

## Pantheon Report

Generated at 2019-11-24 10:35:24 (UTC).

Data path: AWS India 2 on **ens5** (*local*) → Saudi Arabia on **enp2s0** (*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:

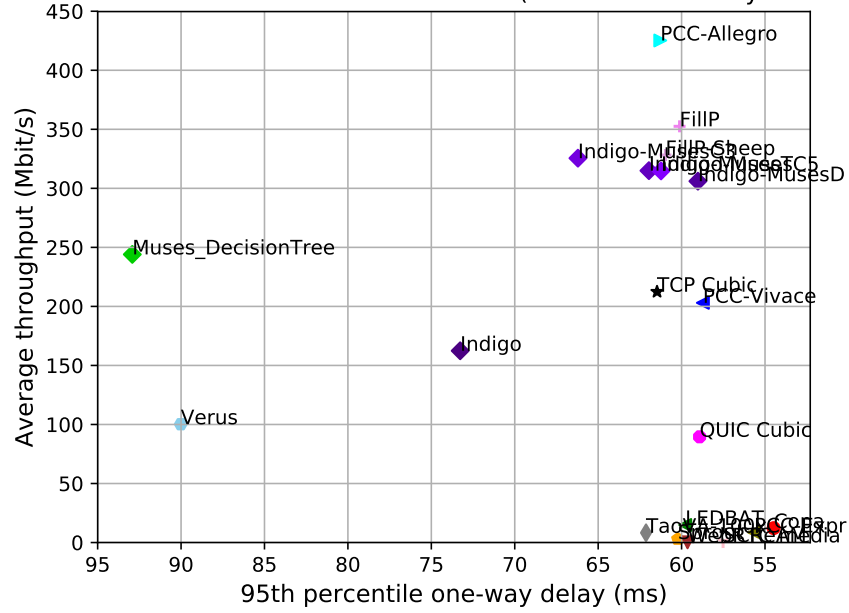
```
Linux 4.15.0-1041-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

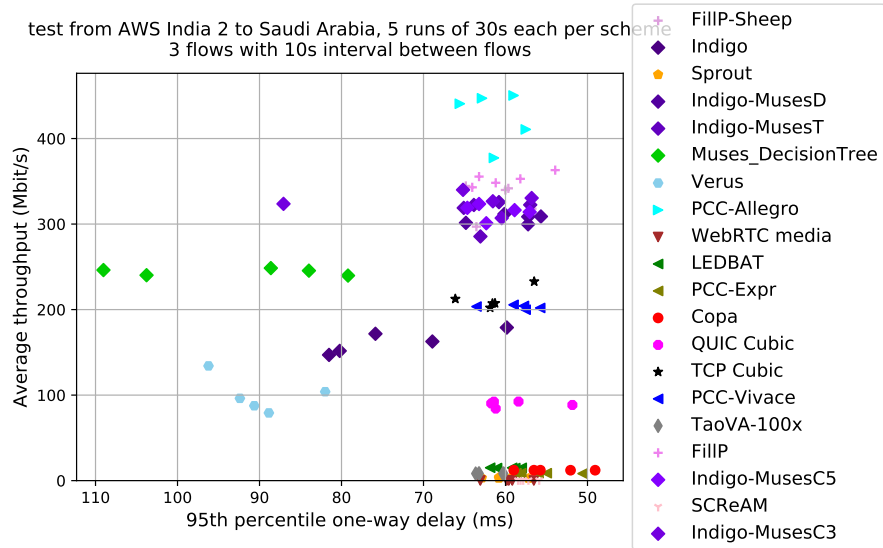
```
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
M helpers/__init__.pyc
M helpers/context.pyc
M helpers/utils.pyc
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
```

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

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



test from AWS India 2 to Saudi Arabia, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copa	5	8.96	4.88	0.02	54.72	53.90	56.27	64.11	72.17	90.47
TCP Cubic	5	138.18	77.45	68.06	62.24	59.54	60.63	1.41	1.11	1.57
FillP	5	241.13	120.35	94.49	59.88	60.06	60.08	22.23	23.14	23.76
FillP-Sheep	5	229.93	95.63	104.70	60.19	60.85	60.92	14.21	11.30	15.44
Indigo	5	78.99	94.35	66.15	73.03	75.48	67.51	13.67	22.02	32.70
Indigo-MusesC3	5	317.54	7.27	11.46	66.44	59.06	60.22	14.10	9.90	9.48
Indigo-MusesC5	5	313.05	1.35	2.85	61.23	60.49	60.51	25.22	27.66	28.75
Indigo-MusesD	5	277.01	37.08	17.47	58.44	58.28	59.37	11.90	9.15	9.40
Indigo-MusesT	5	290.83	27.21	22.76	61.61	60.58	61.24	10.48	8.45	8.75
LEDBAT	5	9.66	6.34	3.09	59.18	59.46	59.84	0.02	0.00	0.00
Muses_DecisionTree	5	149.26	117.29	55.45	95.70	86.35	74.68	61.74	57.43	45.51
Muses_DecisionTreeH0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Muses_DecisionTreeR0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCC-Allegro	5	361.53	81.79	28.25	61.39	59.55	60.25	4.86	2.76	3.27
PCC-Expr	5	0.01	10.51	4.83	57.01	55.60	55.73	85.71	32.52	37.45
QUIC Cubic	5	53.55	40.70	27.82	57.73	58.73	60.49	0.01	0.02	0.08
SCReAM	5	0.22	0.22	0.22	56.55	54.95	56.07	0.00	0.00	0.00
Sprout	5	1.81	1.27	1.05	59.90	58.43	58.10	0.00	0.00	0.00
TaoVA-100x	5	0.00	9.54	5.72	57.79	63.85	57.20	95.92	26.52	23.03
TCP Vegas	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Verus	5	60.83	43.19	39.18	92.82	79.81	71.56	55.95	58.75	39.58
PCC-Vivace	5	183.14	25.92	8.03	58.61	58.16	58.03	1.22	0.33	0.18
WebRTC media	5	0.05	0.07	0.06	60.76	58.31	59.64	0.01	0.00	0.00



Run 1: Statistics of TCP BBR

Start at: 2019-11-24 07:24:04

End at: 2019-11-24 07:24:34

Local clock offset: 1.312 ms

Remote clock offset: -40.921 ms

Run 1: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of TCP BBR

Start at: 2019-11-24 07:57:55

End at: 2019-11-24 07:58:25

Local clock offset: -1.464 ms

Remote clock offset: -40.189 ms

Run 2: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of TCP BBR

Start at: 2019-11-24 08:31:48

End at: 2019-11-24 08:32:18

Local clock offset: 1.886 ms

Remote clock offset: -37.735 ms

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

Figure is missing

Figure is missing

Run 4: Statistics of TCP BBR

Start at: 2019-11-24 09:05:41

End at: 2019-11-24 09:06:11

Local clock offset: 2.303 ms

Remote clock offset: -40.425 ms

Run 4: Report of TCP BBR — Data Link

Figure is missing

Figure is missing



Run 5: Statistics of TCP BBR

Start at: 2019-11-24 09:39:35

End at: 2019-11-24 09:40:05

Local clock offset: -1.515 ms

Remote clock offset: -37.811 ms

Run 5: Report of TCP BBR — Data Link

Figure is missing

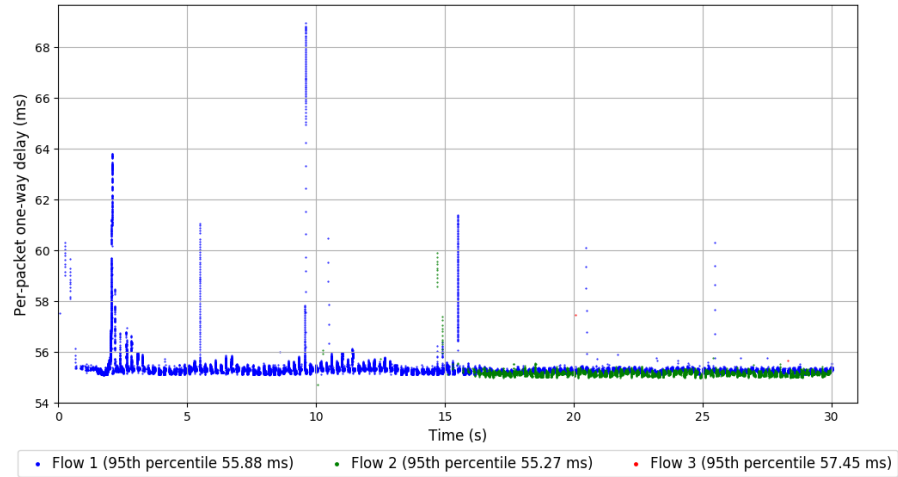
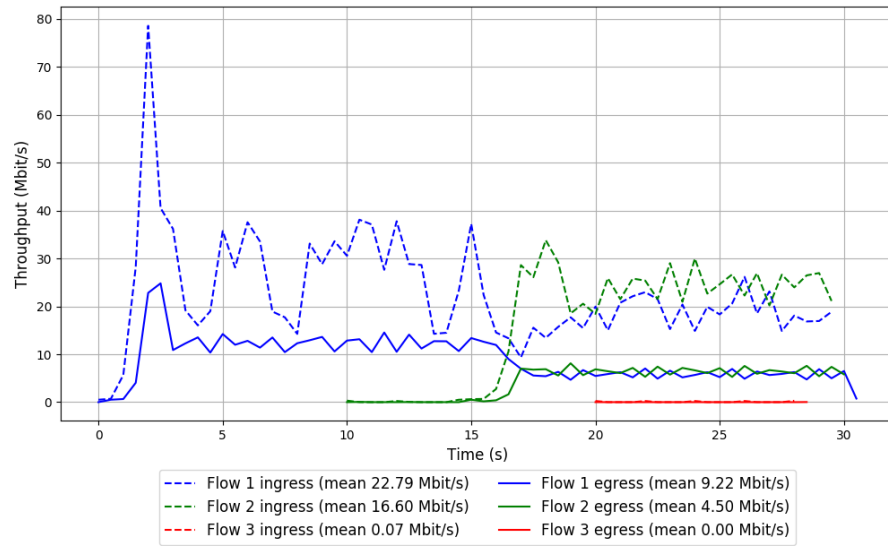
Figure is missing

Run 1: Statistics of Copa

Start at: 2019-11-24 07:43:52  
End at: 2019-11-24 07:44:22  
Local clock offset: -0.17 ms  
Remote clock offset: -41.048 ms

# Below is generated by plot.py at 2019-11-24 10:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 55.747 ms  
Loss rate: 63.92%  
-- Flow 1:  
Average throughput: 9.22 Mbit/s  
95th percentile per-packet one-way delay: 55.881 ms  
Loss rate: 59.56%  
-- Flow 2:  
Average throughput: 4.50 Mbit/s  
95th percentile per-packet one-way delay: 55.274 ms  
Loss rate: 72.90%  
-- Flow 3:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 57.455 ms  
Loss rate: 97.92%

## Run 1: Report of Copa — Data Link

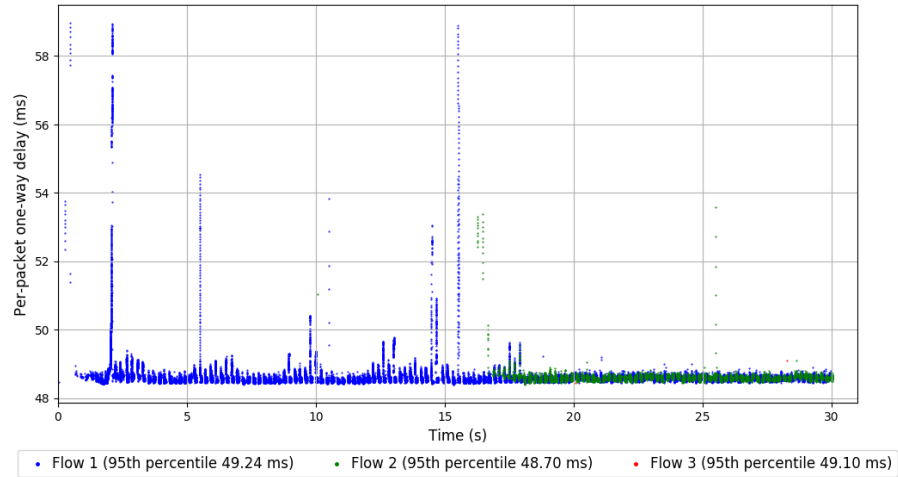
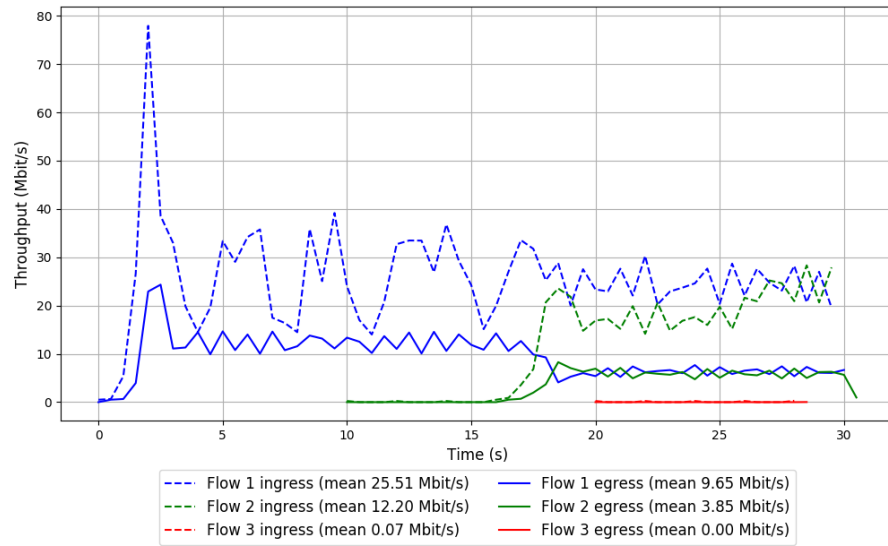


Run 2: Statistics of Copa

Start at: 2019-11-24 08:17:45  
End at: 2019-11-24 08:18:15  
Local clock offset: 3.051 ms  
Remote clock offset: -43.972 ms

# Below is generated by plot.py at 2019-11-24 10:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.19 Mbit/s  
95th percentile per-packet one-way delay: 49.066 ms  
Loss rate: 63.72%  
-- Flow 1:  
Average throughput: 9.65 Mbit/s  
95th percentile per-packet one-way delay: 49.243 ms  
Loss rate: 62.18%  
-- Flow 2:  
Average throughput: 3.85 Mbit/s  
95th percentile per-packet one-way delay: 48.701 ms  
Loss rate: 68.47%  
-- Flow 3:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 49.105 ms  
Loss rate: 97.92%

## Run 2: Report of Copa — Data Link

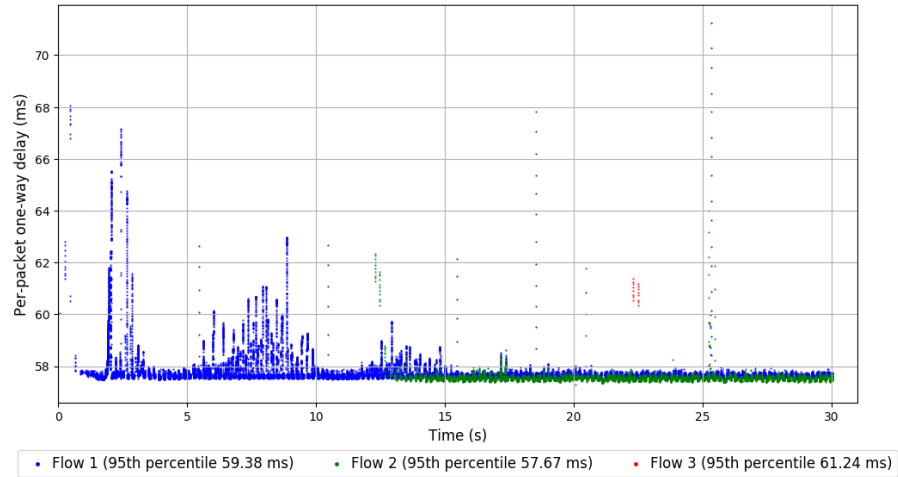
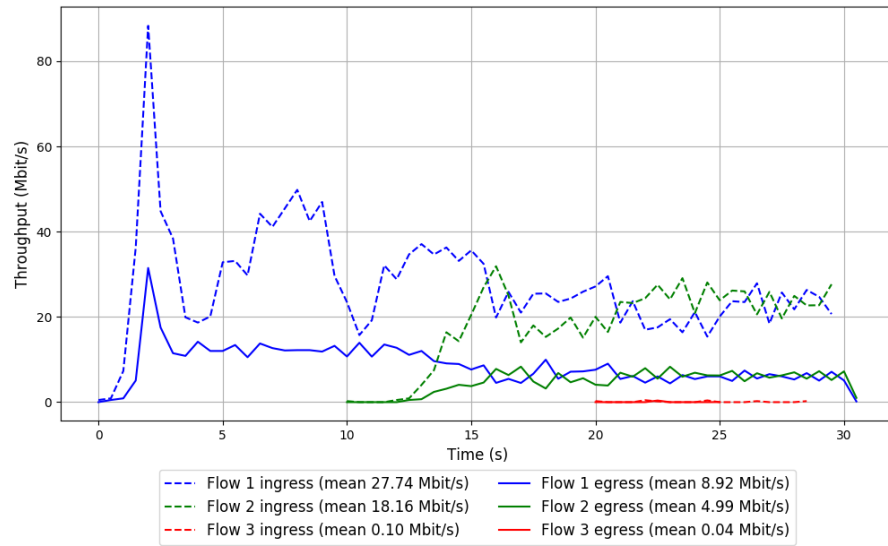


Run 3: Statistics of Copa

Start at: 2019-11-24 08:51:34  
End at: 2019-11-24 08:52:04  
Local clock offset: -2.682 ms  
Remote clock offset: -40.21 ms

# Below is generated by plot.py at 2019-11-24 10:08:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.24 Mbit/s  
95th percentile per-packet one-way delay: 58.991 ms  
Loss rate: 69.29%  
-- Flow 1:  
Average throughput: 8.92 Mbit/s  
95th percentile per-packet one-way delay: 59.384 ms  
Loss rate: 67.86%  
-- Flow 2:  
Average throughput: 4.99 Mbit/s  
95th percentile per-packet one-way delay: 57.673 ms  
Loss rate: 72.55%  
-- Flow 3:  
Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 61.240 ms  
Loss rate: 76.62%

### Run 3: Report of Copa — Data Link



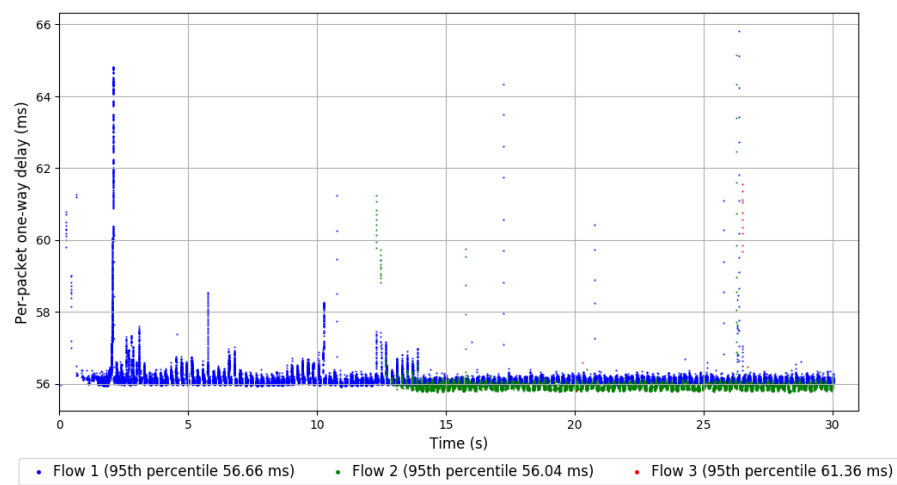
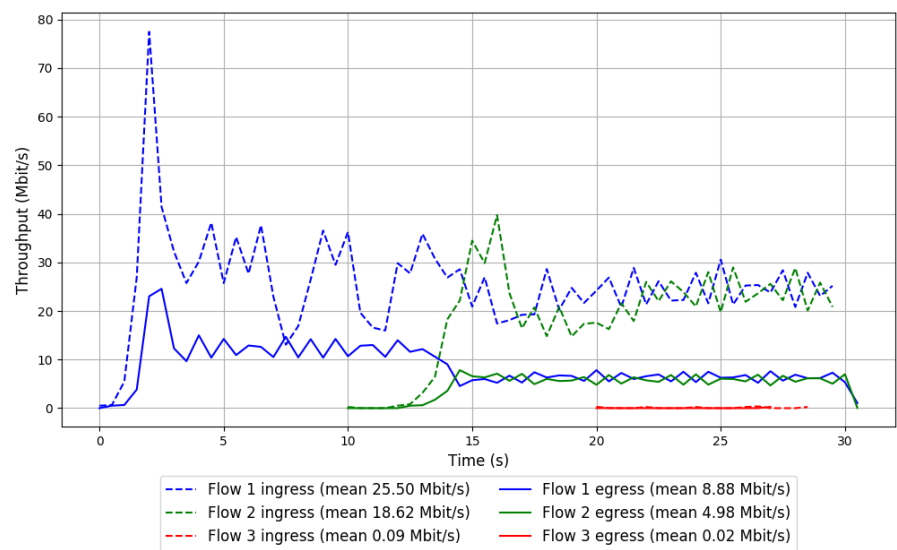


Run 4: Statistics of Copa

Start at: 2019-11-24 09:25:31  
End at: 2019-11-24 09:26:01  
Local clock offset: 1.444 ms  
Remote clock offset: -37.784 ms

# Below is generated by plot.py at 2019-11-24 10:08:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.19 Mbit/s  
95th percentile per-packet one-way delay: 56.531 ms  
Loss rate: 67.83%  
-- Flow 1:  
Average throughput: 8.88 Mbit/s  
95th percentile per-packet one-way delay: 56.665 ms  
Loss rate: 65.20%  
-- Flow 2:  
Average throughput: 4.98 Mbit/s  
95th percentile per-packet one-way delay: 56.041 ms  
Loss rate: 73.24%  
-- Flow 3:  
Average throughput: 0.02 Mbit/s  
95th percentile per-packet one-way delay: 61.362 ms  
Loss rate: 81.99%

Run 4: Report of Copa — Data Link

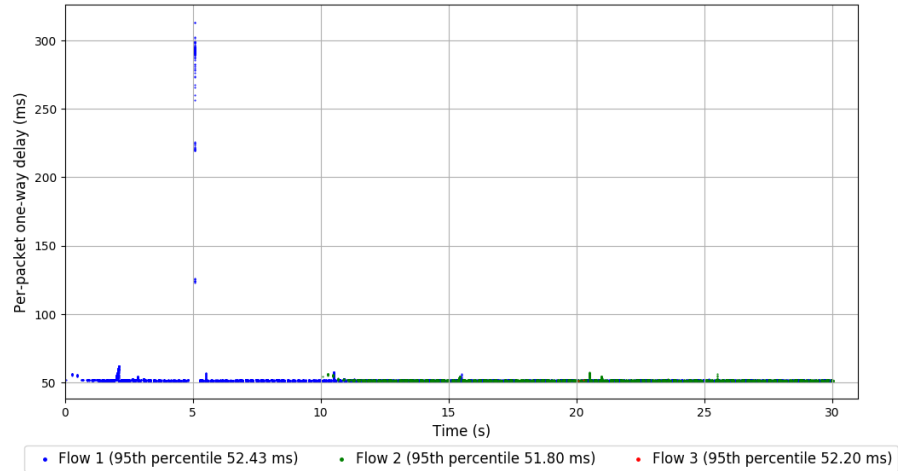
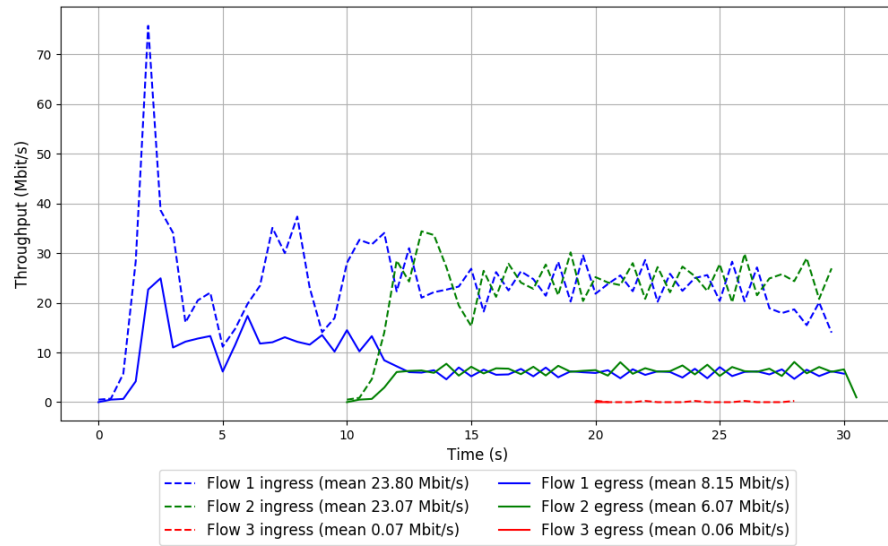


Run 5: Statistics of Copa

Start at: 2019-11-24 09:59:24  
End at: 2019-11-24 09:59:54  
Local clock offset: -0.567 ms  
Remote clock offset: -44.317 ms

# Below is generated by plot.py at 2019-11-24 10:08:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.17 Mbit/s  
95th percentile per-packet one-way delay: 52.068 ms  
Loss rate: 68.89%  
-- Flow 1:  
Average throughput: 8.15 Mbit/s  
95th percentile per-packet one-way delay: 52.429 ms  
Loss rate: 65.77%  
-- Flow 2:  
Average throughput: 6.07 Mbit/s  
95th percentile per-packet one-way delay: 51.799 ms  
Loss rate: 73.67%  
-- Flow 3:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 52.201 ms  
Loss rate: 97.92%

## Run 5: Report of Copa — Data Link

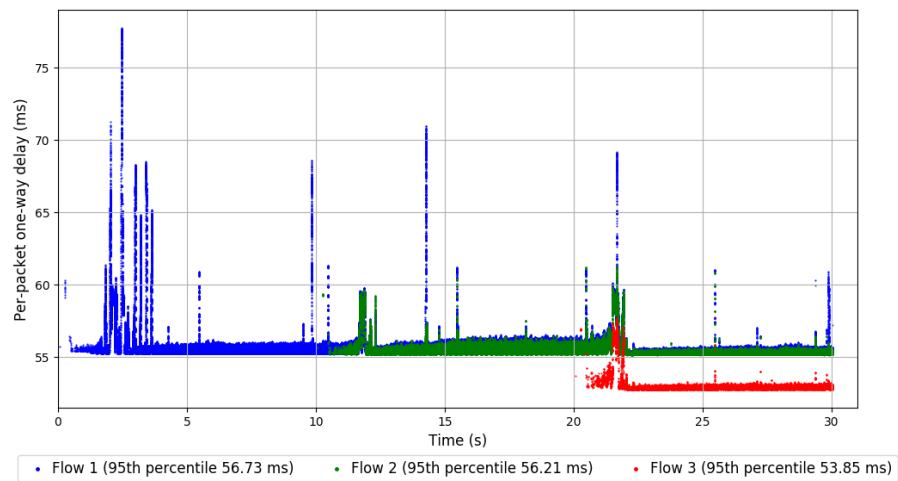
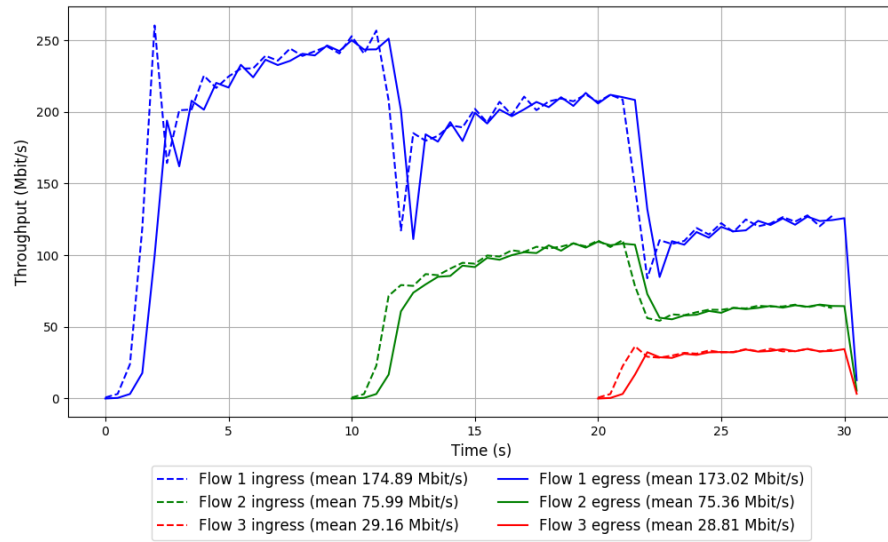


Run 1: Statistics of TCP Cubic

Start at: 2019-11-24 07:25:20  
End at: 2019-11-24 07:25:50  
Local clock offset: 2.694 ms  
Remote clock offset: -40.613 ms

# Below is generated by plot.py at 2019-11-24 10:10:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 232.79 Mbit/s  
95th percentile per-packet one-way delay: 56.499 ms  
Loss rate: 1.03%  
-- Flow 1:  
Average throughput: 173.02 Mbit/s  
95th percentile per-packet one-way delay: 56.730 ms  
Loss rate: 1.08%  
-- Flow 2:  
Average throughput: 75.36 Mbit/s  
95th percentile per-packet one-way delay: 56.207 ms  
Loss rate: 0.83%  
-- Flow 3:  
Average throughput: 28.81 Mbit/s  
95th percentile per-packet one-way delay: 53.849 ms  
Loss rate: 1.23%

# Run 1: Report of TCP Cubic — Data Link

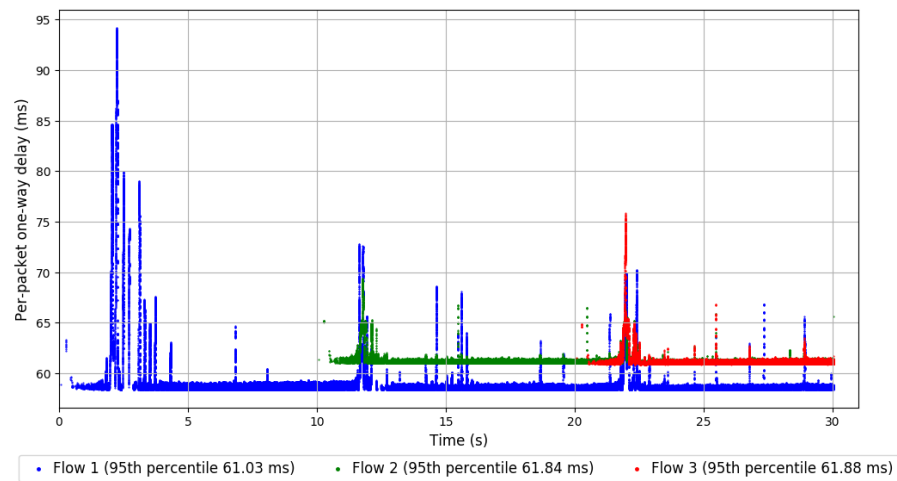
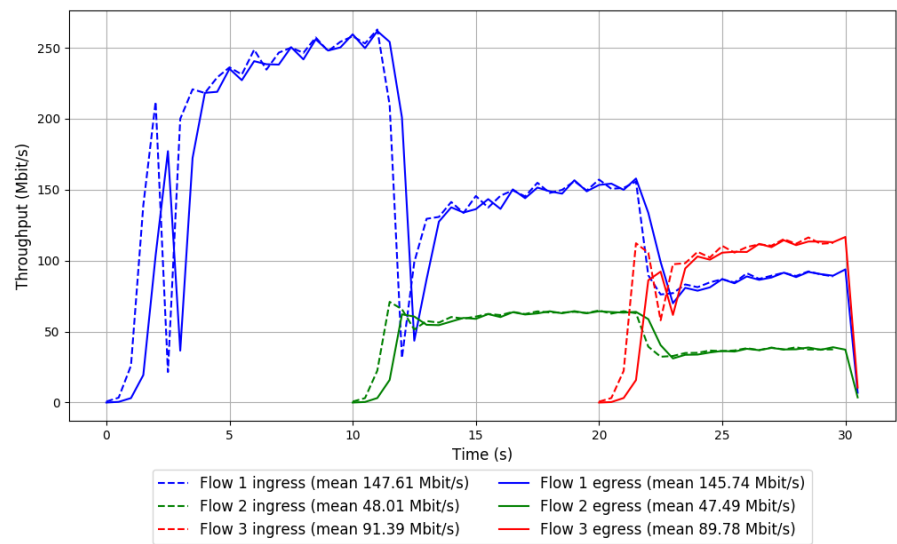


Run 2: Statistics of TCP Cubic

Start at: 2019-11-24 07:59:11  
End at: 2019-11-24 07:59:41  
Local clock offset: -1.563 ms  
Remote clock offset: -38.45 ms

# Below is generated by plot.py at 2019-11-24 10:10:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 207.18 Mbit/s  
95th percentile per-packet one-way delay: 61.590 ms  
Loss rate: 1.31%  
-- Flow 1:  
Average throughput: 145.74 Mbit/s  
95th percentile per-packet one-way delay: 61.034 ms  
Loss rate: 1.26%  
-- Flow 2:  
Average throughput: 47.49 Mbit/s  
95th percentile per-packet one-way delay: 61.836 ms  
Loss rate: 1.07%  
-- Flow 3:  
Average throughput: 89.78 Mbit/s  
95th percentile per-packet one-way delay: 61.878 ms  
Loss rate: 1.76%

Run 2: Report of TCP Cubic — Data Link



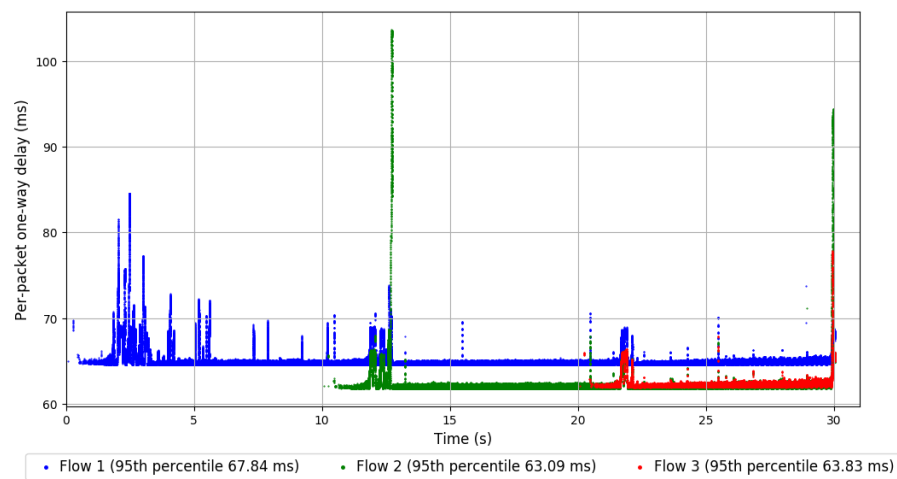
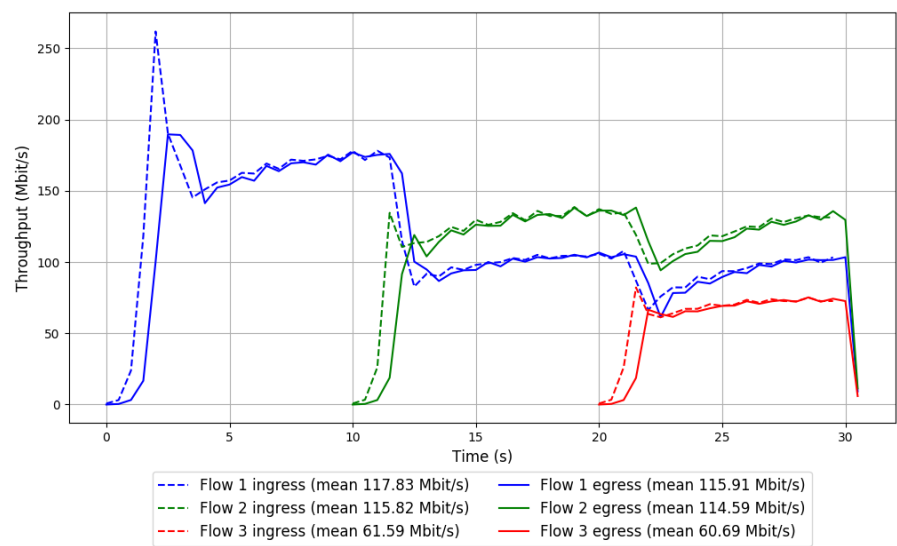


Run 3: Statistics of TCP Cubic

Start at: 2019-11-24 08:33:04  
End at: 2019-11-24 08:33:34  
Local clock offset: -4.295 ms  
Remote clock offset: -37.339 ms

# Below is generated by plot.py at 2019-11-24 10:10:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 212.49 Mbit/s  
95th percentile per-packet one-way delay: 66.117 ms  
Loss rate: 1.40%  
-- Flow 1:  
Average throughput: 115.91 Mbit/s  
95th percentile per-packet one-way delay: 67.838 ms  
Loss rate: 1.63%  
-- Flow 2:  
Average throughput: 114.59 Mbit/s  
95th percentile per-packet one-way delay: 63.089 ms  
Loss rate: 1.05%  
-- Flow 3:  
Average throughput: 60.69 Mbit/s  
95th percentile per-packet one-way delay: 63.832 ms  
Loss rate: 1.42%

Run 3: Report of TCP Cubic — Data Link

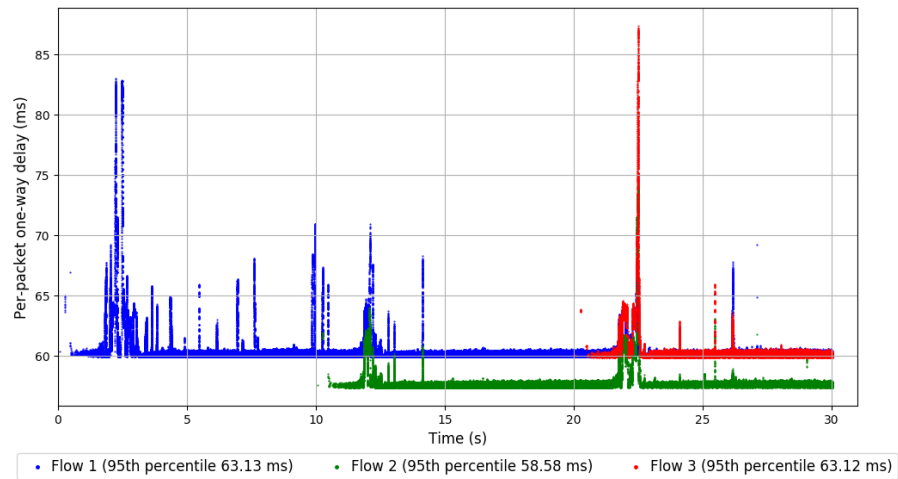
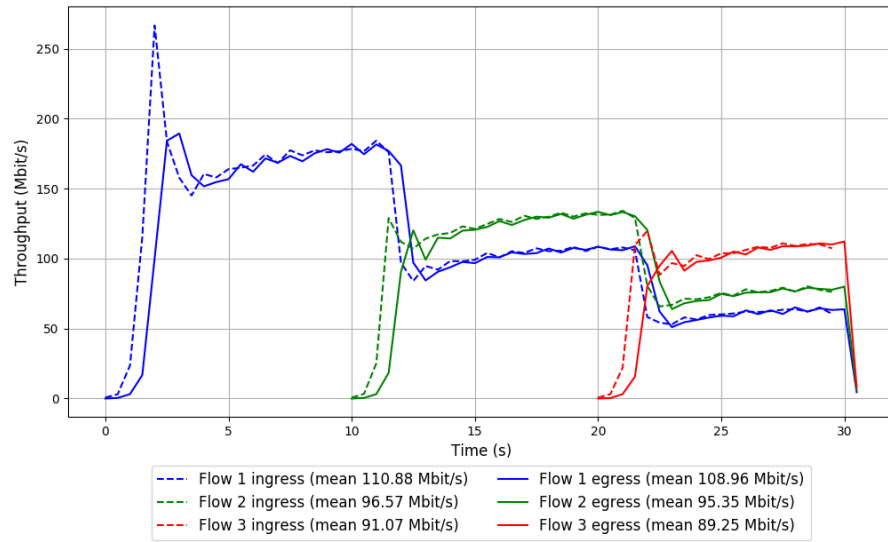


Run 4: Statistics of TCP Cubic

Start at: 2019-11-24 09:06:57  
End at: 2019-11-24 09:07:27  
Local clock offset: -0.126 ms  
Remote clock offset: -37.282 ms

# Below is generated by plot.py at 2019-11-24 10:10:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 202.14 Mbit/s  
95th percentile per-packet one-way delay: 61.873 ms  
Loss rate: 1.63%  
-- Flow 1:  
Average throughput: 108.96 Mbit/s  
95th percentile per-packet one-way delay: 63.132 ms  
Loss rate: 1.74%  
-- Flow 2:  
Average throughput: 95.35 Mbit/s  
95th percentile per-packet one-way delay: 58.583 ms  
Loss rate: 1.27%  
-- Flow 3:  
Average throughput: 89.25 Mbit/s  
95th percentile per-packet one-way delay: 63.125 ms  
Loss rate: 2.01%

# Run 4: Report of TCP Cubic — Data Link

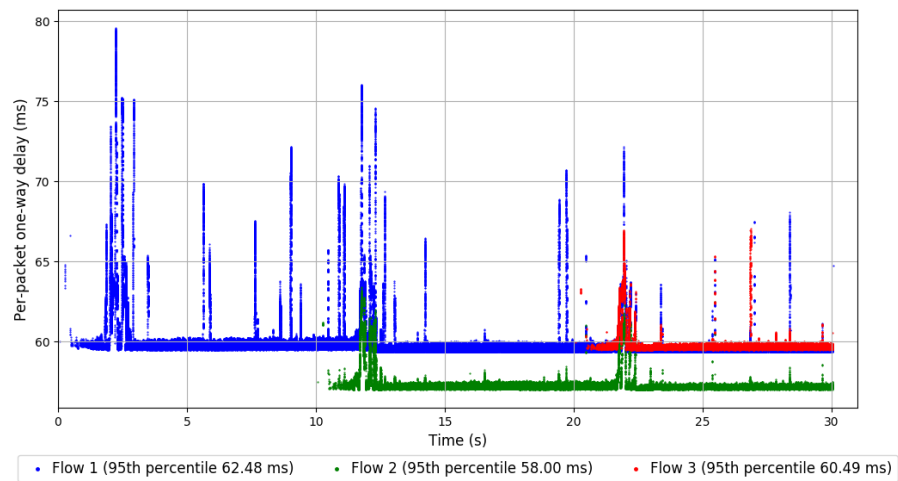
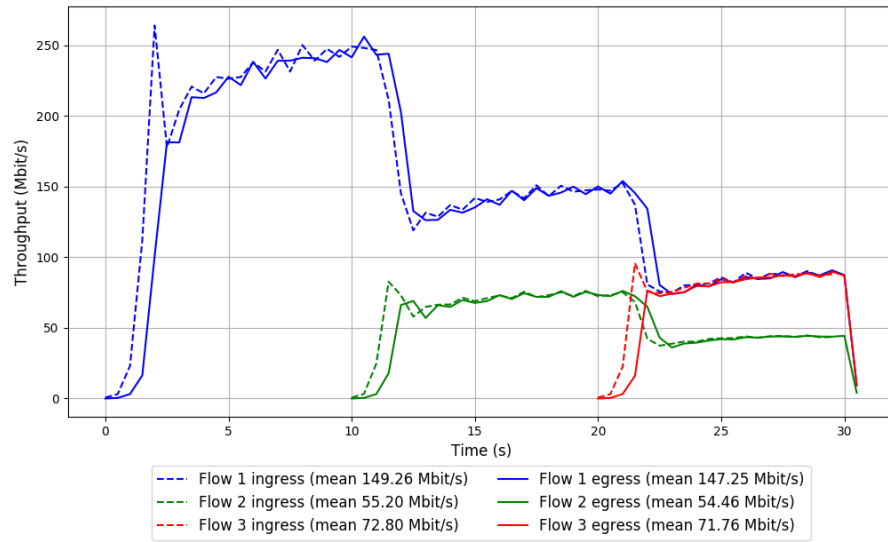


Run 5: Statistics of TCP Cubic

Start at: 2019-11-24 09:40:51  
End at: 2019-11-24 09:41:21  
Local clock offset: -3.466 ms  
Remote clock offset: -41.632 ms

# Below is generated by plot.py at 2019-11-24 10:10:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 207.40 Mbit/s  
95th percentile per-packet one-way delay: 61.279 ms  
Loss rate: 1.35%  
-- Flow 1:  
Average throughput: 147.25 Mbit/s  
95th percentile per-packet one-way delay: 62.481 ms  
Loss rate: 1.34%  
-- Flow 2:  
Average throughput: 54.46 Mbit/s  
95th percentile per-packet one-way delay: 57.998 ms  
Loss rate: 1.33%  
-- Flow 3:  
Average throughput: 71.76 Mbit/s  
95th percentile per-packet one-way delay: 60.486 ms  
Loss rate: 1.45%

# Run 5: Report of TCP Cubic — Data Link

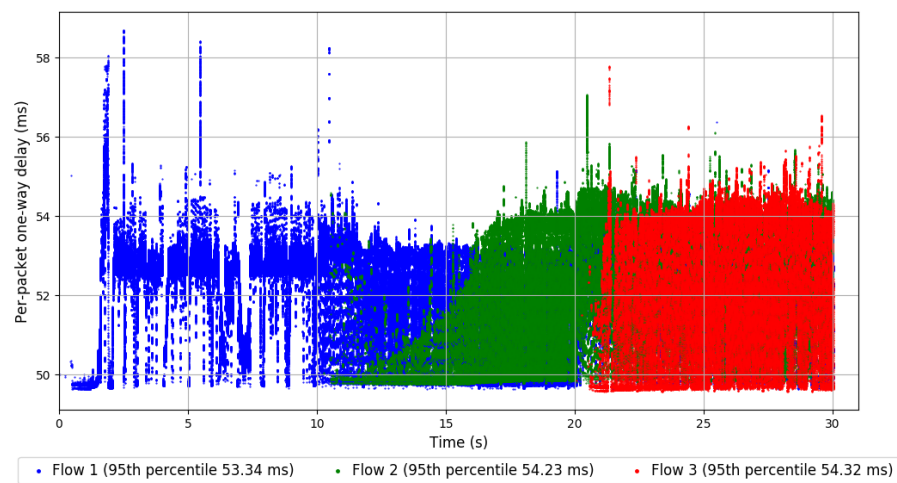
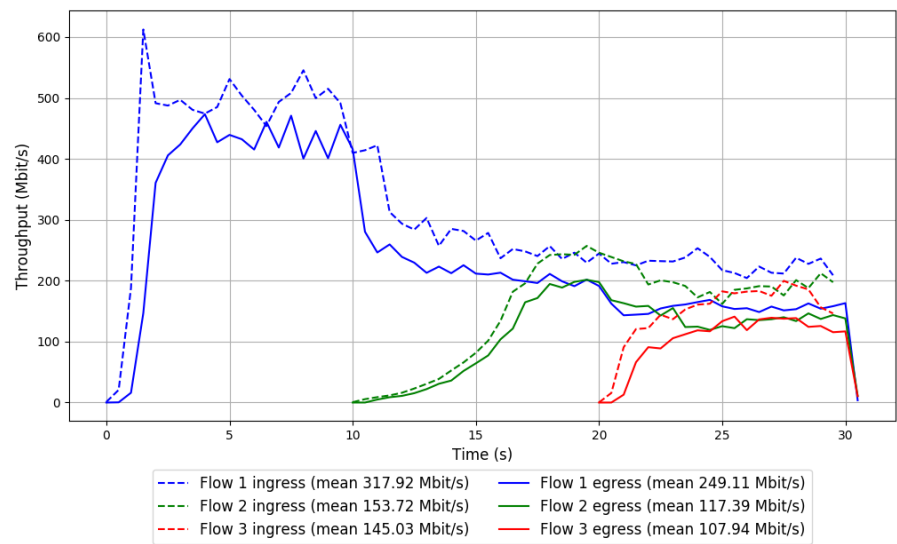


Run 1: Statistics of FillP

Start at: 2019-11-24 07:22:29  
End at: 2019-11-24 07:22:59  
Local clock offset: 2.435 ms  
Remote clock offset: -43.947 ms

# Below is generated by plot.py at 2019-11-24 10:13:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 363.06 Mbit/s  
95th percentile per-packet one-way delay: 53.938 ms  
Loss rate: 22.48%  
-- Flow 1:  
Average throughput: 249.11 Mbit/s  
95th percentile per-packet one-way delay: 53.340 ms  
Loss rate: 21.64%  
-- Flow 2:  
Average throughput: 117.39 Mbit/s  
95th percentile per-packet one-way delay: 54.234 ms  
Loss rate: 23.64%  
-- Flow 3:  
Average throughput: 107.94 Mbit/s  
95th percentile per-packet one-way delay: 54.316 ms  
Loss rate: 25.57%

Run 1: Report of FillP — Data Link



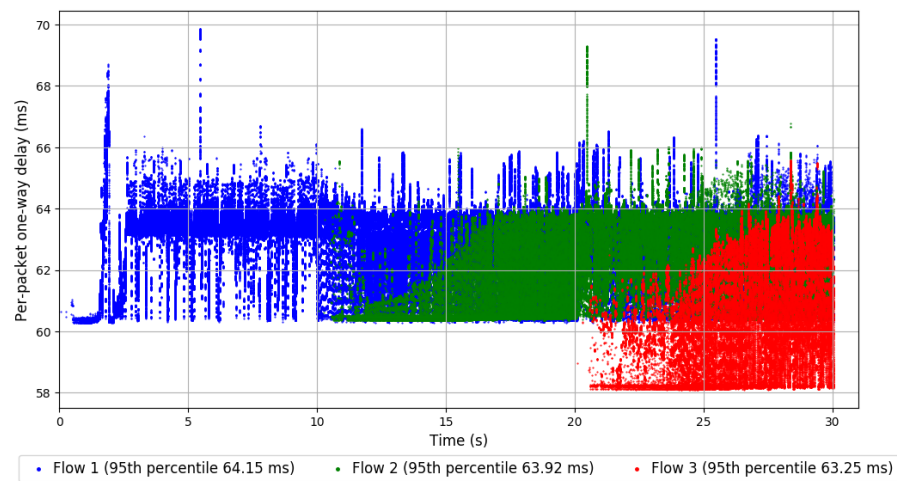
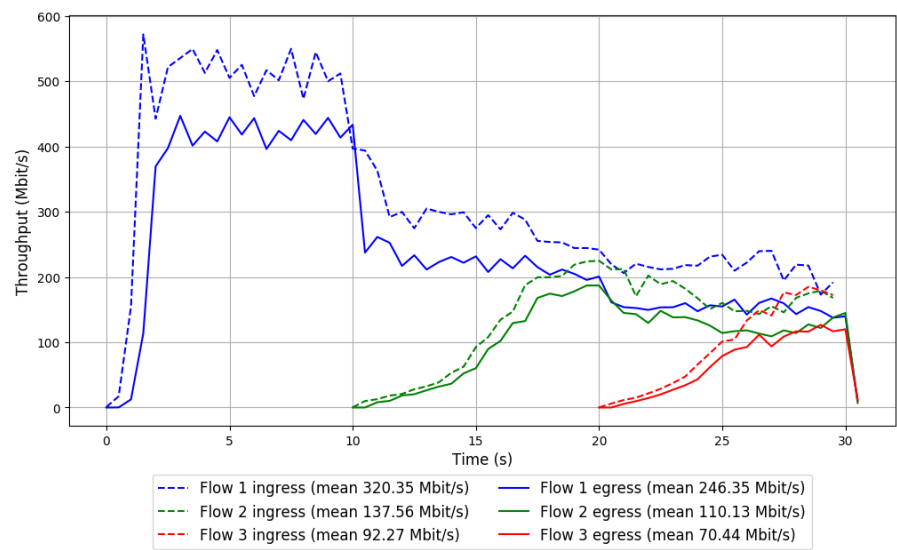


Run 2: Statistics of FillP

Start at: 2019-11-24 07:56:21  
End at: 2019-11-24 07:56:51  
Local clock offset: -2.501 ms  
Remote clock offset: -39.992 ms

# Below is generated by plot.py at 2019-11-24 10:13:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 342.96 Mbit/s  
95th percentile per-packet one-way delay: 64.056 ms  
Loss rate: 22.48%  
-- Flow 1:  
Average throughput: 246.35 Mbit/s  
95th percentile per-packet one-way delay: 64.148 ms  
Loss rate: 23.09%  
-- Flow 2:  
Average throughput: 110.13 Mbit/s  
95th percentile per-packet one-way delay: 63.924 ms  
Loss rate: 19.93%  
-- Flow 3:  
Average throughput: 70.44 Mbit/s  
95th percentile per-packet one-way delay: 63.249 ms  
Loss rate: 23.66%

Run 2: Report of FillP — Data Link

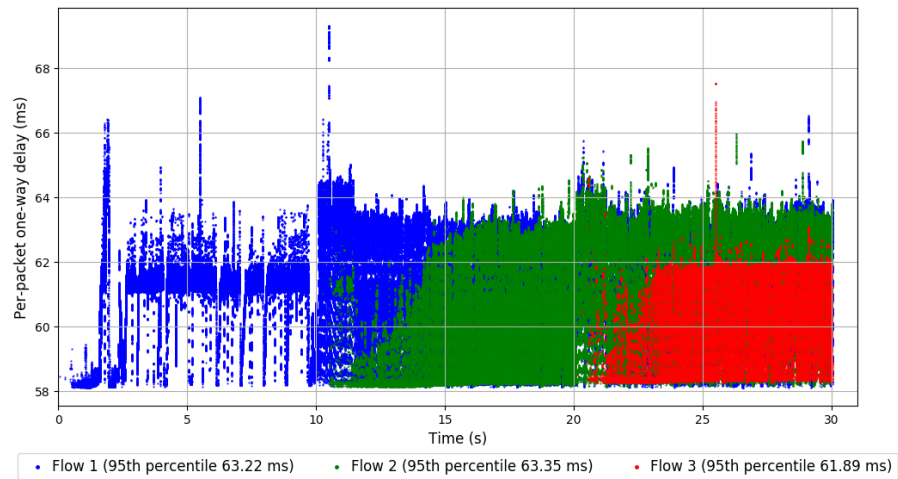
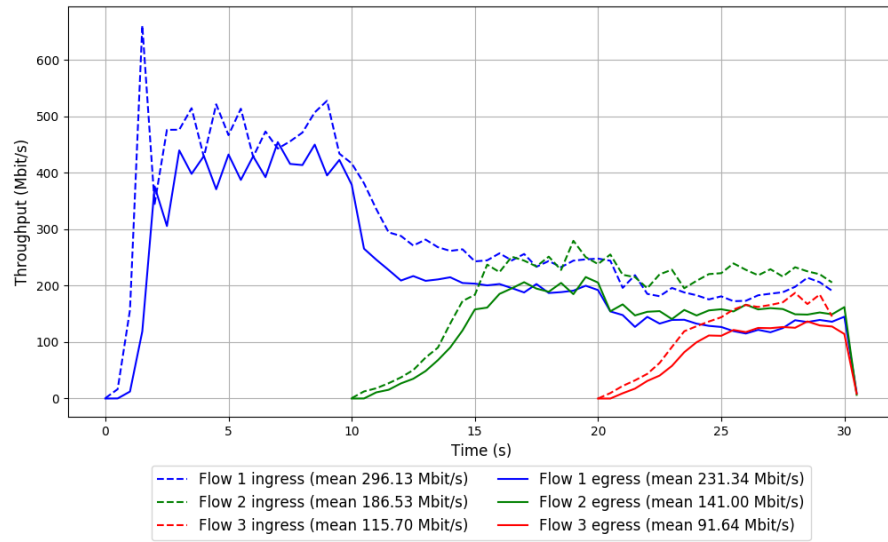


Run 3: Statistics of FillP

Start at: 2019-11-24 08:30:14  
End at: 2019-11-24 08:30:44  
Local clock offset: -3.179 ms  
Remote clock offset: -40.07 ms

# Below is generated by plot.py at 2019-11-24 10:13:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 355.51 Mbit/s  
95th percentile per-packet one-way delay: 63.226 ms  
Loss rate: 22.46%  
-- Flow 1:  
Average throughput: 231.34 Mbit/s  
95th percentile per-packet one-way delay: 63.221 ms  
Loss rate: 21.87%  
-- Flow 2:  
Average throughput: 141.00 Mbit/s  
95th percentile per-packet one-way delay: 63.348 ms  
Loss rate: 24.40%  
-- Flow 3:  
Average throughput: 91.64 Mbit/s  
95th percentile per-packet one-way delay: 61.893 ms  
Loss rate: 20.79%

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

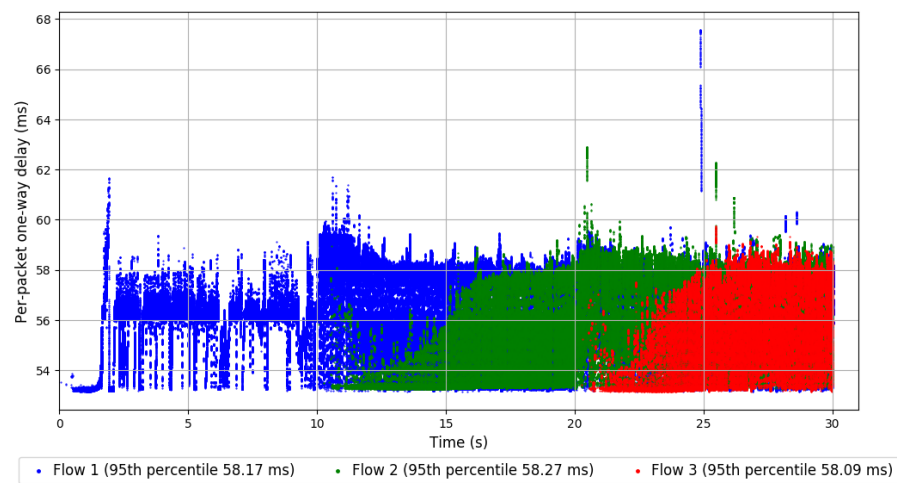
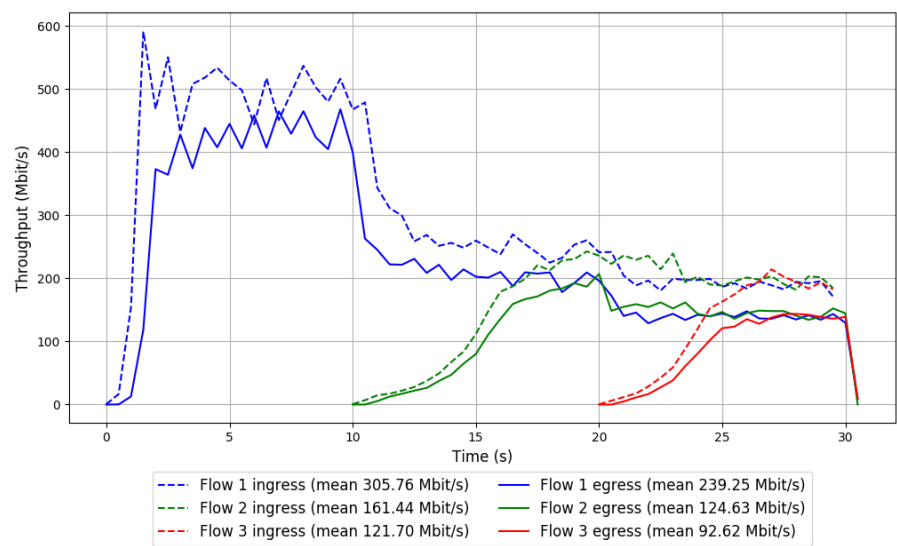


Run 4: Statistics of FillP

Start at: 2019-11-24 09:04:07  
End at: 2019-11-24 09:04:37  
Local clock offset: 1.514 ms  
Remote clock offset: -39.783 ms

# Below is generated by plot.py at 2019-11-24 10:15:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 352.86 Mbit/s  
95th percentile per-packet one-way delay: 58.191 ms  
Loss rate: 22.19%  
-- Flow 1:  
Average throughput: 239.25 Mbit/s  
95th percentile per-packet one-way delay: 58.167 ms  
Loss rate: 21.74%  
-- Flow 2:  
Average throughput: 124.63 Mbit/s  
95th percentile per-packet one-way delay: 58.271 ms  
Loss rate: 22.81%  
-- Flow 3:  
Average throughput: 92.62 Mbit/s  
95th percentile per-packet one-way delay: 58.088 ms  
Loss rate: 23.90%

Run 4: Report of FillP — Data Link

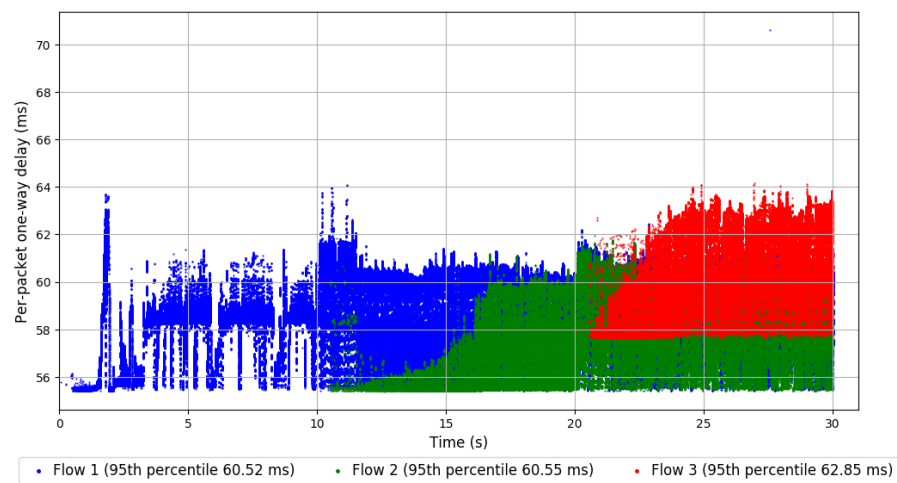
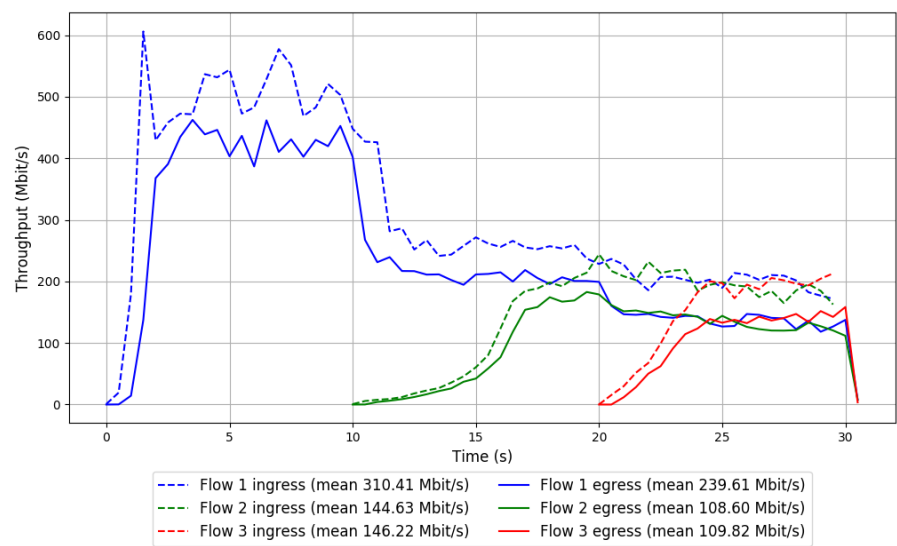


Run 5: Statistics of FillP

Start at: 2019-11-24 09:38:01  
End at: 2019-11-24 09:38:31  
Local clock offset: -3.222 ms  
Remote clock offset: -42.783 ms

# Below is generated by plot.py at 2019-11-24 10:15:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 348.25 Mbit/s  
95th percentile per-packet one-way delay: 61.191 ms  
Loss rate: 23.46%  
-- Flow 1:  
Average throughput: 239.61 Mbit/s  
95th percentile per-packet one-way delay: 60.518 ms  
Loss rate: 22.79%  
-- Flow 2:  
Average throughput: 108.60 Mbit/s  
95th percentile per-packet one-way delay: 60.547 ms  
Loss rate: 24.92%  
-- Flow 3:  
Average throughput: 109.82 Mbit/s  
95th percentile per-packet one-way delay: 62.849 ms  
Loss rate: 24.86%

Run 5: Report of FillP — Data Link



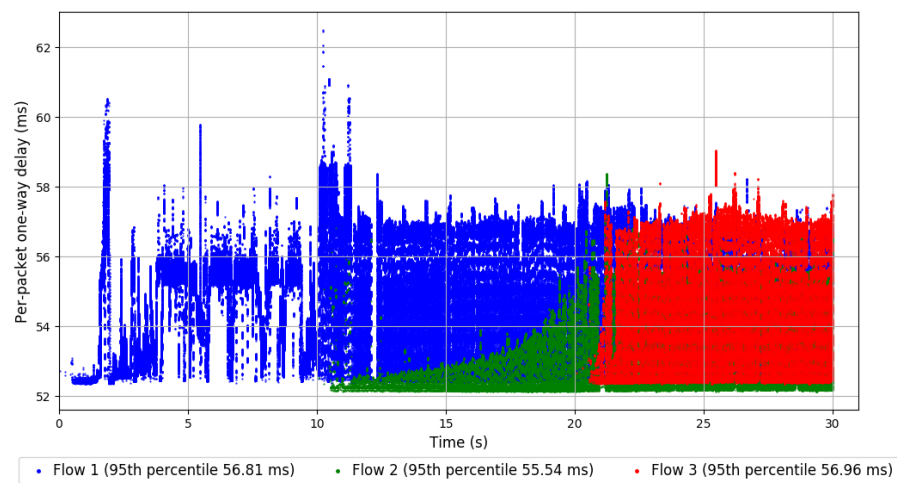
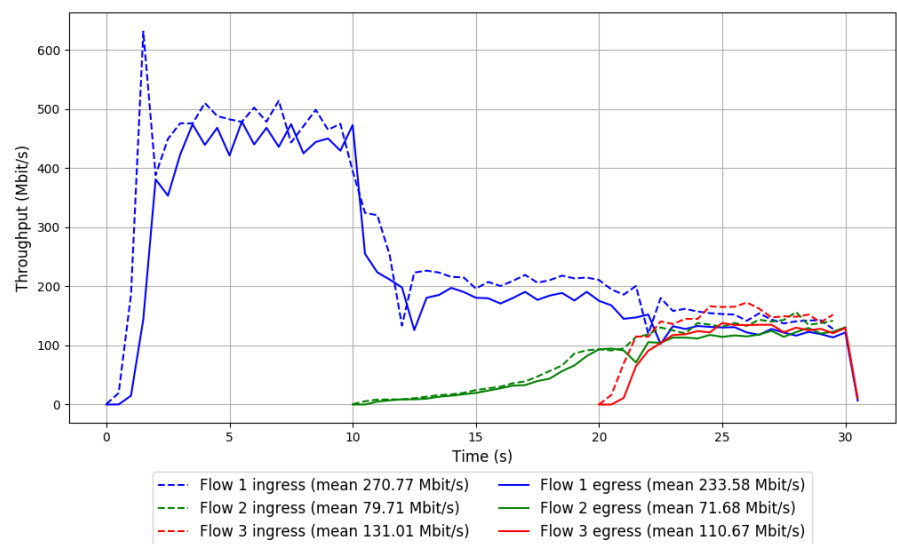


Run 1: Statistics of FillP-Sheep

Start at: 2019-11-24 07:16:41  
End at: 2019-11-24 07:17:11  
Local clock offset: 1.399 ms  
Remote clock offset: -42.513 ms

# Below is generated by plot.py at 2019-11-24 10:15:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 317.96 Mbit/s  
95th percentile per-packet one-way delay: 56.776 ms  
Loss rate: 13.41%  
-- Flow 1:  
Average throughput: 233.58 Mbit/s  
95th percentile per-packet one-way delay: 56.810 ms  
Loss rate: 13.73%  
-- Flow 2:  
Average throughput: 71.68 Mbit/s  
95th percentile per-packet one-way delay: 55.541 ms  
Loss rate: 10.07%  
-- Flow 3:  
Average throughput: 110.67 Mbit/s  
95th percentile per-packet one-way delay: 56.956 ms  
Loss rate: 15.52%

Run 1: Report of FillP-Sheep — Data Link

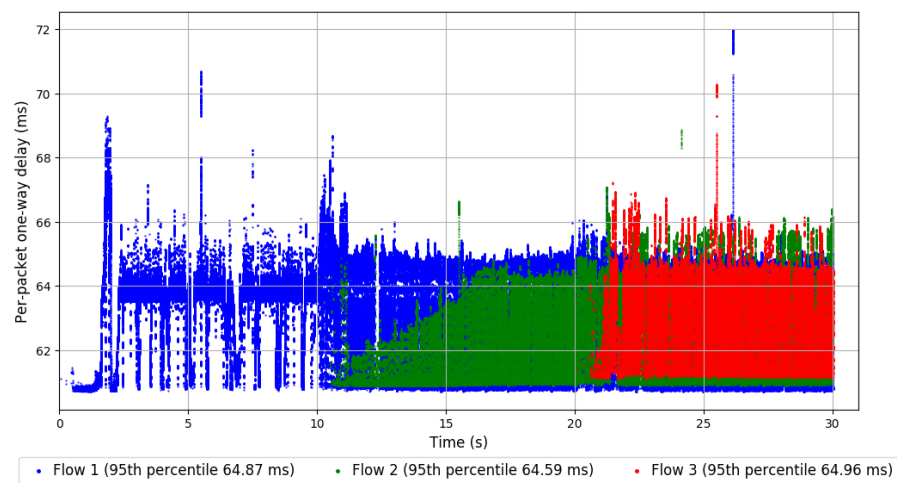
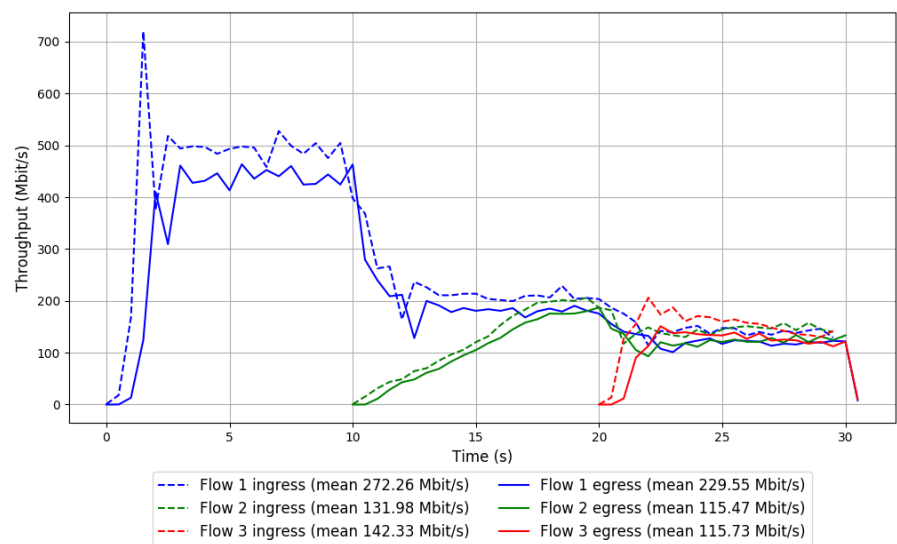


Run 2: Statistics of FillP-Sheep

Start at: 2019-11-24 07:50:37  
End at: 2019-11-24 07:51:07  
Local clock offset: -2.776 ms  
Remote clock offset: -37.222 ms

# Below is generated by plot.py at 2019-11-24 10:15:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 344.56 Mbit/s  
95th percentile per-packet one-way delay: 64.839 ms  
Loss rate: 15.35%  
-- Flow 1:  
Average throughput: 229.55 Mbit/s  
95th percentile per-packet one-way delay: 64.868 ms  
Loss rate: 15.69%  
-- Flow 2:  
Average throughput: 115.47 Mbit/s  
95th percentile per-packet one-way delay: 64.587 ms  
Loss rate: 12.52%  
-- Flow 3:  
Average throughput: 115.73 Mbit/s  
95th percentile per-packet one-way delay: 64.959 ms  
Loss rate: 18.69%

Run 2: Report of FillP-Sheep — Data Link

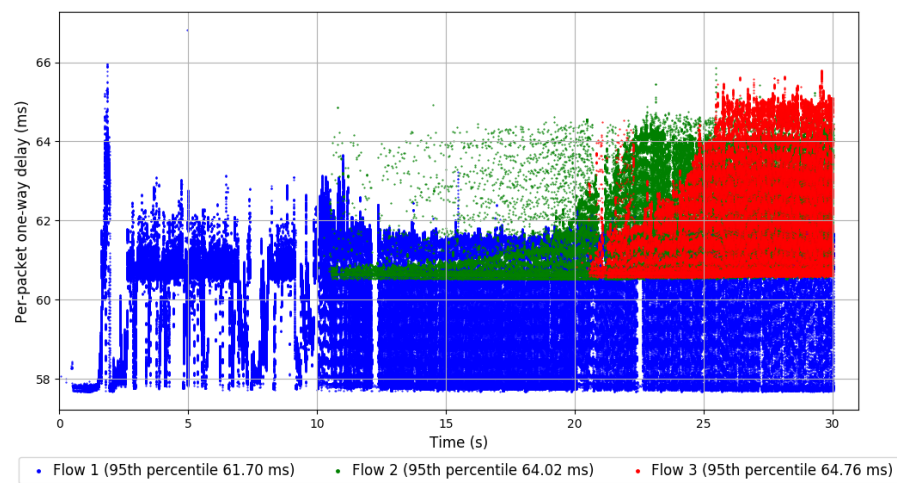
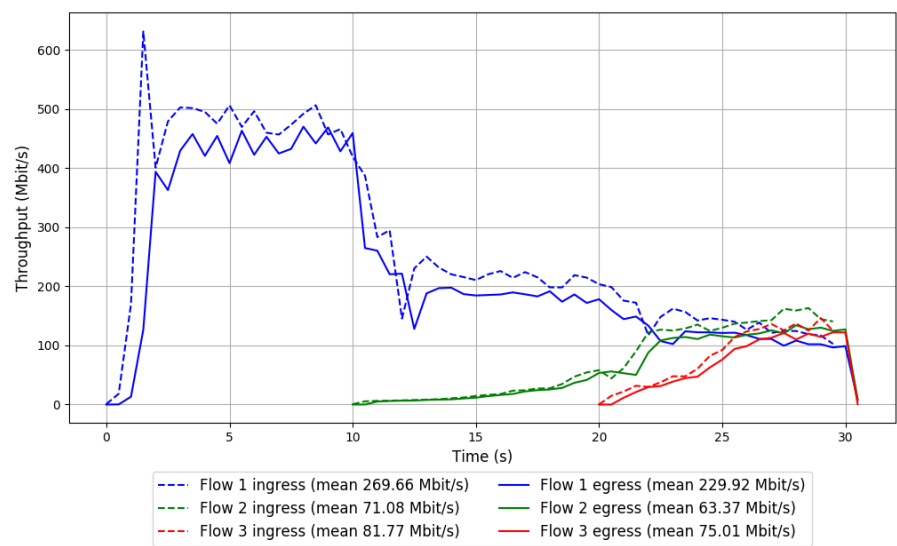


Run 3: Statistics of FillP-Sheep

Start at: 2019-11-24 08:24:30  
End at: 2019-11-24 08:25:00  
Local clock offset: -2.995 ms  
Remote clock offset: -40.179 ms

# Below is generated by plot.py at 2019-11-24 10:15:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 296.98 Mbit/s  
95th percentile per-packet one-way delay: 63.550 ms  
Loss rate: 13.71%  
-- Flow 1:  
Average throughput: 229.92 Mbit/s  
95th percentile per-packet one-way delay: 61.705 ms  
Loss rate: 14.74%  
-- Flow 2:  
Average throughput: 63.37 Mbit/s  
95th percentile per-packet one-way delay: 64.018 ms  
Loss rate: 10.83%  
-- Flow 3:  
Average throughput: 75.01 Mbit/s  
95th percentile per-packet one-way delay: 64.759 ms  
Loss rate: 8.51%

Run 3: Report of FillP-Sheep — Data Link

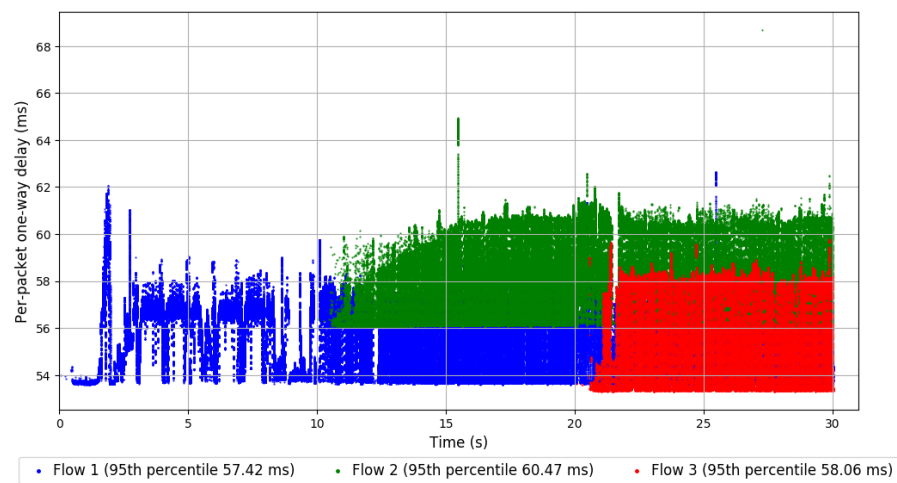
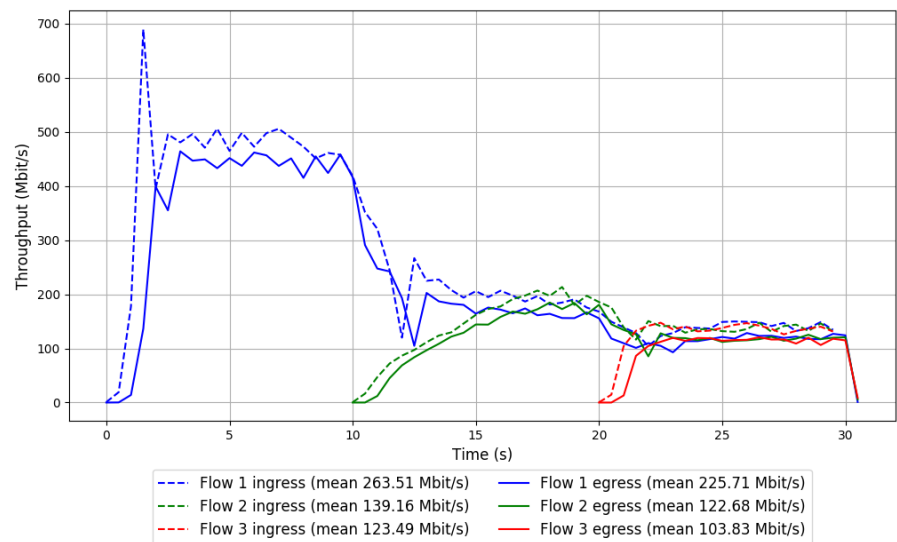


Run 4: Statistics of FillP-Sheep

Start at: 2019-11-24 08:58:17  
End at: 2019-11-24 08:58:47  
Local clock offset: 0.934 ms  
Remote clock offset: -40.054 ms

```
# Below is generated by plot.py at 2019-11-24 10:18:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 341.78 Mbit/s
95th percentile per-packet one-way delay: 59.651 ms
Loss rate: 13.92%
-- Flow 1:
Average throughput: 225.71 Mbit/s
95th percentile per-packet one-way delay: 57.424 ms
Loss rate: 14.34%
-- Flow 2:
Average throughput: 122.68 Mbit/s
95th percentile per-packet one-way delay: 60.472 ms
Loss rate: 11.83%
-- Flow 3:
Average throughput: 103.83 Mbit/s
95th percentile per-packet one-way delay: 58.062 ms
Loss rate: 15.92%
```

Run 4: Report of FillP-Sheep — Data Link



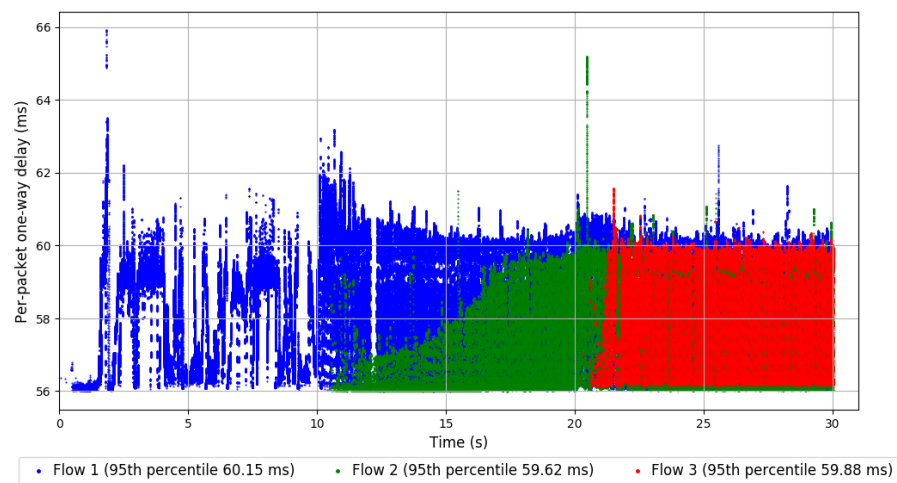
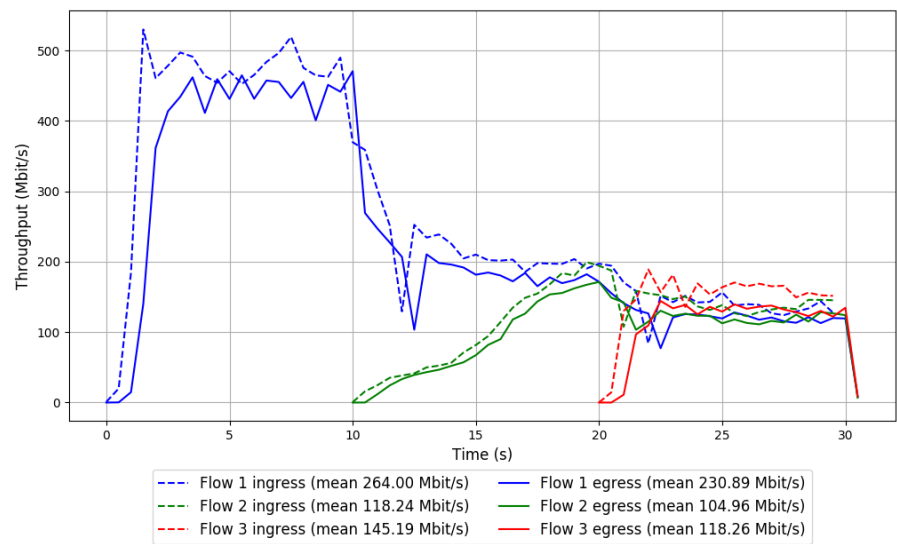


Run 5: Statistics of FillP-Sheep

Start at: 2019-11-24 09:32:17  
End at: 2019-11-24 09:32:47  
Local clock offset: 1.611 ms  
Remote clock offset: -37.012 ms

# Below is generated by plot.py at 2019-11-24 10:18:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 339.86 Mbit/s  
95th percentile per-packet one-way delay: 60.014 ms  
Loss rate: 13.02%  
-- Flow 1:  
Average throughput: 230.89 Mbit/s  
95th percentile per-packet one-way delay: 60.152 ms  
Loss rate: 12.55%  
-- Flow 2:  
Average throughput: 104.96 Mbit/s  
95th percentile per-packet one-way delay: 59.623 ms  
Loss rate: 11.23%  
-- Flow 3:  
Average throughput: 118.26 Mbit/s  
95th percentile per-packet one-way delay: 59.883 ms  
Loss rate: 18.55%

Run 5: Report of FillP-Sheep — Data Link

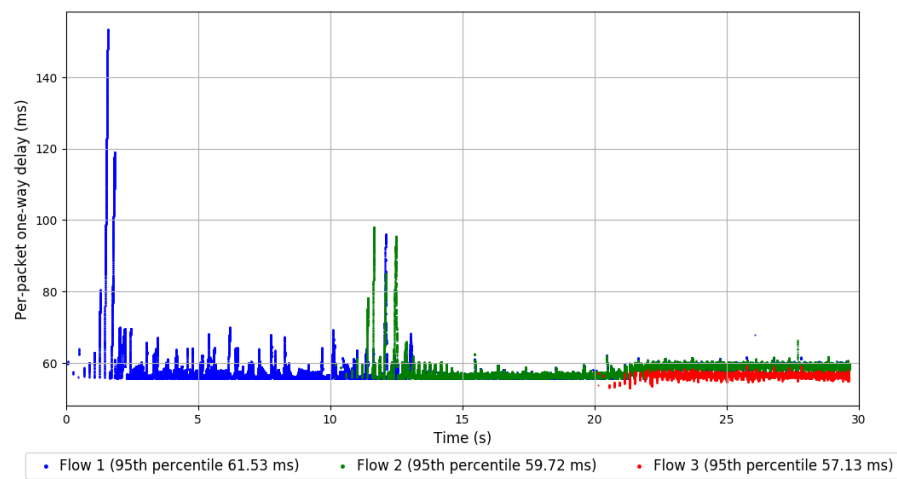
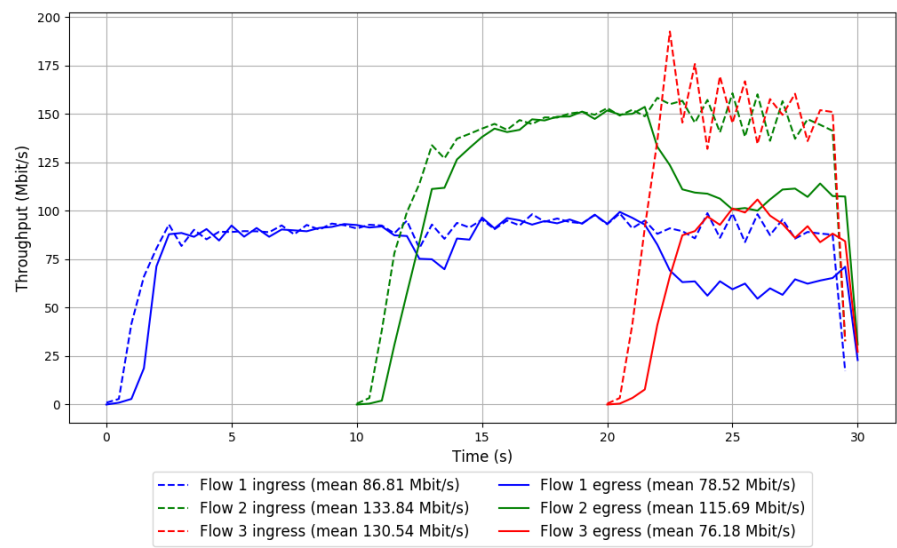


Run 1: Statistics of Indigo

Start at: 2019-11-24 07:18:12  
End at: 2019-11-24 07:18:42  
Local clock offset: 1.972 ms  
Remote clock offset: -41.105 ms

# Below is generated by plot.py at 2019-11-24 10:18:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 179.02 Mbit/s  
95th percentile per-packet one-way delay: 59.837 ms  
Loss rate: 17.37%  
-- Flow 1:  
Average throughput: 78.52 Mbit/s  
95th percentile per-packet one-way delay: 61.527 ms  
Loss rate: 9.56%  
-- Flow 2:  
Average throughput: 115.69 Mbit/s  
95th percentile per-packet one-way delay: 59.724 ms  
Loss rate: 13.56%  
-- Flow 3:  
Average throughput: 76.18 Mbit/s  
95th percentile per-packet one-way delay: 57.131 ms  
Loss rate: 41.62%

Run 1: Report of Indigo — Data Link

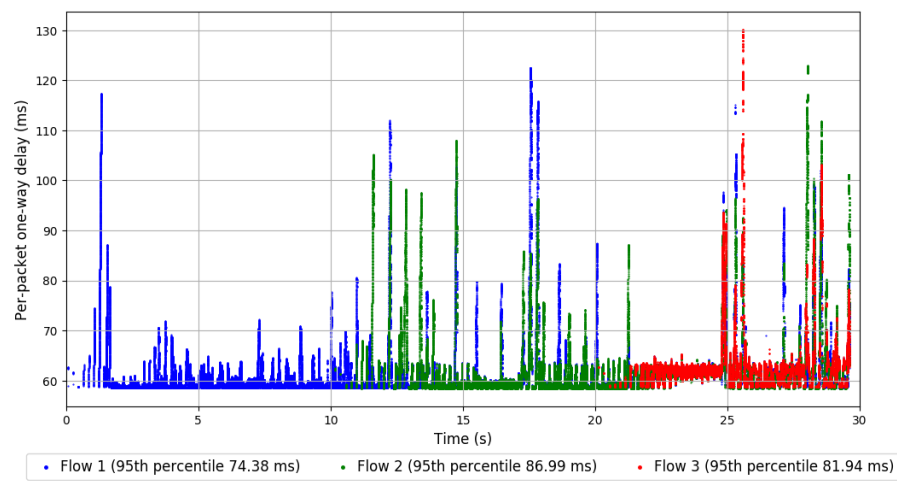
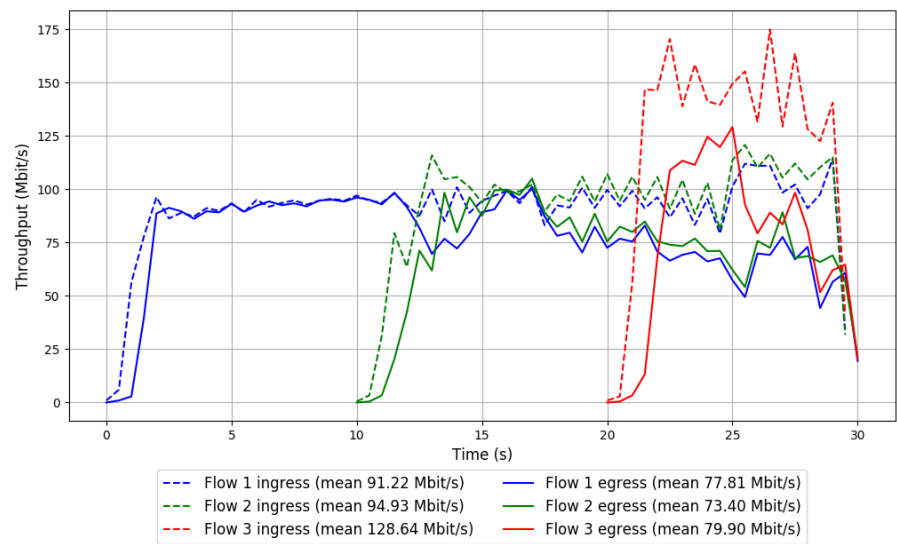


Run 2: Statistics of Indigo

Start at: 2019-11-24 07:52:10  
End at: 2019-11-24 07:52:40  
Local clock offset: -2.512 ms  
Remote clock offset: -39.417 ms

# Below is generated by plot.py at 2019-11-24 10:18:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 151.68 Mbit/s  
95th percentile per-packet one-way delay: 80.219 ms  
Loss rate: 22.16%  
-- Flow 1:  
Average throughput: 77.81 Mbit/s  
95th percentile per-packet one-way delay: 74.379 ms  
Loss rate: 14.69%  
-- Flow 2:  
Average throughput: 73.40 Mbit/s  
95th percentile per-packet one-way delay: 86.990 ms  
Loss rate: 22.68%  
-- Flow 3:  
Average throughput: 79.90 Mbit/s  
95th percentile per-packet one-way delay: 81.944 ms  
Loss rate: 37.88%

Run 2: Report of Indigo — Data Link

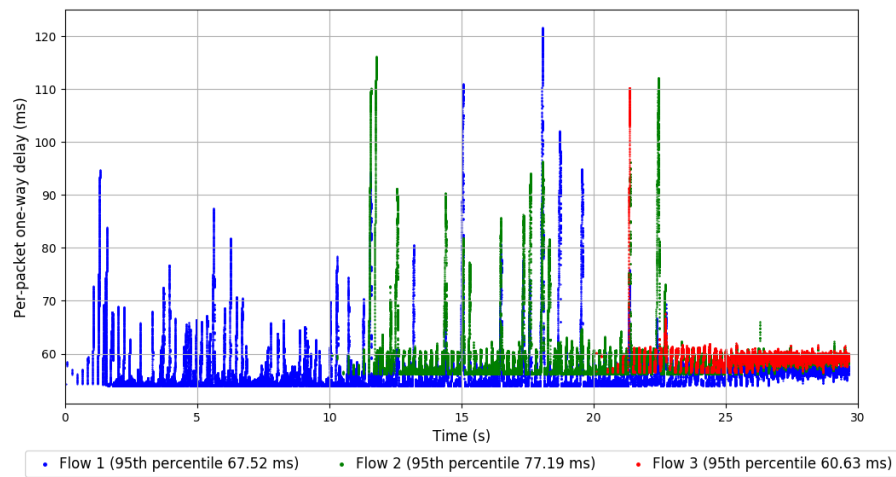
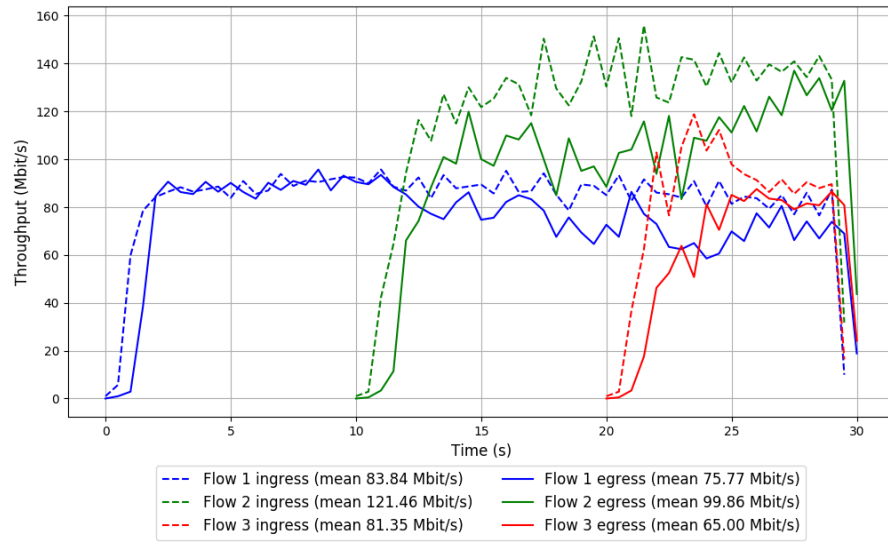


Run 3: Statistics of Indigo

Start at: 2019-11-24 08:26:00  
End at: 2019-11-24 08:26:30  
Local clock offset: 1.401 ms  
Remote clock offset: -39.925 ms

# Below is generated by plot.py at 2019-11-24 10:18:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 162.69 Mbit/s  
95th percentile per-packet one-way delay: 68.917 ms  
Loss rate: 14.51%  
-- Flow 1:  
Average throughput: 75.77 Mbit/s  
95th percentile per-packet one-way delay: 67.519 ms  
Loss rate: 9.62%  
-- Flow 2:  
Average throughput: 99.86 Mbit/s  
95th percentile per-packet one-way delay: 77.185 ms  
Loss rate: 17.79%  
-- Flow 3:  
Average throughput: 65.00 Mbit/s  
95th percentile per-packet one-way delay: 60.629 ms  
Loss rate: 20.09%

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



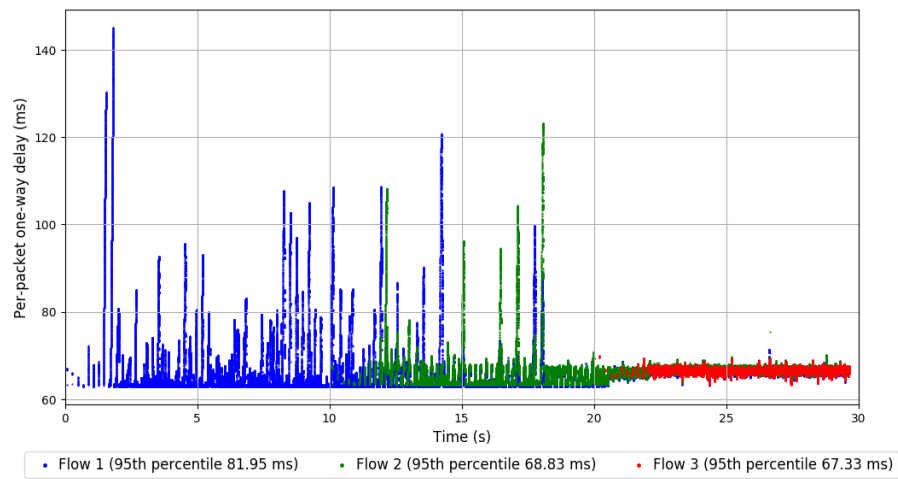
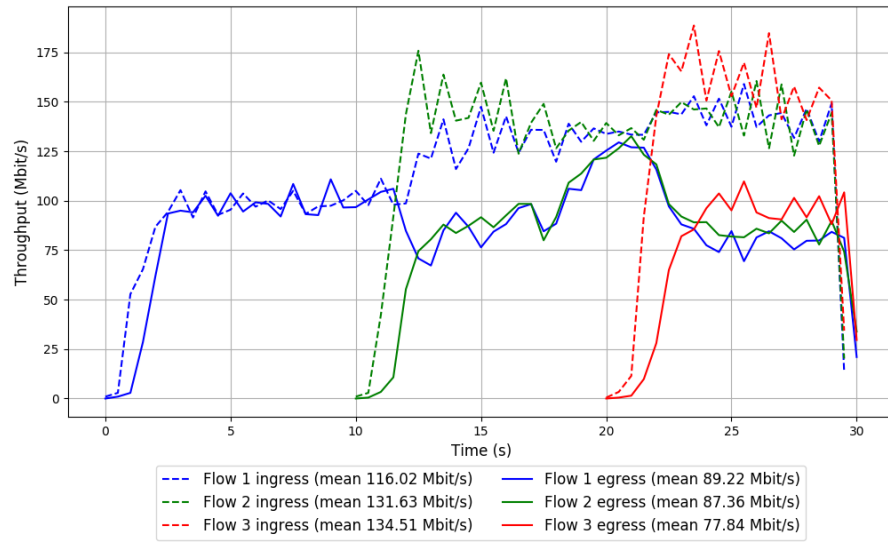


#### Run 4: Statistics of Indigo

Start at: 2019-11-24 08:59:50  
End at: 2019-11-24 09:00:20  
Local clock offset: -3.501 ms  
Remote clock offset: -37.623 ms

```
# Below is generated by plot.py at 2019-11-24 10:18:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 171.70 Mbit/s
95th percentile per-packet one-way delay: 75.862 ms
Loss rate: 30.15%
-- Flow 1:
Average throughput: 89.22 Mbit/s
95th percentile per-packet one-way delay: 81.953 ms
Loss rate: 23.10%
-- Flow 2:
Average throughput: 87.36 Mbit/s
95th percentile per-packet one-way delay: 68.832 ms
Loss rate: 33.63%
-- Flow 3:
Average throughput: 77.84 Mbit/s
95th percentile per-packet one-way delay: 67.332 ms
Loss rate: 42.13%
```

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

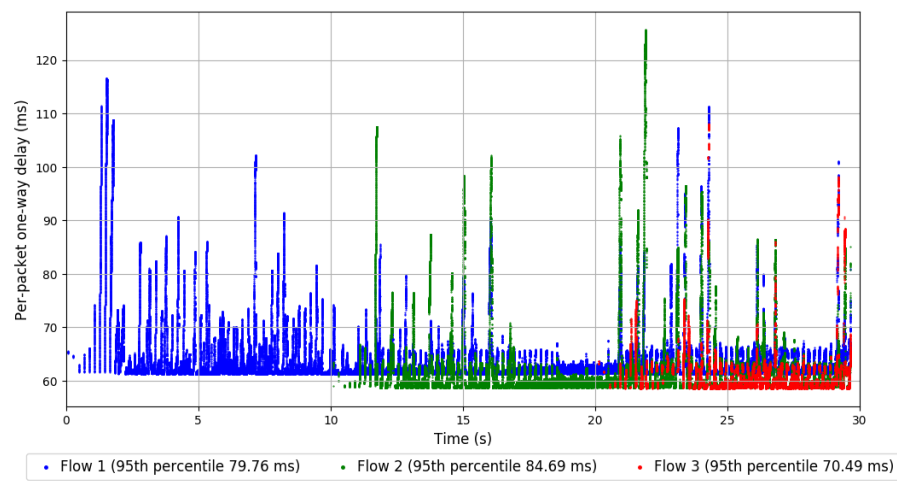
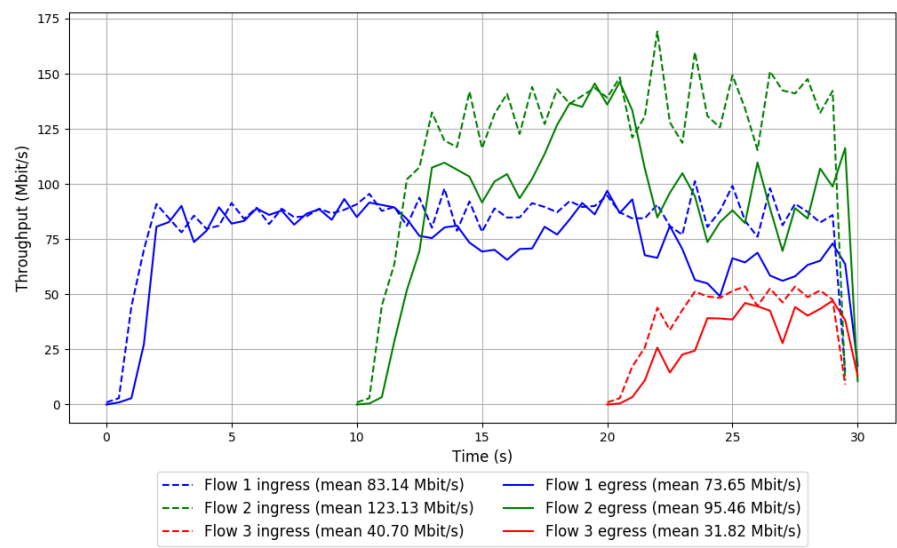


Run 5: Statistics of Indigo

Start at: 2019-11-24 09:33:50  
End at: 2019-11-24 09:34:20  
Local clock offset: -2.532 ms  
Remote clock offset: -38.52 ms

# Below is generated by plot.py at 2019-11-24 10:18:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 146.99 Mbit/s  
95th percentile per-packet one-way delay: 81.520 ms  
Loss rate: 17.22%  
-- Flow 1:  
Average throughput: 73.65 Mbit/s  
95th percentile per-packet one-way delay: 79.756 ms  
Loss rate: 11.40%  
-- Flow 2:  
Average throughput: 95.46 Mbit/s  
95th percentile per-packet one-way delay: 84.688 ms  
Loss rate: 22.44%  
-- Flow 3:  
Average throughput: 31.82 Mbit/s  
95th percentile per-packet one-way delay: 70.493 ms  
Loss rate: 21.79%

Run 5: Report of Indigo — Data Link

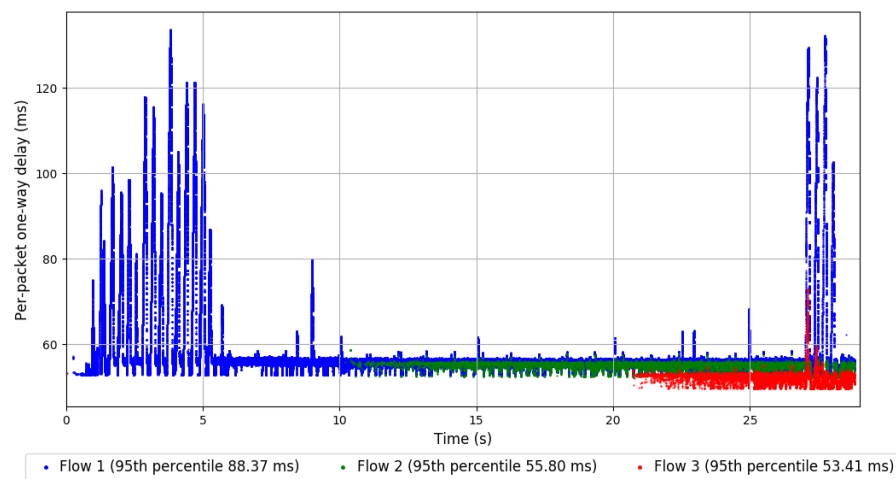
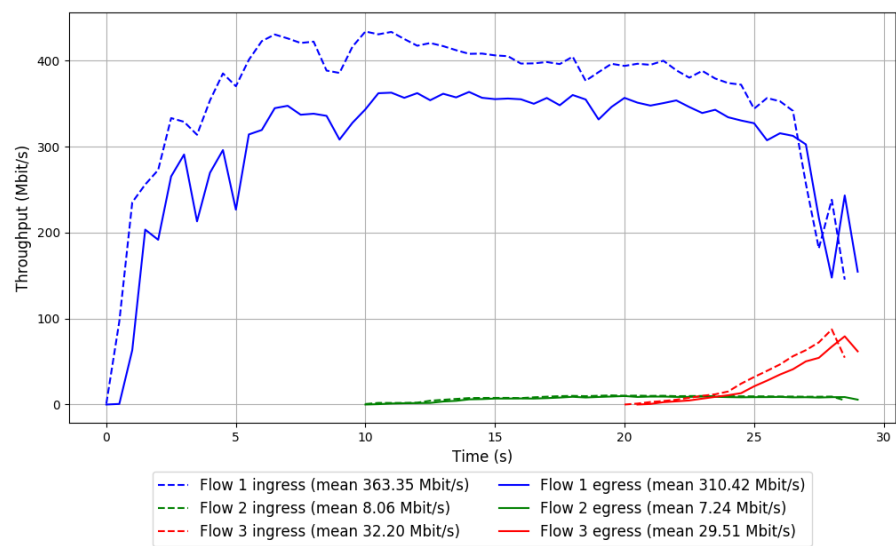


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-11-24 07:38:16  
End at: 2019-11-24 07:38:46  
Local clock offset: 2.356 ms  
Remote clock offset: -43.489 ms

# Below is generated by plot.py at 2019-11-24 10:18:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 323.62 Mbit/s  
95th percentile per-packet one-way delay: 87.074 ms  
Loss rate: 14.35%  
-- Flow 1:  
Average throughput: 310.42 Mbit/s  
95th percentile per-packet one-way delay: 88.368 ms  
Loss rate: 14.57%  
-- Flow 2:  
Average throughput: 7.24 Mbit/s  
95th percentile per-packet one-way delay: 55.805 ms  
Loss rate: 10.16%  
-- Flow 3:  
Average throughput: 29.51 Mbit/s  
95th percentile per-packet one-way delay: 53.408 ms  
Loss rate: 8.40%

Run 1: Report of Indigo-MusesC3 — Data Link

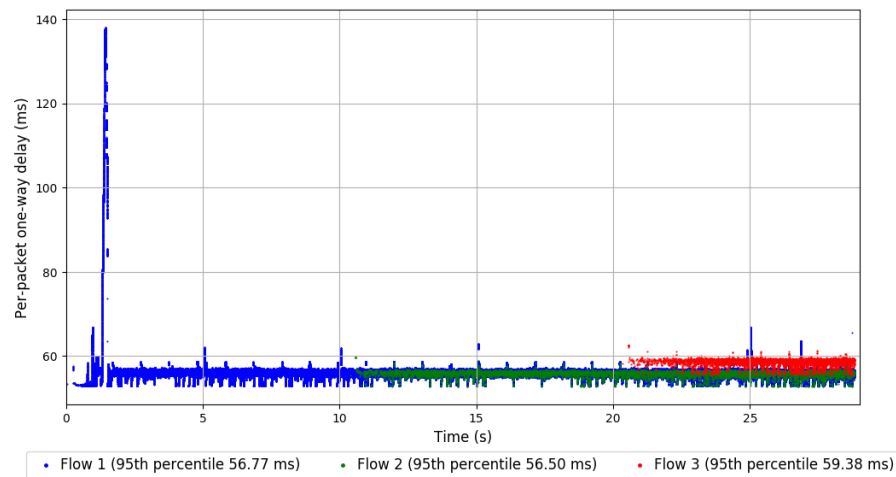
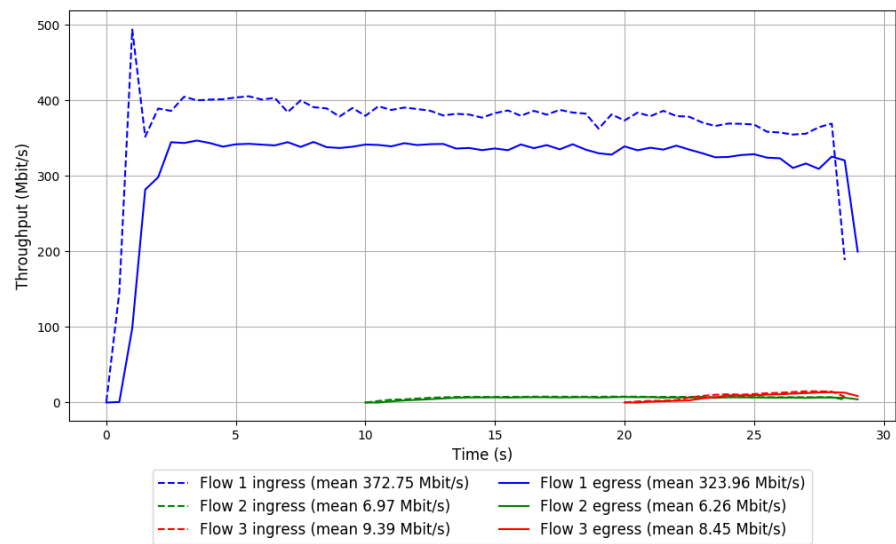


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-11-24 08:12:06  
End at: 2019-11-24 08:12:36  
Local clock offset: 2.033 ms  
Remote clock offset: -40.163 ms

# Below is generated by plot.py at 2019-11-24 10:19:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 330.44 Mbit/s  
95th percentile per-packet one-way delay: 56.809 ms  
Loss rate: 13.02%  
-- Flow 1:  
Average throughput: 323.96 Mbit/s  
95th percentile per-packet one-way delay: 56.770 ms  
Loss rate: 13.08%  
-- Flow 2:  
Average throughput: 6.26 Mbit/s  
95th percentile per-packet one-way delay: 56.497 ms  
Loss rate: 10.27%  
-- Flow 3:  
Average throughput: 8.45 Mbit/s  
95th percentile per-packet one-way delay: 59.375 ms  
Loss rate: 10.01%

Run 2: Report of Indigo-MusesC3 — Data Link



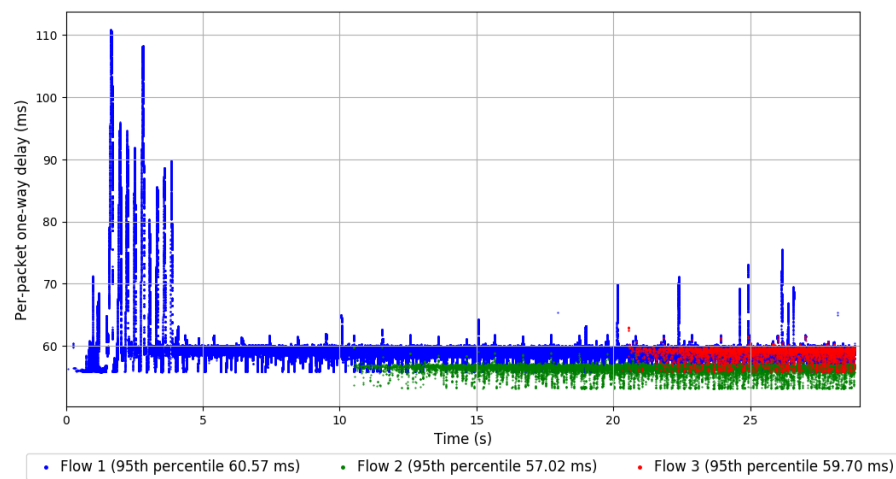
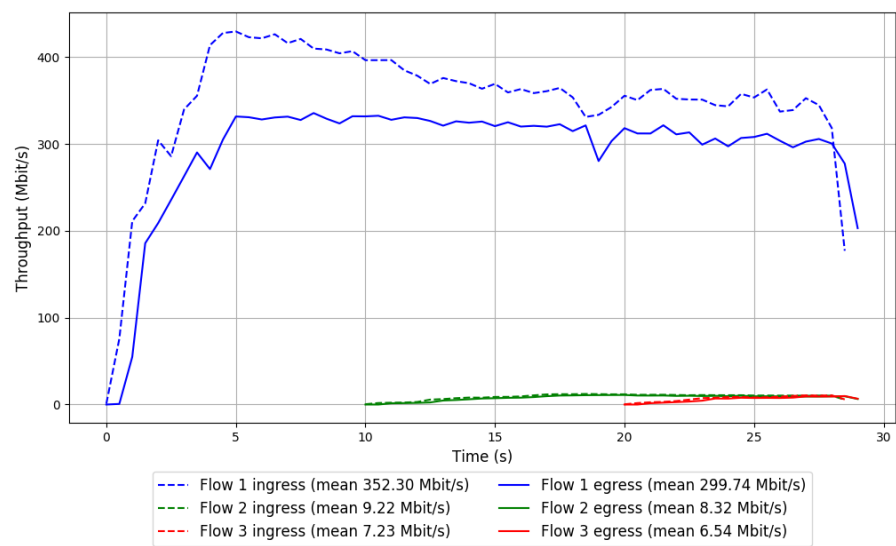


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-11-24 08:45:56  
End at: 2019-11-24 08:46:27  
Local clock offset: 1.563 ms  
Remote clock offset: -39.779 ms

# Below is generated by plot.py at 2019-11-24 10:20:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 307.02 Mbit/s  
95th percentile per-packet one-way delay: 60.465 ms  
Loss rate: 14.80%  
-- Flow 1:  
Average throughput: 299.74 Mbit/s  
95th percentile per-packet one-way delay: 60.571 ms  
Loss rate: 14.91%  
-- Flow 2:  
Average throughput: 8.32 Mbit/s  
95th percentile per-packet one-way delay: 57.018 ms  
Loss rate: 9.77%  
-- Flow 3:  
Average throughput: 6.54 Mbit/s  
95th percentile per-packet one-way delay: 59.697 ms  
Loss rate: 9.48%

Run 3: Report of Indigo-MusesC3 — Data Link

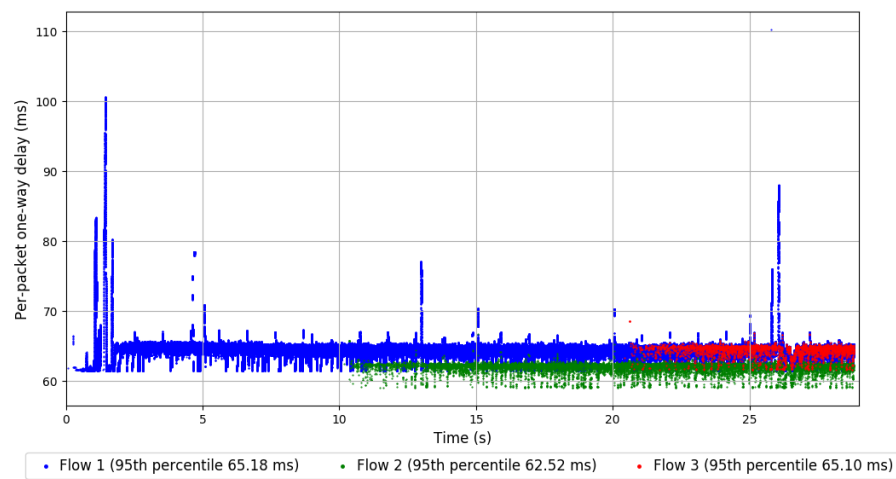
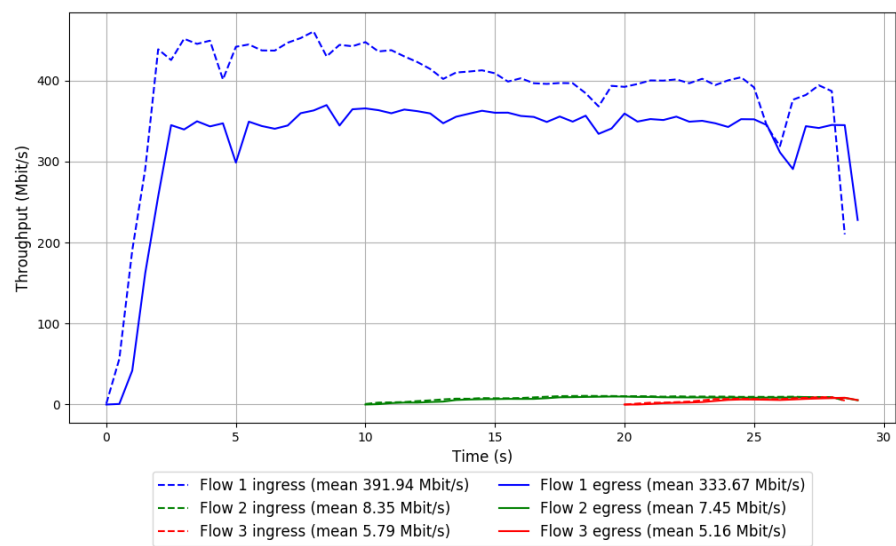


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-11-24 09:19:52  
End at: 2019-11-24 09:20:22  
Local clock offset: -2.102 ms  
Remote clock offset: -37.686 ms

# Below is generated by plot.py at 2019-11-24 10:20:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 340.01 Mbit/s  
95th percentile per-packet one-way delay: 65.179 ms  
Loss rate: 14.79%  
-- Flow 1:  
Average throughput: 333.67 Mbit/s  
95th percentile per-packet one-way delay: 65.183 ms  
Loss rate: 14.86%  
-- Flow 2:  
Average throughput: 7.45 Mbit/s  
95th percentile per-packet one-way delay: 62.520 ms  
Loss rate: 10.77%  
-- Flow 3:  
Average throughput: 5.16 Mbit/s  
95th percentile per-packet one-way delay: 65.097 ms  
Loss rate: 10.80%

Run 4: Report of Indigo-MusesC3 — Data Link

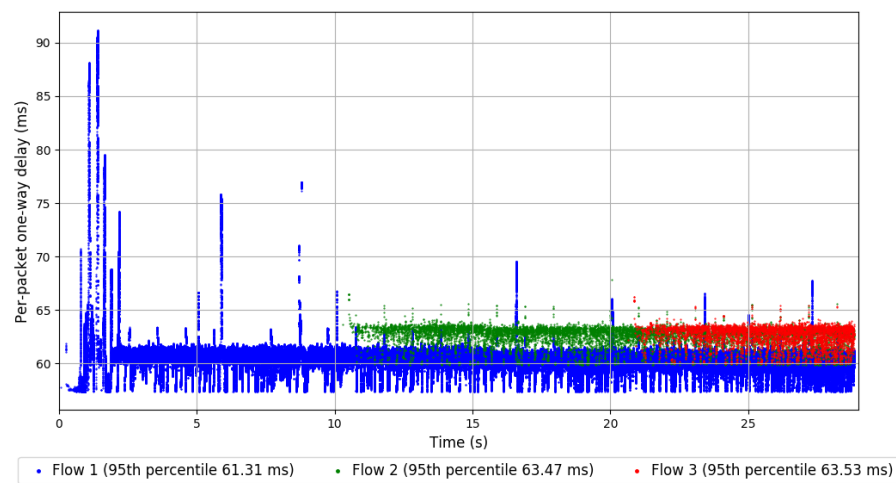
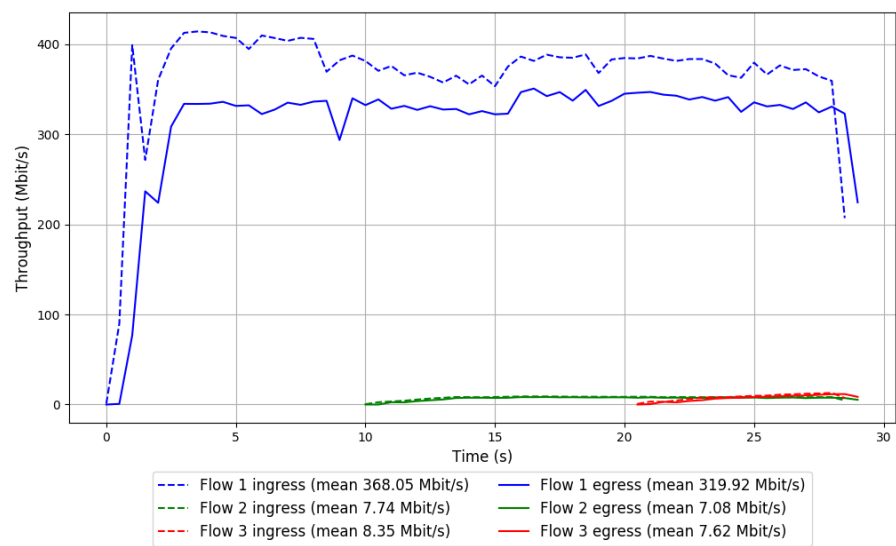


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-11-24 09:53:46  
End at: 2019-11-24 09:54:16  
Local clock offset: -2.618 ms  
Remote clock offset: -40.101 ms

# Below is generated by plot.py at 2019-11-24 10:20:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 326.65 Mbit/s  
95th percentile per-packet one-way delay: 61.541 ms  
Loss rate: 12.98%  
-- Flow 1:  
Average throughput: 319.92 Mbit/s  
95th percentile per-packet one-way delay: 61.309 ms  
Loss rate: 13.07%  
-- Flow 2:  
Average throughput: 7.08 Mbit/s  
95th percentile per-packet one-way delay: 63.474 ms  
Loss rate: 8.53%  
-- Flow 3:  
Average throughput: 7.62 Mbit/s  
95th percentile per-packet one-way delay: 63.530 ms  
Loss rate: 8.73%

Run 5: Report of Indigo-MusesC3 — Data Link

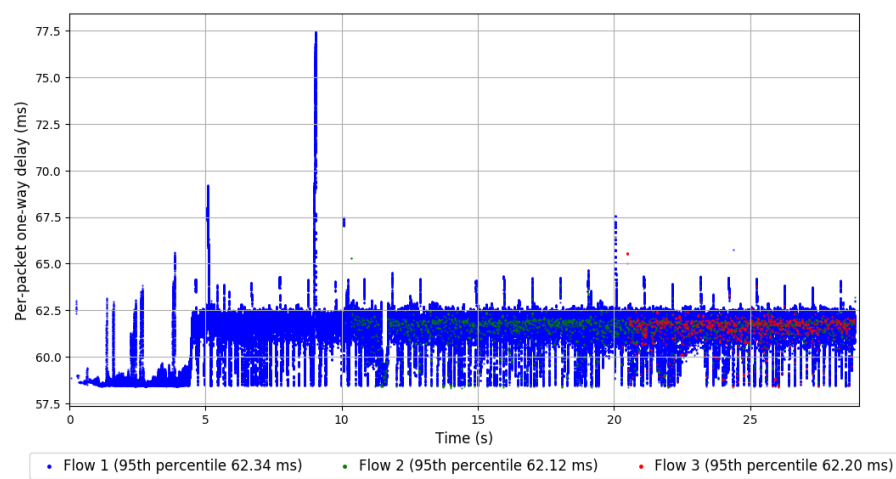
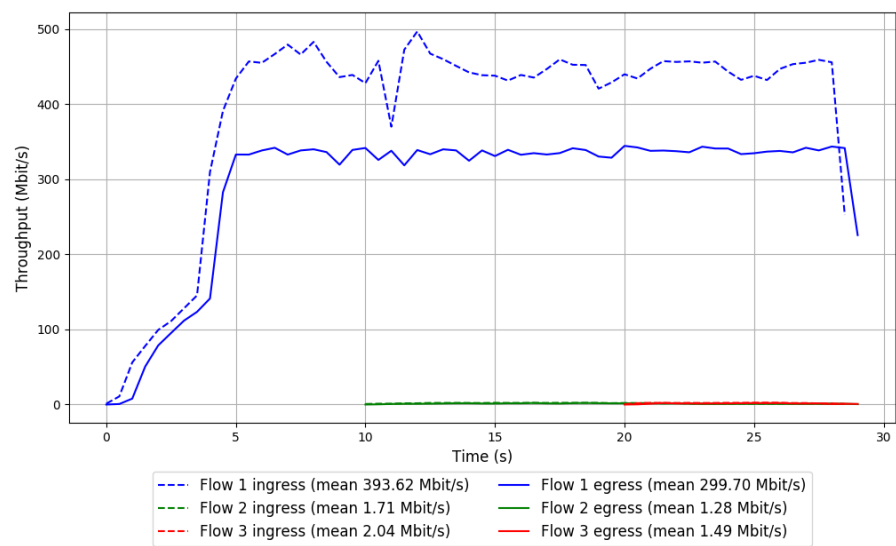


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-11-24 07:42:21  
End at: 2019-11-24 07:42:51  
Local clock offset: 2.066 ms  
Remote clock offset: -37.749 ms

# Below is generated by plot.py at 2019-11-24 10:20:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 300.96 Mbit/s  
95th percentile per-packet one-way delay: 62.344 ms  
Loss rate: 23.86%  
-- Flow 1:  
Average throughput: 299.70 Mbit/s  
95th percentile per-packet one-way delay: 62.344 ms  
Loss rate: 23.86%  
-- Flow 2:  
Average throughput: 1.28 Mbit/s  
95th percentile per-packet one-way delay: 62.116 ms  
Loss rate: 24.79%  
-- Flow 3:  
Average throughput: 1.49 Mbit/s  
95th percentile per-packet one-way delay: 62.197 ms  
Loss rate: 27.04%

Run 1: Report of Indigo-MusesC5 — Data Link



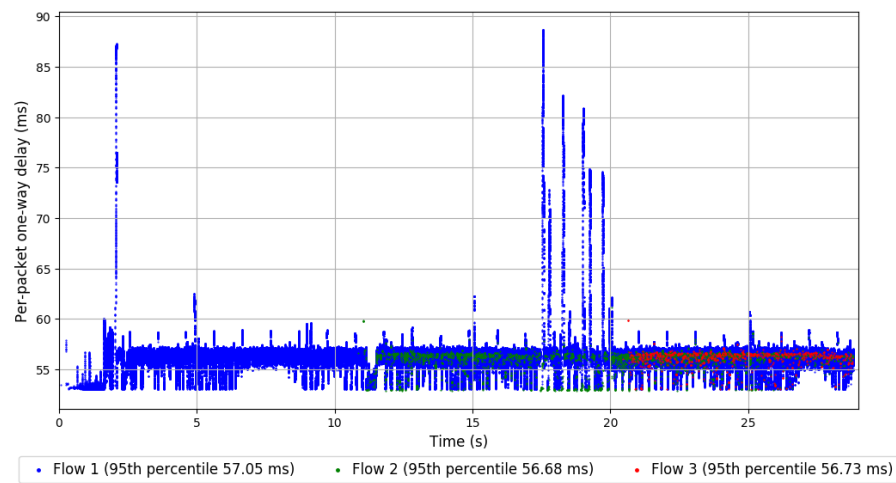
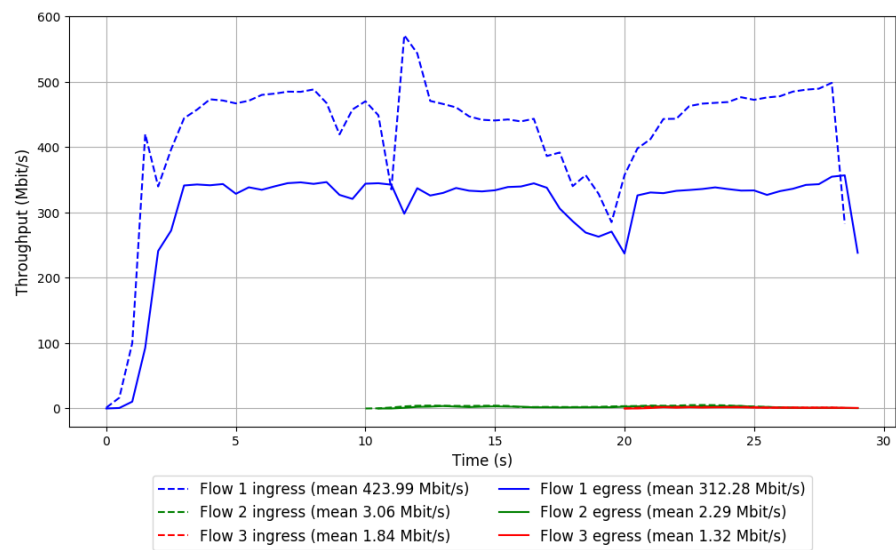


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-11-24 08:16:12  
End at: 2019-11-24 08:16:42  
Local clock offset: 2.151 ms  
Remote clock offset: -39.96 ms

# Below is generated by plot.py at 2019-11-24 10:21:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 314.10 Mbit/s  
95th percentile per-packet one-way delay: 57.050 ms  
Loss rate: 26.35%  
-- Flow 1:  
Average throughput: 312.28 Mbit/s  
95th percentile per-packet one-way delay: 57.052 ms  
Loss rate: 26.34%  
-- Flow 2:  
Average throughput: 2.29 Mbit/s  
95th percentile per-packet one-way delay: 56.679 ms  
Loss rate: 27.09%  
-- Flow 3:  
Average throughput: 1.32 Mbit/s  
95th percentile per-packet one-way delay: 56.735 ms  
Loss rate: 27.90%

Run 2: Report of Indigo-MusesC5 — Data Link

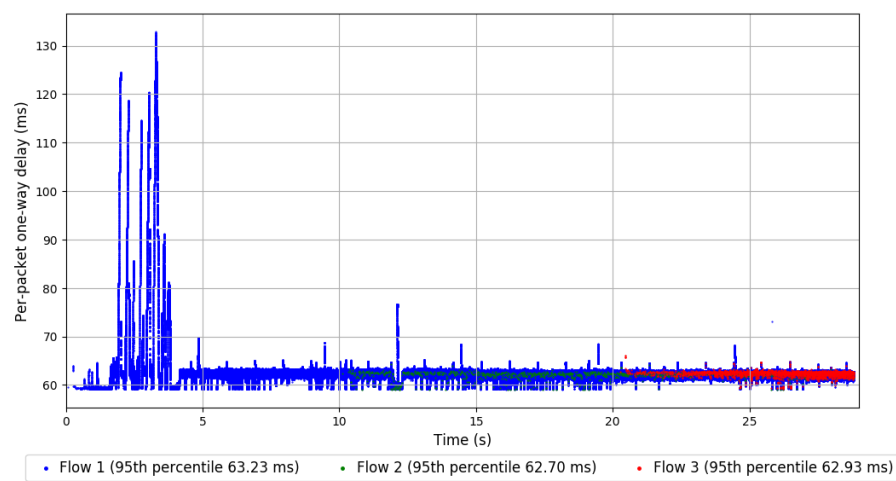
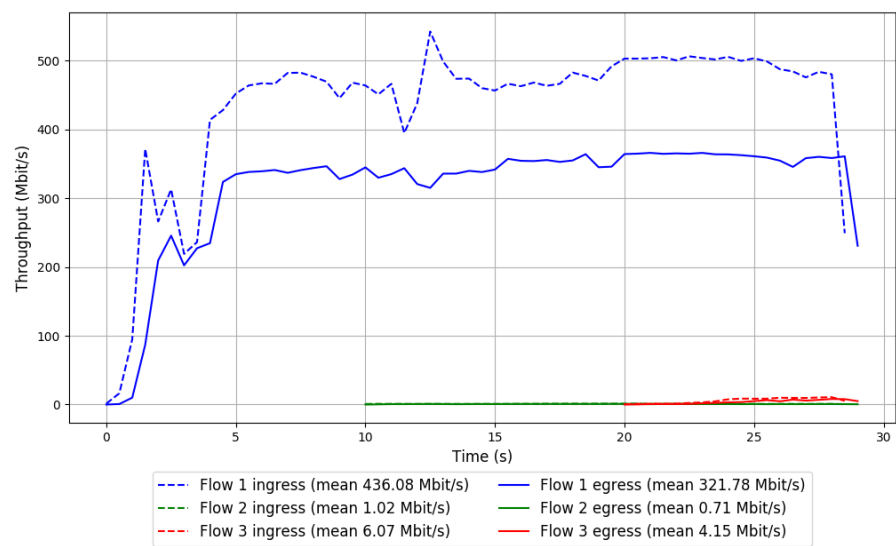


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-11-24 08:50:01  
End at: 2019-11-24 08:50:31  
Local clock offset: -2.524 ms  
Remote clock offset: -37.873 ms

# Below is generated by plot.py at 2019-11-24 10:21:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 323.47 Mbit/s  
95th percentile per-packet one-way delay: 63.226 ms  
Loss rate: 26.23%  
-- Flow 1:  
Average throughput: 321.78 Mbit/s  
95th percentile per-packet one-way delay: 63.229 ms  
Loss rate: 26.21%  
-- Flow 2:  
Average throughput: 0.71 Mbit/s  
95th percentile per-packet one-way delay: 62.705 ms  
Loss rate: 30.38%  
-- Flow 3:  
Average throughput: 4.15 Mbit/s  
95th percentile per-packet one-way delay: 62.932 ms  
Loss rate: 31.64%

Run 3: Report of Indigo-MusesC5 — Data Link

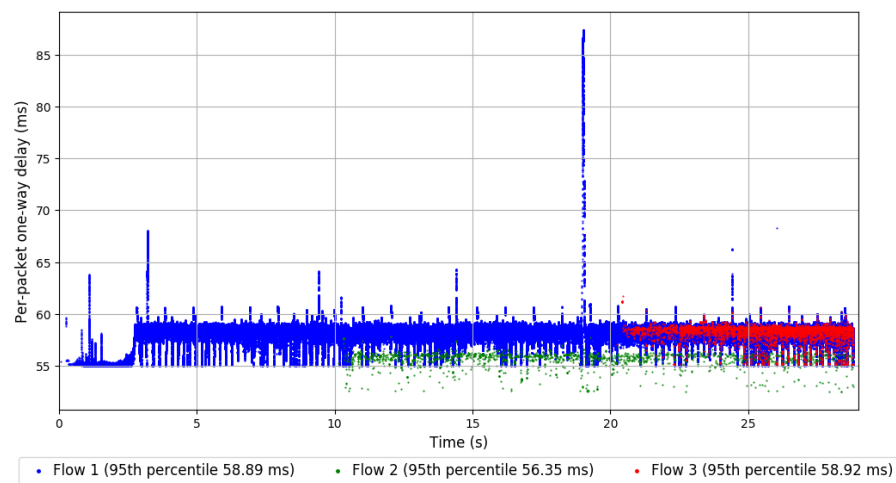
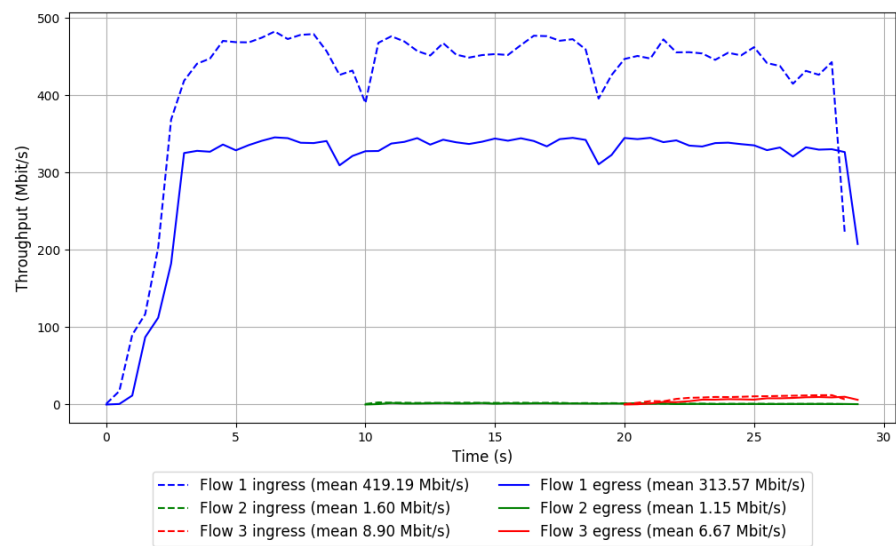


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-11-24 09:23:58  
End at: 2019-11-24 09:24:28  
Local clock offset: 2.061 ms  
Remote clock offset: -40.172 ms

# Below is generated by plot.py at 2019-11-24 10:22:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 316.30 Mbit/s  
95th percentile per-packet one-way delay: 58.891 ms  
Loss rate: 25.20%  
-- Flow 1:  
Average throughput: 313.57 Mbit/s  
95th percentile per-packet one-way delay: 58.891 ms  
Loss rate: 25.19%  
-- Flow 2:  
Average throughput: 1.15 Mbit/s  
95th percentile per-packet one-way delay: 56.352 ms  
Loss rate: 28.26%  
-- Flow 3:  
Average throughput: 6.67 Mbit/s  
95th percentile per-packet one-way delay: 58.925 ms  
Loss rate: 25.02%

Run 4: Report of Indigo-MusesC5 — Data Link

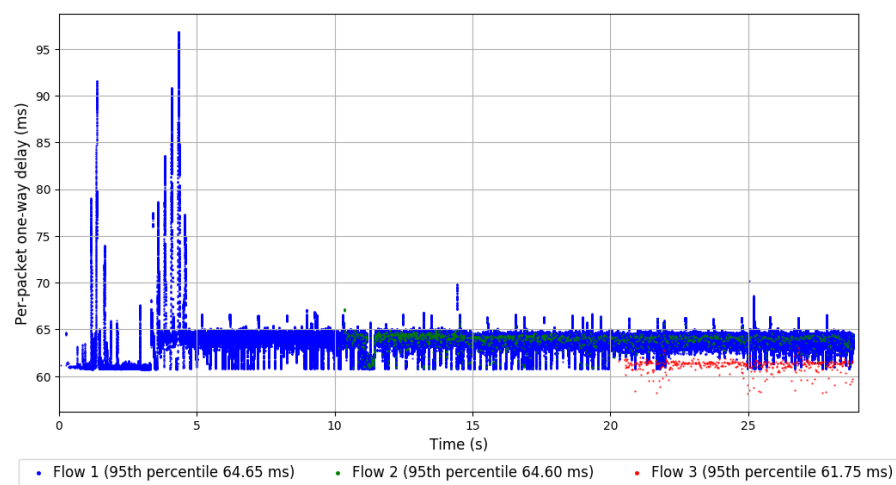
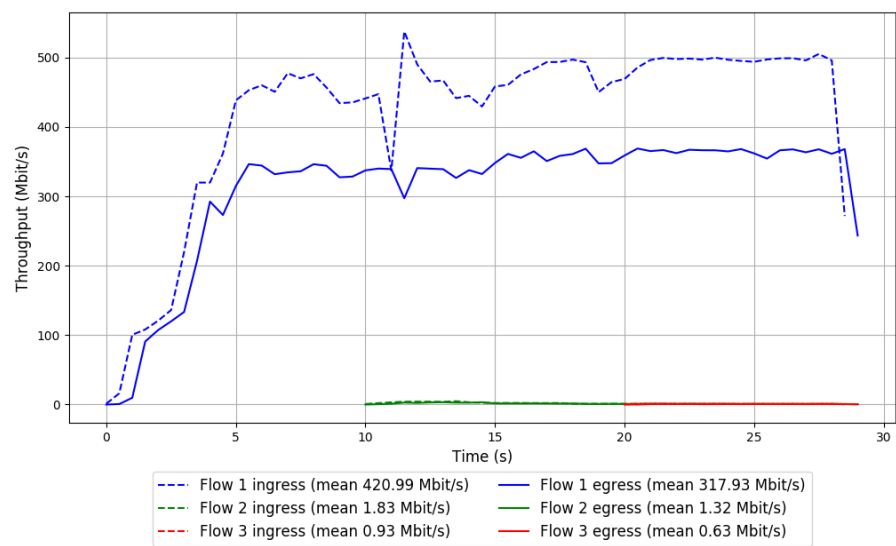


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-11-24 09:57:51  
End at: 2019-11-24 09:58:22  
Local clock offset: -3.276 ms  
Remote clock offset: -40.119 ms

# Below is generated by plot.py at 2019-11-24 10:23:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 318.98 Mbit/s  
95th percentile per-packet one-way delay: 64.651 ms  
Loss rate: 24.49%  
-- Flow 1:  
Average throughput: 317.93 Mbit/s  
95th percentile per-packet one-way delay: 64.651 ms  
Loss rate: 24.48%  
-- Flow 2:  
Average throughput: 1.32 Mbit/s  
95th percentile per-packet one-way delay: 64.602 ms  
Loss rate: 27.80%  
-- Flow 3:  
Average throughput: 0.63 Mbit/s  
95th percentile per-packet one-way delay: 61.752 ms  
Loss rate: 32.15%

Run 5: Report of Indigo-MusesC5 — Data Link



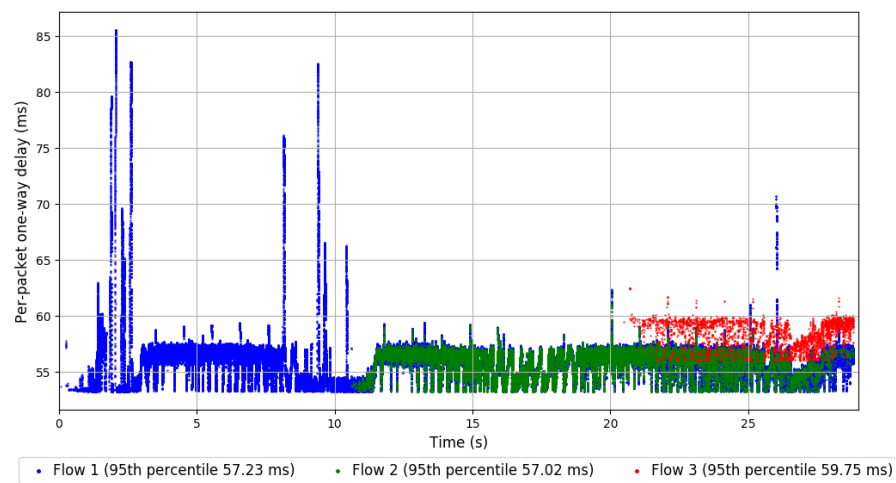
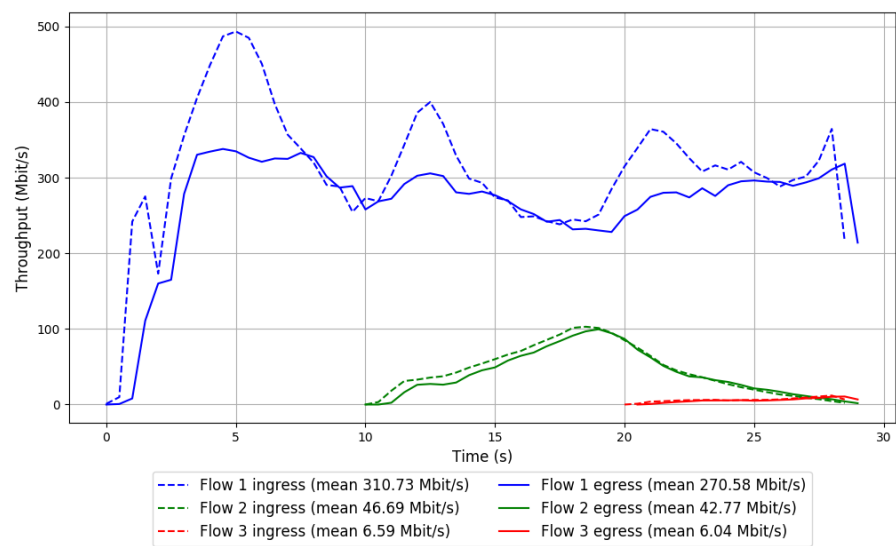


Run 1: Statistics of Indigo-MusesD

Start at: 2019-11-24 07:28:05  
End at: 2019-11-24 07:28:35  
Local clock offset: 1.33 ms  
Remote clock offset: -41.214 ms

# Below is generated by plot.py at 2019-11-24 10:23:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 299.71 Mbit/s  
95th percentile per-packet one-way delay: 57.243 ms  
Loss rate: 12.49%  
-- Flow 1:  
Average throughput: 270.58 Mbit/s  
95th percentile per-packet one-way delay: 57.232 ms  
Loss rate: 12.91%  
-- Flow 2:  
Average throughput: 42.77 Mbit/s  
95th percentile per-packet one-way delay: 57.016 ms  
Loss rate: 8.38%  
-- Flow 3:  
Average throughput: 6.04 Mbit/s  
95th percentile per-packet one-way delay: 59.748 ms  
Loss rate: 8.49%

Run 1: Report of Indigo-MusesD — Data Link

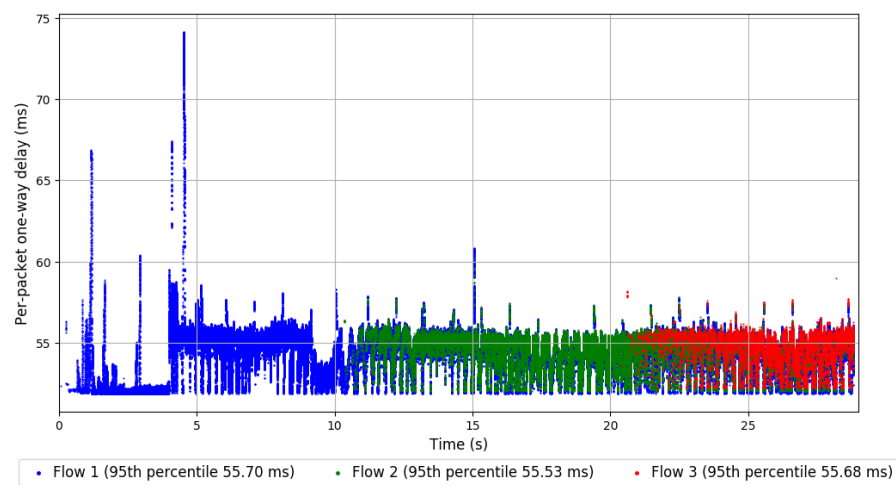
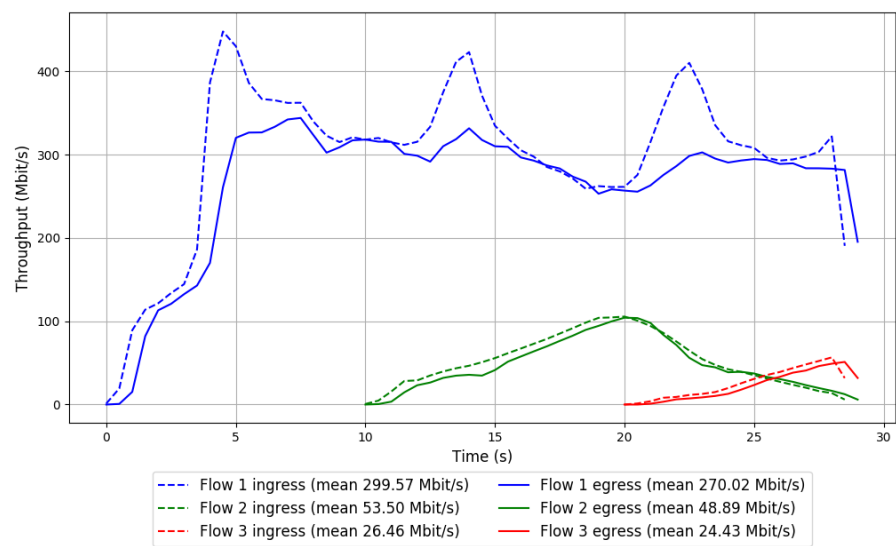


Run 2: Statistics of Indigo-MusesD

Start at: 2019-11-24 08:01:56  
End at: 2019-11-24 08:02:26  
Local clock offset: 1.56 ms  
Remote clock offset: -41.678 ms

# Below is generated by plot.py at 2019-11-24 10:23:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 308.87 Mbit/s  
95th percentile per-packet one-way delay: 55.680 ms  
Loss rate: 9.68%  
-- Flow 1:  
Average throughput: 270.02 Mbit/s  
95th percentile per-packet one-way delay: 55.696 ms  
Loss rate: 9.86%  
-- Flow 2:  
Average throughput: 48.89 Mbit/s  
95th percentile per-packet one-way delay: 55.526 ms  
Loss rate: 8.62%  
-- Flow 3:  
Average throughput: 24.43 Mbit/s  
95th percentile per-packet one-way delay: 55.678 ms  
Loss rate: 7.67%

Run 2: Report of Indigo-MusesD — Data Link

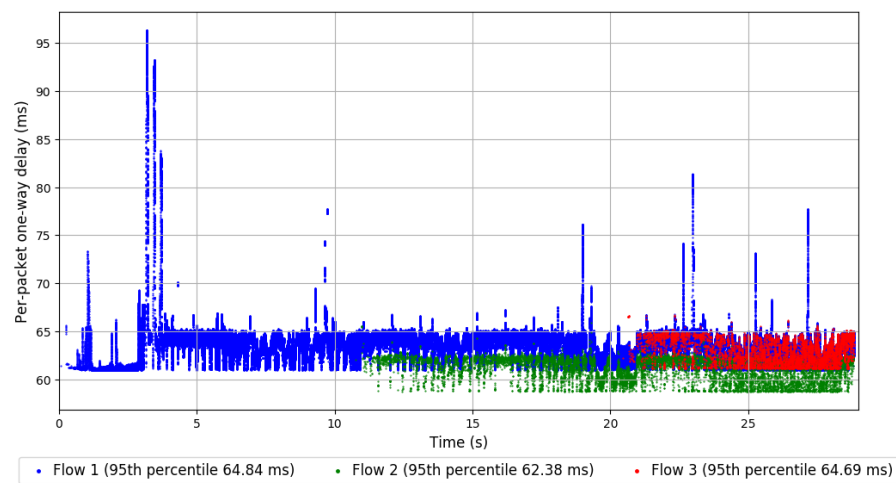
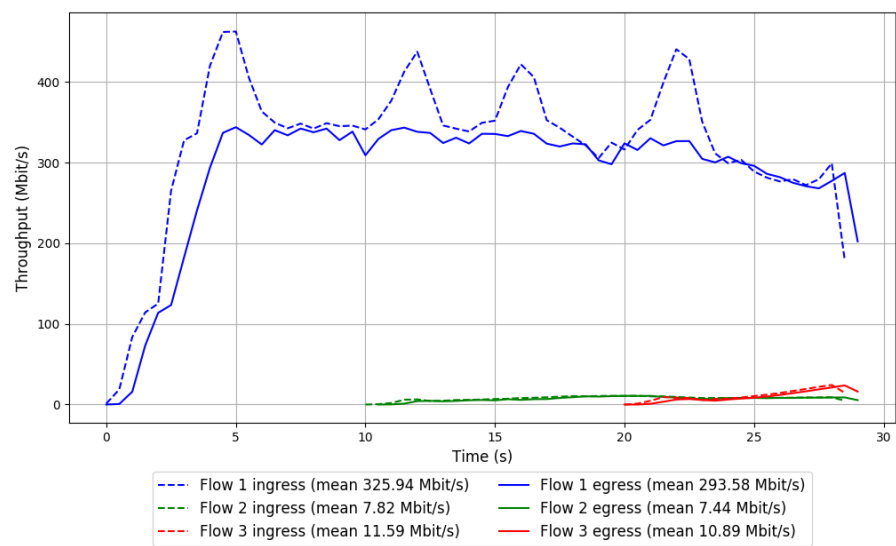


Run 3: Statistics of Indigo-MusesD

Start at: 2019-11-24 08:35:49  
End at: 2019-11-24 08:36:19  
Local clock offset: -3.659 ms  
Remote clock offset: -39.977 ms

# Below is generated by plot.py at 2019-11-24 10:24:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 301.41 Mbit/s  
95th percentile per-packet one-way delay: 64.830 ms  
Loss rate: 9.84%  
-- Flow 1:  
Average throughput: 293.58 Mbit/s  
95th percentile per-packet one-way delay: 64.838 ms  
Loss rate: 9.92%  
-- Flow 2:  
Average throughput: 7.44 Mbit/s  
95th percentile per-packet one-way delay: 62.378 ms  
Loss rate: 7.45%  
-- Flow 3:  
Average throughput: 10.89 Mbit/s  
95th percentile per-packet one-way delay: 64.688 ms  
Loss rate: 6.05%

Run 3: Report of Indigo-MusesD — Data Link

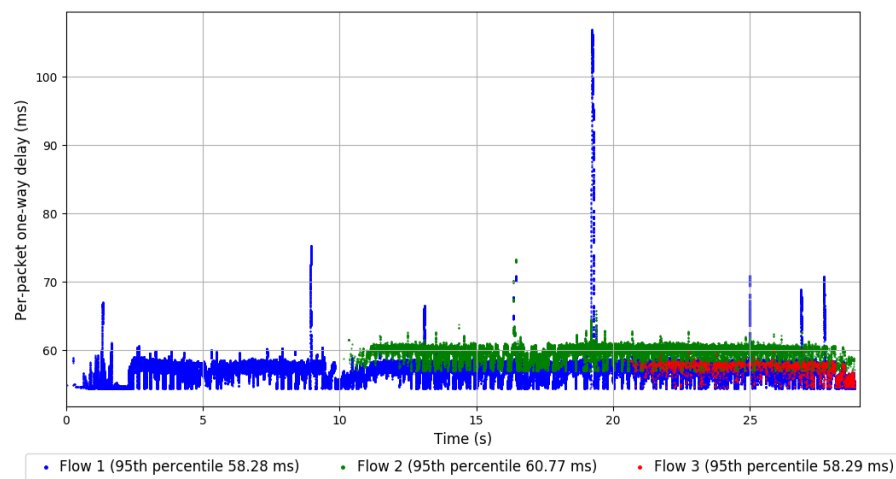
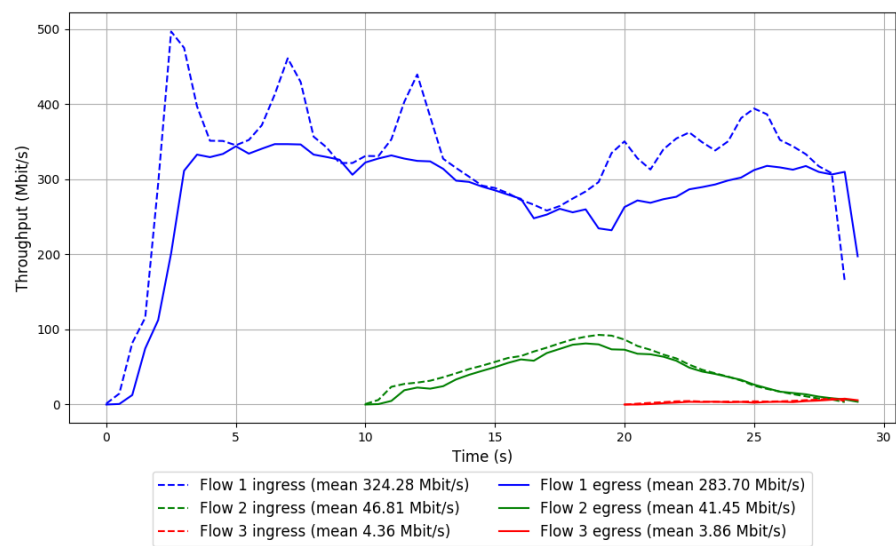


Run 4: Statistics of Indigo-MusesD

Start at: 2019-11-24 09:09:41  
End at: 2019-11-24 09:10:11  
Local clock offset: 2.527 ms  
Remote clock offset: -37.601 ms

# Below is generated by plot.py at 2019-11-24 10:24:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 311.73 Mbit/s  
95th percentile per-packet one-way delay: 60.130 ms  
Loss rate: 12.42%  
-- Flow 1:  
Average throughput: 283.70 Mbit/s  
95th percentile per-packet one-way delay: 58.285 ms  
Loss rate: 12.51%  
-- Flow 2:  
Average throughput: 41.45 Mbit/s  
95th percentile per-packet one-way delay: 60.766 ms  
Loss rate: 11.51%  
-- Flow 3:  
Average throughput: 3.86 Mbit/s  
95th percentile per-packet one-way delay: 58.291 ms  
Loss rate: 11.62%

Run 4: Report of Indigo-MusesD — Data Link



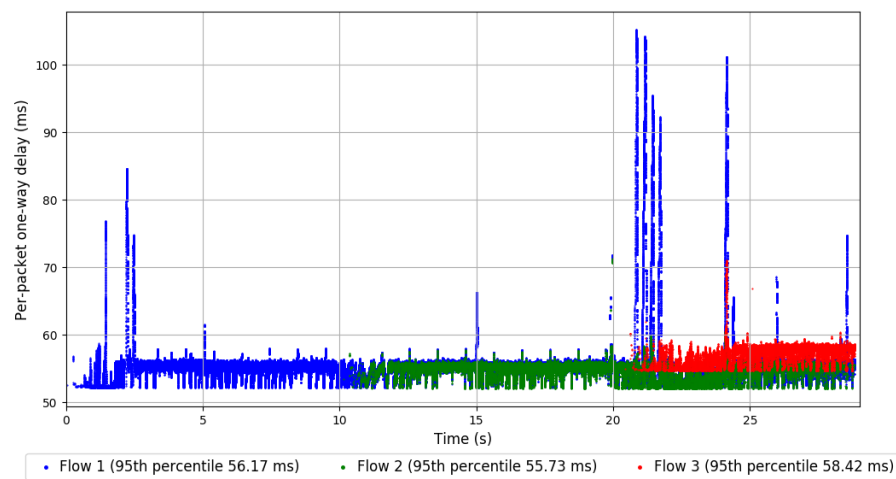
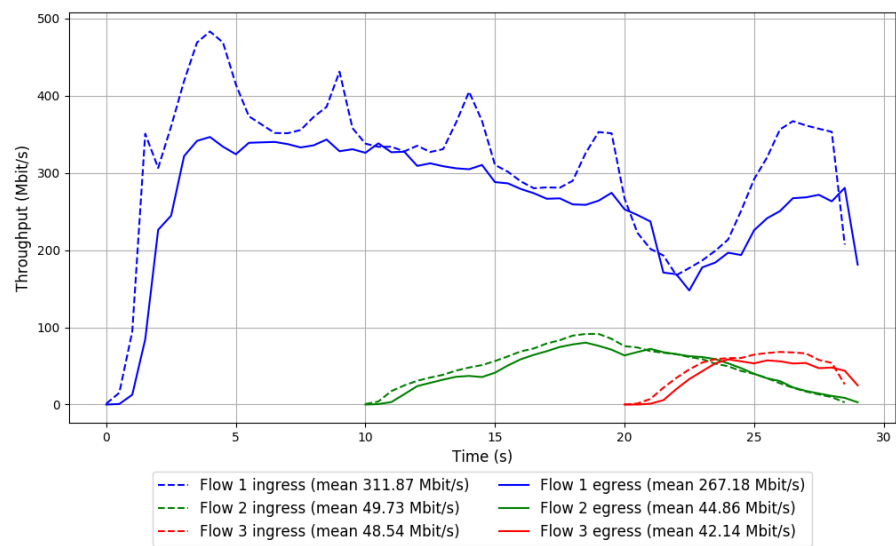


Run 5: Statistics of Indigo-MusesD

Start at: 2019-11-24 09:43:36  
End at: 2019-11-24 09:44:06  
Local clock offset: 1.449 ms  
Remote clock offset: -41.413 ms

# Below is generated by plot.py at 2019-11-24 10:25:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 308.57 Mbit/s  
95th percentile per-packet one-way delay: 57.229 ms  
Loss rate: 13.87%  
-- Flow 1:  
Average throughput: 267.18 Mbit/s  
95th percentile per-packet one-way delay: 56.169 ms  
Loss rate: 14.32%  
-- Flow 2:  
Average throughput: 44.86 Mbit/s  
95th percentile per-packet one-way delay: 55.734 ms  
Loss rate: 9.78%  
-- Flow 3:  
Average throughput: 42.14 Mbit/s  
95th percentile per-packet one-way delay: 58.423 ms  
Loss rate: 13.15%

Run 5: Report of Indigo-MusesD — Data Link

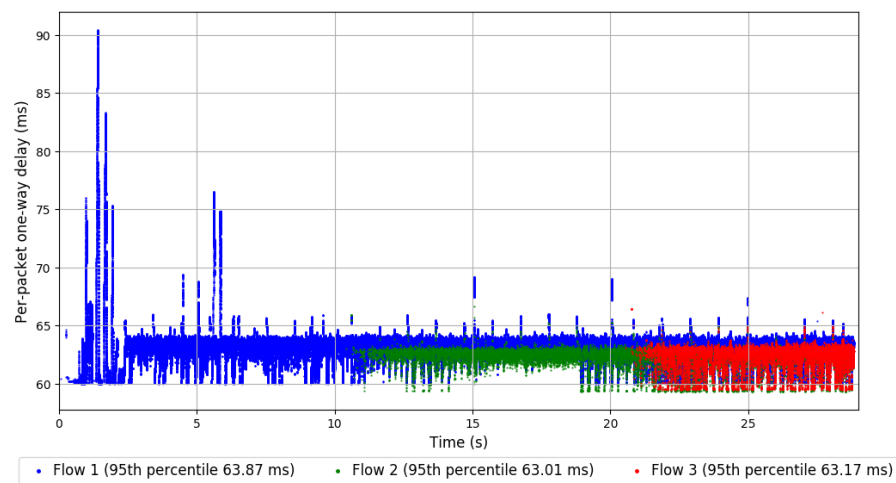
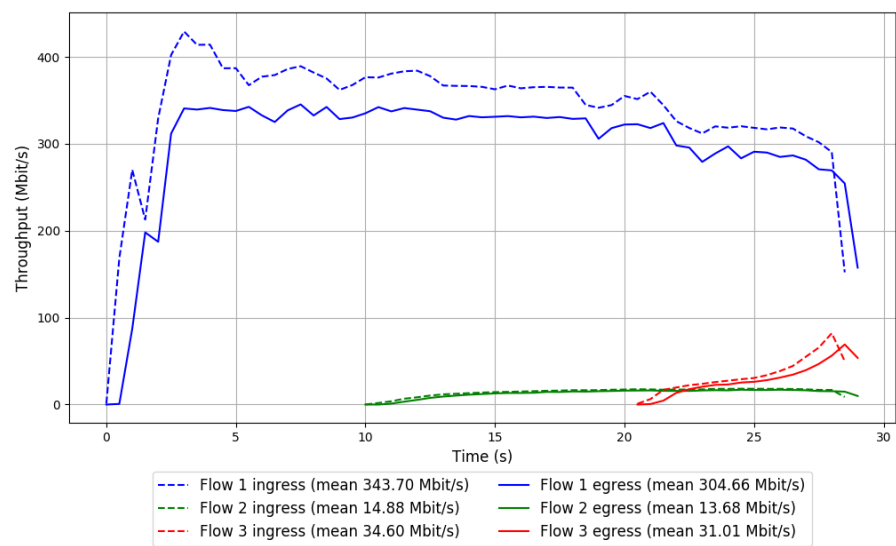


Run 1: Statistics of Indigo-MusesT

Start at: 2019-11-24 07:32:33  
End at: 2019-11-24 07:33:03  
Local clock offset: -2.984 ms  
Remote clock offset: -39.174 ms

# Below is generated by plot.py at 2019-11-24 10:25:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 322.32 Mbit/s  
95th percentile per-packet one-way delay: 63.857 ms  
Loss rate: 11.24%  
-- Flow 1:  
Average throughput: 304.66 Mbit/s  
95th percentile per-packet one-way delay: 63.869 ms  
Loss rate: 11.35%  
-- Flow 2:  
Average throughput: 13.68 Mbit/s  
95th percentile per-packet one-way delay: 63.011 ms  
Loss rate: 8.06%  
-- Flow 3:  
Average throughput: 31.01 Mbit/s  
95th percentile per-packet one-way delay: 63.167 ms  
Loss rate: 10.39%

Run 1: Report of Indigo-MusesT — Data Link

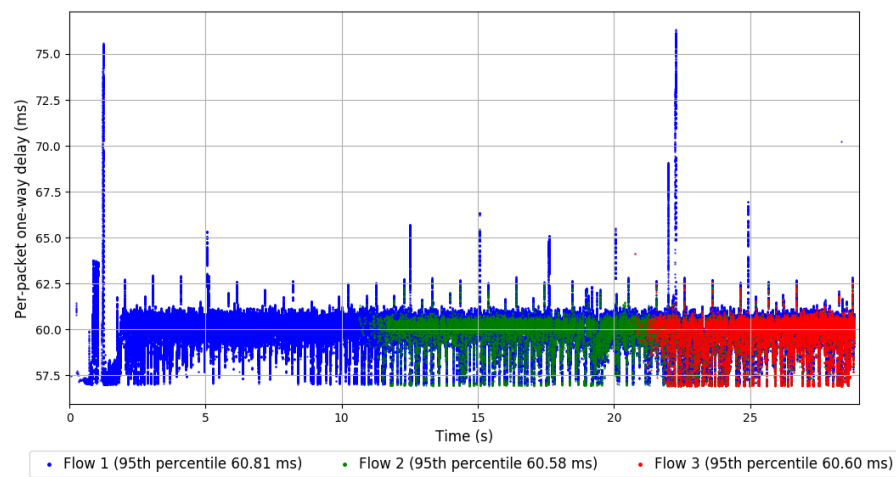
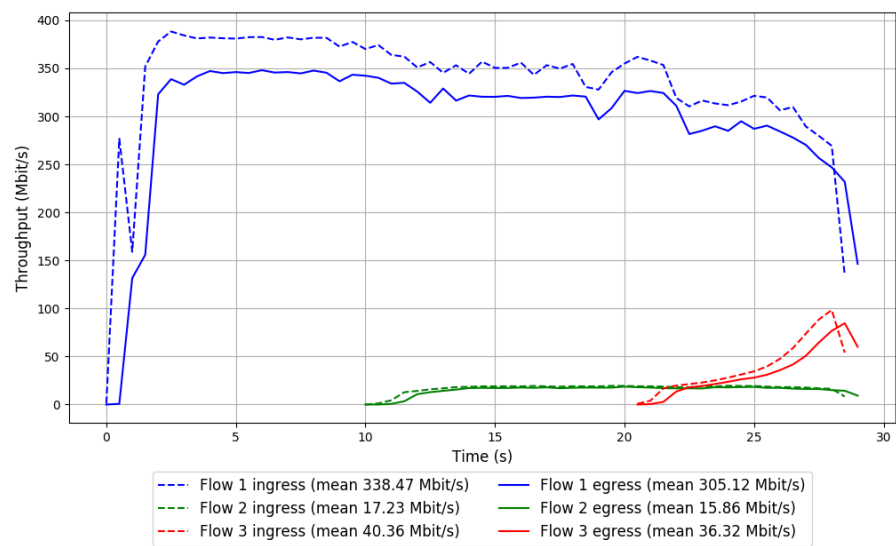


Run 2: Statistics of Indigo-MusesT

Start at: 2019-11-24 08:06:22  
End at: 2019-11-24 08:06:52  
Local clock offset: -0.113 ms  
Remote clock offset: -38.242 ms

# Below is generated by plot.py at 2019-11-24 10:26:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 325.67 Mbit/s  
95th percentile per-packet one-way delay: 60.799 ms  
Loss rate: 9.79%  
-- Flow 1:  
Average throughput: 305.12 Mbit/s  
95th percentile per-packet one-way delay: 60.808 ms  
Loss rate: 9.85%  
-- Flow 2:  
Average throughput: 15.86 Mbit/s  
95th percentile per-packet one-way delay: 60.575 ms  
Loss rate: 7.95%  
-- Flow 3:  
Average throughput: 36.32 Mbit/s  
95th percentile per-packet one-way delay: 60.597 ms  
Loss rate: 10.02%

Run 2: Report of Indigo-MusesT — Data Link

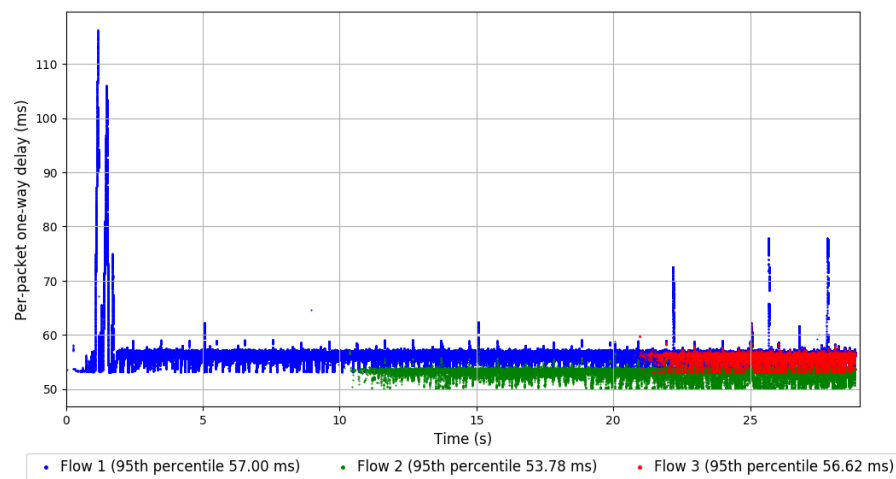
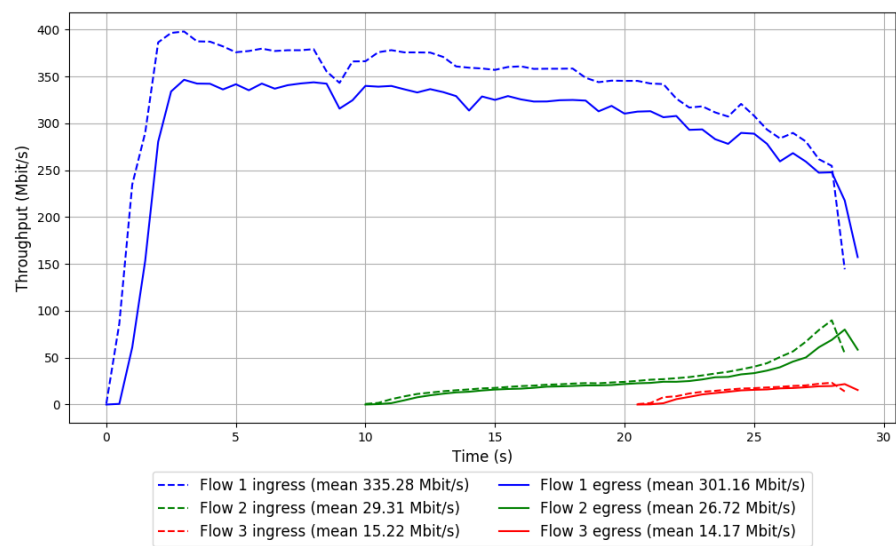


Run 3: Statistics of Indigo-MusesT

Start at: 2019-11-24 08:40:15  
End at: 2019-11-24 08:40:45  
Local clock offset: 2.996 ms  
Remote clock offset: -41.325 ms

# Below is generated by plot.py at 2019-11-24 10:26:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 322.46 Mbit/s  
95th percentile per-packet one-way delay: 56.984 ms  
Loss rate: 10.06%  
-- Flow 1:  
Average throughput: 301.16 Mbit/s  
95th percentile per-packet one-way delay: 57.004 ms  
Loss rate: 10.17%  
-- Flow 2:  
Average throughput: 26.72 Mbit/s  
95th percentile per-packet one-way delay: 53.778 ms  
Loss rate: 8.84%  
-- Flow 3:  
Average throughput: 14.17 Mbit/s  
95th percentile per-packet one-way delay: 56.624 ms  
Loss rate: 6.92%

Run 3: Report of Indigo-MusesT — Data Link



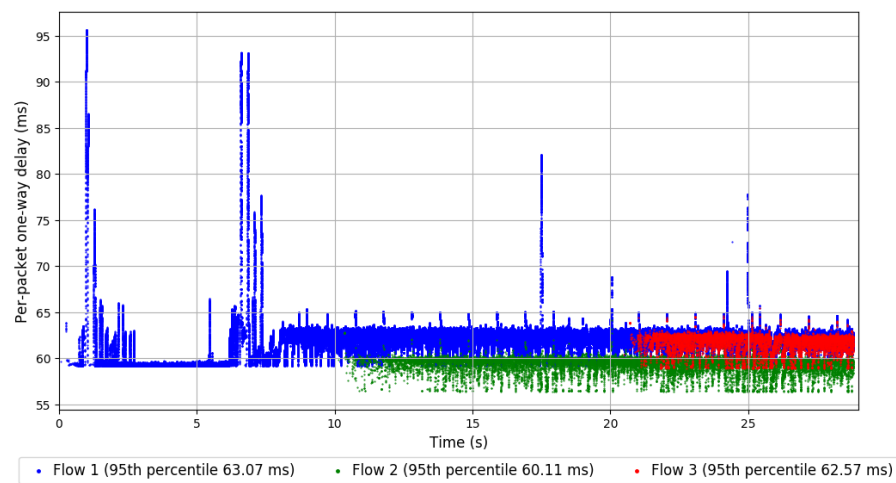
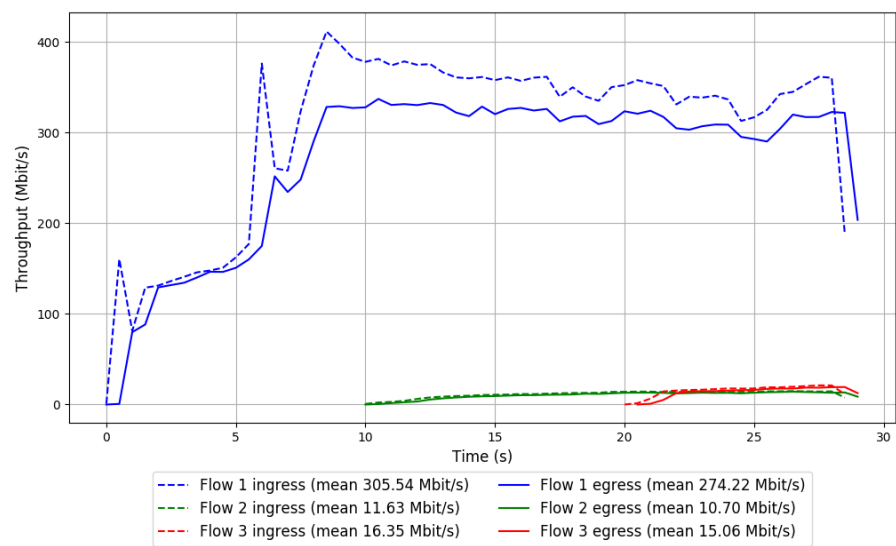


Run 4: Statistics of Indigo-MusesT

Start at: 2019-11-24 09:14:09  
End at: 2019-11-24 09:14:39  
Local clock offset: -1.547 ms  
Remote clock offset: -39.746 ms

# Below is generated by plot.py at 2019-11-24 10:26:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 285.52 Mbit/s  
95th percentile per-packet one-way delay: 63.059 ms  
Loss rate: 10.16%  
-- Flow 1:  
Average throughput: 274.22 Mbit/s  
95th percentile per-packet one-way delay: 63.071 ms  
Loss rate: 10.25%  
-- Flow 2:  
Average throughput: 10.70 Mbit/s  
95th percentile per-packet one-way delay: 60.106 ms  
Loss rate: 7.97%  
-- Flow 3:  
Average throughput: 15.06 Mbit/s  
95th percentile per-packet one-way delay: 62.573 ms  
Loss rate: 7.87%

Run 4: Report of Indigo-MusesT — Data Link

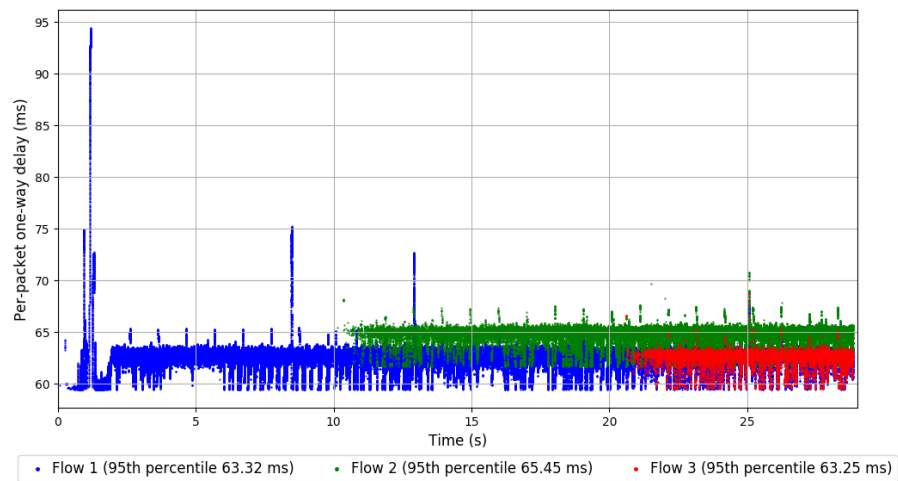
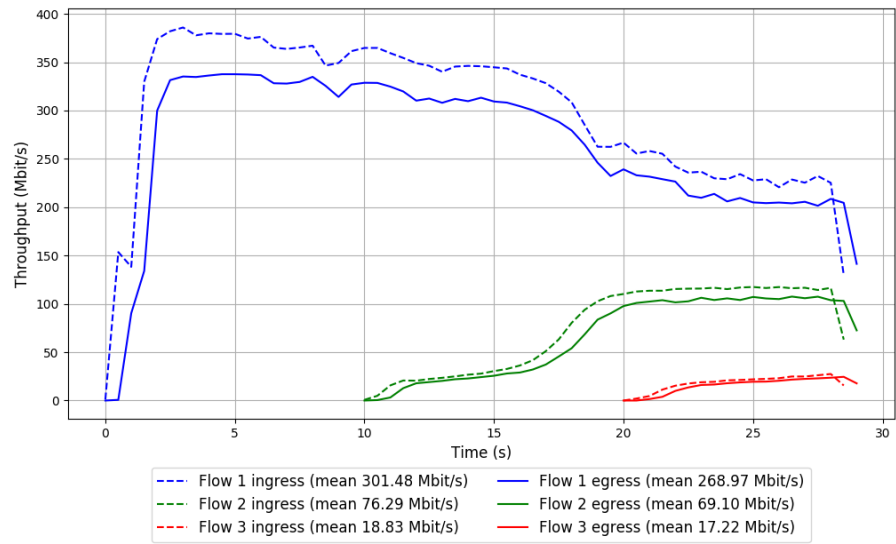


Run 5: Statistics of Indigo-MusesT

Start at: 2019-11-24 09:48:04  
End at: 2019-11-24 09:48:34  
Local clock offset: -2.846 ms  
Remote clock offset: -38.524 ms

# Below is generated by plot.py at 2019-11-24 10:27:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 318.91 Mbit/s  
95th percentile per-packet one-way delay: 65.092 ms  
Loss rate: 10.55%  
-- Flow 1:  
Average throughput: 268.97 Mbit/s  
95th percentile per-packet one-way delay: 63.321 ms  
Loss rate: 10.77%  
-- Flow 2:  
Average throughput: 69.10 Mbit/s  
95th percentile per-packet one-way delay: 65.448 ms  
Loss rate: 9.42%  
-- Flow 3:  
Average throughput: 17.22 Mbit/s  
95th percentile per-packet one-way delay: 63.252 ms  
Loss rate: 8.55%

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

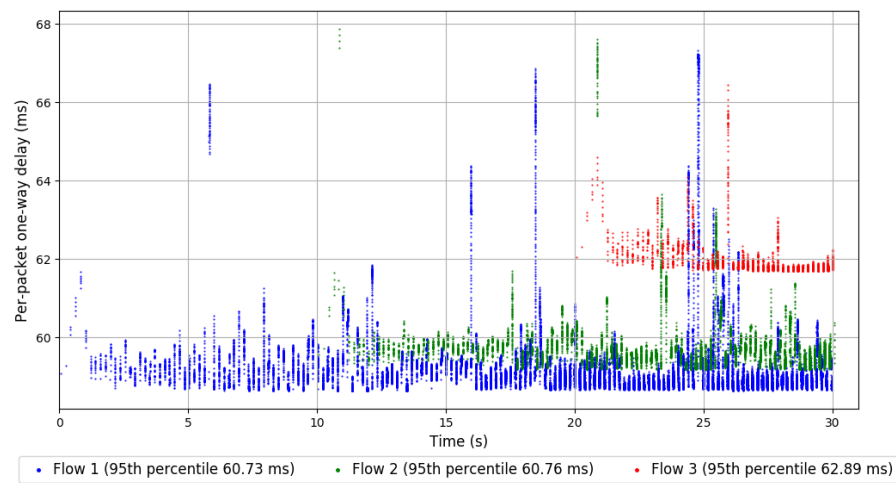
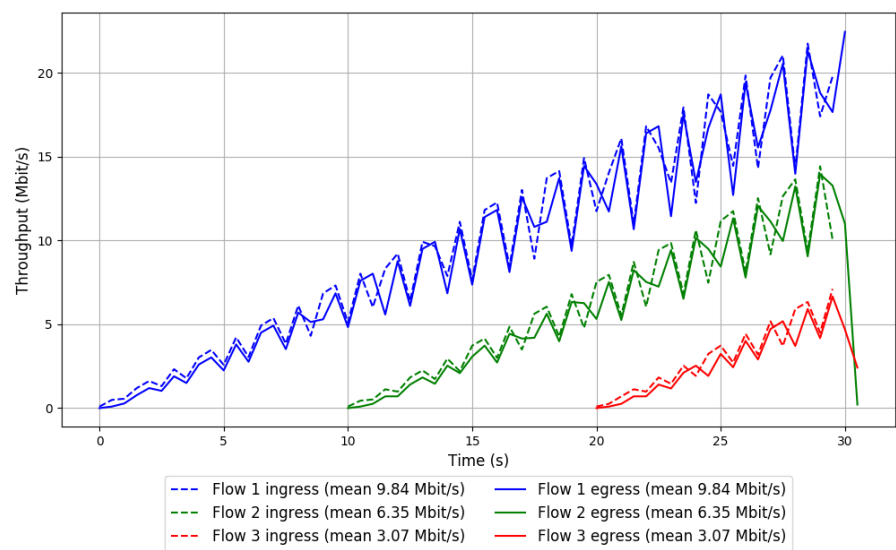


```
Run 1: Statistics of LEDBAT

Start at: 2019-11-24 07:15:22
End at: 2019-11-24 07:15:52
Local clock offset: -2.227 ms
Remote clock offset: -39.519 ms

# Below is generated by plot.py at 2019-11-24 10:27:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.06 Mbit/s
95th percentile per-packet one-way delay: 61.870 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.84 Mbit/s
95th percentile per-packet one-way delay: 60.729 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 60.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 62.889 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

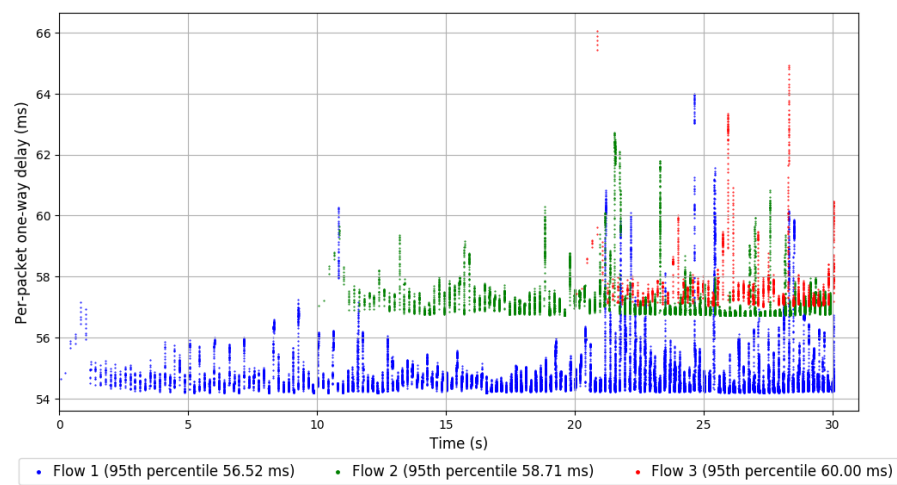
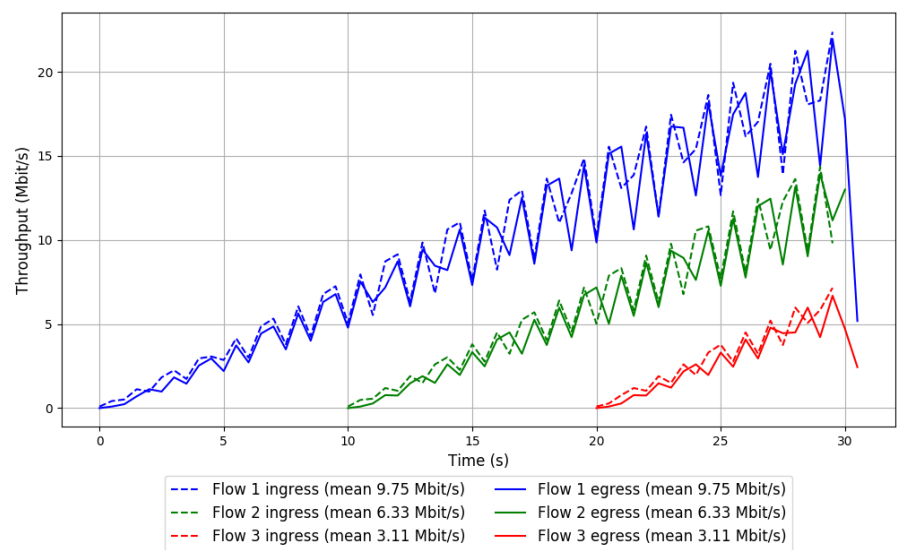


Run 2: Statistics of LEDBAT

Start at: 2019-11-24 07:49:17  
End at: 2019-11-24 07:49:48  
Local clock offset: 1.119 ms  
Remote clock offset: -40.166 ms

# Below is generated by plot.py at 2019-11-24 10:27:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.97 Mbit/s  
95th percentile per-packet one-way delay: 58.021 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 9.75 Mbit/s  
95th percentile per-packet one-way delay: 56.524 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 6.33 Mbit/s  
95th percentile per-packet one-way delay: 58.711 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.11 Mbit/s  
95th percentile per-packet one-way delay: 60.001 ms  
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link



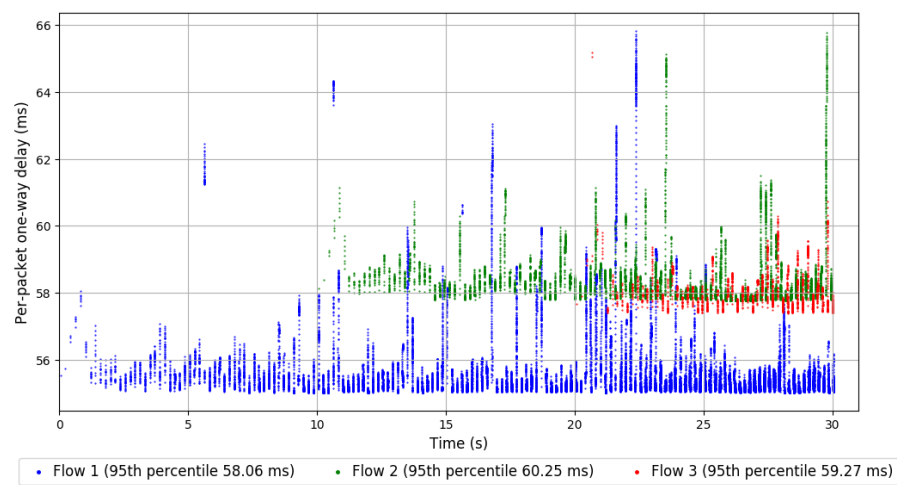
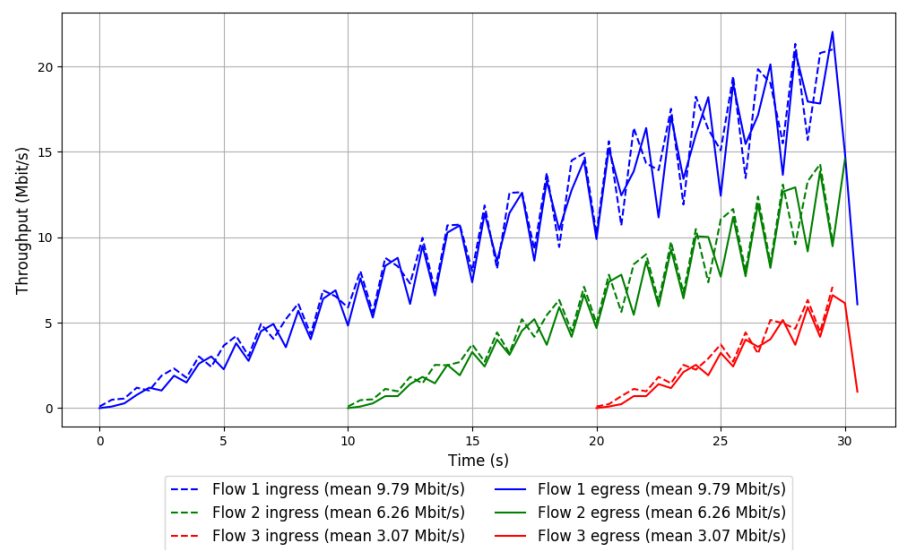


Run 3: Statistics of LEDBAT

Start at: 2019-11-24 08:23:10  
End at: 2019-11-24 08:23:40  
Local clock offset: -2.408 ms  
Remote clock offset: -42.547 ms

# Below is generated by plot.py at 2019-11-24 10:27:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.96 Mbit/s  
95th percentile per-packet one-way delay: 59.185 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 9.79 Mbit/s  
95th percentile per-packet one-way delay: 58.064 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 6.26 Mbit/s  
95th percentile per-packet one-way delay: 60.252 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.07 Mbit/s  
95th percentile per-packet one-way delay: 59.268 ms  
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

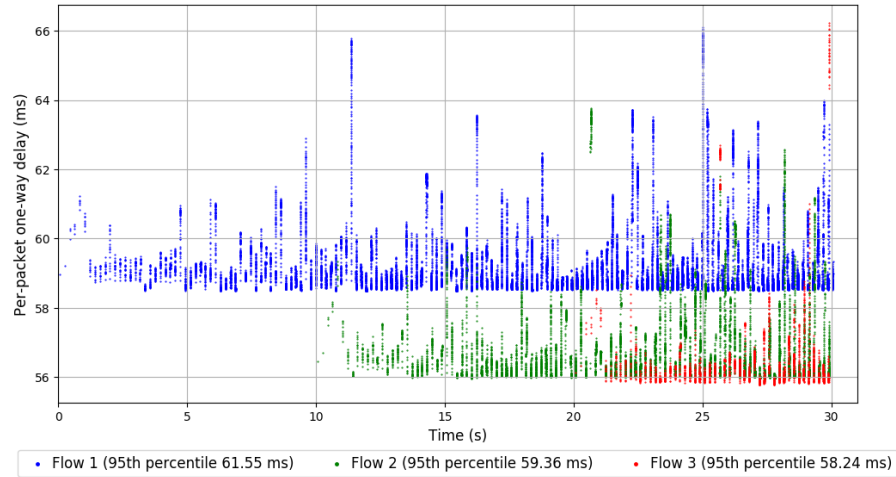
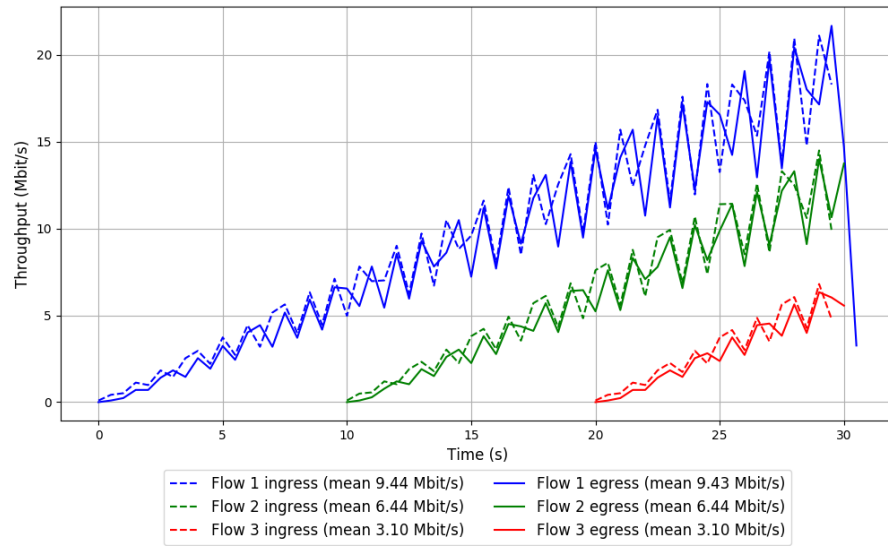


Run 4: Statistics of LEDBAT

Start at: 2019-11-24 08:56:58  
End at: 2019-11-24 08:57:28  
Local clock offset: 1.51 ms  
Remote clock offset: -37.339 ms

# Below is generated by plot.py at 2019-11-24 10:27:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.71 Mbit/s  
95th percentile per-packet one-way delay: 61.030 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 9.43 Mbit/s  
95th percentile per-packet one-way delay: 61.547 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 6.44 Mbit/s  
95th percentile per-packet one-way delay: 59.362 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.10 Mbit/s  
95th percentile per-packet one-way delay: 58.236 ms  
Loss rate: 0.00%

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

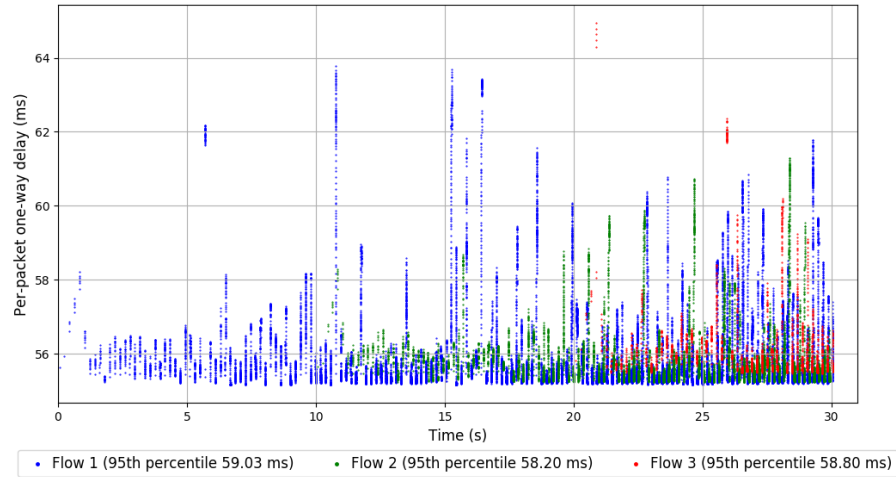
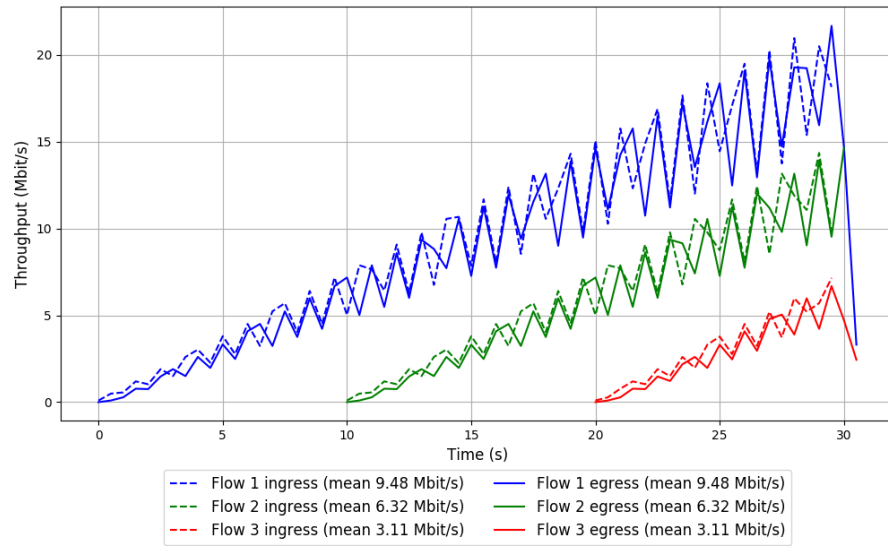


Run 5: Statistics of LEDBAT

Start at: 2019-11-24 09:30:58  
End at: 2019-11-24 09:31:28  
Local clock offset: 2.431 ms  
Remote clock offset: -39.716 ms

# Below is generated by plot.py at 2019-11-24 10:27:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.70 Mbit/s  
95th percentile per-packet one-way delay: 58.809 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 9.48 Mbit/s  
95th percentile per-packet one-way delay: 59.030 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 6.32 Mbit/s  
95th percentile per-packet one-way delay: 58.196 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.11 Mbit/s  
95th percentile per-packet one-way delay: 58.803 ms  
Loss rate: 0.00%

# Run 5: Report of LEDBAT — Data Link

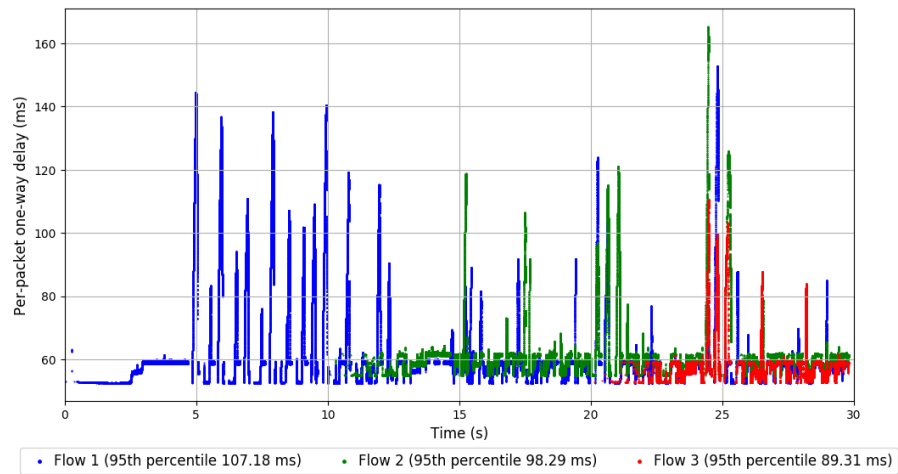
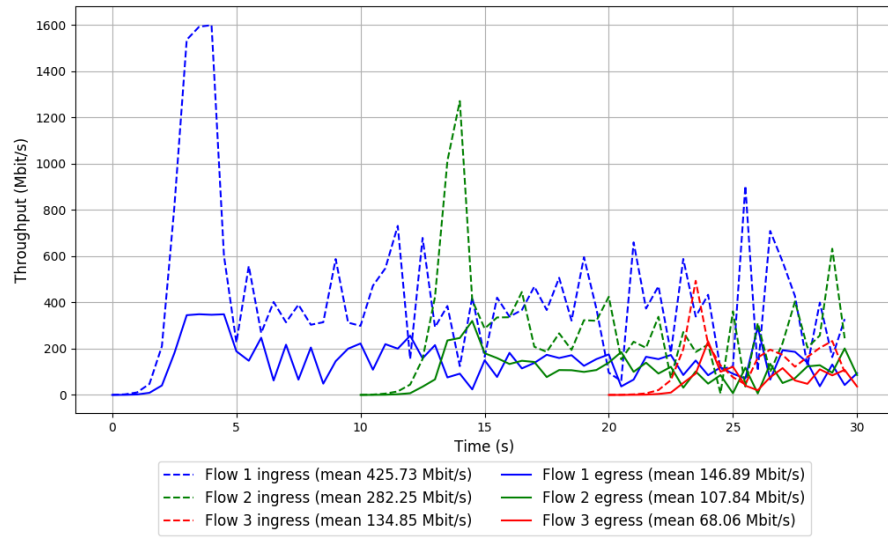


Run 1: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 07:36:41  
End at: 2019-11-24 07:37:11  
Local clock offset: 2.721 ms  
Remote clock offset: -40.588 ms

# Below is generated by plot.py at 2019-11-24 10:28:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 240.21 Mbit/s  
95th percentile per-packet one-way delay: 103.777 ms  
Loss rate: 63.37%  
-- Flow 1:  
Average throughput: 146.89 Mbit/s  
95th percentile per-packet one-way delay: 107.177 ms  
Loss rate: 65.49%  
-- Flow 2:  
Average throughput: 107.84 Mbit/s  
95th percentile per-packet one-way delay: 98.290 ms  
Loss rate: 61.79%  
-- Flow 3:  
Average throughput: 68.06 Mbit/s  
95th percentile per-packet one-way delay: 89.313 ms  
Loss rate: 49.50%

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



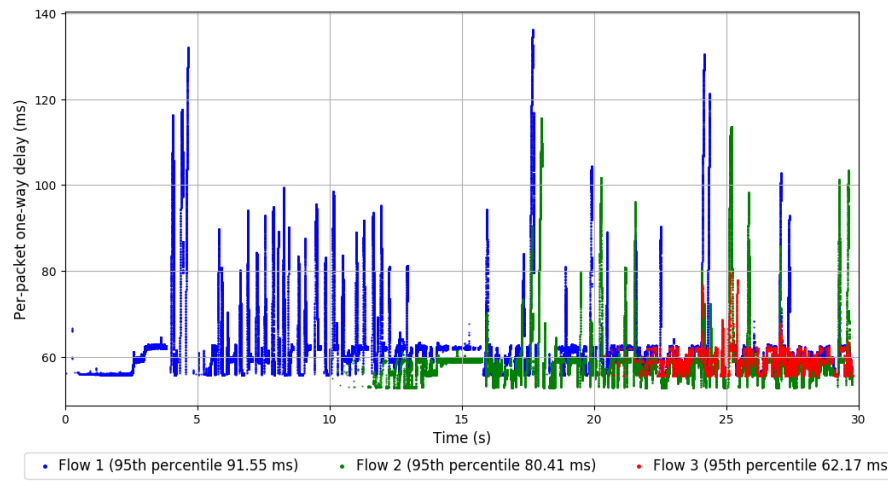
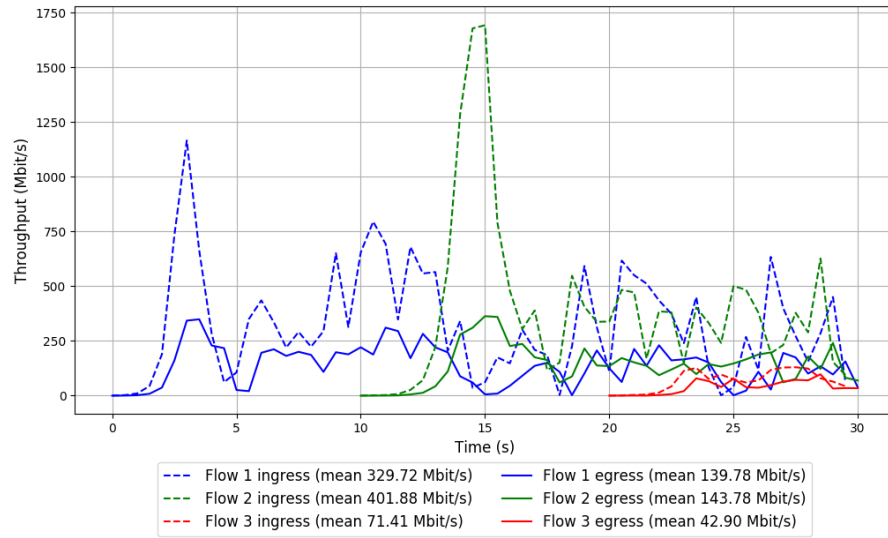


Run 2: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 08:10:31  
End at: 2019-11-24 08:11:01  
Local clock offset: 2.117 ms  
Remote clock offset: -40.079 ms

# Below is generated by plot.py at 2019-11-24 10:28:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 248.52 Mbit/s  
95th percentile per-packet one-way delay: 88.619 ms  
Loss rate: 59.79%  
-- Flow 1:  
Average throughput: 139.78 Mbit/s  
95th percentile per-packet one-way delay: 91.550 ms  
Loss rate: 57.60%  
-- Flow 2:  
Average throughput: 143.78 Mbit/s  
95th percentile per-packet one-way delay: 80.412 ms  
Loss rate: 64.22%  
-- Flow 3:  
Average throughput: 42.90 Mbit/s  
95th percentile per-packet one-way delay: 62.173 ms  
Loss rate: 39.92%

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

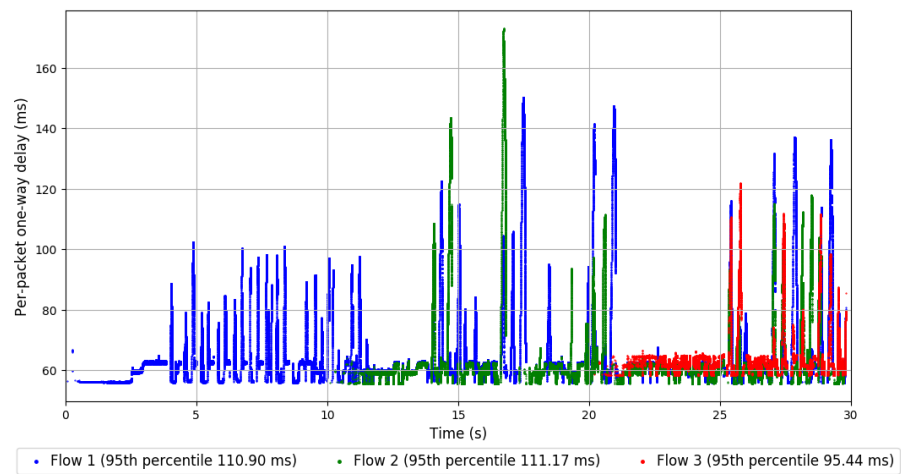
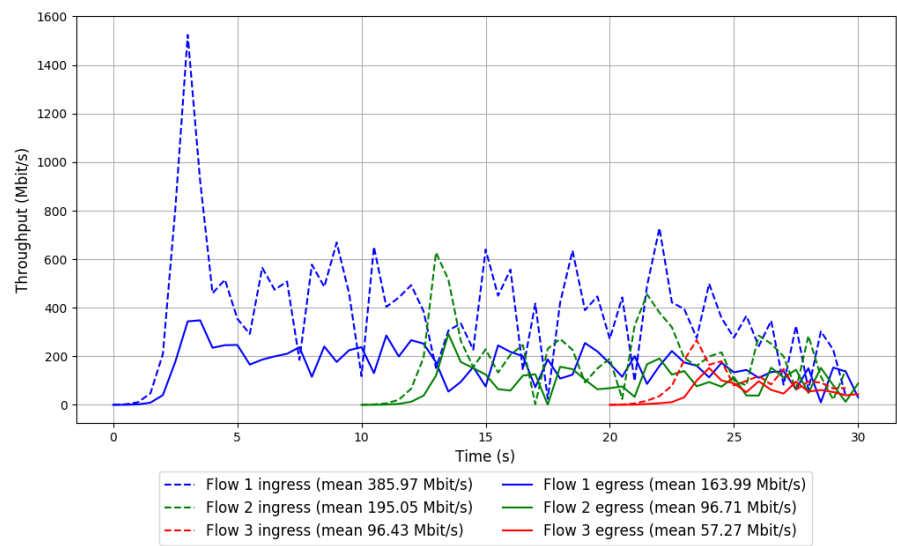


Run 3: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 08:44:23  
End at: 2019-11-24 08:44:53  
Local clock offset: -2.159 ms  
Remote clock offset: -40.985 ms

# Below is generated by plot.py at 2019-11-24 10:29:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 246.23 Mbit/s  
95th percentile per-packet one-way delay: 109.033 ms  
Loss rate: 54.87%  
-- Flow 1:  
Average throughput: 163.99 Mbit/s  
95th percentile per-packet one-way delay: 110.900 ms  
Loss rate: 57.50%  
-- Flow 2:  
Average throughput: 96.71 Mbit/s  
95th percentile per-packet one-way delay: 111.173 ms  
Loss rate: 50.41%  
-- Flow 3:  
Average throughput: 57.27 Mbit/s  
95th percentile per-packet one-way delay: 95.437 ms  
Loss rate: 40.56%

Run 3: Report of Muses\_DecisionTree — Data Link

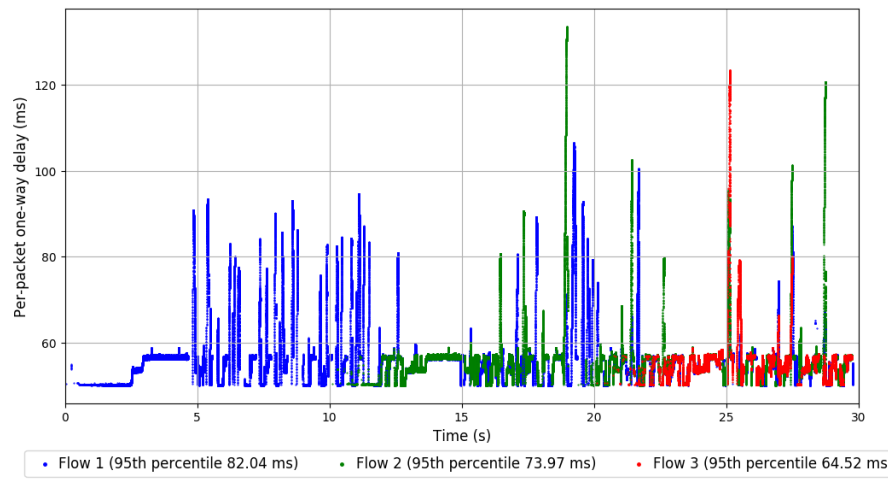
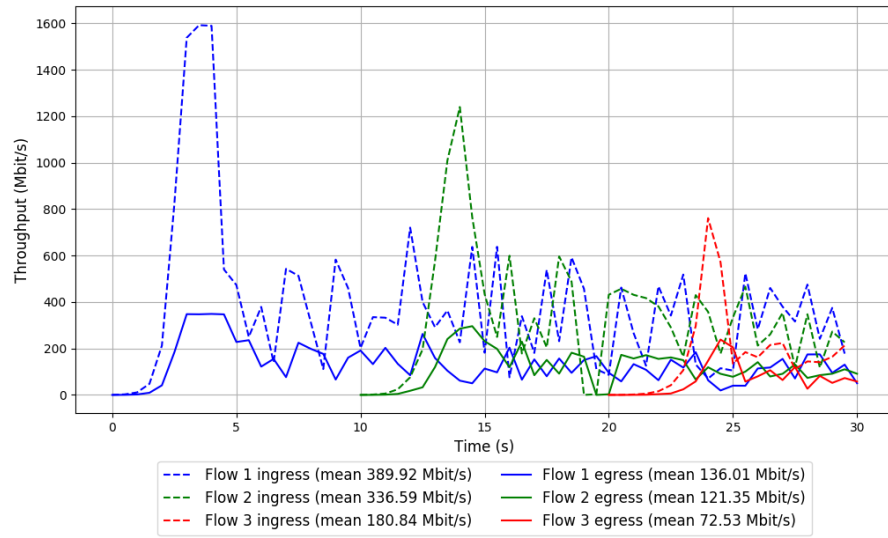


Run 4: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 09:18:16  
End at: 2019-11-24 09:18:46  
Local clock offset: 2.765 ms  
Remote clock offset: -41.796 ms

# Below is generated by plot.py at 2019-11-24 10:29:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 239.76 Mbit/s  
95th percentile per-packet one-way delay: 79.207 ms  
Loss rate: 64.26%  
-- Flow 1:  
Average throughput: 136.01 Mbit/s  
95th percentile per-packet one-way delay: 82.042 ms  
Loss rate: 65.11%  
-- Flow 2:  
Average throughput: 121.35 Mbit/s  
95th percentile per-packet one-way delay: 73.971 ms  
Loss rate: 63.94%  
-- Flow 3:  
Average throughput: 72.53 Mbit/s  
95th percentile per-packet one-way delay: 64.523 ms  
Loss rate: 59.87%

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

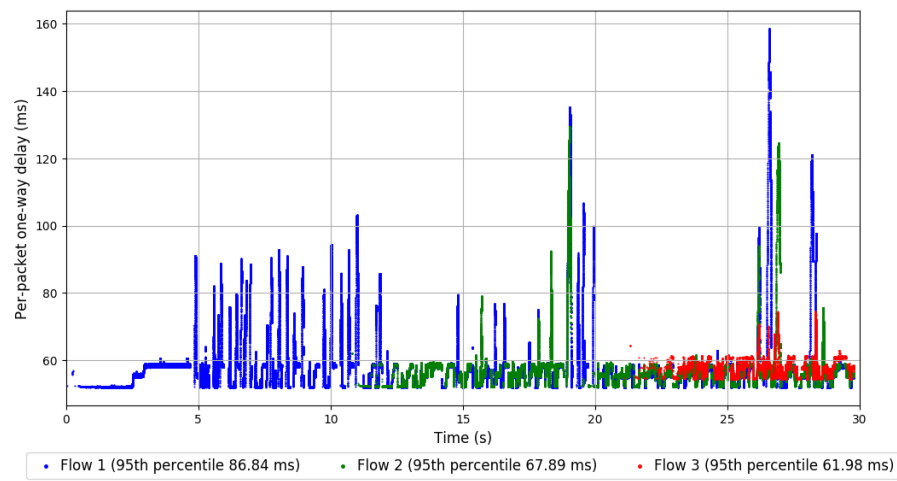
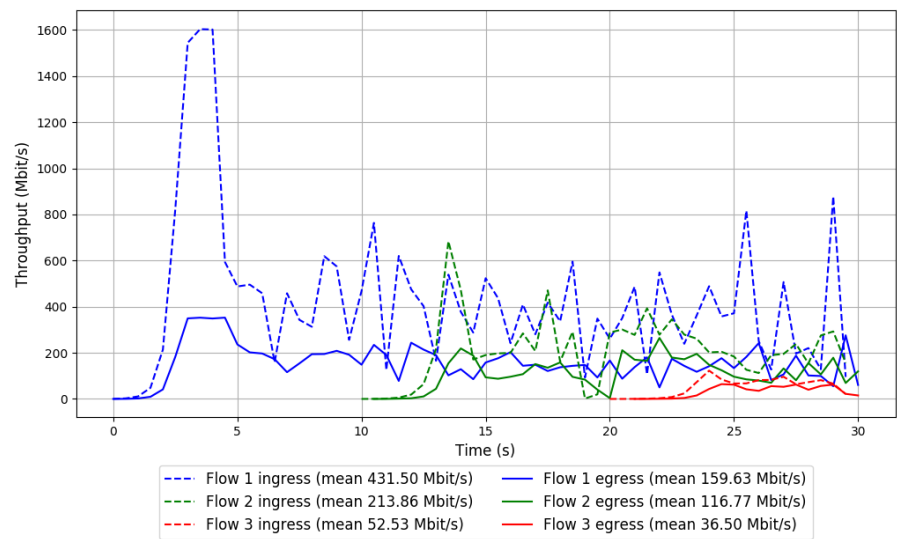


Run 5: Statistics of Muses\\_DecisionTree

Start at: 2019-11-24 09:52:12  
End at: 2019-11-24 09:52:42  
Local clock offset: 2.14 ms  
Remote clock offset: -40.645 ms

# Below is generated by plot.py at 2019-11-24 10:30:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 245.52 Mbit/s  
95th percentile per-packet one-way delay: 83.976 ms  
Loss rate: 58.38%  
-- Flow 1:  
Average throughput: 159.63 Mbit/s  
95th percentile per-packet one-way delay: 86.841 ms  
Loss rate: 63.00%  
-- Flow 2:  
Average throughput: 116.77 Mbit/s  
95th percentile per-packet one-way delay: 67.889 ms  
Loss rate: 46.78%  
-- Flow 3:  
Average throughput: 36.50 Mbit/s  
95th percentile per-packet one-way delay: 61.976 ms  
Loss rate: 37.70%

Run 5: Report of Muses\_DecisionTree — Data Link





Run 1: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-11-24 07:26:50

End at: 2019-11-24 07:27:20

Local clock offset: -1.019 ms

Remote clock offset: -41.564 ms

Run 1: Report of Muses\_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-11-24 08:00:40

End at: 2019-11-24 08:01:10

Local clock offset: 0.672 ms

Remote clock offset: -40.308 ms

Run 2: Report of Muses\_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-11-24 08:34:33

End at: 2019-11-24 08:35:03

Local clock offset: 0.949 ms

Remote clock offset: -40.529 ms

Run 3: Report of Muses\_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-11-24 09:08:25

End at: 2019-11-24 09:08:55

Local clock offset: 1.271 ms

Remote clock offset: -37.333 ms

Run 4: Report of Muses\_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing



Run 5: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-11-24 09:42:20

End at: 2019-11-24 09:42:50

Local clock offset: -3.123 ms

Remote clock offset: -43.019 ms

Run 5: Report of Muses\_DecisionTreeH0 — Data Link

Figure is missing

Figure is missing

Run 1: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-24 07:46:44

End at: 2019-11-24 07:47:14

Local clock offset: -0.355 ms

Remote clock offset: -38.041 ms

Run 1: Report of Muses\_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-24 08:20:38

End at: 2019-11-24 08:21:08

Local clock offset: 0.935 ms

Remote clock offset: -37.888 ms

Run 2: Report of Muses\_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-24 08:54:25

End at: 2019-11-24 08:54:55

Local clock offset: 1.464 ms

Remote clock offset: -40.243 ms

Run 3: Report of Muses\_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing



Run 4: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-24 09:28:24

End at: 2019-11-24 09:28:54

Local clock offset: -3.496 ms

Remote clock offset: -37.658 ms

Run 4: Report of Muses\_DecisionTreeR0 — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-11-24 10:02:17

End at: 2019-11-24 10:02:47

Local clock offset: 1.322 ms

Remote clock offset: -40.127 ms

Run 5: Report of Muses\_DecisionTreeR0 — Data Link

Figure is missing

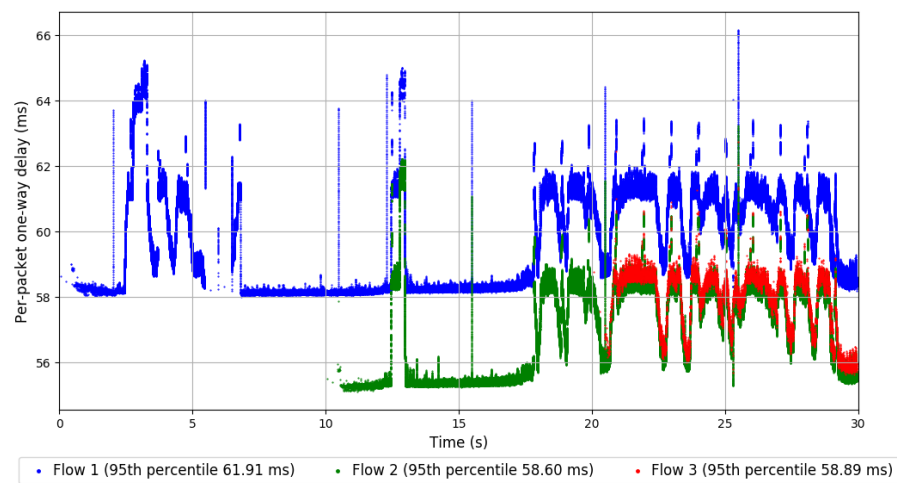
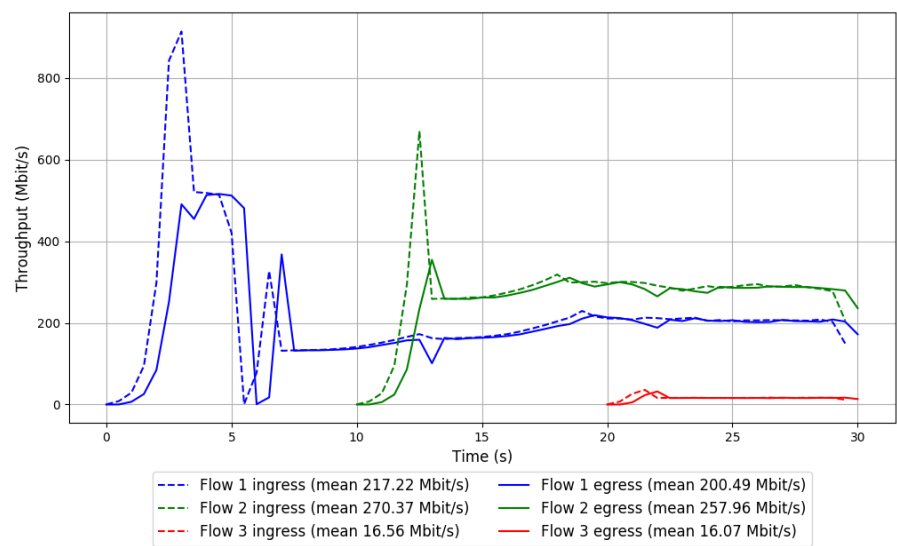
Figure is missing

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-11-24 07:45:11
End at: 2019-11-24 07:45:41
Local clock offset: 1.326 ms
Remote clock offset: -38.807 ms

# Below is generated by plot.py at 2019-11-24 10:31:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.34 Mbit/s
95th percentile per-packet one-way delay: 61.413 ms
Loss rate: 6.25%
-- Flow 1:
Average throughput: 200.49 Mbit/s
95th percentile per-packet one-way delay: 61.912 ms
Loss rate: 7.71%
-- Flow 2:
Average throughput: 257.96 Mbit/s
95th percentile per-packet one-way delay: 58.603 ms
Loss rate: 4.59%
-- Flow 3:
Average throughput: 16.07 Mbit/s
95th percentile per-packet one-way delay: 58.893 ms
Loss rate: 3.02%
```

Run 1: Report of PCC-Allegro — Data Link

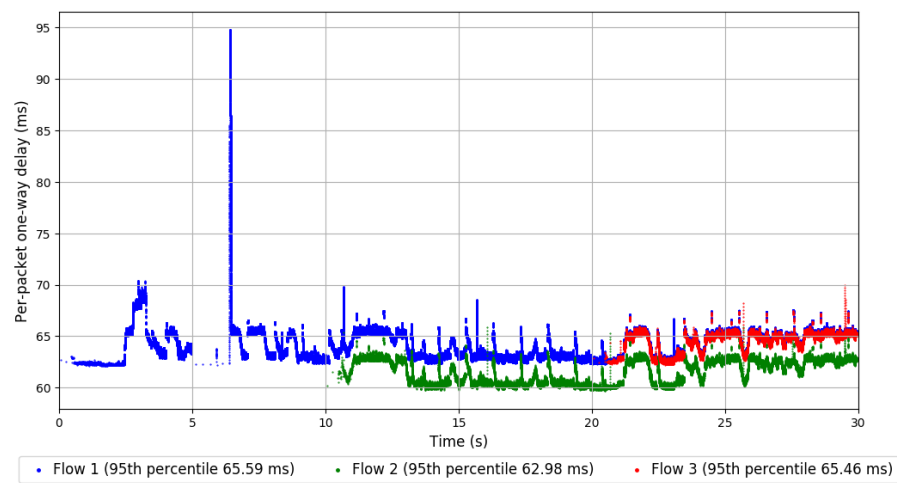
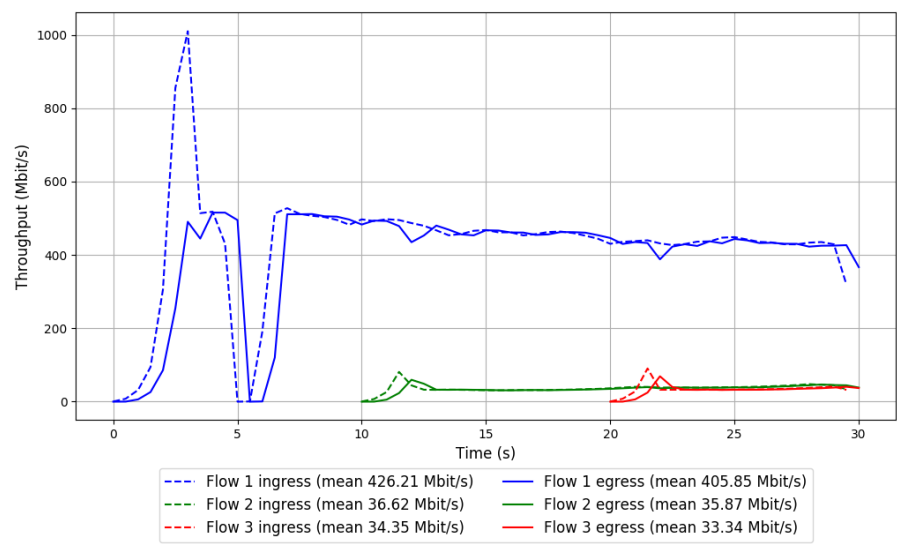


Run 2: Statistics of PCC-Allegro

Start at: 2019-11-24 08:19:04  
End at: 2019-11-24 08:19:34  
Local clock offset: -2.141 ms  
Remote clock offset: -37.637 ms

# Below is generated by plot.py at 2019-11-24 10:32:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 440.69 Mbit/s  
95th percentile per-packet one-way delay: 65.571 ms  
Loss rate: 4.59%  
-- Flow 1:  
Average throughput: 405.85 Mbit/s  
95th percentile per-packet one-way delay: 65.588 ms  
Loss rate: 4.78%  
-- Flow 2:  
Average throughput: 35.87 Mbit/s  
95th percentile per-packet one-way delay: 62.983 ms  
Loss rate: 2.03%  
-- Flow 3:  
Average throughput: 33.34 Mbit/s  
95th percentile per-packet one-way delay: 65.460 ms  
Loss rate: 2.93%

Run 2: Report of PCC-Allegro — Data Link





Run 3: Statistics of PCC-Allegro

Start at: 2019-11-24 08:52:53

End at: 2019-11-24 08:53:23

Local clock offset: 2.767 ms

Remote clock offset: -40.159 ms

# Below is generated by plot.py at 2019-11-24 10:32:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 410.67 Mbit/s

95th percentile per-packet one-way delay: 57.526 ms

Loss rate: 2.73%

-- Flow 1:

Average throughput: 357.97 Mbit/s

95th percentile per-packet one-way delay: 57.550 ms

Loss rate: 2.71%

-- Flow 2:

Average throughput: 64.28 Mbit/s

95th percentile per-packet one-way delay: 57.412 ms

Loss rate: 2.79%

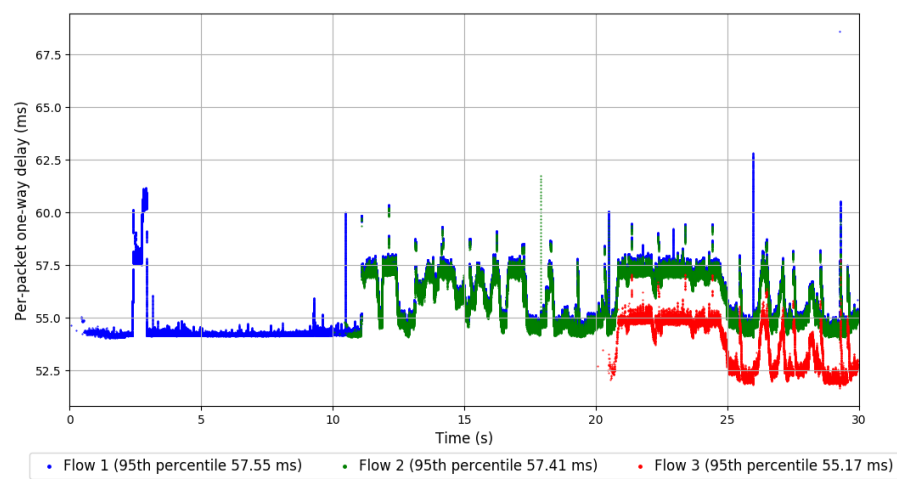
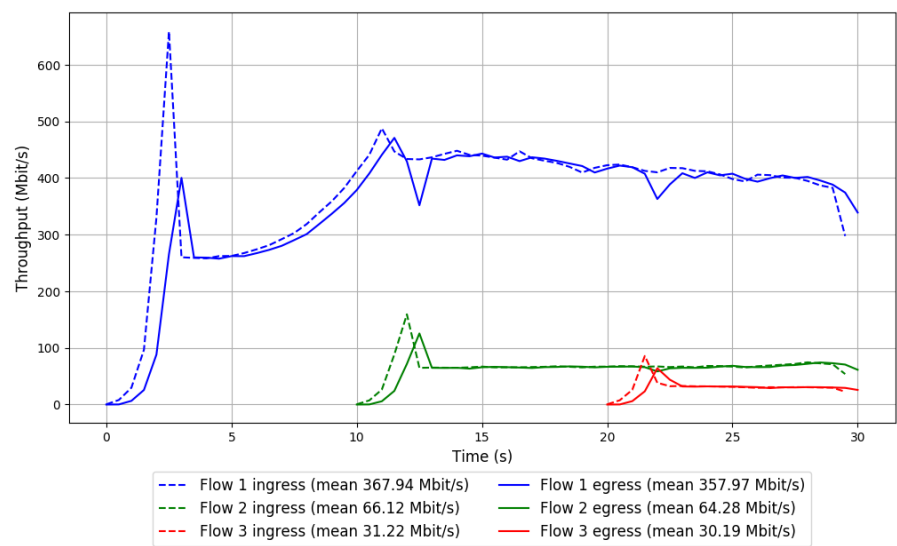
-- Flow 3:

Average throughput: 30.19 Mbit/s

95th percentile per-packet one-way delay: 55.175 ms

Loss rate: 3.29%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-11-24 09:26:50

End at: 2019-11-24 09:27:20

Local clock offset: -0.767 ms

Remote clock offset: -40.152 ms

# Below is generated by plot.py at 2019-11-24 10:34:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 450.35 Mbit/s

95th percentile per-packet one-way delay: 59.012 ms

Loss rate: 4.85%

-- Flow 1:

Average throughput: 417.39 Mbit/s

95th percentile per-packet one-way delay: 59.038 ms

Loss rate: 4.98%

-- Flow 2:

Average throughput: 34.39 Mbit/s

95th percentile per-packet one-way delay: 58.673 ms

Loss rate: 2.64%

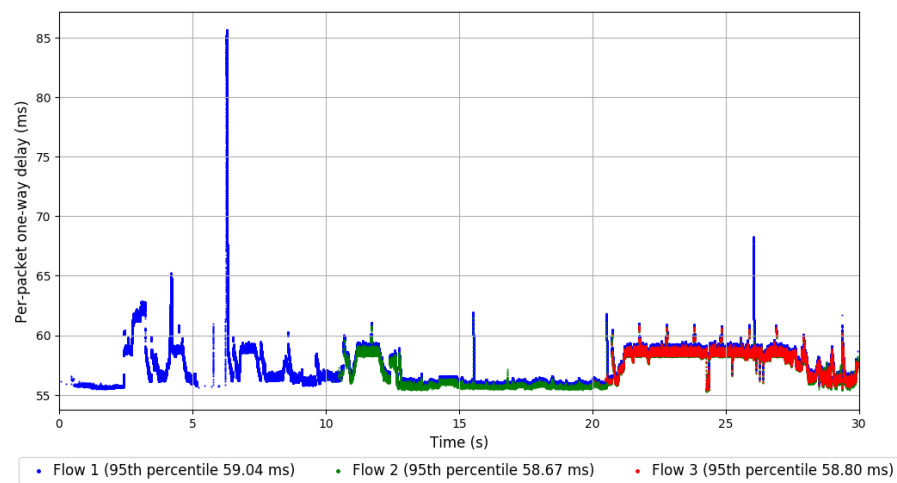
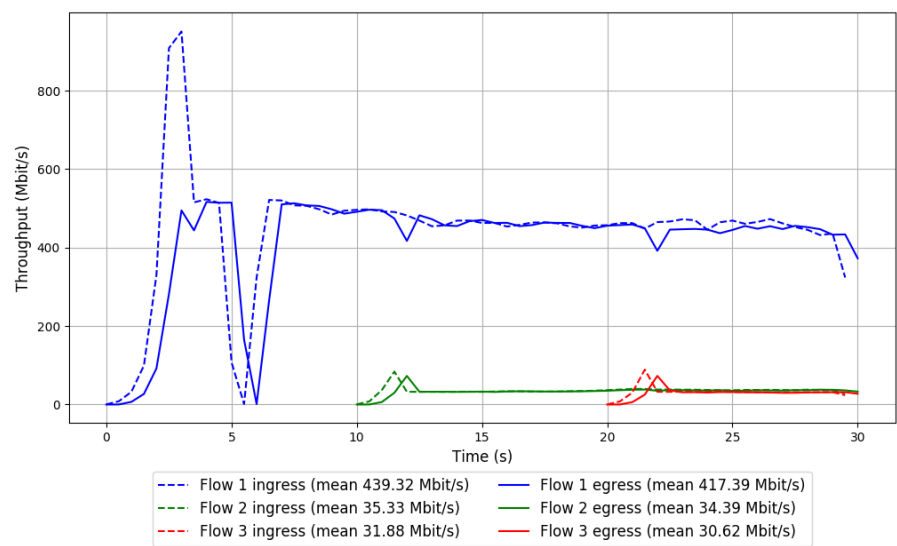
-- Flow 3:

Average throughput: 30.62 Mbit/s

95th percentile per-packet one-way delay: 58.795 ms

Loss rate: 3.93%

Run 4: Report of PCC-Allegro — Data Link

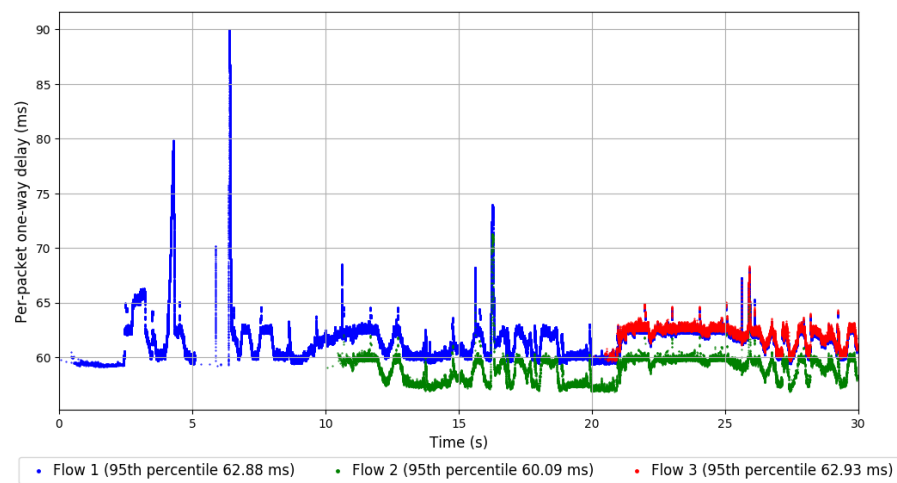
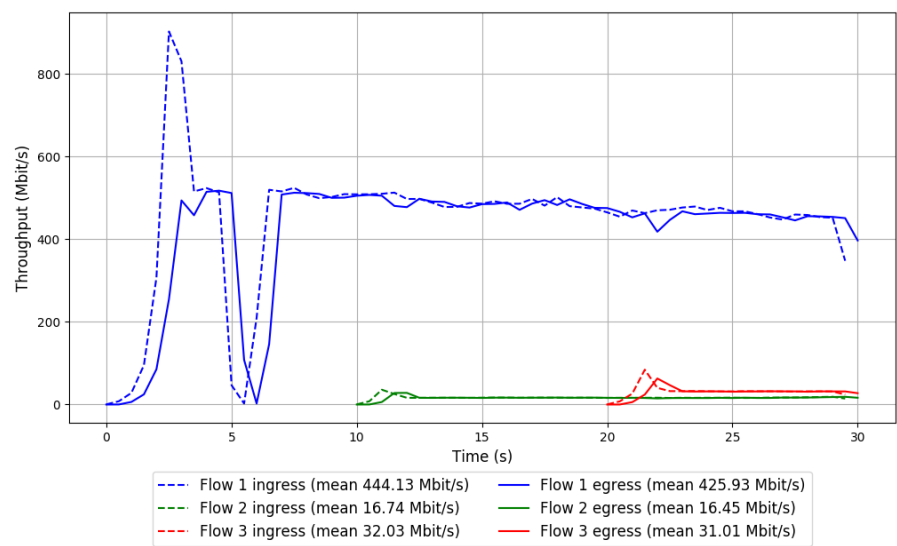


Run 5: Statistics of PCC-Allegro

Start at: 2019-11-24 10:00:44  
End at: 2019-11-24 10:01:14  
Local clock offset: -2.005 ms  
Remote clock offset: -40.241 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 447.09 Mbit/s  
95th percentile per-packet one-way delay: 62.864 ms  
Loss rate: 4.02%  
-- Flow 1:  
Average throughput: 425.93 Mbit/s  
95th percentile per-packet one-way delay: 62.877 ms  
Loss rate: 4.10%  
-- Flow 2:  
Average throughput: 16.45 Mbit/s  
95th percentile per-packet one-way delay: 60.088 ms  
Loss rate: 1.74%  
-- Flow 3:  
Average throughput: 31.01 Mbit/s  
95th percentile per-packet one-way delay: 62.927 ms  
Loss rate: 3.20%

Run 5: Report of PCC-Allegro — Data Link

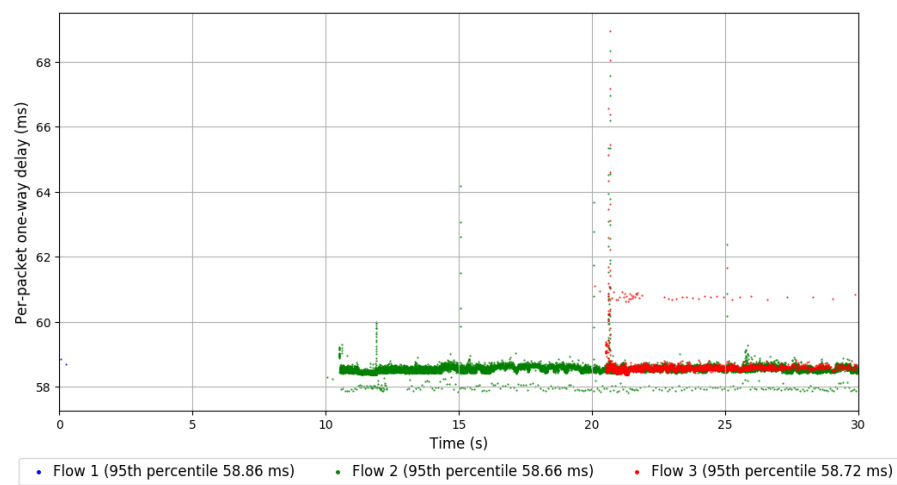
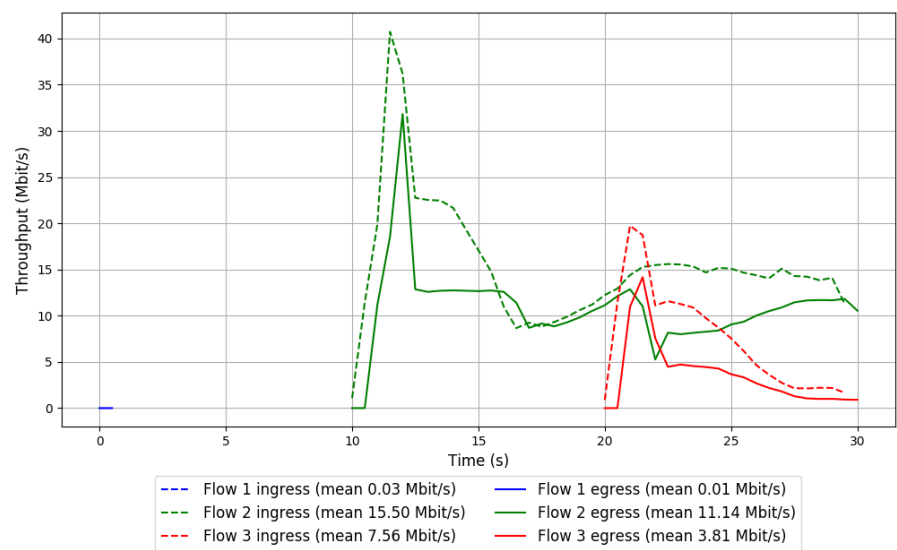


```
Run 1: Statistics of PCC-Expr

Start at: 2019-11-24 07:19:42
End at: 2019-11-24 07:20:12
Local clock offset: -3.439 ms
Remote clock offset: -41.544 ms

# Below is generated by plot.py at 2019-11-24 10:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 58.670 ms
Loss rate: 32.34%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 58.861 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 11.14 Mbit/s
95th percentile per-packet one-way delay: 58.665 ms
Loss rate: 28.14%
-- Flow 3:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 58.722 ms
Loss rate: 49.67%
```

Run 1: Report of PCC-Expr — Data Link



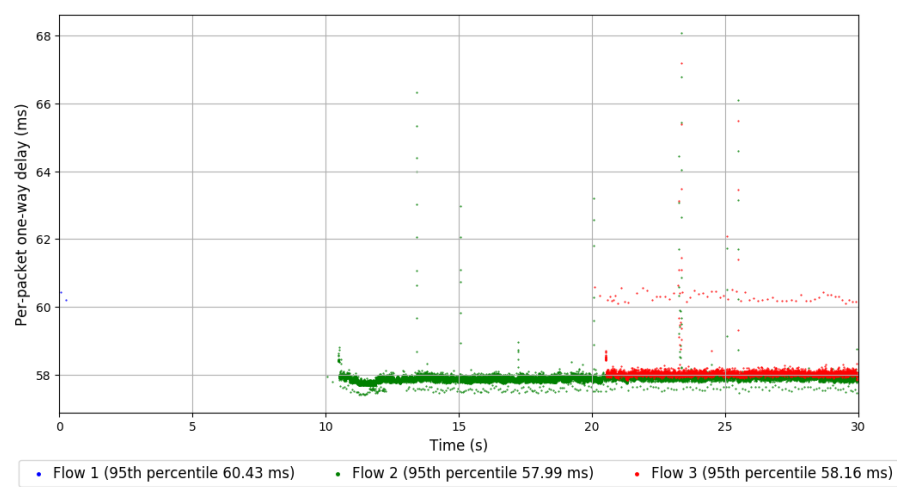
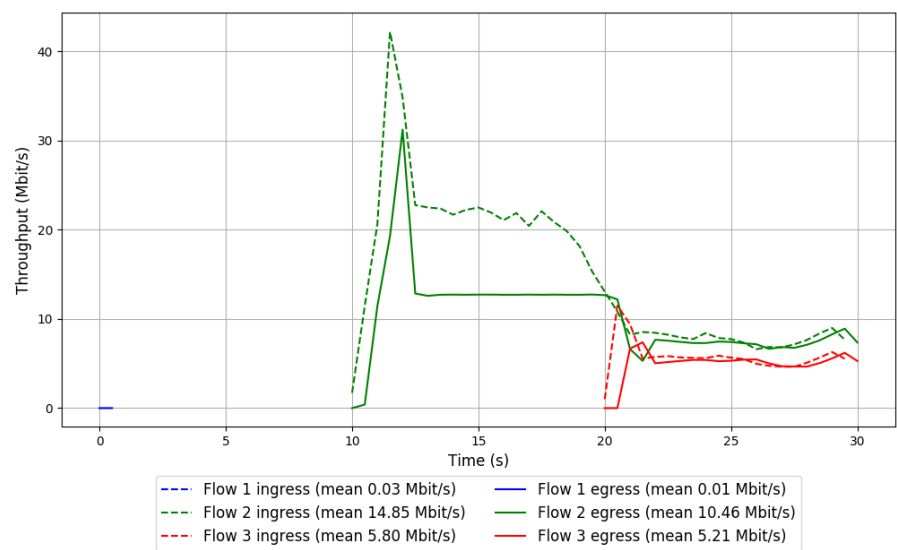


Run 2: Statistics of PCC-Expr

Start at: 2019-11-24 07:53:38  
End at: 2019-11-24 07:54:08  
Local clock offset: -0.049 ms  
Remote clock offset: -38.06 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.68 Mbit/s  
95th percentile per-packet one-way delay: 58.081 ms  
Loss rate: 26.44%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 60.429 ms  
Loss rate: 85.71%  
-- Flow 2:  
Average throughput: 10.46 Mbit/s  
95th percentile per-packet one-way delay: 57.991 ms  
Loss rate: 29.59%  
-- Flow 3:  
Average throughput: 5.21 Mbit/s  
95th percentile per-packet one-way delay: 58.156 ms  
Loss rate: 10.15%

Run 2: Report of PCC-Expr — Data Link

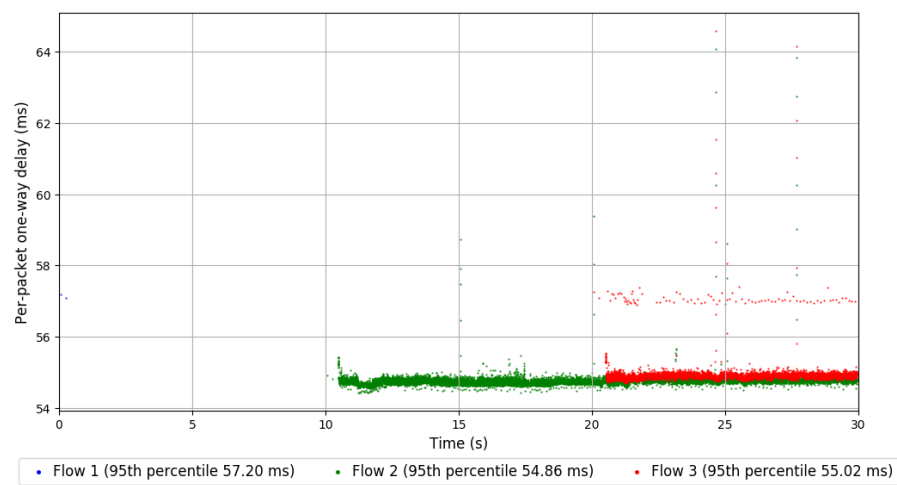
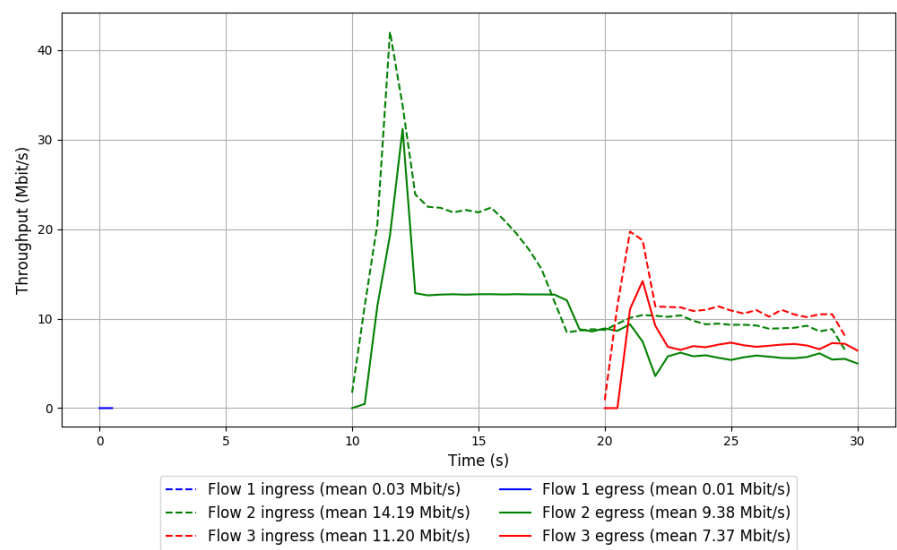


Run 3: Statistics of PCC-Expr

Start at: 2019-11-24 08:27:29  
End at: 2019-11-24 08:27:59  
Local clock offset: 2.381 ms  
Remote clock offset: -38.389 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.68 Mbit/s  
95th percentile per-packet one-way delay: 54.966 ms  
Loss rate: 33.96%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 57.195 ms  
Loss rate: 85.71%  
-- Flow 2:  
Average throughput: 9.38 Mbit/s  
95th percentile per-packet one-way delay: 54.861 ms  
Loss rate: 33.86%  
-- Flow 3:  
Average throughput: 7.37 Mbit/s  
95th percentile per-packet one-way delay: 55.022 ms  
Loss rate: 34.21%

Run 3: Report of PCC-Expr — Data Link

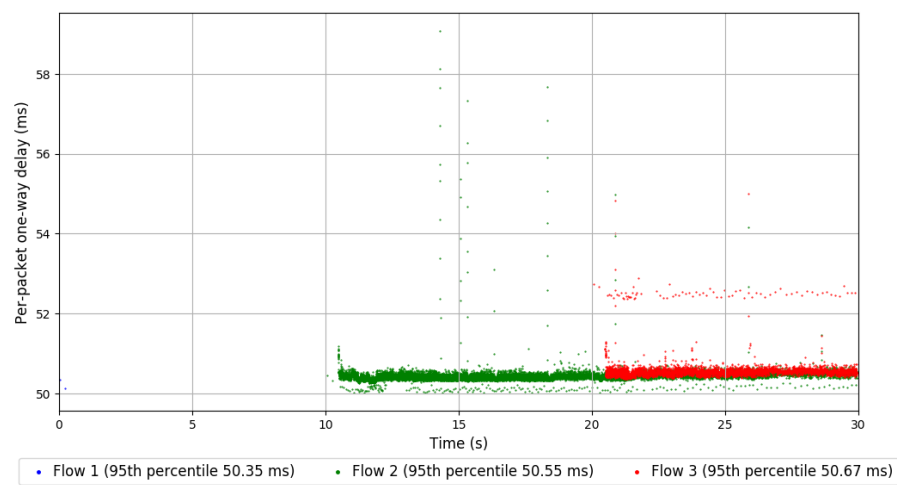
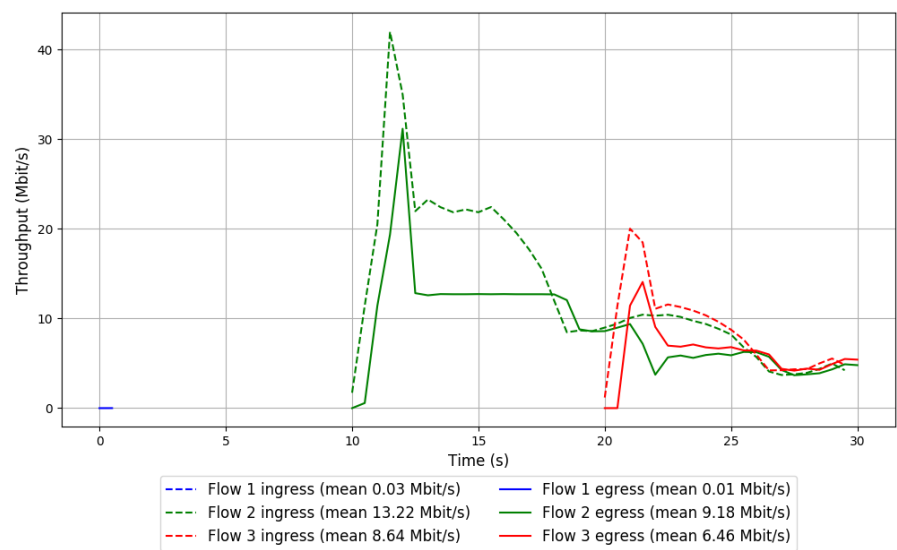


Run 4: Statistics of PCC-Expr

Start at: 2019-11-24 09:01:20  
End at: 2019-11-24 09:01:50  
Local clock offset: 2.056 ms  
Remote clock offset: -42.498 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.24 Mbit/s  
95th percentile per-packet one-way delay: 50.606 ms  
Loss rate: 29.23%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 50.354 ms  
Loss rate: 85.71%  
-- Flow 2:  
Average throughput: 9.18 Mbit/s  
95th percentile per-packet one-way delay: 50.554 ms  
Loss rate: 30.53%  
-- Flow 3:  
Average throughput: 6.46 Mbit/s  
95th percentile per-packet one-way delay: 50.674 ms  
Loss rate: 25.22%

Run 4: Report of PCC-Expr — Data Link

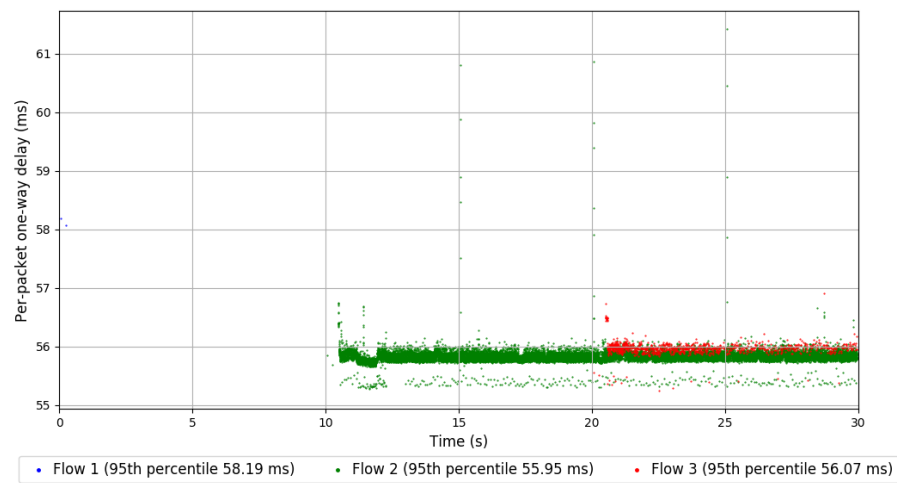
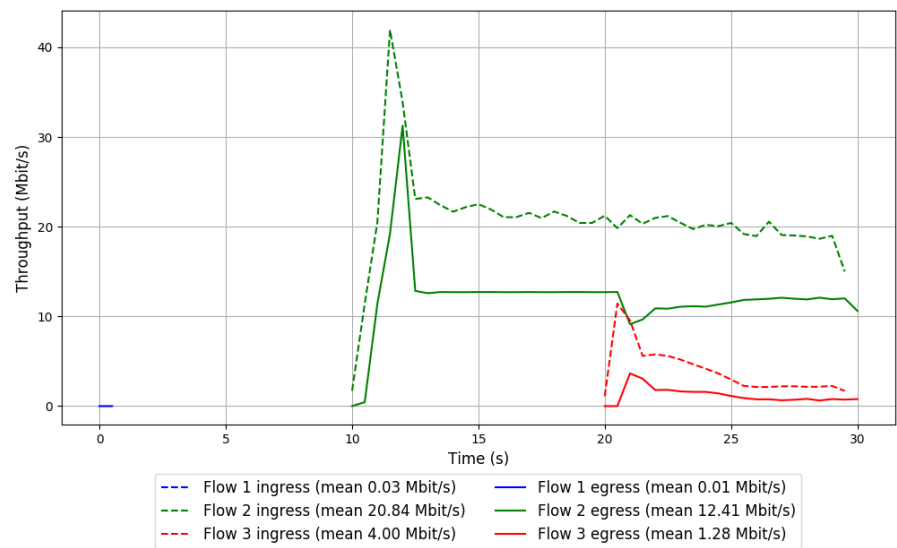


Run 5: Statistics of PCC-Expr

Start at: 2019-11-24 09:35:19  
End at: 2019-11-24 09:35:49  
Local clock offset: -1.065 ms  
Remote clock offset: -40.541 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.68 Mbit/s  
95th percentile per-packet one-way delay: 55.974 ms  
Loss rate: 42.86%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 58.192 ms  
Loss rate: 85.71%  
-- Flow 2:  
Average throughput: 12.41 Mbit/s  
95th percentile per-packet one-way delay: 55.946 ms  
Loss rate: 40.46%  
-- Flow 3:  
Average throughput: 1.28 Mbit/s  
95th percentile per-packet one-way delay: 56.073 ms  
Loss rate: 68.02%

Run 5: Report of PCC-Expr — Data Link



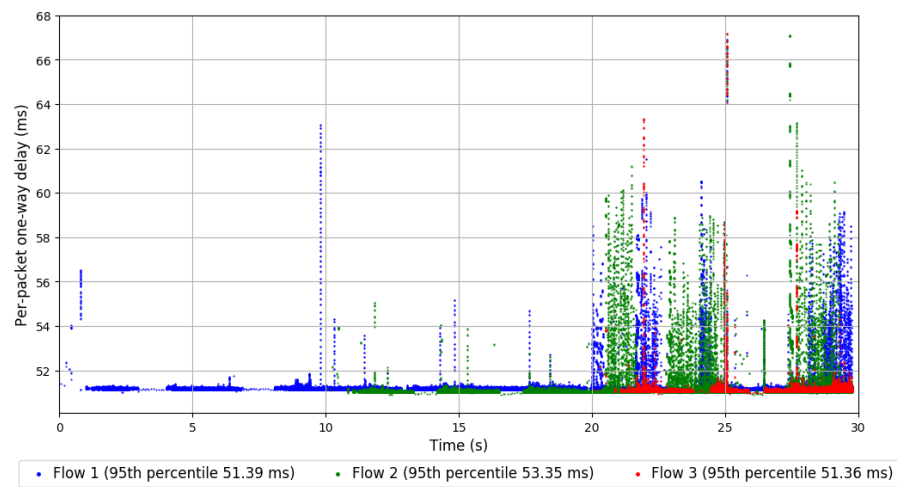
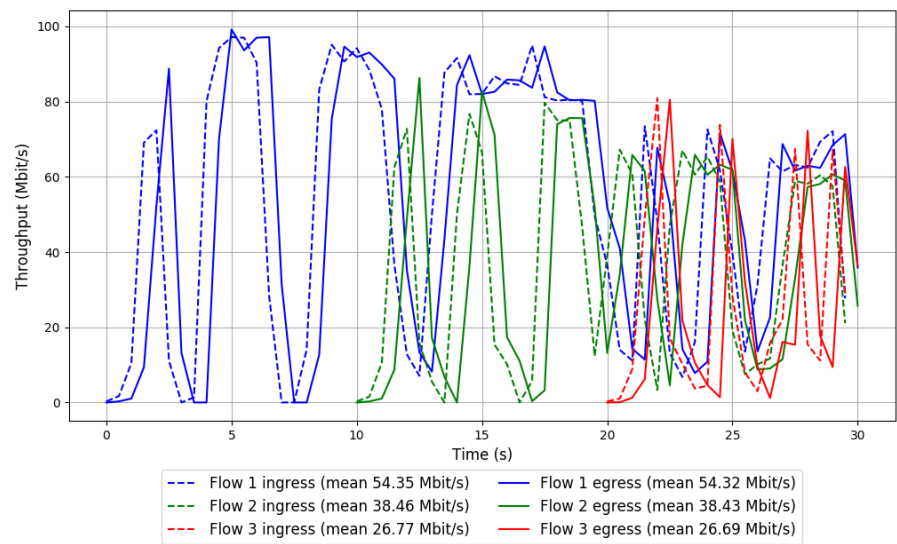


Run 1: Statistics of QUIC Cubic

Start at: 2019-11-24 07:29:37  
End at: 2019-11-24 07:30:07  
Local clock offset: 2.888 ms  
Remote clock offset: -42.094 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.48 Mbit/s  
95th percentile per-packet one-way delay: 51.842 ms  
Loss rate: 0.08%  
-- Flow 1:  
Average throughput: 54.32 Mbit/s  
95th percentile per-packet one-way delay: 51.390 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 38.43 Mbit/s  
95th percentile per-packet one-way delay: 53.352 ms  
Loss rate: 0.09%  
-- Flow 3:  
Average throughput: 26.69 Mbit/s  
95th percentile per-packet one-way delay: 51.363 ms  
Loss rate: 0.28%

Run 1: Report of QUIC Cubic — Data Link

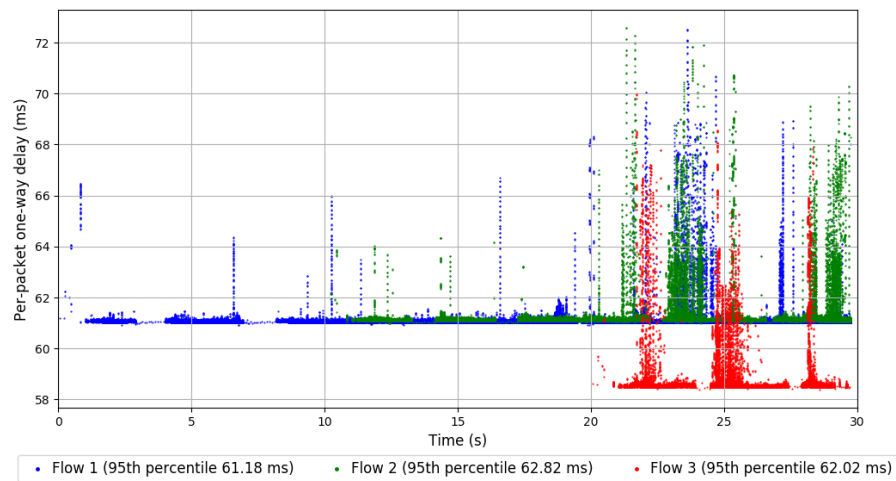
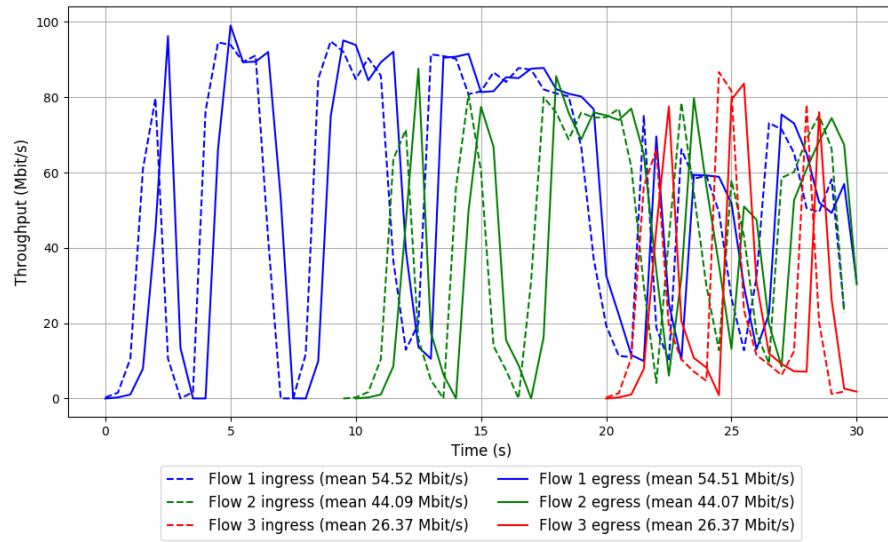


Run 2: Statistics of QUIC Cubic

Start at: 2019-11-24 08:03:28  
End at: 2019-11-24 08:03:58  
Local clock offset: -3.441 ms  
Remote clock offset: -40.351 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.33 Mbit/s  
95th percentile per-packet one-way delay: 61.418 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 54.51 Mbit/s  
95th percentile per-packet one-way delay: 61.181 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 44.07 Mbit/s  
95th percentile per-packet one-way delay: 62.822 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 26.37 Mbit/s  
95th percentile per-packet one-way delay: 62.020 ms  
Loss rate: 0.00%

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

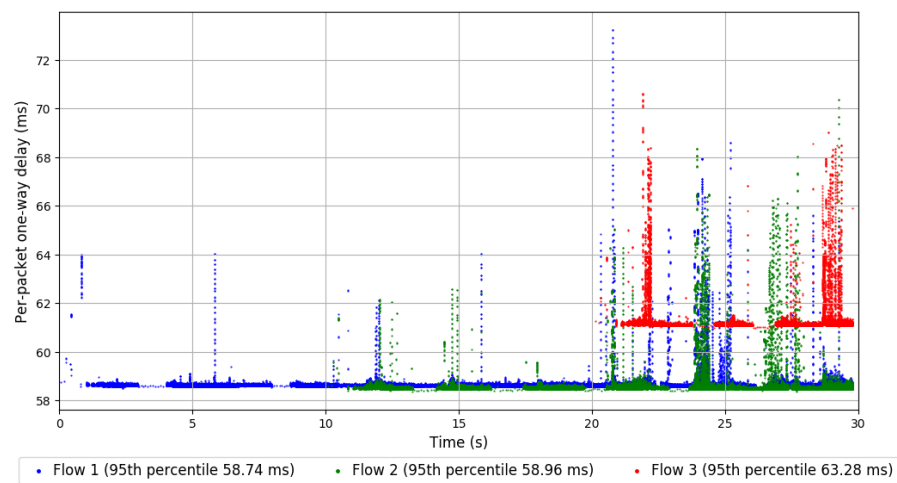
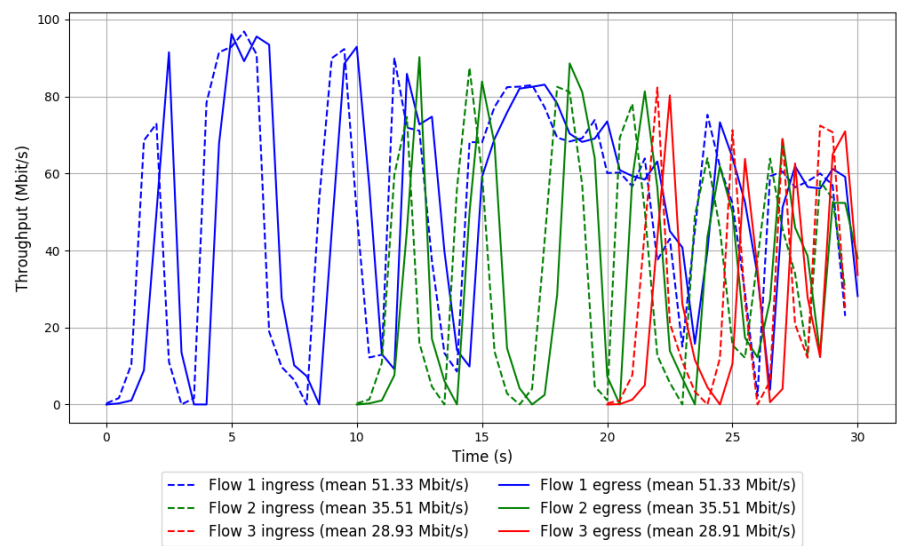


Run 3: Statistics of QUIC Cubic

Start at: 2019-11-24 08:37:21  
End at: 2019-11-24 08:37:51  
Local clock offset: -3.261 ms  
Remote clock offset: -39.665 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.24 Mbit/s  
95th percentile per-packet one-way delay: 61.194 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 51.33 Mbit/s  
95th percentile per-packet one-way delay: 58.742 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 35.51 Mbit/s  
95th percentile per-packet one-way delay: 58.956 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 28.91 Mbit/s  
95th percentile per-packet one-way delay: 63.280 ms  
Loss rate: 0.04%

Run 3: Report of QUIC Cubic — Data Link

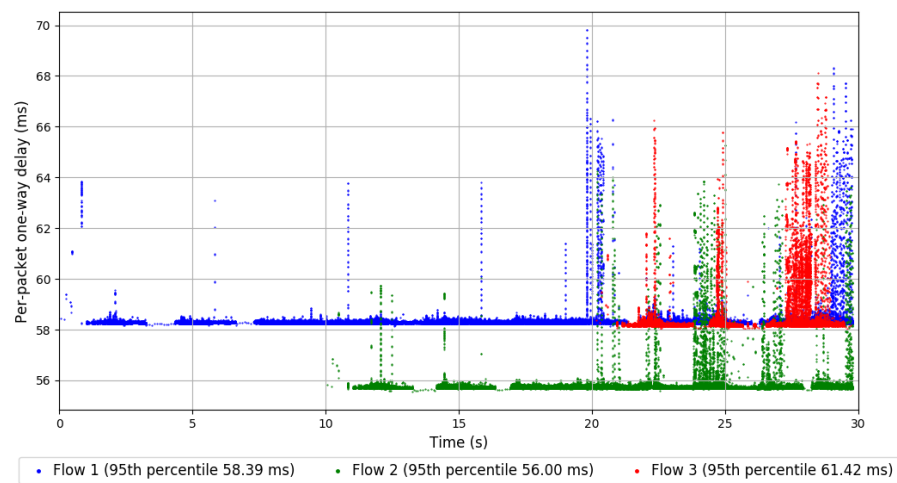
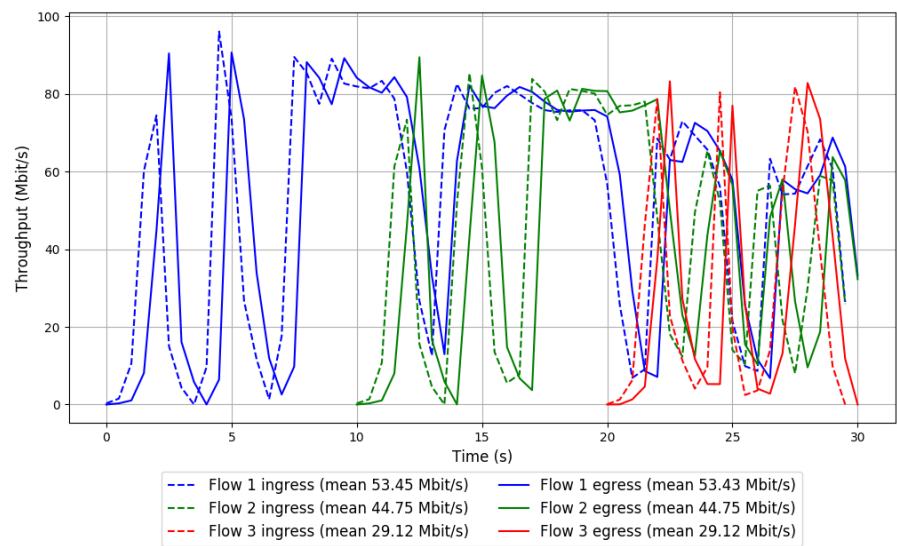


Run 4: Statistics of QUIC Cubic

Start at: 2019-11-24 09:11:13  
End at: 2019-11-24 09:11:43  
Local clock offset: 0.799 ms  
Remote clock offset: -38.232 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.45 Mbit/s  
95th percentile per-packet one-way delay: 58.413 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 53.43 Mbit/s  
95th percentile per-packet one-way delay: 58.393 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 44.75 Mbit/s  
95th percentile per-packet one-way delay: 55.998 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 29.12 Mbit/s  
95th percentile per-packet one-way delay: 61.424 ms  
Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



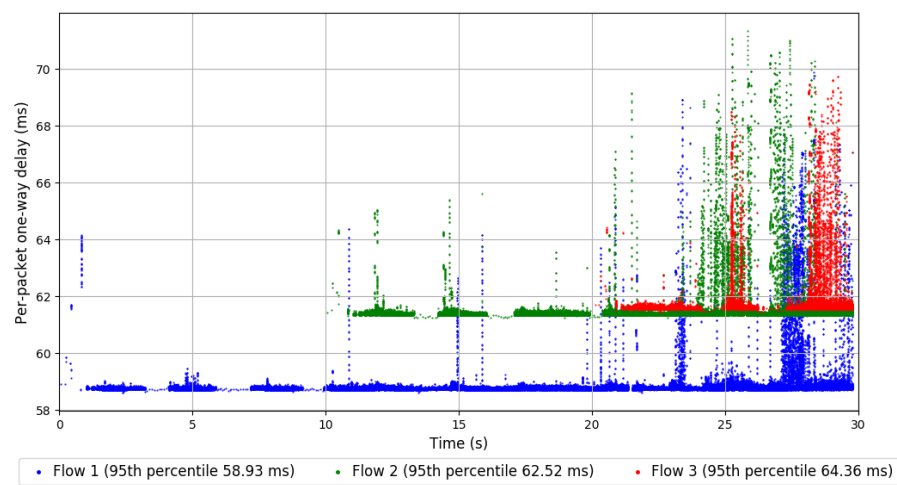
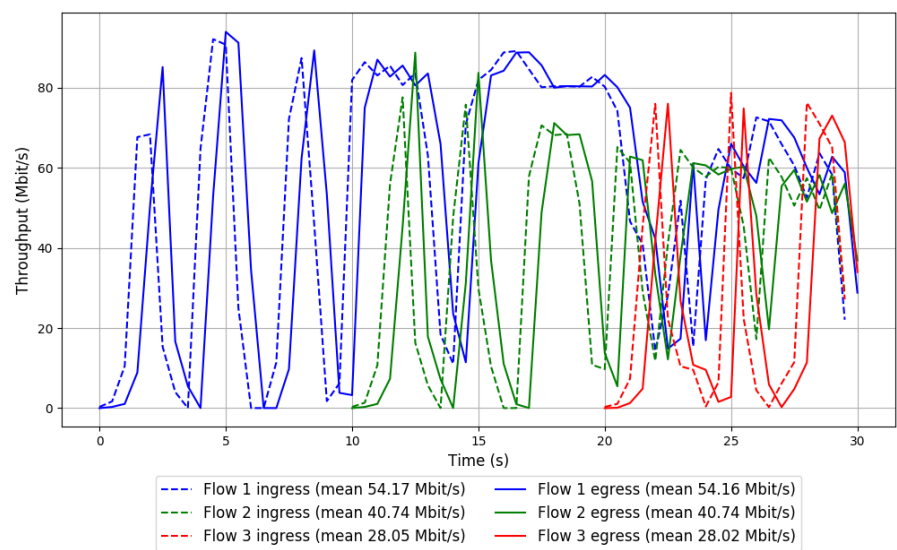


Run 5: Statistics of QUIC Cubic

Start at: 2019-11-24 09:45:09  
End at: 2019-11-24 09:45:39  
Local clock offset: -1.763 ms  
Remote clock offset: -37.848 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.29 Mbit/s  
95th percentile per-packet one-way delay: 61.741 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 54.16 Mbit/s  
95th percentile per-packet one-way delay: 58.927 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 40.74 Mbit/s  
95th percentile per-packet one-way delay: 62.523 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 28.02 Mbit/s  
95th percentile per-packet one-way delay: 64.365 ms  
Loss rate: 0.06%

Run 5: Report of QUIC Cubic — Data Link

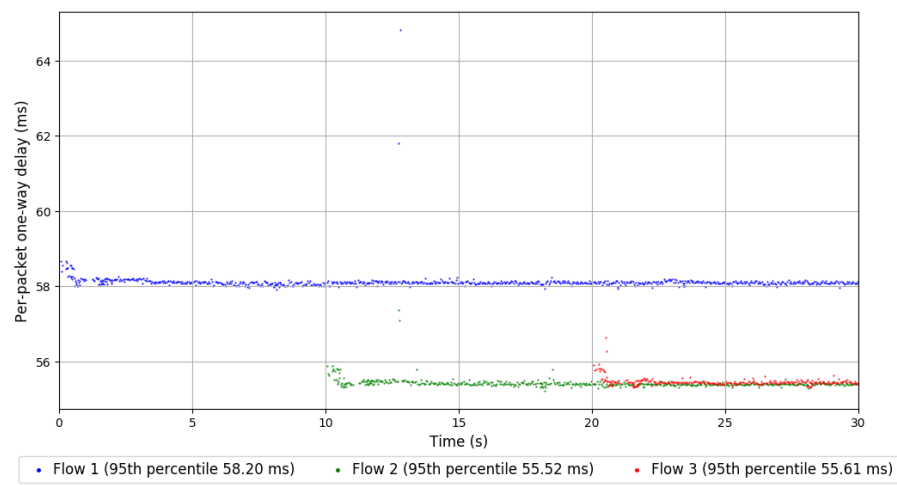
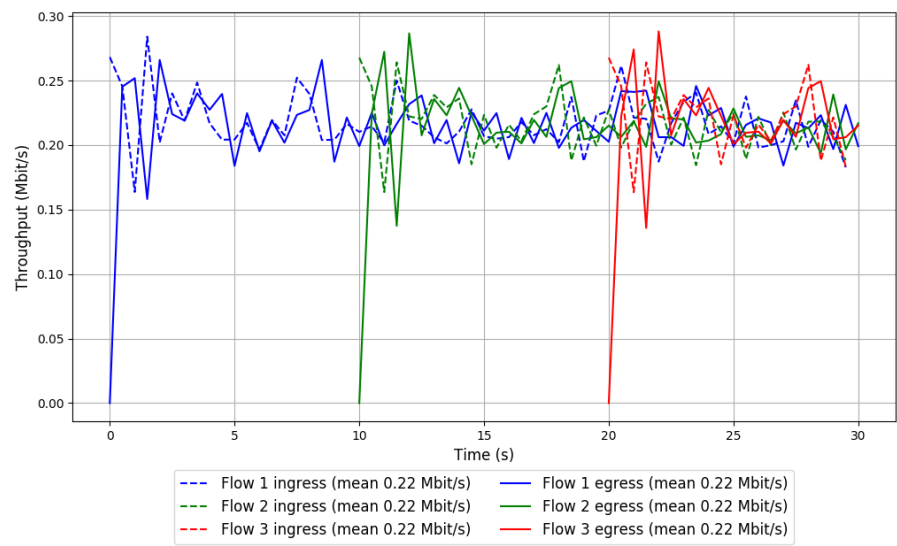


Run 1: Statistics of SReAM

Start at: 2019-11-24 07:39:49  
End at: 2019-11-24 07:40:19  
Local clock offset: 1.898 ms  
Remote clock offset: -38.395 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 58.165 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 58.201 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 55.523 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 55.606 ms  
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

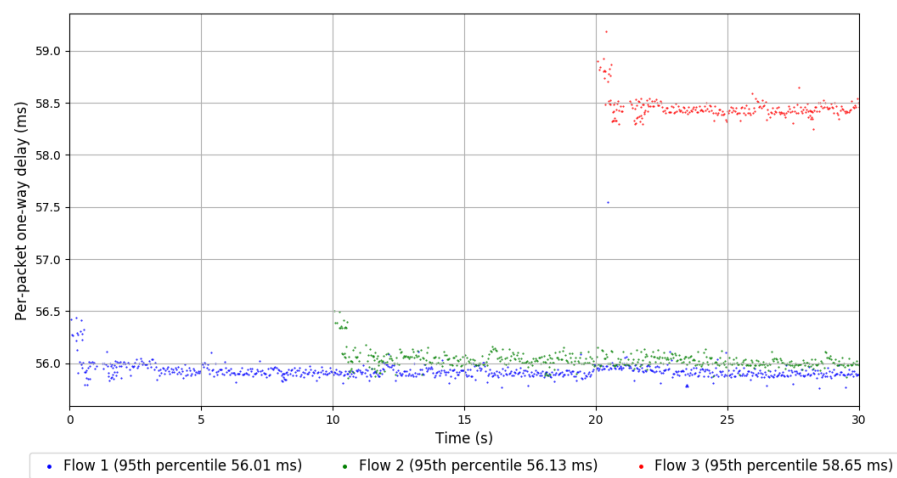
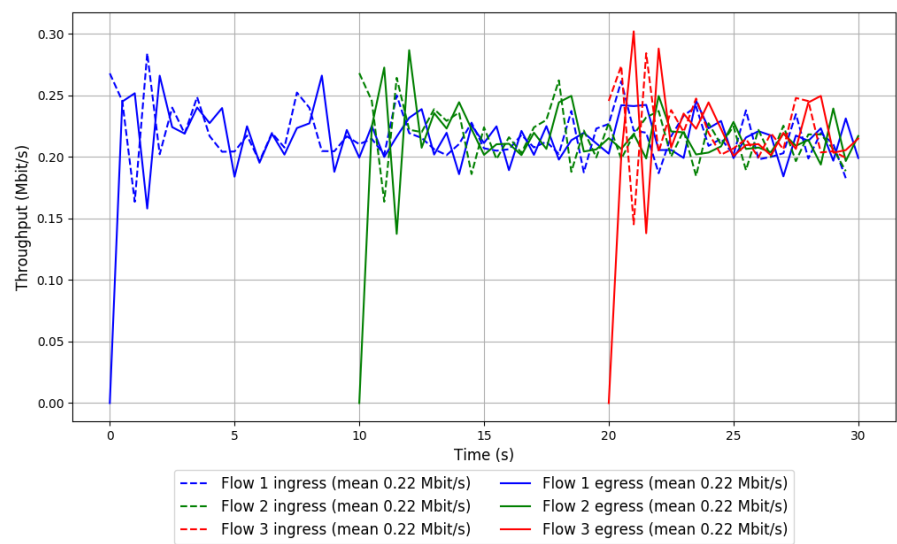


Run 2: Statistics of SReAM

Start at: 2019-11-24 08:13:40  
End at: 2019-11-24 08:14:10  
Local clock offset: 0.991 ms  
Remote clock offset: -38.389 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 58.465 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 56.011 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 56.134 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 58.645 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

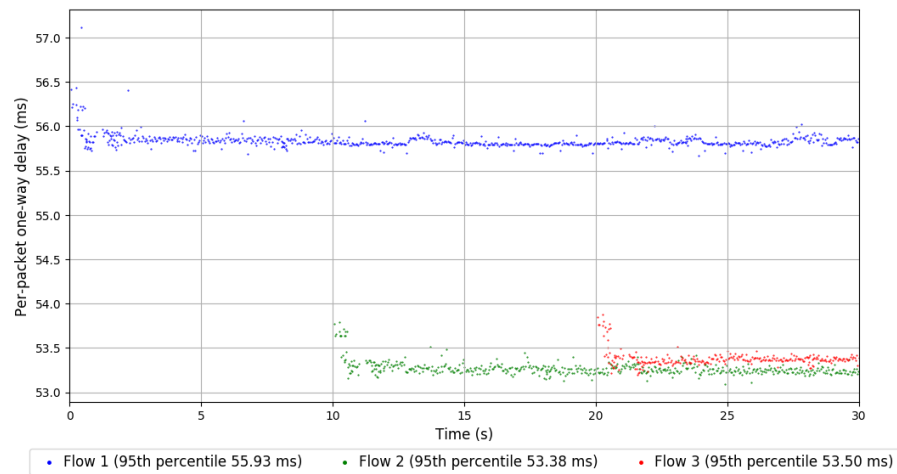
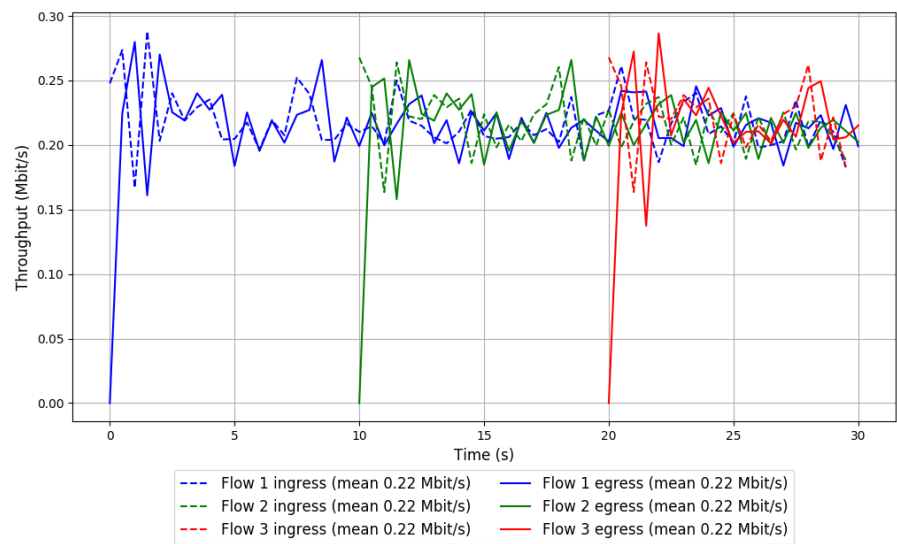


Run 3: Statistics of SReAM

Start at: 2019-11-24 08:47:29  
End at: 2019-11-24 08:47:59  
Local clock offset: 1.678 ms  
Remote clock offset: -39.853 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 55.891 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 55.927 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 53.381 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 53.503 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



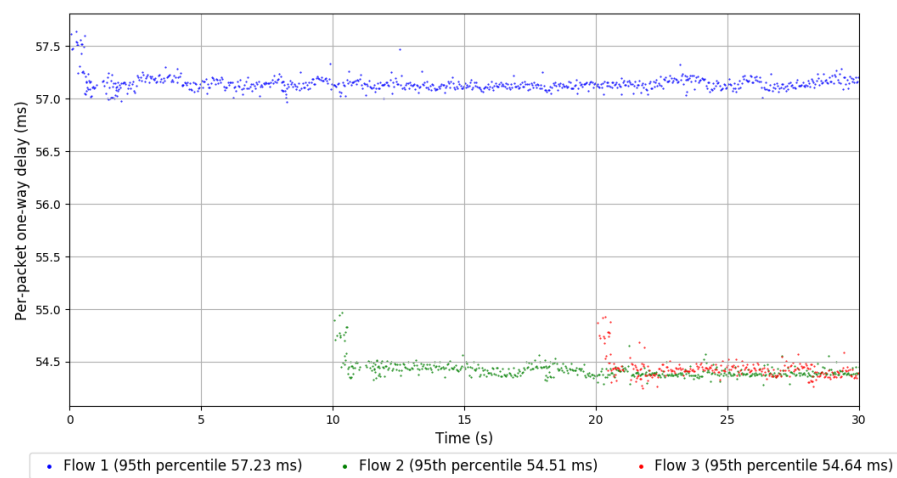
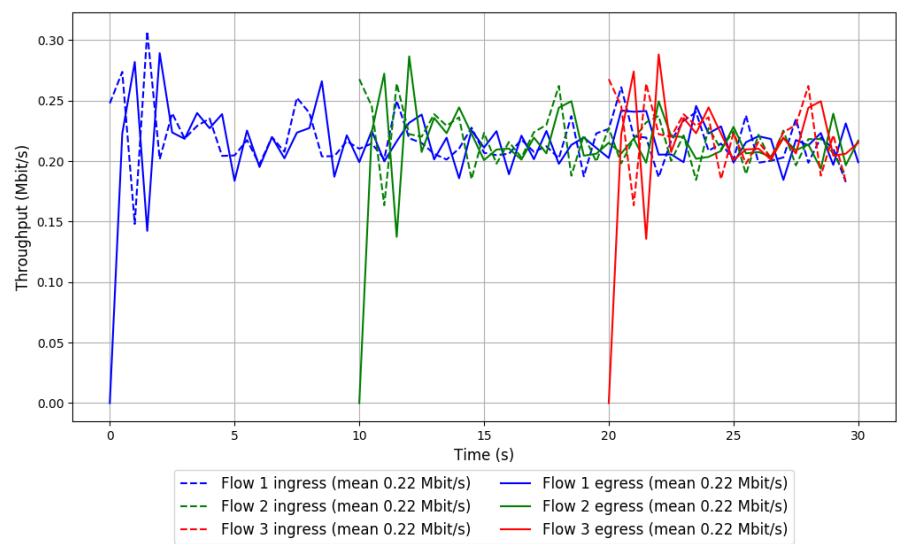


Run 4: Statistics of SReAM

Start at: 2019-11-24 09:21:27  
End at: 2019-11-24 09:21:57  
Local clock offset: 0.633 ms  
Remote clock offset: -39.706 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 57.205 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 57.231 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 54.513 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 54.637 ms  
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

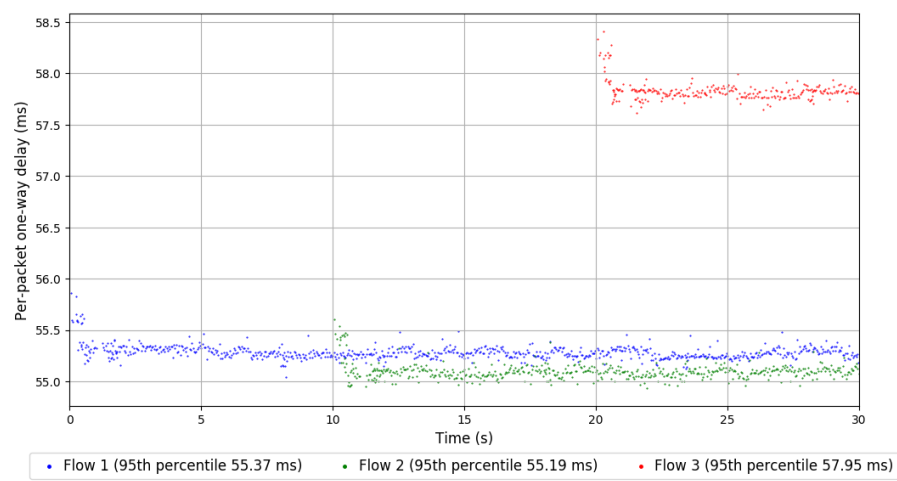
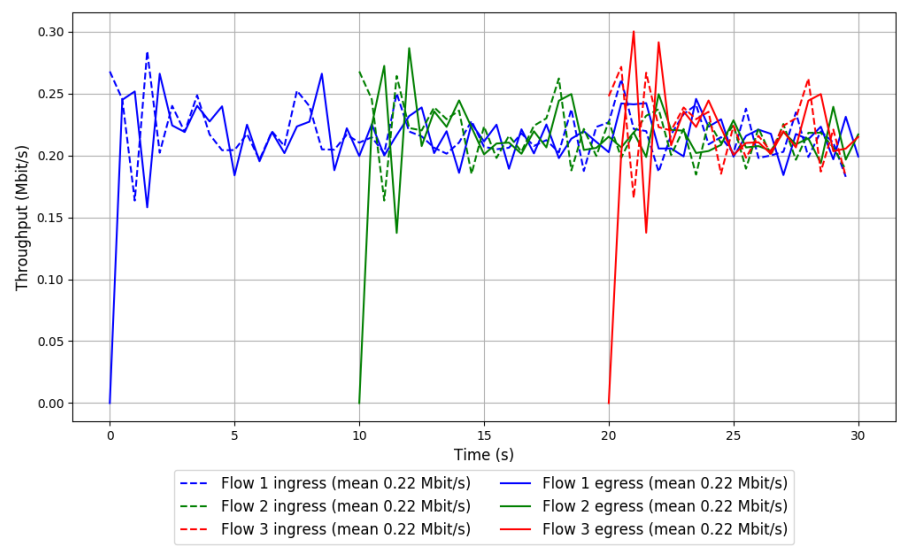


Run 5: Statistics of SReAM

Start at: 2019-11-24 09:55:20  
End at: 2019-11-24 09:55:50  
Local clock offset: 1.701 ms  
Remote clock offset: -38.131 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 57.840 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 55.373 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 55.190 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 57.951 ms  
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

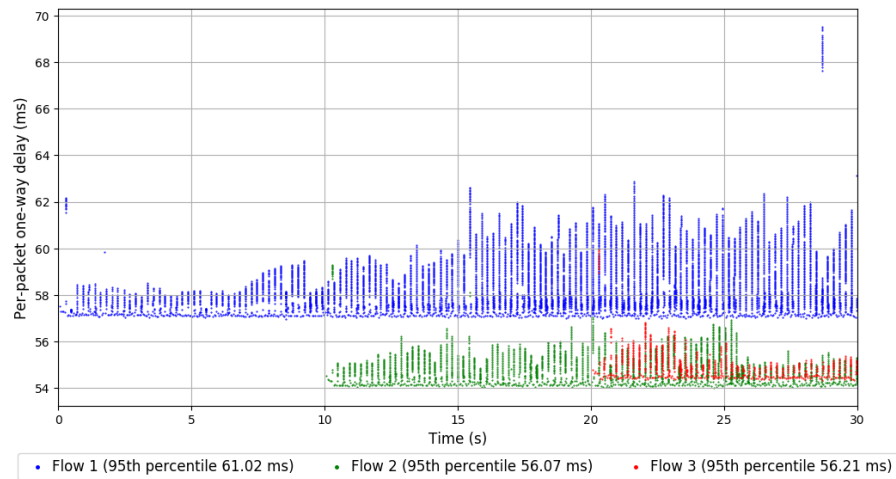
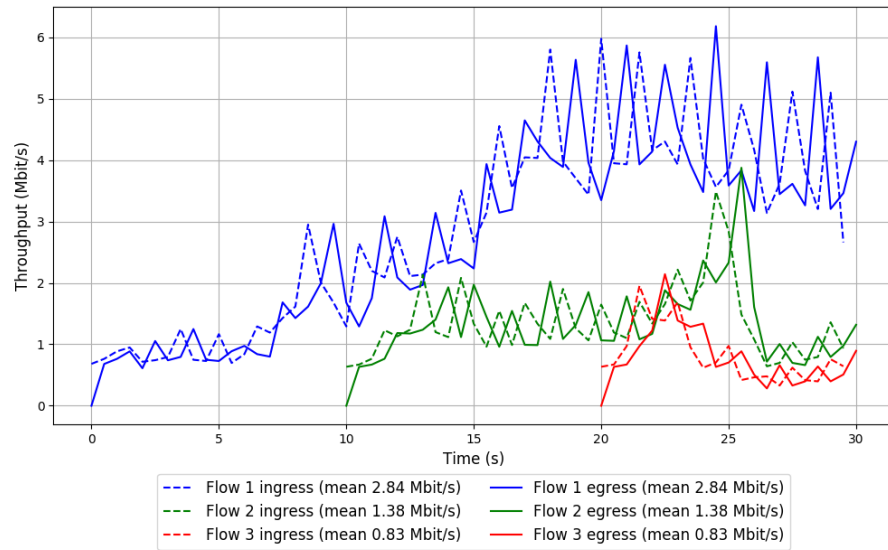


Run 1: Statistics of Sprout

Start at: 2019-11-24 07:48:00  
End at: 2019-11-24 07:48:30  
Local clock offset: -2.116 ms  
Remote clock offset: -43.142 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.04 Mbit/s  
95th percentile per-packet one-way delay: 60.771 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 2.84 Mbit/s  
95th percentile per-packet one-way delay: 61.024 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.38 Mbit/s  
95th percentile per-packet one-way delay: 56.068 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.83 Mbit/s  
95th percentile per-packet one-way delay: 56.206 ms  
Loss rate: 0.00%

## Run 1: Report of Sprout — Data Link

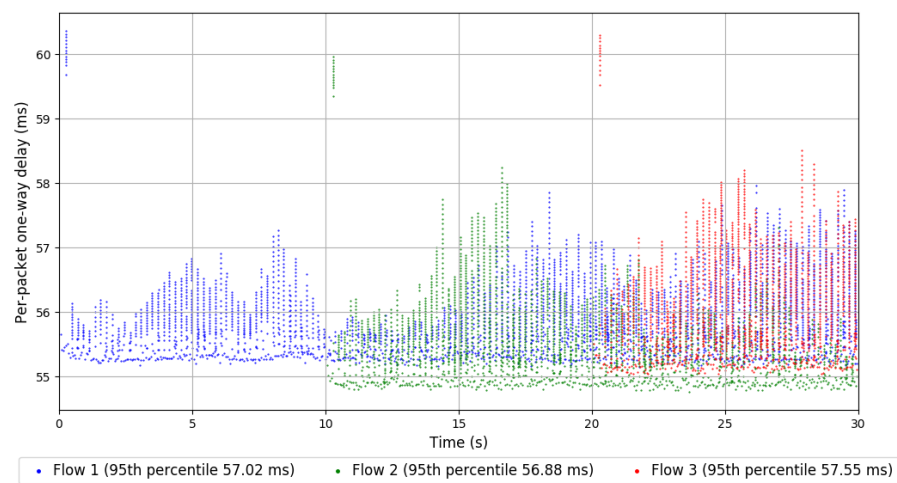
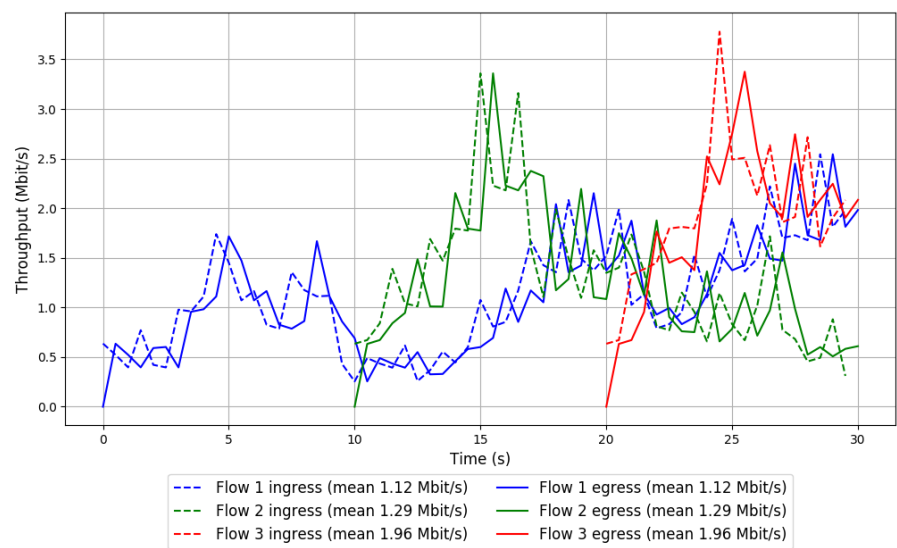


Run 2: Statistics of Sprout

Start at: 2019-11-24 08:21:53  
End at: 2019-11-24 08:22:23  
Local clock offset: -0.161 ms  
Remote clock offset: -40.228 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.62 Mbit/s  
95th percentile per-packet one-way delay: 57.183 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.12 Mbit/s  
95th percentile per-packet one-way delay: 57.024 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.29 Mbit/s  
95th percentile per-packet one-way delay: 56.885 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.96 Mbit/s  
95th percentile per-packet one-way delay: 57.553 ms  
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



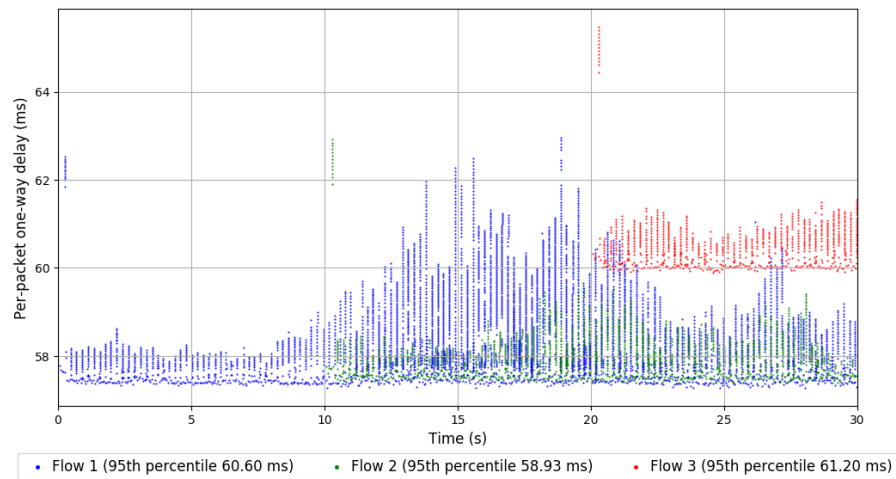
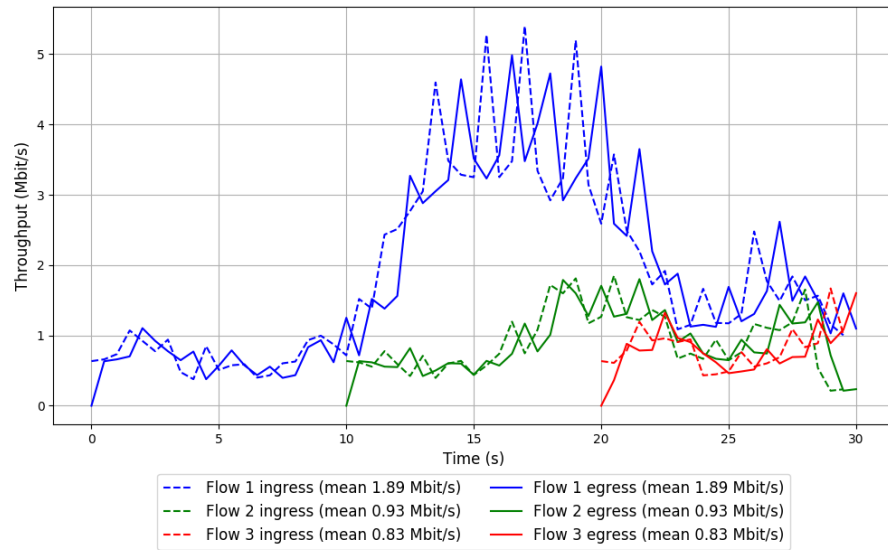


Run 3: Statistics of Sprout

Start at: 2019-11-24 08:55:41  
End at: 2019-11-24 08:56:11  
Local clock offset: -3.073 ms  
Remote clock offset: -40.362 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.78 Mbit/s  
95th percentile per-packet one-way delay: 60.811 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.89 Mbit/s  
95th percentile per-packet one-way delay: 60.597 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.93 Mbit/s  
95th percentile per-packet one-way delay: 58.930 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.83 Mbit/s  
95th percentile per-packet one-way delay: 61.203 ms  
Loss rate: 0.00%

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

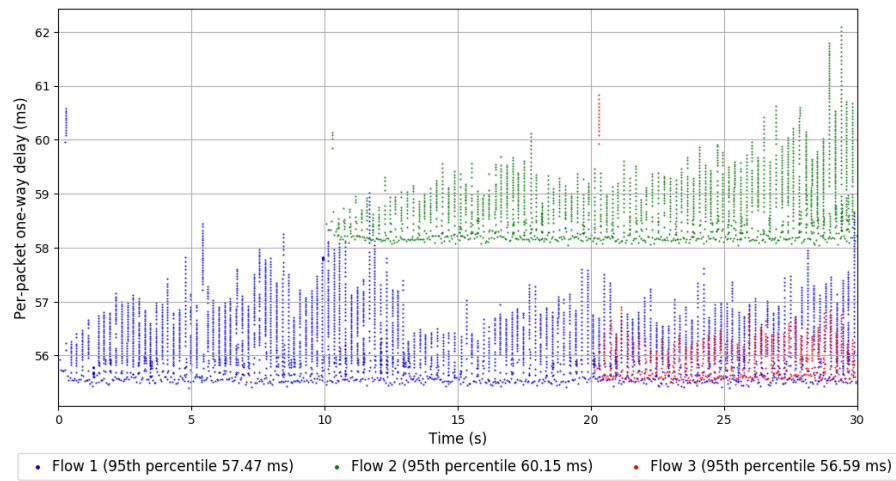
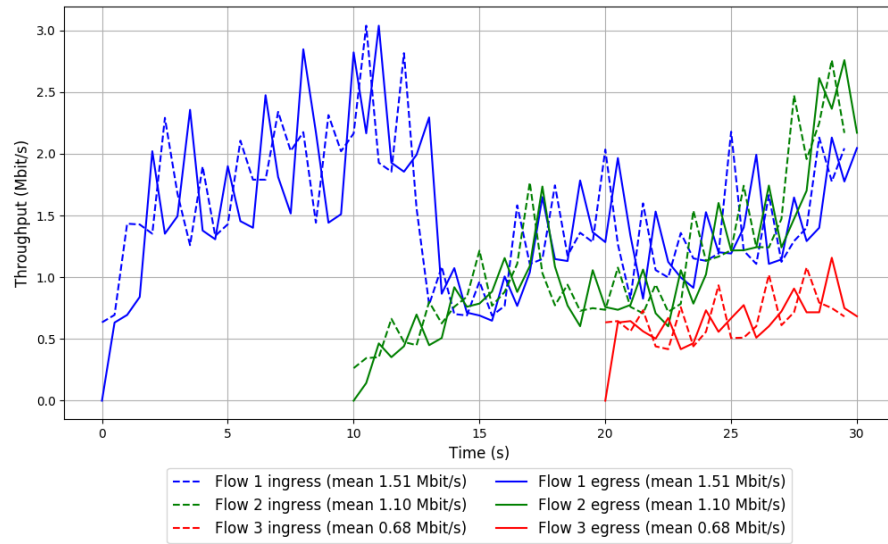


#### Run 4: Statistics of Sprout

Start at: 2019-11-24 09:29:40  
End at: 2019-11-24 09:30:10  
Local clock offset: 1.351 ms  
Remote clock offset: -37.814 ms

```
# Below is generated by plot.py at 2019-11-24 10:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 59.488 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 57.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 60.145 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 56.595 ms
Loss rate: 0.00%
```

# Run 4: Report of Sprout — Data Link

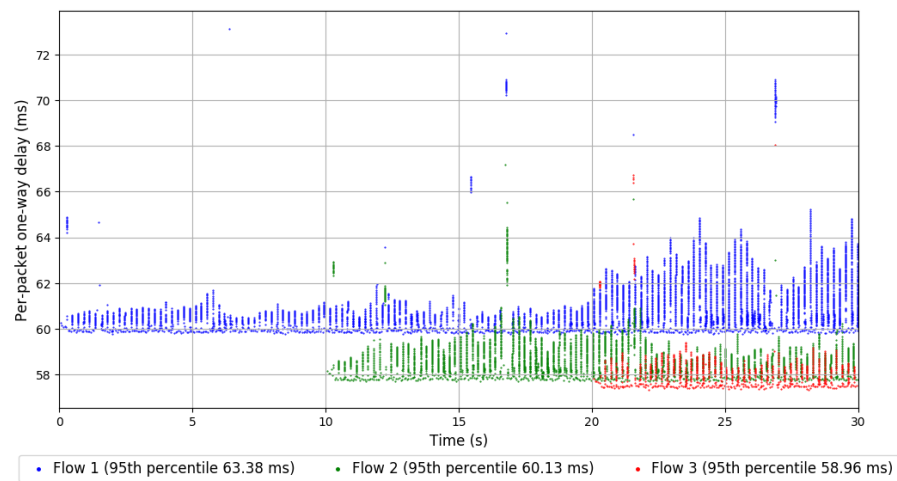
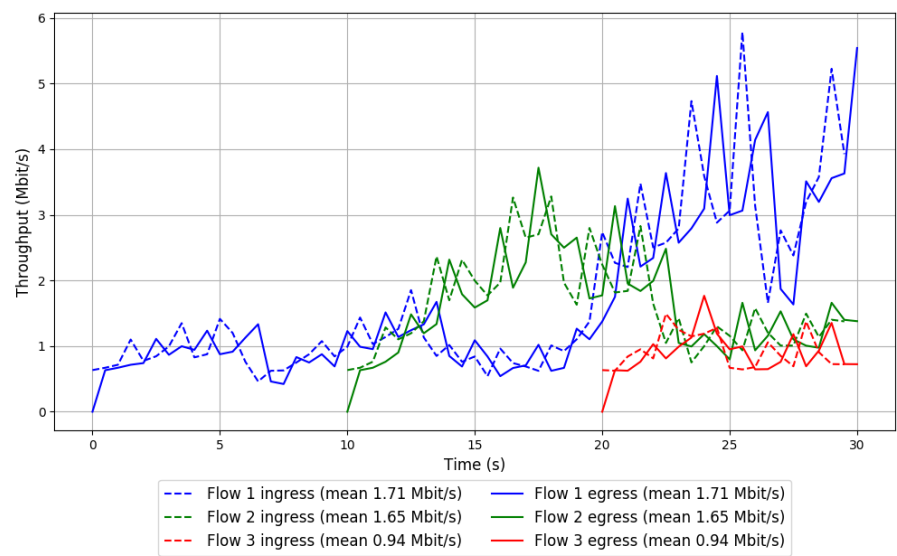


Run 5: Statistics of Sprout

Start at: 2019-11-24 10:03:33  
End at: 2019-11-24 10:04:03  
Local clock offset: -1.238 ms  
Remote clock offset: -38.963 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.12 Mbit/s  
95th percentile per-packet one-way delay: 62.884 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.71 Mbit/s  
95th percentile per-packet one-way delay: 63.385 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.65 Mbit/s  
95th percentile per-packet one-way delay: 60.128 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.94 Mbit/s  
95th percentile per-packet one-way delay: 58.956 ms  
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

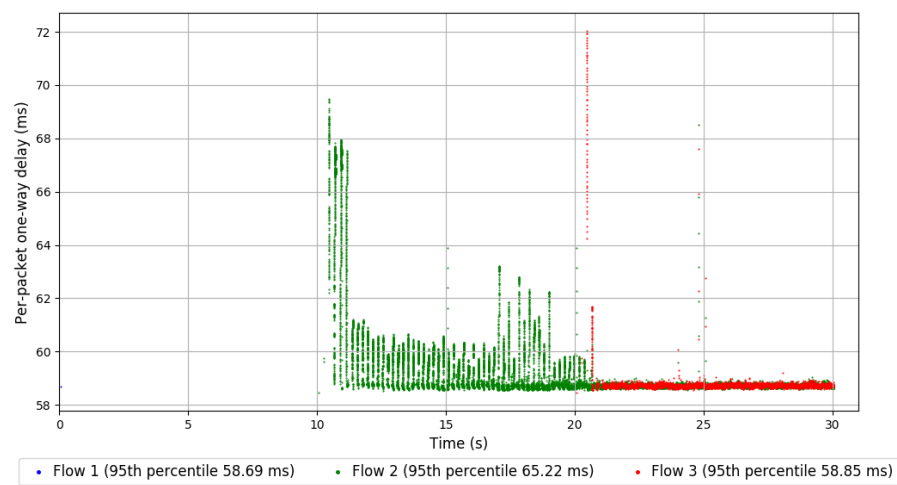
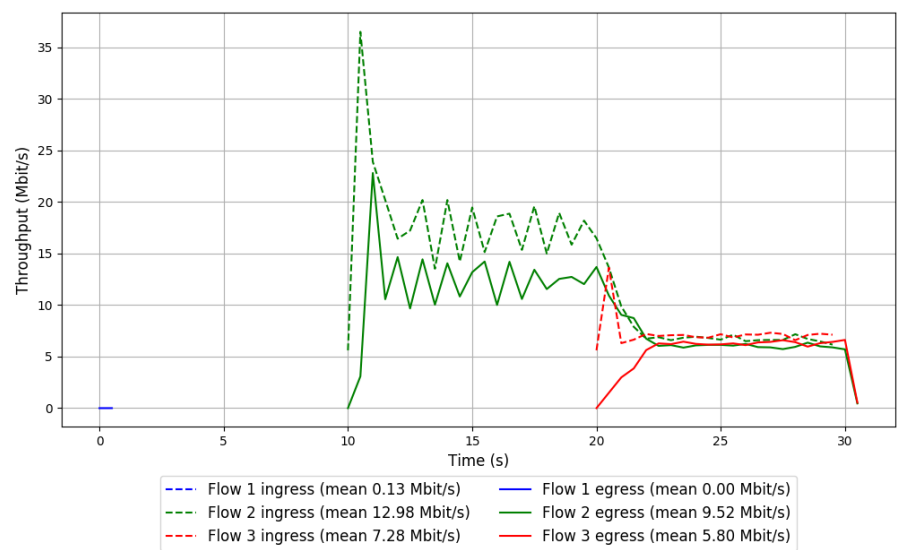


```
Run 1: Statistics of TaoVA-100x

Start at: 2019-11-24 07:35:22
End at: 2019-11-24 07:35:52
Local clock offset: -1.181 ms
Remote clock offset: -38.857 ms

# Below is generated by plot.py at 2019-11-24 10:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 63.196 ms
Loss rate: 25.26%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 58.685 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 65.225 ms
Loss rate: 26.61%
-- Flow 3:
Average throughput: 5.80 Mbit/s
95th percentile per-packet one-way delay: 58.851 ms
Loss rate: 20.40%
```

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



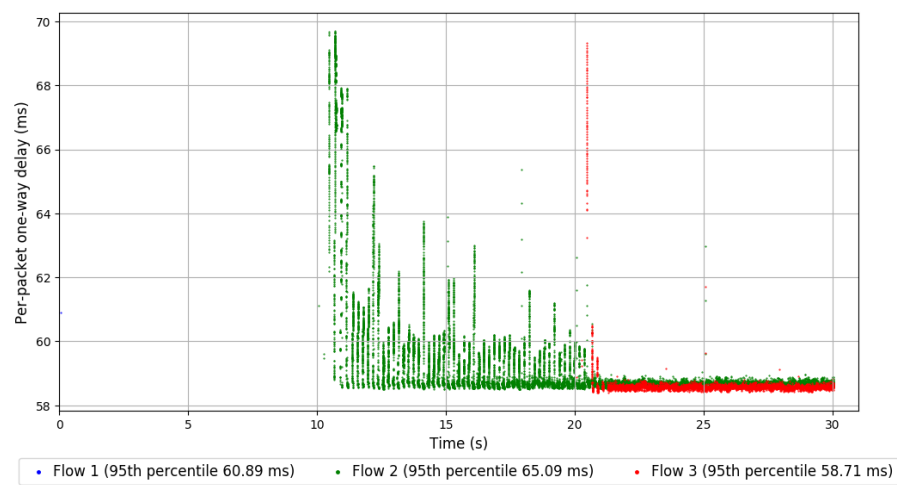
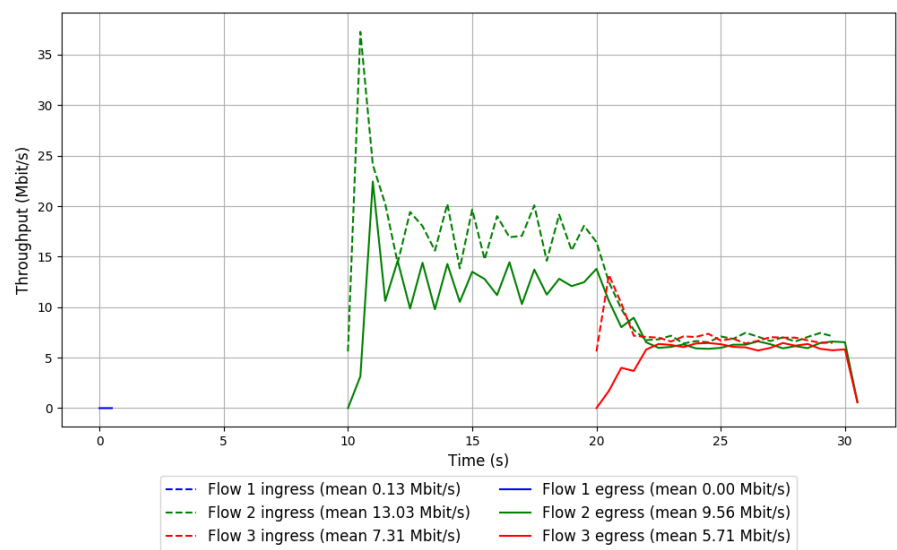


Run 2: Statistics of TaoVA-100x

Start at: 2019-11-24 08:09:12  
End at: 2019-11-24 08:09:42  
Local clock offset: -2.98 ms  
Remote clock offset: -40.145 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.26 Mbit/s  
95th percentile per-packet one-way delay: 63.643 ms  
Loss rate: 25.64%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 60.890 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.56 Mbit/s  
95th percentile per-packet one-way delay: 65.086 ms  
Loss rate: 26.66%  
-- Flow 3:  
Average throughput: 5.71 Mbit/s  
95th percentile per-packet one-way delay: 58.714 ms  
Loss rate: 21.96%

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

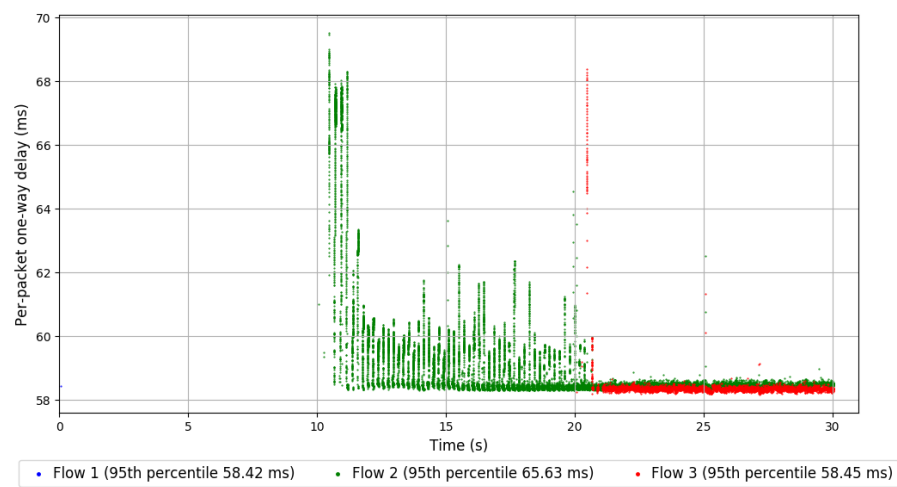
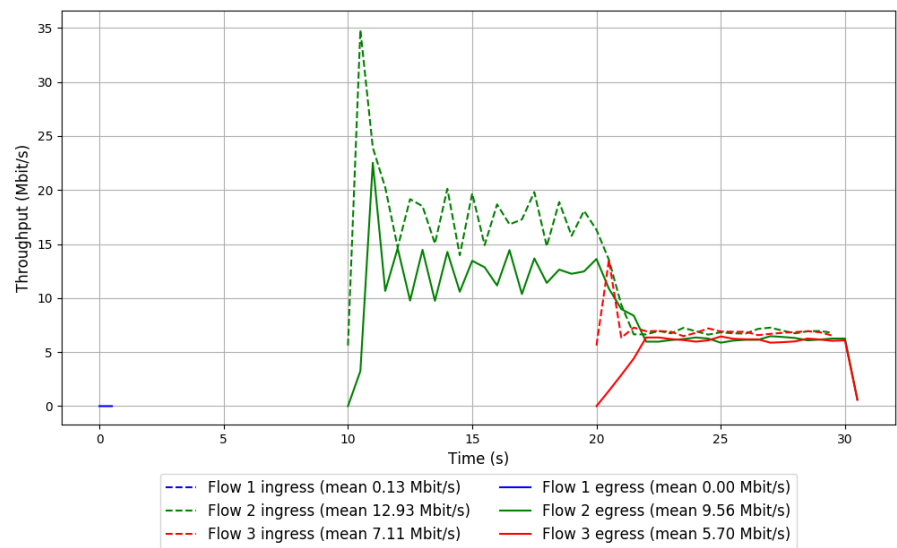


Run 3: Statistics of TaoVA-100x

Start at: 2019-11-24 08:43:04  
End at: 2019-11-24 08:43:34  
Local clock offset: -3.623 ms  
Remote clock offset: -40.523 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.27 Mbit/s  
95th percentile per-packet one-way delay: 63.270 ms  
Loss rate: 24.73%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 58.417 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.56 Mbit/s  
95th percentile per-packet one-way delay: 65.634 ms  
Loss rate: 26.07%  
-- Flow 3:  
Average throughput: 5.70 Mbit/s  
95th percentile per-packet one-way delay: 58.452 ms  
Loss rate: 19.79%

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

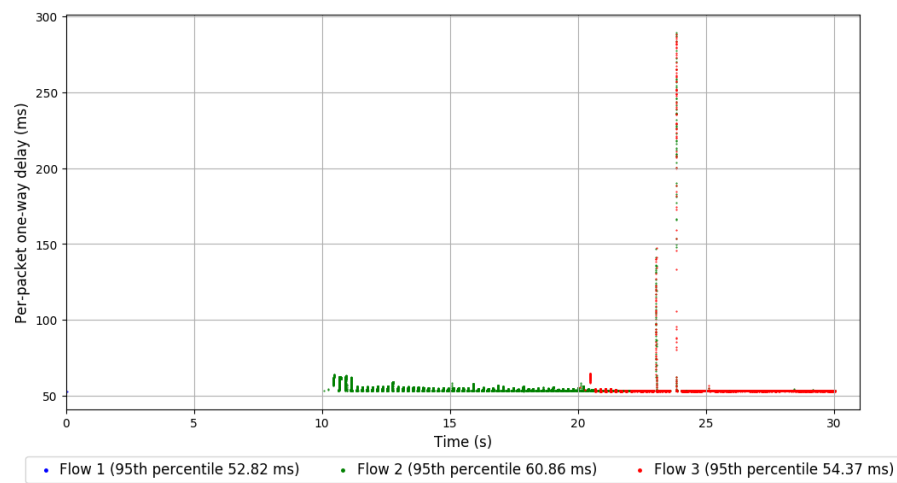
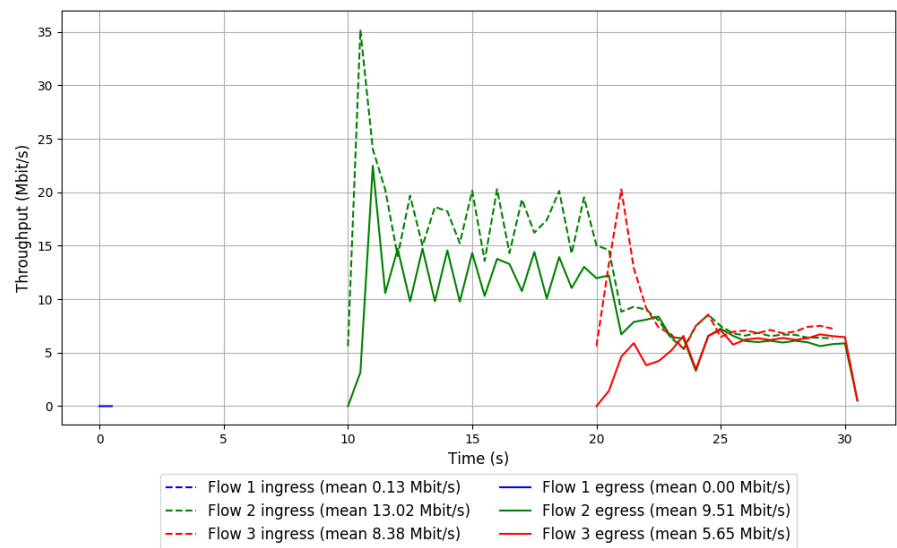


Run 4: Statistics of TaoVA-100x

Start at: 2019-11-24 09:16:57  
End at: 2019-11-24 09:17:28  
Local clock offset: -0.749 ms  
Remote clock offset: -42.652 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.21 Mbit/s  
95th percentile per-packet one-way delay: 60.331 ms  
Loss rate: 28.34%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 52.824 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.51 Mbit/s  
95th percentile per-packet one-way delay: 60.861 ms  
Loss rate: 26.95%  
-- Flow 3:  
Average throughput: 5.65 Mbit/s  
95th percentile per-packet one-way delay: 54.365 ms  
Loss rate: 32.67%

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

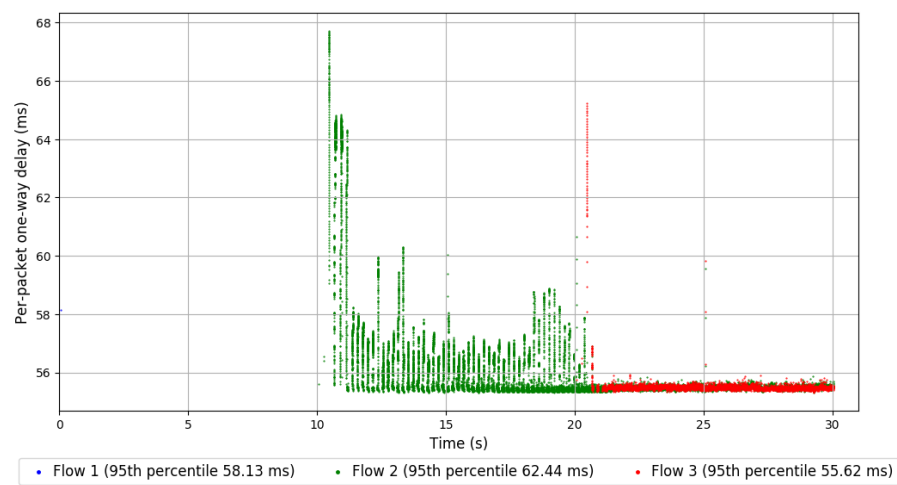
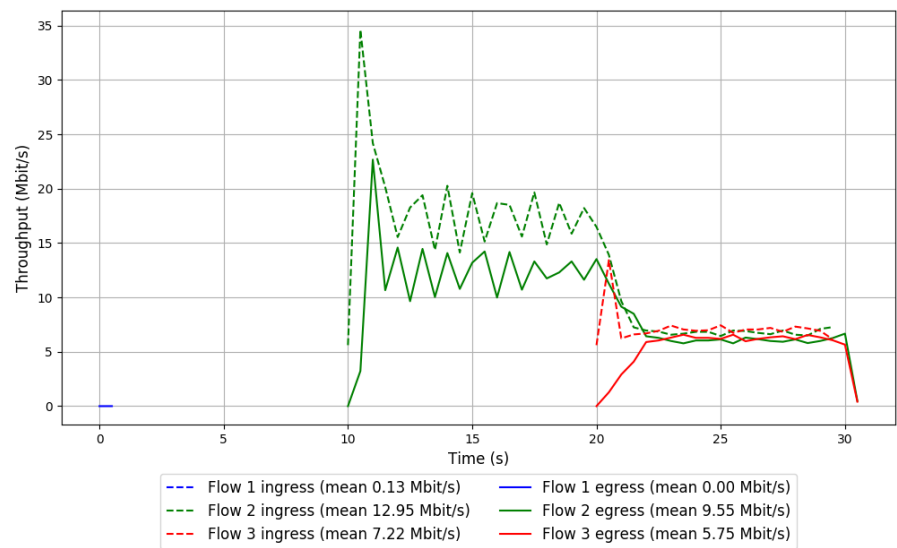


Run 5: Statistics of TaoVA-100x

Start at: 2019-11-24 09:50:53  
End at: 2019-11-24 09:51:23  
Local clock offset: 1.849 ms  
Remote clock offset: -38.078 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.27 Mbit/s  
95th percentile per-packet one-way delay: 60.220 ms  
Loss rate: 25.01%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 58.130 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.55 Mbit/s  
95th percentile per-packet one-way delay: 62.444 ms  
Loss rate: 26.30%  
-- Flow 3:  
Average throughput: 5.75 Mbit/s  
95th percentile per-packet one-way delay: 55.621 ms  
Loss rate: 20.34%

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





Run 1: Statistics of TCP Vegas

Start at: 2019-11-24 07:34:06

End at: 2019-11-24 07:34:36

Local clock offset: -1.568 ms

Remote clock offset: -38.607 ms

Run 1: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of TCP Vegas

Start at: 2019-11-24 08:07:56

End at: 2019-11-24 08:08:26

Local clock offset: -3.192 ms

Remote clock offset: -39.334 ms

Run 2: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of TCP Vegas

Start at: 2019-11-24 08:41:48

End at: 2019-11-24 08:42:18

Local clock offset: -0.512 ms

Remote clock offset: -40.235 ms

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

Figure is missing

Figure is missing

Run 4: Statistics of TCP Vegas

Start at: 2019-11-24 09:15:41

End at: 2019-11-24 09:16:11

Local clock offset: -2.611 ms

Remote clock offset: -42.445 ms

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

Figure is missing

Figure is missing



Run 5: Statistics of TCP Vegas

Start at: 2019-11-24 09:49:37

End at: 2019-11-24 09:50:07

Local clock offset: 2.15 ms

Remote clock offset: -40.22 ms

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

Figure is missing

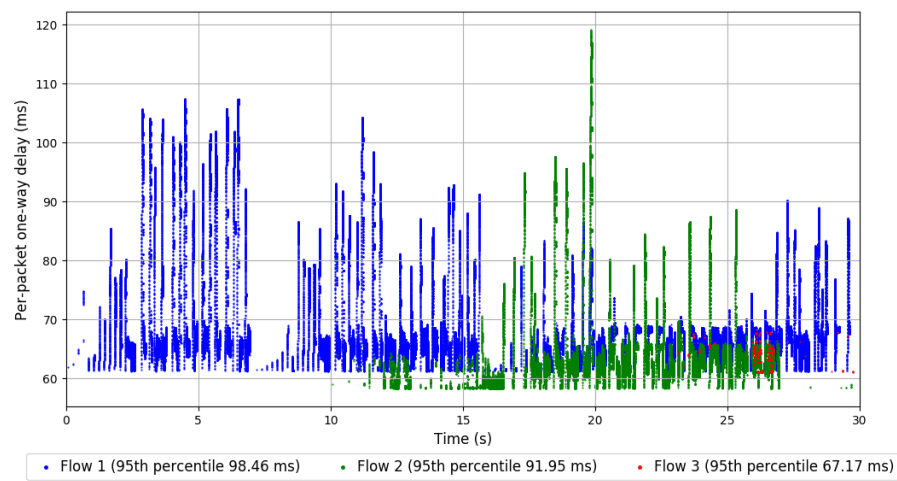
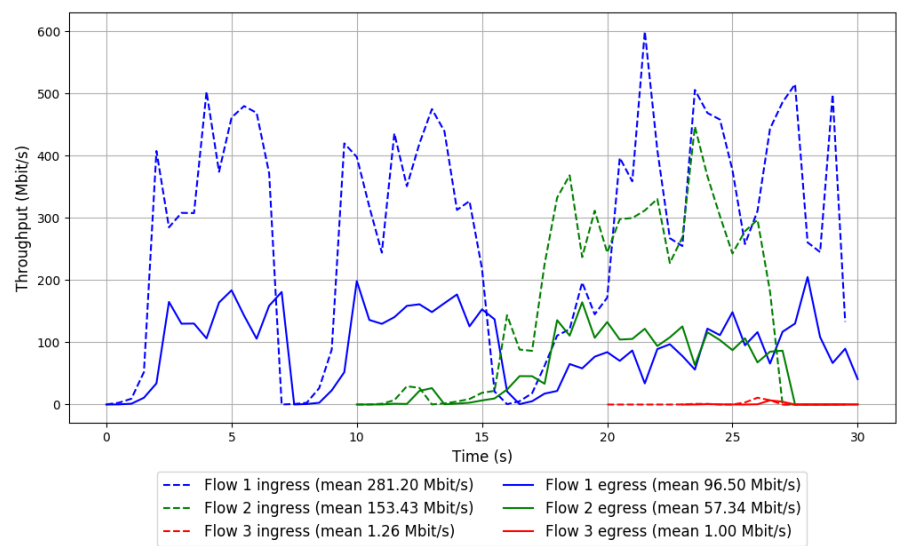
Figure is missing

Run 1: Statistics of Verus

Start at: 2019-11-24 07:21:00  
End at: 2019-11-24 07:21:30  
Local clock offset: -1.097 ms  
Remote clock offset: -38.884 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 134.15 Mbit/s  
95th percentile per-packet one-way delay: 96.219 ms  
Loss rate: 64.84%  
-- Flow 1:  
Average throughput: 96.50 Mbit/s  
95th percentile per-packet one-way delay: 98.460 ms  
Loss rate: 65.67%  
-- Flow 2:  
Average throughput: 57.34 Mbit/s  
95th percentile per-packet one-way delay: 91.953 ms  
Loss rate: 62.63%  
-- Flow 3:  
Average throughput: 1.00 Mbit/s  
95th percentile per-packet one-way delay: 67.165 ms  
Loss rate: 45.37%

Run 1: Report of Verus — Data Link

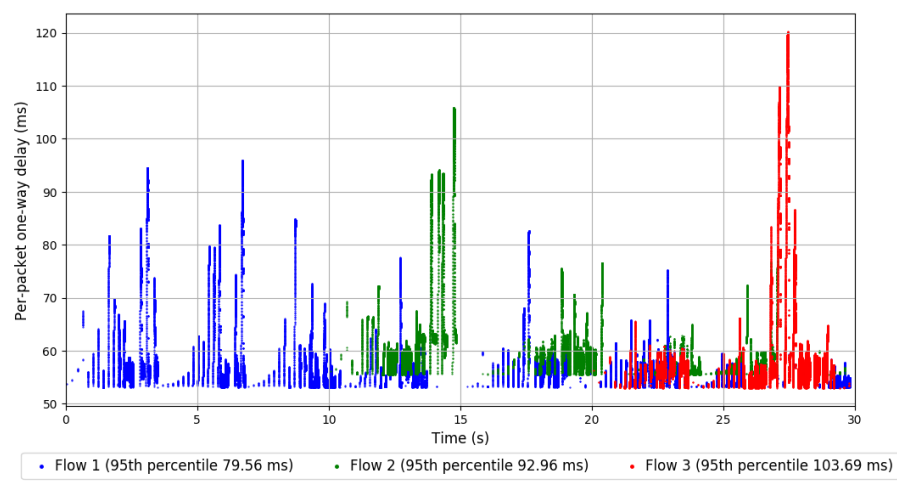
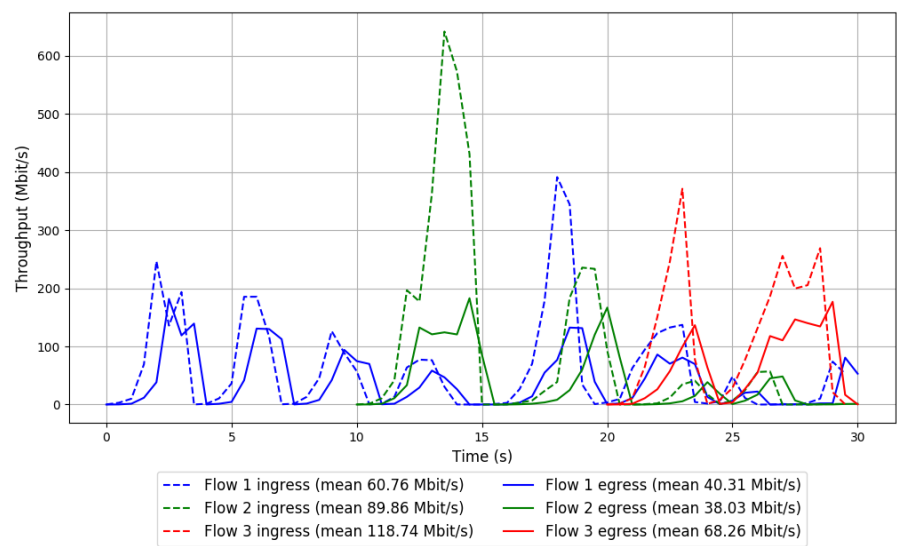


Run 2: Statistics of Verus

Start at: 2019-11-24 07:54:56  
End at: 2019-11-24 07:55:26  
Local clock offset: 3.113 ms  
Remote clock offset: -39.253 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.56 Mbit/s  
95th percentile per-packet one-way delay: 90.637 ms  
Loss rate: 44.77%  
-- Flow 1:  
Average throughput: 40.31 Mbit/s  
95th percentile per-packet one-way delay: 79.559 ms  
Loss rate: 33.66%  
-- Flow 2:  
Average throughput: 38.03 Mbit/s  
95th percentile per-packet one-way delay: 92.960 ms  
Loss rate: 57.68%  
-- Flow 3:  
Average throughput: 68.26 Mbit/s  
95th percentile per-packet one-way delay: 103.688 ms  
Loss rate: 42.53%

Run 2: Report of Verus — Data Link

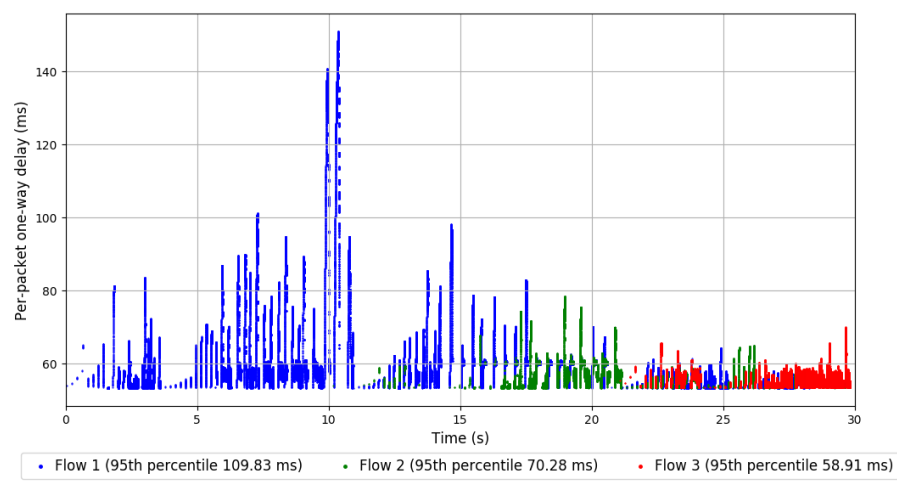
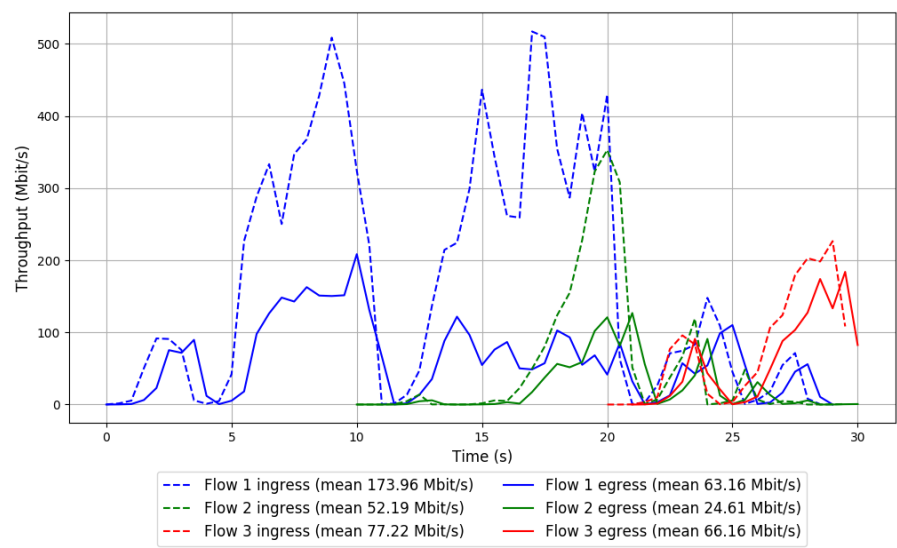


Run 3: Statistics of Verus

Start at: 2019-11-24 08:28:47  
End at: 2019-11-24 08:29:17  
Local clock offset: 1.999 ms  
Remote clock offset: -39.755 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.24 Mbit/s  
95th percentile per-packet one-way delay: 92.391 ms  
Loss rate: 57.53%  
-- Flow 1:  
Average throughput: 63.16 Mbit/s  
95th percentile per-packet one-way delay: 109.833 ms  
Loss rate: 63.69%  
-- Flow 2:  
Average throughput: 24.61 Mbit/s  
95th percentile per-packet one-way delay: 70.285 ms  
Loss rate: 52.84%  
-- Flow 3:  
Average throughput: 66.16 Mbit/s  
95th percentile per-packet one-way delay: 58.913 ms  
Loss rate: 23.12%

Run 3: Report of Verus — Data Link



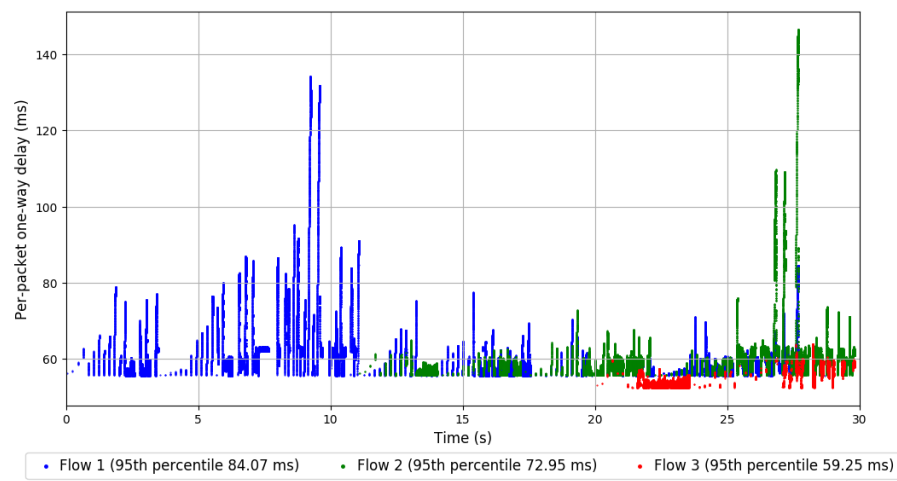
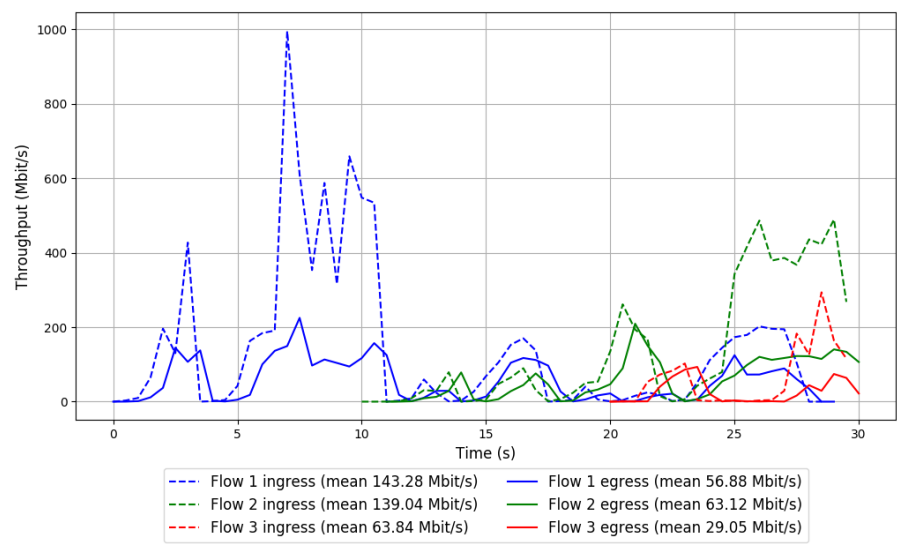


Run 4: Statistics of Verus

Start at: 2019-11-24 09:02:38  
End at: 2019-11-24 09:03:08  
Local clock offset: 2.243 ms  
Remote clock offset: -39.582 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 103.97 Mbit/s  
95th percentile per-packet one-way delay: 81.990 ms  
Loss rate: 58.72%  
-- Flow 1:  
Average throughput: 56.88 Mbit/s  
95th percentile per-packet one-way delay: 84.068 ms  
Loss rate: 60.57%  
-- Flow 2:  
Average throughput: 63.12 Mbit/s  
95th percentile per-packet one-way delay: 72.954 ms  
Loss rate: 56.90%  
-- Flow 3:  
Average throughput: 29.05 Mbit/s  
95th percentile per-packet one-way delay: 59.253 ms  
Loss rate: 54.47%

Run 4: Report of Verus — Data Link

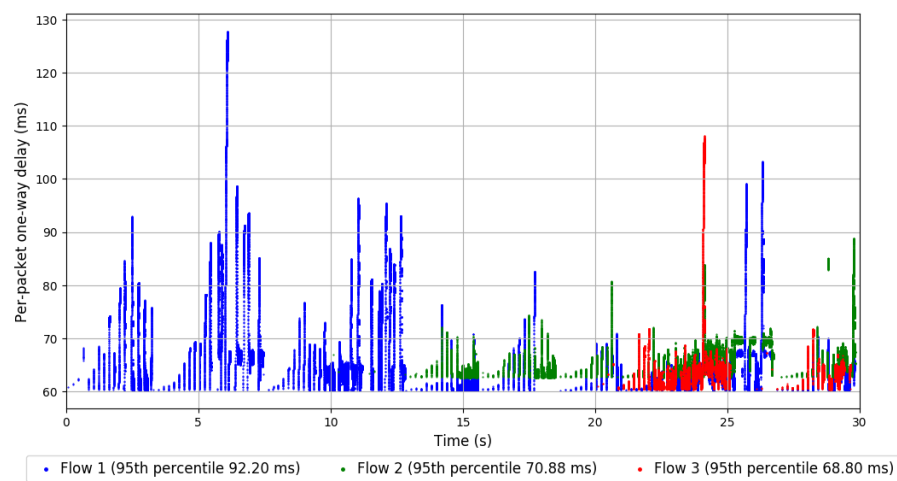
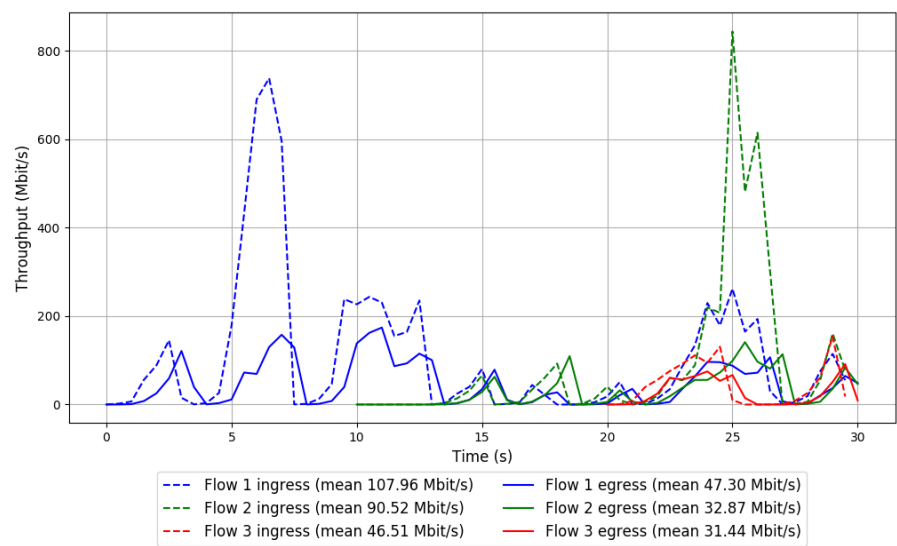


Run 5: Statistics of Verus

Start at: 2019-11-24 09:36:36  
End at: 2019-11-24 09:37:06  
Local clock offset: -2.673 ms  
Remote clock offset: -37.414 ms

# Below is generated by plot.py at 2019-11-24 10:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.18 Mbit/s  
95th percentile per-packet one-way delay: 88.857 ms  
Loss rate: 56.70%  
-- Flow 1:  
Average throughput: 47.30 Mbit/s  
95th percentile per-packet one-way delay: 92.201 ms  
Loss rate: 56.18%  
-- Flow 2:  
Average throughput: 32.87 Mbit/s  
95th percentile per-packet one-way delay: 70.884 ms  
Loss rate: 63.69%  
-- Flow 3:  
Average throughput: 31.44 Mbit/s  
95th percentile per-packet one-way delay: 68.804 ms  
Loss rate: 32.41%

Run 5: Report of Verus — Data Link

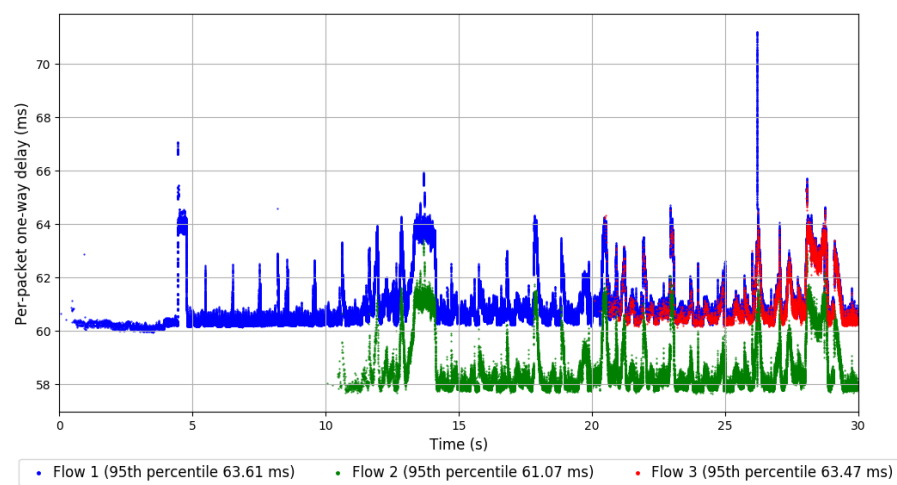
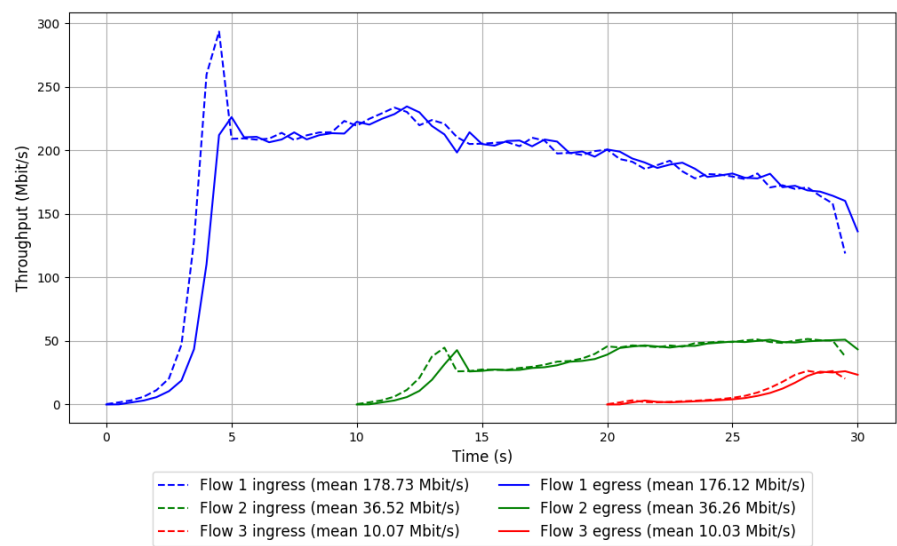


Run 1: Statistics of PCC-Vivace

Start at: 2019-11-24 07:31:01  
End at: 2019-11-24 07:31:31  
Local clock offset: -0.157 ms  
Remote clock offset: -38.457 ms

# Below is generated by plot.py at 2019-11-24 10:34:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 203.54 Mbit/s  
95th percentile per-packet one-way delay: 63.541 ms  
Loss rate: 1.36%  
-- Flow 1:  
Average throughput: 176.12 Mbit/s  
95th percentile per-packet one-way delay: 63.612 ms  
Loss rate: 1.47%  
-- Flow 2:  
Average throughput: 36.26 Mbit/s  
95th percentile per-packet one-way delay: 61.071 ms  
Loss rate: 0.71%  
-- Flow 3:  
Average throughput: 10.03 Mbit/s  
95th percentile per-packet one-way delay: 63.465 ms  
Loss rate: 0.39%

Run 1: Report of PCC-Vivace — Data Link

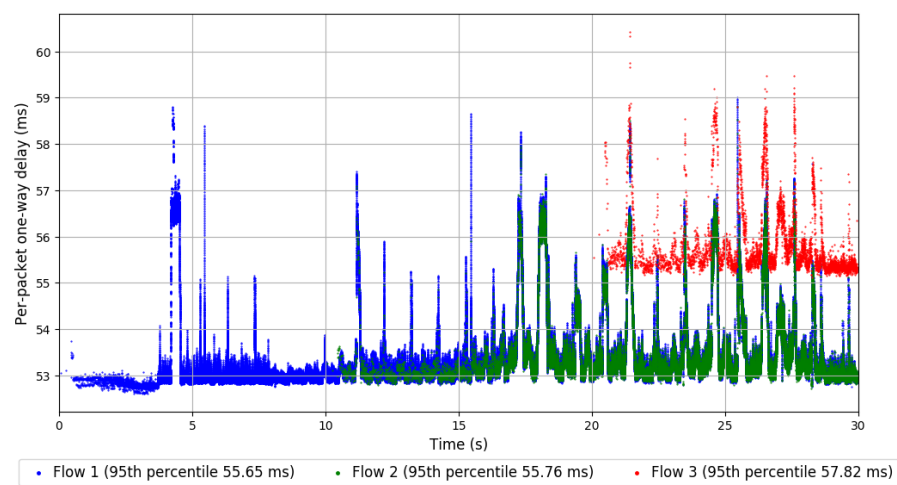
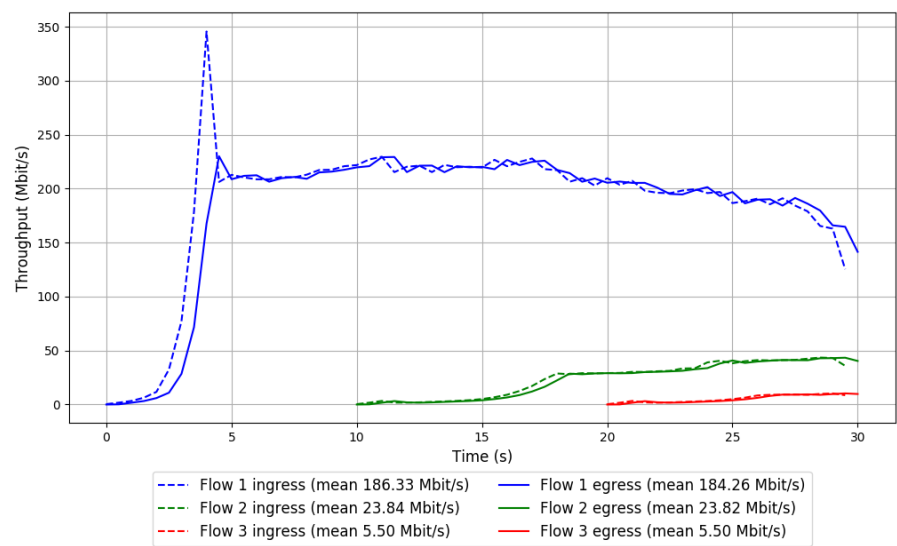


Run 2: Statistics of PCC-Vivace

Start at: 2019-11-24 08:04:51  
End at: 2019-11-24 08:05:21  
Local clock offset: 1.733 ms  
Remote clock offset: -40.83 ms

# Below is generated by plot.py at 2019-11-24 10:35:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 201.90 Mbit/s  
95th percentile per-packet one-way delay: 55.770 ms  
Loss rate: 1.02%  
-- Flow 1:  
Average throughput: 184.26 Mbit/s  
95th percentile per-packet one-way delay: 55.648 ms  
Loss rate: 1.11%  
-- Flow 2:  
Average throughput: 23.82 Mbit/s  
95th percentile per-packet one-way delay: 55.756 ms  
Loss rate: 0.12%  
-- Flow 3:  
Average throughput: 5.50 Mbit/s  
95th percentile per-packet one-way delay: 57.824 ms  
Loss rate: 0.07%

Run 2: Report of PCC-Vivace — Data Link



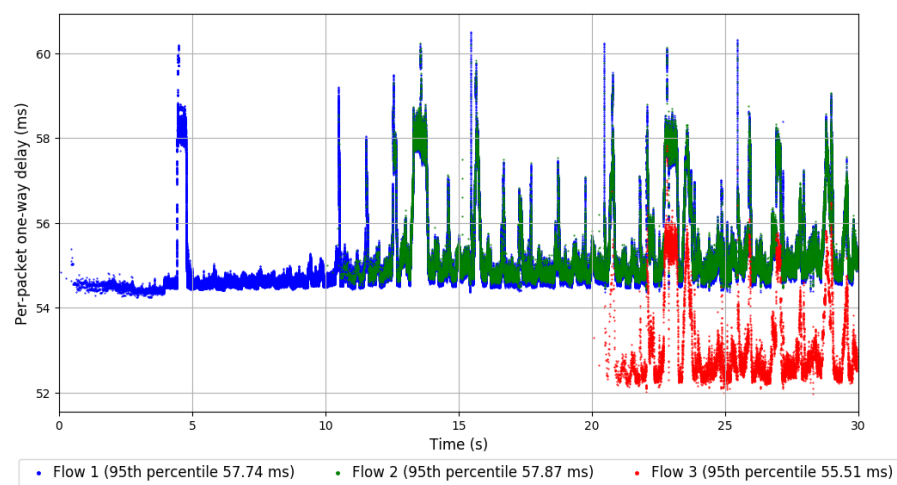
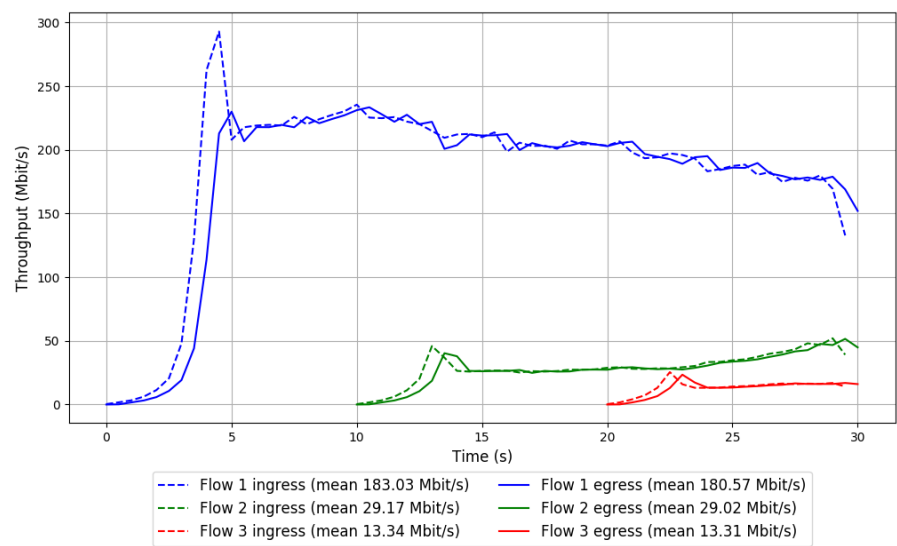


Run 3: Statistics of PCC-Vivace

Start at: 2019-11-24 08:38:44  
End at: 2019-11-24 08:39:14  
Local clock offset: 1.799 ms  
Remote clock offset: -41.259 ms

# Below is generated by plot.py at 2019-11-24 10:35:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 204.26 Mbit/s  
95th percentile per-packet one-way delay: 57.749 ms  
Loss rate: 1.25%  
-- Flow 1:  
Average throughput: 180.57 Mbit/s  
95th percentile per-packet one-way delay: 57.745 ms  
Loss rate: 1.35%  
-- Flow 2:  
Average throughput: 29.02 Mbit/s  
95th percentile per-packet one-way delay: 57.867 ms  
Loss rate: 0.52%  
-- Flow 3:  
Average throughput: 13.31 Mbit/s  
95th percentile per-packet one-way delay: 55.513 ms  
Loss rate: 0.24%

Run 3: Report of PCC-Vivace — Data Link

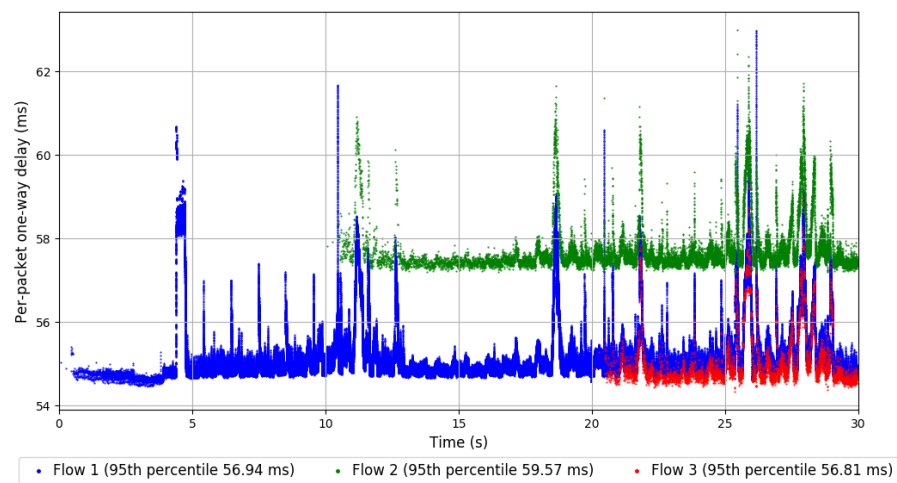
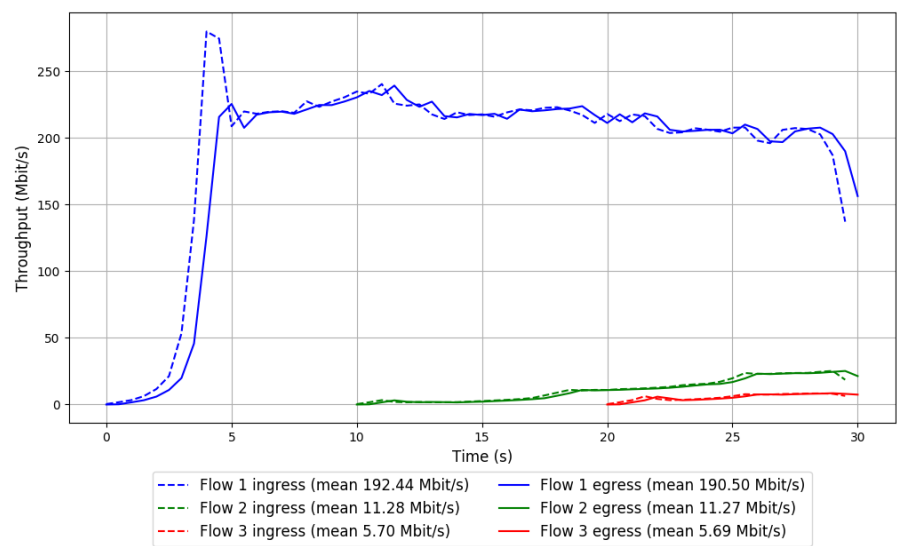


Run 4: Statistics of PCC-Vivace

Start at: 2019-11-24 09:12:37  
End at: 2019-11-24 09:13:07  
Local clock offset: 2.758 ms  
Remote clock offset: -37.393 ms

# Below is generated by plot.py at 2019-11-24 10:35:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 199.87 Mbit/s  
95th percentile per-packet one-way delay: 57.545 ms  
Loss rate: 0.96%  
-- Flow 1:  
Average throughput: 190.50 Mbit/s  
95th percentile per-packet one-way delay: 56.942 ms  
Loss rate: 1.01%  
-- Flow 2:  
Average throughput: 11.27 Mbit/s  
95th percentile per-packet one-way delay: 59.571 ms  
Loss rate: 0.06%  
-- Flow 3:  
Average throughput: 5.69 Mbit/s  
95th percentile per-packet one-way delay: 56.812 ms  
Loss rate: 0.06%

Run 4: Report of PCC-Vivace — Data Link

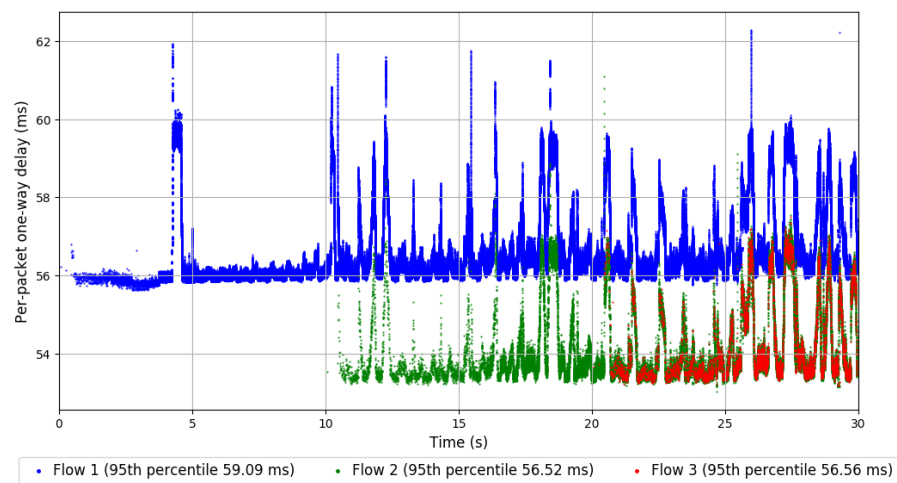
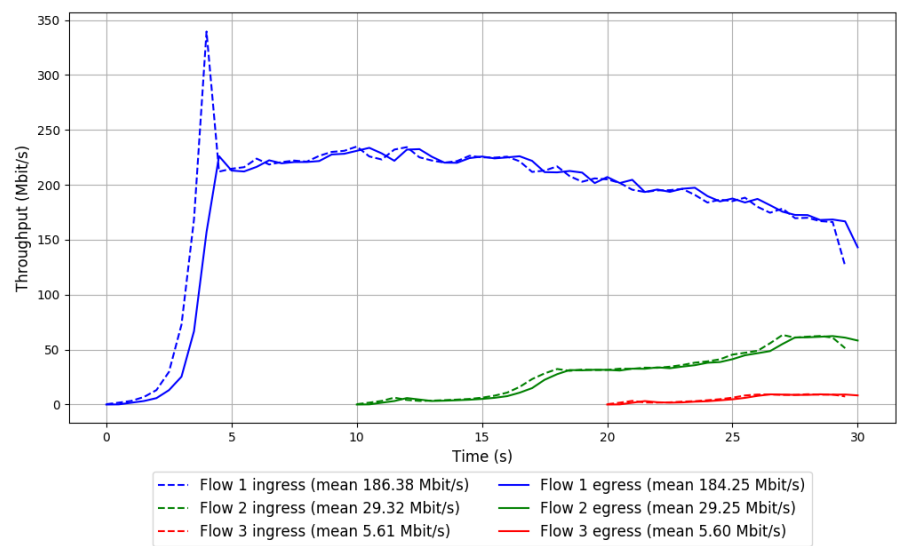


Run 5: Statistics of PCC-Vivace

Start at: 2019-11-24 09:46:32  
End at: 2019-11-24 09:47:02  
Local clock offset: 1.779 ms  
Remote clock offset: -39.92 ms

# Below is generated by plot.py at 2019-11-24 10:35:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 205.56 Mbit/s  
95th percentile per-packet one-way delay: 59.020 ms  
Loss rate: 1.05%  
-- Flow 1:  
Average throughput: 184.25 Mbit/s  
95th percentile per-packet one-way delay: 59.089 ms  
Loss rate: 1.15%  
-- Flow 2:  
Average throughput: 29.25 Mbit/s  
95th percentile per-packet one-way delay: 56.515 ms  
Loss rate: 0.22%  
-- Flow 3:  
Average throughput: 5.60 Mbit/s  
95th percentile per-packet one-way delay: 56.558 ms  
Loss rate: 0.13%

Run 5: Report of PCC-Vivace — Data Link

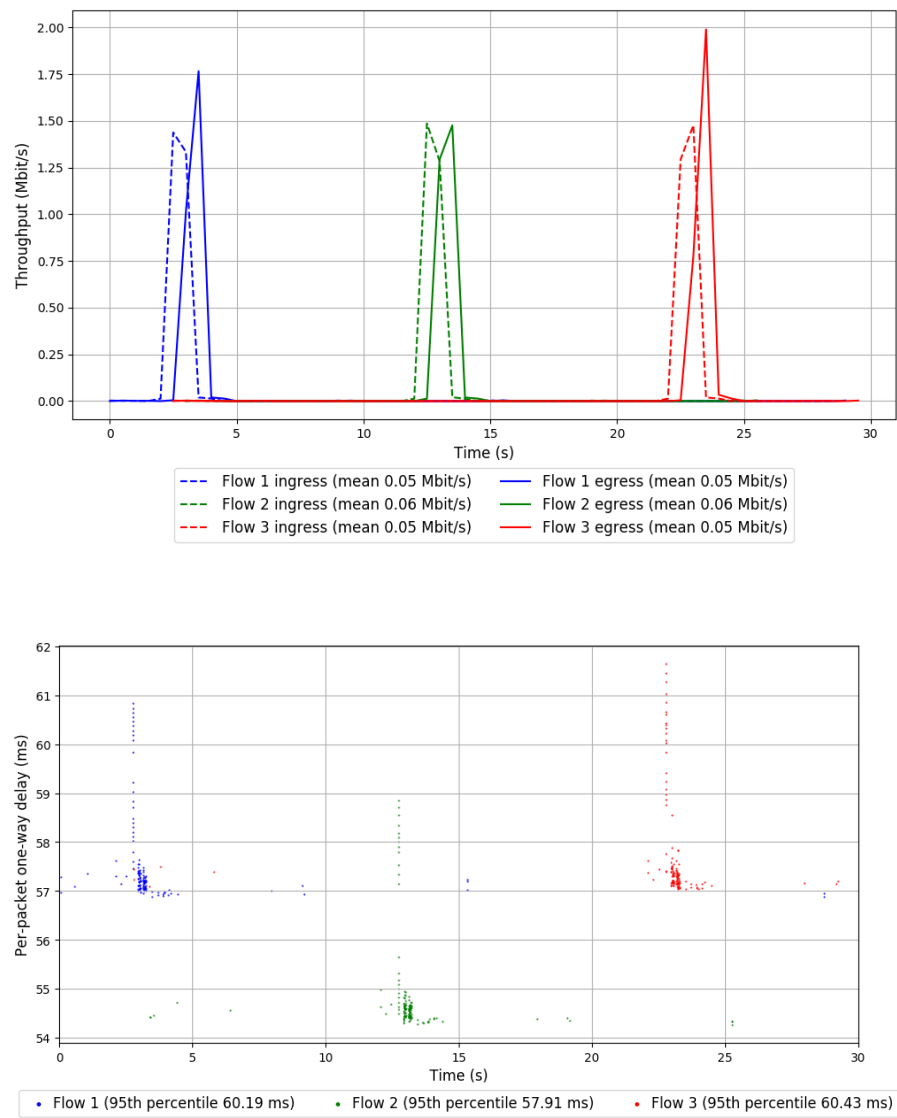


Run 1: Statistics of WebRTC media

Start at: 2019-11-24 07:41:05  
End at: 2019-11-24 07:41:35  
Local clock offset: 3.134 ms  
Remote clock offset: -38.218 ms

# Below is generated by plot.py at 2019-11-24 10:35:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 59.841 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 60.185 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 57.909 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 60.428 ms  
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



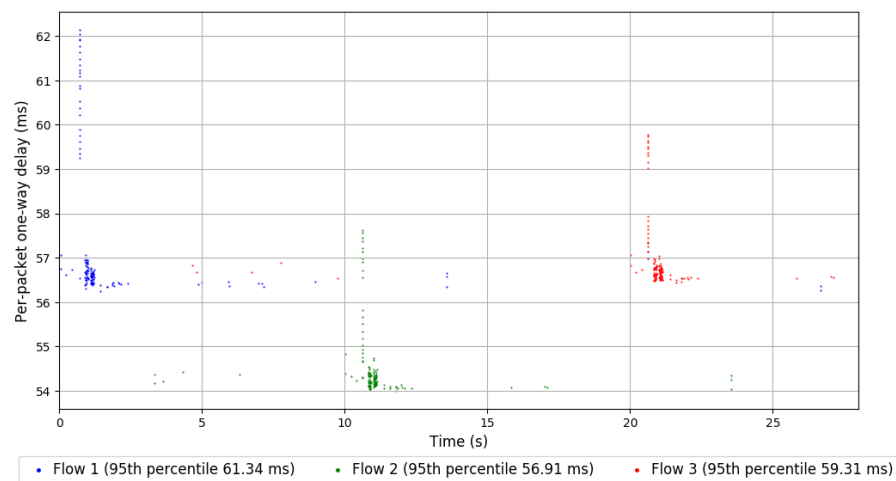
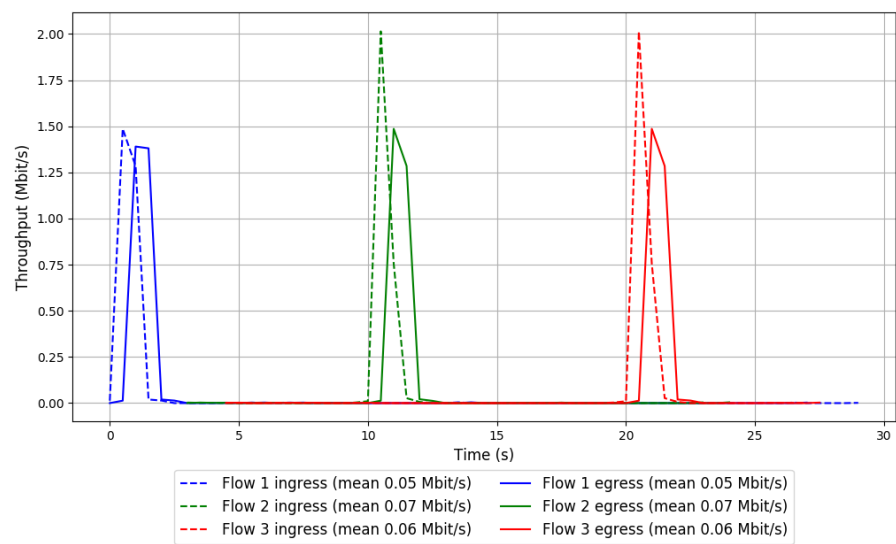


Run 2: Statistics of WebRTC media

Start at: 2019-11-24 08:14:56  
End at: 2019-11-24 08:15:26  
Local clock offset: 1.708 ms  
Remote clock offset: -39.525 ms

# Below is generated by plot.py at 2019-11-24 10:35:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 59.598 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 61.344 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 0.07 Mbit/s  
95th percentile per-packet one-way delay: 56.915 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 59.314 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

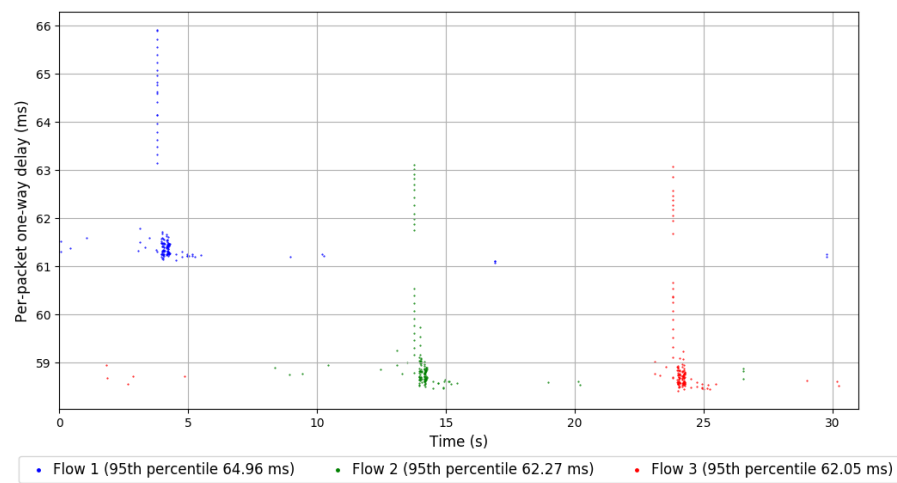
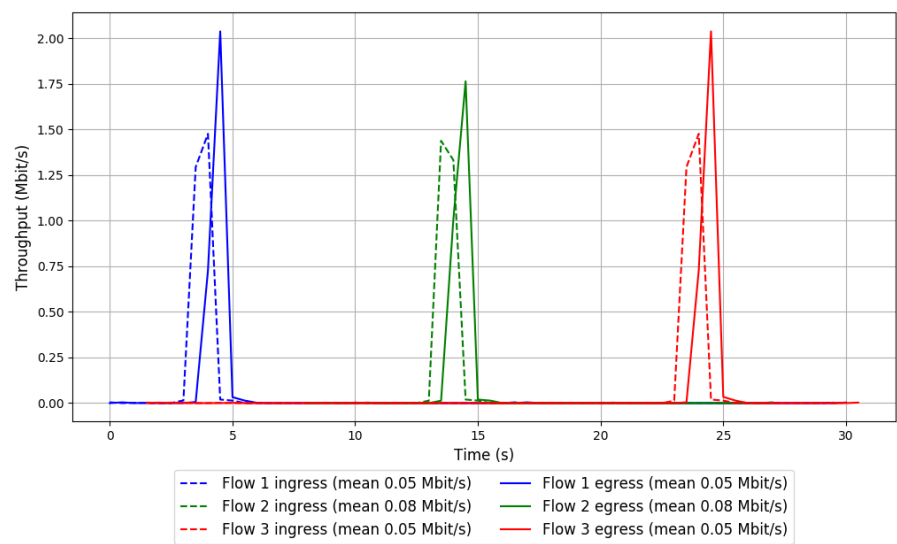


Run 3: Statistics of WebRTC media

Start at: 2019-11-24 08:48:45  
End at: 2019-11-24 08:49:15  
Local clock offset: -3.251 ms  
Remote clock offset: -39.505 ms

# Below is generated by plot.py at 2019-11-24 10:35:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 63.069 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 64.961 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.08 Mbit/s  
95th percentile per-packet one-way delay: 62.274 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 62.054 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

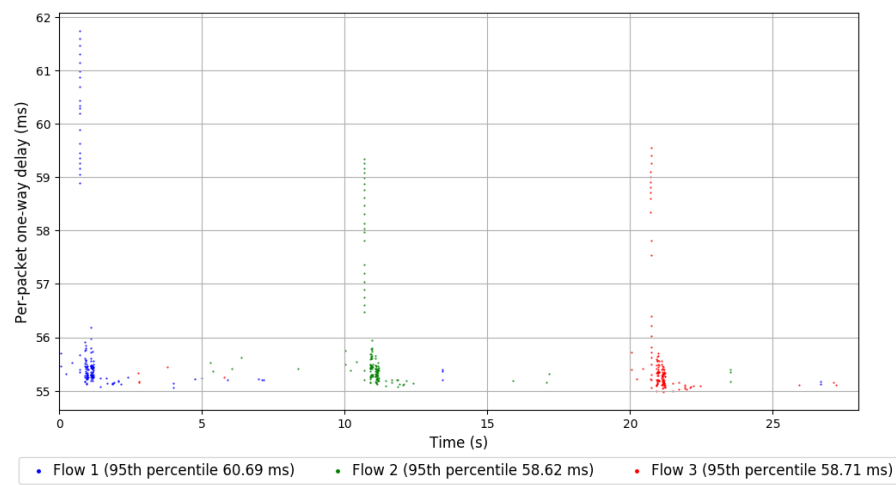
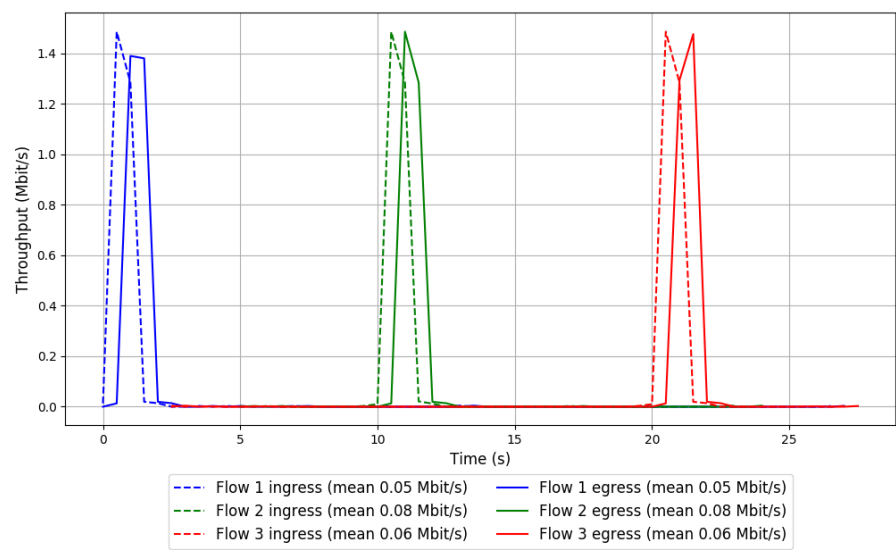


Run 4: Statistics of WebRTC media

Start at: 2019-11-24 09:22:43  
End at: 2019-11-24 09:23:13  
Local clock offset: -0.717 ms  
Remote clock offset: -42.883 ms

# Below is generated by plot.py at 2019-11-24 10:35:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 59.170 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 60.693 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.08 Mbit/s  
95th percentile per-packet one-way delay: 58.619 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 58.713 ms  
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-11-24 09:56:36  
End at: 2019-11-24 09:57:06  
Local clock offset: 1.274 ms  
Remote clock offset: -41.532 ms

# Below is generated by plot.py at 2019-11-24 10:35:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 56.544 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 56.615 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 55.814 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 57.673 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

