

## Pantheon Report

Generated at 2018-12-20 03:43:51 (UTC).

Data path: AWS India 1 on `ens5` (*local*) → India 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 `nets.org.sg` and have been applied to correct the timestamps in logs.

### System info:

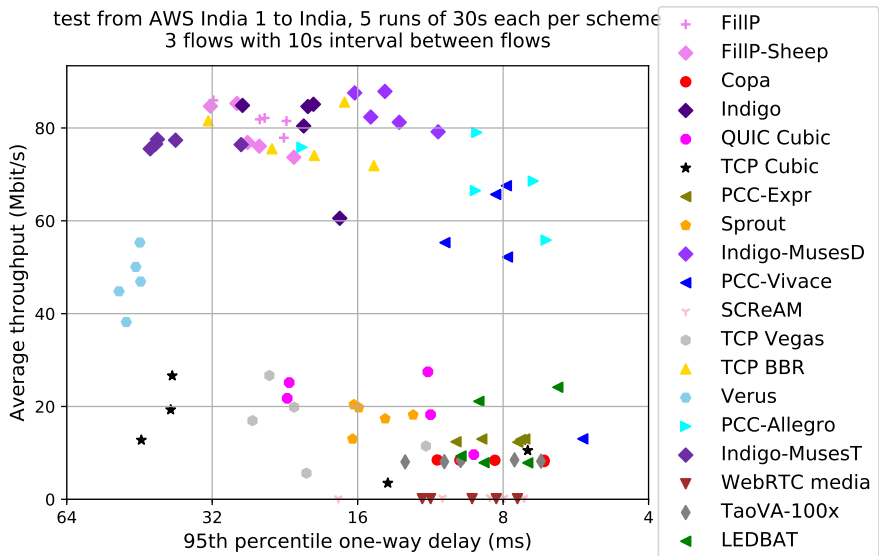
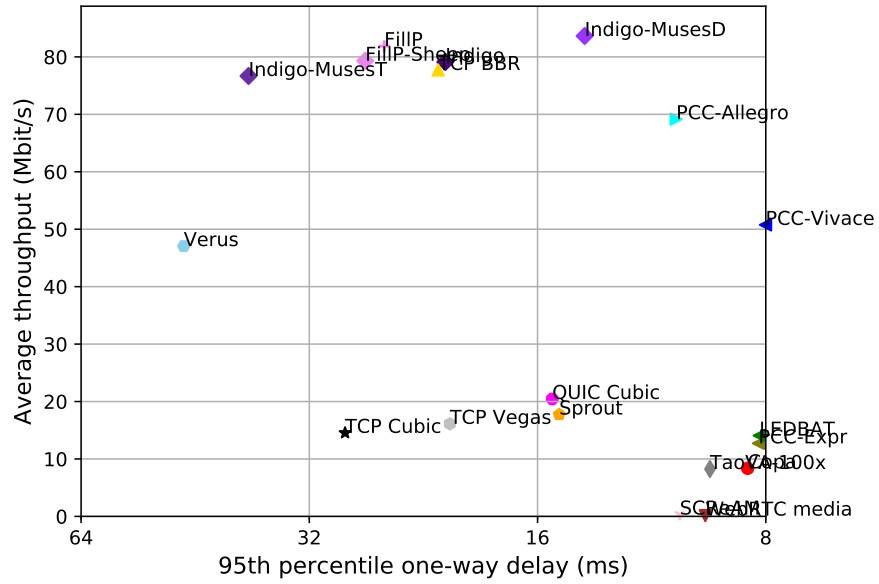
```
Linux 4.15.0-1029-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### 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 India 1 to India, 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	45.30	33.85	30.21	18.86	24.40	23.11	15.01	17.96	18.41
Copa	5	0.00	10.06	5.04	8.06	8.80	7.93	98.55	69.87	75.76
TCP Cubic	5	6.02	7.54	10.52	31.28	23.24	23.98	4.93	5.85	3.16
FillP	5	48.88	36.77	25.74	25.04	27.99	19.30	26.97	38.61	39.40
FillP-Sheep	5	46.87	35.40	27.15	25.91	29.46	21.90	16.05	19.87	20.49
Indigo	5	50.23	31.24	26.06	19.50	24.06	21.13	22.88	35.18	51.06
Indigo-MusesD	5	76.38	9.59	2.76	14.17	11.27	11.17	28.04	55.53	62.66
Indigo-MusesT	5	43.18	39.56	24.30	39.29	36.21	38.95	37.95	21.16	22.42
LEDBAT	5	7.69	6.63	5.96	7.94	8.30	8.47	0.76	0.61	0.70
PCC-Allegro	5	66.89	2.08	2.68	10.48	10.76	13.06	9.91	9.29	9.38
PCC-Expr	5	8.46	3.99	4.84	8.16	8.22	8.25	39.90	38.67	36.02
QUIC Cubic	5	9.89	10.51	10.86	15.83	15.00	13.47	5.14	4.03	2.38
SCReAM	5	0.13	0.19	0.19	10.37	10.40	10.29	1.82	1.58	1.32
Sprout	5	8.87	9.01	8.72	14.60	15.59	14.92	3.87	3.92	3.78
TaoVA-100x	5	0.00	8.59	7.92	8.69	10.13	9.15	95.92	26.68	67.22
TCP Vegas	5	7.93	8.19	8.26	12.65	25.78	22.94	2.24	4.30	5.20
Verus	5	28.27	24.55	11.57	45.07	52.80	40.82	63.94	61.56	46.06
PCC-Vivace	5	40.01	14.56	3.25	8.04	8.11	7.99	6.68	7.52	8.26
WebRTC media	5	0.05	0.04	0.05	9.44	9.54	9.73	0.04	0.02	1.56

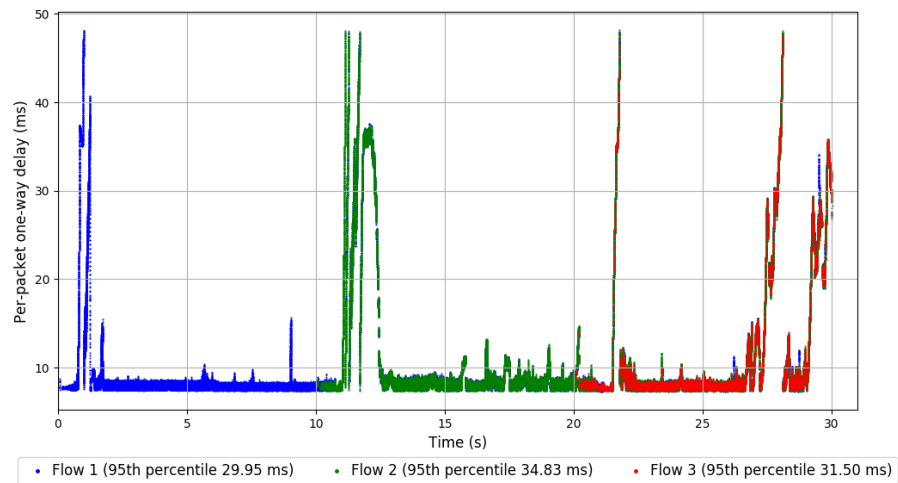
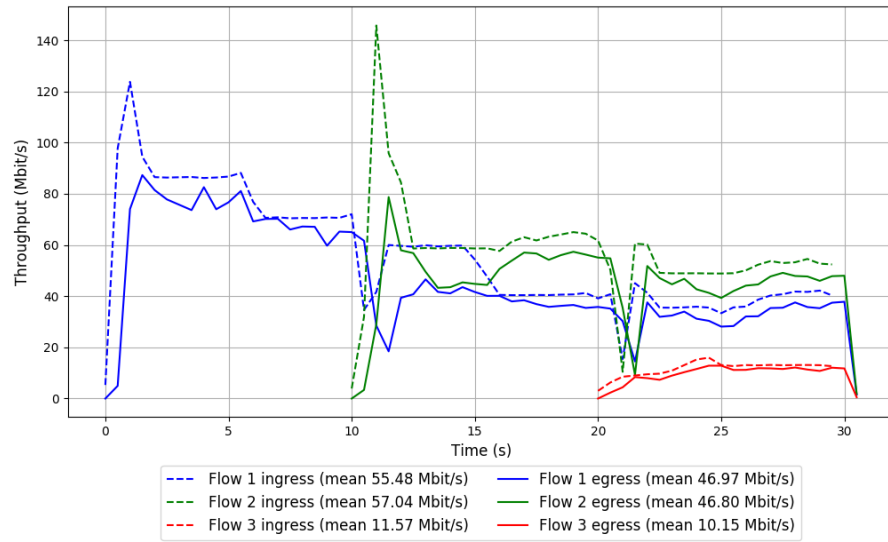


Run 1: Statistics of TCP BBR

Start at: 2018-12-20 01:35:41  
End at: 2018-12-20 01:36:11  
Local clock offset: 0.077 ms  
Remote clock offset: -2.842 ms

# Below is generated by plot.py at 2018-12-20 03:38:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.55 Mbit/s  
95th percentile per-packet one-way delay: 32.601 ms  
Loss rate: 16.17%  
-- Flow 1:  
Average throughput: 46.97 Mbit/s  
95th percentile per-packet one-way delay: 29.948 ms  
Loss rate: 15.29%  
-- Flow 2:  
Average throughput: 46.80 Mbit/s  
95th percentile per-packet one-way delay: 34.830 ms  
Loss rate: 17.87%  
-- Flow 3:  
Average throughput: 10.15 Mbit/s  
95th percentile per-packet one-way delay: 31.502 ms  
Loss rate: 12.13%

# Run 1: Report of TCP BBR — Data Link

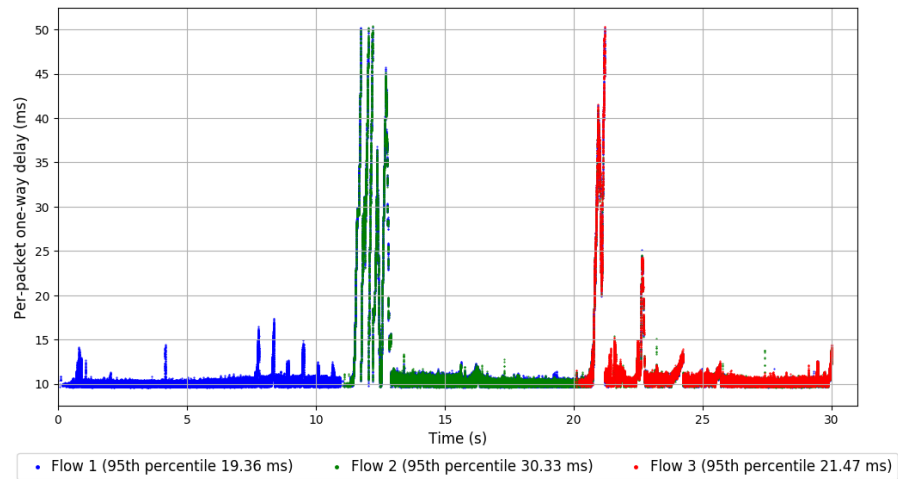
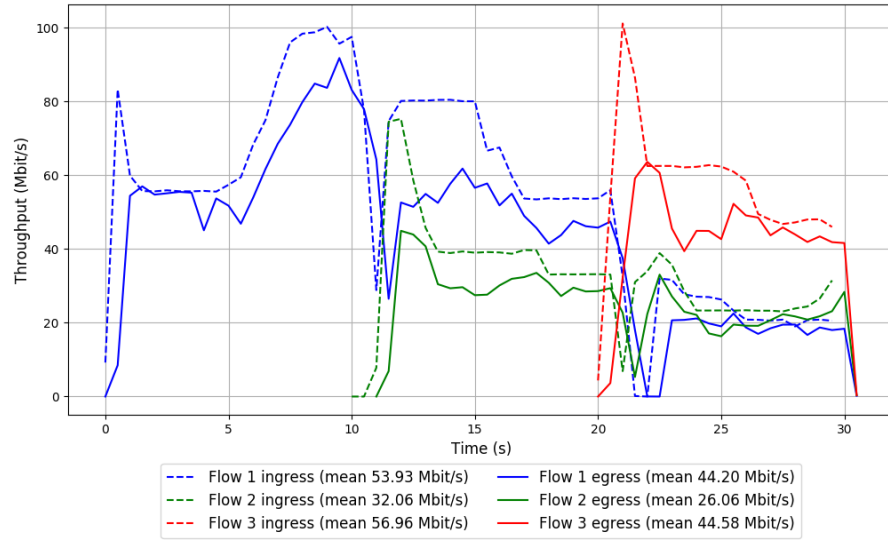


Run 2: Statistics of TCP BBR

Start at: 2018-12-20 01:59:44  
End at: 2018-12-20 02:00:14  
Local clock offset: -4.278 ms  
Remote clock offset: -2.502 ms

# Below is generated by plot.py at 2018-12-20 03:38:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.52 Mbit/s  
95th percentile per-packet one-way delay: 24.070 ms  
Loss rate: 19.85%  
-- Flow 1:  
Average throughput: 44.20 Mbit/s  
95th percentile per-packet one-way delay: 19.365 ms  
Loss rate: 18.04%  
-- Flow 2:  
Average throughput: 26.06 Mbit/s  
95th percentile per-packet one-way delay: 30.327 ms  
Loss rate: 22.79%  
-- Flow 3:  
Average throughput: 44.58 Mbit/s  
95th percentile per-packet one-way delay: 21.470 ms  
Loss rate: 21.72%

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

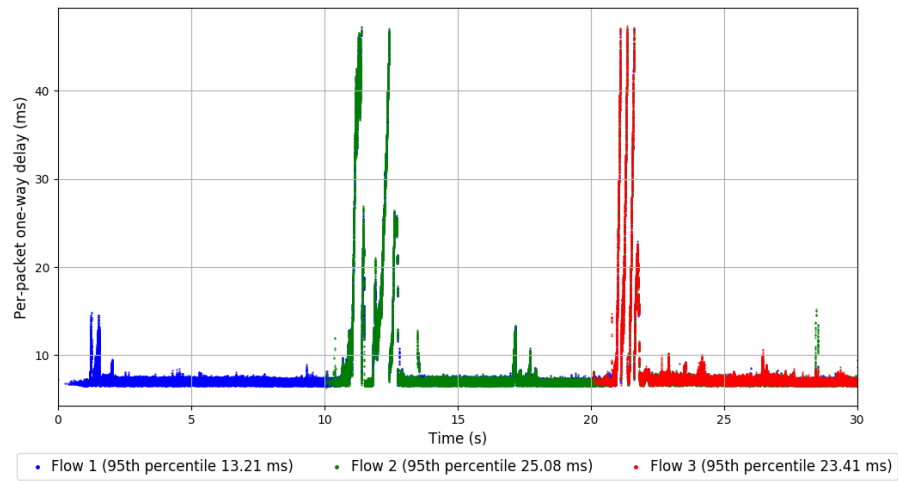
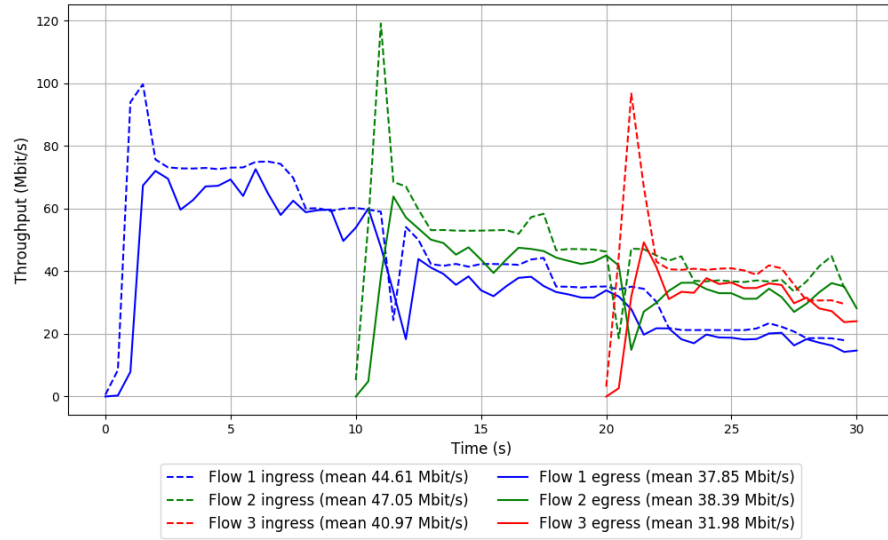


Run 3: Statistics of TCP BBR

Start at: 2018-12-20 02:24:09  
End at: 2018-12-20 02:24:39  
Local clock offset: -2.065 ms  
Remote clock offset: -2.559 ms

# Below is generated by plot.py at 2018-12-20 03:38:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 74.08 Mbit/s  
95th percentile per-packet one-way delay: 19.678 ms  
Loss rate: 17.32%  
-- Flow 1:  
Average throughput: 37.85 Mbit/s  
95th percentile per-packet one-way delay: 13.206 ms  
Loss rate: 15.14%  
-- Flow 2:  
Average throughput: 38.39 Mbit/s  
95th percentile per-packet one-way delay: 25.083 ms  
Loss rate: 18.42%  
-- Flow 3:  
Average throughput: 31.98 Mbit/s  
95th percentile per-packet one-way delay: 23.414 ms  
Loss rate: 21.93%

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

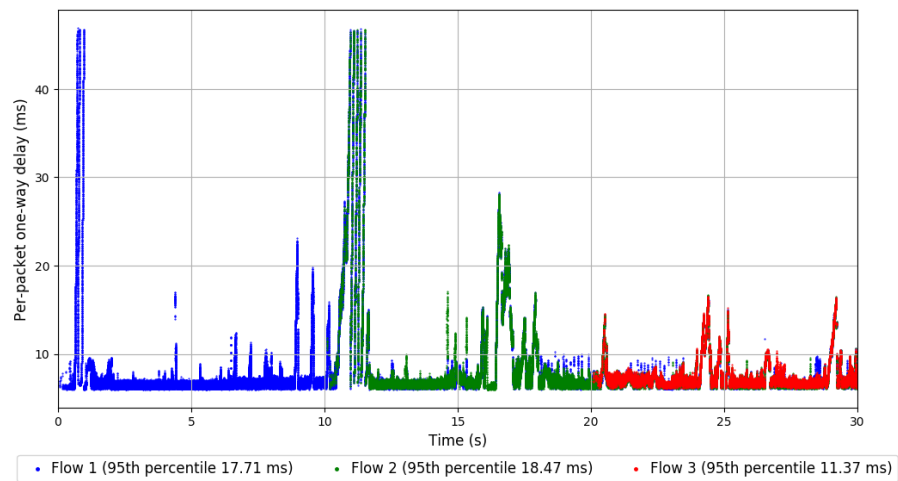
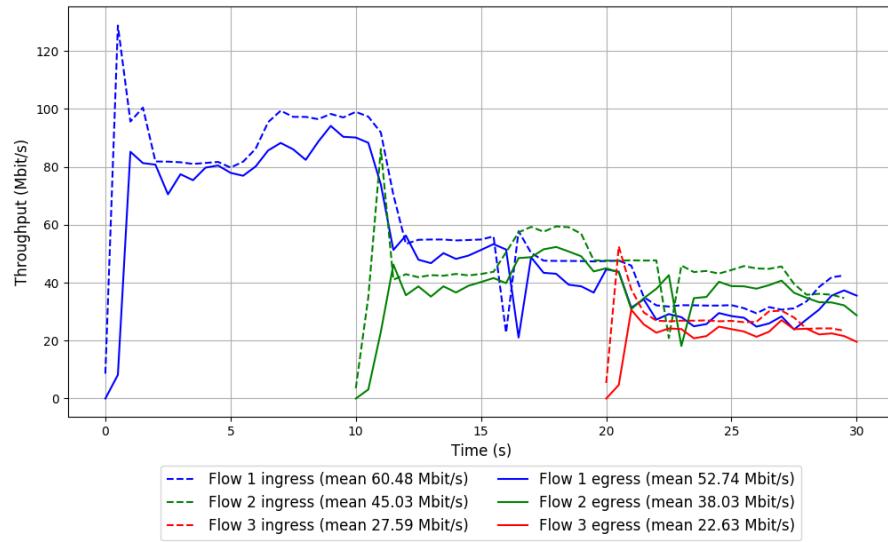


Run 4: Statistics of TCP BBR

Start at: 2018-12-20 02:48:54  
End at: 2018-12-20 02:49:24  
Local clock offset: 1.751 ms  
Remote clock offset: -2.196 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.59 Mbit/s  
95th percentile per-packet one-way delay: 17.033 ms  
Loss rate: 14.11%  
-- Flow 1:  
Average throughput: 52.74 Mbit/s  
95th percentile per-packet one-way delay: 17.710 ms  
Loss rate: 12.80%  
-- Flow 2:  
Average throughput: 38.03 Mbit/s  
95th percentile per-packet one-way delay: 18.472 ms  
Loss rate: 15.55%  
-- Flow 3:  
Average throughput: 22.63 Mbit/s  
95th percentile per-packet one-way delay: 11.373 ms  
Loss rate: 17.99%

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



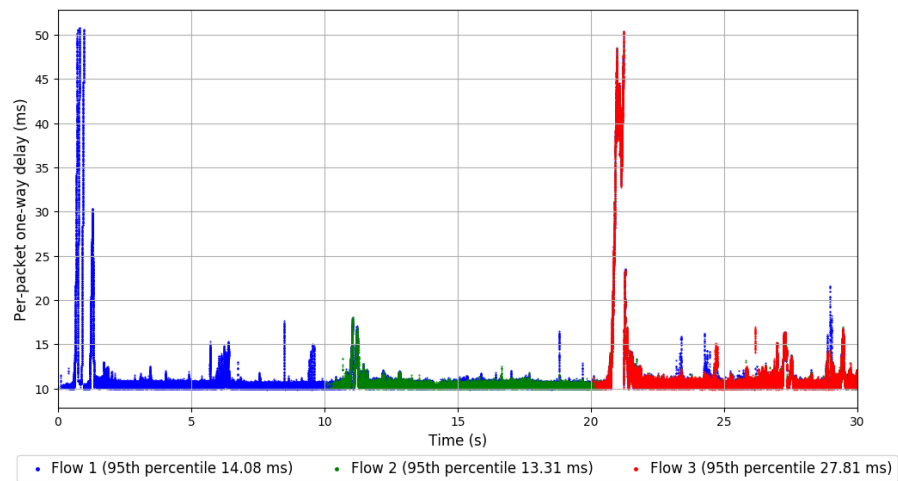
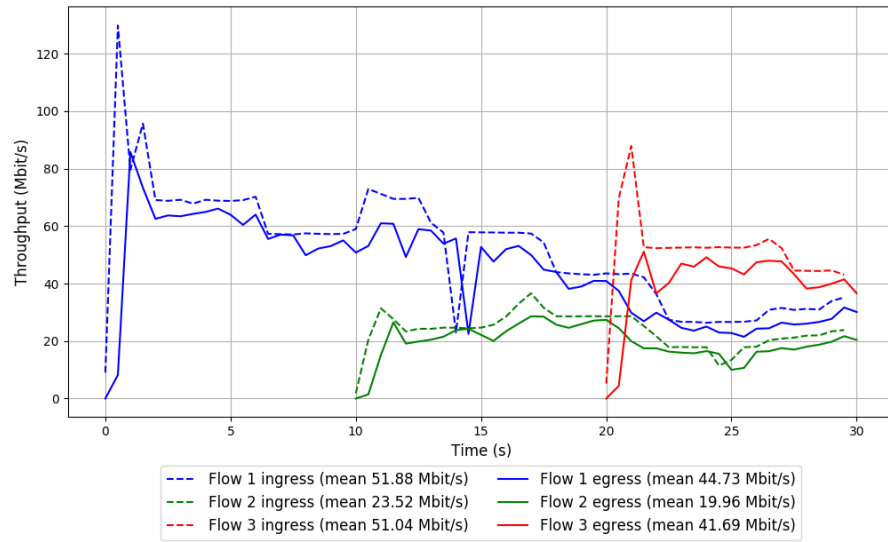


Run 5: Statistics of TCP BBR

Start at: 2018-12-20 03:13:18  
End at: 2018-12-20 03:13:48  
Local clock offset: -1.537 ms  
Remote clock offset: -2.975 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 71.89 Mbit/s  
95th percentile per-packet one-way delay: 14.809 ms  
Loss rate: 14.94%  
-- Flow 1:  
Average throughput: 44.73 Mbit/s  
95th percentile per-packet one-way delay: 14.078 ms  
Loss rate: 13.78%  
-- Flow 2:  
Average throughput: 19.96 Mbit/s  
95th percentile per-packet one-way delay: 13.312 ms  
Loss rate: 15.15%  
-- Flow 3:  
Average throughput: 41.69 Mbit/s  
95th percentile per-packet one-way delay: 27.806 ms  
Loss rate: 18.30%

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

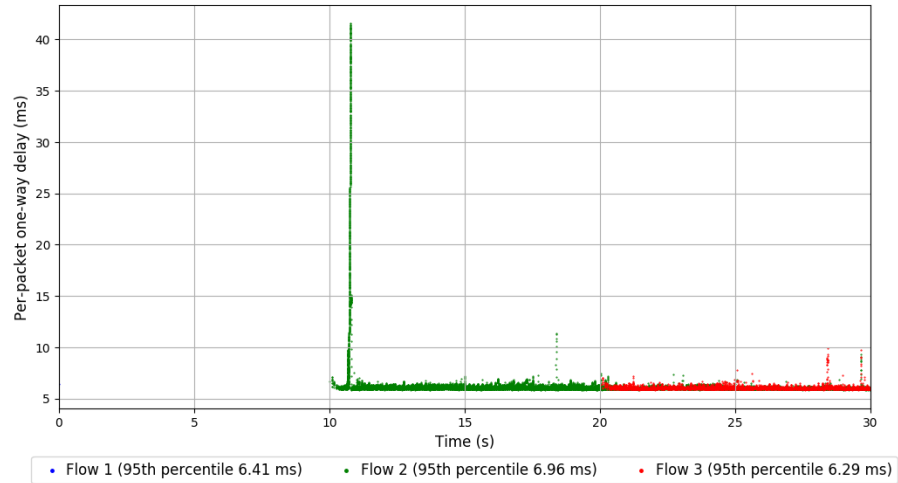
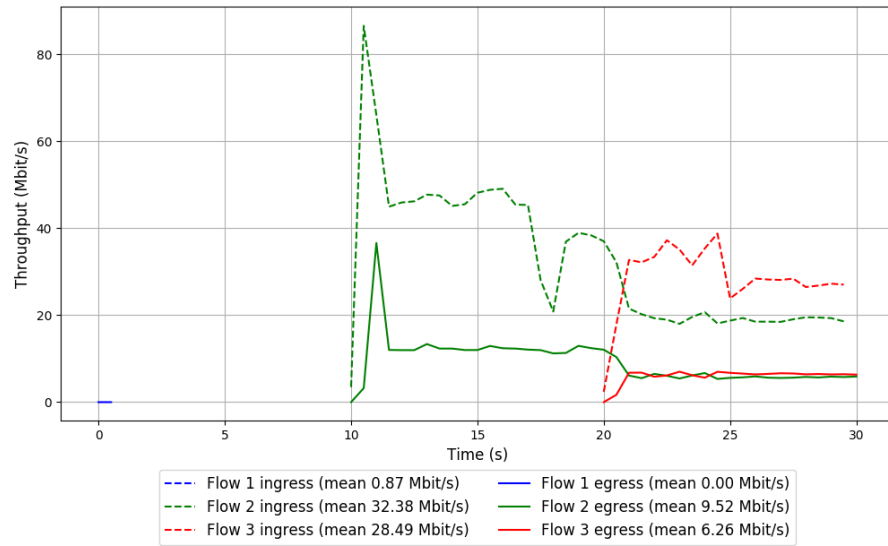


Run 1: Statistics of Copa

Start at: 2018-12-20 01:43:25  
End at: 2018-12-20 01:43:55  
Local clock offset: -0.27 ms  
Remote clock offset: -3.341 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.42 Mbit/s  
95th percentile per-packet one-way delay: 6.581 ms  
Loss rate: 72.86%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 6.409 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 9.52 Mbit/s  
95th percentile per-packet one-way delay: 6.962 ms  
Loss rate: 70.59%  
-- Flow 3:  
Average throughput: 6.26 Mbit/s  
95th percentile per-packet one-way delay: 6.290 ms  
Loss rate: 78.05%

## Run 1: Report of Copa — Data Link

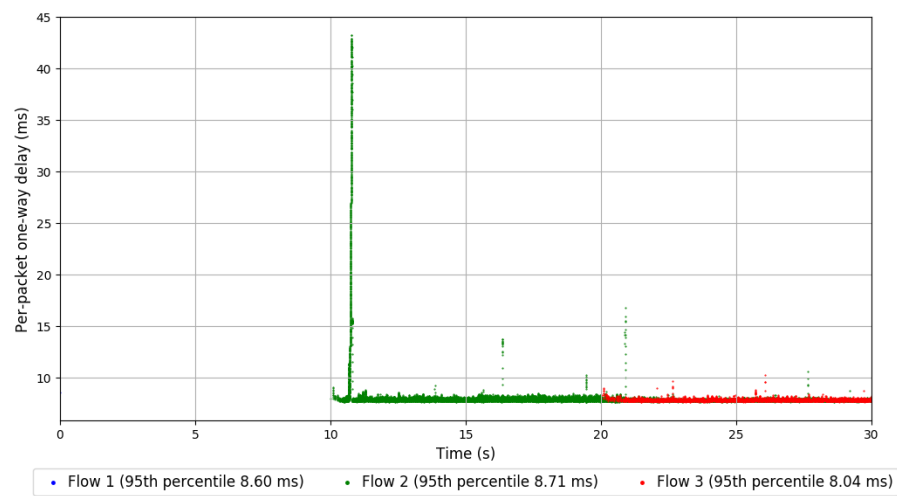
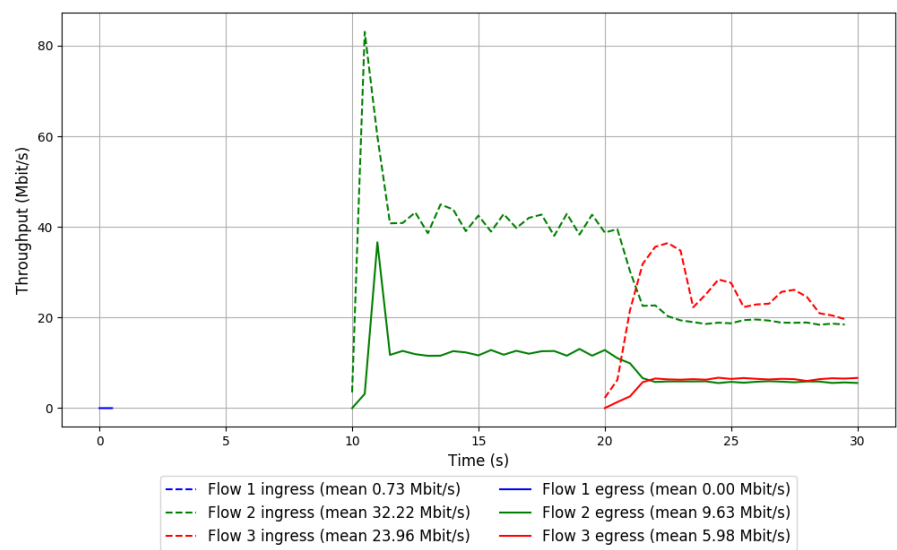


Run 2: Statistics of Copa

Start at: 2018-12-20 02:07:45  
End at: 2018-12-20 02:08:15  
Local clock offset: -3.094 ms  
Remote clock offset: -2.897 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.40 Mbit/s  
95th percentile per-packet one-way delay: 8.320 ms  
Loss rate: 71.44%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 8.596 ms  
Loss rate: 98.33%  
-- Flow 2:  
Average throughput: 9.63 Mbit/s  
95th percentile per-packet one-way delay: 8.713 ms  
Loss rate: 70.10%  
-- Flow 3:  
Average throughput: 5.98 Mbit/s  
95th percentile per-packet one-way delay: 8.040 ms  
Loss rate: 75.05%

Run 2: Report of Copa — Data Link

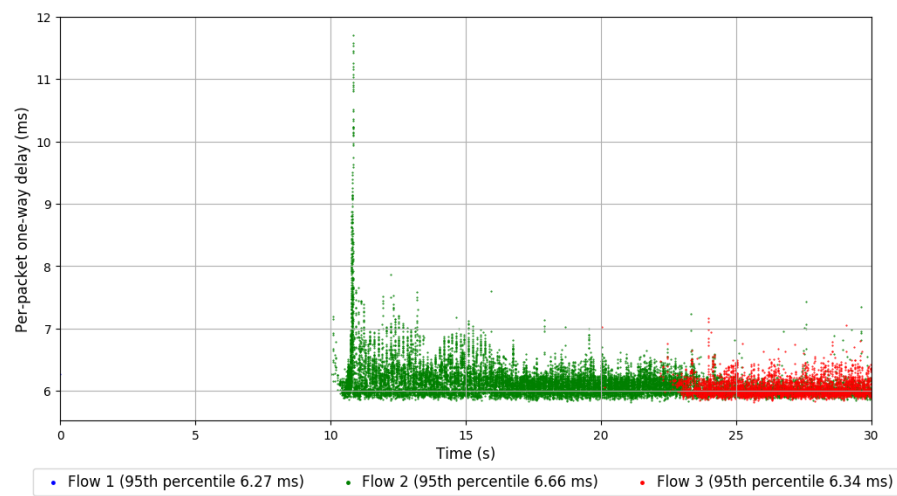
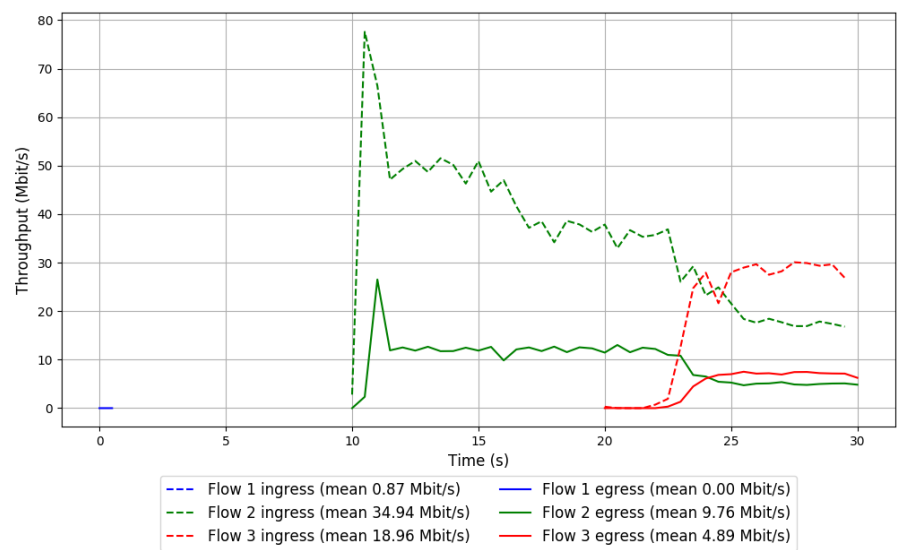


Run 3: Statistics of Copa

Start at: 2018-12-20 02:32:00  
End at: 2018-12-20 02:32:30  
Local clock offset: -1.325 ms  
Remote clock offset: -2.171 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.13 Mbit/s  
95th percentile per-packet one-way delay: 6.582 ms  
Loss rate: 72.53%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 6.268 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 9.76 Mbit/s  
95th percentile per-packet one-way delay: 6.658 ms  
Loss rate: 72.07%  
-- Flow 3:  
Average throughput: 4.89 Mbit/s  
95th percentile per-packet one-way delay: 6.343 ms  
Loss rate: 74.21%

Run 3: Report of Copa — Data Link



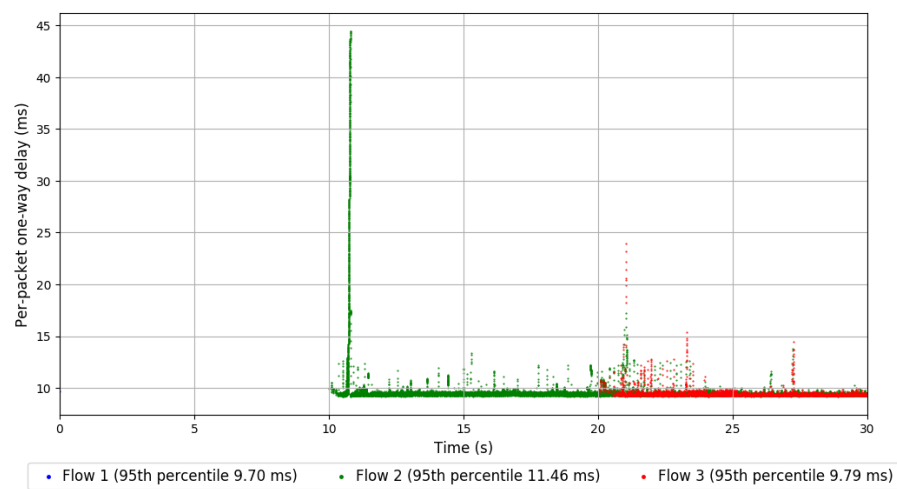
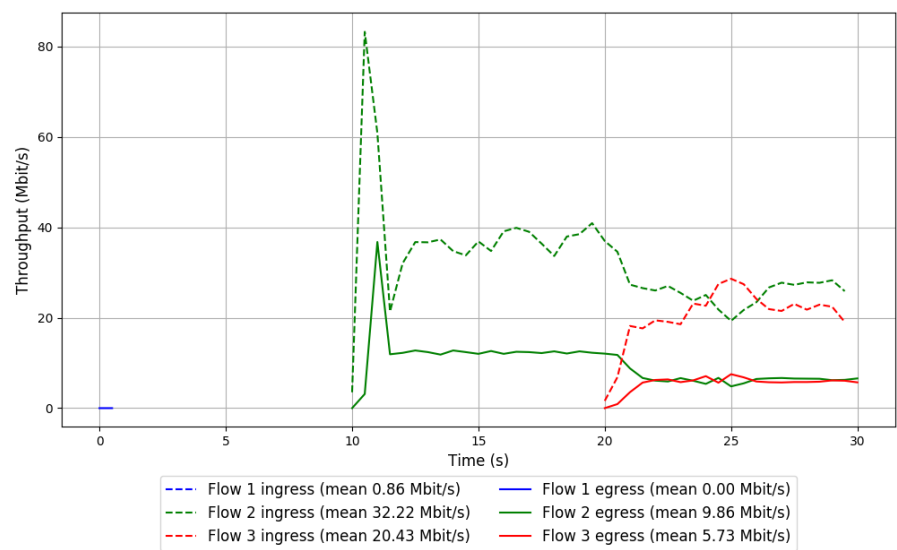


Run 4: Statistics of Copa

Start at: 2018-12-20 02:56:49  
End at: 2018-12-20 02:57:19  
Local clock offset: -0.852 ms  
Remote clock offset: -2.318 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.47 Mbit/s  
95th percentile per-packet one-way delay: 10.950 ms  
Loss rate: 70.02%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 9.702 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 9.86 Mbit/s  
95th percentile per-packet one-way delay: 11.462 ms  
Loss rate: 69.41%  
-- Flow 3:  
Average throughput: 5.73 Mbit/s  
95th percentile per-packet one-way delay: 9.794 ms  
Loss rate: 71.96%

Run 4: Report of Copa — Data Link

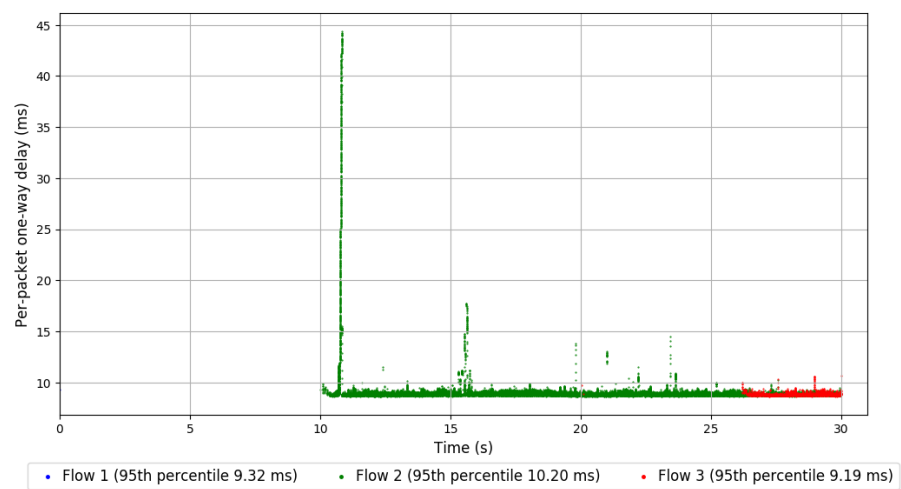
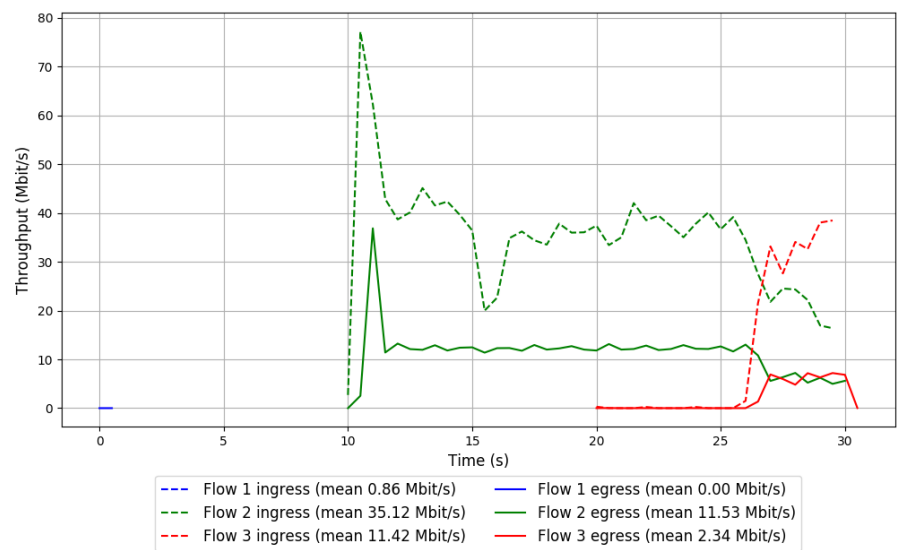


Run 5: Statistics of Copa

Start at: 2018-12-20 03:21:14  
End at: 2018-12-20 03:21:44  
Local clock offset: -0.202 ms  
Remote clock offset: -3.125 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.44 Mbit/s  
95th percentile per-packet one-way delay: 9.832 ms  
Loss rate: 68.90%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 9.320 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 11.53 Mbit/s  
95th percentile per-packet one-way delay: 10.195 ms  
Loss rate: 67.17%  
-- Flow 3:  
Average throughput: 2.34 Mbit/s  
95th percentile per-packet one-way delay: 9.191 ms  
Loss rate: 79.55%

Run 5: Report of Copa — Data Link

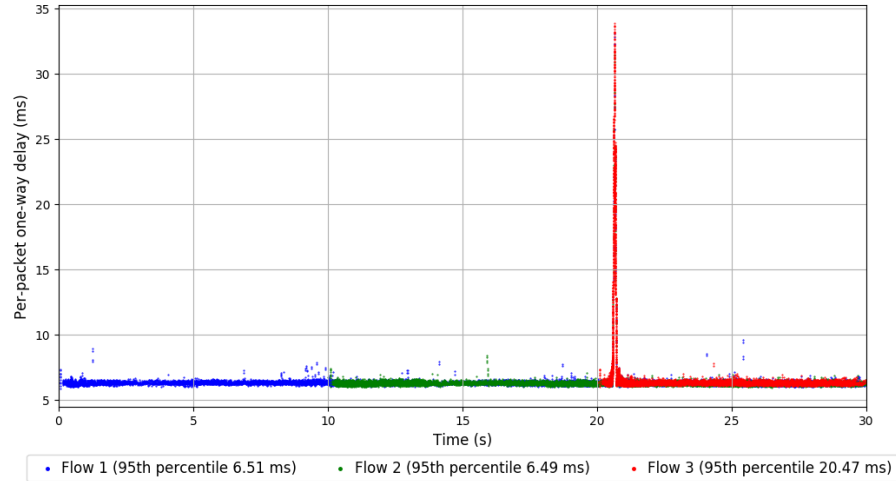
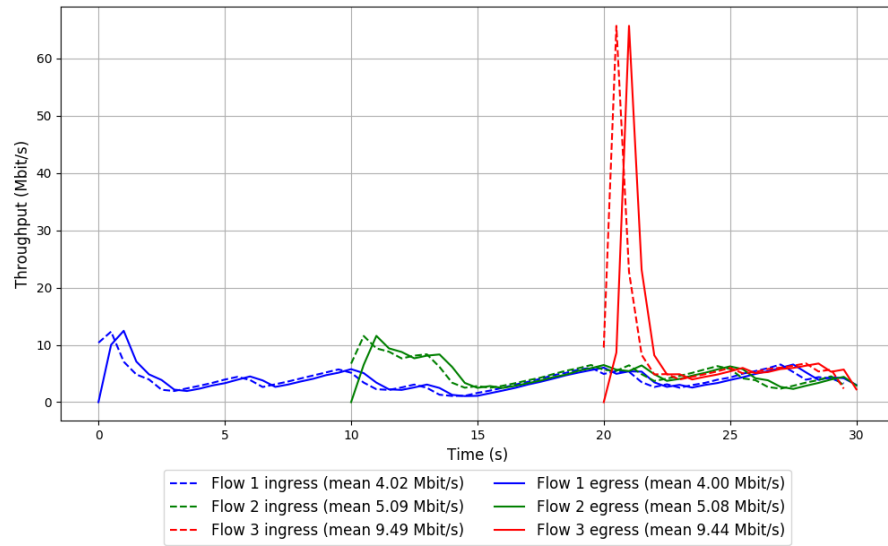


Run 1: Statistics of TCP Cubic

Start at: 2018-12-20 01:53:49  
End at: 2018-12-20 01:54:19  
Local clock offset: -0.493 ms  
Remote clock offset: -2.585 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 10.52 Mbit/s  
95th percentile per-packet one-way delay: 7.115 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 4.00 Mbit/s  
95th percentile per-packet one-way delay: 6.510 ms  
Loss rate: 0.43%  
-- Flow 2:  
Average throughput: 5.08 Mbit/s  
95th percentile per-packet one-way delay: 6.491 ms  
Loss rate: 0.28%  
-- Flow 3:  
Average throughput: 9.44 Mbit/s  
95th percentile per-packet one-way delay: 20.472 ms  
Loss rate: 0.47%

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

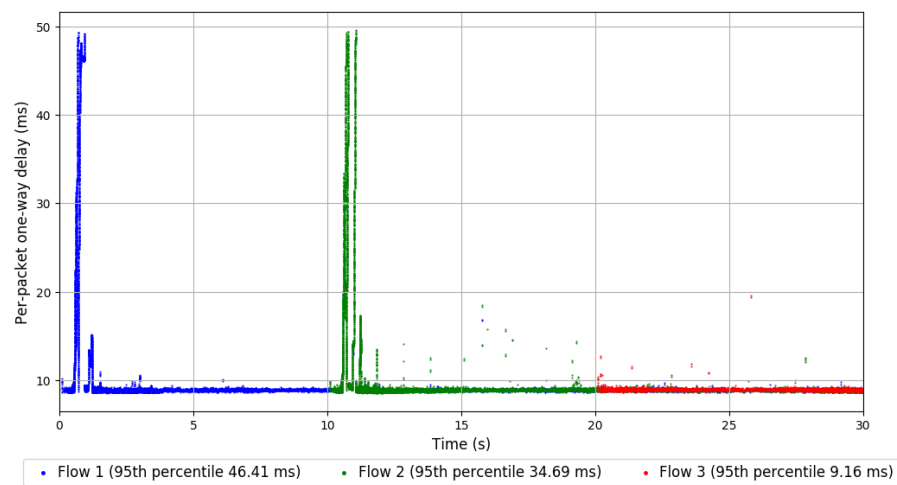
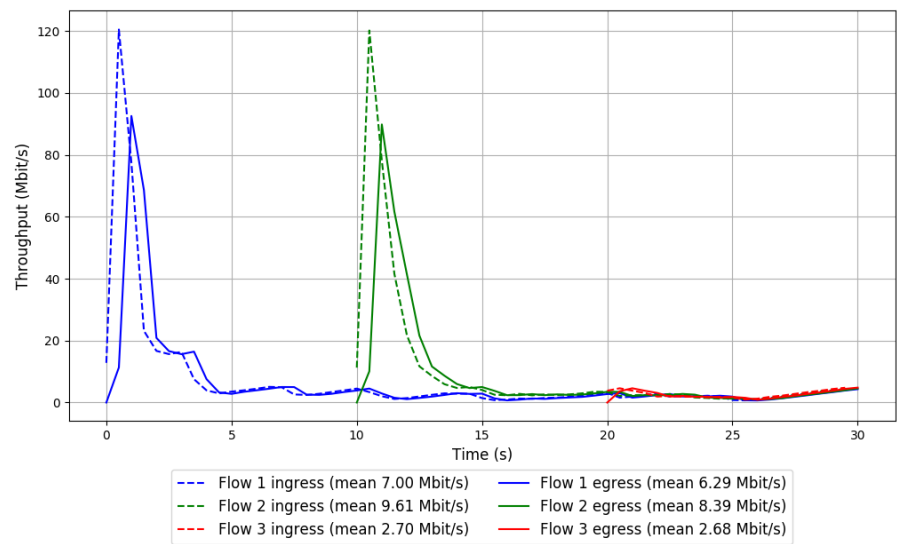


Run 2: Statistics of TCP Cubic

Start at: 2018-12-20 02:18:11  
End at: 2018-12-20 02:18:41  
Local clock offset: -4.302 ms  
Remote clock offset: -2.853 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.77 Mbit/s  
95th percentile per-packet one-way delay: 44.852 ms  
Loss rate: 10.76%  
-- Flow 1:  
Average throughput: 6.29 Mbit/s  
95th percentile per-packet one-way delay: 46.408 ms  
Loss rate: 10.23%  
-- Flow 2:  
Average throughput: 8.39 Mbit/s  
95th percentile per-packet one-way delay: 34.686 ms  
Loss rate: 12.75%  
-- Flow 3:  
Average throughput: 2.68 Mbit/s  
95th percentile per-packet one-way delay: 9.165 ms  
Loss rate: 0.67%

Run 2: Report of TCP Cubic — Data Link



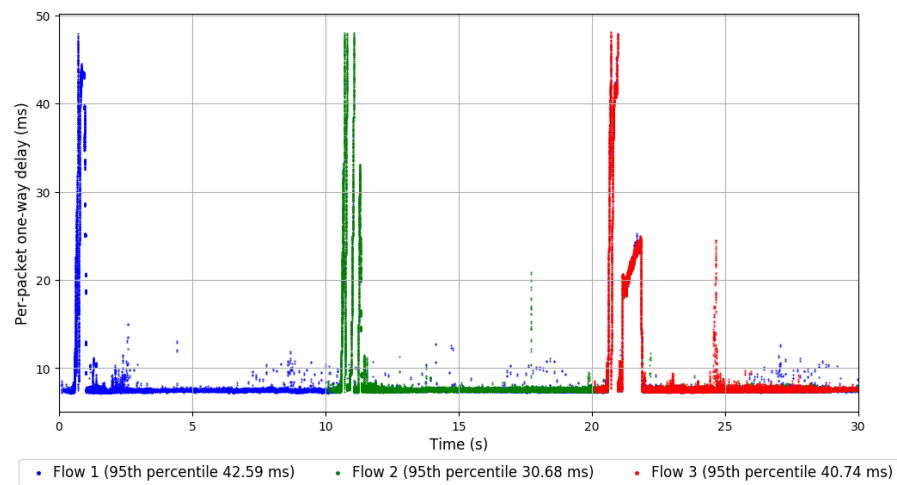
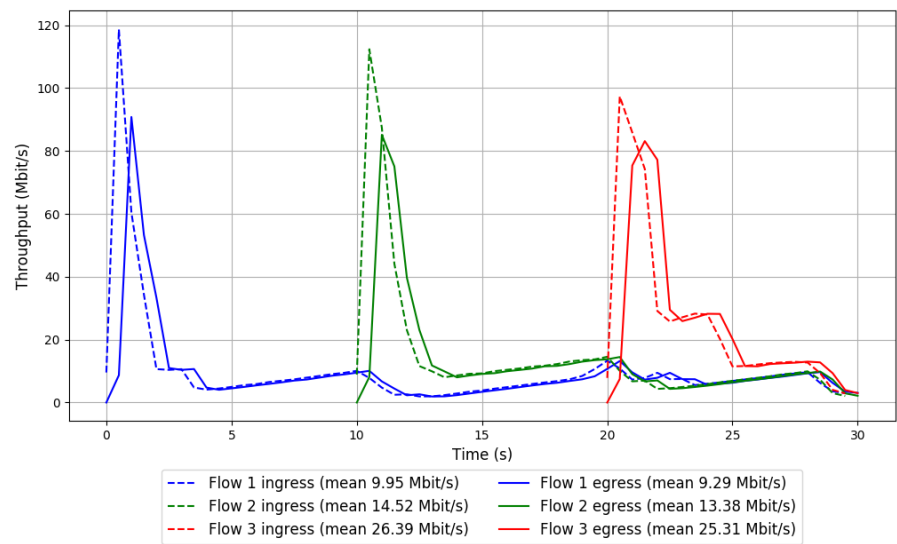


Run 3: Statistics of TCP Cubic

Start at: 2018-12-20 02:42:44  
End at: 2018-12-20 02:43:14  
Local clock offset: -1.115 ms  
Remote clock offset: -2.944 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 26.62 Mbit/s  
95th percentile per-packet one-way delay: 38.711 ms  
Loss rate: 6.27%  
-- Flow 1:  
Average throughput: 9.29 Mbit/s  
95th percentile per-packet one-way delay: 42.586 ms  
Loss rate: 6.62%  
-- Flow 2:  
Average throughput: 13.38 Mbit/s  
95th percentile per-packet one-way delay: 30.678 ms  
Loss rate: 7.88%  
-- Flow 3:  
Average throughput: 25.31 Mbit/s  
95th percentile per-packet one-way delay: 40.736 ms  
Loss rate: 4.09%

Run 3: Report of TCP Cubic — Data Link

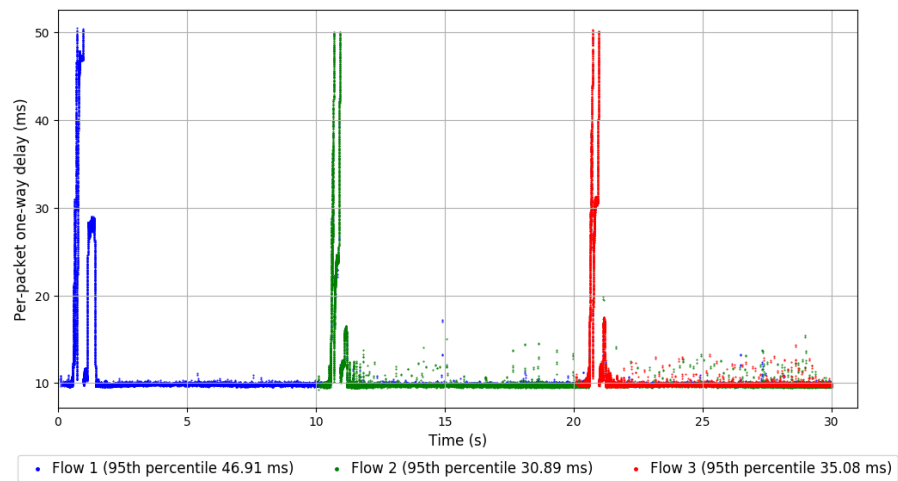
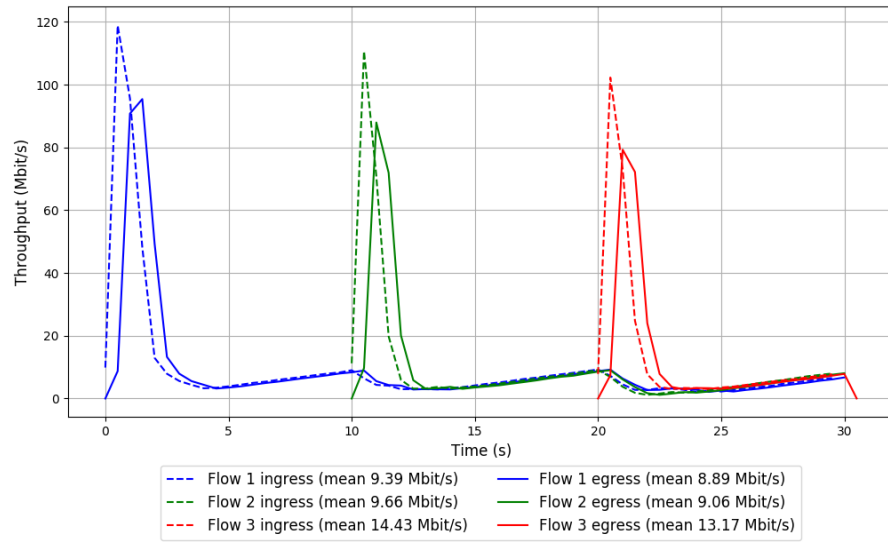


Run 4: Statistics of TCP Cubic

Start at: 2018-12-20 03:07:24  
End at: 2018-12-20 03:07:54  
Local clock offset: -0.488 ms  
Remote clock offset: -2.287 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.30 Mbit/s  
95th percentile per-packet one-way delay: 39.003 ms  
Loss rate: 6.42%  
-- Flow 1:  
Average throughput: 8.89 Mbit/s  
95th percentile per-packet one-way delay: 46.909 ms  
Loss rate: 5.38%  
-- Flow 2:  
Average throughput: 9.06 Mbit/s  
95th percentile per-packet one-way delay: 30.885 ms  
Loss rate: 6.25%  
-- Flow 3:  
Average throughput: 13.17 Mbit/s  
95th percentile per-packet one-way delay: 35.079 ms  
Loss rate: 8.70%

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

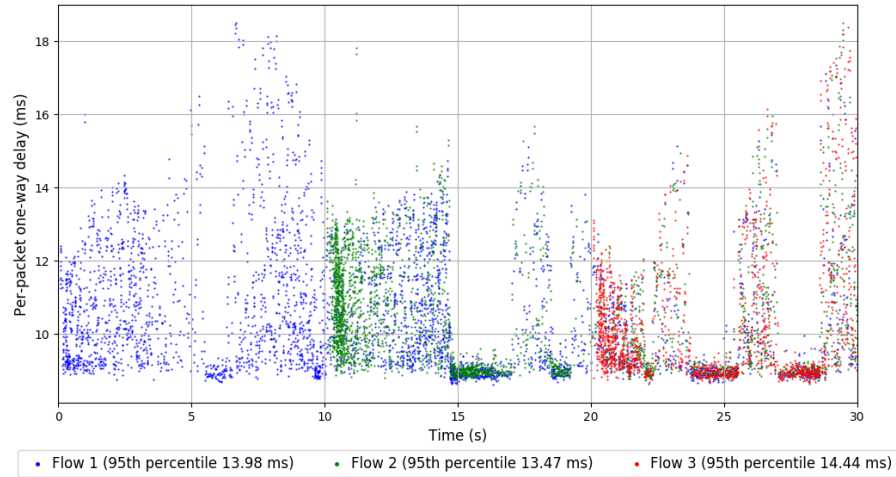
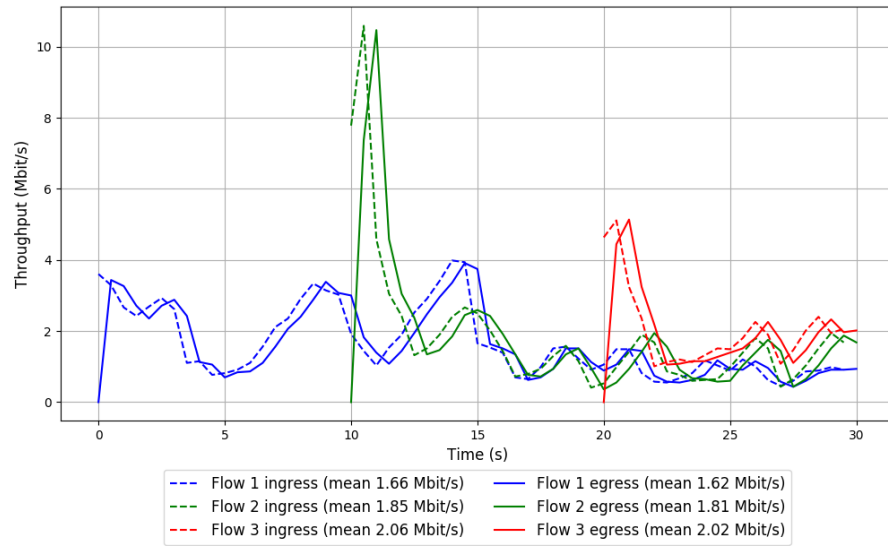


Run 5: Statistics of TCP Cubic

Start at: 2018-12-20 03:31:43  
End at: 2018-12-20 03:32:13  
Local clock offset: 0.034 ms  
Remote clock offset: -3.558 ms

# Below is generated by plot.py at 2018-12-20 03:38:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.50 Mbit/s  
95th percentile per-packet one-way delay: 13.859 ms  
Loss rate: 2.02%  
-- Flow 1:  
Average throughput: 1.62 Mbit/s  
95th percentile per-packet one-way delay: 13.978 ms  
Loss rate: 2.01%  
-- Flow 2:  
Average throughput: 1.81 Mbit/s  
95th percentile per-packet one-way delay: 13.470 ms  
Loss rate: 2.11%  
-- Flow 3:  
Average throughput: 2.02 Mbit/s  
95th percentile per-packet one-way delay: 14.444 ms  
Loss rate: 1.87%

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

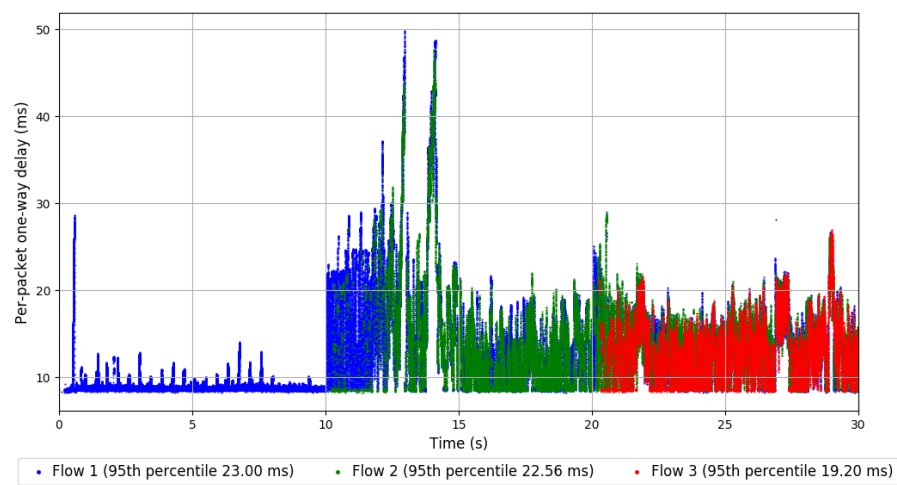
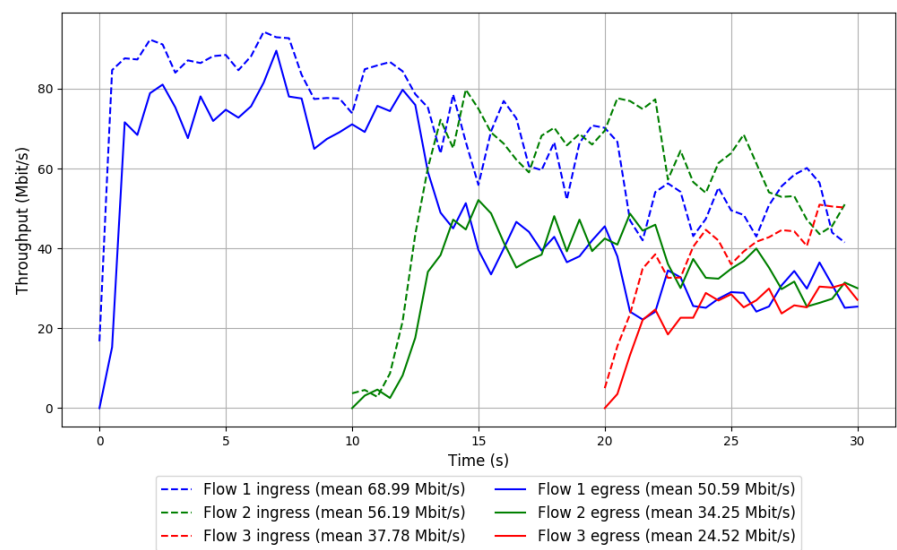


Run 1: Statistics of FillP

Start at: 2018-12-20 01:45:44  
End at: 2018-12-20 01:46:14  
Local clock offset: -2.629 ms  
Remote clock offset: -2.868 ms

# Below is generated by plot.py at 2018-12-20 03:38:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.51 Mbit/s  
95th percentile per-packet one-way delay: 22.462 ms  
Loss rate: 31.45%  
-- Flow 1:  
Average throughput: 50.59 Mbit/s  
95th percentile per-packet one-way delay: 22.997 ms  
Loss rate: 26.68%  
-- Flow 2:  
Average throughput: 34.25 Mbit/s  
95th percentile per-packet one-way delay: 22.563 ms  
Loss rate: 39.04%  
-- Flow 3:  
Average throughput: 24.52 Mbit/s  
95th percentile per-packet one-way delay: 19.204 ms  
Loss rate: 35.08%

Run 1: Report of FillP — Data Link





Run 2: Statistics of FillP

Start at: 2018-12-20 02:10:05

End at: 2018-12-20 02:10:35

Local clock offset: -5.874 ms

Remote clock offset: -3.14 ms

# Below is generated by plot.py at 2018-12-20 03:38:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.89 Mbit/s

95th percentile per-packet one-way delay: 22.741 ms

Loss rate: 33.30%

-- Flow 1:

Average throughput: 46.48 Mbit/s

95th percentile per-packet one-way delay: 22.918 ms

Loss rate: 28.37%

-- Flow 2:

Average throughput: 34.12 Mbit/s

95th percentile per-packet one-way delay: 23.884 ms

Loss rate: 39.59%

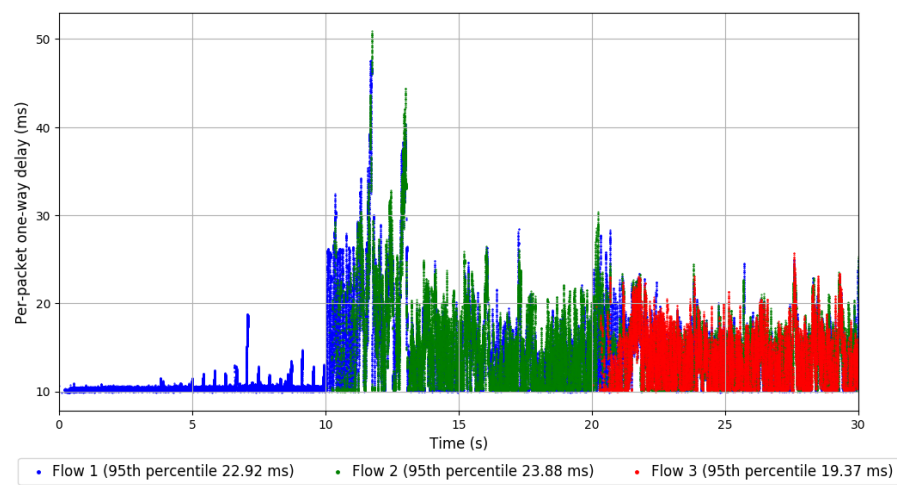
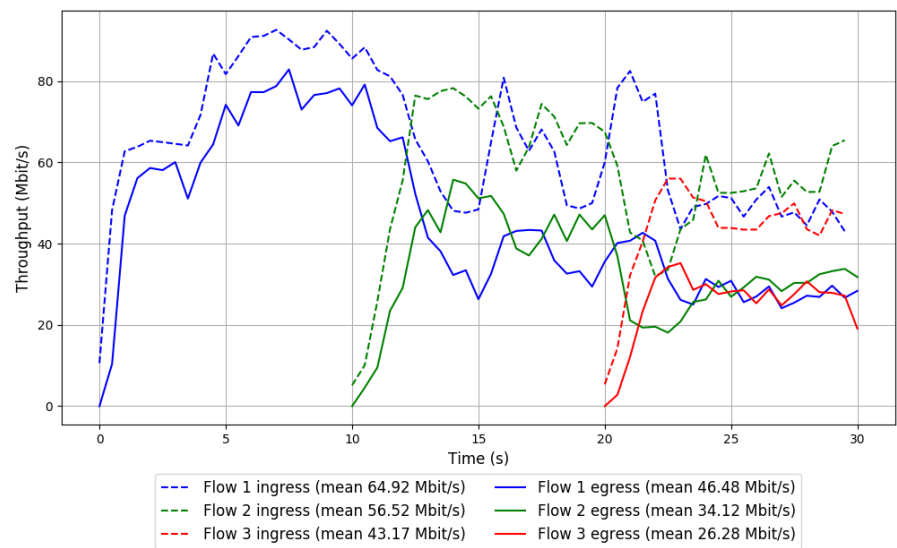
-- Flow 3:

Average throughput: 26.28 Mbit/s

95th percentile per-packet one-way delay: 19.367 ms

Loss rate: 39.11%

Run 2: Report of FillP — Data Link

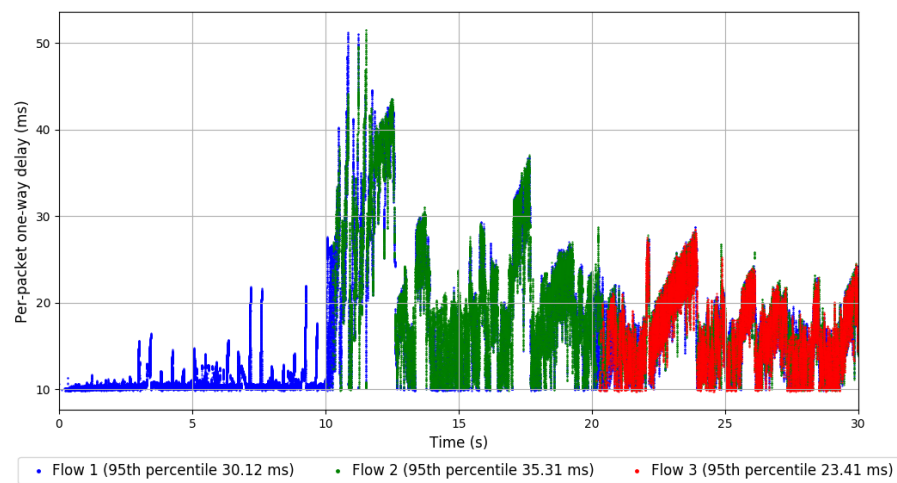
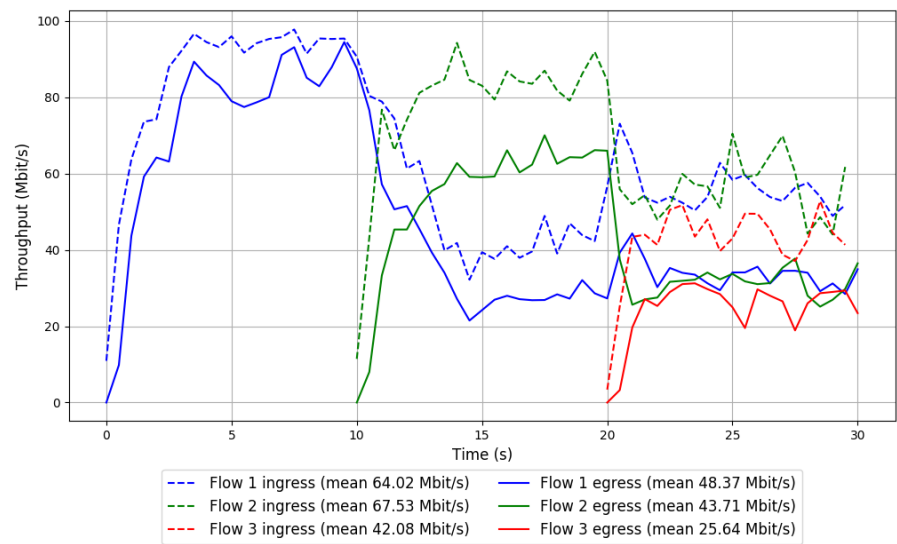


Run 3: Statistics of FillP

Start at: 2018-12-20 02:34:19  
End at: 2018-12-20 02:34:49  
Local clock offset: -6.026 ms  
Remote clock offset: -2.701 ms

# Below is generated by plot.py at 2018-12-20 03:39:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.96 Mbit/s  
95th percentile per-packet one-way delay: 31.809 ms  
Loss rate: 30.05%  
-- Flow 1:  
Average throughput: 48.37 Mbit/s  
95th percentile per-packet one-way delay: 30.118 ms  
Loss rate: 24.43%  
-- Flow 2:  
Average throughput: 43.71 Mbit/s  
95th percentile per-packet one-way delay: 35.308 ms  
Loss rate: 35.26%  
-- Flow 3:  
Average throughput: 25.64 Mbit/s  
95th percentile per-packet one-way delay: 23.408 ms  
Loss rate: 39.08%

Run 3: Report of FillP — Data Link

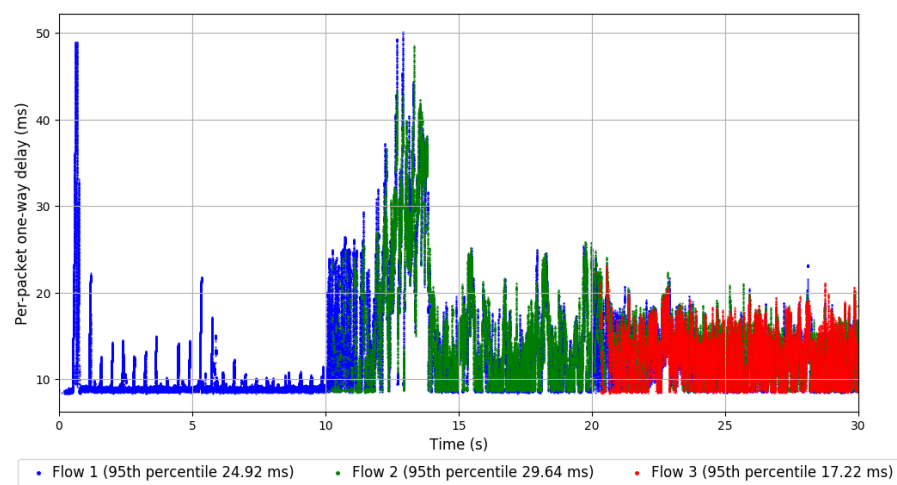
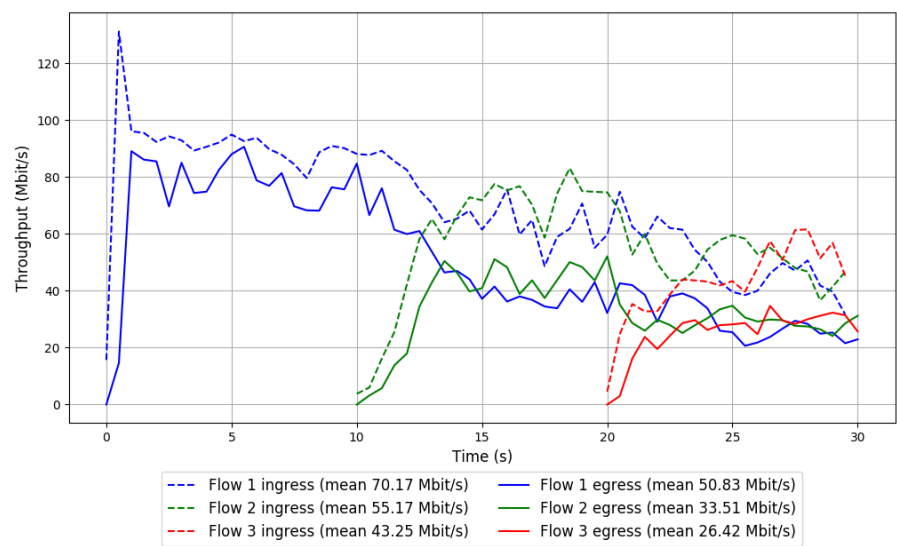


Run 4: Statistics of FillP

Start at: 2018-12-20 02:59:08  
End at: 2018-12-20 02:59:38  
Local clock offset: -0.476 ms  
Remote clock offset: -2.768 ms

# Below is generated by plot.py at 2018-12-20 03:39:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.86 Mbit/s  
95th percentile per-packet one-way delay: 25.511 ms  
Loss rate: 32.44%  
-- Flow 1:  
Average throughput: 50.83 Mbit/s  
95th percentile per-packet one-way delay: 24.919 ms  
Loss rate: 27.56%  
-- Flow 2:  
Average throughput: 33.51 Mbit/s  
95th percentile per-packet one-way delay: 29.636 ms  
Loss rate: 39.24%  
-- Flow 3:  
Average throughput: 26.42 Mbit/s  
95th percentile per-packet one-way delay: 17.222 ms  
Loss rate: 38.91%

Run 4: Report of FillP — Data Link

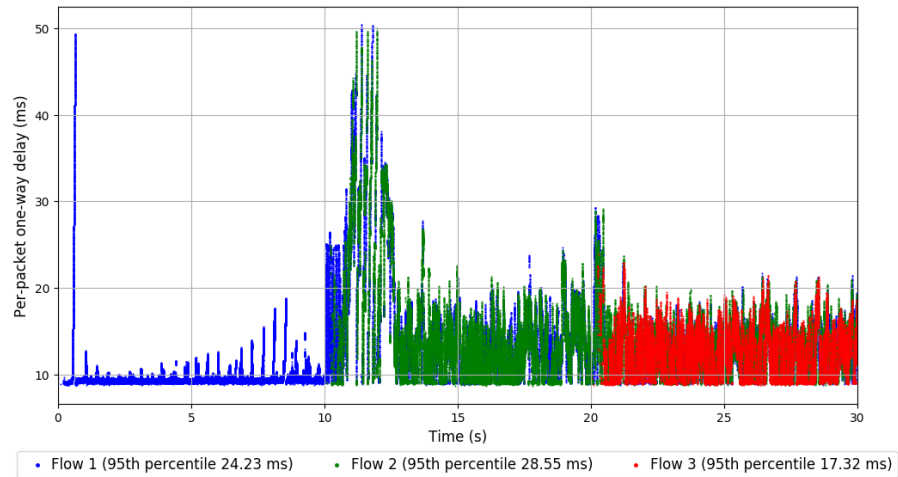
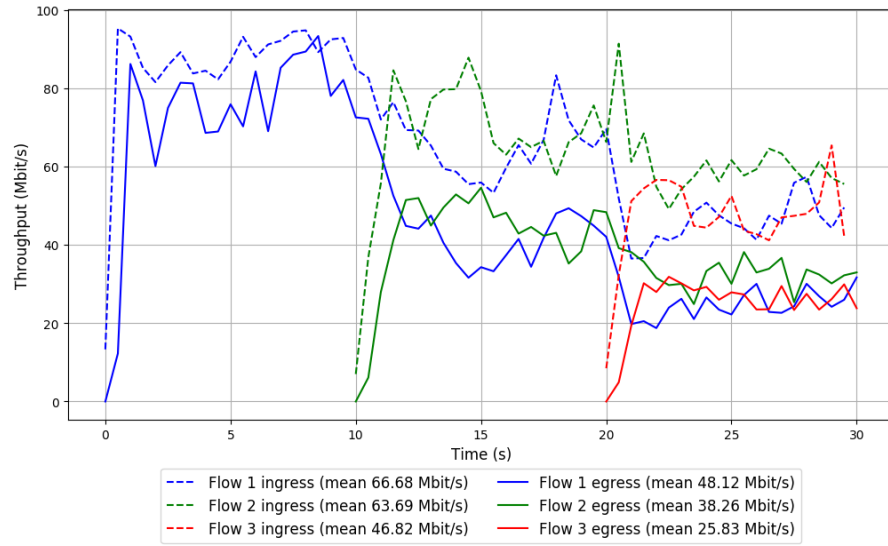


Run 5: Statistics of FillP

Start at: 2018-12-20 03:23:32  
End at: 2018-12-20 03:24:02  
Local clock offset: -0.44 ms  
Remote clock offset: -3.182 ms

# Below is generated by plot.py at 2018-12-20 03:39:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.15 Mbit/s  
95th percentile per-packet one-way delay: 24.918 ms  
Loss rate: 34.05%  
-- Flow 1:  
Average throughput: 48.12 Mbit/s  
95th percentile per-packet one-way delay: 24.227 ms  
Loss rate: 27.81%  
-- Flow 2:  
Average throughput: 38.26 Mbit/s  
95th percentile per-packet one-way delay: 28.545 ms  
Loss rate: 39.92%  
-- Flow 3:  
Average throughput: 25.83 Mbit/s  
95th percentile per-packet one-way delay: 17.323 ms  
Loss rate: 44.81%

## Run 5: Report of FillP — Data Link



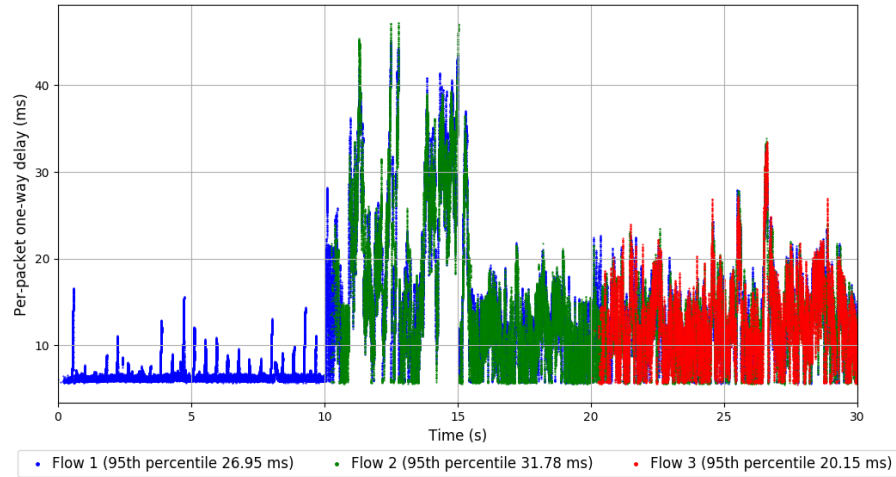
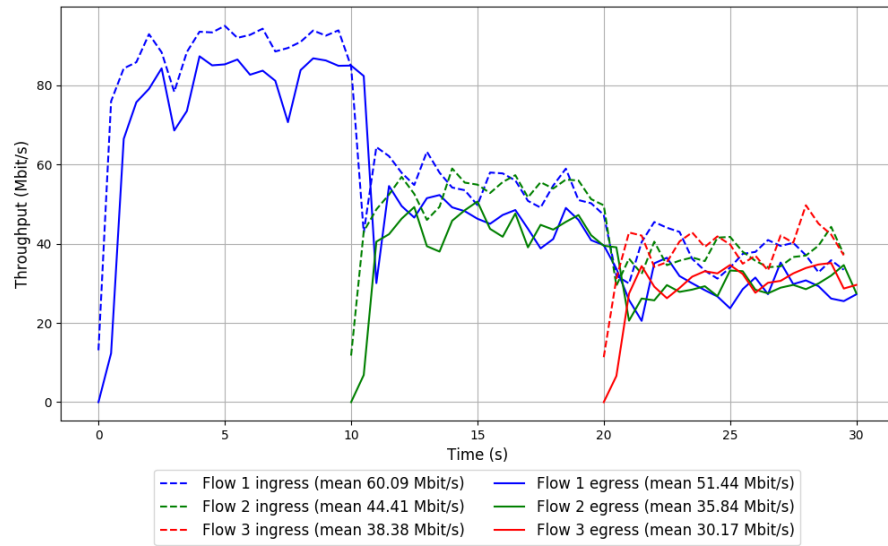


Run 1: Statistics of FillP-Sheep

Start at: 2018-12-20 01:37:07  
End at: 2018-12-20 01:37:37  
Local clock offset: 1.107 ms  
Remote clock offset: -3.015 ms

# Below is generated by plot.py at 2018-12-20 03:39:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.29 Mbit/s  
95th percentile per-packet one-way delay: 28.444 ms  
Loss rate: 16.67%  
-- Flow 1:  
Average throughput: 51.44 Mbit/s  
95th percentile per-packet one-way delay: 26.954 ms  
Loss rate: 14.38%  
-- Flow 2:  
Average throughput: 35.84 Mbit/s  
95th percentile per-packet one-way delay: 31.780 ms  
Loss rate: 19.30%  
-- Flow 3:  
Average throughput: 30.17 Mbit/s  
95th percentile per-packet one-way delay: 20.151 ms  
Loss rate: 21.39%

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

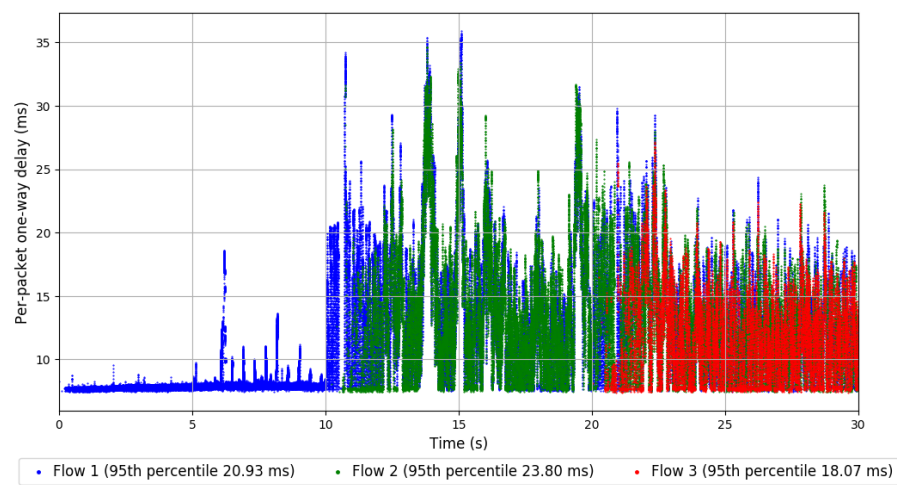
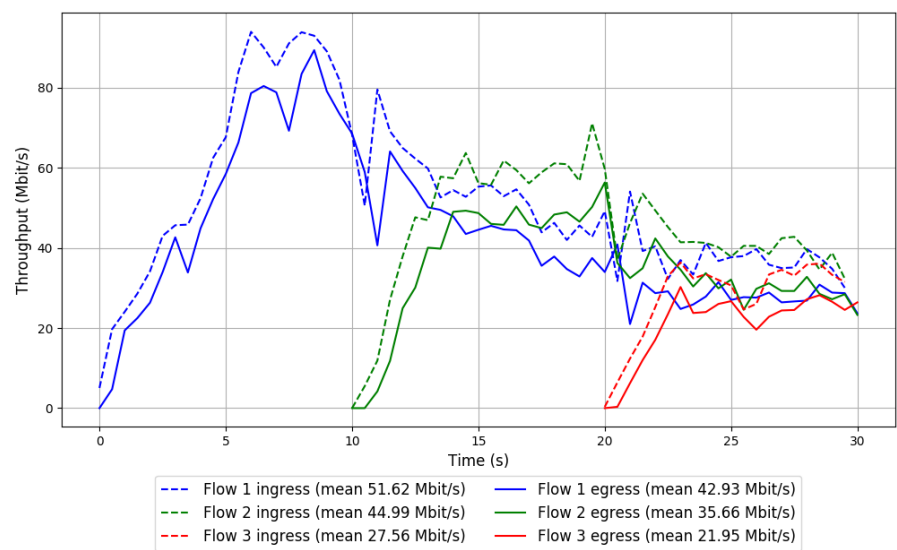


Run 2: Statistics of FillP-Sheep

Start at: 2018-12-20 02:01:05  
End at: 2018-12-20 02:01:35  
Local clock offset: -2.986 ms  
Remote clock offset: -3.157 ms

# Below is generated by plot.py at 2018-12-20 03:39:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.69 Mbit/s  
95th percentile per-packet one-way delay: 21.684 ms  
Loss rate: 18.74%  
-- Flow 1:  
Average throughput: 42.93 Mbit/s  
95th percentile per-packet one-way delay: 20.926 ms  
Loss rate: 16.83%  
-- Flow 2:  
Average throughput: 35.66 Mbit/s  
95th percentile per-packet one-way delay: 23.798 ms  
Loss rate: 21.54%  
-- Flow 3:  
Average throughput: 21.95 Mbit/s  
95th percentile per-packet one-way delay: 18.075 ms  
Loss rate: 20.36%

Run 2: Report of FillP-Sheep — Data Link

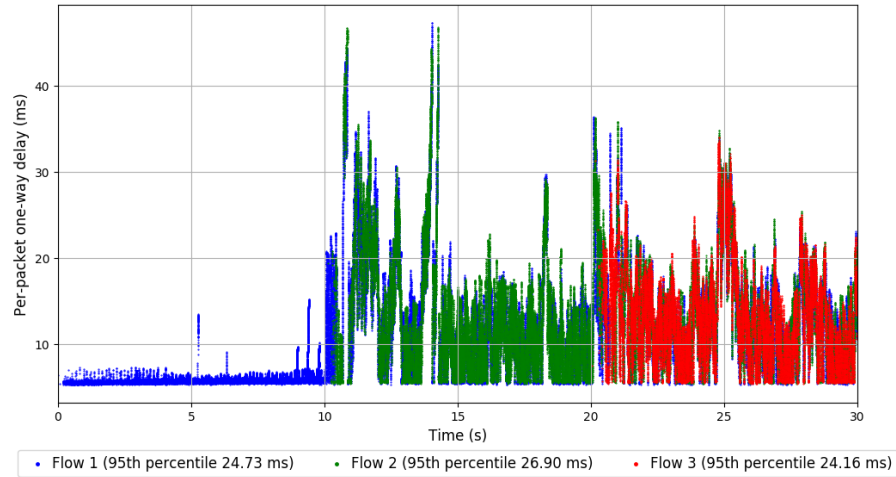
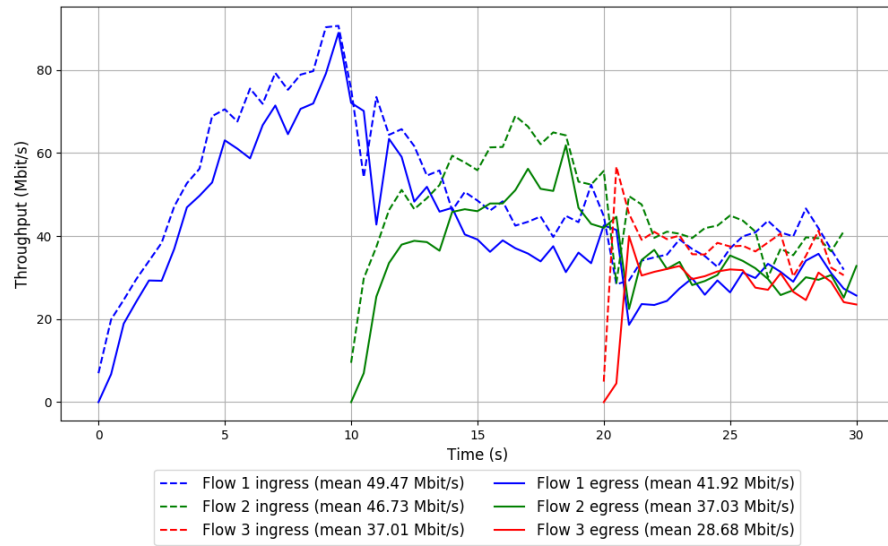


Run 3: Statistics of FillP-Sheep

Start at: 2018-12-20 02:25:28  
End at: 2018-12-20 02:25:58  
Local clock offset: -1.108 ms  
Remote clock offset: -2.533 ms

# Below is generated by plot.py at 2018-12-20 03:39:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.07 Mbit/s  
95th percentile per-packet one-way delay: 25.564 ms  
Loss rate: 18.03%  
-- Flow 1:  
Average throughput: 41.92 Mbit/s  
95th percentile per-packet one-way delay: 24.725 ms  
Loss rate: 15.24%  
-- Flow 2:  
Average throughput: 37.03 Mbit/s  
95th percentile per-packet one-way delay: 26.900 ms  
Loss rate: 20.72%  
-- Flow 3:  
Average throughput: 28.68 Mbit/s  
95th percentile per-packet one-way delay: 24.157 ms  
Loss rate: 22.45%

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

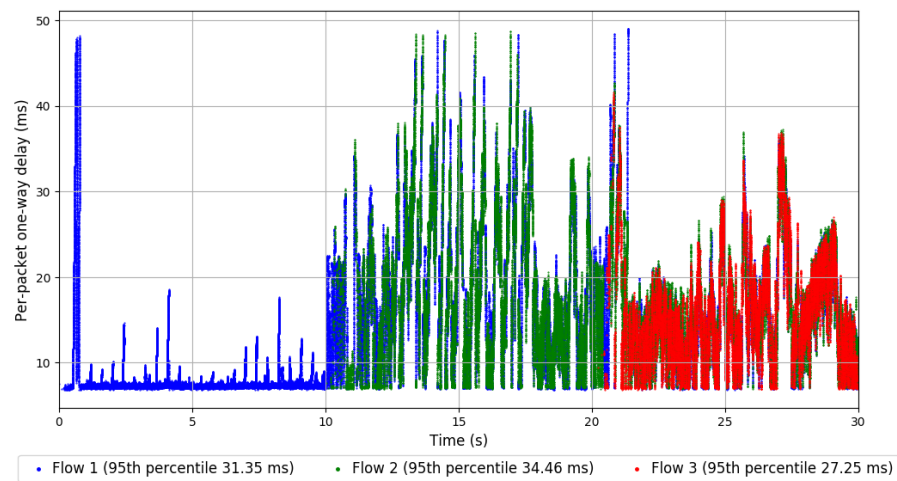
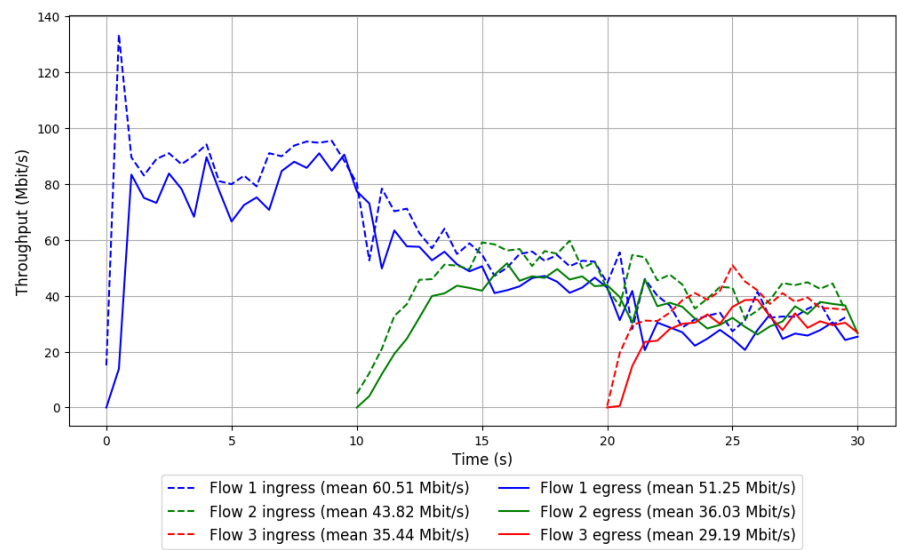


Run 4: Statistics of FillP-Sheep

Start at: 2018-12-20 02:50:28  
End at: 2018-12-20 02:50:58  
Local clock offset: 0.885 ms  
Remote clock offset: -2.191 ms

# Below is generated by plot.py at 2018-12-20 03:40:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.70 Mbit/s  
95th percentile per-packet one-way delay: 32.273 ms  
Loss rate: 16.49%  
-- Flow 1:  
Average throughput: 51.25 Mbit/s  
95th percentile per-packet one-way delay: 31.353 ms  
Loss rate: 15.29%  
-- Flow 2:  
Average throughput: 36.03 Mbit/s  
95th percentile per-packet one-way delay: 34.461 ms  
Loss rate: 17.78%  
-- Flow 3:  
Average throughput: 29.19 Mbit/s  
95th percentile per-packet one-way delay: 27.254 ms  
Loss rate: 19.46%

Run 4: Report of FillP-Sheep — Data Link



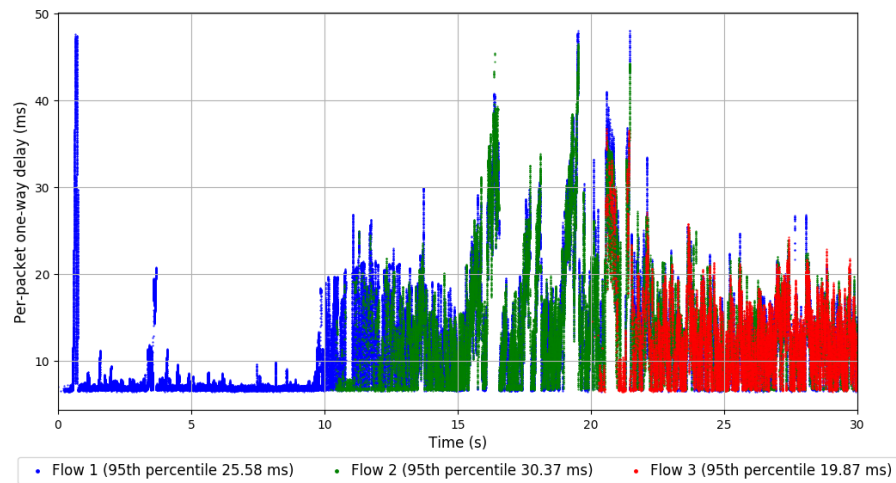
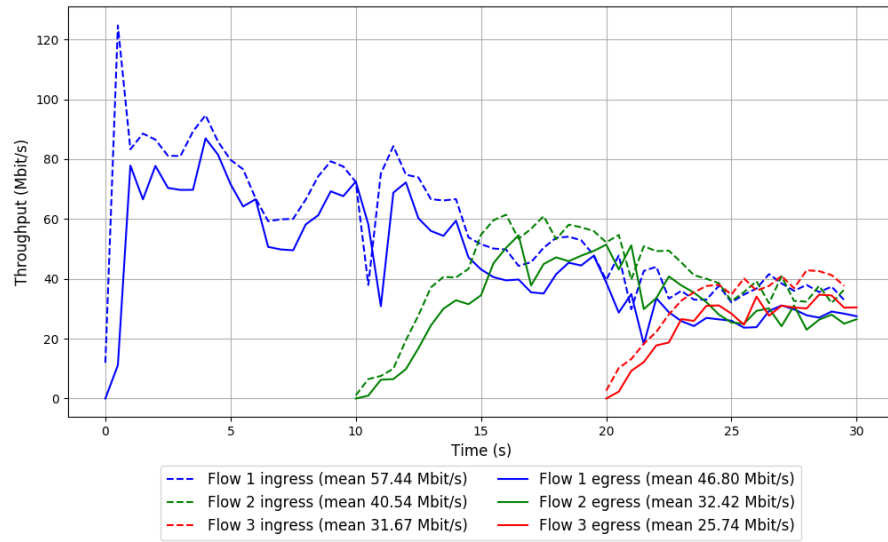


Run 5: Statistics of FillP-Sheep

Start at: 2018-12-20 03:14:55  
End at: 2018-12-20 03:15:25  
Local clock offset: 1.698 ms  
Remote clock offset: -2.964 ms

# Below is generated by plot.py at 2018-12-20 03:40:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.88 Mbit/s  
95th percentile per-packet one-way delay: 27.039 ms  
Loss rate: 18.97%  
-- Flow 1:  
Average throughput: 46.80 Mbit/s  
95th percentile per-packet one-way delay: 25.578 ms  
Loss rate: 18.52%  
-- Flow 2:  
Average throughput: 32.42 Mbit/s  
95th percentile per-packet one-way delay: 30.374 ms  
Loss rate: 20.00%  
-- Flow 3:  
Average throughput: 25.74 Mbit/s  
95th percentile per-packet one-way delay: 19.868 ms  
Loss rate: 18.79%

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

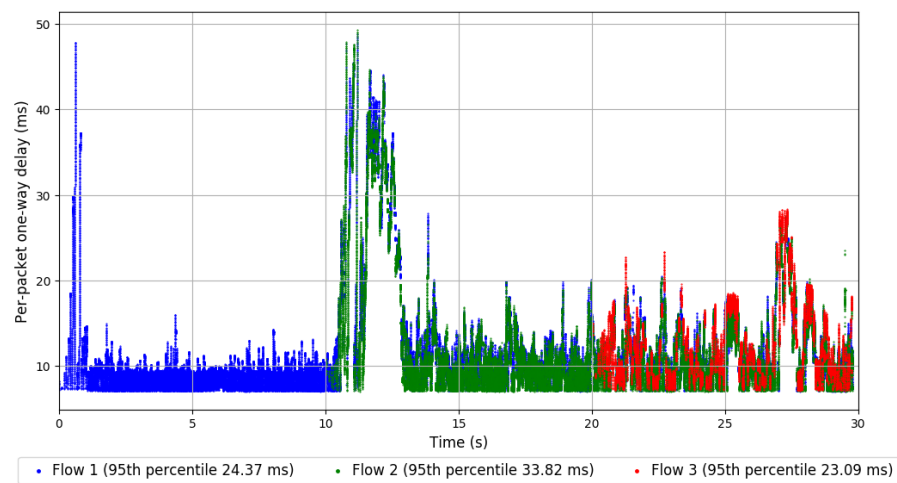
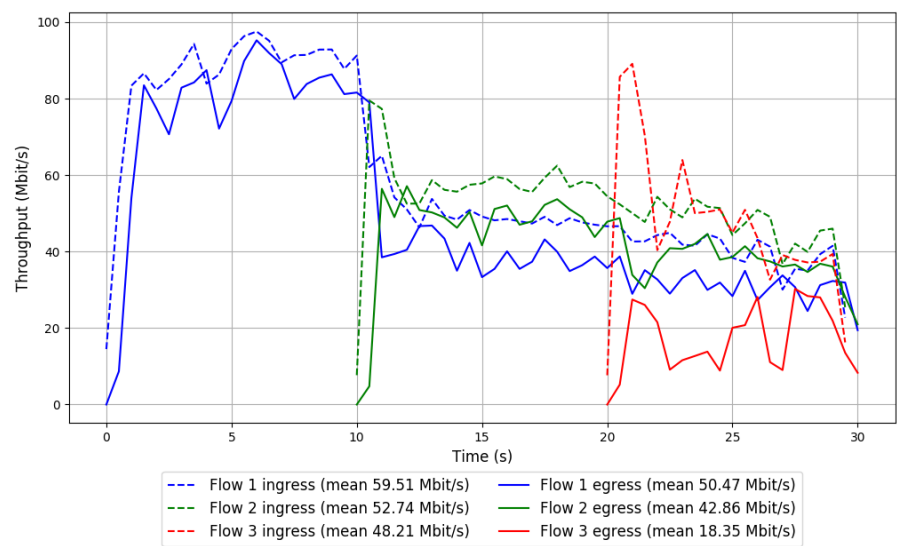


Run 1: Statistics of Indigo

Start at: 2018-12-20 01:52:21  
End at: 2018-12-20 01:52:51  
Local clock offset: -1.544 ms  
Remote clock offset: -2.617 ms

# Below is generated by plot.py at 2018-12-20 03:40:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.86 Mbit/s  
95th percentile per-packet one-way delay: 27.697 ms  
Loss rate: 22.98%  
-- Flow 1:  
Average throughput: 50.47 Mbit/s  
95th percentile per-packet one-way delay: 24.372 ms  
Loss rate: 15.18%  
-- Flow 2:  
Average throughput: 42.86 Mbit/s  
95th percentile per-packet one-way delay: 33.822 ms  
Loss rate: 18.74%  
-- Flow 3:  
Average throughput: 18.35 Mbit/s  
95th percentile per-packet one-way delay: 23.091 ms  
Loss rate: 61.96%

Run 1: Report of Indigo — Data Link

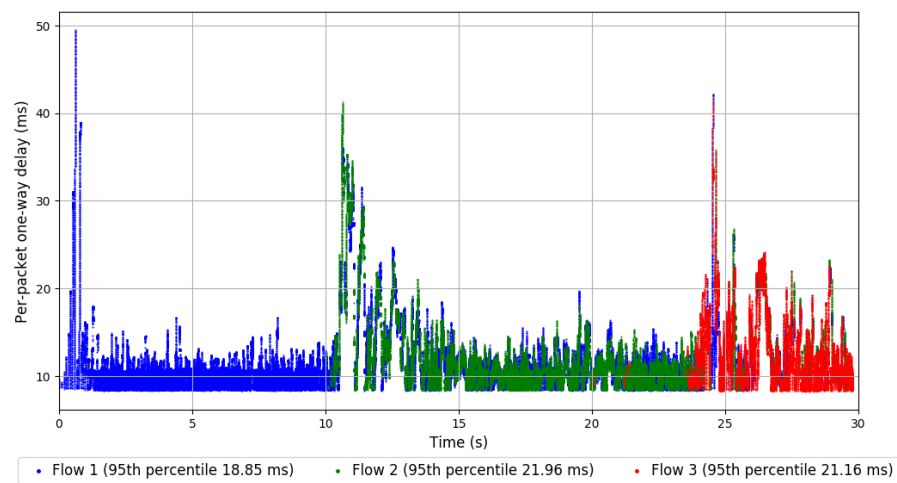
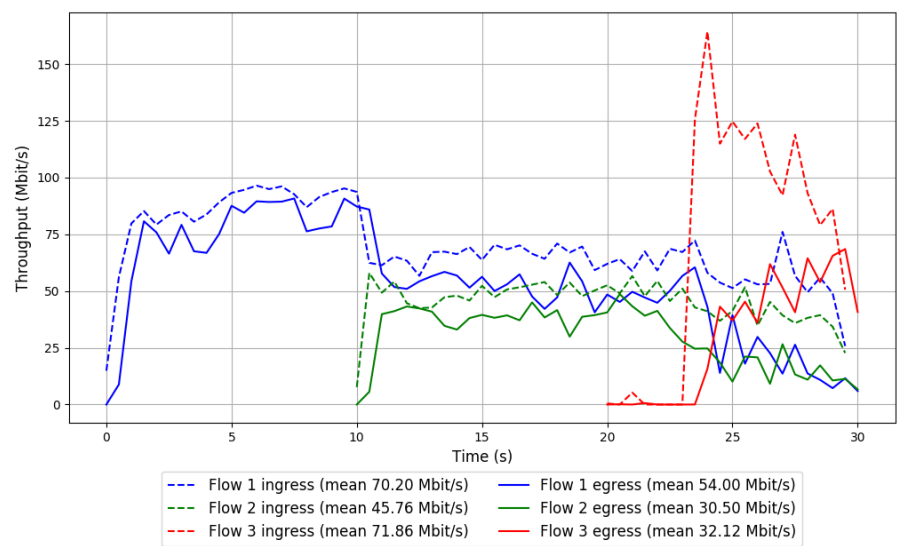


Run 2: Statistics of Indigo

Start at: 2018-12-20 02:16:46  
End at: 2018-12-20 02:17:16  
Local clock offset: -3.256 ms  
Remote clock offset: -2.142 ms

# Below is generated by plot.py at 2018-12-20 03:40:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.63 Mbit/s  
95th percentile per-packet one-way delay: 20.283 ms  
Loss rate: 31.70%  
-- Flow 1:  
Average throughput: 54.00 Mbit/s  
95th percentile per-packet one-way delay: 18.851 ms  
Loss rate: 23.07%  
-- Flow 2:  
Average throughput: 30.50 Mbit/s  
95th percentile per-packet one-way delay: 21.965 ms  
Loss rate: 33.35%  
-- Flow 3:  
Average throughput: 32.12 Mbit/s  
95th percentile per-packet one-way delay: 21.156 ms  
Loss rate: 55.31%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-12-20 02:41:08

End at: 2018-12-20 02:41:38

Local clock offset: -3.972 ms

Remote clock offset: -4.77 ms

# Below is generated by plot.py at 2018-12-20 03:40:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.11 Mbit/s

95th percentile per-packet one-way delay: 19.754 ms

Loss rate: 29.57%

-- Flow 1:

Average throughput: 59.49 Mbit/s

95th percentile per-packet one-way delay: 18.223 ms

Loss rate: 18.44%

-- Flow 2:

Average throughput: 27.95 Mbit/s

95th percentile per-packet one-way delay: 23.277 ms

Loss rate: 46.66%

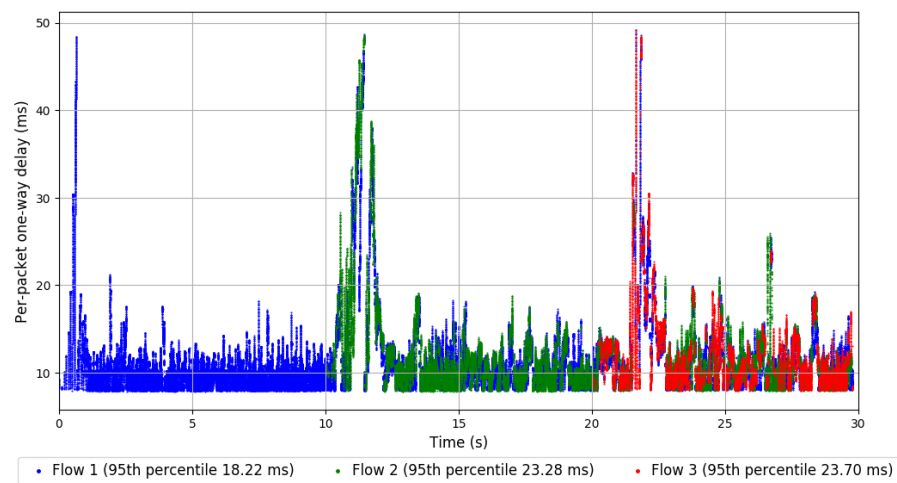
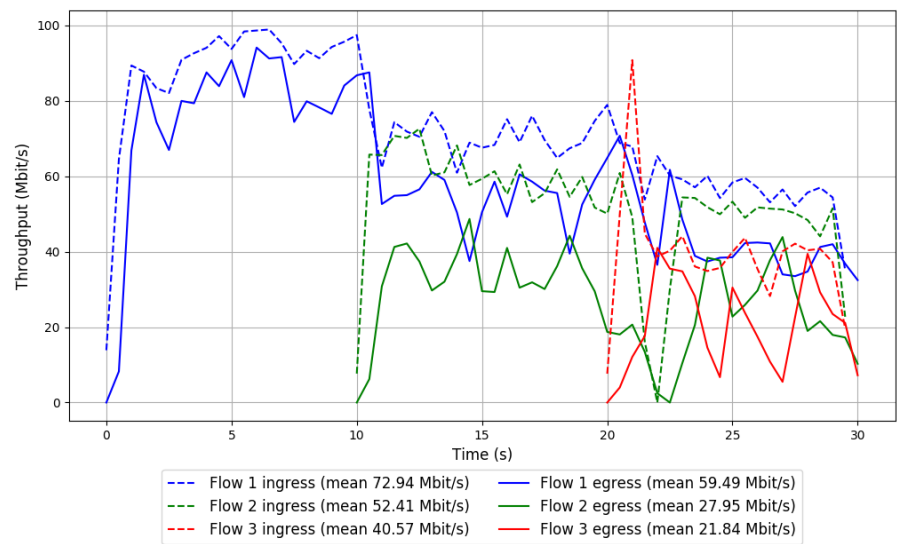
-- Flow 3:

Average throughput: 21.84 Mbit/s

95th percentile per-packet one-way delay: 23.705 ms

Loss rate: 46.13%

Run 3: Report of Indigo — Data Link



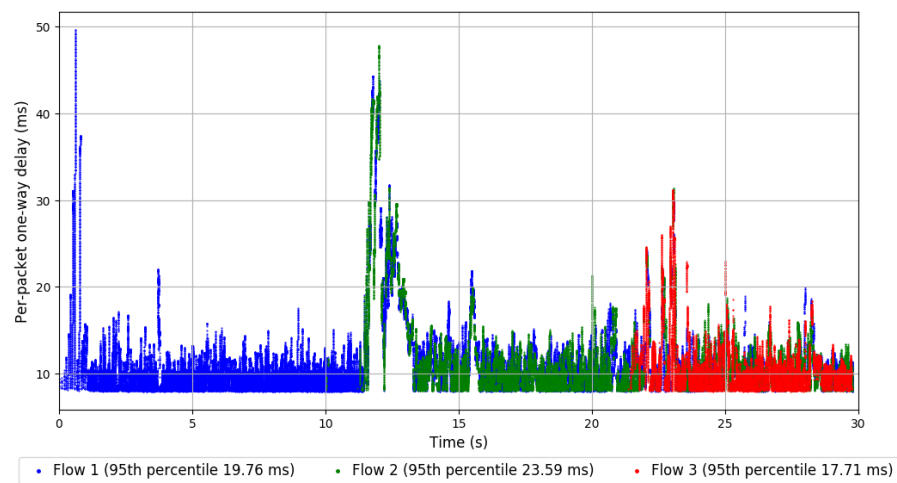
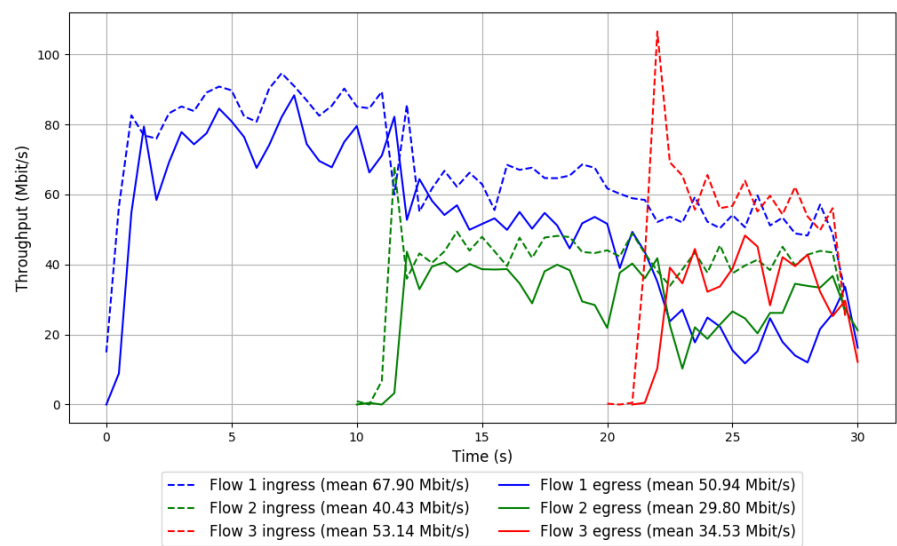


Run 4: Statistics of Indigo

Start at: 2018-12-20 03:05:55  
End at: 2018-12-20 03:06:25  
Local clock offset: 0.363 ms  
Remote clock offset: -3.034 ms

# Below is generated by plot.py at 2018-12-20 03:40:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.43 Mbit/s  
95th percentile per-packet one-way delay: 20.695 ms  
Loss rate: 27.84%  
-- Flow 1:  
Average throughput: 50.94 Mbit/s  
95th percentile per-packet one-way delay: 19.759 ms  
Loss rate: 24.97%  
-- Flow 2:  
Average throughput: 29.80 Mbit/s  
95th percentile per-packet one-way delay: 23.590 ms  
Loss rate: 26.29%  
-- Flow 3:  
Average throughput: 34.53 Mbit/s  
95th percentile per-packet one-way delay: 17.707 ms  
Loss rate: 41.95%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-12-20 03:30:08

End at: 2018-12-20 03:30:38

Local clock offset: -0.248 ms

Remote clock offset: -3.52 ms

# Below is generated by plot.py at 2018-12-20 03:40:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 60.55 Mbit/s

95th percentile per-packet one-way delay: 17.426 ms

Loss rate: 41.26%

-- Flow 1:

Average throughput: 36.24 Mbit/s

95th percentile per-packet one-way delay: 16.305 ms

Loss rate: 32.76%

-- Flow 2:

Average throughput: 25.08 Mbit/s

95th percentile per-packet one-way delay: 17.670 ms

Loss rate: 50.86%

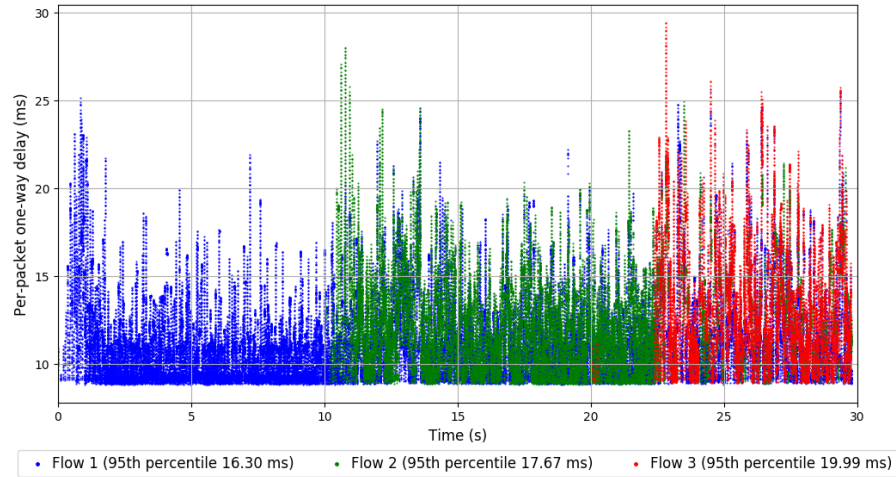
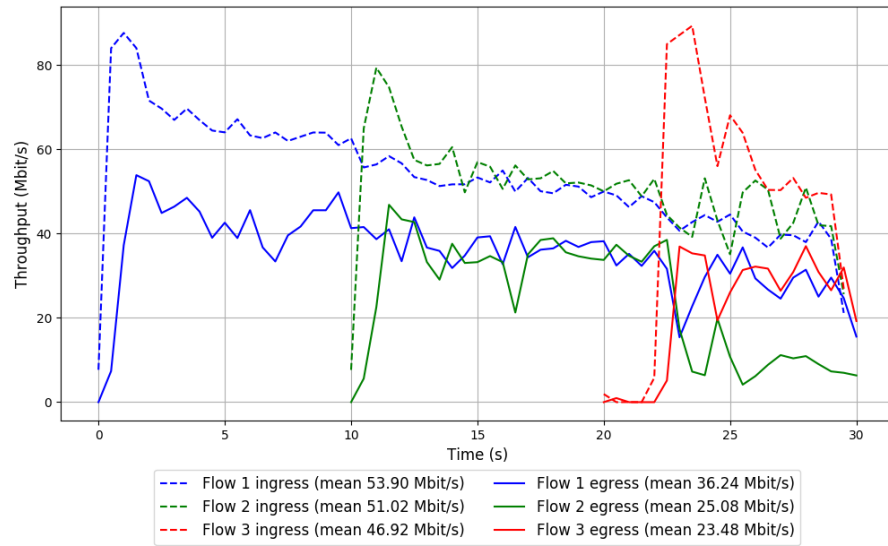
-- Flow 3:

Average throughput: 23.48 Mbit/s

95th percentile per-packet one-way delay: 19.994 ms

Loss rate: 49.95%

## Run 5: Report of Indigo — Data Link

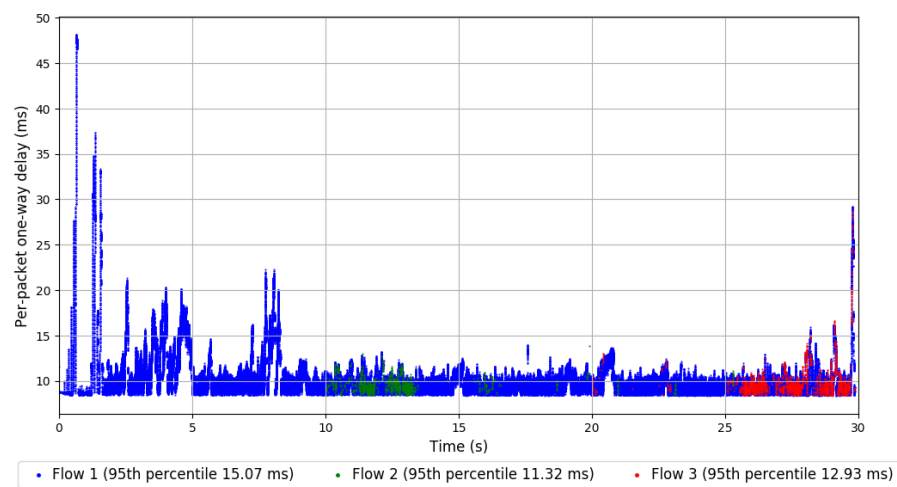
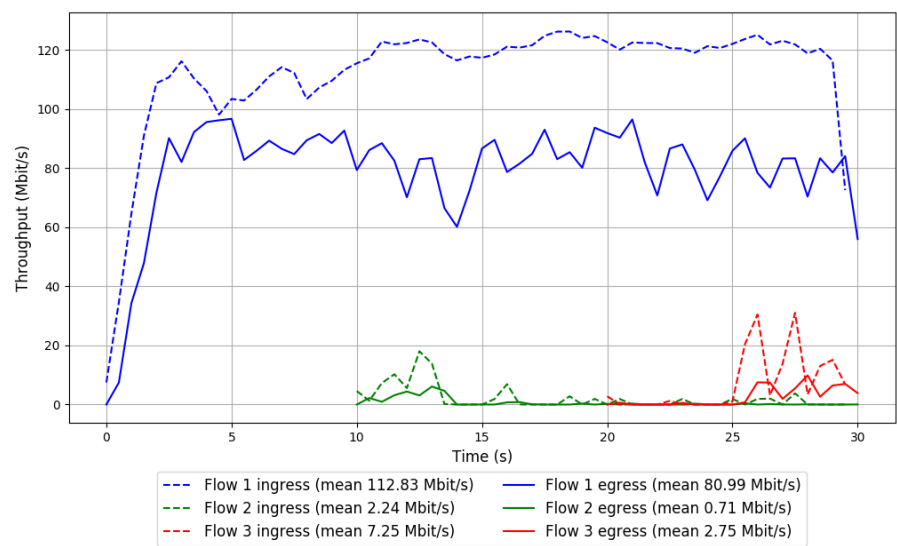


Run 1: Statistics of Indigo-MusesD

Start at: 2018-12-20 01:42:10  
End at: 2018-12-20 01:42:40  
Local clock offset: -1.857 ms  
Remote clock offset: -2.526 ms

# Below is generated by plot.py at 2018-12-20 03:40:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.36 Mbit/s  
95th percentile per-packet one-way delay: 15.033 ms  
Loss rate: 29.43%  
-- Flow 1:  
Average throughput: 80.99 Mbit/s  
95th percentile per-packet one-way delay: 15.068 ms  
Loss rate: 28.23%  
-- Flow 2:  
Average throughput: 0.71 Mbit/s  
95th percentile per-packet one-way delay: 11.321 ms  
Loss rate: 68.11%  
-- Flow 3:  
Average throughput: 2.75 Mbit/s  
95th percentile per-packet one-way delay: 12.926 ms  
Loss rate: 62.08%

Run 1: Report of Indigo-MusesD — Data Link

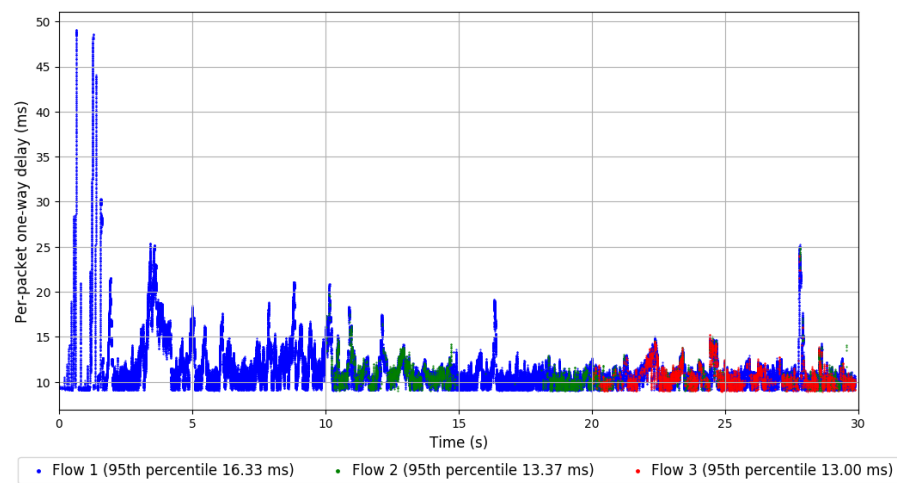
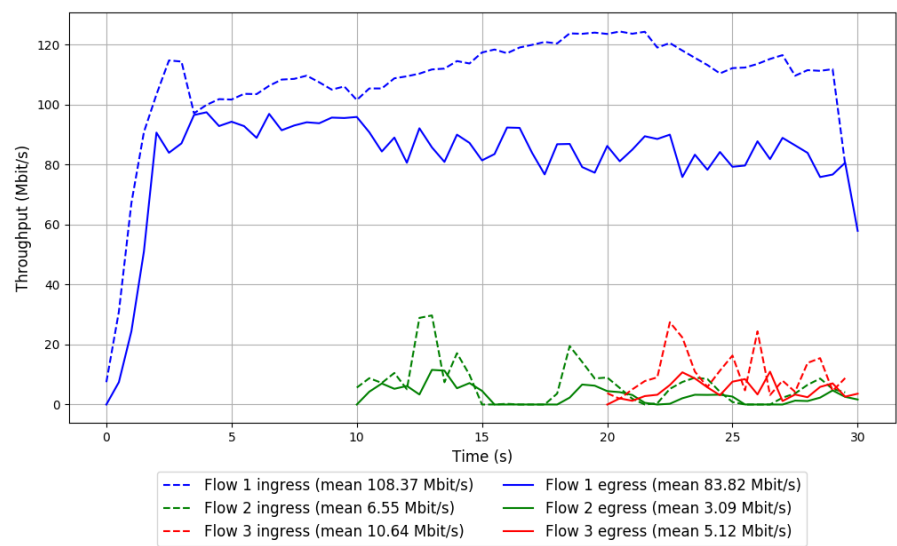


Run 2: Statistics of Indigo-MusesD

Start at: 2018-12-20 02:06:12  
End at: 2018-12-20 02:06:42  
Local clock offset: -4.078 ms  
Remote clock offset: -2.621 ms

# Below is generated by plot.py at 2018-12-20 03:41:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.55 Mbit/s  
95th percentile per-packet one-way delay: 16.227 ms  
Loss rate: 24.66%  
-- Flow 1:  
Average throughput: 83.82 Mbit/s  
95th percentile per-packet one-way delay: 16.333 ms  
Loss rate: 22.65%  
-- Flow 2:  
Average throughput: 3.09 Mbit/s  
95th percentile per-packet one-way delay: 13.365 ms  
Loss rate: 52.82%  
-- Flow 3:  
Average throughput: 5.12 Mbit/s  
95th percentile per-packet one-way delay: 13.004 ms  
Loss rate: 51.83%

Run 2: Report of Indigo-MusesD — Data Link



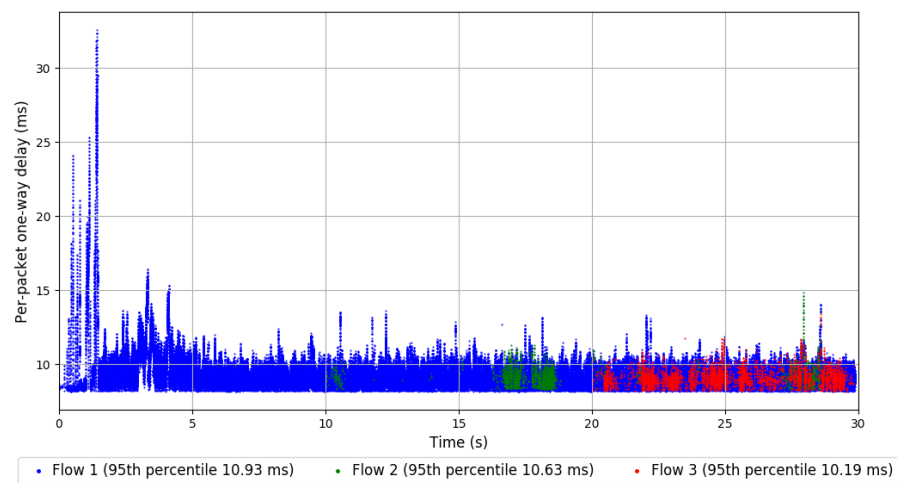
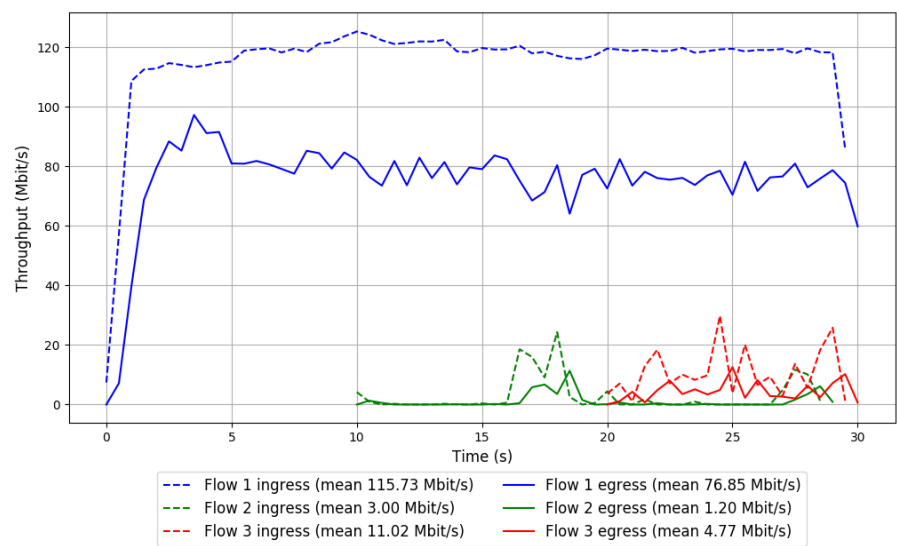


Run 3: Statistics of Indigo-MusesD

Start at: 2018-12-20 02:30:37  
End at: 2018-12-20 02:31:07  
Local clock offset: -3.74 ms  
Remote clock offset: -2.291 ms

# Below is generated by plot.py at 2018-12-20 03:41:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.18 Mbit/s  
95th percentile per-packet one-way delay: 10.904 ms  
Loss rate: 34.69%  
-- Flow 1:  
Average throughput: 76.85 Mbit/s  
95th percentile per-packet one-way delay: 10.926 ms  
Loss rate: 33.59%  
-- Flow 2:  
Average throughput: 1.20 Mbit/s  
95th percentile per-packet one-way delay: 10.630 ms  
Loss rate: 59.92%  
-- Flow 3:  
Average throughput: 4.77 Mbit/s  
95th percentile per-packet one-way delay: 10.189 ms  
Loss rate: 56.72%

Run 3: Report of Indigo-MusesD — Data Link

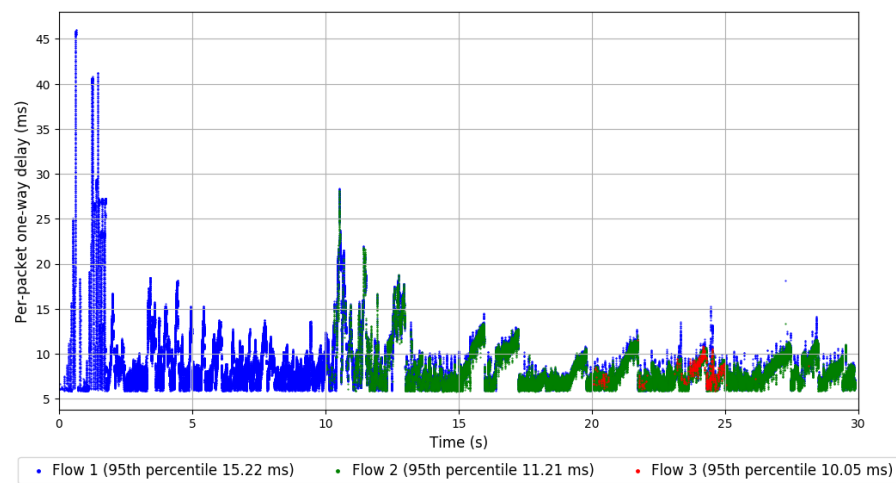
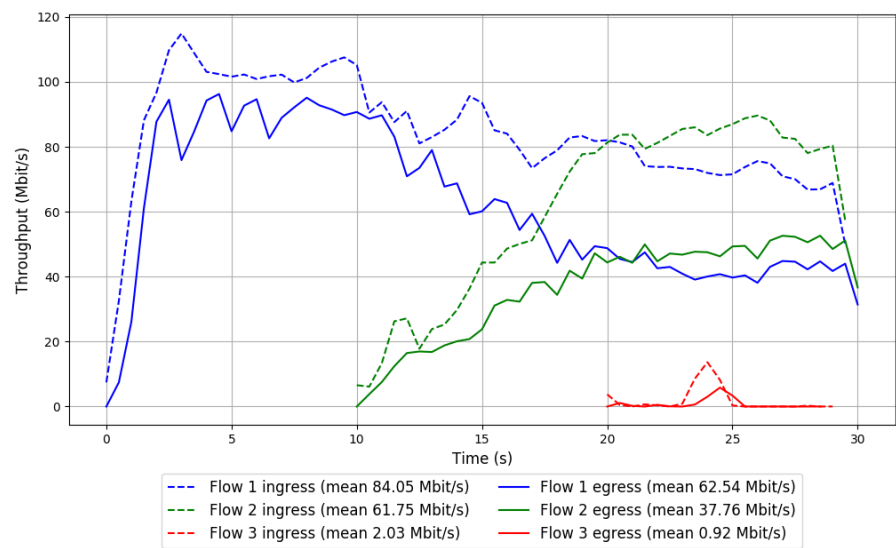


Run 4: Statistics of Indigo-MusesD

Start at: 2018-12-20 02:55:27  
End at: 2018-12-20 02:55:57  
Local clock offset: 1.667 ms  
Remote clock offset: -3.047 ms

# Below is generated by plot.py at 2018-12-20 03:41:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.88 Mbit/s  
95th percentile per-packet one-way delay: 14.050 ms  
Loss rate: 30.10%  
-- Flow 1:  
Average throughput: 62.54 Mbit/s  
95th percentile per-packet one-way delay: 15.216 ms  
Loss rate: 25.59%  
-- Flow 2:  
Average throughput: 37.76 Mbit/s  
95th percentile per-packet one-way delay: 11.213 ms  
Loss rate: 38.87%  
-- Flow 3:  
Average throughput: 0.92 Mbit/s  
95th percentile per-packet one-way delay: 10.052 ms  
Loss rate: 60.16%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2018-12-20 03:19:58

End at: 2018-12-20 03:20:28

Local clock offset: 1.331 ms

Remote clock offset: -3.16 ms

# Below is generated by plot.py at 2018-12-20 03:41:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.23 Mbit/s

95th percentile per-packet one-way delay: 13.122 ms

Loss rate: 32.22%

-- Flow 1:

Average throughput: 77.69 Mbit/s

95th percentile per-packet one-way delay: 13.309 ms

Loss rate: 30.13%

-- Flow 2:

Average throughput: 5.21 Mbit/s

95th percentile per-packet one-way delay: 9.841 ms

Loss rate: 57.92%

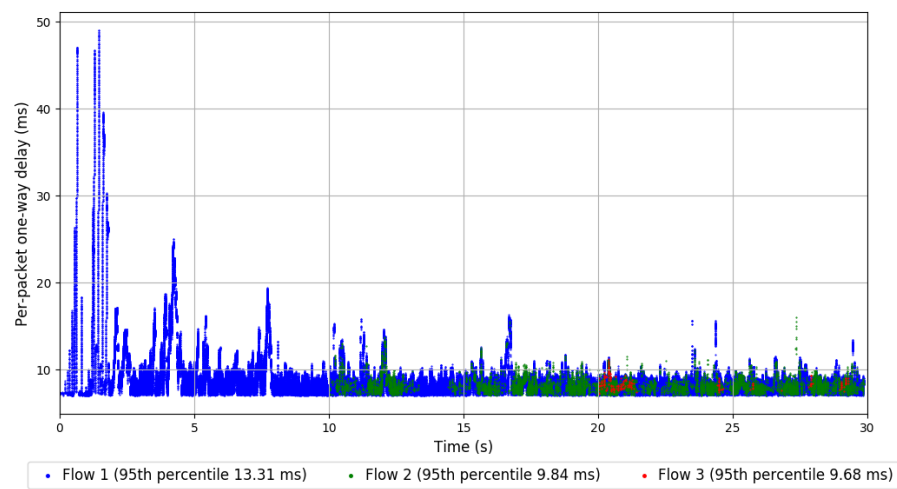
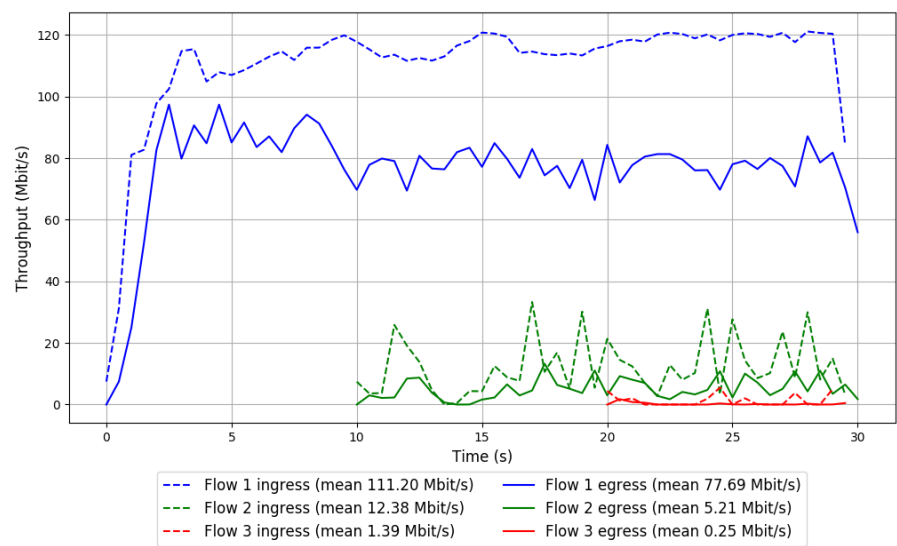
-- Flow 3:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 9.675 ms

Loss rate: 82.51%

Run 5: Report of Indigo-MusesD — Data Link

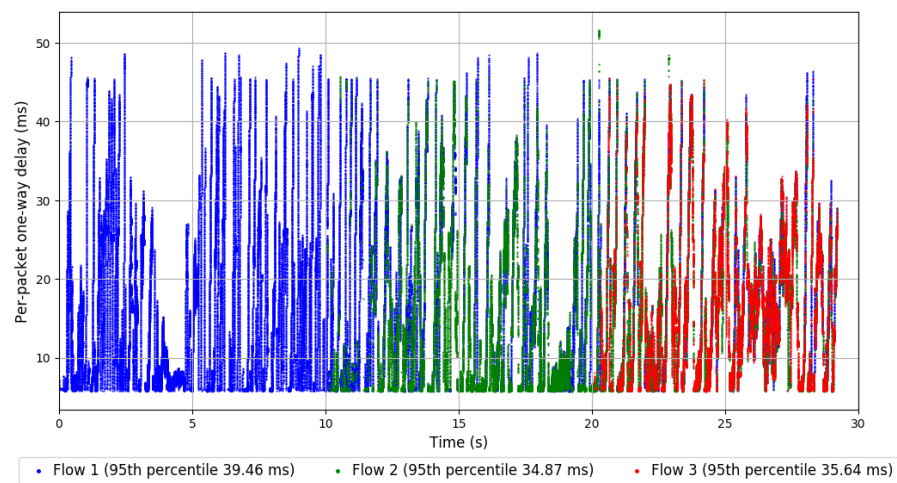
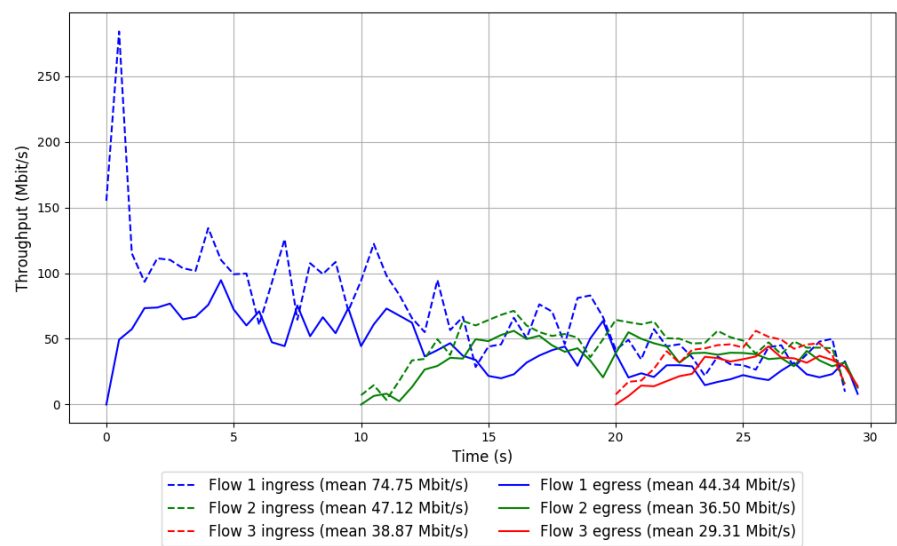


Run 1: Statistics of Indigo-MusesT

Start at: 2018-12-20 01:39:40  
End at: 2018-12-20 01:40:10  
Local clock offset: 0.457 ms  
Remote clock offset: -3.237 ms

# Below is generated by plot.py at 2018-12-20 03:41:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.37 Mbit/s  
95th percentile per-packet one-way delay: 38.106 ms  
Loss rate: 34.24%  
-- Flow 1:  
Average throughput: 44.34 Mbit/s  
95th percentile per-packet one-way delay: 39.461 ms  
Loss rate: 40.67%  
-- Flow 2:  
Average throughput: 36.50 Mbit/s  
95th percentile per-packet one-way delay: 34.869 ms  
Loss rate: 22.52%  
-- Flow 3:  
Average throughput: 29.31 Mbit/s  
95th percentile per-packet one-way delay: 35.644 ms  
Loss rate: 24.47%

Run 1: Report of Indigo-MusesT — Data Link



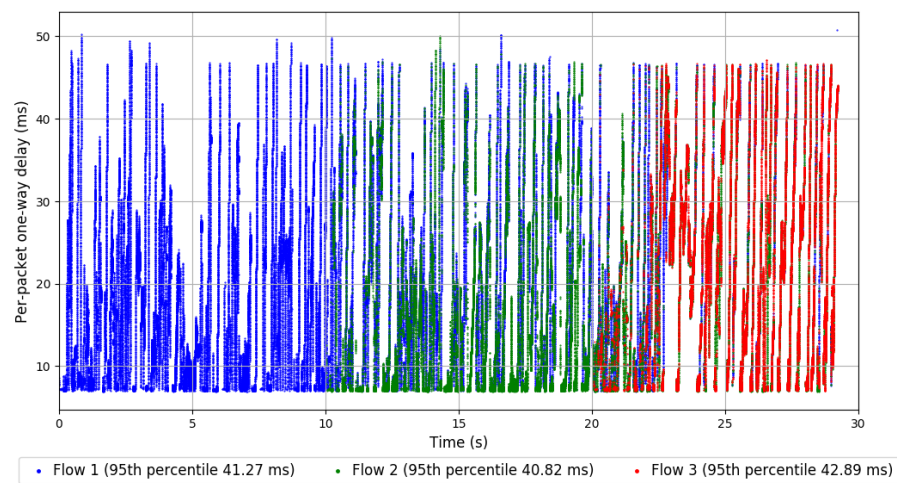
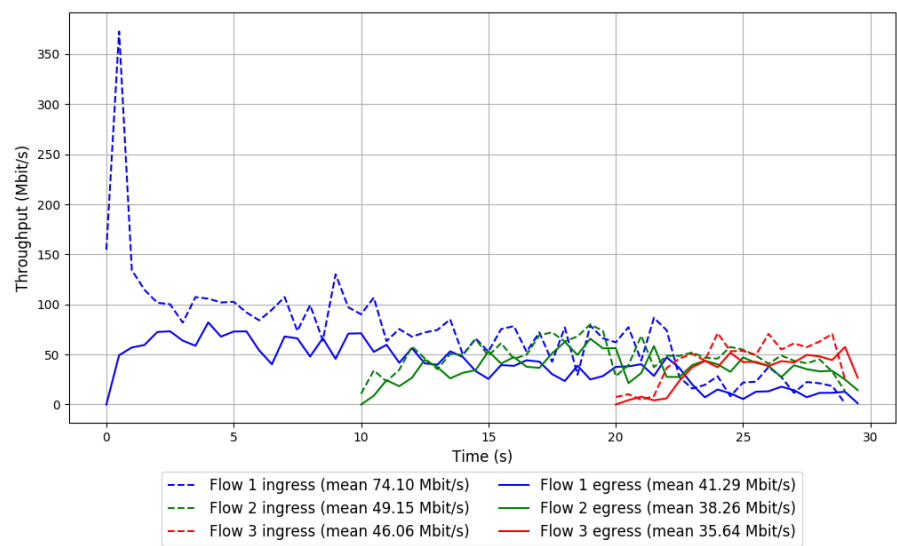


Run 2: Statistics of Indigo-MusesT

Start at: 2018-12-20 02:03:36  
End at: 2018-12-20 02:04:06  
Local clock offset: -2.065 ms  
Remote clock offset: -2.718 ms

# Below is generated by plot.py at 2018-12-20 03:41:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.55 Mbit/s  
95th percentile per-packet one-way delay: 41.556 ms  
Loss rate: 35.68%  
-- Flow 1:  
Average throughput: 41.29 Mbit/s  
95th percentile per-packet one-way delay: 41.271 ms  
Loss rate: 44.21%  
-- Flow 2:  
Average throughput: 38.26 Mbit/s  
95th percentile per-packet one-way delay: 40.818 ms  
Loss rate: 22.02%  
-- Flow 3:  
Average throughput: 35.64 Mbit/s  
95th percentile per-packet one-way delay: 42.889 ms  
Loss rate: 22.31%

Run 2: Report of Indigo-MusesT — Data Link

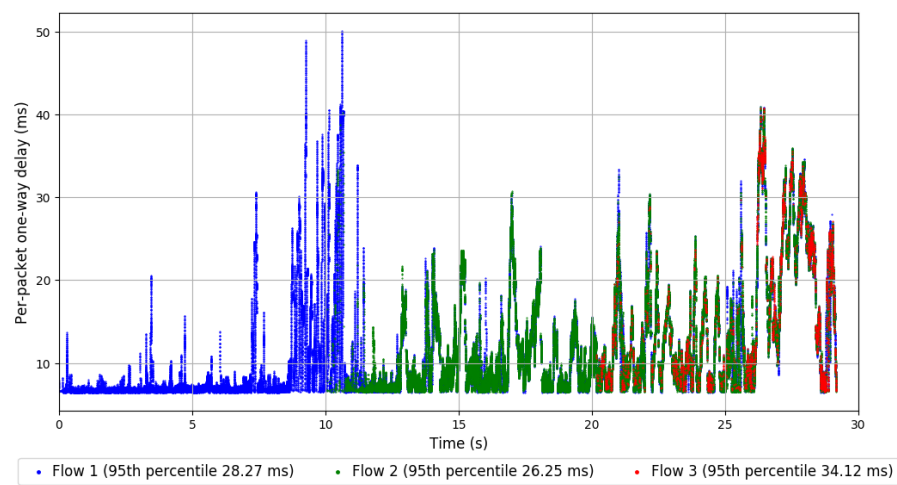
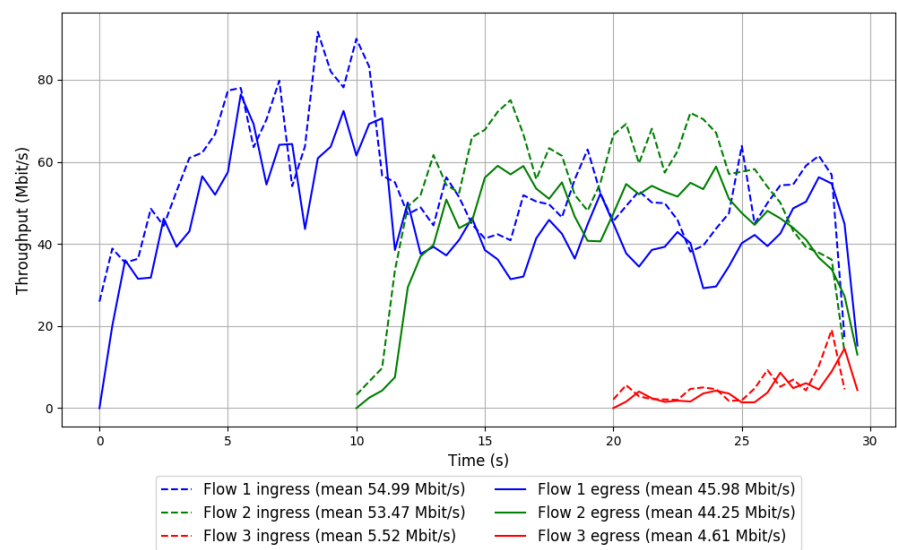


Run 3: Statistics of Indigo-MusesT

Start at: 2018-12-20 02:28:01  
End at: 2018-12-20 02:28:31  
Local clock offset: -2.081 ms  
Remote clock offset: -2.455 ms

# Below is generated by plot.py at 2018-12-20 03:41:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.41 Mbit/s  
95th percentile per-packet one-way delay: 27.878 ms  
Loss rate: 16.73%  
-- Flow 1:  
Average throughput: 45.98 Mbit/s  
95th percentile per-packet one-way delay: 28.273 ms  
Loss rate: 16.38%  
-- Flow 2:  
Average throughput: 44.25 Mbit/s  
95th percentile per-packet one-way delay: 26.251 ms  
Loss rate: 17.28%  
-- Flow 3:  
Average throughput: 4.61 Mbit/s  
95th percentile per-packet one-way delay: 34.115 ms  
Loss rate: 16.56%

Run 3: Report of Indigo-MusesT — Data Link

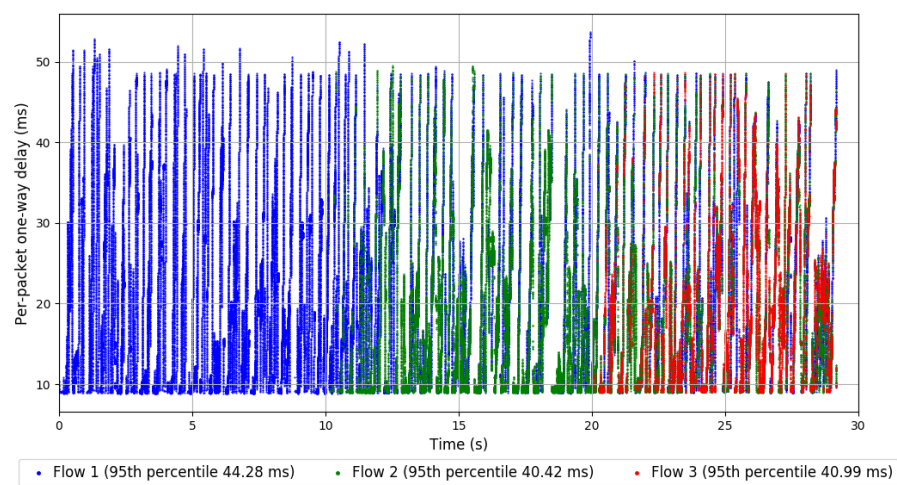
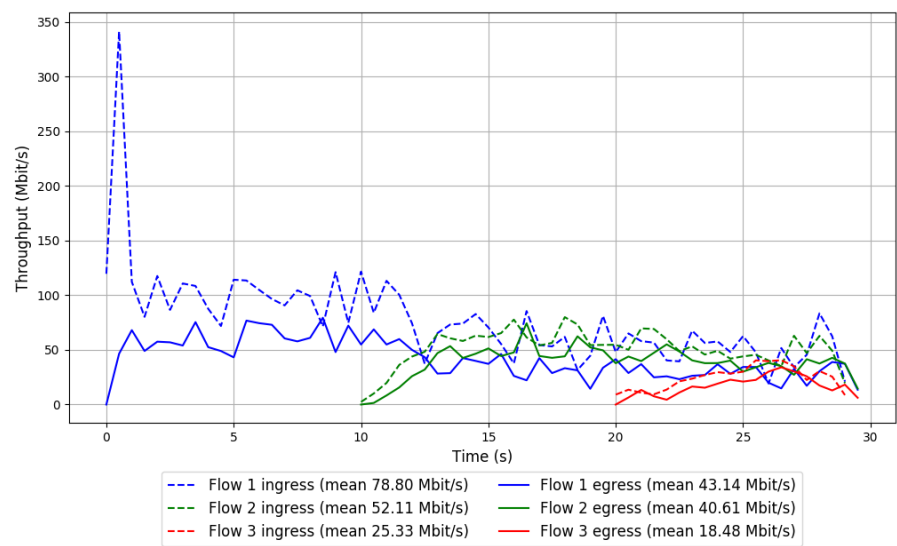


Run 4: Statistics of Indigo-MusesT

Start at: 2018-12-20 02:52:59  
End at: 2018-12-20 02:53:29  
Local clock offset: -0.903 ms  
Remote clock offset: -2.409 ms

# Below is generated by plot.py at 2018-12-20 03:41:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.52 Mbit/s  
95th percentile per-packet one-way delay: 42.988 ms  
Loss rate: 37.52%  
-- Flow 1:  
Average throughput: 43.14 Mbit/s  
95th percentile per-packet one-way delay: 44.282 ms  
Loss rate: 45.26%  
-- Flow 2:  
Average throughput: 40.61 Mbit/s  
95th percentile per-packet one-way delay: 40.418 ms  
Loss rate: 22.12%  
-- Flow 3:  
Average throughput: 18.48 Mbit/s  
95th percentile per-packet one-way delay: 40.988 ms  
Loss rate: 27.04%

Run 4: Report of Indigo-MusesT — Data Link

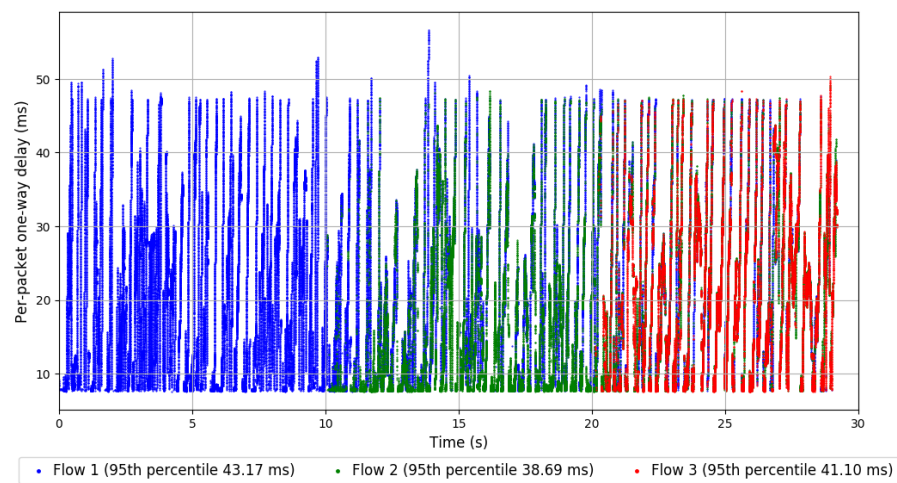
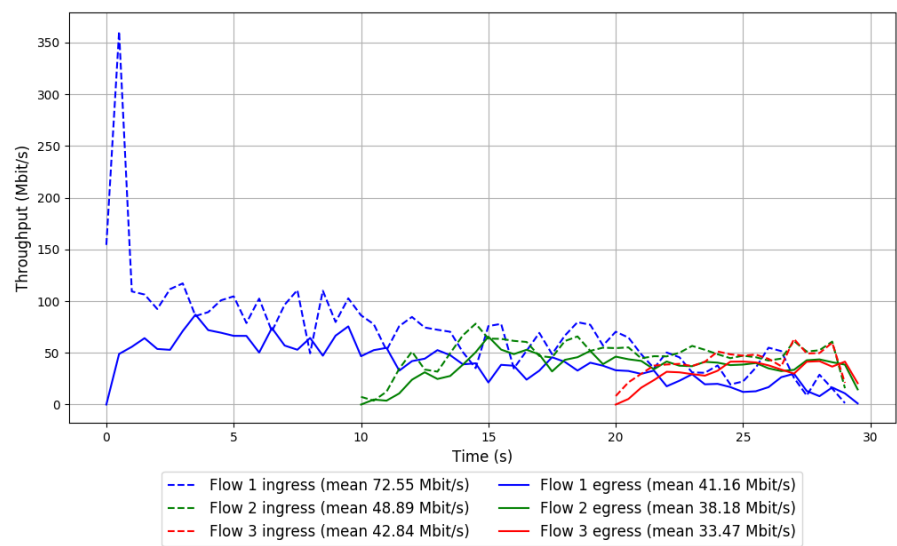


Run 5: Statistics of Indigo-MusesT

Start at: 2018-12-20 03:17:30  
End at: 2018-12-20 03:18:00  
Local clock offset: 0.941 ms  
Remote clock offset: -2.878 ms

# Below is generated by plot.py at 2018-12-20 03:42:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.55 Mbit/s  
95th percentile per-packet one-way delay: 41.899 ms  
Loss rate: 35.00%  
-- Flow 1:  
Average throughput: 41.16 Mbit/s  
95th percentile per-packet one-way delay: 43.169 ms  
Loss rate: 43.22%  
-- Flow 2:  
Average throughput: 38.18 Mbit/s  
95th percentile per-packet one-way delay: 38.686 ms  
Loss rate: 21.88%  
-- Flow 3:  
Average throughput: 33.47 Mbit/s  
95th percentile per-packet one-way delay: 41.104 ms  
Loss rate: 21.72%

Run 5: Report of Indigo-MusesT — Data Link



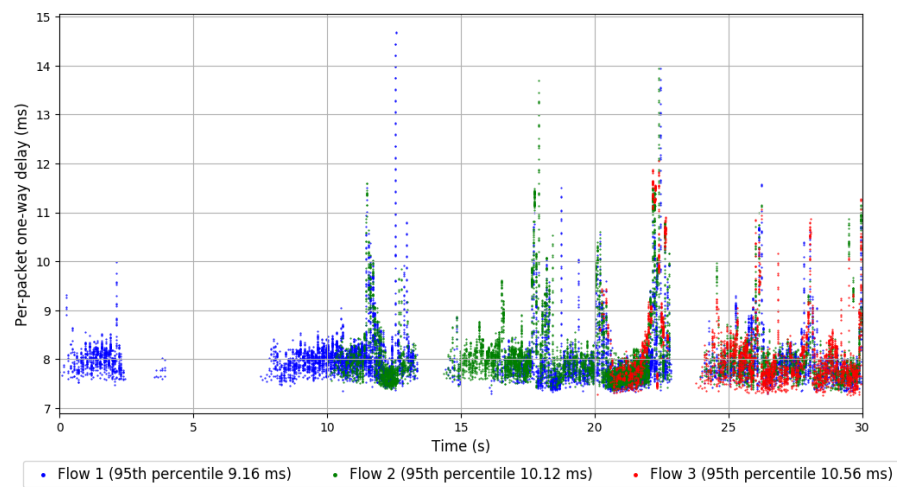
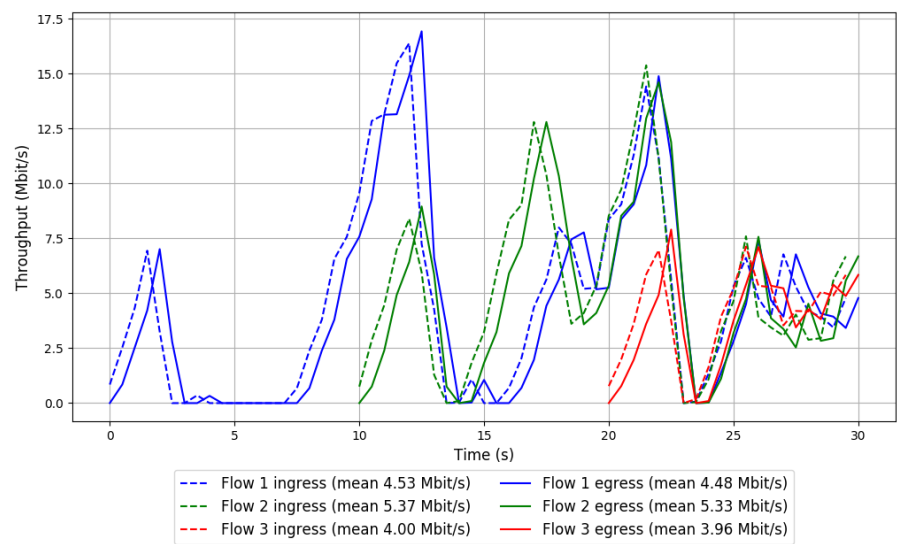


```
Run 1: Statistics of LEDBAT

Start at: 2018-12-20 01:38:28
End at: 2018-12-20 01:38:58
Local clock offset: -0.869 ms
Remote clock offset: -3.167 ms

# Below is generated by plot.py at 2018-12-20 03:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 9.778 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 9.162 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 10.118 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 10.564 ms
Loss rate: 0.97%
```

Run 1: Report of LEDBAT — Data Link

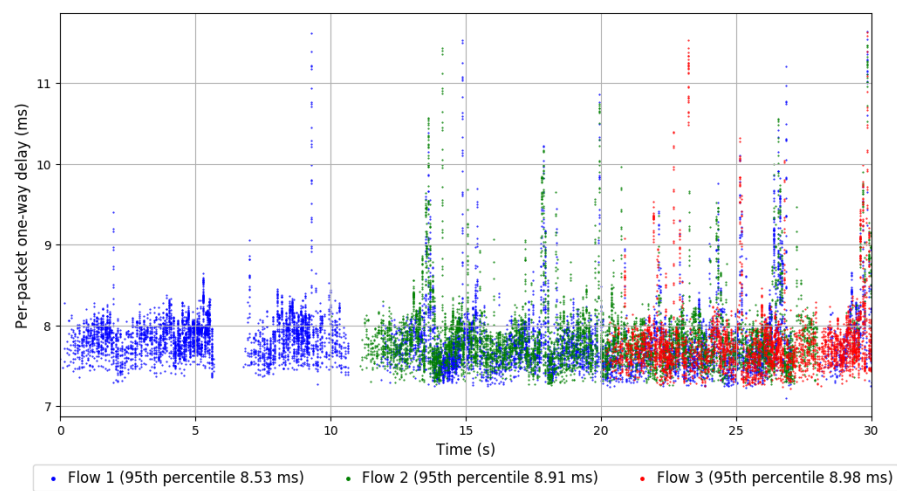
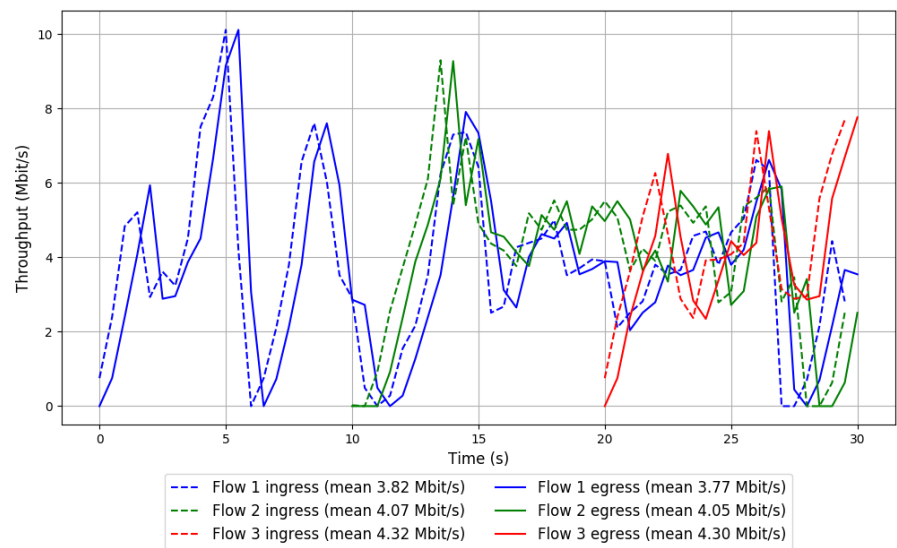


Run 2: Statistics of LEDBAT

Start at: 2018-12-20 02:02:26  
End at: 2018-12-20 02:02:56  
Local clock offset: -2.314 ms  
Remote clock offset: -2.733 ms

# Below is generated by plot.py at 2018-12-20 03:42:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 7.89 Mbit/s  
95th percentile per-packet one-way delay: 8.761 ms  
Loss rate: 0.94%  
-- Flow 1:  
Average throughput: 3.77 Mbit/s  
95th percentile per-packet one-way delay: 8.527 ms  
Loss rate: 1.34%  
-- Flow 2:  
Average throughput: 4.05 Mbit/s  
95th percentile per-packet one-way delay: 8.912 ms  
Loss rate: 0.60%  
-- Flow 3:  
Average throughput: 4.30 Mbit/s  
95th percentile per-packet one-way delay: 8.985 ms  
Loss rate: 0.52%

Run 2: Report of LEDBAT — Data Link

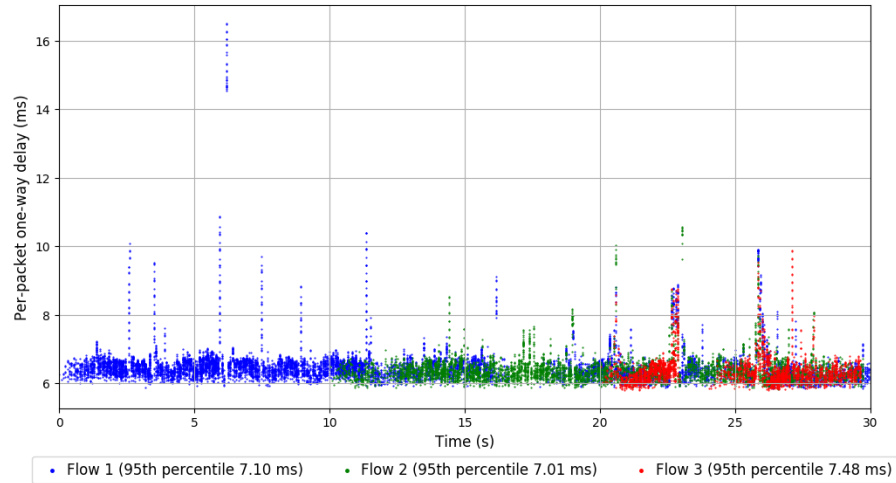
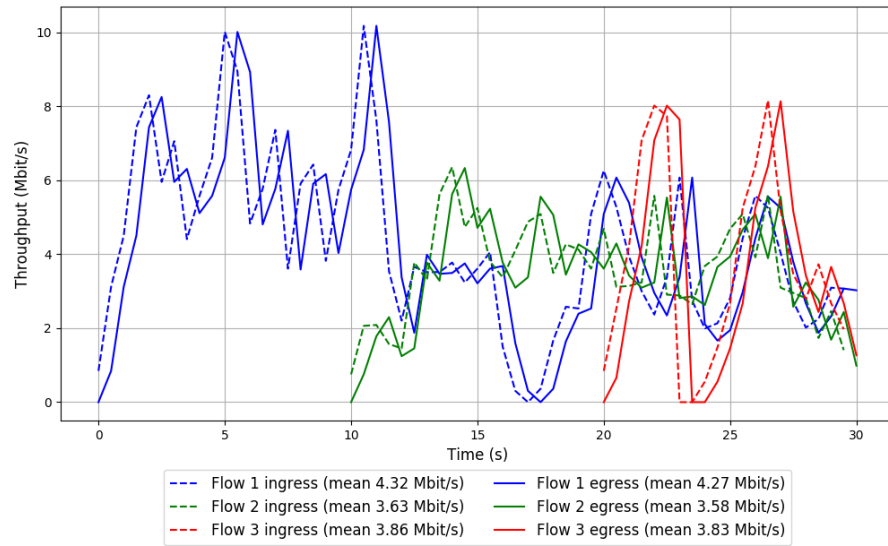


Run 3: Statistics of LEDBAT

Start at: 2018-12-20 02:26:49  
End at: 2018-12-20 02:27:19  
Local clock offset: -0.858 ms  
Remote clock offset: -1.911 ms

# Below is generated by plot.py at 2018-12-20 03:42:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 7.86 Mbit/s  
95th percentile per-packet one-way delay: 7.114 ms  
Loss rate: 1.30%  
-- Flow 1:  
Average throughput: 4.27 Mbit/s  
95th percentile per-packet one-way delay: 7.100 ms  
Loss rate: 1.03%  
-- Flow 2:  
Average throughput: 3.58 Mbit/s  
95th percentile per-packet one-way delay: 7.015 ms  
Loss rate: 1.54%  
-- Flow 3:  
Average throughput: 3.83 Mbit/s  
95th percentile per-packet one-way delay: 7.477 ms  
Loss rate: 1.79%

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

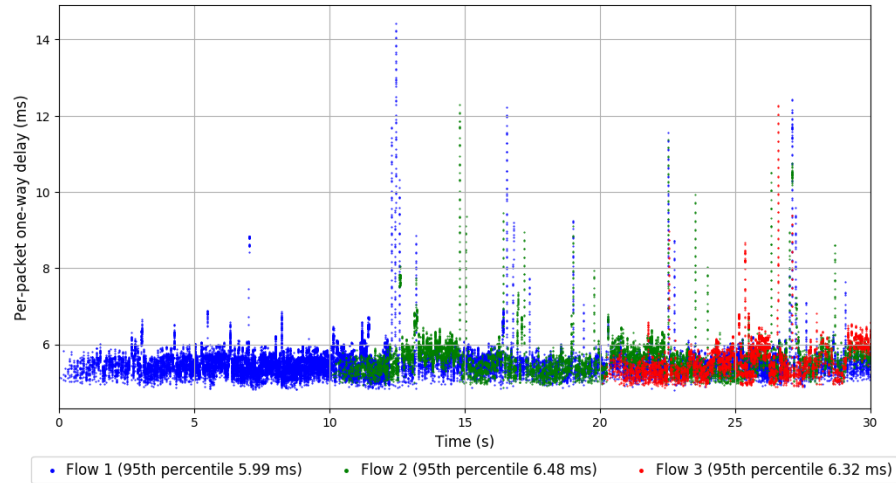
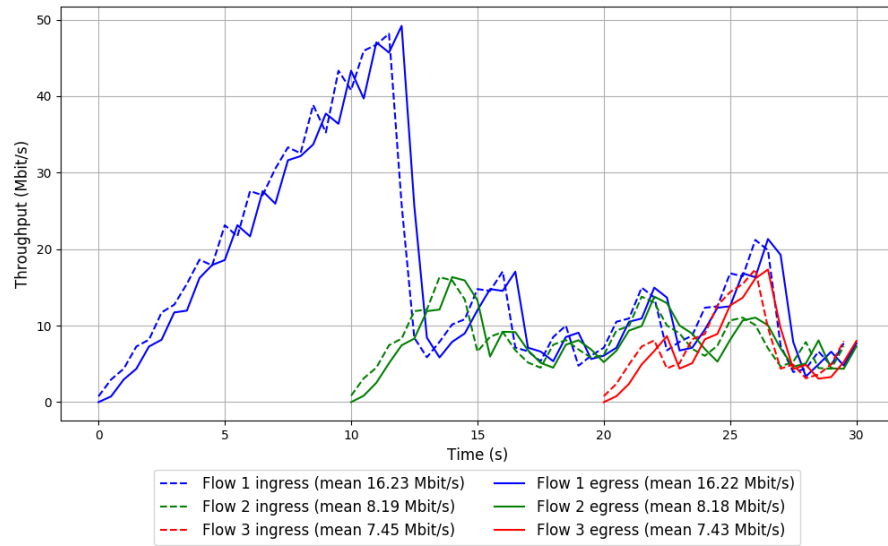


Run 4: Statistics of LEDBAT

Start at: 2018-12-20 02:51:49  
End at: 2018-12-20 02:52:19  
Local clock offset: 2.678 ms  
Remote clock offset: -2.727 ms

# Below is generated by plot.py at 2018-12-20 03:42:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 24.14 Mbit/s  
95th percentile per-packet one-way delay: 6.165 ms  
Loss rate: 0.08%  
-- Flow 1:  
Average throughput: 16.22 Mbit/s  
95th percentile per-packet one-way delay: 5.993 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 8.18 Mbit/s  
95th percentile per-packet one-way delay: 6.477 ms  
Loss rate: 0.13%  
-- Flow 3:  
Average throughput: 7.43 Mbit/s  
95th percentile per-packet one-way delay: 6.315 ms  
Loss rate: 0.14%

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



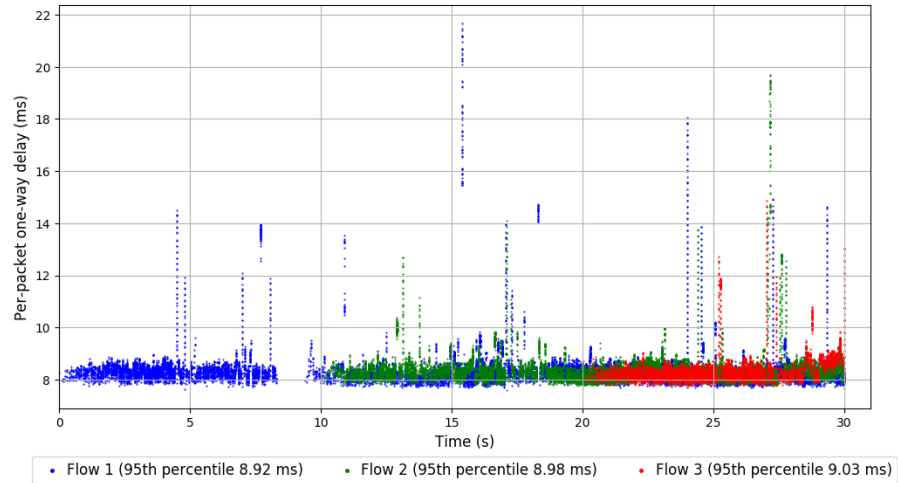
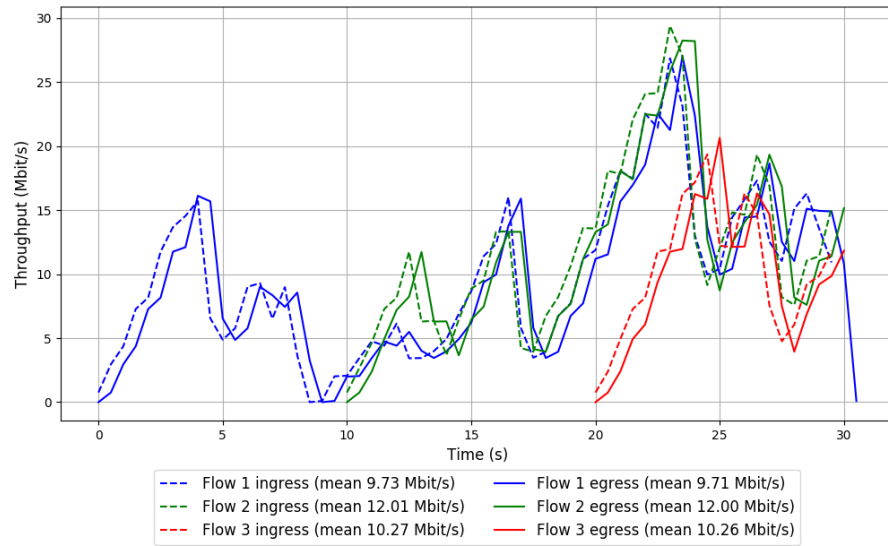


Run 5: Statistics of LEDBAT

Start at: 2018-12-20 03:16:18  
End at: 2018-12-20 03:16:48  
Local clock offset: 1.479 ms  
Remote clock offset: -2.219 ms

# Below is generated by plot.py at 2018-12-20 03:42:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 21.11 Mbit/s  
95th percentile per-packet one-way delay: 8.980 ms  
Loss rate: 0.14%  
-- Flow 1:  
Average throughput: 9.71 Mbit/s  
95th percentile per-packet one-way delay: 8.922 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 12.00 Mbit/s  
95th percentile per-packet one-way delay: 8.985 ms  
Loss rate: 0.07%  
-- Flow 3:  
Average throughput: 10.26 Mbit/s  
95th percentile per-packet one-way delay: 9.029 ms  
Loss rate: 0.07%

## Run 5: Report of LEDBAT — Data Link

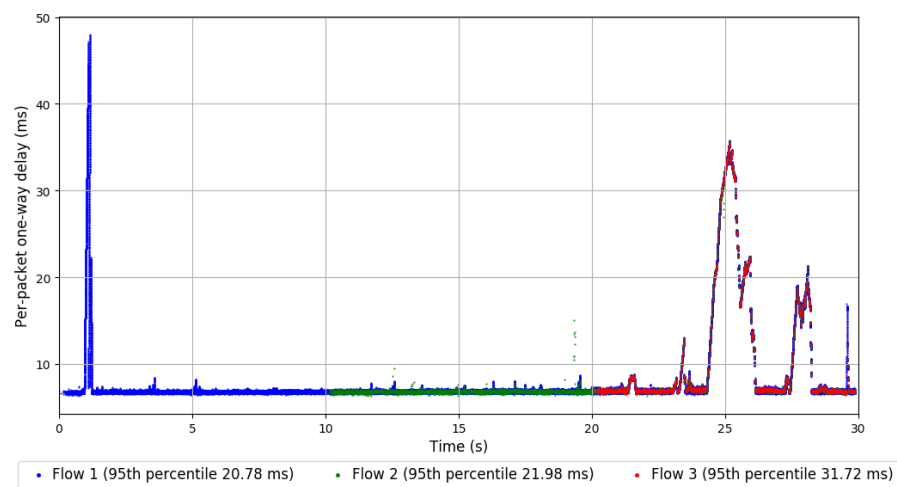
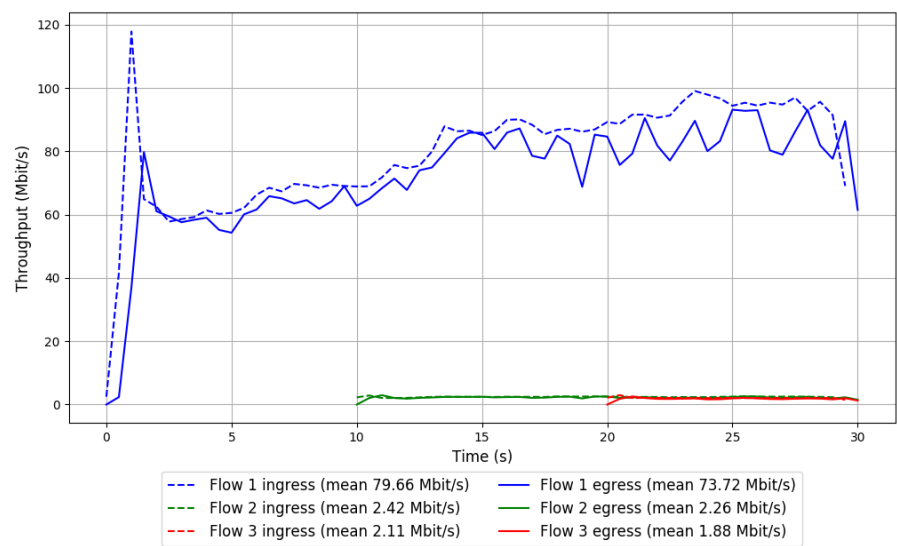


Run 1: Statistics of PCC-Allegro

Start at: 2018-12-20 01:47:08  
End at: 2018-12-20 01:47:38  
Local clock offset: -0.648 ms  
Remote clock offset: -2.768 ms

# Below is generated by plot.py at 2018-12-20 03:42:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.84 Mbit/s  
95th percentile per-packet one-way delay: 20.869 ms  
Loss rate: 7.47%  
-- Flow 1:  
Average throughput: 73.72 Mbit/s  
95th percentile per-packet one-way delay: 20.784 ms  
Loss rate: 7.45%  
-- Flow 2:  
Average throughput: 2.26 Mbit/s  
95th percentile per-packet one-way delay: 21.975 ms  
Loss rate: 6.98%  
-- Flow 3:  
Average throughput: 1.88 Mbit/s  
95th percentile per-packet one-way delay: 31.718 ms  
Loss rate: 10.84%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-12-20 02:11:31

End at: 2018-12-20 02:12:01

Local clock offset: -1.782 ms

Remote clock offset: -2.75 ms

# Below is generated by plot.py at 2018-12-20 03:42:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 68.55 Mbit/s

95th percentile per-packet one-way delay: 6.928 ms

Loss rate: 8.74%

-- Flow 1:

Average throughput: 65.81 Mbit/s

95th percentile per-packet one-way delay: 6.930 ms

Loss rate: 8.79%

-- Flow 2:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 6.885 ms

Loss rate: 7.81%

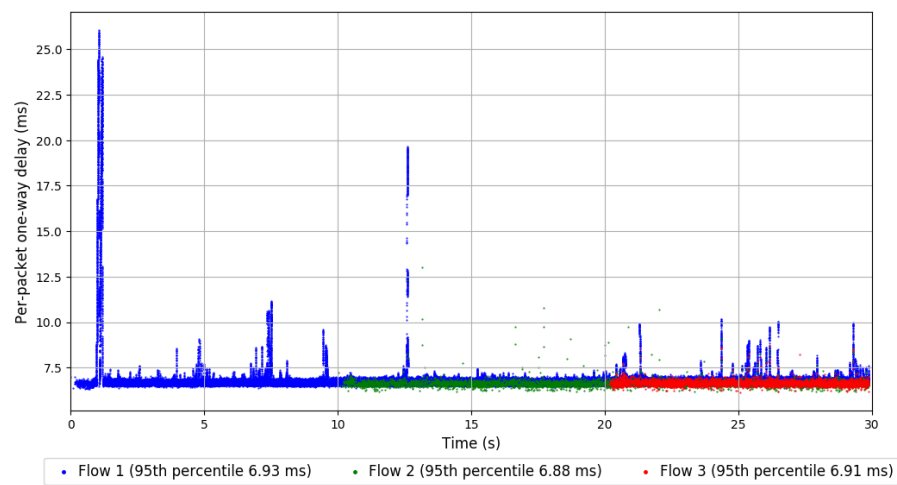
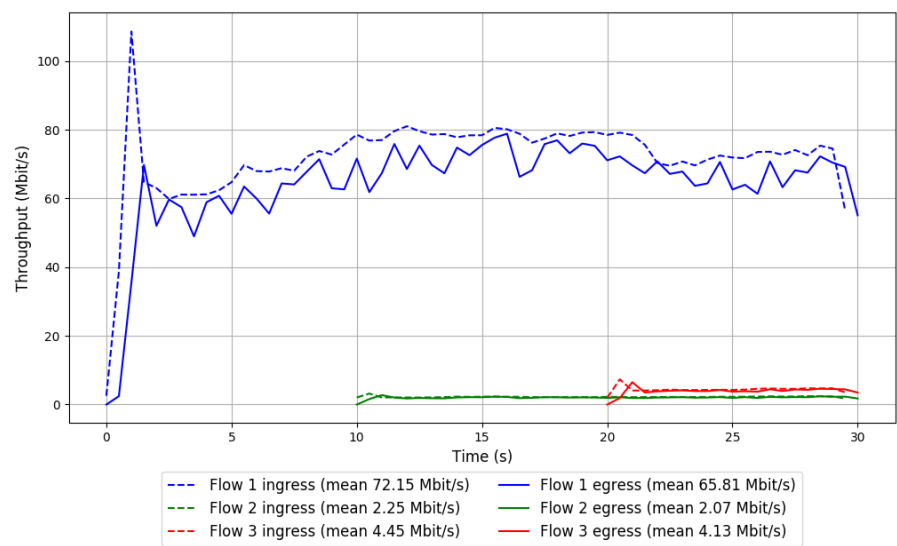
-- Flow 3:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 6.908 ms

Loss rate: 7.16%

Run 2: Report of PCC-Allegro — Data Link

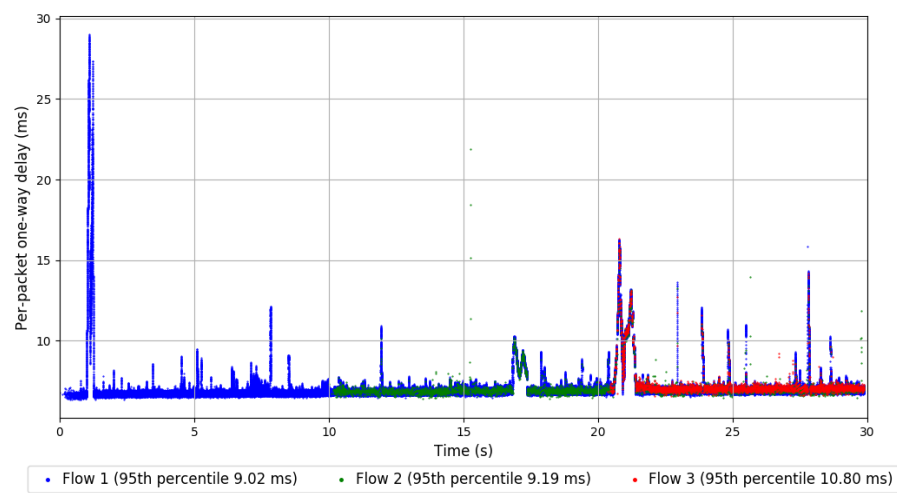
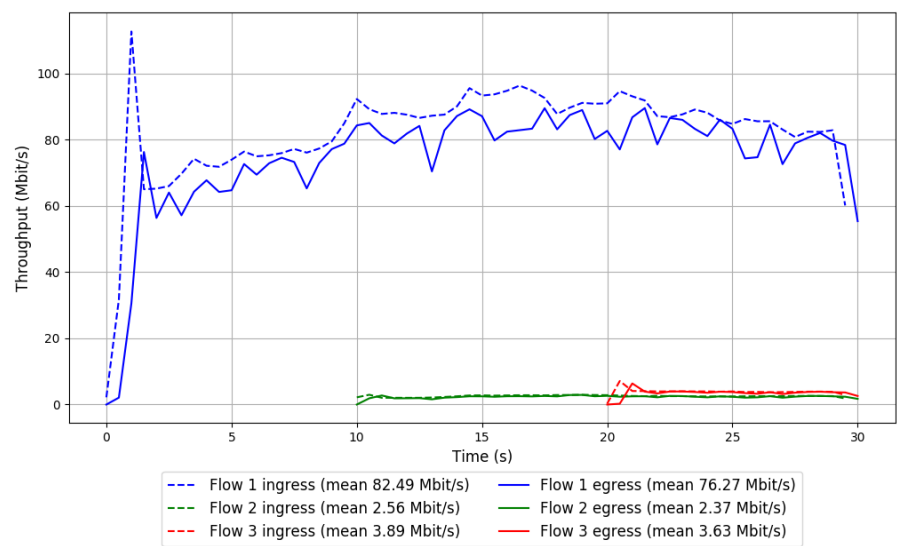


Run 3: Statistics of PCC-Allegro

Start at: 2018-12-20 02:35:43  
End at: 2018-12-20 02:36:13  
Local clock offset: -2.216 ms  
Remote clock offset: -2.552 ms

# Below is generated by plot.py at 2018-12-20 03:42:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.04 Mbit/s  
95th percentile per-packet one-way delay: 9.068 ms  
Loss rate: 7.54%  
-- Flow 1:  
Average throughput: 76.27 Mbit/s  
95th percentile per-packet one-way delay: 9.024 ms  
Loss rate: 7.55%  
-- Flow 2:  
Average throughput: 2.37 Mbit/s  
95th percentile per-packet one-way delay: 9.193 ms  
Loss rate: 7.54%  
-- Flow 3:  
Average throughput: 3.63 Mbit/s  
95th percentile per-packet one-way delay: 10.797 ms  
Loss rate: 6.77%

Run 3: Report of PCC-Allegro — Data Link





Run 4: Statistics of PCC-Allegro

Start at: 2018-12-20 03:00:37

End at: 2018-12-20 03:01:07

Local clock offset: 0.093 ms

Remote clock offset: -2.38 ms

# Below is generated by plot.py at 2018-12-20 03:42:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 66.50 Mbit/s

95th percentile per-packet one-way delay: 9.129 ms

Loss rate: 12.36%

-- Flow 1:

Average throughput: 64.68 Mbit/s

95th percentile per-packet one-way delay: 9.118 ms

Loss rate: 12.39%

-- Flow 2:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 9.281 ms

Loss rate: 11.95%

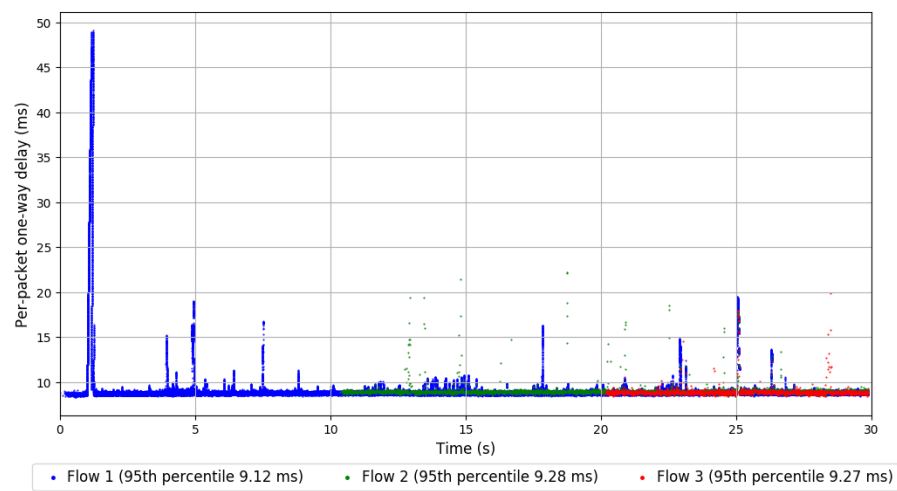
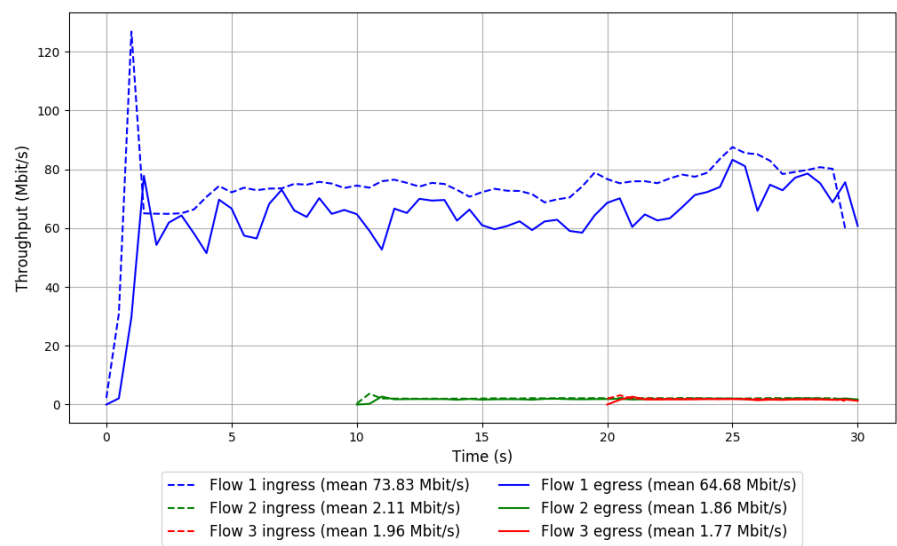
-- Flow 3:

Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 9.268 ms

Loss rate: 9.91%

Run 4: Report of PCC-Allegro — Data Link

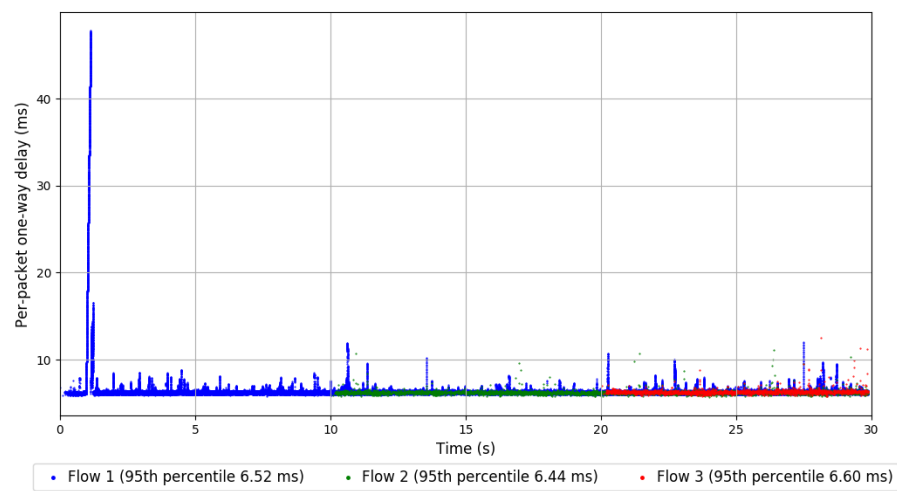
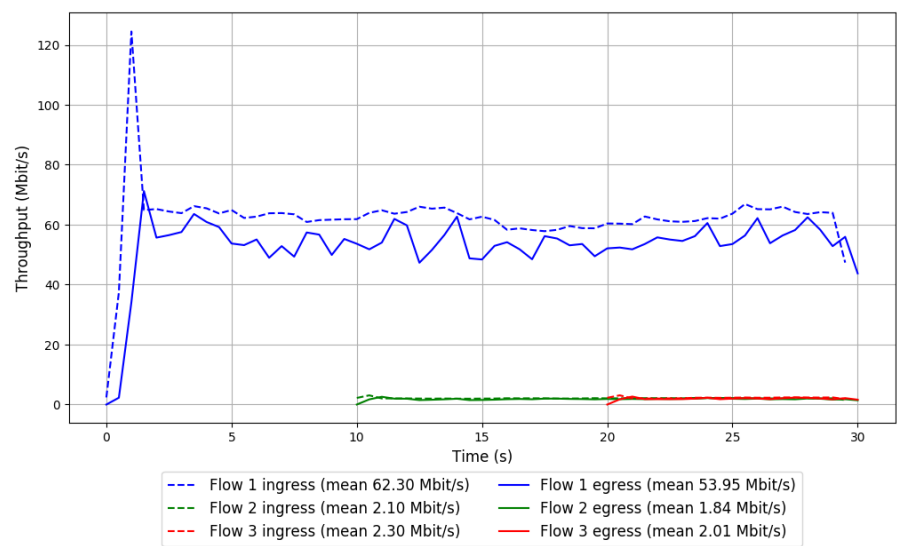


Run 5: Statistics of PCC-Allegro

Start at: 2018-12-20 03:24:56  
End at: 2018-12-20 03:25:26  
Local clock offset: 3.297 ms  
Remote clock offset: -2.591 ms

# Below is generated by plot.py at 2018-12-20 03:42:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 55.85 Mbit/s  
95th percentile per-packet one-way delay: 6.518 ms  
Loss rate: 13.35%  
-- Flow 1:  
Average throughput: 53.95 Mbit/s  
95th percentile per-packet one-way delay: 6.520 ms  
Loss rate: 13.39%  
-- Flow 2:  
Average throughput: 1.84 Mbit/s  
95th percentile per-packet one-way delay: 6.442 ms  
Loss rate: 12.18%  
-- Flow 3:  
Average throughput: 2.01 Mbit/s  
95th percentile per-packet one-way delay: 6.596 ms  
Loss rate: 12.22%

Run 5: Report of PCC-Allegro — Data Link

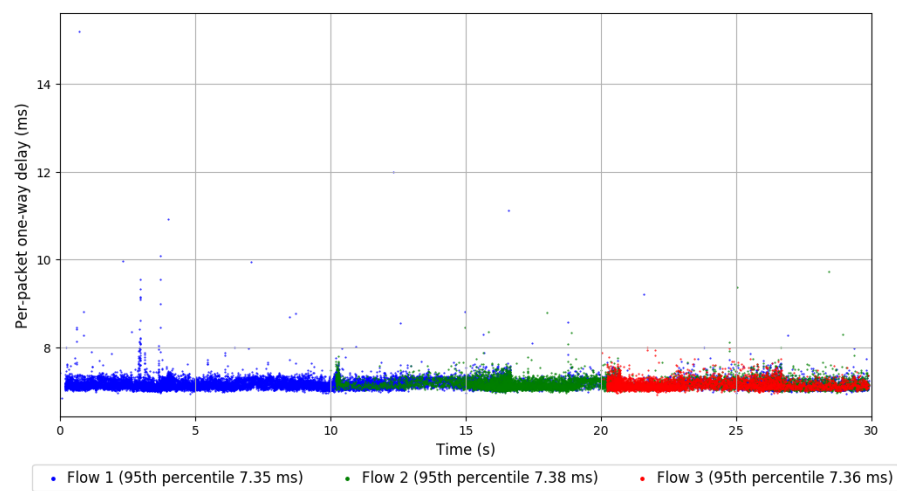
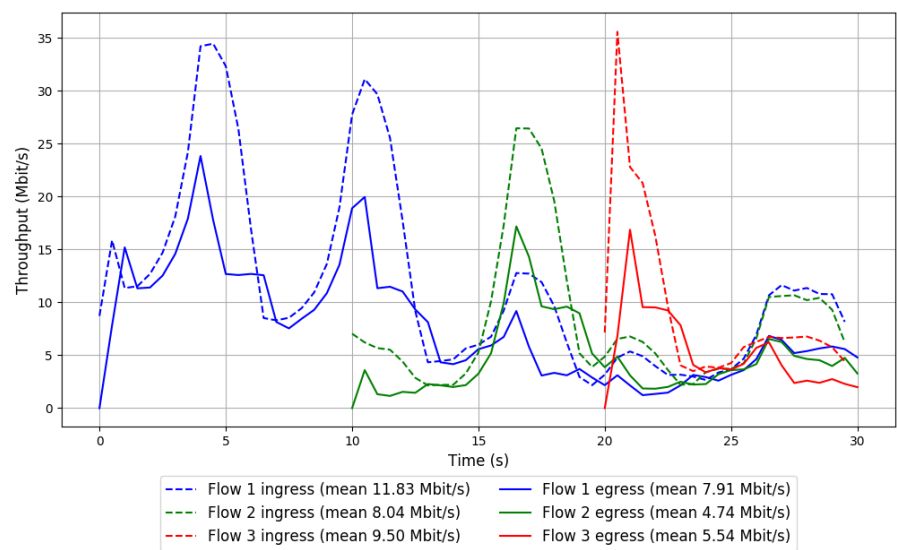


```
Run 1: Statistics of PCC-Expr

Start at: 2018-12-20 01:48:24
End at: 2018-12-20 01:48:54
Local clock offset: -1.048 ms
Remote clock offset: -2.505 ms

# Below is generated by plot.py at 2018-12-20 03:42:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.88 Mbit/s
95th percentile per-packet one-way delay: 7.357 ms
Loss rate: 36.58%
-- Flow 1:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 7.349 ms
Loss rate: 33.17%
-- Flow 2:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 7.382 ms
Loss rate: 41.08%
-- Flow 3:
Average throughput: 5.54 Mbit/s
95th percentile per-packet one-way delay: 7.358 ms
Loss rate: 41.77%
```

Run 1: Report of PCC-Expr — Data Link

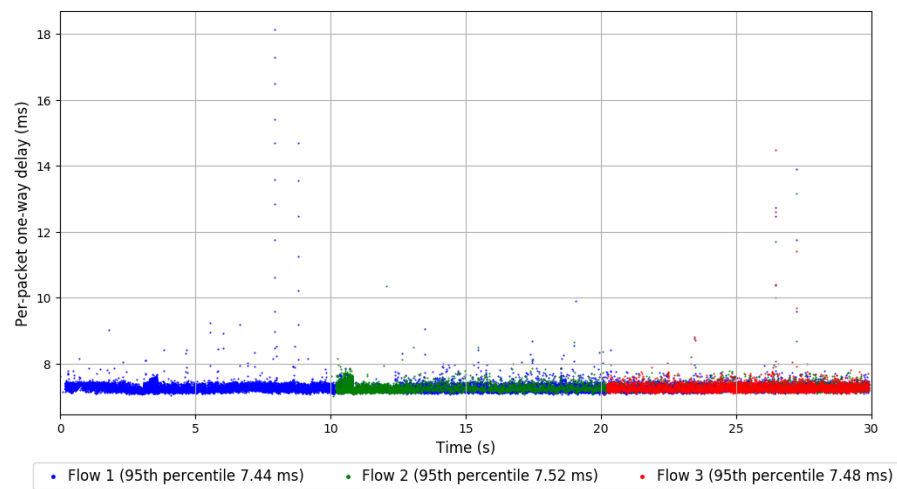
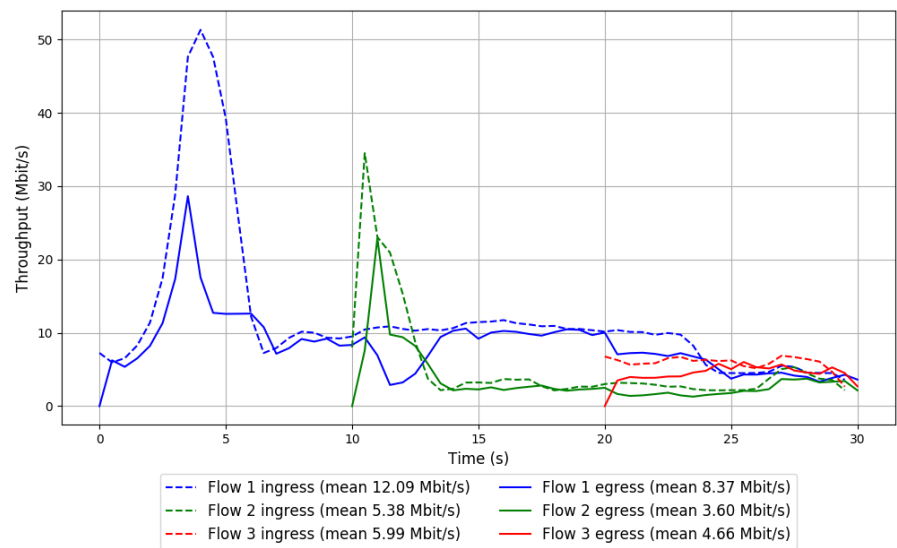


Run 2: Statistics of PCC-Expr

Start at: 2018-12-20 02:12:47  
End at: 2018-12-20 02:13:17  
Local clock offset: -2.528 ms  
Remote clock offset: -2.754 ms

# Below is generated by plot.py at 2018-12-20 03:42:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.31 Mbit/s  
95th percentile per-packet one-way delay: 7.459 ms  
Loss rate: 30.29%  
-- Flow 1:  
Average throughput: 8.37 Mbit/s  
95th percentile per-packet one-way delay: 7.439 ms  
Loss rate: 30.77%  
-- Flow 2:  
Average throughput: 3.60 Mbit/s  
95th percentile per-packet one-way delay: 7.518 ms  
Loss rate: 33.13%  
-- Flow 3:  
Average throughput: 4.66 Mbit/s  
95th percentile per-packet one-way delay: 7.480 ms  
Loss rate: 22.21%

Run 2: Report of PCC-Expr — Data Link



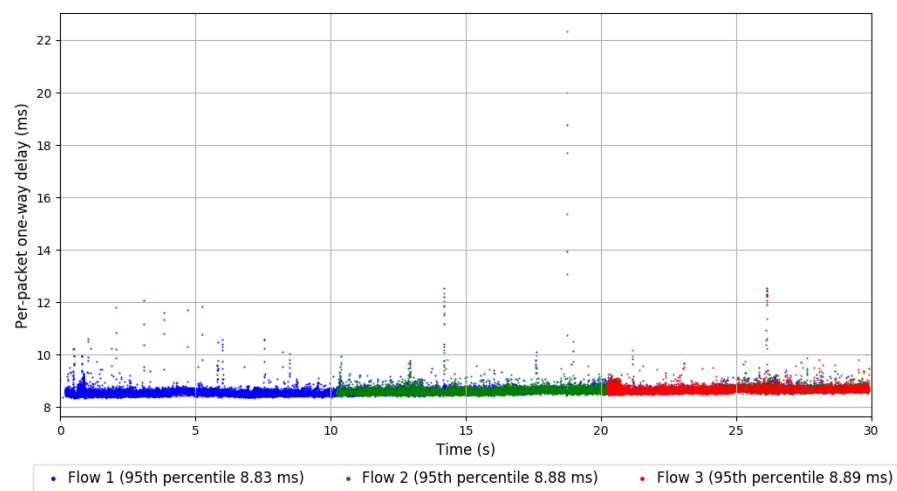
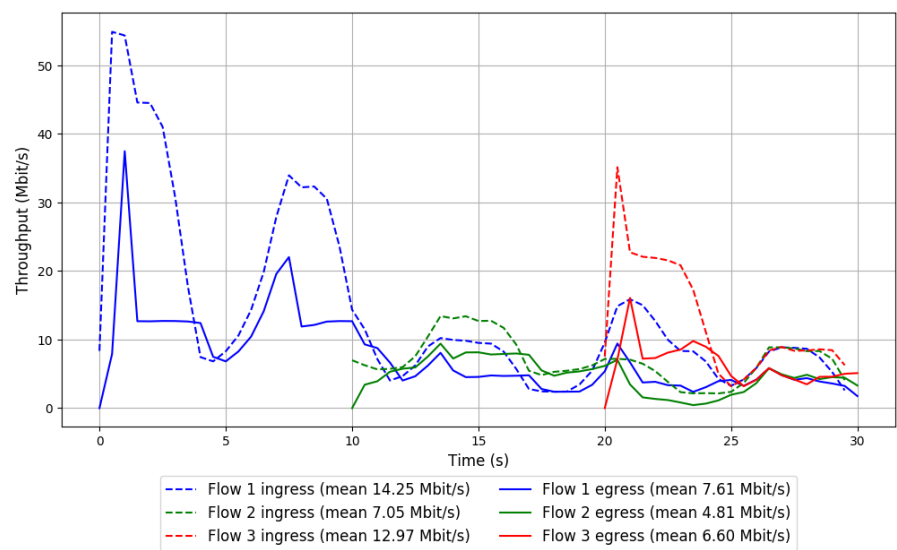


Run 3: Statistics of PCC-Expr

Start at: 2018-12-20 02:37:02  
End at: 2018-12-20 02:37:32  
Local clock offset: -4.06 ms  
Remote clock offset: -3.039 ms

# Below is generated by plot.py at 2018-12-20 03:42:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.99 Mbit/s  
95th percentile per-packet one-way delay: 8.857 ms  
Loss rate: 44.07%  
-- Flow 1:  
Average throughput: 7.61 Mbit/s  
95th percentile per-packet one-way delay: 8.833 ms  
Loss rate: 46.59%  
-- Flow 2:  
Average throughput: 4.81 Mbit/s  
95th percentile per-packet one-way delay: 8.879 ms  
Loss rate: 31.82%  
-- Flow 3:  
Average throughput: 6.60 Mbit/s  
95th percentile per-packet one-way delay: 8.886 ms  
Loss rate: 49.07%

Run 3: Report of PCC-Expr — Data Link

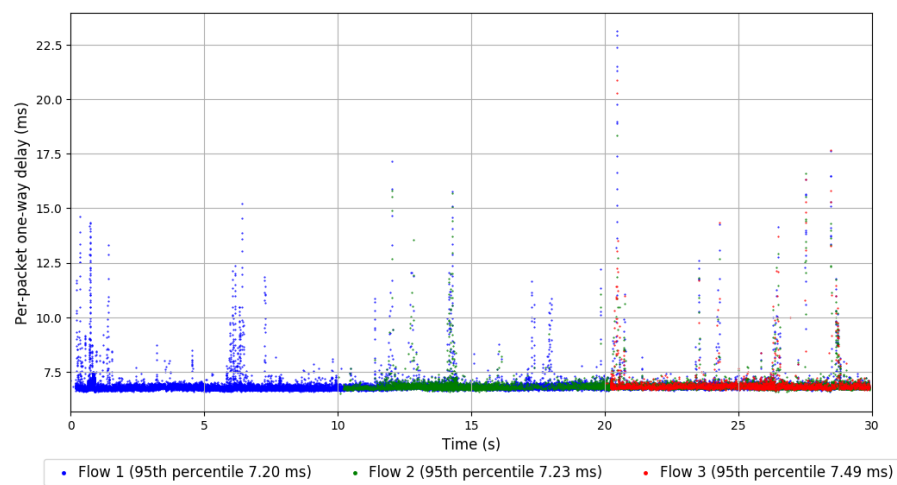
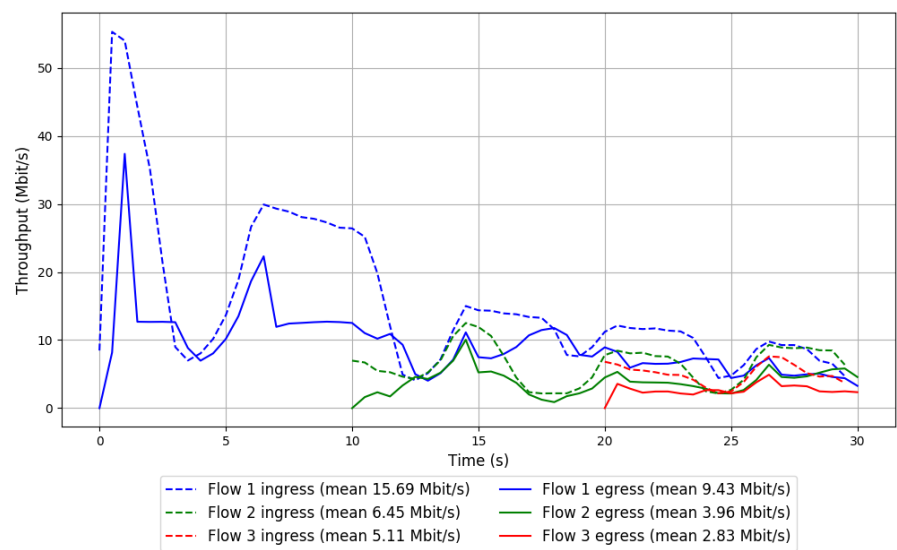


Run 4: Statistics of PCC-Expr

Start at: 2018-12-20 03:01:55  
End at: 2018-12-20 03:02:25  
Local clock offset: 1.739 ms  
Remote clock offset: -2.728 ms

# Below is generated by plot.py at 2018-12-20 03:42:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.00 Mbit/s  
95th percentile per-packet one-way delay: 7.215 ms  
Loss rate: 40.02%  
-- Flow 1:  
Average throughput: 9.43 Mbit/s  
95th percentile per-packet one-way delay: 7.195 ms  
Loss rate: 39.89%  
-- Flow 2:  
Average throughput: 3.96 Mbit/s  
95th percentile per-packet one-way delay: 7.227 ms  
Loss rate: 38.66%  
-- Flow 3:  
Average throughput: 2.83 Mbit/s  
95th percentile per-packet one-way delay: 7.485 ms  
Loss rate: 44.71%

Run 4: Report of PCC-Expr — Data Link

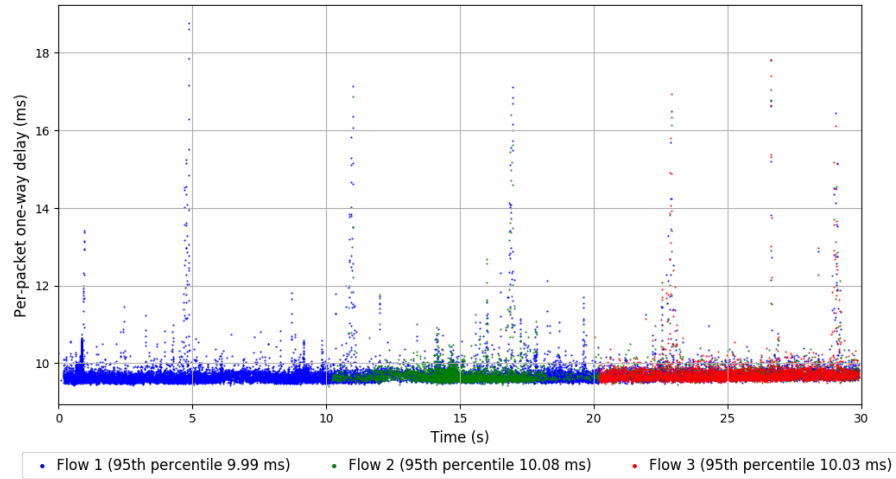
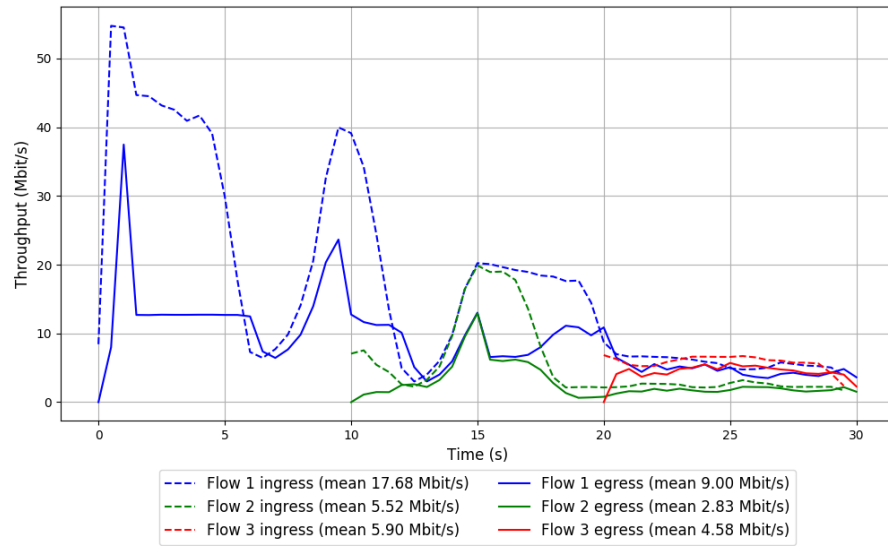


Run 5: Statistics of PCC-Expr

Start at: 2018-12-20 03:26:12  
End at: 2018-12-20 03:26:42  
Local clock offset: -1.167 ms  
Remote clock offset: -3.517 ms

# Below is generated by plot.py at 2018-12-20 03:42:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.40 Mbit/s  
95th percentile per-packet one-way delay: 10.013 ms  
Loss rate: 46.78%  
-- Flow 1:  
Average throughput: 9.00 Mbit/s  
95th percentile per-packet one-way delay: 9.989 ms  
Loss rate: 49.08%  
-- Flow 2:  
Average throughput: 2.83 Mbit/s  
95th percentile per-packet one-way delay: 10.081 ms  
Loss rate: 48.67%  
-- Flow 3:  
Average throughput: 4.58 Mbit/s  
95th percentile per-packet one-way delay: 10.031 ms  
Loss rate: 22.33%

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

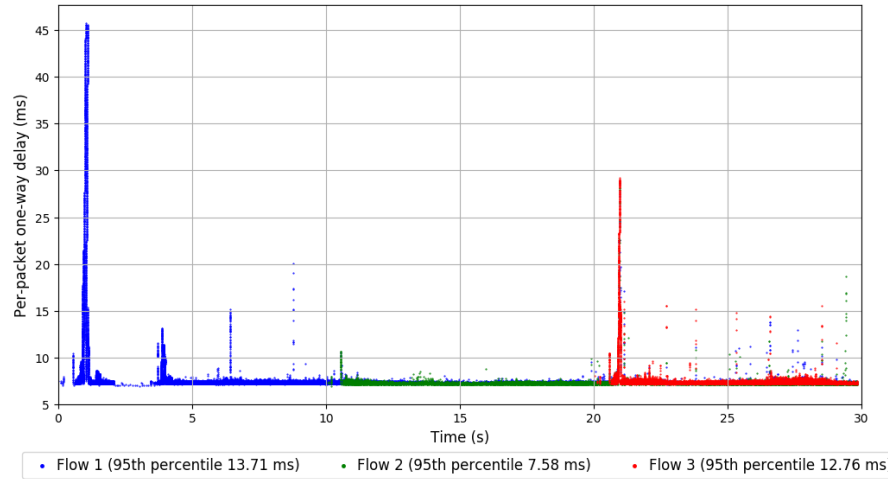
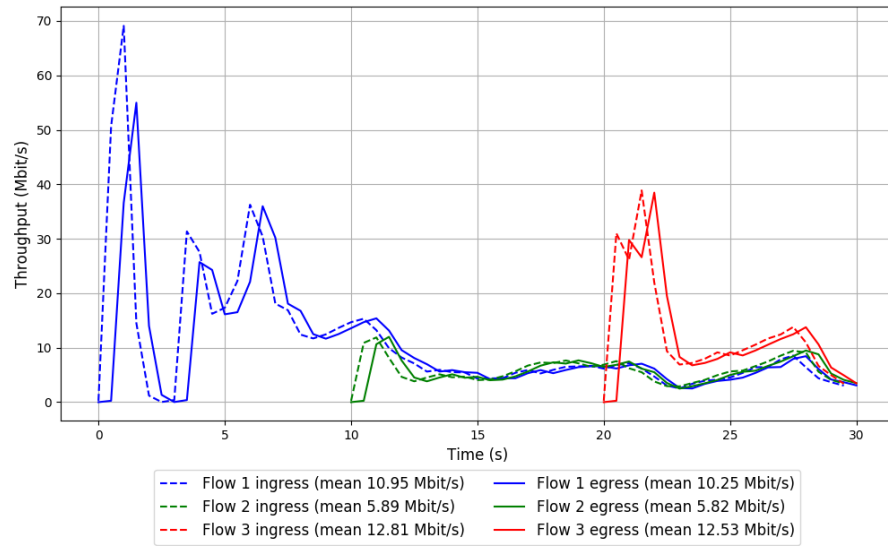


Run 1: Statistics of QUIC Cubic

Start at: 2018-12-20 01:54:59  
End at: 2018-12-20 01:55:29  
Local clock offset: -1.588 ms  
Remote clock offset: -2.452 ms

# Below is generated by plot.py at 2018-12-20 03:42:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 18.23 Mbit/s  
95th percentile per-packet one-way delay: 11.304 ms  
Loss rate: 4.39%  
-- Flow 1:  
Average throughput: 10.25 Mbit/s  
95th percentile per-packet one-way delay: 13.711 ms  
Loss rate: 6.39%  
-- Flow 2:  
Average throughput: 5.82 Mbit/s  
95th percentile per-packet one-way delay: 7.578 ms  
Loss rate: 1.11%  
-- Flow 3:  
Average throughput: 12.53 Mbit/s  
95th percentile per-packet one-way delay: 12.757 ms  
Loss rate: 2.22%

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



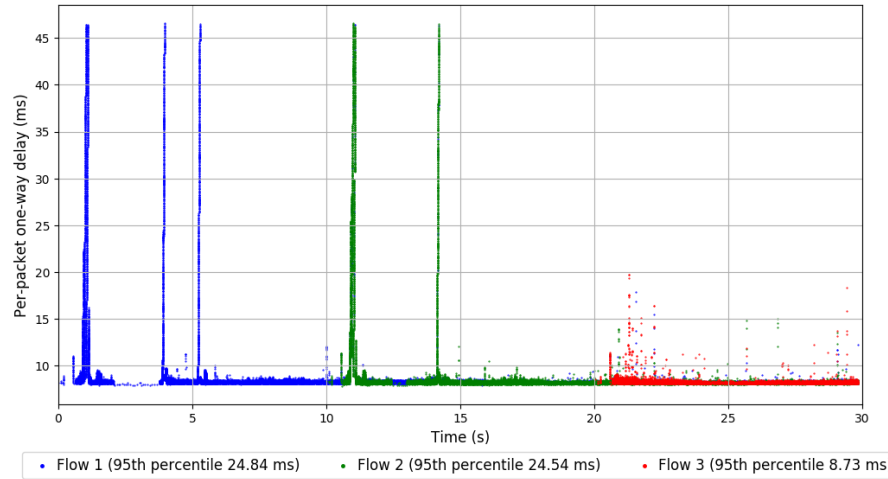
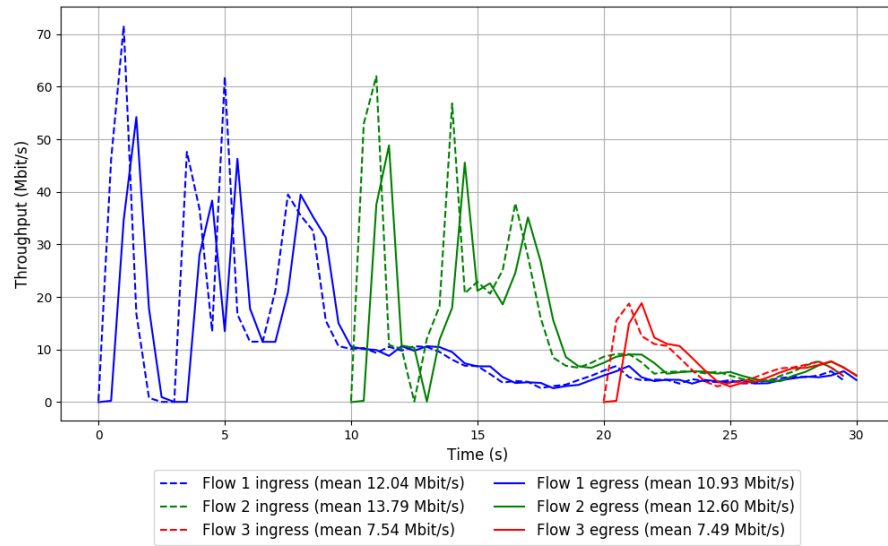


Run 2: Statistics of QUIC Cubic

Start at: 2018-12-20 02:19:22  
End at: 2018-12-20 02:19:52  
Local clock offset: -4.104 ms  
Remote clock offset: -3.127 ms

# Below is generated by plot.py at 2018-12-20 03:42:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 21.76 Mbit/s  
95th percentile per-packet one-way delay: 22.383 ms  
Loss rate: 8.10%  
-- Flow 1:  
Average throughput: 10.93 Mbit/s  
95th percentile per-packet one-way delay: 24.835 ms  
Loss rate: 9.21%  
-- Flow 2:  
Average throughput: 12.60 Mbit/s  
95th percentile per-packet one-way delay: 24.540 ms  
Loss rate: 8.63%  
-- Flow 3:  
Average throughput: 7.49 Mbit/s  
95th percentile per-packet one-way delay: 8.728 ms  
Loss rate: 0.69%

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

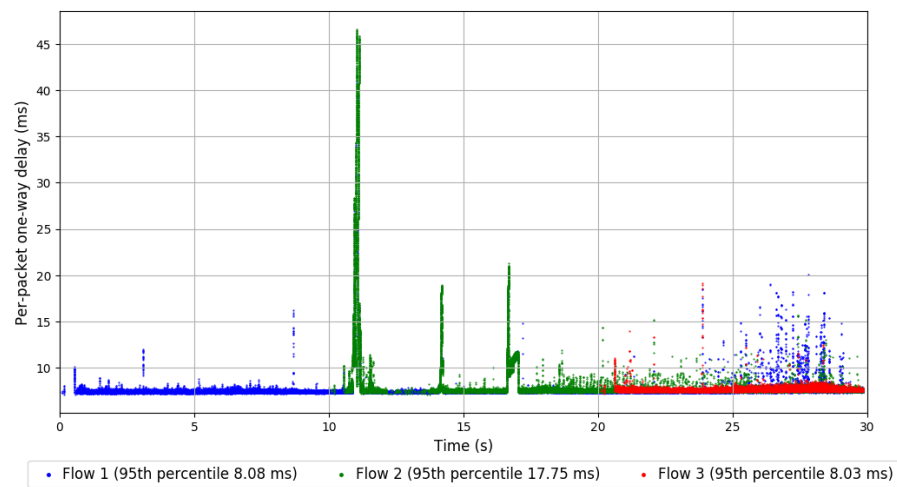
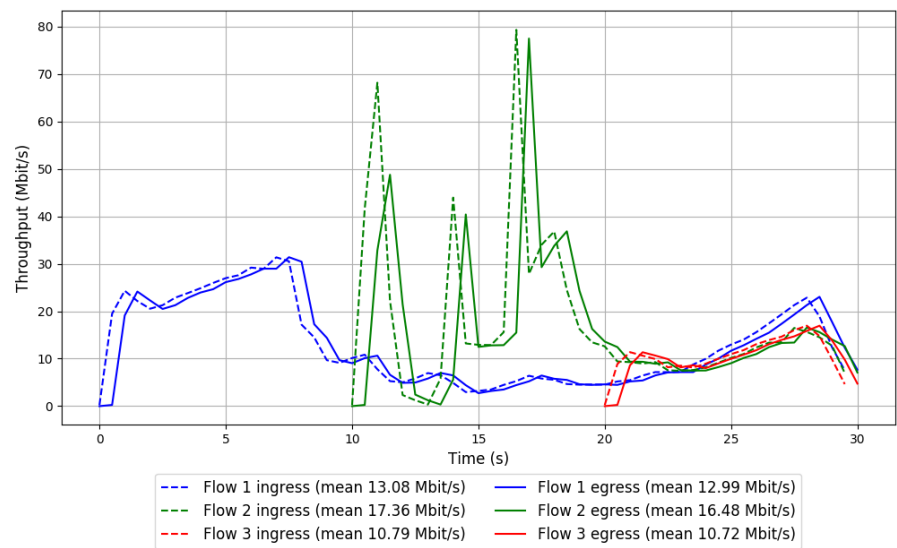


Run 3: Statistics of QUIC Cubic

Start at: 2018-12-20 02:43:57  
End at: 2018-12-20 02:44:27  
Local clock offset: 0.169 ms  
Remote clock offset: -1.782 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 27.46 Mbit/s  
95th percentile per-packet one-way delay: 11.451 ms  
Loss rate: 2.45%  
-- Flow 1:  
Average throughput: 12.99 Mbit/s  
95th percentile per-packet one-way delay: 8.082 ms  
Loss rate: 0.62%  
-- Flow 2:  
Average throughput: 16.48 Mbit/s  
95th percentile per-packet one-way delay: 17.750 ms  
Loss rate: 5.08%  
-- Flow 3:  
Average throughput: 10.72 Mbit/s  
95th percentile per-packet one-way delay: 8.030 ms  
Loss rate: 0.63%

Run 3: Report of QUIC Cubic — Data Link

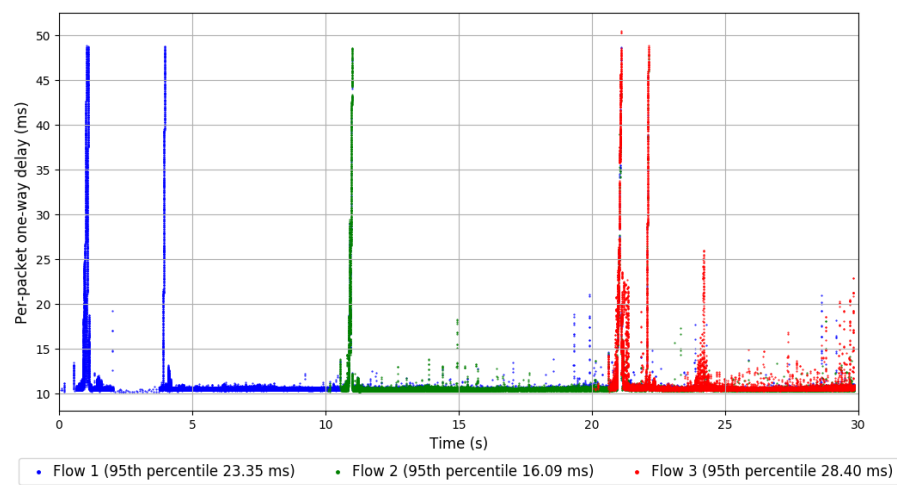
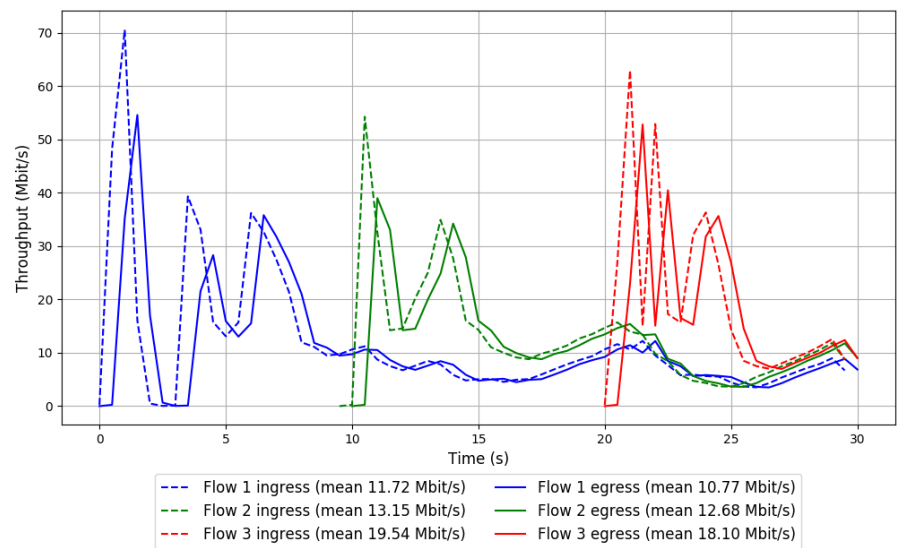


Run 4: Statistics of QUIC Cubic

Start at: 2018-12-20 03:08:36  
End at: 2018-12-20 03:09:06  
Local clock offset: -1.345 ms  
Remote clock offset: -2.228 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 25.15 Mbit/s  
95th percentile per-packet one-way delay: 22.172 ms  
Loss rate: 6.42%  
-- Flow 1:  
Average throughput: 10.77 Mbit/s  
95th percentile per-packet one-way delay: 23.348 ms  
Loss rate: 8.07%  
-- Flow 2:  
Average throughput: 12.68 Mbit/s  
95th percentile per-packet one-way delay: 16.089 ms  
Loss rate: 3.54%  
-- Flow 3:  
Average throughput: 18.10 Mbit/s  
95th percentile per-packet one-way delay: 28.400 ms  
Loss rate: 7.34%

Run 4: Report of QUIC Cubic — Data Link

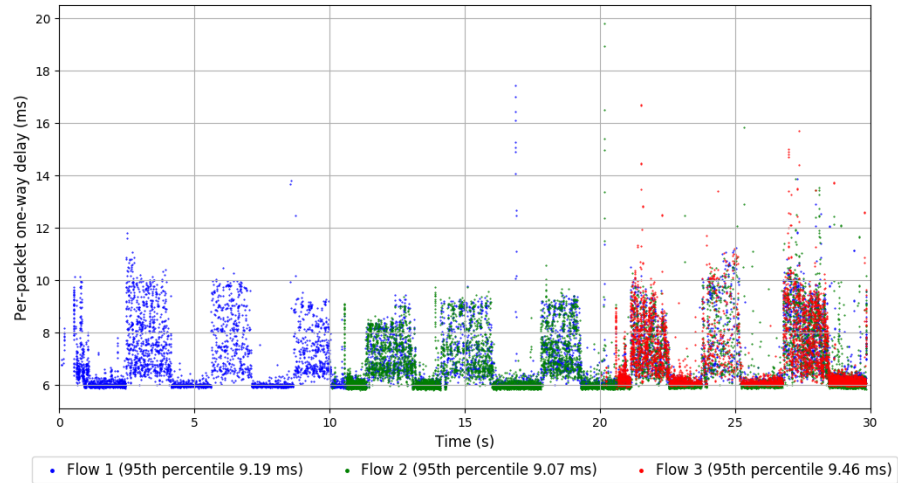
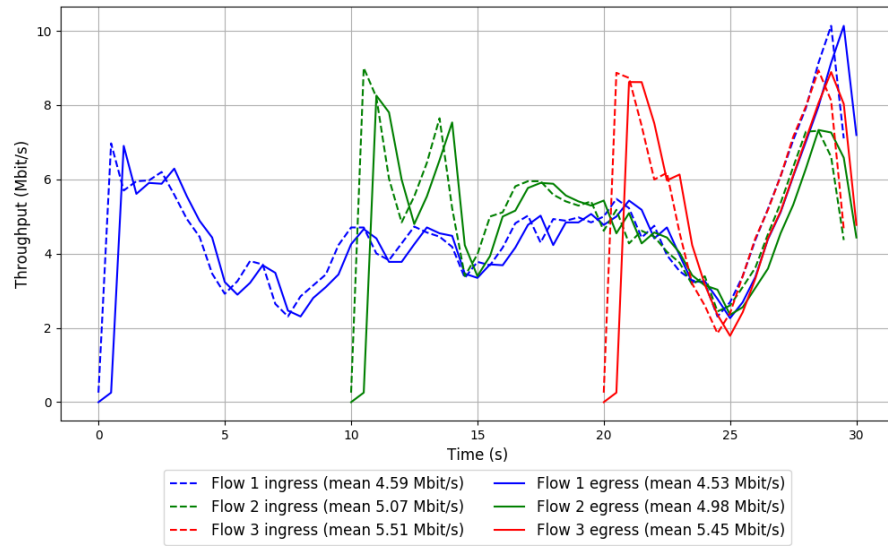


Run 5: Statistics of QUIC Cubic

Start at: 2018-12-20 03:32:54  
End at: 2018-12-20 03:33:24  
Local clock offset: 2.779 ms  
Remote clock offset: -3.631 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 9.63 Mbit/s  
95th percentile per-packet one-way delay: 9.200 ms  
Loss rate: 1.46%  
-- Flow 1:  
Average throughput: 4.53 Mbit/s  
95th percentile per-packet one-way delay: 9.190 ms  
Loss rate: 1.39%  
-- Flow 2:  
Average throughput: 4.98 Mbit/s  
95th percentile per-packet one-way delay: 9.068 ms  
Loss rate: 1.79%  
-- Flow 3:  
Average throughput: 5.45 Mbit/s  
95th percentile per-packet one-way delay: 9.457 ms  
Loss rate: 1.03%

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



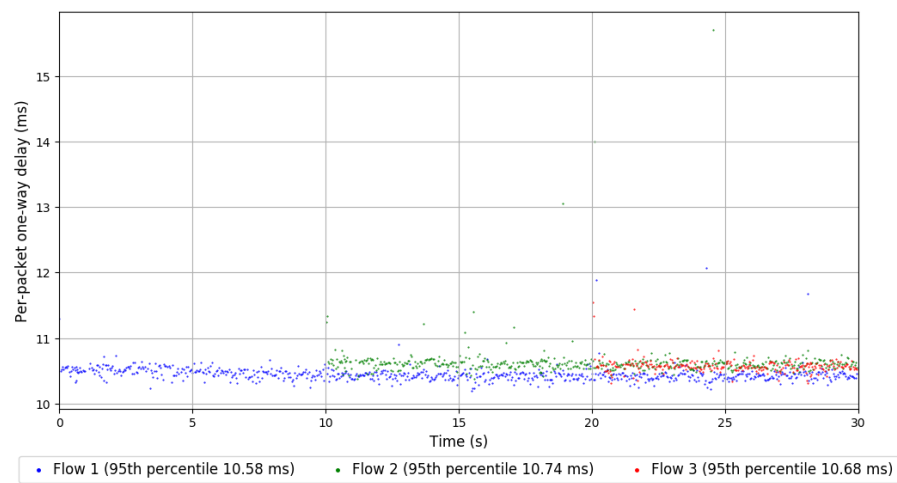
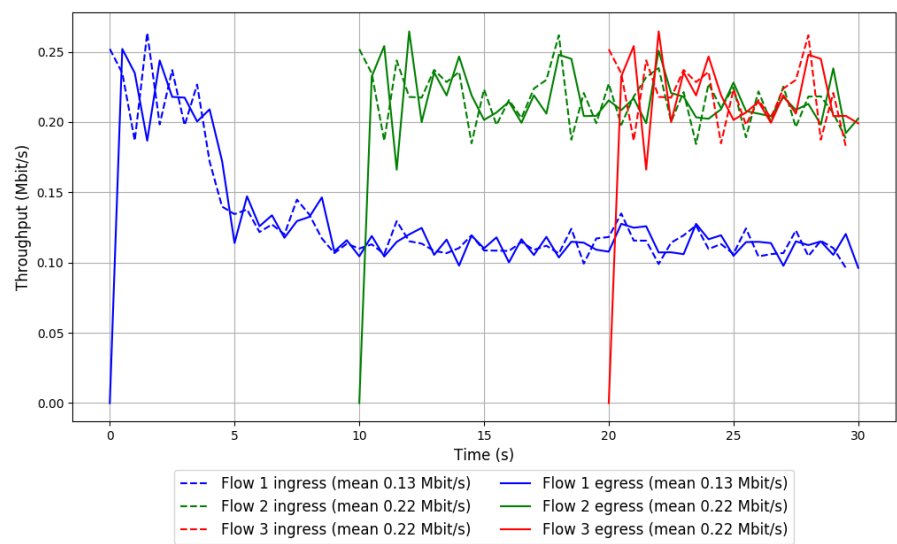


Run 1: Statistics of SReAM

Start at: 2018-12-20 01:57:22  
End at: 2018-12-20 01:57:52  
Local clock offset: -5.566 ms  
Remote clock offset: -3.105 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.35 Mbit/s  
95th percentile per-packet one-way delay: 10.682 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 10.578 ms  
Loss rate: 0.60%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 10.739 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 10.680 ms  
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

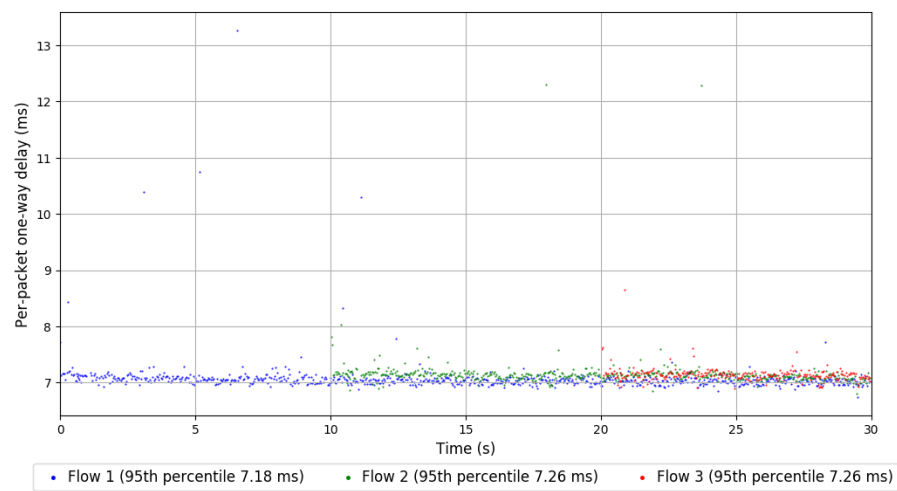
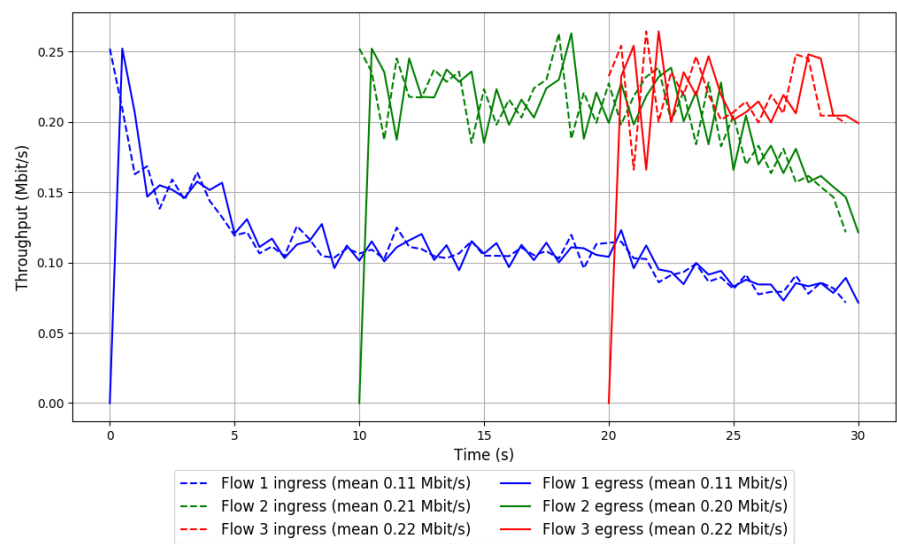


Run 2: Statistics of SCReAM

Start at: 2018-12-20 02:21:51  
End at: 2018-12-20 02:22:21  
Local clock offset: -3.029 ms  
Remote clock offset: -3.187 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.32 Mbit/s  
95th percentile per-packet one-way delay: 7.236 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 0.11 Mbit/s  
95th percentile per-packet one-way delay: 7.179 ms  
Loss rate: 0.42%  
-- Flow 2:  
Average throughput: 0.20 Mbit/s  
95th percentile per-packet one-way delay: 7.262 ms  
Loss rate: 0.21%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 7.258 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

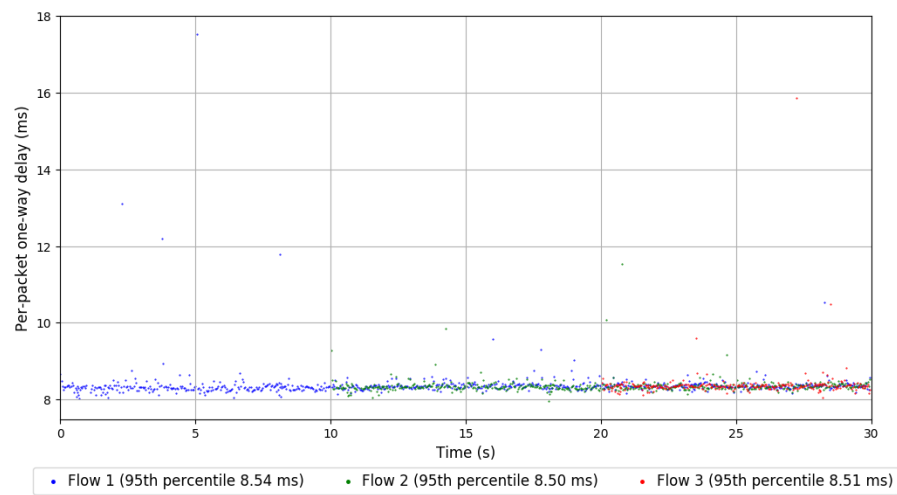
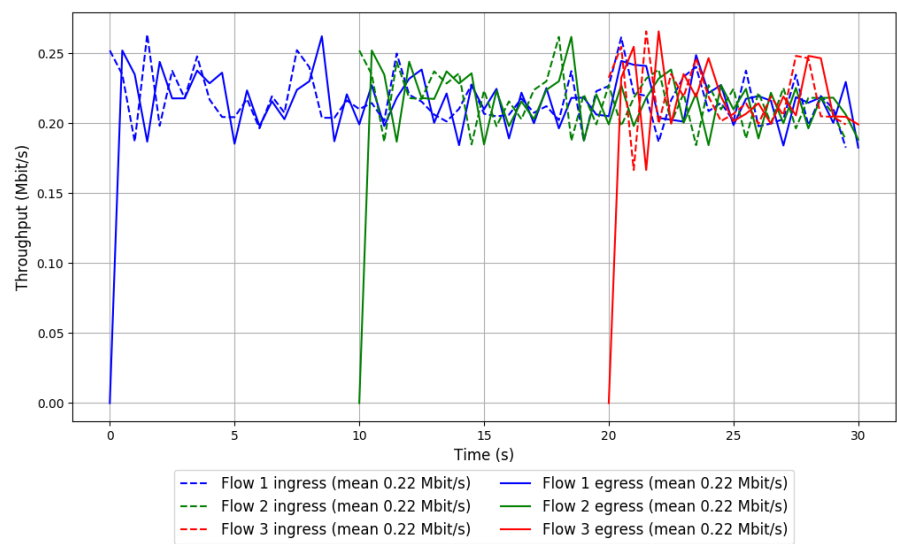


Run 3: Statistics of SReAM

Start at: 2018-12-20 02:46:28  
End at: 2018-12-20 02:46:58  
Local clock offset: -0.812 ms  
Remote clock offset: -2.302 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 8.518 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 8.539 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 8.498 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 8.510 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

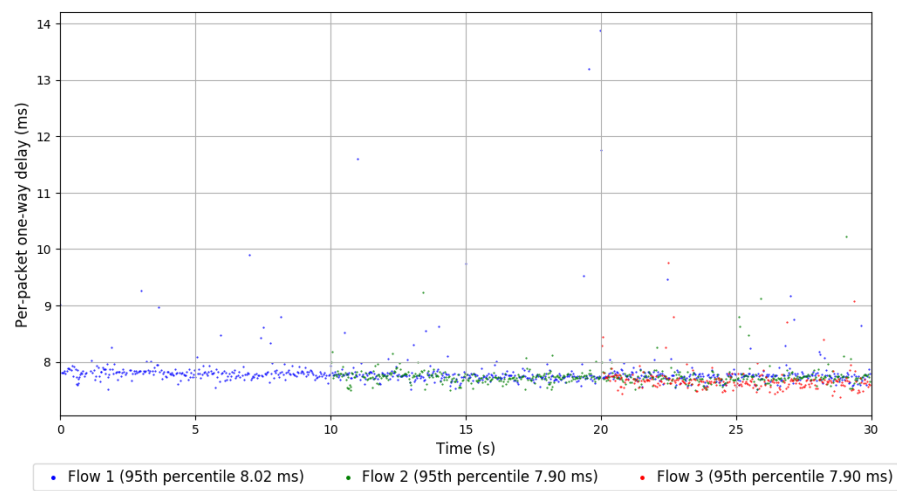
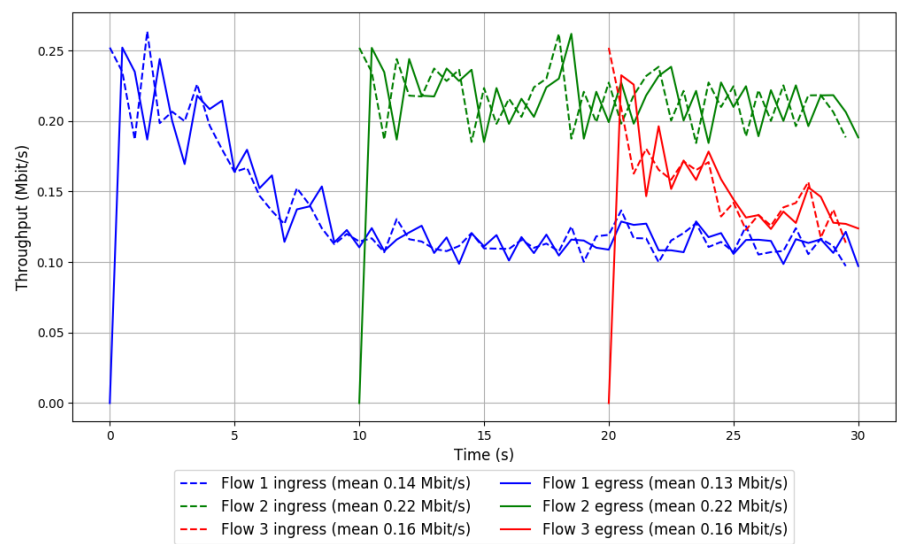


Run 4: Statistics of SReAM

Start at: 2018-12-20 03:10:57  
End at: 2018-12-20 03:11:27  
Local clock offset: 0.884 ms  
Remote clock offset: -2.839 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.33 Mbit/s  
95th percentile per-packet one-way delay: 7.963 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 8.016 ms  
Loss rate: 0.60%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 7.899 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 7.899 ms  
Loss rate: 0.09%

Run 4: Report of SReAM — Data Link



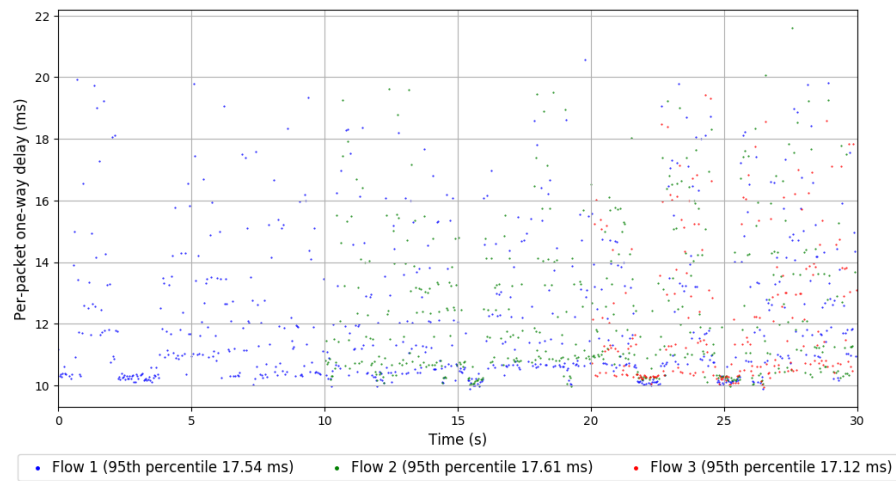
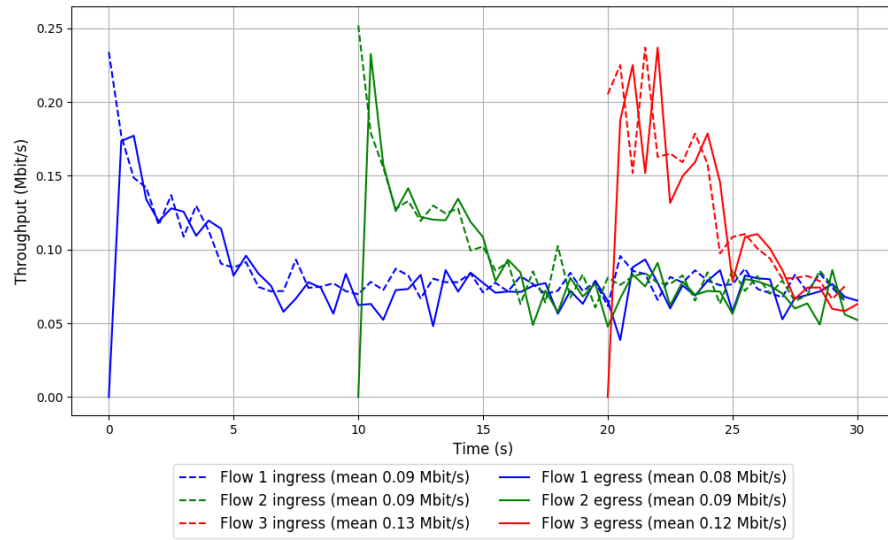


Run 5: Statistics of SCReAM

Start at: 2018-12-20 03:35:24  
End at: 2018-12-20 03:35:54  
Local clock offset: -1.29 ms  
Remote clock offset: -3.552 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.18 Mbit/s  
95th percentile per-packet one-way delay: 17.541 ms  
Loss rate: 7.33%  
-- Flow 1:  
Average throughput: 0.08 Mbit/s  
95th percentile per-packet one-way delay: 17.541 ms  
Loss rate: 7.47%  
-- Flow 2:  
Average throughput: 0.09 Mbit/s  
95th percentile per-packet one-way delay: 17.615 ms  
Loss rate: 7.69%  
-- Flow 3:  
Average throughput: 0.12 Mbit/s  
95th percentile per-packet one-way delay: 17.116 ms  
Loss rate: 6.51%

## Run 5: Report of SCRaM — Data Link

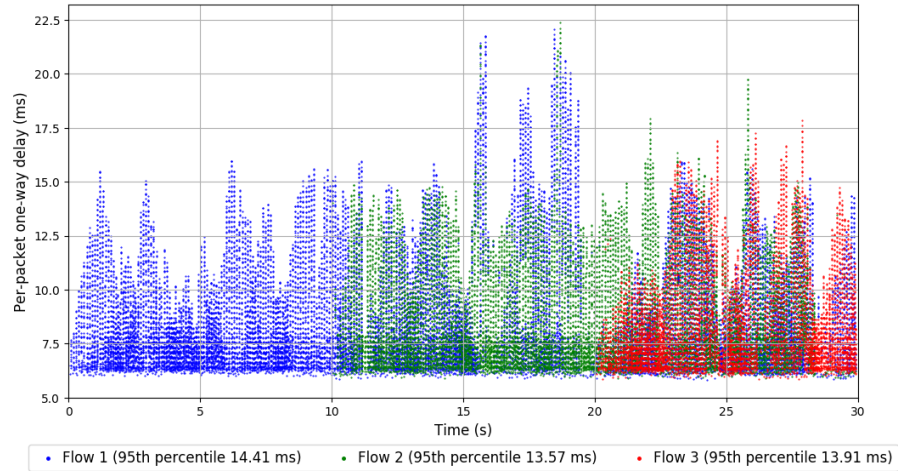
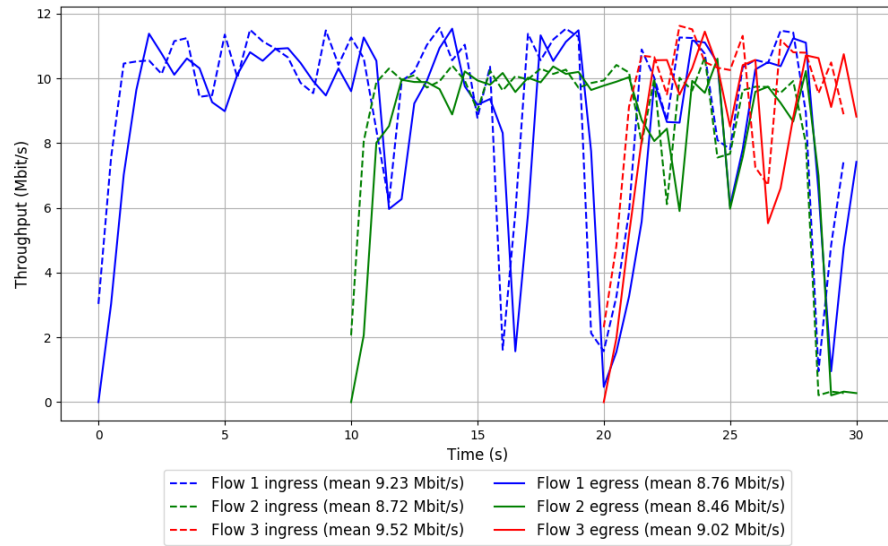


Run 1: Statistics of Sprout

Start at: 2018-12-20 01:41:00  
End at: 2018-12-20 01:41:30  
Local clock offset: 0.742 ms  
Remote clock offset: -2.417 ms

# Below is generated by plot.py at 2018-12-20 03:42:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 17.37 Mbit/s  
95th percentile per-packet one-way delay: 14.035 ms  
Loss rate: 4.45%  
-- Flow 1:  
Average throughput: 8.76 Mbit/s  
95th percentile per-packet one-way delay: 14.408 ms  
Loss rate: 5.07%  
-- Flow 2:  
Average throughput: 8.46 Mbit/s  
95th percentile per-packet one-way delay: 13.575 ms  
Loss rate: 3.01%  
-- Flow 3:  
Average throughput: 9.02 Mbit/s  
95th percentile per-packet one-way delay: 13.913 ms  
Loss rate: 5.25%

# Run 1: Report of Sprout — Data Link



## Run 2: Statistics of Sprout

Start at: 2018-12-20 02:04:59

End at: 2018-12-20 02:05:29

Local clock offset: -0.768 ms

Remote clock offset: -2.96 ms

# Below is generated by plot.py at 2018-12-20 03:42:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 18.18 Mbit/s

95th percentile per-packet one-way delay: 12.282 ms

Loss rate: 4.24%

-- Flow 1:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 12.742 ms

Loss rate: 4.26%

-- Flow 2:

Average throughput: 9.91 Mbit/s

95th percentile per-packet one-way delay: 12.030 ms

Loss rate: 4.13%

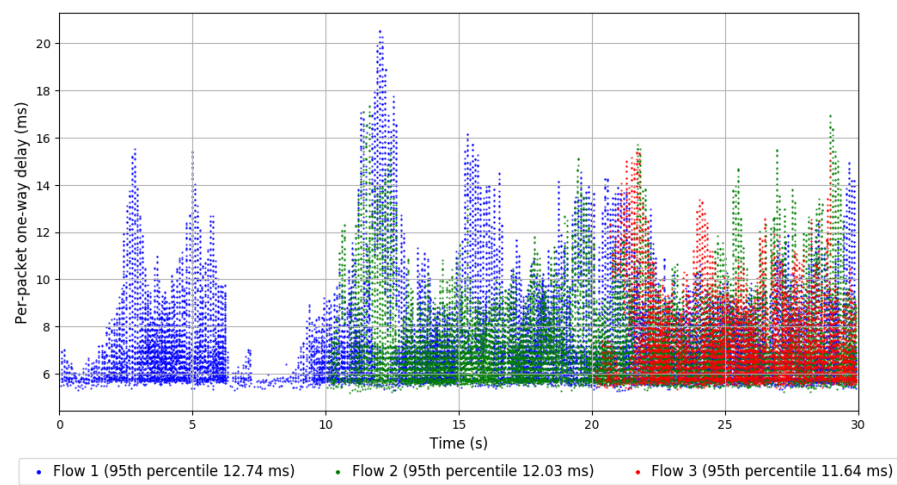
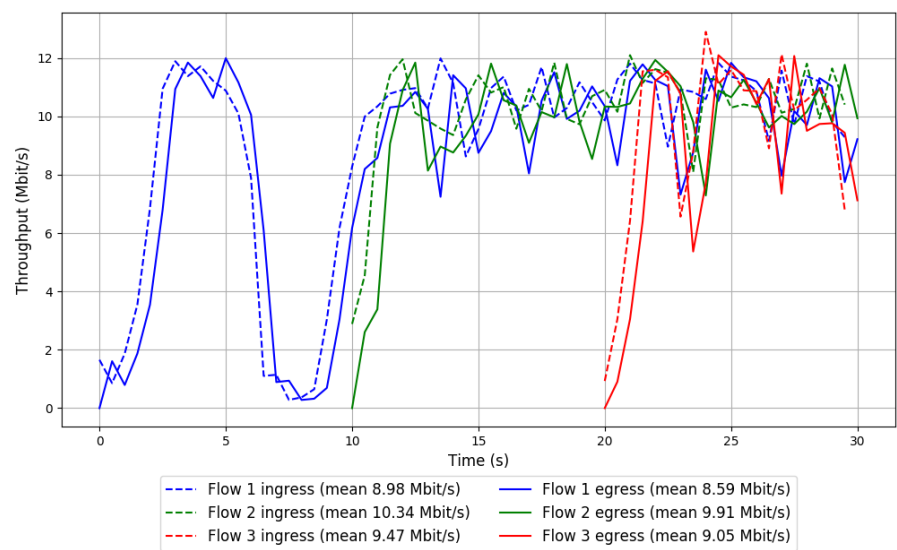
-- Flow 3:

Average throughput: 9.05 Mbit/s

95th percentile per-packet one-way delay: 11.640 ms

Loss rate: 4.44%

Run 2: Report of Sprout — Data Link

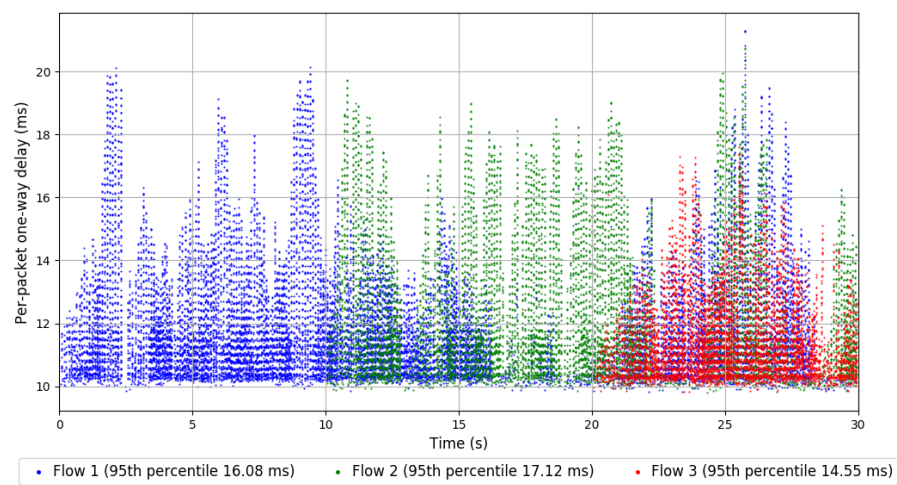
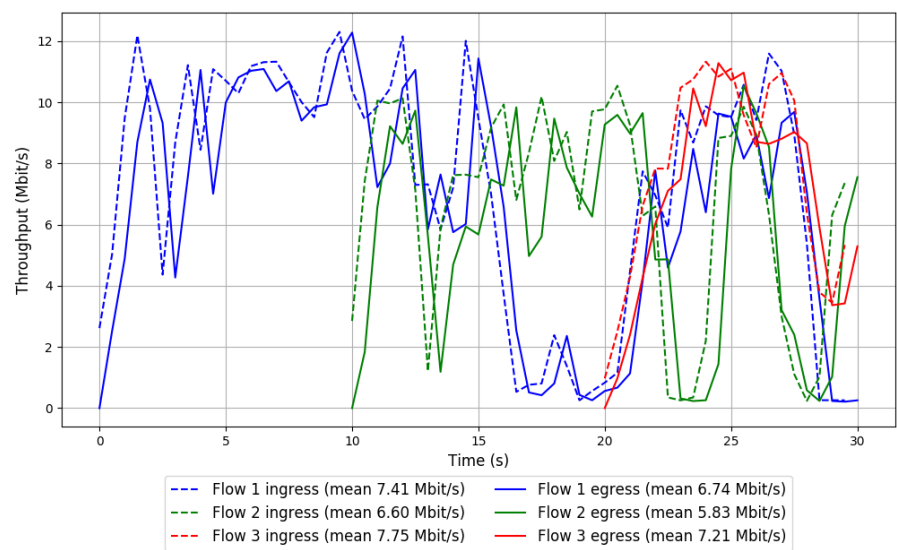


### Run 3: Statistics of Sprout

Start at: 2018-12-20 02:29:25  
End at: 2018-12-20 02:29:55  
Local clock offset: -5.095 ms  
Remote clock offset: -1.95 ms

```
# Below is generated by plot.py at 2018-12-20 03:42:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.00 Mbit/s
95th percentile per-packet one-way delay: 16.389 ms
Loss rate: 9.46%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 16.076 ms
Loss rate: 9.01%
-- Flow 2:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 17.119 ms
Loss rate: 11.76%
-- Flow 3:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 14.554 ms
Loss rate: 6.84%
```

Run 3: Report of Sprout — Data Link



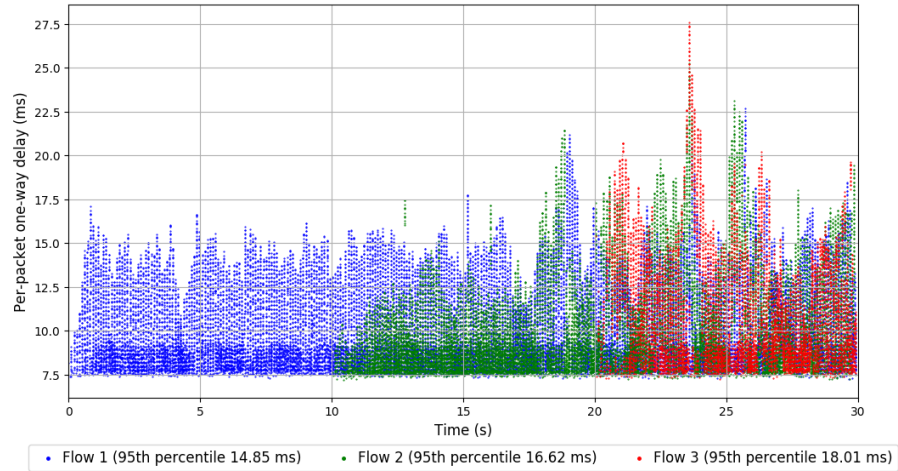
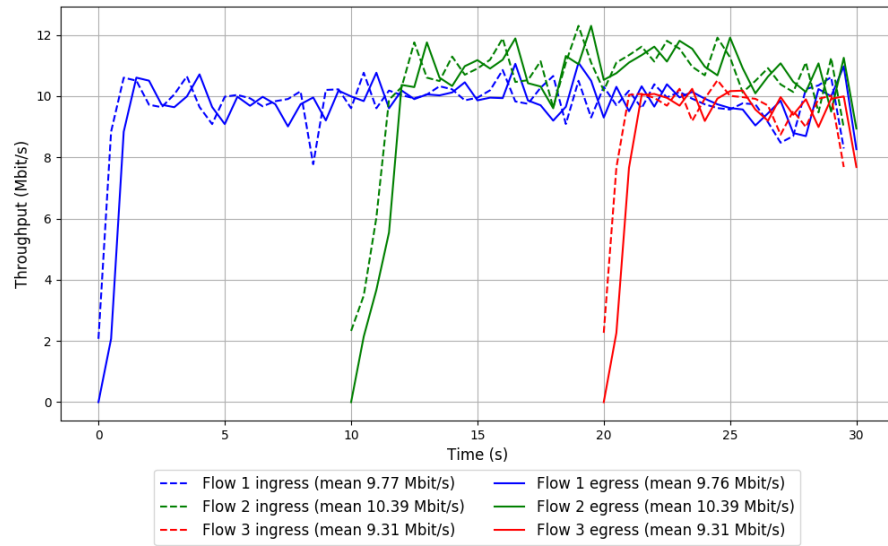


#### Run 4: Statistics of Sprout

Start at: 2018-12-20 02:54:16  
End at: 2018-12-20 02:54:46  
Local clock offset: 0.371 ms  
Remote clock offset: -2.722 ms

```
# Below is generated by plot.py at 2018-12-20 03:42:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.75 Mbit/s
95th percentile per-packet one-way delay: 15.915 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 9.76 Mbit/s
95th percentile per-packet one-way delay: 14.849 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 10.39 Mbit/s
95th percentile per-packet one-way delay: 16.616 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 9.31 Mbit/s
95th percentile per-packet one-way delay: 18.008 ms
Loss rate: 0.01%
```

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

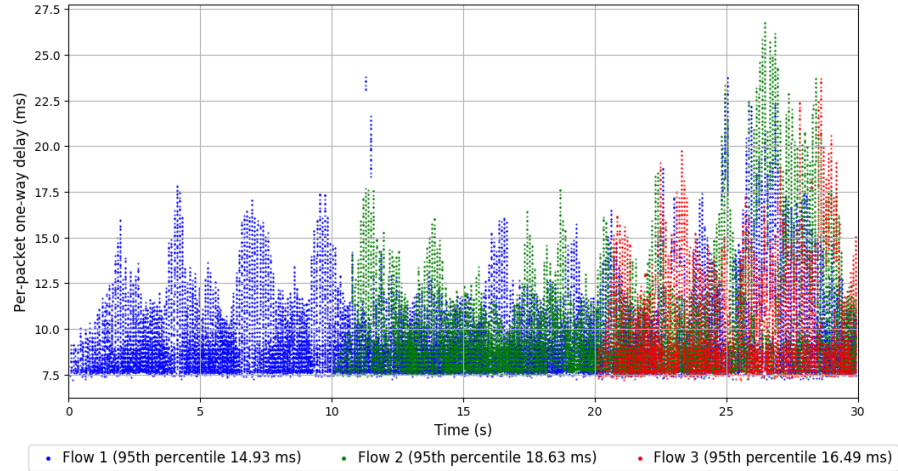
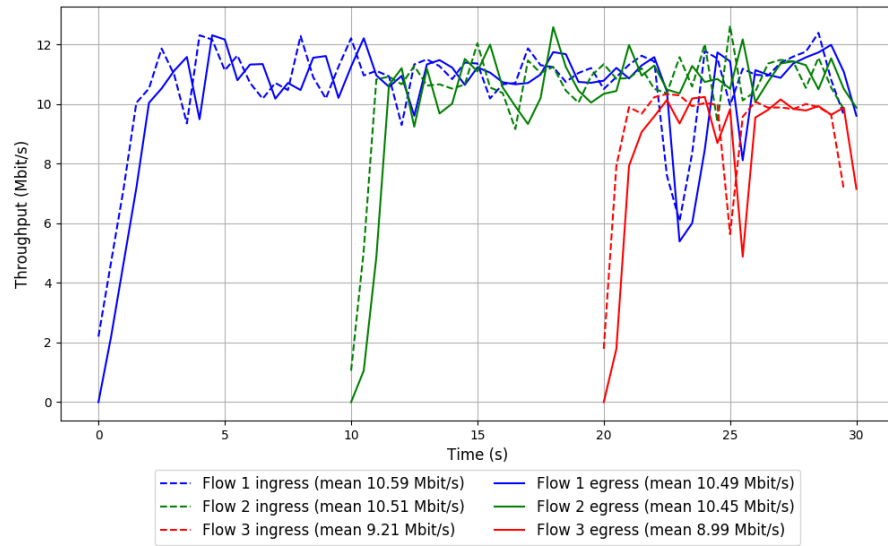


Run 5: Statistics of Sprout

Start at: 2018-12-20 03:18:48  
End at: 2018-12-20 03:19:18  
Local clock offset: 1.372 ms  
Remote clock offset: -2.674 ms

```
# Below is generated by plot.py at 2018-12-20 03:42:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.40 Mbit/s
95th percentile per-packet one-way delay: 16.292 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 10.49 Mbit/s
95th percentile per-packet one-way delay: 14.927 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 10.45 Mbit/s
95th percentile per-packet one-way delay: 18.632 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 8.99 Mbit/s
95th percentile per-packet one-way delay: 16.493 ms
Loss rate: 2.35%
```

# Run 5: Report of Sprout — Data Link

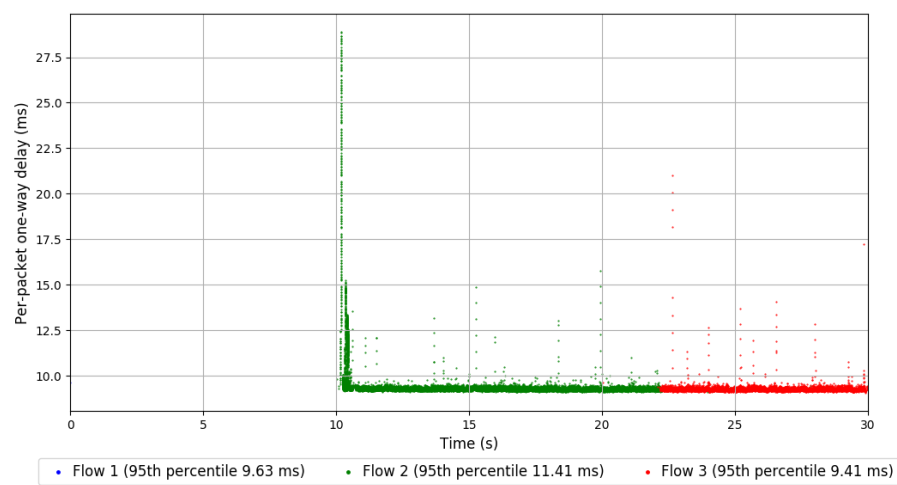
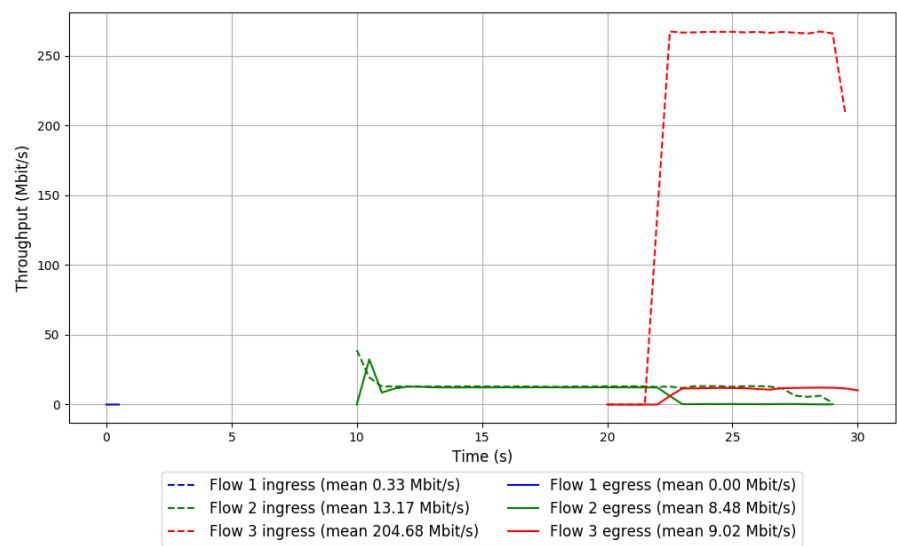


Run 1: Statistics of TaoVA-100x

Start at: 2018-12-20 01:56:11  
End at: 2018-12-20 01:56:41  
Local clock offset: -3.442 ms  
Remote clock offset: -2.294 ms

# Below is generated by plot.py at 2018-12-20 03:42:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.36 Mbit/s  
95th percentile per-packet one-way delay: 9.795 ms  
Loss rate: 89.06%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 9.629 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 8.48 Mbit/s  
95th percentile per-packet one-way delay: 11.407 ms  
Loss rate: 36.11%  
-- Flow 3:  
Average throughput: 9.02 Mbit/s  
95th percentile per-packet one-way delay: 9.406 ms  
Loss rate: 95.59%

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

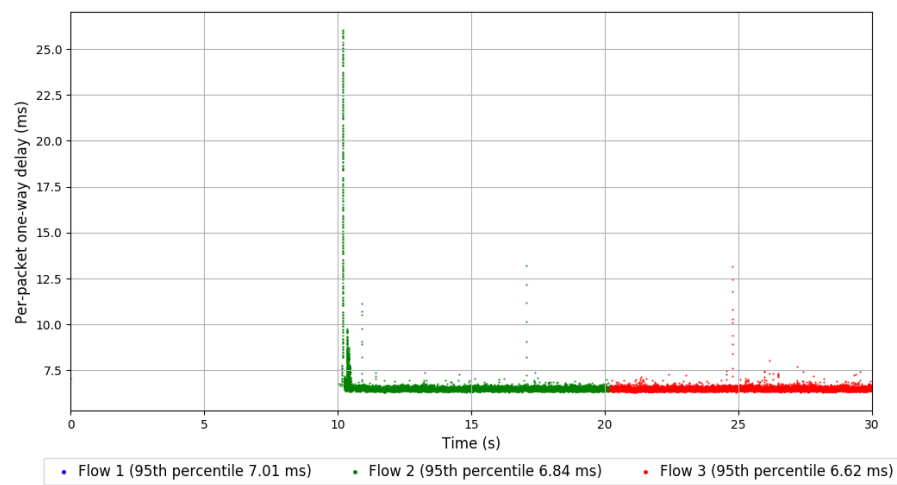
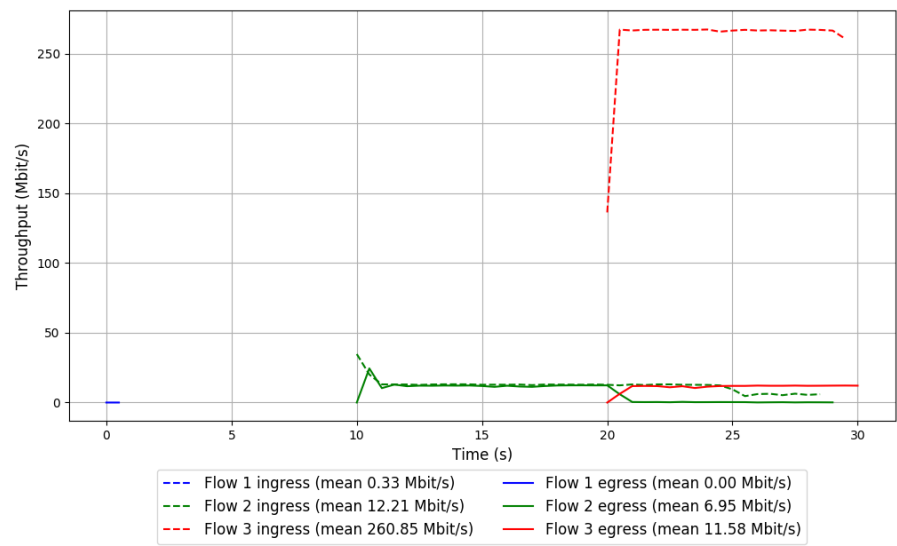


Run 2: Statistics of TaoVA-100x

Start at: 2018-12-20 02:20:40  
End at: 2018-12-20 02:21:10  
Local clock offset: -2.41 ms  
Remote clock offset: -3.166 ms

# Below is generated by plot.py at 2018-12-20 03:42:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.21 Mbit/s  
95th percentile per-packet one-way delay: 6.679 ms  
Loss rate: 91.31%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 7.009 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 6.95 Mbit/s  
95th percentile per-packet one-way delay: 6.842 ms  
Loss rate: 43.50%  
-- Flow 3:  
Average throughput: 11.58 Mbit/s  
95th percentile per-packet one-way delay: 6.625 ms  
Loss rate: 95.56%

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



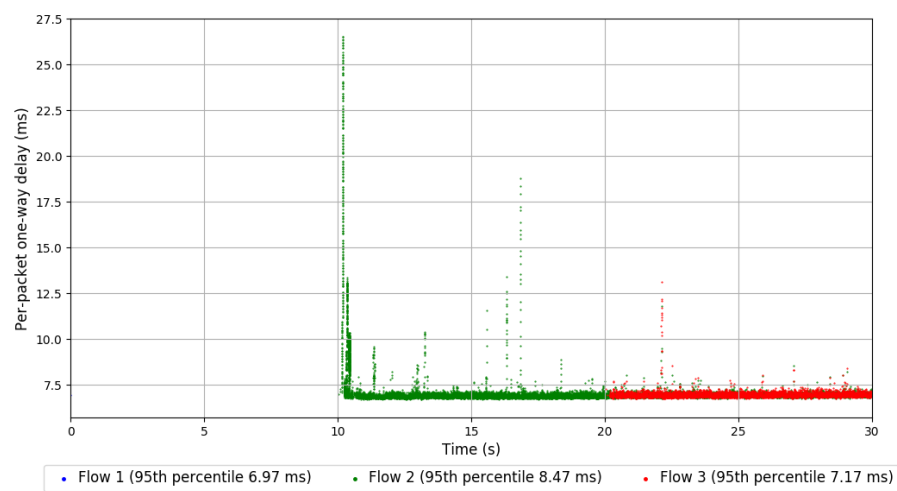
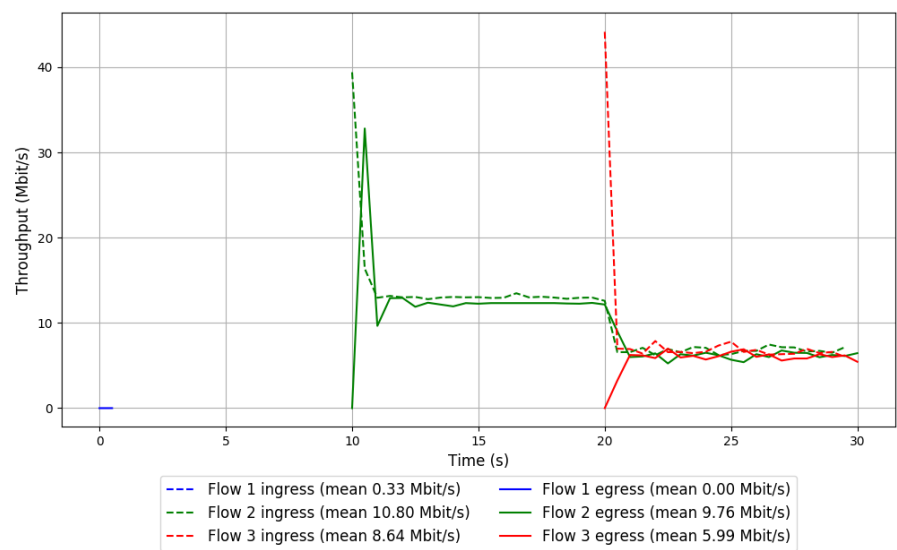


Run 3: Statistics of TaoVA-100x

Start at: 2018-12-20 02:45:16  
End at: 2018-12-20 02:45:46  
Local clock offset: -0.152 ms  
Remote clock offset: -2.865 ms

# Below is generated by plot.py at 2018-12-20 03:42:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.49 Mbit/s  
95th percentile per-packet one-way delay: 7.577 ms  
Loss rate: 15.59%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 6.970 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.76 Mbit/s  
95th percentile per-packet one-way delay: 8.469 ms  
Loss rate: 9.59%  
-- Flow 3:  
Average throughput: 5.99 Mbit/s  
95th percentile per-packet one-way delay: 7.175 ms  
Loss rate: 30.62%

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

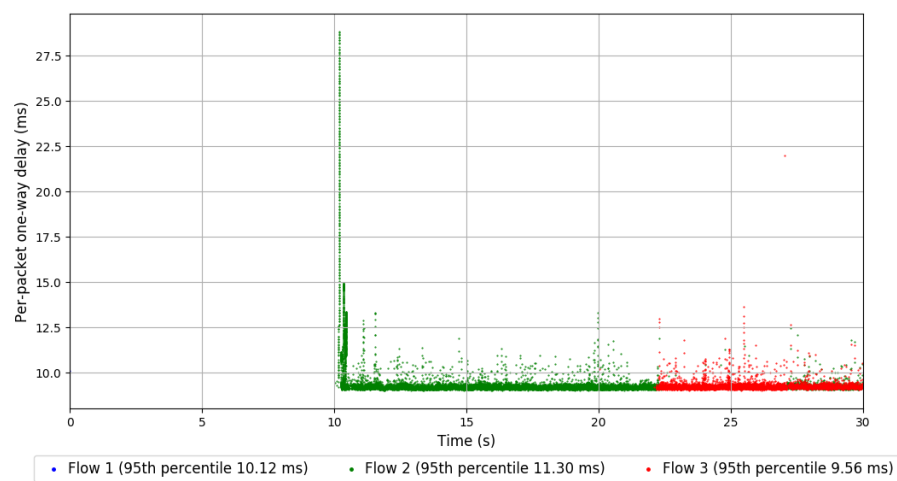
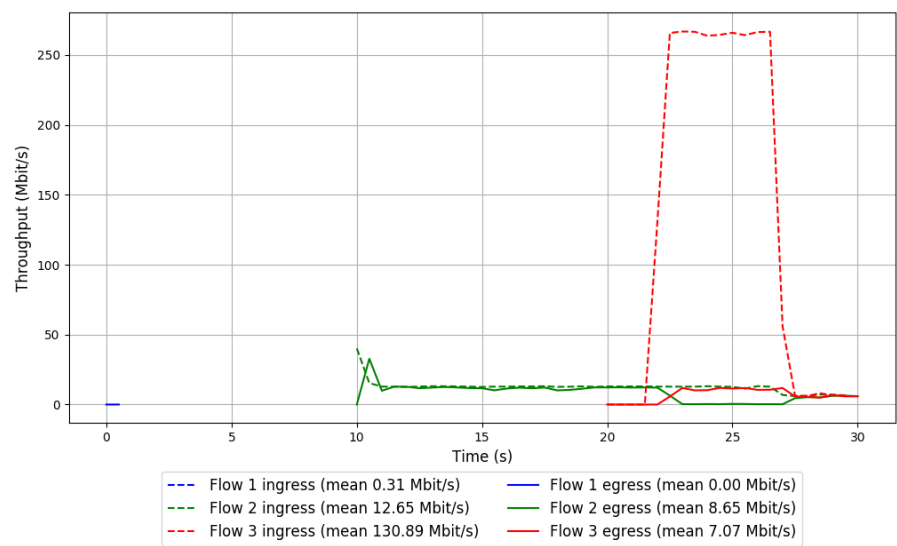


Run 4: Statistics of TaoVA-100x

Start at: 2018-12-20 03:09:47  
End at: 2018-12-20 03:10:17  
Local clock offset: -0.534 ms  
Remote clock offset: -2.725 ms

# Below is generated by plot.py at 2018-12-20 03:42:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.11 Mbit/s  
95th percentile per-packet one-way delay: 10.586 ms  
Loss rate: 84.39%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 10.119 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 8.65 Mbit/s  
95th percentile per-packet one-way delay: 11.300 ms  
Loss rate: 31.68%  
-- Flow 3:  
Average throughput: 7.07 Mbit/s  
95th percentile per-packet one-way delay: 9.564 ms  
Loss rate: 94.60%

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

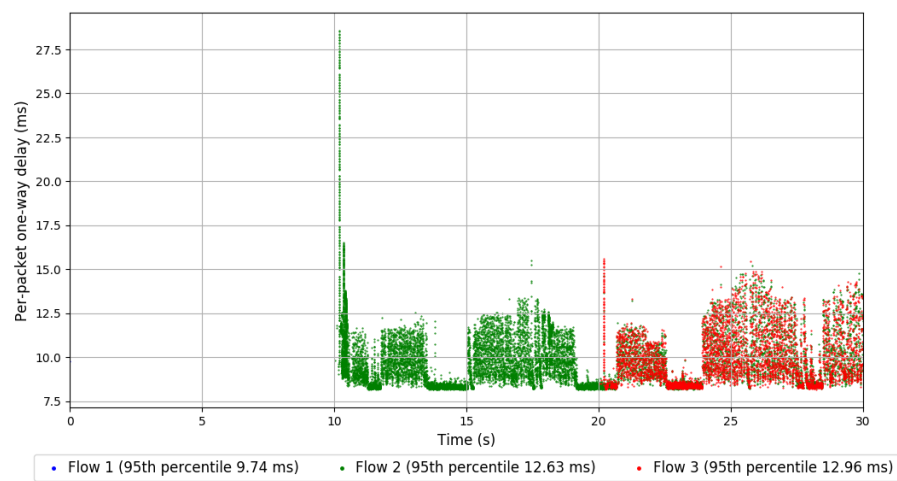
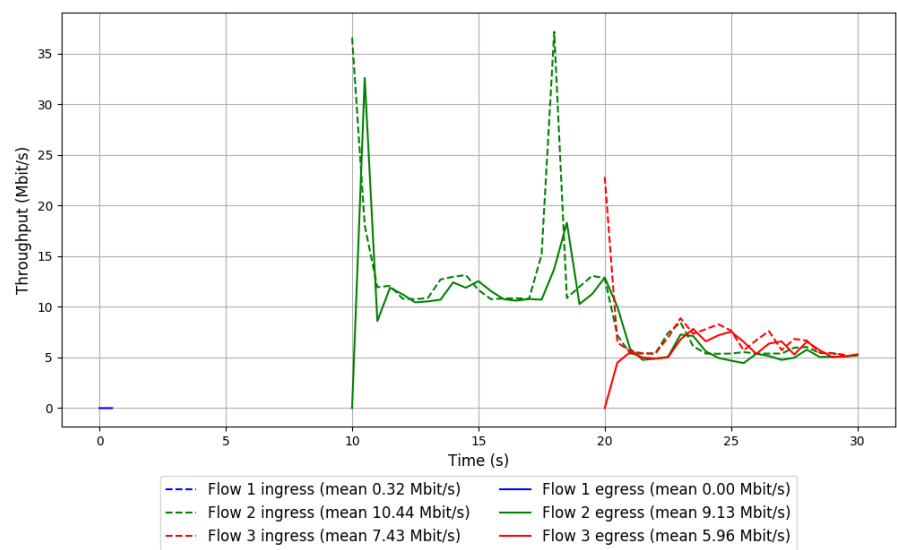


Run 5: Statistics of TaoVA-100x

Start at: 2018-12-20 03:34:08  
End at: 2018-12-20 03:34:38  
Local clock offset: 0.877 ms  
Remote clock offset: -3.332 ms

# Below is generated by plot.py at 2018-12-20 03:42:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.07 Mbit/s  
95th percentile per-packet one-way delay: 12.757 ms  
Loss rate: 14.42%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 9.737 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.13 Mbit/s  
95th percentile per-packet one-way delay: 12.630 ms  
Loss rate: 12.52%  
-- Flow 3:  
Average throughput: 5.96 Mbit/s  
95th percentile per-packet one-way delay: 12.965 ms  
Loss rate: 19.75%

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

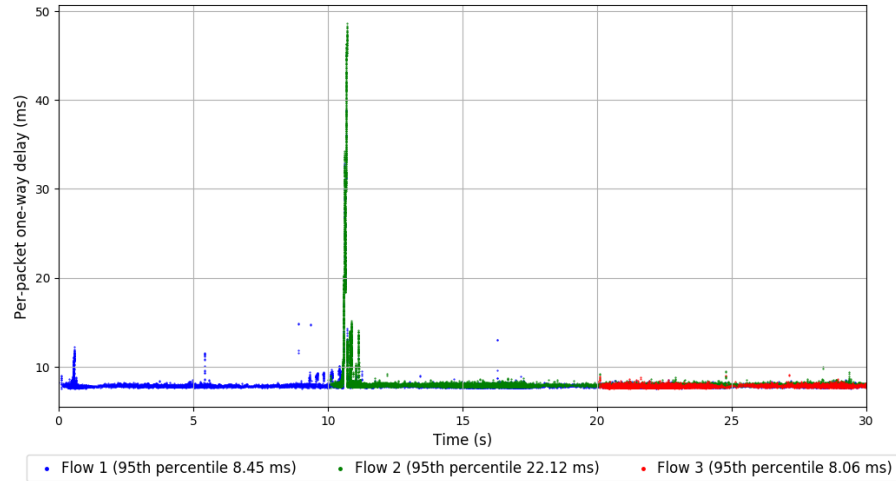
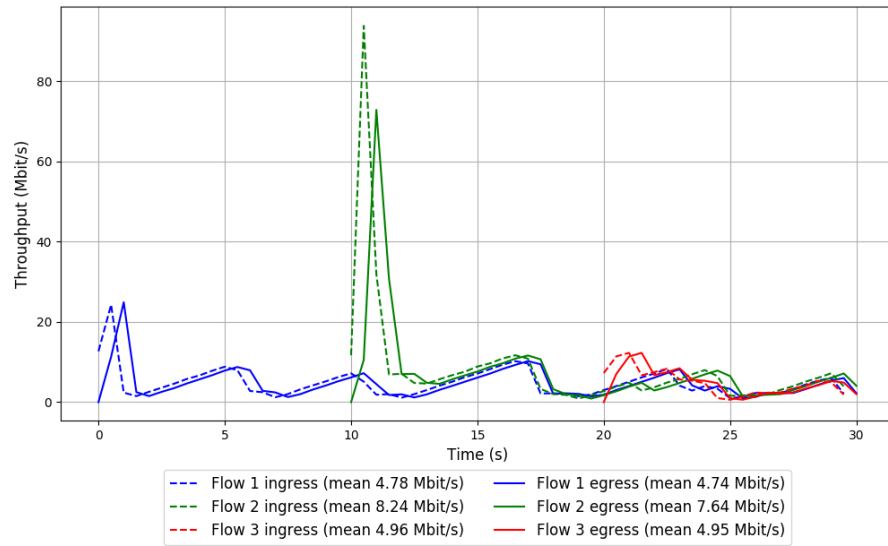


Run 1: Statistics of TCP Vegas

Start at: 2018-12-20 01:34:26  
End at: 2018-12-20 01:34:56  
Local clock offset: 0.315 ms  
Remote clock offset: -2.474 ms

# Below is generated by plot.py at 2018-12-20 03:42:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 11.47 Mbit/s  
95th percentile per-packet one-way delay: 11.555 ms  
Loss rate: 3.71%  
-- Flow 1:  
Average throughput: 4.74 Mbit/s  
95th percentile per-packet one-way delay: 8.452 ms  
Loss rate: 0.78%  
-- Flow 2:  
Average throughput: 7.64 Mbit/s  
95th percentile per-packet one-way delay: 22.124 ms  
Loss rate: 7.30%  
-- Flow 3:  
Average throughput: 4.95 Mbit/s  
95th percentile per-packet one-way delay: 8.063 ms  
Loss rate: 0.29%

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



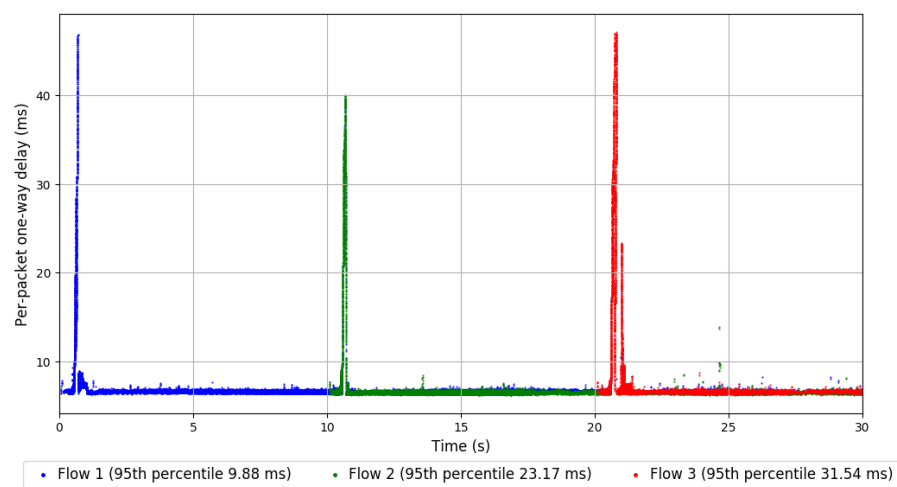
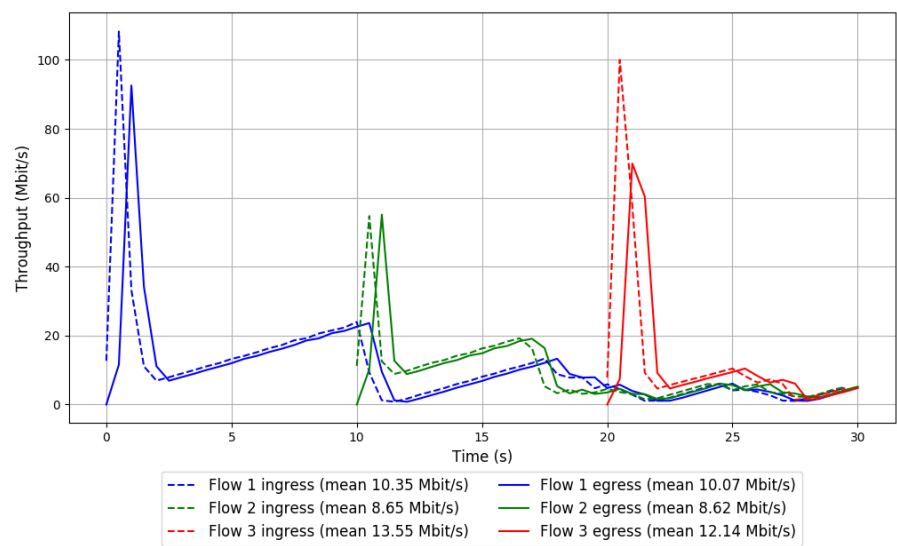


Run 2: Statistics of TCP Vegas

Start at: 2018-12-20 01:58:31  
End at: 2018-12-20 01:59:01  
Local clock offset: -1.288 ms  
Remote clock offset: -2.928 ms

# Below is generated by plot.py at 2018-12-20 03:42:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.85 Mbit/s  
95th percentile per-packet one-way delay: 21.660 ms  
Loss rate: 3.70%  
-- Flow 1:  
Average throughput: 10.07 Mbit/s  
95th percentile per-packet one-way delay: 9.875 ms  
Loss rate: 2.68%  
-- Flow 2:  
Average throughput: 8.62 Mbit/s  
95th percentile per-packet one-way delay: 23.166 ms  
Loss rate: 0.32%  
-- Flow 3:  
Average throughput: 12.14 Mbit/s  
95th percentile per-packet one-way delay: 31.540 ms  
Loss rate: 10.38%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-12-20 02:23:00

End at: 2018-12-20 02:23:30

Local clock offset: -4.084 ms

Remote clock offset: -2.7 ms

# Below is generated by plot.py at 2018-12-20 03:42:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.63 Mbit/s

95th percentile per-packet one-way delay: 20.421 ms

Loss rate: 4.30%

-- Flow 1:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 8.972 ms

Loss rate: 2.13%

-- Flow 2:

Average throughput: 4.66 Mbit/s

95th percentile per-packet one-way delay: 27.438 ms

Loss rate: 5.92%

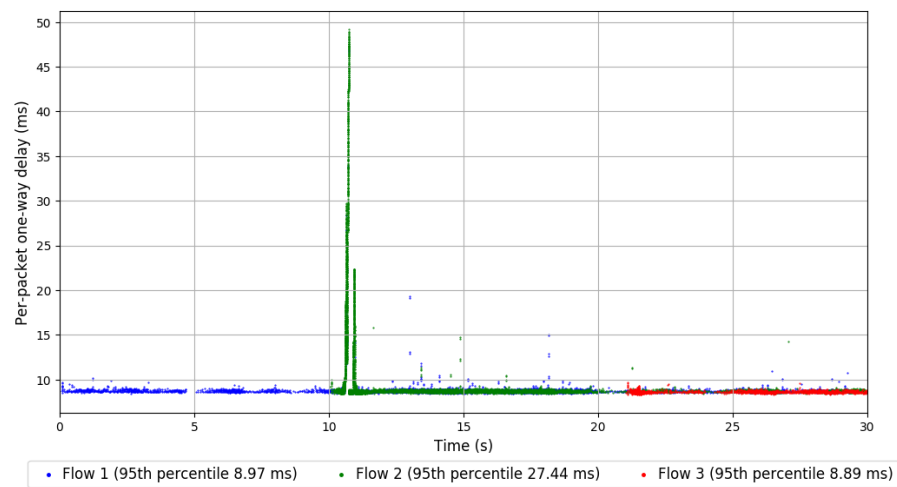
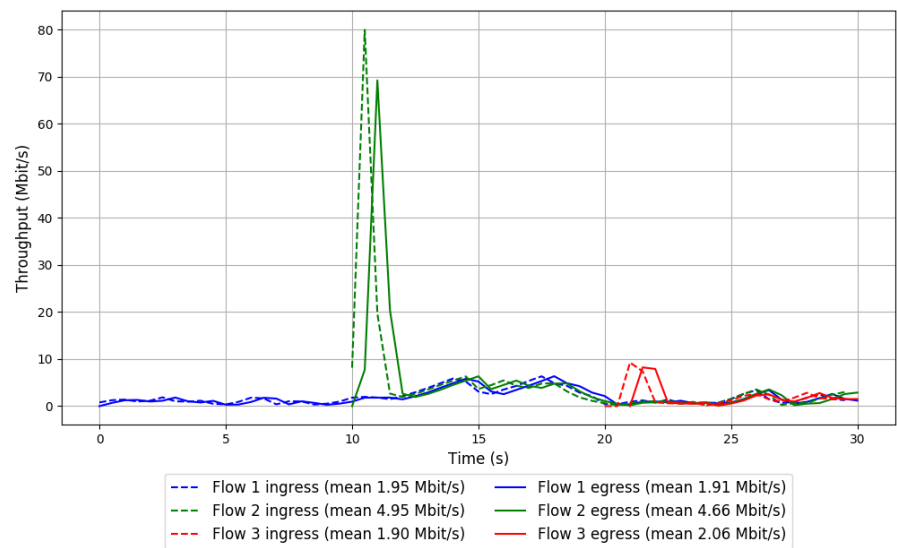
-- Flow 3:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 8.889 ms

Loss rate: 2.54%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-12-20 02:47:37

End at: 2018-12-20 02:48:07

Local clock offset: -1.262 ms

Remote clock offset: -2.73 ms

# Below is generated by plot.py at 2018-12-20 03:42:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.66 Mbit/s

95th percentile per-packet one-way delay: 24.367 ms

Loss rate: 3.05%

-- Flow 1:

Average throughput: 15.51 Mbit/s

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

Loss rate: 2.06%

-- Flow 2:

Average throughput: 11.28 Mbit/s

95th percentile per-packet one-way delay: 32.527 ms

Loss rate: 3.15%

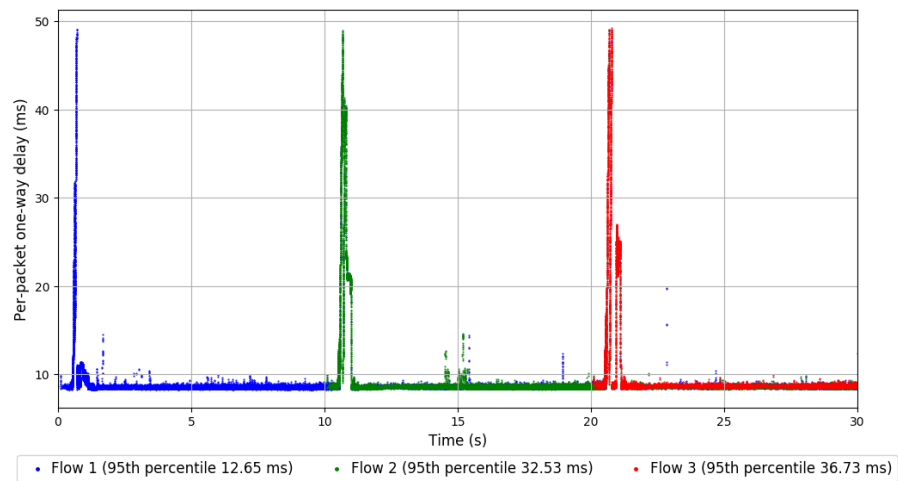
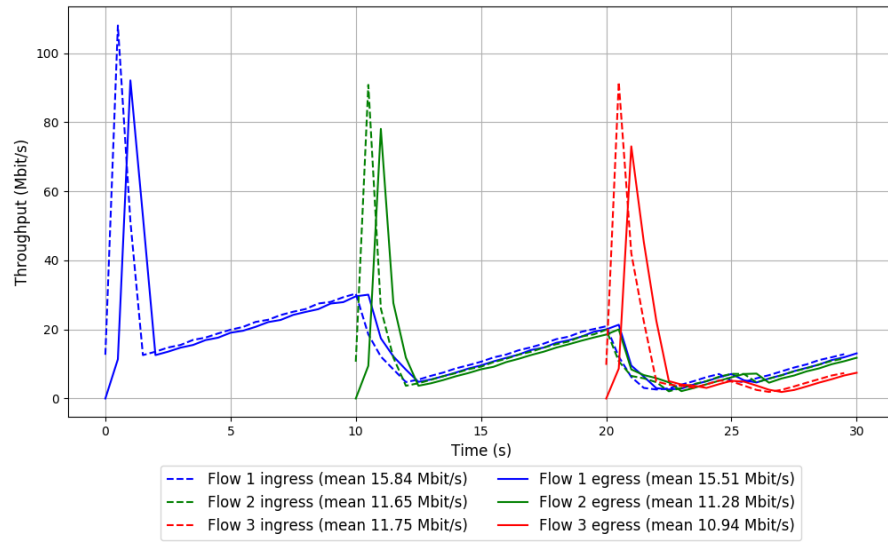
-- Flow 3:

Average throughput: 10.94 Mbit/s

95th percentile per-packet one-way delay: 36.733 ms

Loss rate: 6.91%

# Run 4: Report of TCP Vegas — Data Link

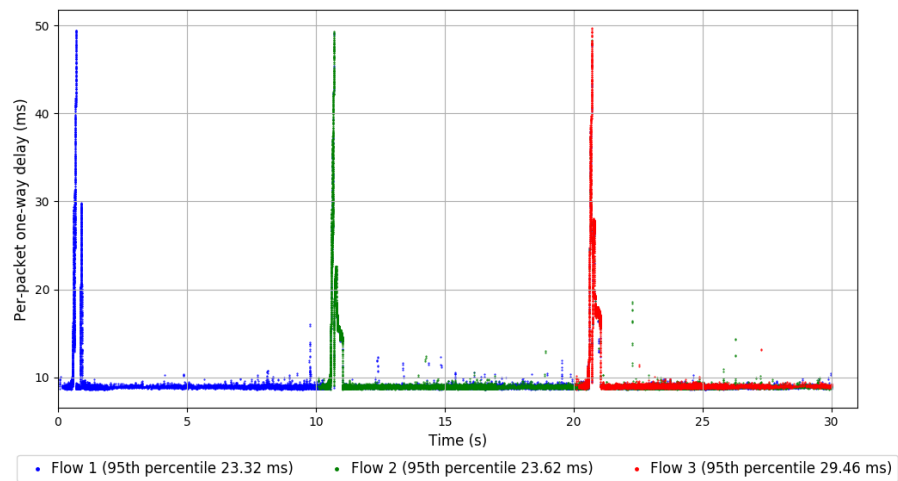
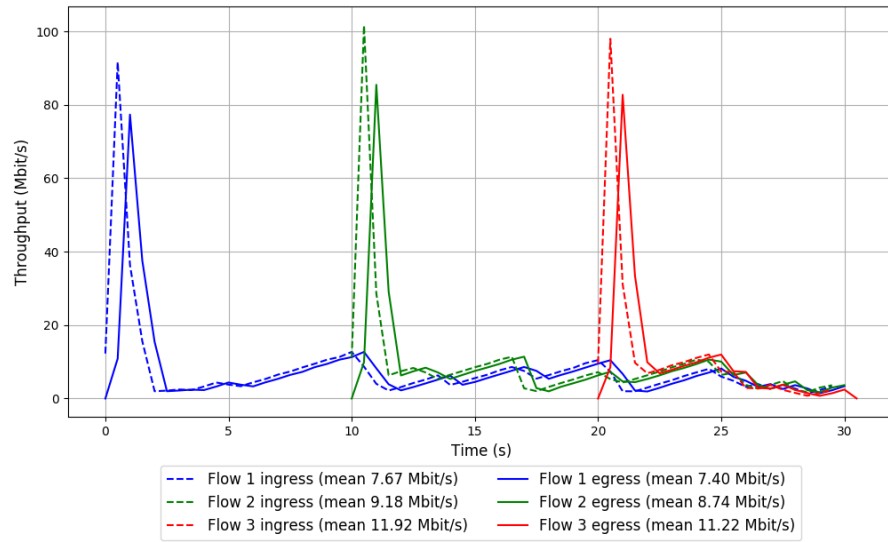


Run 5: Statistics of TCP Vegas

Start at: 2018-12-20 03:12:06  
End at: 2018-12-20 03:12:36  
Local clock offset: 0.112 ms  
Remote clock offset: -2.567 ms

# Below is generated by plot.py at 2018-12-20 03:42:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 16.95 Mbit/s  
95th percentile per-packet one-way delay: 26.411 ms  
Loss rate: 4.50%  
-- Flow 1:  
Average throughput: 7.40 Mbit/s  
95th percentile per-packet one-way delay: 23.322 ms  
Loss rate: 3.53%  
-- Flow 2:  
Average throughput: 8.74 Mbit/s  
95th percentile per-packet one-way delay: 23.621 ms  
Loss rate: 4.80%  
-- Flow 3:  
Average throughput: 11.22 Mbit/s  
95th percentile per-packet one-way delay: 29.459 ms  
Loss rate: 5.89%

# Run 5: Report of TCP Vegas — Data Link



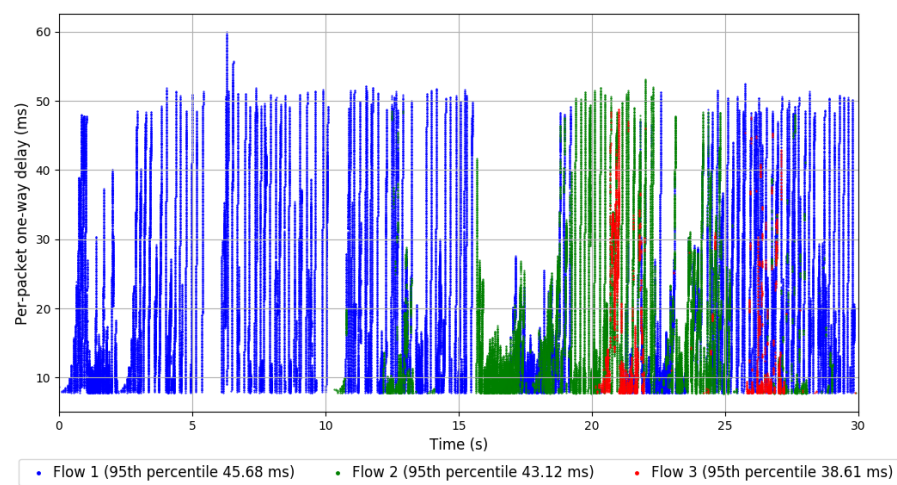
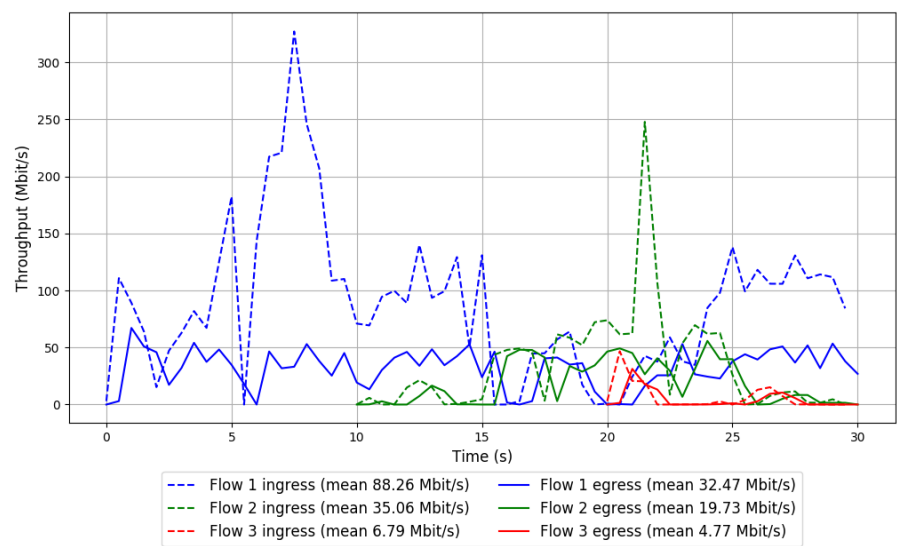


Run 1: Statistics of Verus

Start at: 2018-12-20 01:50:58  
End at: 2018-12-20 01:51:28  
Local clock offset: -2.125 ms  
Remote clock offset: -2.635 ms

# Below is generated by plot.py at 2018-12-20 03:43:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 46.91 Mbit/s  
95th percentile per-packet one-way delay: 45.007 ms  
Loss rate: 58.59%  
-- Flow 1:  
Average throughput: 32.47 Mbit/s  
95th percentile per-packet one-way delay: 45.680 ms  
Loss rate: 63.19%  
-- Flow 2:  
Average throughput: 19.73 Mbit/s  
95th percentile per-packet one-way delay: 43.116 ms  
Loss rate: 43.74%  
-- Flow 3:  
Average throughput: 4.77 Mbit/s  
95th percentile per-packet one-way delay: 38.608 ms  
Loss rate: 29.76%

Run 1: Report of Verus — Data Link

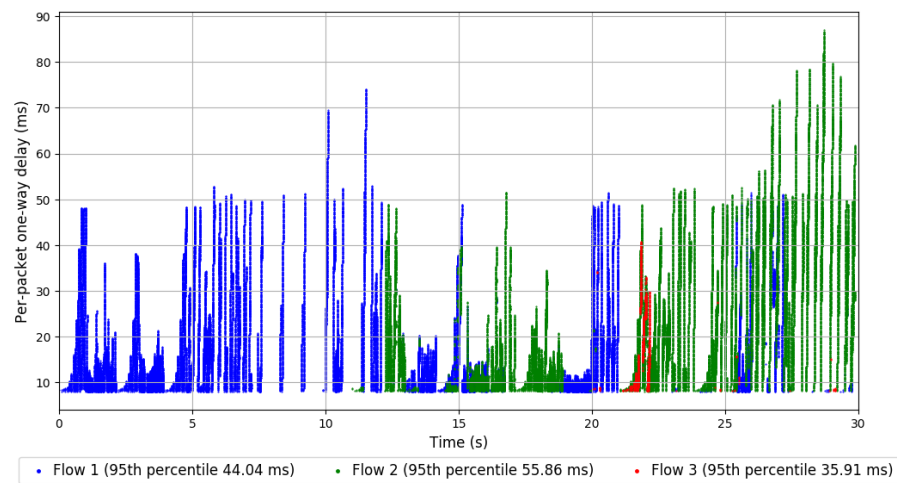
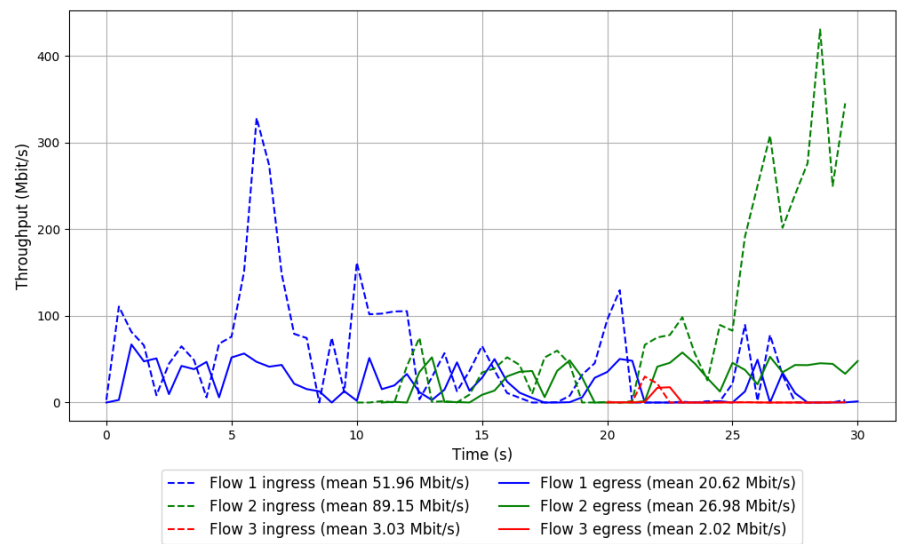


Run 2: Statistics of Verus

Start at: 2018-12-20 02:15:19  
End at: 2018-12-20 02:15:49  
Local clock offset: -3.507 ms  
Remote clock offset: -2.702 ms

# Below is generated by plot.py at 2018-12-20 03:43:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 38.18 Mbit/s  
95th percentile per-packet one-way delay: 48.190 ms  
Loss rate: 65.91%  
-- Flow 1:  
Average throughput: 20.62 Mbit/s  
95th percentile per-packet one-way delay: 44.040 ms  
Loss rate: 60.42%  
-- Flow 2:  
Average throughput: 26.98 Mbit/s  
95th percentile per-packet one-way delay: 55.858 ms  
Loss rate: 71.22%  
-- Flow 3:  
Average throughput: 2.02 Mbit/s  
95th percentile per-packet one-way delay: 35.915 ms  
Loss rate: 33.90%

Run 2: Report of Verus — Data Link

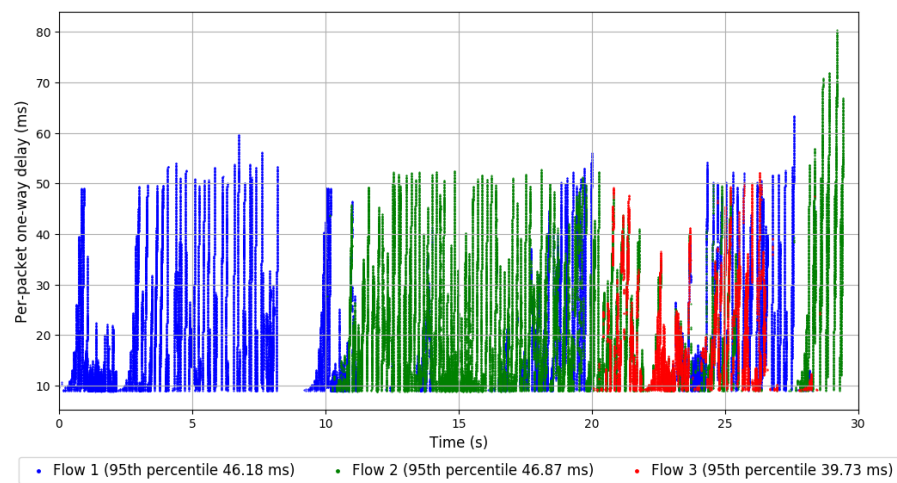
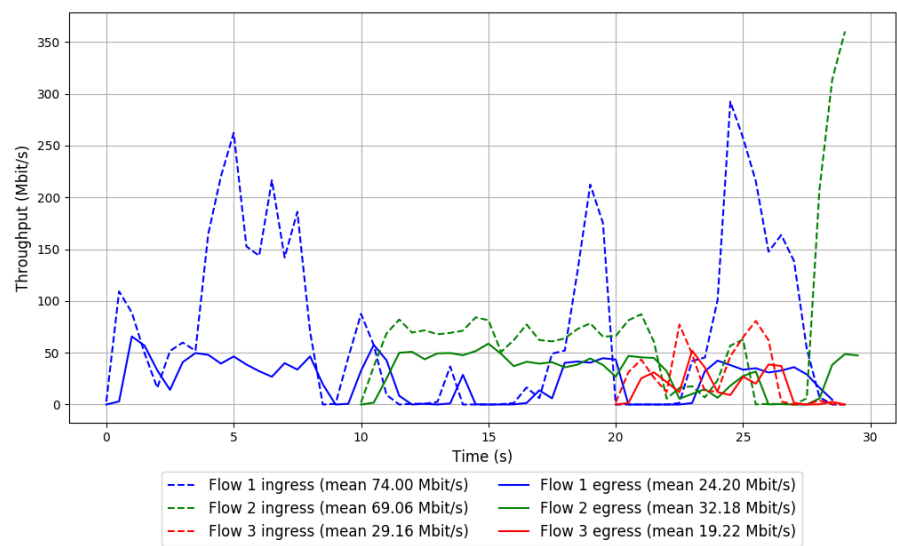


Run 3: Statistics of Verus

Start at: 2018-12-20 02:39:42  
End at: 2018-12-20 02:40:12  
Local clock offset: -3.013 ms  
Remote clock offset: -2.364 ms

# Below is generated by plot.py at 2018-12-20 03:43:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 50.07 Mbit/s  
95th percentile per-packet one-way delay: 46.047 ms  
Loss rate: 60.92%  
-- Flow 1:  
Average throughput: 24.20 Mbit/s  
95th percentile per-packet one-way delay: 46.182 ms  
Loss rate: 68.37%  
-- Flow 2:  
Average throughput: 32.18 Mbit/s  
95th percentile per-packet one-way delay: 46.868 ms  
Loss rate: 53.37%  
-- Flow 3:  
Average throughput: 19.22 Mbit/s  
95th percentile per-packet one-way delay: 39.725 ms  
Loss rate: 37.94%

Run 3: Report of Verus — Data Link

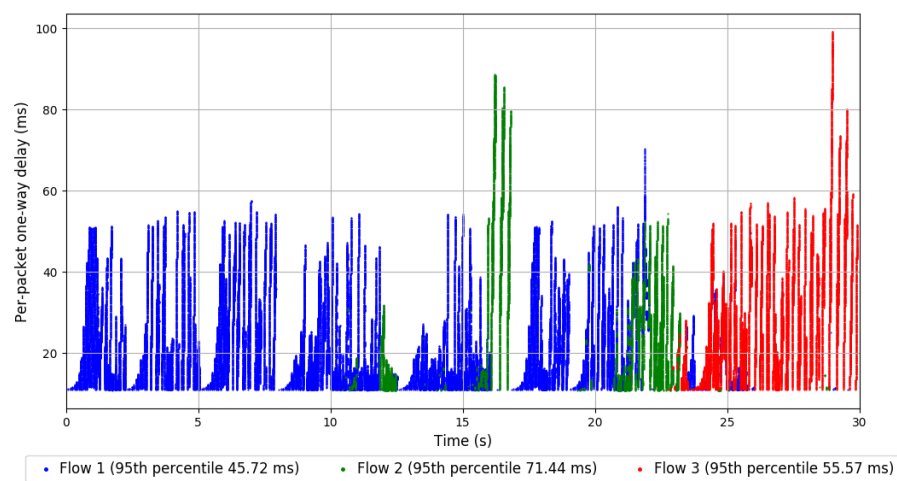
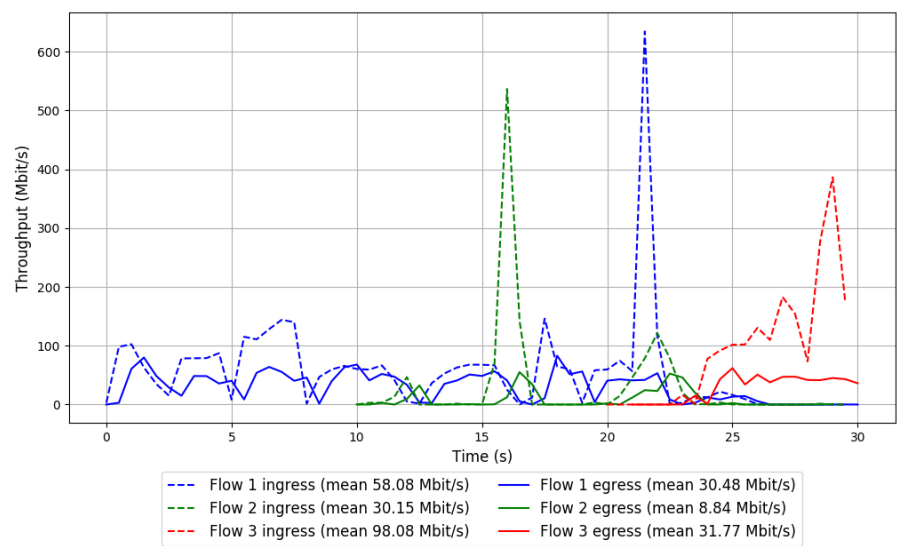


Run 4: Statistics of Verus

Start at: 2018-12-20 03:04:34  
End at: 2018-12-20 03:05:04  
Local clock offset: -1.706 ms  
Remote clock offset: -2.293 ms

# Below is generated by plot.py at 2018-12-20 03:43:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 44.81 Mbit/s  
95th percentile per-packet one-way delay: 49.888 ms  
Loss rate: 58.82%  
-- Flow 1:  
Average throughput: 30.48 Mbit/s  
95th percentile per-packet one-way delay: 45.721 ms  
Loss rate: 47.65%  
-- Flow 2:  
Average throughput: 8.84 Mbit/s  
95th percentile per-packet one-way delay: 71.441 ms  
Loss rate: 71.97%  
-- Flow 3:  
Average throughput: 31.77 Mbit/s  
95th percentile per-packet one-way delay: 55.573 ms  
Loss rate: 70.96%

Run 4: Report of Verus — Data Link



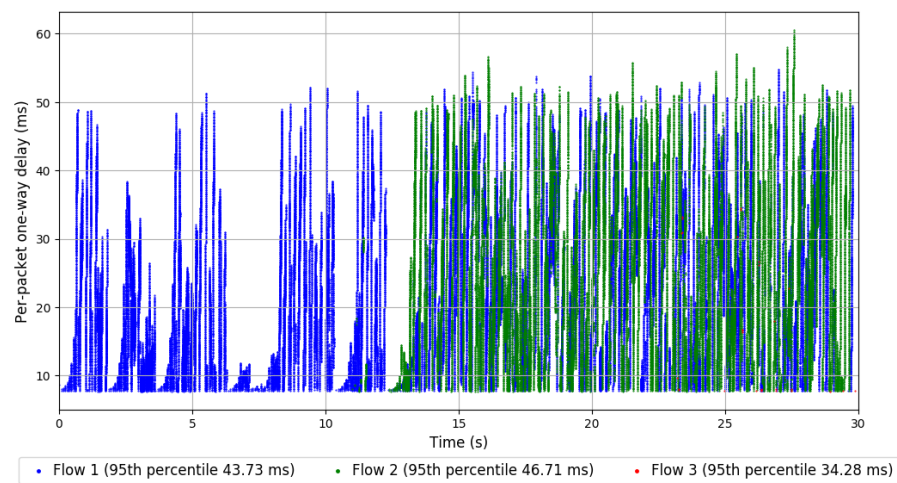
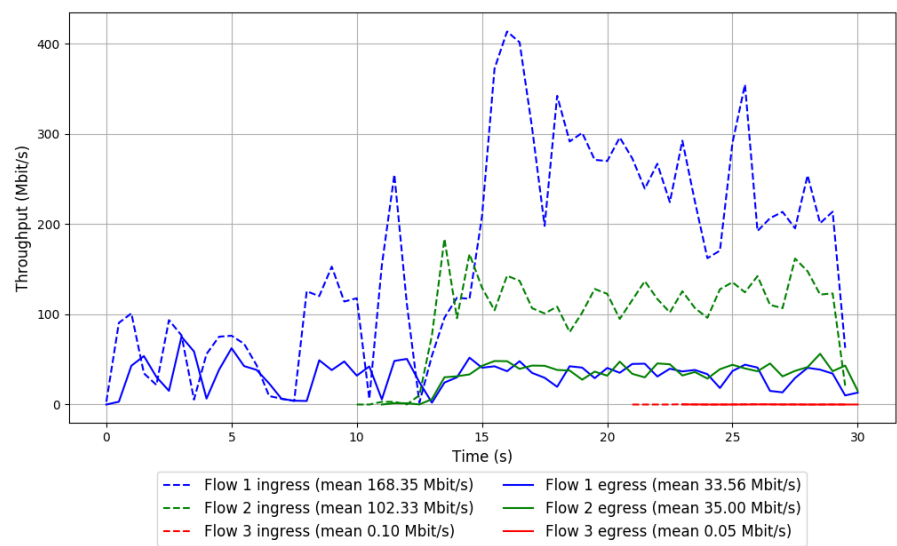


Run 5: Statistics of Verus

Start at: 2018-12-20 03:28:42  
End at: 2018-12-20 03:29:12  
Local clock offset: 0.672 ms  
Remote clock offset: -3.608 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 55.33 Mbit/s  
95th percentile per-packet one-way delay: 45.166 ms  
Loss rate: 76.45%  
-- Flow 1:  
Average throughput: 33.56 Mbit/s  
95th percentile per-packet one-way delay: 43.727 ms  
Loss rate: 80.05%  
-- Flow 2:  
Average throughput: 35.00 Mbit/s  
95th percentile per-packet one-way delay: 46.710 ms  
Loss rate: 67.48%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 34.280 ms  
Loss rate: 57.75%

Run 5: Report of Verus — Data Link

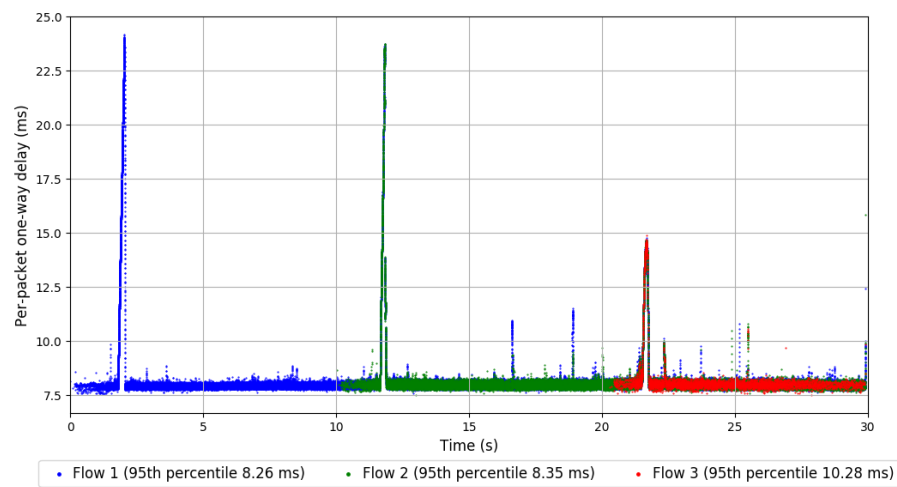
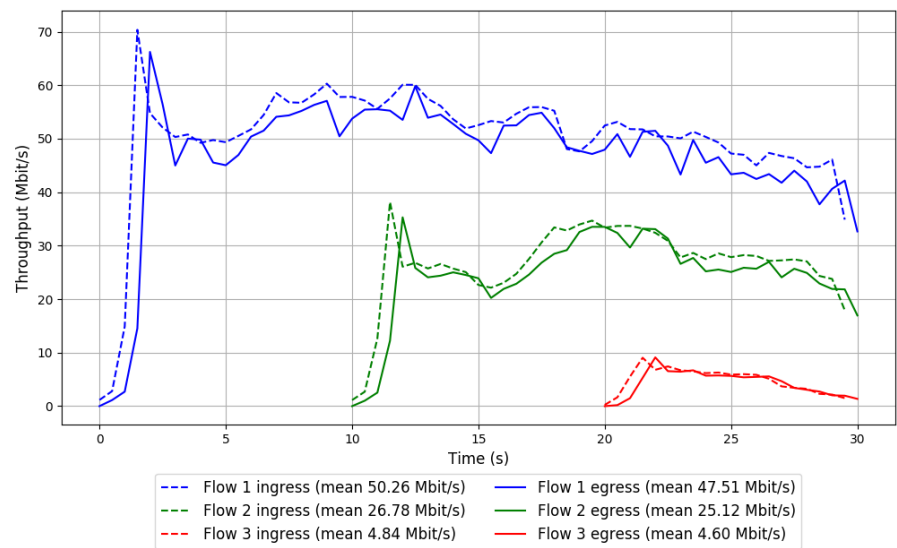


Run 1: Statistics of PCC-Vivace

Start at: 2018-12-20 01:49:36  
End at: 2018-12-20 01:50:06  
Local clock offset: -2.256 ms  
Remote clock offset: -2.928 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.68 Mbit/s  
95th percentile per-packet one-way delay: 8.288 ms  
Loss rate: 5.70%  
-- Flow 1:  
Average throughput: 47.51 Mbit/s  
95th percentile per-packet one-way delay: 8.255 ms  
Loss rate: 5.47%  
-- Flow 2:  
Average throughput: 25.12 Mbit/s  
95th percentile per-packet one-way delay: 8.353 ms  
Loss rate: 6.19%  
-- Flow 3:  
Average throughput: 4.60 Mbit/s  
95th percentile per-packet one-way delay: 10.282 ms  
Loss rate: 7.37%

Run 1: Report of PCC-Vivace — Data Link

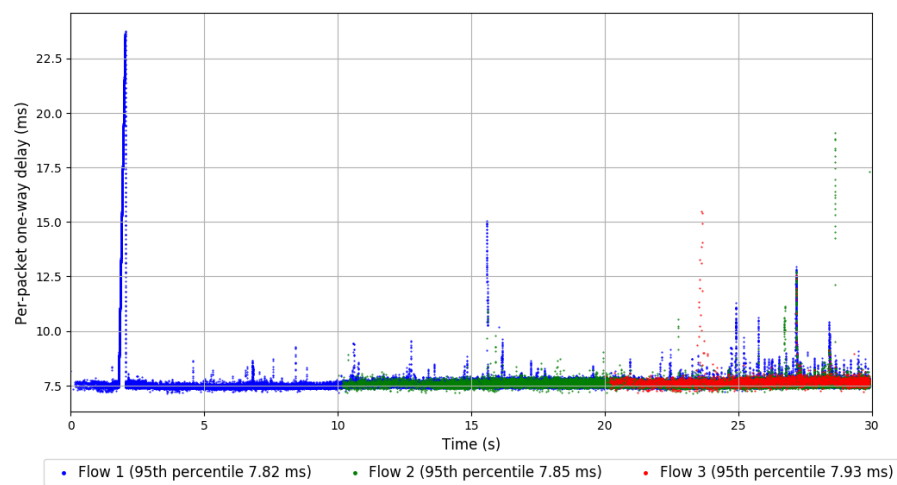
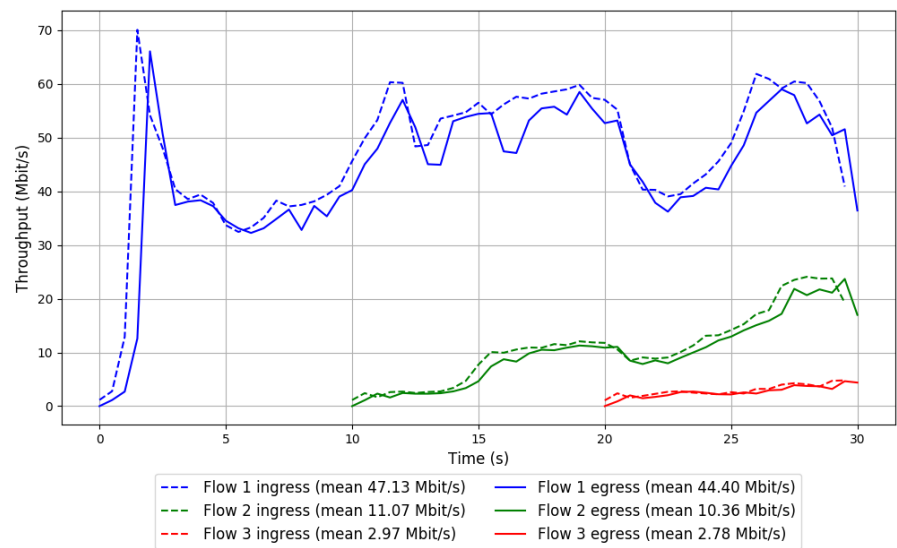


Run 2: Statistics of PCC-Vivace

Start at: 2018-12-20 02:13:58  
End at: 2018-12-20 02:14:28  
Local clock offset: -2.461 ms  
Remote clock offset: -2.361 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 52.19 Mbit/s  
95th percentile per-packet one-way delay: 7.836 ms  
Loss rate: 5.88%  
-- Flow 1:  
Average throughput: 44.40 Mbit/s  
95th percentile per-packet one-way delay: 7.824 ms  
Loss rate: 5.79%  
-- Flow 2:  
Average throughput: 10.36 Mbit/s  
95th percentile per-packet one-way delay: 7.849 ms  
Loss rate: 6.38%  
-- Flow 3:  
Average throughput: 2.78 Mbit/s  
95th percentile per-packet one-way delay: 7.928 ms  
Loss rate: 6.43%

Run 2: Report of PCC-Vivace — Data Link

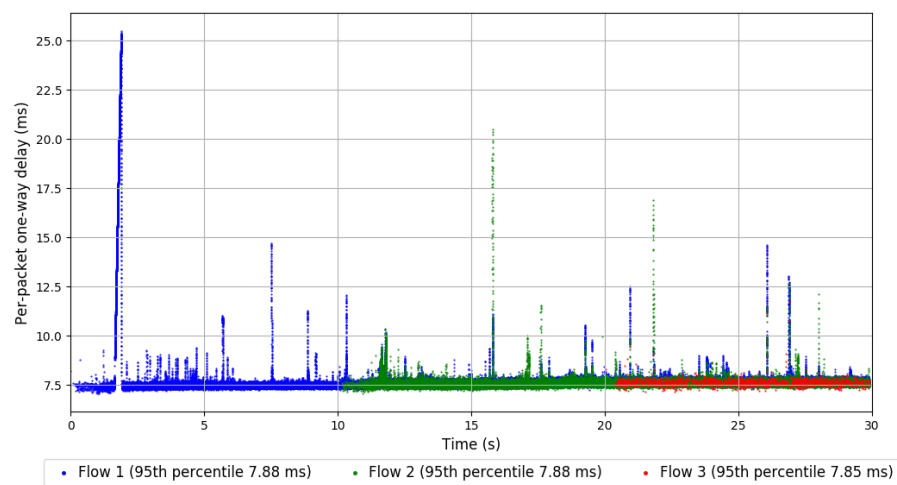
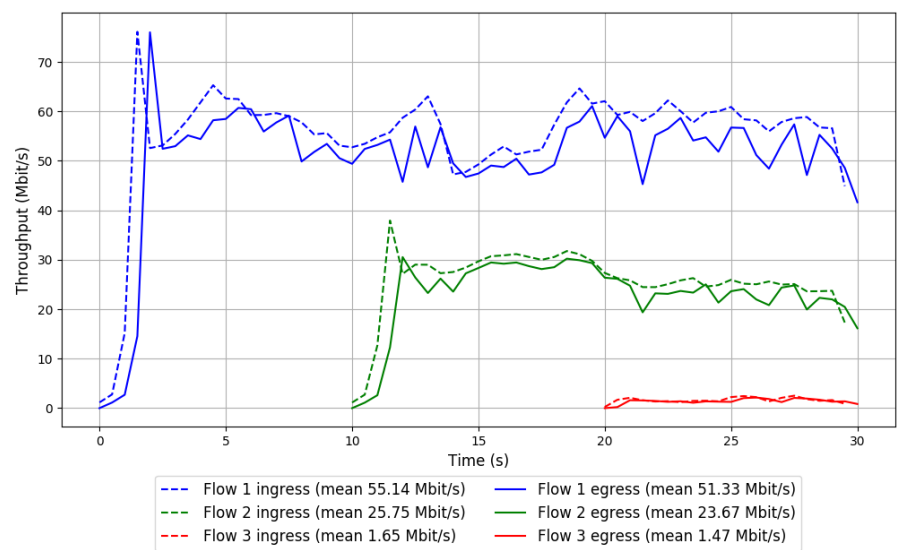


Run 3: Statistics of PCC-Vivace

Start at: 2018-12-20 02:38:13  
End at: 2018-12-20 02:38:43  
Local clock offset: -2.344 ms  
Remote clock offset: -2.933 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.56 Mbit/s  
95th percentile per-packet one-way delay: 7.877 ms  
Loss rate: 7.21%  
-- Flow 1:  
Average throughput: 51.33 Mbit/s  
95th percentile per-packet one-way delay: 7.878 ms  
Loss rate: 6.90%  
-- Flow 2:  
Average throughput: 23.67 Mbit/s  
95th percentile per-packet one-way delay: 7.876 ms  
Loss rate: 8.09%  
-- Flow 3:  
Average throughput: 1.47 Mbit/s  
95th percentile per-packet one-way delay: 7.849 ms  
Loss rate: 11.15%

Run 3: Report of PCC-Vivace — Data Link



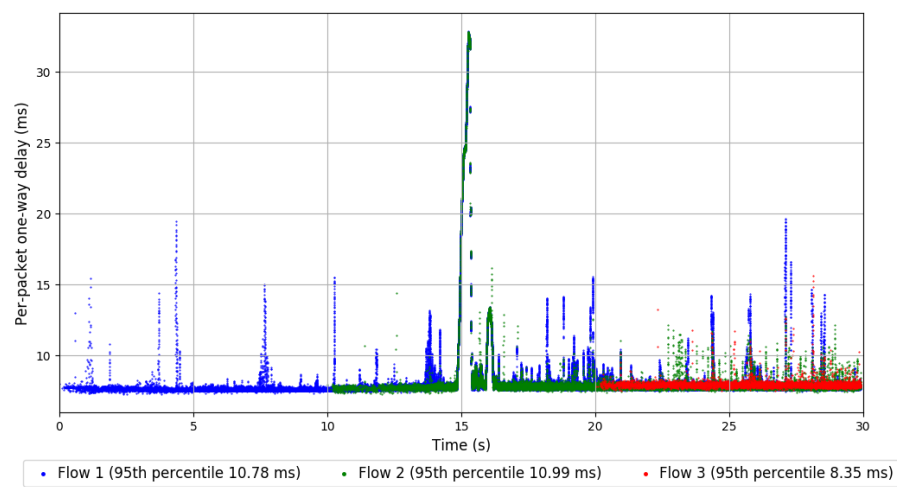
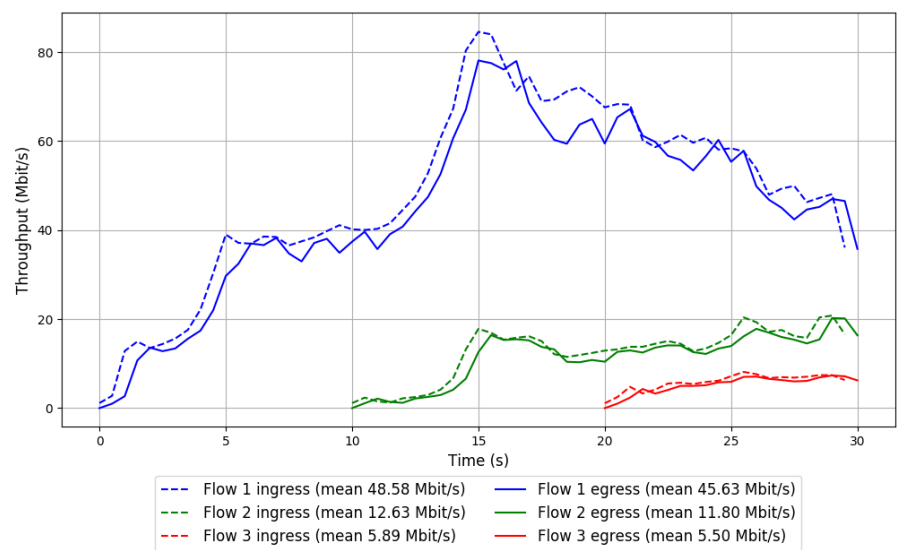


Run 4: Statistics of PCC-Vivace

Start at: 2018-12-20 03:03:11  
End at: 2018-12-20 03:03:41  
Local clock offset: 1.783 ms  
Remote clock offset: -1.899 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 55.30 Mbit/s  
95th percentile per-packet one-way delay: 10.558 ms  
Loss rate: 6.16%  
-- Flow 1:  
Average throughput: 45.63 Mbit/s  
95th percentile per-packet one-way delay: 10.781 ms  
Loss rate: 6.07%  
-- Flow 2:  
Average throughput: 11.80 Mbit/s  
95th percentile per-packet one-way delay: 10.986 ms  
Loss rate: 6.59%  
-- Flow 3:  
Average throughput: 5.50 Mbit/s  
95th percentile per-packet one-way delay: 8.348 ms  
Loss rate: 6.51%

Run 4: Report of PCC-Vivace — Data Link

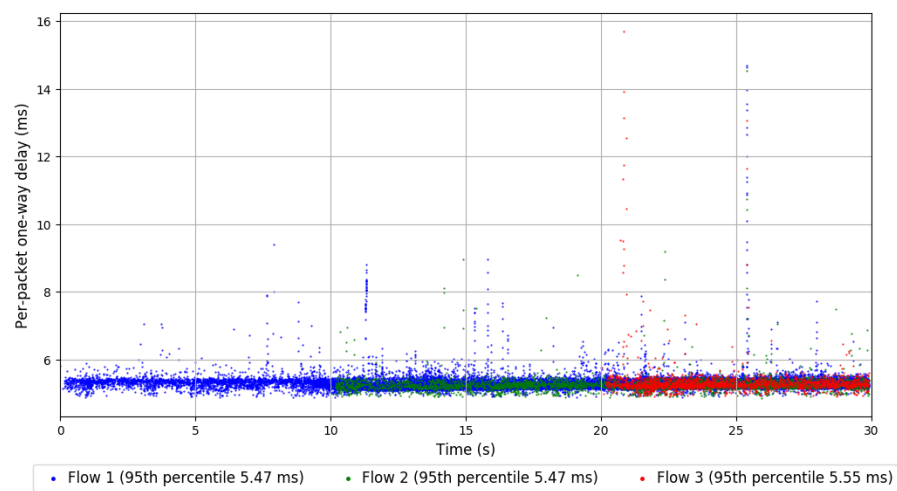
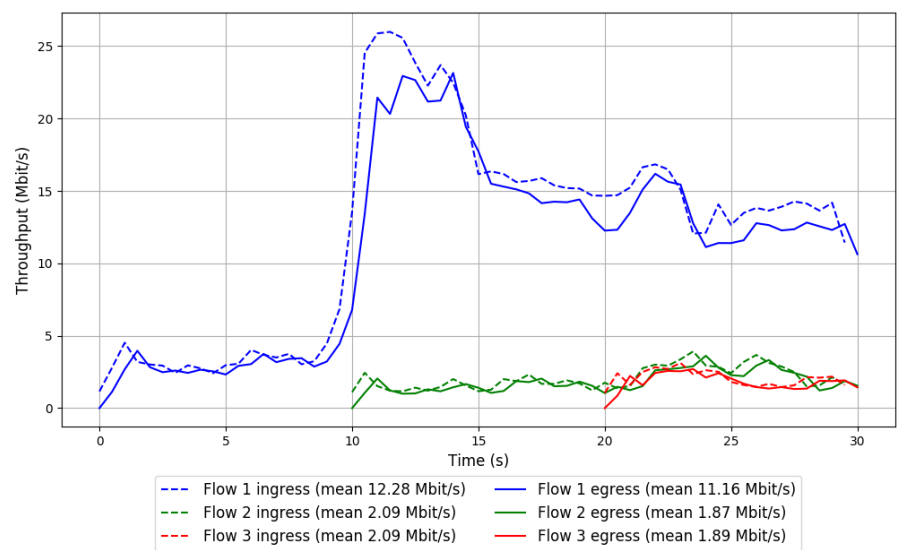


Run 5: Statistics of PCC-Vivace

Start at: 2018-12-20 03:27:26  
End at: 2018-12-20 03:27:56  
Local clock offset: 3.112 ms  
Remote clock offset: -3.709 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.02 Mbit/s  
95th percentile per-packet one-way delay: 5.473 ms  
Loss rate: 9.31%  
-- Flow 1:  
Average throughput: 11.16 Mbit/s  
95th percentile per-packet one-way delay: 5.469 ms  
Loss rate: 9.17%  
-- Flow 2:  
Average throughput: 1.87 Mbit/s  
95th percentile per-packet one-way delay: 5.466 ms  
Loss rate: 10.36%  
-- Flow 3:  
Average throughput: 1.89 Mbit/s  
95th percentile per-packet one-way delay: 5.550 ms  
Loss rate: 9.86%

Run 5: Report of PCC-Vivace — Data Link

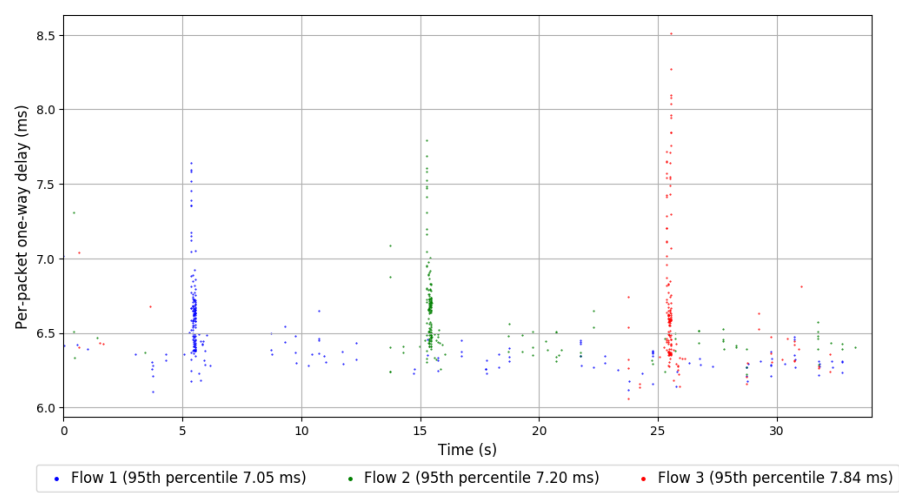
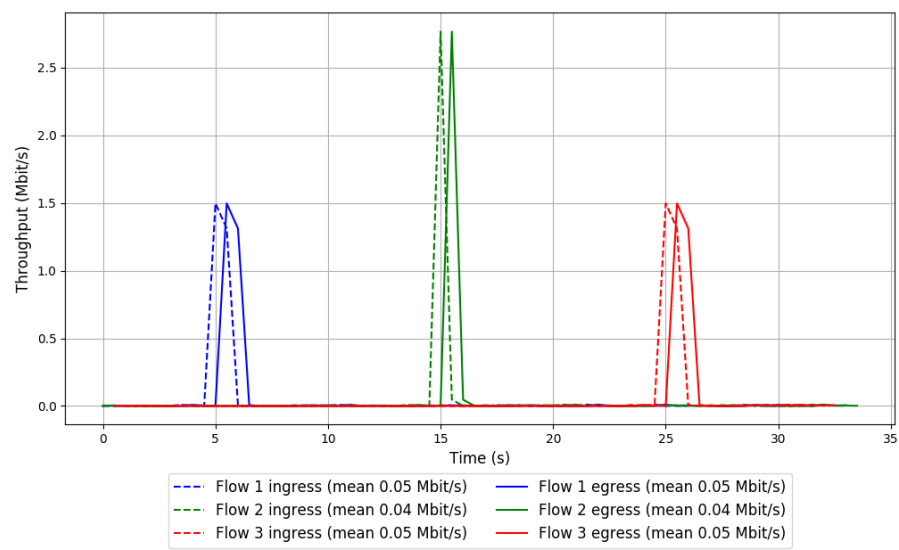


Run 1: Statistics of WebRTC media

Start at: 2018-12-20 01:44:35  
End at: 2018-12-20 01:45:05  
Local clock offset: -0.178 ms  
Remote clock offset: -2.666 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 7.472 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 7.048 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 7.197 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 7.842 ms  
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

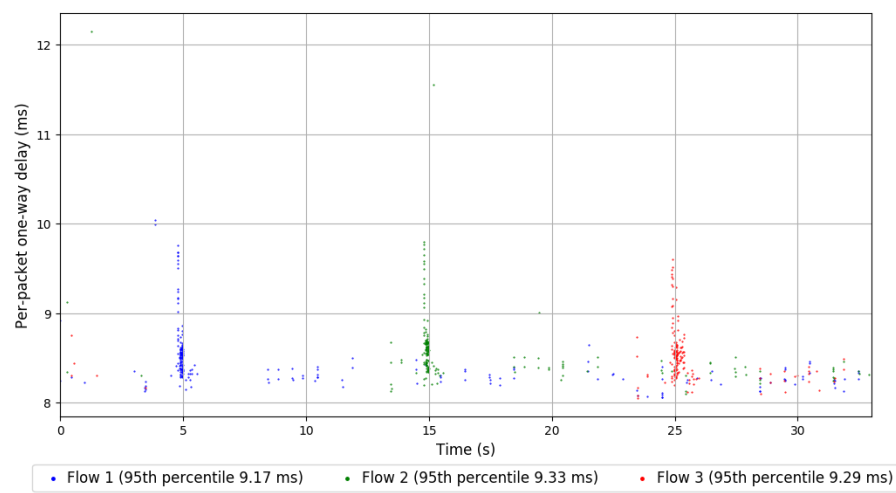
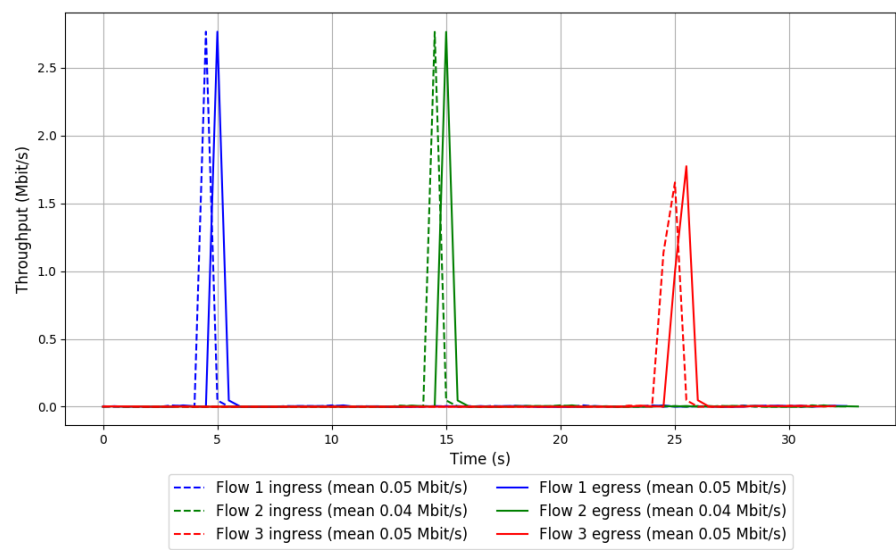


Run 2: Statistics of WebRTC media

Start at: 2018-12-20 02:08:56  
End at: 2018-12-20 02:09:26  
Local clock offset: -3.482 ms  
Remote clock offset: -2.655 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 9.273 ms  
Loss rate: 0.36%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 9.174 ms  
Loss rate: 0.17%  
-- Flow 2:  
Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 9.330 ms  
Loss rate: 0.10%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 9.289 ms  
Loss rate: 0.83%

Run 2: Report of WebRTC media — Data Link





Run 3: Statistics of WebRTC media

Start at: 2018-12-20 02:33:11

End at: 2018-12-20 02:33:41

Local clock offset: -3.429 ms

Remote clock offset: -2.79 ms

# Below is generated by plot.py at 2018-12-20 03:43:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 8.264 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 8.238 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 8.126 ms

Loss rate: 0.00%

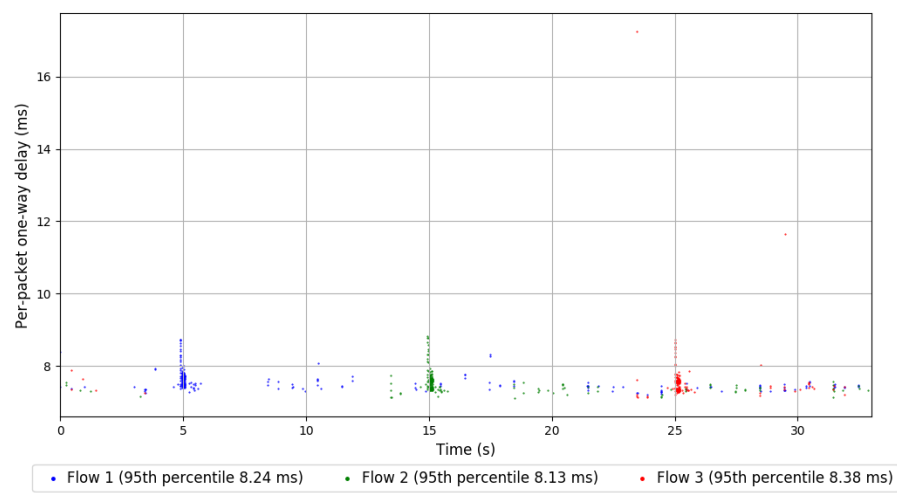
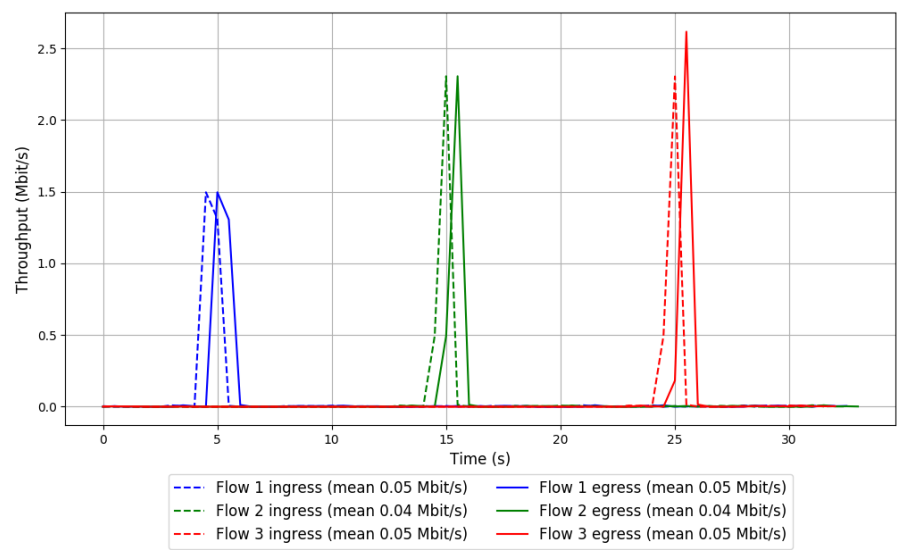
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 8.378 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

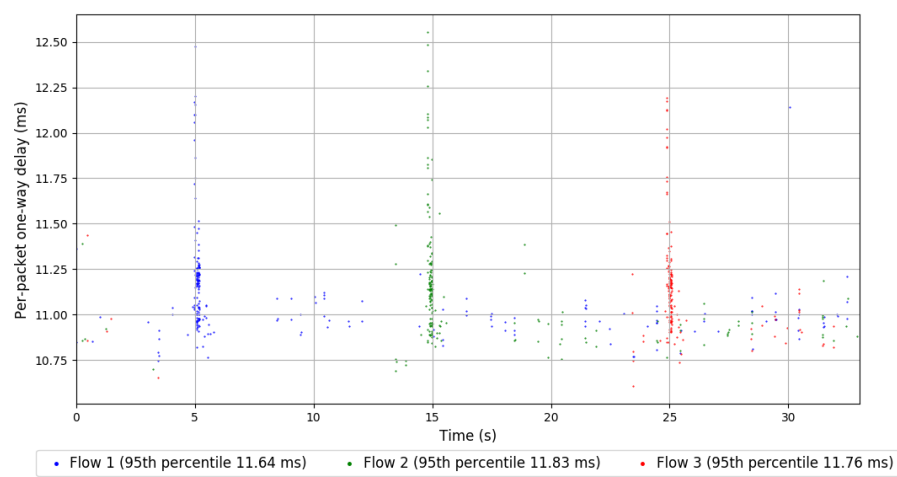
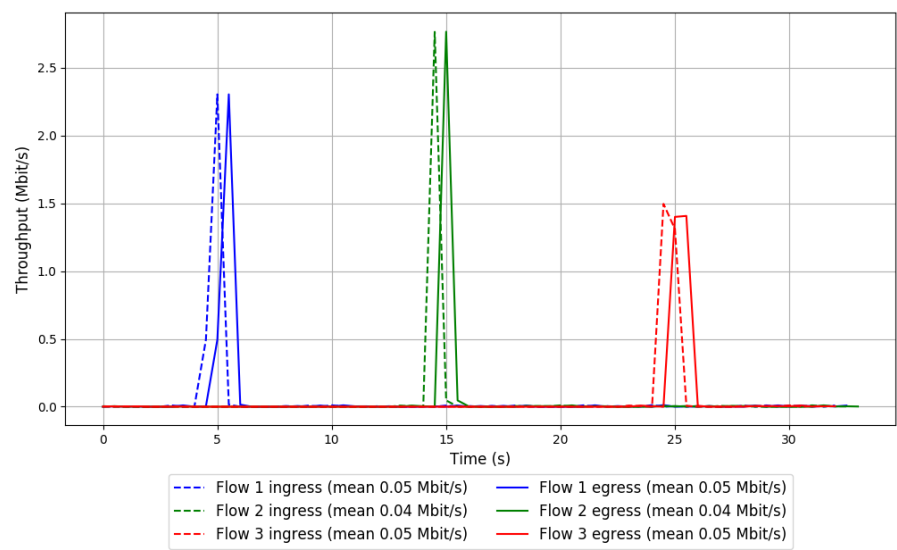


Run 4: Statistics of WebRTC media

Start at: 2018-12-20 02:57:59  
End at: 2018-12-20 02:58:29  
Local clock offset: -1.718 ms  
Remote clock offset: -1.605 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 11.757 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 11.639 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 11.826 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 11.757 ms  
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-12-20 03:22:23  
End at: 2018-12-20 03:22:53  
Local clock offset: -1.698 ms  
Remote clock offset: -3.106 ms

# Below is generated by plot.py at 2018-12-20 03:43:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 11.302 ms  
Loss rate: 2.40%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 11.078 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 11.225 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 11.392 ms  
Loss rate: 6.95%

Run 5: Report of WebRTC media — Data Link

