

## Pantheon Report

Generated at 2018-12-12 04:36:02 (UTC).

Data path: GCE Sydney on `ens4` (*local*) → GCE London on `ens4` (*remote*).

Repeated the test of 19 congestion control schemes 5 times.

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

NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

### System info:

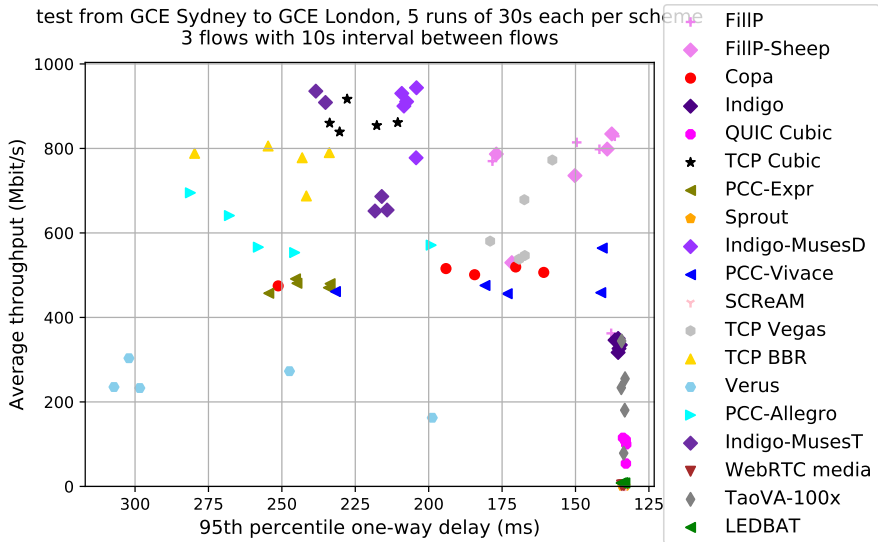
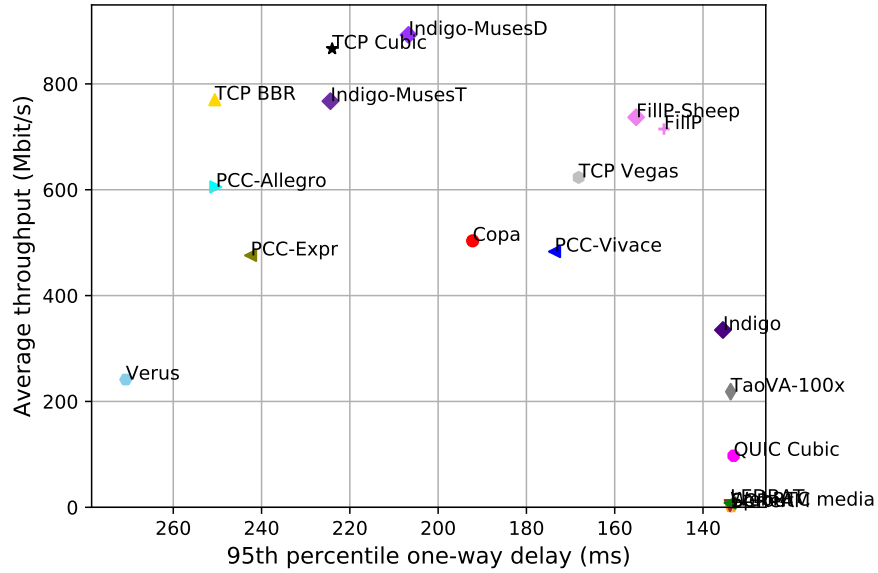
```
Linux 4.15.0-1024-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### 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 GCE Sydney to GCE London, 5 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



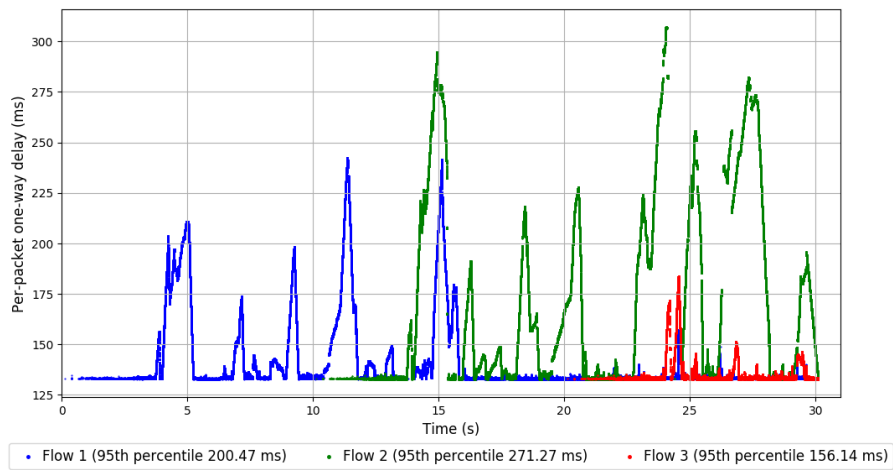
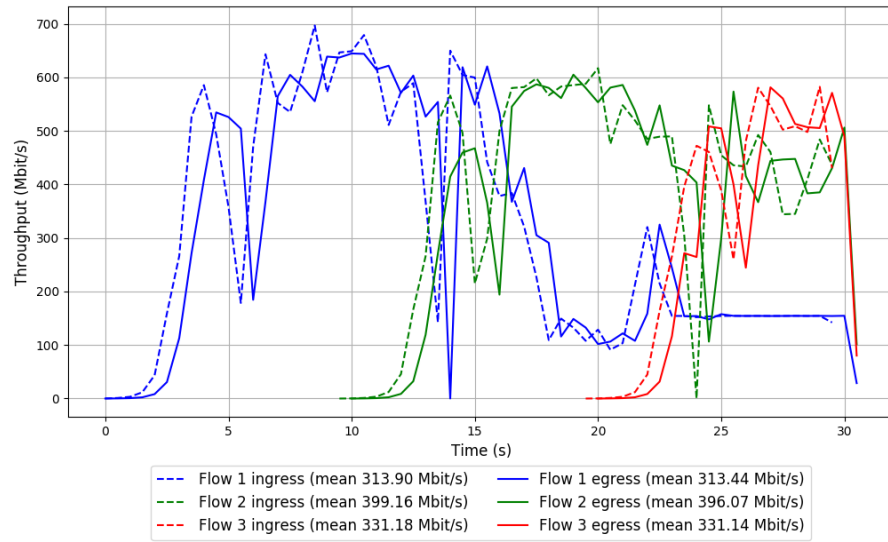
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	415.30	388.00	289.59	225.11	259.54	213.09	1.10	2.59	0.99
Copa	5	276.27	239.84	202.75	164.39	195.56	195.17	0.01	0.07	0.26
TCP Cubic	5	491.07	431.51	264.47	219.15	223.95	171.99	0.24	0.31	0.35
FillP	5	421.75	330.77	220.39	154.43	137.65	135.52	0.24	0.01	0.00
FillP-Sheep	5	446.33	325.31	225.48	159.81	137.43	135.40	0.35	0.01	0.06
Indigo	5	177.24	165.65	151.46	134.99	135.80	138.66	0.00	0.00	0.00
Indigo-MusesD	5	493.87	449.27	314.62	202.67	211.48	212.20	0.34	0.47	0.33
Indigo-MusesT	5	474.45	319.68	288.53	226.99	193.71	205.65	1.35	0.39	0.38
LEDBAT	5	5.28	3.51	1.71	133.90	133.32	133.52	0.00	0.00	0.00
PCC-Allegro	5	329.25	303.24	226.39	250.90	219.05	247.75	5.29	3.12	2.66
PCC-Expr	5	301.59	180.89	163.75	243.47	185.04	207.31	4.78	0.59	1.69
QUIC Cubic	5	47.88	55.85	38.71	133.13	132.93	132.89	0.00	0.00	0.00
SCReAM	5	0.15	0.15	0.17	133.62	133.46	133.24	0.00	0.00	0.00
Sprout	5	0.67	0.65	0.58	133.24	133.62	133.30	0.00	0.00	0.00
TaoVA-100x	5	114.68	76.68	158.63	133.53	133.11	134.17	0.00	0.00	0.00
TCP Vegas	5	319.12	333.47	246.80	152.69	191.22	168.35	0.01	0.34	0.31
Verus	5	164.77	89.96	69.32	253.25	205.14	221.54	5.51	2.11	2.59
PCC-Vivace	5	298.73	209.35	137.17	179.47	143.30	168.04	0.34	0.00	0.12
WebRTC media	5	1.79	1.02	0.31	133.57	133.63	133.17	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-12-11 23:37:47  
End at: 2018-12-11 23:38:17  
Local clock offset: -0.36 ms  
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-12-12 02:39:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 687.59 Mbit/s  
95th percentile per-packet one-way delay: 241.656 ms  
Loss rate: 0.37%  
-- Flow 1:  
Average throughput: 313.44 Mbit/s  
95th percentile per-packet one-way delay: 200.466 ms  
Loss rate: 0.15%  
-- Flow 2:  
Average throughput: 396.07 Mbit/s  
95th percentile per-packet one-way delay: 271.266 ms  
Loss rate: 0.77%  
-- Flow 3:  
Average throughput: 331.14 Mbit/s  
95th percentile per-packet one-way delay: 156.139 ms  
Loss rate: 0.02%

# Run 1: Report of TCP BBR — Data Link

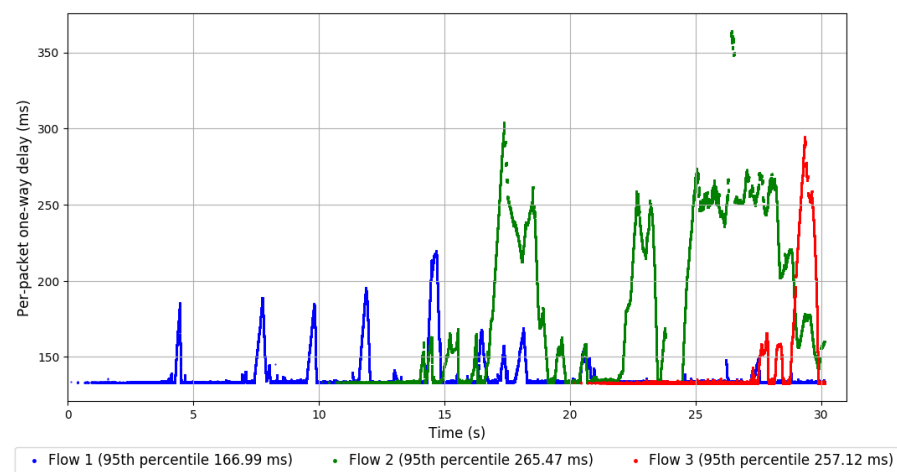
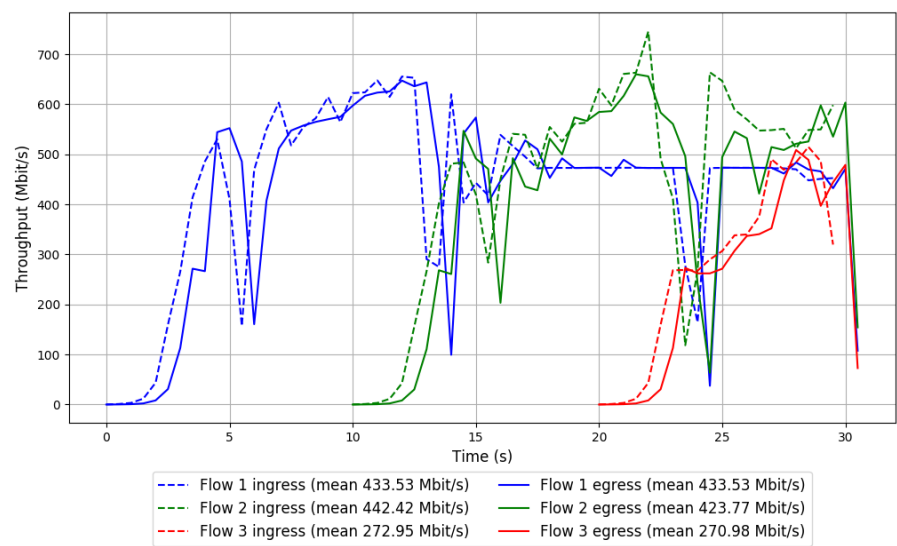


Run 2: Statistics of TCP BBR

Start at: 2018-12-12 00:13:54  
End at: 2018-12-12 00:14:24  
Local clock offset: -0.651 ms  
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2018-12-12 02:42:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 805.83 Mbit/s  
95th percentile per-packet one-way delay: 254.679 ms  
Loss rate: 1.60%  
-- Flow 1:  
Average throughput: 433.53 Mbit/s  
95th percentile per-packet one-way delay: 166.994 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 423.77 Mbit/s  
95th percentile per-packet one-way delay: 265.467 ms  
Loss rate: 4.21%  
-- Flow 3:  
Average throughput: 270.98 Mbit/s  
95th percentile per-packet one-way delay: 257.122 ms  
Loss rate: 0.72%

Run 2: Report of TCP BBR — Data Link

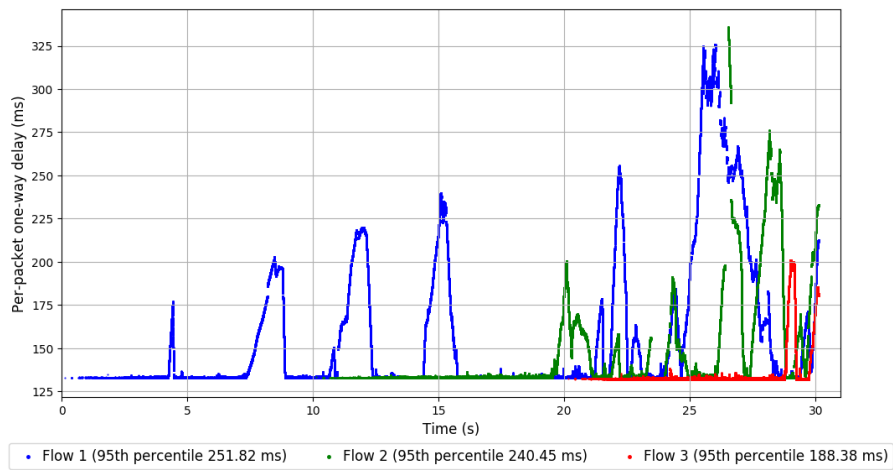
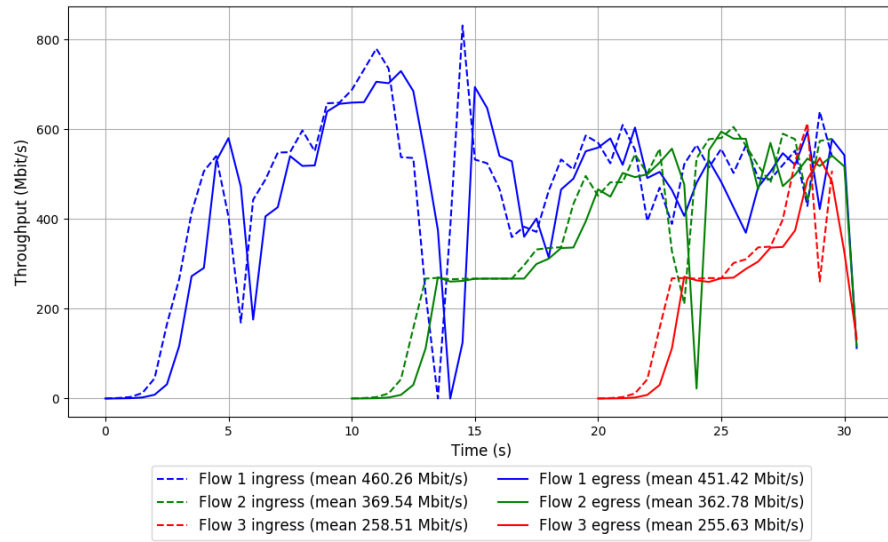


Run 3: Statistics of TCP BBR

Start at: 2018-12-12 00:50:25  
End at: 2018-12-12 00:50:55  
Local clock offset: -0.045 ms  
Remote clock offset: -0.299 ms

# Below is generated by plot.py at 2018-12-12 02:42:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 778.03 Mbit/s  
95th percentile per-packet one-way delay: 243.079 ms  
Loss rate: 1.80%  
-- Flow 1:  
Average throughput: 451.42 Mbit/s  
95th percentile per-packet one-way delay: 251.822 ms  
Loss rate: 1.92%  
-- Flow 2:  
Average throughput: 362.78 Mbit/s  
95th percentile per-packet one-way delay: 240.451 ms  
Loss rate: 1.82%  
-- Flow 3:  
Average throughput: 255.63 Mbit/s  
95th percentile per-packet one-way delay: 188.381 ms  
Loss rate: 1.11%

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

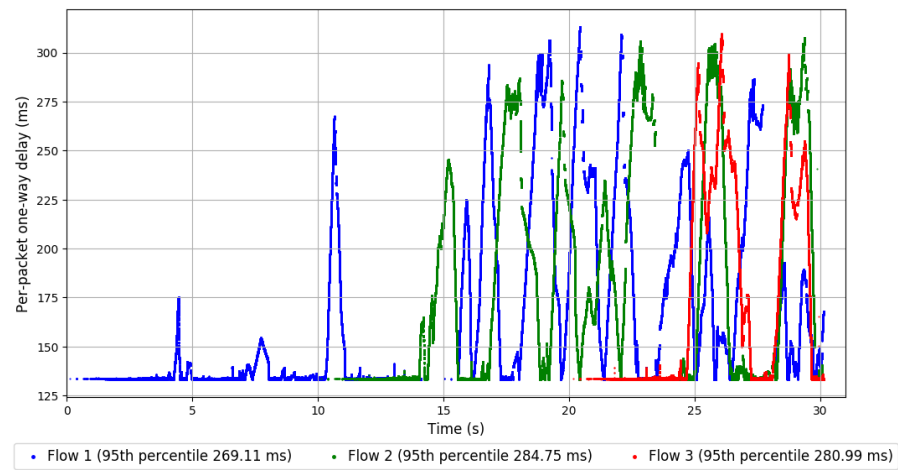
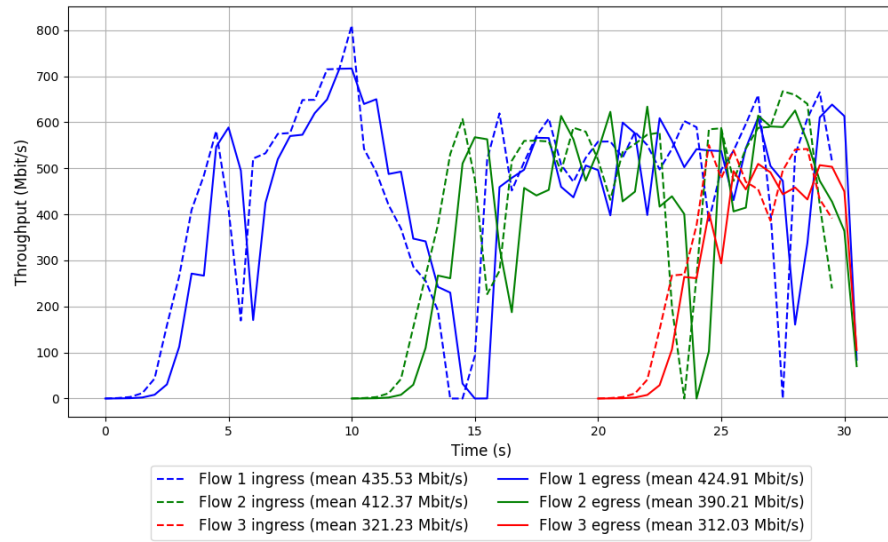


Run 4: Statistics of TCP BBR

Start at: 2018-12-12 01:26:13  
End at: 2018-12-12 01:26:43  
Local clock offset: -0.159 ms  
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2018-12-12 02:42:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 788.51 Mbit/s  
95th percentile per-packet one-way delay: 279.708 ms  
Loss rate: 3.48%  
-- Flow 1:  
Average throughput: 424.91 Mbit/s  
95th percentile per-packet one-way delay: 269.112 ms  
Loss rate: 2.44%  
-- Flow 2:  
Average throughput: 390.21 Mbit/s  
95th percentile per-packet one-way delay: 284.748 ms  
Loss rate: 5.38%  
-- Flow 3:  
Average throughput: 312.03 Mbit/s  
95th percentile per-packet one-way delay: 280.990 ms  
Loss rate: 2.86%

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

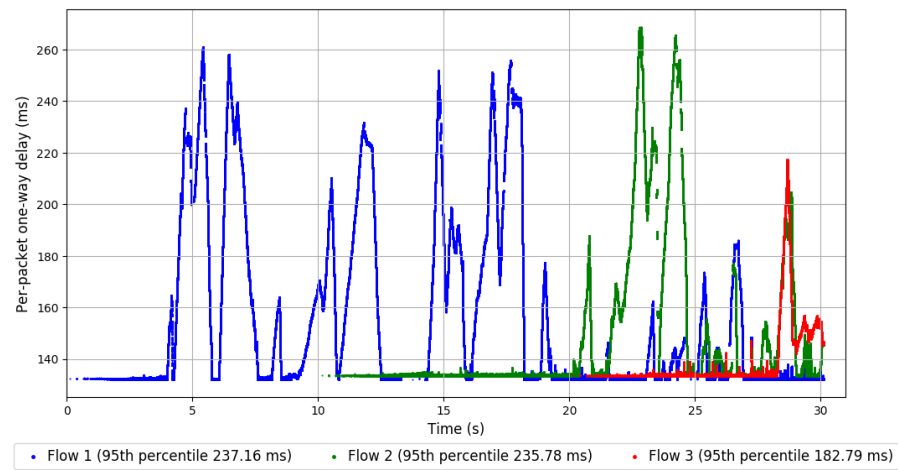
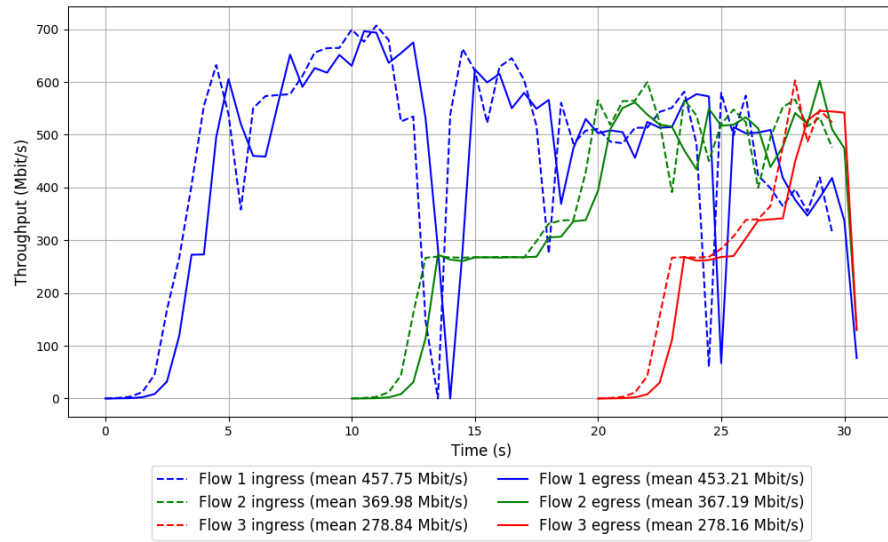


Run 5: Statistics of TCP BBR

Start at: 2018-12-12 02:02:50  
End at: 2018-12-12 02:03:20  
Local clock offset: -0.049 ms  
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-12-12 02:42:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 790.18 Mbit/s  
95th percentile per-packet one-way delay: 233.841 ms  
Loss rate: 0.83%  
-- Flow 1:  
Average throughput: 453.21 Mbit/s  
95th percentile per-packet one-way delay: 237.162 ms  
Loss rate: 0.99%  
-- Flow 2:  
Average throughput: 367.19 Mbit/s  
95th percentile per-packet one-way delay: 235.780 ms  
Loss rate: 0.75%  
-- Flow 3:  
Average throughput: 278.16 Mbit/s  
95th percentile per-packet one-way delay: 182.795 ms  
Loss rate: 0.24%

# Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-12-11 23:29:15

End at: 2018-12-11 23:29:45

Local clock offset: -0.552 ms

Remote clock offset: 0.035 ms

# Below is generated by plot.py at 2018-12-12 02:45:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 501.13 Mbit/s

95th percentile per-packet one-way delay: 184.357 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 264.49 Mbit/s

95th percentile per-packet one-way delay: 187.250 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 252.08 Mbit/s

95th percentile per-packet one-way delay: 181.647 ms

Loss rate: 0.04%

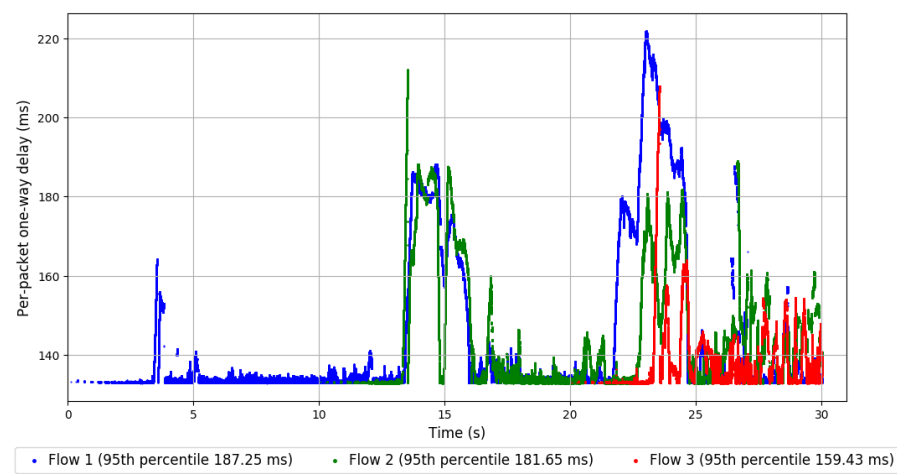
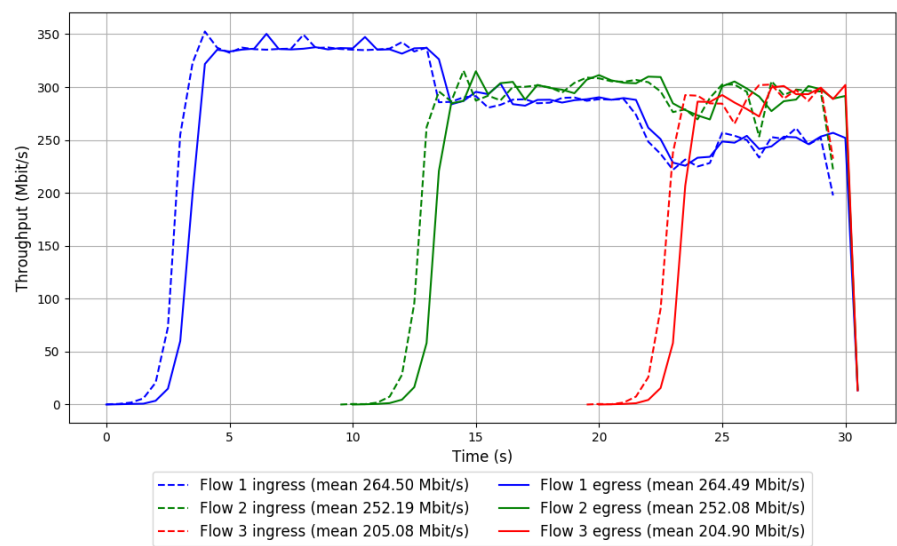
-- Flow 3:

Average throughput: 204.90 Mbit/s

95th percentile per-packet one-way delay: 159.428 ms

Loss rate: 0.07%

Run 1: Report of Copa — Data Link

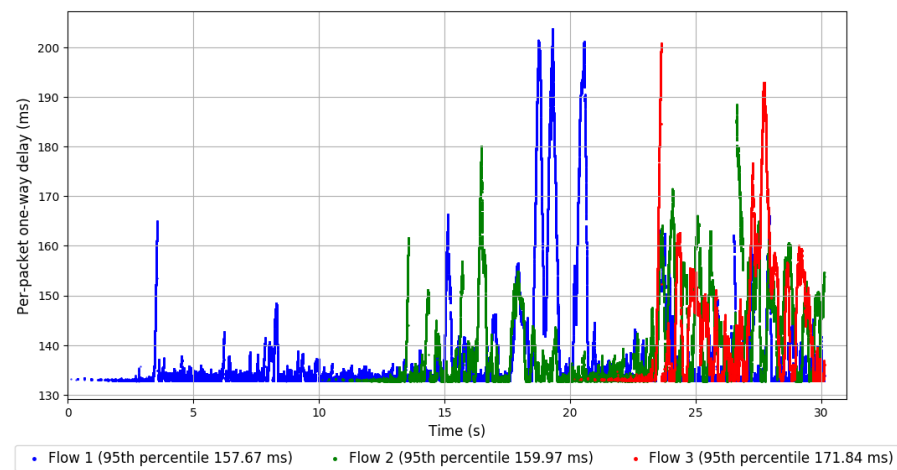
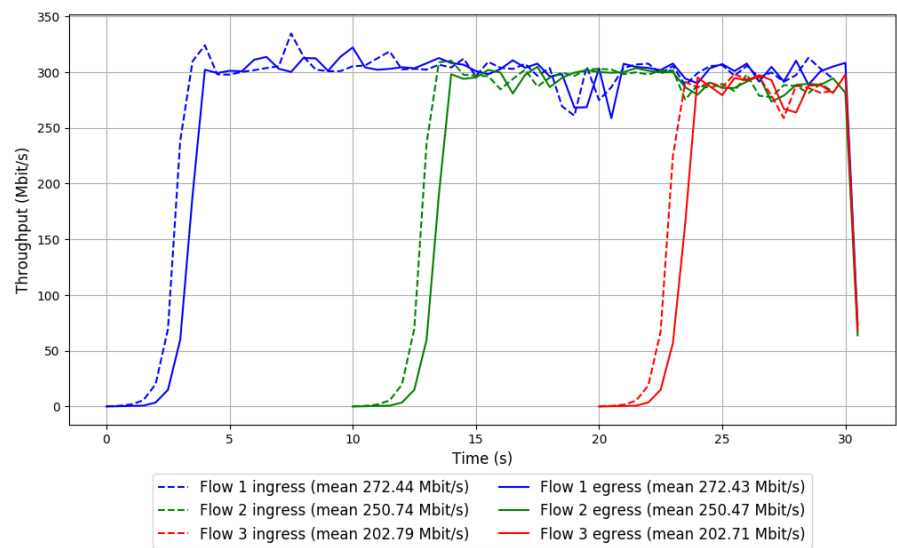


Run 2: Statistics of Copa

Start at: 2018-12-12 00:05:11  
End at: 2018-12-12 00:05:41  
Local clock offset: -0.629 ms  
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2018-12-12 02:45:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 506.57 Mbit/s  
95th percentile per-packet one-way delay: 160.810 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 272.43 Mbit/s  
95th percentile per-packet one-way delay: 157.667 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 250.47 Mbit/s  
95th percentile per-packet one-way delay: 159.972 ms  
Loss rate: 0.10%  
-- Flow 3:  
Average throughput: 202.71 Mbit/s  
95th percentile per-packet one-way delay: 171.838 ms  
Loss rate: 0.03%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-12-12 00:41:55

End at: 2018-12-12 00:42:25

Local clock offset: -0.151 ms

Remote clock offset: 0.101 ms

# Below is generated by plot.py at 2018-12-12 02:45:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 519.43 Mbit/s

95th percentile per-packet one-way delay: 170.367 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 283.22 Mbit/s

95th percentile per-packet one-way delay: 158.397 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 250.33 Mbit/s

95th percentile per-packet one-way delay: 188.662 ms

Loss rate: 0.20%

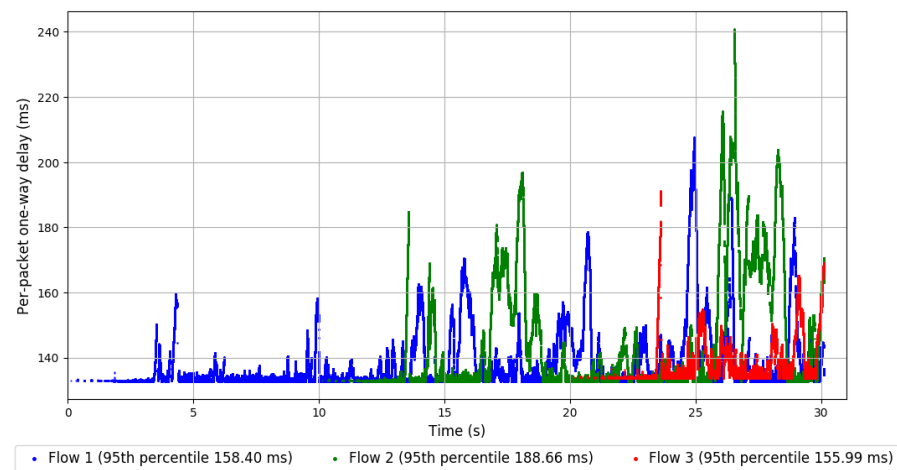
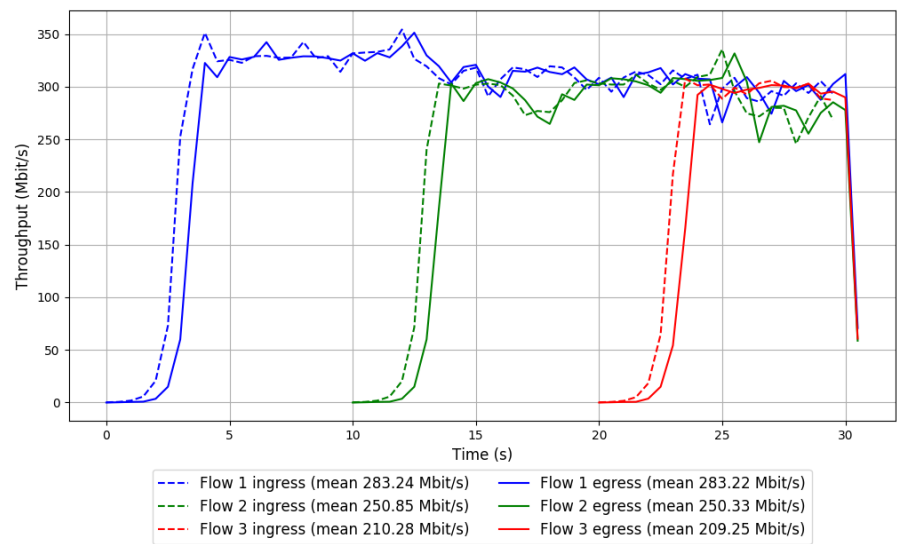
-- Flow 3:

Average throughput: 209.25 Mbit/s

95th percentile per-packet one-way delay: 155.992 ms

Loss rate: 0.48%

Run 3: Report of Copa — Data Link

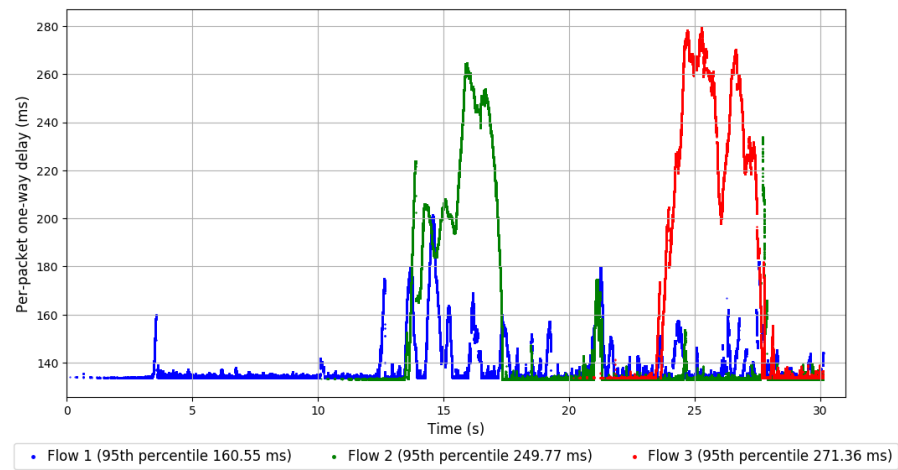
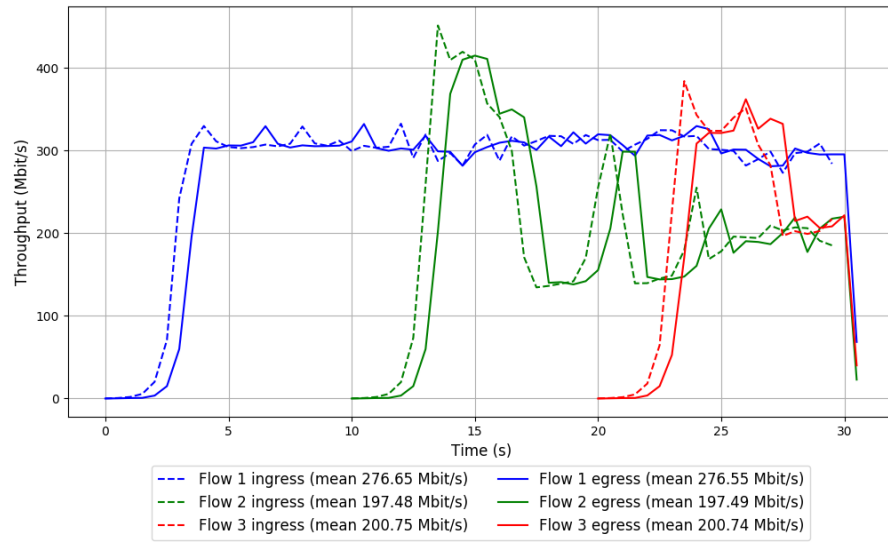


Run 4: Statistics of Copa

Start at: 2018-12-12 01:17:35  
End at: 2018-12-12 01:18:05  
Local clock offset: -0.367 ms  
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-12-12 02:56:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 474.67 Mbit/s  
95th percentile per-packet one-way delay: 251.253 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 276.55 Mbit/s  
95th percentile per-packet one-way delay: 160.549 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 197.49 Mbit/s  
95th percentile per-packet one-way delay: 249.771 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 200.74 Mbit/s  
95th percentile per-packet one-way delay: 271.358 ms  
Loss rate: 0.00%

# Run 4: Report of Copa — Data Link

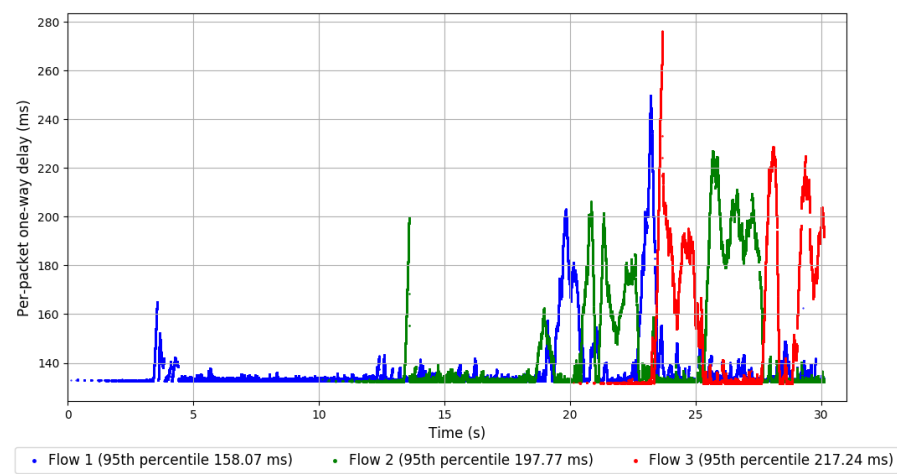
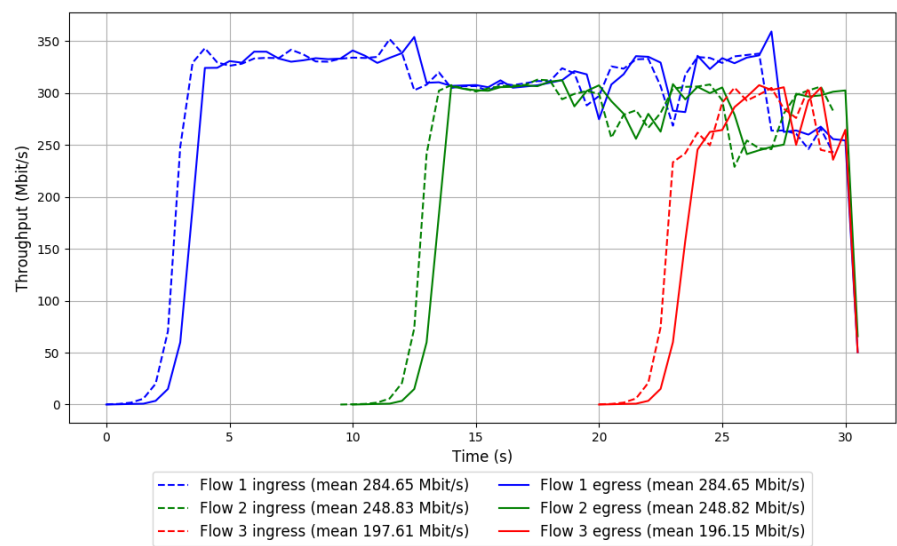


Run 5: Statistics of Copa

Start at: 2018-12-12 01:53:52  
End at: 2018-12-12 01:54:22  
Local clock offset: 0.32 ms  
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-12-12 03:00:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 515.66 Mbit/s  
95th percentile per-packet one-way delay: 194.111 ms  
Loss rate: 0.09%  
-- Flow 1:  
Average throughput: 284.65 Mbit/s  
95th percentile per-packet one-way delay: 158.075 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 248.82 Mbit/s  
95th percentile per-packet one-way delay: 197.772 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 196.15 Mbit/s  
95th percentile per-packet one-way delay: 217.243 ms  
Loss rate: 0.71%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-12-11 23:41:36

End at: 2018-12-11 23:42:06

Local clock offset: -0.309 ms

Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2018-12-12 03:00:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 839.22 Mbit/s

95th percentile per-packet one-way delay: 230.336 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 455.96 Mbit/s

95th percentile per-packet one-way delay: 233.716 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 431.77 Mbit/s

95th percentile per-packet one-way delay: 197.505 ms

Loss rate: 0.33%

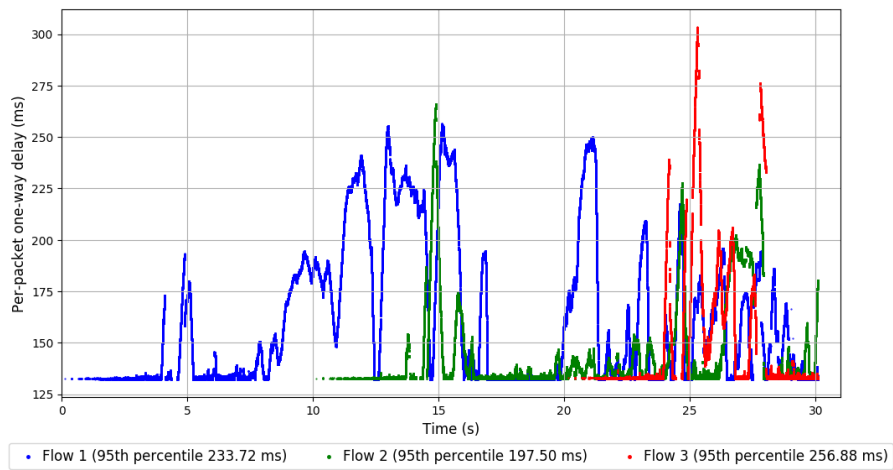
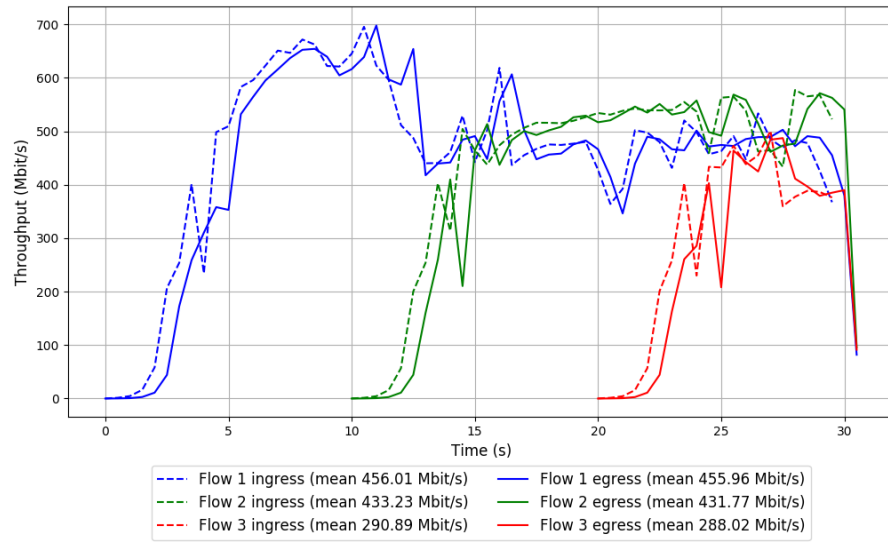
-- Flow 3:

Average throughput: 288.02 Mbit/s

95th percentile per-packet one-way delay: 256.884 ms

Loss rate: 0.99%

# Run 1: Report of TCP Cubic — Data Link

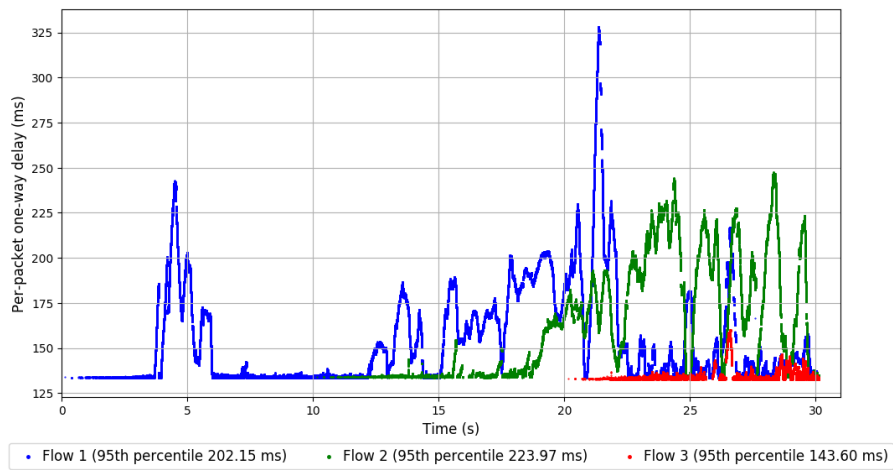
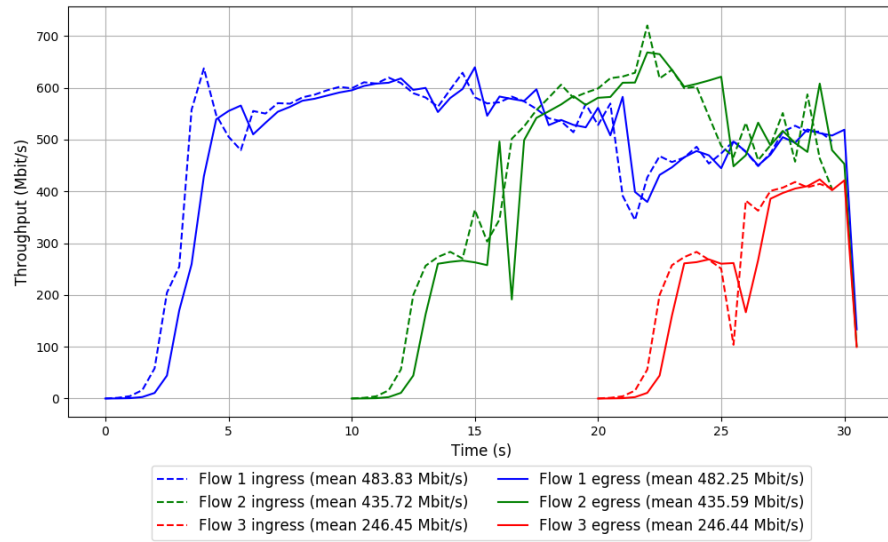


Run 2: Statistics of TCP Cubic

Start at: 2018-12-12 00:17:53  
End at: 2018-12-12 00:18:23  
Local clock offset: -0.668 ms  
Remote clock offset: 0.276 ms

# Below is generated by plot.py at 2018-12-12 03:00:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 854.33 Mbit/s  
95th percentile per-packet one-way delay: 217.670 ms  
Loss rate: 0.20%  
-- Flow 1:  
Average throughput: 482.25 Mbit/s  
95th percentile per-packet one-way delay: 202.148 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 435.59 Mbit/s  
95th percentile per-packet one-way delay: 223.975 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 246.44 Mbit/s  
95th percentile per-packet one-way delay: 143.598 ms  
Loss rate: 0.00%

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

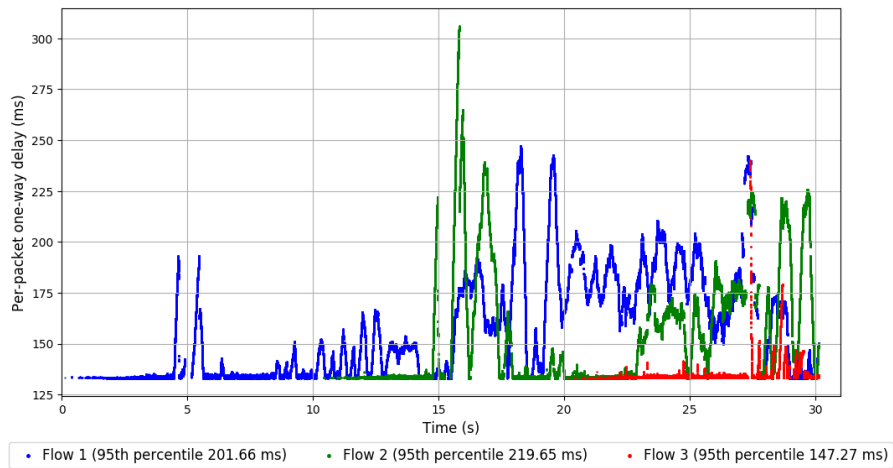
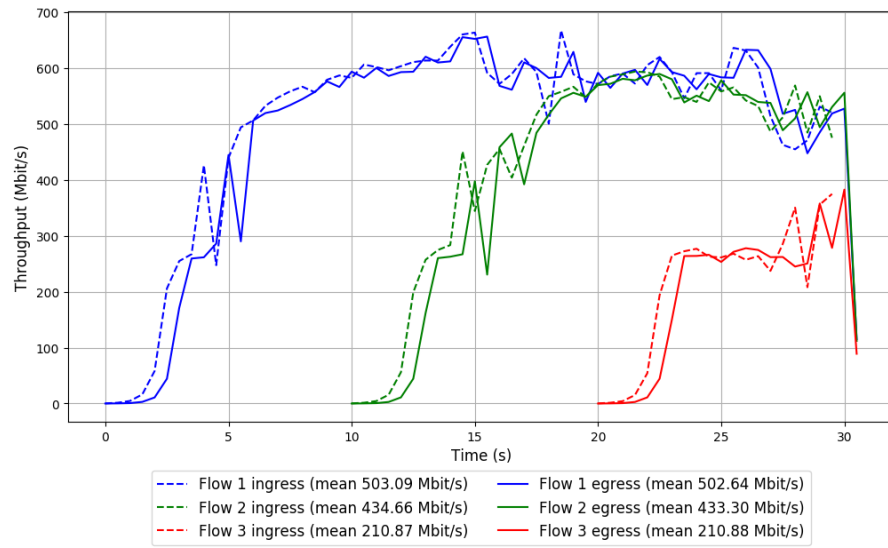


Run 3: Statistics of TCP Cubic

Start at: 2018-12-12 00:54:05  
End at: 2018-12-12 00:54:35  
Local clock offset: 0.028 ms  
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2018-12-12 03:00:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 861.40 Mbit/s  
95th percentile per-packet one-way delay: 210.533 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 502.64 Mbit/s  
95th percentile per-packet one-way delay: 201.655 ms  
Loss rate: 0.09%  
-- Flow 2:  
Average throughput: 433.30 Mbit/s  
95th percentile per-packet one-way delay: 219.646 ms  
Loss rate: 0.31%  
-- Flow 3:  
Average throughput: 210.88 Mbit/s  
95th percentile per-packet one-way delay: 147.268 ms  
Loss rate: 0.00%

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

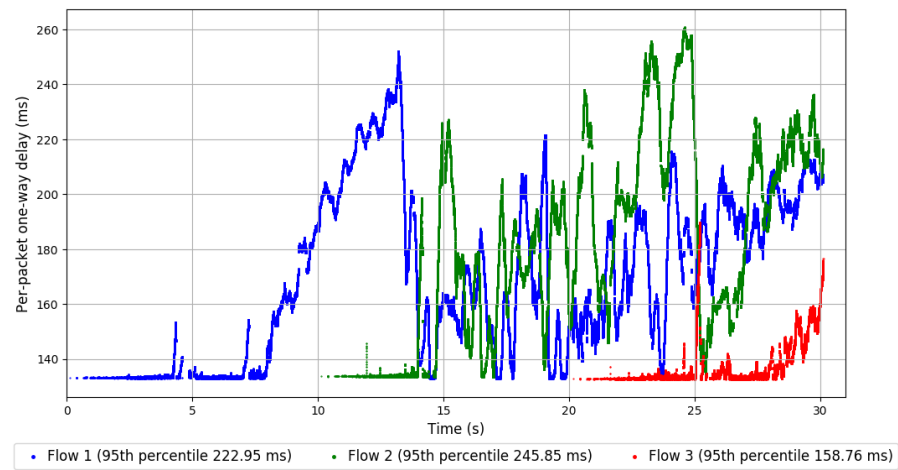
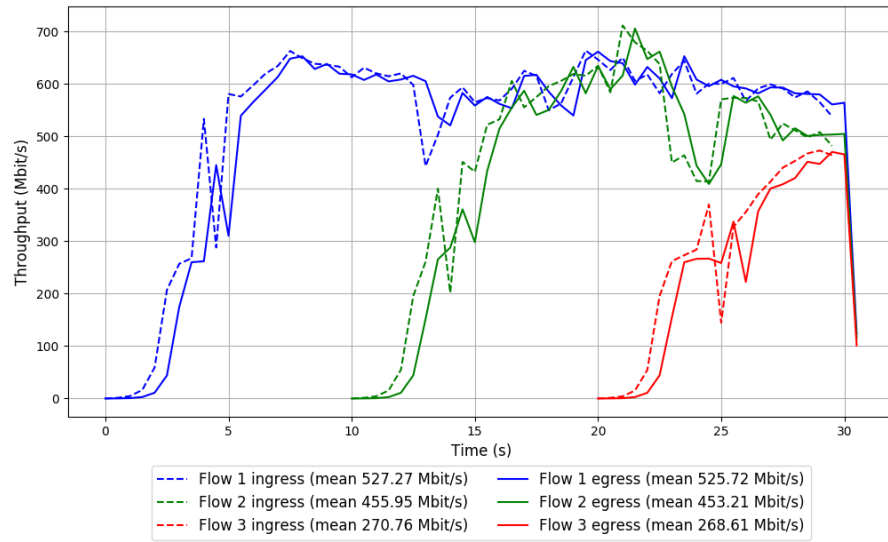


Run 4: Statistics of TCP Cubic

Start at: 2018-12-12 01:30:05  
End at: 2018-12-12 01:30:35  
Local clock offset: -0.318 ms  
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2018-12-12 03:02:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 916.82 Mbit/s  
95th percentile per-packet one-way delay: 227.760 ms  
Loss rate: 0.44%  
-- Flow 1:  
Average throughput: 525.72 Mbit/s  
95th percentile per-packet one-way delay: 222.951 ms  
Loss rate: 0.29%  
-- Flow 2:  
Average throughput: 453.21 Mbit/s  
95th percentile per-packet one-way delay: 245.851 ms  
Loss rate: 0.60%  
-- Flow 3:  
Average throughput: 268.61 Mbit/s  
95th percentile per-packet one-way delay: 158.758 ms  
Loss rate: 0.77%

# Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-12-12 02:06:29

End at: 2018-12-12 02:06:59

Local clock offset: -0.065 ms

Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-12-12 03:02:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 860.14 Mbit/s

95th percentile per-packet one-way delay: 233.728 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 488.78 Mbit/s

95th percentile per-packet one-way delay: 235.263 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 403.69 Mbit/s

95th percentile per-packet one-way delay: 232.756 ms

Loss rate: 0.29%

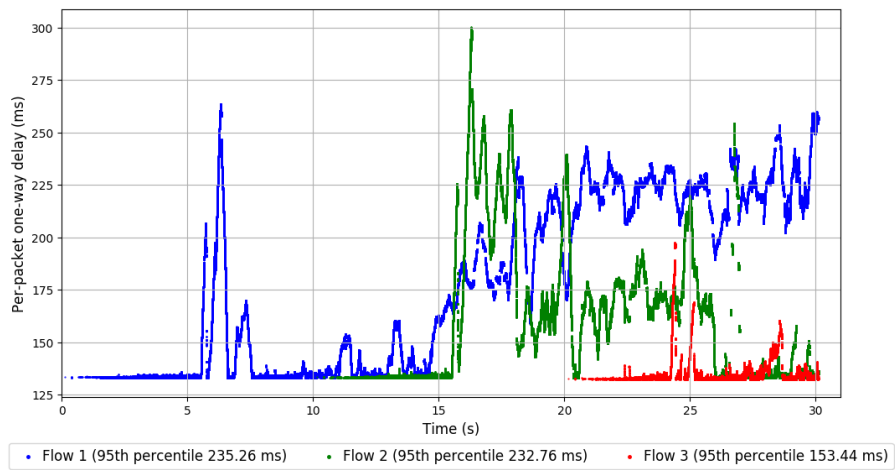
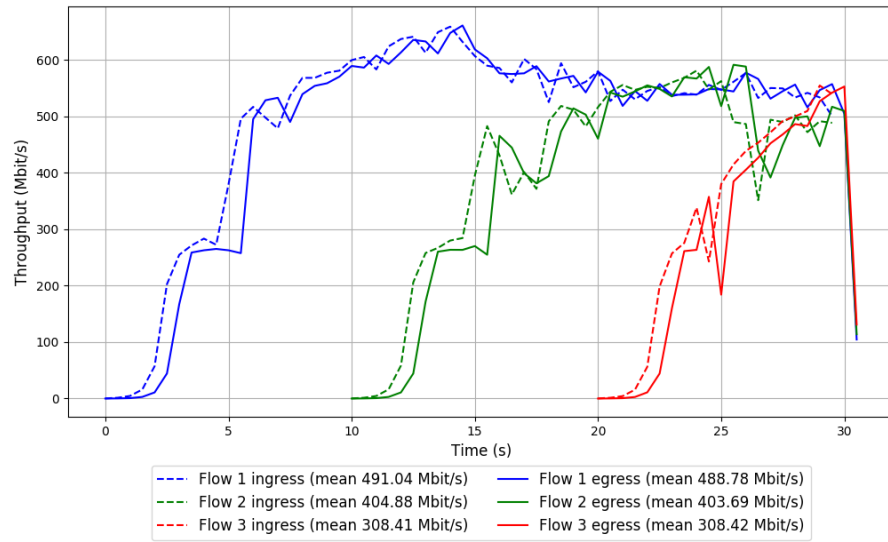
-- Flow 3:

Average throughput: 308.42 Mbit/s

95th percentile per-packet one-way delay: 153.443 ms

Loss rate: 0.00%

# Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-12-11 23:34:22

End at: 2018-12-11 23:34:52

Local clock offset: -0.935 ms

Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-12-12 03:02:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 769.97 Mbit/s

95th percentile per-packet one-way delay: 178.289 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 501.18 Mbit/s

95th percentile per-packet one-way delay: 184.998 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 306.88 Mbit/s

95th percentile per-packet one-way delay: 138.562 ms

Loss rate: 0.00%

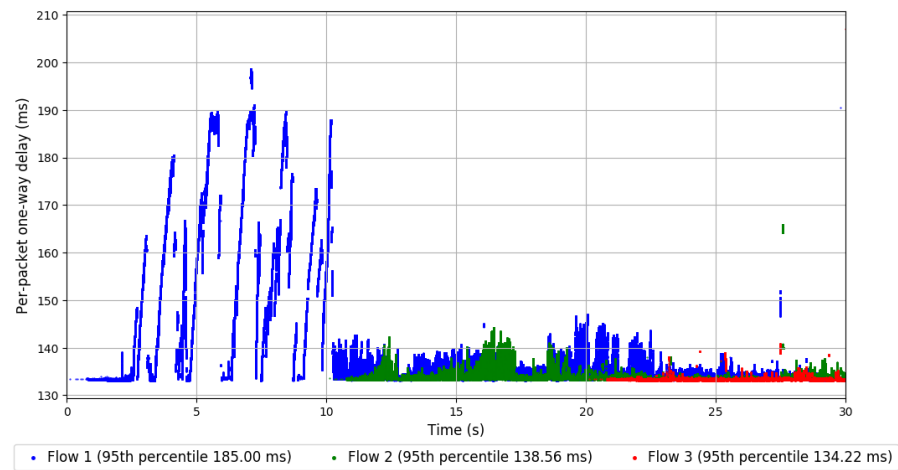
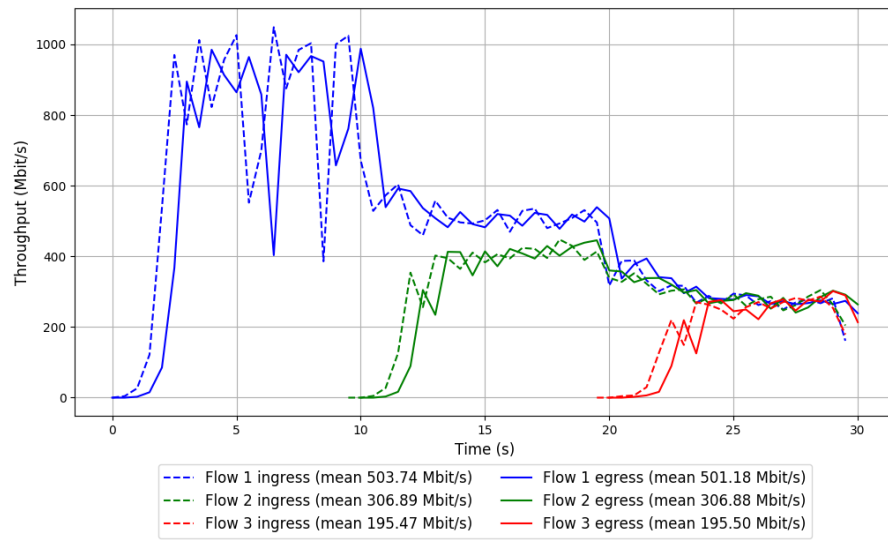
-- Flow 3:

Average throughput: 195.50 Mbit/s

95th percentile per-packet one-way delay: 134.215 ms

Loss rate: 0.00%

# Run 1: Report of FillP — Data Link

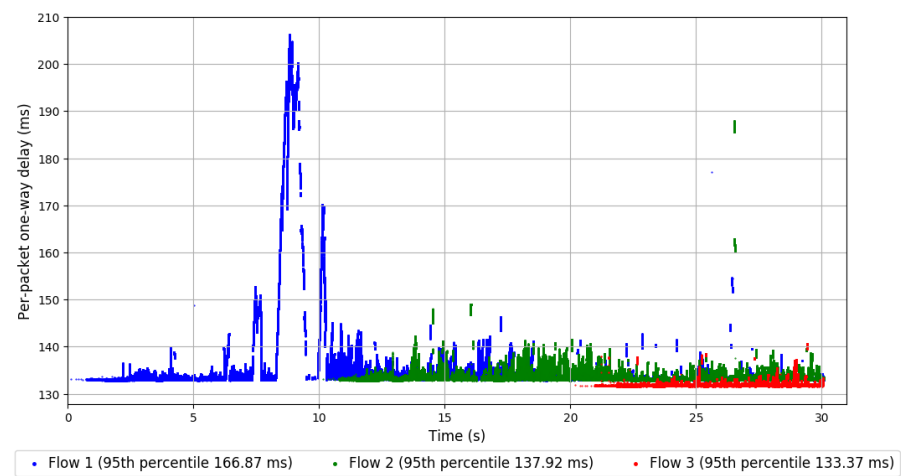
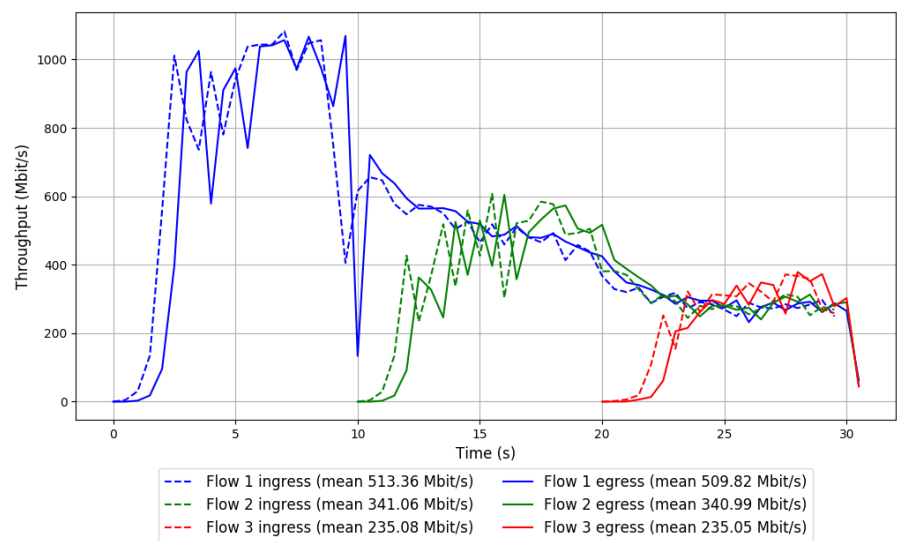


Run 2: Statistics of FillP

Start at: 2018-12-12 00:10:26  
End at: 2018-12-12 00:10:56  
Local clock offset: -0.243 ms  
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-12-12 03:14:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 814.30 Mbit/s  
95th percentile per-packet one-way delay: 149.588 ms  
Loss rate: 0.44%  
-- Flow 1:  
Average throughput: 509.82 Mbit/s  
95th percentile per-packet one-way delay: 166.867 ms  
Loss rate: 0.69%  
-- Flow 2:  
Average throughput: 340.99 Mbit/s  
95th percentile per-packet one-way delay: 137.917 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 235.05 Mbit/s  
95th percentile per-packet one-way delay: 133.374 ms  
Loss rate: 0.00%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-12-12 00:47:28

End at: 2018-12-12 00:47:58

Local clock offset: -0.099 ms

Remote clock offset: 0.097 ms

# Below is generated by plot.py at 2018-12-12 03:14:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 362.32 Mbit/s

95th percentile per-packet one-way delay: 137.848 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.24 Mbit/s

95th percentile per-packet one-way delay: 139.794 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 343.49 Mbit/s

95th percentile per-packet one-way delay: 136.023 ms

Loss rate: 0.00%

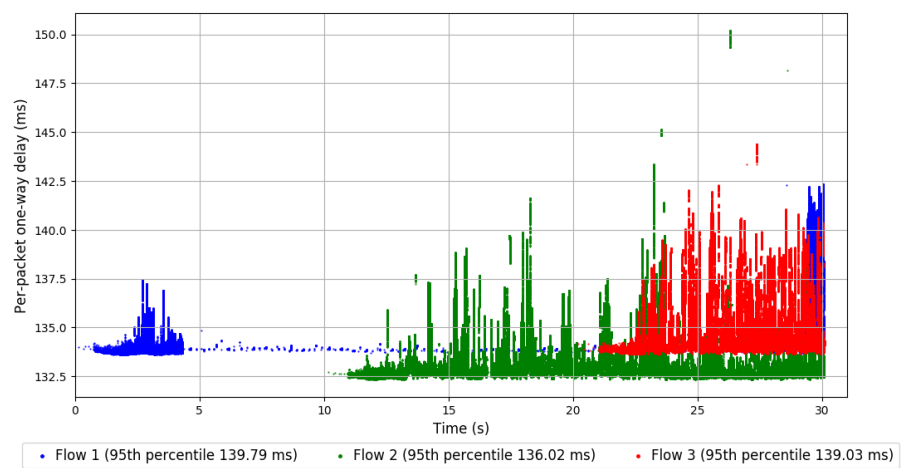
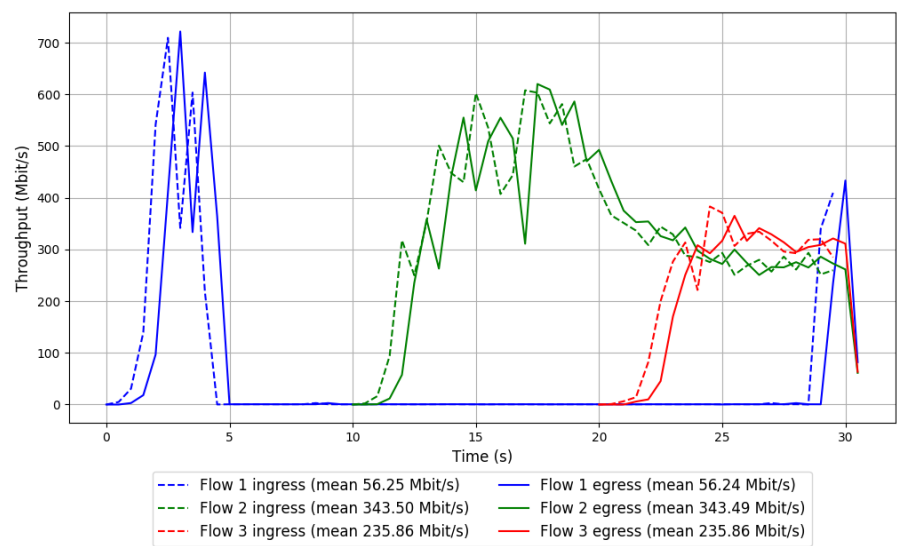
-- Flow 3:

Average throughput: 235.86 Mbit/s

95th percentile per-packet one-way delay: 139.032 ms

Loss rate: 0.00%

Run 3: Report of FillP — Data Link

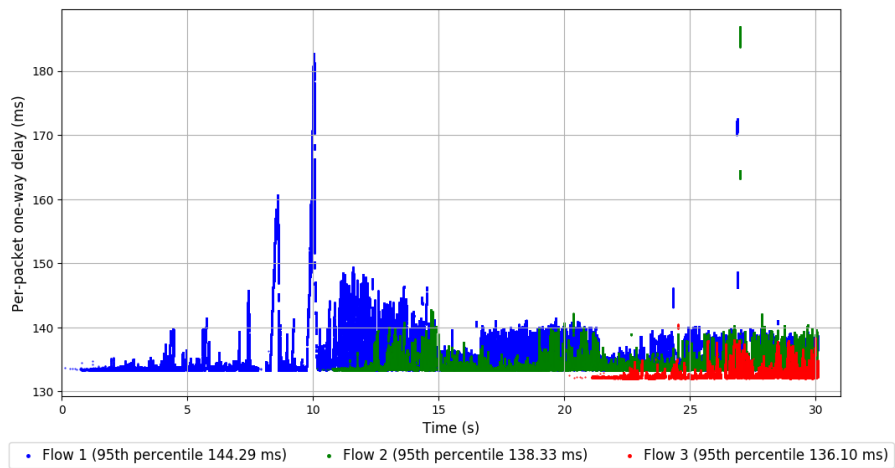
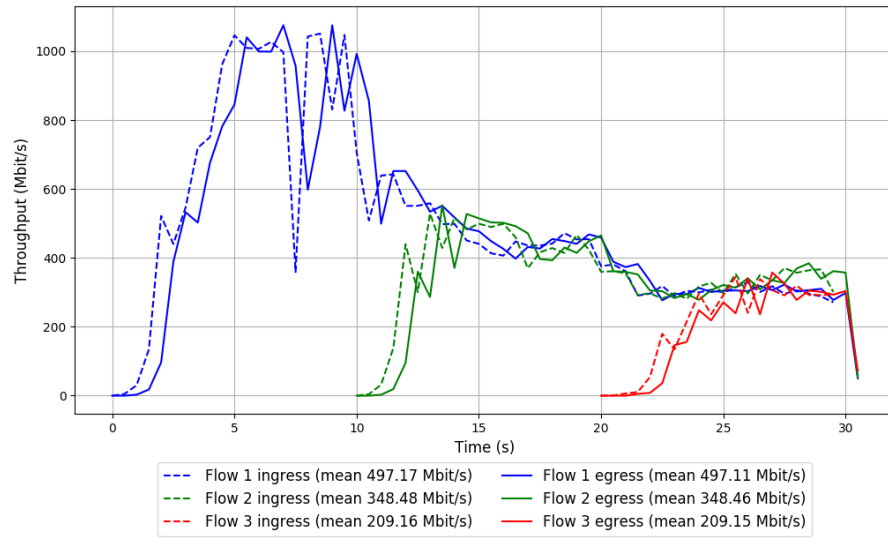


Run 4: Statistics of FillP

Start at: 2018-12-12 01:22:51  
End at: 2018-12-12 01:23:21  
Local clock offset: -0.149 ms  
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-12-12 03:16:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 798.07 Mbit/s  
95th percentile per-packet one-way delay: 141.851 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 497.11 Mbit/s  
95th percentile per-packet one-way delay: 144.293 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 348.46 Mbit/s  
95th percentile per-packet one-way delay: 138.329 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 209.15 Mbit/s  
95th percentile per-packet one-way delay: 136.099 ms  
Loss rate: 0.00%

# Run 4: Report of FillP — Data Link

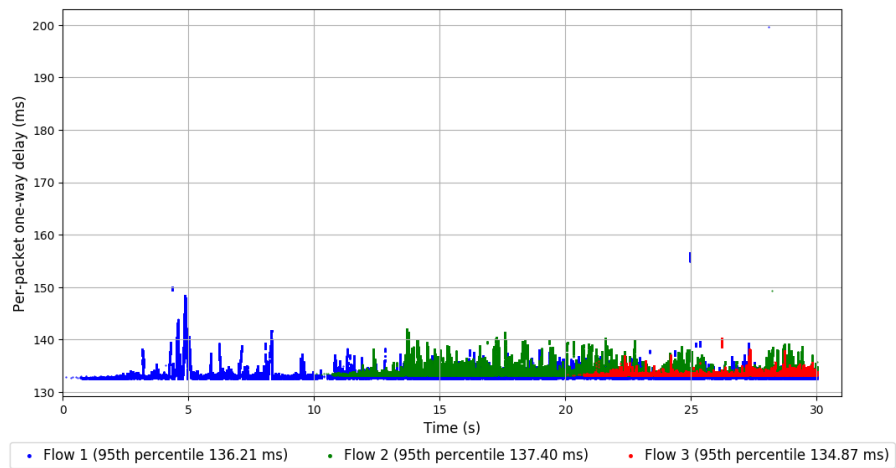
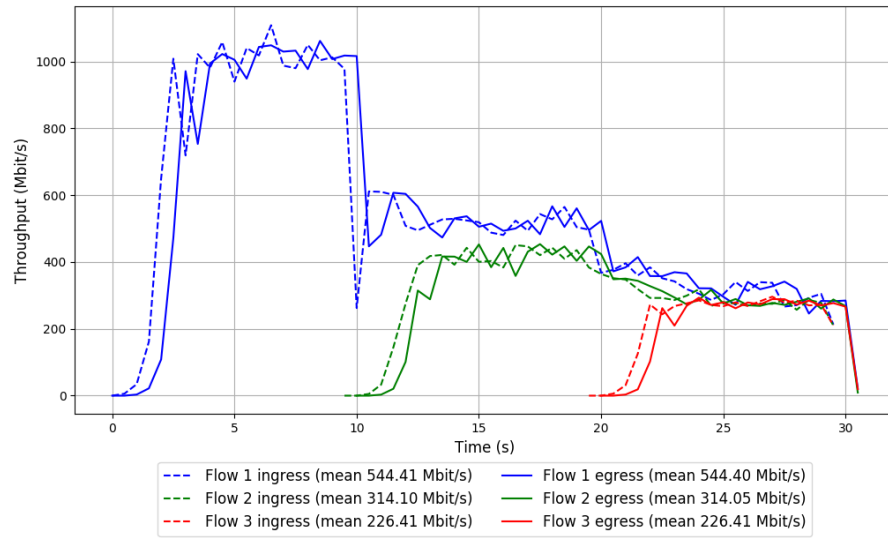


Run 5: Statistics of FillP

Start at: 2018-12-12 01:59:30  
End at: 2018-12-12 02:00:00  
Local clock offset: 0.099 ms  
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-12-12 03:17:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 828.83 Mbit/s  
95th percentile per-packet one-way delay: 136.605 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 544.40 Mbit/s  
95th percentile per-packet one-way delay: 136.209 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 314.05 Mbit/s  
95th percentile per-packet one-way delay: 137.401 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 226.41 Mbit/s  
95th percentile per-packet one-way delay: 134.874 ms  
Loss rate: 0.00%

## Run 5: Report of FillP — Data Link

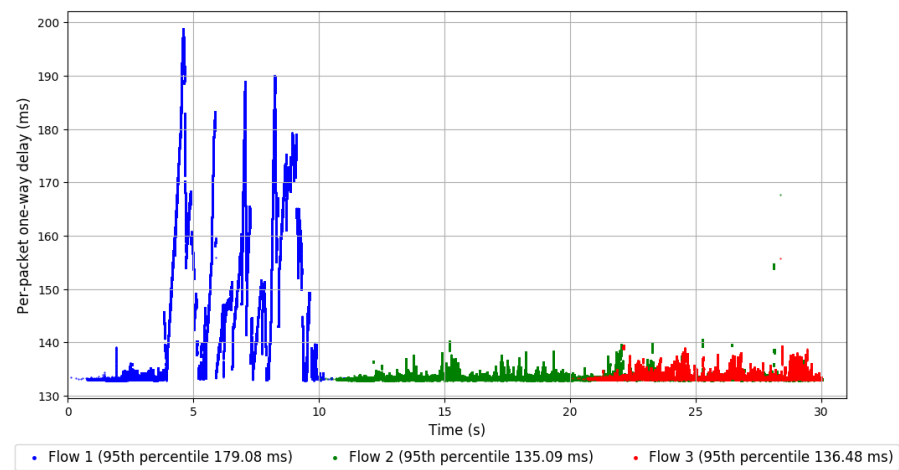
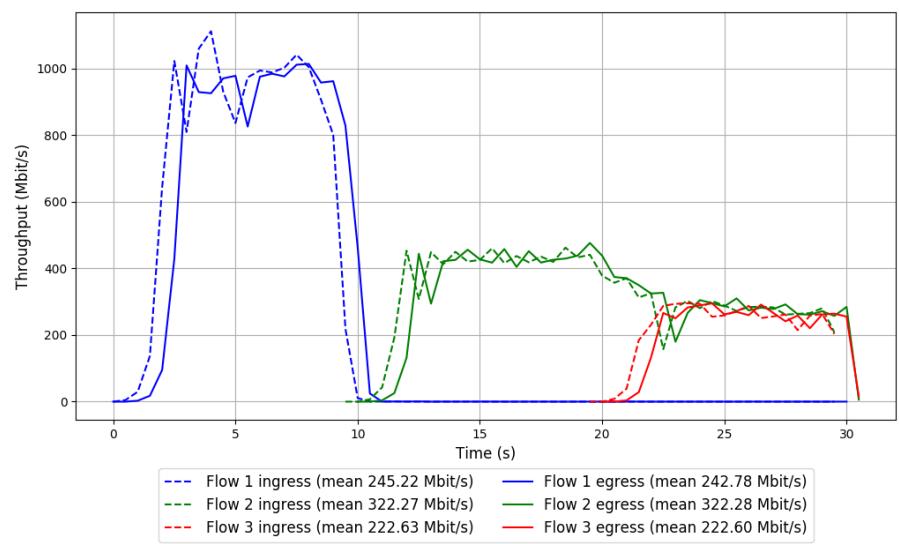


Run 1: Statistics of FillP-Sheep

Start at: 2018-12-11 23:47:02  
End at: 2018-12-11 23:47:32  
Local clock offset: -0.784 ms  
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-12-12 03:17:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 529.68 Mbit/s  
95th percentile per-packet one-way delay: 171.689 ms  
Loss rate: 0.46%  
-- Flow 1:  
Average throughput: 242.78 Mbit/s  
95th percentile per-packet one-way delay: 179.079 ms  
Loss rate: 1.00%  
-- Flow 2:  
Average throughput: 322.28 Mbit/s  
95th percentile per-packet one-way delay: 135.095 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 222.60 Mbit/s  
95th percentile per-packet one-way delay: 136.478 ms  
Loss rate: 0.01%

Run 1: Report of FillP-Sheep — Data Link

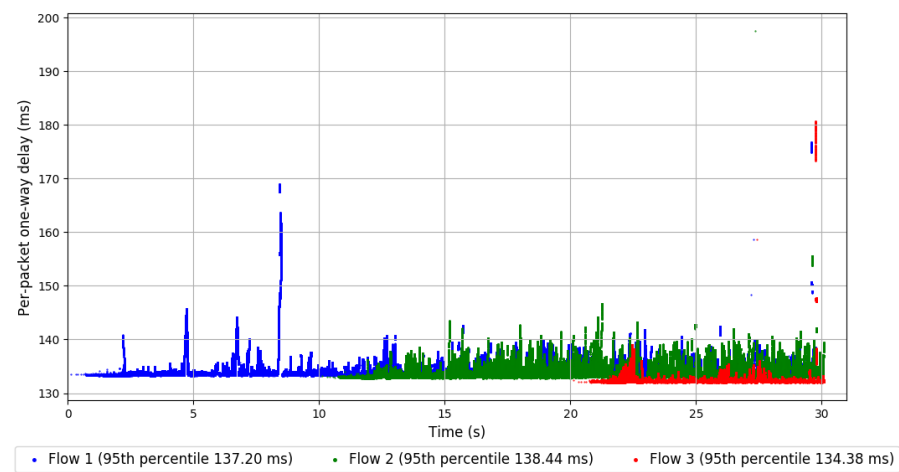
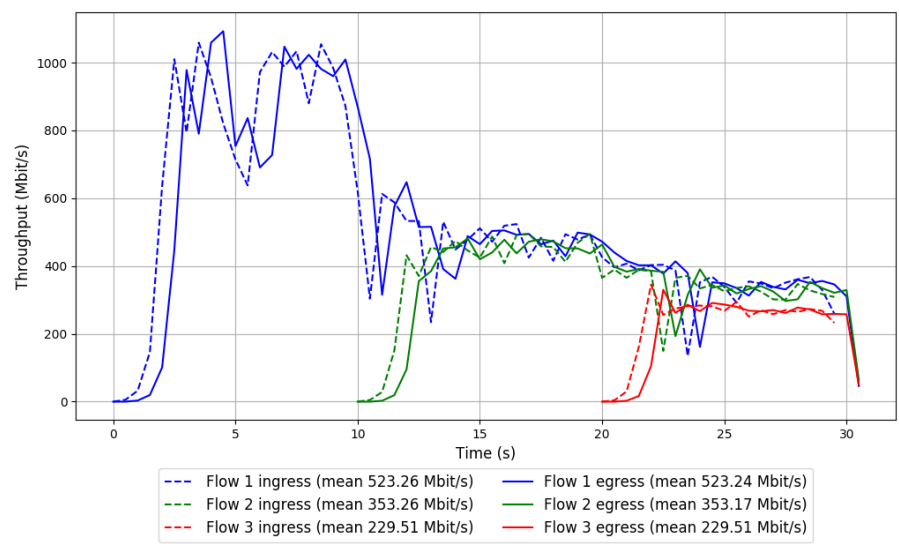


Run 2: Statistics of FillP-Sheep

Start at: 2018-12-12 00:23:34  
End at: 2018-12-12 00:24:04  
Local clock offset: -0.707 ms  
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-12-12 03:20:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 834.38 Mbit/s  
95th percentile per-packet one-way delay: 137.656 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 523.24 Mbit/s  
95th percentile per-packet one-way delay: 137.198 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 353.17 Mbit/s  
95th percentile per-packet one-way delay: 138.435 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 229.51 Mbit/s  
95th percentile per-packet one-way delay: 134.380 ms  
Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link

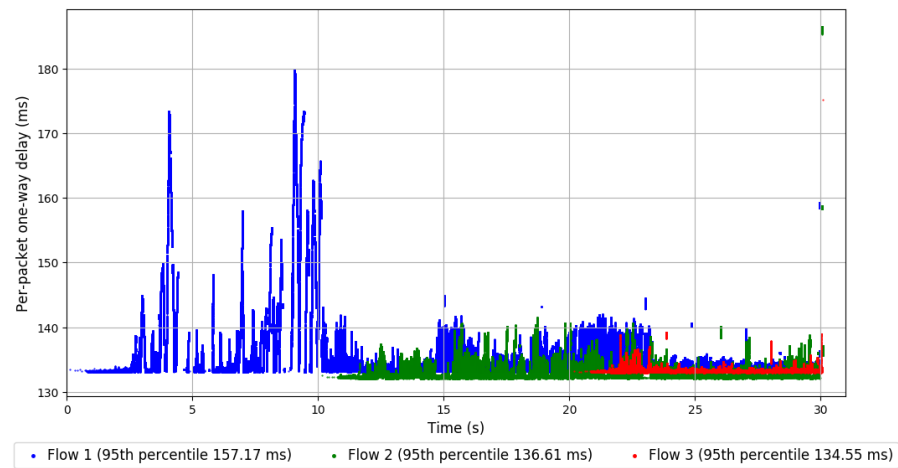
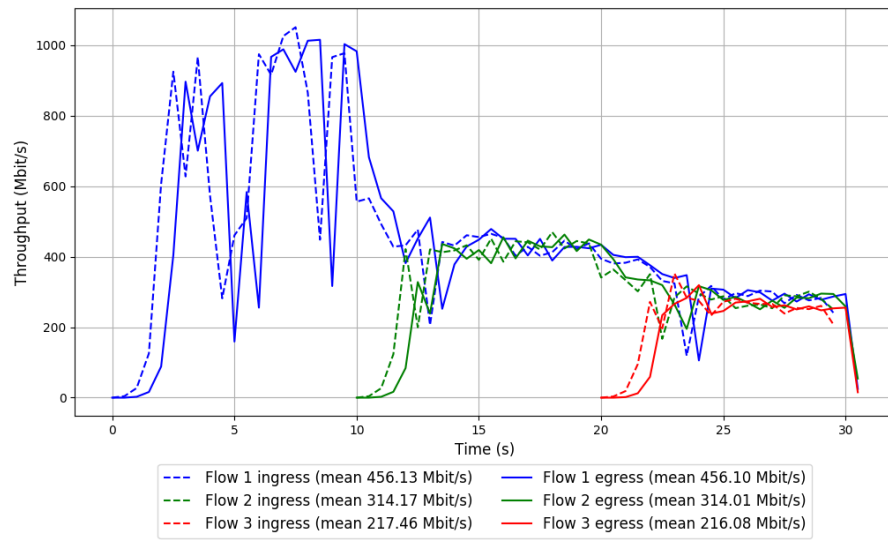


Run 3: Statistics of FillP-Sheep

Start at: 2018-12-12 00:59:32  
End at: 2018-12-12 01:00:02  
Local clock offset: 0.234 ms  
Remote clock offset: -0.301 ms

# Below is generated by plot.py at 2018-12-12 03:20:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 735.71 Mbit/s  
95th percentile per-packet one-way delay: 150.196 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 456.10 Mbit/s  
95th percentile per-packet one-way delay: 157.170 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 314.01 Mbit/s  
95th percentile per-packet one-way delay: 136.607 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 216.08 Mbit/s  
95th percentile per-packet one-way delay: 134.549 ms  
Loss rate: 0.28%

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

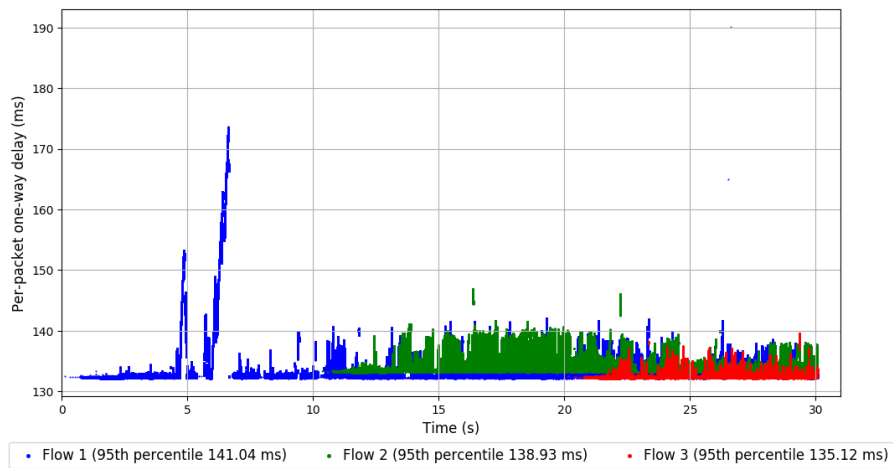
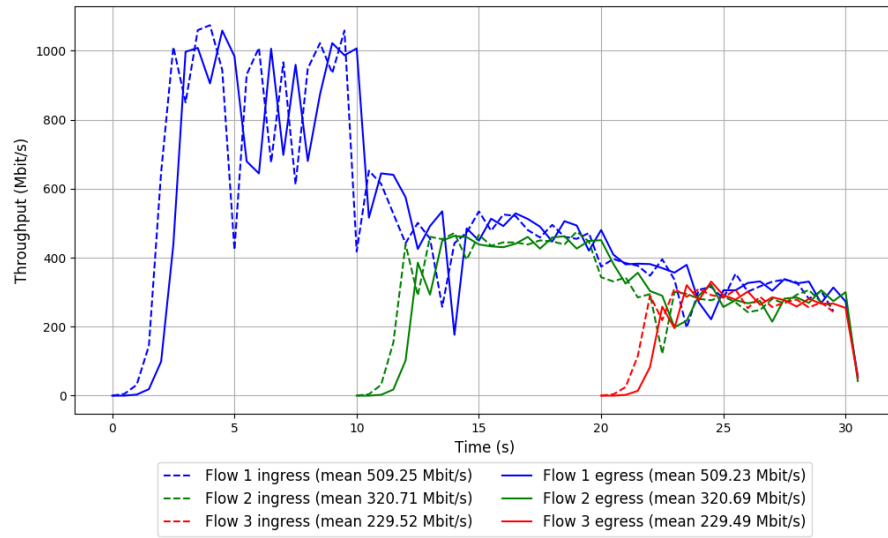


Run 4: Statistics of FillP-Sheep

Start at: 2018-12-12 01:35:51  
End at: 2018-12-12 01:36:21  
Local clock offset: 0.079 ms  
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-12-12 03:20:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 798.51 Mbit/s  
95th percentile per-packet one-way delay: 139.205 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 509.23 Mbit/s  
95th percentile per-packet one-way delay: 141.042 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 320.69 Mbit/s  
95th percentile per-packet one-way delay: 138.930 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 229.49 Mbit/s  
95th percentile per-packet one-way delay: 135.125 ms  
Loss rate: 0.00%

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

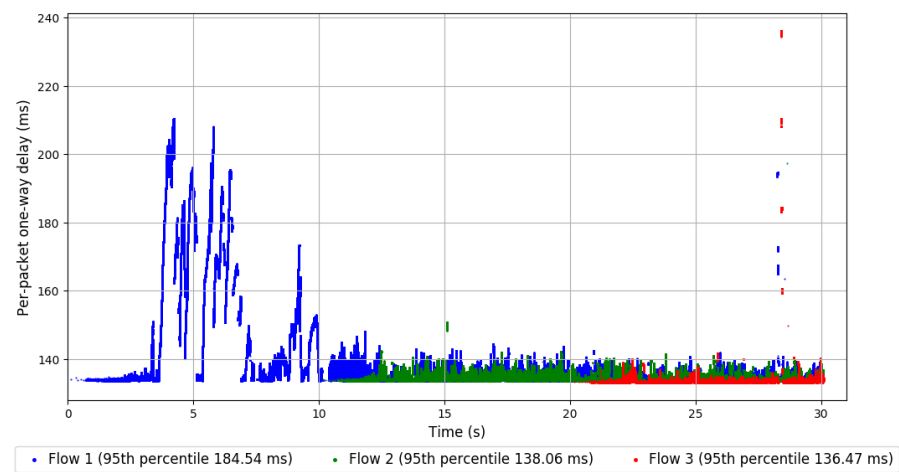
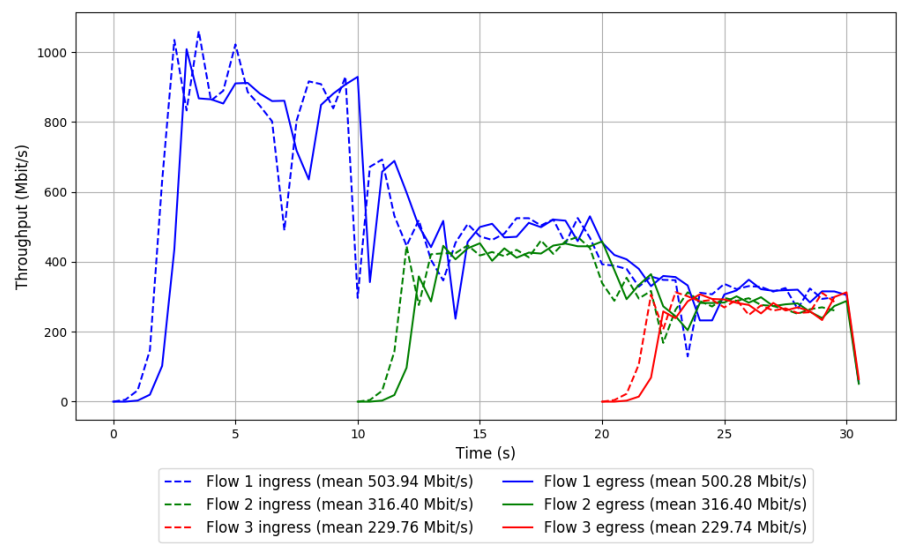


Run 5: Statistics of FillP-Sheep

Start at: 2018-12-12 02:11:55  
End at: 2018-12-12 02:12:25  
Local clock offset: -0.447 ms  
Remote clock offset: -0.122 ms

```
# Below is generated by plot.py at 2018-12-12 03:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 786.71 Mbit/s
95th percentile per-packet one-way delay: 176.961 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 500.28 Mbit/s
95th percentile per-packet one-way delay: 184.539 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 316.40 Mbit/s
95th percentile per-packet one-way delay: 138.059 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 229.74 Mbit/s
95th percentile per-packet one-way delay: 136.474 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link

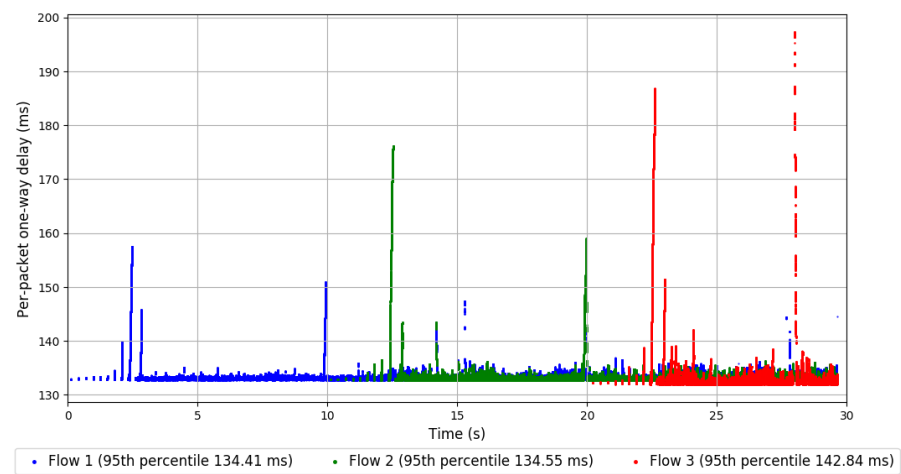
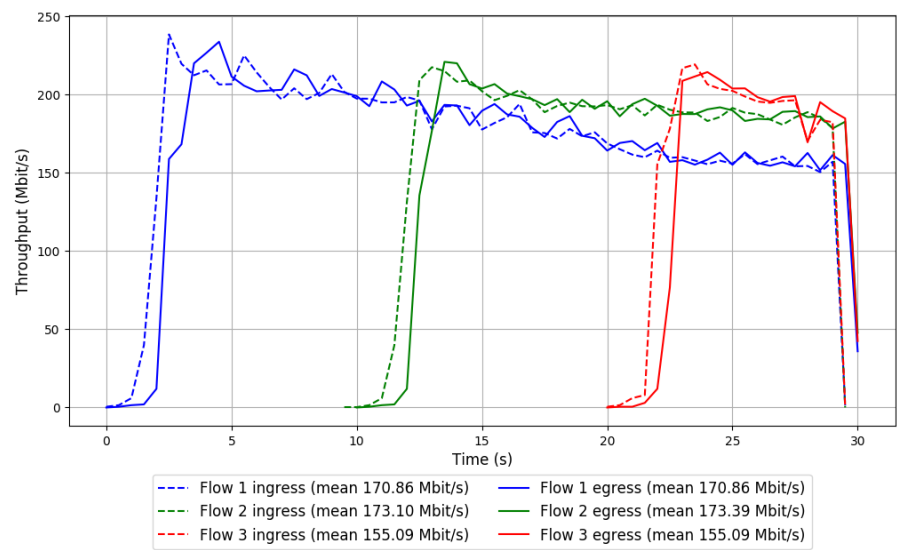


```
Run 1: Statistics of Indigo

Start at: 2018-12-11 23:22:28
End at: 2018-12-11 23:22:58
Local clock offset: -0.457 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-12-12 03:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 334.87 Mbit/s
95th percentile per-packet one-way delay: 134.742 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 170.86 Mbit/s
95th percentile per-packet one-way delay: 134.412 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 173.39 Mbit/s
95th percentile per-packet one-way delay: 134.546 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 155.09 Mbit/s
95th percentile per-packet one-way delay: 142.837 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-12-11 23:58:17

End at: 2018-12-11 23:58:47

Local clock offset: -1.04 ms

Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-12-12 03:26:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 317.05 Mbit/s

95th percentile per-packet one-way delay: 135.483 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 179.25 Mbit/s

95th percentile per-packet one-way delay: 134.780 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 131.91 Mbit/s

95th percentile per-packet one-way delay: 136.020 ms

Loss rate: 0.00%

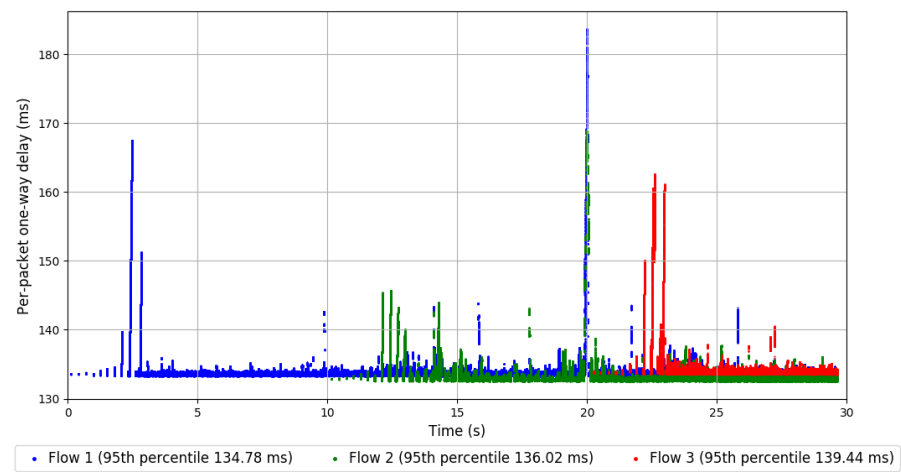
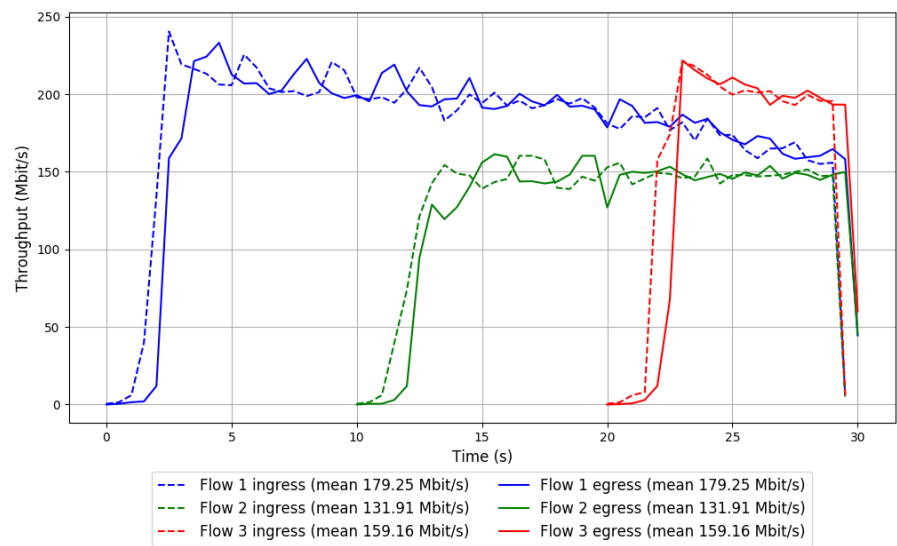
-- Flow 3:

Average throughput: 159.16 Mbit/s

95th percentile per-packet one-way delay: 139.435 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

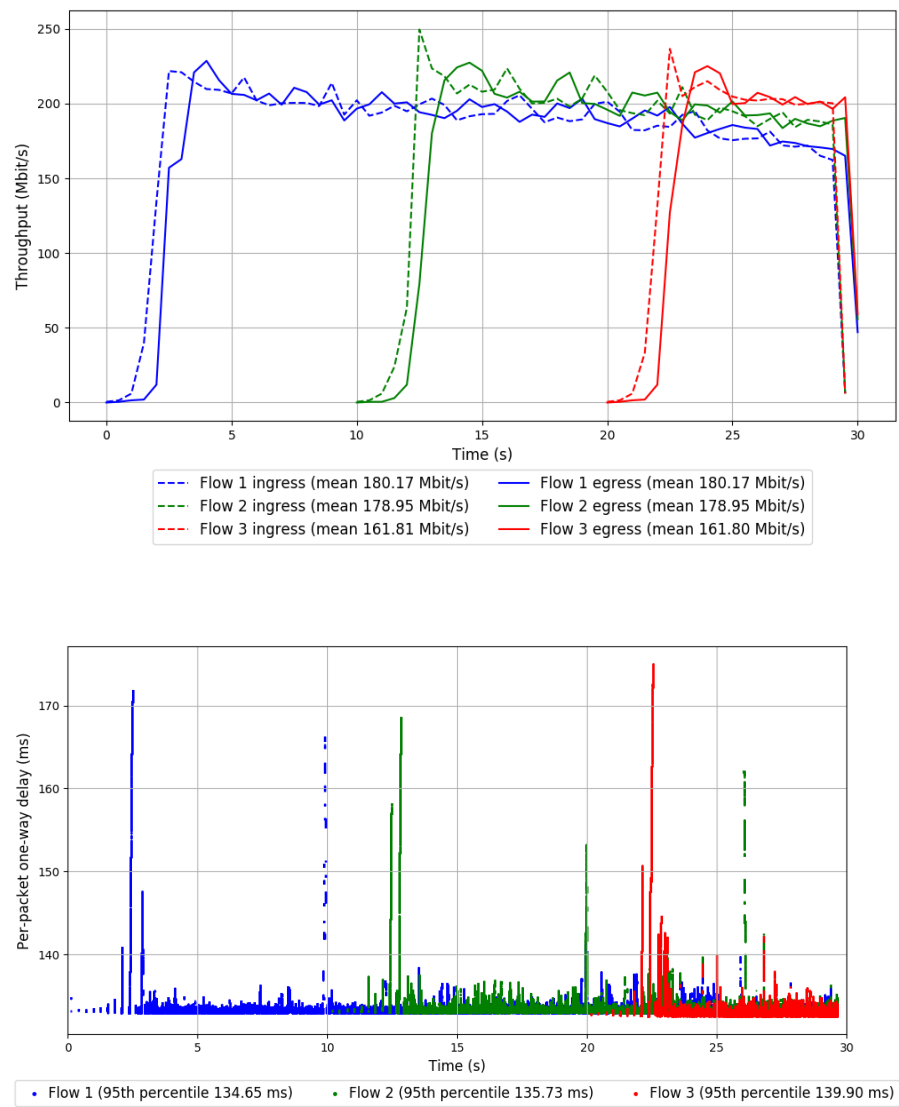


Run 3: Statistics of Indigo

Start at: 2018-12-12 00:35:16  
End at: 2018-12-12 00:35:46  
Local clock offset: -0.455 ms  
Remote clock offset: -0.209 ms

# Below is generated by plot.py at 2018-12-12 03:28:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 350.20 Mbit/s  
95th percentile per-packet one-way delay: 135.476 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 180.17 Mbit/s  
95th percentile per-packet one-way delay: 134.649 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 178.95 Mbit/s  
95th percentile per-packet one-way delay: 135.733 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 161.80 Mbit/s  
95th percentile per-packet one-way delay: 139.895 ms  
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link

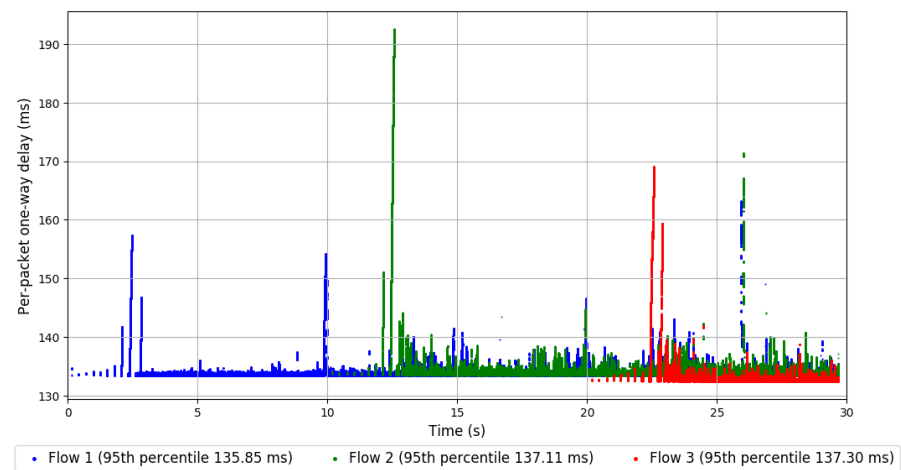
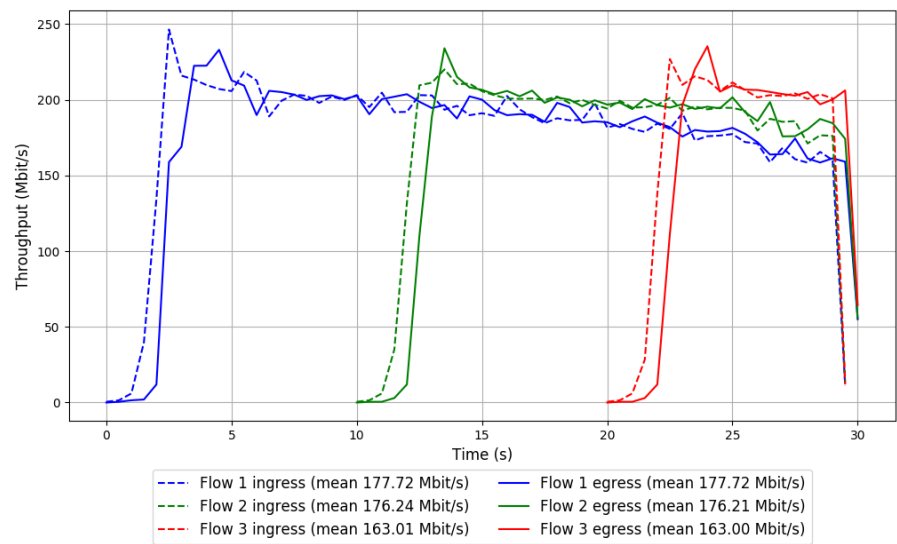


Run 4: Statistics of Indigo

Start at: 2018-12-12 01:11:15  
End at: 2018-12-12 01:11:45  
Local clock offset: -0.247 ms  
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-12-12 03:29:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 346.28 Mbit/s  
95th percentile per-packet one-way delay: 136.532 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 177.72 Mbit/s  
95th percentile per-packet one-way delay: 135.855 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 176.21 Mbit/s  
95th percentile per-packet one-way delay: 137.112 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 163.00 Mbit/s  
95th percentile per-packet one-way delay: 137.297 ms  
Loss rate: 0.01%

Run 4: Report of Indigo — Data Link

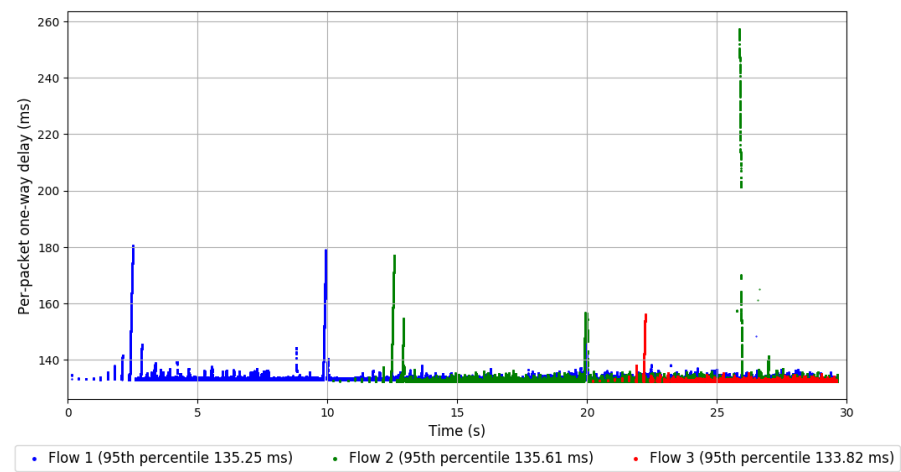
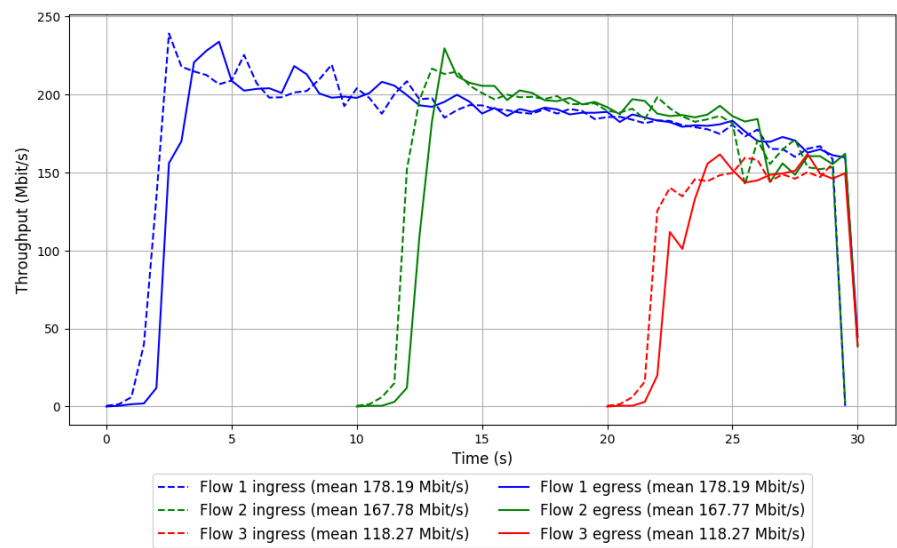


Run 5: Statistics of Indigo

Start at: 2018-12-12 01:47:30  
End at: 2018-12-12 01:48:00  
Local clock offset: 0.322 ms  
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-12-12 03:29:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 326.34 Mbit/s  
95th percentile per-packet one-way delay: 135.175 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 178.19 Mbit/s  
95th percentile per-packet one-way delay: 135.249 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 167.77 Mbit/s  
95th percentile per-packet one-way delay: 135.612 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 118.27 Mbit/s  
95th percentile per-packet one-way delay: 133.824 ms  
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

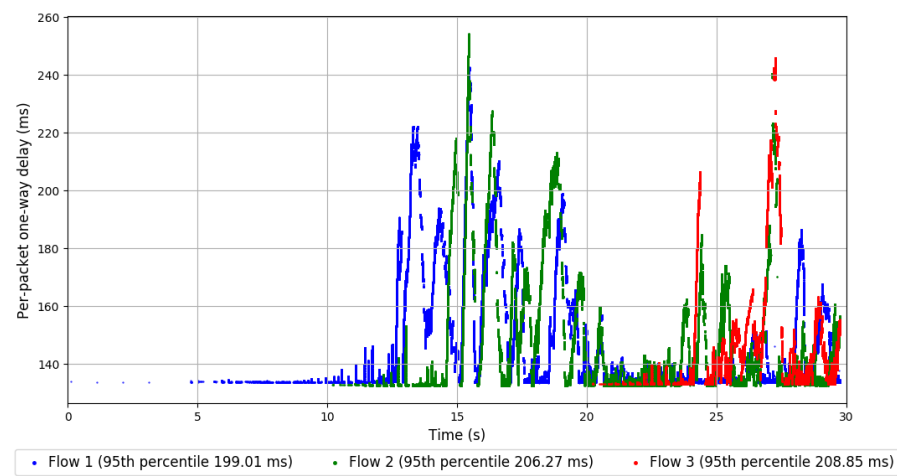
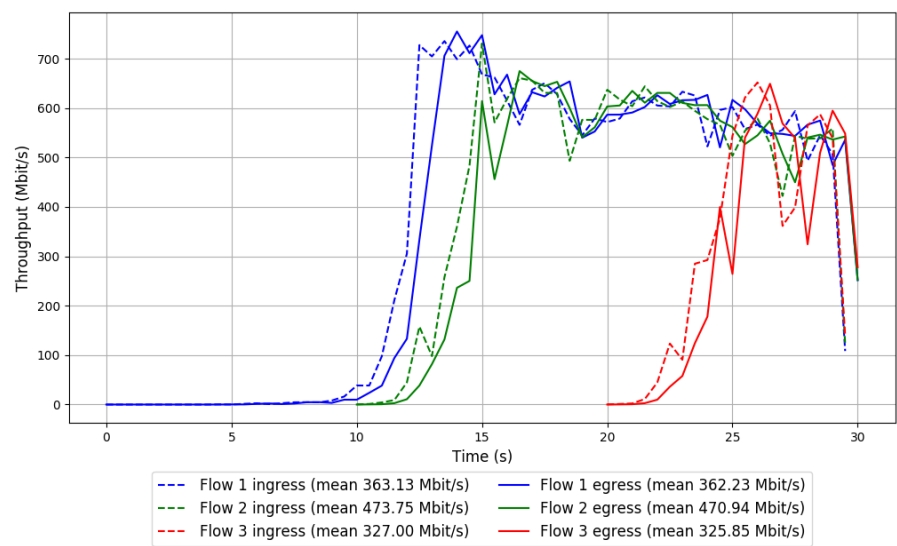


Run 1: Statistics of Indigo-MusesD

Start at: 2018-12-11 23:12:40  
End at: 2018-12-11 23:13:10  
Local clock offset: -0.675 ms  
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-12-12 03:33:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 777.86 Mbit/s  
95th percentile per-packet one-way delay: 204.285 ms  
Loss rate: 0.40%  
-- Flow 1:  
Average throughput: 362.23 Mbit/s  
95th percentile per-packet one-way delay: 199.009 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 470.94 Mbit/s  
95th percentile per-packet one-way delay: 206.271 ms  
Loss rate: 0.58%  
-- Flow 3:  
Average throughput: 325.85 Mbit/s  
95th percentile per-packet one-way delay: 208.853 ms  
Loss rate: 0.42%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2018-12-11 23:48:48

End at: 2018-12-11 23:49:18

Local clock offset: -0.51 ms

Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-12-12 03:38:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 930.31 Mbit/s

95th percentile per-packet one-way delay: 209.160 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 519.88 Mbit/s

95th percentile per-packet one-way delay: 194.104 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 455.16 Mbit/s

95th percentile per-packet one-way delay: 233.744 ms

Loss rate: 1.02%

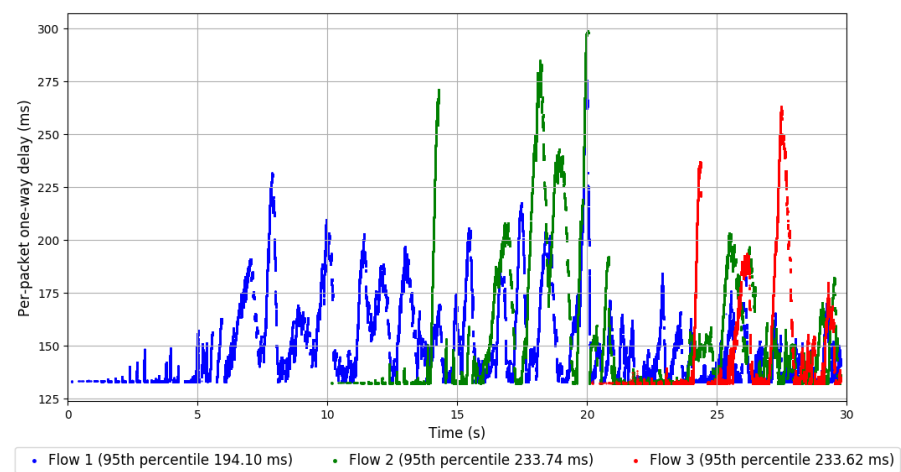
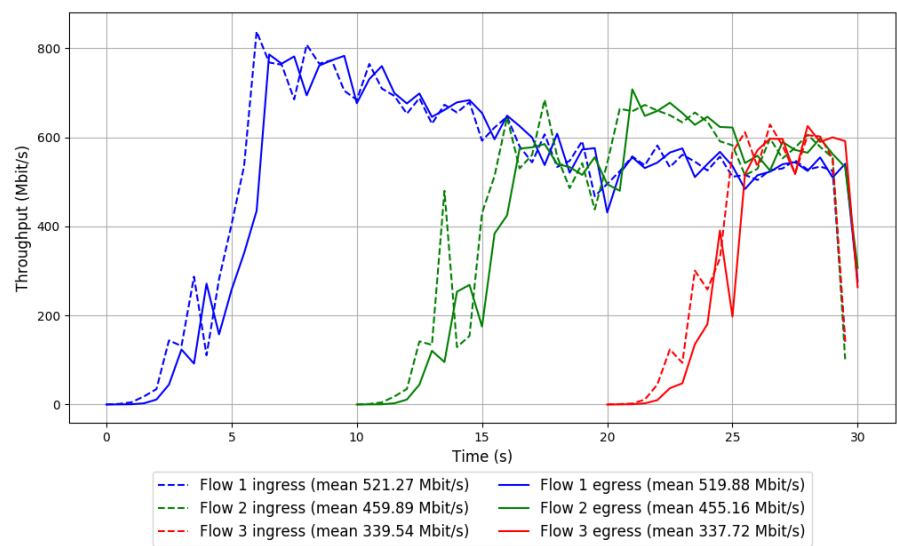
-- Flow 3:

Average throughput: 337.72 Mbit/s

95th percentile per-packet one-way delay: 233.623 ms

Loss rate: 0.53%

Run 2: Report of Indigo-MusesD — Data Link

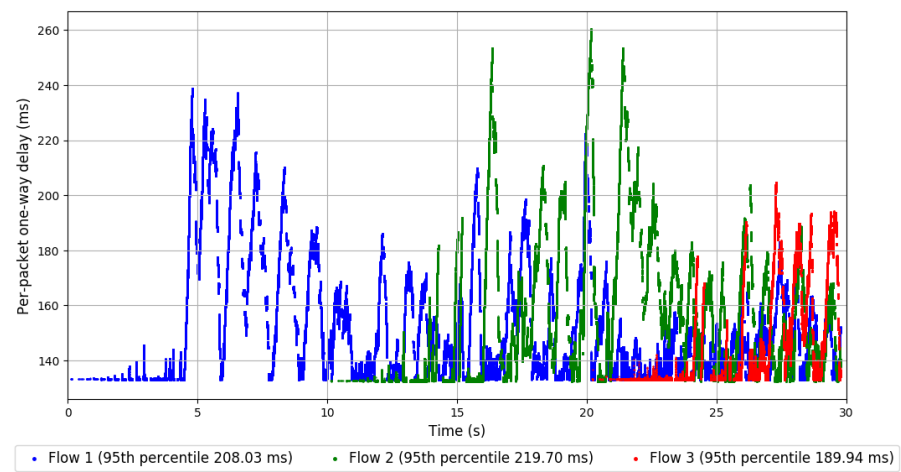
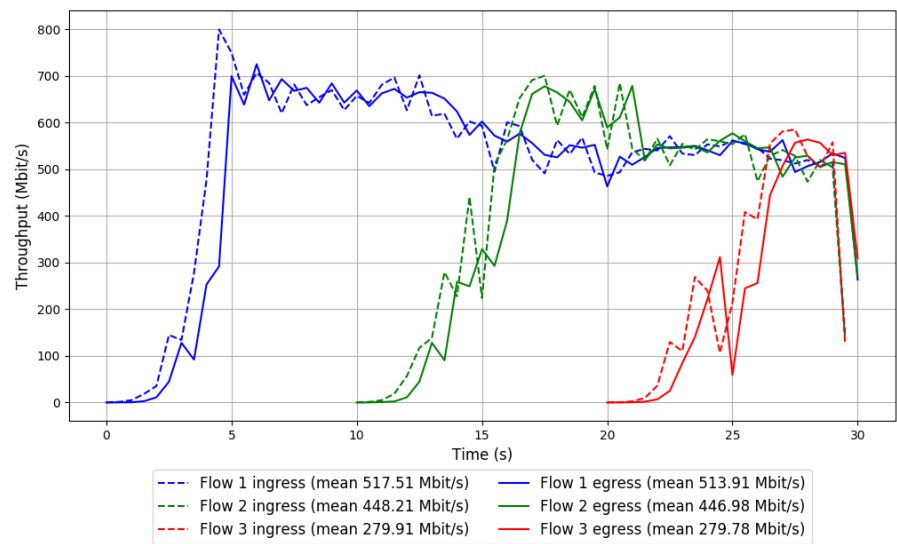


Run 3: Statistics of Indigo-MusesD

Start at: 2018-12-12 00:25:36  
End at: 2018-12-12 00:26:06  
Local clock offset: -0.454 ms  
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2018-12-12 03:41:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 900.30 Mbit/s  
95th percentile per-packet one-way delay: 208.438 ms  
Loss rate: 0.48%  
-- Flow 1:  
Average throughput: 513.91 Mbit/s  
95th percentile per-packet one-way delay: 208.033 ms  
Loss rate: 0.69%  
-- Flow 2:  
Average throughput: 446.98 Mbit/s  
95th percentile per-packet one-way delay: 219.704 ms  
Loss rate: 0.26%  
-- Flow 3:  
Average throughput: 279.78 Mbit/s  
95th percentile per-packet one-way delay: 189.935 ms  
Loss rate: 0.01%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2018-12-12 01:01:32

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

Local clock offset: -0.449 ms

Remote clock offset: 0.064 ms

# Below is generated by plot.py at 2018-12-12 03:42:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 943.65 Mbit/s

95th percentile per-packet one-way delay: 204.158 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 528.21 Mbit/s

95th percentile per-packet one-way delay: 206.989 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 472.38 Mbit/s

95th percentile per-packet one-way delay: 201.059 ms

Loss rate: 0.19%

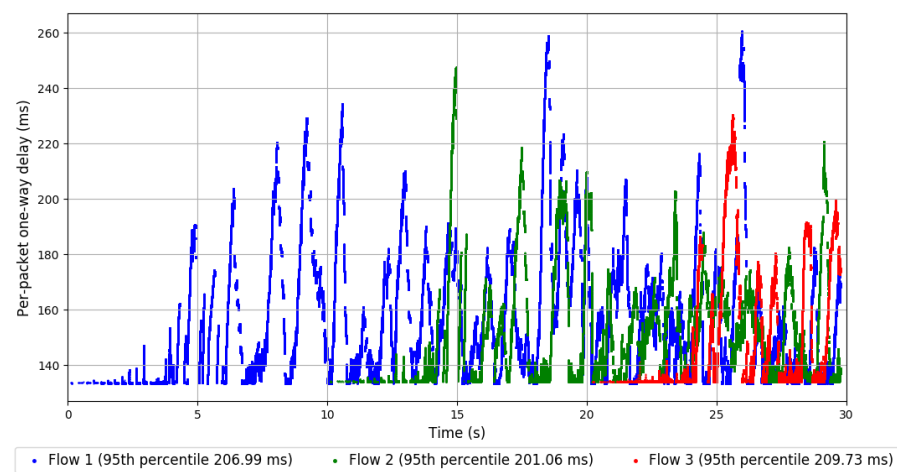
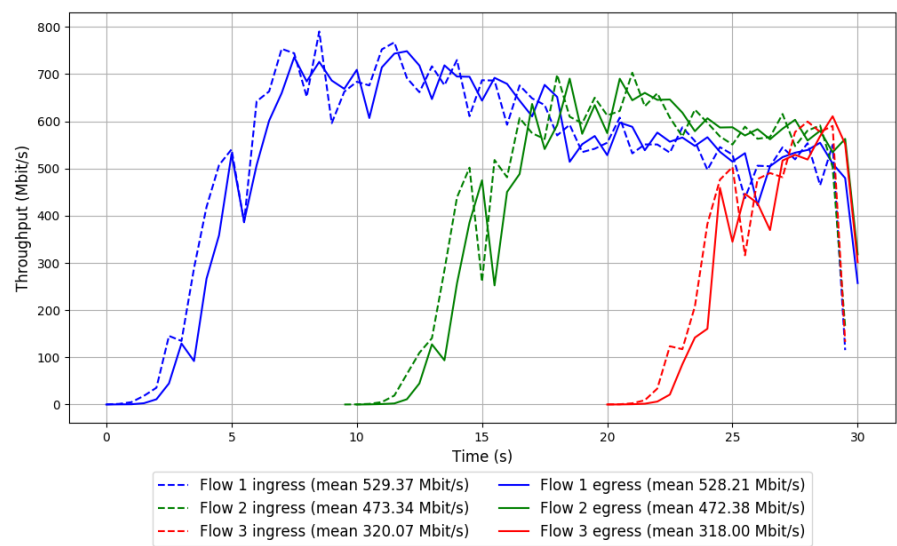
-- Flow 3:

Average throughput: 318.00 Mbit/s

95th percentile per-packet one-way delay: 209.730 ms

Loss rate: 0.63%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2018-12-12 01:37:51

End at: 2018-12-12 01:38:21

Local clock offset: 0.102 ms

Remote clock offset: 0.257 ms

# Below is generated by plot.py at 2018-12-12 03:44:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 910.79 Mbit/s

95th percentile per-packet one-way delay: 207.517 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 545.11 Mbit/s

95th percentile per-packet one-way delay: 205.193 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 400.87 Mbit/s

95th percentile per-packet one-way delay: 196.624 ms

Loss rate: 0.29%

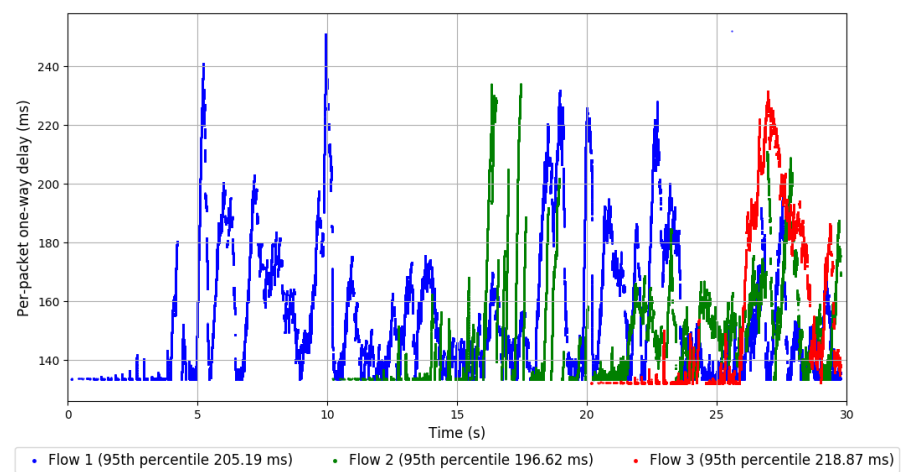
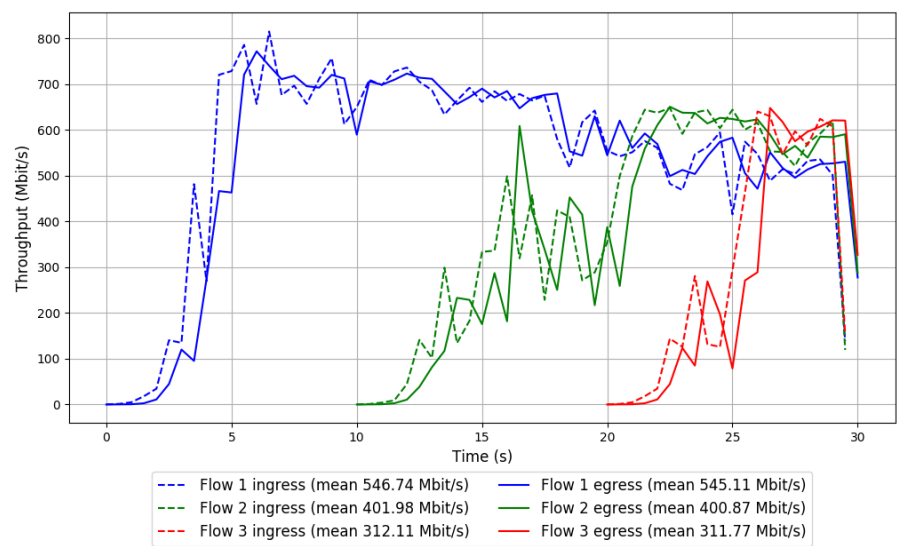
-- Flow 3:

Average throughput: 311.77 Mbit/s

95th percentile per-packet one-way delay: 218.874 ms

Loss rate: 0.08%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2018-12-11 23:26:56

End at: 2018-12-11 23:27:26

Local clock offset: -0.461 ms

Remote clock offset: 0.372 ms

# Below is generated by plot.py at 2018-12-12 03:44:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 651.92 Mbit/s

95th percentile per-packet one-way delay: 218.283 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 356.42 Mbit/s

95th percentile per-packet one-way delay: 215.436 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 304.09 Mbit/s

95th percentile per-packet one-way delay: 207.105 ms

Loss rate: 0.46%

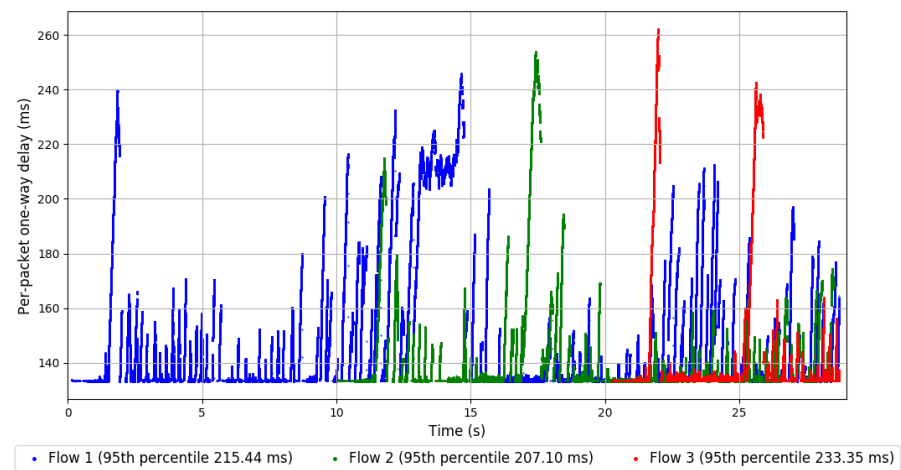
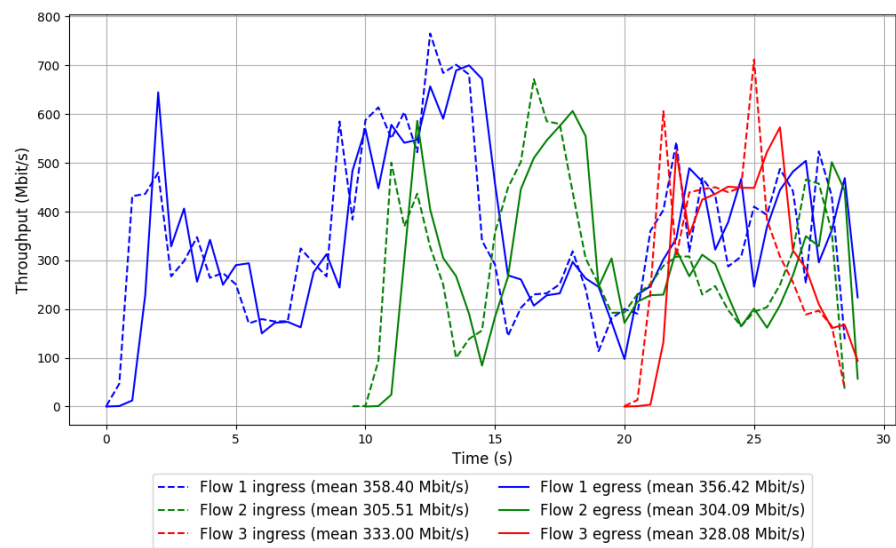
-- Flow 3:

Average throughput: 328.08 Mbit/s

95th percentile per-packet one-way delay: 233.354 ms

Loss rate: 1.44%

Run 1: Report of Indigo-MusesT — Data Link

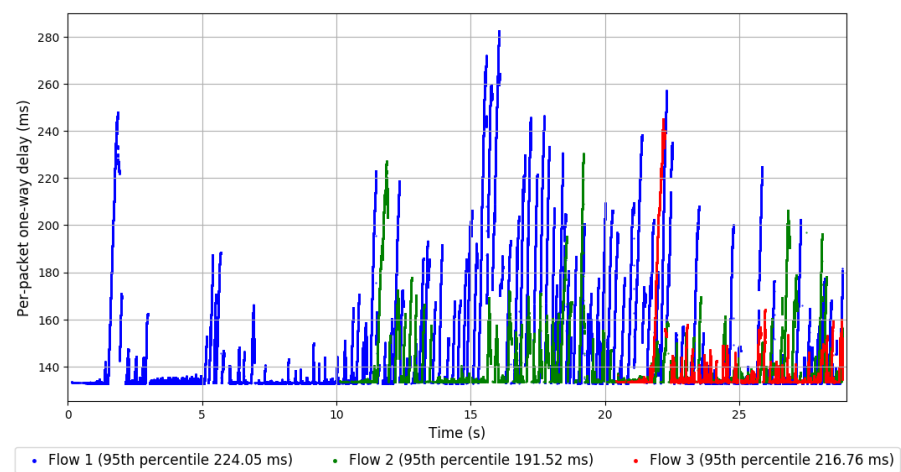
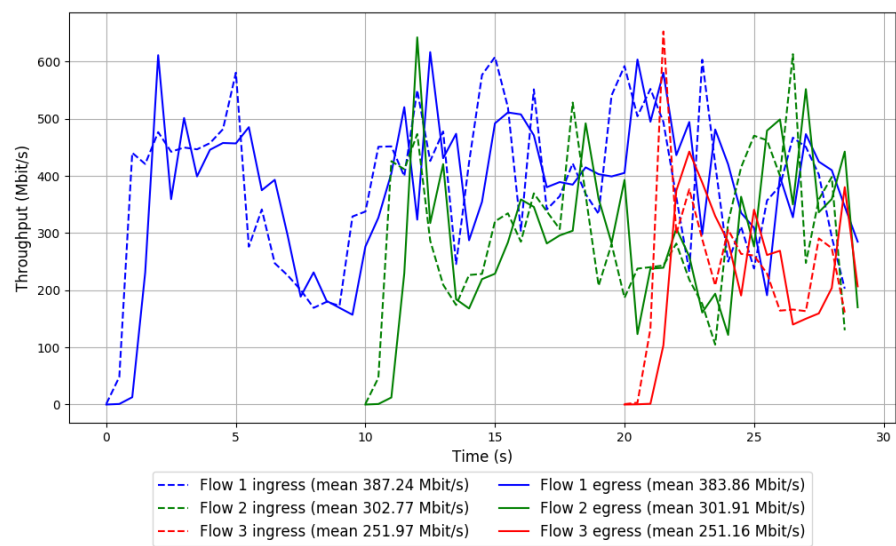


Run 2: Statistics of Indigo-MusesT

Start at: 2018-12-12 00:03:09  
End at: 2018-12-12 00:03:39  
Local clock offset: -0.63 ms  
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-12-12 03:44:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 654.25 Mbit/s  
95th percentile per-packet one-way delay: 214.155 ms  
Loss rate: 0.54%  
-- Flow 1:  
Average throughput: 383.86 Mbit/s  
95th percentile per-packet one-way delay: 224.046 ms  
Loss rate: 0.72%  
-- Flow 2:  
Average throughput: 301.91 Mbit/s  
95th percentile per-packet one-way delay: 191.517 ms  
Loss rate: 0.27%  
-- Flow 3:  
Average throughput: 251.16 Mbit/s  
95th percentile per-packet one-way delay: 216.759 ms  
Loss rate: 0.31%

Run 2: Report of Indigo-MusesT — Data Link

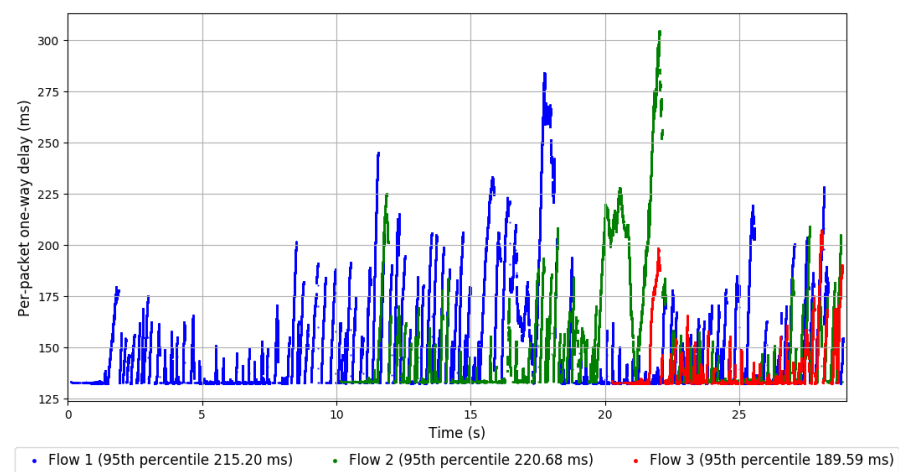
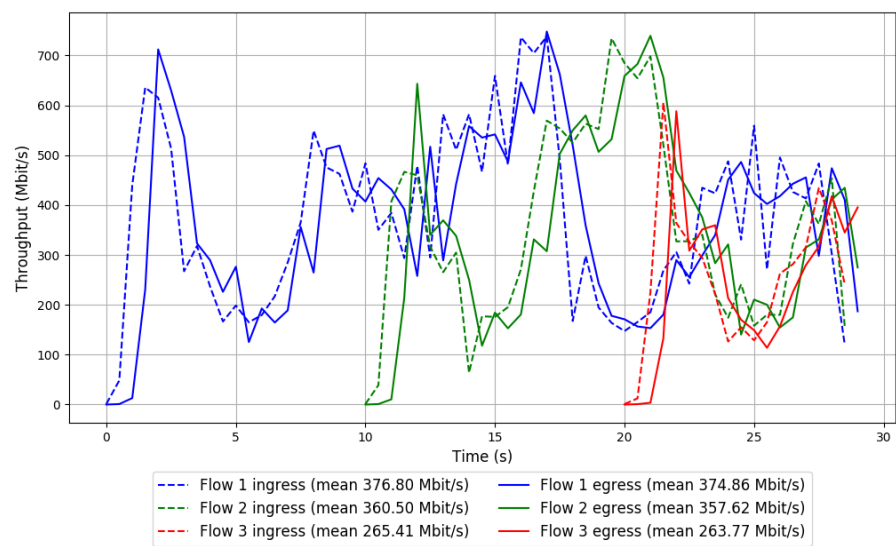


Run 3: Statistics of Indigo-MusesT

Start at: 2018-12-12 00:39:56  
End at: 2018-12-12 00:40:26  
Local clock offset: 0.001 ms  
Remote clock offset: -0.246 ms

# Below is generated by plot.py at 2018-12-12 03:44:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 686.28 Mbit/s  
95th percentile per-packet one-way delay: 215.976 ms  
Loss rate: 0.54%  
-- Flow 1:  
Average throughput: 374.86 Mbit/s  
95th percentile per-packet one-way delay: 215.201 ms  
Loss rate: 0.50%  
-- Flow 2:  
Average throughput: 357.62 Mbit/s  
95th percentile per-packet one-way delay: 220.678 ms  
Loss rate: 0.80%  
-- Flow 3:  
Average throughput: 263.77 Mbit/s  
95th percentile per-packet one-way delay: 189.595 ms  
Loss rate: 0.00%

Run 3: Report of Indigo-MusesT — Data Link

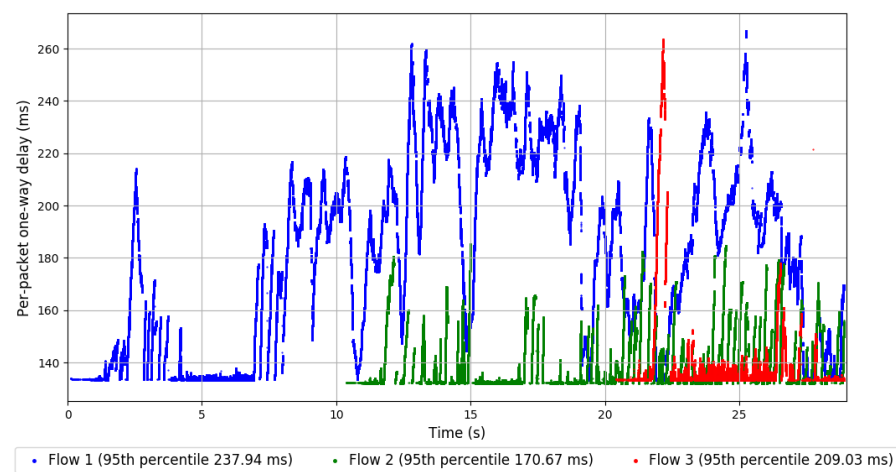
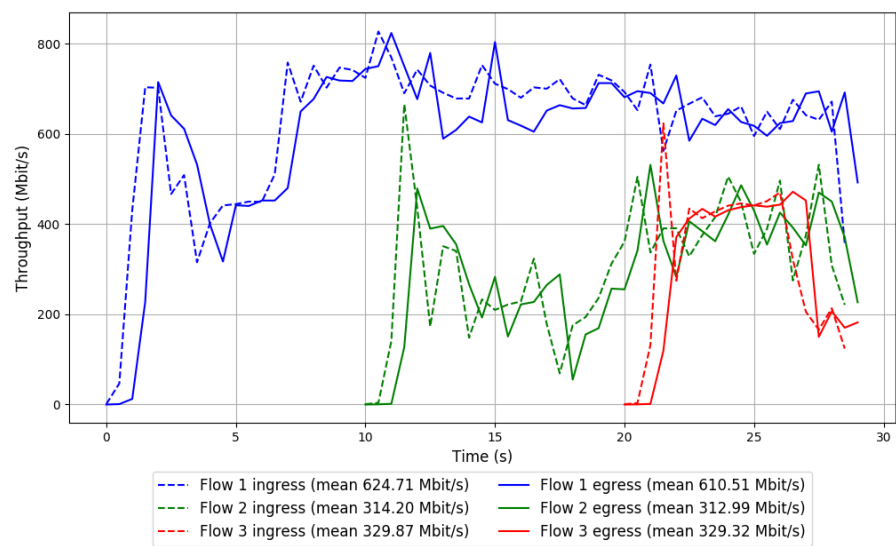


Run 4: Statistics of Indigo-MusesT

Start at: 2018-12-12 01:15:23  
End at: 2018-12-12 01:15:53  
Local clock offset: -0.112 ms  
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-12-12 03:50:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 908.82 Mbit/s  
95th percentile per-packet one-way delay: 235.149 ms  
Loss rate: 1.64%  
-- Flow 1:  
Average throughput: 610.51 Mbit/s  
95th percentile per-packet one-way delay: 237.938 ms  
Loss rate: 2.28%  
-- Flow 2:  
Average throughput: 312.99 Mbit/s  
95th percentile per-packet one-way delay: 170.671 ms  
Loss rate: 0.38%  
-- Flow 3:  
Average throughput: 329.32 Mbit/s  
95th percentile per-packet one-way delay: 209.033 ms  
Loss rate: 0.17%

Run 4: Report of Indigo-MusesT — Data Link

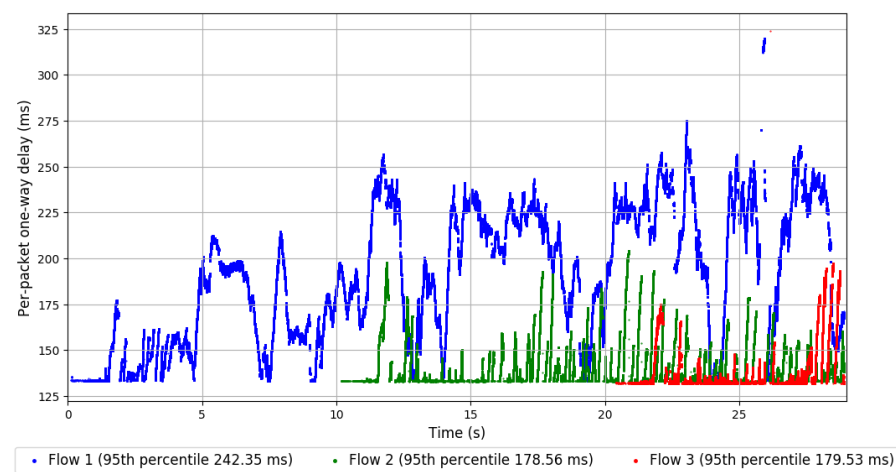
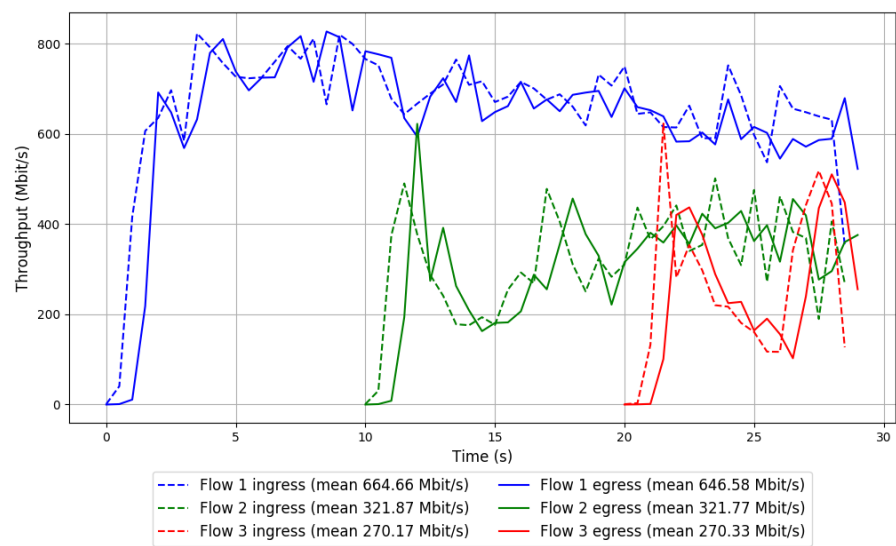


Run 5: Statistics of Indigo-MusesT

Start at: 2018-12-12 01:51:39  
End at: 2018-12-12 01:52:09  
Local clock offset: -0.061 ms  
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-12-12 03:54:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 935.60 Mbit/s  
95th percentile per-packet one-way delay: 238.439 ms  
Loss rate: 1.89%  
-- Flow 1:  
Average throughput: 646.58 Mbit/s  
95th percentile per-packet one-way delay: 242.354 ms  
Loss rate: 2.70%  
-- Flow 2:  
Average throughput: 321.77 Mbit/s  
95th percentile per-packet one-way delay: 178.557 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 270.33 Mbit/s  
95th percentile per-packet one-way delay: 179.531 ms  
Loss rate: 0.00%

Run 5: Report of Indigo-MusesT — Data Link

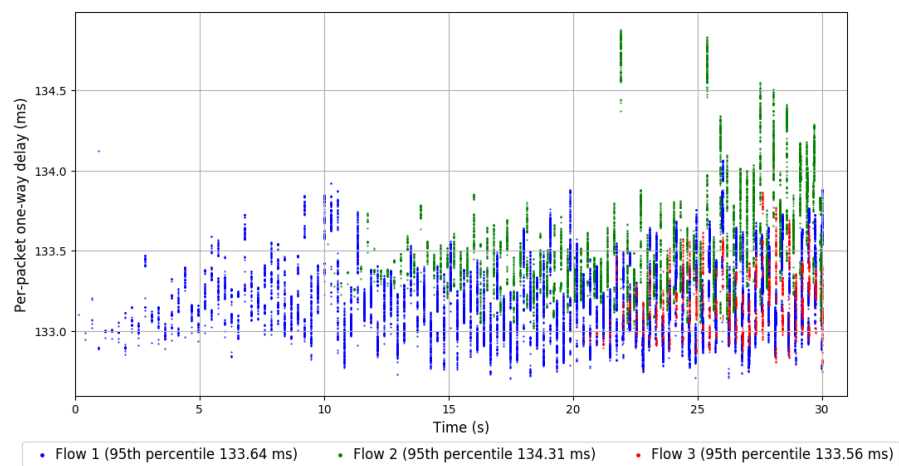
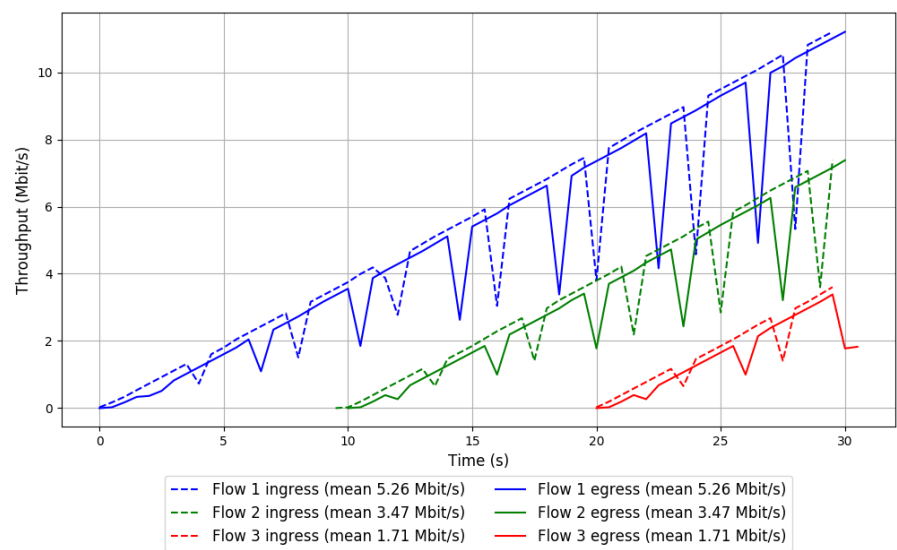


Run 1: Statistics of LEDBAT

Start at: 2018-12-11 23:16:55  
End at: 2018-12-11 23:17:25  
Local clock offset: -0.44 ms  
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-12-12 03:54:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.12 Mbit/s  
95th percentile per-packet one-way delay: 133.894 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 5.26 Mbit/s  
95th percentile per-packet one-way delay: 133.643 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 3.47 Mbit/s  
95th percentile per-packet one-way delay: 134.310 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.71 Mbit/s  
95th percentile per-packet one-way delay: 133.559 ms  
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

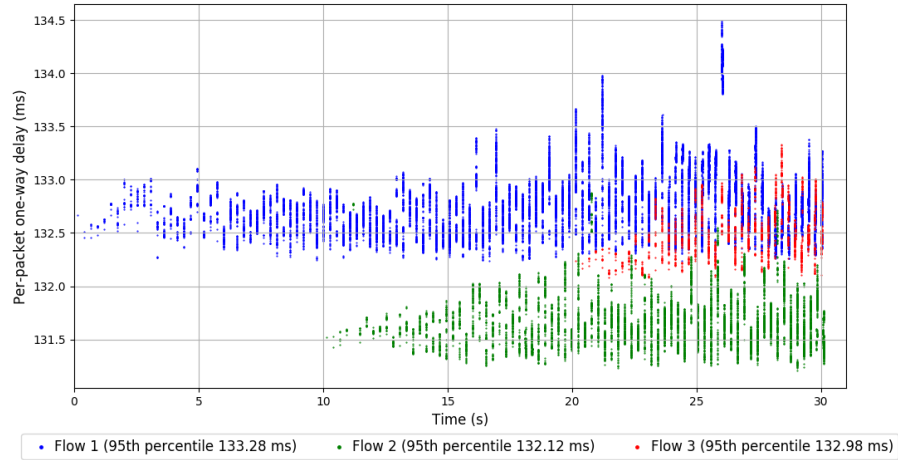
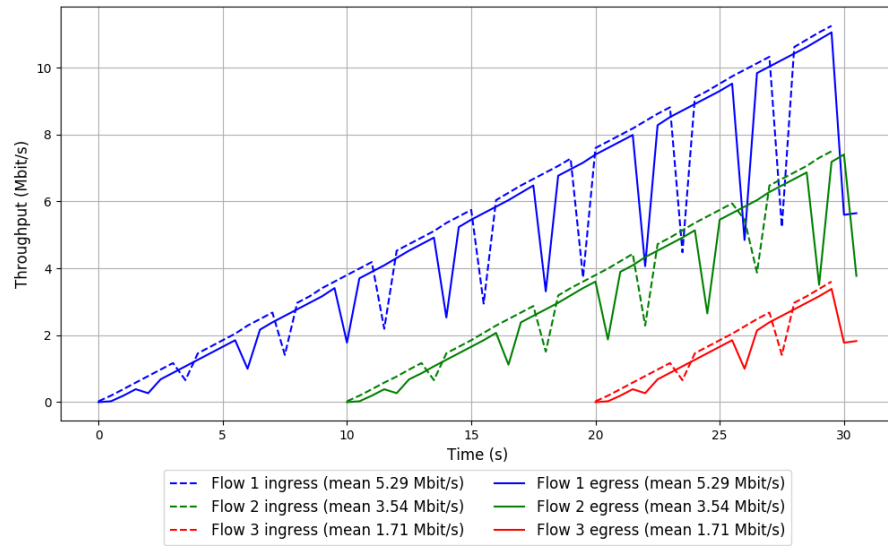


Run 2: Statistics of LEDBAT

Start at: 2018-12-11 23:53:04  
End at: 2018-12-11 23:53:34  
Local clock offset: -0.164 ms  
Remote clock offset: -0.375 ms

# Below is generated by plot.py at 2018-12-12 03:54:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.20 Mbit/s  
95th percentile per-packet one-way delay: 133.194 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 5.29 Mbit/s  
95th percentile per-packet one-way delay: 133.282 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 3.54 Mbit/s  
95th percentile per-packet one-way delay: 132.116 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.71 Mbit/s  
95th percentile per-packet one-way delay: 132.977 ms  
Loss rate: 0.00%

## Run 2: Report of LEDBAT — Data Link

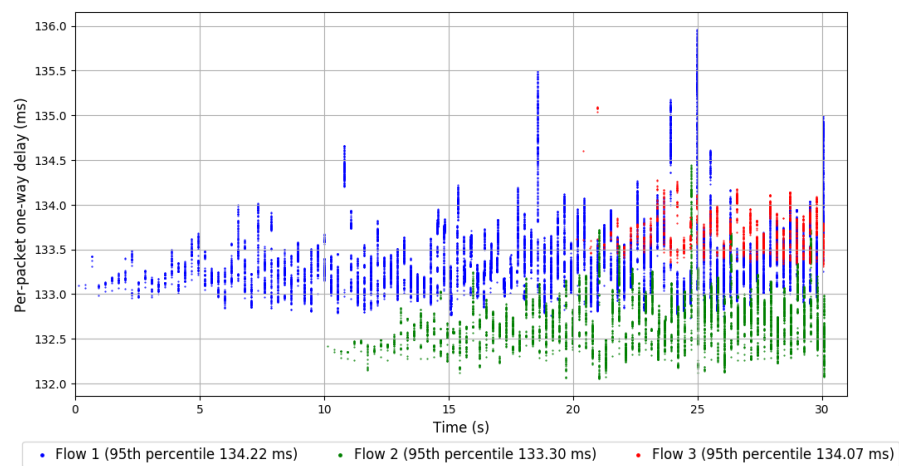
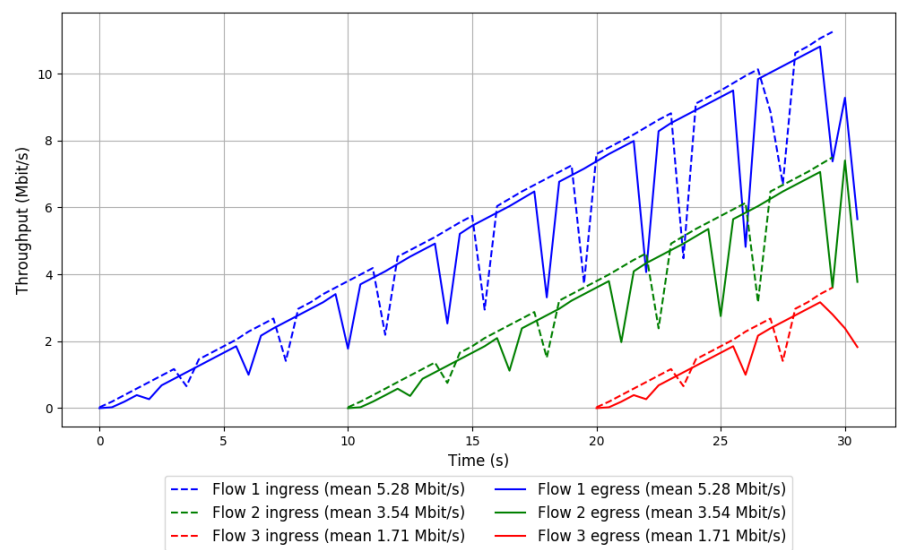


Run 3: Statistics of LEDBAT

Start at: 2018-12-12 00:30:04  
End at: 2018-12-12 00:30:34  
Local clock offset: -0.471 ms  
Remote clock offset: -0.203 ms

# Below is generated by plot.py at 2018-12-12 03:54:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.20 Mbit/s  
95th percentile per-packet one-way delay: 134.016 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 5.28 Mbit/s  
95th percentile per-packet one-way delay: 134.217 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 3.54 Mbit/s  
95th percentile per-packet one-way delay: 133.303 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.71 Mbit/s  
95th percentile per-packet one-way delay: 134.069 ms  
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

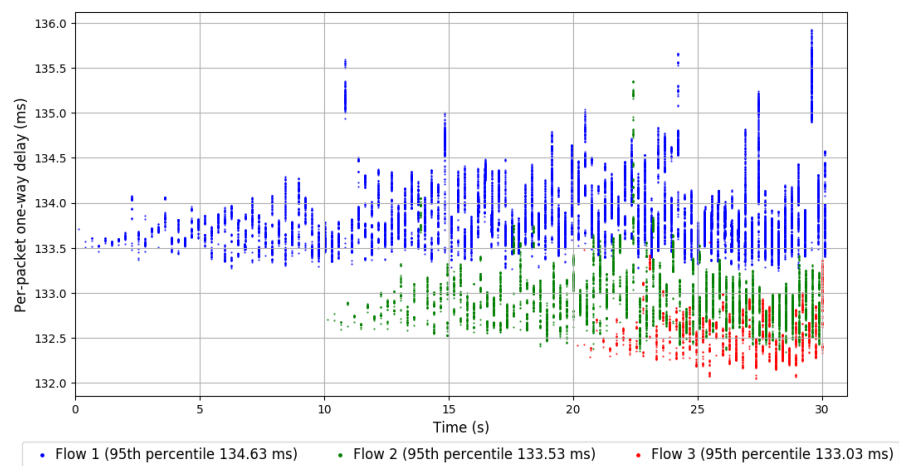
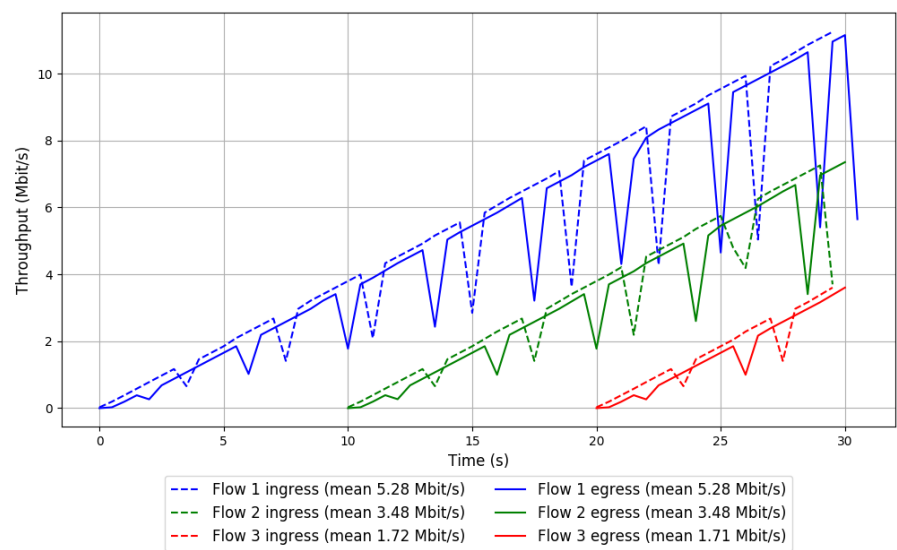


Run 4: Statistics of LEDBAT

Start at: 2018-12-12 01:05:50  
End at: 2018-12-12 01:06:20  
Local clock offset: -0.103 ms  
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-12-12 03:54:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.14 Mbit/s  
95th percentile per-packet one-way delay: 134.471 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 5.28 Mbit/s  
95th percentile per-packet one-way delay: 134.634 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 3.48 Mbit/s  
95th percentile per-packet one-way delay: 133.533 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.71 Mbit/s  
95th percentile per-packet one-way delay: 133.025 ms  
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

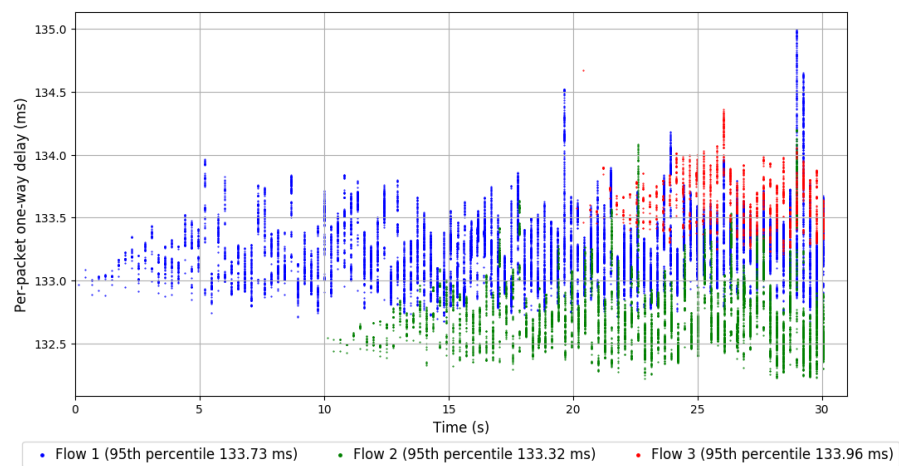
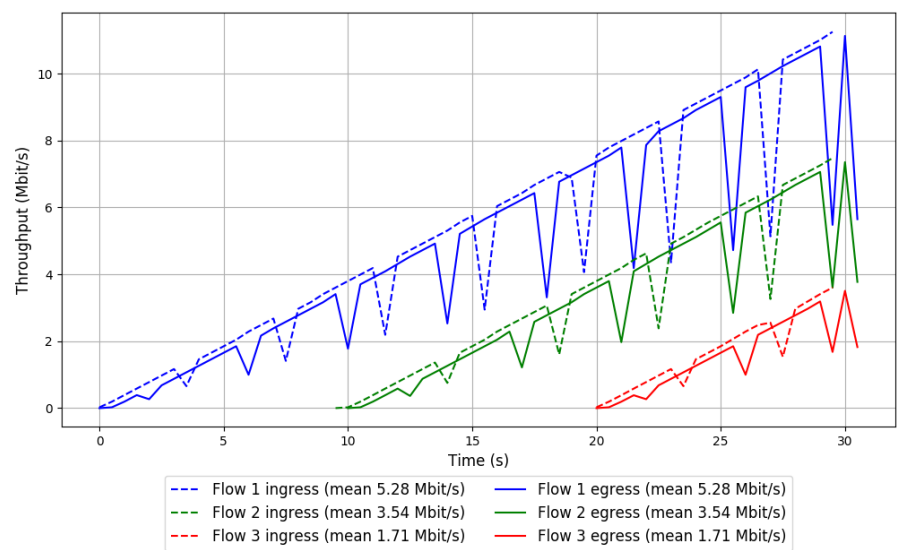


Run 5: Statistics of LEDBAT

Start at: 2018-12-12 01:42:20  
End at: 2018-12-12 01:42:50  
Local clock offset: 0.1 ms  
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-12-12 03:54:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.20 Mbit/s  
95th percentile per-packet one-way delay: 133.764 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 5.28 Mbit/s  
95th percentile per-packet one-way delay: 133.730 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 3.54 Mbit/s  
95th percentile per-packet one-way delay: 133.317 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.71 Mbit/s  
95th percentile per-packet one-way delay: 133.957 ms  
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

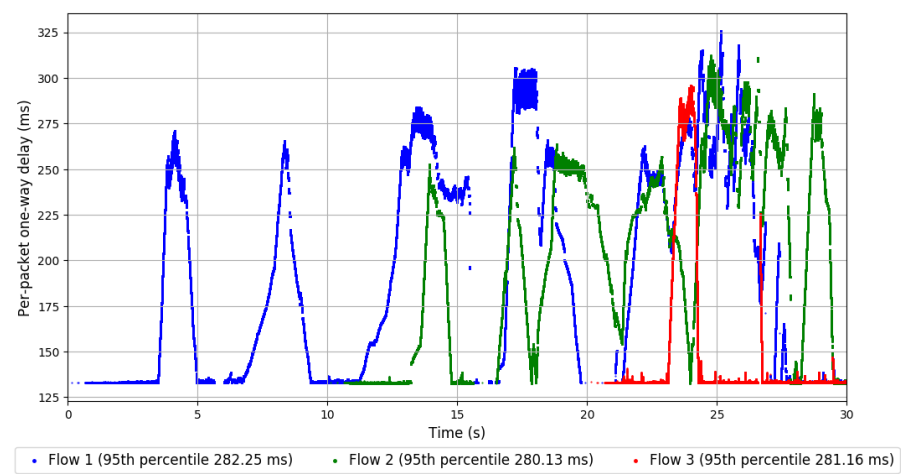
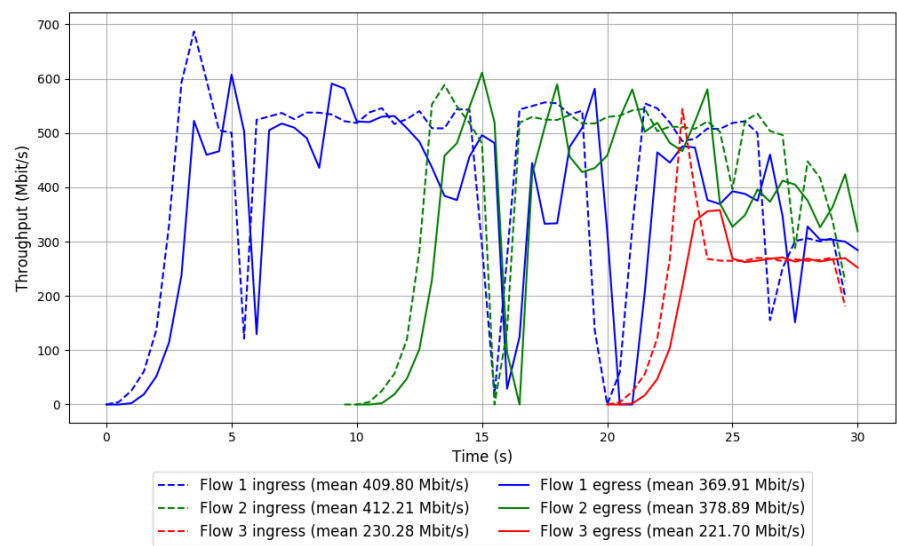


Run 1: Statistics of PCC-Allegro

Start at: 2018-12-11 23:20:06  
End at: 2018-12-11 23:20:36  
Local clock offset: -0.67 ms  
Remote clock offset: -0.377 ms

# Below is generated by plot.py at 2018-12-12 04:07:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 694.99 Mbit/s  
95th percentile per-packet one-way delay: 281.156 ms  
Loss rate: 8.54%  
-- Flow 1:  
Average throughput: 369.91 Mbit/s  
95th percentile per-packet one-way delay: 282.250 ms  
Loss rate: 9.74%  
-- Flow 2:  
Average throughput: 378.89 Mbit/s  
95th percentile per-packet one-way delay: 280.131 ms  
Loss rate: 8.08%  
-- Flow 3:  
Average throughput: 221.70 Mbit/s  
95th percentile per-packet one-way delay: 281.157 ms  
Loss rate: 3.73%

Run 1: Report of PCC-Allegro — Data Link

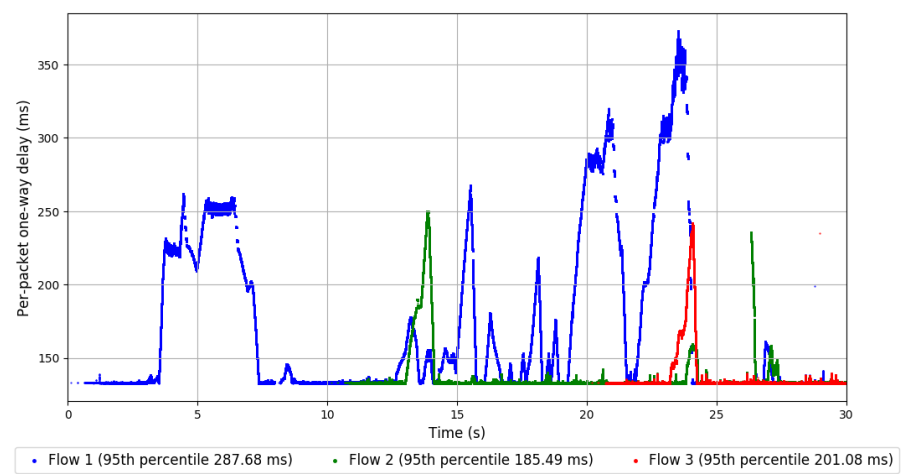
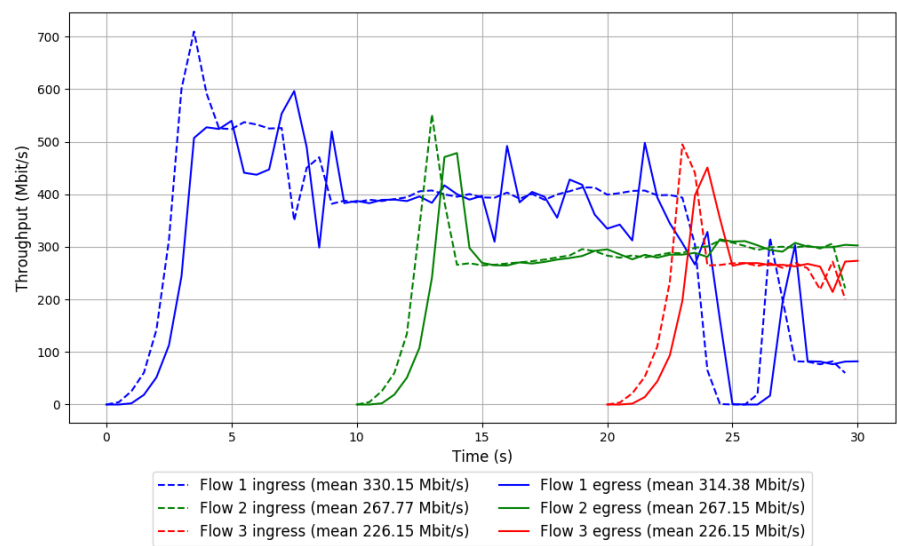


Run 2: Statistics of PCC-Allegro

Start at: 2018-12-11 23:56:04  
End at: 2018-12-11 23:56:34  
Local clock offset: -0.604 ms  
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-12-12 04:07:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 566.30 Mbit/s  
95th percentile per-packet one-way delay: 258.014 ms  
Loss rate: 2.78%  
-- Flow 1:  
Average throughput: 314.38 Mbit/s  
95th percentile per-packet one-way delay: 287.678 ms  
Loss rate: 4.78%  
-- Flow 2:  
Average throughput: 267.15 Mbit/s  
95th percentile per-packet one-way delay: 185.485 ms  
Loss rate: 0.23%  
-- Flow 3:  
Average throughput: 226.15 Mbit/s  
95th percentile per-packet one-way delay: 201.081 ms  
Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link

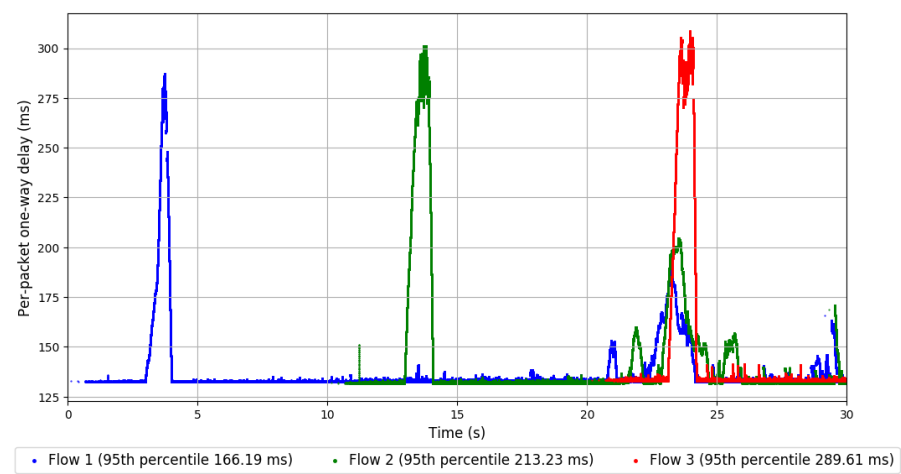
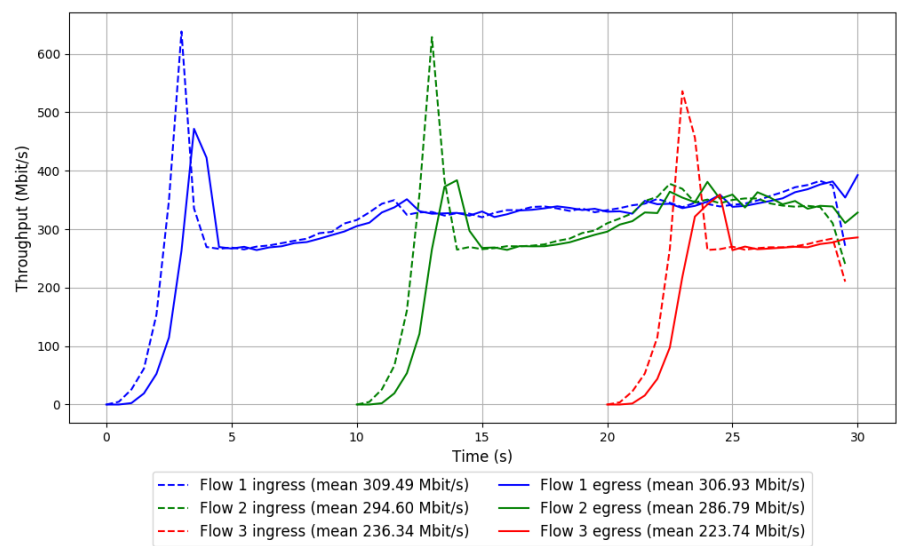


Run 3: Statistics of PCC-Allegro

Start at: 2018-12-12 00:33:12  
End at: 2018-12-12 00:33:42  
Local clock offset: -0.374 ms  
Remote clock offset: -0.589 ms

# Below is generated by plot.py at 2018-12-12 04:07:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 571.11 Mbit/s  
95th percentile per-packet one-way delay: 199.158 ms  
Loss rate: 2.04%  
-- Flow 1:  
Average throughput: 306.93 Mbit/s  
95th percentile per-packet one-way delay: 166.188 ms  
Loss rate: 0.82%  
-- Flow 2:  
Average throughput: 286.79 Mbit/s  
95th percentile per-packet one-way delay: 213.227 ms  
Loss rate: 2.65%  
-- Flow 3:  
Average throughput: 223.74 Mbit/s  
95th percentile per-packet one-way delay: 289.612 ms  
Loss rate: 5.33%

Run 3: Report of PCC-Allegro — Data Link

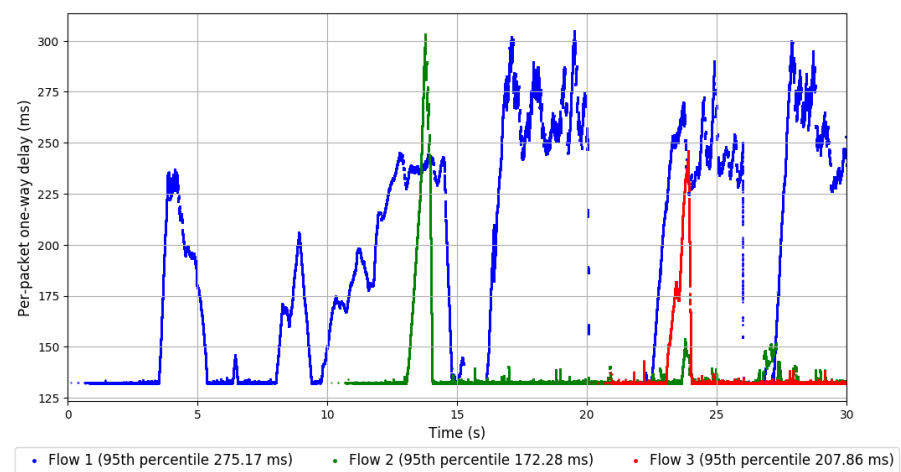
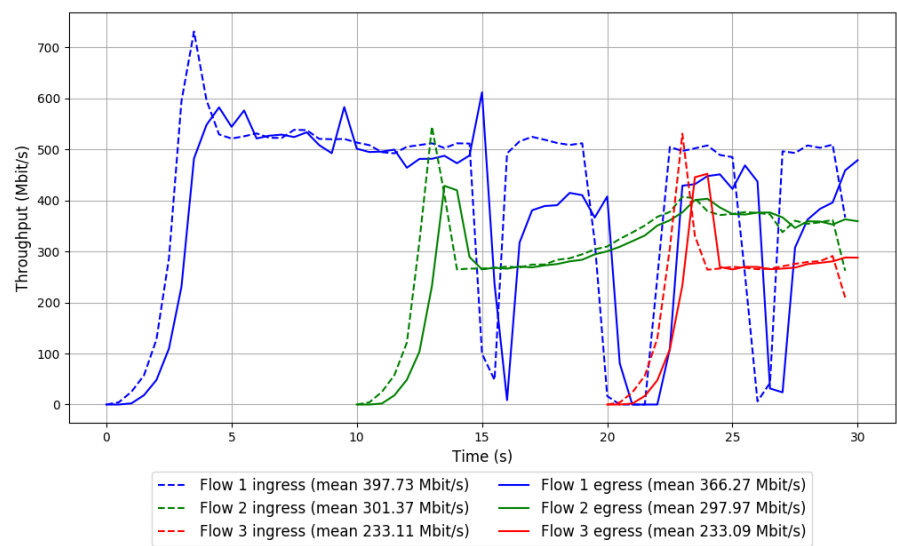


Run 4: Statistics of PCC-Allegro

Start at: 2018-12-12 01:09:04  
End at: 2018-12-12 01:09:34  
Local clock offset: 0.143 ms  
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2018-12-12 04:07:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 641.10 Mbit/s  
95th percentile per-packet one-way delay: 267.867 ms  
Loss rate: 4.99%  
-- Flow 1:  
Average throughput: 366.27 Mbit/s  
95th percentile per-packet one-way delay: 275.171 ms  
Loss rate: 7.89%  
-- Flow 2:  
Average throughput: 297.97 Mbit/s  
95th percentile per-packet one-way delay: 172.282 ms  
Loss rate: 1.13%  
-- Flow 3:  
Average throughput: 233.09 Mbit/s  
95th percentile per-packet one-way delay: 207.858 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link

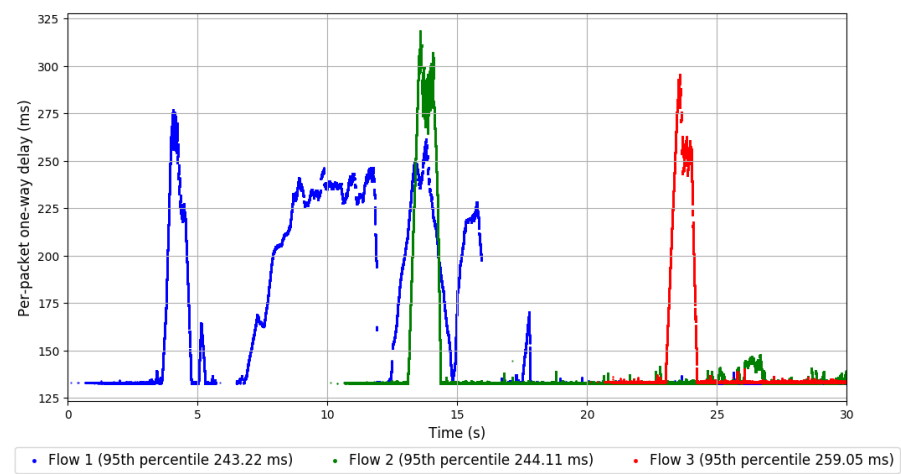
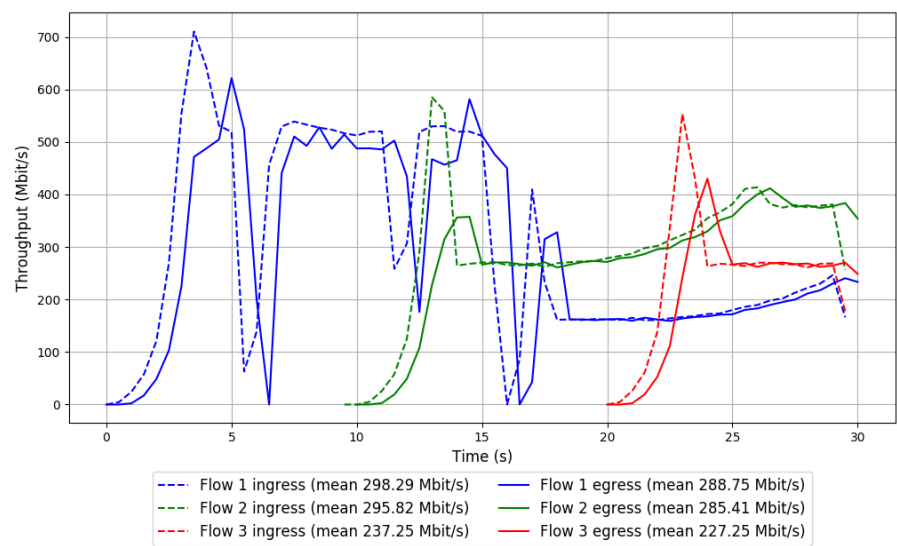


Run 5: Statistics of PCC-Allegro

Start at: 2018-12-12 01:45:26  
End at: 2018-12-12 01:45:56  
Local clock offset: -0.034 ms  
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2018-12-12 04:07:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 553.50 Mbit/s  
95th percentile per-packet one-way delay: 245.642 ms  
Loss rate: 3.44%  
-- Flow 1:  
Average throughput: 288.75 Mbit/s  
95th percentile per-packet one-way delay: 243.224 ms  
Loss rate: 3.20%  
-- Flow 2:  
Average throughput: 285.41 Mbit/s  
95th percentile per-packet one-way delay: 244.110 ms  
Loss rate: 3.50%  
-- Flow 3:  
Average throughput: 227.25 Mbit/s  
95th percentile per-packet one-way delay: 259.053 ms  
Loss rate: 4.22%

Run 5: Report of PCC-Allegro — Data Link

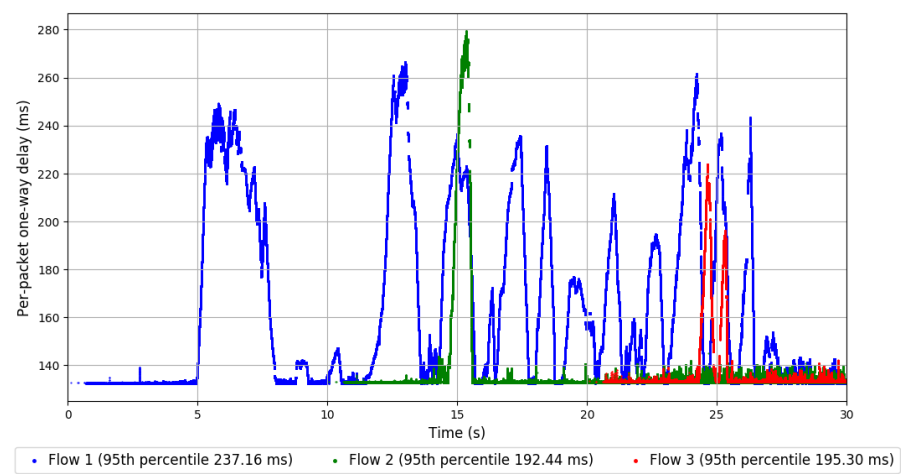
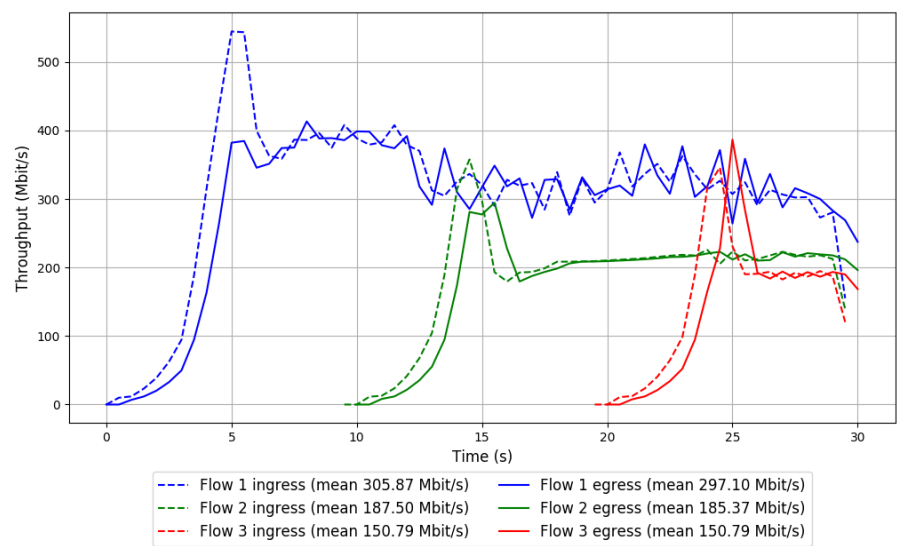


```
Run 1: Statistics of PCC-Expr

Start at: 2018-12-11 23:24:27
End at: 2018-12-11 23:24:57
Local clock offset: -0.465 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-12-12 04:07:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.41 Mbit/s
95th percentile per-packet one-way delay: 234.151 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 297.10 Mbit/s
95th percentile per-packet one-way delay: 237.156 ms
Loss rate: 2.92%
-- Flow 2:
Average throughput: 185.37 Mbit/s
95th percentile per-packet one-way delay: 192.439 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 150.79 Mbit/s
95th percentile per-packet one-way delay: 195.298 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link

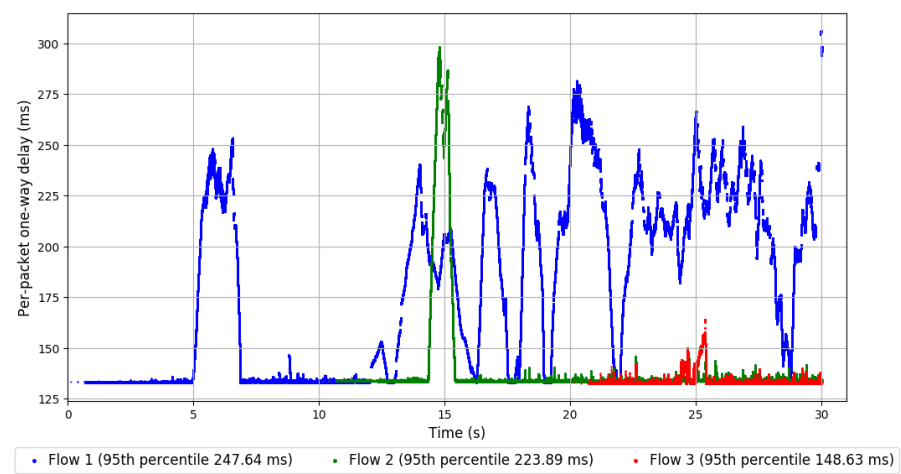
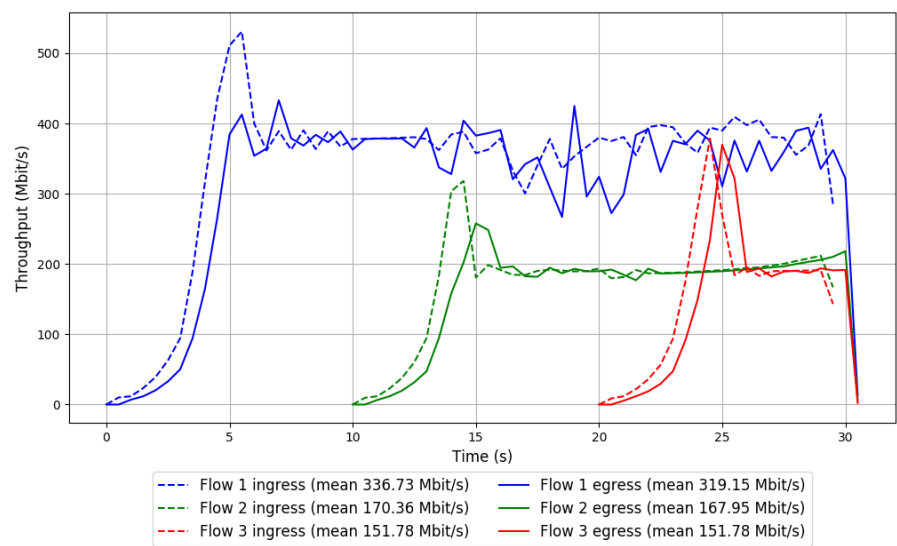


Run 2: Statistics of PCC-Expr

Start at: 2018-12-12 00:00:42  
End at: 2018-12-12 00:01:12  
Local clock offset: -0.859 ms  
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-12-12 04:09:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 480.81 Mbit/s  
95th percentile per-packet one-way delay: 244.876 ms  
Loss rate: 3.83%  
-- Flow 1:  
Average throughput: 319.15 Mbit/s  
95th percentile per-packet one-way delay: 247.642 ms  
Loss rate: 5.21%  
-- Flow 2:  
Average throughput: 167.95 Mbit/s  
95th percentile per-packet one-way delay: 223.890 ms  
Loss rate: 1.41%  
-- Flow 3:  
Average throughput: 151.78 Mbit/s  
95th percentile per-packet one-way delay: 148.630 ms  
Loss rate: 0.00%

Run 2: Report of PCC-Expr — Data Link

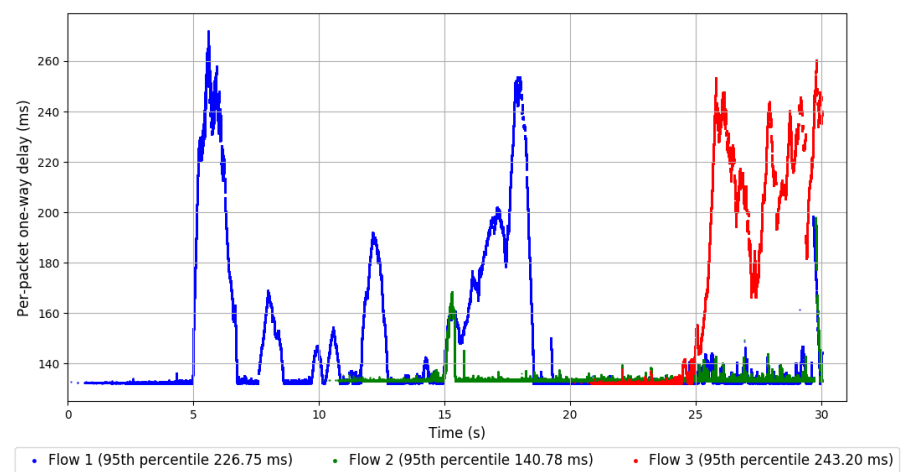
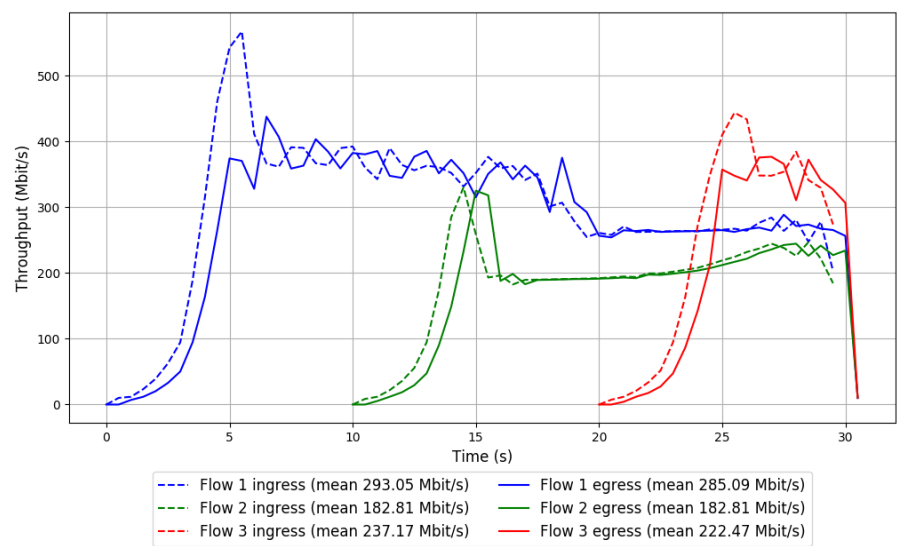


Run 3: Statistics of PCC-Expr

Start at: 2018-12-12 00:37:32  
End at: 2018-12-12 00:38:02  
Local clock offset: -0.001 ms  
Remote clock offset: -0.208 ms

# Below is generated by plot.py at 2018-12-12 04:13:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 479.89 Mbit/s  
95th percentile per-packet one-way delay: 233.579 ms  
Loss rate: 2.59%  
-- Flow 1:  
Average throughput: 285.09 Mbit/s  
95th percentile per-packet one-way delay: 226.753 ms  
Loss rate: 2.71%  
-- Flow 2:  
Average throughput: 182.81 Mbit/s  
95th percentile per-packet one-way delay: 140.777 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 222.47 Mbit/s  
95th percentile per-packet one-way delay: 243.198 ms  
Loss rate: 6.19%

Run 3: Report of PCC-Expr — Data Link

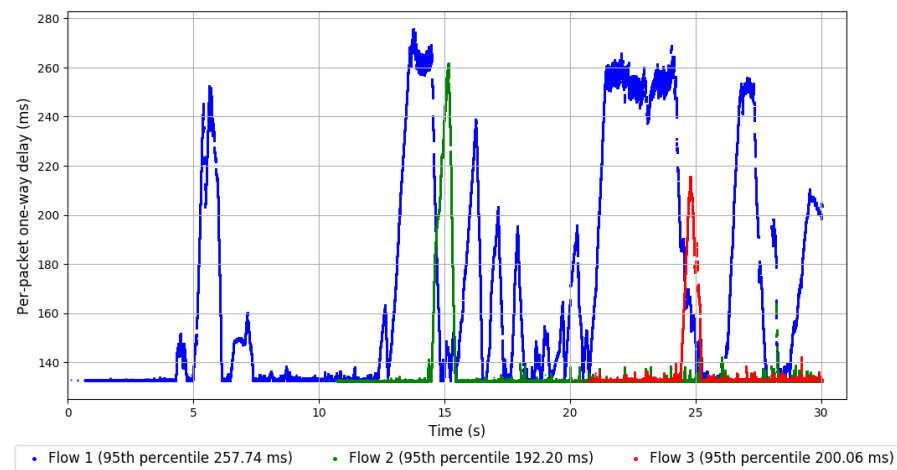
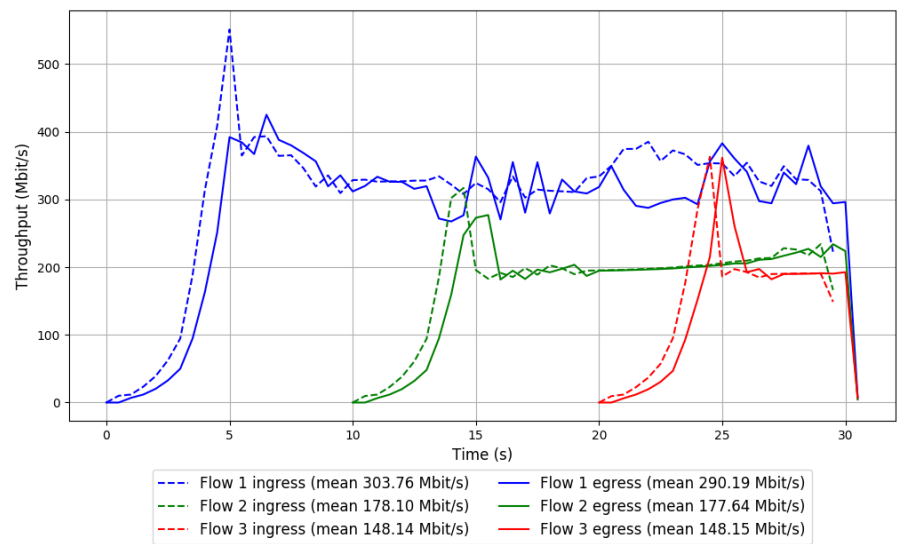


Run 4: Statistics of PCC-Expr

Start at: 2018-12-12 01:13:13  
End at: 2018-12-12 01:13:43  
Local clock offset: 0.34 ms  
Remote clock offset: -0.464 ms

# Below is generated by plot.py at 2018-12-12 04:17:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 457.18 Mbit/s  
95th percentile per-packet one-way delay: 254.466 ms  
Loss rate: 2.95%  
-- Flow 1:  
Average throughput: 290.19 Mbit/s  
95th percentile per-packet one-way delay: 257.735 ms  
Loss rate: 4.47%  
-- Flow 2:  
Average throughput: 177.64 Mbit/s  
95th percentile per-packet one-way delay: 192.200 ms  
Loss rate: 0.25%  
-- Flow 3:  
Average throughput: 148.15 Mbit/s  
95th percentile per-packet one-way delay: 200.063 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-12-12 01:49:26

End at: 2018-12-12 01:49:56

Local clock offset: -0.104 ms

Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-12-12 04:20:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 491.21 Mbit/s

95th percentile per-packet one-way delay: 245.364 ms

Loss rate: 5.95%

-- Flow 1:

Average throughput: 316.40 Mbit/s

95th percentile per-packet one-way delay: 248.081 ms

Loss rate: 8.61%

-- Flow 2:

Average throughput: 190.69 Mbit/s

95th percentile per-packet one-way delay: 175.889 ms

Loss rate: 0.14%

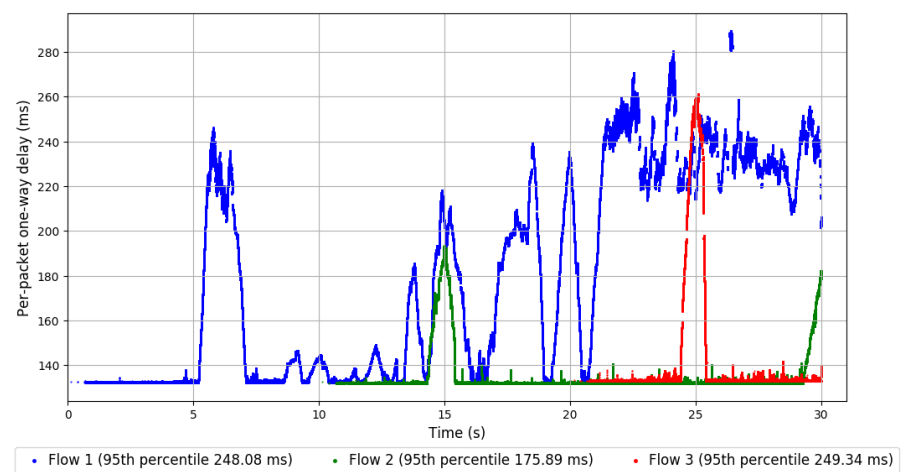
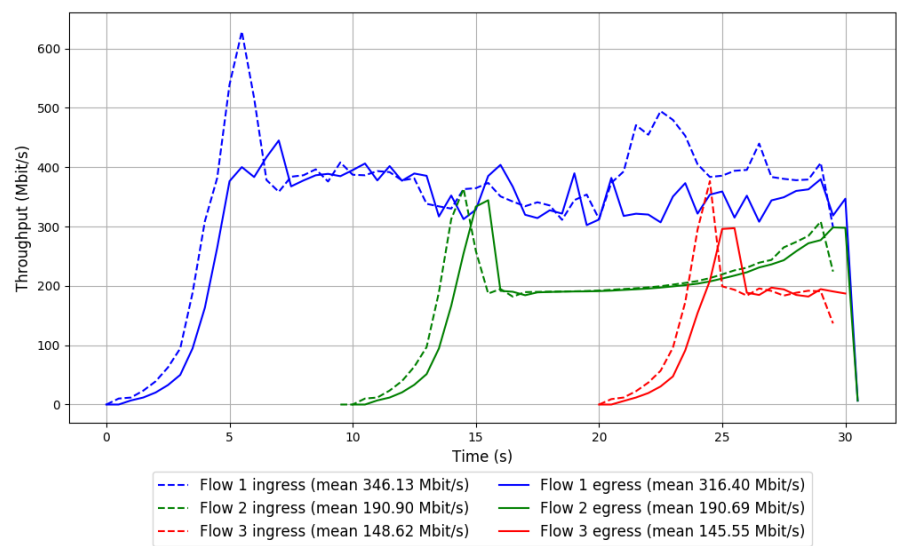
-- Flow 3:

Average throughput: 145.55 Mbit/s

95th percentile per-packet one-way delay: 249.339 ms

Loss rate: 2.26%

Run 5: Report of PCC-Expr — Data Link

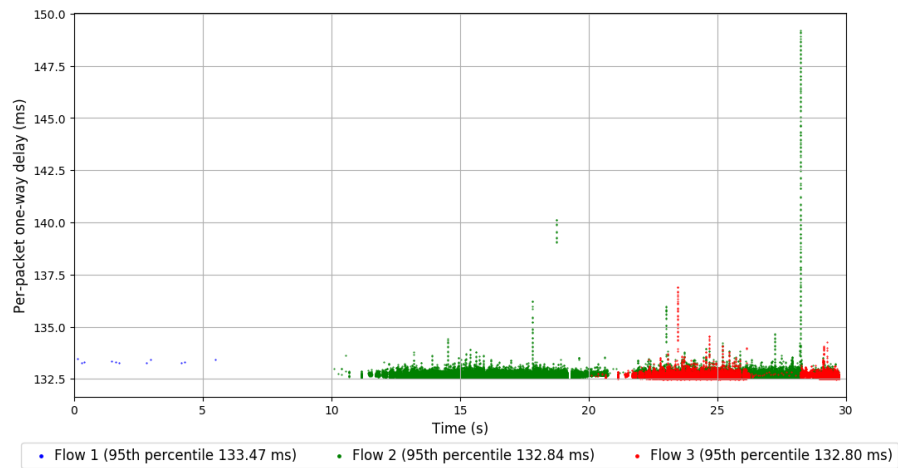
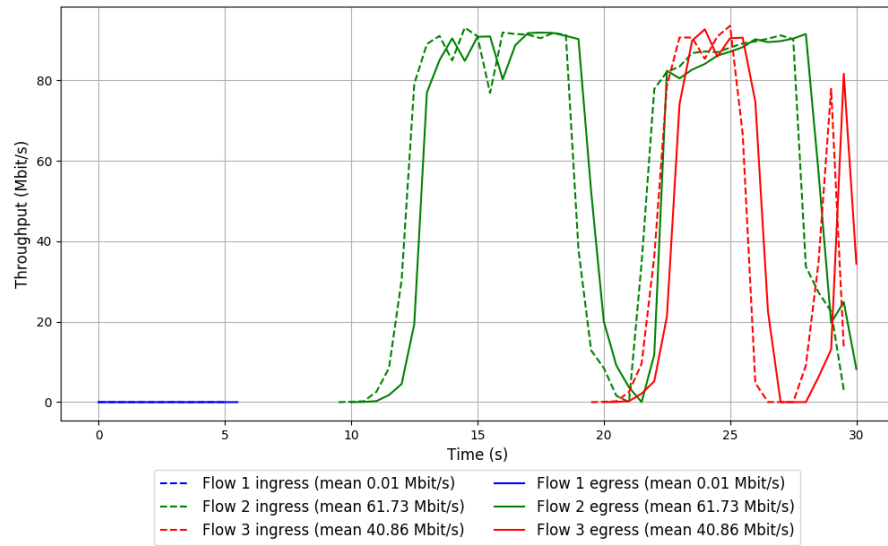


Run 1: Statistics of QUIC Cubic

Start at: 2018-12-11 23:40:13  
End at: 2018-12-11 23:40:43  
Local clock offset: -0.352 ms  
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-12-12 04:20:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 54.20 Mbit/s  
95th percentile per-packet one-way delay: 132.834 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 133.468 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 61.73 Mbit/s  
95th percentile per-packet one-way delay: 132.843 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 40.86 Mbit/s  
95th percentile per-packet one-way delay: 132.796 ms  
Loss rate: 0.00%

# Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-12-12 00:16:26

End at: 2018-12-12 00:16:56

Local clock offset: -0.279 ms

Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-12-12 04:20:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 110.19 Mbit/s

95th percentile per-packet one-way delay: 132.916 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.49 Mbit/s

95th percentile per-packet one-way delay: 132.929 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 58.82 Mbit/s

95th percentile per-packet one-way delay: 132.915 ms

Loss rate: 0.00%

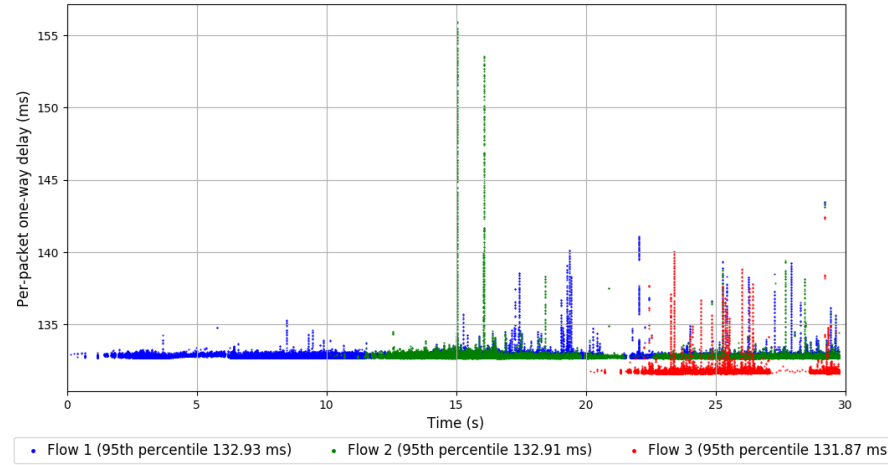
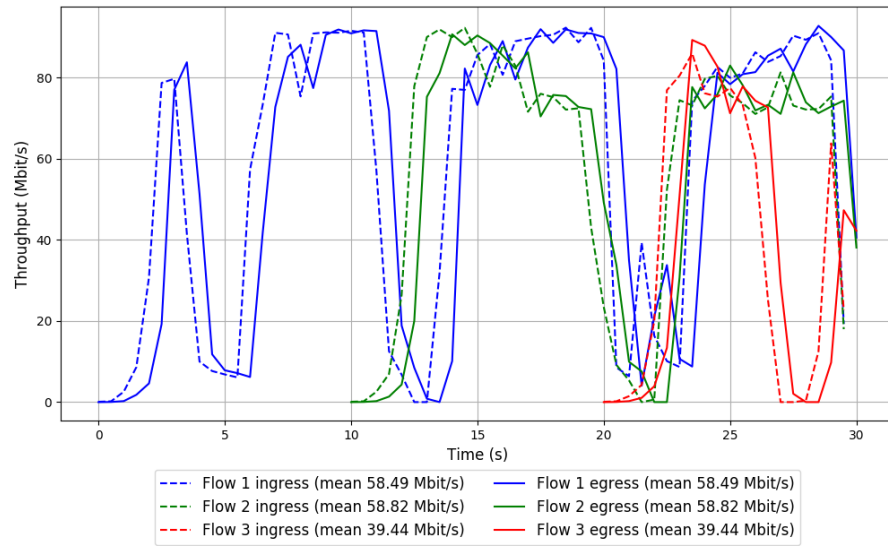
-- Flow 3:

Average throughput: 39.44 Mbit/s

95th percentile per-packet one-way delay: 131.871 ms

Loss rate: 0.00%

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



Run 3: Statistics of QUIC Cubic

Start at: 2018-12-12 00:52:38

End at: 2018-12-12 00:53:08

Local clock offset: -0.024 ms

Remote clock offset: 0.141 ms

# Below is generated by plot.py at 2018-12-12 04:20:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 114.98 Mbit/s

95th percentile per-packet one-way delay: 133.822 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.12 Mbit/s

95th percentile per-packet one-way delay: 133.661 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.87 Mbit/s

95th percentile per-packet one-way delay: 133.867 ms

Loss rate: 0.00%

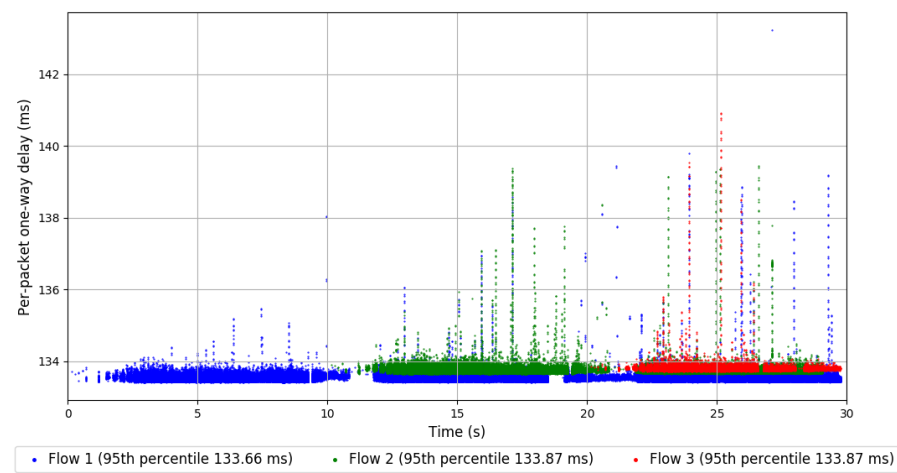
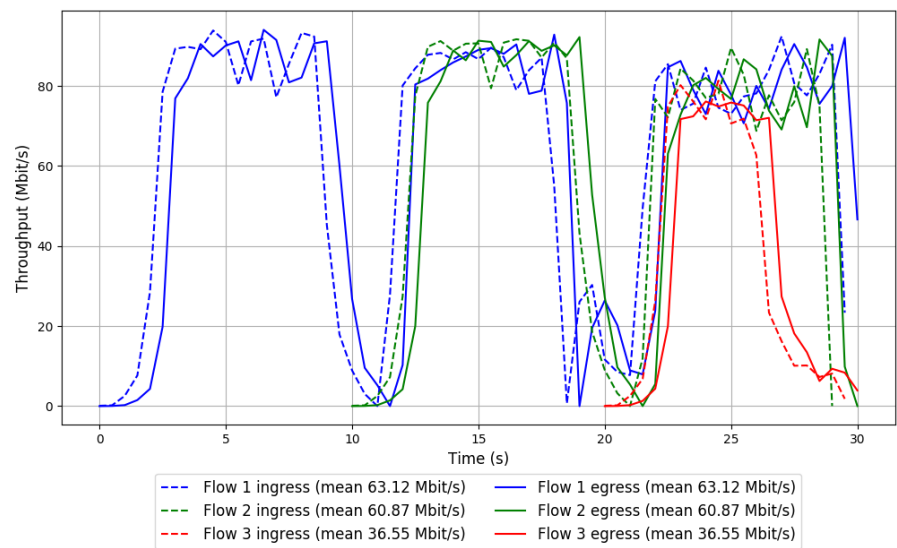
-- Flow 3:

Average throughput: 36.55 Mbit/s

95th percentile per-packet one-way delay: 133.873 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link

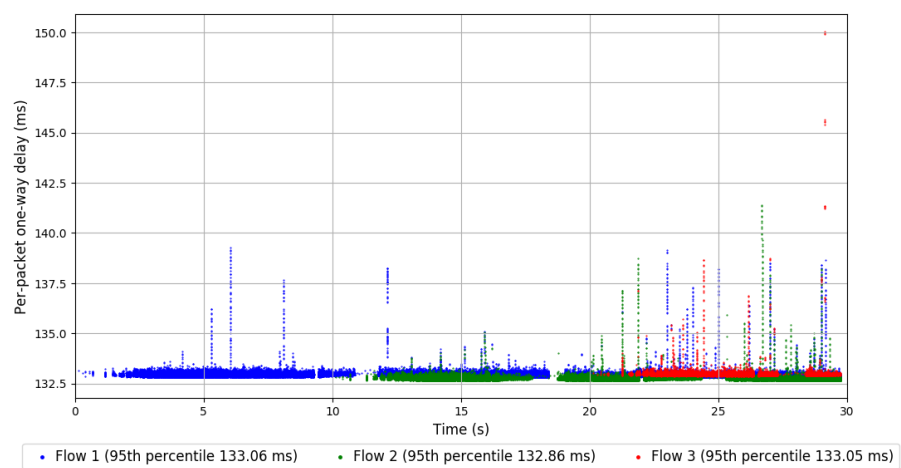
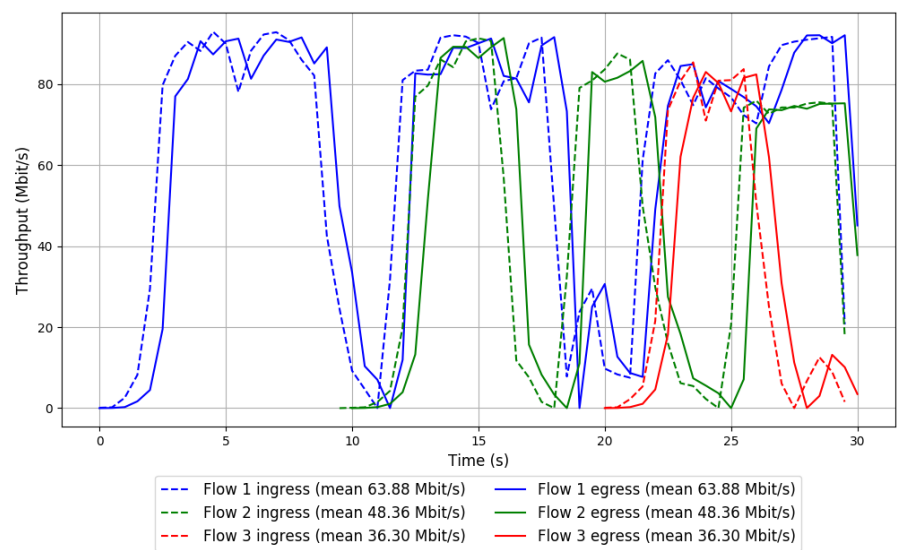


Run 4: Statistics of QUIC Cubic

Start at: 2018-12-12 01:28:38  
End at: 2018-12-12 01:29:08  
Local clock offset: 0.332 ms  
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 107.70 Mbit/s  
95th percentile per-packet one-way delay: 133.035 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 63.88 Mbit/s  
95th percentile per-packet one-way delay: 133.057 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 48.36 Mbit/s  
95th percentile per-packet one-way delay: 132.860 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 36.30 Mbit/s  
95th percentile per-packet one-way delay: 133.046 ms  
Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-12-12 02:05:03

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

Local clock offset: 0.393 ms

Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-12-12 04:20:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.74 Mbit/s

95th percentile per-packet one-way delay: 132.730 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.90 Mbit/s

95th percentile per-packet one-way delay: 132.552 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 49.45 Mbit/s

95th percentile per-packet one-way delay: 132.155 ms

Loss rate: 0.00%

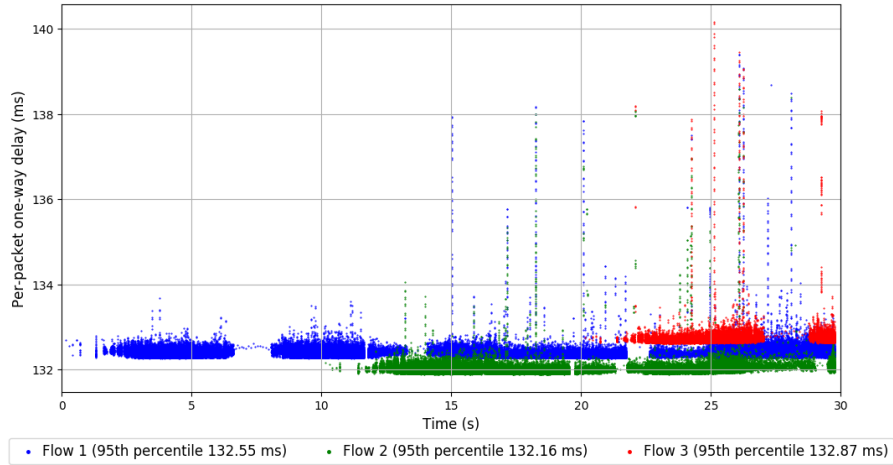
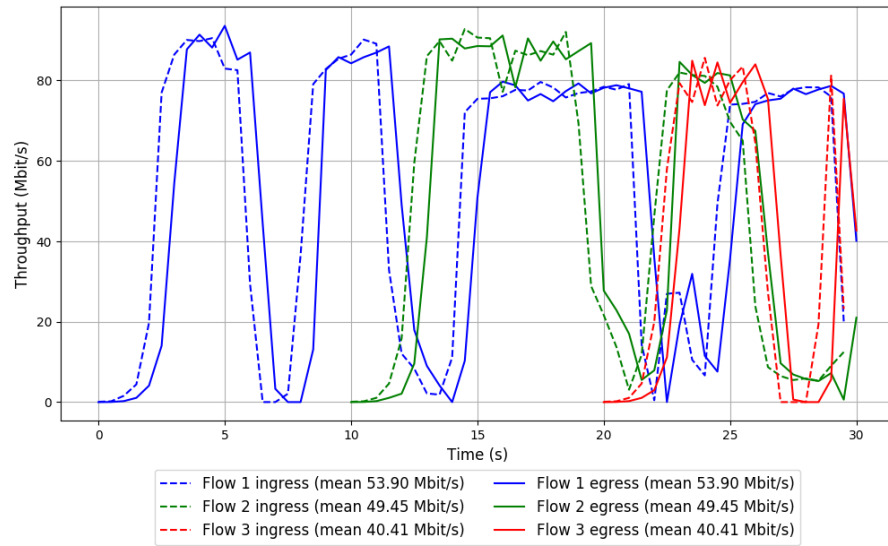
-- Flow 3:

Average throughput: 40.41 Mbit/s

95th percentile per-packet one-way delay: 132.868 ms

Loss rate: 0.00%

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

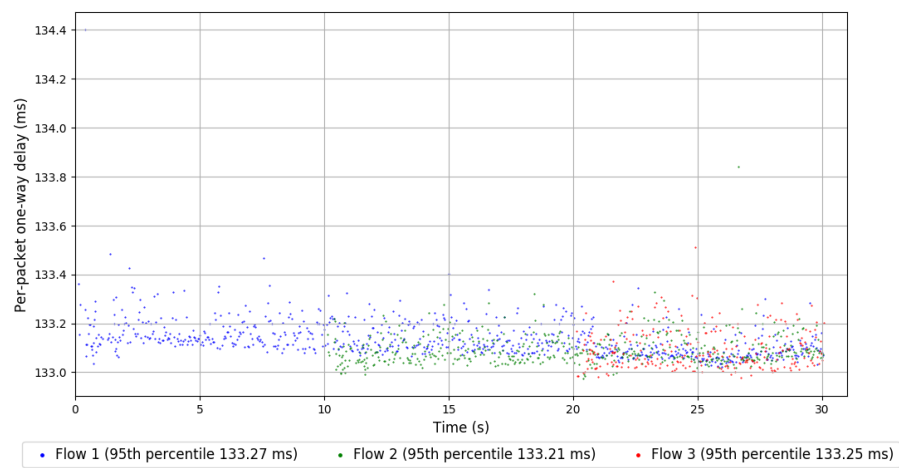
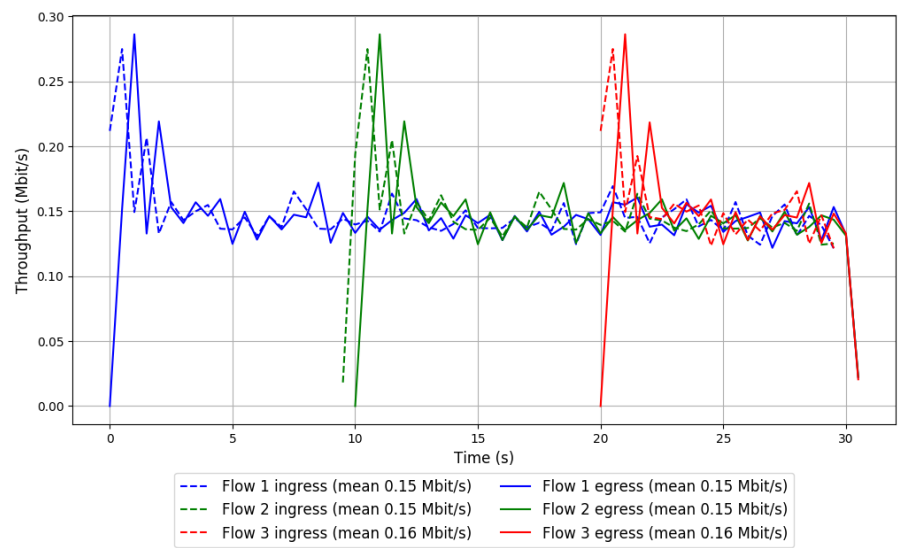


Run 1: Statistics of SCReAM

Start at: 2018-12-11 23:33:04  
End at: 2018-12-11 23:33:34  
Local clock offset: -0.593 ms  
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.30 Mbit/s  
95th percentile per-packet one-way delay: 133.248 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.267 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.205 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 133.251 ms  
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

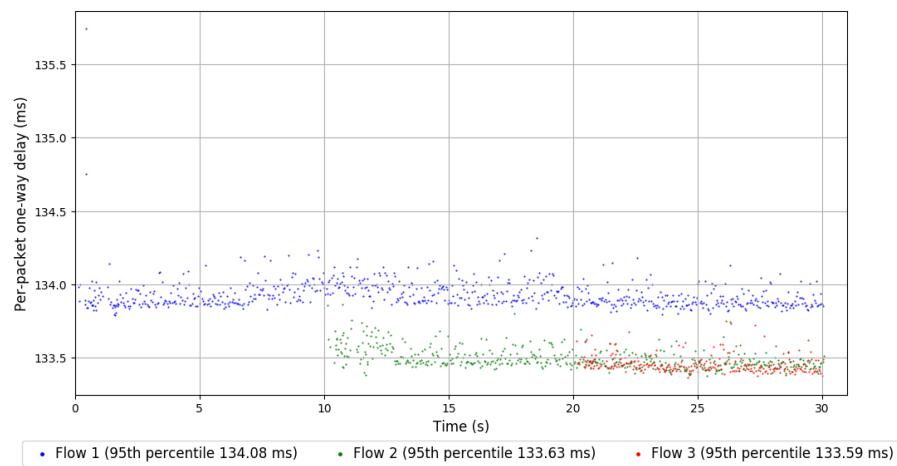
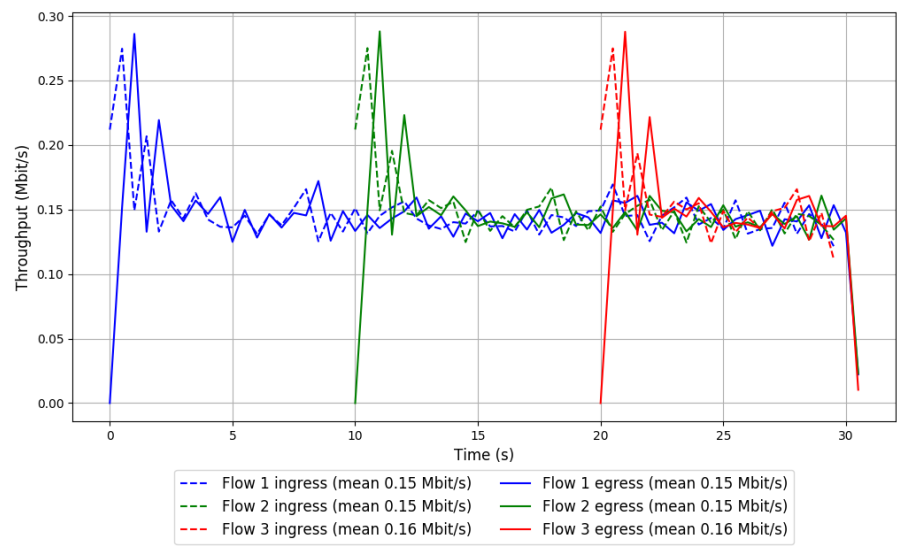


Run 2: Statistics of SCReAM

Start at: 2018-12-12 00:09:08  
End at: 2018-12-12 00:09:38  
Local clock offset: -0.643 ms  
Remote clock offset: 0.269 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.30 Mbit/s  
95th percentile per-packet one-way delay: 134.032 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 134.077 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.635 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 133.591 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

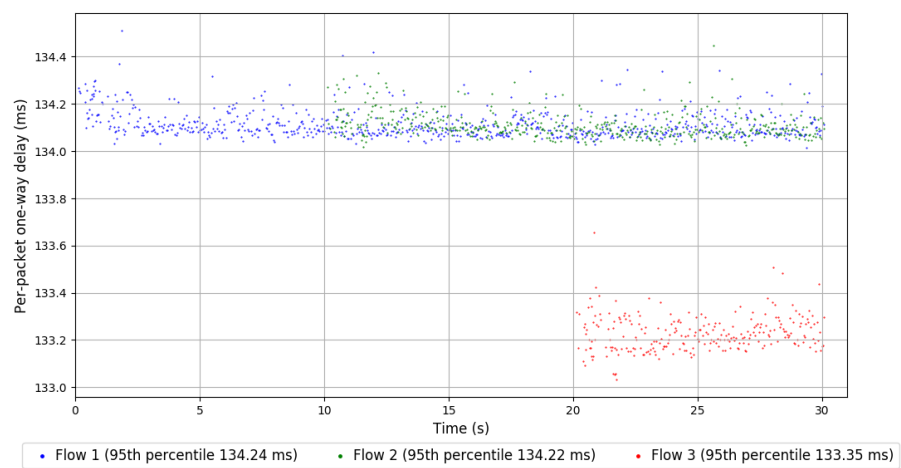
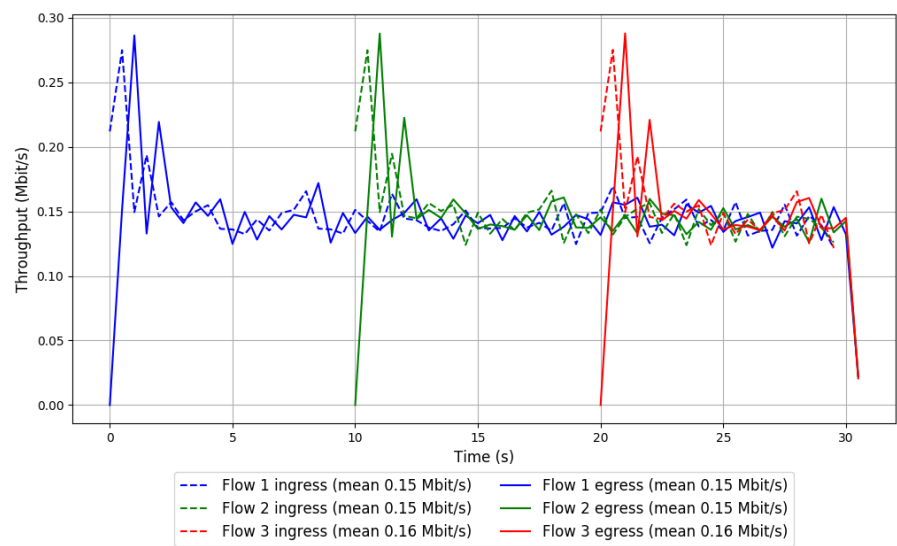


Run 3: Statistics of SCReAM

Start at: 2018-12-12 00:46:10  
End at: 2018-12-12 00:46:40  
Local clock offset: -0.292 ms  
Remote clock offset: 0.128 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.30 Mbit/s  
95th percentile per-packet one-way delay: 134.223 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 134.238 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 134.224 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 133.348 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

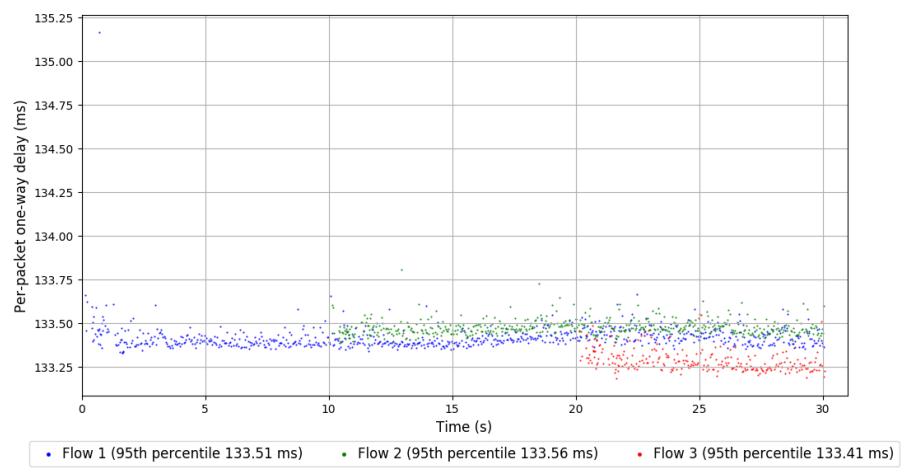
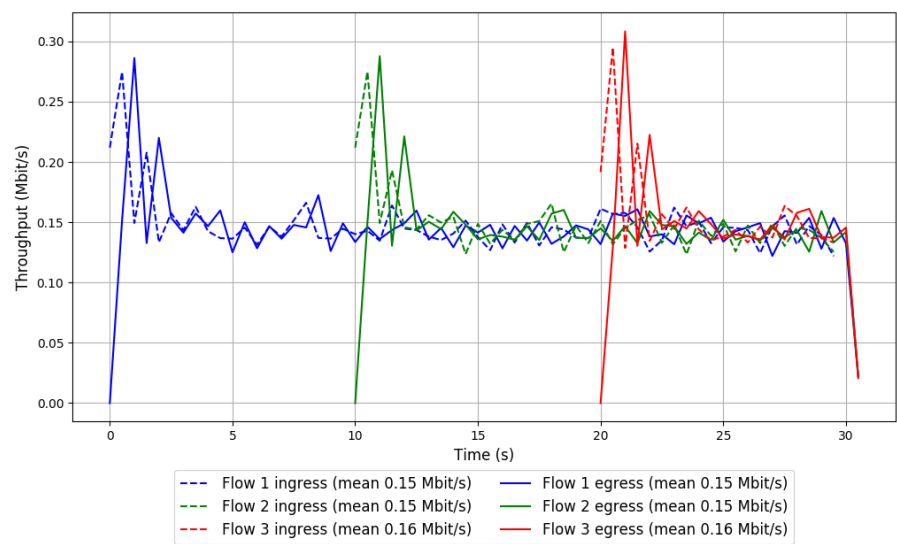


Run 4: Statistics of SCReAM

Start at: 2018-12-12 01:21:33  
End at: 2018-12-12 01:22:03  
Local clock offset: 0.321 ms  
Remote clock offset: 0.27 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.30 Mbit/s  
95th percentile per-packet one-way delay: 133.531 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.514 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.563 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 133.405 ms  
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-12-12 01:58:12

End at: 2018-12-12 01:58:42

Local clock offset: -0.018 ms

Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-12-12 04:20:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 132.965 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 133.000 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 132.688 ms

Loss rate: 0.00%

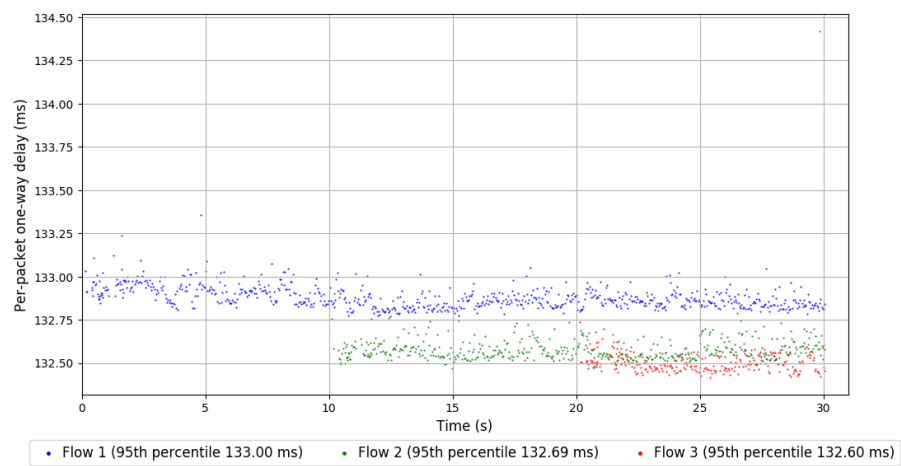
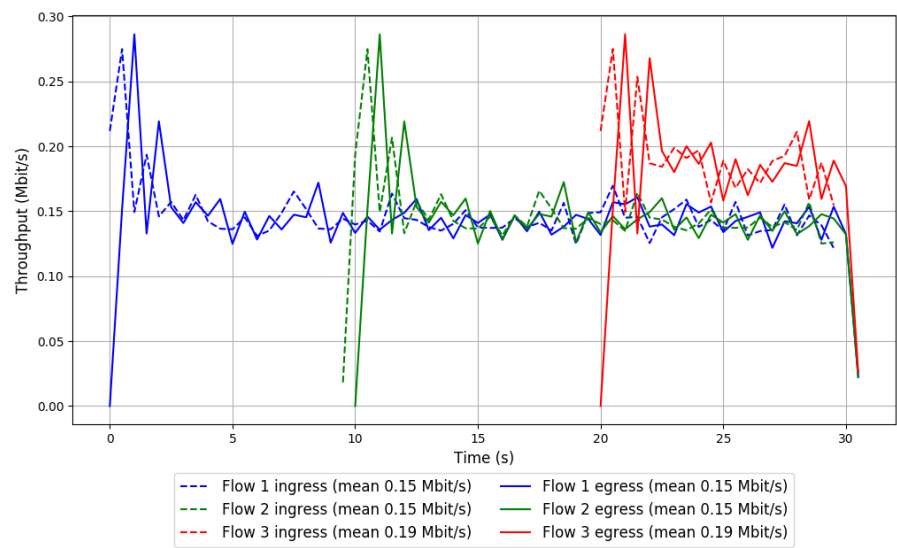
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 132.600 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-12-11 23:45:43

End at: 2018-12-11 23:46:13

Local clock offset: -0.772 ms

Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-12-12 04:20:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 133.940 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 133.646 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 134.042 ms

Loss rate: 0.00%

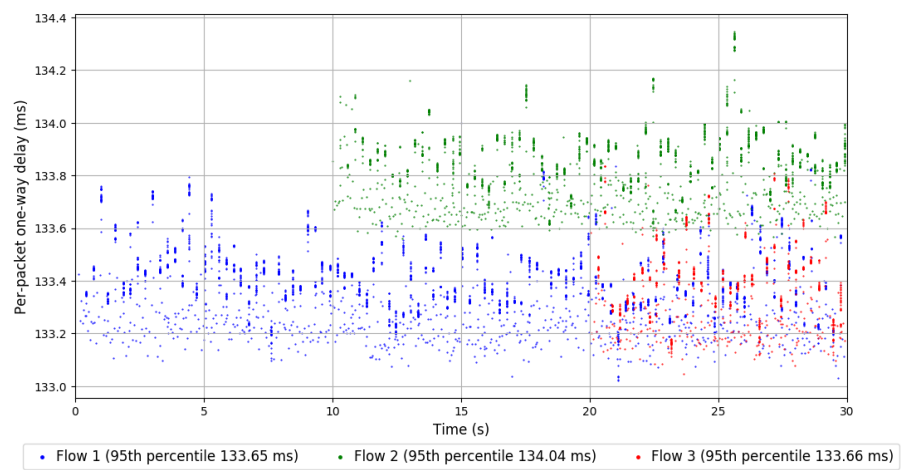
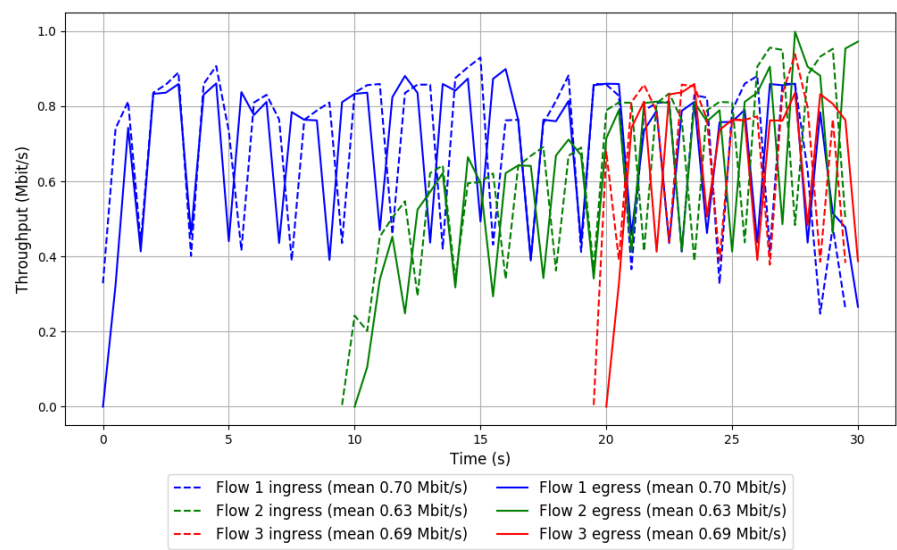
-- Flow 3:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 133.663 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-12-12 00:22:16

End at: 2018-12-12 00:22:46

Local clock offset: -0.44 ms

Remote clock offset: 0.215 ms

# Below is generated by plot.py at 2018-12-12 04:20:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 133.913 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 133.952 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 133.660 ms

Loss rate: 0.00%

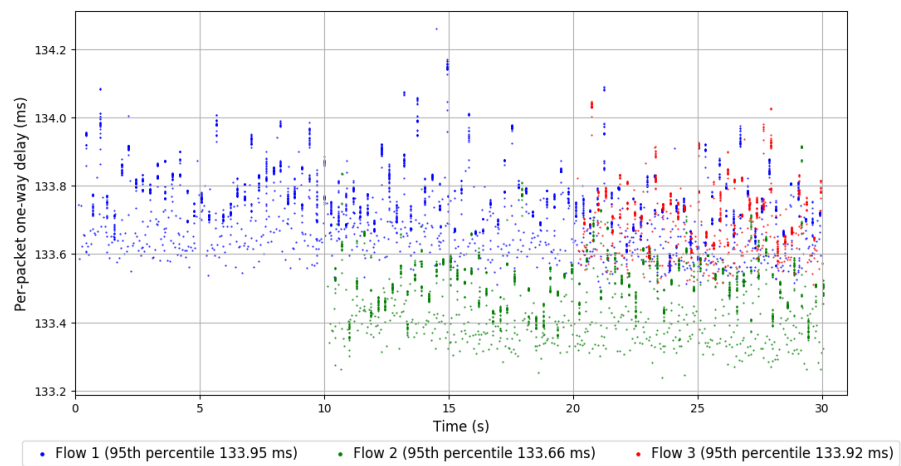
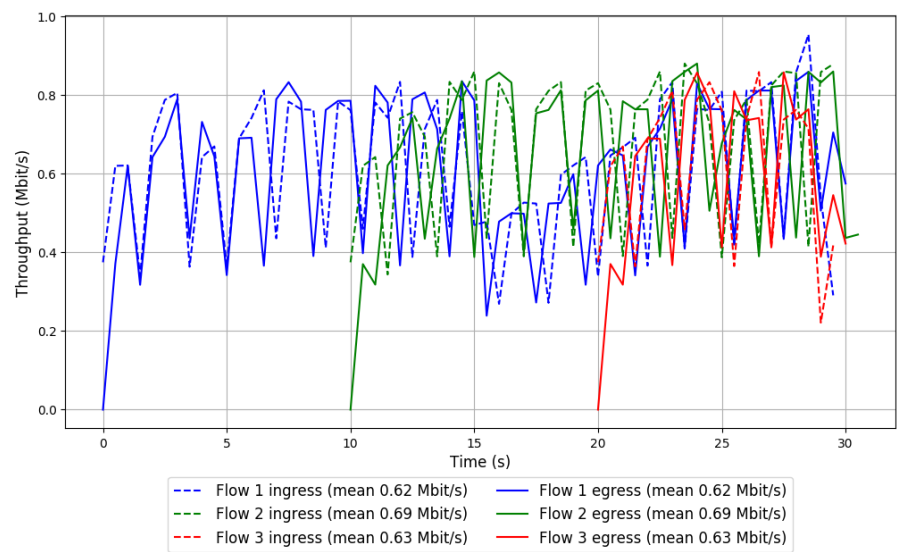
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 133.916 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

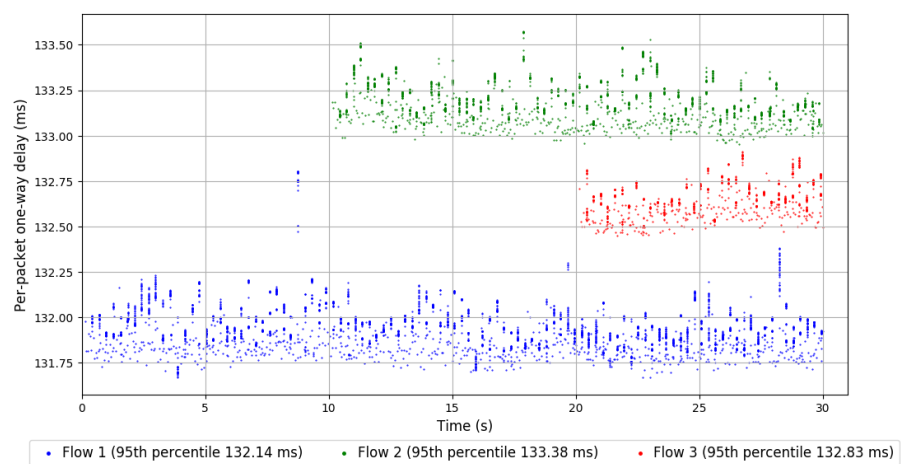
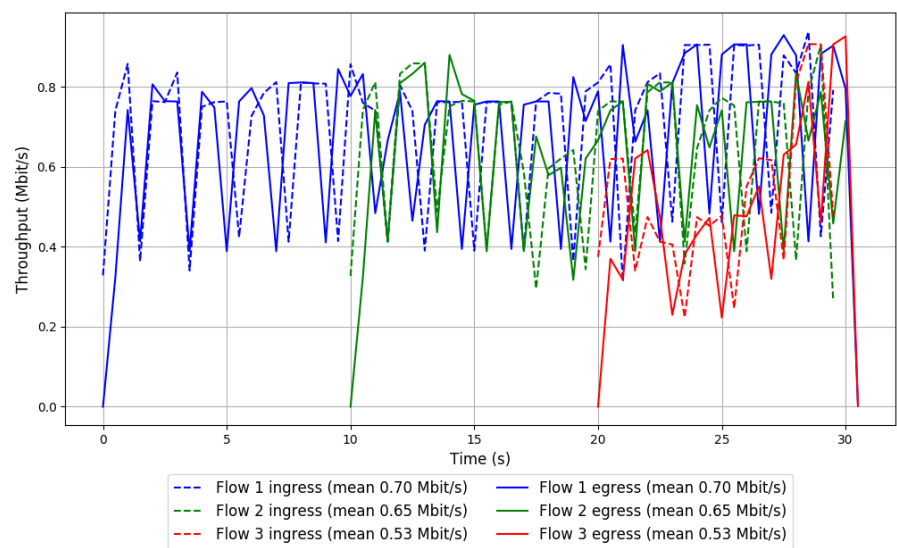


### Run 3: Statistics of Sprout

Start at: 2018-12-12 00:58:14  
End at: 2018-12-12 00:58:44  
Local clock offset: 0.417 ms  
Remote clock offset: -0.319 ms

```
# Below is generated by plot.py at 2018-12-12 04:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 133.304 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 132.141 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 133.375 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 132.829 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

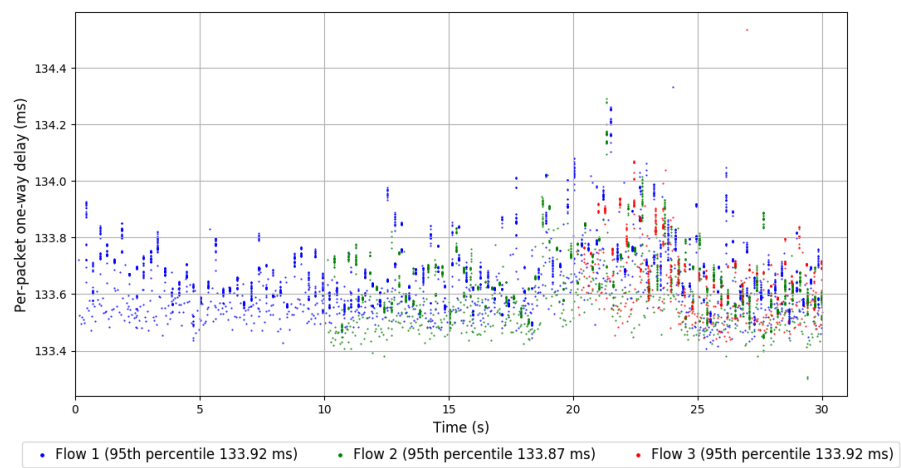
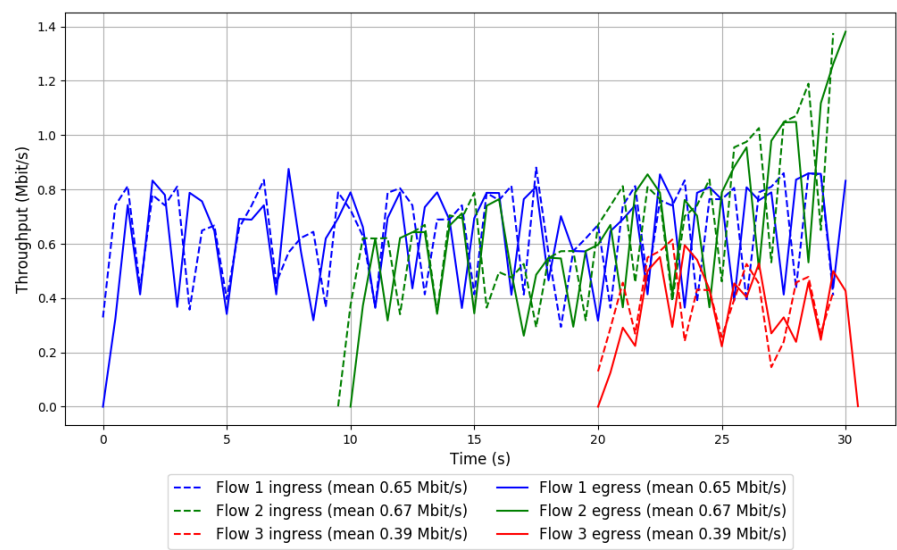


#### Run 4: Statistics of Sprout

Start at: 2018-12-12 01:34:32  
End at: 2018-12-12 01:35:02  
Local clock offset: -0.07 ms  
Remote clock offset: -0.081 ms

```
# Below is generated by plot.py at 2018-12-12 04:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 133.904 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 133.917 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 133.865 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 133.916 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

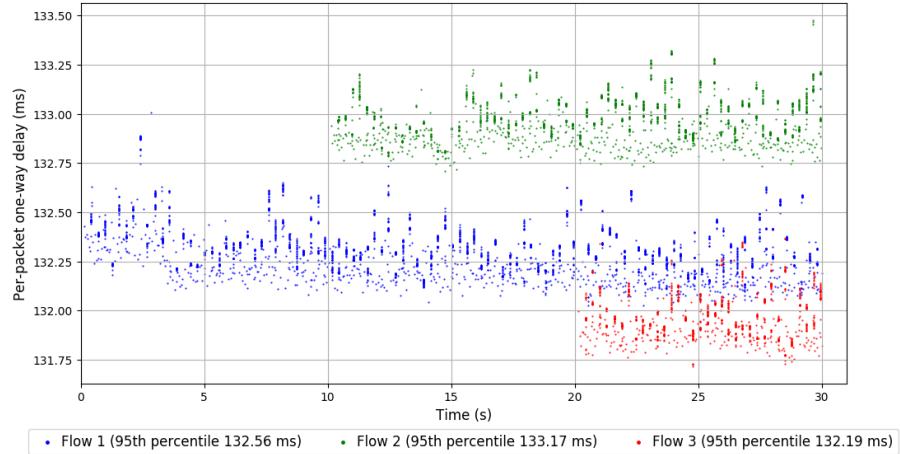
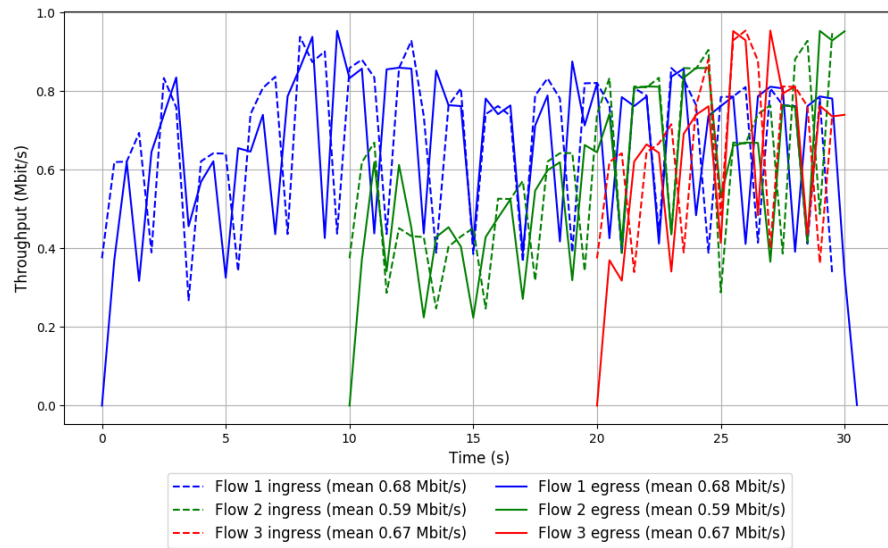


Run 5: Statistics of Sprout

Start at: 2018-12-12 02:10:37  
End at: 2018-12-12 02:11:07  
Local clock offset: 0.367 ms  
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1.29 Mbit/s  
95th percentile per-packet one-way delay: 133.083 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.68 Mbit/s  
95th percentile per-packet one-way delay: 132.560 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.59 Mbit/s  
95th percentile per-packet one-way delay: 133.173 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.67 Mbit/s  
95th percentile per-packet one-way delay: 132.190 ms  
Loss rate: 0.00%

## Run 5: Report of Sprout — Data Link

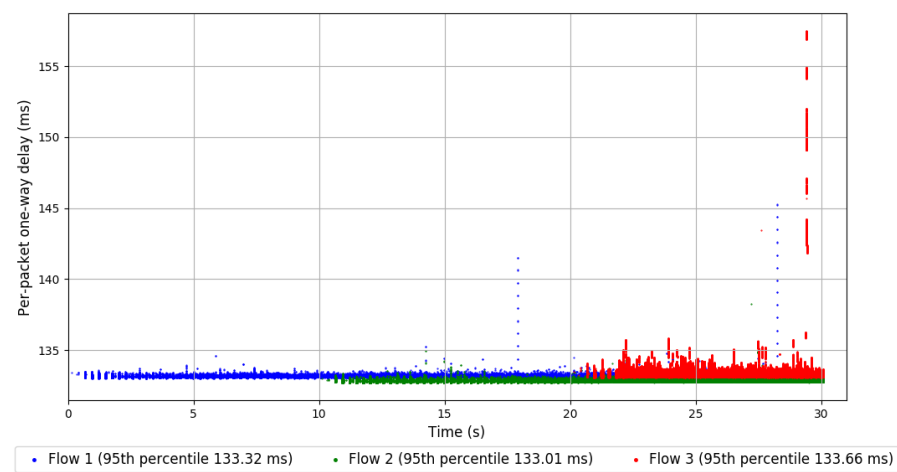
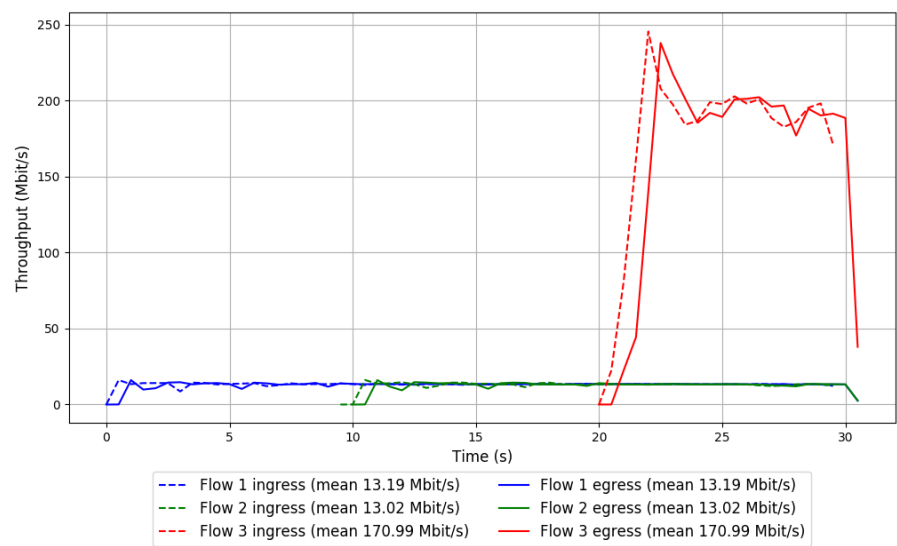


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-12-11 23:31:35
End at: 2018-12-11 23:32:05
Local clock offset: -0.511 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2018-12-12 04:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.70 Mbit/s
95th percentile per-packet one-way delay: 133.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.19 Mbit/s
95th percentile per-packet one-way delay: 133.316 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.02 Mbit/s
95th percentile per-packet one-way delay: 133.009 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 170.99 Mbit/s
95th percentile per-packet one-way delay: 133.660 ms
Loss rate: 0.00%
```

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

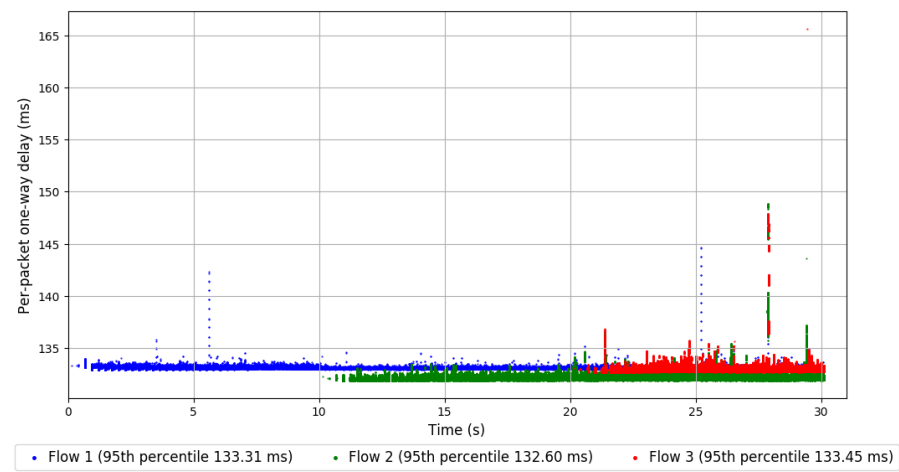
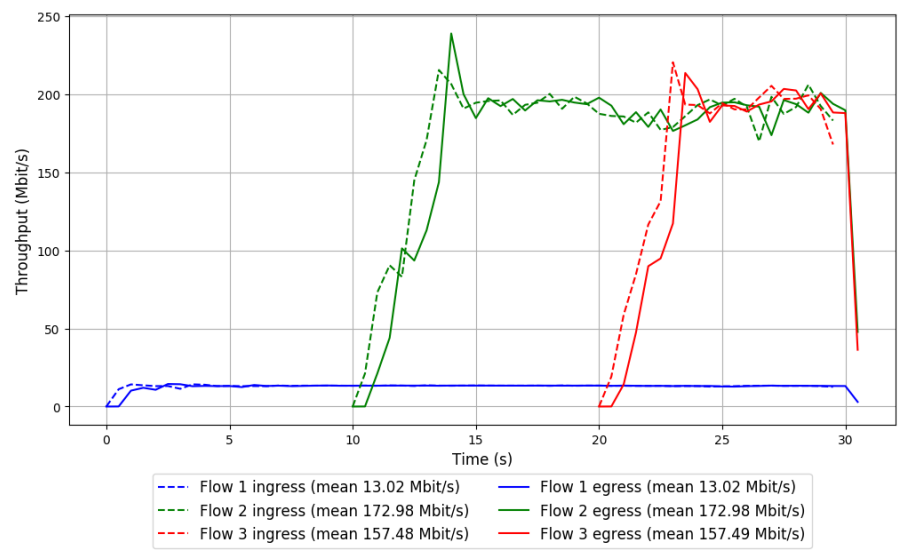


Run 2: Statistics of TaoVA-100x

Start at: 2018-12-12 00:07:28  
End at: 2018-12-12 00:07:58  
Local clock offset: -0.553 ms  
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 180.51 Mbit/s  
95th percentile per-packet one-way delay: 133.232 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 13.02 Mbit/s  
95th percentile per-packet one-way delay: 133.314 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 172.98 Mbit/s  
95th percentile per-packet one-way delay: 132.605 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 157.49 Mbit/s  
95th percentile per-packet one-way delay: 133.447 ms  
Loss rate: 0.00%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-12-12 00:44:11

End at: 2018-12-12 00:44:41

Local clock offset: -0.099 ms

Remote clock offset: 0.121 ms

# Below is generated by plot.py at 2018-12-12 04:20:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 344.26 Mbit/s

95th percentile per-packet one-way delay: 134.288 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 179.96 Mbit/s

95th percentile per-packet one-way delay: 133.856 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.46 Mbit/s

95th percentile per-packet one-way delay: 133.861 ms

Loss rate: 0.00%

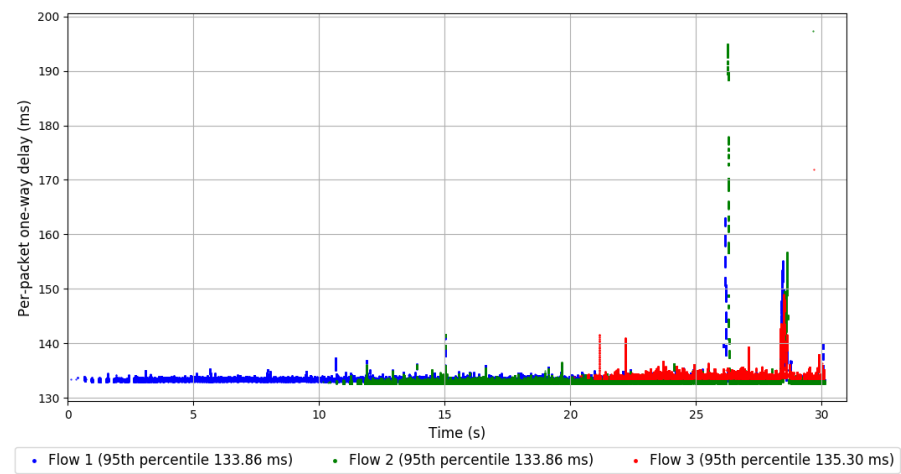
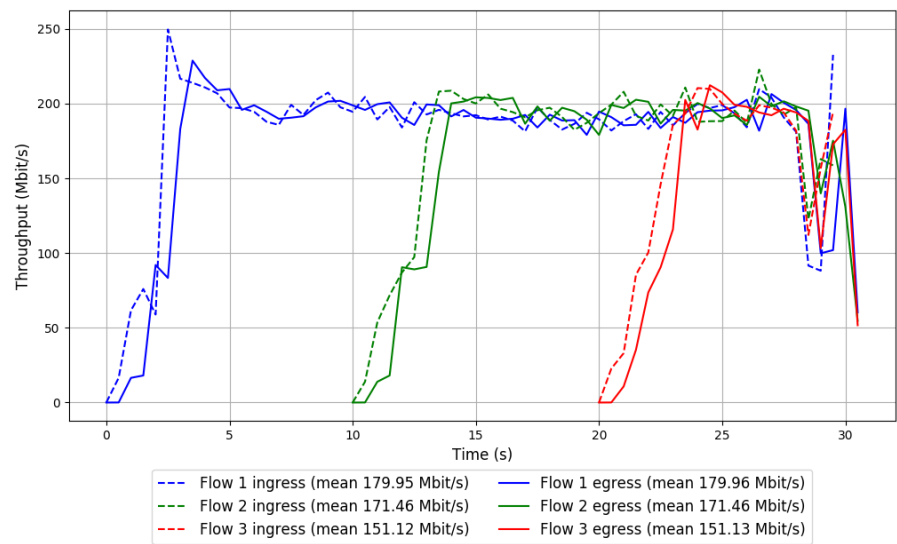
-- Flow 3:

Average throughput: 151.13 Mbit/s

95th percentile per-packet one-way delay: 135.298 ms

Loss rate: 0.00%

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

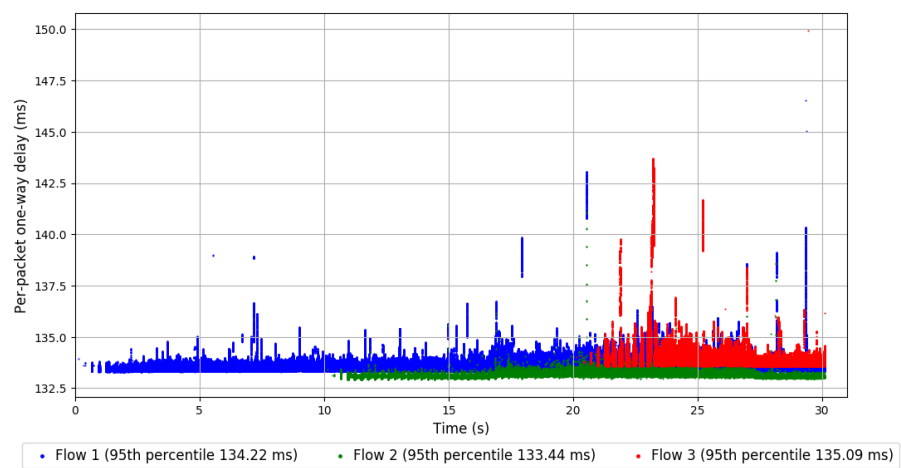
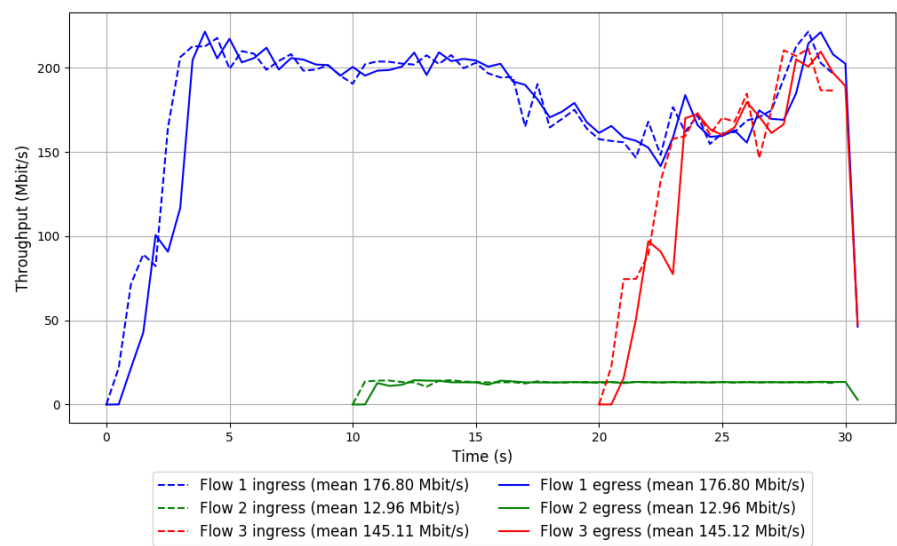


Run 4: Statistics of TaoVA-100x

Start at: 2018-12-12 01:19:47  
End at: 2018-12-12 01:20:17  
Local clock offset: -0.362 ms  
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 233.63 Mbit/s  
95th percentile per-packet one-way delay: 134.405 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 176.80 Mbit/s  
95th percentile per-packet one-way delay: 134.216 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 12.96 Mbit/s  
95th percentile per-packet one-way delay: 133.438 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 145.12 Mbit/s  
95th percentile per-packet one-way delay: 135.086 ms  
Loss rate: 0.00%

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

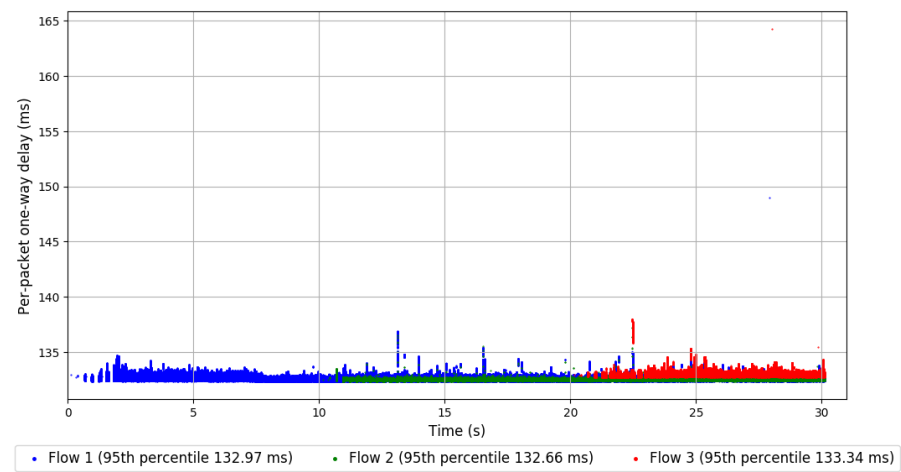
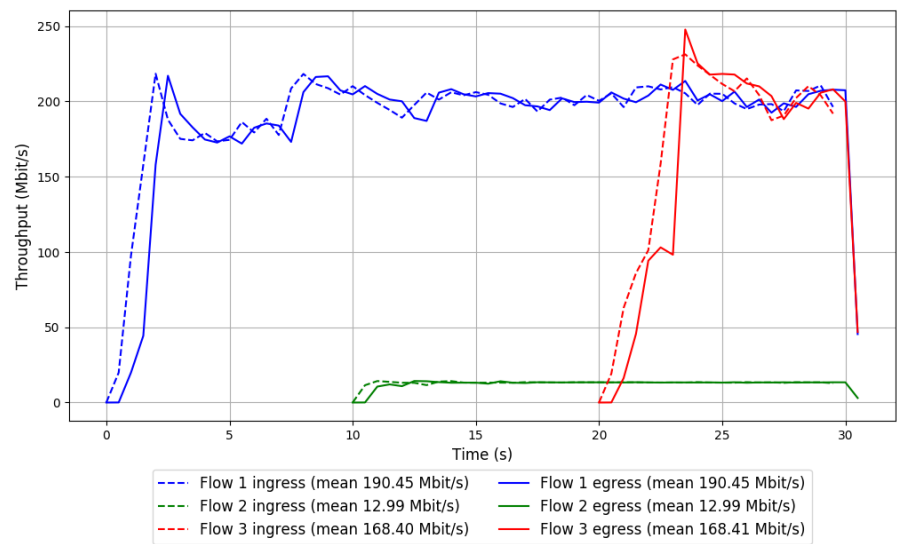


Run 5: Statistics of TaoVA-100x

Start at: 2018-12-12 01:56:25  
End at: 2018-12-12 01:56:55  
Local clock offset: -0.057 ms  
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-12-12 04:20:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 254.98 Mbit/s  
95th percentile per-packet one-way delay: 133.128 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 190.45 Mbit/s  
95th percentile per-packet one-way delay: 132.966 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 12.99 Mbit/s  
95th percentile per-packet one-way delay: 132.657 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 168.41 Mbit/s  
95th percentile per-packet one-way delay: 133.335 ms  
Loss rate: 0.00%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-12-11 23:43:49

End at: 2018-12-11 23:44:19

Local clock offset: -0.552 ms

Remote clock offset: 0.067 ms

# Below is generated by plot.py at 2018-12-12 04:20:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 546.53 Mbit/s

95th percentile per-packet one-way delay: 167.268 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 237.13 Mbit/s

95th percentile per-packet one-way delay: 144.926 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 321.28 Mbit/s

95th percentile per-packet one-way delay: 189.629 ms

Loss rate: 0.00%

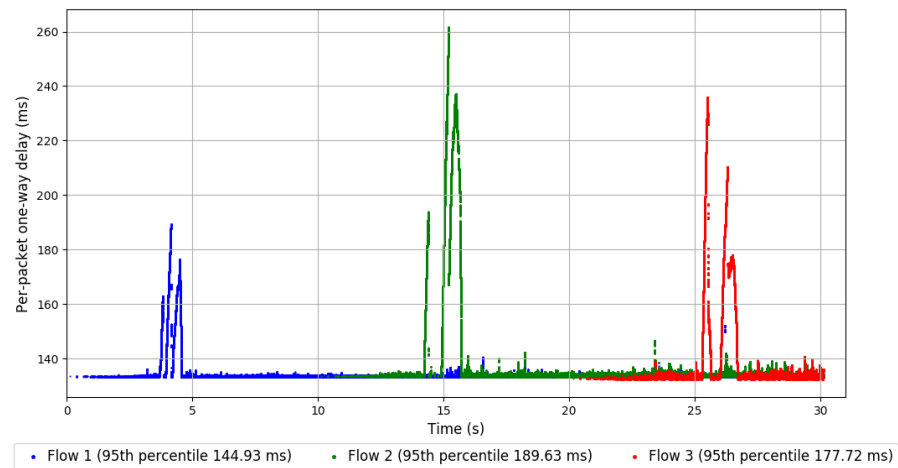
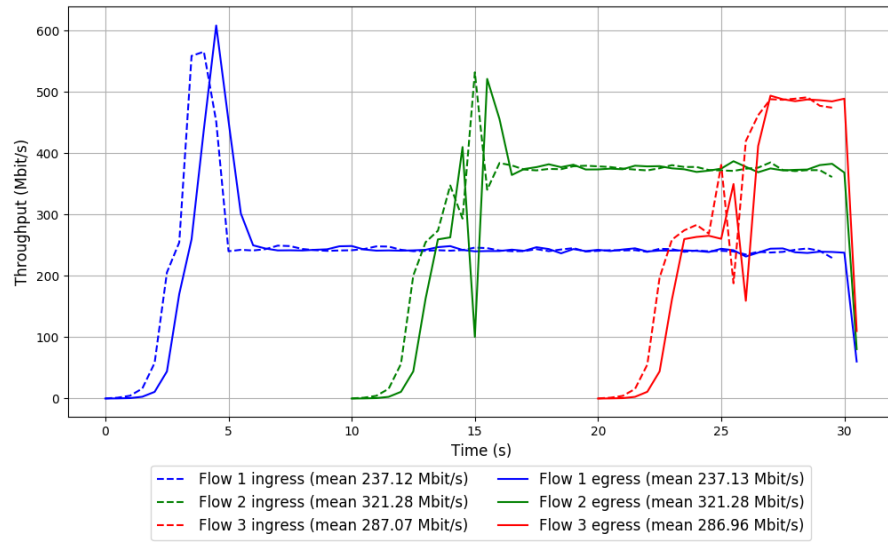
-- Flow 3:

Average throughput: 286.96 Mbit/s

95th percentile per-packet one-way delay: 177.725 ms

Loss rate: 0.04%

# Run 1: Report of TCP Vegas — Data Link

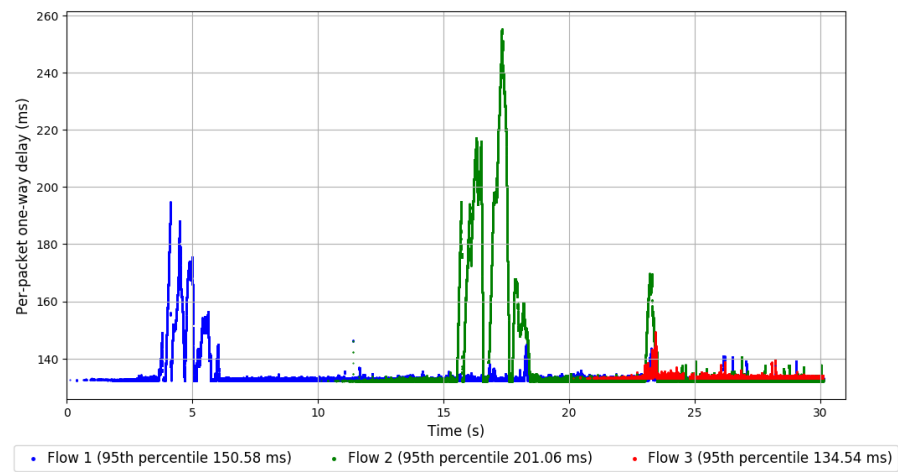
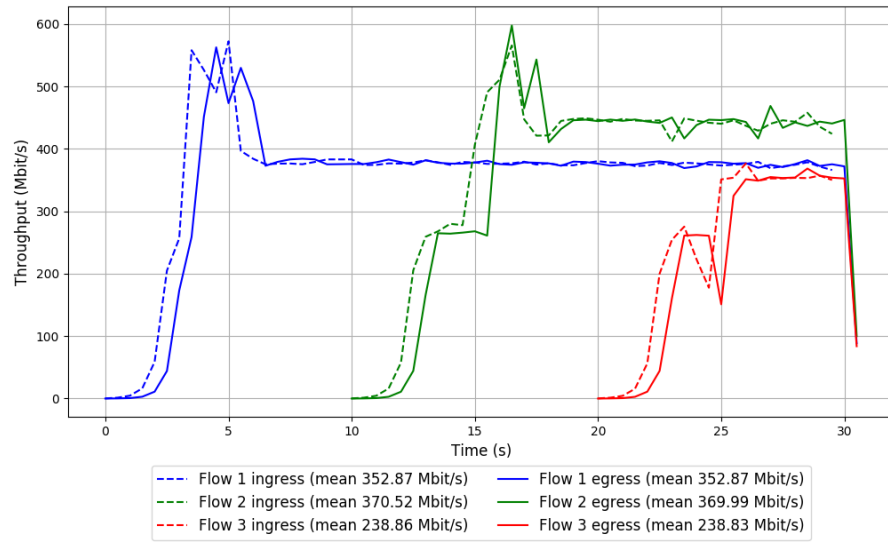


Run 2: Statistics of TCP Vegas

Start at: 2018-12-12 00:20:14  
End at: 2018-12-12 00:20:44  
Local clock offset: -0.702 ms  
Remote clock offset: -0.168 ms

# Below is generated by plot.py at 2018-12-12 04:26:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 678.65 Mbit/s  
95th percentile per-packet one-way delay: 167.418 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 352.87 Mbit/s  
95th percentile per-packet one-way delay: 150.584 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 369.99 Mbit/s  
95th percentile per-packet one-way delay: 201.061 ms  
Loss rate: 0.14%  
-- Flow 3:  
Average throughput: 238.83 Mbit/s  
95th percentile per-packet one-way delay: 134.539 ms  
Loss rate: 0.00%

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



Run 3: Statistics of TCP Vegas

Start at: 2018-12-12 00:56:16

End at: 2018-12-12 00:56:46

Local clock offset: -0.028 ms

Remote clock offset: 0.095 ms

# Below is generated by plot.py at 2018-12-12 04:26:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 537.97 Mbit/s

95th percentile per-packet one-way delay: 169.220 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 275.02 Mbit/s

95th percentile per-packet one-way delay: 172.374 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 282.18 Mbit/s

95th percentile per-packet one-way delay: 182.382 ms

Loss rate: 0.31%

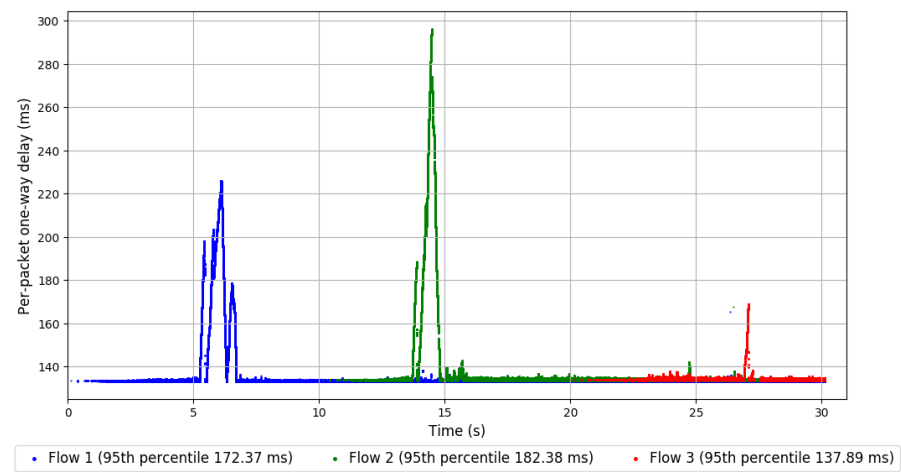
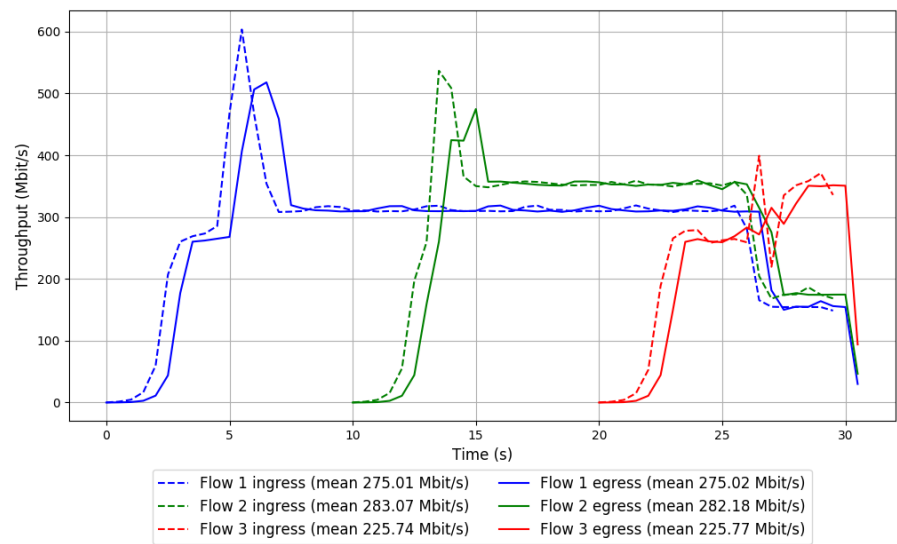
-- Flow 3:

Average throughput: 225.77 Mbit/s

95th percentile per-packet one-way delay: 137.891 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link

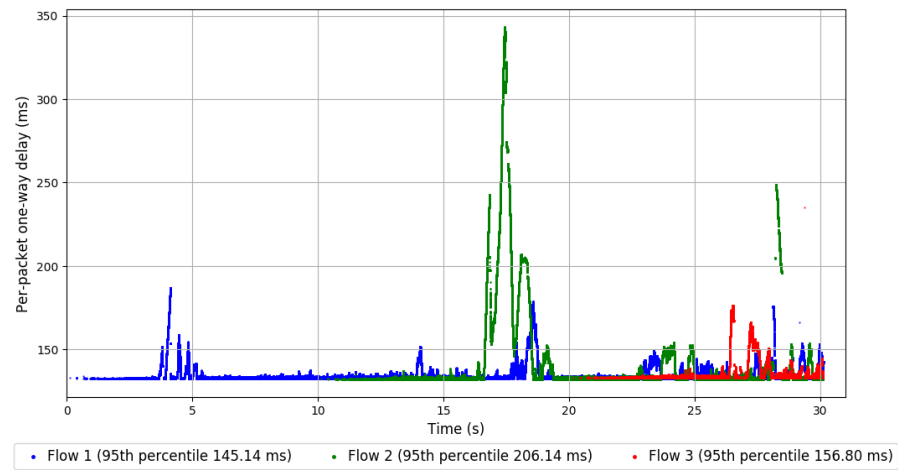
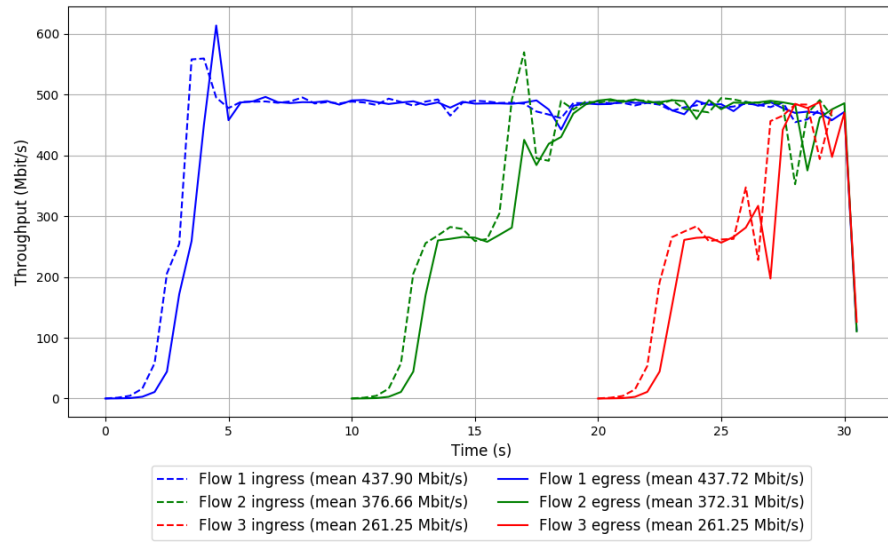


Run 4: Statistics of TCP Vegas

Start at: 2018-12-12 01:32:22  
End at: 2018-12-12 01:32:52  
Local clock offset: 0.28 ms  
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2018-12-12 04:32:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 772.55 Mbit/s  
95th percentile per-packet one-way delay: 157.886 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 437.72 Mbit/s  
95th percentile per-packet one-way delay: 145.140 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 372.31 Mbit/s  
95th percentile per-packet one-way delay: 206.143 ms  
Loss rate: 1.15%  
-- Flow 3:  
Average throughput: 261.25 Mbit/s  
95th percentile per-packet one-way delay: 156.798 ms  
Loss rate: 0.00%

# Run 4: Report of TCP Vegas — Data Link

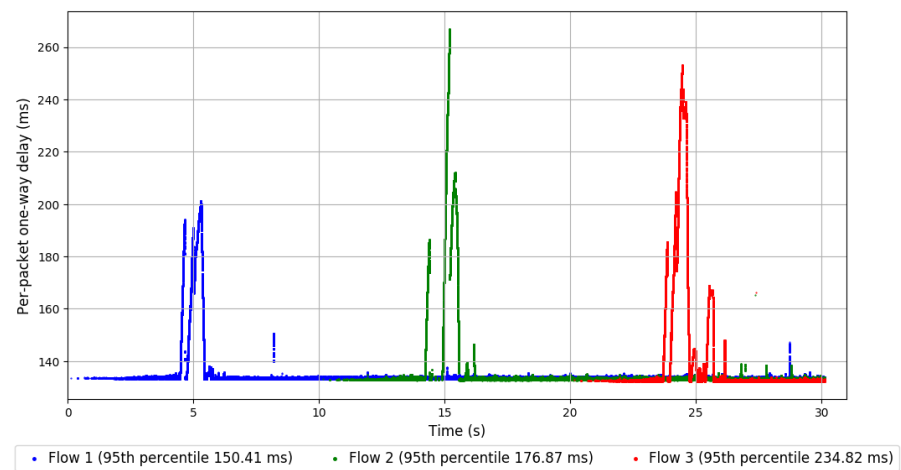
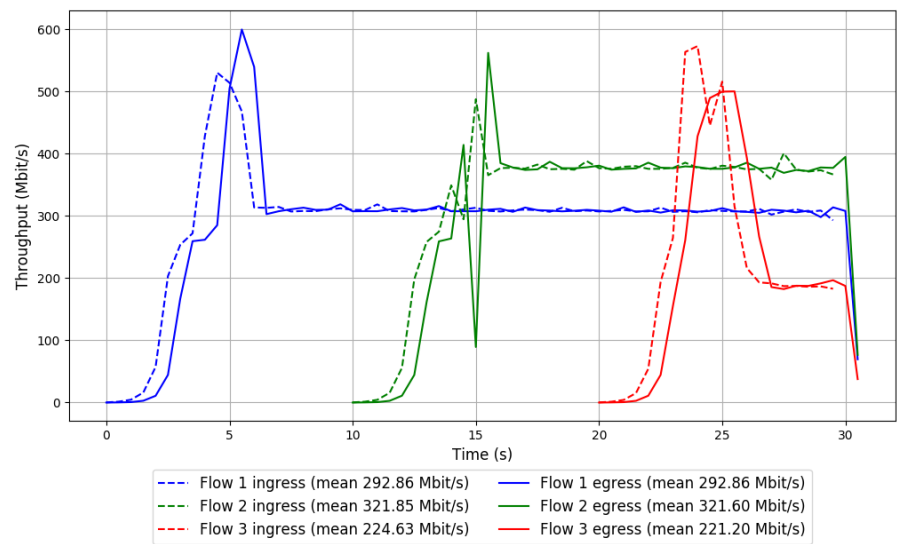


Run 5: Statistics of TCP Vegas

Start at: 2018-12-12 02:08:40  
End at: 2018-12-12 02:09:10  
Local clock offset: -0.032 ms  
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-12-12 04:32:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 580.58 Mbit/s  
95th percentile per-packet one-way delay: 179.067 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 292.86 Mbit/s  
95th percentile per-packet one-way delay: 150.409 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 321.60 Mbit/s  
95th percentile per-packet one-way delay: 176.869 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 221.20 Mbit/s  
95th percentile per-packet one-way delay: 234.816 ms  
Loss rate: 1.53%

Run 5: Report of TCP Vegas — Data Link

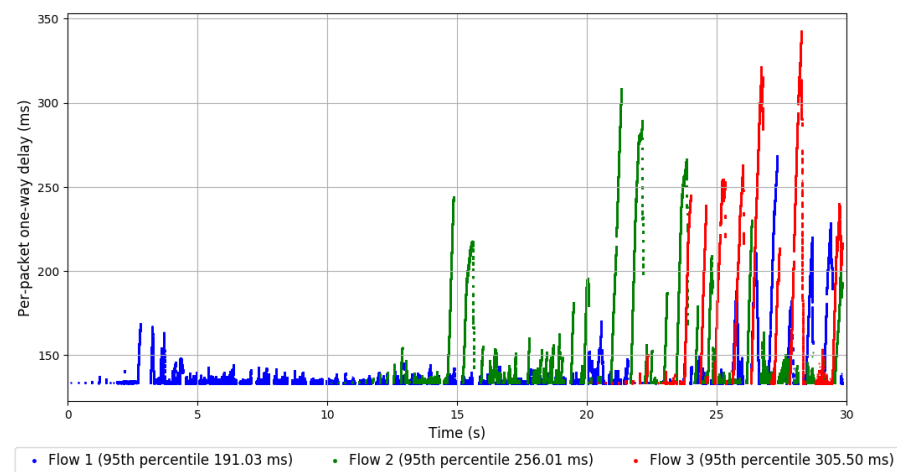
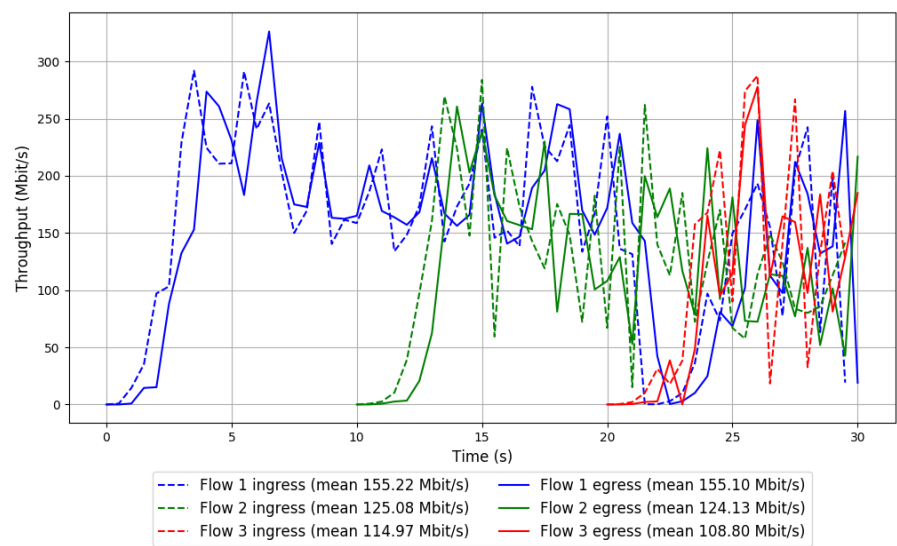


Run 1: Statistics of Verus

Start at: 2018-12-11 23:18:15  
End at: 2018-12-11 23:18:45  
Local clock offset: -0.826 ms  
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2018-12-12 04:32:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 272.79 Mbit/s  
95th percentile per-packet one-way delay: 247.409 ms  
Loss rate: 1.01%  
-- Flow 1:  
Average throughput: 155.10 Mbit/s  
95th percentile per-packet one-way delay: 191.033 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 124.13 Mbit/s  
95th percentile per-packet one-way delay: 256.011 ms  
Loss rate: 0.77%  
-- Flow 3:  
Average throughput: 108.80 Mbit/s  
95th percentile per-packet one-way delay: 305.497 ms  
Loss rate: 5.38%

Run 1: Report of Verus — Data Link

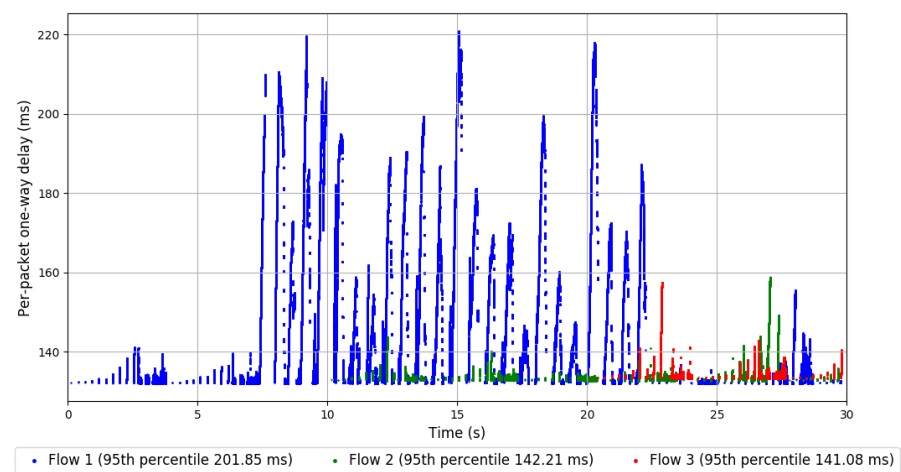
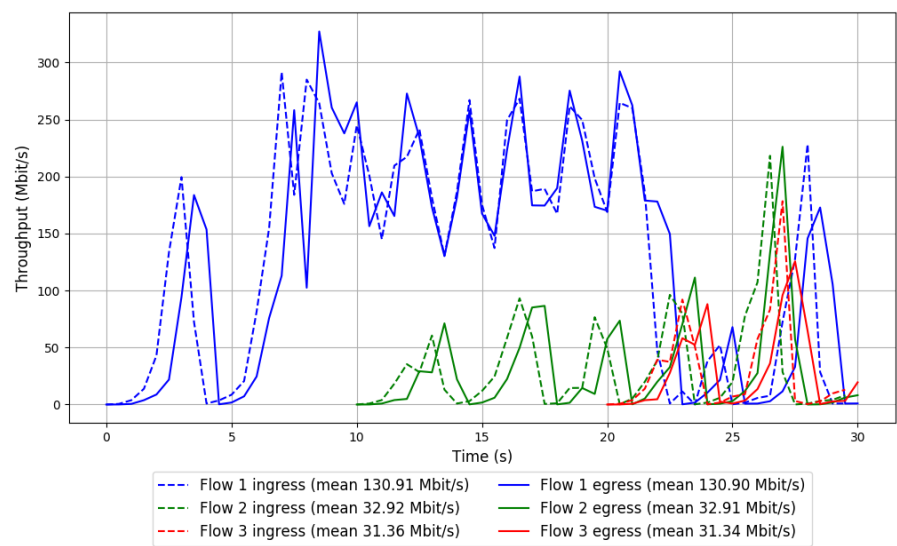


Run 2: Statistics of Verus

Start at: 2018-12-11 23:54:24  
End at: 2018-12-11 23:54:54  
Local clock offset: -0.604 ms  
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2018-12-12 04:32:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 162.55 Mbit/s  
95th percentile per-packet one-way delay: 198.781 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 130.90 Mbit/s  
95th percentile per-packet one-way delay: 201.855 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 32.91 Mbit/s  
95th percentile per-packet one-way delay: 142.210 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 31.34 Mbit/s  
95th percentile per-packet one-way delay: 141.081 ms  
Loss rate: 0.00%

Run 2: Report of Verus — Data Link

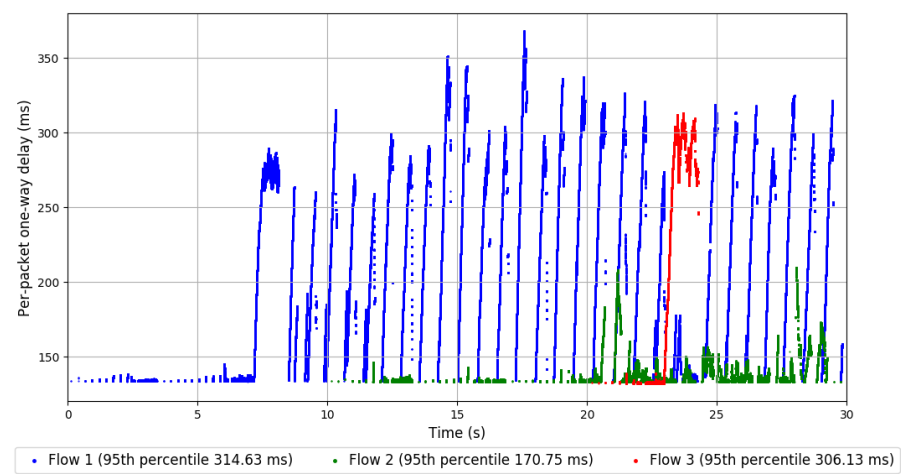
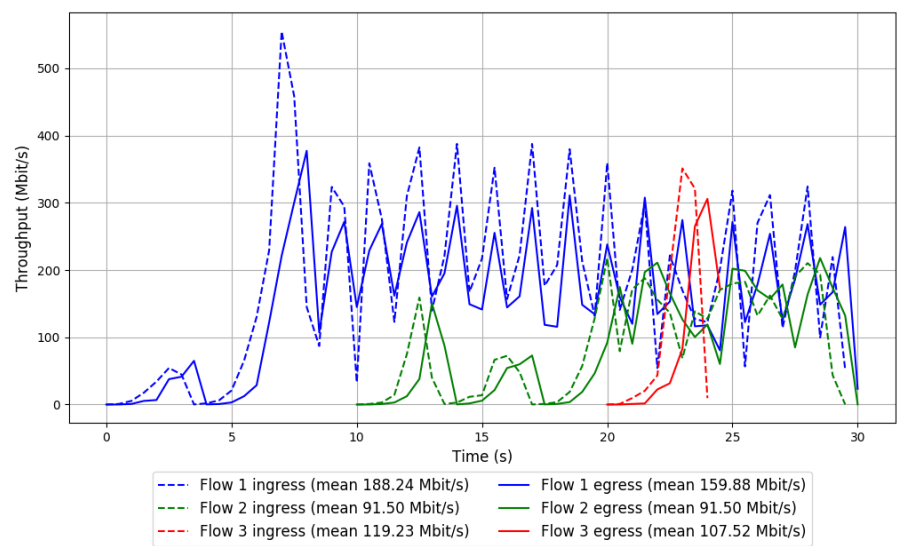


Run 3: Statistics of Verus

Start at: 2018-12-12 00:31:24  
End at: 2018-12-12 00:31:54  
Local clock offset: -0.848 ms  
Remote clock offset: -0.232 ms

# Below is generated by plot.py at 2018-12-12 04:32:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 235.27 Mbit/s  
95th percentile per-packet one-way delay: 307.172 ms  
Loss rate: 11.15%  
-- Flow 1:  
Average throughput: 159.88 Mbit/s  
95th percentile per-packet one-way delay: 314.631 ms  
Loss rate: 15.07%  
-- Flow 2:  
Average throughput: 91.50 Mbit/s  
95th percentile per-packet one-way delay: 170.747 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 107.52 Mbit/s  
95th percentile per-packet one-way delay: 306.130 ms  
Loss rate: 7.27%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-12-12 01:07:10

End at: 2018-12-12 01:07:40

Local clock offset: 0.209 ms

Remote clock offset: -0.18 ms

# Below is generated by plot.py at 2018-12-12 04:32:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 303.46 Mbit/s

95th percentile per-packet one-way delay: 302.081 ms

Loss rate: 3.83%

-- Flow 1:

Average throughput: 177.72 Mbit/s

95th percentile per-packet one-way delay: 257.620 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 166.77 Mbit/s

95th percentile per-packet one-way delay: 318.437 ms

Loss rate: 9.78%

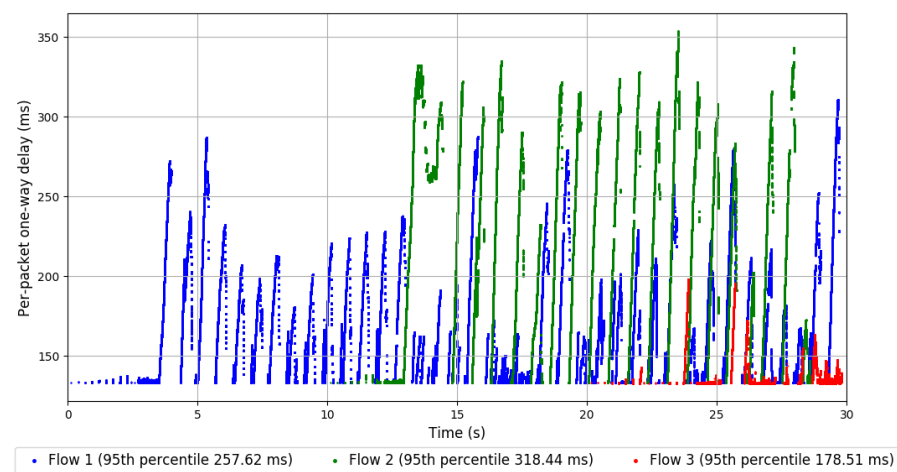
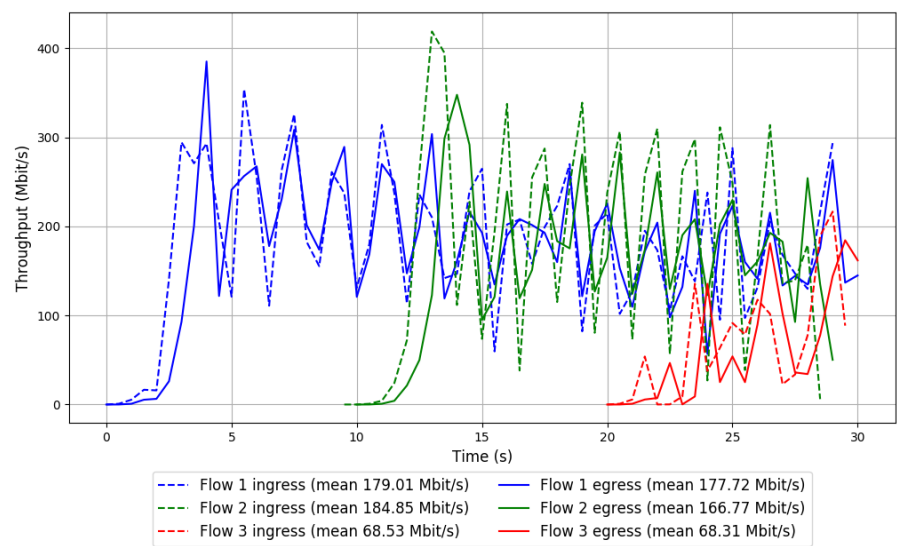
-- Flow 3:

Average throughput: 68.31 Mbit/s

95th percentile per-packet one-way delay: 178.515 ms

Loss rate: 0.31%

Run 4: Report of Verus — Data Link

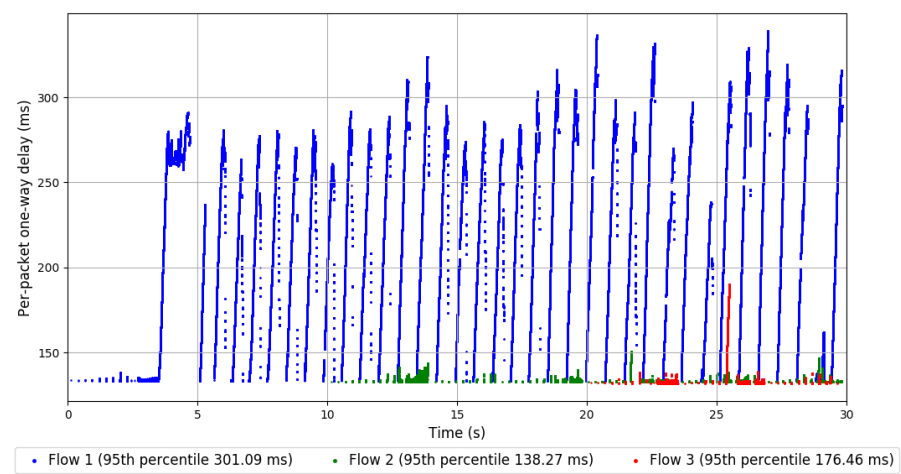
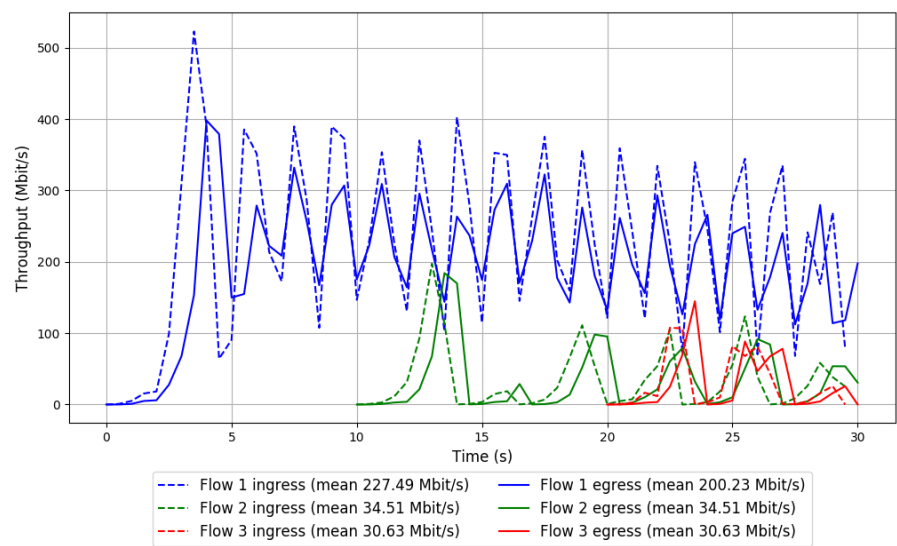


Run 5: Statistics of Verus

Start at: 2018-12-12 01:43:40  
End at: 2018-12-12 01:44:10  
Local clock offset: -0.122 ms  
Remote clock offset: -0.417 ms

# Below is generated by plot.py at 2018-12-12 04:33:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 232.88 Mbit/s  
95th percentile per-packet one-way delay: 298.385 ms  
Loss rate: 10.47%  
-- Flow 1:  
Average throughput: 200.23 Mbit/s  
95th percentile per-packet one-way delay: 301.093 ms  
Loss rate: 11.97%  
-- Flow 2:  
Average throughput: 34.51 Mbit/s  
95th percentile per-packet one-way delay: 138.272 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 30.63 Mbit/s  
95th percentile per-packet one-way delay: 176.455 ms  
Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-12-11 23:14:51

End at: 2018-12-11 23:15:21

Local clock offset: -0.615 ms

Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-12-12 04:35:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 461.22 Mbit/s

95th percentile per-packet one-way delay: 231.758 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 290.03 Mbit/s

95th percentile per-packet one-way delay: 211.437 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 178.04 Mbit/s

95th percentile per-packet one-way delay: 136.433 ms

Loss rate: 0.00%

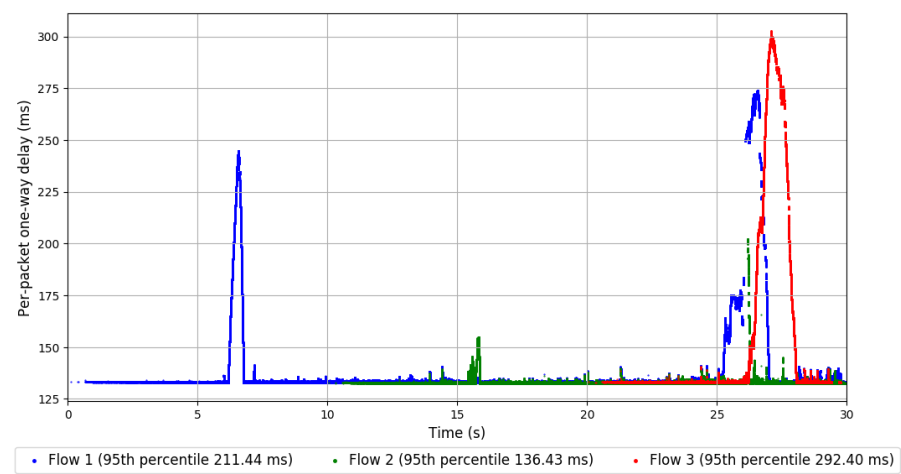
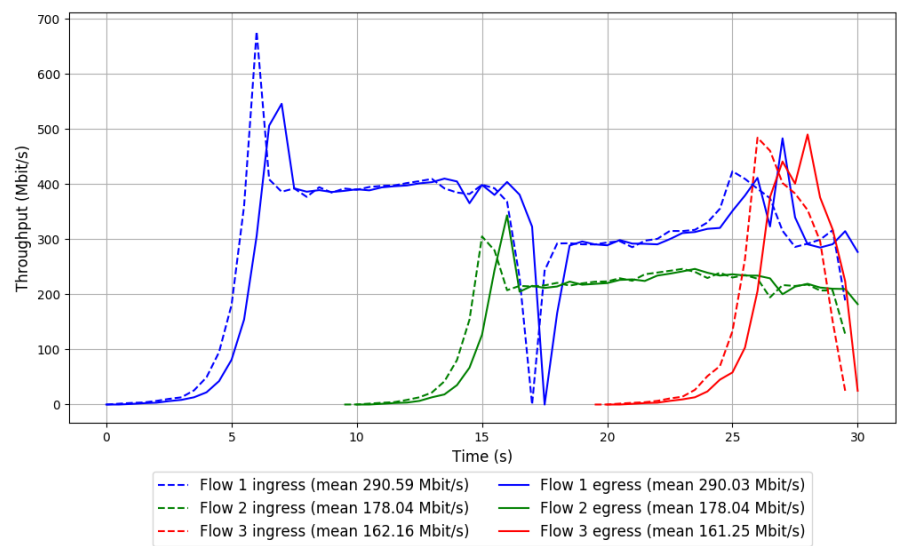
-- Flow 3:

Average throughput: 161.25 Mbit/s

95th percentile per-packet one-way delay: 292.400 ms

Loss rate: 0.56%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-12-11 23:51:03

End at: 2018-12-11 23:51:33

Local clock offset: -0.559 ms

Remote clock offset: -0.37 ms

# Below is generated by plot.py at 2018-12-12 04:35:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 456.13 Mbit/s

95th percentile per-packet one-way delay: 173.262 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 298.07 Mbit/s

95th percentile per-packet one-way delay: 196.019 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 180.32 Mbit/s

95th percentile per-packet one-way delay: 135.057 ms

Loss rate: 0.00%

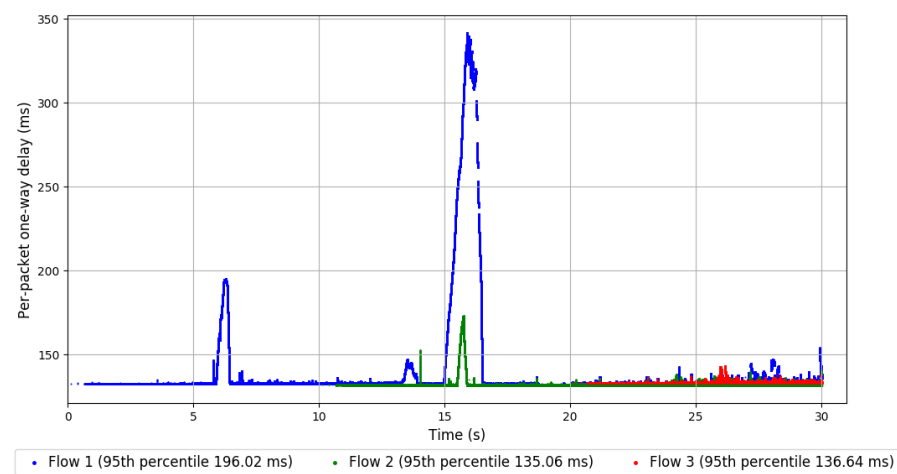
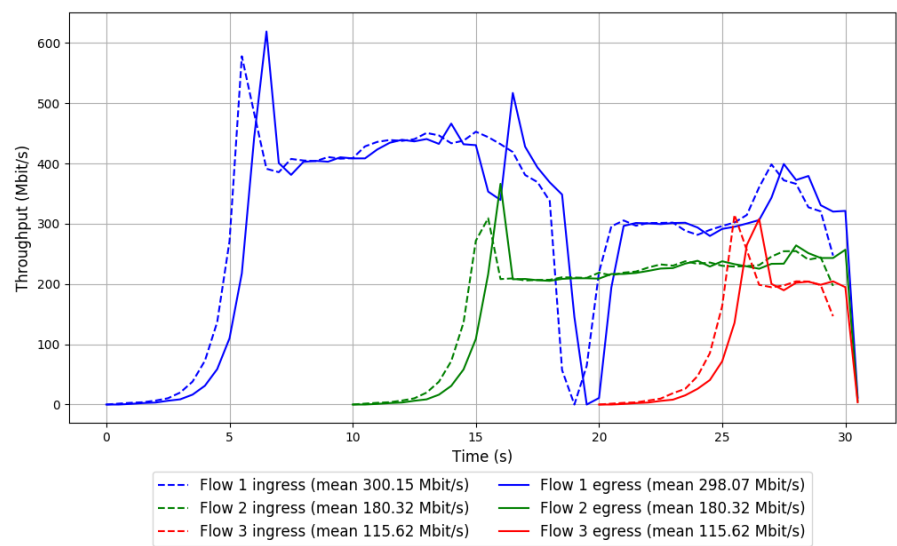
-- Flow 3:

Average throughput: 115.62 Mbit/s

95th percentile per-packet one-way delay: 136.636 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

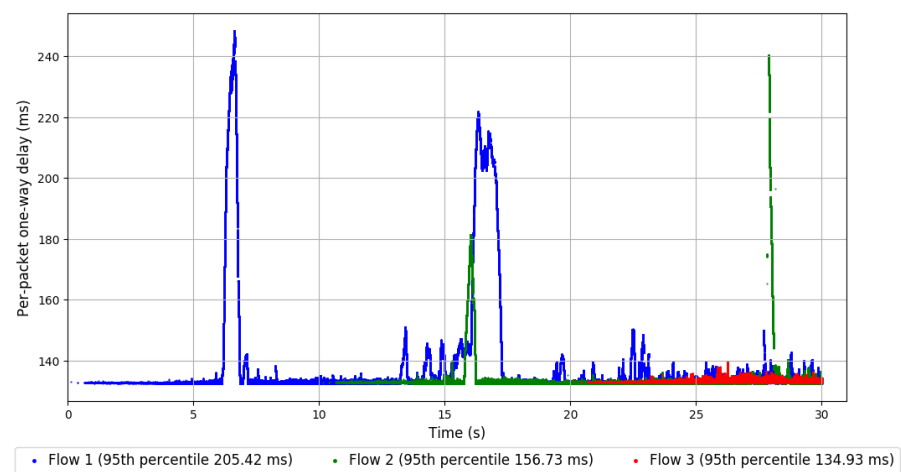
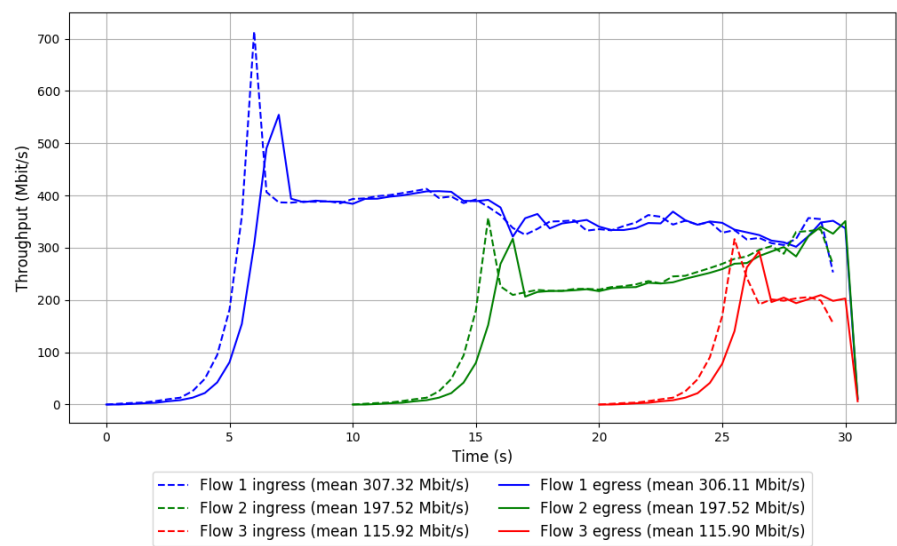


Run 3: Statistics of PCC-Vivace

Start at: 2018-12-12 00:28:03  
End at: 2018-12-12 00:28:33  
Local clock offset: -0.778 ms  
Remote clock offset: -0.569 ms

# Below is generated by plot.py at 2018-12-12 04:35:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 475.68 Mbit/s  
95th percentile per-packet one-way delay: 180.836 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 306.11 Mbit/s  
95th percentile per-packet one-way delay: 205.423 ms  
Loss rate: 0.39%  
-- Flow 2:  
Average throughput: 197.52 Mbit/s  
95th percentile per-packet one-way delay: 156.732 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 115.90 Mbit/s  
95th percentile per-packet one-way delay: 134.926 ms  
Loss rate: 0.03%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-12-12 01:03:50

End at: 2018-12-12 01:04:20

Local clock offset: 0.172 ms

Remote clock offset: -0.23 ms

# Below is generated by plot.py at 2018-12-12 04:35:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 458.67 Mbit/s

95th percentile per-packet one-way delay: 141.400 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 293.99 Mbit/s

95th percentile per-packet one-way delay: 141.768 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 193.76 Mbit/s

95th percentile per-packet one-way delay: 147.305 ms

Loss rate: 0.00%

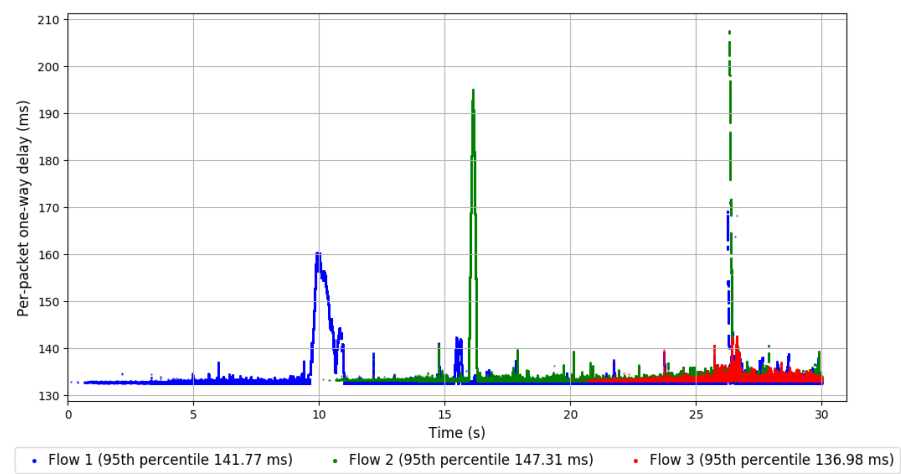
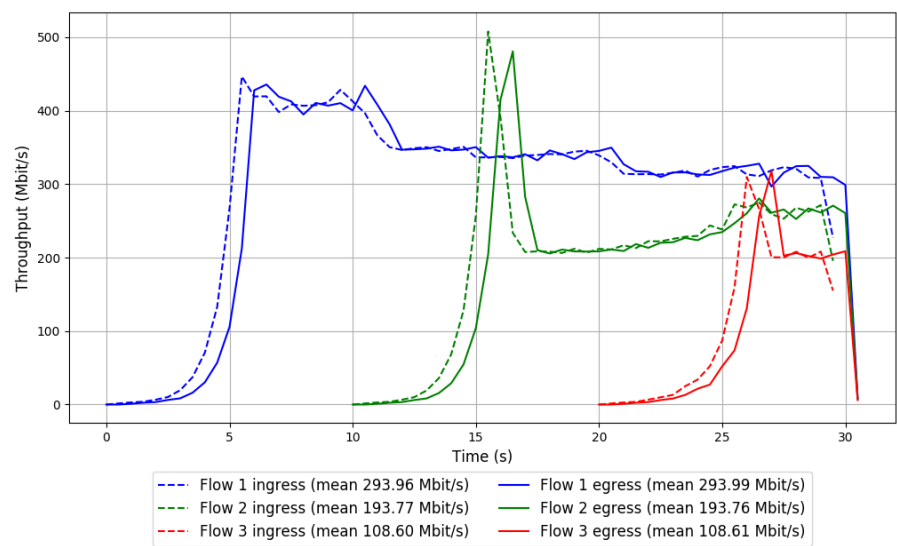
-- Flow 3:

Average throughput: 108.61 Mbit/s

95th percentile per-packet one-way delay: 136.976 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

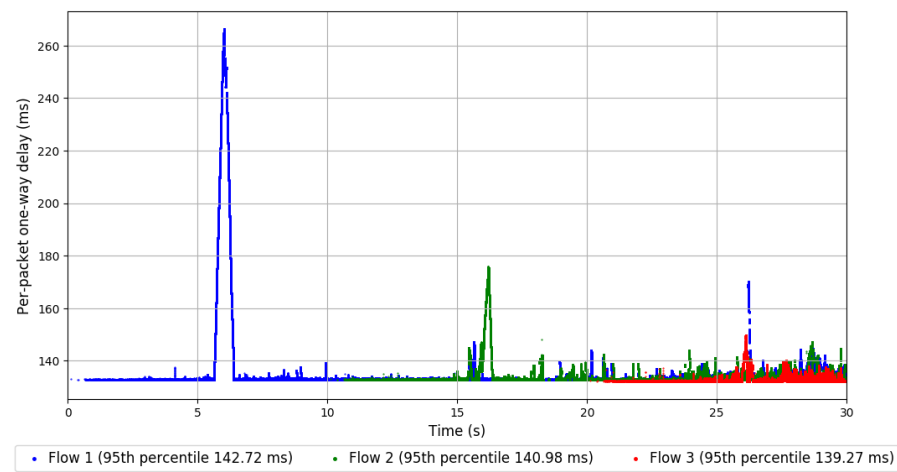
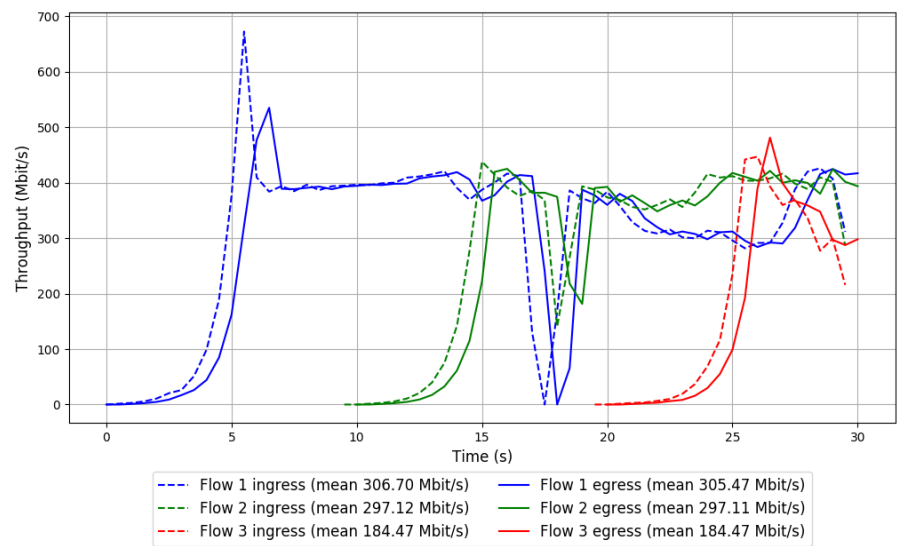


Run 5: Statistics of PCC-Vivace

Start at: 2018-12-12 01:40:03  
End at: 2018-12-12 01:40:33  
Local clock offset: 0.106 ms  
Remote clock offset: -0.445 ms

# Below is generated by plot.py at 2018-12-12 04:35:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 564.12 Mbit/s  
95th percentile per-packet one-way delay: 140.902 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 305.47 Mbit/s  
95th percentile per-packet one-way delay: 142.721 ms  
Loss rate: 0.40%  
-- Flow 2:  
Average throughput: 297.11 Mbit/s  
95th percentile per-packet one-way delay: 140.983 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 184.47 Mbit/s  
95th percentile per-packet one-way delay: 139.273 ms  
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

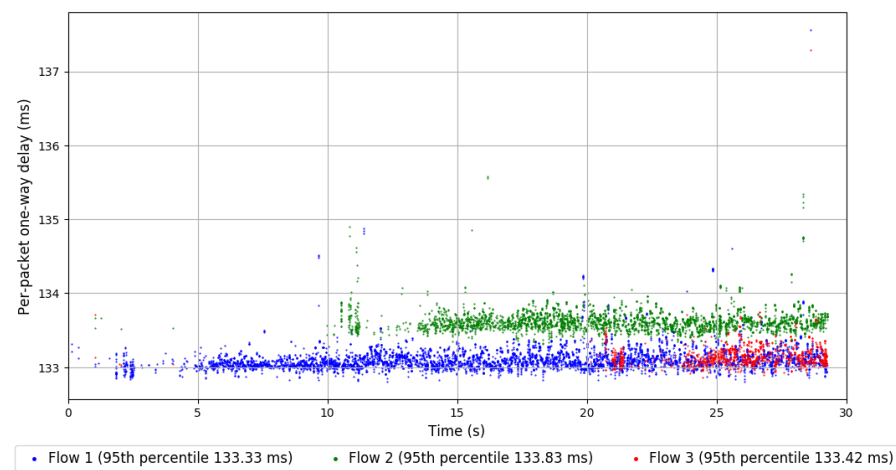
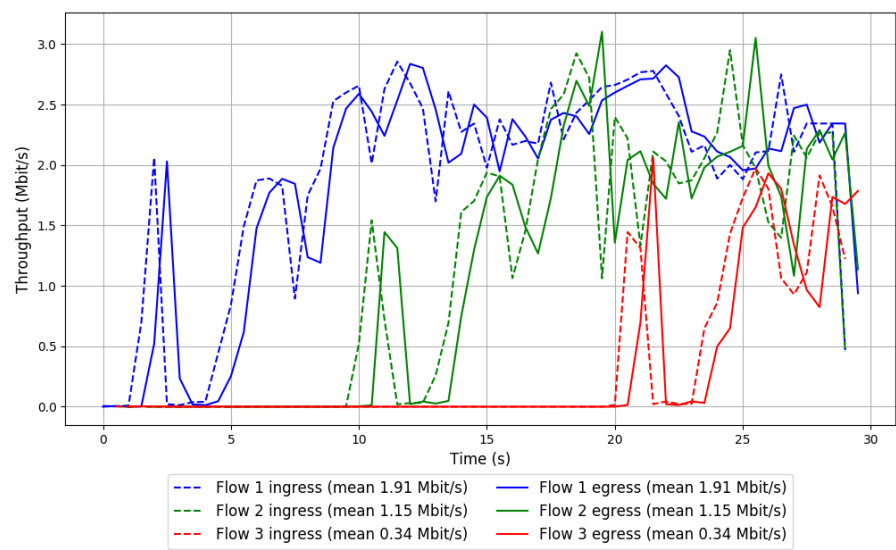


```
Run 1: Statistics of WebRTC media

Start at: 2018-12-11 23:36:28
End at: 2018-12-11 23:36:58
Local clock offset: -0.539 ms
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2018-12-12 04:35:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 133.731 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 133.326 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 133.834 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 133.421 ms
Loss rate: 0.01%
```

Run 1: Report of WebRTC media — Data Link

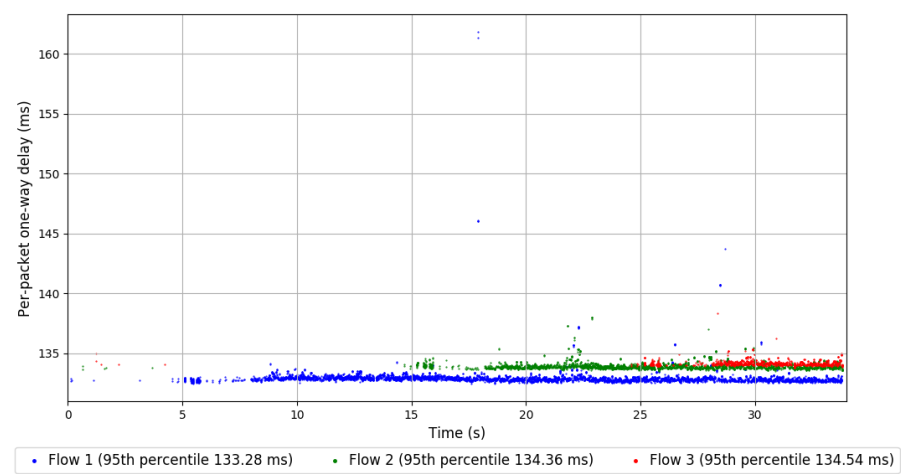
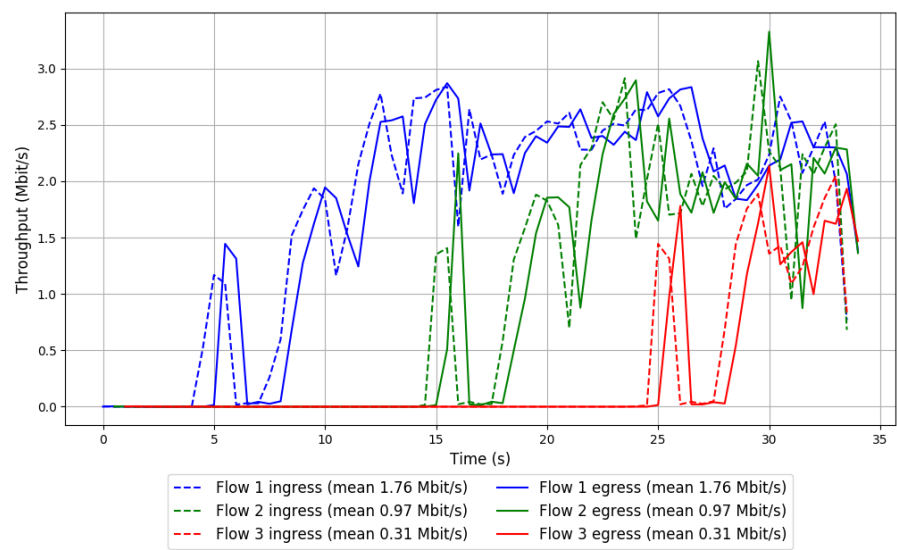


Run 2: Statistics of WebRTC media

Start at: 2018-12-12 00:12:35  
End at: 2018-12-12 00:13:05  
Local clock offset: -1.083 ms  
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-12-12 04:35:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.01 Mbit/s  
95th percentile per-packet one-way delay: 134.227 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.76 Mbit/s  
95th percentile per-packet one-way delay: 133.280 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.97 Mbit/s  
95th percentile per-packet one-way delay: 134.356 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.31 Mbit/s  
95th percentile per-packet one-way delay: 134.543 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

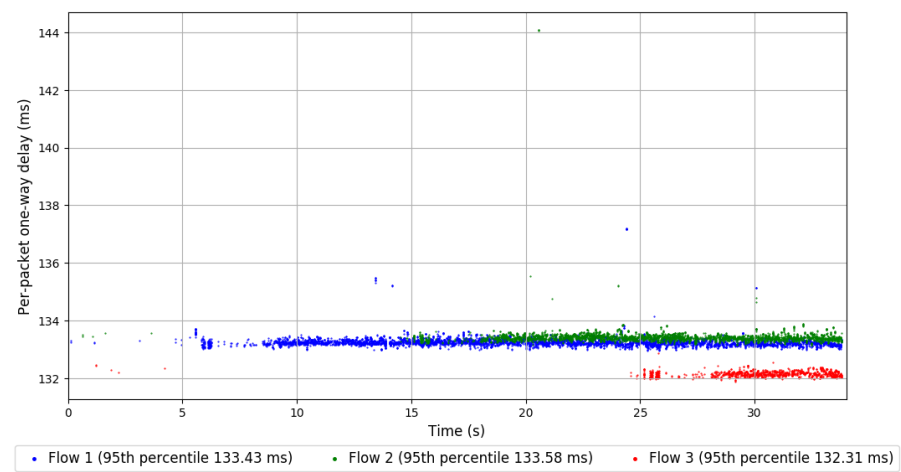
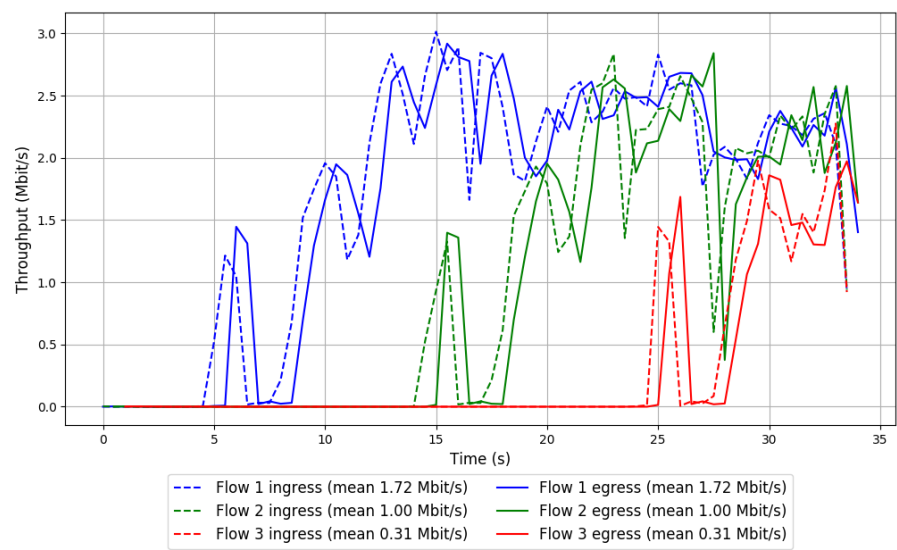


Run 3: Statistics of WebRTC media

Start at: 2018-12-12 00:49:06  
End at: 2018-12-12 00:49:36  
Local clock offset: -0.302 ms  
Remote clock offset: -0.638 ms

# Below is generated by plot.py at 2018-12-12 04:35:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.01 Mbit/s  
95th percentile per-packet one-way delay: 133.516 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.72 Mbit/s  
95th percentile per-packet one-way delay: 133.428 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.00 Mbit/s  
95th percentile per-packet one-way delay: 133.578 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.31 Mbit/s  
95th percentile per-packet one-way delay: 132.312 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-12-12 01:24:54

End at: 2018-12-12 01:25:24

Local clock offset: -0.498 ms

Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-12-12 04:35:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.03 Mbit/s

95th percentile per-packet one-way delay: 134.260 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 134.281 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 134.243 ms

Loss rate: 0.00%

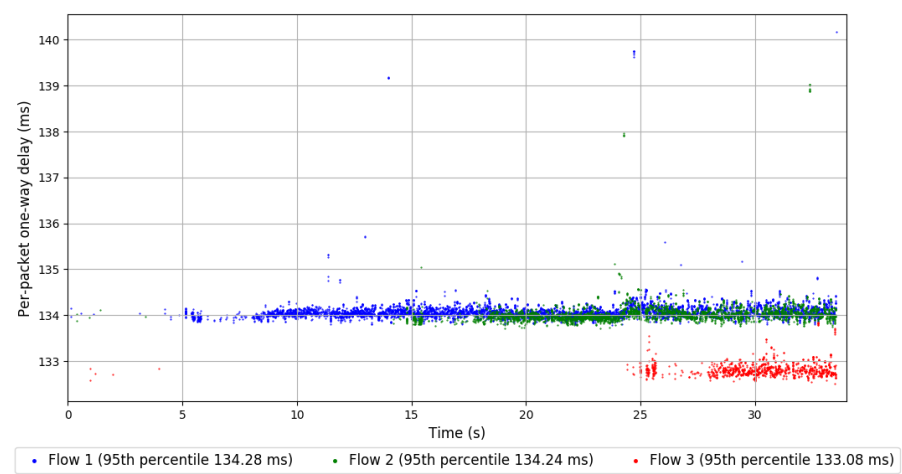
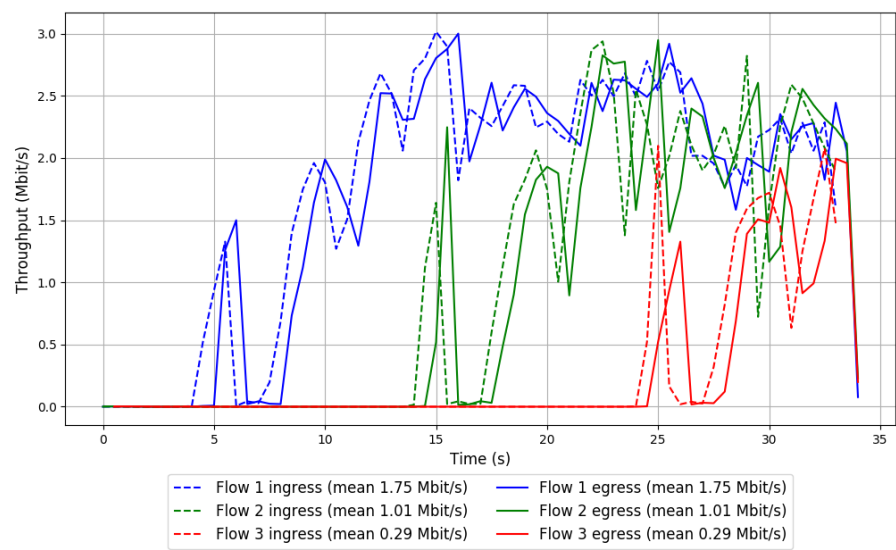
-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 133.081 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-12-12 02:01:30  
End at: 2018-12-12 02:02:00  
Local clock offset: 0.212 ms  
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-12-12 04:35:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.11 Mbit/s  
95th percentile per-packet one-way delay: 133.463 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.83 Mbit/s  
95th percentile per-packet one-way delay: 133.514 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.99 Mbit/s  
95th percentile per-packet one-way delay: 132.146 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.31 Mbit/s  
95th percentile per-packet one-way delay: 132.515 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

