

Pantheon Report

Generated at 2019-03-19 14:44:01 (UTC).
Data path: GCE London on `ens4` (*remote*) → GCE Sydney on `ens4` (*local*).
Repeated the test of 21 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:

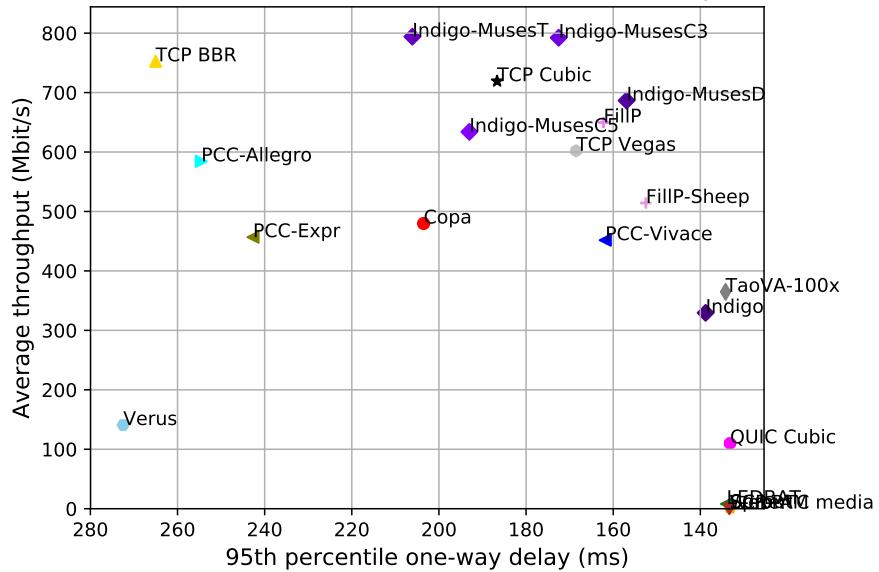
```
Linux 4.15.0-1028-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

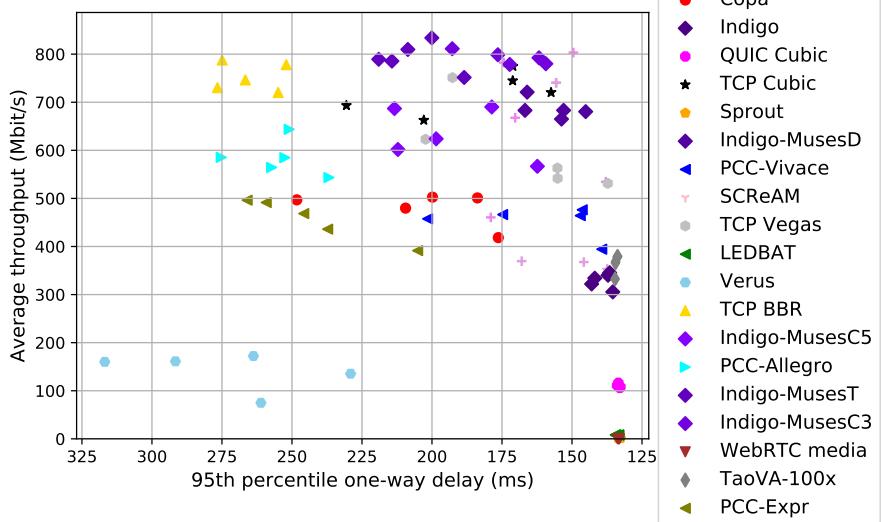
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd
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-quic @ 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)



test from GCE London to GCE Sydney, 5 runs of 30s each per scheme
3 flows with 10s interval between flows



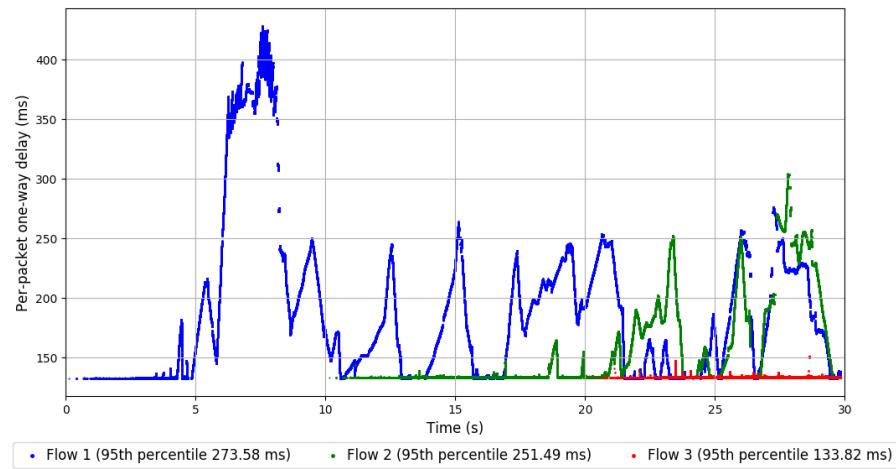
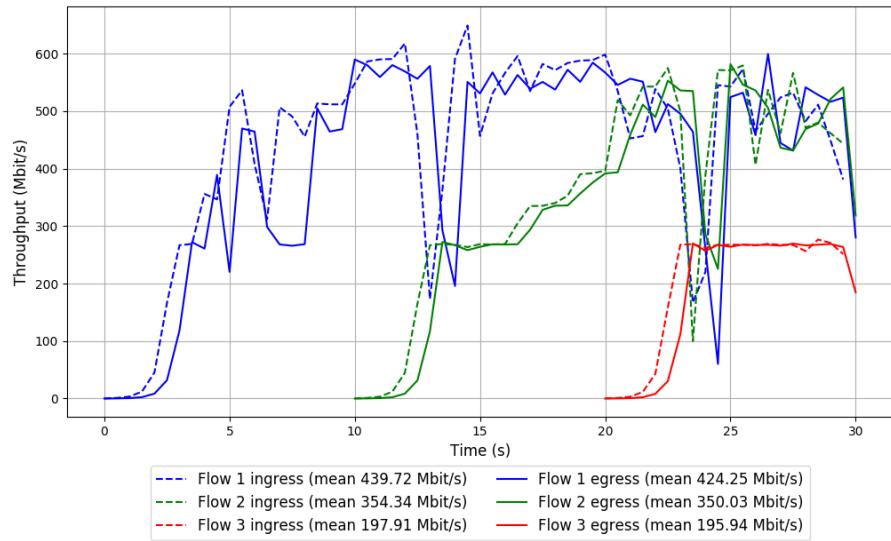
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	439.14	347.77	253.76	264.69	266.86	180.76	3.33	4.63	5.55
Copa	5	251.07	248.11	196.71	188.56	217.92	184.57	0.96	1.54	3.95
TCP Cubic	5	417.32	329.37	255.79	173.01	175.13	183.27	1.03	1.49	4.29
FillP	5	357.36	327.79	231.29	168.11	138.18	136.38	1.26	1.19	3.37
FillP-Sheep	5	228.81	317.44	231.71	161.90	137.89	139.94	0.59	1.11	3.14
Indigo	5	175.08	157.74	154.14	137.33	142.62	143.09	0.81	1.34	3.01
Indigo-MusesC3	5	469.52	385.72	283.39	178.65	157.82	139.33	0.75	1.44	4.51
Indigo-MusesC5	5	380.87	339.49	135.30	205.41	163.58	135.47	0.89	1.32	6.52
Indigo-MusesD	5	413.36	366.62	141.97	159.19	162.79	136.16	0.86	1.49	4.69
Indigo-MusesT	5	506.54	409.63	94.59	215.33	172.01	134.01	0.95	1.41	4.33
LEDBAT	5	5.25	3.44	1.66	133.83	133.73	133.65	1.78	2.69	5.41
PCC-Allegro	5	333.25	270.63	225.23	258.53	225.71	245.24	3.56	3.49	5.96
PCC-Expr	5	264.25	213.72	157.45	232.44	204.29	255.35	2.80	5.59	8.93
QUIC Cubic	5	61.10	53.77	39.76	132.91	132.97	133.02	1.20	1.54	4.11
SCReAM	5	0.17	0.15	0.16	133.13	133.16	132.65	0.88	1.39	2.45
Sprout	5	0.68	0.67	0.67	133.10	133.10	133.09	1.17	1.29	2.92
TaoVA-100x	5	197.47	188.06	130.63	134.04	134.46	133.89	0.96	1.55	3.35
TCP Vegas	5	342.08	269.32	249.23	156.64	182.75	173.54	0.71	1.42	3.70
Verus	5	89.66	65.17	25.75	267.98	255.89	173.08	5.65	4.55	1.03
PCC-Vivace	5	272.25	213.87	117.08	156.23	150.07	185.55	1.22	1.70	4.35
WebRTC media	5	0.05	0.05	0.05	133.14	133.65	132.80	0.01	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-03-19 09:13:30
End at: 2019-03-19 09:14:00
Local clock offset: 0.306 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-03-19 12:42:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.40 Mbit/s
95th percentile per-packet one-way delay: 254.929 ms
Loss rate: 3.72%
-- Flow 1:
Average throughput: 424.25 Mbit/s
95th percentile per-packet one-way delay: 273.579 ms
Loss rate: 4.37%
-- Flow 2:
Average throughput: 350.03 Mbit/s
95th percentile per-packet one-way delay: 251.490 ms
Loss rate: 2.52%
-- Flow 3:
Average throughput: 195.94 Mbit/s
95th percentile per-packet one-way delay: 133.820 ms
Loss rate: 3.61%
```

Run 1: Report of TCP BBR — Data Link

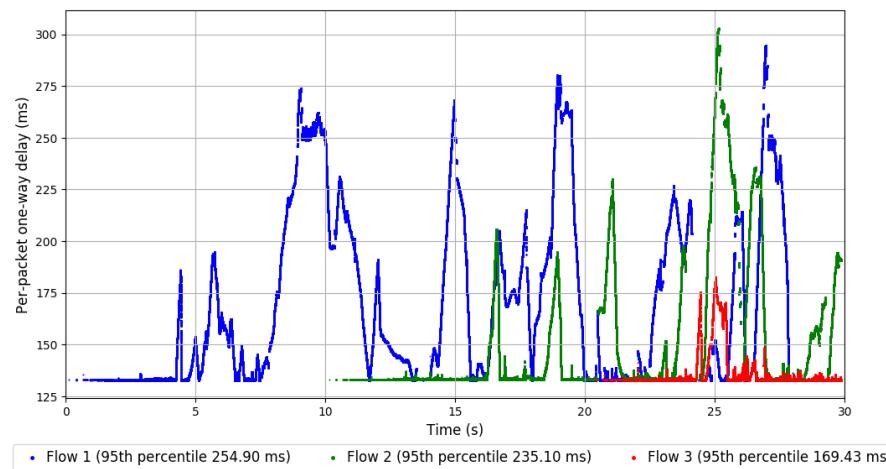
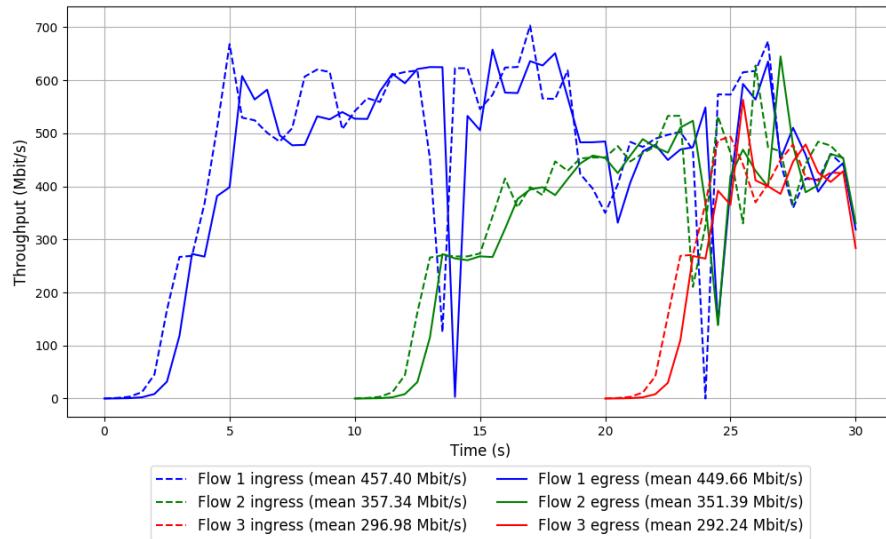


Run 2: Statistics of TCP BBR

```
Start at: 2019-03-19 09:55:07
End at: 2019-03-19 09:55:37
Local clock offset: -0.26 ms
Remote clock offset: -4.378 ms

# Below is generated by plot.py at 2019-03-19 12:43:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 778.13 Mbit/s
95th percentile per-packet one-way delay: 252.032 ms
Loss rate: 2.89%
-- Flow 1:
Average throughput: 449.66 Mbit/s
95th percentile per-packet one-way delay: 254.897 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 351.39 Mbit/s
95th percentile per-packet one-way delay: 235.096 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 292.24 Mbit/s
95th percentile per-packet one-way delay: 169.432 ms
Loss rate: 4.22%
```

Run 2: Report of TCP BBR — Data Link

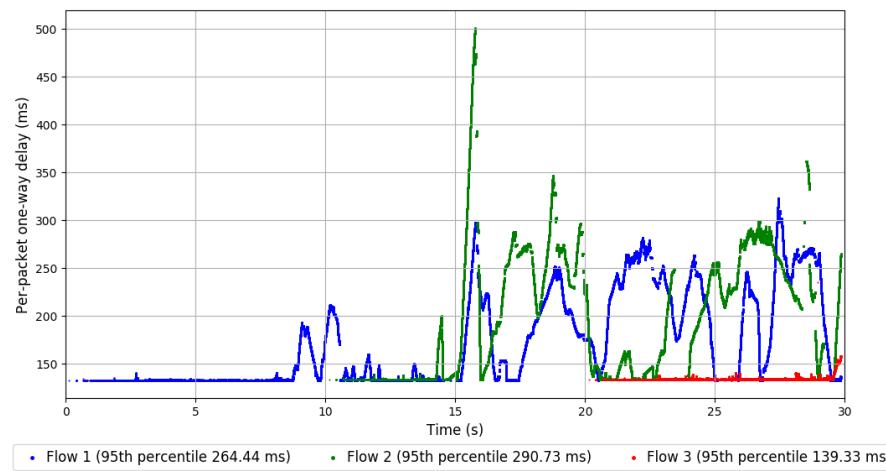
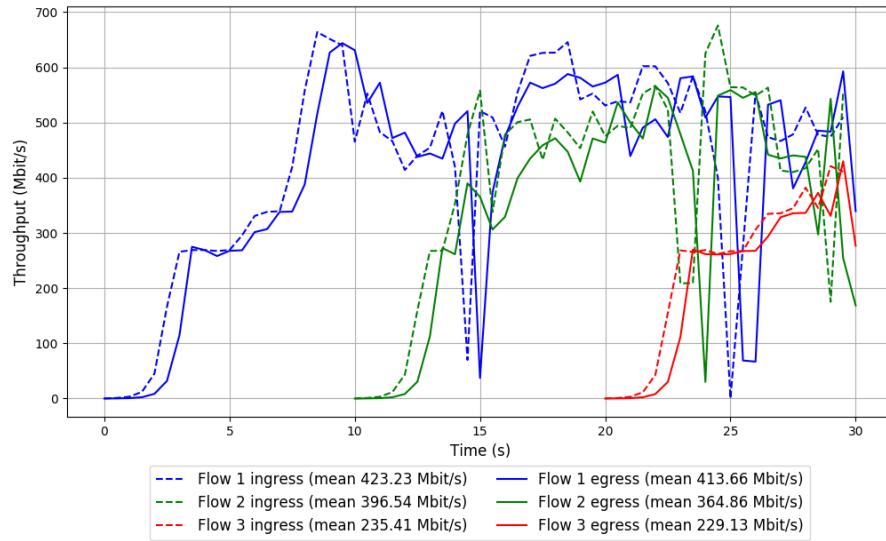


Run 3: Statistics of TCP BBR

```
Start at: 2019-03-19 10:37:47
End at: 2019-03-19 10:38:17
Local clock offset: 0.124 ms
Remote clock offset: -1.308 ms

# Below is generated by plot.py at 2019-03-19 12:43:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 730.41 Mbit/s
95th percentile per-packet one-way delay: 276.585 ms
Loss rate: 5.45%
-- Flow 1:
Average throughput: 413.66 Mbit/s
95th percentile per-packet one-way delay: 264.438 ms
Loss rate: 3.13%
-- Flow 2:
Average throughput: 364.86 Mbit/s
95th percentile per-packet one-way delay: 290.727 ms
Loss rate: 9.21%
-- Flow 3:
Average throughput: 229.13 Mbit/s
95th percentile per-packet one-way delay: 139.329 ms
Loss rate: 5.26%
```

Run 3: Report of TCP BBR — Data Link

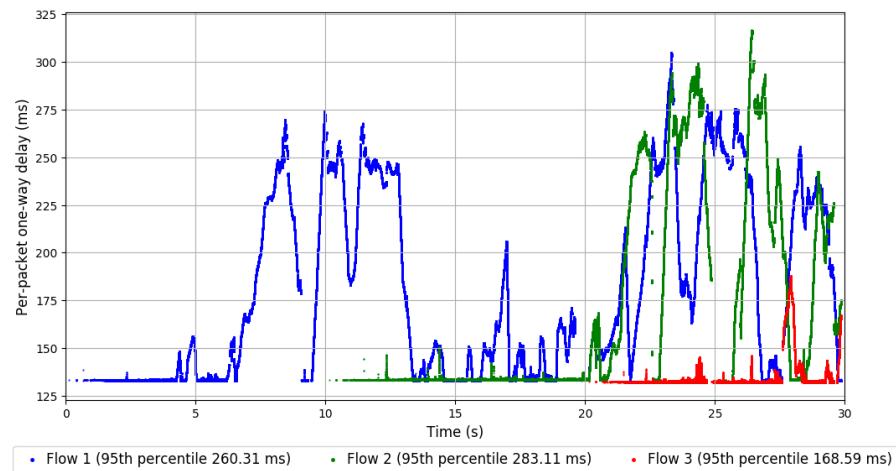
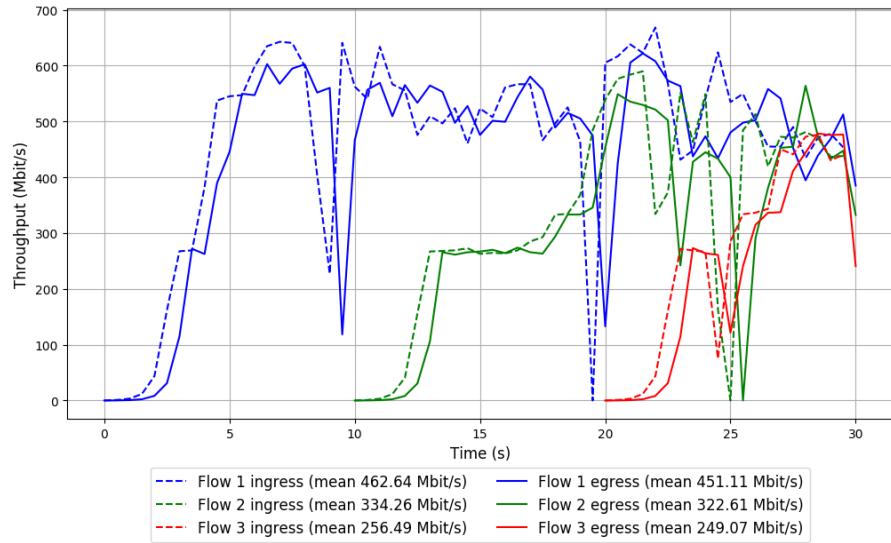


Run 4: Statistics of TCP BBR

```
Start at: 2019-03-19 11:18:44
End at: 2019-03-19 11:19:14
Local clock offset: -0.116 ms
Remote clock offset: -0.585 ms

# Below is generated by plot.py at 2019-03-19 12:43:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 746.37 Mbit/s
95th percentile per-packet one-way delay: 266.656 ms
Loss rate: 4.00%
-- Flow 1:
Average throughput: 451.11 Mbit/s
95th percentile per-packet one-way delay: 260.306 ms
Loss rate: 3.35%
-- Flow 2:
Average throughput: 322.61 Mbit/s
95th percentile per-packet one-way delay: 283.110 ms
Loss rate: 4.77%
-- Flow 3:
Average throughput: 249.07 Mbit/s
95th percentile per-packet one-way delay: 168.591 ms
Loss rate: 5.47%
```

Run 4: Report of TCP BBR — Data Link

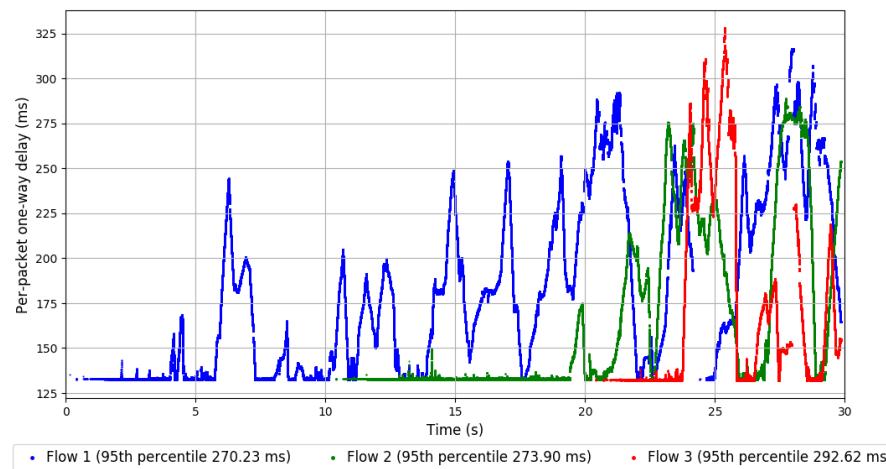
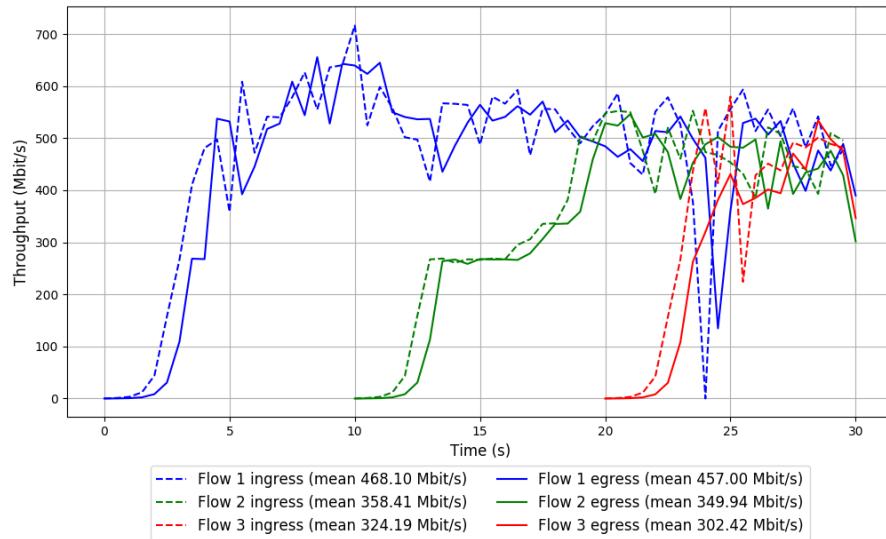


Run 5: Statistics of TCP BBR

```
Start at: 2019-03-19 12:00:12
End at: 2019-03-19 12:00:42
Local clock offset: -0.373 ms
Remote clock offset: -0.384 ms

# Below is generated by plot.py at 2019-03-19 12:44:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 787.75 Mbit/s
95th percentile per-packet one-way delay: 274.922 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 457.00 Mbit/s
95th percentile per-packet one-way delay: 270.234 ms
Loss rate: 3.25%
-- Flow 2:
Average throughput: 349.94 Mbit/s
95th percentile per-packet one-way delay: 273.900 ms
Loss rate: 3.67%
-- Flow 3:
Average throughput: 302.42 Mbit/s
95th percentile per-packet one-way delay: 292.616 ms
Loss rate: 9.21%
```

Run 5: Report of TCP BBR — Data Link

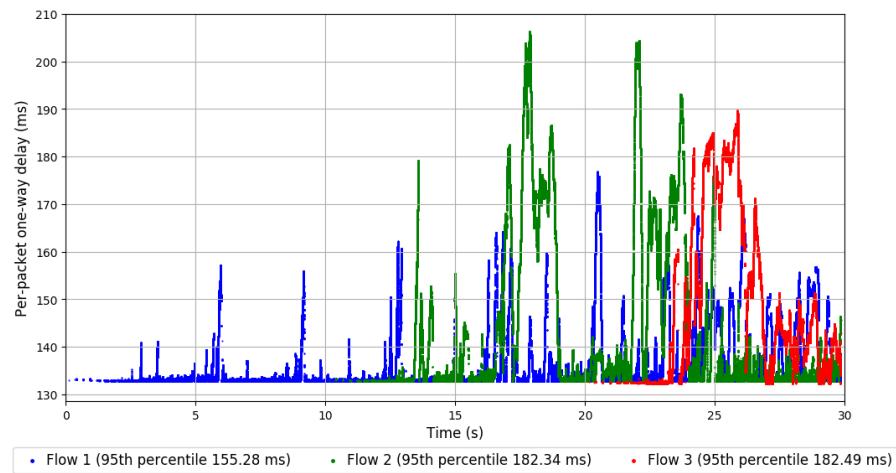
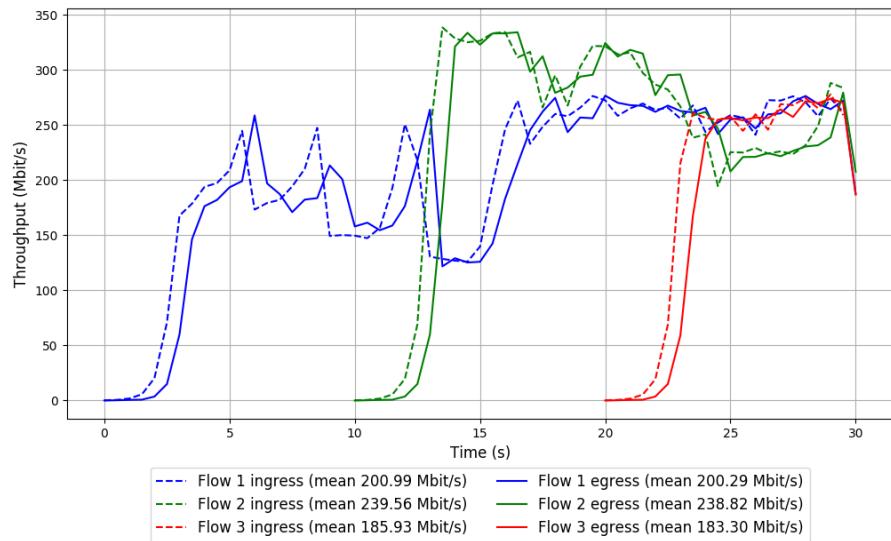


Run 1: Statistics of Copa

```
Start at: 2019-03-19 09:11:23
End at: 2019-03-19 09:11:53
Local clock offset: -0.03 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-03-19 12:44:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.45 Mbit/s
95th percentile per-packet one-way delay: 176.310 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 200.29 Mbit/s
95th percentile per-packet one-way delay: 155.282 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 238.82 Mbit/s
95th percentile per-packet one-way delay: 182.337 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 183.30 Mbit/s
95th percentile per-packet one-way delay: 182.487 ms
Loss rate: 4.00%
```

Run 1: Report of Copa — Data Link

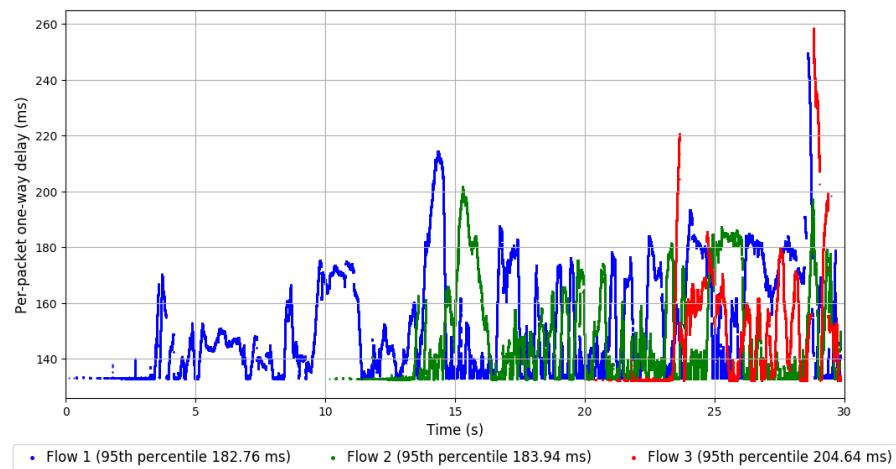
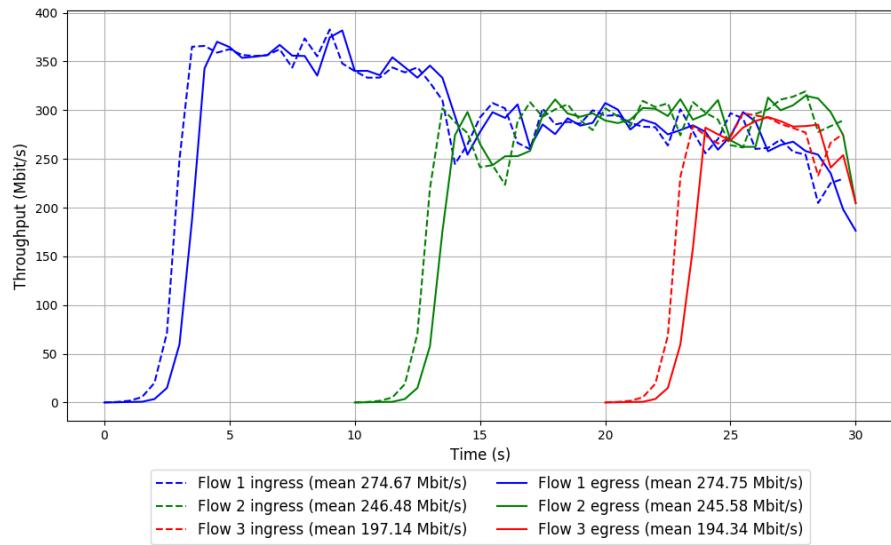


Run 2: Statistics of Copa

```
Start at: 2019-03-19 09:52:39
End at: 2019-03-19 09:53:09
Local clock offset: -0.206 ms
Remote clock offset: -4.878 ms

# Below is generated by plot.py at 2019-03-19 12:46:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 501.01 Mbit/s
95th percentile per-packet one-way delay: 183.765 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 274.75 Mbit/s
95th percentile per-packet one-way delay: 182.761 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 245.58 Mbit/s
95th percentile per-packet one-way delay: 183.935 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 194.34 Mbit/s
95th percentile per-packet one-way delay: 204.641 ms
Loss rate: 4.04%
```

Run 2: Report of Copa — Data Link

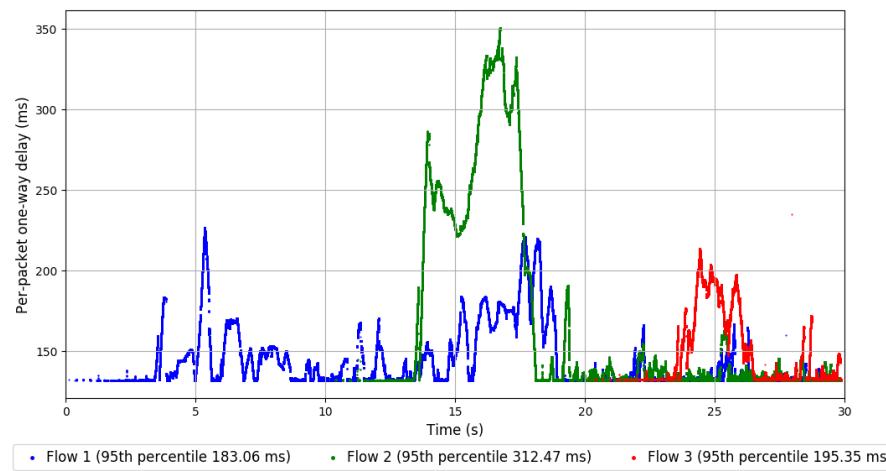
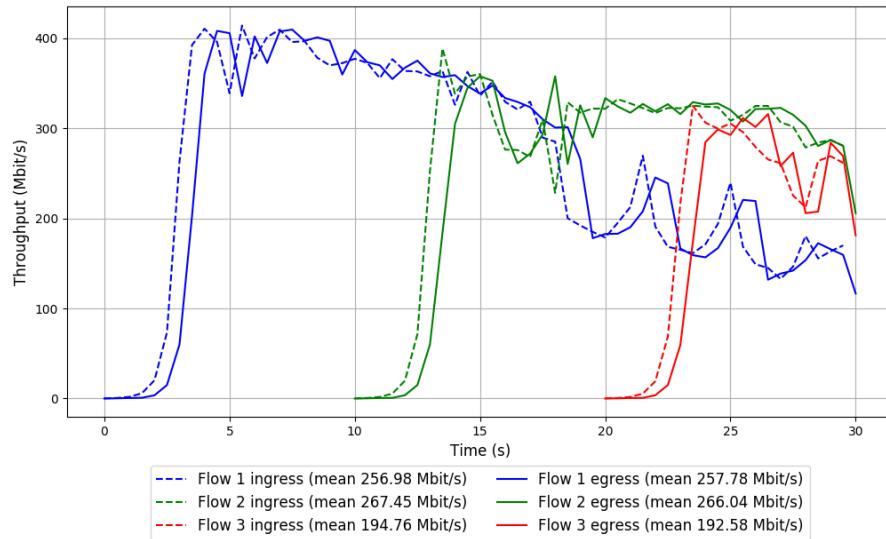


Run 3: Statistics of Copa

```
Start at: 2019-03-19 10:34:58
End at: 2019-03-19 10:35:28
Local clock offset: -0.311 ms
Remote clock offset: -1.486 ms

# Below is generated by plot.py at 2019-03-19 12:46:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.03 Mbit/s
95th percentile per-packet one-way delay: 248.271 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 257.78 Mbit/s
95th percentile per-packet one-way delay: 183.059 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 266.04 Mbit/s
95th percentile per-packet one-way delay: 312.473 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 192.58 Mbit/s
95th percentile per-packet one-way delay: 195.351 ms
Loss rate: 3.75%
```

Run 3: Report of Copa — Data Link

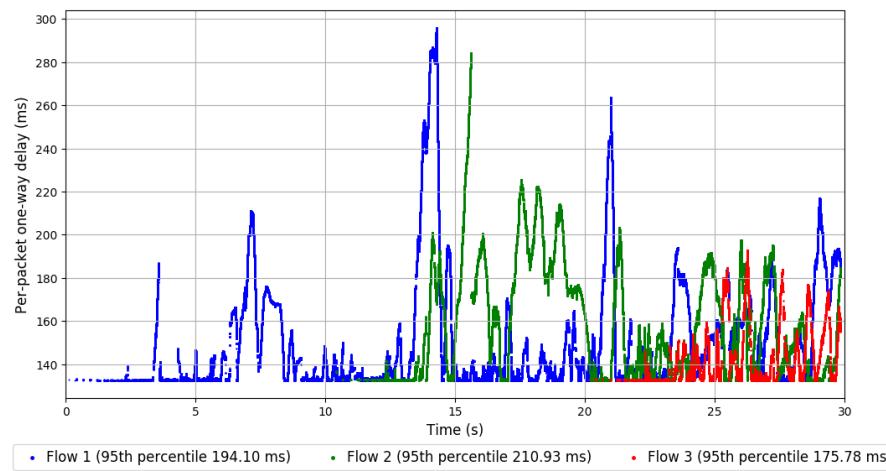
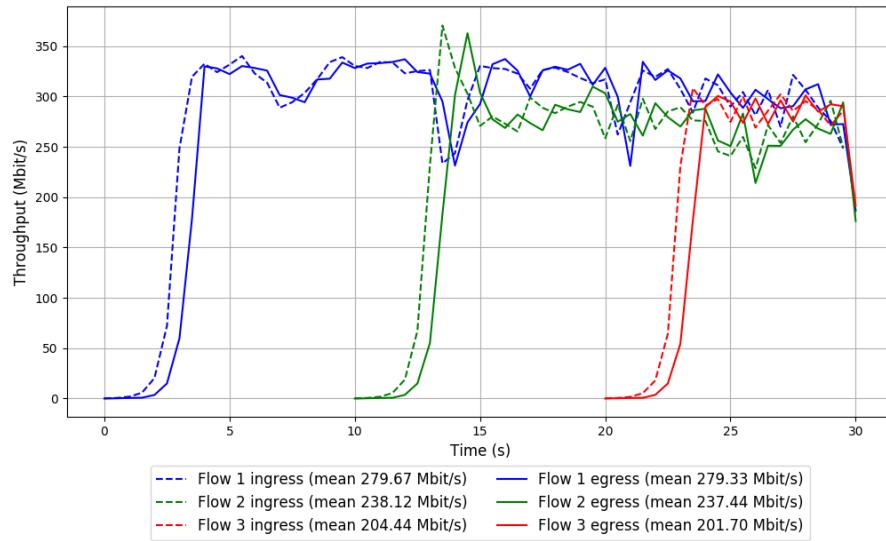


Run 4: Statistics of Copa

```
Start at: 2019-03-19 11:16:08
End at: 2019-03-19 11:16:38
Local clock offset: -0.424 ms
Remote clock offset: -0.535 ms

# Below is generated by plot.py at 2019-03-19 13:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 502.60 Mbit/s
95th percentile per-packet one-way delay: 199.818 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 279.33 Mbit/s
95th percentile per-packet one-way delay: 194.098 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 237.44 Mbit/s
95th percentile per-packet one-way delay: 210.934 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 201.70 Mbit/s
95th percentile per-packet one-way delay: 175.783 ms
Loss rate: 3.97%
```

Run 4: Report of Copa — Data Link

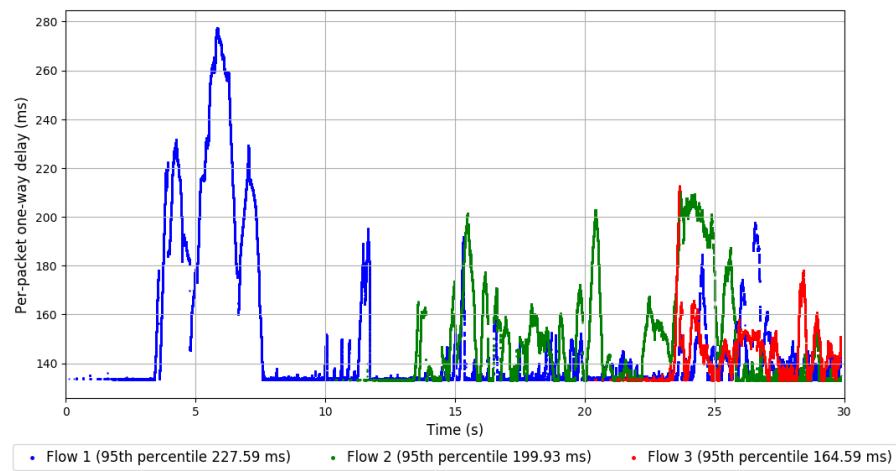
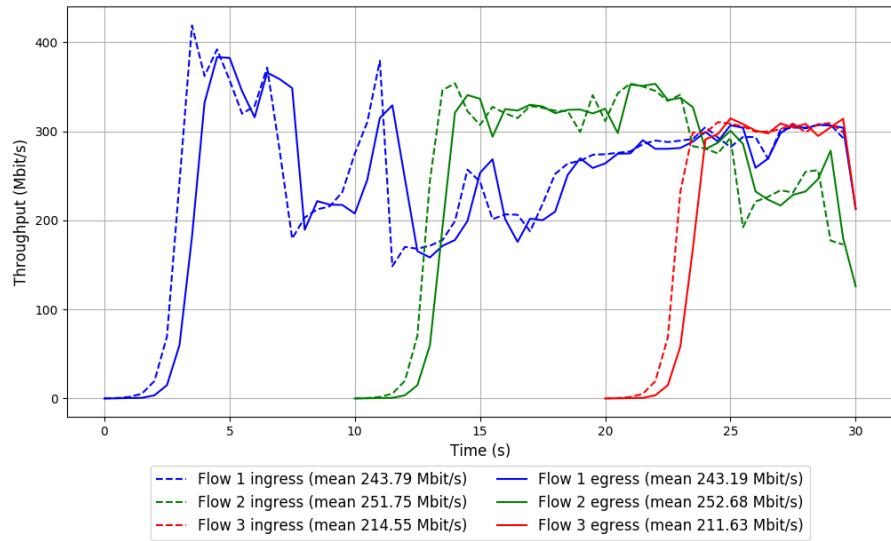


Run 5: Statistics of Copa

```
Start at: 2019-03-19 11:57:59
End at: 2019-03-19 11:58:29
Local clock offset: 0.337 ms
Remote clock offset: -0.36 ms

# Below is generated by plot.py at 2019-03-19 13:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 479.82 Mbit/s
95th percentile per-packet one-way delay: 209.430 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 243.19 Mbit/s
95th percentile per-packet one-way delay: 227.585 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 252.68 Mbit/s
95th percentile per-packet one-way delay: 199.934 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 211.63 Mbit/s
95th percentile per-packet one-way delay: 164.592 ms
Loss rate: 3.99%
```

Run 5: Report of Copa — Data Link

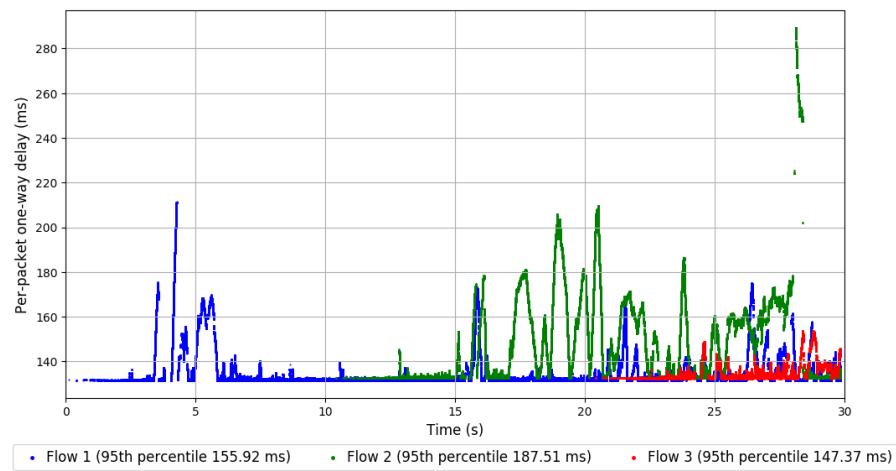
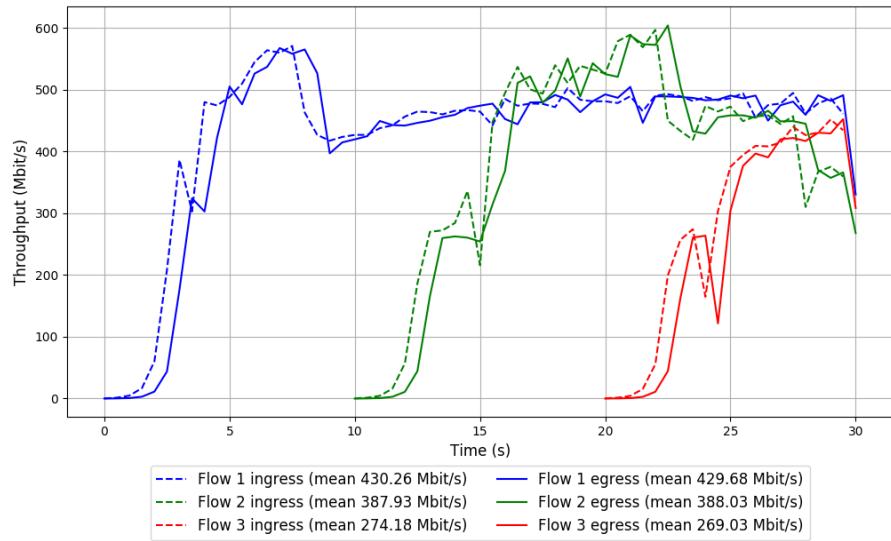


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-03-19 08:58:20
End at: 2019-03-19 08:58:50
Local clock offset: -0.545 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-03-19 13:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 774.80 Mbit/s
95th percentile per-packet one-way delay: 171.112 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 429.68 Mbit/s
95th percentile per-packet one-way delay: 155.922 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 388.03 Mbit/s
95th percentile per-packet one-way delay: 187.509 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 269.03 Mbit/s
95th percentile per-packet one-way delay: 147.366 ms
Loss rate: 4.50%
```

Run 1: Report of TCP Cubic — Data Link

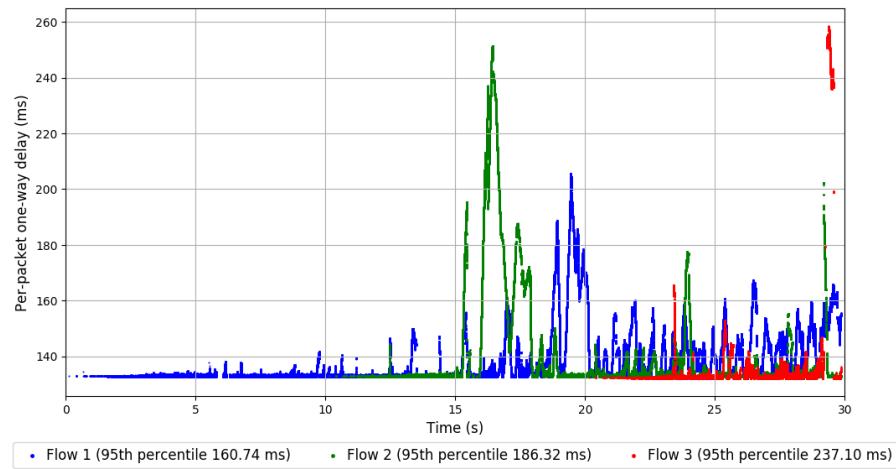
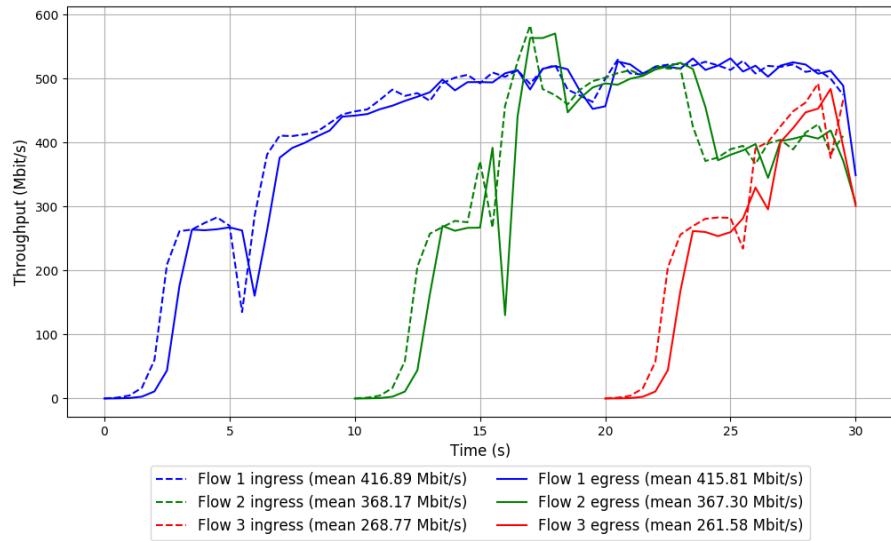


Run 2: Statistics of TCP Cubic

```
Start at: 2019-03-19 09:39:43
End at: 2019-03-19 09:40:13
Local clock offset: -0.075 ms
Remote clock offset: -6.934 ms

# Below is generated by plot.py at 2019-03-19 13:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 744.79 Mbit/s
95th percentile per-packet one-way delay: 171.178 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 415.81 Mbit/s
95th percentile per-packet one-way delay: 160.741 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 367.30 Mbit/s
95th percentile per-packet one-way delay: 186.320 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 261.58 Mbit/s
95th percentile per-packet one-way delay: 237.096 ms
Loss rate: 5.25%
```

Run 2: Report of TCP Cubic — Data Link

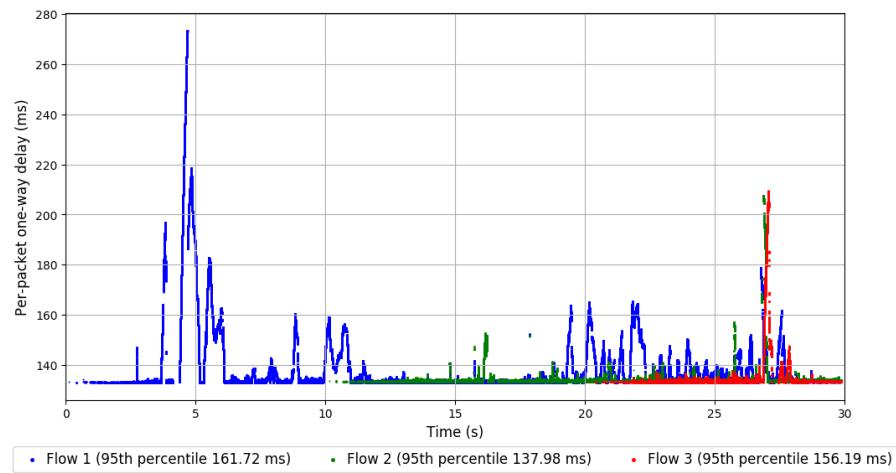
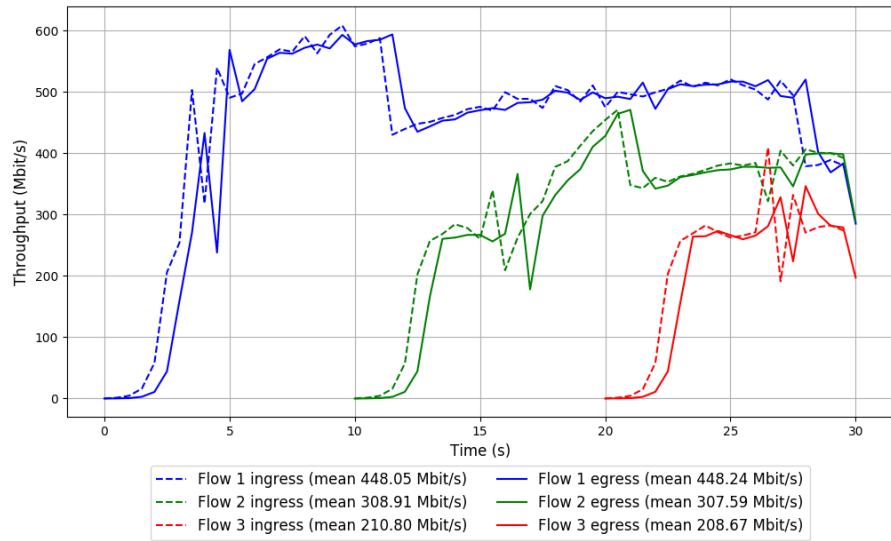


Run 3: Statistics of TCP Cubic

```
Start at: 2019-03-19 10:21:58
End at: 2019-03-19 10:22:28
Local clock offset: 0.007 ms
Remote clock offset: -4.403 ms

# Below is generated by plot.py at 2019-03-19 13:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.31 Mbit/s
95th percentile per-packet one-way delay: 157.478 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 448.24 Mbit/s
95th percentile per-packet one-way delay: 161.721 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 307.59 Mbit/s
95th percentile per-packet one-way delay: 137.978 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 208.67 Mbit/s
95th percentile per-packet one-way delay: 156.189 ms
Loss rate: 3.64%
```

Run 3: Report of TCP Cubic — Data Link

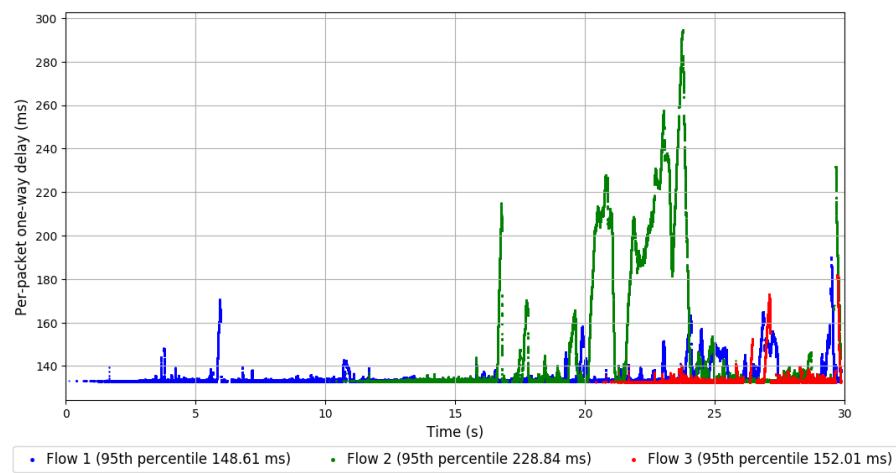
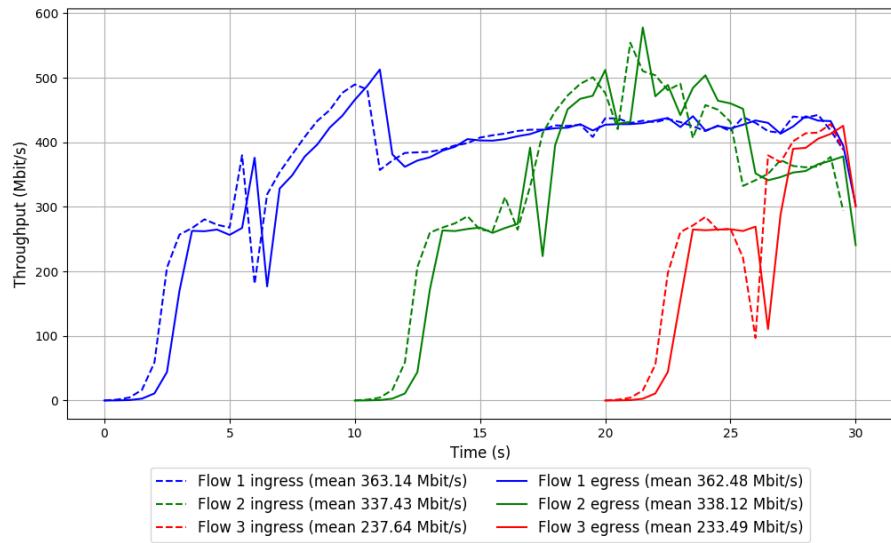


Run 4: Statistics of TCP Cubic

```
Start at: 2019-03-19 11:03:45
End at: 2019-03-19 11:04:15
Local clock offset: 0.005 ms
Remote clock offset: -0.645 ms

# Below is generated by plot.py at 2019-03-19 13:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 662.71 Mbit/s
95th percentile per-packet one-way delay: 202.923 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 362.48 Mbit/s
95th percentile per-packet one-way delay: 148.607 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 338.12 Mbit/s
95th percentile per-packet one-way delay: 228.836 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 233.49 Mbit/s
95th percentile per-packet one-way delay: 152.014 ms
Loss rate: 4.36%
```

Run 4: Report of TCP Cubic — Data Link

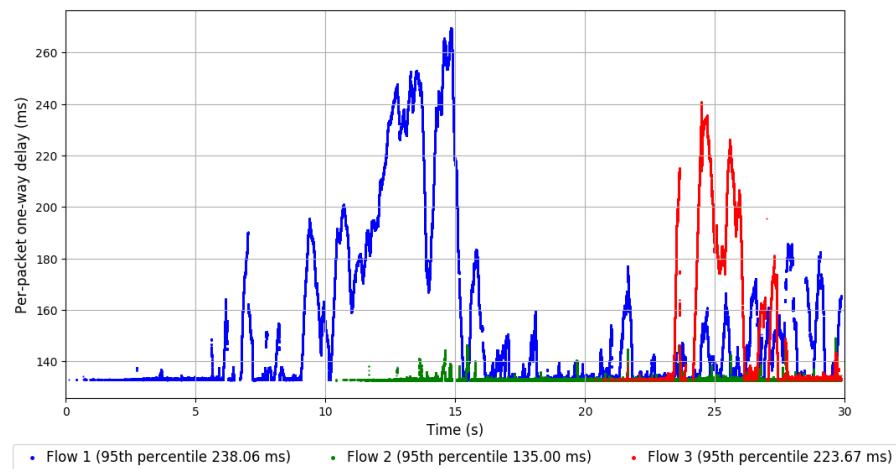
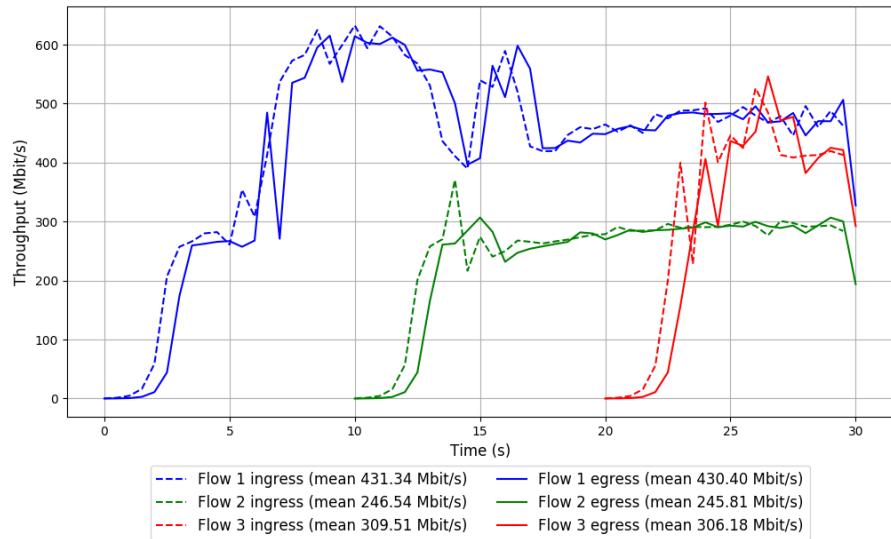


Run 5: Statistics of TCP Cubic

```
Start at: 2019-03-19 11:45:23
End at: 2019-03-19 11:45:53
Local clock offset: -0.089 ms
Remote clock offset: -0.308 ms

# Below is generated by plot.py at 2019-03-19 13:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 693.30 Mbit/s
95th percentile per-packet one-way delay: 230.556 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 430.40 Mbit/s
95th percentile per-packet one-way delay: 238.058 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 245.81 Mbit/s
95th percentile per-packet one-way delay: 135.005 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 306.18 Mbit/s
95th percentile per-packet one-way delay: 223.670 ms
Loss rate: 3.72%
```

Run 5: Report of TCP Cubic — Data Link

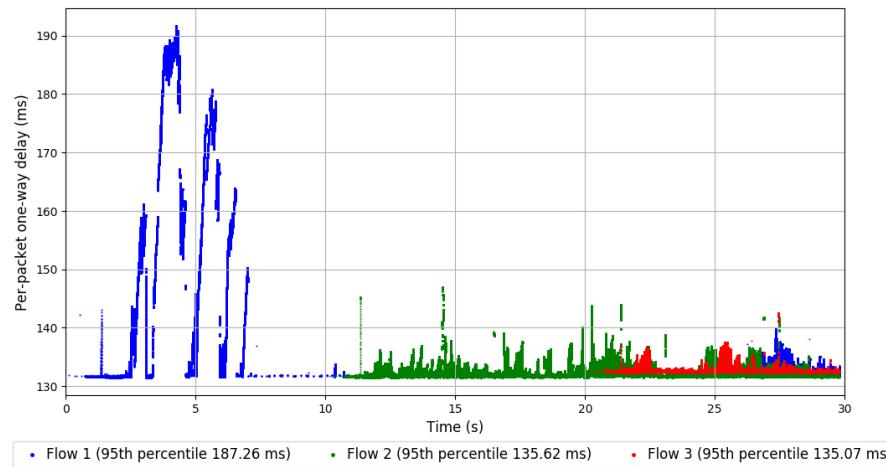
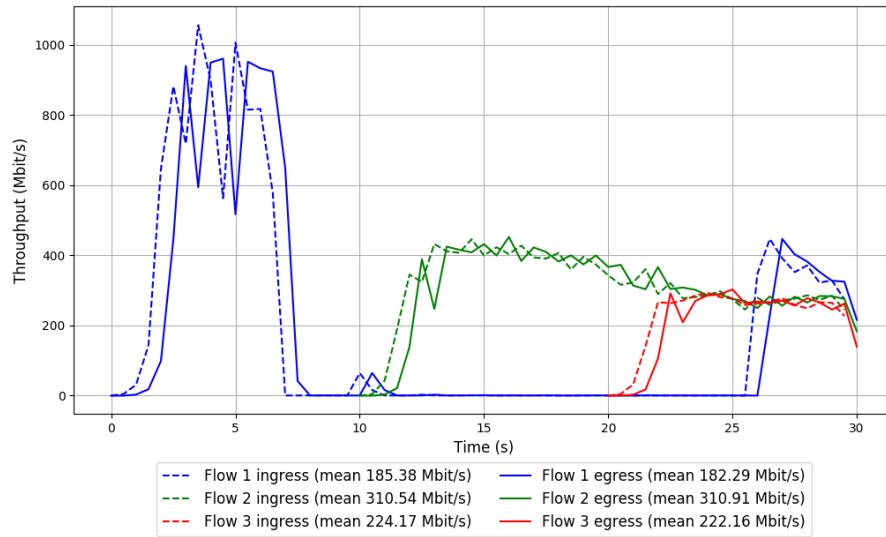


```
Run 1: Statistics of FillP

Start at: 2019-03-19 08:55:06
End at: 2019-03-19 08:55:36
Local clock offset: -0.519 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2019-03-19 13:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 460.55 Mbit/s
95th percentile per-packet one-way delay: 179.004 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 182.29 Mbit/s
95th percentile per-packet one-way delay: 187.263 ms
Loss rate: 2.57%
-- Flow 2:
Average throughput: 310.91 Mbit/s
95th percentile per-packet one-way delay: 135.618 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 222.16 Mbit/s
95th percentile per-packet one-way delay: 135.071 ms
Loss rate: 3.49%
```

Run 1: Report of FillP — Data Link

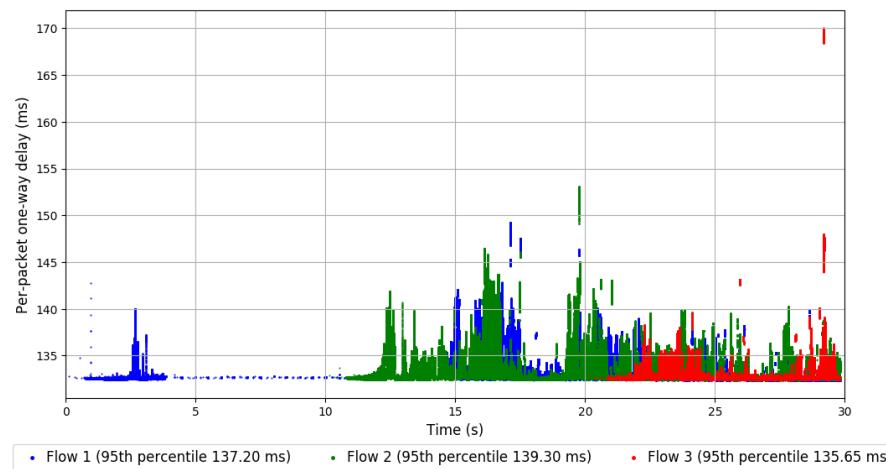
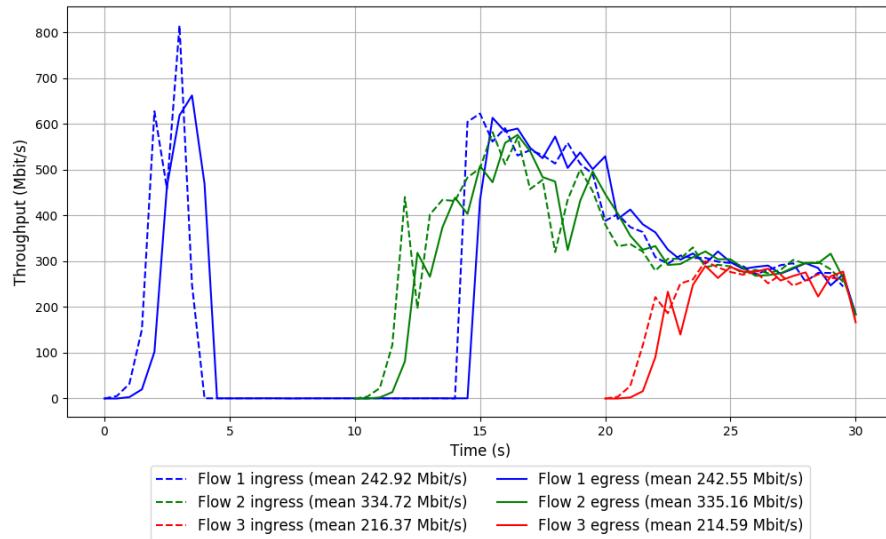


Run 2: Statistics of FillP

```
Start at: 2019-03-19 09:36:23
End at: 2019-03-19 09:36:53
Local clock offset: -0.283 ms
Remote clock offset: -6.037 ms

# Below is generated by plot.py at 2019-03-19 13:07:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 534.48 Mbit/s
95th percentile per-packet one-way delay: 137.930 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 242.55 Mbit/s
95th percentile per-packet one-way delay: 137.198 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 335.16 Mbit/s
95th percentile per-packet one-way delay: 139.299 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 214.59 Mbit/s
95th percentile per-packet one-way delay: 135.650 ms
Loss rate: 3.66%
```

Run 2: Report of FillP — Data Link

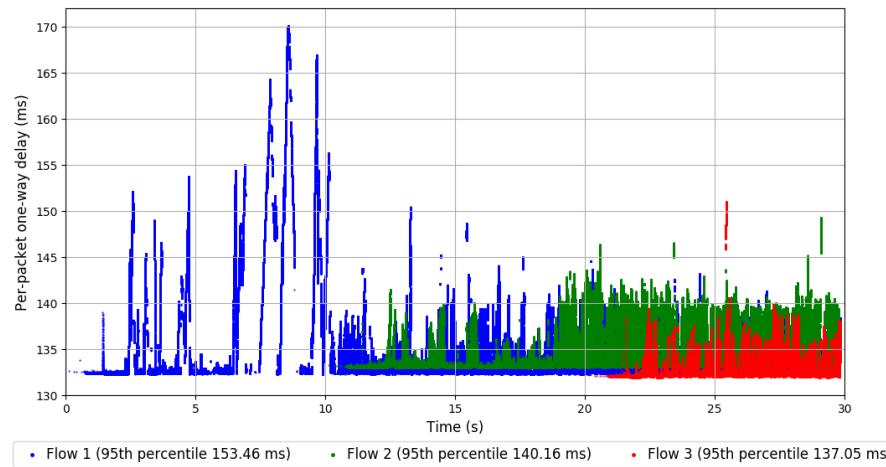
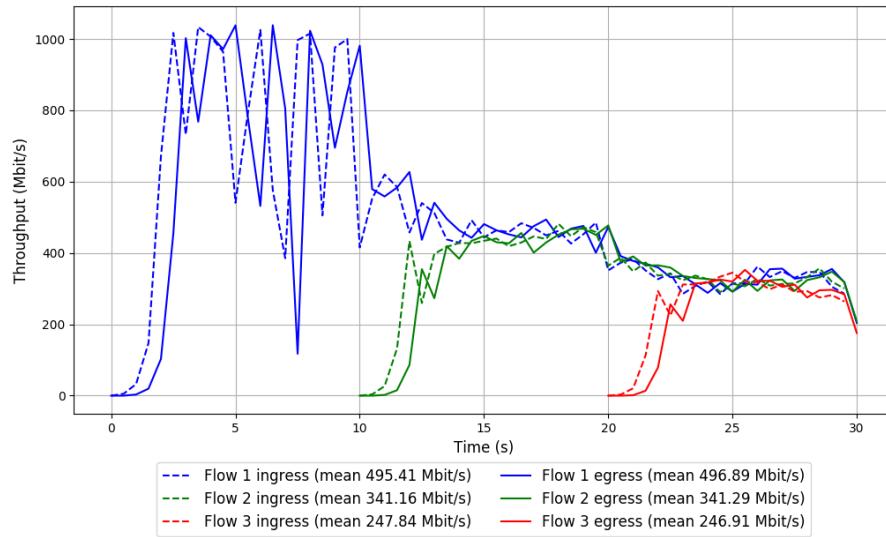


Run 3: Statistics of FillP

```
Start at: 2019-03-19 10:18:02
End at: 2019-03-19 10:18:32
Local clock offset: -0.0 ms
Remote clock offset: -5.441 ms

# Below is generated by plot.py at 2019-03-19 13:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 803.30 Mbit/s
95th percentile per-packet one-way delay: 149.504 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 496.89 Mbit/s
95th percentile per-packet one-way delay: 153.460 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 341.29 Mbit/s
95th percentile per-packet one-way delay: 140.160 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 246.91 Mbit/s
95th percentile per-packet one-way delay: 137.051 ms
Loss rate: 3.03%
```

Run 3: Report of FillP — Data Link

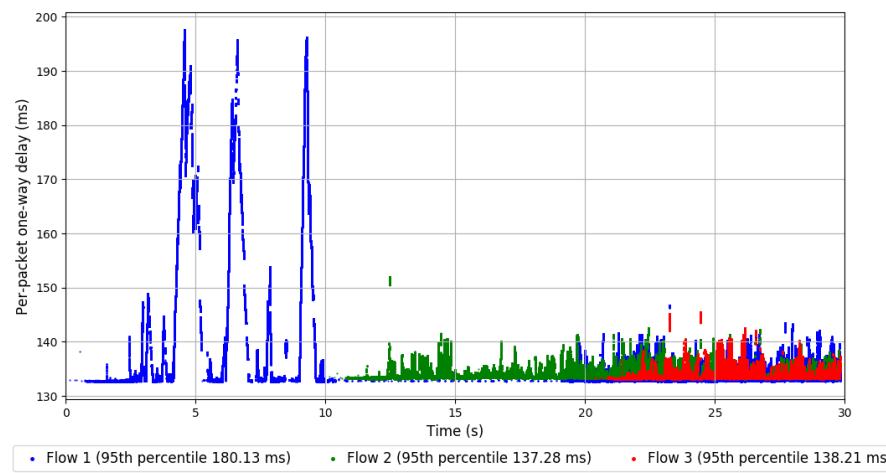
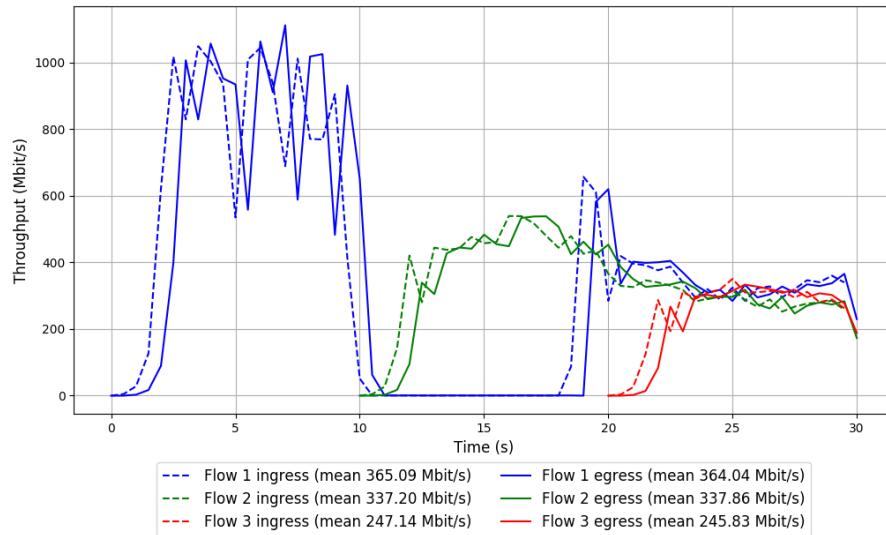


Run 4: Statistics of FillP

```
Start at: 2019-03-19 11:00:19
End at: 2019-03-19 11:00:49
Local clock offset: 0.099 ms
Remote clock offset: -0.792 ms

# Below is generated by plot.py at 2019-03-19 13:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 667.75 Mbit/s
95th percentile per-packet one-way delay: 170.290 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 364.04 Mbit/s
95th percentile per-packet one-way delay: 180.133 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 337.86 Mbit/s
95th percentile per-packet one-way delay: 137.285 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 245.83 Mbit/s
95th percentile per-packet one-way delay: 138.209 ms
Loss rate: 3.11%
```

Run 4: Report of FillP — Data Link

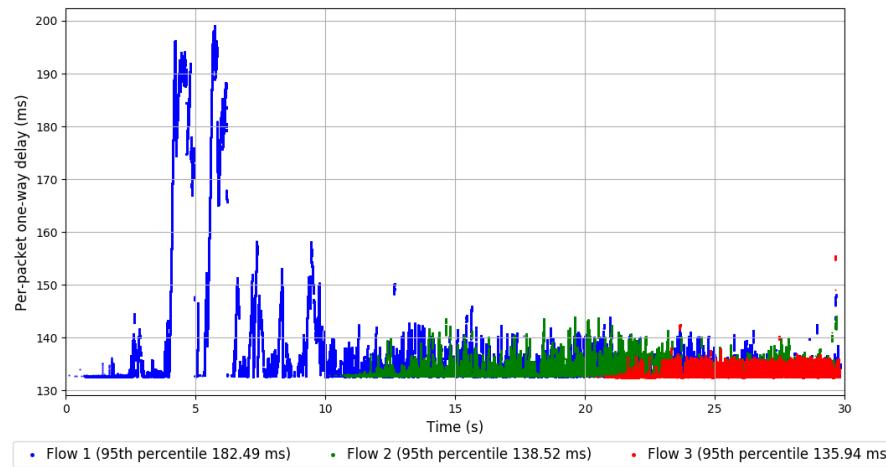
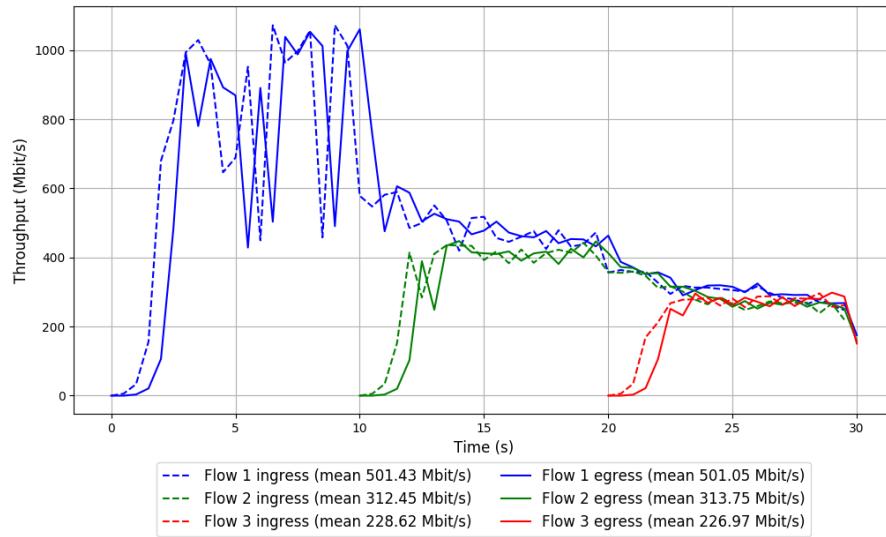


Run 5: Statistics of FillP

```
Start at: 2019-03-19 11:41:46
End at: 2019-03-19 11:42:16
Local clock offset: -0.418 ms
Remote clock offset: -0.313 ms

# Below is generated by plot.py at 2019-03-19 13:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 782.49 Mbit/s
95th percentile per-packet one-way delay: 174.362 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 501.05 Mbit/s
95th percentile per-packet one-way delay: 182.485 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 313.75 Mbit/s
95th percentile per-packet one-way delay: 138.524 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 226.97 Mbit/s
95th percentile per-packet one-way delay: 135.936 ms
Loss rate: 3.57%
```

Run 5: Report of FillP — Data Link

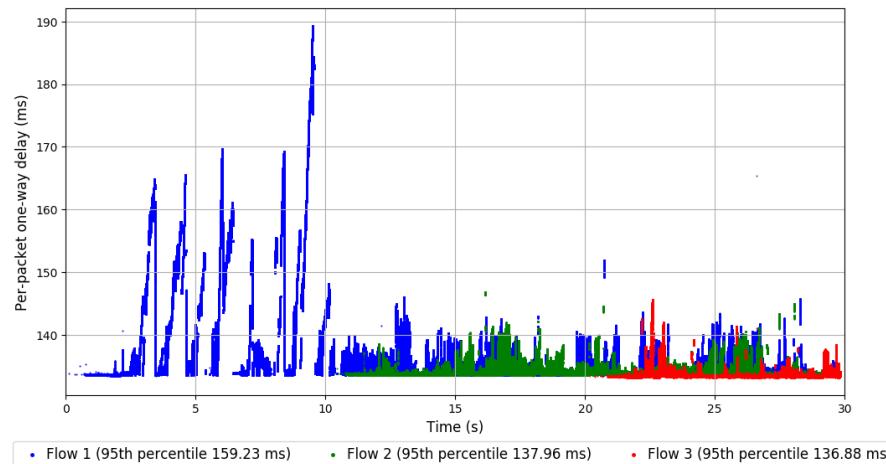
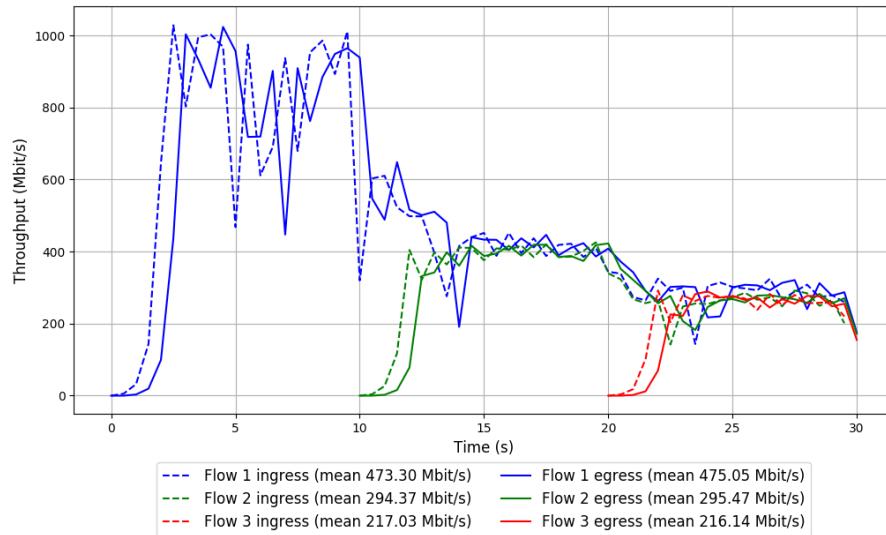


Run 1: Statistics of FillP-Sheep

```
Start at: 2019-03-19 08:50:38
End at: 2019-03-19 08:51:08
Local clock offset: 0.388 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2019-03-19 13:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 740.59 Mbit/s
95th percentile per-packet one-way delay: 155.716 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 475.05 Mbit/s
95th percentile per-packet one-way delay: 159.231 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 295.47 Mbit/s
95th percentile per-packet one-way delay: 137.959 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 216.14 Mbit/s
95th percentile per-packet one-way delay: 136.876 ms
Loss rate: 3.08%
```

Run 1: Report of FillP-Sheep — Data Link

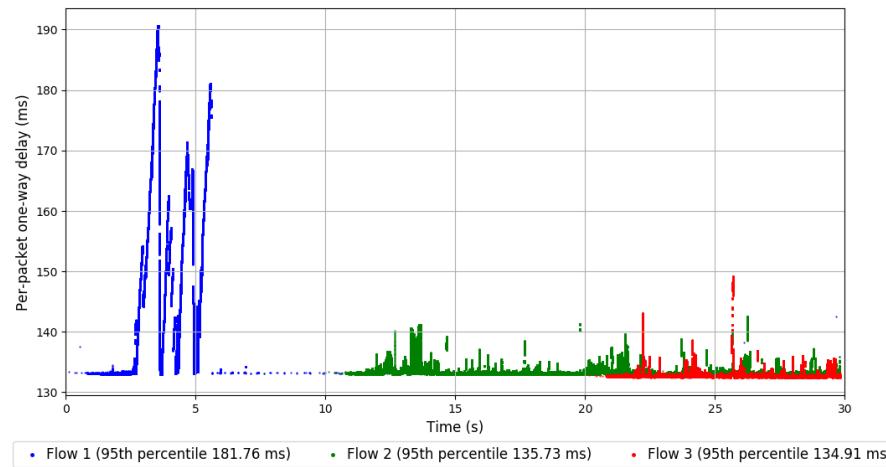
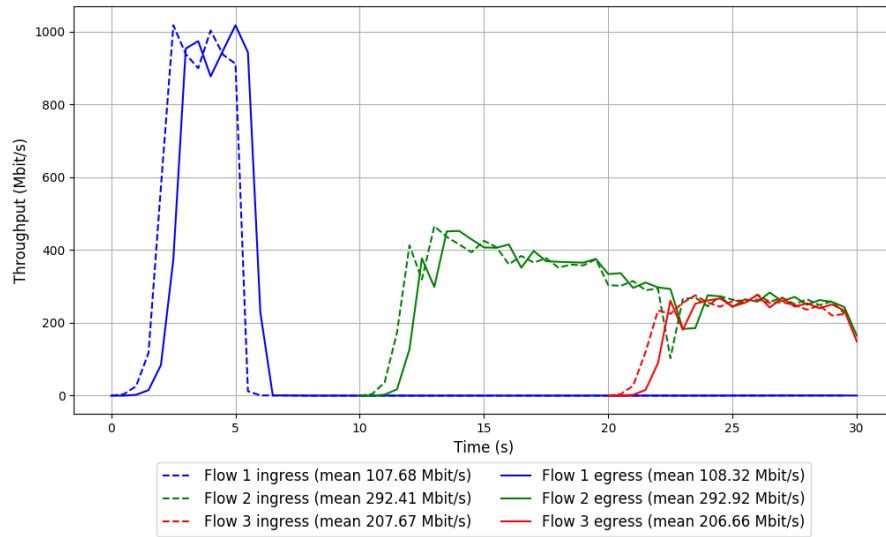


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-03-19 09:32:29
End at: 2019-03-19 09:32:59
Local clock offset: 0.147 ms
Remote clock offset: -4.933 ms

# Below is generated by plot.py at 2019-03-19 13:14:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 369.49 Mbit/s
95th percentile per-packet one-way delay: 167.956 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 108.32 Mbit/s
95th percentile per-packet one-way delay: 181.765 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 292.92 Mbit/s
95th percentile per-packet one-way delay: 135.729 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 206.66 Mbit/s
95th percentile per-packet one-way delay: 134.914 ms
Loss rate: 3.03%
```

Run 2: Report of FillP-Sheep — Data Link

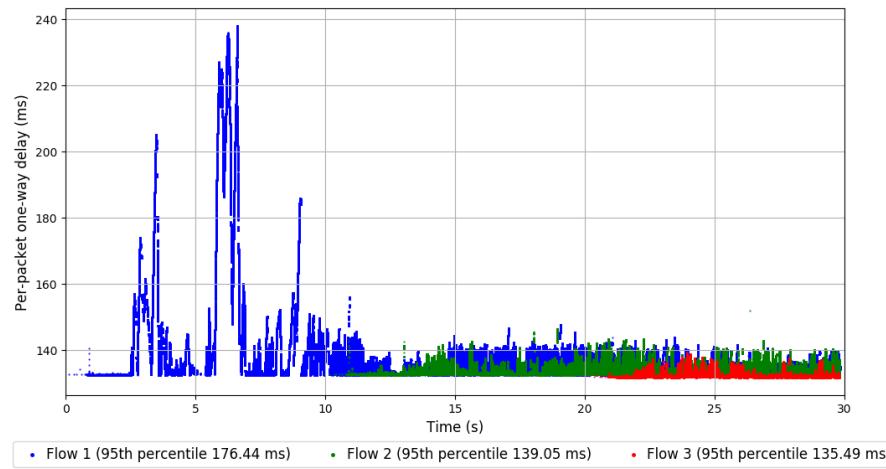
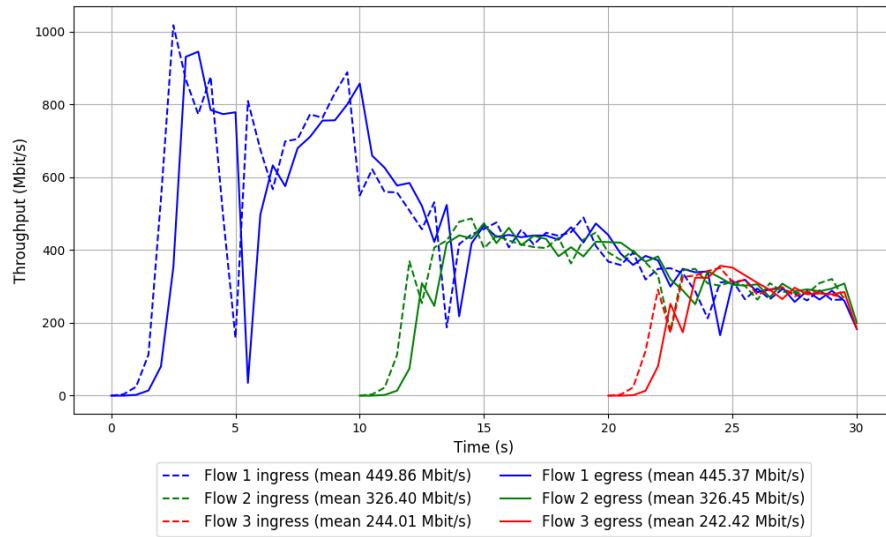


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-03-19 10:13:48
End at: 2019-03-19 10:14:18
Local clock offset: -0.236 ms
Remote clock offset: -4.915 ms

# Below is generated by plot.py at 2019-03-19 13:16:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 740.46 Mbit/s
95th percentile per-packet one-way delay: 155.623 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 445.37 Mbit/s
95th percentile per-packet one-way delay: 176.438 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 326.45 Mbit/s
95th percentile per-packet one-way delay: 139.053 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 242.42 Mbit/s
95th percentile per-packet one-way delay: 135.490 ms
Loss rate: 3.49%
```

Run 3: Report of FillP-Sheep — Data Link

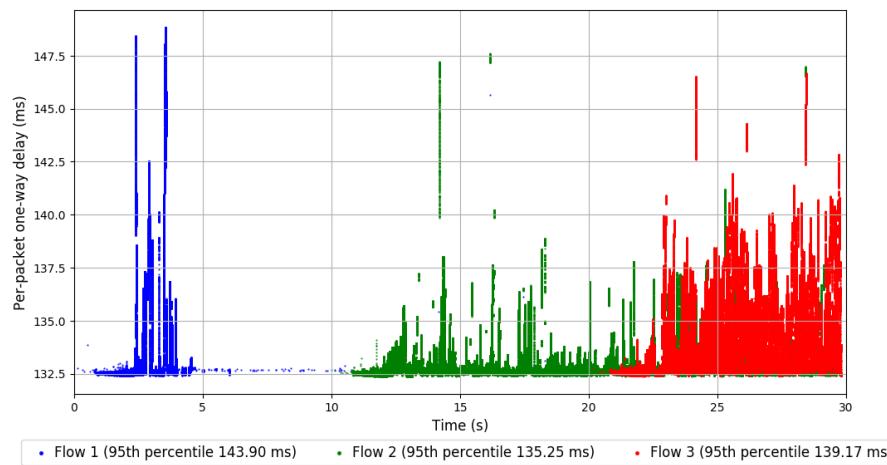
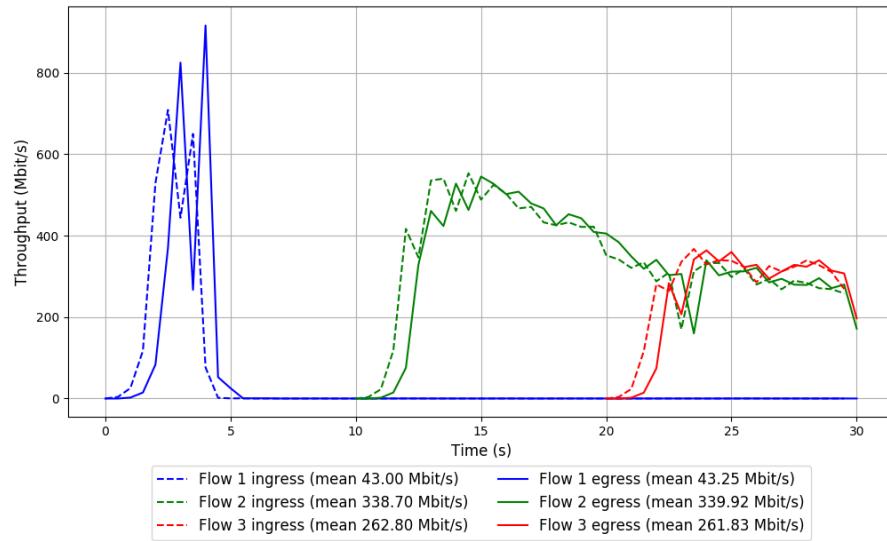


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-03-19 10:56:32
End at: 2019-03-19 10:57:02
Local clock offset: -0.567 ms
Remote clock offset: -1.039 ms

# Below is generated by plot.py at 2019-03-19 13:16:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.29 Mbit/s
95th percentile per-packet one-way delay: 137.445 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 43.25 Mbit/s
95th percentile per-packet one-way delay: 143.897 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 339.92 Mbit/s
95th percentile per-packet one-way delay: 135.245 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 261.83 Mbit/s
95th percentile per-packet one-way delay: 139.169 ms
Loss rate: 3.16%
```

Run 4: Report of FillP-Sheep — Data Link

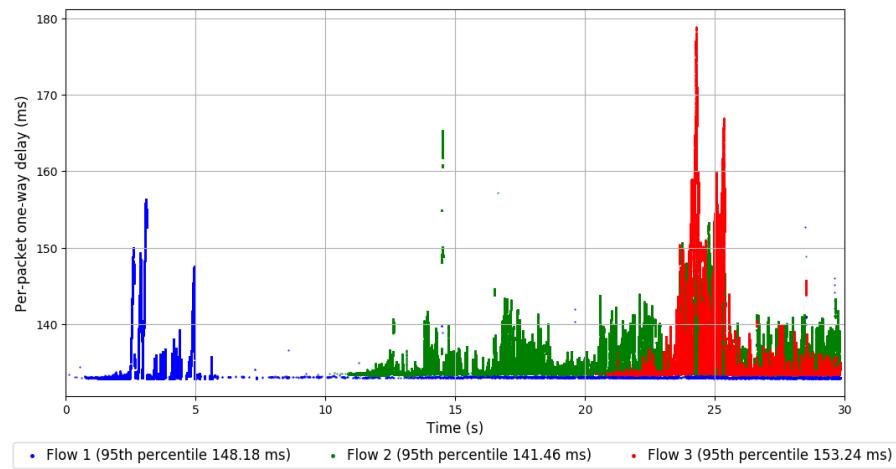
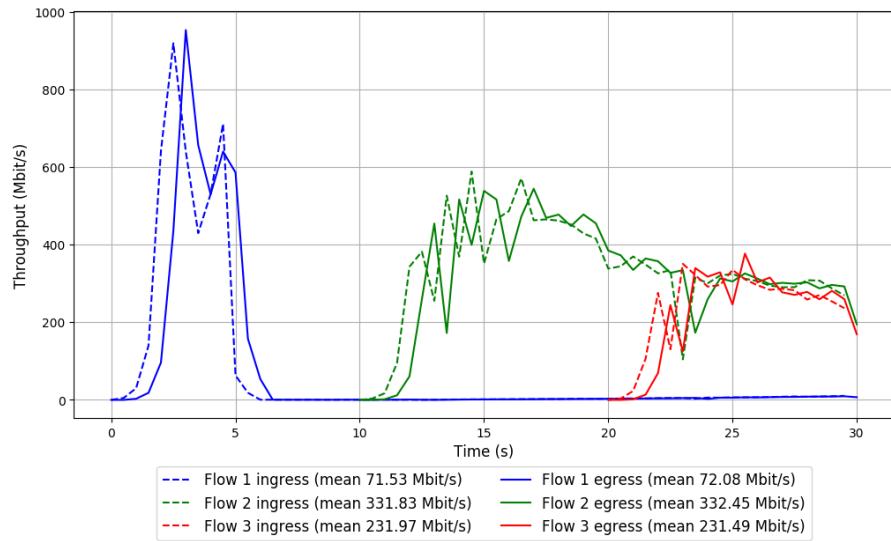


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-03-19 11:37:59
End at: 2019-03-19 11:38:29
Local clock offset: 0.14 ms
Remote clock offset: -0.69 ms

# Below is generated by plot.py at 2019-03-19 13:16:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.64 Mbit/s
95th percentile per-packet one-way delay: 145.780 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 72.08 Mbit/s
95th percentile per-packet one-way delay: 148.183 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 332.45 Mbit/s
95th percentile per-packet one-way delay: 141.464 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 231.49 Mbit/s
95th percentile per-packet one-way delay: 153.244 ms
Loss rate: 2.95%
```

Run 5: Report of FillP-Sheep — Data Link

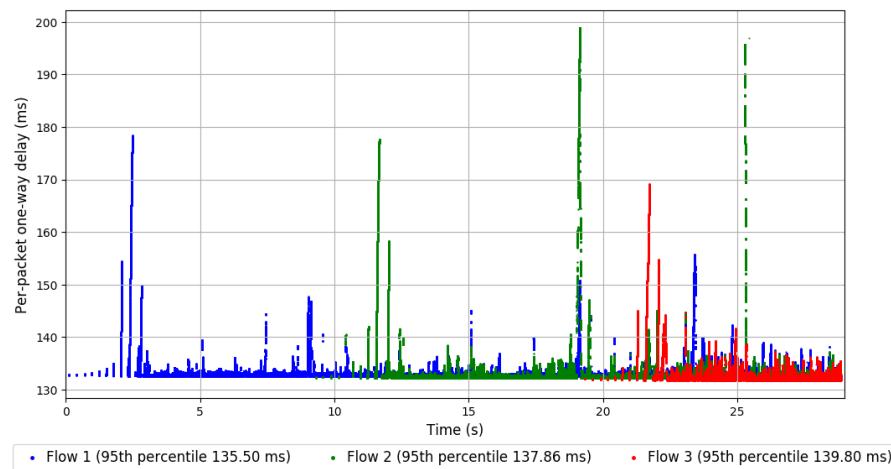
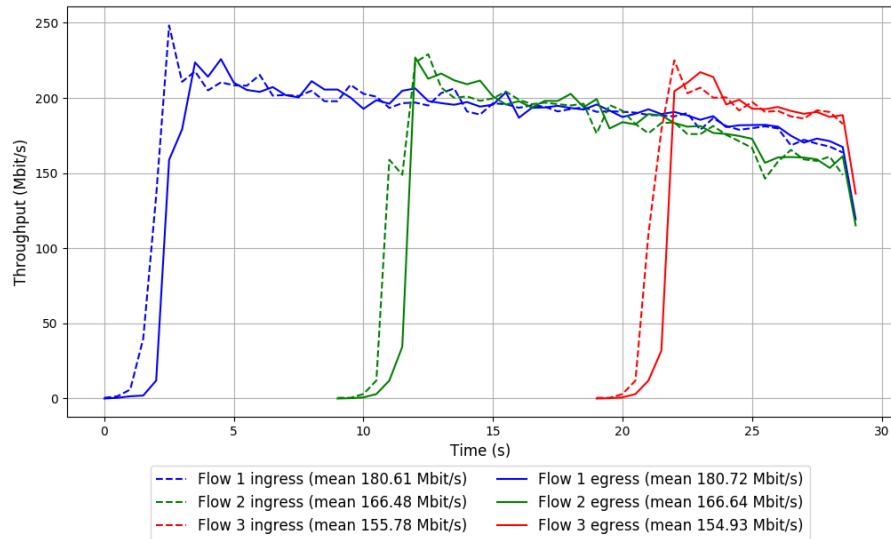


Run 1: Statistics of Indigo

```
Start at: 2019-03-19 09:24:25
End at: 2019-03-19 09:24:55
Local clock offset: -0.446 ms
Remote clock offset: -2.68 ms

# Below is generated by plot.py at 2019-03-19 13:19:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.47 Mbit/s
95th percentile per-packet one-way delay: 136.540 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 180.72 Mbit/s
95th percentile per-packet one-way delay: 135.504 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 166.64 Mbit/s
95th percentile per-packet one-way delay: 137.860 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 154.93 Mbit/s
95th percentile per-packet one-way delay: 139.803 ms
Loss rate: 3.23%
```

Run 1: Report of Indigo — Data Link

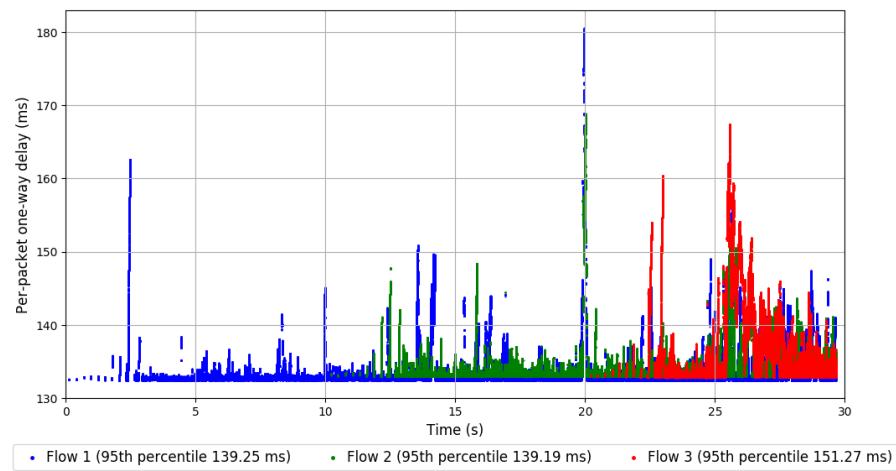
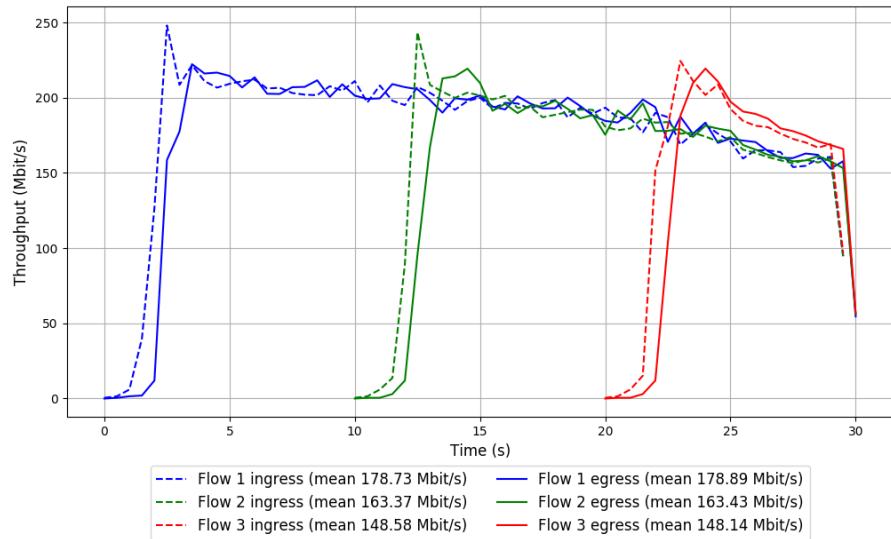


Run 2: Statistics of Indigo

```
Start at: 2019-03-19 10:05:58
End at: 2019-03-19 10:06:28
Local clock offset: 0.123 ms
Remote clock offset: -4.073 ms

# Below is generated by plot.py at 2019-03-19 13:19:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 334.04 Mbit/s
95th percentile per-packet one-way delay: 141.871 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 178.89 Mbit/s
95th percentile per-packet one-way delay: 139.246 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 163.43 Mbit/s
95th percentile per-packet one-way delay: 139.192 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 148.14 Mbit/s
95th percentile per-packet one-way delay: 151.270 ms
Loss rate: 3.01%
```

Run 2: Report of Indigo — Data Link

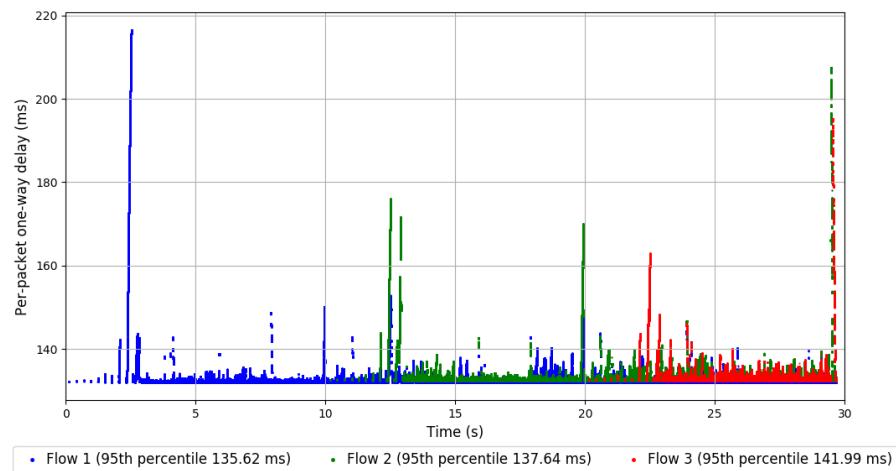
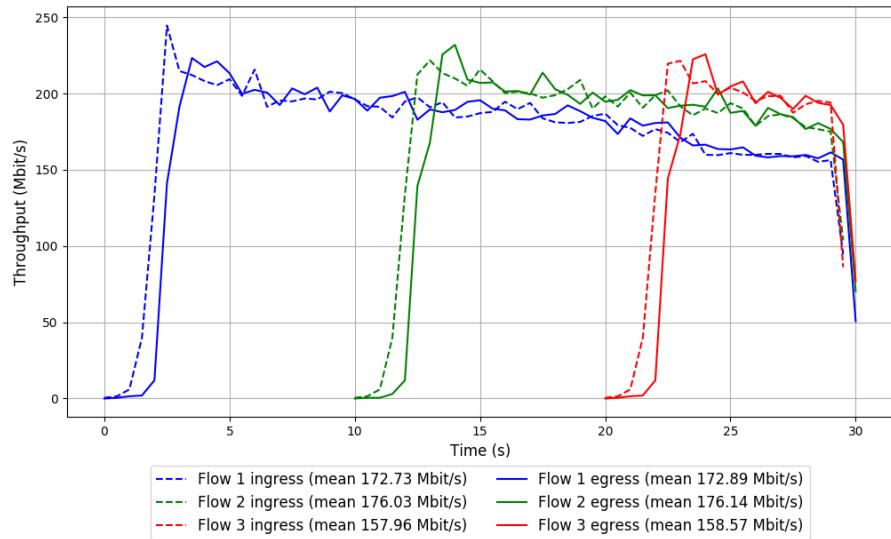


Run 3: Statistics of Indigo

```
Start at: 2019-03-19 10:48:44
End at: 2019-03-19 10:49:14
Local clock offset: -0.542 ms
Remote clock offset: -1.24 ms

# Below is generated by plot.py at 2019-03-19 13:23:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.18 Mbit/s
95th percentile per-packet one-way delay: 137.134 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 172.89 Mbit/s
95th percentile per-packet one-way delay: 135.615 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 176.14 Mbit/s
95th percentile per-packet one-way delay: 137.639 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 158.57 Mbit/s
95th percentile per-packet one-way delay: 141.994 ms
Loss rate: 2.38%
```

Run 3: Report of Indigo — Data Link

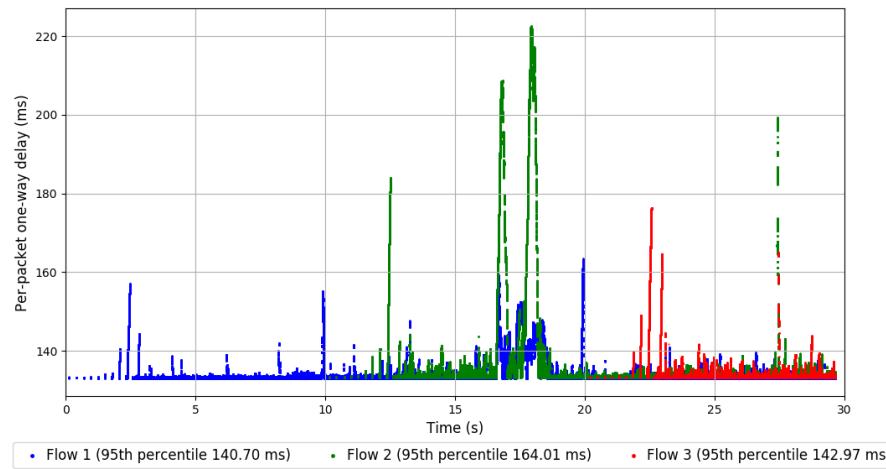
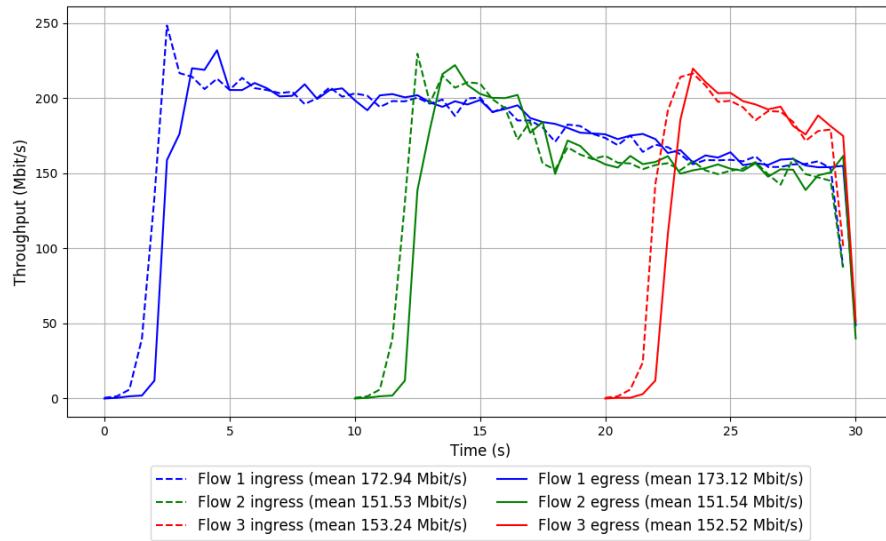


Run 4: Statistics of Indigo

```
Start at: 2019-03-19 11:30:02
End at: 2019-03-19 11:30:32
Local clock offset: 0.199 ms
Remote clock offset: -0.561 ms

# Below is generated by plot.py at 2019-03-19 13:25:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 322.04 Mbit/s
95th percentile per-packet one-way delay: 142.996 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 173.12 Mbit/s
95th percentile per-packet one-way delay: 140.703 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 151.54 Mbit/s
95th percentile per-packet one-way delay: 164.010 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 152.52 Mbit/s
95th percentile per-packet one-way delay: 142.965 ms
Loss rate: 3.18%
```

Run 4: Report of Indigo — Data Link

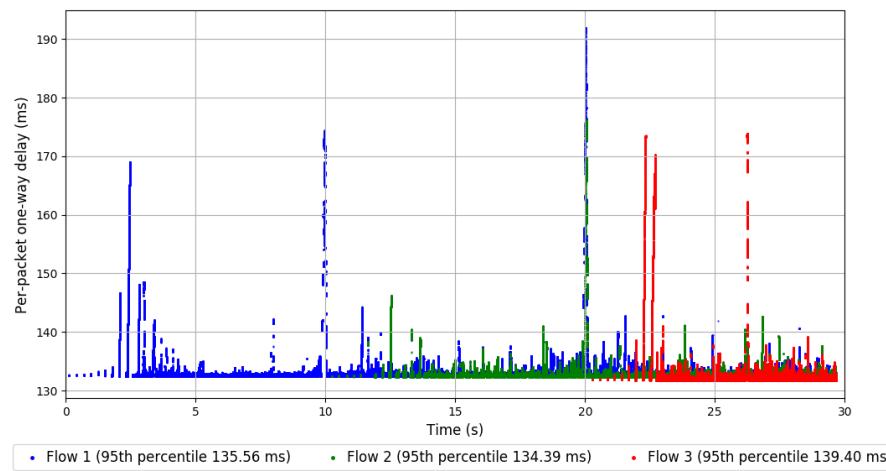
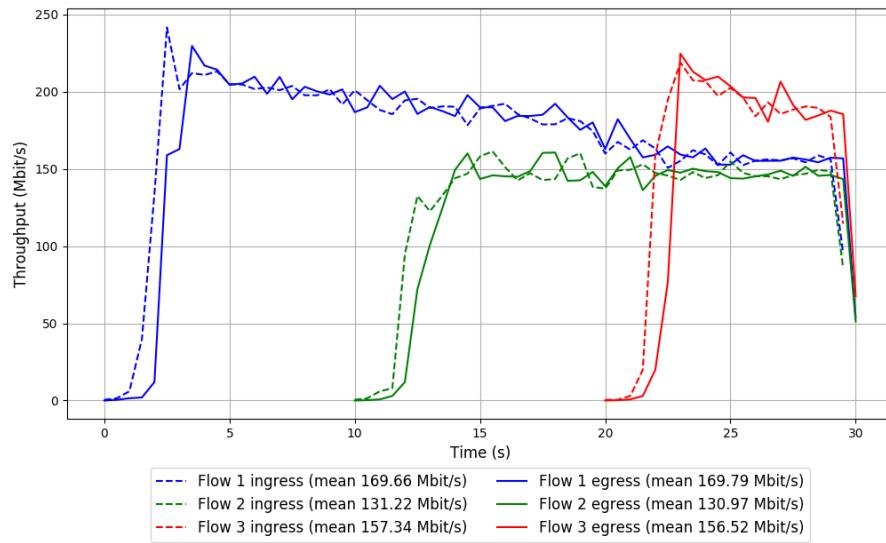


Run 5: Statistics of Indigo

```
Start at: 2019-03-19 12:10:43
End at: 2019-03-19 12:11:13
Local clock offset: -0.426 ms
Remote clock offset: -0.236 ms

# Below is generated by plot.py at 2019-03-19 13:25:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.55 Mbit/s
95th percentile per-packet one-way delay: 135.440 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 169.79 Mbit/s
95th percentile per-packet one-way delay: 135.563 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 130.97 Mbit/s
95th percentile per-packet one-way delay: 134.390 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 156.52 Mbit/s
95th percentile per-packet one-way delay: 139.401 ms
Loss rate: 3.26%
```

Run 5: Report of Indigo — Data Link

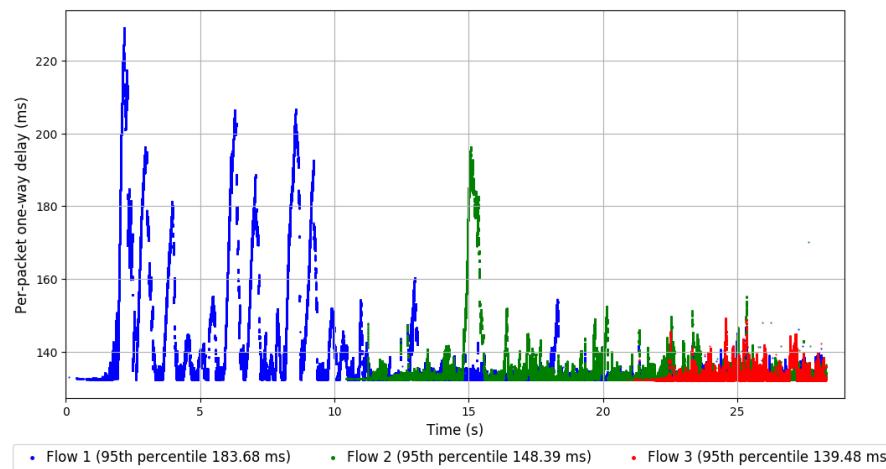
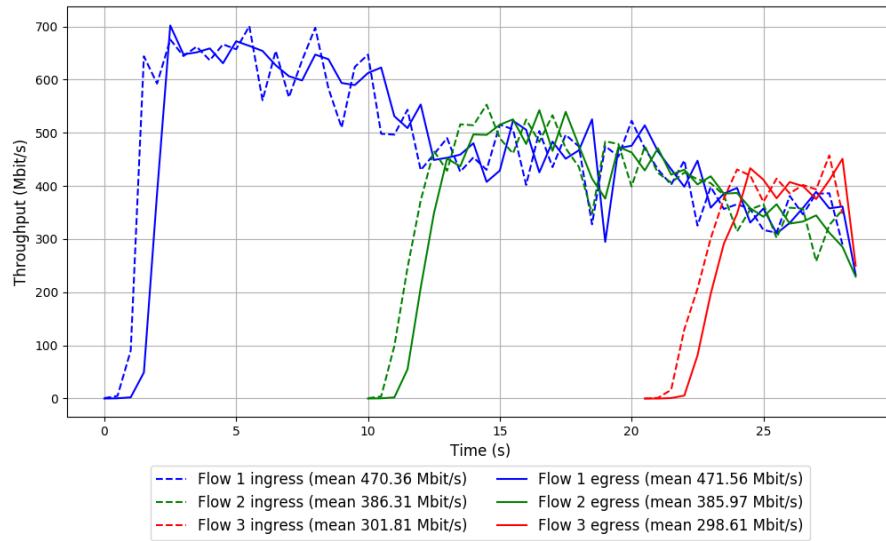


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-03-19 09:15:47
End at: 2019-03-19 09:16:17
Local clock offset: -0.429 ms
Remote clock offset: -0.255 ms

# Below is generated by plot.py at 2019-03-19 13:29:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 798.75 Mbit/s
95th percentile per-packet one-way delay: 176.477 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 471.56 Mbit/s
95th percentile per-packet one-way delay: 183.678 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 385.97 Mbit/s
95th percentile per-packet one-way delay: 148.388 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 298.61 Mbit/s
95th percentile per-packet one-way delay: 139.481 ms
Loss rate: 4.58%
```

Run 1: Report of Indigo-MusesC3 — Data Link

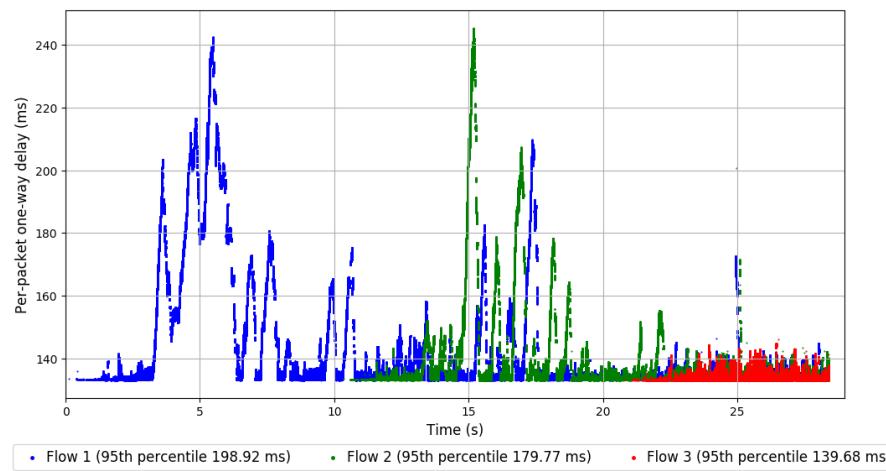
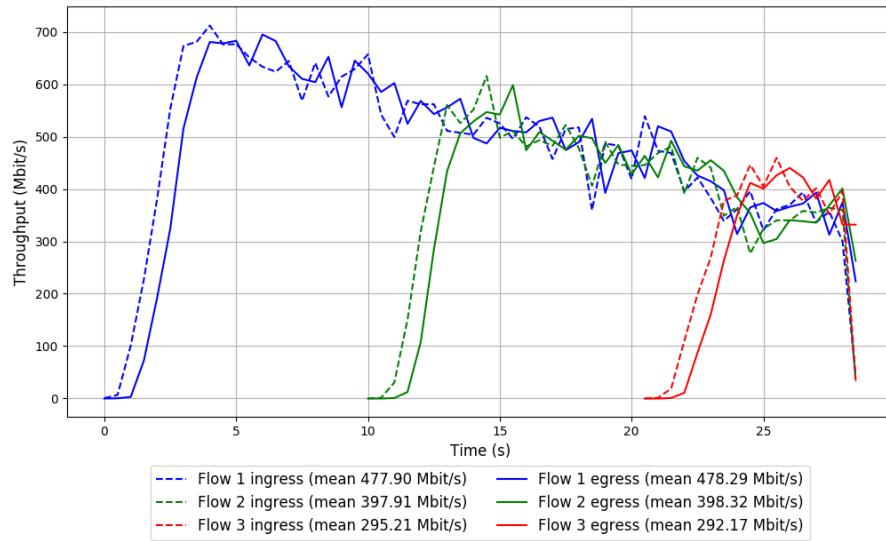


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-03-19 09:57:26
End at: 2019-03-19 09:57:56
Local clock offset: 0.362 ms
Remote clock offset: -4.084 ms

# Below is generated by plot.py at 2019-03-19 13:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 811.29 Mbit/s
95th percentile per-packet one-way delay: 192.764 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 478.29 Mbit/s
95th percentile per-packet one-way delay: 198.917 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 398.32 Mbit/s
95th percentile per-packet one-way delay: 179.768 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 292.17 Mbit/s
95th percentile per-packet one-way delay: 139.678 ms
Loss rate: 4.38%
```

Run 2: Report of Indigo-MusesC3 — Data Link

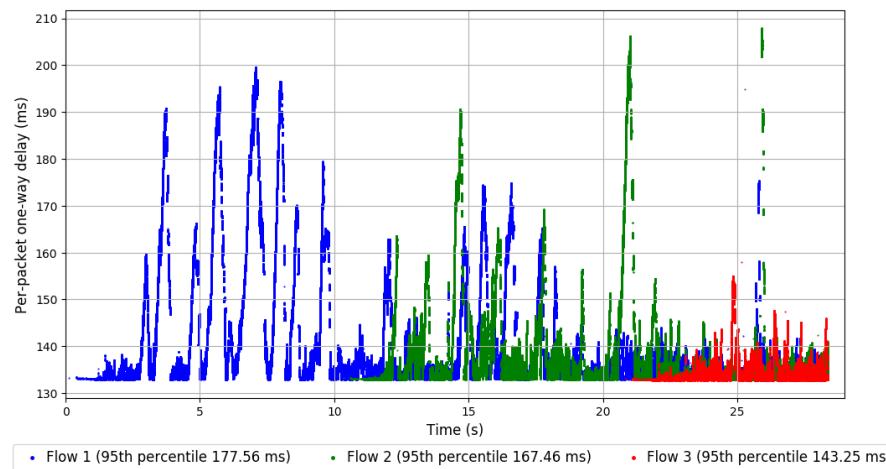
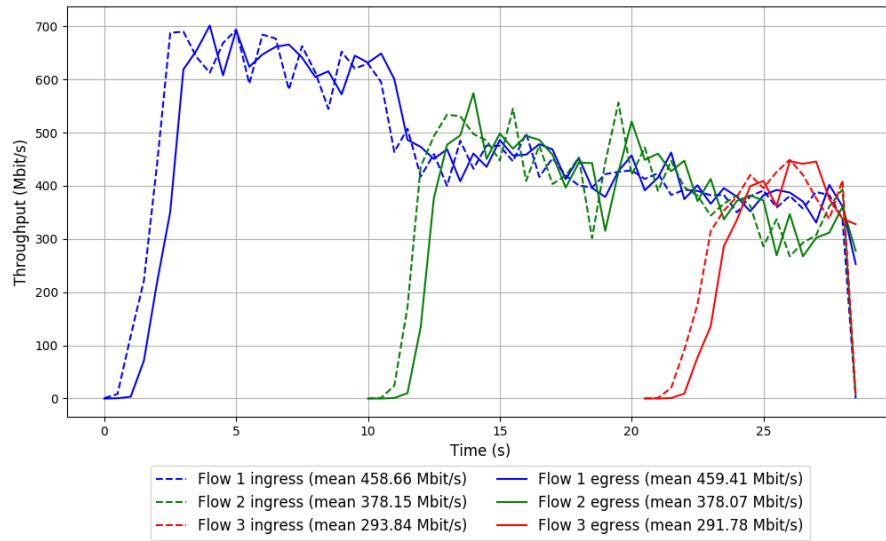


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-03-19 10:40:23
End at: 2019-03-19 10:40:53
Local clock offset: -0.287 ms
Remote clock offset: -1.253 ms

# Below is generated by plot.py at 2019-03-19 13:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 778.58 Mbit/s
95th percentile per-packet one-way delay: 172.234 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 459.41 Mbit/s
95th percentile per-packet one-way delay: 177.561 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 378.07 Mbit/s
95th percentile per-packet one-way delay: 167.463 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 291.78 Mbit/s
95th percentile per-packet one-way delay: 143.255 ms
Loss rate: 4.09%
```

Run 3: Report of Indigo-MusesC3 — Data Link

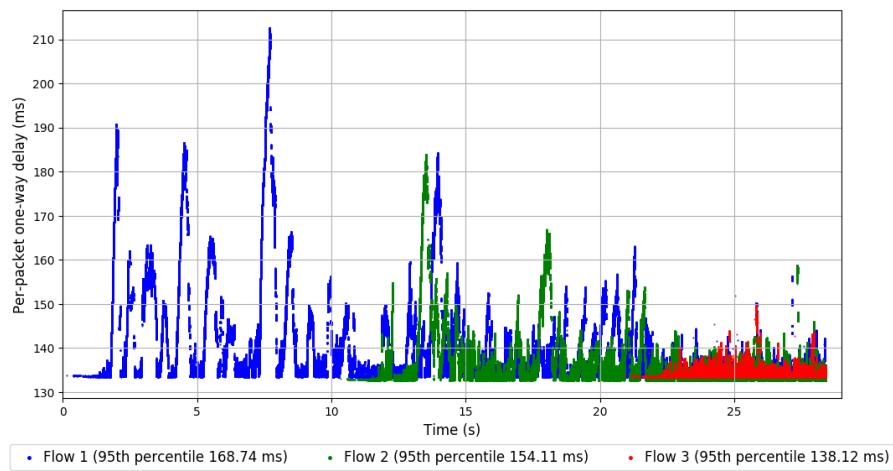
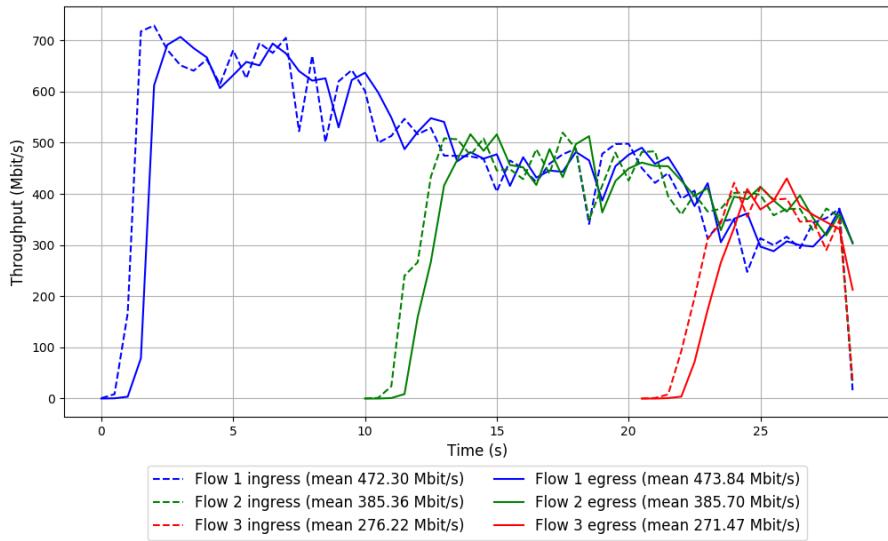


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-03-19 11:21:11
End at: 2019-03-19 11:21:41
Local clock offset: 0.169 ms
Remote clock offset: -0.628 ms

# Below is generated by plot.py at 2019-03-19 13:34:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 792.39 Mbit/s
95th percentile per-packet one-way delay: 161.789 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 473.84 Mbit/s
95th percentile per-packet one-way delay: 168.740 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 385.70 Mbit/s
95th percentile per-packet one-way delay: 154.114 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 271.47 Mbit/s
95th percentile per-packet one-way delay: 138.117 ms
Loss rate: 5.10%
```

Run 4: Report of Indigo-MusesC3 — Data Link

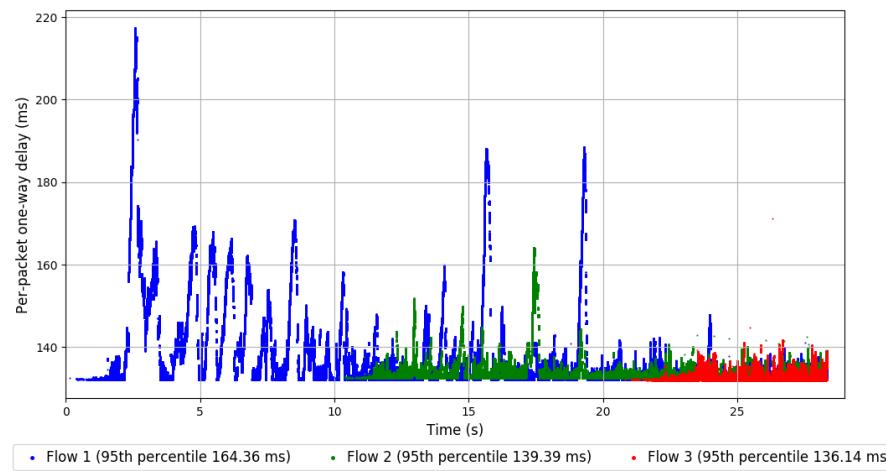
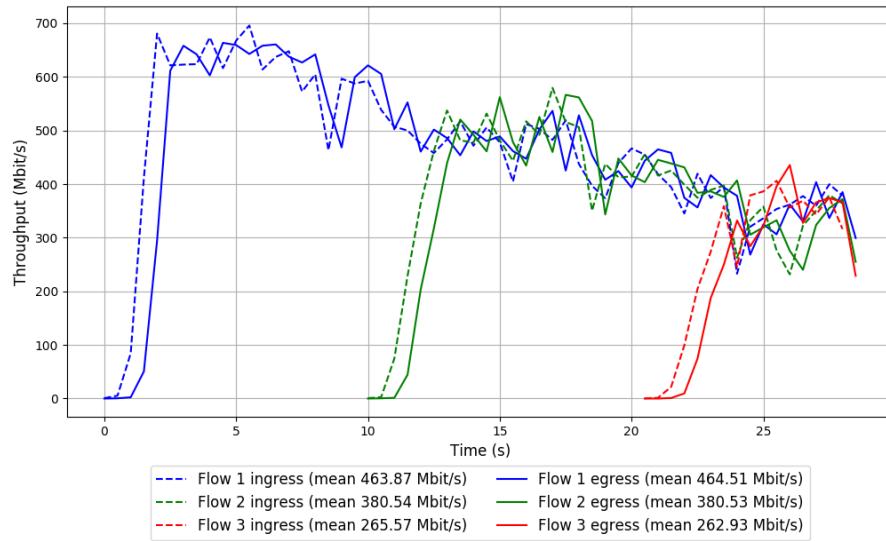


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-03-19 12:02:30
End at: 2019-03-19 12:03:00
Local clock offset: -0.371 ms
Remote clock offset: -0.344 ms

# Below is generated by plot.py at 2019-03-19 13:34:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 780.04 Mbit/s
95th percentile per-packet one-way delay: 159.341 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 464.51 Mbit/s
95th percentile per-packet one-way delay: 164.363 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 380.53 Mbit/s
95th percentile per-packet one-way delay: 139.392 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 262.93 Mbit/s
95th percentile per-packet one-way delay: 136.140 ms
Loss rate: 4.41%
```

Run 5: Report of Indigo-MusesC3 — Data Link

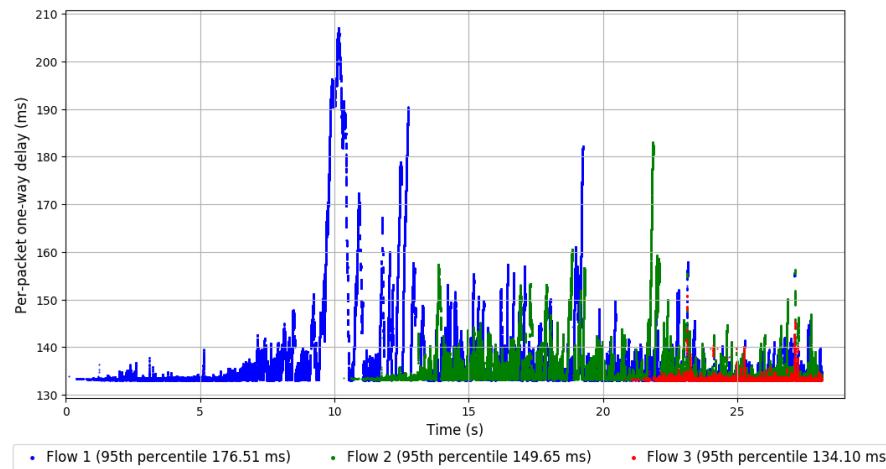
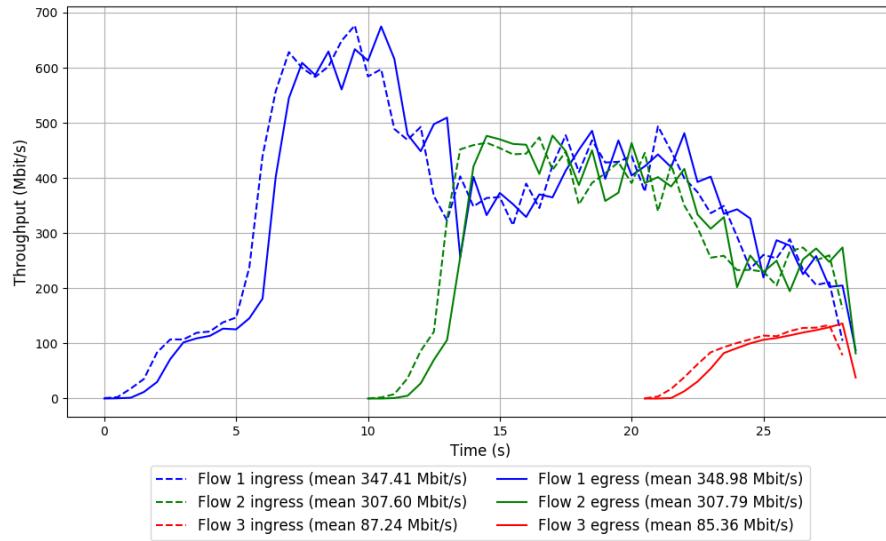


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-03-19 08:48:46
End at: 2019-03-19 08:49:16
Local clock offset: 0.306 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2019-03-19 13:35:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 566.74 Mbit/s
95th percentile per-packet one-way delay: 162.365 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 348.98 Mbit/s
95th percentile per-packet one-way delay: 176.510 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 307.79 Mbit/s
95th percentile per-packet one-way delay: 149.647 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 85.36 Mbit/s
95th percentile per-packet one-way delay: 134.096 ms
Loss rate: 5.61%
```

Run 1: Report of Indigo-MusesC5 — Data Link

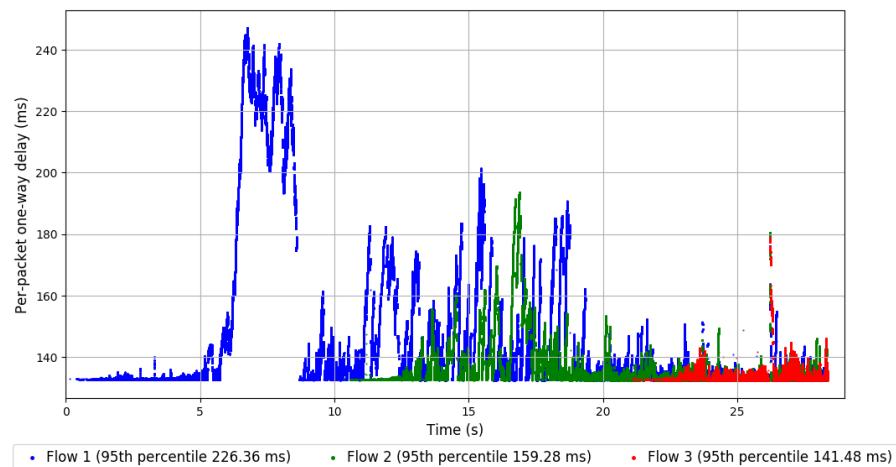
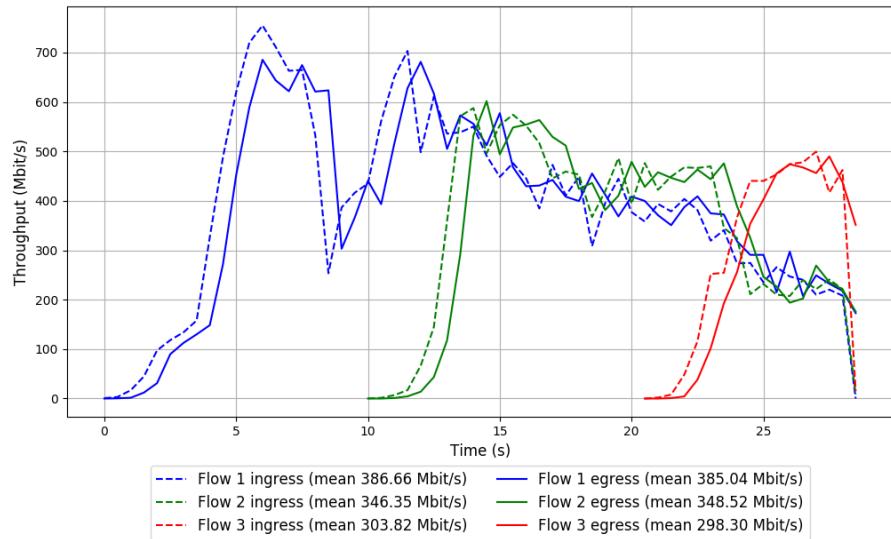


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-03-19 09:30:16
End at: 2019-03-19 09:30:46
Local clock offset: -0.125 ms
Remote clock offset: -3.904 ms

# Below is generated by plot.py at 2019-03-19 13:38:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 686.91 Mbit/s
95th percentile per-packet one-way delay: 213.403 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 385.04 Mbit/s
95th percentile per-packet one-way delay: 226.358 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 348.52 Mbit/s
95th percentile per-packet one-way delay: 159.280 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 298.30 Mbit/s
95th percentile per-packet one-way delay: 141.478 ms
Loss rate: 5.18%
```

Run 2: Report of Indigo-MusesC5 — Data Link

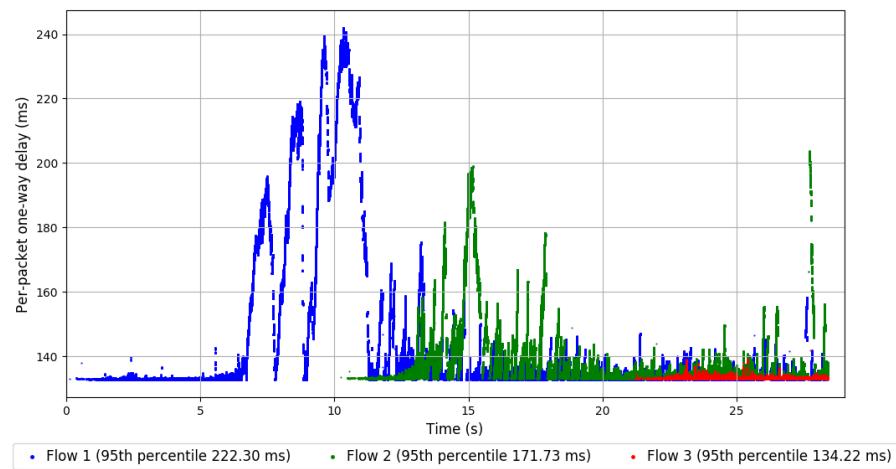
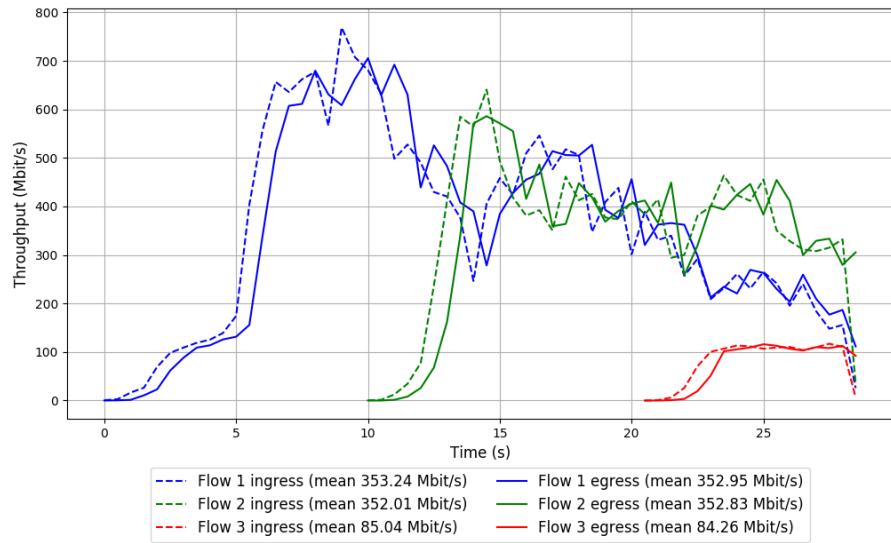


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-03-19 10:11:34
End at: 2019-03-19 10:12:04
Local clock offset: 0.004 ms
Remote clock offset: -4.675 ms

# Below is generated by plot.py at 2019-03-19 13:38:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 601.78 Mbit/s
95th percentile per-packet one-way delay: 212.161 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 352.95 Mbit/s
95th percentile per-packet one-way delay: 222.304 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 352.83 Mbit/s
95th percentile per-packet one-way delay: 171.733 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 84.26 Mbit/s
95th percentile per-packet one-way delay: 134.219 ms
Loss rate: 4.35%
```

Run 3: Report of Indigo-MusesC5 — Data Link

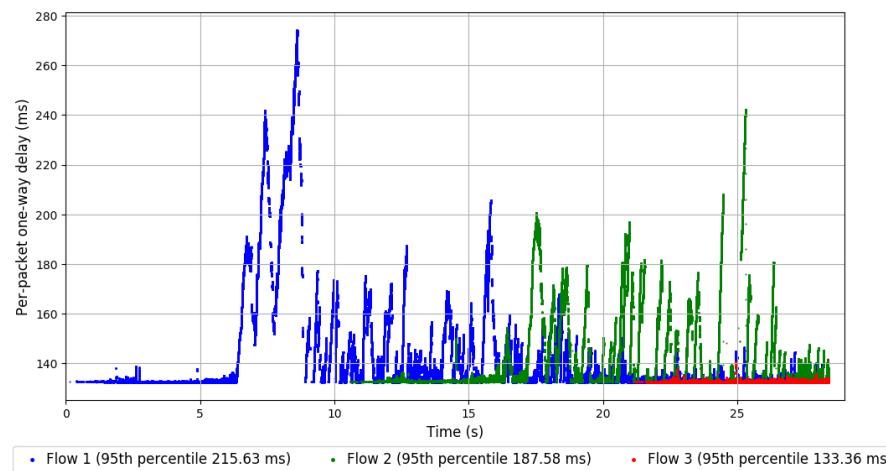
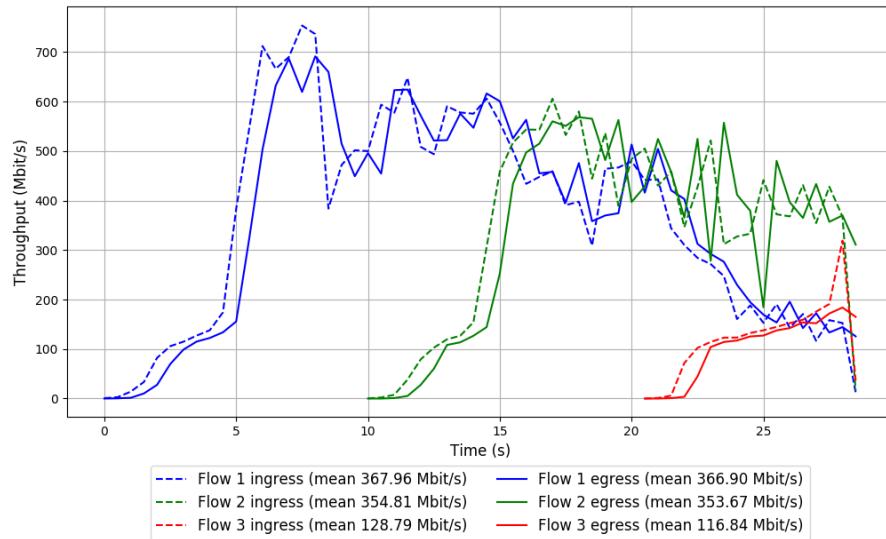


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-03-19 10:54:32
End at: 2019-03-19 10:55:02
Local clock offset: -0.563 ms
Remote clock offset: -1.198 ms

# Below is generated by plot.py at 2019-03-19 13:40:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 623.92 Mbit/s
95th percentile per-packet one-way delay: 198.506 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 366.90 Mbit/s
95th percentile per-packet one-way delay: 215.627 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 353.67 Mbit/s
95th percentile per-packet one-way delay: 187.584 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 116.84 Mbit/s
95th percentile per-packet one-way delay: 133.357 ms
Loss rate: 12.40%
```

Run 4: Report of Indigo-MusesC5 — Data Link

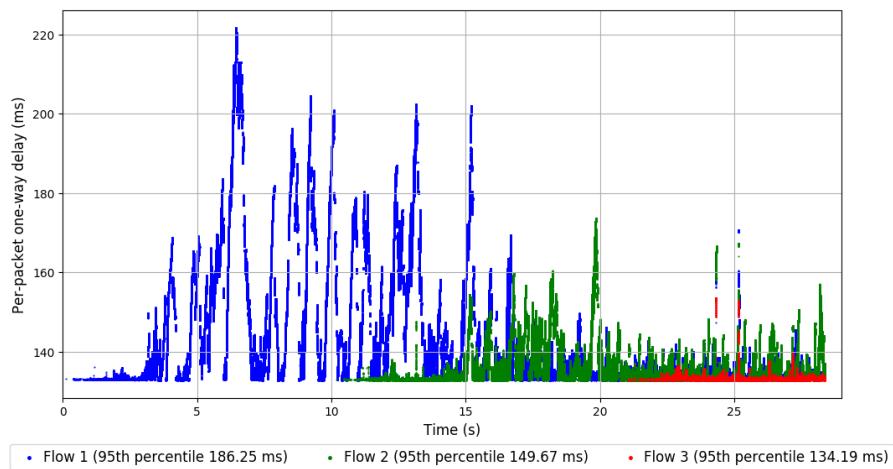
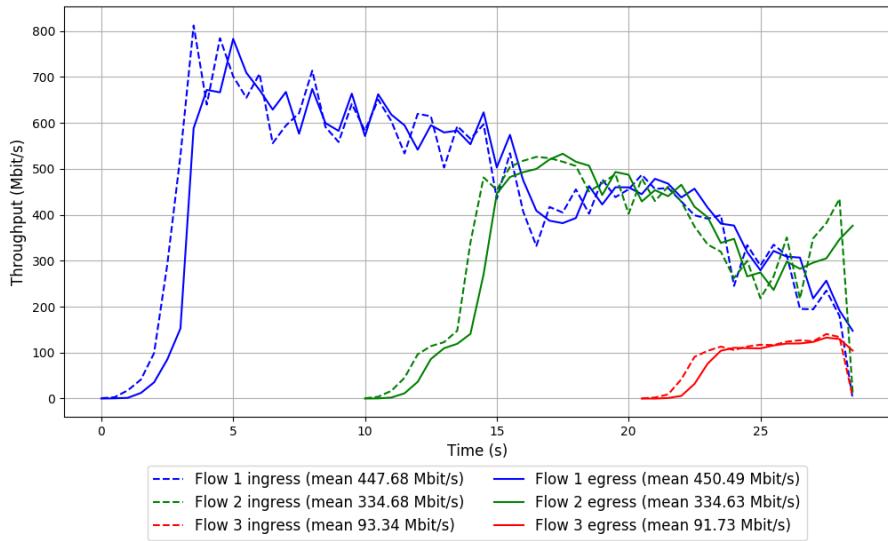


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-03-19 11:35:43
End at: 2019-03-19 11:36:13
Local clock offset: -0.331 ms
Remote clock offset: -0.378 ms

# Below is generated by plot.py at 2019-03-19 13:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 690.11 Mbit/s
95th percentile per-packet one-way delay: 178.648 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 450.49 Mbit/s
95th percentile per-packet one-way delay: 186.253 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 334.63 Mbit/s
95th percentile per-packet one-way delay: 149.666 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 91.73 Mbit/s
95th percentile per-packet one-way delay: 134.185 ms
Loss rate: 5.04%
```

Run 5: Report of Indigo-MusesC5 — Data Link

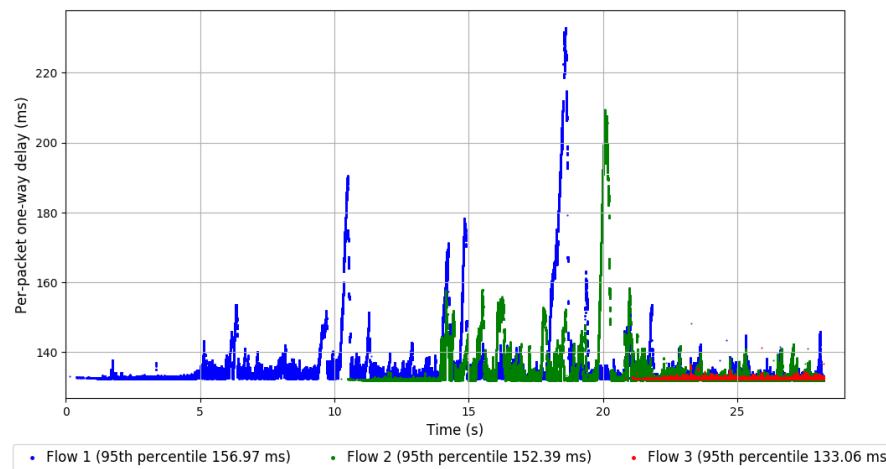
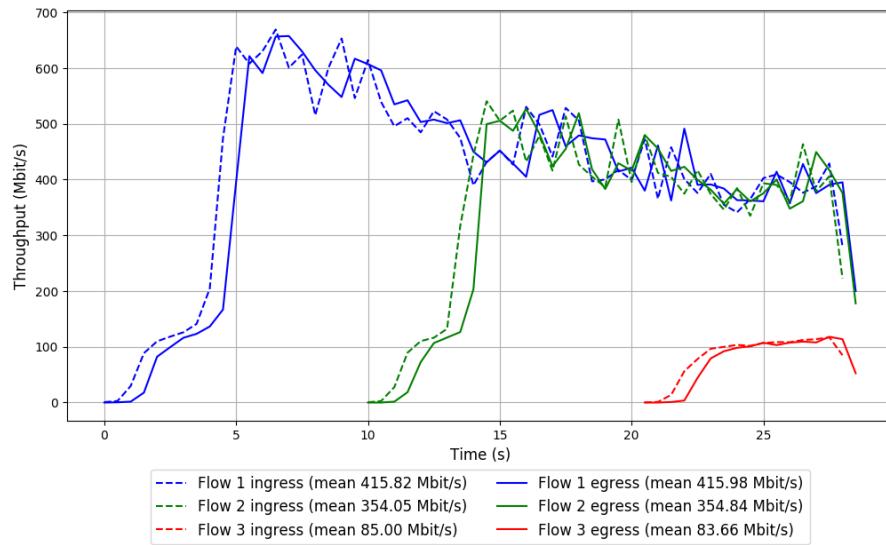


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-03-19 09:09:14
End at: 2019-03-19 09:09:44
Local clock offset: -0.321 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2019-03-19 13:42:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 664.97 Mbit/s
95th percentile per-packet one-way delay: 153.751 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 415.98 Mbit/s
95th percentile per-packet one-way delay: 156.973 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 354.84 Mbit/s
95th percentile per-packet one-way delay: 152.390 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 83.66 Mbit/s
95th percentile per-packet one-way delay: 133.061 ms
Loss rate: 4.93%
```

Run 1: Report of Indigo-MusesD — Data Link

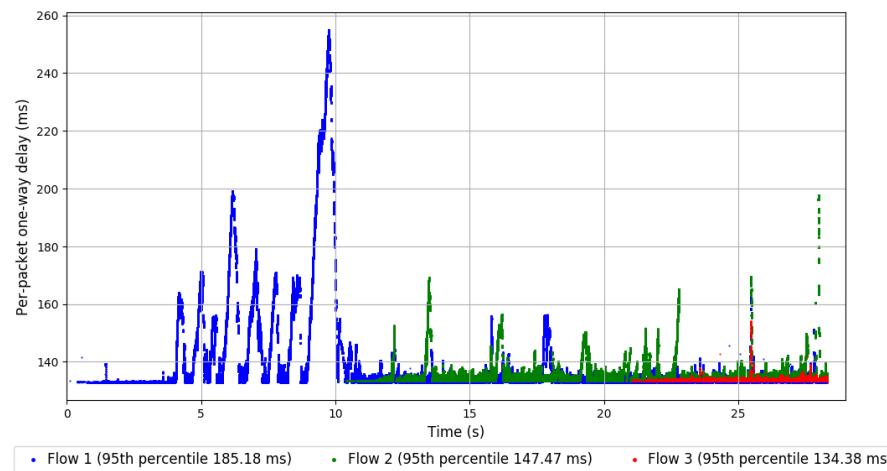
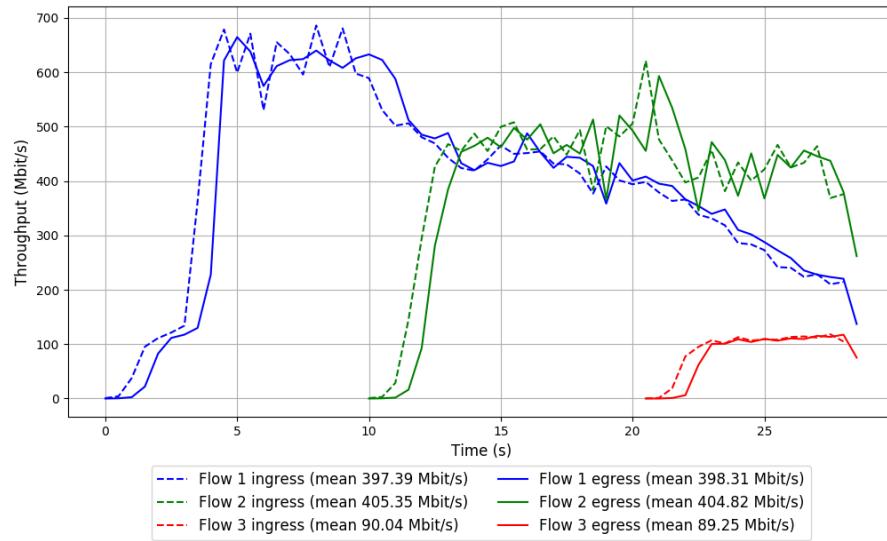


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-03-19 09:50:24
End at: 2019-03-19 09:50:54
Local clock offset: 0.356 ms
Remote clock offset: -5.591 ms

# Below is generated by plot.py at 2019-03-19 13:47:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 683.06 Mbit/s
95th percentile per-packet one-way delay: 166.778 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 398.31 Mbit/s
95th percentile per-packet one-way delay: 185.181 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 404.82 Mbit/s
95th percentile per-packet one-way delay: 147.471 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 89.25 Mbit/s
95th percentile per-packet one-way delay: 134.379 ms
Loss rate: 4.30%
```

Run 2: Report of Indigo-MusesD — Data Link

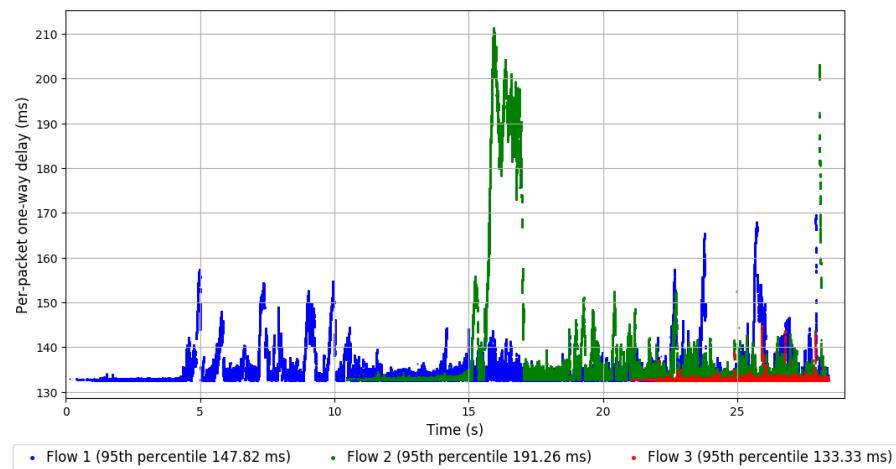
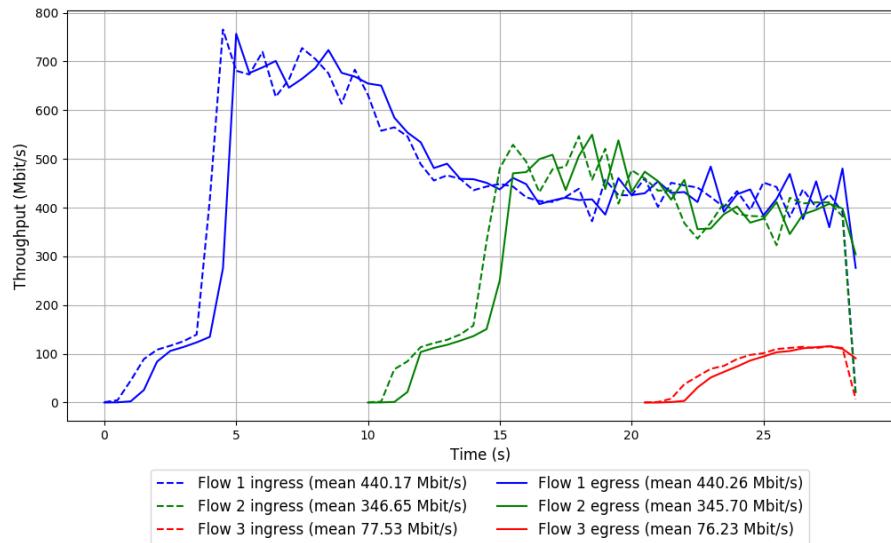


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-03-19 10:32:51
End at: 2019-03-19 10:33:21
Local clock offset: -0.165 ms
Remote clock offset: -1.669 ms

# Below is generated by plot.py at 2019-03-19 13:47:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 683.14 Mbit/s
95th percentile per-packet one-way delay: 153.003 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 440.26 Mbit/s
95th percentile per-packet one-way delay: 147.819 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 345.70 Mbit/s
95th percentile per-packet one-way delay: 191.263 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 76.23 Mbit/s
95th percentile per-packet one-way delay: 133.328 ms
Loss rate: 4.99%
```

Run 3: Report of Indigo-MusesD — Data Link

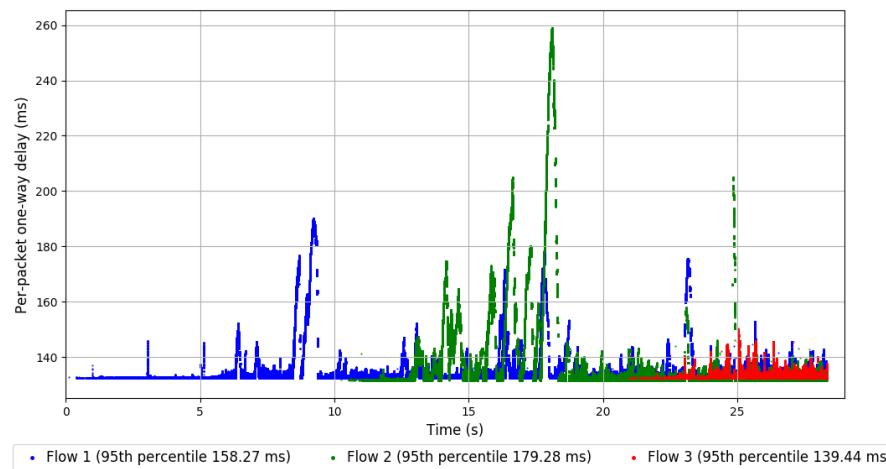
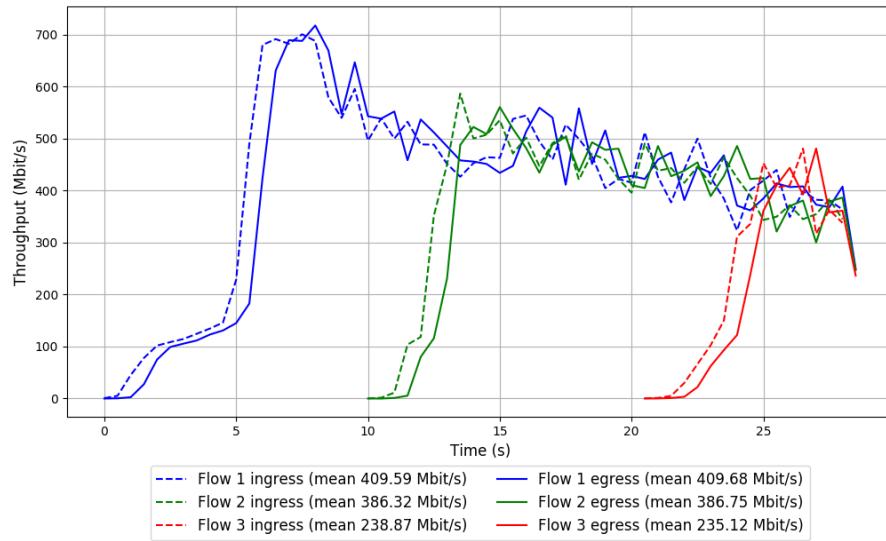


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-03-19 11:14:04
End at: 2019-03-19 11:14:34
Local clock offset: -0.586 ms
Remote clock offset: -0.535 ms

# Below is generated by plot.py at 2019-03-19 13:48:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.99 Mbit/s
95th percentile per-packet one-way delay: 166.019 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 409.68 Mbit/s
95th percentile per-packet one-way delay: 158.269 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 386.75 Mbit/s
95th percentile per-packet one-way delay: 179.278 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 235.12 Mbit/s
95th percentile per-packet one-way delay: 139.439 ms
Loss rate: 4.89%
```

Run 4: Report of Indigo-MusesD — Data Link

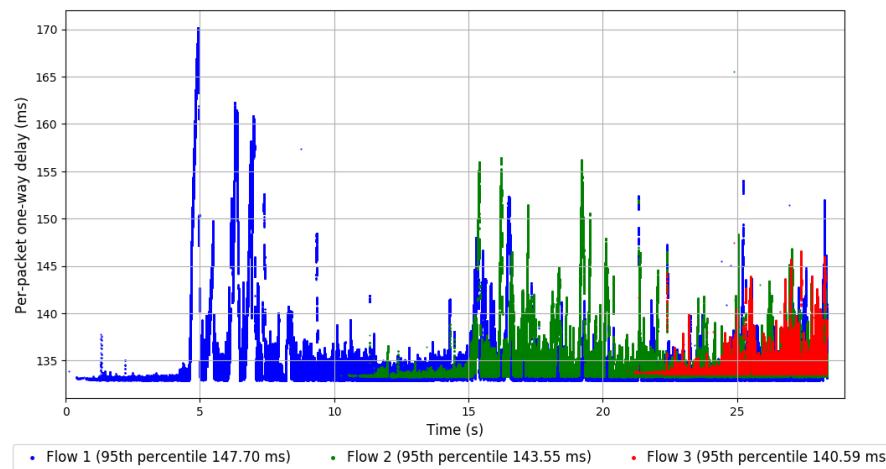
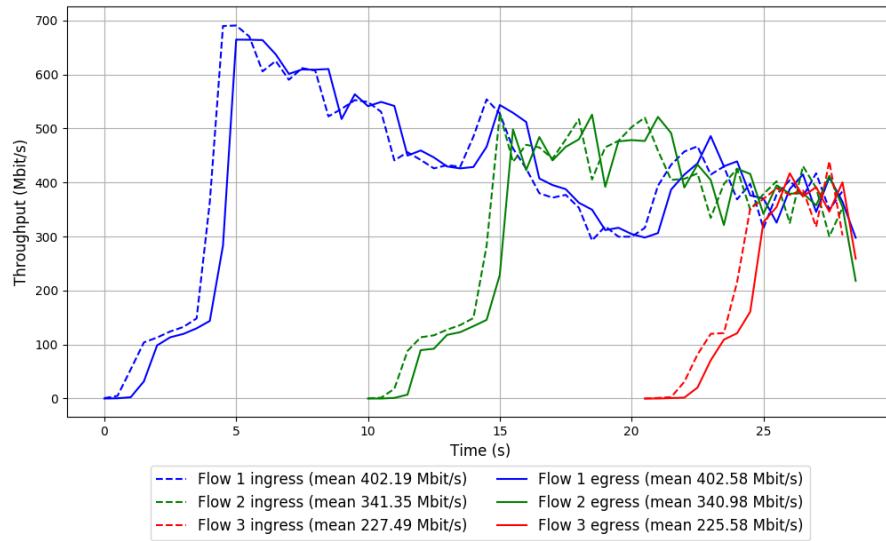


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-03-19 11:55:57
End at: 2019-03-19 11:56:27
Local clock offset: 0.196 ms
Remote clock offset: -0.72 ms

# Below is generated by plot.py at 2019-03-19 13:49:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 680.48 Mbit/s
95th percentile per-packet one-way delay: 145.118 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 402.58 Mbit/s
95th percentile per-packet one-way delay: 147.698 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 340.98 Mbit/s
95th percentile per-packet one-way delay: 143.550 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 225.58 Mbit/s
95th percentile per-packet one-way delay: 140.591 ms
Loss rate: 4.34%
```

Run 5: Report of Indigo-MusesD — Data Link

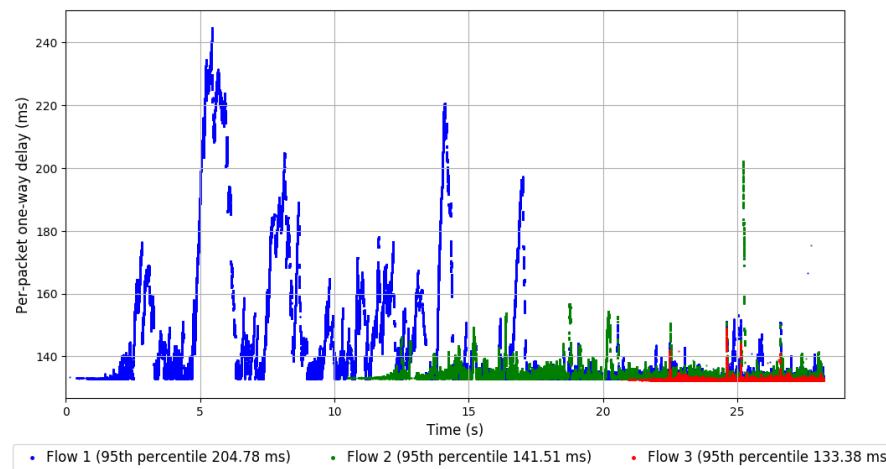
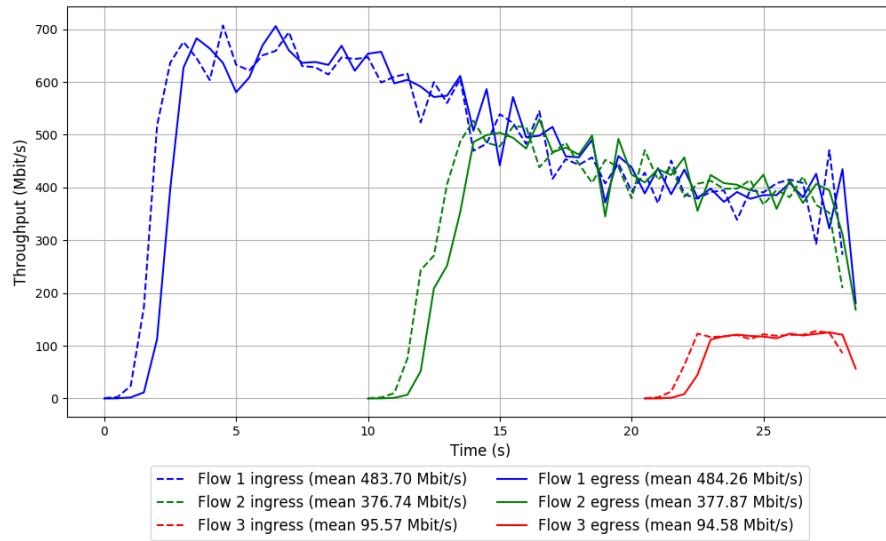


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-03-19 09:04:32
End at: 2019-03-19 09:05:02
Local clock offset: 0.004 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-03-19 13:51:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 751.54 Mbit/s
95th percentile per-packet one-way delay: 188.509 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 484.26 Mbit/s
95th percentile per-packet one-way delay: 204.777 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 377.87 Mbit/s
95th percentile per-packet one-way delay: 141.507 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 94.58 Mbit/s
95th percentile per-packet one-way delay: 133.382 ms
Loss rate: 4.42%
```

Run 1: Report of Indigo-MusesT — Data Link

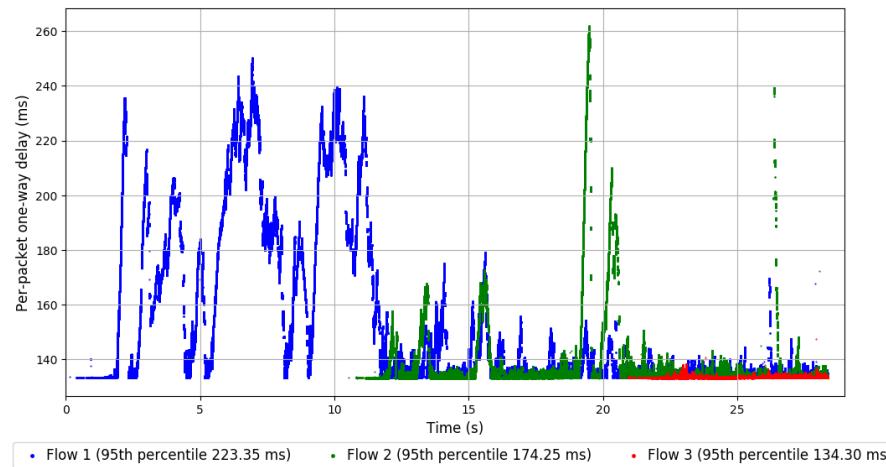
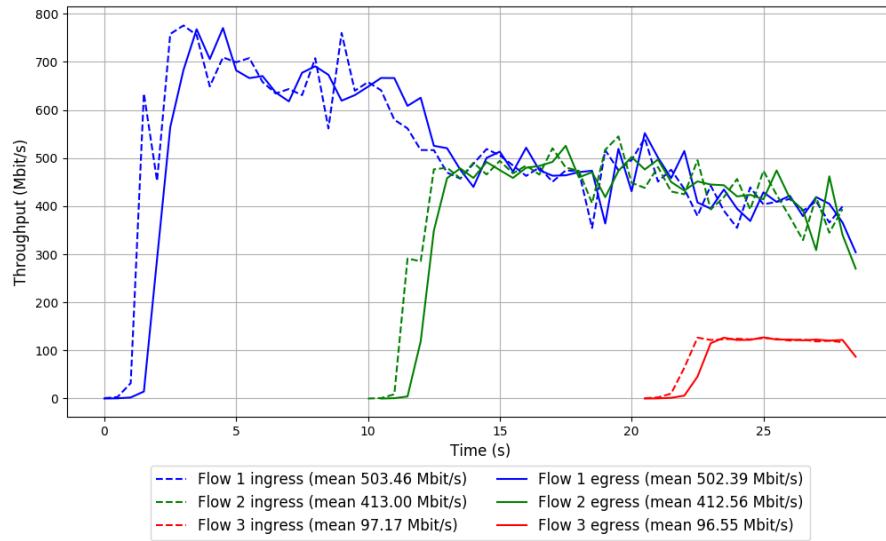


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-03-19 09:45:46
End at: 2019-03-19 09:46:16
Local clock offset: -0.234 ms
Remote clock offset: -8.406 ms

# Below is generated by plot.py at 2019-03-19 13:55:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 789.30 Mbit/s
95th percentile per-packet one-way delay: 219.029 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 502.39 Mbit/s
95th percentile per-packet one-way delay: 223.355 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 412.56 Mbit/s
95th percentile per-packet one-way delay: 174.255 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 134.304 ms
Loss rate: 3.97%
```

Run 2: Report of Indigo-MusesT — Data Link

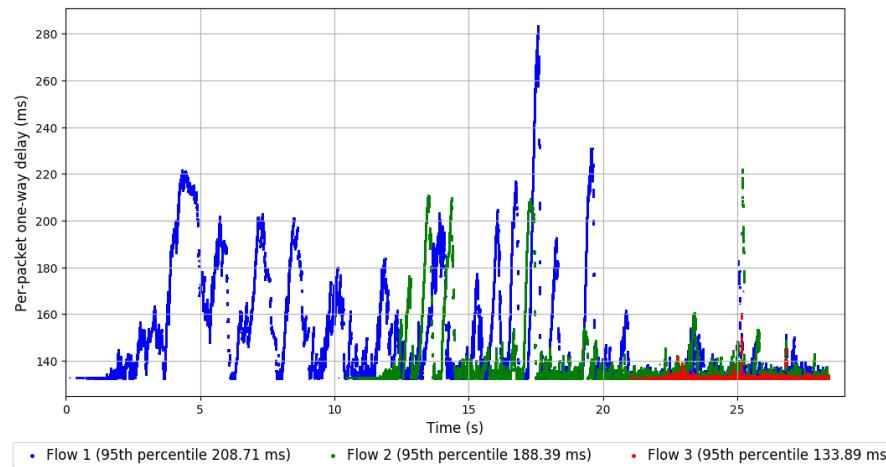
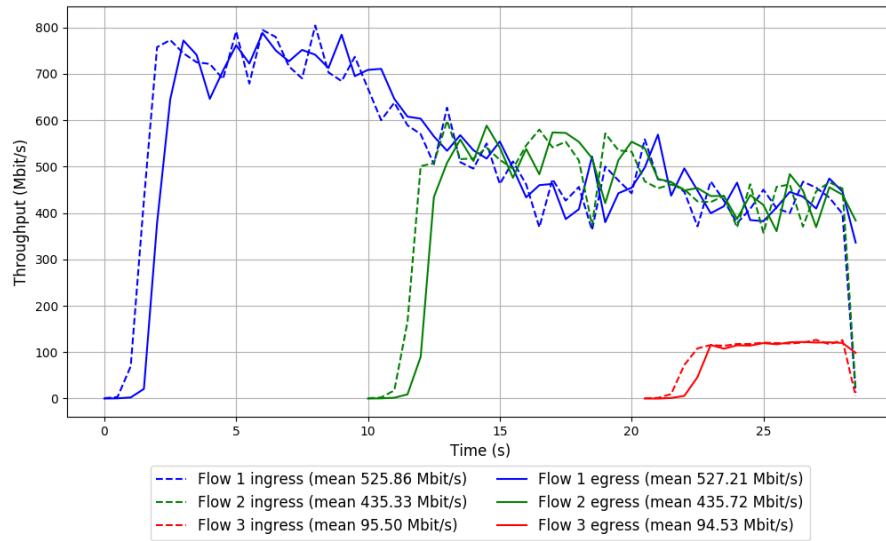


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-03-19 10:27:59
End at: 2019-03-19 10:28:29
Local clock offset: -0.324 ms
Remote clock offset: -2.446 ms

# Below is generated by plot.py at 2019-03-19 13:58:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 833.83 Mbit/s
95th percentile per-packet one-way delay: 200.058 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 527.21 Mbit/s
95th percentile per-packet one-way delay: 208.706 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 435.72 Mbit/s
95th percentile per-packet one-way delay: 188.393 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 94.53 Mbit/s
95th percentile per-packet one-way delay: 133.888 ms
Loss rate: 4.34%
```

Run 3: Report of Indigo-MusesT — Data Link

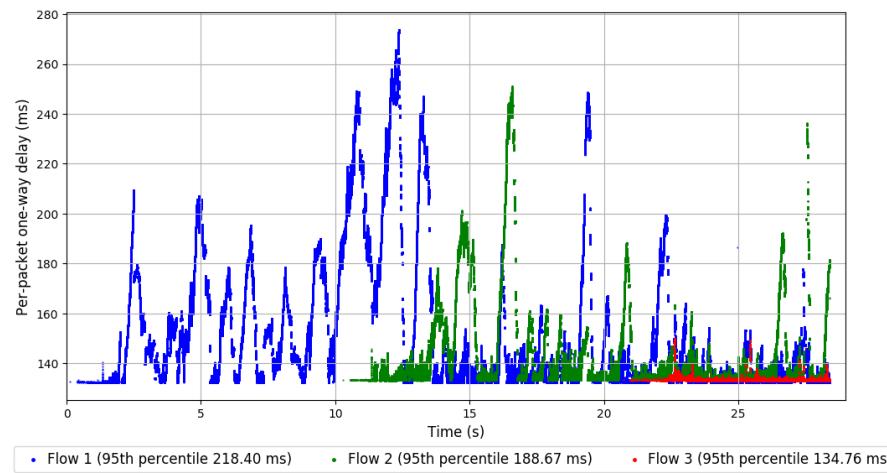
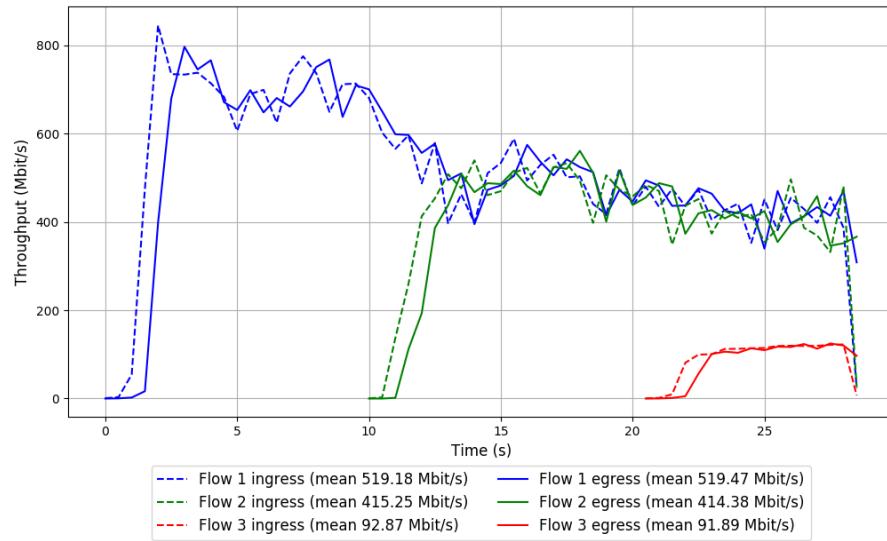


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-03-19 11:09:37
End at: 2019-03-19 11:10:07
Local clock offset: 0.157 ms
Remote clock offset: -0.548 ms

# Below is generated by plot.py at 2019-03-19 13:58:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 809.75 Mbit/s
95th percentile per-packet one-way delay: 208.615 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 519.47 Mbit/s
95th percentile per-packet one-way delay: 218.399 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 414.38 Mbit/s
95th percentile per-packet one-way delay: 188.666 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 91.89 Mbit/s
95th percentile per-packet one-way delay: 134.765 ms
Loss rate: 4.39%
```

Run 4: Report of Indigo-MusesT — Data Link

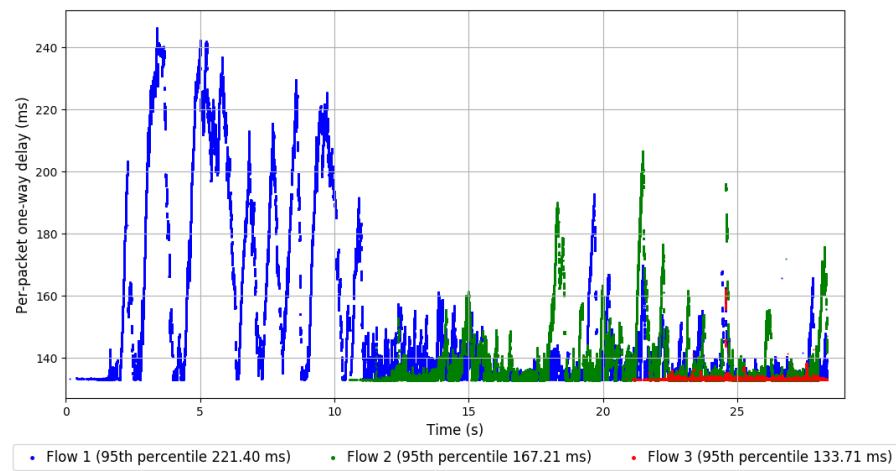
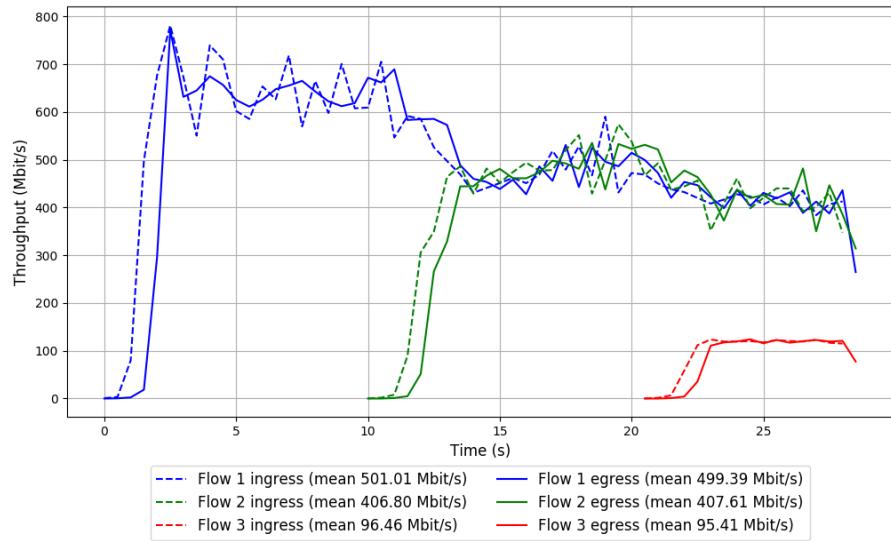


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-03-19 11:51:12
End at: 2019-03-19 11:51:42
Local clock offset: -0.035 ms
Remote clock offset: -0.321 ms

# Below is generated by plot.py at 2019-03-19 14:00:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 785.54 Mbit/s
95th percentile per-packet one-way delay: 214.303 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 499.39 Mbit/s
95th percentile per-packet one-way delay: 221.398 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 407.61 Mbit/s
95th percentile per-packet one-way delay: 167.214 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 133.712 ms
Loss rate: 4.52%
```

Run 5: Report of Indigo-MusesT — Data Link

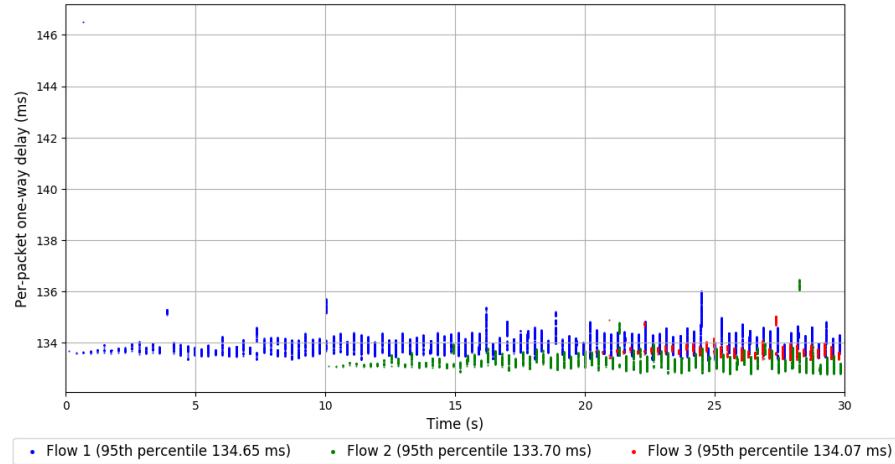
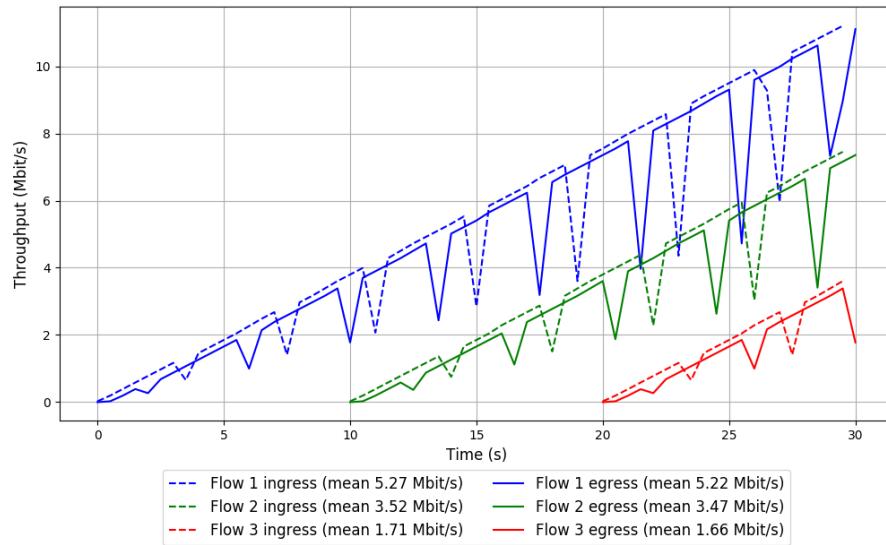


Run 1: Statistics of LEDBAT

```
Start at: 2019-03-19 09:00:45
End at: 2019-03-19 09:01:15
Local clock offset: 0.359 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2019-03-19 14:00:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 134.550 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.22 Mbit/s
95th percentile per-packet one-way delay: 134.649 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 133.701 ms
Loss rate: 2.67%
-- Flow 3:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 134.066 ms
Loss rate: 5.41%
```

Run 1: Report of LEDBAT — Data Link

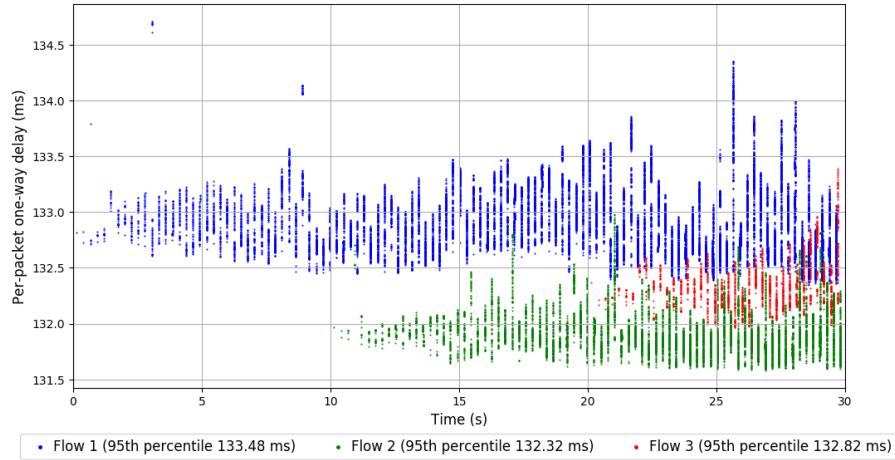
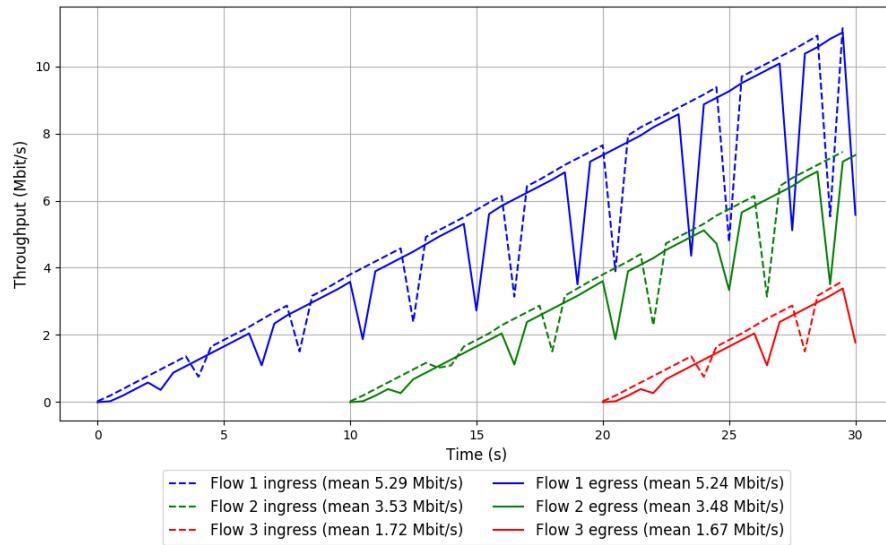


Run 2: Statistics of LEDBAT

```
Start at: 2019-03-19 09:42:06
End at: 2019-03-19 09:42:36
Local clock offset: -0.295 ms
Remote clock offset: -7.603 ms

# Below is generated by plot.py at 2019-03-19 14:00:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 133.376 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 133.477 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 132.316 ms
Loss rate: 2.66%
-- Flow 3:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 132.819 ms
Loss rate: 5.41%
```

Run 2: Report of LEDBAT — Data Link

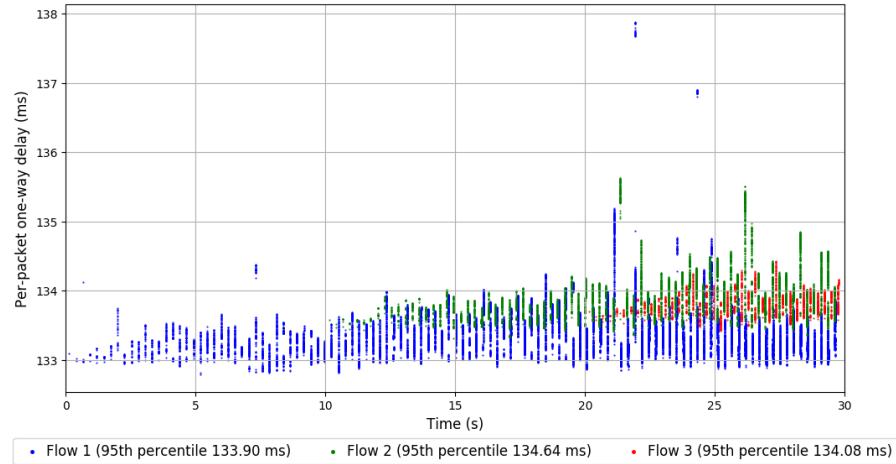
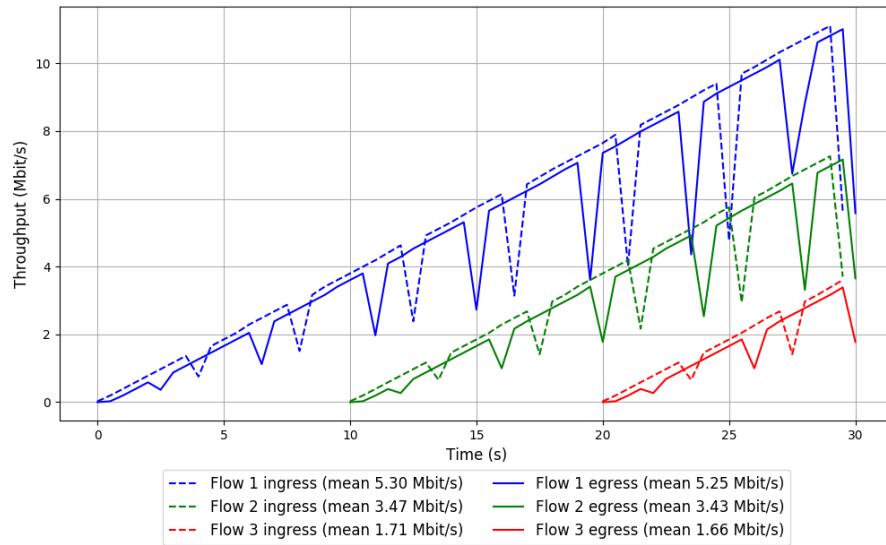


Run 3: Statistics of LEDBAT

```
Start at: 2019-03-19 10:24:07
End at: 2019-03-19 10:24:37
Local clock offset: 0.294 ms
Remote clock offset: -3.528 ms

# Below is generated by plot.py at 2019-03-19 14:00:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 134.279 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.25 Mbit/s
95th percentile per-packet one-way delay: 133.904 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 134.640 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 134.076 ms
Loss rate: 5.41%
```

Run 3: Report of LEDBAT — Data Link

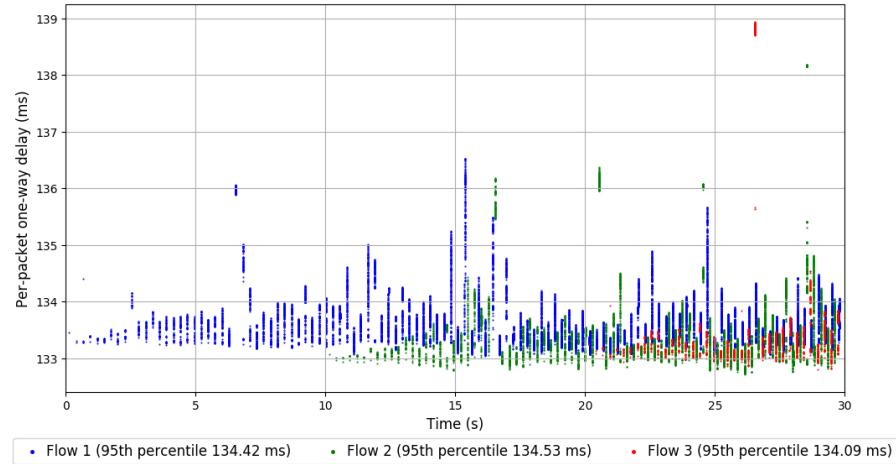
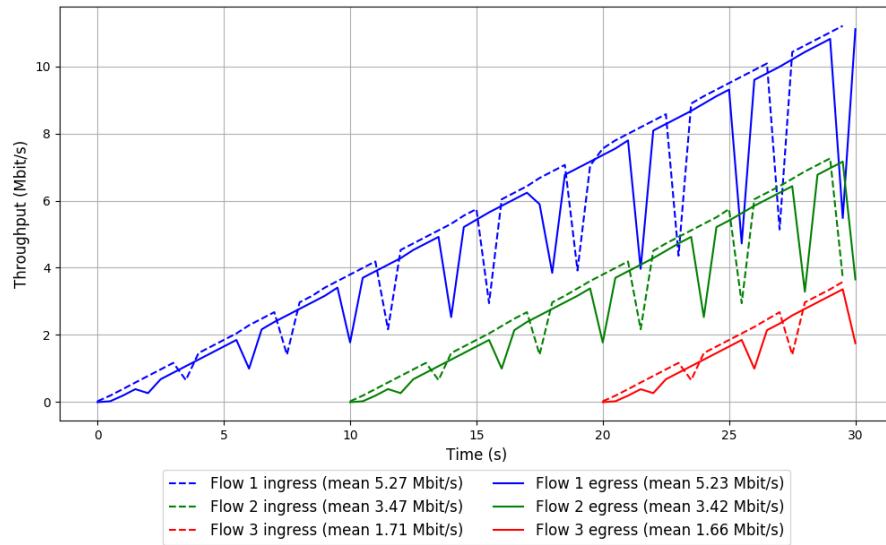


Run 4: Statistics of LEDBAT

```
Start at: 2019-03-19 11:05:56
End at: 2019-03-19 11:06:26
Local clock offset: -0.171 ms
Remote clock offset: -0.567 ms

# Below is generated by plot.py at 2019-03-19 14:00:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 134.469 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 134.421 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 134.525 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 134.093 ms
Loss rate: 5.43%
```

Run 4: Report of LEDBAT — Data Link

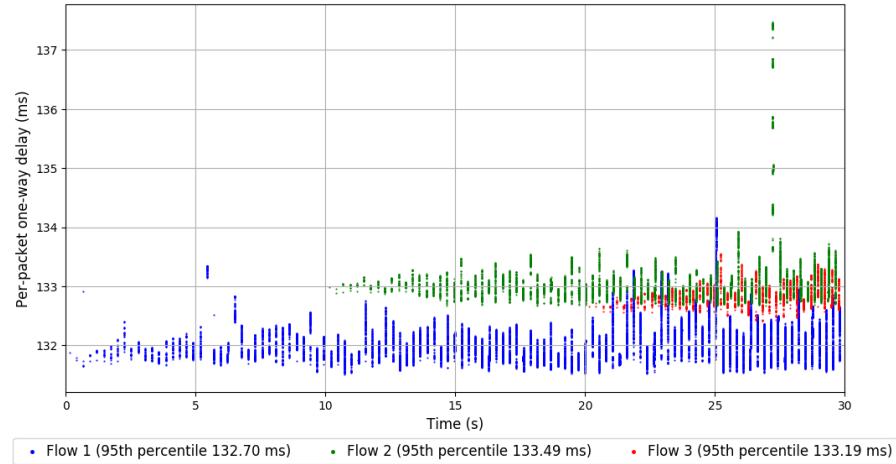
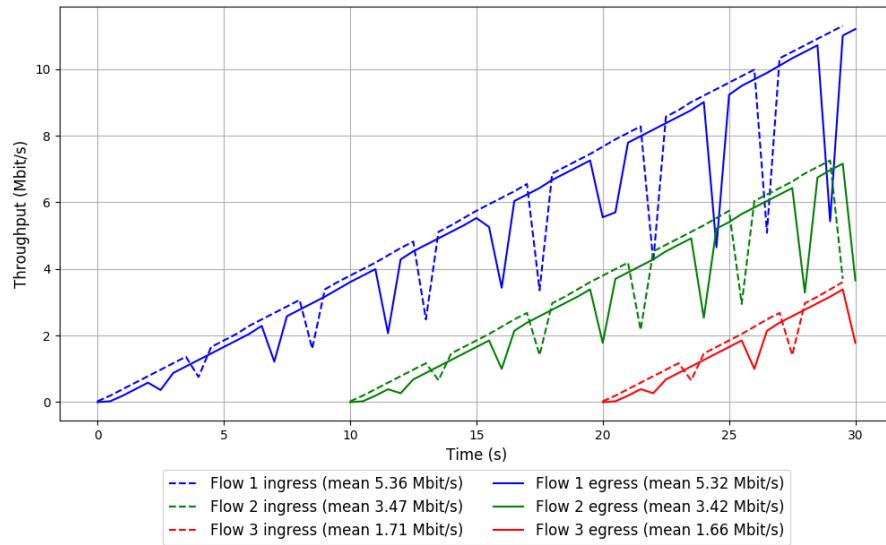


Run 5: Statistics of LEDBAT

```
Start at: 2019-03-19 11:47:41
End at: 2019-03-19 11:48:11
Local clock offset: -0.416 ms
Remote clock offset: -0.323 ms

# Below is generated by plot.py at 2019-03-19 14:00:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.10 Mbit/s
95th percentile per-packet one-way delay: 133.251 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 5.32 Mbit/s
95th percentile per-packet one-way delay: 132.702 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 133.492 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 133.190 ms
Loss rate: 5.41%
```

Run 5: Report of LEDBAT — Data Link

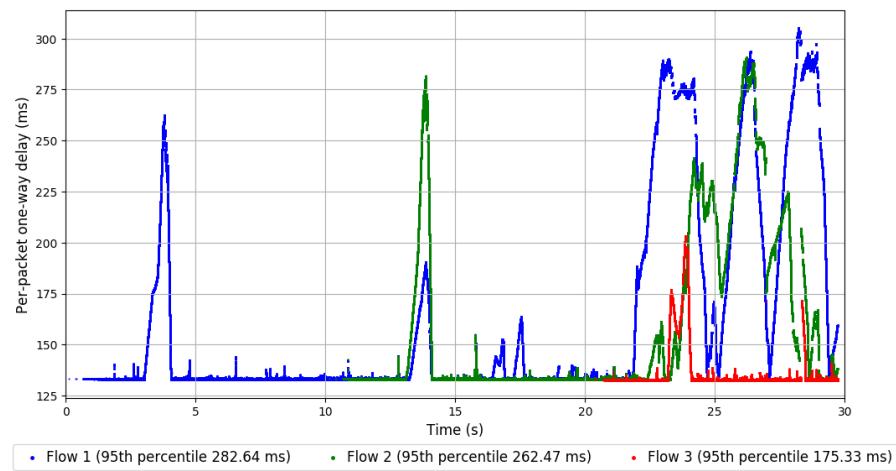
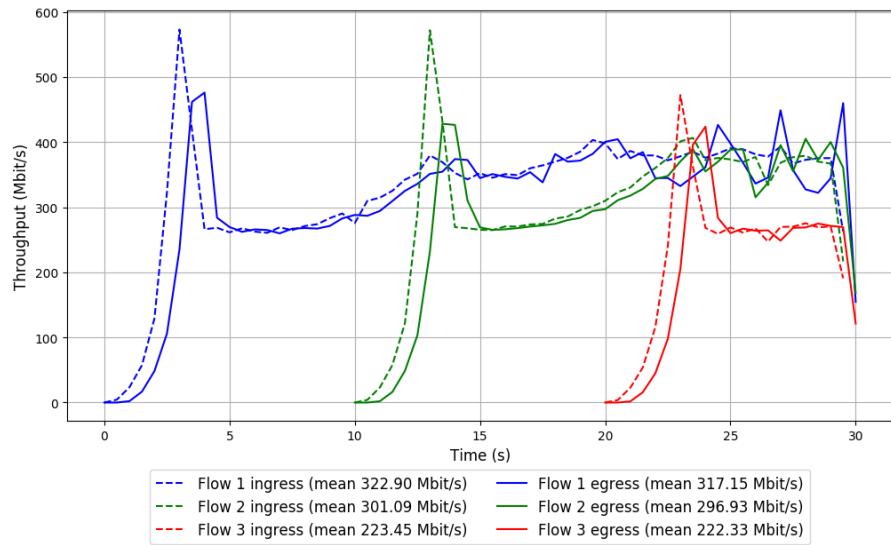


Run 1: Statistics of PCC-Allegro

```
Start at: 2019-03-19 09:06:51
End at: 2019-03-19 09:07:21
Local clock offset: 0.197 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2019-03-19 14:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.41 Mbit/s
95th percentile per-packet one-way delay: 275.241 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 317.15 Mbit/s
95th percentile per-packet one-way delay: 282.638 ms
Loss rate: 2.67%
-- Flow 2:
Average throughput: 296.93 Mbit/s
95th percentile per-packet one-way delay: 262.473 ms
Loss rate: 2.73%
-- Flow 3:
Average throughput: 222.33 Mbit/s
95th percentile per-packet one-way delay: 175.327 ms
Loss rate: 3.24%
```

Run 1: Report of PCC-Allegro — Data Link

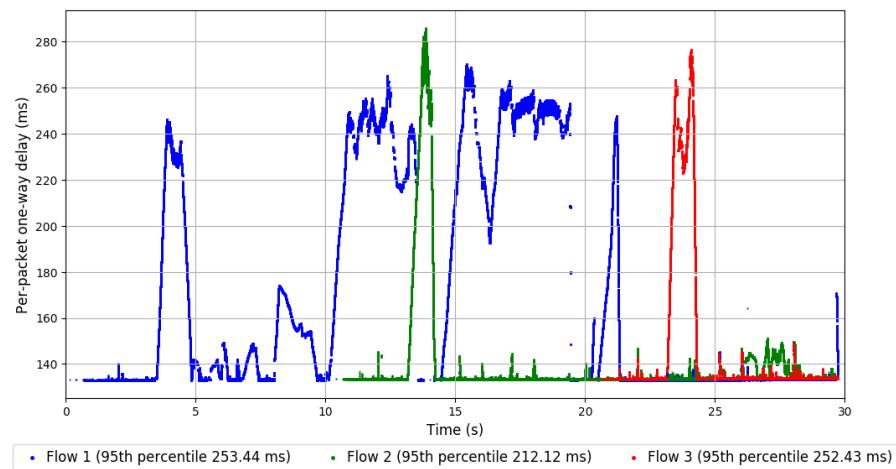
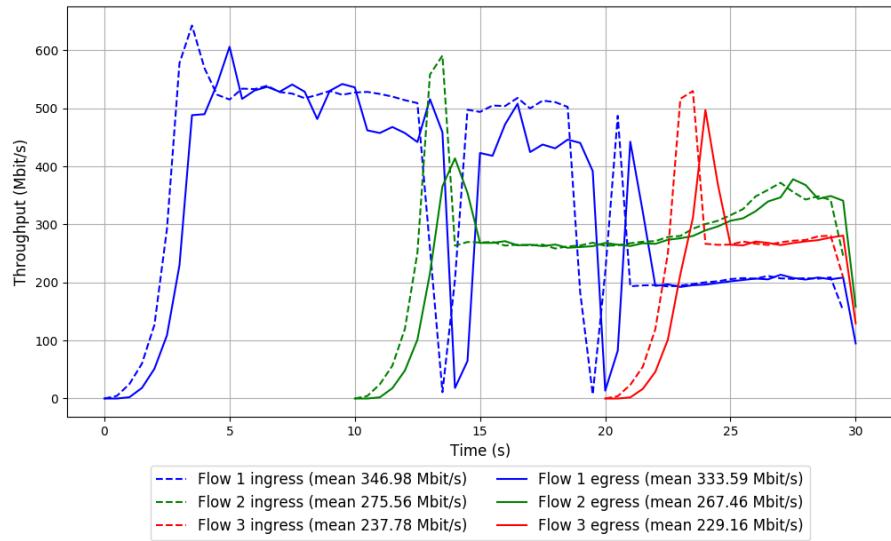


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-03-19 09:48:03
End at: 2019-03-19 09:48:33
Local clock offset: -0.004 ms
Remote clock offset: -6.81 ms

# Below is generated by plot.py at 2019-03-19 14:09:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 584.73 Mbit/s
95th percentile per-packet one-way delay: 252.528 ms
Loss rate: 4.76%
-- Flow 1:
Average throughput: 333.59 Mbit/s
95th percentile per-packet one-way delay: 253.444 ms
Loss rate: 4.71%
-- Flow 2:
Average throughput: 267.46 Mbit/s
95th percentile per-packet one-way delay: 212.122 ms
Loss rate: 4.23%
-- Flow 3:
Average throughput: 229.16 Mbit/s
95th percentile per-packet one-way delay: 252.426 ms
Loss rate: 6.22%
```

Run 2: Report of PCC-Allegro — Data Link

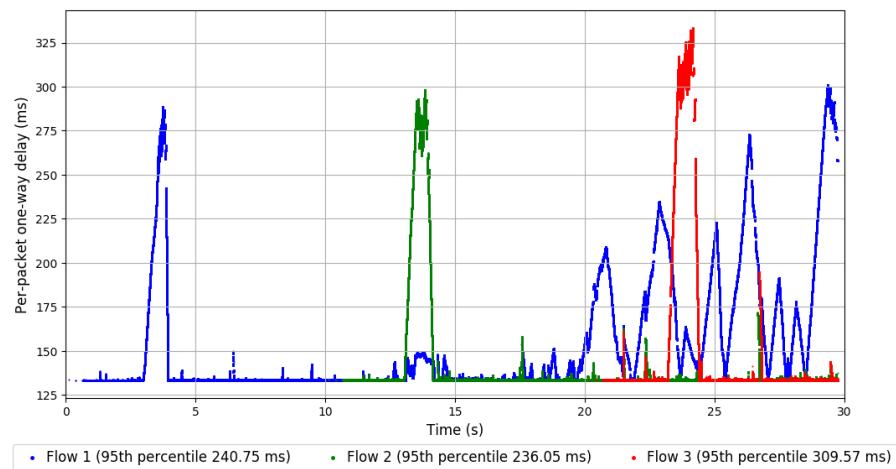
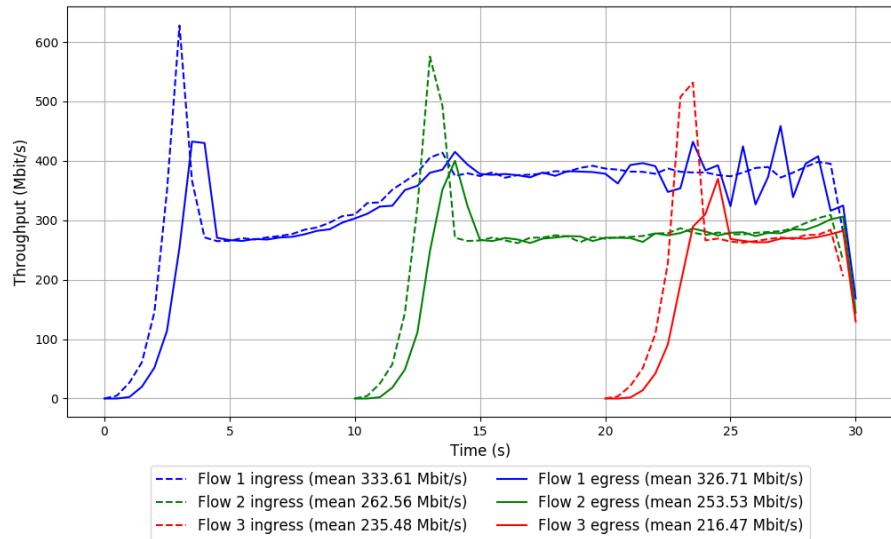


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-03-19 10:30:29
End at: 2019-03-19 10:30:59
Local clock offset: 0.181 ms
Remote clock offset: -1.946 ms

# Below is generated by plot.py at 2019-03-19 14:09:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 564.42 Mbit/s
95th percentile per-packet one-way delay: 257.240 ms
Loss rate: 4.48%
-- Flow 1:
Average throughput: 326.71 Mbit/s
95th percentile per-packet one-way delay: 240.746 ms
Loss rate: 2.94%
-- Flow 2:
Average throughput: 253.53 Mbit/s
95th percentile per-packet one-way delay: 236.052 ms
Loss rate: 4.72%
-- Flow 3:
Average throughput: 216.47 Mbit/s
95th percentile per-packet one-way delay: 309.568 ms
Loss rate: 10.55%
```

Run 3: Report of PCC-Allegro — Data Link

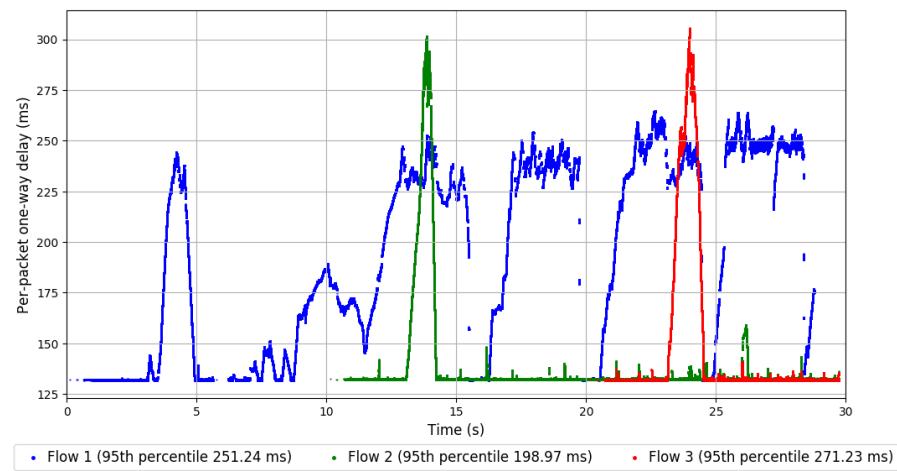
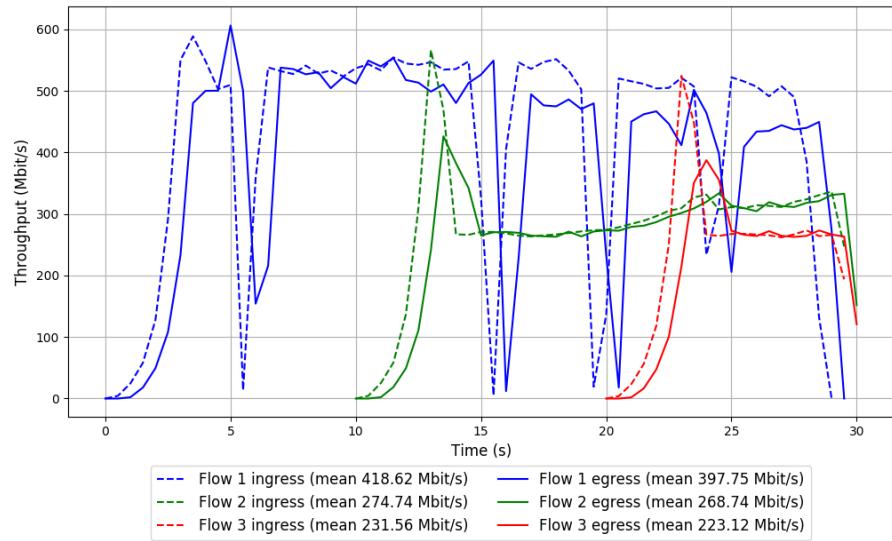


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-03-19 11:11:49
End at: 2019-03-19 11:12:19
Local clock offset: -0.341 ms
Remote clock offset: -0.533 ms

# Below is generated by plot.py at 2019-03-19 14:15:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 643.55 Mbit/s
95th percentile per-packet one-way delay: 250.995 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 397.75 Mbit/s
95th percentile per-packet one-way delay: 251.244 ms
Loss rate: 4.99%
-- Flow 2:
Average throughput: 268.74 Mbit/s
95th percentile per-packet one-way delay: 198.970 ms
Loss rate: 3.49%
-- Flow 3:
Average throughput: 223.12 Mbit/s
95th percentile per-packet one-way delay: 271.226 ms
Loss rate: 6.26%
```

Run 4: Report of PCC-Allegro — Data Link

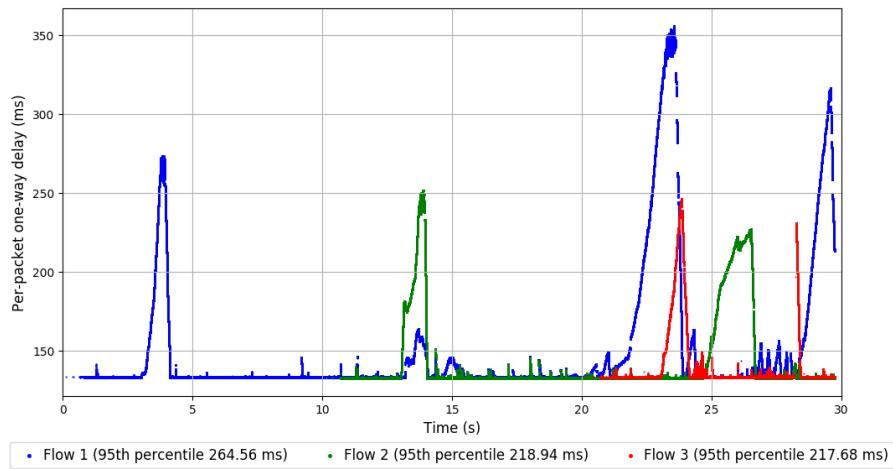
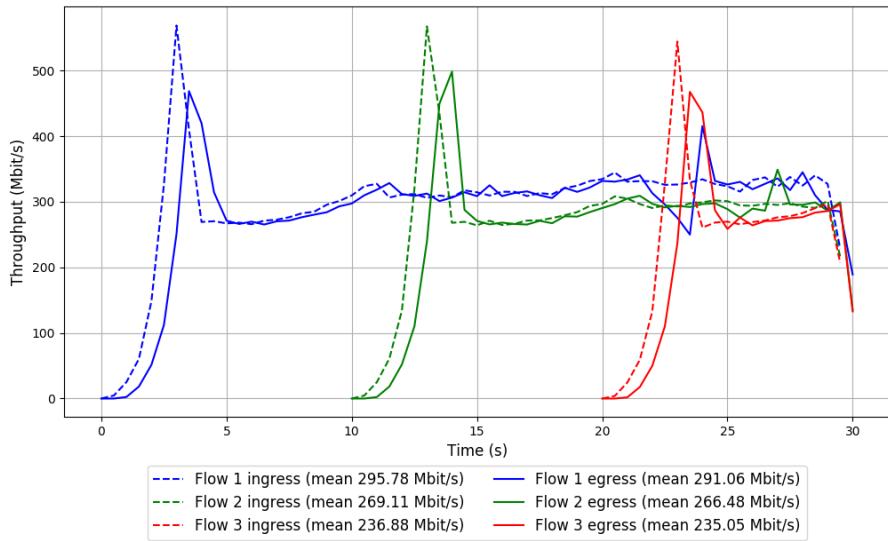


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-03-19 11:53:34
End at: 2019-03-19 11:54:04
Local clock offset: 0.062 ms
Remote clock offset: -0.324 ms

# Below is generated by plot.py at 2019-03-19 14:15:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.37 Mbit/s
95th percentile per-packet one-way delay: 236.786 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 291.06 Mbit/s
95th percentile per-packet one-way delay: 264.558 ms
Loss rate: 2.47%
-- Flow 2:
Average throughput: 266.48 Mbit/s
95th percentile per-packet one-way delay: 218.942 ms
Loss rate: 2.30%
-- Flow 3:
Average throughput: 235.05 Mbit/s
95th percentile per-packet one-way delay: 217.675 ms
Loss rate: 3.52%
```

Run 5: Report of PCC-Allegro — Data Link

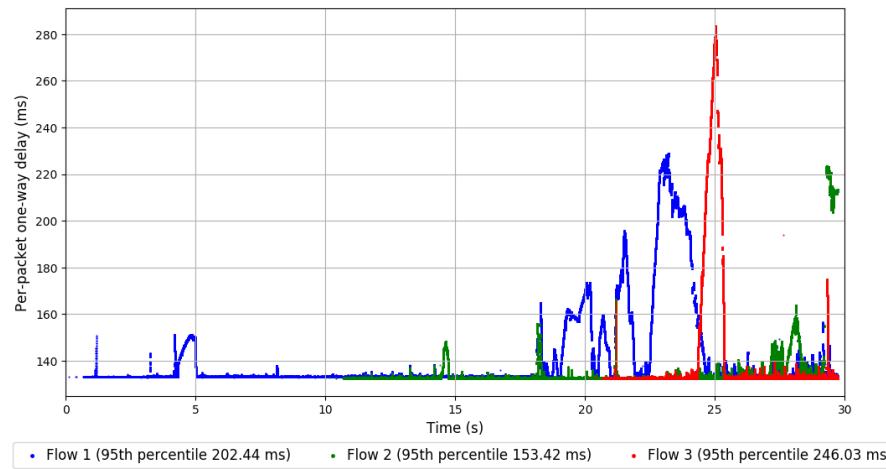
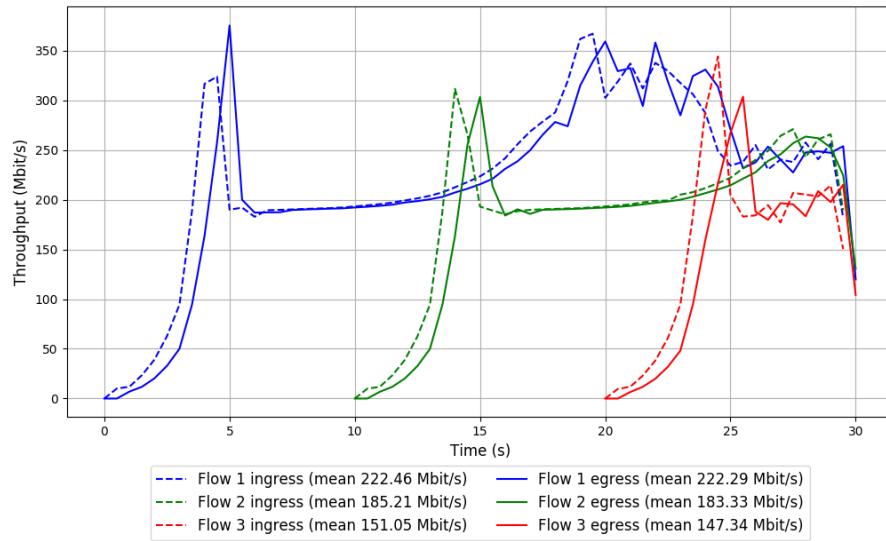


Run 1: Statistics of PCC-Expr

```
Start at: 2019-03-19 09:02:05
End at: 2019-03-19 09:02:35
Local clock offset: 0.098 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2019-03-19 14:15:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.42 Mbit/s
95th percentile per-packet one-way delay: 205.125 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 222.29 Mbit/s
95th percentile per-packet one-way delay: 202.438 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 183.33 Mbit/s
95th percentile per-packet one-way delay: 153.420 ms
Loss rate: 2.33%
-- Flow 3:
Average throughput: 147.34 Mbit/s
95th percentile per-packet one-way delay: 246.034 ms
Loss rate: 5.07%
```

Run 1: Report of PCC-Expr — Data Link

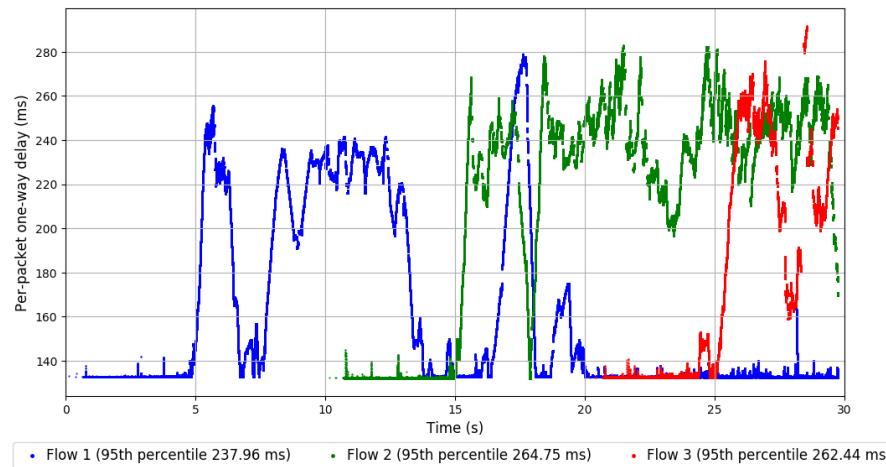
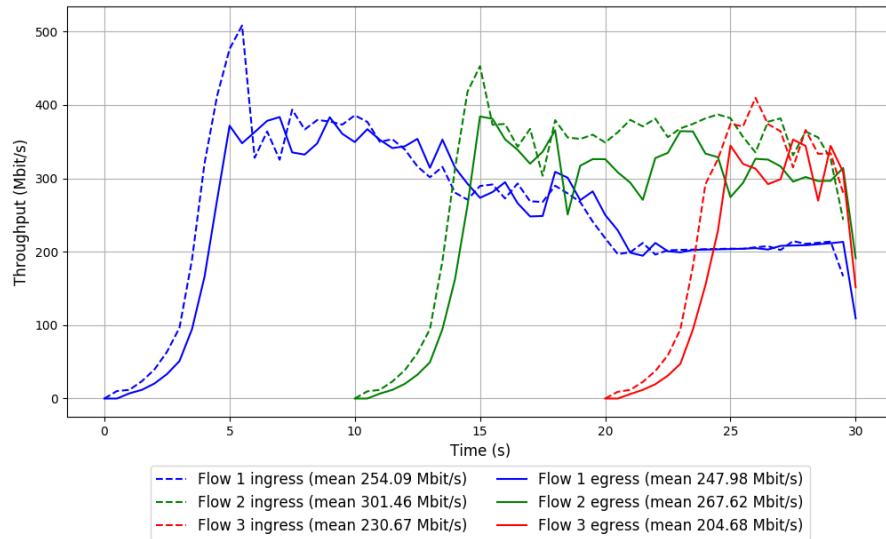


Run 2: Statistics of PCC-Expr

```
Start at: 2019-03-19 09:43:26
End at: 2019-03-19 09:43:56
Local clock offset: -0.338 ms
Remote clock offset: -8.02 ms

# Below is generated by plot.py at 2019-03-19 14:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 491.51 Mbit/s
95th percentile per-packet one-way delay: 259.204 ms
Loss rate: 8.20%
-- Flow 1:
Average throughput: 247.98 Mbit/s
95th percentile per-packet one-way delay: 237.957 ms
Loss rate: 3.27%
-- Flow 2:
Average throughput: 267.62 Mbit/s
95th percentile per-packet one-way delay: 264.746 ms
Loss rate: 12.40%
-- Flow 3:
Average throughput: 204.68 Mbit/s
95th percentile per-packet one-way delay: 262.436 ms
Loss rate: 13.64%
```

Run 2: Report of PCC-Expr — Data Link

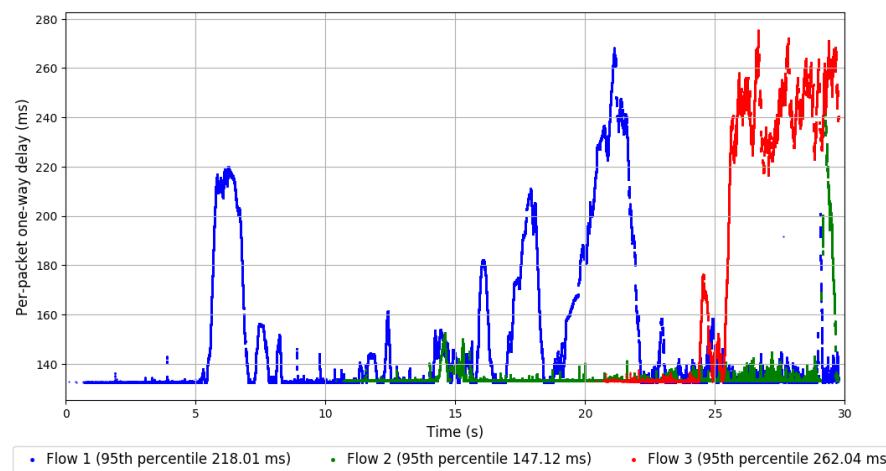
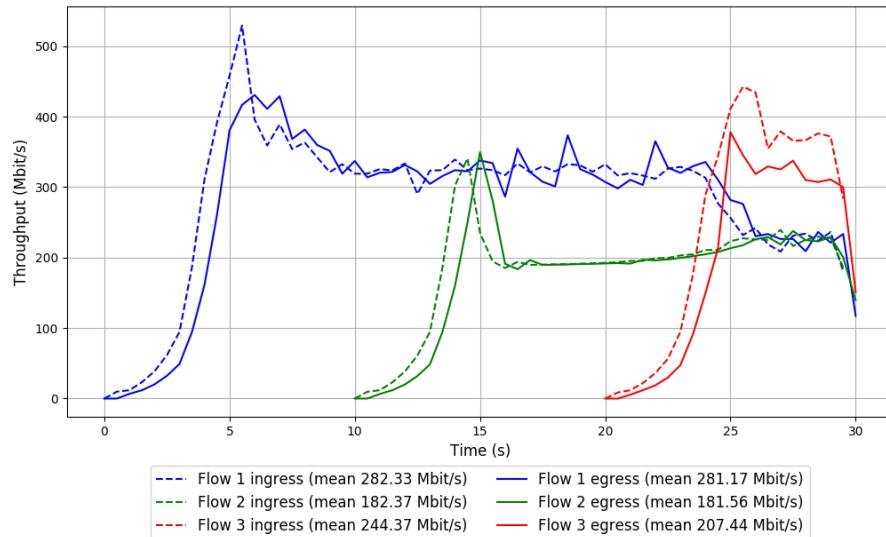


Run 3: Statistics of PCC-Expr

```
Start at: 2019-03-19 10:25:27
End at: 2019-03-19 10:25:57
Local clock offset: -0.056 ms
Remote clock offset: -3.072 ms

# Below is generated by plot.py at 2019-03-19 14:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.44 Mbit/s
95th percentile per-packet one-way delay: 245.794 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 281.17 Mbit/s
95th percentile per-packet one-way delay: 218.010 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 181.56 Mbit/s
95th percentile per-packet one-way delay: 147.115 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 207.44 Mbit/s
95th percentile per-packet one-way delay: 262.043 ms
Loss rate: 17.51%
```

Run 3: Report of PCC-Expr — Data Link

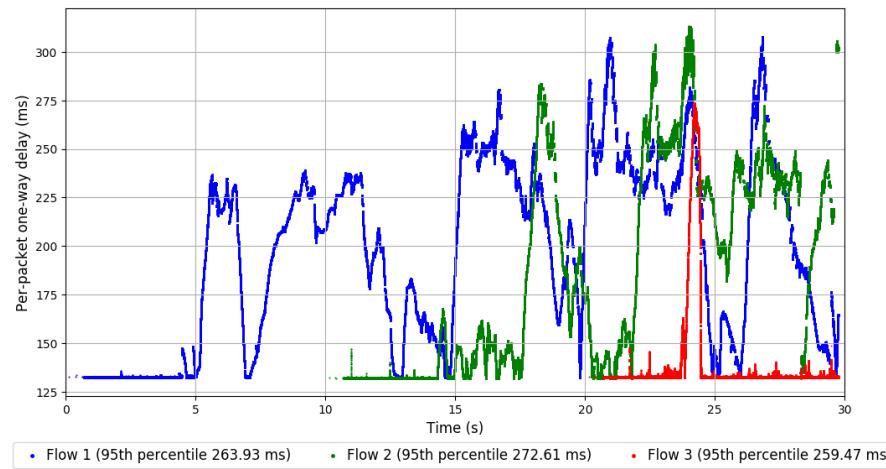
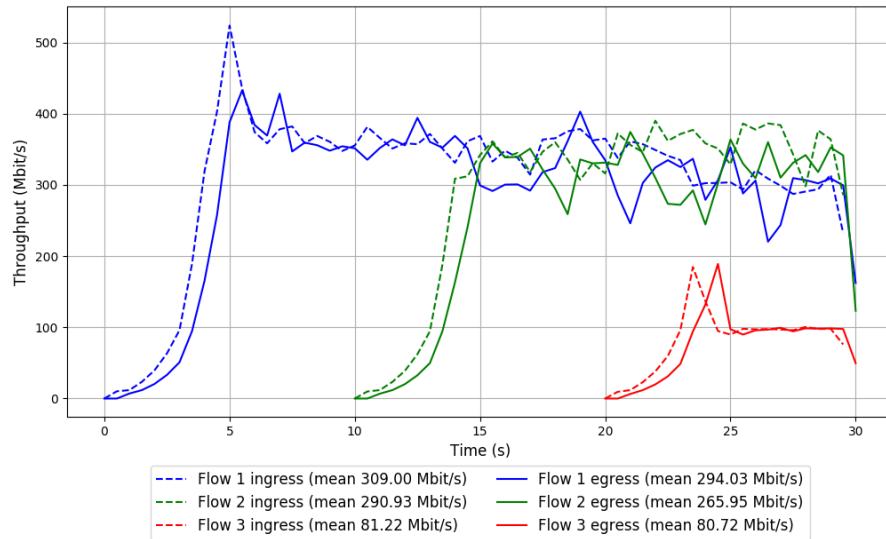


Run 4: Statistics of PCC-Expr

```
Start at: 2019-03-19 11:07:16
End at: 2019-03-19 11:07:46
Local clock offset: -0.568 ms
Remote clock offset: -0.529 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 496.26 Mbit/s
95th percentile per-packet one-way delay: 266.010 ms
Loss rate: 7.07%
-- Flow 1:
Average throughput: 294.03 Mbit/s
95th percentile per-packet one-way delay: 263.930 ms
Loss rate: 5.69%
-- Flow 2:
Average throughput: 265.95 Mbit/s
95th percentile per-packet one-way delay: 272.612 ms
Loss rate: 9.81%
-- Flow 3:
Average throughput: 80.72 Mbit/s
95th percentile per-packet one-way delay: 259.466 ms
Loss rate: 3.29%
```

Run 4: Report of PCC-Expr — Data Link

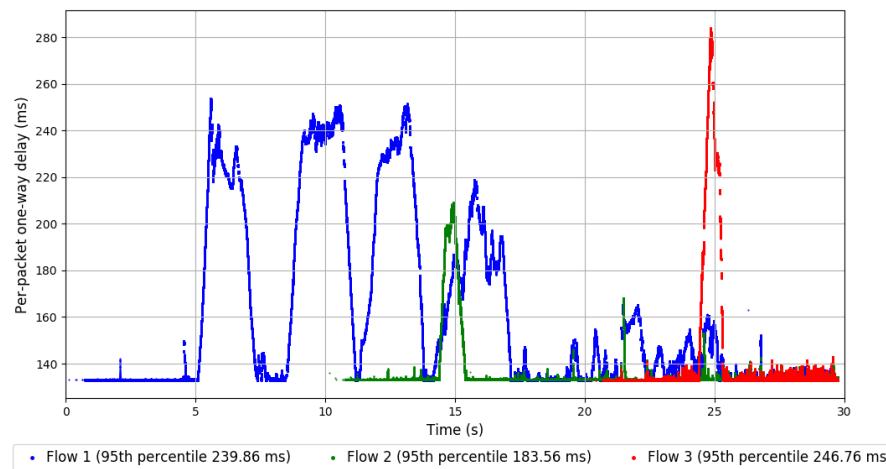
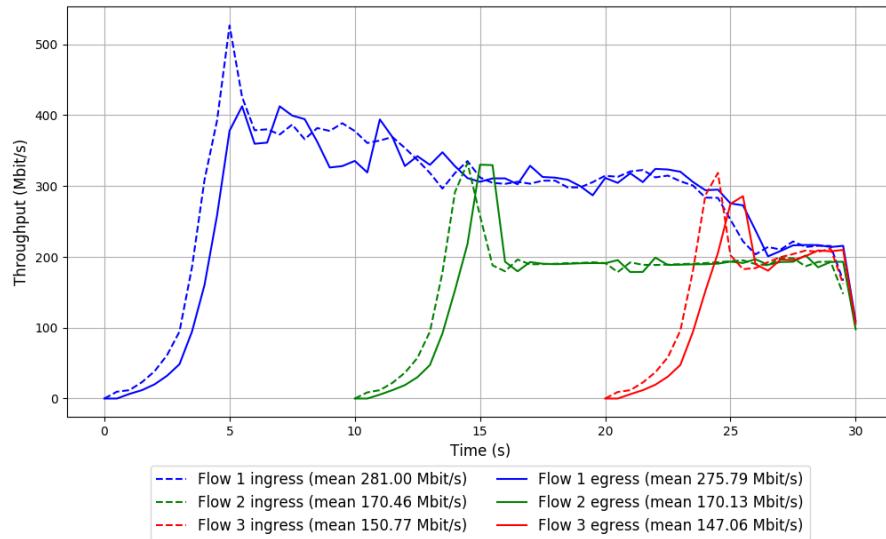


Run 5: Statistics of PCC-Expr

```
Start at: 2019-03-19 11:49:01
End at: 2019-03-19 11:49:31
Local clock offset: -0.023 ms
Remote clock offset: -0.331 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.07 Mbit/s
95th percentile per-packet one-way delay: 237.260 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 275.79 Mbit/s
95th percentile per-packet one-way delay: 239.864 ms
Loss rate: 2.72%
-- Flow 2:
Average throughput: 170.13 Mbit/s
95th percentile per-packet one-way delay: 183.559 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 147.06 Mbit/s
95th percentile per-packet one-way delay: 246.756 ms
Loss rate: 5.12%
```

Run 5: Report of PCC-Expr — Data Link

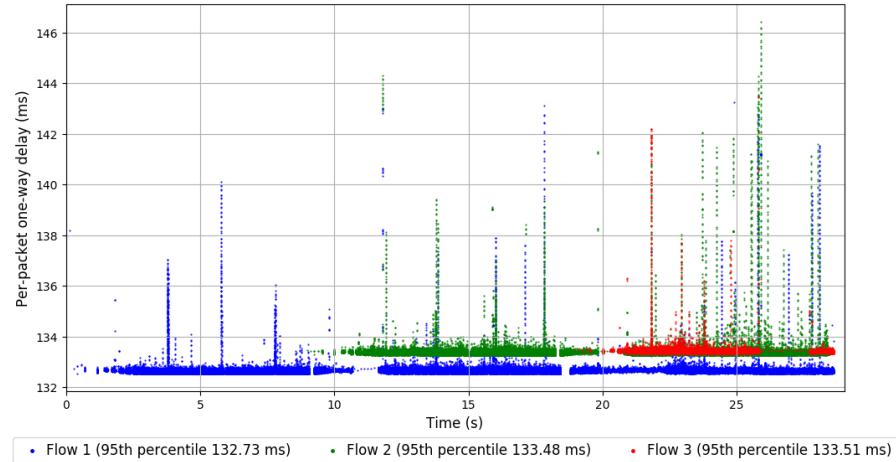
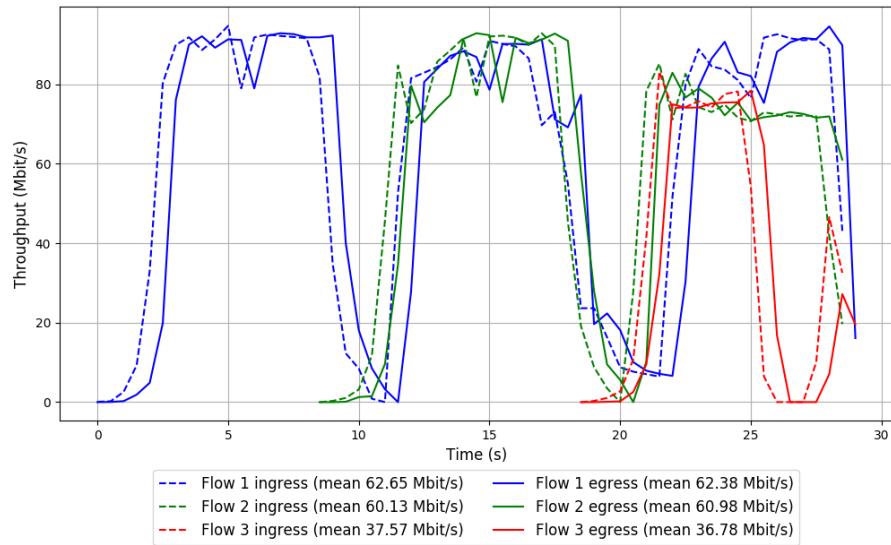


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-03-19 08:56:51
End at: 2019-03-19 08:57:21
Local clock offset: -0.18 ms
Remote clock offset: -0.436 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.43 Mbit/s
95th percentile per-packet one-way delay: 133.448 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 62.38 Mbit/s
95th percentile per-packet one-way delay: 132.731 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 60.98 Mbit/s
95th percentile per-packet one-way delay: 133.483 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 36.78 Mbit/s
95th percentile per-packet one-way delay: 133.510 ms
Loss rate: 4.76%
```

Run 1: Report of QUIC Cubic — Data Link

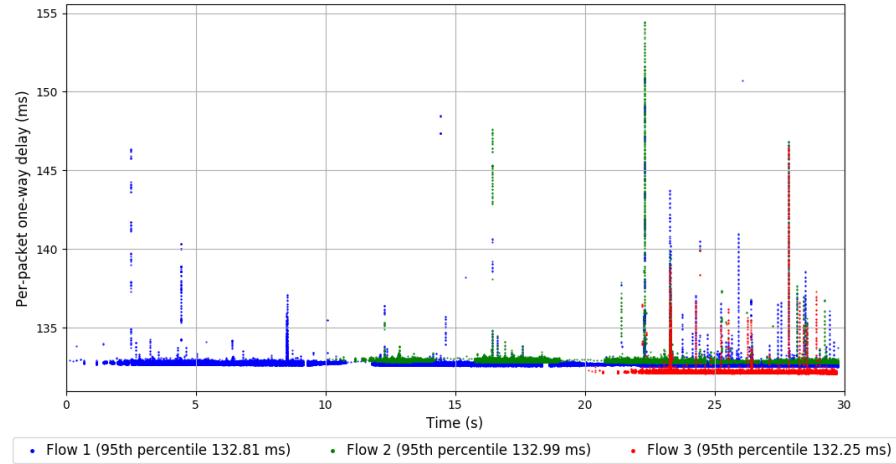
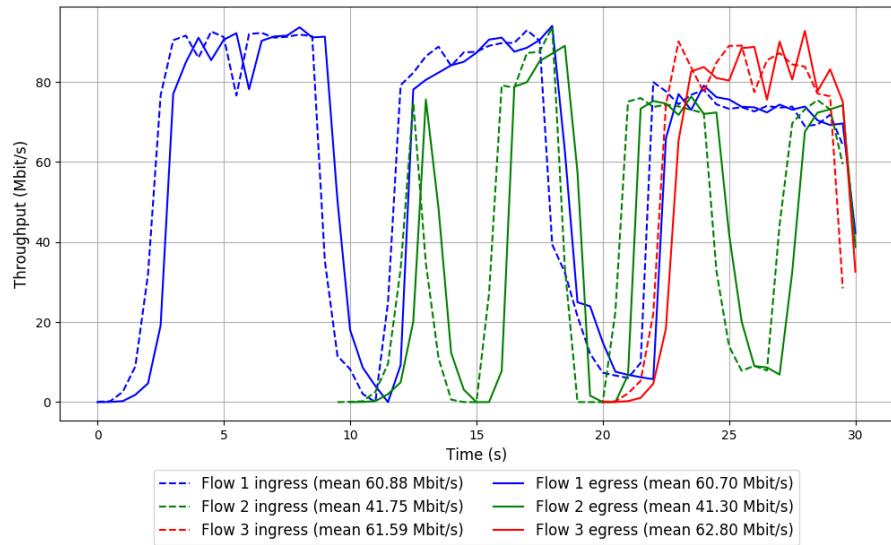


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-03-19 09:38:14
End at: 2019-03-19 09:38:44
Local clock offset: -0.057 ms
Remote clock offset: -6.497 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 108.35 Mbit/s
95th percentile per-packet one-way delay: 132.926 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 60.70 Mbit/s
95th percentile per-packet one-way delay: 132.806 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 41.30 Mbit/s
95th percentile per-packet one-way delay: 132.985 ms
Loss rate: 2.41%
-- Flow 3:
Average throughput: 62.80 Mbit/s
95th percentile per-packet one-way delay: 132.254 ms
Loss rate: 1.35%
```

Run 2: Report of QUIC Cubic — Data Link

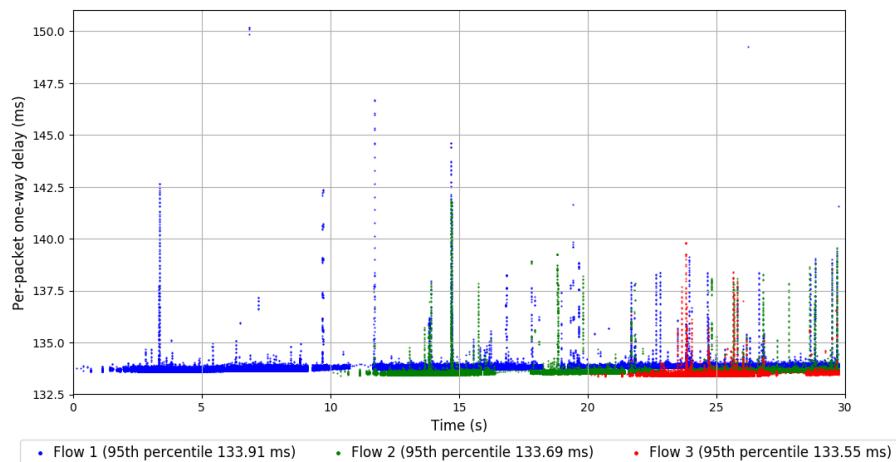
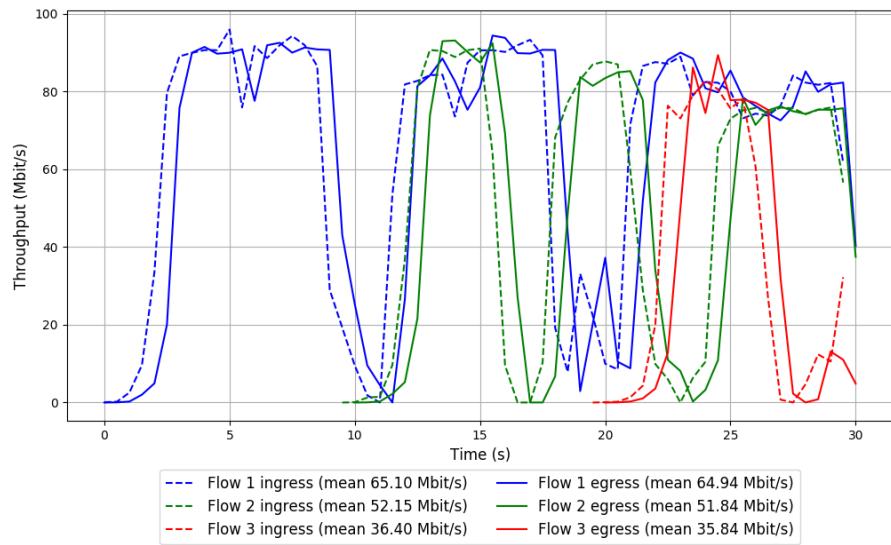


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-03-19 10:20:22
End at: 2019-03-19 10:20:52
Local clock offset: -0.008 ms
Remote clock offset: -5.616 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 110.93 Mbit/s
95th percentile per-packet one-way delay: 133.899 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 64.94 Mbit/s
95th percentile per-packet one-way delay: 133.915 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 51.84 Mbit/s
95th percentile per-packet one-way delay: 133.688 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 35.84 Mbit/s
95th percentile per-packet one-way delay: 133.553 ms
Loss rate: 4.17%
```

Run 3: Report of QUIC Cubic — Data Link

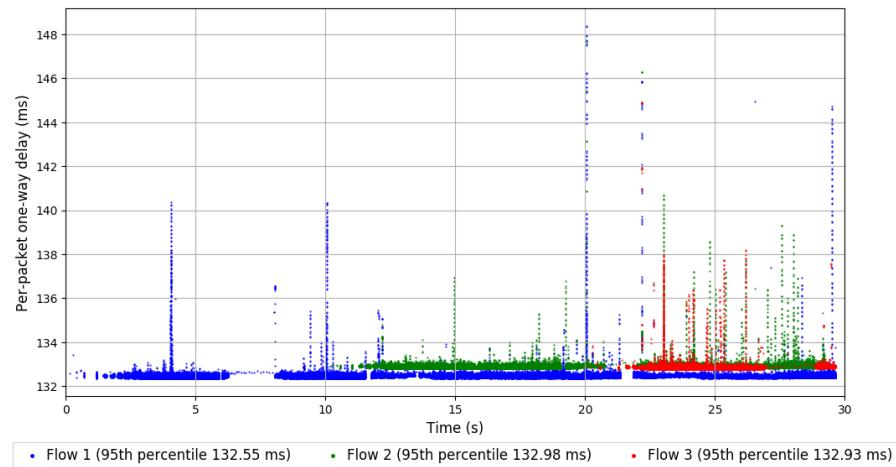
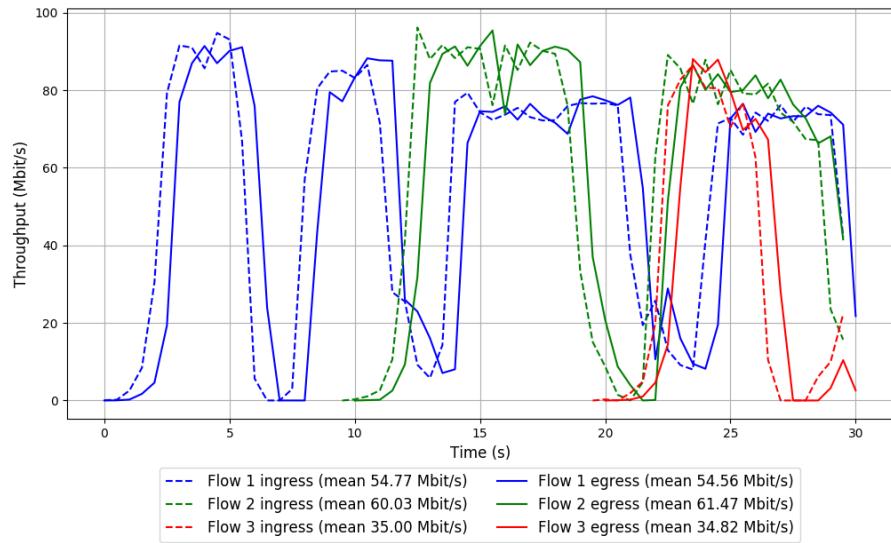


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-03-19 11:02:16
End at: 2019-03-19 11:02:46
Local clock offset: -0.182 ms
Remote clock offset: -0.712 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.12 Mbit/s
95th percentile per-packet one-way delay: 132.939 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 54.56 Mbit/s
95th percentile per-packet one-way delay: 132.549 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 61.47 Mbit/s
95th percentile per-packet one-way delay: 132.978 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 34.82 Mbit/s
95th percentile per-packet one-way delay: 132.934 ms
Loss rate: 3.21%
```

Run 4: Report of QUIC Cubic — Data Link

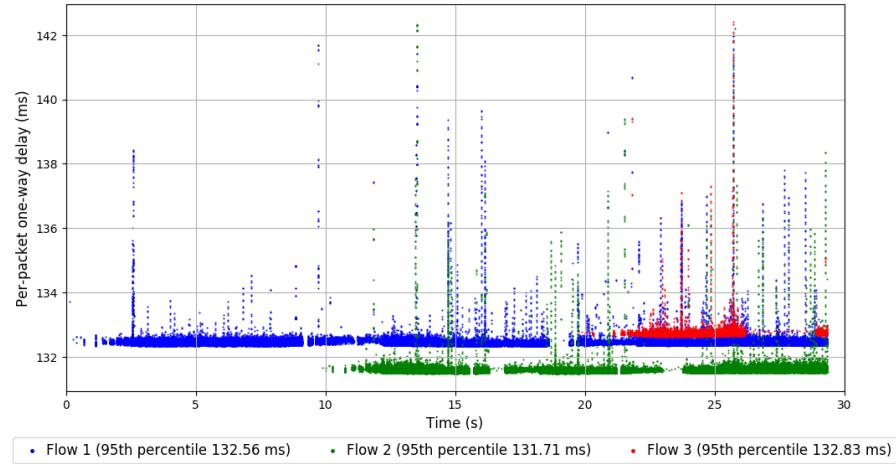
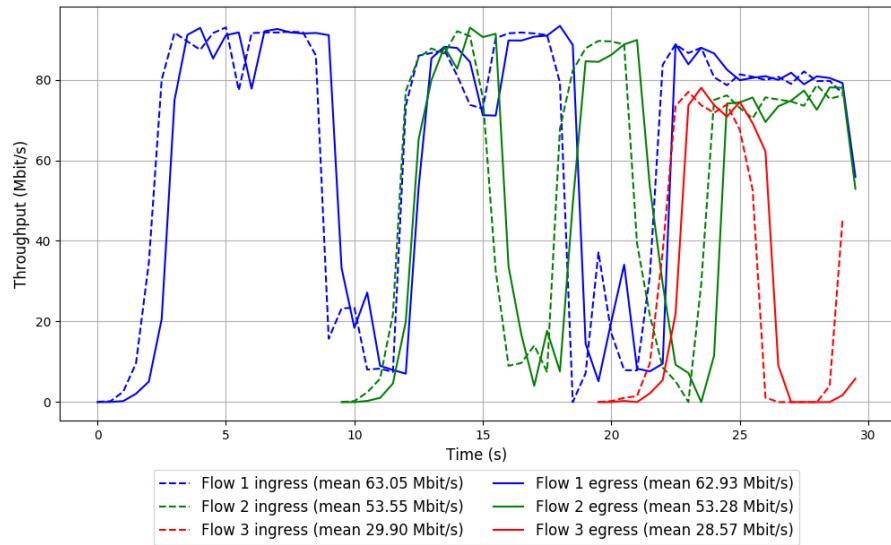


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-03-19 11:43:56
End at: 2019-03-19 11:44:26
Local clock offset: -0.458 ms
Remote clock offset: -0.325 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 108.09 Mbit/s
95th percentile per-packet one-way delay: 132.716 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 62.93 Mbit/s
95th percentile per-packet one-way delay: 132.556 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 53.28 Mbit/s
95th percentile per-packet one-way delay: 131.712 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 28.57 Mbit/s
95th percentile per-packet one-way delay: 132.826 ms
Loss rate: 7.08%
```

Run 5: Report of QUIC Cubic — Data Link

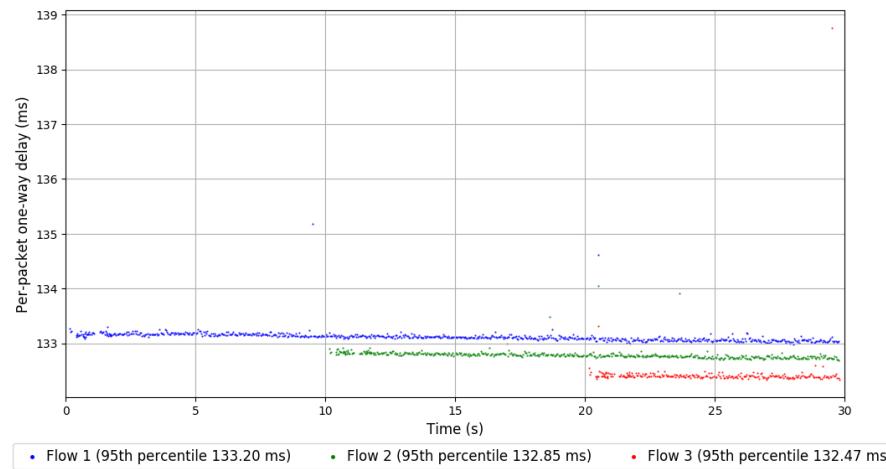
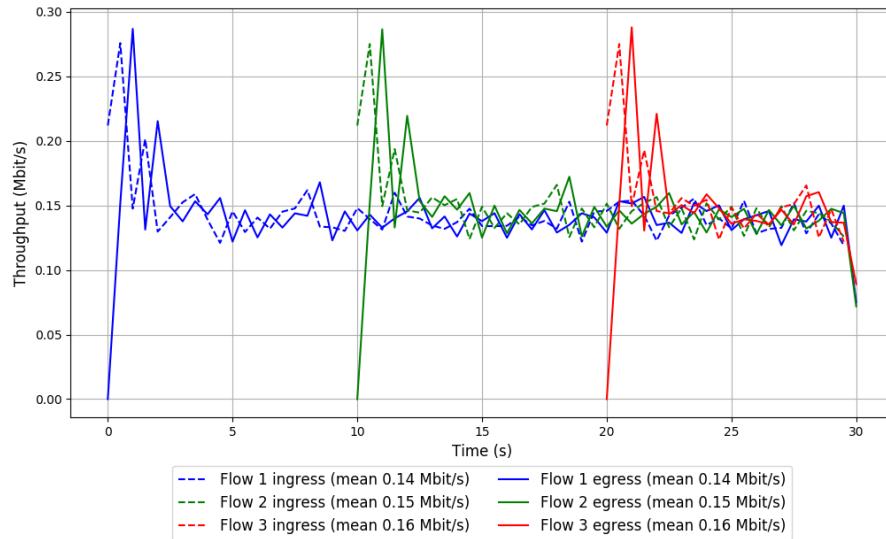


Run 1: Statistics of SCReAM

```
Start at: 2019-03-19 09:23:07
End at: 2019-03-19 09:23:37
Local clock offset: -0.057 ms
Remote clock offset: -2.298 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 133.182 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 133.200 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.848 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 132.472 ms
Loss rate: 2.45%
```

Run 1: Report of SCReAM — Data Link

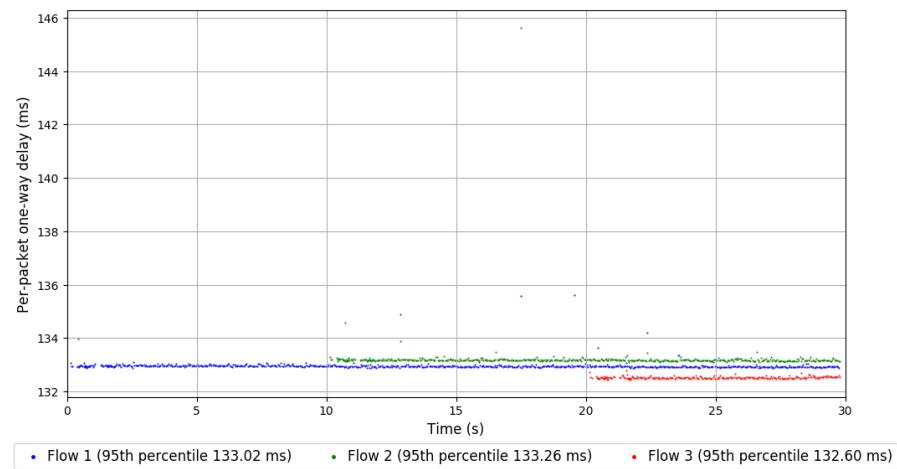
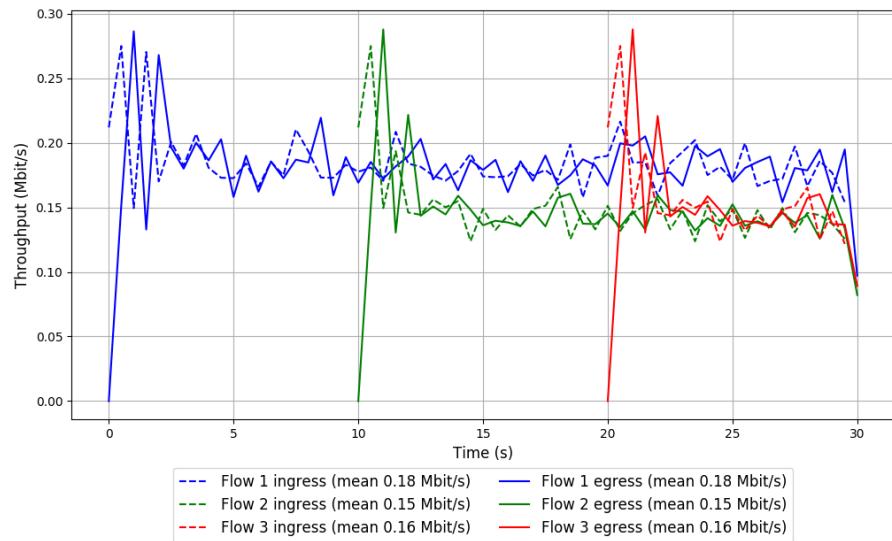


Run 2: Statistics of SCReAM

```
Start at: 2019-03-19 10:04:40
End at: 2019-03-19 10:05:10
Local clock offset: -0.021 ms
Remote clock offset: -4.056 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 133.212 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 133.024 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.258 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 132.598 ms
Loss rate: 2.45%
```

Run 2: Report of SCReAM — Data Link

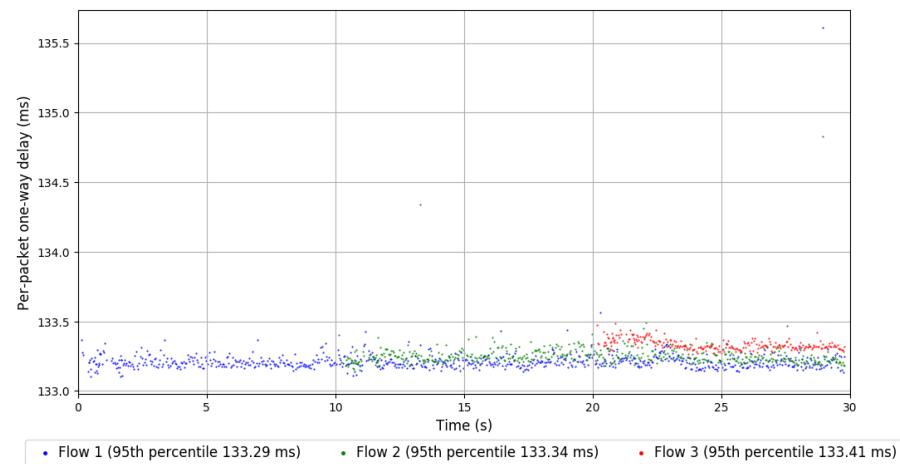
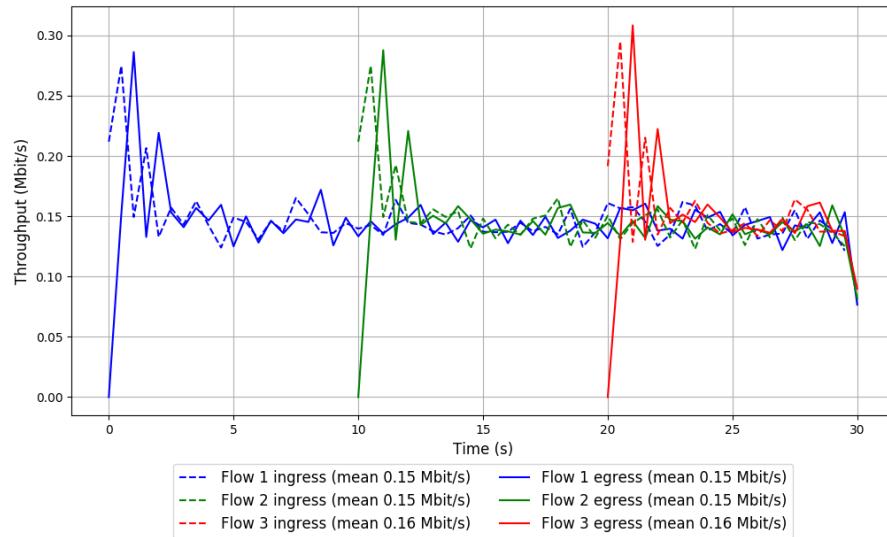


Run 3: Statistics of SCReAM

```
Start at: 2019-03-19 10:47:26
End at: 2019-03-19 10:47:56
Local clock offset: 0.159 ms
Remote clock offset: -1.192 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 133.361 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.291 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.337 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 133.407 ms
Loss rate: 2.45%
```

Run 3: Report of SCReAM — Data Link

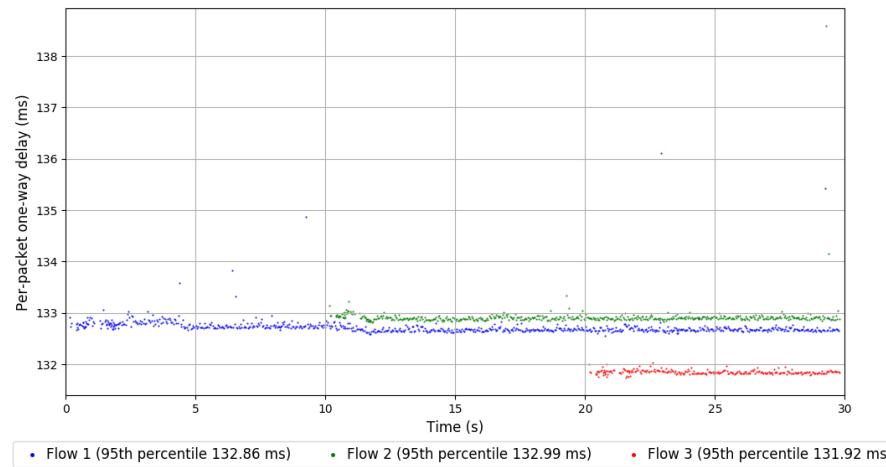
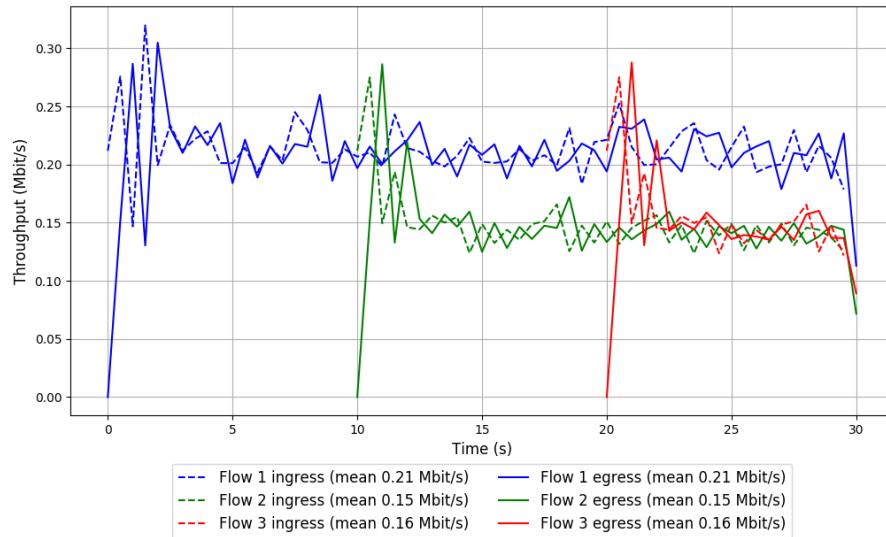


Run 4: Statistics of SCReAM

```
Start at: 2019-03-19 11:28:44
End at: 2019-03-19 11:29:14
Local clock offset: -0.59 ms
Remote clock offset: -0.662 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 132.945 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 132.863 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.988 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 131.923 ms
Loss rate: 2.45%
```

Run 4: Report of SCReAM — Data Link

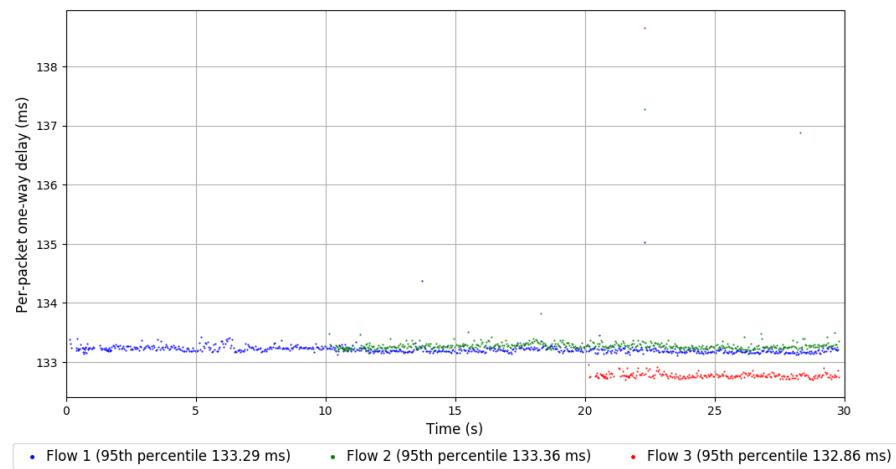
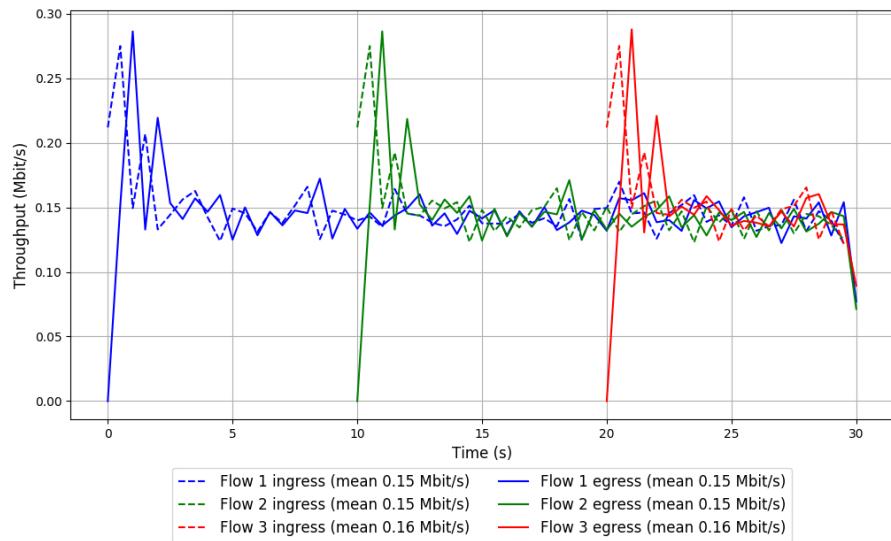


Run 5: Statistics of SCReAM

```
Start at: 2019-03-19 12:09:25
End at: 2019-03-19 12:09:55
Local clock offset: 0.207 ms
Remote clock offset: -0.275 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 133.335 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.294 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.364 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 132.857 ms
Loss rate: 2.45%
```

Run 5: Report of SCReAM — Data Link

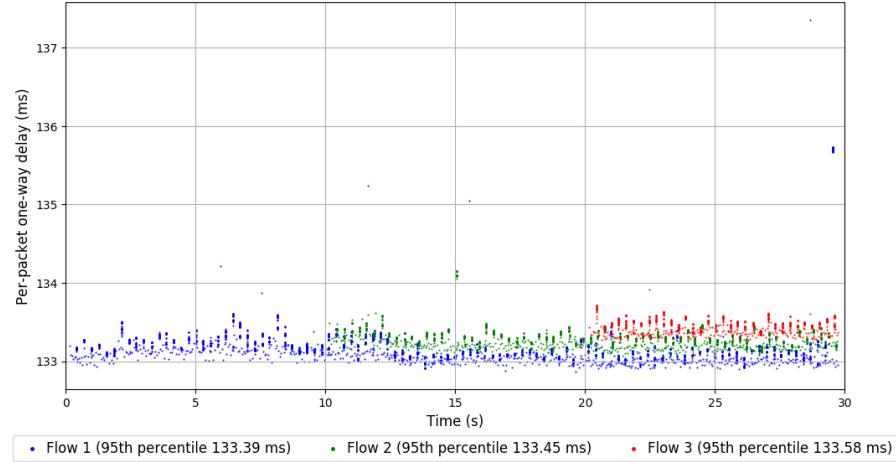
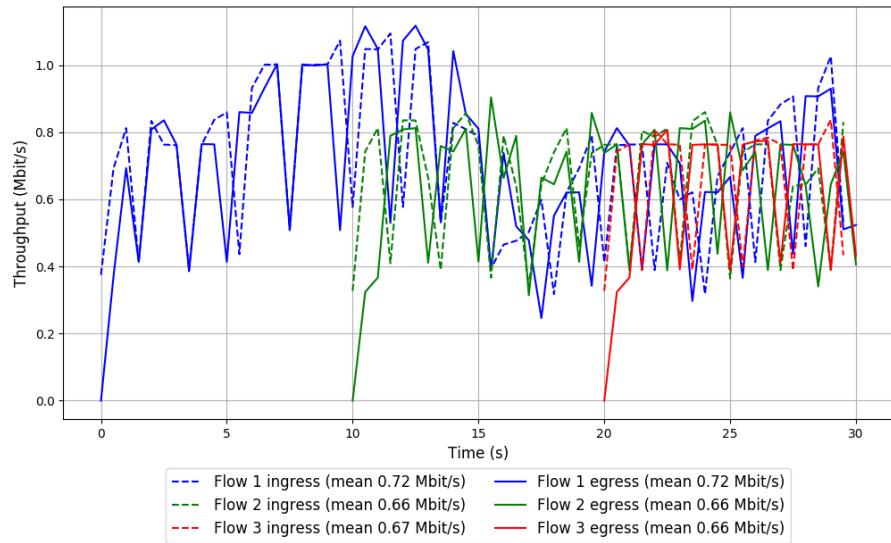


Run 1: Statistics of Sprout

```
Start at: 2019-03-19 08:47:27
End at: 2019-03-19 08:47:57
Local clock offset: -0.336 ms
Remote clock offset: -0.427 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 133.517 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 133.394 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 133.449 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 133.582 ms
Loss rate: 3.27%
```

Run 1: Report of Sprout — Data Link

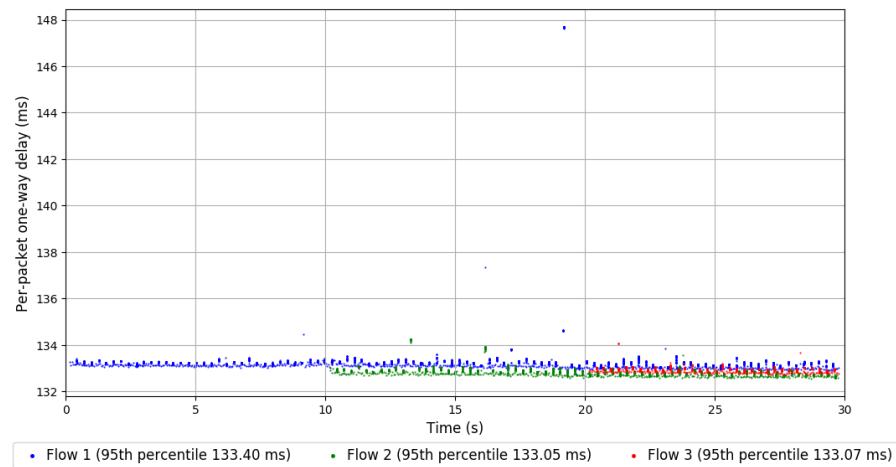
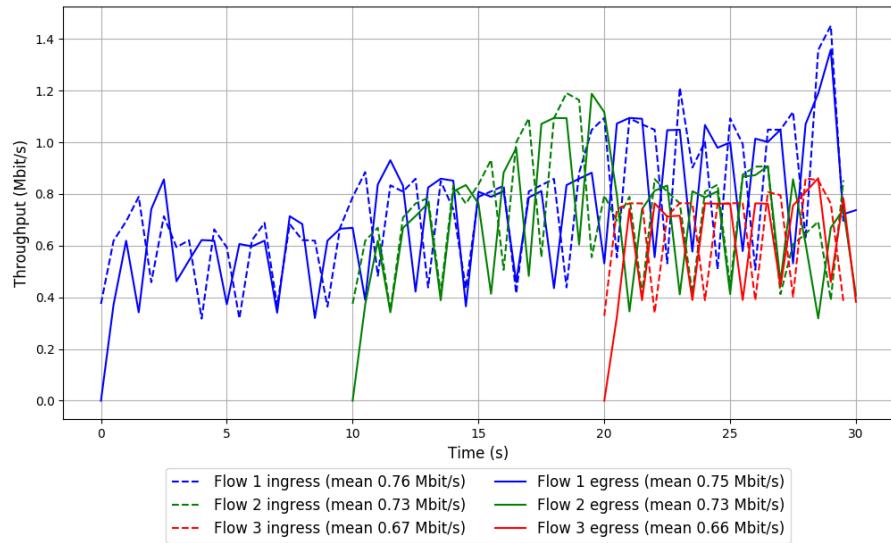


Run 2: Statistics of Sprout

```
Start at: 2019-03-19 09:28:57
End at: 2019-03-19 09:29:27
Local clock offset: -0.081 ms
Remote clock offset: -3.935 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 133.373 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 133.404 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 133.050 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 133.068 ms
Loss rate: 2.91%
```

Run 2: Report of Sprout — Data Link

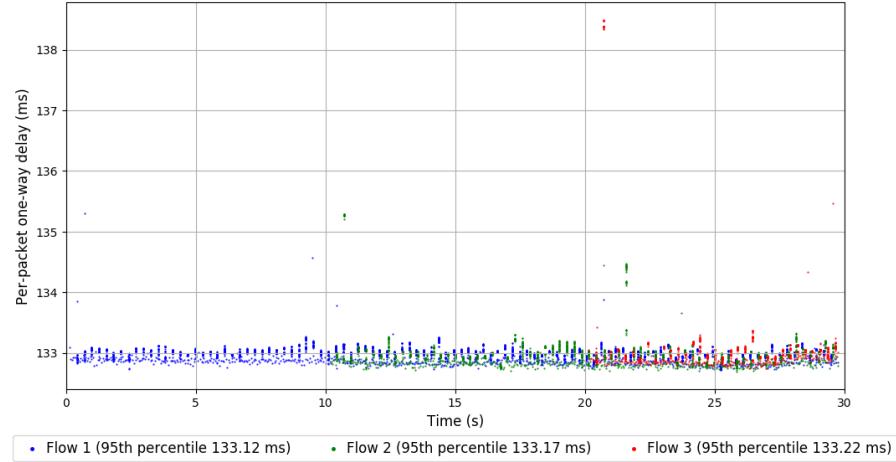
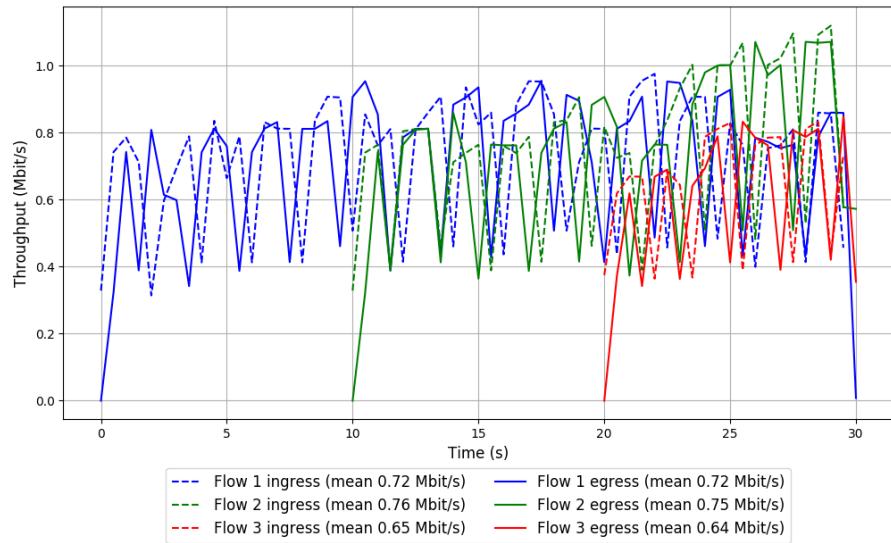


Run 3: Statistics of Sprout

```
Start at: 2019-03-19 10:10:15
End at: 2019-03-19 10:10:45
Local clock offset: -0.042 ms
Remote clock offset: -4.472 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 133.150 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 133.121 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 133.173 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 133.221 ms
Loss rate: 2.99%
```

Run 3: Report of Sprout — Data Link

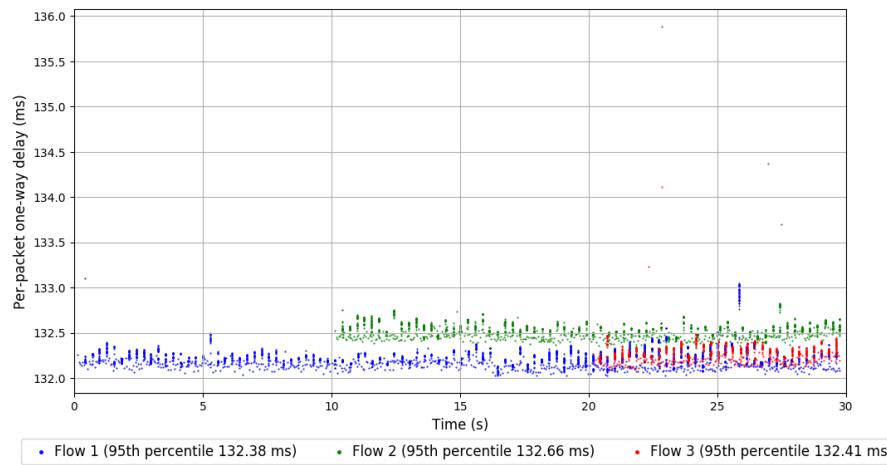
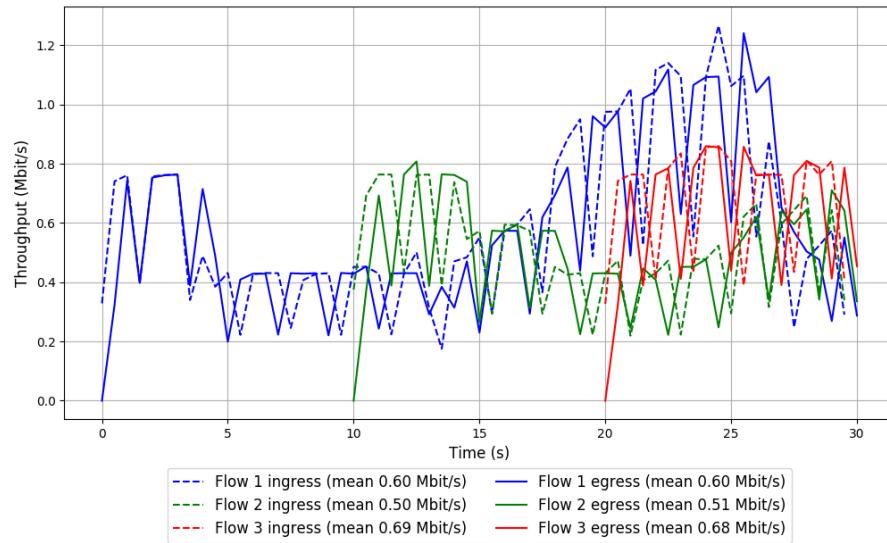


Run 4: Statistics of Sprout

```
Start at: 2019-03-19 10:53:14
End at: 2019-03-19 10:53:44
Local clock offset: -0.566 ms
Remote clock offset: -0.943 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 132.612 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 132.376 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 132.658 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 132.405 ms
Loss rate: 2.63%
```

Run 4: Report of Sprout — Data Link

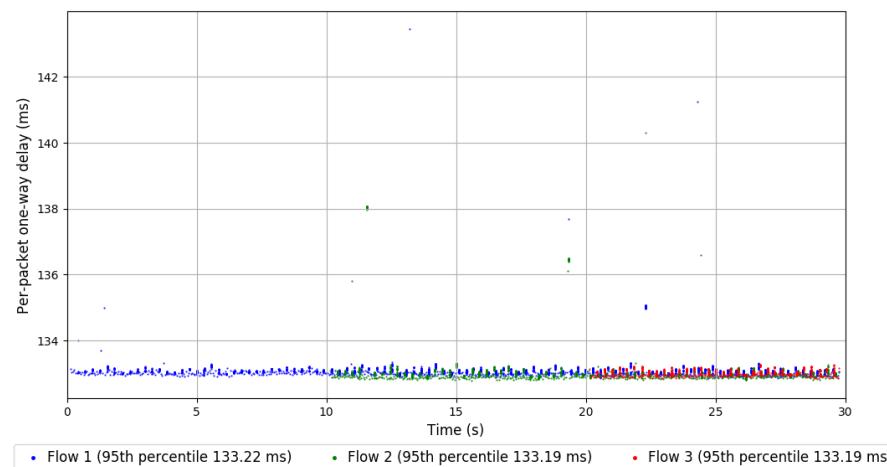
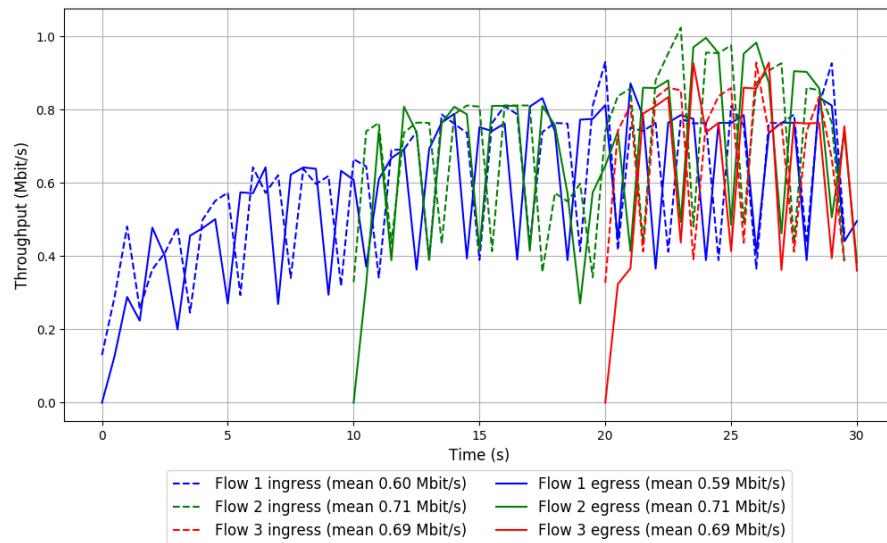


Run 5: Statistics of Sprout

```
Start at: 2019-03-19 11:34:24
End at: 2019-03-19 11:34:54
Local clock offset: -0.115 ms
Remote clock offset: -0.403 ms

# Below is generated by plot.py at 2019-03-19 14:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 133.206 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 133.216 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 133.193 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 133.191 ms
Loss rate: 2.81%
```

Run 5: Report of Sprout — Data Link

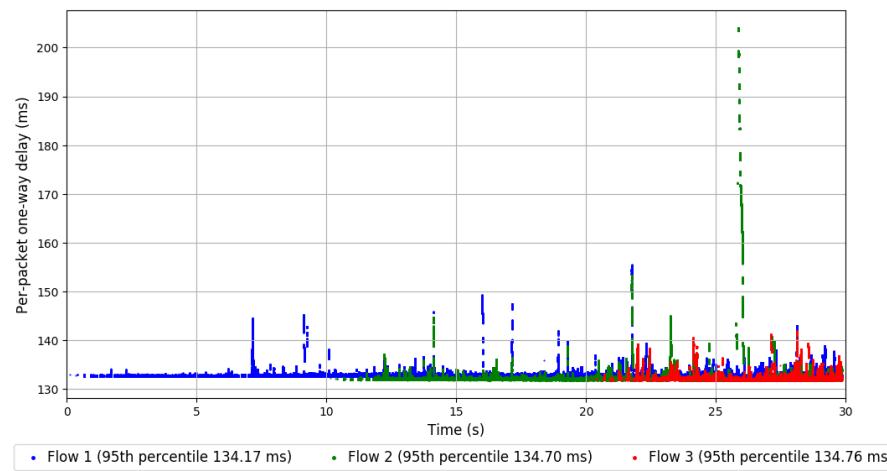
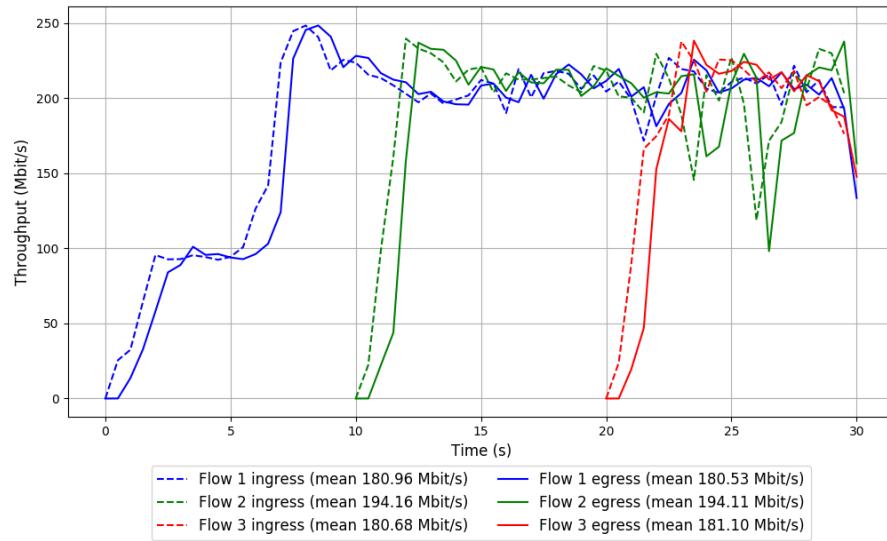


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-03-19 09:26:39
End at: 2019-03-19 09:27:09
Local clock offset: -0.027 ms
Remote clock offset: -3.226 ms

# Below is generated by plot.py at 2019-03-19 14:29:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.37 Mbit/s
95th percentile per-packet one-way delay: 134.431 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 180.53 Mbit/s
95th percentile per-packet one-way delay: 134.173 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 194.11 Mbit/s
95th percentile per-packet one-way delay: 134.704 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 181.10 Mbit/s
95th percentile per-packet one-way delay: 134.764 ms
Loss rate: 2.43%
```

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

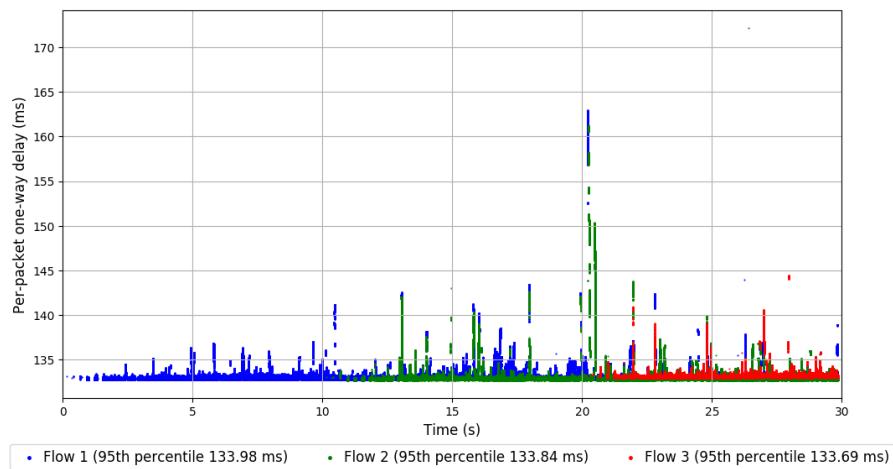
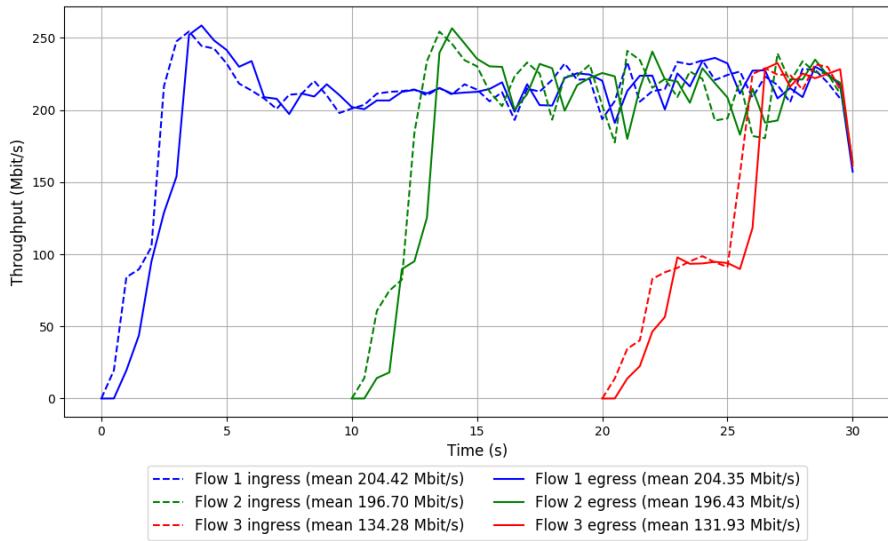


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-03-19 10:08:11
End at: 2019-03-19 10:08:41
Local clock offset: -0.005 ms
Remote clock offset: -4.281 ms

# Below is generated by plot.py at 2019-03-19 14:29:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.69 Mbit/s
95th percentile per-packet one-way delay: 133.888 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 204.35 Mbit/s
95th percentile per-packet one-way delay: 133.983 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 196.43 Mbit/s
95th percentile per-packet one-way delay: 133.842 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 131.93 Mbit/s
95th percentile per-packet one-way delay: 133.686 ms
Loss rate: 4.38%
```

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

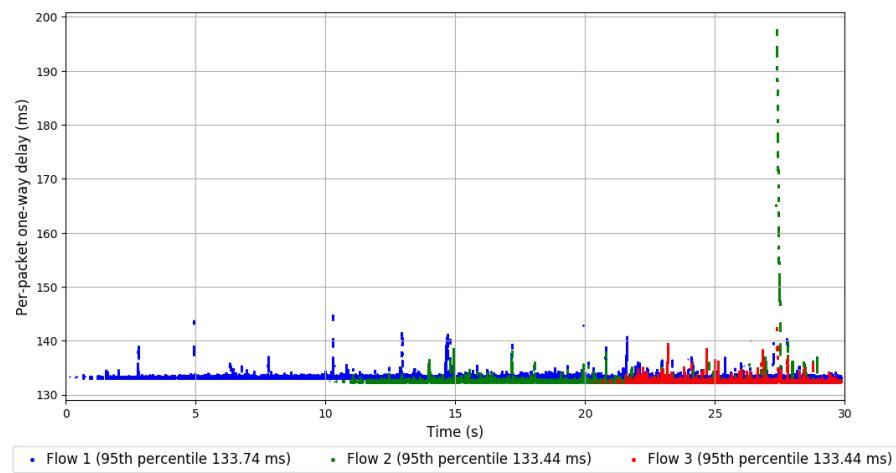
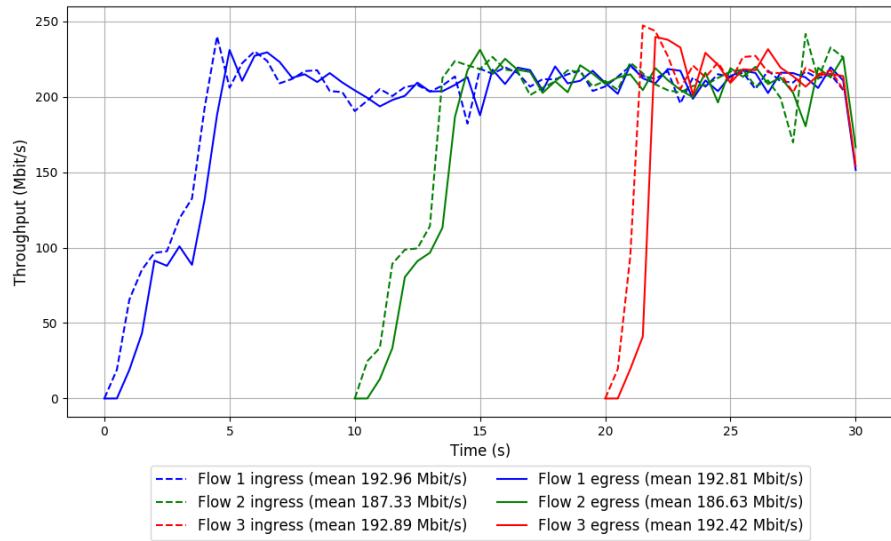


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-03-19 10:50:56
End at: 2019-03-19 10:51:26
Local clock offset: -0.128 ms
Remote clock offset: -1.251 ms

# Below is generated by plot.py at 2019-03-19 14:30:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.40 Mbit/s
95th percentile per-packet one-way delay: 133.680 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 192.81 Mbit/s
95th percentile per-packet one-way delay: 133.739 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 186.63 Mbit/s
95th percentile per-packet one-way delay: 133.440 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 192.42 Mbit/s
95th percentile per-packet one-way delay: 133.444 ms
Loss rate: 2.90%
```

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

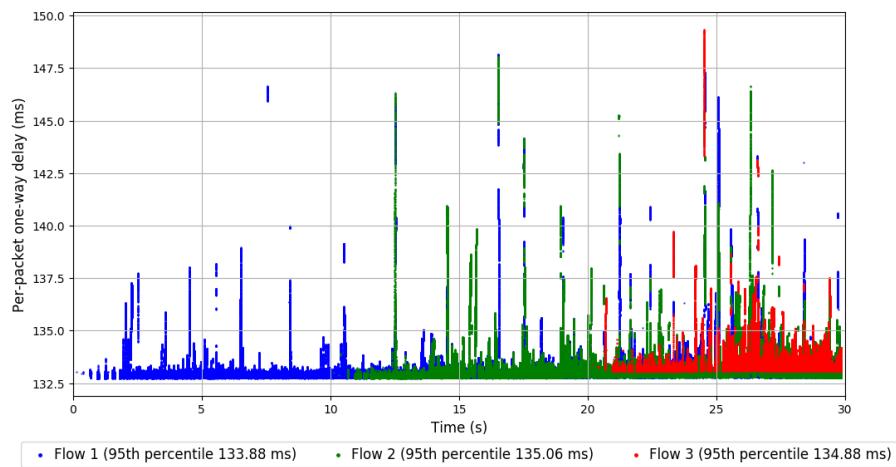
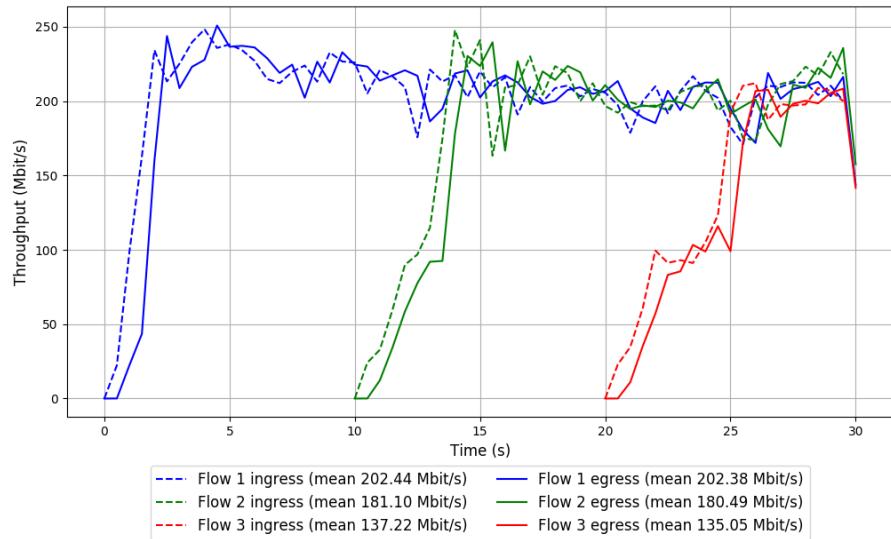


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-03-19 11:32:13
End at: 2019-03-19 11:32:43
Local clock offset: -0.181 ms
Remote clock offset: -0.54 ms

# Below is generated by plot.py at 2019-03-19 14:30:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 366.12 Mbit/s
95th percentile per-packet one-way delay: 134.477 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 202.38 Mbit/s
95th percentile per-packet one-way delay: 133.876 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 180.49 Mbit/s
95th percentile per-packet one-way delay: 135.057 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 135.05 Mbit/s
95th percentile per-packet one-way delay: 134.880 ms
Loss rate: 4.20%
```

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

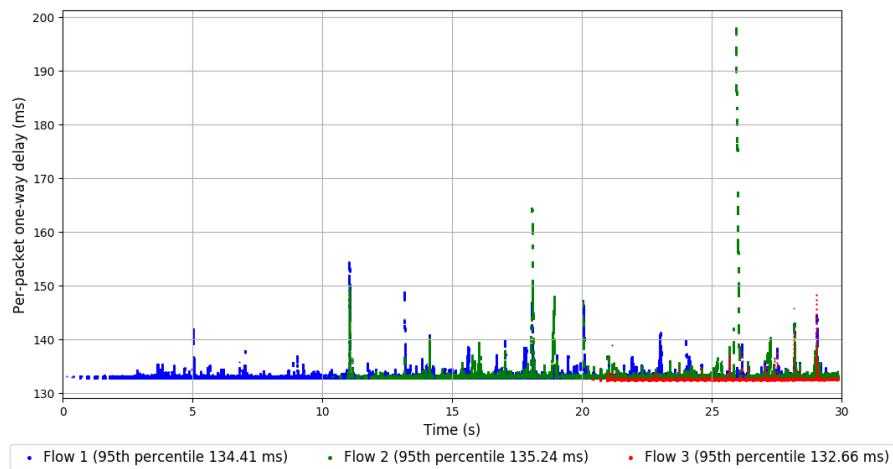
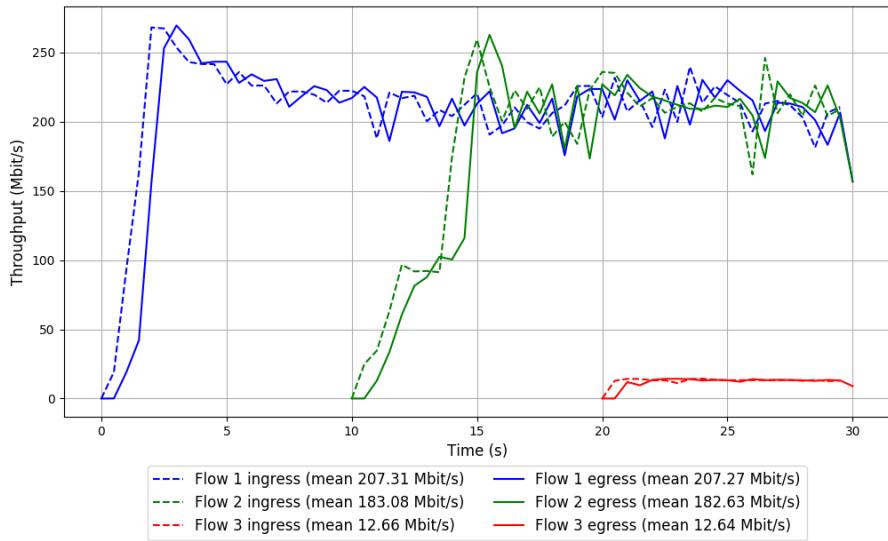


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-03-19 12:12:47
End at: 2019-03-19 12:13:17
Local clock offset: 0.157 ms
Remote clock offset: -0.266 ms

# Below is generated by plot.py at 2019-03-19 14:30:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 332.48 Mbit/s
95th percentile per-packet one-way delay: 134.601 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 207.27 Mbit/s
95th percentile per-packet one-way delay: 134.409 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 182.63 Mbit/s
95th percentile per-packet one-way delay: 135.239 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 12.64 Mbit/s
95th percentile per-packet one-way delay: 132.658 ms
Loss rate: 2.82%
```

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

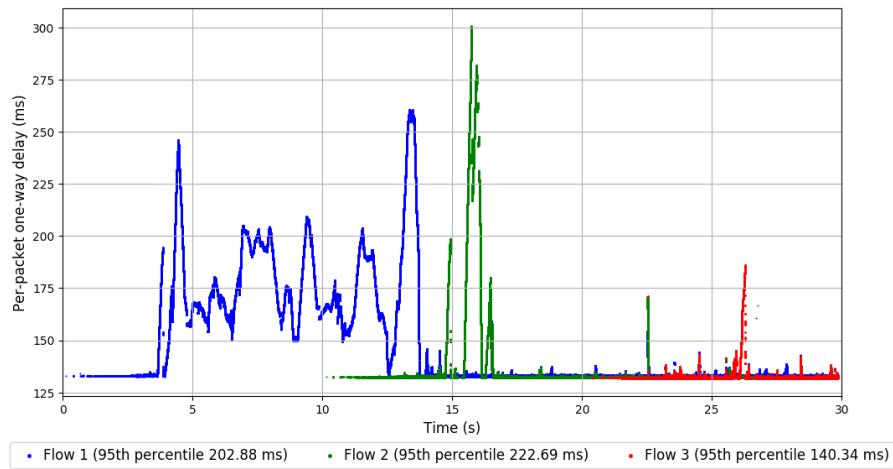
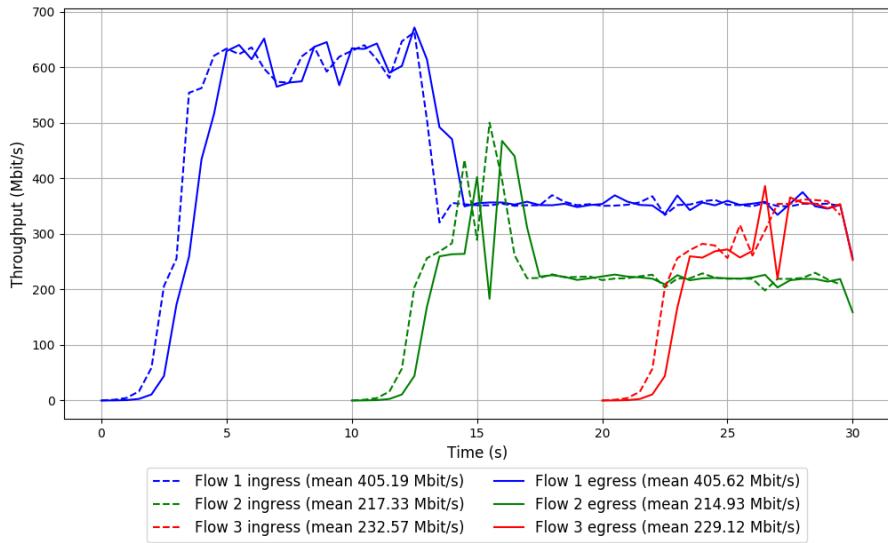


Run 1: Statistics of TCP Vegas

```
Start at: 2019-03-19 09:20:55
End at: 2019-03-19 09:21:25
Local clock offset: -0.068 ms
Remote clock offset: -1.668 ms

# Below is generated by plot.py at 2019-03-19 14:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 622.91 Mbit/s
95th percentile per-packet one-way delay: 202.306 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 405.62 Mbit/s
95th percentile per-packet one-way delay: 202.885 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 214.93 Mbit/s
95th percentile per-packet one-way delay: 222.692 ms
Loss rate: 2.41%
-- Flow 3:
Average throughput: 229.12 Mbit/s
95th percentile per-packet one-way delay: 140.337 ms
Loss rate: 4.08%
```

Run 1: Report of TCP Vegas — Data Link

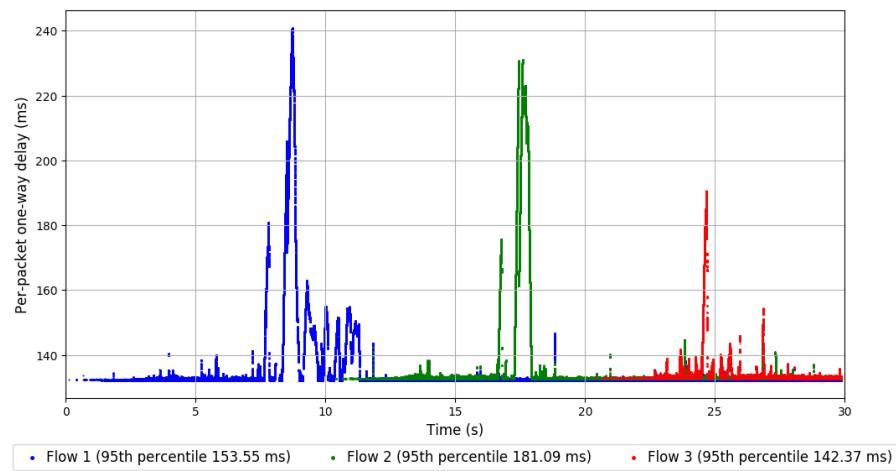
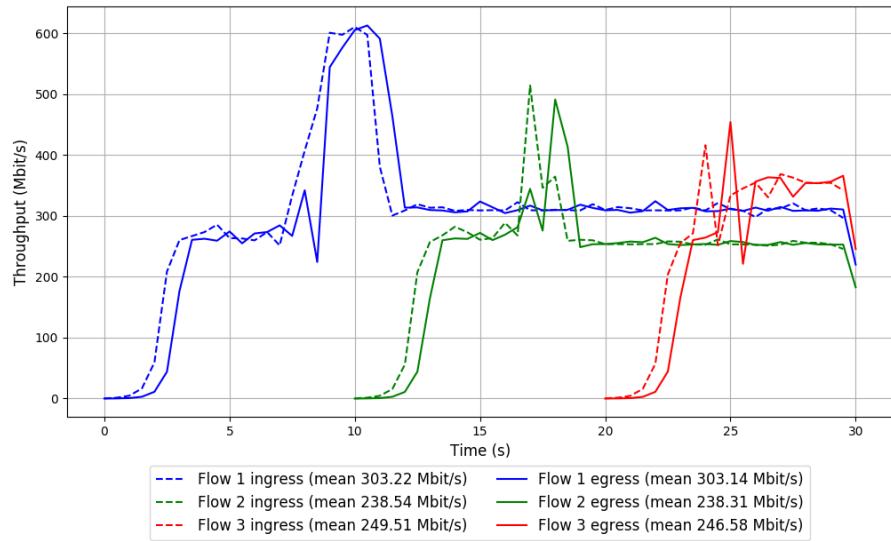


Run 2: Statistics of TCP Vegas

```
Start at: 2019-03-19 10:02:45
End at: 2019-03-19 10:03:15
Local clock offset: -0.233 ms
Remote clock offset: -3.991 ms

# Below is generated by plot.py at 2019-03-19 14:36:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 541.75 Mbit/s
95th percentile per-packet one-way delay: 155.127 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 303.14 Mbit/s
95th percentile per-packet one-way delay: 153.550 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 238.31 Mbit/s
95th percentile per-packet one-way delay: 181.086 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 246.58 Mbit/s
95th percentile per-packet one-way delay: 142.366 ms
Loss rate: 3.82%
```

Run 2: Report of TCP Vegas — Data Link

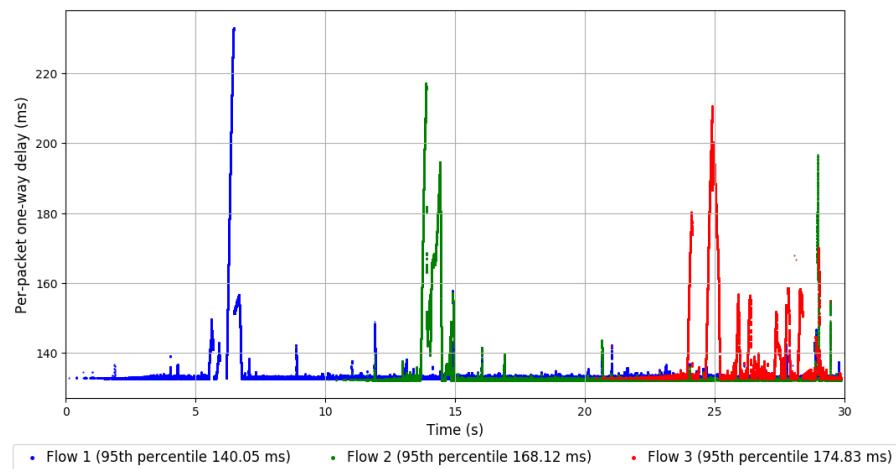
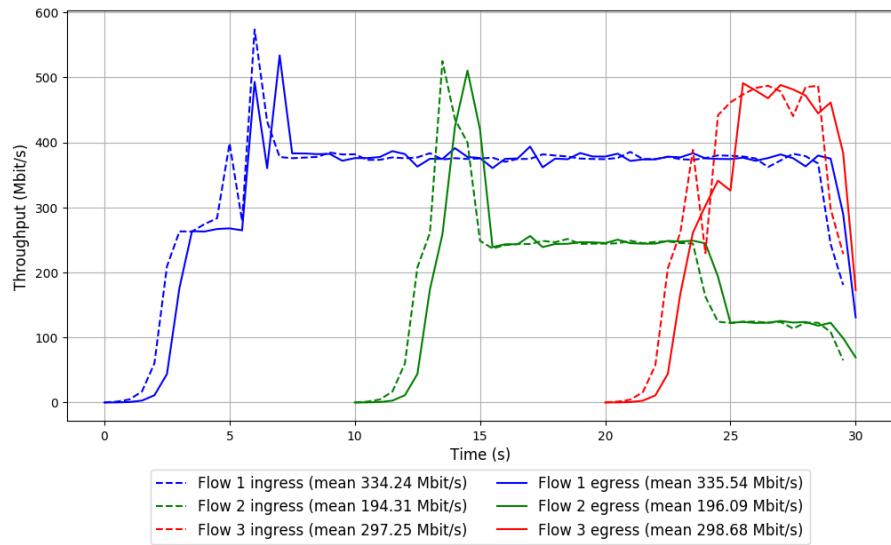


Run 3: Statistics of TCP Vegas

```
Start at: 2019-03-19 10:45:25
End at: 2019-03-19 10:45:55
Local clock offset: -0.161 ms
Remote clock offset: -1.172 ms

# Below is generated by plot.py at 2019-03-19 14:38:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 563.19 Mbit/s
95th percentile per-packet one-way delay: 155.201 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 335.54 Mbit/s
95th percentile per-packet one-way delay: 140.051 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 196.09 Mbit/s
95th percentile per-packet one-way delay: 168.115 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 298.68 Mbit/s
95th percentile per-packet one-way delay: 174.832 ms
Loss rate: 2.19%
```

Run 3: Report of TCP Vegas — Data Link

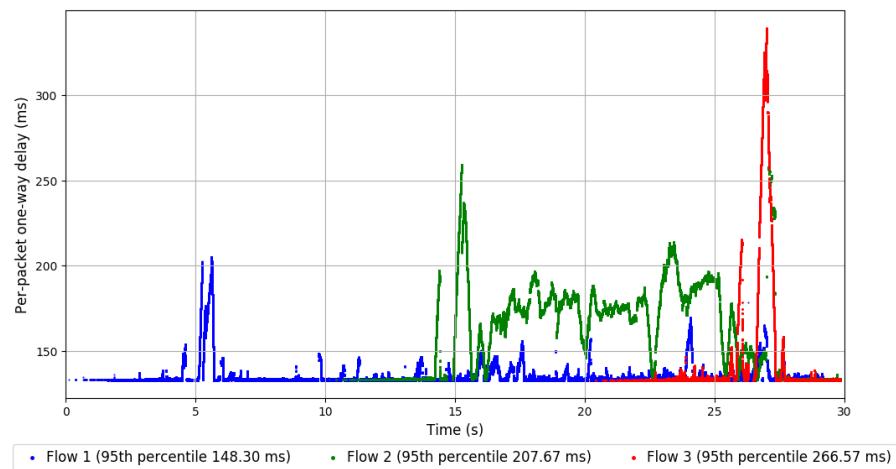
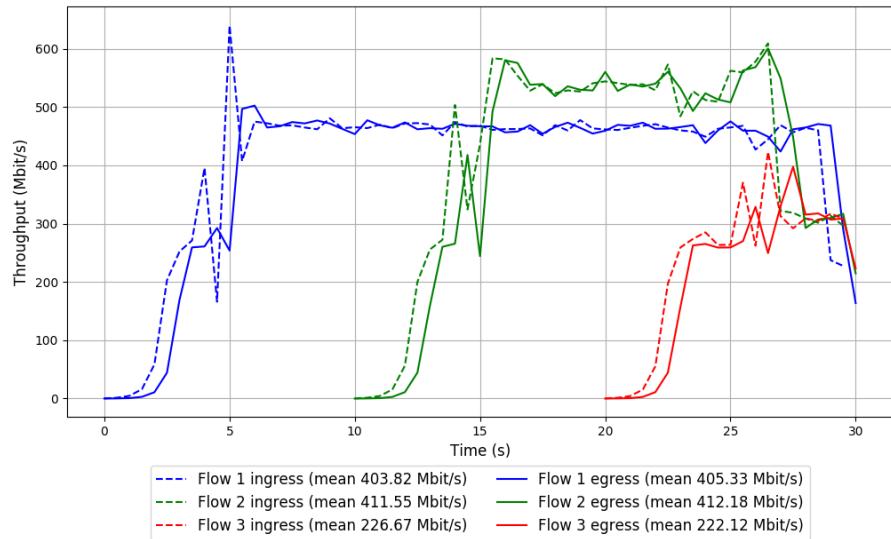


Run 4: Statistics of TCP Vegas

```
Start at: 2019-03-19 11:26:27
End at: 2019-03-19 11:26:57
Local clock offset: -0.171 ms
Remote clock offset: -0.67 ms

# Below is generated by plot.py at 2019-03-19 14:42:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 751.17 Mbit/s
95th percentile per-packet one-way delay: 192.690 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 405.33 Mbit/s
95th percentile per-packet one-way delay: 148.300 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 412.18 Mbit/s
95th percentile per-packet one-way delay: 207.666 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 222.12 Mbit/s
95th percentile per-packet one-way delay: 266.571 ms
Loss rate: 4.62%
```

Run 4: Report of TCP Vegas — Data Link

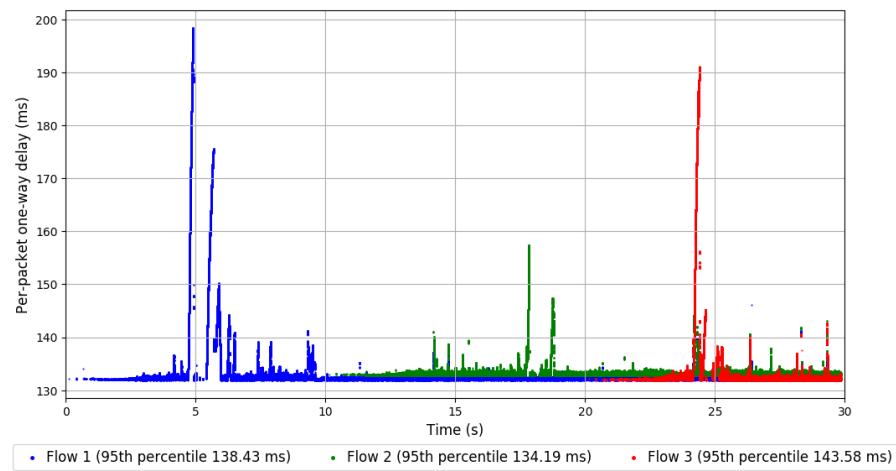
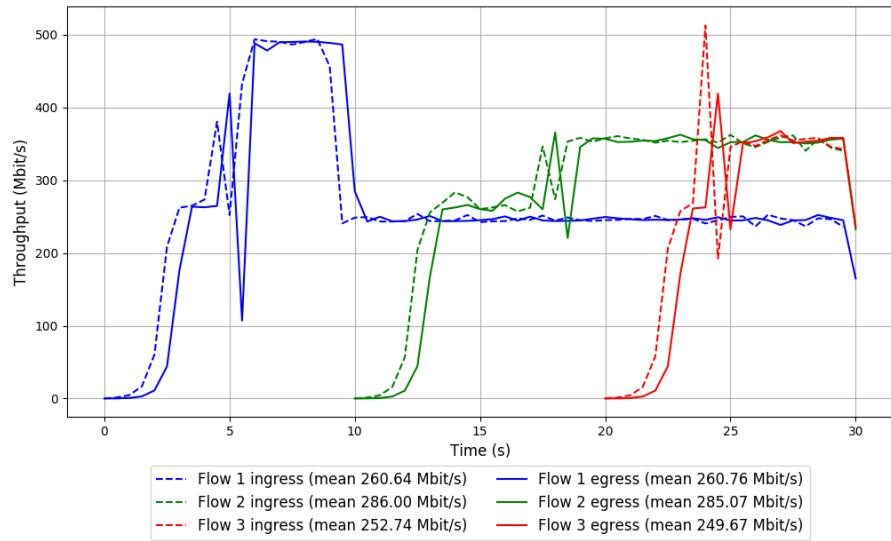


Run 5: Statistics of TCP Vegas

```
Start at: 2019-03-19 12:07:29
End at: 2019-03-19 12:07:59
Local clock offset: -0.037 ms
Remote clock offset: -0.277 ms

# Below is generated by plot.py at 2019-03-19 14:42:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 531.24 Mbit/s
95th percentile per-packet one-way delay: 137.213 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 260.76 Mbit/s
95th percentile per-packet one-way delay: 138.430 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 285.07 Mbit/s
95th percentile per-packet one-way delay: 134.187 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 249.67 Mbit/s
95th percentile per-packet one-way delay: 143.583 ms
Loss rate: 3.79%
```

Run 5: Report of TCP Vegas — Data Link

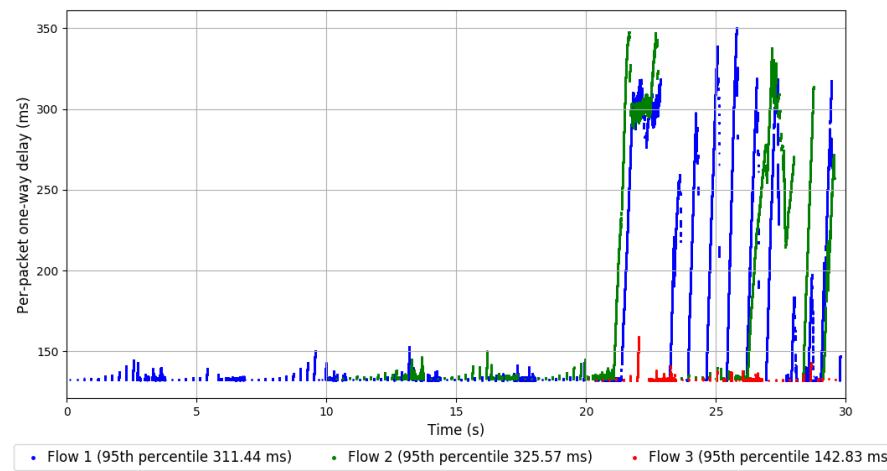
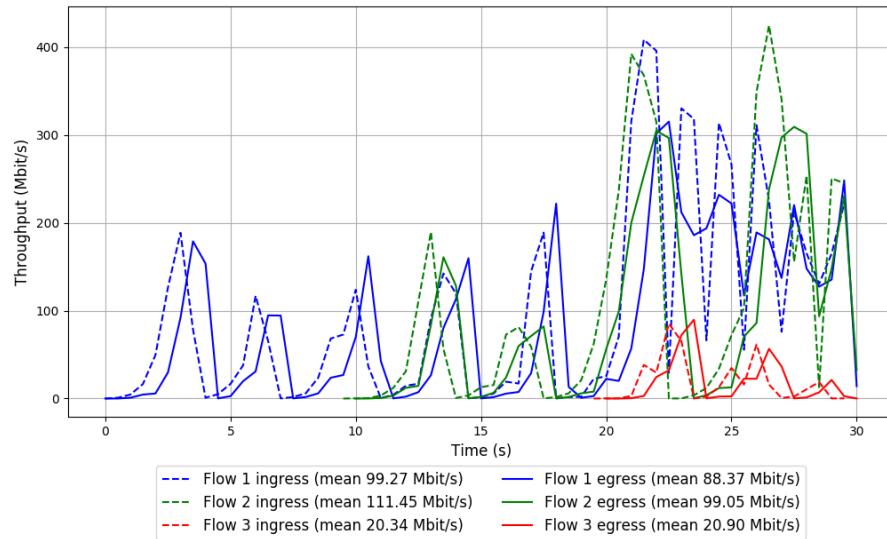


Run 1: Statistics of Verus

```
Start at: 2019-03-19 09:19:10
End at: 2019-03-19 09:19:40
Local clock offset: -0.469 ms
Remote clock offset: -1.188 ms

# Below is generated by plot.py at 2019-03-19 14:42:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.07 Mbit/s
95th percentile per-packet one-way delay: 316.844 ms
Loss rate: 11.98%
-- Flow 1:
Average throughput: 88.37 Mbit/s
95th percentile per-packet one-way delay: 311.435 ms
Loss rate: 11.77%
-- Flow 2:
Average throughput: 99.05 Mbit/s
95th percentile per-packet one-way delay: 325.574 ms
Loss rate: 13.32%
-- Flow 3:
Average throughput: 20.90 Mbit/s
95th percentile per-packet one-way delay: 142.831 ms
Loss rate: 0.06%
```

Run 1: Report of Verus — Data Link

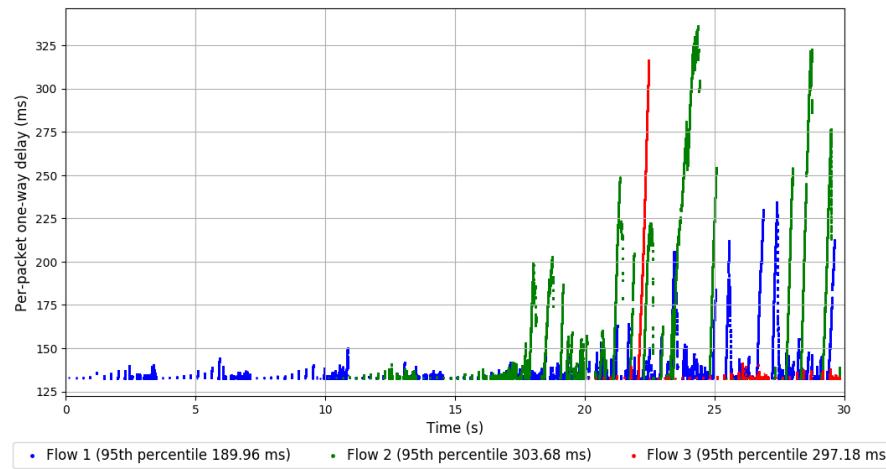
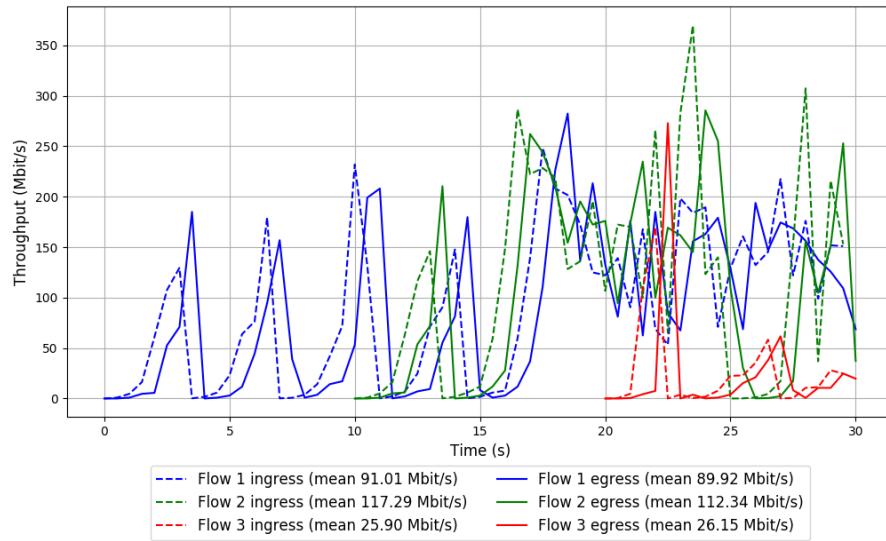


Run 2: Statistics of Verus

```
Start at: 2019-03-19 10:01:04
End at: 2019-03-19 10:01:34
Local clock offset: -0.247 ms
Remote clock offset: -3.968 ms

# Below is generated by plot.py at 2019-03-19 14:42:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 172.24 Mbit/s
95th percentile per-packet one-way delay: 263.754 ms
Loss rate: 3.92%
-- Flow 1:
Average throughput: 89.92 Mbit/s
95th percentile per-packet one-way delay: 189.963 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 112.34 Mbit/s
95th percentile per-packet one-way delay: 303.675 ms
Loss rate: 5.50%
-- Flow 3:
Average throughput: 26.15 Mbit/s
95th percentile per-packet one-way delay: 297.180 ms
Loss rate: 1.76%
```

Run 2: Report of Verus — Data Link

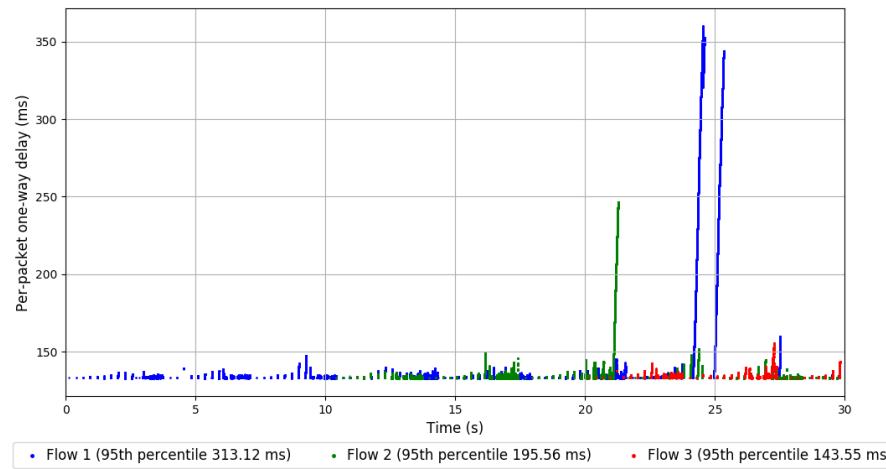
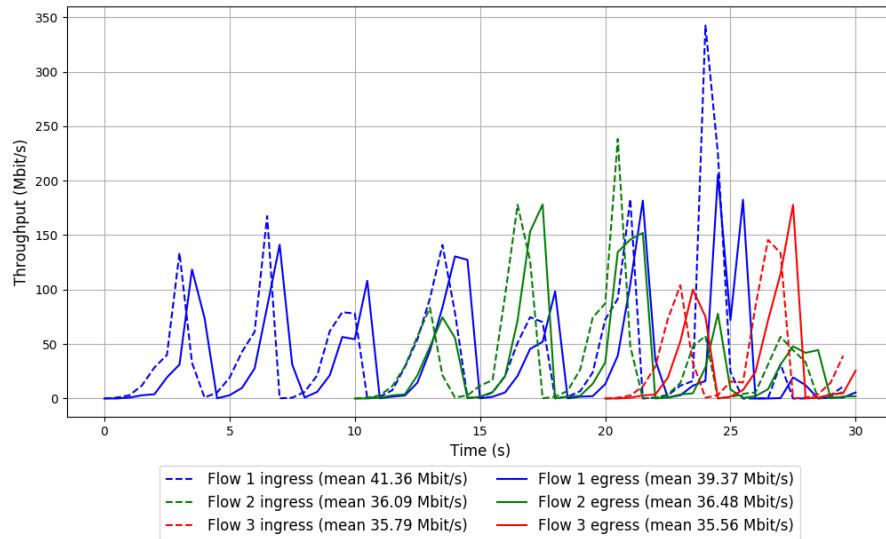


Run 3: Statistics of Verus

```
Start at: 2019-03-19 10:43:54
End at: 2019-03-19 10:44:24
Local clock offset: -0.148 ms
Remote clock offset: -1.196 ms

# Below is generated by plot.py at 2019-03-19 14:42:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.94 Mbit/s
95th percentile per-packet one-way delay: 261.084 ms
Loss rate: 3.63%
-- Flow 1:
Average throughput: 39.37 Mbit/s
95th percentile per-packet one-way delay: 313.122 ms
Loss rate: 5.67%
-- Flow 2:
Average throughput: 36.48 Mbit/s
95th percentile per-packet one-way delay: 195.558 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 35.56 Mbit/s
95th percentile per-packet one-way delay: 143.554 ms
Loss rate: 3.28%
```

Run 3: Report of Verus — Data Link

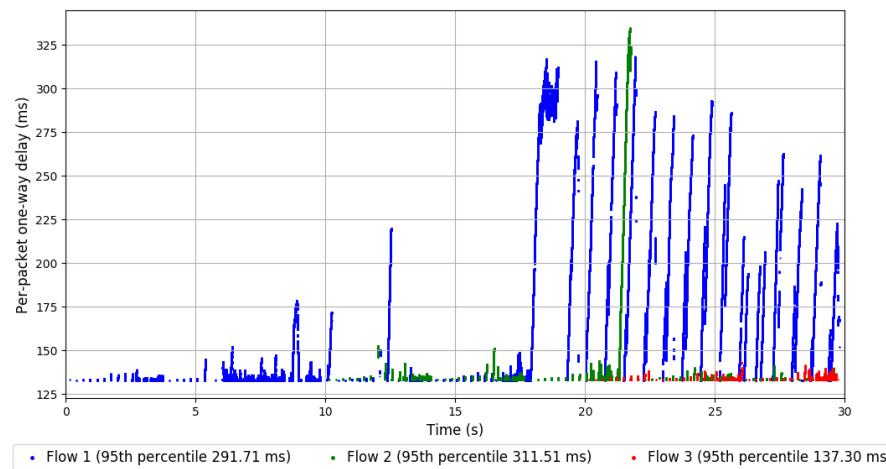
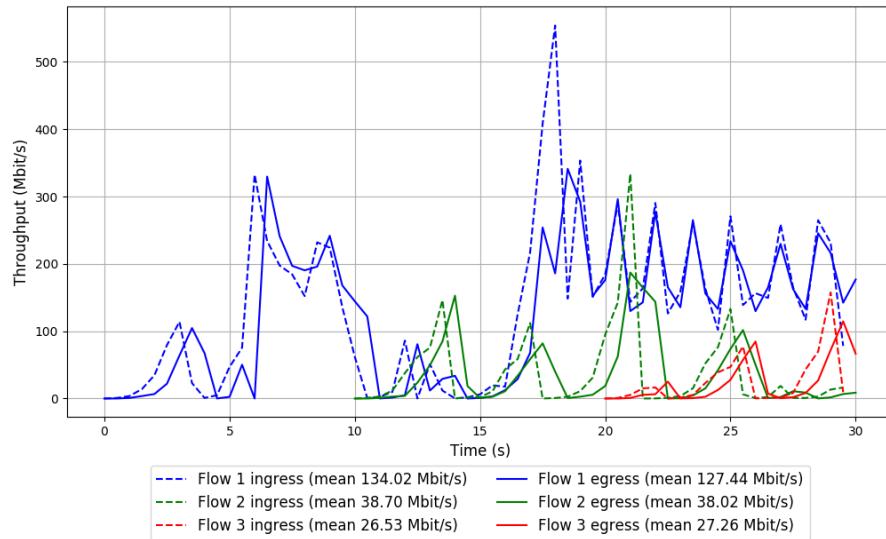


Run 4: Statistics of Verus

```
Start at: 2019-03-19 11:24:43
End at: 2019-03-19 11:25:13
Local clock offset: -0.337 ms
Remote clock offset: -1.028 ms

# Below is generated by plot.py at 2019-03-19 14:42:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.19 Mbit/s
95th percentile per-packet one-way delay: 291.615 ms
Loss rate: 5.17%
-- Flow 1:
Average throughput: 127.44 Mbit/s
95th percentile per-packet one-way delay: 291.708 ms
Loss rate: 5.90%
-- Flow 2:
Average throughput: 38.02 Mbit/s
95th percentile per-packet one-way delay: 311.512 ms
Loss rate: 3.11%
-- Flow 3:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 137.300 ms
Loss rate: 0.01%
```

Run 4: Report of Verus — Data Link

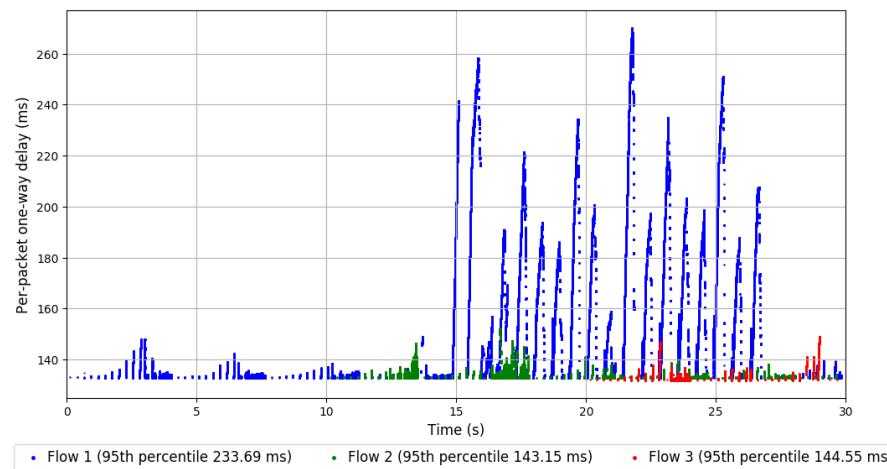
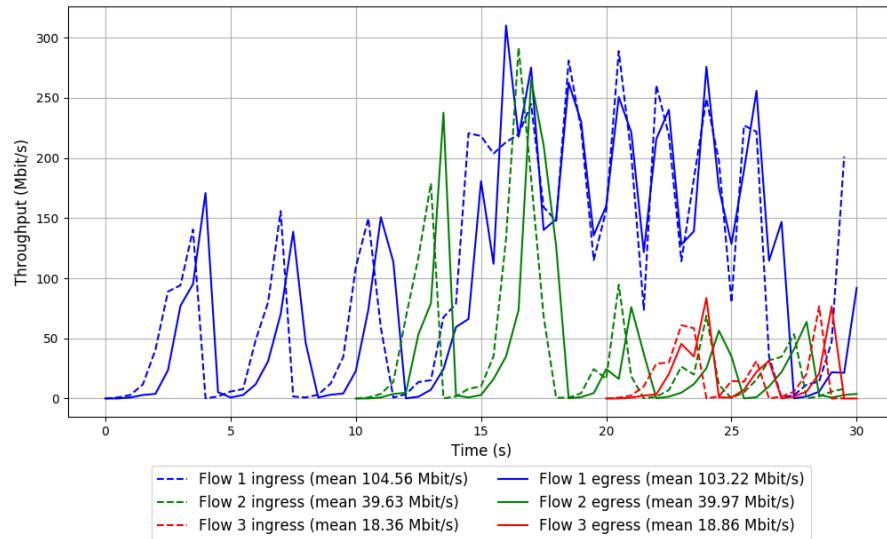


Run 5: Statistics of Verus

```
Start at: 2019-03-19 12:05:52
End at: 2019-03-19 12:06:22
Local clock offset: -0.078 ms
Remote clock offset: -0.337 ms

# Below is generated by plot.py at 2019-03-19 14:42:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.49 Mbit/s
95th percentile per-packet one-way delay: 229.051 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 103.22 Mbit/s
95th percentile per-packet one-way delay: 233.686 ms
Loss rate: 2.16%
-- Flow 2:
Average throughput: 39.97 Mbit/s
95th percentile per-packet one-way delay: 143.149 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 18.86 Mbit/s
95th percentile per-packet one-way delay: 144.549 ms
Loss rate: 0.04%
```

Run 5: Report of Verus — Data Link

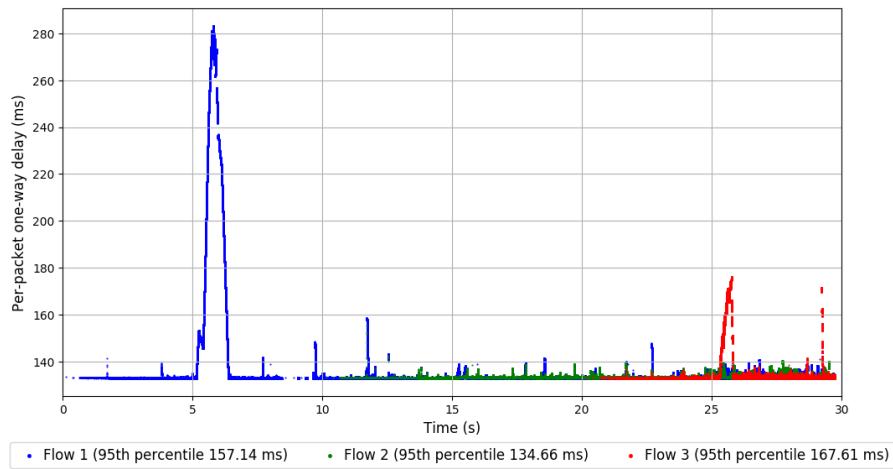
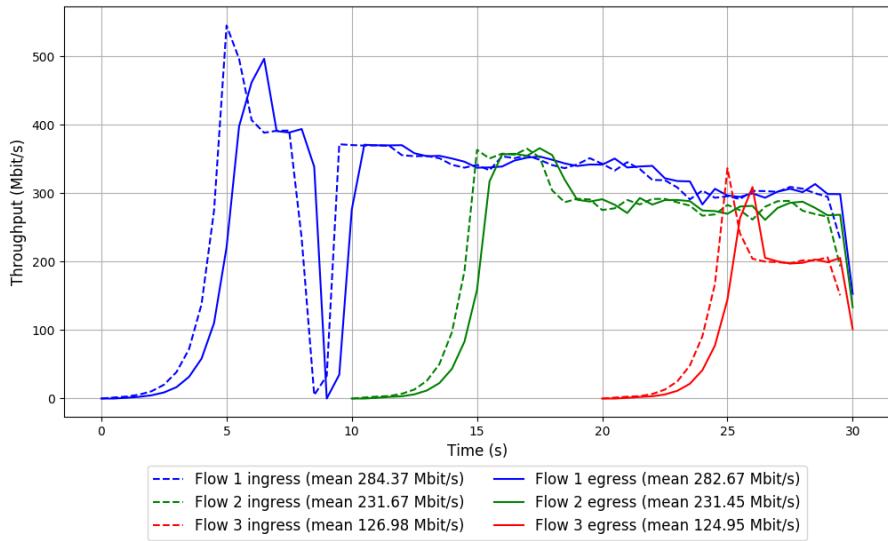


Run 1: Statistics of PCC-Vivace

```
Start at: 2019-03-19 08:52:45
End at: 2019-03-19 08:53:15
Local clock offset: -0.036 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2019-03-19 14:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 476.30 Mbit/s
95th percentile per-packet one-way delay: 146.361 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 282.67 Mbit/s
95th percentile per-packet one-way delay: 157.140 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 231.45 Mbit/s
95th percentile per-packet one-way delay: 134.656 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 124.95 Mbit/s
95th percentile per-packet one-way delay: 167.609 ms
Loss rate: 4.24%
```

Run 1: Report of PCC-Vivace — Data Link

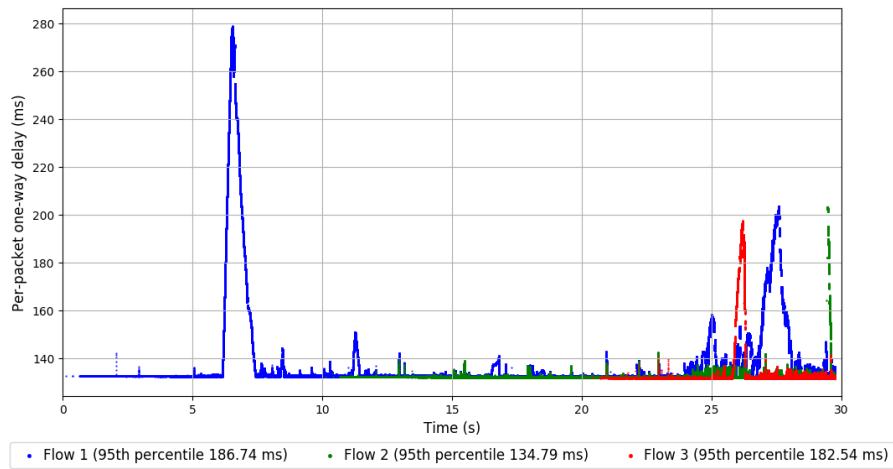
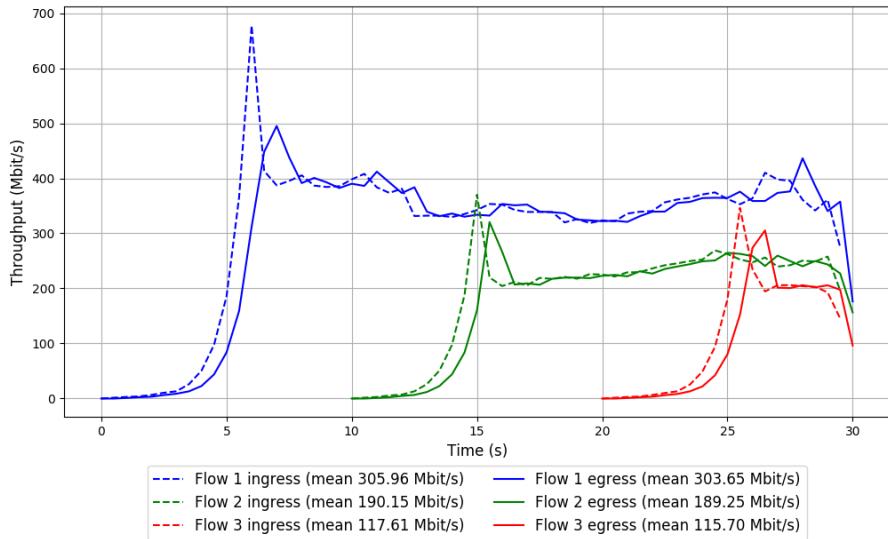


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-03-19 09:34:13
End at: 2019-03-19 09:34:43
Local clock offset: -0.09 ms
Remote clock offset: -5.337 ms

# Below is generated by plot.py at 2019-03-19 14:43:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.42 Mbit/s
95th percentile per-packet one-way delay: 174.776 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 303.65 Mbit/s
95th percentile per-packet one-way delay: 186.736 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 189.25 Mbit/s
95th percentile per-packet one-way delay: 134.793 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 115.70 Mbit/s
95th percentile per-packet one-way delay: 182.539 ms
Loss rate: 4.26%
```

Run 2: Report of PCC-Vivace — Data Link

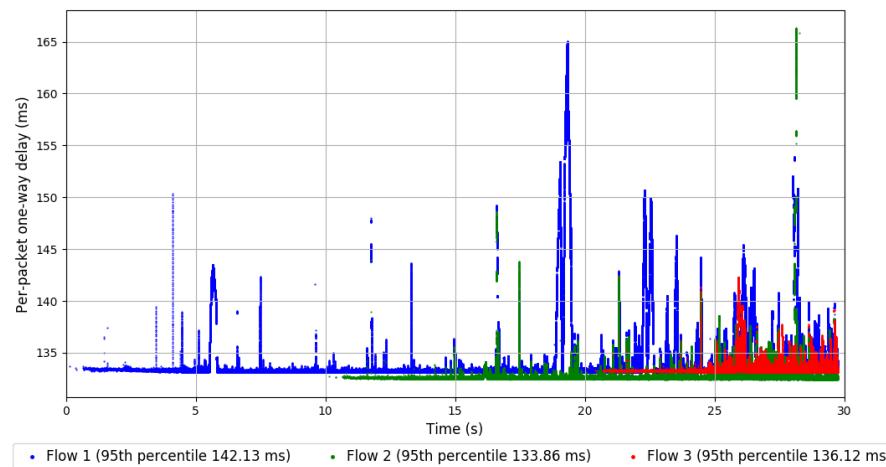
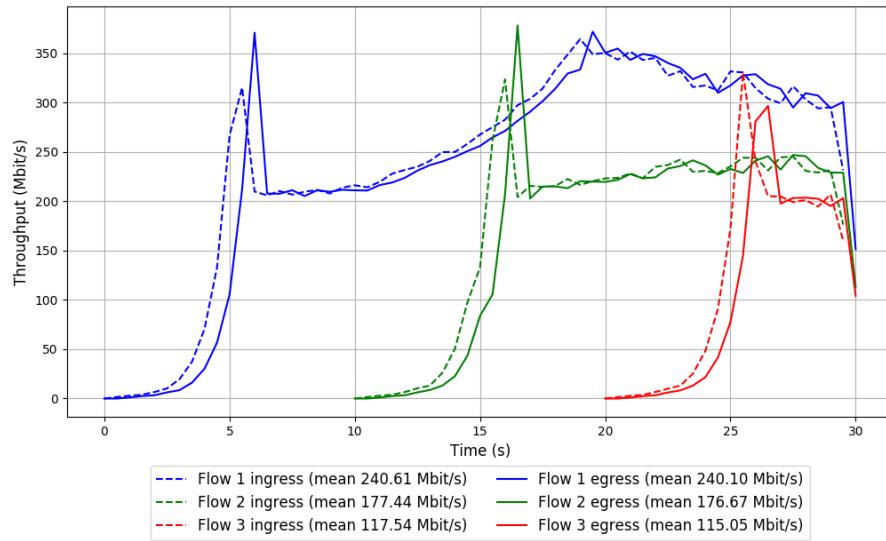


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-03-19 10:15:59
End at: 2019-03-19 10:16:29
Local clock offset: 0.181 ms
Remote clock offset: -5.14 ms

# Below is generated by plot.py at 2019-03-19 14:43:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.32 Mbit/s
95th percentile per-packet one-way delay: 139.388 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 240.10 Mbit/s
95th percentile per-packet one-way delay: 142.133 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 176.67 Mbit/s
95th percentile per-packet one-way delay: 133.862 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 115.05 Mbit/s
95th percentile per-packet one-way delay: 136.115 ms
Loss rate: 4.76%
```

Run 3: Report of PCC-Vivace — Data Link

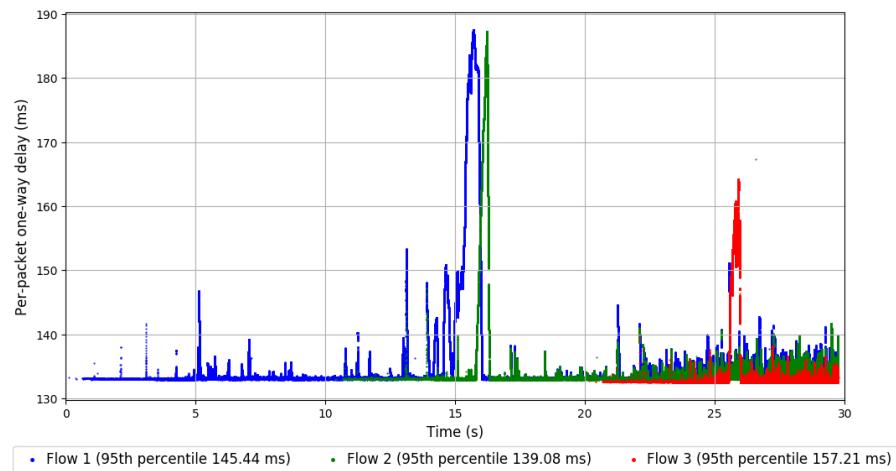
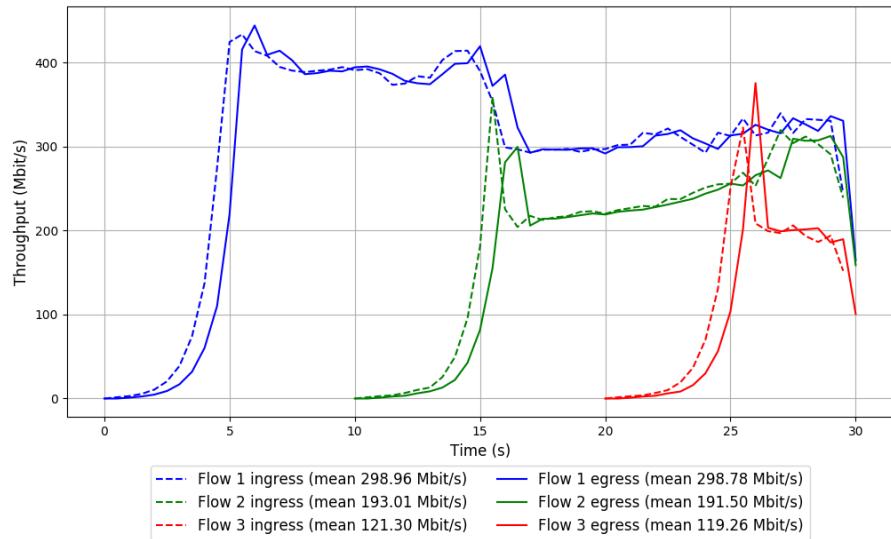


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-03-19 10:58:14
End at: 2019-03-19 10:58:44
Local clock offset: 0.032 ms
Remote clock offset: -0.876 ms

# Below is generated by plot.py at 2019-03-19 14:43:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.17 Mbit/s
95th percentile per-packet one-way delay: 147.060 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 298.78 Mbit/s
95th percentile per-packet one-way delay: 145.442 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 191.50 Mbit/s
95th percentile per-packet one-way delay: 139.076 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 119.26 Mbit/s
95th percentile per-packet one-way delay: 157.210 ms
Loss rate: 4.32%
```

Run 4: Report of PCC-Vivace — Data Link

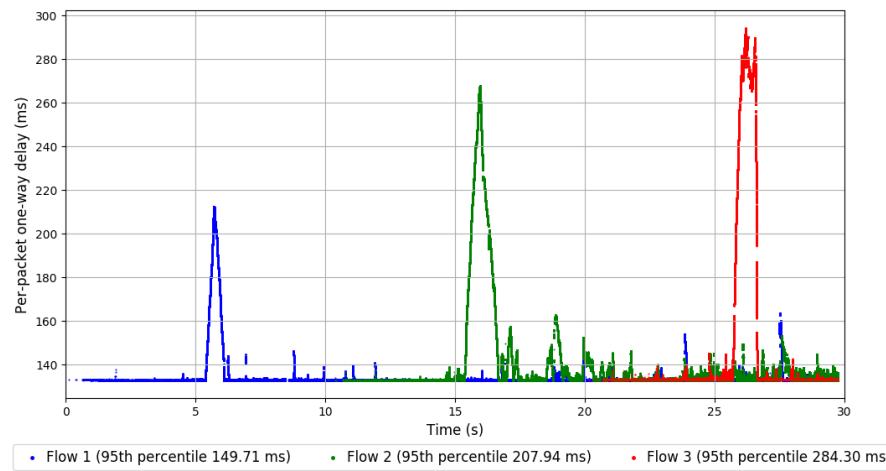
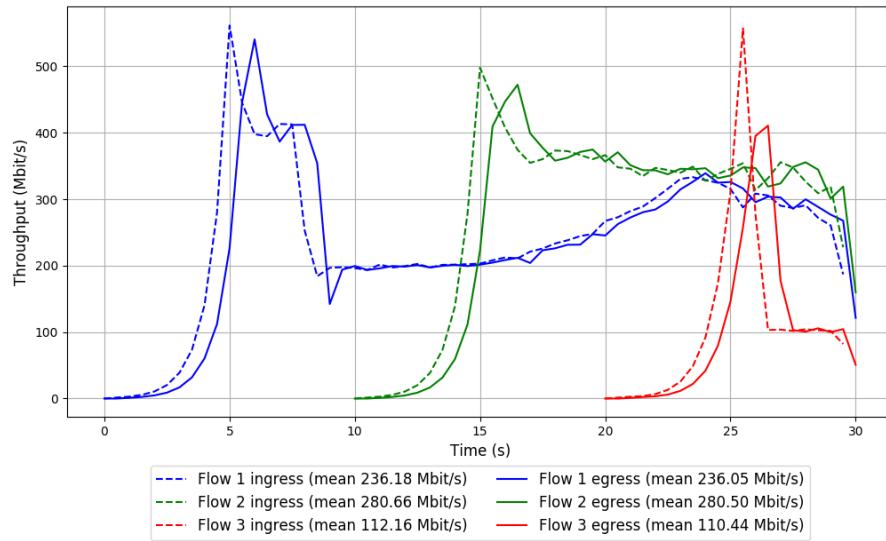


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-03-19 11:39:39
End at: 2019-03-19 11:40:09
Local clock offset: -0.324 ms
Remote clock offset: -0.325 ms

# Below is generated by plot.py at 2019-03-19 14:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 457.52 Mbit/s
95th percentile per-packet one-way delay: 201.577 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 236.05 Mbit/s
95th percentile per-packet one-way delay: 149.708 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 280.50 Mbit/s
95th percentile per-packet one-way delay: 207.943 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 110.44 Mbit/s
95th percentile per-packet one-way delay: 284.295 ms
Loss rate: 4.19%
```

Run 5: Report of PCC-Vivace — Data Link

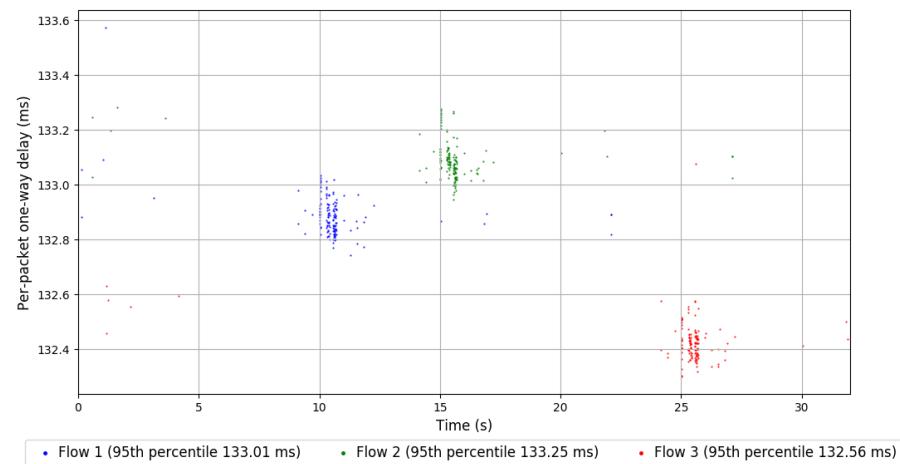
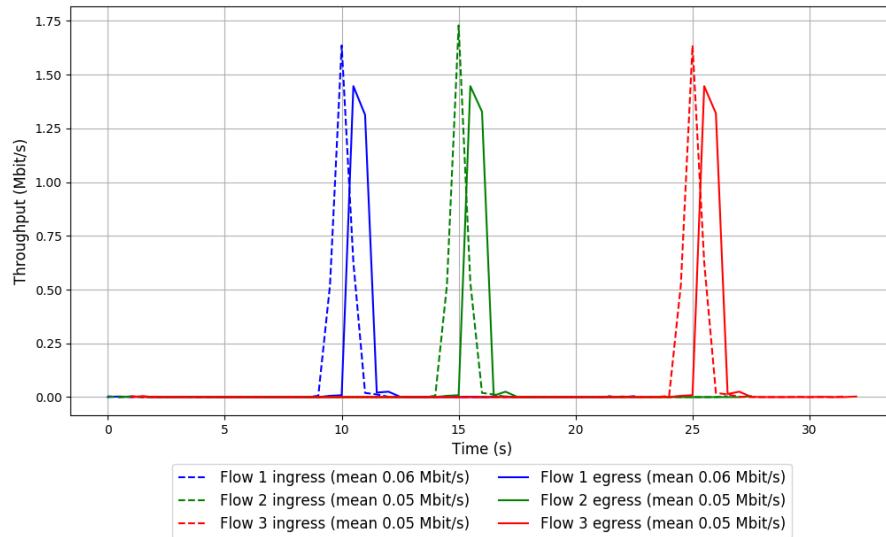


```
Run 1: Statistics of WebRTC media

Start at: 2019-03-19 09:17:52
End at: 2019-03-19 09:18:22
Local clock offset: -0.034 ms
Remote clock offset: -0.799 ms

# Below is generated by plot.py at 2019-03-19 14:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.156 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 133.011 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.246 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.555 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

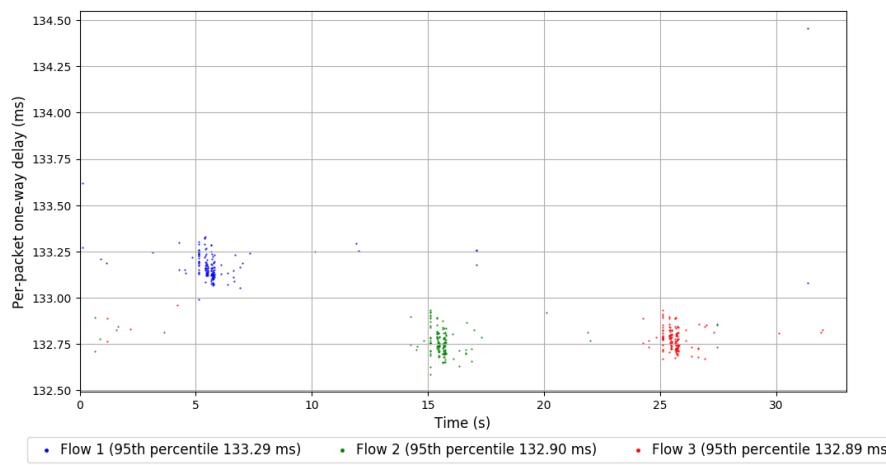
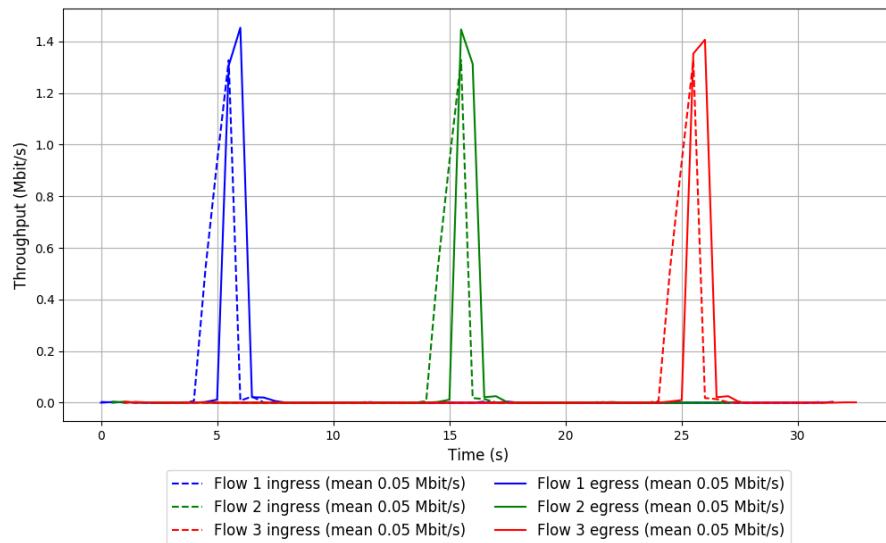


Run 2: Statistics of WebRTC media

```
Start at: 2019-03-19 09:59:46
End at: 2019-03-19 10:00:16
Local clock offset: 0.198 ms
Remote clock offset: -3.967 ms

# Below is generated by plot.py at 2019-03-19 14:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.248 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.289 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.895 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.890 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

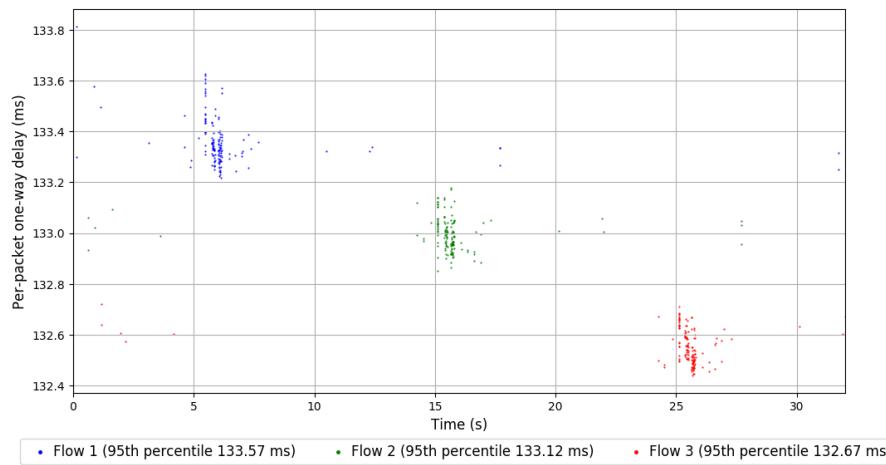
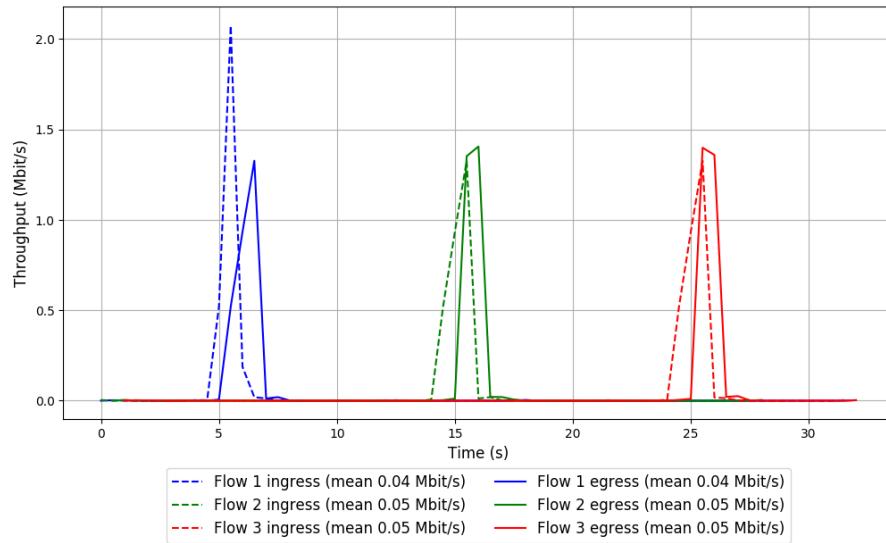


```
Run 3: Statistics of WebRTC media

Start at: 2019-03-19 10:42:36
End at: 2019-03-19 10:43:06
Local clock offset: -0.115 ms
Remote clock offset: -1.222 ms

# Below is generated by plot.py at 2019-03-19 14:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.450 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 133.567 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.124 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.670 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

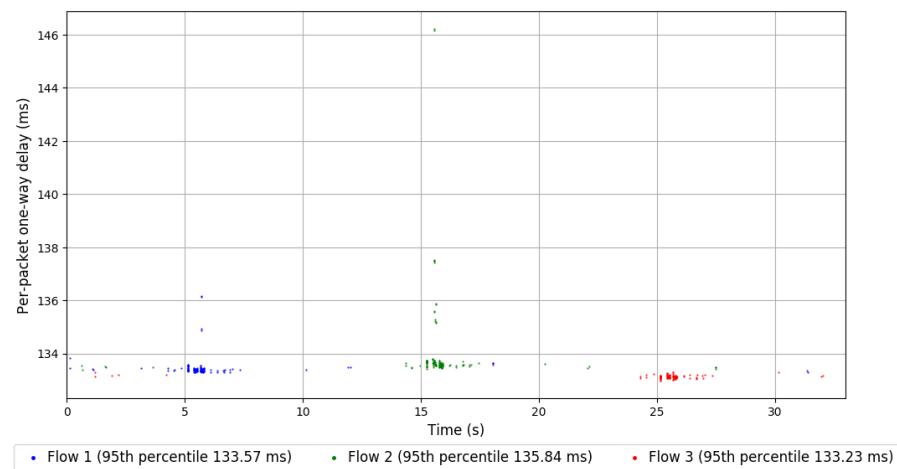
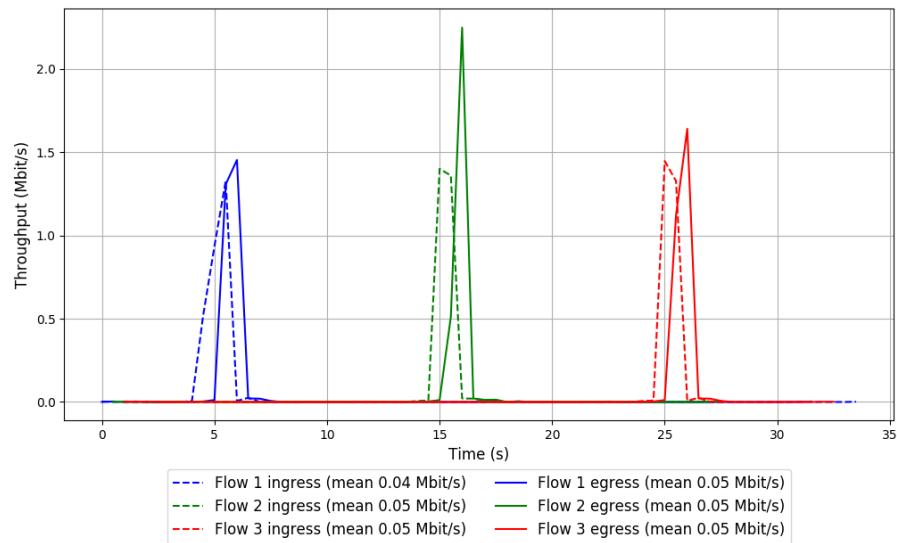


Run 4: Statistics of WebRTC media

```
Start at: 2019-03-19 11:23:26
End at: 2019-03-19 11:23:56
Local clock offset: -0.008 ms
Remote clock offset: -0.595 ms

# Below is generated by plot.py at 2019-03-19 14:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.740 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.568 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 135.845 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.230 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-03-19 12:04:34
End at: 2019-03-19 12:05:04
Local clock offset: 0.02 ms
Remote clock offset: -0.336 ms

# Below is generated by plot.py at 2019-03-19 14:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.276 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.158 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.648 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

