

Pantheon Report

Generated at 2019-03-27 05:09:07 (UTC).
Data path: GCE Iowa 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.

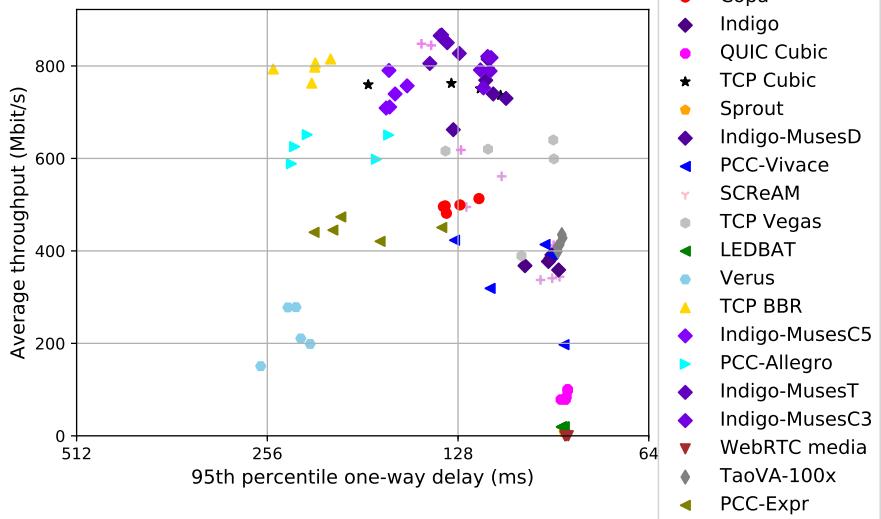
```
System info:  
Linux 4.15.0-1028-gcp  
net.core.default_qdisc = fq  
net.core.rmem_default = 16777216  
net.core.rmem_max = 536870912  
net.core.wmem_default = 16777216  
net.core.wmem_max = 536870912  
net.ipv4.tcp_rmem = 4096 16777216 536870912  
net.ipv4.tcp_wmem = 4096 16777216 536870912  
  
Git summary:  
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee  
third_party/fillp @ d6da1459332fceef56963885d7eba17e6a32d4519  
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 Iowa 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 Iowa to GCE Sydney, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows



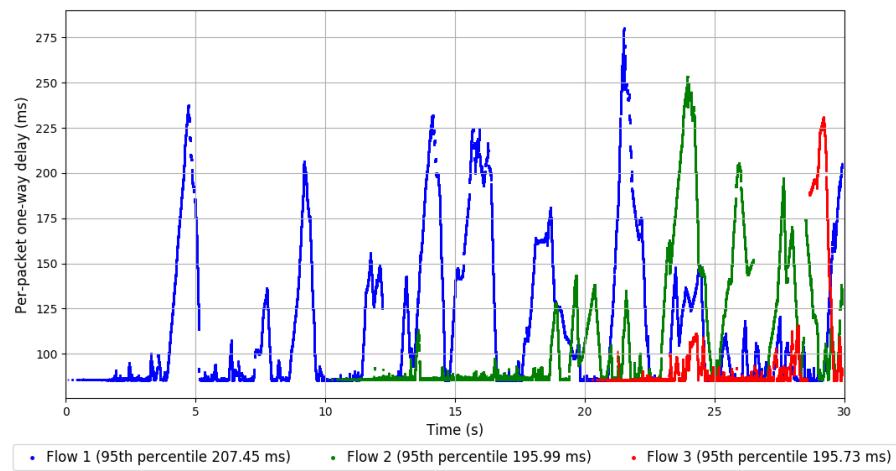
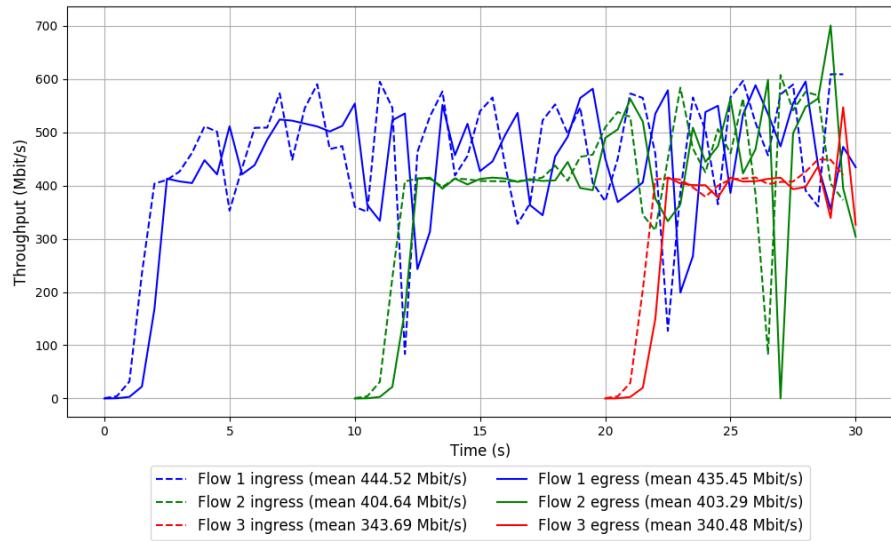
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	429.25	384.02	337.42	219.43	192.57	213.80	2.30	2.02	3.41
Copa	5	257.68	251.04	222.19	112.99	136.44	146.26	0.67	0.99	2.01
TCP Cubic	5	410.05	370.27	317.63	122.44	134.84	134.69	0.61	0.87	2.04
FillP	5	292.98	365.77	258.11	131.56	91.24	89.96	1.18	0.73	2.17
FillP-Sheep	5	115.77	328.35	250.77	116.28	90.69	89.98	0.45	0.73	1.88
Indigo	5	197.26	187.88	163.26	92.54	92.92	93.54	0.62	0.92	2.08
Indigo-MusesC3	5	461.83	395.25	288.52	117.13	112.28	106.67	0.44	0.81	2.89
Indigo-MusesC5	5	462.51	390.08	105.53	167.53	147.53	86.70	0.62	0.96	3.86
Indigo-MusesD	5	431.84	372.59	270.00	117.62	116.89	91.44	0.56	0.83	2.53
Indigo-MusesT	5	494.74	419.22	301.40	139.44	130.77	96.13	0.50	0.83	2.83
LEDBAT	5	12.52	8.29	4.04	87.67	87.40	86.91	1.15	1.74	3.51
PCC-Allegro	5	324.88	330.29	243.12	192.05	214.02	177.08	3.70	4.29	2.76
PCC-Expr	5	258.22	214.61	139.43	206.34	149.52	115.32	2.64	1.15	2.95
QUIC Cubic	5	49.14	42.15	32.48	86.06	86.91	105.92	0.76	1.56	3.51
SCReAM	5	0.22	0.22	0.22	86.23	86.13	86.13	0.51	1.04	1.78
Sprout	5	4.40	4.22	3.25	86.91	86.77	86.70	0.53	1.15	2.93
TaoVA-100x	5	215.40	207.00	195.36	87.82	88.76	89.09	0.62	1.03	1.98
TCP Vegas	5	275.15	308.77	282.08	90.64	111.81	141.00	0.60	0.78	2.36
Verus	5	121.28	133.05	42.88	246.05	216.19	110.87	2.81	3.59	4.80
PCC-Vivace	5	194.60	152.74	163.23	110.39	121.31	105.58	1.41	1.37	2.53
WebRTC media	5	0.05	0.05	0.05	86.23	86.30	86.30	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-03-26 23:18:11
End at: 2019-03-26 23:18:41
Local clock offset: -0.367 ms
Remote clock offset: 0.208 ms

# Below is generated by plot.py at 2019-03-27 02:59:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 815.10 Mbit/s
95th percentile per-packet one-way delay: 203.426 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 435.45 Mbit/s
95th percentile per-packet one-way delay: 207.446 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 403.29 Mbit/s
95th percentile per-packet one-way delay: 195.987 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 340.48 Mbit/s
95th percentile per-packet one-way delay: 195.727 ms
Loss rate: 2.65%
```

Run 1: Report of TCP BBR — Data Link

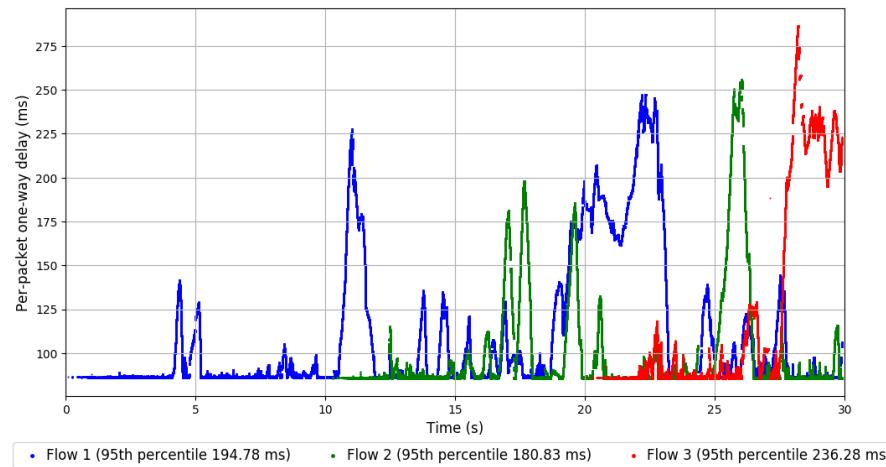
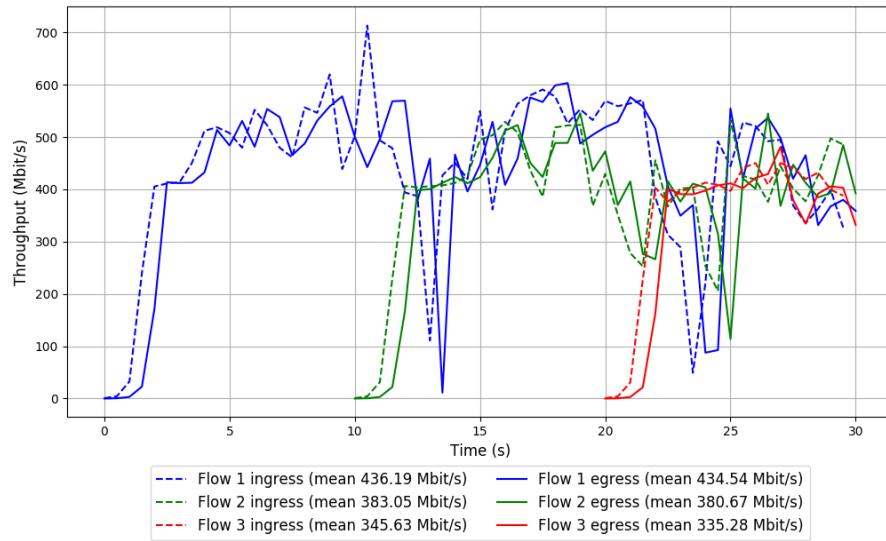


Run 2: Statistics of TCP BBR

```
Start at: 2019-03-26 23:57:56
End at: 2019-03-26 23:58:26
Local clock offset: -0.143 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2019-03-27 02:59:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 797.50 Mbit/s
95th percentile per-packet one-way delay: 215.454 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 434.54 Mbit/s
95th percentile per-packet one-way delay: 194.782 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 380.67 Mbit/s
95th percentile per-packet one-way delay: 180.834 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 335.28 Mbit/s
95th percentile per-packet one-way delay: 236.282 ms
Loss rate: 4.69%
```

Run 2: Report of TCP BBR — Data Link

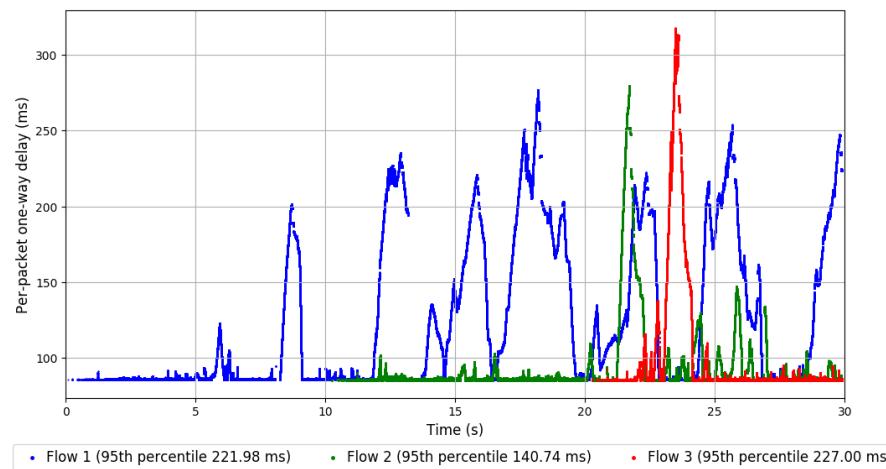
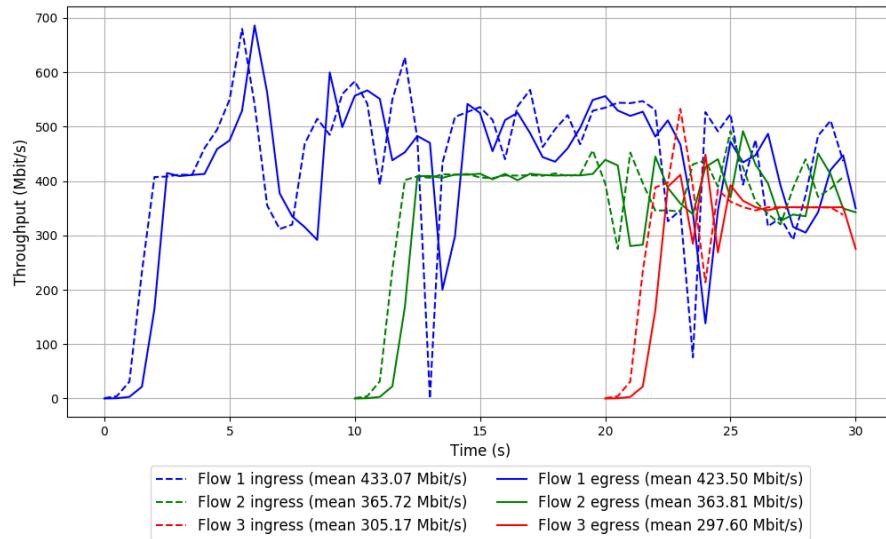


Run 3: Statistics of TCP BBR

```
Start at: 2019-03-27 00:36:17
End at: 2019-03-27 00:36:47
Local clock offset: -0.512 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-03-27 02:59:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 762.95 Mbit/s
95th percentile per-packet one-way delay: 217.830 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 423.50 Mbit/s
95th percentile per-packet one-way delay: 221.977 ms
Loss rate: 2.78%
-- Flow 2:
Average throughput: 363.81 Mbit/s
95th percentile per-packet one-way delay: 140.740 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 297.60 Mbit/s
95th percentile per-packet one-way delay: 227.005 ms
Loss rate: 4.17%
```

Run 3: Report of TCP BBR — Data Link

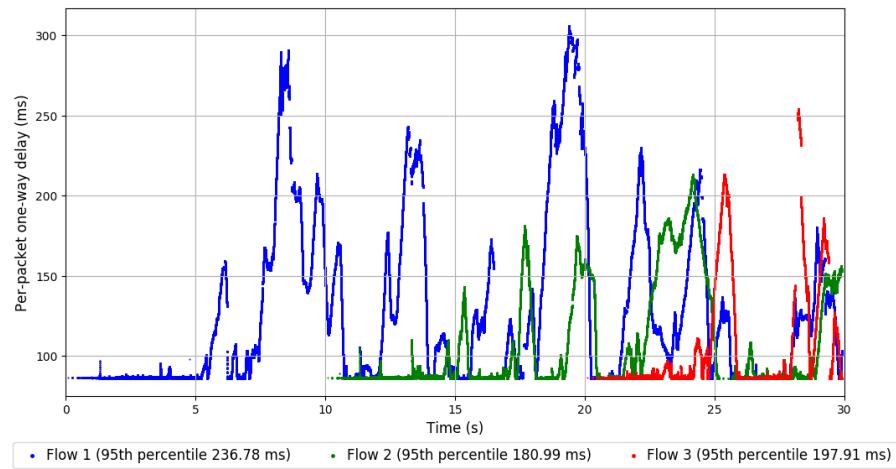
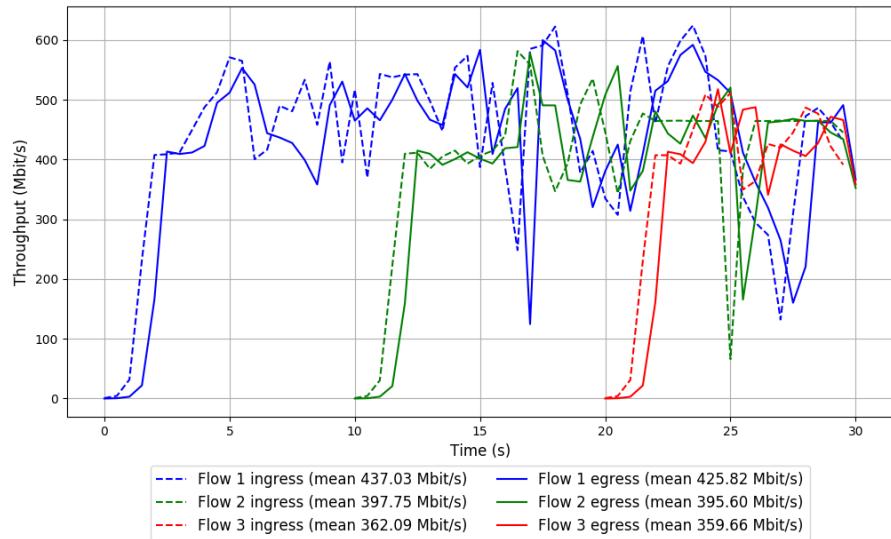


Run 4: Statistics of TCP BBR

```
Start at: 2019-03-27 01:14:17
End at: 2019-03-27 01:14:47
Local clock offset: 0.285 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-03-27 02:59:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 806.75 Mbit/s
95th percentile per-packet one-way delay: 215.015 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 425.82 Mbit/s
95th percentile per-packet one-way delay: 236.784 ms
Loss rate: 3.13%
-- Flow 2:
Average throughput: 395.60 Mbit/s
95th percentile per-packet one-way delay: 180.993 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 359.66 Mbit/s
95th percentile per-packet one-way delay: 197.915 ms
Loss rate: 2.38%
```

Run 4: Report of TCP BBR — Data Link

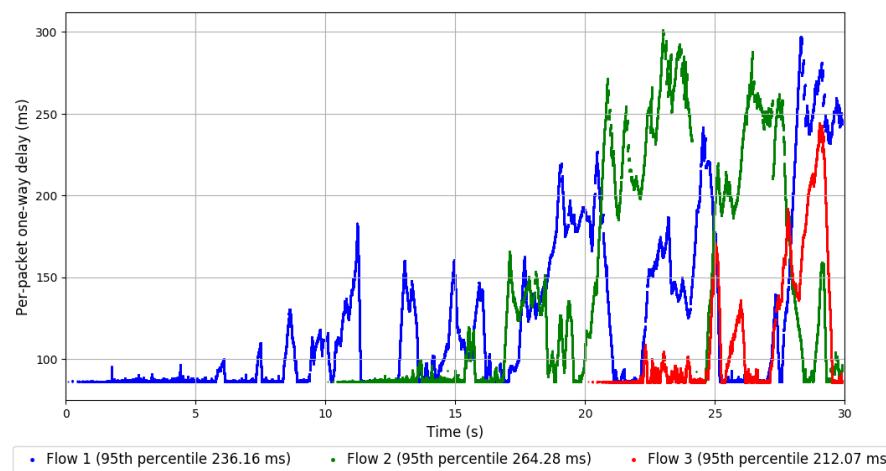
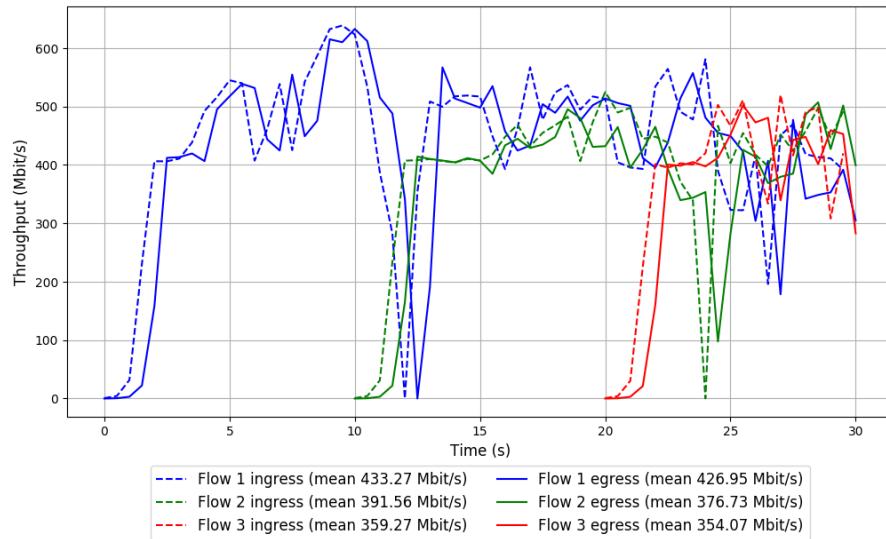


Run 5: Statistics of TCP BBR

```
Start at: 2019-03-27 01:51:50
End at: 2019-03-27 01:52:20
Local clock offset: -0.271 ms
Remote clock offset: 0.054 ms

# Below is generated by plot.py at 2019-03-27 02:59:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 793.48 Mbit/s
95th percentile per-packet one-way delay: 250.508 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 426.95 Mbit/s
95th percentile per-packet one-way delay: 236.160 ms
Loss rate: 2.03%
-- Flow 2:
Average throughput: 376.73 Mbit/s
95th percentile per-packet one-way delay: 264.277 ms
Loss rate: 4.62%
-- Flow 3:
Average throughput: 354.07 Mbit/s
95th percentile per-packet one-way delay: 212.067 ms
Loss rate: 3.17%
```

Run 5: Report of TCP BBR — Data Link

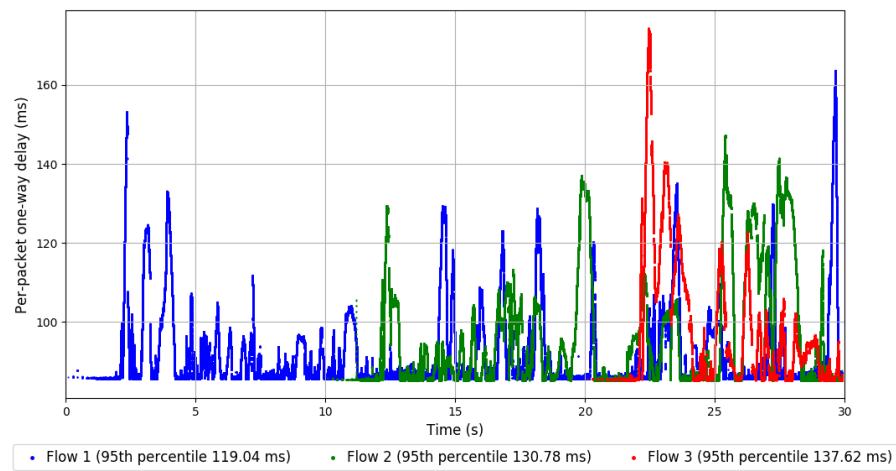
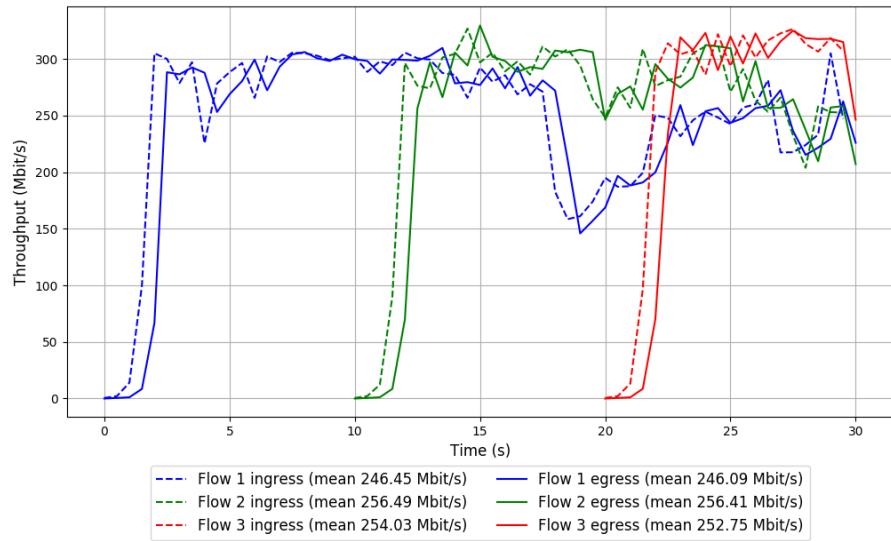


Run 1: Statistics of Copa

```
Start at: 2019-03-26 23:38:15
End at: 2019-03-26 23:38:45
Local clock offset: -0.694 ms
Remote clock offset: 0.069 ms

# Below is generated by plot.py at 2019-03-27 03:01:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.41 Mbit/s
95th percentile per-packet one-way delay: 127.131 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 246.09 Mbit/s
95th percentile per-packet one-way delay: 119.038 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 256.41 Mbit/s
95th percentile per-packet one-way delay: 130.778 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 252.75 Mbit/s
95th percentile per-packet one-way delay: 137.620 ms
Loss rate: 2.21%
```

Run 1: Report of Copa — Data Link

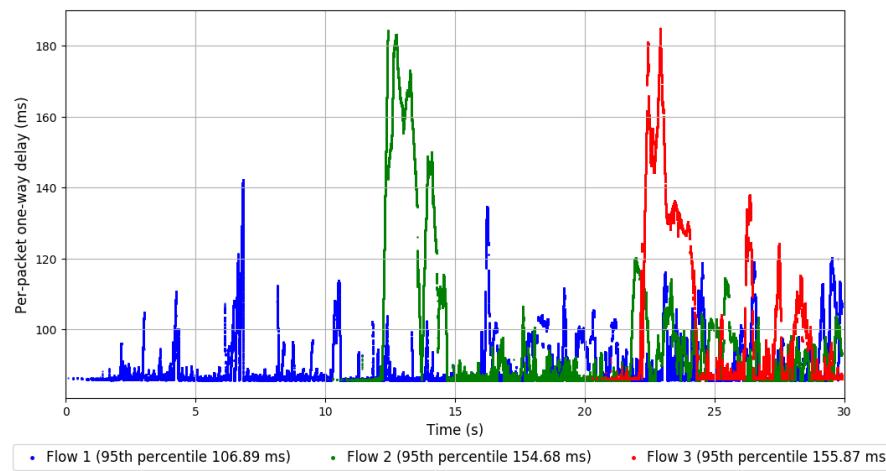
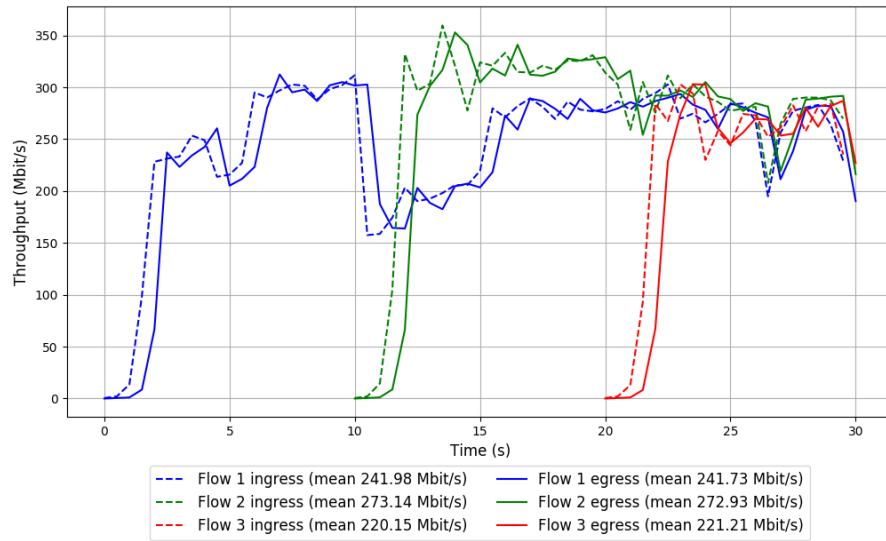


Run 2: Statistics of Copa

```
Start at: 2019-03-27 00:17:26
End at: 2019-03-27 00:17:56
Local clock offset: -0.072 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2019-03-27 03:01:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 495.76 Mbit/s
95th percentile per-packet one-way delay: 134.993 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 241.73 Mbit/s
95th percentile per-packet one-way delay: 106.886 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 272.93 Mbit/s
95th percentile per-packet one-way delay: 154.679 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 221.21 Mbit/s
95th percentile per-packet one-way delay: 155.867 ms
Loss rate: 1.28%
```

Run 2: Report of Copa — Data Link

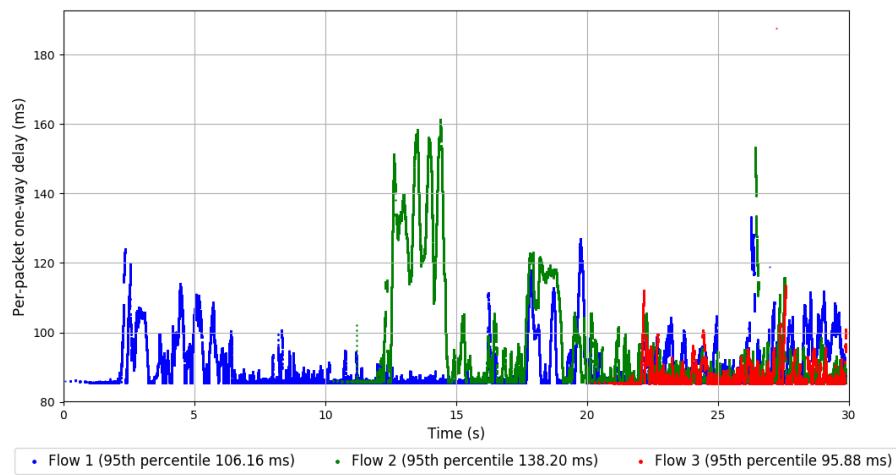
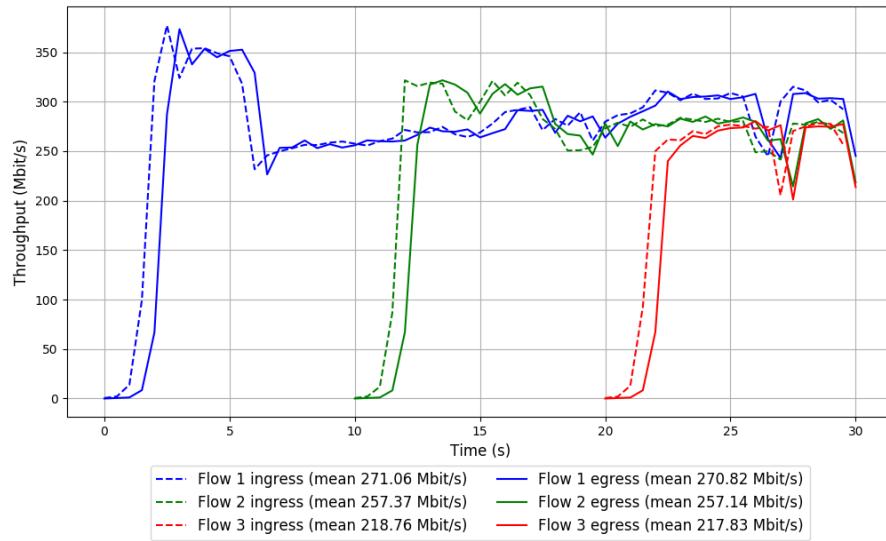


Run 3: Statistics of Copa

```
Start at: 2019-03-27 00:55:08
End at: 2019-03-27 00:55:38
Local clock offset: -0.491 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2019-03-27 03:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 513.11 Mbit/s
95th percentile per-packet one-way delay: 118.624 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 270.82 Mbit/s
95th percentile per-packet one-way delay: 106.156 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 257.14 Mbit/s
95th percentile per-packet one-way delay: 138.196 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 217.83 Mbit/s
95th percentile per-packet one-way delay: 95.877 ms
Loss rate: 2.14%
```

Run 3: Report of Copa — Data Link

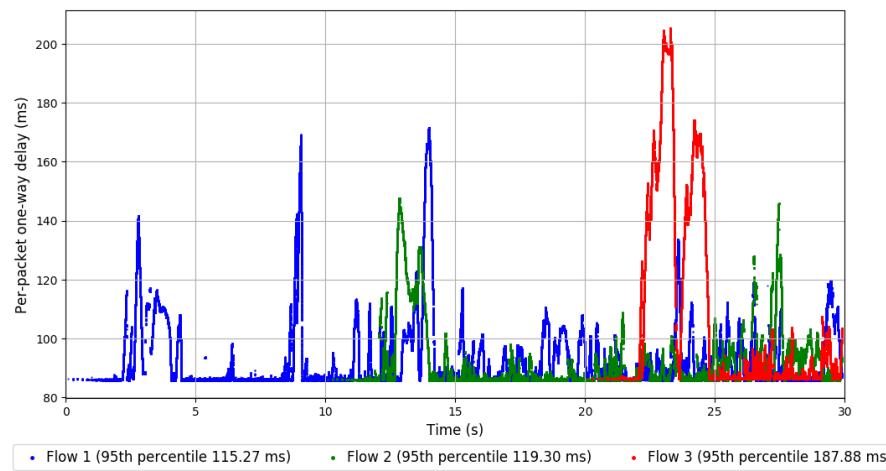
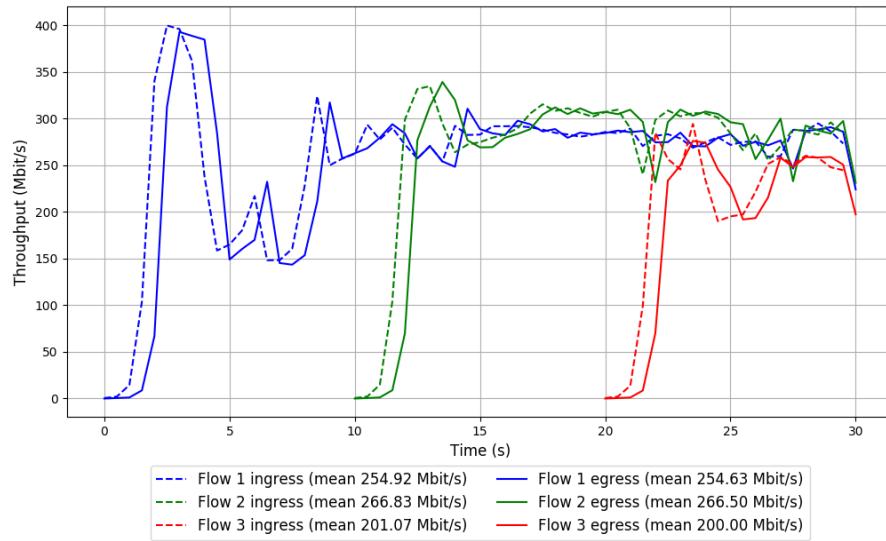


Run 4: Statistics of Copa

```
Start at: 2019-03-27 01:33:17
End at: 2019-03-27 01:33:47
Local clock offset: 0.025 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2019-03-27 03:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.39 Mbit/s
95th percentile per-packet one-way delay: 134.128 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 254.63 Mbit/s
95th percentile per-packet one-way delay: 115.272 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 266.50 Mbit/s
95th percentile per-packet one-way delay: 119.303 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 200.00 Mbit/s
95th percentile per-packet one-way delay: 187.885 ms
Loss rate: 2.26%
```

Run 4: Report of Copa — Data Link

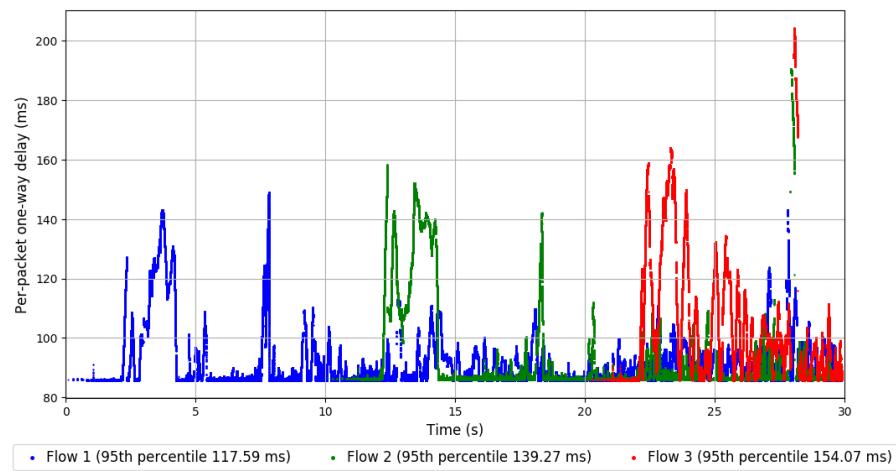
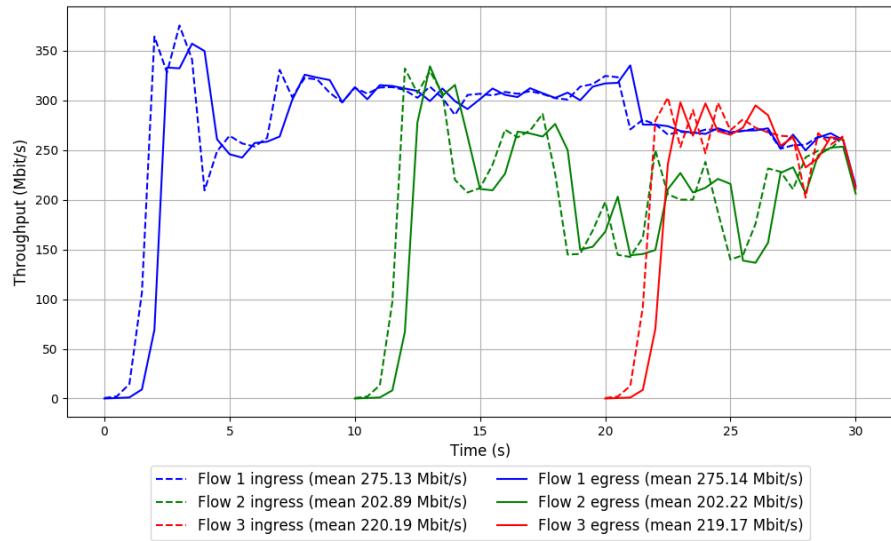


Run 5: Statistics of Copa

```
Start at: 2019-03-27 02:11:39
End at: 2019-03-27 02:12:09
Local clock offset: -0.169 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2019-03-27 03:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 481.40 Mbit/s
95th percentile per-packet one-way delay: 133.526 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 275.14 Mbit/s
95th percentile per-packet one-way delay: 117.588 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 202.22 Mbit/s
95th percentile per-packet one-way delay: 139.267 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 219.17 Mbit/s
95th percentile per-packet one-way delay: 154.069 ms
Loss rate: 2.17%
```

Run 5: Report of Copa — Data Link

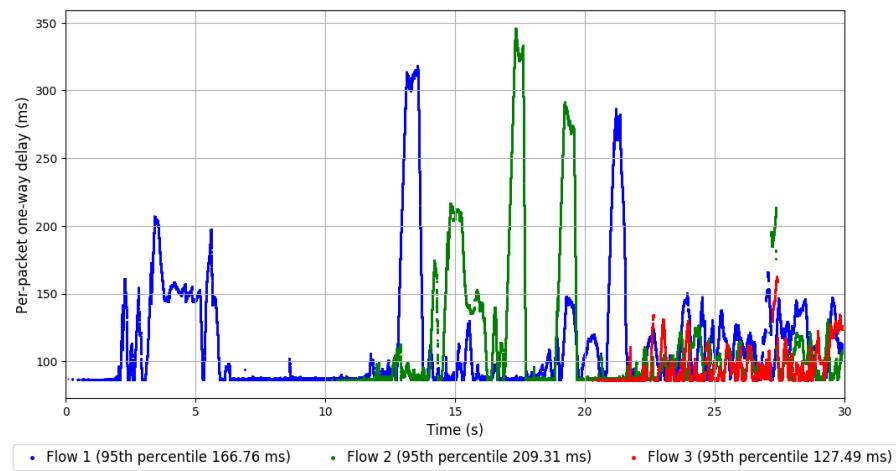
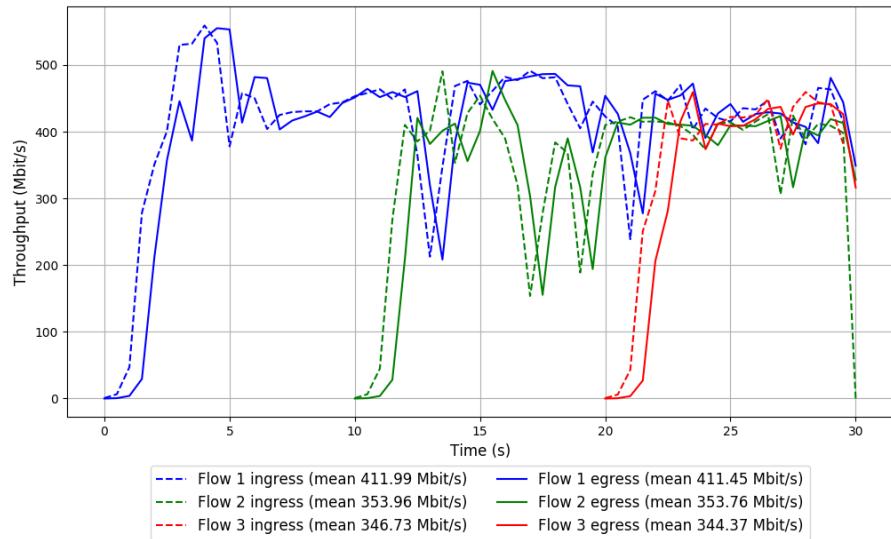


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-03-26 23:46:56
End at: 2019-03-26 23:47:26
Local clock offset: 0.035 ms
Remote clock offset: 0.134 ms

# Below is generated by plot.py at 2019-03-27 03:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 759.57 Mbit/s
95th percentile per-packet one-way delay: 177.374 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 411.45 Mbit/s
95th percentile per-packet one-way delay: 166.762 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 353.76 Mbit/s
95th percentile per-packet one-way delay: 209.308 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 344.37 Mbit/s
95th percentile per-packet one-way delay: 127.487 ms
Loss rate: 2.41%
```

Run 1: Report of TCP Cubic — Data Link

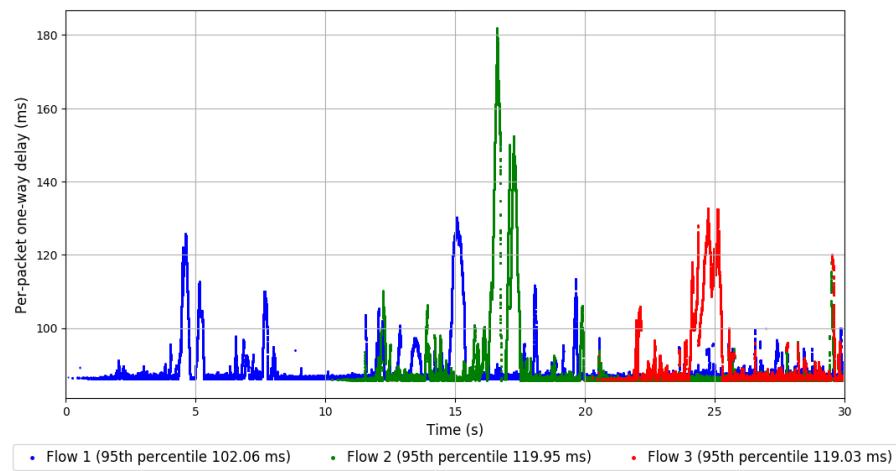
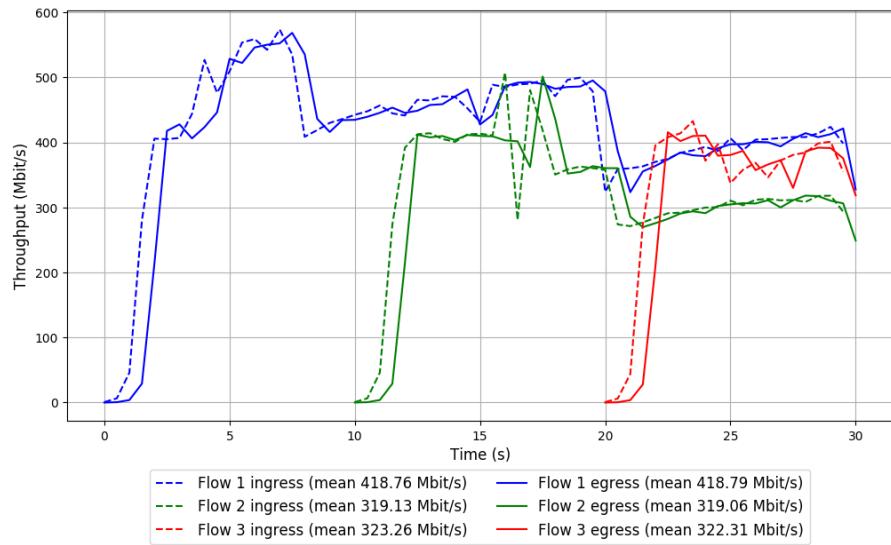


Run 2: Statistics of TCP Cubic

```
Start at: 2019-03-27 00:25:34
End at: 2019-03-27 00:26:04
Local clock offset: 0.011 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2019-03-27 03:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 736.63 Mbit/s
95th percentile per-packet one-way delay: 109.674 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 418.79 Mbit/s
95th percentile per-packet one-way delay: 102.055 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 319.06 Mbit/s
95th percentile per-packet one-way delay: 119.954 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 322.31 Mbit/s
95th percentile per-packet one-way delay: 119.033 ms
Loss rate: 2.03%
```

Run 2: Report of TCP Cubic — Data Link

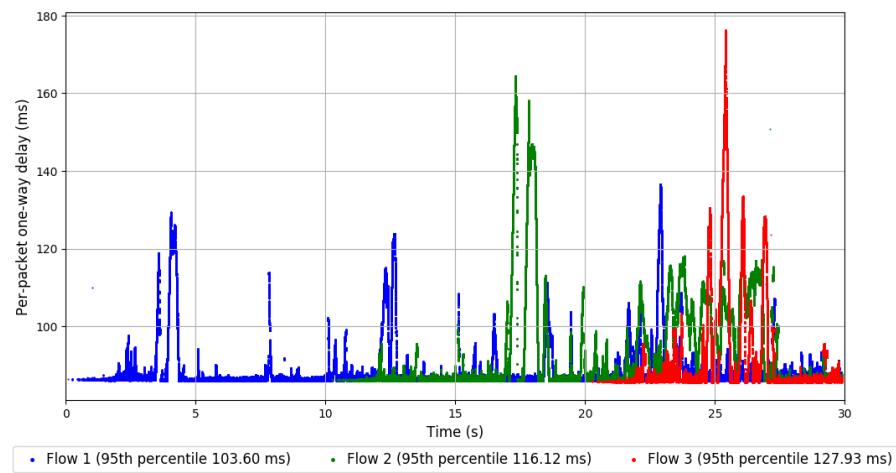
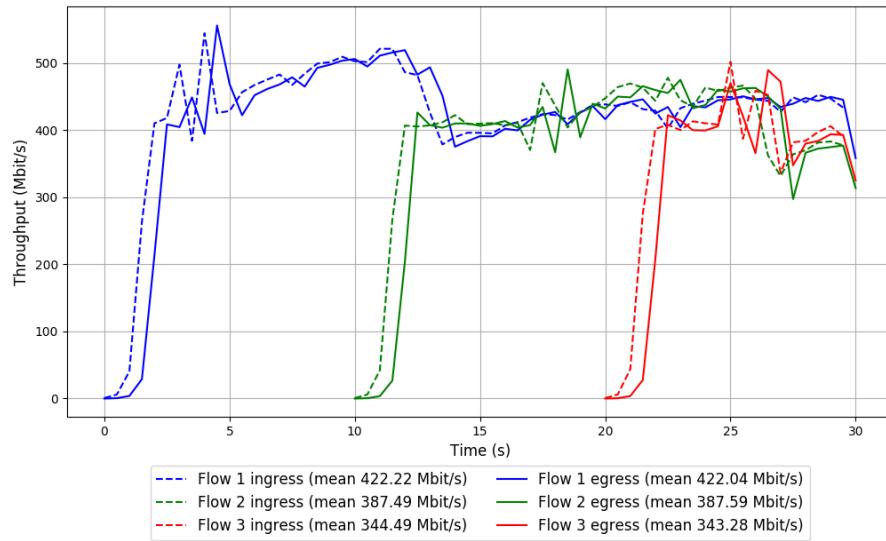


Run 3: Statistics of TCP Cubic

```
Start at: 2019-03-27 01:03:44
End at: 2019-03-27 01:04:14
Local clock offset: -0.237 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2019-03-27 03:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 792.20 Mbit/s
95th percentile per-packet one-way delay: 114.072 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 422.04 Mbit/s
95th percentile per-packet one-way delay: 103.603 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 387.59 Mbit/s
95th percentile per-packet one-way delay: 116.119 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 343.28 Mbit/s
95th percentile per-packet one-way delay: 127.929 ms
Loss rate: 2.06%
```

Run 3: Report of TCP Cubic — Data Link

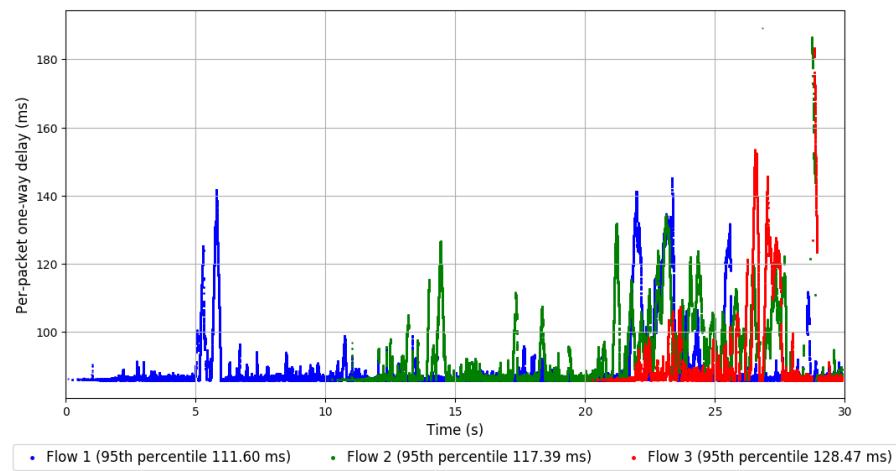
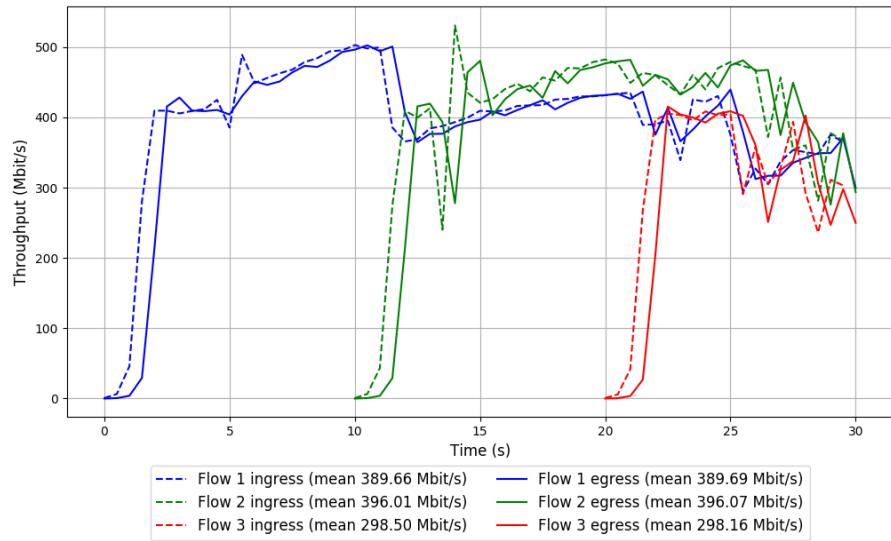


Run 4: Statistics of TCP Cubic

```
Start at: 2019-03-27 01:41:27
End at: 2019-03-27 01:41:57
Local clock offset: -0.35 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2019-03-27 03:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 750.80 Mbit/s
95th percentile per-packet one-way delay: 118.081 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 389.69 Mbit/s
95th percentile per-packet one-way delay: 111.600 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 396.07 Mbit/s
95th percentile per-packet one-way delay: 117.387 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 298.16 Mbit/s
95th percentile per-packet one-way delay: 128.473 ms
Loss rate: 1.85%
```

Run 4: Report of TCP Cubic — Data Link

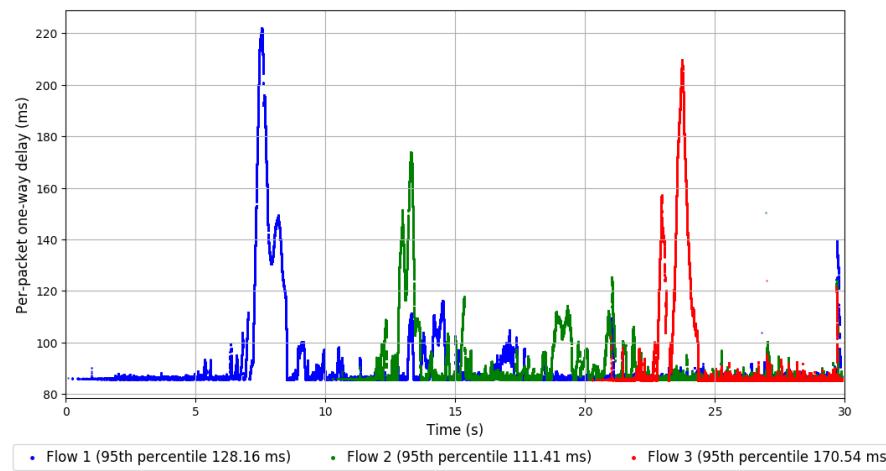
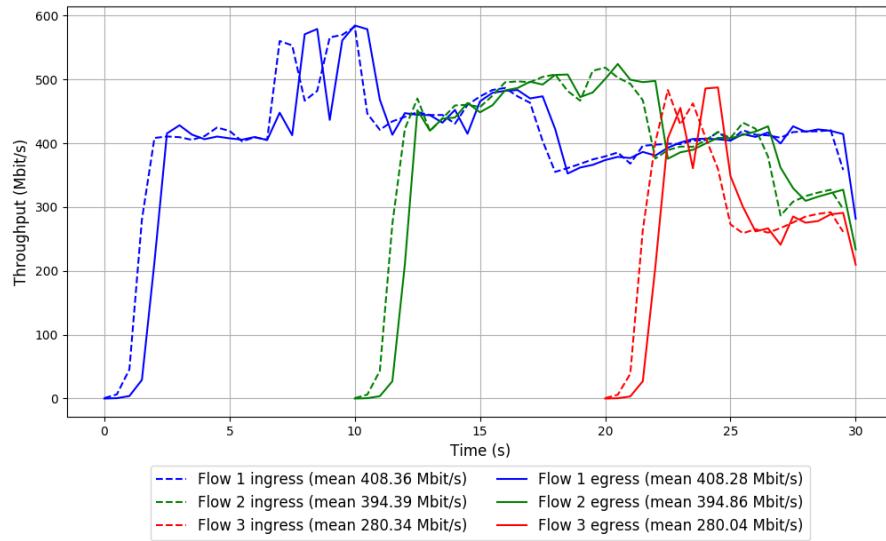


Run 5: Statistics of TCP Cubic

```
Start at: 2019-03-27 02:19:33
End at: 2019-03-27 02:20:03
Local clock offset: -0.417 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2019-03-27 03:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 762.50 Mbit/s
95th percentile per-packet one-way delay: 131.120 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 408.28 Mbit/s
95th percentile per-packet one-way delay: 128.161 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 394.86 Mbit/s
95th percentile per-packet one-way delay: 111.412 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 280.04 Mbit/s
95th percentile per-packet one-way delay: 170.542 ms
Loss rate: 1.83%
```

Run 5: Report of TCP Cubic — Data Link

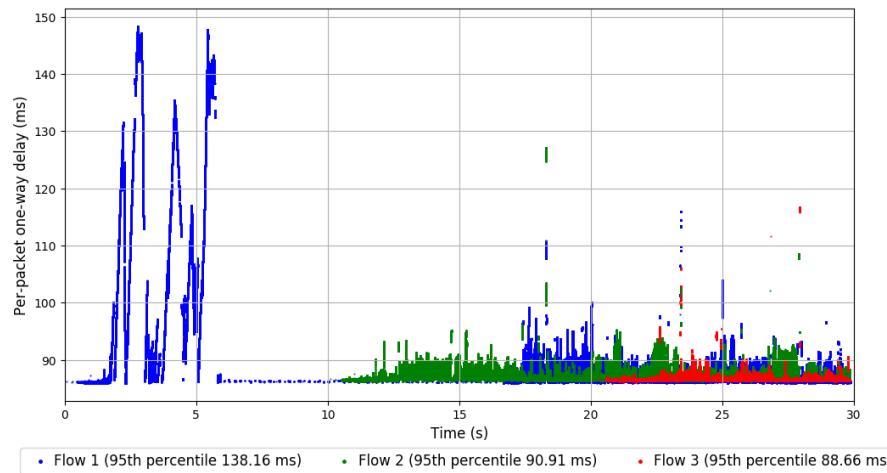
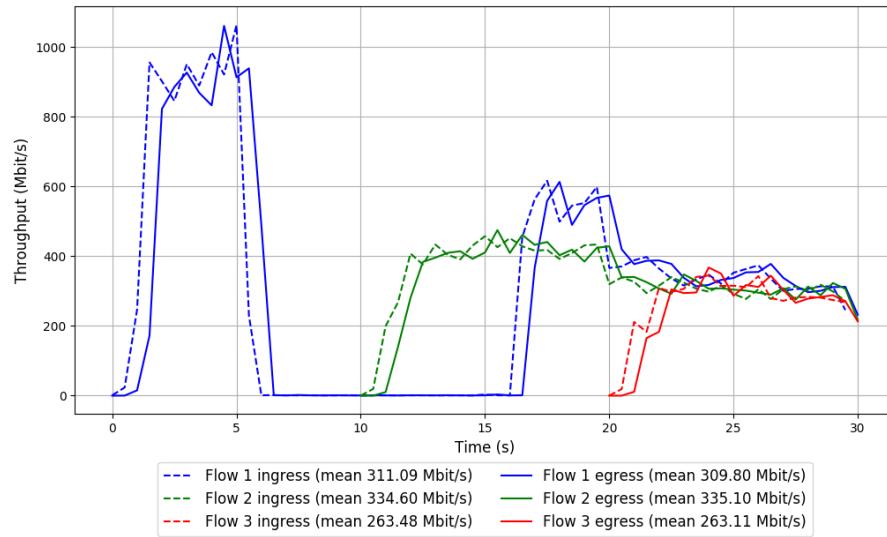


```
Run 1: Statistics of FillP

Start at: 2019-03-26 23:49:15
End at: 2019-03-26 23:49:45
Local clock offset: -0.062 ms
Remote clock offset: 0.086 ms

# Below is generated by plot.py at 2019-03-27 03:16:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 618.26 Mbit/s
95th percentile per-packet one-way delay: 126.645 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 309.80 Mbit/s
95th percentile per-packet one-way delay: 138.163 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 335.10 Mbit/s
95th percentile per-packet one-way delay: 90.906 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 263.11 Mbit/s
95th percentile per-packet one-way delay: 88.656 ms
Loss rate: 1.95%
```

Run 1: Report of FillP — Data Link

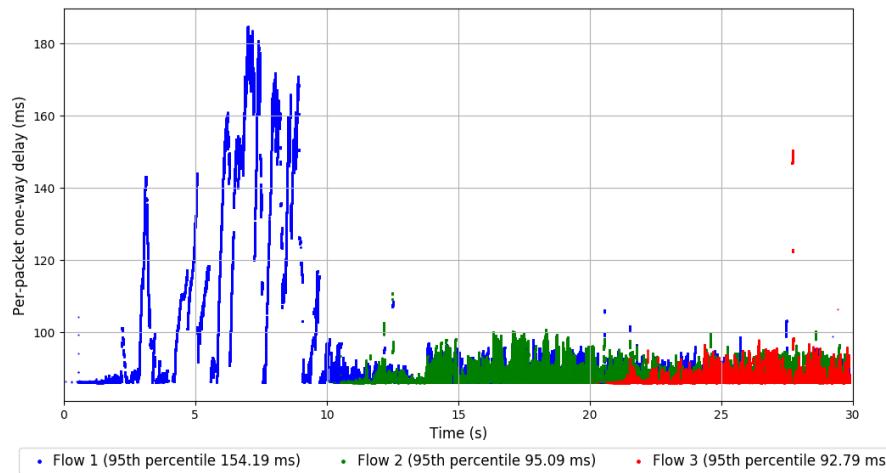
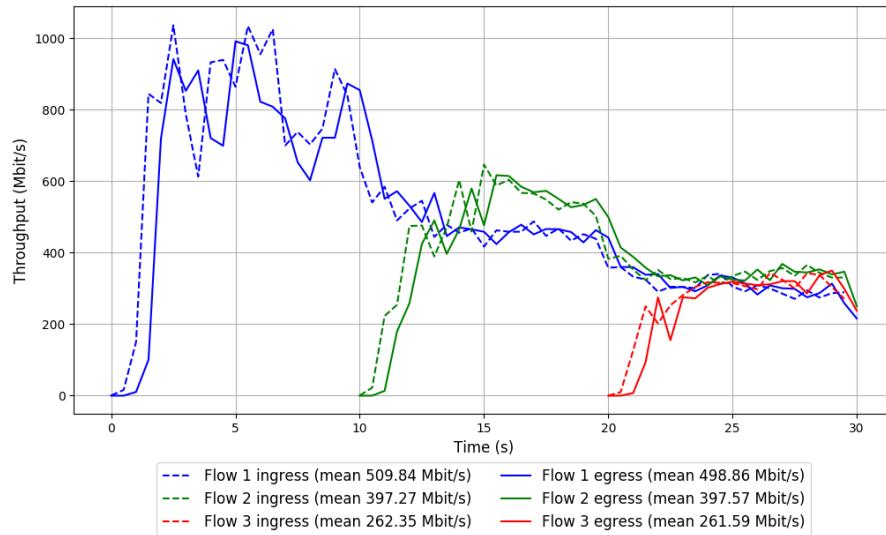


Run 2: Statistics of FillP

```
Start at: 2019-03-27 00:27:40
End at: 2019-03-27 00:28:10
Local clock offset: 0.236 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2019-03-27 03:33:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 847.92 Mbit/s
95th percentile per-packet one-way delay: 146.183 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 498.86 Mbit/s
95th percentile per-packet one-way delay: 154.192 ms
Loss rate: 2.73%
-- Flow 2:
Average throughput: 397.57 Mbit/s
95th percentile per-packet one-way delay: 95.094 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 261.59 Mbit/s
95th percentile per-packet one-way delay: 92.787 ms
Loss rate: 2.04%
```

Run 2: Report of FillP — Data Link

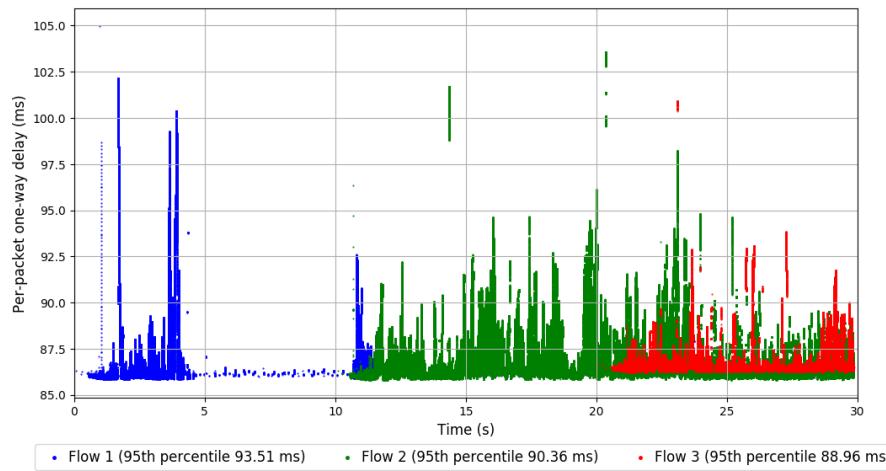
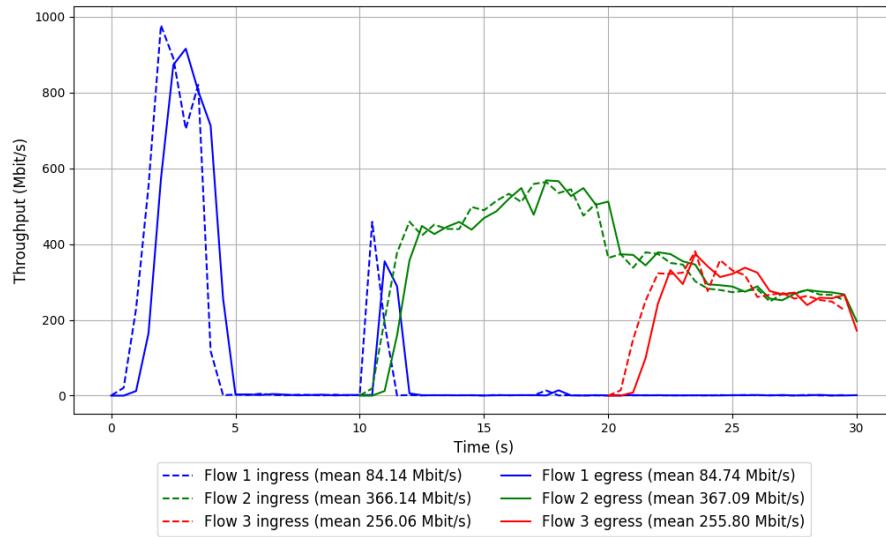


Run 3: Statistics of FillP

```
Start at: 2019-03-27 01:06:04
End at: 2019-03-27 01:06:34
Local clock offset: 0.007 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-03-27 03:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 412.02 Mbit/s
95th percentile per-packet one-way delay: 90.421 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 84.74 Mbit/s
95th percentile per-packet one-way delay: 93.512 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 367.09 Mbit/s
95th percentile per-packet one-way delay: 90.359 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 255.80 Mbit/s
95th percentile per-packet one-way delay: 88.960 ms
Loss rate: 1.82%
```

Run 3: Report of FillP — Data Link

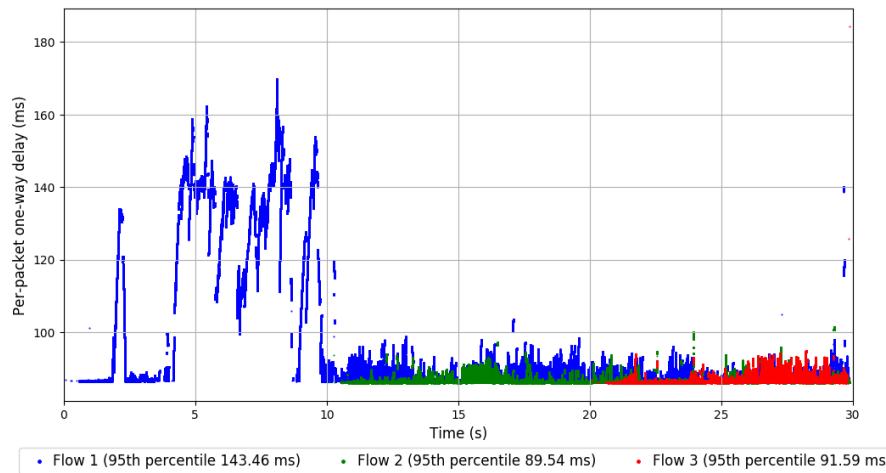
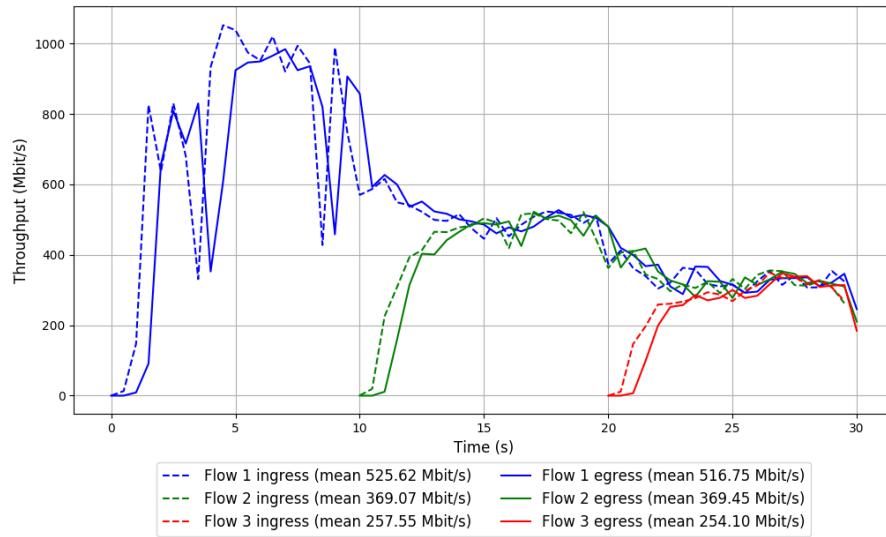


Run 4: Statistics of FillP

```
Start at: 2019-03-27 01:43:30
End at: 2019-03-27 01:44:00
Local clock offset: 0.064 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2019-03-27 03:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 844.56 Mbit/s
95th percentile per-packet one-way delay: 141.110 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 516.75 Mbit/s
95th percentile per-packet one-way delay: 143.459 ms
Loss rate: 2.26%
-- Flow 2:
Average throughput: 369.45 Mbit/s
95th percentile per-packet one-way delay: 89.543 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 254.10 Mbit/s
95th percentile per-packet one-way delay: 91.591 ms
Loss rate: 2.88%
```

Run 4: Report of FillP — Data Link

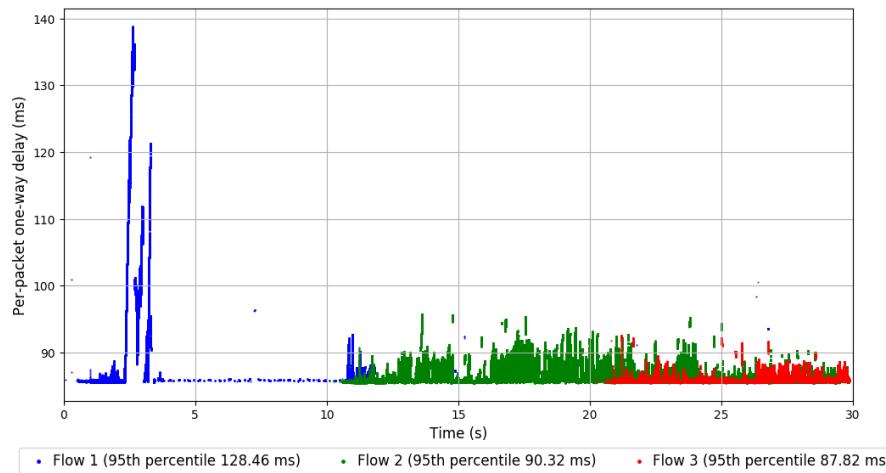
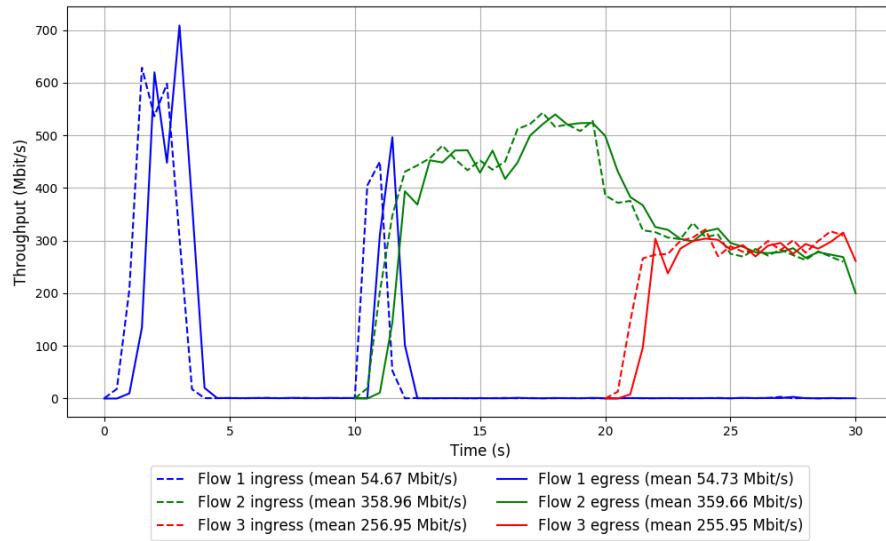


Run 5: Statistics of FillP

```
Start at: 2019-03-27 02:21:37
End at: 2019-03-27 02:22:07
Local clock offset: -0.401 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2019-03-27 03:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.22 Mbit/s
95th percentile per-packet one-way delay: 92.865 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 54.73 Mbit/s
95th percentile per-packet one-way delay: 128.457 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 359.66 Mbit/s
95th percentile per-packet one-way delay: 90.320 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 255.95 Mbit/s
95th percentile per-packet one-way delay: 87.816 ms
Loss rate: 2.16%
```

Run 5: Report of FillP — Data Link

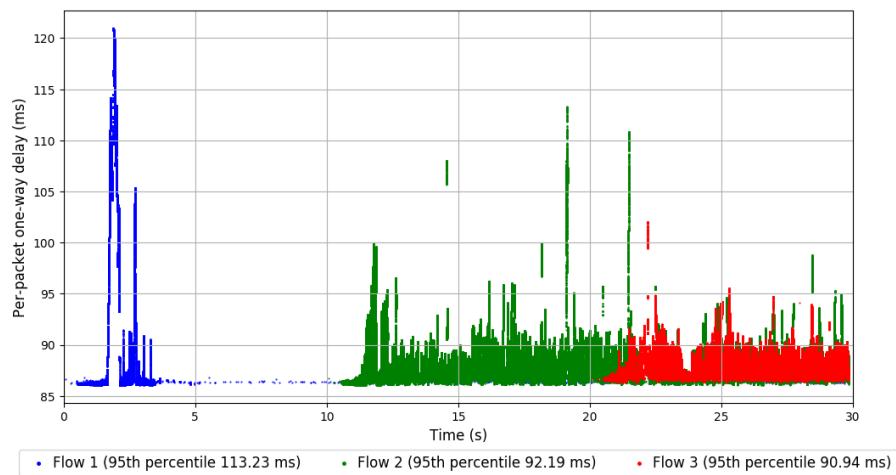
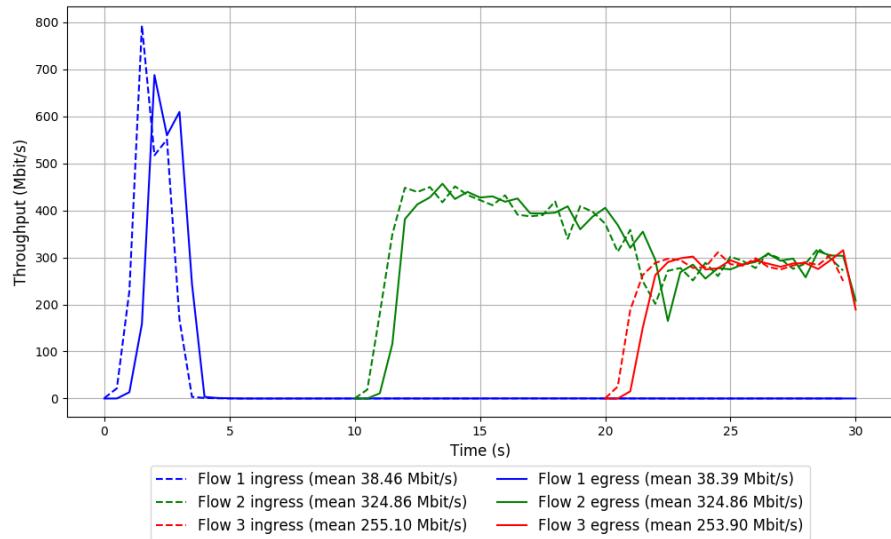


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-03-26 23:32:30
End at: 2019-03-26 23:33:00
Local clock offset: 0.135 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2019-03-27 03:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.14 Mbit/s
95th percentile per-packet one-way delay: 94.832 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 38.39 Mbit/s
95th percentile per-packet one-way delay: 113.227 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 324.86 Mbit/s
95th percentile per-packet one-way delay: 92.186 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 253.90 Mbit/s
95th percentile per-packet one-way delay: 90.943 ms
Loss rate: 1.98%
```

Run 1: Report of FillP-Sheep — Data Link

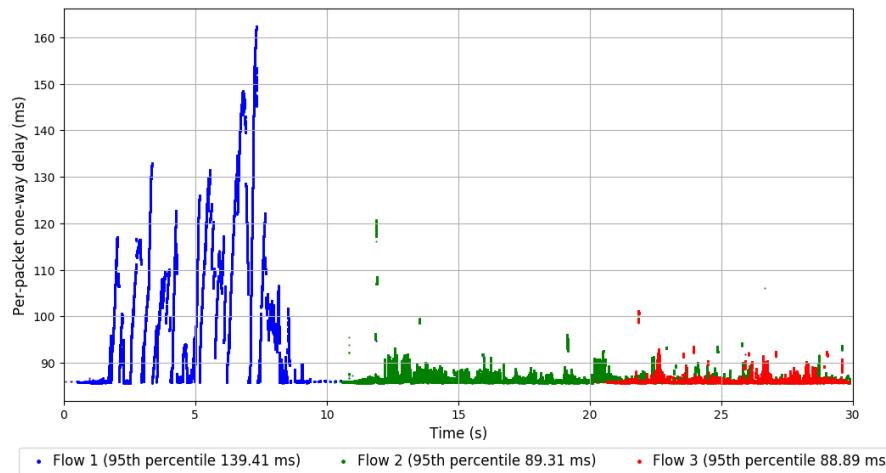
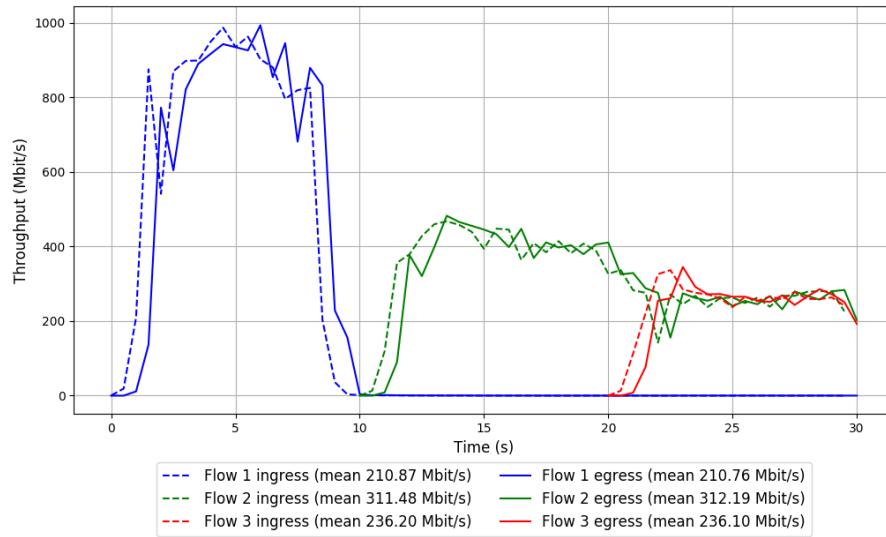


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-03-27 00:11:39
End at: 2019-03-27 00:12:09
Local clock offset: -0.078 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2019-03-27 03:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 495.02 Mbit/s
95th percentile per-packet one-way delay: 124.175 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 210.76 Mbit/s
95th percentile per-packet one-way delay: 139.406 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 312.19 Mbit/s
95th percentile per-packet one-way delay: 89.312 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 236.10 Mbit/s
95th percentile per-packet one-way delay: 88.893 ms
Loss rate: 1.87%
```

Run 2: Report of FillP-Sheep — Data Link

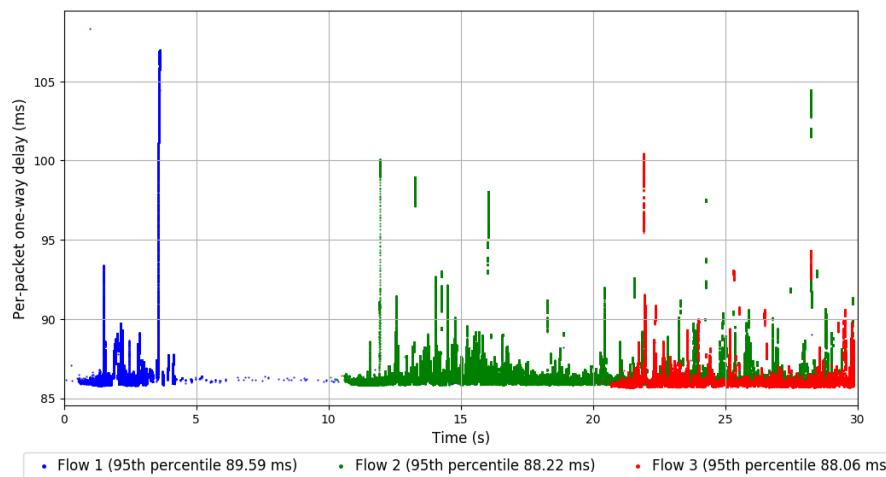
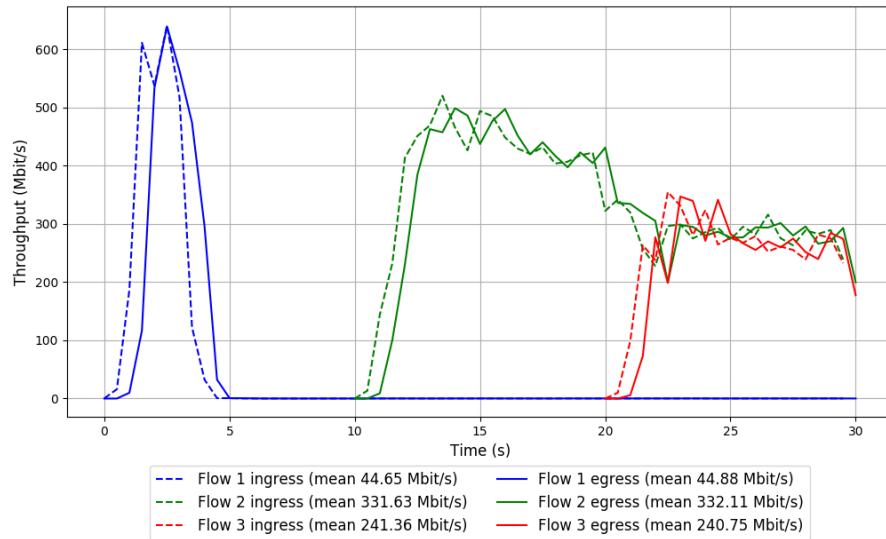


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-03-27 00:49:46
End at: 2019-03-27 00:50:16
Local clock offset: -0.107 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2019-03-27 03:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 343.99 Mbit/s
95th percentile per-packet one-way delay: 88.516 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 44.88 Mbit/s
95th percentile per-packet one-way delay: 89.595 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 332.11 Mbit/s
95th percentile per-packet one-way delay: 88.221 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 240.75 Mbit/s
95th percentile per-packet one-way delay: 88.056 ms
Loss rate: 2.00%
```

Run 3: Report of FillP-Sheep — Data Link

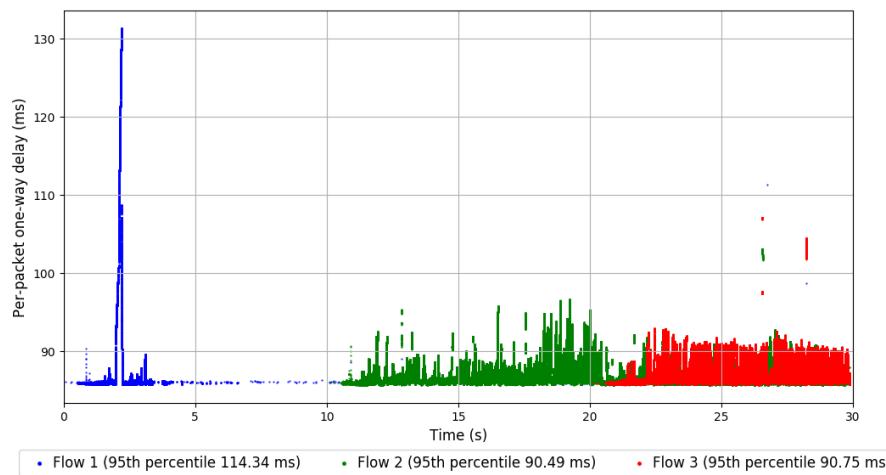
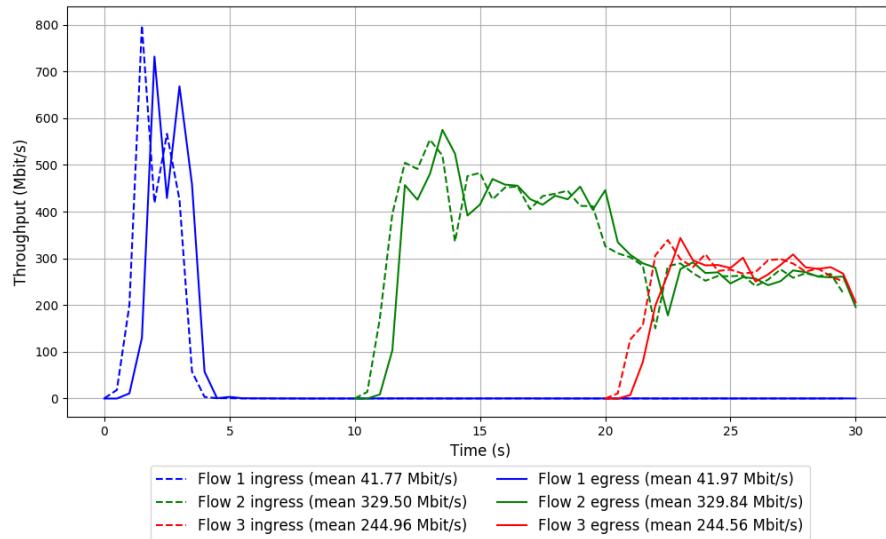


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-03-27 01:27:52
End at: 2019-03-27 01:28:22
Local clock offset: -0.163 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2019-03-27 03:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.83 Mbit/s
95th percentile per-packet one-way delay: 90.890 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 41.97 Mbit/s
95th percentile per-packet one-way delay: 114.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 329.84 Mbit/s
95th percentile per-packet one-way delay: 90.490 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 244.56 Mbit/s
95th percentile per-packet one-way delay: 90.745 ms
Loss rate: 1.98%
```

Run 4: Report of FillP-Sheep — Data Link

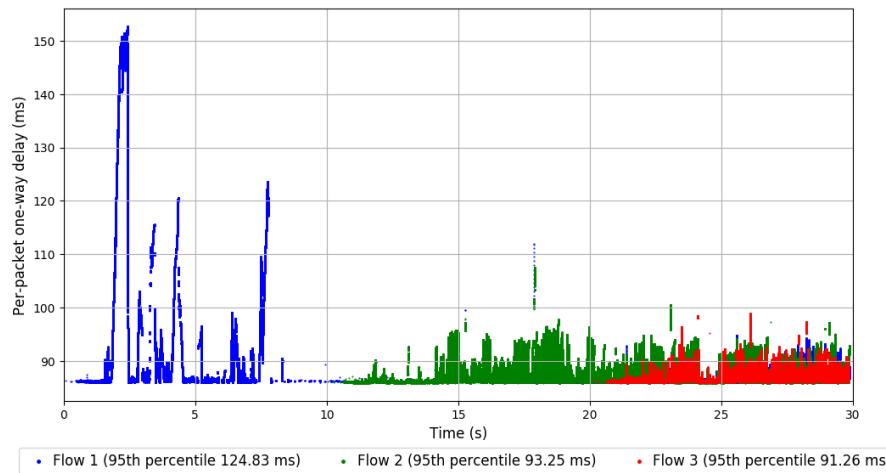
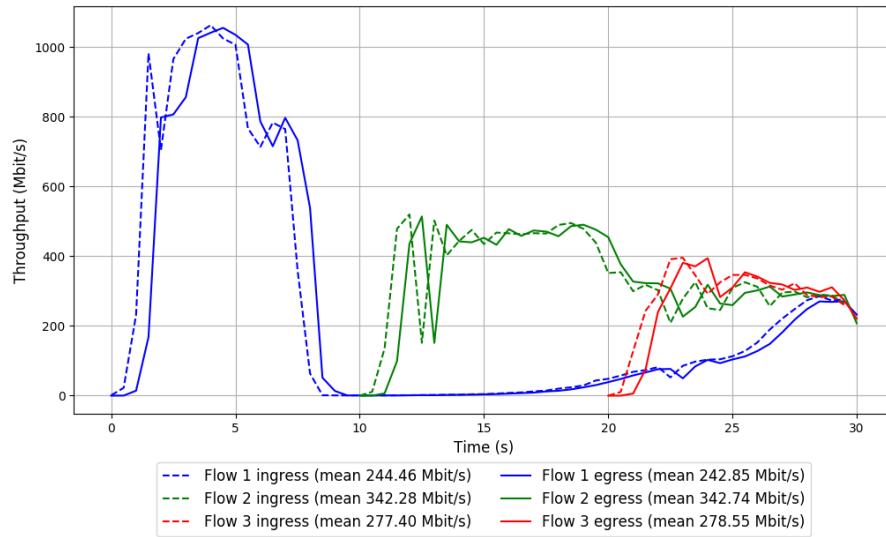


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-03-27 02:05:43
End at: 2019-03-27 02:06:13
Local clock offset: 0.059 ms
Remote clock offset: 0.057 ms

# Below is generated by plot.py at 2019-03-27 03:36:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 561.30 Mbit/s
95th percentile per-packet one-way delay: 109.242 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 242.85 Mbit/s
95th percentile per-packet one-way delay: 124.830 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 342.74 Mbit/s
95th percentile per-packet one-way delay: 93.254 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 278.55 Mbit/s
95th percentile per-packet one-way delay: 91.256 ms
Loss rate: 1.56%
```

Run 5: Report of FillP-Sheep — Data Link

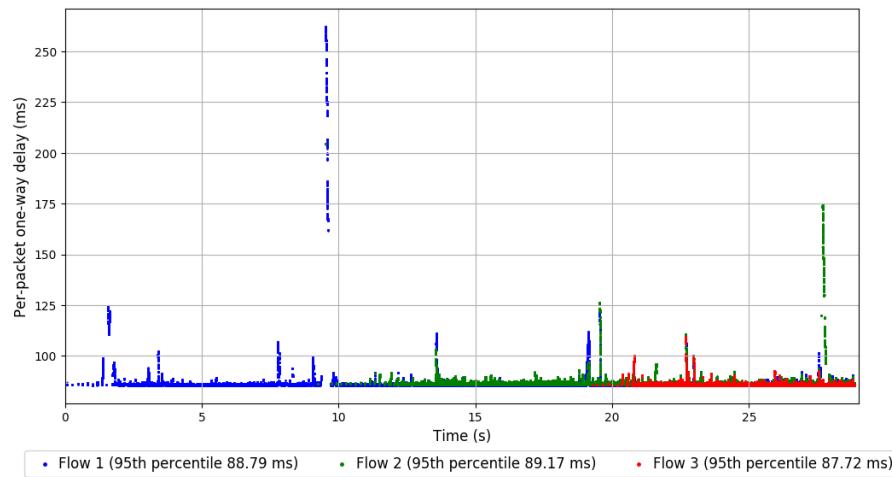
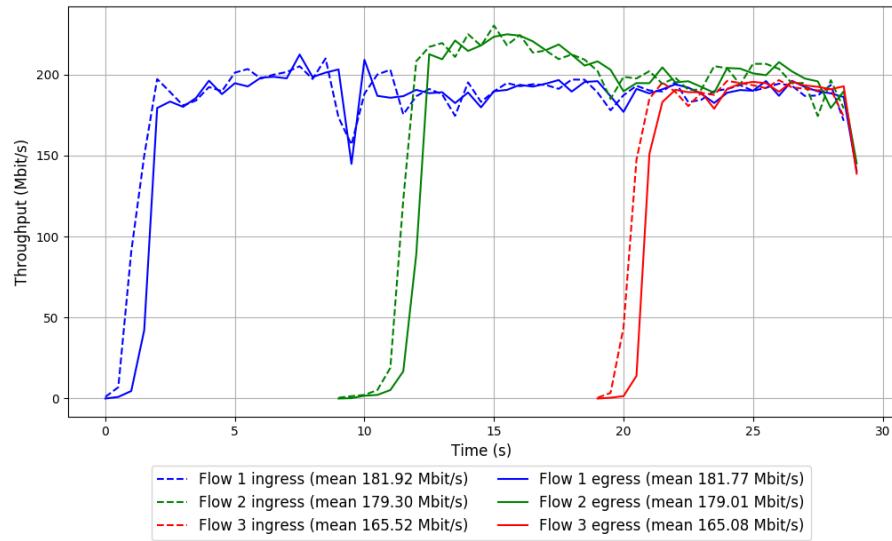


Run 1: Statistics of Indigo

```
Start at: 2019-03-26 23:34:10
End at: 2019-03-26 23:34:40
Local clock offset: -0.372 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2019-03-27 03:36:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 358.85 Mbit/s
95th percentile per-packet one-way delay: 88.811 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 181.77 Mbit/s
95th percentile per-packet one-way delay: 88.794 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 179.01 Mbit/s
95th percentile per-packet one-way delay: 89.171 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 165.08 Mbit/s
95th percentile per-packet one-way delay: 87.721 ms
Loss rate: 2.04%
```

Run 1: Report of Indigo — Data Link

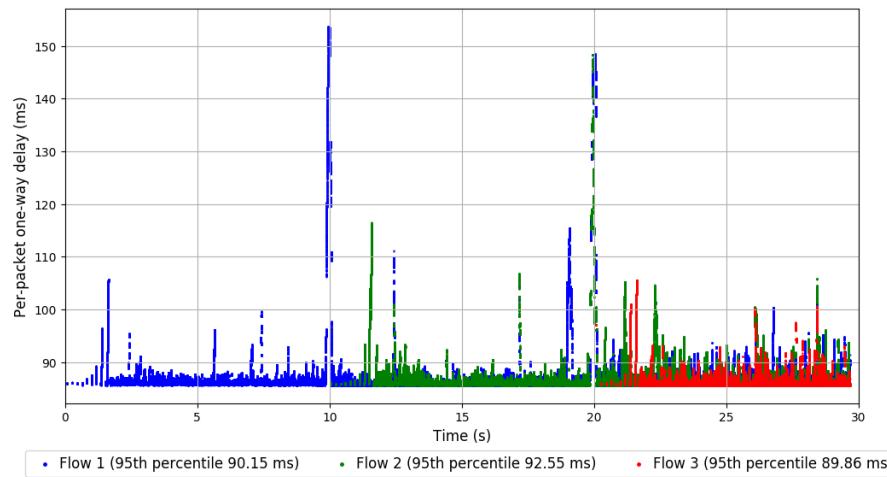
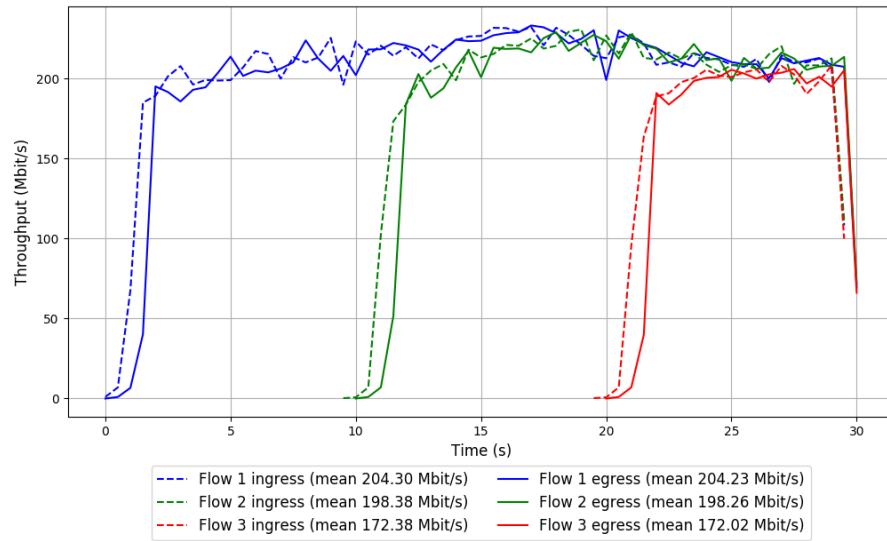


Run 2: Statistics of Indigo

```
Start at: 2019-03-27 00:13:22
End at: 2019-03-27 00:13:52
Local clock offset: -0.227 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2019-03-27 03:38:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.50 Mbit/s
95th percentile per-packet one-way delay: 90.994 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 204.23 Mbit/s
95th percentile per-packet one-way delay: 90.149 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 198.26 Mbit/s
95th percentile per-packet one-way delay: 92.550 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 172.02 Mbit/s
95th percentile per-packet one-way delay: 89.863 ms
Loss rate: 2.09%
```

Run 2: Report of Indigo — Data Link

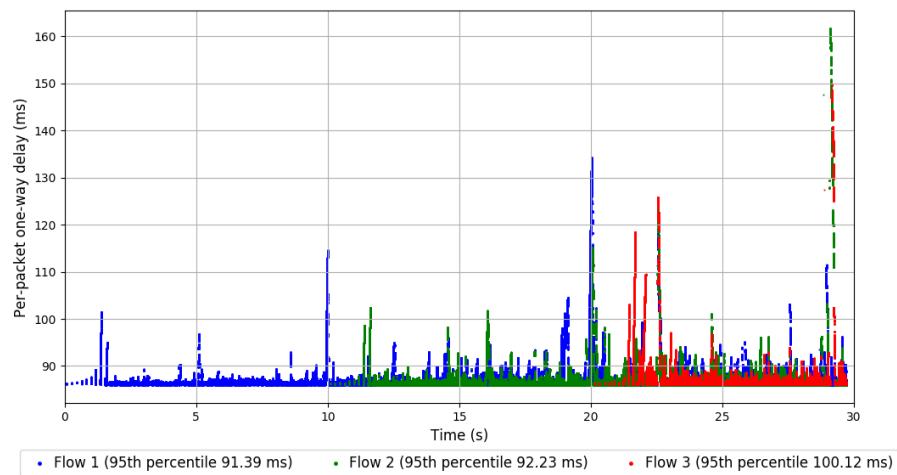
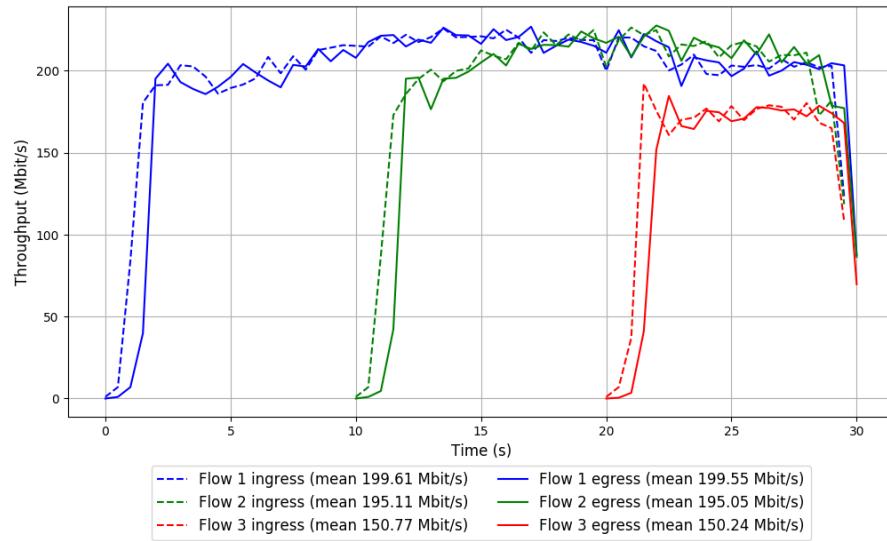


Run 3: Statistics of Indigo

```
Start at: 2019-03-27 00:51:18
End at: 2019-03-27 00:51:48
Local clock offset: 0.135 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2019-03-27 03:38:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.19 Mbit/s
95th percentile per-packet one-way delay: 92.153 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 199.55 Mbit/s
95th percentile per-packet one-way delay: 91.388 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 195.05 Mbit/s
95th percentile per-packet one-way delay: 92.228 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 150.24 Mbit/s
95th percentile per-packet one-way delay: 100.116 ms
Loss rate: 2.13%
```

Run 3: Report of Indigo — Data Link

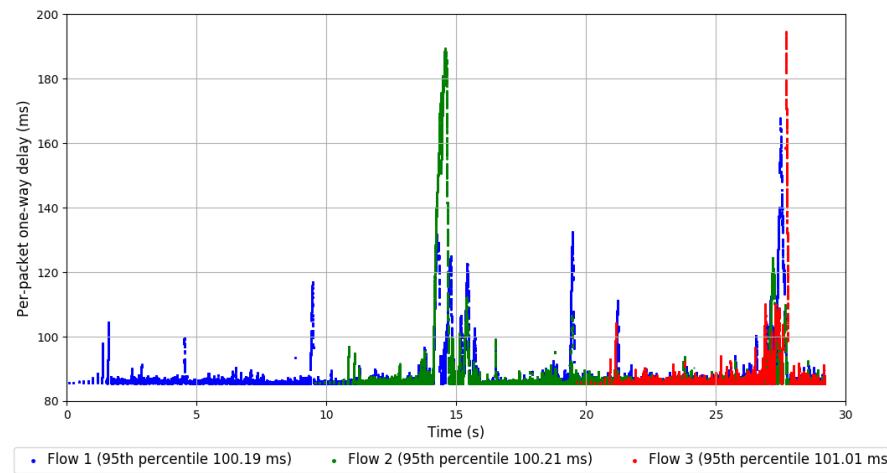
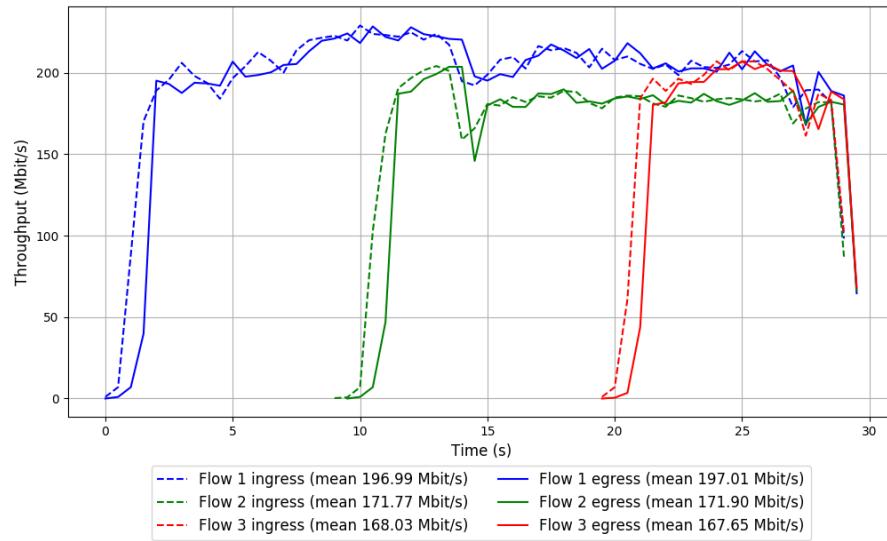


Run 4: Statistics of Indigo

```
Start at: 2019-03-27 01:29:23
End at: 2019-03-27 01:29:53
Local clock offset: -0.389 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-03-27 03:38:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.99 Mbit/s
95th percentile per-packet one-way delay: 100.360 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 197.01 Mbit/s
95th percentile per-packet one-way delay: 100.188 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 171.90 Mbit/s
95th percentile per-packet one-way delay: 100.206 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 167.65 Mbit/s
95th percentile per-packet one-way delay: 101.014 ms
Loss rate: 1.96%
```

Run 4: Report of Indigo — Data Link

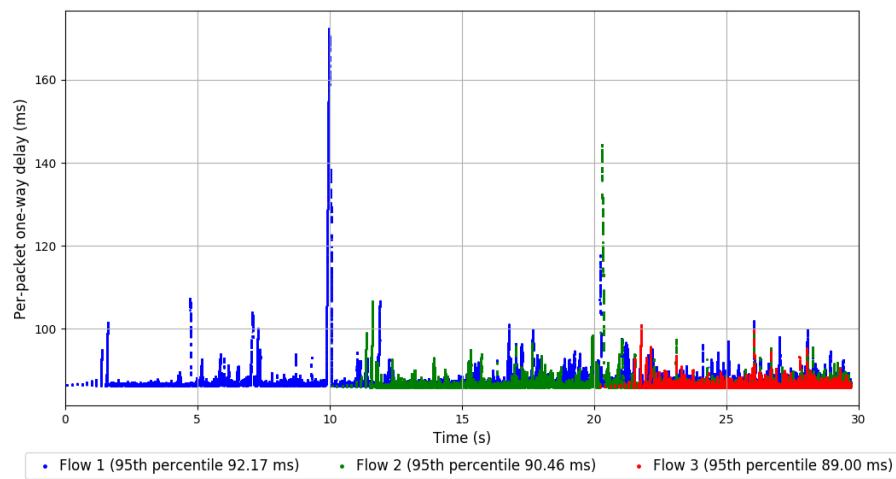
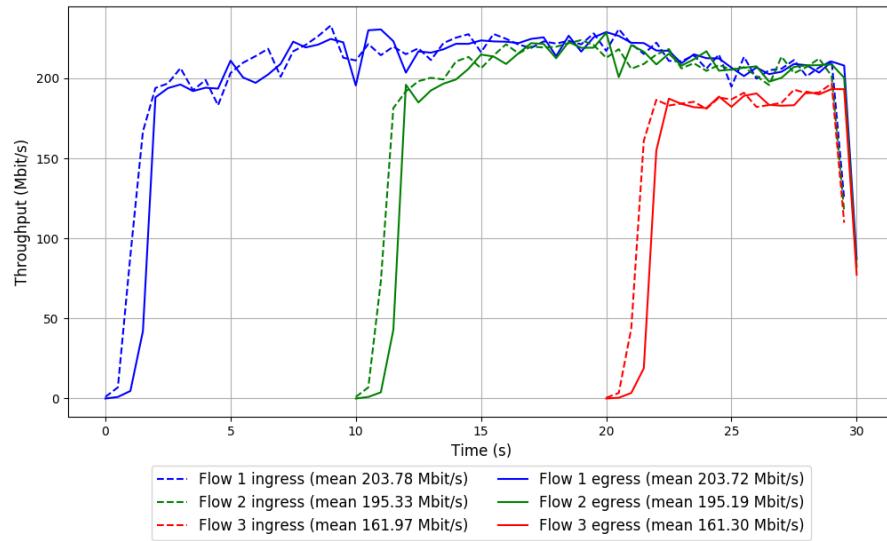


Run 5: Statistics of Indigo

```
Start at: 2019-03-27 02:07:23
End at: 2019-03-27 02:07:53
Local clock offset: 0.033 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2019-03-27 03:42:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.59 Mbit/s
95th percentile per-packet one-way delay: 91.273 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 203.72 Mbit/s
95th percentile per-packet one-way delay: 92.166 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 195.19 Mbit/s
95th percentile per-packet one-way delay: 90.464 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 161.30 Mbit/s
95th percentile per-packet one-way delay: 89.004 ms
Loss rate: 2.19%
```

Run 5: Report of Indigo — Data Link

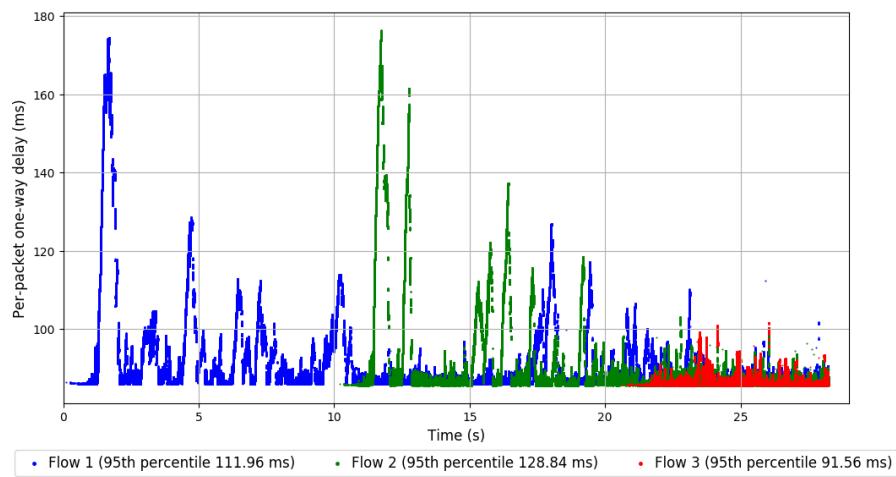
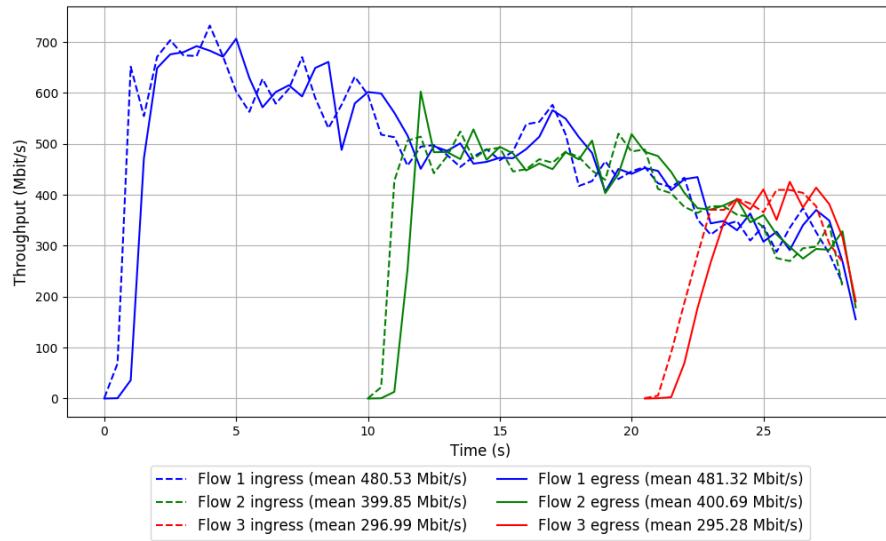


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-03-26 23:22:34
End at: 2019-03-26 23:23:04
Local clock offset: -0.237 ms
Remote clock offset: 0.143 ms

# Below is generated by plot.py at 2019-03-27 03:49:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 818.01 Mbit/s
95th percentile per-packet one-way delay: 113.508 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 481.32 Mbit/s
95th percentile per-packet one-way delay: 111.959 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 400.69 Mbit/s
95th percentile per-packet one-way delay: 128.836 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 295.28 Mbit/s
95th percentile per-packet one-way delay: 91.563 ms
Loss rate: 2.80%
```

Run 1: Report of Indigo-MusesC3 — Data Link

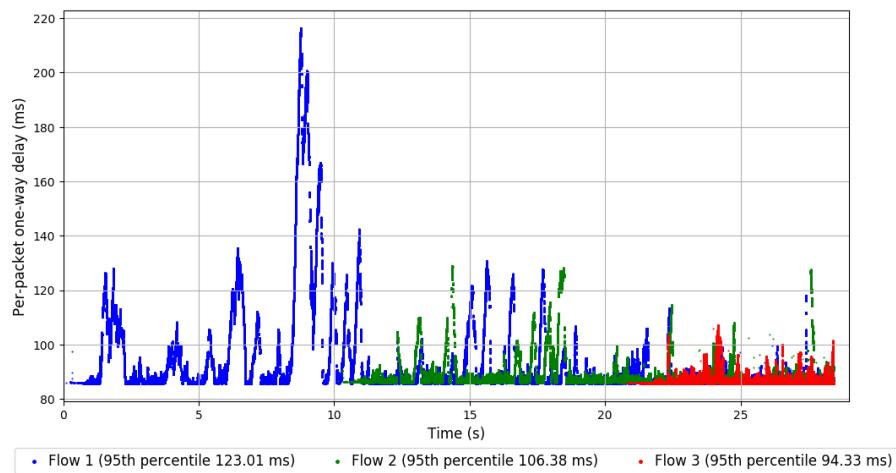
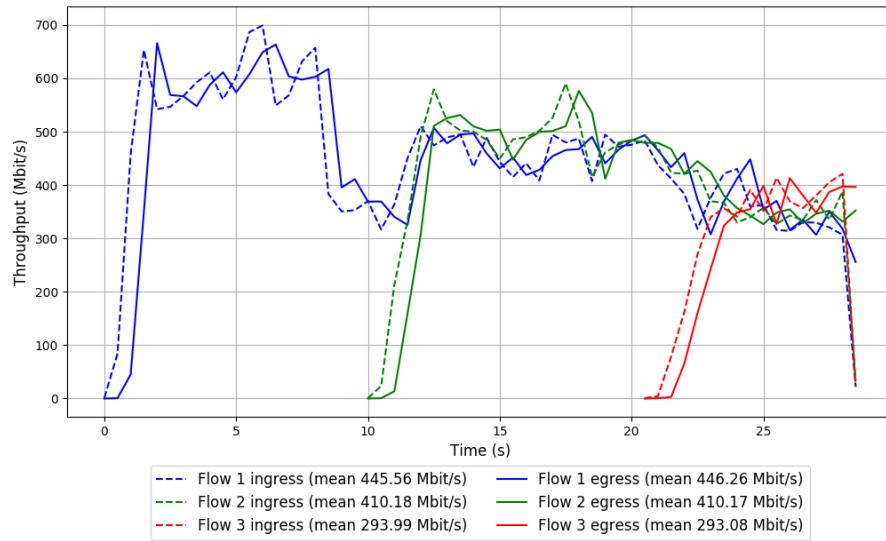


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 00:02:09
End at: 2019-03-27 00:02:39
Local clock offset: -0.099 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2019-03-27 03:50:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 791.33 Mbit/s
95th percentile per-packet one-way delay: 117.998 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 446.26 Mbit/s
95th percentile per-packet one-way delay: 123.008 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 410.17 Mbit/s
95th percentile per-packet one-way delay: 106.383 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 293.08 Mbit/s
95th percentile per-packet one-way delay: 94.333 ms
Loss rate: 2.57%
```

Run 2: Report of Indigo-MusesC3 — Data Link

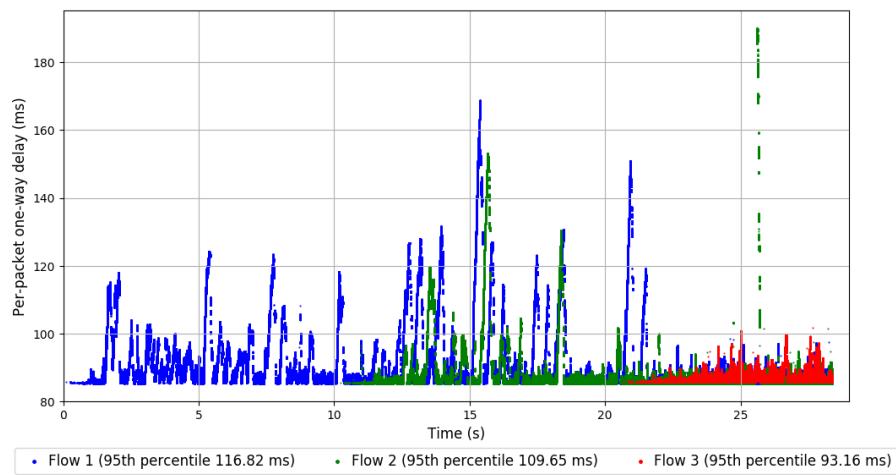
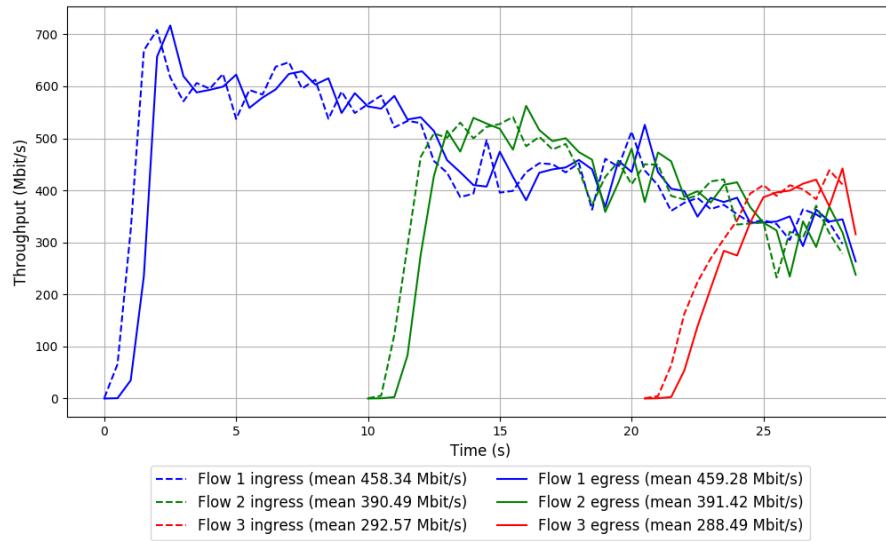


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 00:40:20
End at: 2019-03-27 00:40:50
Local clock offset: -0.521 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2019-03-27 03:52:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 789.00 Mbit/s
95th percentile per-packet one-way delay: 113.929 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 459.28 Mbit/s
95th percentile per-packet one-way delay: 116.817 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 391.42 Mbit/s
95th percentile per-packet one-way delay: 109.653 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 288.49 Mbit/s
95th percentile per-packet one-way delay: 93.162 ms
Loss rate: 3.56%
```

Run 3: Report of Indigo-MusesC3 — Data Link

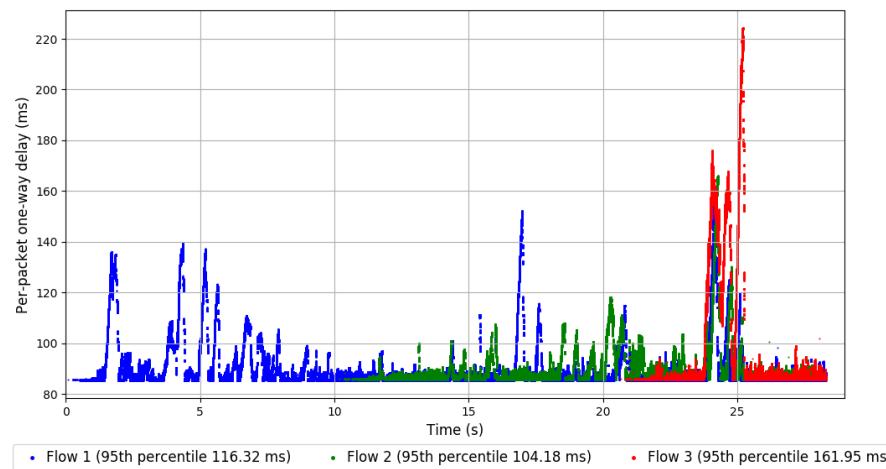
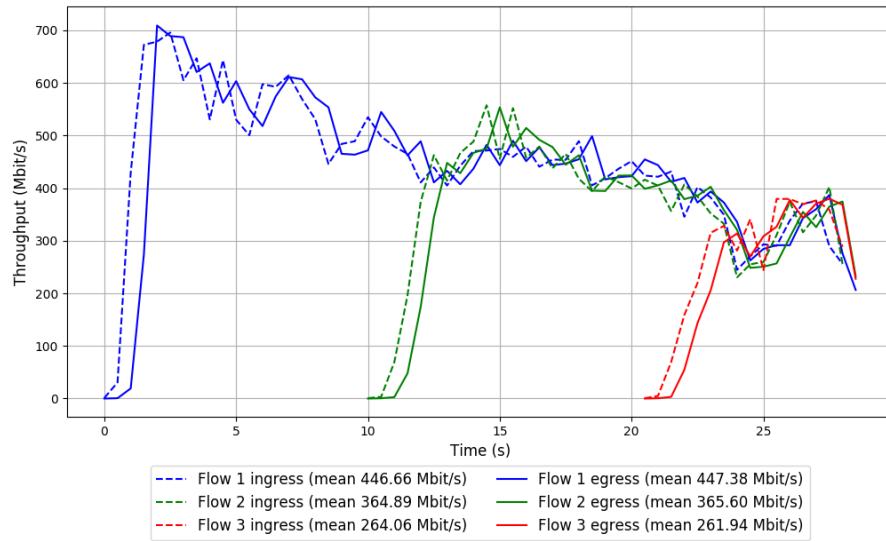


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 01:18:27
End at: 2019-03-27 01:18:57
Local clock offset: -0.586 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-03-27 03:52:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 752.61 Mbit/s
95th percentile per-packet one-way delay: 116.709 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 447.38 Mbit/s
95th percentile per-packet one-way delay: 116.321 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 365.60 Mbit/s
95th percentile per-packet one-way delay: 104.181 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 261.94 Mbit/s
95th percentile per-packet one-way delay: 161.947 ms
Loss rate: 3.02%
```

Run 4: Report of Indigo-MusesC3 — Data Link

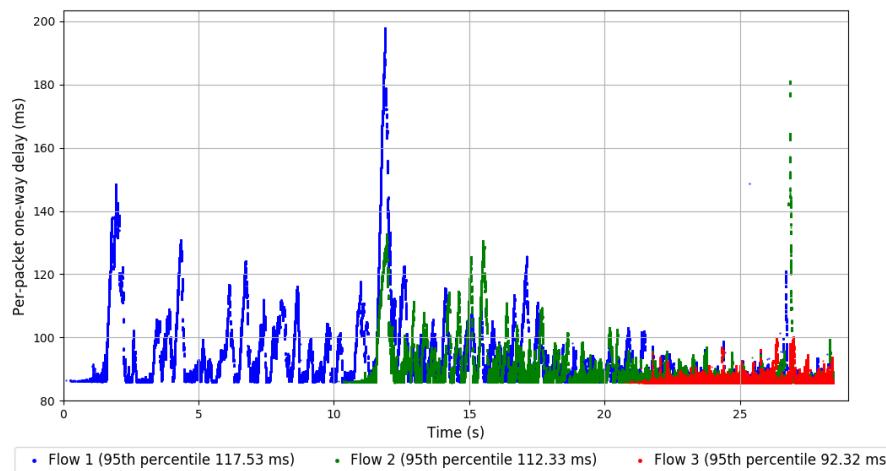
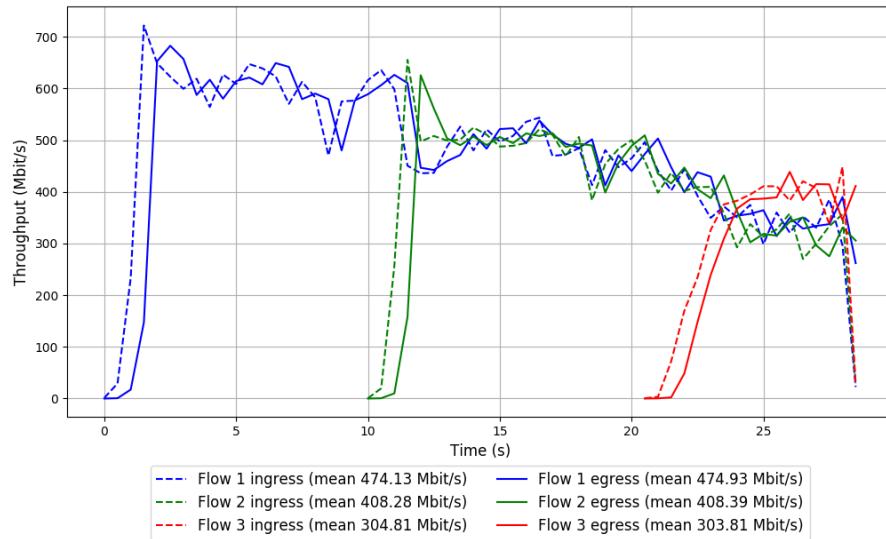


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 01:56:27
End at: 2019-03-27 01:56:57
Local clock offset: -0.196 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2019-03-27 03:53:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 820.54 Mbit/s
95th percentile per-packet one-way delay: 114.930 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 474.93 Mbit/s
95th percentile per-packet one-way delay: 117.535 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 408.39 Mbit/s
95th percentile per-packet one-way delay: 112.330 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 303.81 Mbit/s
95th percentile per-packet one-way delay: 92.322 ms
Loss rate: 2.51%
```

Run 5: Report of Indigo-MusesC3 — Data Link

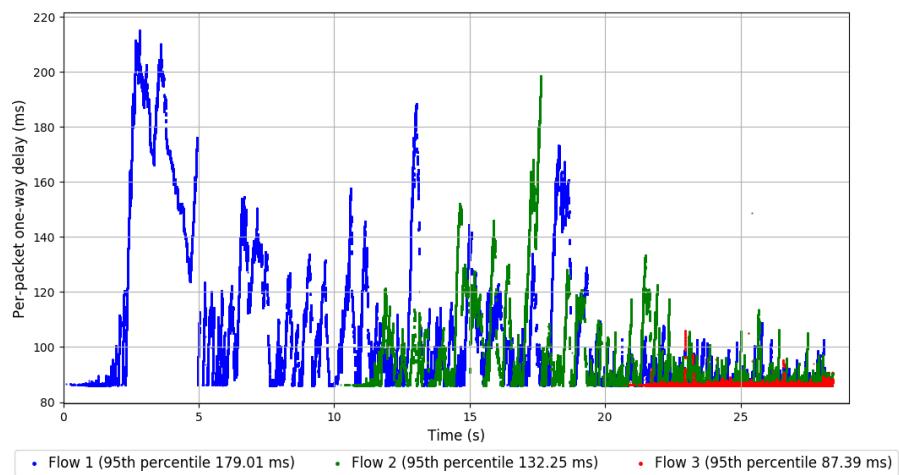
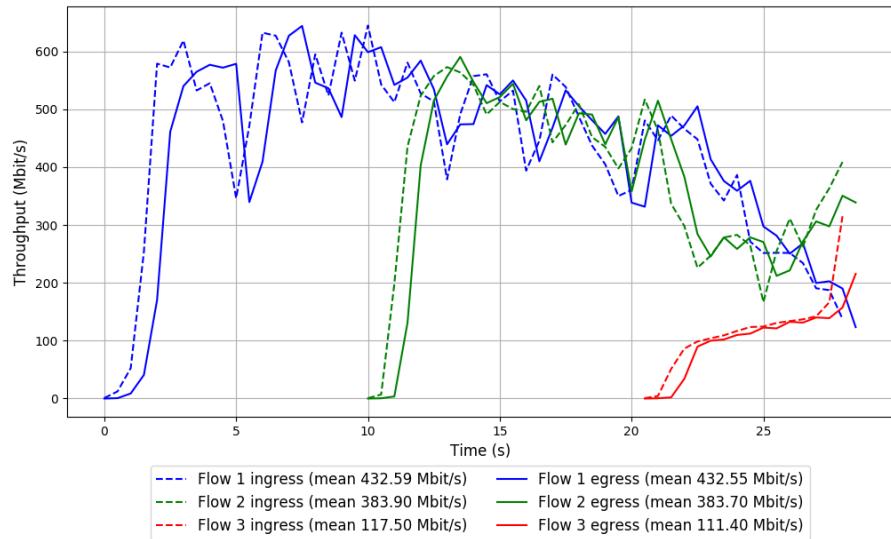


```
Run 1: Statistics of Indigo-MusesC5
```

```
Start at: 2019-03-26 23:36:16
End at: 2019-03-26 23:36:46
Local clock offset: -0.229 ms
Remote clock offset: 0.087 ms

# Below is generated by plot.py at 2019-03-27 03:54:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 709.01 Mbit/s
95th percentile per-packet one-way delay: 166.239 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 432.55 Mbit/s
95th percentile per-packet one-way delay: 179.011 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 383.70 Mbit/s
95th percentile per-packet one-way delay: 132.246 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 111.40 Mbit/s
95th percentile per-packet one-way delay: 87.385 ms
Loss rate: 7.27%
```

Run 1: Report of Indigo-MusesC5 — Data Link

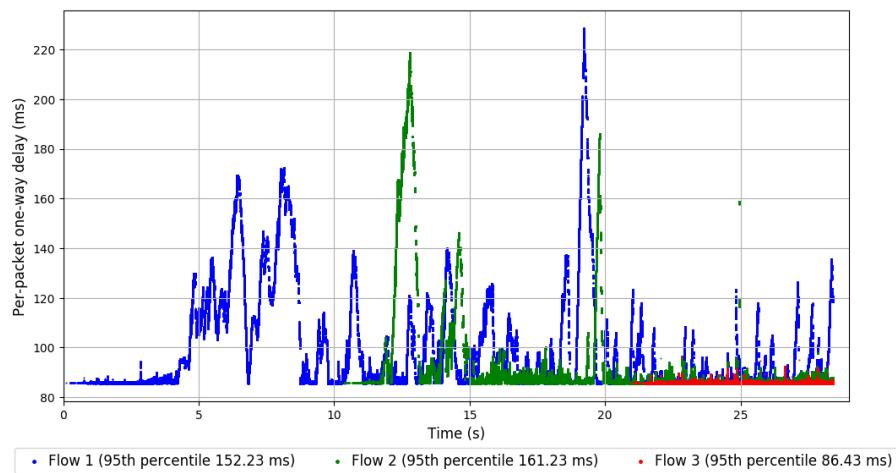
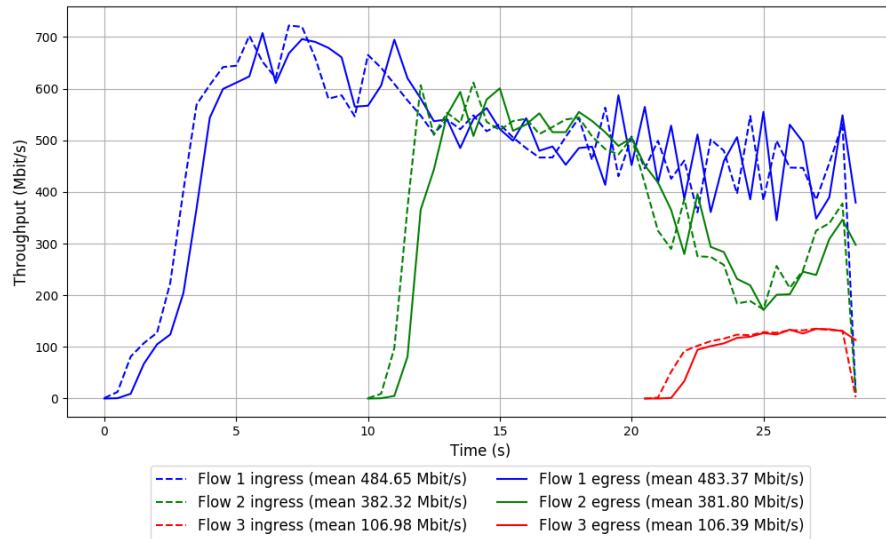


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 00:15:26
End at: 2019-03-27 00:15:56
Local clock offset: -0.129 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2019-03-27 03:54:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 756.98 Mbit/s
95th percentile per-packet one-way delay: 154.016 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 483.37 Mbit/s
95th percentile per-packet one-way delay: 152.232 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 381.80 Mbit/s
95th percentile per-packet one-way delay: 161.228 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 106.39 Mbit/s
95th percentile per-packet one-way delay: 86.427 ms
Loss rate: 2.79%
```

Run 2: Report of Indigo-MusesC5 — Data Link

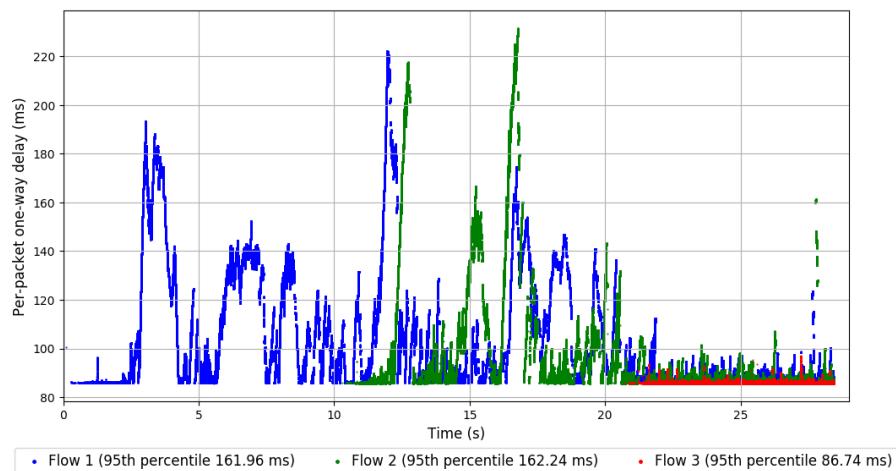
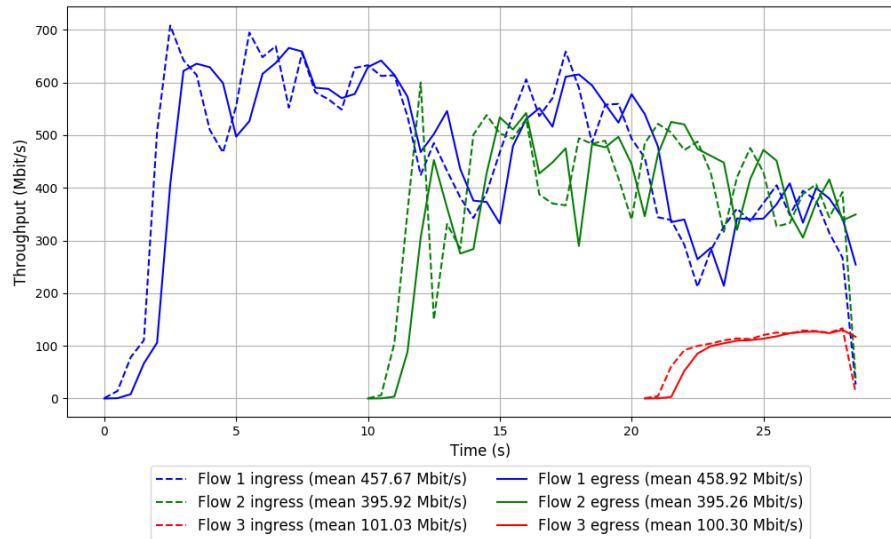


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 00:53:12
End at: 2019-03-27 00:53:42
Local clock offset: -0.12 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2019-03-27 03:56:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 739.45 Mbit/s
95th percentile per-packet one-way delay: 160.893 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 458.92 Mbit/s
95th percentile per-packet one-way delay: 161.961 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 395.26 Mbit/s
95th percentile per-packet one-way delay: 162.241 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 100.30 Mbit/s
95th percentile per-packet one-way delay: 86.741 ms
Loss rate: 3.00%
```

Run 3: Report of Indigo-MusesC5 — Data Link

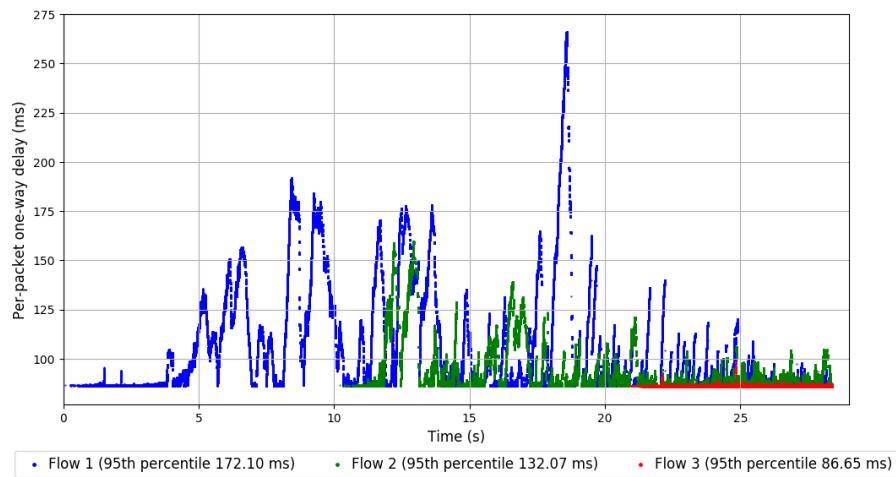
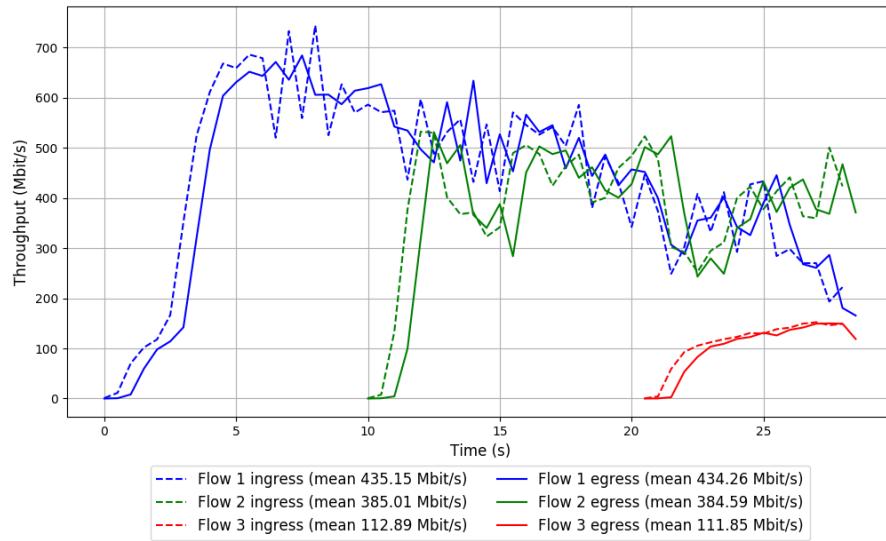


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 01:31:19
End at: 2019-03-27 01:31:49
Local clock offset: -0.114 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2019-03-27 04:02:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.22 Mbit/s
95th percentile per-packet one-way delay: 164.103 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 434.26 Mbit/s
95th percentile per-packet one-way delay: 172.096 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 384.59 Mbit/s
95th percentile per-packet one-way delay: 132.067 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 111.85 Mbit/s
95th percentile per-packet one-way delay: 86.651 ms
Loss rate: 3.14%
```

Run 4: Report of Indigo-MusesC5 — Data Link

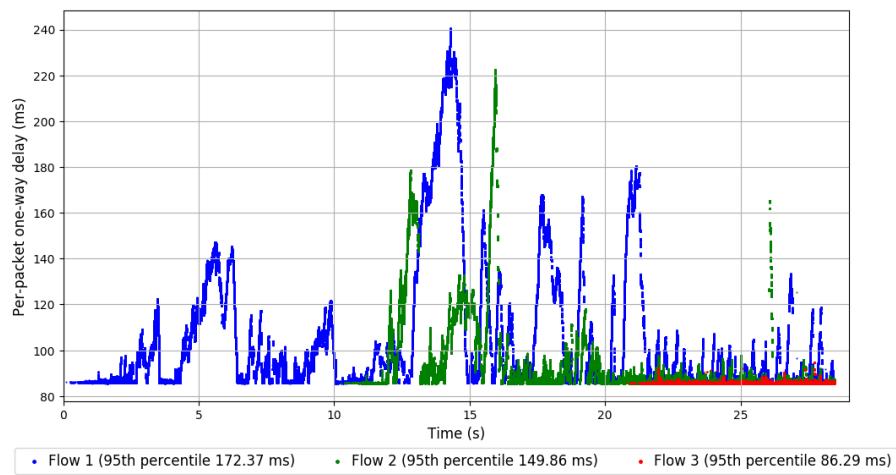
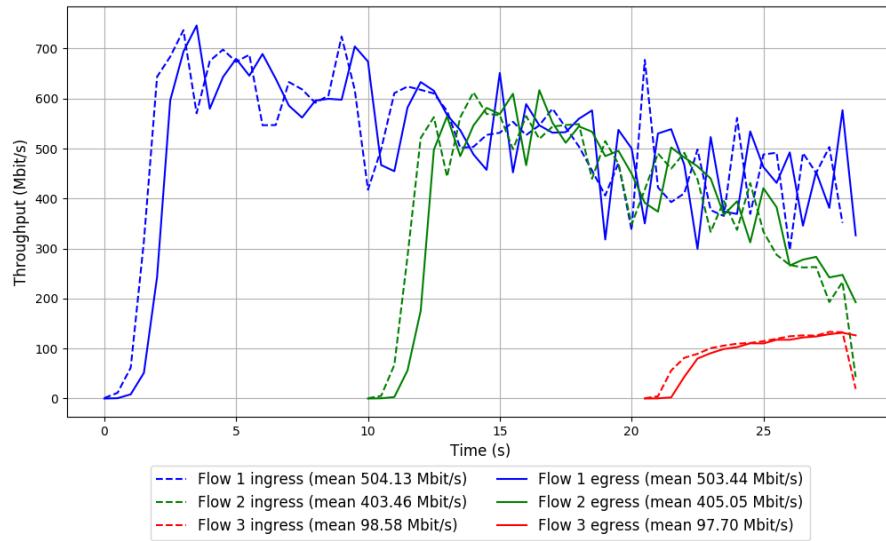


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 02:09:20
End at: 2019-03-27 02:09:50
Local clock offset: -0.428 ms
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2019-03-27 04:05:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 790.28 Mbit/s
95th percentile per-packet one-way delay: 164.535 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 503.44 Mbit/s
95th percentile per-packet one-way delay: 172.370 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 405.05 Mbit/s
95th percentile per-packet one-way delay: 149.858 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 97.70 Mbit/s
95th percentile per-packet one-way delay: 86.293 ms
Loss rate: 3.12%
```

Run 5: Report of Indigo-MusesC5 — Data Link

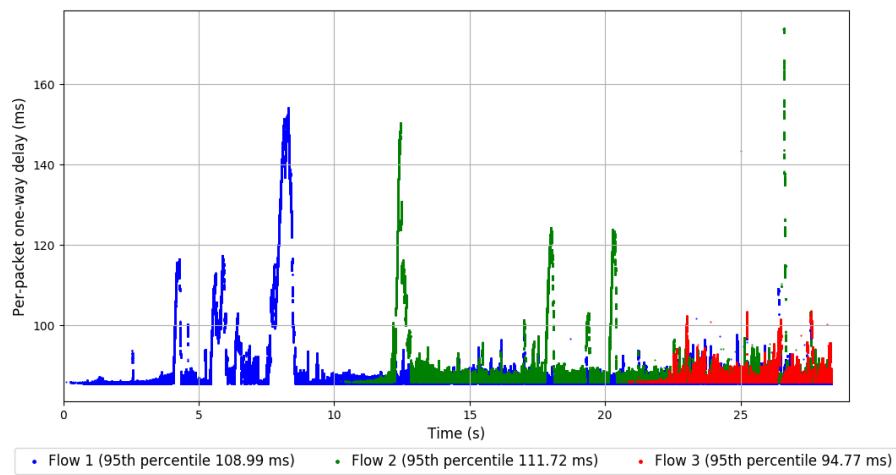
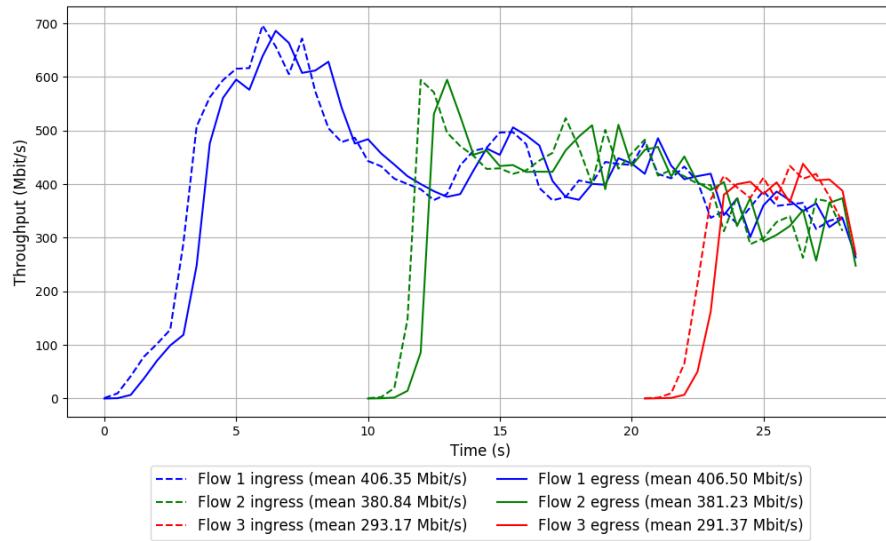


```
Run 1: Statistics of Indigo-MusesD
```

```
Start at: 2019-03-26 23:27:14
End at: 2019-03-26 23:27:44
Local clock offset: -0.461 ms
Remote clock offset: 0.087 ms

# Below is generated by plot.py at 2019-03-27 04:05:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 729.82 Mbit/s
95th percentile per-packet one-way delay: 107.524 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 406.50 Mbit/s
95th percentile per-packet one-way delay: 108.993 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 381.23 Mbit/s
95th percentile per-packet one-way delay: 111.722 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 291.37 Mbit/s
95th percentile per-packet one-way delay: 94.766 ms
Loss rate: 2.82%
```

Run 1: Report of Indigo-MusesD — Data Link

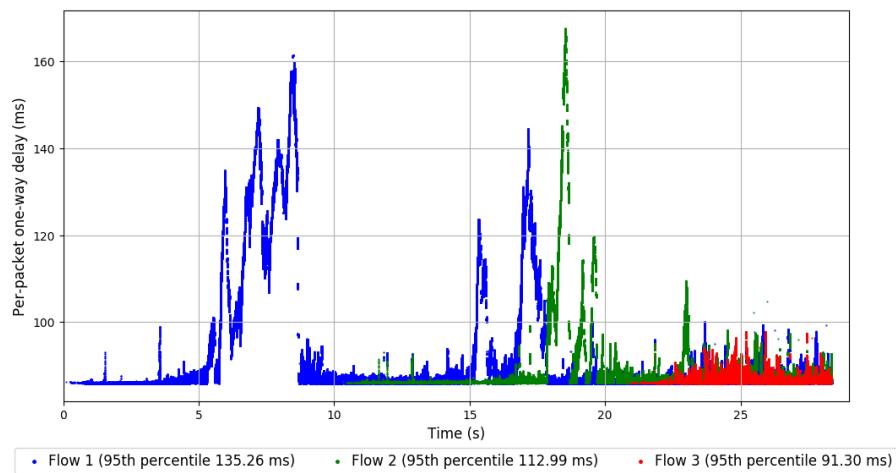
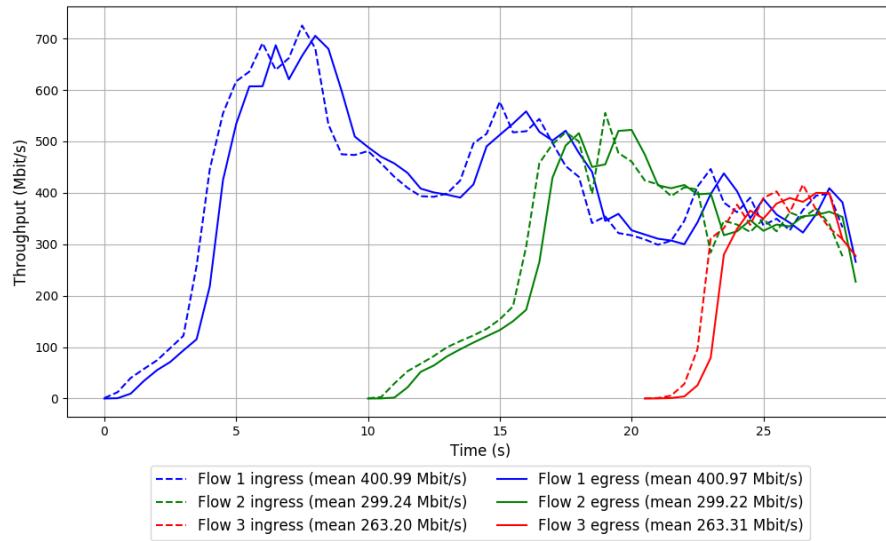


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 00:06:39
End at: 2019-03-27 00:07:09
Local clock offset: 0.084 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-03-27 04:05:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 662.20 Mbit/s
95th percentile per-packet one-way delay: 130.224 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 400.97 Mbit/s
95th percentile per-packet one-way delay: 135.261 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 299.22 Mbit/s
95th percentile per-packet one-way delay: 112.989 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 263.31 Mbit/s
95th percentile per-packet one-way delay: 91.295 ms
Loss rate: 2.34%
```

Run 2: Report of Indigo-MusesD — Data Link

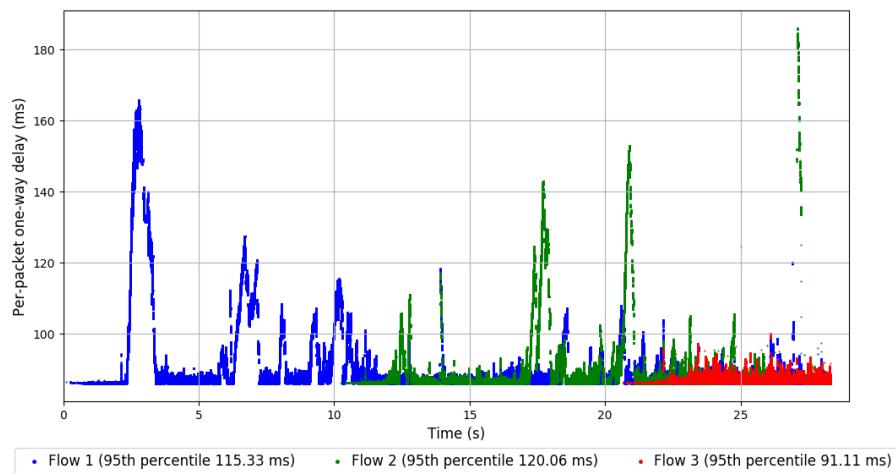
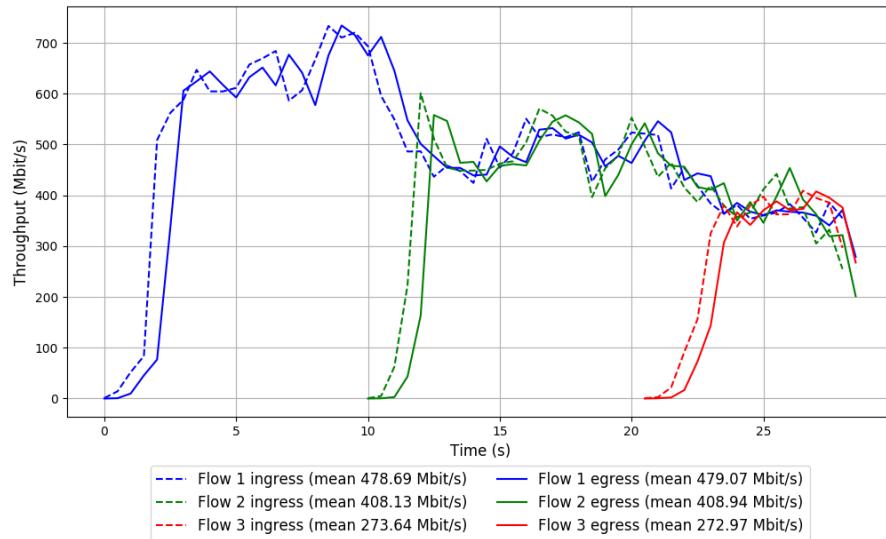


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 00:44:47
End at: 2019-03-27 00:45:17
Local clock offset: 0.164 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2019-03-27 04:07:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 815.03 Mbit/s
95th percentile per-packet one-way delay: 114.748 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 479.07 Mbit/s
95th percentile per-packet one-way delay: 115.327 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 408.94 Mbit/s
95th percentile per-packet one-way delay: 120.056 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 272.97 Mbit/s
95th percentile per-packet one-way delay: 91.113 ms
Loss rate: 2.45%
```

Run 3: Report of Indigo-MusesD — Data Link

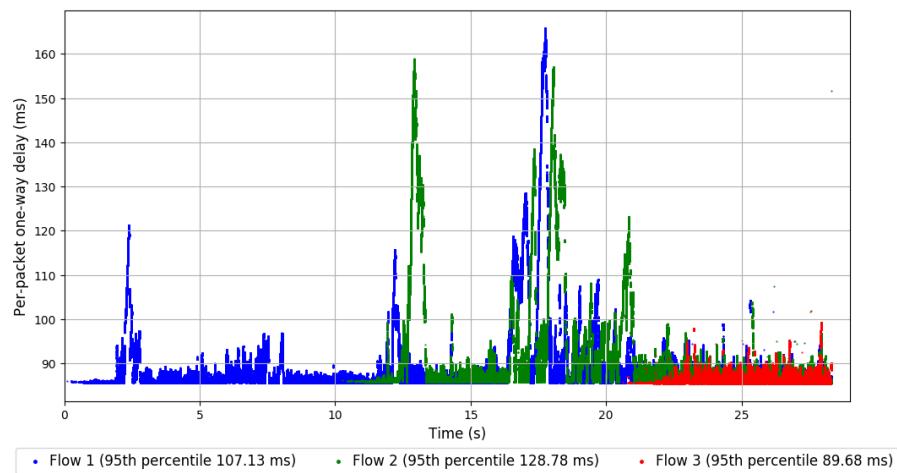
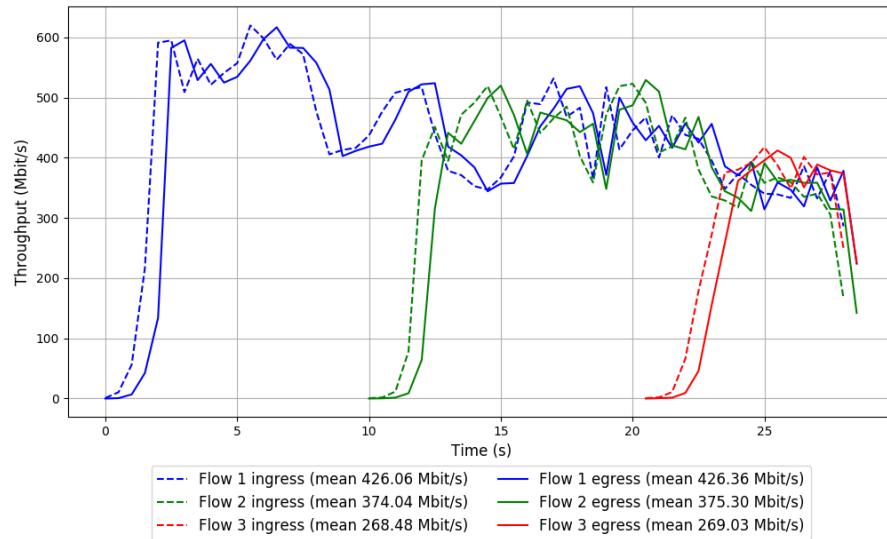


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 01:22:55
End at: 2019-03-27 01:23:25
Local clock offset: -0.388 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-03-27 04:07:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 739.54 Mbit/s
95th percentile per-packet one-way delay: 112.634 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 426.36 Mbit/s
95th percentile per-packet one-way delay: 107.126 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 375.30 Mbit/s
95th percentile per-packet one-way delay: 128.784 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 269.03 Mbit/s
95th percentile per-packet one-way delay: 89.681 ms
Loss rate: 2.18%
```

Run 4: Report of Indigo-MusesD — Data Link

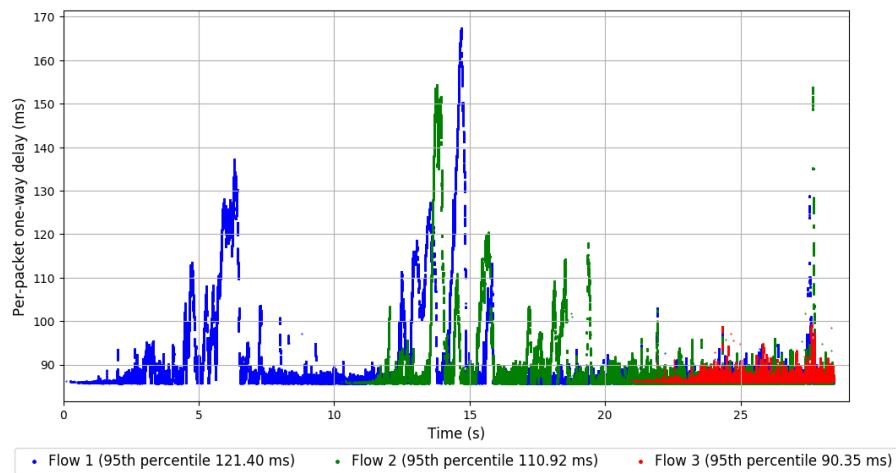
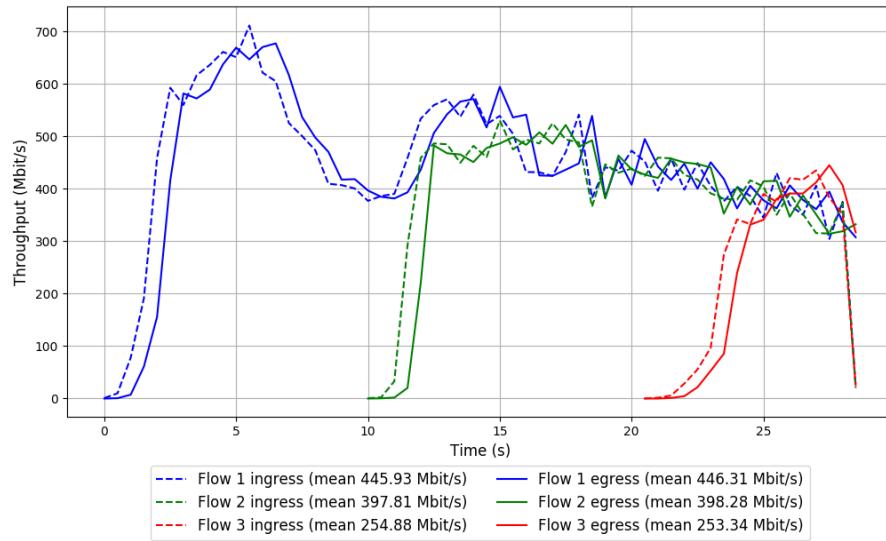


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 02:00:59
End at: 2019-03-27 02:01:29
Local clock offset: -0.223 ms
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2019-03-27 04:08:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 769.09 Mbit/s
95th percentile per-packet one-way delay: 115.746 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 446.31 Mbit/s
95th percentile per-packet one-way delay: 121.396 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 398.28 Mbit/s
95th percentile per-packet one-way delay: 110.915 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 253.34 Mbit/s
95th percentile per-packet one-way delay: 90.351 ms
Loss rate: 2.84%
```

Run 5: Report of Indigo-MusesD — Data Link

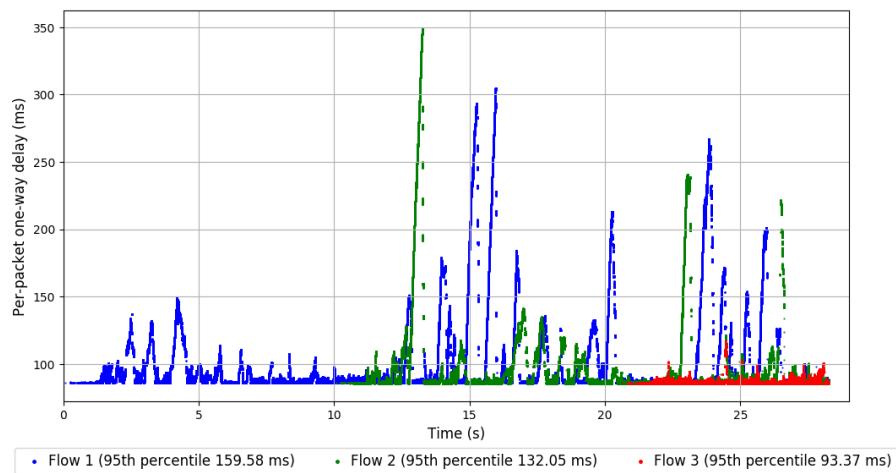
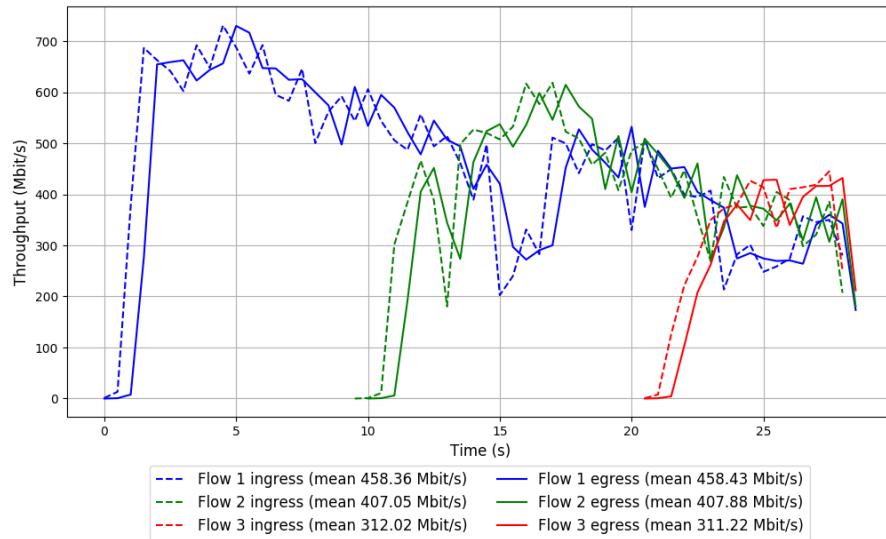


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-03-26 23:44:41
End at: 2019-03-26 23:45:11
Local clock offset: -0.462 ms
Remote clock offset: 0.117 ms

# Below is generated by plot.py at 2019-03-27 04:12:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 805.43 Mbit/s
95th percentile per-packet one-way delay: 141.824 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 458.43 Mbit/s
95th percentile per-packet one-way delay: 159.579 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 407.88 Mbit/s
95th percentile per-packet one-way delay: 132.053 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 311.22 Mbit/s
95th percentile per-packet one-way delay: 93.374 ms
Loss rate: 2.62%
```

Run 1: Report of Indigo-MusesT — Data Link

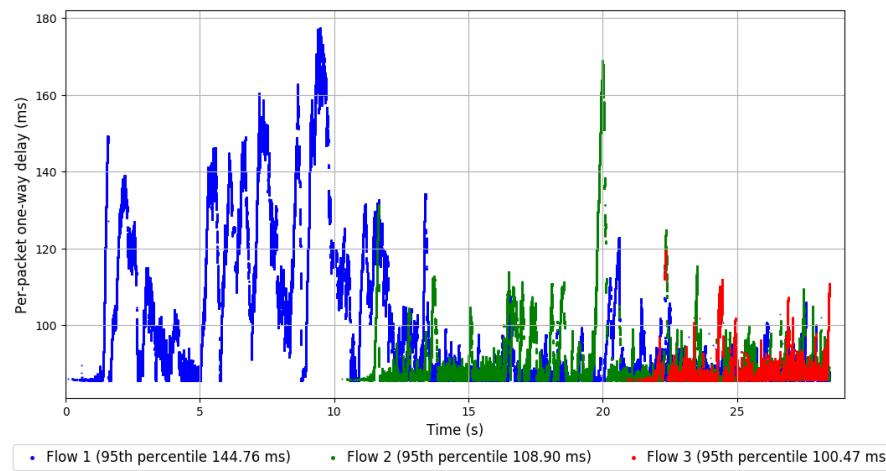
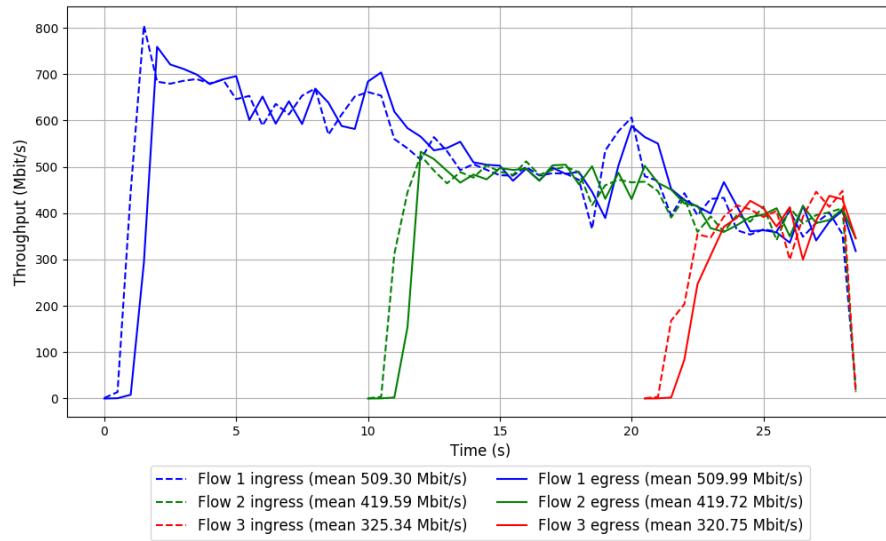


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 00:23:18
End at: 2019-03-27 00:23:48
Local clock offset: -0.089 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2019-03-27 04:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 865.44 Mbit/s
95th percentile per-packet one-way delay: 136.575 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 509.99 Mbit/s
95th percentile per-packet one-way delay: 144.763 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 419.72 Mbit/s
95th percentile per-packet one-way delay: 108.897 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 320.75 Mbit/s
95th percentile per-packet one-way delay: 100.473 ms
Loss rate: 3.61%
```

Run 2: Report of Indigo-MusesT — Data Link

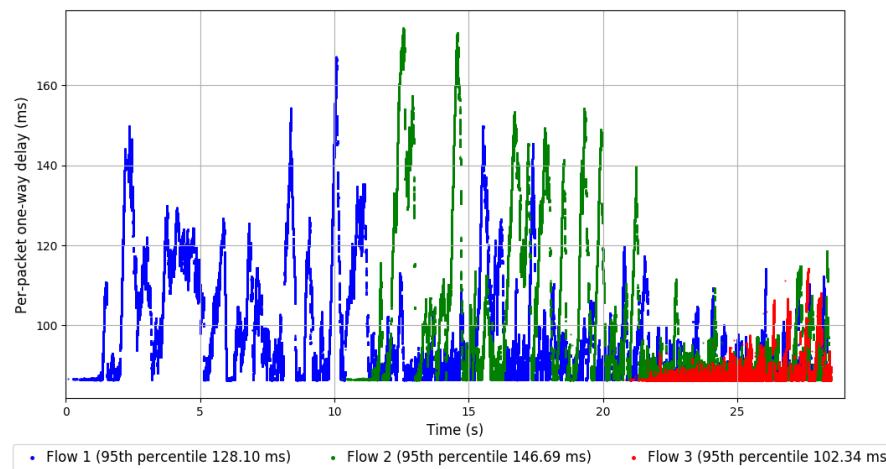
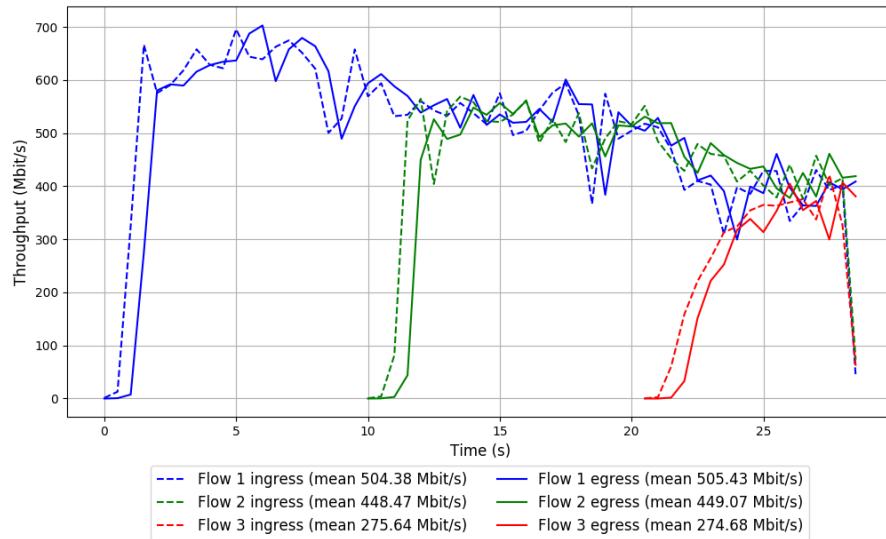


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 01:01:26
End at: 2019-03-27 01:01:56
Local clock offset: 0.242 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2019-03-27 04:19:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 867.06 Mbit/s
95th percentile per-packet one-way delay: 135.872 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 505.43 Mbit/s
95th percentile per-packet one-way delay: 128.100 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 449.07 Mbit/s
95th percentile per-packet one-way delay: 146.694 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 274.68 Mbit/s
95th percentile per-packet one-way delay: 102.337 ms
Loss rate: 2.69%
```

Run 3: Report of Indigo-MusesT — Data Link

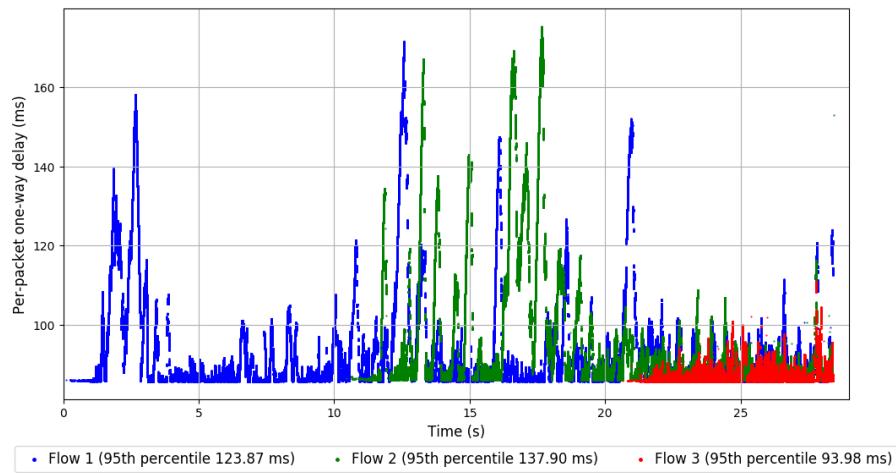
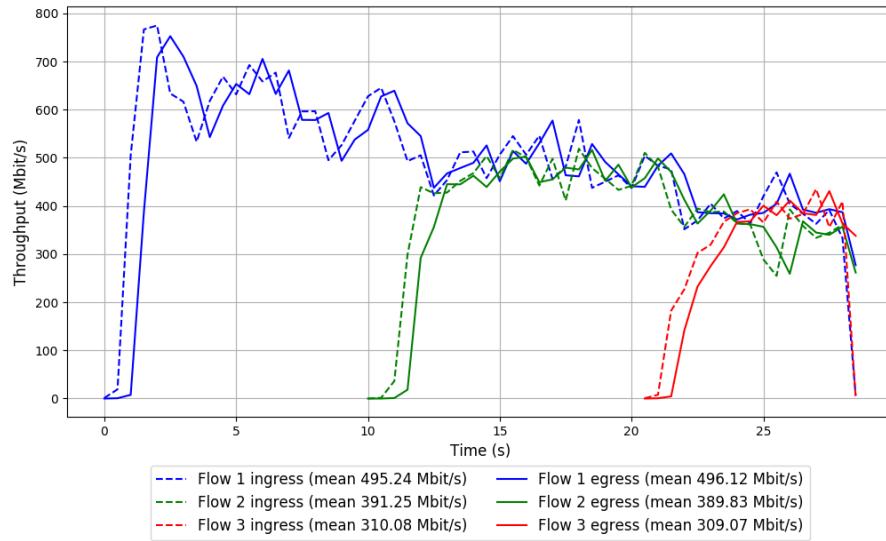


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 01:39:11
End at: 2019-03-27 01:39:41
Local clock offset: -0.159 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-03-27 04:19:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 827.14 Mbit/s
95th percentile per-packet one-way delay: 127.416 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 496.12 Mbit/s
95th percentile per-packet one-way delay: 123.867 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 389.83 Mbit/s
95th percentile per-packet one-way delay: 137.897 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 309.07 Mbit/s
95th percentile per-packet one-way delay: 93.980 ms
Loss rate: 2.51%
```

Run 4: Report of Indigo-MusesT — Data Link

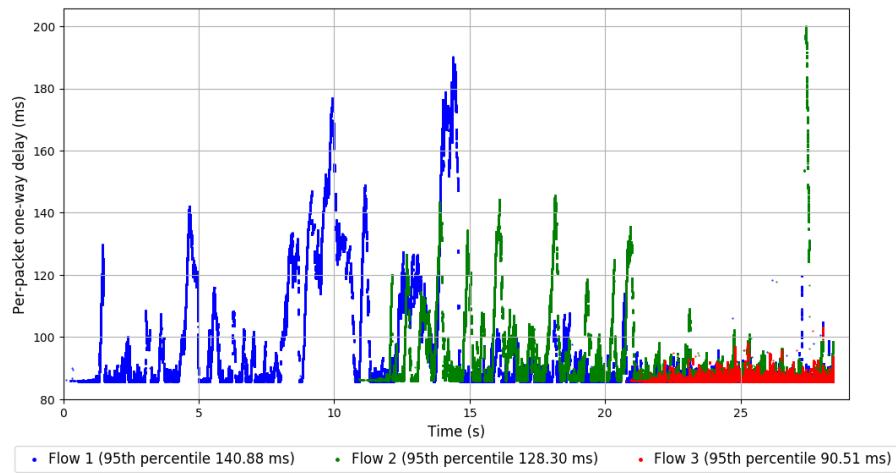
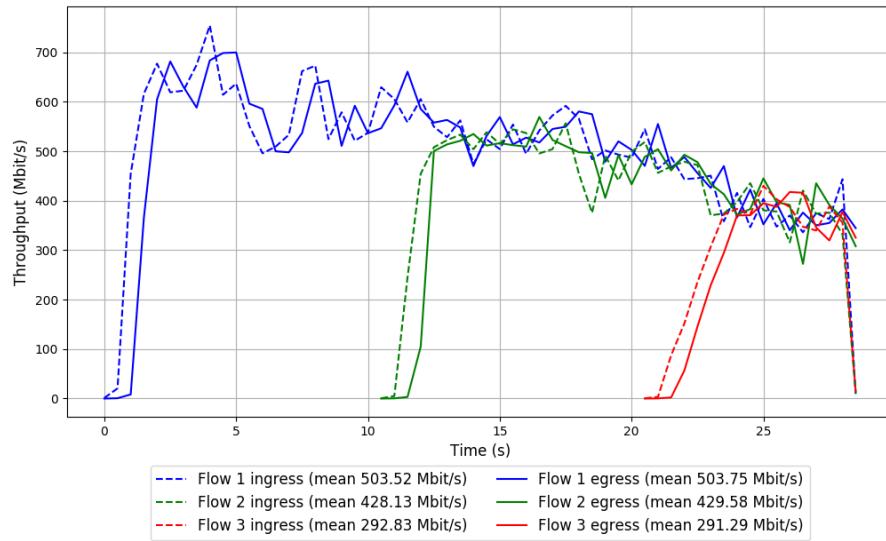


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 02:17:30
End at: 2019-03-27 02:18:00
Local clock offset: -0.19 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2019-03-27 04:20:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 850.31 Mbit/s
95th percentile per-packet one-way delay: 133.123 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 503.75 Mbit/s
95th percentile per-packet one-way delay: 140.884 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 429.58 Mbit/s
95th percentile per-packet one-way delay: 128.299 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 291.29 Mbit/s
95th percentile per-packet one-way delay: 90.507 ms
Loss rate: 2.74%
```

Run 5: Report of Indigo-MusesT — Data Link

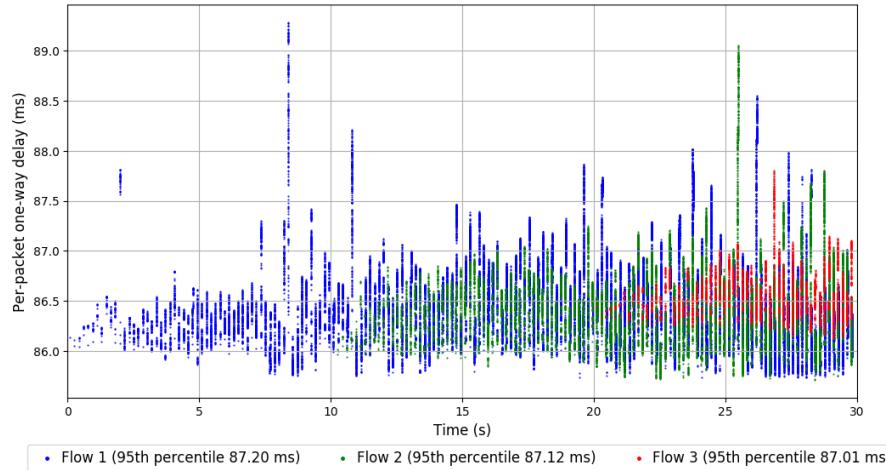
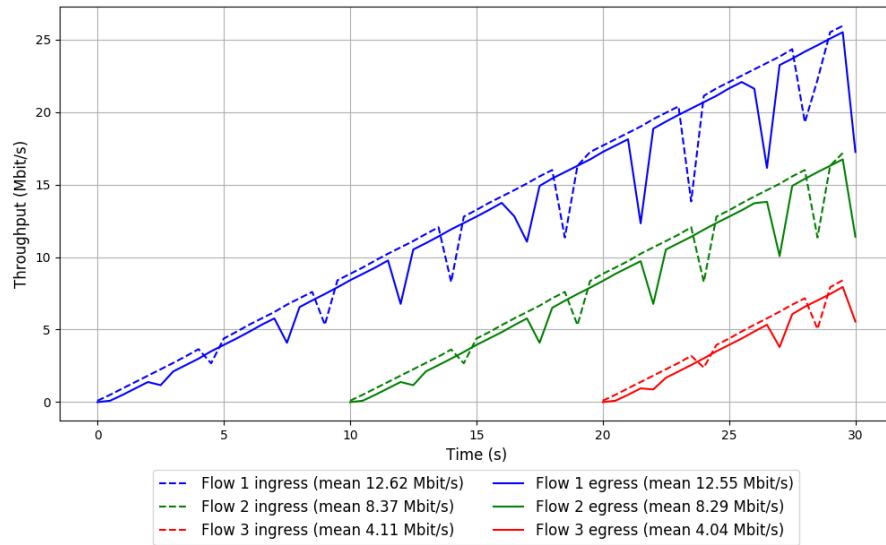


Run 1: Statistics of LEDBAT

```
Start at: 2019-03-26 23:52:41
End at: 2019-03-26 23:53:11
Local clock offset: -0.214 ms
Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2019-03-27 04:20:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.36 Mbit/s
95th percentile per-packet one-way delay: 87.163 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 87.205 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 87.117 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 87.007 ms
Loss rate: 3.51%
```

Run 1: Report of LEDBAT — Data Link

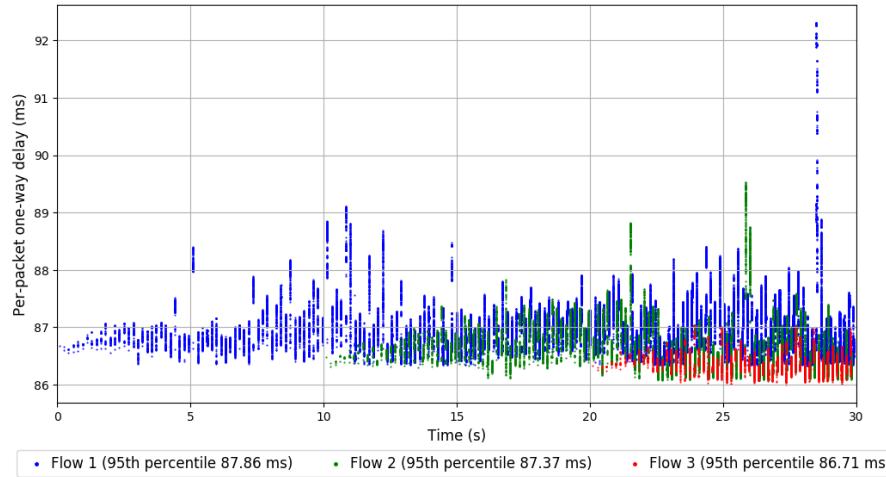
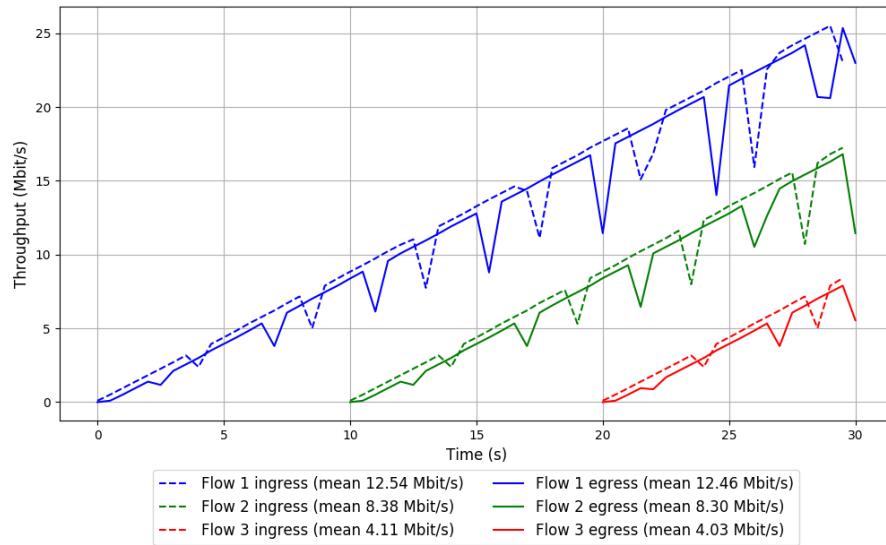


Run 2: Statistics of LEDBAT

```
Start at: 2019-03-27 00:31:10
End at: 2019-03-27 00:31:40
Local clock offset: 0.209 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2019-03-27 04:20:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.26 Mbit/s
95th percentile per-packet one-way delay: 87.761 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 12.46 Mbit/s
95th percentile per-packet one-way delay: 87.857 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 8.30 Mbit/s
95th percentile per-packet one-way delay: 87.367 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 86.711 ms
Loss rate: 3.52%
```

Run 2: Report of LEDBAT — Data Link

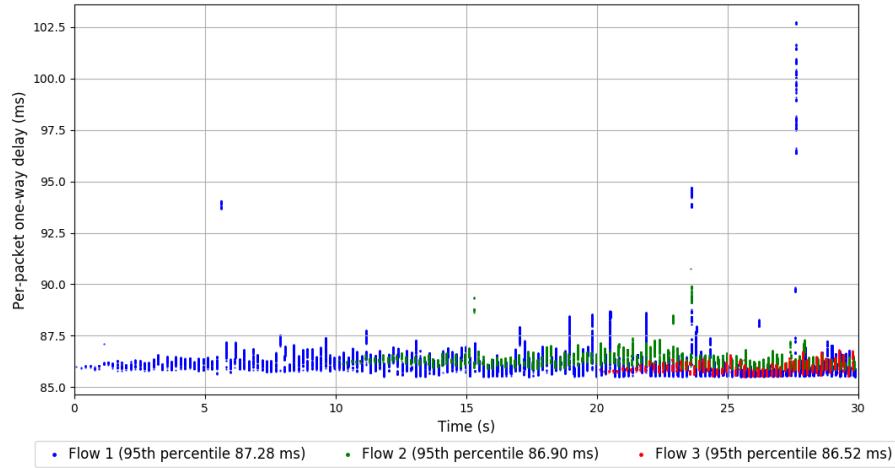
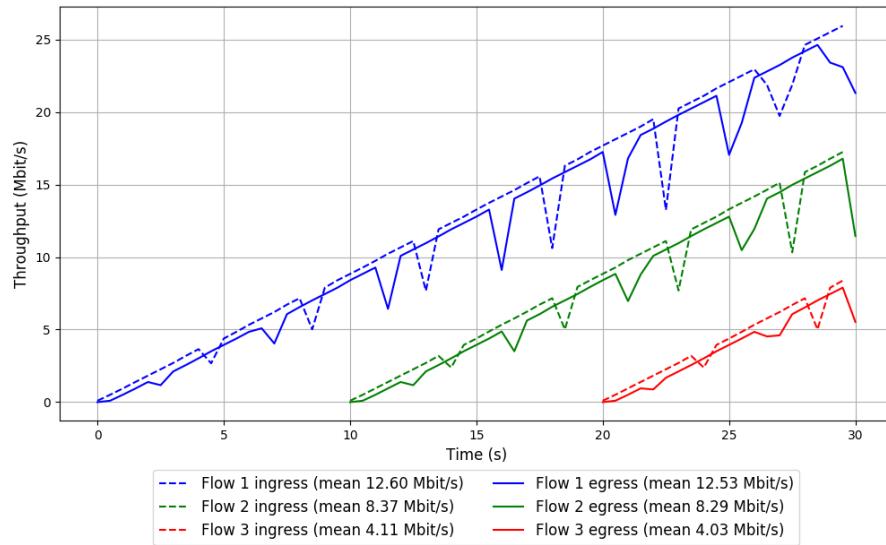


Run 3: Statistics of LEDBAT

```
Start at: 2019-03-27 01:09:07
End at: 2019-03-27 01:09:37
Local clock offset: -0.331 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2019-03-27 04:20:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.33 Mbit/s
95th percentile per-packet one-way delay: 87.029 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 12.53 Mbit/s
95th percentile per-packet one-way delay: 87.281 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 86.904 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 86.516 ms
Loss rate: 3.52%
```

Run 3: Report of LEDBAT — Data Link

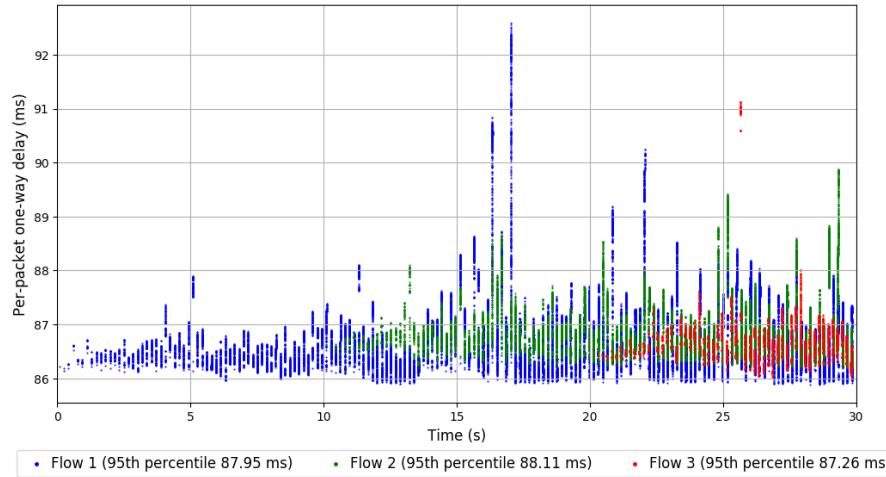
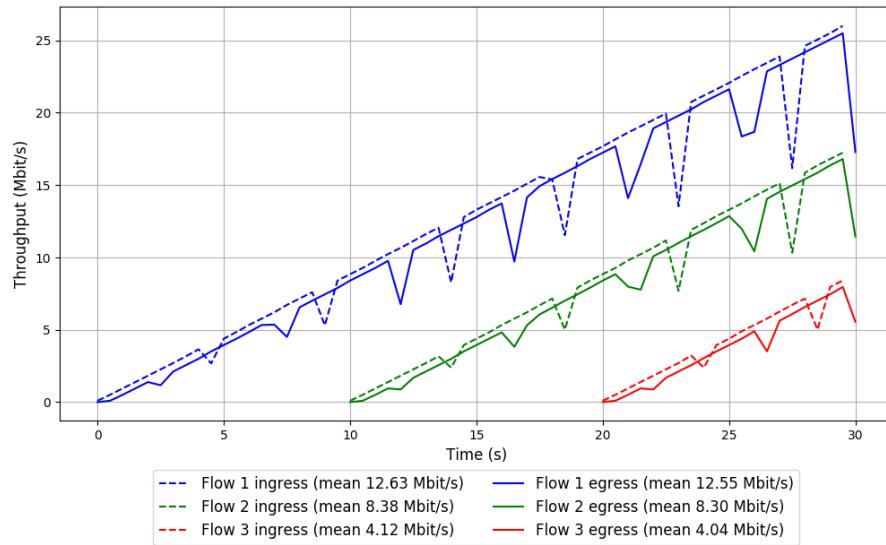


Run 4: Statistics of LEDBAT

```
Start at: 2019-03-27 01:46:46
End at: 2019-03-27 01:47:16
Local clock offset: 0.008 ms
Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2019-03-27 04:20:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.38 Mbit/s
95th percentile per-packet one-way delay: 87.957 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 87.951 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 8.30 Mbit/s
95th percentile per-packet one-way delay: 88.106 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 87.260 ms
Loss rate: 3.51%
```

Run 4: Report of LEDBAT — Data Link

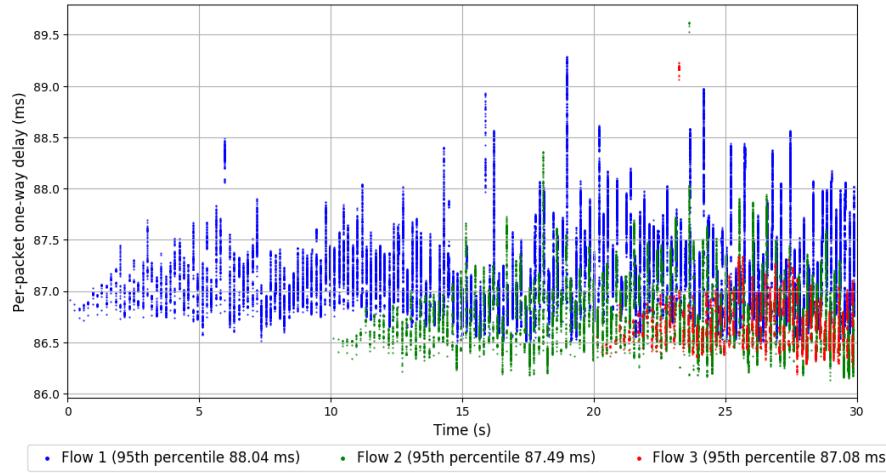
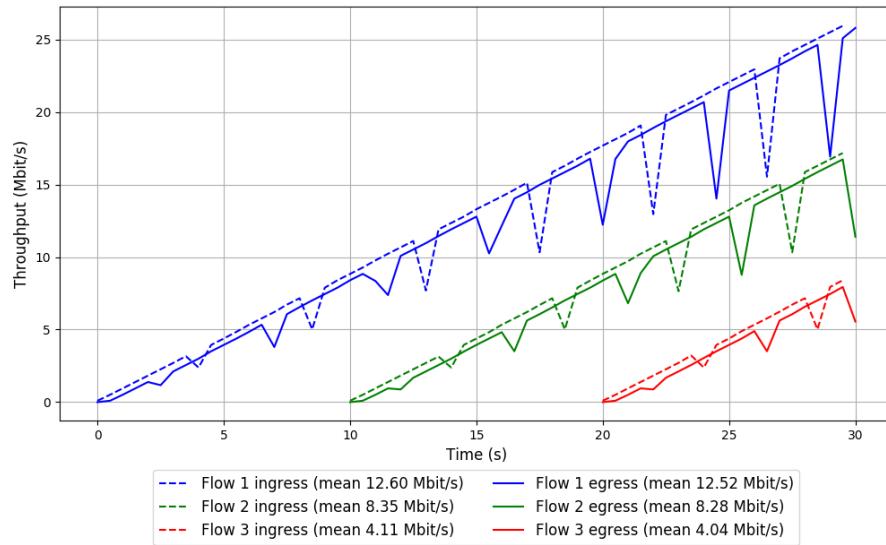


Run 5: Statistics of LEDBAT

```
Start at: 2019-03-27 02:24:35
End at: 2019-03-27 02:25:05
Local clock offset: 0.303 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-03-27 04:20:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.32 Mbit/s
95th percentile per-packet one-way delay: 87.925 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 12.52 Mbit/s
95th percentile per-packet one-way delay: 88.038 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 87.487 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 87.075 ms
Loss rate: 3.51%
```

Run 5: Report of LEDBAT — Data Link

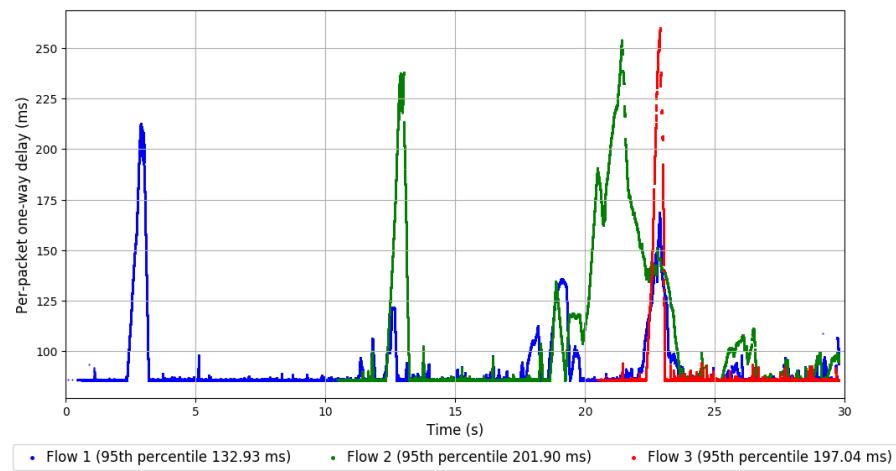
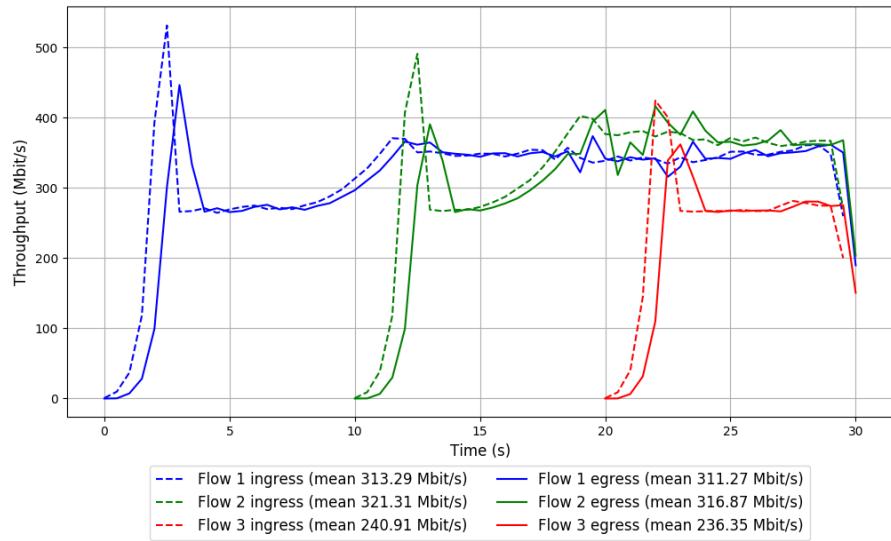


Run 1: Statistics of PCC-Allegro

```
Start at: 2019-03-26 23:20:19
End at: 2019-03-26 23:20:49
Local clock offset: -0.14 ms
Remote clock offset: 0.198 ms

# Below is generated by plot.py at 2019-03-27 04:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 598.15 Mbit/s
95th percentile per-packet one-way delay: 172.234 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 311.27 Mbit/s
95th percentile per-packet one-way delay: 132.933 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 316.87 Mbit/s
95th percentile per-packet one-way delay: 201.896 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 236.35 Mbit/s
95th percentile per-packet one-way delay: 197.038 ms
Loss rate: 3.62%
```

Run 1: Report of PCC-Allegro — Data Link

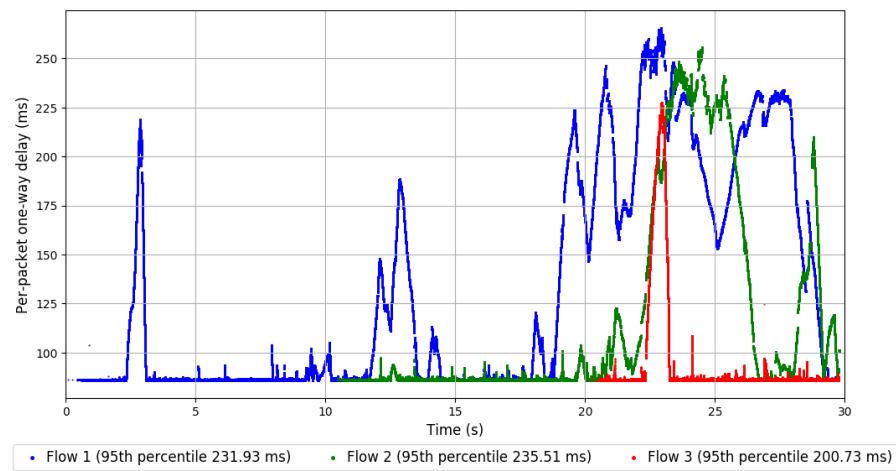
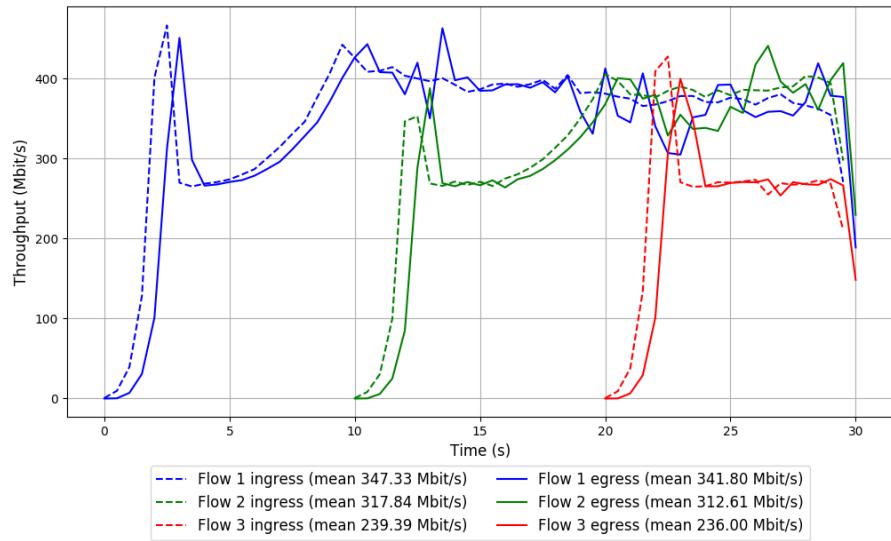


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-03-27 00:00:04
End at: 2019-03-27 00:00:34
Local clock offset: -0.019 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2019-03-27 04:32:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 625.45 Mbit/s
95th percentile per-packet one-way delay: 231.777 ms
Loss rate: 2.53%
-- Flow 1:
Average throughput: 341.80 Mbit/s
95th percentile per-packet one-way delay: 231.927 ms
Loss rate: 2.25%
-- Flow 2:
Average throughput: 312.61 Mbit/s
95th percentile per-packet one-way delay: 235.512 ms
Loss rate: 2.63%
-- Flow 3:
Average throughput: 236.00 Mbit/s
95th percentile per-packet one-way delay: 200.729 ms
Loss rate: 3.44%
```

Run 2: Report of PCC-Allegro — Data Link

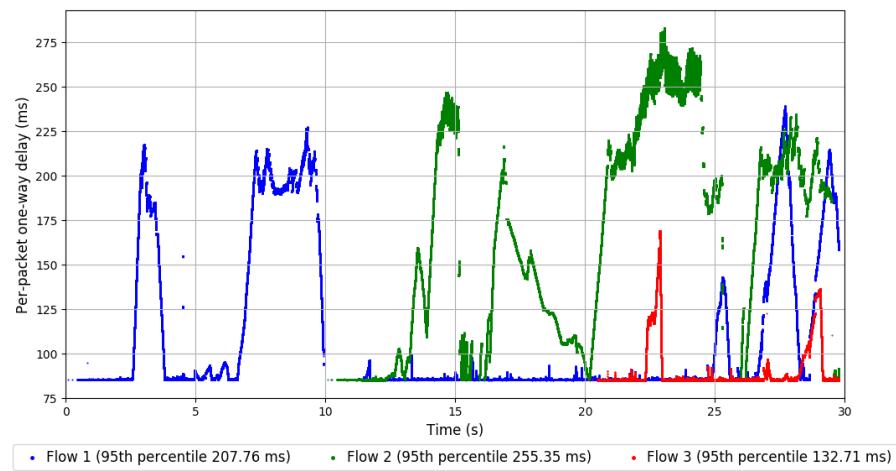
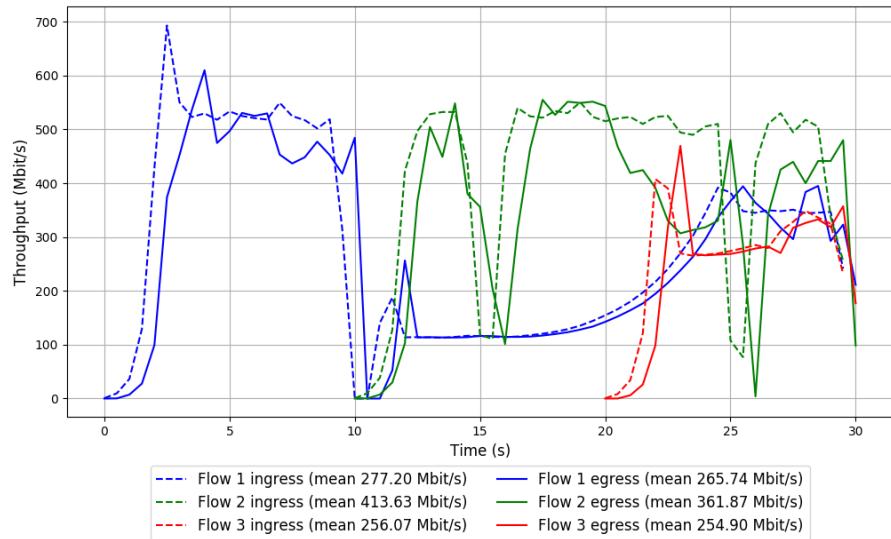


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-03-27 00:38:21
End at: 2019-03-27 00:38:51
Local clock offset: -0.537 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2019-03-27 04:32:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 588.56 Mbit/s
95th percentile per-packet one-way delay: 234.527 ms
Loss rate: 8.07%
-- Flow 1:
Average throughput: 265.74 Mbit/s
95th percentile per-packet one-way delay: 207.757 ms
Loss rate: 4.69%
-- Flow 2:
Average throughput: 361.87 Mbit/s
95th percentile per-packet one-way delay: 255.350 ms
Loss rate: 13.27%
-- Flow 3:
Average throughput: 254.90 Mbit/s
95th percentile per-packet one-way delay: 132.714 ms
Loss rate: 2.20%
```

Run 3: Report of PCC-Allegro — Data Link

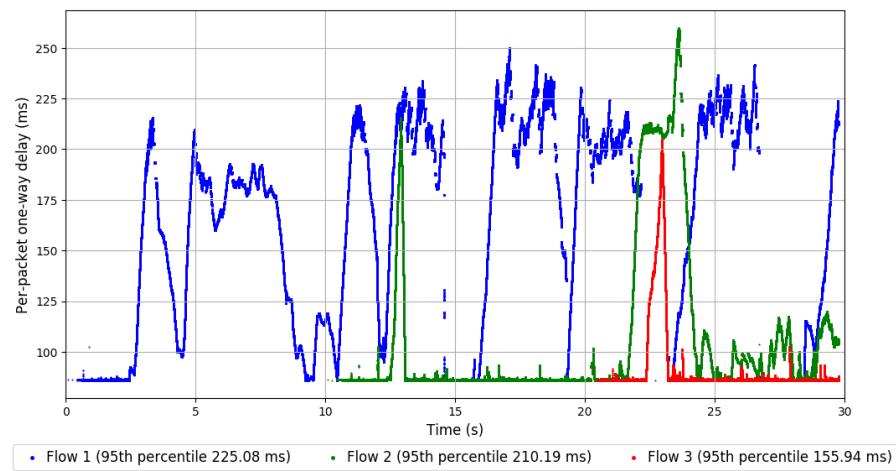
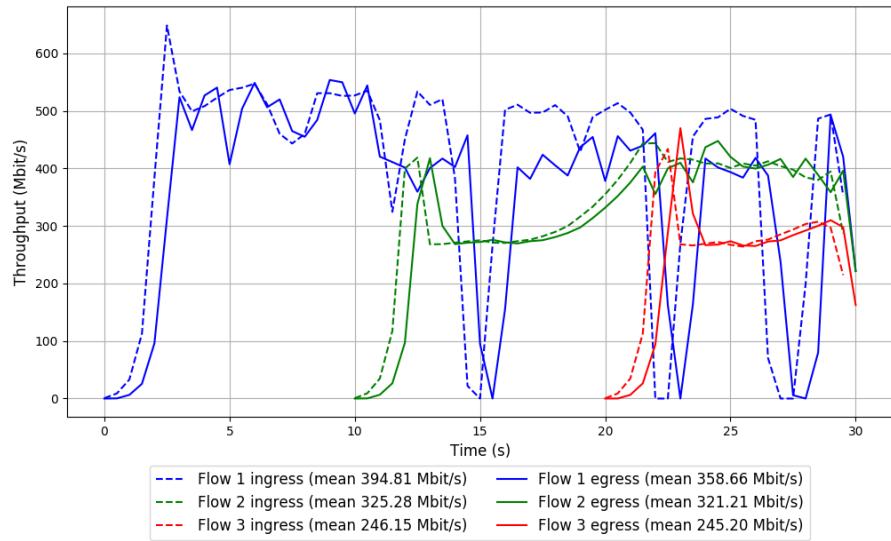


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-03-27 01:16:23
End at: 2019-03-27 01:16:53
Local clock offset: 0.088 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2019-03-27 04:39:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 651.37 Mbit/s
95th percentile per-packet one-way delay: 221.385 ms
Loss rate: 6.43%
-- Flow 1:
Average throughput: 358.66 Mbit/s
95th percentile per-packet one-way delay: 225.084 ms
Loss rate: 9.68%
-- Flow 2:
Average throughput: 321.21 Mbit/s
95th percentile per-packet one-way delay: 210.194 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 245.20 Mbit/s
95th percentile per-packet one-way delay: 155.939 ms
Loss rate: 2.13%
```

Run 4: Report of PCC-Allegro — Data Link

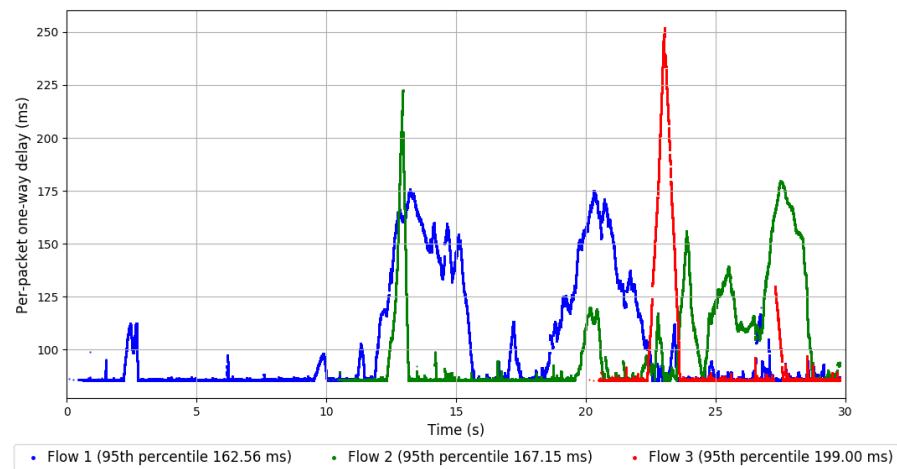
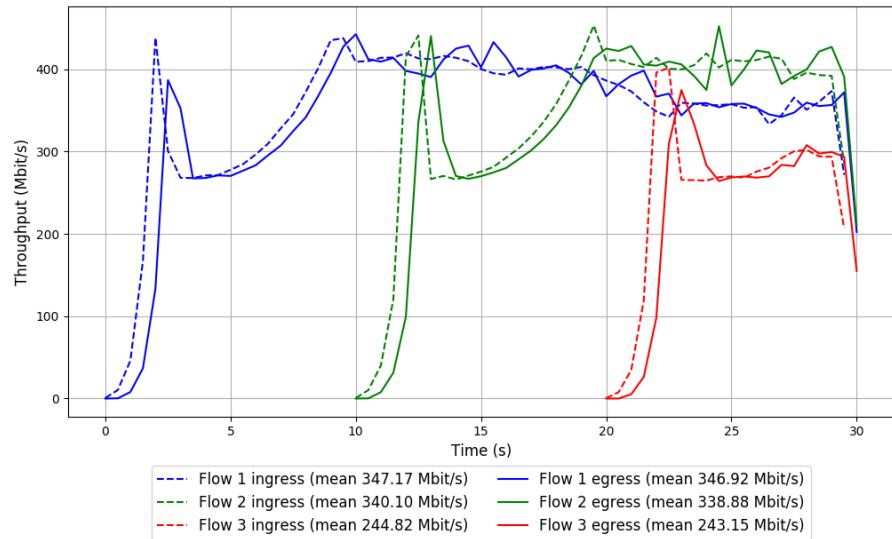


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-03-27 01:54:08
End at: 2019-03-27 01:54:38
Local clock offset: -0.547 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2019-03-27 04:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 650.57 Mbit/s
95th percentile per-packet one-way delay: 164.682 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 346.92 Mbit/s
95th percentile per-packet one-way delay: 162.563 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 338.88 Mbit/s
95th percentile per-packet one-way delay: 167.147 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 243.15 Mbit/s
95th percentile per-packet one-way delay: 198.998 ms
Loss rate: 2.43%
```

Run 5: Report of PCC-Allegro — Data Link

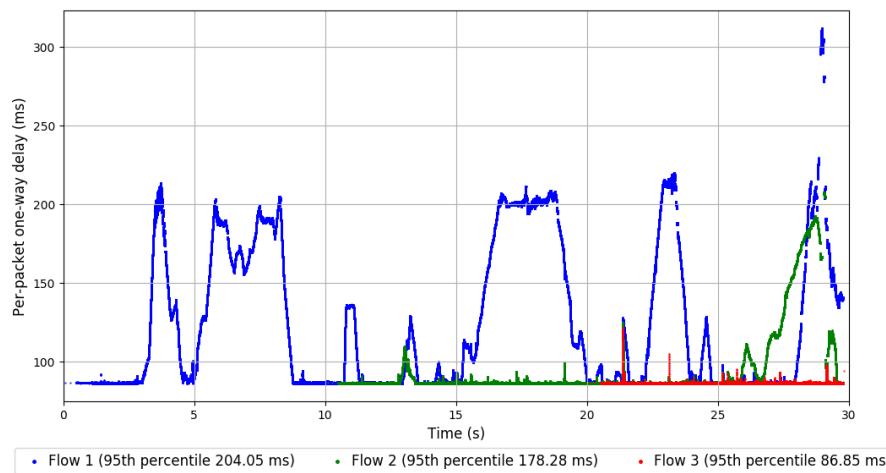
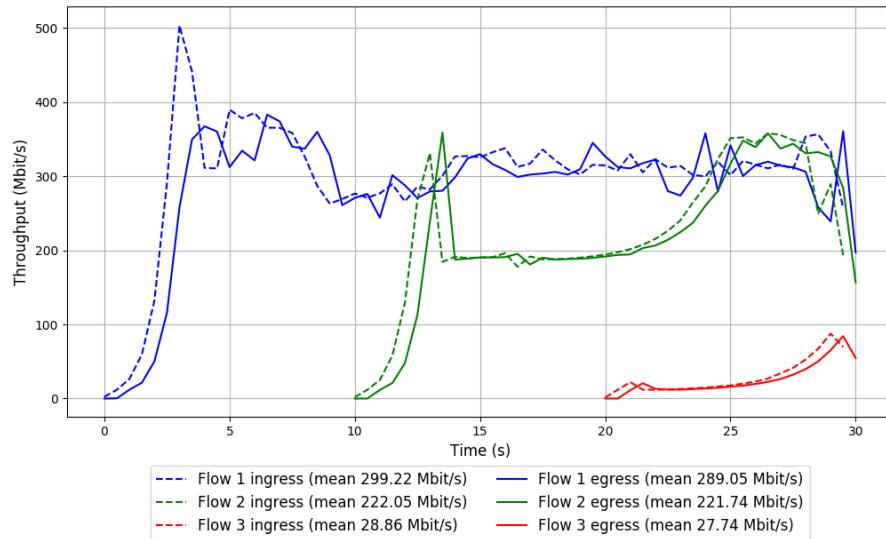


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2019-03-26 23:16:11
End at: 2019-03-26 23:16:41
Local clock offset: 0.278 ms
Remote clock offset: 0.21 ms

# Below is generated by plot.py at 2019-03-27 04:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 444.99 Mbit/s
95th percentile per-packet one-way delay: 201.742 ms
Loss rate: 3.04%
-- Flow 1:
Average throughput: 289.05 Mbit/s
95th percentile per-packet one-way delay: 204.051 ms
Loss rate: 3.96%
-- Flow 2:
Average throughput: 221.74 Mbit/s
95th percentile per-packet one-way delay: 178.281 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 27.74 Mbit/s
95th percentile per-packet one-way delay: 86.850 ms
Loss rate: 5.48%
```

Run 1: Report of PCC-Expr — Data Link

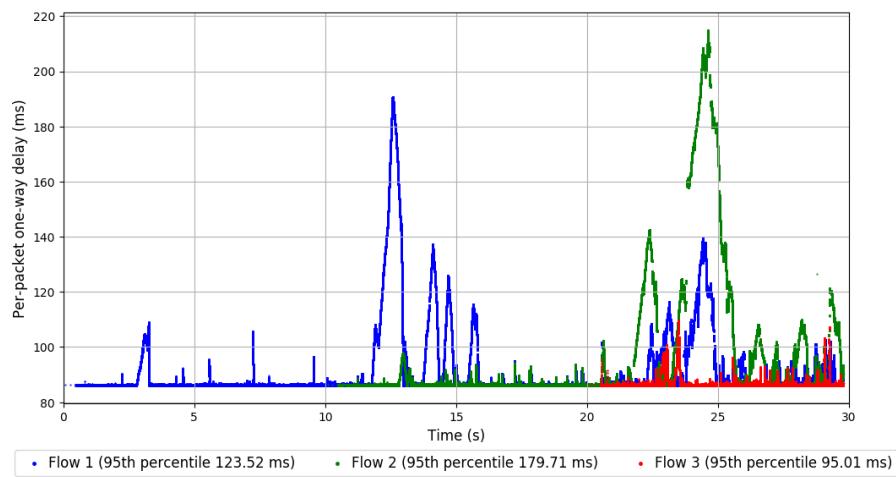
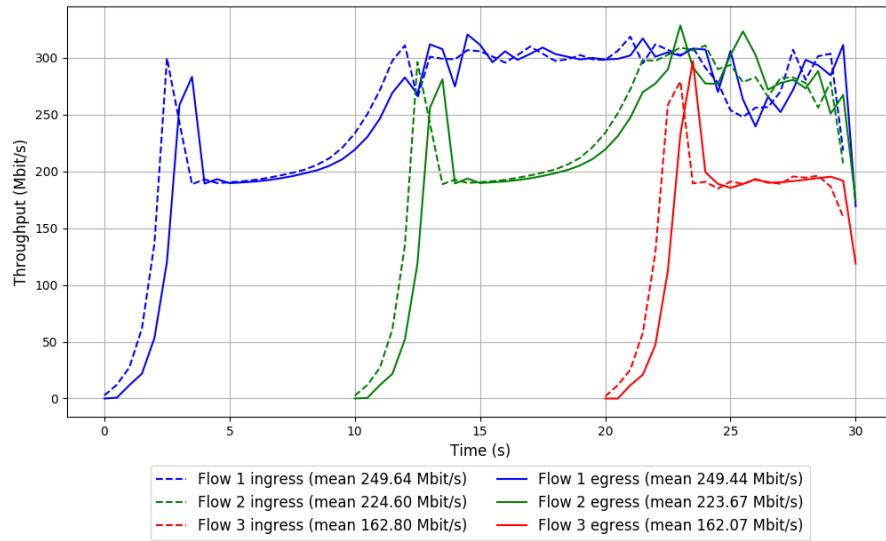


Run 2: Statistics of PCC-Expr

```
Start at: 2019-03-26 23:55:55
End at: 2019-03-26 23:56:25
Local clock offset: 0.218 ms
Remote clock offset: 0.093 ms

# Below is generated by plot.py at 2019-03-27 04:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.65 Mbit/s
95th percentile per-packet one-way delay: 135.812 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 249.44 Mbit/s
95th percentile per-packet one-way delay: 123.520 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 223.67 Mbit/s
95th percentile per-packet one-way delay: 179.707 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 162.07 Mbit/s
95th percentile per-packet one-way delay: 95.014 ms
Loss rate: 2.20%
```

Run 2: Report of PCC-Expr — Data Link

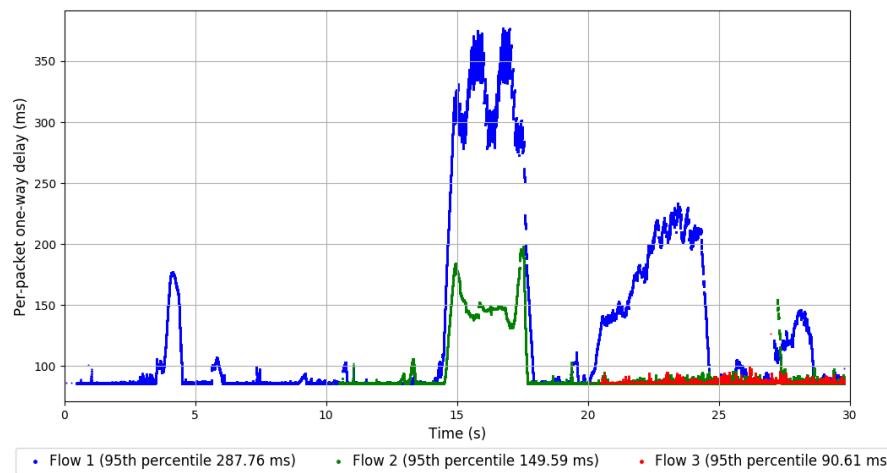
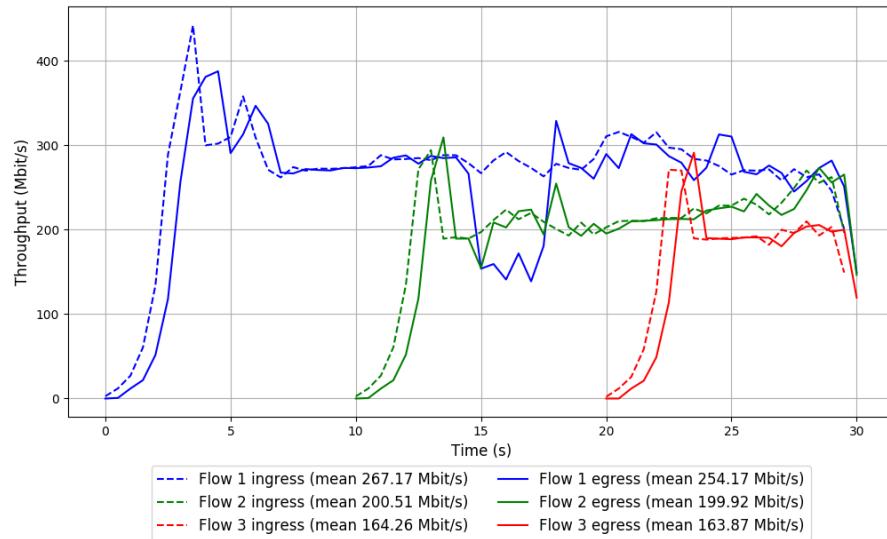


Run 3: Statistics of PCC-Expr

```
Start at: 2019-03-27 00:34:17
End at: 2019-03-27 00:34:47
Local clock offset: -0.083 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-03-27 04:44:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 440.18 Mbit/s
95th percentile per-packet one-way delay: 216.031 ms
Loss rate: 3.77%
-- Flow 1:
Average throughput: 254.17 Mbit/s
95th percentile per-packet one-way delay: 287.760 ms
Loss rate: 5.42%
-- Flow 2:
Average throughput: 199.92 Mbit/s
95th percentile per-packet one-way delay: 149.590 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 163.87 Mbit/s
95th percentile per-packet one-way delay: 90.609 ms
Loss rate: 2.01%
```

Run 3: Report of PCC-Expr — Data Link

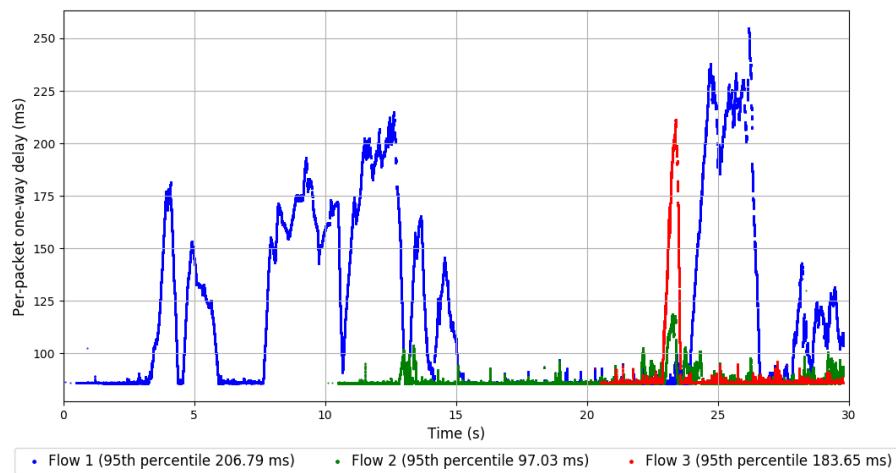
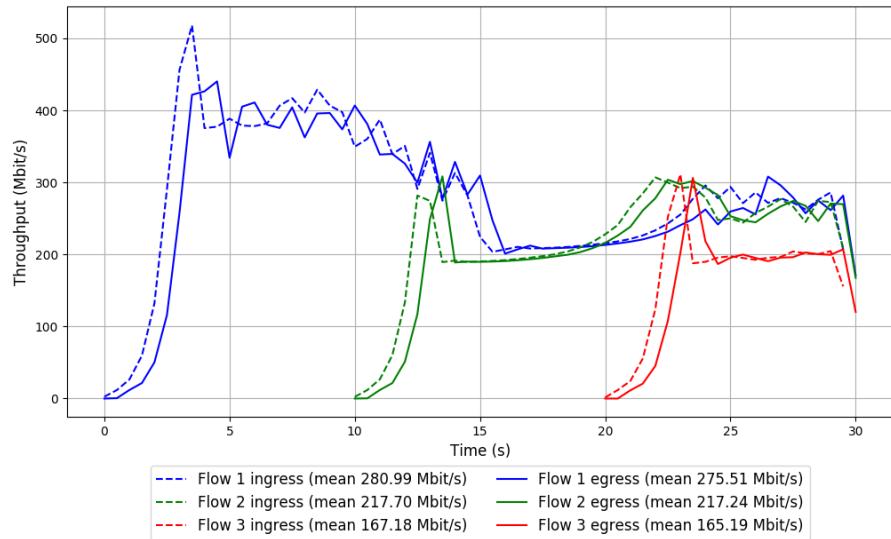


Run 4: Statistics of PCC-Expr

```
Start at: 2019-03-27 01:12:14
End at: 2019-03-27 01:12:44
Local clock offset: -0.113 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 473.42 Mbit/s
95th percentile per-packet one-way delay: 196.018 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 275.51 Mbit/s
95th percentile per-packet one-way delay: 206.794 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 217.24 Mbit/s
95th percentile per-packet one-way delay: 97.028 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 165.19 Mbit/s
95th percentile per-packet one-way delay: 183.650 ms
Loss rate: 2.92%
```

Run 4: Report of PCC-Expr — Data Link

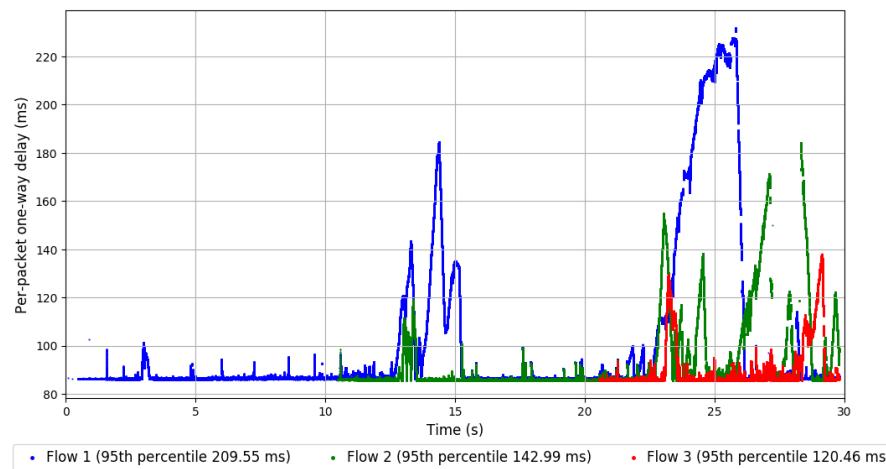
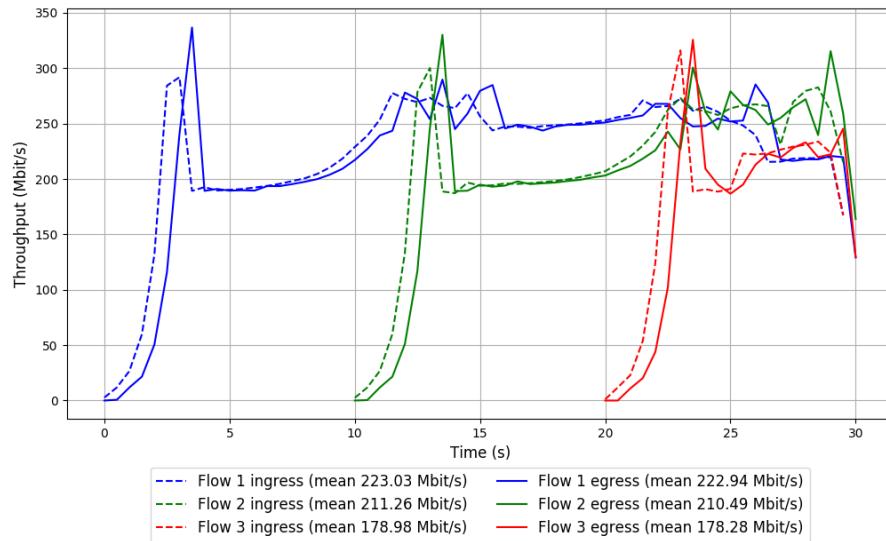


Run 5: Statistics of PCC-Expr

```
Start at: 2019-03-27 01:49:53
End at: 2019-03-27 01:50:23
Local clock offset: -0.197 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 420.64 Mbit/s
95th percentile per-packet one-way delay: 169.957 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 222.94 Mbit/s
95th percentile per-packet one-way delay: 209.551 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 210.49 Mbit/s
95th percentile per-packet one-way delay: 142.992 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 178.28 Mbit/s
95th percentile per-packet one-way delay: 120.458 ms
Loss rate: 2.14%
```

Run 5: Report of PCC-Expr — Data Link

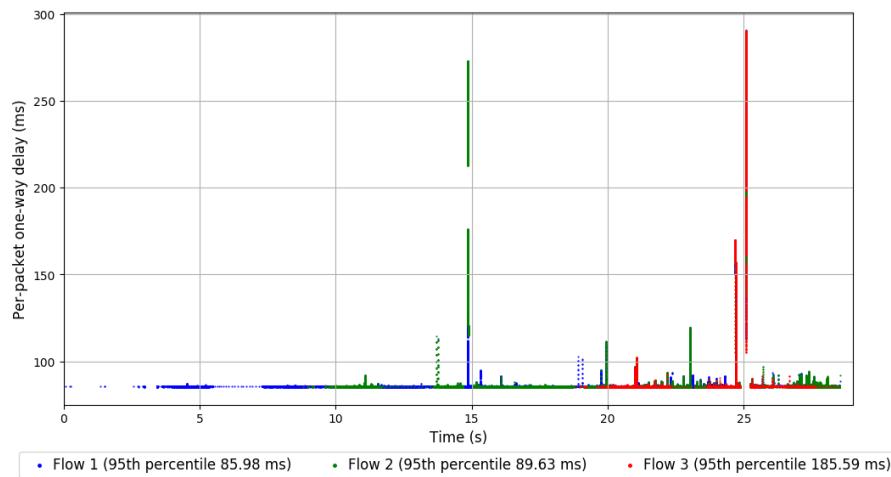
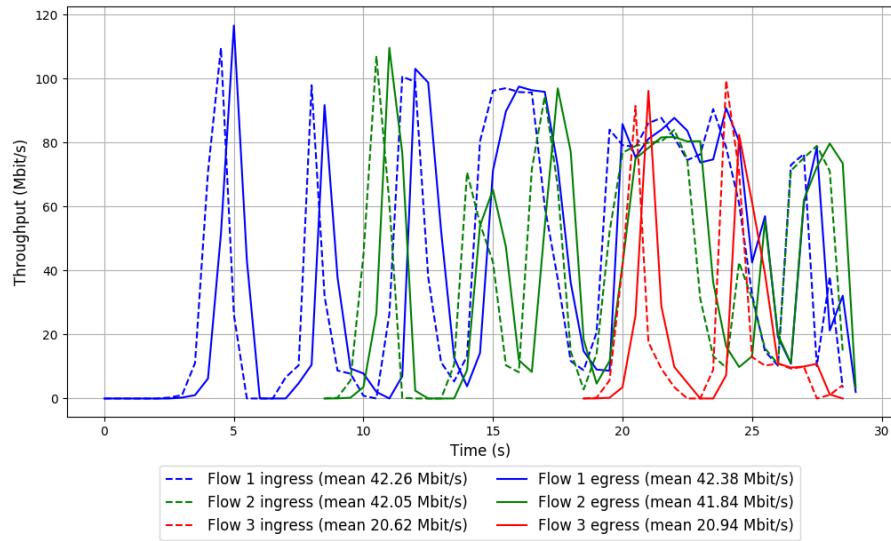


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-03-26 23:51:17
End at: 2019-03-26 23:51:47
Local clock offset: -0.648 ms
Remote clock offset: 0.119 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.47 Mbit/s
95th percentile per-packet one-way delay: 88.104 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 42.38 Mbit/s
95th percentile per-packet one-way delay: 85.981 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 89.634 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 20.94 Mbit/s
95th percentile per-packet one-way delay: 185.588 ms
Loss rate: 1.30%
```

Run 1: Report of QUIC Cubic — Data Link

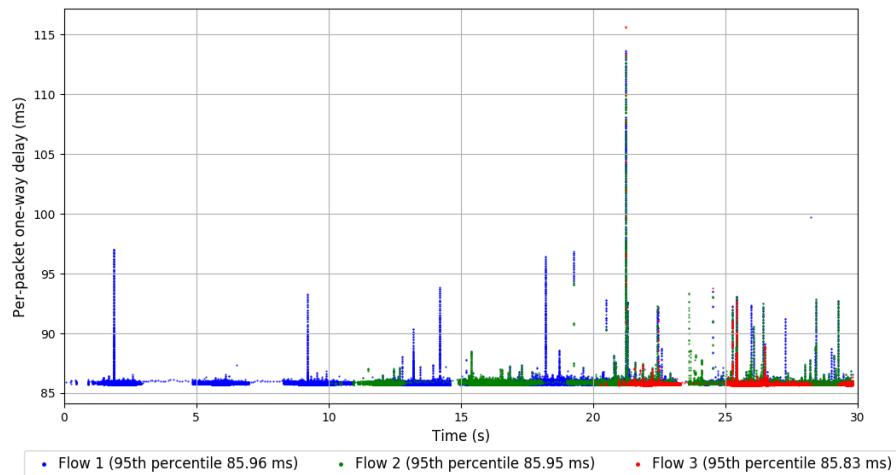
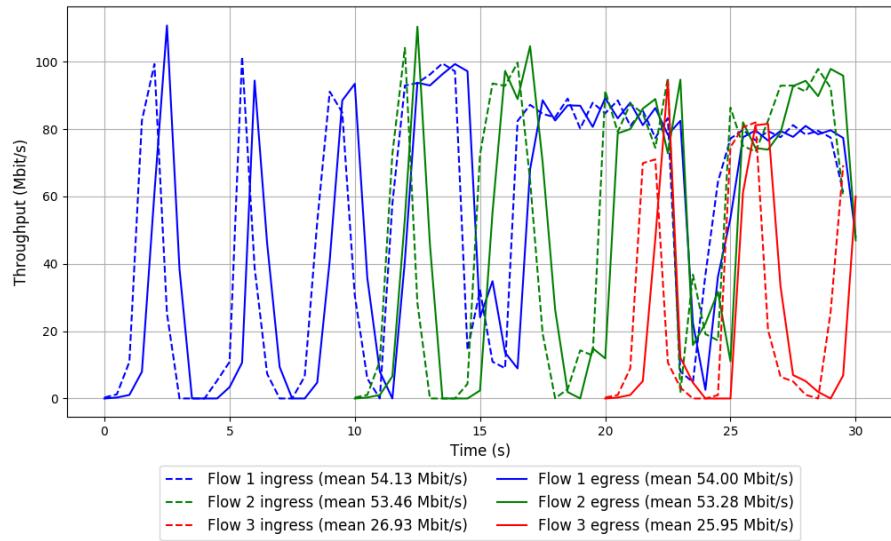


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-03-27 00:29:46
End at: 2019-03-27 00:30:16
Local clock offset: -0.05 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.80 Mbit/s
95th percentile per-packet one-way delay: 85.953 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 54.00 Mbit/s
95th percentile per-packet one-way delay: 85.963 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 53.28 Mbit/s
95th percentile per-packet one-way delay: 85.952 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 25.95 Mbit/s
95th percentile per-packet one-way delay: 85.835 ms
Loss rate: 5.29%
```

Run 2: Report of QUIC Cubic — Data Link

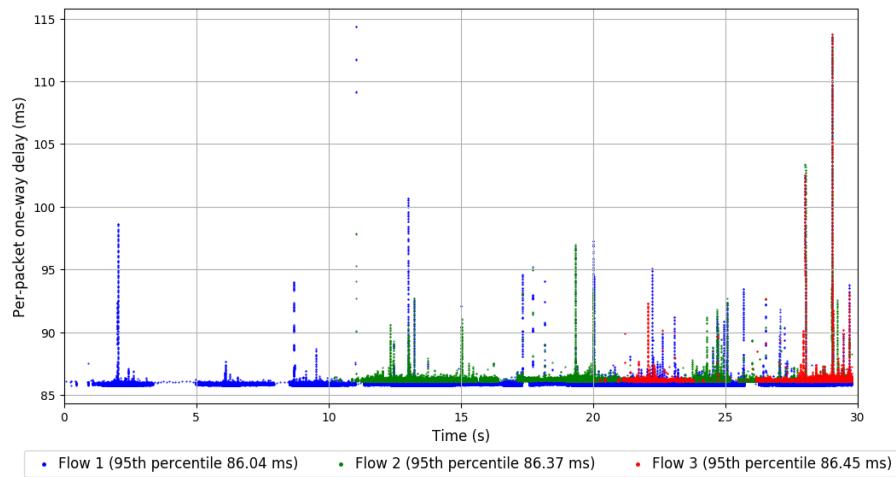
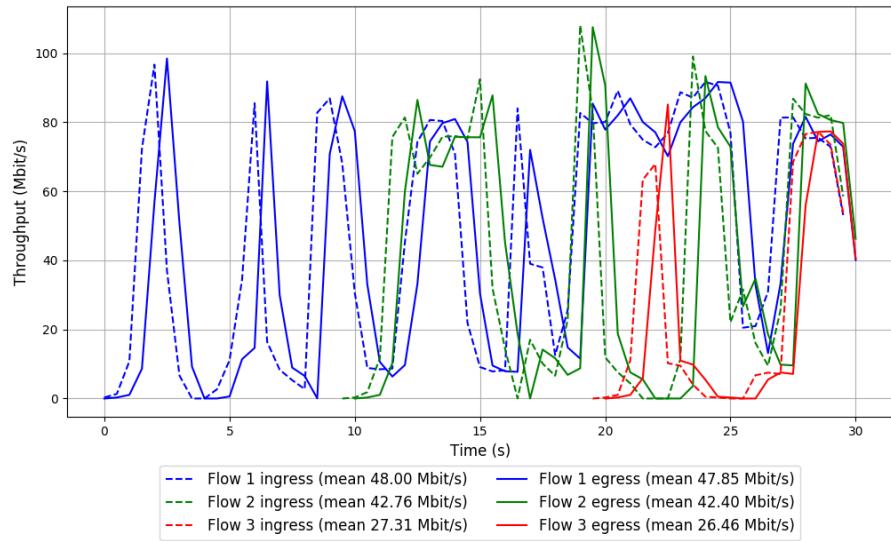


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-03-27 01:07:45
End at: 2019-03-27 01:08:15
Local clock offset: -0.125 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.64 Mbit/s
95th percentile per-packet one-way delay: 86.304 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 47.85 Mbit/s
95th percentile per-packet one-way delay: 86.037 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 42.40 Mbit/s
95th percentile per-packet one-way delay: 86.374 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 26.46 Mbit/s
95th percentile per-packet one-way delay: 86.449 ms
Loss rate: 4.79%
```

Run 3: Report of QUIC Cubic — Data Link

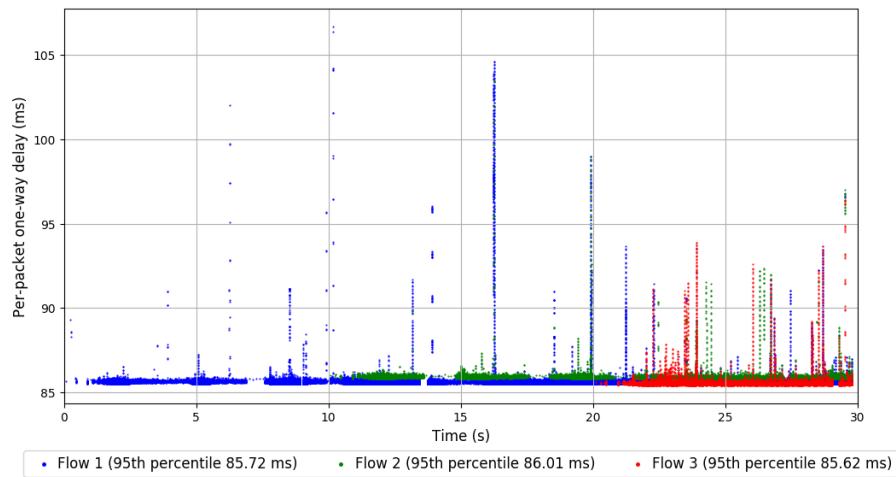
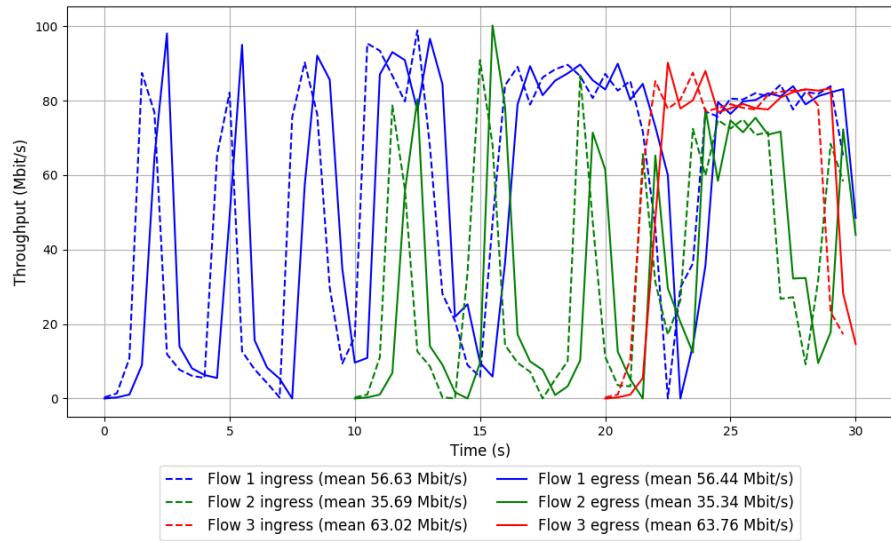


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-03-27 01:45:24
End at: 2019-03-27 01:45:54
Local clock offset: -0.429 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.67 Mbit/s
95th percentile per-packet one-way delay: 85.935 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 56.44 Mbit/s
95th percentile per-packet one-way delay: 85.724 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 35.34 Mbit/s
95th percentile per-packet one-way delay: 86.009 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 63.76 Mbit/s
95th percentile per-packet one-way delay: 85.620 ms
Loss rate: 0.58%
```

Run 4: Report of QUIC Cubic — Data Link

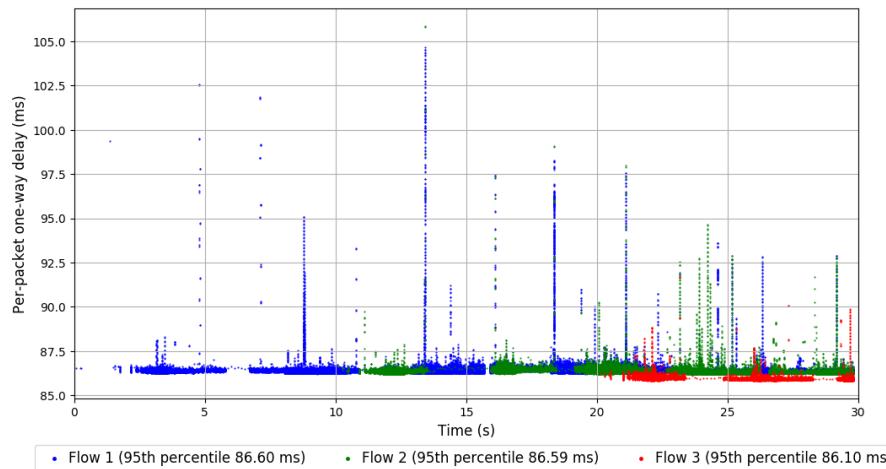
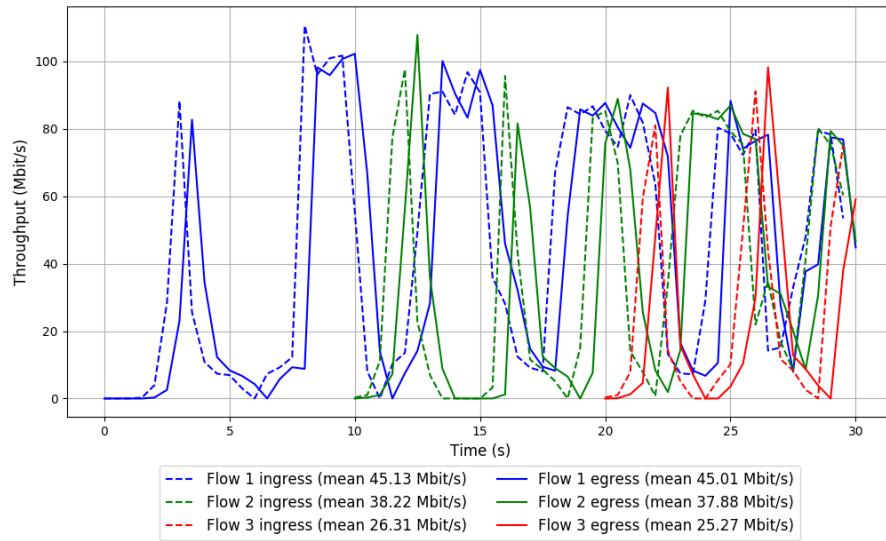


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-03-27 02:23:13
End at: 2019-03-27 02:23:43
Local clock offset: 0.064 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.36 Mbit/s
95th percentile per-packet one-way delay: 86.585 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 45.01 Mbit/s
95th percentile per-packet one-way delay: 86.602 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 37.88 Mbit/s
95th percentile per-packet one-way delay: 86.592 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 25.27 Mbit/s
95th percentile per-packet one-way delay: 86.096 ms
Loss rate: 5.61%
```

Run 5: Report of QUIC Cubic — Data Link

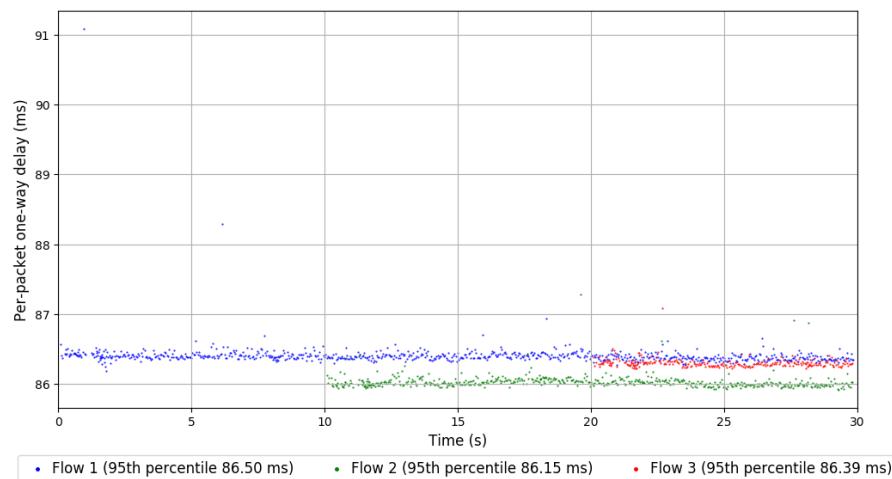
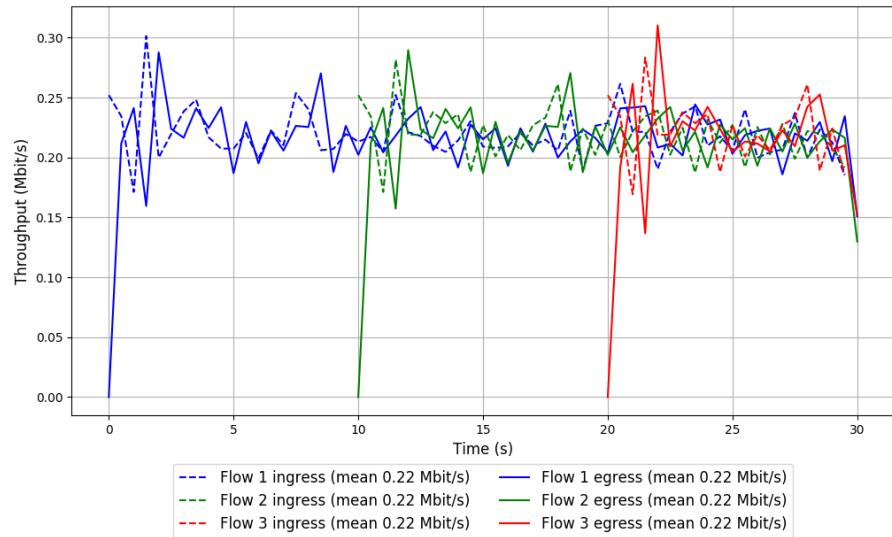


```
Run 1: Statistics of SCReAM

Start at: 2019-03-26 23:24:44
End at: 2019-03-26 23:25:15
Local clock offset: -0.221 ms
Remote clock offset: 0.09 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.473 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.504 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.149 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.393 ms
Loss rate: 1.85%
```

Run 1: Report of SCReAM — Data Link

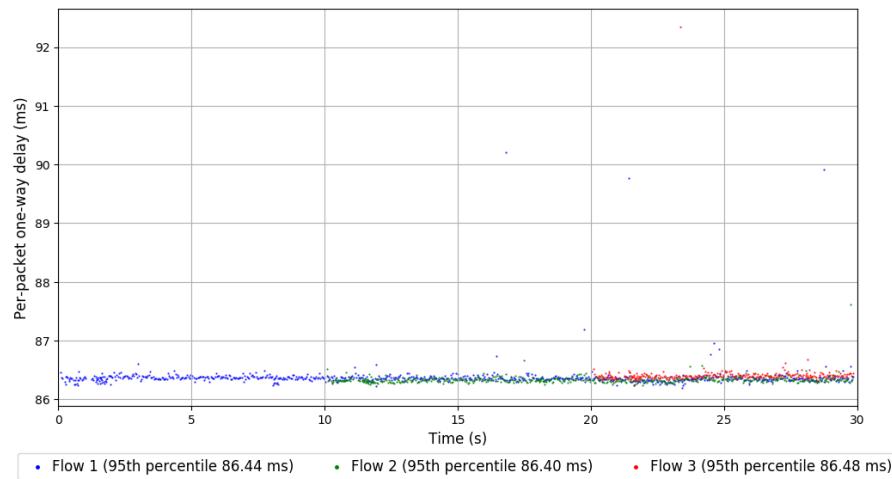
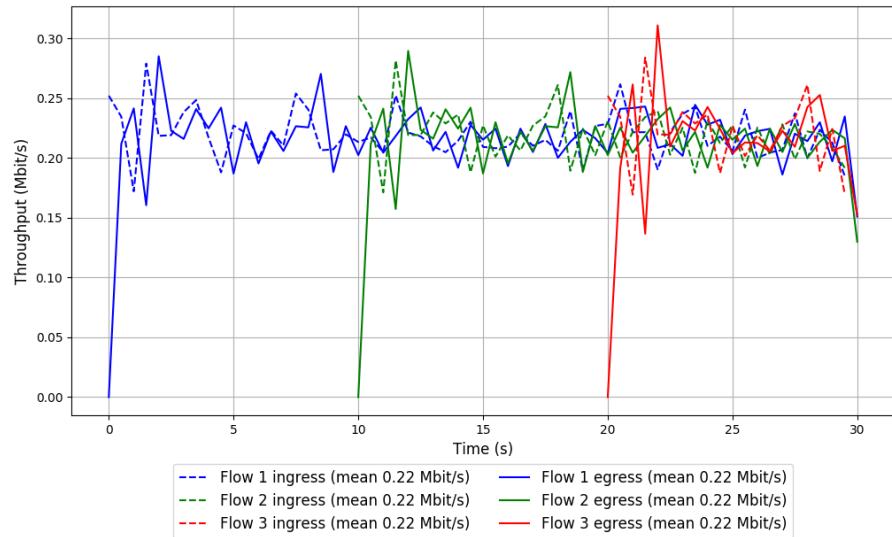


Run 2: Statistics of SCReAM

```
Start at: 2019-03-27 00:04:11
End at: 2019-03-27 00:04:41
Local clock offset: 0.291 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.443 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.438 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.401 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.479 ms
Loss rate: 1.50%
```

Run 2: Report of SCReAM — Data Link

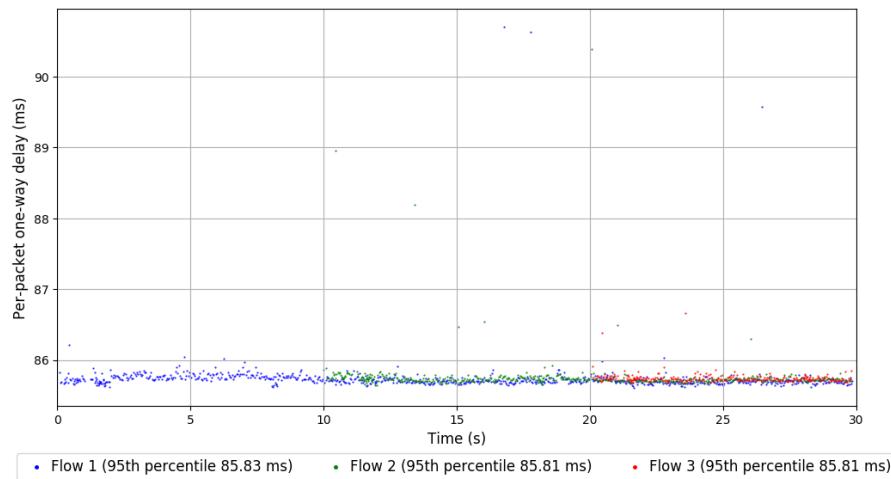
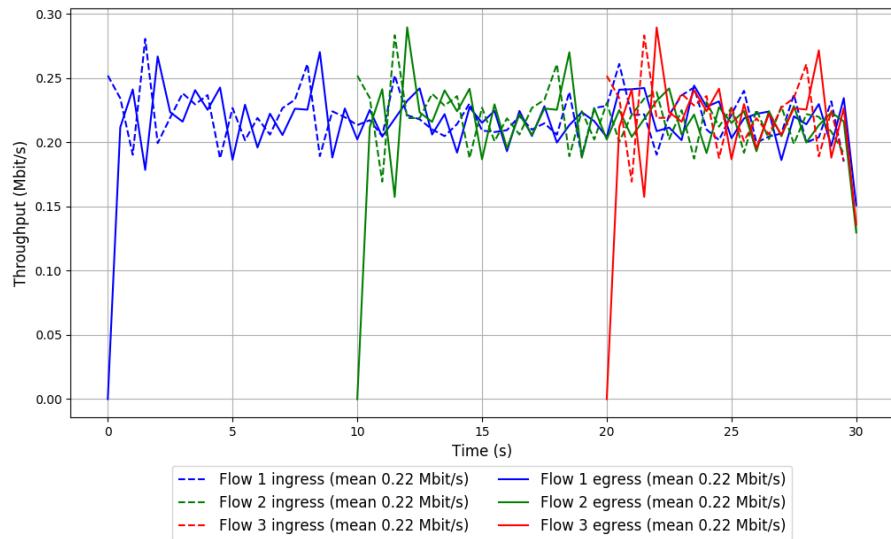


Run 3: Statistics of SCReAM

```
Start at: 2019-03-27 00:42:18
End at: 2019-03-27 00:42:48
Local clock offset: -0.361 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 85.819 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.826 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.809 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.814 ms
Loss rate: 1.85%
```

Run 3: Report of SCReAM — Data Link

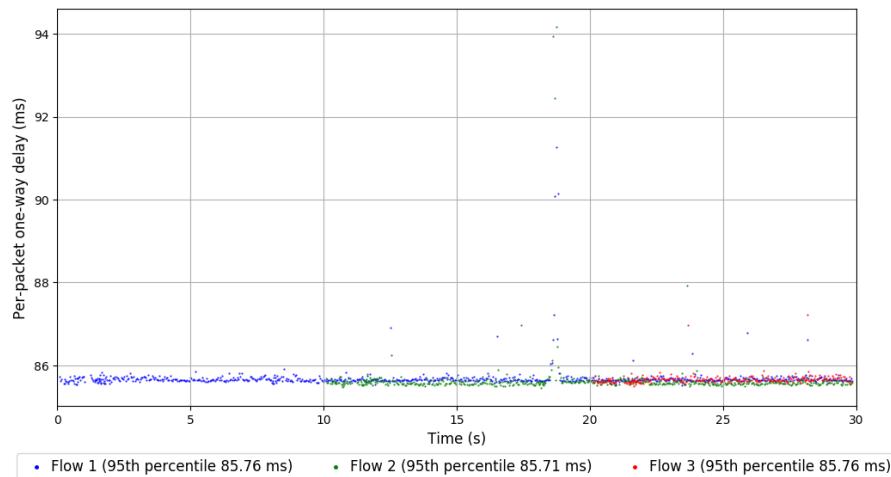
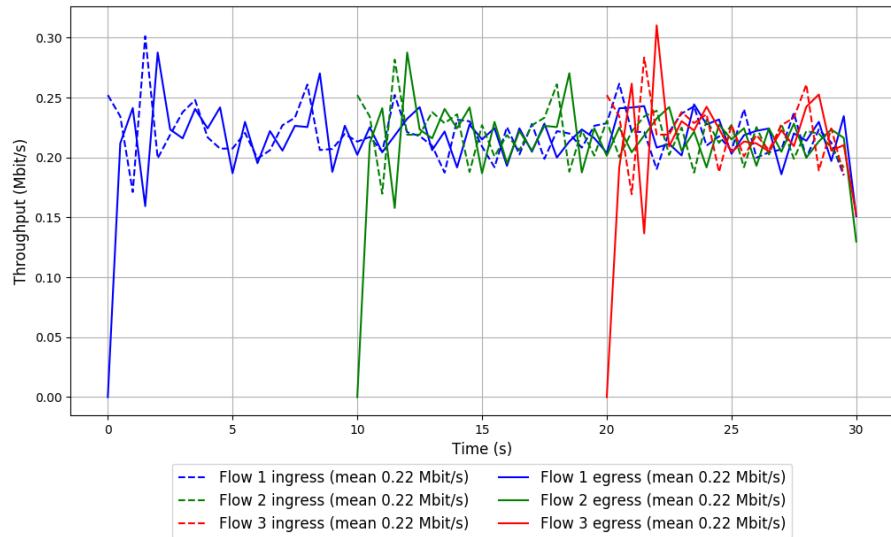


Run 4: Statistics of SCReAM

```
Start at: 2019-03-27 01:20:26
End at: 2019-03-27 01:20:56
Local clock offset: -0.537 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 85.753 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.760 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.714 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.762 ms
Loss rate: 1.85%
```

Run 4: Report of SCReAM — Data Link

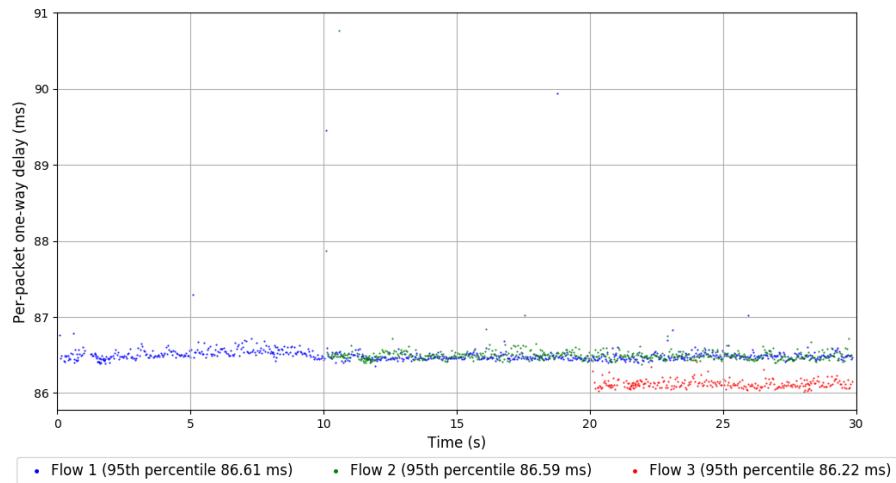
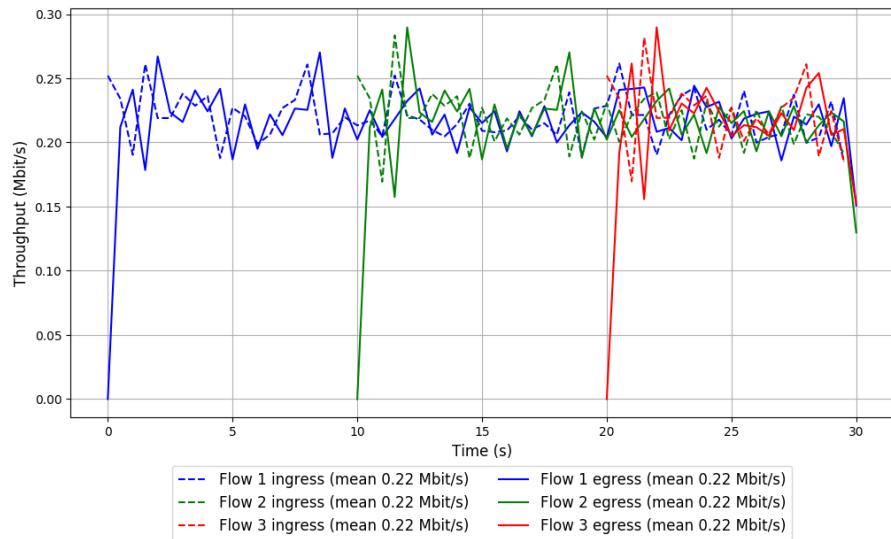


Run 5: Statistics of SCReAM

```
Start at: 2019-03-27 01:58:29
End at: 2019-03-27 01:58:59
Local clock offset: -0.029 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.591 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.605 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.592 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.217 ms
Loss rate: 1.85%
```

Run 5: Report of SCReAM — Data Link

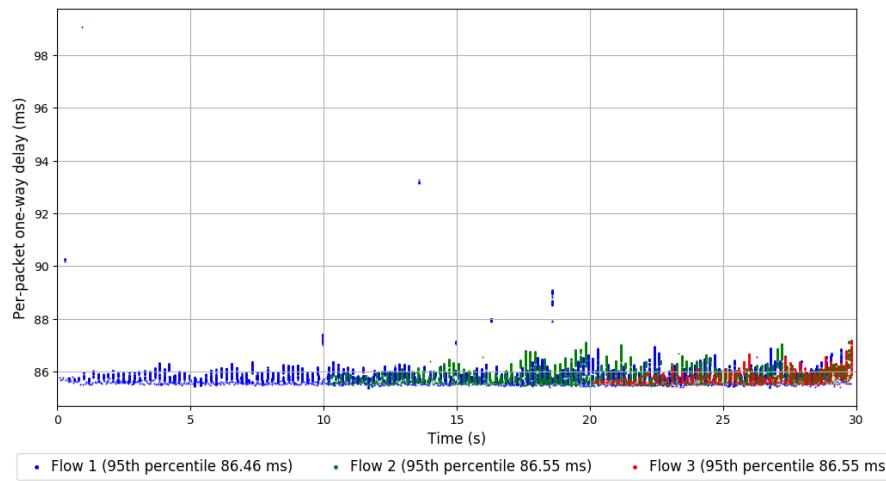
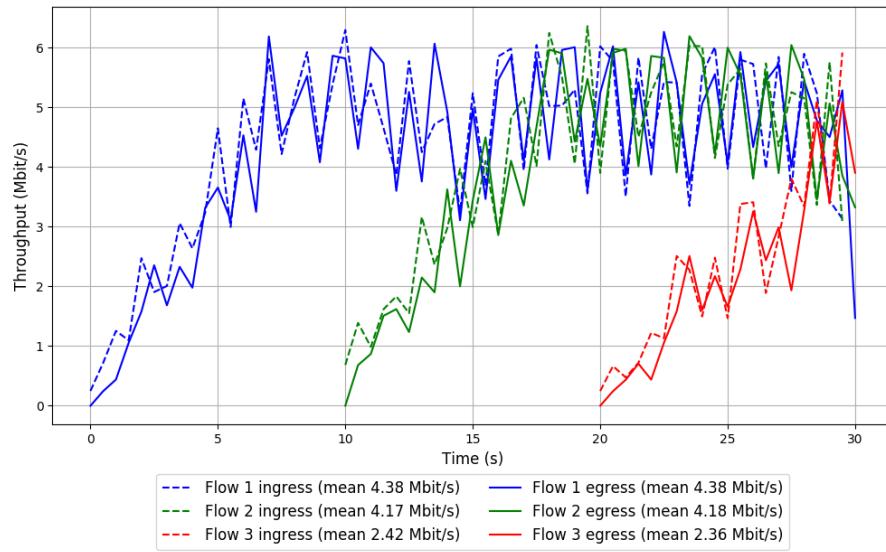


Run 1: Statistics of Sprout

```
Start at: 2019-03-26 23:31:14
End at: 2019-03-26 23:31:44
Local clock offset: -0.613 ms
Remote clock offset: 0.074 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 86.507 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 86.456 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 86.549 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 86.546 ms
Loss rate: 4.22%
```

Run 1: Report of Sprout — Data Link

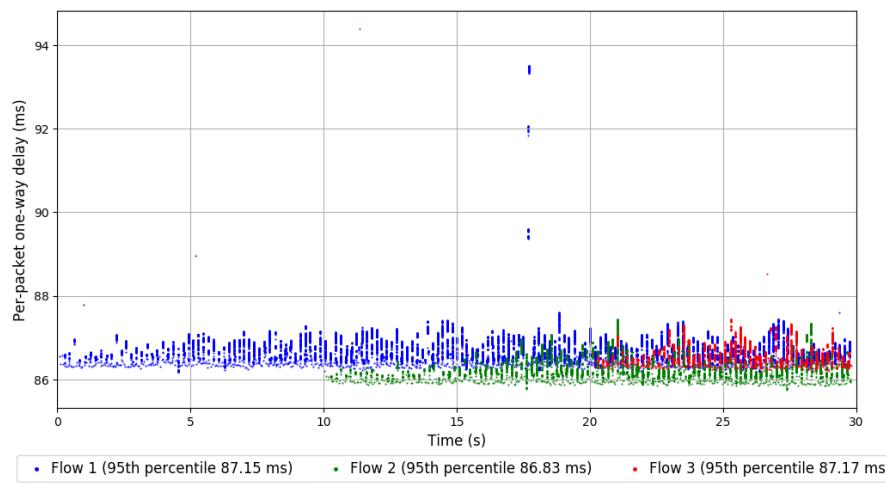
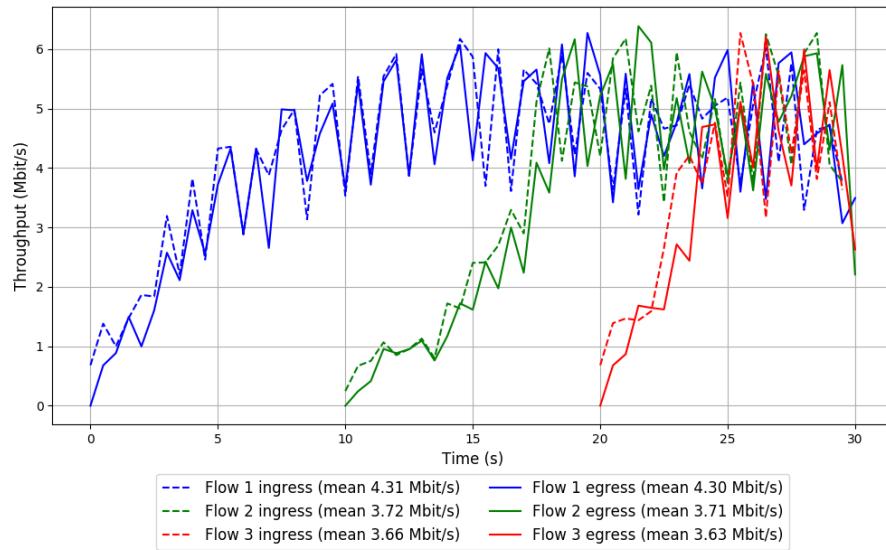


Run 2: Statistics of Sprout

```
Start at: 2019-03-27 00:10:23
End at: 2019-03-27 00:10:53
Local clock offset: -0.052 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 87.107 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 87.152 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 86.825 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 87.173 ms
Loss rate: 2.63%
```

Run 2: Report of Sprout — Data Link

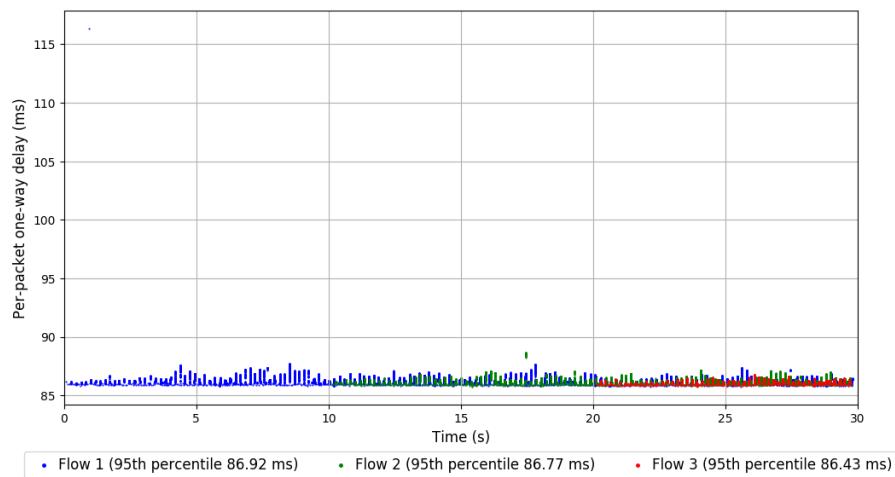
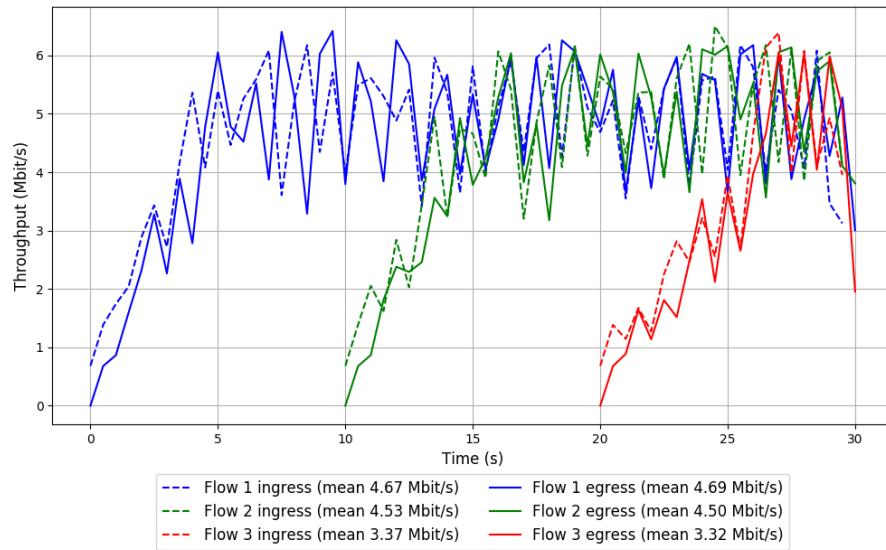


Run 3: Statistics of Sprout

```
Start at: 2019-03-27 00:48:30
End at: 2019-03-27 00:49:00
Local clock offset: -0.106 ms
Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.76 Mbit/s
95th percentile per-packet one-way delay: 86.834 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 4.69 Mbit/s
95th percentile per-packet one-way delay: 86.918 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 86.770 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 86.434 ms
Loss rate: 3.01%
```

Run 3: Report of Sprout — Data Link

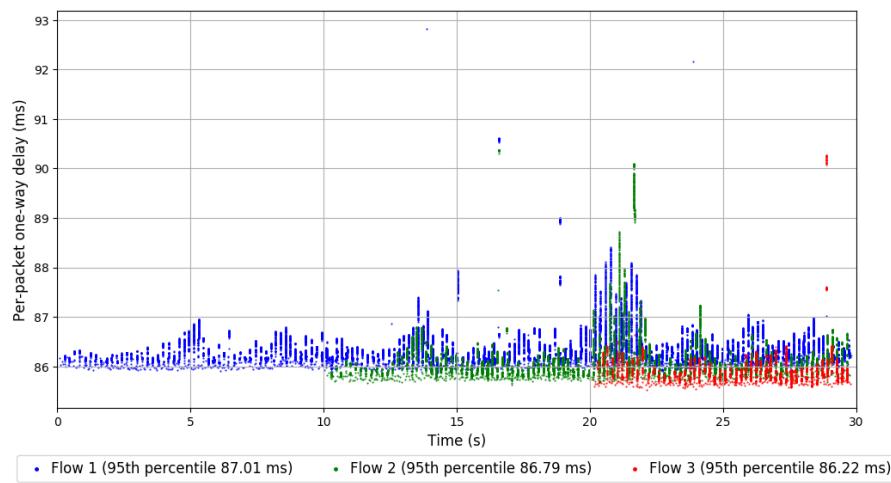
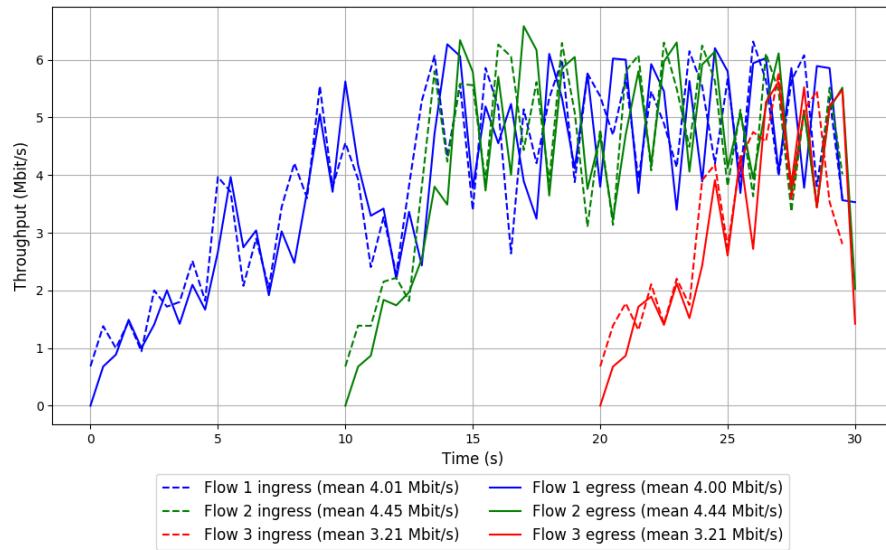


Run 4: Statistics of Sprout

```
Start at: 2019-03-27 01:26:36
End at: 2019-03-27 01:27:06
Local clock offset: -0.389 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 86.872 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 87.010 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 86.788 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 86.224 ms
Loss rate: 2.19%
```

Run 4: Report of Sprout — Data Link

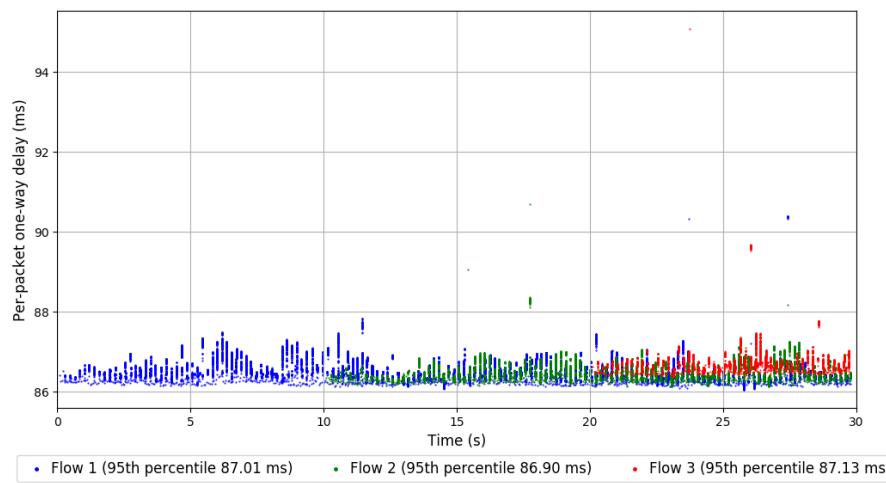
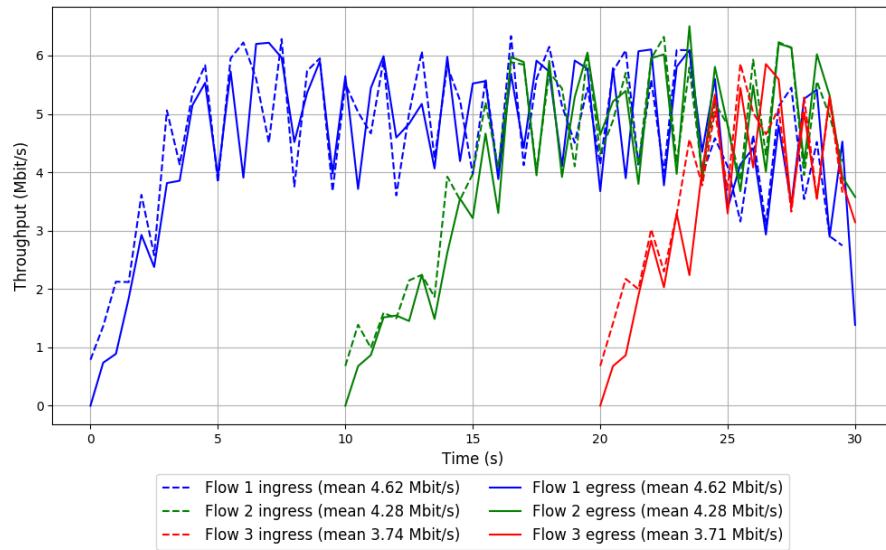


Run 5: Statistics of Sprout

```
Start at: 2019-03-27 02:04:27
End at: 2019-03-27 02:04:57
Local clock offset: 0.02 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2019-03-27 04:47:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 86.996 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 87.011 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 86.896 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 87.129 ms
Loss rate: 2.62%
```

Run 5: Report of Sprout — Data Link

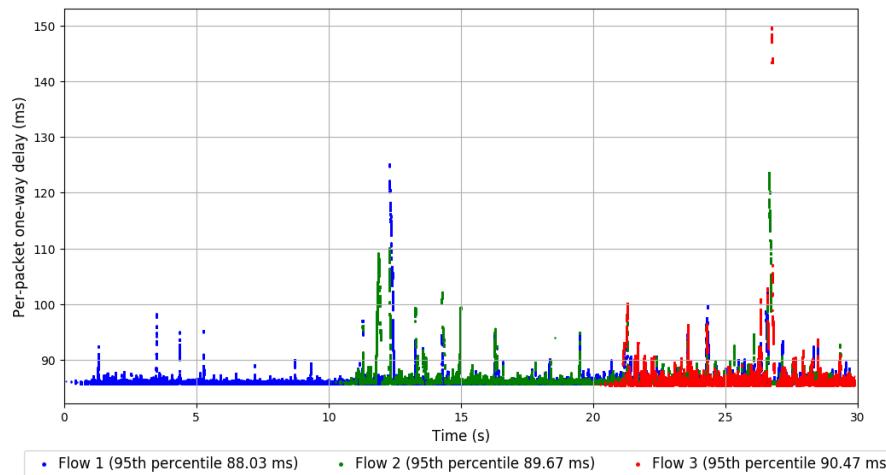
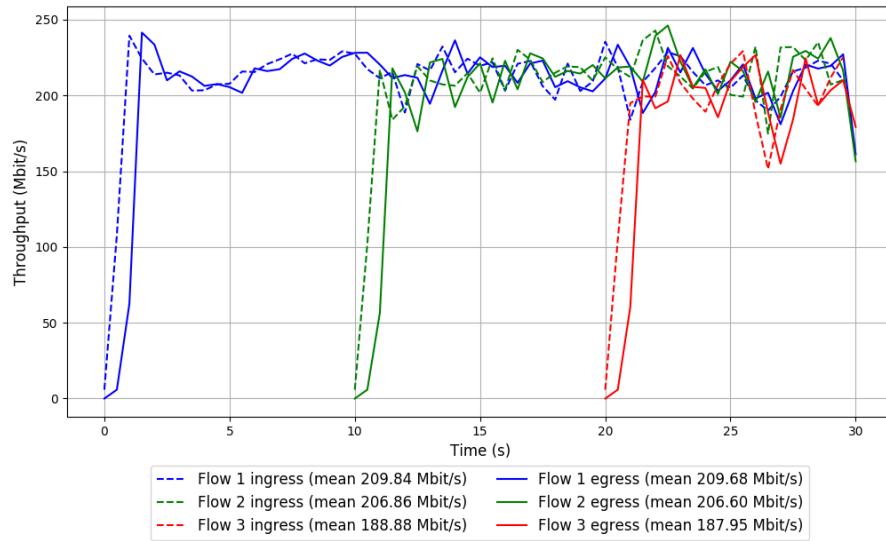


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-03-26 23:40:29
End at: 2019-03-26 23:40:59
Local clock offset: -0.534 ms
Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2019-03-27 04:53:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 408.69 Mbit/s
95th percentile per-packet one-way delay: 89.169 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 209.68 Mbit/s
95th percentile per-packet one-way delay: 88.030 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 206.60 Mbit/s
95th percentile per-packet one-way delay: 89.667 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 187.95 Mbit/s
95th percentile per-packet one-way delay: 90.473 ms
Loss rate: 2.23%
```

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

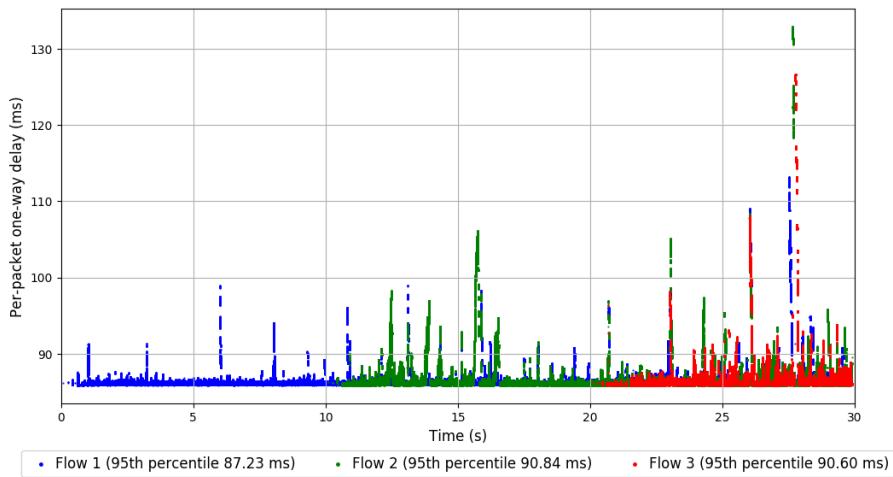
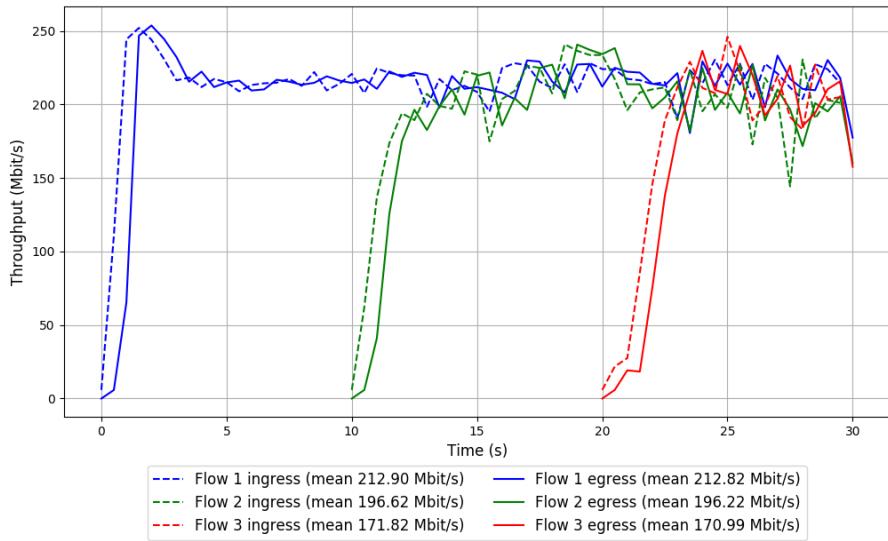


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-03-27 00:19:33
End at: 2019-03-27 00:20:03
Local clock offset: 0.113 ms
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2019-03-27 04:53:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 399.28 Mbit/s
95th percentile per-packet one-way delay: 89.024 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 212.82 Mbit/s
95th percentile per-packet one-way delay: 87.226 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 196.22 Mbit/s
95th percentile per-packet one-way delay: 90.845 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 170.99 Mbit/s
95th percentile per-packet one-way delay: 90.603 ms
Loss rate: 2.22%
```

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

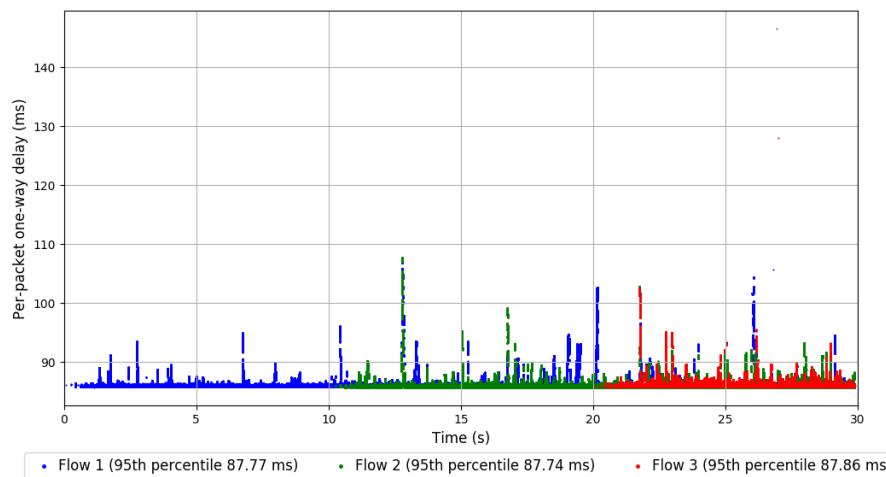
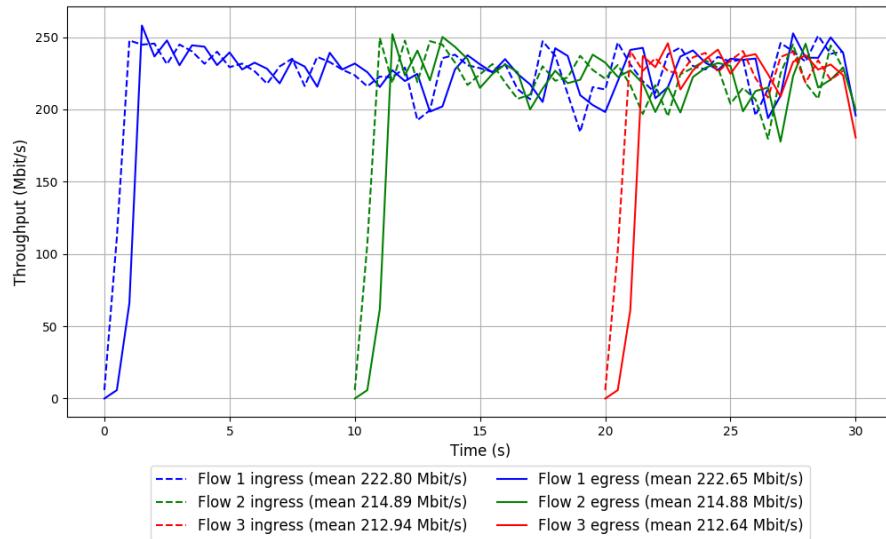


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-03-27 00:57:18
End at: 2019-03-27 00:57:48
Local clock offset: -0.115 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2019-03-27 04:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 435.16 Mbit/s
95th percentile per-packet one-way delay: 87.782 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 222.65 Mbit/s
95th percentile per-packet one-way delay: 87.768 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 214.88 Mbit/s
95th percentile per-packet one-way delay: 87.737 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 212.64 Mbit/s
95th percentile per-packet one-way delay: 87.856 ms
Loss rate: 1.92%
```

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

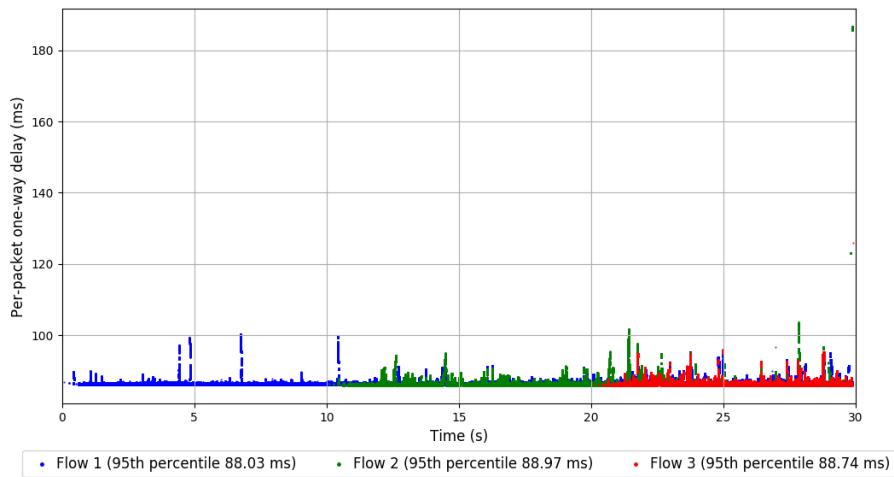
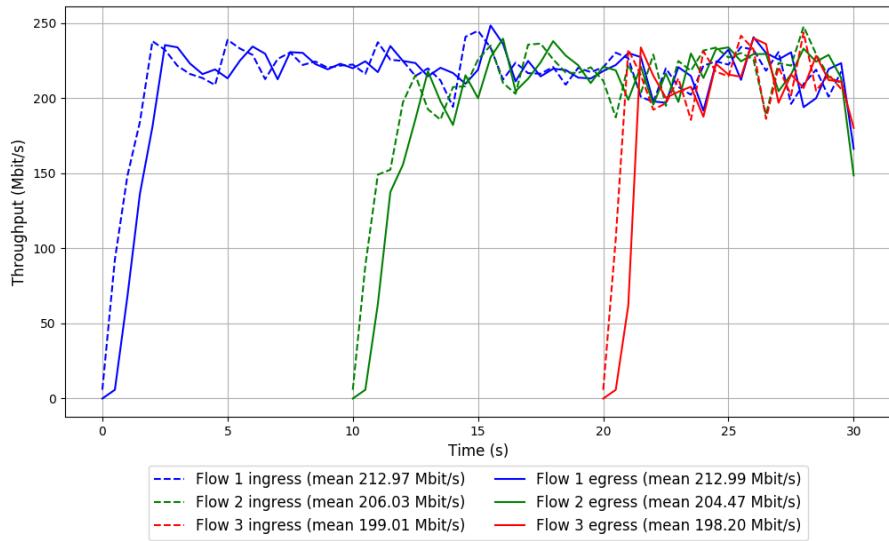


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-03-27 01:35:24
End at: 2019-03-27 01:35:54
Local clock offset: -0.134 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2019-03-27 04:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 413.63 Mbit/s
95th percentile per-packet one-way delay: 88.431 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 212.99 Mbit/s
95th percentile per-packet one-way delay: 88.034 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 204.47 Mbit/s
95th percentile per-packet one-way delay: 88.975 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 198.20 Mbit/s
95th percentile per-packet one-way delay: 88.740 ms
Loss rate: 1.72%
```

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

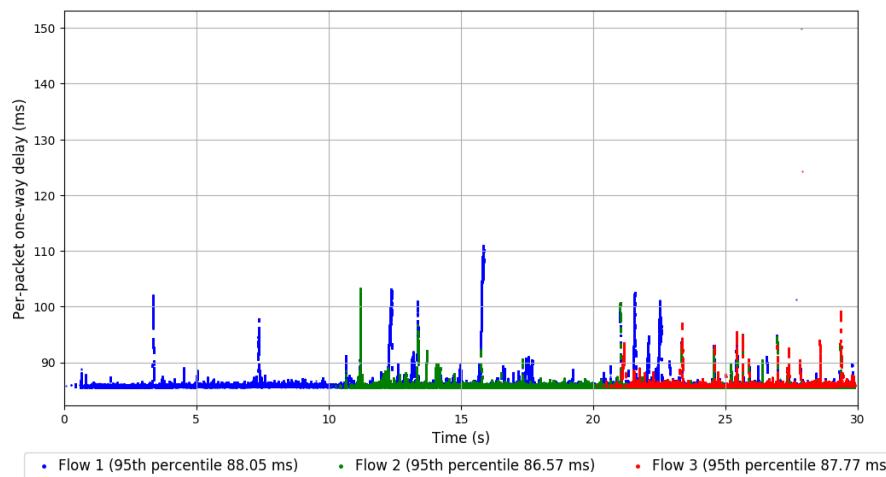
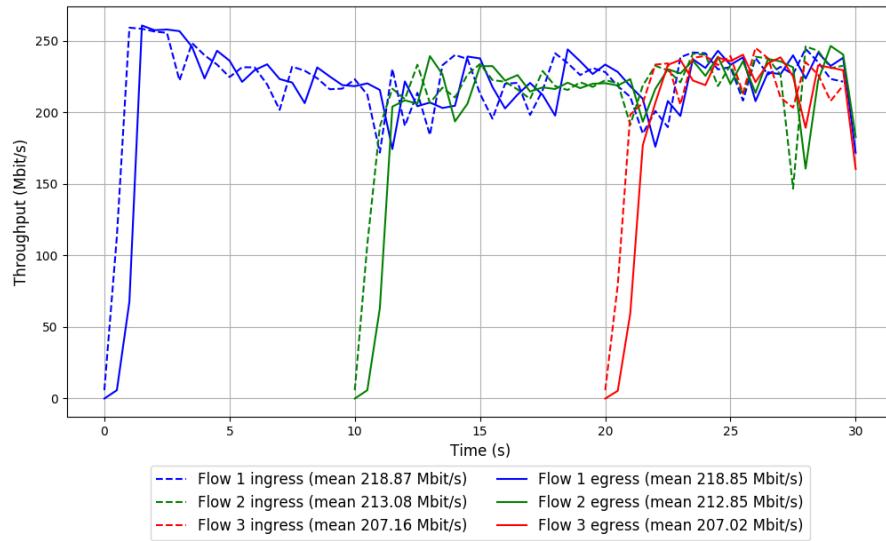


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-03-27 02:13:57
End at: 2019-03-27 02:14:27
Local clock offset: -0.324 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2019-03-27 04:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.92 Mbit/s
95th percentile per-packet one-way delay: 87.492 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 218.85 Mbit/s
95th percentile per-packet one-way delay: 88.046 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 212.85 Mbit/s
95th percentile per-packet one-way delay: 86.573 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 207.02 Mbit/s
95th percentile per-packet one-way delay: 87.765 ms
Loss rate: 1.82%
```

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

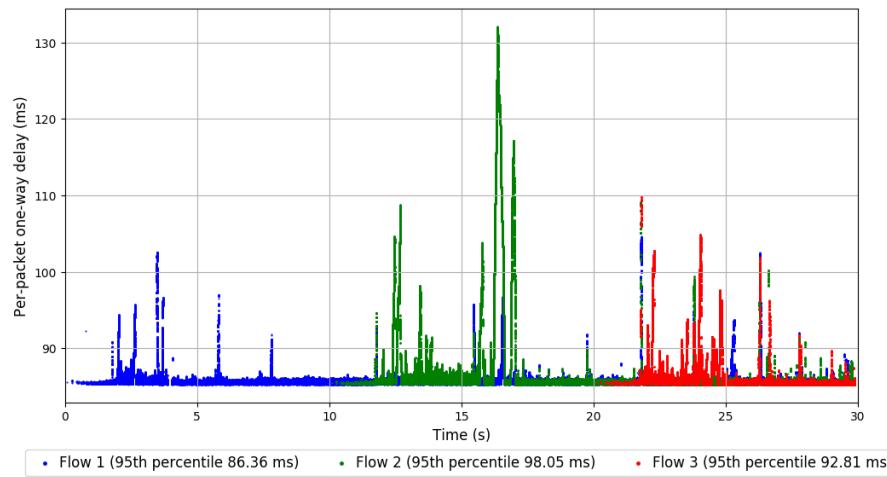
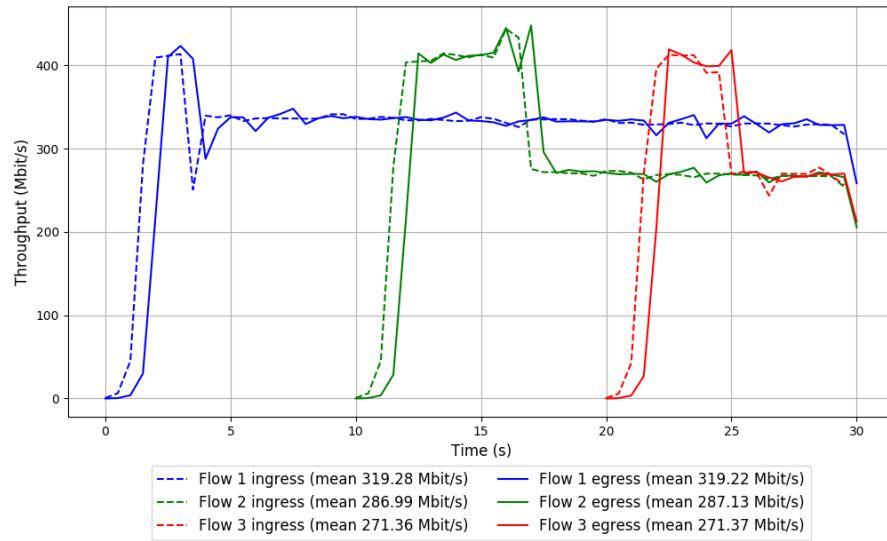


Run 1: Statistics of TCP Vegas

```
Start at: 2019-03-26 23:53:59
End at: 2019-03-26 23:54:29
Local clock offset: -0.636 ms
Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2019-03-27 04:56:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 598.97 Mbit/s
95th percentile per-packet one-way delay: 90.360 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 319.22 Mbit/s
95th percentile per-packet one-way delay: 86.358 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 287.13 Mbit/s
95th percentile per-packet one-way delay: 98.048 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 271.37 Mbit/s
95th percentile per-packet one-way delay: 92.809 ms
Loss rate: 1.72%
```

Run 1: Report of TCP Vegas — Data Link

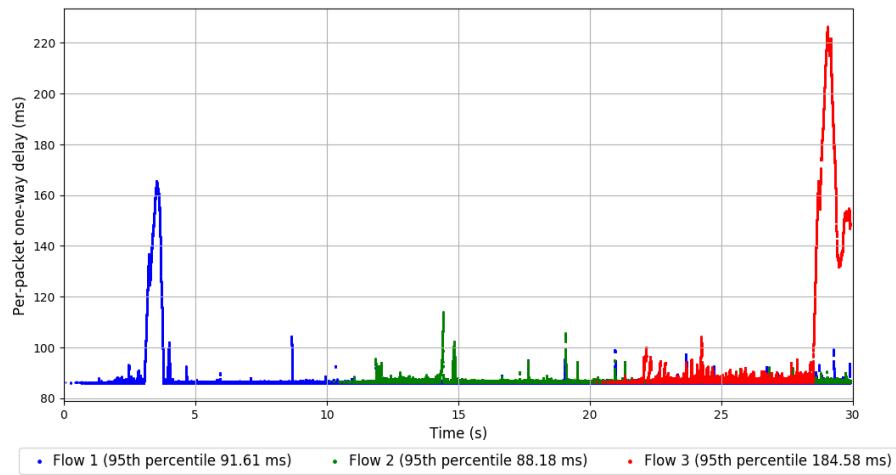
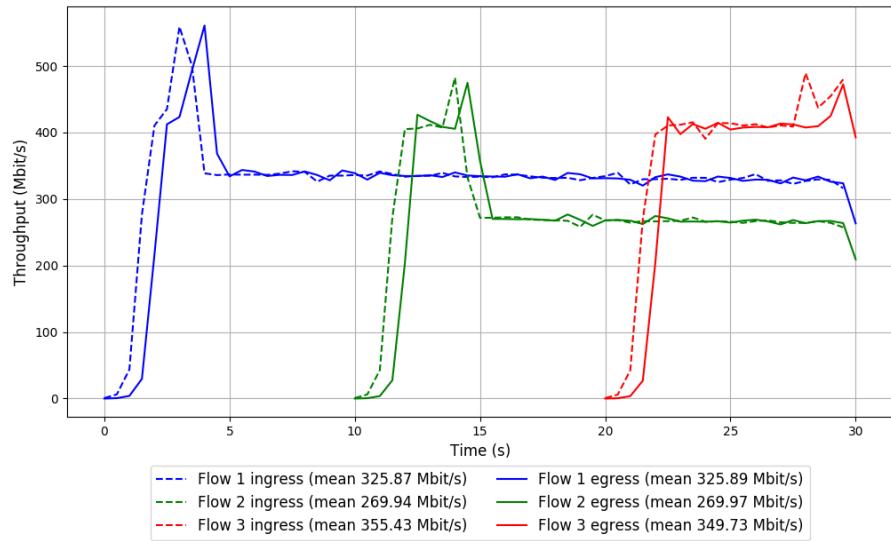


Run 2: Statistics of TCP Vegas

```
Start at: 2019-03-27 00:32:27
End at: 2019-03-27 00:32:57
Local clock offset: 0.088 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2019-03-27 05:00:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 620.07 Mbit/s
95th percentile per-packet one-way delay: 114.790 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 325.89 Mbit/s
95th percentile per-packet one-way delay: 91.609 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 269.97 Mbit/s
95th percentile per-packet one-way delay: 88.182 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 349.73 Mbit/s
95th percentile per-packet one-way delay: 184.581 ms
Loss rate: 3.31%
```

Run 2: Report of TCP Vegas — Data Link

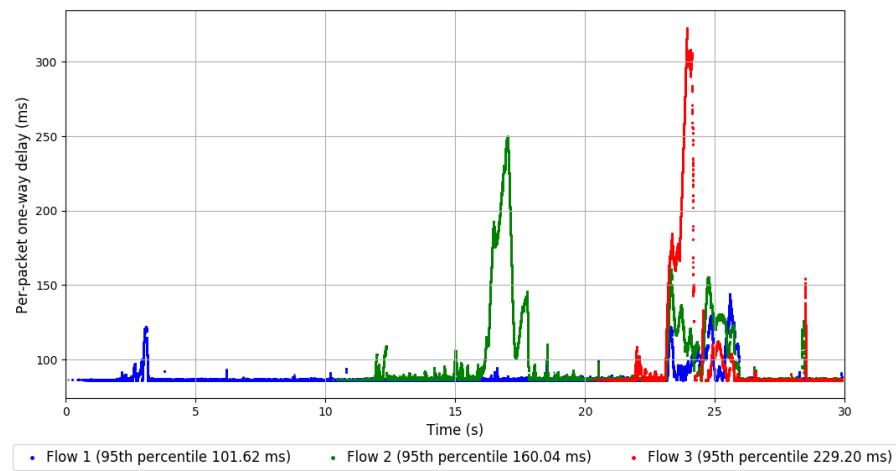
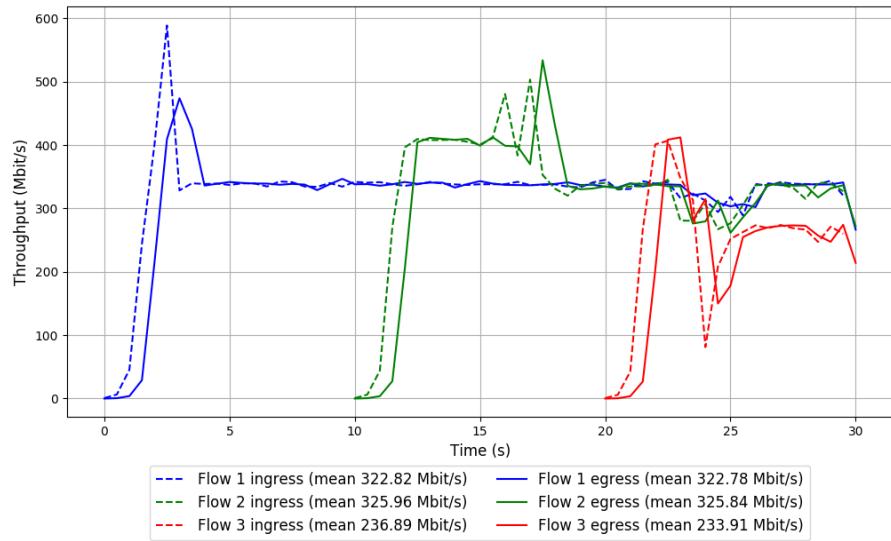


Run 3: Statistics of TCP Vegas

```
Start at: 2019-03-27 01:10:24
End at: 2019-03-27 01:10:54
Local clock offset: -0.105 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2019-03-27 05:01:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.01 Mbit/s
95th percentile per-packet one-way delay: 133.966 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 322.78 Mbit/s
95th percentile per-packet one-way delay: 101.617 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 325.84 Mbit/s
95th percentile per-packet one-way delay: 160.037 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 233.91 Mbit/s
95th percentile per-packet one-way delay: 229.204 ms
Loss rate: 2.96%
```

Run 3: Report of TCP Vegas — Data Link

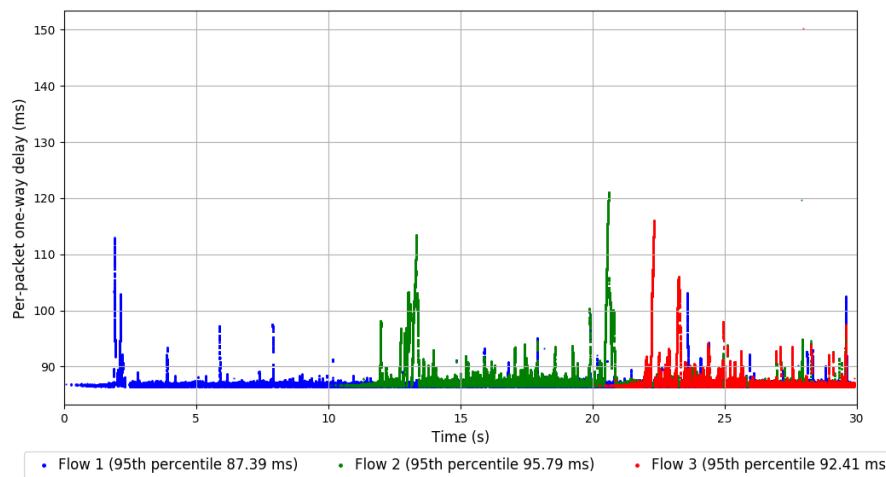
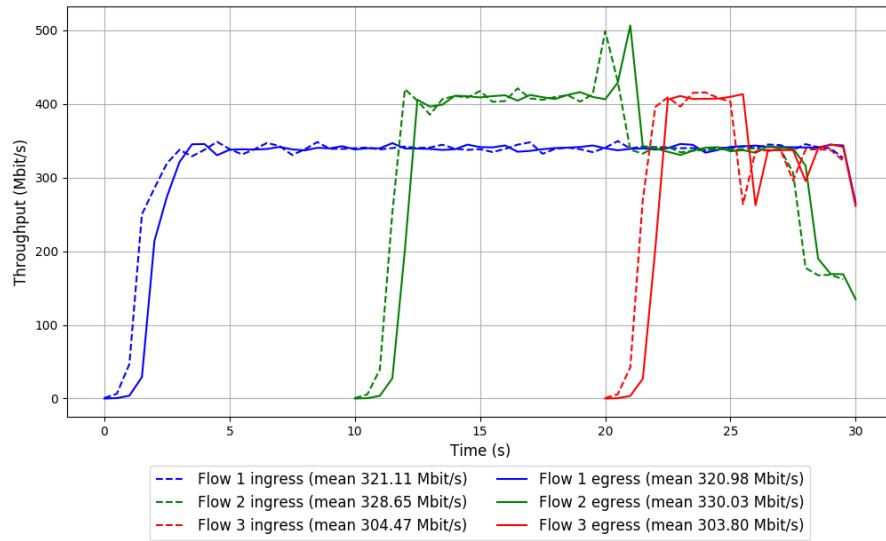


Run 4: Statistics of TCP Vegas

```
Start at: 2019-03-27 01:48:03
End at: 2019-03-27 01:48:33
Local clock offset: 0.236 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2019-03-27 05:06:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 639.89 Mbit/s
95th percentile per-packet one-way delay: 90.553 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 320.98 Mbit/s
95th percentile per-packet one-way delay: 87.387 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 330.03 Mbit/s
95th percentile per-packet one-way delay: 95.790 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 303.80 Mbit/s
95th percentile per-packet one-way delay: 92.410 ms
Loss rate: 1.94%
```

Run 4: Report of TCP Vegas — Data Link

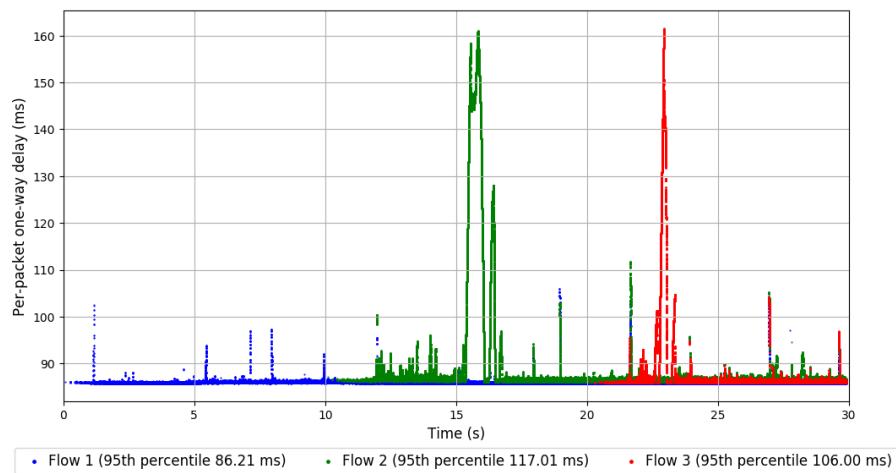
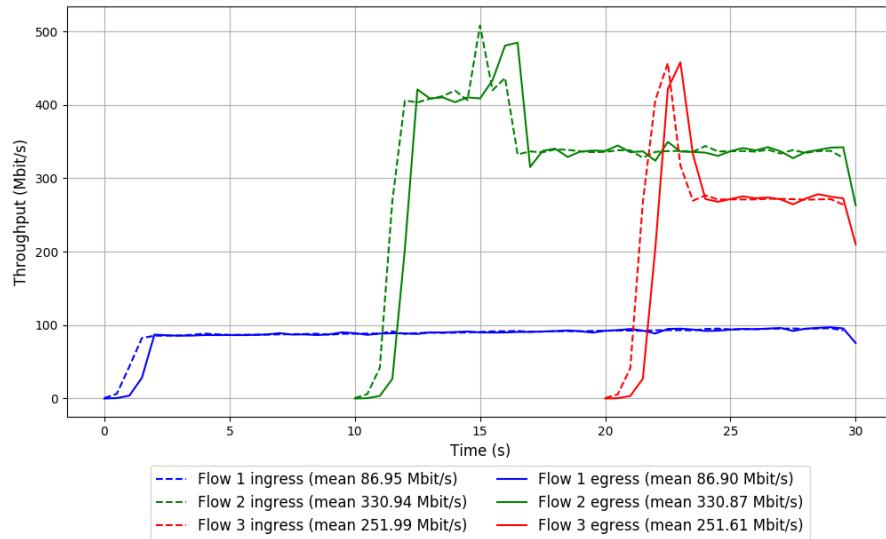


Run 5: Statistics of TCP Vegas

```
Start at: 2019-03-27 02:25:53
End at: 2019-03-27 02:26:23
Local clock offset: -0.055 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-03-27 05:06:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.25 Mbit/s
95th percentile per-packet one-way delay: 101.651 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 86.213 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 330.87 Mbit/s
95th percentile per-packet one-way delay: 117.012 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 251.61 Mbit/s
95th percentile per-packet one-way delay: 105.996 ms
Loss rate: 1.88%
```

Run 5: Report of TCP Vegas — Data Link

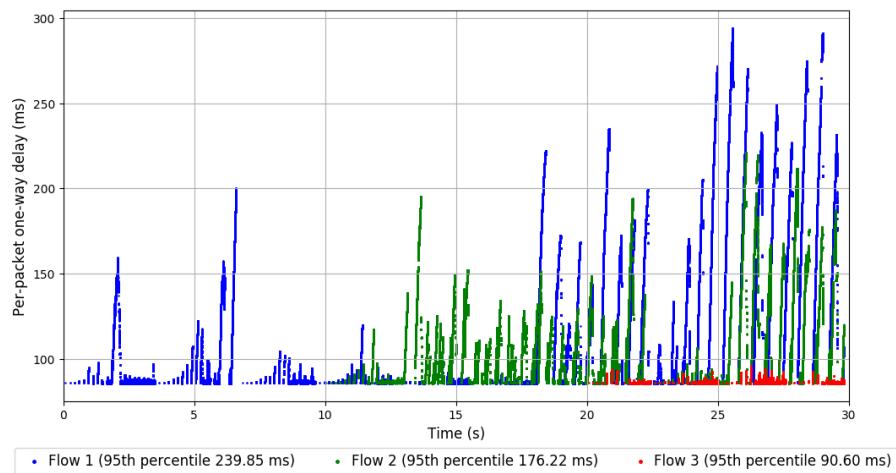
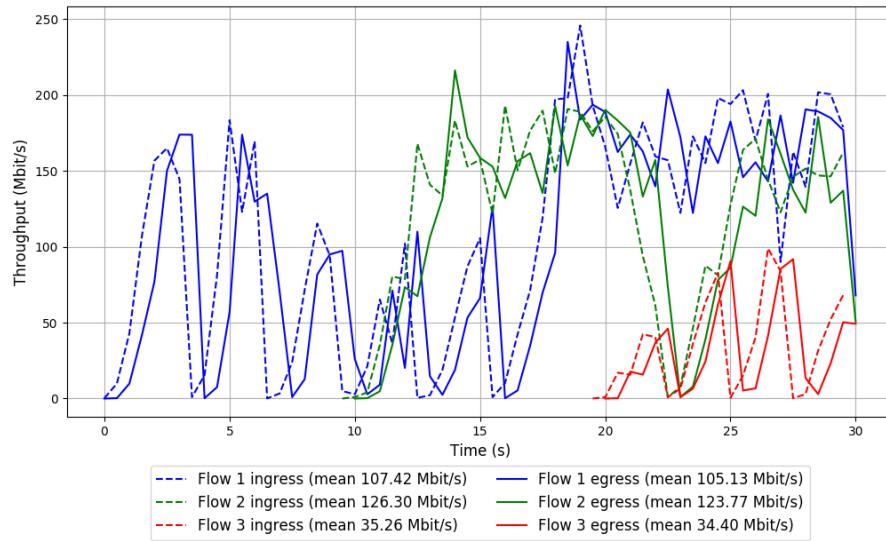


Run 1: Statistics of Verus

```
Start at: 2019-03-26 23:29:27
End at: 2019-03-26 23:29:57
Local clock offset: -0.452 ms
Remote clock offset: 0.073 ms

# Below is generated by plot.py at 2019-03-27 05:06:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 198.69 Mbit/s
95th percentile per-packet one-way delay: 219.095 ms
Loss rate: 2.82%
-- Flow 1:
Average throughput: 105.13 Mbit/s
95th percentile per-packet one-way delay: 239.847 ms
Loss rate: 2.71%
-- Flow 2:
Average throughput: 123.77 Mbit/s
95th percentile per-packet one-way delay: 176.220 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 34.40 Mbit/s
95th percentile per-packet one-way delay: 90.603 ms
Loss rate: 4.17%
```

Run 1: Report of Verus — Data Link

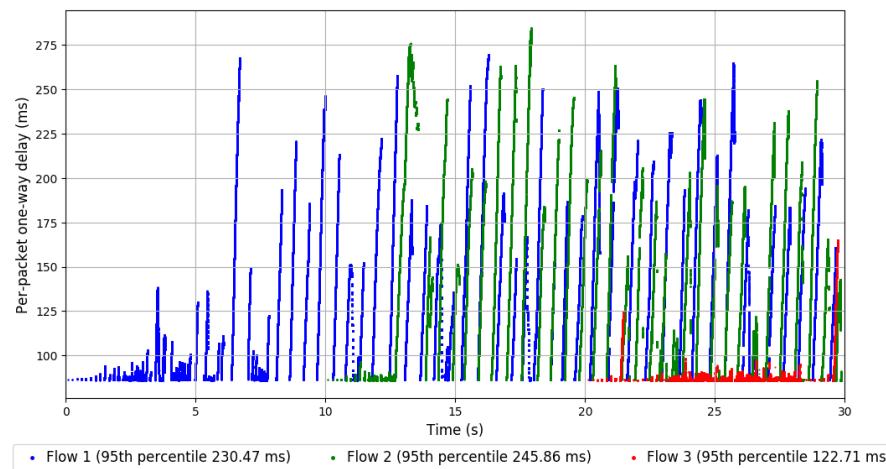
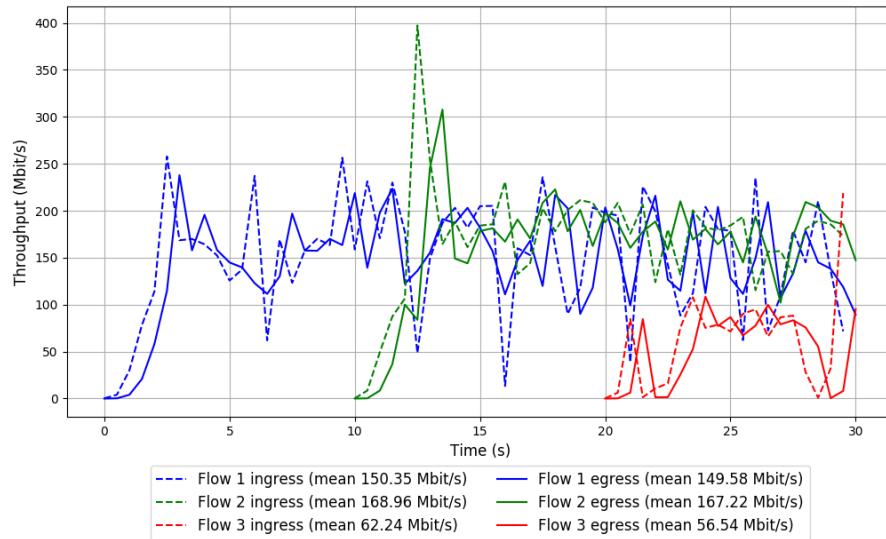


Run 2: Statistics of Verus

```
Start at: 2019-03-27 00:08:36
End at: 2019-03-27 00:09:06
Local clock offset: 0.326 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2019-03-27 05:06:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 277.74 Mbit/s
95th percentile per-packet one-way delay: 237.544 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 149.58 Mbit/s
95th percentile per-packet one-way delay: 230.474 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 167.22 Mbit/s
95th percentile per-packet one-way delay: 245.861 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 56.54 Mbit/s
95th percentile per-packet one-way delay: 122.712 ms
Loss rate: 11.99%
```

Run 2: Report of Verus — Data Link

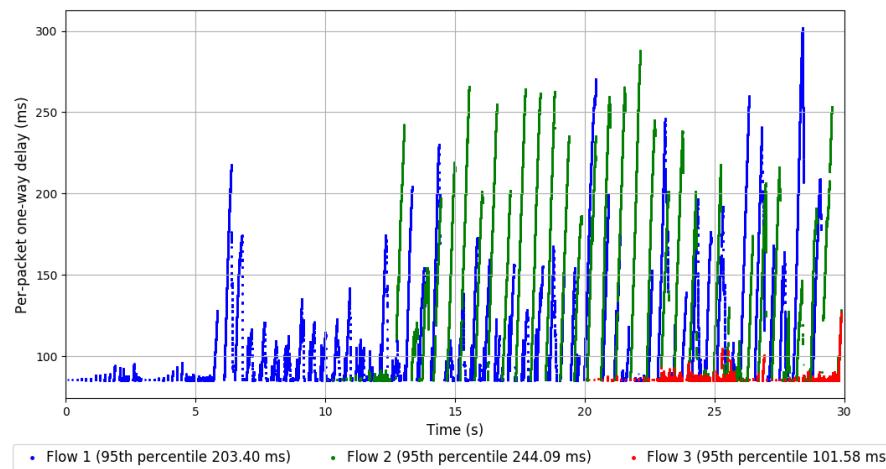
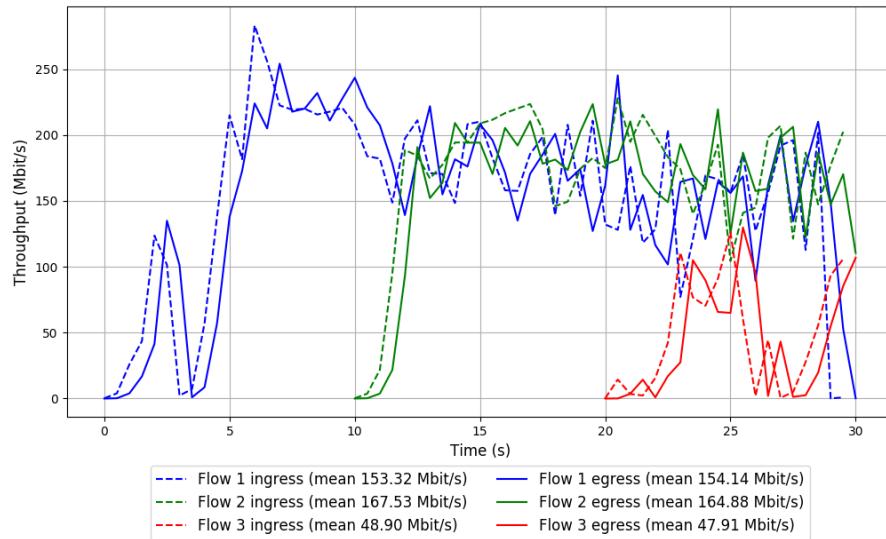


Run 3: Statistics of Verus

```
Start at: 2019-03-27 00:46:45
End at: 2019-03-27 00:47:15
Local clock offset: -0.53 ms
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2019-03-27 05:06:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.35 Mbit/s
95th percentile per-packet one-way delay: 230.650 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 154.14 Mbit/s
95th percentile per-packet one-way delay: 203.401 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 164.88 Mbit/s
95th percentile per-packet one-way delay: 244.087 ms
Loss rate: 2.15%
-- Flow 3:
Average throughput: 47.91 Mbit/s
95th percentile per-packet one-way delay: 101.580 ms
Loss rate: 1.94%
```

Run 3: Report of Verus — Data Link

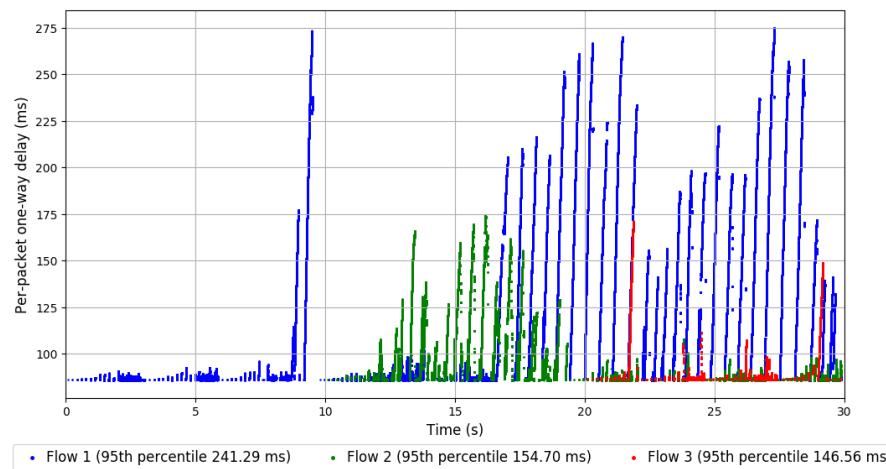
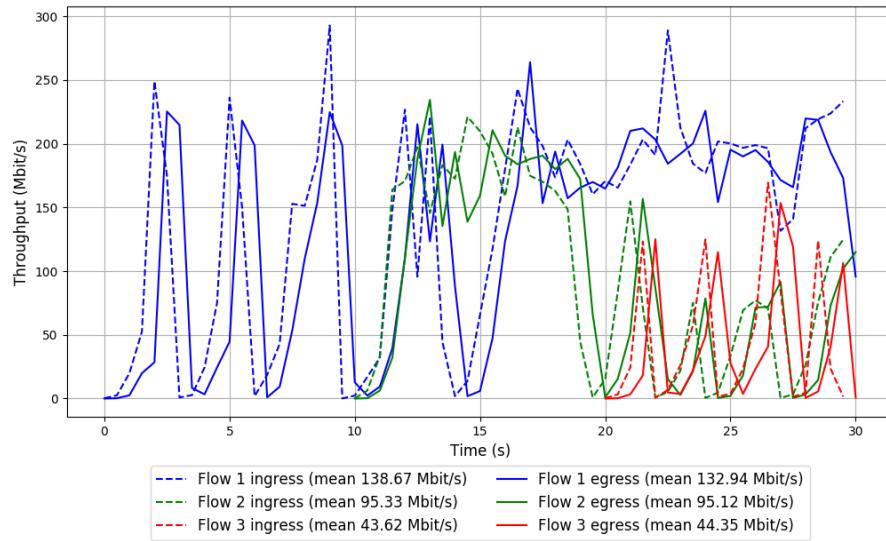


Run 4: Statistics of Verus

```
Start at: 2019-03-27 01:24:56
End at: 2019-03-27 01:25:26
Local clock offset: -0.194 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-03-27 05:06:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.58 Mbit/s
95th percentile per-packet one-way delay: 226.668 ms
Loss rate: 3.27%
-- Flow 1:
Average throughput: 132.94 Mbit/s
95th percentile per-packet one-way delay: 241.290 ms
Loss rate: 4.69%
-- Flow 2:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 154.704 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 44.35 Mbit/s
95th percentile per-packet one-way delay: 146.560 ms
Loss rate: 0.10%
```

Run 4: Report of Verus — Data Link

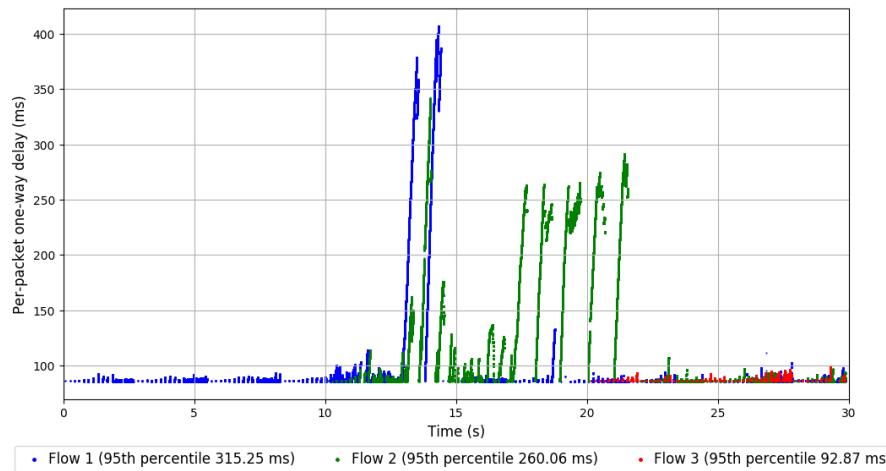
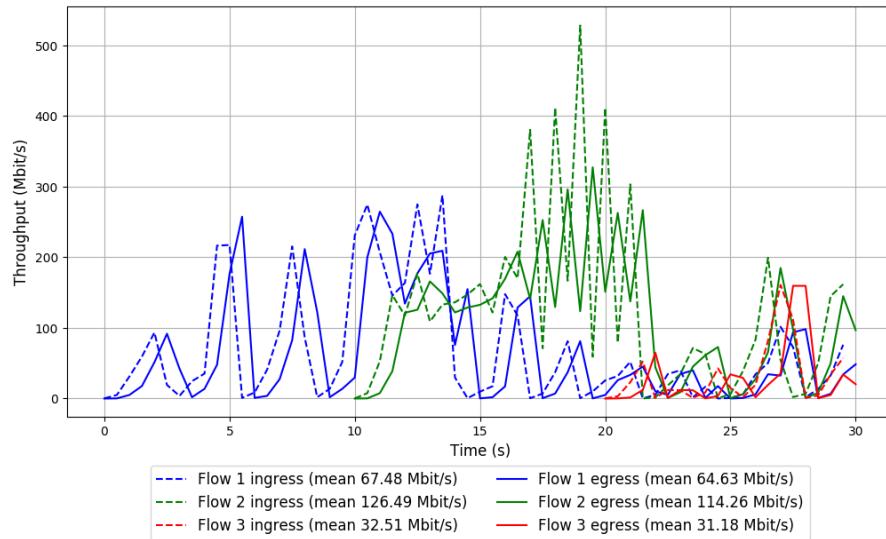


Run 5: Statistics of Verus

```
Start at: 2019-03-27 02:02:54
End at: 2019-03-27 02:03:24
Local clock offset: -0.236 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2019-03-27 05:06:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.66 Mbit/s
95th percentile per-packet one-way delay: 262.229 ms
Loss rate: 7.66%
-- Flow 1:
Average throughput: 64.63 Mbit/s
95th percentile per-packet one-way delay: 315.247 ms
Loss rate: 4.77%
-- Flow 2:
Average throughput: 114.26 Mbit/s
95th percentile per-packet one-way delay: 260.058 ms
Loss rate: 10.22%
-- Flow 3:
Average throughput: 31.18 Mbit/s
95th percentile per-packet one-way delay: 92.874 ms
Loss rate: 5.80%
```

Run 5: Report of Verus — Data Link

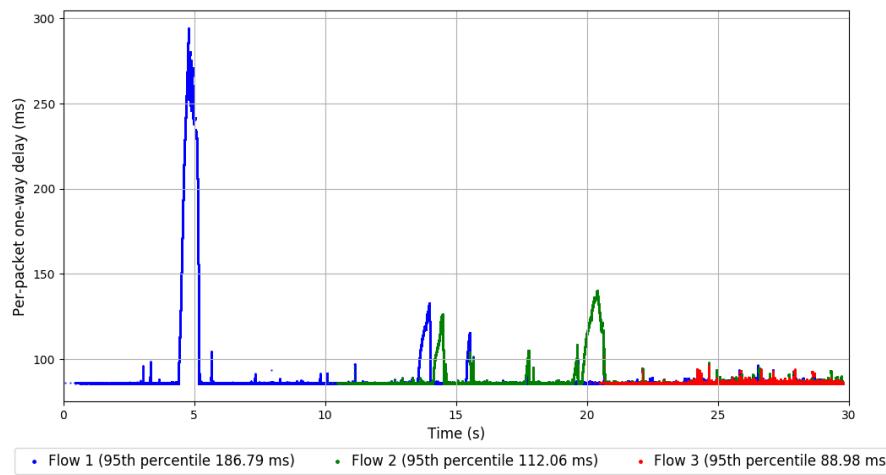
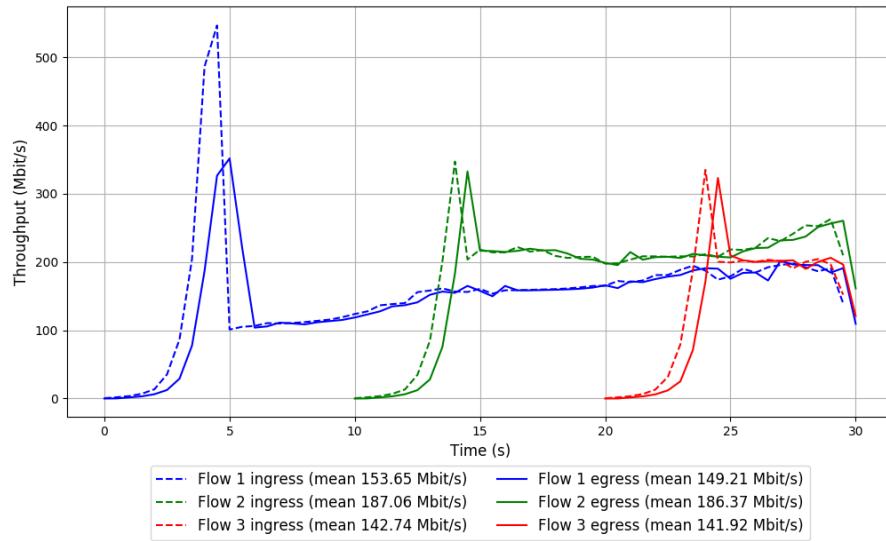


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-03-26 23:42:55
End at: 2019-03-26 23:43:25
Local clock offset: -0.251 ms
Remote clock offset: 0.092 ms

# Below is generated by plot.py at 2019-03-27 05:07:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 318.95 Mbit/s
95th percentile per-packet one-way delay: 113.927 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 149.21 Mbit/s
95th percentile per-packet one-way delay: 186.790 ms
Loss rate: 3.45%
-- Flow 2:
Average throughput: 186.37 Mbit/s
95th percentile per-packet one-way delay: 112.061 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 141.92 Mbit/s
95th percentile per-packet one-way delay: 88.984 ms
Loss rate: 2.32%
```

Run 1: Report of PCC-Vivace — Data Link

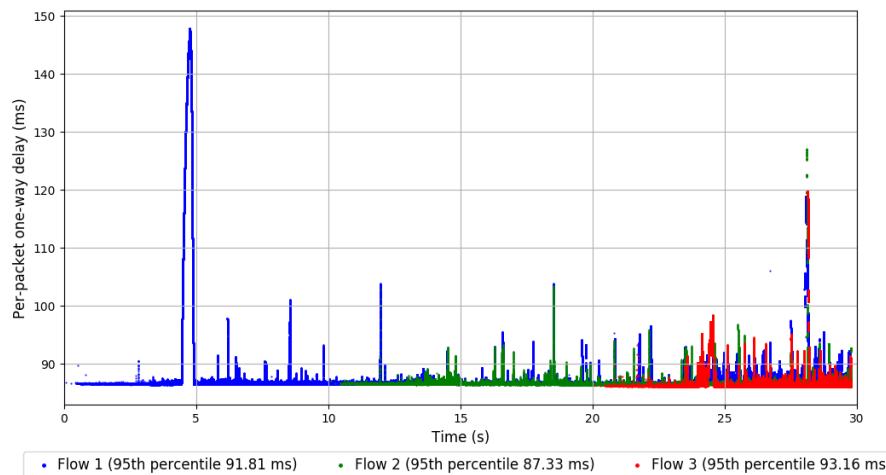
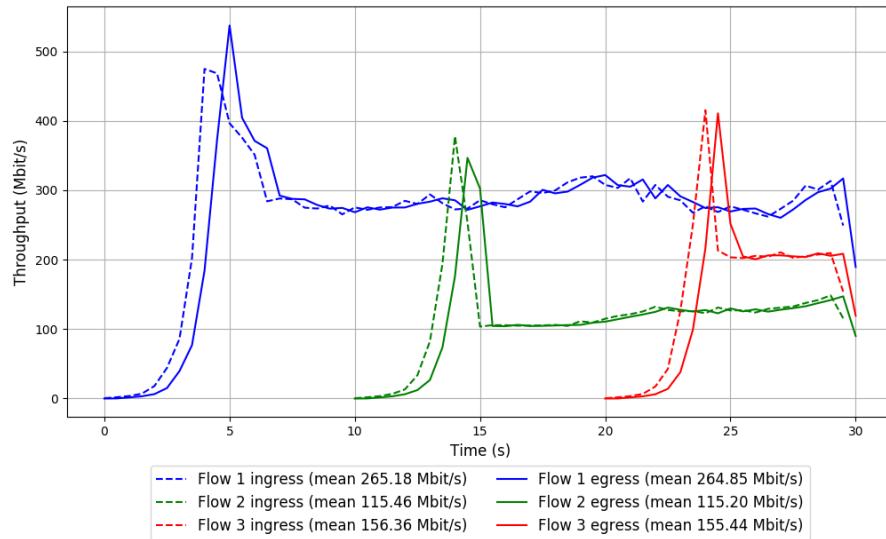


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-03-27 00:21:32
End at: 2019-03-27 00:22:02
Local clock offset: 0.337 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2019-03-27 05:08:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.86 Mbit/s
95th percentile per-packet one-way delay: 91.008 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 264.85 Mbit/s
95th percentile per-packet one-way delay: 91.807 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 115.20 Mbit/s
95th percentile per-packet one-way delay: 87.329 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 155.44 Mbit/s
95th percentile per-packet one-way delay: 93.163 ms
Loss rate: 2.35%
```

Run 2: Report of PCC-Vivace — Data Link

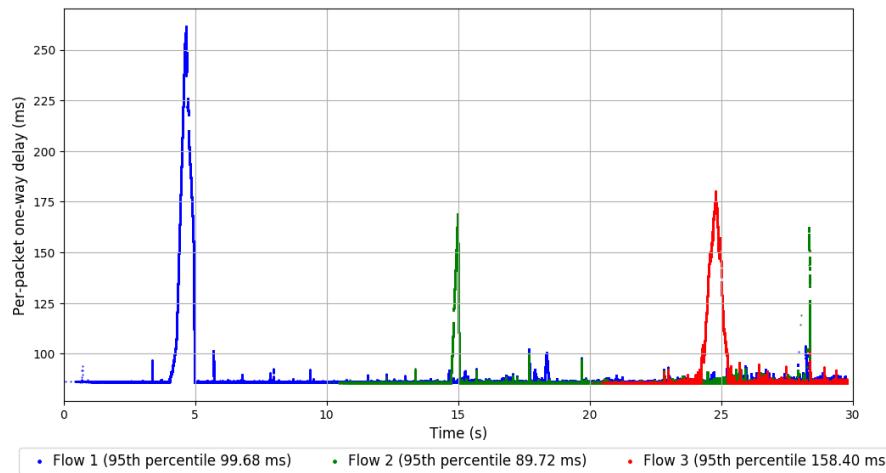
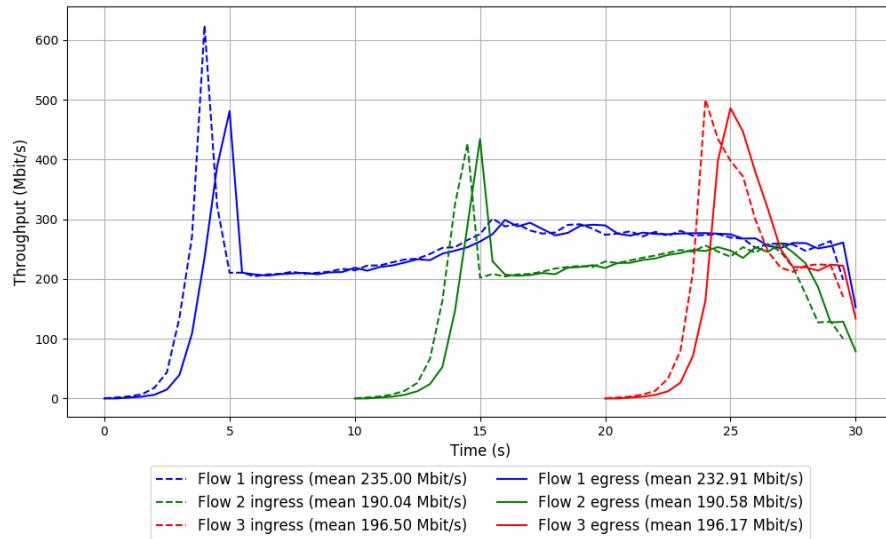


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-03-27 00:59:25
End at: 2019-03-27 00:59:55
Local clock offset: -0.3 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2019-03-27 05:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.14 Mbit/s
95th percentile per-packet one-way delay: 129.644 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 232.91 Mbit/s
95th percentile per-packet one-way delay: 99.679 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 190.58 Mbit/s
95th percentile per-packet one-way delay: 89.722 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 196.17 Mbit/s
95th percentile per-packet one-way delay: 158.402 ms
Loss rate: 1.92%
```

Run 3: Report of PCC-Vivace — Data Link

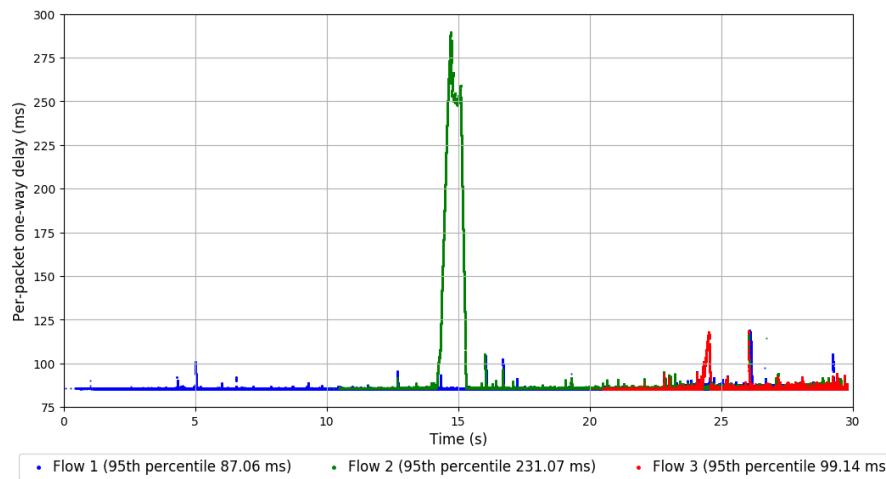
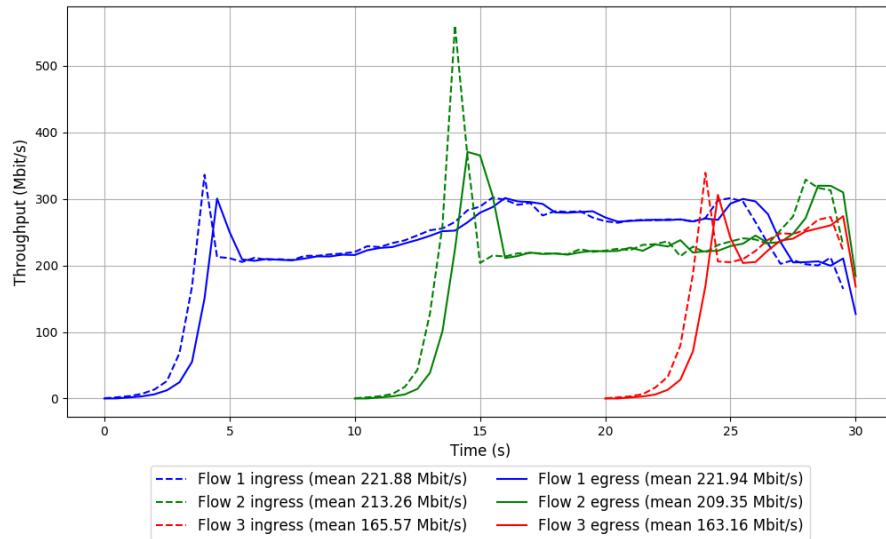


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-03-27 01:37:23
End at: 2019-03-27 01:37:53
Local clock offset: -0.573 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-03-27 05:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 413.83 Mbit/s
95th percentile per-packet one-way delay: 93.316 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 221.94 Mbit/s
95th percentile per-packet one-way delay: 87.062 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 209.35 Mbit/s
95th percentile per-packet one-way delay: 231.072 ms
Loss rate: 2.69%
-- Flow 3:
Average throughput: 163.16 Mbit/s
95th percentile per-packet one-way delay: 99.144 ms
Loss rate: 3.16%
```

Run 4: Report of PCC-Vivace — Data Link

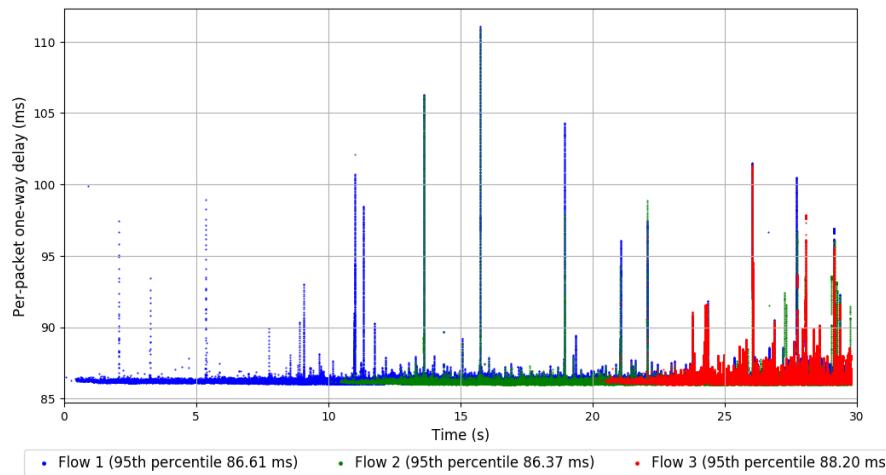
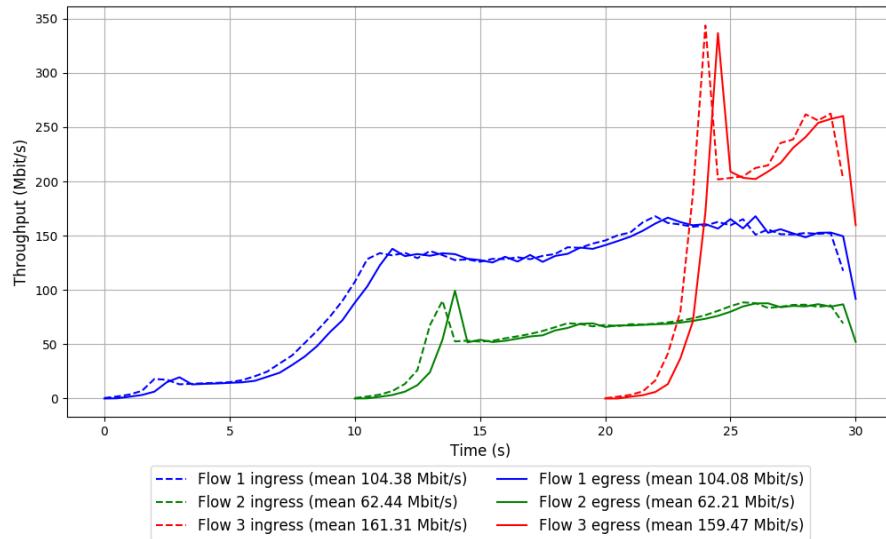


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-03-27 02:15:58
End at: 2019-03-27 02:16:28
Local clock offset: 0.094 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-03-27 05:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 197.23 Mbit/s
95th percentile per-packet one-way delay: 87.092 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 104.08 Mbit/s
95th percentile per-packet one-way delay: 86.609 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 62.21 Mbit/s
95th percentile per-packet one-way delay: 86.374 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 159.47 Mbit/s
95th percentile per-packet one-way delay: 88.203 ms
Loss rate: 2.88%
```

Run 5: Report of PCC-Vivace — Data Link

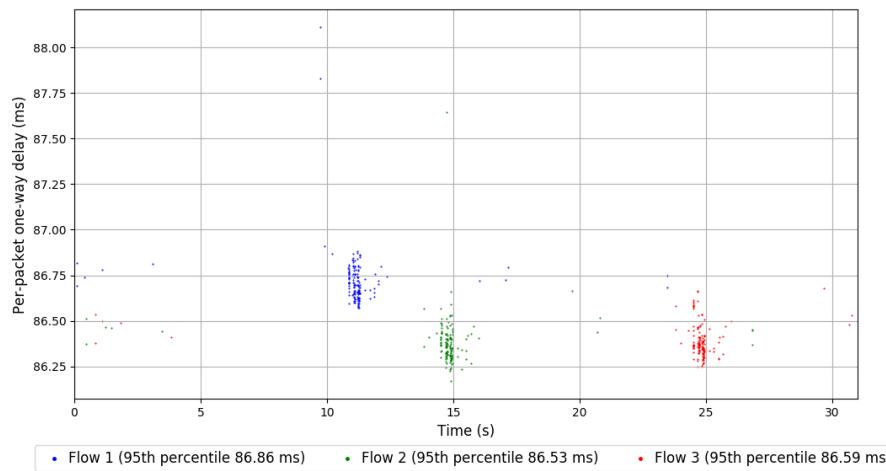
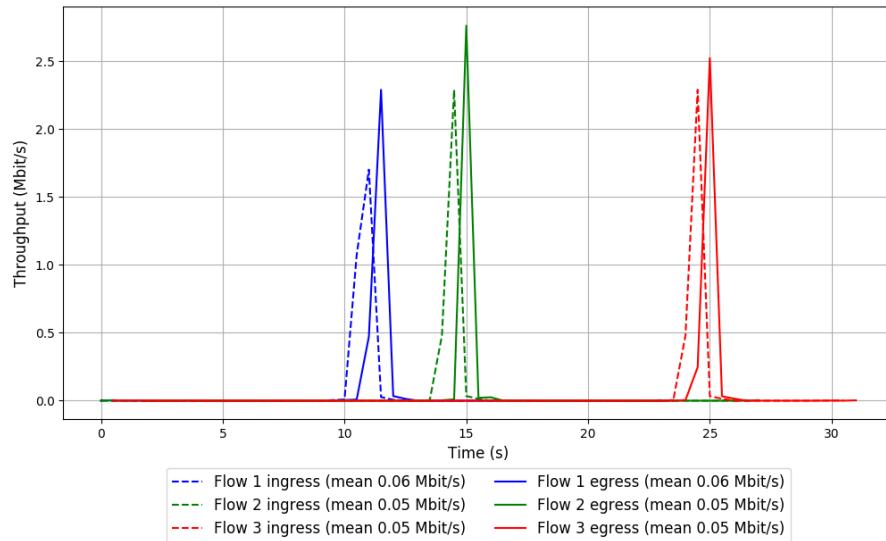


```
Run 1: Statistics of WebRTC media

Start at: 2019-03-26 23:25:59
End at: 2019-03-26 23:26:29
Local clock offset: 0.198 ms
Remote clock offset: 0.085 ms

# Below is generated by plot.py at 2019-03-27 05:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.799 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 86.863 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.530 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.588 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

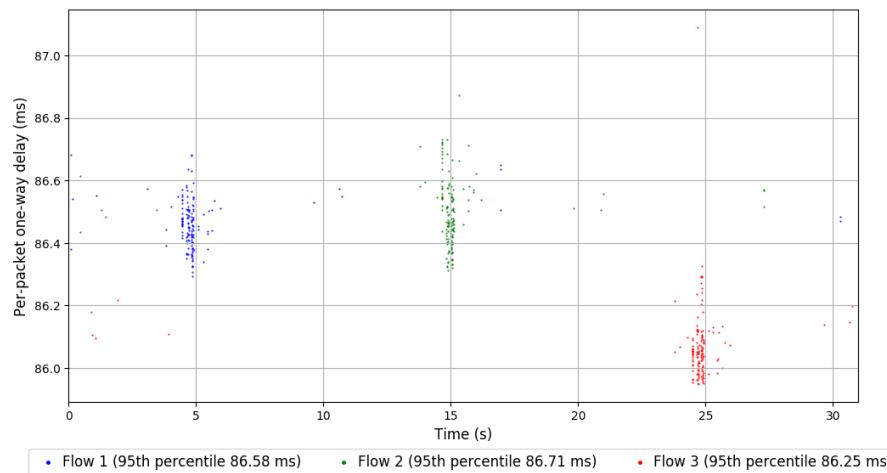
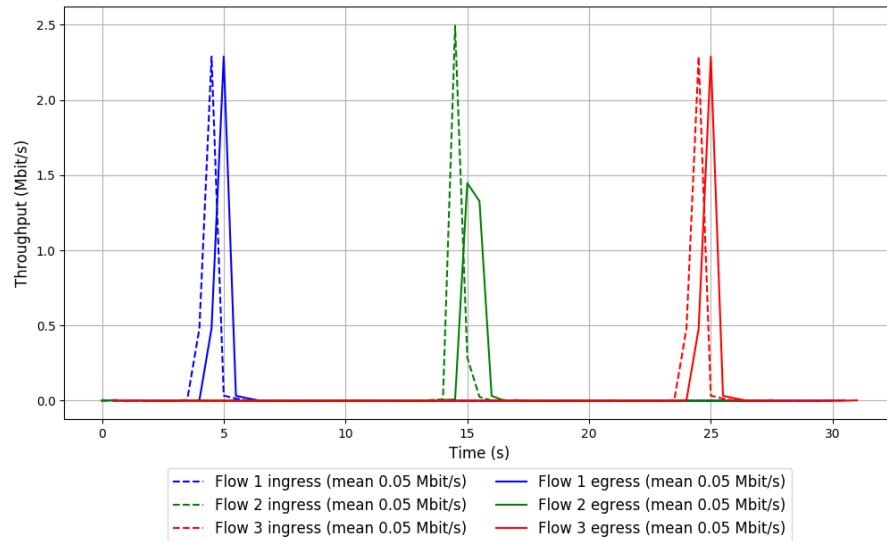


Run 2: Statistics of WebRTC media

```
Start at: 2019-03-27 00:05:25
End at: 2019-03-27 00:05:55
Local clock offset: 0.081 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-03-27 05:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.637 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.585 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.709 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.255 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

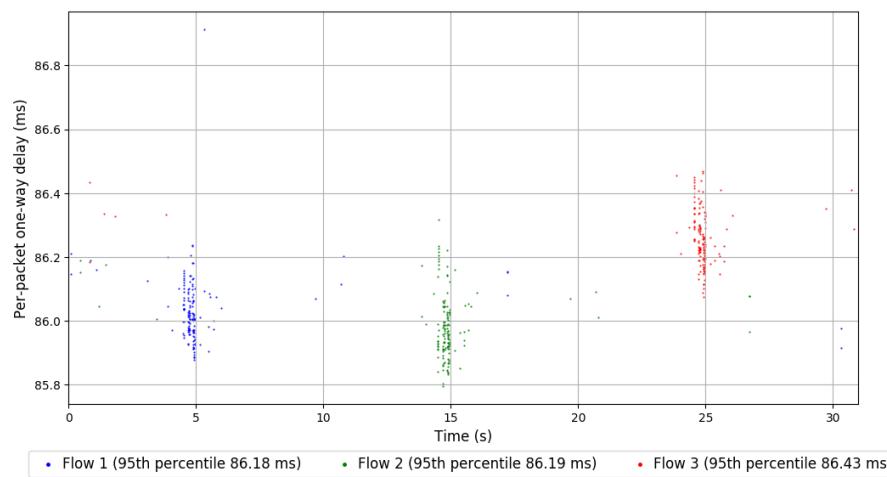
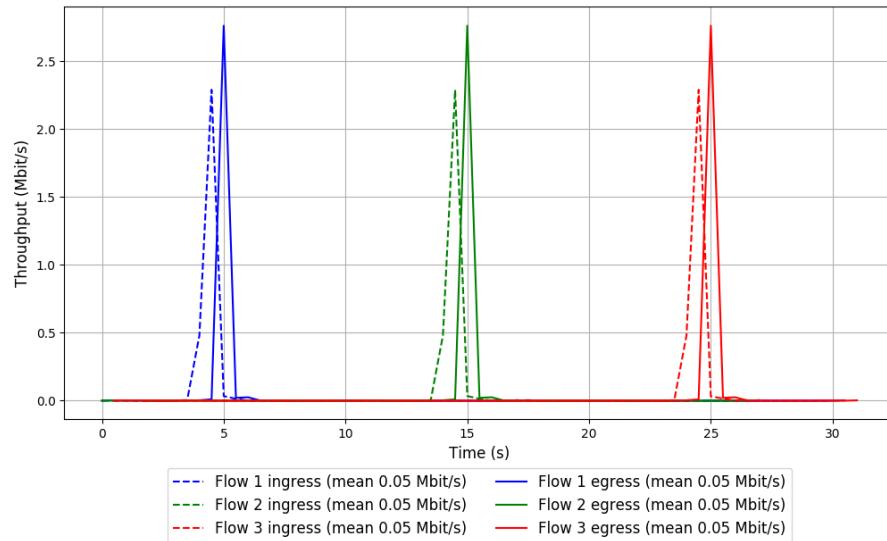


```
Run 3: Statistics of WebRTC media

Start at: 2019-03-27 00:43:32
End at: 2019-03-27 00:44:02
Local clock offset: -0.125 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-03-27 05:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.357 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.181 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.188 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.433 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

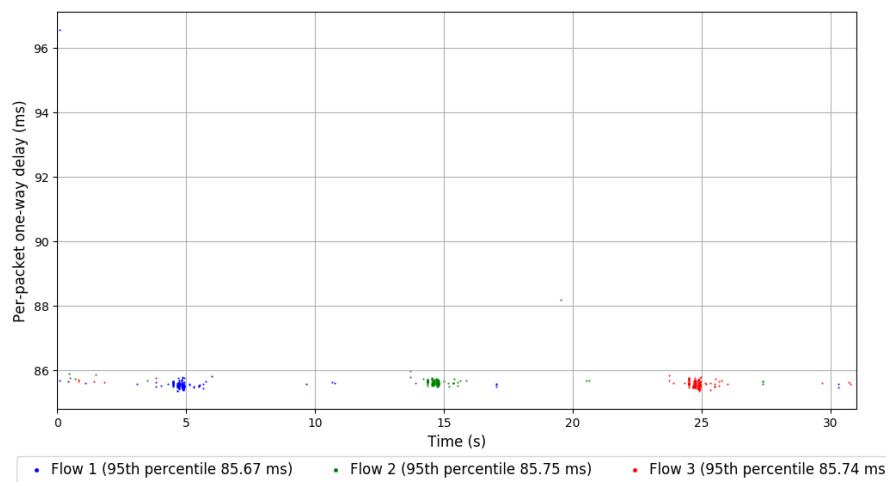
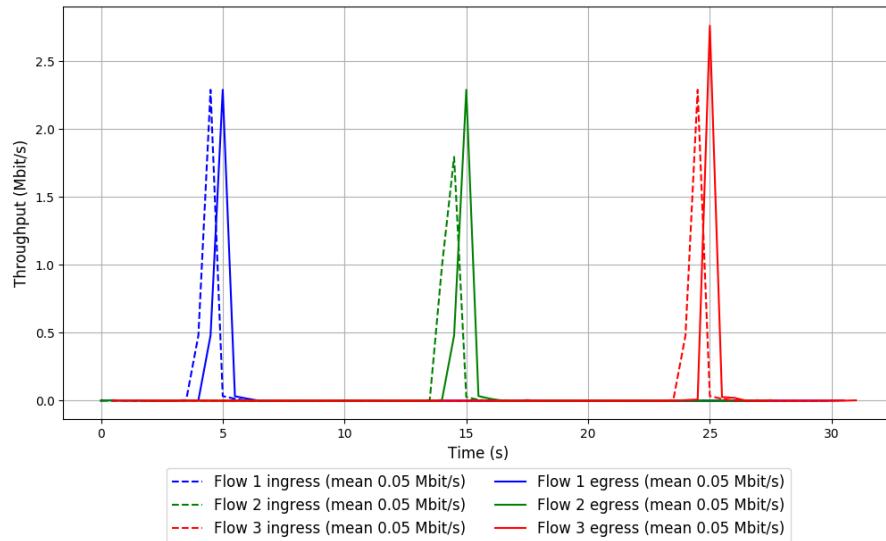


Run 4: Statistics of WebRTC media

```
Start at: 2019-03-27 01:21:40
End at: 2019-03-27 01:22:10
Local clock offset: -0.543 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2019-03-27 05:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 85.733 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.671 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.745 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.743 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-03-27 01:59:44
End at: 2019-03-27 02:00:14
Local clock offset: -0.382 ms
Remote clock offset: 0.027 ms

# Below is generated by plot.py at 2019-03-27 05:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.357 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.328 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.465 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

