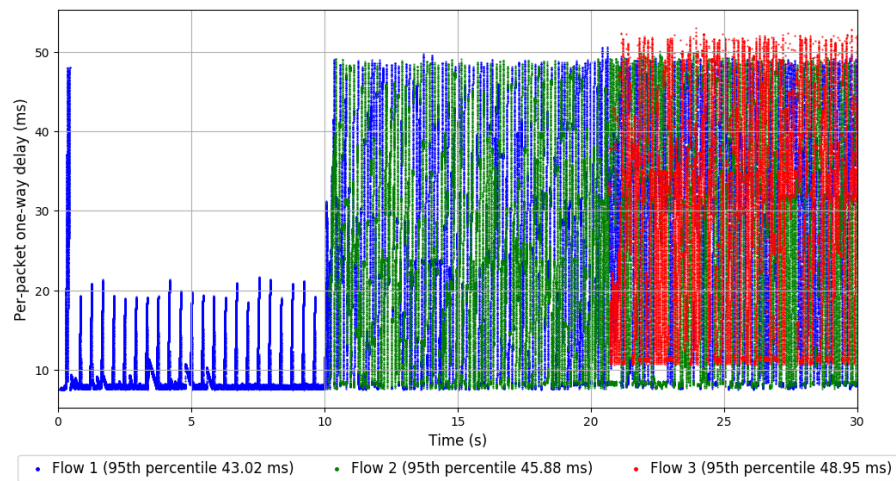
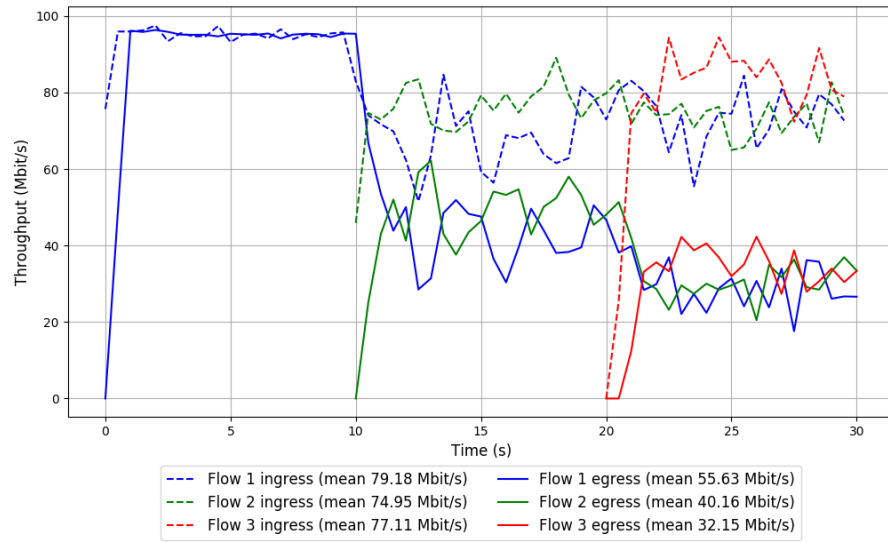
-- Flow 3:

Average throughput: 32.15 Mbit/s

95th percentile per-packet one-way delay: 48.955 ms

Loss rate: 58.22%

# Run 4: Report of FillP — Data Link

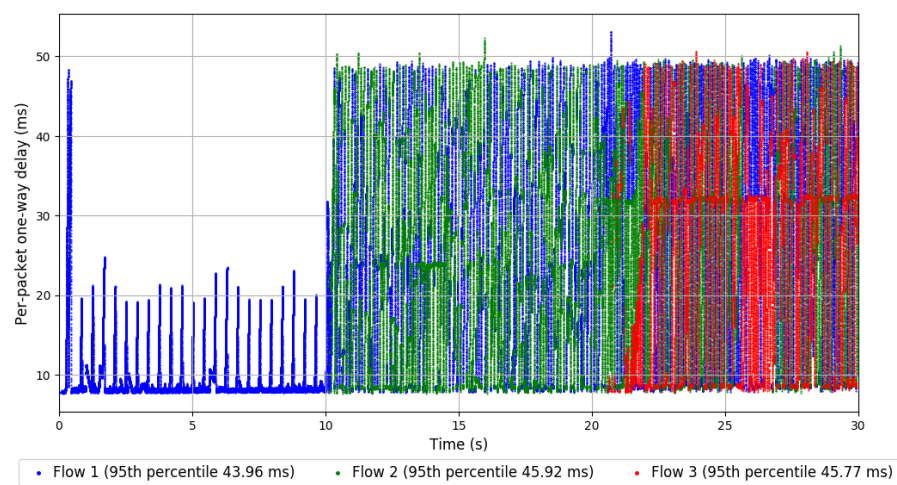
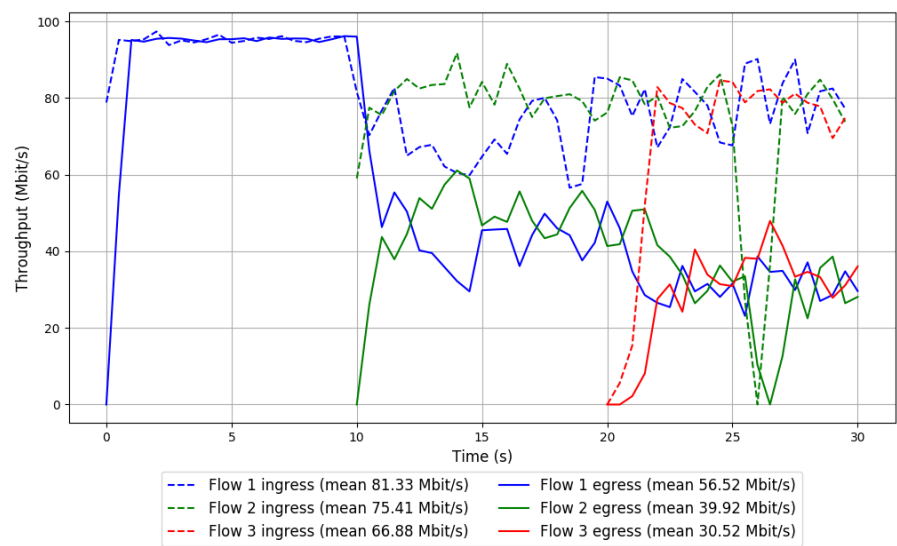


Run 5: Statistics of FillP

Start at: 2019-07-12 06:10:20  
End at: 2019-07-12 06:10:50  
Local clock offset: -3.216 ms  
Remote clock offset: -0.528 ms

# Below is generated by plot.py at 2019-07-12 06:41:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.93 Mbit/s  
95th percentile per-packet one-way delay: 44.943 ms  
Loss rate: 39.52%  
-- Flow 1:  
Average throughput: 56.52 Mbit/s  
95th percentile per-packet one-way delay: 43.959 ms  
Loss rate: 30.50%  
-- Flow 2:  
Average throughput: 39.92 Mbit/s  
95th percentile per-packet one-way delay: 45.919 ms  
Loss rate: 47.12%  
-- Flow 3:  
Average throughput: 30.52 Mbit/s  
95th percentile per-packet one-way delay: 45.767 ms  
Loss rate: 55.43%

Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2019-07-12 04:18:10

End at: 2019-07-12 04:18:40

Local clock offset: -1.485 ms

Remote clock offset: -1.52 ms

# Below is generated by plot.py at 2019-07-12 06:41:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.41 Mbit/s

95th percentile per-packet one-way delay: 41.081 ms

Loss rate: 7.34%

-- Flow 1:

Average throughput: 51.72 Mbit/s

95th percentile per-packet one-way delay: 37.576 ms

Loss rate: 4.51%

-- Flow 2:

Average throughput: 39.08 Mbit/s

95th percentile per-packet one-way delay: 43.318 ms

Loss rate: 8.68%

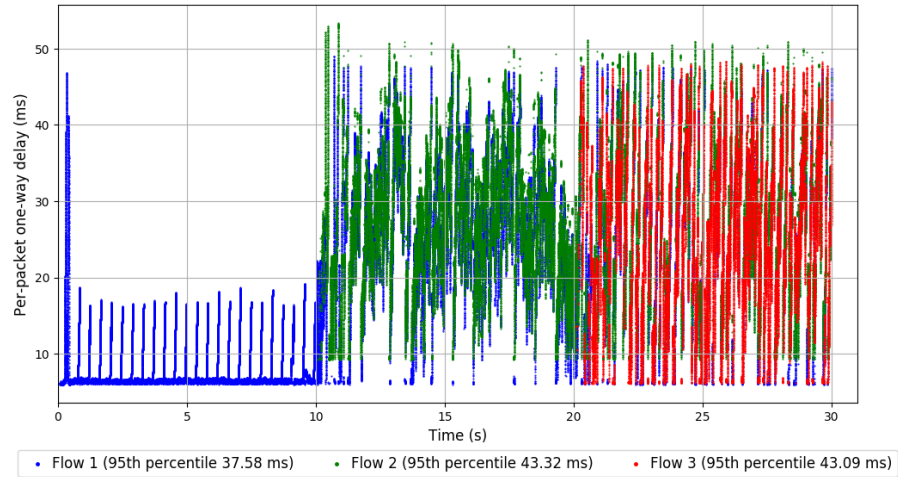
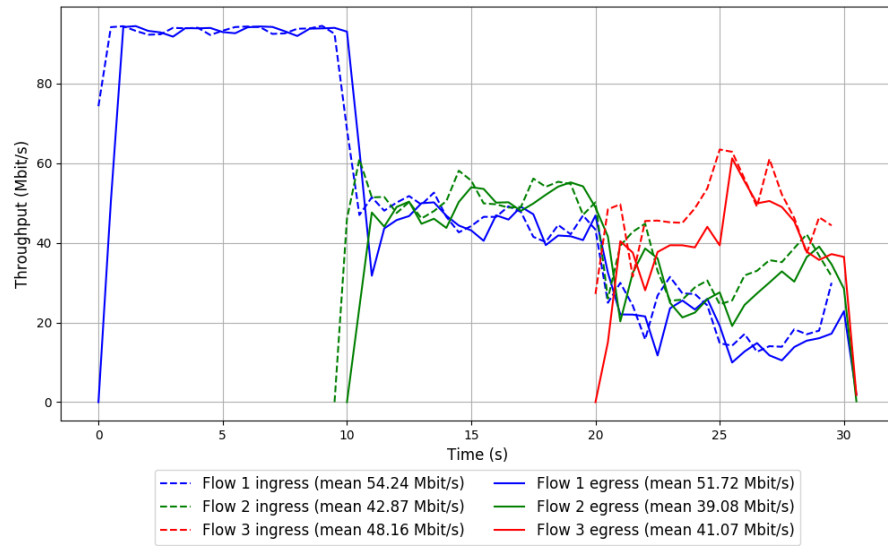
-- Flow 3:

Average throughput: 41.07 Mbit/s

95th percentile per-packet one-way delay: 43.093 ms

Loss rate: 14.51%

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



Run 2: Statistics of FillP-Sheep

Start at: 2019-07-12 04:47:29

End at: 2019-07-12 04:47:59

Local clock offset: -4.272 ms

Remote clock offset: 2.566 ms

# Below is generated by plot.py at 2019-07-12 06:41:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 56.93 Mbit/s

95th percentile per-packet one-way delay: 44.116 ms

Loss rate: 8.04%

-- Flow 1:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 34.244 ms

Loss rate: 20.90%

-- Flow 2:

Average throughput: 61.77 Mbit/s

95th percentile per-packet one-way delay: 40.133 ms

Loss rate: 5.52%

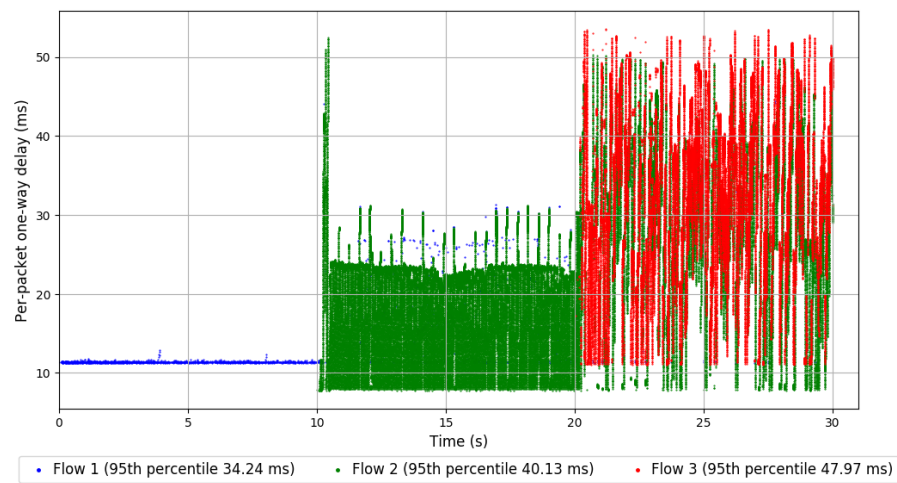
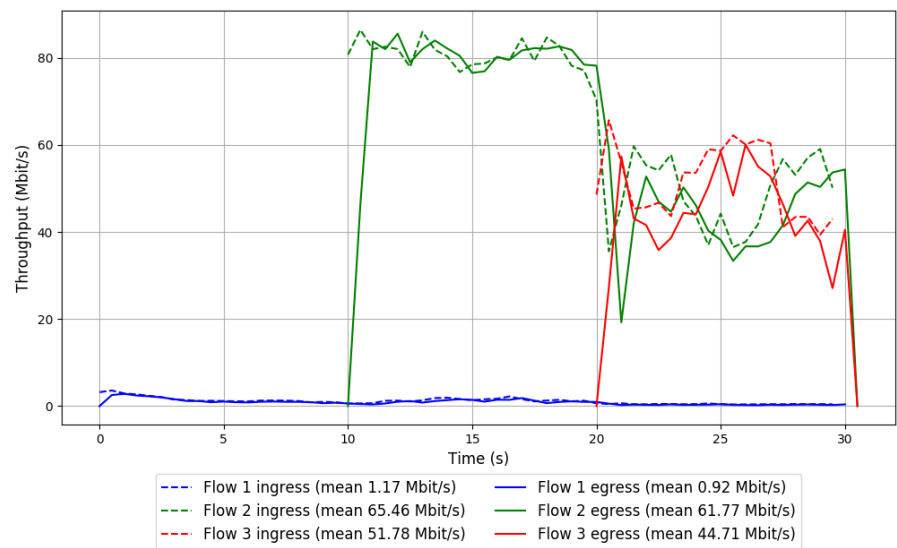
-- Flow 3:

Average throughput: 44.71 Mbit/s

95th percentile per-packet one-way delay: 47.972 ms

Loss rate: 13.56%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-07-12 05:16:43

End at: 2019-07-12 05:17:13

Local clock offset: -7.188 ms

Remote clock offset: 0.29 ms

# Below is generated by plot.py at 2019-07-12 06:42:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.05 Mbit/s

95th percentile per-packet one-way delay: 40.029 ms

Loss rate: 6.40%

-- Flow 1:

Average throughput: 56.51 Mbit/s

95th percentile per-packet one-way delay: 36.847 ms

Loss rate: 4.46%

-- Flow 2:

Average throughput: 39.61 Mbit/s

95th percentile per-packet one-way delay: 40.771 ms

Loss rate: 7.47%

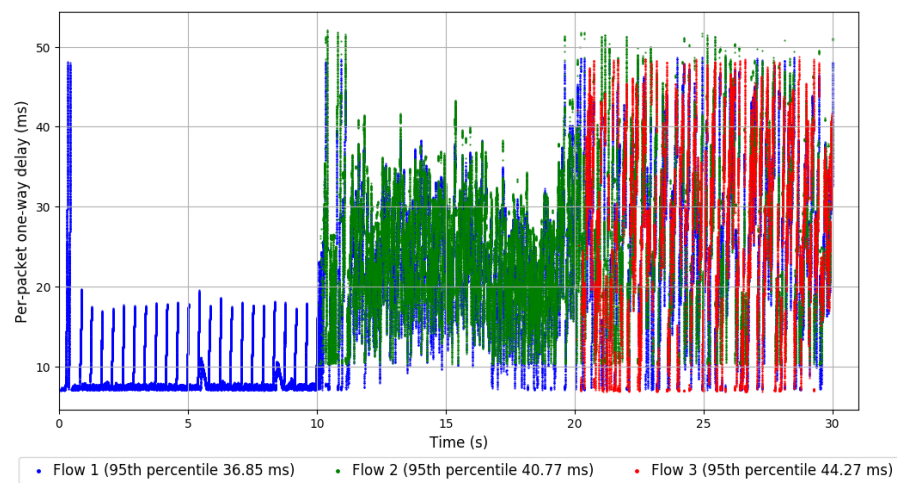
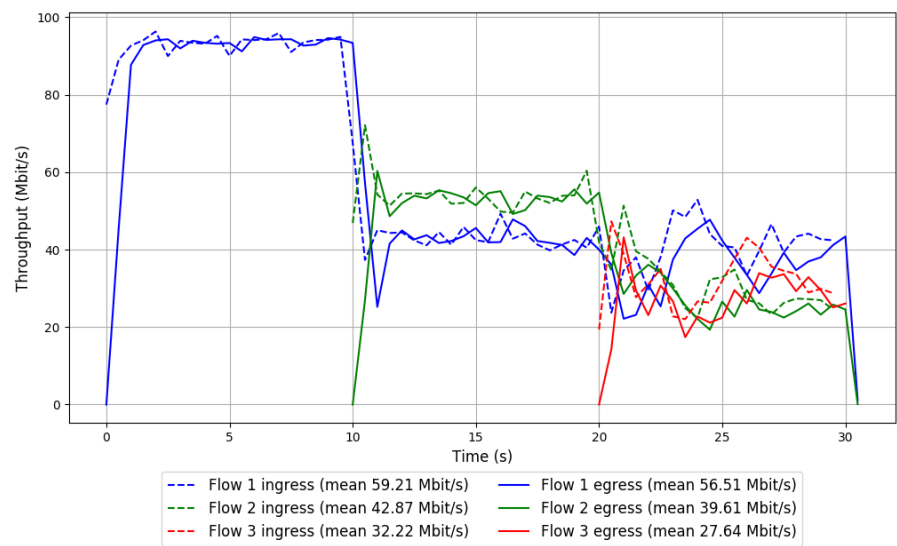
-- Flow 3:

Average throughput: 27.64 Mbit/s

95th percentile per-packet one-way delay: 44.267 ms

Loss rate: 14.29%

Run 3: Report of FillP-Sheep — Data Link

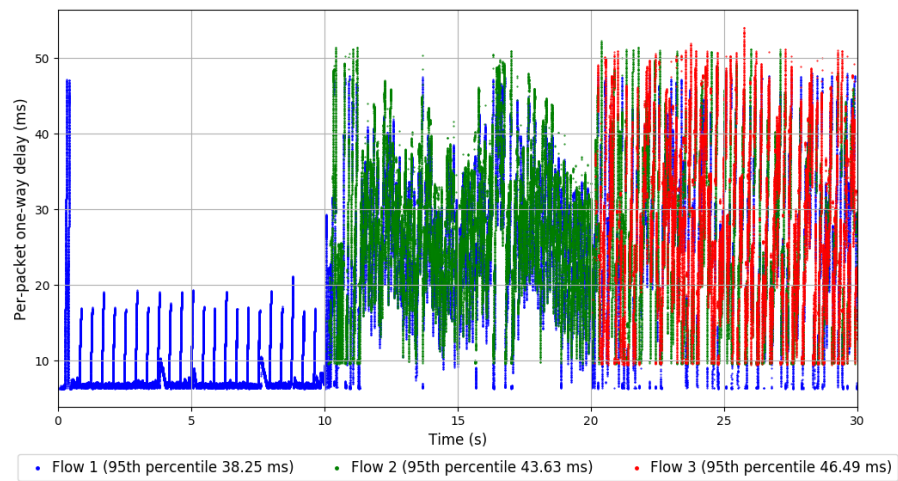
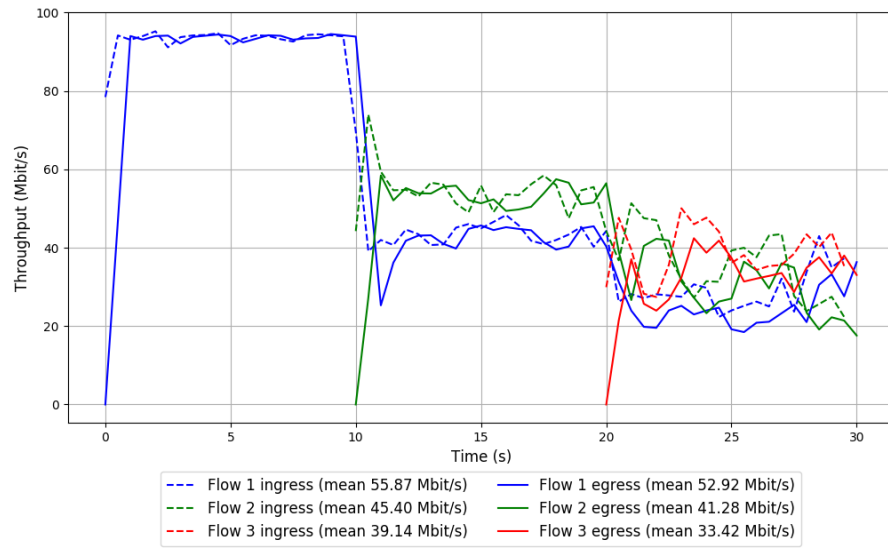


Run 4: Statistics of FillP-Sheep

Start at: 2019-07-12 05:45:41  
End at: 2019-07-12 05:46:11  
Local clock offset: -8.346 ms  
Remote clock offset: -0.344 ms

# Below is generated by plot.py at 2019-07-12 06:42:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.44 Mbit/s  
95th percentile per-packet one-way delay: 42.122 ms  
Loss rate: 7.70%  
-- Flow 1:  
Average throughput: 52.92 Mbit/s  
95th percentile per-packet one-way delay: 38.251 ms  
Loss rate: 5.29%  
-- Flow 2:  
Average throughput: 41.28 Mbit/s  
95th percentile per-packet one-way delay: 43.633 ms  
Loss rate: 9.16%  
-- Flow 3:  
Average throughput: 33.42 Mbit/s  
95th percentile per-packet one-way delay: 46.487 ms  
Loss rate: 14.65%

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





Run 5: Statistics of FillP-Sheep

Start at: 2019-07-12 06:15:04

End at: 2019-07-12 06:15:34

Local clock offset: -2.435 ms

Remote clock offset: 0.093 ms

# Below is generated by plot.py at 2019-07-12 06:42:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.77 Mbit/s

95th percentile per-packet one-way delay: 43.507 ms

Loss rate: 7.00%

-- Flow 1:

Average throughput: 58.37 Mbit/s

95th percentile per-packet one-way delay: 42.381 ms

Loss rate: 5.09%

-- Flow 2:

Average throughput: 35.31 Mbit/s

95th percentile per-packet one-way delay: 44.587 ms

Loss rate: 9.16%

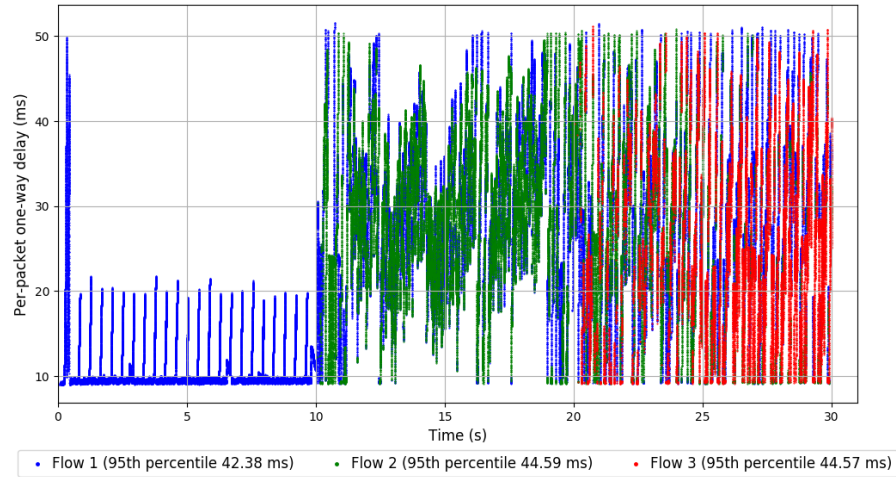
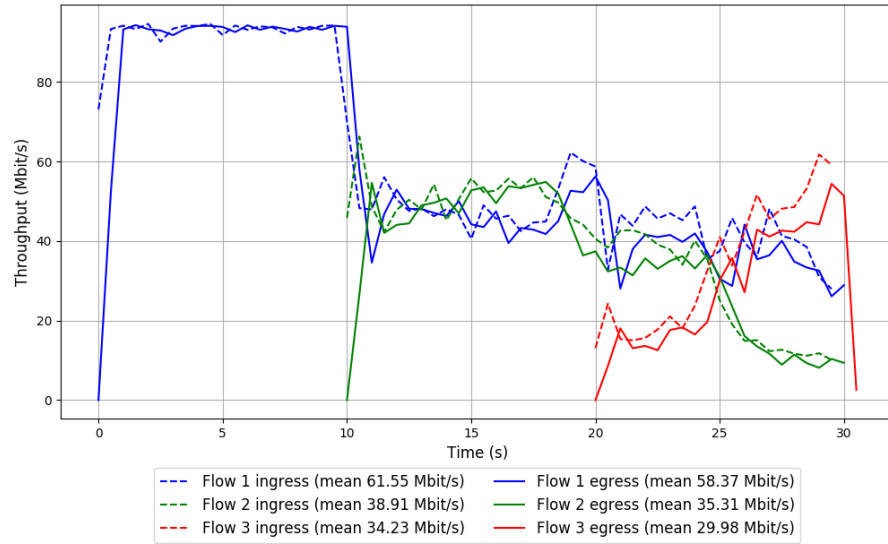
-- Flow 3:

Average throughput: 29.98 Mbit/s

95th percentile per-packet one-way delay: 44.572 ms

Loss rate: 12.41%

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



Run 1: Statistics of Indigo

Start at: 2019-07-12 04:33:57

End at: 2019-07-12 04:34:27

Local clock offset: -2.779 ms

Remote clock offset: 1.342 ms

# Below is generated by plot.py at 2019-07-12 06:42:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.43 Mbit/s

95th percentile per-packet one-way delay: 20.438 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.65 Mbit/s

95th percentile per-packet one-way delay: 20.331 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 39.18 Mbit/s

95th percentile per-packet one-way delay: 20.744 ms

Loss rate: 0.00%

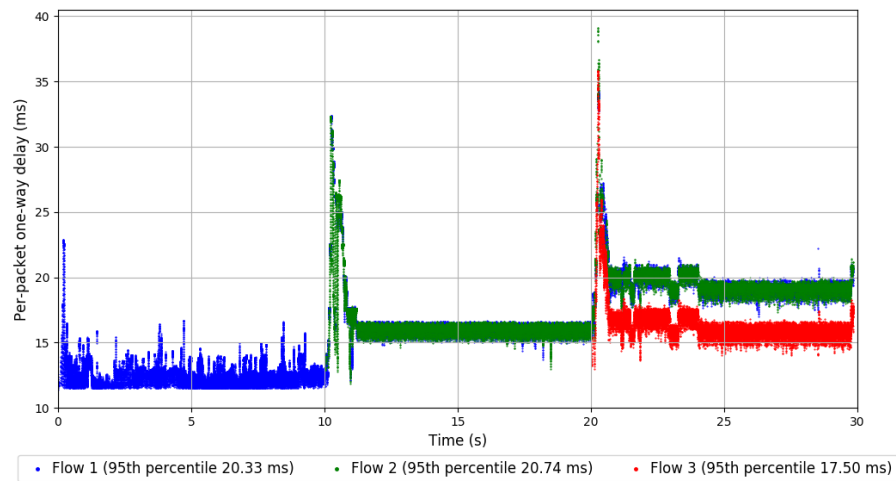
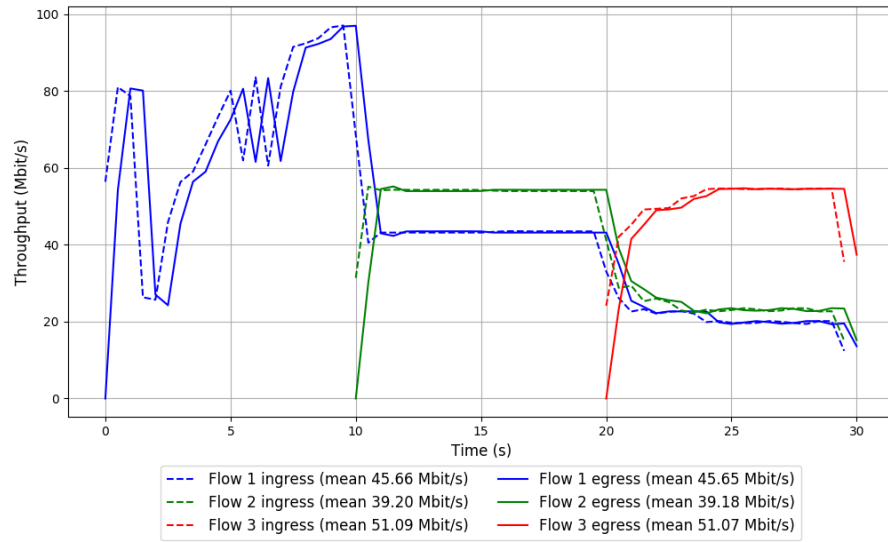
-- Flow 3:

Average throughput: 51.07 Mbit/s

95th percentile per-packet one-way delay: 17.505 ms

Loss rate: 0.00%

## Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-07-12 05:02:56

End at: 2019-07-12 05:03:26

Local clock offset: -5.064 ms

Remote clock offset: 2.198 ms

# Below is generated by plot.py at 2019-07-12 06:42:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.96 Mbit/s

95th percentile per-packet one-way delay: 20.060 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.64 Mbit/s

95th percentile per-packet one-way delay: 16.759 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.64 Mbit/s

95th percentile per-packet one-way delay: 20.224 ms

Loss rate: 0.02%

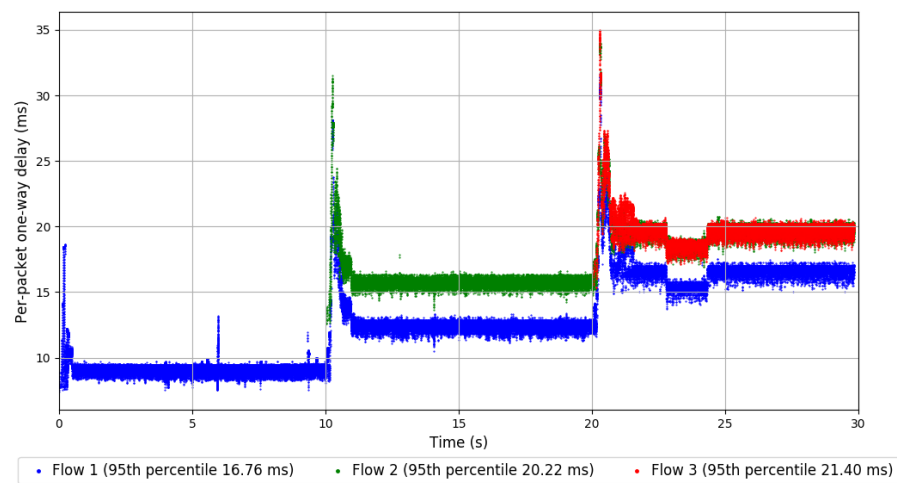
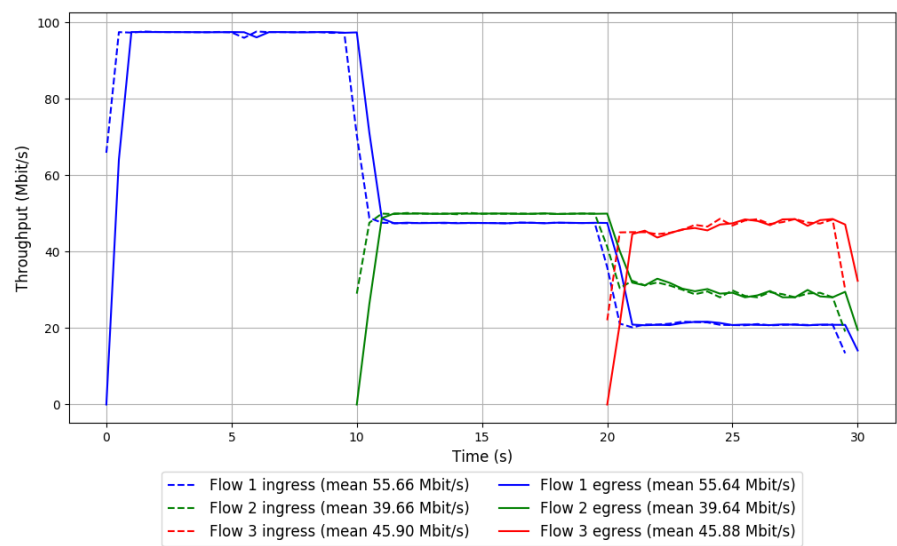
-- Flow 3:

Average throughput: 45.88 Mbit/s

95th percentile per-packet one-way delay: 21.396 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-07-12 05:32:27

End at: 2019-07-12 05:32:57

Local clock offset: -6.518 ms

Remote clock offset: 2.013 ms

# Below is generated by plot.py at 2019-07-12 06:42:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.95 Mbit/s

95th percentile per-packet one-way delay: 16.813 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.09 Mbit/s

95th percentile per-packet one-way delay: 16.798 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.74 Mbit/s

95th percentile per-packet one-way delay: 16.707 ms

Loss rate: 0.00%

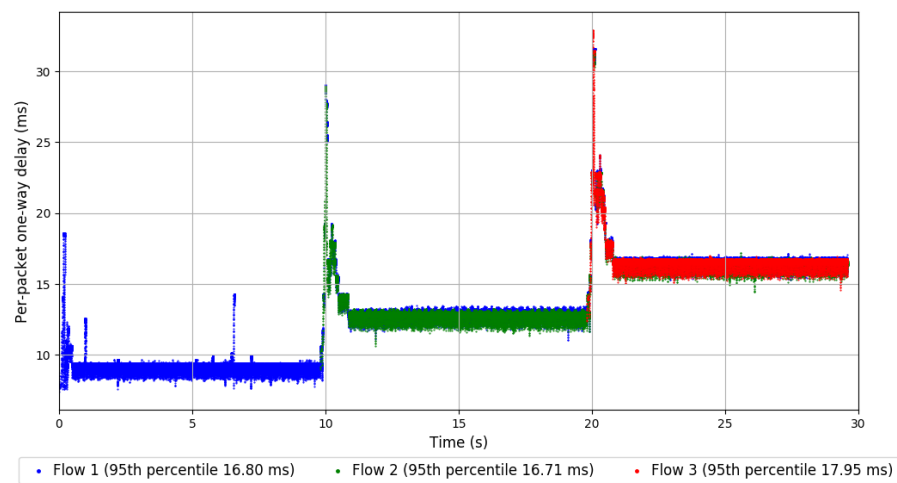
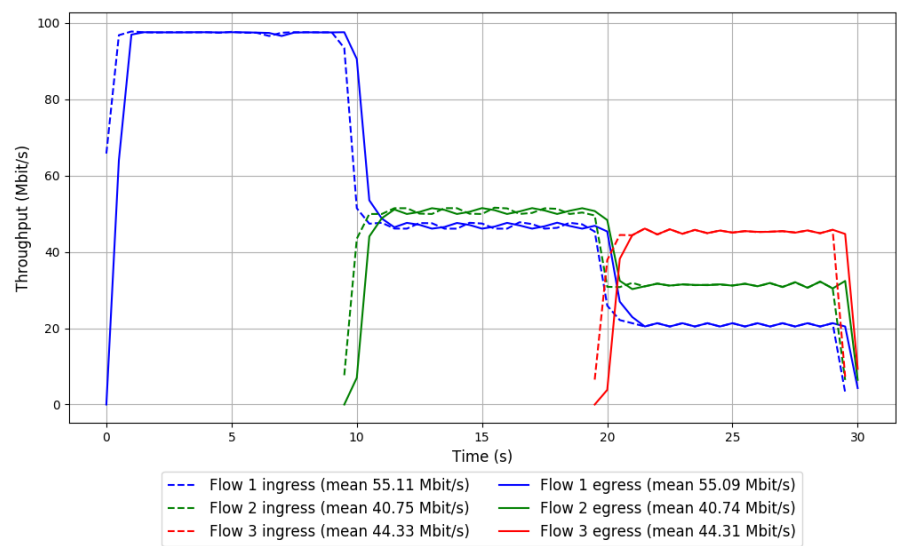
-- Flow 3:

Average throughput: 44.31 Mbit/s

95th percentile per-packet one-way delay: 17.948 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



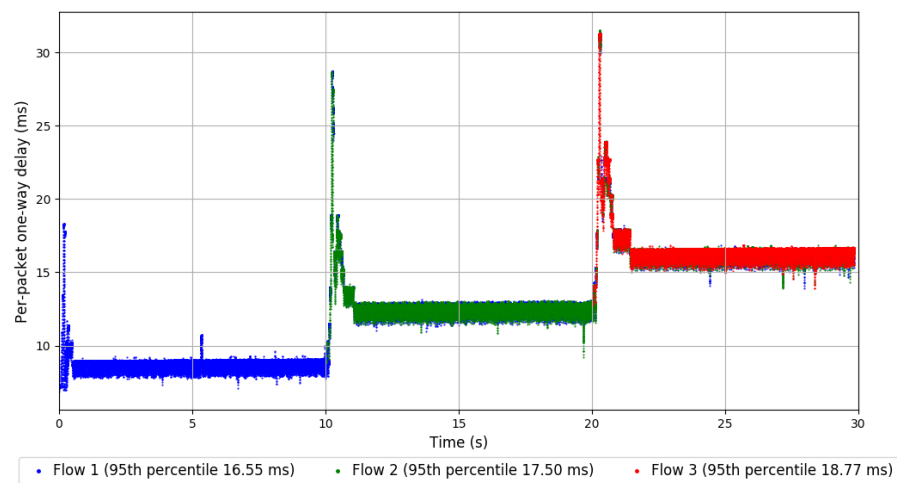
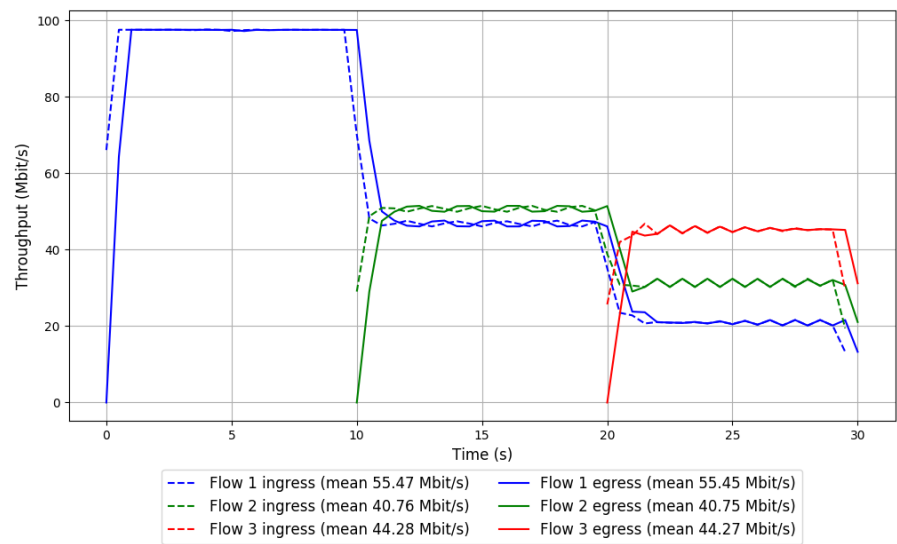


Run 4: Statistics of Indigo

Start at: 2019-07-12 06:01:36  
End at: 2019-07-12 06:02:06  
Local clock offset: -7.378 ms  
Remote clock offset: -1.094 ms

# Below is generated by plot.py at 2019-07-12 06:42:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.99 Mbit/s  
95th percentile per-packet one-way delay: 16.869 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 55.45 Mbit/s  
95th percentile per-packet one-way delay: 16.546 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 40.75 Mbit/s  
95th percentile per-packet one-way delay: 17.499 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 44.27 Mbit/s  
95th percentile per-packet one-way delay: 18.767 ms  
Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-07-12 06:30:51

End at: 2019-07-12 06:31:21

Local clock offset: -0.617 ms

Remote clock offset: -1.97 ms

# Below is generated by plot.py at 2019-07-12 06:42:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.97 Mbit/s

95th percentile per-packet one-way delay: 19.666 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 55.79 Mbit/s

95th percentile per-packet one-way delay: 16.367 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.27 Mbit/s

95th percentile per-packet one-way delay: 19.914 ms

Loss rate: 0.03%

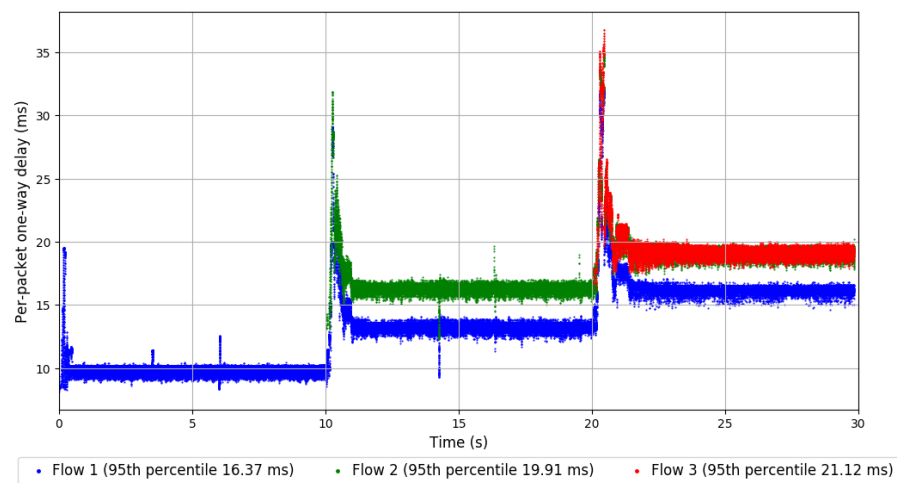
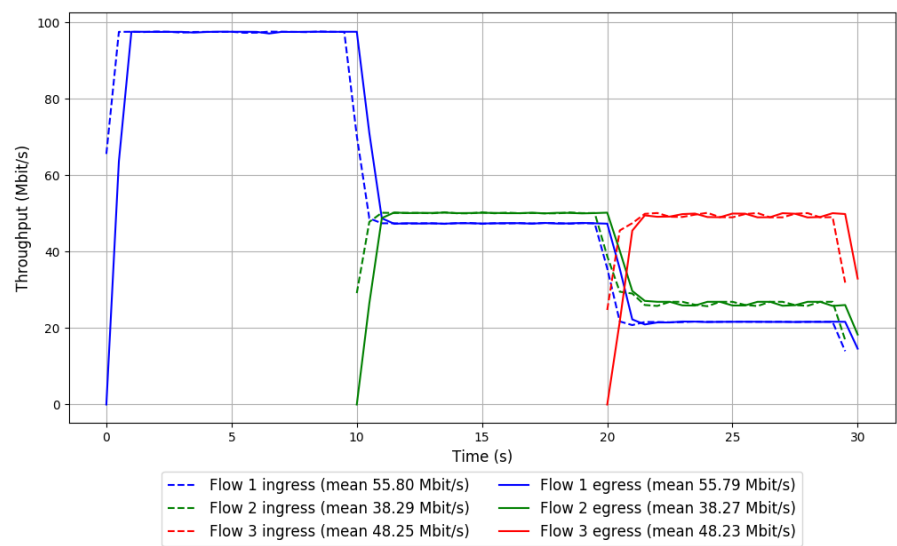
-- Flow 3:

Average throughput: 48.23 Mbit/s

95th percentile per-packet one-way delay: 21.117 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

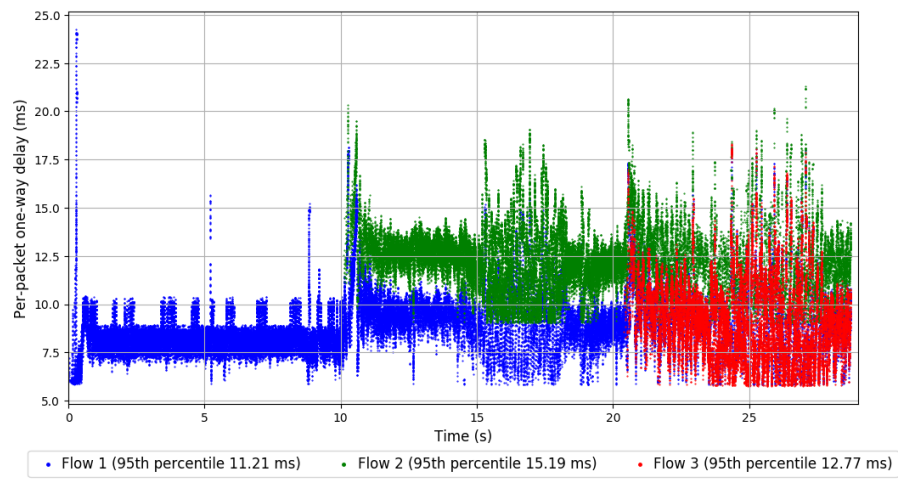
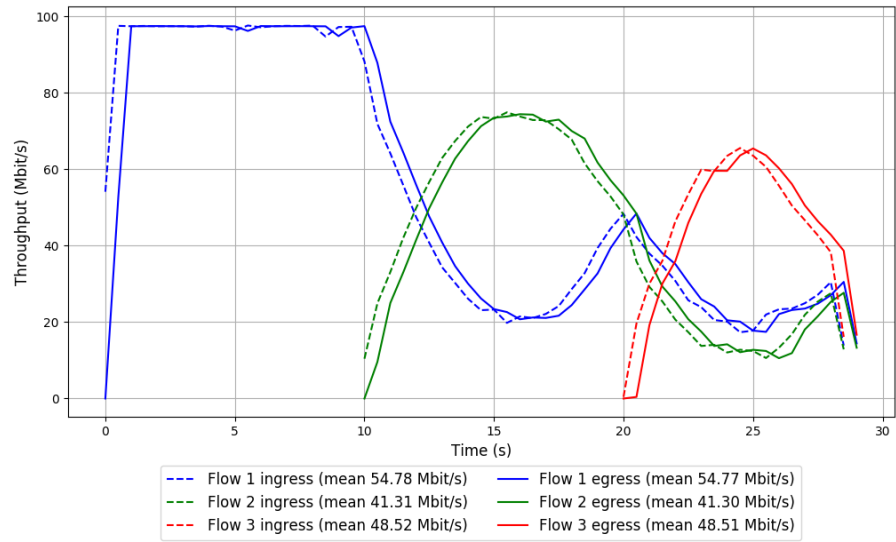


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-07-12 04:19:23  
End at: 2019-07-12 04:19:53  
Local clock offset: -0.92 ms  
Remote clock offset: -1.142 ms

# Below is generated by plot.py at 2019-07-12 06:43:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.66 Mbit/s  
95th percentile per-packet one-way delay: 13.682 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 54.77 Mbit/s  
95th percentile per-packet one-way delay: 11.210 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 41.30 Mbit/s  
95th percentile per-packet one-way delay: 15.187 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 48.51 Mbit/s  
95th percentile per-packet one-way delay: 12.772 ms  
Loss rate: 0.00%

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



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-07-12 04:48:39

End at: 2019-07-12 04:49:09

Local clock offset: -4.539 ms

Remote clock offset: 2.073 ms

# Below is generated by plot.py at 2019-07-12 06:43:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.63 Mbit/s

95th percentile per-packet one-way delay: 15.984 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 52.60 Mbit/s

95th percentile per-packet one-way delay: 15.385 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 58.96 Mbit/s

95th percentile per-packet one-way delay: 16.270 ms

Loss rate: 0.00%

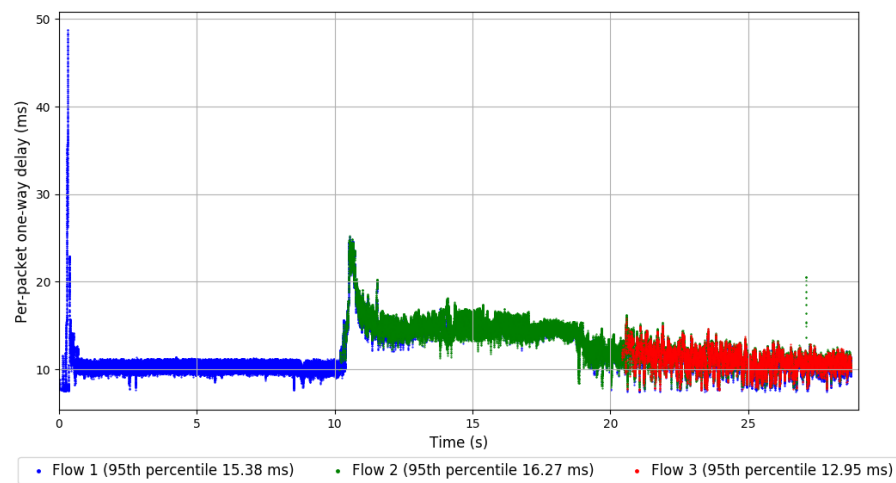
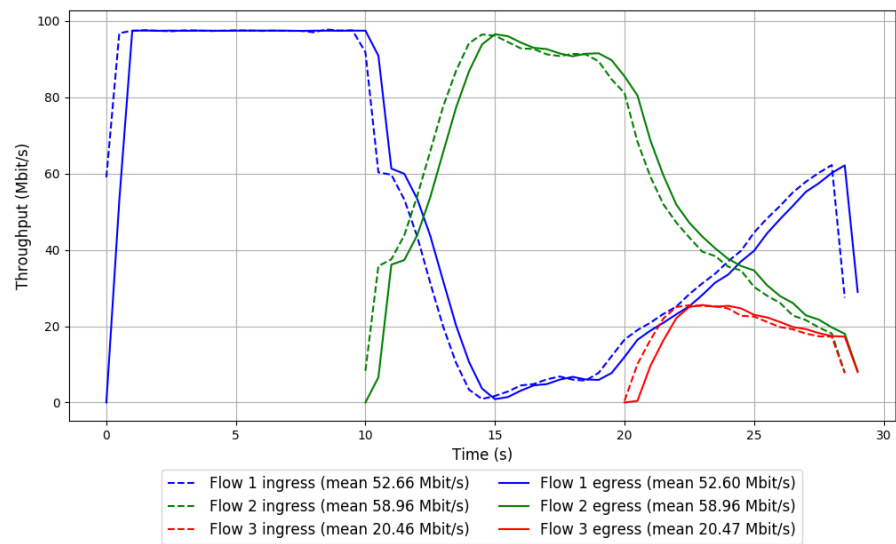
-- Flow 3:

Average throughput: 20.47 Mbit/s

95th percentile per-packet one-way delay: 12.948 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link





Run 3: Statistics of Indigo-MusesC3

Start at: 2019-07-12 05:17:59

End at: 2019-07-12 05:18:29

Local clock offset: -6.836 ms

Remote clock offset: 0.163 ms

# Below is generated by plot.py at 2019-07-12 06:43:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.38 Mbit/s

95th percentile per-packet one-way delay: 14.385 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.12 Mbit/s

95th percentile per-packet one-way delay: 14.111 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.35 Mbit/s

95th percentile per-packet one-way delay: 14.305 ms

Loss rate: 0.00%

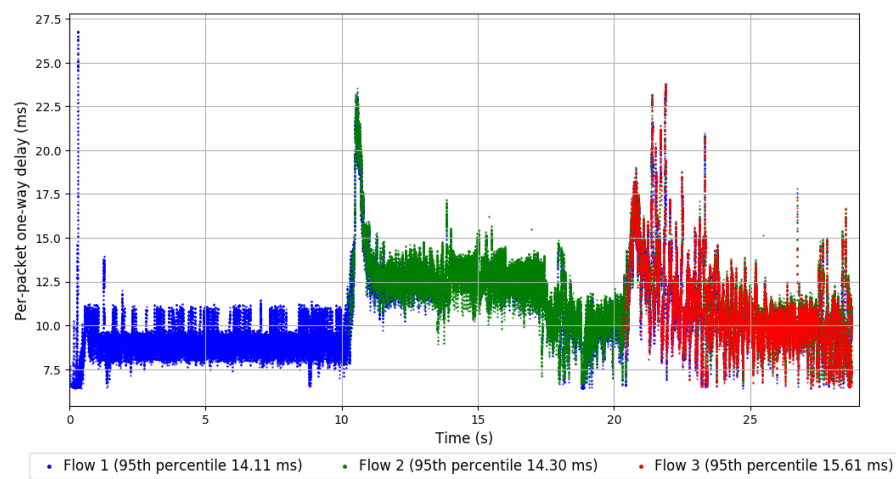
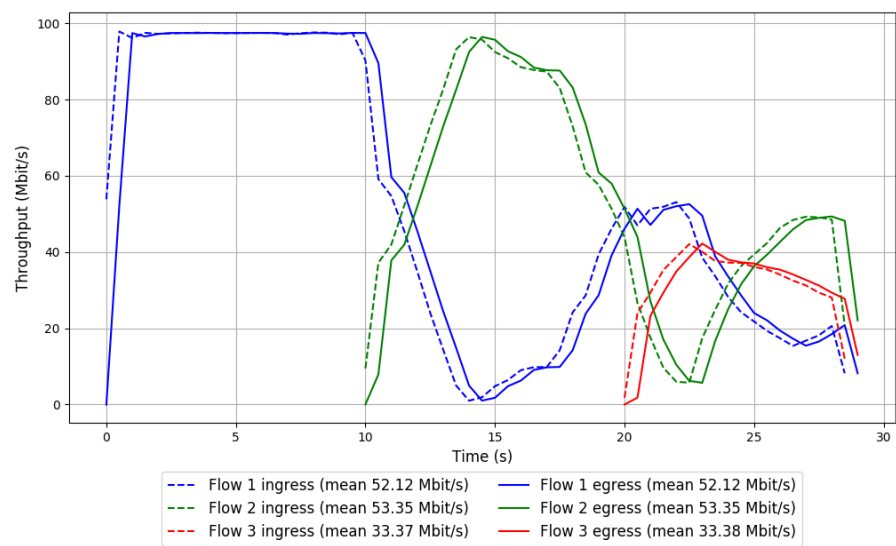
-- Flow 3:

Average throughput: 33.38 Mbit/s

95th percentile per-packet one-way delay: 15.609 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-07-12 05:46:52

End at: 2019-07-12 05:47:22

Local clock offset: -8.716 ms

Remote clock offset: 0.706 ms

# Below is generated by plot.py at 2019-07-12 06:43:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.47 Mbit/s

95th percentile per-packet one-way delay: 19.098 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.86 Mbit/s

95th percentile per-packet one-way delay: 16.107 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.44 Mbit/s

95th percentile per-packet one-way delay: 20.280 ms

Loss rate: 0.01%

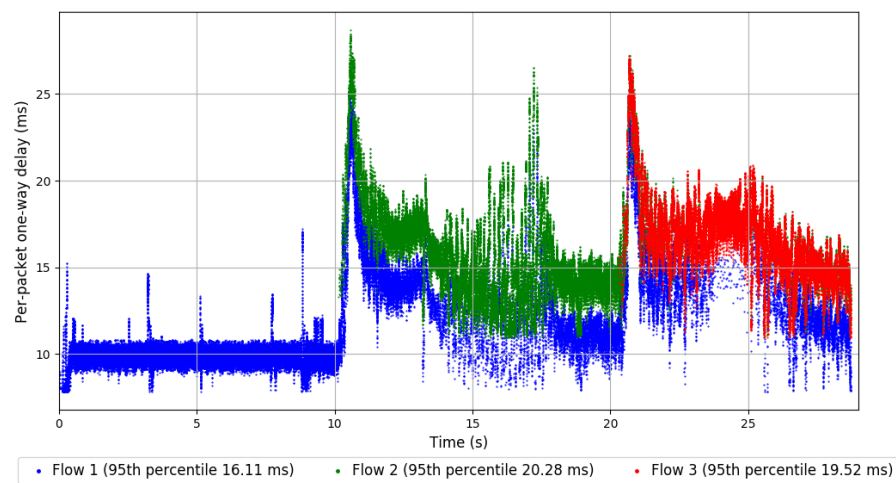
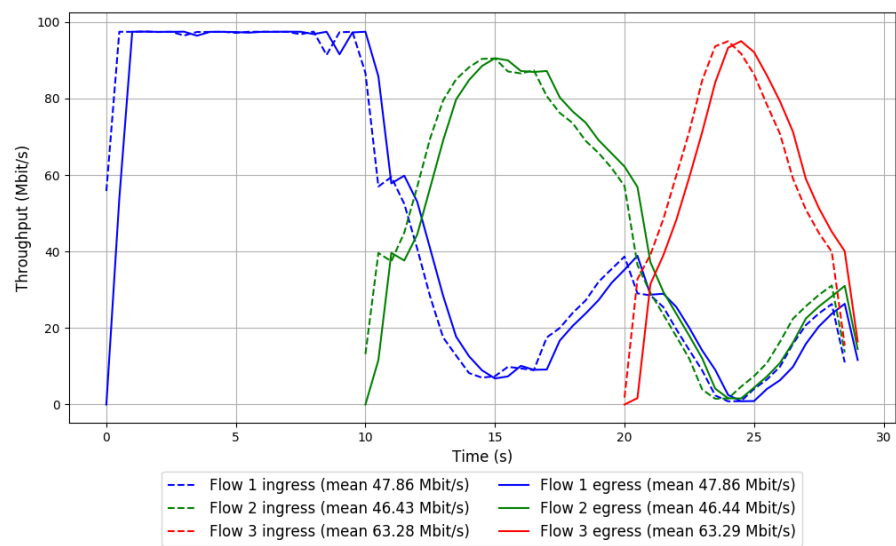
-- Flow 3:

Average throughput: 63.29 Mbit/s

95th percentile per-packet one-way delay: 19.519 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-07-12 06:16:17

End at: 2019-07-12 06:16:47

Local clock offset: -2.291 ms

Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2019-07-12 06:43:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.75 Mbit/s

95th percentile per-packet one-way delay: 15.869 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.45 Mbit/s

95th percentile per-packet one-way delay: 15.133 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.16 Mbit/s

95th percentile per-packet one-way delay: 16.128 ms

Loss rate: 0.00%

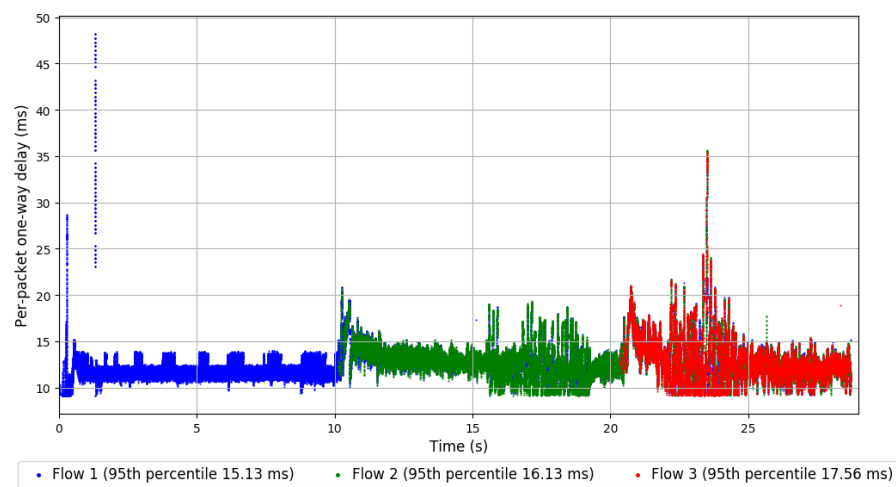
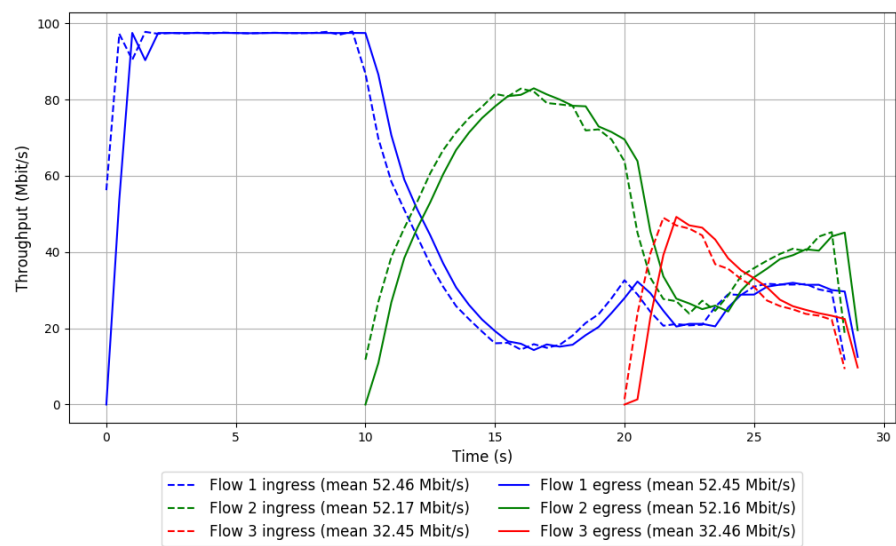
-- Flow 3:

Average throughput: 32.46 Mbit/s

95th percentile per-packet one-way delay: 17.556 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-07-12 04:27:51

End at: 2019-07-12 04:28:21

Local clock offset: -1.331 ms

Remote clock offset: 1.363 ms

# Below is generated by plot.py at 2019-07-12 06:43:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.38 Mbit/s

95th percentile per-packet one-way delay: 40.792 ms

Loss rate: 8.23%

-- Flow 1:

Average throughput: 58.74 Mbit/s

95th percentile per-packet one-way delay: 38.486 ms

Loss rate: 4.17%

-- Flow 2:

Average throughput: 43.48 Mbit/s

95th percentile per-packet one-way delay: 42.321 ms

Loss rate: 10.21%

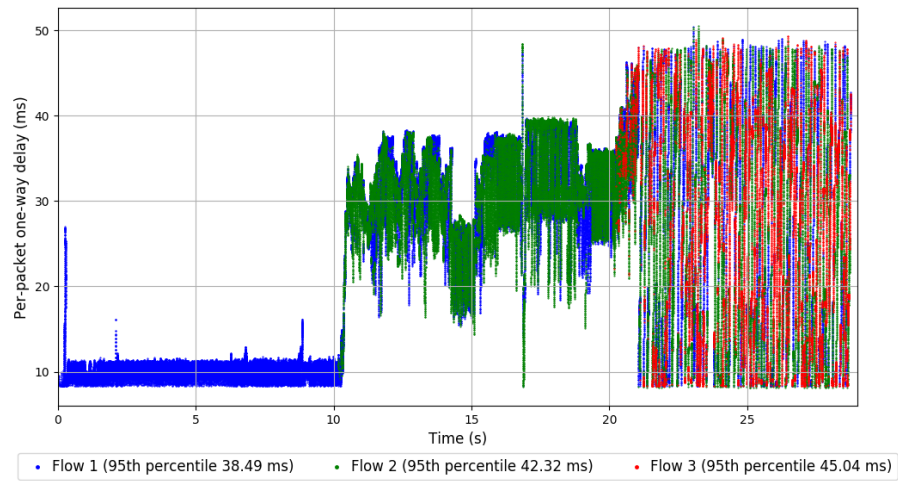
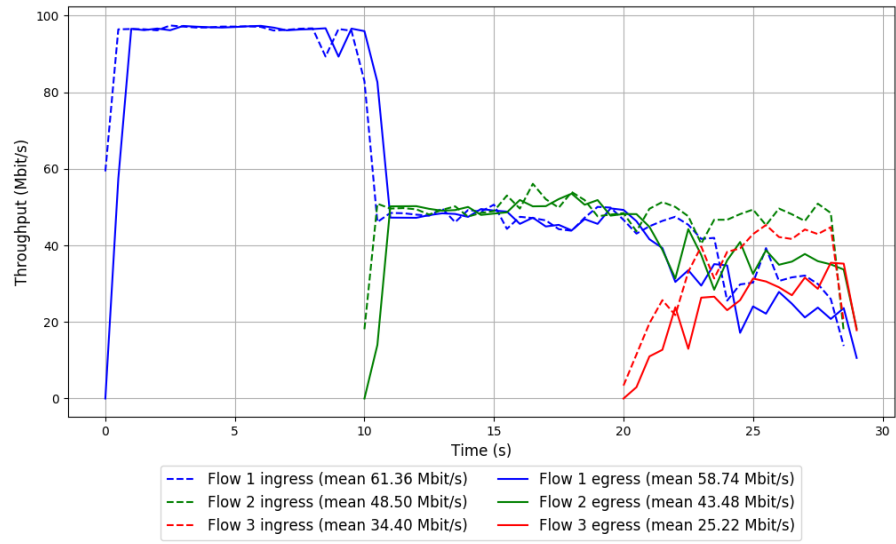
-- Flow 3:

Average throughput: 25.22 Mbit/s

95th percentile per-packet one-way delay: 45.040 ms

Loss rate: 26.49%

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





Run 2: Statistics of Indigo-MusesC5

Start at: 2019-07-12 04:56:57

End at: 2019-07-12 04:57:27

Local clock offset: -4.745 ms

Remote clock offset: 2.859 ms

# Below is generated by plot.py at 2019-07-12 06:44:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.82 Mbit/s

95th percentile per-packet one-way delay: 41.707 ms

Loss rate: 9.12%

-- Flow 1:

Average throughput: 57.62 Mbit/s

95th percentile per-packet one-way delay: 39.280 ms

Loss rate: 4.29%

-- Flow 2:

Average throughput: 44.90 Mbit/s

95th percentile per-packet one-way delay: 41.380 ms

Loss rate: 13.29%

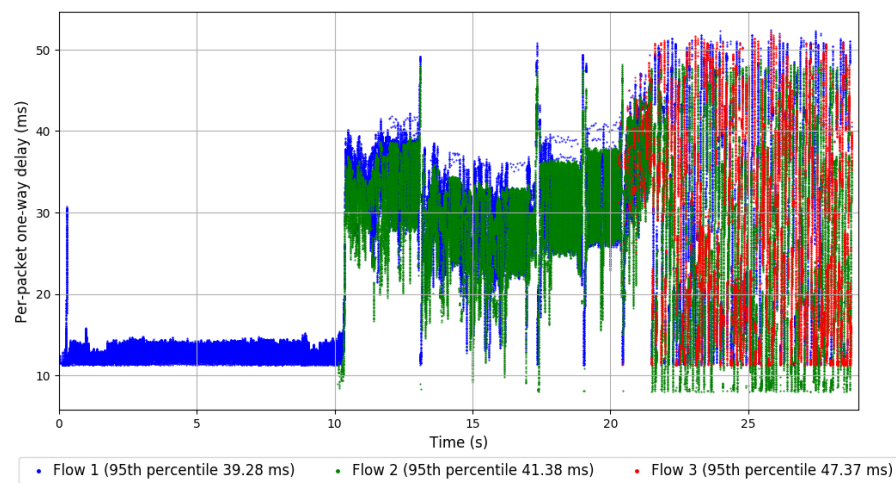
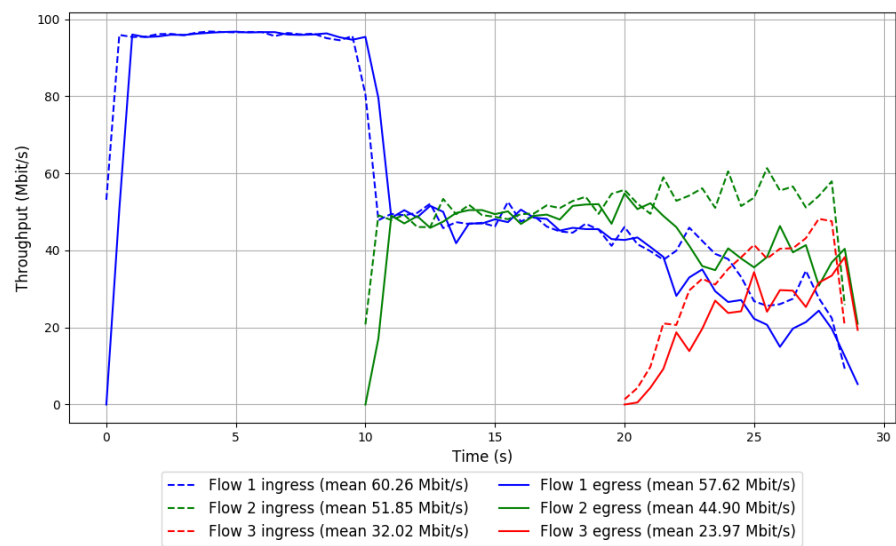
-- Flow 3:

Average throughput: 23.97 Mbit/s

95th percentile per-packet one-way delay: 47.370 ms

Loss rate: 25.10%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-07-12 05:26:24

End at: 2019-07-12 05:26:54

Local clock offset: -6.572 ms

Remote clock offset: 1.507 ms

# Below is generated by plot.py at 2019-07-12 06:44:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.09 Mbit/s

95th percentile per-packet one-way delay: 42.721 ms

Loss rate: 8.99%

-- Flow 1:

Average throughput: 60.55 Mbit/s

95th percentile per-packet one-way delay: 40.459 ms

Loss rate: 4.81%

-- Flow 2:

Average throughput: 42.89 Mbit/s

95th percentile per-packet one-way delay: 45.314 ms

Loss rate: 12.37%

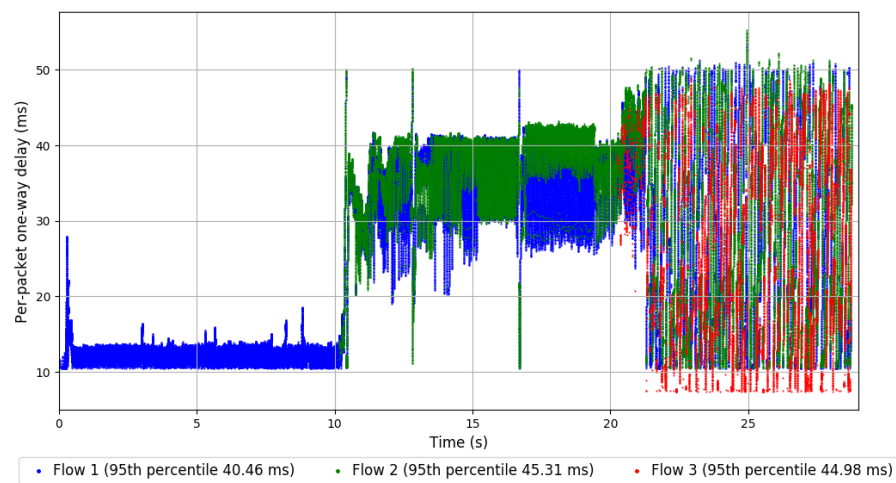
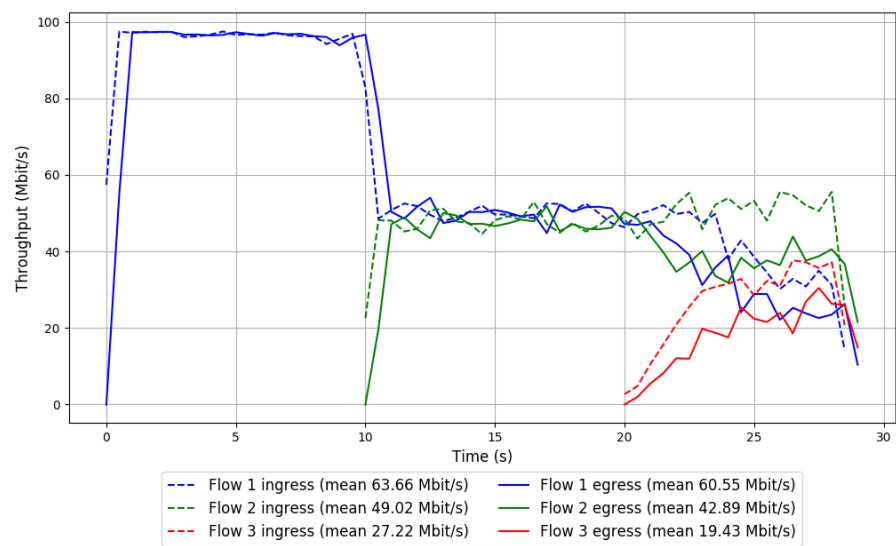
-- Flow 3:

Average throughput: 19.43 Mbit/s

95th percentile per-packet one-way delay: 44.985 ms

Loss rate: 28.55%

Run 3: Report of Indigo-MusesC5 — Data Link

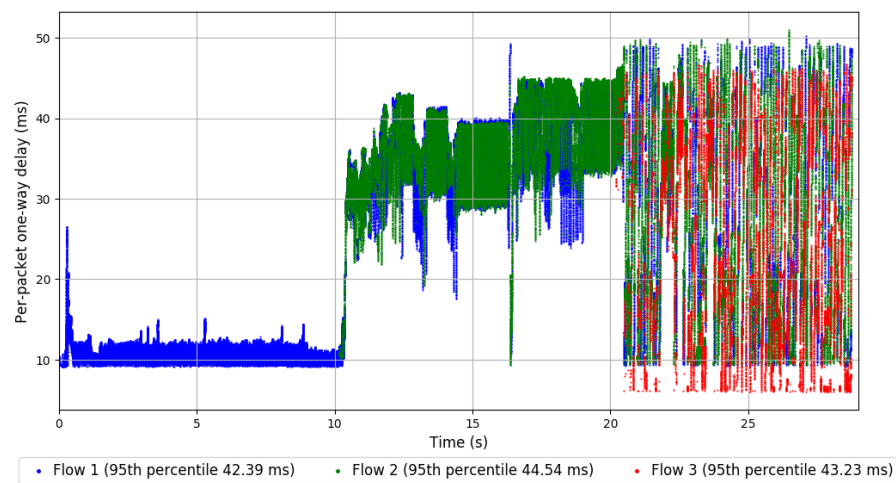
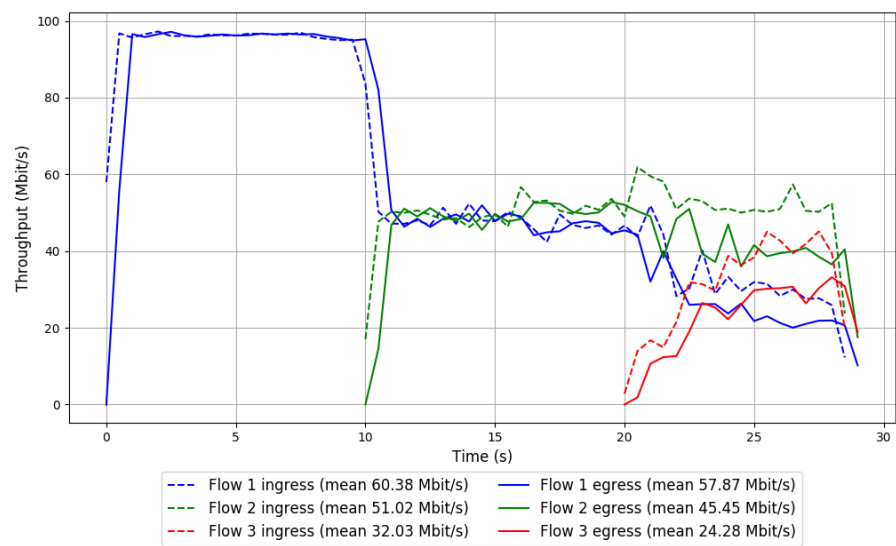


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-07-12 05:55:20  
End at: 2019-07-12 05:55:50  
Local clock offset: -9.172 ms  
Remote clock offset: -1.331 ms

# Below is generated by plot.py at 2019-07-12 06:44:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.56 Mbit/s  
95th percentile per-packet one-way delay: 43.805 ms  
Loss rate: 8.05%  
-- Flow 1:  
Average throughput: 57.87 Mbit/s  
95th percentile per-packet one-way delay: 42.394 ms  
Loss rate: 4.03%  
-- Flow 2:  
Average throughput: 45.45 Mbit/s  
95th percentile per-packet one-way delay: 44.541 ms  
Loss rate: 10.74%  
-- Flow 3:  
Average throughput: 24.28 Mbit/s  
95th percentile per-packet one-way delay: 43.225 ms  
Loss rate: 24.15%

Run 4: Report of Indigo-MusesC5 — Data Link

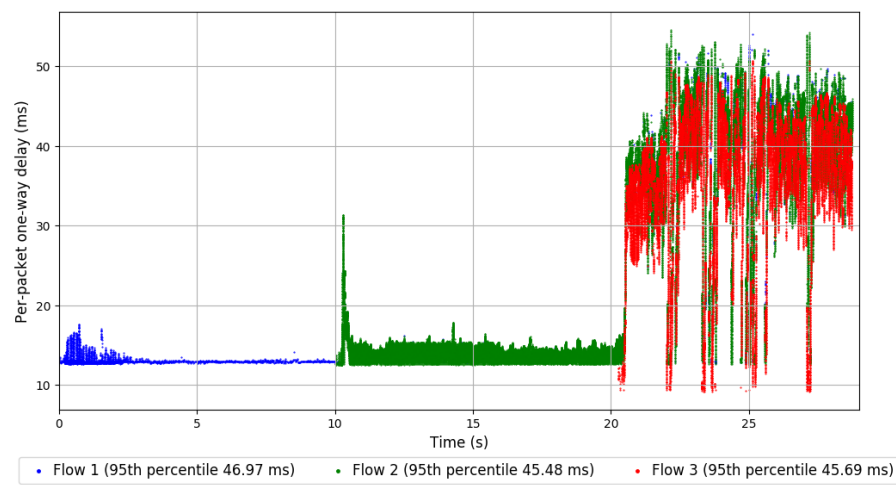
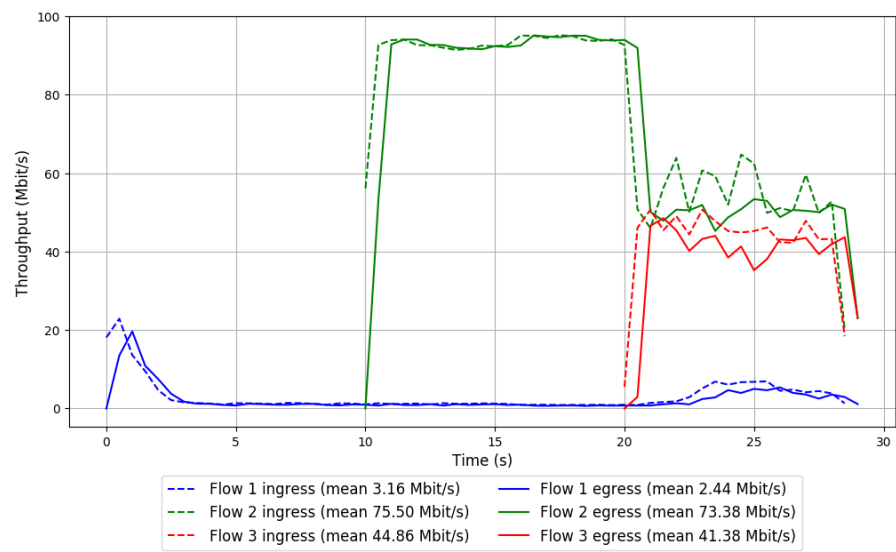


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-07-12 06:24:46  
End at: 2019-07-12 06:25:16  
Local clock offset: -0.916 ms  
Remote clock offset: -0.296 ms

# Below is generated by plot.py at 2019-07-12 06:44:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 62.48 Mbit/s  
95th percentile per-packet one-way delay: 45.605 ms  
Loss rate: 4.60%  
-- Flow 1:  
Average throughput: 2.44 Mbit/s  
95th percentile per-packet one-way delay: 46.966 ms  
Loss rate: 22.80%  
-- Flow 2:  
Average throughput: 73.38 Mbit/s  
95th percentile per-packet one-way delay: 45.477 ms  
Loss rate: 2.65%  
-- Flow 3:  
Average throughput: 41.38 Mbit/s  
95th percentile per-packet one-way delay: 45.686 ms  
Loss rate: 7.47%

Run 5: Report of Indigo-MusesC5 — Data Link





Run 1: Statistics of Indigo-MusesD

Start at: 2019-07-12 04:39:00

End at: 2019-07-12 04:39:30

Local clock offset: -2.591 ms

Remote clock offset: 1.037 ms

# Below is generated by plot.py at 2019-07-12 06:44:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.86 Mbit/s

95th percentile per-packet one-way delay: 14.795 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 52.14 Mbit/s

95th percentile per-packet one-way delay: 17.144 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 48.90 Mbit/s

95th percentile per-packet one-way delay: 10.517 ms

Loss rate: 0.00%

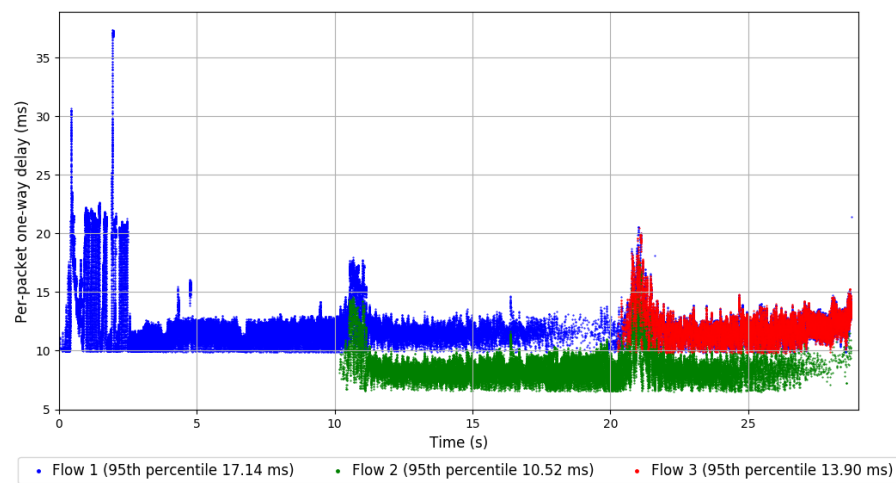
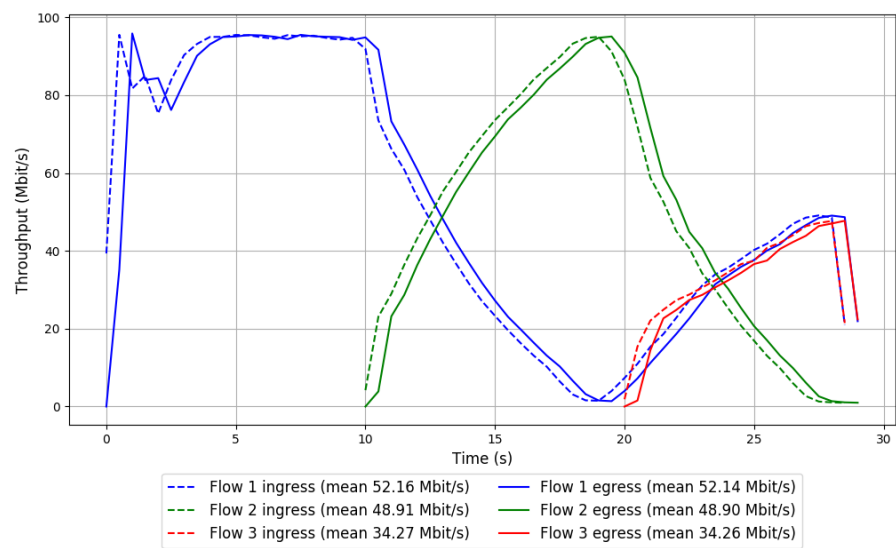
-- Flow 3:

Average throughput: 34.26 Mbit/s

95th percentile per-packet one-way delay: 13.902 ms

Loss rate: 0.03%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-07-12 05:07:57

End at: 2019-07-12 05:08:27

Local clock offset: -5.546 ms

Remote clock offset: 2.534 ms

# Below is generated by plot.py at 2019-07-12 06:45:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.79 Mbit/s

95th percentile per-packet one-way delay: 14.250 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.25 Mbit/s

95th percentile per-packet one-way delay: 12.404 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.29 Mbit/s

95th percentile per-packet one-way delay: 11.707 ms

Loss rate: 0.00%

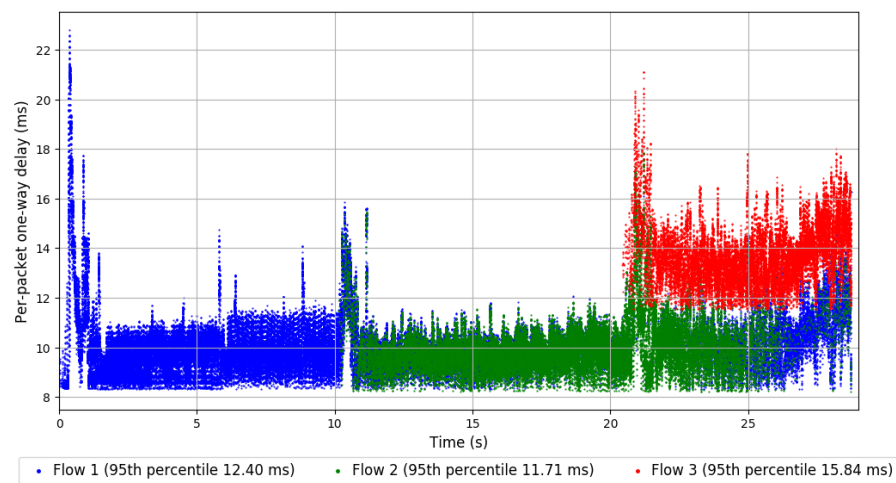
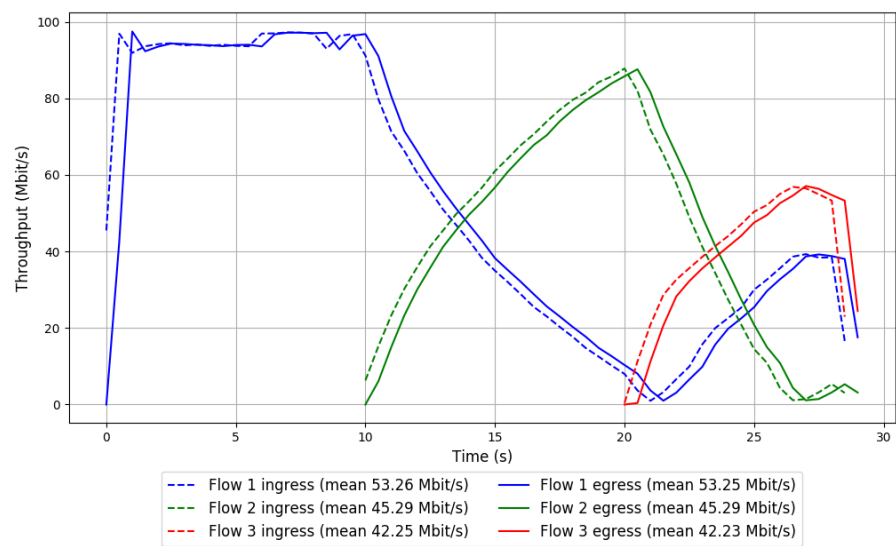
-- Flow 3:

Average throughput: 42.23 Mbit/s

95th percentile per-packet one-way delay: 15.843 ms

Loss rate: 0.04%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-07-12 05:37:23

End at: 2019-07-12 05:37:53

Local clock offset: -7.572 ms

Remote clock offset: 1.749 ms

# Below is generated by plot.py at 2019-07-12 06:45:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.81 Mbit/s

95th percentile per-packet one-way delay: 15.047 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 56.06 Mbit/s

95th percentile per-packet one-way delay: 14.822 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 43.04 Mbit/s

95th percentile per-packet one-way delay: 11.774 ms

Loss rate: 0.00%

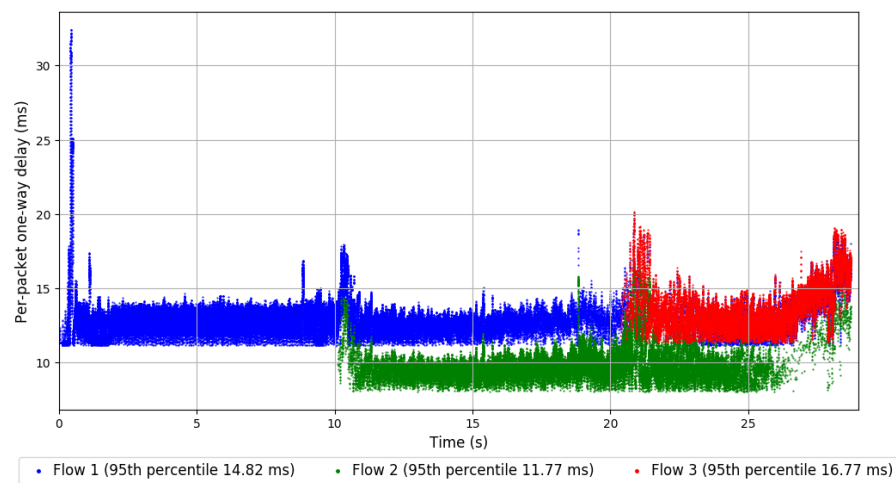
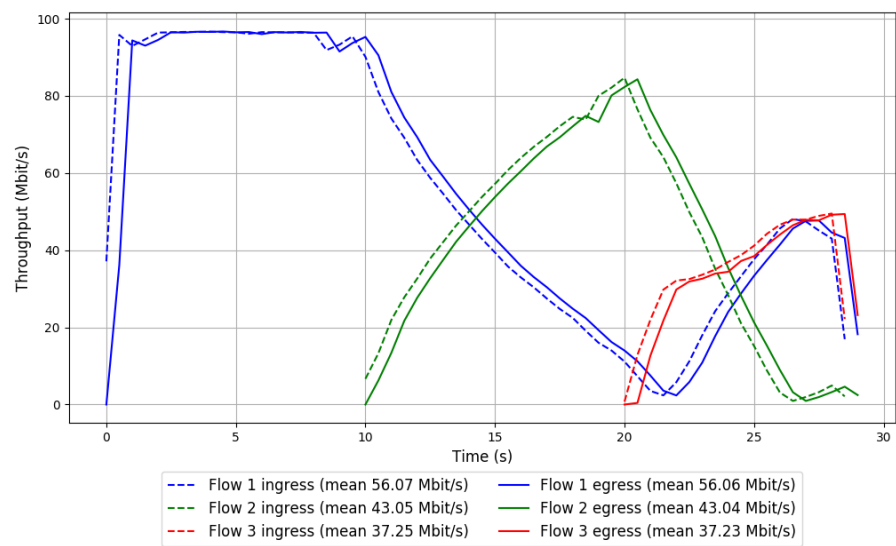
-- Flow 3:

Average throughput: 37.23 Mbit/s

95th percentile per-packet one-way delay: 16.766 ms

Loss rate: 0.06%

Run 3: Report of Indigo-MusesD — Data Link

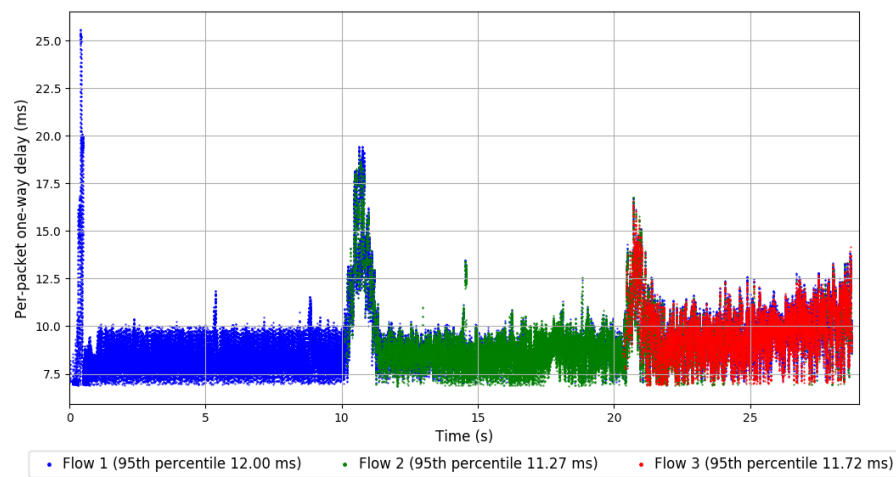
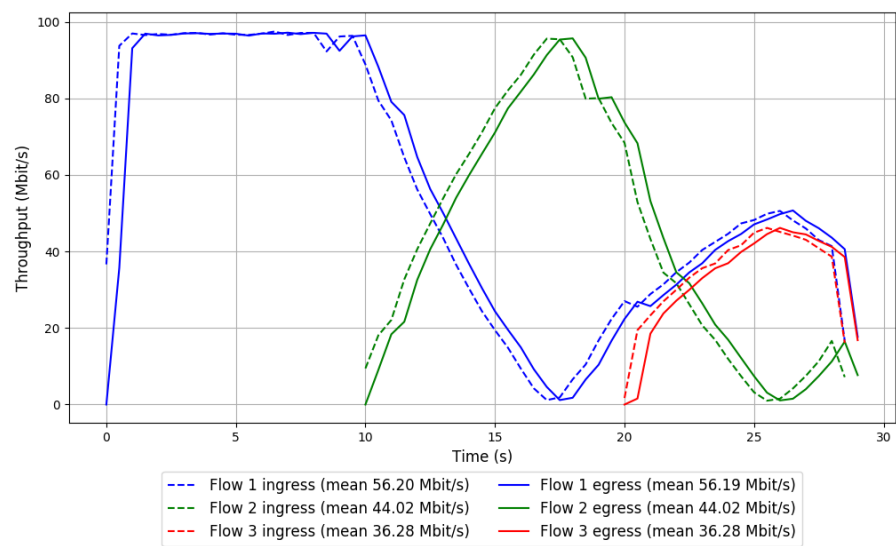


Run 4: Statistics of Indigo-MusesD

Start at: 2019-07-12 06:06:43  
End at: 2019-07-12 06:07:13  
Local clock offset: -4.147 ms  
Remote clock offset: -0.943 ms

# Below is generated by plot.py at 2019-07-12 06:45:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.34 Mbit/s  
95th percentile per-packet one-way delay: 11.768 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 56.19 Mbit/s  
95th percentile per-packet one-way delay: 11.999 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 44.02 Mbit/s  
95th percentile per-packet one-way delay: 11.268 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 36.28 Mbit/s  
95th percentile per-packet one-way delay: 11.716 ms  
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



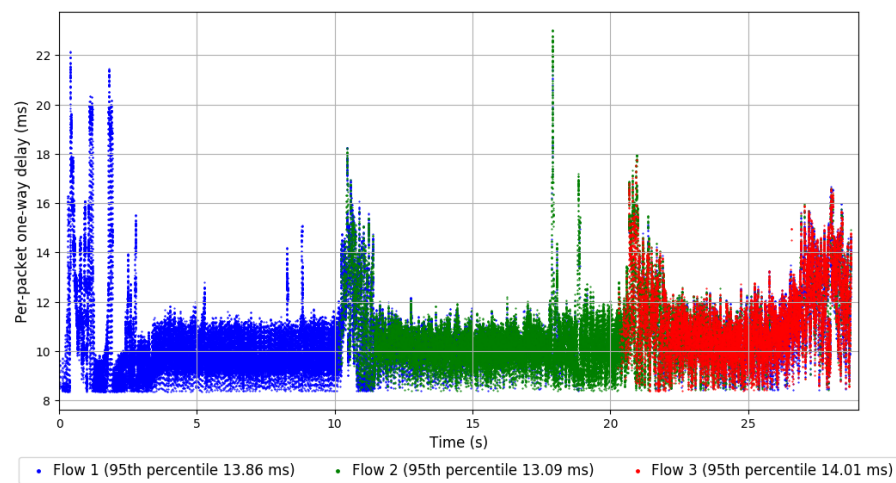
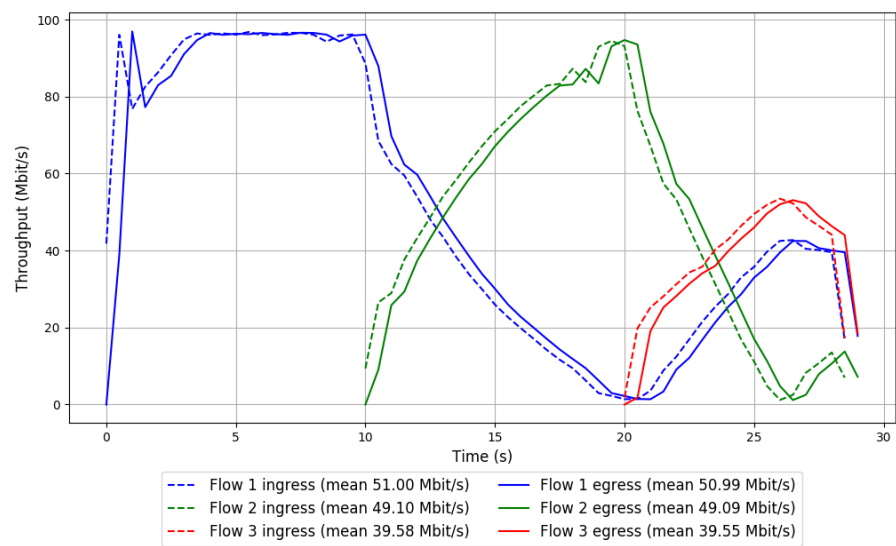


Run 5: Statistics of Indigo-MusesD

Start at: 2019-07-12 06:35:44  
End at: 2019-07-12 06:36:14  
Local clock offset: 0.384 ms  
Remote clock offset: -1.303 ms

# Below is generated by plot.py at 2019-07-12 06:45:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.48 Mbit/s  
95th percentile per-packet one-way delay: 13.704 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 50.99 Mbit/s  
95th percentile per-packet one-way delay: 13.858 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 49.09 Mbit/s  
95th percentile per-packet one-way delay: 13.088 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 39.55 Mbit/s  
95th percentile per-packet one-way delay: 14.005 ms  
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-07-12 04:29:04

End at: 2019-07-12 04:29:34

Local clock offset: -0.87 ms

Remote clock offset: 0.513 ms

# Below is generated by plot.py at 2019-07-12 06:45:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.43 Mbit/s

95th percentile per-packet one-way delay: 42.988 ms

Loss rate: 5.88%

-- Flow 1:

Average throughput: 62.19 Mbit/s

95th percentile per-packet one-way delay: 38.753 ms

Loss rate: 3.03%

-- Flow 2:

Average throughput: 38.08 Mbit/s

95th percentile per-packet one-way delay: 43.609 ms

Loss rate: 7.88%

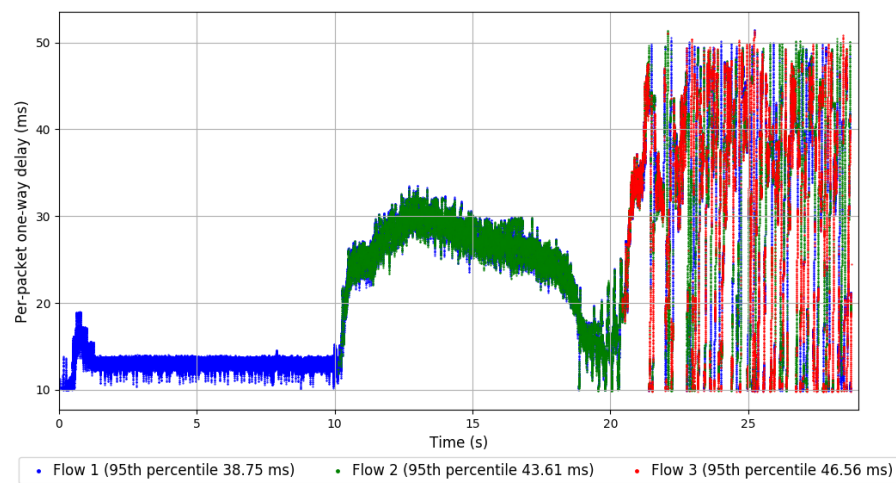
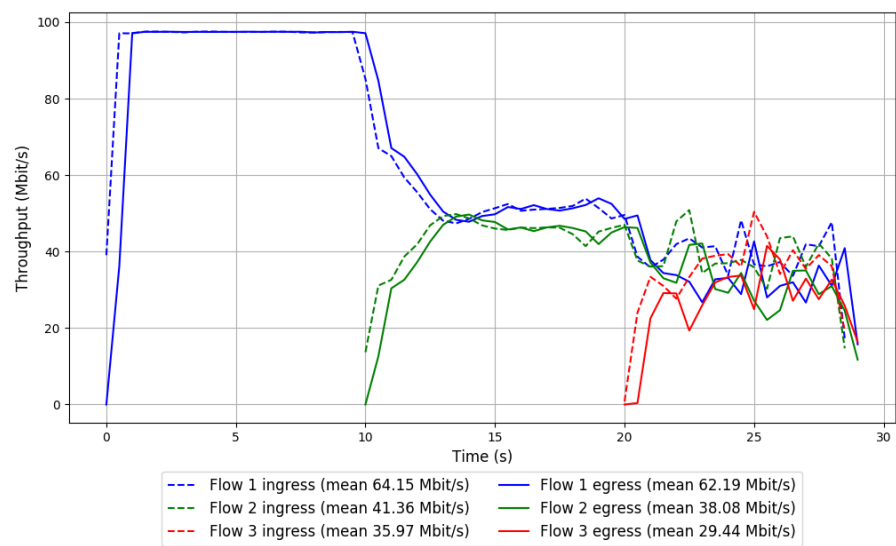
-- Flow 3:

Average throughput: 29.44 Mbit/s

95th percentile per-packet one-way delay: 46.563 ms

Loss rate: 18.18%

Run 1: Report of Indigo-MusesT — Data Link

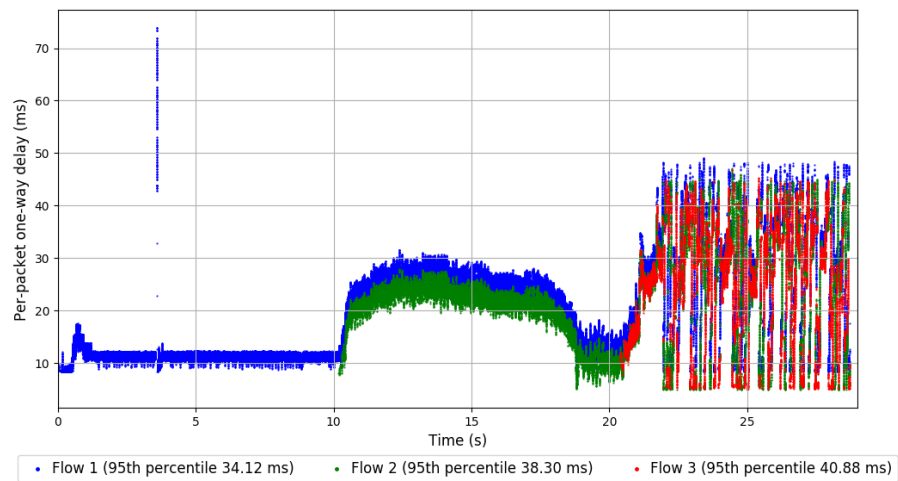
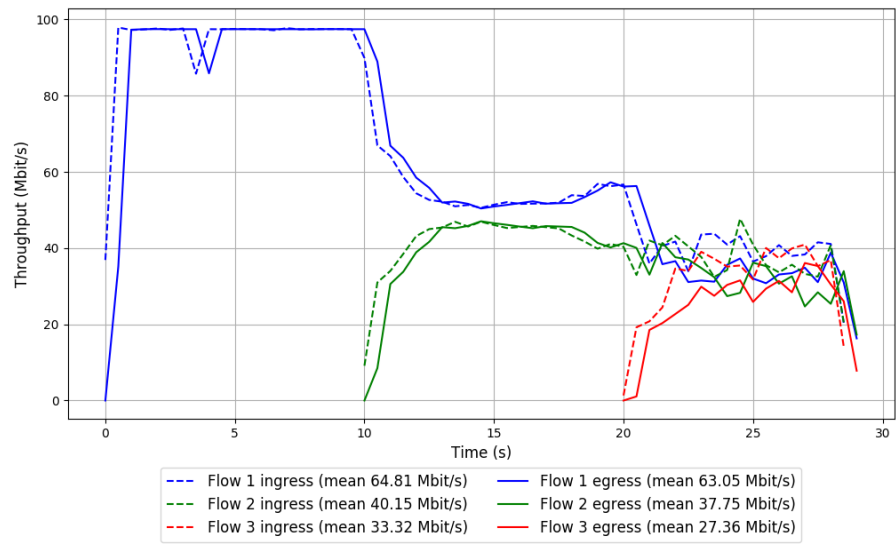


Run 2: Statistics of Indigo-MusesT

Start at: 2019-07-12 04:58:09  
End at: 2019-07-12 04:58:39  
Local clock offset: -4.844 ms  
Remote clock offset: -0.222 ms

# Below is generated by plot.py at 2019-07-12 06:45:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.41 Mbit/s  
95th percentile per-packet one-way delay: 37.494 ms  
Loss rate: 5.00%  
-- Flow 1:  
Average throughput: 63.05 Mbit/s  
95th percentile per-packet one-way delay: 34.123 ms  
Loss rate: 2.68%  
-- Flow 2:  
Average throughput: 37.75 Mbit/s  
95th percentile per-packet one-way delay: 38.305 ms  
Loss rate: 5.97%  
-- Flow 3:  
Average throughput: 27.36 Mbit/s  
95th percentile per-packet one-way delay: 40.879 ms  
Loss rate: 17.90%

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



Run 3: Statistics of Indigo-MusesT

Start at: 2019-07-12 05:27:36

End at: 2019-07-12 05:28:06

Local clock offset: -7.753 ms

Remote clock offset: 0.547 ms

# Below is generated by plot.py at 2019-07-12 06:45:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.49 Mbit/s

95th percentile per-packet one-way delay: 39.174 ms

Loss rate: 4.70%

-- Flow 1:

Average throughput: 62.60 Mbit/s

95th percentile per-packet one-way delay: 35.490 ms

Loss rate: 2.57%

-- Flow 2:

Average throughput: 38.61 Mbit/s

95th percentile per-packet one-way delay: 39.491 ms

Loss rate: 5.99%

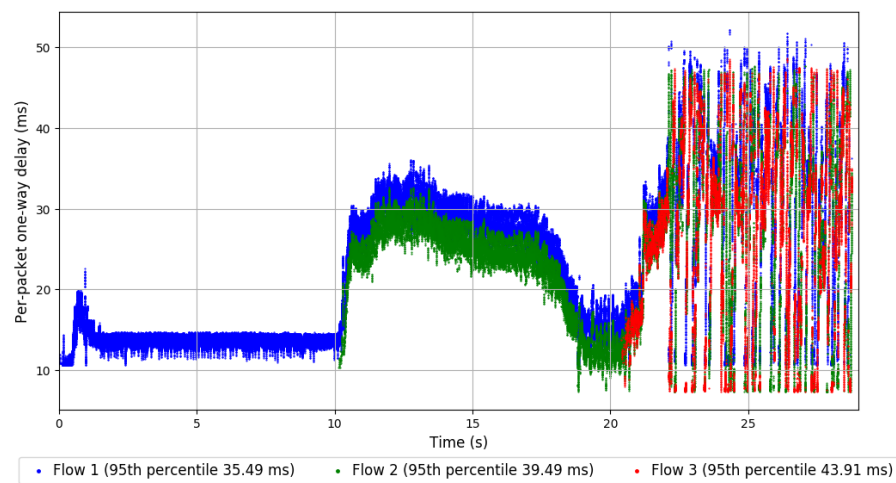
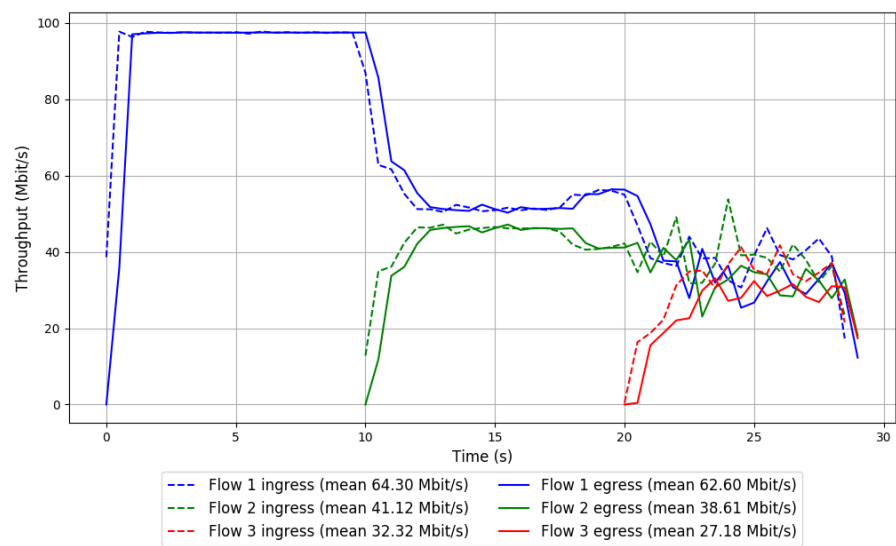
-- Flow 3:

Average throughput: 27.18 Mbit/s

95th percentile per-packet one-way delay: 43.914 ms

Loss rate: 15.70%

Run 3: Report of Indigo-MusesT — Data Link





Run 4: Statistics of Indigo-MusesT

Start at: 2019-07-12 05:56:36

End at: 2019-07-12 05:57:06

Local clock offset: -8.716 ms

Remote clock offset: 1.131 ms

# Below is generated by plot.py at 2019-07-12 06:46:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.77 Mbit/s

95th percentile per-packet one-way delay: 39.864 ms

Loss rate: 4.09%

-- Flow 1:

Average throughput: 63.07 Mbit/s

95th percentile per-packet one-way delay: 36.304 ms

Loss rate: 1.95%

-- Flow 2:

Average throughput: 38.32 Mbit/s

95th percentile per-packet one-way delay: 39.727 ms

Loss rate: 6.09%

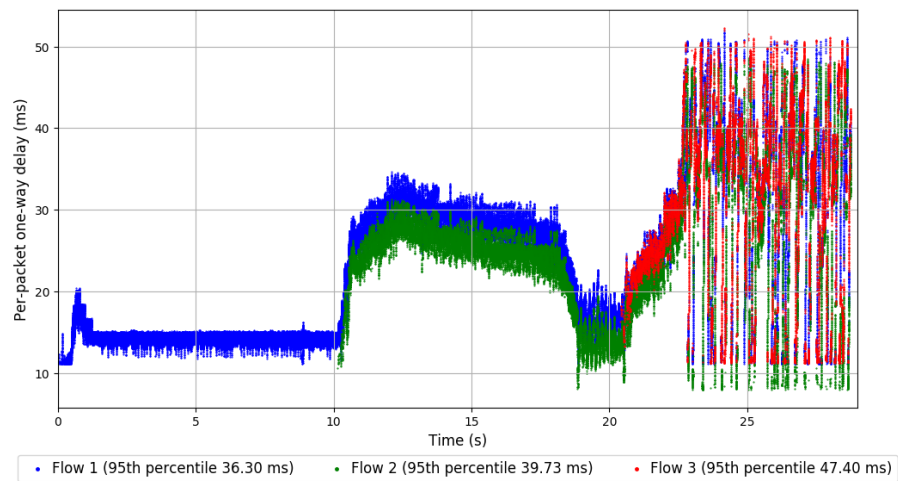
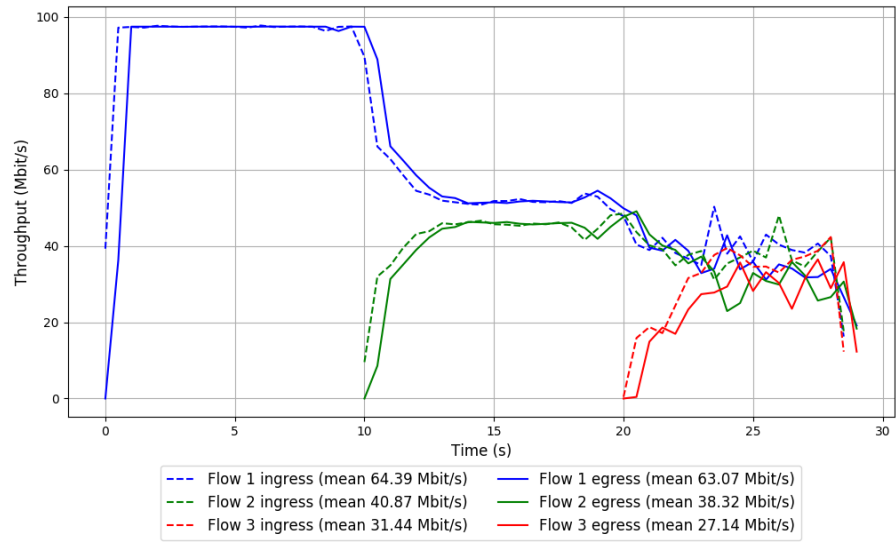
-- Flow 3:

Average throughput: 27.14 Mbit/s

95th percentile per-packet one-way delay: 47.398 ms

Loss rate: 13.42%

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

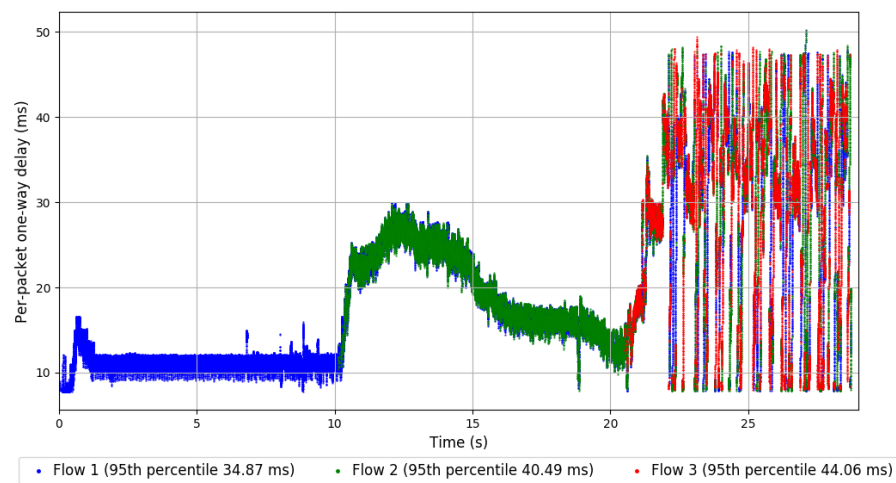
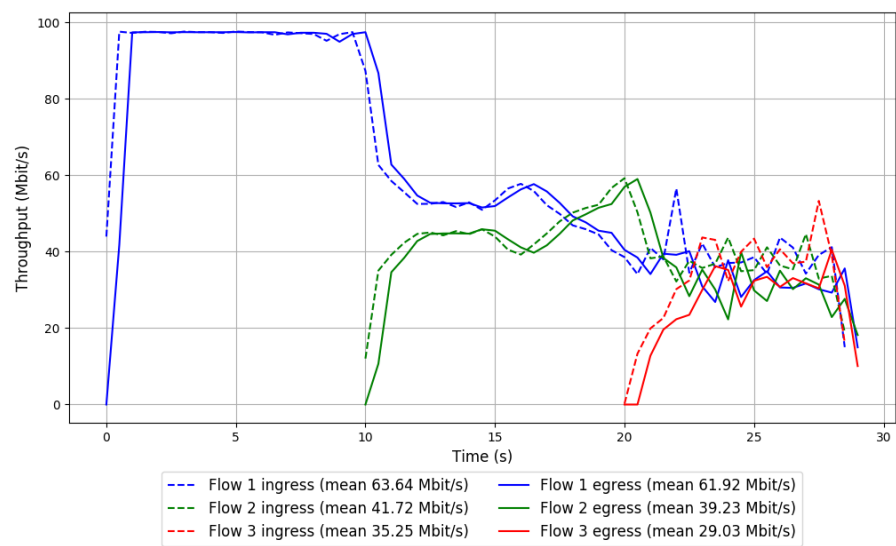


Run 5: Statistics of Indigo-MusesT

Start at: 2019-07-12 06:25:59  
End at: 2019-07-12 06:26:29  
Local clock offset: -0.845 ms  
Remote clock offset: -1.967 ms

# Below is generated by plot.py at 2019-07-12 06:46:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.69 Mbit/s  
95th percentile per-packet one-way delay: 39.469 ms  
Loss rate: 5.05%  
-- Flow 1:  
Average throughput: 61.92 Mbit/s  
95th percentile per-packet one-way delay: 34.865 ms  
Loss rate: 2.68%  
-- Flow 2:  
Average throughput: 39.23 Mbit/s  
95th percentile per-packet one-way delay: 40.487 ms  
Loss rate: 5.94%  
-- Flow 3:  
Average throughput: 29.03 Mbit/s  
95th percentile per-packet one-way delay: 44.061 ms  
Loss rate: 17.57%

Run 5: Report of Indigo-MusesT — Data Link

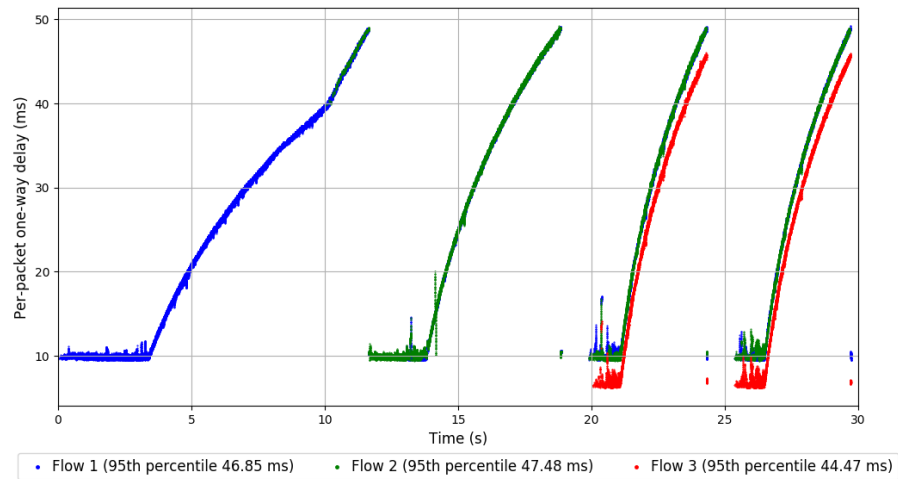
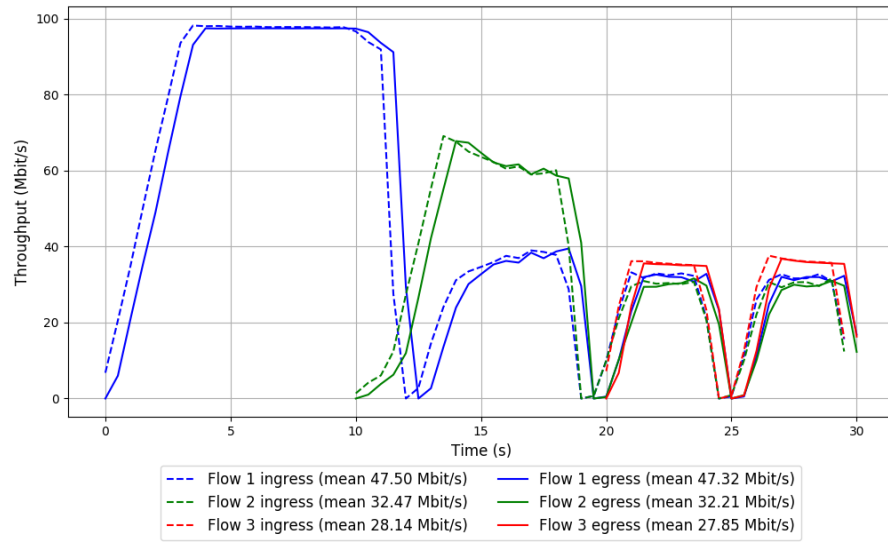


Run 1: Statistics of LEDBAT

Start at: 2019-07-12 04:23:00  
End at: 2019-07-12 04:23:30  
Local clock offset: -1.588 ms  
Remote clock offset: -1.258 ms

# Below is generated by plot.py at 2019-07-12 06:46:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.68 Mbit/s  
95th percentile per-packet one-way delay: 46.874 ms  
Loss rate: 0.66%  
-- Flow 1:  
Average throughput: 47.32 Mbit/s  
95th percentile per-packet one-way delay: 46.847 ms  
Loss rate: 0.38%  
-- Flow 2:  
Average throughput: 32.21 Mbit/s  
95th percentile per-packet one-way delay: 47.482 ms  
Loss rate: 1.11%  
-- Flow 3:  
Average throughput: 27.85 Mbit/s  
95th percentile per-packet one-way delay: 44.470 ms  
Loss rate: 1.01%

# Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-07-12 04:52:14

End at: 2019-07-12 04:52:44

Local clock offset: -3.958 ms

Remote clock offset: 2.674 ms

# Below is generated by plot.py at 2019-07-12 06:46:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.92 Mbit/s

95th percentile per-packet one-way delay: 45.861 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 48.47 Mbit/s

95th percentile per-packet one-way delay: 44.539 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 30.21 Mbit/s

95th percentile per-packet one-way delay: 48.531 ms

Loss rate: 0.52%

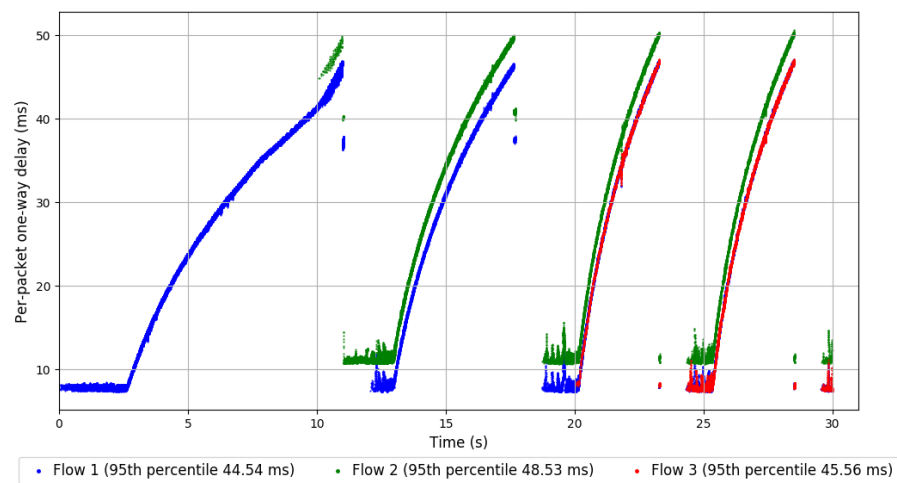
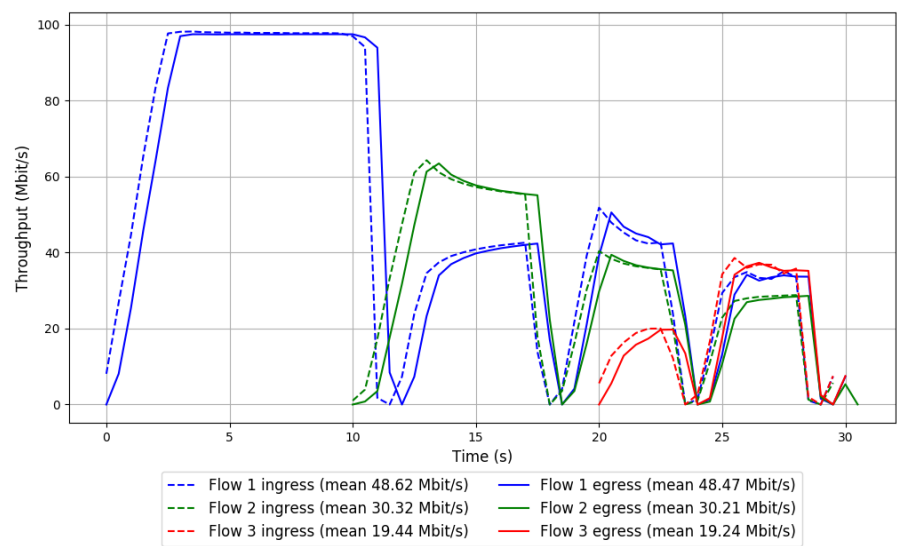
-- Flow 3:

Average throughput: 19.24 Mbit/s

95th percentile per-packet one-way delay: 45.557 ms

Loss rate: 1.01%

Run 2: Report of LEDBAT — Data Link





Run 3: Statistics of LEDBAT

Start at: 2019-07-12 05:21:33

End at: 2019-07-12 05:22:03

Local clock offset: -6.551 ms

Remote clock offset: 0.164 ms

# Below is generated by plot.py at 2019-07-12 06:46:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.02 Mbit/s

95th percentile per-packet one-way delay: 42.809 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 50.67 Mbit/s

95th percentile per-packet one-way delay: 42.059 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 53.09 Mbit/s

95th percentile per-packet one-way delay: 43.507 ms

Loss rate: 0.36%

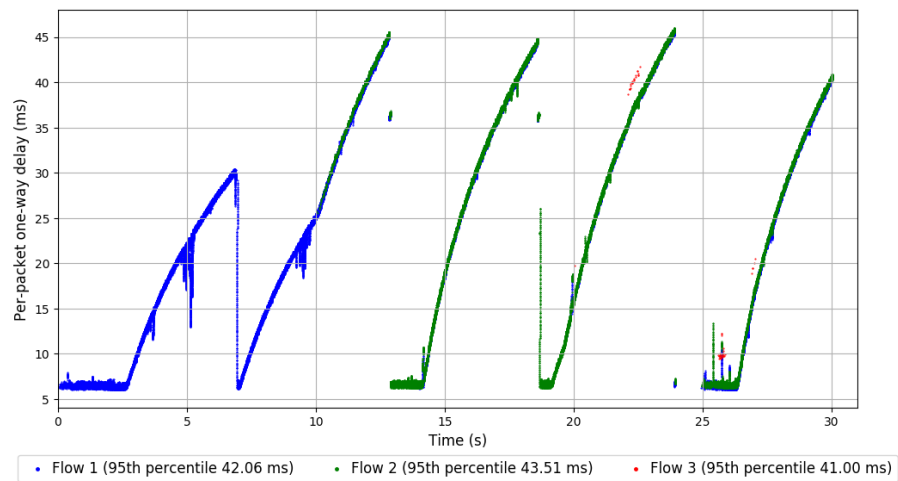
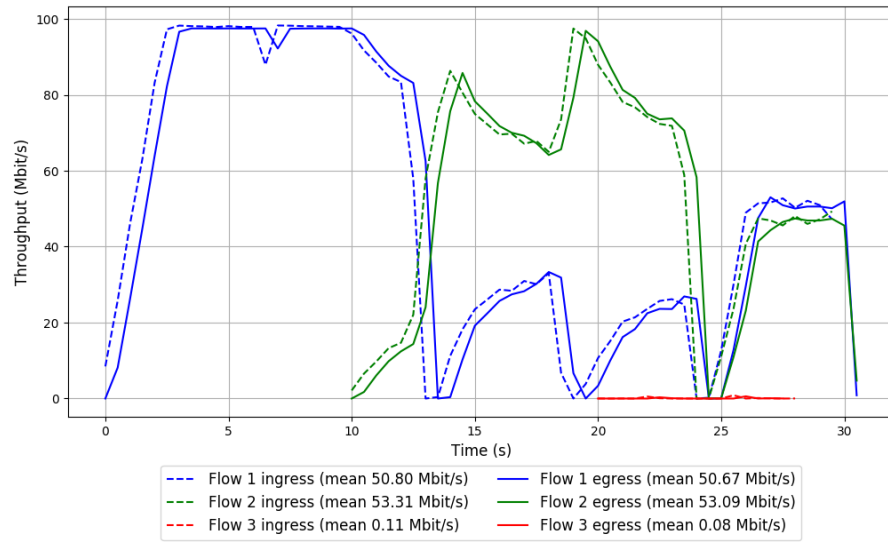
-- Flow 3:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 40.999 ms

Loss rate: 37.20%

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



Run 4: Statistics of LEDBAT

Start at: 2019-07-12 05:50:32

End at: 2019-07-12 05:51:02

Local clock offset: -9.717 ms

Remote clock offset: 1.373 ms

# Below is generated by plot.py at 2019-07-12 06:46:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.43 Mbit/s

95th percentile per-packet one-way delay: 46.539 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 48.34 Mbit/s

95th percentile per-packet one-way delay: 46.445 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 38.46 Mbit/s

95th percentile per-packet one-way delay: 46.963 ms

Loss rate: 0.38%

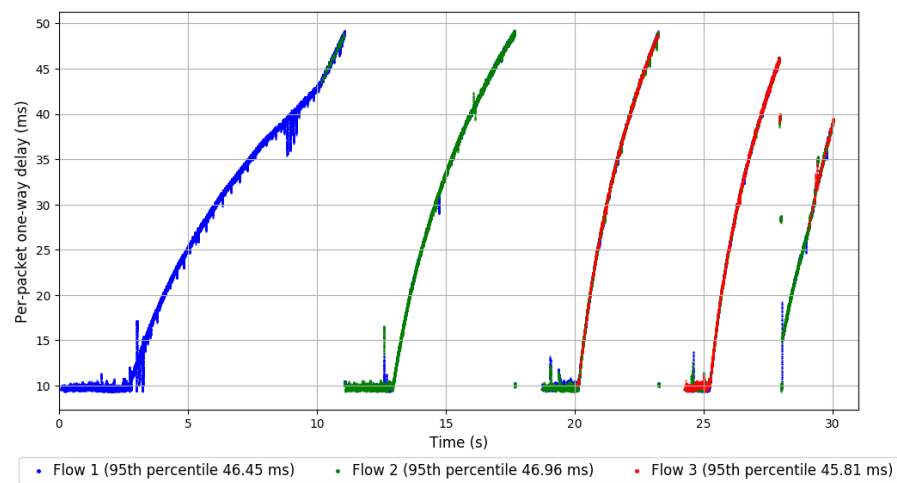
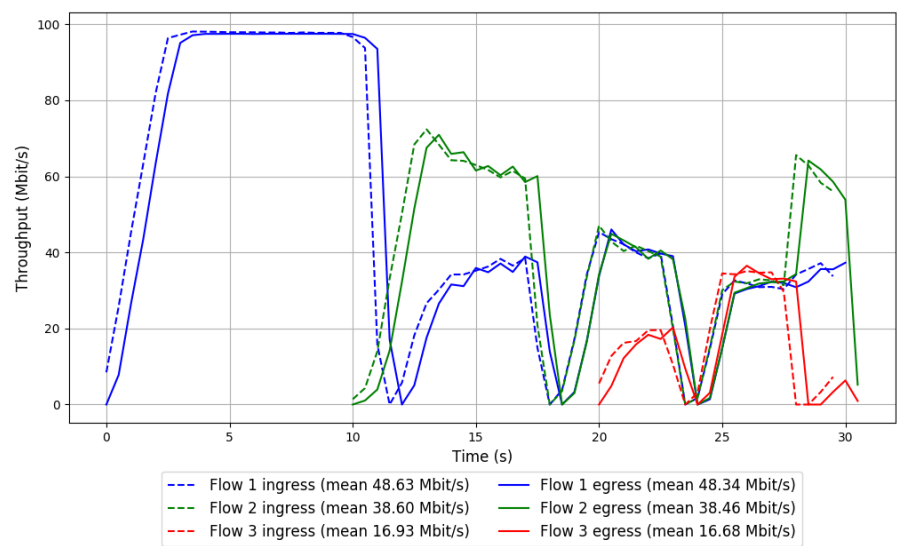
-- Flow 3:

Average throughput: 16.68 Mbit/s

95th percentile per-packet one-way delay: 45.806 ms

Loss rate: 1.17%

Run 4: Report of LEDBAT — Data Link

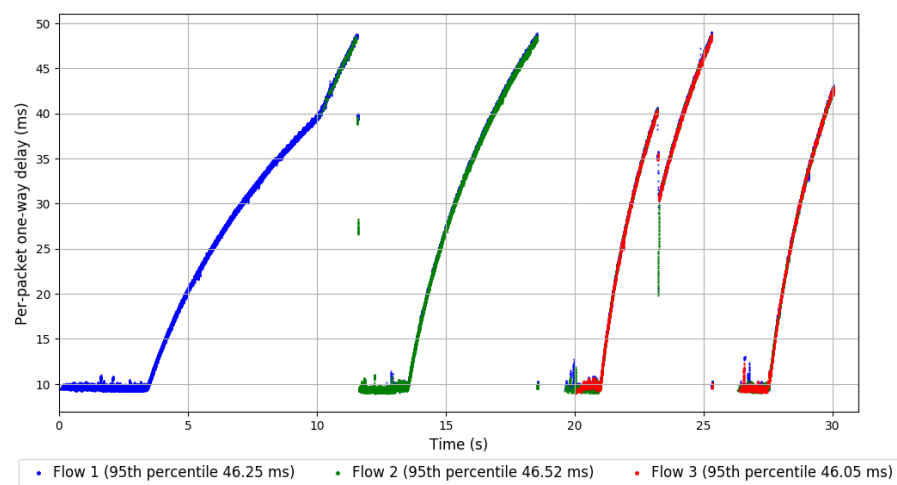
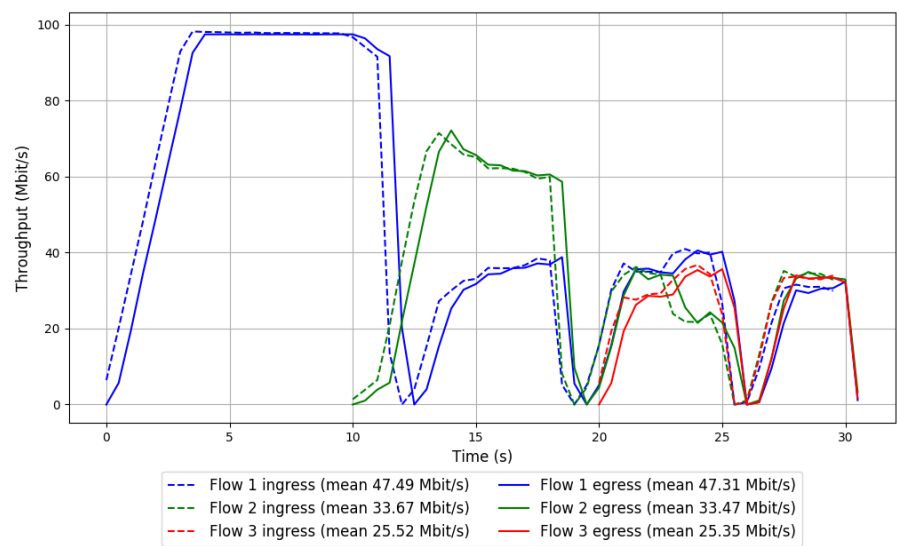


Run 5: Statistics of LEDBAT

Start at: 2019-07-12 06:19:48  
End at: 2019-07-12 06:20:18  
Local clock offset: -0.582 ms  
Remote clock offset: -2.593 ms

# Below is generated by plot.py at 2019-07-12 06:46:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.01 Mbit/s  
95th percentile per-packet one-way delay: 46.288 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 47.31 Mbit/s  
95th percentile per-packet one-way delay: 46.250 ms  
Loss rate: 0.27%  
-- Flow 2:  
Average throughput: 33.47 Mbit/s  
95th percentile per-packet one-way delay: 46.520 ms  
Loss rate: 0.59%  
-- Flow 3:  
Average throughput: 25.35 Mbit/s  
95th percentile per-packet one-way delay: 46.050 ms  
Loss rate: 0.37%

Run 5: Report of LEDBAT — Data Link

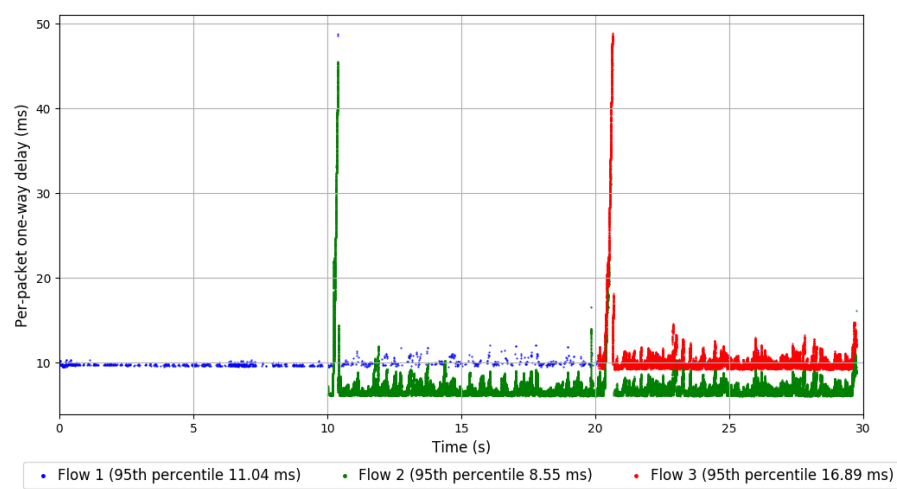
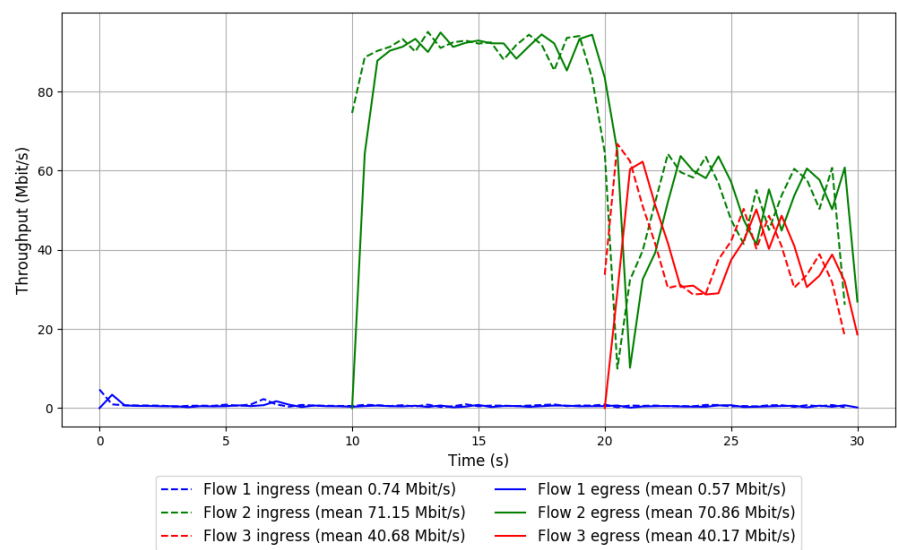


Run 1: Statistics of Muses\\_DecisionTree

Start at: 2019-07-12 04:31:37  
End at: 2019-07-12 04:32:07  
Local clock offset: -2.31 ms  
Remote clock offset: -0.902 ms

# Below is generated by plot.py at 2019-07-12 06:46:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 60.65 Mbit/s  
95th percentile per-packet one-way delay: 10.825 ms  
Loss rate: 0.82%  
-- Flow 1:  
Average throughput: 0.57 Mbit/s  
95th percentile per-packet one-way delay: 11.036 ms  
Loss rate: 22.84%  
-- Flow 2:  
Average throughput: 70.86 Mbit/s  
95th percentile per-packet one-way delay: 8.554 ms  
Loss rate: 0.36%  
-- Flow 3:  
Average throughput: 40.17 Mbit/s  
95th percentile per-packet one-way delay: 16.889 ms  
Loss rate: 1.25%

Run 1: Report of Muses\_DecisionTree — Data Link





Run 2: Statistics of Muses\\_DecisionTree

Start at: 2019-07-12 05:00:37

End at: 2019-07-12 05:01:07

Local clock offset: -5.362 ms

Remote clock offset: 2.268 ms

# Below is generated by plot.py at 2019-07-12 06:47:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.33 Mbit/s

95th percentile per-packet one-way delay: 13.331 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 62.39 Mbit/s

95th percentile per-packet one-way delay: 10.922 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 28.54 Mbit/s

95th percentile per-packet one-way delay: 15.397 ms

Loss rate: 0.83%

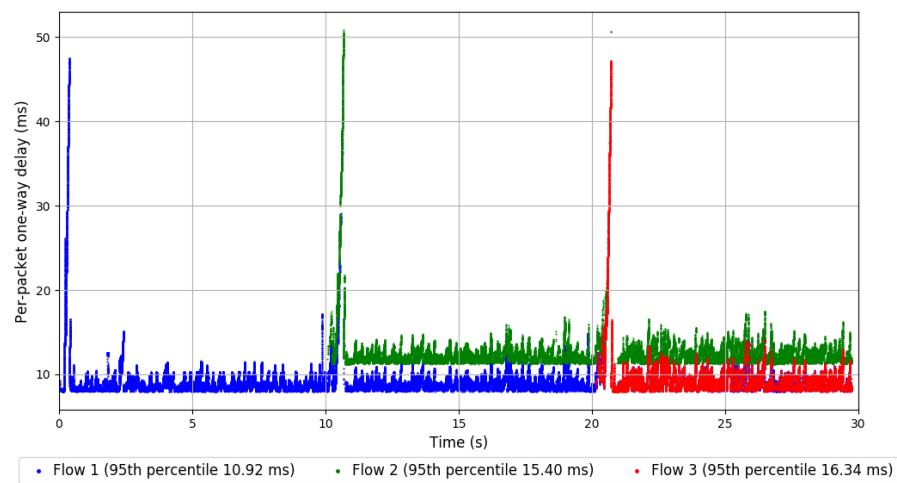
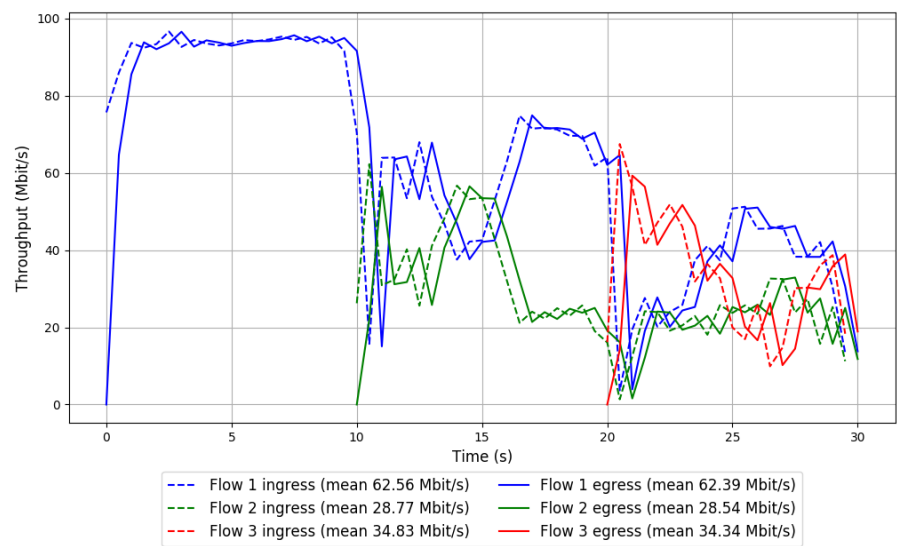
-- Flow 3:

Average throughput: 34.34 Mbit/s

95th percentile per-packet one-way delay: 16.345 ms

Loss rate: 1.42%

Run 2: Report of Muses\_DecisionTree — Data Link



Run 3: Statistics of Muses\\_DecisionTree

Start at: 2019-07-12 05:30:08

End at: 2019-07-12 05:30:38

Local clock offset: -7.281 ms

Remote clock offset: 1.242 ms

# Below is generated by plot.py at 2019-07-12 06:47:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.64 Mbit/s

95th percentile per-packet one-way delay: 13.148 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 63.69 Mbit/s

95th percentile per-packet one-way delay: 10.152 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 28.98 Mbit/s

95th percentile per-packet one-way delay: 14.910 ms

Loss rate: 0.87%

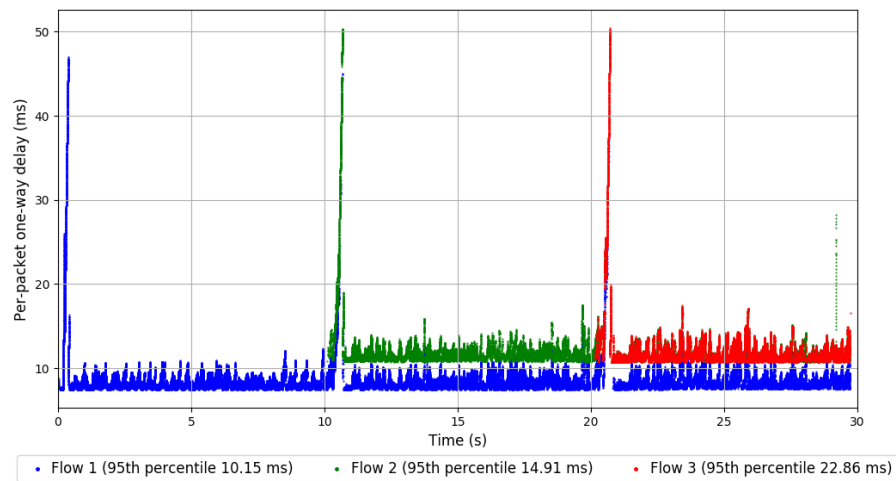
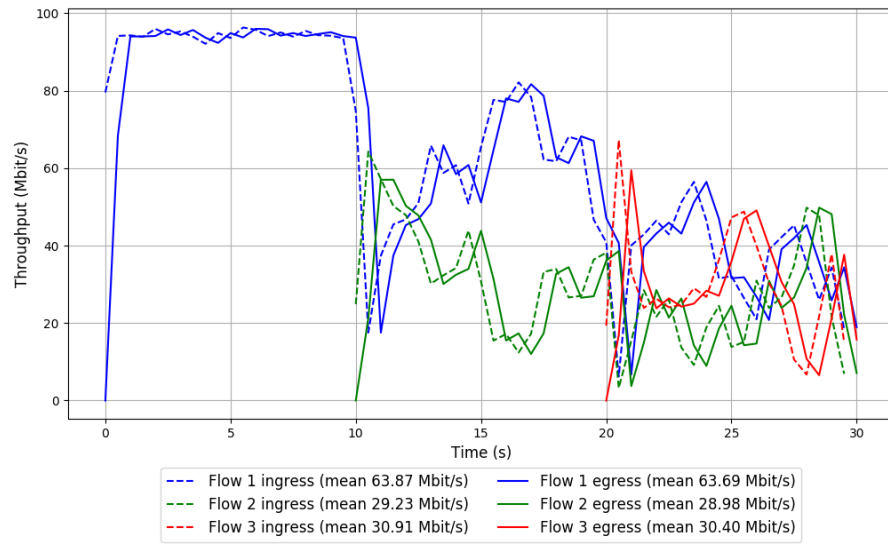
-- Flow 3:

Average throughput: 30.40 Mbit/s

95th percentile per-packet one-way delay: 22.860 ms

Loss rate: 1.61%

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



Run 4: Statistics of Muses\\_DecisionTree

Start at: 2019-07-12 05:59:14

End at: 2019-07-12 05:59:44

Local clock offset: -9.085 ms

Remote clock offset: 1.182 ms

# Below is generated by plot.py at 2019-07-12 06:47:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.61 Mbit/s

95th percentile per-packet one-way delay: 14.498 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 61.43 Mbit/s

95th percentile per-packet one-way delay: 12.125 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 19.08 Mbit/s

95th percentile per-packet one-way delay: 19.619 ms

Loss rate: 1.24%

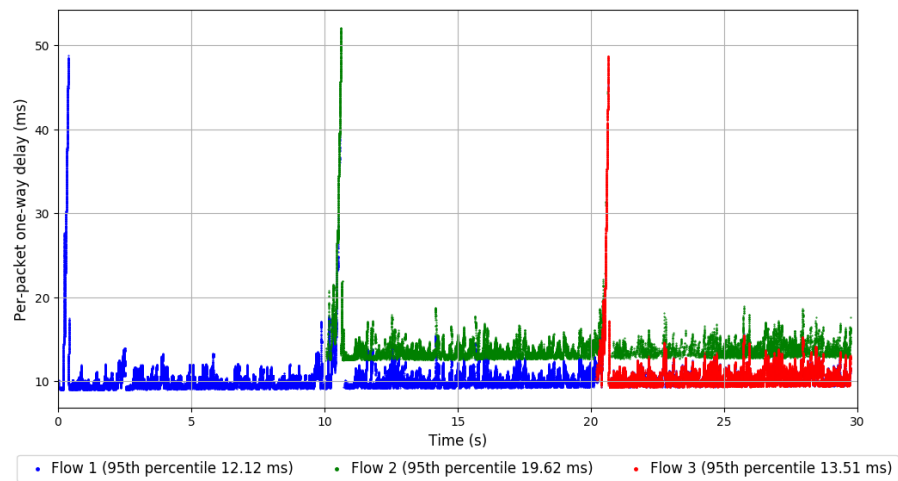
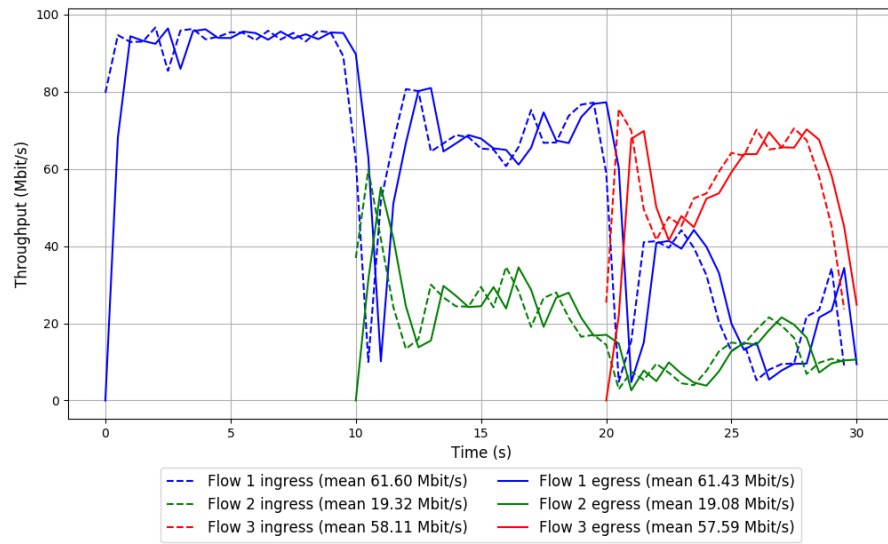
-- Flow 3:

Average throughput: 57.59 Mbit/s

95th percentile per-packet one-way delay: 13.508 ms

Loss rate: 0.88%

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

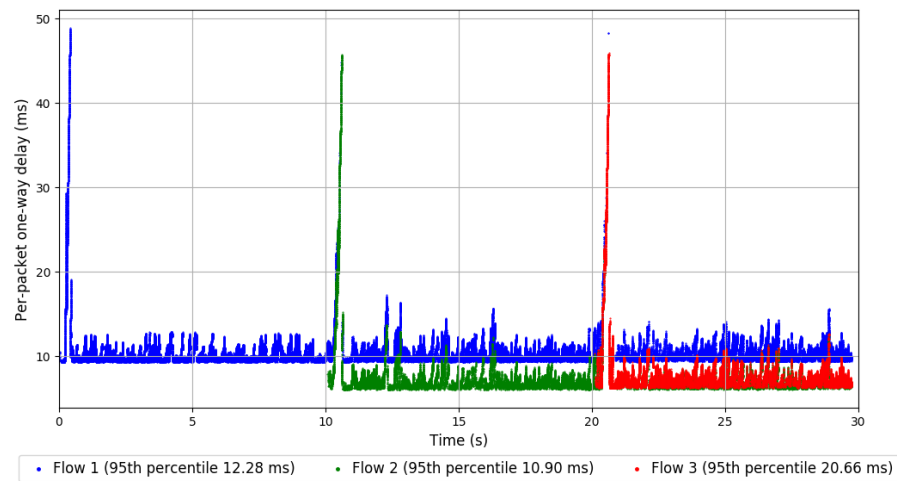
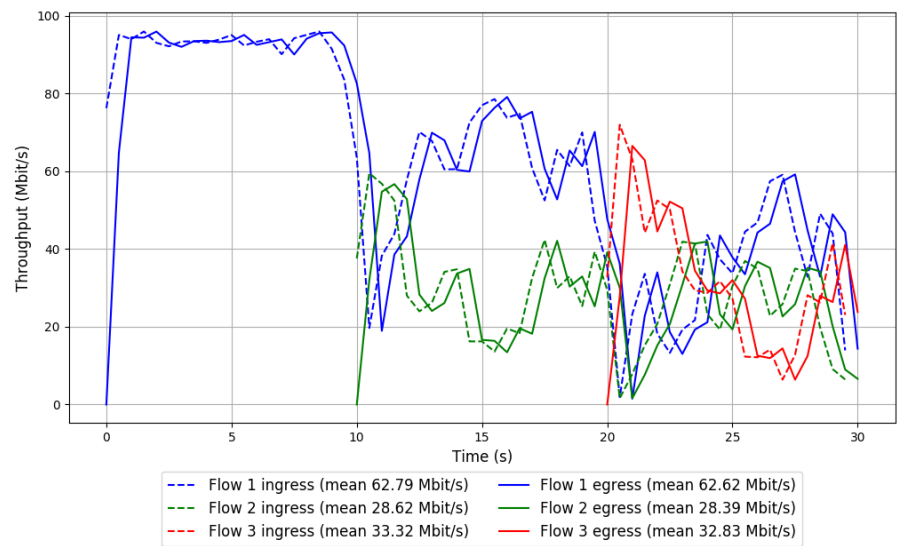


Run 5: Statistics of Muses\\_DecisionTree

Start at: 2019-07-12 06:28:32  
End at: 2019-07-12 06:29:02  
Local clock offset: -0.455 ms  
Remote clock offset: -3.626 ms

# Below is generated by plot.py at 2019-07-12 06:47:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.06 Mbit/s  
95th percentile per-packet one-way delay: 12.297 ms  
Loss rate: 0.54%  
-- Flow 1:  
Average throughput: 62.62 Mbit/s  
95th percentile per-packet one-way delay: 12.280 ms  
Loss rate: 0.28%  
-- Flow 2:  
Average throughput: 28.39 Mbit/s  
95th percentile per-packet one-way delay: 10.900 ms  
Loss rate: 0.84%  
-- Flow 3:  
Average throughput: 32.83 Mbit/s  
95th percentile per-packet one-way delay: 20.662 ms  
Loss rate: 1.52%

Run 5: Report of Muses\_DecisionTree — Data Link



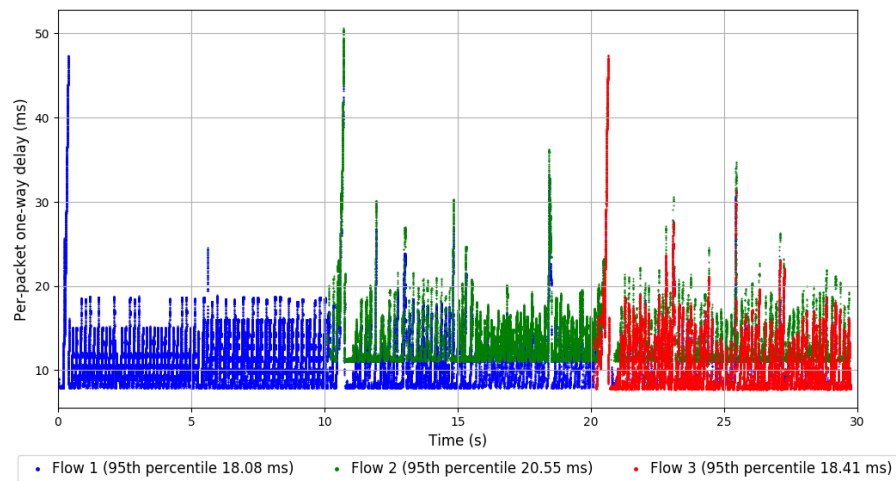
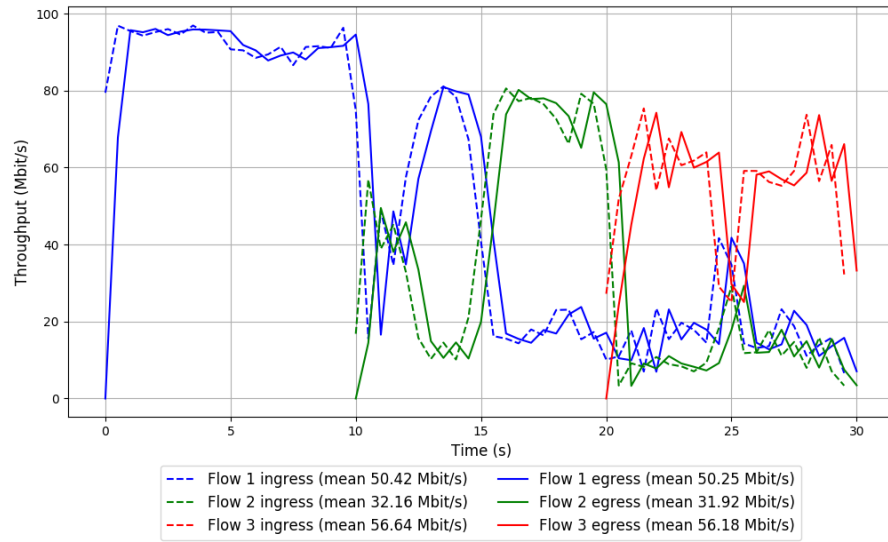


```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 04:25:32
End at: 2019-07-12 04:26:02
Local clock offset: -0.673 ms
Remote clock offset: 1.312 ms

# Below is generated by plot.py at 2019-07-12 06:47:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.63 Mbit/s
95th percentile per-packet one-way delay: 18.403 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 50.25 Mbit/s
95th percentile per-packet one-way delay: 18.077 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 31.92 Mbit/s
95th percentile per-packet one-way delay: 20.552 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 56.18 Mbit/s
95th percentile per-packet one-way delay: 18.410 ms
Loss rate: 0.82%
```

# Run 1: Report of Muses\_DecisionTreeH0 — Data Link



Run 2: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-07-12 04:54:38

End at: 2019-07-12 04:55:08

Local clock offset: -5.017 ms

Remote clock offset: 0.786 ms

# Below is generated by plot.py at 2019-07-12 06:47:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.58 Mbit/s

95th percentile per-packet one-way delay: 21.311 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 46.19 Mbit/s

95th percentile per-packet one-way delay: 18.996 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 53.50 Mbit/s

95th percentile per-packet one-way delay: 21.732 ms

Loss rate: 0.47%

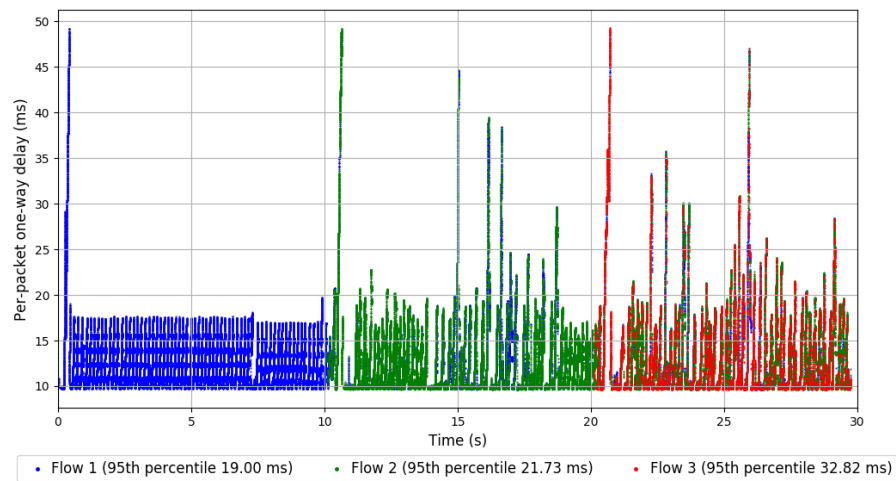
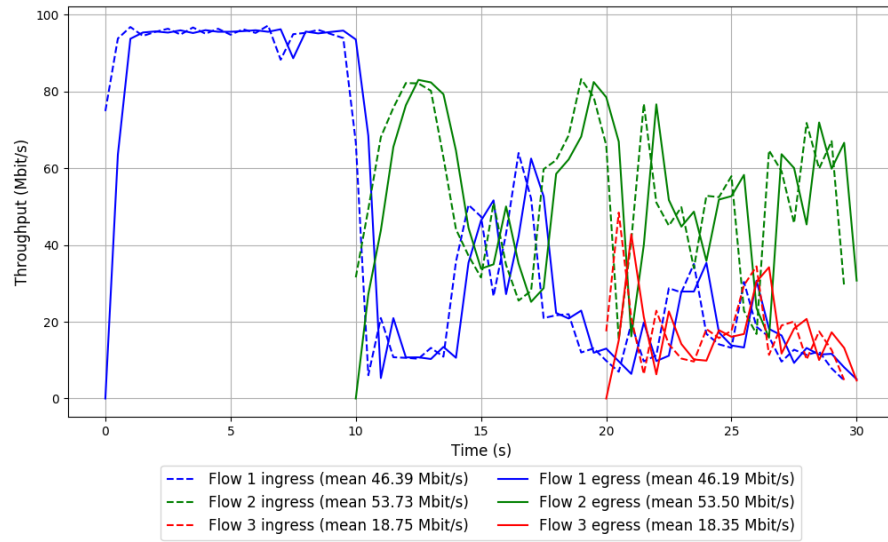
-- Flow 3:

Average throughput: 18.35 Mbit/s

95th percentile per-packet one-way delay: 32.819 ms

Loss rate: 2.16%

## Run 2: Report of Muses\_DecisionTreeH0 — Data Link



Run 3: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-07-12 05:24:03

End at: 2019-07-12 05:24:33

Local clock offset: -6.299 ms

Remote clock offset: 0.082 ms

# Below is generated by plot.py at 2019-07-12 06:47:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.45 Mbit/s

95th percentile per-packet one-way delay: 23.669 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 54.84 Mbit/s

95th percentile per-packet one-way delay: 20.901 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 30.87 Mbit/s

95th percentile per-packet one-way delay: 25.406 ms

Loss rate: 0.76%

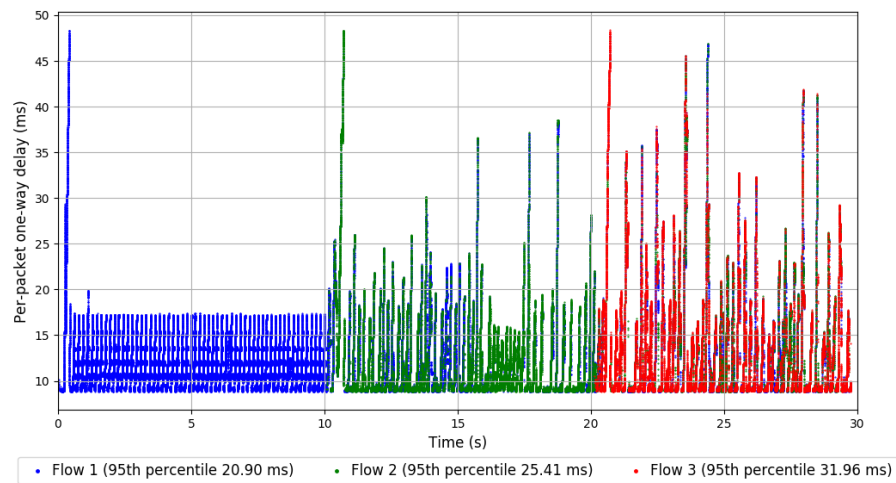
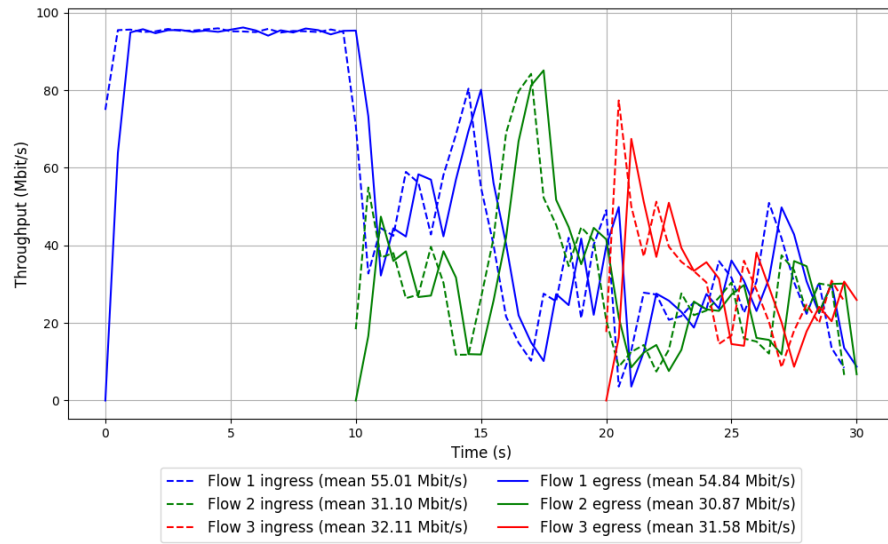
-- Flow 3:

Average throughput: 31.58 Mbit/s

95th percentile per-packet one-way delay: 31.963 ms

Loss rate: 1.65%

### Run 3: Report of Muses\_DecisionTreeH0 — Data Link



Run 4: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-07-12 05:52:59

End at: 2019-07-12 05:53:29

Local clock offset: -8.107 ms

Remote clock offset: 0.419 ms

# Below is generated by plot.py at 2019-07-12 06:47:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.30 Mbit/s

95th percentile per-packet one-way delay: 17.790 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 50.28 Mbit/s

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

Loss rate: 0.34%

-- Flow 2:

Average throughput: 40.97 Mbit/s

95th percentile per-packet one-way delay: 16.847 ms

Loss rate: 0.61%

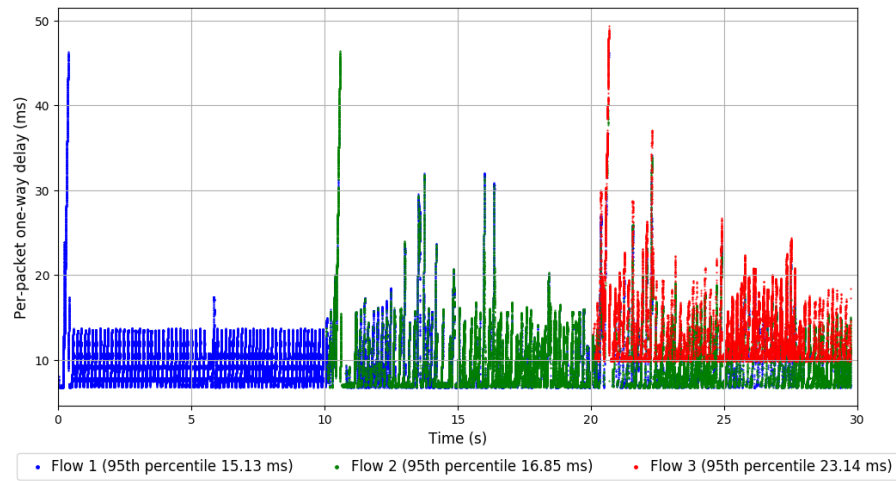
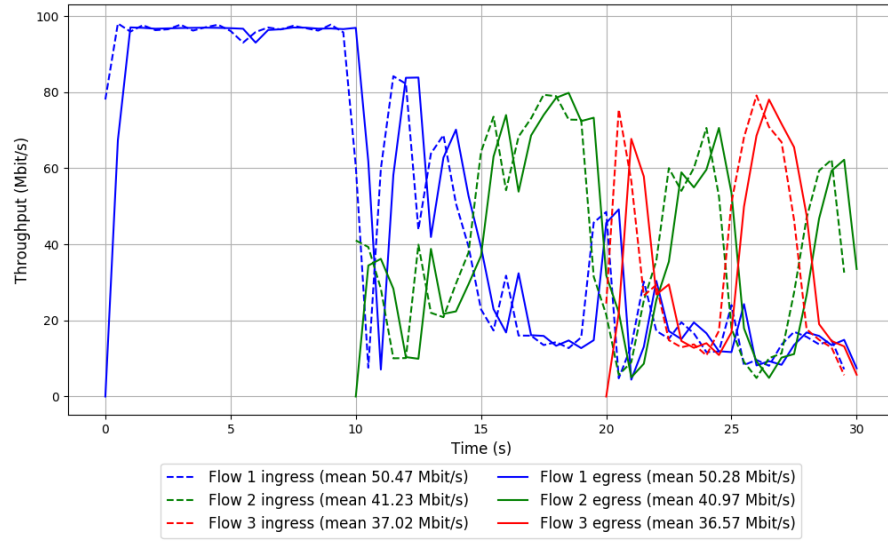
-- Flow 3:

Average throughput: 36.57 Mbit/s

95th percentile per-packet one-way delay: 23.137 ms

Loss rate: 1.20%

#### Run 4: Report of Muses\_DecisionTreeH0 — Data Link





Run 5: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-07-12 06:22:19

End at: 2019-07-12 06:22:49

Local clock offset: -0.112 ms

Remote clock offset: -0.58 ms

# Below is generated by plot.py at 2019-07-12 06:48:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.46 Mbit/s

95th percentile per-packet one-way delay: 20.918 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 46.58 Mbit/s

95th percentile per-packet one-way delay: 21.377 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 45.93 Mbit/s

95th percentile per-packet one-way delay: 19.495 ms

Loss rate: 0.55%

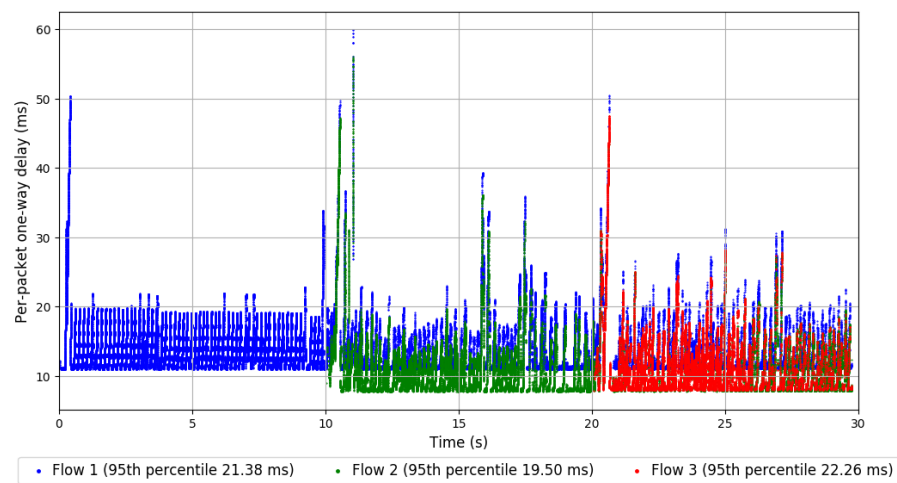
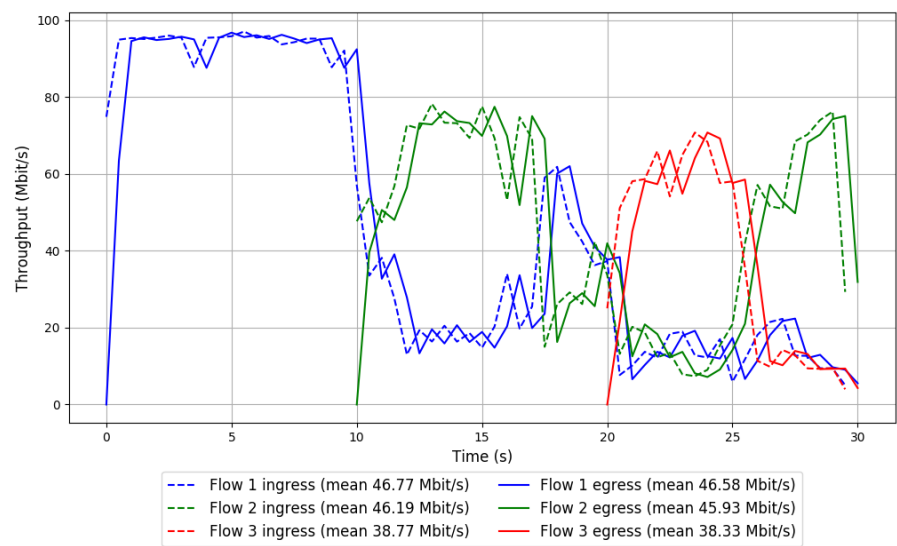
-- Flow 3:

Average throughput: 38.33 Mbit/s

95th percentile per-packet one-way delay: 22.262 ms

Loss rate: 1.13%

Run 5: Report of Muses\_DecisionTreeH0 — Data Link



Run 1: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-07-12 04:12:10

End at: 2019-07-12 04:12:40

Local clock offset: -0.163 ms

Remote clock offset: 0.43 ms

# Below is generated by plot.py at 2019-07-12 06:48:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.02 Mbit/s

95th percentile per-packet one-way delay: 13.186 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 54.08 Mbit/s

95th percentile per-packet one-way delay: 12.938 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 36.13 Mbit/s

95th percentile per-packet one-way delay: 10.790 ms

Loss rate: 0.69%

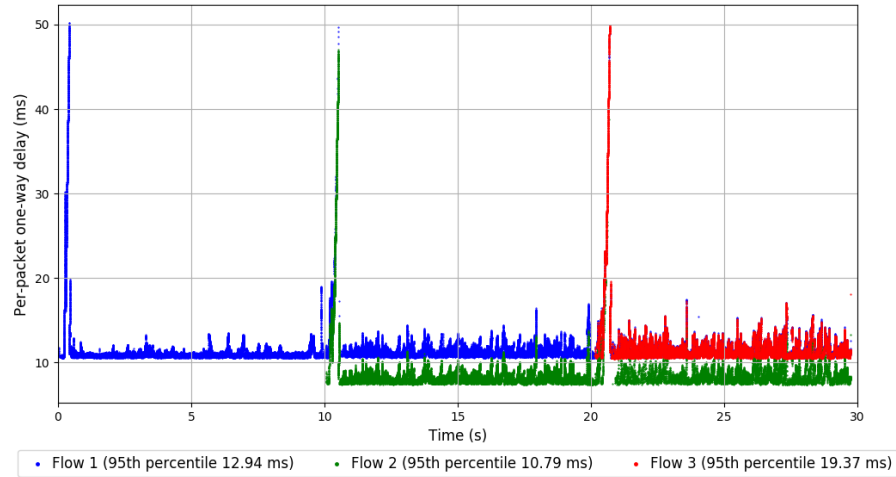
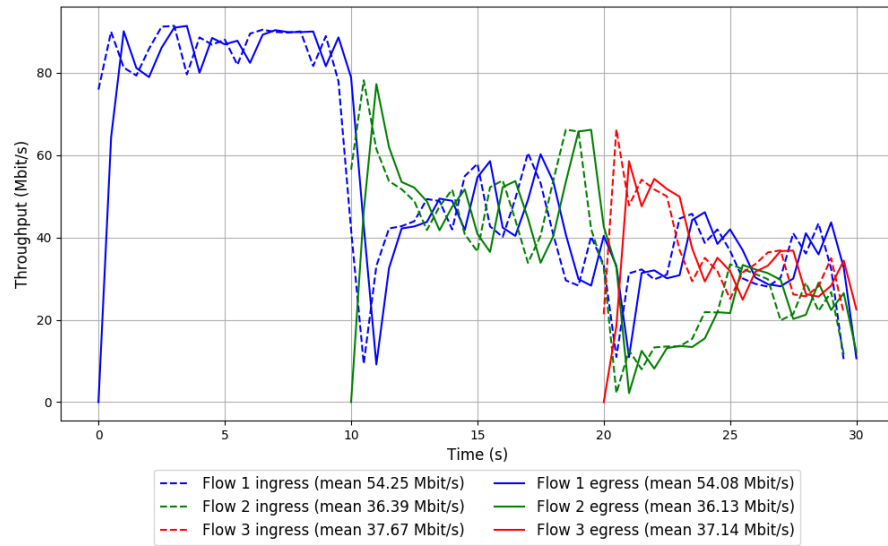
-- Flow 3:

Average throughput: 37.14 Mbit/s

95th percentile per-packet one-way delay: 19.368 ms

Loss rate: 1.36%

# Run 1: Report of Muses\_DecisionTreeR0 — Data Link



Run 2: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-07-12 04:41:28

End at: 2019-07-12 04:41:59

Local clock offset: -4.829 ms

Remote clock offset: 0.54 ms

# Below is generated by plot.py at 2019-07-12 06:48:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.17 Mbit/s

95th percentile per-packet one-way delay: 13.340 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 59.38 Mbit/s

95th percentile per-packet one-way delay: 13.177 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 14.21 Mbit/s

95th percentile per-packet one-way delay: 19.538 ms

Loss rate: 1.74%

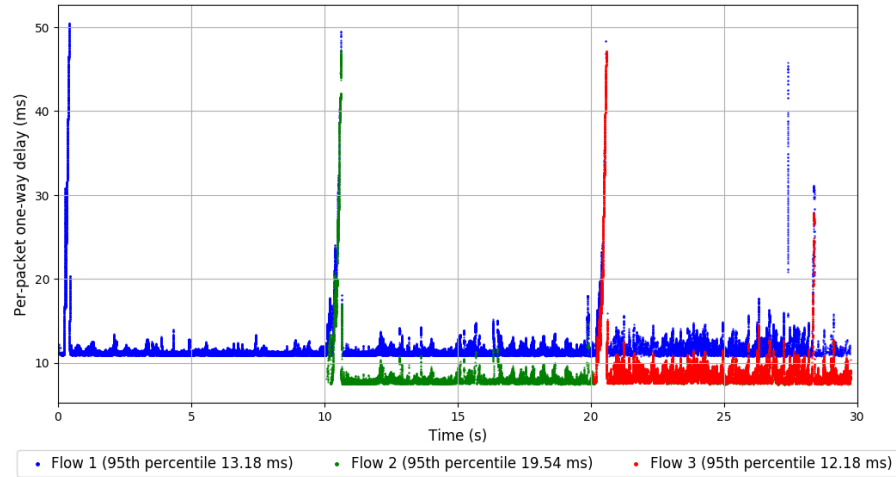
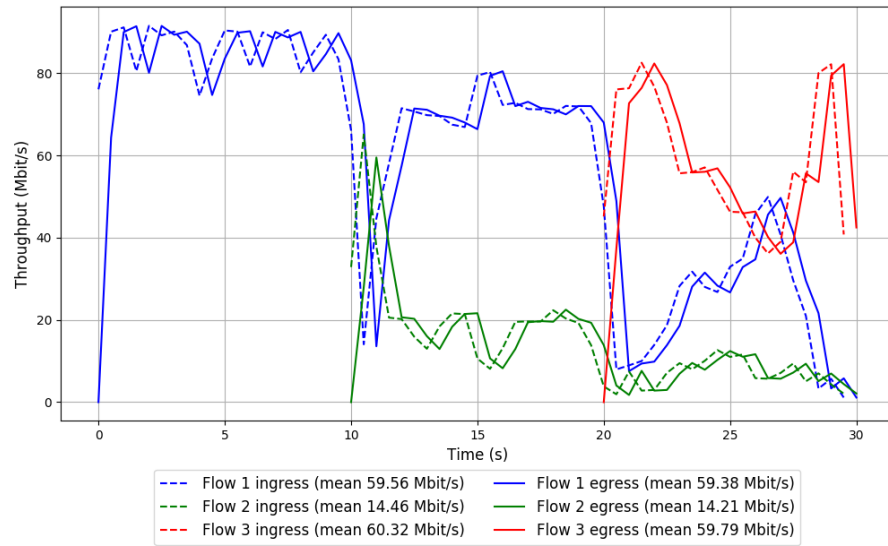
-- Flow 3:

Average throughput: 59.79 Mbit/s

95th percentile per-packet one-way delay: 12.177 ms

Loss rate: 0.84%

## Run 2: Report of Muses\_DecisionTreeR0 — Data Link



Run 3: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-07-12 05:10:32

End at: 2019-07-12 05:11:02

Local clock offset: -5.173 ms

Remote clock offset: 0.554 ms

# Below is generated by plot.py at 2019-07-12 06:48:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.04 Mbit/s

95th percentile per-packet one-way delay: 10.431 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 52.62 Mbit/s

95th percentile per-packet one-way delay: 8.280 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 42.84 Mbit/s

95th percentile per-packet one-way delay: 8.701 ms

Loss rate: 0.58%

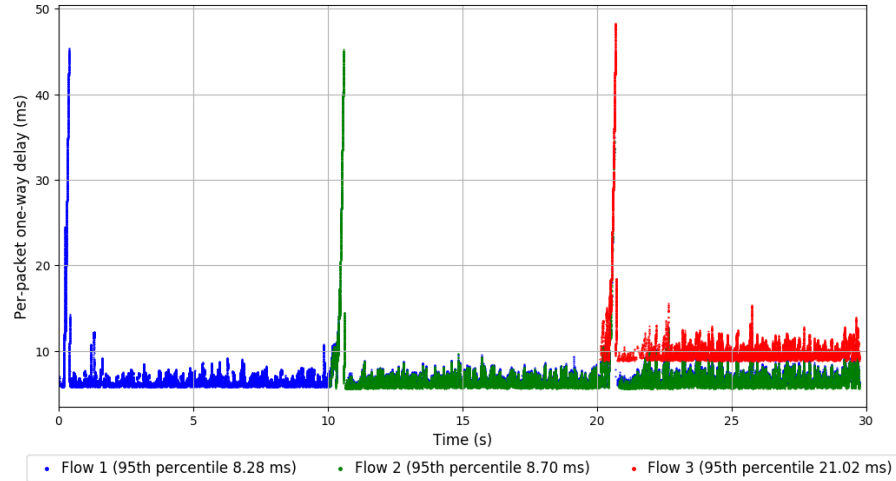
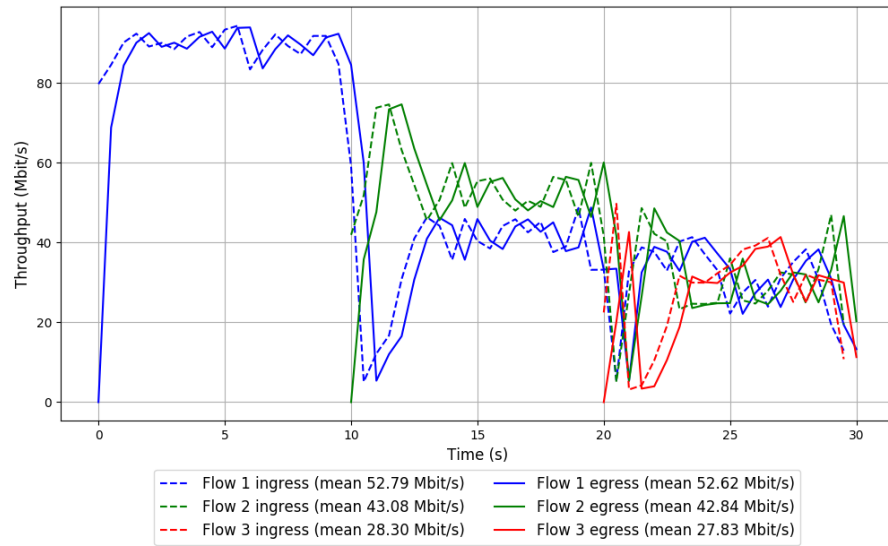
-- Flow 3:

Average throughput: 27.83 Mbit/s

95th percentile per-packet one-way delay: 21.022 ms

Loss rate: 1.67%

### Run 3: Report of Muses\_DecisionTreeR0 — Data Link





Run 4: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-07-12 05:39:49

End at: 2019-07-12 05:40:19

Local clock offset: -8.552 ms

Remote clock offset: 0.698 ms

# Below is generated by plot.py at 2019-07-12 06:48:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.23 Mbit/s

95th percentile per-packet one-way delay: 13.368 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 51.78 Mbit/s

95th percentile per-packet one-way delay: 10.138 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 32.94 Mbit/s

95th percentile per-packet one-way delay: 14.765 ms

Loss rate: 0.73%

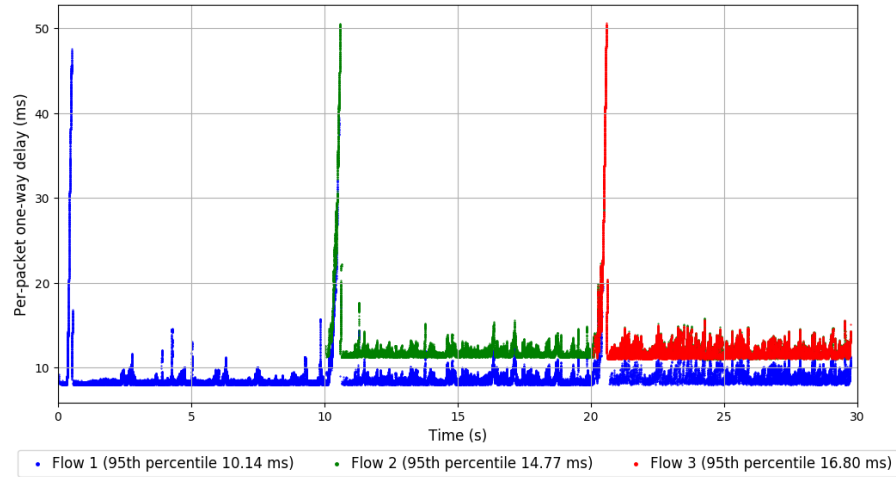
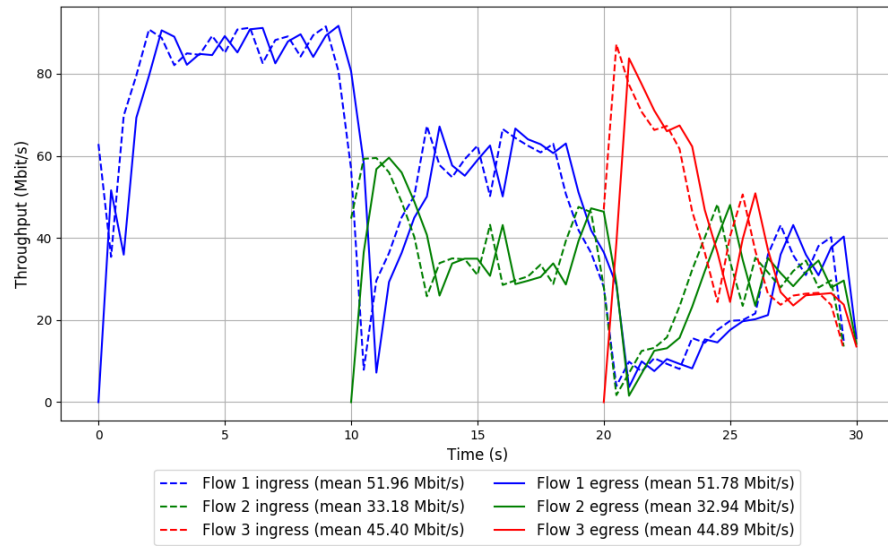
-- Flow 3:

Average throughput: 44.89 Mbit/s

95th percentile per-packet one-way delay: 16.797 ms

Loss rate: 1.11%

#### Run 4: Report of Muses\_DecisionTreeR0 — Data Link



Run 5: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-07-12 06:09:07

End at: 2019-07-12 06:09:37

Local clock offset: -3.45 ms

Remote clock offset: 0.434 ms

# Below is generated by plot.py at 2019-07-12 06:48:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.44 Mbit/s

95th percentile per-packet one-way delay: 12.191 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 58.65 Mbit/s

95th percentile per-packet one-way delay: 11.531 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 37.13 Mbit/s

95th percentile per-packet one-way delay: 12.648 ms

Loss rate: 0.64%

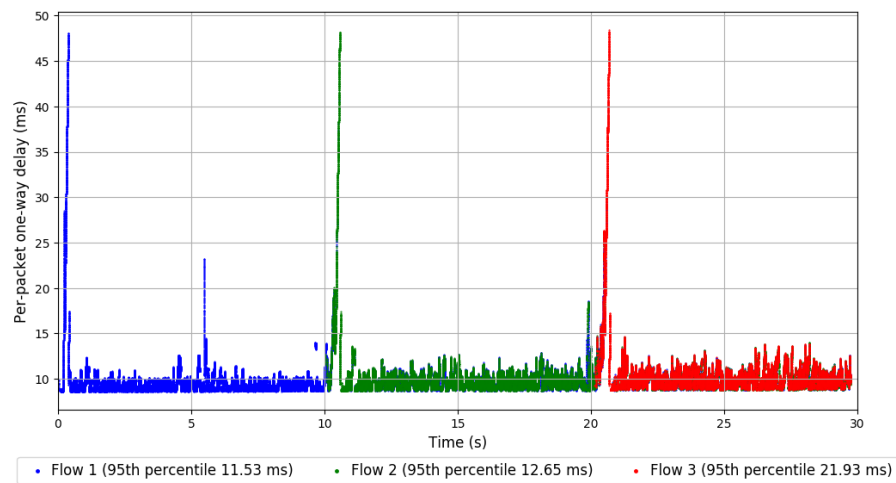
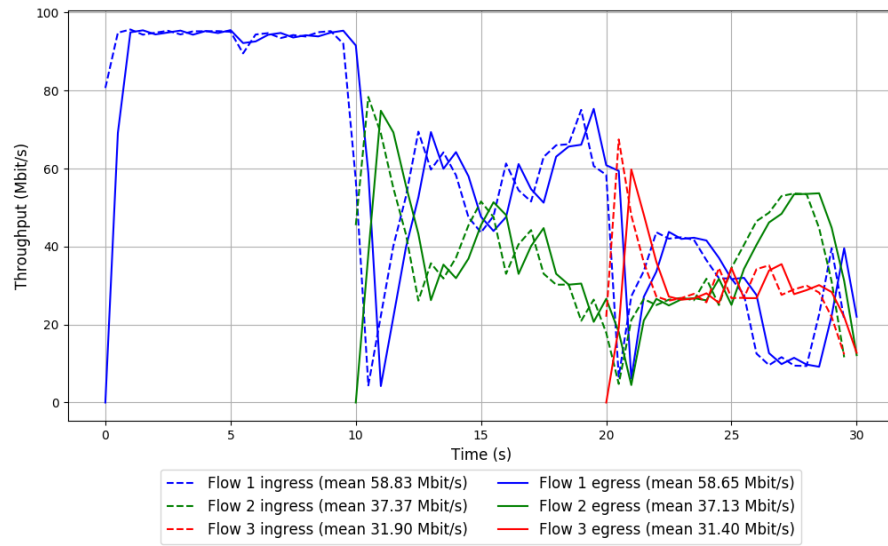
-- Flow 3:

Average throughput: 31.40 Mbit/s

95th percentile per-packet one-way delay: 21.925 ms

Loss rate: 1.55%

## Run 5: Report of Muses\_DecisionTreeR0 — Data Link

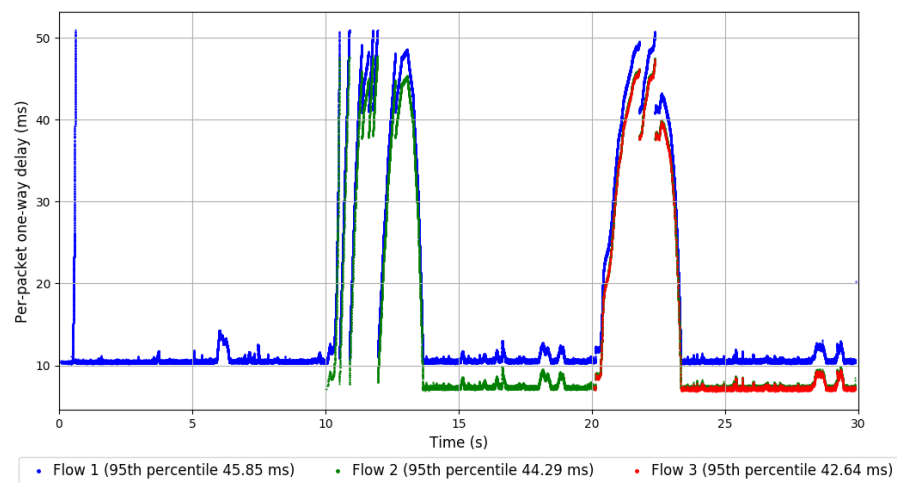
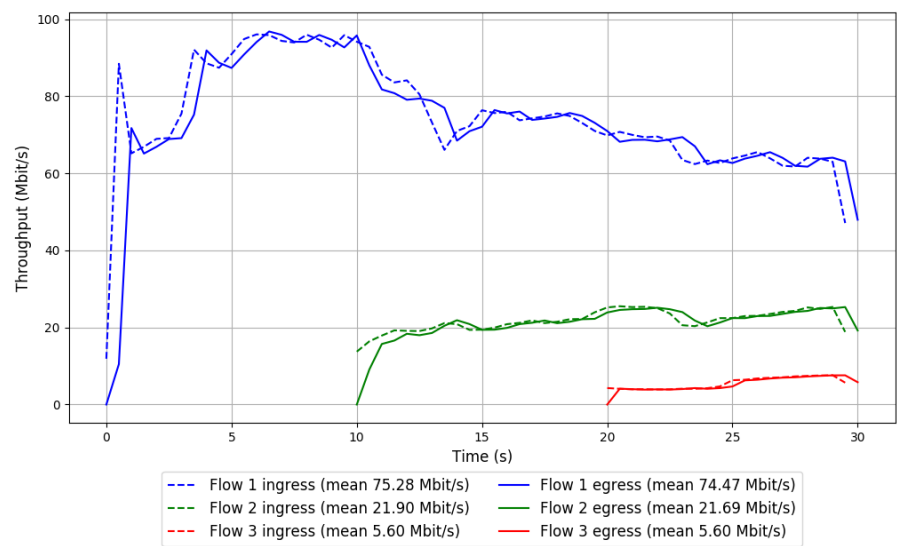


Run 1: Statistics of PCC-Allegro

Start at: 2019-07-12 04:21:47  
End at: 2019-07-12 04:22:17  
Local clock offset: -1.399 ms  
Remote clock offset: -0.328 ms

# Below is generated by plot.py at 2019-07-12 06:49:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.74 Mbit/s  
95th percentile per-packet one-way delay: 45.308 ms  
Loss rate: 1.01%  
-- Flow 1:  
Average throughput: 74.47 Mbit/s  
95th percentile per-packet one-way delay: 45.854 ms  
Loss rate: 1.05%  
-- Flow 2:  
Average throughput: 21.69 Mbit/s  
95th percentile per-packet one-way delay: 44.290 ms  
Loss rate: 0.96%  
-- Flow 3:  
Average throughput: 5.60 Mbit/s  
95th percentile per-packet one-way delay: 42.639 ms  
Loss rate: 0.10%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-07-12 04:51:04

End at: 2019-07-12 04:51:34

Local clock offset: -4.831 ms

Remote clock offset: 1.852 ms

# Below is generated by plot.py at 2019-07-12 06:49:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.46 Mbit/s

95th percentile per-packet one-way delay: 18.683 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 81.12 Mbit/s

95th percentile per-packet one-way delay: 17.158 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 14.58 Mbit/s

95th percentile per-packet one-way delay: 22.041 ms

Loss rate: 0.00%

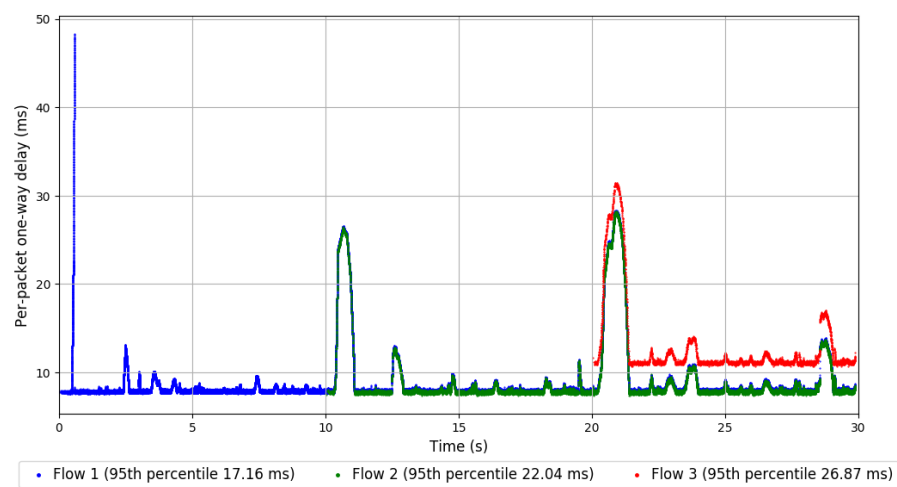
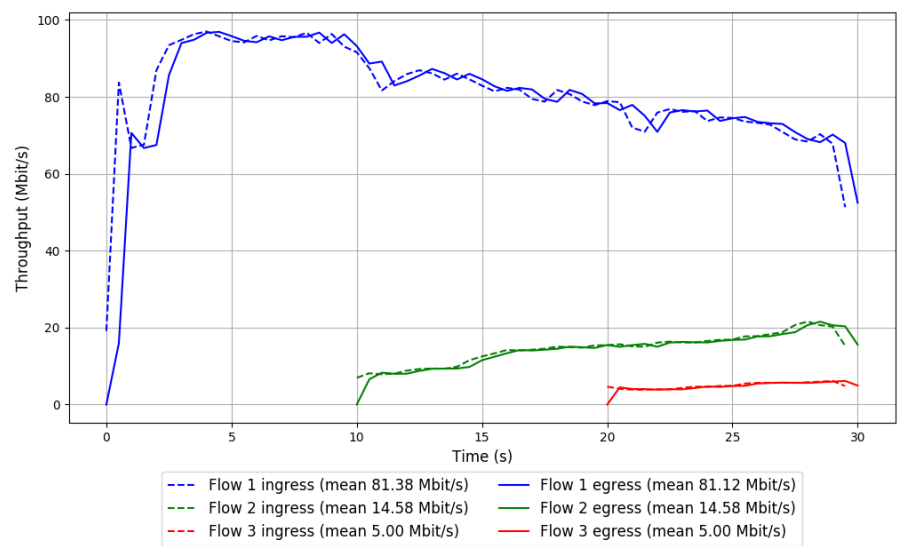
-- Flow 3:

Average throughput: 5.00 Mbit/s

95th percentile per-packet one-way delay: 26.868 ms

Loss rate: 0.02%

Run 2: Report of PCC-Allegro — Data Link





Run 3: Statistics of PCC-Allegro

Start at: 2019-07-12 05:20:21

End at: 2019-07-12 05:20:51

Local clock offset: -6.37 ms

Remote clock offset: 1.749 ms

# Below is generated by plot.py at 2019-07-12 06:49:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.51 Mbit/s

95th percentile per-packet one-way delay: 19.202 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 84.18 Mbit/s

95th percentile per-packet one-way delay: 19.104 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 10.28 Mbit/s

95th percentile per-packet one-way delay: 20.008 ms

Loss rate: 0.18%

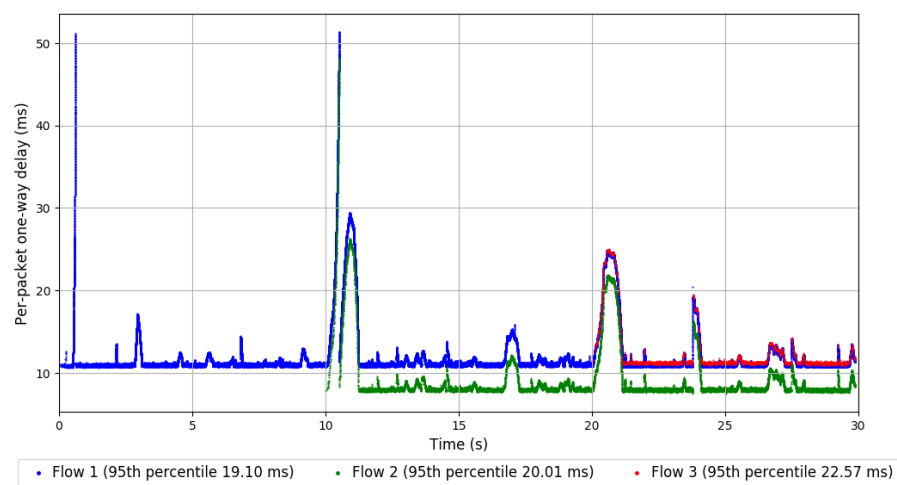
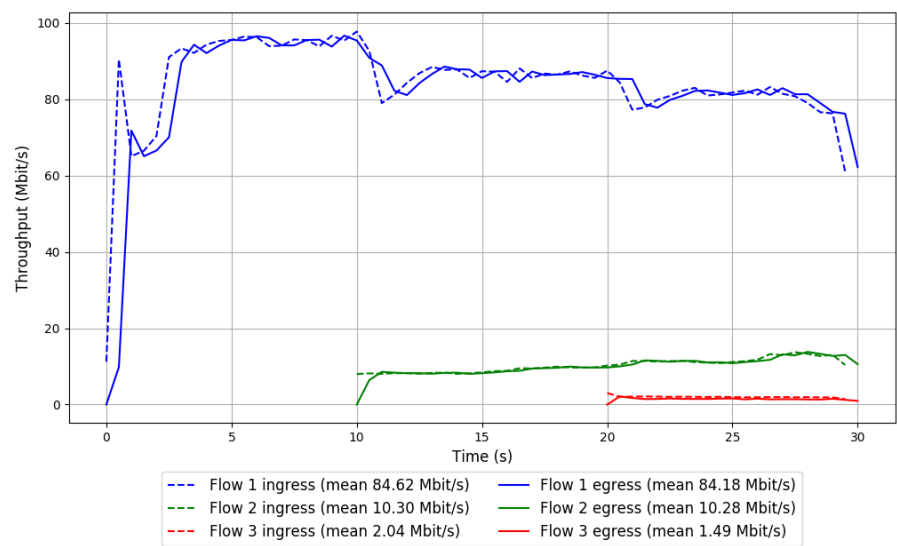
-- Flow 3:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 22.569 ms

Loss rate: 27.22%

Run 3: Report of PCC-Allegro — Data Link

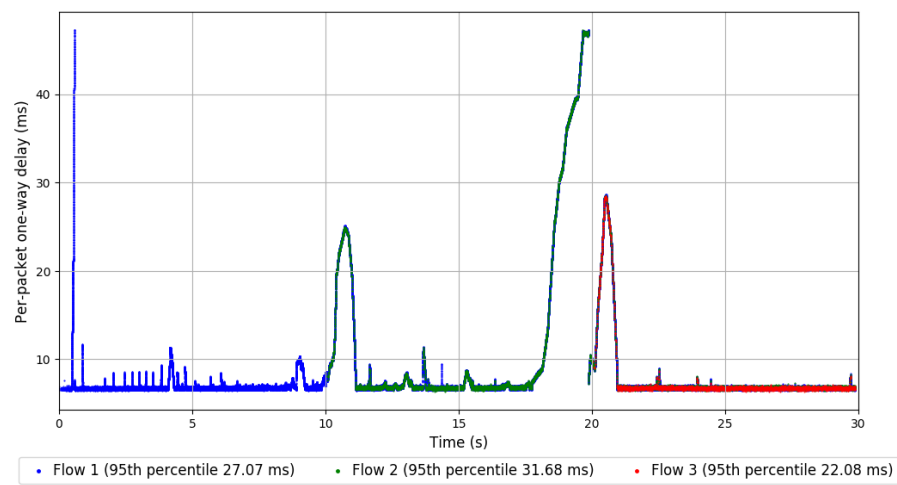
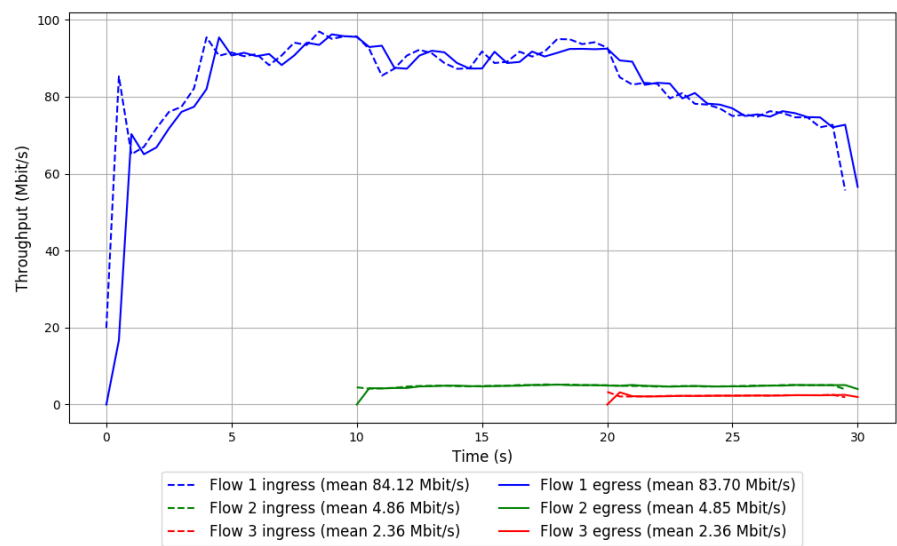


Run 4: Statistics of PCC-Allegro

Start at: 2019-07-12 05:49:16  
End at: 2019-07-12 05:49:46  
Local clock offset: -9.536 ms  
Remote clock offset: -1.362 ms

# Below is generated by plot.py at 2019-07-12 06:49:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.70 Mbit/s  
95th percentile per-packet one-way delay: 27.186 ms  
Loss rate: 0.48%  
-- Flow 1:  
Average throughput: 83.70 Mbit/s  
95th percentile per-packet one-way delay: 27.074 ms  
Loss rate: 0.50%  
-- Flow 2:  
Average throughput: 4.85 Mbit/s  
95th percentile per-packet one-way delay: 31.677 ms  
Loss rate: 0.21%  
-- Flow 3:  
Average throughput: 2.36 Mbit/s  
95th percentile per-packet one-way delay: 22.076 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link

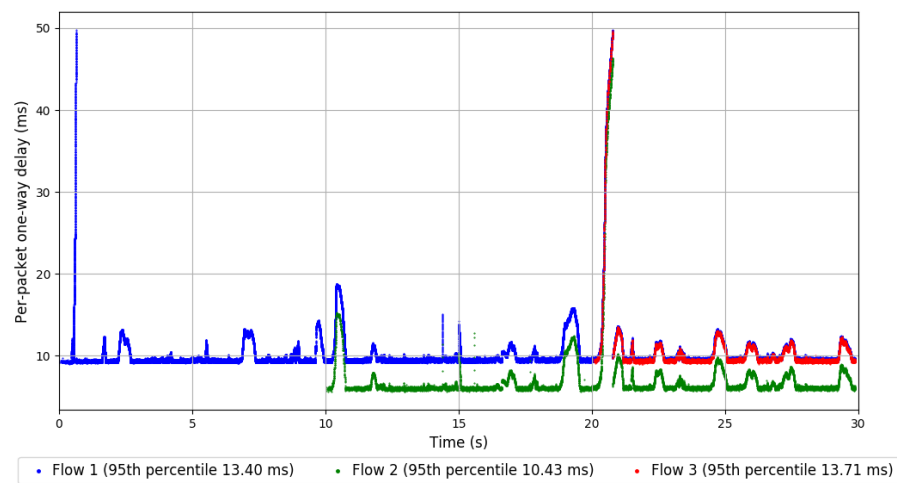
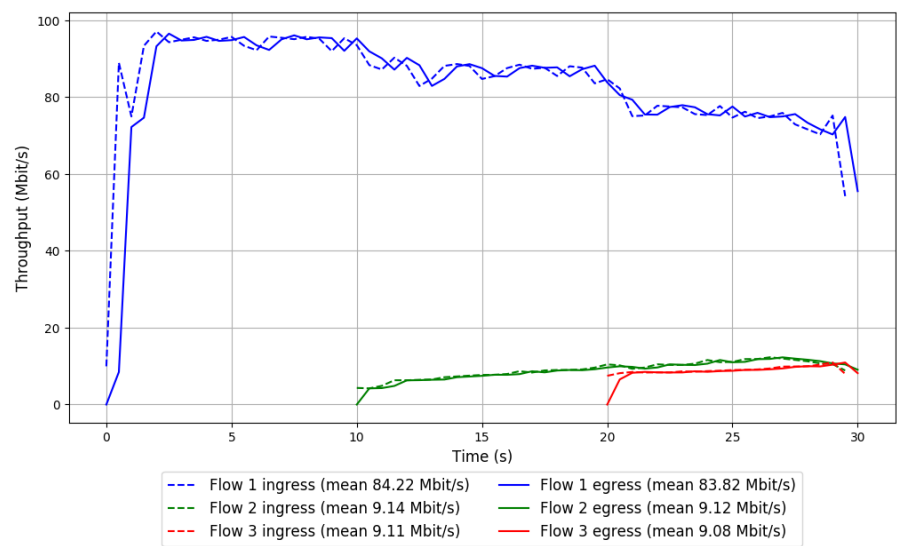


Run 5: Statistics of PCC-Allegro

Start at: 2019-07-12 06:18:37  
End at: 2019-07-12 06:19:07  
Local clock offset: -0.46 ms  
Remote clock offset: -2.259 ms

# Below is generated by plot.py at 2019-07-12 06:49:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.88 Mbit/s  
95th percentile per-packet one-way delay: 13.264 ms  
Loss rate: 0.46%  
-- Flow 1:  
Average throughput: 83.82 Mbit/s  
95th percentile per-packet one-way delay: 13.397 ms  
Loss rate: 0.48%  
-- Flow 2:  
Average throughput: 9.12 Mbit/s  
95th percentile per-packet one-way delay: 10.426 ms  
Loss rate: 0.23%  
-- Flow 3:  
Average throughput: 9.08 Mbit/s  
95th percentile per-packet one-way delay: 13.705 ms  
Loss rate: 0.38%

Run 5: Report of PCC-Allegro — Data Link

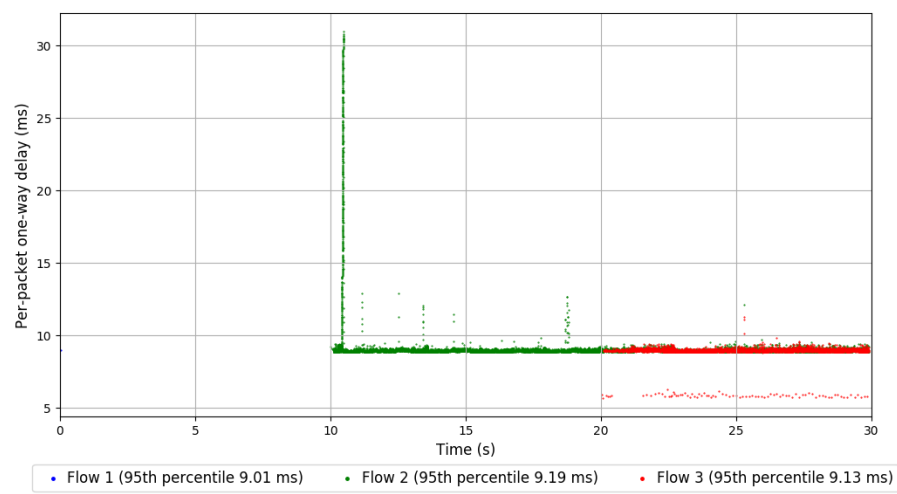
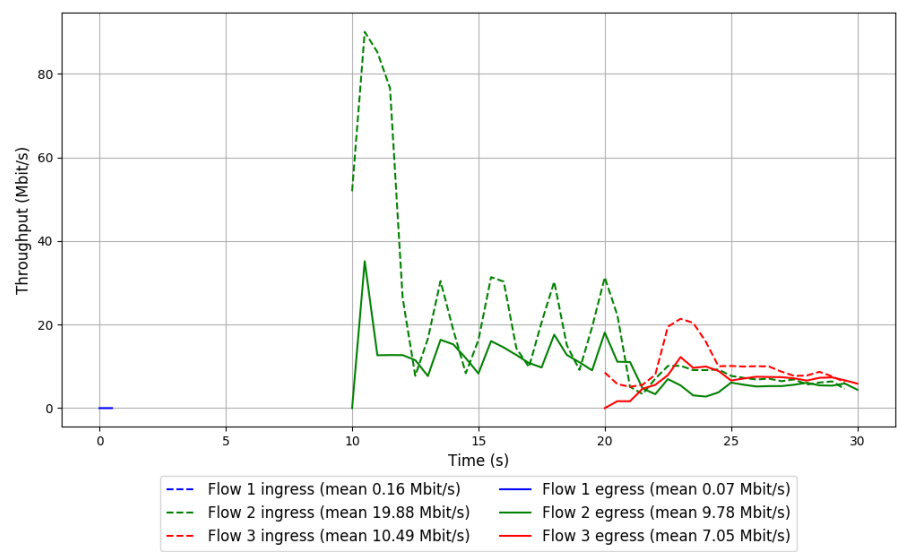


```
Run 1: Statistics of PCC-Expr

Start at: 2019-07-12 04:15:47
End at: 2019-07-12 04:16:17
Local clock offset: -0.299 ms
Remote clock offset: -0.99 ms

# Below is generated by plot.py at 2019-07-12 06:49:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 9.165 ms
Loss rate: 47.04%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 9.010 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.78 Mbit/s
95th percentile per-packet one-way delay: 9.185 ms
Loss rate: 50.78%
-- Flow 3:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 9.127 ms
Loss rate: 32.77%
```

Run 1: Report of PCC-Expr — Data Link





Run 2: Statistics of PCC-Expr

Start at: 2019-07-12 04:45:04

End at: 2019-07-12 04:45:34

Local clock offset: -4.602 ms

Remote clock offset: 0.445 ms

# Below is generated by plot.py at 2019-07-12 06:49:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.09 Mbit/s

95th percentile per-packet one-way delay: 10.010 ms

Loss rate: 35.83%

-- Flow 1:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 10.036 ms

Loss rate: 41.97%

-- Flow 2:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 9.980 ms

Loss rate: 21.04%

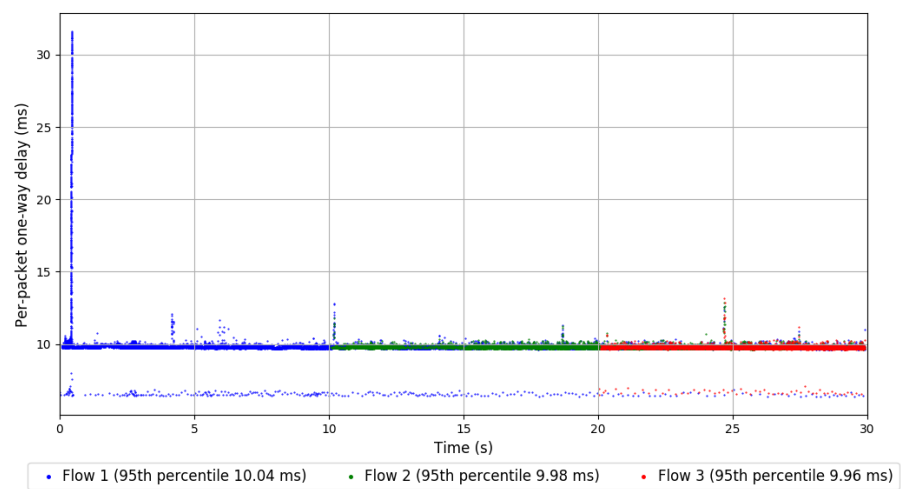
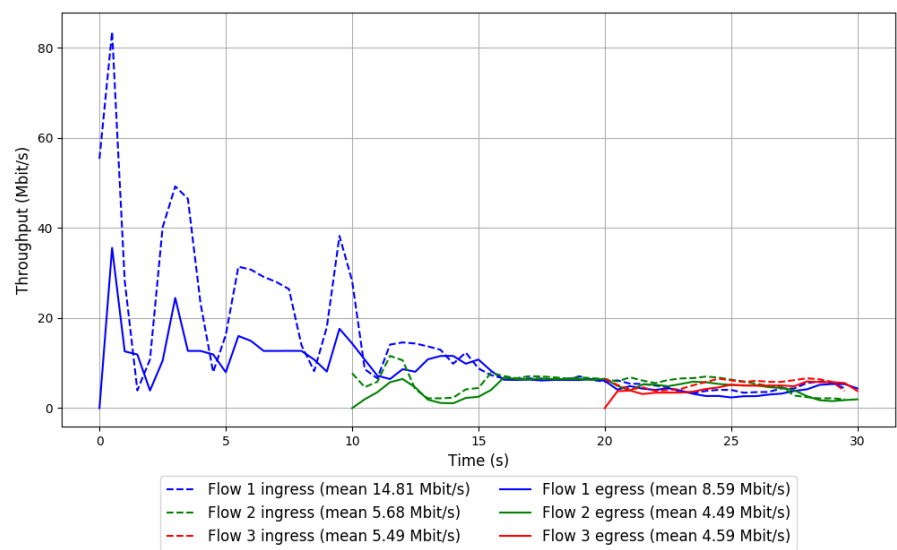
-- Flow 3:

Average throughput: 4.59 Mbit/s

95th percentile per-packet one-way delay: 9.962 ms

Loss rate: 16.44%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-07-12 05:14:17

End at: 2019-07-12 05:14:47

Local clock offset: -6.623 ms

Remote clock offset: 1.969 ms

# Below is generated by plot.py at 2019-07-12 06:49:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.09 Mbit/s

95th percentile per-packet one-way delay: 11.927 ms

Loss rate: 40.32%

-- Flow 1:

Average throughput: 8.01 Mbit/s

95th percentile per-packet one-way delay: 11.955 ms

Loss rate: 45.26%

-- Flow 2:

Average throughput: 5.95 Mbit/s

95th percentile per-packet one-way delay: 11.892 ms

Loss rate: 27.31%

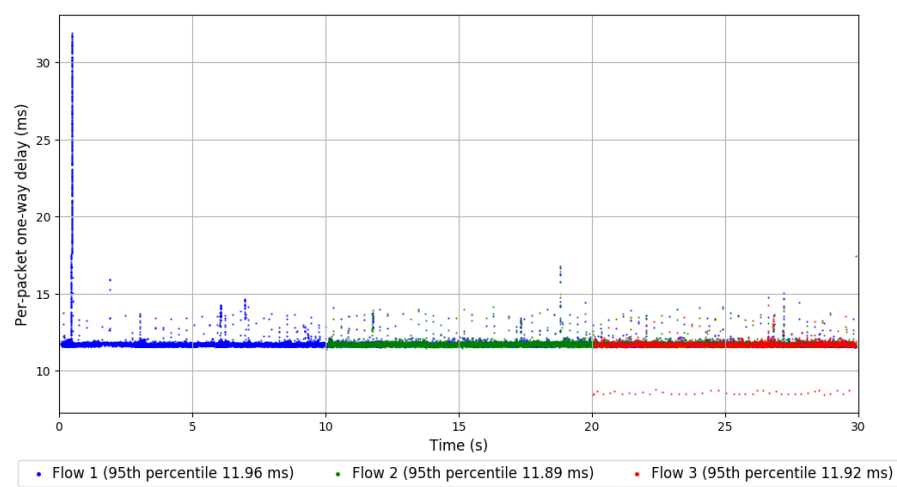
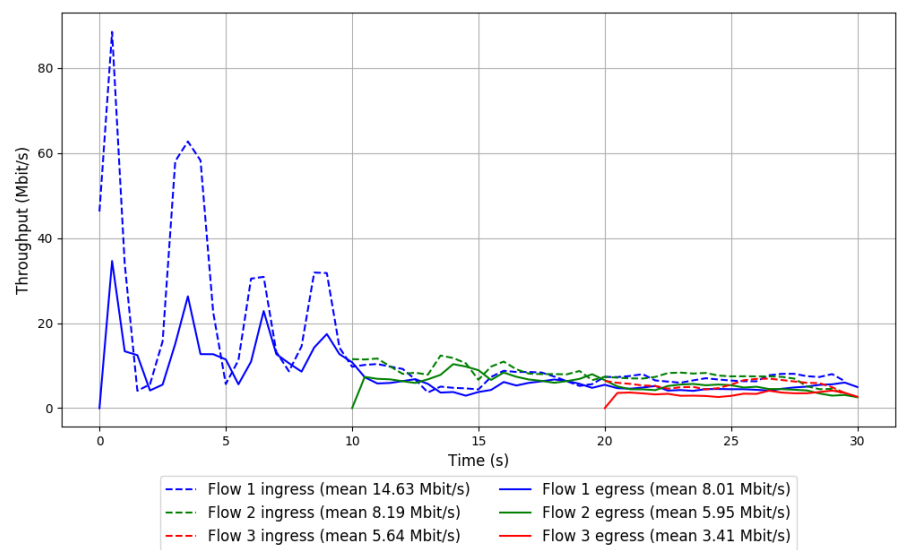
-- Flow 3:

Average throughput: 3.41 Mbit/s

95th percentile per-packet one-way delay: 11.921 ms

Loss rate: 39.58%

Run 3: Report of PCC-Expr — Data Link

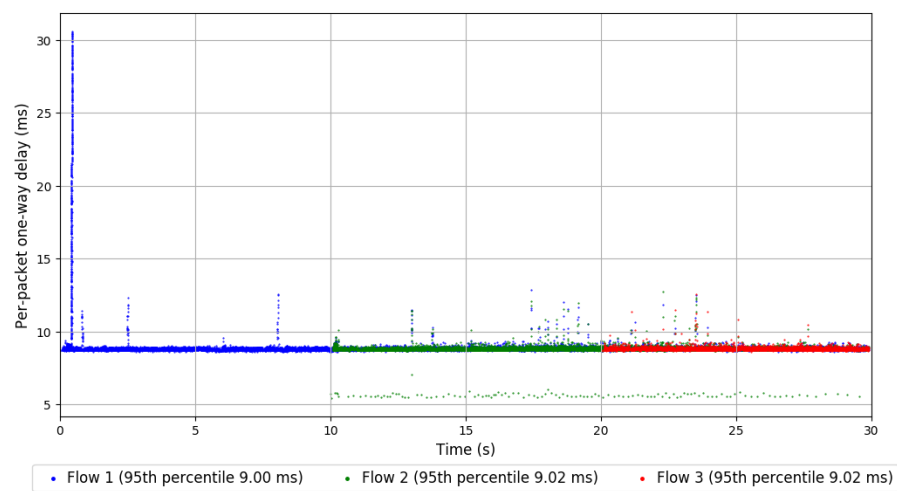
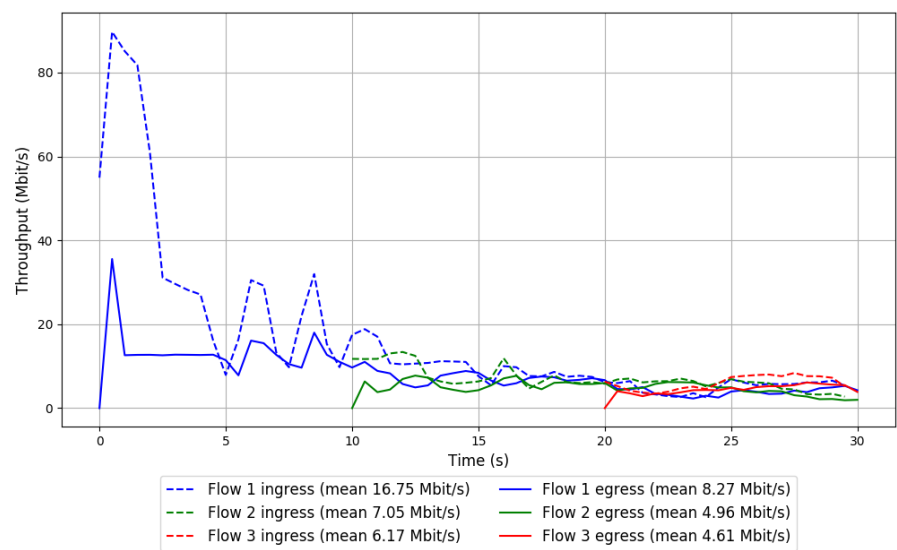


Run 4: Statistics of PCC-Expr

Start at: 2019-07-12 05:43:21  
End at: 2019-07-12 05:43:51  
Local clock offset: -7.739 ms  
Remote clock offset: -0.683 ms

# Below is generated by plot.py at 2019-07-12 06:49:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.10 Mbit/s  
95th percentile per-packet one-way delay: 9.007 ms  
Loss rate: 44.22%  
-- Flow 1:  
Average throughput: 8.27 Mbit/s  
95th percentile per-packet one-way delay: 8.999 ms  
Loss rate: 50.61%  
-- Flow 2:  
Average throughput: 4.96 Mbit/s  
95th percentile per-packet one-way delay: 9.015 ms  
Loss rate: 29.64%  
-- Flow 3:  
Average throughput: 4.61 Mbit/s  
95th percentile per-packet one-way delay: 9.017 ms  
Loss rate: 25.27%

Run 4: Report of PCC-Expr — Data Link

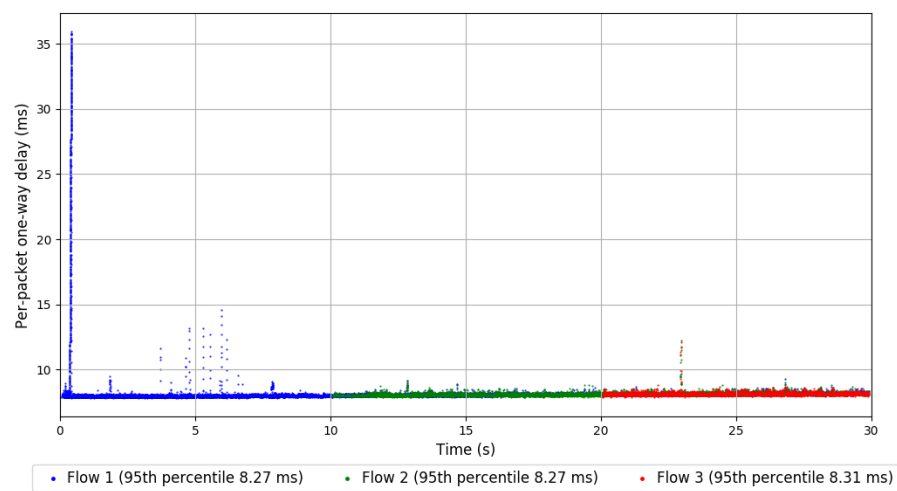
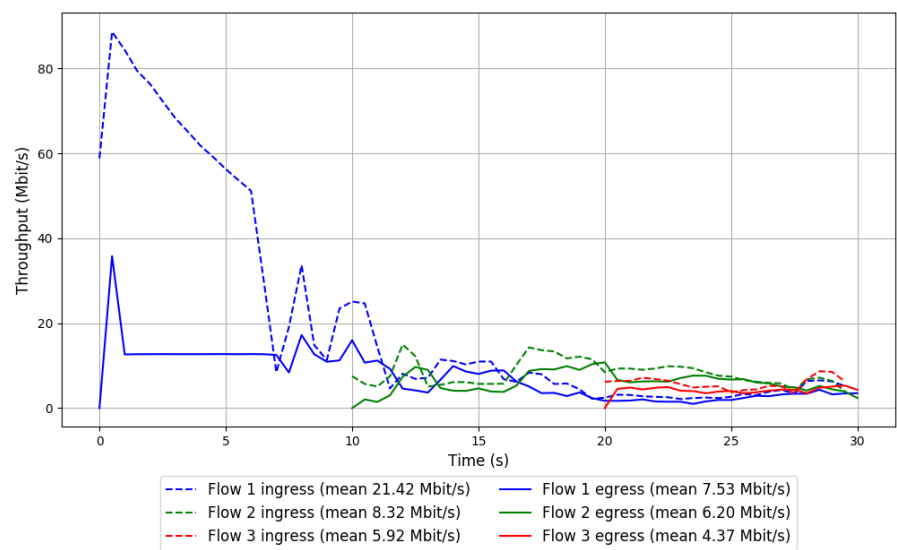


Run 5: Statistics of PCC-Expr

Start at: 2019-07-12 06:12:41  
End at: 2019-07-12 06:13:11  
Local clock offset: -3.023 ms  
Remote clock offset: -1.124 ms

# Below is generated by plot.py at 2019-07-12 06:49:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.10 Mbit/s  
95th percentile per-packet one-way delay: 8.278 ms  
Loss rate: 54.68%  
-- Flow 1:  
Average throughput: 7.53 Mbit/s  
95th percentile per-packet one-way delay: 8.271 ms  
Loss rate: 64.84%  
-- Flow 2:  
Average throughput: 6.20 Mbit/s  
95th percentile per-packet one-way delay: 8.274 ms  
Loss rate: 25.46%  
-- Flow 3:  
Average throughput: 4.37 Mbit/s  
95th percentile per-packet one-way delay: 8.308 ms  
Loss rate: 26.24%

Run 5: Report of PCC-Expr — Data Link



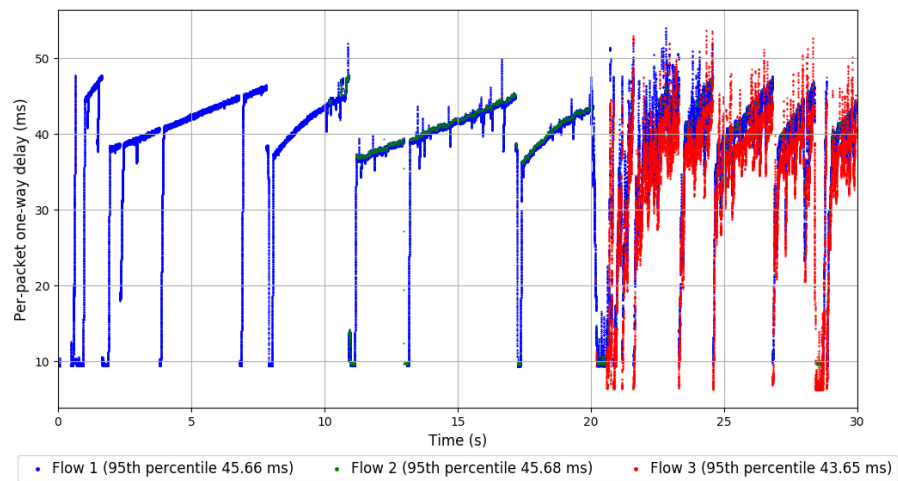
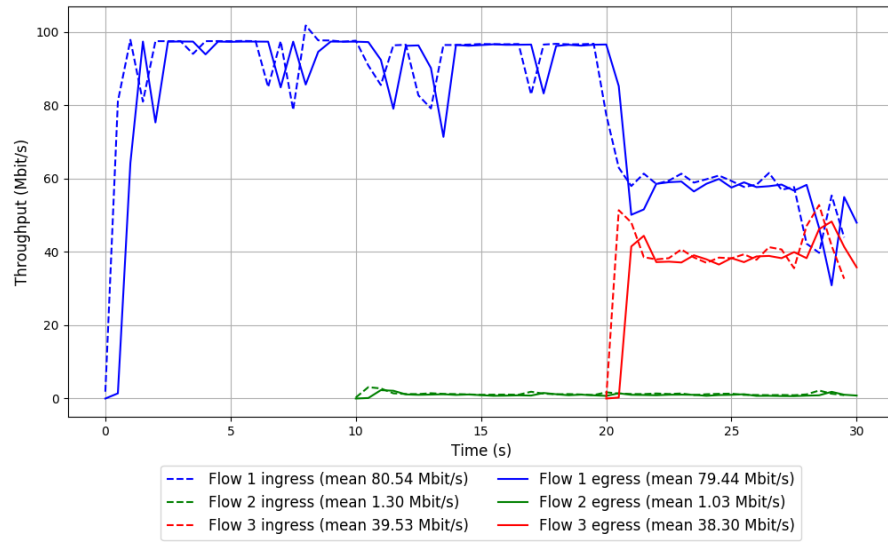


Run 1: Statistics of QUIC Cubic

Start at: 2019-07-12 04:35:20  
End at: 2019-07-12 04:35:50  
Local clock offset: -2.566 ms  
Remote clock offset: -0.316 ms

# Below is generated by plot.py at 2019-07-12 06:50:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.70 Mbit/s  
95th percentile per-packet one-way delay: 45.538 ms  
Loss rate: 1.68%  
-- Flow 1:  
Average throughput: 79.44 Mbit/s  
95th percentile per-packet one-way delay: 45.660 ms  
Loss rate: 1.26%  
-- Flow 2:  
Average throughput: 1.03 Mbit/s  
95th percentile per-packet one-way delay: 45.679 ms  
Loss rate: 20.49%  
-- Flow 3:  
Average throughput: 38.30 Mbit/s  
95th percentile per-packet one-way delay: 43.646 ms  
Loss rate: 3.02%

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



Run 2: Statistics of QUIC Cubic

Start at: 2019-07-12 05:04:14

End at: 2019-07-12 05:04:44

Local clock offset: -6.393 ms

Remote clock offset: 0.56 ms

# Below is generated by plot.py at 2019-07-12 06:50:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.66 Mbit/s

95th percentile per-packet one-way delay: 44.364 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 82.12 Mbit/s

95th percentile per-packet one-way delay: 44.262 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 47.798 ms

Loss rate: 21.38%

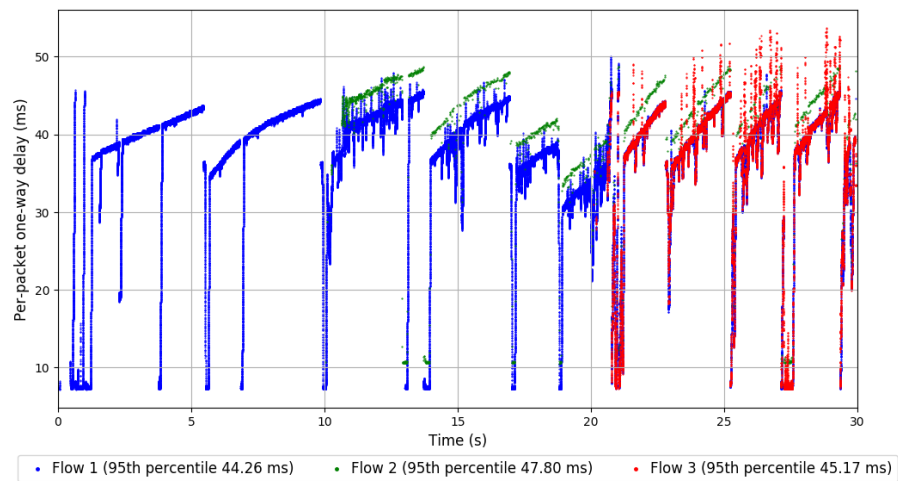
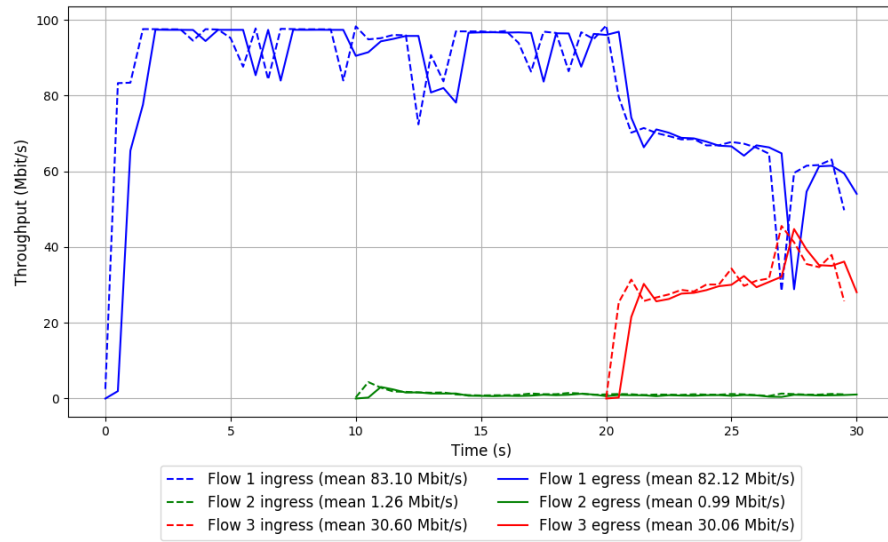
-- Flow 3:

Average throughput: 30.06 Mbit/s

95th percentile per-packet one-way delay: 45.168 ms

Loss rate: 1.75%

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



Run 3: Statistics of QUIC Cubic

Start at: 2019-07-12 05:33:44

End at: 2019-07-12 05:34:14

Local clock offset: -8.257 ms

Remote clock offset: 1.528 ms

# Below is generated by plot.py at 2019-07-12 06:50:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.71 Mbit/s

95th percentile per-packet one-way delay: 48.577 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 69.16 Mbit/s

95th percentile per-packet one-way delay: 48.661 ms

Loss rate: 1.37%

-- Flow 2:

Average throughput: 24.62 Mbit/s

95th percentile per-packet one-way delay: 45.493 ms

Loss rate: 1.80%

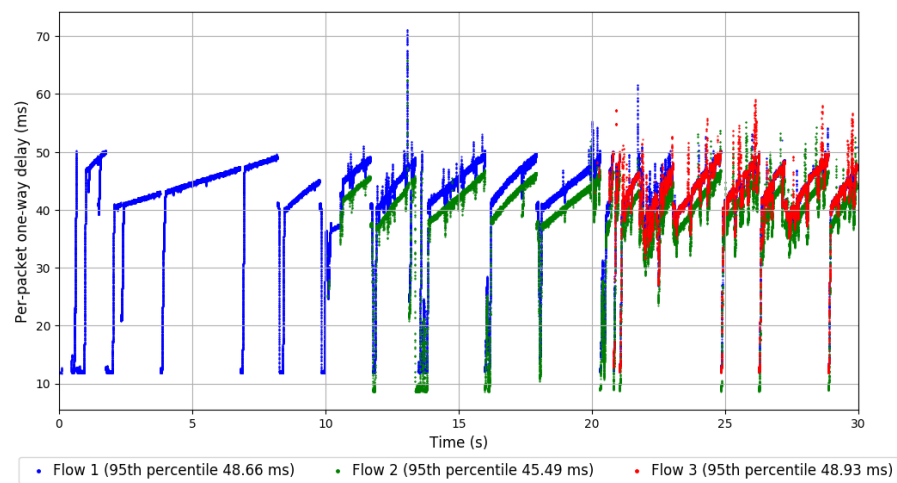
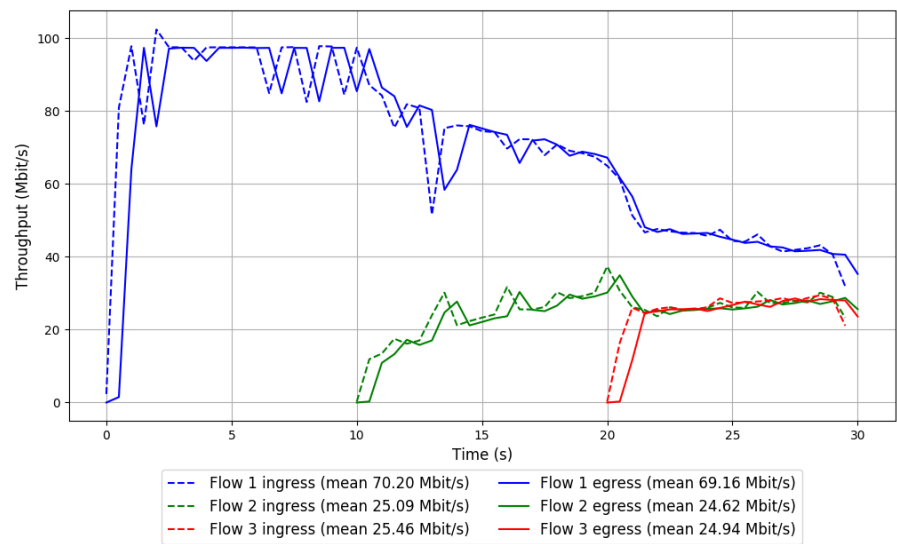
-- Flow 3:

Average throughput: 24.94 Mbit/s

95th percentile per-packet one-way delay: 48.930 ms

Loss rate: 2.03%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-07-12 06:02:53

End at: 2019-07-12 06:03:23

Local clock offset: -7.302 ms

Remote clock offset: 0.59 ms

# Below is generated by plot.py at 2019-07-12 06:50:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.60 Mbit/s

95th percentile per-packet one-way delay: 49.464 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 67.64 Mbit/s

95th percentile per-packet one-way delay: 49.756 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 27.28 Mbit/s

95th percentile per-packet one-way delay: 45.292 ms

Loss rate: 0.98%

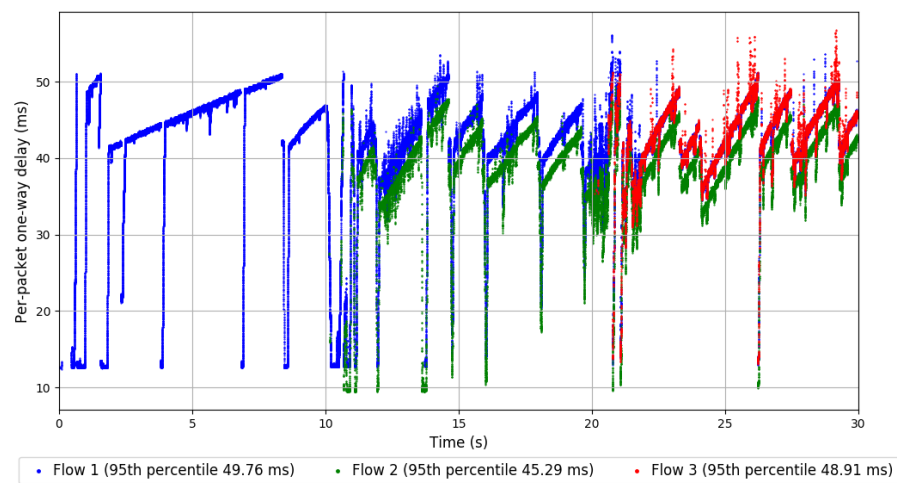
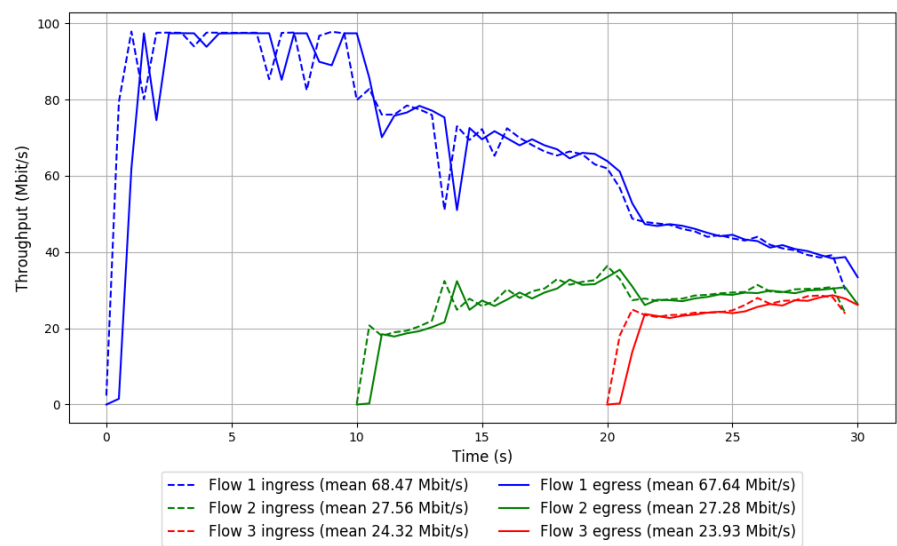
-- Flow 3:

Average throughput: 23.93 Mbit/s

95th percentile per-packet one-way delay: 48.912 ms

Loss rate: 1.52%

Run 4: Report of QUIC Cubic — Data Link



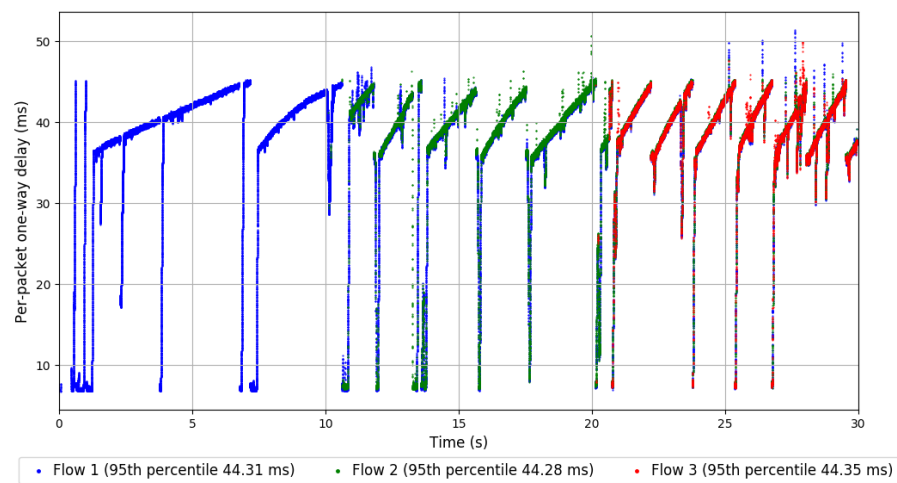
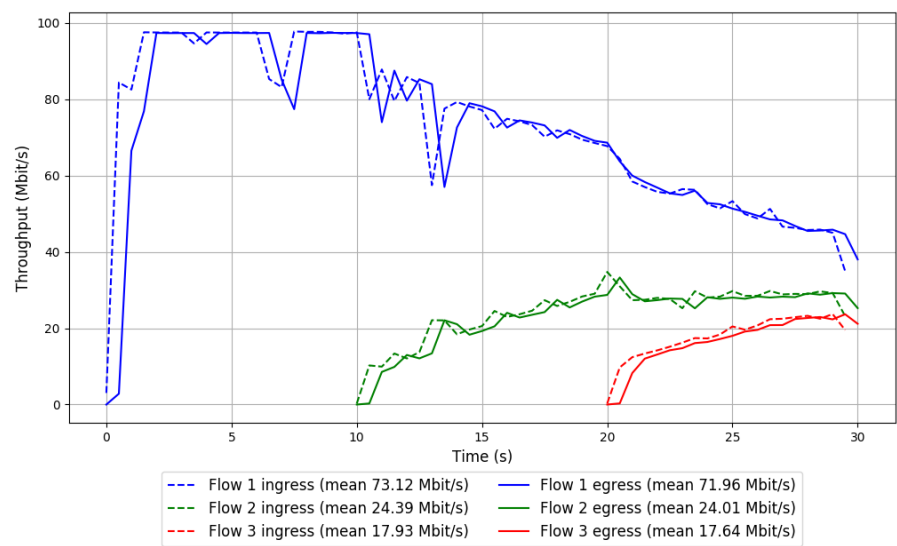


Run 5: Statistics of QUIC Cubic

Start at: 2019-07-12 06:32:05  
End at: 2019-07-12 06:32:35  
Local clock offset: 1.179 ms  
Remote clock offset: -1.485 ms

# Below is generated by plot.py at 2019-07-12 06:50:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.66 Mbit/s  
95th percentile per-packet one-way delay: 44.309 ms  
Loss rate: 1.52%  
-- Flow 1:  
Average throughput: 71.96 Mbit/s  
95th percentile per-packet one-way delay: 44.314 ms  
Loss rate: 1.49%  
-- Flow 2:  
Average throughput: 24.01 Mbit/s  
95th percentile per-packet one-way delay: 44.283 ms  
Loss rate: 1.59%  
-- Flow 3:  
Average throughput: 17.64 Mbit/s  
95th percentile per-packet one-way delay: 44.355 ms  
Loss rate: 1.73%

Run 5: Report of QUIC Cubic — Data Link

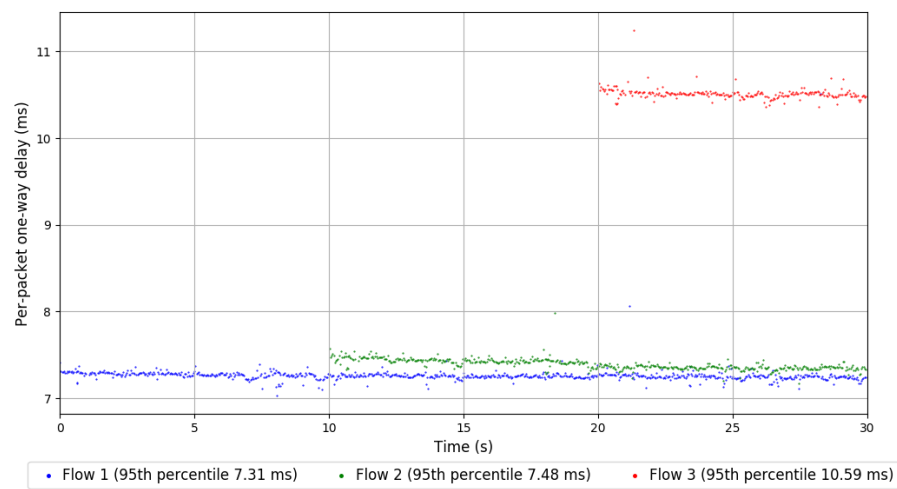
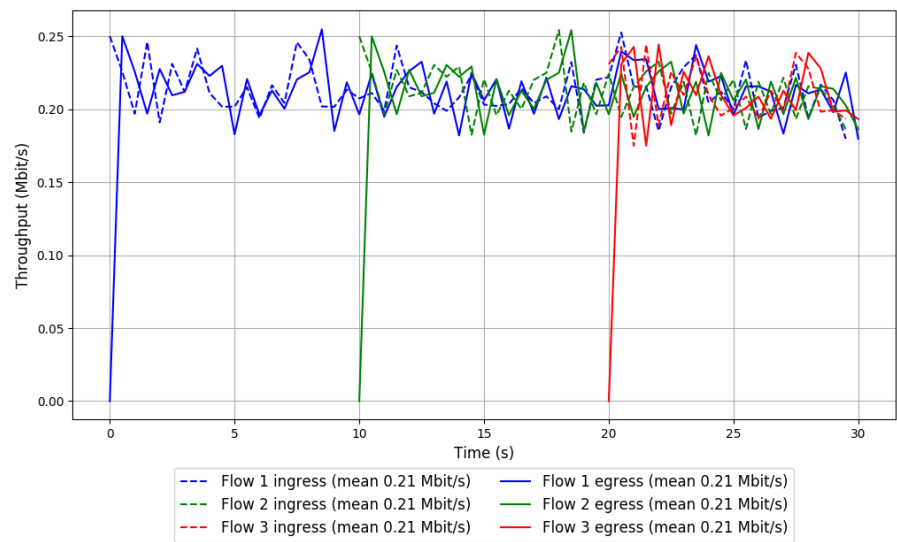


```
Run 1: Statistics of SReAM

Start at: 2019-07-12 04:14:40
End at: 2019-07-12 04:15:10
Local clock offset: -1.588 ms
Remote clock offset: -0.92 ms

# Below is generated by plot.py at 2019-07-12 06:50:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 10.525 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 7.309 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 7.479 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.586 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SReAM

Start at: 2019-07-12 04:43:56

End at: 2019-07-12 04:44:26

Local clock offset: -4.452 ms

Remote clock offset: 2.161 ms

# Below is generated by plot.py at 2019-07-12 06:50:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 11.762 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.760 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.764 ms

Loss rate: 0.00%

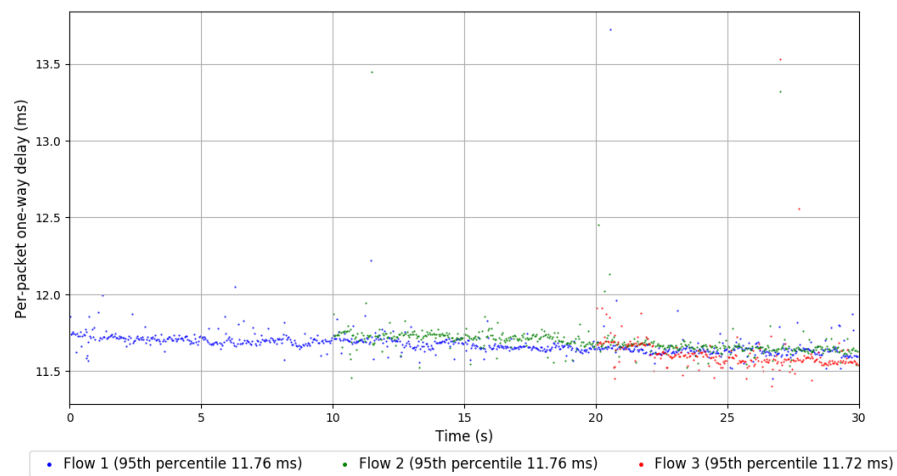
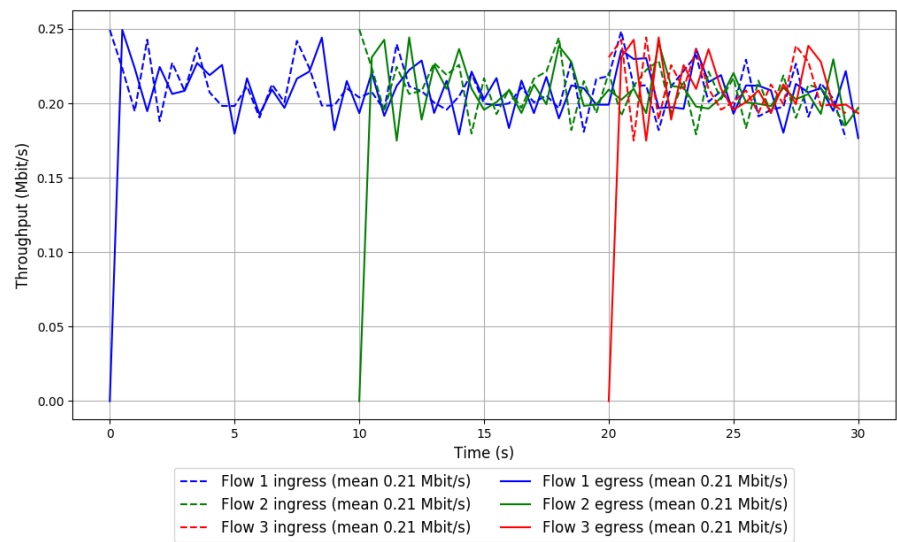
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.724 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

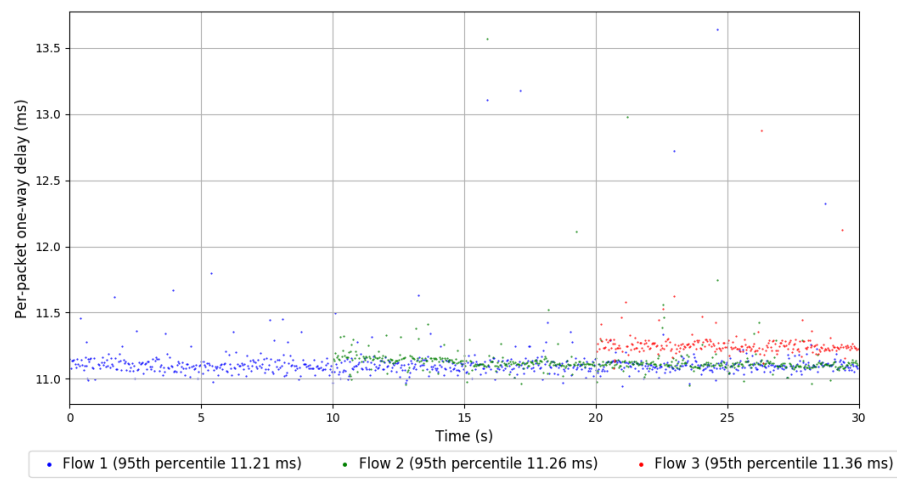
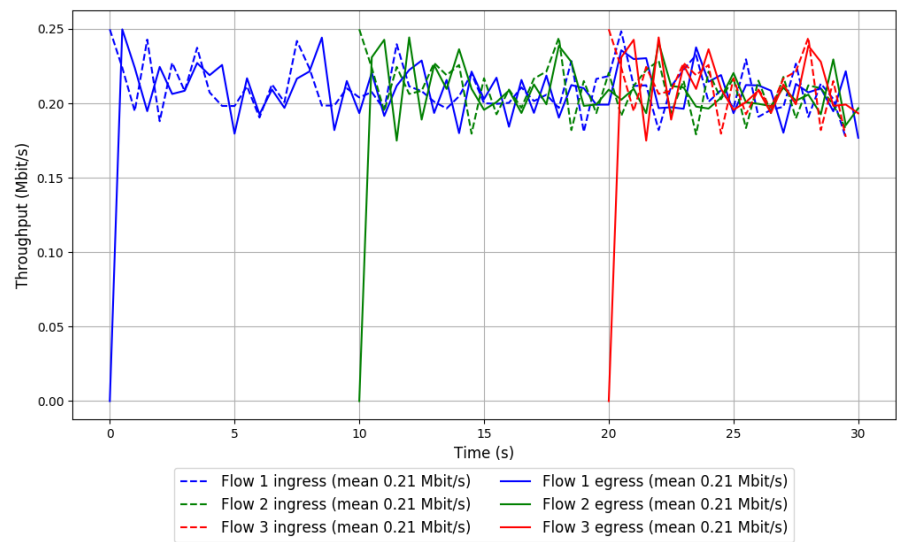


Run 3: Statistics of SReAM

Start at: 2019-07-12 05:13:10  
End at: 2019-07-12 05:13:40  
Local clock offset: -6.351 ms  
Remote clock offset: 1.541 ms

# Below is generated by plot.py at 2019-07-12 06:50:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.42 Mbit/s  
95th percentile per-packet one-way delay: 11.293 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 11.215 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 11.260 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 11.358 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link





Run 4: Statistics of SReAM

Start at: 2019-07-12 05:42:15

End at: 2019-07-12 05:42:45

Local clock offset: -8.237 ms

Remote clock offset: -0.59 ms

# Below is generated by plot.py at 2019-07-12 06:50:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 9.576 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 6.227 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 9.639 ms

Loss rate: 8.64%

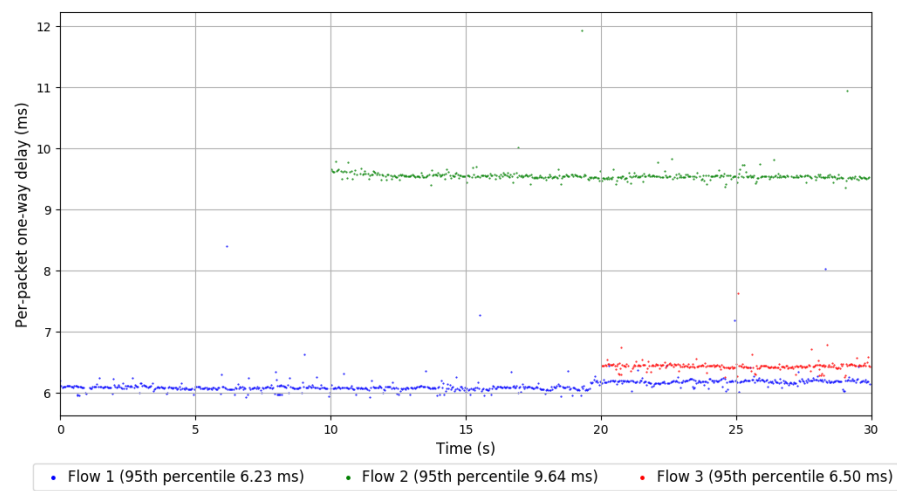
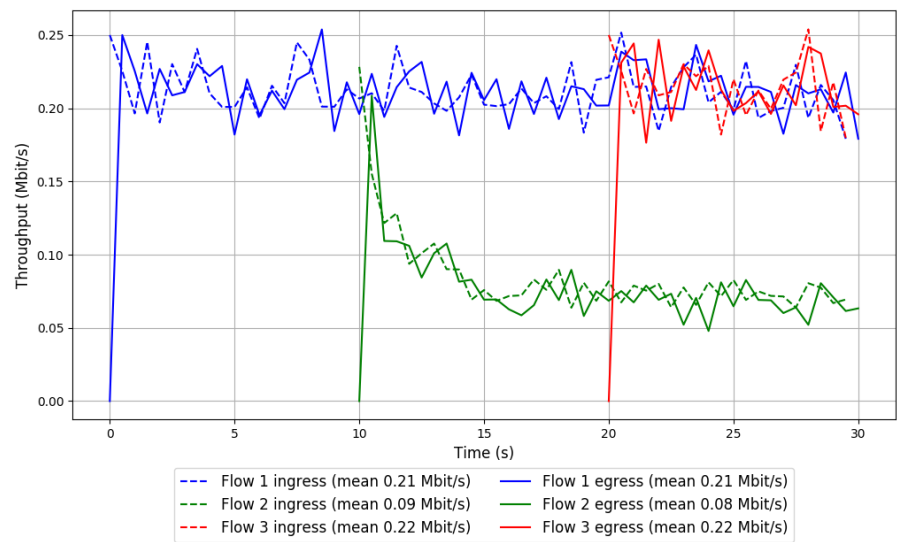
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 6.501 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2019-07-12 06:11:35

End at: 2019-07-12 06:12:05

Local clock offset: -3.096 ms

Remote clock offset: 0.689 ms

# Below is generated by plot.py at 2019-07-12 06:50:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 9.754 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 9.777 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 9.708 ms

Loss rate: 0.00%

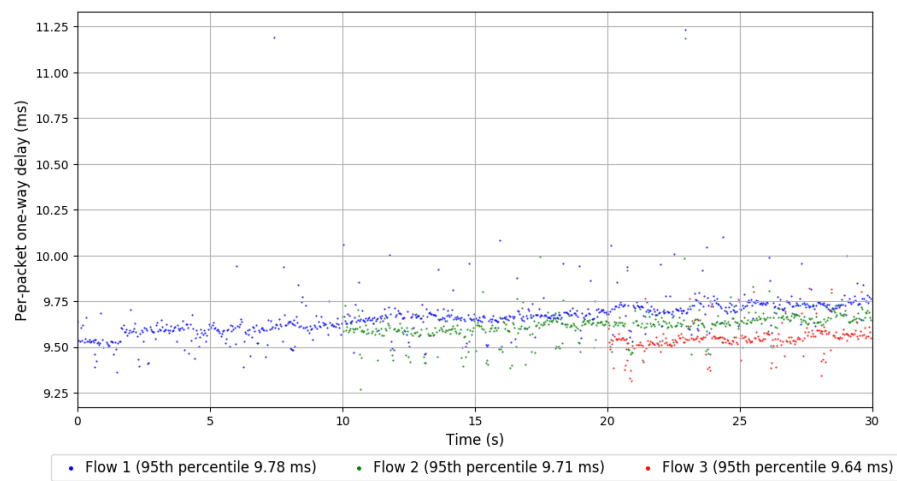
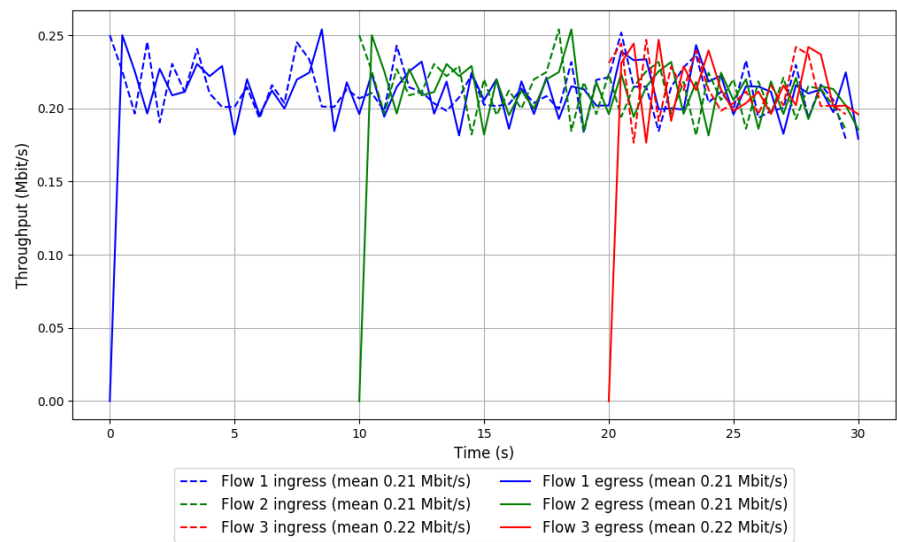
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 9.643 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-07-12 04:20:37

End at: 2019-07-12 04:21:07

Local clock offset: -0.234 ms

Remote clock offset: 0.465 ms

# Below is generated by plot.py at 2019-07-12 06:50:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 48.23 Mbit/s

95th percentile per-packet one-way delay: 17.740 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 24.22 Mbit/s

95th percentile per-packet one-way delay: 18.167 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.18 Mbit/s

95th percentile per-packet one-way delay: 17.631 ms

Loss rate: 0.00%

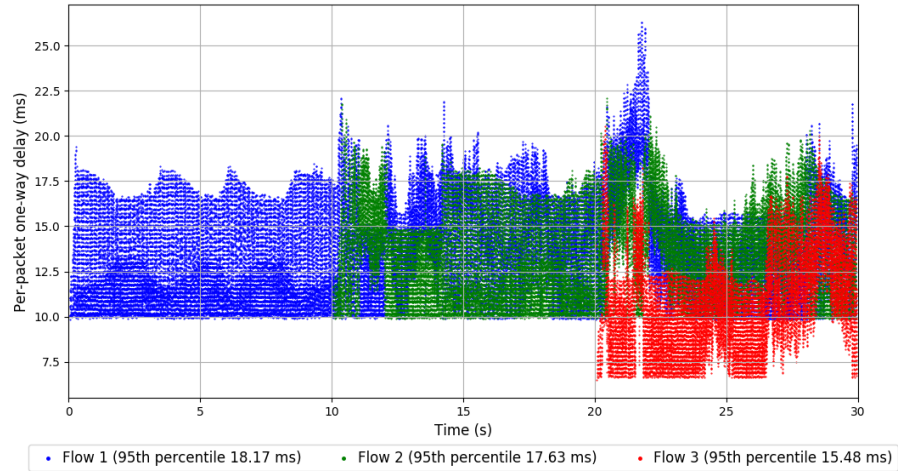
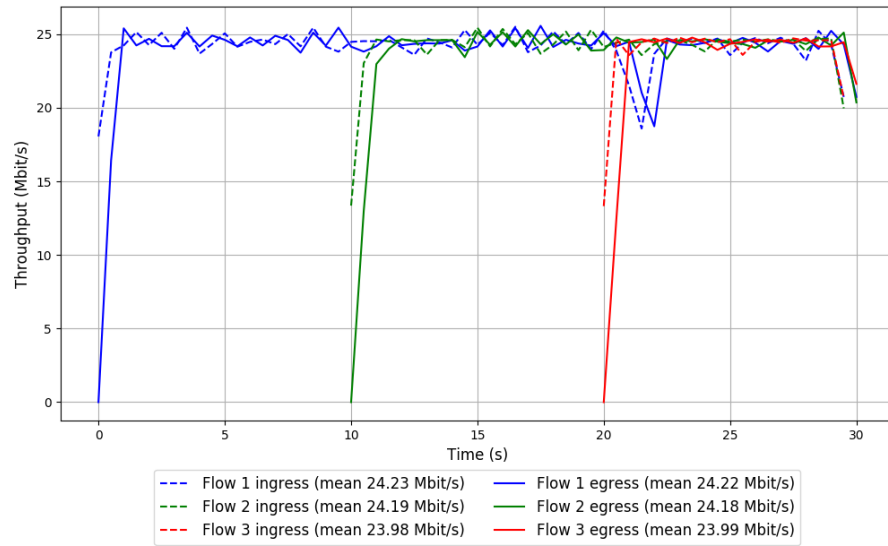
-- Flow 3:

Average throughput: 23.99 Mbit/s

95th percentile per-packet one-way delay: 15.477 ms

Loss rate: 0.00%

## Run 1: Report of Sprout — Data Link

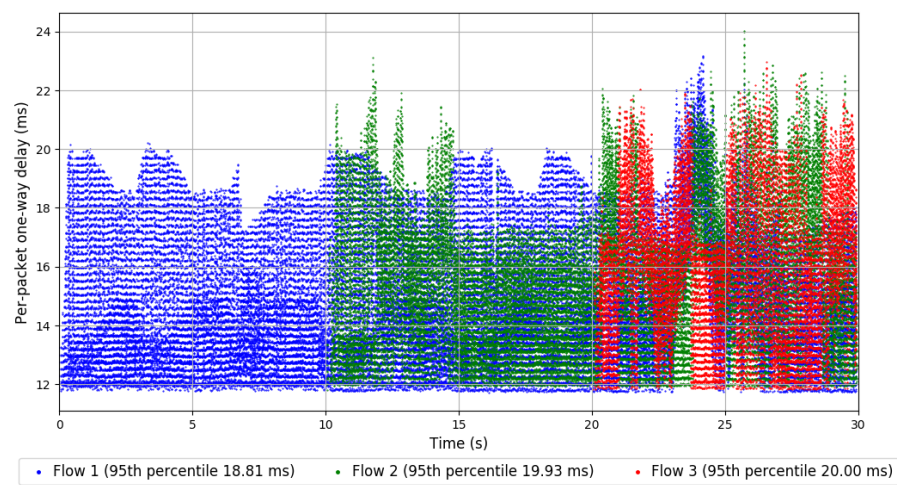
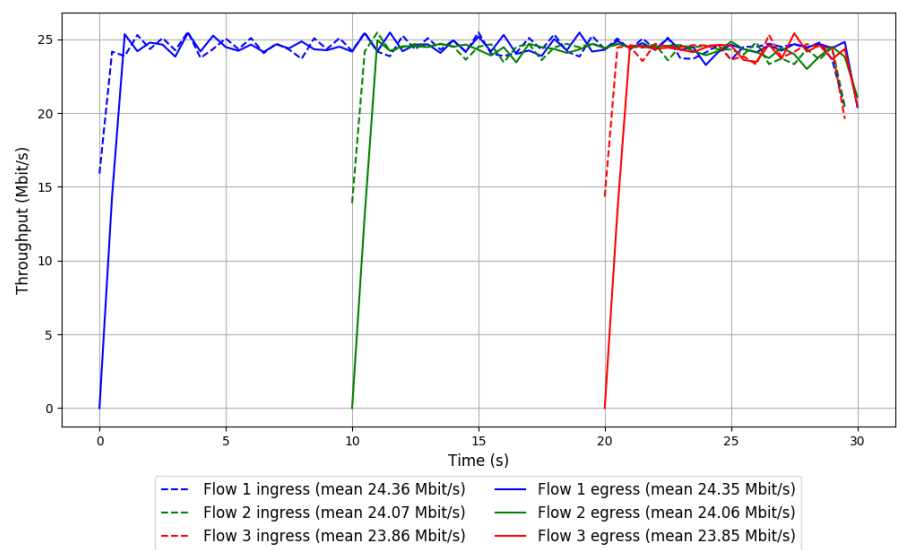


Run 2: Statistics of Sprout

Start at: 2019-07-12 04:49:55  
End at: 2019-07-12 04:50:25  
Local clock offset: -4.733 ms  
Remote clock offset: 2.881 ms

# Below is generated by plot.py at 2019-07-12 06:50:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 48.23 Mbit/s  
95th percentile per-packet one-way delay: 19.481 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 24.35 Mbit/s  
95th percentile per-packet one-way delay: 18.811 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 24.06 Mbit/s  
95th percentile per-packet one-way delay: 19.927 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 23.85 Mbit/s  
95th percentile per-packet one-way delay: 19.995 ms  
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link





### Run 3: Statistics of Sprout

Start at: 2019-07-12 05:19:12

End at: 2019-07-12 05:19:42

Local clock offset: -7.287 ms

Remote clock offset: 1.414 ms

# Below is generated by plot.py at 2019-07-12 06:50:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 48.27 Mbit/s

95th percentile per-packet one-way delay: 19.550 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 24.37 Mbit/s

95th percentile per-packet one-way delay: 18.817 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 23.98 Mbit/s

95th percentile per-packet one-way delay: 20.336 ms

Loss rate: 0.00%

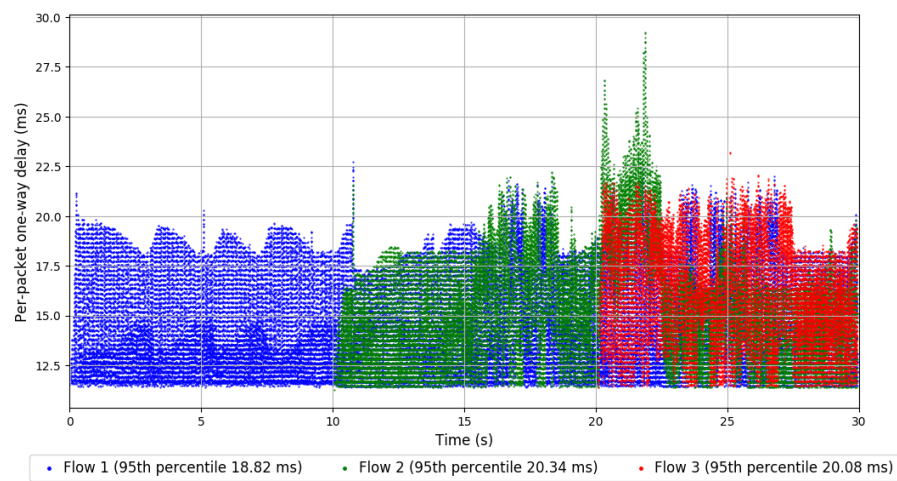
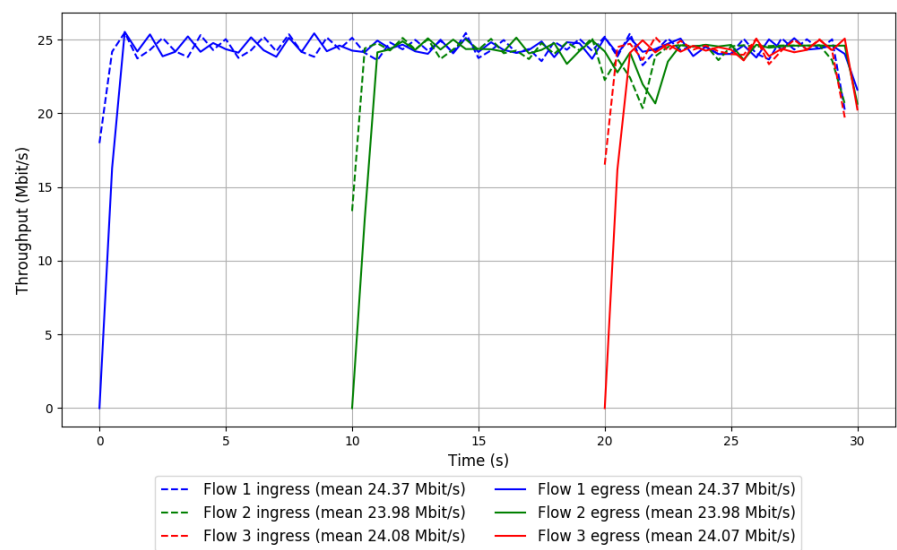
-- Flow 3:

Average throughput: 24.07 Mbit/s

95th percentile per-packet one-way delay: 20.079 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

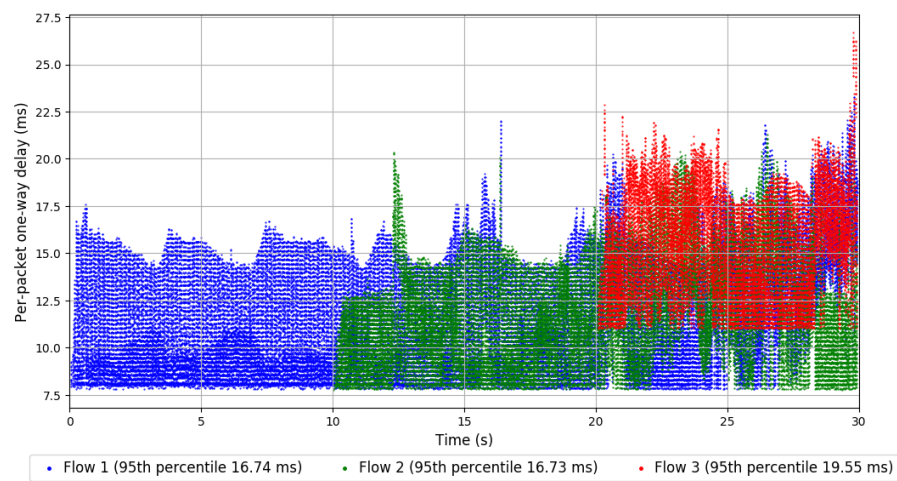
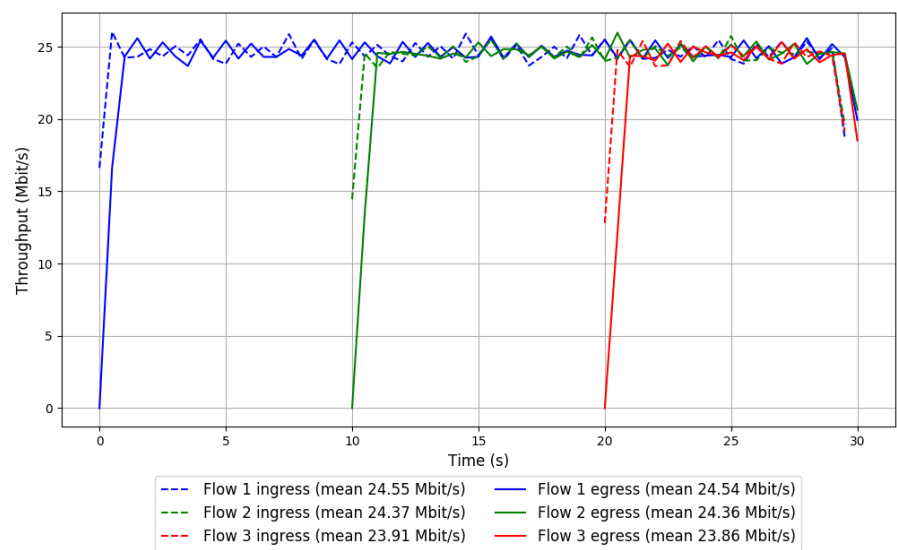


#### Run 4: Statistics of Sprout

Start at: 2019-07-12 05:48:07  
End at: 2019-07-12 05:48:37  
Local clock offset: -8.716 ms  
Remote clock offset: 0.855 ms

```
# Below is generated by plot.py at 2019-07-12 06:51:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.62 Mbit/s
95th percentile per-packet one-way delay: 17.922 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 24.54 Mbit/s
95th percentile per-packet one-way delay: 16.737 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 16.726 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.86 Mbit/s
95th percentile per-packet one-way delay: 19.554 ms
Loss rate: 0.33%
```

Run 4: Report of Sprout — Data Link

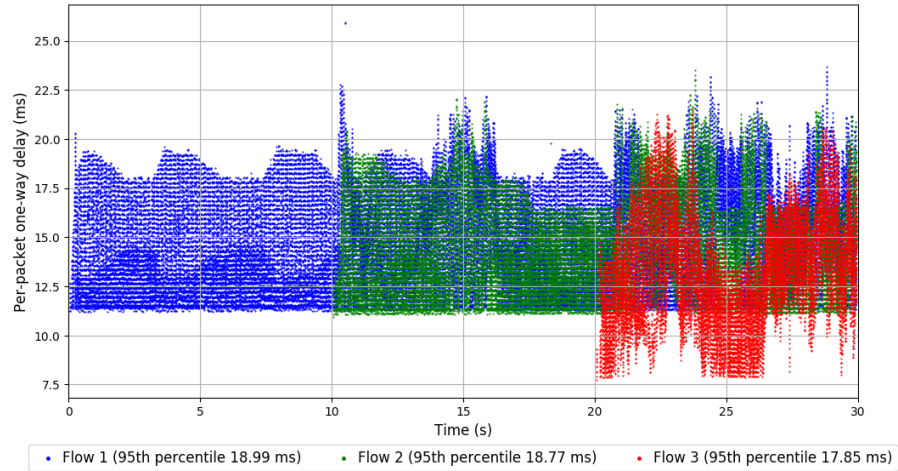
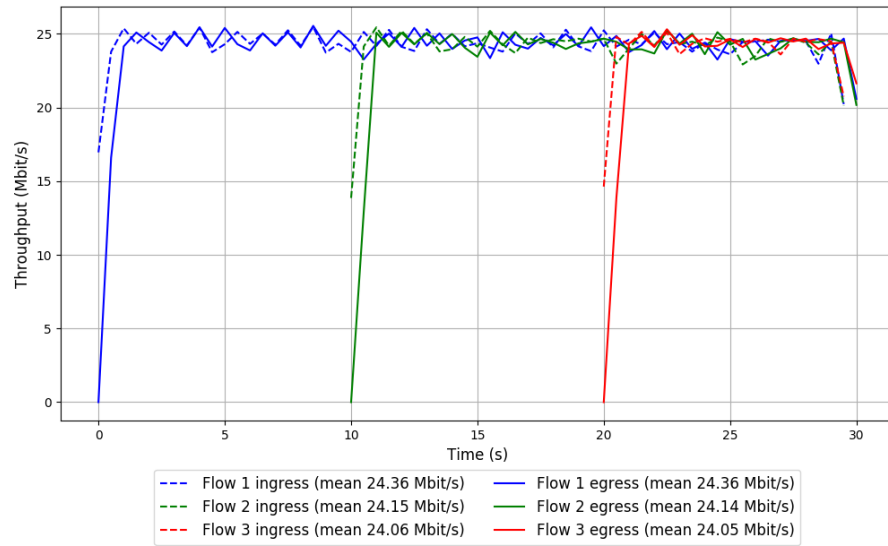


Run 5: Statistics of Sprout

Start at: 2019-07-12 06:17:28  
End at: 2019-07-12 06:17:58  
Local clock offset: -1.92 ms  
Remote clock offset: -1.366 ms

```
# Below is generated by plot.py at 2019-07-12 06:51:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.36 Mbit/s
95th percentile per-packet one-way delay: 18.821 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 18.989 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.14 Mbit/s
95th percentile per-packet one-way delay: 18.775 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 17.847 ms
Loss rate: 0.00%
```

## Run 5: Report of Sprout — Data Link

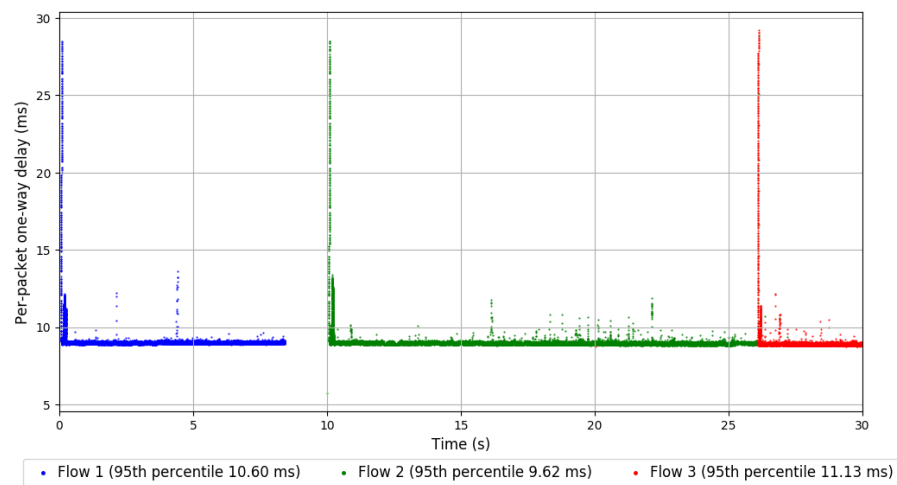
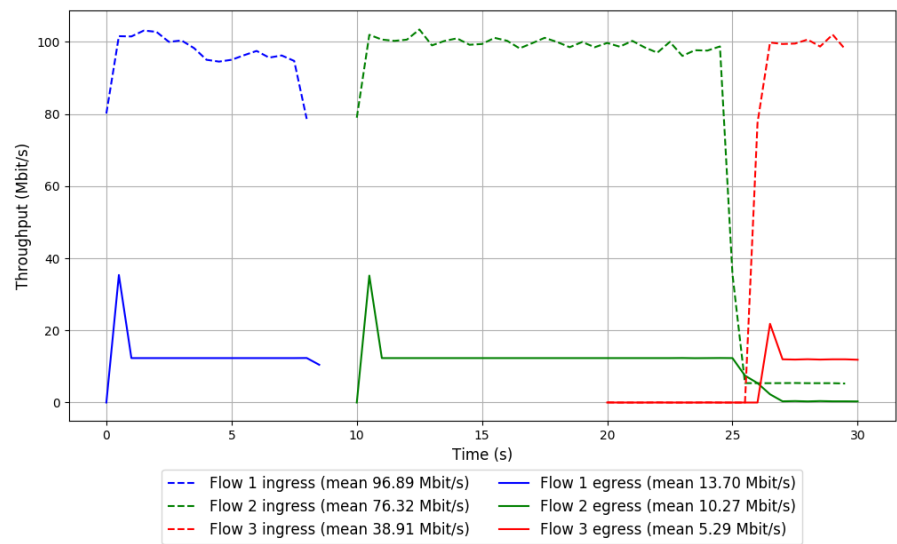


Run 1: Statistics of TaoVA-100x

Start at: 2019-07-12 04:36:36  
End at: 2019-07-12 04:37:06  
Local clock offset: -2.465 ms  
Remote clock offset: -0.428 ms

# Below is generated by plot.py at 2019-07-12 06:51:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.44 Mbit/s  
95th percentile per-packet one-way delay: 10.163 ms  
Loss rate: 86.32%  
-- Flow 1:  
Average throughput: 13.70 Mbit/s  
95th percentile per-packet one-way delay: 10.602 ms  
Loss rate: 85.86%  
-- Flow 2:  
Average throughput: 10.27 Mbit/s  
95th percentile per-packet one-way delay: 9.624 ms  
Loss rate: 86.55%  
-- Flow 3:  
Average throughput: 5.29 Mbit/s  
95th percentile per-packet one-way delay: 11.127 ms  
Loss rate: 86.40%

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





Run 2: Statistics of TaoVA-100x

Start at: 2019-07-12 05:05:32

End at: 2019-07-12 05:06:02

Local clock offset: -6.564 ms

Remote clock offset: -0.2 ms

# Below is generated by plot.py at 2019-07-12 06:51:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.71 Mbit/s

95th percentile per-packet one-way delay: 10.203 ms

Loss rate: 91.89%

-- Flow 1:

Average throughput: 12.13 Mbit/s

95th percentile per-packet one-way delay: 10.432 ms

Loss rate: 86.33%

-- Flow 2:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 12.946 ms

Loss rate: 92.00%

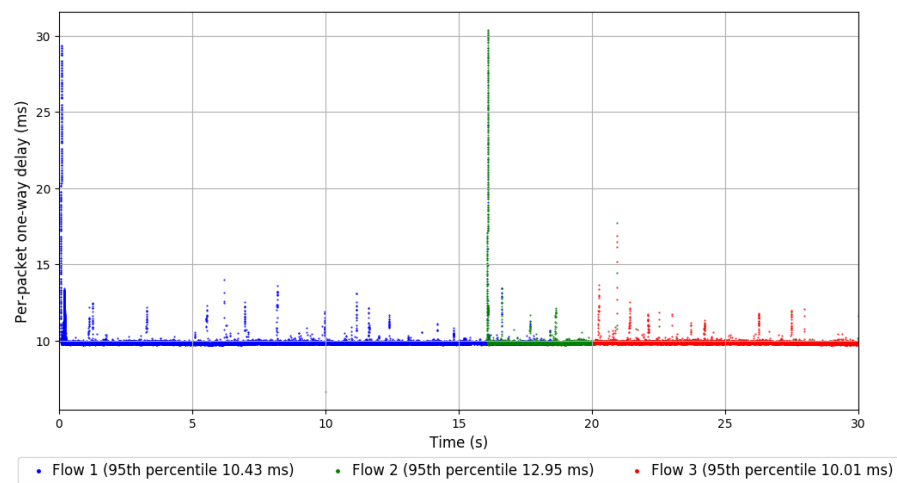
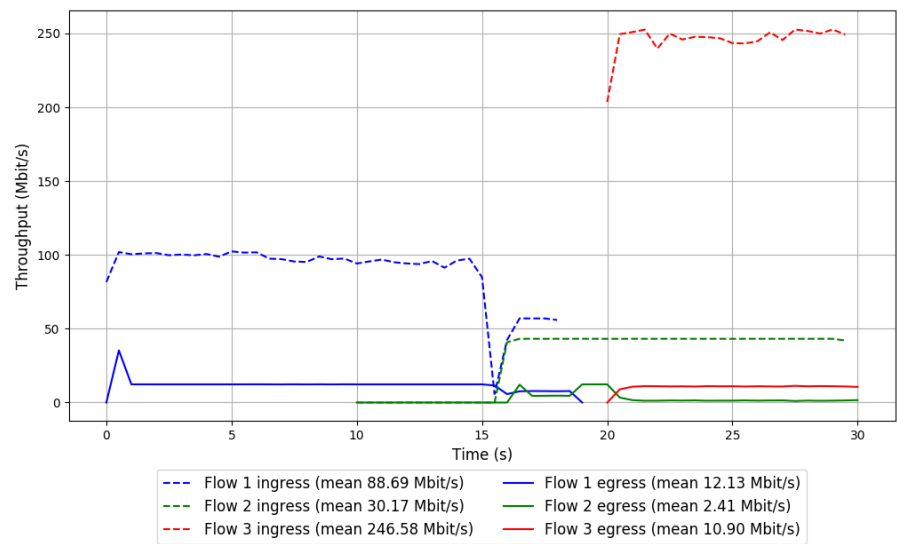
-- Flow 3:

Average throughput: 10.90 Mbit/s

95th percentile per-packet one-way delay: 10.005 ms

Loss rate: 95.58%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-07-12 05:34:59

End at: 2019-07-12 05:35:29

Local clock offset: -8.006 ms

Remote clock offset: 0.272 ms

# Below is generated by plot.py at 2019-07-12 06:51:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.41 Mbit/s

95th percentile per-packet one-way delay: 13.353 ms

Loss rate: 84.74%

-- Flow 1:

Average throughput: 7.56 Mbit/s

95th percentile per-packet one-way delay: 11.363 ms

Loss rate: 84.74%

-- Flow 2:

Average throughput: 13.54 Mbit/s

95th percentile per-packet one-way delay: 15.194 ms

Loss rate: 86.43%

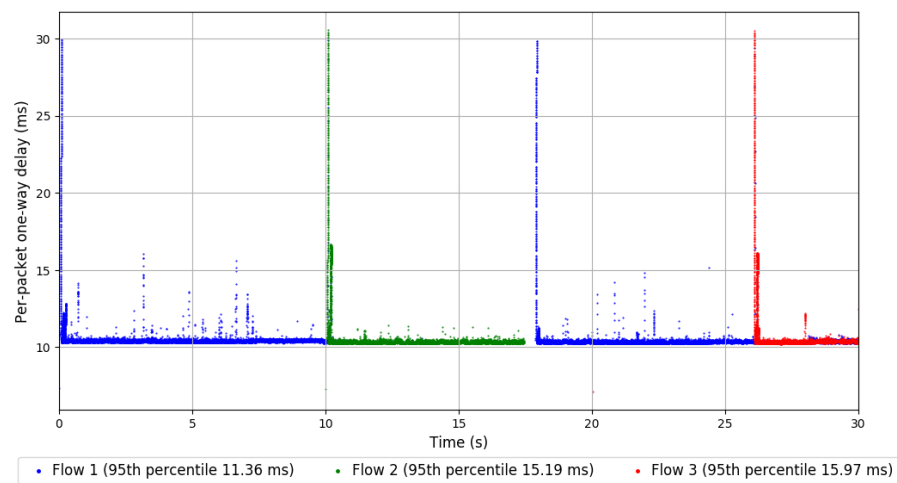
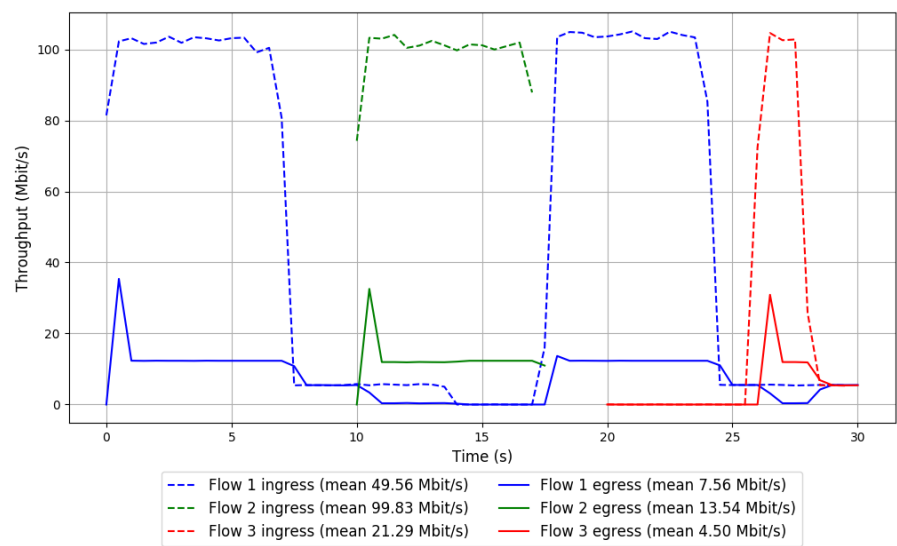
-- Flow 3:

Average throughput: 4.50 Mbit/s

95th percentile per-packet one-way delay: 15.972 ms

Loss rate: 78.86%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-07-12 06:04:09

End at: 2019-07-12 06:04:39

Local clock offset: -4.771 ms

Remote clock offset: 0.458 ms

# Below is generated by plot.py at 2019-07-12 06:51:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.94 Mbit/s

95th percentile per-packet one-way delay: 14.560 ms

Loss rate: 84.66%

-- Flow 1:

Average throughput: 16.43 Mbit/s

95th percentile per-packet one-way delay: 14.035 ms

Loss rate: 83.34%

-- Flow 2:

Average throughput: 7.16 Mbit/s

95th percentile per-packet one-way delay: 13.704 ms

Loss rate: 84.23%

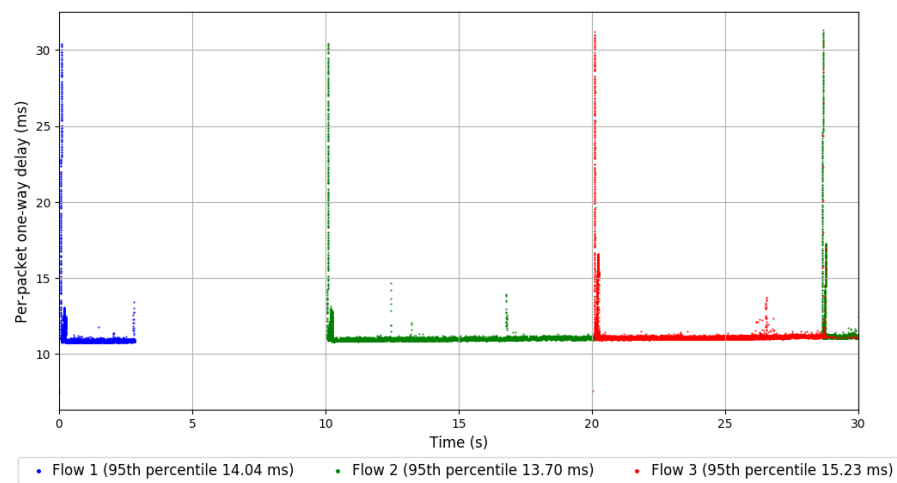
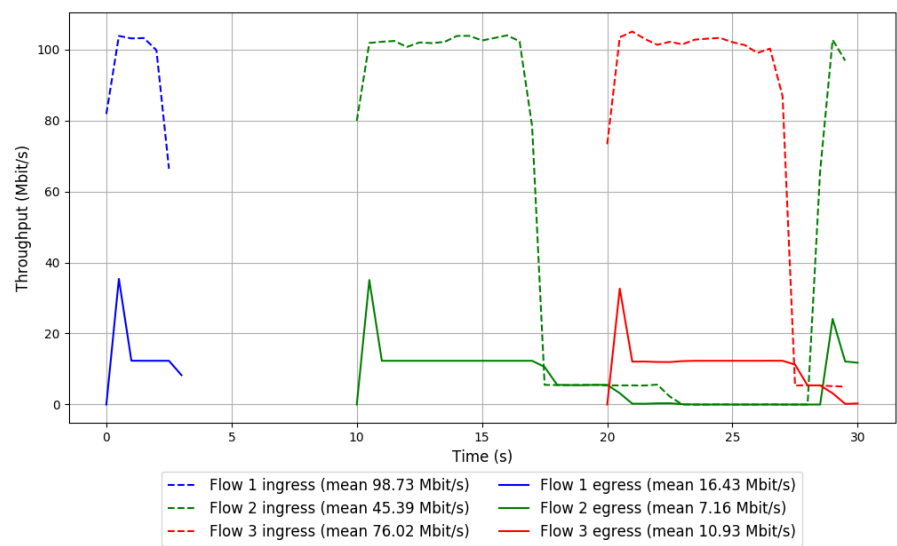
-- Flow 3:

Average throughput: 10.93 Mbit/s

95th percentile per-packet one-way delay: 15.228 ms

Loss rate: 85.65%

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

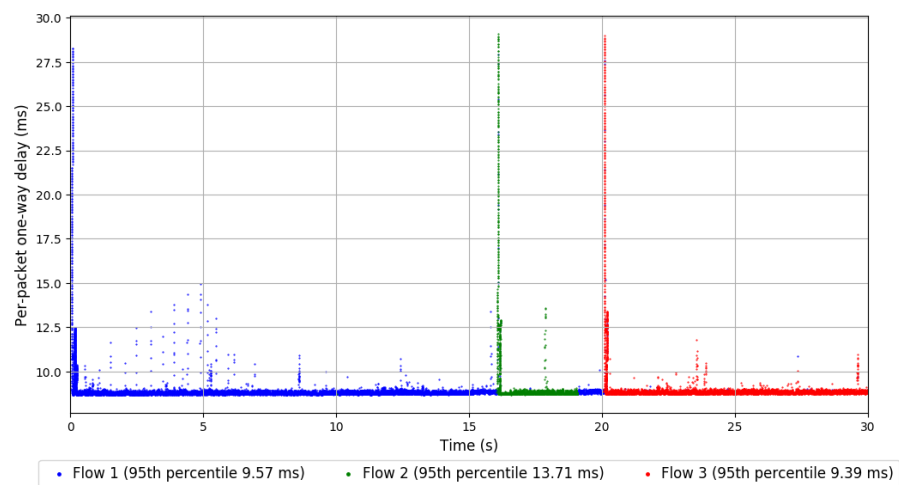
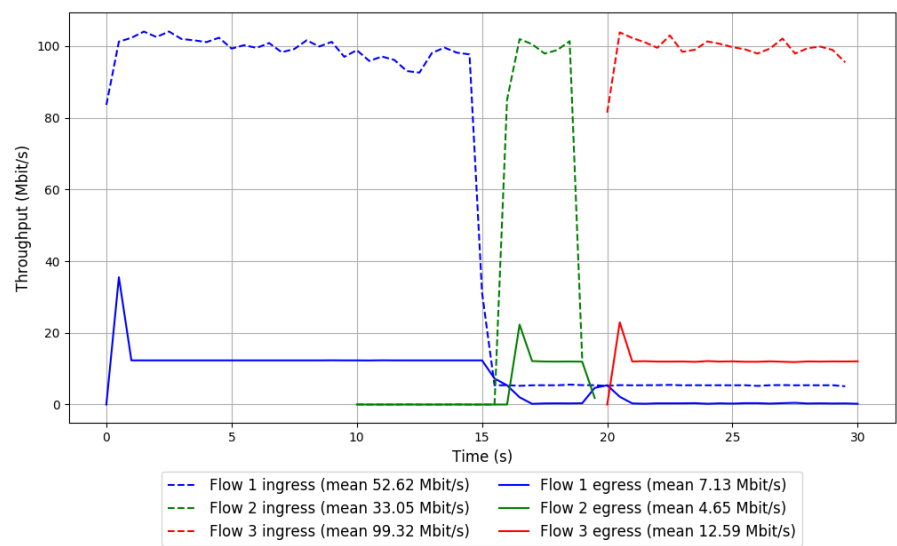


Run 5: Statistics of TaoVA-100x

Start at: 2019-07-12 06:33:19  
End at: 2019-07-12 06:33:49  
Local clock offset: 0.385 ms  
Remote clock offset: -0.715 ms

# Below is generated by plot.py at 2019-07-12 06:51:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.71 Mbit/s  
95th percentile per-packet one-way delay: 9.964 ms  
Loss rate: 86.70%  
-- Flow 1:  
Average throughput: 7.13 Mbit/s  
95th percentile per-packet one-way delay: 9.571 ms  
Loss rate: 86.46%  
-- Flow 2:  
Average throughput: 4.65 Mbit/s  
95th percentile per-packet one-way delay: 13.711 ms  
Loss rate: 85.93%  
-- Flow 3:  
Average throughput: 12.59 Mbit/s  
95th percentile per-packet one-way delay: 9.395 ms  
Loss rate: 87.33%

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





Run 1: Statistics of TCP Vegas

Start at: 2019-07-12 04:10:52

End at: 2019-07-12 04:11:22

Local clock offset: -1.086 ms

Remote clock offset: 0.367 ms

# Below is generated by plot.py at 2019-07-12 06:51:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.99 Mbit/s

95th percentile per-packet one-way delay: 18.479 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 51.34 Mbit/s

95th percentile per-packet one-way delay: 19.716 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 45.48 Mbit/s

95th percentile per-packet one-way delay: 14.658 ms

Loss rate: 0.00%

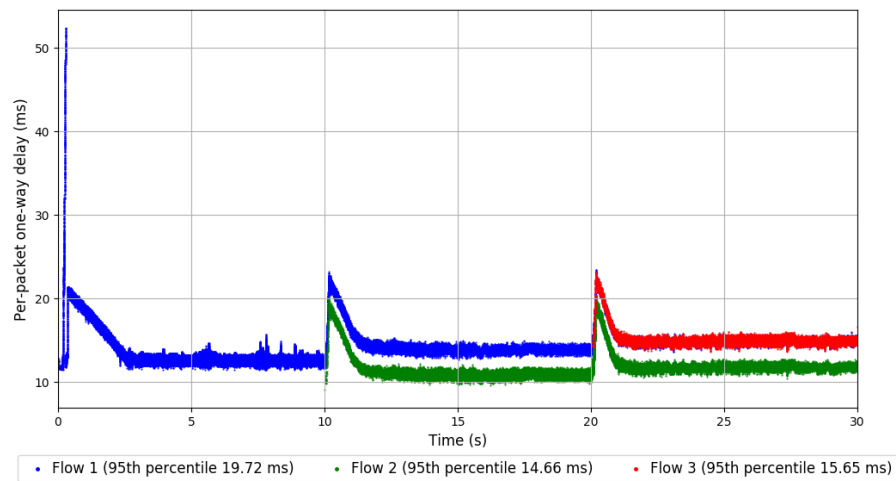
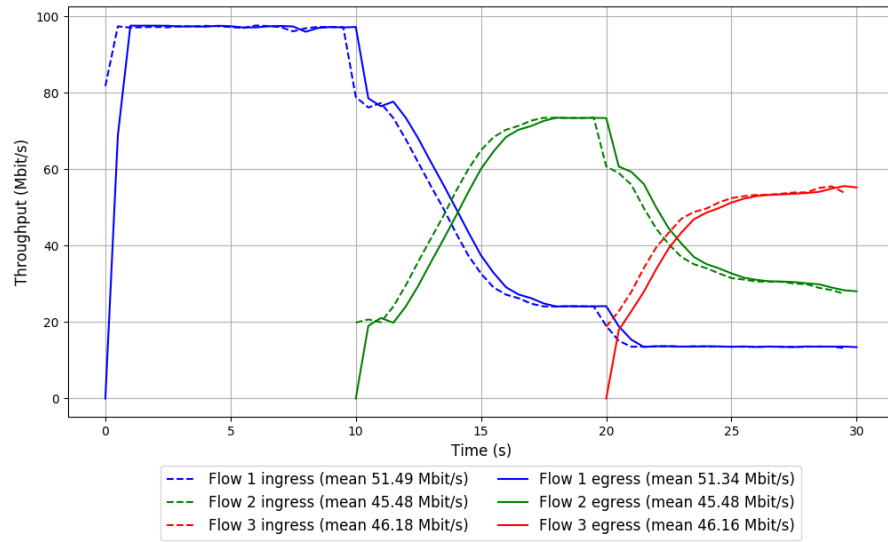
-- Flow 3:

Average throughput: 46.16 Mbit/s

95th percentile per-packet one-way delay: 15.649 ms

Loss rate: 0.03%

# Run 1: Report of TCP Vegas — Data Link

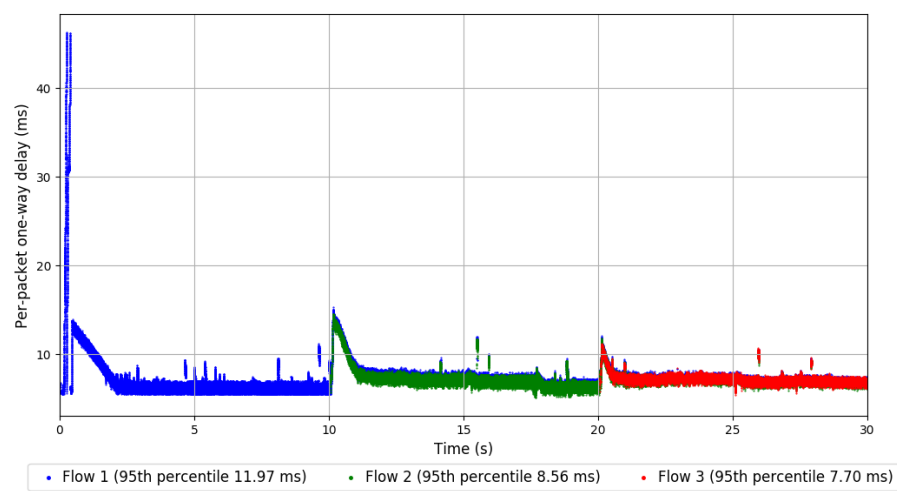
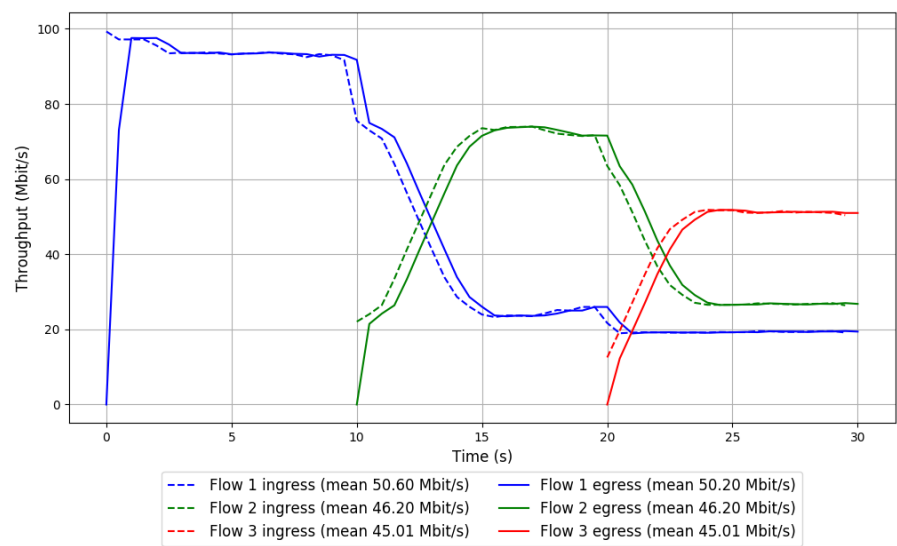


Run 2: Statistics of TCP Vegas

Start at: 2019-07-12 04:40:14  
End at: 2019-07-12 04:40:44  
Local clock offset: -3.115 ms  
Remote clock offset: -0.447 ms

# Below is generated by plot.py at 2019-07-12 06:52:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.94 Mbit/s  
95th percentile per-packet one-way delay: 10.598 ms  
Loss rate: 0.41%  
-- Flow 1:  
Average throughput: 50.20 Mbit/s  
95th percentile per-packet one-way delay: 11.973 ms  
Loss rate: 0.78%  
-- Flow 2:  
Average throughput: 46.20 Mbit/s  
95th percentile per-packet one-way delay: 8.562 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 45.01 Mbit/s  
95th percentile per-packet one-way delay: 7.700 ms  
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link

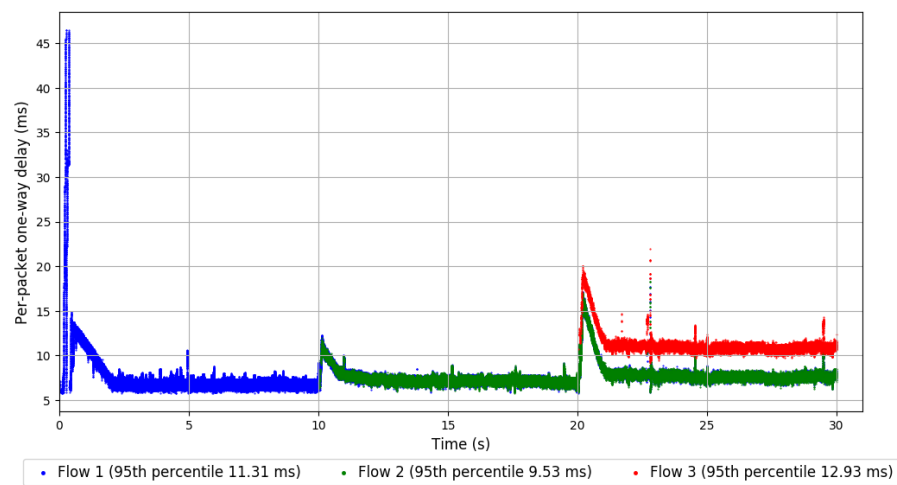
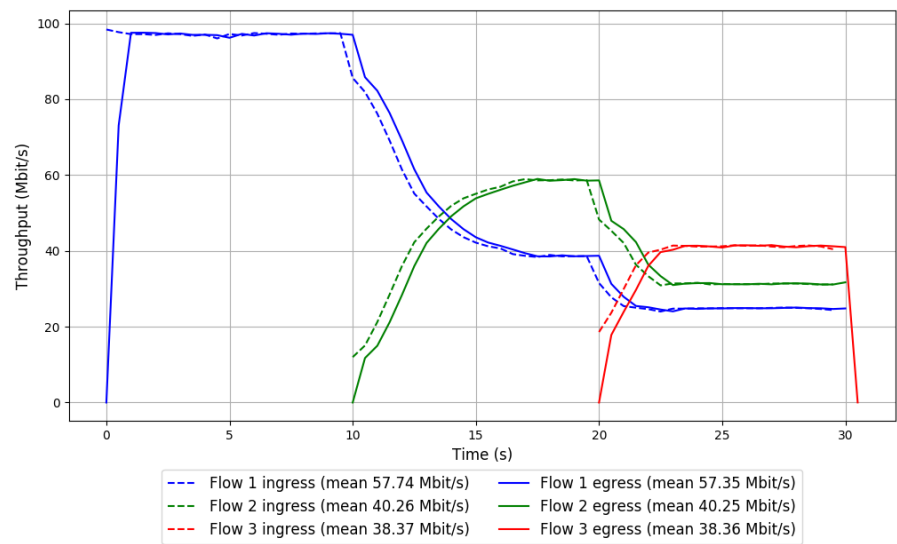


Run 3: Statistics of TCP Vegas

Start at: 2019-07-12 05:09:14  
End at: 2019-07-12 05:09:44  
Local clock offset: -5.7 ms  
Remote clock offset: 0.1 ms

```
# Below is generated by plot.py at 2019-07-12 06:52:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.91 Mbit/s
95th percentile per-packet one-way delay: 11.476 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 57.35 Mbit/s
95th percentile per-packet one-way delay: 11.307 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 40.25 Mbit/s
95th percentile per-packet one-way delay: 9.534 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.36 Mbit/s
95th percentile per-packet one-way delay: 12.933 ms
Loss rate: 0.03%
```

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-07-12 05:38:36

End at: 2019-07-12 05:39:06

Local clock offset: -7.864 ms

Remote clock offset: 1.058 ms

# Below is generated by plot.py at 2019-07-12 06:52:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.83 Mbit/s

95th percentile per-packet one-way delay: 13.782 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 57.37 Mbit/s

95th percentile per-packet one-way delay: 14.290 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 36.76 Mbit/s

95th percentile per-packet one-way delay: 12.935 ms

Loss rate: 0.00%

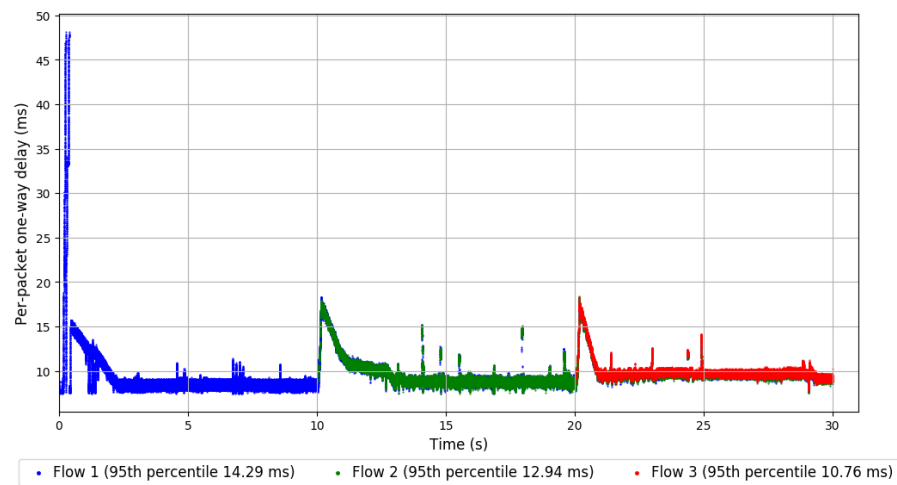
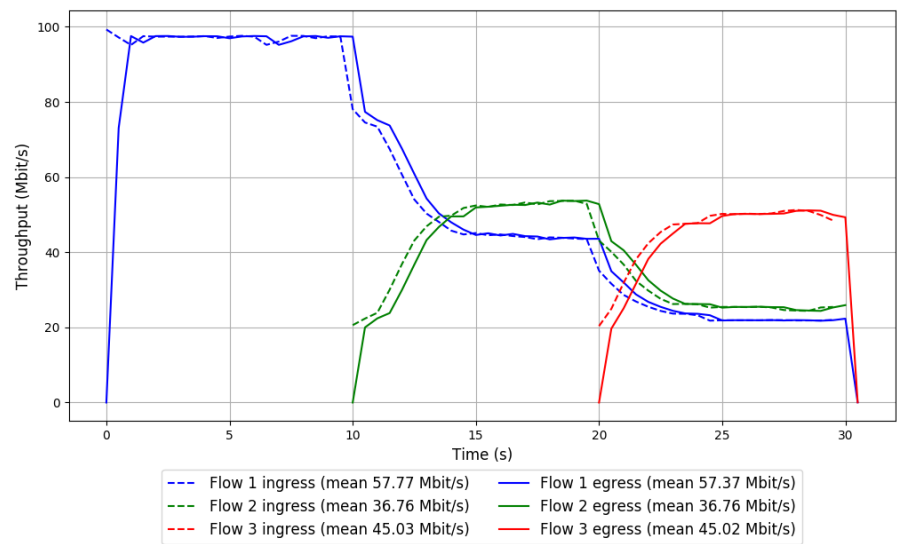
-- Flow 3:

Average throughput: 45.02 Mbit/s

95th percentile per-packet one-way delay: 10.761 ms

Loss rate: 0.01%

Run 4: Report of TCP Vegas — Data Link





Run 5: Statistics of TCP Vegas

Start at: 2019-07-12 06:07:56

End at: 2019-07-12 06:08:26

Local clock offset: -3.727 ms

Remote clock offset: 0.19 ms

# Below is generated by plot.py at 2019-07-12 06:52:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.11 Mbit/s

95th percentile per-packet one-way delay: 14.489 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 53.92 Mbit/s

95th percentile per-packet one-way delay: 14.993 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 41.12 Mbit/s

95th percentile per-packet one-way delay: 13.599 ms

Loss rate: 0.00%

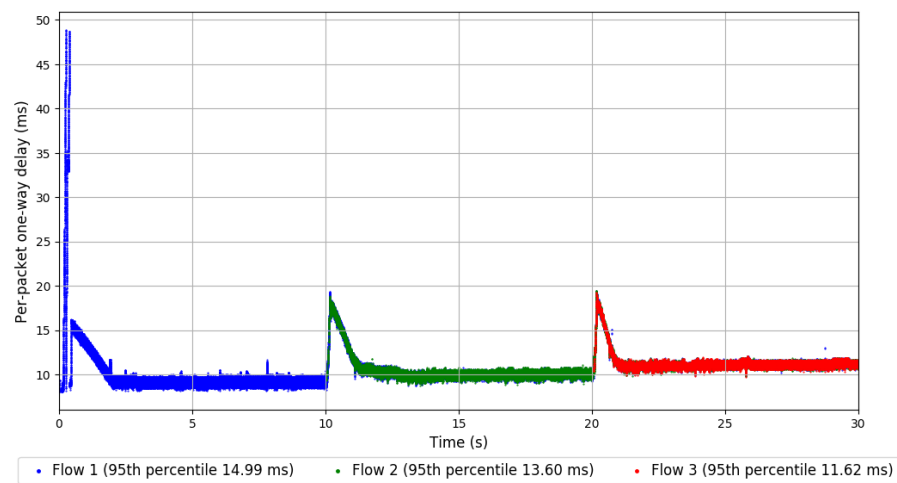
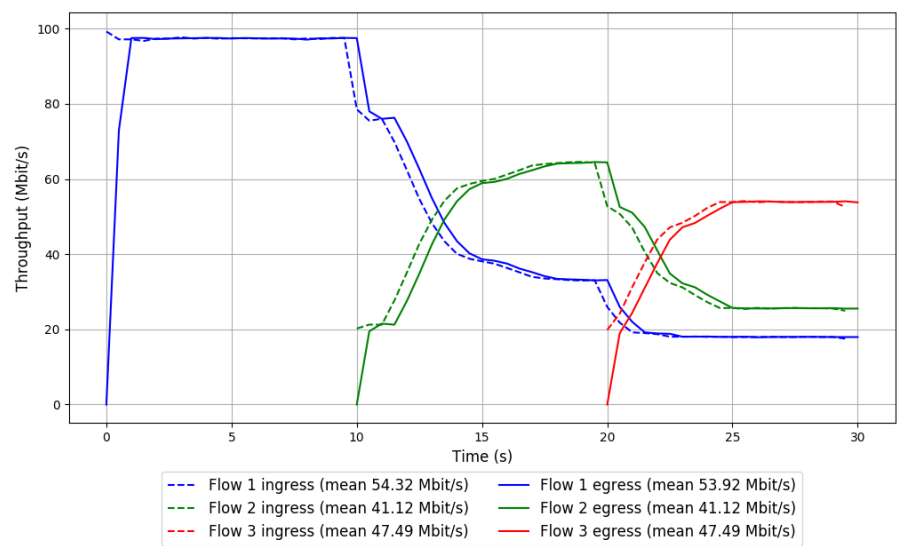
-- Flow 3:

Average throughput: 47.49 Mbit/s

95th percentile per-packet one-way delay: 11.619 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-07-12 04:37:45

End at: 2019-07-12 04:38:15

Local clock offset: -2.851 ms

Remote clock offset: 1.461 ms

# Below is generated by plot.py at 2019-07-12 06:52:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.10 Mbit/s

95th percentile per-packet one-way delay: 44.087 ms

Loss rate: 22.33%

-- Flow 1:

Average throughput: 46.57 Mbit/s

95th percentile per-packet one-way delay: 41.964 ms

Loss rate: 18.01%

-- Flow 2:

Average throughput: 41.42 Mbit/s

95th percentile per-packet one-way delay: 46.587 ms

Loss rate: 28.77%

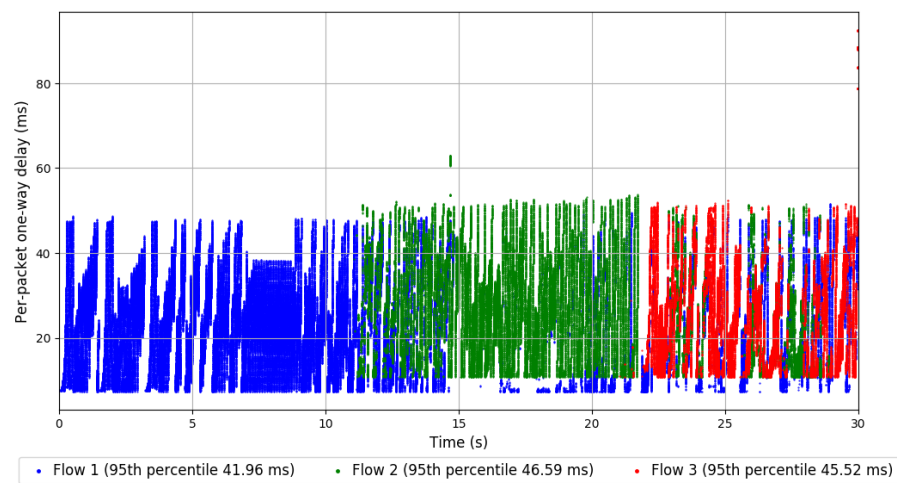
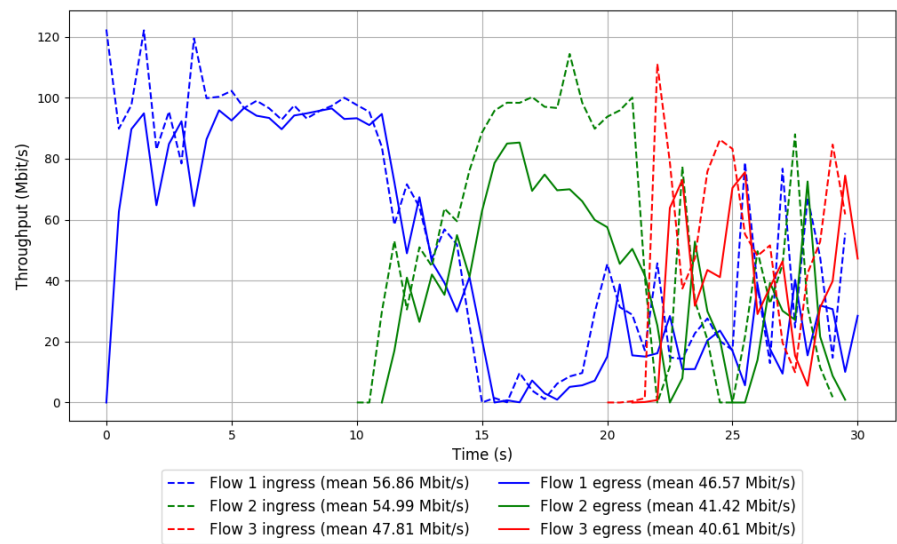
-- Flow 3:

Average throughput: 40.61 Mbit/s

95th percentile per-packet one-way delay: 45.520 ms

Loss rate: 23.30%

Run 1: Report of Verus — Data Link

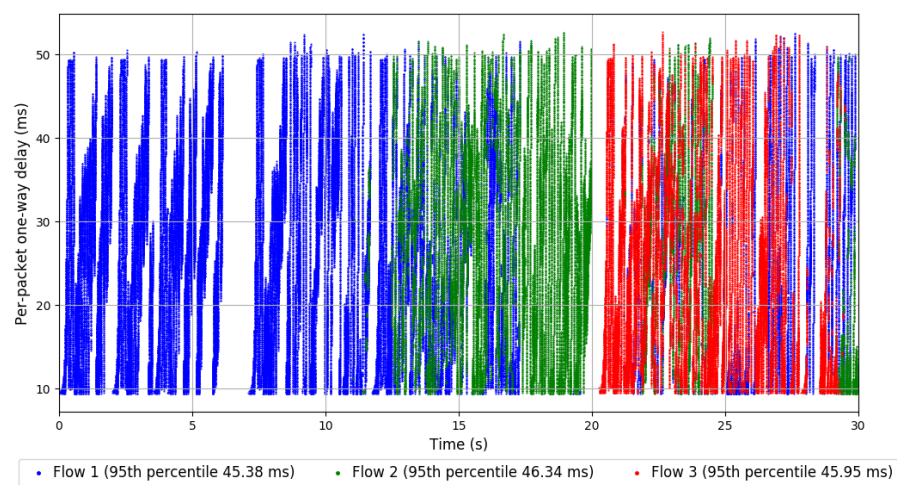
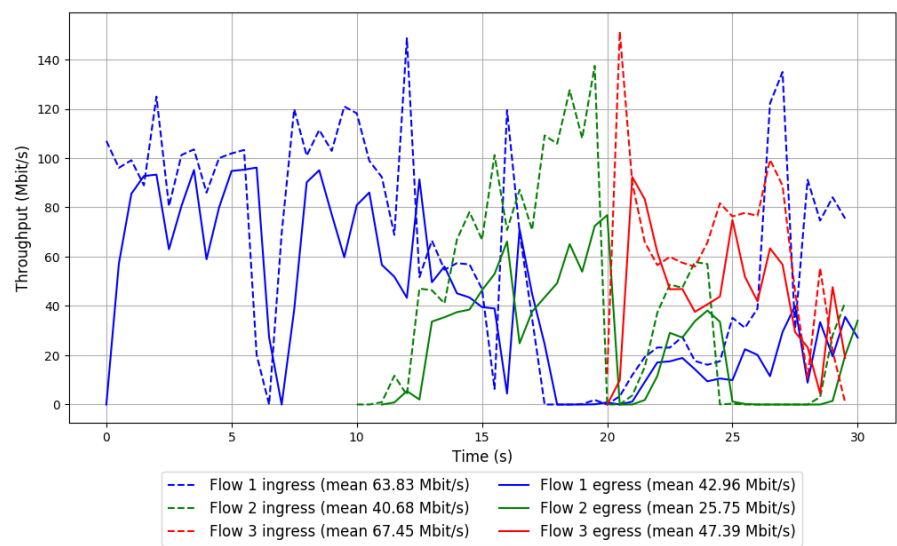


Run 2: Statistics of Verus

Start at: 2019-07-12 05:06:41  
End at: 2019-07-12 05:07:11  
Local clock offset: -5.678 ms  
Remote clock offset: 0.449 ms

# Below is generated by plot.py at 2019-07-12 06:52:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.74 Mbit/s  
95th percentile per-packet one-way delay: 45.704 ms  
Loss rate: 33.92%  
-- Flow 1:  
Average throughput: 42.96 Mbit/s  
95th percentile per-packet one-way delay: 45.379 ms  
Loss rate: 32.67%  
-- Flow 2:  
Average throughput: 25.75 Mbit/s  
95th percentile per-packet one-way delay: 46.339 ms  
Loss rate: 39.89%  
-- Flow 3:  
Average throughput: 47.39 Mbit/s  
95th percentile per-packet one-way delay: 45.955 ms  
Loss rate: 29.97%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-07-12 05:36:08

End at: 2019-07-12 05:36:38

Local clock offset: -7.89 ms

Remote clock offset: 0.814 ms

# Below is generated by plot.py at 2019-07-12 06:52:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 72.98 Mbit/s

95th percentile per-packet one-way delay: 46.347 ms

Loss rate: 32.08%

-- Flow 1:

Average throughput: 51.65 Mbit/s

95th percentile per-packet one-way delay: 47.252 ms

Loss rate: 34.15%

-- Flow 2:

Average throughput: 22.36 Mbit/s

95th percentile per-packet one-way delay: 43.907 ms

Loss rate: 29.23%

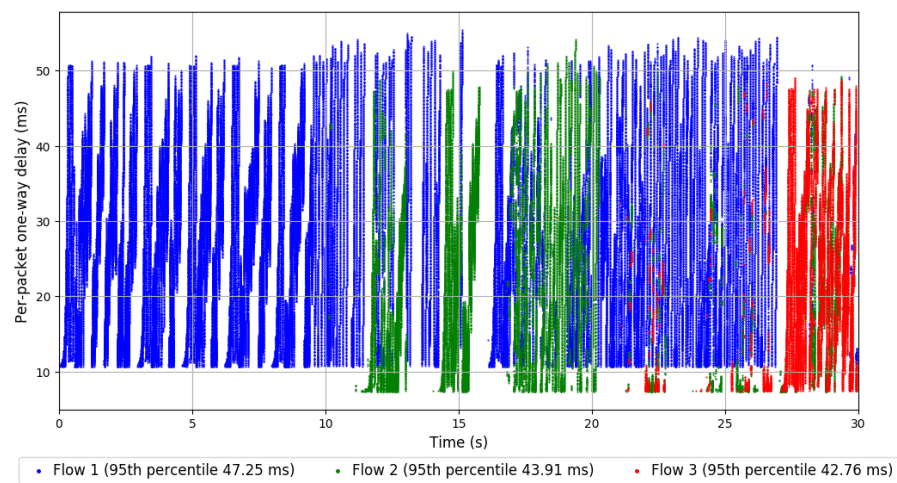
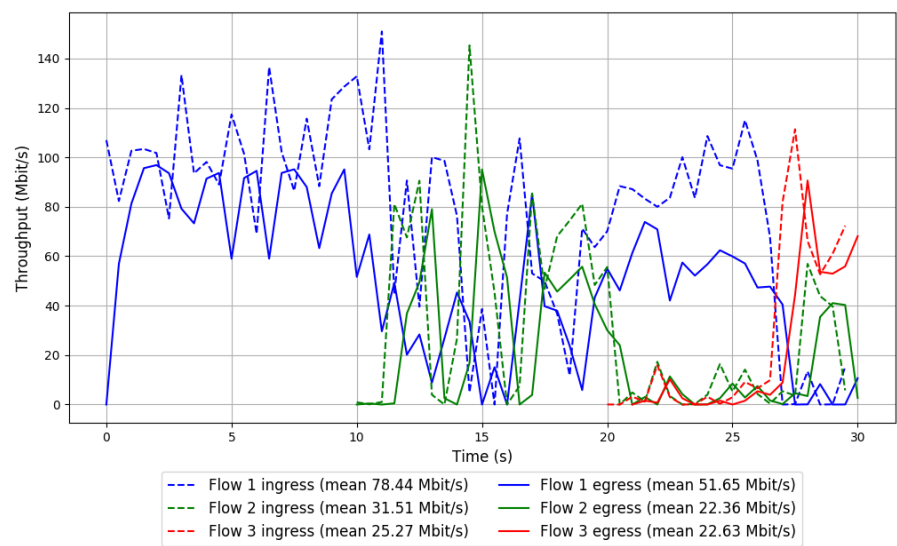
-- Flow 3:

Average throughput: 22.63 Mbit/s

95th percentile per-packet one-way delay: 42.763 ms

Loss rate: 19.70%

Run 3: Report of Verus — Data Link



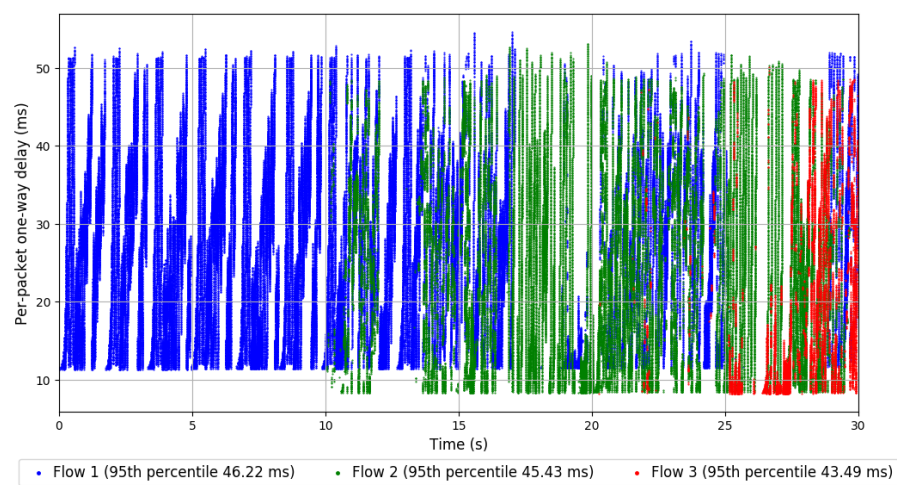
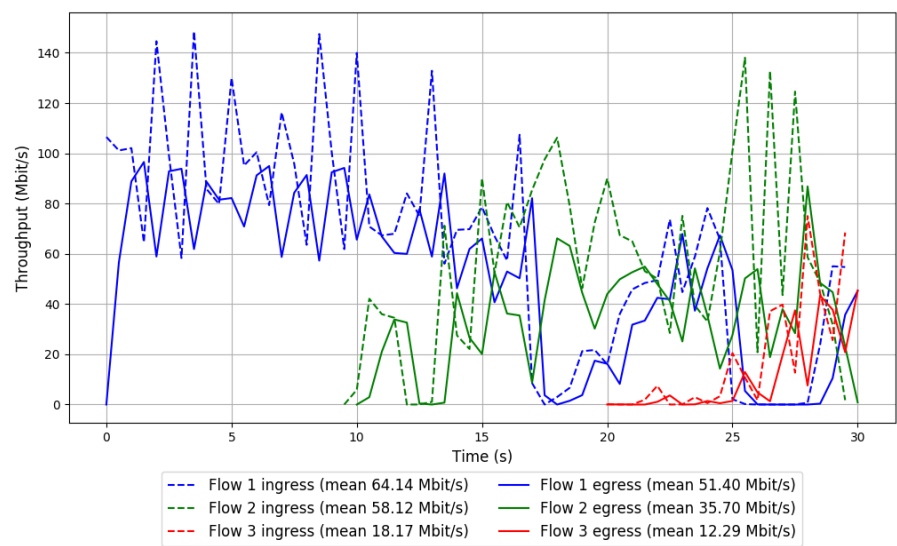


Run 4: Statistics of Verus

Start at: 2019-07-12 06:05:18  
End at: 2019-07-12 06:05:48  
Local clock offset: -5.763 ms  
Remote clock offset: -0.651 ms

# Below is generated by plot.py at 2019-07-12 06:52:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.76 Mbit/s  
95th percentile per-packet one-way delay: 45.803 ms  
Loss rate: 27.10%  
-- Flow 1:  
Average throughput: 51.40 Mbit/s  
95th percentile per-packet one-way delay: 46.215 ms  
Loss rate: 19.77%  
-- Flow 2:  
Average throughput: 35.70 Mbit/s  
95th percentile per-packet one-way delay: 45.428 ms  
Loss rate: 38.66%  
-- Flow 3:  
Average throughput: 12.29 Mbit/s  
95th percentile per-packet one-way delay: 43.494 ms  
Loss rate: 32.07%

Run 4: Report of Verus — Data Link

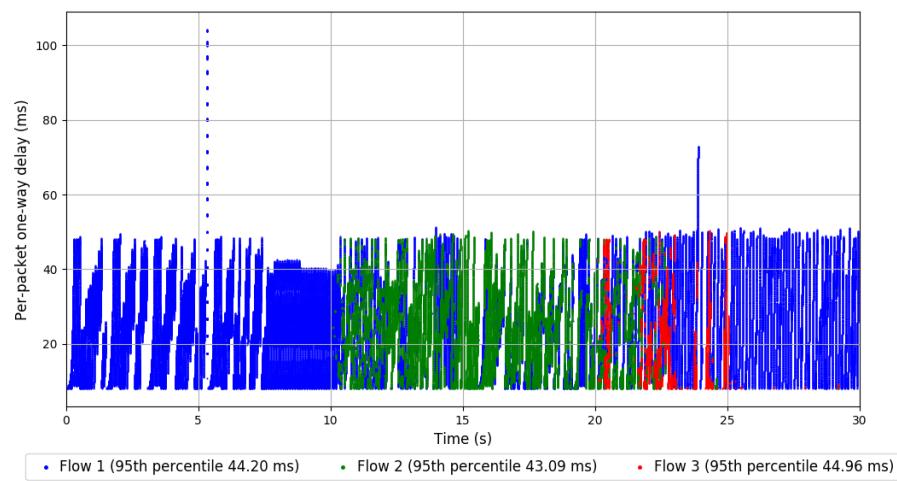
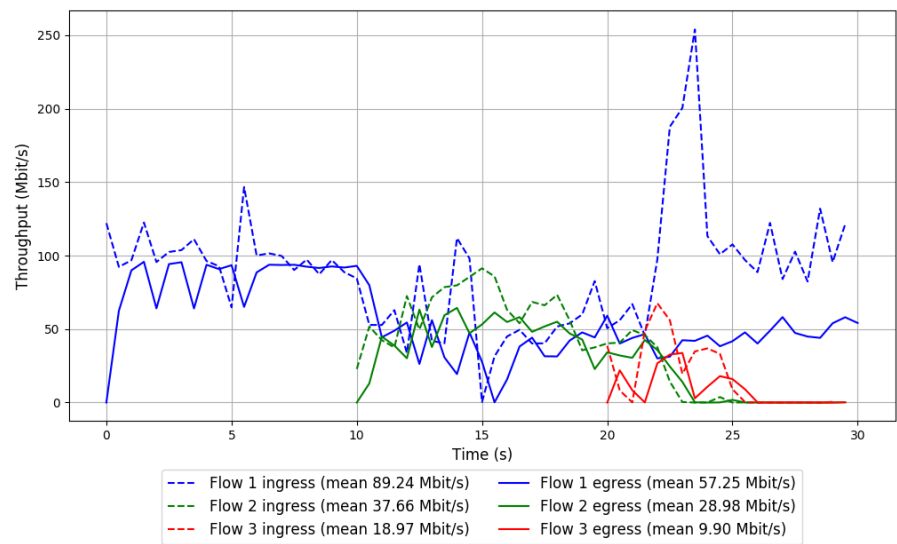


Run 5: Statistics of Verus

Start at: 2019-07-12 06:34:29  
End at: 2019-07-12 06:34:59  
Local clock offset: 0.088 ms  
Remote clock offset: -1.815 ms

# Below is generated by plot.py at 2019-07-12 06:53:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.78 Mbit/s  
95th percentile per-packet one-way delay: 43.992 ms  
Loss rate: 34.03%  
-- Flow 1:  
Average throughput: 57.25 Mbit/s  
95th percentile per-packet one-way delay: 44.200 ms  
Loss rate: 35.82%  
-- Flow 2:  
Average throughput: 28.98 Mbit/s  
95th percentile per-packet one-way delay: 43.085 ms  
Loss rate: 23.80%  
-- Flow 3:  
Average throughput: 9.90 Mbit/s  
95th percentile per-packet one-way delay: 44.961 ms  
Loss rate: 48.97%

Run 5: Report of Verus — Data Link

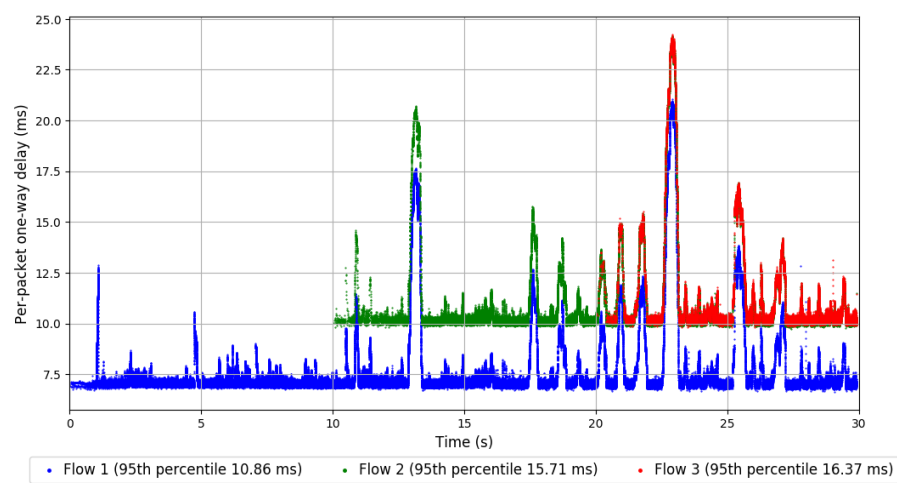
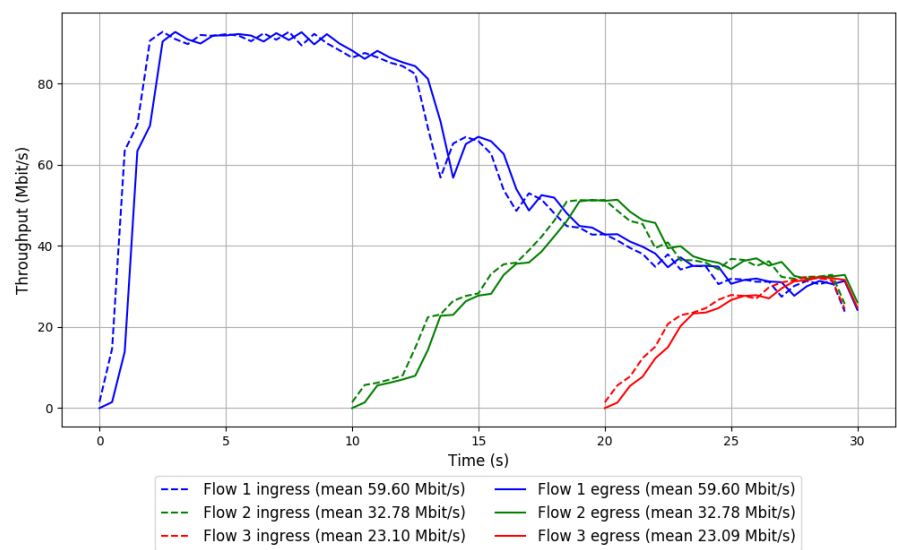


Run 1: Statistics of PCC-Vivace

Start at: 2019-07-12 04:30:18  
End at: 2019-07-12 04:30:48  
Local clock offset: -2.359 ms  
Remote clock offset: -0.612 ms

# Below is generated by plot.py at 2019-07-12 06:53:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.02 Mbit/s  
95th percentile per-packet one-way delay: 13.901 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 59.60 Mbit/s  
95th percentile per-packet one-way delay: 10.857 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 32.78 Mbit/s  
95th percentile per-packet one-way delay: 15.715 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 23.09 Mbit/s  
95th percentile per-packet one-way delay: 16.367 ms  
Loss rate: 0.05%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-07-12 04:59:22

End at: 2019-07-12 04:59:52

Local clock offset: -9.809 ms

Remote clock offset: 2.346 ms

# Below is generated by plot.py at 2019-07-12 06:53:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.47 Mbit/s

95th percentile per-packet one-way delay: 17.756 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 64.05 Mbit/s

95th percentile per-packet one-way delay: 17.794 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 27.73 Mbit/s

95th percentile per-packet one-way delay: 16.568 ms

Loss rate: 0.00%

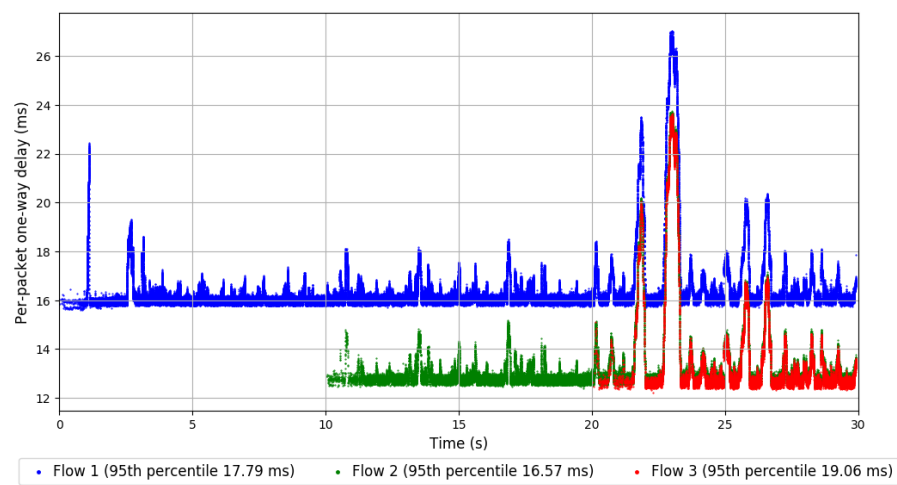
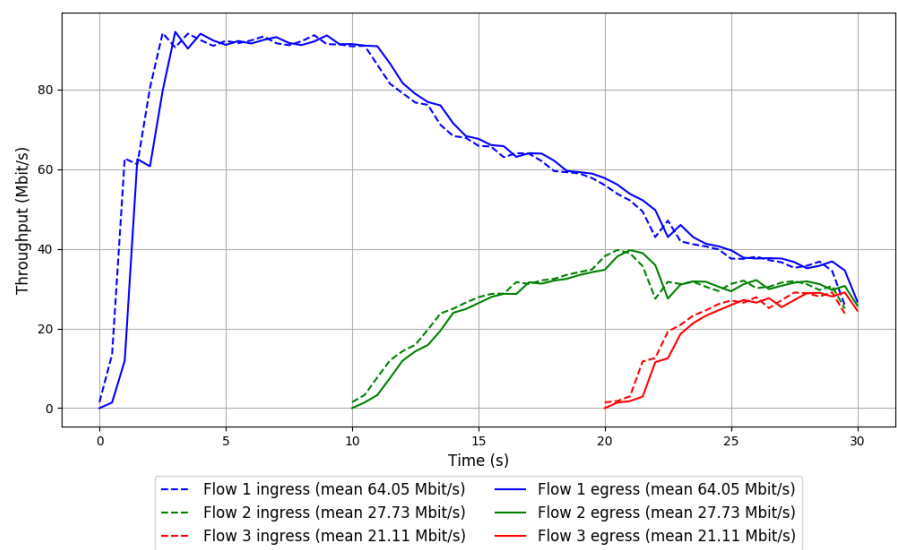
-- Flow 3:

Average throughput: 21.11 Mbit/s

95th percentile per-packet one-way delay: 19.058 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



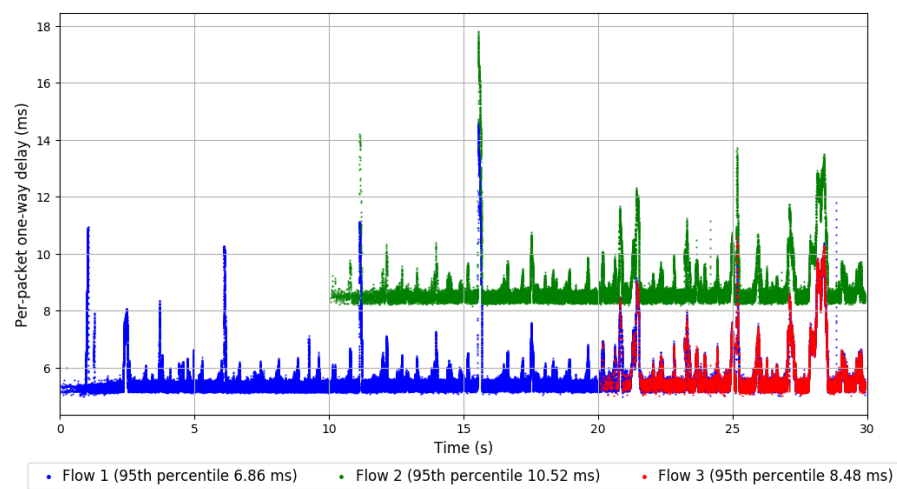
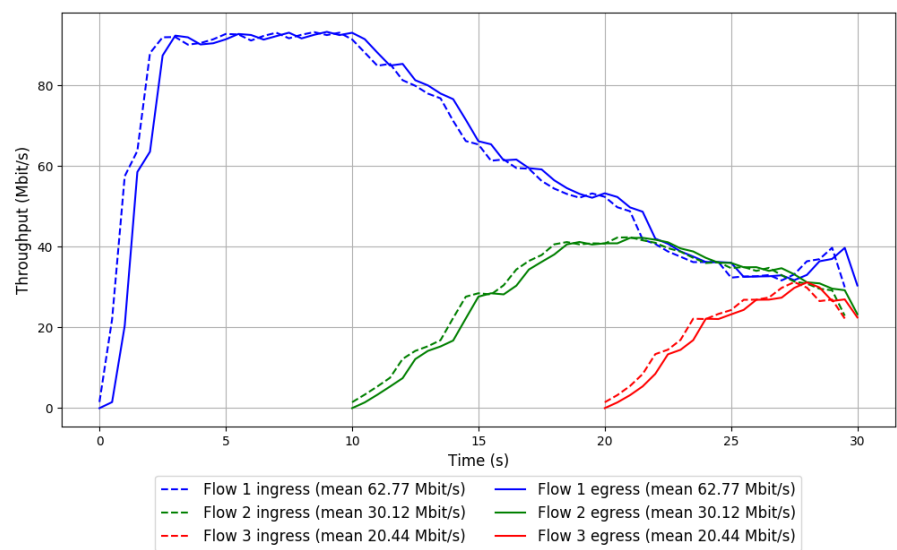


Run 3: Statistics of PCC-Vivace

Start at: 2019-07-12 05:28:53  
End at: 2019-07-12 05:29:23  
Local clock offset: -6.734 ms  
Remote clock offset: -0.747 ms

# Below is generated by plot.py at 2019-07-12 06:53:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.54 Mbit/s  
95th percentile per-packet one-way delay: 9.152 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 62.77 Mbit/s  
95th percentile per-packet one-way delay: 6.863 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 30.12 Mbit/s  
95th percentile per-packet one-way delay: 10.517 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 20.44 Mbit/s  
95th percentile per-packet one-way delay: 8.483 ms  
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

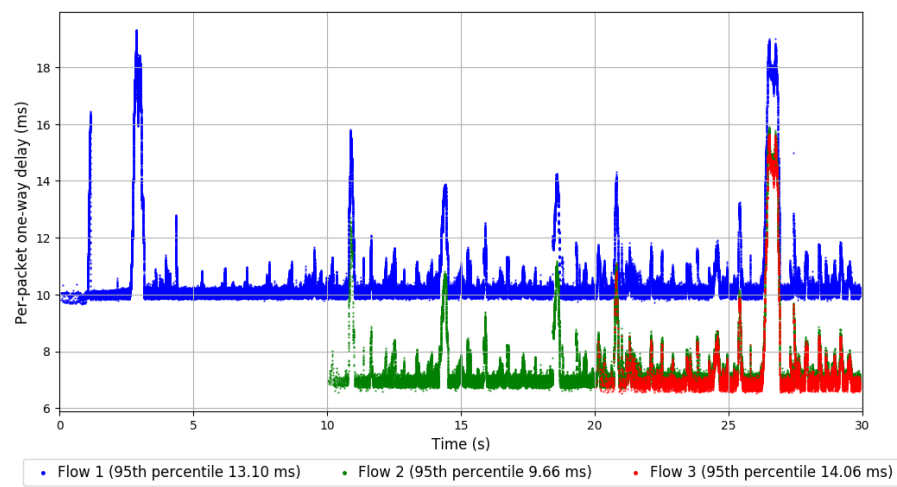
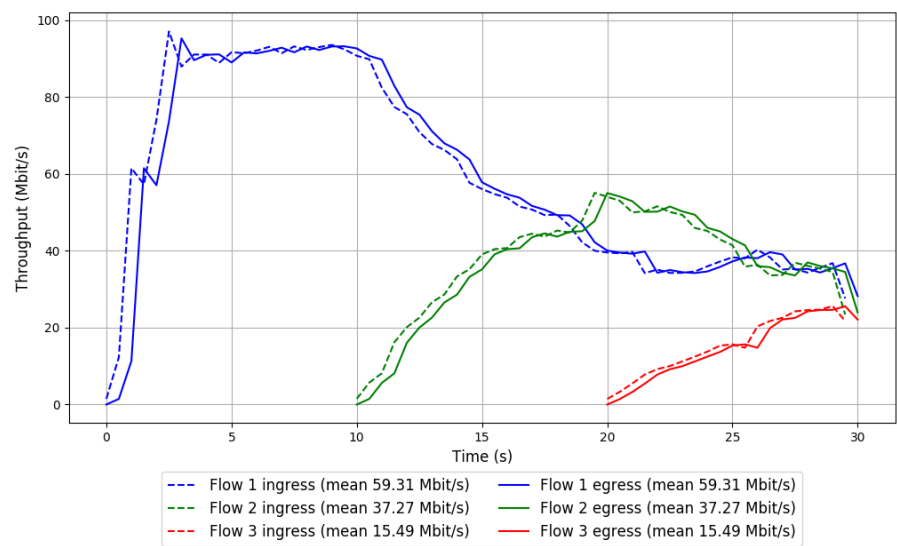


Run 4: Statistics of PCC-Vivace

Start at: 2019-07-12 05:57:52  
End at: 2019-07-12 05:58:22  
Local clock offset: -8.668 ms  
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2019-07-12 06:53:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.22 Mbit/s  
95th percentile per-packet one-way delay: 12.284 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 59.31 Mbit/s  
95th percentile per-packet one-way delay: 13.096 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 37.27 Mbit/s  
95th percentile per-packet one-way delay: 9.656 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 15.49 Mbit/s  
95th percentile per-packet one-way delay: 14.064 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

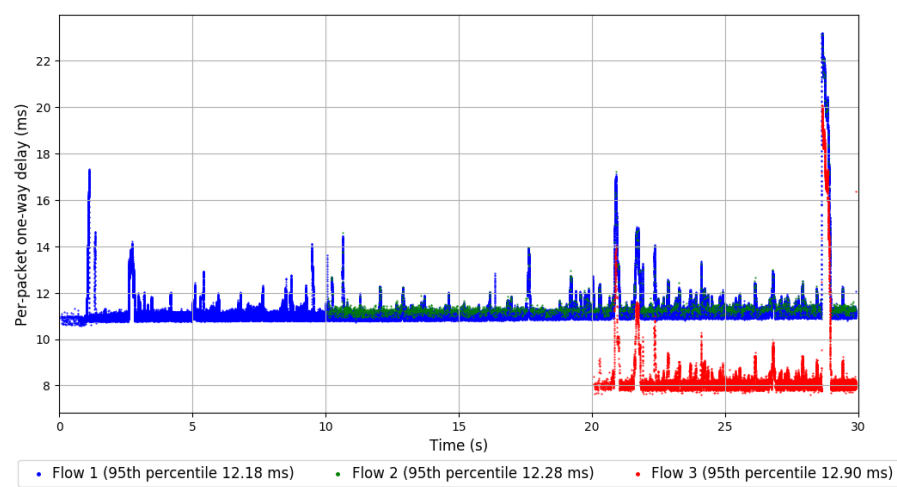
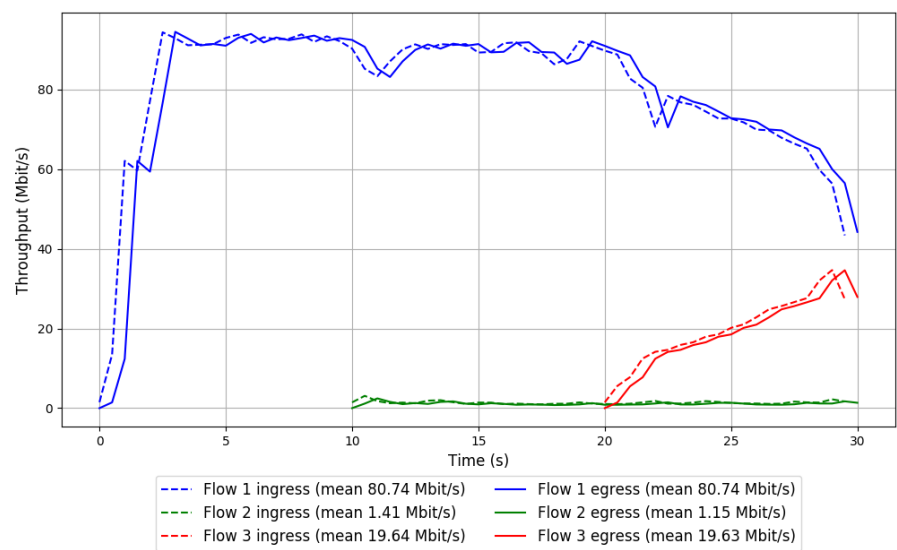


Run 5: Statistics of PCC-Vivace

Start at: 2019-07-12 06:27:18  
End at: 2019-07-12 06:27:48  
Local clock offset: -0.077 ms  
Remote clock offset: -1.581 ms

# Below is generated by plot.py at 2019-07-12 06:53:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.97 Mbit/s  
95th percentile per-packet one-way delay: 12.189 ms  
Loss rate: 0.20%  
-- Flow 1:  
Average throughput: 80.74 Mbit/s  
95th percentile per-packet one-way delay: 12.181 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 1.15 Mbit/s  
95th percentile per-packet one-way delay: 12.275 ms  
Loss rate: 18.06%  
-- Flow 3:  
Average throughput: 19.63 Mbit/s  
95th percentile per-packet one-way delay: 12.896 ms  
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-07-12 04:32:50

End at: 2019-07-12 04:33:20

Local clock offset: -2.631 ms

Remote clock offset: 1.502 ms

# Below is generated by plot.py at 2019-07-12 06:53:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 12.184 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 11.841 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 12.934 ms

Loss rate: 0.00%

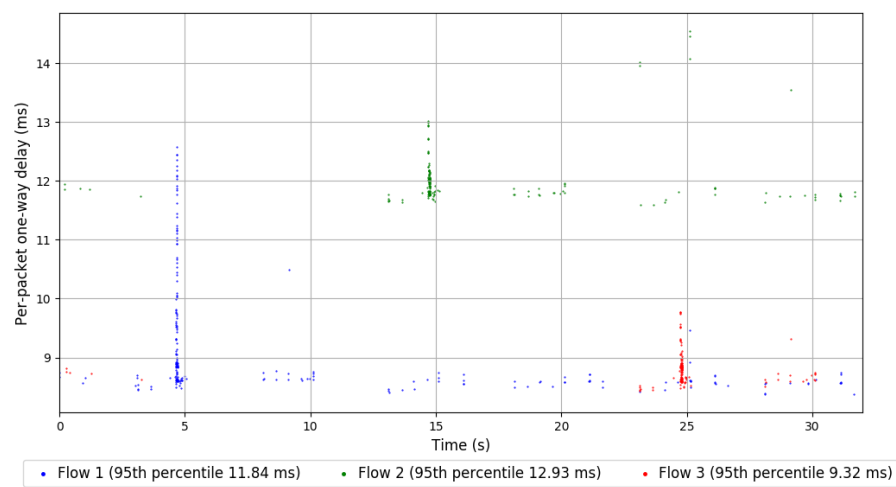
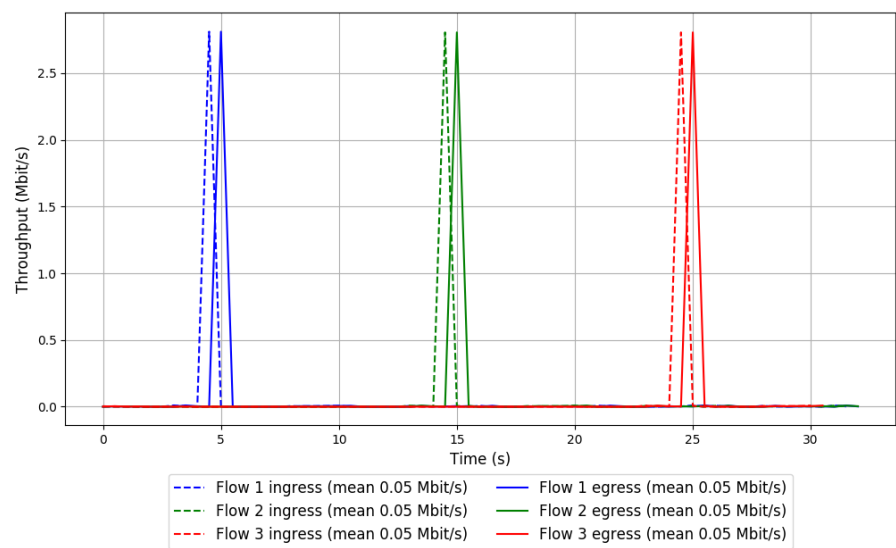
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 9.317 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link





Run 2: Statistics of WebRTC media

Start at: 2019-07-12 05:01:50

End at: 2019-07-12 05:02:20

Local clock offset: -5.775 ms

Remote clock offset: 0.551 ms

# Below is generated by plot.py at 2019-07-12 06:53:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 10.212 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 7.520 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 7.482 ms

Loss rate: 0.00%

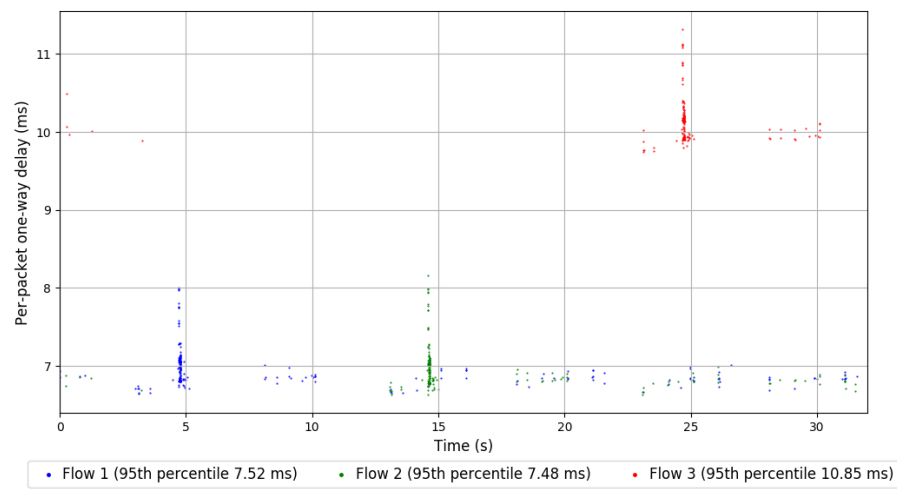
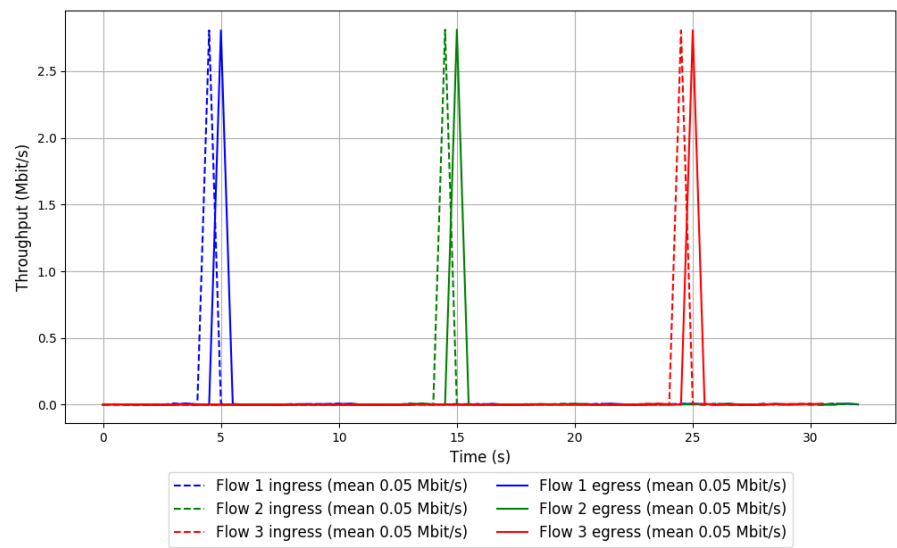
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 10.853 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

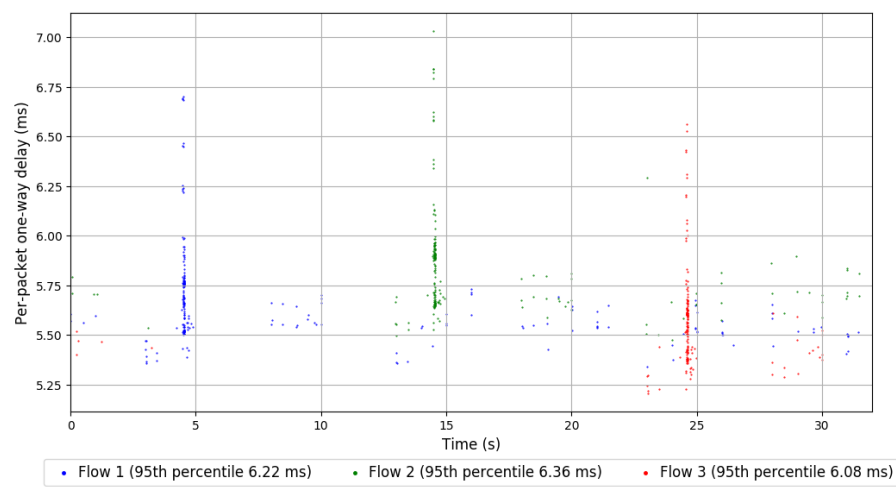
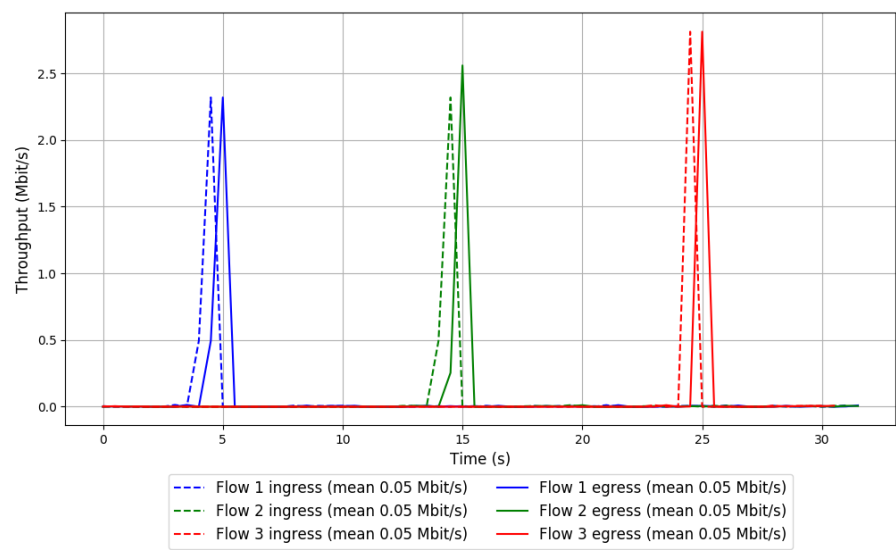


Run 3: Statistics of WebRTC media

Start at: 2019-07-12 05:31:21  
End at: 2019-07-12 05:31:51  
Local clock offset: -6.933 ms  
Remote clock offset: -0.318 ms

# Below is generated by plot.py at 2019-07-12 06:53:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 6.225 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 6.218 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 6.361 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 6.081 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

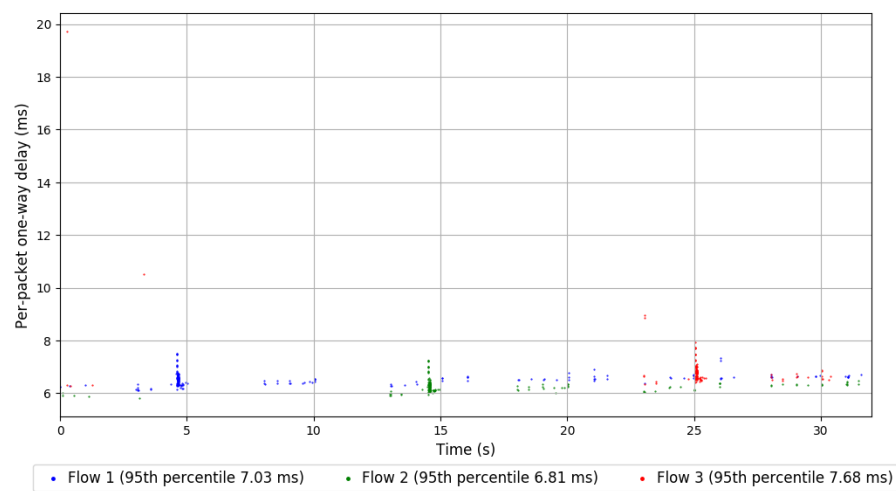
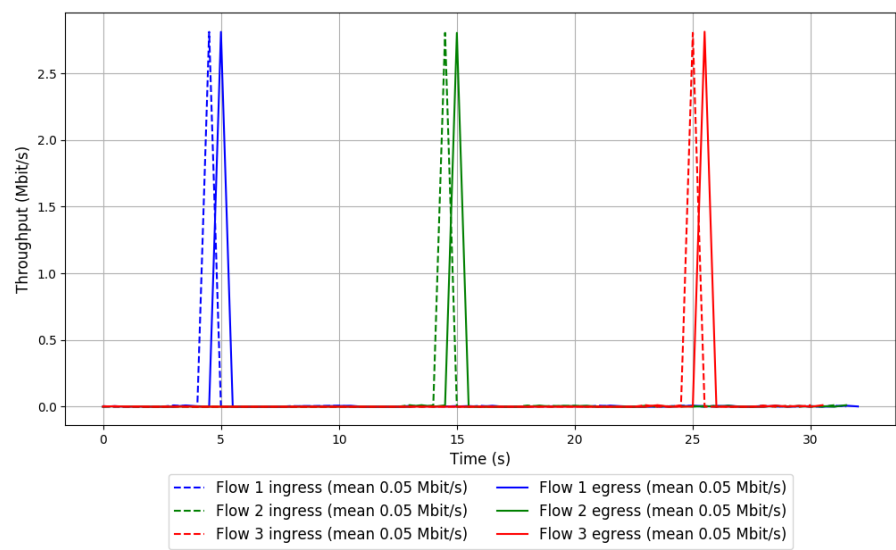


Run 4: Statistics of WebRTC media

Start at: 2019-07-12 06:00:30  
End at: 2019-07-12 06:01:00  
Local clock offset: -7.123 ms  
Remote clock offset: -0.864 ms

# Below is generated by plot.py at 2019-07-12 06:53:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 7.117 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 7.026 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 6.809 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 7.684 ms  
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-07-12 06:29:44  
End at: 2019-07-12 06:30:14  
Local clock offset: 0.33 ms  
Remote clock offset: -2.327 ms

# Below is generated by plot.py at 2019-07-12 06:53:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 10.310 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 7.655 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 7.849 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 10.943 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

