

## Pantheon Report

Generated at 2018-12-20 03:39:19 (UTC).

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

Repeated the test of 19 congestion control schemes 5 times.

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

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

### System info:

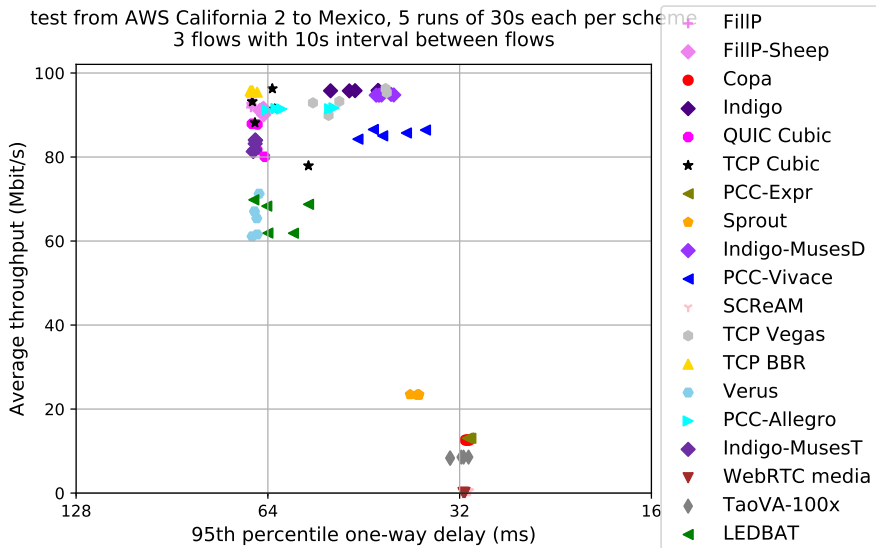
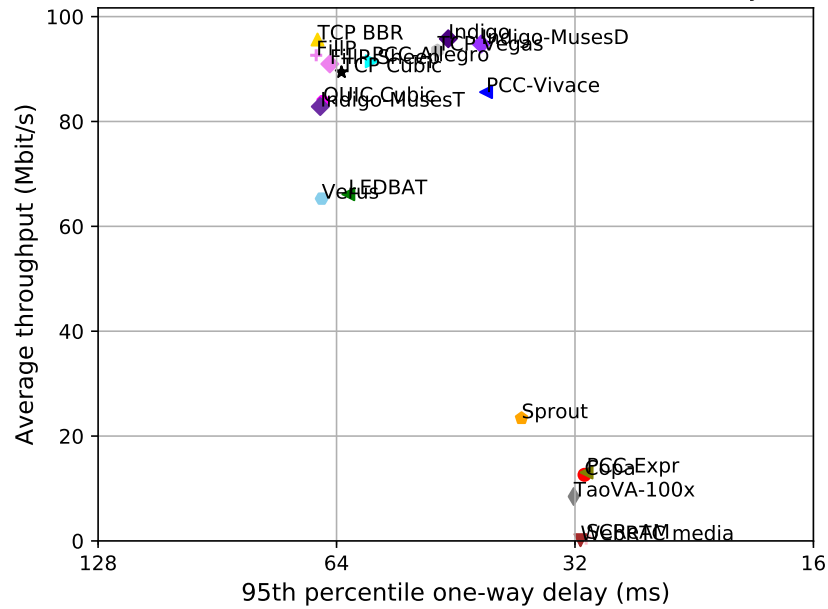
```
Linux 4.15.0-1029-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ c654af0b7d59d4ef4b914cfac404e1fc2e96dc68
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfc58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/muses-refactored @ 31f8f0ba8ef8b1da76c2bc0cd0a7850c33ff64fb
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
```

```
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	60.20	34.67	37.14	66.39	68.48	69.00	6.43	10.86	13.33
Copa	5	9.45	4.75	0.02	31.23	30.92	31.25	71.69	77.02	90.60
TCP Cubic	5	54.89	41.29	21.02	61.46	65.40	58.59	0.91	0.64	0.29
FillP	5	58.74	41.12	20.26	66.49	69.10	68.56	29.29	47.53	54.18
FillP-Sheep	5	55.92	38.98	27.58	63.48	66.85	65.87	8.94	16.87	16.59
Indigo	5	66.85	27.66	32.47	42.74	49.38	53.13	0.04	0.06	0.42
Indigo-MusesD	5	60.73	29.34	44.15	42.48	42.08	39.85	0.29	0.00	0.00
Indigo-MusesT	5	41.70	47.45	32.49	67.63	66.07	67.33	42.52	26.24	34.66
LEDBAT	5	39.46	29.72	20.76	61.65	62.48	55.53	0.07	0.08	0.00
PCC-Allegro	5	82.32	9.51	8.61	57.21	60.26	61.49	1.51	1.28	1.95
PCC-Expr	5	8.41	4.73	4.55	30.93	30.96	30.97	44.34	36.31	29.54
QUIC Cubic	5	63.45	23.52	14.42	66.43	66.77	65.76	2.26	0.87	0.61
SCReAM	5	0.21	0.21	0.22	30.97	30.95	30.95	0.00	0.00	0.00
Sprout	5	11.80	11.73	11.52	37.04	37.58	37.69	0.05	0.00	0.00
TaoVA-100x	5	0.00	7.70	10.05	30.86	32.66	32.06	95.92	84.18	71.68
TCP Vegas	5	58.04	41.88	22.79	44.66	47.72	42.42	0.58	0.18	0.00
Verus	5	41.97	23.13	25.83	66.29	66.44	68.28	28.51	30.59	41.12
PCC-Vivace	5	63.76	25.85	14.09	40.78	44.24	45.80	0.04	0.03	0.00
WebRTC media	5	0.05	0.05	0.05	31.38	31.47	31.55	0.00	0.00	0.01

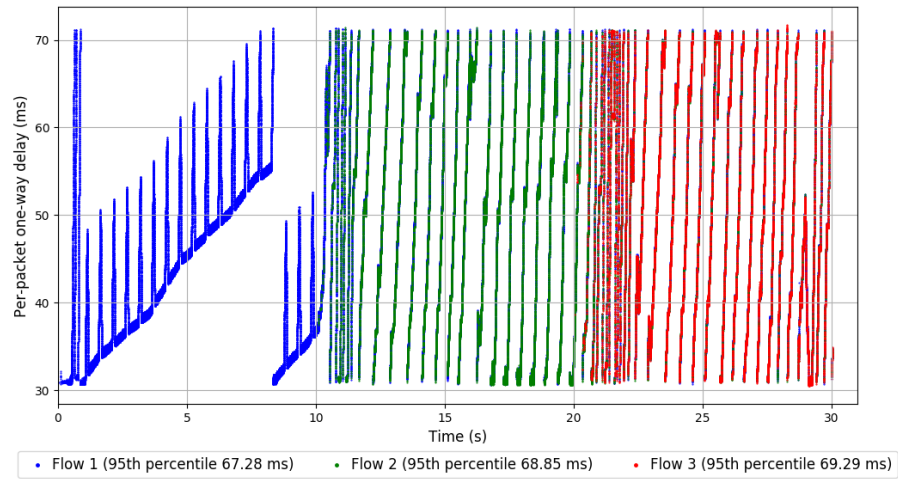
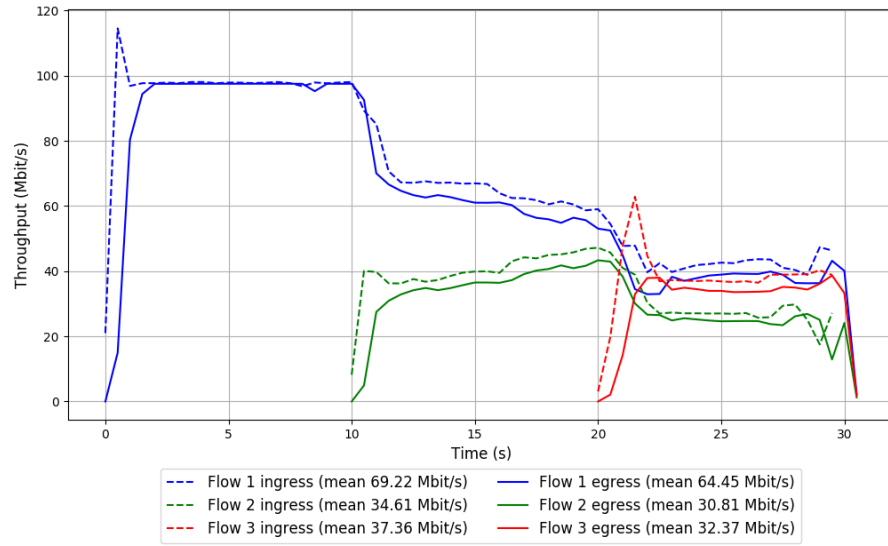


Run 1: Statistics of TCP BBR

Start at: 2018-12-20 01:41:32  
End at: 2018-12-20 01:42:02  
Local clock offset: -0.449 ms  
Remote clock offset: -4.091 ms

# Below is generated by plot.py at 2018-12-20 03:30:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.74 Mbit/s  
95th percentile per-packet one-way delay: 68.230 ms  
Loss rate: 8.56%  
-- Flow 1:  
Average throughput: 64.45 Mbit/s  
95th percentile per-packet one-way delay: 67.284 ms  
Loss rate: 6.88%  
-- Flow 2:  
Average throughput: 30.81 Mbit/s  
95th percentile per-packet one-way delay: 68.852 ms  
Loss rate: 11.00%  
-- Flow 3:  
Average throughput: 32.37 Mbit/s  
95th percentile per-packet one-way delay: 69.293 ms  
Loss rate: 13.37%

# Run 1: Report of TCP BBR — Data Link

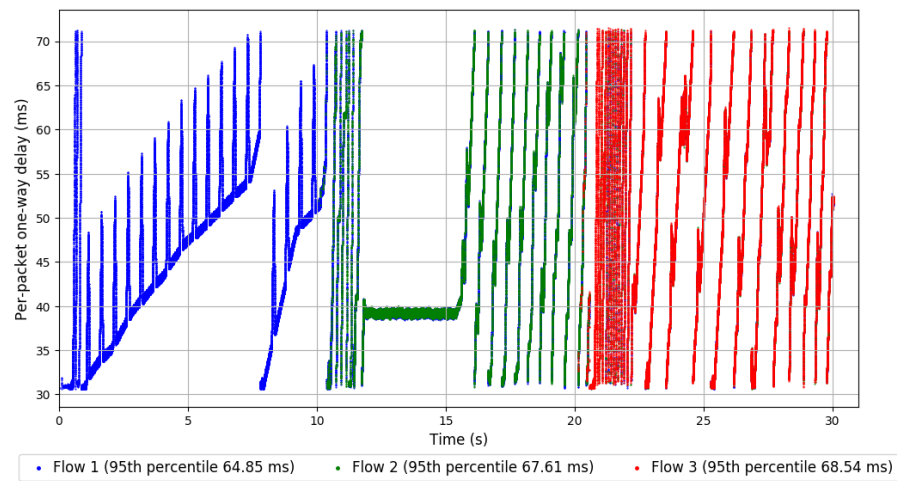
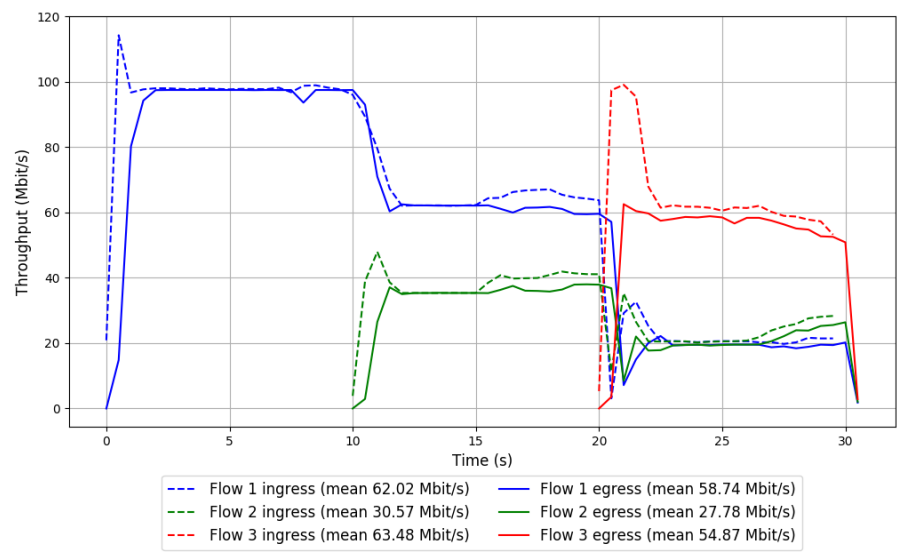


Run 2: Statistics of TCP BBR

Start at: 2018-12-20 02:04:26  
End at: 2018-12-20 02:04:56  
Local clock offset: -2.854 ms  
Remote clock offset: -4.057 ms

# Below is generated by plot.py at 2018-12-20 03:30:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.44 Mbit/s  
95th percentile per-packet one-way delay: 66.516 ms  
Loss rate: 7.72%  
-- Flow 1:  
Average throughput: 58.74 Mbit/s  
95th percentile per-packet one-way delay: 64.852 ms  
Loss rate: 5.22%  
-- Flow 2:  
Average throughput: 27.78 Mbit/s  
95th percentile per-packet one-way delay: 67.614 ms  
Loss rate: 9.13%  
-- Flow 3:  
Average throughput: 54.87 Mbit/s  
95th percentile per-packet one-way delay: 68.544 ms  
Loss rate: 13.69%

Run 2: Report of TCP BBR — Data Link

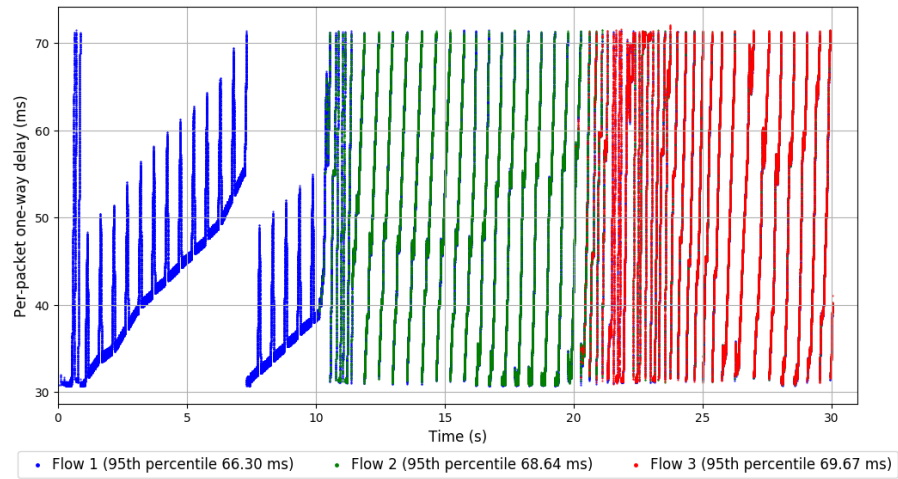
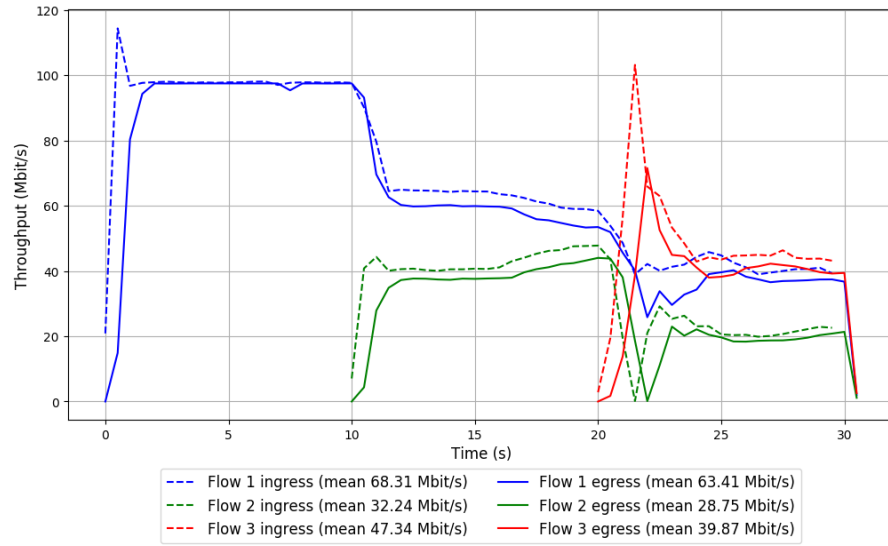


Run 3: Statistics of TCP BBR

Start at: 2018-12-20 02:27:12  
End at: 2018-12-20 02:27:42  
Local clock offset: 0.718 ms  
Remote clock offset: -3.755 ms

# Below is generated by plot.py at 2018-12-20 03:30:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.78 Mbit/s  
95th percentile per-packet one-way delay: 67.674 ms  
Loss rate: 9.20%  
-- Flow 1:  
Average throughput: 63.41 Mbit/s  
95th percentile per-packet one-way delay: 66.304 ms  
Loss rate: 7.14%  
-- Flow 2:  
Average throughput: 28.75 Mbit/s  
95th percentile per-packet one-way delay: 68.642 ms  
Loss rate: 10.82%  
-- Flow 3:  
Average throughput: 39.87 Mbit/s  
95th percentile per-packet one-way delay: 69.671 ms  
Loss rate: 15.93%

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

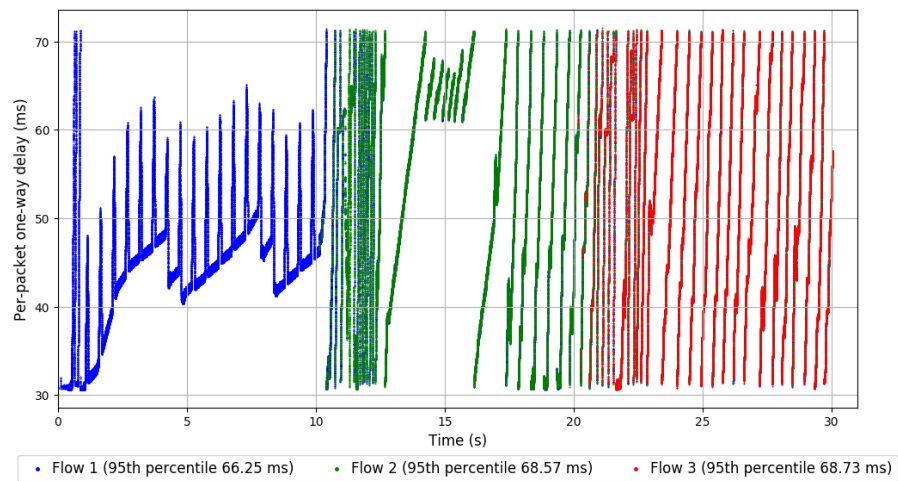
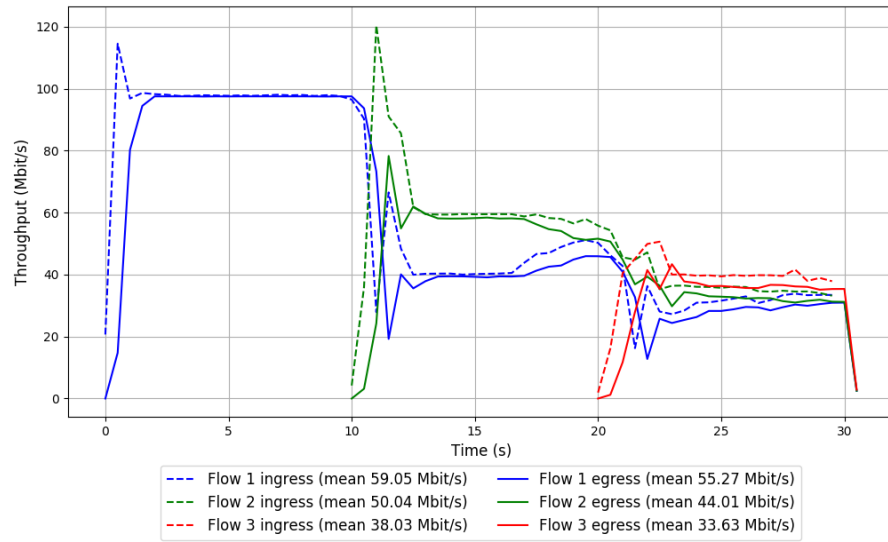


Run 4: Statistics of TCP BBR

Start at: 2018-12-20 02:50:02  
End at: 2018-12-20 02:50:32  
Local clock offset: 0.79 ms  
Remote clock offset: -3.462 ms

# Below is generated by plot.py at 2018-12-20 03:30:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.76 Mbit/s  
95th percentile per-packet one-way delay: 67.819 ms  
Loss rate: 8.75%  
-- Flow 1:  
Average throughput: 55.27 Mbit/s  
95th percentile per-packet one-way delay: 66.253 ms  
Loss rate: 6.31%  
-- Flow 2:  
Average throughput: 44.01 Mbit/s  
95th percentile per-packet one-way delay: 68.571 ms  
Loss rate: 12.00%  
-- Flow 3:  
Average throughput: 33.63 Mbit/s  
95th percentile per-packet one-way delay: 68.734 ms  
Loss rate: 11.58%

# Run 4: Report of TCP BBR — Data Link



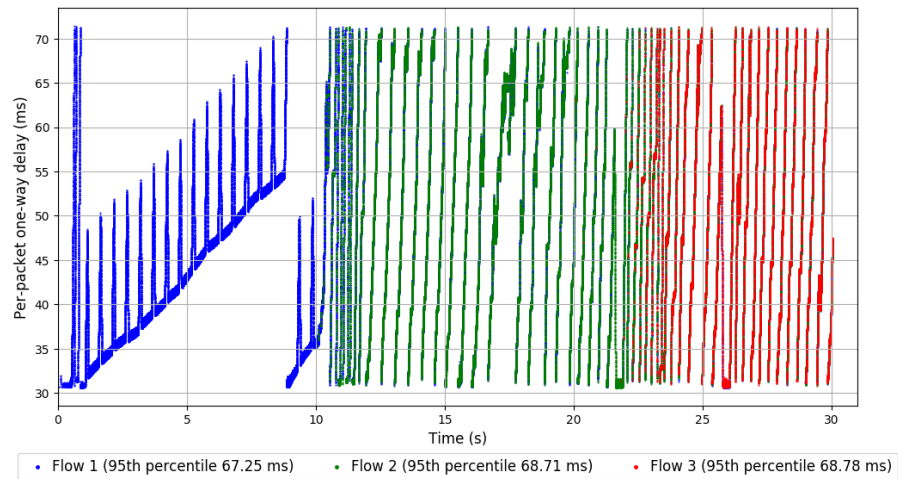
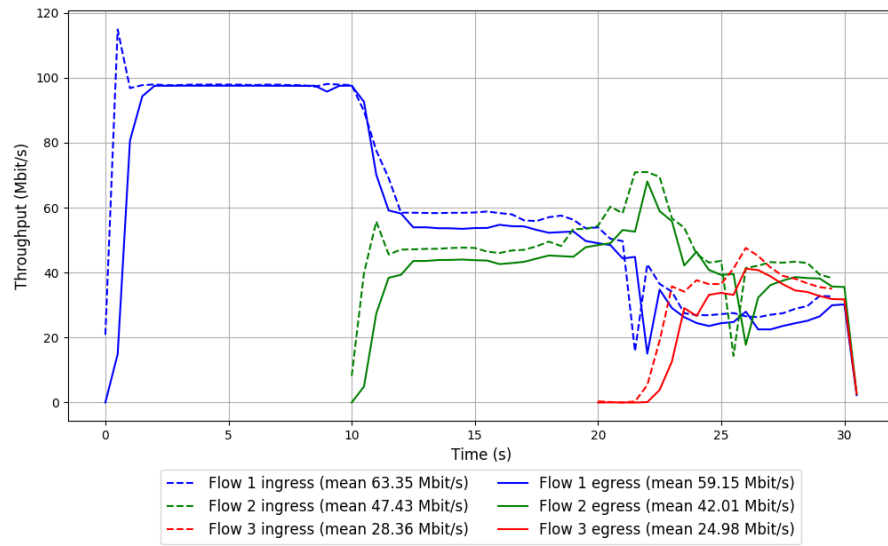


Run 5: Statistics of TCP BBR

Start at: 2018-12-20 03:13:05  
End at: 2018-12-20 03:13:35  
Local clock offset: -0.876 ms  
Remote clock offset: -3.294 ms

# Below is generated by plot.py at 2018-12-20 03:30:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.43 Mbit/s  
95th percentile per-packet one-way delay: 67.955 ms  
Loss rate: 8.53%  
-- Flow 1:  
Average throughput: 59.15 Mbit/s  
95th percentile per-packet one-way delay: 67.246 ms  
Loss rate: 6.58%  
-- Flow 2:  
Average throughput: 42.01 Mbit/s  
95th percentile per-packet one-way delay: 68.708 ms  
Loss rate: 11.37%  
-- Flow 3:  
Average throughput: 24.98 Mbit/s  
95th percentile per-packet one-way delay: 68.782 ms  
Loss rate: 12.07%

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

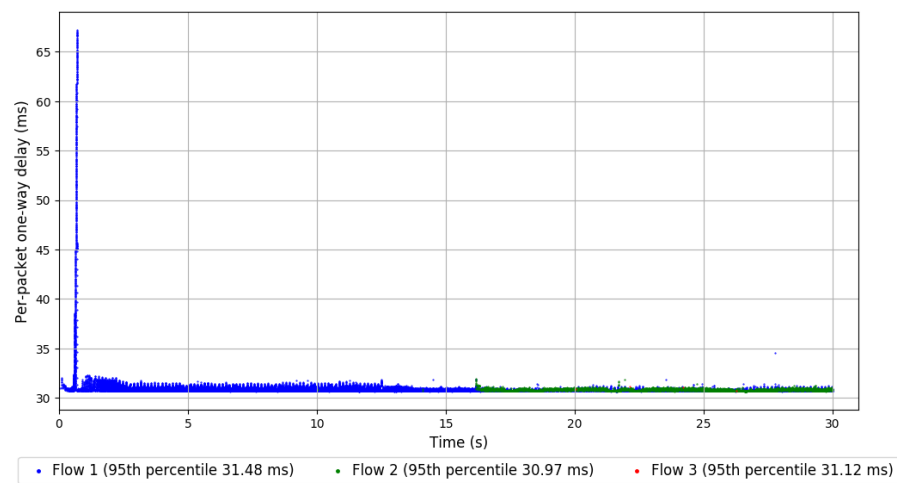
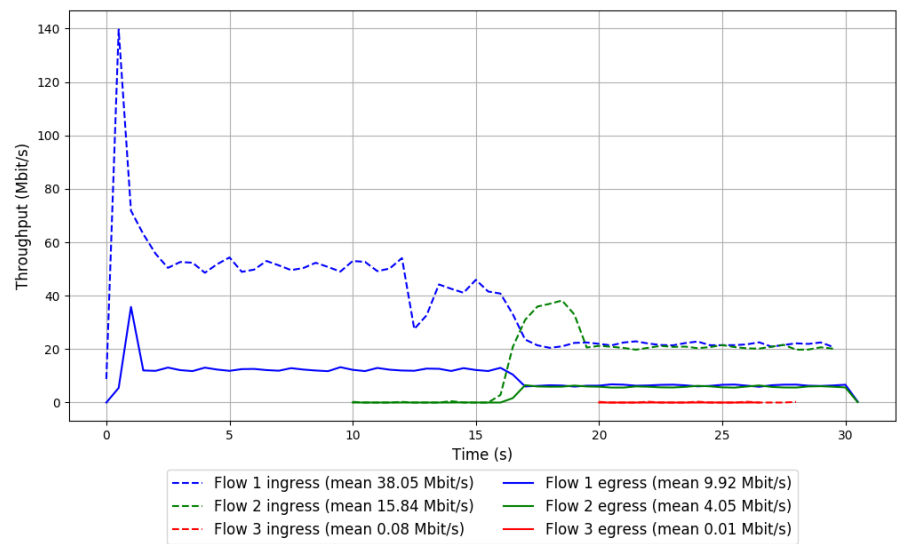


Run 1: Statistics of Copa

Start at: 2018-12-20 01:56:10  
End at: 2018-12-20 01:56:40  
Local clock offset: -2.466 ms  
Remote clock offset: -4.016 ms

# Below is generated by plot.py at 2018-12-20 03:30:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.61 Mbit/s  
95th percentile per-packet one-way delay: 31.357 ms  
Loss rate: 74.06%  
-- Flow 1:  
Average throughput: 9.92 Mbit/s  
95th percentile per-packet one-way delay: 31.484 ms  
Loss rate: 73.93%  
-- Flow 2:  
Average throughput: 4.05 Mbit/s  
95th percentile per-packet one-way delay: 30.968 ms  
Loss rate: 74.46%  
-- Flow 3:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 31.118 ms  
Loss rate: 94.60%

Run 1: Report of Copa — Data Link

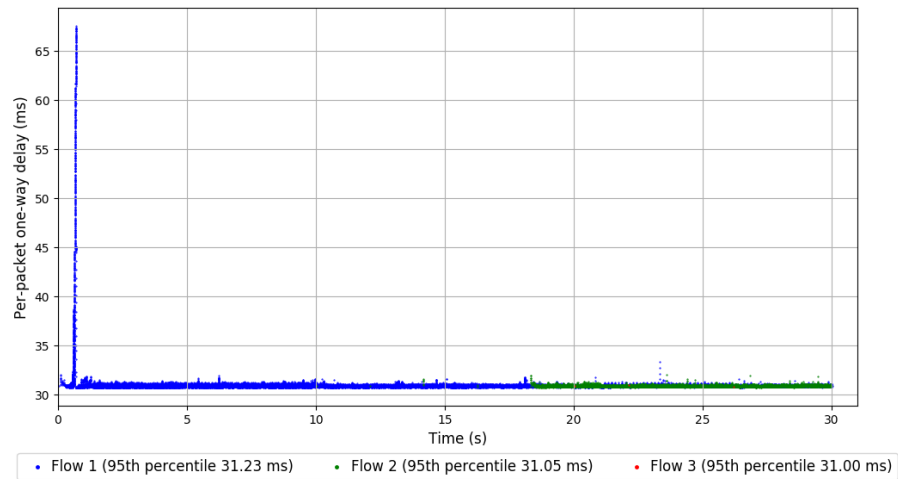
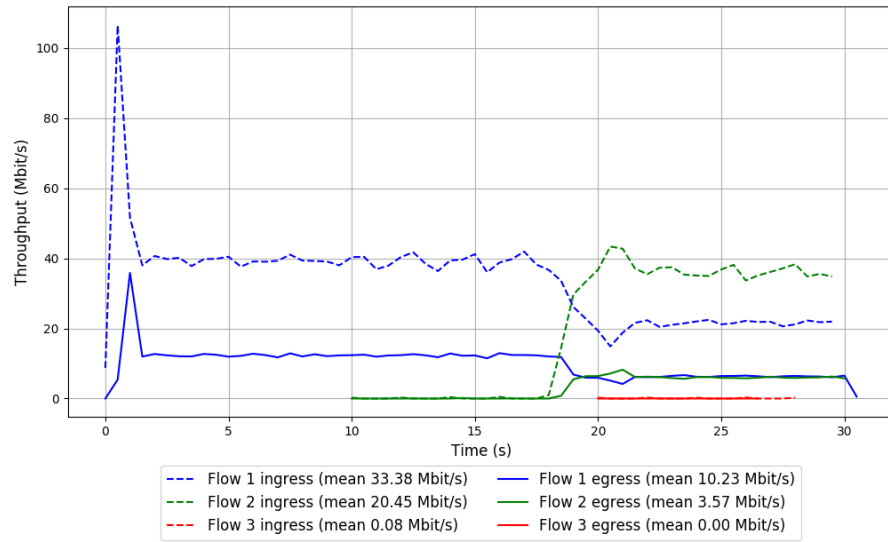


Run 2: Statistics of Copa

Start at: 2018-12-20 02:18:50  
End at: 2018-12-20 02:19:20  
Local clock offset: 0.033 ms  
Remote clock offset: -3.887 ms

# Below is generated by plot.py at 2018-12-20 03:30:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.61 Mbit/s  
95th percentile per-packet one-way delay: 31.190 ms  
Loss rate: 73.17%  
-- Flow 1:  
Average throughput: 10.23 Mbit/s  
95th percentile per-packet one-way delay: 31.233 ms  
Loss rate: 69.34%  
-- Flow 2:  
Average throughput: 3.57 Mbit/s  
95th percentile per-packet one-way delay: 31.051 ms  
Loss rate: 82.53%  
-- Flow 3:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 30.995 ms  
Loss rate: 96.14%

## Run 2: Report of Copa — Data Link

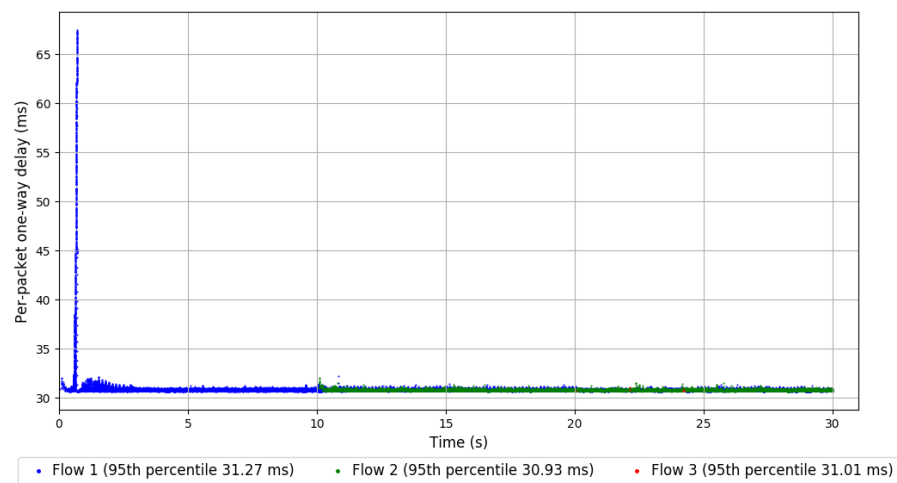
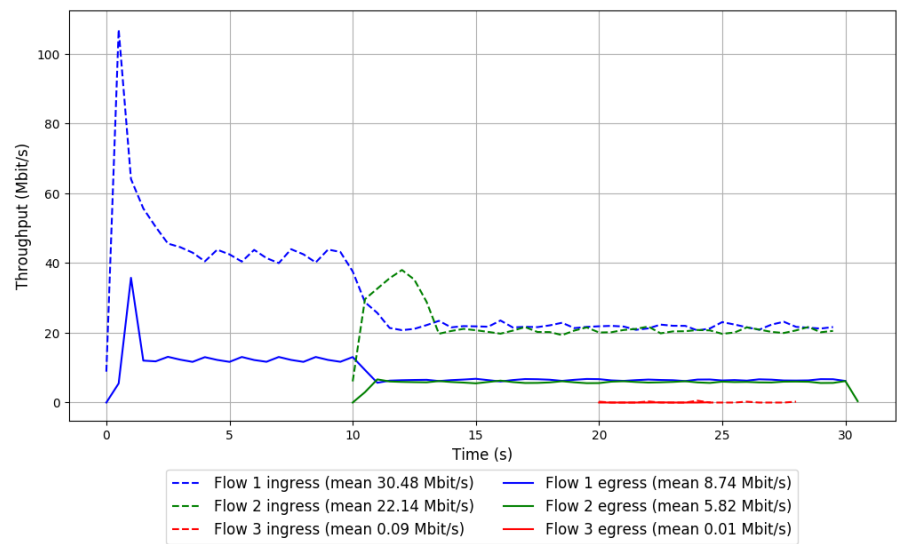


Run 3: Statistics of Copa

Start at: 2018-12-20 02:41:45  
End at: 2018-12-20 02:42:15  
Local clock offset: 0.812 ms  
Remote clock offset: -3.574 ms

# Below is generated by plot.py at 2018-12-20 03:30:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.61 Mbit/s  
95th percentile per-packet one-way delay: 31.092 ms  
Loss rate: 72.11%  
-- Flow 1:  
Average throughput: 8.74 Mbit/s  
95th percentile per-packet one-way delay: 31.275 ms  
Loss rate: 71.32%  
-- Flow 2:  
Average throughput: 5.82 Mbit/s  
95th percentile per-packet one-way delay: 30.933 ms  
Loss rate: 73.69%  
-- Flow 3:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 31.012 ms  
Loss rate: 92.19%

Run 3: Report of Copa — Data Link



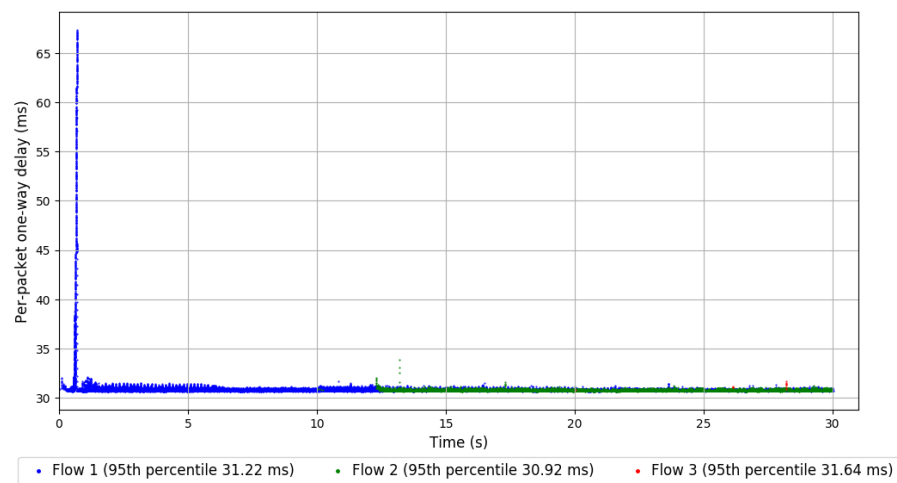
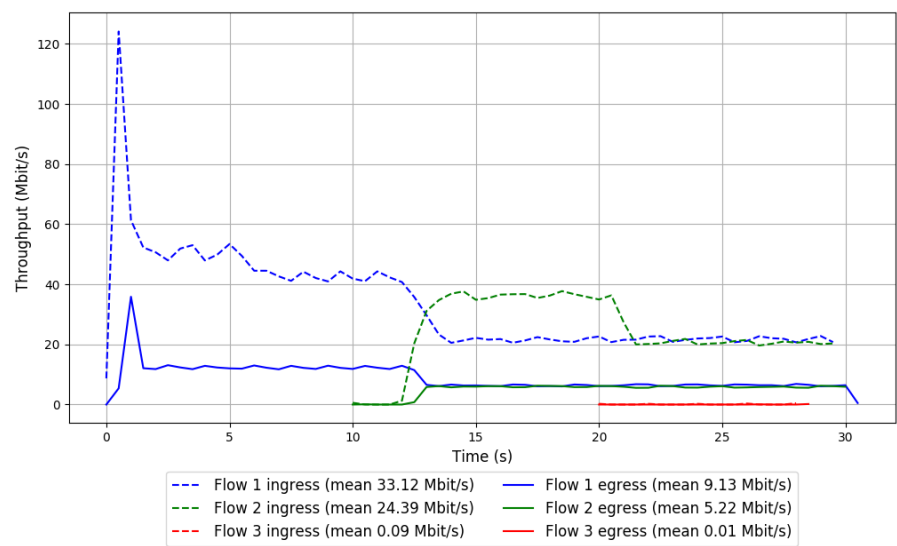


Run 4: Statistics of Copa

Start at: 2018-12-20 03:04:49  
End at: 2018-12-20 03:05:19  
Local clock offset: 0.811 ms  
Remote clock offset: -3.348 ms

```
# Below is generated by plot.py at 2018-12-20 03:30:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.119 ms
Loss rate: 74.46%
-- Flow 1:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 31.222 ms
Loss rate: 72.42%
-- Flow 2:
Average throughput: 5.22 Mbit/s
95th percentile per-packet one-way delay: 30.923 ms
Loss rate: 78.60%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 31.639 ms
Loss rate: 83.76%
```

Run 4: Report of Copa — Data Link

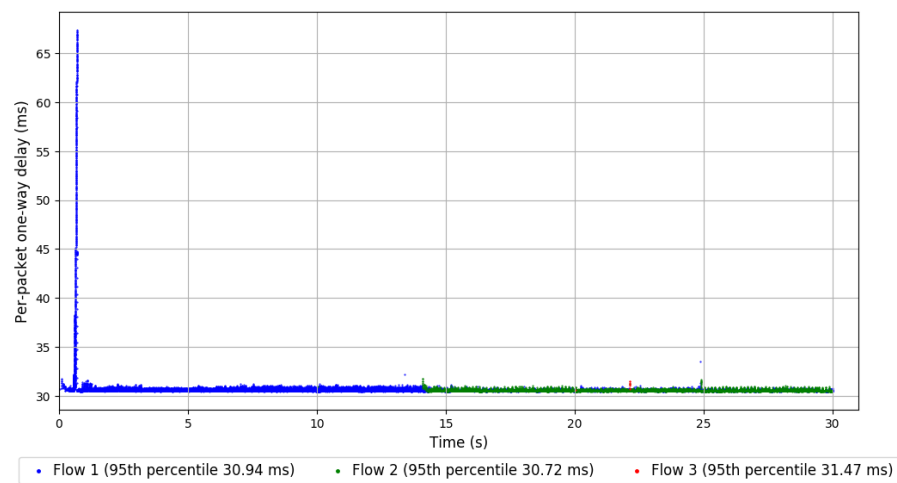
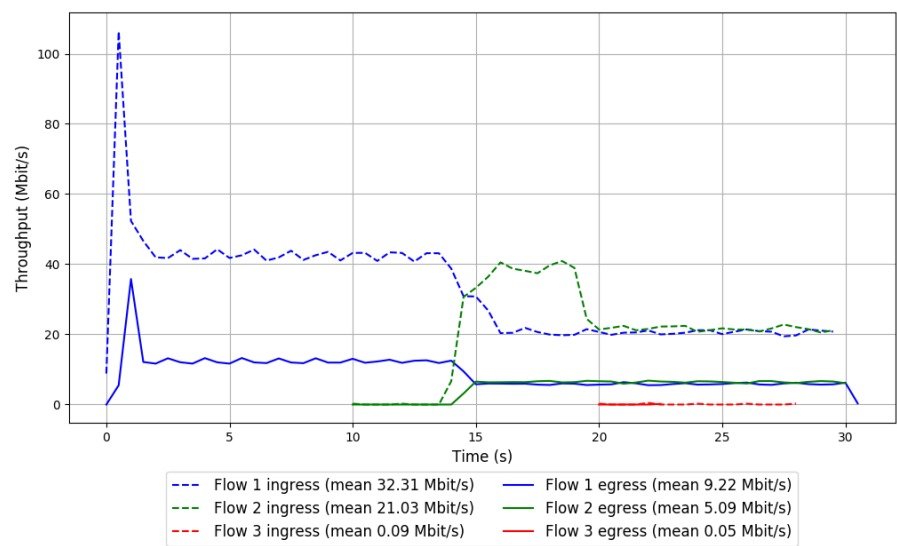


Run 5: Statistics of Copa

Start at: 2018-12-20 03:27:30  
End at: 2018-12-20 03:28:00  
Local clock offset: -2.085 ms  
Remote clock offset: -3.466 ms

# Below is generated by plot.py at 2018-12-20 03:30:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.61 Mbit/s  
95th percentile per-packet one-way delay: 30.876 ms  
Loss rate: 72.78%  
-- Flow 1:  
Average throughput: 9.22 Mbit/s  
95th percentile per-packet one-way delay: 30.942 ms  
Loss rate: 71.46%  
-- Flow 2:  
Average throughput: 5.09 Mbit/s  
95th percentile per-packet one-way delay: 30.724 ms  
Loss rate: 75.80%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 31.473 ms  
Loss rate: 86.32%

Run 5: Report of Copa — Data Link

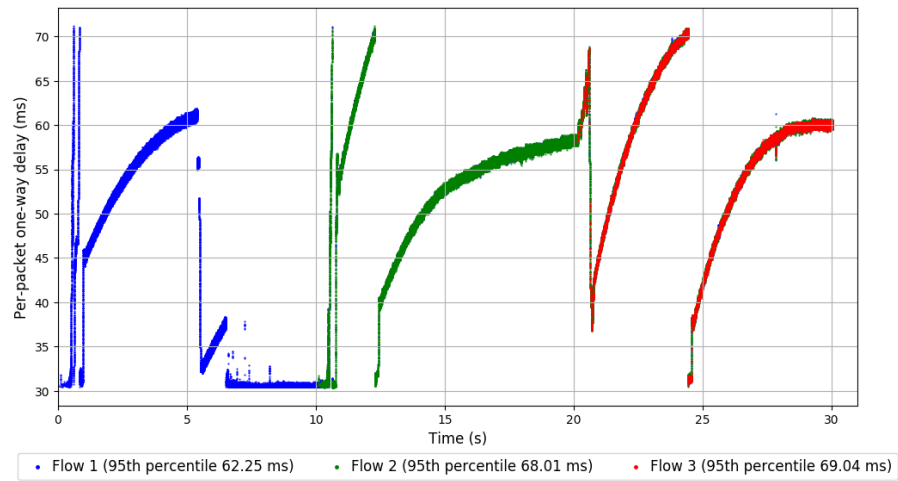
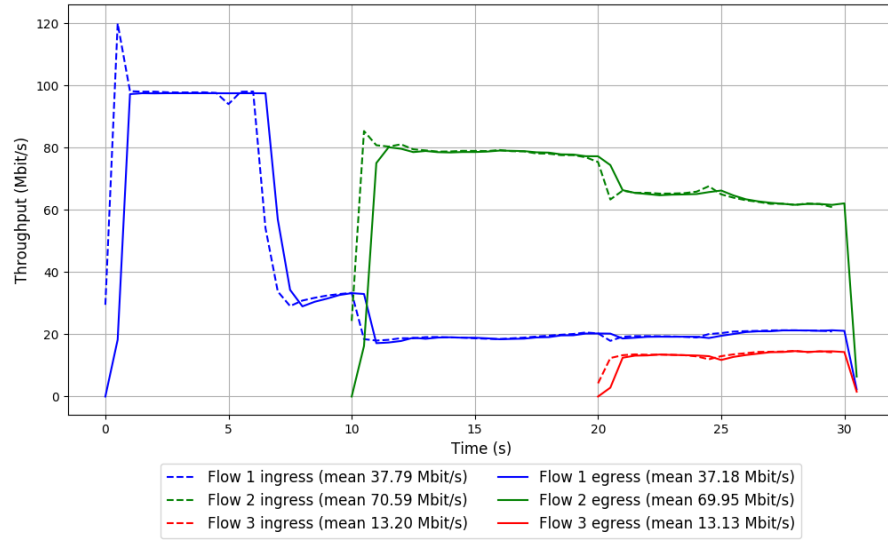


Run 1: Statistics of TCP Cubic

Start at: 2018-12-20 01:36:46  
End at: 2018-12-20 01:37:16  
Local clock offset: 1.276 ms  
Remote clock offset: -4.035 ms

# Below is generated by plot.py at 2018-12-20 03:30:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.17 Mbit/s  
95th percentile per-packet one-way delay: 67.060 ms  
Loss rate: 1.06%  
-- Flow 1:  
Average throughput: 37.18 Mbit/s  
95th percentile per-packet one-way delay: 62.251 ms  
Loss rate: 1.51%  
-- Flow 2:  
Average throughput: 69.95 Mbit/s  
95th percentile per-packet one-way delay: 68.007 ms  
Loss rate: 0.76%  
-- Flow 3:  
Average throughput: 13.13 Mbit/s  
95th percentile per-packet one-way delay: 69.043 ms  
Loss rate: 0.47%

# Run 1: Report of TCP Cubic — Data Link

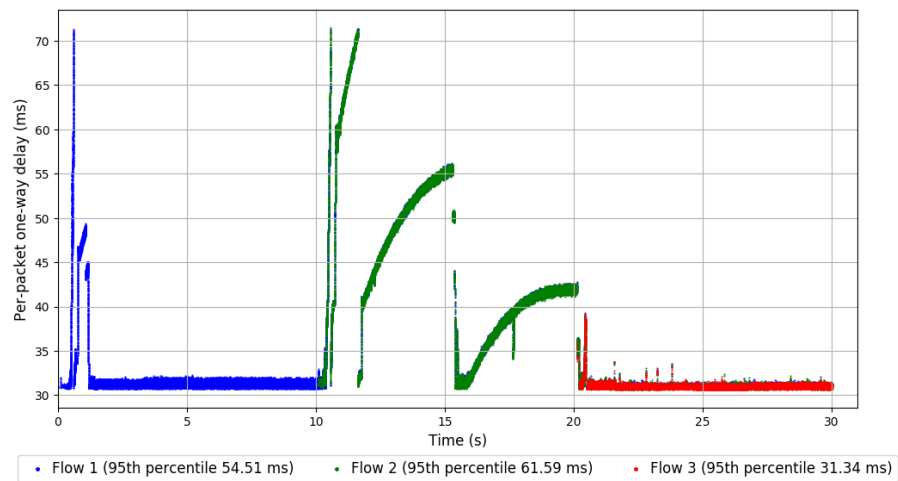
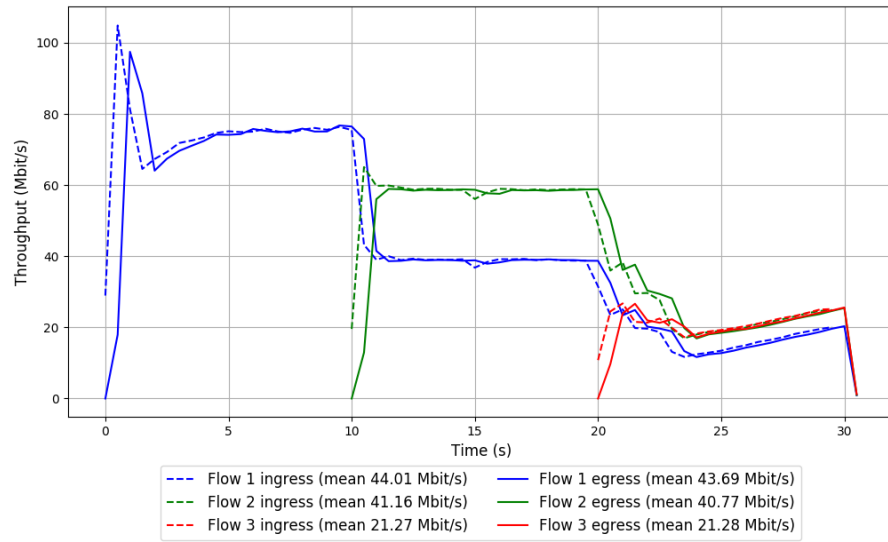


Run 2: Statistics of TCP Cubic

Start at: 2018-12-20 01:59:41  
End at: 2018-12-20 02:00:11  
Local clock offset: -2.674 ms  
Remote clock offset: -4.026 ms

# Below is generated by plot.py at 2018-12-20 03:30:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.92 Mbit/s  
95th percentile per-packet one-way delay: 55.264 ms  
Loss rate: 0.73%  
-- Flow 1:  
Average throughput: 43.69 Mbit/s  
95th percentile per-packet one-way delay: 54.513 ms  
Loss rate: 0.71%  
-- Flow 2:  
Average throughput: 40.77 Mbit/s  
95th percentile per-packet one-way delay: 61.590 ms  
Loss rate: 0.95%  
-- Flow 3:  
Average throughput: 21.28 Mbit/s  
95th percentile per-packet one-way delay: 31.344 ms  
Loss rate: 0.05%

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



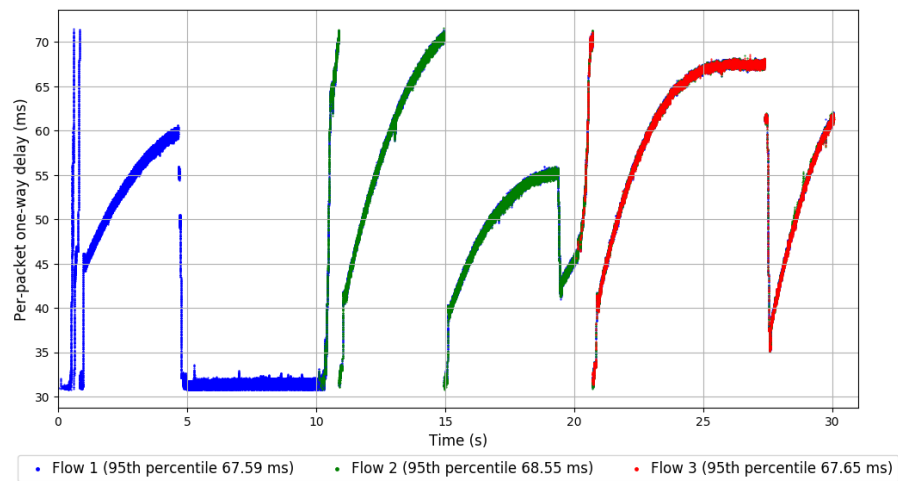
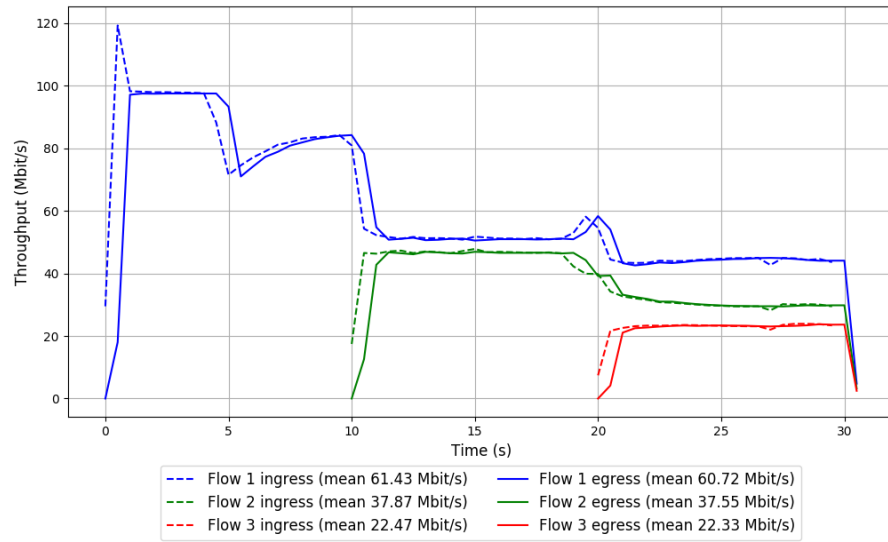


Run 3: Statistics of TCP Cubic

Start at: 2018-12-20 02:22:20  
End at: 2018-12-20 02:22:50  
Local clock offset: 0.351 ms  
Remote clock offset: -3.836 ms

# Below is generated by plot.py at 2018-12-20 03:31:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.18 Mbit/s  
95th percentile per-packet one-way delay: 67.706 ms  
Loss rate: 0.92%  
-- Flow 1:  
Average throughput: 60.72 Mbit/s  
95th percentile per-packet one-way delay: 67.588 ms  
Loss rate: 1.06%  
-- Flow 2:  
Average throughput: 37.55 Mbit/s  
95th percentile per-packet one-way delay: 68.547 ms  
Loss rate: 0.69%  
-- Flow 3:  
Average throughput: 22.33 Mbit/s  
95th percentile per-packet one-way delay: 67.651 ms  
Loss rate: 0.50%

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

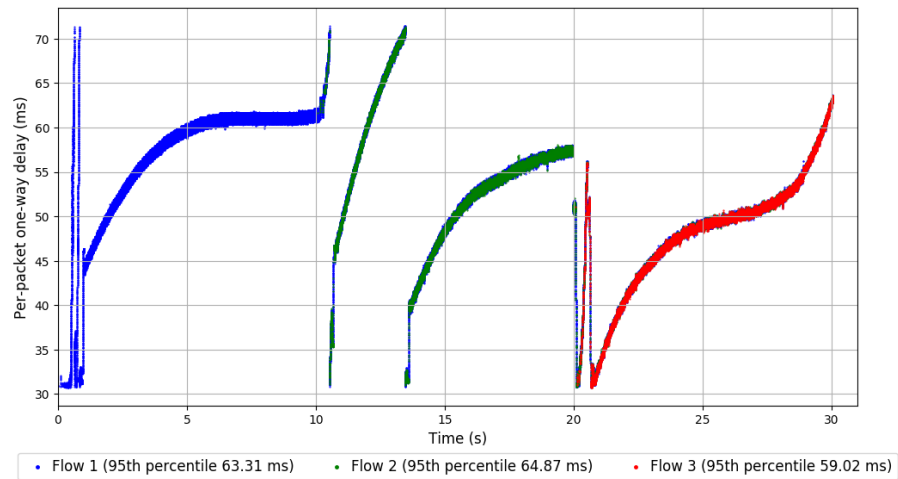
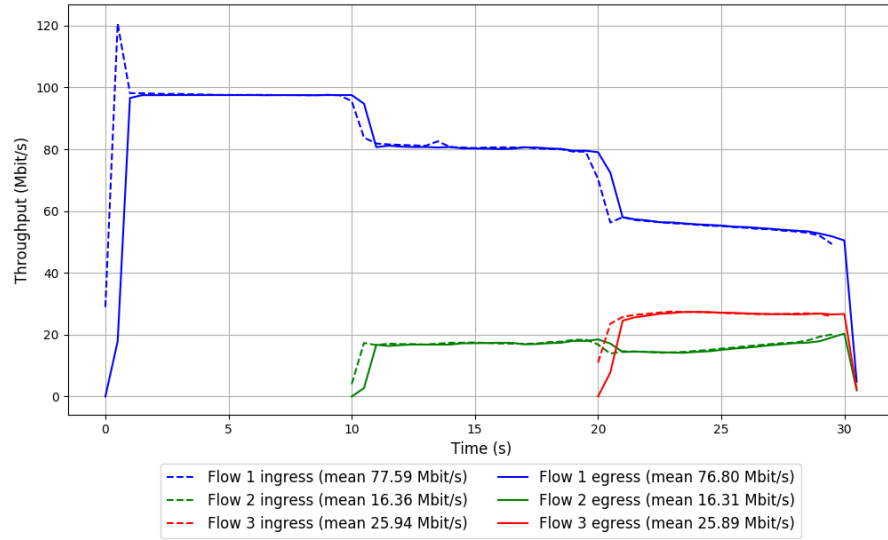


Run 4: Statistics of TCP Cubic

Start at: 2018-12-20 02:45:16  
End at: 2018-12-20 02:45:46  
Local clock offset: 0.741 ms  
Remote clock offset: -3.552 ms

# Below is generated by plot.py at 2018-12-20 03:31:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.27 Mbit/s  
95th percentile per-packet one-way delay: 62.976 ms  
Loss rate: 0.77%  
-- Flow 1:  
Average throughput: 76.80 Mbit/s  
95th percentile per-packet one-way delay: 63.313 ms  
Loss rate: 0.91%  
-- Flow 2:  
Average throughput: 16.31 Mbit/s  
95th percentile per-packet one-way delay: 64.867 ms  
Loss rate: 0.33%  
-- Flow 3:  
Average throughput: 25.89 Mbit/s  
95th percentile per-packet one-way delay: 59.019 ms  
Loss rate: 0.07%

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

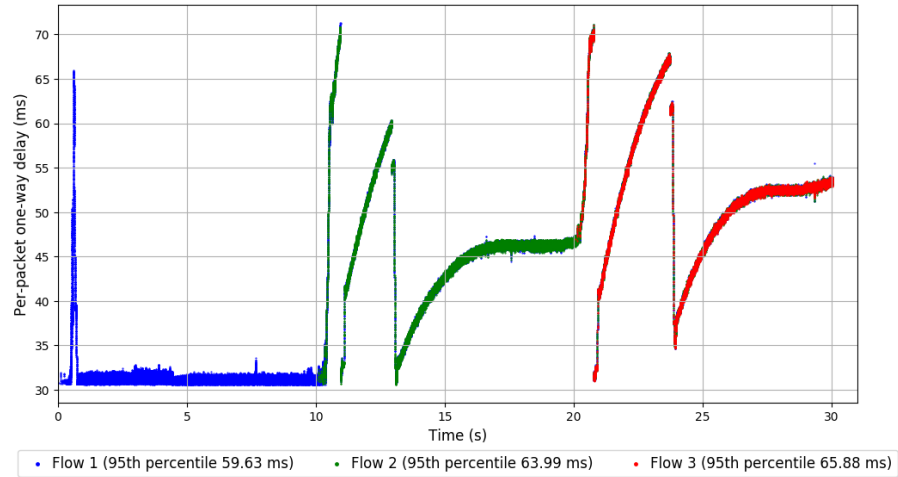
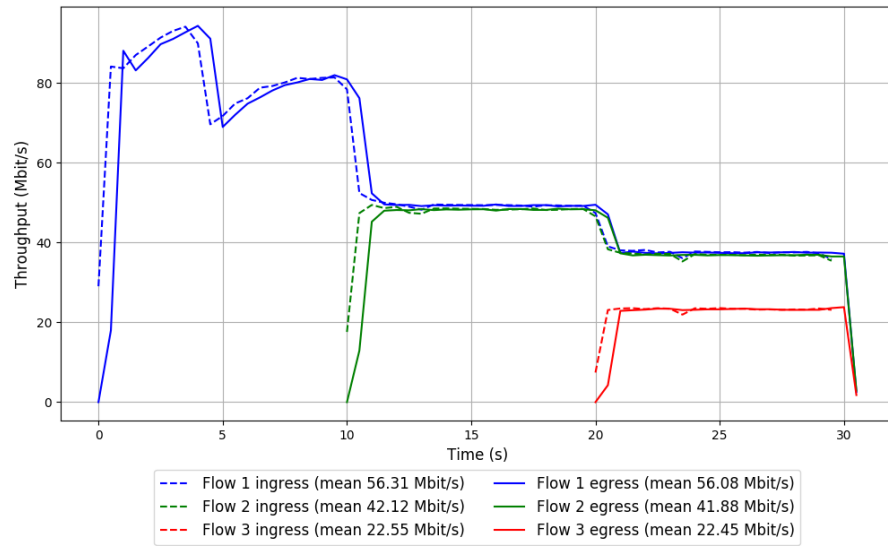


Run 5: Statistics of TCP Cubic

Start at: 2018-12-20 03:08:19  
End at: 2018-12-20 03:08:49  
Local clock offset: 0.061 ms  
Remote clock offset: -3.337 ms

# Below is generated by plot.py at 2018-12-20 03:31:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.45 Mbit/s  
95th percentile per-packet one-way delay: 62.443 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 56.08 Mbit/s  
95th percentile per-packet one-way delay: 59.629 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 41.88 Mbit/s  
95th percentile per-packet one-way delay: 63.987 ms  
Loss rate: 0.46%  
-- Flow 3:  
Average throughput: 22.45 Mbit/s  
95th percentile per-packet one-way delay: 65.883 ms  
Loss rate: 0.37%

# Run 5: Report of TCP Cubic — Data Link

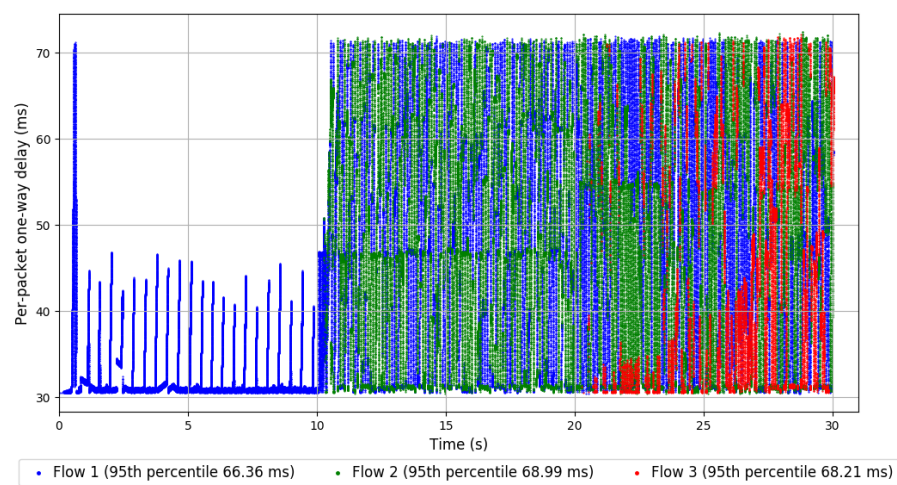
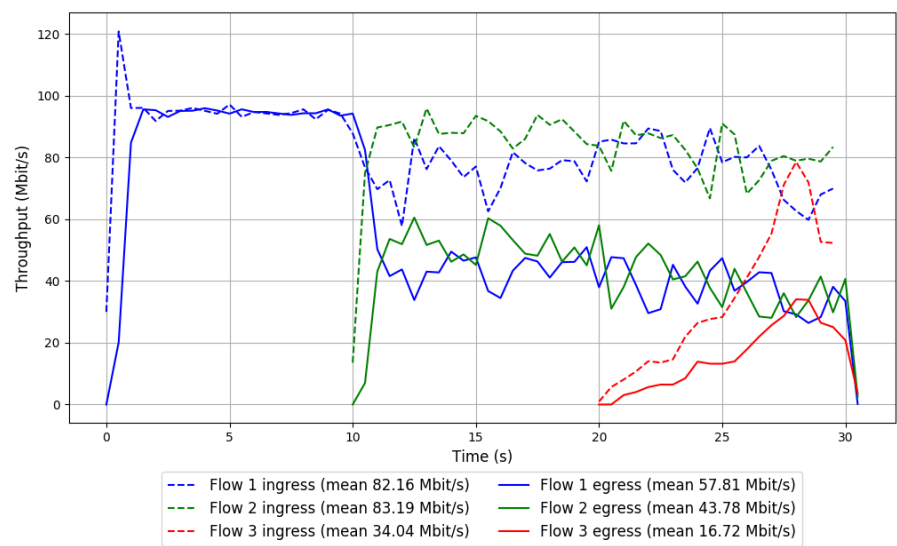


Run 1: Statistics of FillP

Start at: 2018-12-20 01:47:36  
End at: 2018-12-20 01:48:06  
Local clock offset: -1.658 ms  
Remote clock offset: -4.103 ms

# Below is generated by plot.py at 2018-12-20 03:32:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.39 Mbit/s  
95th percentile per-packet one-way delay: 67.856 ms  
Loss rate: 37.85%  
-- Flow 1:  
Average throughput: 57.81 Mbit/s  
95th percentile per-packet one-way delay: 66.364 ms  
Loss rate: 29.57%  
-- Flow 2:  
Average throughput: 43.78 Mbit/s  
95th percentile per-packet one-way delay: 68.993 ms  
Loss rate: 47.31%  
-- Flow 3:  
Average throughput: 16.72 Mbit/s  
95th percentile per-packet one-way delay: 68.206 ms  
Loss rate: 51.77%

Run 1: Report of FillP — Data Link



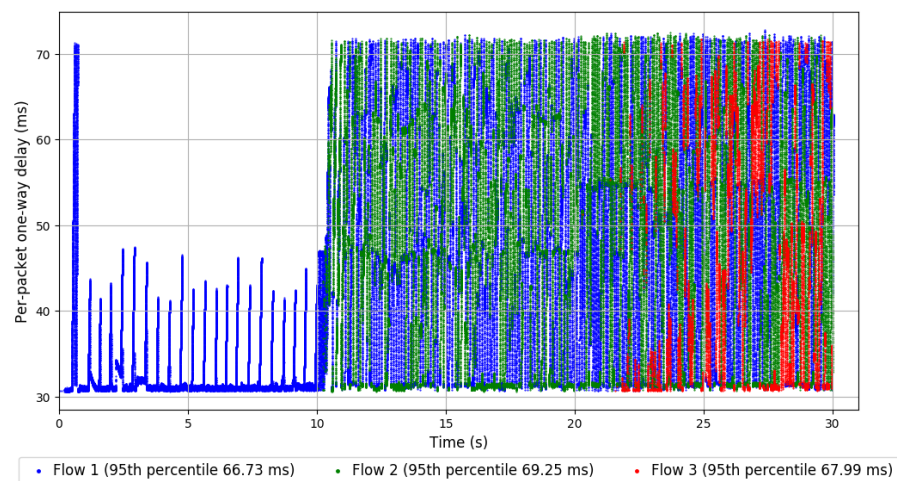
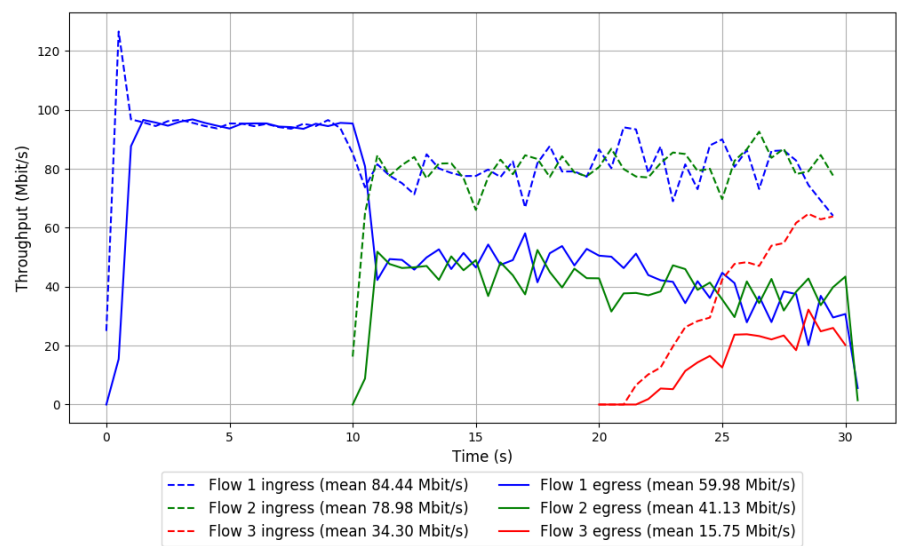


Run 2: Statistics of FillP

Start at: 2018-12-20 02:10:26  
End at: 2018-12-20 02:10:56  
Local clock offset: -1.36 ms  
Remote clock offset: -3.986 ms

# Below is generated by plot.py at 2018-12-20 03:32:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.43 Mbit/s  
95th percentile per-packet one-way delay: 67.868 ms  
Loss rate: 37.63%  
-- Flow 1:  
Average throughput: 59.98 Mbit/s  
95th percentile per-packet one-way delay: 66.735 ms  
Loss rate: 28.89%  
-- Flow 2:  
Average throughput: 41.13 Mbit/s  
95th percentile per-packet one-way delay: 69.246 ms  
Loss rate: 47.89%  
-- Flow 3:  
Average throughput: 15.75 Mbit/s  
95th percentile per-packet one-way delay: 67.986 ms  
Loss rate: 55.13%

Run 2: Report of FillP — Data Link

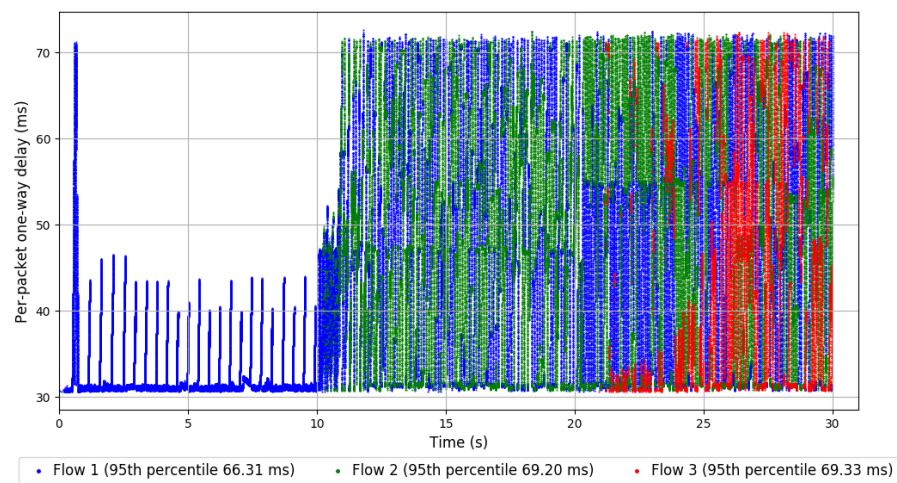
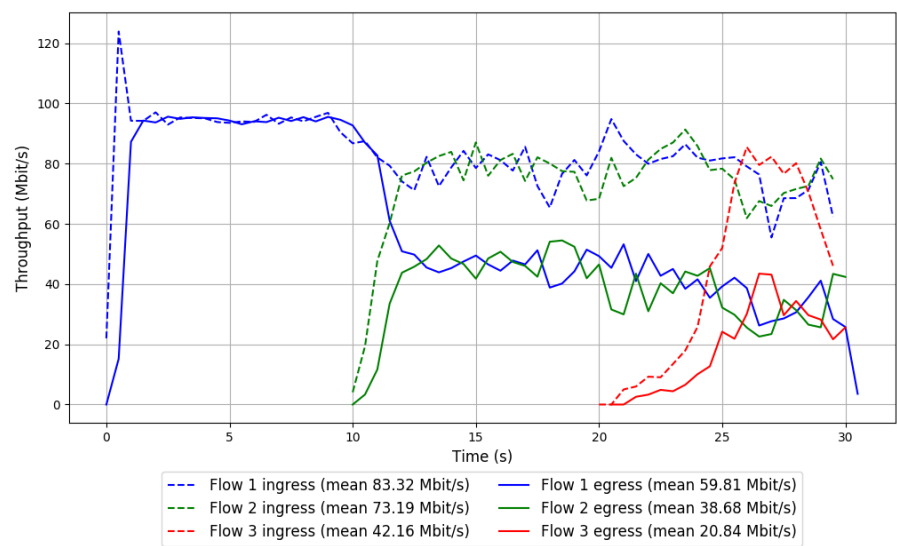


Run 3: Statistics of FillP

Start at: 2018-12-20 02:33:15  
End at: 2018-12-20 02:33:45  
Local clock offset: 0.999 ms  
Remote clock offset: -3.677 ms

# Below is generated by plot.py at 2018-12-20 03:32:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.82 Mbit/s  
95th percentile per-packet one-way delay: 68.012 ms  
Loss rate: 37.04%  
-- Flow 1:  
Average throughput: 59.81 Mbit/s  
95th percentile per-packet one-way delay: 66.311 ms  
Loss rate: 28.14%  
-- Flow 2:  
Average throughput: 38.68 Mbit/s  
95th percentile per-packet one-way delay: 69.205 ms  
Loss rate: 47.10%  
-- Flow 3:  
Average throughput: 20.84 Mbit/s  
95th percentile per-packet one-way delay: 69.332 ms  
Loss rate: 55.02%

Run 3: Report of FillP — Data Link

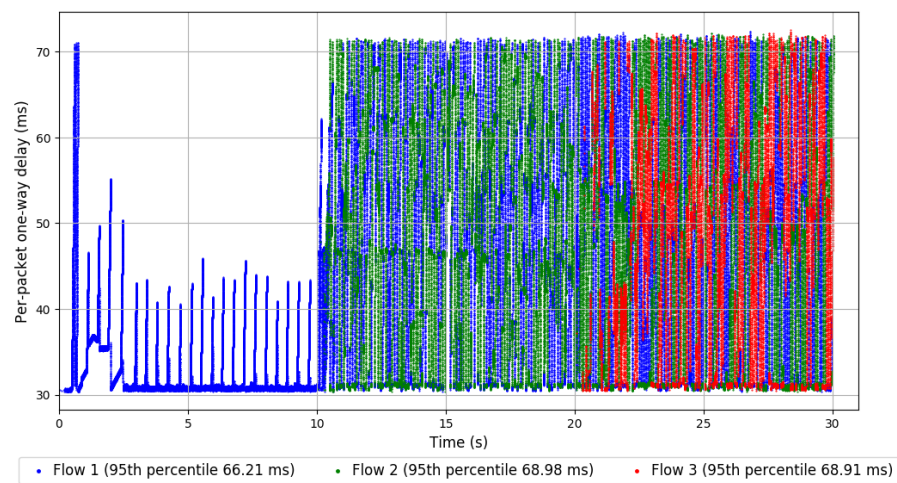
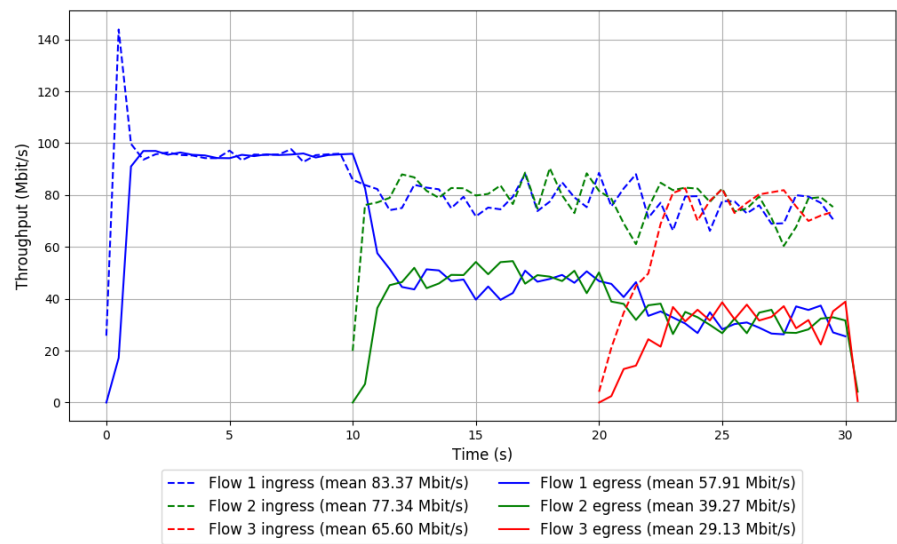


Run 4: Statistics of FillP

Start at: 2018-12-20 02:56:13  
End at: 2018-12-20 02:56:43  
Local clock offset: 0.713 ms  
Remote clock offset: -3.558 ms

# Below is generated by plot.py at 2018-12-20 03:32:19  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.63 Mbit/s  
95th percentile per-packet one-way delay: 67.778 ms  
Loss rate: 40.15%  
-- Flow 1:  
Average throughput: 57.91 Mbit/s  
95th percentile per-packet one-way delay: 66.206 ms  
Loss rate: 30.59%  
-- Flow 2:  
Average throughput: 39.27 Mbit/s  
95th percentile per-packet one-way delay: 68.980 ms  
Loss rate: 49.14%  
-- Flow 3:  
Average throughput: 29.13 Mbit/s  
95th percentile per-packet one-way delay: 68.908 ms  
Loss rate: 55.52%

Run 4: Report of FillP — Data Link

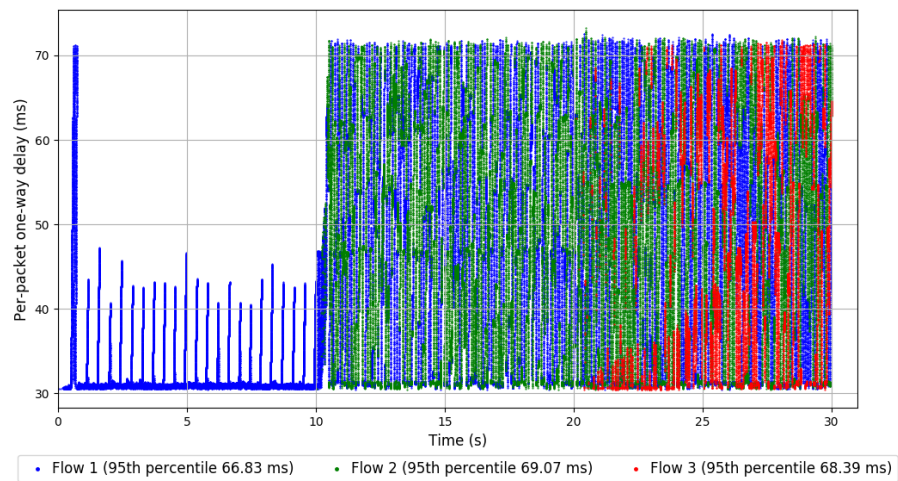
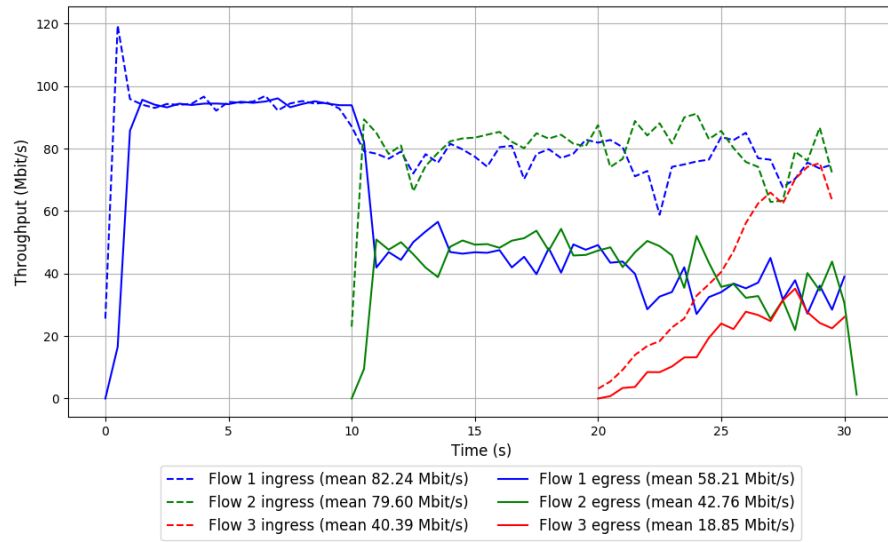


Run 5: Statistics of FillP

Start at: 2018-12-20 03:19:05  
End at: 2018-12-20 03:19:35  
Local clock offset: -1.56 ms  
Remote clock offset: -3.313 ms

# Below is generated by plot.py at 2018-12-20 03:32:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.86 Mbit/s  
95th percentile per-packet one-way delay: 67.965 ms  
Loss rate: 37.48%  
-- Flow 1:  
Average throughput: 58.21 Mbit/s  
95th percentile per-packet one-way delay: 66.825 ms  
Loss rate: 29.26%  
-- Flow 2:  
Average throughput: 42.76 Mbit/s  
95th percentile per-packet one-way delay: 69.071 ms  
Loss rate: 46.20%  
-- Flow 3:  
Average throughput: 18.85 Mbit/s  
95th percentile per-packet one-way delay: 68.387 ms  
Loss rate: 53.48%

## Run 5: Report of FillP — Data Link



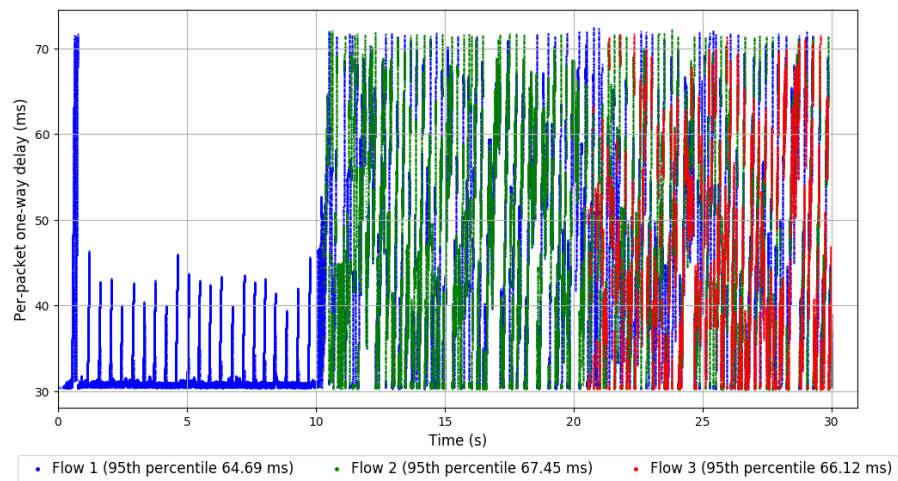
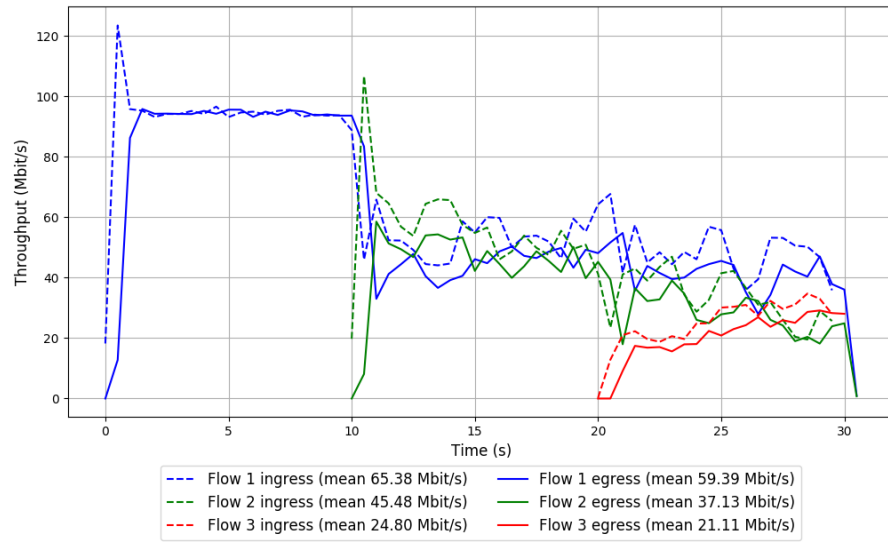


Run 1: Statistics of FillP-Sheep

Start at: 2018-12-20 01:39:11  
End at: 2018-12-20 01:39:41  
Local clock offset: 0.245 ms  
Remote clock offset: -4.131 ms

# Below is generated by plot.py at 2018-12-20 03:32:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.09 Mbit/s  
95th percentile per-packet one-way delay: 65.868 ms  
Loss rate: 12.30%  
-- Flow 1:  
Average throughput: 59.39 Mbit/s  
95th percentile per-packet one-way delay: 64.688 ms  
Loss rate: 9.16%  
-- Flow 2:  
Average throughput: 37.13 Mbit/s  
95th percentile per-packet one-way delay: 67.453 ms  
Loss rate: 18.34%  
-- Flow 3:  
Average throughput: 21.11 Mbit/s  
95th percentile per-packet one-way delay: 66.120 ms  
Loss rate: 15.07%

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

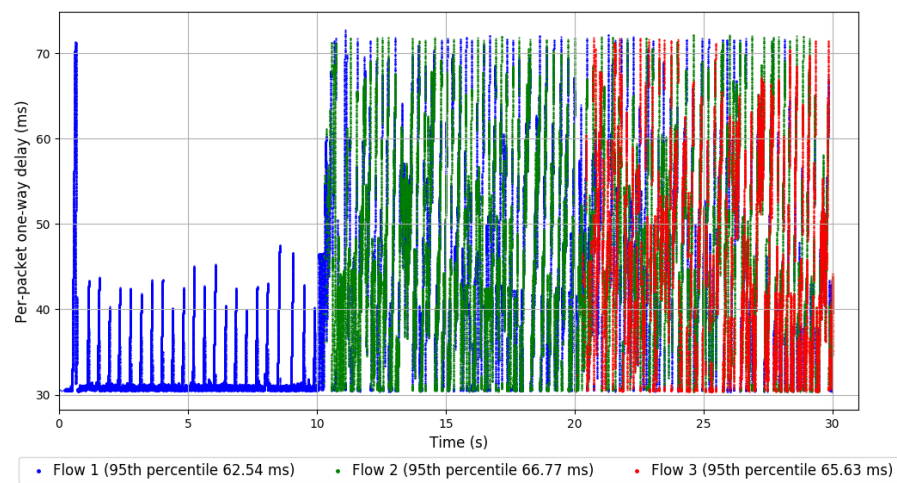
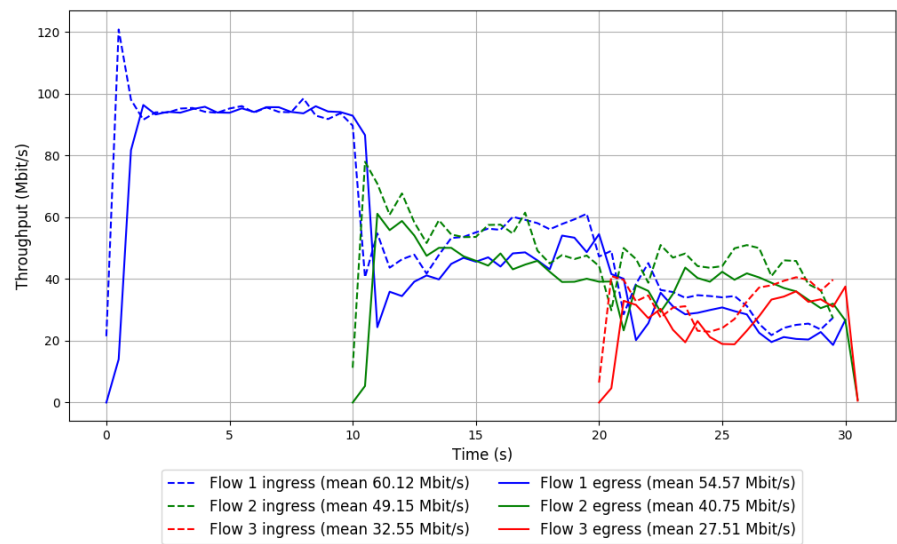


Run 2: Statistics of FillP-Sheep

Start at: 2018-12-20 02:02:05  
End at: 2018-12-20 02:02:35  
Local clock offset: -2.786 ms  
Remote clock offset: -4.195 ms

# Below is generated by plot.py at 2018-12-20 03:32:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.77 Mbit/s  
95th percentile per-packet one-way delay: 65.108 ms  
Loss rate: 12.33%  
-- Flow 1:  
Average throughput: 54.57 Mbit/s  
95th percentile per-packet one-way delay: 62.536 ms  
Loss rate: 9.22%  
-- Flow 2:  
Average throughput: 40.75 Mbit/s  
95th percentile per-packet one-way delay: 66.766 ms  
Loss rate: 17.03%  
-- Flow 3:  
Average throughput: 27.51 Mbit/s  
95th percentile per-packet one-way delay: 65.631 ms  
Loss rate: 15.43%

Run 2: Report of FillP-Sheep — Data Link

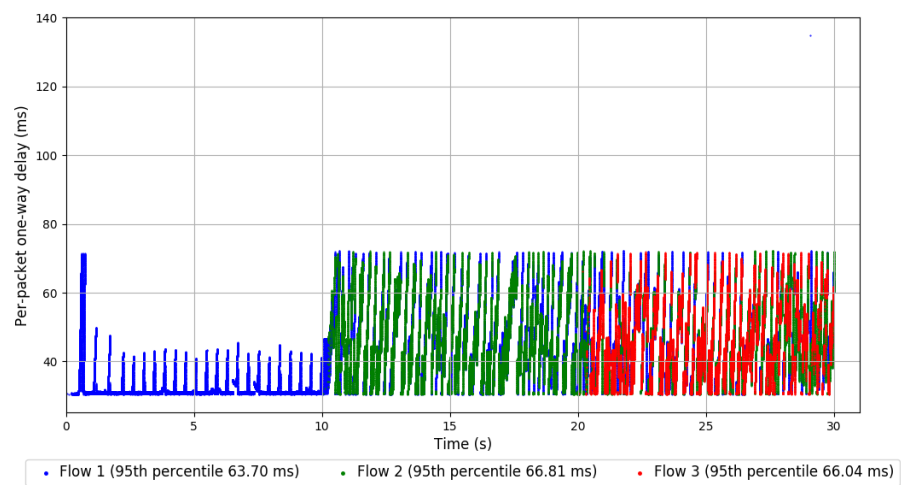
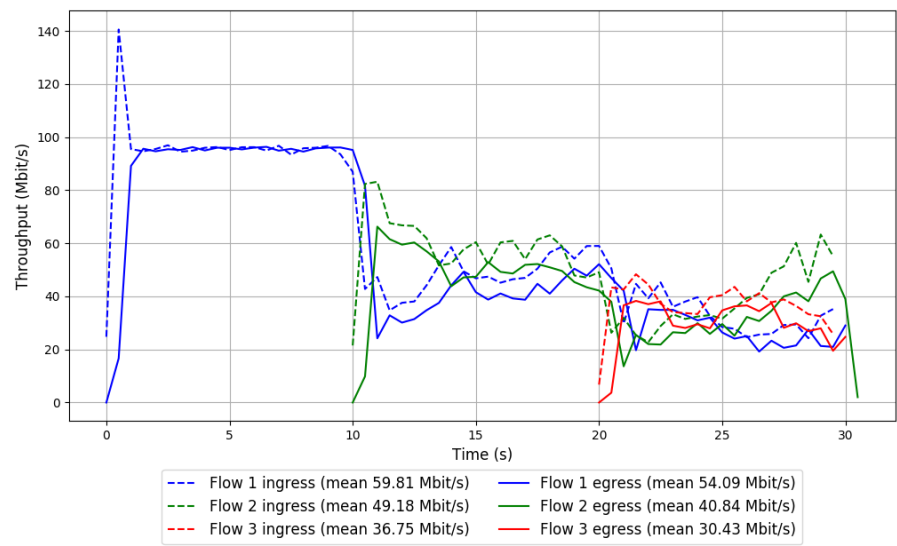


Run 3: Statistics of FillP-Sheep

Start at: 2018-12-20 02:24:49  
End at: 2018-12-20 02:25:19  
Local clock offset: 0.566 ms  
Remote clock offset: -3.957 ms

# Below is generated by plot.py at 2018-12-20 03:32:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.36 Mbit/s  
95th percentile per-packet one-way delay: 65.331 ms  
Loss rate: 12.78%  
-- Flow 1:  
Average throughput: 54.09 Mbit/s  
95th percentile per-packet one-way delay: 63.697 ms  
Loss rate: 9.58%  
-- Flow 2:  
Average throughput: 40.84 Mbit/s  
95th percentile per-packet one-way delay: 66.811 ms  
Loss rate: 16.94%  
-- Flow 3:  
Average throughput: 30.43 Mbit/s  
95th percentile per-packet one-way delay: 66.038 ms  
Loss rate: 17.30%

Run 3: Report of FillP-Sheep — Data Link

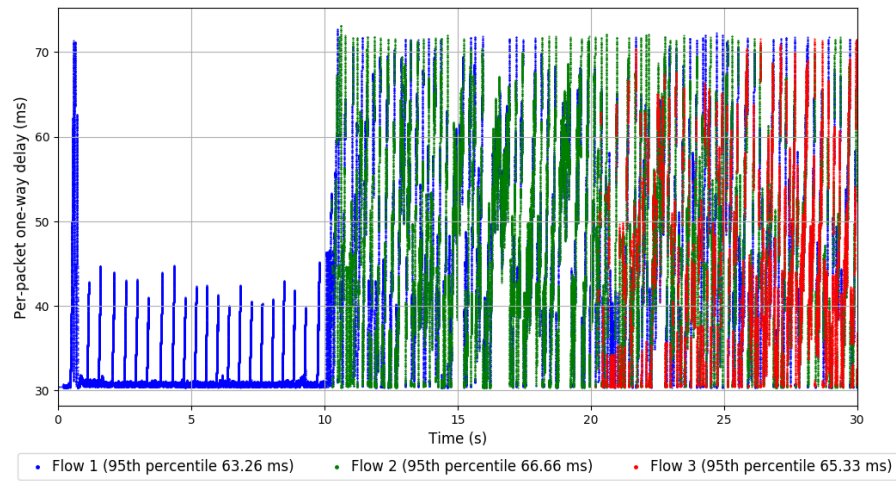
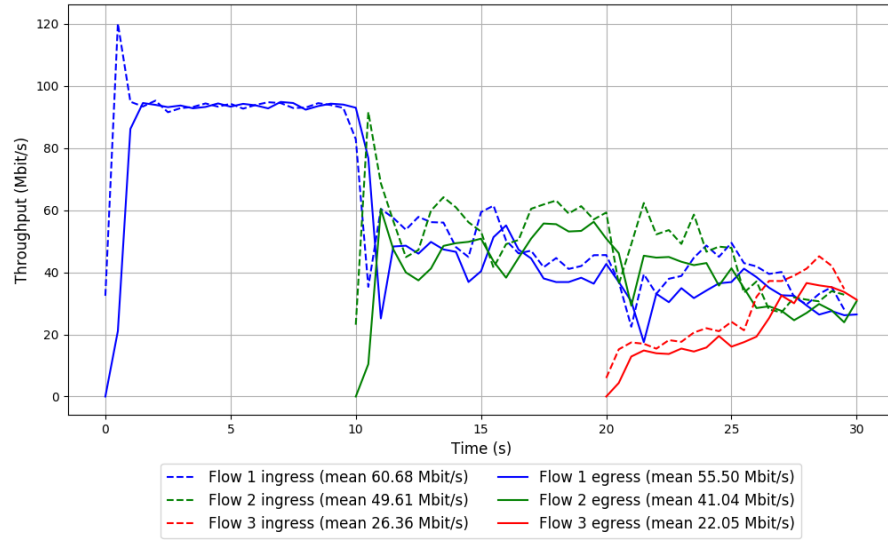


Run 4: Statistics of FillP-Sheep

Start at: 2018-12-20 02:47:42  
End at: 2018-12-20 02:48:12  
Local clock offset: 0.742 ms  
Remote clock offset: -3.668 ms

# Below is generated by plot.py at 2018-12-20 03:33:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.06 Mbit/s  
95th percentile per-packet one-way delay: 64.987 ms  
Loss rate: 12.03%  
-- Flow 1:  
Average throughput: 55.50 Mbit/s  
95th percentile per-packet one-way delay: 63.262 ms  
Loss rate: 8.53%  
-- Flow 2:  
Average throughput: 41.04 Mbit/s  
95th percentile per-packet one-way delay: 66.664 ms  
Loss rate: 17.27%  
-- Flow 3:  
Average throughput: 22.05 Mbit/s  
95th percentile per-packet one-way delay: 65.329 ms  
Loss rate: 16.48%

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



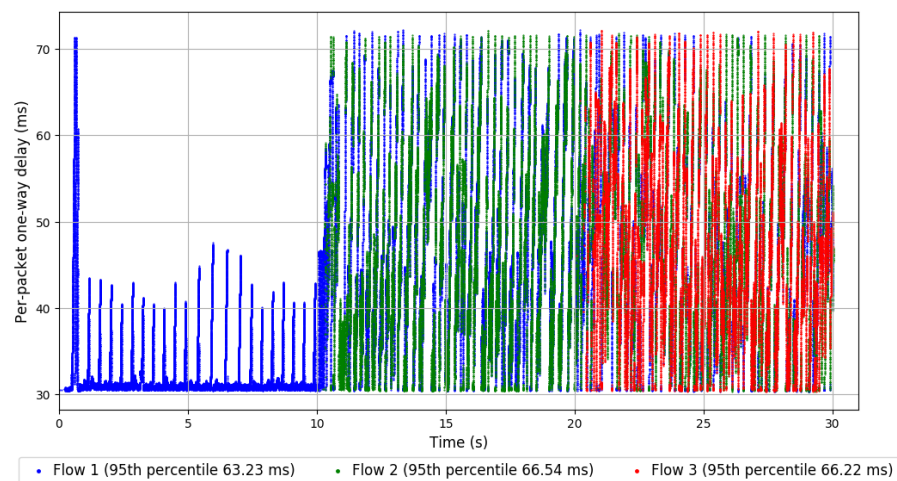
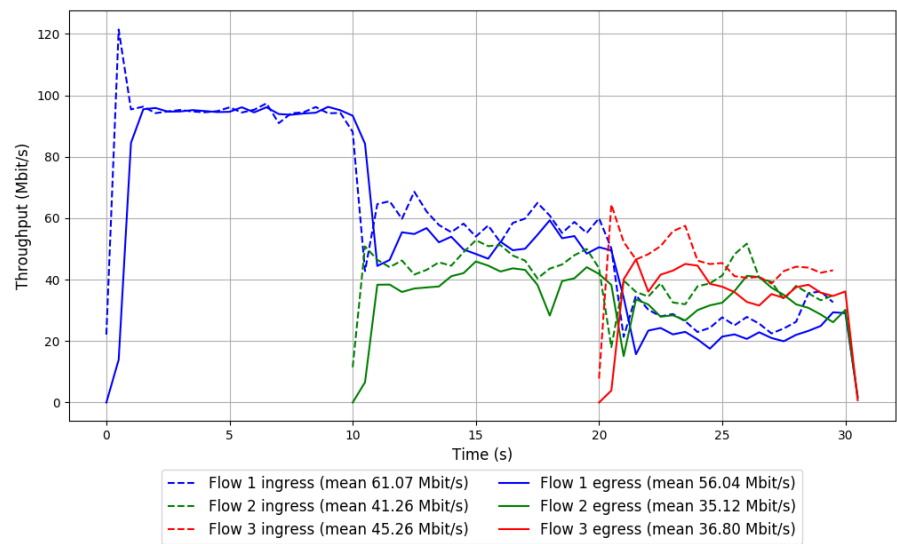


Run 5: Statistics of FillP-Sheep

Start at: 2018-12-20 03:10:44  
End at: 2018-12-20 03:11:14  
Local clock offset: -0.43 ms  
Remote clock offset: -3.338 ms

# Below is generated by plot.py at 2018-12-20 03:33:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.58 Mbit/s  
95th percentile per-packet one-way delay: 65.022 ms  
Loss rate: 11.47%  
-- Flow 1:  
Average throughput: 56.04 Mbit/s  
95th percentile per-packet one-way delay: 63.231 ms  
Loss rate: 8.22%  
-- Flow 2:  
Average throughput: 35.12 Mbit/s  
95th percentile per-packet one-way delay: 66.544 ms  
Loss rate: 14.79%  
-- Flow 3:  
Average throughput: 36.80 Mbit/s  
95th percentile per-packet one-way delay: 66.223 ms  
Loss rate: 18.67%

Run 5: Report of FillP-Sheep — Data Link

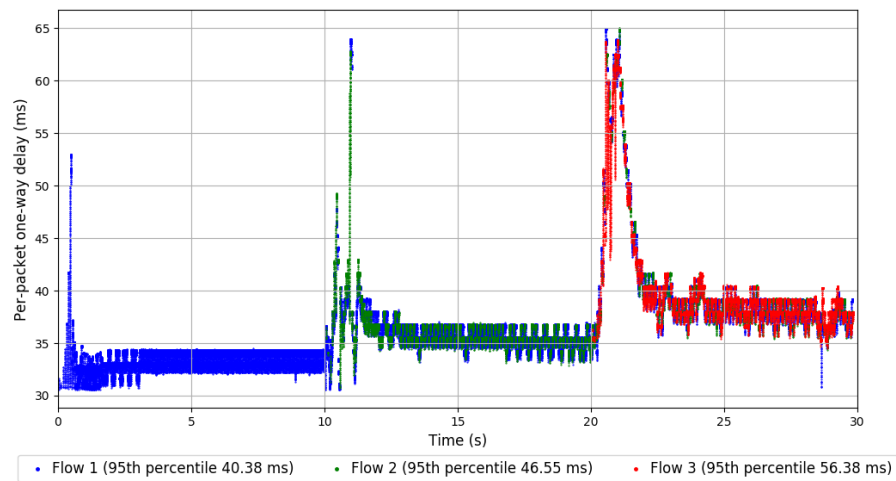
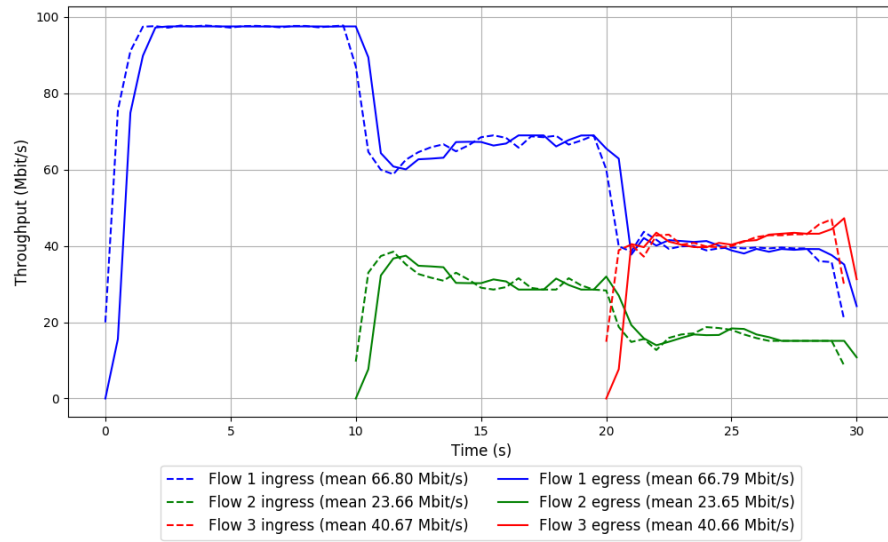


Run 1: Statistics of Indigo

Start at: 2018-12-20 01:46:20  
End at: 2018-12-20 01:46:50  
Local clock offset: -1.43 ms  
Remote clock offset: -4.113 ms

# Below is generated by plot.py at 2018-12-20 03:33:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.71 Mbit/s  
95th percentile per-packet one-way delay: 42.881 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 66.79 Mbit/s  
95th percentile per-packet one-way delay: 40.385 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 23.65 Mbit/s  
95th percentile per-packet one-way delay: 46.546 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 40.66 Mbit/s  
95th percentile per-packet one-way delay: 56.384 ms  
Loss rate: 0.00%

## Run 1: Report of Indigo — Data Link

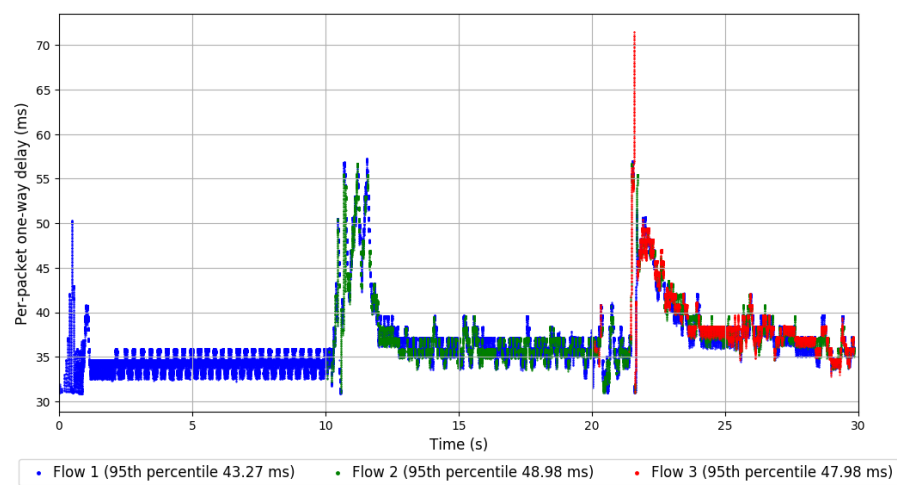
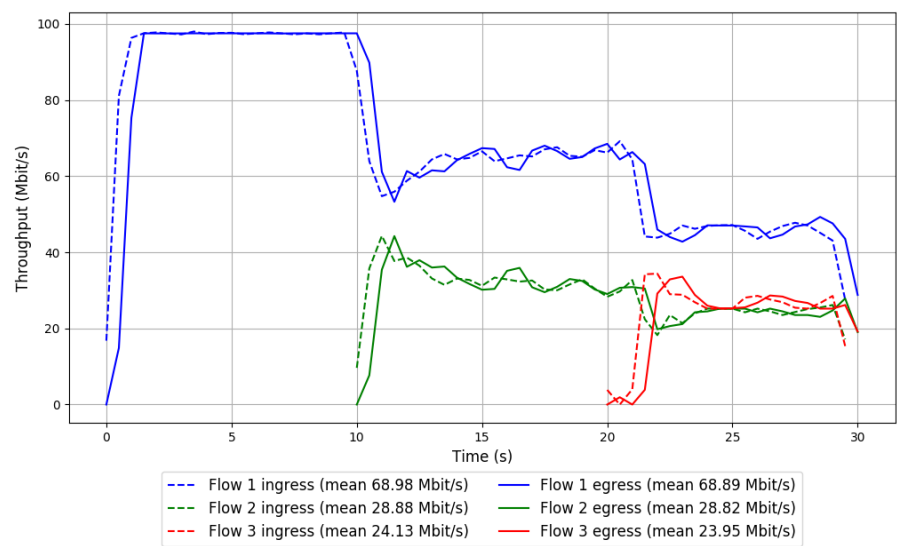


Run 2: Statistics of Indigo

Start at: 2018-12-20 02:09:11  
End at: 2018-12-20 02:09:41  
Local clock offset: -1.759 ms  
Remote clock offset: -3.942 ms

# Below is generated by plot.py at 2018-12-20 03:33:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.80 Mbit/s  
95th percentile per-packet one-way delay: 46.699 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 68.89 Mbit/s  
95th percentile per-packet one-way delay: 43.272 ms  
Loss rate: 0.11%  
-- Flow 2:  
Average throughput: 28.82 Mbit/s  
95th percentile per-packet one-way delay: 48.985 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 23.95 Mbit/s  
95th percentile per-packet one-way delay: 47.975 ms  
Loss rate: 0.72%

Run 2: Report of Indigo — Data Link

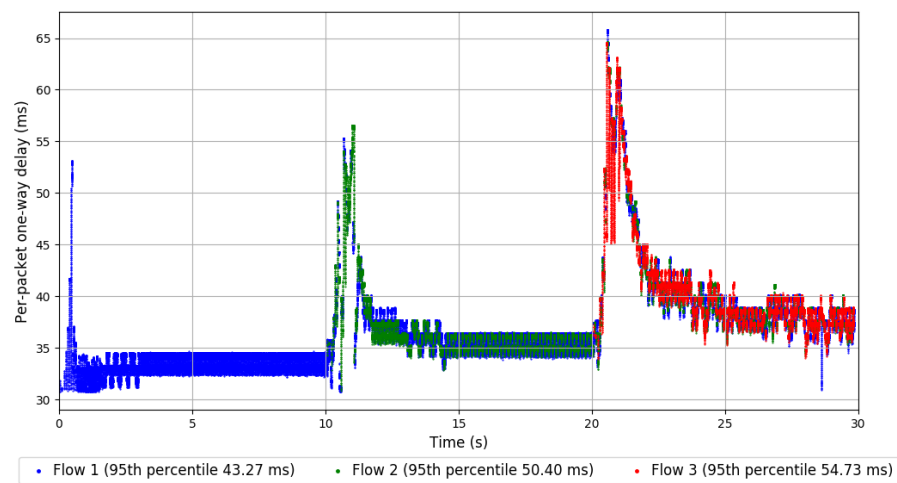
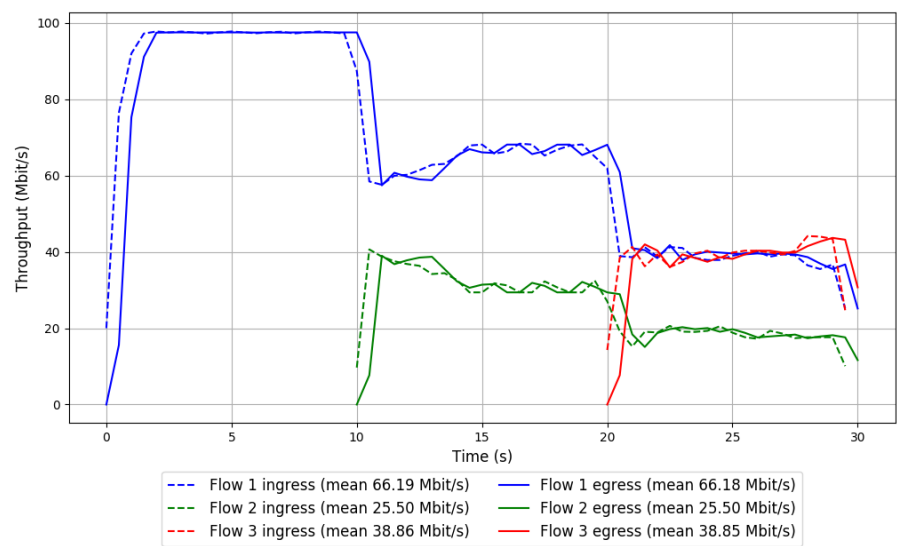


Run 3: Statistics of Indigo

Start at: 2018-12-20 02:32:00  
End at: 2018-12-20 02:32:30  
Local clock offset: 0.959 ms  
Remote clock offset: -3.659 ms

# Below is generated by plot.py at 2018-12-20 03:33:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.75 Mbit/s  
95th percentile per-packet one-way delay: 47.679 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 66.18 Mbit/s  
95th percentile per-packet one-way delay: 43.274 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 25.50 Mbit/s  
95th percentile per-packet one-way delay: 50.399 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 38.85 Mbit/s  
95th percentile per-packet one-way delay: 54.735 ms  
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



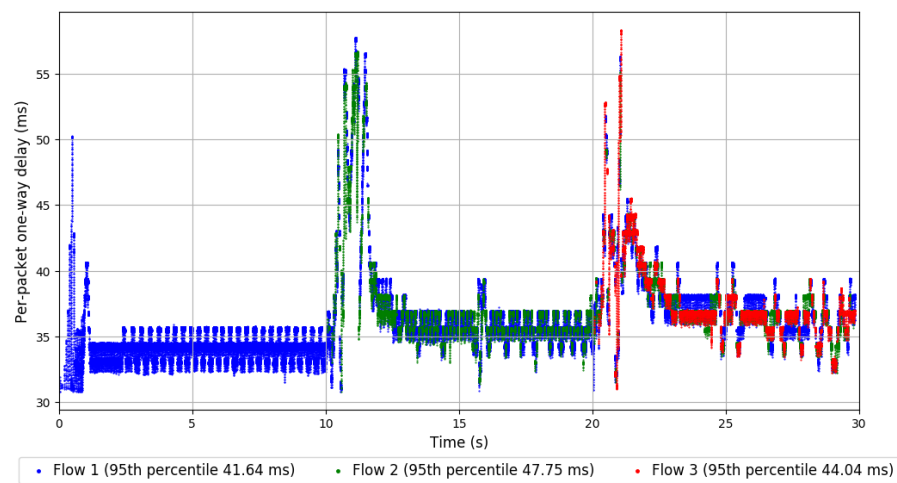
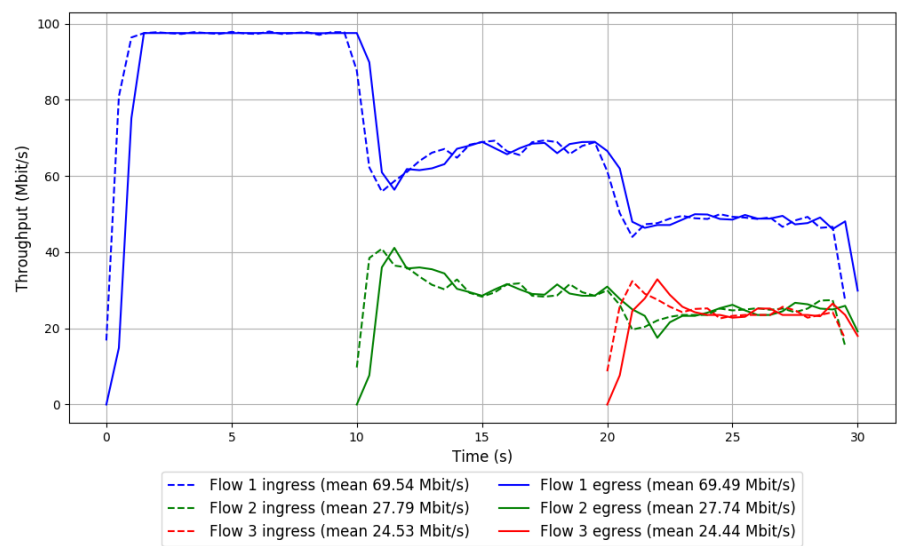


Run 4: Statistics of Indigo

Start at: 2018-12-20 02:54:49  
End at: 2018-12-20 02:55:19  
Local clock offset: 0.714 ms  
Remote clock offset: -3.361 ms

# Below is generated by plot.py at 2018-12-20 03:33:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.85 Mbit/s  
95th percentile per-packet one-way delay: 42.981 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 69.49 Mbit/s  
95th percentile per-packet one-way delay: 41.640 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 27.74 Mbit/s  
95th percentile per-packet one-way delay: 47.751 ms  
Loss rate: 0.14%  
-- Flow 3:  
Average throughput: 24.44 Mbit/s  
95th percentile per-packet one-way delay: 44.039 ms  
Loss rate: 0.39%

Run 4: Report of Indigo — Data Link

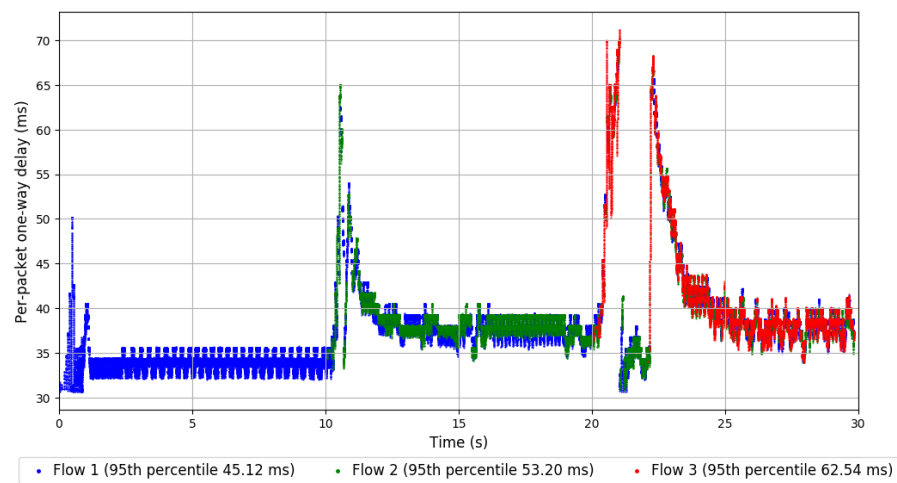
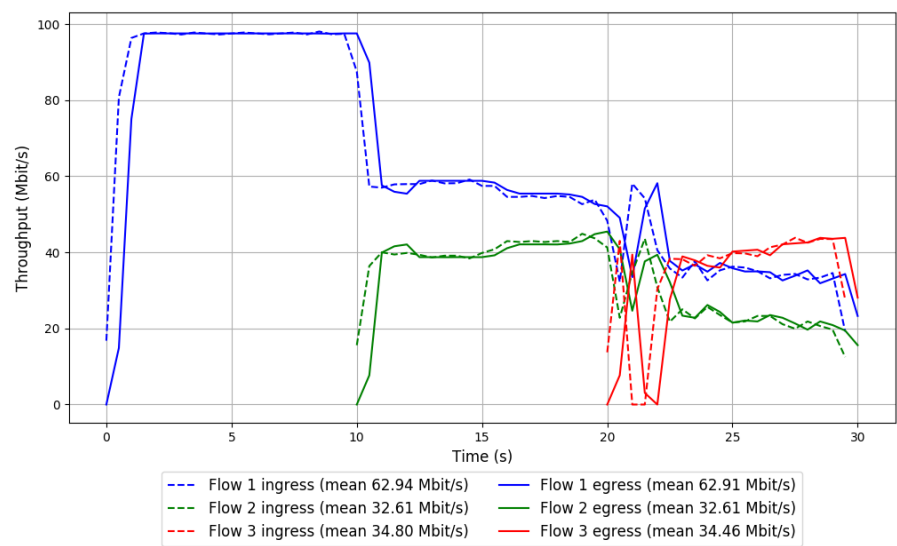


Run 5: Statistics of Indigo

Start at: 2018-12-20 03:17:51  
End at: 2018-12-20 03:18:21  
Local clock offset: -1.451 ms  
Remote clock offset: -3.322 ms

# Below is generated by plot.py at 2018-12-20 03:34:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.77 Mbit/s  
95th percentile per-packet one-way delay: 51.027 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 62.91 Mbit/s  
95th percentile per-packet one-way delay: 45.123 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 32.61 Mbit/s  
95th percentile per-packet one-way delay: 53.205 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 34.46 Mbit/s  
95th percentile per-packet one-way delay: 62.540 ms  
Loss rate: 0.97%

Run 5: Report of Indigo — Data Link

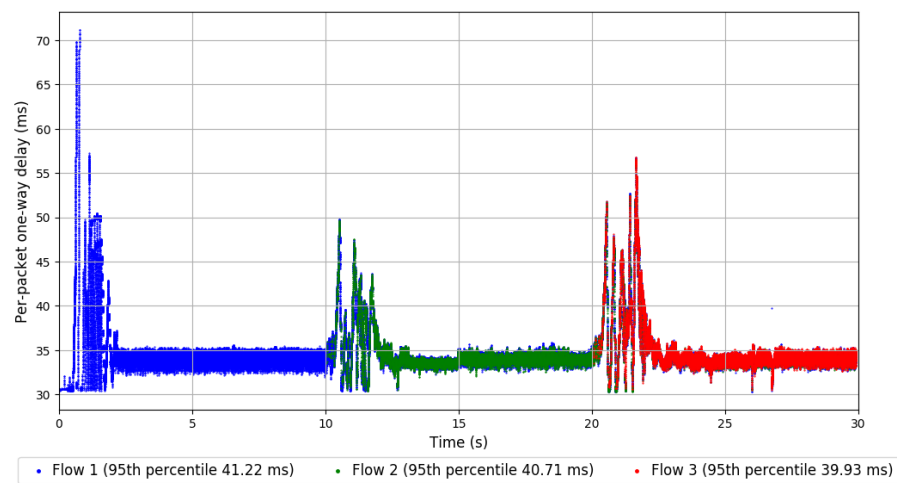
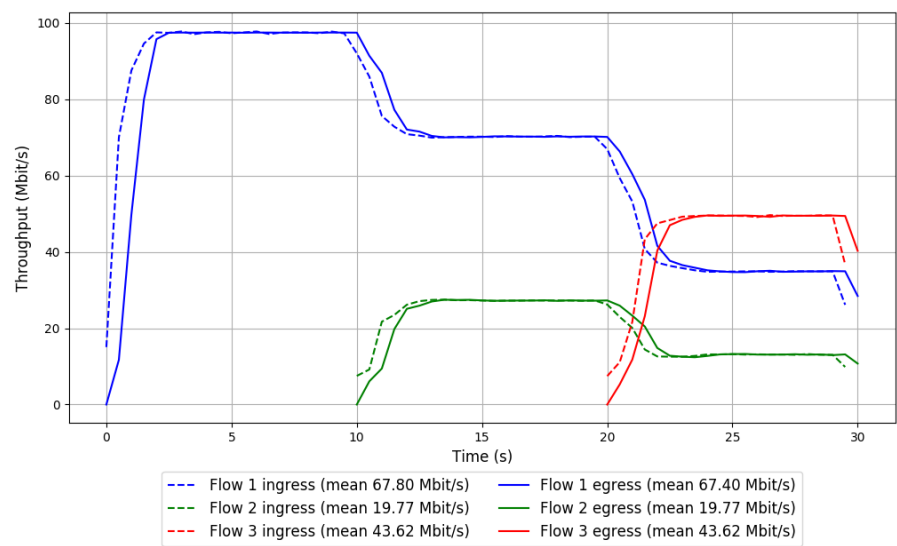


Run 1: Statistics of Indigo-MusesD

Start at: 2018-12-20 01:42:45  
End at: 2018-12-20 01:43:15  
Local clock offset: -0.77 ms  
Remote clock offset: -4.315 ms

# Below is generated by plot.py at 2018-12-20 03:34:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.91 Mbit/s  
95th percentile per-packet one-way delay: 41.002 ms  
Loss rate: 0.41%  
-- Flow 1:  
Average throughput: 67.40 Mbit/s  
95th percentile per-packet one-way delay: 41.224 ms  
Loss rate: 0.58%  
-- Flow 2:  
Average throughput: 19.77 Mbit/s  
95th percentile per-packet one-way delay: 40.713 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 43.62 Mbit/s  
95th percentile per-packet one-way delay: 39.926 ms  
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

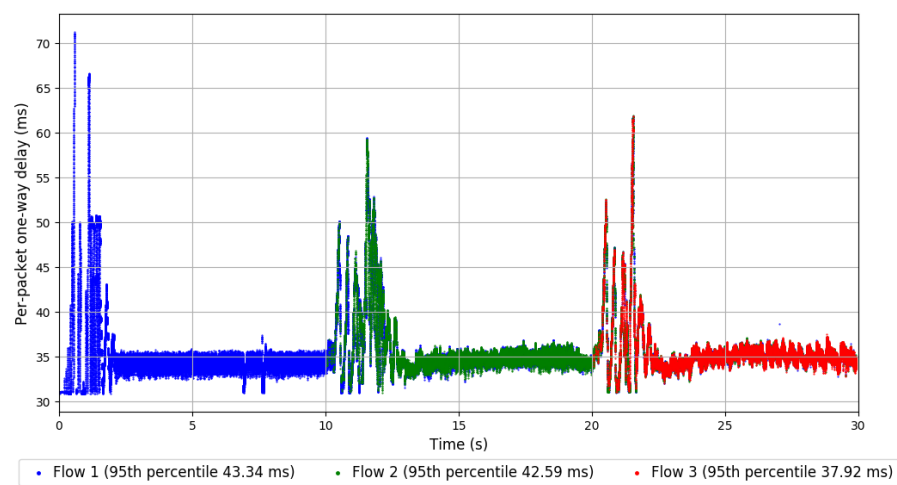
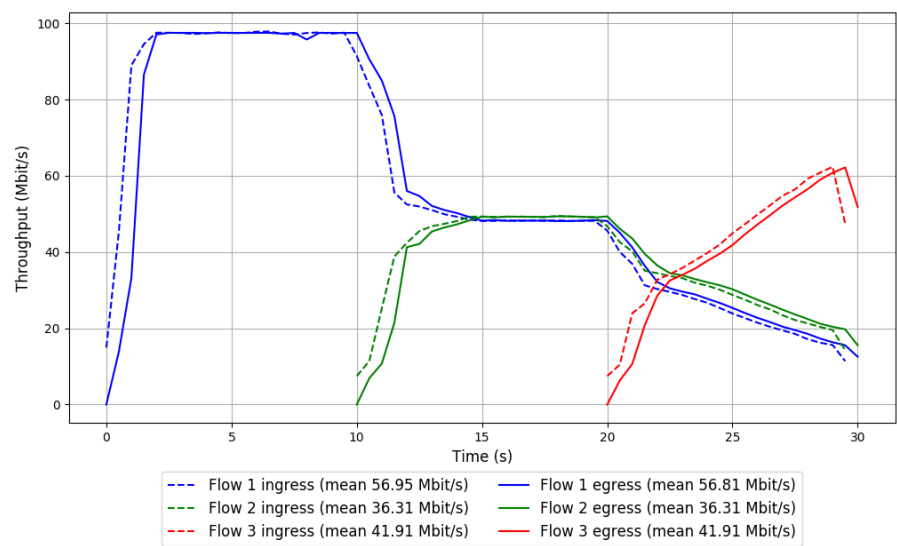


Run 2: Statistics of Indigo-MusesD

Start at: 2018-12-20 02:05:39  
End at: 2018-12-20 02:06:09  
Local clock offset: -2.922 ms  
Remote clock offset: -4.016 ms

# Below is generated by plot.py at 2018-12-20 03:34:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.76 Mbit/s  
95th percentile per-packet one-way delay: 42.437 ms  
Loss rate: 0.14%  
-- Flow 1:  
Average throughput: 56.81 Mbit/s  
95th percentile per-packet one-way delay: 43.339 ms  
Loss rate: 0.24%  
-- Flow 2:  
Average throughput: 36.31 Mbit/s  
95th percentile per-packet one-way delay: 42.593 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 41.91 Mbit/s  
95th percentile per-packet one-way delay: 37.919 ms  
Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link



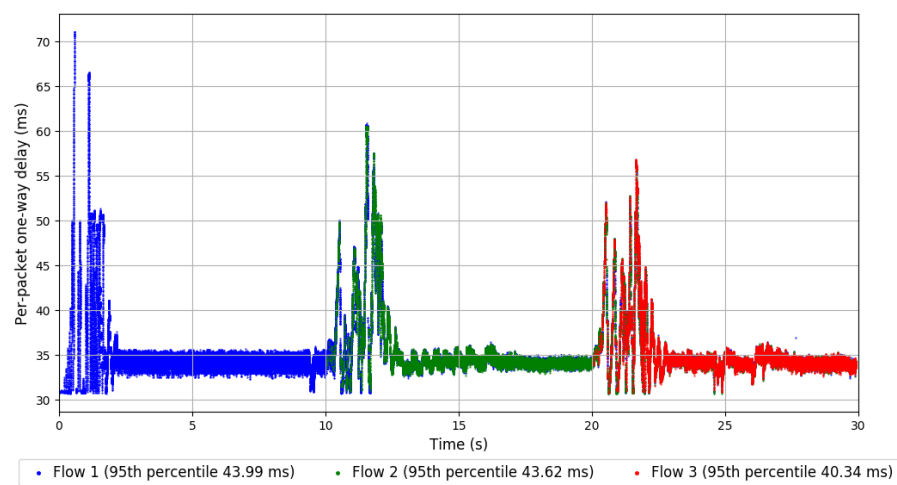
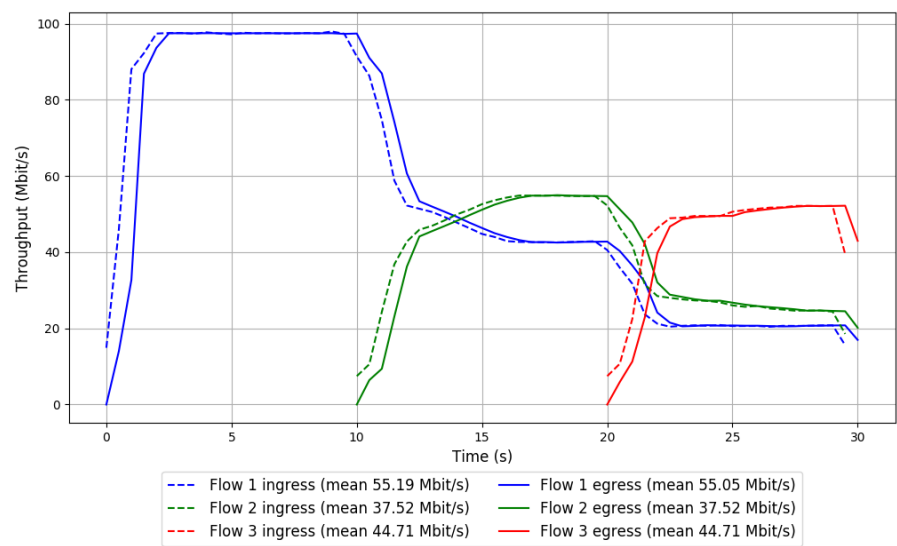


Run 3: Statistics of Indigo-MusesD

Start at: 2018-12-20 02:28:26  
End at: 2018-12-20 02:28:56  
Local clock offset: 0.812 ms  
Remote clock offset: -3.706 ms

# Below is generated by plot.py at 2018-12-20 03:34:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.72 Mbit/s  
95th percentile per-packet one-way delay: 43.260 ms  
Loss rate: 0.14%  
-- Flow 1:  
Average throughput: 55.05 Mbit/s  
95th percentile per-packet one-way delay: 43.992 ms  
Loss rate: 0.24%  
-- Flow 2:  
Average throughput: 37.52 Mbit/s  
95th percentile per-packet one-way delay: 43.623 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 44.71 Mbit/s  
95th percentile per-packet one-way delay: 40.339 ms  
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link

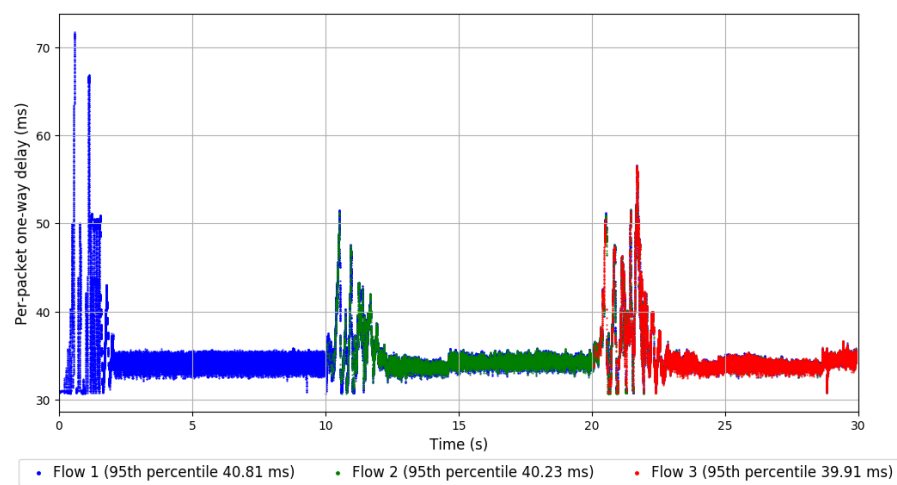
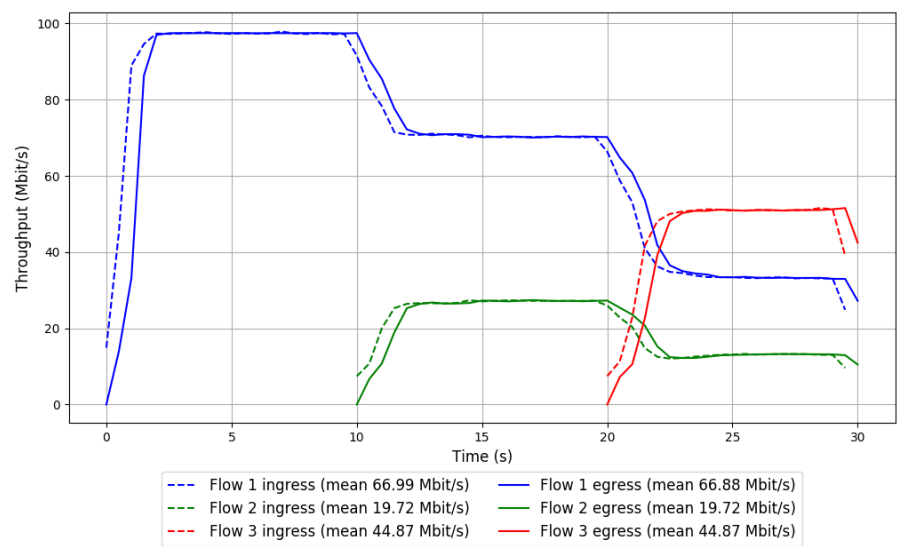


Run 4: Statistics of Indigo-MusesD

Start at: 2018-12-20 02:51:16  
End at: 2018-12-20 02:51:46  
Local clock offset: 0.709 ms  
Remote clock offset: -3.504 ms

# Below is generated by plot.py at 2018-12-20 03:34:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.77 Mbit/s  
95th percentile per-packet one-way delay: 40.606 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 66.88 Mbit/s  
95th percentile per-packet one-way delay: 40.815 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 19.72 Mbit/s  
95th percentile per-packet one-way delay: 40.231 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 44.87 Mbit/s  
95th percentile per-packet one-way delay: 39.909 ms  
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link

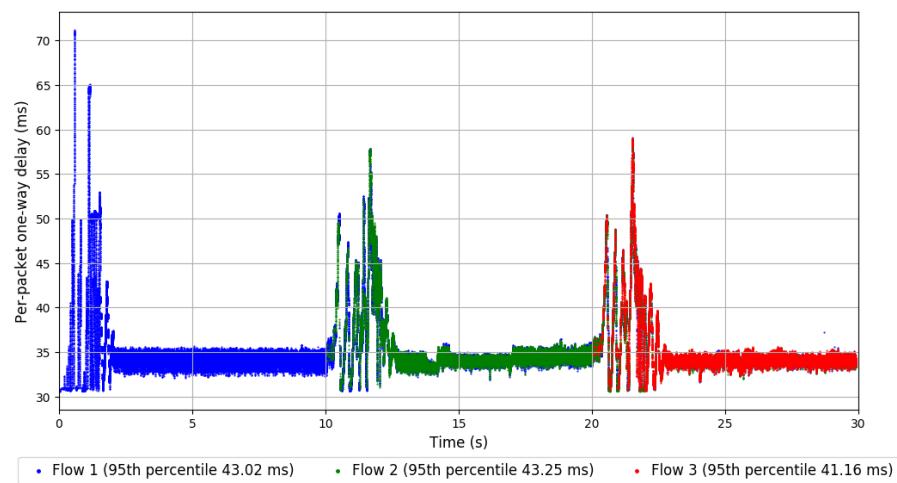
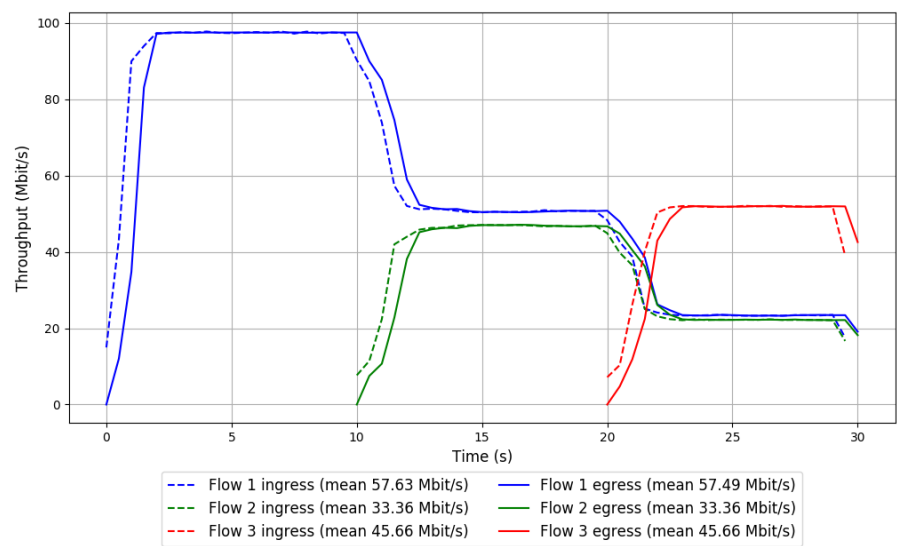


Run 5: Statistics of Indigo-MusesD

Start at: 2018-12-20 03:14:18  
End at: 2018-12-20 03:14:48  
Local clock offset: -1.013 ms  
Remote clock offset: -3.289 ms

# Below is generated by plot.py at 2018-12-20 03:34:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.71 Mbit/s  
95th percentile per-packet one-way delay: 42.830 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 57.49 Mbit/s  
95th percentile per-packet one-way delay: 43.020 ms  
Loss rate: 0.24%  
-- Flow 2:  
Average throughput: 33.36 Mbit/s  
95th percentile per-packet one-way delay: 43.254 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 45.66 Mbit/s  
95th percentile per-packet one-way delay: 41.159 ms  
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link

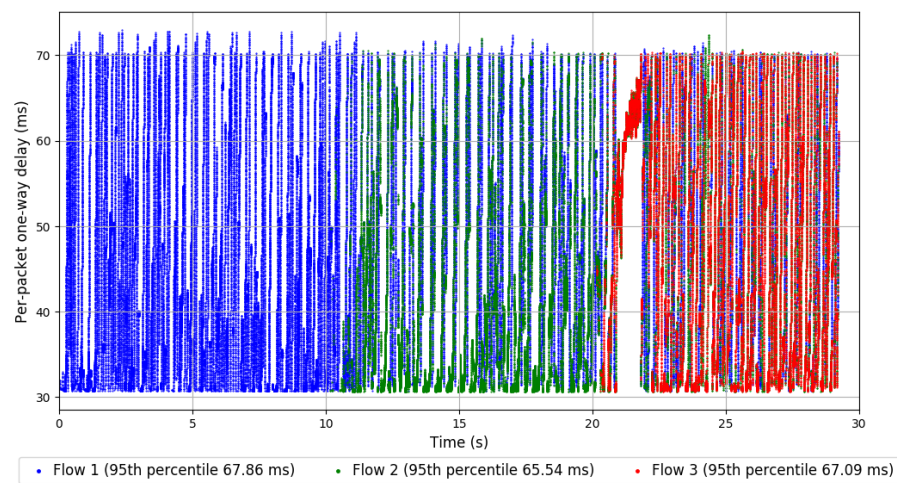
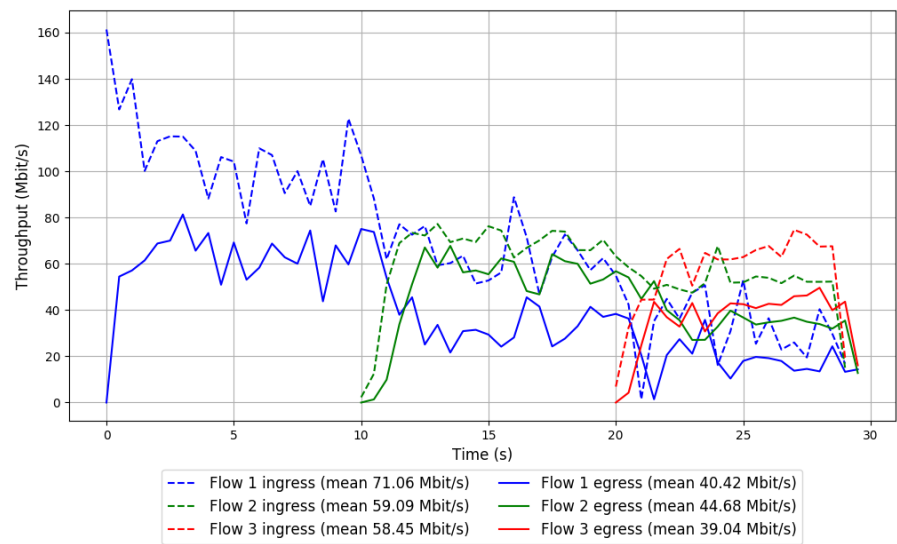


Run 1: Statistics of Indigo-MusesT

Start at: 2018-12-20 01:51:14  
End at: 2018-12-20 01:51:44  
Local clock offset: -2.051 ms  
Remote clock offset: -4.024 ms

# Below is generated by plot.py at 2018-12-20 03:34:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.71 Mbit/s  
95th percentile per-packet one-way delay: 67.136 ms  
Loss rate: 35.98%  
-- Flow 1:  
Average throughput: 40.42 Mbit/s  
95th percentile per-packet one-way delay: 67.857 ms  
Loss rate: 43.06%  
-- Flow 2:  
Average throughput: 44.68 Mbit/s  
95th percentile per-packet one-way delay: 65.539 ms  
Loss rate: 24.32%  
-- Flow 3:  
Average throughput: 39.04 Mbit/s  
95th percentile per-packet one-way delay: 67.095 ms  
Loss rate: 33.08%

Run 1: Report of Indigo-MusesT — Data Link



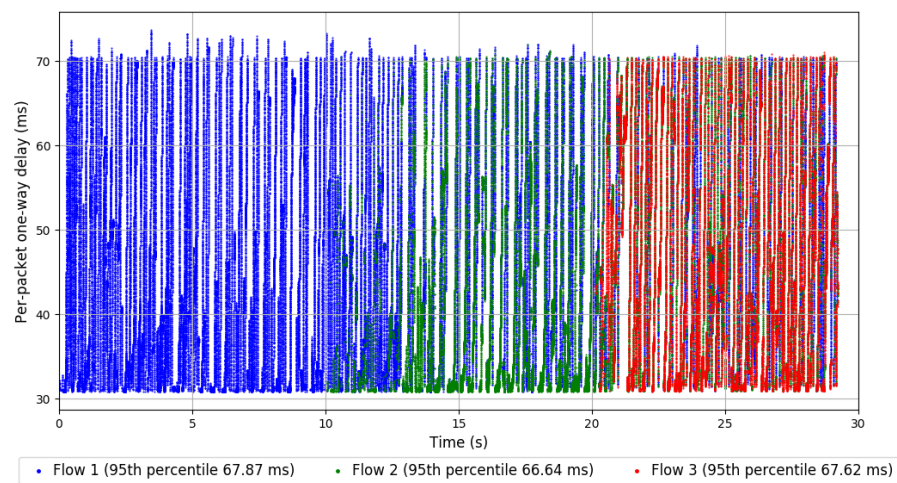
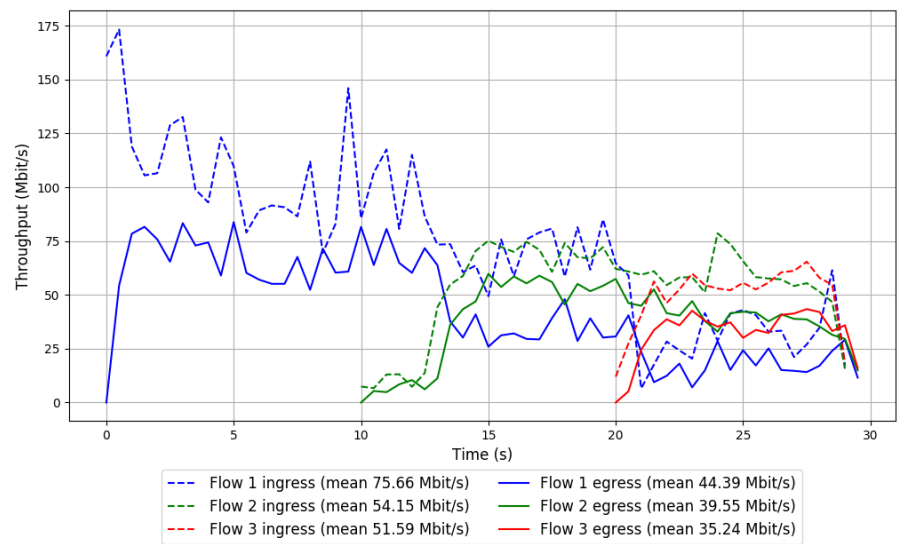


Run 2: Statistics of Indigo-MusesT

Start at: 2018-12-20 02:14:02  
End at: 2018-12-20 02:14:32  
Local clock offset: -0.67 ms  
Remote clock offset: -3.891 ms

# Below is generated by plot.py at 2018-12-20 03:34:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.30 Mbit/s  
95th percentile per-packet one-way delay: 67.484 ms  
Loss rate: 36.06%  
-- Flow 1:  
Average throughput: 44.39 Mbit/s  
95th percentile per-packet one-way delay: 67.868 ms  
Loss rate: 41.28%  
-- Flow 2:  
Average throughput: 39.55 Mbit/s  
95th percentile per-packet one-way delay: 66.636 ms  
Loss rate: 26.91%  
-- Flow 3:  
Average throughput: 35.24 Mbit/s  
95th percentile per-packet one-way delay: 67.621 ms  
Loss rate: 31.70%

Run 2: Report of Indigo-MusesT — Data Link

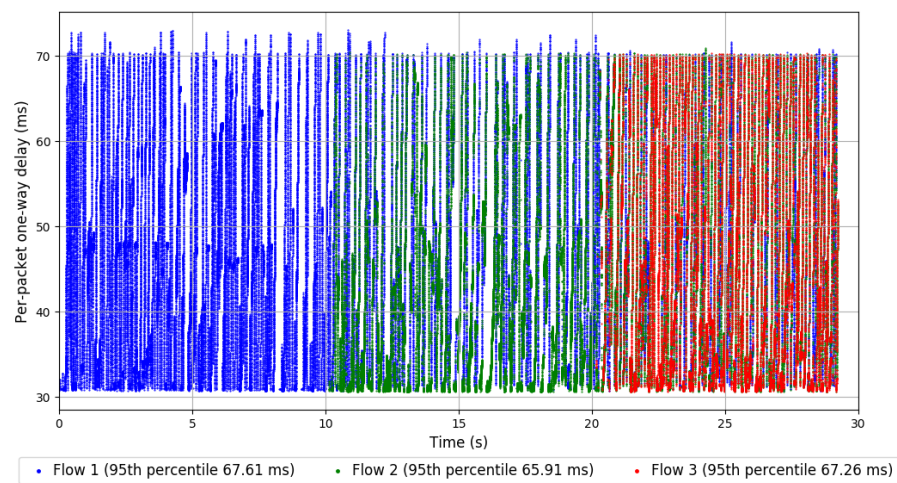
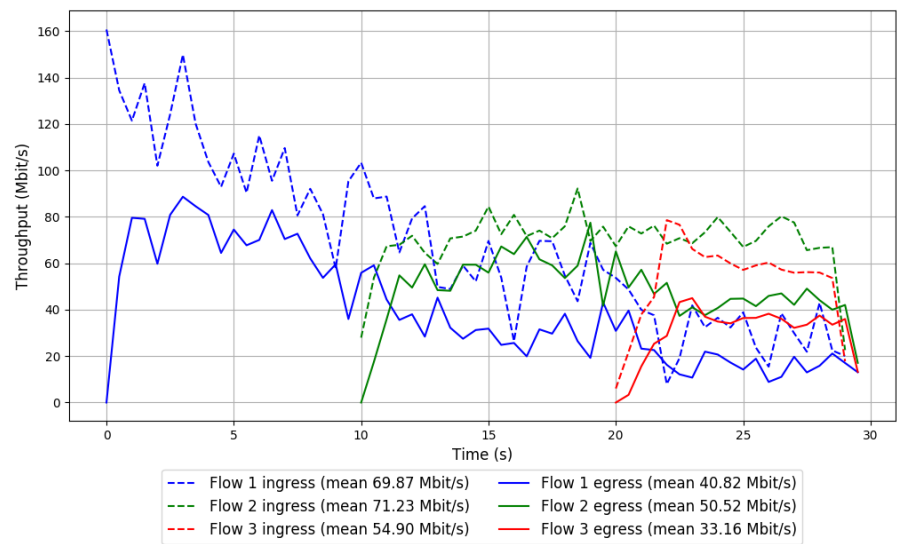


Run 3: Statistics of Indigo-MusesT

Start at: 2018-12-20 02:36:53  
End at: 2018-12-20 02:37:23  
Local clock offset: 1.047 ms  
Remote clock offset: -3.598 ms

# Below is generated by plot.py at 2018-12-20 03:35:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.07 Mbit/s  
95th percentile per-packet one-way delay: 66.983 ms  
Loss rate: 36.88%  
-- Flow 1:  
Average throughput: 40.82 Mbit/s  
95th percentile per-packet one-way delay: 67.615 ms  
Loss rate: 41.52%  
-- Flow 2:  
Average throughput: 50.52 Mbit/s  
95th percentile per-packet one-way delay: 65.905 ms  
Loss rate: 28.99%  
-- Flow 3:  
Average throughput: 33.16 Mbit/s  
95th percentile per-packet one-way delay: 67.260 ms  
Loss rate: 39.47%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2018-12-20 03:00:01

End at: 2018-12-20 03:00:31

Local clock offset: 0.753 ms

Remote clock offset: -3.39 ms

# Below is generated by plot.py at 2018-12-20 03:35:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 83.17 Mbit/s

95th percentile per-packet one-way delay: 67.002 ms

Loss rate: 33.71%

-- Flow 1:

Average throughput: 40.96 Mbit/s

95th percentile per-packet one-way delay: 67.361 ms

Loss rate: 42.40%

-- Flow 2:

Average throughput: 54.93 Mbit/s

95th percentile per-packet one-way delay: 66.516 ms

Loss rate: 21.32%

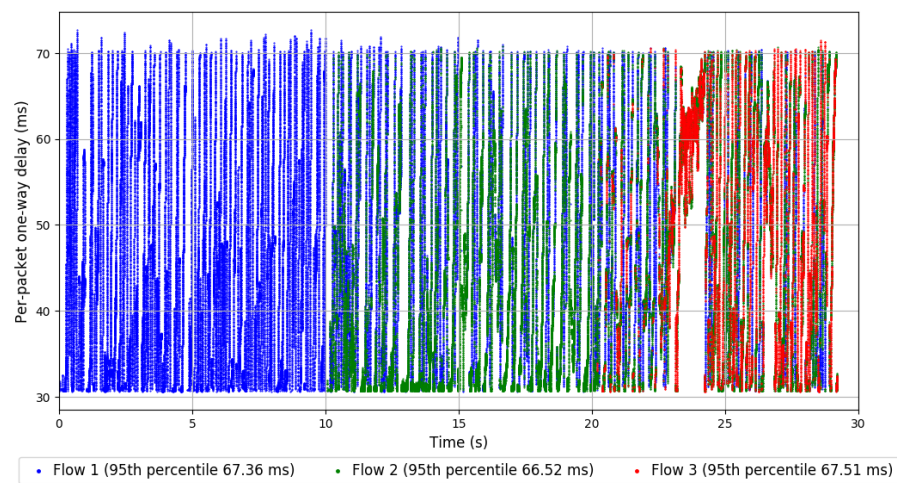
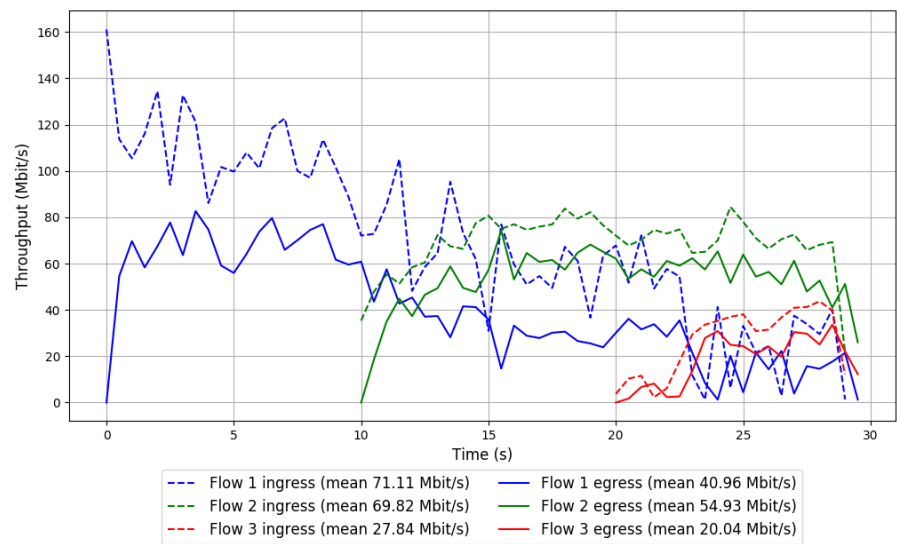
-- Flow 3:

Average throughput: 20.04 Mbit/s

95th percentile per-packet one-way delay: 67.513 ms

Loss rate: 28.04%

Run 4: Report of Indigo-MusesT — Data Link

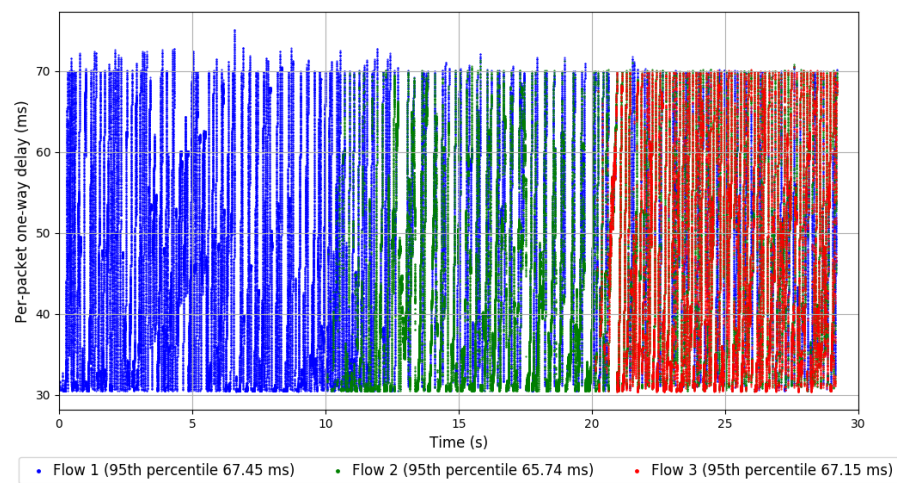
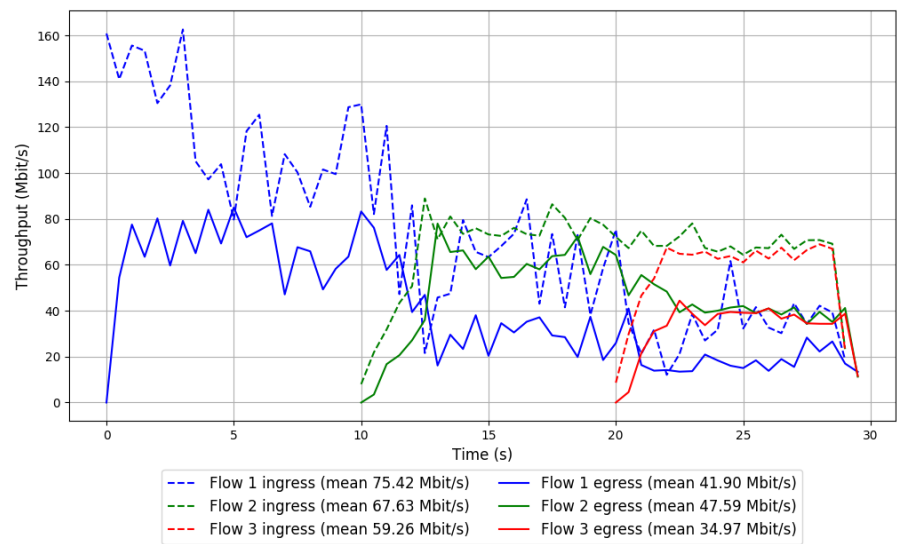


Run 5: Statistics of Indigo-MusesT

Start at: 2018-12-20 03:22:43  
End at: 2018-12-20 03:23:13  
Local clock offset: -1.799 ms  
Remote clock offset: -3.489 ms

# Below is generated by plot.py at 2018-12-20 03:35:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 83.95 Mbit/s  
95th percentile per-packet one-way delay: 66.904 ms  
Loss rate: 39.19%  
-- Flow 1:  
Average throughput: 41.90 Mbit/s  
95th percentile per-packet one-way delay: 67.452 ms  
Loss rate: 44.36%  
-- Flow 2:  
Average throughput: 47.59 Mbit/s  
95th percentile per-packet one-way delay: 65.739 ms  
Loss rate: 29.64%  
-- Flow 3:  
Average throughput: 34.97 Mbit/s  
95th percentile per-packet one-way delay: 67.153 ms  
Loss rate: 41.01%

Run 5: Report of Indigo-MusesT — Data Link



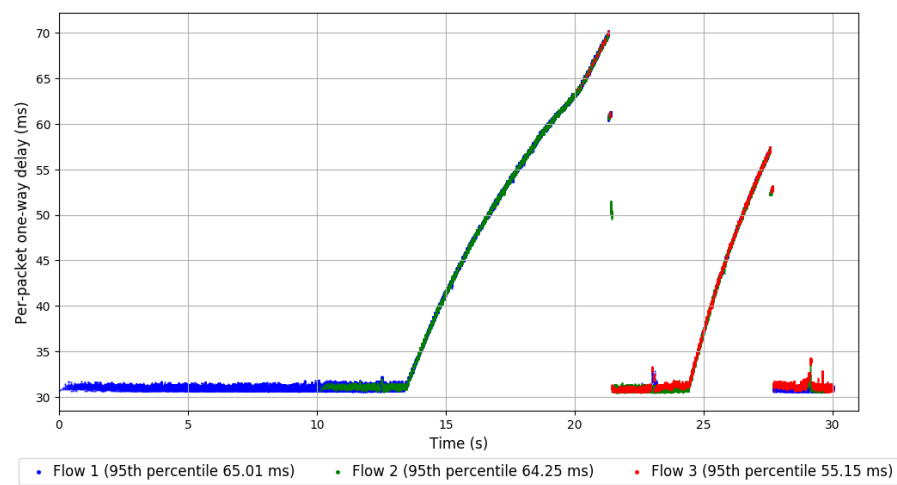
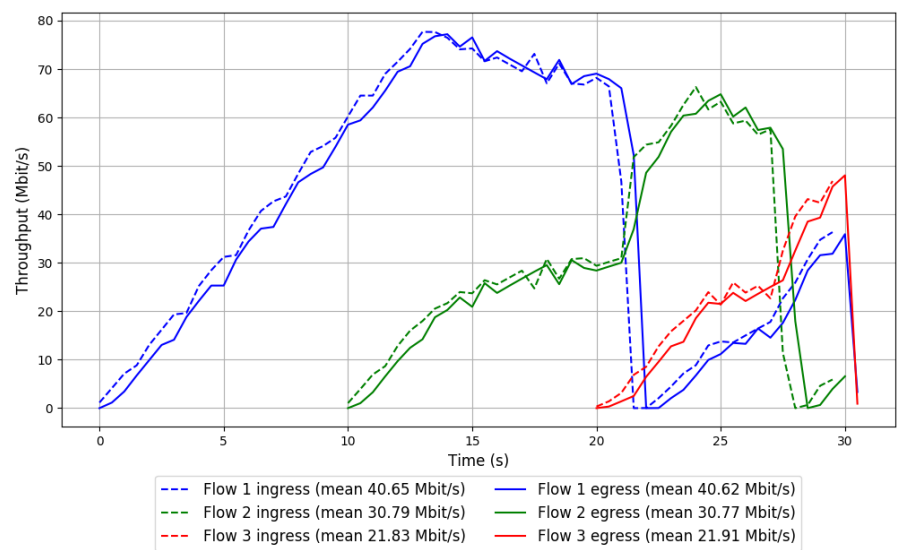


```
Run 1: Statistics of LEDBAT

Start at: 2018-12-20 01:43:58
End at: 2018-12-20 01:44:29
Local clock offset: -1.059 ms
Remote clock offset: -4.133 ms

# Below is generated by plot.py at 2018-12-20 03:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.31 Mbit/s
95th percentile per-packet one-way delay: 64.258 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 40.62 Mbit/s
95th percentile per-packet one-way delay: 65.013 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 30.77 Mbit/s
95th percentile per-packet one-way delay: 64.249 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 21.91 Mbit/s
95th percentile per-packet one-way delay: 55.154 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

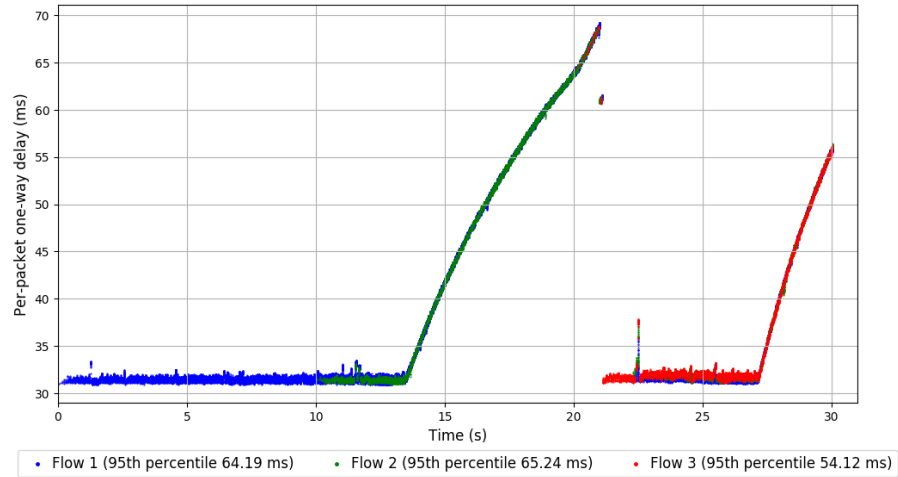
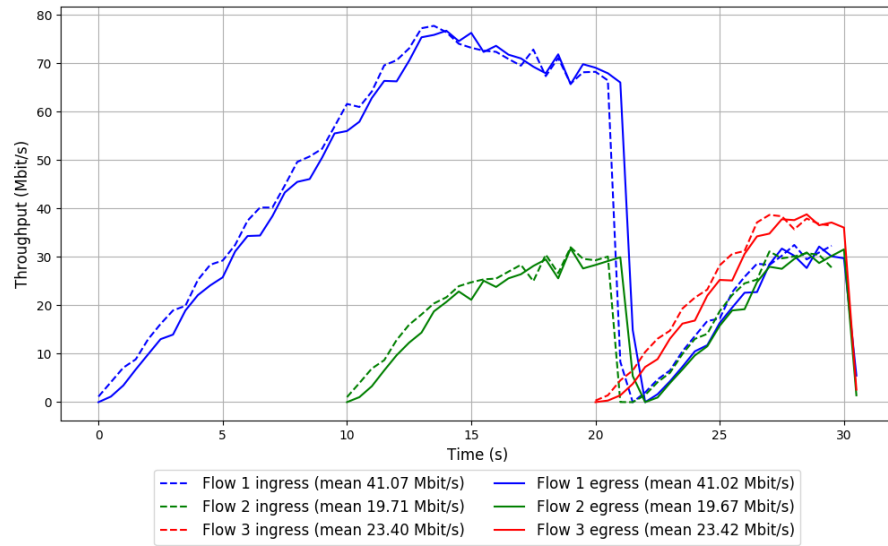


Run 2: Statistics of LEDBAT

Start at: 2018-12-20 02:06:51  
End at: 2018-12-20 02:07:22  
Local clock offset: -2.509 ms  
Remote clock offset: -3.982 ms

# Below is generated by plot.py at 2018-12-20 03:35:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.89 Mbit/s  
95th percentile per-packet one-way delay: 64.003 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 41.02 Mbit/s  
95th percentile per-packet one-way delay: 64.187 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 19.67 Mbit/s  
95th percentile per-packet one-way delay: 65.238 ms  
Loss rate: 0.09%  
-- Flow 3:  
Average throughput: 23.42 Mbit/s  
95th percentile per-packet one-way delay: 54.117 ms  
Loss rate: 0.00%

## Run 2: Report of LEDBAT — Data Link

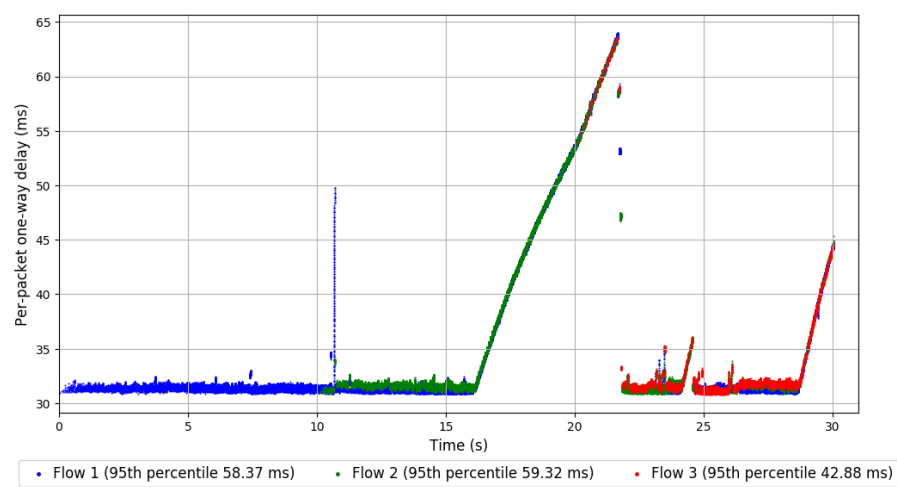
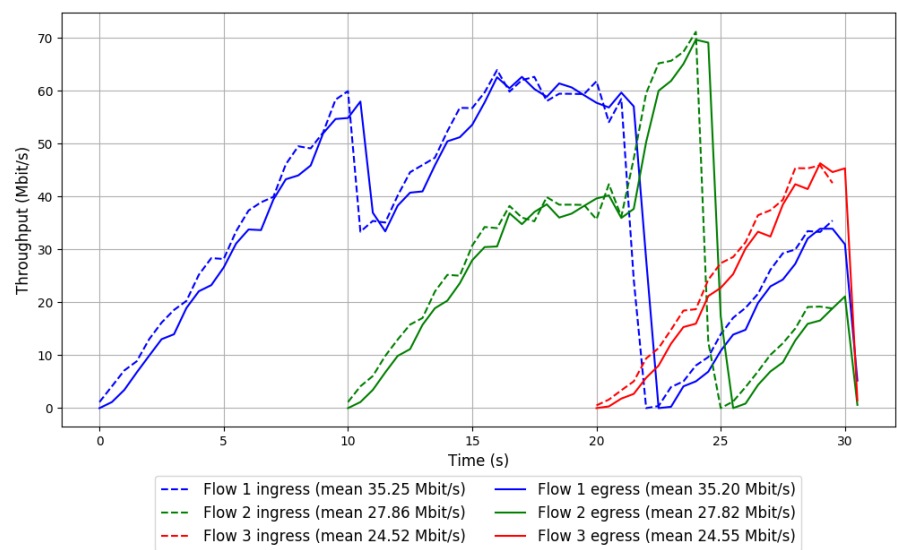


Run 3: Statistics of LEDBAT

Start at: 2018-12-20 02:29:39  
End at: 2018-12-20 02:30:09  
Local clock offset: 0.816 ms  
Remote clock offset: -3.687 ms

# Below is generated by plot.py at 2018-12-20 03:35:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.86 Mbit/s  
95th percentile per-packet one-way delay: 58.357 ms  
Loss rate: 0.08%  
-- Flow 1:  
Average throughput: 35.20 Mbit/s  
95th percentile per-packet one-way delay: 58.374 ms  
Loss rate: 0.10%  
-- Flow 2:  
Average throughput: 27.82 Mbit/s  
95th percentile per-packet one-way delay: 59.318 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 24.55 Mbit/s  
95th percentile per-packet one-way delay: 42.882 ms  
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

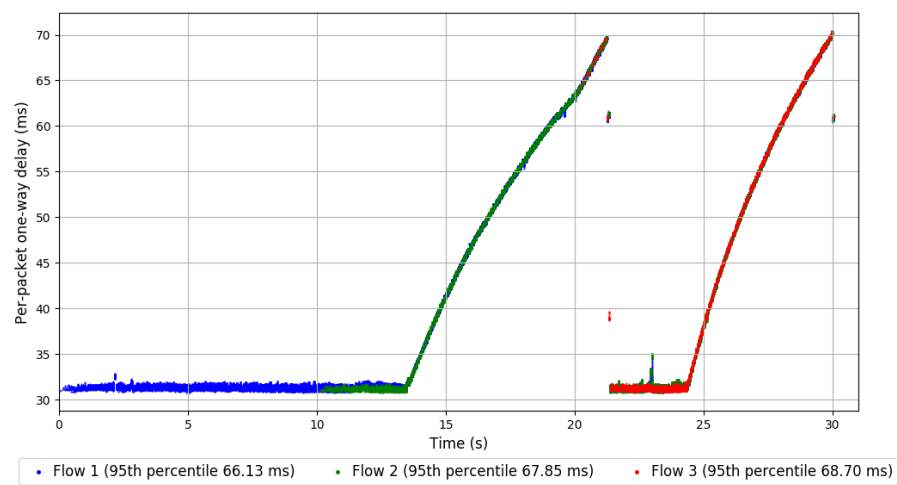
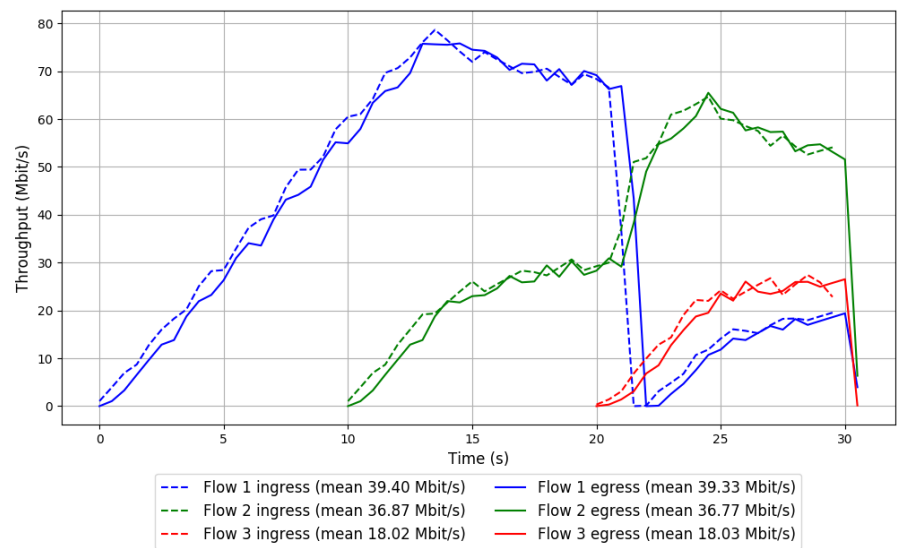


Run 4: Statistics of LEDBAT

Start at: 2018-12-20 02:52:28  
End at: 2018-12-20 02:52:58  
Local clock offset: 0.692 ms  
Remote clock offset: -3.403 ms

# Below is generated by plot.py at 2018-12-20 03:35:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 69.81 Mbit/s  
95th percentile per-packet one-way delay: 67.341 ms  
Loss rate: 0.08%  
-- Flow 1:  
Average throughput: 39.33 Mbit/s  
95th percentile per-packet one-way delay: 66.131 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 36.77 Mbit/s  
95th percentile per-packet one-way delay: 67.846 ms  
Loss rate: 0.12%  
-- Flow 3:  
Average throughput: 18.03 Mbit/s  
95th percentile per-packet one-way delay: 68.697 ms  
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



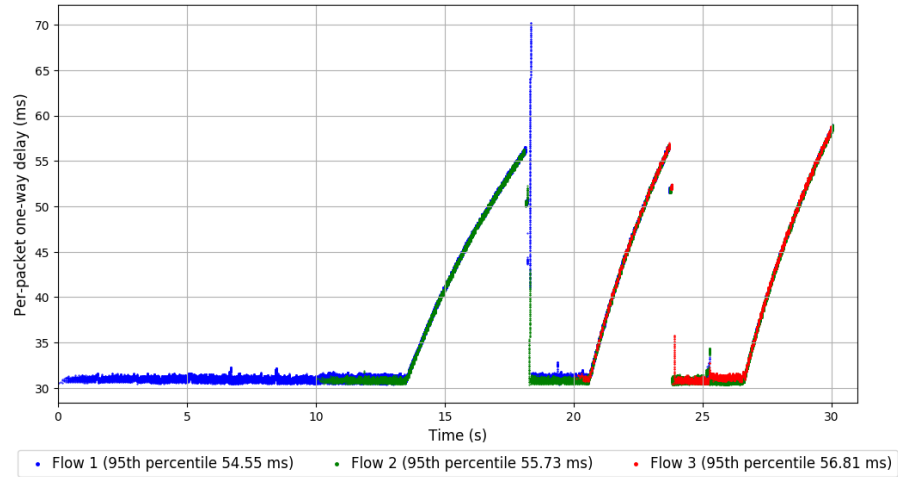
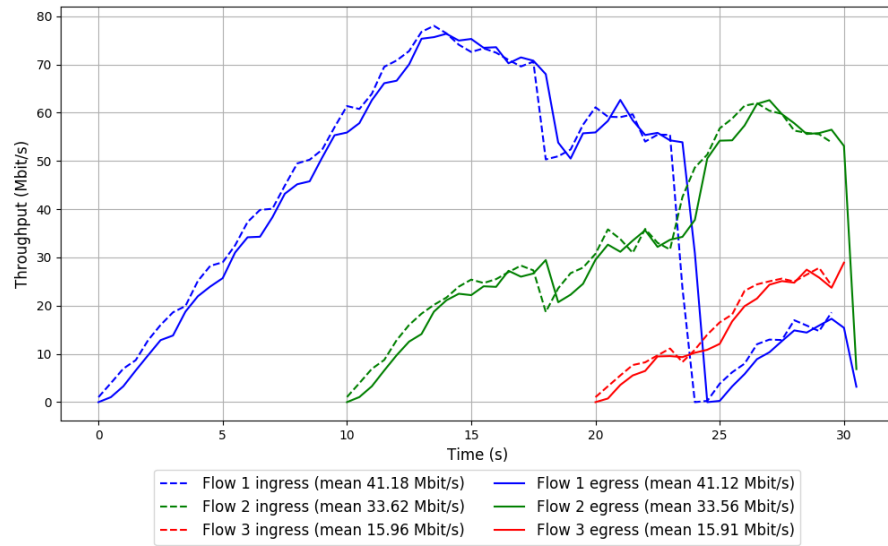


Run 5: Statistics of LEDBAT

Start at: 2018-12-20 03:15:31  
End at: 2018-12-20 03:16:01  
Local clock offset: -1.149 ms  
Remote clock offset: -3.474 ms

# Below is generated by plot.py at 2018-12-20 03:35:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.74 Mbit/s  
95th percentile per-packet one-way delay: 55.257 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 41.12 Mbit/s  
95th percentile per-packet one-way delay: 54.549 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 33.56 Mbit/s  
95th percentile per-packet one-way delay: 55.733 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 15.91 Mbit/s  
95th percentile per-packet one-way delay: 56.812 ms  
Loss rate: 0.01%

## Run 5: Report of LEDBAT — Data Link

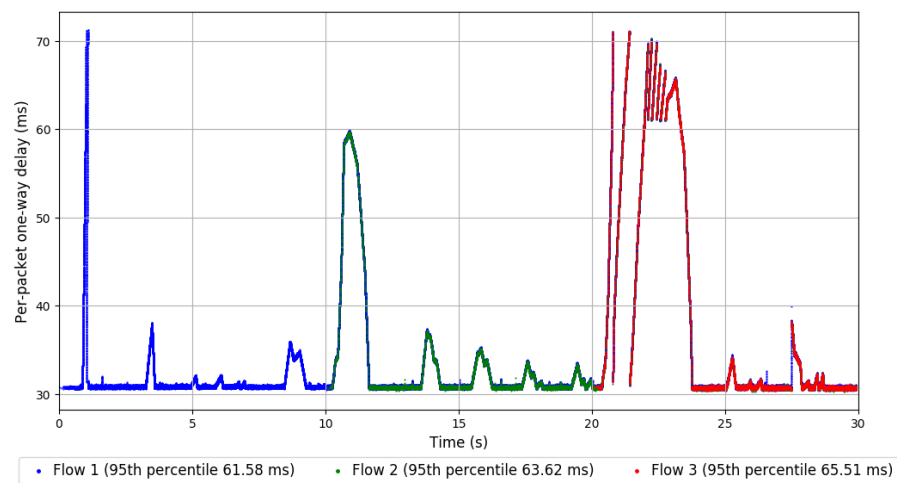
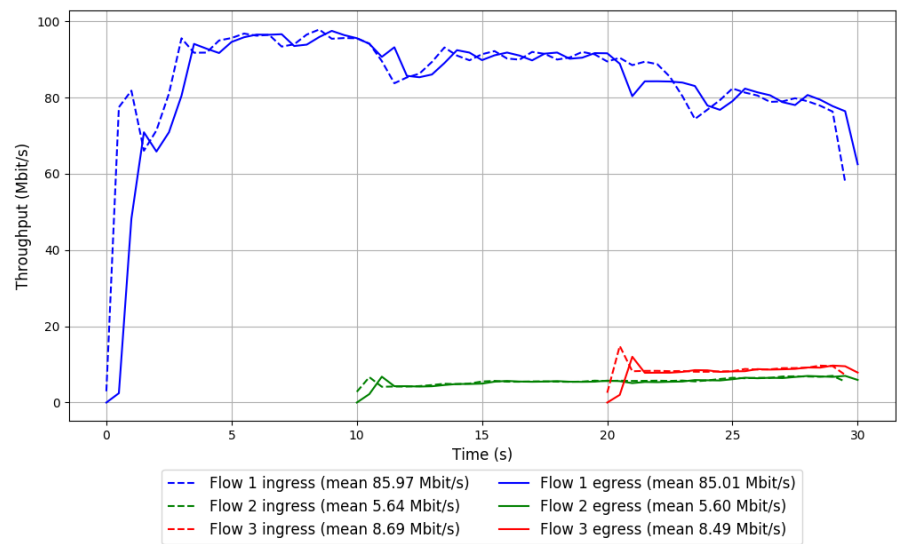


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-12-20 01:35:35
End at: 2018-12-20 01:36:05
Local clock offset: 1.602 ms
Remote clock offset: -4.037 ms

# Below is generated by plot.py at 2018-12-20 03:36:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.53 Mbit/s
95th percentile per-packet one-way delay: 62.153 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 85.01 Mbit/s
95th percentile per-packet one-way delay: 61.583 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 5.60 Mbit/s
95th percentile per-packet one-way delay: 63.615 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 8.49 Mbit/s
95th percentile per-packet one-way delay: 65.512 ms
Loss rate: 2.26%
```

Run 1: Report of PCC-Allegro — Data Link

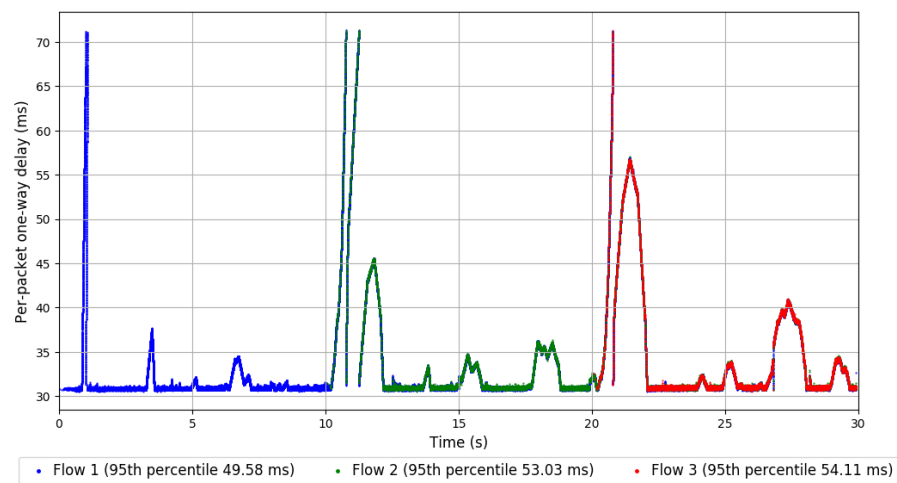
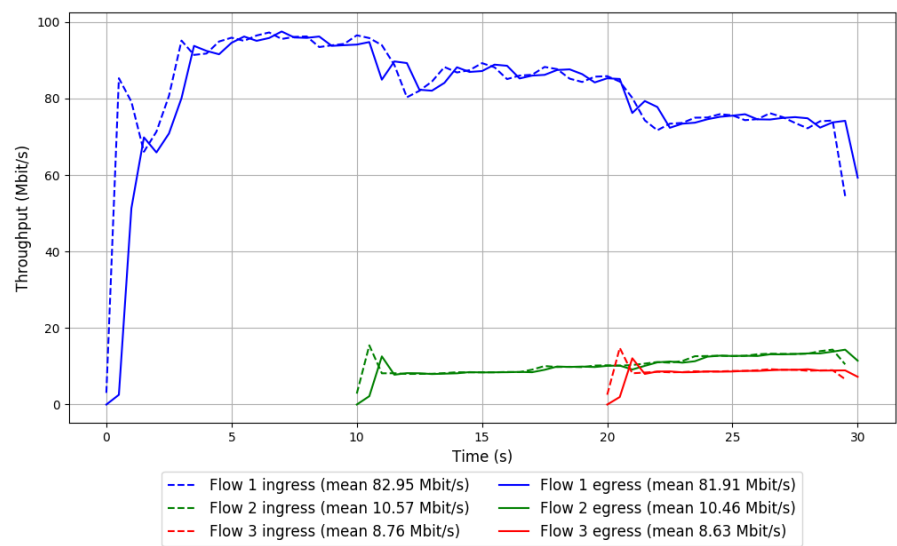


Run 2: Statistics of PCC-Allegro

Start at: 2018-12-20 01:58:29  
End at: 2018-12-20 01:58:59  
Local clock offset: -2.601 ms  
Remote clock offset: -4.056 ms

# Below is generated by plot.py at 2018-12-20 03:36:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.71 Mbit/s  
95th percentile per-packet one-way delay: 50.395 ms  
Loss rate: 1.24%  
-- Flow 1:  
Average throughput: 81.91 Mbit/s  
95th percentile per-packet one-way delay: 49.577 ms  
Loss rate: 1.25%  
-- Flow 2:  
Average throughput: 10.46 Mbit/s  
95th percentile per-packet one-way delay: 53.035 ms  
Loss rate: 0.97%  
-- Flow 3:  
Average throughput: 8.63 Mbit/s  
95th percentile per-packet one-way delay: 54.109 ms  
Loss rate: 1.50%

Run 2: Report of PCC-Allegro — Data Link

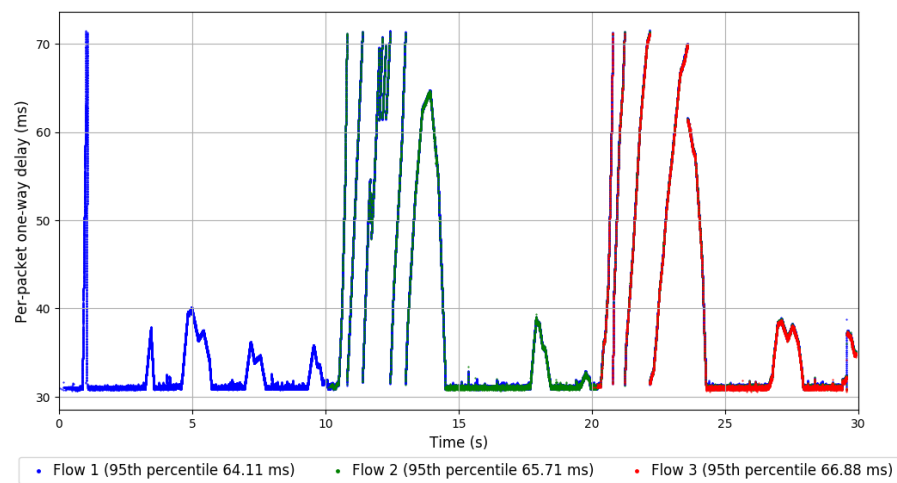
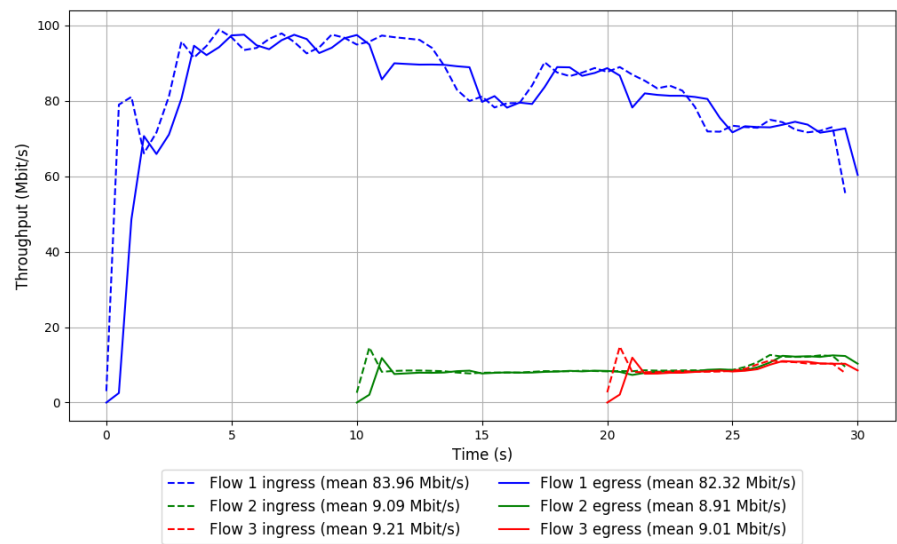


Run 3: Statistics of PCC-Allegro

Start at: 2018-12-20 02:21:09  
End at: 2018-12-20 02:21:39  
Local clock offset: 0.26 ms  
Remote clock offset: -3.864 ms

# Below is generated by plot.py at 2018-12-20 03:36:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.21 Mbit/s  
95th percentile per-packet one-way delay: 64.265 ms  
Loss rate: 1.96%  
-- Flow 1:  
Average throughput: 82.32 Mbit/s  
95th percentile per-packet one-way delay: 64.108 ms  
Loss rate: 1.94%  
-- Flow 2:  
Average throughput: 8.91 Mbit/s  
95th percentile per-packet one-way delay: 65.714 ms  
Loss rate: 2.04%  
-- Flow 3:  
Average throughput: 9.01 Mbit/s  
95th percentile per-packet one-way delay: 66.878 ms  
Loss rate: 2.22%

Run 3: Report of PCC-Allegro — Data Link



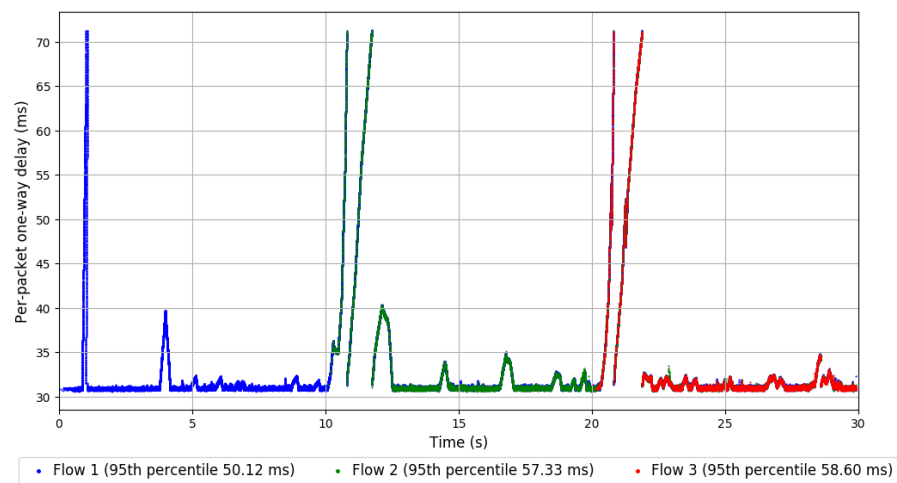
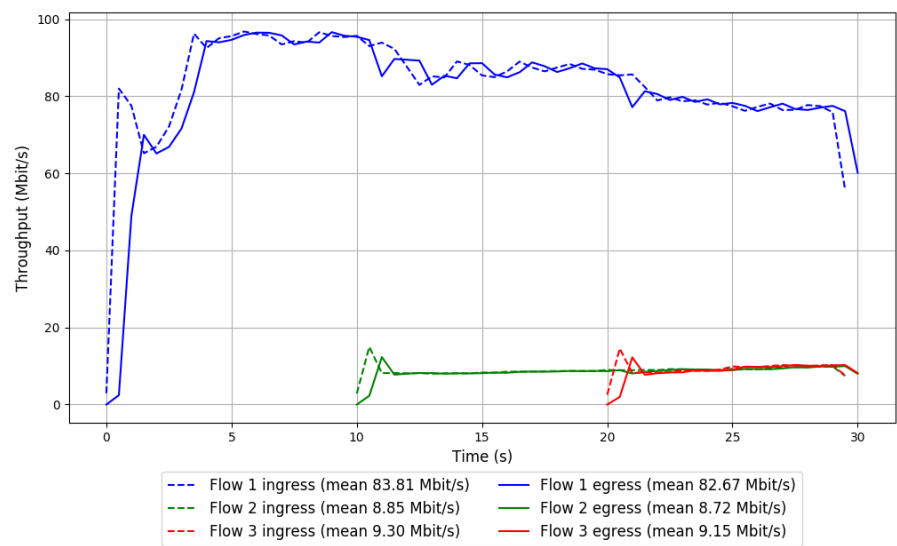


Run 4: Statistics of PCC-Allegro

Start at: 2018-12-20 02:44:04  
End at: 2018-12-20 02:44:34  
Local clock offset: 0.762 ms  
Remote clock offset: -3.573 ms

# Below is generated by plot.py at 2018-12-20 03:36:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.49 Mbit/s  
95th percentile per-packet one-way delay: 51.177 ms  
Loss rate: 1.37%  
-- Flow 1:  
Average throughput: 82.67 Mbit/s  
95th percentile per-packet one-way delay: 50.118 ms  
Loss rate: 1.35%  
-- Flow 2:  
Average throughput: 8.72 Mbit/s  
95th percentile per-packet one-way delay: 57.333 ms  
Loss rate: 1.39%  
-- Flow 3:  
Average throughput: 9.15 Mbit/s  
95th percentile per-packet one-way delay: 58.604 ms  
Loss rate: 1.67%

Run 4: Report of PCC-Allegro — Data Link

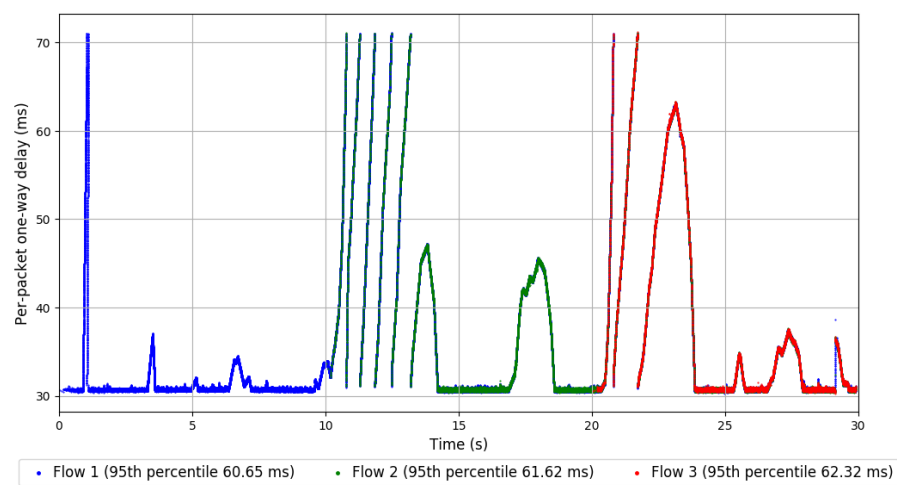
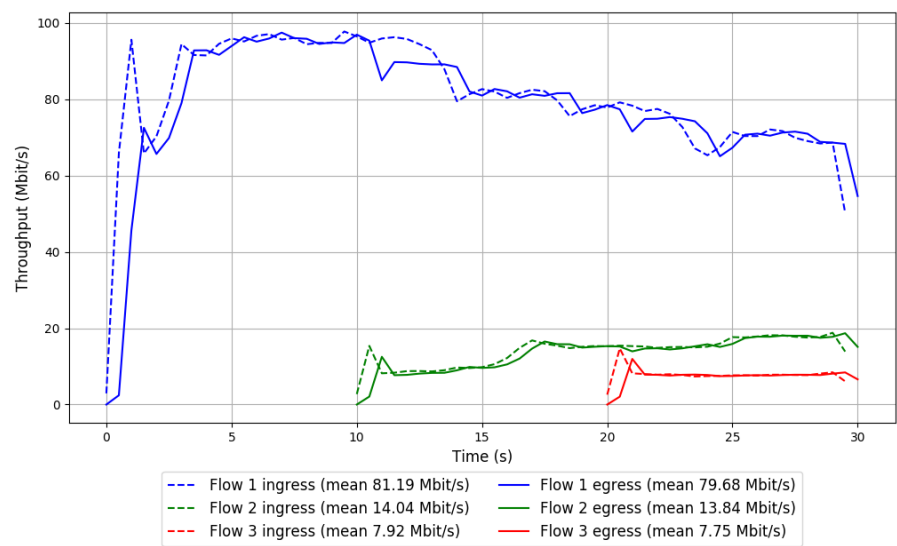


Run 5: Statistics of PCC-Allegro

Start at: 2018-12-20 03:07:08  
End at: 2018-12-20 03:07:38  
Local clock offset: 0.42 ms  
Remote clock offset: -3.351 ms

# Below is generated by plot.py at 2018-12-20 03:36:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.44 Mbit/s  
95th percentile per-packet one-way delay: 60.880 ms  
Loss rate: 1.82%  
-- Flow 1:  
Average throughput: 79.68 Mbit/s  
95th percentile per-packet one-way delay: 60.651 ms  
Loss rate: 1.87%  
-- Flow 2:  
Average throughput: 13.84 Mbit/s  
95th percentile per-packet one-way delay: 61.621 ms  
Loss rate: 1.40%  
-- Flow 3:  
Average throughput: 7.75 Mbit/s  
95th percentile per-packet one-way delay: 62.323 ms  
Loss rate: 2.08%

Run 5: Report of PCC-Allegro — Data Link

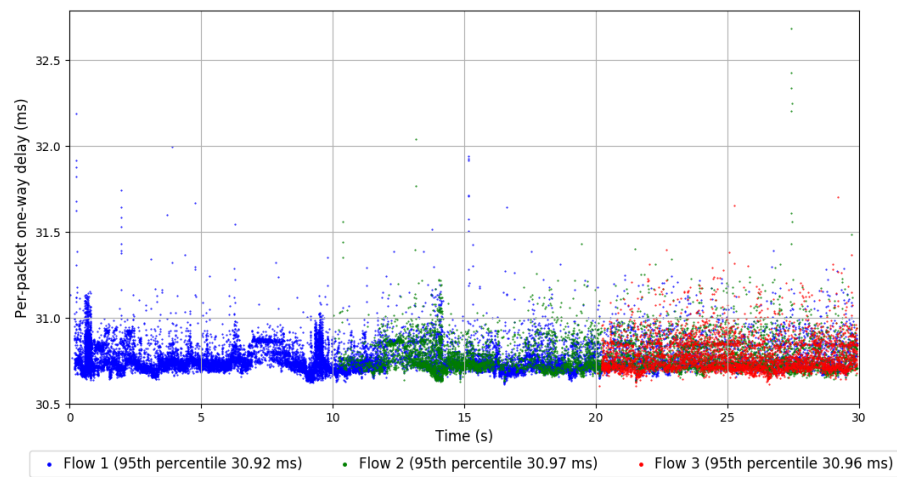
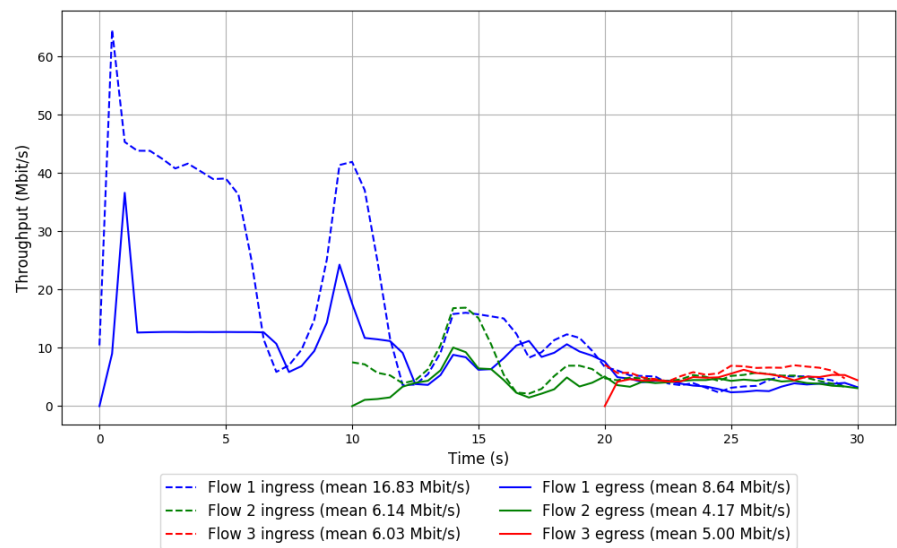


```
Run 1: Statistics of PCC-Expr

Start at: 2018-12-20 01:55:00
End at: 2018-12-20 01:55:30
Local clock offset: -2.384 ms
Remote clock offset: -4.051 ms

# Below is generated by plot.py at 2018-12-20 03:36:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.937 ms
Loss rate: 42.98%
-- Flow 1:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 30.922 ms
Loss rate: 48.69%
-- Flow 2:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 30.966 ms
Loss rate: 32.05%
-- Flow 3:
Average throughput: 5.00 Mbit/s
95th percentile per-packet one-way delay: 30.964 ms
Loss rate: 17.14%
```

Run 1: Report of PCC-Expr — Data Link

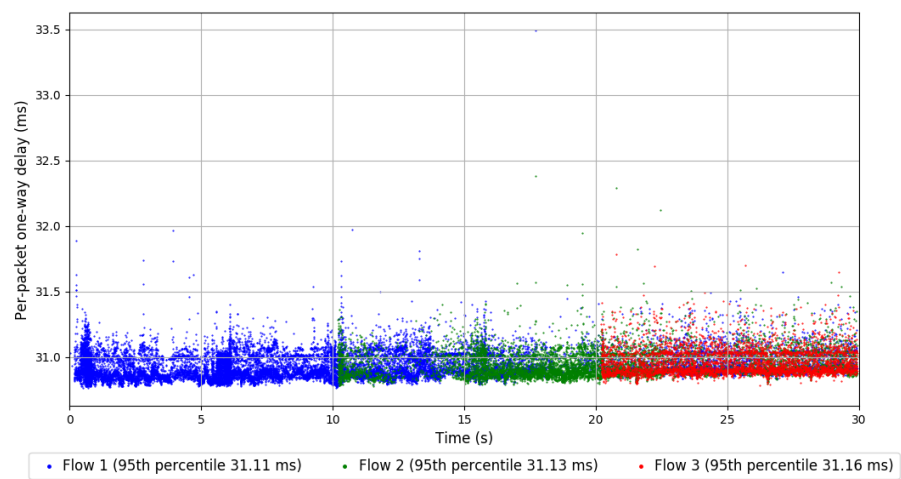
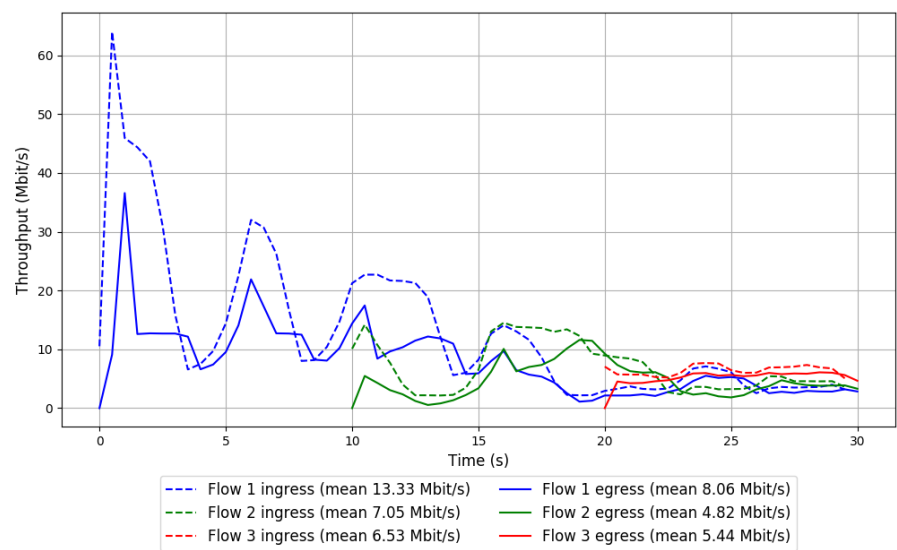


Run 2: Statistics of PCC-Expr

Start at: 2018-12-20 02:17:41  
End at: 2018-12-20 02:18:11  
Local clock offset: -0.095 ms  
Remote clock offset: -3.868 ms

# Below is generated by plot.py at 2018-12-20 03:36:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.06 Mbit/s  
95th percentile per-packet one-way delay: 31.120 ms  
Loss rate: 35.26%  
-- Flow 1:  
Average throughput: 8.06 Mbit/s  
95th percentile per-packet one-way delay: 31.108 ms  
Loss rate: 39.56%  
-- Flow 2:  
Average throughput: 4.82 Mbit/s  
95th percentile per-packet one-way delay: 31.127 ms  
Loss rate: 31.58%  
-- Flow 3:  
Average throughput: 5.44 Mbit/s  
95th percentile per-packet one-way delay: 31.159 ms  
Loss rate: 16.68%

Run 2: Report of PCC-Expr — Data Link





Run 3: Statistics of PCC-Expr

Start at: 2018-12-20 02:40:36

End at: 2018-12-20 02:41:06

Local clock offset: 0.868 ms

Remote clock offset: -3.78 ms

# Below is generated by plot.py at 2018-12-20 03:36:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.05 Mbit/s

95th percentile per-packet one-way delay: 30.734 ms

Loss rate: 42.90%

-- Flow 1:

Average throughput: 9.31 Mbit/s

95th percentile per-packet one-way delay: 30.721 ms

Loss rate: 43.24%

-- Flow 2:

Average throughput: 3.64 Mbit/s

95th percentile per-packet one-way delay: 30.757 ms

Loss rate: 43.71%

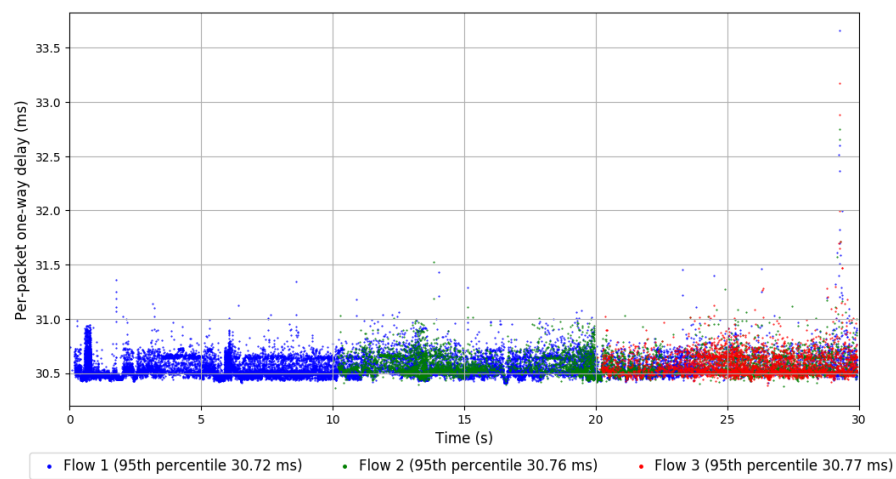
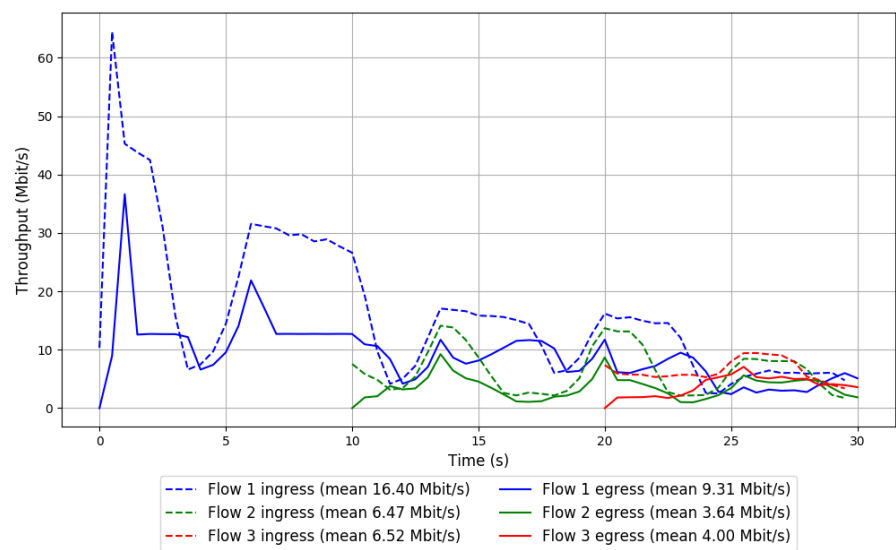
-- Flow 3:

Average throughput: 4.00 Mbit/s

95th percentile per-packet one-way delay: 30.769 ms

Loss rate: 38.70%

Run 3: Report of PCC-Expr — Data Link

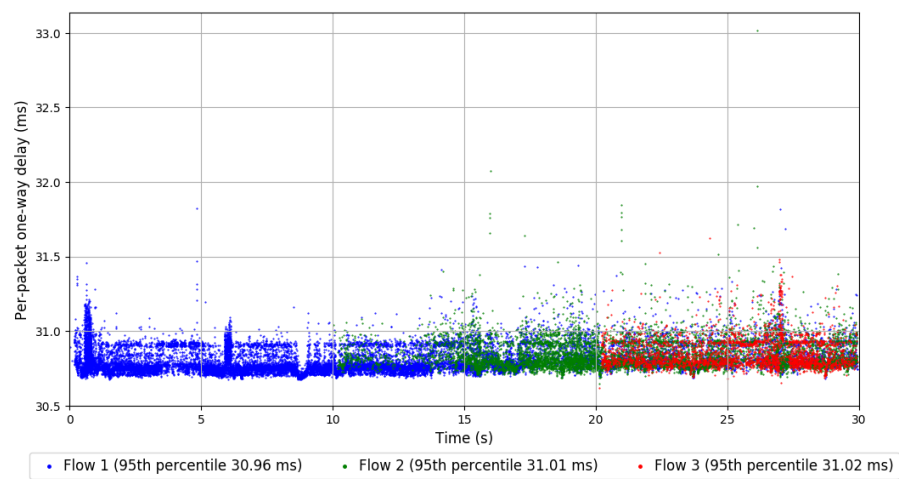
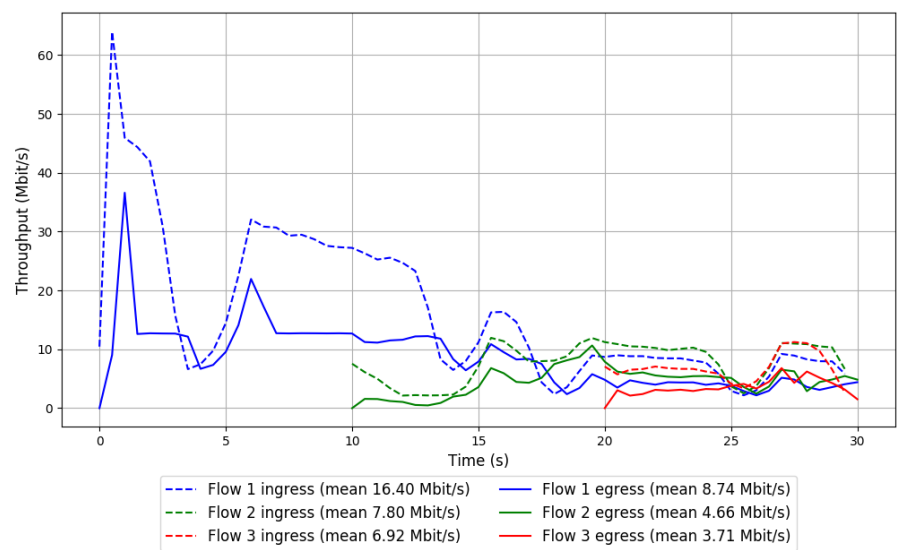


Run 4: Statistics of PCC-Expr

Start at: 2018-12-20 03:03:40  
End at: 2018-12-20 03:04:10  
Local clock offset: 0.79 ms  
Remote clock offset: -3.328 ms

# Below is generated by plot.py at 2018-12-20 03:36:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.06 Mbit/s  
95th percentile per-packet one-way delay: 30.985 ms  
Loss rate: 45.30%  
-- Flow 1:  
Average throughput: 8.74 Mbit/s  
95th percentile per-packet one-way delay: 30.962 ms  
Loss rate: 46.73%  
-- Flow 2:  
Average throughput: 4.66 Mbit/s  
95th percentile per-packet one-way delay: 31.013 ms  
Loss rate: 40.32%  
-- Flow 3:  
Average throughput: 3.71 Mbit/s  
95th percentile per-packet one-way delay: 31.025 ms  
Loss rate: 46.35%

Run 4: Report of PCC-Expr — Data Link

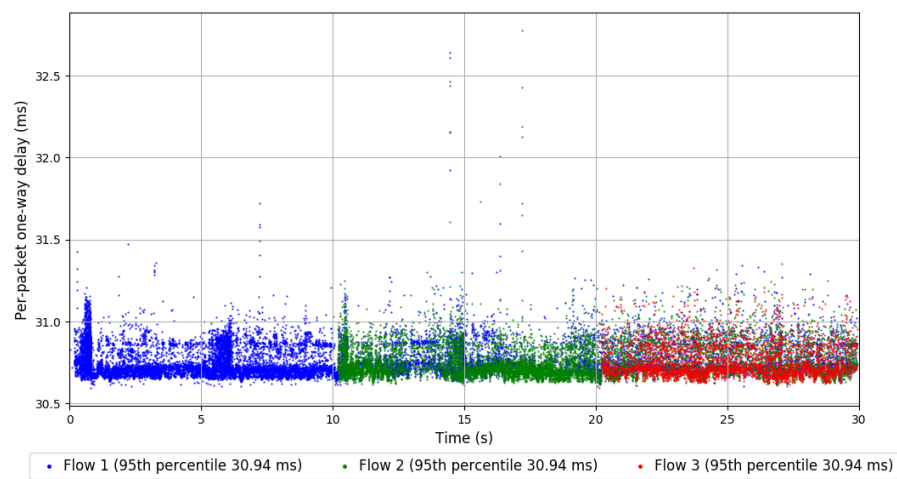
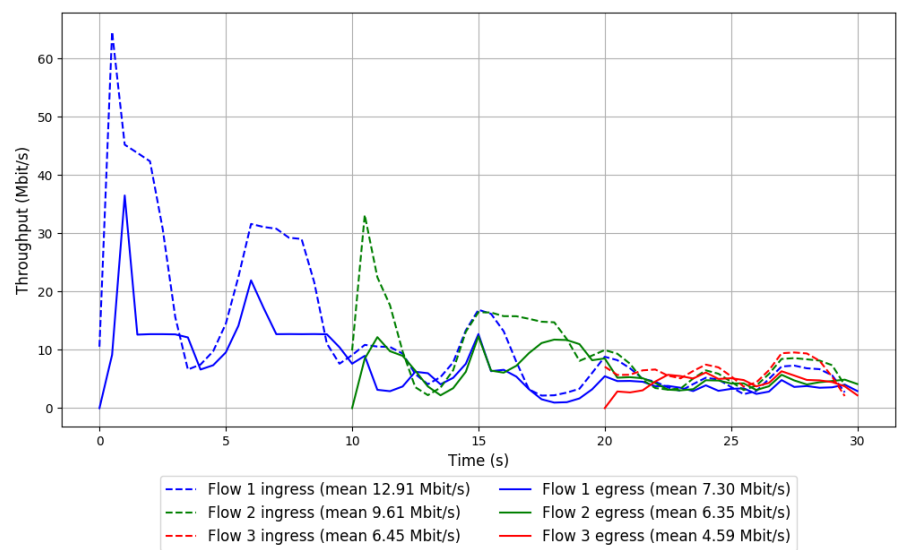


Run 5: Statistics of PCC-Expr

Start at: 2018-12-20 03:26:21  
End at: 2018-12-20 03:26:51  
Local clock offset: -2.026 ms  
Remote clock offset: -3.272 ms

# Below is generated by plot.py at 2018-12-20 03:36:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.04 Mbit/s  
95th percentile per-packet one-way delay: 30.939 ms  
Loss rate: 39.15%  
-- Flow 1:  
Average throughput: 7.30 Mbit/s  
95th percentile per-packet one-way delay: 30.939 ms  
Loss rate: 43.48%  
-- Flow 2:  
Average throughput: 6.35 Mbit/s  
95th percentile per-packet one-way delay: 30.936 ms  
Loss rate: 33.87%  
-- Flow 3:  
Average throughput: 4.59 Mbit/s  
95th percentile per-packet one-way delay: 30.944 ms  
Loss rate: 28.81%

Run 5: Report of PCC-Expr — Data Link

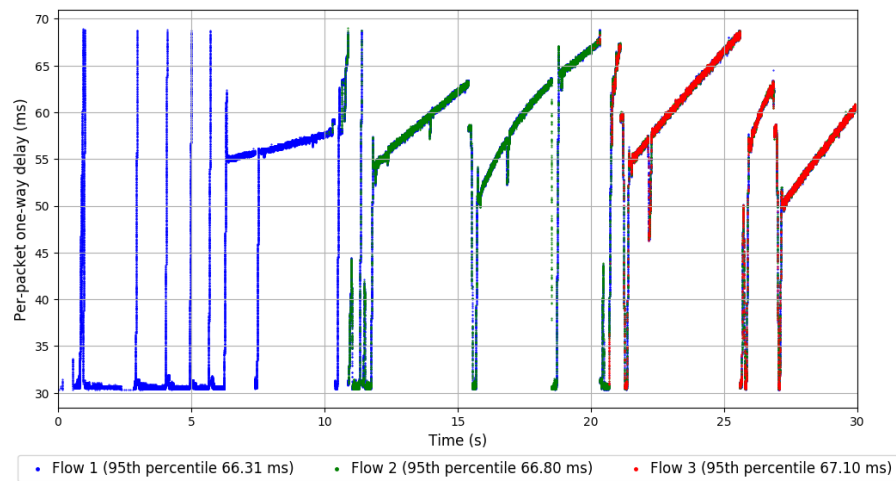
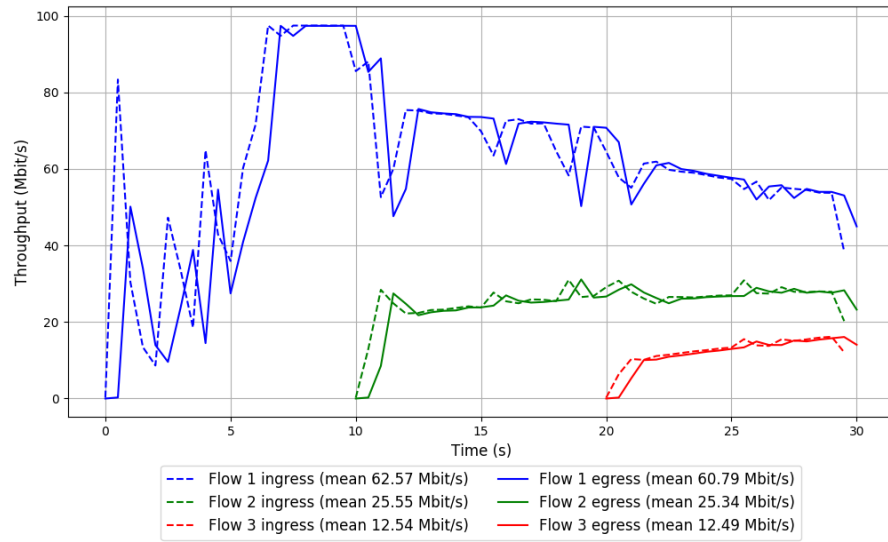


Run 1: Statistics of QUIC Cubic

Start at: 2018-12-20 01:37:59  
End at: 2018-12-20 01:38:29  
Local clock offset: 0.728 ms  
Remote clock offset: -4.085 ms

# Below is generated by plot.py at 2018-12-20 03:36:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.71 Mbit/s  
95th percentile per-packet one-way delay: 66.511 ms  
Loss rate: 2.24%  
-- Flow 1:  
Average throughput: 60.79 Mbit/s  
95th percentile per-packet one-way delay: 66.309 ms  
Loss rate: 2.74%  
-- Flow 2:  
Average throughput: 25.34 Mbit/s  
95th percentile per-packet one-way delay: 66.801 ms  
Loss rate: 0.83%  
-- Flow 3:  
Average throughput: 12.49 Mbit/s  
95th percentile per-packet one-way delay: 67.100 ms  
Loss rate: 0.43%

# Run 1: Report of QUIC Cubic — Data Link



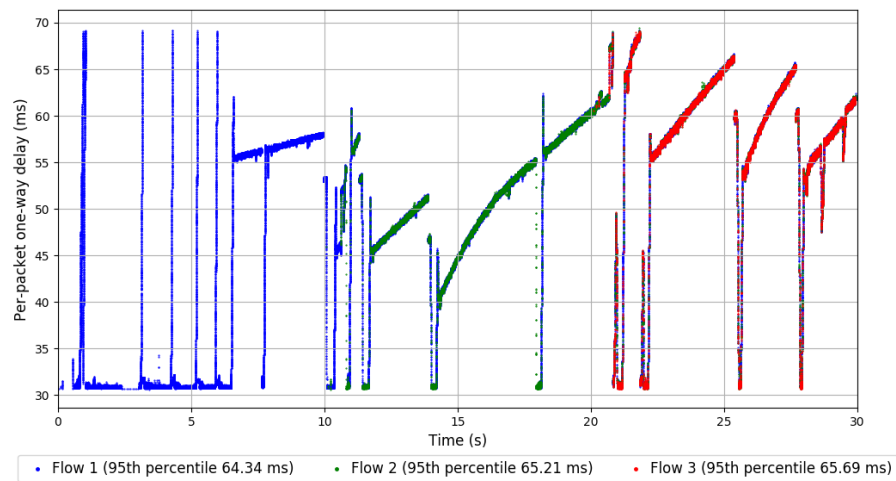
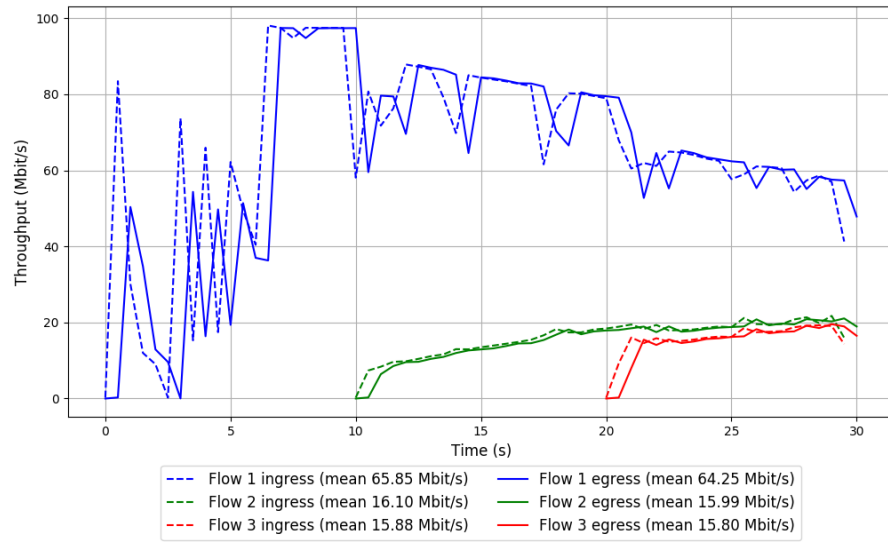


Run 2: Statistics of QUIC Cubic

Start at: 2018-12-20 02:00:53  
End at: 2018-12-20 02:01:23  
Local clock offset: -2.735 ms  
Remote clock offset: -3.989 ms

# Below is generated by plot.py at 2018-12-20 03:36:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.06 Mbit/s  
95th percentile per-packet one-way delay: 64.701 ms  
Loss rate: 1.98%  
-- Flow 1:  
Average throughput: 64.25 Mbit/s  
95th percentile per-packet one-way delay: 64.342 ms  
Loss rate: 2.32%  
-- Flow 2:  
Average throughput: 15.99 Mbit/s  
95th percentile per-packet one-way delay: 65.206 ms  
Loss rate: 0.58%  
-- Flow 3:  
Average throughput: 15.80 Mbit/s  
95th percentile per-packet one-way delay: 65.692 ms  
Loss rate: 0.51%

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

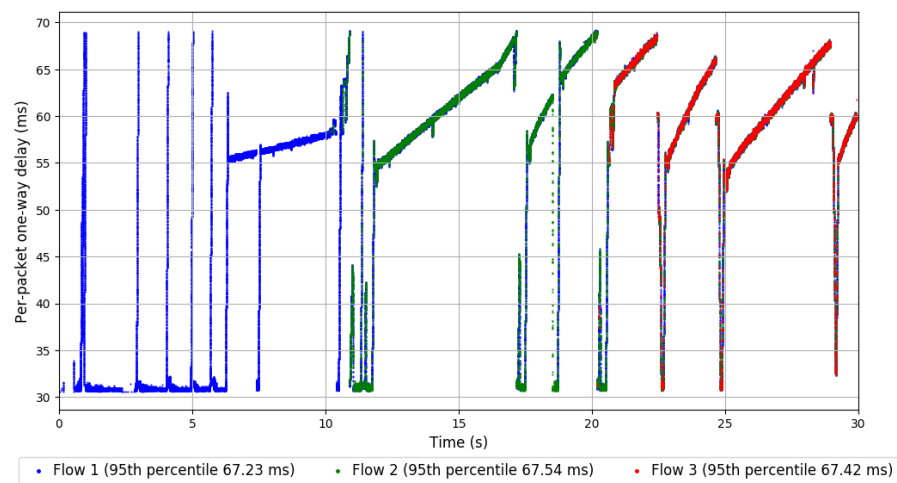
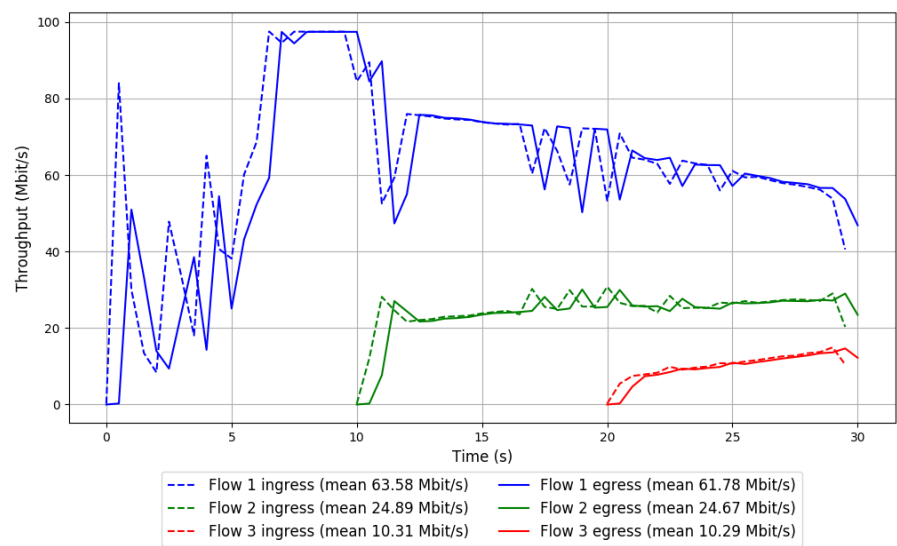


Run 3: Statistics of QUIC Cubic

Start at: 2018-12-20 02:23:33  
End at: 2018-12-20 02:24:03  
Local clock offset: 0.464 ms  
Remote clock offset: -3.837 ms

# Below is generated by plot.py at 2018-12-20 03:37:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.53 Mbit/s  
95th percentile per-packet one-way delay: 67.347 ms  
Loss rate: 2.27%  
-- Flow 1:  
Average throughput: 61.78 Mbit/s  
95th percentile per-packet one-way delay: 67.226 ms  
Loss rate: 2.74%  
-- Flow 2:  
Average throughput: 24.67 Mbit/s  
95th percentile per-packet one-way delay: 67.539 ms  
Loss rate: 0.87%  
-- Flow 3:  
Average throughput: 10.29 Mbit/s  
95th percentile per-packet one-way delay: 67.418 ms  
Loss rate: 0.26%

Run 3: Report of QUIC Cubic — Data Link

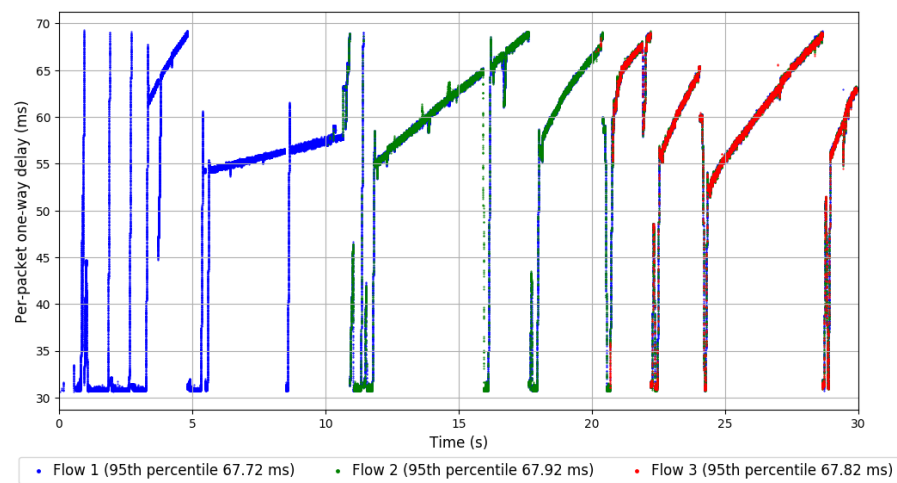
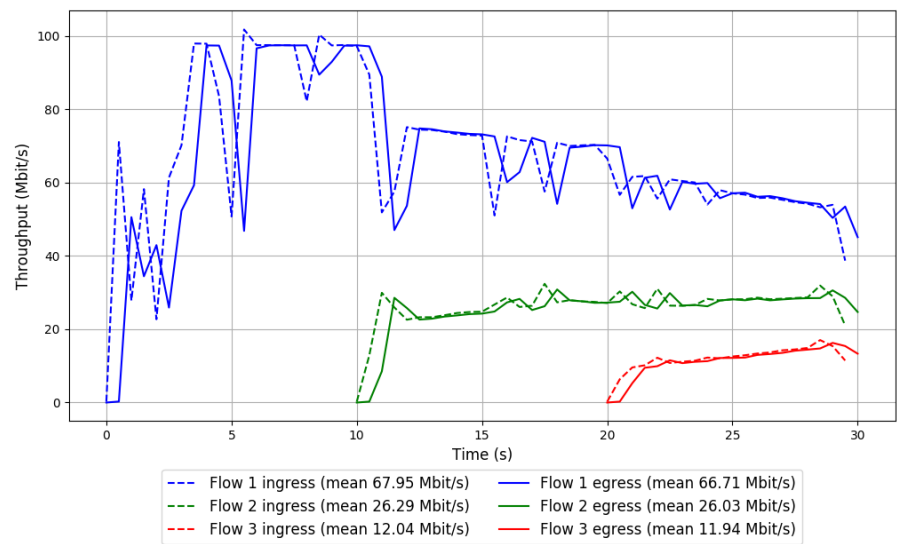


Run 4: Statistics of QUIC Cubic

Start at: 2018-12-20 02:46:29  
End at: 2018-12-20 02:46:59  
Local clock offset: 0.73 ms  
Remote clock offset: -3.488 ms

# Below is generated by plot.py at 2018-12-20 03:37:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.91 Mbit/s  
95th percentile per-packet one-way delay: 67.810 ms  
Loss rate: 1.53%  
-- Flow 1:  
Average throughput: 66.71 Mbit/s  
95th percentile per-packet one-way delay: 67.720 ms  
Loss rate: 1.71%  
-- Flow 2:  
Average throughput: 26.03 Mbit/s  
95th percentile per-packet one-way delay: 67.916 ms  
Loss rate: 0.96%  
-- Flow 3:  
Average throughput: 11.94 Mbit/s  
95th percentile per-packet one-way delay: 67.822 ms  
Loss rate: 0.81%

Run 4: Report of QUIC Cubic — Data Link

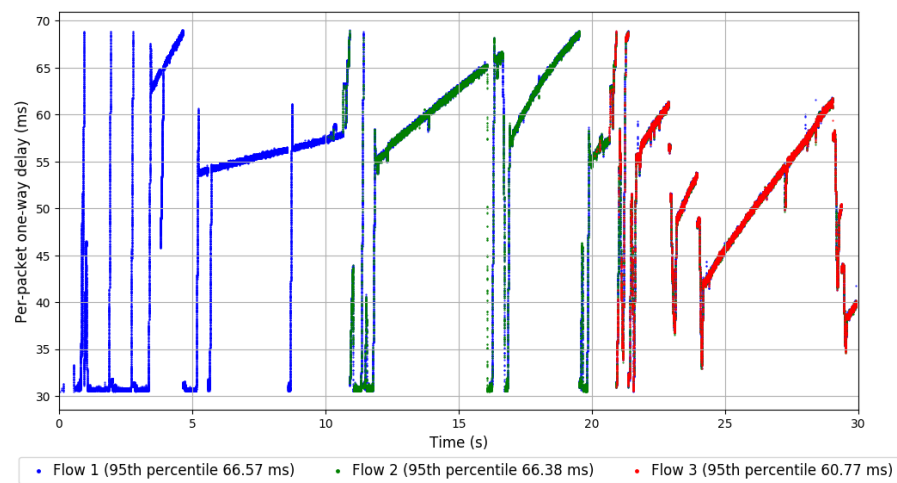
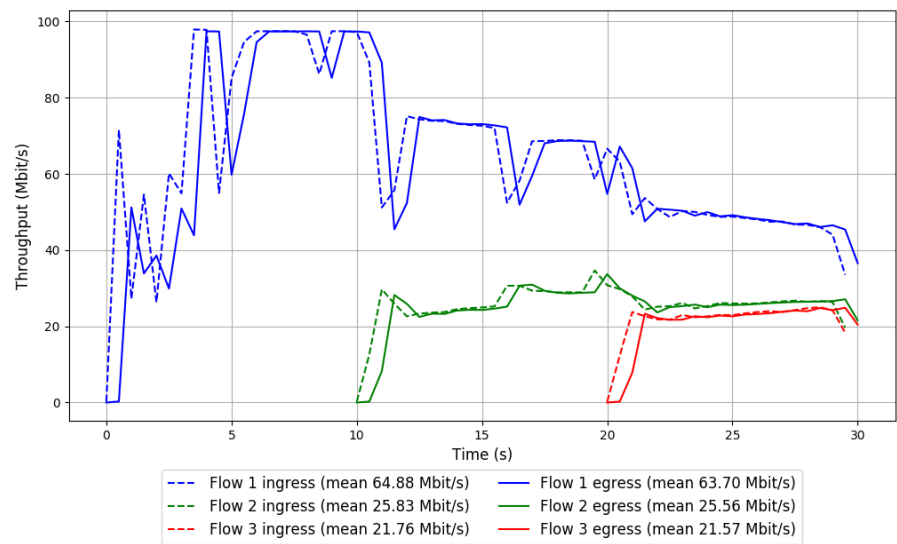


Run 5: Statistics of QUIC Cubic

Start at: 2018-12-20 03:09:32  
End at: 2018-12-20 03:10:02  
Local clock offset: -0.175 ms  
Remote clock offset: -3.318 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.74 Mbit/s  
95th percentile per-packet one-way delay: 66.455 ms  
Loss rate: 1.59%  
-- Flow 1:  
Average throughput: 63.70 Mbit/s  
95th percentile per-packet one-way delay: 66.572 ms  
Loss rate: 1.78%  
-- Flow 2:  
Average throughput: 25.56 Mbit/s  
95th percentile per-packet one-way delay: 66.381 ms  
Loss rate: 1.13%  
-- Flow 3:  
Average throughput: 21.57 Mbit/s  
95th percentile per-packet one-way delay: 60.766 ms  
Loss rate: 1.02%

Run 5: Report of QUIC Cubic — Data Link



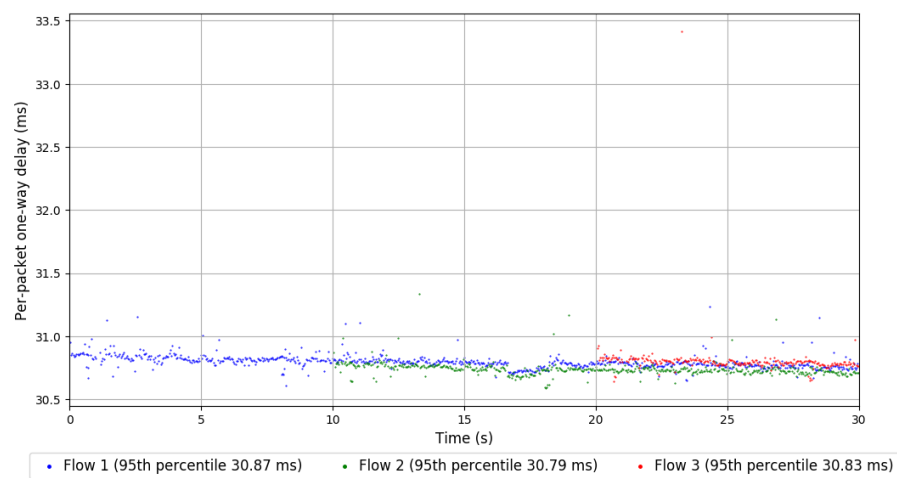
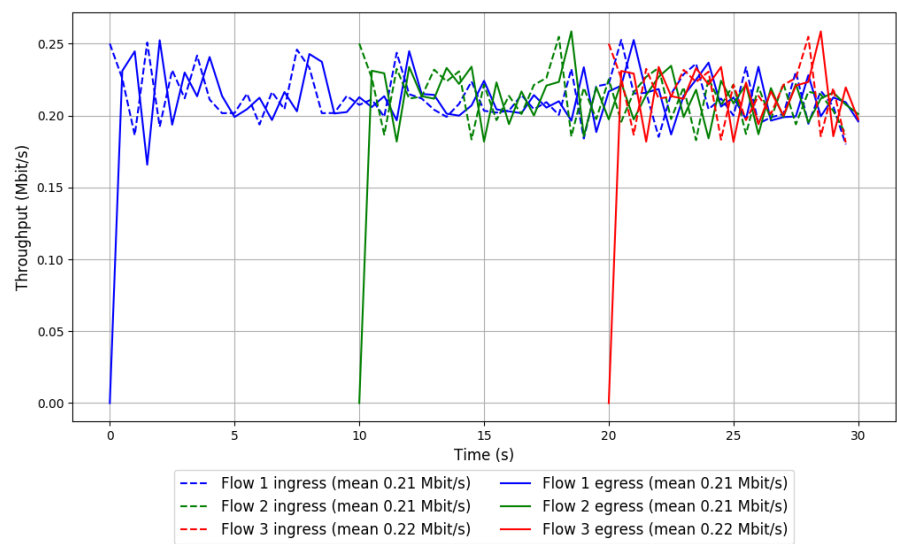


Run 1: Statistics of SCReAM

Start at: 2018-12-20 01:45:12  
End at: 2018-12-20 01:45:42  
Local clock offset: -1.276 ms  
Remote clock offset: -4.103 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 30.855 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 30.868 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 30.789 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 30.834 ms  
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

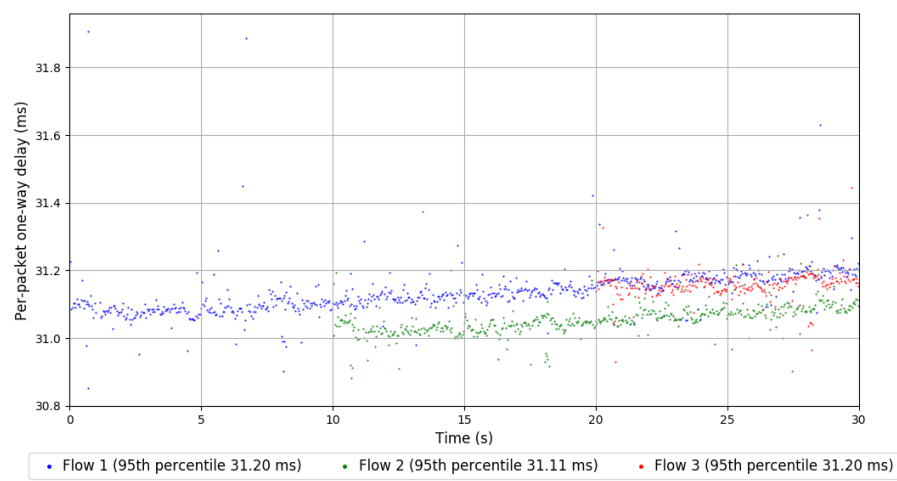
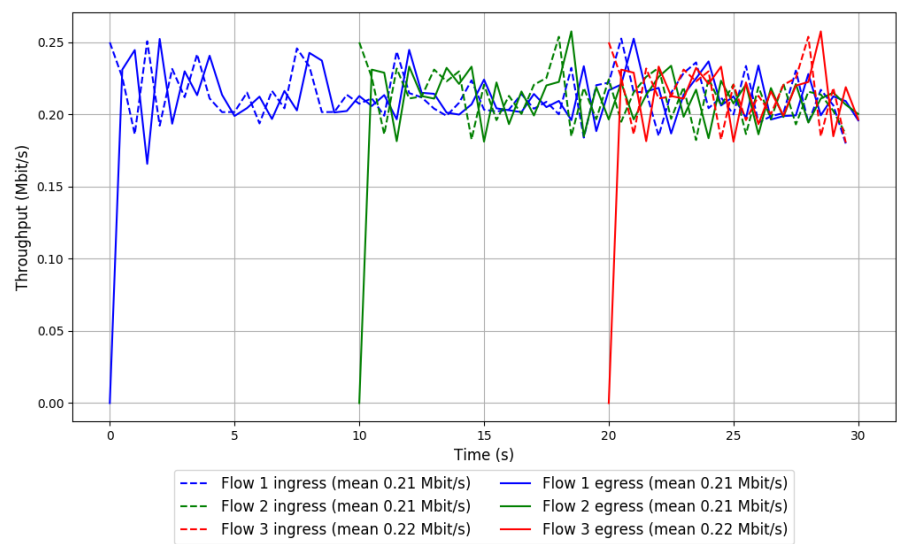


Run 2: Statistics of SReAM

Start at: 2018-12-20 02:08:03  
End at: 2018-12-20 02:08:33  
Local clock offset: -2.064 ms  
Remote clock offset: -3.984 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 31.199 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 31.205 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 31.111 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 31.196 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

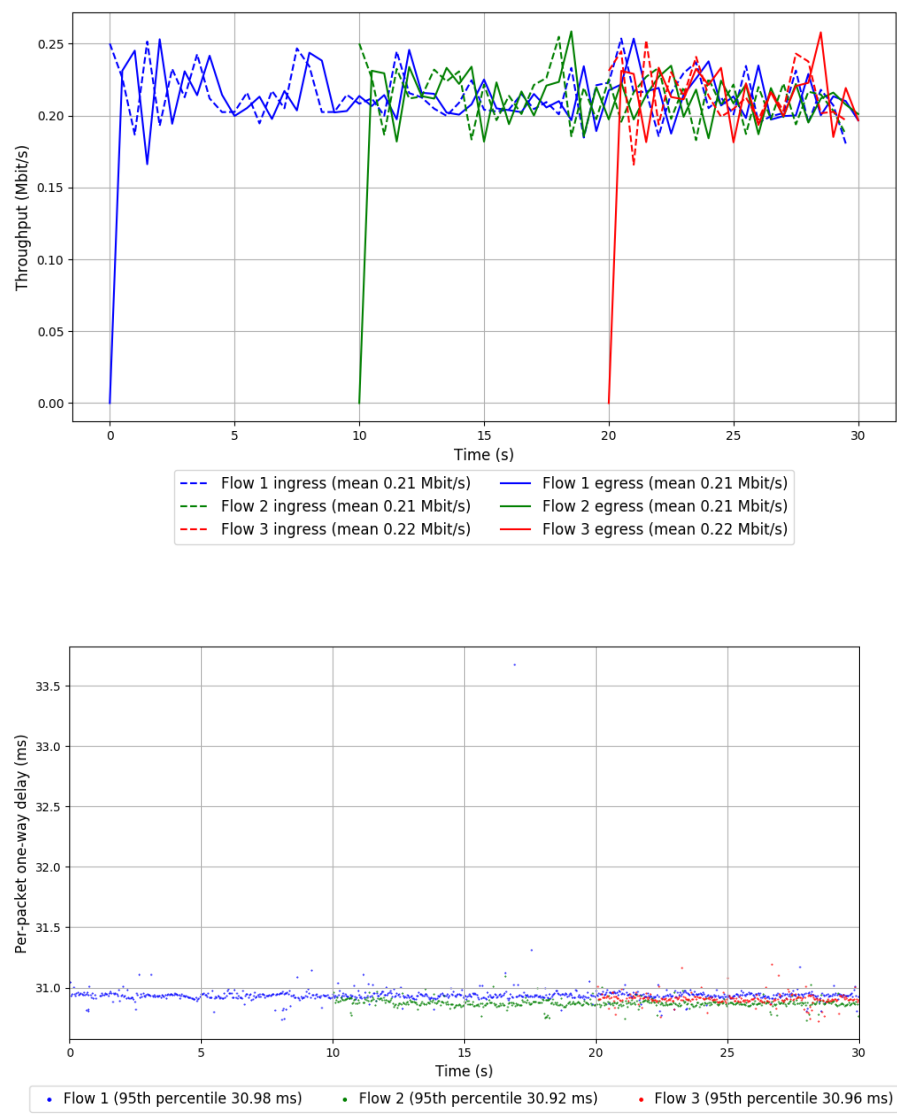


Run 3: Statistics of SReAM

Start at: 2018-12-20 02:30:52  
End at: 2018-12-20 02:31:22  
Local clock offset: 0.9 ms  
Remote clock offset: -3.704 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 30.974 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 30.982 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 30.919 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 30.964 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

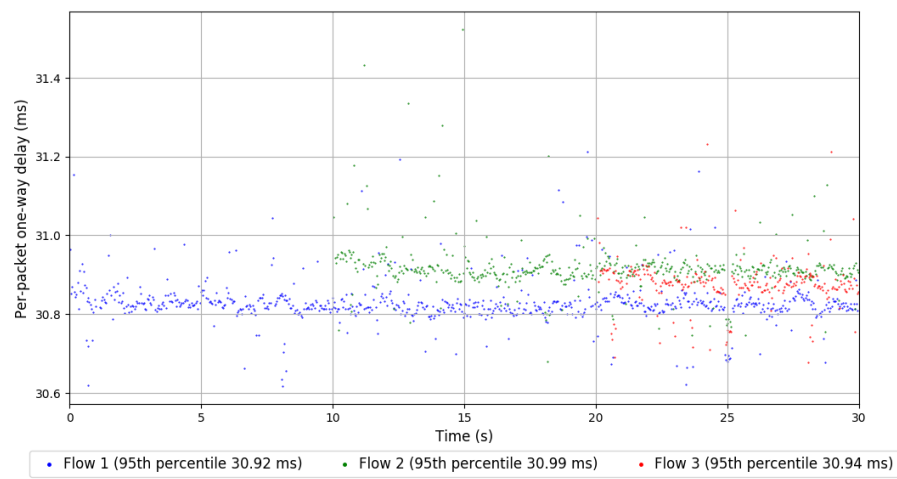
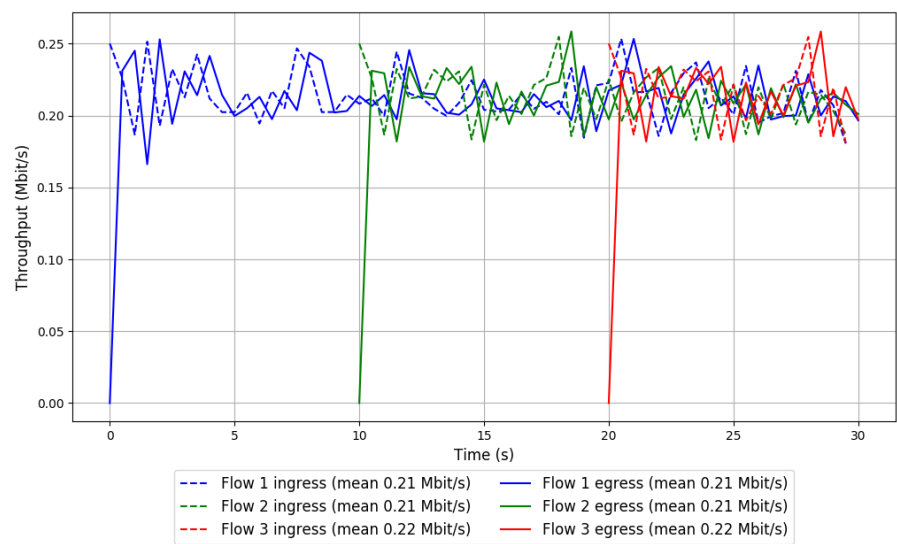


Run 4: Statistics of SReAM

Start at: 2018-12-20 02:53:41  
End at: 2018-12-20 02:54:11  
Local clock offset: 0.707 ms  
Remote clock offset: -3.439 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 30.954 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 30.918 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 30.991 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 30.943 ms  
Loss rate: 0.00%

Run 4: Report of SCReAM — Data Link



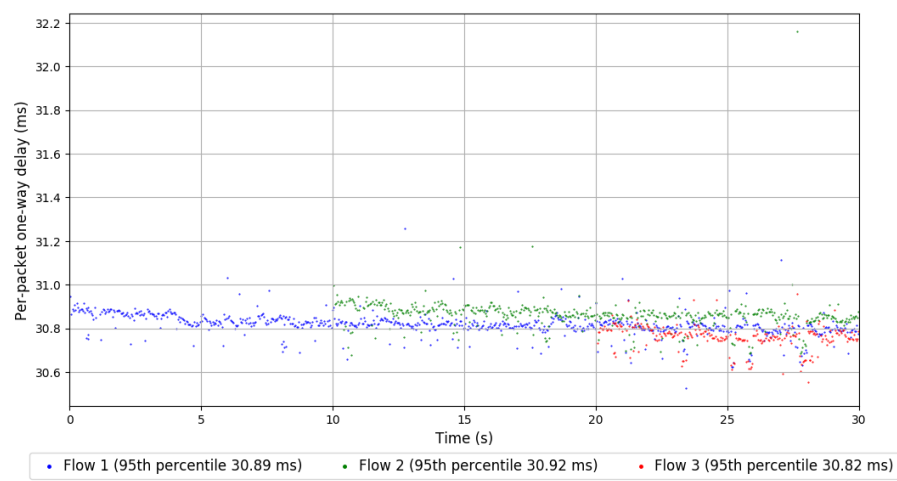
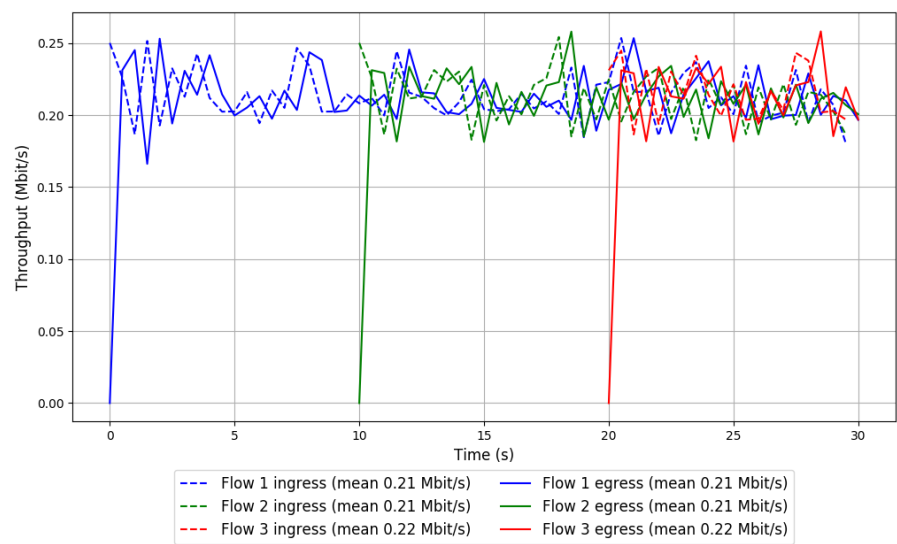


Run 5: Statistics of SReAM

Start at: 2018-12-20 03:16:43  
End at: 2018-12-20 03:17:13  
Local clock offset: -1.298 ms  
Remote clock offset: -3.279 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 30.909 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 30.886 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 30.920 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 30.822 ms  
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

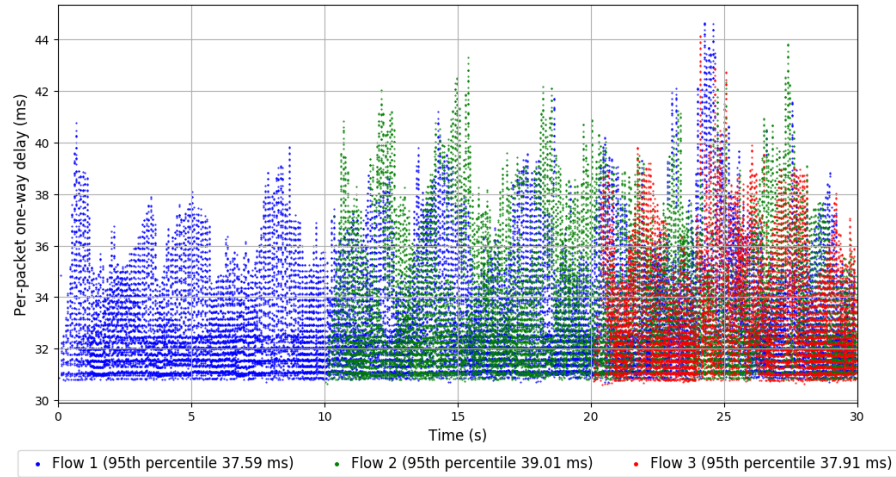
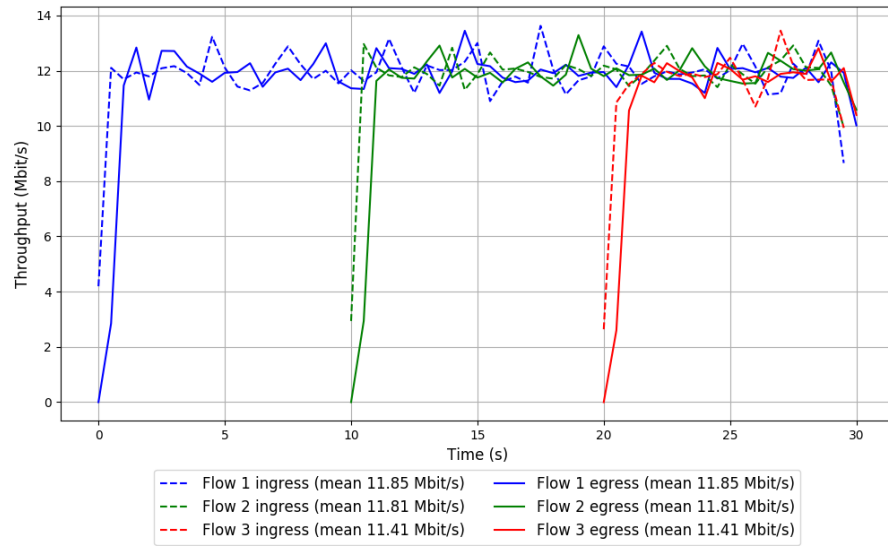


Run 1: Statistics of Sprout

Start at: 2018-12-20 01:34:25  
End at: 2018-12-20 01:34:55  
Local clock offset: 1.58 ms  
Remote clock offset: -3.994 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.47 Mbit/s  
95th percentile per-packet one-way delay: 38.272 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 11.85 Mbit/s  
95th percentile per-packet one-way delay: 37.586 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 11.81 Mbit/s  
95th percentile per-packet one-way delay: 39.012 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 11.41 Mbit/s  
95th percentile per-packet one-way delay: 37.912 ms  
Loss rate: 0.01%

## Run 1: Report of Sprout — Data Link

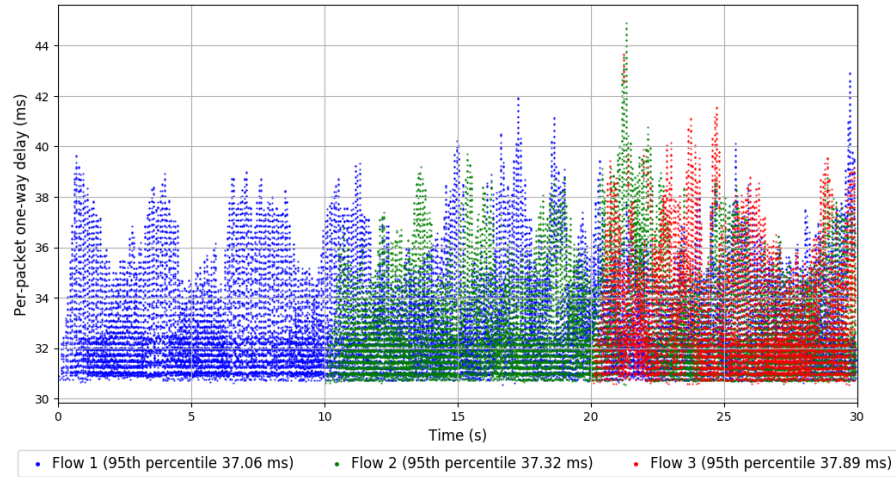
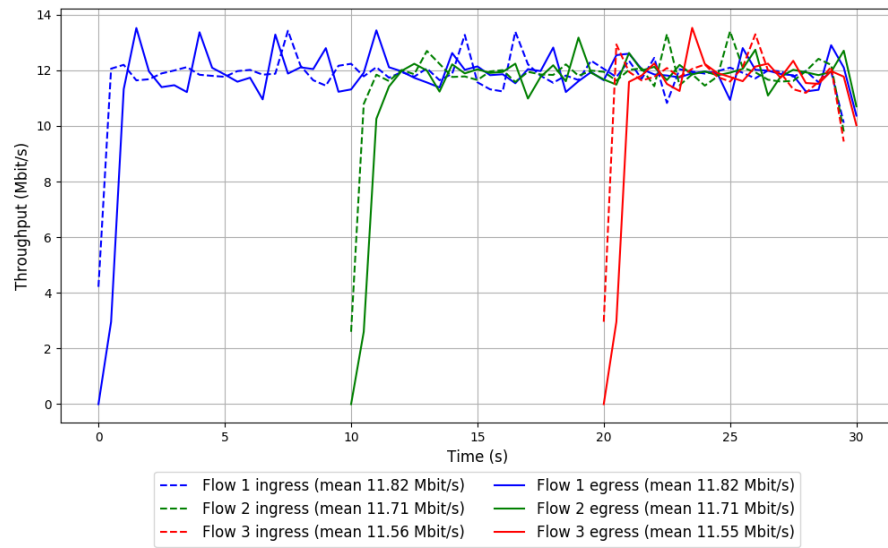


Run 2: Statistics of Sprout

Start at: 2018-12-20 01:57:20  
End at: 2018-12-20 01:57:50  
Local clock offset: -2.518 ms  
Remote clock offset: -4.016 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.42 Mbit/s  
95th percentile per-packet one-way delay: 37.312 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 11.82 Mbit/s  
95th percentile per-packet one-way delay: 37.059 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 11.71 Mbit/s  
95th percentile per-packet one-way delay: 37.324 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 11.55 Mbit/s  
95th percentile per-packet one-way delay: 37.891 ms  
Loss rate: 0.00%

## Run 2: Report of Sprout — Data Link

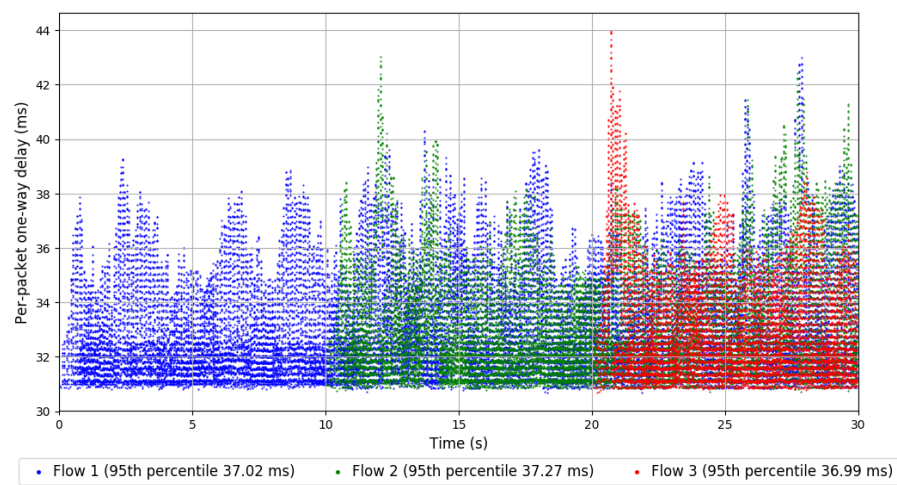
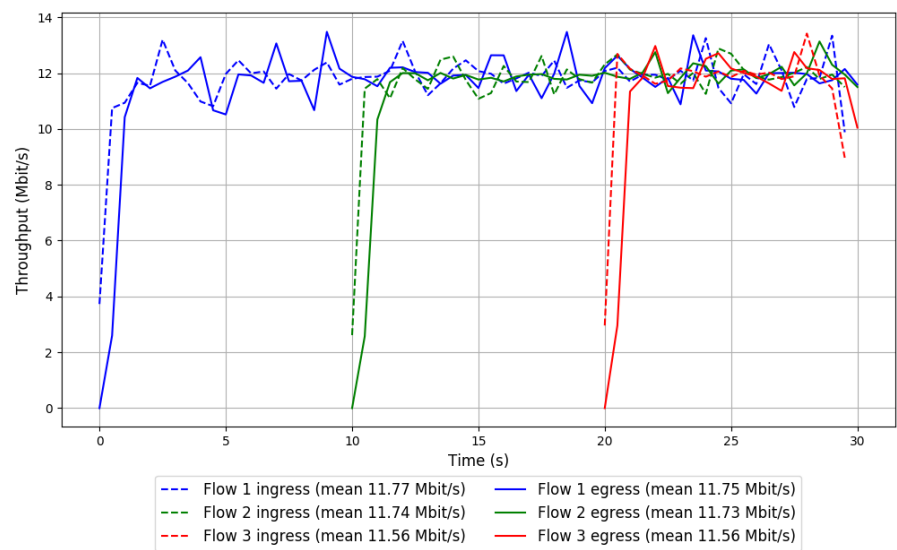


### Run 3: Statistics of Sprout

Start at: 2018-12-20 02:19:59  
End at: 2018-12-20 02:20:29  
Local clock offset: 0.128 ms  
Remote clock offset: -3.872 ms

```
# Below is generated by plot.py at 2018-12-20 03:37:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.37 Mbit/s
95th percentile per-packet one-way delay: 37.139 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 37.021 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 37.273 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.56 Mbit/s
95th percentile per-packet one-way delay: 36.988 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link



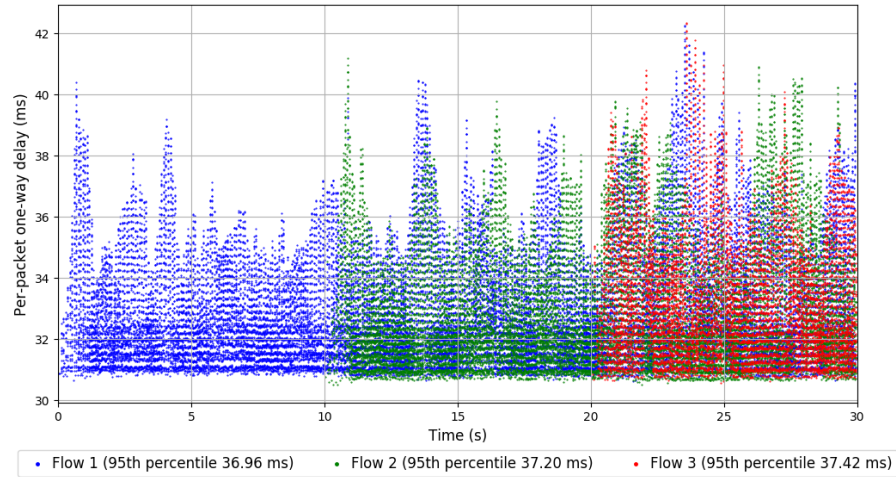
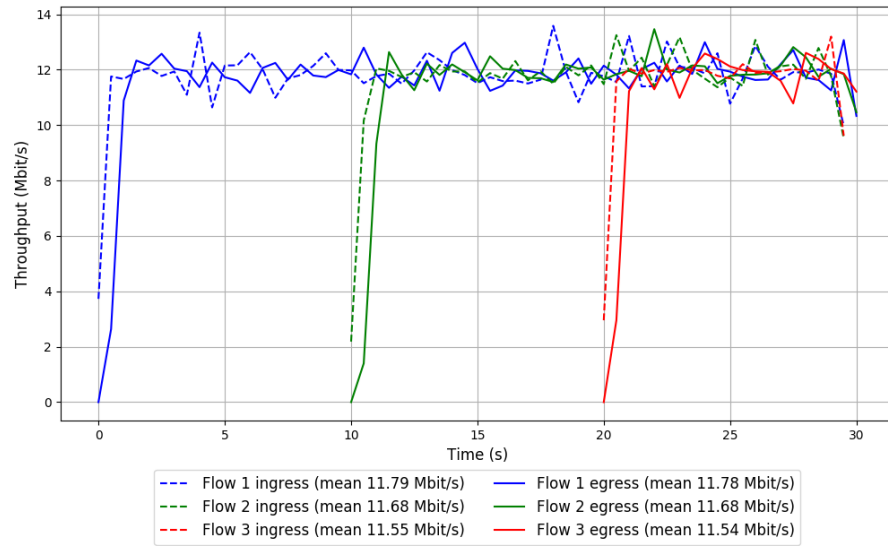


Run 4: Statistics of Sprout

Start at: 2018-12-20 02:42:55  
End at: 2018-12-20 02:43:25  
Local clock offset: 0.785 ms  
Remote clock offset: -3.566 ms

```
# Below is generated by plot.py at 2018-12-20 03:37:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.36 Mbit/s
95th percentile per-packet one-way delay: 37.121 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 36.964 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 37.200 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.54 Mbit/s
95th percentile per-packet one-way delay: 37.417 ms
Loss rate: 0.00%
```

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

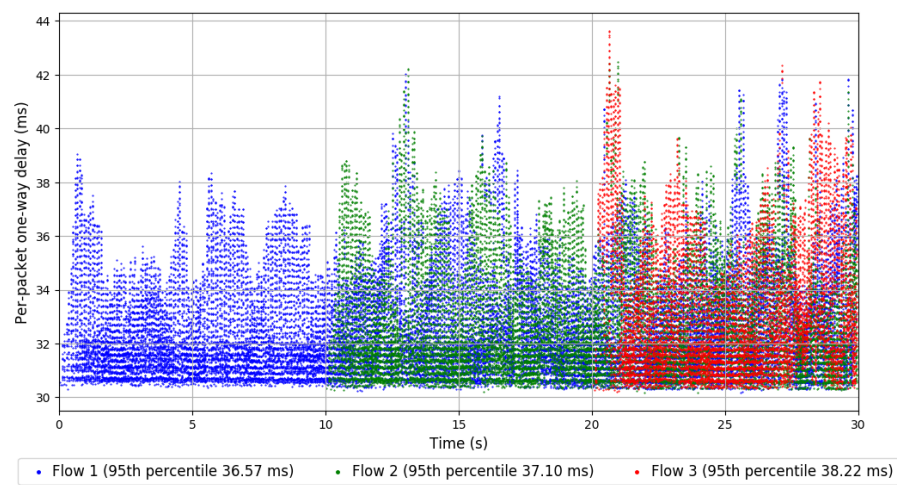
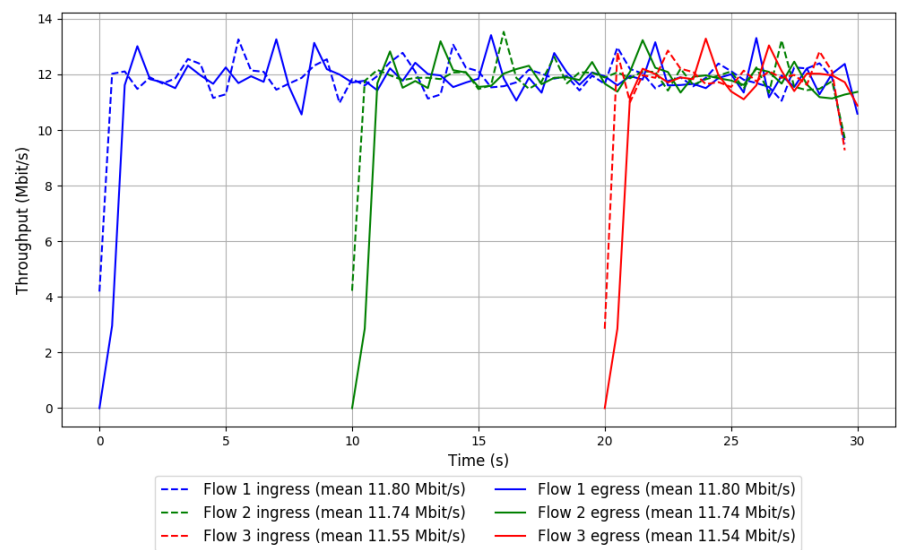


Run 5: Statistics of Sprout

Start at: 2018-12-20 03:05:58  
End at: 2018-12-20 03:06:28  
Local clock offset: 0.773 ms  
Remote clock offset: -3.454 ms

```
# Below is generated by plot.py at 2018-12-20 03:37:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.42 Mbit/s
95th percentile per-packet one-way delay: 37.053 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 36.571 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 37.100 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 11.54 Mbit/s
95th percentile per-packet one-way delay: 38.217 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

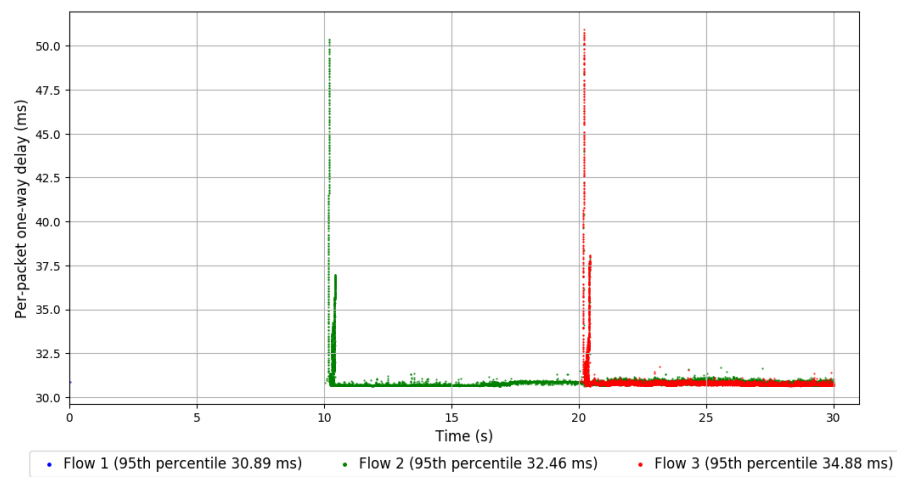
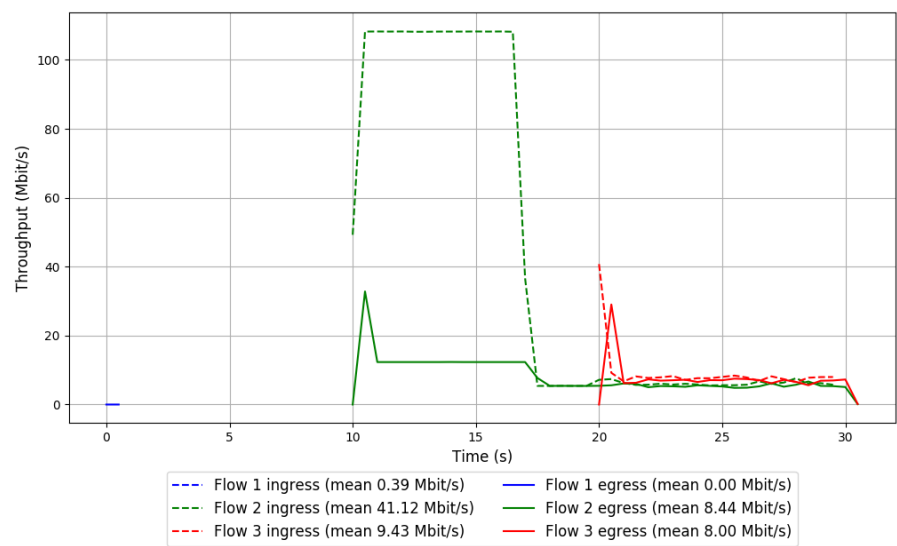


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-12-20 01:50:05
End at: 2018-12-20 01:50:35
Local clock offset: -1.959 ms
Remote clock offset: -4.054 ms

# Below is generated by plot.py at 2018-12-20 03:37:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 33.108 ms
Loss rate: 72.86%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 30.887 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 8.44 Mbit/s
95th percentile per-packet one-way delay: 32.458 ms
Loss rate: 79.47%
-- Flow 3:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 34.885 ms
Loss rate: 15.14%
```

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

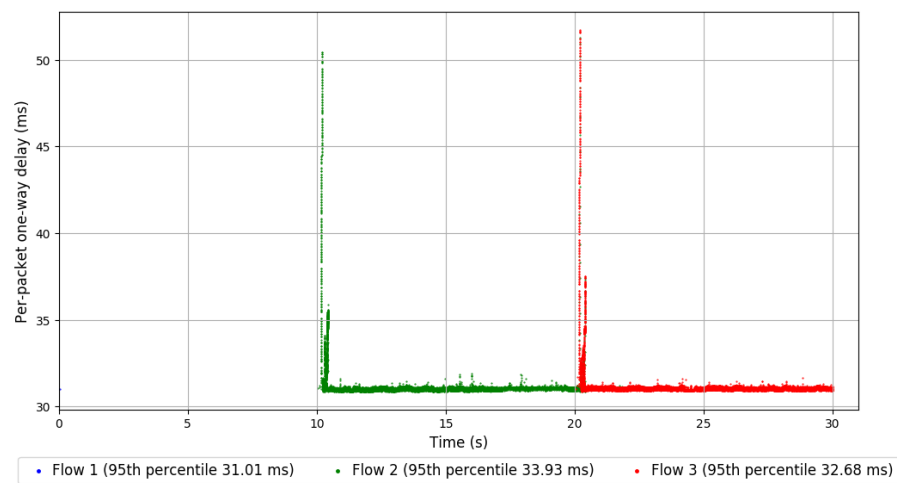
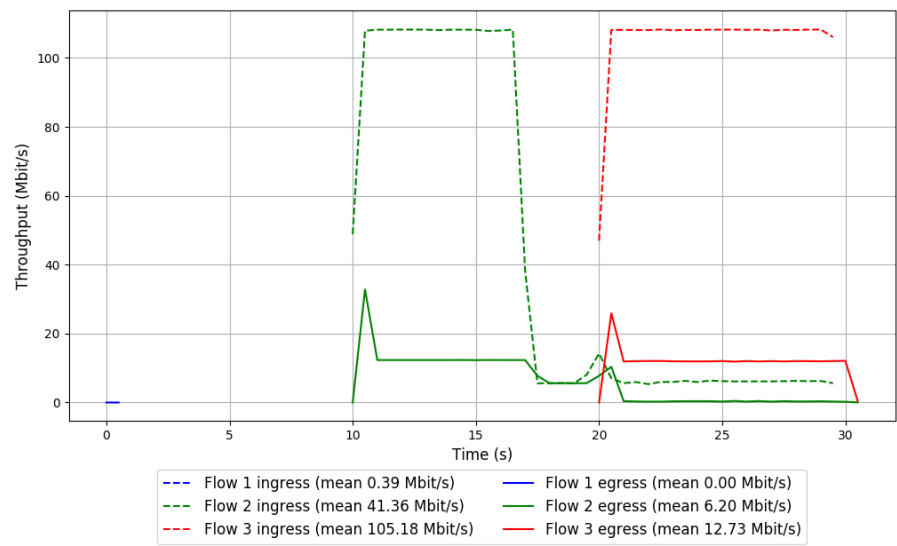


Run 2: Statistics of TaoVA-100x

Start at: 2018-12-20 02:12:52  
End at: 2018-12-20 02:13:22  
Local clock offset: -0.871 ms  
Remote clock offset: -3.878 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.37 Mbit/s  
95th percentile per-packet one-way delay: 33.132 ms  
Loss rate: 86.62%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 31.009 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 6.20 Mbit/s  
95th percentile per-packet one-way delay: 33.933 ms  
Loss rate: 85.01%  
-- Flow 3:  
Average throughput: 12.73 Mbit/s  
95th percentile per-packet one-way delay: 32.684 ms  
Loss rate: 87.90%

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



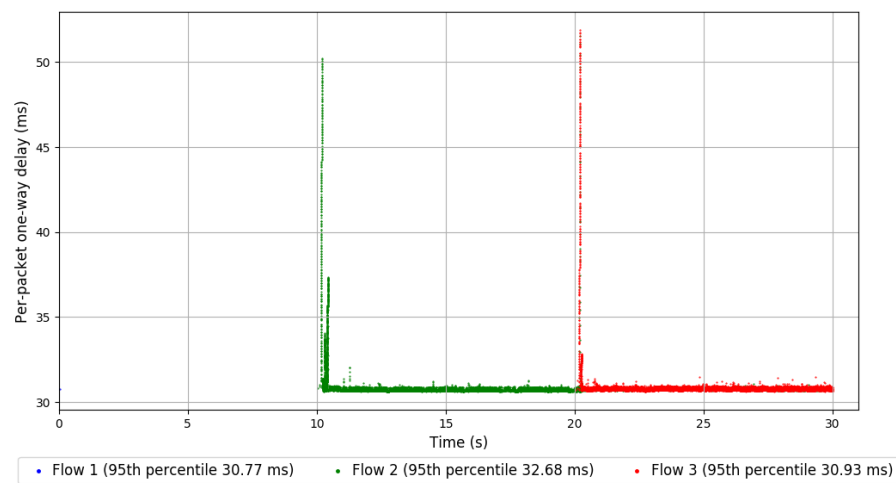
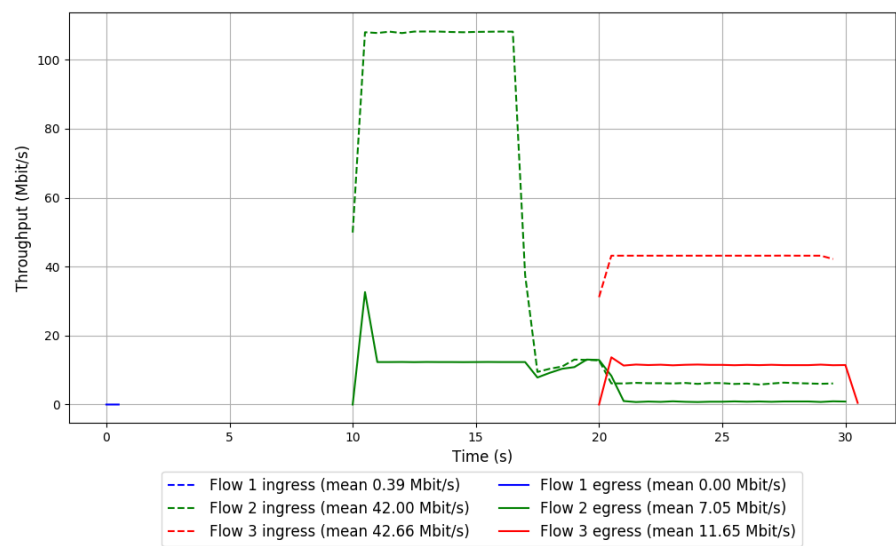


Run 3: Statistics of TaoVA-100x

Start at: 2018-12-20 02:35:44  
End at: 2018-12-20 02:36:14  
Local clock offset: 1.123 ms  
Remote clock offset: -3.626 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.56 Mbit/s  
95th percentile per-packet one-way delay: 31.813 ms  
Loss rate: 79.69%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 30.765 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 7.05 Mbit/s  
95th percentile per-packet one-way delay: 32.684 ms  
Loss rate: 83.23%  
-- Flow 3:  
Average throughput: 11.65 Mbit/s  
95th percentile per-packet one-way delay: 30.926 ms  
Loss rate: 72.70%

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

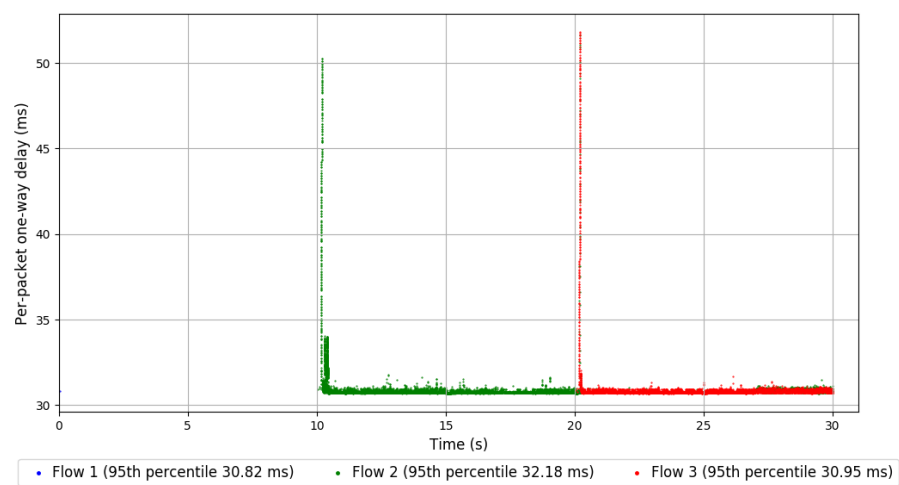
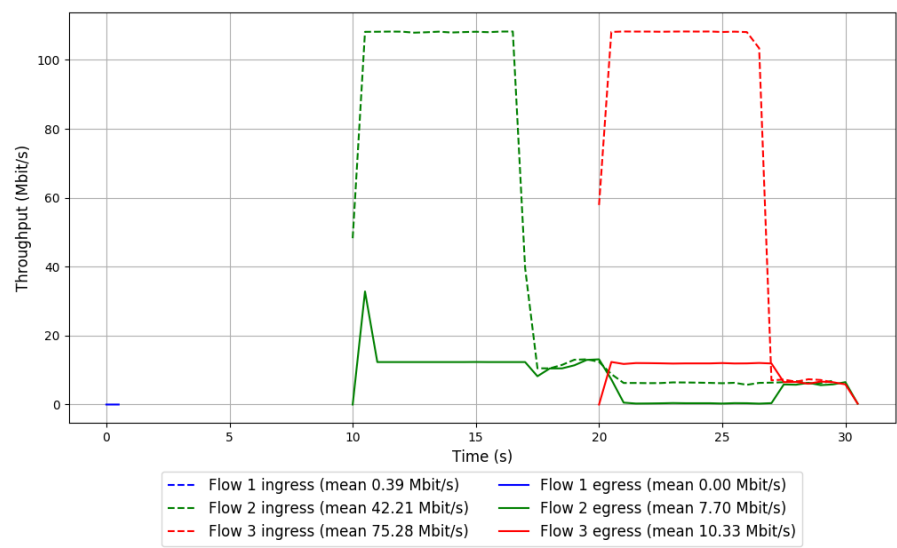


Run 4: Statistics of TaoVA-100x

Start at: 2018-12-20 02:58:51  
End at: 2018-12-20 02:59:21  
Local clock offset: 0.74 ms  
Remote clock offset: -3.382 ms

# Below is generated by plot.py at 2018-12-20 03:37:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.57 Mbit/s  
95th percentile per-packet one-way delay: 31.551 ms  
Loss rate: 83.88%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 30.824 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 7.70 Mbit/s  
95th percentile per-packet one-way delay: 32.182 ms  
Loss rate: 81.75%  
-- Flow 3:  
Average throughput: 10.33 Mbit/s  
95th percentile per-packet one-way delay: 30.952 ms  
Loss rate: 86.28%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-12-20 03:21:32

End at: 2018-12-20 03:22:02

Local clock offset: -1.747 ms

Remote clock offset: -3.27 ms

# Below is generated by plot.py at 2018-12-20 03:37:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 30.986 ms

Loss rate: 93.87%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 30.807 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 9.11 Mbit/s

95th percentile per-packet one-way delay: 32.039 ms

Loss rate: 91.45%

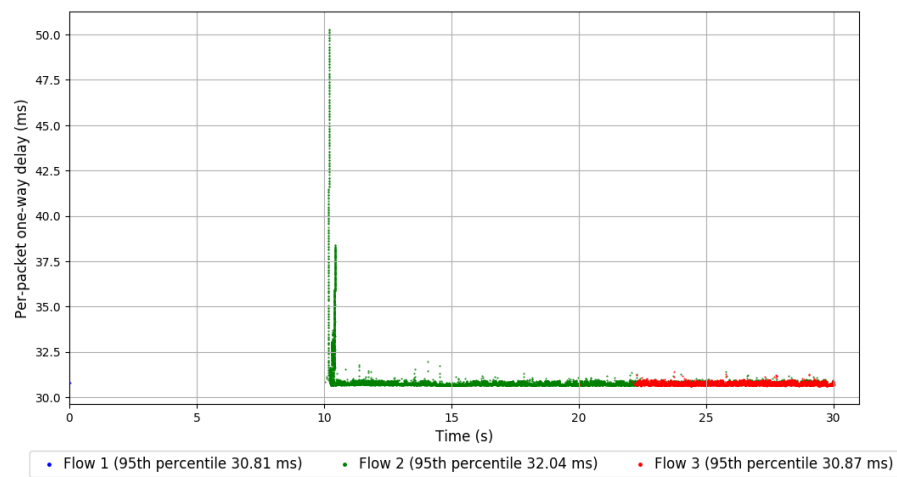
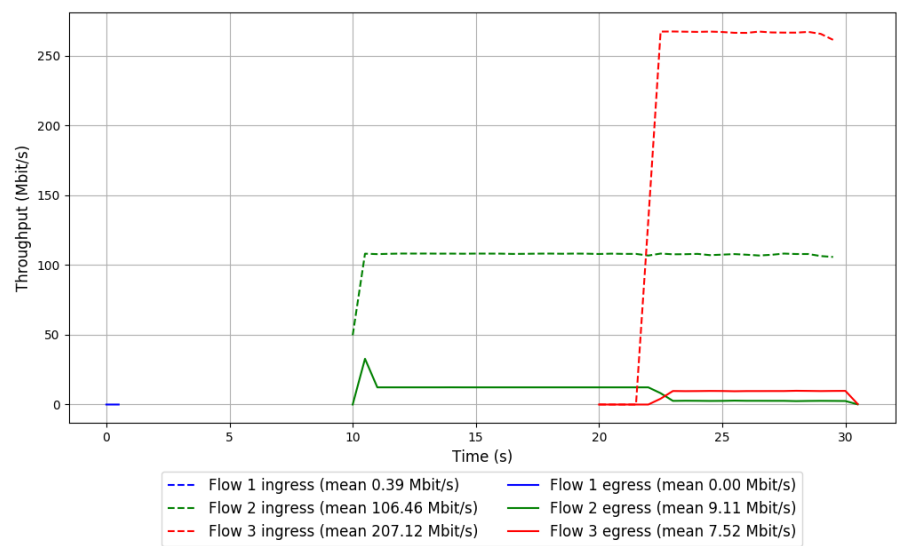
-- Flow 3:

Average throughput: 7.52 Mbit/s

95th percentile per-packet one-way delay: 30.869 ms

Loss rate: 96.37%

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

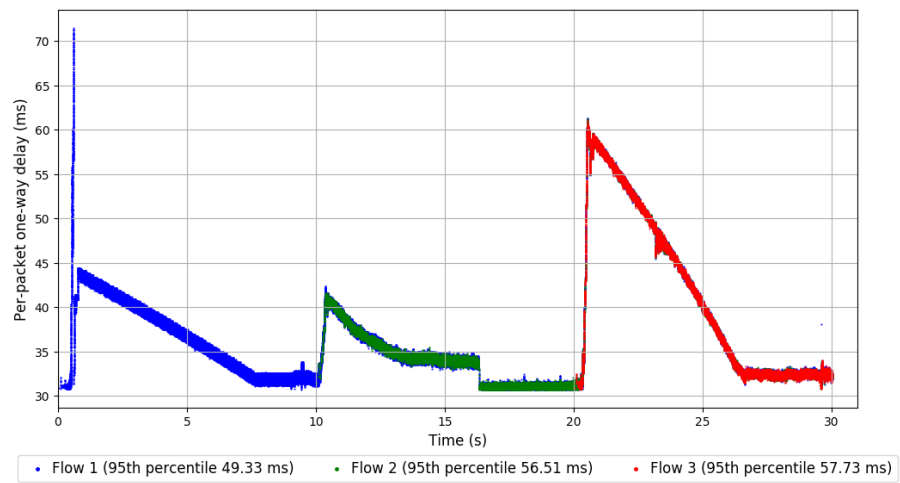
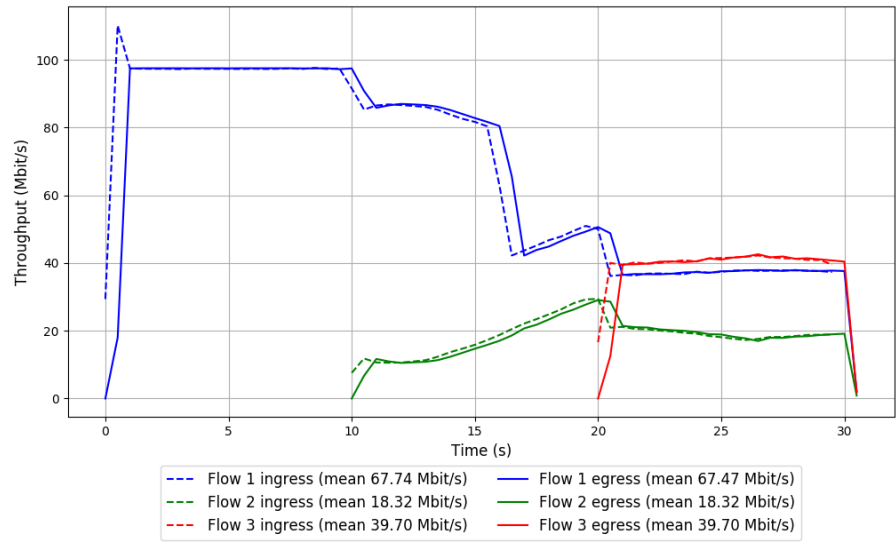


Run 1: Statistics of TCP Vegas

Start at: 2018-12-20 01:53:45  
End at: 2018-12-20 01:54:15  
Local clock offset: -2.304 ms  
Remote clock offset: -4.022 ms

# Below is generated by plot.py at 2018-12-20 03:38:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.89 Mbit/s  
95th percentile per-packet one-way delay: 54.380 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 67.47 Mbit/s  
95th percentile per-packet one-way delay: 49.329 ms  
Loss rate: 0.39%  
-- Flow 2:  
Average throughput: 18.32 Mbit/s  
95th percentile per-packet one-way delay: 56.510 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 39.70 Mbit/s  
95th percentile per-packet one-way delay: 57.735 ms  
Loss rate: 0.00%

# Run 1: Report of TCP Vegas — Data Link



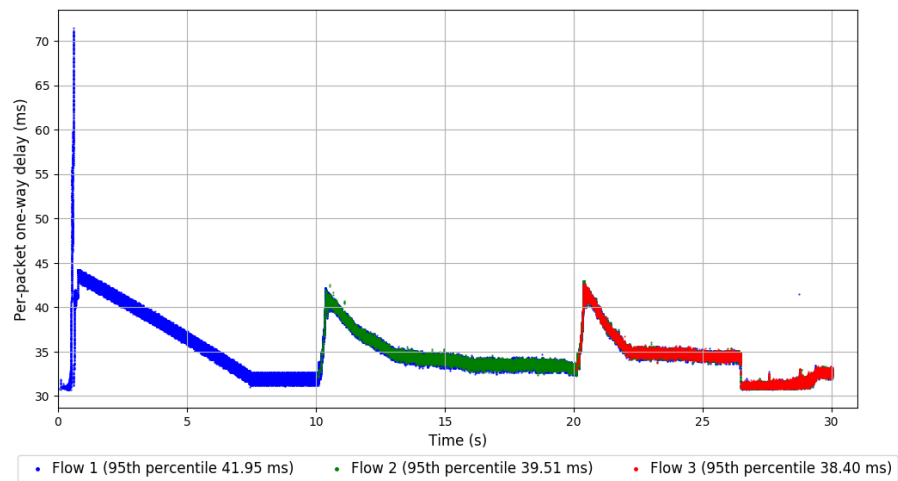
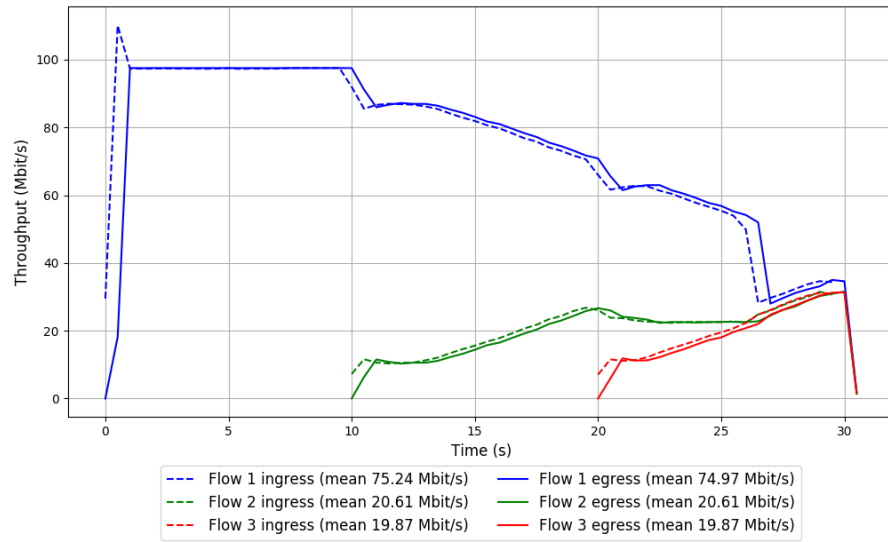


Run 2: Statistics of TCP Vegas

Start at: 2018-12-20 02:16:28  
End at: 2018-12-20 02:16:58  
Local clock offset: -0.239 ms  
Remote clock offset: -3.936 ms

# Below is generated by plot.py at 2018-12-20 03:38:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.30 Mbit/s  
95th percentile per-packet one-way delay: 41.642 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 74.97 Mbit/s  
95th percentile per-packet one-way delay: 41.953 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 20.61 Mbit/s  
95th percentile per-packet one-way delay: 39.507 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 19.87 Mbit/s  
95th percentile per-packet one-way delay: 38.397 ms  
Loss rate: 0.00%

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

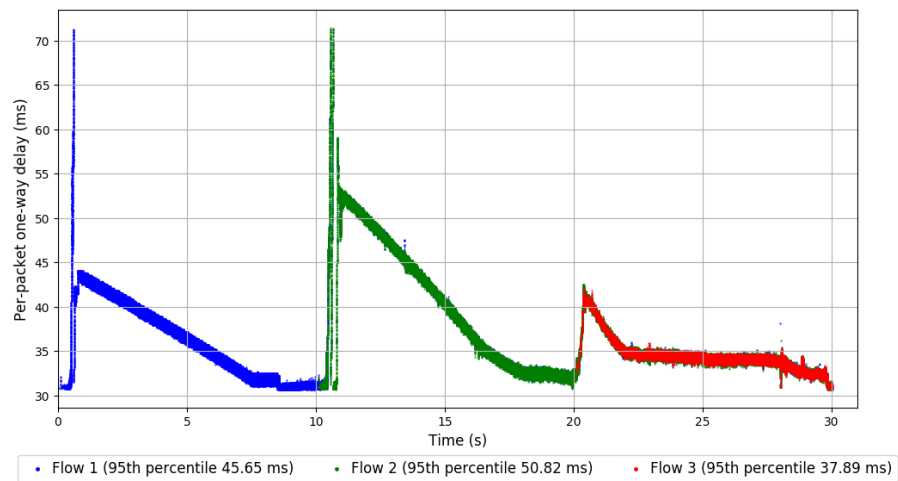
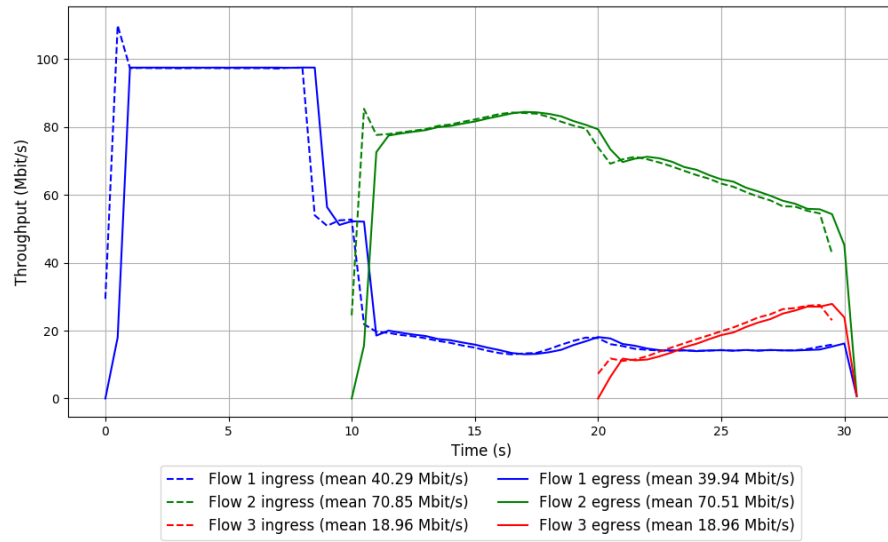


Run 3: Statistics of TCP Vegas

Start at: 2018-12-20 02:39:21  
End at: 2018-12-20 02:39:51  
Local clock offset: 0.919 ms  
Remote clock offset: -3.578 ms

# Below is generated by plot.py at 2018-12-20 03:38:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.24 Mbit/s  
95th percentile per-packet one-way delay: 49.433 ms  
Loss rate: 0.62%  
-- Flow 1:  
Average throughput: 39.94 Mbit/s  
95th percentile per-packet one-way delay: 45.651 ms  
Loss rate: 0.87%  
-- Flow 2:  
Average throughput: 70.51 Mbit/s  
95th percentile per-packet one-way delay: 50.819 ms  
Loss rate: 0.49%  
-- Flow 3:  
Average throughput: 18.96 Mbit/s  
95th percentile per-packet one-way delay: 37.886 ms  
Loss rate: 0.01%

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

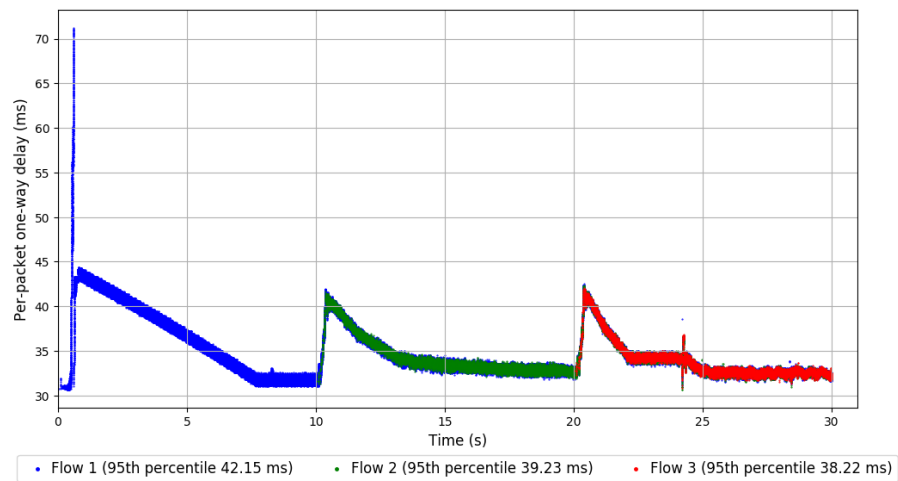
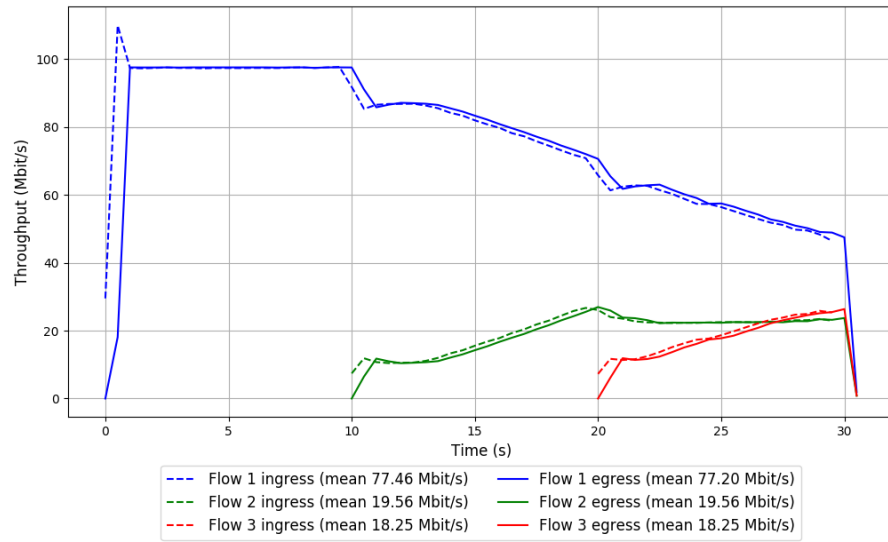


Run 4: Statistics of TCP Vegas

Start at: 2018-12-20 03:02:27  
End at: 2018-12-20 03:02:57  
Local clock offset: 0.79 ms  
Remote clock offset: -3.349 ms

# Below is generated by plot.py at 2018-12-20 03:38:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.29 Mbit/s  
95th percentile per-packet one-way delay: 41.820 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 77.20 Mbit/s  
95th percentile per-packet one-way delay: 42.145 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 19.56 Mbit/s  
95th percentile per-packet one-way delay: 39.230 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 18.25 Mbit/s  
95th percentile per-packet one-way delay: 38.219 ms  
Loss rate: 0.00%

# Run 4: Report of TCP Vegas — Data Link

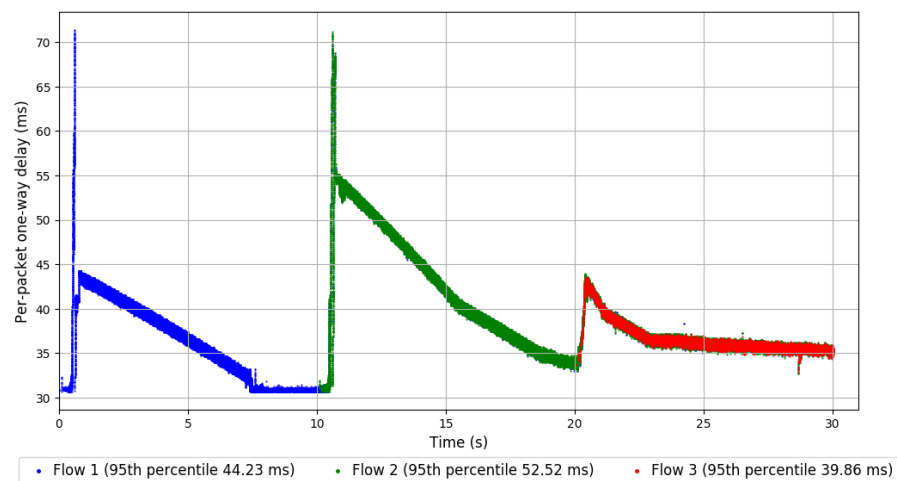
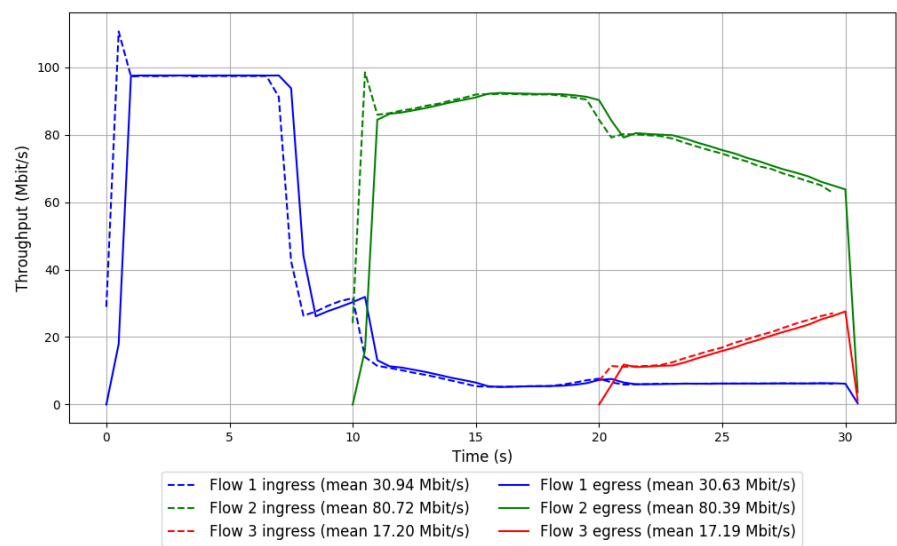


Run 5: Statistics of TCP Vegas

Start at: 2018-12-20 03:25:09  
End at: 2018-12-20 03:25:39  
Local clock offset: -1.95 ms  
Remote clock offset: -3.282 ms

# Below is generated by plot.py at 2018-12-20 03:38:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.91 Mbit/s  
95th percentile per-packet one-way delay: 51.387 ms  
Loss rate: 0.57%  
-- Flow 1:  
Average throughput: 30.63 Mbit/s  
95th percentile per-packet one-way delay: 44.234 ms  
Loss rate: 0.97%  
-- Flow 2:  
Average throughput: 80.39 Mbit/s  
95th percentile per-packet one-way delay: 52.521 ms  
Loss rate: 0.40%  
-- Flow 3:  
Average throughput: 17.19 Mbit/s  
95th percentile per-packet one-way delay: 39.863 ms  
Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



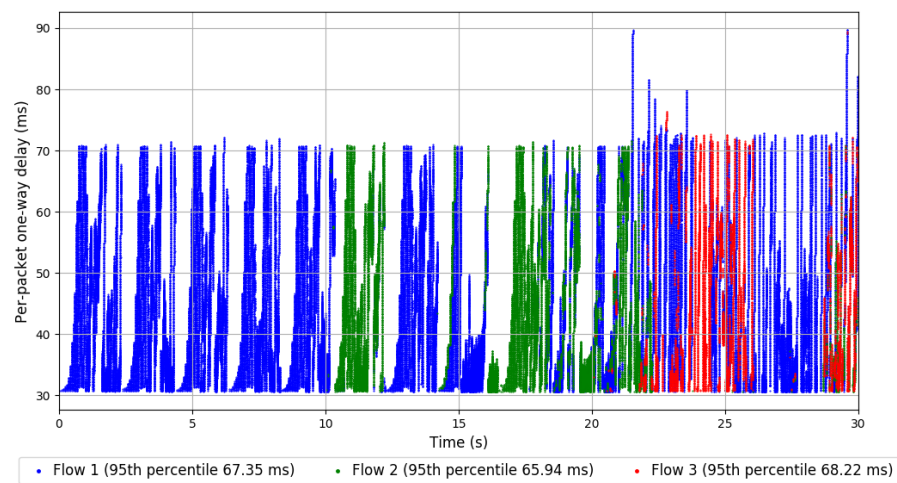
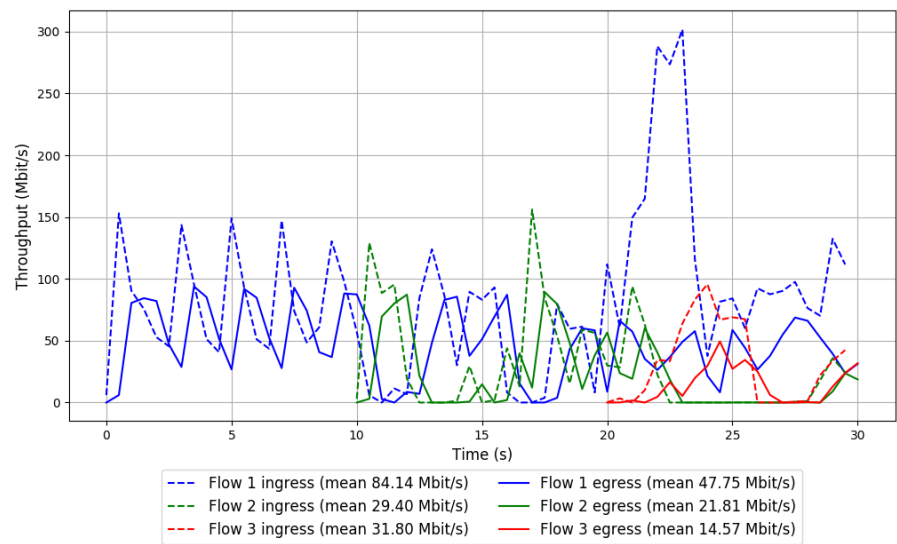


Run 1: Statistics of Verus

Start at: 2018-12-20 01:52:27  
End at: 2018-12-20 01:52:57  
Local clock offset: -2.184 ms  
Remote clock offset: -4.069 ms

# Below is generated by plot.py at 2018-12-20 03:38:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.06 Mbit/s  
95th percentile per-packet one-way delay: 67.173 ms  
Loss rate: 41.18%  
-- Flow 1:  
Average throughput: 47.75 Mbit/s  
95th percentile per-packet one-way delay: 67.349 ms  
Loss rate: 43.16%  
-- Flow 2:  
Average throughput: 21.81 Mbit/s  
95th percentile per-packet one-way delay: 65.942 ms  
Loss rate: 25.77%  
-- Flow 3:  
Average throughput: 14.57 Mbit/s  
95th percentile per-packet one-way delay: 68.216 ms  
Loss rate: 54.02%

Run 1: Report of Verus — Data Link

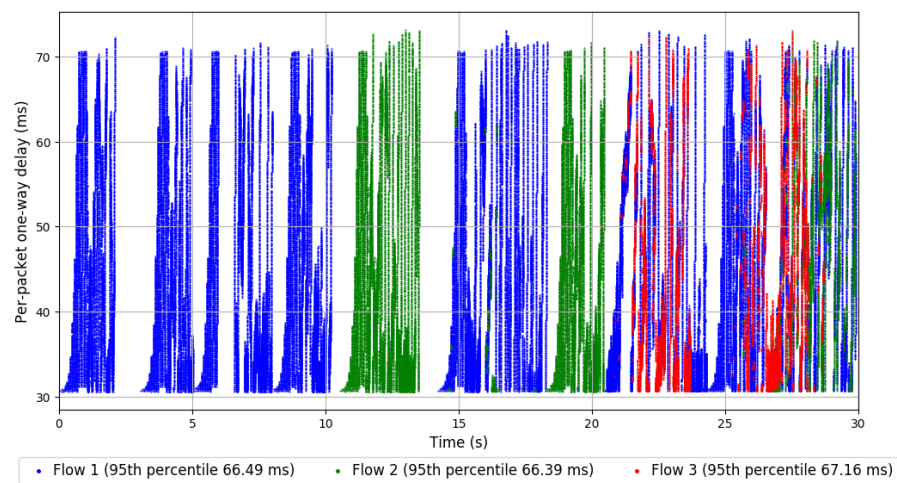
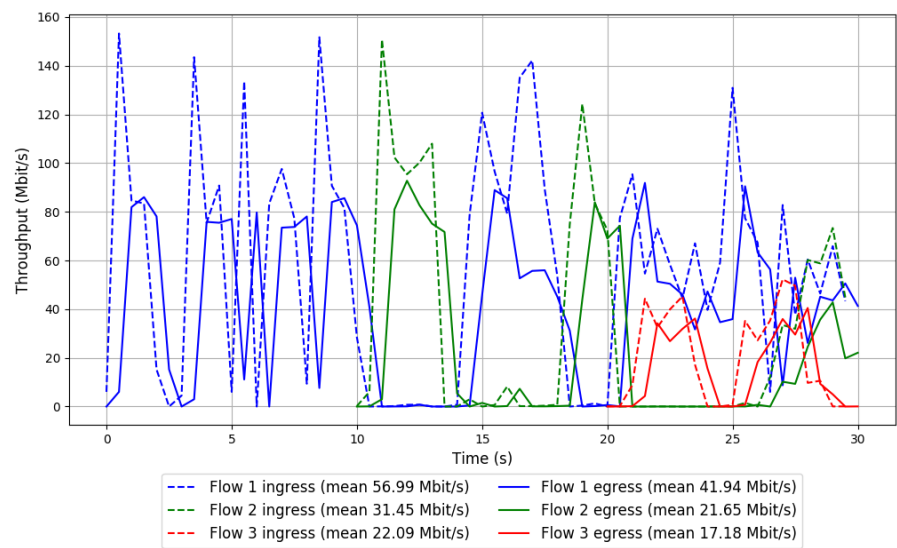


Run 2: Statistics of Verus

Start at: 2018-12-20 02:15:15  
End at: 2018-12-20 02:15:45  
Local clock offset: -0.463 ms  
Remote clock offset: -4.105 ms

# Below is generated by plot.py at 2018-12-20 03:38:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.56 Mbit/s  
95th percentile per-packet one-way delay: 66.521 ms  
Loss rate: 27.28%  
-- Flow 1:  
Average throughput: 41.94 Mbit/s  
95th percentile per-packet one-way delay: 66.489 ms  
Loss rate: 26.33%  
-- Flow 2:  
Average throughput: 21.65 Mbit/s  
95th percentile per-packet one-way delay: 66.395 ms  
Loss rate: 31.24%  
-- Flow 3:  
Average throughput: 17.18 Mbit/s  
95th percentile per-packet one-way delay: 67.157 ms  
Loss rate: 23.02%

Run 2: Report of Verus — Data Link

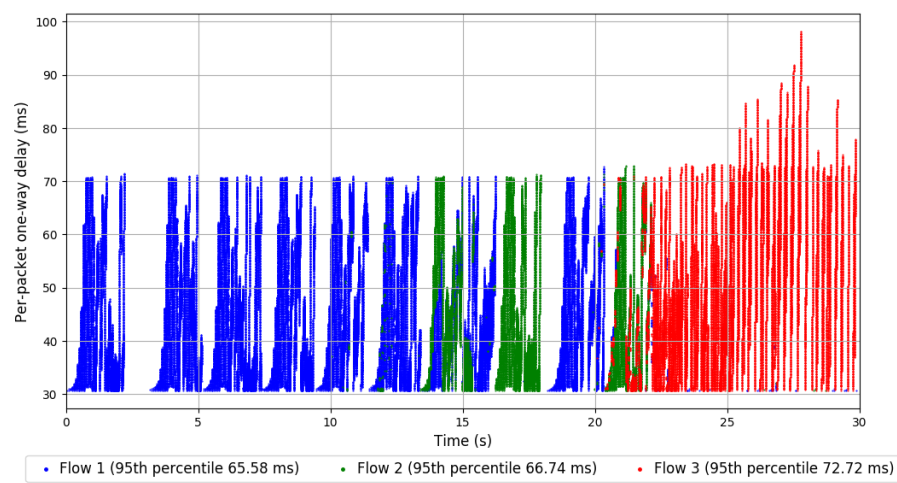
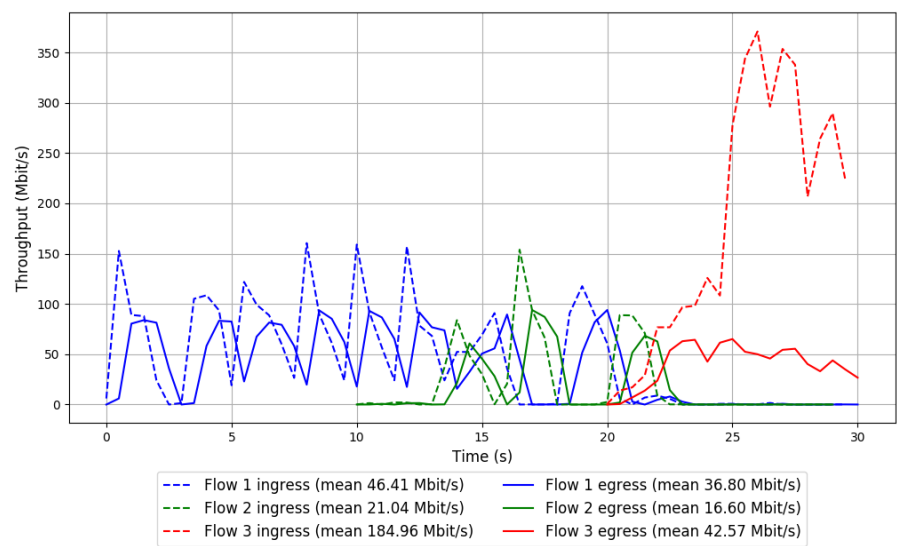


Run 3: Statistics of Verus

Start at: 2018-12-20 02:38:07  
End at: 2018-12-20 02:38:37  
Local clock offset: 0.972 ms  
Remote clock offset: -3.591 ms

# Below is generated by plot.py at 2018-12-20 03:38:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.11 Mbit/s  
95th percentile per-packet one-way delay: 67.748 ms  
Loss rate: 49.18%  
-- Flow 1:  
Average throughput: 36.80 Mbit/s  
95th percentile per-packet one-way delay: 65.583 ms  
Loss rate: 20.71%  
-- Flow 2:  
Average throughput: 16.60 Mbit/s  
95th percentile per-packet one-way delay: 66.741 ms  
Loss rate: 22.72%  
-- Flow 3:  
Average throughput: 42.57 Mbit/s  
95th percentile per-packet one-way delay: 72.724 ms  
Loss rate: 76.93%

Run 3: Report of Verus — Data Link

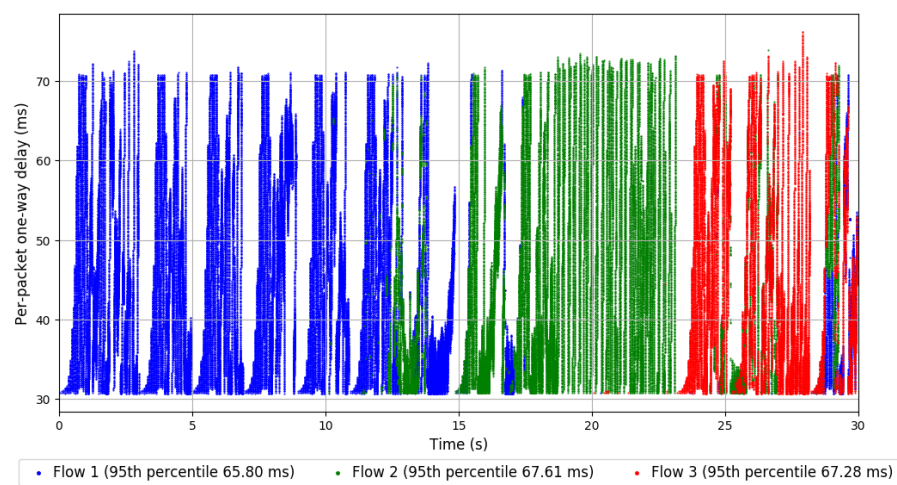
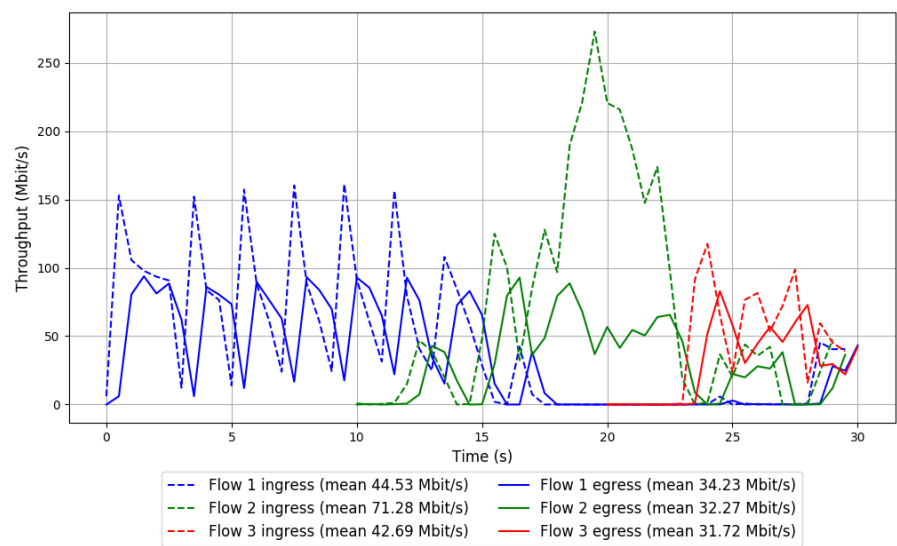


Run 4: Statistics of Verus

Start at: 2018-12-20 03:01:14  
End at: 2018-12-20 03:01:44  
Local clock offset: 0.777 ms  
Remote clock offset: -3.315 ms

# Below is generated by plot.py at 2018-12-20 03:39:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.41 Mbit/s  
95th percentile per-packet one-way delay: 66.623 ms  
Loss rate: 37.27%  
-- Flow 1:  
Average throughput: 34.23 Mbit/s  
95th percentile per-packet one-way delay: 65.795 ms  
Loss rate: 23.08%  
-- Flow 2:  
Average throughput: 32.27 Mbit/s  
95th percentile per-packet one-way delay: 67.609 ms  
Loss rate: 54.70%  
-- Flow 3:  
Average throughput: 31.72 Mbit/s  
95th percentile per-packet one-way delay: 67.279 ms  
Loss rate: 25.56%

Run 4: Report of Verus — Data Link



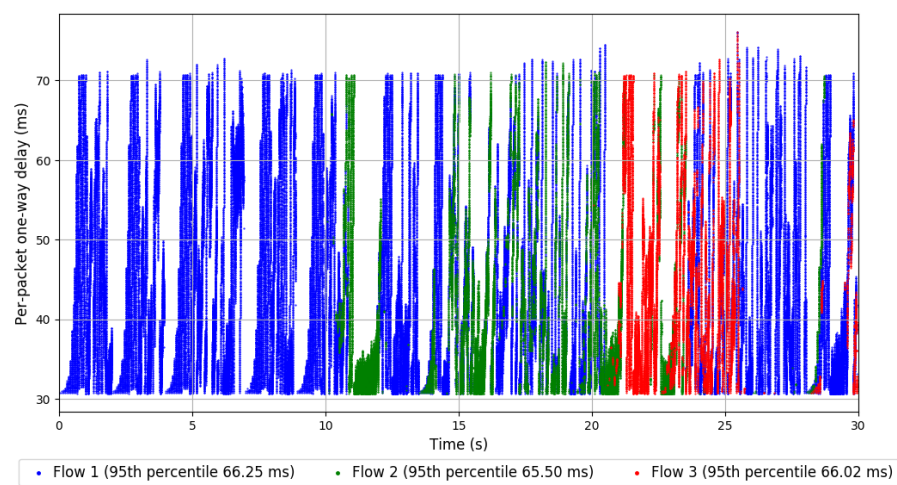
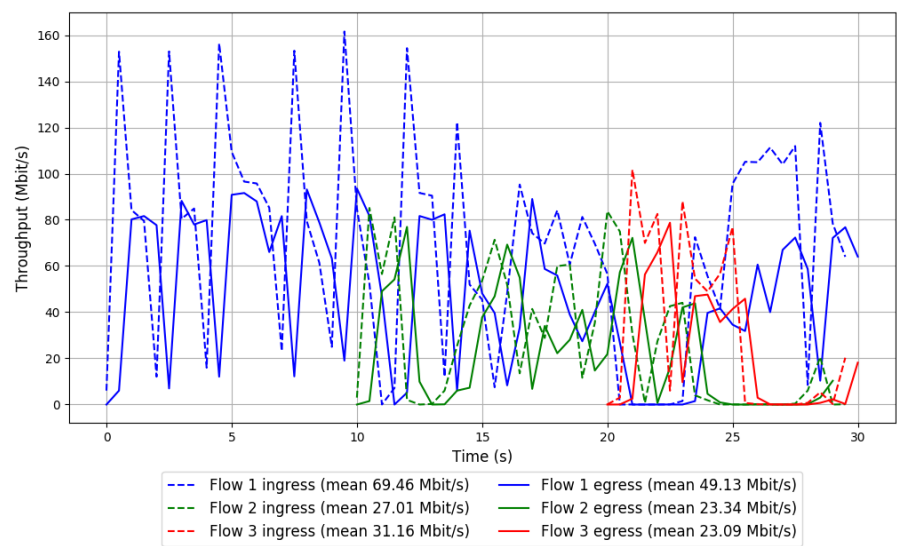


Run 5: Statistics of Verus

Start at: 2018-12-20 03:23:55  
End at: 2018-12-20 03:24:25  
Local clock offset: -1.877 ms  
Remote clock offset: -3.268 ms

# Below is generated by plot.py at 2018-12-20 03:39:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 71.27 Mbit/s  
95th percentile per-packet one-way delay: 66.048 ms  
Loss rate: 26.96%  
-- Flow 1:  
Average throughput: 49.13 Mbit/s  
95th percentile per-packet one-way delay: 66.247 ms  
Loss rate: 29.26%  
-- Flow 2:  
Average throughput: 23.34 Mbit/s  
95th percentile per-packet one-way delay: 65.495 ms  
Loss rate: 18.51%  
-- Flow 3:  
Average throughput: 23.09 Mbit/s  
95th percentile per-packet one-way delay: 66.015 ms  
Loss rate: 26.08%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-12-20 01:48:50

End at: 2018-12-20 01:49:20

Local clock offset: -1.789 ms

Remote clock offset: -4.06 ms

# Below is generated by plot.py at 2018-12-20 03:39:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.25 Mbit/s

95th percentile per-packet one-way delay: 46.221 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 59.57 Mbit/s

95th percentile per-packet one-way delay: 46.012 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 28.42 Mbit/s

95th percentile per-packet one-way delay: 47.108 ms

Loss rate: 0.00%

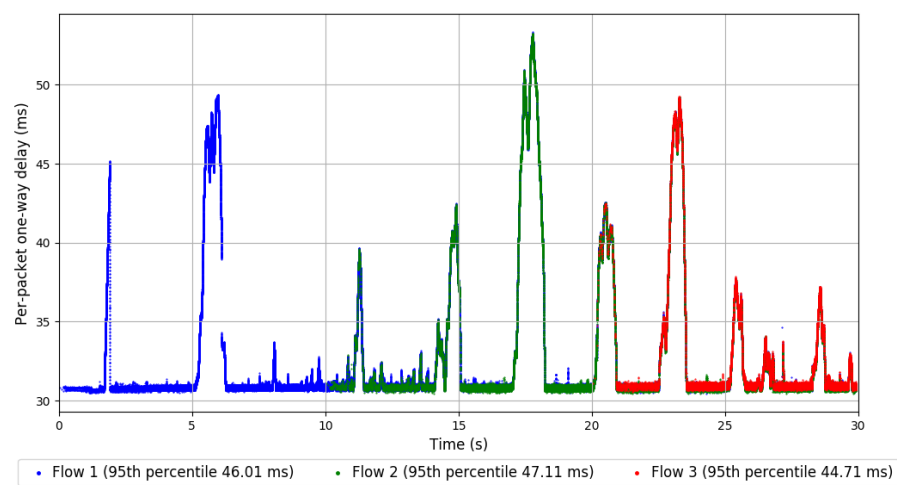
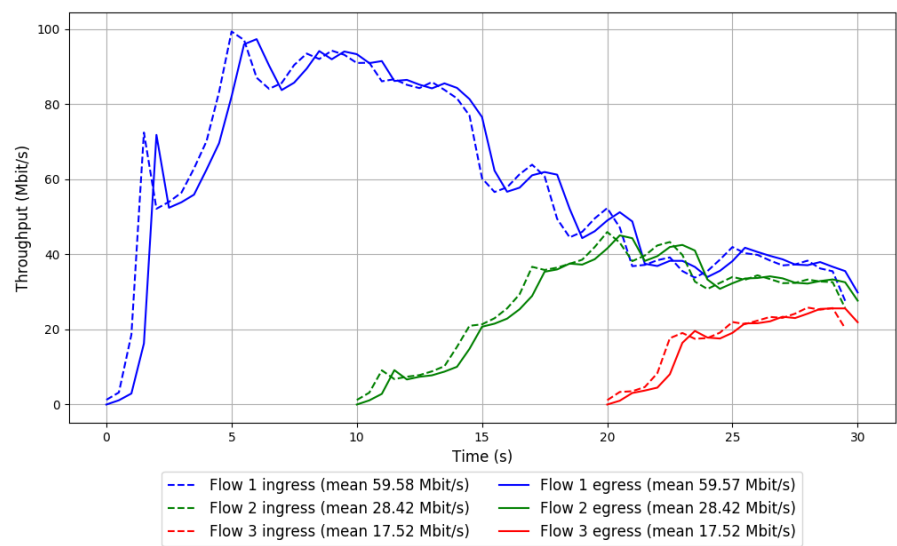
-- Flow 3:

Average throughput: 17.52 Mbit/s

95th percentile per-packet one-way delay: 44.711 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

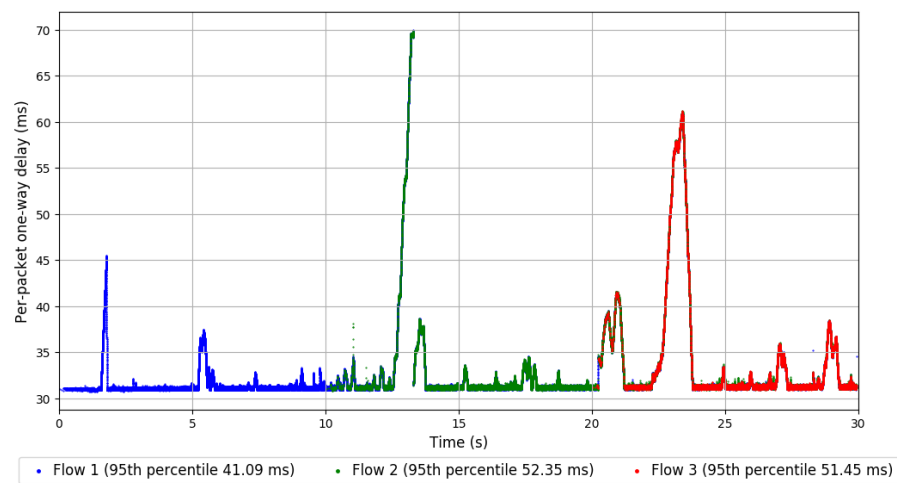
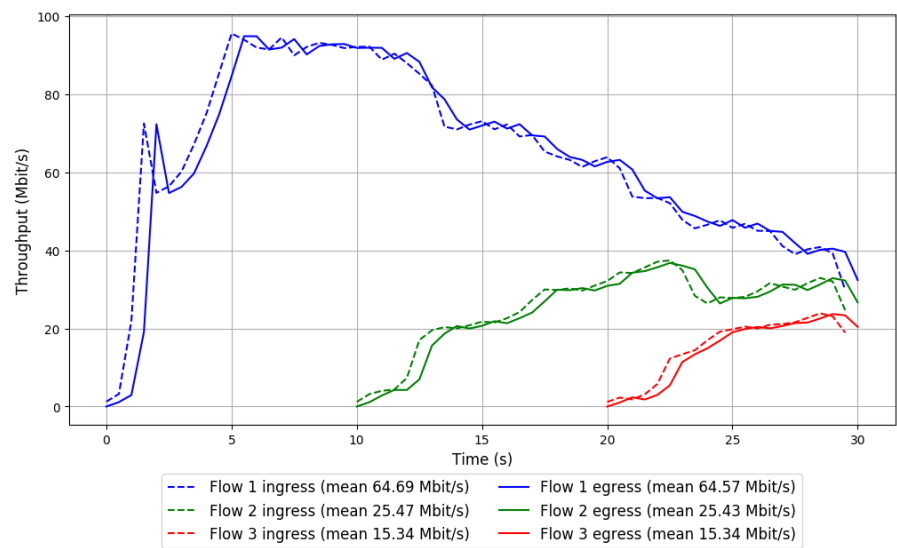


Run 2: Statistics of PCC-Vivace

Start at: 2018-12-20 02:11:38  
End at: 2018-12-20 02:12:08  
Local clock offset: -1.116 ms  
Remote clock offset: -3.907 ms

# Below is generated by plot.py at 2018-12-20 03:39:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.55 Mbit/s  
95th percentile per-packet one-way delay: 43.714 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 64.57 Mbit/s  
95th percentile per-packet one-way delay: 41.085 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 25.43 Mbit/s  
95th percentile per-packet one-way delay: 52.348 ms  
Loss rate: 0.15%  
-- Flow 3:  
Average throughput: 15.34 Mbit/s  
95th percentile per-packet one-way delay: 51.447 ms  
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

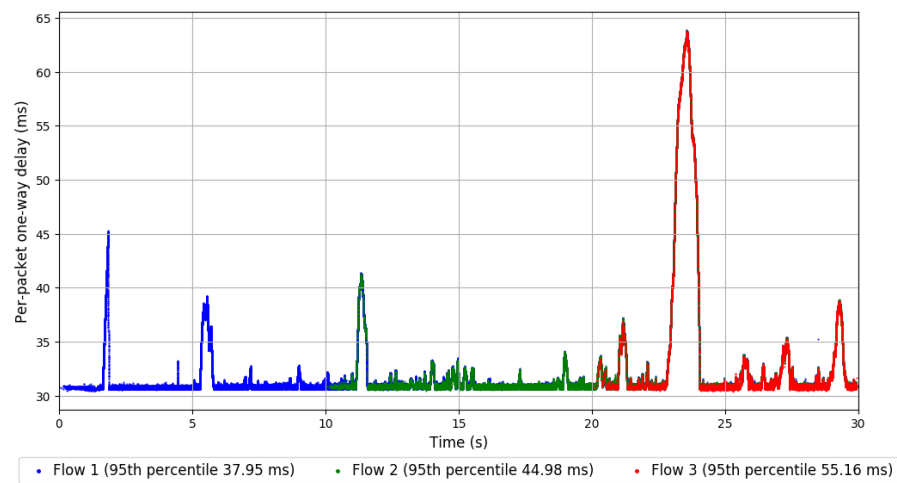
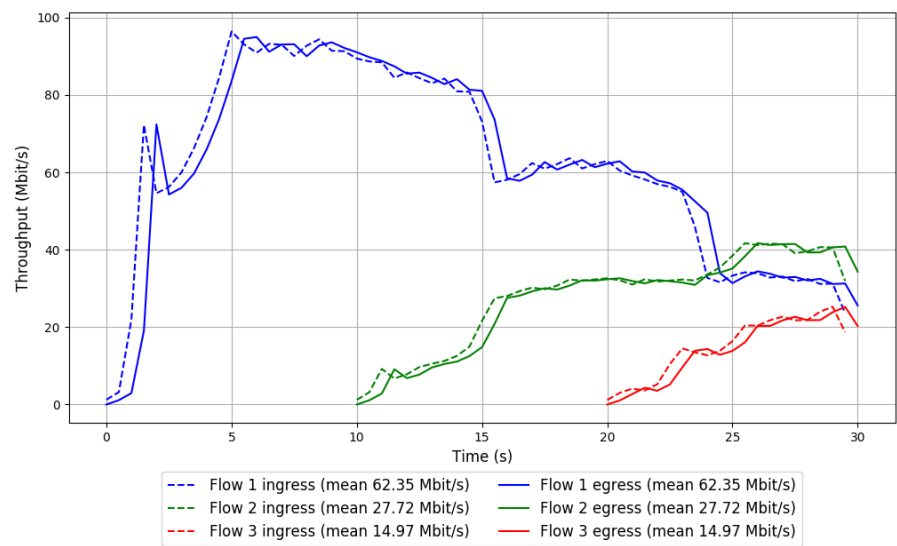


Run 3: Statistics of PCC-Vivace

Start at: 2018-12-20 02:34:29  
End at: 2018-12-20 02:34:59  
Local clock offset: 1.081 ms  
Remote clock offset: -3.808 ms

# Below is generated by plot.py at 2018-12-20 03:39:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.73 Mbit/s  
95th percentile per-packet one-way delay: 38.789 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 62.35 Mbit/s  
95th percentile per-packet one-way delay: 37.949 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 27.72 Mbit/s  
95th percentile per-packet one-way delay: 44.983 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 14.97 Mbit/s  
95th percentile per-packet one-way delay: 55.162 ms  
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



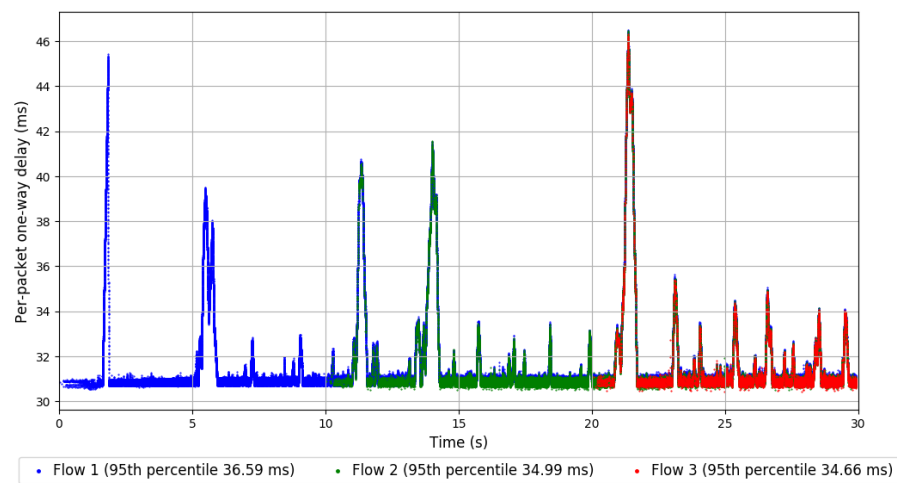
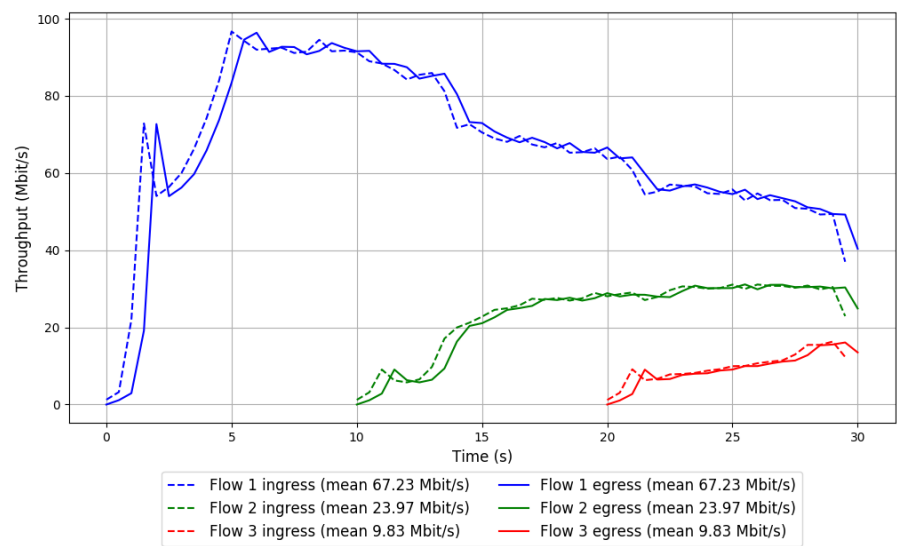


Run 4: Statistics of PCC-Vivace

Start at: 2018-12-20 02:57:30  
End at: 2018-12-20 02:58:00  
Local clock offset: 0.784 ms  
Remote clock offset: -3.419 ms

# Below is generated by plot.py at 2018-12-20 03:39:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.42 Mbit/s  
95th percentile per-packet one-way delay: 36.209 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 67.23 Mbit/s  
95th percentile per-packet one-way delay: 36.588 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 23.97 Mbit/s  
95th percentile per-packet one-way delay: 34.989 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 9.83 Mbit/s  
95th percentile per-packet one-way delay: 34.660 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

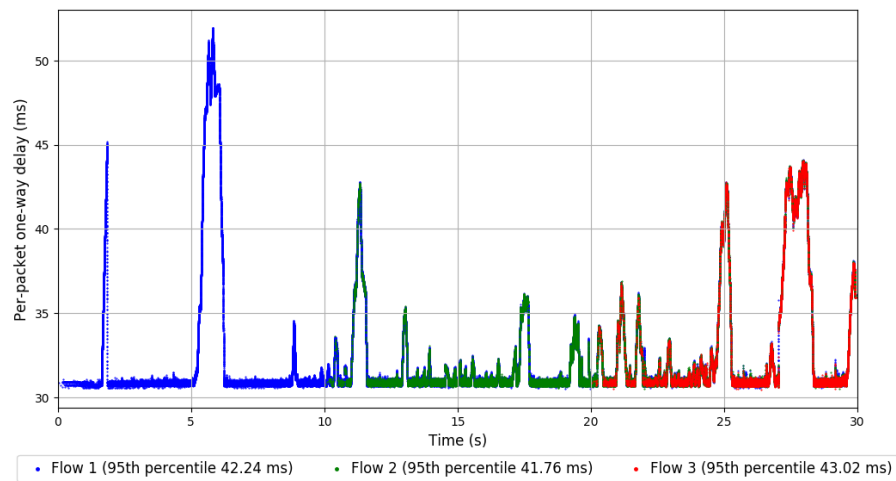
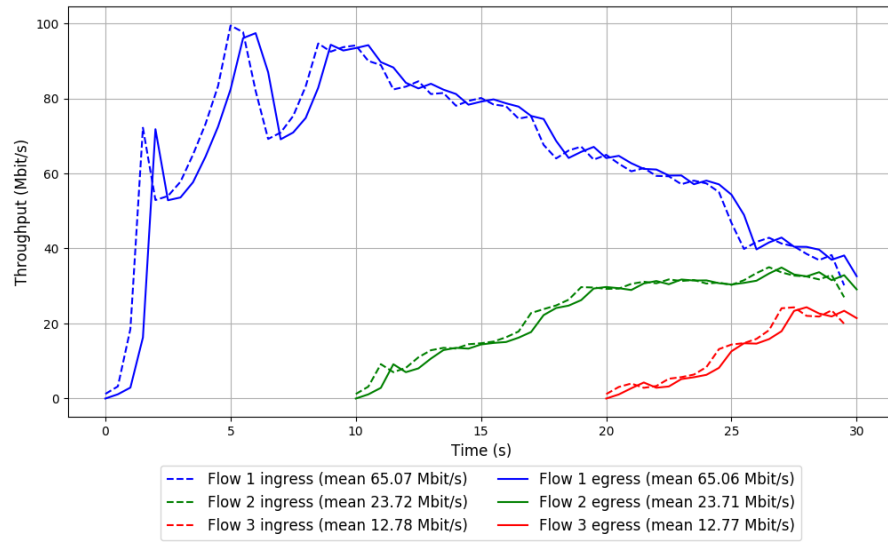


Run 5: Statistics of PCC-Vivace

Start at: 2018-12-20 03:20:18  
End at: 2018-12-20 03:20:48  
Local clock offset: -1.66 ms  
Remote clock offset: -3.296 ms

```
# Below is generated by plot.py at 2018-12-20 03:39:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 42.264 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.06 Mbit/s
95th percentile per-packet one-way delay: 42.245 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.71 Mbit/s
95th percentile per-packet one-way delay: 41.763 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 43.016 ms
Loss rate: 0.00%
```

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

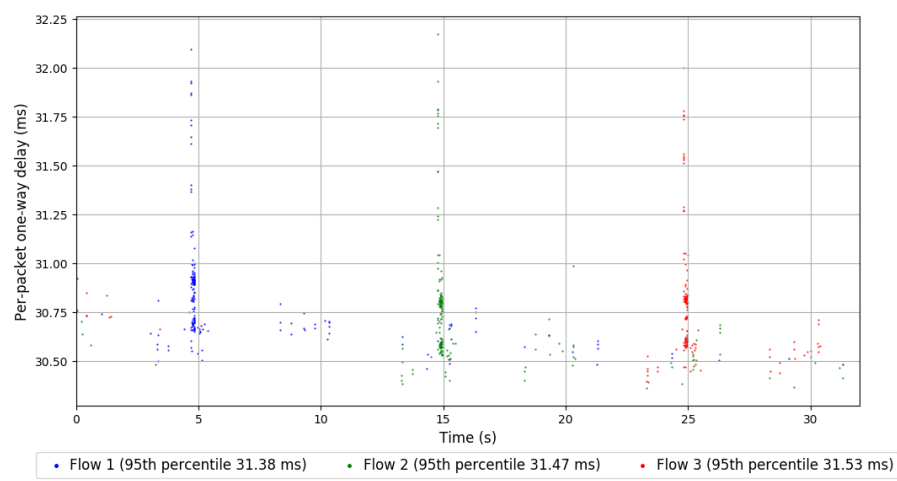
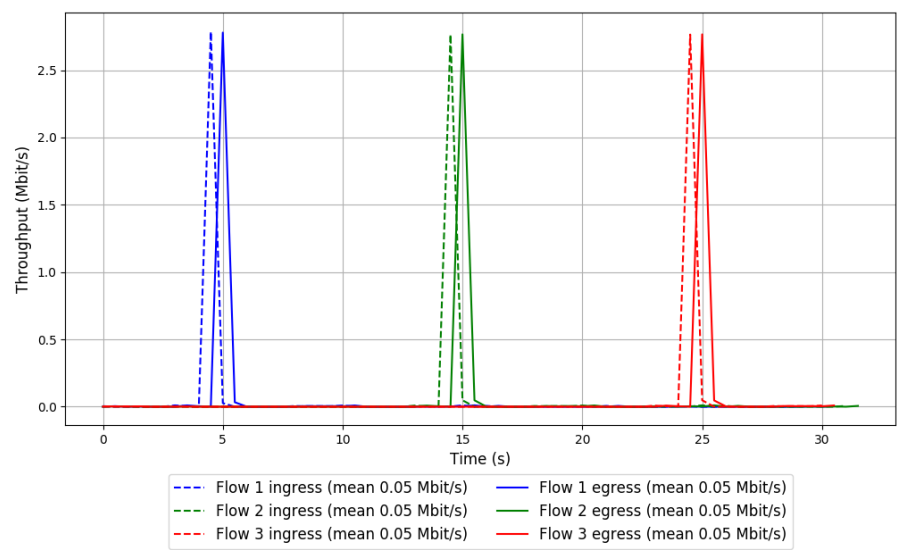


Run 1: Statistics of WebRTC media

Start at: 2018-12-20 01:40:24  
End at: 2018-12-20 01:40:54  
Local clock offset: -0.12 ms  
Remote clock offset: -4.109 ms

# Below is generated by plot.py at 2018-12-20 03:39:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 31.470 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 31.378 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 31.469 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 31.529 ms  
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-12-20 02:03:17

End at: 2018-12-20 02:03:48

Local clock offset: -2.799 ms

Remote clock offset: -4.22 ms

# Below is generated by plot.py at 2018-12-20 03:39:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 31.404 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.213 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.327 ms

Loss rate: 0.00%

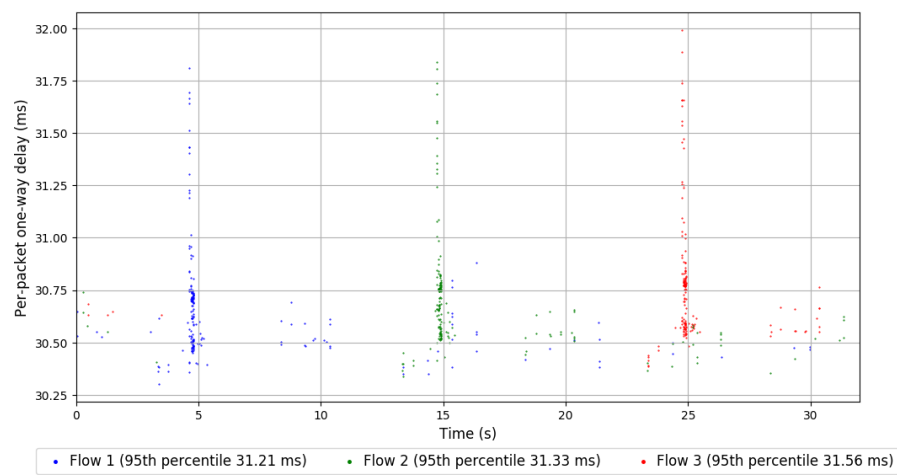
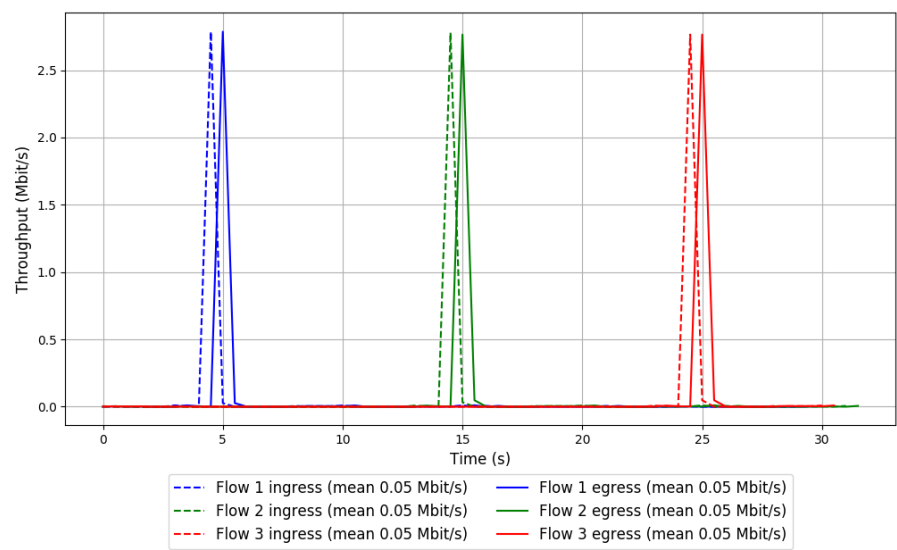
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.557 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link





Run 3: Statistics of WebRTC media

Start at: 2018-12-20 02:26:04

End at: 2018-12-20 02:26:34

Local clock offset: 0.643 ms

Remote clock offset: -3.81 ms

# Below is generated by plot.py at 2018-12-20 03:39:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 31.587 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.516 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.566 ms

Loss rate: 0.00%

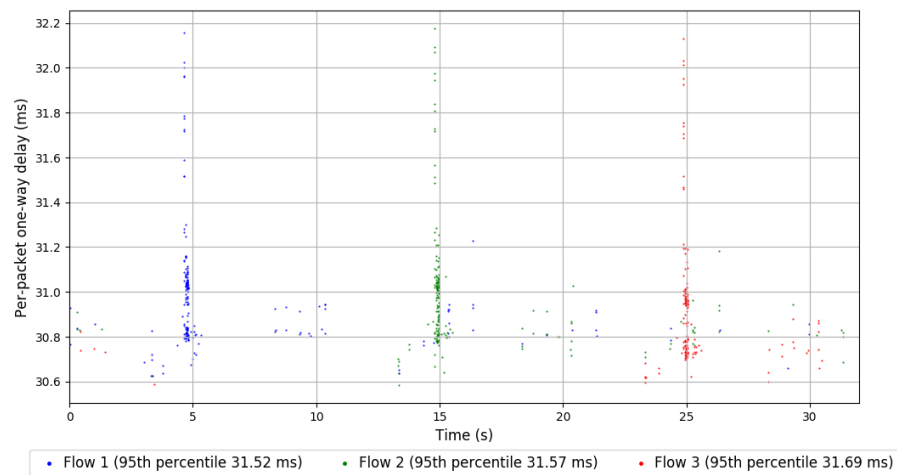
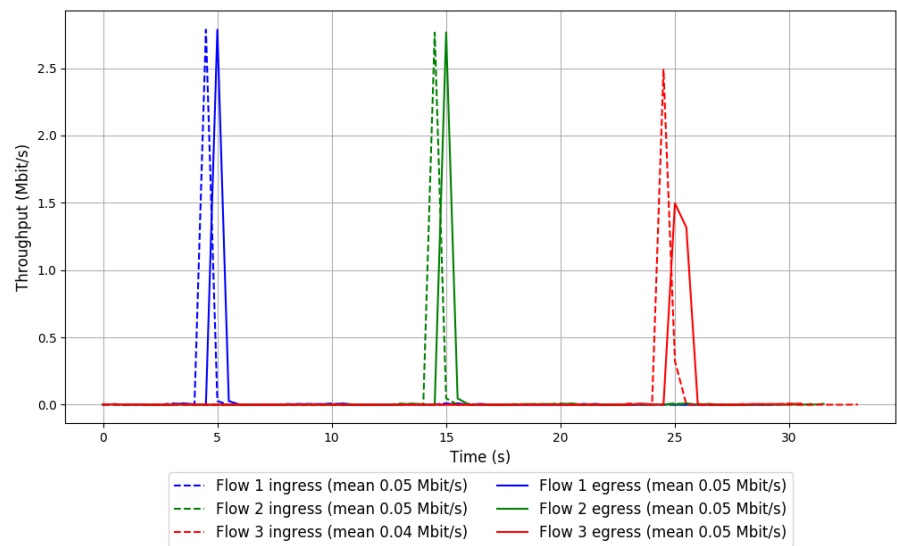
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.686 ms

Loss rate: 0.05%

Run 3: Report of WebRTC media — Data Link

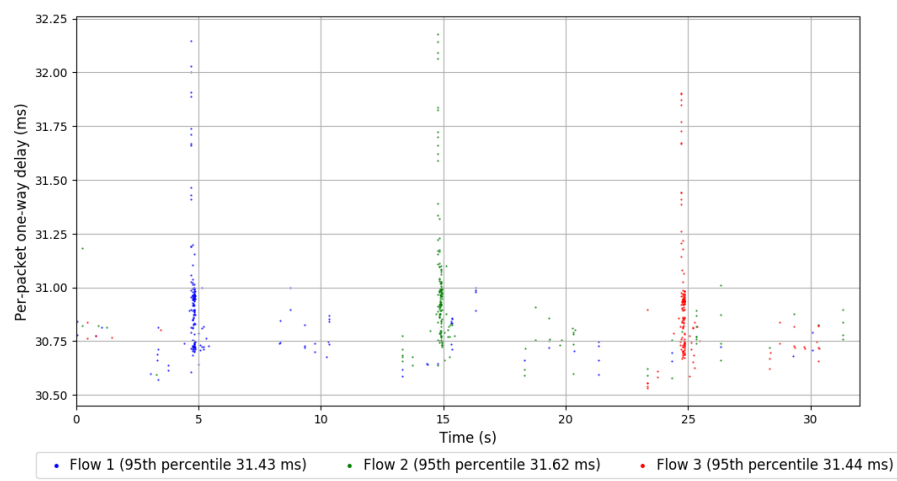
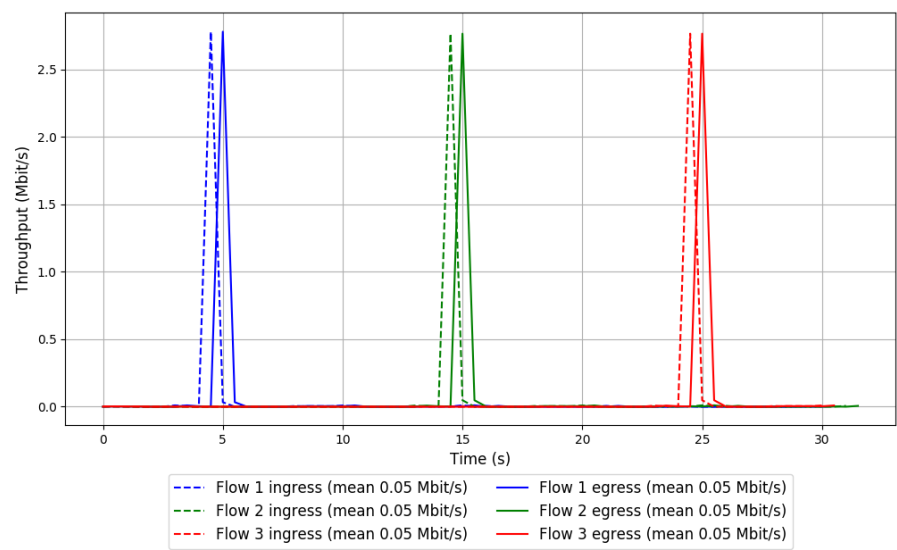


Run 4: Statistics of WebRTC media

Start at: 2018-12-20 02:48:54  
End at: 2018-12-20 02:49:24  
Local clock offset: 0.74 ms  
Remote clock offset: -3.503 ms

```
# Below is generated by plot.py at 2018-12-20 03:39:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 31.591 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.431 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.622 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.441 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-12-20 03:11:56

End at: 2018-12-20 03:12:26

Local clock offset: -0.662 ms

Remote clock offset: -3.33 ms

# Below is generated by plot.py at 2018-12-20 03:39:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 31.405 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.379 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.341 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.521 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

