

## Pantheon Report

Generated at 2018-12-20 03:34:09 (UTC).

Data path: AWS Brazil 1 on `ens5` (*local*) → Brazil on `p4p1` (*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 `gps.ntp.br` and have been applied to correct the timestamps in logs.

### System info:

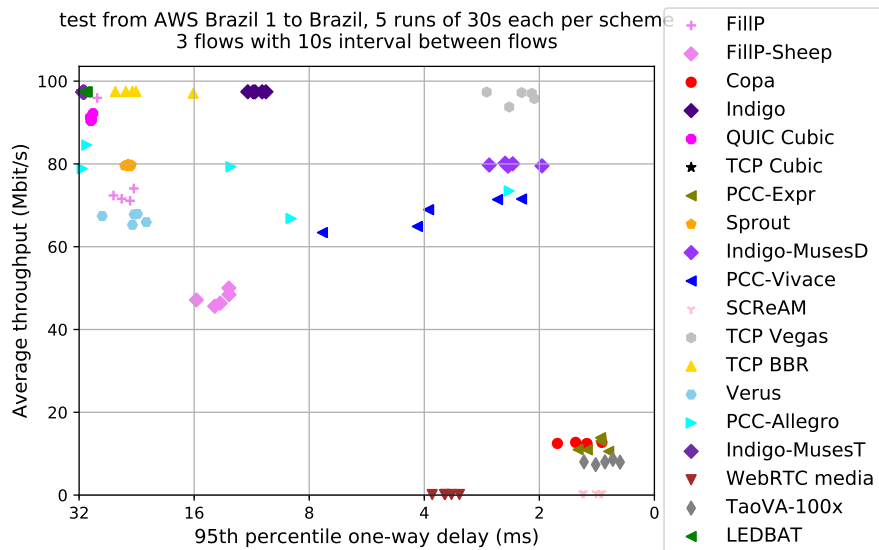
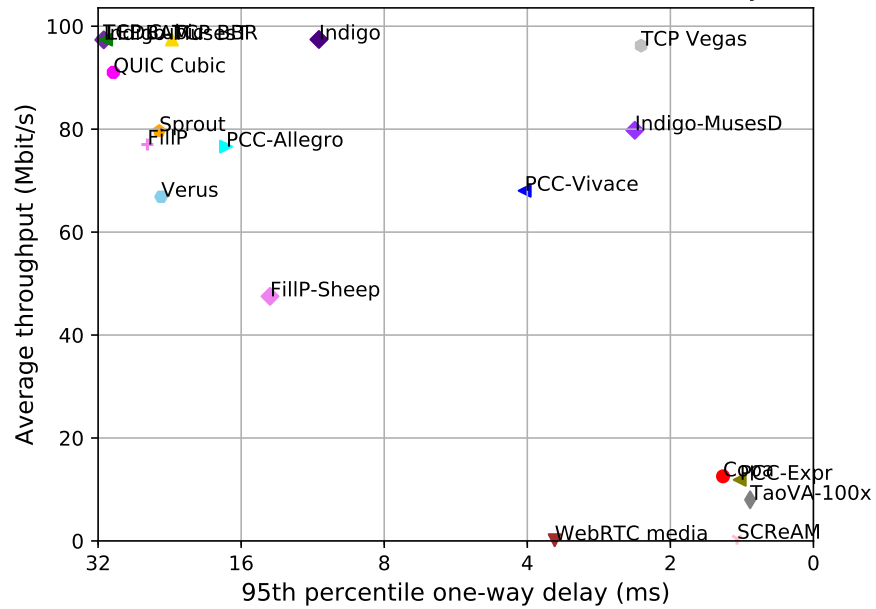
```
Linux 4.15.0-1029-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### 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 Brazil 1 to Brazil, 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	72.74	30.26	13.59	22.59	20.39	23.11	0.00	0.00	0.00
Copa	5	8.23	5.40	6.38	1.49	1.48	2.28	67.96	68.58	60.84
TCP Cubic	5	65.06	33.20	31.17	31.19	31.29	31.41	0.03	0.04	0.04
FillP	5	48.17	29.36	28.00	22.41	27.17	26.47	4.40	6.61	11.76
FillP-Sheep	5	36.27	10.58	12.71	11.36	20.18	20.94	1.30	2.70	3.76
Indigo	5	43.84	47.26	68.16	10.12	10.94	11.04	0.00	0.00	0.00
Indigo-MusesD	5	42.99	39.14	32.59	2.35	2.38	2.55	0.00	0.00	0.00
Indigo-MusesT	5	59.65	37.90	41.60	31.14	31.13	31.12	47.65	34.75	15.18
LEDBAT	5	62.63	36.87	30.86	30.73	30.81	30.82	0.03	0.07	0.09
PCC-Allegro	5	58.26	19.26	16.81	15.77	18.20	21.15	0.06	0.26	0.09
PCC-Expr	5	6.04	6.07	5.57	1.03	1.02	1.01	97.15	98.10	99.13
QUIC Cubic	5	57.76	35.94	28.51	29.64	29.78	30.07	0.17	0.19	0.26
SCReAM	5	0.22	0.22	0.22	1.07	1.06	1.06	0.00	0.00	0.00
Sprout	5	43.11	39.60	30.80	22.31	23.47	25.92	0.00	0.00	0.00
TaoVA-100x	5	0.00	6.70	10.91	0.87	0.88	0.89	95.92	50.00	85.50
TCP Vegas	5	55.67	41.02	39.80	2.20	2.26	2.69	0.00	0.00	0.00
Verus	5	38.48	29.61	26.30	15.03	27.10	31.15	4.17	5.84	9.11
PCC-Vivace	5	38.20	31.82	26.26	3.47	4.21	7.80	0.01	0.01	0.02
WebRTC media	5	0.05	0.05	0.05	3.47	3.36	3.55	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-12-20 01:48:07

End at: 2018-12-20 01:48:37

Local clock offset: -5.675 ms

Remote clock offset: -0.77 ms

# Below is generated by plot.py at 2018-12-20 03:24:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.50 Mbit/s

95th percentile per-packet one-way delay: 25.715 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 79.05 Mbit/s

95th percentile per-packet one-way delay: 25.801 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.79 Mbit/s

95th percentile per-packet one-way delay: 24.519 ms

Loss rate: 0.00%

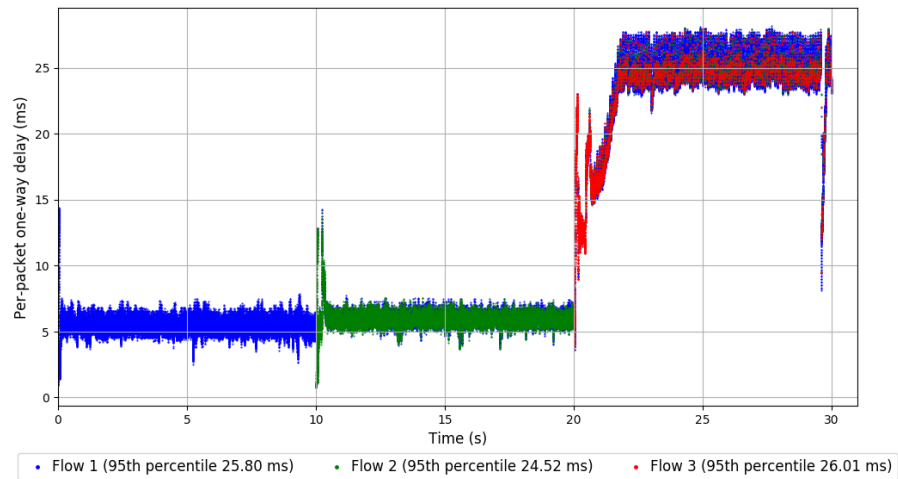
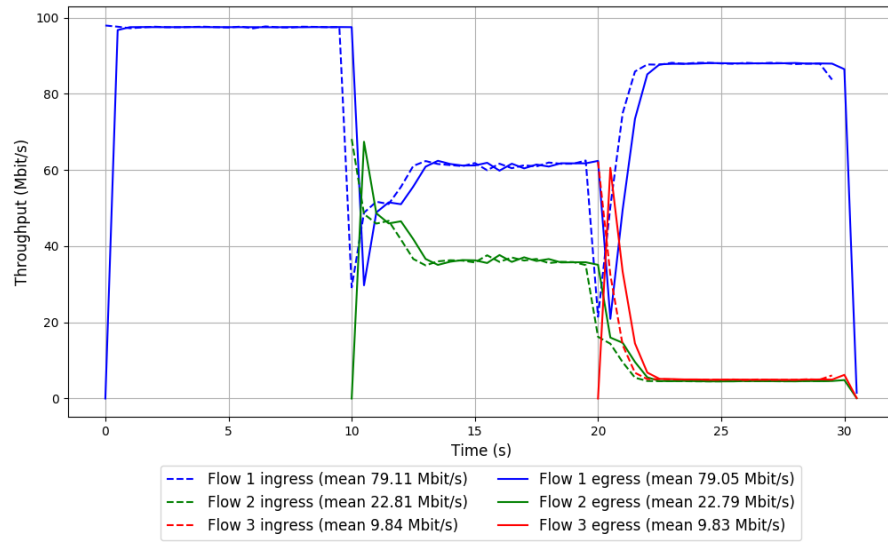
-- Flow 3:

Average throughput: 9.83 Mbit/s

95th percentile per-packet one-way delay: 26.013 ms

Loss rate: 0.00%

# Run 1: Report of TCP BBR — Data Link

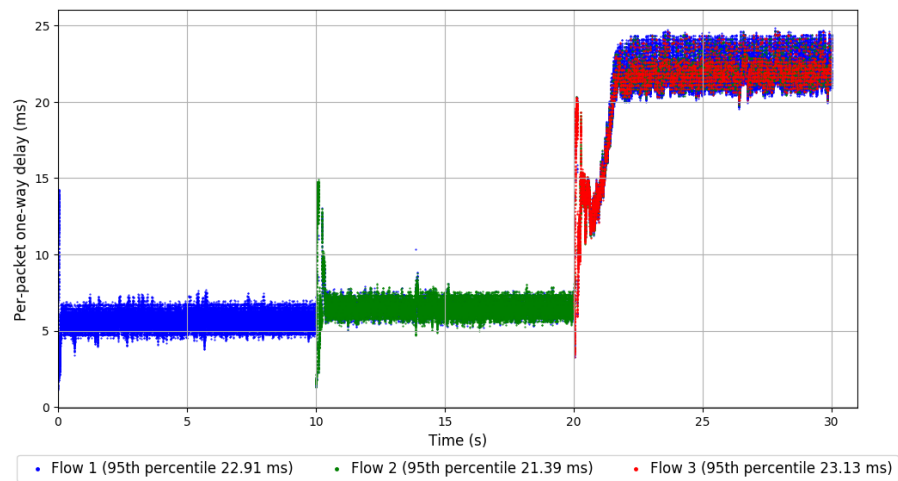
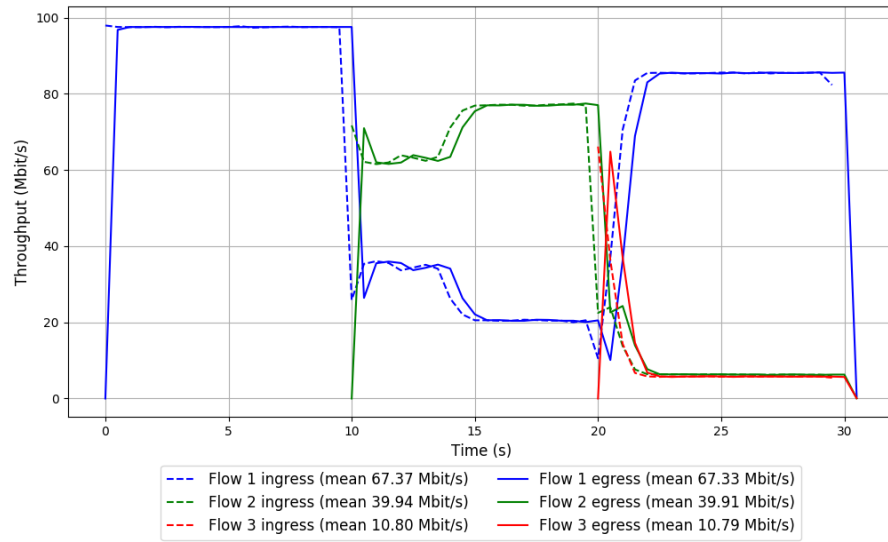


Run 2: Statistics of TCP BBR

Start at: 2018-12-20 02:09:48  
End at: 2018-12-20 02:10:18  
Local clock offset: -5.036 ms  
Remote clock offset: -0.704 ms

# Below is generated by plot.py at 2018-12-20 03:24:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.52 Mbit/s  
95th percentile per-packet one-way delay: 22.716 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 67.33 Mbit/s  
95th percentile per-packet one-way delay: 22.909 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 39.91 Mbit/s  
95th percentile per-packet one-way delay: 21.392 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 10.79 Mbit/s  
95th percentile per-packet one-way delay: 23.129 ms  
Loss rate: 0.00%

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

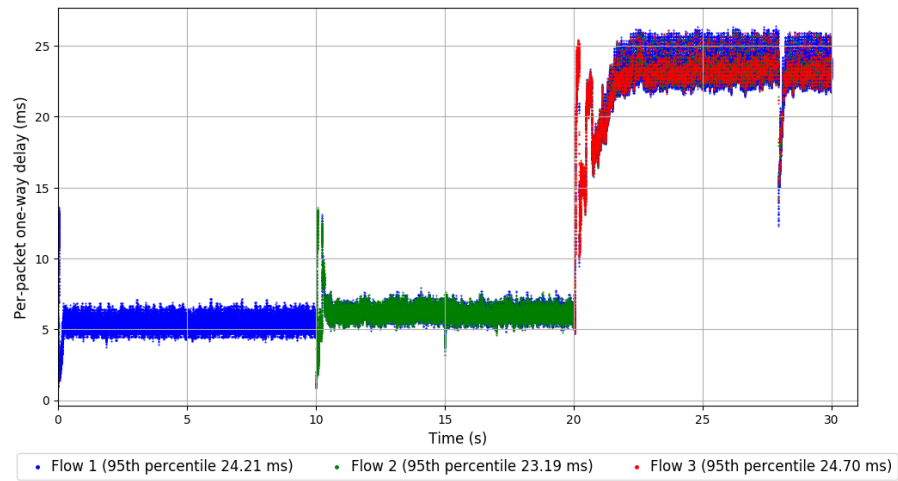
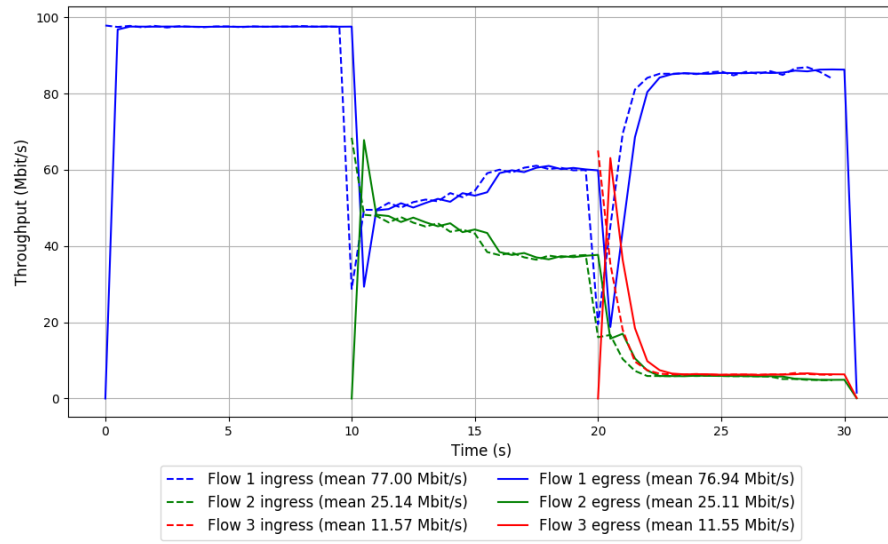


Run 3: Statistics of TCP BBR

Start at: 2018-12-20 02:31:26  
End at: 2018-12-20 02:31:56  
Local clock offset: -0.644 ms  
Remote clock offset: -0.716 ms

# Below is generated by plot.py at 2018-12-20 03:24:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.51 Mbit/s  
95th percentile per-packet one-way delay: 24.151 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 76.94 Mbit/s  
95th percentile per-packet one-way delay: 24.206 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 25.11 Mbit/s  
95th percentile per-packet one-way delay: 23.191 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 11.55 Mbit/s  
95th percentile per-packet one-way delay: 24.704 ms  
Loss rate: 0.00%

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

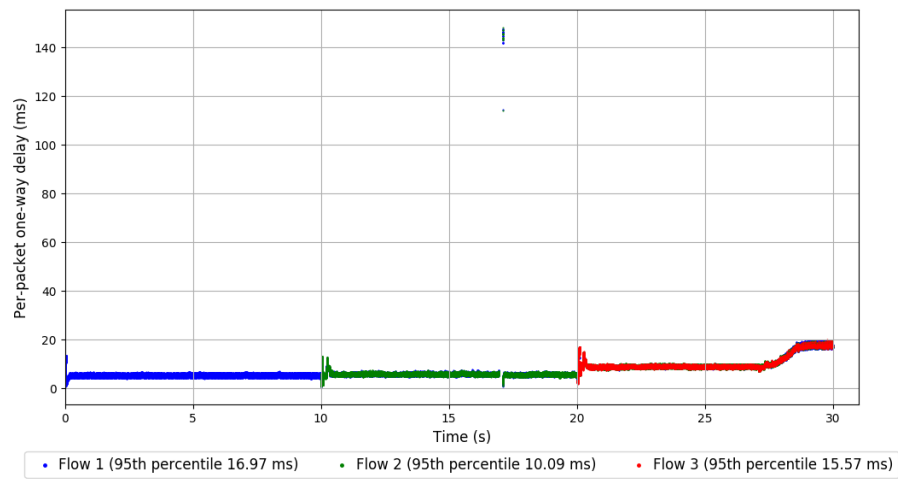
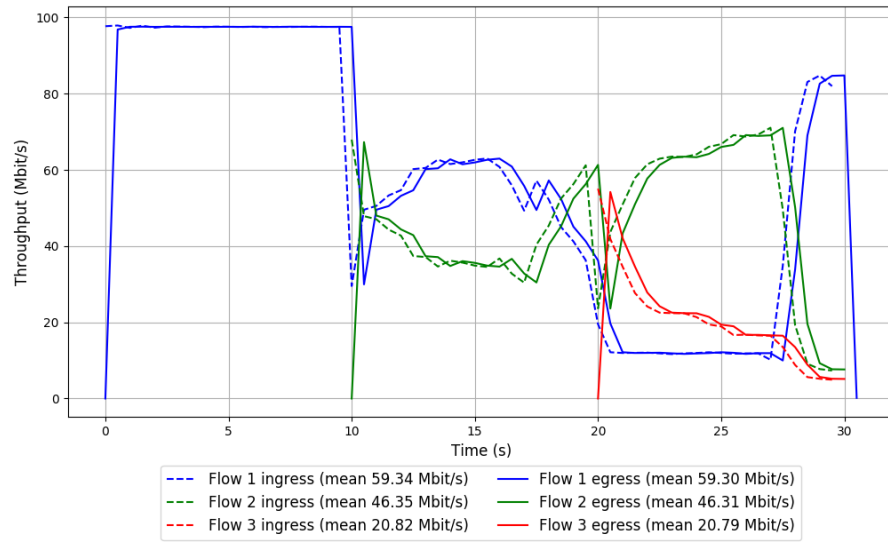


Run 4: Statistics of TCP BBR

Start at: 2018-12-20 02:53:04  
End at: 2018-12-20 02:53:34  
Local clock offset: -6.408 ms  
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-12-20 03:24:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.07 Mbit/s  
95th percentile per-packet one-way delay: 16.083 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 59.30 Mbit/s  
95th percentile per-packet one-way delay: 16.967 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 46.31 Mbit/s  
95th percentile per-packet one-way delay: 10.091 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 20.79 Mbit/s  
95th percentile per-packet one-way delay: 15.568 ms  
Loss rate: 0.00%

# Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-12-20 03:14:43

End at: 2018-12-20 03:15:13

Local clock offset: -3.123 ms

Remote clock offset: 0.318 ms

# Below is generated by plot.py at 2018-12-20 03:24:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.51 Mbit/s

95th percentile per-packet one-way delay: 23.202 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 81.06 Mbit/s

95th percentile per-packet one-way delay: 23.074 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.19 Mbit/s

95th percentile per-packet one-way delay: 22.780 ms

Loss rate: 0.00%

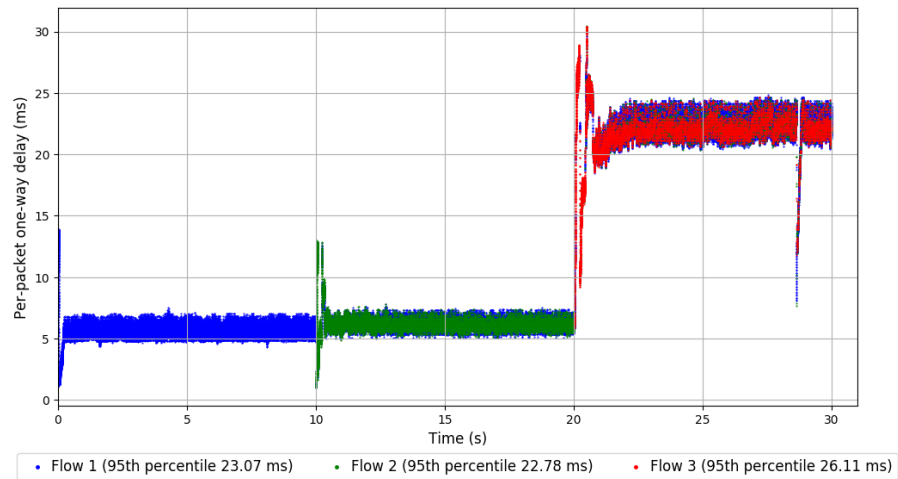
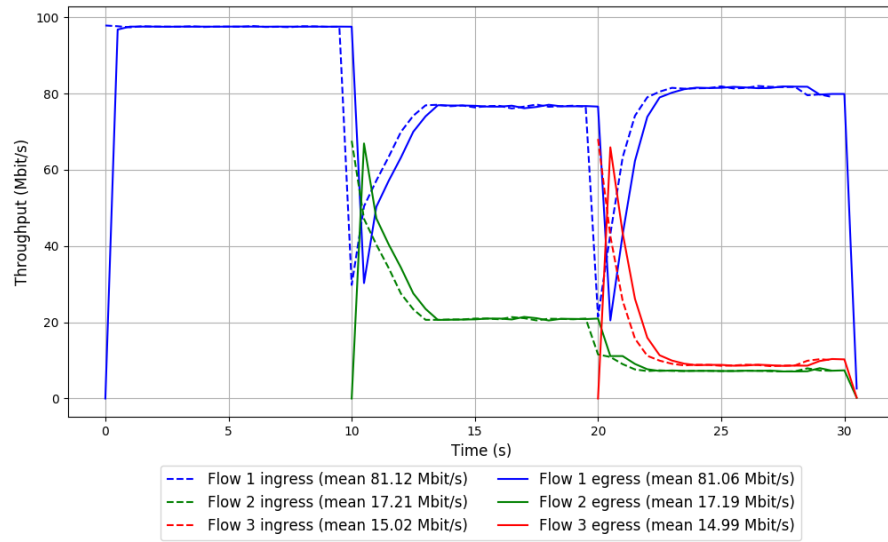
-- Flow 3:

Average throughput: 14.99 Mbit/s

95th percentile per-packet one-way delay: 26.115 ms

Loss rate: 0.00%

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

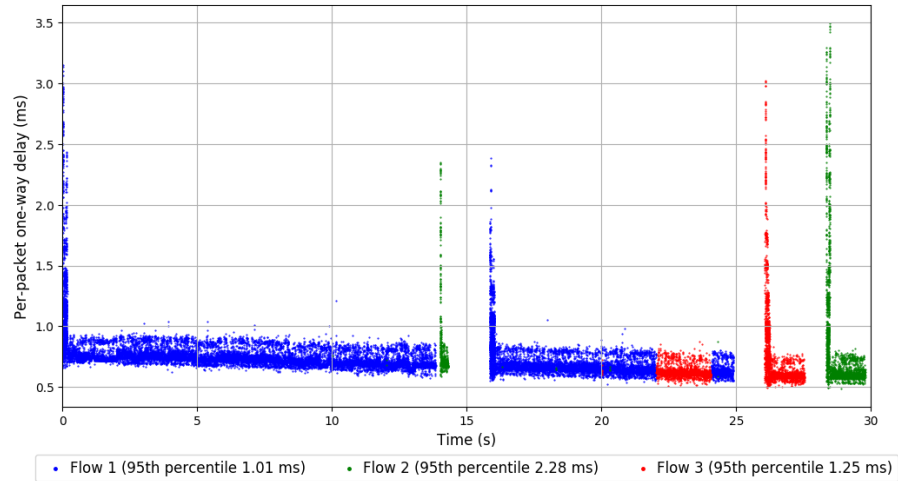
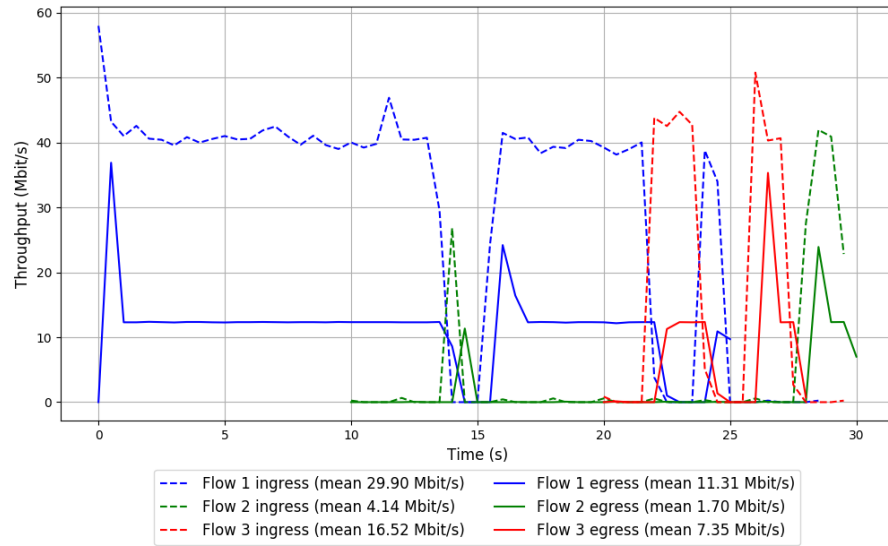


Run 1: Statistics of Copa

Start at: 2018-12-20 01:41:17  
End at: 2018-12-20 01:41:47  
Local clock offset: -3.569 ms  
Remote clock offset: -0.708 ms

# Below is generated by plot.py at 2018-12-20 03:24:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.44 Mbit/s  
95th percentile per-packet one-way delay: 1.172 ms  
Loss rate: 66.41%  
-- Flow 1:  
Average throughput: 11.31 Mbit/s  
95th percentile per-packet one-way delay: 1.010 ms  
Loss rate: 67.40%  
-- Flow 2:  
Average throughput: 1.70 Mbit/s  
95th percentile per-packet one-way delay: 2.281 ms  
Loss rate: 58.92%  
-- Flow 3:  
Average throughput: 7.35 Mbit/s  
95th percentile per-packet one-way delay: 1.249 ms  
Loss rate: 64.88%

## Run 1: Report of Copa — Data Link

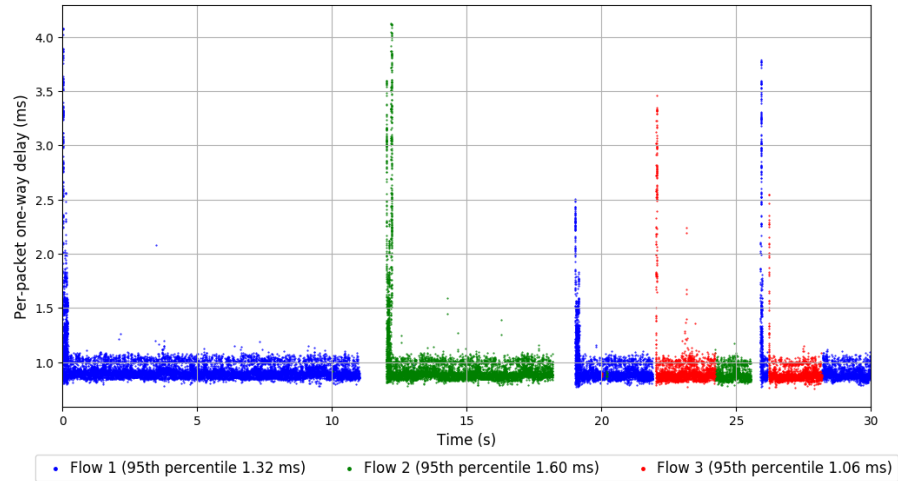
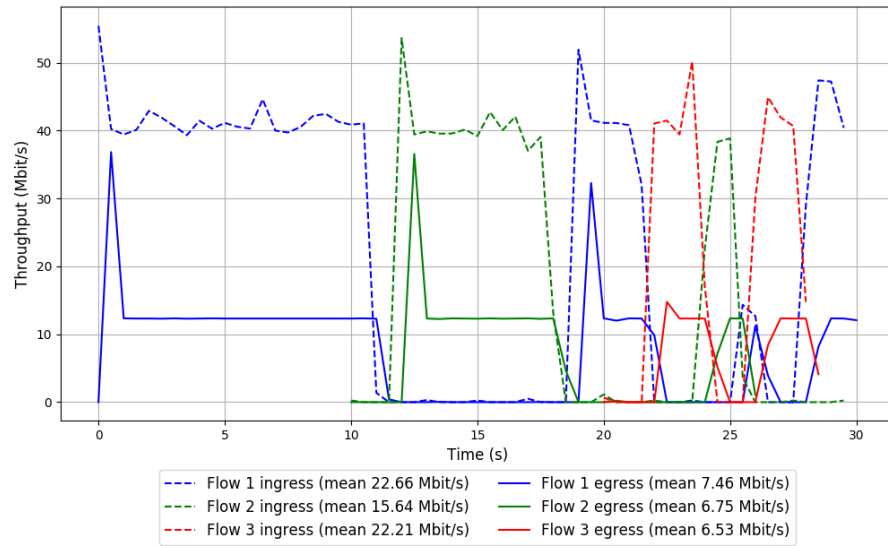


Run 2: Statistics of Copa

Start at: 2018-12-20 02:02:53  
End at: 2018-12-20 02:03:23  
Local clock offset: -7.465 ms  
Remote clock offset: -0.827 ms

# Below is generated by plot.py at 2018-12-20 03:24:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.73 Mbit/s  
95th percentile per-packet one-way delay: 1.369 ms  
Loss rate: 67.26%  
-- Flow 1:  
Average throughput: 7.46 Mbit/s  
95th percentile per-packet one-way delay: 1.324 ms  
Loss rate: 67.08%  
-- Flow 2:  
Average throughput: 6.75 Mbit/s  
95th percentile per-packet one-way delay: 1.598 ms  
Loss rate: 65.68%  
-- Flow 3:  
Average throughput: 6.53 Mbit/s  
95th percentile per-packet one-way delay: 1.061 ms  
Loss rate: 70.60%

## Run 2: Report of Copa — Data Link

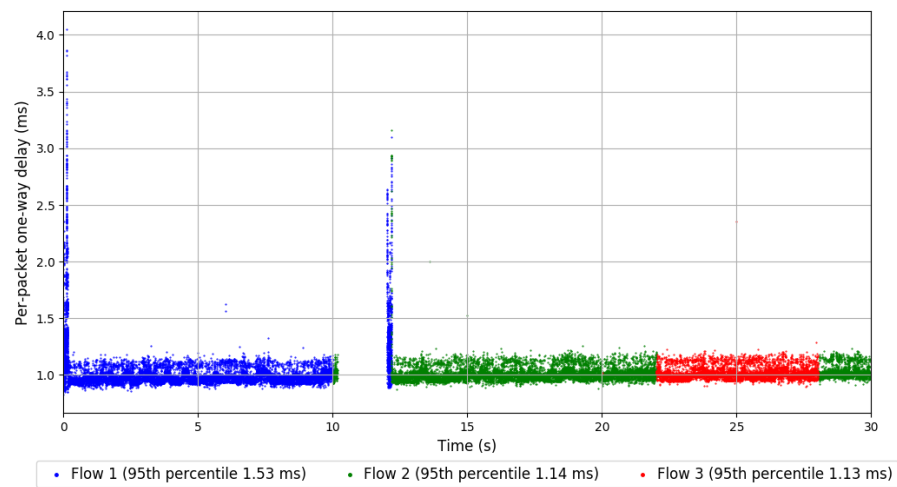
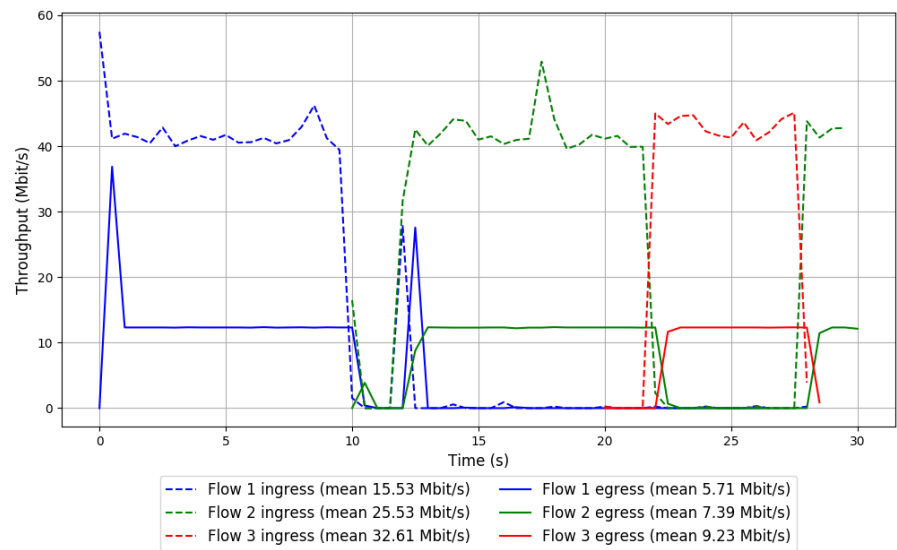


Run 3: Statistics of Copa

Start at: 2018-12-20 02:24:33  
End at: 2018-12-20 02:25:03  
Local clock offset: -1.319 ms  
Remote clock offset: -0.736 ms

# Below is generated by plot.py at 2018-12-20 03:24:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.38 Mbit/s  
95th percentile per-packet one-way delay: 1.181 ms  
Loss rate: 69.31%  
-- Flow 1:  
Average throughput: 5.71 Mbit/s  
95th percentile per-packet one-way delay: 1.532 ms  
Loss rate: 65.86%  
-- Flow 2:  
Average throughput: 7.39 Mbit/s  
95th percentile per-packet one-way delay: 1.135 ms  
Loss rate: 71.04%  
-- Flow 3:  
Average throughput: 9.23 Mbit/s  
95th percentile per-packet one-way delay: 1.133 ms  
Loss rate: 71.70%

Run 3: Report of Copa — Data Link

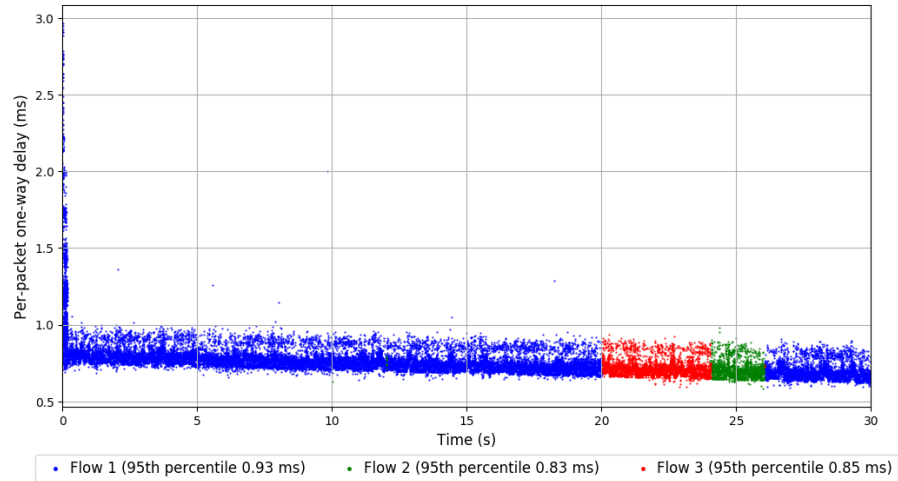
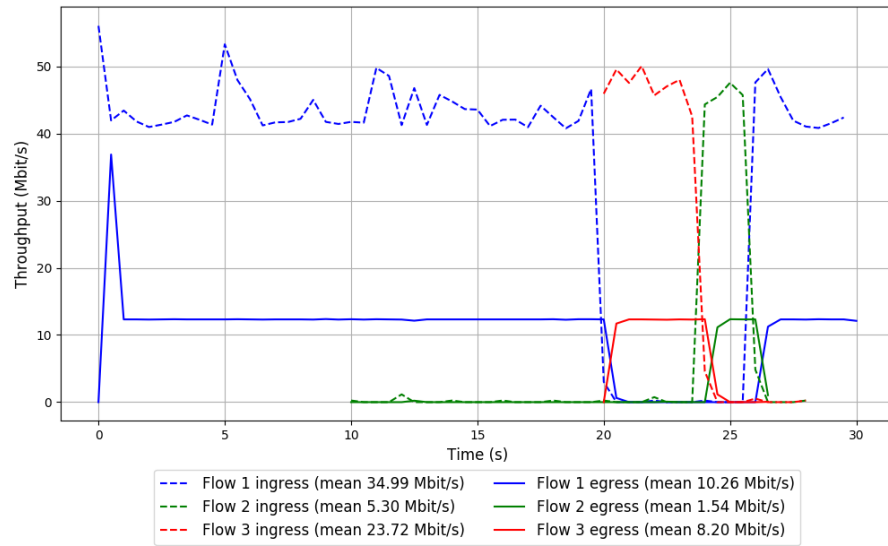


Run 4: Statistics of Copa

Start at: 2018-12-20 02:46:12  
End at: 2018-12-20 02:46:42  
Local clock offset: -5.181 ms  
Remote clock offset: -0.228 ms

# Below is generated by plot.py at 2018-12-20 03:24:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.73 Mbit/s  
95th percentile per-packet one-way delay: 0.913 ms  
Loss rate: 71.42%  
-- Flow 1:  
Average throughput: 10.26 Mbit/s  
95th percentile per-packet one-way delay: 0.928 ms  
Loss rate: 70.69%  
-- Flow 2:  
Average throughput: 1.54 Mbit/s  
95th percentile per-packet one-way delay: 0.827 ms  
Loss rate: 74.14%  
-- Flow 3:  
Average throughput: 8.20 Mbit/s  
95th percentile per-packet one-way delay: 0.846 ms  
Loss rate: 74.03%

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



Run 5: Statistics of Copa

Start at: 2018-12-20 03:07:50

End at: 2018-12-20 03:08:20

Local clock offset: -5.896 ms

Remote clock offset: 0.277 ms

# Below is generated by plot.py at 2018-12-20 03:24:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.48 Mbit/s

95th percentile per-packet one-way delay: 1.686 ms

Loss rate: 70.78%

-- Flow 1:

Average throughput: 6.40 Mbit/s

95th percentile per-packet one-way delay: 2.632 ms

Loss rate: 68.77%

-- Flow 2:

Average throughput: 9.63 Mbit/s

95th percentile per-packet one-way delay: 1.547 ms

Loss rate: 73.12%

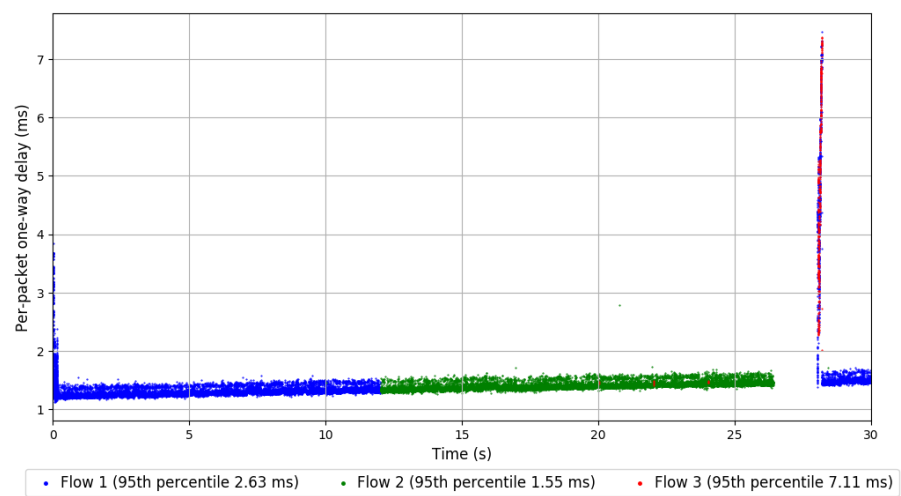
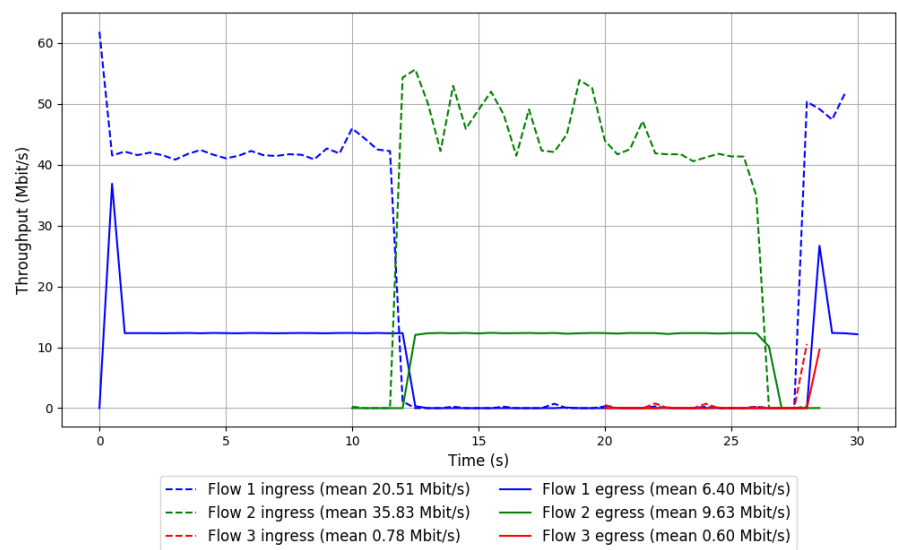
-- Flow 3:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 7.113 ms

Loss rate: 22.97%

Run 5: Report of Copa — Data Link

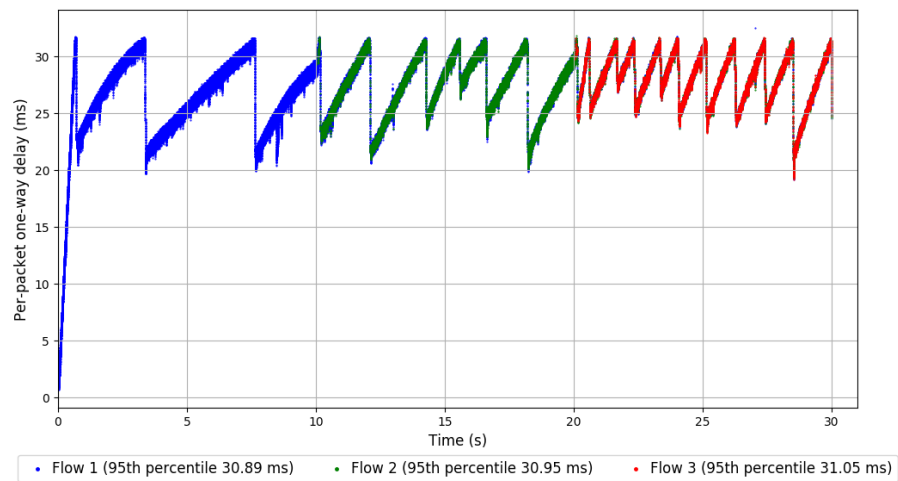
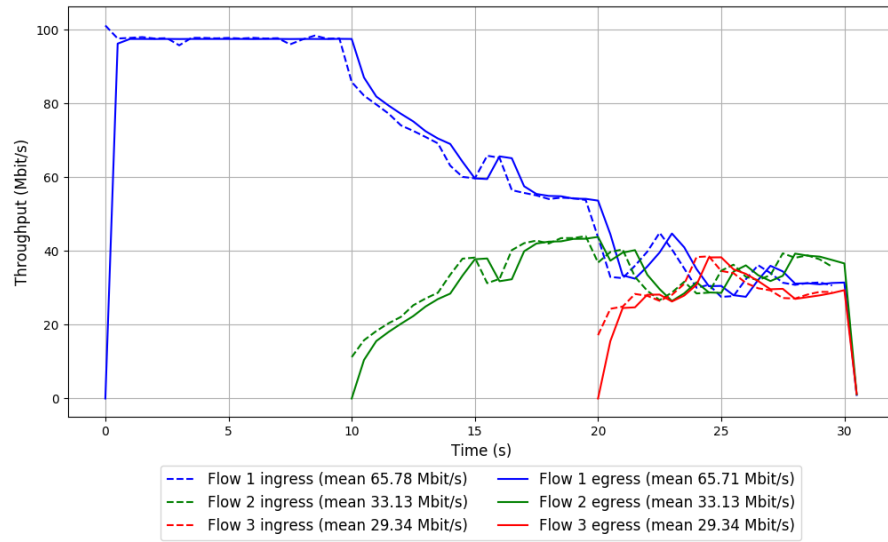


Run 1: Statistics of TCP Cubic

Start at: 2018-12-20 01:49:17  
End at: 2018-12-20 01:49:47  
Local clock offset: -5.868 ms  
Remote clock offset: -0.863 ms

# Below is generated by plot.py at 2018-12-20 03:25:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.51 Mbit/s  
95th percentile per-packet one-way delay: 30.907 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 65.71 Mbit/s  
95th percentile per-packet one-way delay: 30.887 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 33.13 Mbit/s  
95th percentile per-packet one-way delay: 30.953 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 29.34 Mbit/s  
95th percentile per-packet one-way delay: 31.049 ms  
Loss rate: 0.03%

# Run 1: Report of TCP Cubic — Data Link

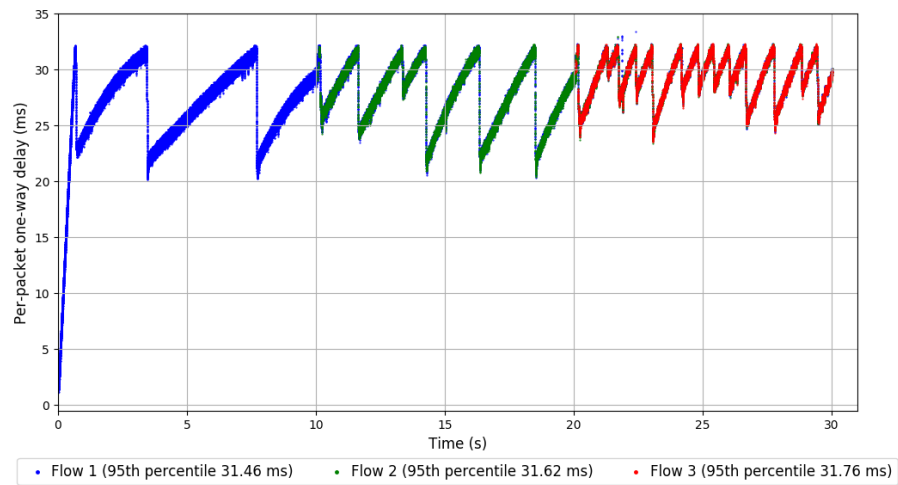
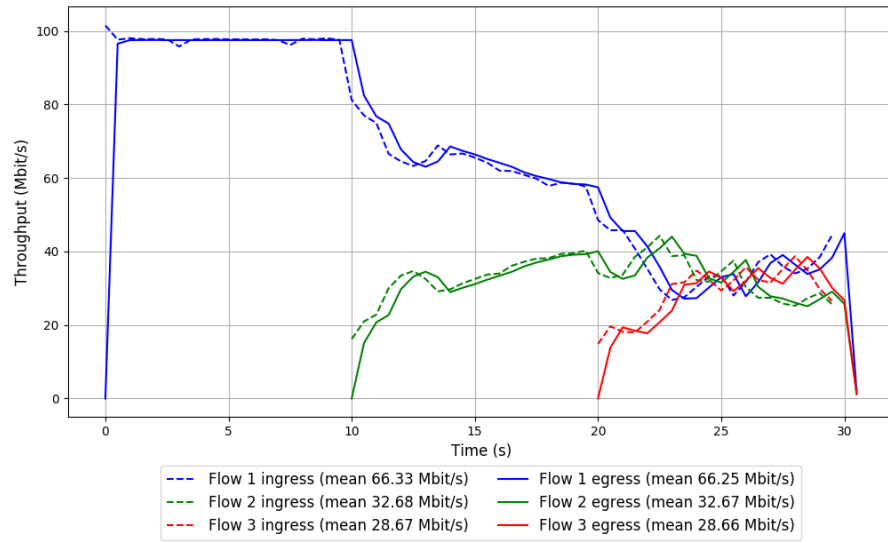


Run 2: Statistics of TCP Cubic

Start at: 2018-12-20 02:10:57  
End at: 2018-12-20 02:11:27  
Local clock offset: -4.529 ms  
Remote clock offset: -0.756 ms

# Below is generated by plot.py at 2018-12-20 03:25:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.51 Mbit/s  
95th percentile per-packet one-way delay: 31.538 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 66.25 Mbit/s  
95th percentile per-packet one-way delay: 31.457 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 32.67 Mbit/s  
95th percentile per-packet one-way delay: 31.622 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 28.66 Mbit/s  
95th percentile per-packet one-way delay: 31.761 ms  
Loss rate: 0.04%

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



Run 3: Statistics of TCP Cubic

Start at: 2018-12-20 02:32:35

End at: 2018-12-20 02:33:05

Local clock offset: -0.593 ms

Remote clock offset: -0.64 ms

# Below is generated by plot.py at 2018-12-20 03:25:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.51 Mbit/s

95th percentile per-packet one-way delay: 31.281 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 62.13 Mbit/s

95th percentile per-packet one-way delay: 31.258 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 36.34 Mbit/s

95th percentile per-packet one-way delay: 31.323 ms

Loss rate: 0.02%

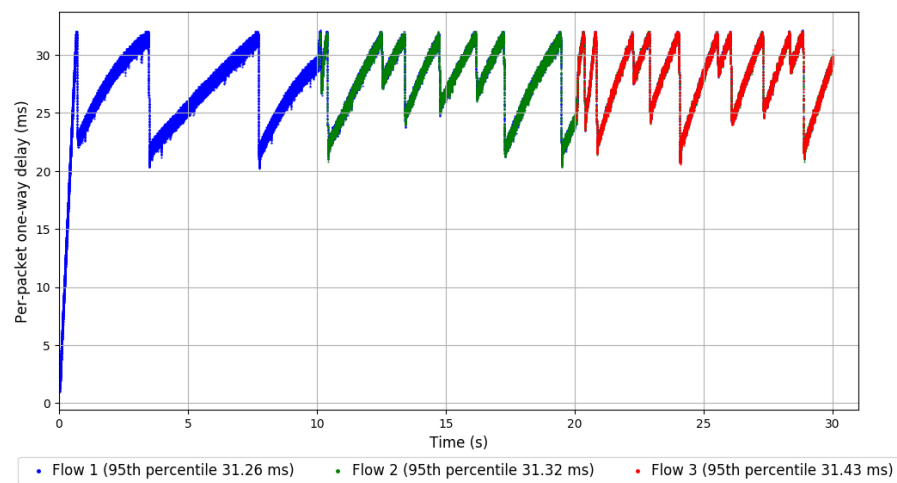
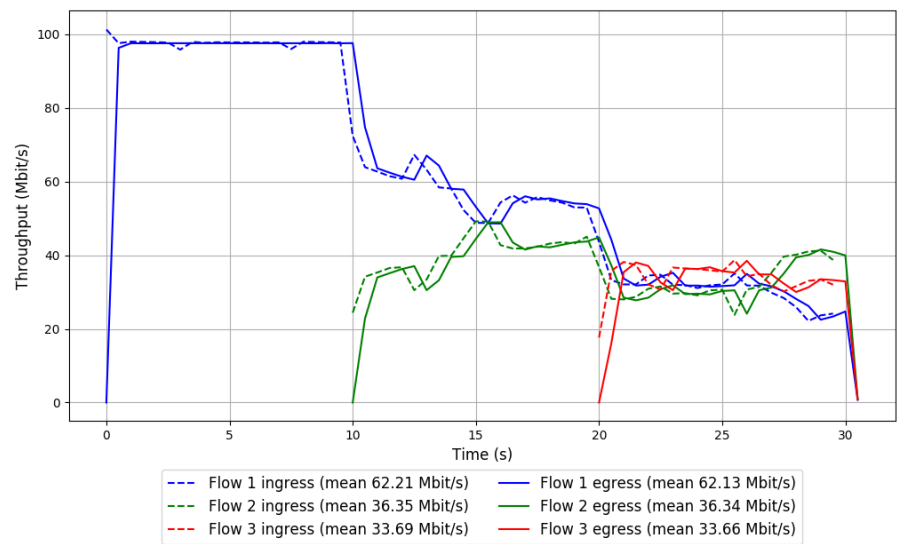
-- Flow 3:

Average throughput: 33.66 Mbit/s

95th percentile per-packet one-way delay: 31.433 ms

Loss rate: 0.04%

Run 3: Report of TCP Cubic — Data Link

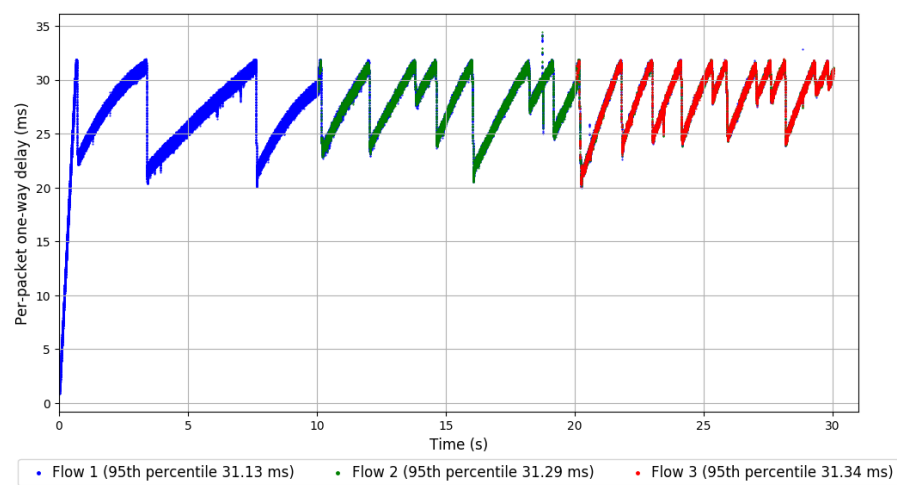
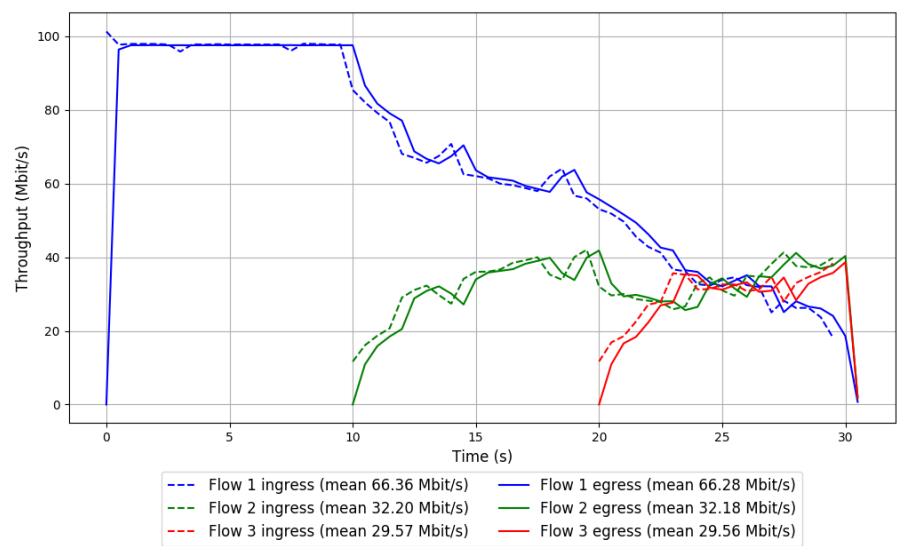


Run 4: Statistics of TCP Cubic

Start at: 2018-12-20 02:54:13  
End at: 2018-12-20 02:54:43  
Local clock offset: -6.575 ms  
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2018-12-20 03:25:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.51 Mbit/s  
95th percentile per-packet one-way delay: 31.170 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 66.28 Mbit/s  
95th percentile per-packet one-way delay: 31.131 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 32.18 Mbit/s  
95th percentile per-packet one-way delay: 31.293 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 29.56 Mbit/s  
95th percentile per-packet one-way delay: 31.339 ms  
Loss rate: 0.04%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-12-20 03:15:52

End at: 2018-12-20 03:16:22

Local clock offset: -2.831 ms

Remote clock offset: 0.189 ms

# Below is generated by plot.py at 2018-12-20 03:25:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.52 Mbit/s

95th percentile per-packet one-way delay: 31.245 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 64.91 Mbit/s

95th percentile per-packet one-way delay: 31.201 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 31.70 Mbit/s

95th percentile per-packet one-way delay: 31.270 ms

Loss rate: 0.05%

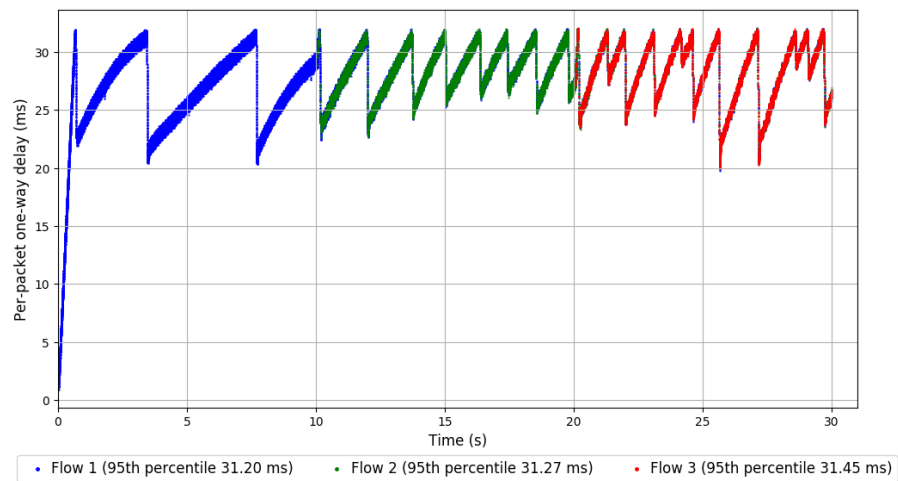
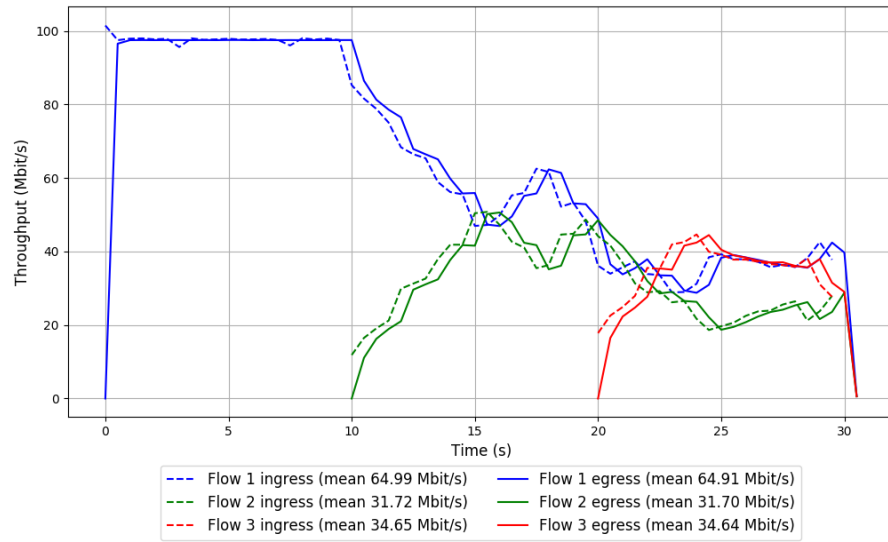
-- Flow 3:

Average throughput: 34.64 Mbit/s

95th percentile per-packet one-way delay: 31.446 ms

Loss rate: 0.04%

# Run 5: Report of TCP Cubic — Data Link

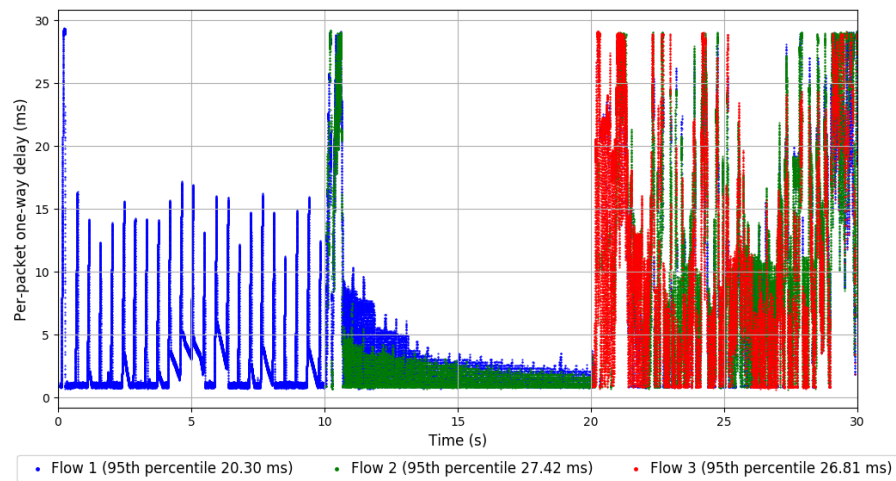
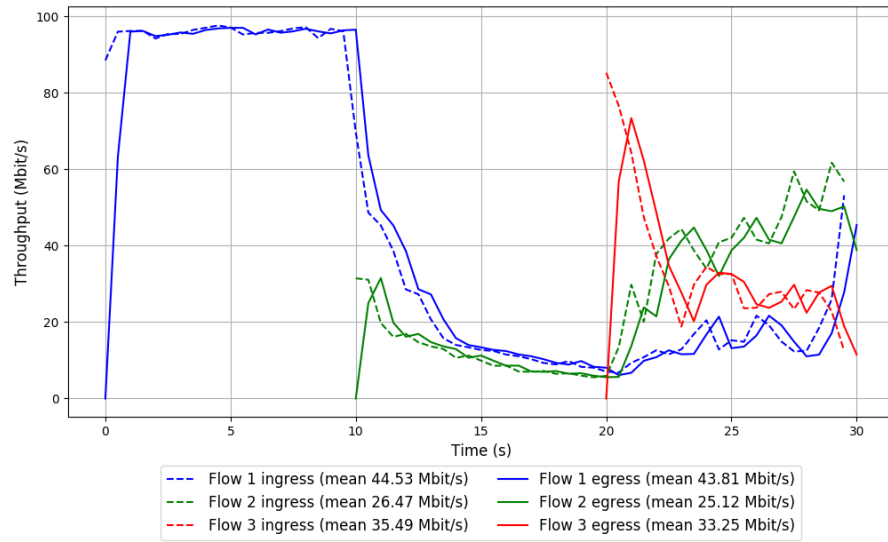


```
Run 1: Statistics of FillP

Start at: 2018-12-20 01:53:45
End at: 2018-12-20 01:54:15
Local clock offset: -6.65 ms
Remote clock offset: -0.78 ms

# Below is generated by plot.py at 2018-12-20 03:25:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.58 Mbit/s
95th percentile per-packet one-way delay: 24.753 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 43.81 Mbit/s
95th percentile per-packet one-way delay: 20.305 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 25.12 Mbit/s
95th percentile per-packet one-way delay: 27.421 ms
Loss rate: 4.95%
-- Flow 3:
Average throughput: 33.25 Mbit/s
95th percentile per-packet one-way delay: 26.806 ms
Loss rate: 6.04%
```

# Run 1: Report of FillP — Data Link

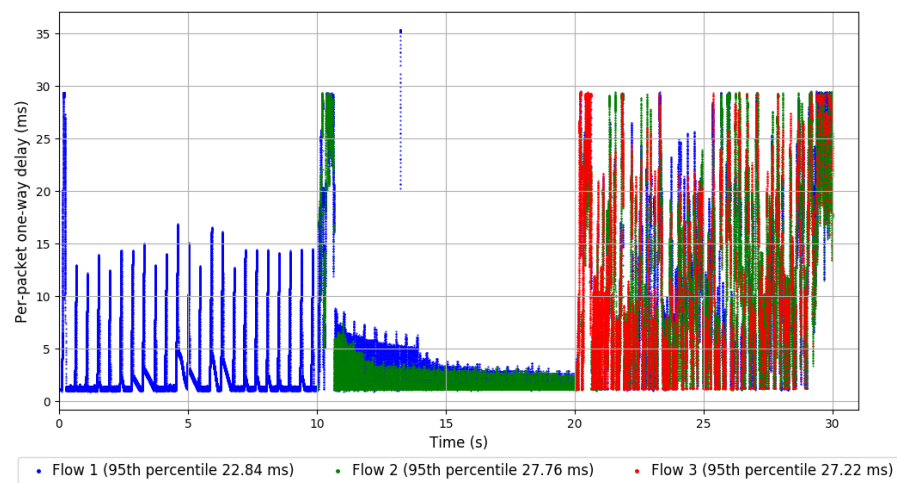
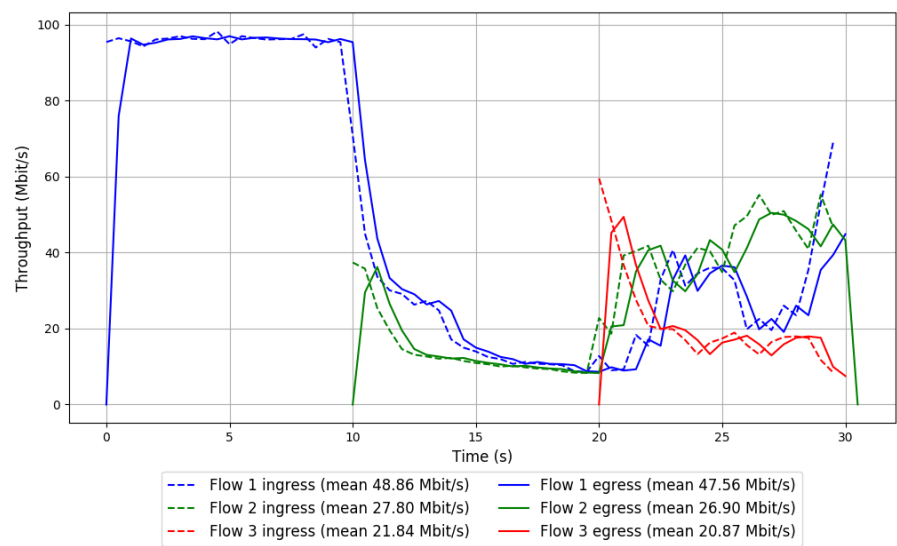


Run 2: Statistics of FillP

Start at: 2018-12-20 02:15:25  
End at: 2018-12-20 02:15:55  
Local clock offset: -3.05 ms  
Remote clock offset: -0.695 ms

# Below is generated by plot.py at 2018-12-20 03:25:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 72.37 Mbit/s  
95th percentile per-packet one-way delay: 26.009 ms  
Loss rate: 2.89%  
-- Flow 1:  
Average throughput: 47.56 Mbit/s  
95th percentile per-packet one-way delay: 22.838 ms  
Loss rate: 2.59%  
-- Flow 2:  
Average throughput: 26.90 Mbit/s  
95th percentile per-packet one-way delay: 27.763 ms  
Loss rate: 3.14%  
-- Flow 3:  
Average throughput: 20.87 Mbit/s  
95th percentile per-packet one-way delay: 27.223 ms  
Loss rate: 4.30%

Run 2: Report of FillP — Data Link

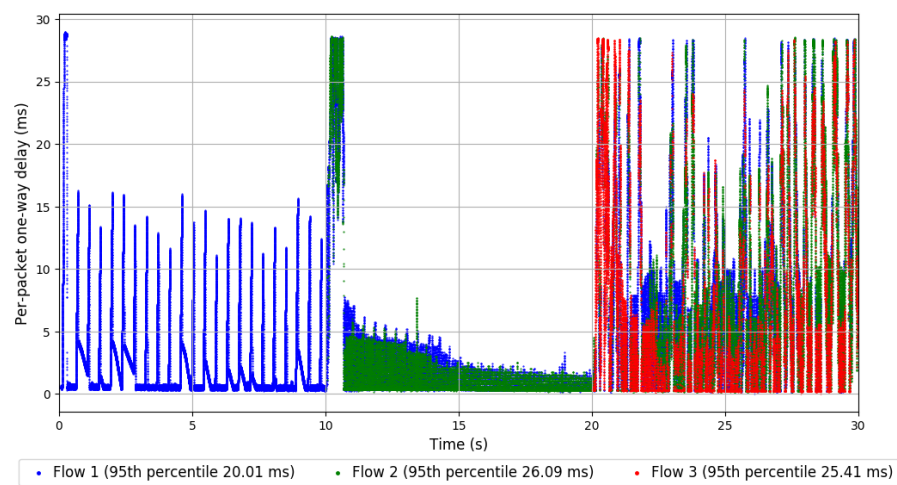
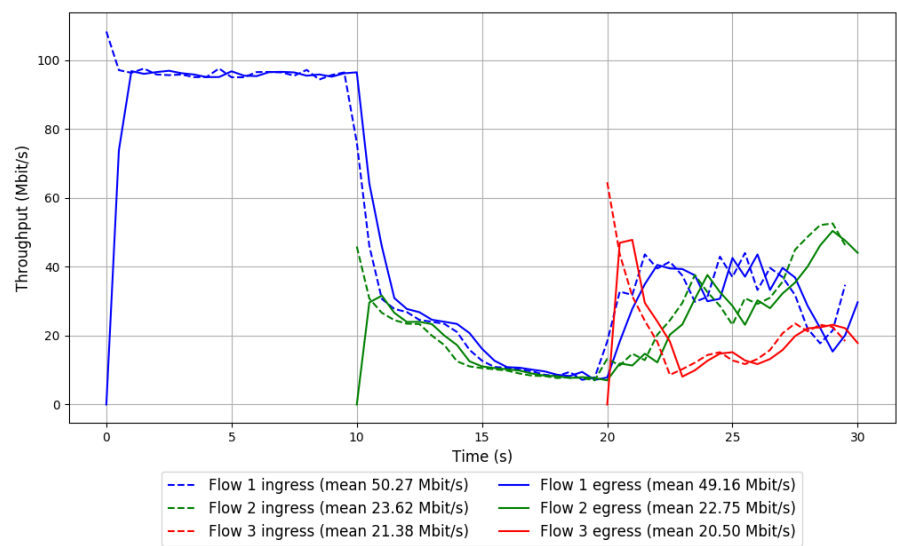


Run 3: Statistics of FillP

Start at: 2018-12-20 02:37:03  
End at: 2018-12-20 02:37:33  
Local clock offset: -1.455 ms  
Remote clock offset: -0.572 ms

# Below is generated by plot.py at 2018-12-20 03:25:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 71.10 Mbit/s  
95th percentile per-packet one-way delay: 23.536 ms  
Loss rate: 2.70%  
-- Flow 1:  
Average throughput: 49.16 Mbit/s  
95th percentile per-packet one-way delay: 20.008 ms  
Loss rate: 2.20%  
-- Flow 2:  
Average throughput: 22.75 Mbit/s  
95th percentile per-packet one-way delay: 26.090 ms  
Loss rate: 3.67%  
-- Flow 3:  
Average throughput: 20.50 Mbit/s  
95th percentile per-packet one-way delay: 25.413 ms  
Loss rate: 4.06%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-12-20 02:58:41

End at: 2018-12-20 02:59:11

Local clock offset: -7.012 ms

Remote clock offset: 0.027 ms

# Below is generated by plot.py at 2018-12-20 03:26:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.06 Mbit/s

95th percentile per-packet one-way delay: 23.012 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 50.10 Mbit/s

95th percentile per-packet one-way delay: 20.527 ms

Loss rate: 1.35%

-- Flow 2:

Average throughput: 20.51 Mbit/s

95th percentile per-packet one-way delay: 25.868 ms

Loss rate: 2.70%

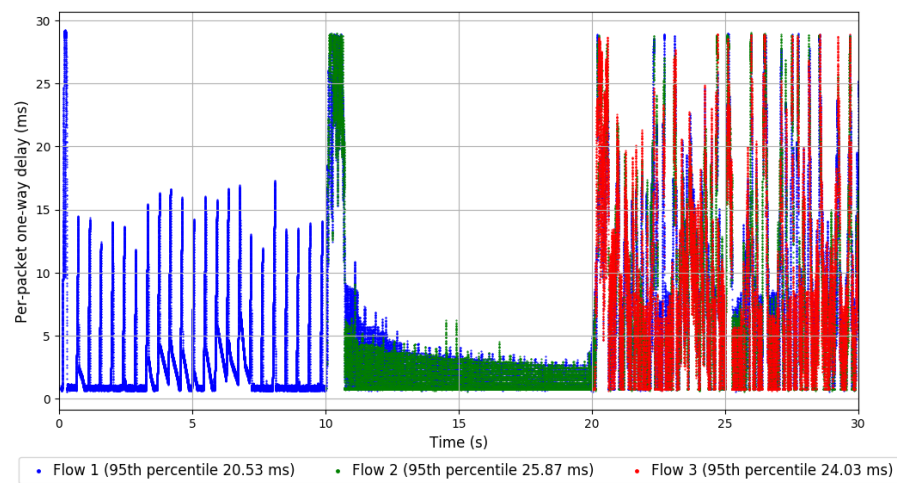
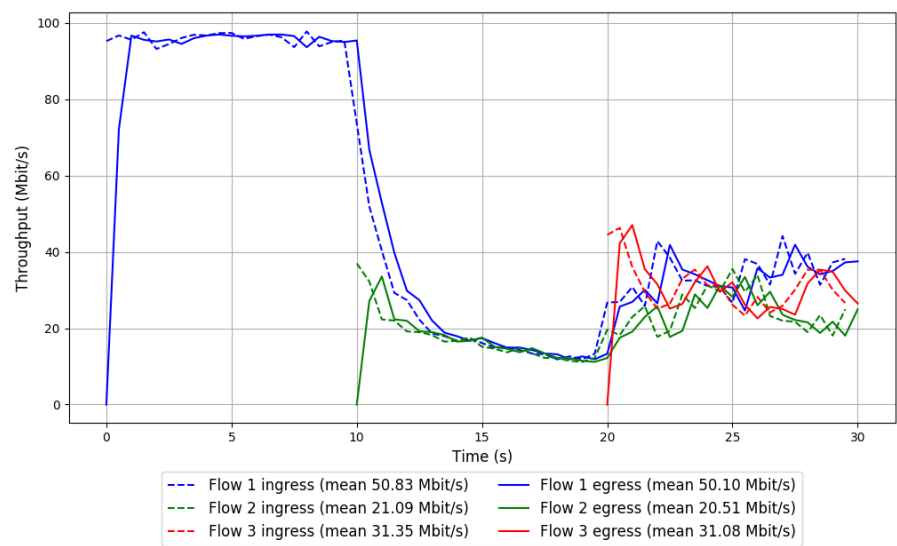
-- Flow 3:

Average throughput: 31.08 Mbit/s

95th percentile per-packet one-way delay: 24.027 ms

Loss rate: 0.79%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

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

End at: 2018-12-20 03:20:50

Local clock offset: -1.878 ms

Remote clock offset: 0.319 ms

# Below is generated by plot.py at 2018-12-20 03:26:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.95 Mbit/s

95th percentile per-packet one-way delay: 28.688 ms

Loss rate: 20.69%

-- Flow 1:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 28.390 ms

Loss rate: 14.32%

-- Flow 2:

Average throughput: 51.53 Mbit/s

95th percentile per-packet one-way delay: 28.701 ms

Loss rate: 18.58%

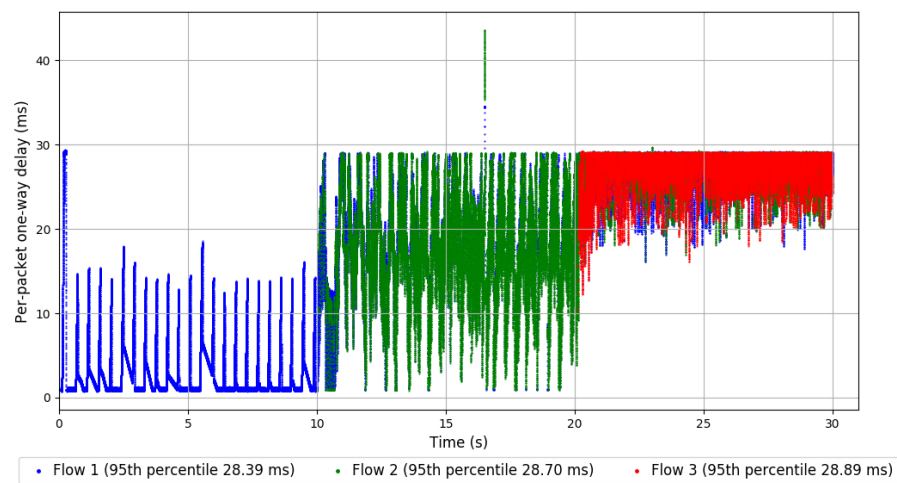
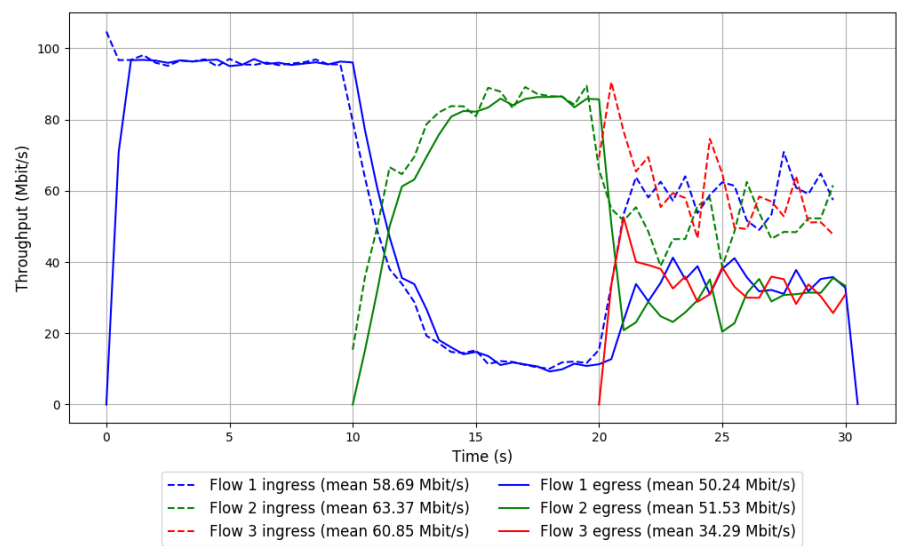
-- Flow 3:

Average throughput: 34.29 Mbit/s

95th percentile per-packet one-way delay: 28.895 ms

Loss rate: 43.62%

Run 5: Report of FillP — Data Link

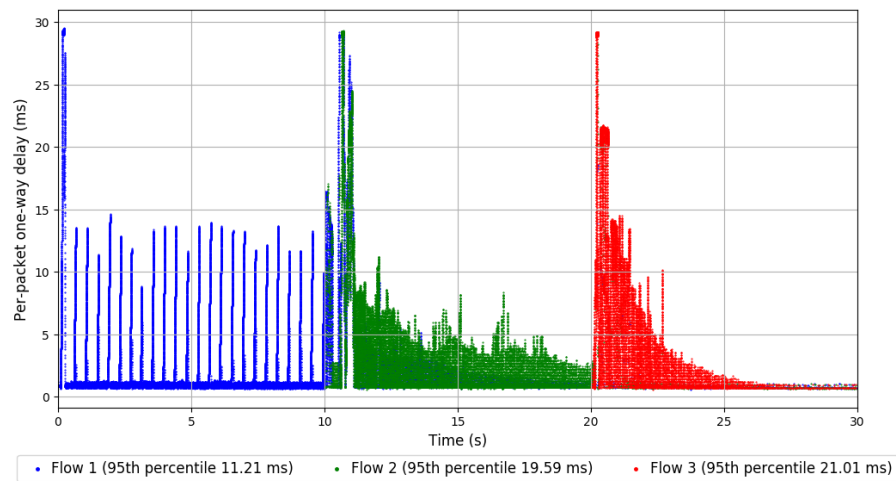
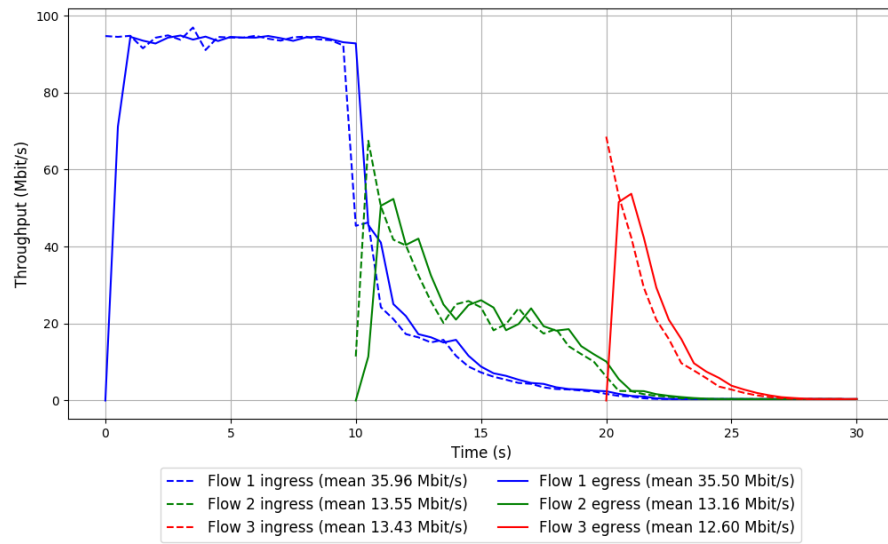


Run 1: Statistics of FillP-Sheep

Start at: 2018-12-20 01:45:51  
End at: 2018-12-20 01:46:21  
Local clock offset: -5.161 ms  
Remote clock offset: -0.713 ms

# Below is generated by plot.py at 2018-12-20 03:26:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 48.44 Mbit/s  
95th percentile per-packet one-way delay: 12.967 ms  
Loss rate: 1.98%  
-- Flow 1:  
Average throughput: 35.50 Mbit/s  
95th percentile per-packet one-way delay: 11.207 ms  
Loss rate: 1.25%  
-- Flow 2:  
Average throughput: 13.16 Mbit/s  
95th percentile per-packet one-way delay: 19.595 ms  
Loss rate: 2.83%  
-- Flow 3:  
Average throughput: 12.60 Mbit/s  
95th percentile per-packet one-way delay: 21.006 ms  
Loss rate: 6.13%

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

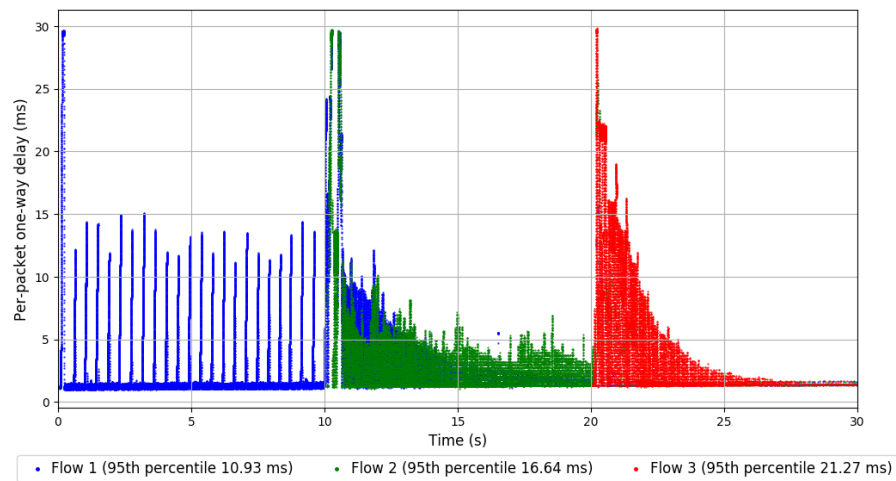
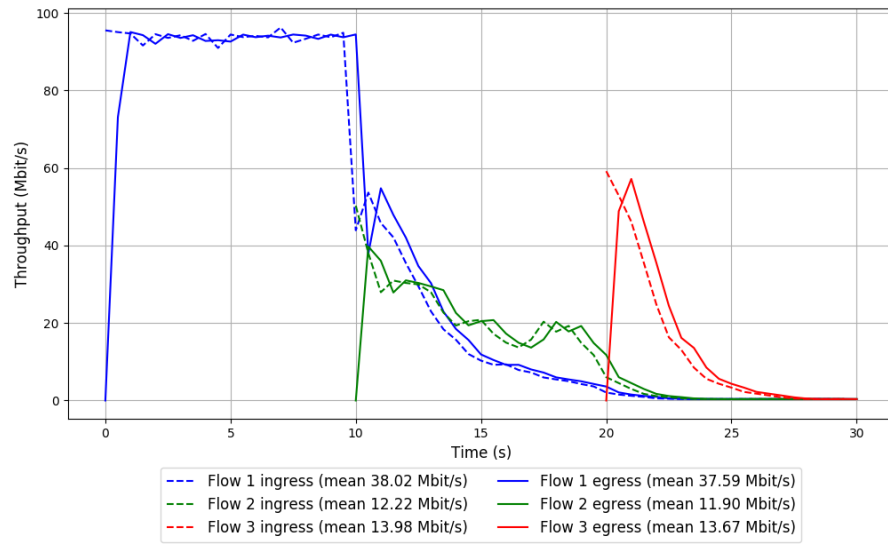


Run 2: Statistics of FillP-Sheep

Start at: 2018-12-20 02:07:31  
End at: 2018-12-20 02:08:01  
Local clock offset: -6.153 ms  
Remote clock offset: -0.713 ms

# Below is generated by plot.py at 2018-12-20 03:26:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 50.02 Mbit/s  
95th percentile per-packet one-way delay: 12.982 ms  
Loss rate: 1.46%  
-- Flow 1:  
Average throughput: 37.59 Mbit/s  
95th percentile per-packet one-way delay: 10.929 ms  
Loss rate: 1.13%  
-- Flow 2:  
Average throughput: 11.90 Mbit/s  
95th percentile per-packet one-way delay: 16.642 ms  
Loss rate: 2.61%  
-- Flow 3:  
Average throughput: 13.67 Mbit/s  
95th percentile per-packet one-way delay: 21.275 ms  
Loss rate: 2.16%

## Run 2: Report of FillP-Sheep — Data Link

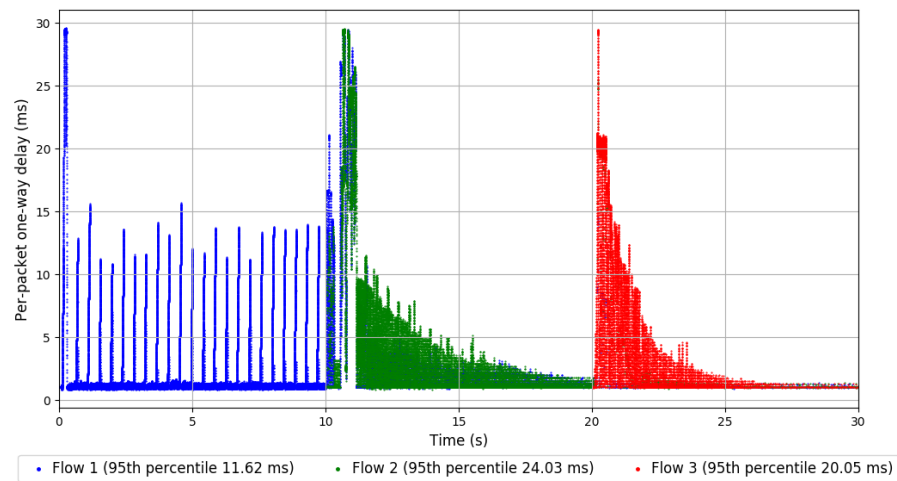
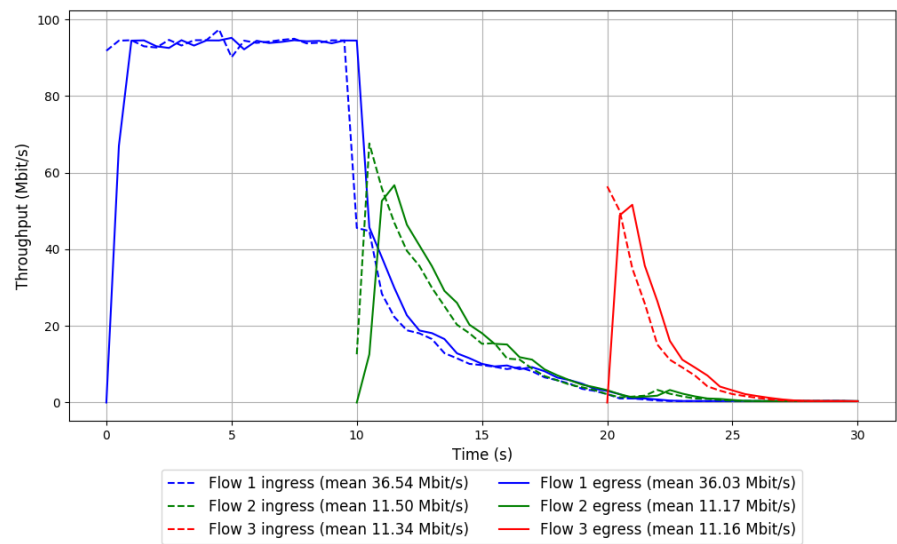


Run 3: Statistics of FillP-Sheep

Start at: 2018-12-20 02:29:09  
End at: 2018-12-20 02:29:39  
Local clock offset: -0.915 ms  
Remote clock offset: -0.659 ms

# Below is generated by plot.py at 2018-12-20 03:26:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 47.14 Mbit/s  
95th percentile per-packet one-way delay: 15.789 ms  
Loss rate: 1.65%  
-- Flow 1:  
Average throughput: 36.03 Mbit/s  
95th percentile per-packet one-way delay: 11.623 ms  
Loss rate: 1.40%  
-- Flow 2:  
Average throughput: 11.17 Mbit/s  
95th percentile per-packet one-way delay: 24.029 ms  
Loss rate: 2.89%  
-- Flow 3:  
Average throughput: 11.16 Mbit/s  
95th percentile per-packet one-way delay: 20.055 ms  
Loss rate: 1.61%

Run 3: Report of FillP-Sheep — Data Link

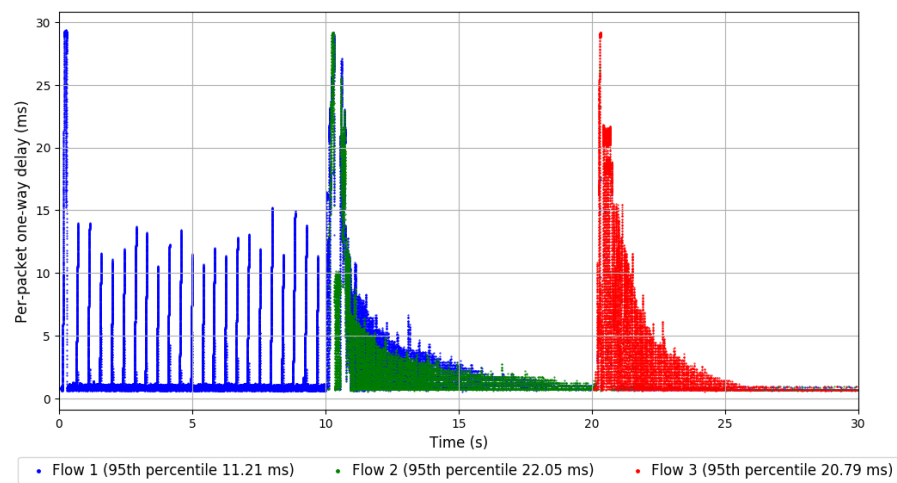
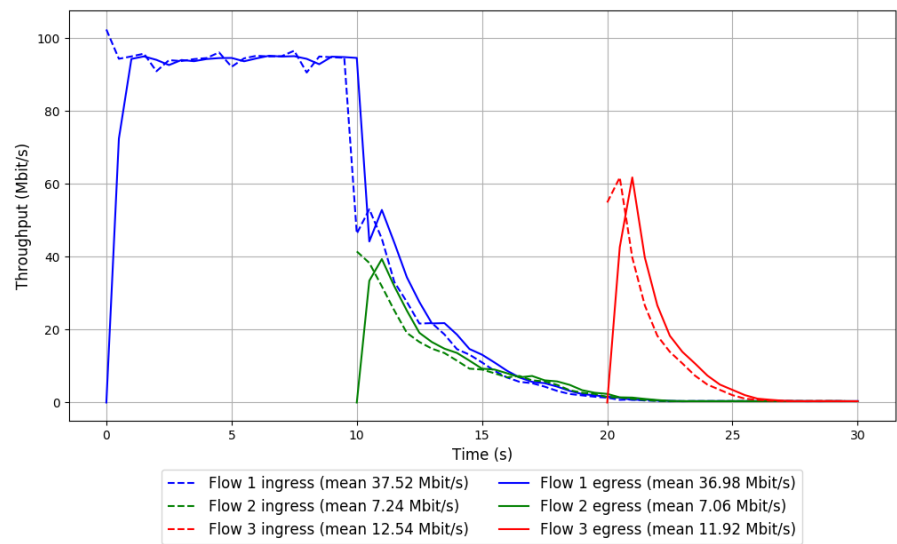


Run 4: Statistics of FillP-Sheep

Start at: 2018-12-20 02:50:47  
End at: 2018-12-20 02:51:17  
Local clock offset: -6.083 ms  
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-12-20 03:26:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 45.62 Mbit/s  
95th percentile per-packet one-way delay: 14.140 ms  
Loss rate: 1.85%  
-- Flow 1:  
Average throughput: 36.98 Mbit/s  
95th percentile per-packet one-way delay: 11.209 ms  
Loss rate: 1.43%  
-- Flow 2:  
Average throughput: 7.06 Mbit/s  
95th percentile per-packet one-way delay: 22.051 ms  
Loss rate: 2.44%  
-- Flow 3:  
Average throughput: 11.92 Mbit/s  
95th percentile per-packet one-way delay: 20.788 ms  
Loss rate: 4.94%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

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

End at: 2018-12-20 03:12:56

Local clock offset: -3.801 ms

Remote clock offset: 0.325 ms

# Below is generated by plot.py at 2018-12-20 03:26:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 46.35 Mbit/s

95th percentile per-packet one-way delay: 13.680 ms

Loss rate: 1.78%

-- Flow 1:

Average throughput: 35.26 Mbit/s

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

Loss rate: 1.30%

-- Flow 2:

Average throughput: 9.62 Mbit/s

95th percentile per-packet one-way delay: 18.584 ms

Loss rate: 2.73%

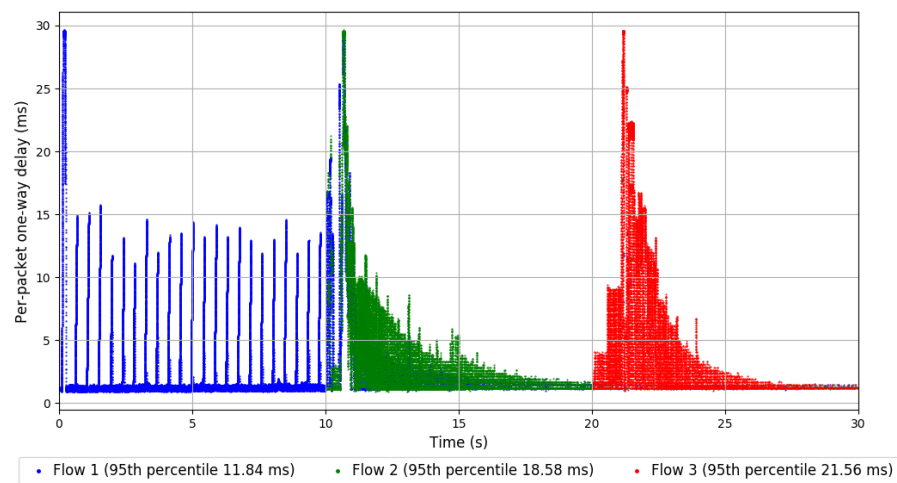
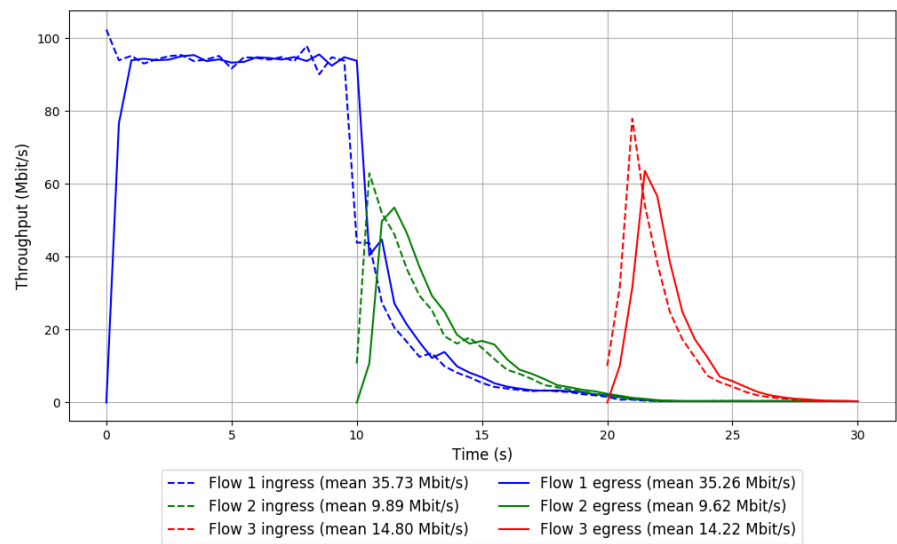
-- Flow 3:

Average throughput: 14.22 Mbit/s

95th percentile per-packet one-way delay: 21.560 ms

Loss rate: 3.97%

Run 5: Report of FillP-Sheep — Data Link

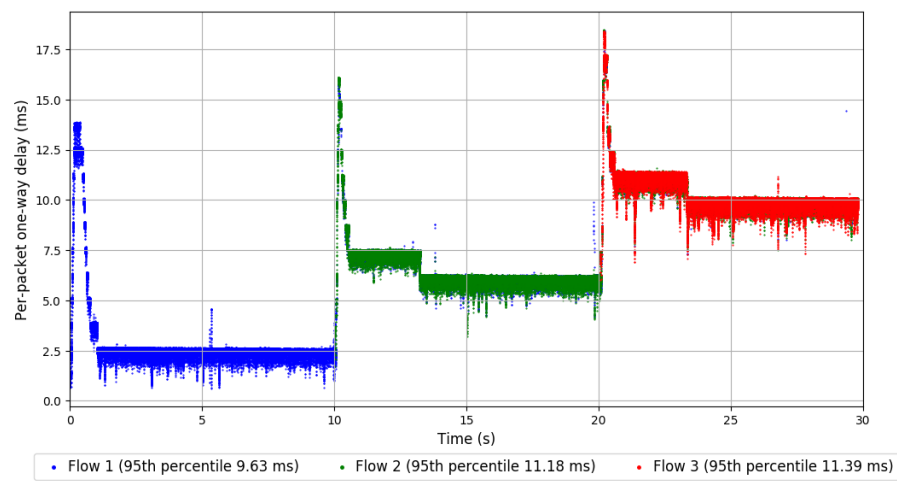
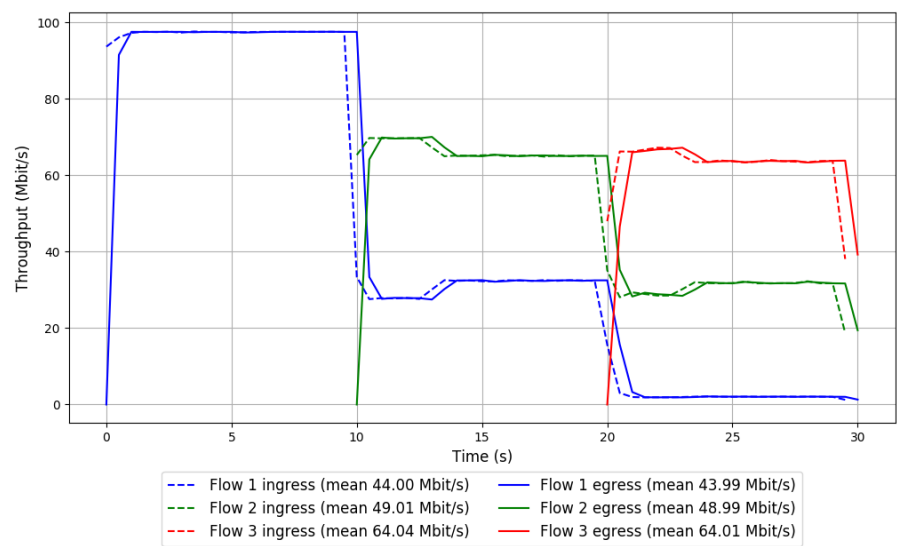


Run 1: Statistics of Indigo

Start at: 2018-12-20 01:38:59  
End at: 2018-12-20 01:39:29  
Local clock offset: -2.612 ms  
Remote clock offset: -0.813 ms

# Below is generated by plot.py at 2018-12-20 03:26:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.41 Mbit/s  
95th percentile per-packet one-way delay: 11.213 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 43.99 Mbit/s  
95th percentile per-packet one-way delay: 9.627 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 48.99 Mbit/s  
95th percentile per-packet one-way delay: 11.177 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 64.01 Mbit/s  
95th percentile per-packet one-way delay: 11.390 ms  
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link

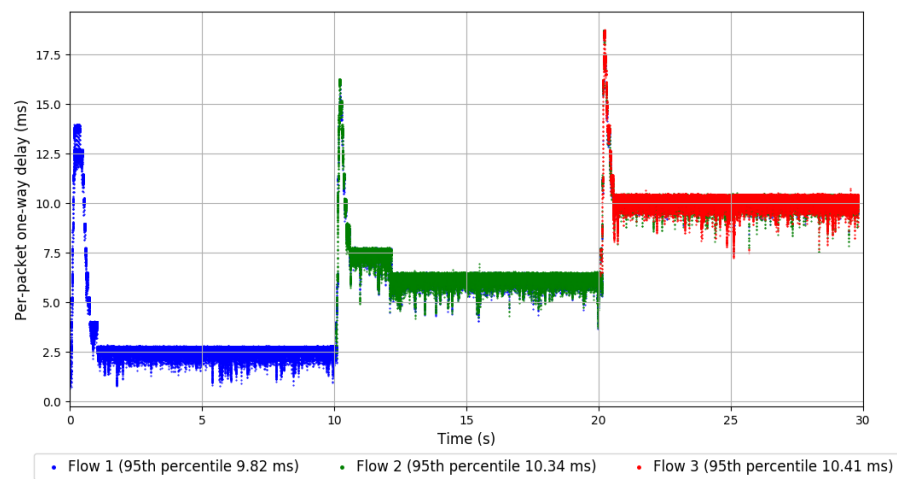
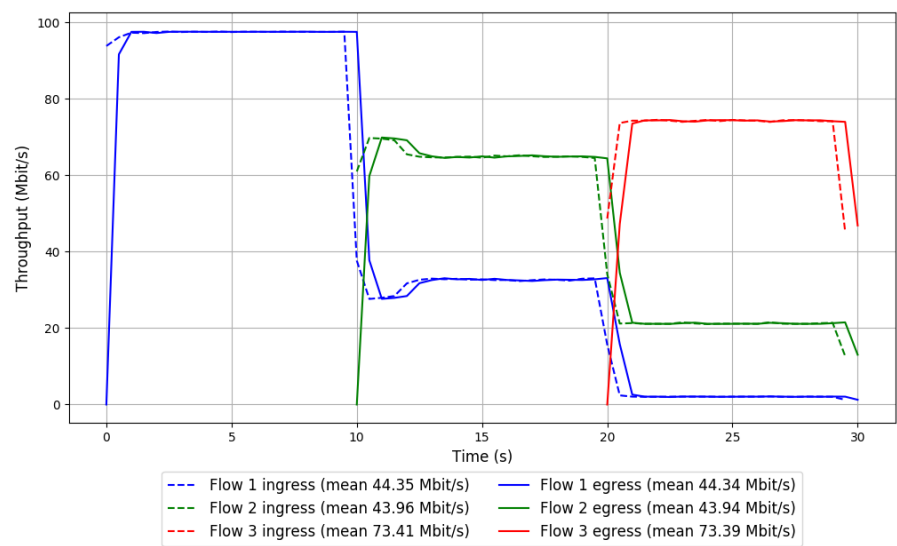


Run 2: Statistics of Indigo

Start at: 2018-12-20 02:00:35  
End at: 2018-12-20 02:01:05  
Local clock offset: -7.262 ms  
Remote clock offset: -0.853 ms

# Below is generated by plot.py at 2018-12-20 03:27:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.43 Mbit/s  
95th percentile per-packet one-way delay: 10.384 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 44.34 Mbit/s  
95th percentile per-packet one-way delay: 9.821 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 43.94 Mbit/s  
95th percentile per-packet one-way delay: 10.338 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 73.39 Mbit/s  
95th percentile per-packet one-way delay: 10.410 ms  
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

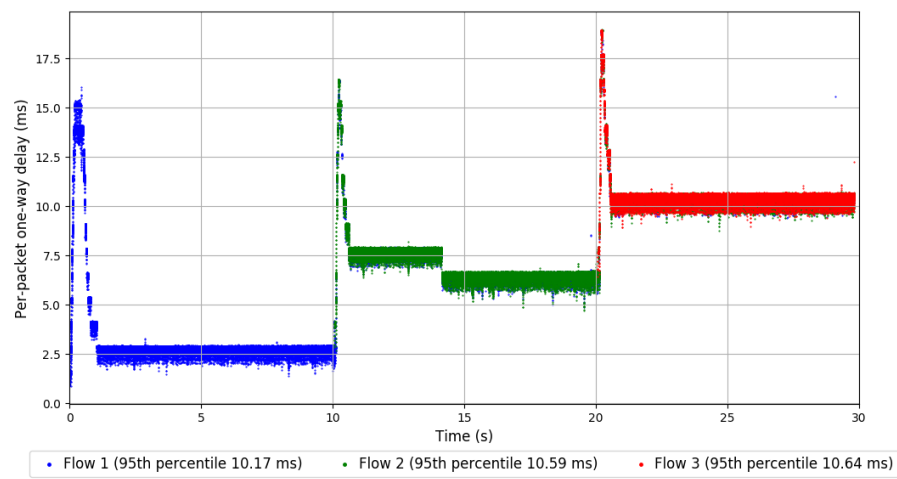
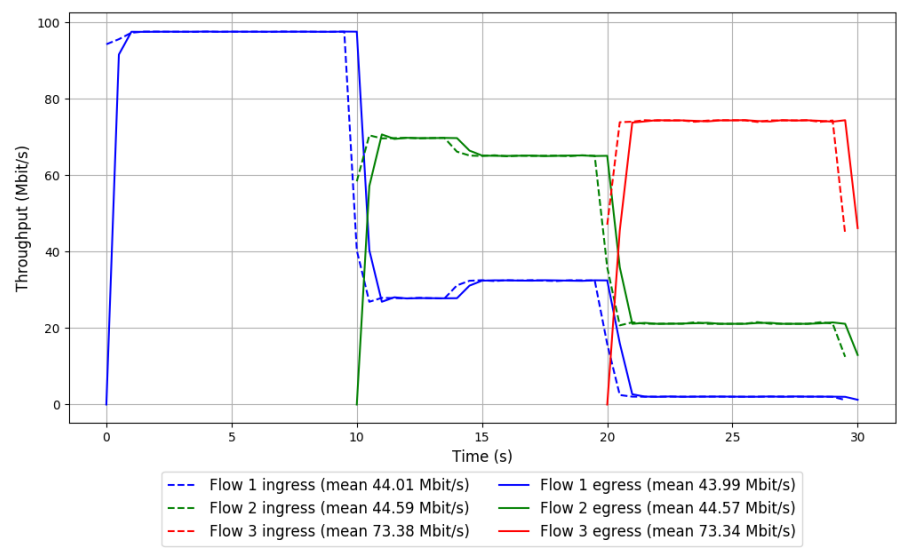


Run 3: Statistics of Indigo

Start at: 2018-12-20 02:22:15  
End at: 2018-12-20 02:22:45  
Local clock offset: -1.653 ms  
Remote clock offset: -0.755 ms

# Below is generated by plot.py at 2018-12-20 03:27:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.42 Mbit/s  
95th percentile per-packet one-way delay: 10.624 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 43.99 Mbit/s  
95th percentile per-packet one-way delay: 10.167 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 44.57 Mbit/s  
95th percentile per-packet one-way delay: 10.591 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 73.34 Mbit/s  
95th percentile per-packet one-way delay: 10.642 ms  
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link

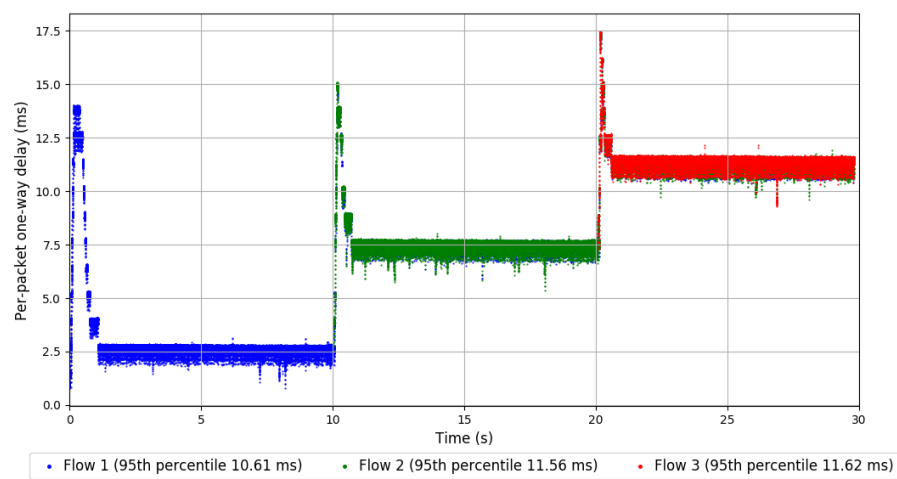
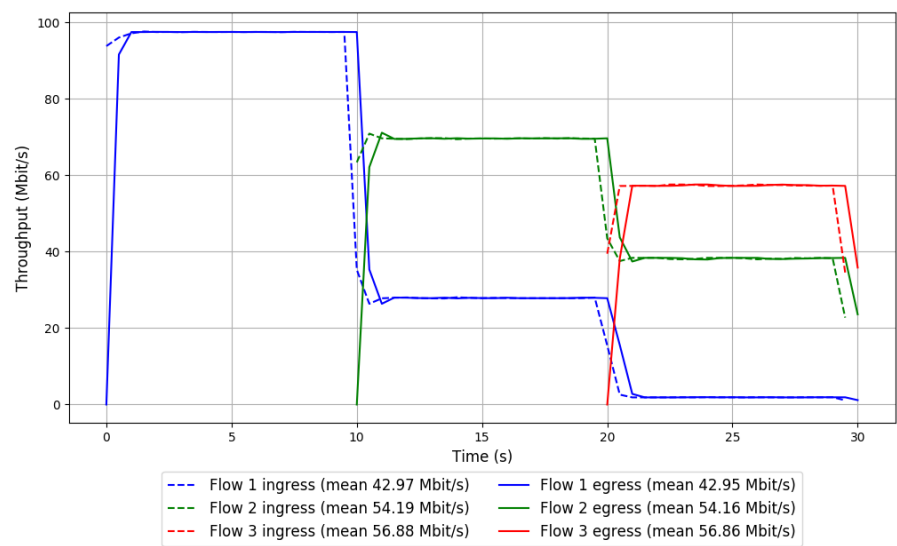


Run 4: Statistics of Indigo

Start at: 2018-12-20 02:43:54  
End at: 2018-12-20 02:44:24  
Local clock offset: -4.586 ms  
Remote clock offset: -0.218 ms

# Below is generated by plot.py at 2018-12-20 03:27:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.43 Mbit/s  
95th percentile per-packet one-way delay: 11.583 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 42.95 Mbit/s  
95th percentile per-packet one-way delay: 10.605 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 54.16 Mbit/s  
95th percentile per-packet one-way delay: 11.564 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 56.86 Mbit/s  
95th percentile per-packet one-way delay: 11.625 ms  
Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-12-20 03:05:32

End at: 2018-12-20 03:06:02

Local clock offset: -7.266 ms

Remote clock offset: 0.248 ms

# Below is generated by plot.py at 2018-12-20 03:27:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 11.082 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.93 Mbit/s

95th percentile per-packet one-way delay: 10.382 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.66 Mbit/s

95th percentile per-packet one-way delay: 11.047 ms

Loss rate: 0.00%

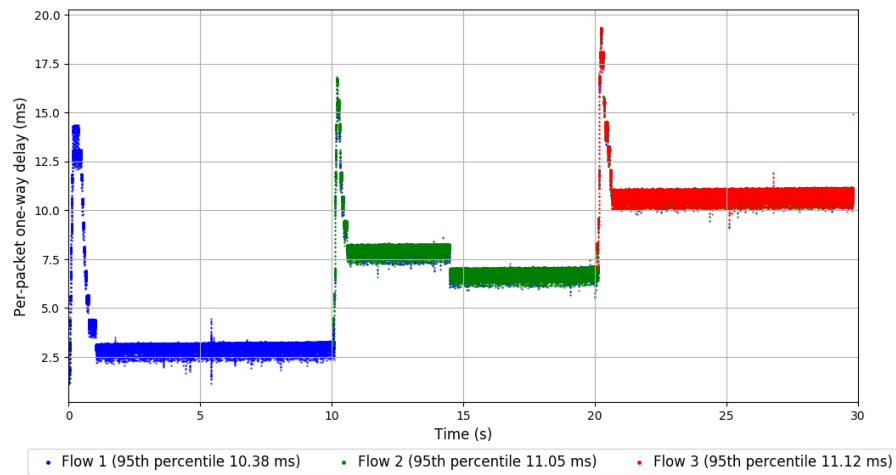
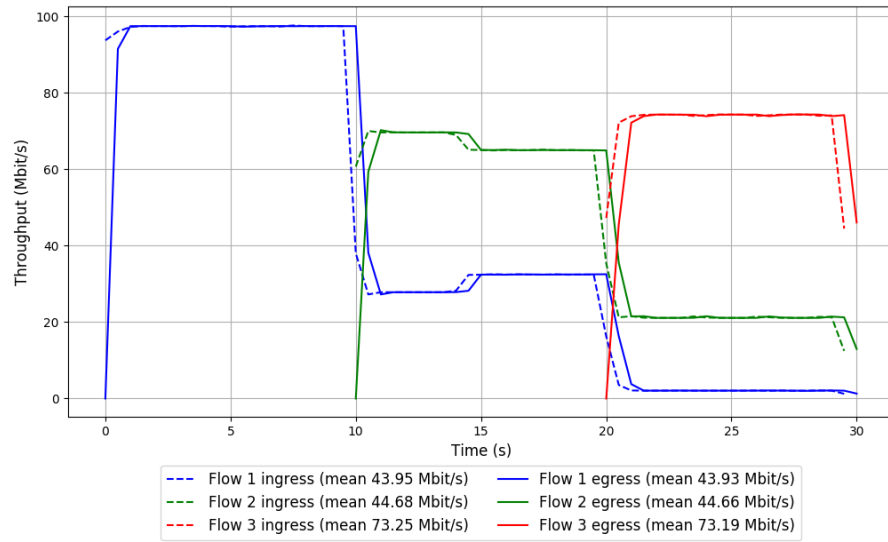
-- Flow 3:

Average throughput: 73.19 Mbit/s

95th percentile per-packet one-way delay: 11.120 ms

Loss rate: 0.00%

## Run 5: Report of Indigo — Data Link

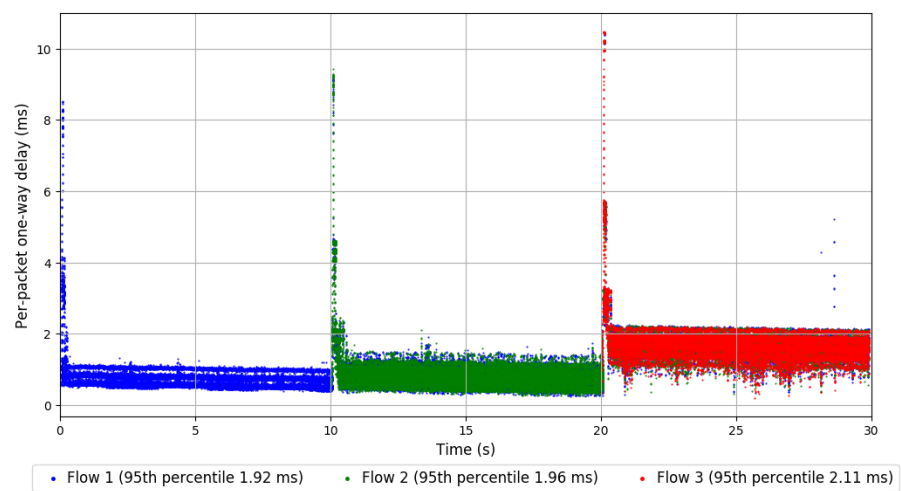
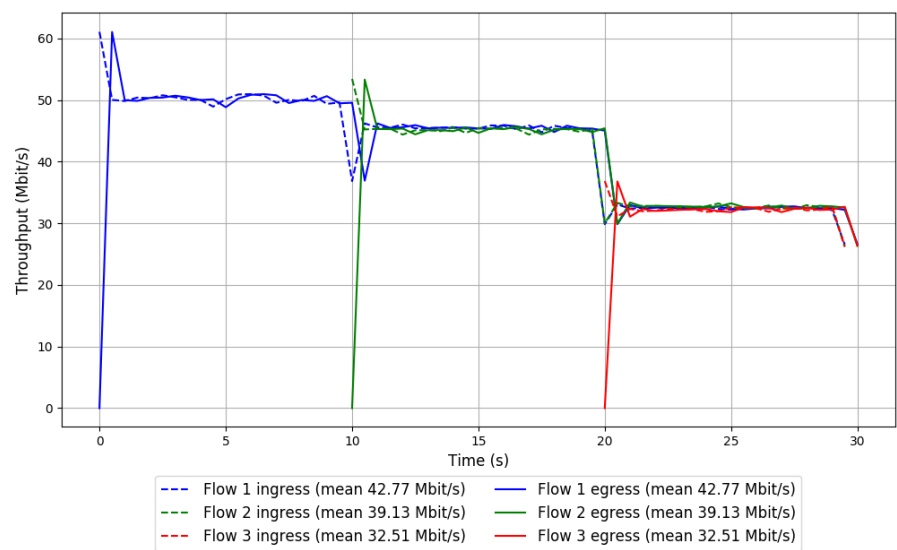


Run 1: Statistics of Indigo-MusesD

Start at: 2018-12-20 01:35:36  
End at: 2018-12-20 01:36:06  
Local clock offset: -0.334 ms  
Remote clock offset: -0.751 ms

# Below is generated by plot.py at 2018-12-20 03:27:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.54 Mbit/s  
95th percentile per-packet one-way delay: 1.954 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 42.77 Mbit/s  
95th percentile per-packet one-way delay: 1.919 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 39.13 Mbit/s  
95th percentile per-packet one-way delay: 1.960 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.51 Mbit/s  
95th percentile per-packet one-way delay: 2.111 ms  
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

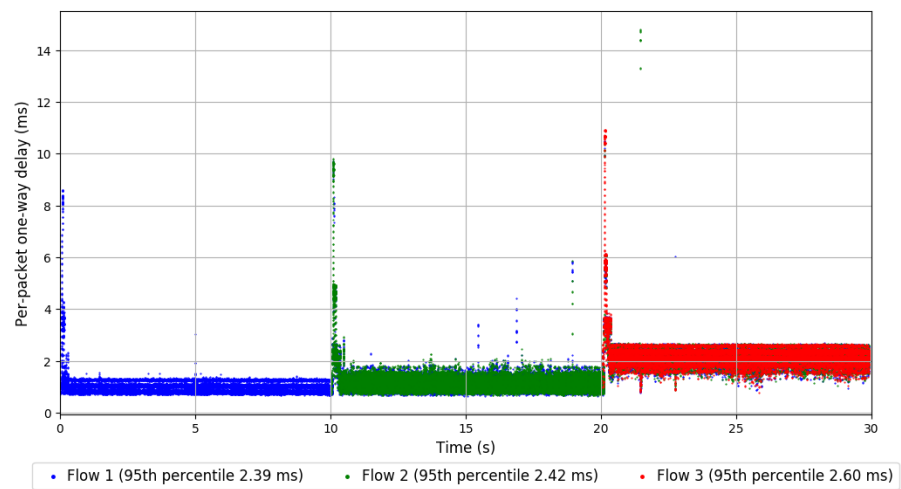
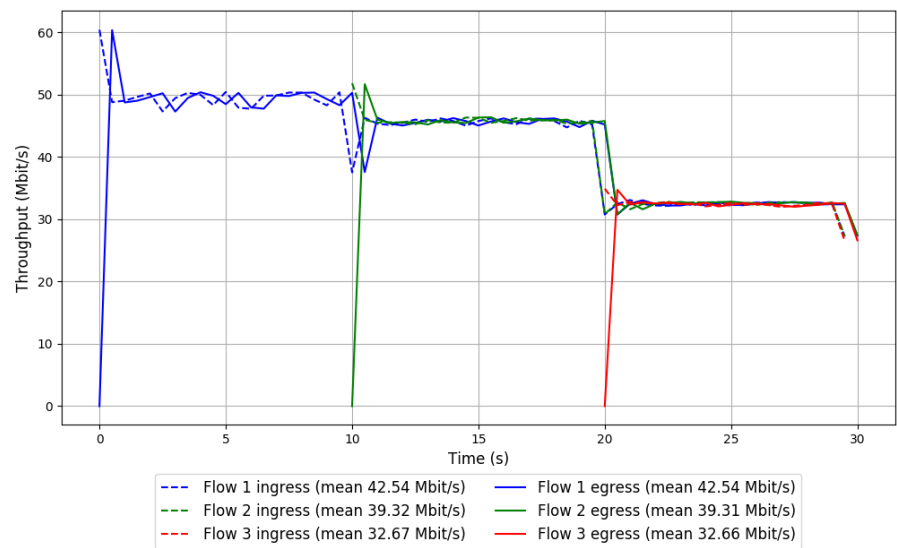


Run 2: Statistics of Indigo-MusesD

Start at: 2018-12-20 01:57:12  
End at: 2018-12-20 01:57:42  
Local clock offset: -6.959 ms  
Remote clock offset: -0.857 ms

# Below is generated by plot.py at 2018-12-20 03:27:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.46 Mbit/s  
95th percentile per-packet one-way delay: 2.416 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 42.54 Mbit/s  
95th percentile per-packet one-way delay: 2.387 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 39.31 Mbit/s  
95th percentile per-packet one-way delay: 2.418 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.66 Mbit/s  
95th percentile per-packet one-way delay: 2.603 ms  
Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link

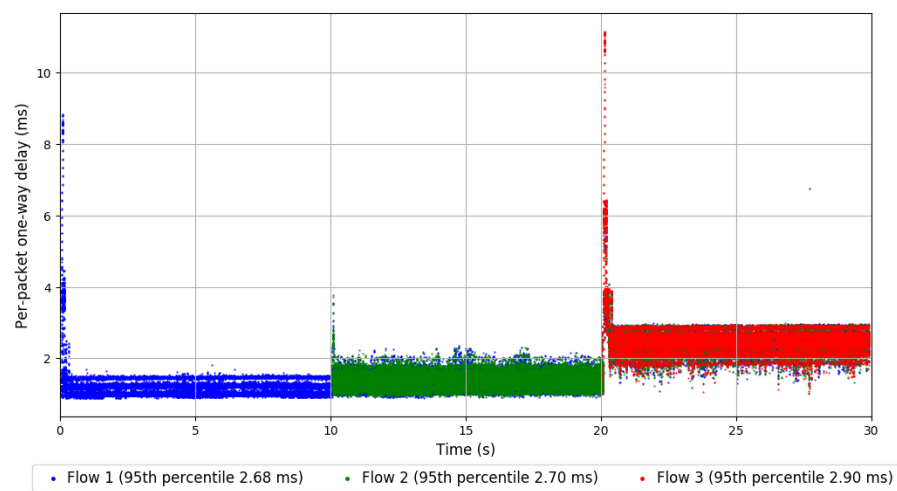
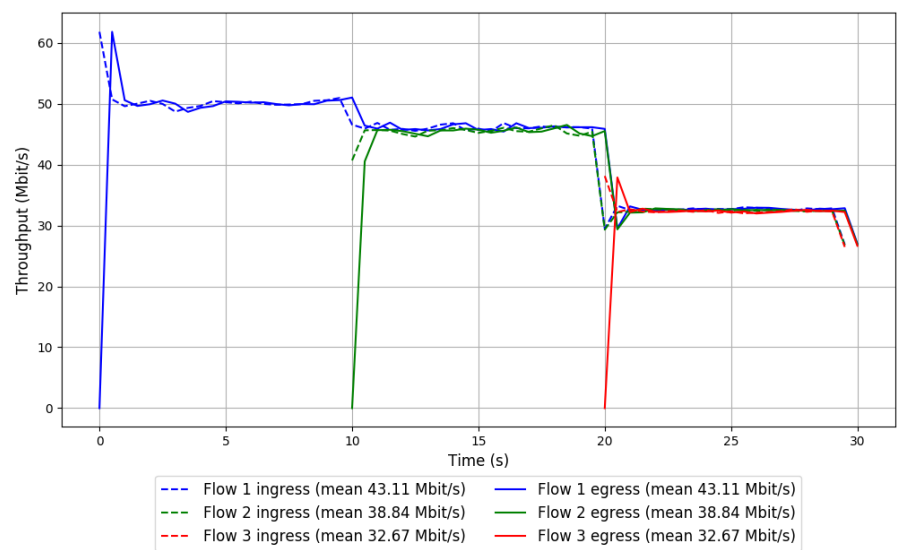


Run 3: Statistics of Indigo-MusesD

Start at: 2018-12-20 02:18:52  
End at: 2018-12-20 02:19:22  
Local clock offset: -2.236 ms  
Remote clock offset: -0.769 ms

# Below is generated by plot.py at 2018-12-20 03:27:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.74 Mbit/s  
95th percentile per-packet one-way delay: 2.705 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 43.11 Mbit/s  
95th percentile per-packet one-way delay: 2.681 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 38.84 Mbit/s  
95th percentile per-packet one-way delay: 2.702 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.67 Mbit/s  
95th percentile per-packet one-way delay: 2.896 ms  
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link

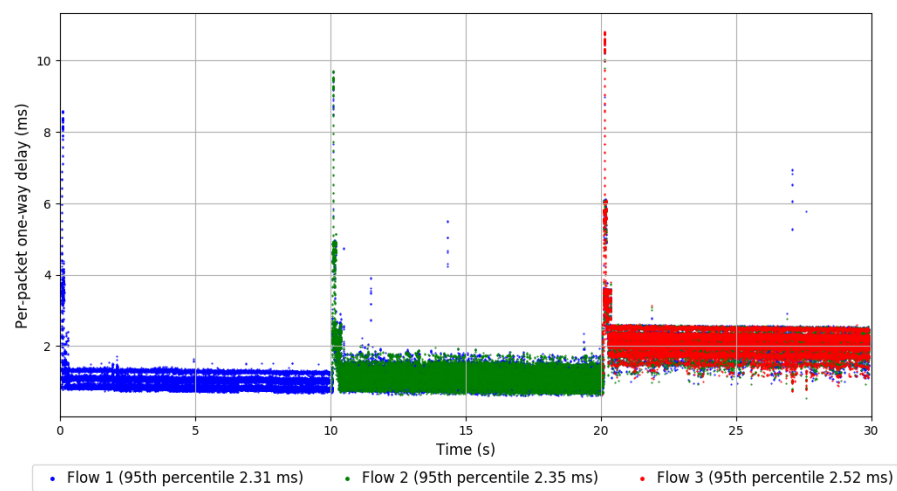
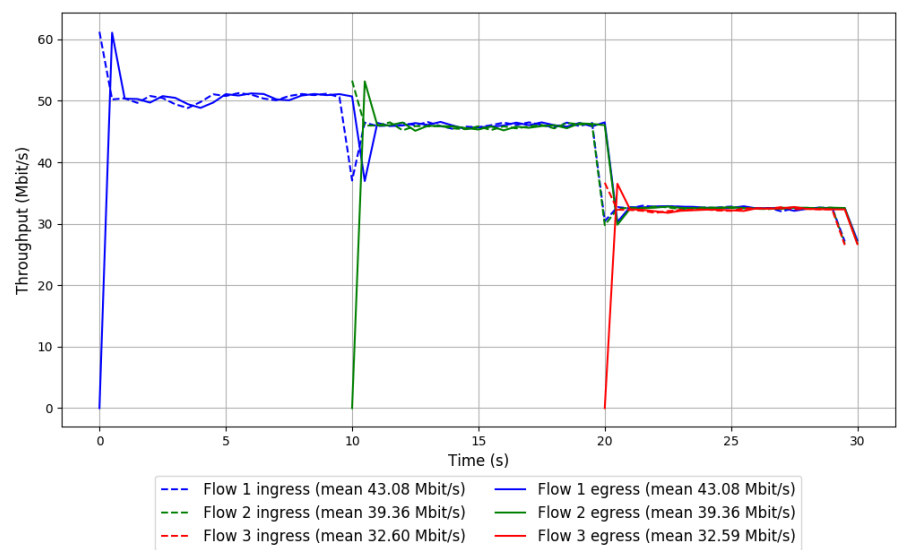


Run 4: Statistics of Indigo-MusesD

Start at: 2018-12-20 02:40:30  
End at: 2018-12-20 02:41:00  
Local clock offset: -3.402 ms  
Remote clock offset: -0.341 ms

# Below is generated by plot.py at 2018-12-20 03:27:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.03 Mbit/s  
95th percentile per-packet one-way delay: 2.348 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 43.08 Mbit/s  
95th percentile per-packet one-way delay: 2.315 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 39.36 Mbit/s  
95th percentile per-packet one-way delay: 2.350 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.59 Mbit/s  
95th percentile per-packet one-way delay: 2.522 ms  
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2018-12-20 03:02:08

End at: 2018-12-20 03:02:38

Local clock offset: -7.242 ms

Remote clock offset: 0.117 ms

# Below is generated by plot.py at 2018-12-20 03:28:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.16 Mbit/s

95th percentile per-packet one-way delay: 2.458 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.46 Mbit/s

95th percentile per-packet one-way delay: 2.437 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.04 Mbit/s

95th percentile per-packet one-way delay: 2.452 ms

Loss rate: 0.00%

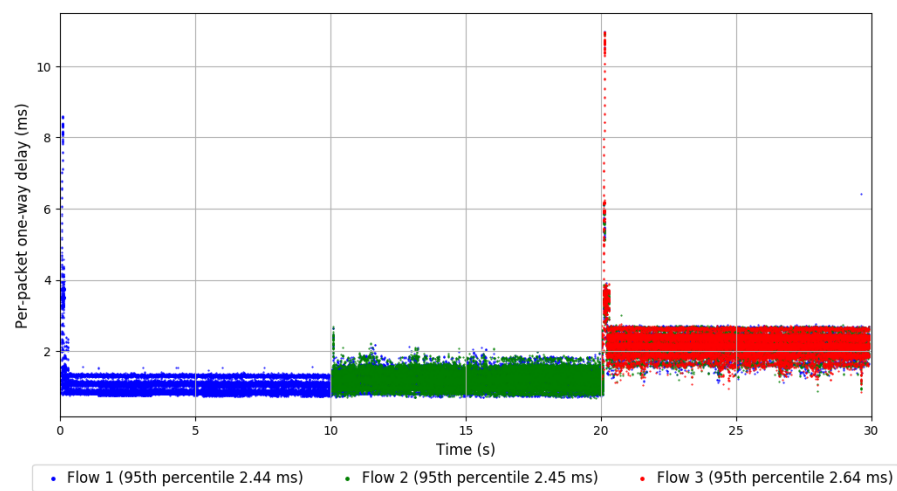
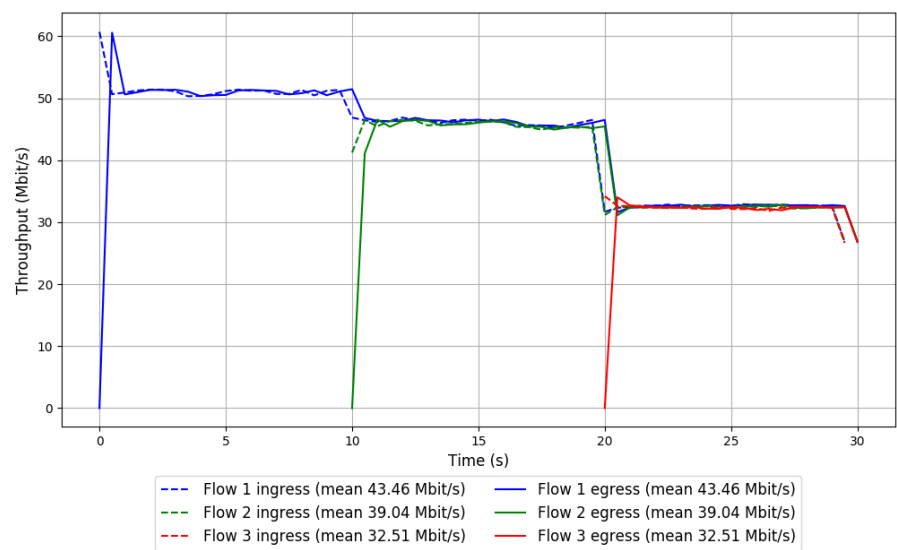
-- Flow 3:

Average throughput: 32.51 Mbit/s

95th percentile per-packet one-way delay: 2.637 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link

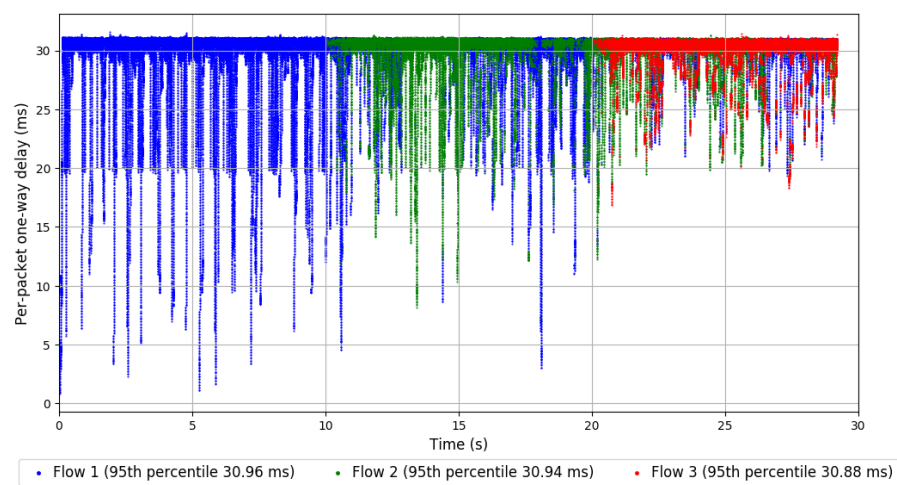
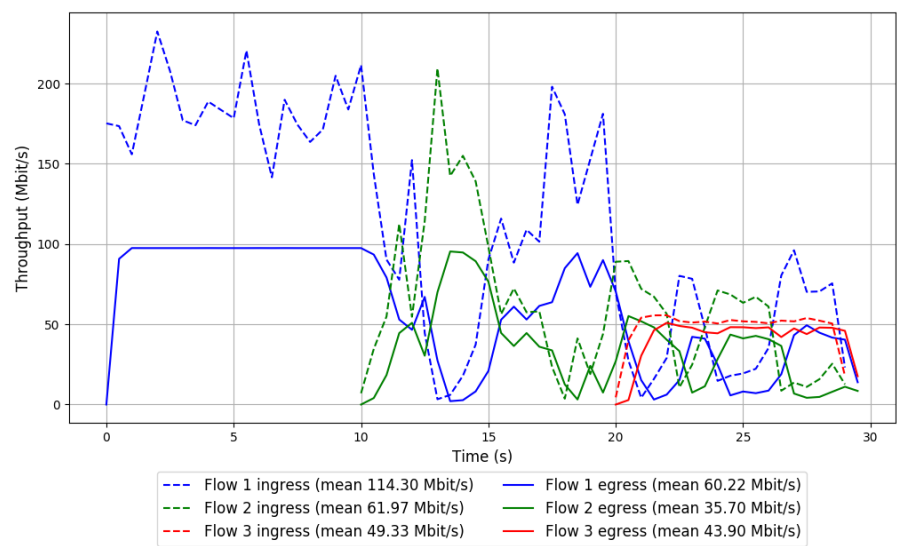


Run 1: Statistics of Indigo-MusesT

Start at: 2018-12-20 01:46:57  
End at: 2018-12-20 01:47:27  
Local clock offset: -5.457 ms  
Remote clock offset: -0.787 ms

# Below is generated by plot.py at 2018-12-20 03:28:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.35 Mbit/s  
95th percentile per-packet one-way delay: 30.950 ms  
Loss rate: 42.81%  
-- Flow 1:  
Average throughput: 60.22 Mbit/s  
95th percentile per-packet one-way delay: 30.965 ms  
Loss rate: 47.26%  
-- Flow 2:  
Average throughput: 35.70 Mbit/s  
95th percentile per-packet one-way delay: 30.944 ms  
Loss rate: 42.38%  
-- Flow 3:  
Average throughput: 43.90 Mbit/s  
95th percentile per-packet one-way delay: 30.879 ms  
Loss rate: 10.99%

Run 1: Report of Indigo-MusesT — Data Link

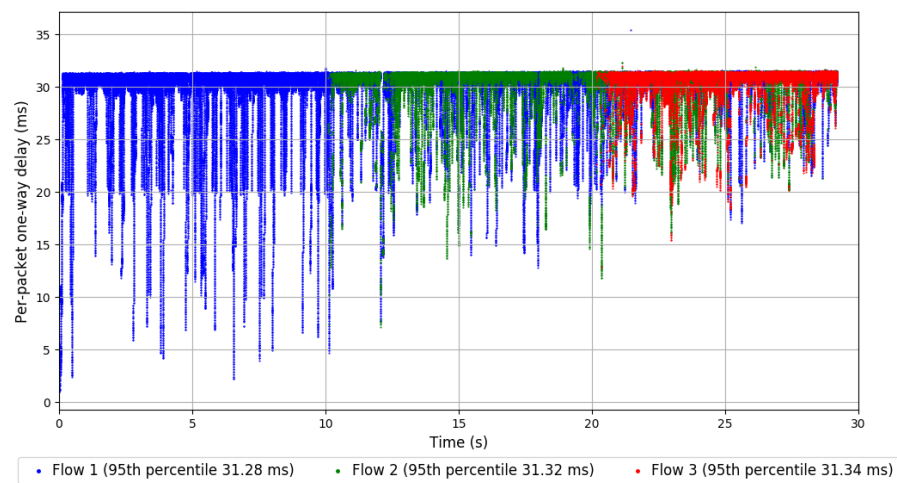
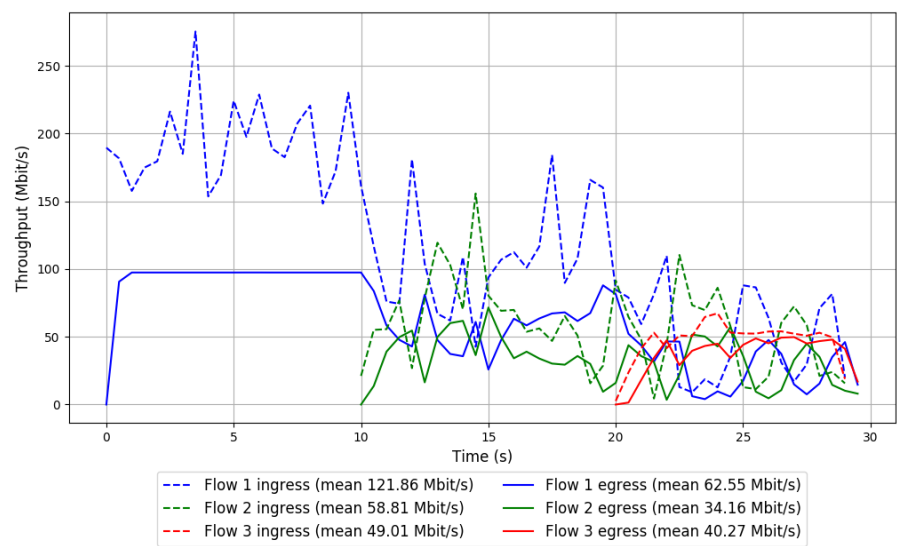


Run 2: Statistics of Indigo-MusesT

Start at: 2018-12-20 02:08:37  
End at: 2018-12-20 02:09:07  
Local clock offset: -5.486 ms  
Remote clock offset: -0.808 ms

# Below is generated by plot.py at 2018-12-20 03:28:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.35 Mbit/s  
95th percentile per-packet one-way delay: 31.300 ms  
Loss rate: 44.49%  
-- Flow 1:  
Average throughput: 62.55 Mbit/s  
95th percentile per-packet one-way delay: 31.277 ms  
Loss rate: 48.62%  
-- Flow 2:  
Average throughput: 34.16 Mbit/s  
95th percentile per-packet one-way delay: 31.321 ms  
Loss rate: 41.90%  
-- Flow 3:  
Average throughput: 40.27 Mbit/s  
95th percentile per-packet one-way delay: 31.341 ms  
Loss rate: 17.90%

Run 2: Report of Indigo-MusesT — Data Link

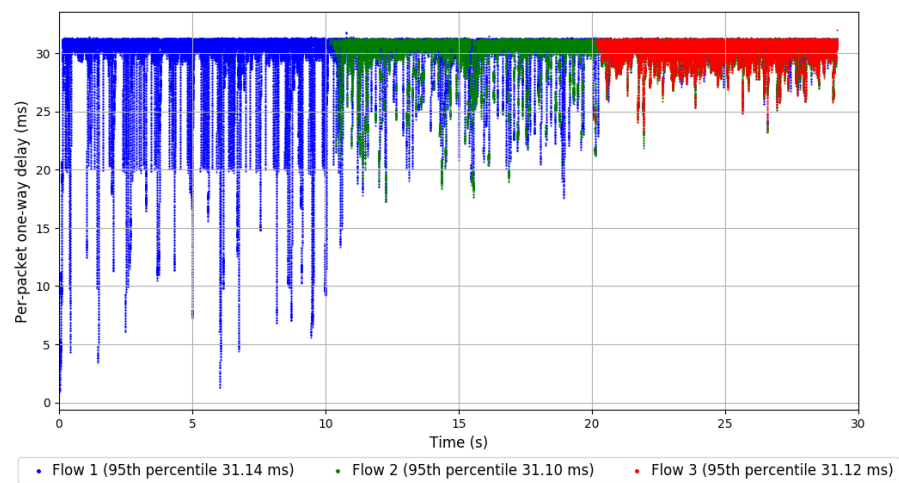
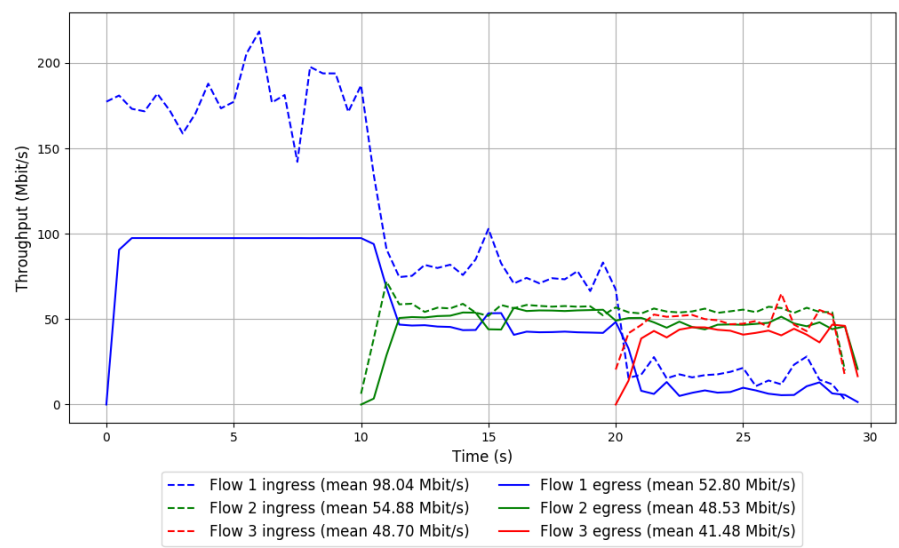


Run 3: Statistics of Indigo-MusesT

Start at: 2018-12-20 02:30:16  
End at: 2018-12-20 02:30:46  
Local clock offset: -0.739 ms  
Remote clock offset: -0.692 ms

# Below is generated by plot.py at 2018-12-20 03:28:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.34 Mbit/s  
95th percentile per-packet one-way delay: 31.126 ms  
Loss rate: 34.61%  
-- Flow 1:  
Average throughput: 52.80 Mbit/s  
95th percentile per-packet one-way delay: 31.143 ms  
Loss rate: 46.09%  
-- Flow 2:  
Average throughput: 48.53 Mbit/s  
95th percentile per-packet one-way delay: 31.102 ms  
Loss rate: 11.56%  
-- Flow 3:  
Average throughput: 41.48 Mbit/s  
95th percentile per-packet one-way delay: 31.121 ms  
Loss rate: 14.76%

Run 3: Report of Indigo-MusesT — Data Link

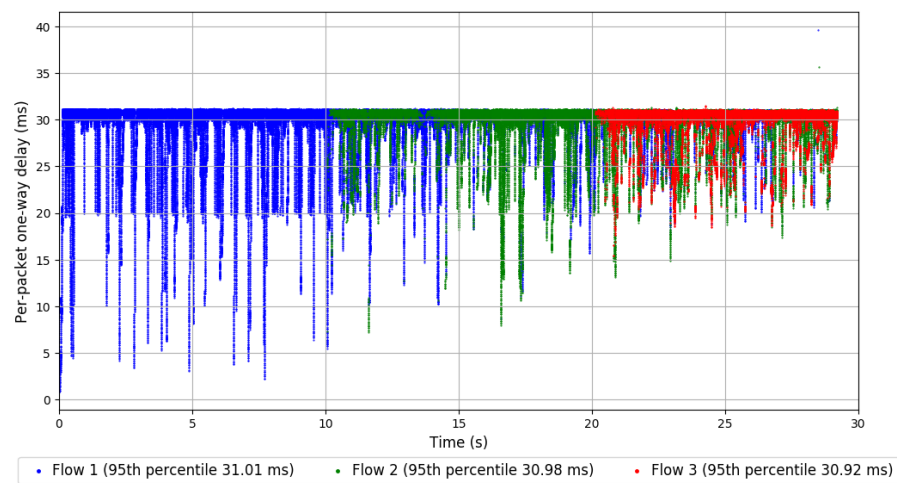
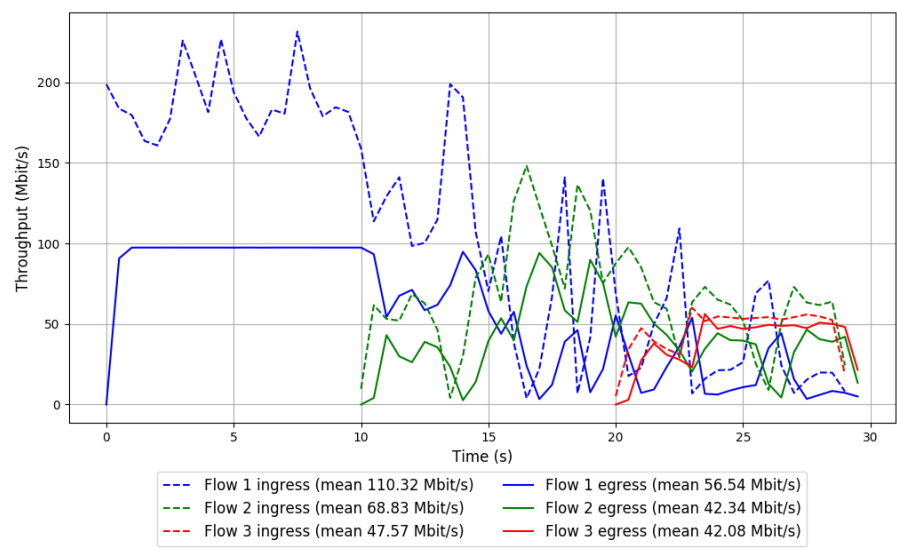


Run 4: Statistics of Indigo-MusesT

Start at: 2018-12-20 02:51:54  
End at: 2018-12-20 02:52:24  
Local clock offset: -6.315 ms  
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-12-20 03:28:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.35 Mbit/s  
95th percentile per-packet one-way delay: 30.991 ms  
Loss rate: 42.76%  
-- Flow 1:  
Average throughput: 56.54 Mbit/s  
95th percentile per-packet one-way delay: 31.009 ms  
Loss rate: 48.70%  
-- Flow 2:  
Average throughput: 42.34 Mbit/s  
95th percentile per-packet one-way delay: 30.977 ms  
Loss rate: 38.46%  
-- Flow 3:  
Average throughput: 42.08 Mbit/s  
95th percentile per-packet one-way delay: 30.918 ms  
Loss rate: 11.54%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2018-12-20 03:13:33

End at: 2018-12-20 03:14:03

Local clock offset: -3.464 ms

Remote clock offset: 0.326 ms

# Below is generated by plot.py at 2018-12-20 03:28:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.35 Mbit/s

95th percentile per-packet one-way delay: 31.312 ms

Loss rate: 43.69%

-- Flow 1:

Average throughput: 66.13 Mbit/s

95th percentile per-packet one-way delay: 31.305 ms

Loss rate: 47.59%

-- Flow 2:

Average throughput: 28.78 Mbit/s

95th percentile per-packet one-way delay: 31.324 ms

Loss rate: 39.44%

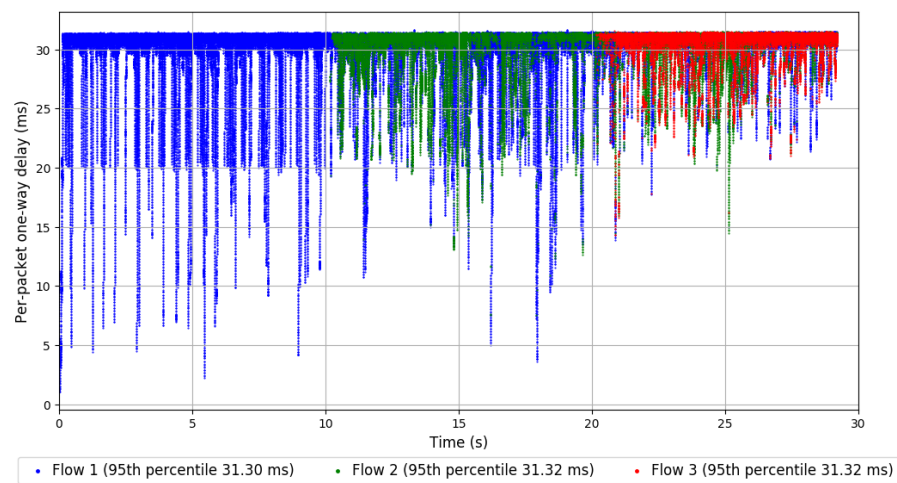
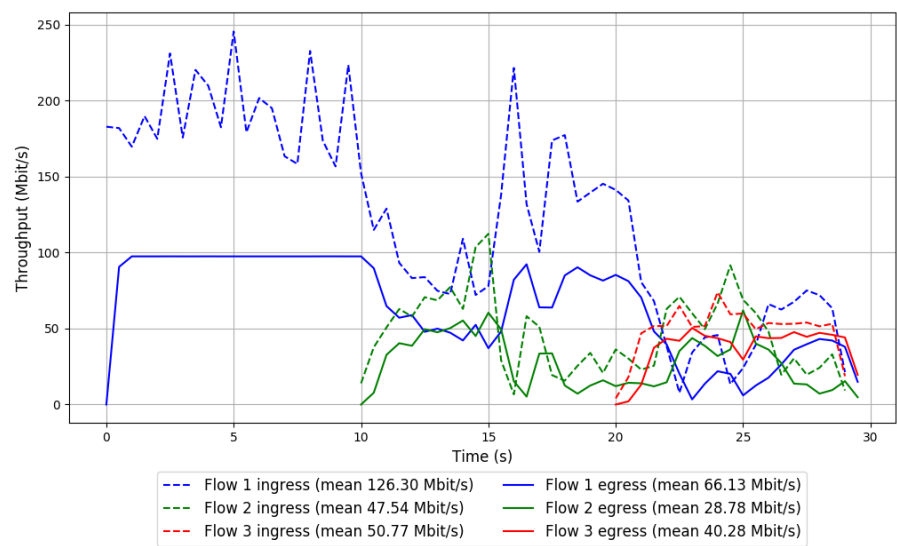
-- Flow 3:

Average throughput: 40.28 Mbit/s

95th percentile per-packet one-way delay: 31.321 ms

Loss rate: 20.72%

Run 5: Report of Indigo-MusesT — Data Link

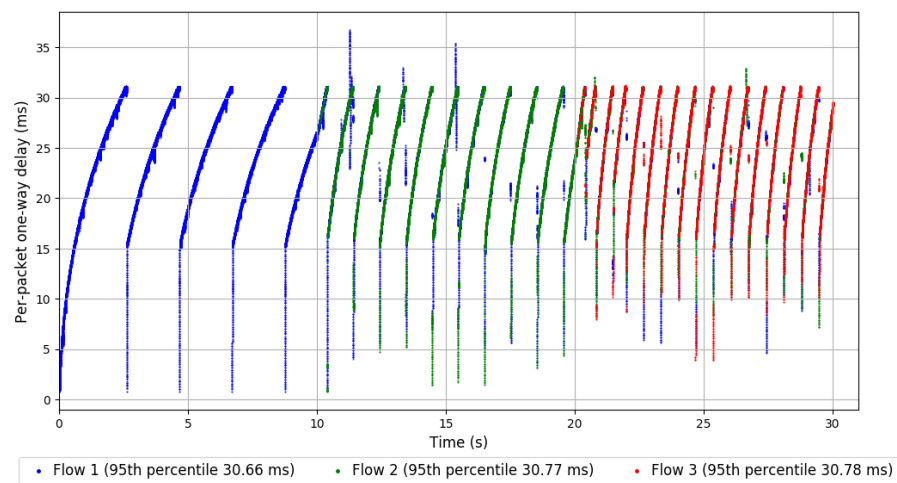
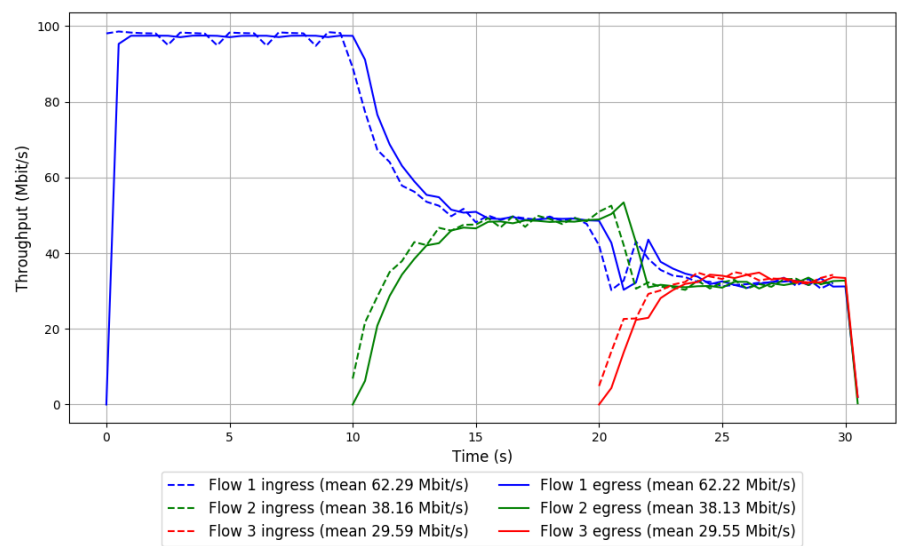


```
Run 1: Statistics of LEDBAT

Start at: 2018-12-20 01:54:52
End at: 2018-12-20 01:55:22
Local clock offset: -6.709 ms
Remote clock offset: -0.796 ms

# Below is generated by plot.py at 2018-12-20 03:28:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 30.734 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 62.22 Mbit/s
95th percentile per-packet one-way delay: 30.662 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.13 Mbit/s
95th percentile per-packet one-way delay: 30.766 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 29.55 Mbit/s
95th percentile per-packet one-way delay: 30.776 ms
Loss rate: 0.10%
```

Run 1: Report of LEDBAT — Data Link

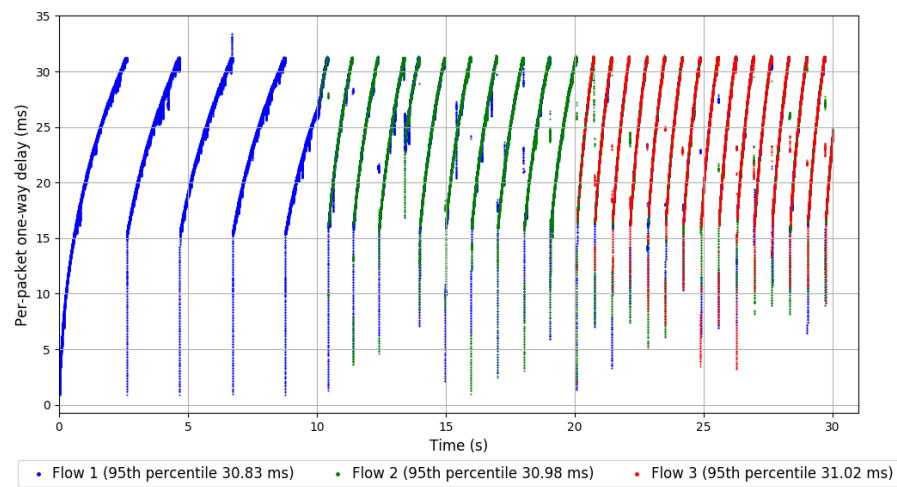
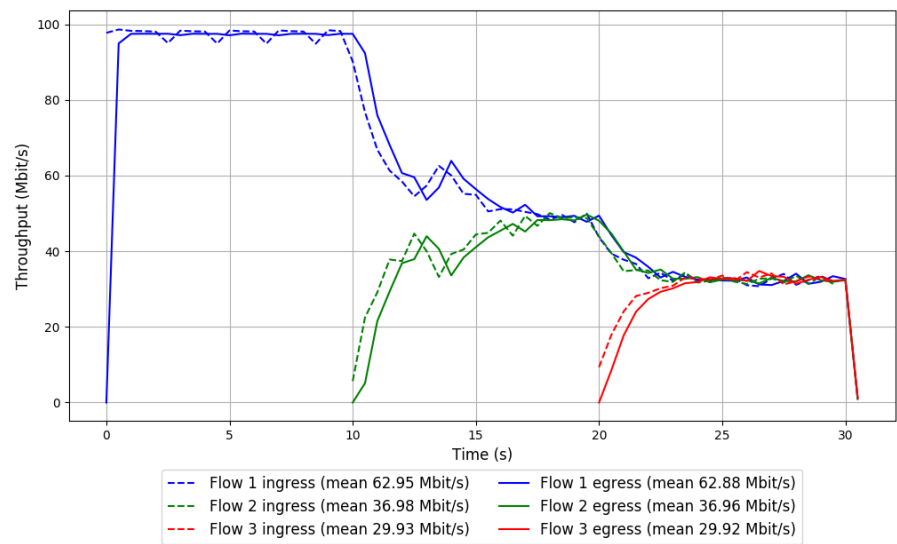


Run 2: Statistics of LEDBAT

Start at: 2018-12-20 02:16:32  
End at: 2018-12-20 02:17:03  
Local clock offset: -2.79 ms  
Remote clock offset: -0.869 ms

# Below is generated by plot.py at 2018-12-20 03:29:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.40 Mbit/s  
95th percentile per-packet one-way delay: 30.931 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 62.88 Mbit/s  
95th percentile per-packet one-way delay: 30.828 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 36.96 Mbit/s  
95th percentile per-packet one-way delay: 30.980 ms  
Loss rate: 0.07%  
-- Flow 3:  
Average throughput: 29.92 Mbit/s  
95th percentile per-packet one-way delay: 31.021 ms  
Loss rate: 0.09%

Run 2: Report of LEDBAT — Data Link

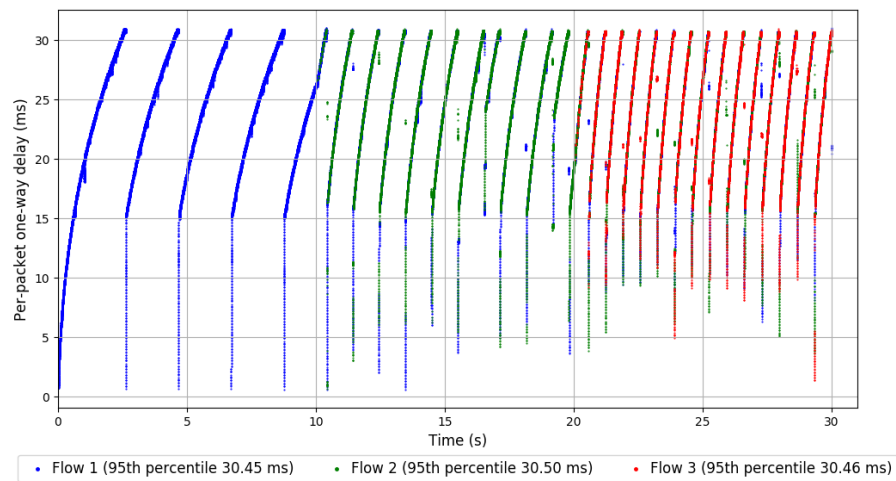
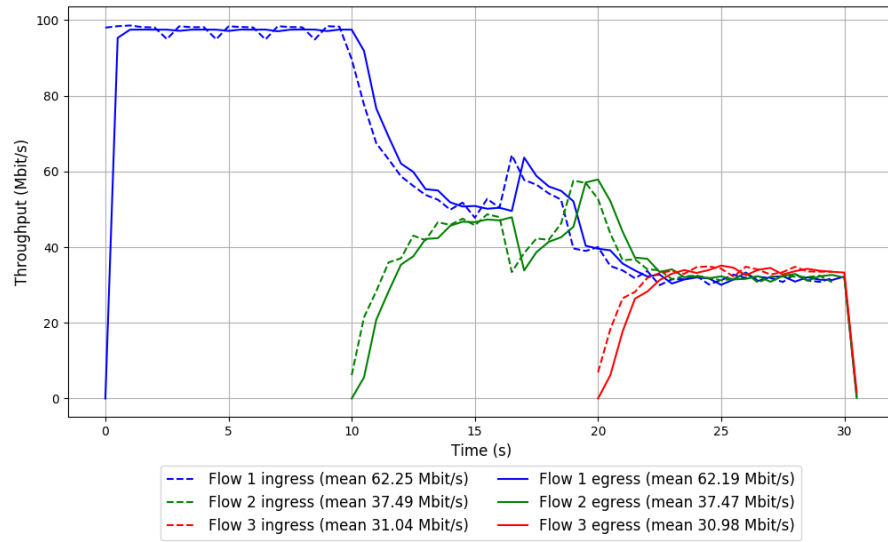


Run 3: Statistics of LEDBAT

Start at: 2018-12-20 02:38:11  
End at: 2018-12-20 02:38:41  
Local clock offset: -2.166 ms  
Remote clock offset: -0.445 ms

# Below is generated by plot.py at 2018-12-20 03:29:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.41 Mbit/s  
95th percentile per-packet one-way delay: 30.472 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 62.19 Mbit/s  
95th percentile per-packet one-way delay: 30.451 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 37.47 Mbit/s  
95th percentile per-packet one-way delay: 30.495 ms  
Loss rate: 0.06%  
-- Flow 3:  
Average throughput: 30.98 Mbit/s  
95th percentile per-packet one-way delay: 30.461 ms  
Loss rate: 0.09%

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

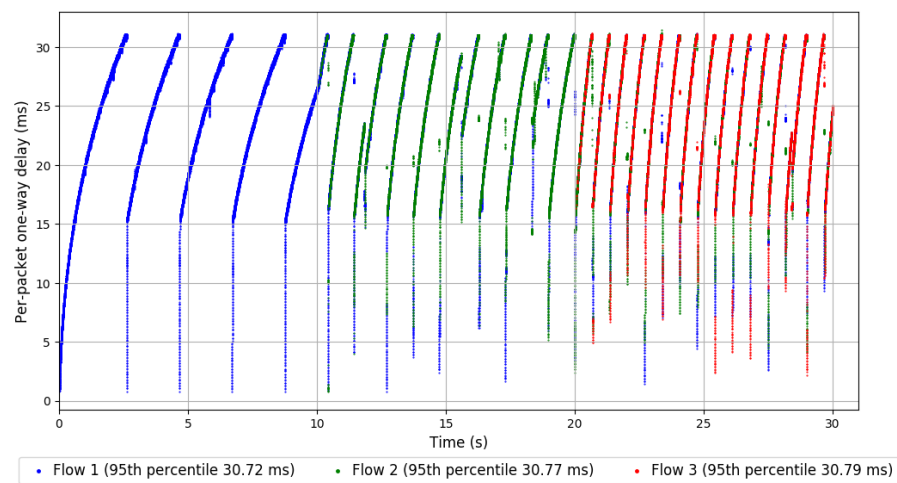
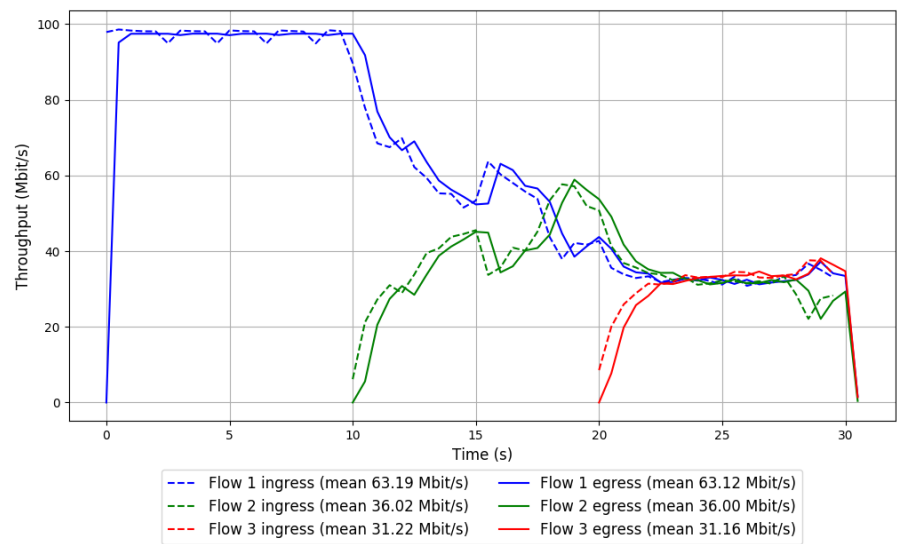


Run 4: Statistics of LEDBAT

Start at: 2018-12-20 02:59:49  
End at: 2018-12-20 03:00:19  
Local clock offset: -7.075 ms  
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-12-20 03:29:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.41 Mbit/s  
95th percentile per-packet one-way delay: 30.752 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 63.12 Mbit/s  
95th percentile per-packet one-way delay: 30.721 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 36.00 Mbit/s  
95th percentile per-packet one-way delay: 30.766 ms  
Loss rate: 0.07%  
-- Flow 3:  
Average throughput: 31.16 Mbit/s  
95th percentile per-packet one-way delay: 30.785 ms  
Loss rate: 0.09%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-12-20 03:21:29

End at: 2018-12-20 03:21:59

Local clock offset: -1.799 ms

Remote clock offset: 0.354 ms

# Below is generated by plot.py at 2018-12-20 03:29:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.40 Mbit/s

95th percentile per-packet one-way delay: 31.023 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 62.73 Mbit/s

95th percentile per-packet one-way delay: 30.963 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 35.81 Mbit/s

95th percentile per-packet one-way delay: 31.057 ms

Loss rate: 0.07%

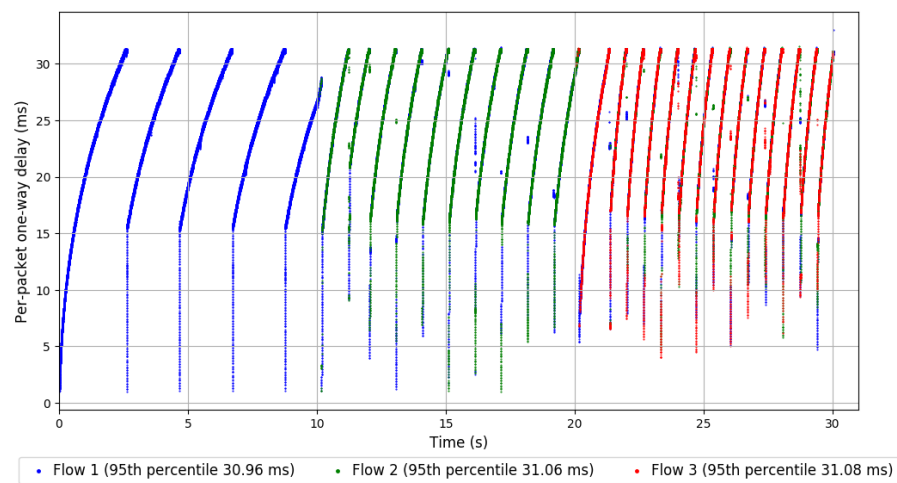
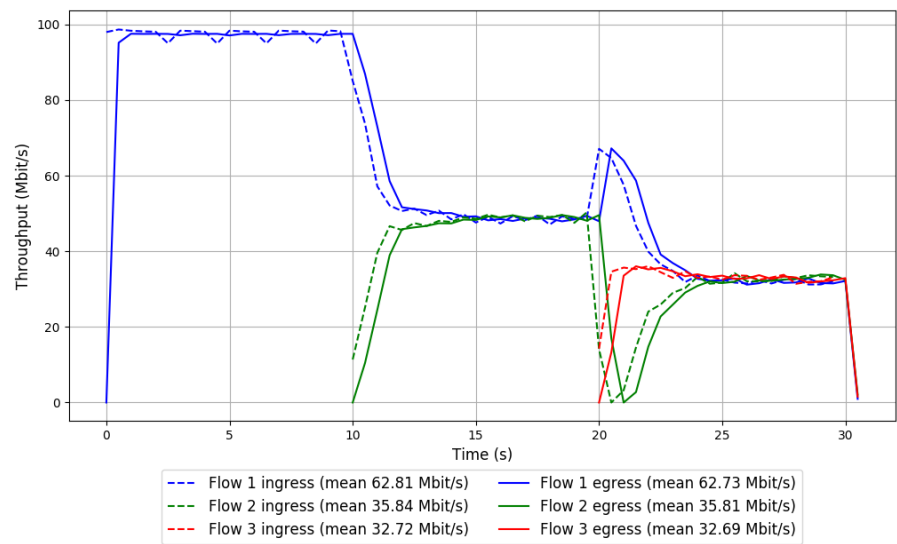
-- Flow 3:

Average throughput: 32.69 Mbit/s

95th percentile per-packet one-way delay: 31.081 ms

Loss rate: 0.08%

Run 5: Report of LEDBAT — Data Link

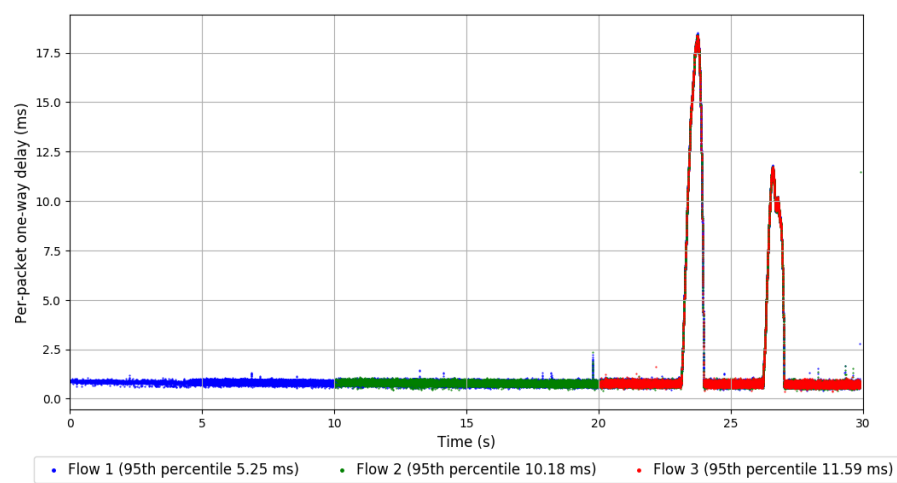
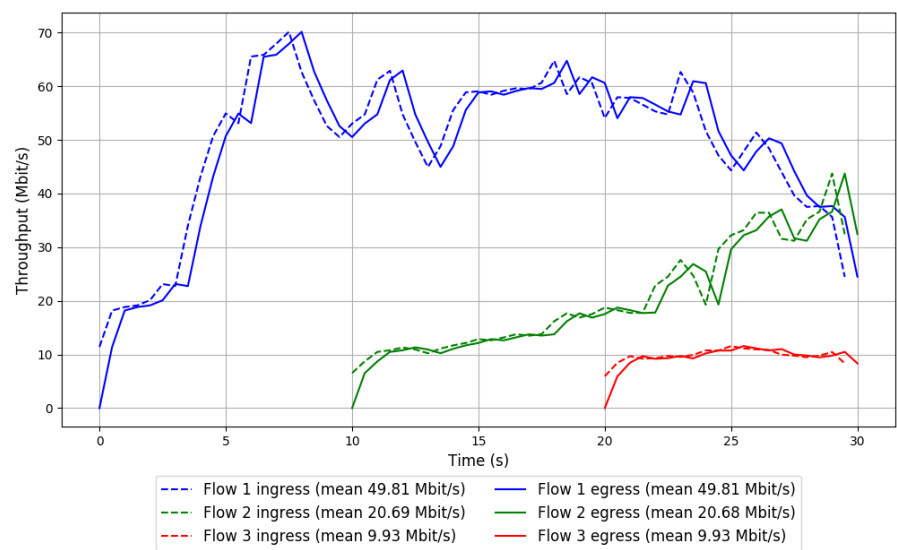


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-12-20 01:40:10
End at: 2018-12-20 01:40:40
Local clock offset: -3.235 ms
Remote clock offset: -0.76 ms

# Below is generated by plot.py at 2018-12-20 03:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.82 Mbit/s
95th percentile per-packet one-way delay: 8.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.81 Mbit/s
95th percentile per-packet one-way delay: 5.246 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.68 Mbit/s
95th percentile per-packet one-way delay: 10.178 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.93 Mbit/s
95th percentile per-packet one-way delay: 11.591 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Allegro — Data Link

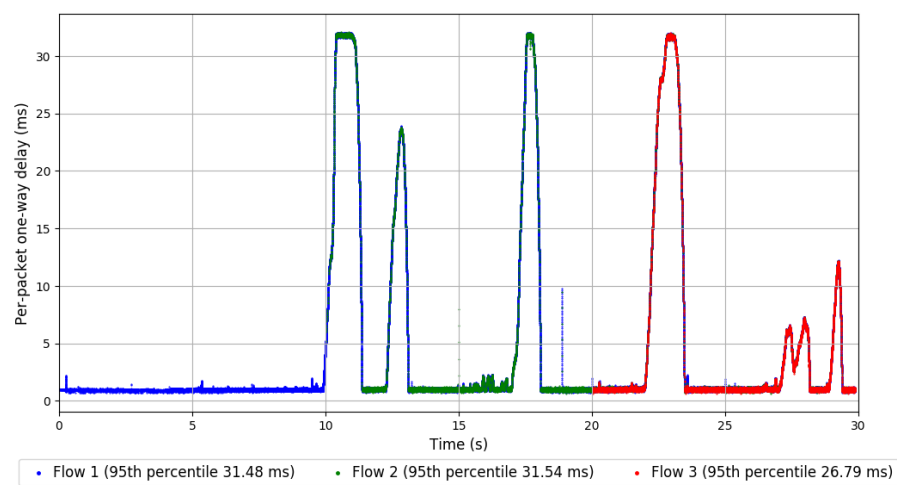
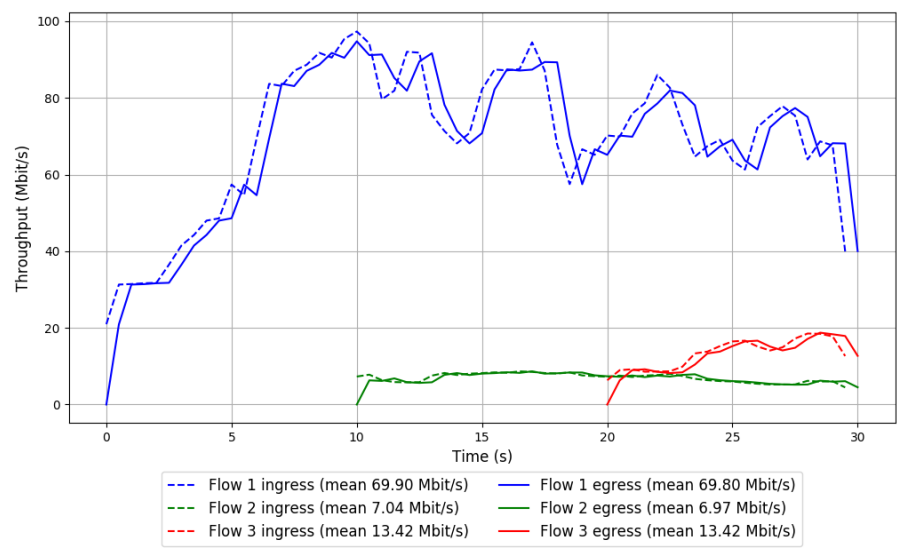


Run 2: Statistics of PCC-Allegro

Start at: 2018-12-20 02:01:45  
End at: 2018-12-20 02:02:15  
Local clock offset: -7.334 ms  
Remote clock offset: -0.735 ms

# Below is generated by plot.py at 2018-12-20 03:29:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.86 Mbit/s  
95th percentile per-packet one-way delay: 31.395 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 69.80 Mbit/s  
95th percentile per-packet one-way delay: 31.484 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 6.97 Mbit/s  
95th percentile per-packet one-way delay: 31.543 ms  
Loss rate: 0.96%  
-- Flow 3:  
Average throughput: 13.42 Mbit/s  
95th percentile per-packet one-way delay: 26.793 ms  
Loss rate: 0.06%

Run 2: Report of PCC-Allegro — Data Link

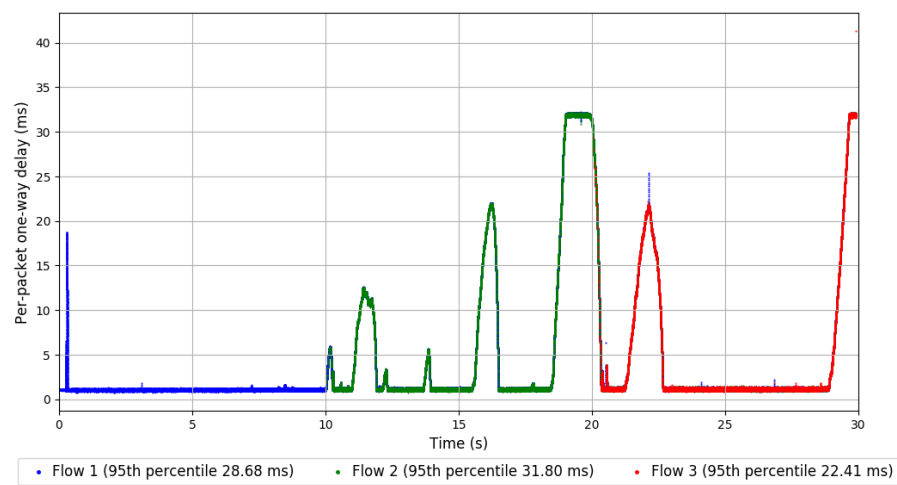
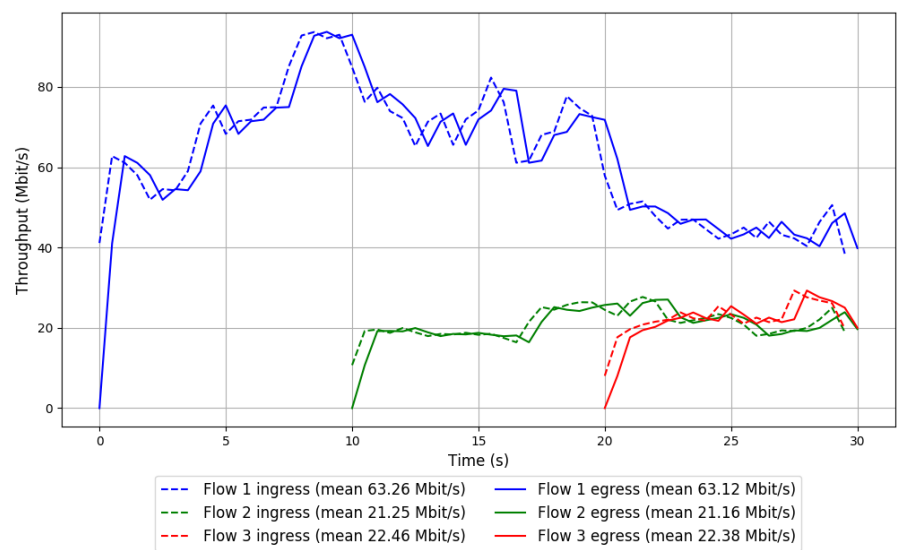


Run 3: Statistics of PCC-Allegro

Start at: 2018-12-20 02:23:26  
End at: 2018-12-20 02:23:56  
Local clock offset: -1.452 ms  
Remote clock offset: -0.672 ms

# Below is generated by plot.py at 2018-12-20 03:29:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.56 Mbit/s  
95th percentile per-packet one-way delay: 30.545 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 63.12 Mbit/s  
95th percentile per-packet one-way delay: 28.679 ms  
Loss rate: 0.12%  
-- Flow 2:  
Average throughput: 21.16 Mbit/s  
95th percentile per-packet one-way delay: 31.797 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 22.38 Mbit/s  
95th percentile per-packet one-way delay: 22.413 ms  
Loss rate: 0.24%

Run 3: Report of PCC-Allegro — Data Link

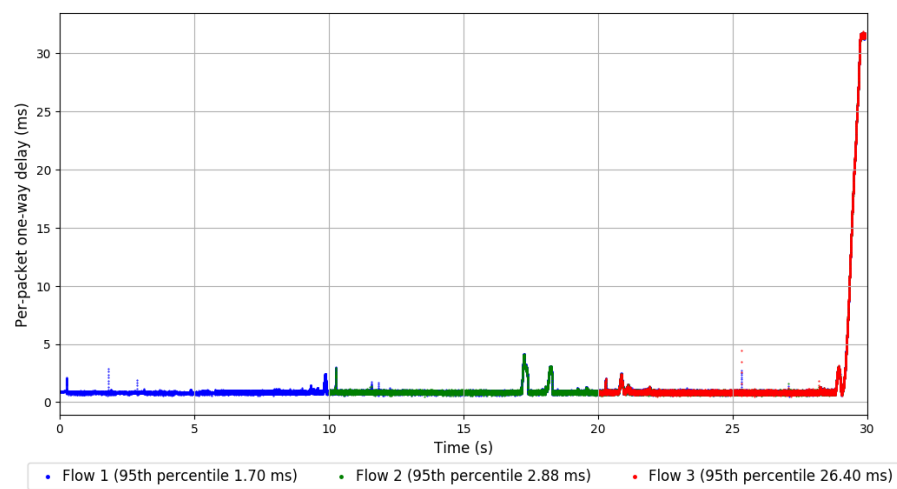
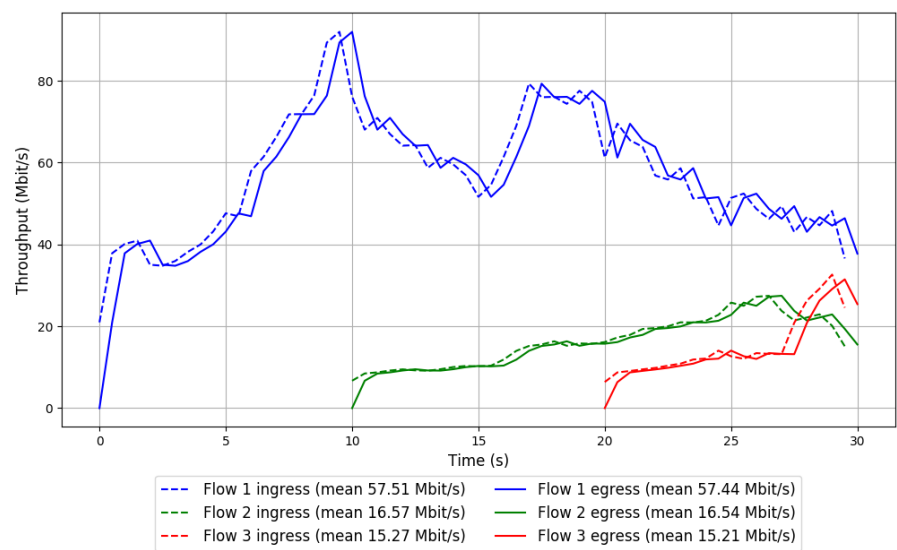


Run 4: Statistics of PCC-Allegro

Start at: 2018-12-20 02:45:05  
End at: 2018-12-20 02:45:35  
Local clock offset: -4.996 ms  
Remote clock offset: -0.291 ms

# Below is generated by plot.py at 2018-12-20 03:29:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.47 Mbit/s  
95th percentile per-packet one-way delay: 2.398 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 57.44 Mbit/s  
95th percentile per-packet one-way delay: 1.697 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 16.54 Mbit/s  
95th percentile per-packet one-way delay: 2.879 ms  
Loss rate: 0.06%  
-- Flow 3:  
Average throughput: 15.21 Mbit/s  
95th percentile per-packet one-way delay: 26.396 ms  
Loss rate: 0.14%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-12-20 03:06:42

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

Local clock offset: -6.645 ms

Remote clock offset: 0.161 ms

# Below is generated by plot.py at 2018-12-20 03:30:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.34 Mbit/s

95th percentile per-packet one-way delay: 12.818 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.12 Mbit/s

95th percentile per-packet one-way delay: 11.763 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 30.96 Mbit/s

95th percentile per-packet one-way delay: 14.584 ms

Loss rate: 0.00%

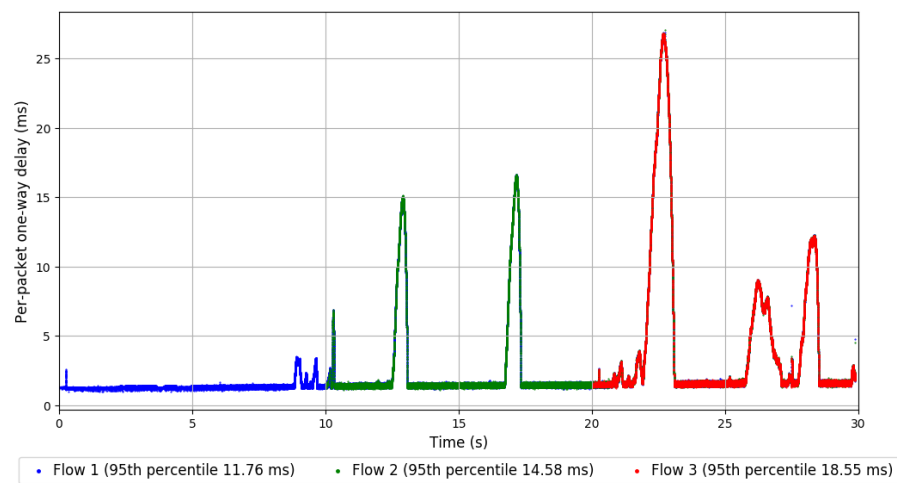
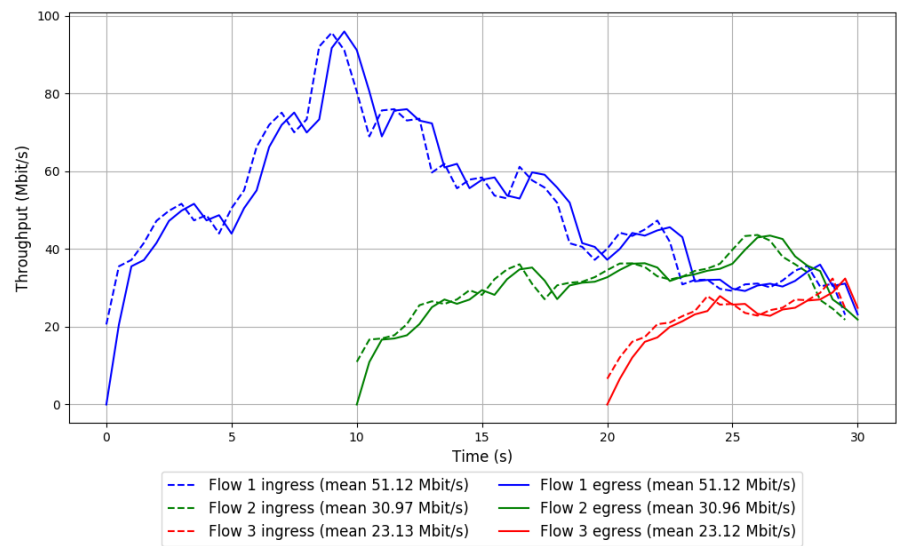
-- Flow 3:

Average throughput: 23.12 Mbit/s

95th percentile per-packet one-way delay: 18.555 ms

Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

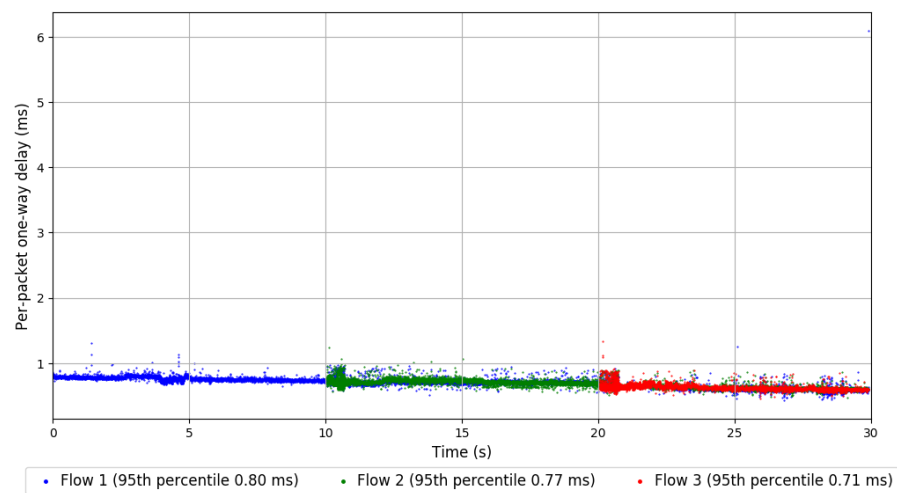
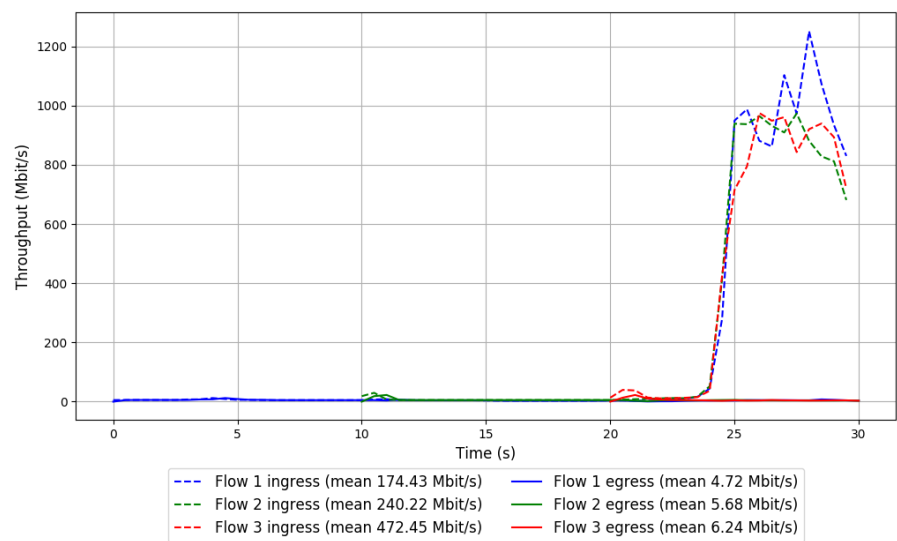


```
Run 1: Statistics of PCC-Expr

Start at: 2018-12-20 01:42:23
End at: 2018-12-20 01:42:53
Local clock offset: -4.087 ms
Remote clock offset: -0.812 ms

# Below is generated by plot.py at 2018-12-20 03:30:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.55 Mbit/s
95th percentile per-packet one-way delay: 0.795 ms
Loss rate: 97.85%
-- Flow 1:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 0.804 ms
Loss rate: 97.29%
-- Flow 2:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 0.772 ms
Loss rate: 97.64%
-- Flow 3:
Average throughput: 6.24 Mbit/s
95th percentile per-packet one-way delay: 0.712 ms
Loss rate: 98.68%
```

Run 1: Report of PCC-Expr — Data Link

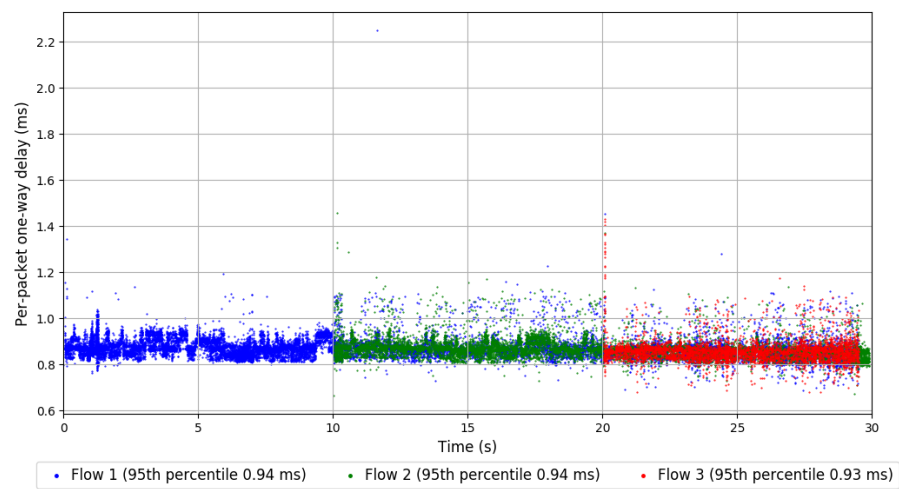
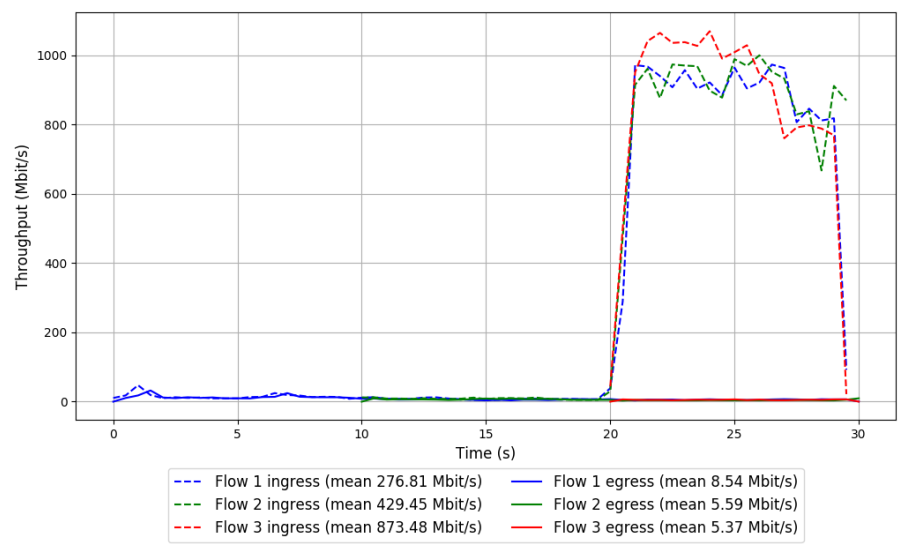


Run 2: Statistics of PCC-Expr

Start at: 2018-12-20 02:03:59  
End at: 2018-12-20 02:04:29  
Local clock offset: -7.458 ms  
Remote clock offset: -0.783 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.87 Mbit/s  
95th percentile per-packet one-way delay: 0.936 ms  
Loss rate: 98.34%  
-- Flow 1:  
Average throughput: 8.54 Mbit/s  
95th percentile per-packet one-way delay: 0.936 ms  
Loss rate: 96.91%  
-- Flow 2:  
Average throughput: 5.59 Mbit/s  
95th percentile per-packet one-way delay: 0.937 ms  
Loss rate: 98.70%  
-- Flow 3:  
Average throughput: 5.37 Mbit/s  
95th percentile per-packet one-way delay: 0.933 ms  
Loss rate: 99.39%

Run 2: Report of PCC-Expr — Data Link

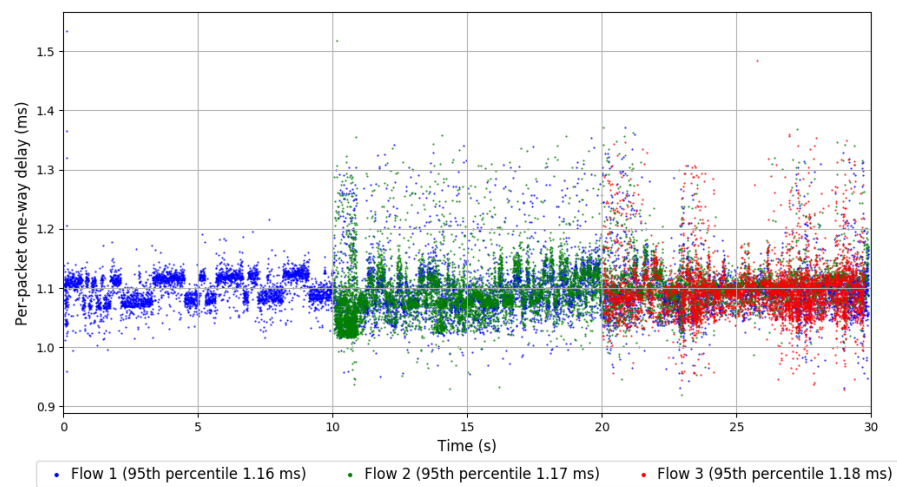
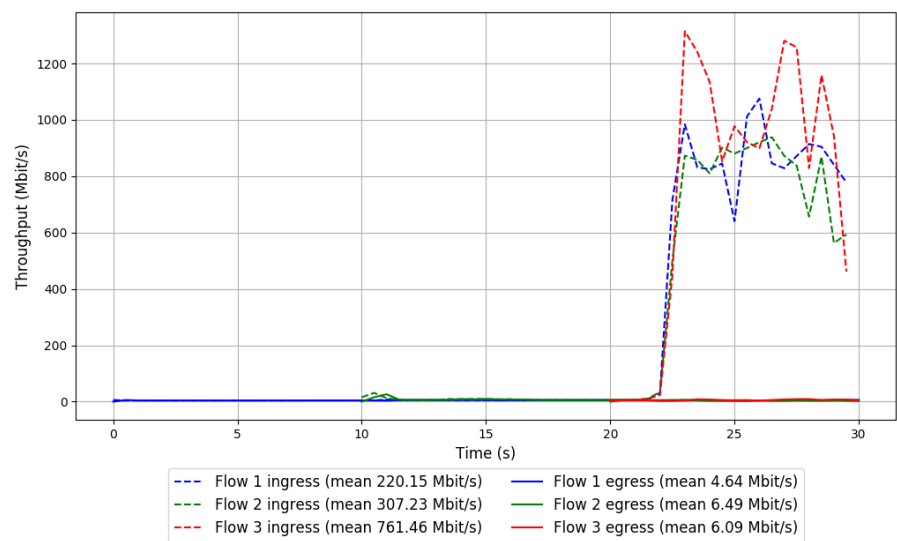


Run 3: Statistics of PCC-Expr

Start at: 2018-12-20 02:25:39  
End at: 2018-12-20 02:26:09  
Local clock offset: -1.215 ms  
Remote clock offset: -0.666 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 10.94 Mbit/s  
95th percentile per-packet one-way delay: 1.167 ms  
Loss rate: 98.37%  
-- Flow 1:  
Average throughput: 4.64 Mbit/s  
95th percentile per-packet one-way delay: 1.159 ms  
Loss rate: 97.89%  
-- Flow 2:  
Average throughput: 6.49 Mbit/s  
95th percentile per-packet one-way delay: 1.169 ms  
Loss rate: 97.89%  
-- Flow 3:  
Average throughput: 6.09 Mbit/s  
95th percentile per-packet one-way delay: 1.178 ms  
Loss rate: 99.20%

Run 3: Report of PCC-Expr — Data Link

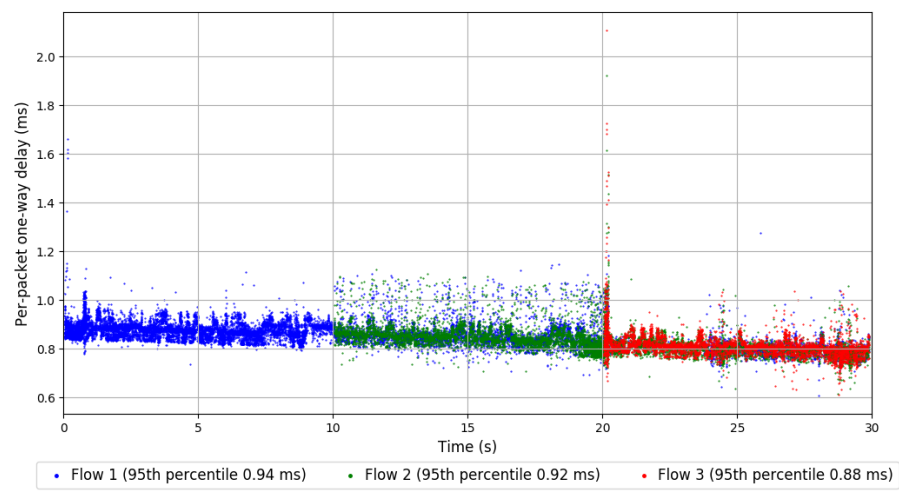
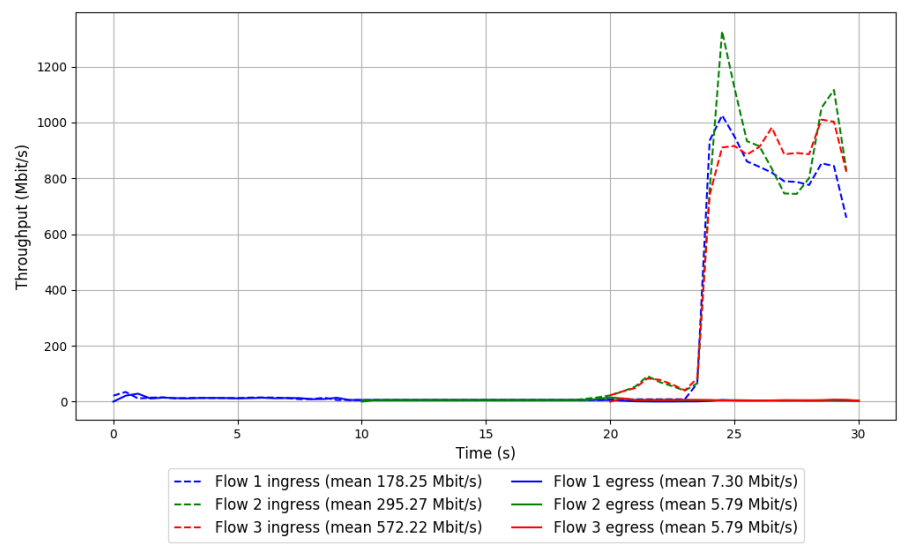


Run 4: Statistics of PCC-Expr

Start at: 2018-12-20 02:47:18  
End at: 2018-12-20 02:47:48  
Local clock offset: -5.458 ms  
Remote clock offset: -0.133 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.06 Mbit/s  
95th percentile per-packet one-way delay: 0.930 ms  
Loss rate: 97.68%  
-- Flow 1:  
Average throughput: 7.30 Mbit/s  
95th percentile per-packet one-way delay: 0.937 ms  
Loss rate: 95.90%  
-- Flow 2:  
Average throughput: 5.79 Mbit/s  
95th percentile per-packet one-way delay: 0.918 ms  
Loss rate: 98.04%  
-- Flow 3:  
Average throughput: 5.79 Mbit/s  
95th percentile per-packet one-way delay: 0.881 ms  
Loss rate: 98.99%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-12-20 03:08:56

End at: 2018-12-20 03:09:26

Local clock offset: -5.294 ms

Remote clock offset: 0.189 ms

# Below is generated by plot.py at 2018-12-20 03:32:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.98 Mbit/s

95th percentile per-packet one-way delay: 1.327 ms

Loss rate: 98.45%

-- Flow 1:

Average throughput: 5.02 Mbit/s

95th percentile per-packet one-way delay: 1.320 ms

Loss rate: 97.78%

-- Flow 2:

Average throughput: 6.80 Mbit/s

95th percentile per-packet one-way delay: 1.320 ms

Loss rate: 98.21%

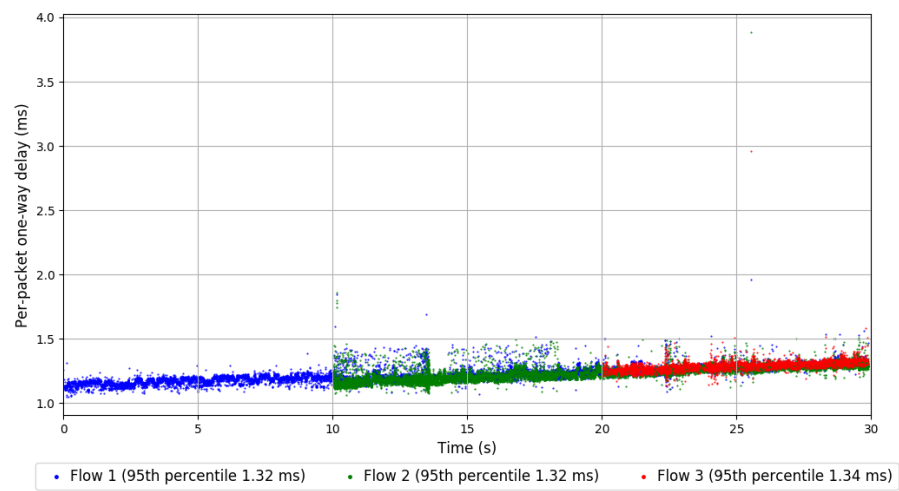
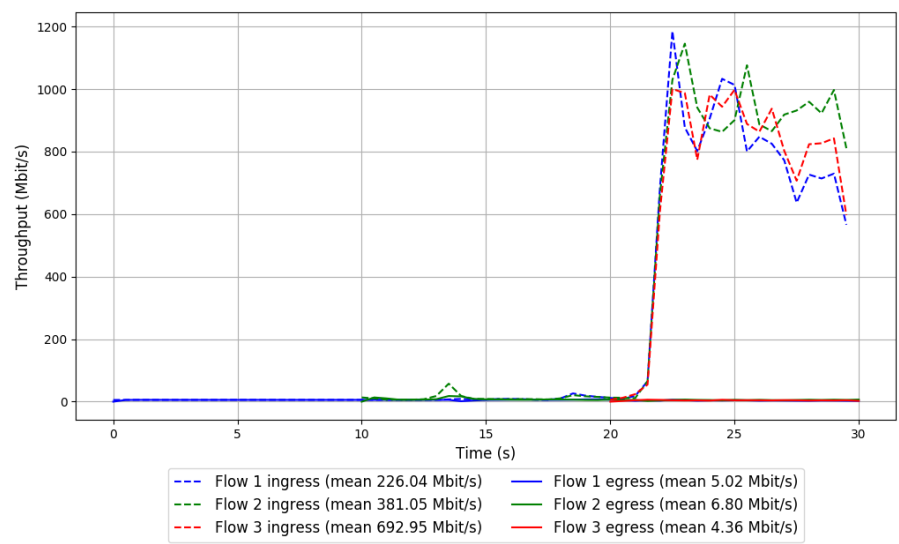
-- Flow 3:

Average throughput: 4.36 Mbit/s

95th percentile per-packet one-way delay: 1.341 ms

Loss rate: 99.37%

Run 5: Report of PCC-Expr — Data Link

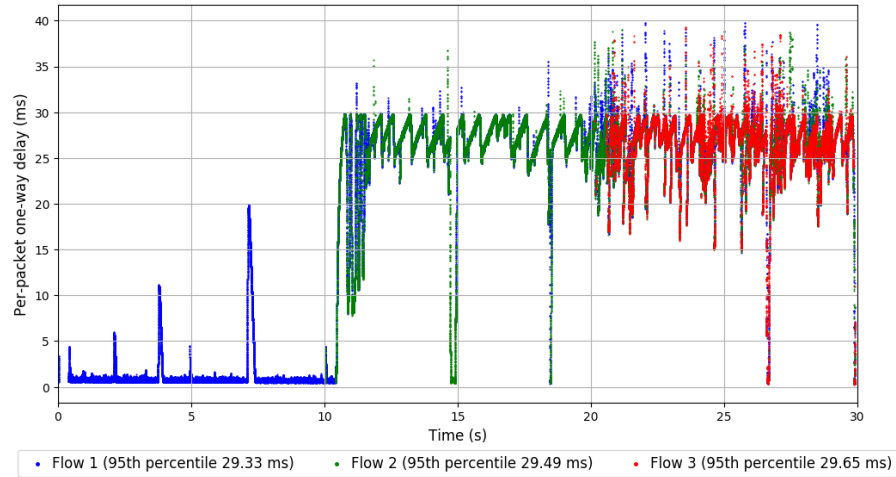
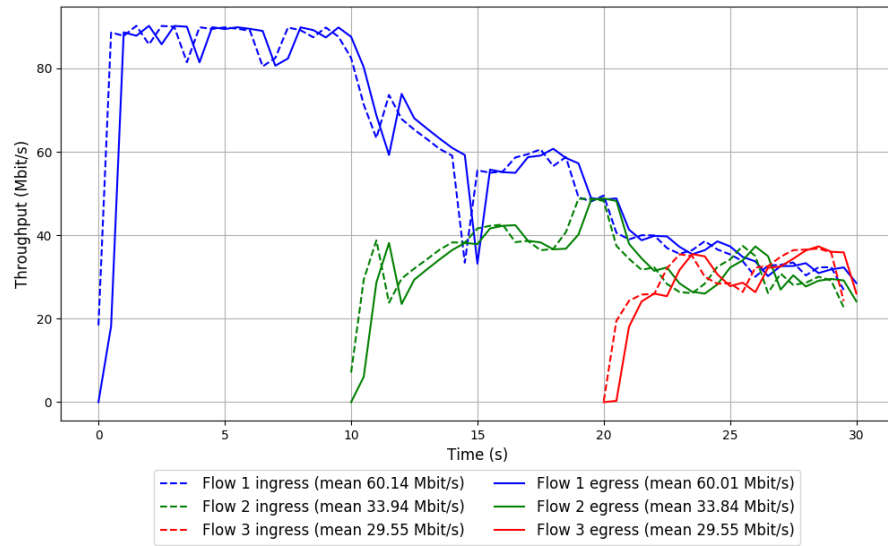


Run 1: Statistics of QUIC Cubic

Start at: 2018-12-20 01:37:50  
End at: 2018-12-20 01:38:20  
Local clock offset: -1.819 ms  
Remote clock offset: -0.697 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.22 Mbit/s  
95th percentile per-packet one-way delay: 29.422 ms  
Loss rate: 0.19%  
-- Flow 1:  
Average throughput: 60.01 Mbit/s  
95th percentile per-packet one-way delay: 29.334 ms  
Loss rate: 0.18%  
-- Flow 2:  
Average throughput: 33.84 Mbit/s  
95th percentile per-packet one-way delay: 29.486 ms  
Loss rate: 0.24%  
-- Flow 3:  
Average throughput: 29.55 Mbit/s  
95th percentile per-packet one-way delay: 29.648 ms  
Loss rate: 0.18%

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

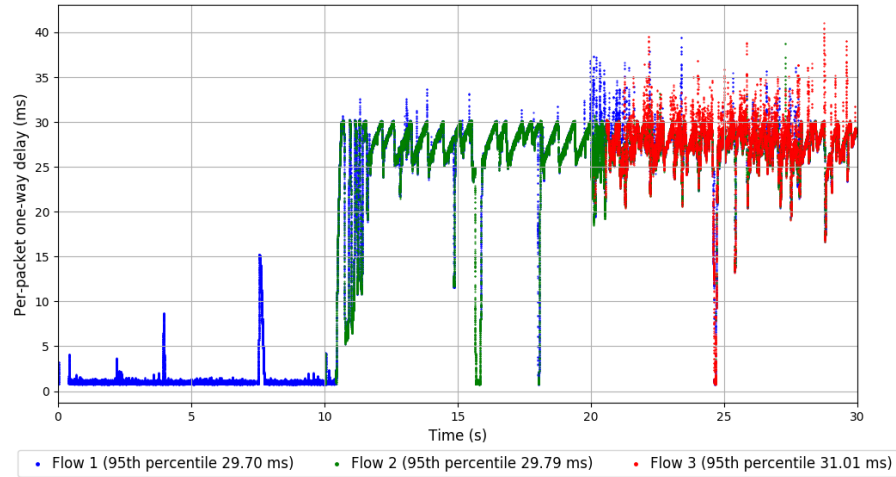
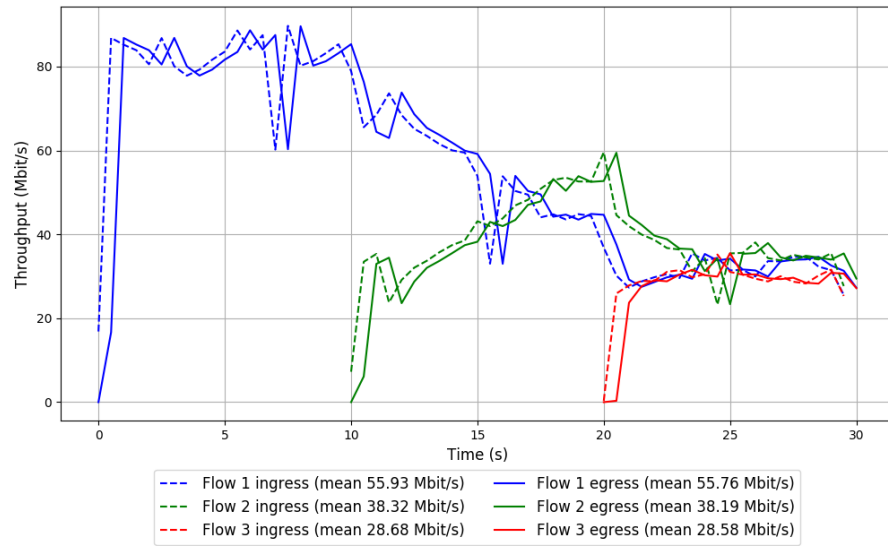


Run 2: Statistics of QUIC Cubic

Start at: 2018-12-20 01:59:26  
End at: 2018-12-20 01:59:56  
Local clock offset: -7.146 ms  
Remote clock offset: -0.762 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.55 Mbit/s  
95th percentile per-packet one-way delay: 29.791 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 55.76 Mbit/s  
95th percentile per-packet one-way delay: 29.704 ms  
Loss rate: 0.20%  
-- Flow 2:  
Average throughput: 38.19 Mbit/s  
95th percentile per-packet one-way delay: 29.789 ms  
Loss rate: 0.20%  
-- Flow 3:  
Average throughput: 28.58 Mbit/s  
95th percentile per-packet one-way delay: 31.006 ms  
Loss rate: 0.28%

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

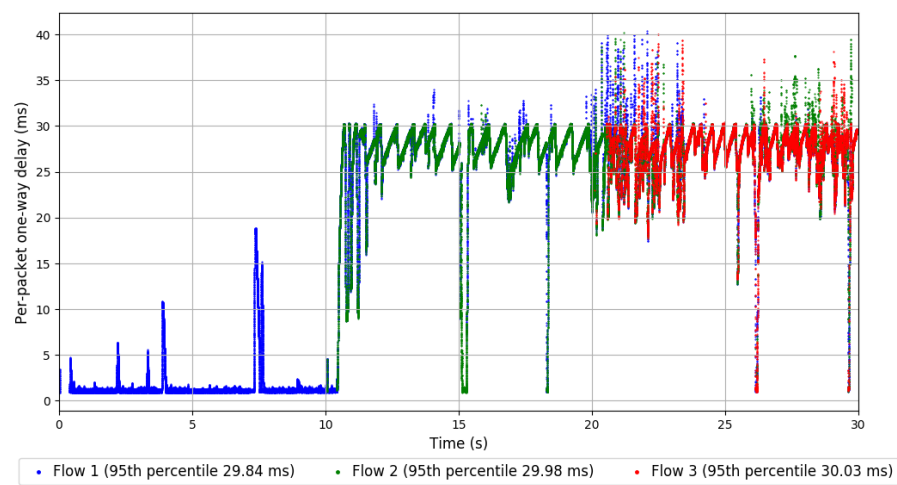
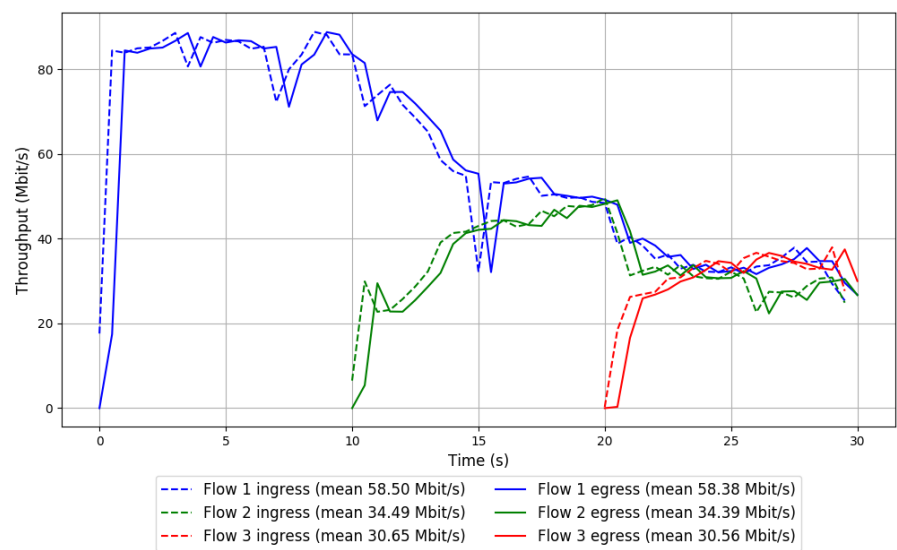


Run 3: Statistics of QUIC Cubic

Start at: 2018-12-20 02:21:06  
End at: 2018-12-20 02:21:36  
Local clock offset: -1.872 ms  
Remote clock offset: -0.797 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.29 Mbit/s  
95th percentile per-packet one-way delay: 29.928 ms  
Loss rate: 0.14%  
-- Flow 1:  
Average throughput: 58.38 Mbit/s  
95th percentile per-packet one-way delay: 29.843 ms  
Loss rate: 0.12%  
-- Flow 2:  
Average throughput: 34.39 Mbit/s  
95th percentile per-packet one-way delay: 29.985 ms  
Loss rate: 0.15%  
-- Flow 3:  
Average throughput: 30.56 Mbit/s  
95th percentile per-packet one-way delay: 30.032 ms  
Loss rate: 0.23%

Run 3: Report of QUIC Cubic — Data Link

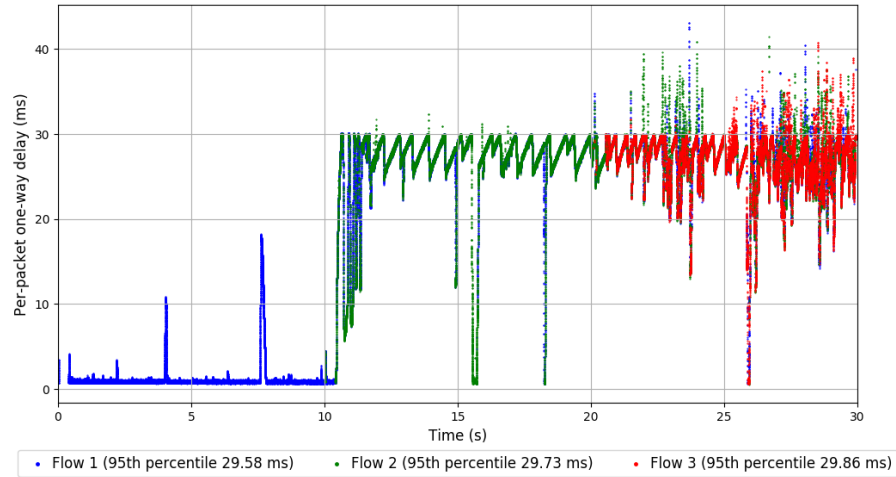
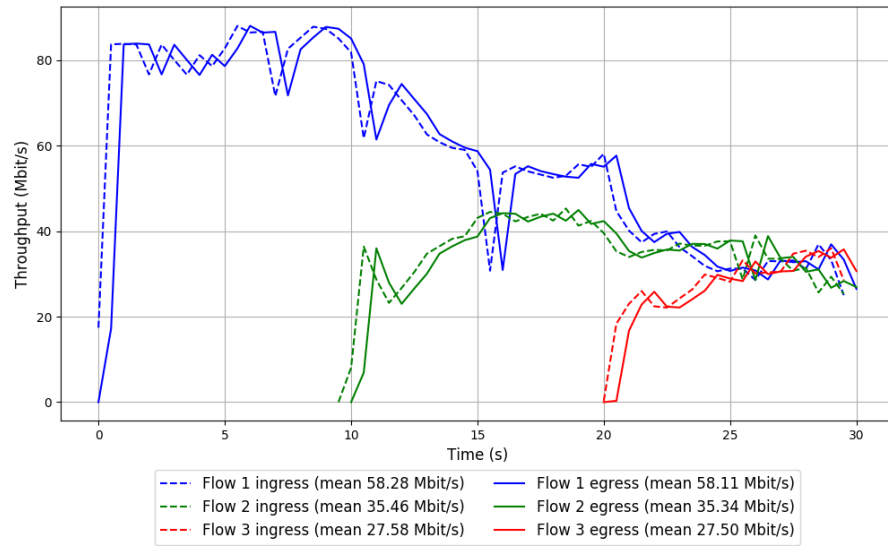


Run 4: Statistics of QUIC Cubic

Start at: 2018-12-20 02:42:45  
End at: 2018-12-20 02:43:15  
Local clock offset: -4.196 ms  
Remote clock offset: -0.261 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.67 Mbit/s  
95th percentile per-packet one-way delay: 29.660 ms  
Loss rate: 0.20%  
-- Flow 1:  
Average throughput: 58.11 Mbit/s  
95th percentile per-packet one-way delay: 29.581 ms  
Loss rate: 0.18%  
-- Flow 2:  
Average throughput: 35.34 Mbit/s  
95th percentile per-packet one-way delay: 29.727 ms  
Loss rate: 0.21%  
-- Flow 3:  
Average throughput: 27.50 Mbit/s  
95th percentile per-packet one-way delay: 29.862 ms  
Loss rate: 0.30%

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



Run 5: Statistics of QUIC Cubic

Start at: 2018-12-20 03:04:23

End at: 2018-12-20 03:04:53

Local clock offset: -7.403 ms

Remote clock offset: 0.205 ms

# Below is generated by plot.py at 2018-12-20 03:32:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.42 Mbit/s

95th percentile per-packet one-way delay: 29.819 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 56.52 Mbit/s

95th percentile per-packet one-way delay: 29.754 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 37.93 Mbit/s

95th percentile per-packet one-way delay: 29.894 ms

Loss rate: 0.16%

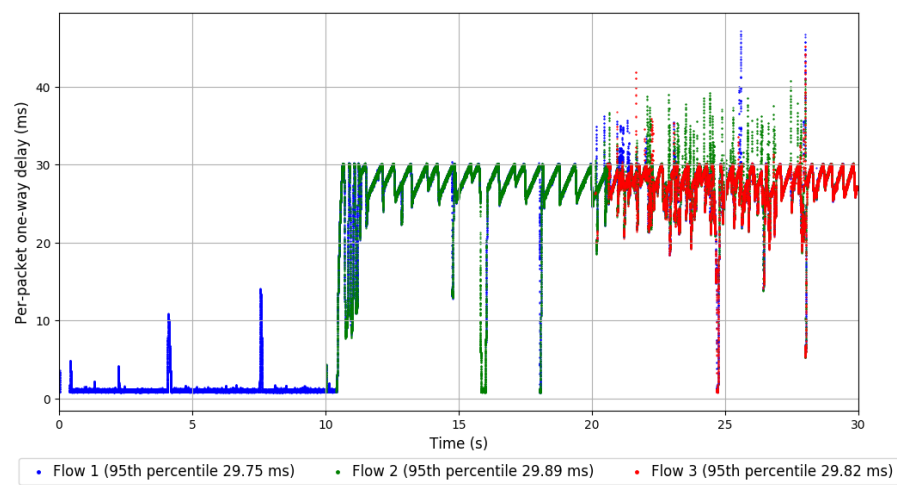
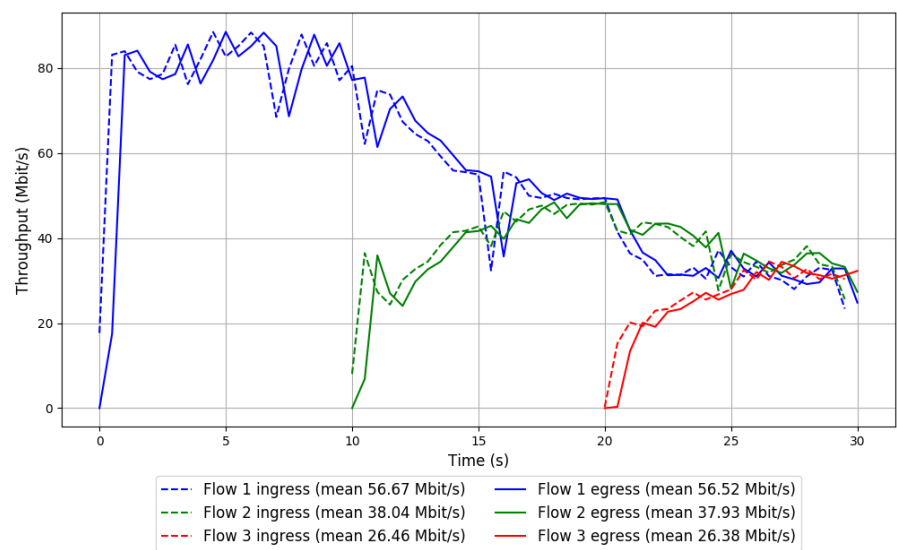
-- Flow 3:

Average throughput: 26.38 Mbit/s

95th percentile per-packet one-way delay: 29.817 ms

Loss rate: 0.30%

Run 5: Report of QUIC Cubic — Data Link

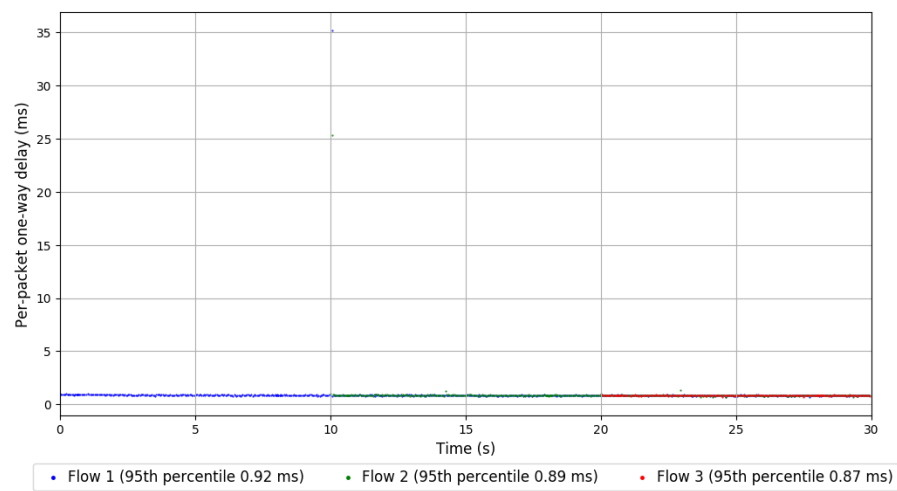
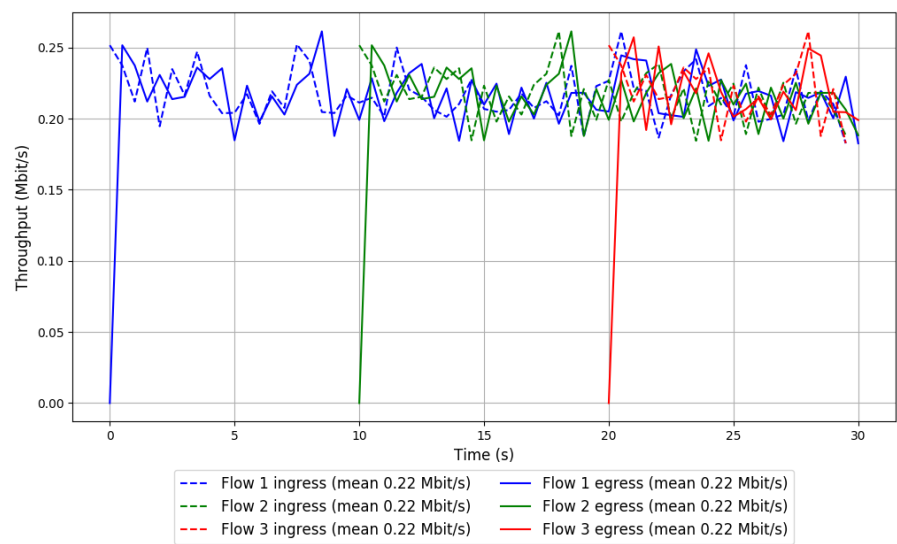


Run 1: Statistics of SReAM

Start at: 2018-12-20 01:50:26  
End at: 2018-12-20 01:50:56  
Local clock offset: -6.133 ms  
Remote clock offset: -0.804 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 0.912 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.922 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.892 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 0.873 ms  
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

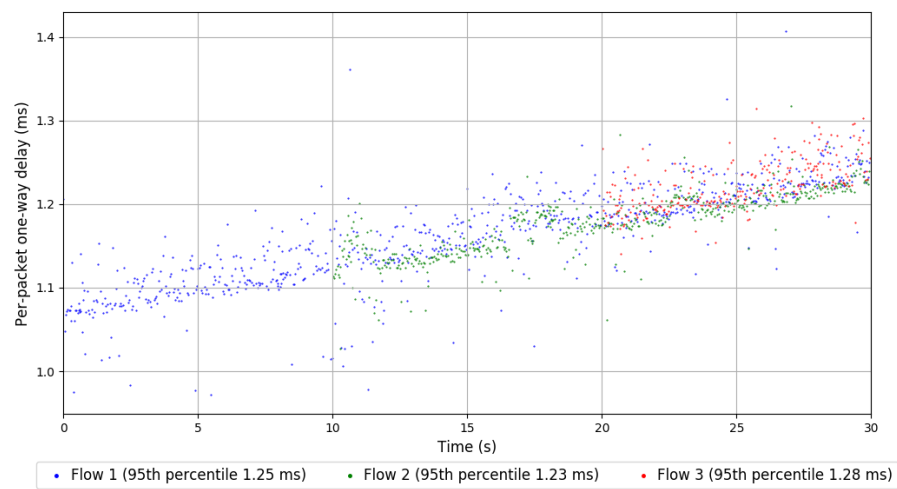
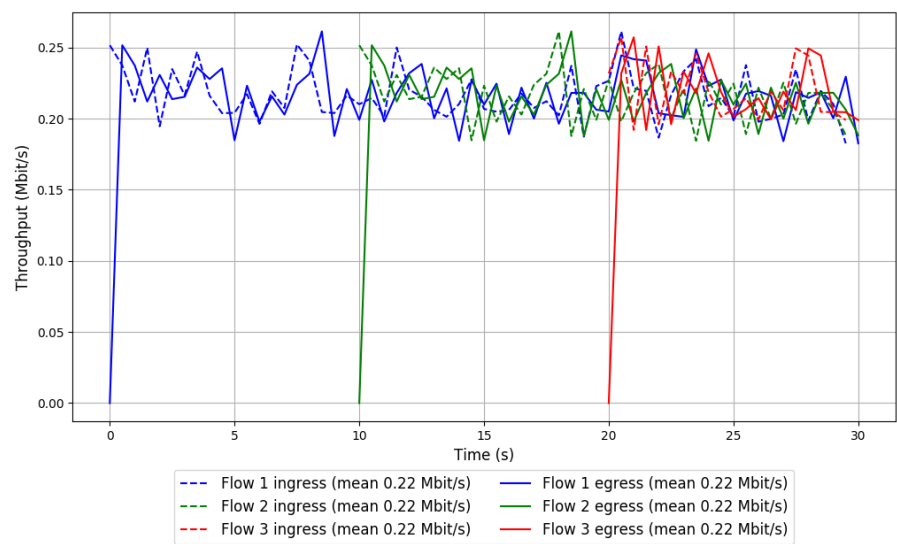


Run 2: Statistics of SReAM

Start at: 2018-12-20 02:12:06  
End at: 2018-12-20 02:12:36  
Local clock offset: -3.995 ms  
Remote clock offset: -0.752 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 1.251 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.247 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.227 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.277 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

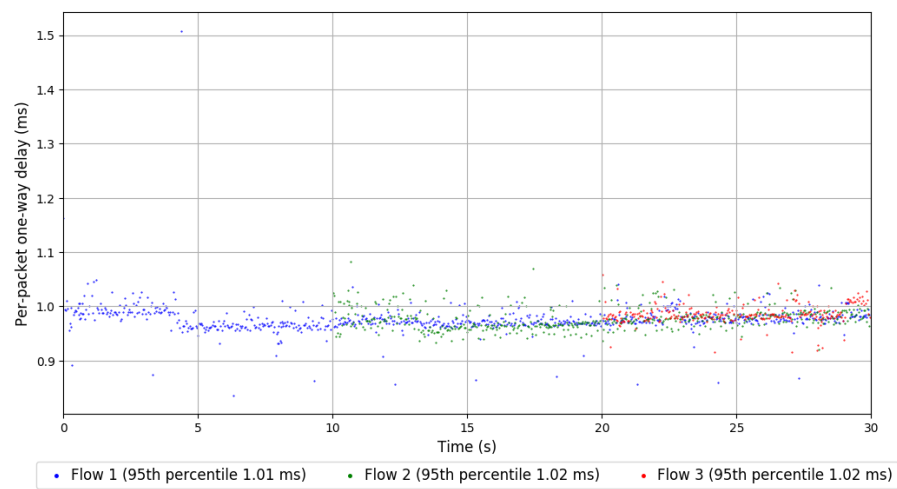
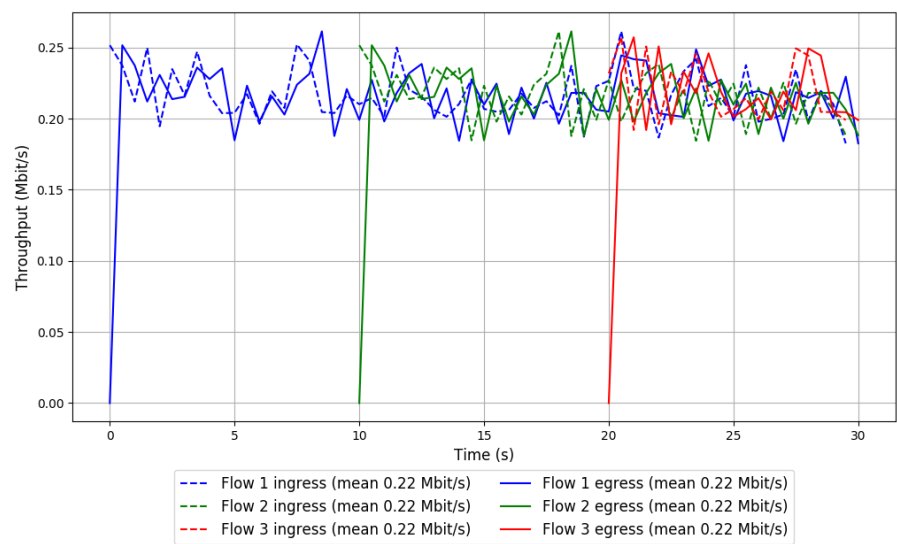


Run 3: Statistics of SReAM

Start at: 2018-12-20 02:33:44  
End at: 2018-12-20 02:34:14  
Local clock offset: -0.442 ms  
Remote clock offset: -0.641 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 1.013 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.007 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.018 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.017 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2018-12-20 02:55:22

End at: 2018-12-20 02:55:52

Local clock offset: -6.668 ms

Remote clock offset: 0.036 ms

# Below is generated by plot.py at 2018-12-20 03:32:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 0.937 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.936 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.949 ms

Loss rate: 0.00%

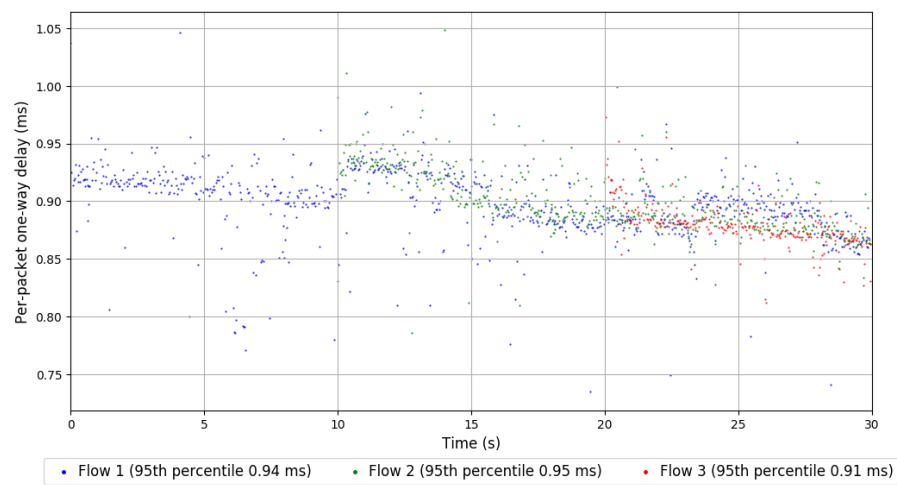
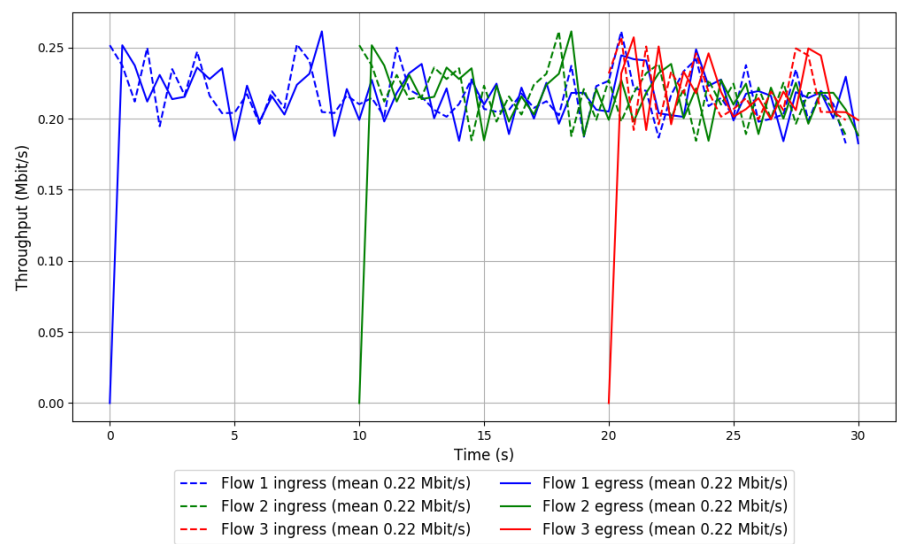
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.913 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-12-20 03:17:01

End at: 2018-12-20 03:17:31

Local clock offset: -2.57 ms

Remote clock offset: 0.359 ms

# Below is generated by plot.py at 2018-12-20 03:32:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.227 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.219 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.231 ms

Loss rate: 0.00%

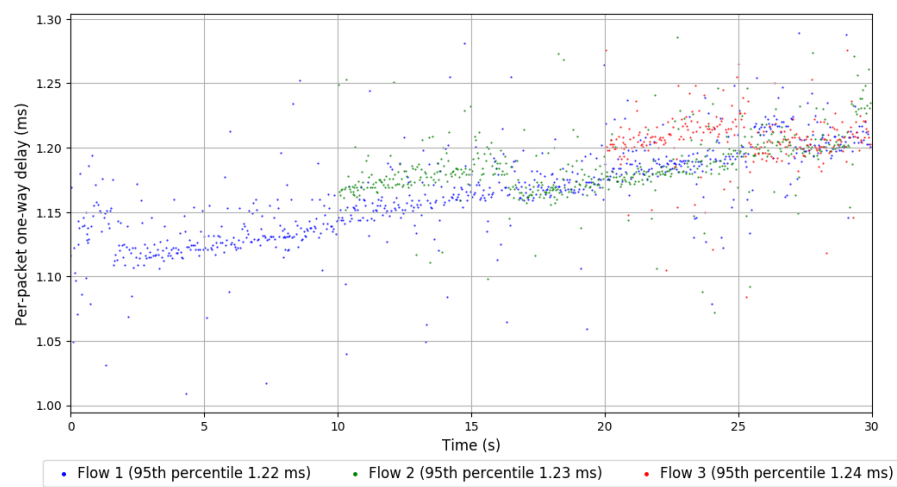
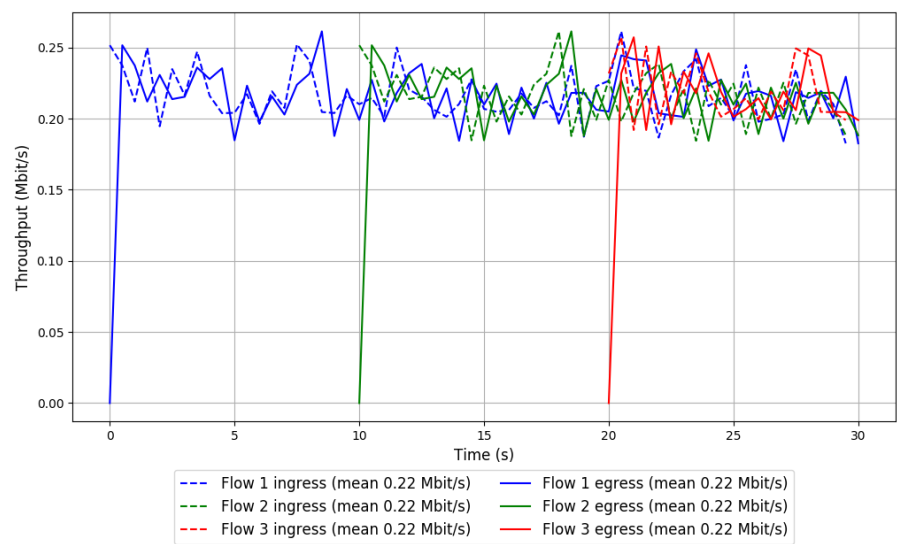
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.236 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

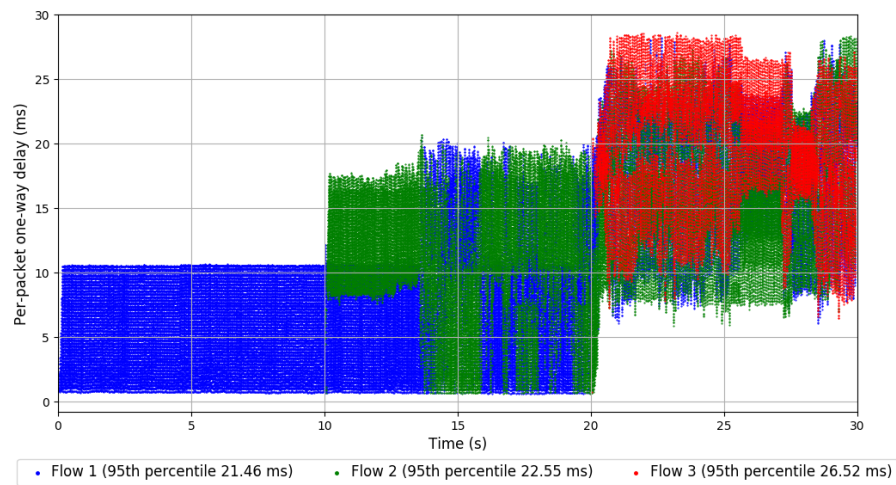
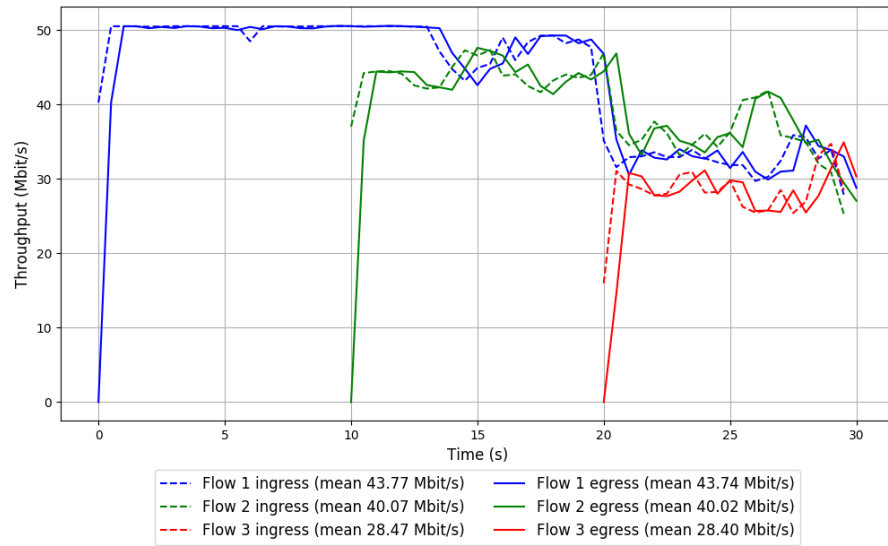


Run 1: Statistics of Sprout

Start at: 2018-12-20 01:44:43  
End at: 2018-12-20 01:45:13  
Local clock offset: -4.804 ms  
Remote clock offset: -0.763 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.76 Mbit/s  
95th percentile per-packet one-way delay: 23.346 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 43.74 Mbit/s  
95th percentile per-packet one-way delay: 21.456 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 40.02 Mbit/s  
95th percentile per-packet one-way delay: 22.548 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 28.40 Mbit/s  
95th percentile per-packet one-way delay: 26.517 ms  
Loss rate: 0.00%

## Run 1: Report of Sprout — Data Link

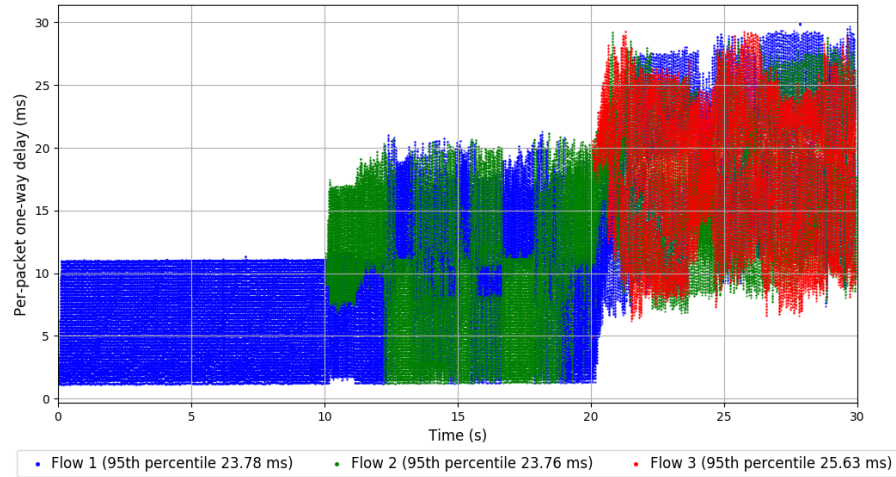
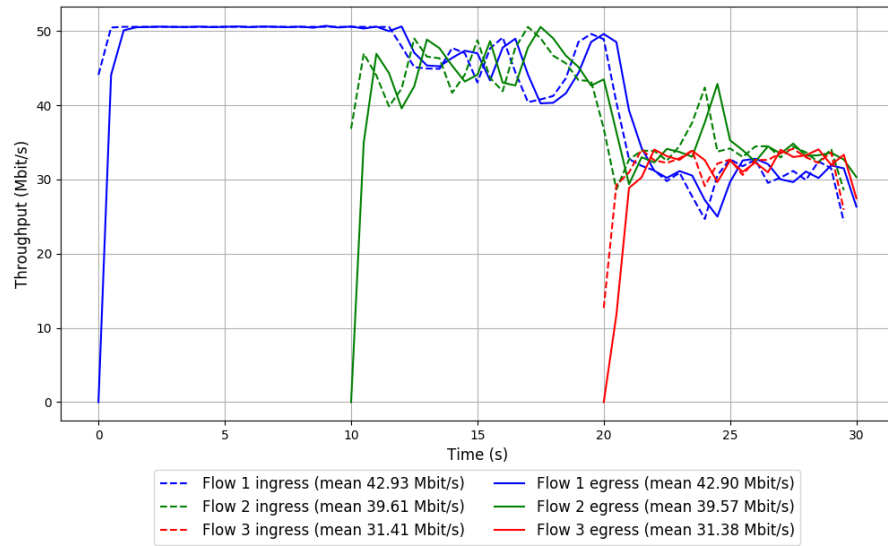


Run 2: Statistics of Sprout

Start at: 2018-12-20 02:06:23  
End at: 2018-12-20 02:06:53  
Local clock offset: -6.858 ms  
Remote clock offset: -0.785 ms

# Below is generated by plot.py at 2018-12-20 03:32:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.59 Mbit/s  
95th percentile per-packet one-way delay: 24.329 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 42.90 Mbit/s  
95th percentile per-packet one-way delay: 23.783 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 39.57 Mbit/s  
95th percentile per-packet one-way delay: 23.761 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 31.38 Mbit/s  
95th percentile per-packet one-way delay: 25.634 ms  
Loss rate: 0.00%

## Run 2: Report of Sprout — Data Link

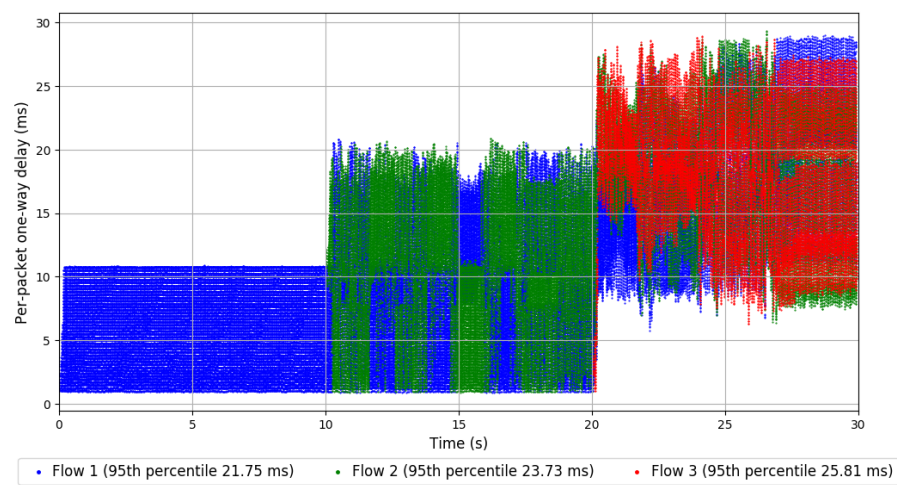
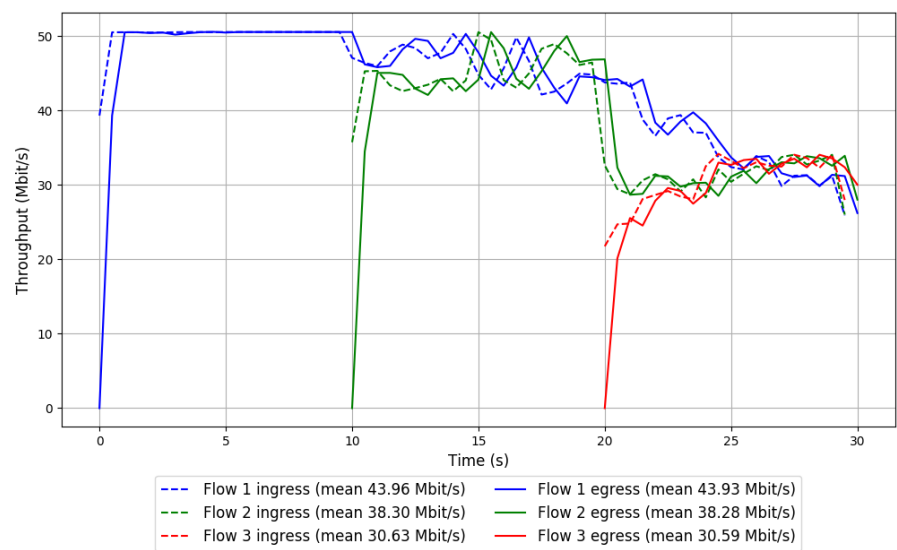


### Run 3: Statistics of Sprout

Start at: 2018-12-20 02:28:02  
End at: 2018-12-20 02:28:32  
Local clock offset: -0.958 ms  
Remote clock offset: -0.7 ms

```
# Below is generated by plot.py at 2018-12-20 03:32:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.49 Mbit/s
95th percentile per-packet one-way delay: 23.852 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.93 Mbit/s
95th percentile per-packet one-way delay: 21.751 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.28 Mbit/s
95th percentile per-packet one-way delay: 23.731 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 25.810 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

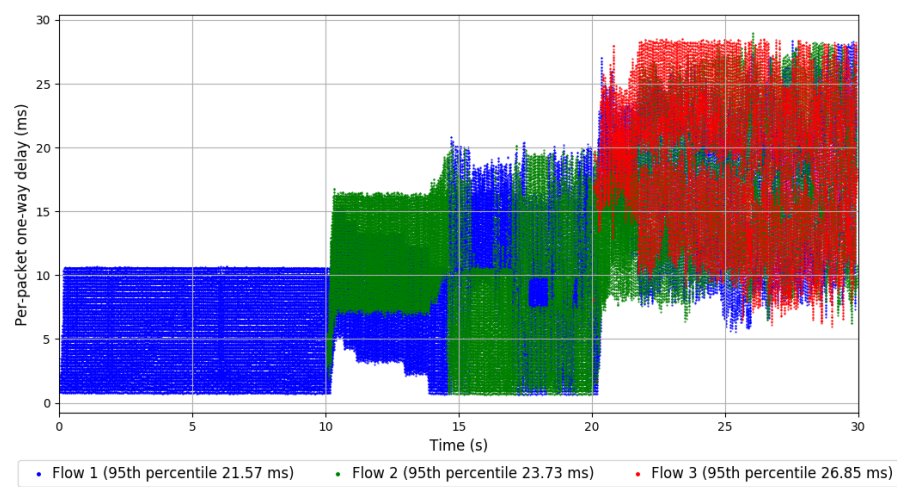
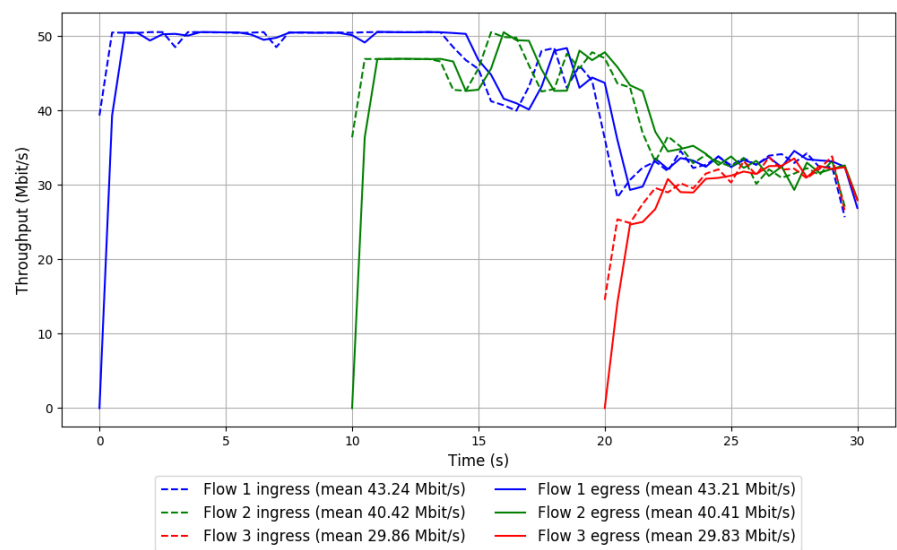


#### Run 4: Statistics of Sprout

Start at: 2018-12-20 02:49:40  
End at: 2018-12-20 02:50:10  
Local clock offset: -5.88 ms  
Remote clock offset: -0.134 ms

```
# Below is generated by plot.py at 2018-12-20 03:32:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.95 Mbit/s
95th percentile per-packet one-way delay: 23.812 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.21 Mbit/s
95th percentile per-packet one-way delay: 21.566 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.41 Mbit/s
95th percentile per-packet one-way delay: 23.735 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.83 Mbit/s
95th percentile per-packet one-way delay: 26.853 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

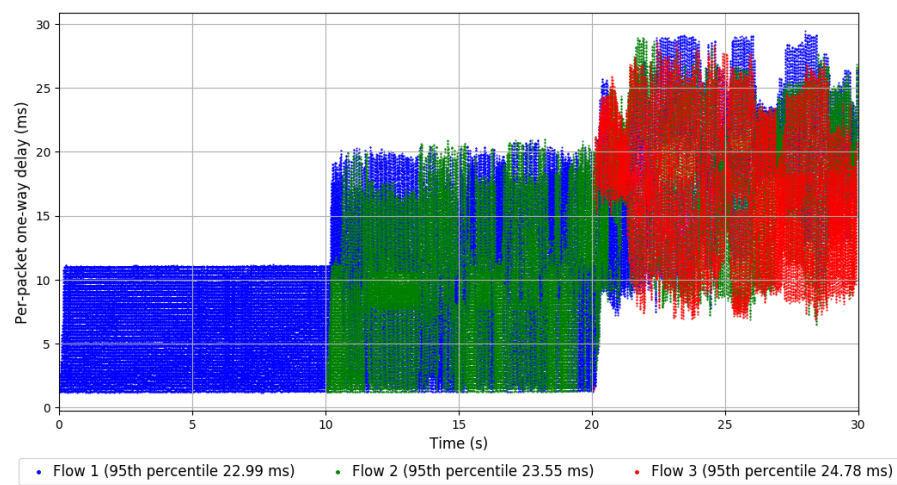
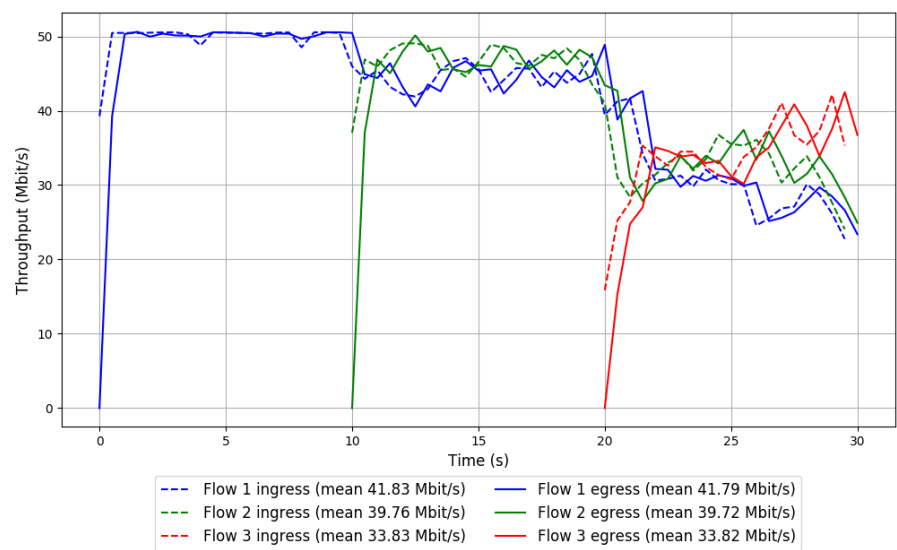


Run 5: Statistics of Sprout

Start at: 2018-12-20 03:11:18  
End at: 2018-12-20 03:11:48  
Local clock offset: -4.32 ms  
Remote clock offset: 0.305 ms

```
# Below is generated by plot.py at 2018-12-20 03:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.38 Mbit/s
95th percentile per-packet one-way delay: 23.657 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.79 Mbit/s
95th percentile per-packet one-way delay: 22.989 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 23.554 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.82 Mbit/s
95th percentile per-packet one-way delay: 24.783 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

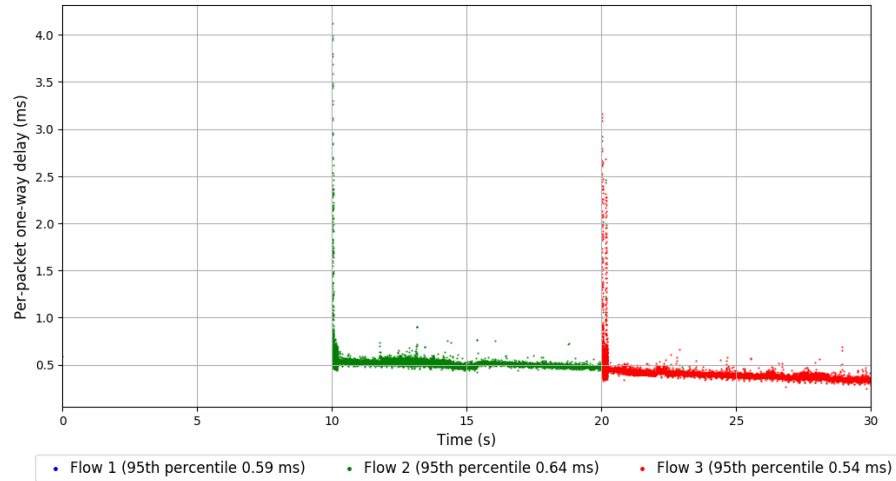
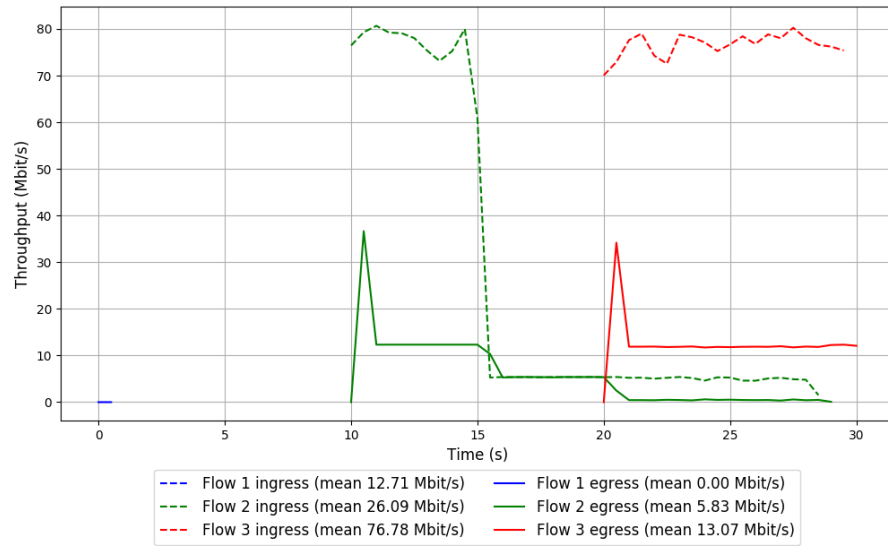


Run 1: Statistics of TaoVA-100x

Start at: 2018-12-20 01:36:44  
End at: 2018-12-20 01:37:14  
Local clock offset: -1.149 ms  
Remote clock offset: -0.745 ms

# Below is generated by plot.py at 2018-12-20 03:32:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 7.95 Mbit/s  
95th percentile per-packet one-way delay: 0.597 ms  
Loss rate: 80.97%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 0.590 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 5.83 Mbit/s  
95th percentile per-packet one-way delay: 0.636 ms  
Loss rate: 77.81%  
-- Flow 3:  
Average throughput: 13.07 Mbit/s  
95th percentile per-packet one-way delay: 0.535 ms  
Loss rate: 82.98%

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

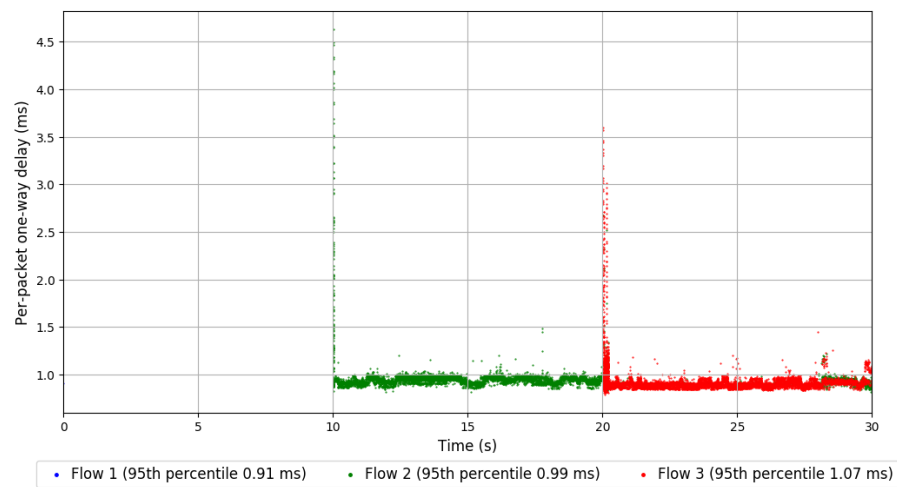
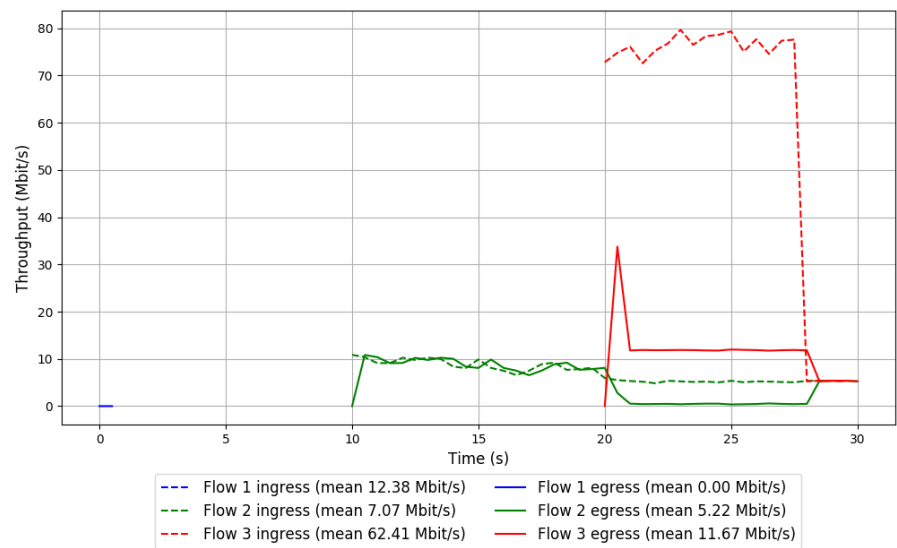


Run 2: Statistics of TaoVA-100x

Start at: 2018-12-20 01:58:20  
End at: 2018-12-20 01:58:50  
Local clock offset: -7.048 ms  
Remote clock offset: -0.731 ms

# Below is generated by plot.py at 2018-12-20 03:32:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 7.36 Mbit/s  
95th percentile per-packet one-way delay: 1.021 ms  
Loss rate: 71.09%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 0.906 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 5.22 Mbit/s  
95th percentile per-packet one-way delay: 0.992 ms  
Loss rate: 26.17%  
-- Flow 3:  
Average throughput: 11.67 Mbit/s  
95th percentile per-packet one-way delay: 1.073 ms  
Loss rate: 81.29%

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

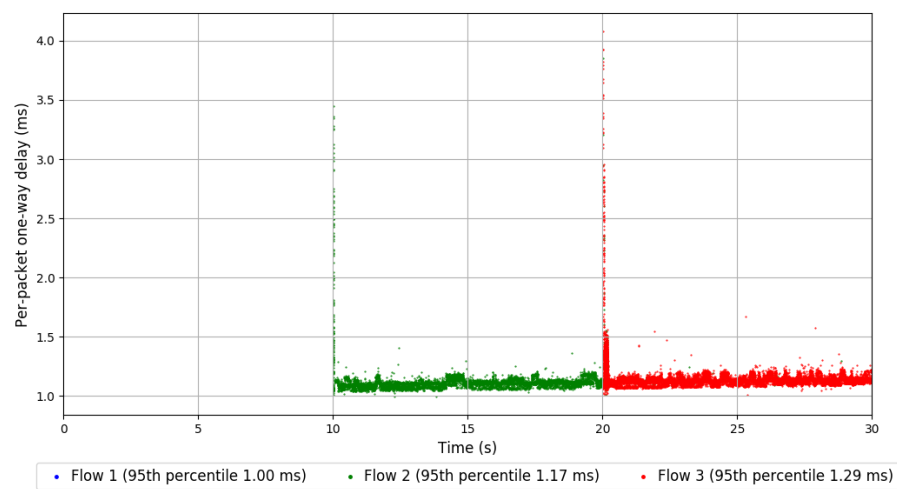
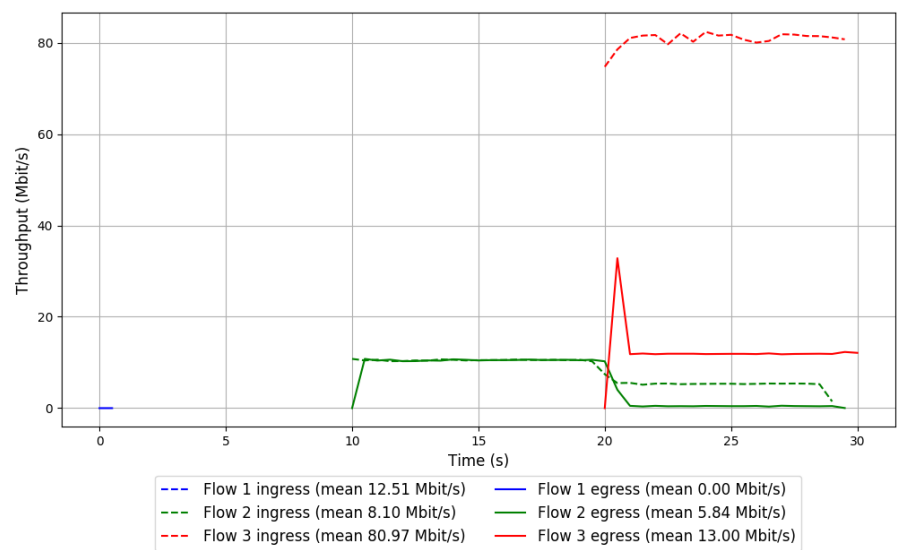


Run 3: Statistics of TaoVA-100x

Start at: 2018-12-20 02:20:00  
End at: 2018-12-20 02:20:30  
Local clock offset: -2.012 ms  
Remote clock offset: -0.684 ms

# Below is generated by plot.py at 2018-12-20 03:32:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.02 Mbit/s  
95th percentile per-packet one-way delay: 1.224 ms  
Loss rate: 75.01%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 0.998 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 5.84 Mbit/s  
95th percentile per-packet one-way delay: 1.173 ms  
Loss rate: 28.45%  
-- Flow 3:  
Average throughput: 13.00 Mbit/s  
95th percentile per-packet one-way delay: 1.295 ms  
Loss rate: 83.95%

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

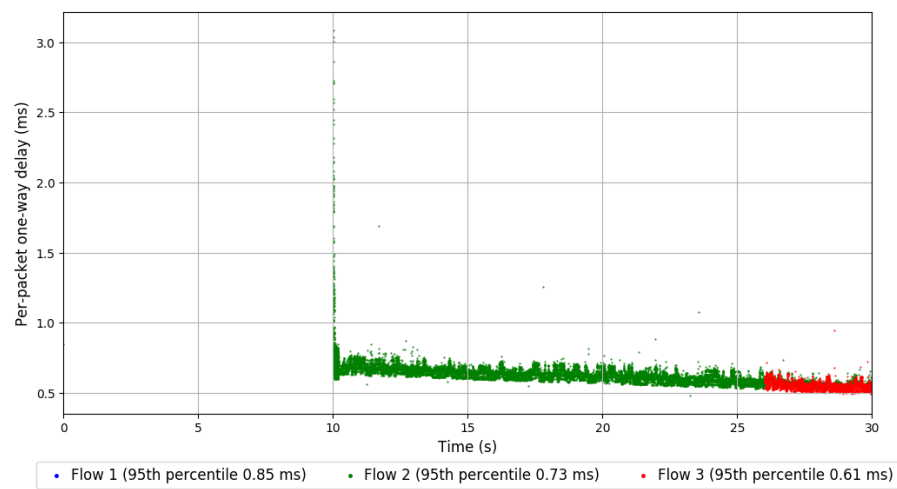
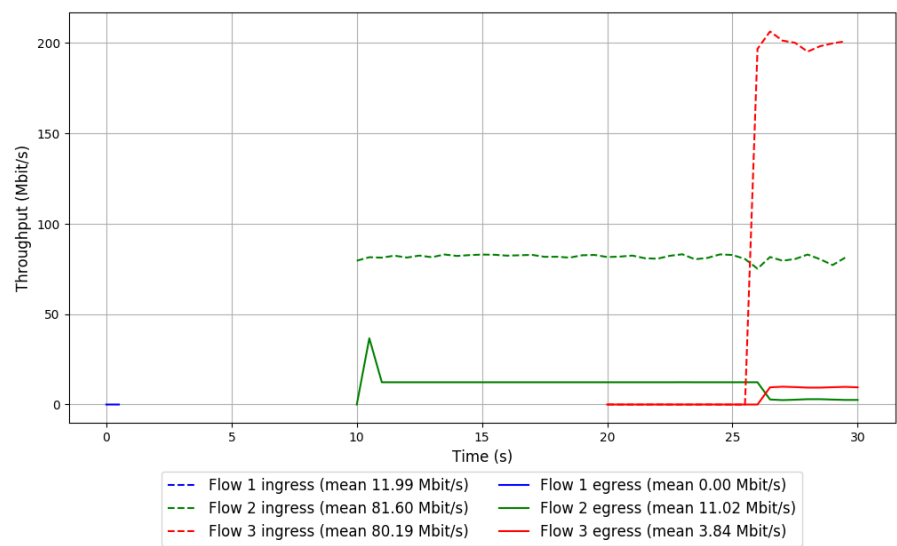


Run 4: Statistics of TaoVA-100x

Start at: 2018-12-20 02:41:39  
End at: 2018-12-20 02:42:09  
Local clock offset: -3.813 ms  
Remote clock offset: -0.399 ms

# Below is generated by plot.py at 2018-12-20 03:32:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.62 Mbit/s  
95th percentile per-packet one-way delay: 0.723 ms  
Loss rate: 89.36%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 0.848 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 11.02 Mbit/s  
95th percentile per-packet one-way delay: 0.731 ms  
Loss rate: 86.50%  
-- Flow 3:  
Average throughput: 3.84 Mbit/s  
95th percentile per-packet one-way delay: 0.608 ms  
Loss rate: 95.21%

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



Run 5: Statistics of TaoVA-100x

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

End at: 2018-12-20 03:03:47

Local clock offset: -7.326 ms

Remote clock offset: 0.066 ms

# Below is generated by plot.py at 2018-12-20 03:32:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.02 Mbit/s

95th percentile per-packet one-way delay: 0.859 ms

Loss rate: 75.29%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 0.991 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 5.57 Mbit/s

95th percentile per-packet one-way delay: 0.847 ms

Loss rate: 31.09%

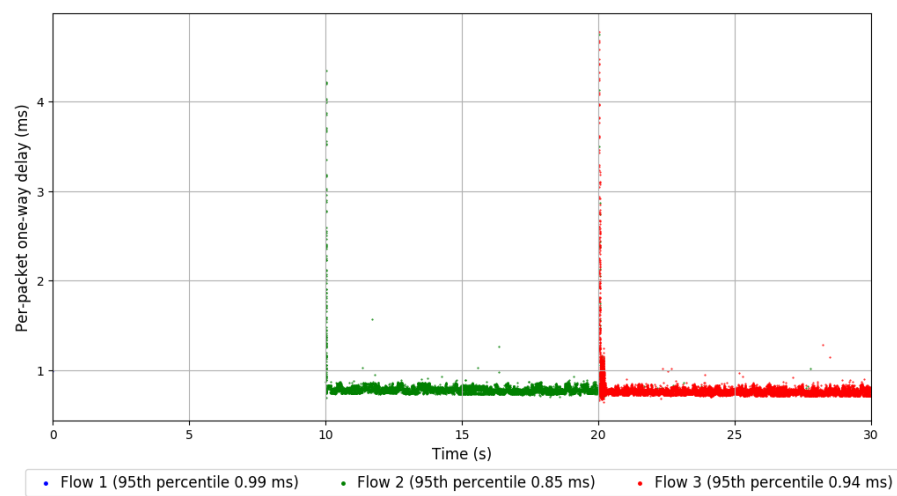
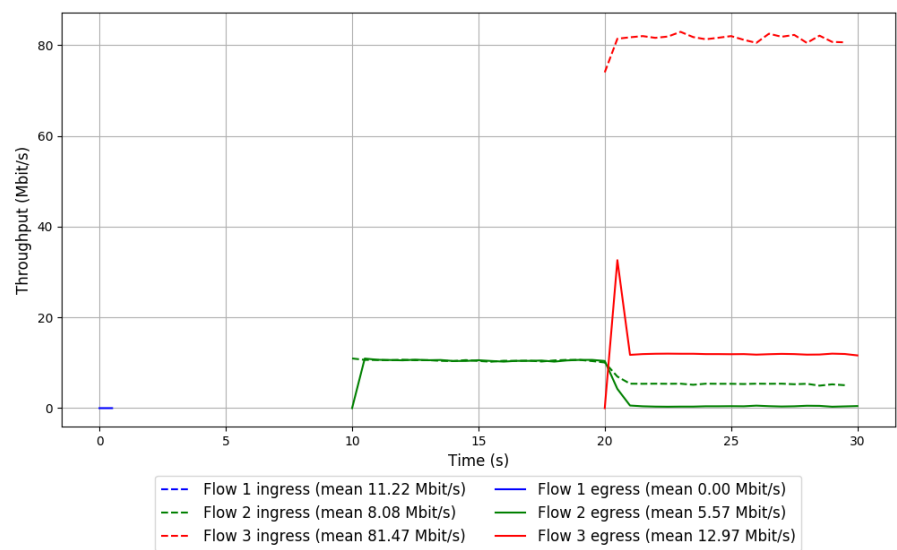
-- Flow 3:

Average throughput: 12.97 Mbit/s

95th percentile per-packet one-way delay: 0.935 ms

Loss rate: 84.08%

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

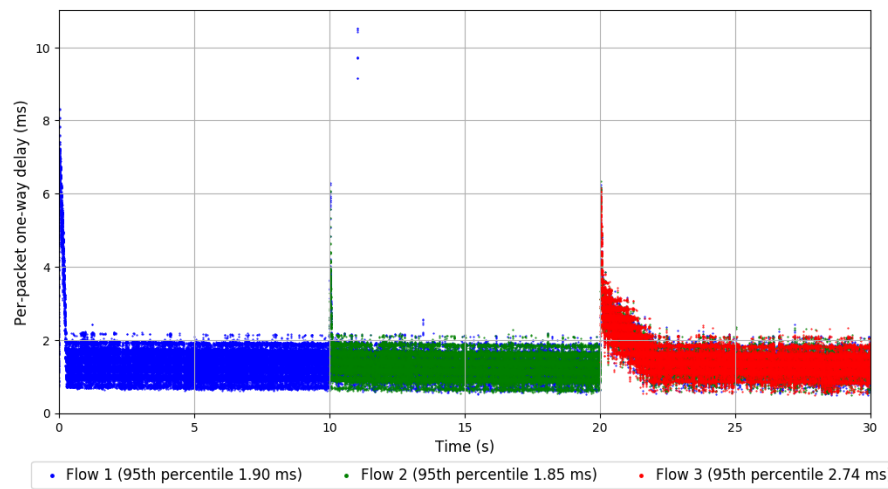
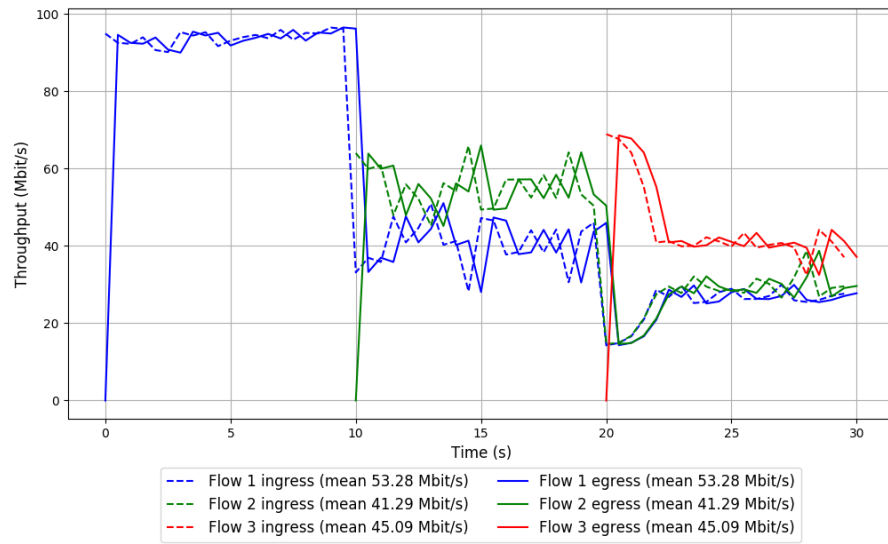


Run 1: Statistics of TCP Vegas

Start at: 2018-12-20 01:43:34  
End at: 2018-12-20 01:44:04  
Local clock offset: -4.415 ms  
Remote clock offset: -0.755 ms

# Below is generated by plot.py at 2018-12-20 03:33:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.78 Mbit/s  
95th percentile per-packet one-way delay: 2.062 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 53.28 Mbit/s  
95th percentile per-packet one-way delay: 1.901 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 41.29 Mbit/s  
95th percentile per-packet one-way delay: 1.854 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 45.09 Mbit/s  
95th percentile per-packet one-way delay: 2.741 ms  
Loss rate: 0.00%

# Run 1: Report of TCP Vegas — Data Link

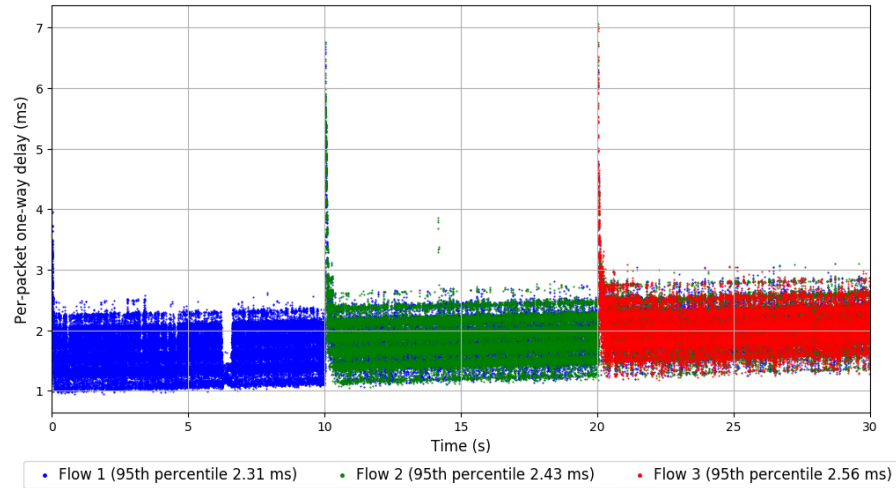
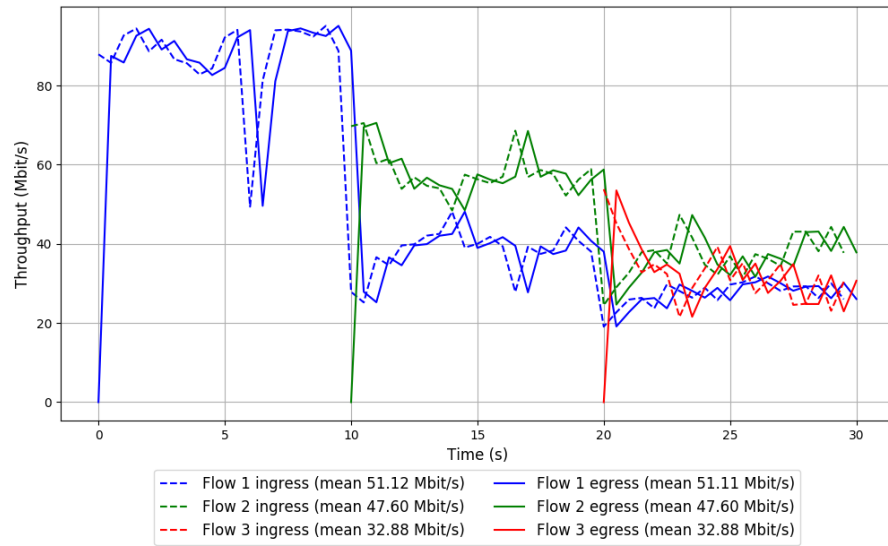


Run 2: Statistics of TCP Vegas

Start at: 2018-12-20 02:05:14  
End at: 2018-12-20 02:05:44  
Local clock offset: -7.536 ms  
Remote clock offset: -0.802 ms

# Below is generated by plot.py at 2018-12-20 03:33:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.74 Mbit/s  
95th percentile per-packet one-way delay: 2.398 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 51.11 Mbit/s  
95th percentile per-packet one-way delay: 2.313 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 47.60 Mbit/s  
95th percentile per-packet one-way delay: 2.434 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.88 Mbit/s  
95th percentile per-packet one-way delay: 2.564 ms  
Loss rate: 0.00%

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

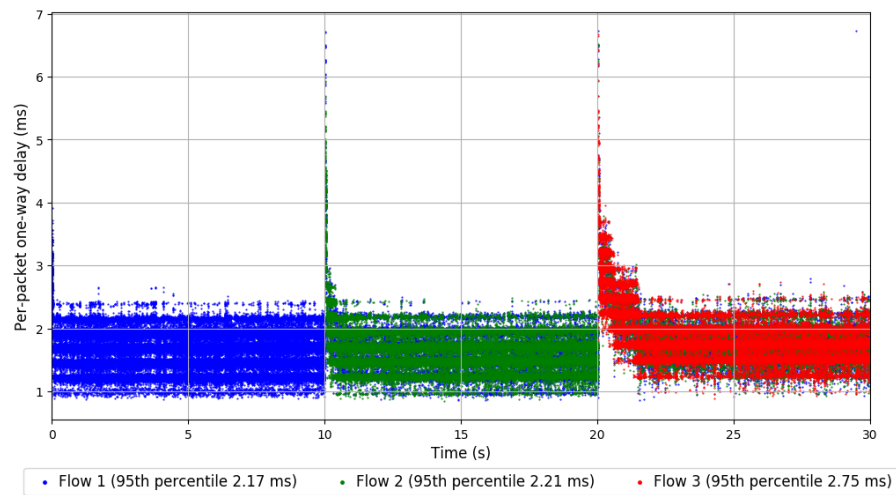
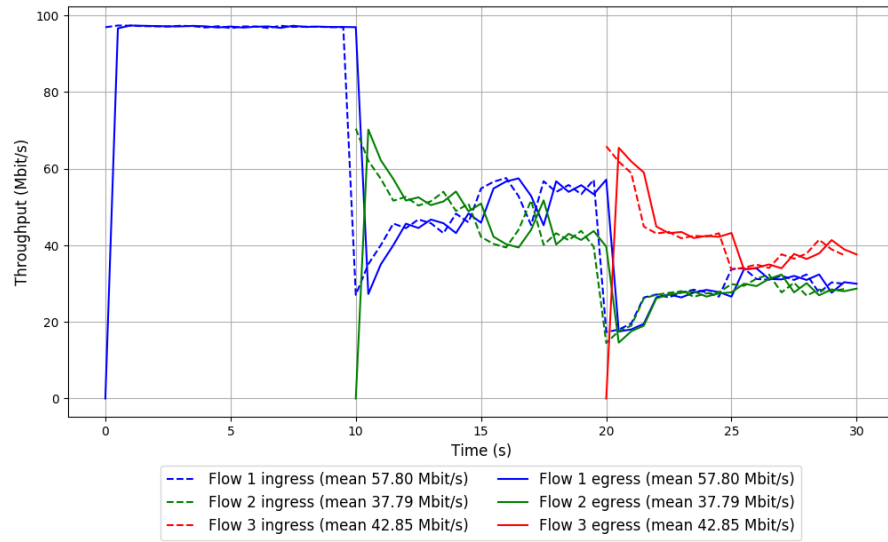


Run 3: Statistics of TCP Vegas

Start at: 2018-12-20 02:26:53  
End at: 2018-12-20 02:27:23  
Local clock offset: -1.051 ms  
Remote clock offset: -0.717 ms

# Below is generated by plot.py at 2018-12-20 03:33:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.22 Mbit/s  
95th percentile per-packet one-way delay: 2.226 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 57.80 Mbit/s  
95th percentile per-packet one-way delay: 2.167 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 37.79 Mbit/s  
95th percentile per-packet one-way delay: 2.213 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 42.85 Mbit/s  
95th percentile per-packet one-way delay: 2.752 ms  
Loss rate: 0.00%

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

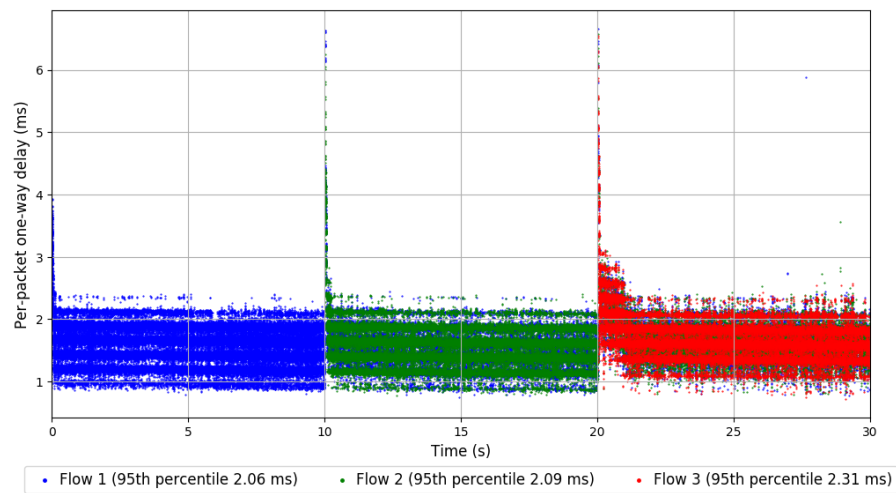
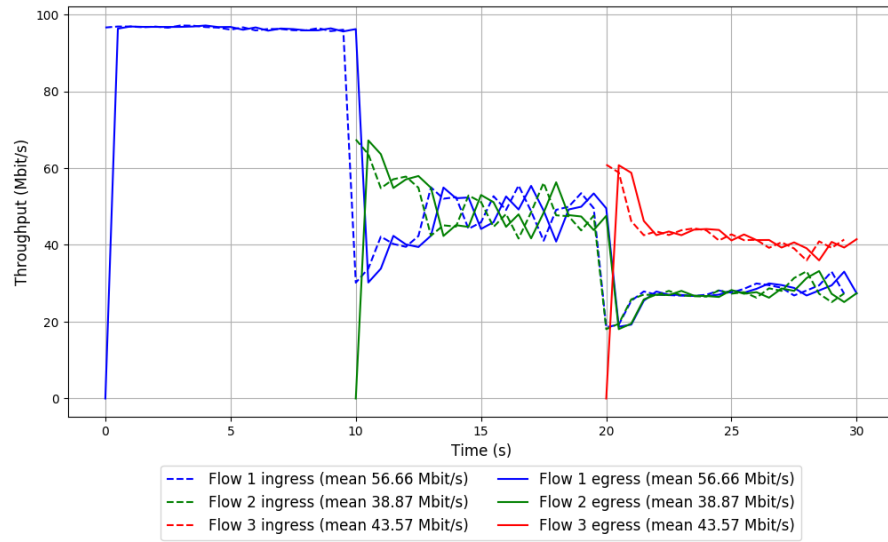


Run 4: Statistics of TCP Vegas

Start at: 2018-12-20 02:48:31  
End at: 2018-12-20 02:49:01  
Local clock offset: -5.754 ms  
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-12-20 03:33:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.05 Mbit/s  
95th percentile per-packet one-way delay: 2.093 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 56.66 Mbit/s  
95th percentile per-packet one-way delay: 2.058 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 38.87 Mbit/s  
95th percentile per-packet one-way delay: 2.089 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 43.57 Mbit/s  
95th percentile per-packet one-way delay: 2.308 ms  
Loss rate: 0.00%

# Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-12-20 03:10:09

End at: 2018-12-20 03:10:39

Local clock offset: -4.688 ms

Remote clock offset: 0.3 ms

# Below is generated by plot.py at 2018-12-20 03:33:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.35 Mbit/s

95th percentile per-packet one-way delay: 2.747 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.51 Mbit/s

95th percentile per-packet one-way delay: 2.545 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.53 Mbit/s

95th percentile per-packet one-way delay: 2.735 ms

Loss rate: 0.00%

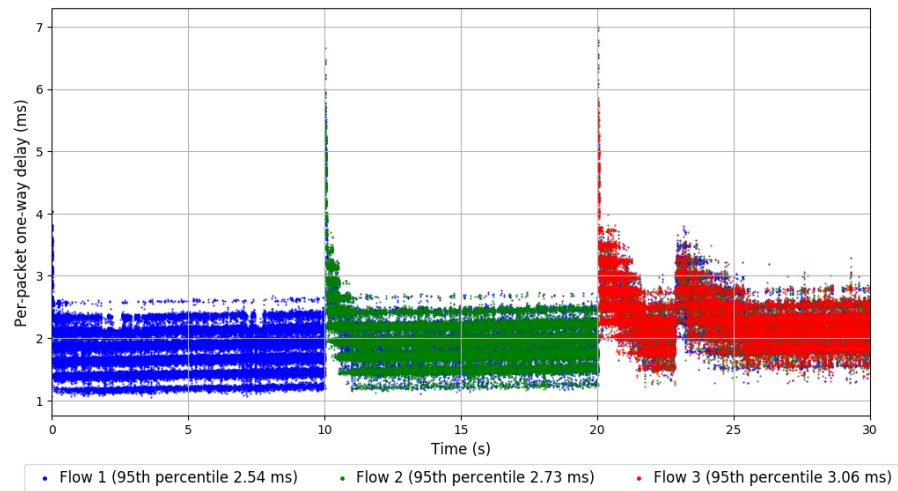
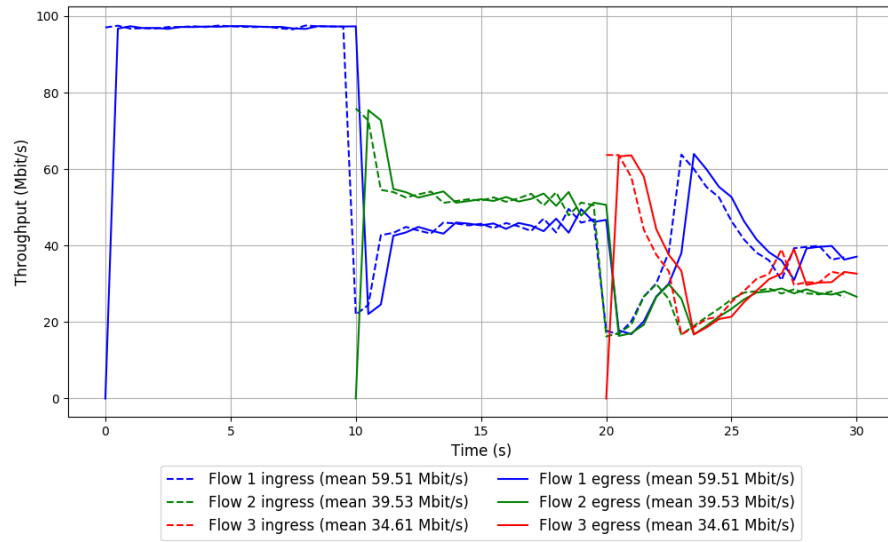
-- Flow 3:

Average throughput: 34.61 Mbit/s

95th percentile per-packet one-way delay: 3.063 ms

Loss rate: 0.00%

# Run 5: Report of TCP Vegas — Data Link

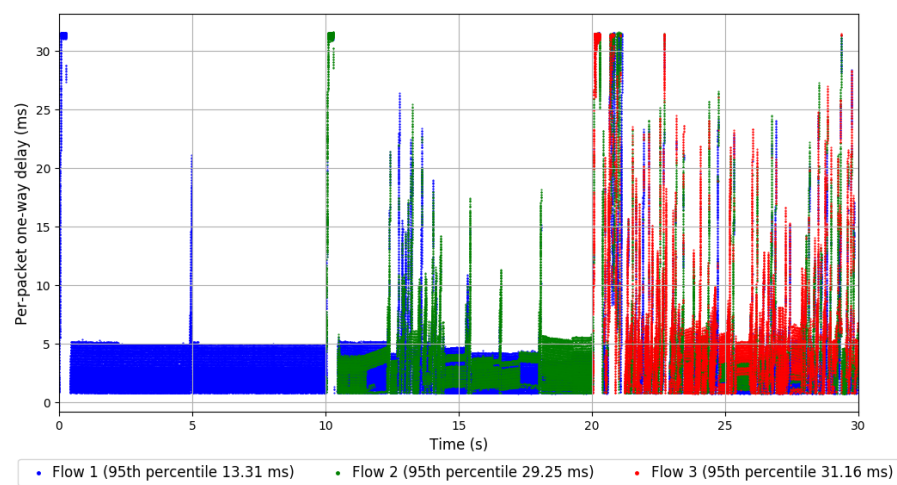
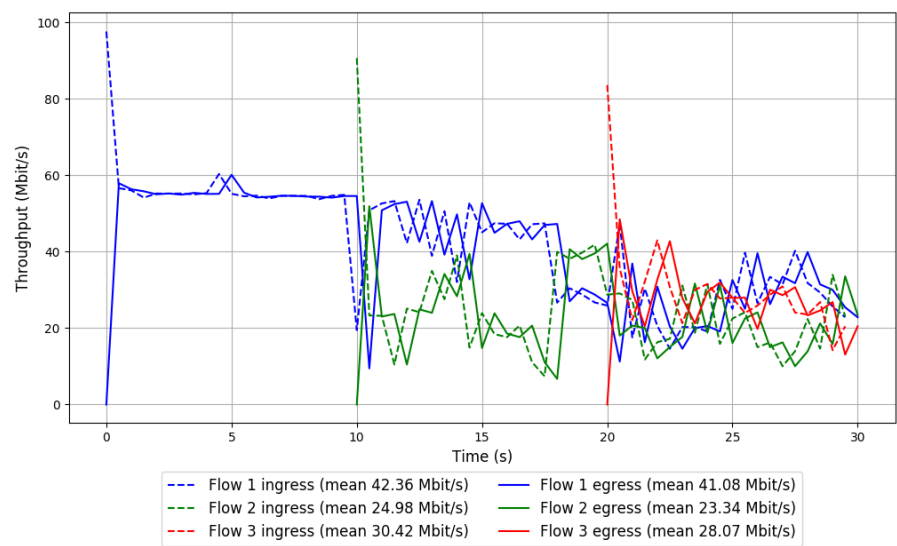


Run 1: Statistics of Verus

Start at: 2018-12-20 01:52:36  
End at: 2018-12-20 01:53:06  
Local clock offset: -6.521 ms  
Remote clock offset: -0.831 ms

# Below is generated by plot.py at 2018-12-20 03:33:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.94 Mbit/s  
95th percentile per-packet one-way delay: 21.351 ms  
Loss rate: 4.53%  
-- Flow 1:  
Average throughput: 41.08 Mbit/s  
95th percentile per-packet one-way delay: 13.314 ms  
Loss rate: 3.00%  
-- Flow 2:  
Average throughput: 23.34 Mbit/s  
95th percentile per-packet one-way delay: 29.251 ms  
Loss rate: 6.53%  
-- Flow 3:  
Average throughput: 28.07 Mbit/s  
95th percentile per-packet one-way delay: 31.161 ms  
Loss rate: 7.69%

Run 1: Report of Verus — Data Link

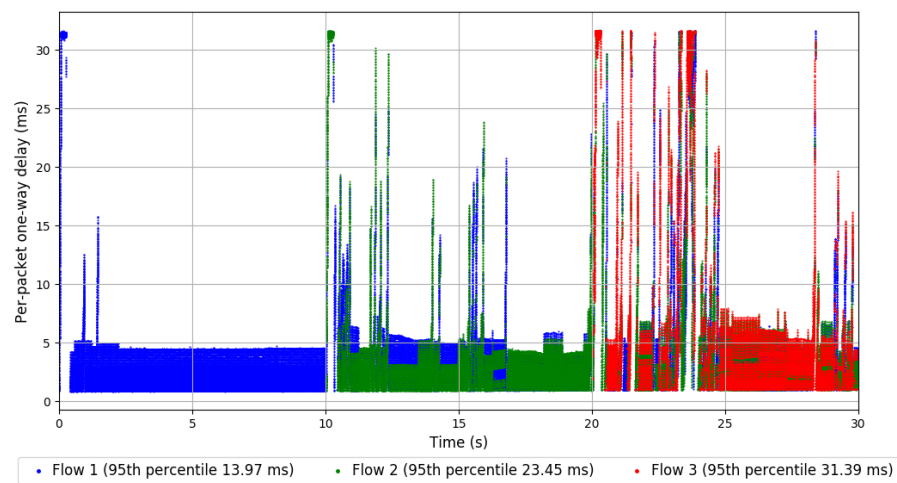
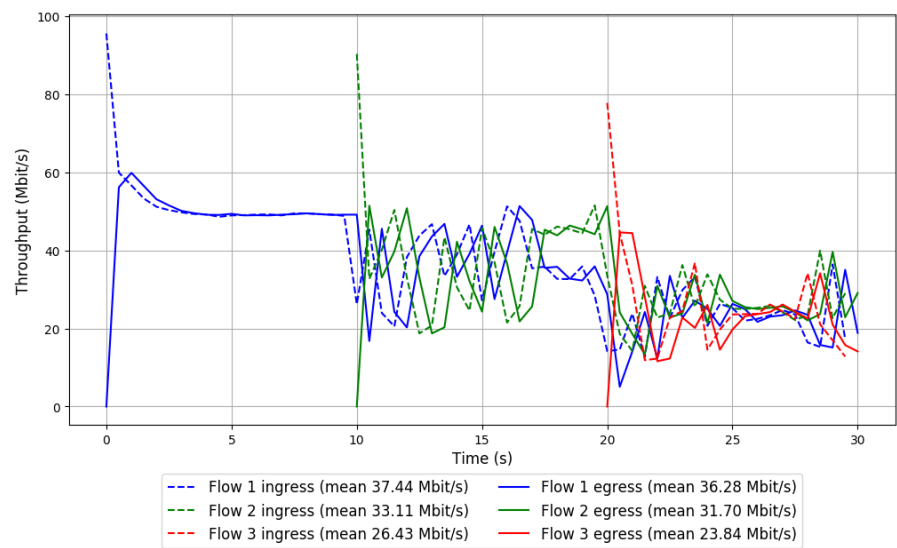


Run 2: Statistics of Verus

Start at: 2018-12-20 02:14:16  
End at: 2018-12-20 02:14:46  
Local clock offset: -3.282 ms  
Remote clock offset: -0.845 ms

# Below is generated by plot.py at 2018-12-20 03:33:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.28 Mbit/s  
95th percentile per-packet one-way delay: 23.207 ms  
Loss rate: 4.32%  
-- Flow 1:  
Average throughput: 36.28 Mbit/s  
95th percentile per-packet one-way delay: 13.973 ms  
Loss rate: 3.09%  
-- Flow 2:  
Average throughput: 31.70 Mbit/s  
95th percentile per-packet one-way delay: 23.445 ms  
Loss rate: 4.24%  
-- Flow 3:  
Average throughput: 23.84 Mbit/s  
95th percentile per-packet one-way delay: 31.392 ms  
Loss rate: 9.80%

Run 2: Report of Verus — Data Link

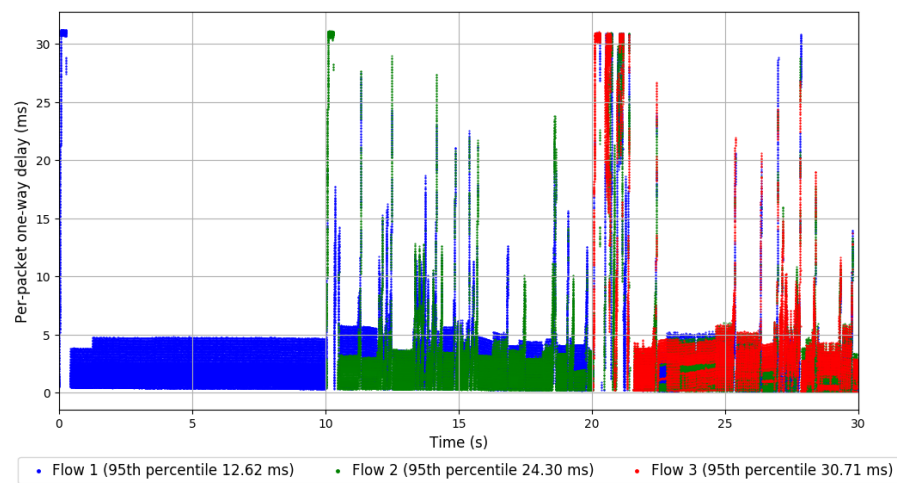
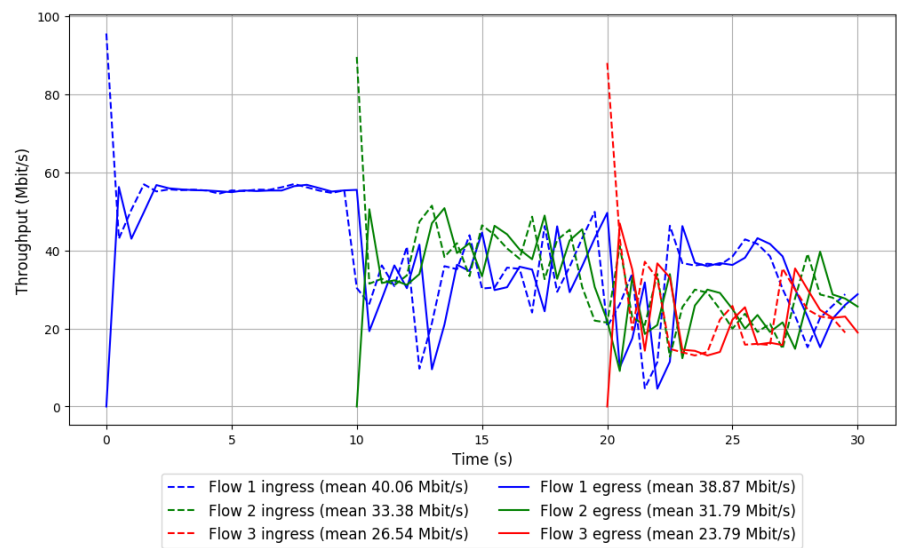


Run 3: Statistics of Verus

Start at: 2018-12-20 02:35:54  
End at: 2018-12-20 02:36:24  
Local clock offset: -0.663 ms  
Remote clock offset: -0.563 ms

# Below is generated by plot.py at 2018-12-20 03:33:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.91 Mbit/s  
95th percentile per-packet one-way delay: 22.522 ms  
Loss rate: 4.44%  
-- Flow 1:  
Average throughput: 38.87 Mbit/s  
95th percentile per-packet one-way delay: 12.615 ms  
Loss rate: 2.97%  
-- Flow 2:  
Average throughput: 31.79 Mbit/s  
95th percentile per-packet one-way delay: 24.302 ms  
Loss rate: 4.76%  
-- Flow 3:  
Average throughput: 23.79 Mbit/s  
95th percentile per-packet one-way delay: 30.715 ms  
Loss rate: 10.33%

Run 3: Report of Verus — Data Link

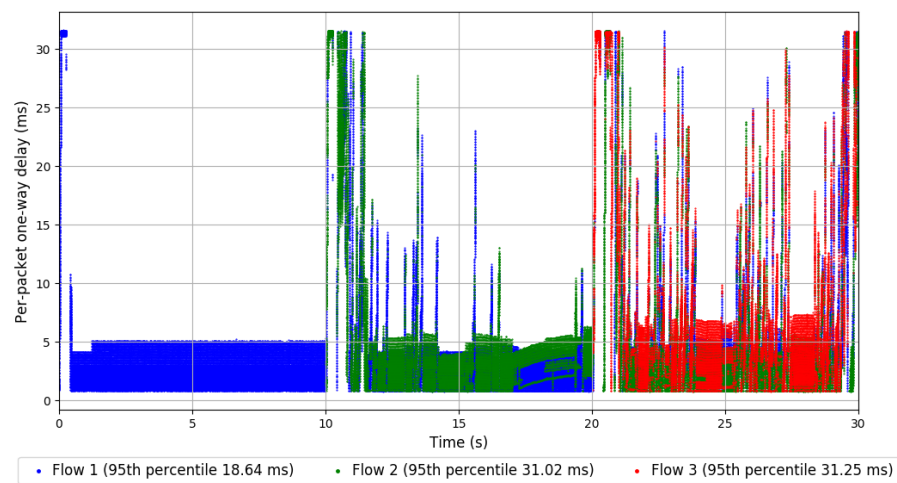
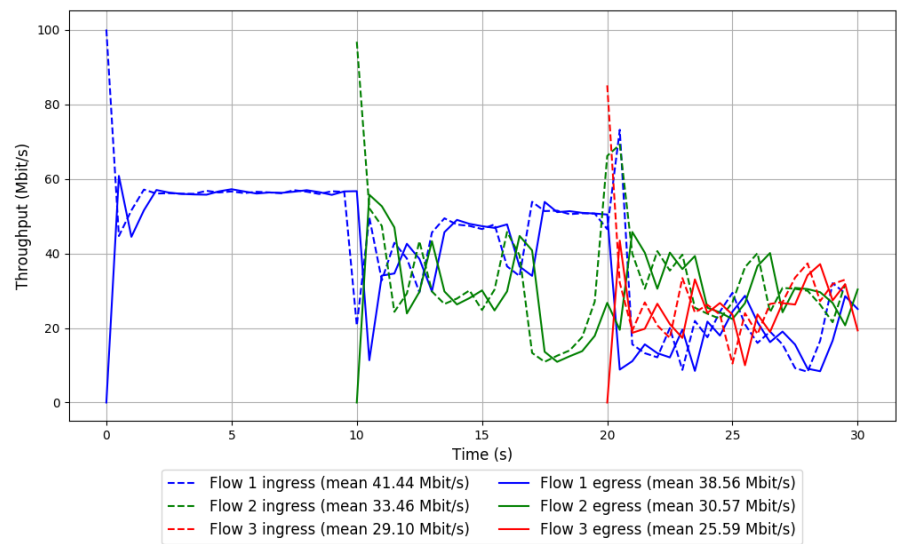


Run 4: Statistics of Verus

Start at: 2018-12-20 02:57:32  
End at: 2018-12-20 02:58:02  
Local clock offset: -6.884 ms  
Remote clock offset: 0.106 ms

# Below is generated by plot.py at 2018-12-20 03:33:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.42 Mbit/s  
95th percentile per-packet one-way delay: 27.840 ms  
Loss rate: 8.02%  
-- Flow 1:  
Average throughput: 38.56 Mbit/s  
95th percentile per-packet one-way delay: 18.645 ms  
Loss rate: 6.88%  
-- Flow 2:  
Average throughput: 30.57 Mbit/s  
95th percentile per-packet one-way delay: 31.025 ms  
Loss rate: 8.49%  
-- Flow 3:  
Average throughput: 25.59 Mbit/s  
95th percentile per-packet one-way delay: 31.250 ms  
Loss rate: 11.82%

Run 4: Report of Verus — Data Link

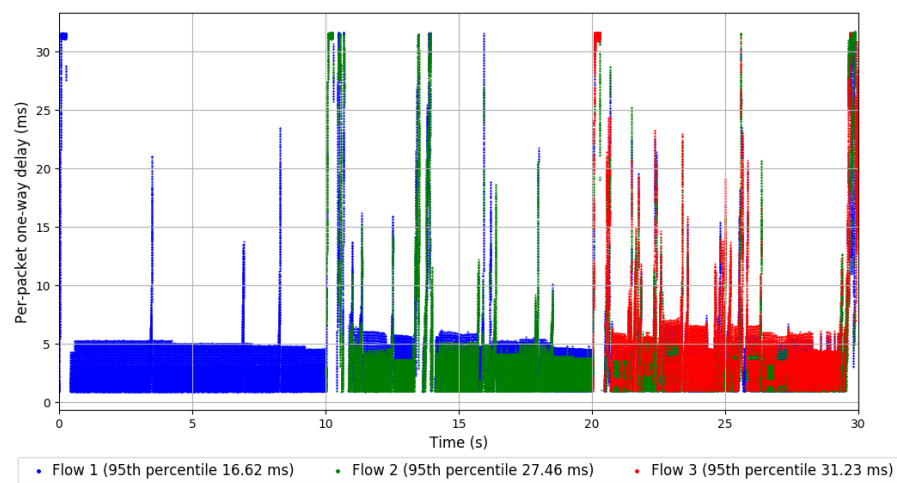
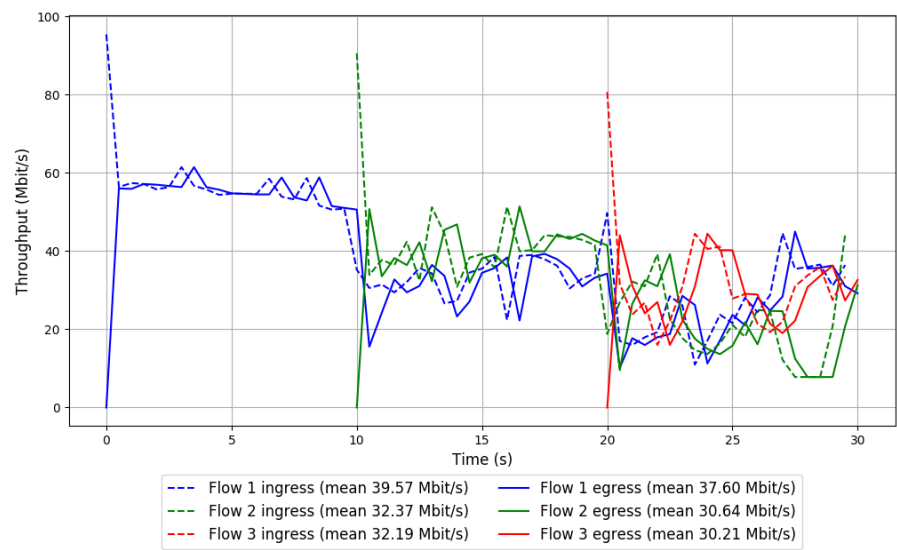


Run 5: Statistics of Verus

Start at: 2018-12-20 03:19:11  
End at: 2018-12-20 03:19:41  
Local clock offset: -2.153 ms  
Remote clock offset: 0.279 ms

# Below is generated by plot.py at 2018-12-20 03:33:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.79 Mbit/s  
95th percentile per-packet one-way delay: 22.963 ms  
Loss rate: 5.14%  
-- Flow 1:  
Average throughput: 37.60 Mbit/s  
95th percentile per-packet one-way delay: 16.625 ms  
Loss rate: 4.89%  
-- Flow 2:  
Average throughput: 30.64 Mbit/s  
95th percentile per-packet one-way delay: 27.462 ms  
Loss rate: 5.20%  
-- Flow 3:  
Average throughput: 30.21 Mbit/s  
95th percentile per-packet one-way delay: 31.226 ms  
Loss rate: 5.91%

Run 5: Report of Verus — Data Link

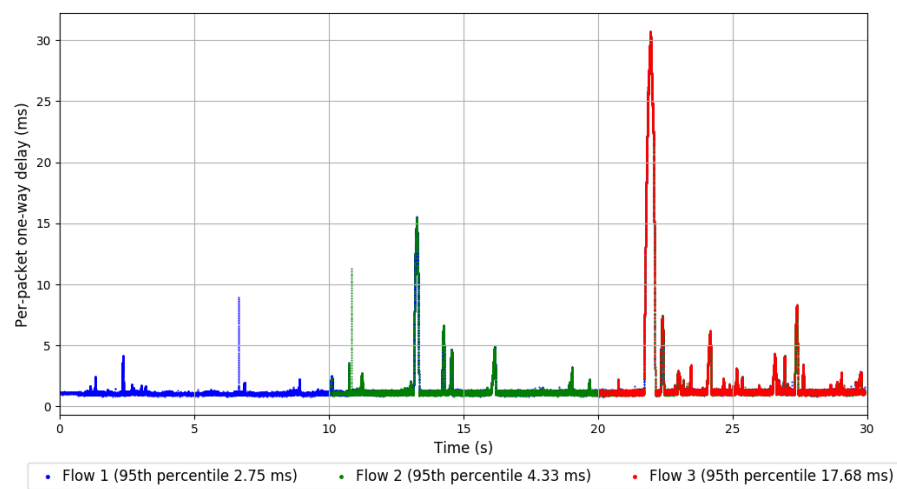
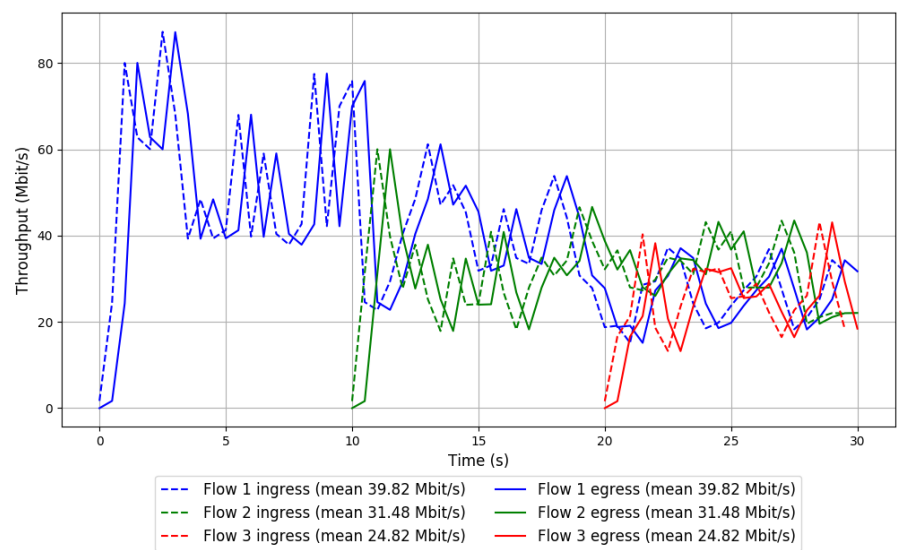


Run 1: Statistics of PCC-Vivace

Start at: 2018-12-20 01:34:27  
End at: 2018-12-20 01:34:57  
Local clock offset: -0.234 ms  
Remote clock offset: -0.661 ms

# Below is generated by plot.py at 2018-12-20 03:33:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.95 Mbit/s  
95th percentile per-packet one-way delay: 3.898 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 39.82 Mbit/s  
95th percentile per-packet one-way delay: 2.754 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 31.48 Mbit/s  
95th percentile per-packet one-way delay: 4.326 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 24.82 Mbit/s  
95th percentile per-packet one-way delay: 17.676 ms  
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

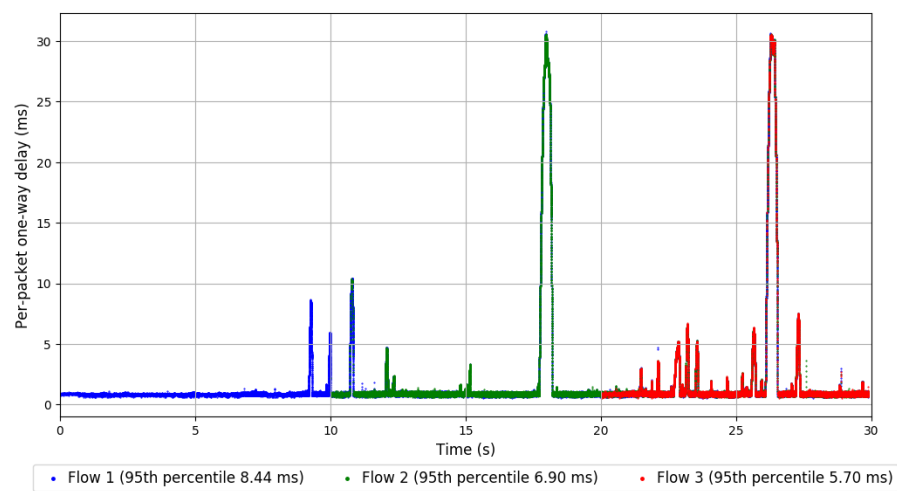
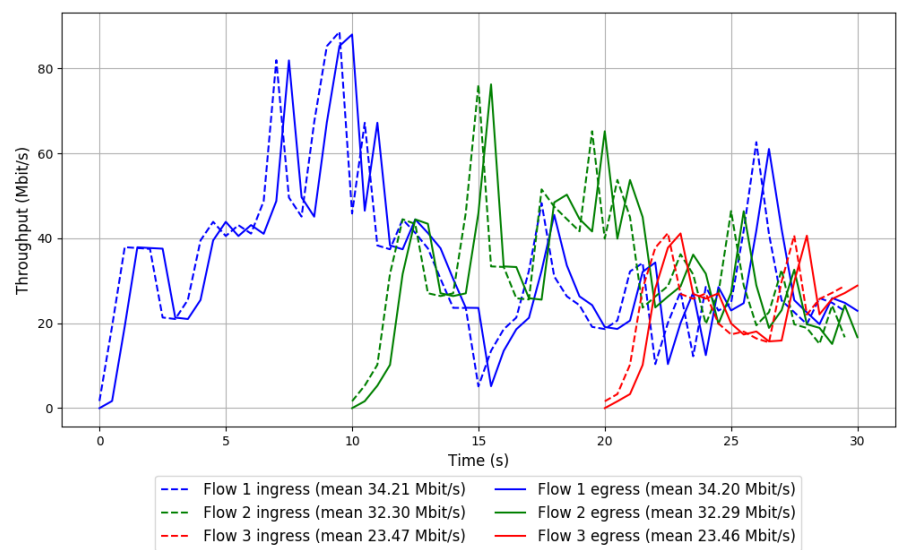


Run 2: Statistics of PCC-Vivace

Start at: 2018-12-20 01:56:03  
End at: 2018-12-20 01:56:33  
Local clock offset: -6.851 ms  
Remote clock offset: -0.816 ms

# Below is generated by plot.py at 2018-12-20 03:34:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 63.42 Mbit/s  
95th percentile per-packet one-way delay: 7.390 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 34.20 Mbit/s  
95th percentile per-packet one-way delay: 8.440 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 32.29 Mbit/s  
95th percentile per-packet one-way delay: 6.902 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 23.46 Mbit/s  
95th percentile per-packet one-way delay: 5.697 ms  
Loss rate: 0.05%

Run 2: Report of PCC-Vivace — Data Link

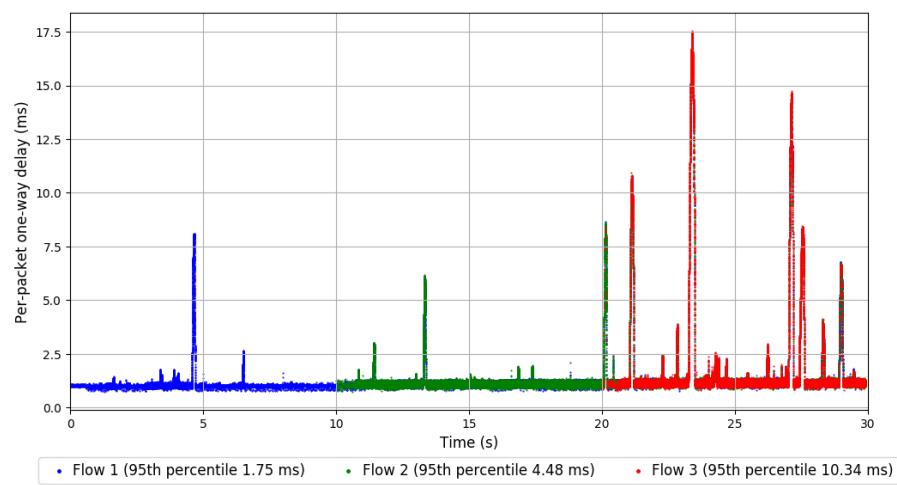
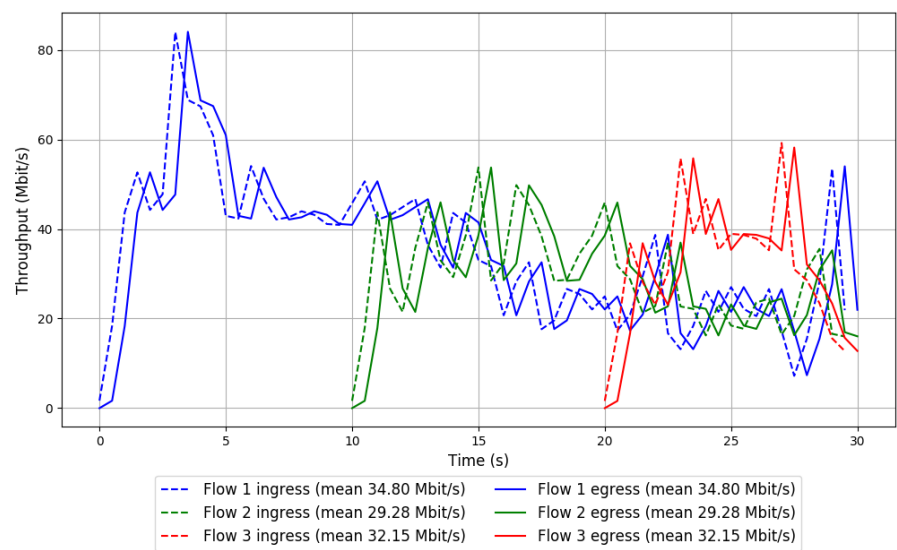


Run 3: Statistics of PCC-Vivace

Start at: 2018-12-20 02:17:43  
End at: 2018-12-20 02:18:13  
Local clock offset: -2.42 ms  
Remote clock offset: -0.736 ms

# Below is generated by plot.py at 2018-12-20 03:34:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 64.89 Mbit/s  
95th percentile per-packet one-way delay: 4.170 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 34.80 Mbit/s  
95th percentile per-packet one-way delay: 1.752 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 29.28 Mbit/s  
95th percentile per-packet one-way delay: 4.481 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.15 Mbit/s  
95th percentile per-packet one-way delay: 10.335 ms  
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

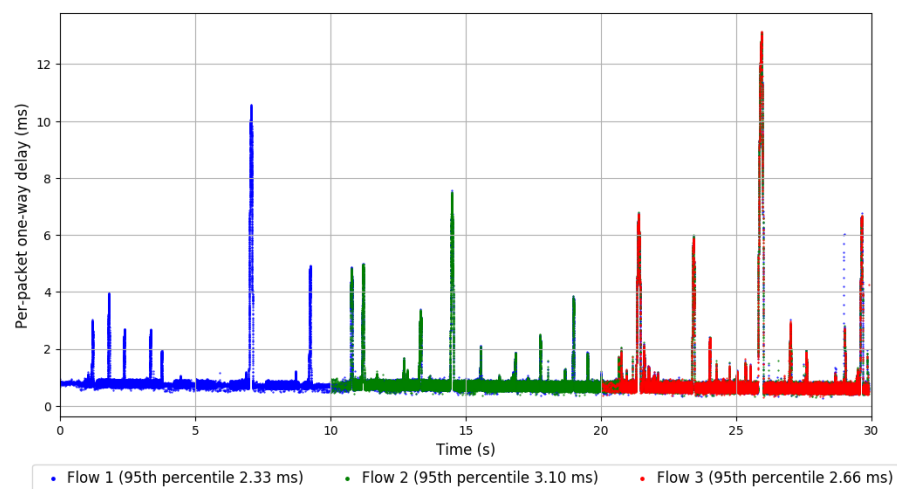
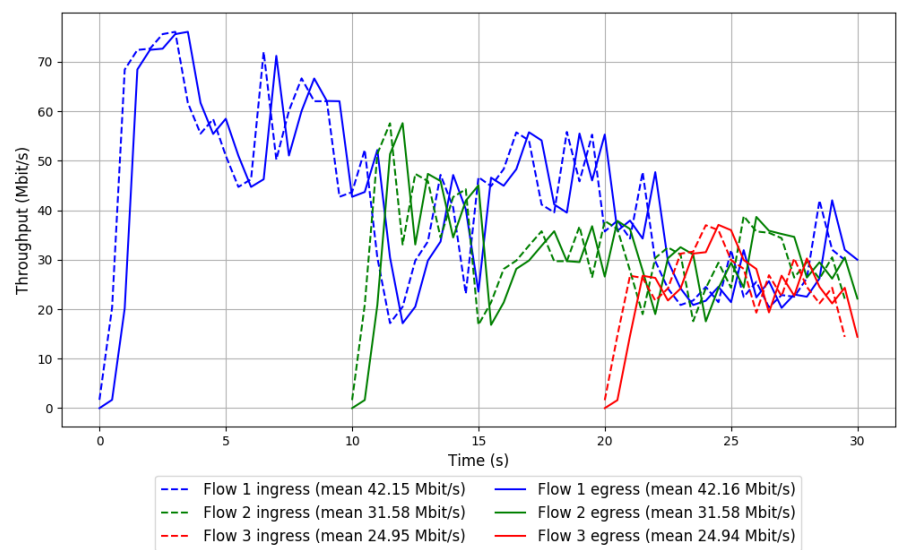


Run 4: Statistics of PCC-Vivace

Start at: 2018-12-20 02:39:21  
End at: 2018-12-20 02:39:51  
Local clock offset: -2.86 ms  
Remote clock offset: -0.443 ms

# Below is generated by plot.py at 2018-12-20 03:34:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 71.39 Mbit/s  
95th percentile per-packet one-way delay: 2.573 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 42.16 Mbit/s  
95th percentile per-packet one-way delay: 2.326 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 31.58 Mbit/s  
95th percentile per-packet one-way delay: 3.097 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 24.94 Mbit/s  
95th percentile per-packet one-way delay: 2.658 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-12-20 03:00:59

End at: 2018-12-20 03:01:29

Local clock offset: -7.175 ms

Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2018-12-20 03:34:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 71.52 Mbit/s

95th percentile per-packet one-way delay: 2.227 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 40.02 Mbit/s

95th percentile per-packet one-way delay: 2.085 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 34.48 Mbit/s

95th percentile per-packet one-way delay: 2.242 ms

Loss rate: 0.00%

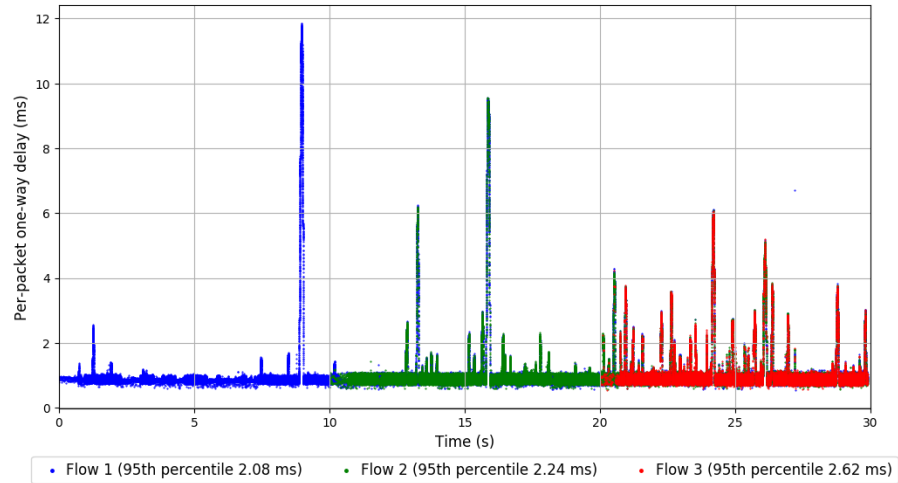
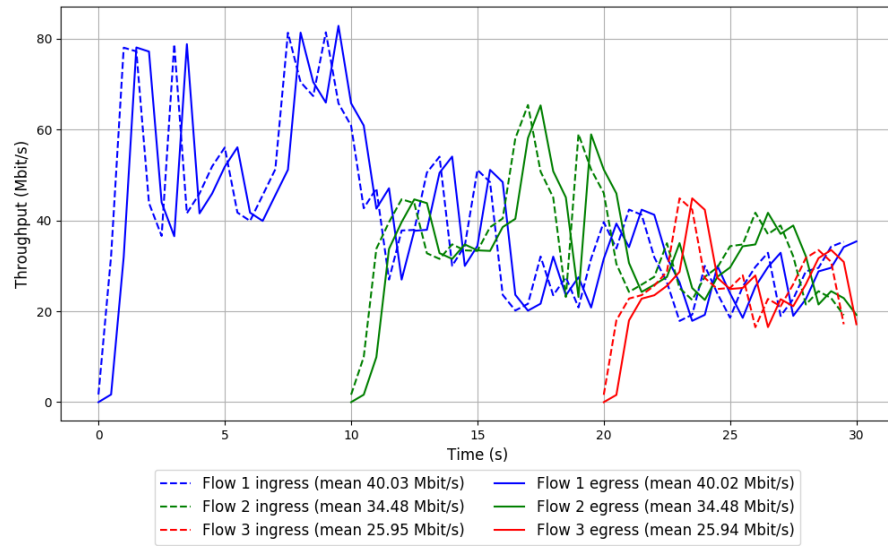
-- Flow 3:

Average throughput: 25.94 Mbit/s

95th percentile per-packet one-way delay: 2.625 ms

Loss rate: 0.04%

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



Run 1: Statistics of WebRTC media

Start at: 2018-12-20 01:51:31

End at: 2018-12-20 01:52:01

Local clock offset: -6.266 ms

Remote clock offset: -0.79 ms

# Below is generated by plot.py at 2018-12-20 03:34:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 3.539 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.448 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 2.558 ms

Loss rate: 0.00%

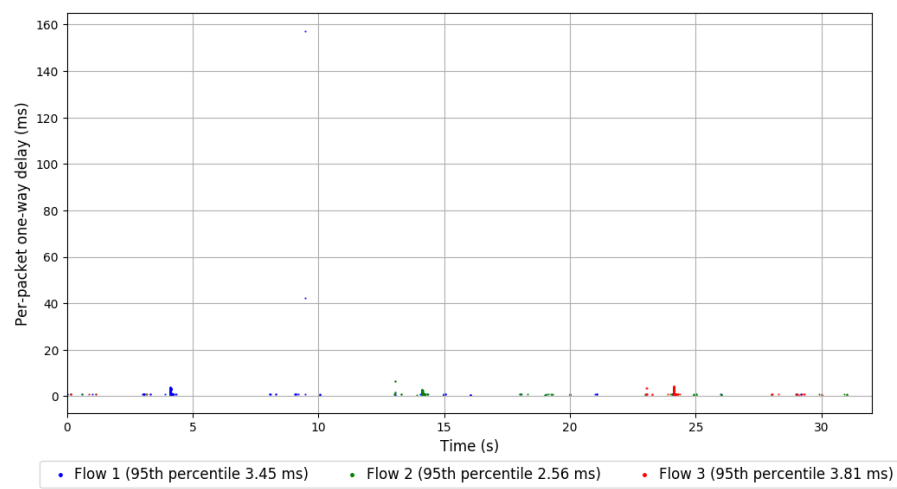
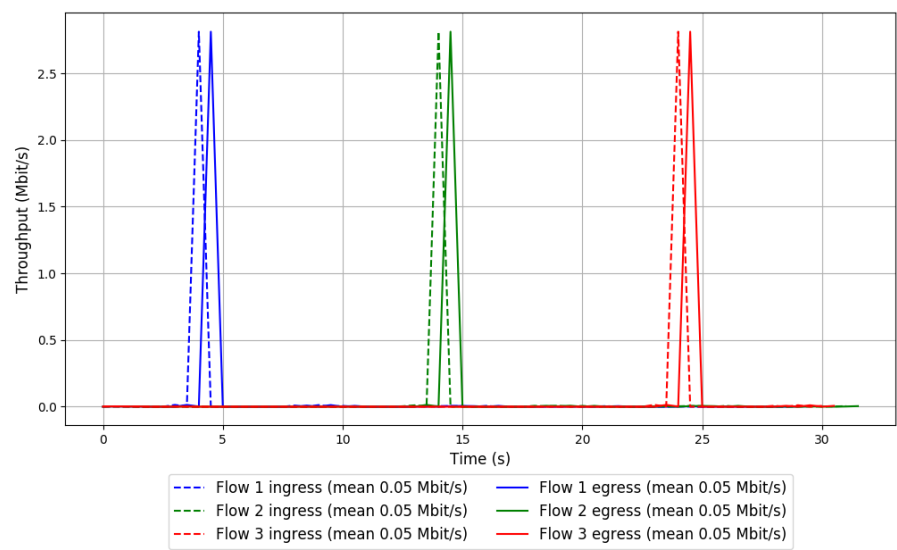
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.806 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

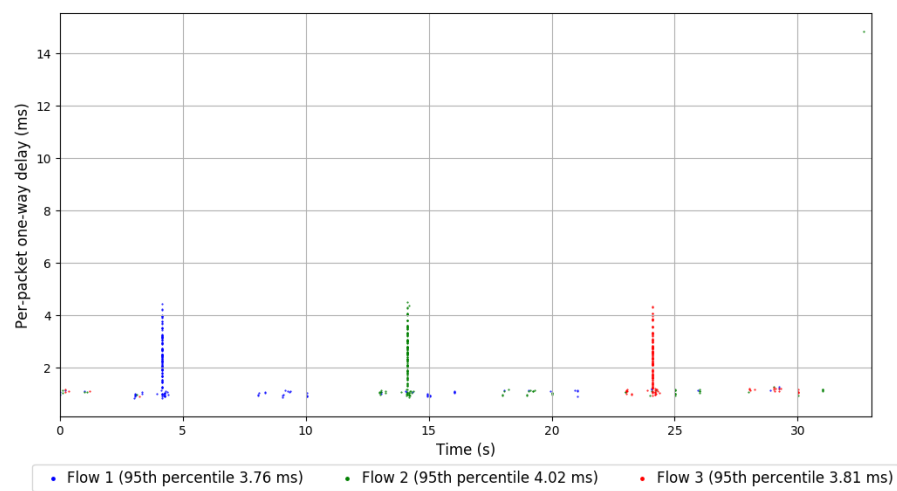
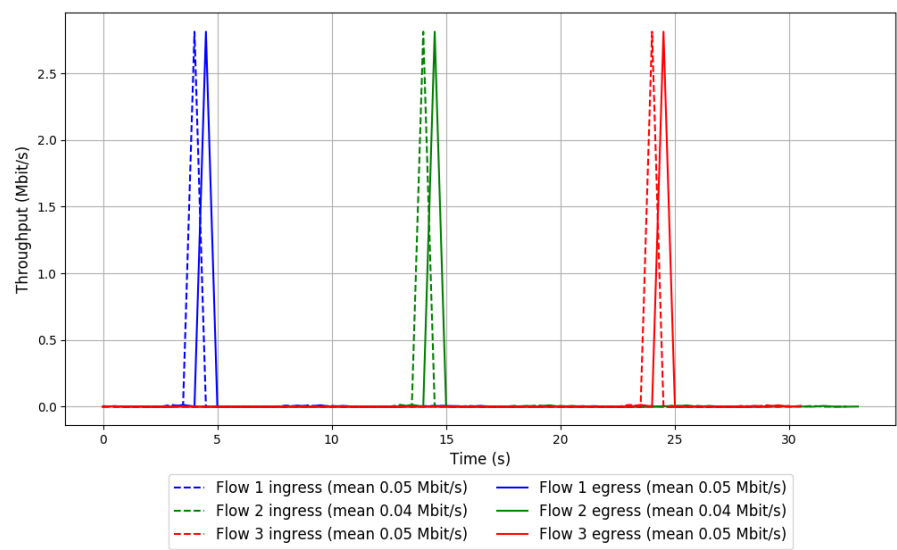


Run 2: Statistics of WebRTC media

Start at: 2018-12-20 02:13:11  
End at: 2018-12-20 02:13:41  
Local clock offset: -3.665 ms  
Remote clock offset: -0.826 ms

# Below is generated by plot.py at 2018-12-20 03:34:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 3.814 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 3.761 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 4.019 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 3.811 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

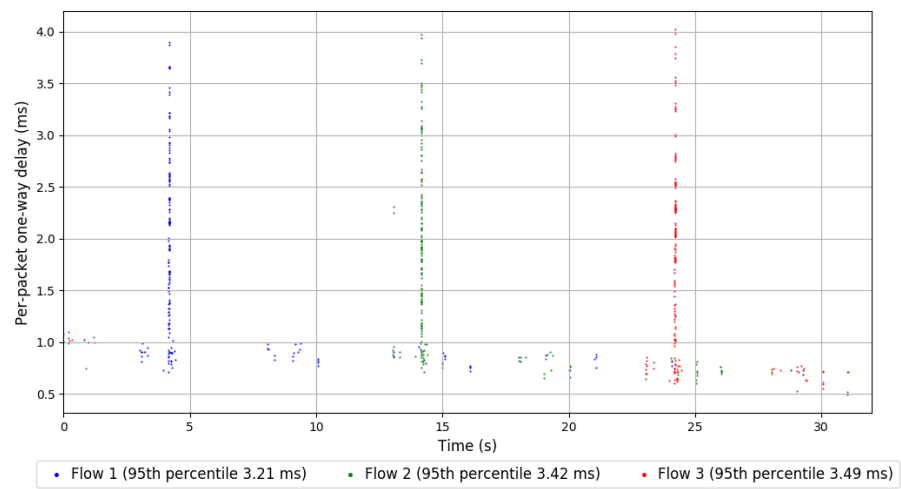
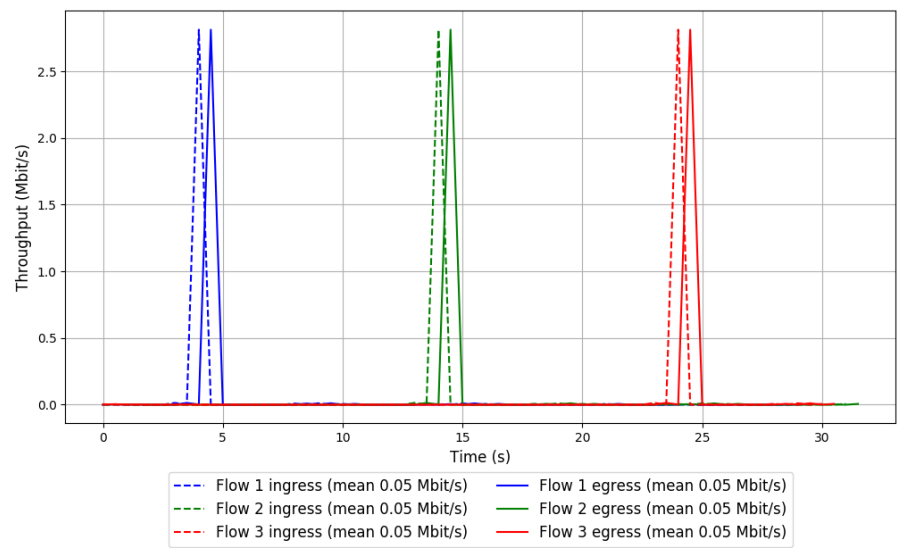


Run 3: Statistics of WebRTC media

Start at: 2018-12-20 02:34:49  
End at: 2018-12-20 02:35:19  
Local clock offset: -0.359 ms  
Remote clock offset: -0.616 ms

# Below is generated by plot.py at 2018-12-20 03:34:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 3.395 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 3.213 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 3.416 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 3.486 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-12-20 02:56:27

End at: 2018-12-20 02:56:57

Local clock offset: -6.855 ms

Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2018-12-20 03:34:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 3.238 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.460 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.426 ms

Loss rate: 0.00%

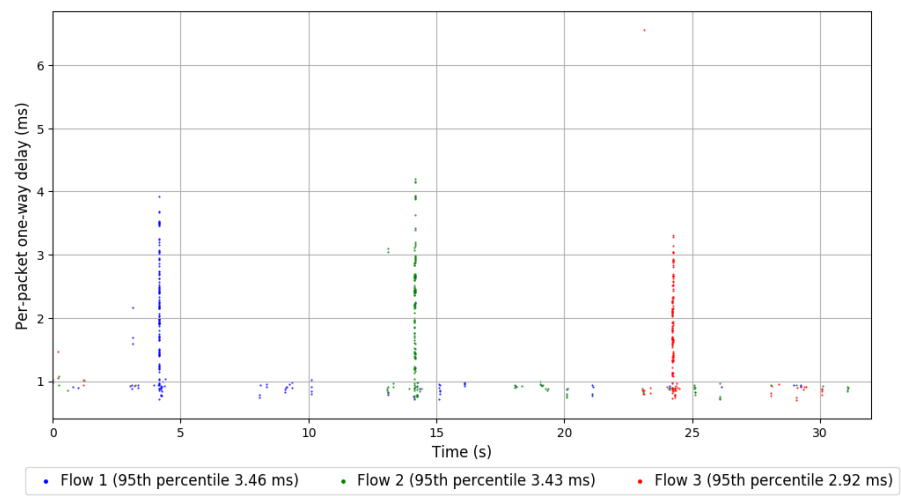
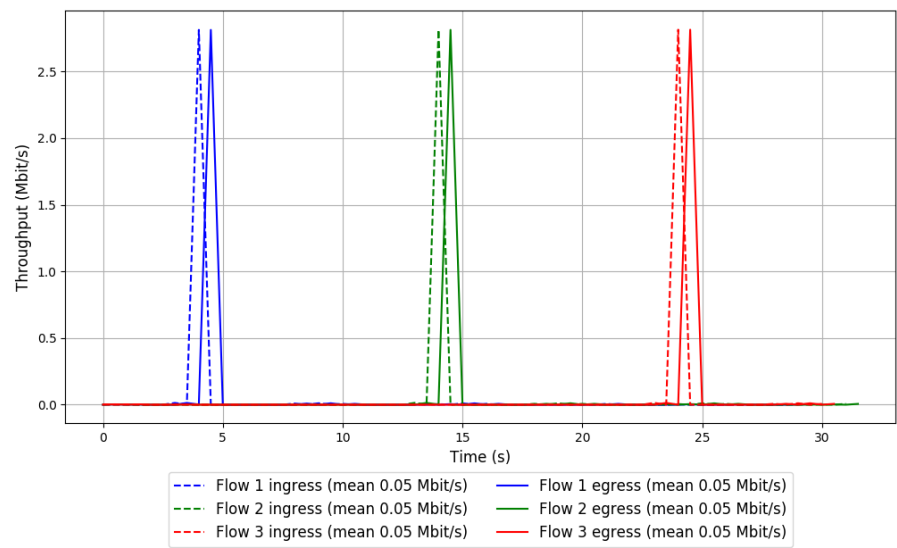
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 2.915 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-12-20 03:18:06

End at: 2018-12-20 03:18:36

Local clock offset: -2.328 ms

Remote clock offset: 0.275 ms

# Below is generated by plot.py at 2018-12-20 03:34:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 3.529 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.492 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.372 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.711 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

