

## Pantheon Report

Generated at 2018-11-30 23:45:13 (UTC).

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

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:

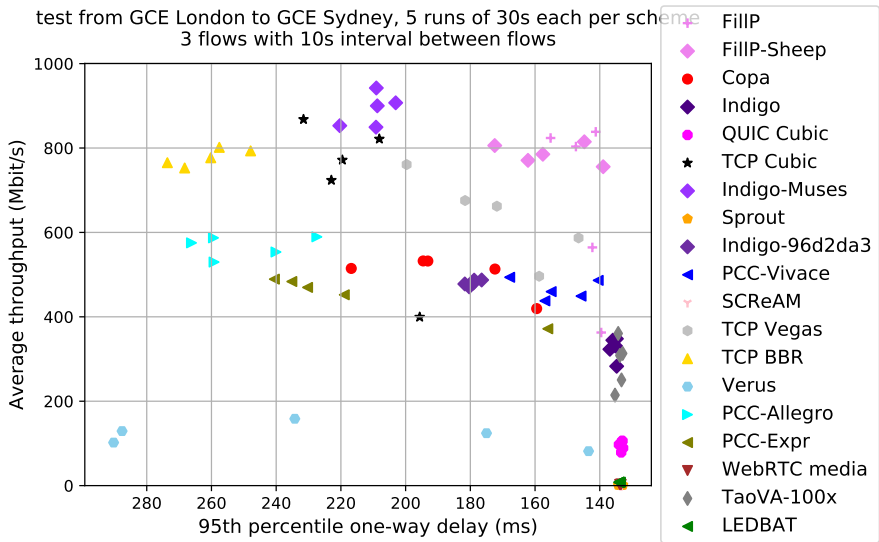
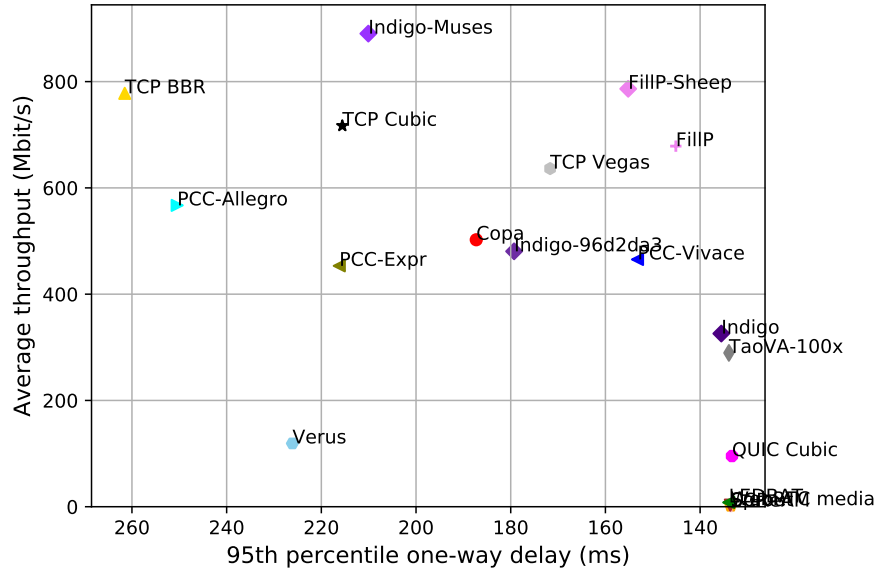
```
Linux 4.15.0-1024-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ 7b6dad87cde3ab65f7c4052140eb54098aa58e9d
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
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 London to GCE Sydney, 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	436.21	389.44	256.11	254.66	261.46	185.37	3.32	3.84	6.77
Copa	5	270.24	250.18	202.98	171.00	182.89	196.59	1.11	1.46	3.15
TCP Cubic	5	397.25	362.36	242.95	208.50	206.32	219.28	1.32	1.90	5.63
FillP	5	386.37	321.95	243.29	147.80	138.33	137.73	0.56	1.42	3.11
FillP-Sheep	5	491.58	328.81	237.09	162.78	139.54	135.92	0.94	1.27	3.00
Indigo	5	171.72	159.65	148.07	135.03	135.71	137.03	0.83	1.35	3.37
Indigo-96d2da3	5	262.09	244.57	177.66	180.73	179.27	172.96	1.21	1.68	4.17
LEDBAT	5	5.24	3.42	1.66	133.91	133.79	133.94	1.79	2.71	5.40
Indigo-Muses	5	519.54	438.62	252.55	203.69	216.28	202.31	1.19	2.09	5.73
PCC-Allegro	5	301.62	291.07	225.54	250.68	225.74	244.77	3.71	4.82	5.52
PCC-Expr	5	269.72	193.91	170.52	210.53	172.08	216.56	2.92	1.94	6.67
QUIC Cubic	5	54.17	45.76	32.36	133.20	132.87	132.95	1.23	2.22	2.43
SCReAM	5	0.16	0.15	0.16	133.33	133.04	133.40	0.91	1.43	2.51
Sprout	5	0.66	0.56	0.57	133.38	133.37	133.41	0.93	1.72	2.74
TaoVA-100x	5	182.50	115.85	92.41	133.62	133.83	134.40	0.87	1.45	2.81
TCP Vegas	5	352.37	303.19	254.06	165.43	141.03	214.12	0.88	1.39	4.17
Verus	5	46.37	89.24	42.95	181.94	188.91	213.84	2.11	2.38	6.95
PCC-Vivace	5	287.16	216.05	108.55	165.51	136.65	139.92	1.23	1.57	4.41
WebRTC media	5	1.68	1.00	0.30	133.58	133.38	133.29	1.14	1.89	7.31

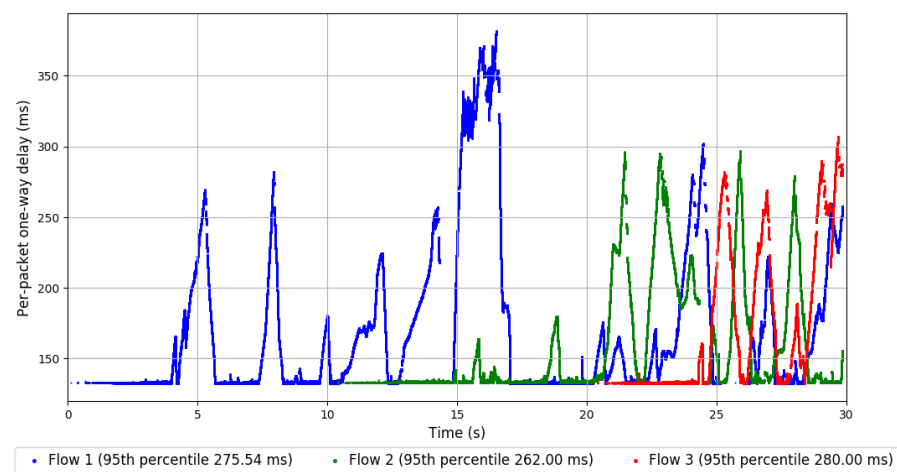
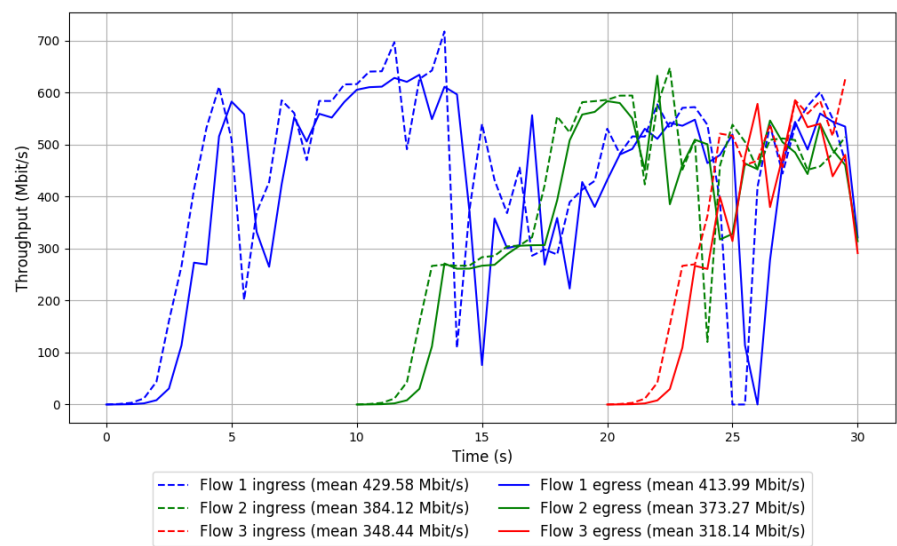


Run 1: Statistics of TCP BBR

Start at: 2018-11-30 18:35:59  
End at: 2018-11-30 18:36:29  
Local clock offset: -0.446 ms  
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2018-11-30 21:50:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 765.28 Mbit/s  
95th percentile per-packet one-way delay: 273.620 ms  
Loss rate: 5.33%  
-- Flow 1:  
Average throughput: 413.99 Mbit/s  
95th percentile per-packet one-way delay: 275.543 ms  
Loss rate: 4.49%  
-- Flow 2:  
Average throughput: 373.27 Mbit/s  
95th percentile per-packet one-way delay: 262.001 ms  
Loss rate: 4.13%  
-- Flow 3:  
Average throughput: 318.14 Mbit/s  
95th percentile per-packet one-way delay: 280.004 ms  
Loss rate: 11.14%

Run 1: Report of TCP BBR — Data Link

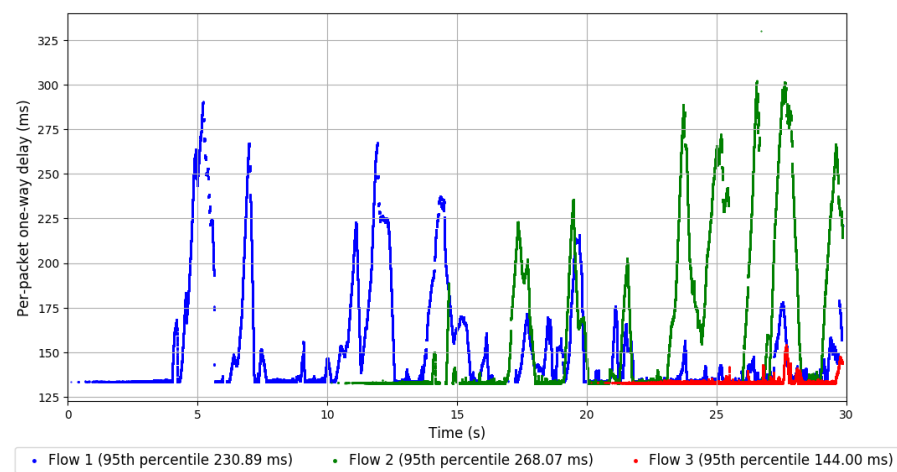
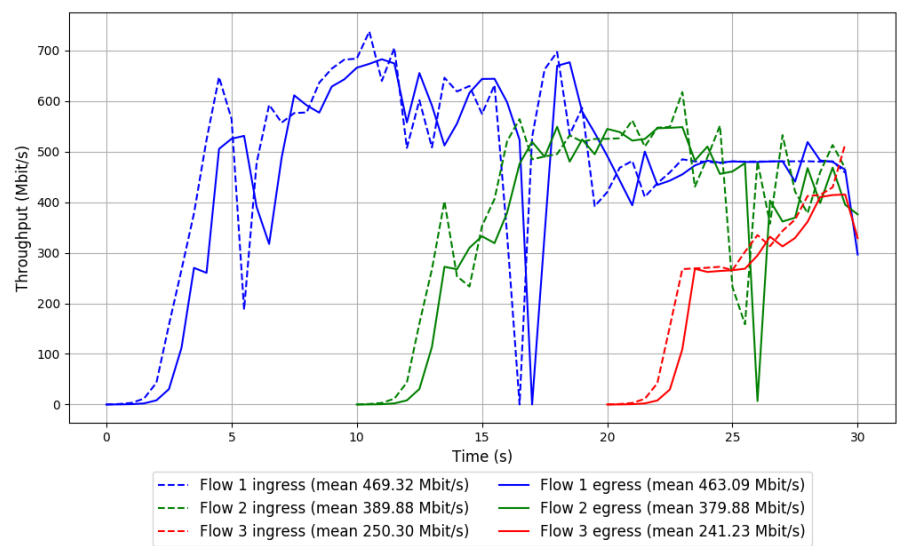


Run 2: Statistics of TCP BBR

Start at: 2018-11-30 19:13:43  
End at: 2018-11-30 19:14:13  
Local clock offset: -0.19 ms  
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-11-30 21:50:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 793.27 Mbit/s  
95th percentile per-packet one-way delay: 247.908 ms  
Loss rate: 3.08%  
-- Flow 1:  
Average throughput: 463.09 Mbit/s  
95th percentile per-packet one-way delay: 230.894 ms  
Loss rate: 2.09%  
-- Flow 2:  
Average throughput: 379.88 Mbit/s  
95th percentile per-packet one-way delay: 268.073 ms  
Loss rate: 3.87%  
-- Flow 3:  
Average throughput: 241.23 Mbit/s  
95th percentile per-packet one-way delay: 144.002 ms  
Loss rate: 6.21%

Run 2: Report of TCP BBR — Data Link

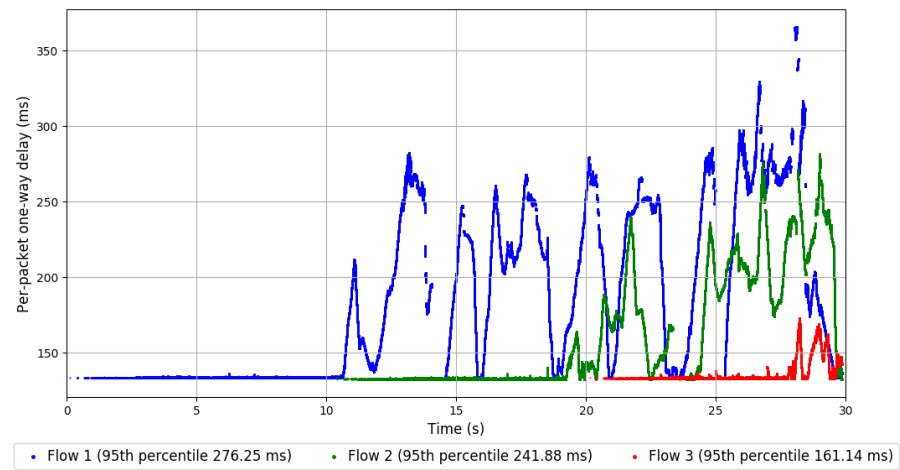
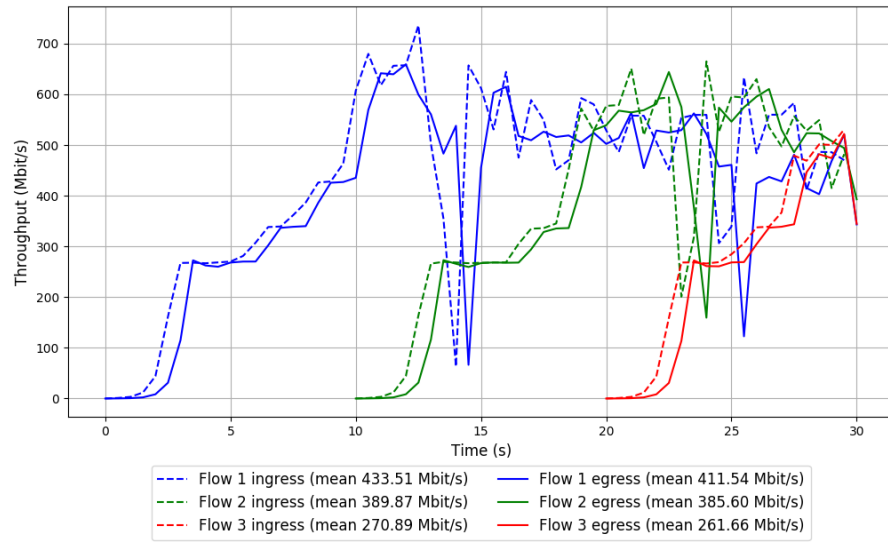


Run 3: Statistics of TCP BBR

Start at: 2018-11-30 19:50:29  
End at: 2018-11-30 19:50:59  
Local clock offset: -0.124 ms  
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2018-11-30 21:50:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 752.75 Mbit/s  
95th percentile per-packet one-way delay: 268.282 ms  
Loss rate: 4.77%  
-- Flow 1:  
Average throughput: 411.54 Mbit/s  
95th percentile per-packet one-way delay: 276.248 ms  
Loss rate: 5.92%  
-- Flow 2:  
Average throughput: 385.60 Mbit/s  
95th percentile per-packet one-way delay: 241.876 ms  
Loss rate: 2.42%  
-- Flow 3:  
Average throughput: 261.66 Mbit/s  
95th percentile per-packet one-way delay: 161.144 ms  
Loss rate: 6.01%

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



Run 4: Statistics of TCP BBR

Start at: 2018-11-30 20:27:15

End at: 2018-11-30 20:27:45

Local clock offset: 0.379 ms

Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-11-30 21:51:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 801.65 Mbit/s

95th percentile per-packet one-way delay: 257.573 ms

Loss rate: 3.23%

-- Flow 1:

Average throughput: 438.30 Mbit/s

95th percentile per-packet one-way delay: 240.059 ms

Loss rate: 1.63%

-- Flow 2:

Average throughput: 438.14 Mbit/s

95th percentile per-packet one-way delay: 262.949 ms

Loss rate: 4.93%

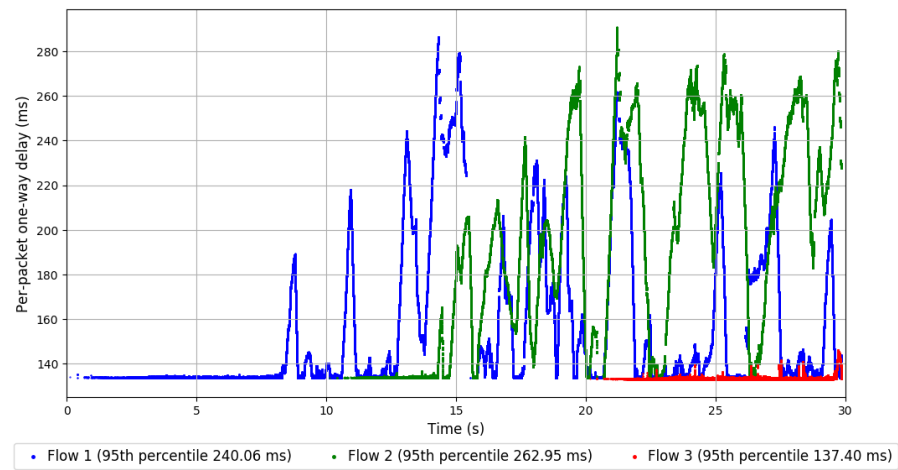
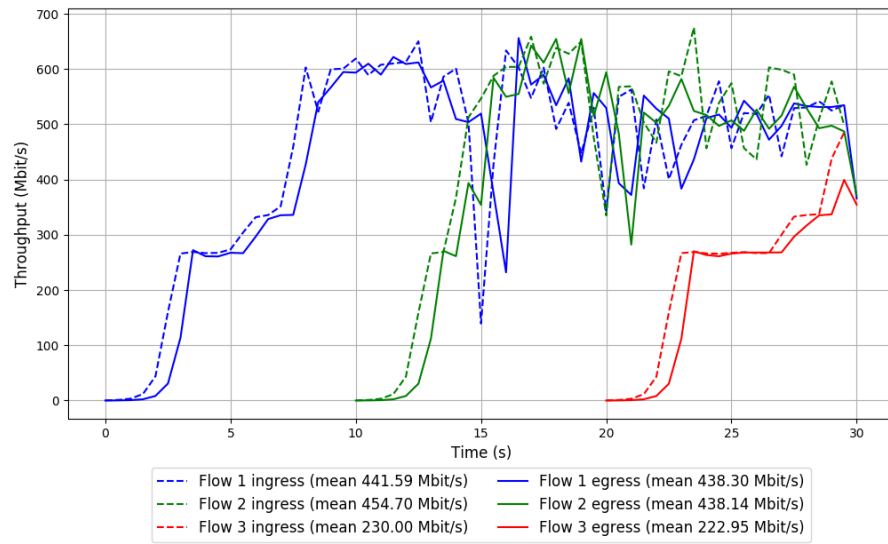
-- Flow 3:

Average throughput: 222.95 Mbit/s

95th percentile per-packet one-way delay: 137.397 ms

Loss rate: 5.66%

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



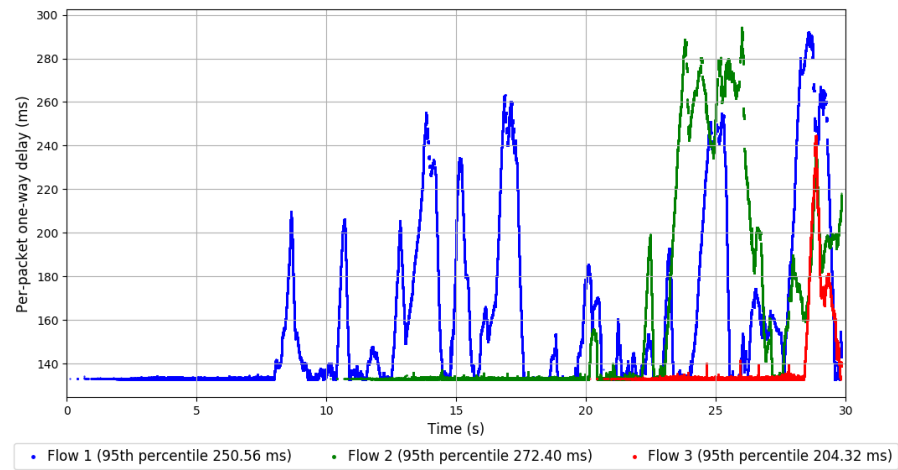
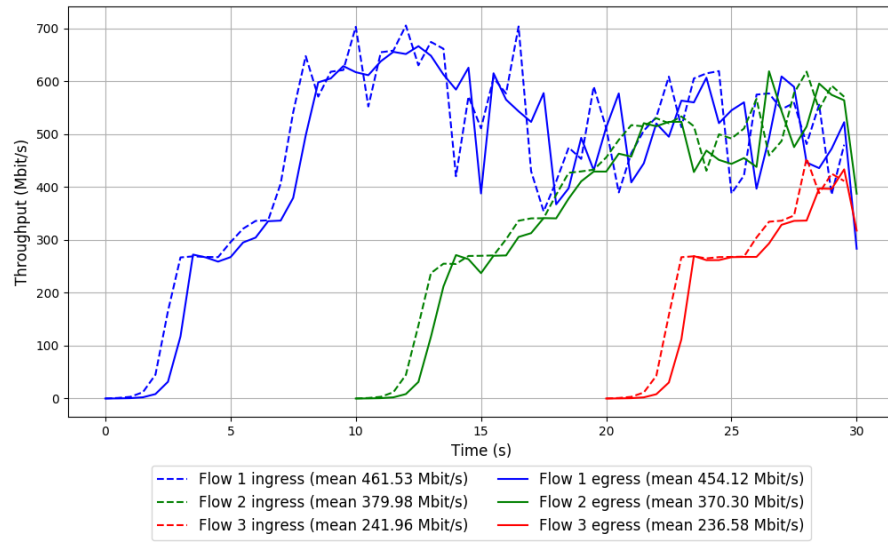


Run 5: Statistics of TCP BBR

Start at: 2018-11-30 21:05:20  
End at: 2018-11-30 21:05:50  
Local clock offset: -0.093 ms  
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-11-30 21:51:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 776.92 Mbit/s  
95th percentile per-packet one-way delay: 260.222 ms  
Loss rate: 3.15%  
-- Flow 1:  
Average throughput: 454.12 Mbit/s  
95th percentile per-packet one-way delay: 250.565 ms  
Loss rate: 2.48%  
-- Flow 2:  
Average throughput: 370.30 Mbit/s  
95th percentile per-packet one-way delay: 272.405 ms  
Loss rate: 3.84%  
-- Flow 3:  
Average throughput: 236.58 Mbit/s  
95th percentile per-packet one-way delay: 204.319 ms  
Loss rate: 4.84%

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

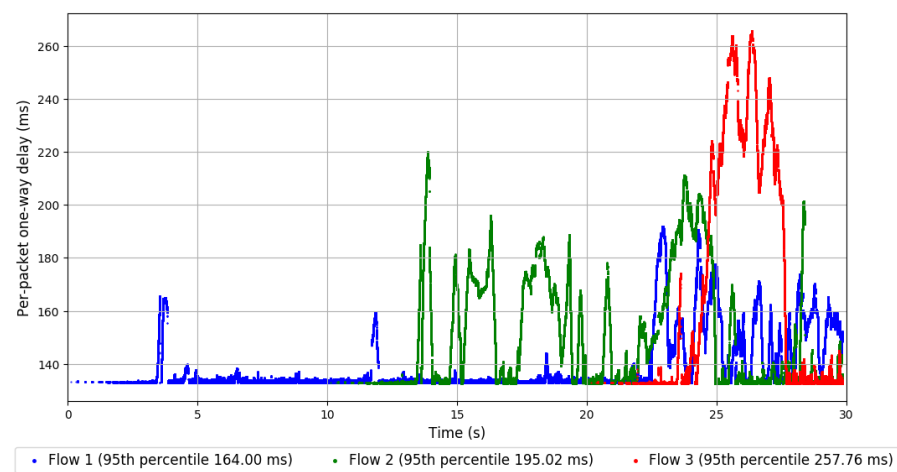
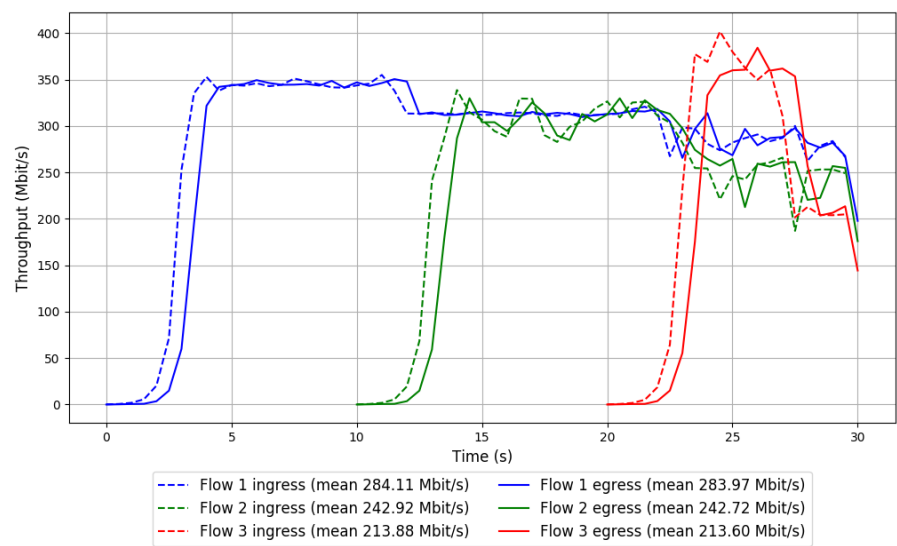


Run 1: Statistics of Copa

Start at: 2018-11-30 18:45:16  
End at: 2018-11-30 18:45:46  
Local clock offset: -0.218 ms  
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-11-30 21:53:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 514.65 Mbit/s  
95th percentile per-packet one-way delay: 216.796 ms  
Loss rate: 1.34%  
-- Flow 1:  
Average throughput: 283.97 Mbit/s  
95th percentile per-packet one-way delay: 163.997 ms  
Loss rate: 0.94%  
-- Flow 2:  
Average throughput: 242.72 Mbit/s  
95th percentile per-packet one-way delay: 195.019 ms  
Loss rate: 1.41%  
-- Flow 3:  
Average throughput: 213.60 Mbit/s  
95th percentile per-packet one-way delay: 257.762 ms  
Loss rate: 2.79%

Run 1: Report of Copa — Data Link

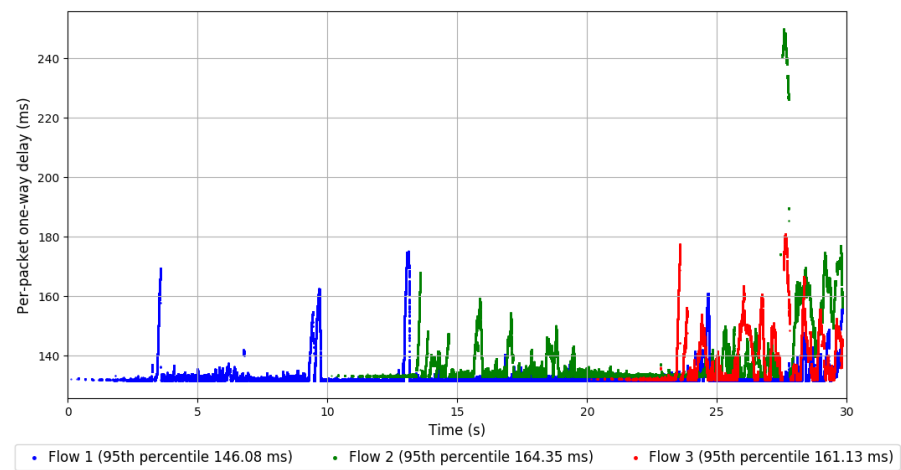
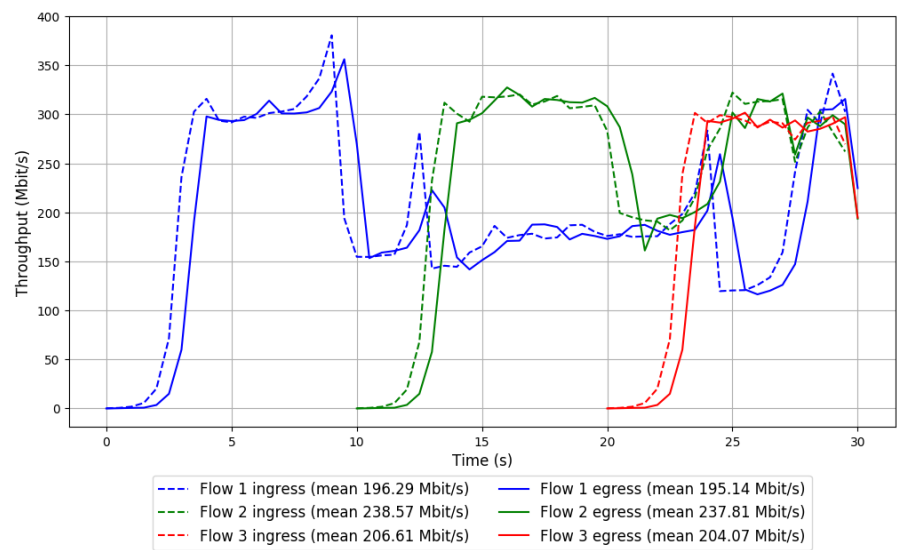


Run 2: Statistics of Copa

Start at: 2018-11-30 19:23:24  
End at: 2018-11-30 19:23:54  
Local clock offset: -0.564 ms  
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-11-30 21:53:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 419.46 Mbit/s  
95th percentile per-packet one-way delay: 159.502 ms  
Loss rate: 1.93%  
-- Flow 1:  
Average throughput: 195.14 Mbit/s  
95th percentile per-packet one-way delay: 146.081 ms  
Loss rate: 1.47%  
-- Flow 2:  
Average throughput: 237.81 Mbit/s  
95th percentile per-packet one-way delay: 164.352 ms  
Loss rate: 1.65%  
-- Flow 3:  
Average throughput: 204.07 Mbit/s  
95th percentile per-packet one-way delay: 161.128 ms  
Loss rate: 3.85%

Run 2: Report of Copa — Data Link

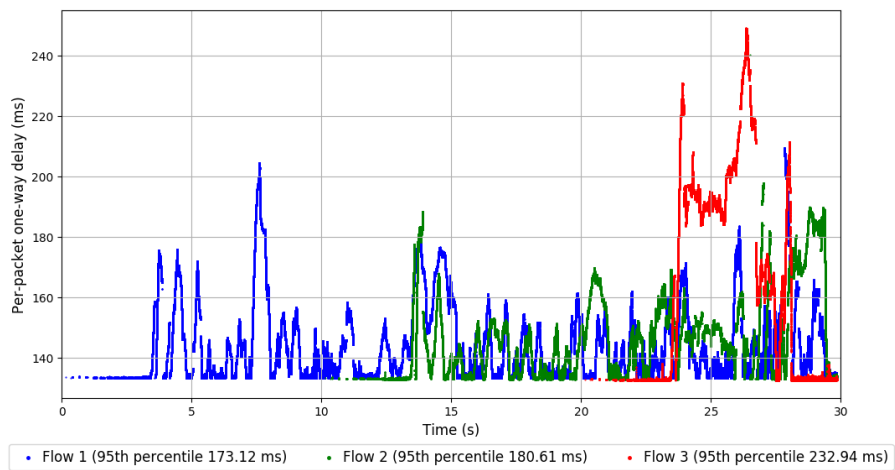
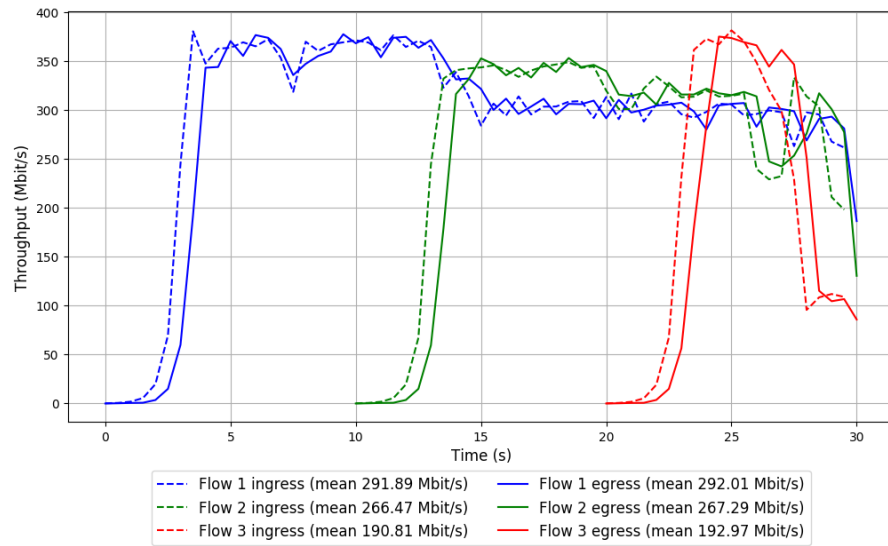


Run 3: Statistics of Copa

Start at: 2018-11-30 19:59:00  
End at: 2018-11-30 19:59:30  
Local clock offset: -0.103 ms  
Remote clock offset: -0.407 ms

# Below is generated by plot.py at 2018-11-30 21:54:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 532.20 Mbit/s  
95th percentile per-packet one-way delay: 193.132 ms  
Loss rate: 1.00%  
-- Flow 1:  
Average throughput: 292.01 Mbit/s  
95th percentile per-packet one-way delay: 173.120 ms  
Loss rate: 0.85%  
-- Flow 2:  
Average throughput: 267.29 Mbit/s  
95th percentile per-packet one-way delay: 180.609 ms  
Loss rate: 1.03%  
-- Flow 3:  
Average throughput: 192.97 Mbit/s  
95th percentile per-packet one-way delay: 232.945 ms  
Loss rate: 1.58%

### Run 3: Report of Copa — Data Link



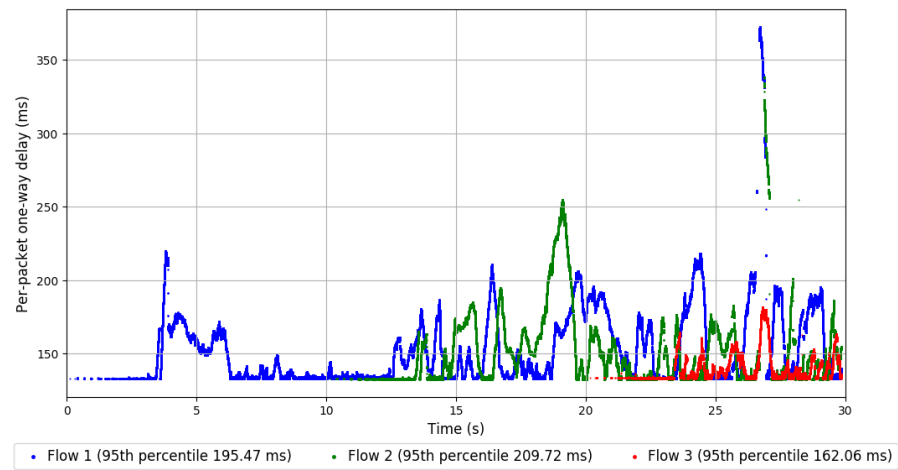
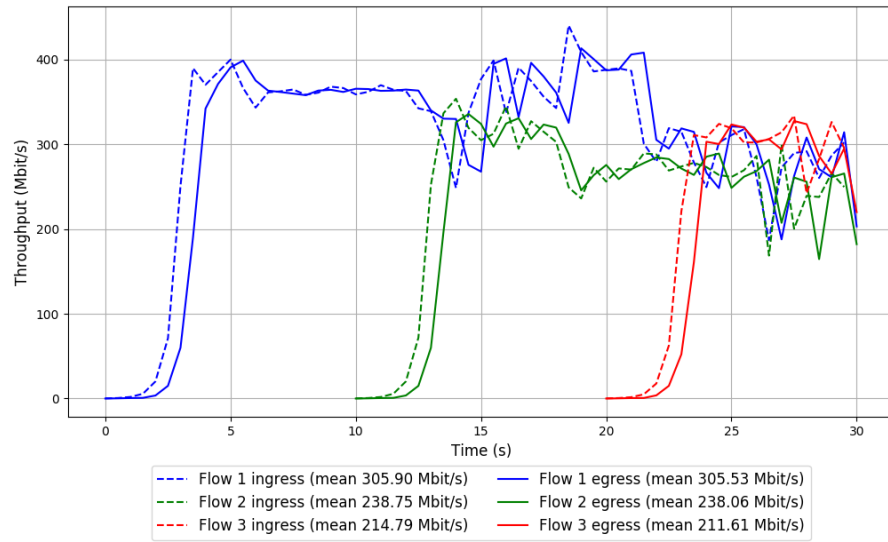


Run 4: Statistics of Copa

Start at: 2018-11-30 20:37:09  
End at: 2018-11-30 20:37:39  
Local clock offset: -0.004 ms  
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-11-30 22:10:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 532.41 Mbit/s  
95th percentile per-packet one-way delay: 194.575 ms  
Loss rate: 1.60%  
-- Flow 1:  
Average throughput: 305.53 Mbit/s  
95th percentile per-packet one-way delay: 195.467 ms  
Loss rate: 1.01%  
-- Flow 2:  
Average throughput: 238.06 Mbit/s  
95th percentile per-packet one-way delay: 209.719 ms  
Loss rate: 1.61%  
-- Flow 3:  
Average throughput: 211.61 Mbit/s  
95th percentile per-packet one-way delay: 162.055 ms  
Loss rate: 4.12%

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

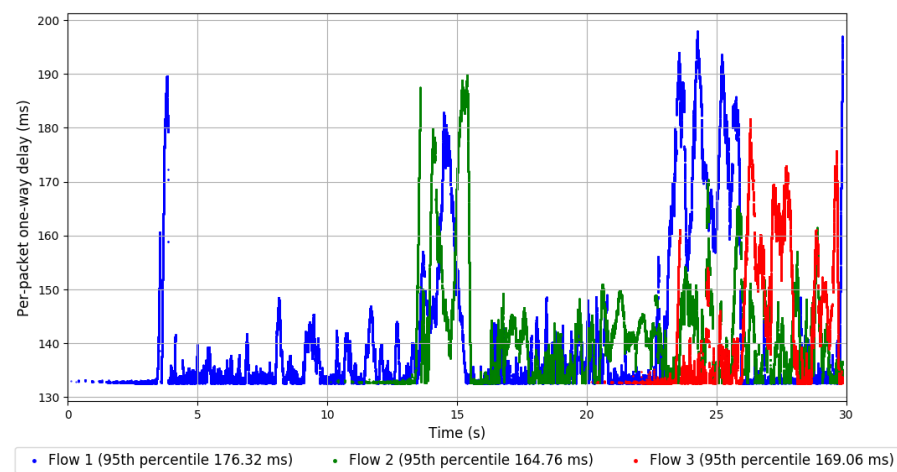
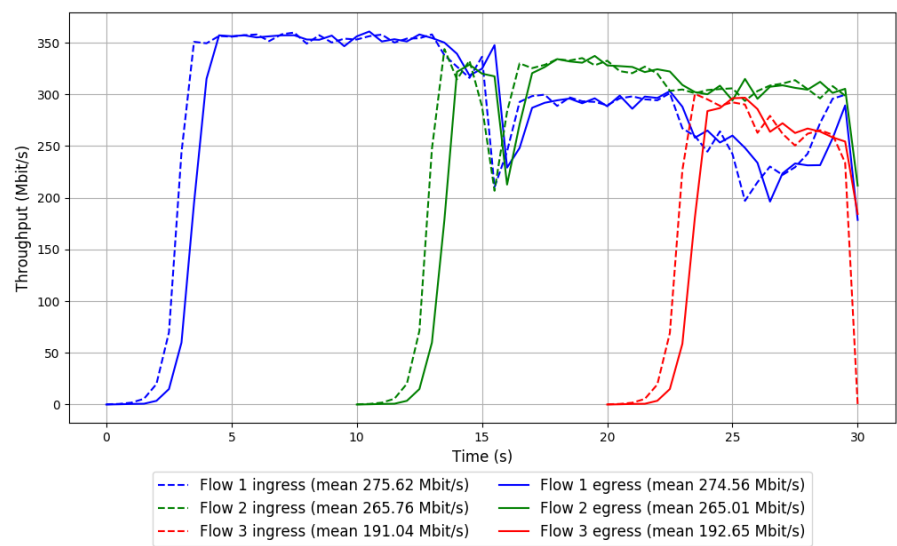


Run 5: Statistics of Copa

Start at: 2018-11-30 21:15:23  
End at: 2018-11-30 21:15:53  
Local clock offset: -0.298 ms  
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-11-30 22:10:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 513.20 Mbit/s  
95th percentile per-packet one-way delay: 172.389 ms  
Loss rate: 1.65%  
-- Flow 1:  
Average throughput: 274.56 Mbit/s  
95th percentile per-packet one-way delay: 176.316 ms  
Loss rate: 1.27%  
-- Flow 2:  
Average throughput: 265.01 Mbit/s  
95th percentile per-packet one-way delay: 164.757 ms  
Loss rate: 1.61%  
-- Flow 3:  
Average throughput: 192.65 Mbit/s  
95th percentile per-packet one-way delay: 169.056 ms  
Loss rate: 3.39%

Run 5: Report of Copa — Data Link

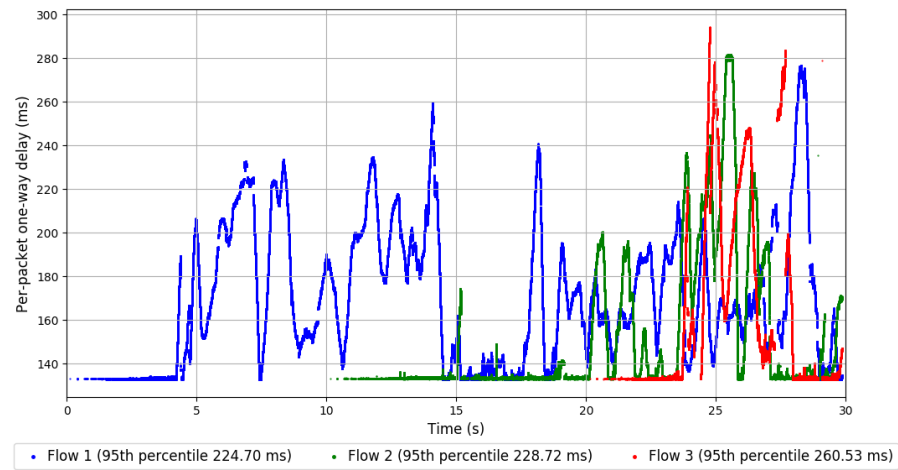
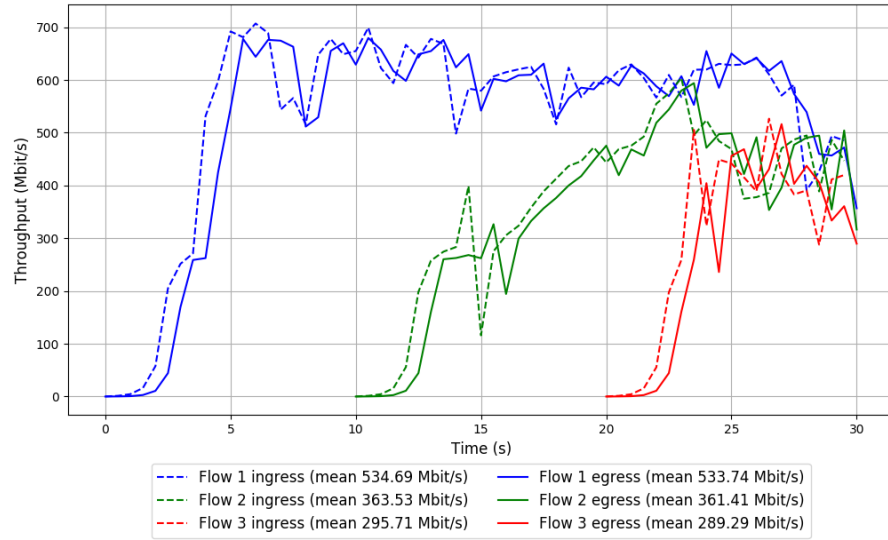


Run 1: Statistics of TCP Cubic

Start at: 2018-11-30 18:38:23  
End at: 2018-11-30 18:38:53  
Local clock offset: -0.257 ms  
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-11-30 22:10:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 867.90 Mbit/s  
95th percentile per-packet one-way delay: 231.558 ms  
Loss rate: 1.71%  
-- Flow 1:  
Average throughput: 533.74 Mbit/s  
95th percentile per-packet one-way delay: 224.701 ms  
Loss rate: 1.06%  
-- Flow 2:  
Average throughput: 361.41 Mbit/s  
95th percentile per-packet one-way delay: 228.718 ms  
Loss rate: 1.90%  
-- Flow 3:  
Average throughput: 289.29 Mbit/s  
95th percentile per-packet one-way delay: 260.528 ms  
Loss rate: 4.79%

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

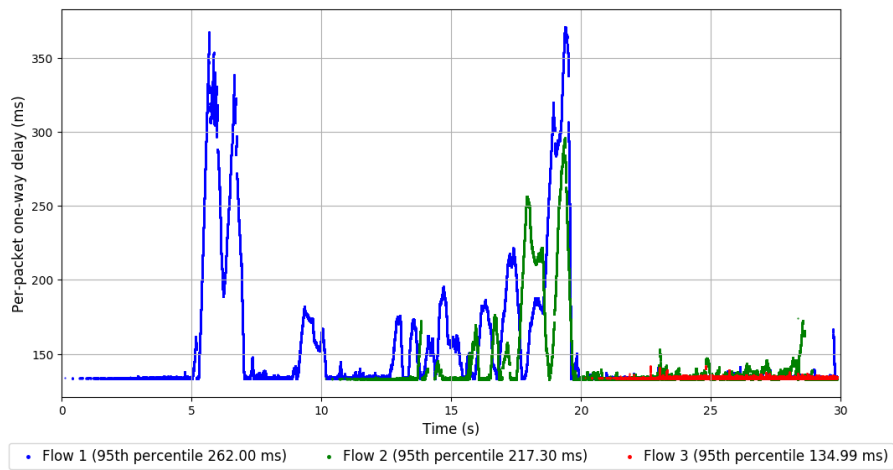
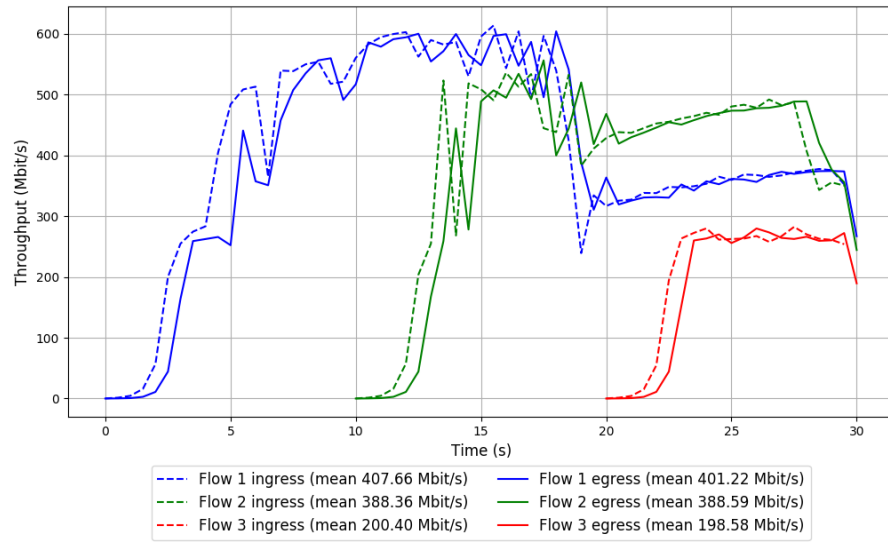


Run 2: Statistics of TCP Cubic

Start at: 2018-11-30 19:16:19  
End at: 2018-11-30 19:16:49  
Local clock offset: -0.01 ms  
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-11-30 22:10:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 723.75 Mbit/s  
95th percentile per-packet one-way delay: 222.944 ms  
Loss rate: 2.14%  
-- Flow 1:  
Average throughput: 401.22 Mbit/s  
95th percentile per-packet one-way delay: 262.004 ms  
Loss rate: 2.46%  
-- Flow 2:  
Average throughput: 388.59 Mbit/s  
95th percentile per-packet one-way delay: 217.297 ms  
Loss rate: 1.27%  
-- Flow 3:  
Average throughput: 198.58 Mbit/s  
95th percentile per-packet one-way delay: 134.985 ms  
Loss rate: 3.56%

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



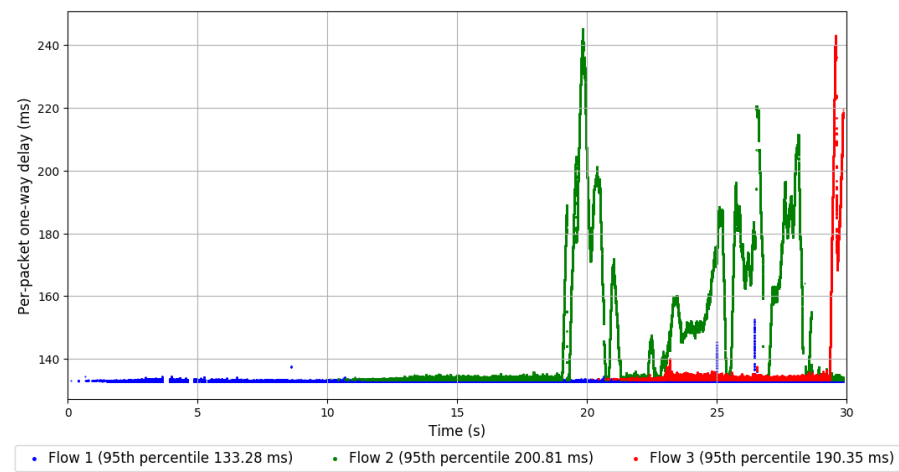
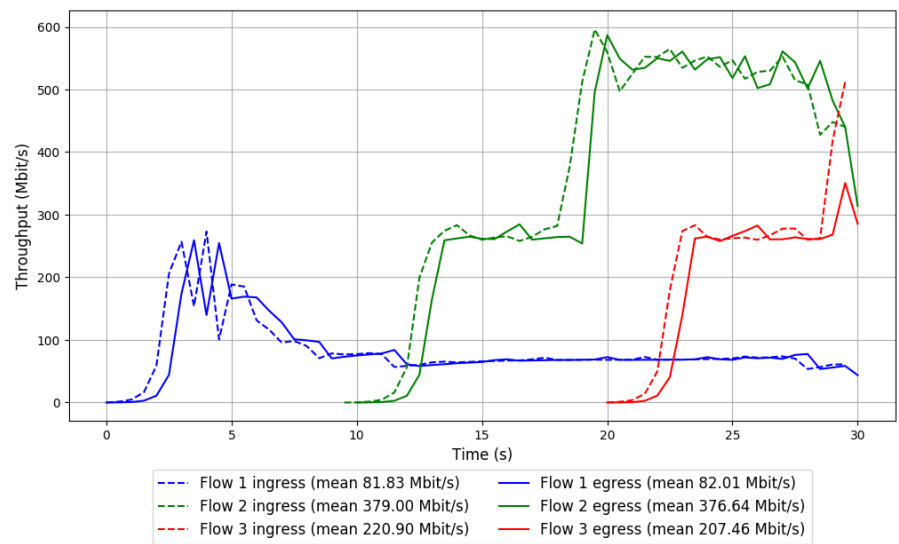


Run 3: Statistics of TCP Cubic

Start at: 2018-11-30 19:52:40  
End at: 2018-11-30 19:53:10  
Local clock offset: -0.049 ms  
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2018-11-30 22:10:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 399.43 Mbit/s  
95th percentile per-packet one-way delay: 195.658 ms  
Loss rate: 2.89%  
-- Flow 1:  
Average throughput: 82.01 Mbit/s  
95th percentile per-packet one-way delay: 133.282 ms  
Loss rate: 0.68%  
-- Flow 2:  
Average throughput: 376.64 Mbit/s  
95th percentile per-packet one-way delay: 200.808 ms  
Loss rate: 1.95%  
-- Flow 3:  
Average throughput: 207.46 Mbit/s  
95th percentile per-packet one-way delay: 190.355 ms  
Loss rate: 8.60%

Run 3: Report of TCP Cubic — Data Link

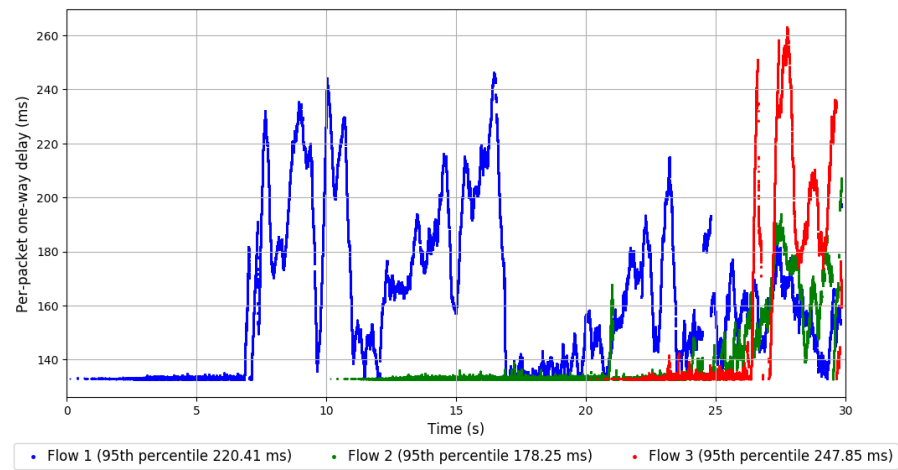
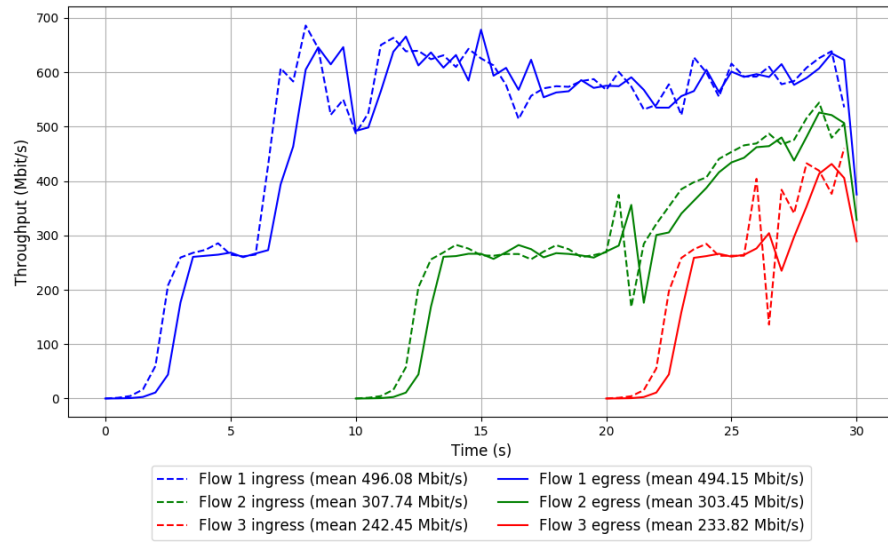


Run 4: Statistics of TCP Cubic

Start at: 2018-11-30 20:29:42  
End at: 2018-11-30 20:30:12  
Local clock offset: -0.06 ms  
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-11-30 22:10:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 771.69 Mbit/s  
95th percentile per-packet one-way delay: 219.548 ms  
Loss rate: 2.15%  
-- Flow 1:  
Average throughput: 494.15 Mbit/s  
95th percentile per-packet one-way delay: 220.408 ms  
Loss rate: 1.27%  
-- Flow 2:  
Average throughput: 303.45 Mbit/s  
95th percentile per-packet one-way delay: 178.246 ms  
Loss rate: 2.71%  
-- Flow 3:  
Average throughput: 233.82 Mbit/s  
95th percentile per-packet one-way delay: 247.849 ms  
Loss rate: 6.14%

# Run 4: Report of TCP Cubic — Data Link

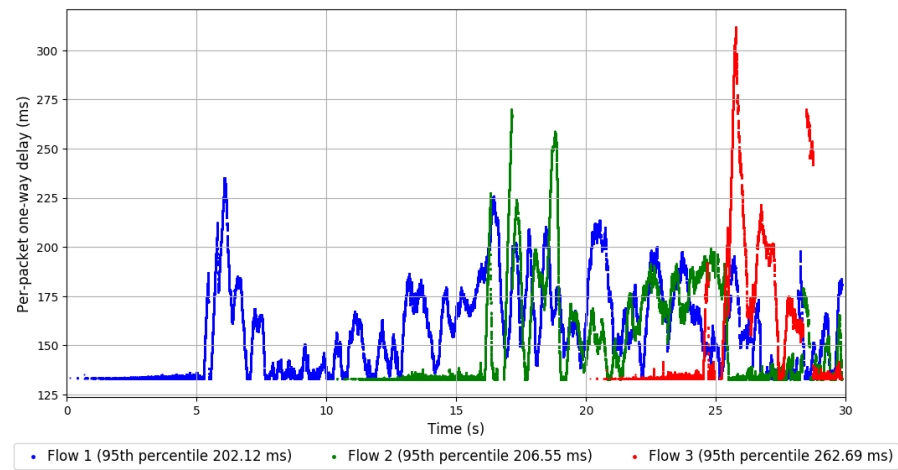
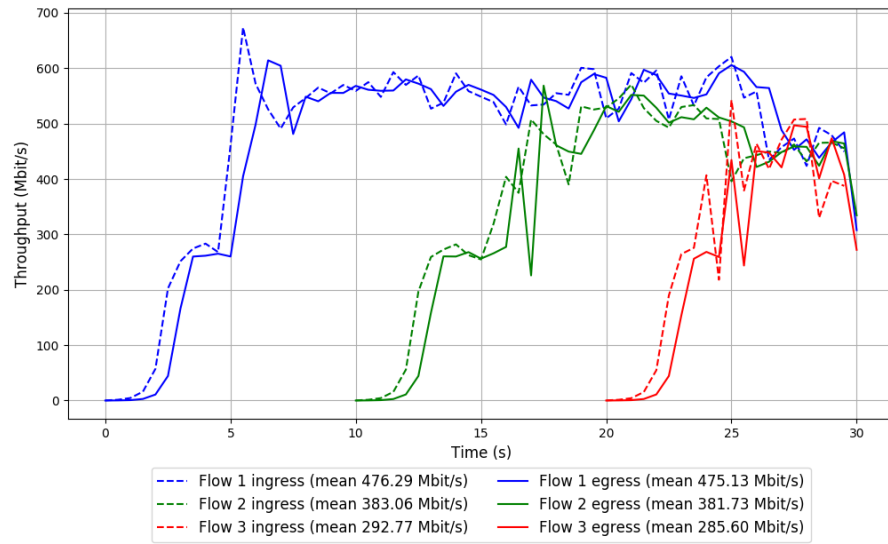


Run 5: Statistics of TCP Cubic

Start at: 2018-11-30 21:07:47  
End at: 2018-11-30 21:08:17  
Local clock offset: -0.11 ms  
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-11-30 22:10:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 821.51 Mbit/s  
95th percentile per-packet one-way delay: 208.120 ms  
Loss rate: 1.76%  
-- Flow 1:  
Average throughput: 475.13 Mbit/s  
95th percentile per-packet one-way delay: 202.125 ms  
Loss rate: 1.14%  
-- Flow 2:  
Average throughput: 381.73 Mbit/s  
95th percentile per-packet one-way delay: 206.548 ms  
Loss rate: 1.68%  
-- Flow 3:  
Average throughput: 285.60 Mbit/s  
95th percentile per-packet one-way delay: 262.695 ms  
Loss rate: 5.07%

# Run 5: Report of TCP Cubic — Data Link

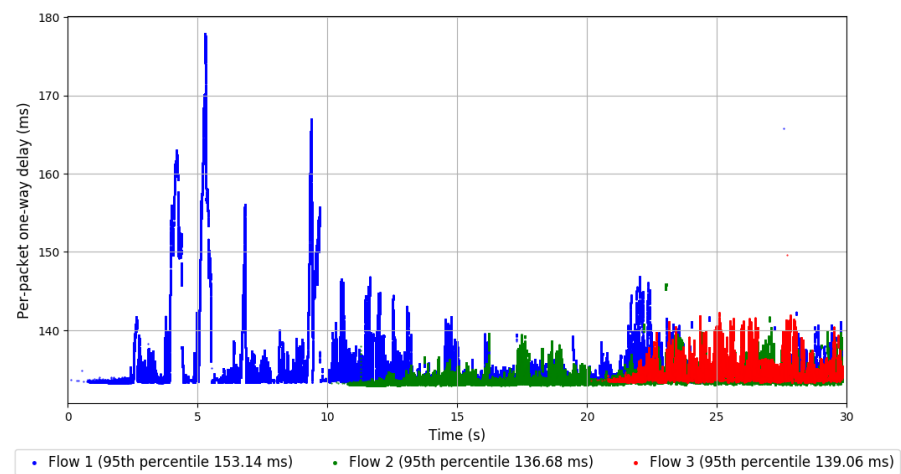
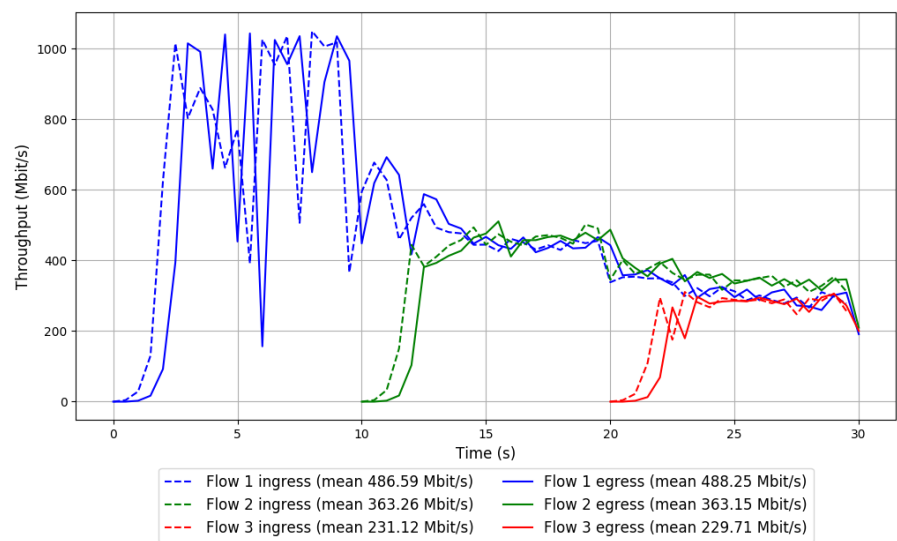


Run 1: Statistics of FillP

Start at: 2018-11-30 18:20:47  
End at: 2018-11-30 18:21:17  
Local clock offset: -0.007 ms  
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-11-30 22:14:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 803.46 Mbit/s  
95th percentile per-packet one-way delay: 147.370 ms  
Loss rate: 1.05%  
-- Flow 1:  
Average throughput: 488.25 Mbit/s  
95th percentile per-packet one-way delay: 153.138 ms  
Loss rate: 0.59%  
-- Flow 2:  
Average throughput: 363.15 Mbit/s  
95th percentile per-packet one-way delay: 136.676 ms  
Loss rate: 1.32%  
-- Flow 3:  
Average throughput: 229.71 Mbit/s  
95th percentile per-packet one-way delay: 139.065 ms  
Loss rate: 3.13%

Run 1: Report of FillP — Data Link



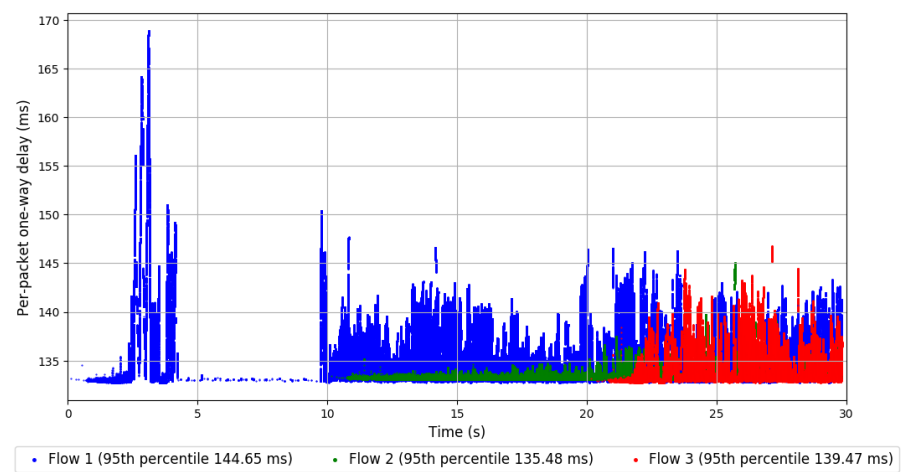
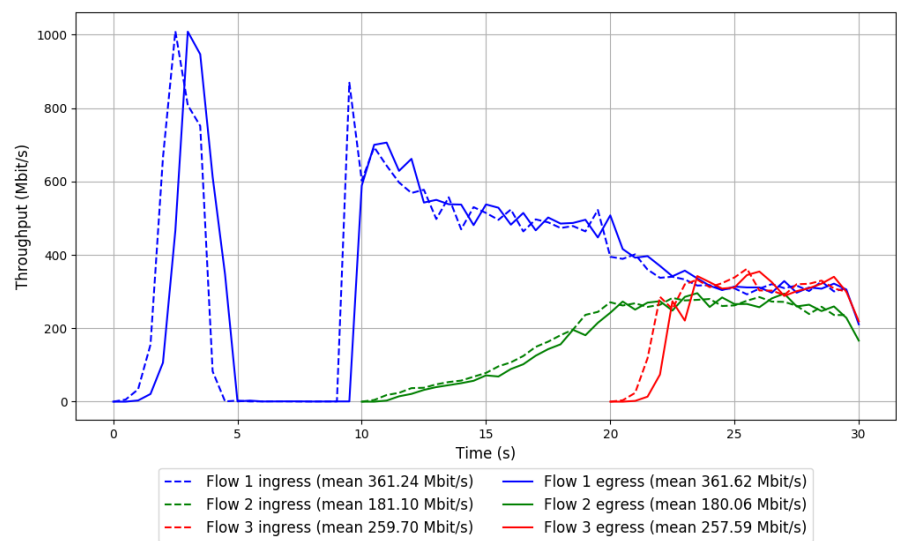


Run 2: Statistics of FillP

Start at: 2018-11-30 18:57:33  
End at: 2018-11-30 18:58:03  
Local clock offset: -0.192 ms  
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2018-11-30 22:14:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 564.47 Mbit/s  
95th percentile per-packet one-way delay: 142.281 ms  
Loss rate: 1.46%  
-- Flow 1:  
Average throughput: 361.62 Mbit/s  
95th percentile per-packet one-way delay: 144.651 ms  
Loss rate: 0.85%  
-- Flow 2:  
Average throughput: 180.06 Mbit/s  
95th percentile per-packet one-way delay: 135.479 ms  
Loss rate: 1.96%  
-- Flow 3:  
Average throughput: 257.59 Mbit/s  
95th percentile per-packet one-way delay: 139.466 ms  
Loss rate: 3.34%

Run 2: Report of FillP — Data Link

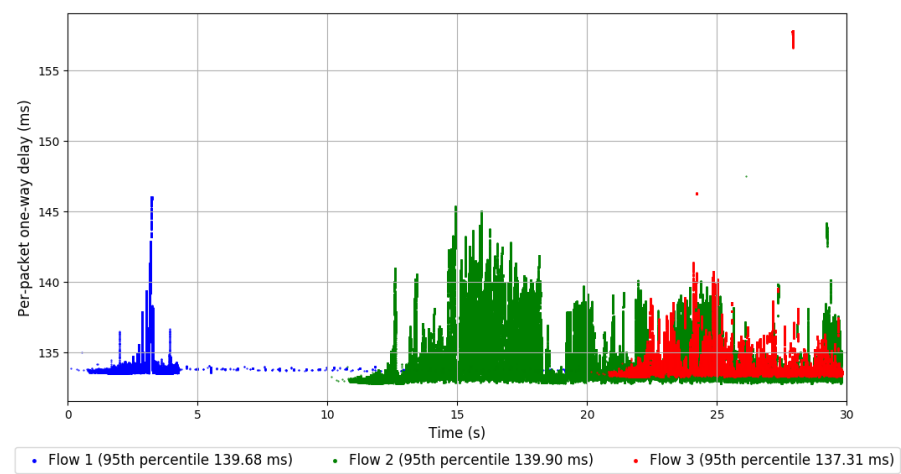
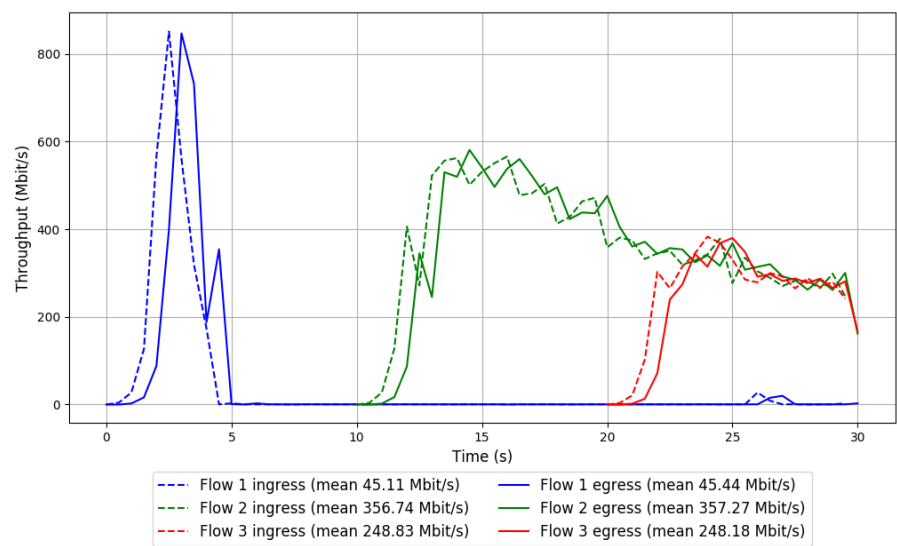


Run 3: Statistics of FillP

Start at: 2018-11-30 19:35:07  
End at: 2018-11-30 19:35:37  
Local clock offset: -0.4 ms  
Remote clock offset: -0.489 ms

# Below is generated by plot.py at 2018-11-30 22:14:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 362.80 Mbit/s  
95th percentile per-packet one-way delay: 139.551 ms  
Loss rate: 1.42%  
-- Flow 1:  
Average throughput: 45.44 Mbit/s  
95th percentile per-packet one-way delay: 139.681 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 357.27 Mbit/s  
95th percentile per-packet one-way delay: 139.902 ms  
Loss rate: 1.17%  
-- Flow 3:  
Average throughput: 248.18 Mbit/s  
95th percentile per-packet one-way delay: 137.306 ms  
Loss rate: 2.90%

Run 3: Report of FillP — Data Link

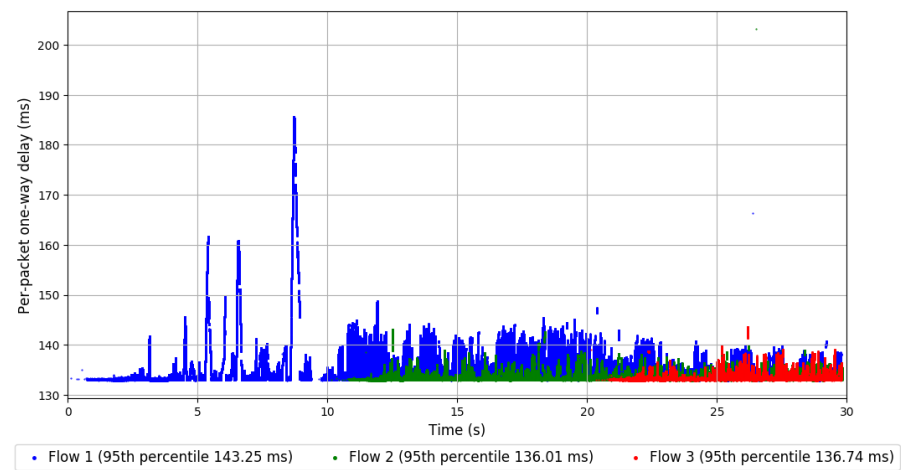
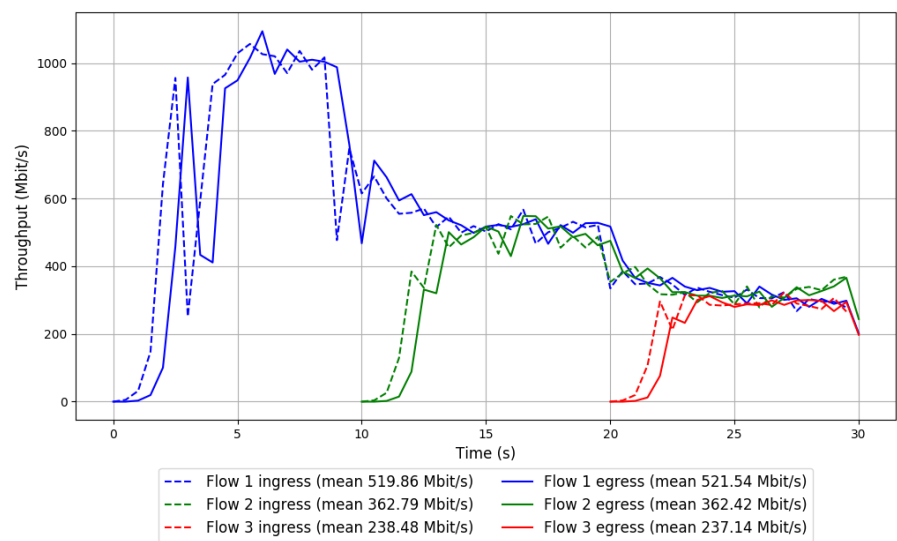


Run 4: Statistics of FillP

Start at: 2018-11-30 20:10:57  
End at: 2018-11-30 20:11:27  
Local clock offset: 0.12 ms  
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-11-30 22:27:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 838.36 Mbit/s  
95th percentile per-packet one-way delay: 141.240 ms  
Loss rate: 1.07%  
-- Flow 1:  
Average throughput: 521.54 Mbit/s  
95th percentile per-packet one-way delay: 143.254 ms  
Loss rate: 0.54%  
-- Flow 2:  
Average throughput: 362.42 Mbit/s  
95th percentile per-packet one-way delay: 136.006 ms  
Loss rate: 1.44%  
-- Flow 3:  
Average throughput: 237.14 Mbit/s  
95th percentile per-packet one-way delay: 136.743 ms  
Loss rate: 3.37%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-11-30 20:49:19

End at: 2018-11-30 20:49:49

Local clock offset: -0.23 ms

Remote clock offset: 0.277 ms

# Below is generated by plot.py at 2018-11-30 22:28:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 823.75 Mbit/s

95th percentile per-packet one-way delay: 155.199 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 514.98 Mbit/s

95th percentile per-packet one-way delay: 158.269 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 346.85 Mbit/s

95th percentile per-packet one-way delay: 143.603 ms

Loss rate: 1.22%

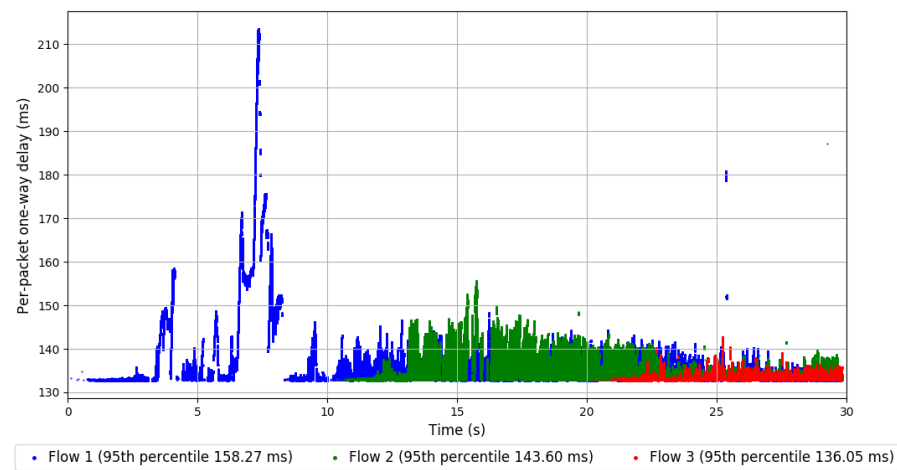
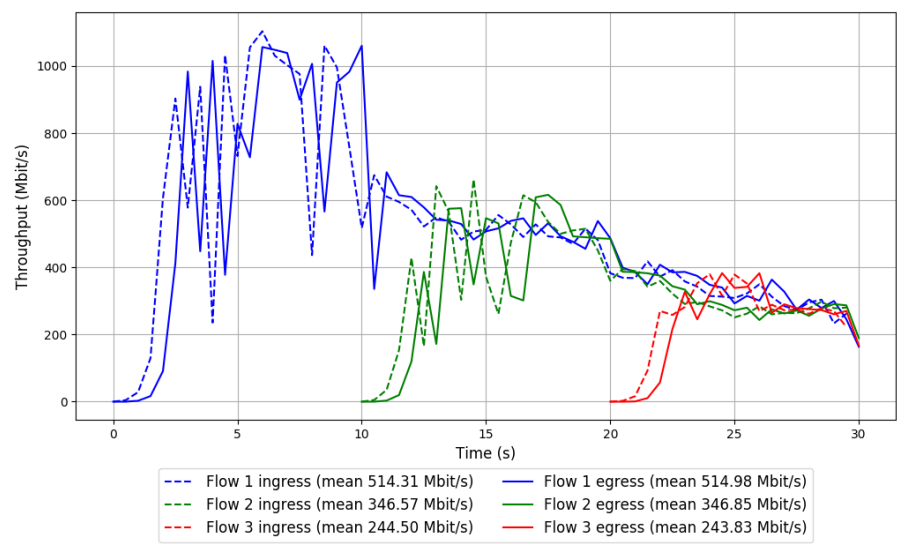
-- Flow 3:

Average throughput: 243.83 Mbit/s

95th percentile per-packet one-way delay: 136.053 ms

Loss rate: 2.79%

Run 5: Report of FillP — Data Link



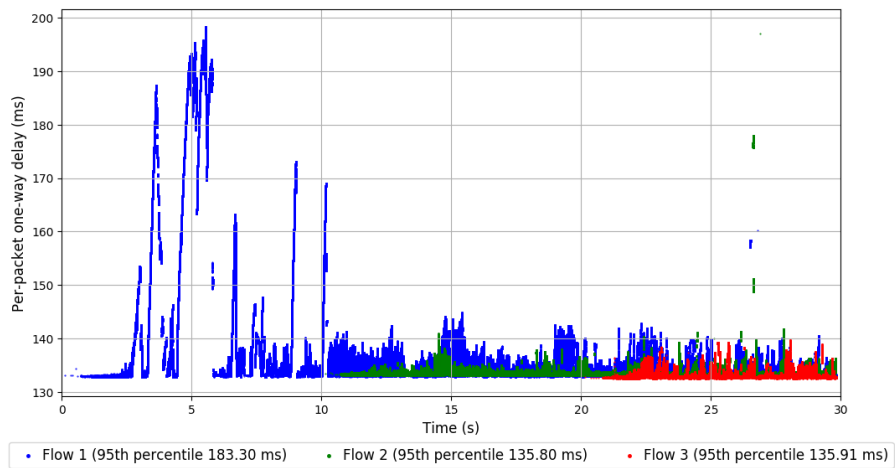
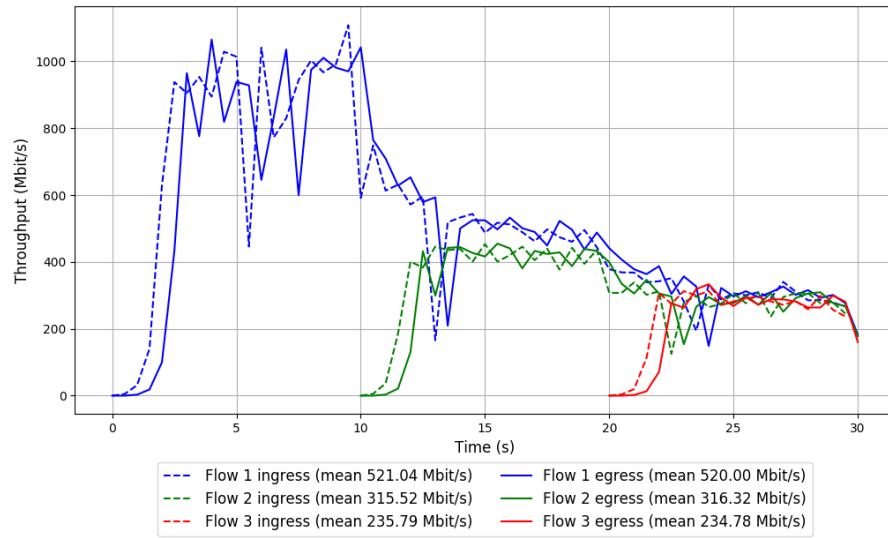


Run 1: Statistics of FillP-Sheep

Start at: 2018-11-30 18:40:39  
End at: 2018-11-30 18:41:09  
Local clock offset: -0.414 ms  
Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2018-11-30 22:29:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 805.88 Mbit/s  
95th percentile per-packet one-way delay: 172.458 ms  
Loss rate: 1.27%  
-- Flow 1:  
Average throughput: 520.00 Mbit/s  
95th percentile per-packet one-way delay: 183.304 ms  
Loss rate: 1.06%  
-- Flow 2:  
Average throughput: 316.32 Mbit/s  
95th percentile per-packet one-way delay: 135.799 ms  
Loss rate: 1.17%  
-- Flow 3:  
Average throughput: 234.78 Mbit/s  
95th percentile per-packet one-way delay: 135.908 ms  
Loss rate: 2.95%

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

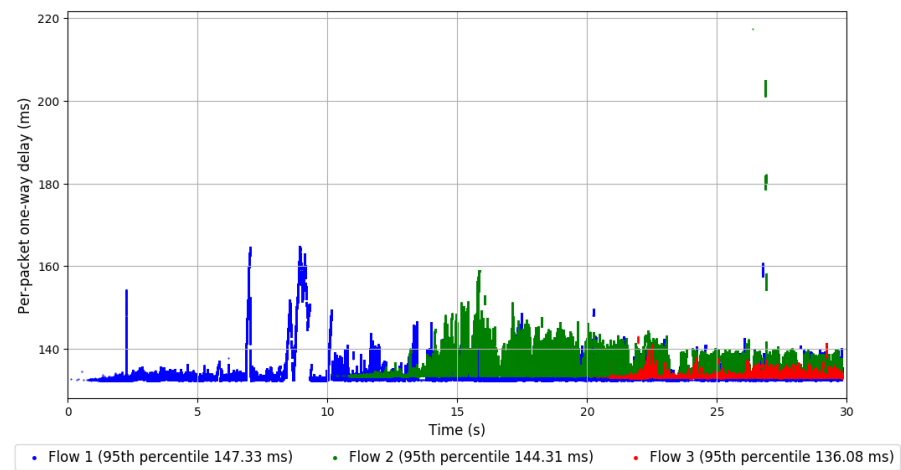
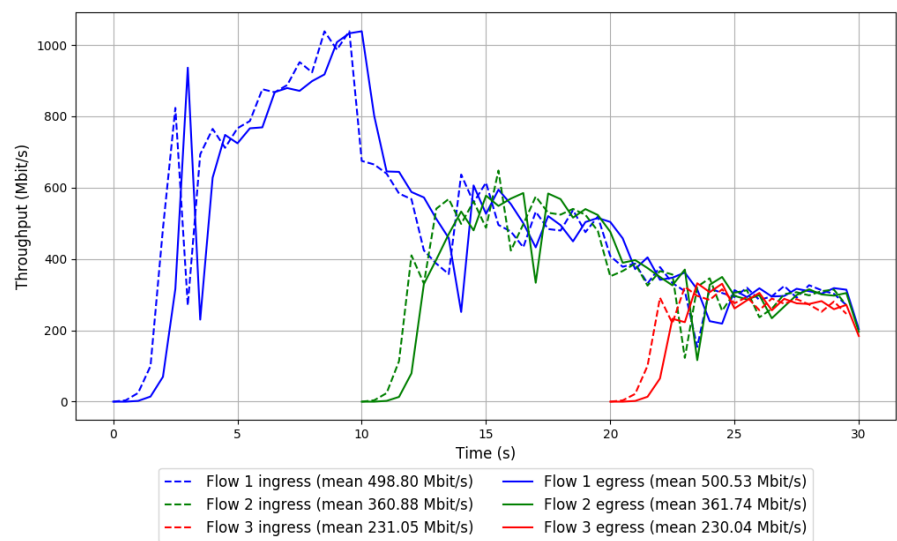


Run 2: Statistics of FillP-Sheep

Start at: 2018-11-30 19:18:32  
End at: 2018-11-30 19:19:02  
Local clock offset: -0.204 ms  
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-11-30 22:30:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 814.79 Mbit/s  
95th percentile per-packet one-way delay: 144.769 ms  
Loss rate: 0.93%  
-- Flow 1:  
Average throughput: 500.53 Mbit/s  
95th percentile per-packet one-way delay: 147.326 ms  
Loss rate: 0.49%  
-- Flow 2:  
Average throughput: 361.74 Mbit/s  
95th percentile per-packet one-way delay: 144.307 ms  
Loss rate: 1.19%  
-- Flow 3:  
Average throughput: 230.04 Mbit/s  
95th percentile per-packet one-way delay: 136.082 ms  
Loss rate: 3.01%

Run 2: Report of FillP-Sheep — Data Link

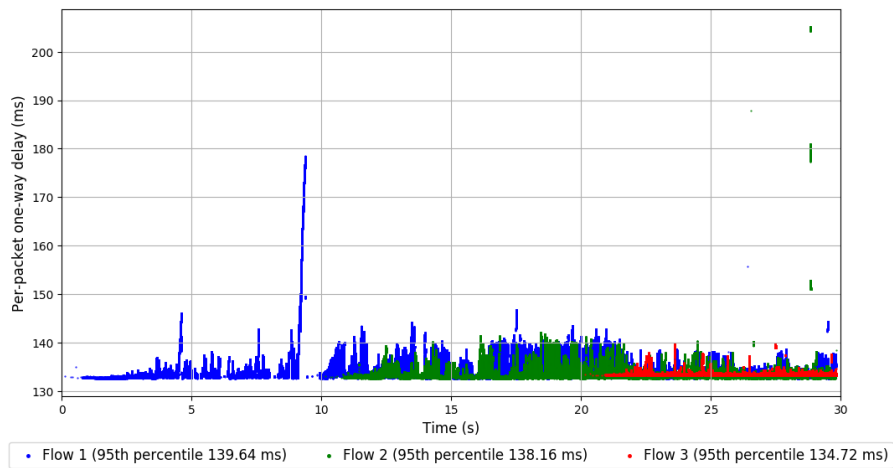
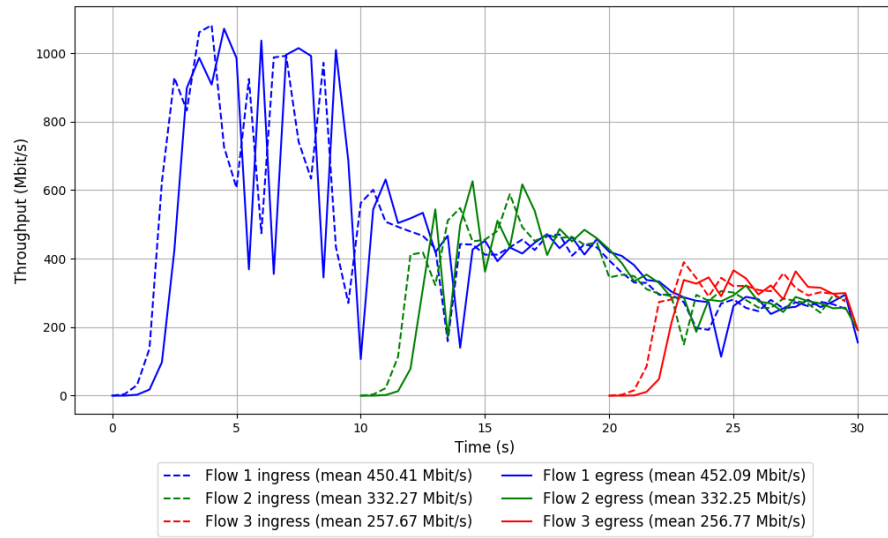


Run 3: Statistics of FillP-Sheep

Start at: 2018-11-30 19:54:26  
End at: 2018-11-30 19:54:56  
Local clock offset: -0.506 ms  
Remote clock offset: -0.473 ms

# Below is generated by plot.py at 2018-11-30 22:30:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 755.70 Mbit/s  
95th percentile per-packet one-way delay: 138.943 ms  
Loss rate: 1.05%  
-- Flow 1:  
Average throughput: 452.09 Mbit/s  
95th percentile per-packet one-way delay: 139.637 ms  
Loss rate: 0.55%  
-- Flow 2:  
Average throughput: 332.25 Mbit/s  
95th percentile per-packet one-way delay: 138.162 ms  
Loss rate: 1.31%  
-- Flow 3:  
Average throughput: 256.77 Mbit/s  
95th percentile per-packet one-way delay: 134.718 ms  
Loss rate: 3.02%

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

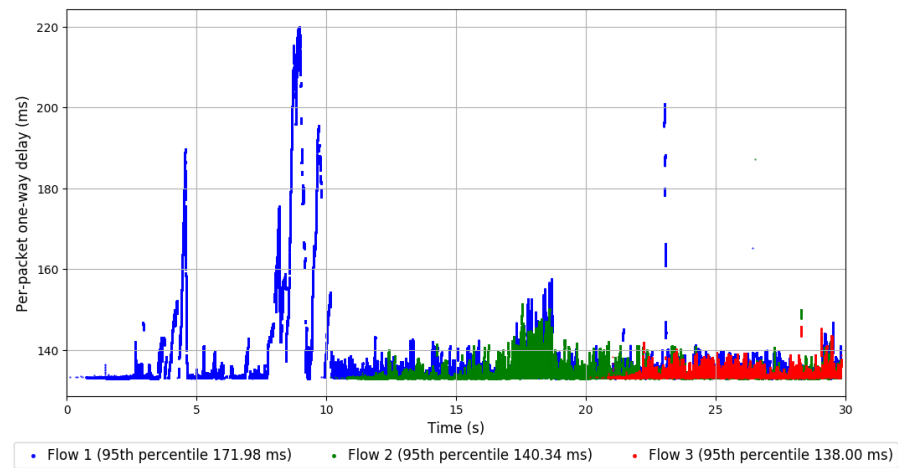
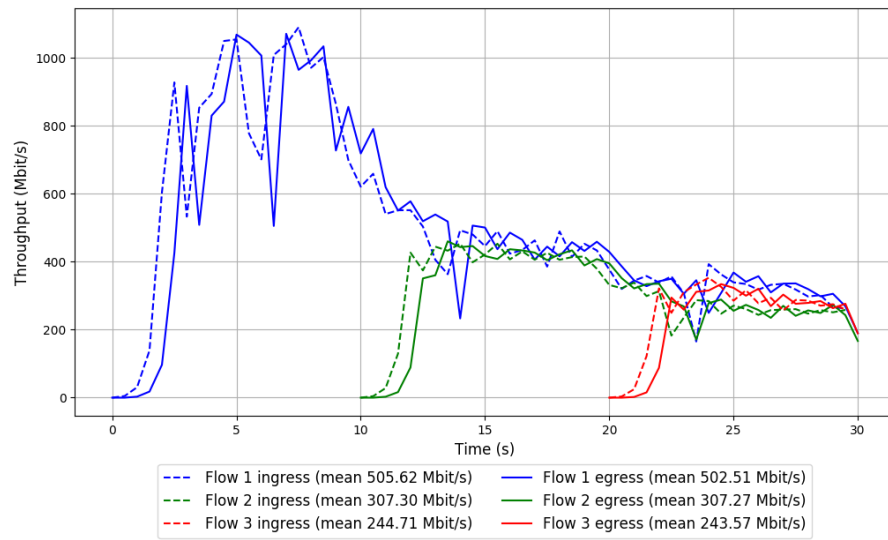


Run 4: Statistics of FillP-Sheep

Start at: 2018-11-30 20:32:14  
End at: 2018-11-30 20:32:44  
Local clock offset: -0.284 ms  
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-11-30 22:32:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 785.21 Mbit/s  
95th percentile per-packet one-way delay: 157.593 ms  
Loss rate: 1.58%  
-- Flow 1:  
Average throughput: 502.51 Mbit/s  
95th percentile per-packet one-way delay: 171.983 ms  
Loss rate: 1.44%  
-- Flow 2:  
Average throughput: 307.27 Mbit/s  
95th percentile per-packet one-way delay: 140.341 ms  
Loss rate: 1.32%  
-- Flow 3:  
Average throughput: 243.57 Mbit/s  
95th percentile per-packet one-way delay: 137.999 ms  
Loss rate: 3.05%

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



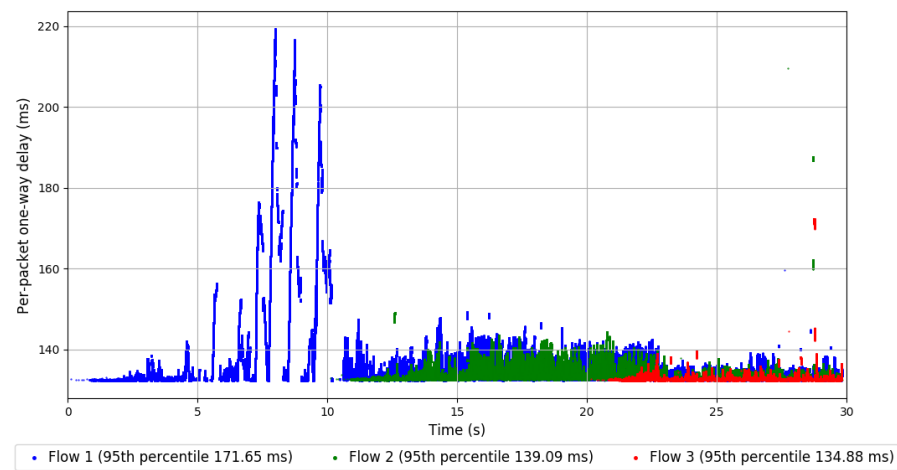
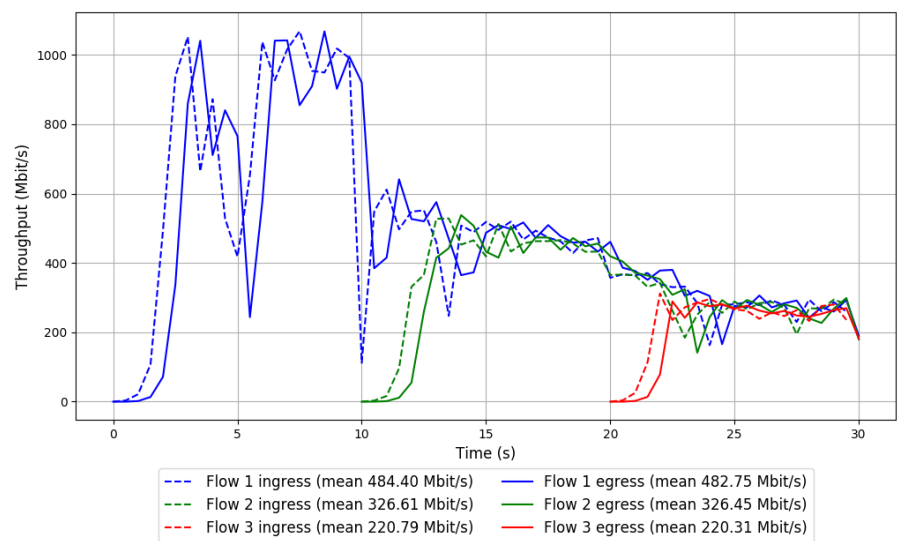


Run 5: Statistics of FillP-Sheep

Start at: 2018-11-30 21:10:38  
End at: 2018-11-30 21:11:08  
Local clock offset: -0.512 ms  
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-11-30 22:33:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 770.77 Mbit/s  
95th percentile per-packet one-way delay: 162.181 ms  
Loss rate: 1.39%  
-- Flow 1:  
Average throughput: 482.75 Mbit/s  
95th percentile per-packet one-way delay: 171.649 ms  
Loss rate: 1.17%  
-- Flow 2:  
Average throughput: 326.45 Mbit/s  
95th percentile per-packet one-way delay: 139.094 ms  
Loss rate: 1.35%  
-- Flow 3:  
Average throughput: 220.31 Mbit/s  
95th percentile per-packet one-way delay: 134.882 ms  
Loss rate: 2.98%

Run 5: Report of FillP-Sheep — Data Link

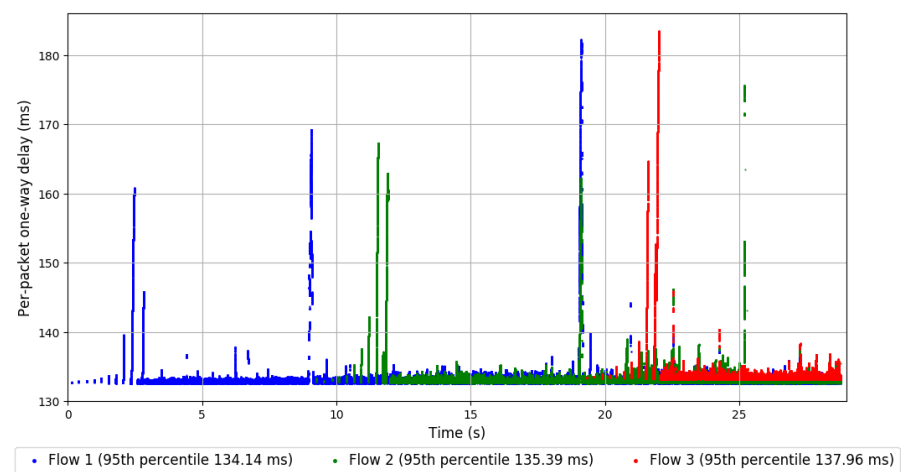
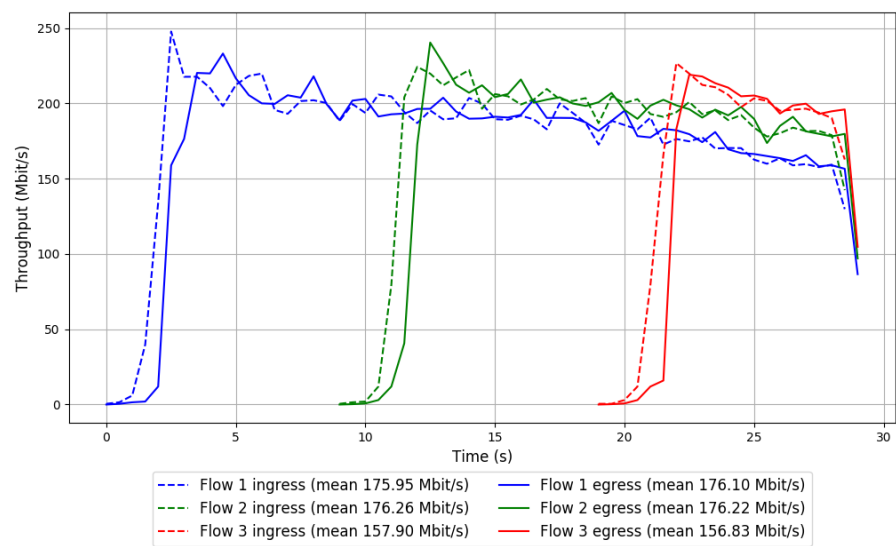


```
Run 1: Statistics of Indigo

Start at: 2018-11-30 18:29:08
End at: 2018-11-30 18:29:38
Local clock offset: -0.496 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2018-11-30 22:33:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 347.95 Mbit/s
95th percentile per-packet one-way delay: 134.862 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 176.10 Mbit/s
95th percentile per-packet one-way delay: 134.139 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 176.22 Mbit/s
95th percentile per-packet one-way delay: 135.393 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 156.83 Mbit/s
95th percentile per-packet one-way delay: 137.957 ms
Loss rate: 3.40%
```

Run 1: Report of Indigo — Data Link

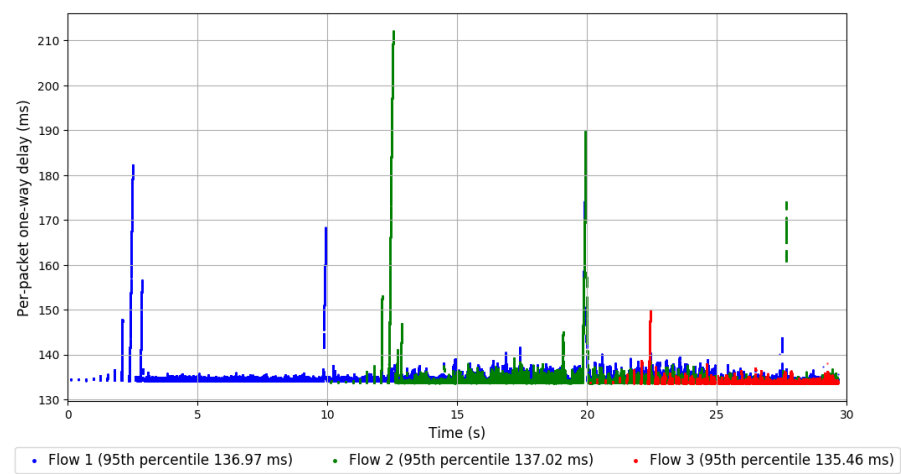
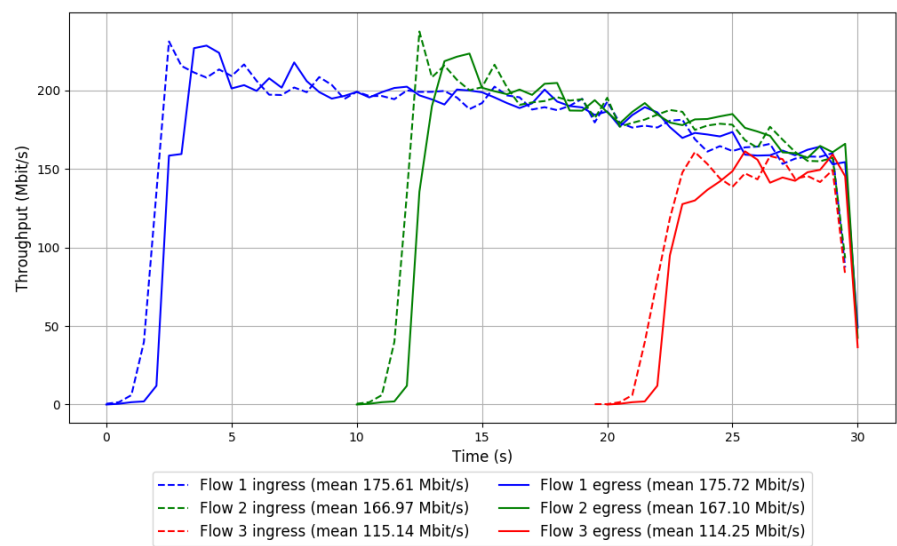


Run 2: Statistics of Indigo

Start at: 2018-11-30 19:06:17  
End at: 2018-11-30 19:06:47  
Local clock offset: 0.245 ms  
Remote clock offset: -0.468 ms

# Below is generated by plot.py at 2018-11-30 22:40:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 323.08 Mbit/s  
95th percentile per-packet one-way delay: 136.869 ms  
Loss rate: 1.27%  
-- Flow 1:  
Average throughput: 175.72 Mbit/s  
95th percentile per-packet one-way delay: 136.975 ms  
Loss rate: 0.80%  
-- Flow 2:  
Average throughput: 167.10 Mbit/s  
95th percentile per-packet one-way delay: 137.019 ms  
Loss rate: 1.28%  
-- Flow 3:  
Average throughput: 114.25 Mbit/s  
95th percentile per-packet one-way delay: 135.455 ms  
Loss rate: 3.47%

Run 2: Report of Indigo — Data Link

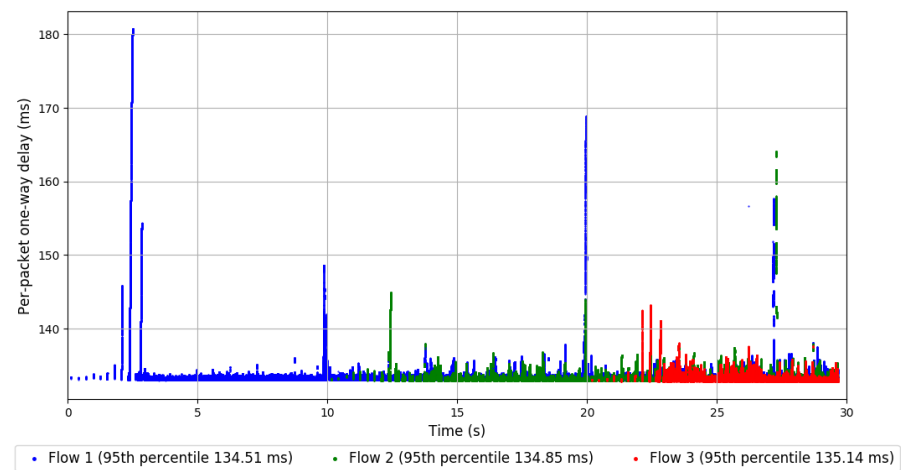
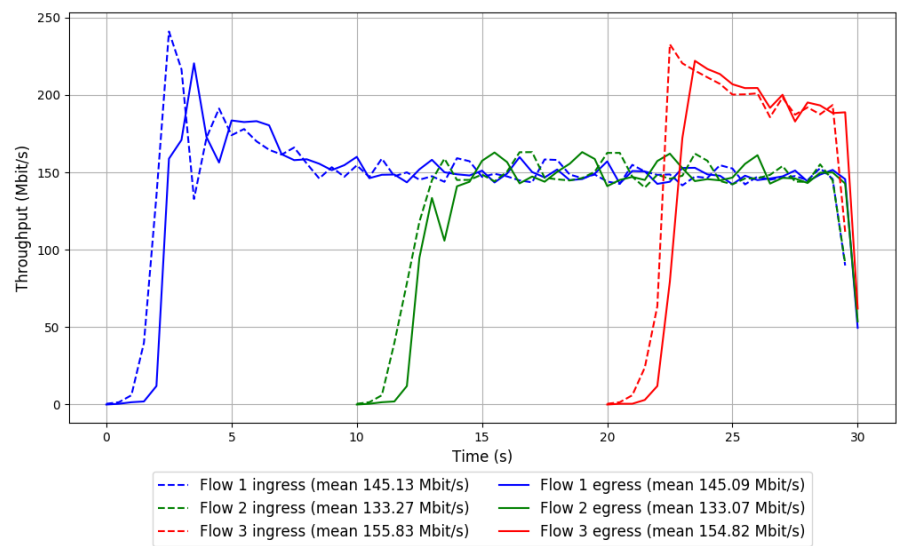


Run 3: Statistics of Indigo

Start at: 2018-11-30 19:43:23  
End at: 2018-11-30 19:43:53  
Local clock offset: 0.07 ms  
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2018-11-30 22:40:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 282.81 Mbit/s  
95th percentile per-packet one-way delay: 134.779 ms  
Loss rate: 1.54%  
-- Flow 1:  
Average throughput: 145.09 Mbit/s  
95th percentile per-packet one-way delay: 134.509 ms  
Loss rate: 0.92%  
-- Flow 2:  
Average throughput: 133.07 Mbit/s  
95th percentile per-packet one-way delay: 134.851 ms  
Loss rate: 1.50%  
-- Flow 3:  
Average throughput: 154.82 Mbit/s  
95th percentile per-packet one-way delay: 135.138 ms  
Loss rate: 3.36%

Run 3: Report of Indigo — Data Link



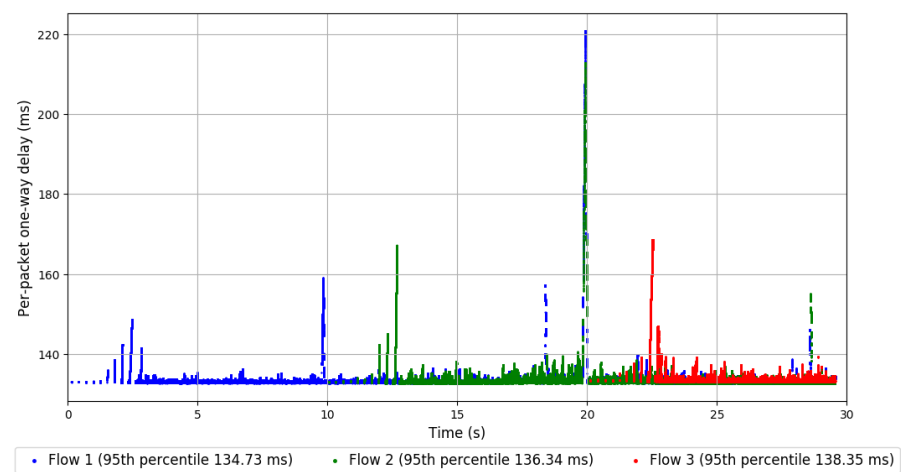
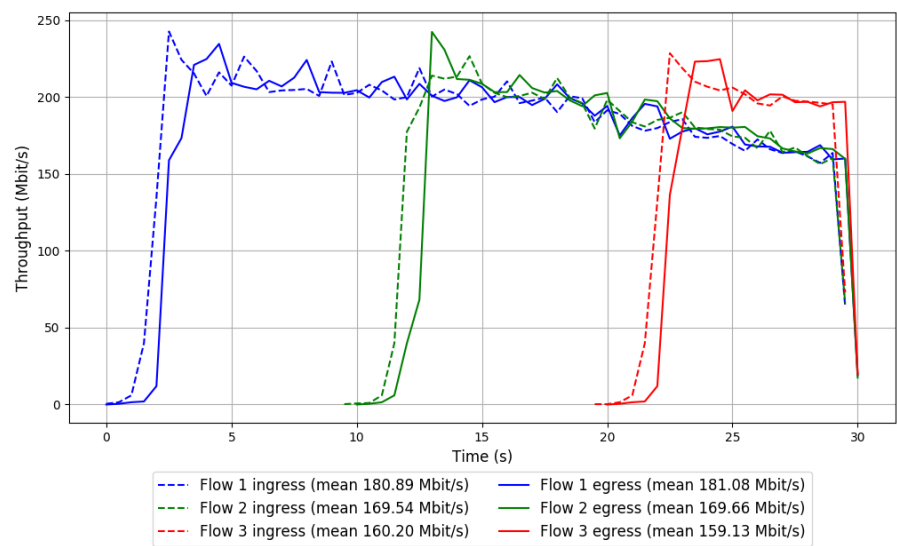


Run 4: Statistics of Indigo

Start at: 2018-11-30 20:19:35  
End at: 2018-11-30 20:20:05  
Local clock offset: -0.02 ms  
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2018-11-30 22:41:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 344.56 Mbit/s  
95th percentile per-packet one-way delay: 135.966 ms  
Loss rate: 1.35%  
-- Flow 1:  
Average throughput: 181.08 Mbit/s  
95th percentile per-packet one-way delay: 134.733 ms  
Loss rate: 0.80%  
-- Flow 2:  
Average throughput: 169.66 Mbit/s  
95th percentile per-packet one-way delay: 136.342 ms  
Loss rate: 1.28%  
-- Flow 3:  
Average throughput: 159.13 Mbit/s  
95th percentile per-packet one-way delay: 138.351 ms  
Loss rate: 3.39%

Run 4: Report of Indigo — Data Link

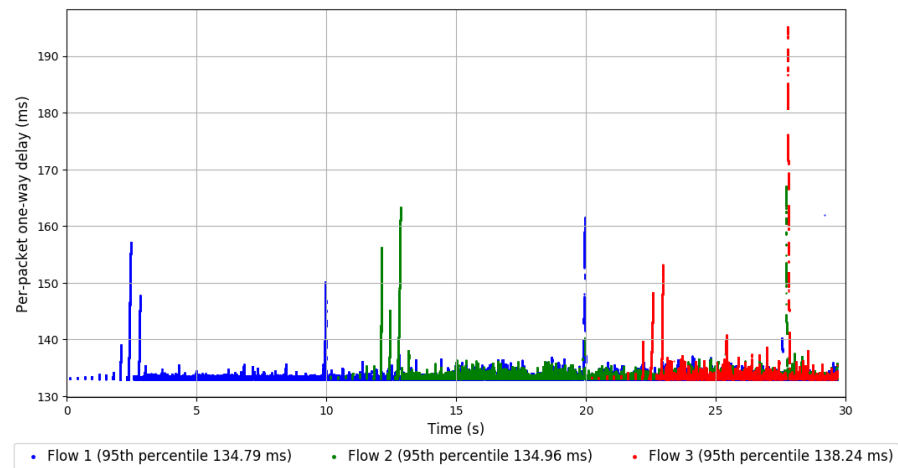
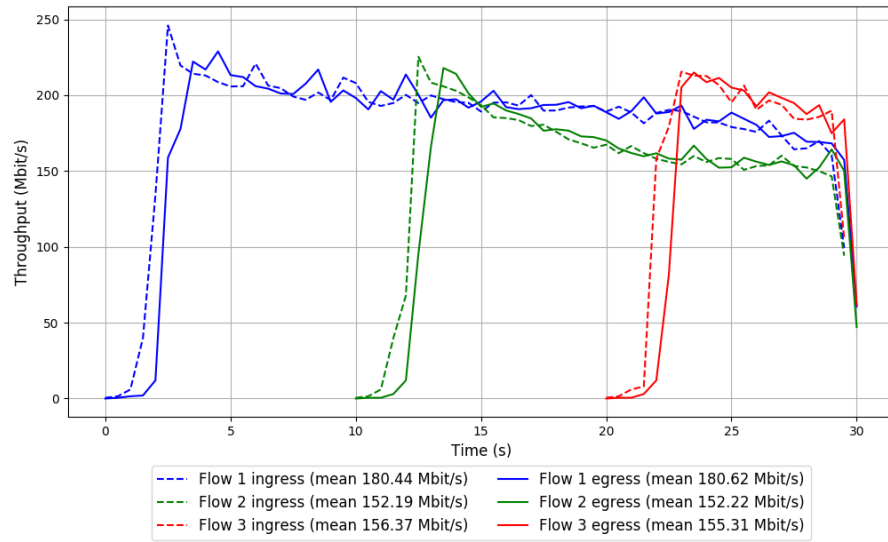


Run 5: Statistics of Indigo

Start at: 2018-11-30 20:58:20  
End at: 2018-11-30 20:58:50  
Local clock offset: -0.096 ms  
Remote clock offset: -0.377 ms

# Below is generated by plot.py at 2018-11-30 22:42:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 330.80 Mbit/s  
95th percentile per-packet one-way delay: 135.137 ms  
Loss rate: 1.33%  
-- Flow 1:  
Average throughput: 180.62 Mbit/s  
95th percentile per-packet one-way delay: 134.790 ms  
Loss rate: 0.80%  
-- Flow 2:  
Average throughput: 152.22 Mbit/s  
95th percentile per-packet one-way delay: 134.960 ms  
Loss rate: 1.34%  
-- Flow 3:  
Average throughput: 155.31 Mbit/s  
95th percentile per-packet one-way delay: 138.239 ms  
Loss rate: 3.23%

## Run 5: Report of Indigo — Data Link

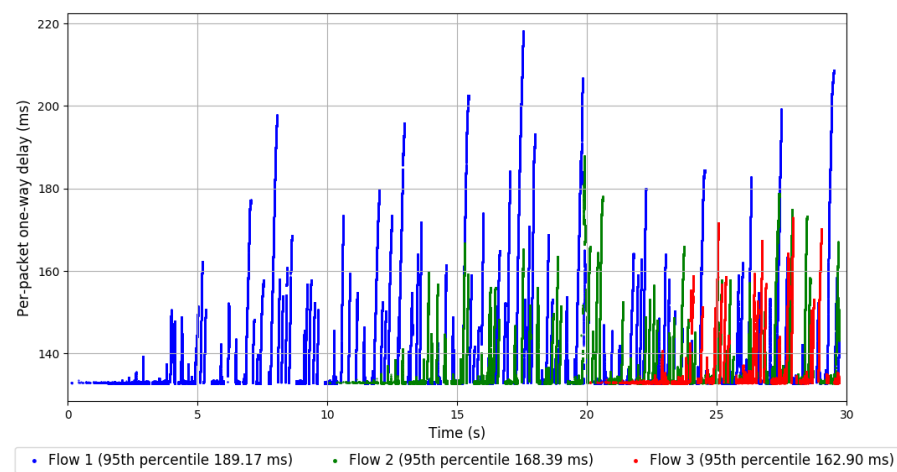
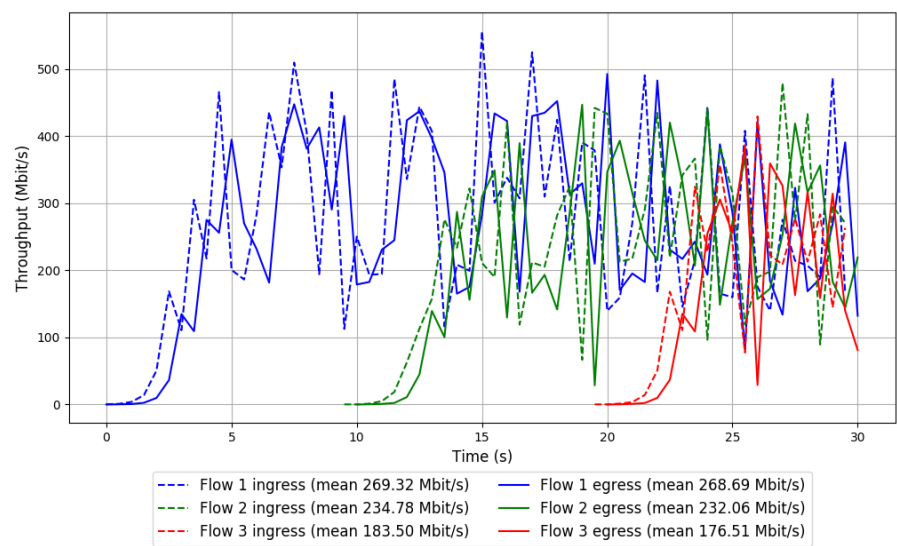


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-30 18:31:06  
End at: 2018-11-30 18:31:36  
Local clock offset: -0.214 ms  
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2018-11-30 22:42:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 480.05 Mbit/s  
95th percentile per-packet one-way delay: 179.068 ms  
Loss rate: 2.01%  
-- Flow 1:  
Average throughput: 268.69 Mbit/s  
95th percentile per-packet one-way delay: 189.167 ms  
Loss rate: 0.81%  
-- Flow 2:  
Average throughput: 232.06 Mbit/s  
95th percentile per-packet one-way delay: 168.390 ms  
Loss rate: 2.35%  
-- Flow 3:  
Average throughput: 176.51 Mbit/s  
95th percentile per-packet one-way delay: 162.896 ms  
Loss rate: 6.41%

Run 1: Report of Indigo-96d2da3 — Data Link

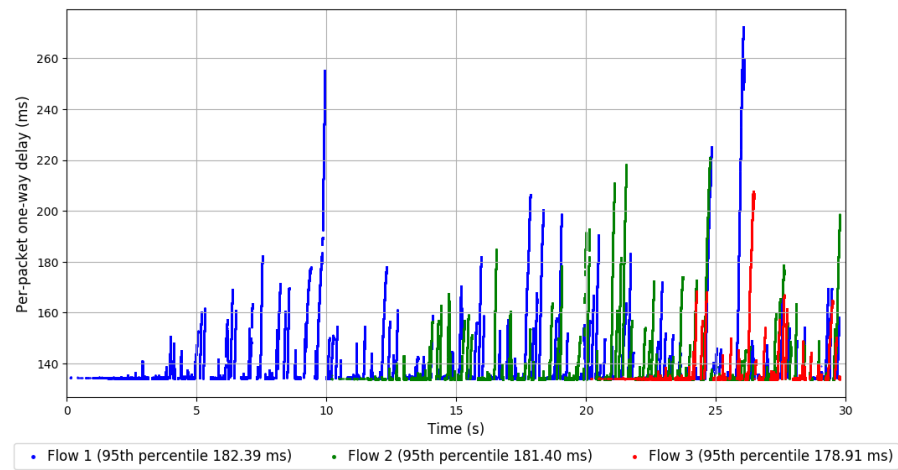
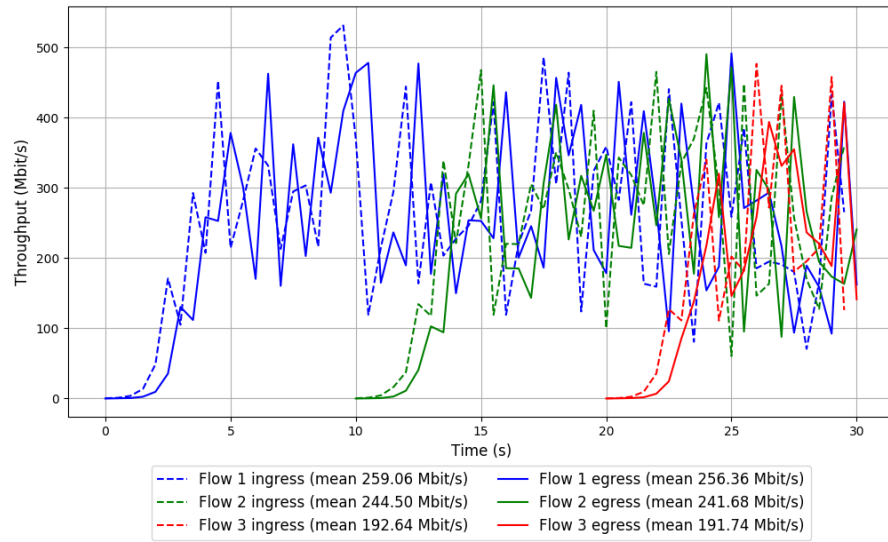


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-11-30 19:08:27  
End at: 2018-11-30 19:08:57  
Local clock offset: 0.21 ms  
Remote clock offset: -0.449 ms

# Below is generated by plot.py at 2018-11-30 22:42:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 477.86 Mbit/s  
95th percentile per-packet one-way delay: 181.705 ms  
Loss rate: 1.99%  
-- Flow 1:  
Average throughput: 256.36 Mbit/s  
95th percentile per-packet one-way delay: 182.386 ms  
Loss rate: 1.64%  
-- Flow 2:  
Average throughput: 241.68 Mbit/s  
95th percentile per-packet one-way delay: 181.404 ms  
Loss rate: 2.49%  
-- Flow 3:  
Average throughput: 191.74 Mbit/s  
95th percentile per-packet one-way delay: 178.906 ms  
Loss rate: 2.20%

## Run 2: Report of Indigo-96d2da3 — Data Link



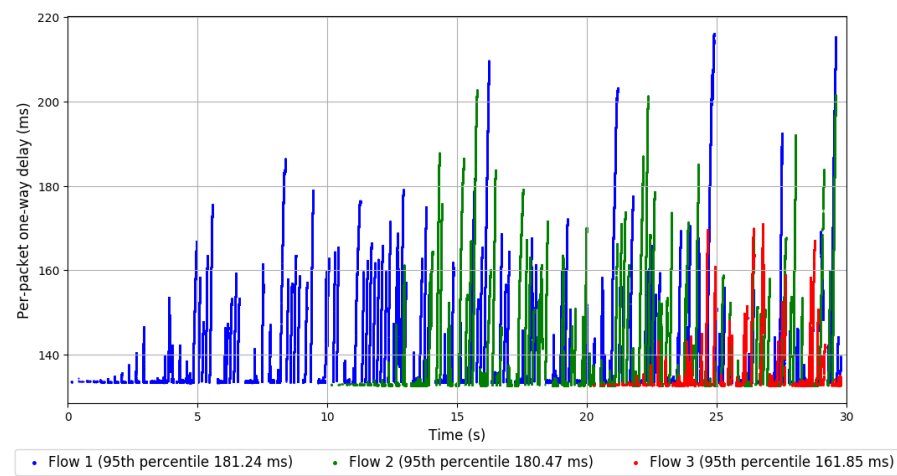
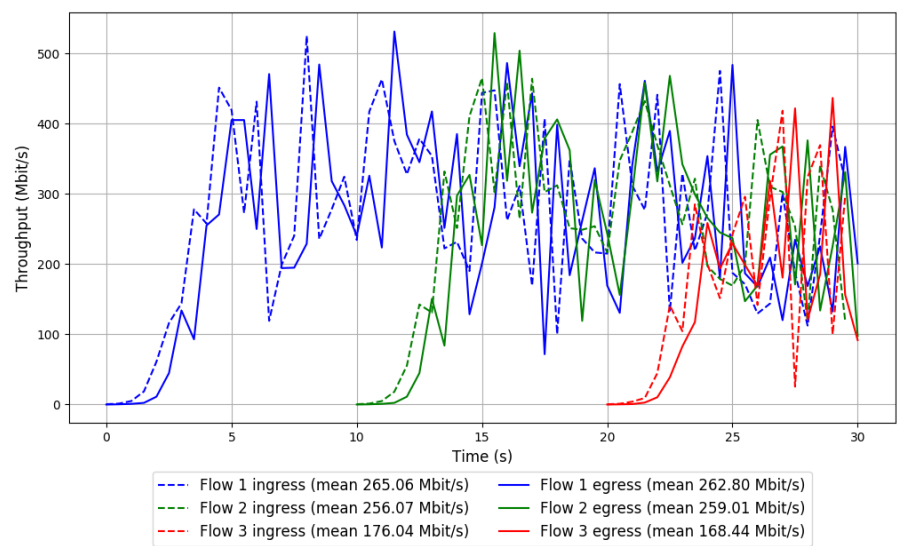


Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-30 19:45:35  
End at: 2018-11-30 19:46:05  
Local clock offset: -0.123 ms  
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2018-11-30 22:42:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 486.86 Mbit/s  
95th percentile per-packet one-way delay: 178.820 ms  
Loss rate: 2.10%  
-- Flow 1:  
Average throughput: 262.80 Mbit/s  
95th percentile per-packet one-way delay: 181.235 ms  
Loss rate: 1.65%  
-- Flow 2:  
Average throughput: 259.01 Mbit/s  
95th percentile per-packet one-way delay: 180.475 ms  
Loss rate: 1.19%  
-- Flow 3:  
Average throughput: 168.44 Mbit/s  
95th percentile per-packet one-way delay: 161.853 ms  
Loss rate: 6.84%

Run 3: Report of Indigo-96d2da3 — Data Link

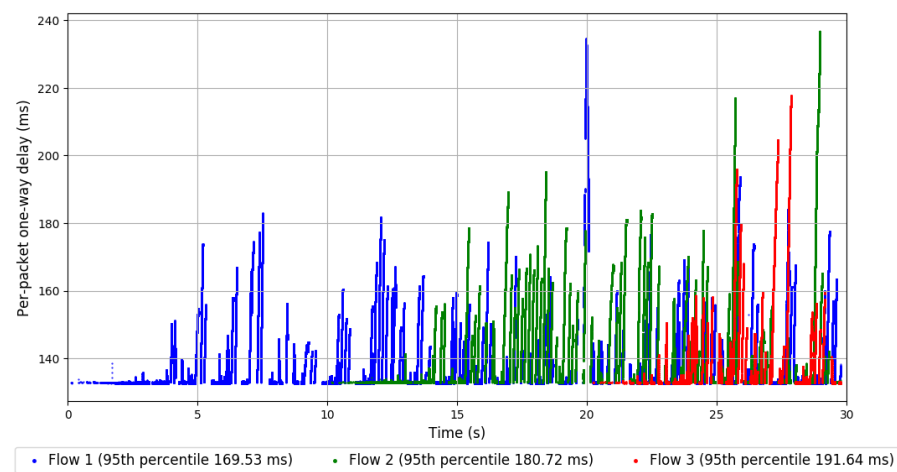
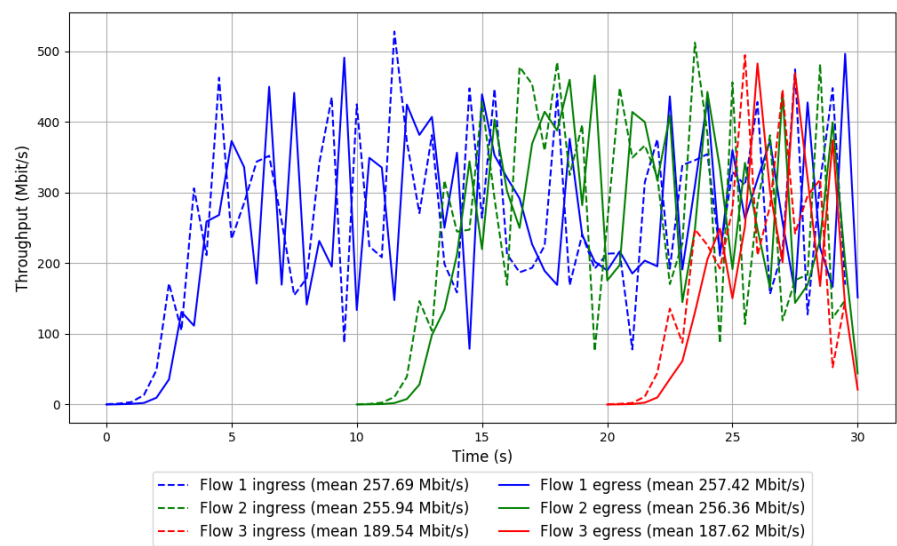


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-11-30 20:21:57  
End at: 2018-11-30 20:22:27  
Local clock offset: -0.013 ms  
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-11-30 22:43:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 487.26 Mbit/s  
95th percentile per-packet one-way delay: 176.507 ms  
Loss rate: 1.36%  
-- Flow 1:  
Average throughput: 257.42 Mbit/s  
95th percentile per-packet one-way delay: 169.527 ms  
Loss rate: 0.92%  
-- Flow 2:  
Average throughput: 256.36 Mbit/s  
95th percentile per-packet one-way delay: 180.723 ms  
Loss rate: 1.18%  
-- Flow 3:  
Average throughput: 187.62 Mbit/s  
95th percentile per-packet one-way delay: 191.641 ms  
Loss rate: 3.70%

Run 4: Report of Indigo-96d2da3 — Data Link



Run 5: Statistics of Indigo-96d2da3

Start at: 2018-11-30 21:00:19

End at: 2018-11-30 21:00:49

Local clock offset: -0.117 ms

Remote clock offset: 0.311 ms

# Below is generated by plot.py at 2018-11-30 22:47:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 470.97 Mbit/s

95th percentile per-packet one-way delay: 180.346 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 265.17 Mbit/s

95th percentile per-packet one-way delay: 181.316 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 233.72 Mbit/s

95th percentile per-packet one-way delay: 185.357 ms

Loss rate: 1.21%

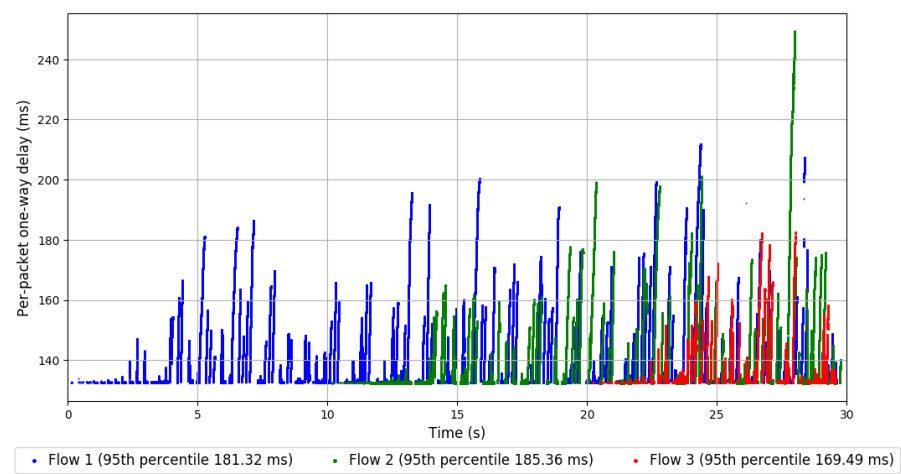
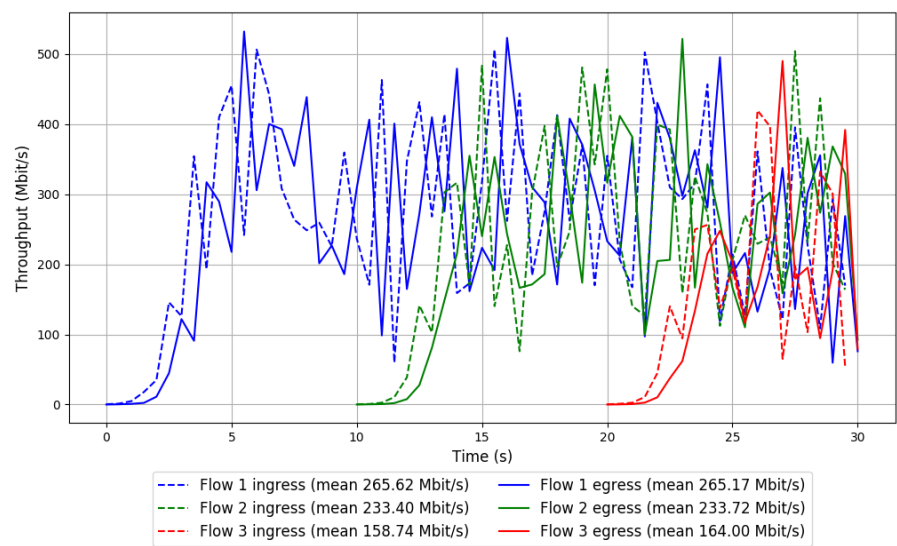
-- Flow 3:

Average throughput: 164.00 Mbit/s

95th percentile per-packet one-way delay: 169.488 ms

Loss rate: 1.72%

Run 5: Report of Indigo-96d2da3 — Data Link

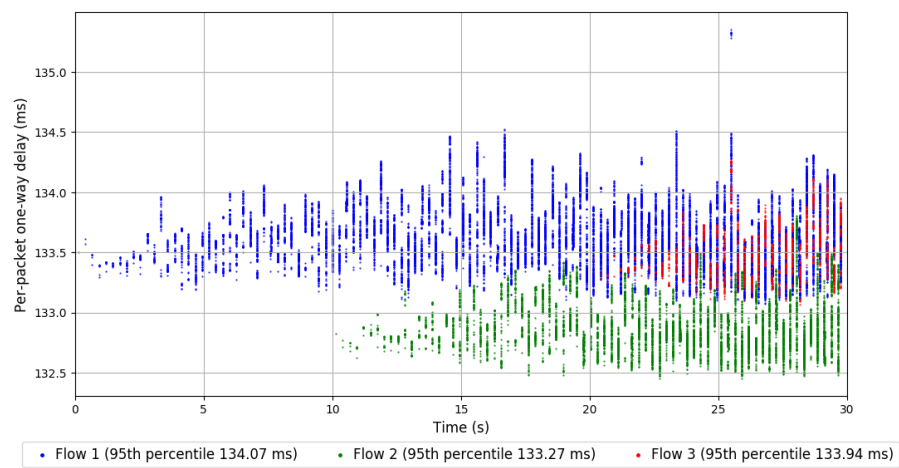
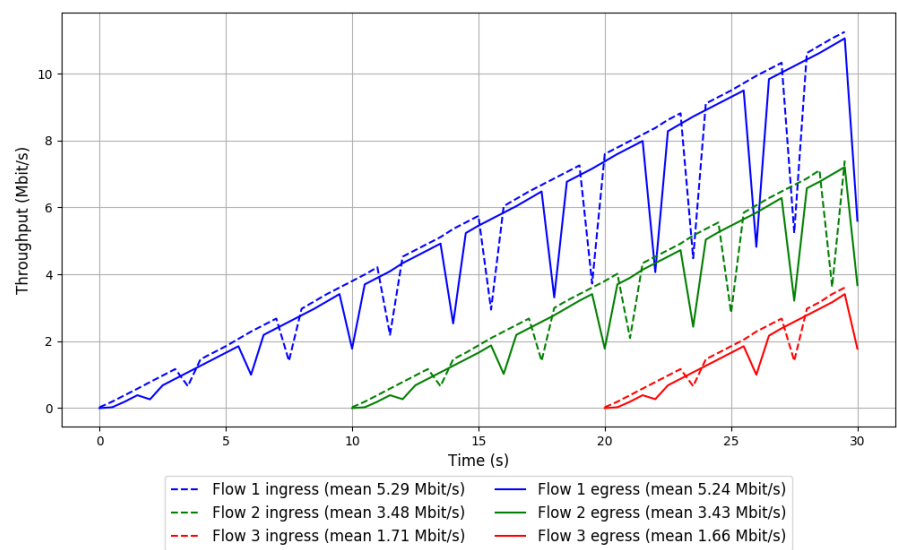


Run 1: Statistics of LEDBAT

Start at: 2018-11-30 18:49:59  
End at: 2018-11-30 18:50:29  
Local clock offset: -0.427 ms  
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-11-30 22:47:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.04 Mbit/s  
95th percentile per-packet one-way delay: 134.007 ms  
Loss rate: 2.30%  
-- Flow 1:  
Average throughput: 5.24 Mbit/s  
95th percentile per-packet one-way delay: 134.073 ms  
Loss rate: 1.79%  
-- Flow 2:  
Average throughput: 3.43 Mbit/s  
95th percentile per-packet one-way delay: 133.266 ms  
Loss rate: 2.71%  
-- Flow 3:  
Average throughput: 1.66 Mbit/s  
95th percentile per-packet one-way delay: 133.945 ms  
Loss rate: 5.40%

Run 1: Report of LEDBAT — Data Link



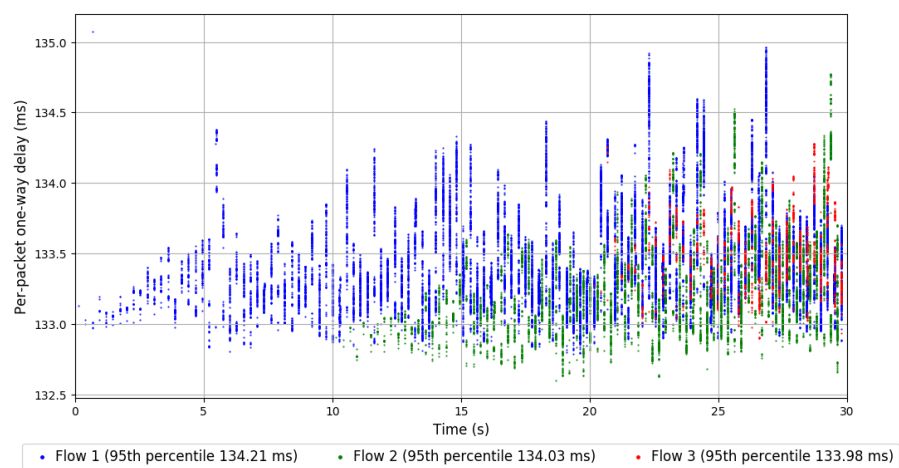
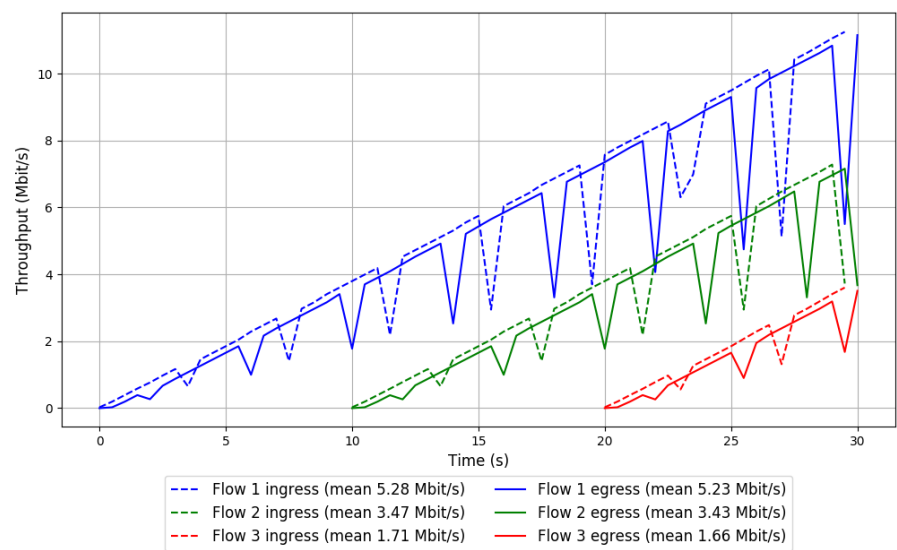


Run 2: Statistics of LEDBAT

Start at: 2018-11-30 19:28:10  
End at: 2018-11-30 19:28:40  
Local clock offset: -0.429 ms  
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2018-11-30 22:47:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.02 Mbit/s  
95th percentile per-packet one-way delay: 134.126 ms  
Loss rate: 2.30%  
-- Flow 1:  
Average throughput: 5.23 Mbit/s  
95th percentile per-packet one-way delay: 134.209 ms  
Loss rate: 1.79%  
-- Flow 2:  
Average throughput: 3.43 Mbit/s  
95th percentile per-packet one-way delay: 134.027 ms  
Loss rate: 2.71%  
-- Flow 3:  
Average throughput: 1.66 Mbit/s  
95th percentile per-packet one-way delay: 133.984 ms  
Loss rate: 5.40%

Run 2: Report of LEDBAT — Data Link

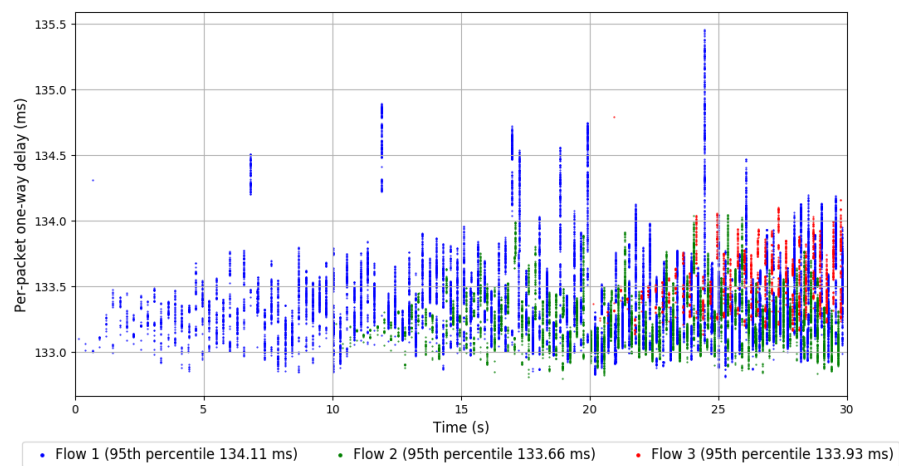
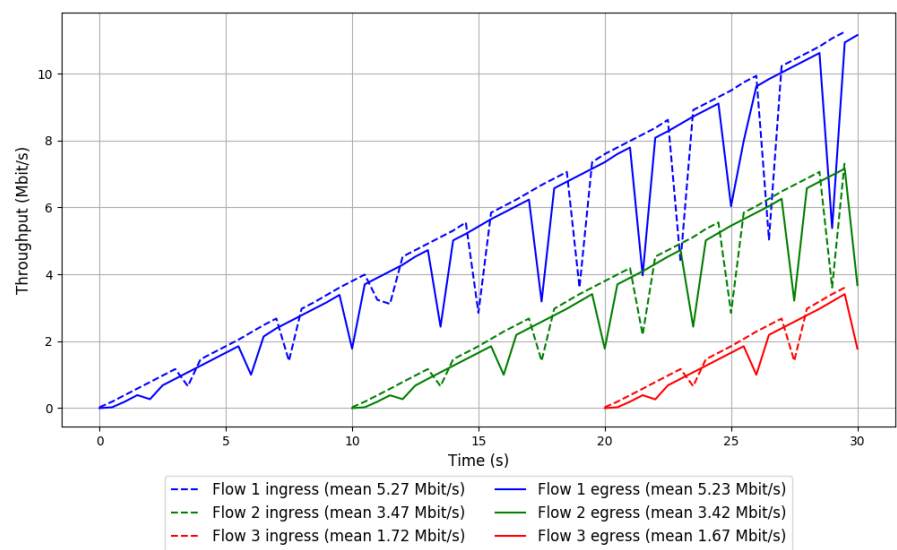


Run 3: Statistics of LEDBAT

Start at: 2018-11-30 20:03:51  
End at: 2018-11-30 20:04:21  
Local clock offset: -0.054 ms  
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-11-30 22:47:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.01 Mbit/s  
95th percentile per-packet one-way delay: 133.969 ms  
Loss rate: 2.30%  
-- Flow 1:  
Average throughput: 5.23 Mbit/s  
95th percentile per-packet one-way delay: 134.113 ms  
Loss rate: 1.79%  
-- Flow 2:  
Average throughput: 3.42 Mbit/s  
95th percentile per-packet one-way delay: 133.661 ms  
Loss rate: 2.71%  
-- Flow 3:  
Average throughput: 1.67 Mbit/s  
95th percentile per-packet one-way delay: 133.925 ms  
Loss rate: 5.40%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-11-30 20:42:21

End at: 2018-11-30 20:42:51

Local clock offset: 0.113 ms

Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-11-30 22:47:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.04 Mbit/s

95th percentile per-packet one-way delay: 133.628 ms

Loss rate: 2.30%

-- Flow 1:

Average throughput: 5.25 Mbit/s

95th percentile per-packet one-way delay: 133.292 ms

Loss rate: 1.79%

-- Flow 2:

Average throughput: 3.43 Mbit/s

95th percentile per-packet one-way delay: 133.785 ms

Loss rate: 2.71%

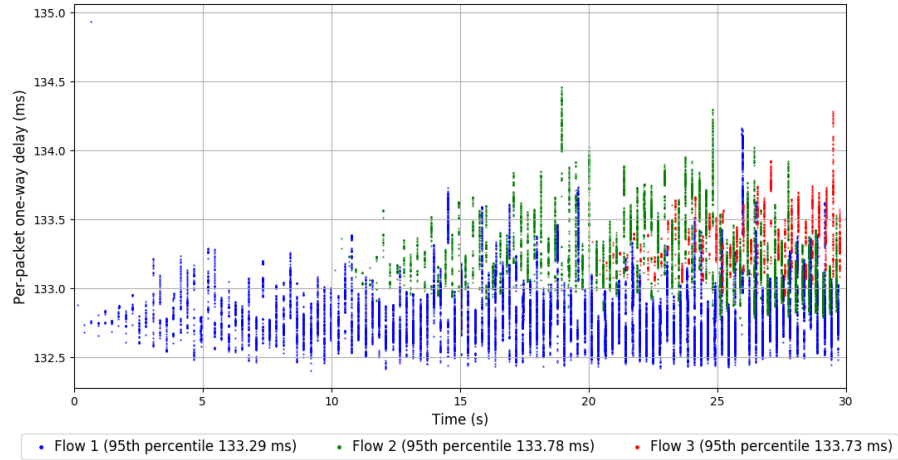
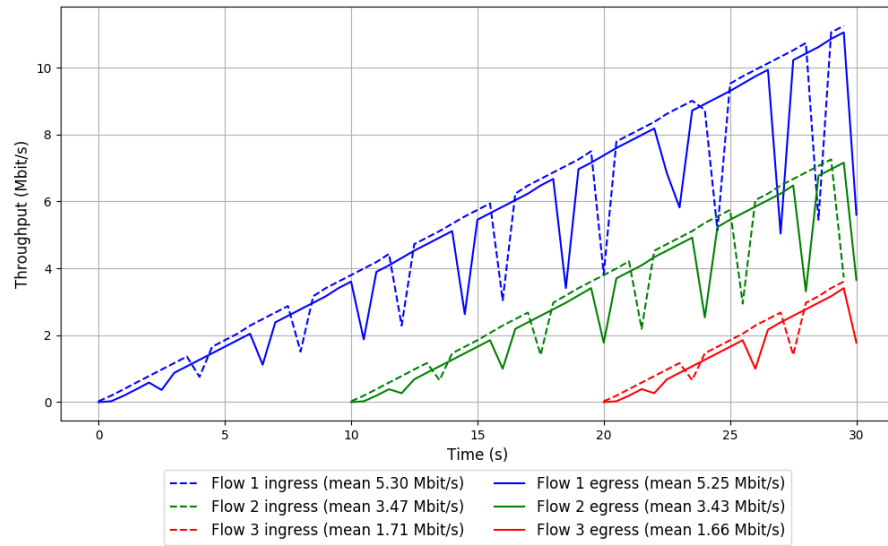
-- Flow 3:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 133.734 ms

Loss rate: 5.40%

# Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-11-30 21:20:34

End at: 2018-11-30 21:21:04

Local clock offset: -0.162 ms

Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-11-30 22:47:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.03 Mbit/s

95th percentile per-packet one-way delay: 134.047 ms

Loss rate: 2.30%

-- Flow 1:

Average throughput: 5.25 Mbit/s

95th percentile per-packet one-way delay: 133.840 ms

Loss rate: 1.79%

-- Flow 2:

Average throughput: 3.41 Mbit/s

95th percentile per-packet one-way delay: 134.213 ms

Loss rate: 2.71%

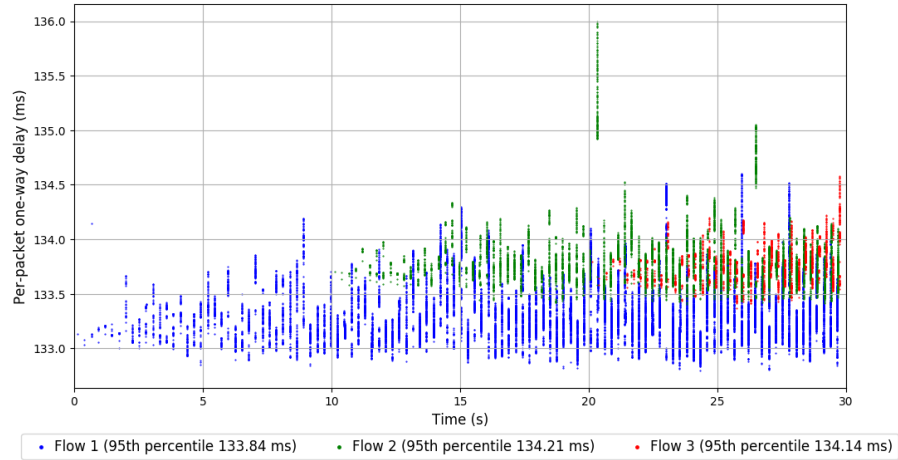
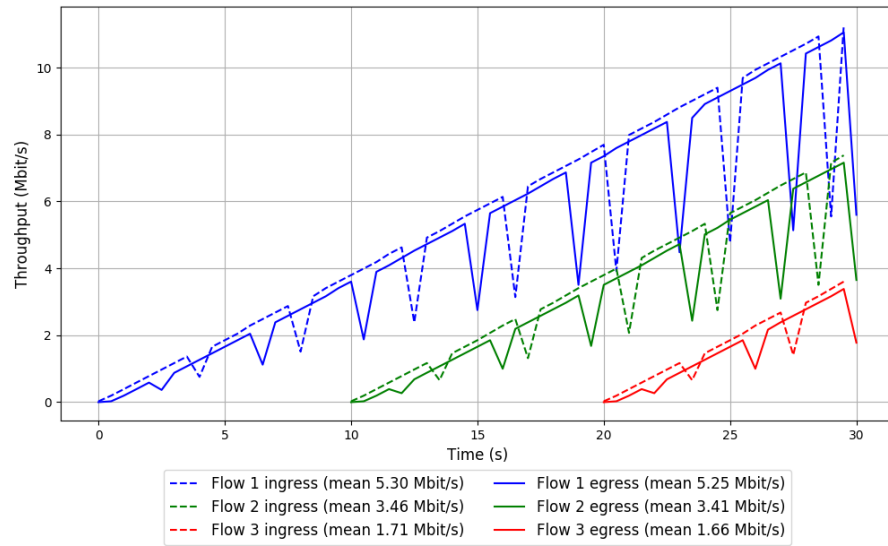
-- Flow 3:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 134.137 ms

Loss rate: 5.41%

# Run 5: Report of LEDBAT — Data Link



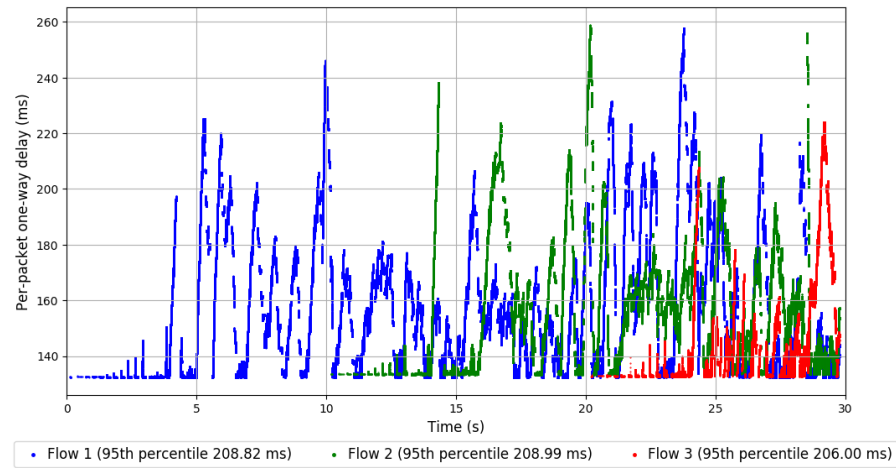
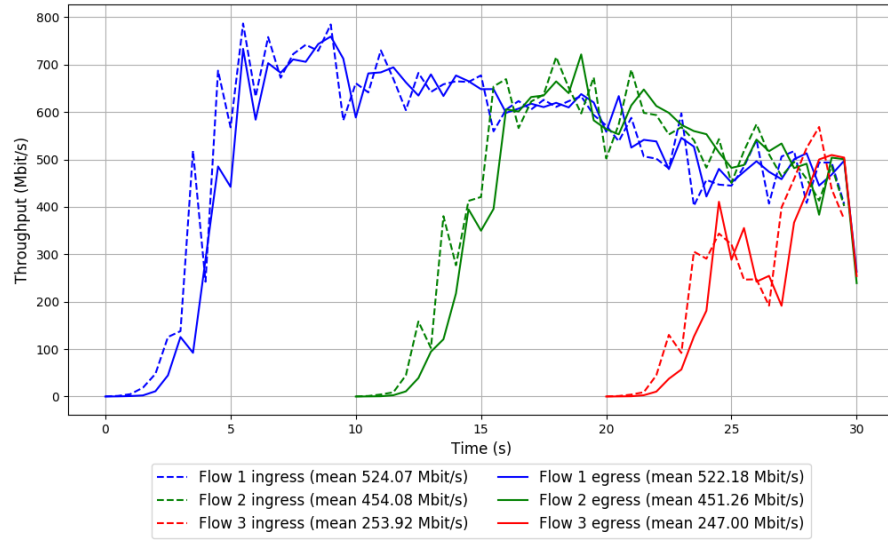


Run 1: Statistics of Indigo-Muses

Start at: 2018-11-30 18:47:35  
End at: 2018-11-30 18:48:05  
Local clock offset: -0.187 ms  
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-11-30 22:58:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 899.97 Mbit/s  
95th percentile per-packet one-way delay: 208.751 ms  
Loss rate: 1.86%  
-- Flow 1:  
Average throughput: 522.18 Mbit/s  
95th percentile per-packet one-way delay: 208.816 ms  
Loss rate: 1.25%  
-- Flow 2:  
Average throughput: 451.26 Mbit/s  
95th percentile per-packet one-way delay: 208.993 ms  
Loss rate: 1.96%  
-- Flow 3:  
Average throughput: 247.00 Mbit/s  
95th percentile per-packet one-way delay: 206.002 ms  
Loss rate: 5.37%

# Run 1: Report of Indigo-Muses — Data Link

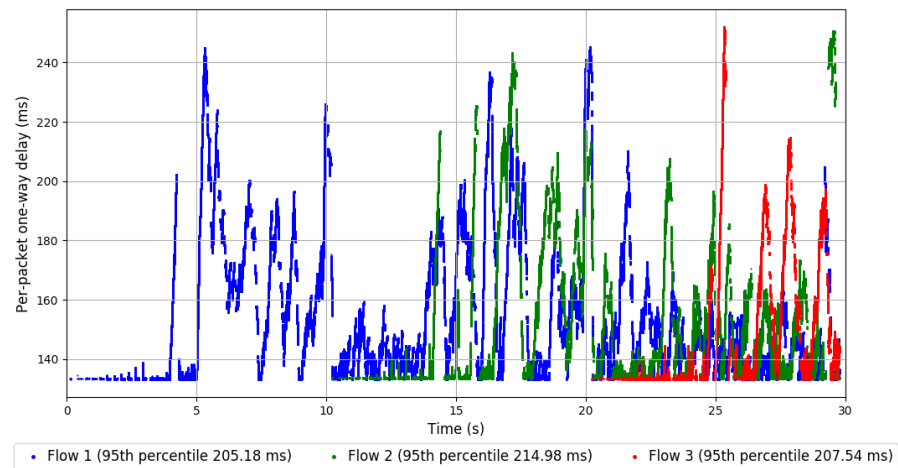
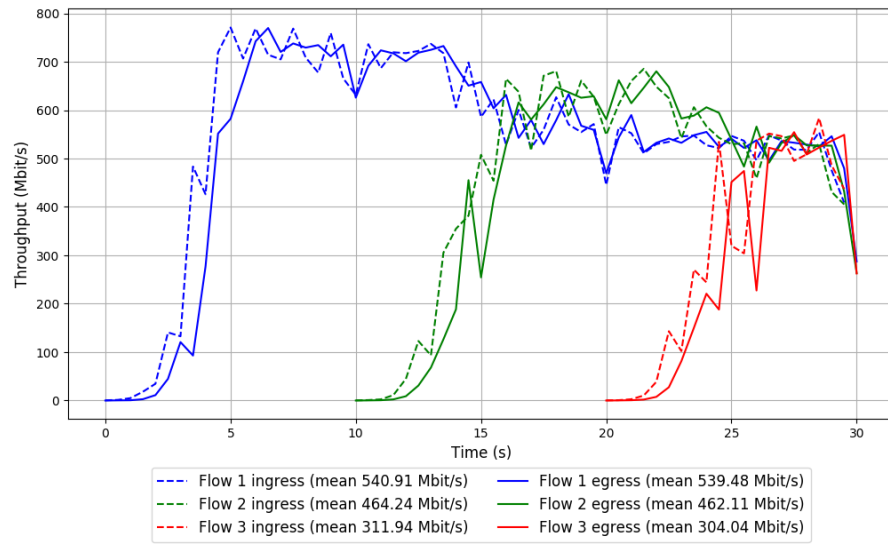


Run 2: Statistics of Indigo-Muses

Start at: 2018-11-30 19:25:42  
End at: 2018-11-30 19:26:12  
Local clock offset: -0.175 ms  
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-11-30 22:59:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 942.26 Mbit/s  
95th percentile per-packet one-way delay: 209.050 ms  
Loss rate: 1.79%  
-- Flow 1:  
Average throughput: 539.48 Mbit/s  
95th percentile per-packet one-way delay: 205.184 ms  
Loss rate: 1.16%  
-- Flow 2:  
Average throughput: 462.11 Mbit/s  
95th percentile per-packet one-way delay: 214.980 ms  
Loss rate: 1.80%  
-- Flow 3:  
Average throughput: 304.04 Mbit/s  
95th percentile per-packet one-way delay: 207.545 ms  
Loss rate: 5.13%

## Run 2: Report of Indigo-Muses — Data Link

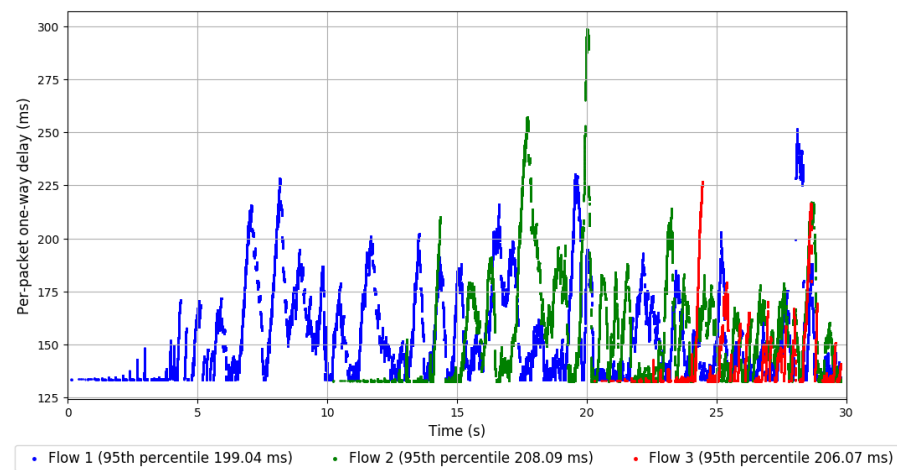
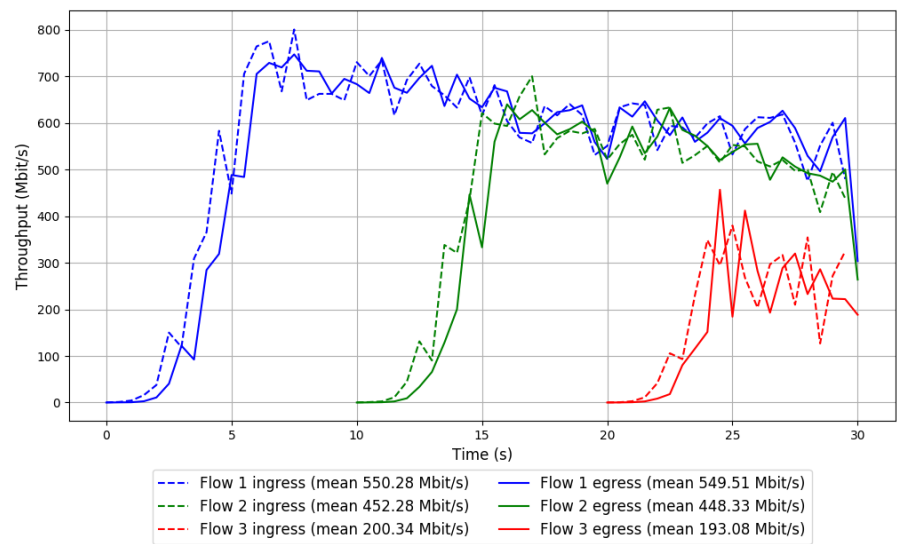


Run 3: Statistics of Indigo-Muses

Start at: 2018-11-30 20:01:36  
End at: 2018-11-30 20:02:06  
Local clock offset: -0.048 ms  
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-11-30 22:59:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 907.13 Mbit/s  
95th percentile per-packet one-way delay: 203.070 ms  
Loss rate: 1.74%  
-- Flow 1:  
Average throughput: 549.51 Mbit/s  
95th percentile per-packet one-way delay: 199.036 ms  
Loss rate: 1.04%  
-- Flow 2:  
Average throughput: 448.33 Mbit/s  
95th percentile per-packet one-way delay: 208.086 ms  
Loss rate: 2.20%  
-- Flow 3:  
Average throughput: 193.08 Mbit/s  
95th percentile per-packet one-way delay: 206.067 ms  
Loss rate: 5.51%

Run 3: Report of Indigo-Muses — Data Link



#### Run 4: Statistics of Indigo-Muses

Start at: 2018-11-30 20:39:45

End at: 2018-11-30 20:40:15

Local clock offset: -0.498 ms

Remote clock offset: 0.262 ms

# Below is generated by plot.py at 2018-11-30 22:59:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 852.92 Mbit/s

95th percentile per-packet one-way delay: 220.347 ms

Loss rate: 2.15%

-- Flow 1:

Average throughput: 496.23 Mbit/s

95th percentile per-packet one-way delay: 206.078 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 434.44 Mbit/s

95th percentile per-packet one-way delay: 235.462 ms

Loss rate: 2.54%

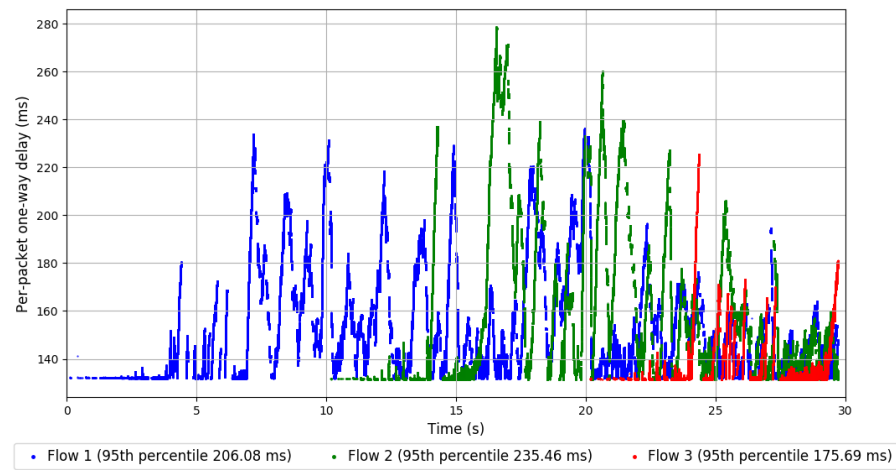
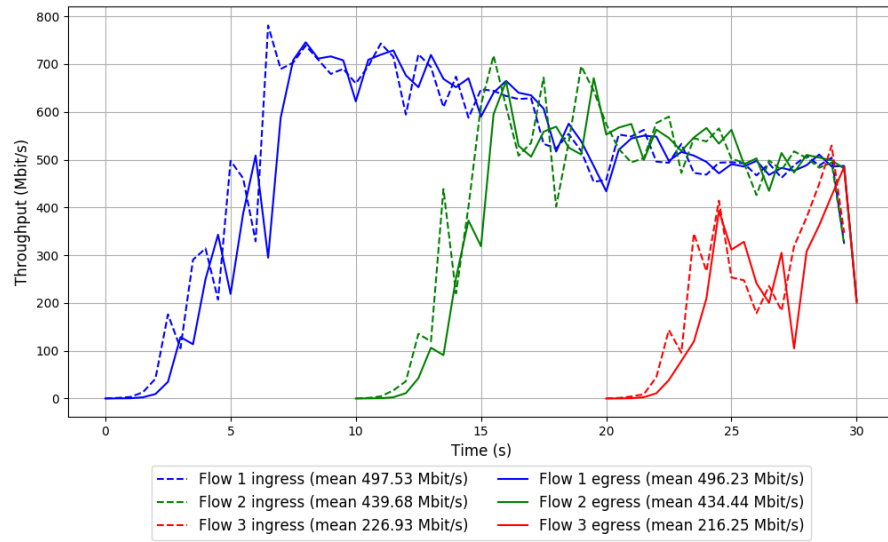
-- Flow 3:

Average throughput: 216.25 Mbit/s

95th percentile per-packet one-way delay: 175.688 ms

Loss rate: 7.25%

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



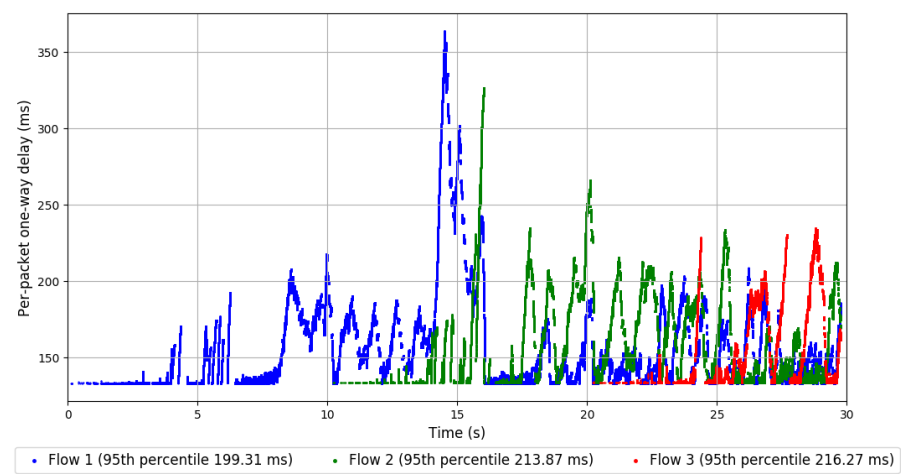
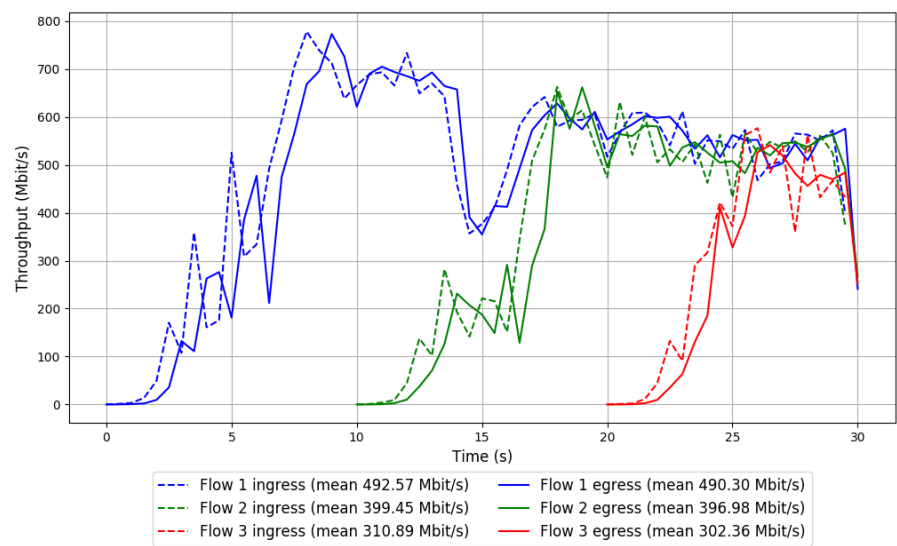


Run 5: Statistics of Indigo-Muses

Start at: 2018-11-30 21:18:08  
End at: 2018-11-30 21:18:38  
Local clock offset: 0.323 ms  
Remote clock offset: -0.007 ms

```
# Below is generated by plot.py at 2018-11-30 22:59:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 849.40 Mbit/s
95th percentile per-packet one-way delay: 209.153 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 490.30 Mbit/s
95th percentile per-packet one-way delay: 199.312 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 396.98 Mbit/s
95th percentile per-packet one-way delay: 213.874 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 302.36 Mbit/s
95th percentile per-packet one-way delay: 216.269 ms
Loss rate: 5.39%
```

Run 5: Report of Indigo-Muses — Data Link

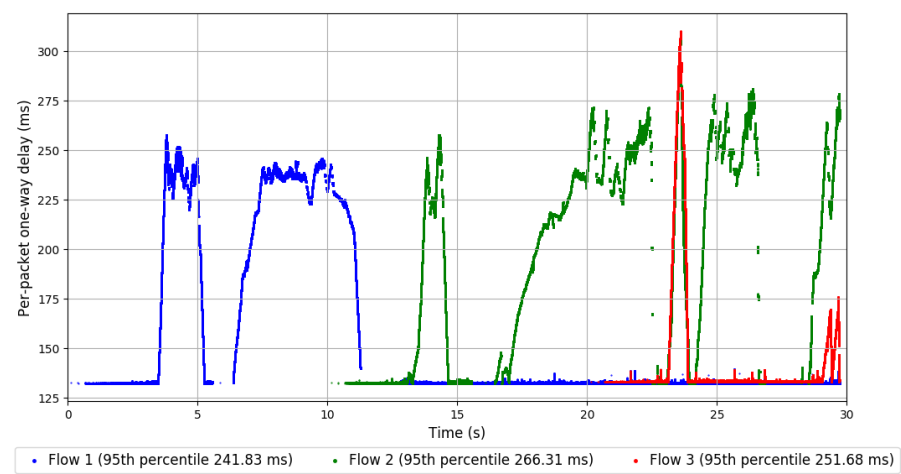
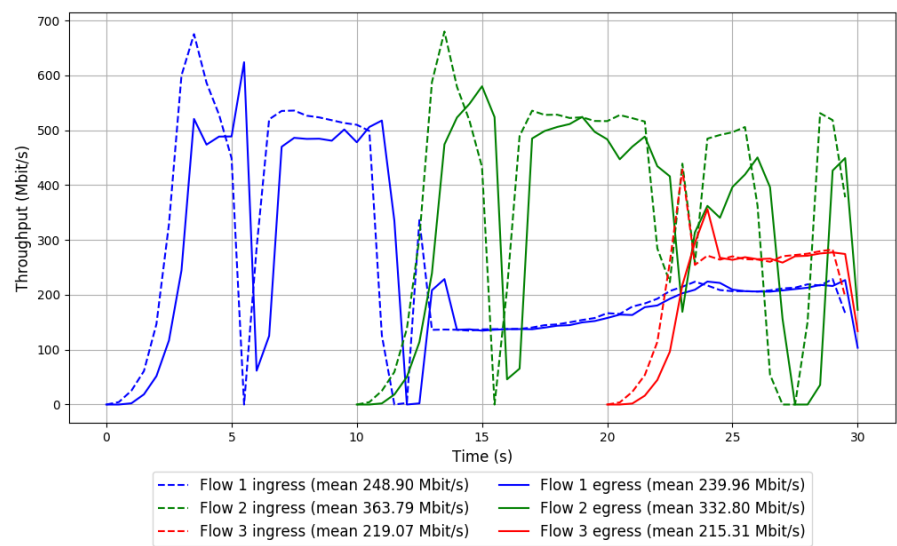


Run 1: Statistics of PCC-Allegro

Start at: 2018-11-30 18:22:56  
End at: 2018-11-30 18:23:26  
Local clock offset: -0.689 ms  
Remote clock offset: -0.186 ms

# Below is generated by plot.py at 2018-11-30 23:02:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 529.76 Mbit/s  
95th percentile per-packet one-way delay: 259.192 ms  
Loss rate: 6.72%  
-- Flow 1:  
Average throughput: 239.96 Mbit/s  
95th percentile per-packet one-way delay: 241.827 ms  
Loss rate: 4.45%  
-- Flow 2:  
Average throughput: 332.80 Mbit/s  
95th percentile per-packet one-way delay: 266.305 ms  
Loss rate: 9.75%  
-- Flow 3:  
Average throughput: 215.31 Mbit/s  
95th percentile per-packet one-way delay: 251.682 ms  
Loss rate: 4.39%

Run 1: Report of PCC-Allegro — Data Link

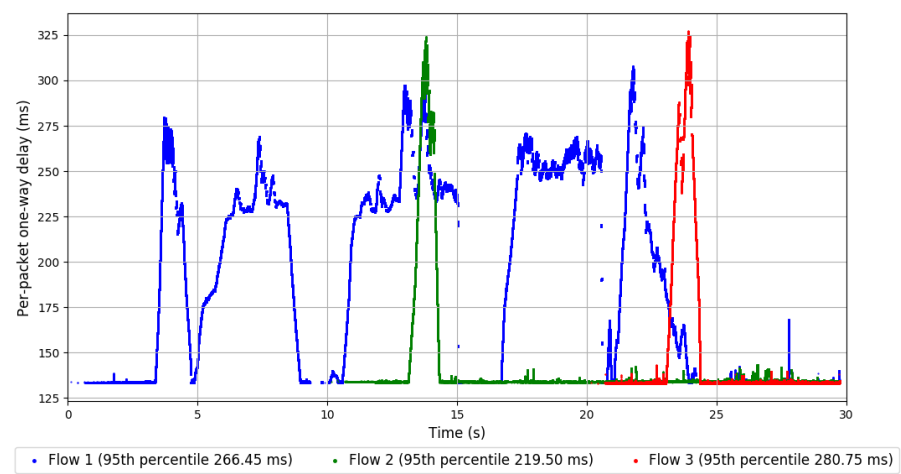
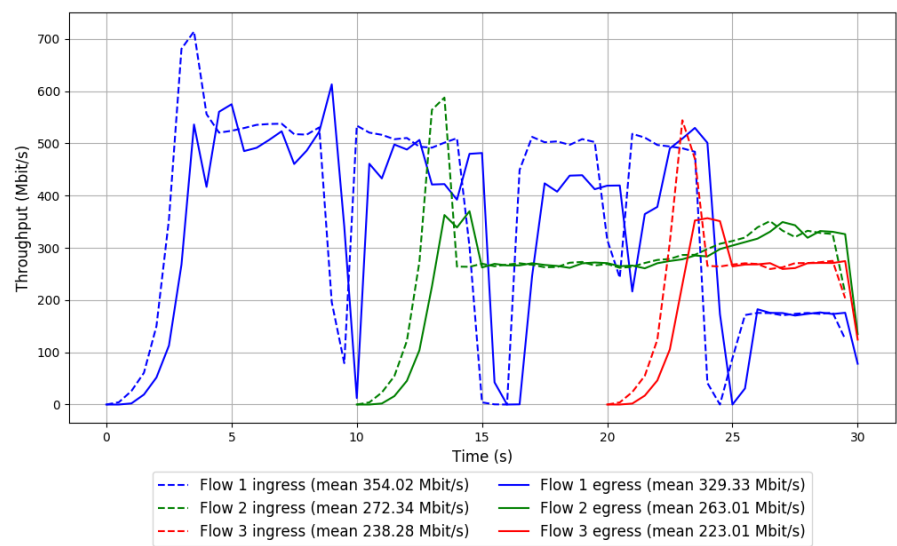


Run 2: Statistics of PCC-Allegro

Start at: 2018-11-30 18:59:34  
End at: 2018-11-30 19:00:04  
Local clock offset: -0.038 ms  
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-11-30 23:06:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 575.25 Mbit/s  
95th percentile per-packet one-way delay: 266.167 ms  
Loss rate: 7.08%  
-- Flow 1:  
Average throughput: 329.33 Mbit/s  
95th percentile per-packet one-way delay: 266.449 ms  
Loss rate: 7.80%  
-- Flow 2:  
Average throughput: 263.01 Mbit/s  
95th percentile per-packet one-way delay: 219.497 ms  
Loss rate: 4.83%  
-- Flow 3:  
Average throughput: 223.01 Mbit/s  
95th percentile per-packet one-way delay: 280.748 ms  
Loss rate: 8.97%

Run 2: Report of PCC-Allegro — Data Link

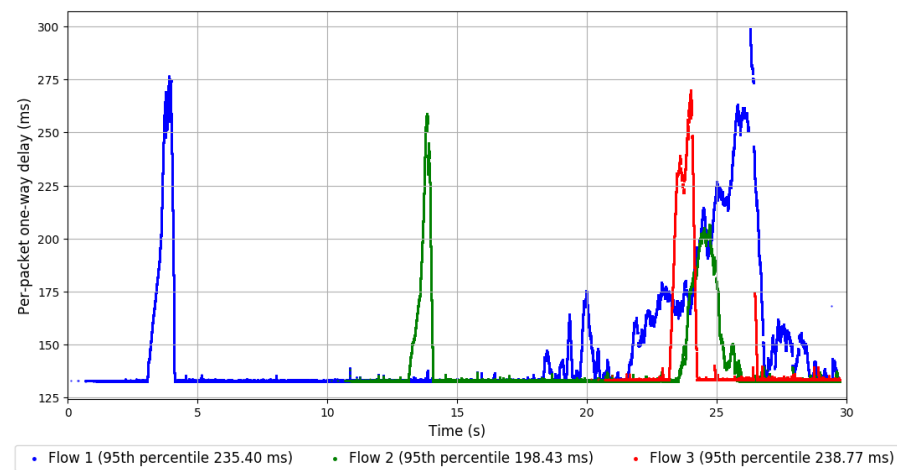
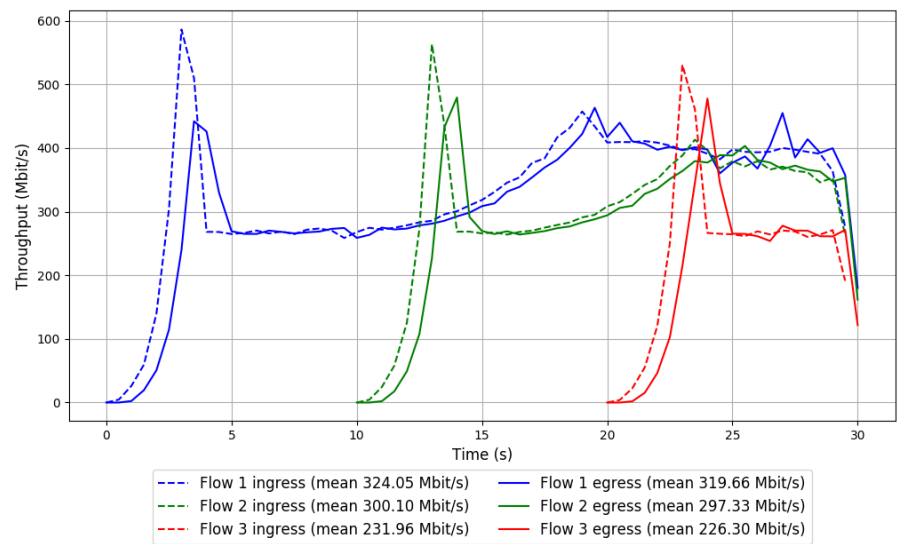


Run 3: Statistics of PCC-Allegro

Start at: 2018-11-30 19:36:56  
End at: 2018-11-30 19:37:26  
Local clock offset: -0.198 ms  
Remote clock offset: -0.123 ms

# Below is generated by plot.py at 2018-11-30 23:09:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 589.55 Mbit/s  
95th percentile per-packet one-way delay: 227.421 ms  
Loss rate: 2.61%  
-- Flow 1:  
Average throughput: 319.66 Mbit/s  
95th percentile per-packet one-way delay: 235.395 ms  
Loss rate: 2.24%  
-- Flow 2:  
Average throughput: 297.33 Mbit/s  
95th percentile per-packet one-way delay: 198.431 ms  
Loss rate: 2.25%  
-- Flow 3:  
Average throughput: 226.30 Mbit/s  
95th percentile per-packet one-way delay: 238.773 ms  
Loss rate: 5.09%

Run 3: Report of PCC-Allegro — Data Link



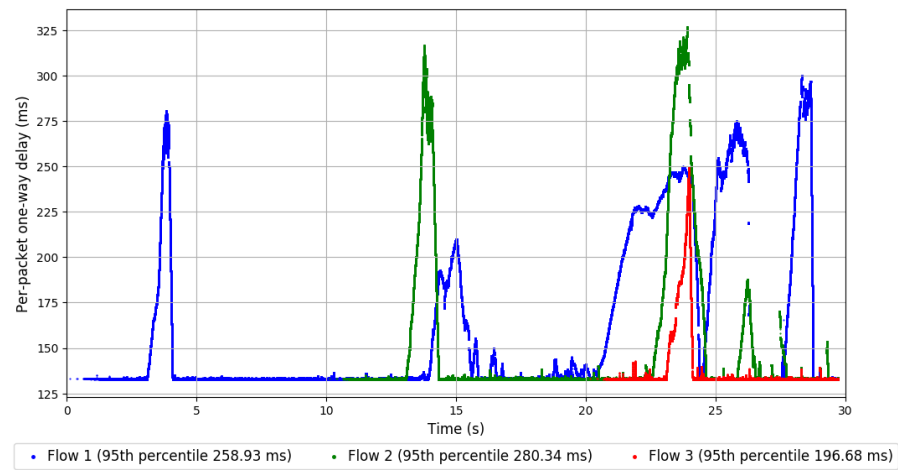
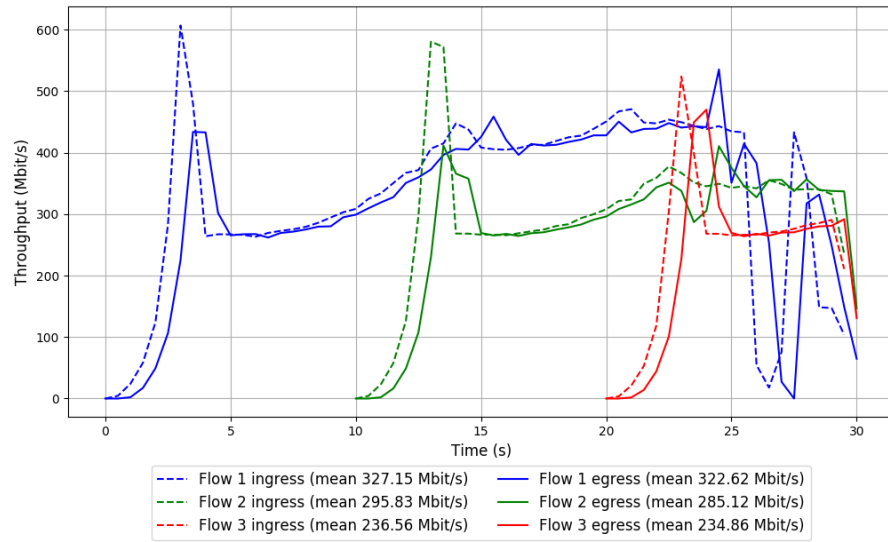


Run 4: Statistics of PCC-Allegro

Start at: 2018-11-30 20:12:58  
End at: 2018-11-30 20:13:28  
Local clock offset: -0.279 ms  
Remote clock offset: -0.408 ms

# Below is generated by plot.py at 2018-11-30 23:22:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 587.14 Mbit/s  
95th percentile per-packet one-way delay: 259.375 ms  
Loss rate: 3.28%  
-- Flow 1:  
Average throughput: 322.62 Mbit/s  
95th percentile per-packet one-way delay: 258.934 ms  
Loss rate: 2.26%  
-- Flow 2:  
Average throughput: 285.12 Mbit/s  
95th percentile per-packet one-way delay: 280.336 ms  
Loss rate: 4.91%  
-- Flow 3:  
Average throughput: 234.86 Mbit/s  
95th percentile per-packet one-way delay: 196.682 ms  
Loss rate: 3.42%

# Run 4: Report of PCC-Allegro — Data Link

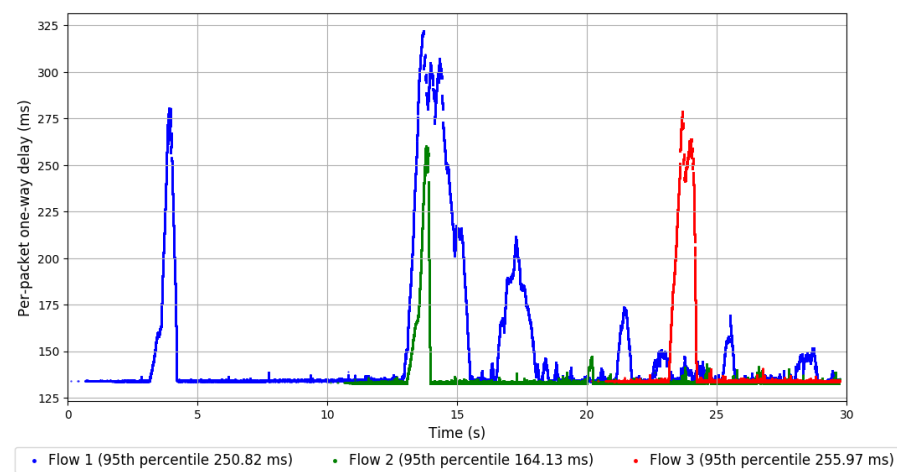
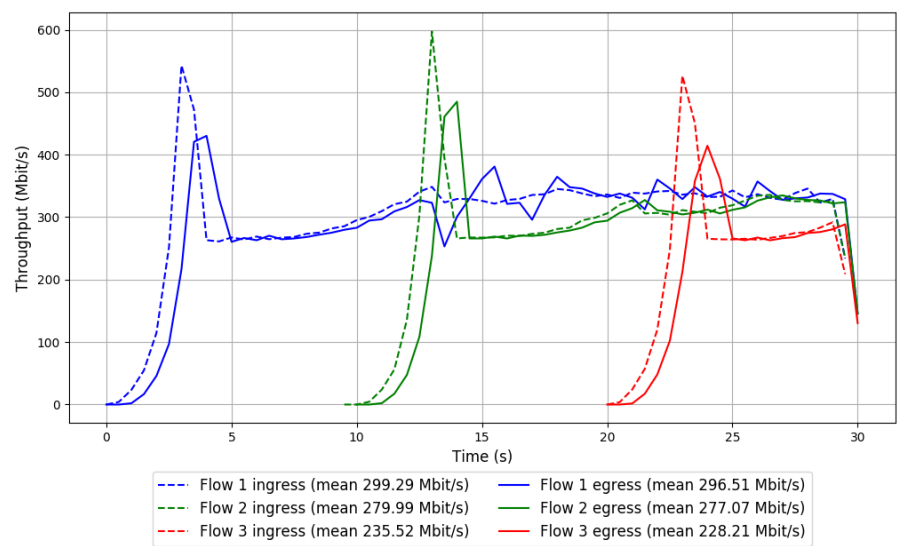


Run 5: Statistics of PCC-Allegro

Start at: 2018-11-30 20:51:23  
End at: 2018-11-30 20:51:53  
Local clock offset: 0.401 ms  
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2018-11-30 23:22:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 553.60 Mbit/s  
95th percentile per-packet one-way delay: 240.056 ms  
Loss rate: 2.54%  
-- Flow 1:  
Average throughput: 296.51 Mbit/s  
95th percentile per-packet one-way delay: 250.818 ms  
Loss rate: 1.81%  
-- Flow 2:  
Average throughput: 277.07 Mbit/s  
95th percentile per-packet one-way delay: 164.129 ms  
Loss rate: 2.37%  
-- Flow 3:  
Average throughput: 228.21 Mbit/s  
95th percentile per-packet one-way delay: 255.971 ms  
Loss rate: 5.73%

Run 5: Report of PCC-Allegro — Data Link

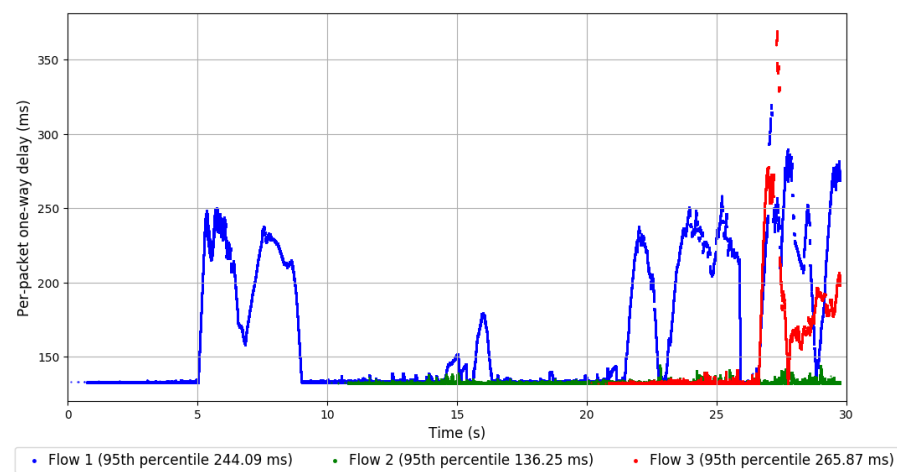
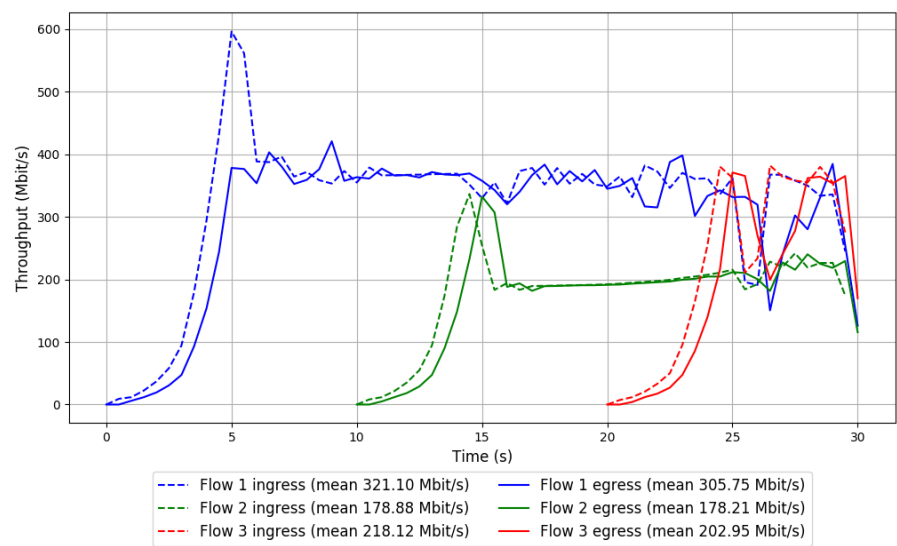


```
Run 1: Statistics of PCC-Expr

Start at: 2018-11-30 18:14:52
End at: 2018-11-30 18:15:22
Local clock offset: -0.234 ms
Remote clock offset: 0.26 ms

# Below is generated by plot.py at 2018-11-30 23:22:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.28 Mbit/s
95th percentile per-packet one-way delay: 240.563 ms
Loss rate: 5.26%
-- Flow 1:
Average throughput: 305.75 Mbit/s
95th percentile per-packet one-way delay: 244.095 ms
Loss rate: 5.63%
-- Flow 2:
Average throughput: 178.21 Mbit/s
95th percentile per-packet one-way delay: 136.247 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 202.95 Mbit/s
95th percentile per-packet one-way delay: 265.865 ms
Loss rate: 9.48%
```

Run 1: Report of PCC-Expr — Data Link

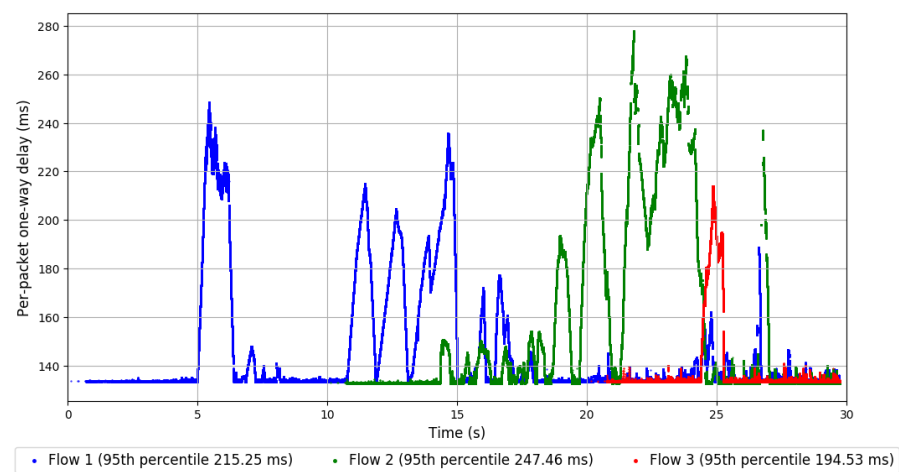
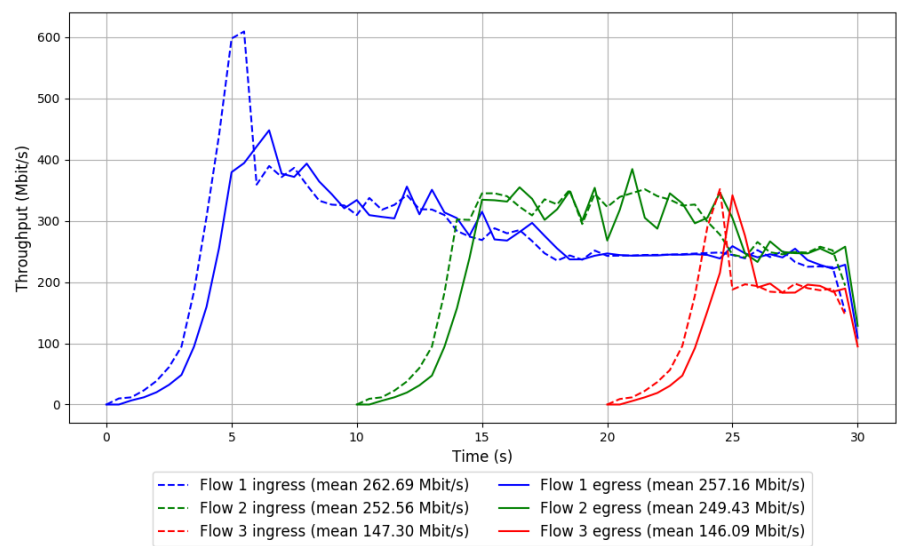


Run 2: Statistics of PCC-Expr

Start at: 2018-11-30 18:51:19  
End at: 2018-11-30 18:51:49  
Local clock offset: -0.205 ms  
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-11-30 23:22:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 469.66 Mbit/s  
95th percentile per-packet one-way delay: 230.306 ms  
Loss rate: 2.90%  
-- Flow 1:  
Average throughput: 257.16 Mbit/s  
95th percentile per-packet one-way delay: 215.249 ms  
Loss rate: 2.99%  
-- Flow 2:  
Average throughput: 249.43 Mbit/s  
95th percentile per-packet one-way delay: 247.456 ms  
Loss rate: 2.57%  
-- Flow 3:  
Average throughput: 146.09 Mbit/s  
95th percentile per-packet one-way delay: 194.528 ms  
Loss rate: 3.53%

Run 2: Report of PCC-Expr — Data Link



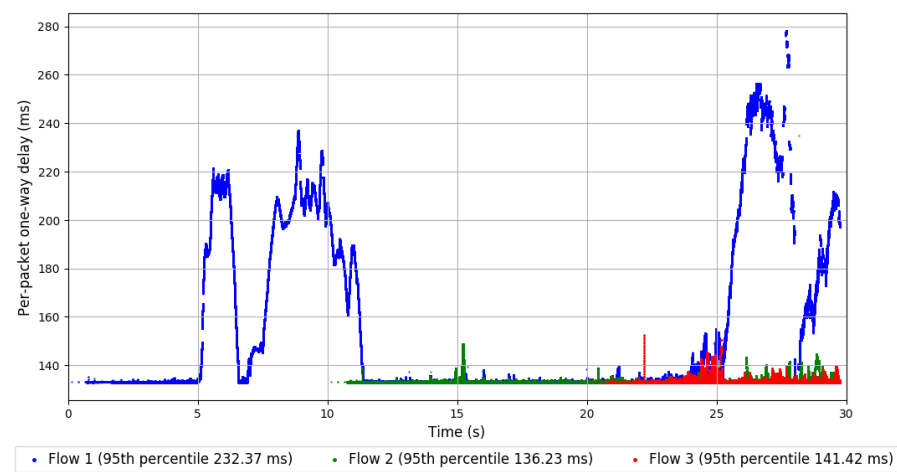
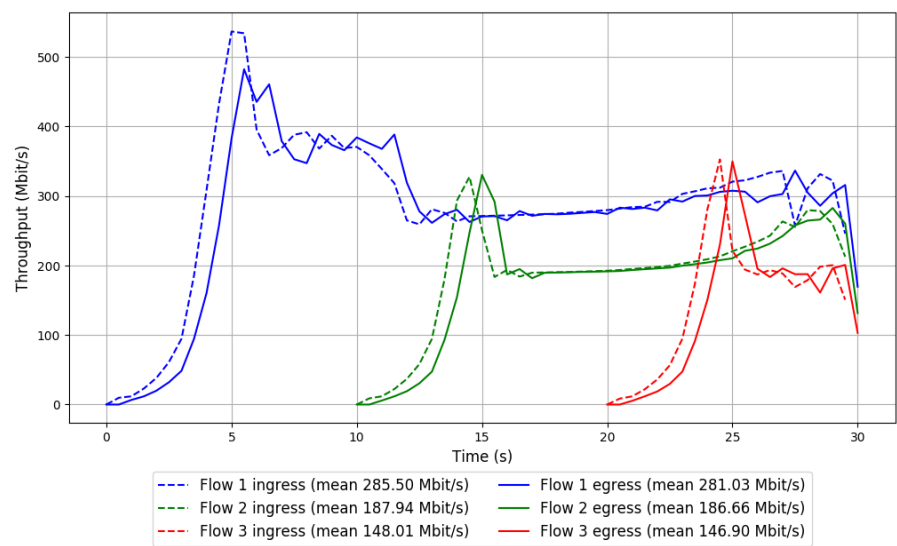


Run 3: Statistics of PCC-Expr

Start at: 2018-11-30 19:29:31  
End at: 2018-11-30 19:30:01  
Local clock offset: 0.048 ms  
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-11-30 23:22:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 452.19 Mbit/s  
95th percentile per-packet one-way delay: 218.961 ms  
Loss rate: 2.44%  
-- Flow 1:  
Average throughput: 281.03 Mbit/s  
95th percentile per-packet one-way delay: 232.374 ms  
Loss rate: 2.45%  
-- Flow 2:  
Average throughput: 186.66 Mbit/s  
95th percentile per-packet one-way delay: 136.232 ms  
Loss rate: 2.02%  
-- Flow 3:  
Average throughput: 146.90 Mbit/s  
95th percentile per-packet one-way delay: 141.422 ms  
Loss rate: 3.43%

Run 3: Report of PCC-Expr — Data Link

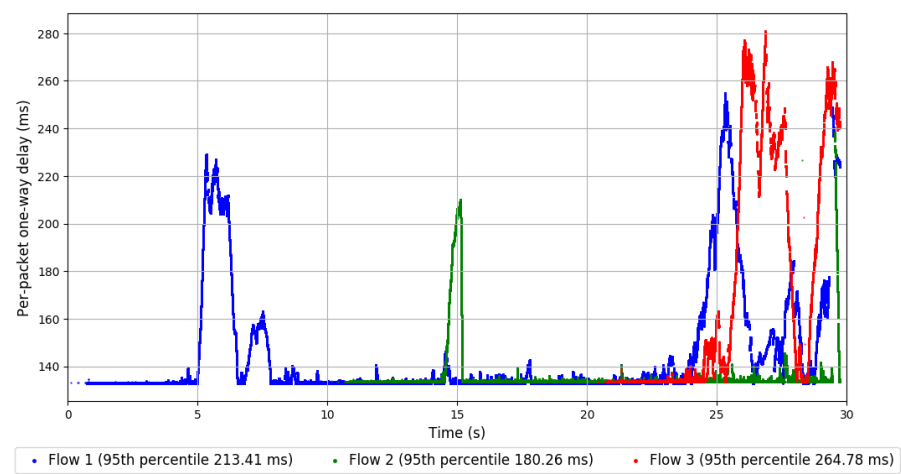
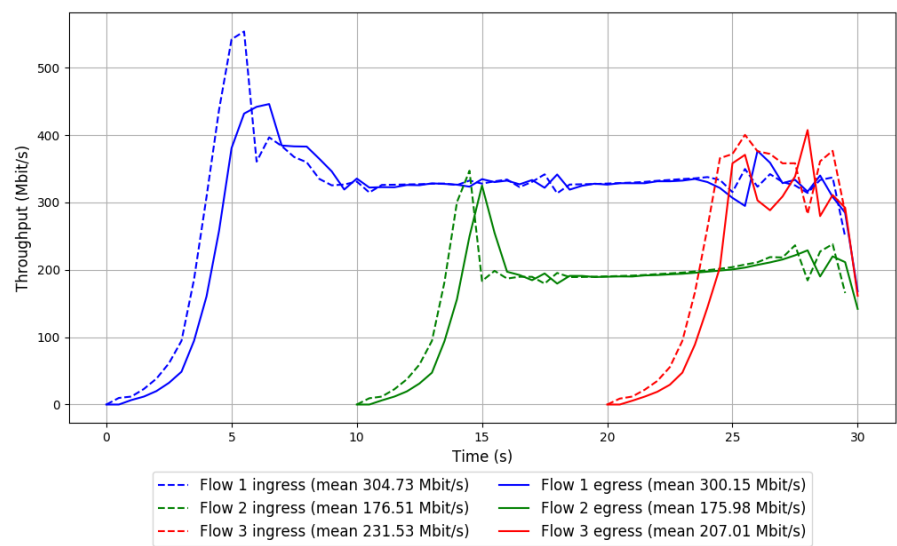


Run 4: Statistics of PCC-Expr

Start at: 2018-11-30 20:05:11  
End at: 2018-11-30 20:05:41  
Local clock offset: -0.037 ms  
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 483.67 Mbit/s  
95th percentile per-packet one-way delay: 235.172 ms  
Loss rate: 3.85%  
-- Flow 1:  
Average throughput: 300.15 Mbit/s  
95th percentile per-packet one-way delay: 213.407 ms  
Loss rate: 2.40%  
-- Flow 2:  
Average throughput: 175.98 Mbit/s  
95th percentile per-packet one-way delay: 180.263 ms  
Loss rate: 1.64%  
-- Flow 3:  
Average throughput: 207.01 Mbit/s  
95th percentile per-packet one-way delay: 264.784 ms  
Loss rate: 13.03%

Run 4: Report of PCC-Expr — Data Link

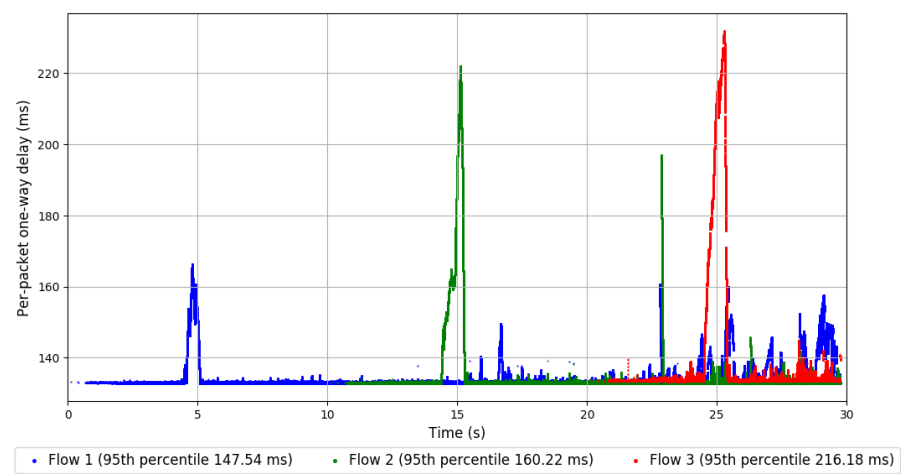
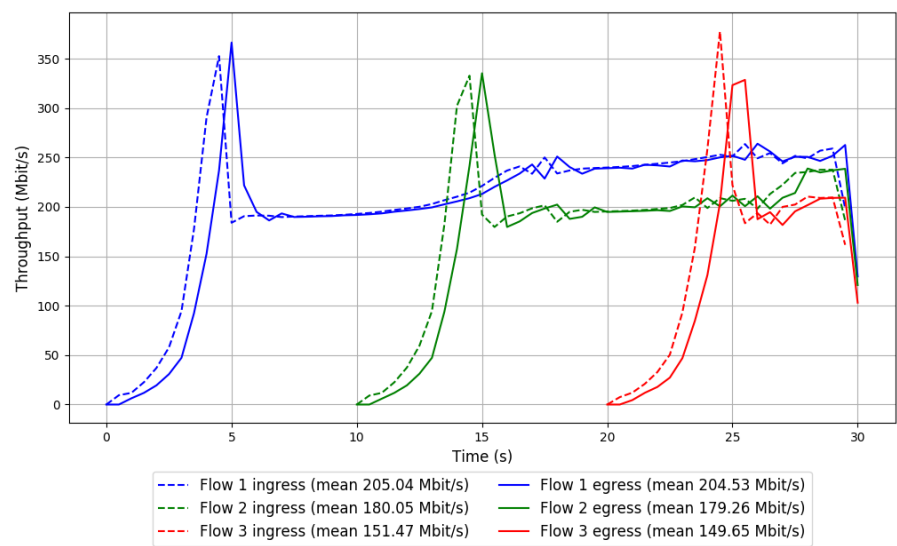


Run 5: Statistics of PCC-Expr

Start at: 2018-11-30 20:43:41  
End at: 2018-11-30 20:44:11  
Local clock offset: -0.235 ms  
Remote clock offset: -0.482 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 371.68 Mbit/s  
95th percentile per-packet one-way delay: 156.066 ms  
Loss rate: 1.71%  
-- Flow 1:  
Average throughput: 204.53 Mbit/s  
95th percentile per-packet one-way delay: 147.538 ms  
Loss rate: 1.14%  
-- Flow 2:  
Average throughput: 179.26 Mbit/s  
95th percentile per-packet one-way delay: 160.217 ms  
Loss rate: 1.78%  
-- Flow 3:  
Average throughput: 149.65 Mbit/s  
95th percentile per-packet one-way delay: 216.177 ms  
Loss rate: 3.88%

Run 5: Report of PCC-Expr — Data Link

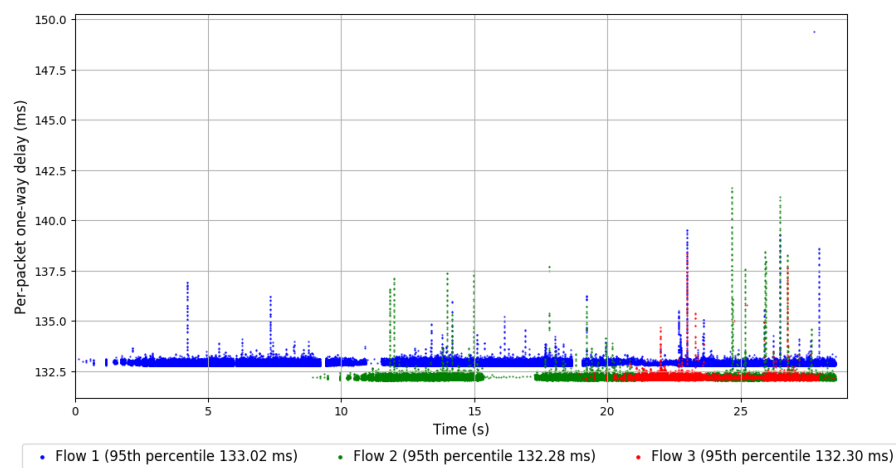
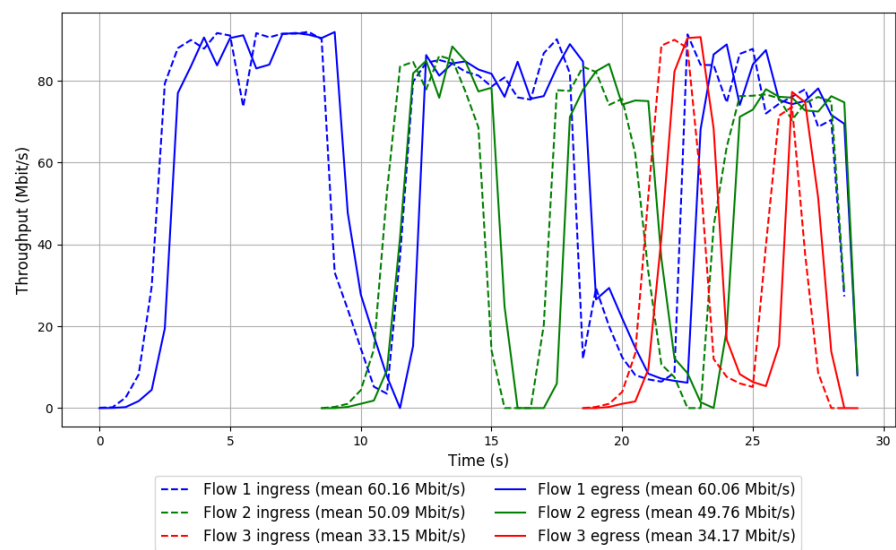


Run 1: Statistics of QUIC Cubic

Start at: 2018-11-30 18:34:32  
End at: 2018-11-30 18:35:02  
Local clock offset: -0.52 ms  
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 105.93 Mbit/s  
95th percentile per-packet one-way delay: 132.988 ms  
Loss rate: 1.27%  
-- Flow 1:  
Average throughput: 60.06 Mbit/s  
95th percentile per-packet one-way delay: 133.022 ms  
Loss rate: 1.10%  
-- Flow 2:  
Average throughput: 49.76 Mbit/s  
95th percentile per-packet one-way delay: 132.280 ms  
Loss rate: 1.99%  
-- Flow 3:  
Average throughput: 34.17 Mbit/s  
95th percentile per-packet one-way delay: 132.297 ms  
Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link



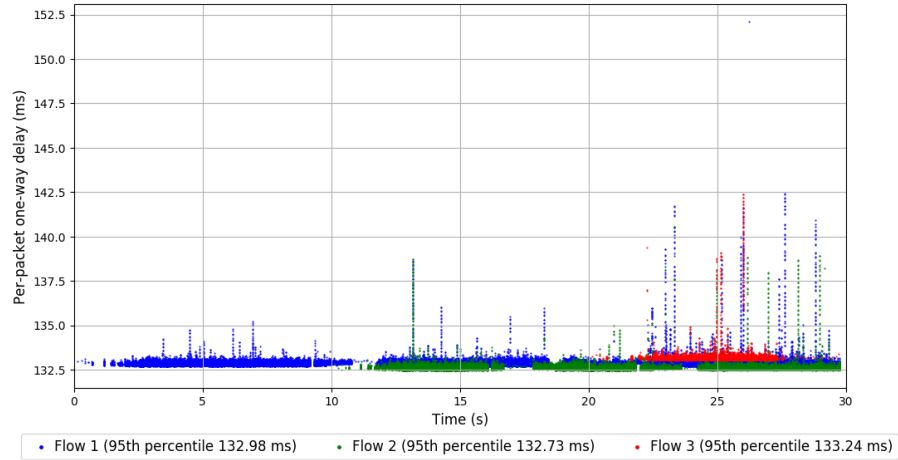
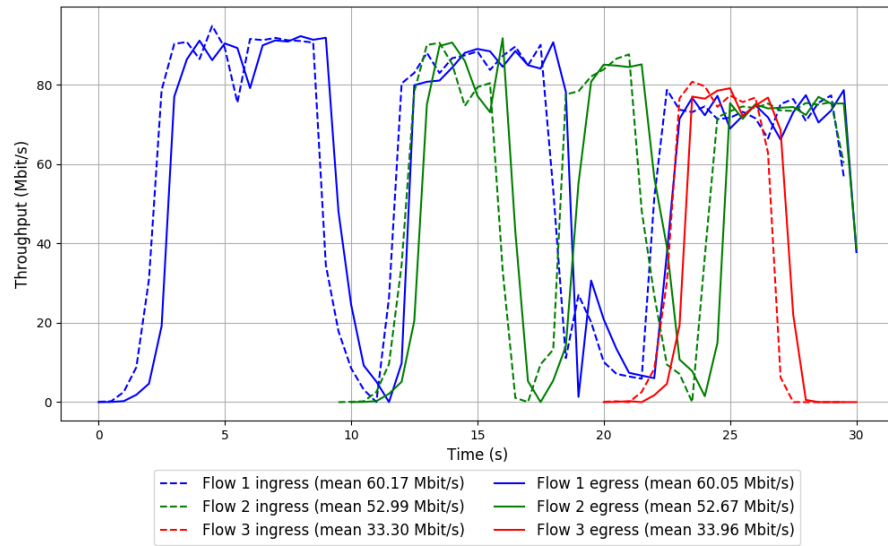


Run 2: Statistics of QUIC Cubic

Start at: 2018-11-30 19:12:15  
End at: 2018-11-30 19:12:45  
Local clock offset: -0.593 ms  
Remote clock offset: -0.176 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 105.96 Mbit/s  
95th percentile per-packet one-way delay: 133.120 ms  
Loss rate: 1.26%  
-- Flow 1:  
Average throughput: 60.05 Mbit/s  
95th percentile per-packet one-way delay: 132.984 ms  
Loss rate: 1.09%  
-- Flow 2:  
Average throughput: 52.67 Mbit/s  
95th percentile per-packet one-way delay: 132.729 ms  
Loss rate: 1.94%  
-- Flow 3:  
Average throughput: 33.96 Mbit/s  
95th percentile per-packet one-way delay: 133.244 ms  
Loss rate: 0.00%

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

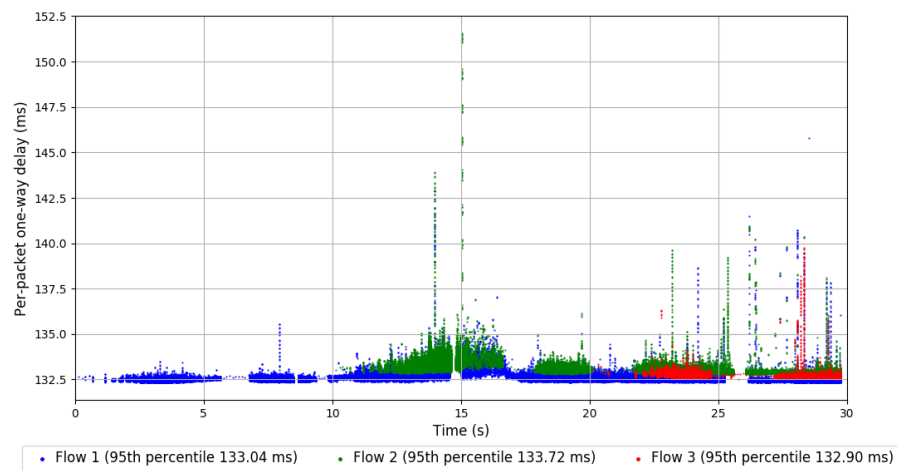
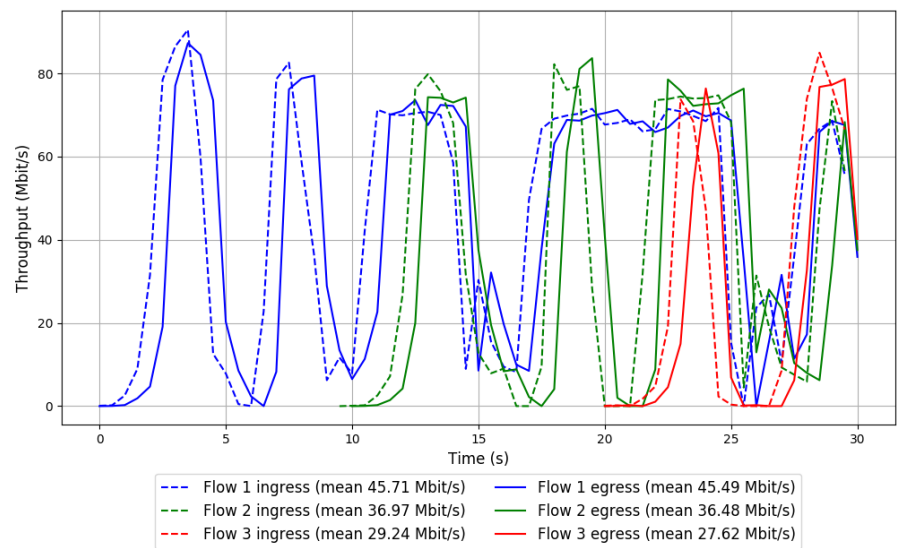


Run 3: Statistics of QUIC Cubic

Start at: 2018-11-30 19:49:04  
End at: 2018-11-30 19:49:34  
Local clock offset: -0.553 ms  
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.60 Mbit/s  
95th percentile per-packet one-way delay: 133.380 ms  
Loss rate: 2.57%  
-- Flow 1:  
Average throughput: 45.49 Mbit/s  
95th percentile per-packet one-way delay: 133.039 ms  
Loss rate: 1.37%  
-- Flow 2:  
Average throughput: 36.48 Mbit/s  
95th percentile per-packet one-way delay: 133.725 ms  
Loss rate: 2.66%  
-- Flow 3:  
Average throughput: 27.62 Mbit/s  
95th percentile per-packet one-way delay: 132.895 ms  
Loss rate: 8.08%

Run 3: Report of QUIC Cubic — Data Link

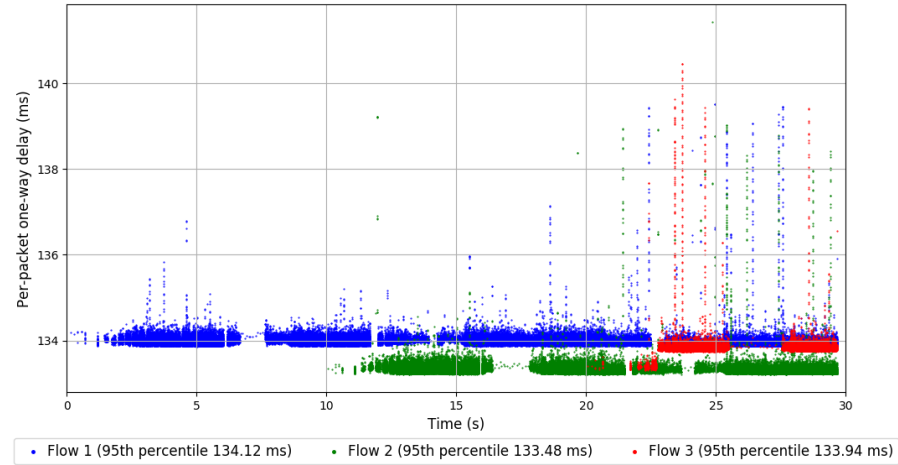
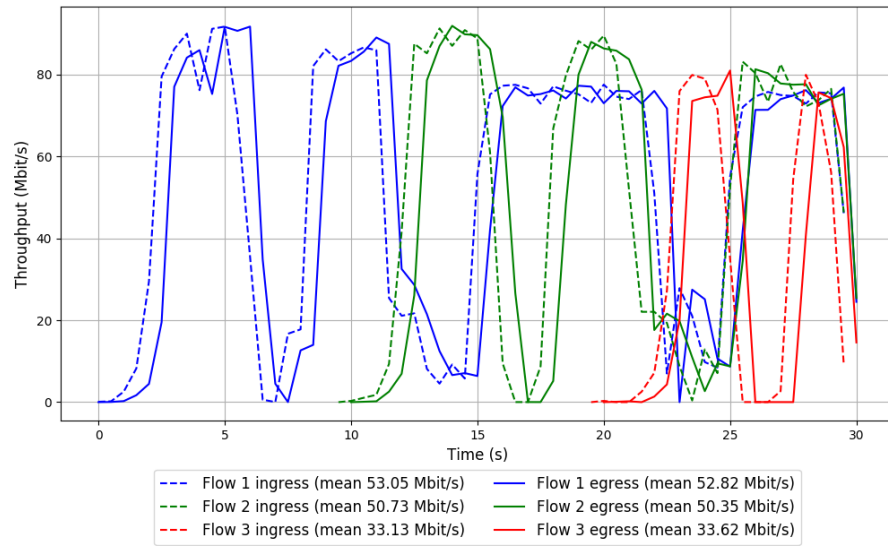


Run 4: Statistics of QUIC Cubic

Start at: 2018-11-30 20:25:46  
End at: 2018-11-30 20:26:16  
Local clock offset: 0.453 ms  
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.19 Mbit/s  
95th percentile per-packet one-way delay: 134.083 ms  
Loss rate: 1.56%  
-- Flow 1:  
Average throughput: 52.82 Mbit/s  
95th percentile per-packet one-way delay: 134.121 ms  
Loss rate: 1.31%  
-- Flow 2:  
Average throughput: 50.35 Mbit/s  
95th percentile per-packet one-way delay: 133.476 ms  
Loss rate: 2.07%  
-- Flow 3:  
Average throughput: 33.62 Mbit/s  
95th percentile per-packet one-way delay: 133.942 ms  
Loss rate: 1.22%

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



Run 5: Statistics of QUIC Cubic

Start at: 2018-11-30 21:03:52

End at: 2018-11-30 21:04:22

Local clock offset: -0.508 ms

Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-11-30 23:22:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.12 Mbit/s

95th percentile per-packet one-way delay: 132.784 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 52.41 Mbit/s

95th percentile per-packet one-way delay: 132.816 ms

Loss rate: 1.30%

-- Flow 2:

Average throughput: 39.54 Mbit/s

95th percentile per-packet one-way delay: 132.116 ms

Loss rate: 2.46%

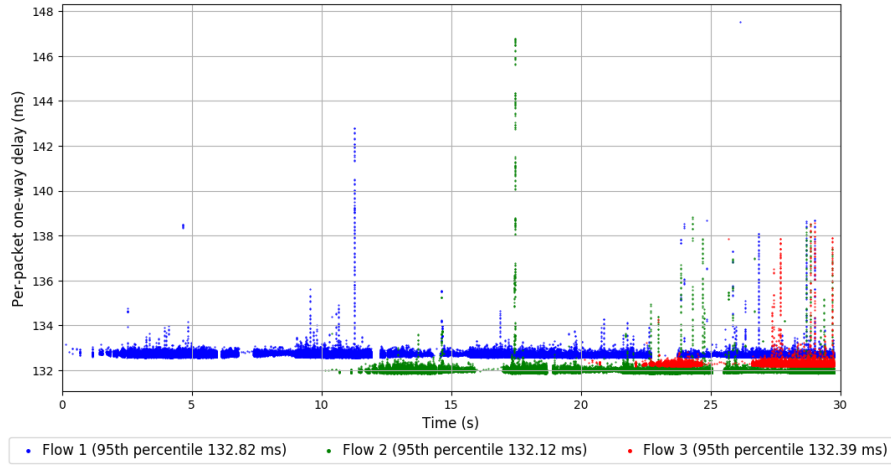
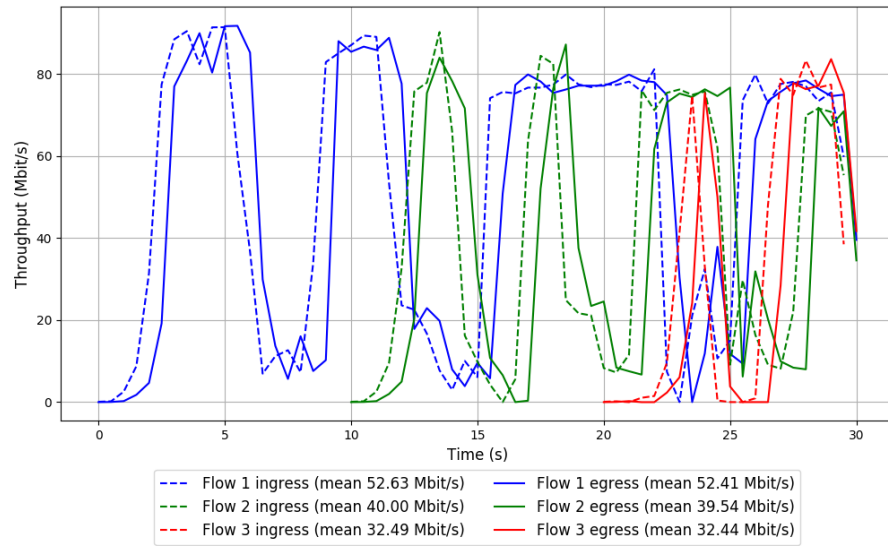
-- Flow 3:

Average throughput: 32.44 Mbit/s

95th percentile per-packet one-way delay: 132.386 ms

Loss rate: 2.84%

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



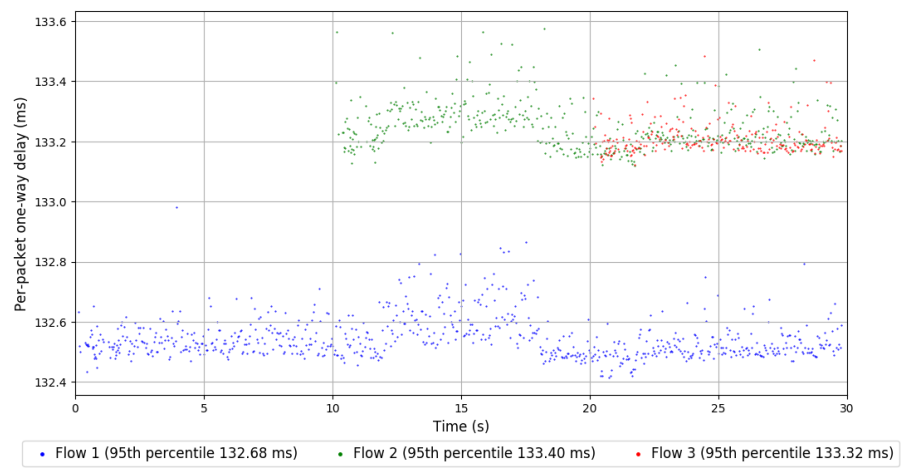
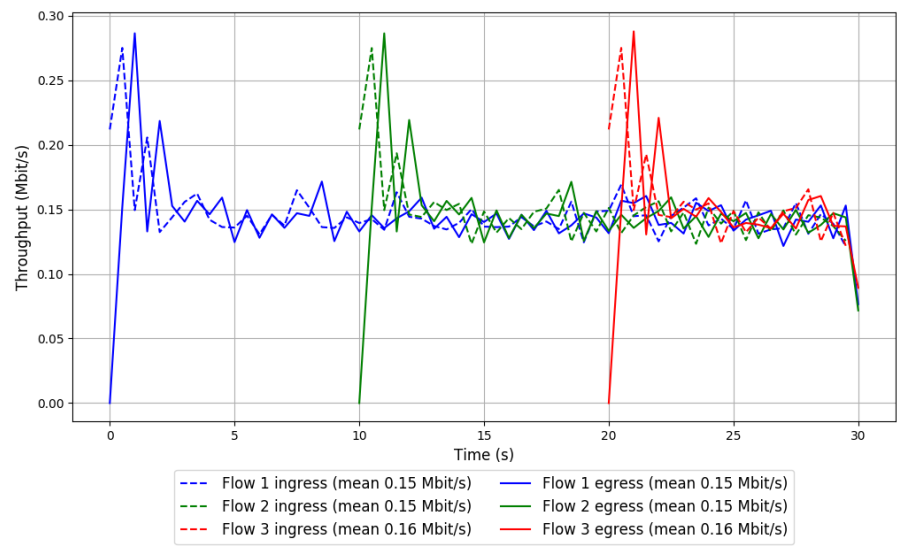


Run 1: Statistics of SCReAM

Start at: 2018-11-30 18:42:39  
End at: 2018-11-30 18:43:09  
Local clock offset: -0.266 ms  
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.30 Mbit/s  
95th percentile per-packet one-way delay: 133.323 ms  
Loss rate: 1.32%  
-- Flow 1:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 132.681 ms  
Loss rate: 0.88%  
-- Flow 2:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.397 ms  
Loss rate: 1.39%  
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 133.320 ms  
Loss rate: 2.45%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-11-30 19:20:47

End at: 2018-11-30 19:21:17

Local clock offset: 0.041 ms

Remote clock offset: 0.246 ms

# Below is generated by plot.py at 2018-11-30 23:22:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 133.246 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 133.097 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 132.914 ms

Loss rate: 1.39%

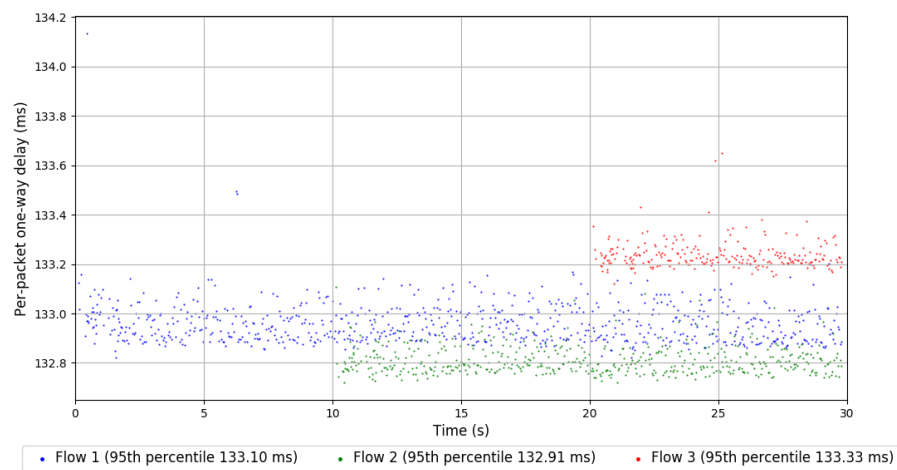
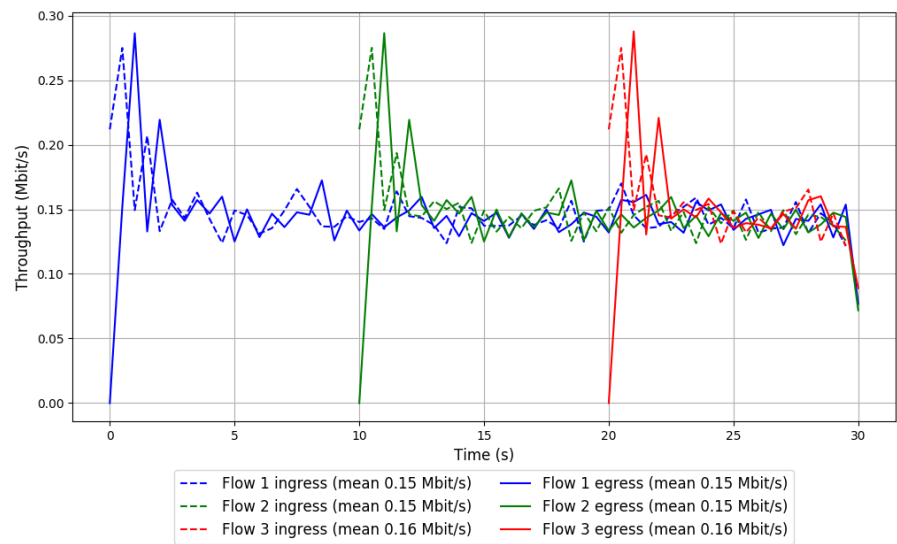
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 133.328 ms

Loss rate: 2.44%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-11-30 19:56:23

End at: 2018-11-30 19:56:53

Local clock offset: -0.402 ms

Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2018-11-30 23:22:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 133.316 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 133.358 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 132.642 ms

Loss rate: 1.39%

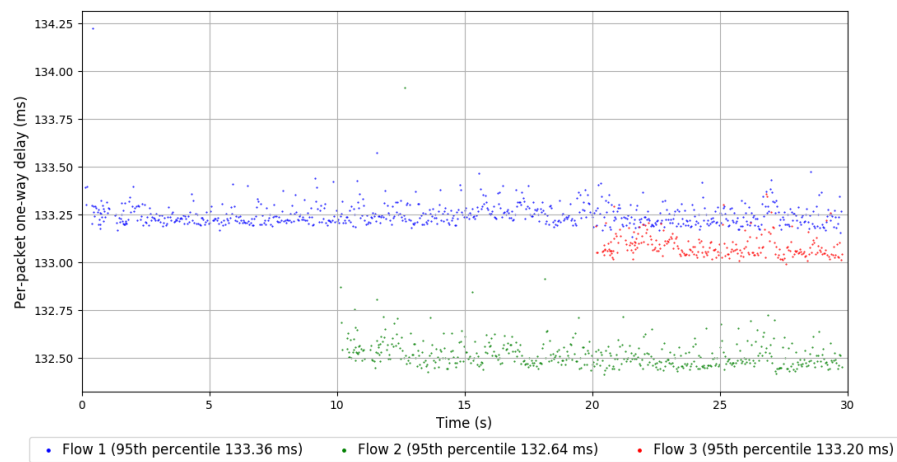
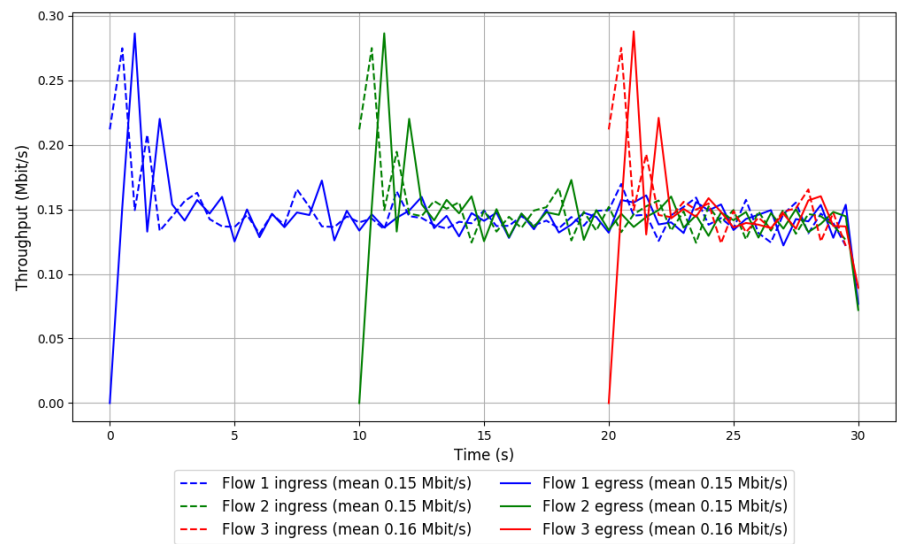
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 133.198 ms

Loss rate: 2.45%

Run 3: Report of SReAM — Data Link

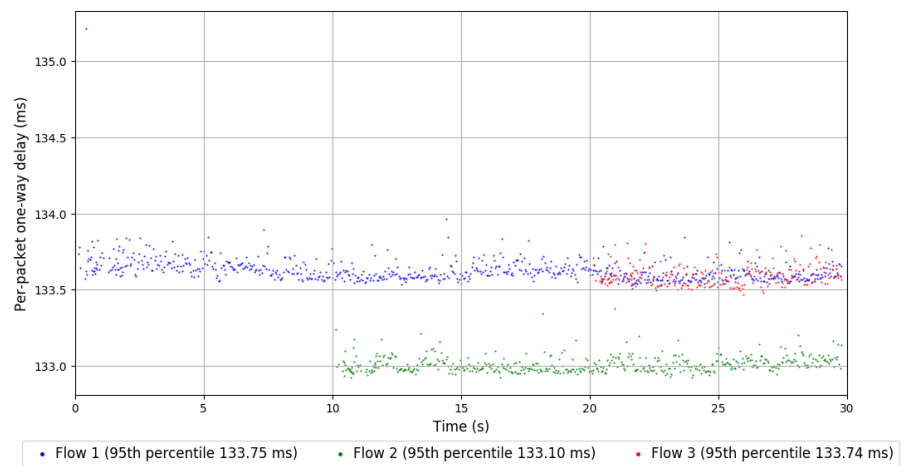
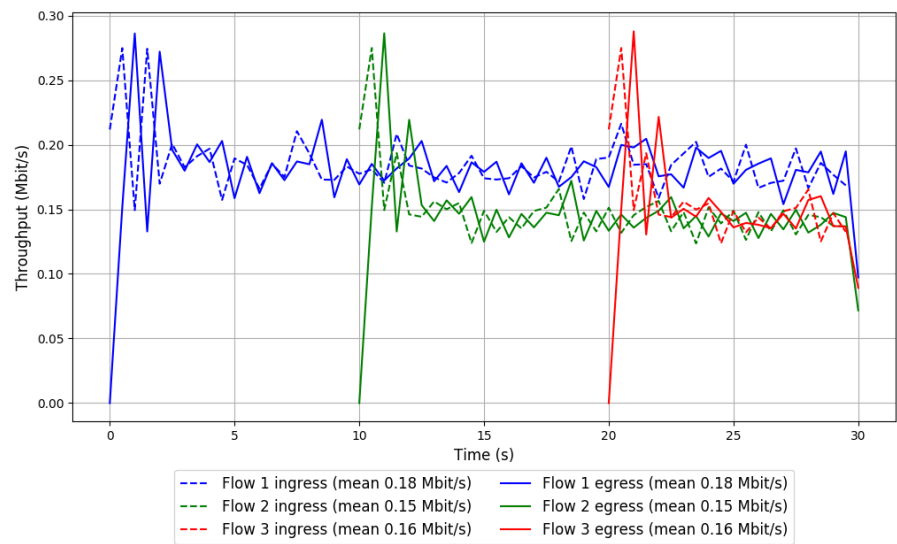


Run 4: Statistics of SCReAM

Start at: 2018-11-30 20:34:32  
End at: 2018-11-30 20:35:02  
Local clock offset: -0.049 ms  
Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.34 Mbit/s  
95th percentile per-packet one-way delay: 133.722 ms  
Loss rate: 1.46%  
-- Flow 1:  
Average throughput: 0.18 Mbit/s  
95th percentile per-packet one-way delay: 133.748 ms  
Loss rate: 1.02%  
-- Flow 2:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.100 ms  
Loss rate: 1.57%  
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 133.737 ms  
Loss rate: 2.78%

Run 4: Report of SReAM — Data Link



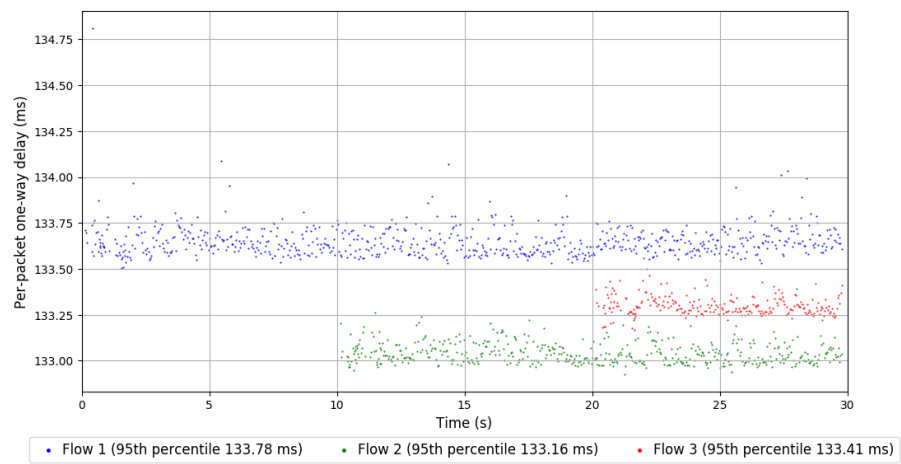
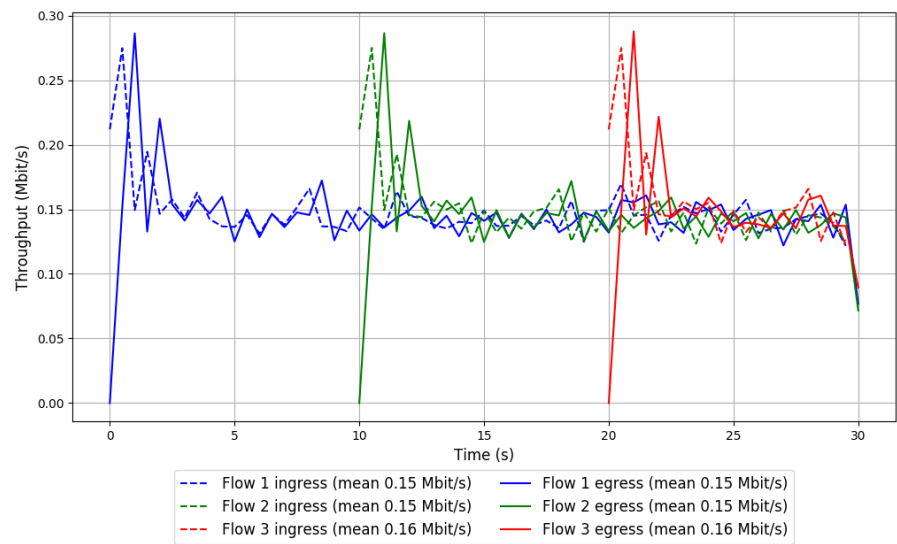


Run 5: Statistics of SCReAM

Start at: 2018-11-30 21:12:46  
End at: 2018-11-30 21:13:16  
Local clock offset: -0.135 ms  
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.30 Mbit/s  
95th percentile per-packet one-way delay: 133.738 ms  
Loss rate: 1.32%  
-- Flow 1:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.778 ms  
Loss rate: 0.88%  
-- Flow 2:  
Average throughput: 0.15 Mbit/s  
95th percentile per-packet one-way delay: 133.156 ms  
Loss rate: 1.39%  
-- Flow 3:  
Average throughput: 0.16 Mbit/s  
95th percentile per-packet one-way delay: 133.410 ms  
Loss rate: 2.45%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-11-30 18:19:28

End at: 2018-11-30 18:19:58

Local clock offset: -0.535 ms

Remote clock offset: 0.203 ms

# Below is generated by plot.py at 2018-11-30 23:22:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 133.224 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 132.920 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 133.296 ms

Loss rate: 1.77%

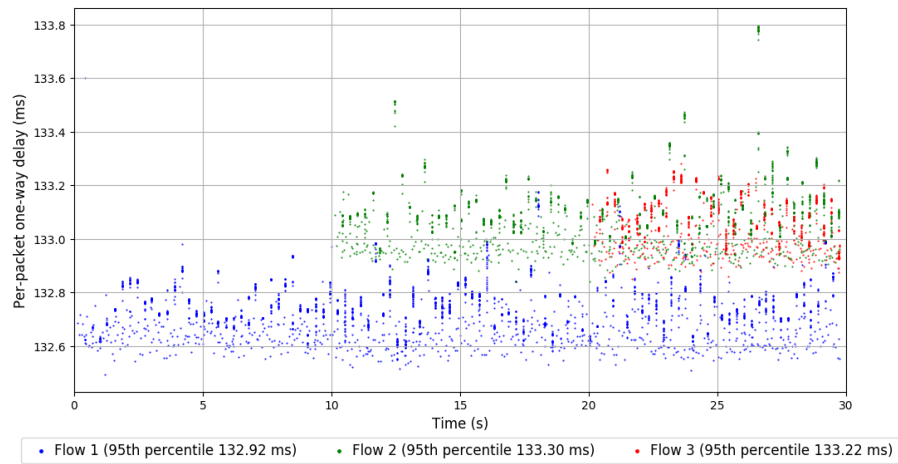
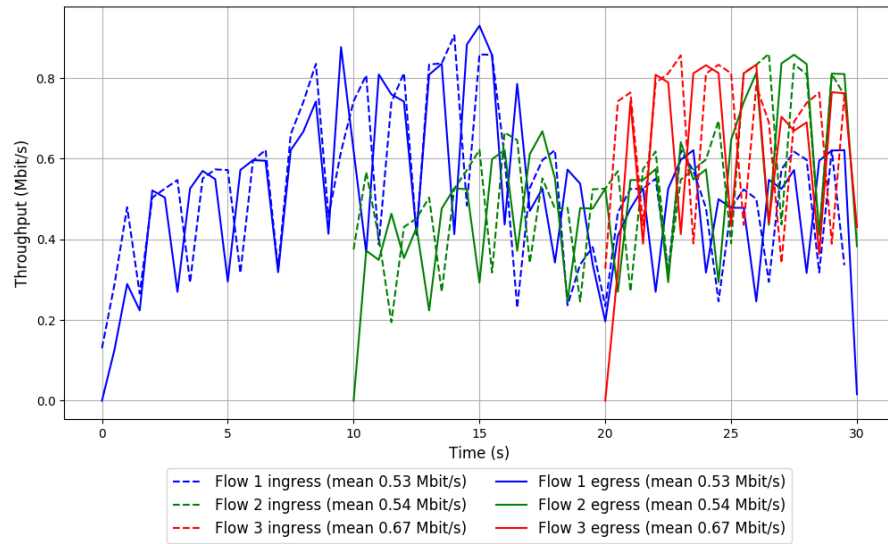
-- Flow 3:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 133.225 ms

Loss rate: 2.51%

# Run 1: Report of Sprout — Data Link

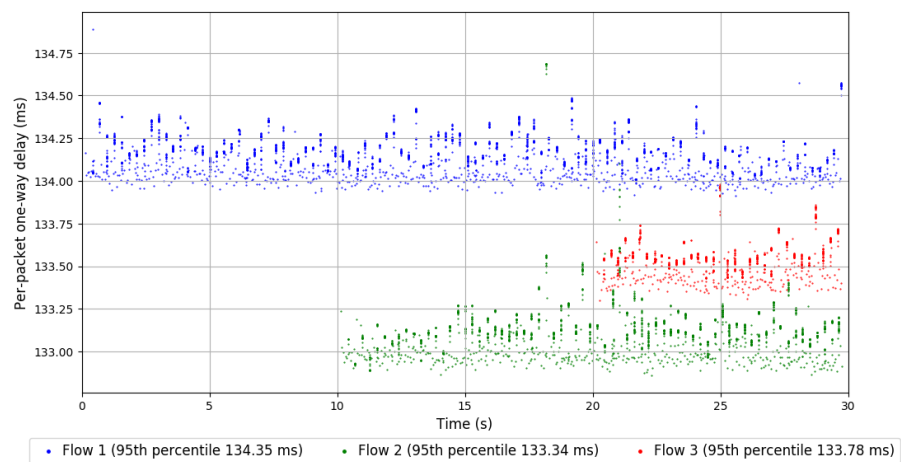
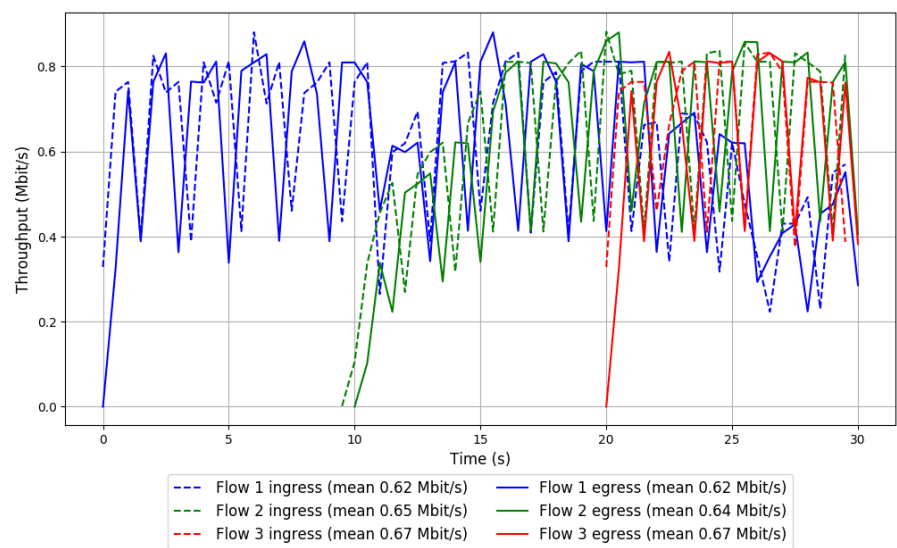


## Run 2: Statistics of Sprout

Start at: 2018-11-30 18:56:14  
End at: 2018-11-30 18:56:44  
Local clock offset: 0.215 ms  
Remote clock offset: -0.089 ms

```
# Below is generated by plot.py at 2018-11-30 23:22:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 134.300 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 134.352 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 133.343 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 133.782 ms
Loss rate: 2.88%
```

Run 2: Report of Sprout — Data Link

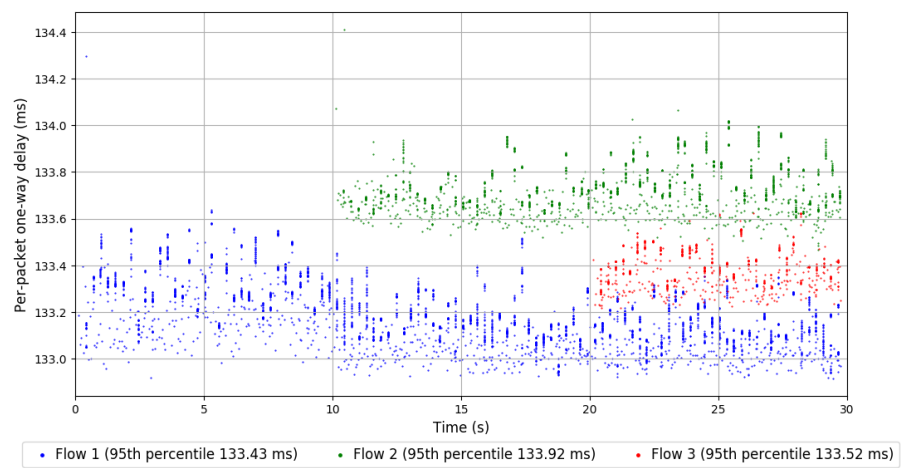
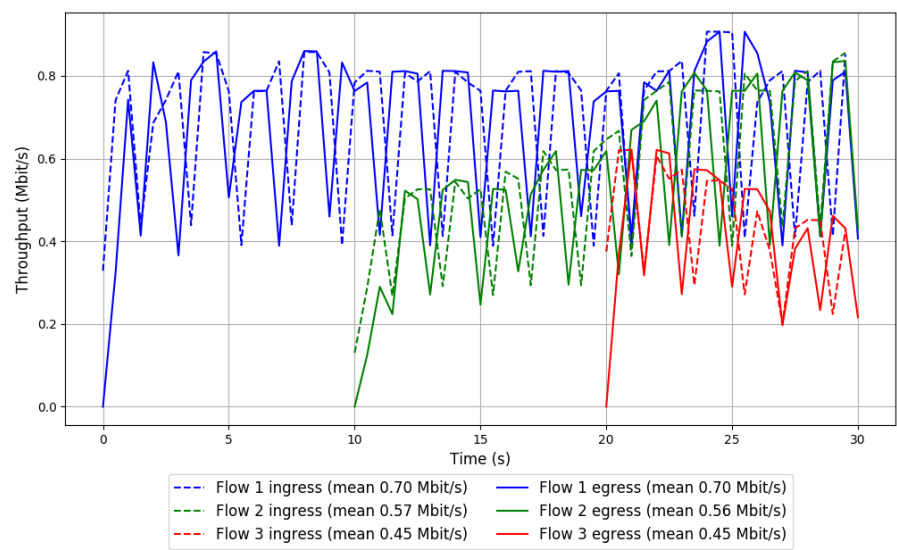


### Run 3: Statistics of Sprout

Start at: 2018-11-30 19:33:48  
End at: 2018-11-30 19:34:18  
Local clock offset: -0.159 ms  
Remote clock offset: -0.127 ms

```
# Below is generated by plot.py at 2018-11-30 23:22:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 133.828 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 133.430 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 133.923 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 133.519 ms
Loss rate: 2.41%
```

Run 3: Report of Sprout — Data Link



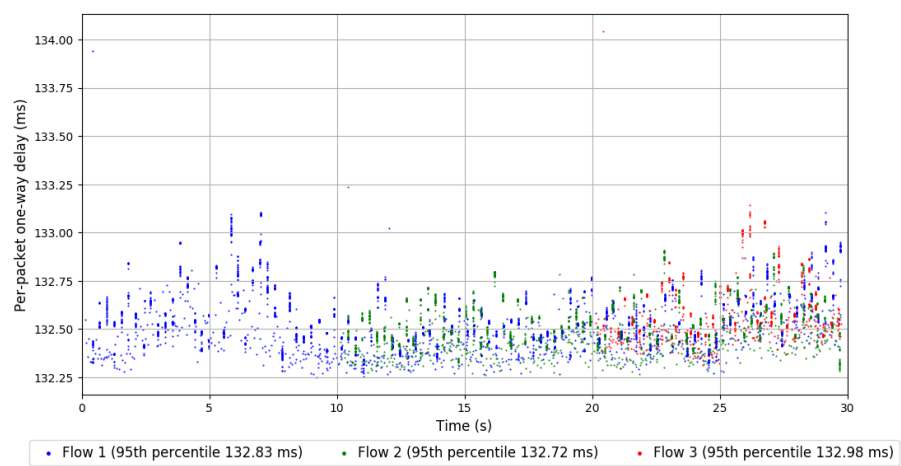
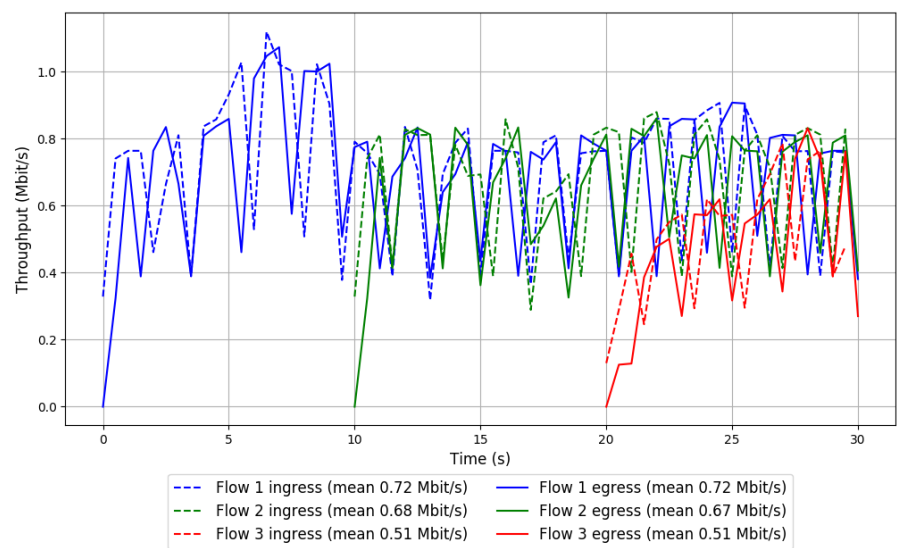


#### Run 4: Statistics of Sprout

Start at: 2018-11-30 20:09:38  
End at: 2018-11-30 20:10:08  
Local clock offset: -0.253 ms  
Remote clock offset: 0.268 ms

```
# Below is generated by plot.py at 2018-11-30 23:22:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 132.820 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 132.828 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 132.719 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 132.983 ms
Loss rate: 2.14%
```

Run 4: Report of Sprout — Data Link

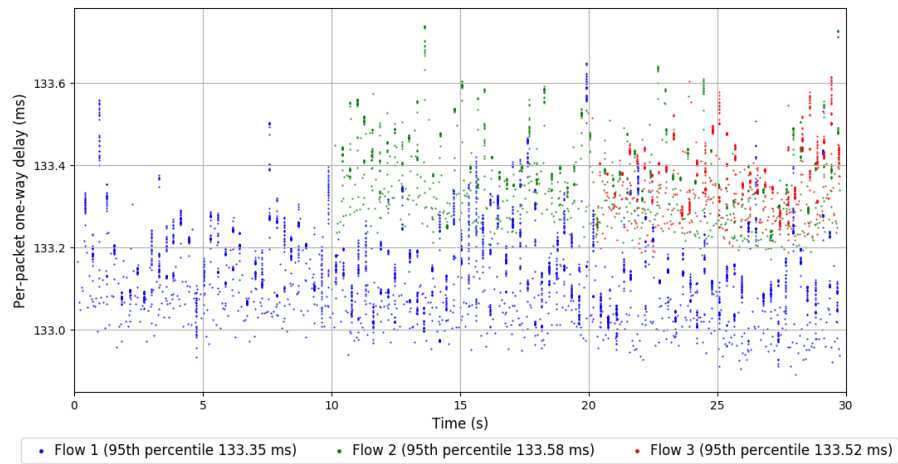
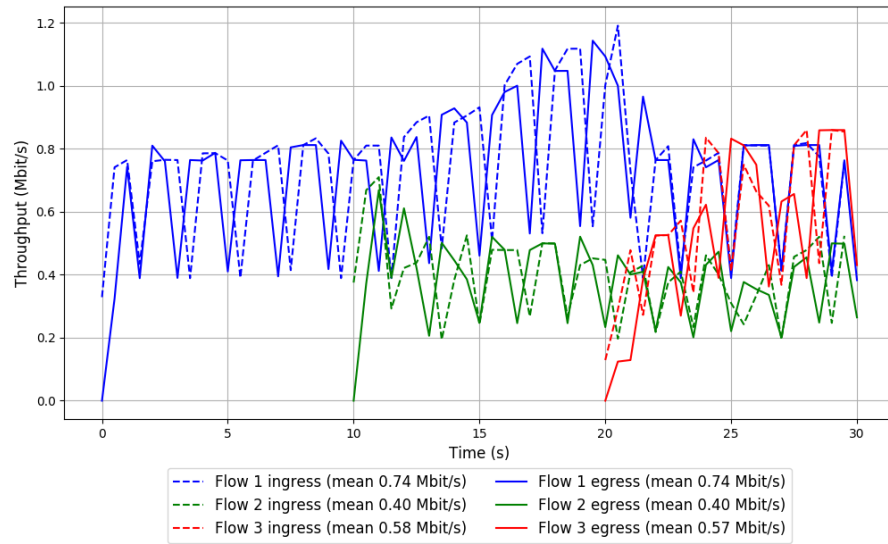


Run 5: Statistics of Sprout

Start at: 2018-11-30 20:48:00  
End at: 2018-11-30 20:48:30  
Local clock offset: -0.221 ms  
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-11-30 23:22:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1.19 Mbit/s  
95th percentile per-packet one-way delay: 133.502 ms  
Loss rate: 1.50%  
-- Flow 1:  
Average throughput: 0.74 Mbit/s  
95th percentile per-packet one-way delay: 133.346 ms  
Loss rate: 0.86%  
-- Flow 2:  
Average throughput: 0.40 Mbit/s  
95th percentile per-packet one-way delay: 133.580 ms  
Loss rate: 1.65%  
-- Flow 3:  
Average throughput: 0.57 Mbit/s  
95th percentile per-packet one-way delay: 133.523 ms  
Loss rate: 3.77%

## Run 5: Report of Sprout — Data Link

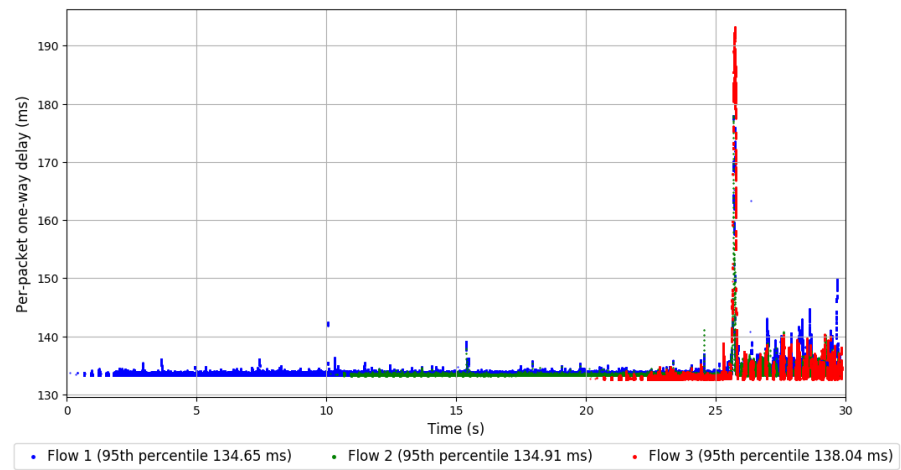
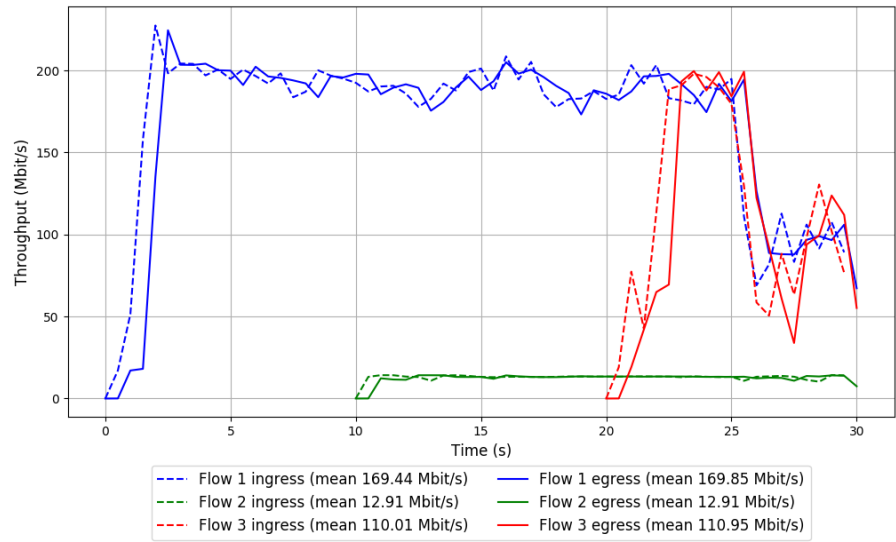


Run 1: Statistics of TaoVA-100x

Start at: 2018-11-30 18:25:10  
End at: 2018-11-30 18:25:40  
Local clock offset: -0.274 ms  
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-11-30 23:26:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 214.48 Mbit/s  
95th percentile per-packet one-way delay: 135.289 ms  
Loss rate: 0.77%  
-- Flow 1:  
Average throughput: 169.85 Mbit/s  
95th percentile per-packet one-way delay: 134.648 ms  
Loss rate: 0.50%  
-- Flow 2:  
Average throughput: 12.91 Mbit/s  
95th percentile per-packet one-way delay: 134.908 ms  
Loss rate: 1.40%  
-- Flow 3:  
Average throughput: 110.95 Mbit/s  
95th percentile per-packet one-way delay: 138.037 ms  
Loss rate: 1.86%

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

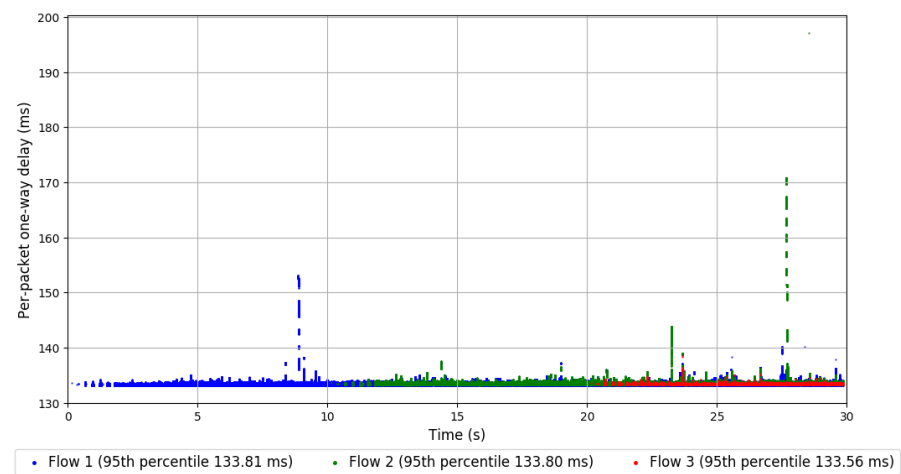
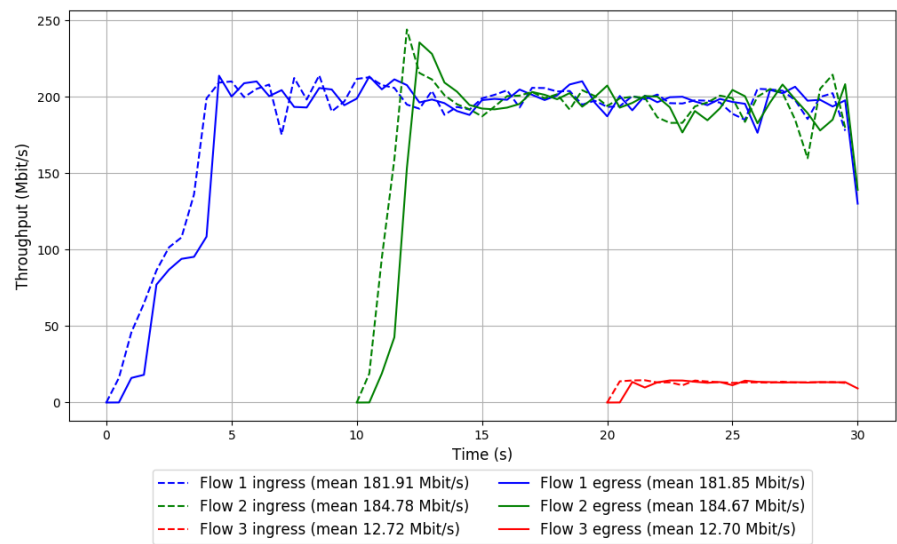


Run 2: Statistics of TaoVA-100x

Start at: 2018-11-30 19:01:54  
End at: 2018-11-30 19:02:24  
Local clock offset: 0.215 ms  
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-11-30 23:30:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 308.49 Mbit/s  
95th percentile per-packet one-way delay: 133.799 ms  
Loss rate: 1.14%  
-- Flow 1:  
Average throughput: 181.85 Mbit/s  
95th percentile per-packet one-way delay: 133.805 ms  
Loss rate: 0.92%  
-- Flow 2:  
Average throughput: 184.67 Mbit/s  
95th percentile per-packet one-way delay: 133.796 ms  
Loss rate: 1.40%  
-- Flow 3:  
Average throughput: 12.70 Mbit/s  
95th percentile per-packet one-way delay: 133.564 ms  
Loss rate: 2.82%

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



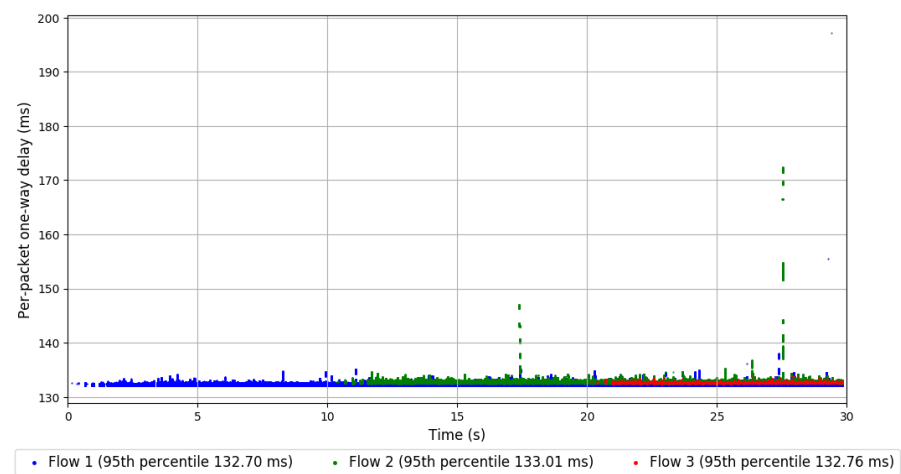
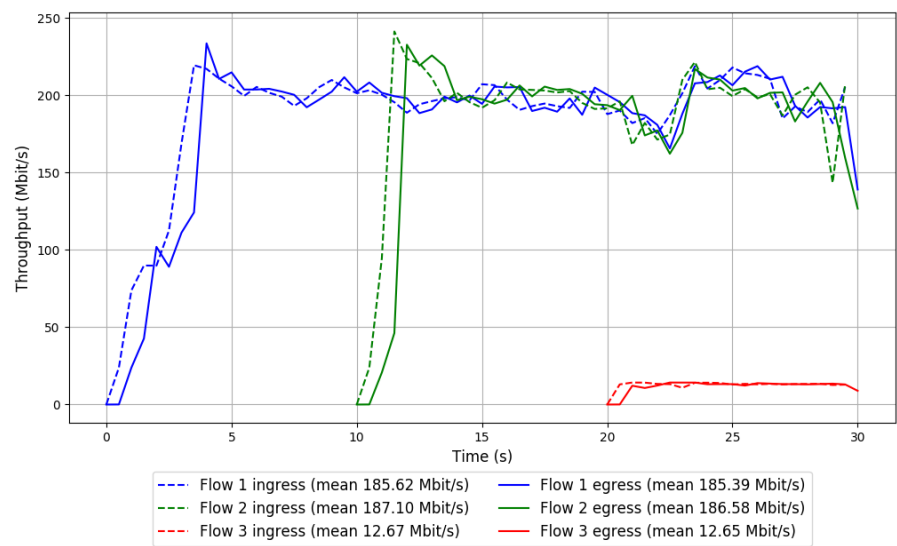


Run 3: Statistics of TaoVA-100x

Start at: 2018-11-30 19:39:05  
End at: 2018-11-30 19:39:35  
Local clock offset: -0.43 ms  
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-11-30 23:31:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 313.22 Mbit/s  
95th percentile per-packet one-way delay: 132.916 ms  
Loss rate: 1.27%  
-- Flow 1:  
Average throughput: 185.39 Mbit/s  
95th percentile per-packet one-way delay: 132.701 ms  
Loss rate: 1.01%  
-- Flow 2:  
Average throughput: 186.58 Mbit/s  
95th percentile per-packet one-way delay: 133.014 ms  
Loss rate: 1.60%  
-- Flow 3:  
Average throughput: 12.65 Mbit/s  
95th percentile per-packet one-way delay: 132.763 ms  
Loss rate: 2.84%

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

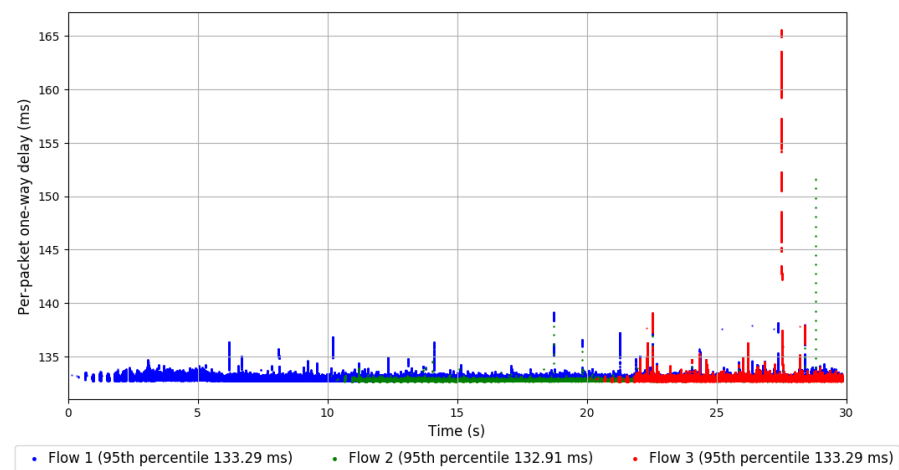
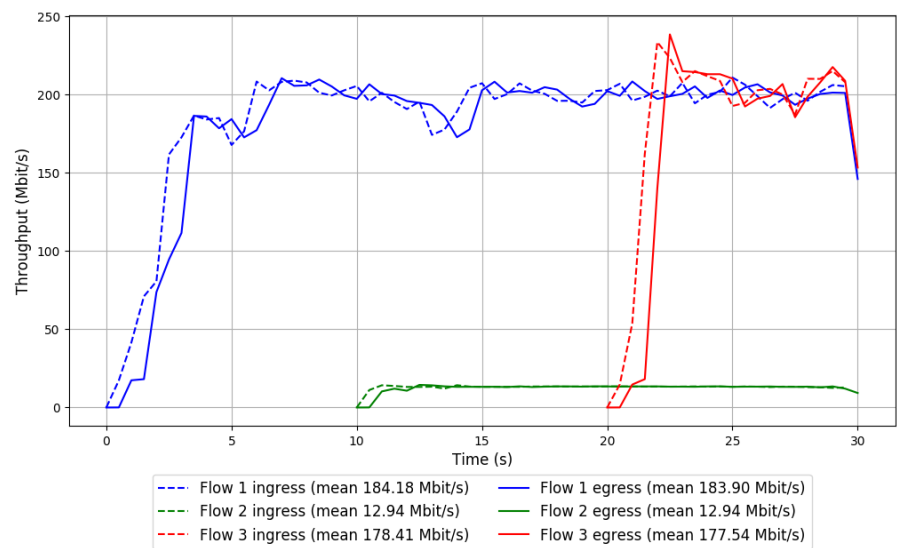


Run 4: Statistics of TaoVA-100x

Start at: 2018-11-30 20:15:19  
End at: 2018-11-30 20:15:49  
Local clock offset: -0.066 ms  
Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2018-11-30 23:31:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 250.44 Mbit/s  
95th percentile per-packet one-way delay: 133.285 ms  
Loss rate: 1.54%  
-- Flow 1:  
Average throughput: 183.90 Mbit/s  
95th percentile per-packet one-way delay: 133.293 ms  
Loss rate: 1.04%  
-- Flow 2:  
Average throughput: 12.94 Mbit/s  
95th percentile per-packet one-way delay: 132.914 ms  
Loss rate: 1.38%  
-- Flow 3:  
Average throughput: 177.54 Mbit/s  
95th percentile per-packet one-way delay: 133.286 ms  
Loss rate: 3.12%

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

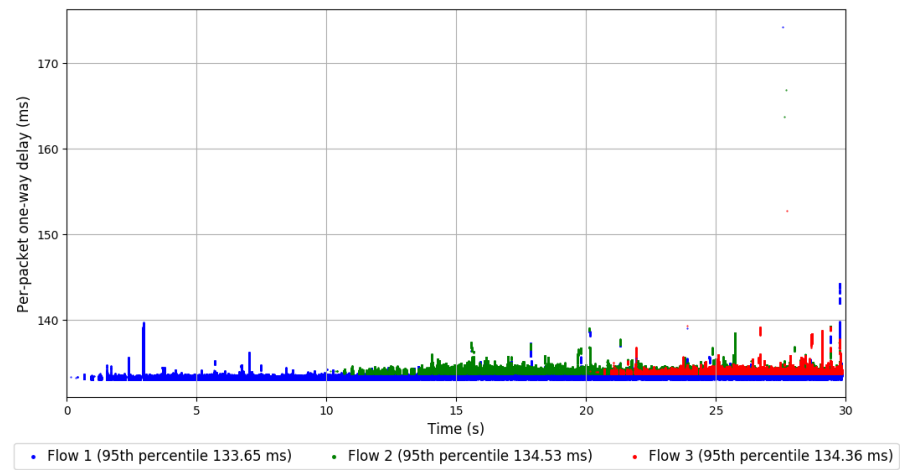
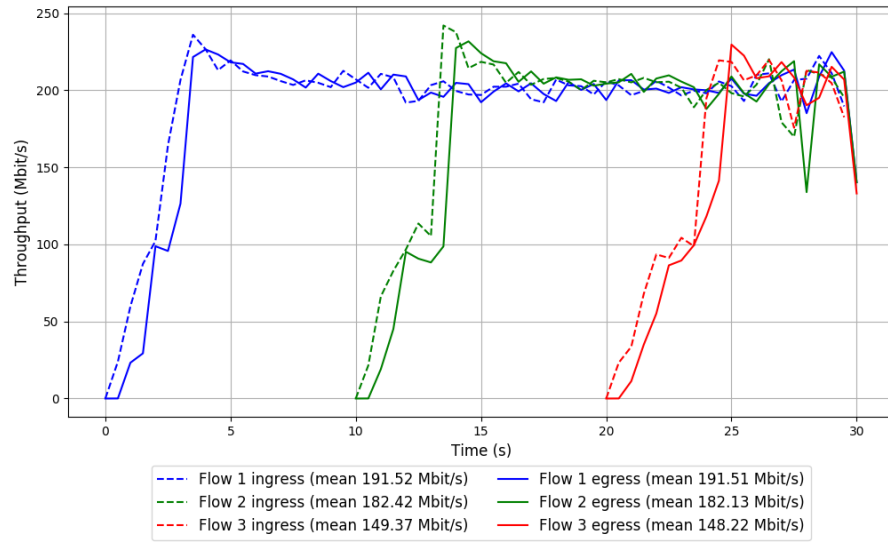


Run 5: Statistics of TaoVA-100x

Start at: 2018-11-30 20:53:34  
End at: 2018-11-30 20:54:04  
Local clock offset: 0.208 ms  
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-11-30 23:34:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 360.61 Mbit/s  
95th percentile per-packet one-way delay: 134.299 ms  
Loss rate: 1.45%  
-- Flow 1:  
Average throughput: 191.51 Mbit/s  
95th percentile per-packet one-way delay: 133.651 ms  
Loss rate: 0.90%  
-- Flow 2:  
Average throughput: 182.13 Mbit/s  
95th percentile per-packet one-way delay: 134.525 ms  
Loss rate: 1.49%  
-- Flow 3:  
Average throughput: 148.22 Mbit/s  
95th percentile per-packet one-way delay: 134.364 ms  
Loss rate: 3.43%

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

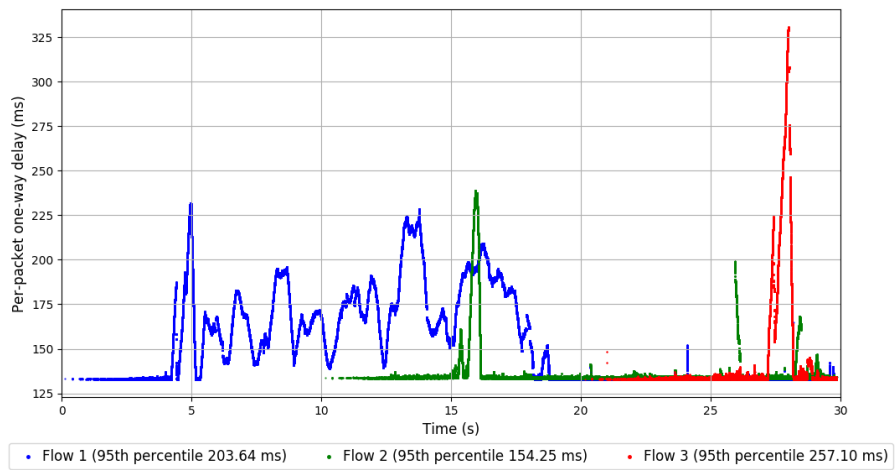
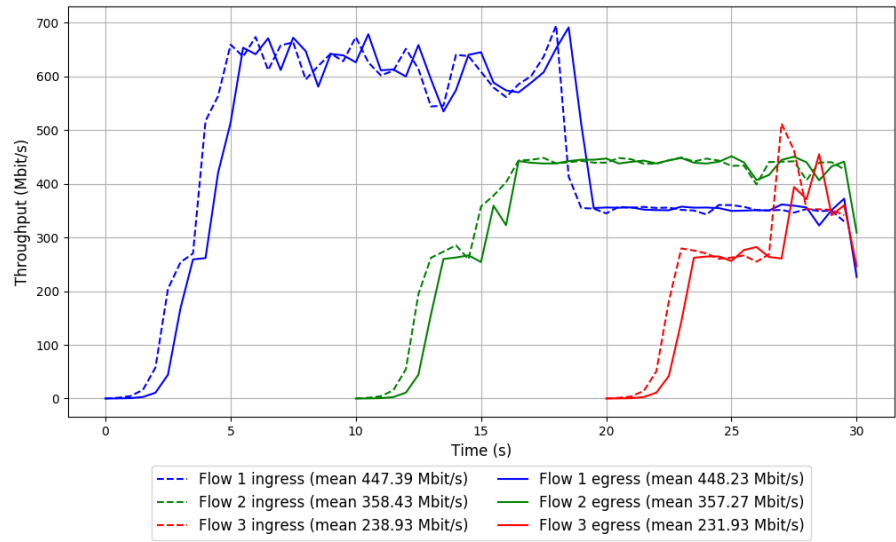


Run 1: Statistics of TCP Vegas

Start at: 2018-11-30 18:17:09  
End at: 2018-11-30 18:17:39  
Local clock offset: -0.235 ms  
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2018-11-30 23:37:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 760.78 Mbit/s  
95th percentile per-packet one-way delay: 199.683 ms  
Loss rate: 1.50%  
-- Flow 1:  
Average throughput: 448.23 Mbit/s  
95th percentile per-packet one-way delay: 203.644 ms  
Loss rate: 0.70%  
-- Flow 2:  
Average throughput: 357.27 Mbit/s  
95th percentile per-packet one-way delay: 154.249 ms  
Loss rate: 1.65%  
-- Flow 3:  
Average throughput: 231.93 Mbit/s  
95th percentile per-packet one-way delay: 257.096 ms  
Loss rate: 5.53%

# Run 1: Report of TCP Vegas — Data Link



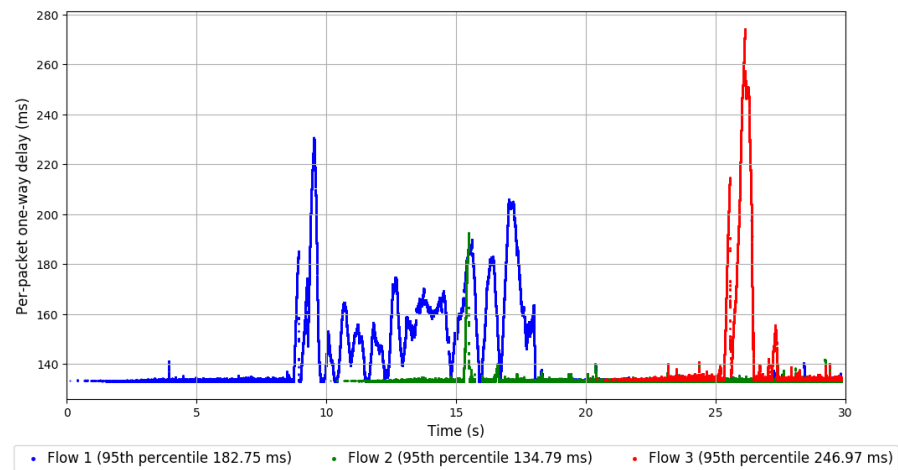
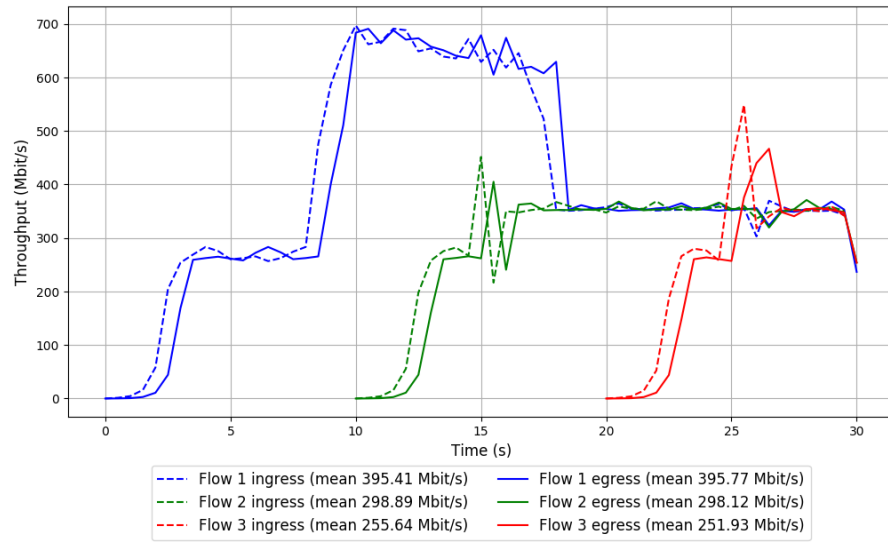


Run 2: Statistics of TCP Vegas

Start at: 2018-11-30 18:53:57  
End at: 2018-11-30 18:54:27  
Local clock offset: -0.198 ms  
Remote clock offset: -0.447 ms

# Below is generated by plot.py at 2018-11-30 23:37:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 675.59 Mbit/s  
95th percentile per-packet one-way delay: 181.619 ms  
Loss rate: 1.44%  
-- Flow 1:  
Average throughput: 395.77 Mbit/s  
95th percentile per-packet one-way delay: 182.748 ms  
Loss rate: 0.80%  
-- Flow 2:  
Average throughput: 298.12 Mbit/s  
95th percentile per-packet one-way delay: 134.788 ms  
Loss rate: 1.59%  
-- Flow 3:  
Average throughput: 251.93 Mbit/s  
95th percentile per-packet one-way delay: 246.966 ms  
Loss rate: 4.10%

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



### Run 3: Statistics of TCP Vegas

Start at: 2018-11-30 19:31:47

End at: 2018-11-30 19:32:17

Local clock offset: -0.192 ms

Remote clock offset: 0.256 ms

# Below is generated by plot.py at 2018-11-30 23:37:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 662.11 Mbit/s

95th percentile per-packet one-way delay: 171.799 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 323.48 Mbit/s

95th percentile per-packet one-way delay: 141.310 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 375.64 Mbit/s

95th percentile per-packet one-way delay: 134.840 ms

Loss rate: 1.58%

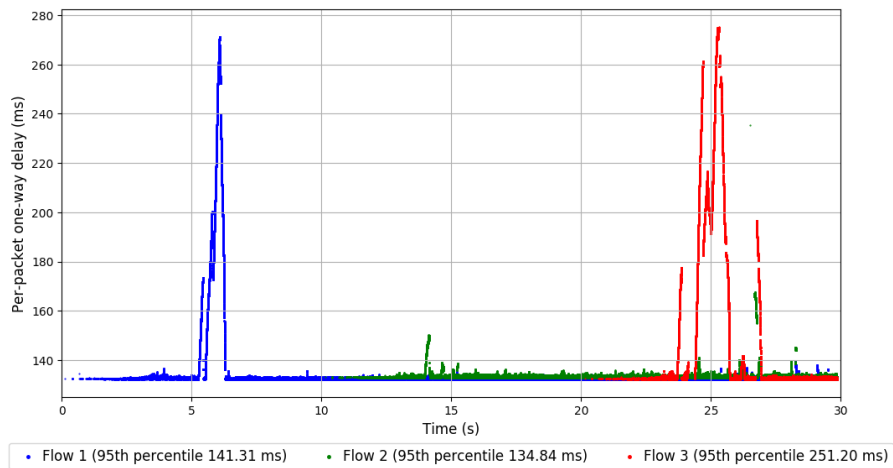
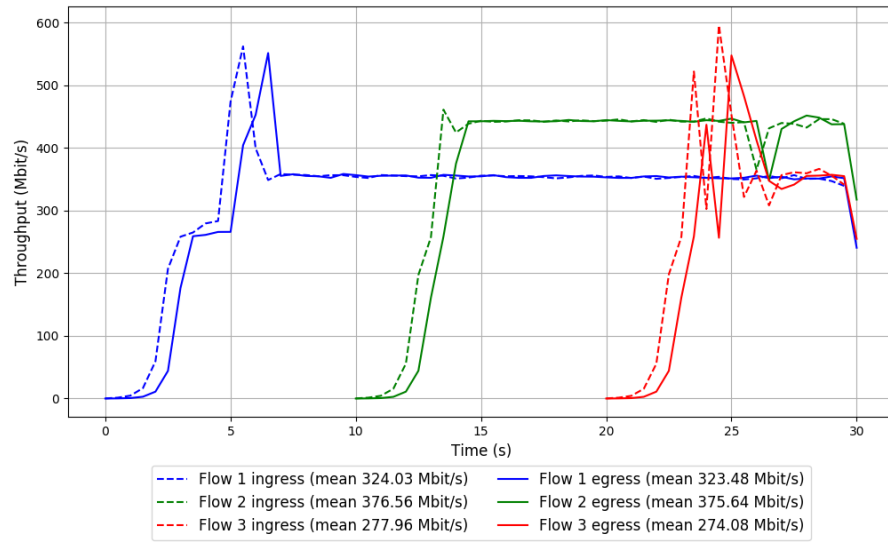
-- Flow 3:

Average throughput: 274.08 Mbit/s

95th percentile per-packet one-way delay: 251.196 ms

Loss rate: 4.03%

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



Run 4: Statistics of TCP Vegas

Start at: 2018-11-30 20:07:41

End at: 2018-11-30 20:08:11

Local clock offset: -0.31 ms

Remote clock offset: 0.283 ms

# Below is generated by plot.py at 2018-11-30 23:37:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 496.17 Mbit/s

95th percentile per-packet one-way delay: 158.737 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 351.36 Mbit/s

95th percentile per-packet one-way delay: 163.850 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 85.50 Mbit/s

95th percentile per-packet one-way delay: 132.621 ms

Loss rate: 0.50%

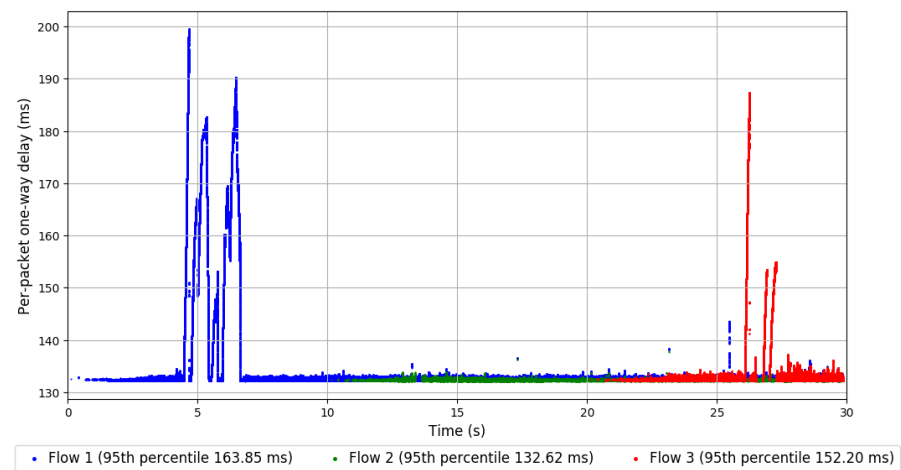
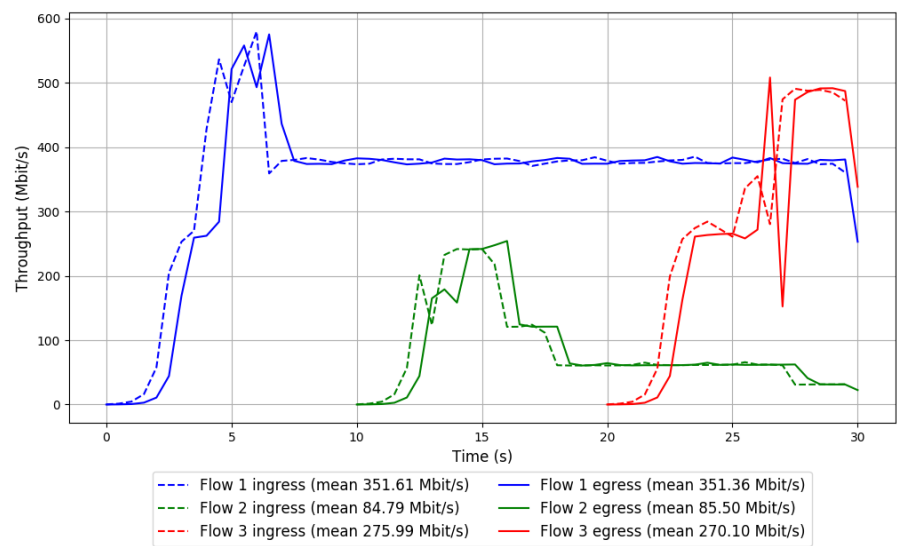
-- Flow 3:

Average throughput: 270.10 Mbit/s

95th percentile per-packet one-way delay: 152.200 ms

Loss rate: 4.74%

Run 4: Report of TCP Vegas — Data Link

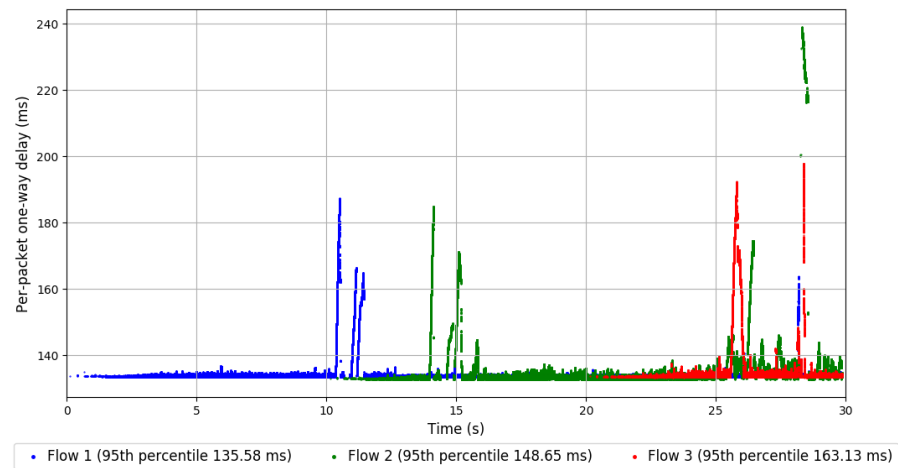
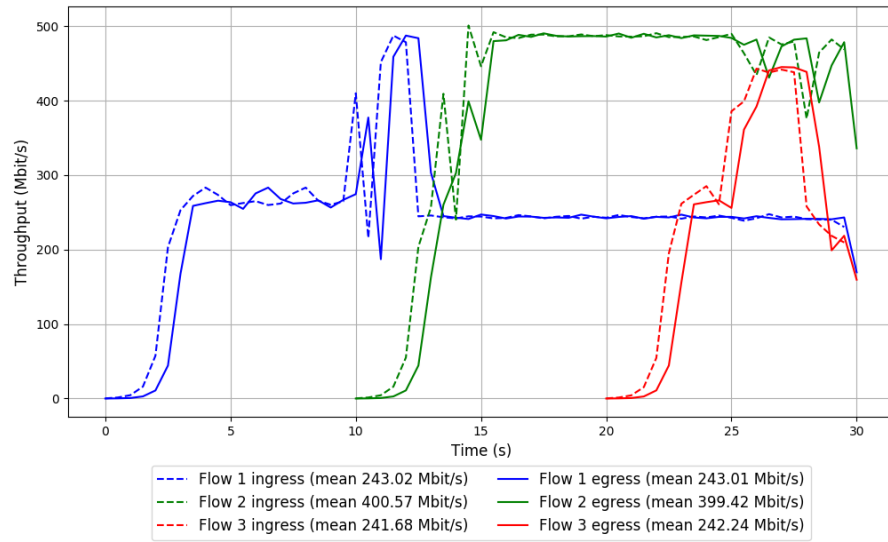


Run 5: Statistics of TCP Vegas

Start at: 2018-11-30 20:45:56  
End at: 2018-11-30 20:46:26  
Local clock offset: -0.412 ms  
Remote clock offset: -0.477 ms

# Below is generated by plot.py at 2018-11-30 23:41:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 586.97 Mbit/s  
95th percentile per-packet one-way delay: 146.550 ms  
Loss rate: 1.43%  
-- Flow 1:  
Average throughput: 243.01 Mbit/s  
95th percentile per-packet one-way delay: 135.584 ms  
Loss rate: 0.89%  
-- Flow 2:  
Average throughput: 399.42 Mbit/s  
95th percentile per-packet one-way delay: 148.649 ms  
Loss rate: 1.62%  
-- Flow 3:  
Average throughput: 242.24 Mbit/s  
95th percentile per-packet one-way delay: 163.132 ms  
Loss rate: 2.45%

# Run 5: Report of TCP Vegas — Data Link



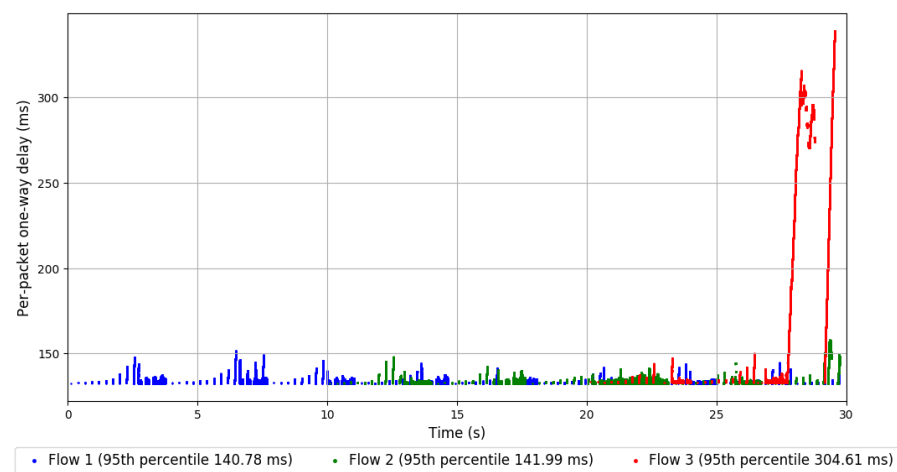
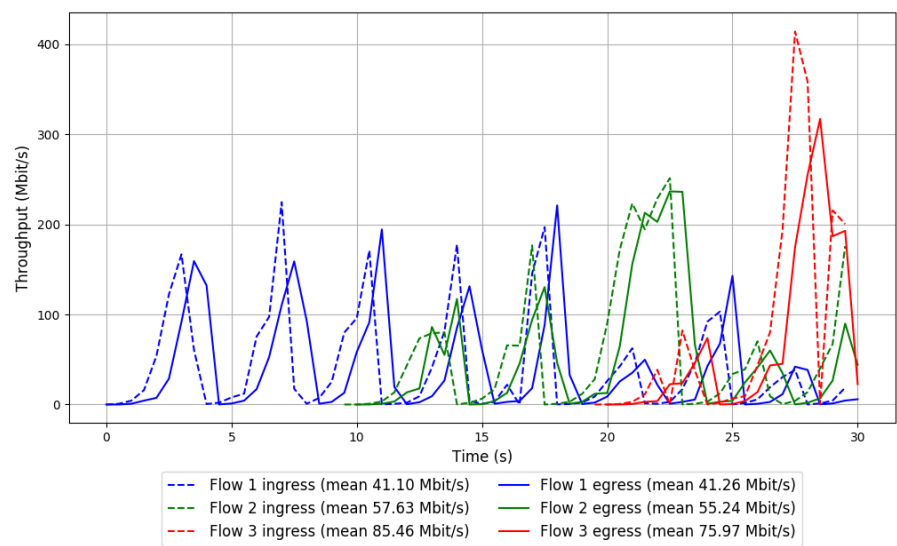


Run 1: Statistics of Verus

Start at: 2018-11-30 18:32:58  
End at: 2018-11-30 18:33:28  
Local clock offset: -0.487 ms  
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-11-30 23:41:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 102.01 Mbit/s  
95th percentile per-packet one-way delay: 290.237 ms  
Loss rate: 6.40%  
-- Flow 1:  
Average throughput: 41.26 Mbit/s  
95th percentile per-packet one-way delay: 140.780 ms  
Loss rate: 0.52%  
-- Flow 2:  
Average throughput: 55.24 Mbit/s  
95th percentile per-packet one-way delay: 141.991 ms  
Loss rate: 5.72%  
-- Flow 3:  
Average throughput: 75.97 Mbit/s  
95th percentile per-packet one-way delay: 304.606 ms  
Loss rate: 15.81%

Run 1: Report of Verus — Data Link

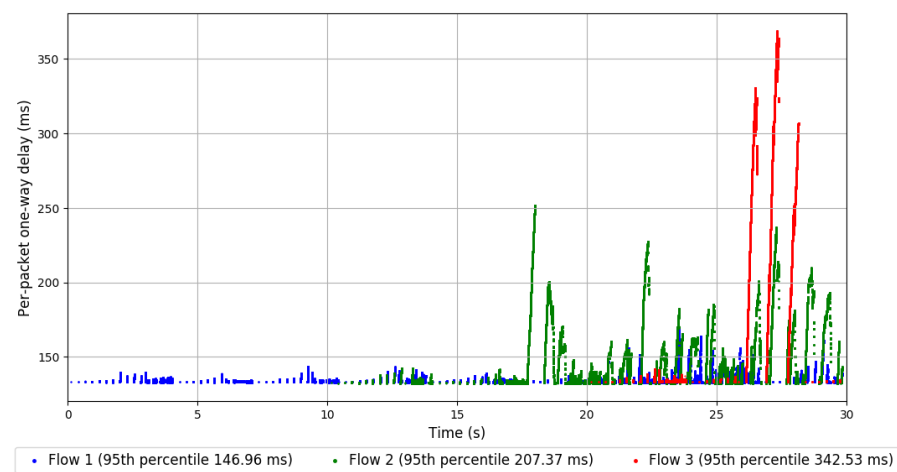
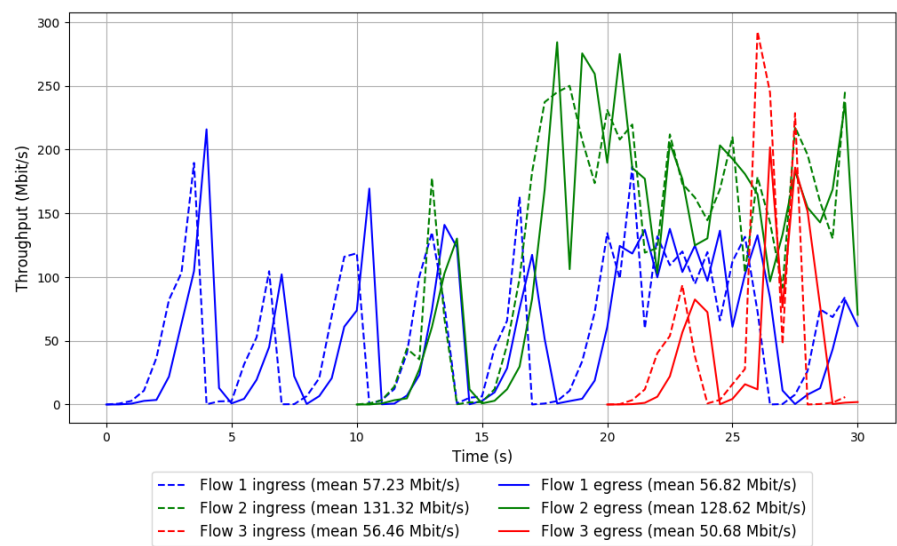


Run 2: Statistics of Verus

Start at: 2018-11-30 19:10:31  
End at: 2018-11-30 19:11:01  
Local clock offset: -0.467 ms  
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2018-11-30 23:41:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 158.41 Mbit/s  
95th percentile per-packet one-way delay: 234.242 ms  
Loss rate: 3.81%  
-- Flow 1:  
Average throughput: 56.82 Mbit/s  
95th percentile per-packet one-way delay: 146.959 ms  
Loss rate: 1.61%  
-- Flow 2:  
Average throughput: 128.62 Mbit/s  
95th percentile per-packet one-way delay: 207.365 ms  
Loss rate: 3.37%  
-- Flow 3:  
Average throughput: 50.68 Mbit/s  
95th percentile per-packet one-way delay: 342.529 ms  
Loss rate: 12.69%

Run 2: Report of Verus — Data Link

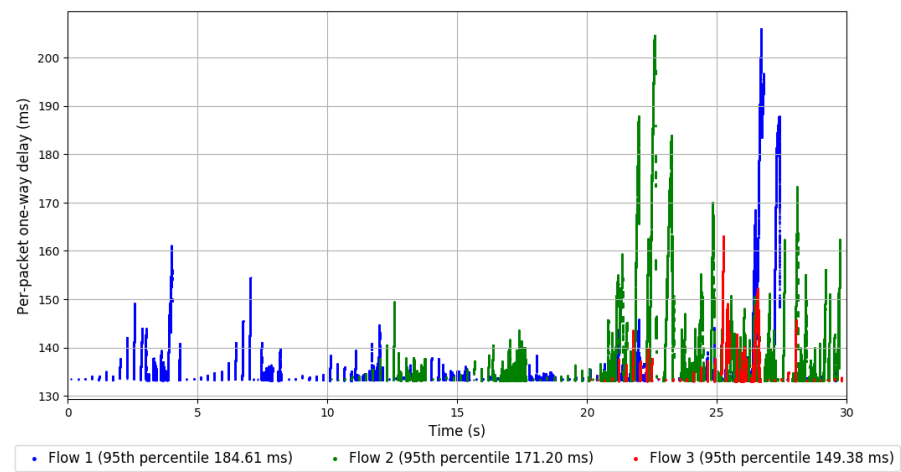
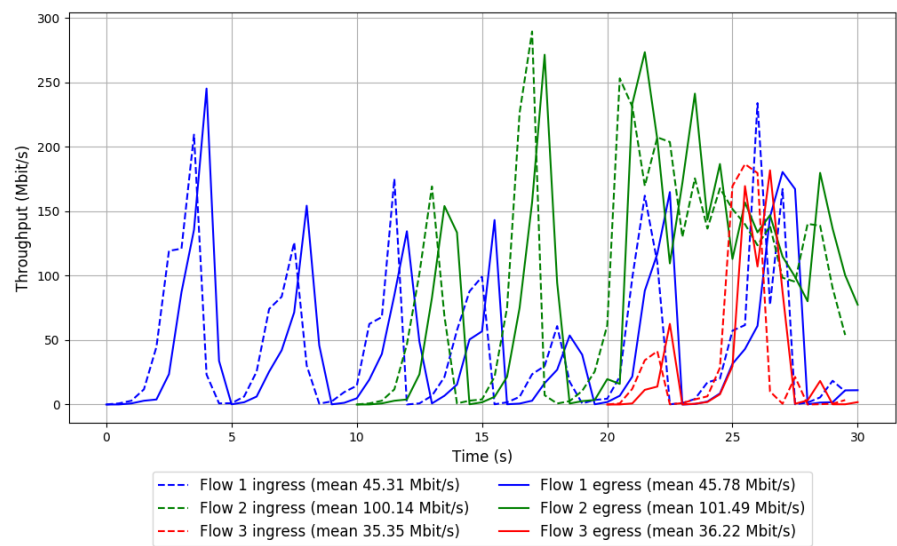


Run 3: Statistics of Verus

Start at: 2018-11-30 19:47:27  
End at: 2018-11-30 19:47:57  
Local clock offset: 0.287 ms  
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2018-11-30 23:41:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 124.22 Mbit/s  
95th percentile per-packet one-way delay: 174.997 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 45.78 Mbit/s  
95th percentile per-packet one-way delay: 184.611 ms  
Loss rate: 0.37%  
-- Flow 2:  
Average throughput: 101.49 Mbit/s  
95th percentile per-packet one-way delay: 171.202 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 36.22 Mbit/s  
95th percentile per-packet one-way delay: 149.385 ms  
Loss rate: 0.30%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-11-30 20:24:13

End at: 2018-11-30 20:24:43

Local clock offset: -0.393 ms

Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-11-30 23:41:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.67 Mbit/s

95th percentile per-packet one-way delay: 143.460 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 46.62 Mbit/s

95th percentile per-packet one-way delay: 149.702 ms

Loss rate: 2.09%

-- Flow 2:

Average throughput: 39.33 Mbit/s

95th percentile per-packet one-way delay: 135.773 ms

Loss rate: 0.13%

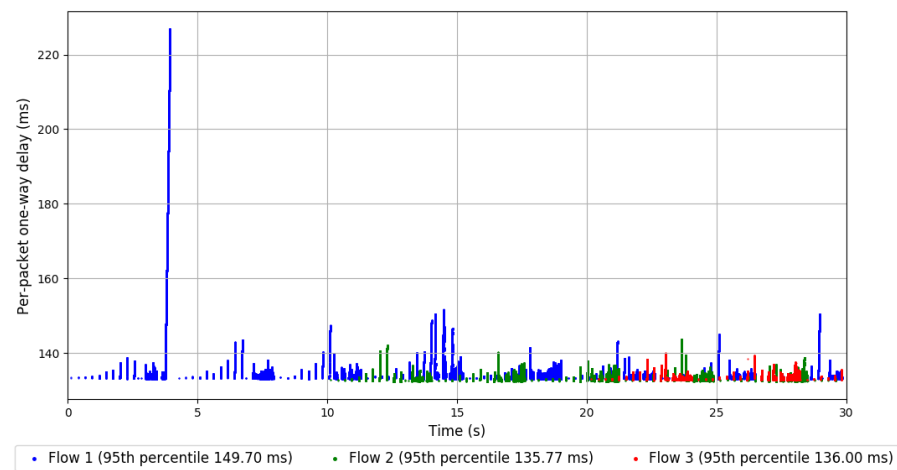
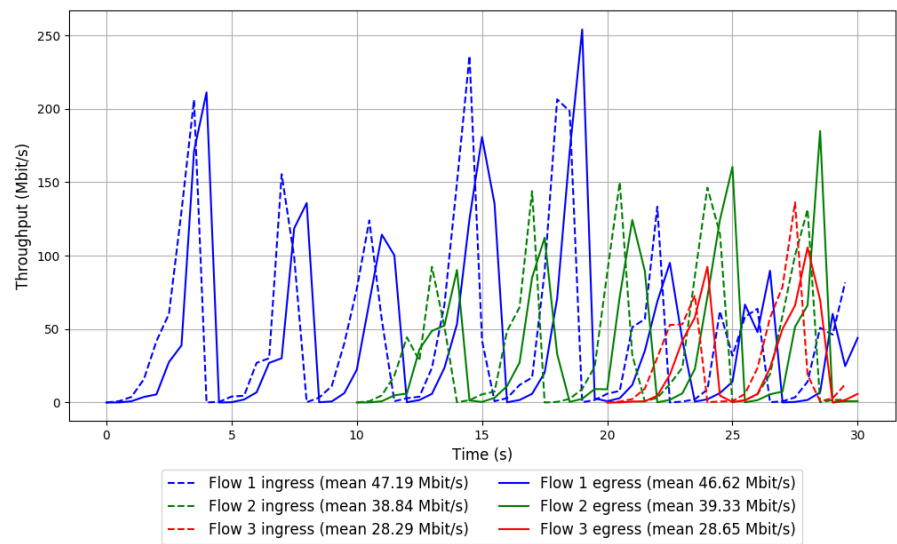
-- Flow 3:

Average throughput: 28.65 Mbit/s

95th percentile per-packet one-way delay: 136.004 ms

Loss rate: 1.50%

Run 4: Report of Verus — Data Link





Run 5: Statistics of Verus

Start at: 2018-11-30 21:02:09

End at: 2018-11-30 21:02:39

Local clock offset: 0.312 ms

Remote clock offset: 0.276 ms

# Below is generated by plot.py at 2018-11-30 23:41:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.22 Mbit/s

95th percentile per-packet one-way delay: 287.621 ms

Loss rate: 3.84%

-- Flow 1:

Average throughput: 41.37 Mbit/s

95th percentile per-packet one-way delay: 287.639 ms

Loss rate: 5.98%

-- Flow 2:

Average throughput: 121.54 Mbit/s

95th percentile per-packet one-way delay: 288.221 ms

Loss rate: 2.66%

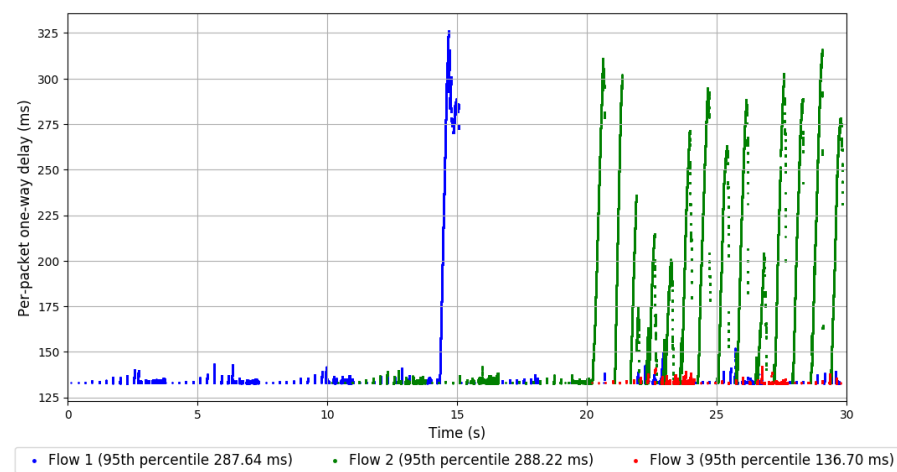
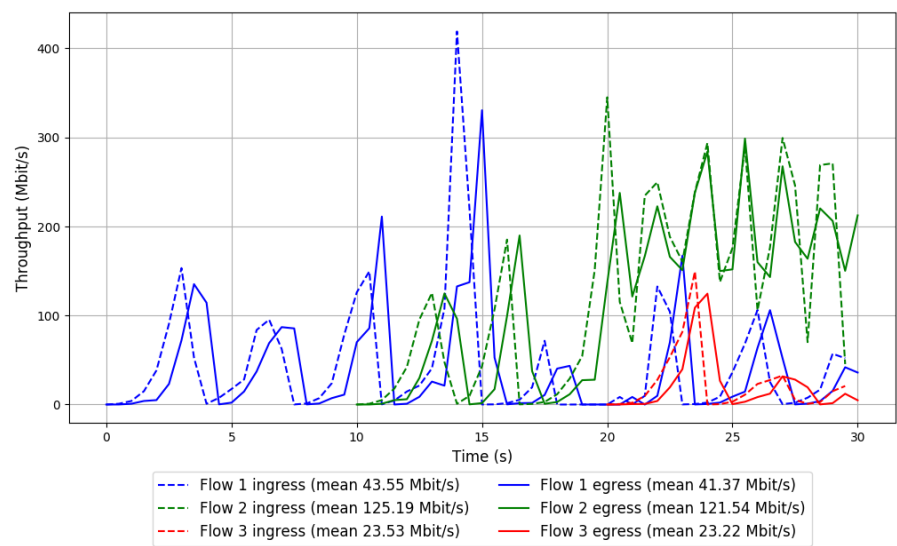
-- Flow 3:

Average throughput: 23.22 Mbit/s

95th percentile per-packet one-way delay: 136.699 ms

Loss rate: 4.44%

Run 5: Report of Verus — Data Link

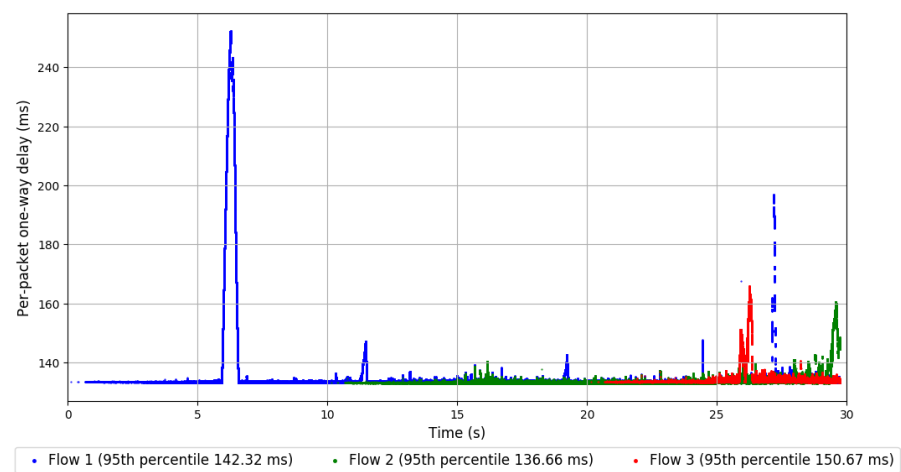
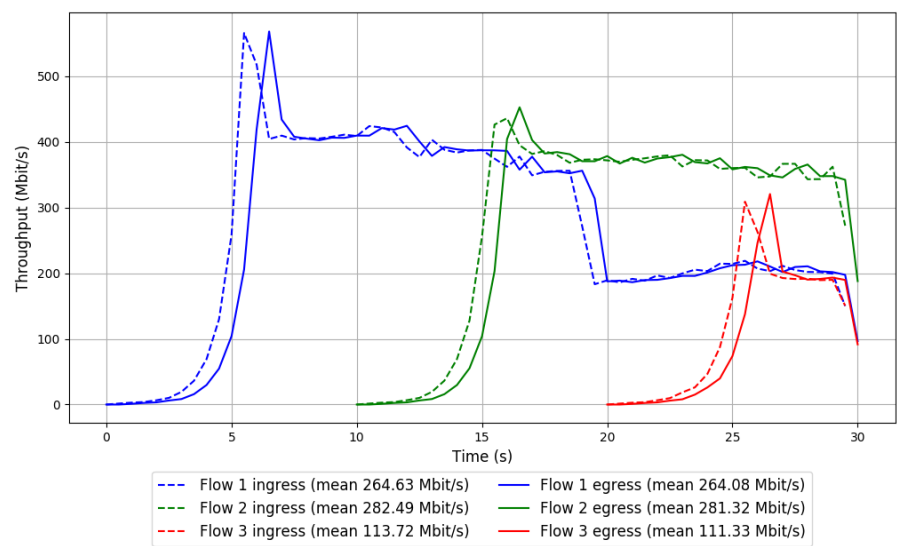


Run 1: Statistics of PCC-Vivace

Start at: 2018-11-30 18:27:08  
End at: 2018-11-30 18:27:38  
Local clock offset: -0.292 ms  
Remote clock offset: -0.122 ms

# Below is generated by plot.py at 2018-11-30 23:44:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 486.38 Mbit/s  
95th percentile per-packet one-way delay: 140.497 ms  
Loss rate: 1.63%  
-- Flow 1:  
Average throughput: 264.08 Mbit/s  
95th percentile per-packet one-way delay: 142.319 ms  
Loss rate: 1.10%  
-- Flow 2:  
Average throughput: 281.32 Mbit/s  
95th percentile per-packet one-way delay: 136.664 ms  
Loss rate: 1.75%  
-- Flow 3:  
Average throughput: 111.33 Mbit/s  
95th percentile per-packet one-way delay: 150.670 ms  
Loss rate: 4.76%

Run 1: Report of PCC-Vivace — Data Link

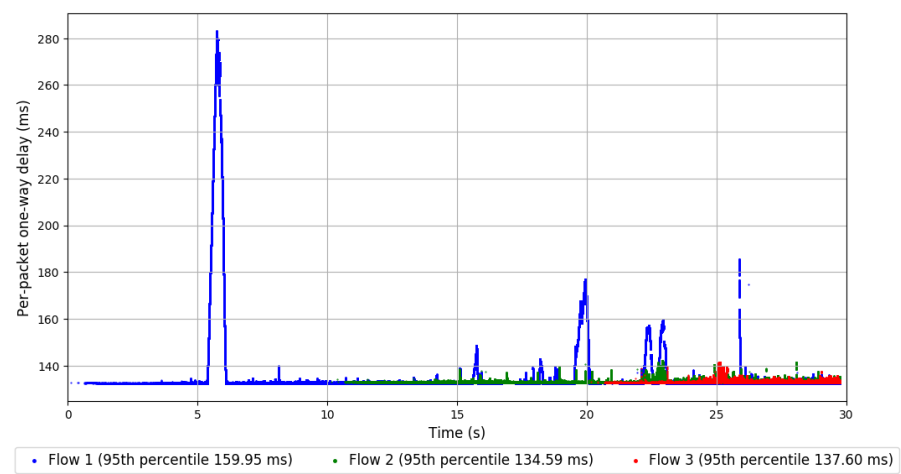
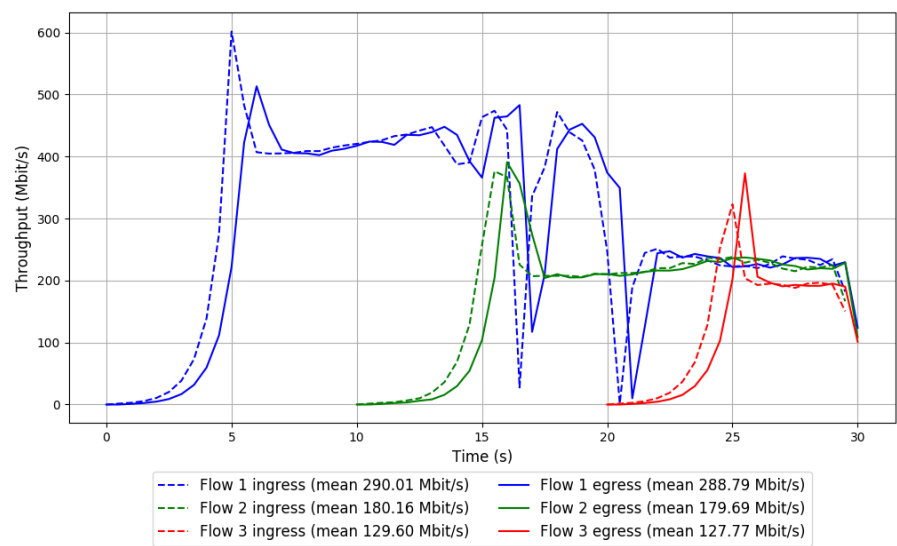


Run 2: Statistics of PCC-Vivace

Start at: 2018-11-30 19:04:00  
End at: 2018-11-30 19:04:30  
Local clock offset: -0.193 ms  
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-11-30 23:44:48  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 449.10 Mbit/s  
95th percentile per-packet one-way delay: 145.794 ms  
Loss rate: 1.65%  
-- Flow 1:  
Average throughput: 288.79 Mbit/s  
95th percentile per-packet one-way delay: 159.948 ms  
Loss rate: 1.31%  
-- Flow 2:  
Average throughput: 179.69 Mbit/s  
95th percentile per-packet one-way delay: 134.585 ms  
Loss rate: 1.60%  
-- Flow 3:  
Average throughput: 127.77 Mbit/s  
95th percentile per-packet one-way delay: 137.599 ms  
Loss rate: 4.08%

Run 2: Report of PCC-Vivace — Data Link

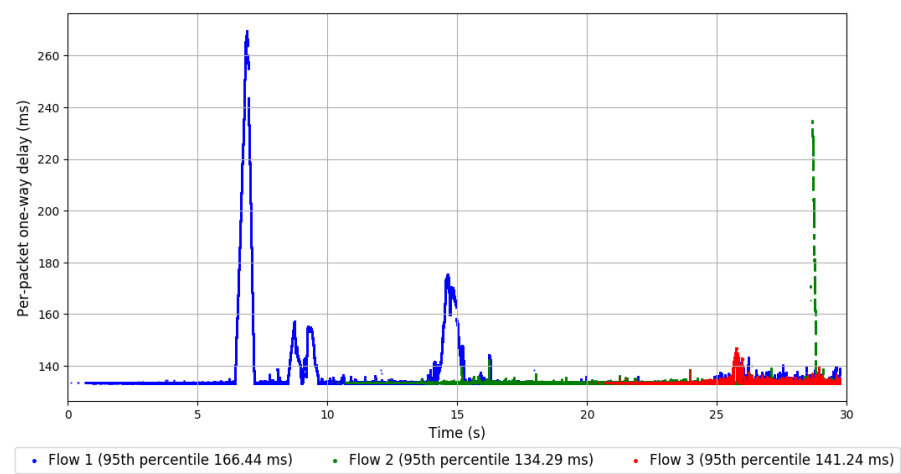
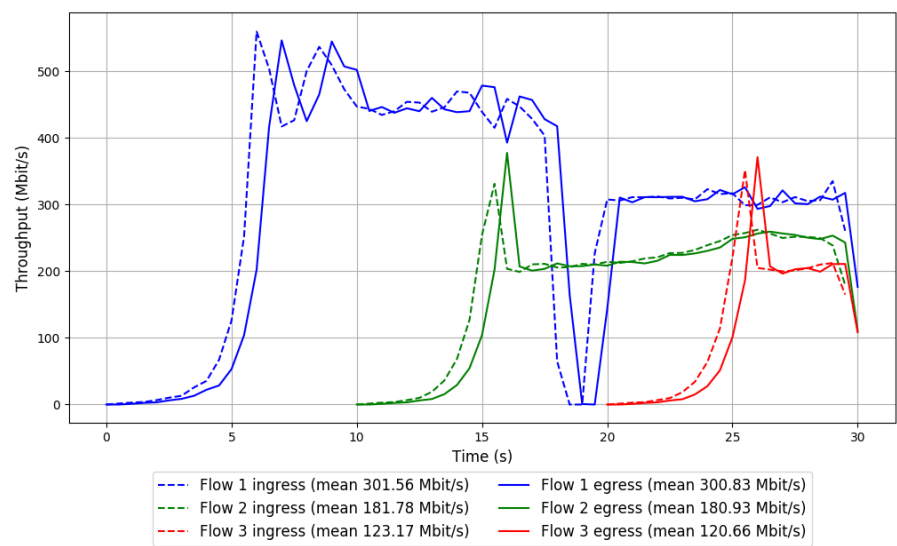


Run 3: Statistics of PCC-Vivace

Start at: 2018-11-30 19:41:13  
End at: 2018-11-30 19:41:43  
Local clock offset: -0.16 ms  
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-11-30 23:44:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 459.69 Mbit/s  
95th percentile per-packet one-way delay: 155.030 ms  
Loss rate: 1.63%  
-- Flow 1:  
Average throughput: 300.83 Mbit/s  
95th percentile per-packet one-way delay: 166.437 ms  
Loss rate: 1.14%  
-- Flow 2:  
Average throughput: 180.93 Mbit/s  
95th percentile per-packet one-way delay: 134.286 ms  
Loss rate: 1.81%  
-- Flow 3:  
Average throughput: 120.66 Mbit/s  
95th percentile per-packet one-way delay: 141.243 ms  
Loss rate: 4.70%

Run 3: Report of PCC-Vivace — Data Link



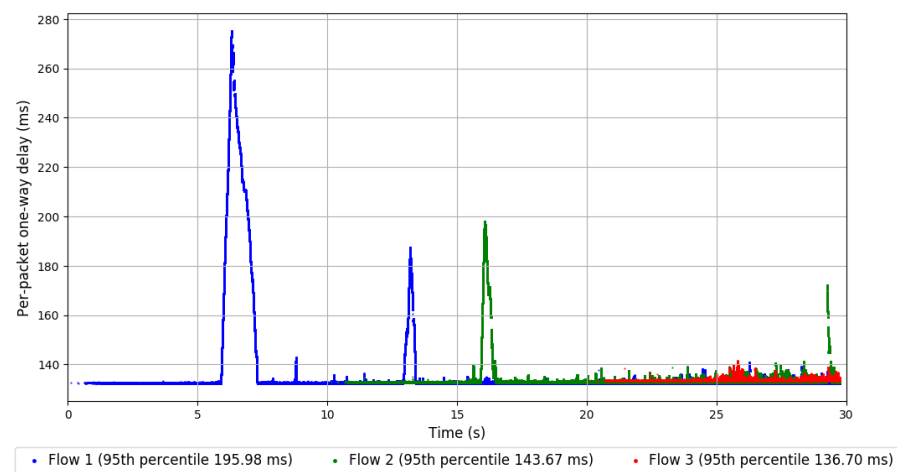
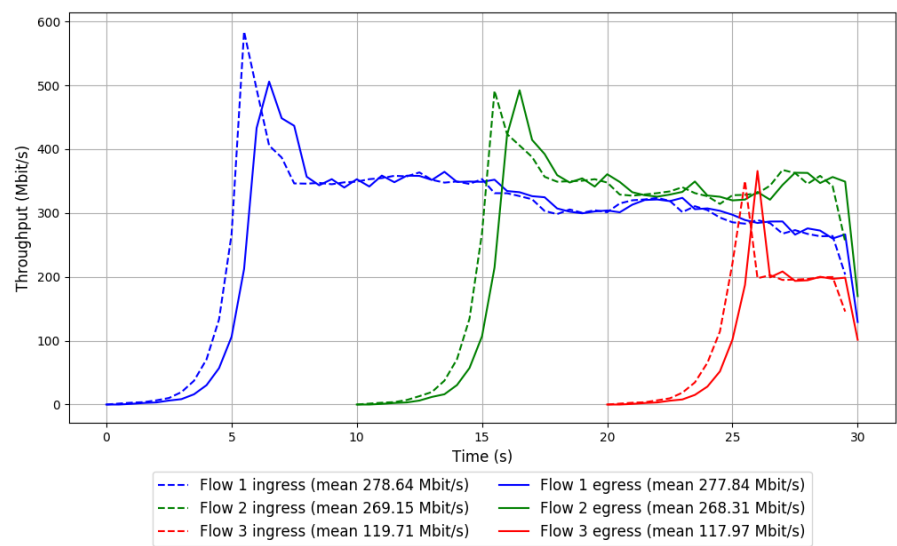


Run 4: Statistics of PCC-Vivace

Start at: 2018-11-30 20:17:15  
End at: 2018-11-30 20:17:45  
Local clock offset: -0.075 ms  
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2018-11-30 23:45:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 493.68 Mbit/s  
95th percentile per-packet one-way delay: 167.845 ms  
Loss rate: 1.58%  
-- Flow 1:  
Average throughput: 277.84 Mbit/s  
95th percentile per-packet one-way delay: 195.977 ms  
Loss rate: 1.17%  
-- Flow 2:  
Average throughput: 268.31 Mbit/s  
95th percentile per-packet one-way delay: 143.671 ms  
Loss rate: 1.66%  
-- Flow 3:  
Average throughput: 117.97 Mbit/s  
95th percentile per-packet one-way delay: 136.700 ms  
Loss rate: 4.13%

Run 4: Report of PCC-Vivace — Data Link

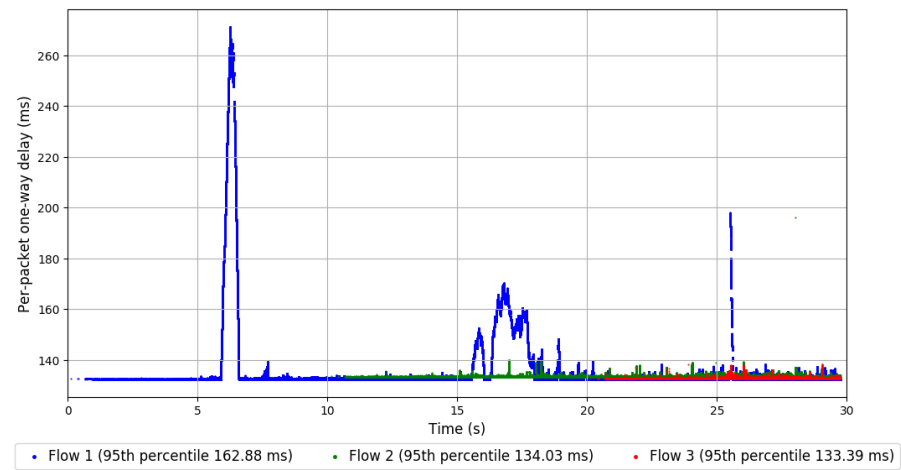
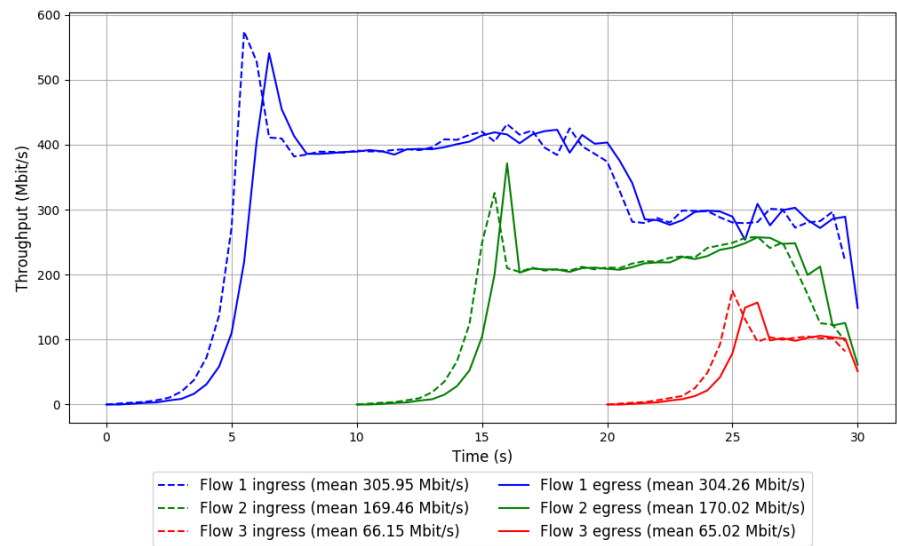


Run 5: Statistics of PCC-Vivace

Start at: 2018-11-30 20:55:58  
End at: 2018-11-30 20:56:28  
Local clock offset: -0.054 ms  
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-11-30 23:45:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 437.86 Mbit/s  
95th percentile per-packet one-way delay: 156.962 ms  
Loss rate: 1.48%  
-- Flow 1:  
Average throughput: 304.26 Mbit/s  
95th percentile per-packet one-way delay: 162.876 ms  
Loss rate: 1.44%  
-- Flow 2:  
Average throughput: 170.02 Mbit/s  
95th percentile per-packet one-way delay: 134.033 ms  
Loss rate: 1.02%  
-- Flow 3:  
Average throughput: 65.02 Mbit/s  
95th percentile per-packet one-way delay: 133.387 ms  
Loss rate: 4.38%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-11-30 18:43:57

End at: 2018-11-30 18:44:27

Local clock offset: -0.22 ms

Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-11-30 23:45:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.65 Mbit/s

95th percentile per-packet one-way delay: 133.731 ms

Loss rate: 2.53%

-- Flow 1:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 133.791 ms

Loss rate: 1.44%

-- Flow 2:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 133.167 ms

Loss rate: 2.07%

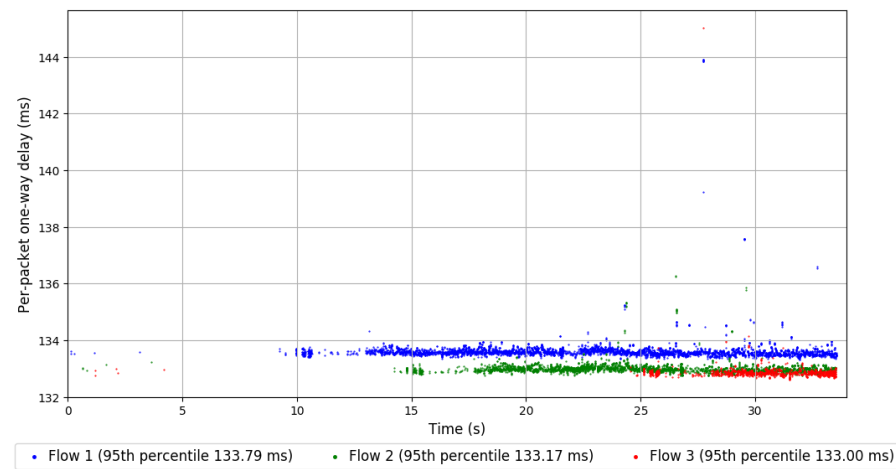
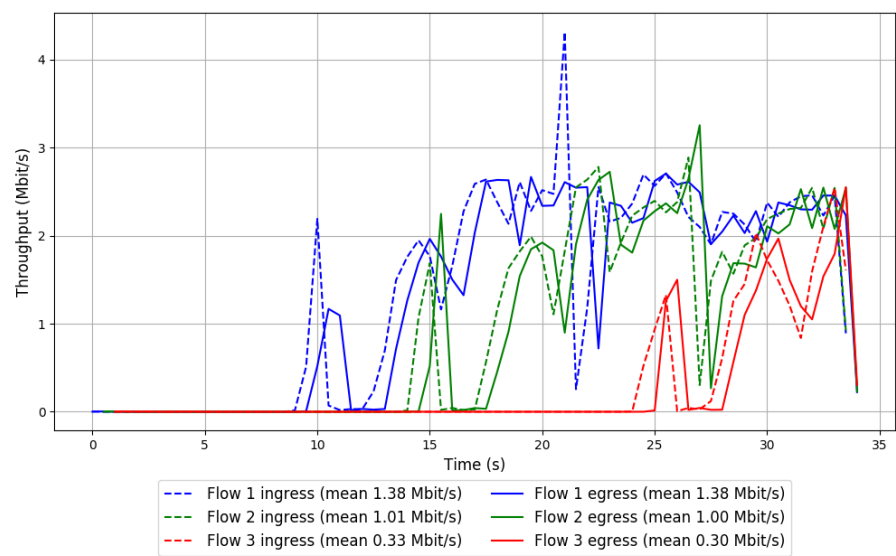
-- Flow 3:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 133.003 ms

Loss rate: 8.73%

Run 1: Report of WebRTC media — Data Link

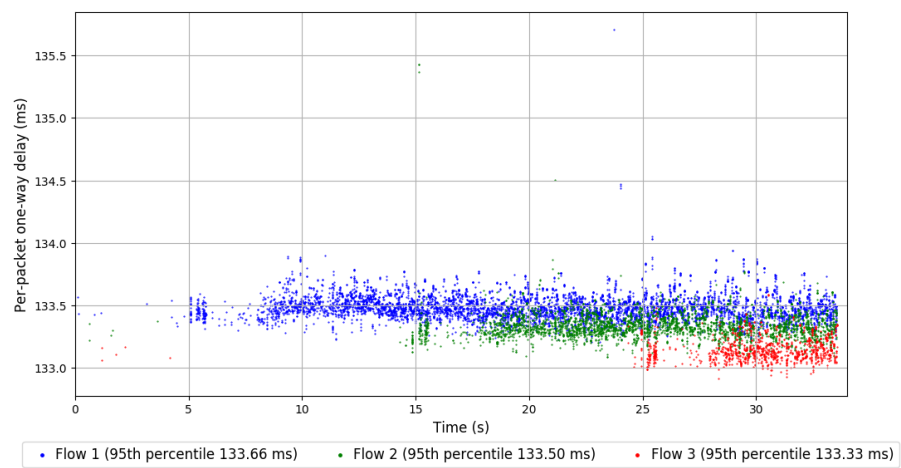
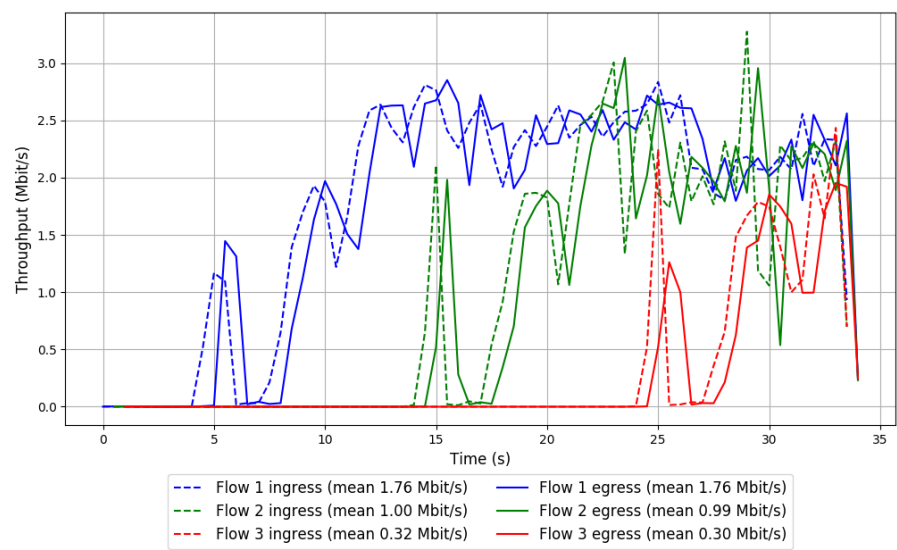


Run 2: Statistics of WebRTC media

Start at: 2018-11-30 19:22:05  
End at: 2018-11-30 19:22:35  
Local clock offset: -0.348 ms  
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-11-30 23:45:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.03 Mbit/s  
95th percentile per-packet one-way delay: 133.620 ms  
Loss rate: 1.77%  
-- Flow 1:  
Average throughput: 1.76 Mbit/s  
95th percentile per-packet one-way delay: 133.659 ms  
Loss rate: 0.98%  
-- Flow 2:  
Average throughput: 0.99 Mbit/s  
95th percentile per-packet one-way delay: 133.502 ms  
Loss rate: 1.76%  
-- Flow 3:  
Average throughput: 0.30 Mbit/s  
95th percentile per-packet one-way delay: 133.328 ms  
Loss rate: 6.34%

Run 2: Report of WebRTC media — Data Link





Run 3: Statistics of WebRTC media

Start at: 2018-11-30 19:57:41

End at: 2018-11-30 19:58:11

Local clock offset: -0.004 ms

Remote clock offset: 0.275 ms

# Below is generated by plot.py at 2018-11-30 23:45:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.05 Mbit/s

95th percentile per-packet one-way delay: 133.413 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 133.464 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 132.924 ms

Loss rate: 2.12%

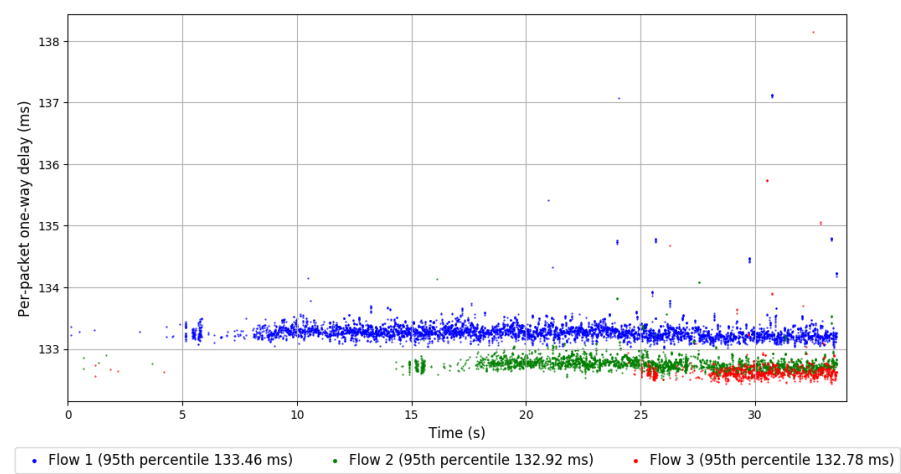
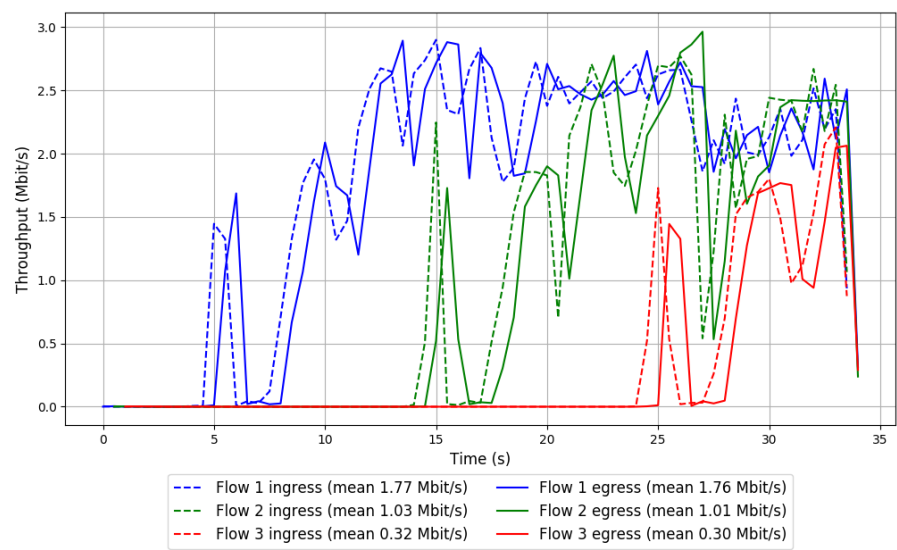
-- Flow 3:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 132.776 ms

Loss rate: 5.48%

Run 3: Report of WebRTC media — Data Link

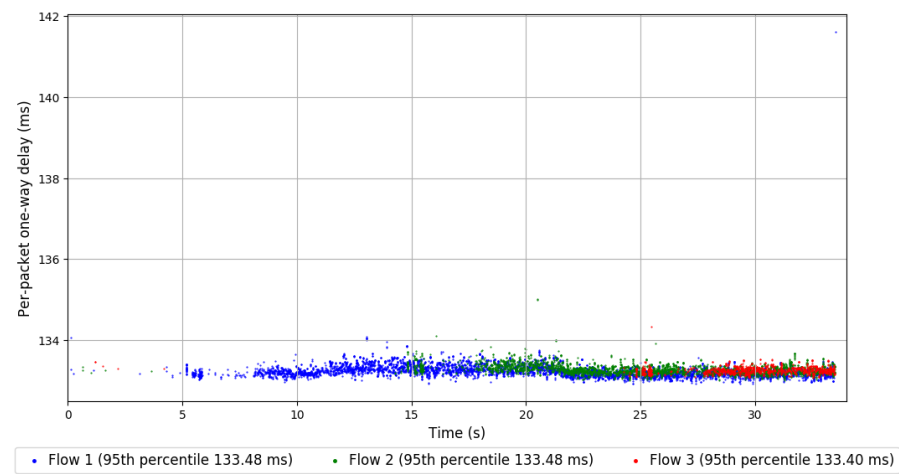
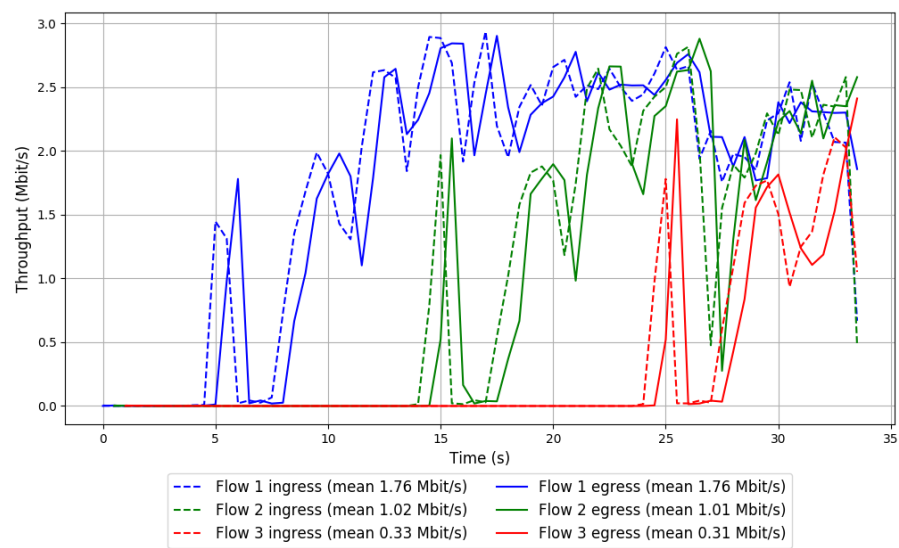


Run 4: Statistics of WebRTC media

Start at: 2018-11-30 20:35:50  
End at: 2018-11-30 20:36:20  
Local clock offset: -0.202 ms  
Remote clock offset: -0.491 ms

# Below is generated by plot.py at 2018-11-30 23:45:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.05 Mbit/s  
95th percentile per-packet one-way delay: 133.473 ms  
Loss rate: 1.93%  
-- Flow 1:  
Average throughput: 1.76 Mbit/s  
95th percentile per-packet one-way delay: 133.477 ms  
Loss rate: 1.13%  
-- Flow 2:  
Average throughput: 1.01 Mbit/s  
95th percentile per-packet one-way delay: 133.481 ms  
Loss rate: 1.75%  
-- Flow 3:  
Average throughput: 0.31 Mbit/s  
95th percentile per-packet one-way delay: 133.399 ms  
Loss rate: 6.90%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-11-30 21:14:04  
End at: 2018-11-30 21:14:34  
Local clock offset: 0.172 ms  
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-11-30 23:45:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.02 Mbit/s  
95th percentile per-packet one-way delay: 133.828 ms  
Loss rate: 2.19%  
-- Flow 1:  
Average throughput: 1.75 Mbit/s  
95th percentile per-packet one-way delay: 133.502 ms  
Loss rate: 1.16%  
-- Flow 2:  
Average throughput: 0.99 Mbit/s  
95th percentile per-packet one-way delay: 133.816 ms  
Loss rate: 1.76%  
-- Flow 3:  
Average throughput: 0.31 Mbit/s  
95th percentile per-packet one-way delay: 133.964 ms  
Loss rate: 9.08%

## Run 5: Report of WebRTC media — Data Link

