

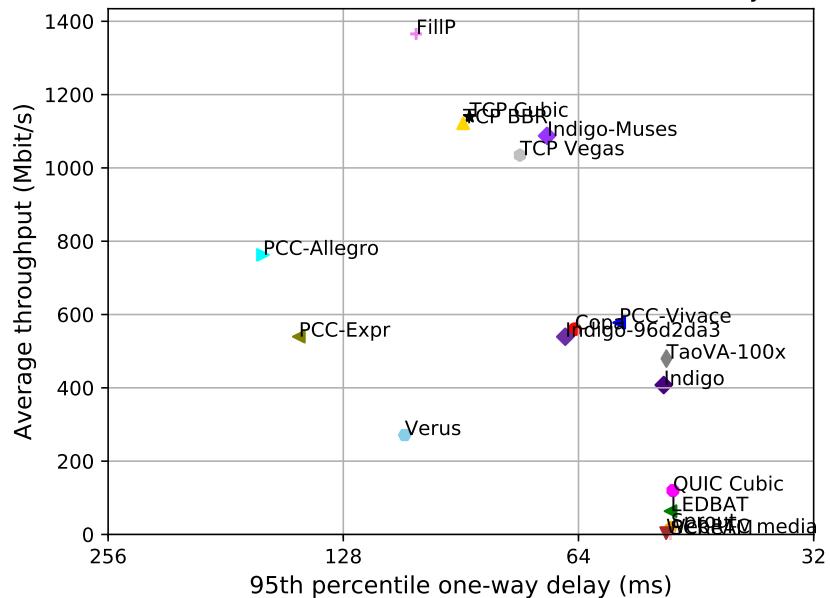
## Pantheon Report

Generated at 2018-10-27 02:48:14 (UTC).  
Data path: GCE Iowa on `ens4` (*remote*) → GCE London on `ens4` (*local*).  
Repeated the test of 18 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.

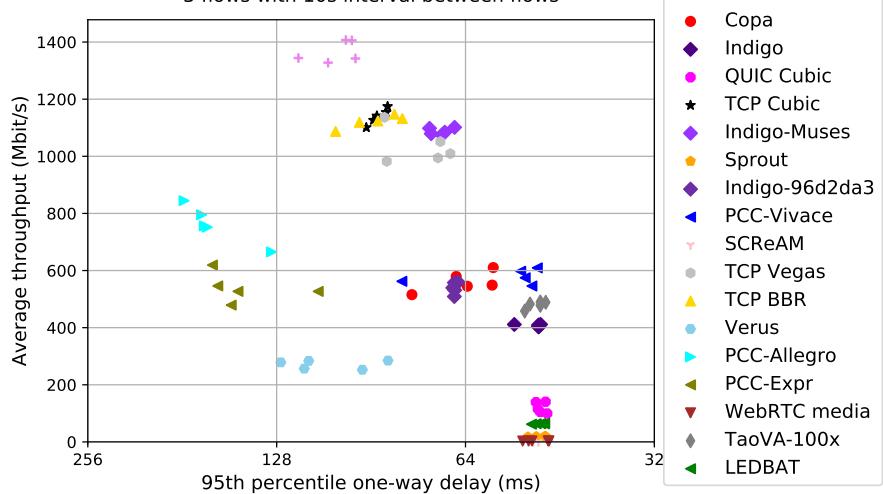
```
System info:  
Linux 4.15.0-1021-gcp  
net.core.default_qdisc = fq  
net.core.rmem_default = 16777216  
net.core.rmem_max = 536870912  
net.core.wmem_default = 16777216  
net.core.wmem_max = 536870912  
net.ipv4.tcp_rmem = 4096 16777216 536870912  
net.ipv4.tcp_wmem = 4096 16777216 536870912  
  
Git summary:  
branch: muses @ 2e19c0464530faa92c63f8217c9971438a26a3be  
third_party/fillp @ 5332fc9127c63565e13f4933b336c02d1aabdac6  
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4  
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d  
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95  
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf  
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a  
third_party/pantheon-tunnel @ 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 London, 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 London, 5 runs of 30s each per scheme  
3 flows with 10s interval between flows



↳

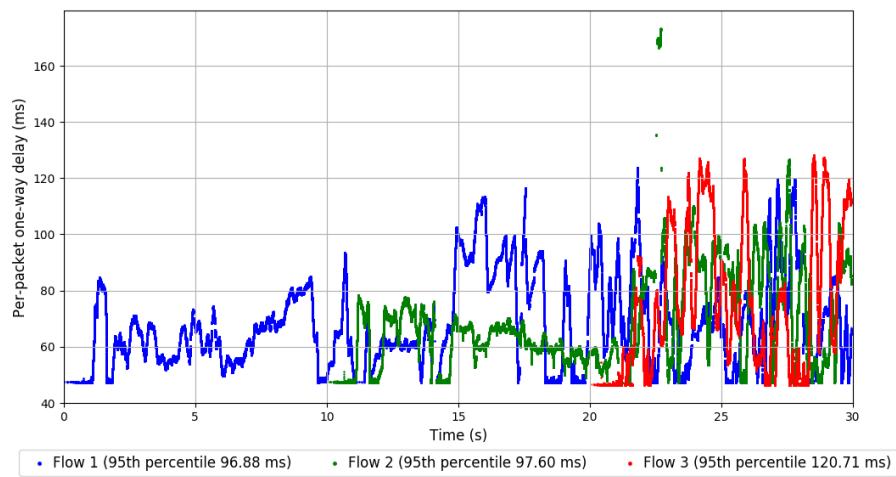
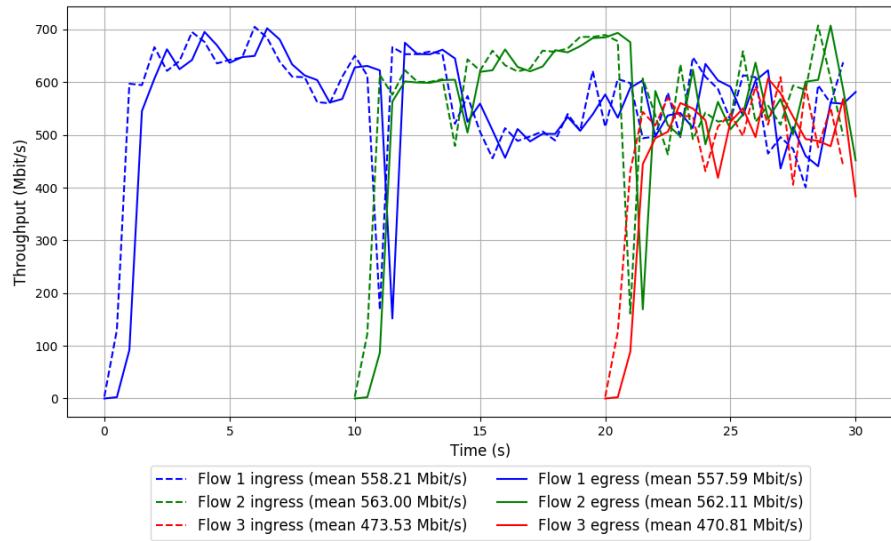
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	583.82	548.44	525.29	87.97	89.23	86.43	0.39	0.63	1.36
Copa	5	288.98	268.09	280.45	58.25	66.72	85.19	0.34	0.51	1.09
TCP Cubic	5	586.95	572.32	520.47	85.45	88.19	75.09	0.32	0.62	1.25
FillP	5	729.21	682.93	555.00	104.68	103.61	78.95	0.82	1.05	1.33
Indigo	5	215.43	202.93	175.44	49.81	49.39	49.91	0.32	0.51	1.13
Indigo-96d2da3	5	277.27	268.83	257.02	67.18	66.17	64.78	0.26	0.37	0.89
LEDBAT	5	41.39	26.84	13.35	48.75	48.68	47.98	0.63	0.96	1.94
Indigo-Muses	5	593.72	529.19	438.21	70.45	71.73	62.72	0.29	0.48	1.27
PCC-Allegro	5	428.70	366.18	278.03	168.92	139.19	109.25	4.12	1.59	1.77
PCC-Expr	5	292.14	279.50	189.18	142.77	101.65	96.41	3.23	1.63	3.94
QUIC Cubic	5	67.60	51.80	52.72	47.75	47.85	47.68	0.35	0.83	1.17
SCReAM	5	0.22	0.22	0.22	48.52	47.62	47.16	0.26	0.53	1.09
Sprout	5	9.62	9.14	8.89	47.90	48.22	48.51	0.31	0.34	1.07
TaoVA-100x	5	244.75	239.44	229.22	49.51	48.57	49.18	0.33	0.50	0.93
TCP Vegas	5	556.18	482.13	478.42	75.92	64.79	78.59	0.28	0.53	1.09
Verus	5	158.79	119.71	100.41	123.11	71.53	75.12	0.70	0.27	1.43
PCC-Vivace	5	352.39	274.06	132.92	57.83	51.74	69.11	0.51	0.39	1.42
WebRTC media	5	1.85	1.20	0.47	47.49	48.17	47.93	0.47	0.65	1.14

Run 1: Statistics of TCP BBR

```
Start at: 2018-10-26 21:36:34
End at: 2018-10-26 21:37:04
Local clock offset: -0.088 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2018-10-27 00:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1086.94 Mbit/s
95th percentile per-packet one-way delay: 103.101 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 557.59 Mbit/s
95th percentile per-packet one-way delay: 96.882 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 562.11 Mbit/s
95th percentile per-packet one-way delay: 97.600 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 470.81 Mbit/s
95th percentile per-packet one-way delay: 120.710 ms
Loss rate: 1.51%
```

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

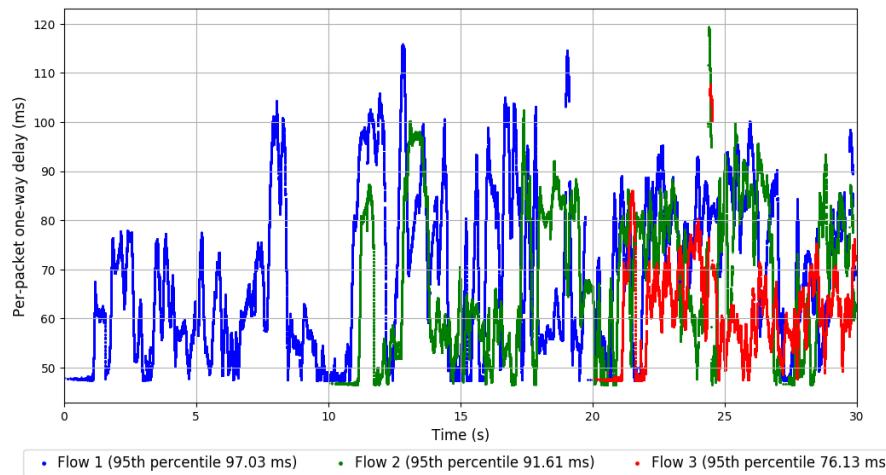
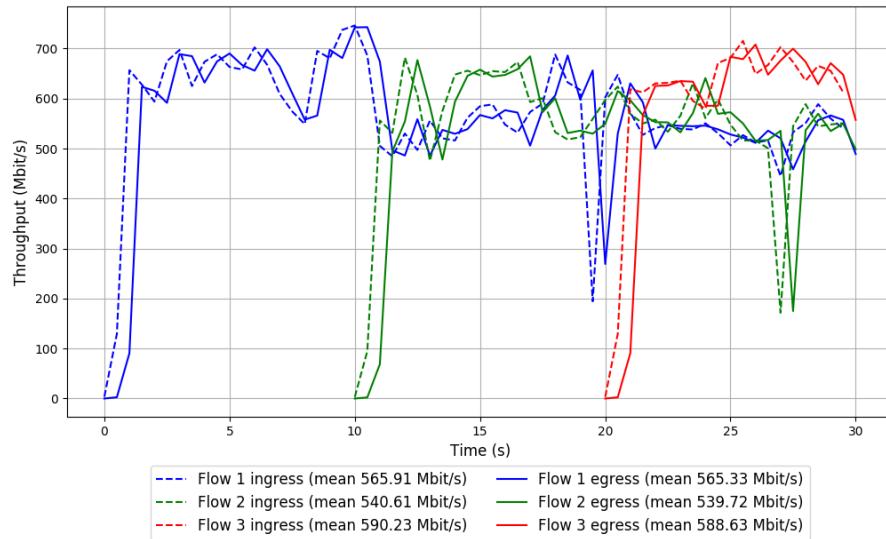


Run 2: Statistics of TCP BBR

```
Start at: 2018-10-26 22:07:48
End at: 2018-10-26 22:08:18
Local clock offset: 0.216 ms
Remote clock offset: 0.037 ms

# Below is generated by plot.py at 2018-10-27 00:40:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1118.80 Mbit/s
95th percentile per-packet one-way delay: 94.461 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 565.33 Mbit/s
95th percentile per-packet one-way delay: 97.031 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 539.72 Mbit/s
95th percentile per-packet one-way delay: 91.611 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 588.63 Mbit/s
95th percentile per-packet one-way delay: 76.127 ms
Loss rate: 1.21%
```

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

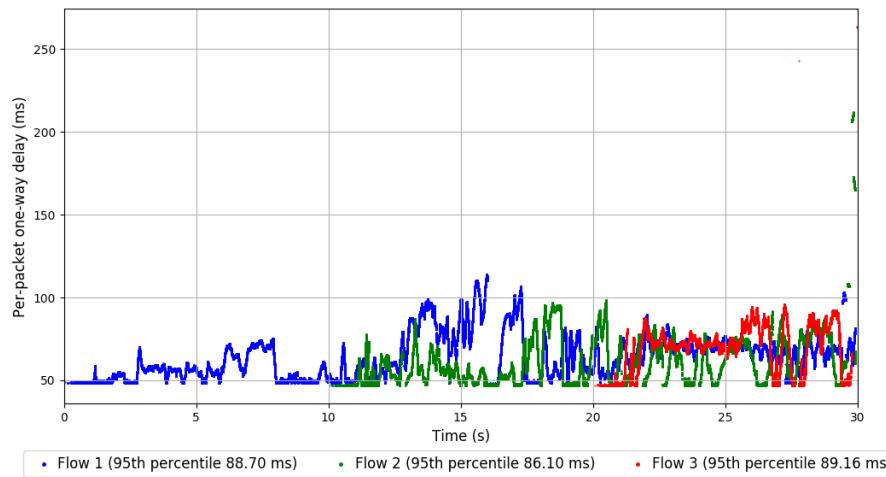
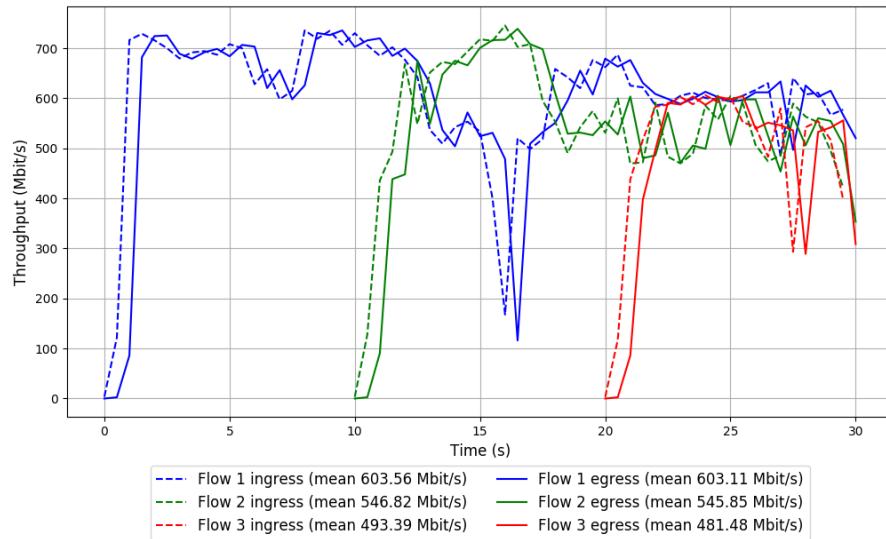


Run 3: Statistics of TCP BBR

```
Start at: 2018-10-26 22:39:03
End at: 2018-10-26 22:39:33
Local clock offset: -0.557 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-10-27 00:40:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1123.86 Mbit/s
95th percentile per-packet one-way delay: 88.297 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 603.11 Mbit/s
95th percentile per-packet one-way delay: 88.705 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 545.85 Mbit/s
95th percentile per-packet one-way delay: 86.098 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 481.48 Mbit/s
95th percentile per-packet one-way delay: 89.161 ms
Loss rate: 1.47%
```

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

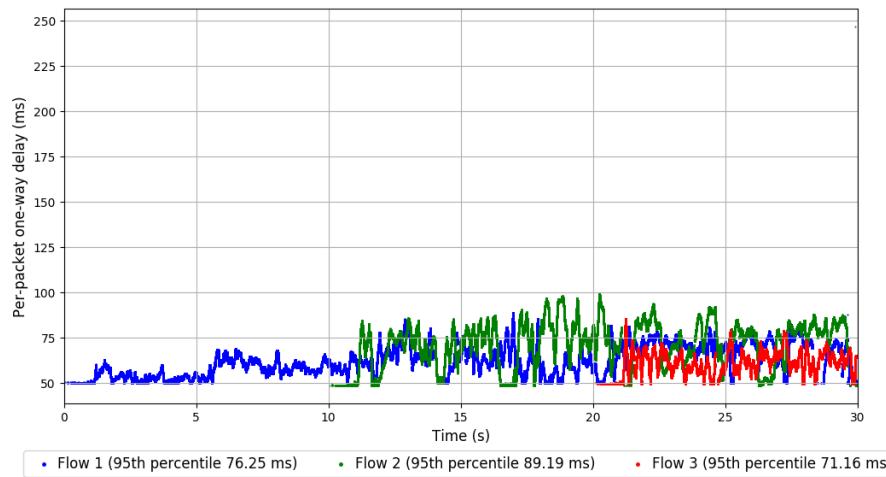
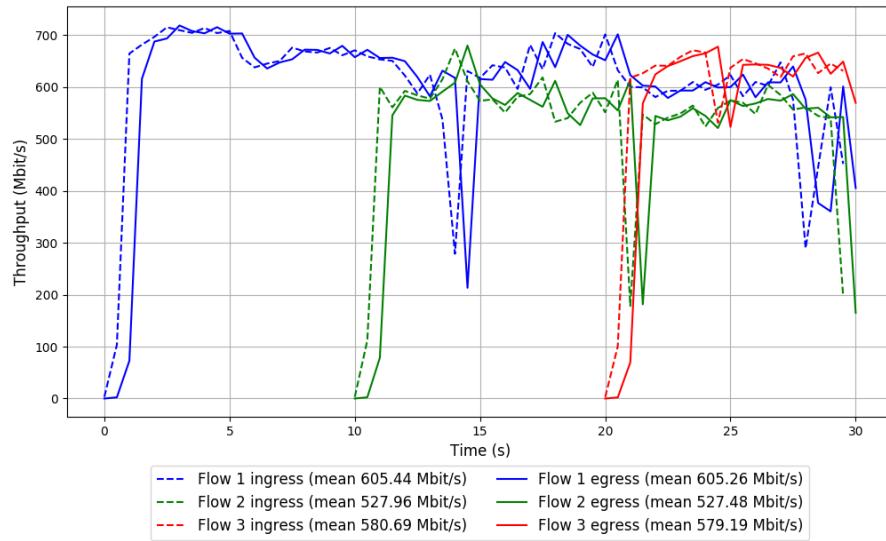


Run 4: Statistics of TCP BBR

```
Start at: 2018-10-26 23:10:09
End at: 2018-10-26 23:10:39
Local clock offset: -0.182 ms
Remote clock offset: -0.26 ms

# Below is generated by plot.py at 2018-10-27 00:41:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1147.41 Mbit/s
95th percentile per-packet one-way delay: 83.054 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 605.26 Mbit/s
95th percentile per-packet one-way delay: 76.246 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 527.48 Mbit/s
95th percentile per-packet one-way delay: 89.195 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 579.19 Mbit/s
95th percentile per-packet one-way delay: 71.158 ms
Loss rate: 1.23%
```

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

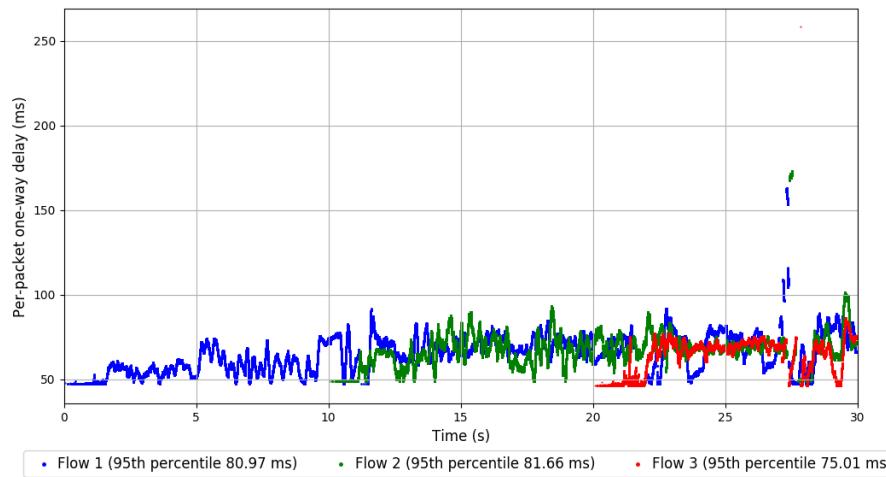
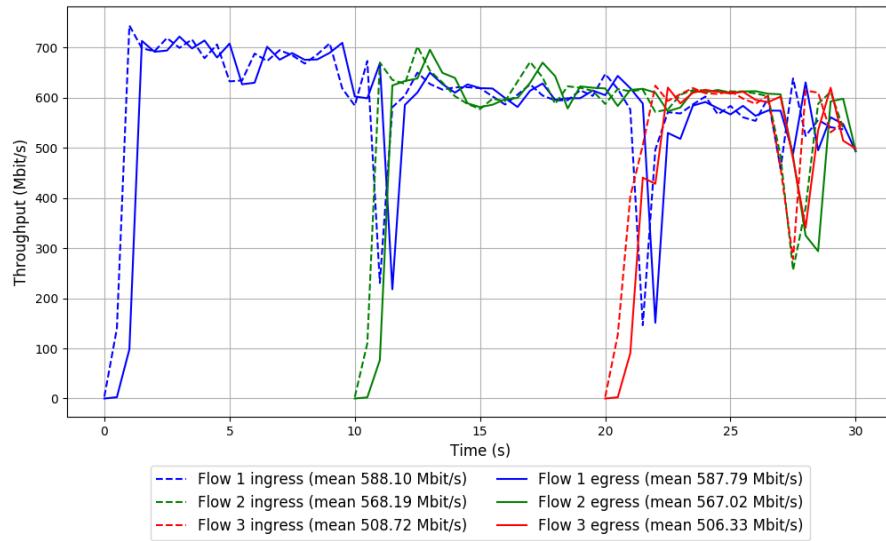


Run 5: Statistics of TCP BBR

```
Start at: 2018-10-26 23:41:22
End at: 2018-10-26 23:41:52
Local clock offset: -0.074 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2018-10-27 00:41:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1132.15 Mbit/s
95th percentile per-packet one-way delay: 80.686 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 587.79 Mbit/s
95th percentile per-packet one-way delay: 80.965 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 567.02 Mbit/s
95th percentile per-packet one-way delay: 81.664 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 506.33 Mbit/s
95th percentile per-packet one-way delay: 75.007 ms
Loss rate: 1.39%
```

Run 5: Report of TCP BBR — Data Link

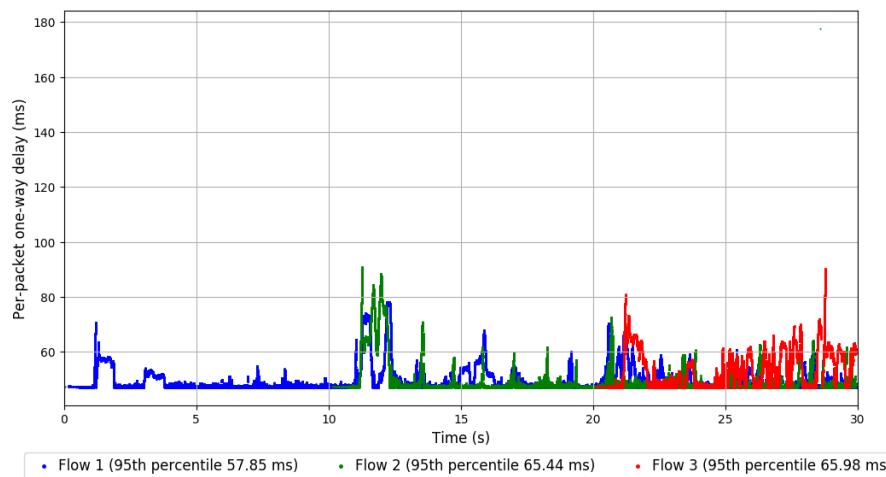
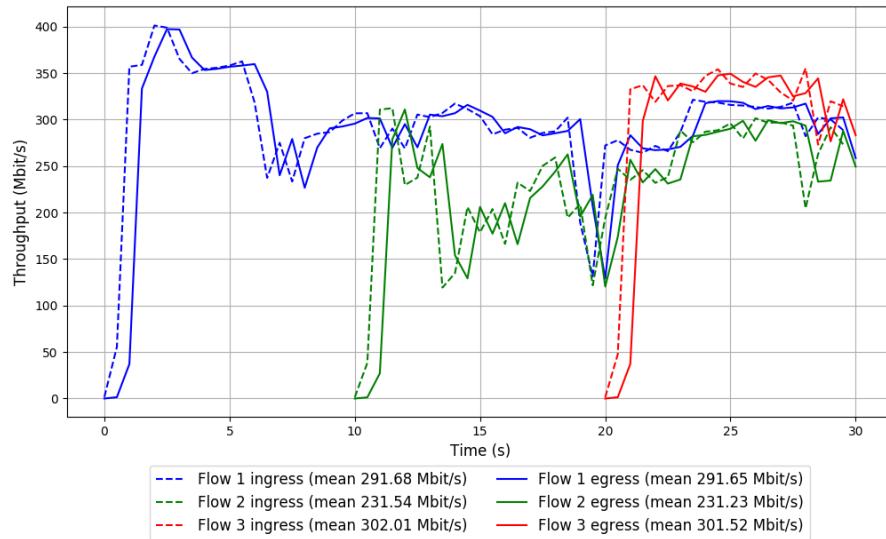


Run 1: Statistics of Copa

```
Start at: 2018-10-26 21:44:56
End at: 2018-10-26 21:45:26
Local clock offset: -0.055 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-10-27 00:41:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 545.06 Mbit/s
95th percentile per-packet one-way delay: 63.581 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 291.65 Mbit/s
95th percentile per-packet one-way delay: 57.846 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 231.23 Mbit/s
95th percentile per-packet one-way delay: 65.437 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 301.52 Mbit/s
95th percentile per-packet one-way delay: 65.976 ms
Loss rate: 1.11%
```

## Run 1: Report of Copa — Data Link

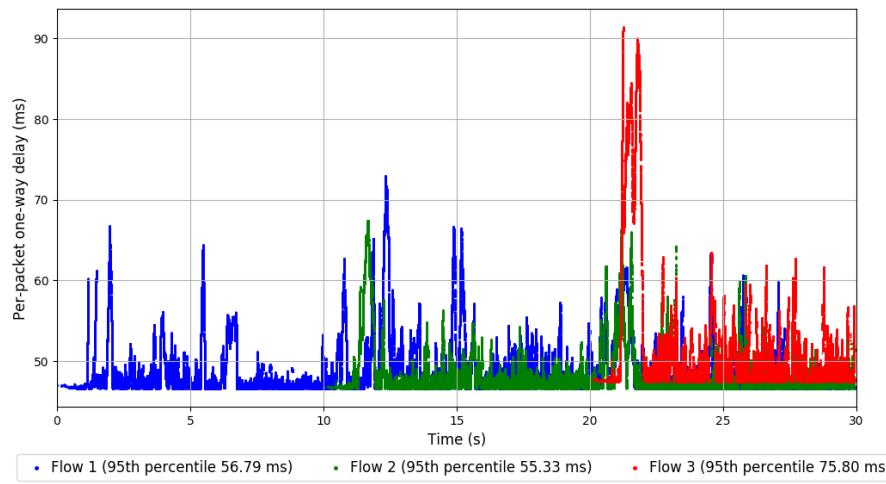
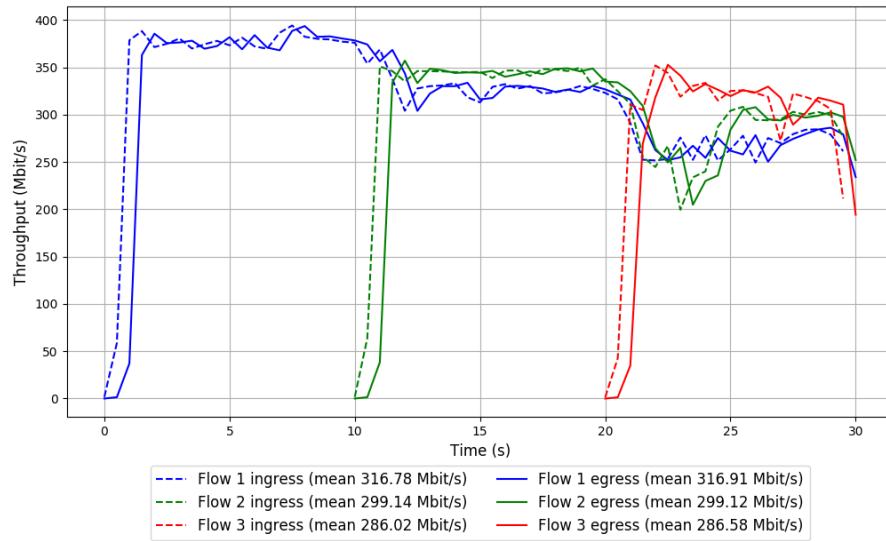


Run 2: Statistics of Copa

```
Start at: 2018-10-26 22:16:11
End at: 2018-10-26 22:16:41
Local clock offset: 0.173 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-10-27 00:41:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 610.40 Mbit/s
95th percentile per-packet one-way delay: 57.802 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 316.91 Mbit/s
95th percentile per-packet one-way delay: 56.792 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 299.12 Mbit/s
95th percentile per-packet one-way delay: 55.331 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 286.58 Mbit/s
95th percentile per-packet one-way delay: 75.797 ms
Loss rate: 0.78%
```

## Run 2: Report of Copa — Data Link

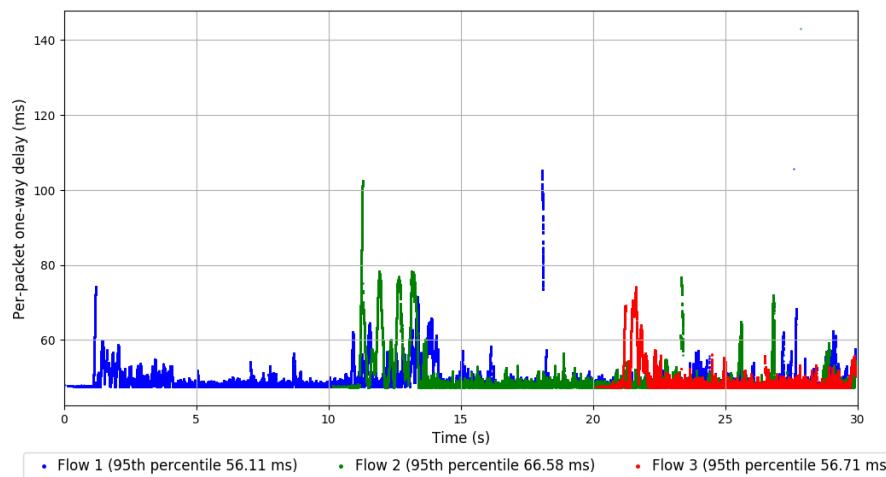
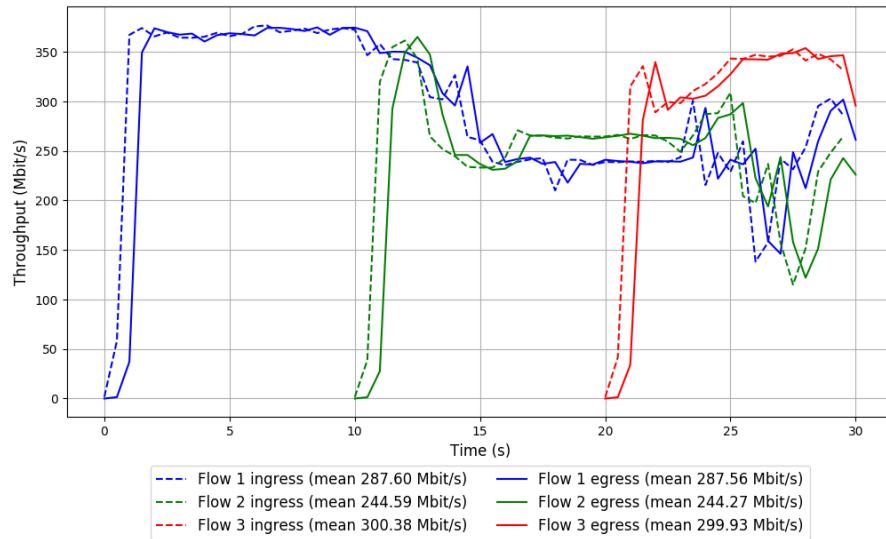


Run 3: Statistics of Copa

```
Start at: 2018-10-26 22:47:28
End at: 2018-10-26 22:47:58
Local clock offset: 0.182 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-10-27 00:41:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.97 Mbit/s
95th percentile per-packet one-way delay: 58.032 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 287.56 Mbit/s
95th percentile per-packet one-way delay: 56.108 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 244.27 Mbit/s
95th percentile per-packet one-way delay: 66.580 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 299.93 Mbit/s
95th percentile per-packet one-way delay: 56.714 ms
Loss rate: 1.10%
```

### Run 3: Report of Copa — Data Link

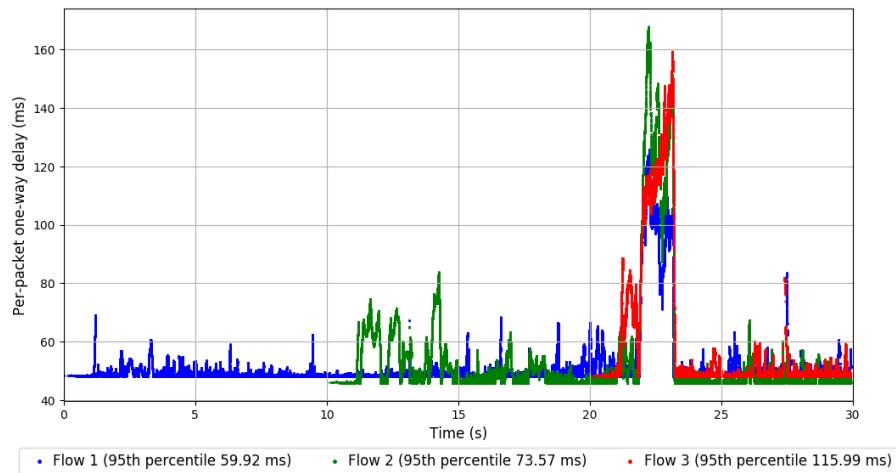
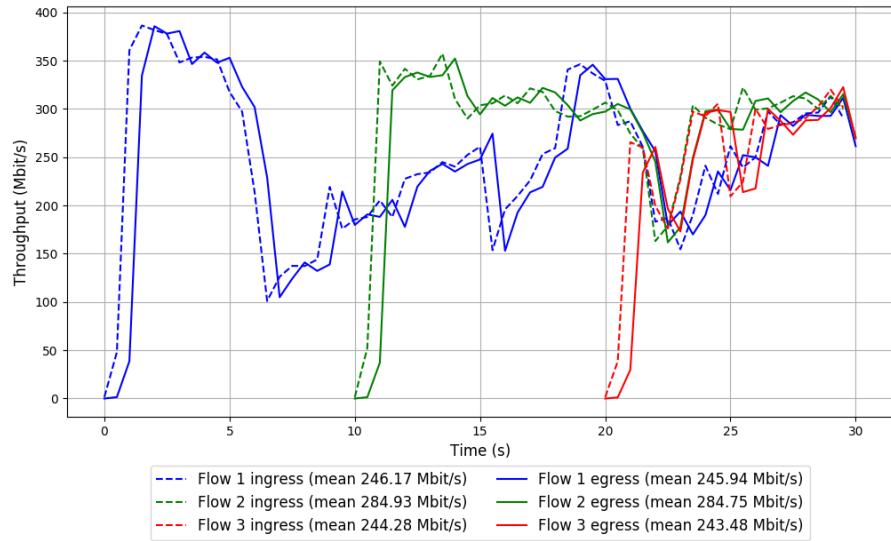


Run 4: Statistics of Copa

```
Start at: 2018-10-26 23:18:41
End at: 2018-10-26 23:19:11
Local clock offset: -0.468 ms
Remote clock offset: -0.248 ms

# Below is generated by plot.py at 2018-10-27 00:54:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 515.56 Mbit/s
95th percentile per-packet one-way delay: 77.906 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 245.94 Mbit/s
95th percentile per-packet one-way delay: 59.920 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 284.75 Mbit/s
95th percentile per-packet one-way delay: 73.570 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 243.48 Mbit/s
95th percentile per-packet one-way delay: 115.986 ms
Loss rate: 1.30%
```

## Run 4: Report of Copa — Data Link

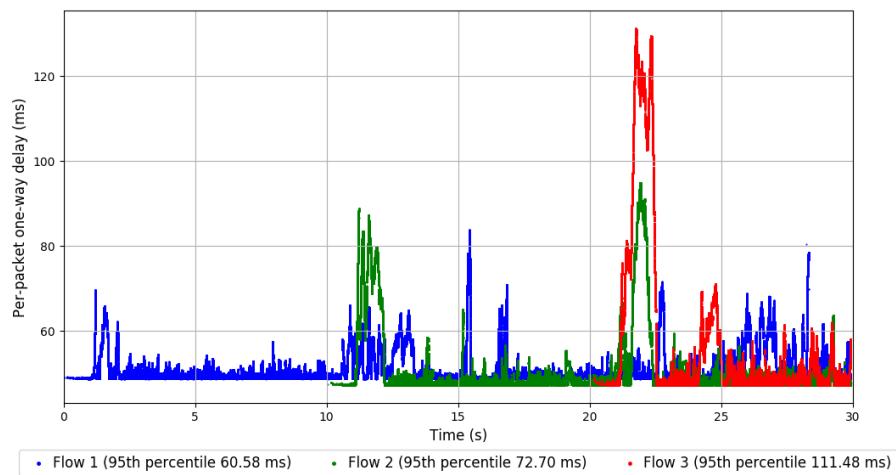
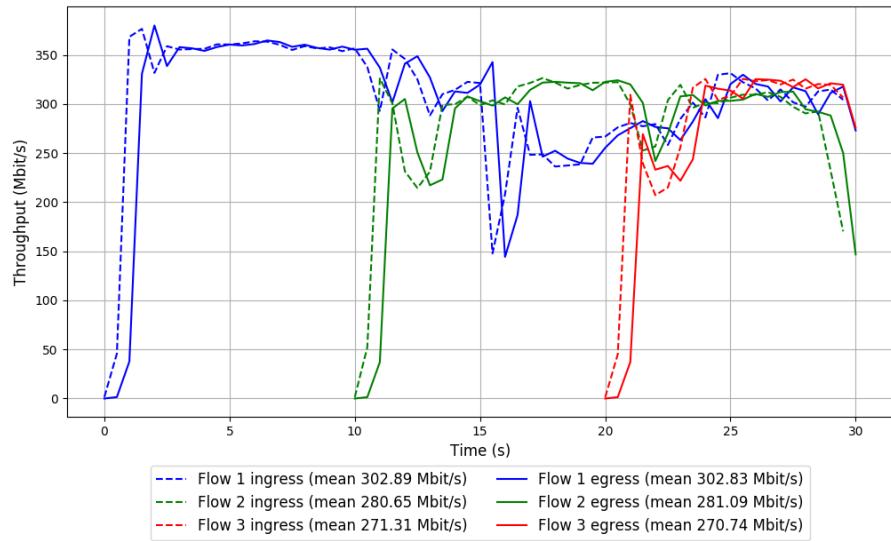


Run 5: Statistics of Copa

```
Start at: 2018-10-26 23:49:49
End at: 2018-10-26 23:50:19
Local clock offset: -0.048 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2018-10-27 00:56:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 579.26 Mbit/s
95th percentile per-packet one-way delay: 66.215 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 302.83 Mbit/s
95th percentile per-packet one-way delay: 60.575 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 281.09 Mbit/s
95th percentile per-packet one-way delay: 72.698 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 270.74 Mbit/s
95th percentile per-packet one-way delay: 111.484 ms
Loss rate: 1.16%
```

## Run 5: Report of Copa — Data Link

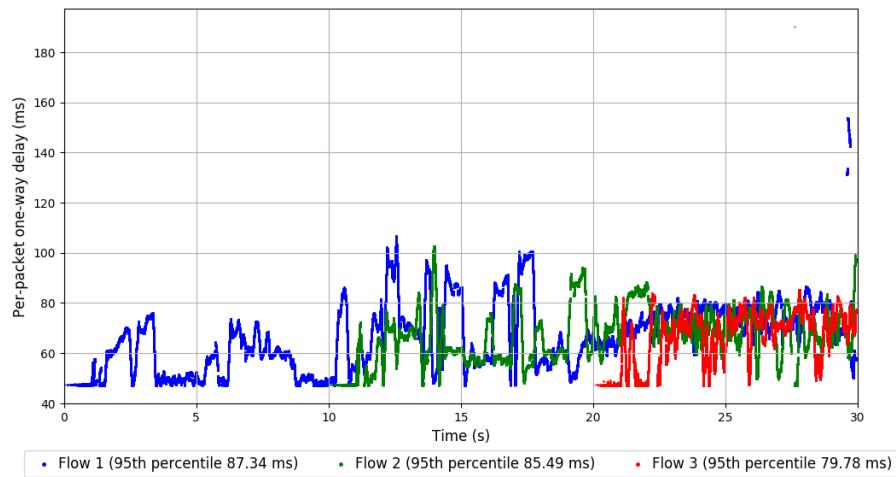
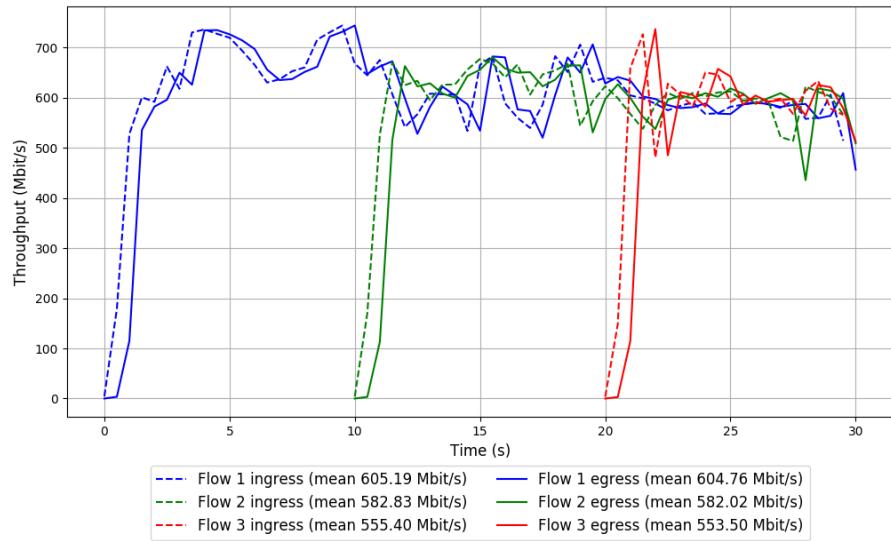


Run 1: Statistics of TCP Cubic

```
Start at: 2018-10-26 21:48:14
End at: 2018-10-26 21:48:44
Local clock offset: -0.106 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-10-27 00:59:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1174.61 Mbit/s
95th percentile per-packet one-way delay: 85.190 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 604.76 Mbit/s
95th percentile per-packet one-way delay: 87.338 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 582.02 Mbit/s
95th percentile per-packet one-way delay: 85.486 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 553.50 Mbit/s
95th percentile per-packet one-way delay: 79.784 ms
Loss rate: 1.29%
```

Run 1: Report of TCP Cubic — Data Link

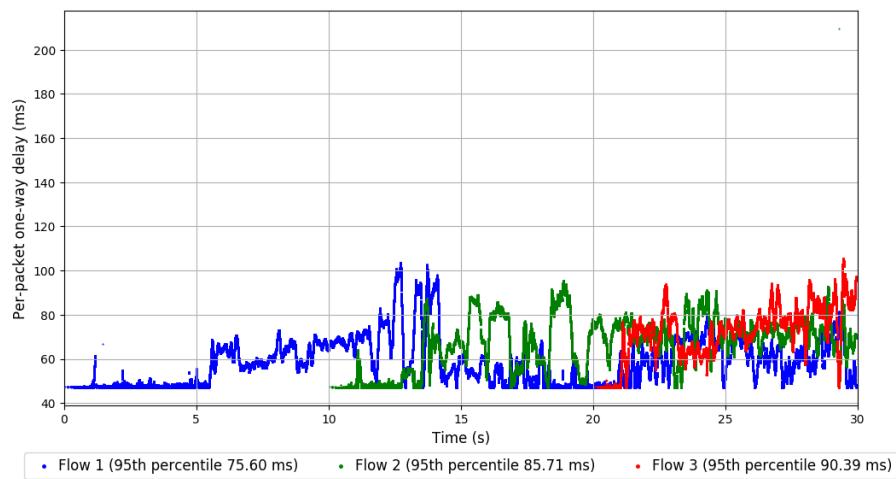
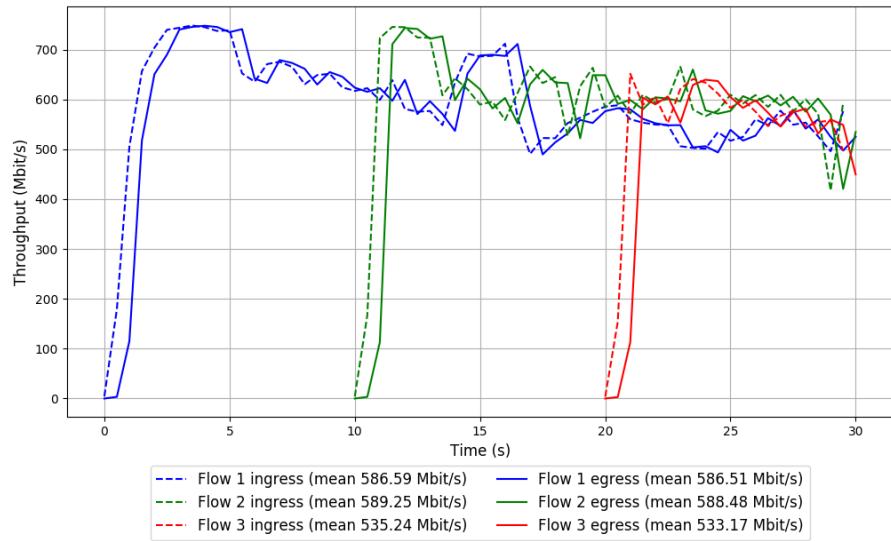


Run 2: Statistics of TCP Cubic

```
Start at: 2018-10-26 22:19:32
End at: 2018-10-26 22:20:02
Local clock offset: -0.167 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-10-27 00:59:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1154.03 Mbit/s
95th percentile per-packet one-way delay: 85.637 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 586.51 Mbit/s
95th percentile per-packet one-way delay: 75.598 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 588.48 Mbit/s
95th percentile per-packet one-way delay: 85.714 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 533.17 Mbit/s
95th percentile per-packet one-way delay: 90.393 ms
Loss rate: 1.33%
```

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

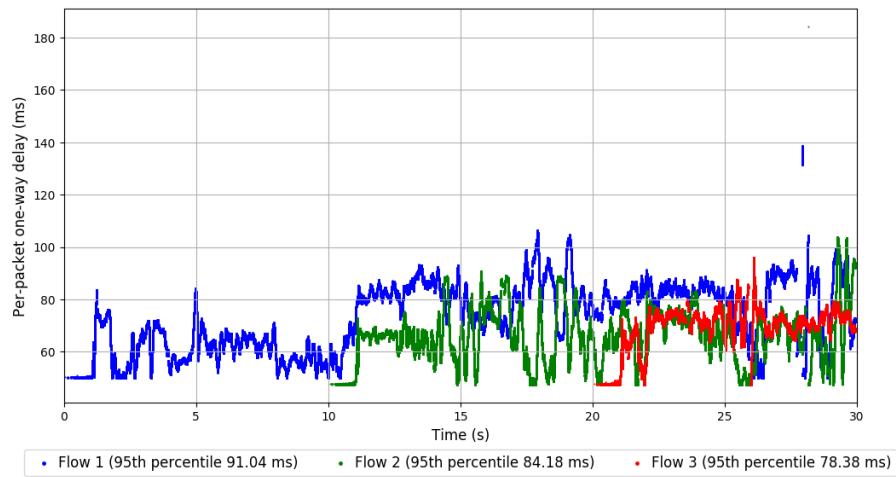
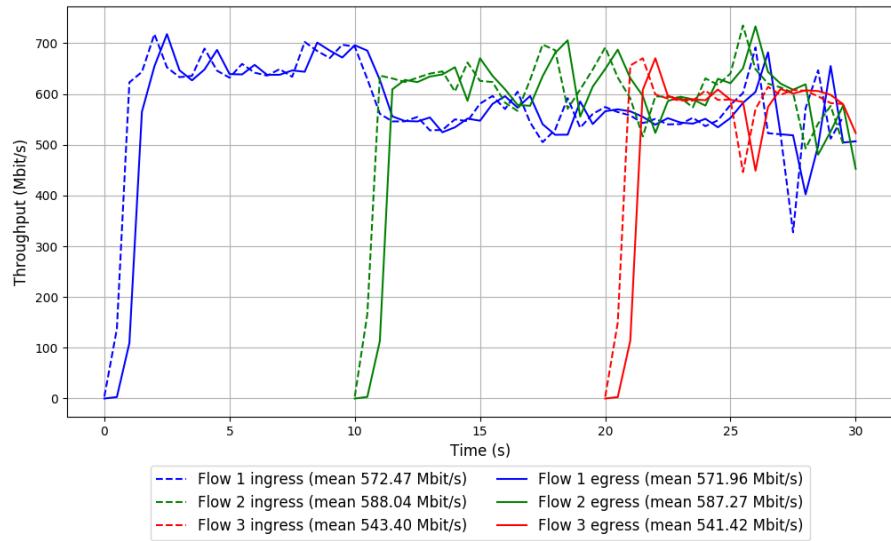


```
Run 3: Statistics of TCP Cubic
```

```
Start at: 2018-10-26 22:50:46
End at: 2018-10-26 22:51:16
Local clock offset: 0.165 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-10-27 00:59:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1141.40 Mbit/s
95th percentile per-packet one-way delay: 88.613 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 571.96 Mbit/s
95th percentile per-packet one-way delay: 91.043 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 587.27 Mbit/s
95th percentile per-packet one-way delay: 84.176 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 541.42 Mbit/s
95th percentile per-packet one-way delay: 78.381 ms
Loss rate: 1.31%
```

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

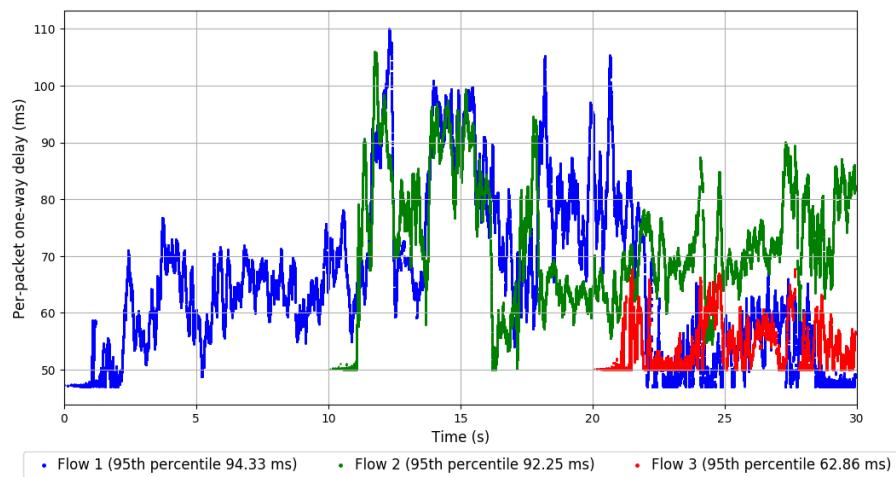
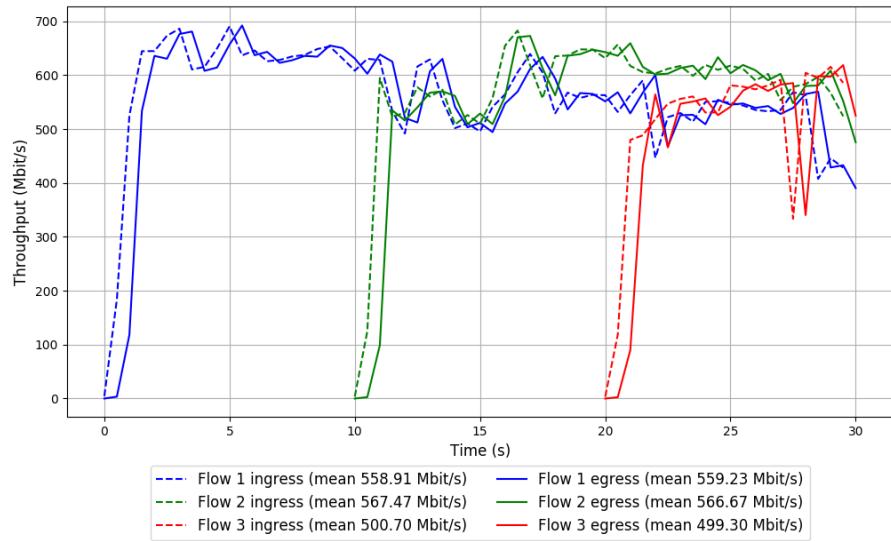


Run 4: Statistics of TCP Cubic

```
Start at: 2018-10-26 23:22:01
End at: 2018-10-26 23:22:31
Local clock offset: -0.084 ms
Remote clock offset: -0.275 ms

# Below is generated by plot.py at 2018-10-27 00:59:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1100.80 Mbit/s
95th percentile per-packet one-way delay: 92.106 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 559.23 Mbit/s
95th percentile per-packet one-way delay: 94.331 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 566.67 Mbit/s
95th percentile per-packet one-way delay: 92.255 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 499.30 Mbit/s
95th percentile per-packet one-way delay: 62.862 ms
Loss rate: 1.25%
```

Run 4: Report of TCP Cubic — Data Link

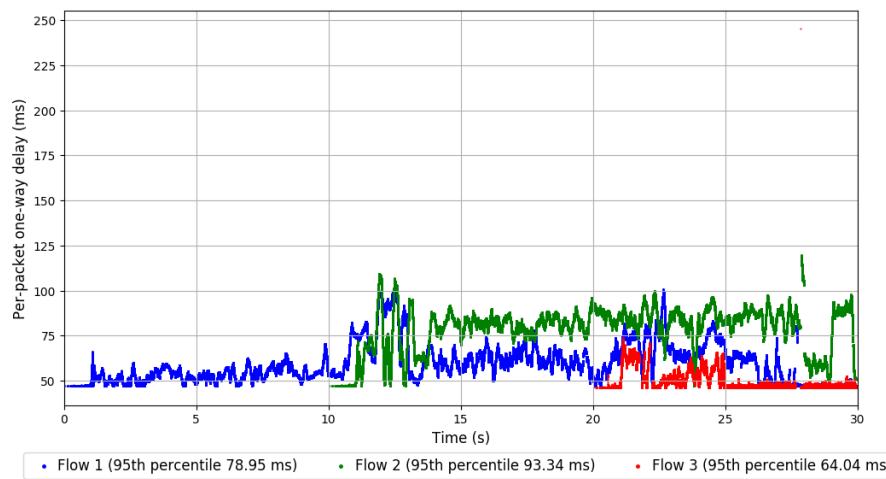
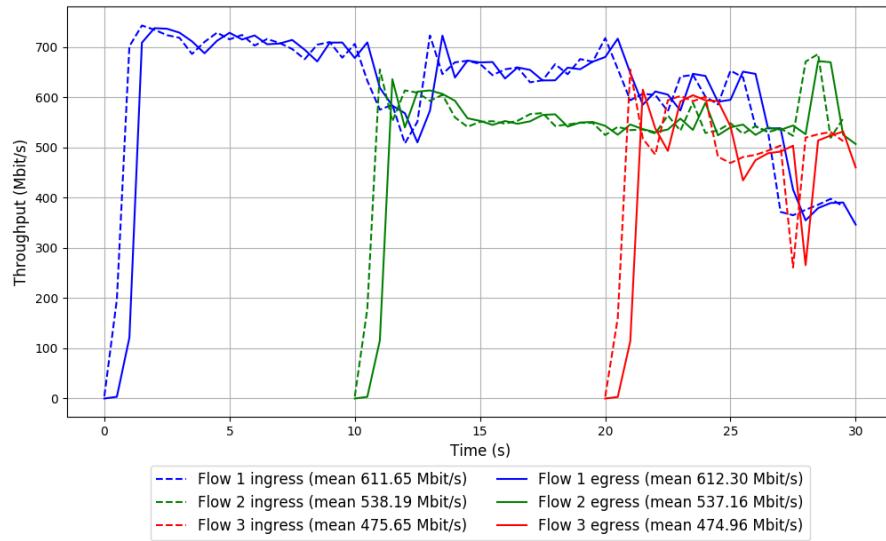


Run 5: Statistics of TCP Cubic

```
Start at: 2018-10-26 23:53:10
End at: 2018-10-26 23:53:40
Local clock offset: -0.083 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-10-27 00:59:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1126.49 Mbit/s
95th percentile per-packet one-way delay: 89.730 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 612.30 Mbit/s
95th percentile per-packet one-way delay: 78.946 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 537.16 Mbit/s
95th percentile per-packet one-way delay: 93.339 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 474.96 Mbit/s
95th percentile per-packet one-way delay: 64.037 ms
Loss rate: 1.07%
```

Run 5: Report of TCP Cubic — Data Link

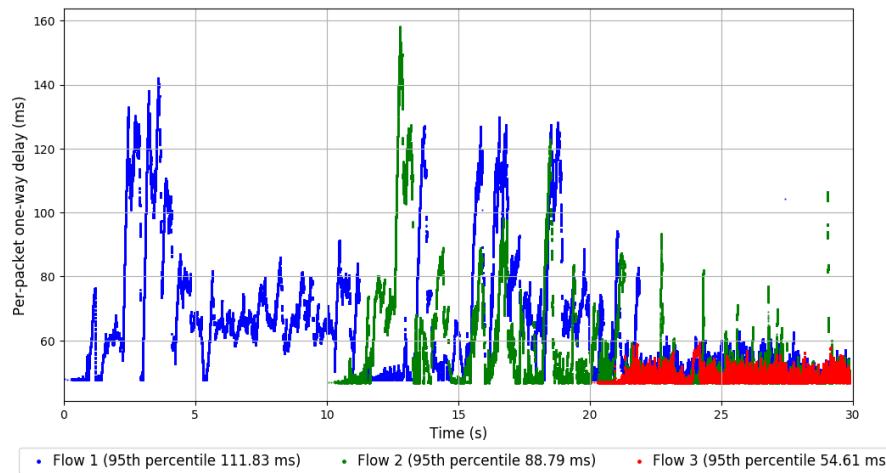
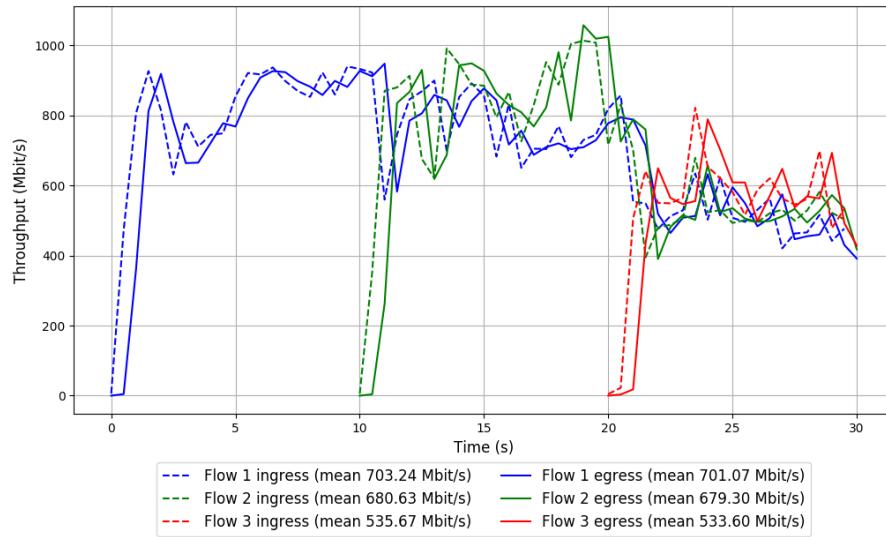


```
Run 1: Statistics of FillP

Start at: 2018-10-26 21:34:31
End at: 2018-10-26 21:35:01
Local clock offset: 0.281 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-10-27 01:08:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1327.97 Mbit/s
95th percentile per-packet one-way delay: 105.983 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 701.07 Mbit/s
95th percentile per-packet one-way delay: 111.835 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 679.30 Mbit/s
95th percentile per-packet one-way delay: 88.787 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 533.60 Mbit/s
95th percentile per-packet one-way delay: 54.609 ms
Loss rate: 1.34%
```

## Run 1: Report of FillP — Data Link

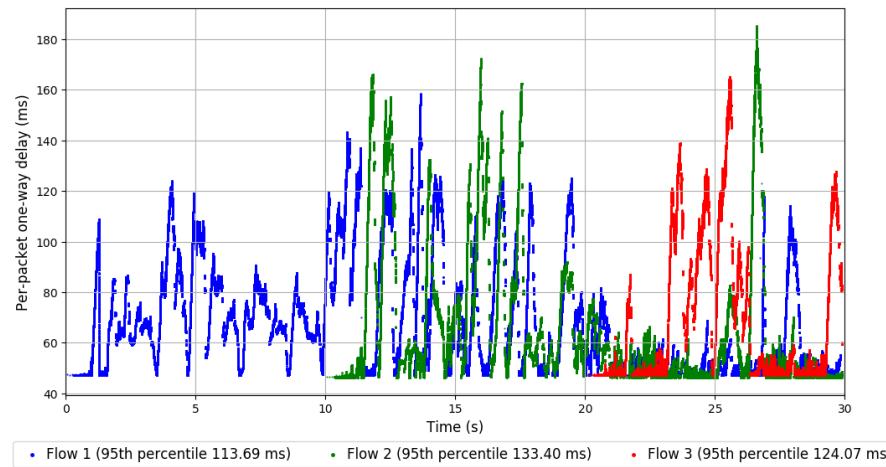
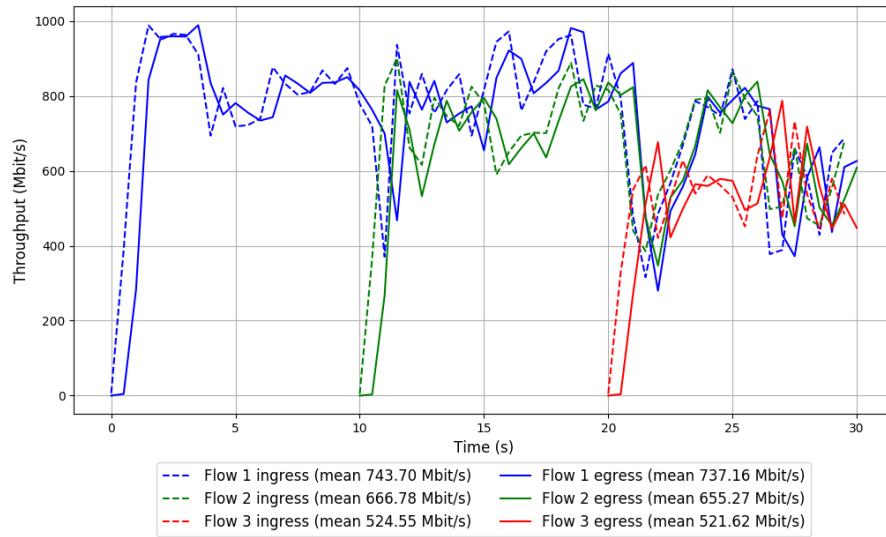


Run 2: Statistics of FillP

```
Start at: 2018-10-26 22:05:44
End at: 2018-10-26 22:06:14
Local clock offset: -0.152 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-10-27 01:24:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1344.09 Mbit/s
95th percentile per-packet one-way delay: 118.172 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 737.16 Mbit/s
95th percentile per-packet one-way delay: 113.695 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 655.27 Mbit/s
95th percentile per-packet one-way delay: 133.398 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 521.62 Mbit/s
95th percentile per-packet one-way delay: 124.074 ms
Loss rate: 1.53%
```

## Run 2: Report of FillP — Data Link

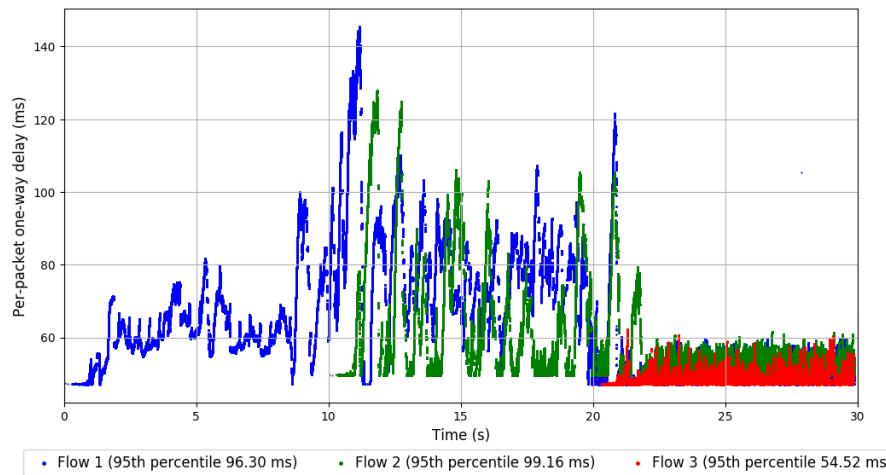
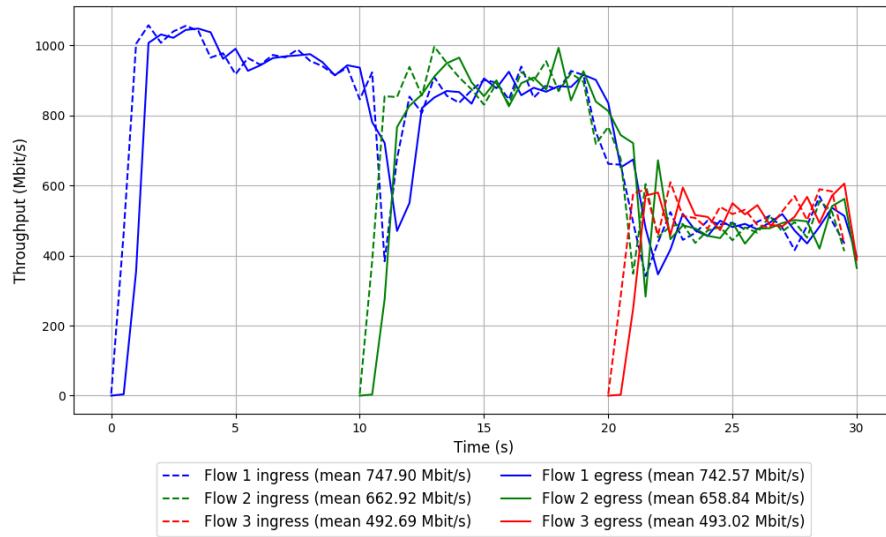


Run 3: Statistics of FillP

```
Start at: 2018-10-26 22:36:58
End at: 2018-10-26 22:37:28
Local clock offset: -0.229 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-10-27 01:26:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1342.47 Mbit/s
95th percentile per-packet one-way delay: 95.849 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 742.57 Mbit/s
95th percentile per-packet one-way delay: 96.300 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 658.84 Mbit/s
95th percentile per-packet one-way delay: 99.156 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 493.02 Mbit/s
95th percentile per-packet one-way delay: 54.521 ms
Loss rate: 1.09%
```

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

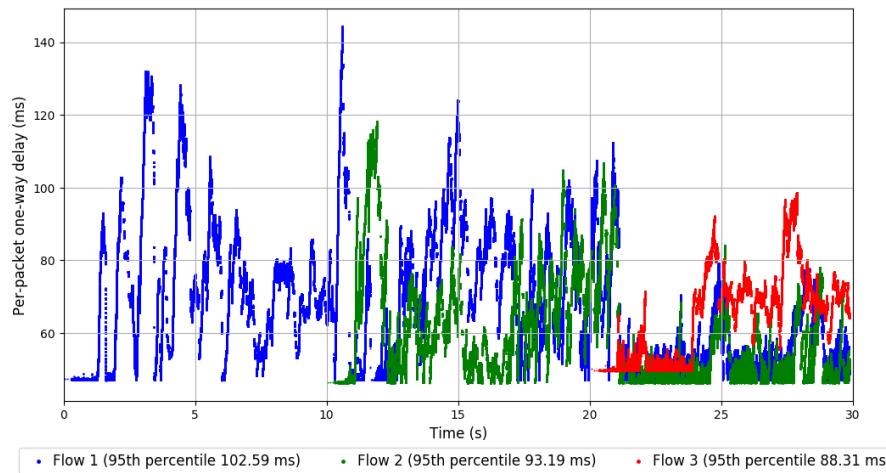
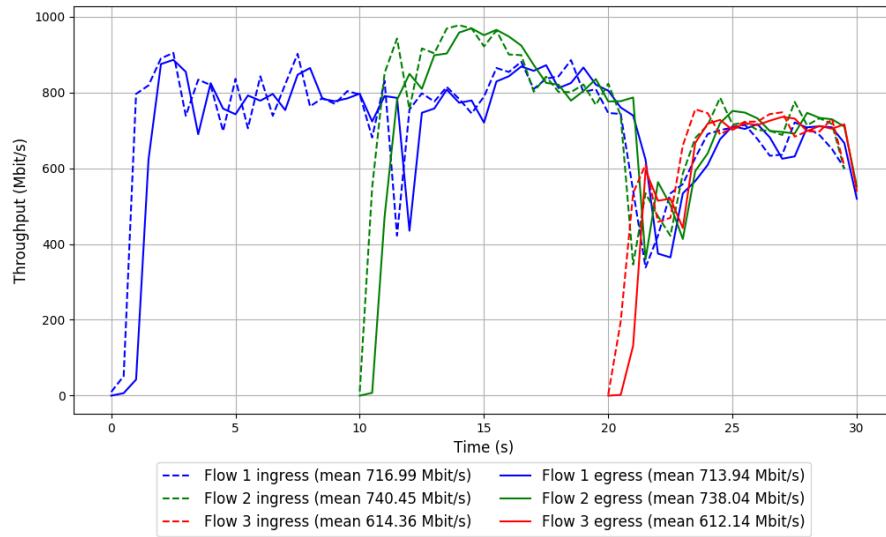


Run 4: Statistics of FillP

```
Start at: 2018-10-26 23:08:02
End at: 2018-10-26 23:08:32
Local clock offset: -0.133 ms
Remote clock offset: -0.225 ms

# Below is generated by plot.py at 2018-10-27 01:29:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1405.82 Mbit/s
95th percentile per-packet one-way delay: 97.123 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 713.94 Mbit/s
95th percentile per-packet one-way delay: 102.591 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 738.04 Mbit/s
95th percentile per-packet one-way delay: 93.187 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 612.14 Mbit/s
95th percentile per-packet one-way delay: 88.309 ms
Loss rate: 1.36%
```

## Run 4: Report of FillP — Data Link

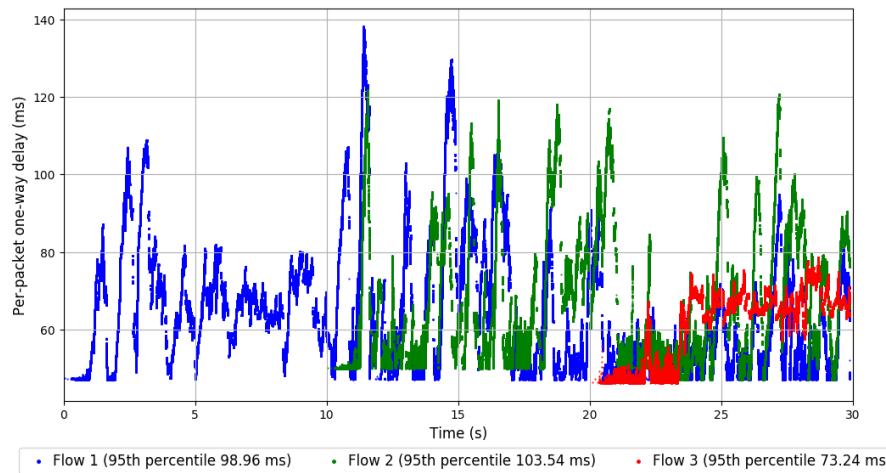
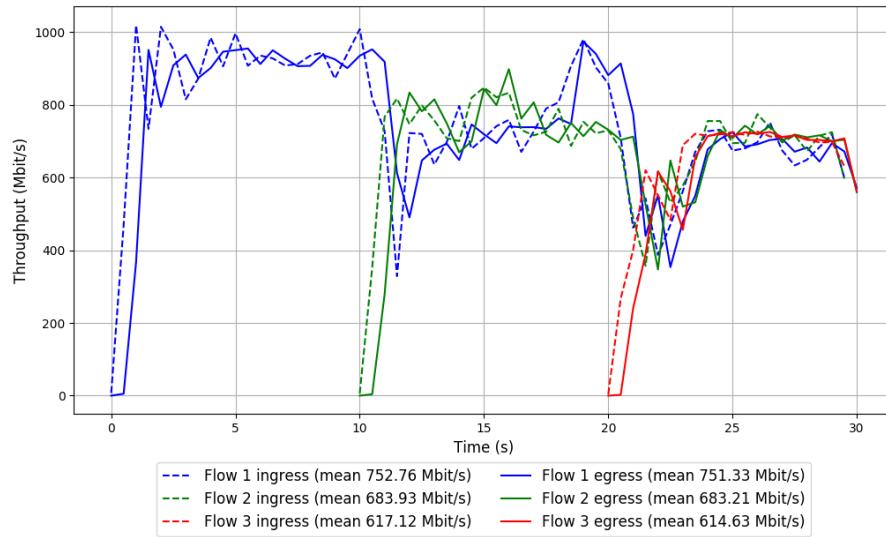


Run 5: Statistics of FillP

```
Start at: 2018-10-26 23:39:17
End at: 2018-10-26 23:39:47
Local clock offset: -0.098 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-10-27 01:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1407.12 Mbit/s
95th percentile per-packet one-way delay: 99.286 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 751.33 Mbit/s
95th percentile per-packet one-way delay: 98.961 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 683.21 Mbit/s
95th percentile per-packet one-way delay: 103.544 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 614.63 Mbit/s
95th percentile per-packet one-way delay: 73.238 ms
Loss rate: 1.32%
```

## Run 5: Report of FillP — Data Link

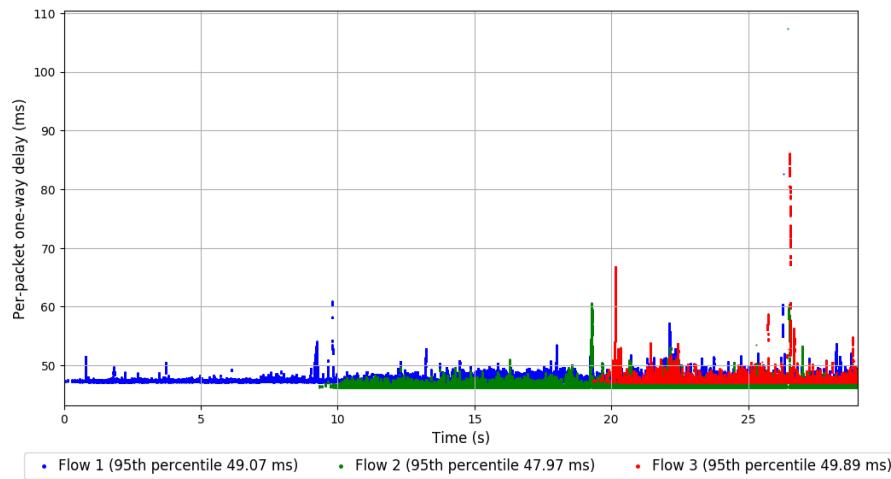
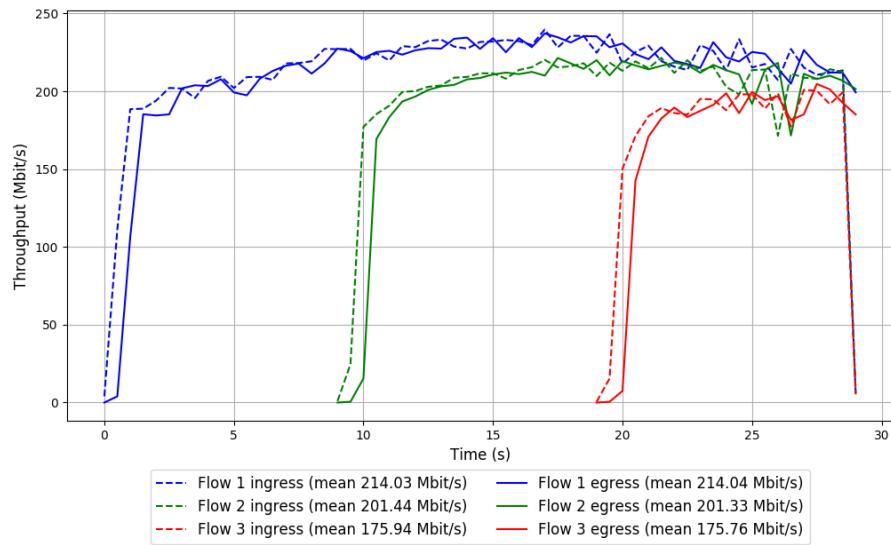


Run 1: Statistics of Indigo

```
Start at: 2018-10-26 21:40:41
End at: 2018-10-26 21:41:11
Local clock offset: -0.079 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-10-27 01:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 409.31 Mbit/s
95th percentile per-packet one-way delay: 48.949 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 214.04 Mbit/s
95th percentile per-packet one-way delay: 49.067 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 201.33 Mbit/s
95th percentile per-packet one-way delay: 47.965 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 175.76 Mbit/s
95th percentile per-packet one-way delay: 49.892 ms
Loss rate: 1.07%
```

## Run 1: Report of Indigo — Data Link

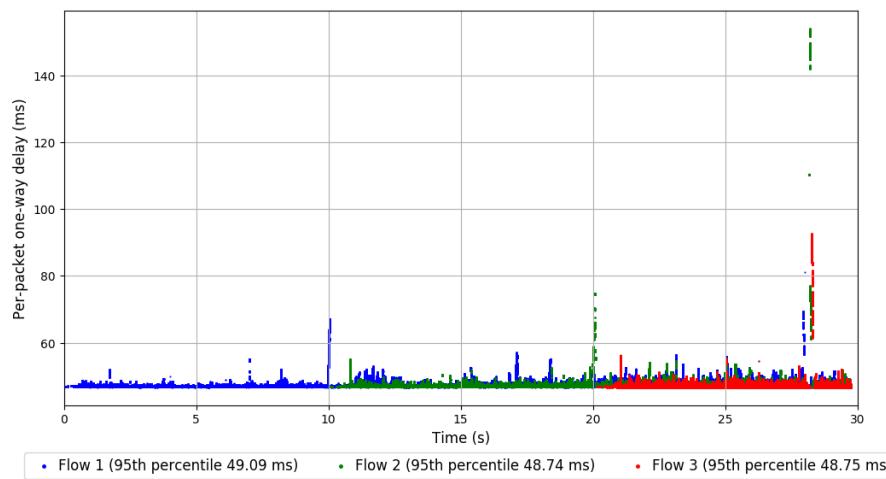
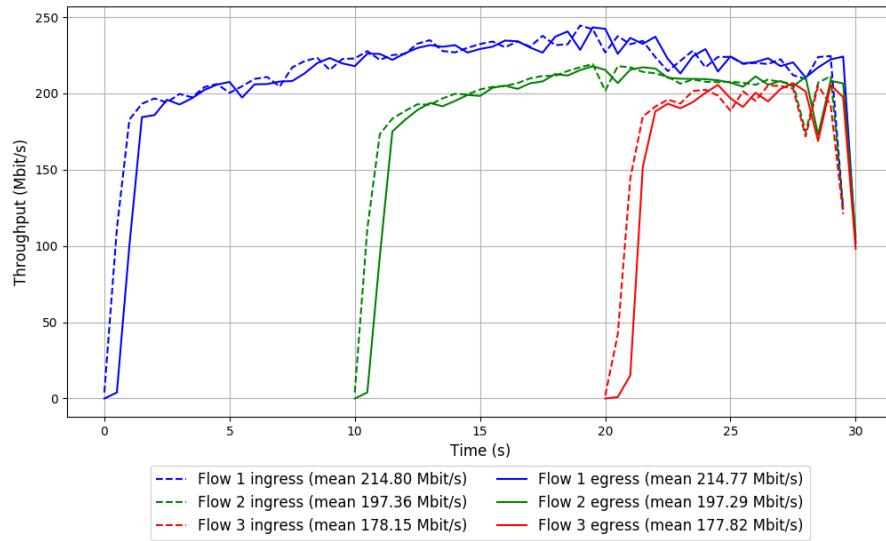


Run 2: Statistics of Indigo

```
Start at: 2018-10-26 22:11:54
End at: 2018-10-26 22:12:24
Local clock offset: -0.532 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-10-27 01:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 402.85 Mbit/s
95th percentile per-packet one-way delay: 48.933 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 214.77 Mbit/s
95th percentile per-packet one-way delay: 49.088 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 197.29 Mbit/s
95th percentile per-packet one-way delay: 48.743 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 177.82 Mbit/s
95th percentile per-packet one-way delay: 48.747 ms
Loss rate: 1.18%
```

## Run 2: Report of Indigo — Data Link

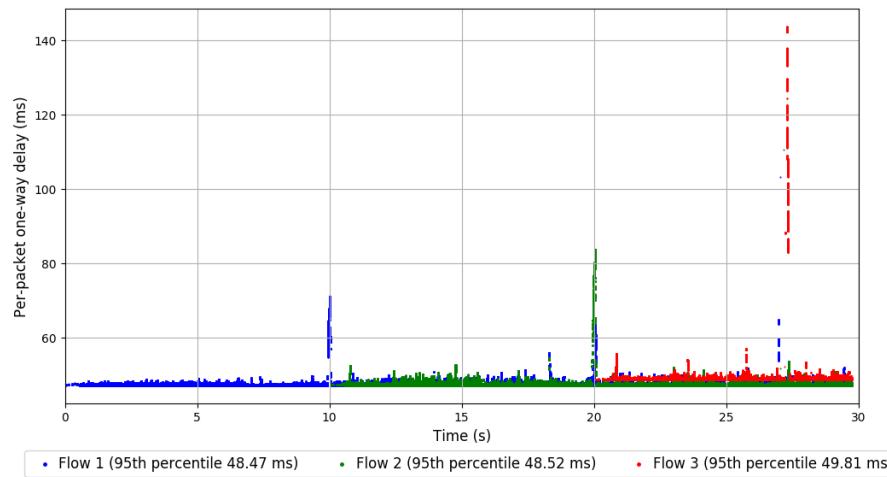
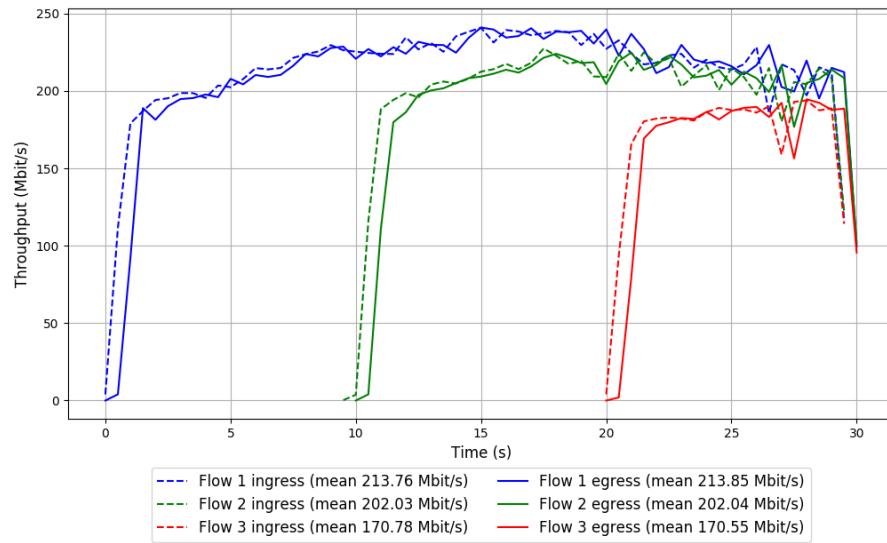


Run 3: Statistics of Indigo

```
Start at: 2018-10-26 22:43:12
End at: 2018-10-26 22:43:42
Local clock offset: -0.189 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-10-27 01:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 403.46 Mbit/s
95th percentile per-packet one-way delay: 48.937 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 213.85 Mbit/s
95th percentile per-packet one-way delay: 48.470 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 202.04 Mbit/s
95th percentile per-packet one-way delay: 48.516 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 170.55 Mbit/s
95th percentile per-packet one-way delay: 49.808 ms
Loss rate: 1.14%
```

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

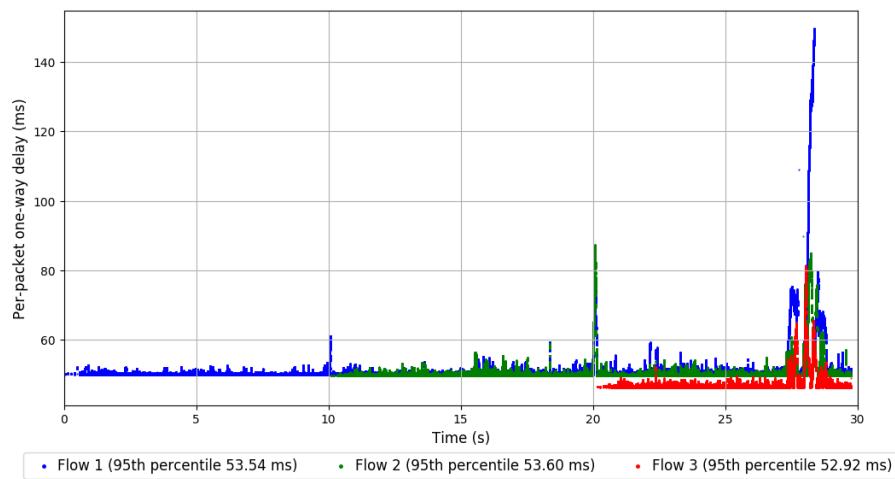
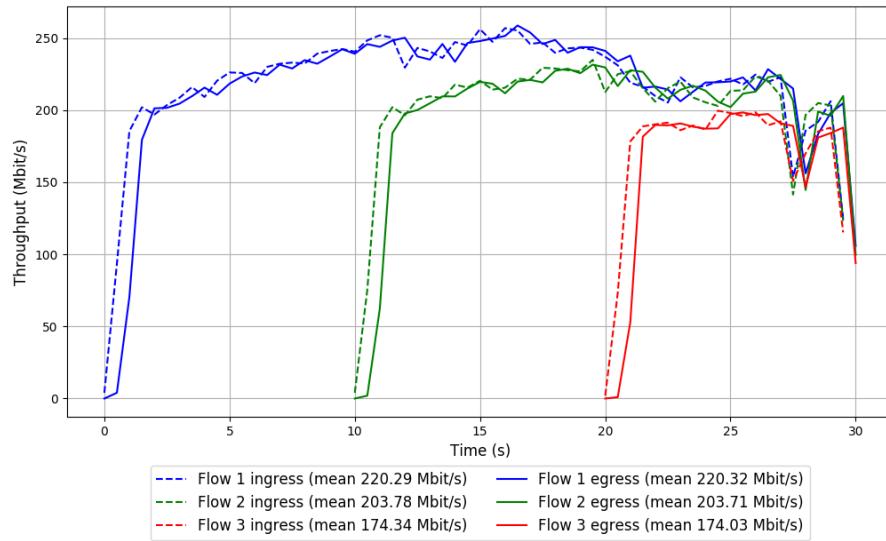


Run 4: Statistics of Indigo

```
Start at: 2018-10-26 23:14:18
End at: 2018-10-26 23:14:48
Local clock offset: -0.122 ms
Remote clock offset: -0.265 ms

# Below is generated by plot.py at 2018-10-27 01:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.20 Mbit/s
95th percentile per-packet one-way delay: 53.499 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 220.32 Mbit/s
95th percentile per-packet one-way delay: 53.544 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 203.71 Mbit/s
95th percentile per-packet one-way delay: 53.596 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 174.03 Mbit/s
95th percentile per-packet one-way delay: 52.921 ms
Loss rate: 1.11%
```

## Run 4: Report of Indigo — Data Link

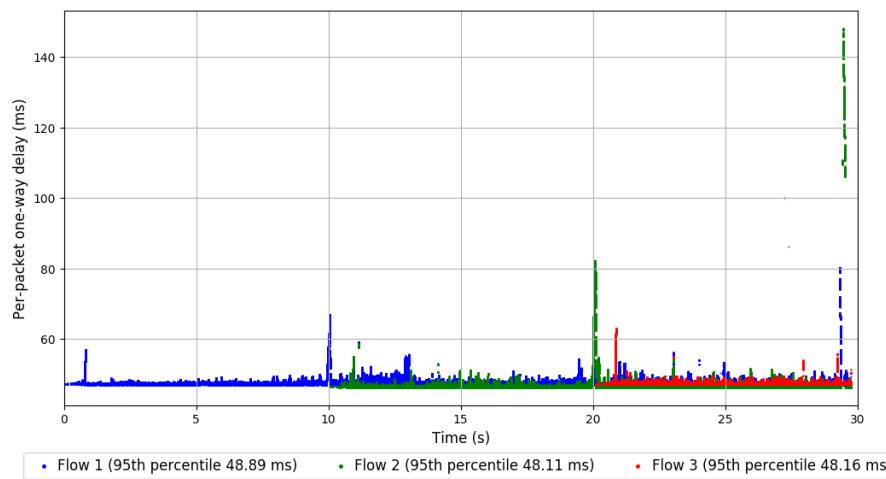
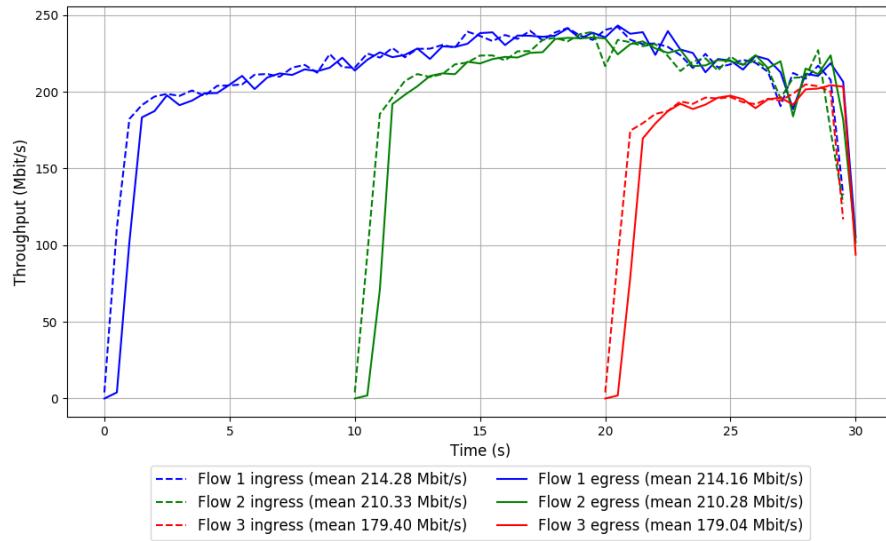


Run 5: Statistics of Indigo

```
Start at: 2018-10-26 23:45:31
End at: 2018-10-26 23:46:01
Local clock offset: -0.051 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2018-10-27 01:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.47 Mbit/s
95th percentile per-packet one-way delay: 48.588 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 214.16 Mbit/s
95th percentile per-packet one-way delay: 48.892 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 210.28 Mbit/s
95th percentile per-packet one-way delay: 48.113 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 179.04 Mbit/s
95th percentile per-packet one-way delay: 48.158 ms
Loss rate: 1.13%
```

## Run 5: Report of Indigo — Data Link

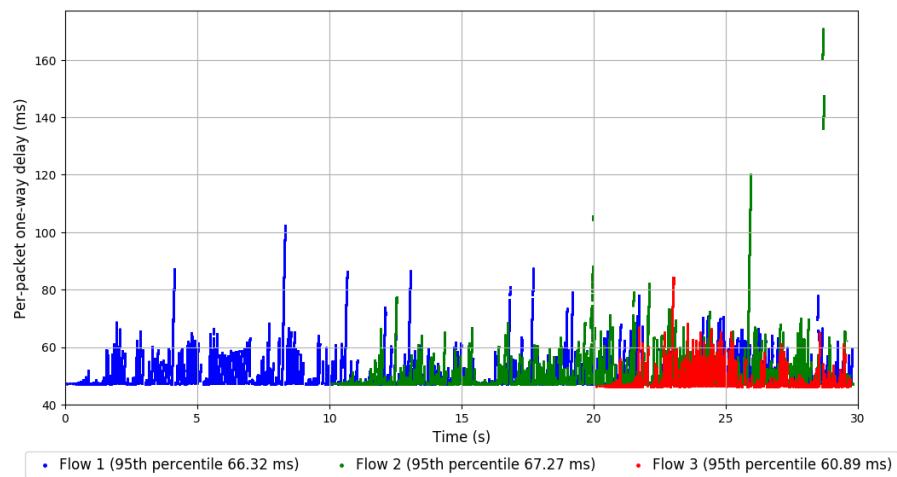
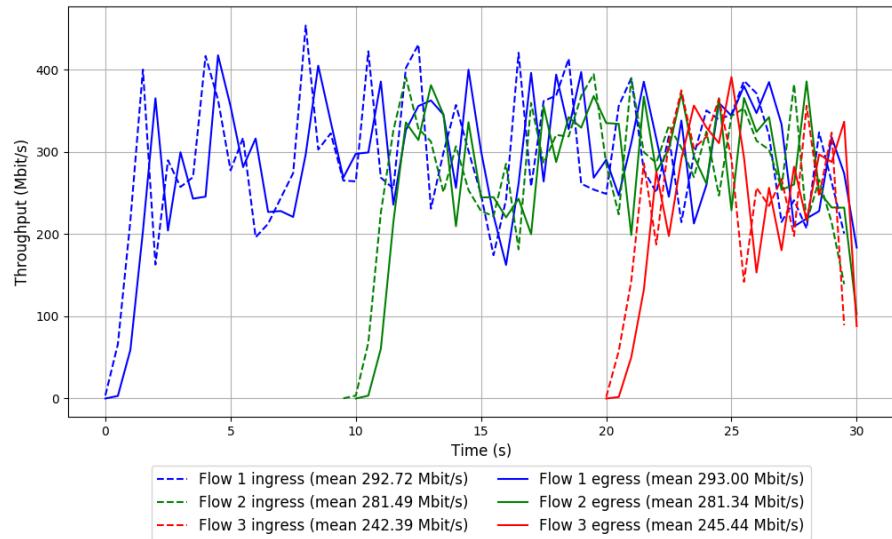


```
Run 1: Statistics of Indigo-96d2da3
```

```
Start at: 2018-10-26 21:50:21
End at: 2018-10-26 21:50:51
Local clock offset: -0.092 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-10-27 01:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.35 Mbit/s
95th percentile per-packet one-way delay: 65.738 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 293.00 Mbit/s
95th percentile per-packet one-way delay: 66.318 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 281.34 Mbit/s
95th percentile per-packet one-way delay: 67.265 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 245.44 Mbit/s
95th percentile per-packet one-way delay: 60.894 ms
Loss rate: 0.53%
```

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

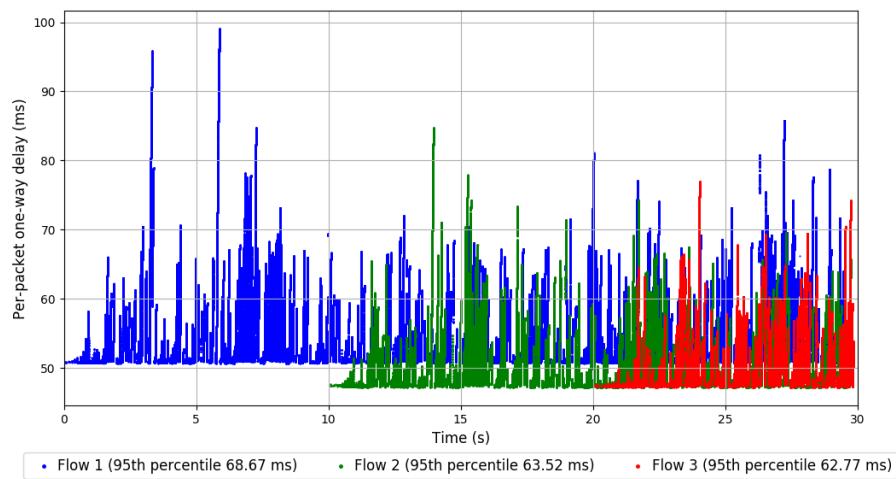
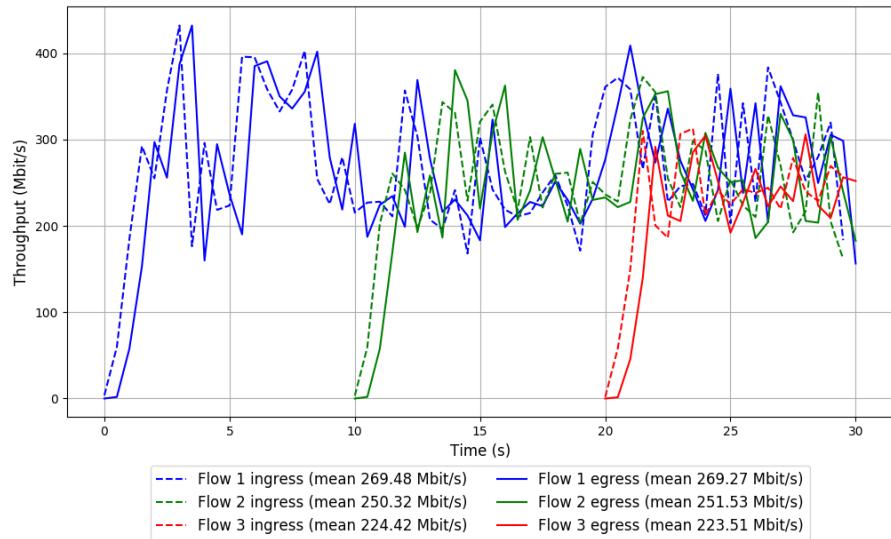


Run 2: Statistics of Indigo-96d2da3

```
Start at: 2018-10-26 22:21:38
End at: 2018-10-26 22:22:08
Local clock offset: -0.142 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-10-27 01:30:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 509.08 Mbit/s
95th percentile per-packet one-way delay: 66.677 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 269.27 Mbit/s
95th percentile per-packet one-way delay: 68.667 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 251.53 Mbit/s
95th percentile per-packet one-way delay: 63.525 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 223.51 Mbit/s
95th percentile per-packet one-way delay: 62.772 ms
Loss rate: 1.24%
```

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

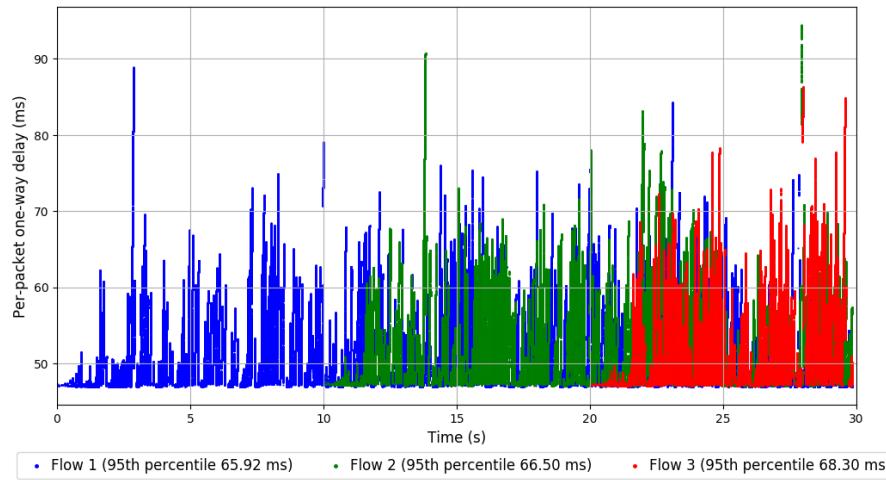
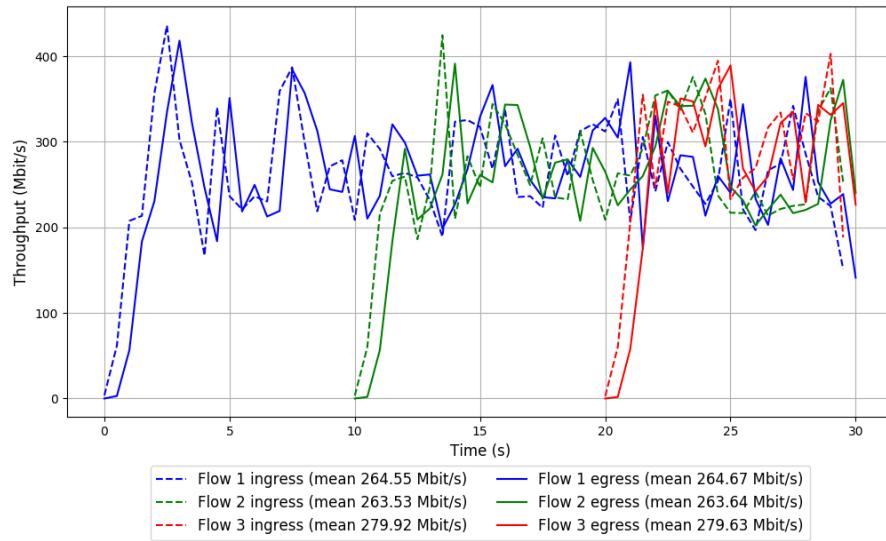


Run 3: Statistics of Indigo-96d2da3

```
Start at: 2018-10-26 22:52:51
End at: 2018-10-26 22:53:21
Local clock offset: -0.207 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-10-27 01:32:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 531.19 Mbit/s
95th percentile per-packet one-way delay: 66.590 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 264.67 Mbit/s
95th percentile per-packet one-way delay: 65.922 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 263.64 Mbit/s
95th percentile per-packet one-way delay: 66.497 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 279.63 Mbit/s
95th percentile per-packet one-way delay: 68.296 ms
Loss rate: 1.08%
```

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

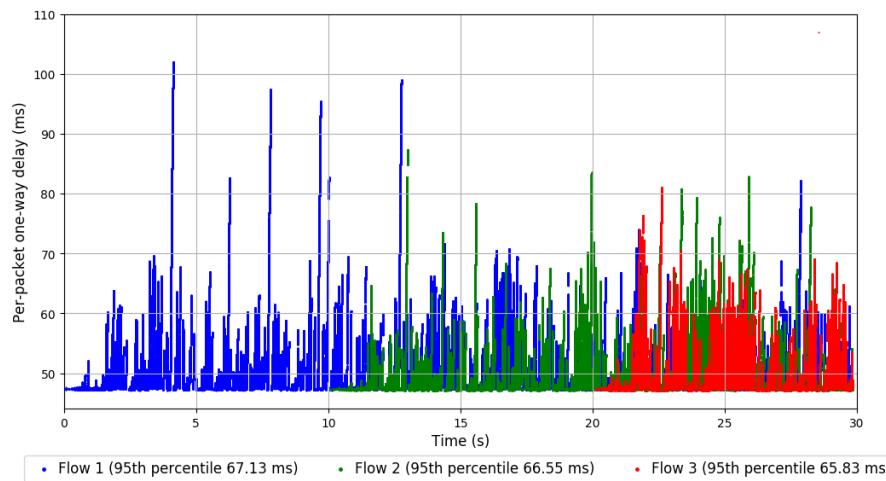
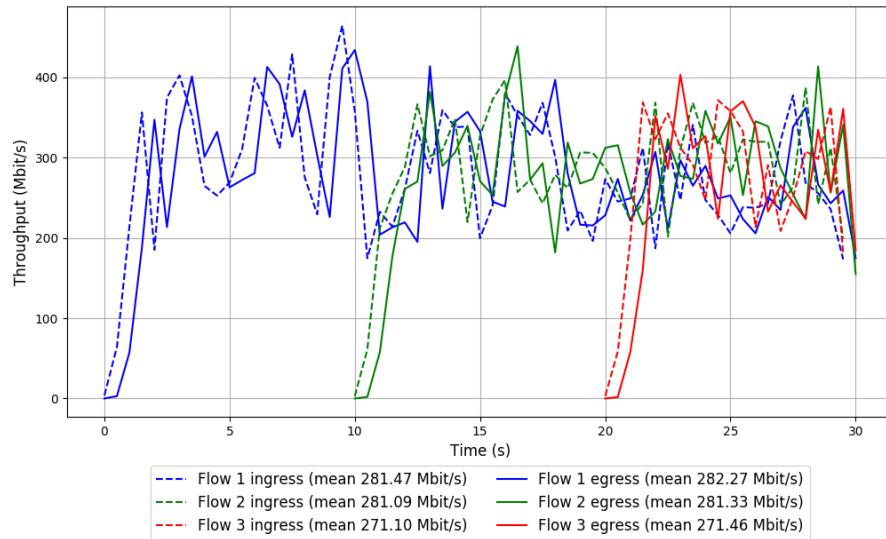


Run 4: Statistics of Indigo-96d2da3

```
Start at: 2018-10-26 23:24:04
End at: 2018-10-26 23:24:34
Local clock offset: -0.07 ms
Remote clock offset: -0.253 ms

# Below is generated by plot.py at 2018-10-27 01:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 557.59 Mbit/s
95th percentile per-packet one-way delay: 66.669 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 282.27 Mbit/s
95th percentile per-packet one-way delay: 67.134 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 281.33 Mbit/s
95th percentile per-packet one-way delay: 66.553 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 271.46 Mbit/s
95th percentile per-packet one-way delay: 65.833 ms
Loss rate: 0.76%
```

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

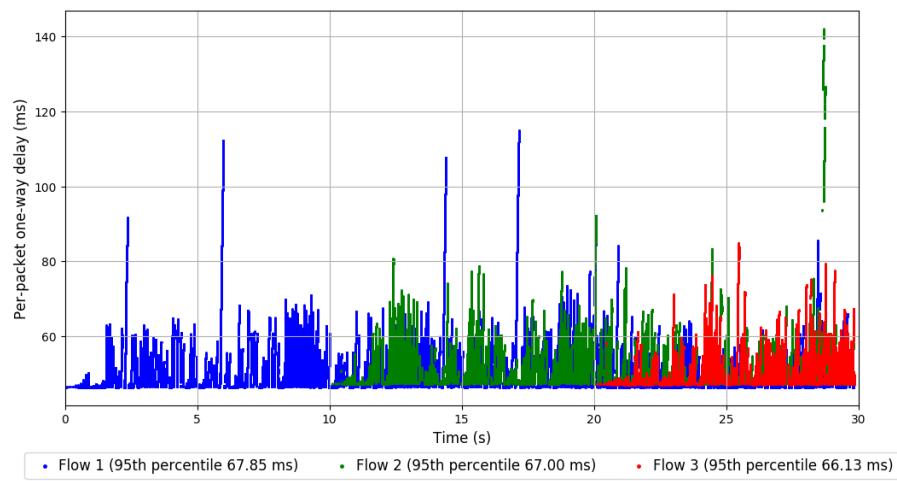
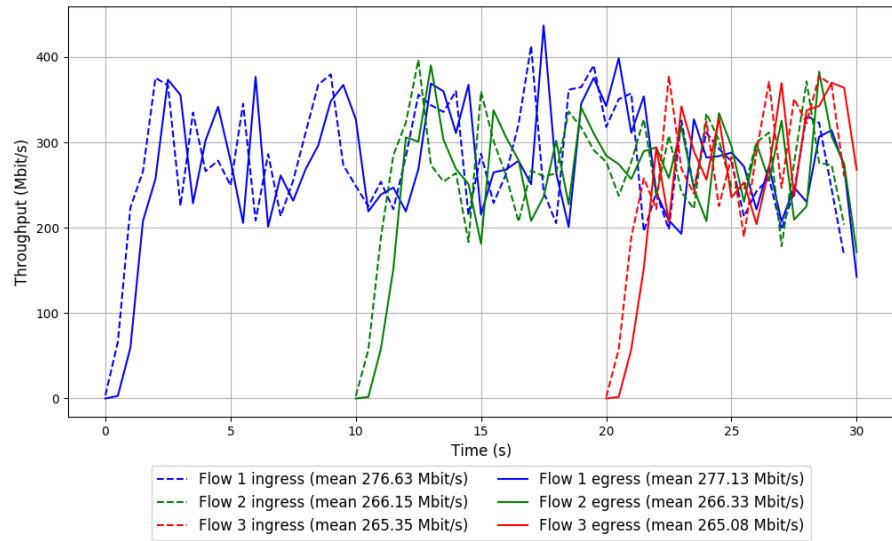


Run 5: Statistics of Indigo-96d2da3

```
Start at: 2018-10-26 23:55:15
End at: 2018-10-26 23:55:45
Local clock offset: -0.078 ms
Remote clock offset: 0.056 ms

# Below is generated by plot.py at 2018-10-27 01:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 539.65 Mbit/s
95th percentile per-packet one-way delay: 67.053 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 277.13 Mbit/s
95th percentile per-packet one-way delay: 67.849 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 266.33 Mbit/s
95th percentile per-packet one-way delay: 67.000 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 265.08 Mbit/s
95th percentile per-packet one-way delay: 66.126 ms
Loss rate: 0.83%
```

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

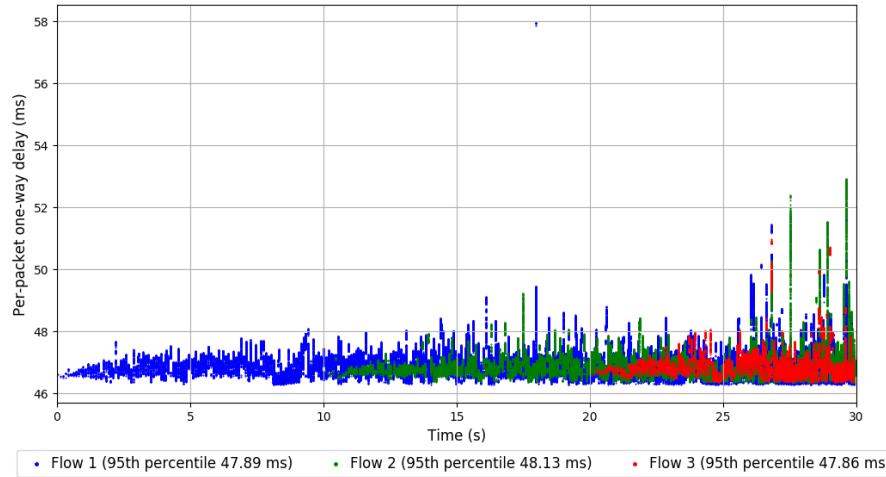
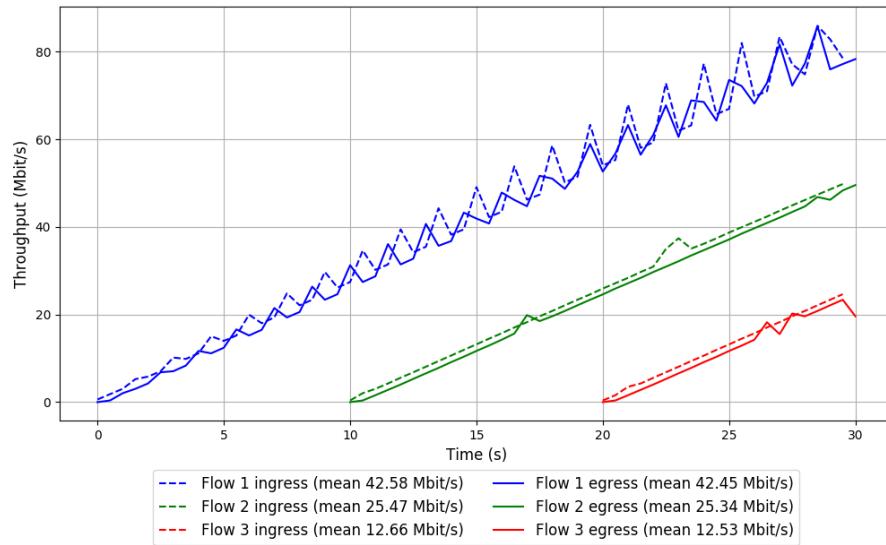


```
Run 1: Statistics of LEDBAT

Start at: 2018-10-26 21:42:28
End at: 2018-10-26 21:42:58
Local clock offset: -0.054 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-10-27 01:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.40 Mbit/s
95th percentile per-packet one-way delay: 47.927 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 42.45 Mbit/s
95th percentile per-packet one-way delay: 47.891 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 25.34 Mbit/s
95th percentile per-packet one-way delay: 48.129 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 12.53 Mbit/s
95th percentile per-packet one-way delay: 47.856 ms
Loss rate: 2.01%
```

Run 1: Report of LEDBAT — Data Link

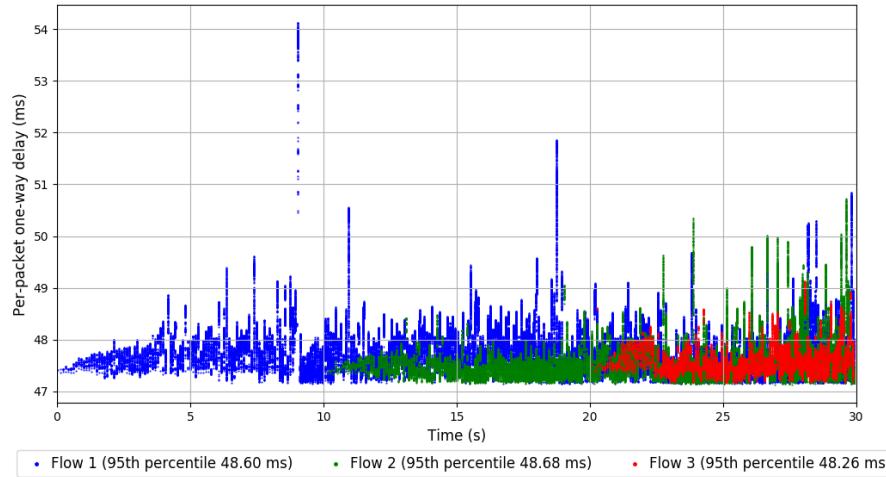
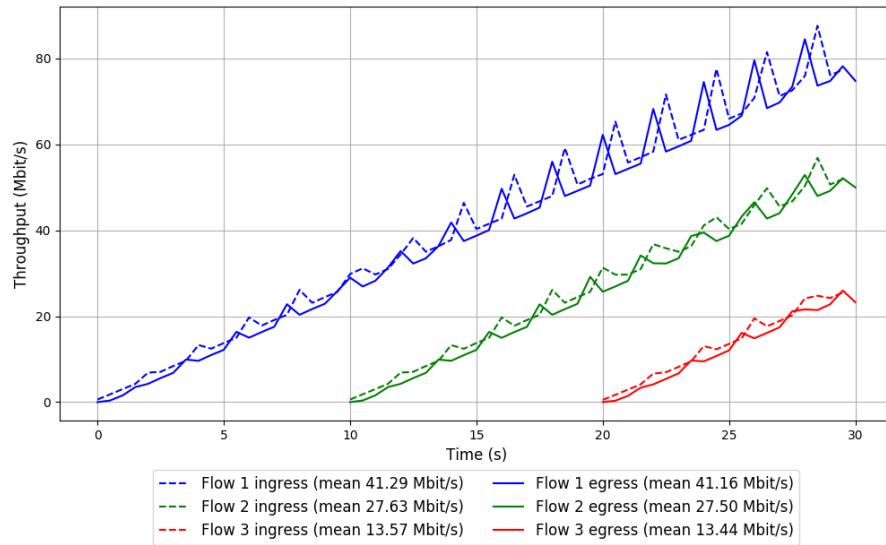


Run 2: Statistics of LEDBAT

```
Start at: 2018-10-26 22:13:42
End at: 2018-10-26 22:14:12
Local clock offset: -0.161 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-10-27 01:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.86 Mbit/s
95th percentile per-packet one-way delay: 48.589 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 41.16 Mbit/s
95th percentile per-packet one-way delay: 48.602 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.50 Mbit/s
95th percentile per-packet one-way delay: 48.677 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.44 Mbit/s
95th percentile per-packet one-way delay: 48.260 ms
Loss rate: 1.94%
```

Run 2: Report of LEDBAT — Data Link

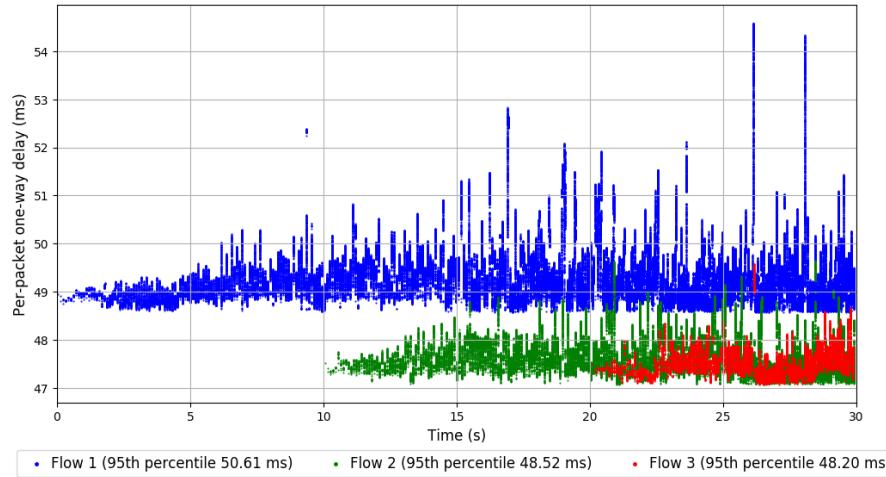
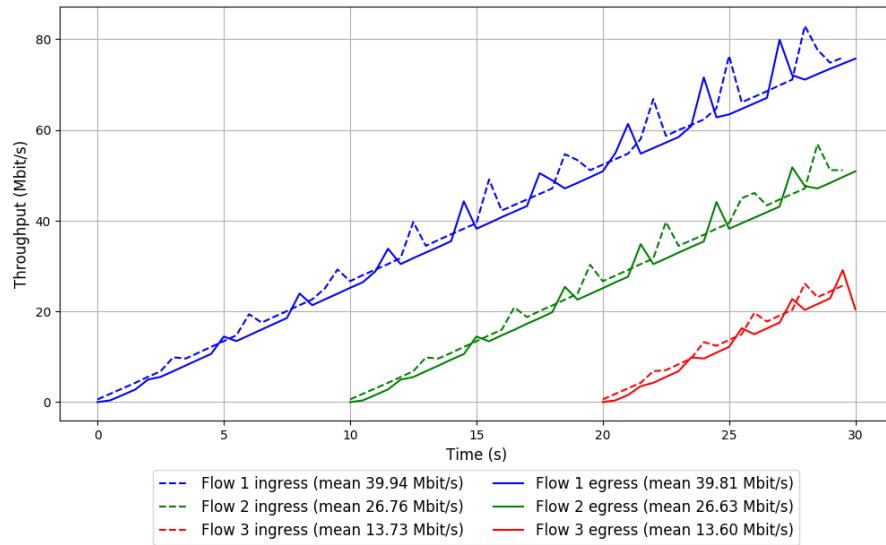


Run 3: Statistics of LEDBAT

```
Start at: 2018-10-26 22:45:00
End at: 2018-10-26 22:45:30
Local clock offset: -0.198 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-10-27 01:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.97 Mbit/s
95th percentile per-packet one-way delay: 50.238 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 50.613 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 26.63 Mbit/s
95th percentile per-packet one-way delay: 48.517 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 13.60 Mbit/s
95th percentile per-packet one-way delay: 48.198 ms
Loss rate: 1.92%
```

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

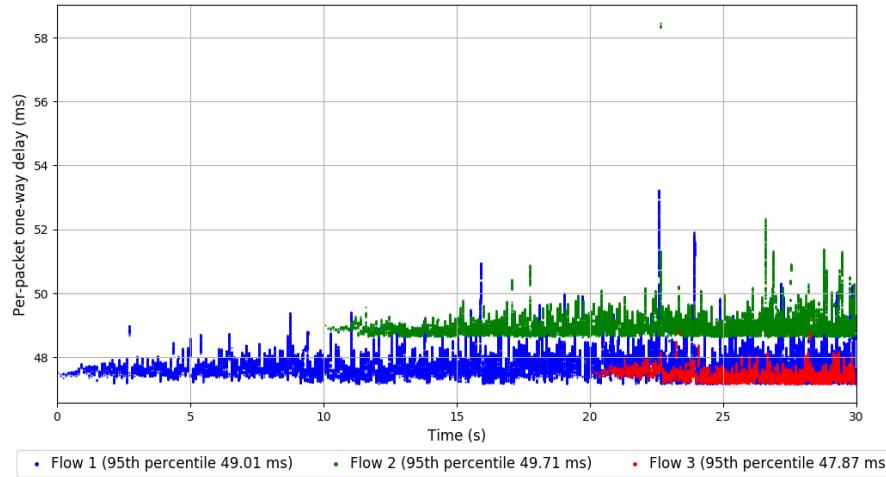
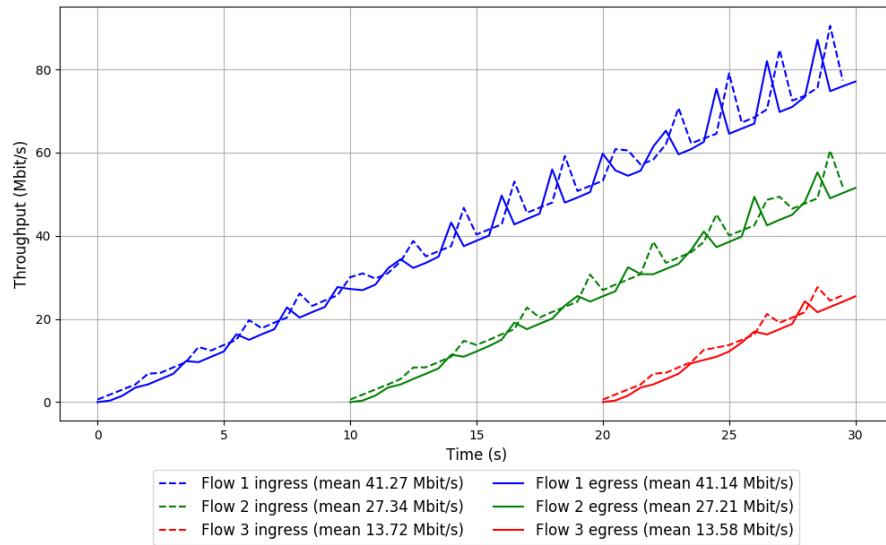


Run 4: Statistics of LEDBAT

```
Start at: 2018-10-26 23:16:11
End at: 2018-10-26 23:16:41
Local clock offset: -0.097 ms
Remote clock offset: -0.275 ms

# Below is generated by plot.py at 2018-10-27 01:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.70 Mbit/s
95th percentile per-packet one-way delay: 49.383 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 49.012 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.21 Mbit/s
95th percentile per-packet one-way delay: 49.708 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 13.58 Mbit/s
95th percentile per-packet one-way delay: 47.866 ms
Loss rate: 1.92%
```

Run 4: Report of LEDBAT — Data Link

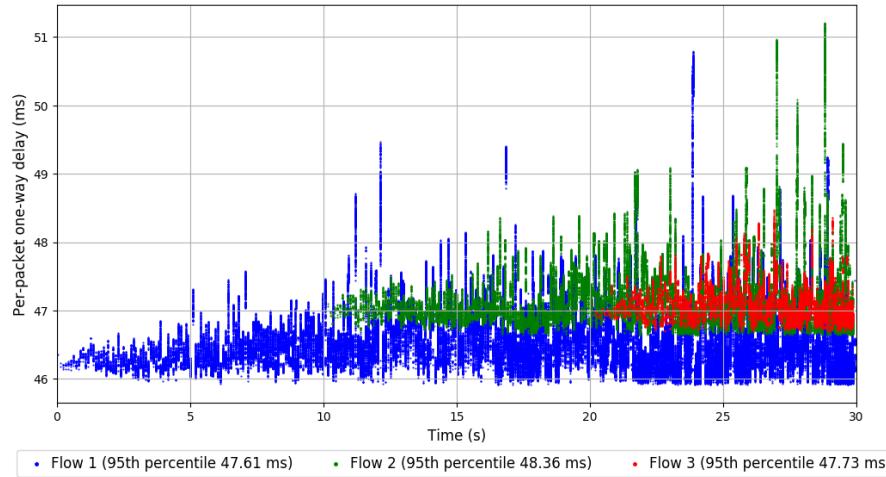
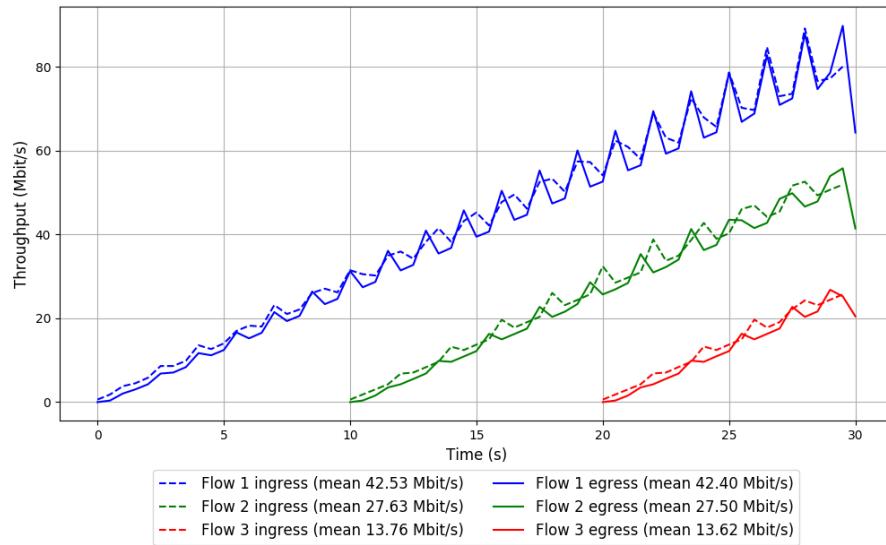


Run 5: Statistics of LEDBAT

```
Start at: 2018-10-26 23:47:21
End at: 2018-10-26 23:47:51
Local clock offset: -0.422 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-10-27 01:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.09 Mbit/s
95th percentile per-packet one-way delay: 47.854 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 42.40 Mbit/s
95th percentile per-packet one-way delay: 47.608 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 27.50 Mbit/s
95th percentile per-packet one-way delay: 48.360 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.62 Mbit/s
95th percentile per-packet one-way delay: 47.731 ms
Loss rate: 1.92%
```

Run 5: Report of LEDBAT — Data Link

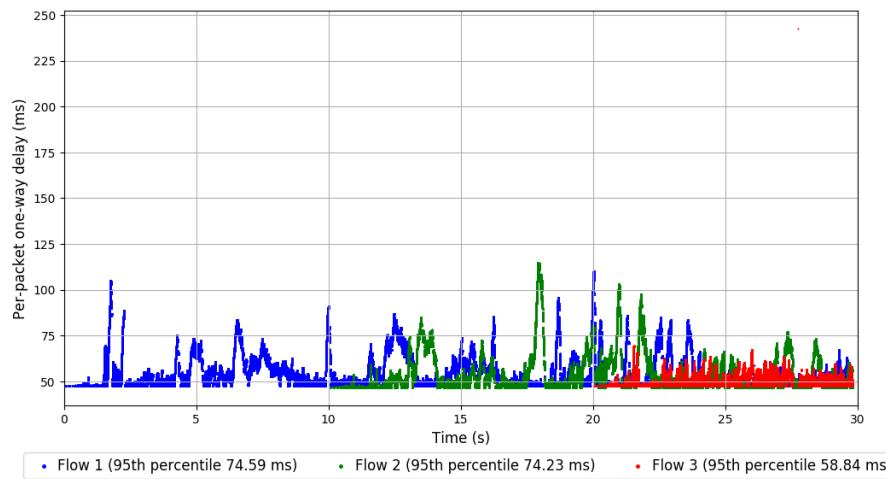
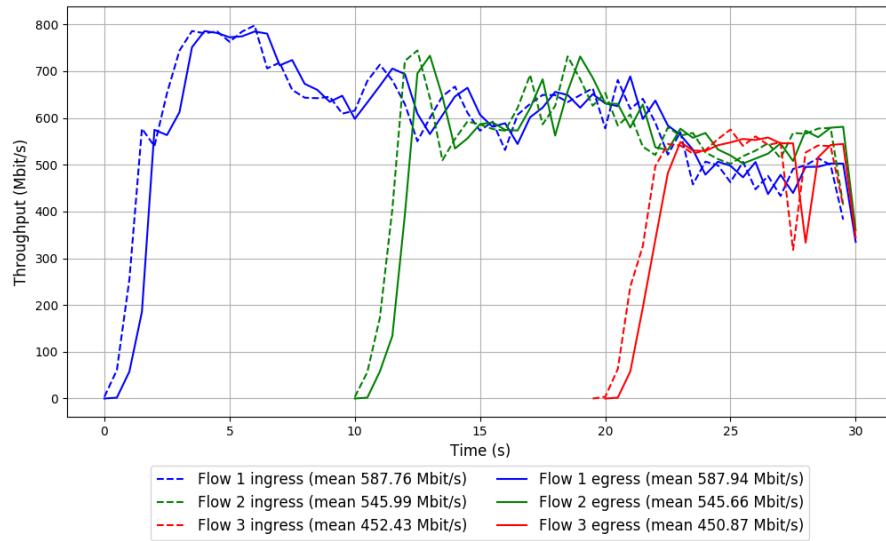


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-10-26 21:38:37
End at: 2018-10-26 21:39:07
Local clock offset: 0.296 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-10-27 01:47:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1098.04 Mbit/s
95th percentile per-packet one-way delay: 73.034 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 587.94 Mbit/s
95th percentile per-packet one-way delay: 74.589 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 545.66 Mbit/s
95th percentile per-packet one-way delay: 74.228 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 450.87 Mbit/s
95th percentile per-packet one-way delay: 58.843 ms
Loss rate: 1.30%
```

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

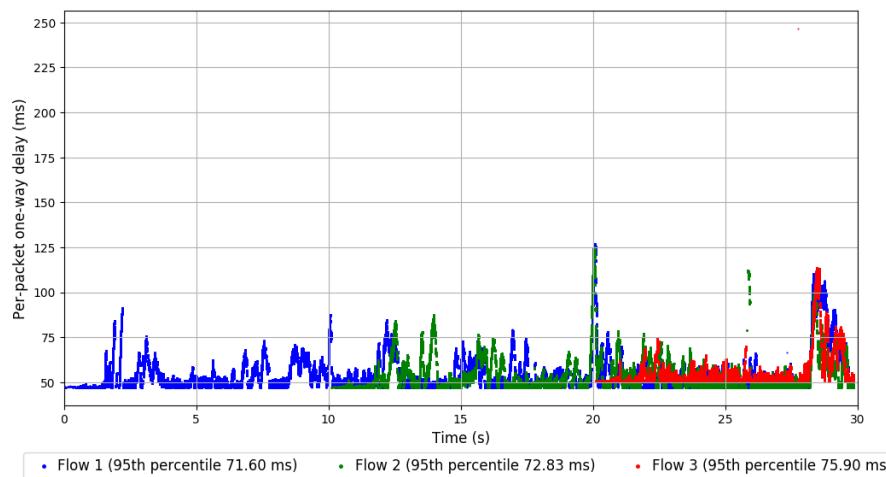
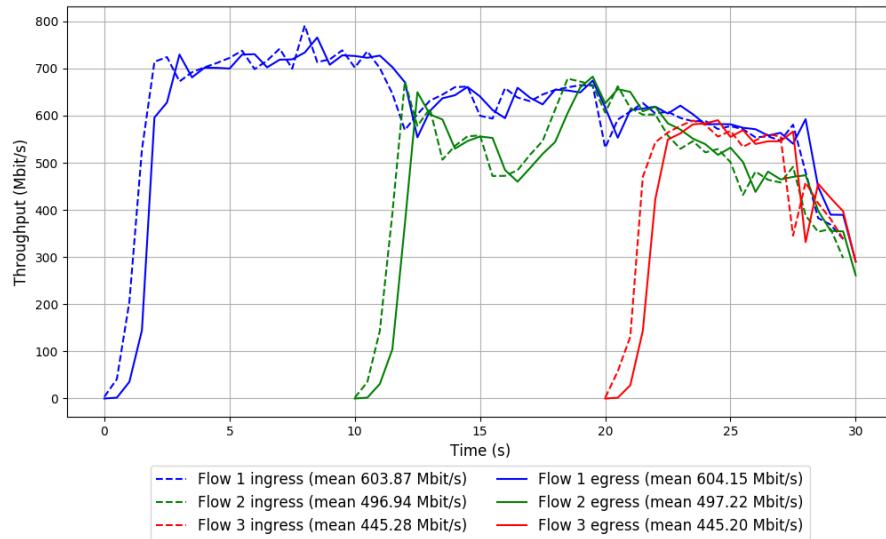


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-10-26 22:09:52
End at: 2018-10-26 22:10:22
Local clock offset: -0.113 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2018-10-27 01:47:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1079.12 Mbit/s
95th percentile per-packet one-way delay: 72.589 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 604.15 Mbit/s
95th percentile per-packet one-way delay: 71.604 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 497.22 Mbit/s
95th percentile per-packet one-way delay: 72.835 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 445.20 Mbit/s
95th percentile per-packet one-way delay: 75.903 ms
Loss rate: 1.02%
```

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

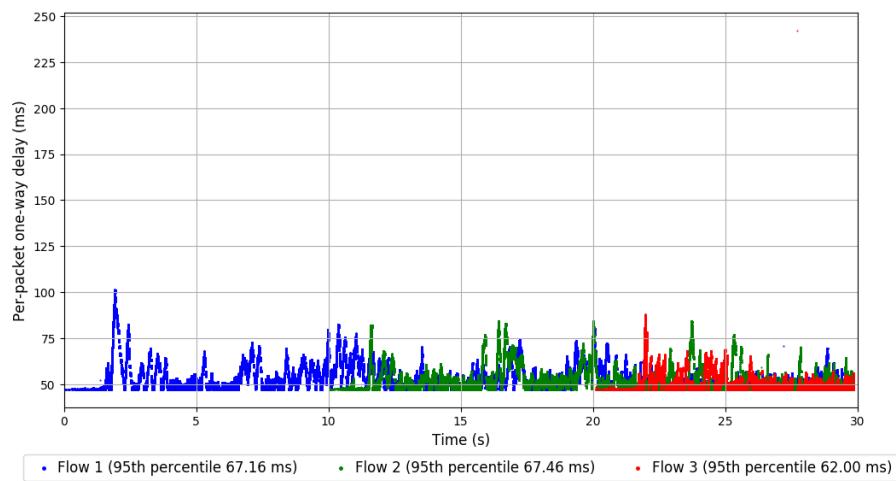
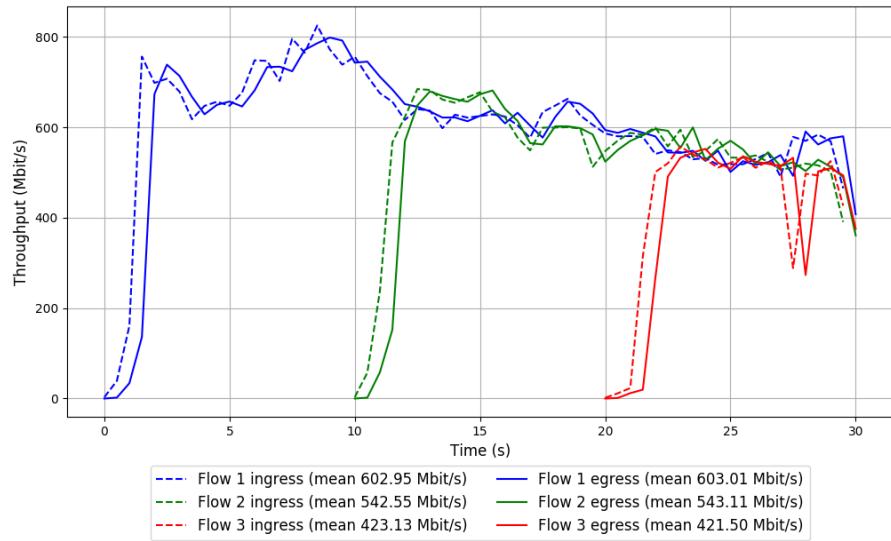


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-10-26 22:41:08
End at: 2018-10-26 22:41:38
Local clock offset: -0.177 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2018-10-27 01:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1101.36 Mbit/s
95th percentile per-packet one-way delay: 66.617 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 603.01 Mbit/s
95th percentile per-packet one-way delay: 67.160 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 543.11 Mbit/s
95th percentile per-packet one-way delay: 67.458 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 421.50 Mbit/s
95th percentile per-packet one-way delay: 61.998 ms
Loss rate: 1.35%
```

### Run 3: Report of Indigo-Muses — Data Link

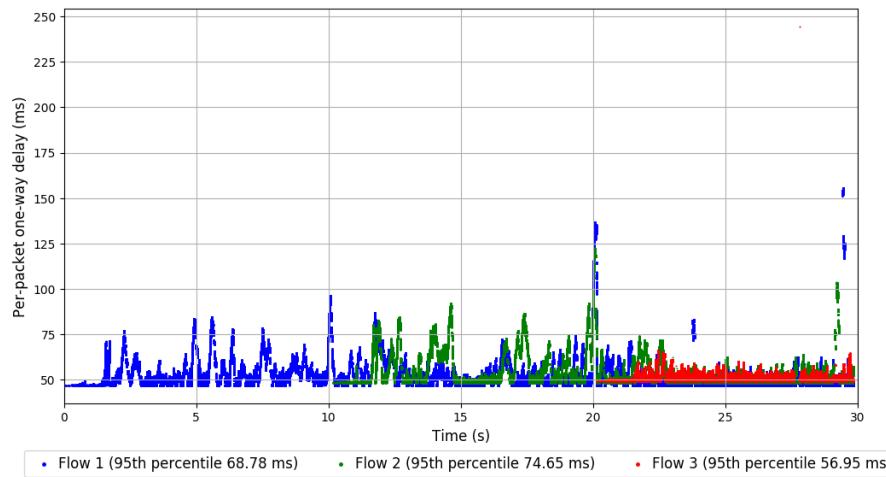
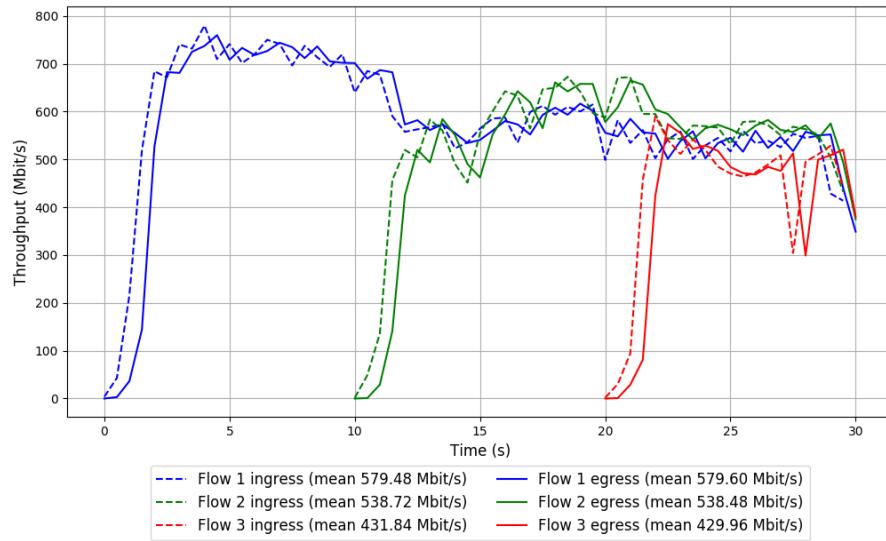


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-10-26 23:12:16
End at: 2018-10-26 23:12:46
Local clock offset: -0.454 ms
Remote clock offset: -0.235 ms

# Below is generated by plot.py at 2018-10-27 01:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1074.98 Mbit/s
95th percentile per-packet one-way delay: 69.768 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 579.60 Mbit/s
95th percentile per-packet one-way delay: 68.781 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 538.48 Mbit/s
95th percentile per-packet one-way delay: 74.646 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 429.96 Mbit/s
95th percentile per-packet one-way delay: 56.946 ms
Loss rate: 1.44%
```

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

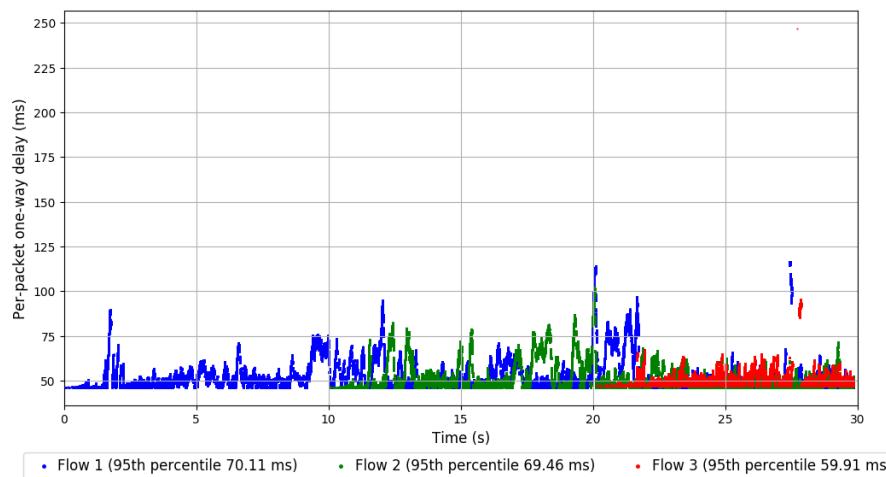
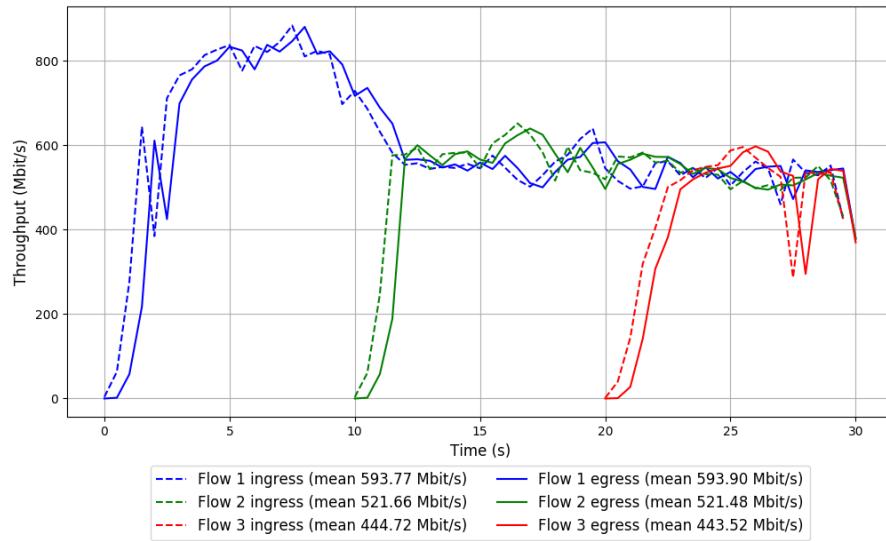


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-10-26 23:43:28
End at: 2018-10-26 23:43:58
Local clock offset: -0.142 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-10-27 01:49:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1084.39 Mbit/s
95th percentile per-packet one-way delay: 69.049 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 593.90 Mbit/s
95th percentile per-packet one-way delay: 70.110 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 521.48 Mbit/s
95th percentile per-packet one-way delay: 69.461 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 443.52 Mbit/s
95th percentile per-packet one-way delay: 59.913 ms
Loss rate: 1.24%
```

## Run 5: Report of Indigo-Muses — Data Link

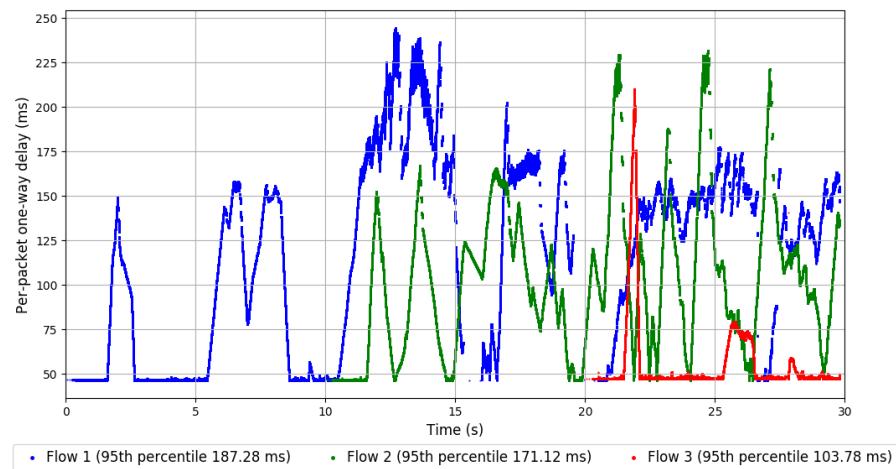
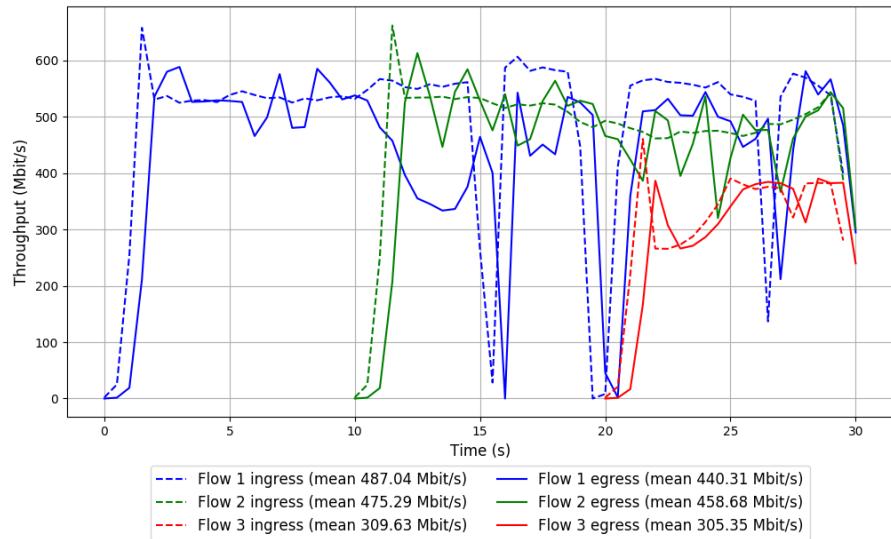


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-10-26 21:56:35
End at: 2018-10-26 21:57:05
Local clock offset: -0.16 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-10-27 02:01:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 844.66 Mbit/s
95th percentile per-packet one-way delay: 179.773 ms
Loss rate: 6.96%
-- Flow 1:
Average throughput: 440.31 Mbit/s
95th percentile per-packet one-way delay: 187.278 ms
Loss rate: 9.88%
-- Flow 2:
Average throughput: 458.68 Mbit/s
95th percentile per-packet one-way delay: 171.115 ms
Loss rate: 3.95%
-- Flow 3:
Average throughput: 305.35 Mbit/s
95th percentile per-packet one-way delay: 103.780 ms
Loss rate: 2.34%
```

Run 1: Report of PCC-Allegro — Data Link

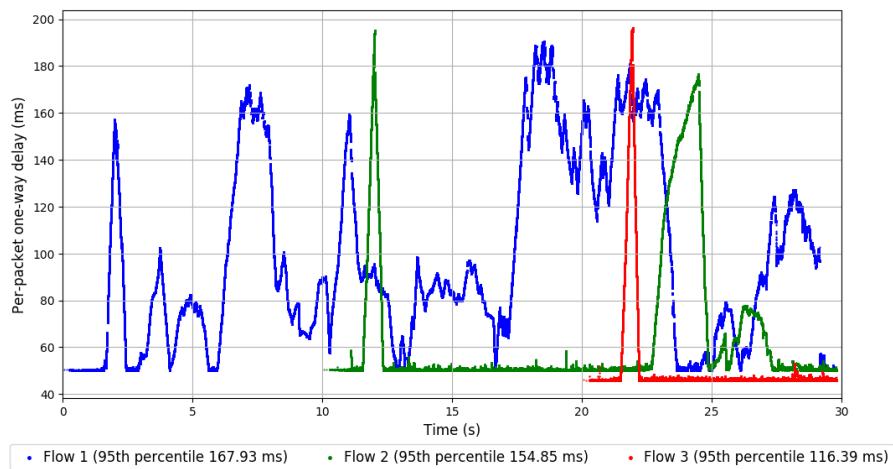
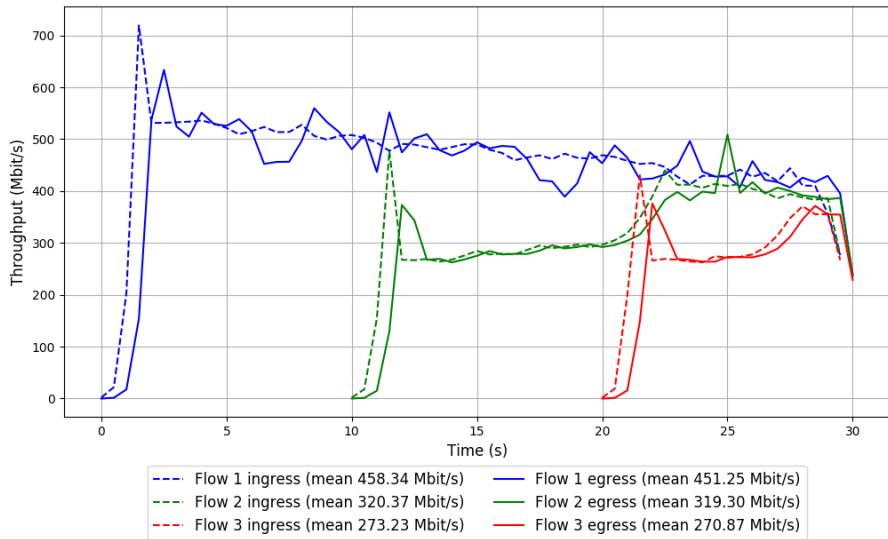


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-10-26 22:27:47
End at: 2018-10-26 22:28:17
Local clock offset: -0.533 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-10-27 02:01:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 751.83 Mbit/s
95th percentile per-packet one-way delay: 165.152 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 451.25 Mbit/s
95th percentile per-packet one-way delay: 167.925 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 319.30 Mbit/s
95th percentile per-packet one-way delay: 154.855 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 270.87 Mbit/s
95th percentile per-packet one-way delay: 116.387 ms
Loss rate: 1.80%
```

## Run 2: Report of PCC-Allegro — Data Link

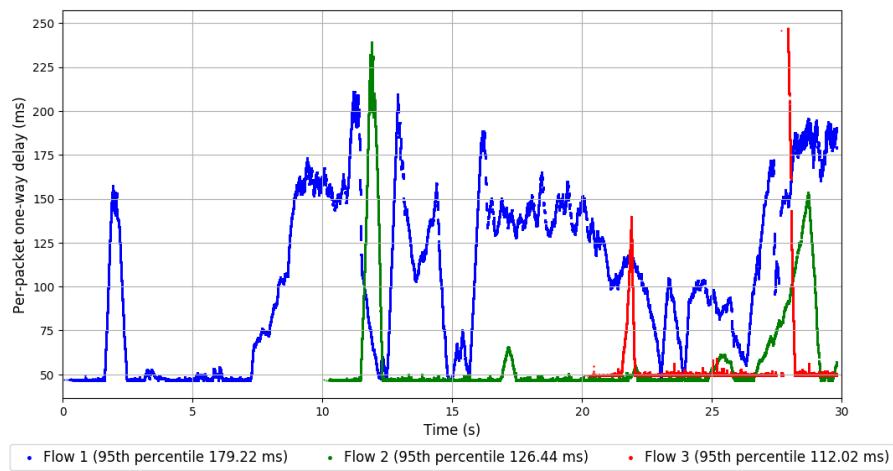
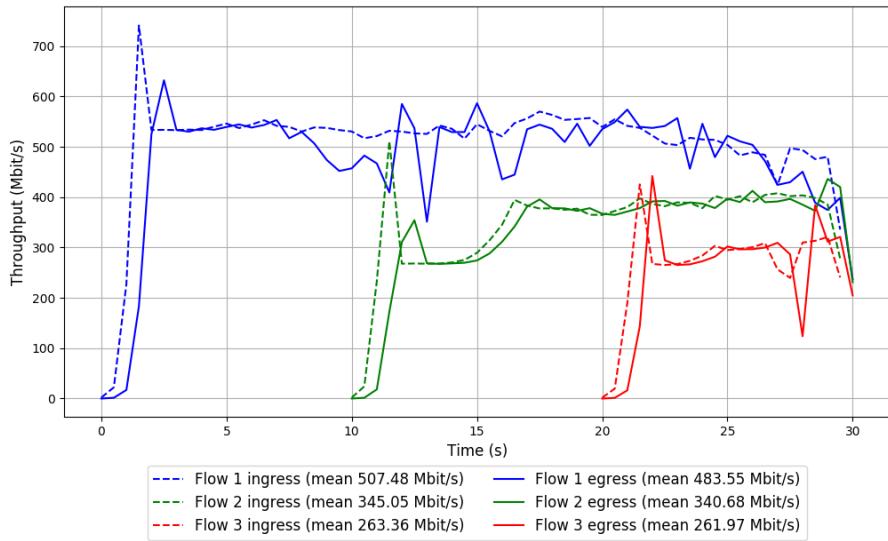


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-10-26 22:59:01
End at: 2018-10-26 22:59:31
Local clock offset: -0.55 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-10-27 02:01:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 795.37 Mbit/s
95th percentile per-packet one-way delay: 168.571 ms
Loss rate: 3.74%
-- Flow 1:
Average throughput: 483.55 Mbit/s
95th percentile per-packet one-way delay: 179.220 ms
Loss rate: 5.02%
-- Flow 2:
Average throughput: 340.68 Mbit/s
95th percentile per-packet one-way delay: 126.436 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 261.97 Mbit/s
95th percentile per-packet one-way delay: 112.024 ms
Loss rate: 1.52%
```

### Run 3: Report of PCC-Allegro — Data Link

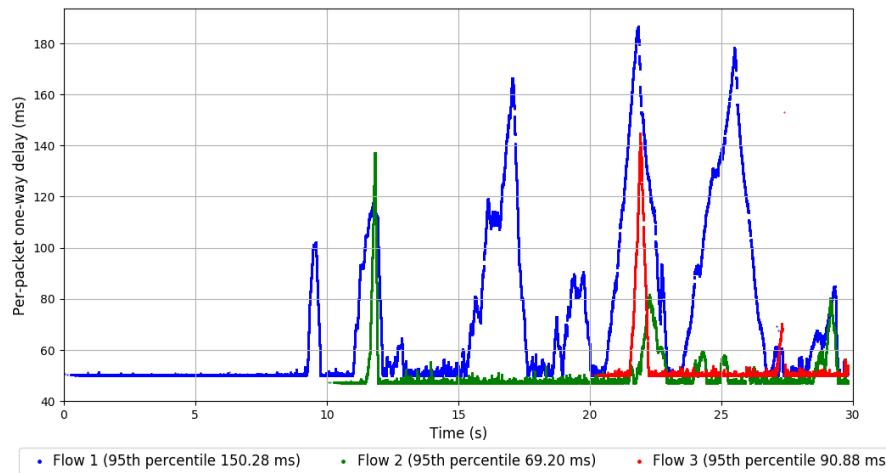
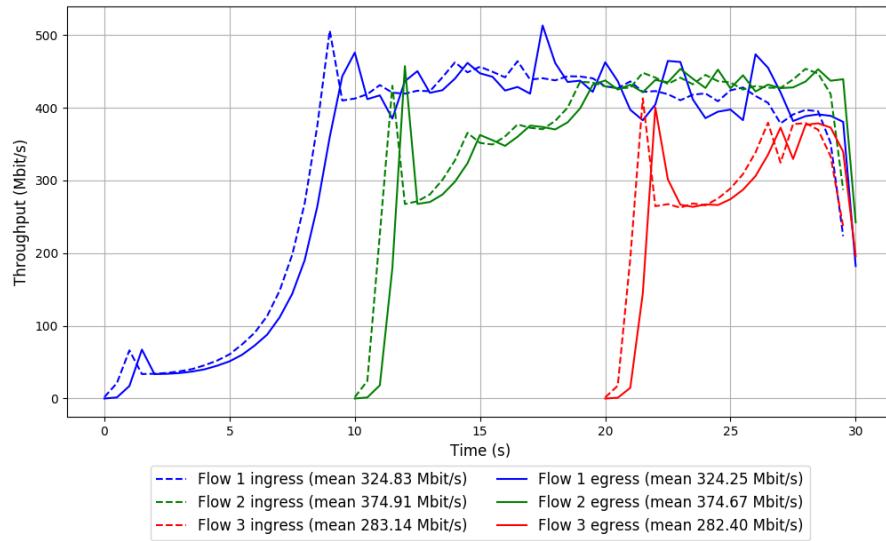


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-10-26 23:30:19
End at: 2018-10-26 23:30:49
Local clock offset: -0.1 ms
Remote clock offset: -0.323 ms

# Below is generated by plot.py at 2018-10-27 02:11:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 665.25 Mbit/s
95th percentile per-packet one-way delay: 130.447 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 324.25 Mbit/s
95th percentile per-packet one-way delay: 150.277 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 374.67 Mbit/s
95th percentile per-packet one-way delay: 69.200 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 282.40 Mbit/s
95th percentile per-packet one-way delay: 90.882 ms
Loss rate: 1.25%
```

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

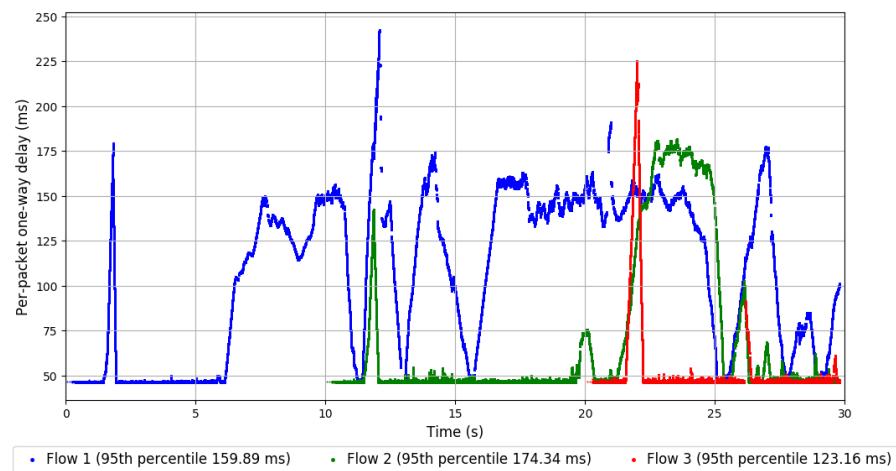
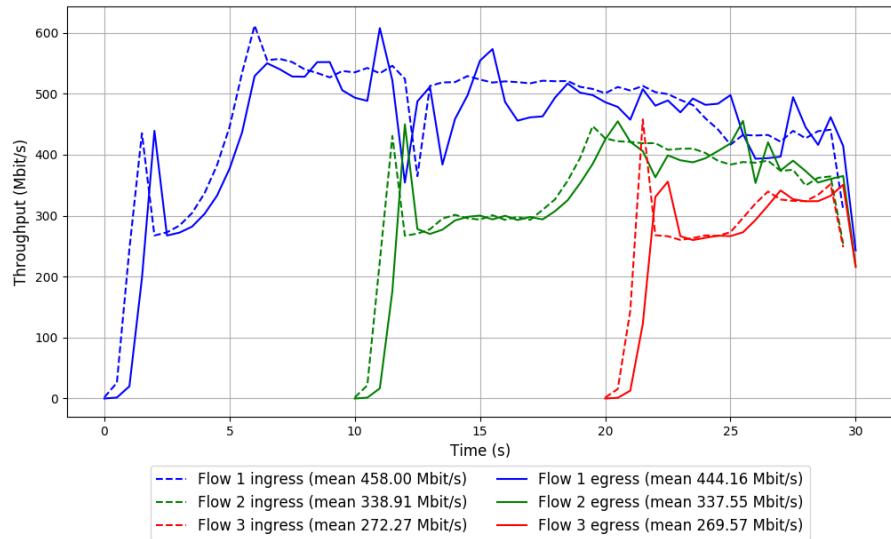


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-10-27 00:01:26
End at: 2018-10-27 00:01:56
Local clock offset: -0.083 ms
Remote clock offset: 0.083 ms

# Below is generated by plot.py at 2018-10-27 02:15:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 756.33 Mbit/s
95th percentile per-packet one-way delay: 166.935 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 444.16 Mbit/s
95th percentile per-packet one-way delay: 159.887 ms
Loss rate: 3.33%
-- Flow 2:
Average throughput: 337.55 Mbit/s
95th percentile per-packet one-way delay: 174.345 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 269.57 Mbit/s
95th percentile per-packet one-way delay: 123.156 ms
Loss rate: 1.96%
```

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

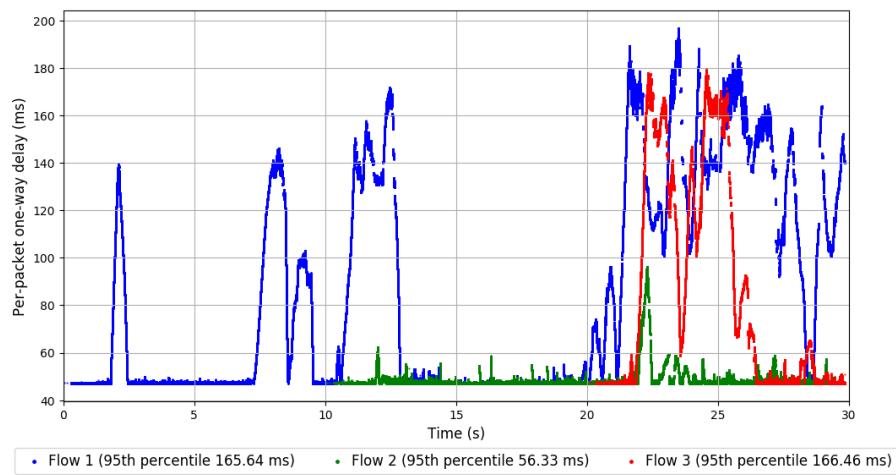
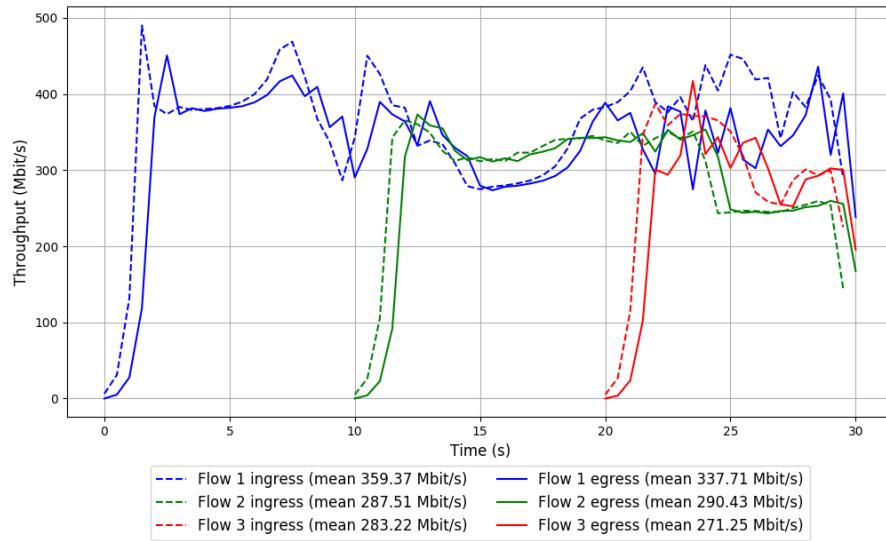


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2018-10-26 21:30:25
End at: 2018-10-26 21:30:55
Local clock offset: -0.084 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-10-27 02:15:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 619.15 Mbit/s
95th percentile per-packet one-way delay: 162.069 ms
Loss rate: 4.27%
-- Flow 1:
Average throughput: 337.71 Mbit/s
95th percentile per-packet one-way delay: 165.638 ms
Loss rate: 6.33%
-- Flow 2:
Average throughput: 290.43 Mbit/s
95th percentile per-packet one-way delay: 56.328 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 271.25 Mbit/s
95th percentile per-packet one-way delay: 166.461 ms
Loss rate: 5.12%
```

Run 1: Report of PCC-Expr — Data Link

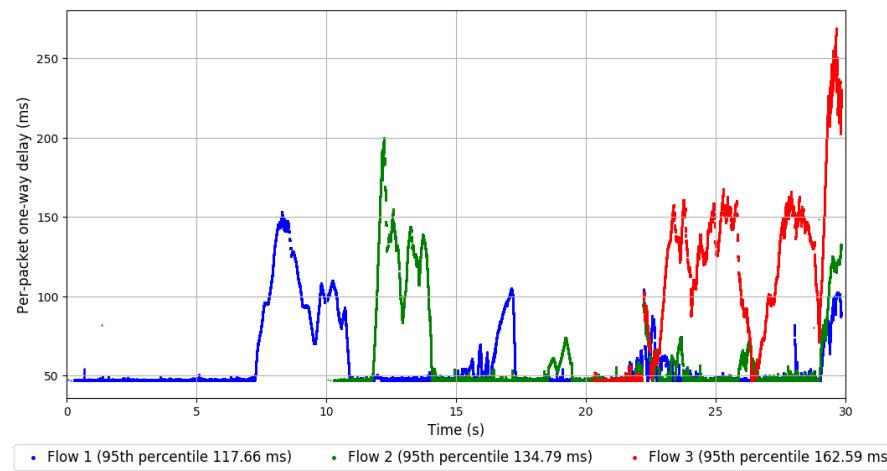
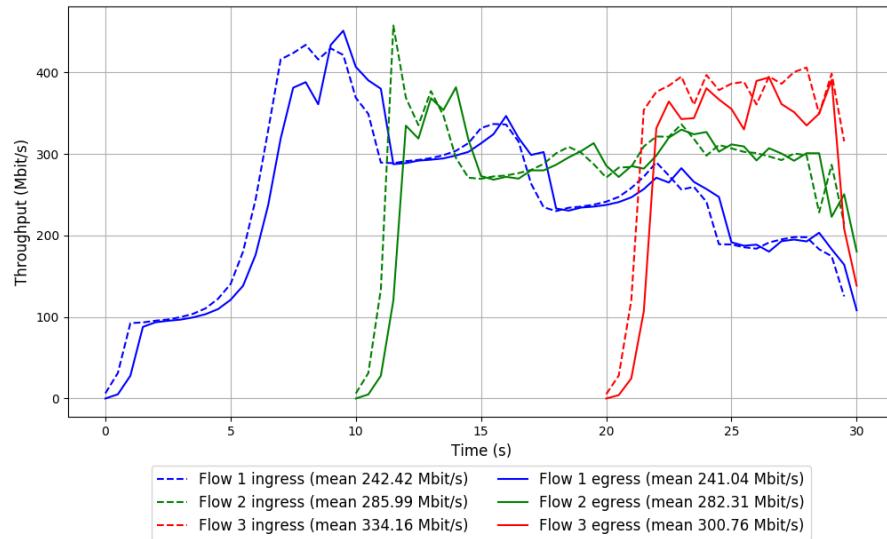


Run 2: Statistics of PCC-Expr

```
Start at: 2018-10-26 22:01:47
End at: 2018-10-26 22:02:17
Local clock offset: -0.137 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-10-27 02:15:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 527.02 Mbit/s
95th percentile per-packet one-way delay: 147.535 ms
Loss rate: 3.22%
-- Flow 1:
Average throughput: 241.04 Mbit/s
95th percentile per-packet one-way delay: 117.664 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 282.31 Mbit/s
95th percentile per-packet one-way delay: 134.793 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 300.76 Mbit/s
95th percentile per-packet one-way delay: 162.595 ms
Loss rate: 10.87%
```

## Run 2: Report of PCC-Expr — Data Link

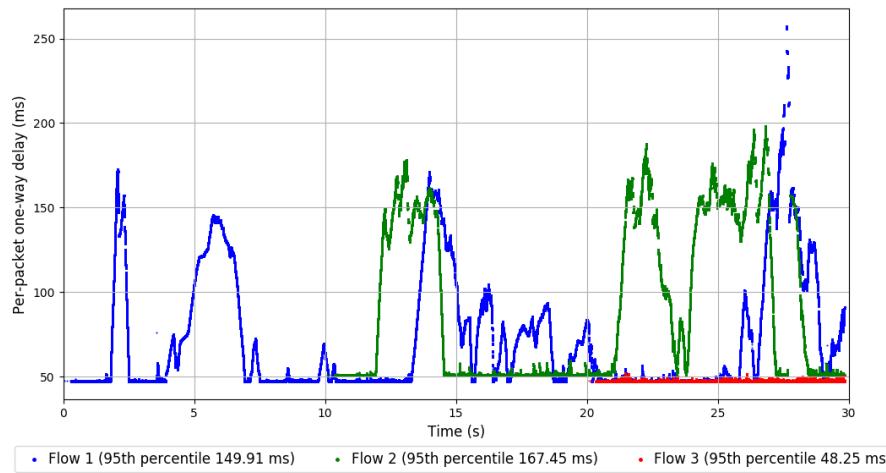
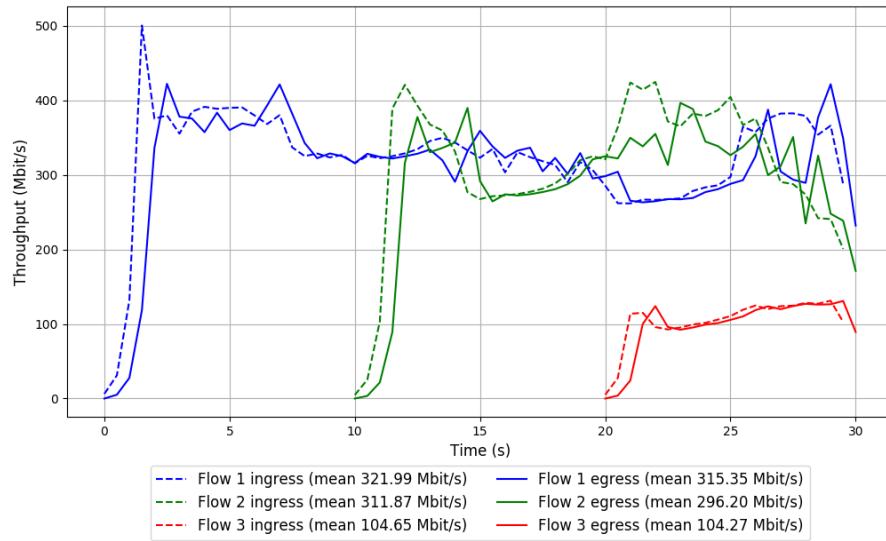


Run 3: Statistics of PCC-Expr

```
Start at: 2018-10-26 22:32:52
End at: 2018-10-26 22:33:22
Local clock offset: -0.201 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-10-27 02:15:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.12 Mbit/s
95th percentile per-packet one-way delay: 158.893 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 315.35 Mbit/s
95th percentile per-packet one-way delay: 149.913 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 296.20 Mbit/s
95th percentile per-packet one-way delay: 167.446 ms
Loss rate: 5.50%
-- Flow 3:
Average throughput: 104.27 Mbit/s
95th percentile per-packet one-way delay: 48.252 ms
Loss rate: 1.29%
```

### Run 3: Report of PCC-Expr — Data Link

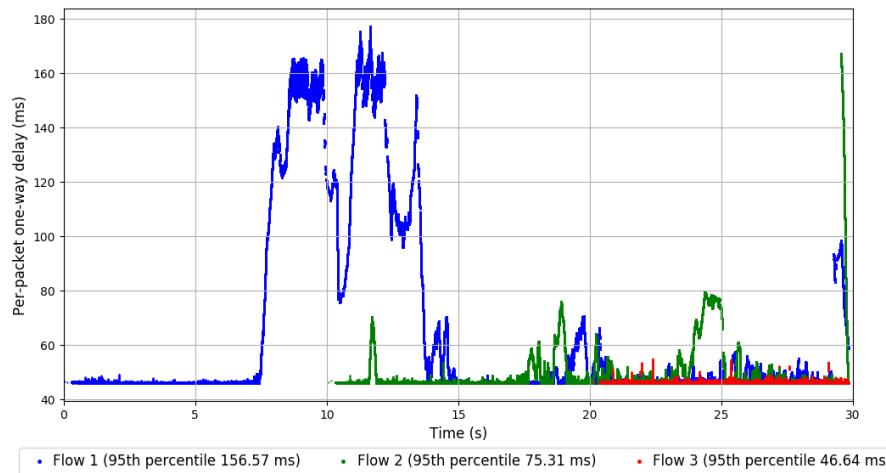
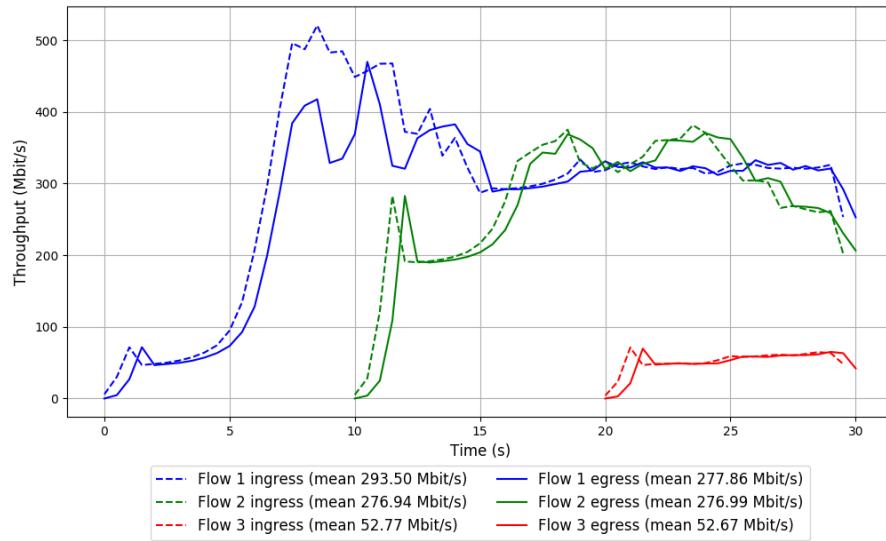


Run 4: Statistics of PCC-Expr

```
Start at: 2018-10-26 23:04:07
End at: 2018-10-26 23:04:37
Local clock offset: -0.499 ms
Remote clock offset: -0.217 ms

# Below is generated by plot.py at 2018-10-27 02:16:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 478.98 Mbit/s
95th percentile per-packet one-way delay: 151.257 ms
Loss rate: 3.55%
-- Flow 1:
Average throughput: 277.86 Mbit/s
95th percentile per-packet one-way delay: 156.566 ms
Loss rate: 5.63%
-- Flow 2:
Average throughput: 276.99 Mbit/s
95th percentile per-packet one-way delay: 75.312 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 52.67 Mbit/s
95th percentile per-packet one-way delay: 46.643 ms
Loss rate: 1.19%
```

Run 4: Report of PCC-Expr — Data Link

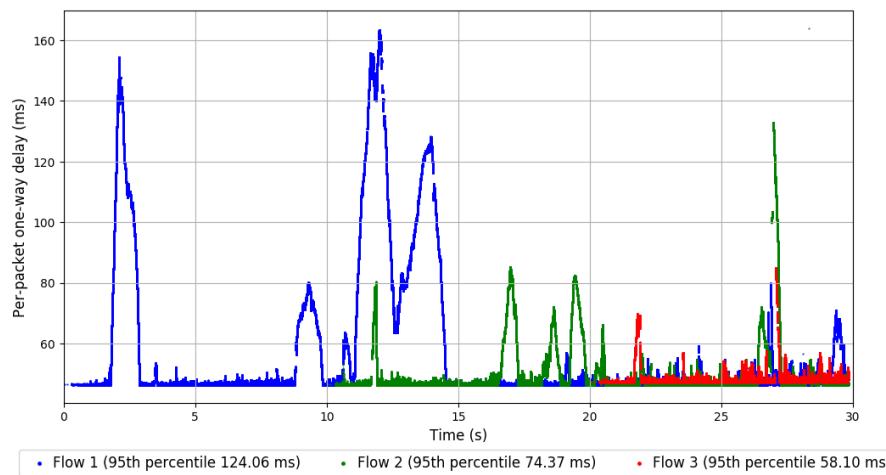
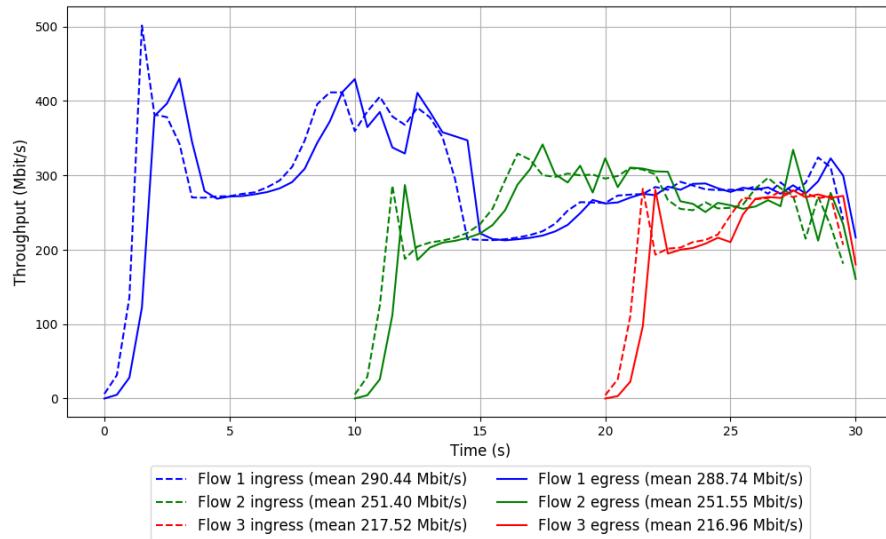


Run 5: Statistics of PCC-Expr

```
Start at: 2018-10-26 23:35:20
End at: 2018-10-26 23:35:50
Local clock offset: -0.112 ms
Remote clock offset: -0.232 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 526.96 Mbit/s
95th percentile per-packet one-way delay: 109.903 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 288.74 Mbit/s
95th percentile per-packet one-way delay: 124.058 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 251.55 Mbit/s
95th percentile per-packet one-way delay: 74.371 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 216.96 Mbit/s
95th percentile per-packet one-way delay: 58.102 ms
Loss rate: 1.21%
```

Run 5: Report of PCC-Expr — Data Link

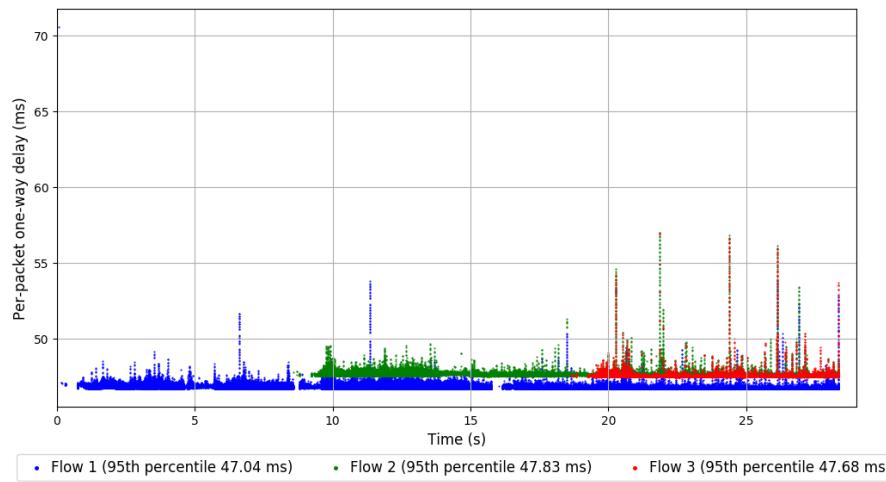
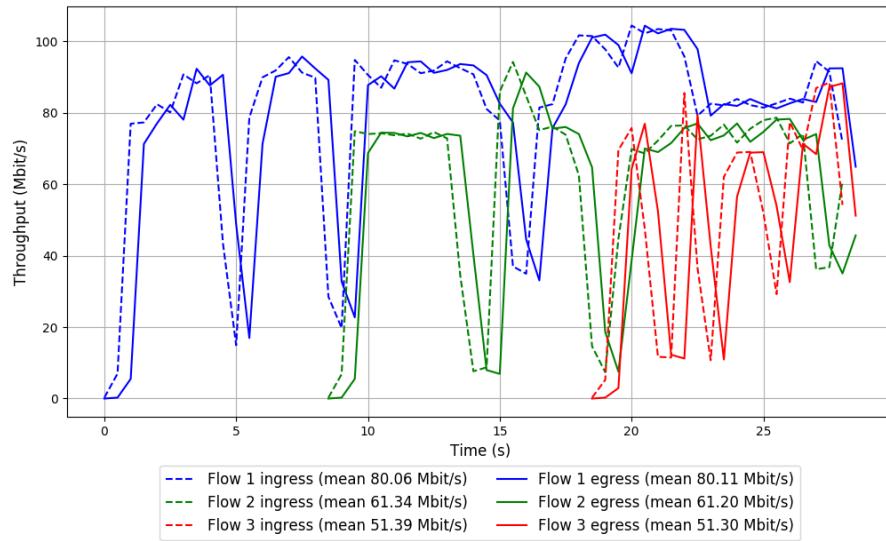


Run 1: Statistics of QUIC Cubic

```
Start at: 2018-10-26 21:46:56
End at: 2018-10-26 21:47:26
Local clock offset: 0.32 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.57 Mbit/s
95th percentile per-packet one-way delay: 47.704 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 80.11 Mbit/s
95th percentile per-packet one-way delay: 47.039 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 61.20 Mbit/s
95th percentile per-packet one-way delay: 47.826 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 51.30 Mbit/s
95th percentile per-packet one-way delay: 47.677 ms
Loss rate: 1.14%
```

Run 1: Report of QUIC Cubic — Data Link

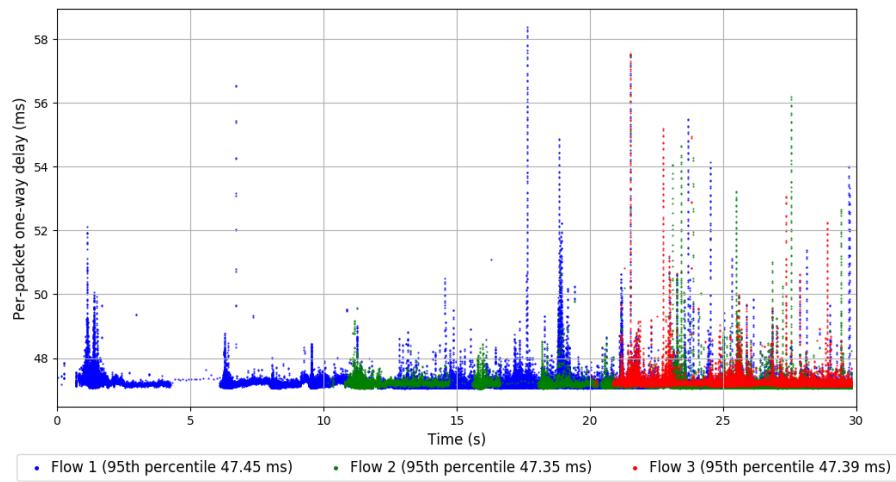
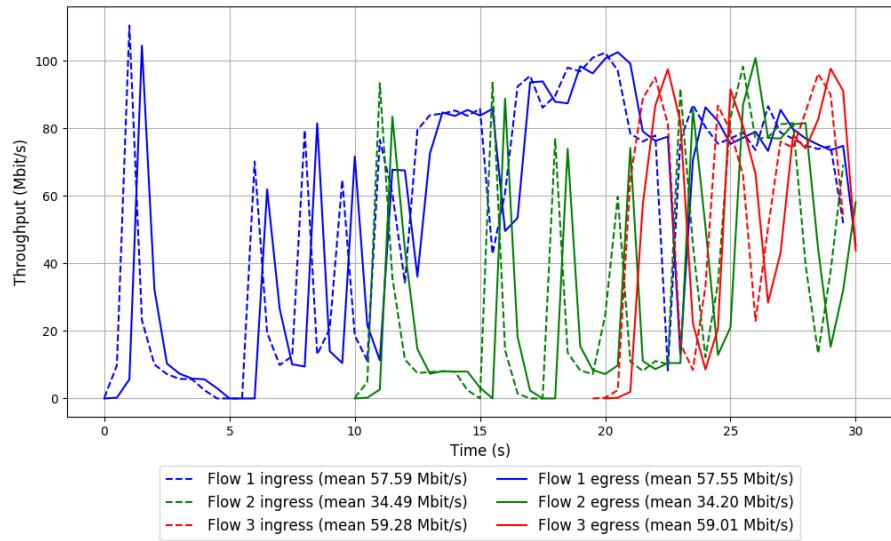


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-10-26 22:18:16
End at: 2018-10-26 22:18:46
Local clock offset: -0.154 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.54 Mbit/s
95th percentile per-packet one-way delay: 47.415 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 57.55 Mbit/s
95th percentile per-packet one-way delay: 47.445 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 34.20 Mbit/s
95th percentile per-packet one-way delay: 47.352 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 59.01 Mbit/s
95th percentile per-packet one-way delay: 47.392 ms
Loss rate: 1.40%
```

Run 2: Report of QUIC Cubic — Data Link

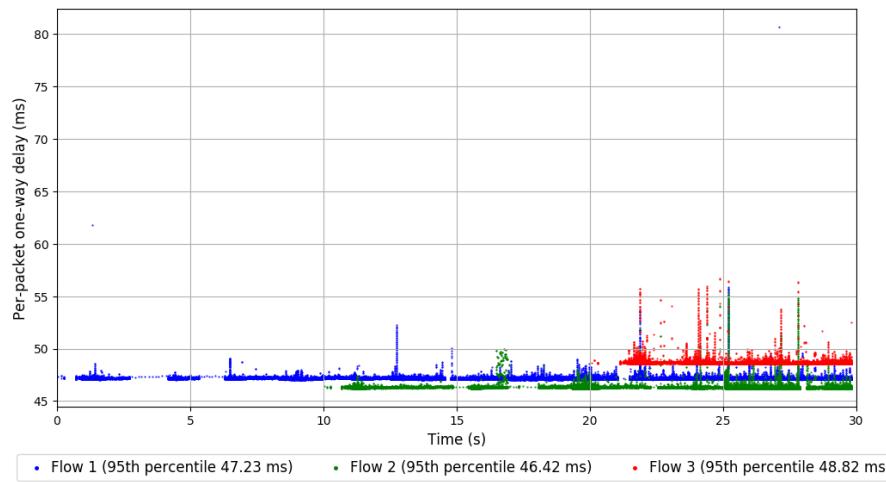
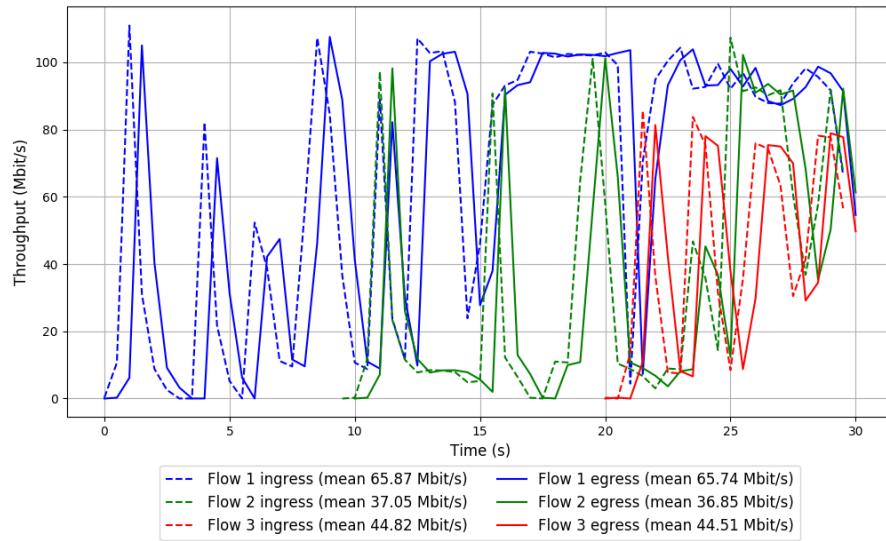


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-10-26 22:49:29
End at: 2018-10-26 22:49:59
Local clock offset: -0.219 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.81 Mbit/s
95th percentile per-packet one-way delay: 48.639 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 65.74 Mbit/s
95th percentile per-packet one-way delay: 47.233 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 36.85 Mbit/s
95th percentile per-packet one-way delay: 46.416 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 44.51 Mbit/s
95th percentile per-packet one-way delay: 48.816 ms
Loss rate: 1.62%
```

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

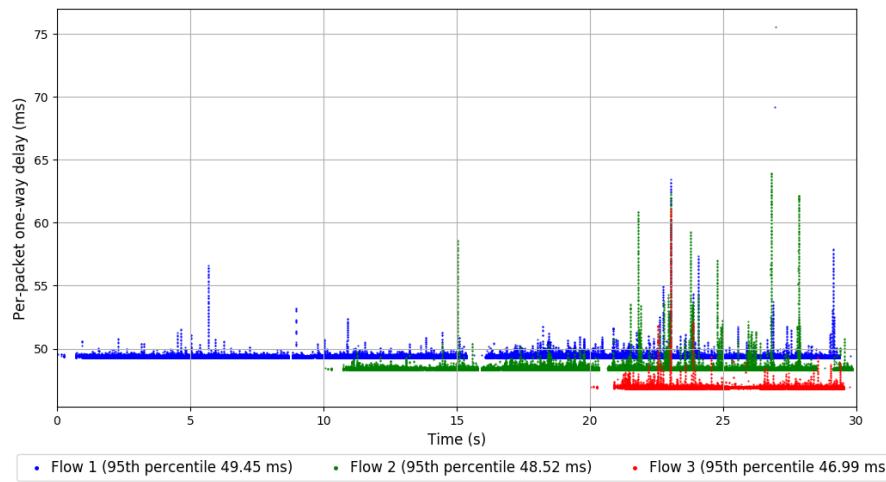
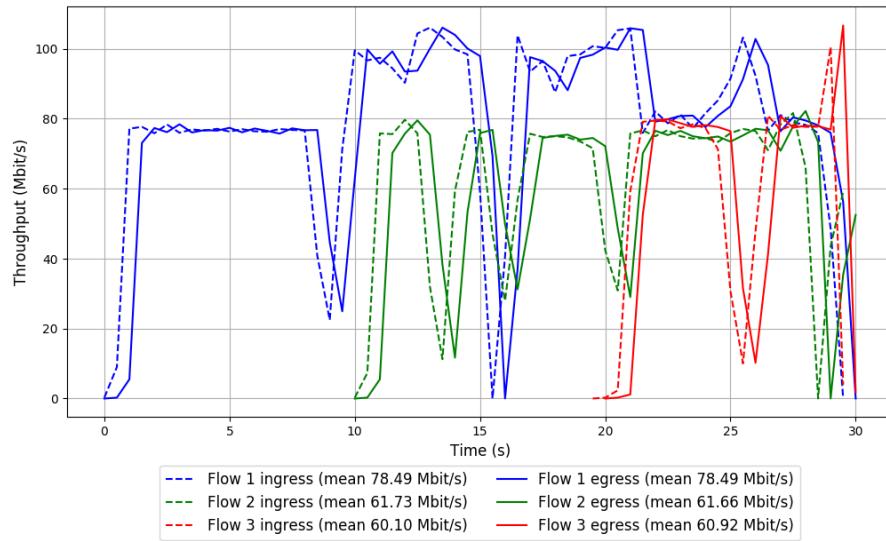


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-10-26 23:20:43
End at: 2018-10-26 23:21:13
Local clock offset: -0.42 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.12 Mbit/s
95th percentile per-packet one-way delay: 49.418 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 78.49 Mbit/s
95th percentile per-packet one-way delay: 49.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.66 Mbit/s
95th percentile per-packet one-way delay: 48.520 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 60.92 Mbit/s
95th percentile per-packet one-way delay: 46.987 ms
Loss rate: 0.33%
```

Run 4: Report of QUIC Cubic — Data Link

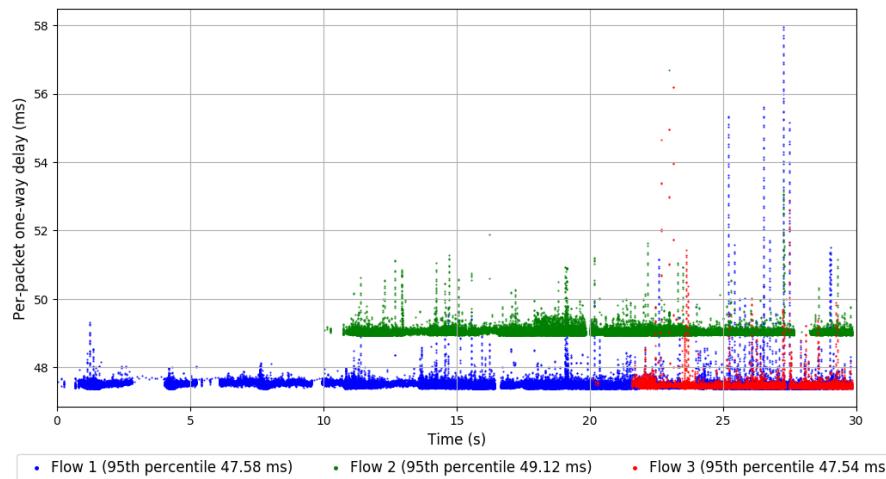
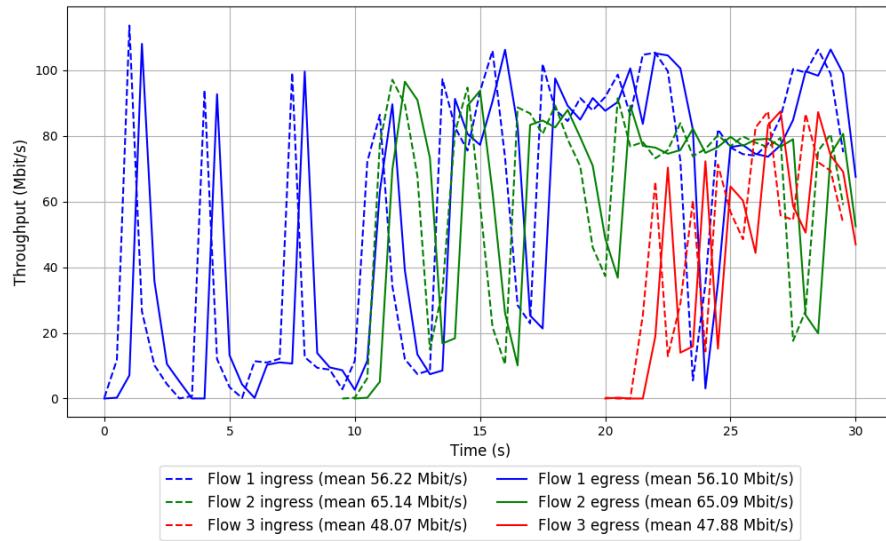


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-10-26 23:51:53
End at: 2018-10-26 23:52:23
Local clock offset: 0.267 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.03 Mbit/s
95th percentile per-packet one-way delay: 49.067 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 56.10 Mbit/s
95th percentile per-packet one-way delay: 47.575 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 65.09 Mbit/s
95th percentile per-packet one-way delay: 49.119 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 47.88 Mbit/s
95th percentile per-packet one-way delay: 47.536 ms
Loss rate: 1.38%
```

Run 5: Report of QUIC Cubic — Data Link

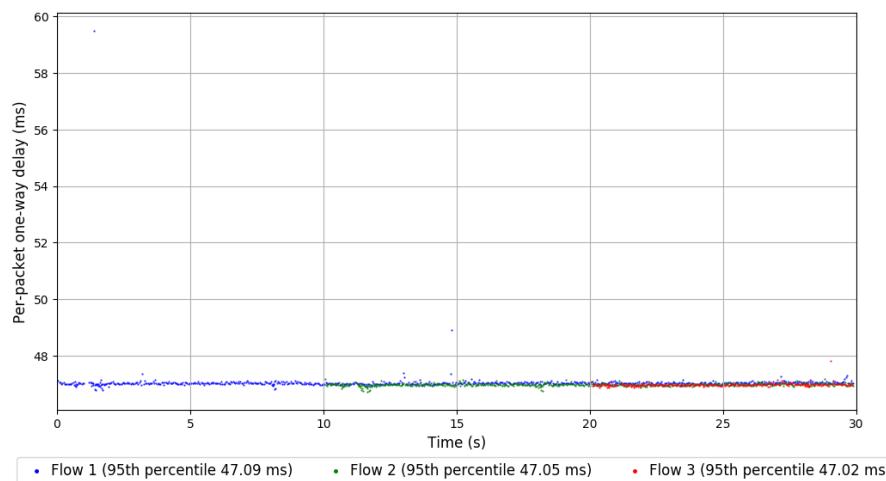
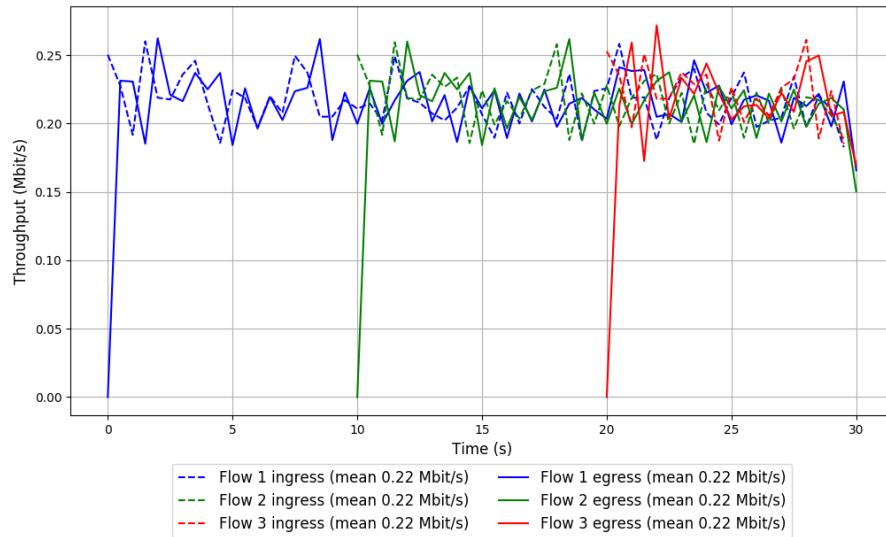


```
Run 1: Statistics of SCReAM
```

```
Start at: 2018-10-26 21:53:35
End at: 2018-10-26 21:54:05
Local clock offset: -0.496 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.074 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.091 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.045 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.025 ms
Loss rate: 1.09%
```

## Run 1: Report of SCReAM — Data Link

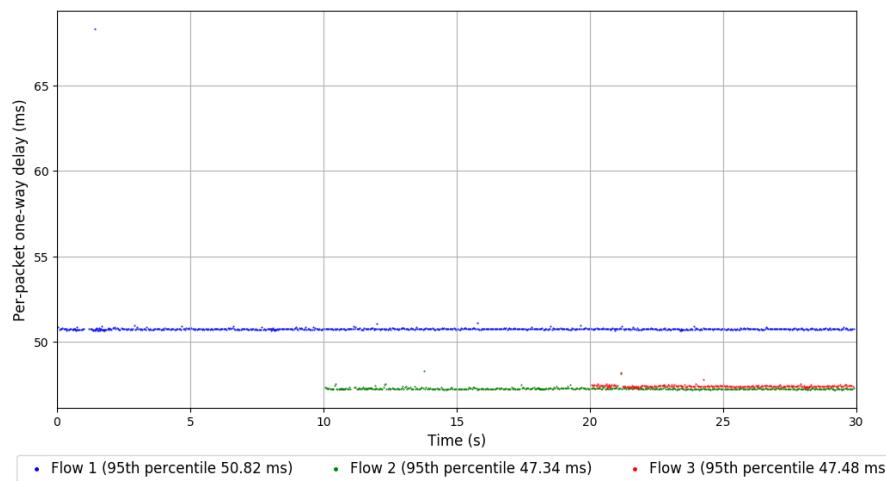
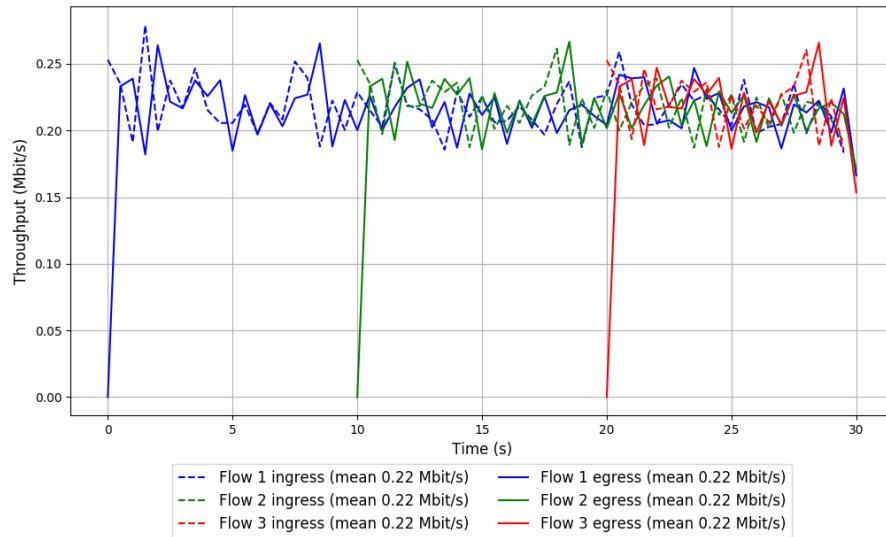


Run 2: Statistics of SCReAM

```
Start at: 2018-10-26 22:24:49
End at: 2018-10-26 22:25:19
Local clock offset: -0.176 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 50.800 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.824 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.339 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.483 ms
Loss rate: 1.09%
```

## Run 2: Report of SCReAM — Data Link

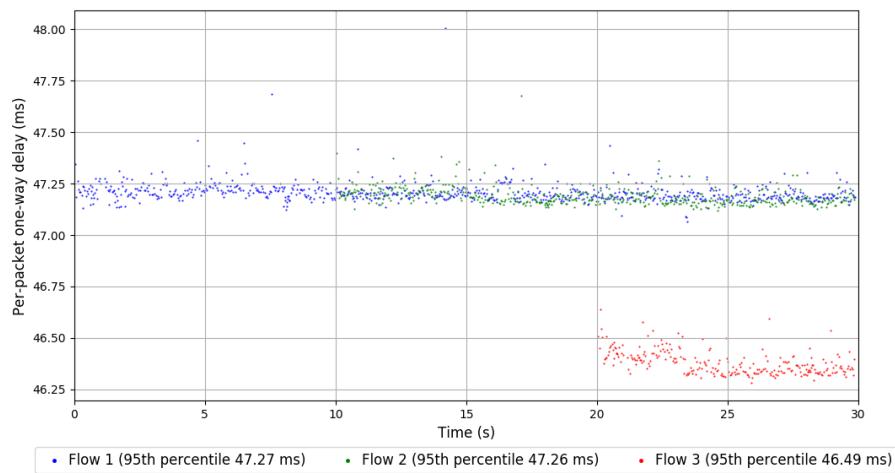
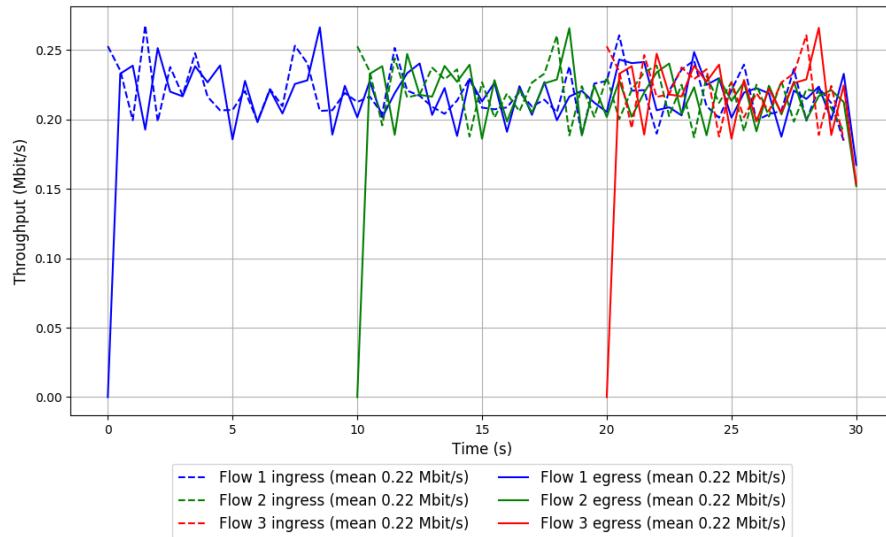


Run 3: Statistics of SCReAM

```
Start at: 2018-10-26 22:56:02
End at: 2018-10-26 22:56:32
Local clock offset: -0.25 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.261 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.273 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.256 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.493 ms
Loss rate: 1.09%
```

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

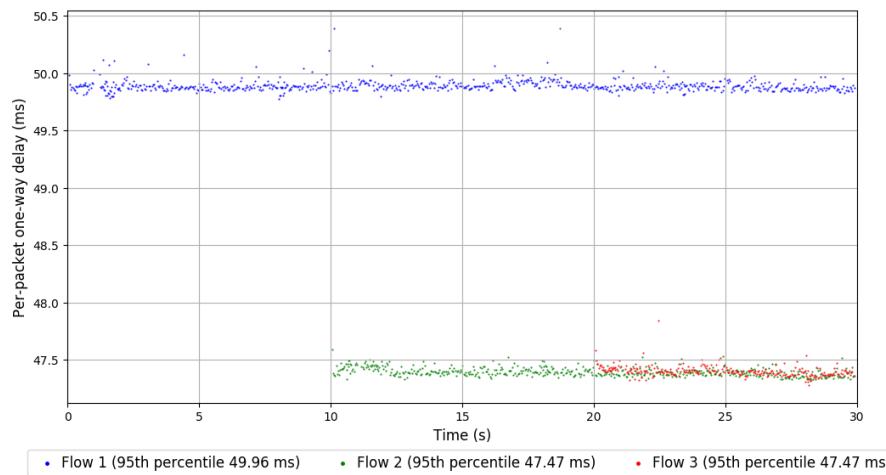
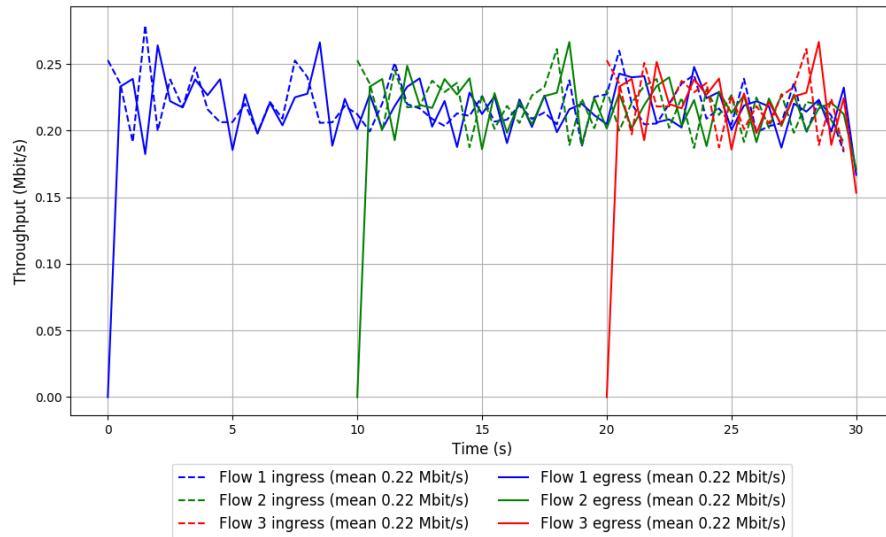


Run 4: Statistics of SCReAM

```
Start at: 2018-10-26 23:27:19
End at: 2018-10-26 23:27:49
Local clock offset: -0.091 ms
Remote clock offset: -0.323 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 49.938 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.964 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.468 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.468 ms
Loss rate: 1.09%
```

Run 4: Report of SCReAM — Data Link

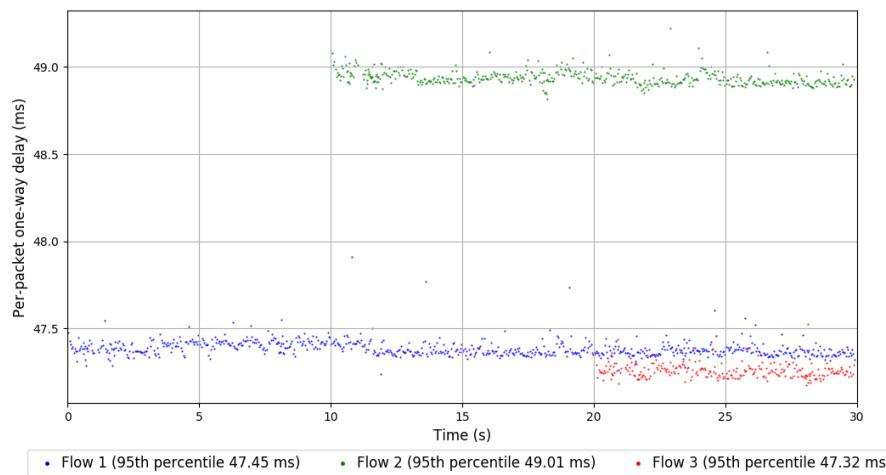
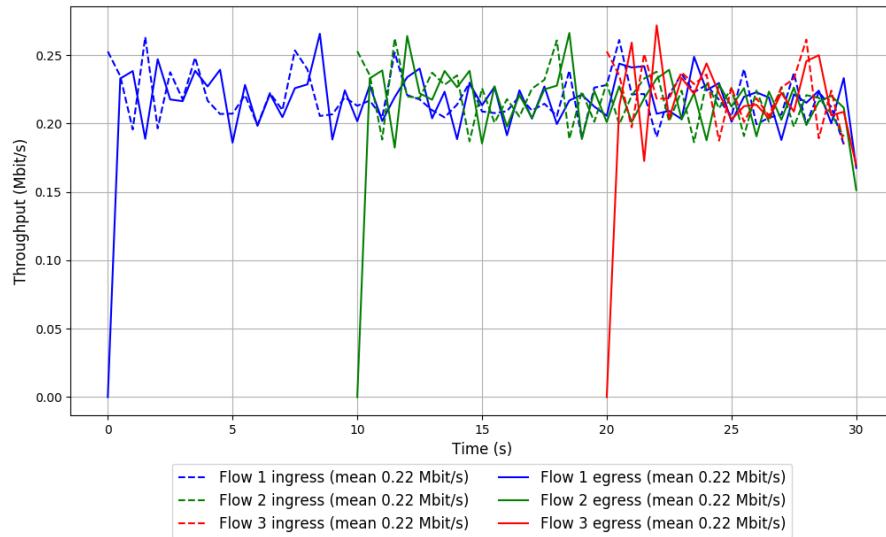


Run 5: Statistics of SCReAM

```
Start at: 2018-10-26 23:58:29
End at: 2018-10-26 23:58:59
Local clock offset: -0.03 ms
Remote clock offset: 0.044 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 48.978 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.453 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.010 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.316 ms
Loss rate: 1.09%
```

Run 5: Report of SCReAM — Data Link

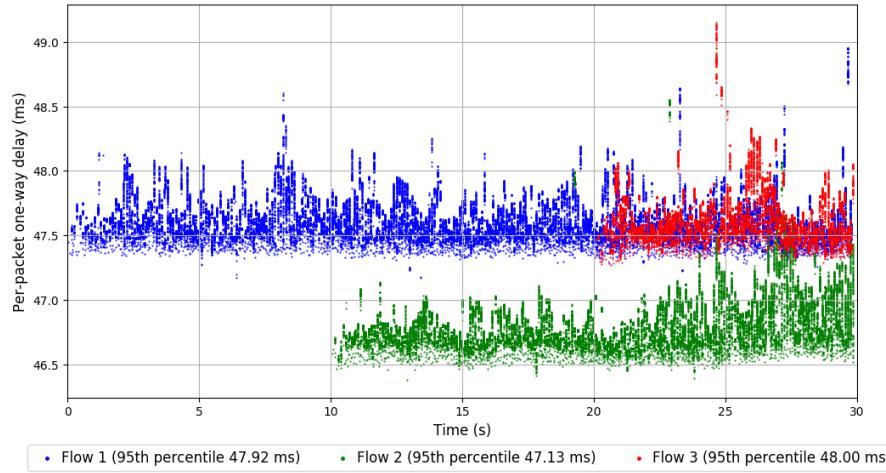
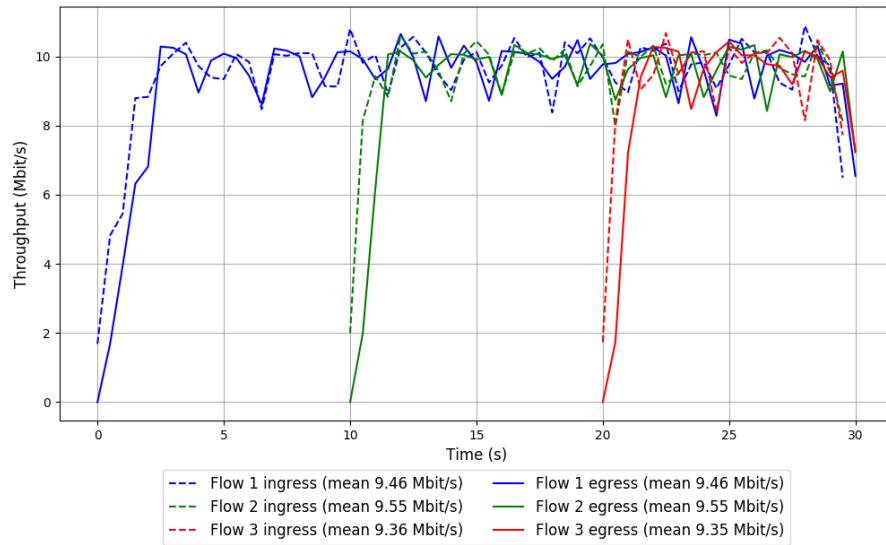


Run 1: Statistics of Sprout

```
Start at: 2018-10-26 21:43:44
End at: 2018-10-26 21:44:14
Local clock offset: -0.063 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.87 Mbit/s
95th percentile per-packet one-way delay: 47.877 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 9.46 Mbit/s
95th percentile per-packet one-way delay: 47.920 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 47.134 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 47.998 ms
Loss rate: 1.06%
```

## Run 1: Report of Sprout — Data Link

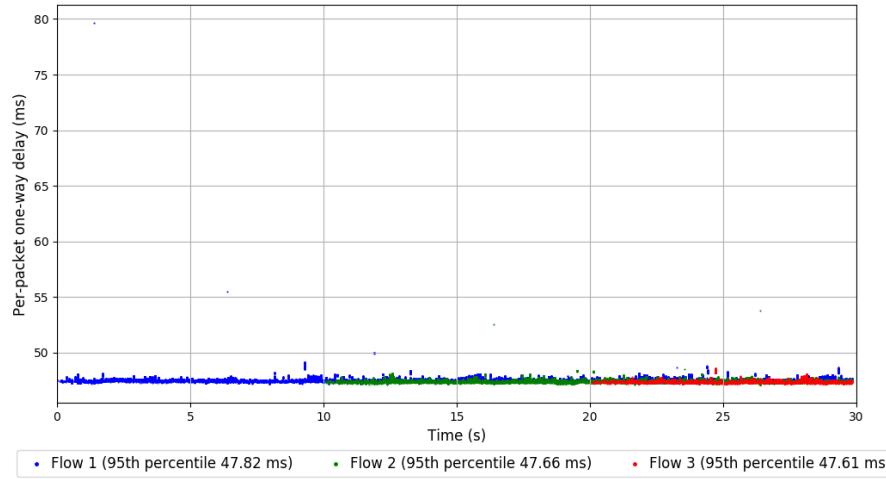
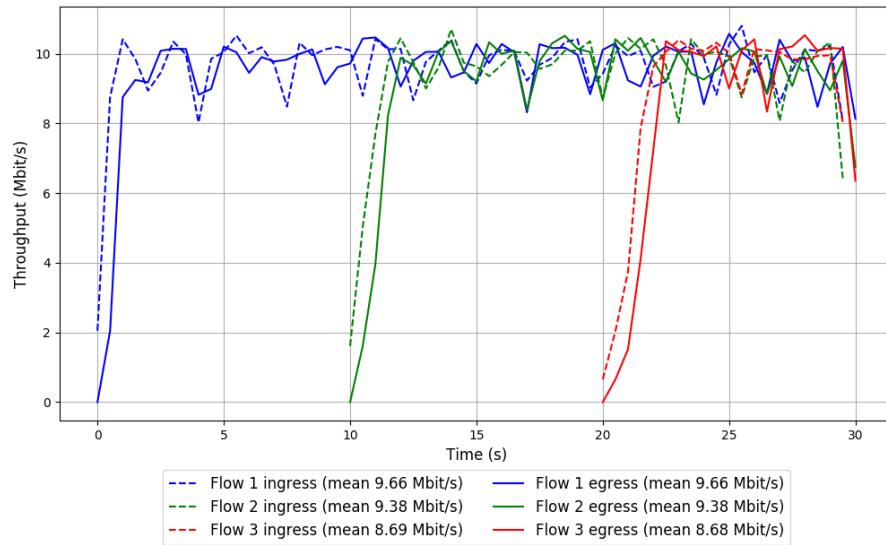


Run 2: Statistics of Sprout

```
Start at: 2018-10-26 22:14:59
End at: 2018-10-26 22:15:29
Local clock offset: -0.191 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.73 Mbit/s
95th percentile per-packet one-way delay: 47.754 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 9.66 Mbit/s
95th percentile per-packet one-way delay: 47.819 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 9.38 Mbit/s
95th percentile per-packet one-way delay: 47.661 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 47.606 ms
Loss rate: 1.17%
```

## Run 2: Report of Sprout — Data Link

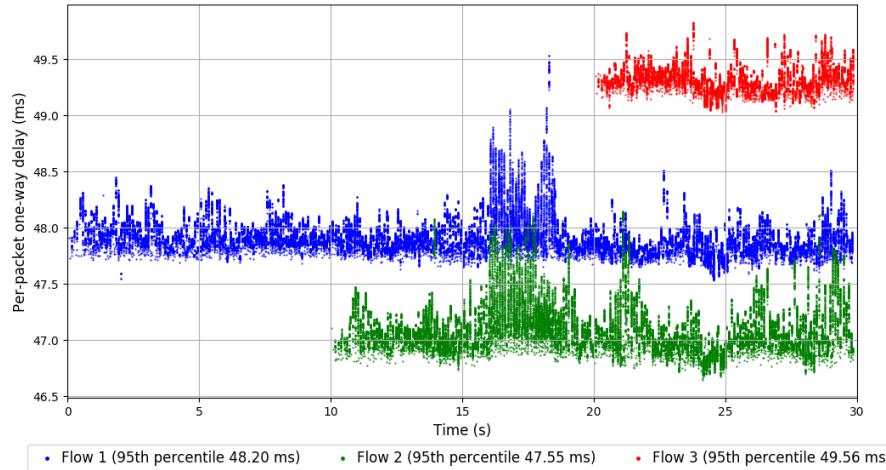
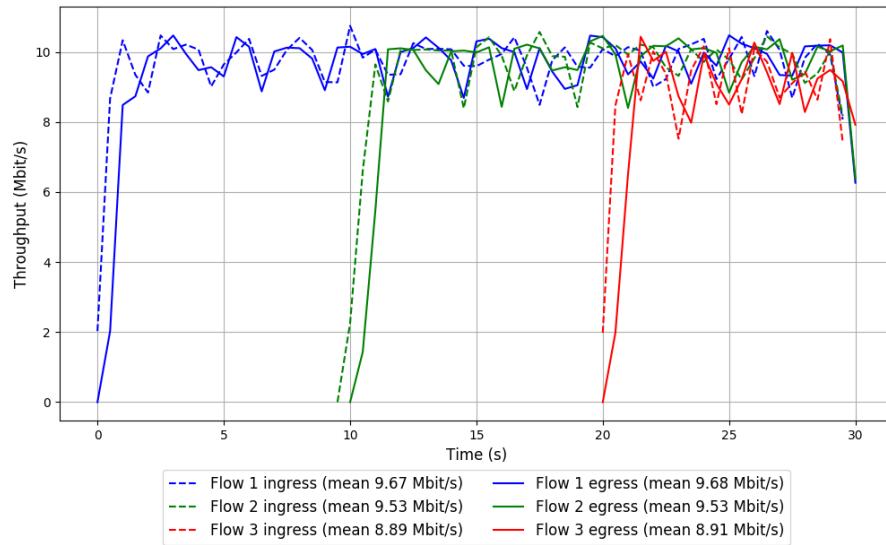


Run 3: Statistics of Sprout

```
Start at: 2018-10-26 22:46:17
End at: 2018-10-26 22:46:47
Local clock offset: 0.172 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.92 Mbit/s
95th percentile per-packet one-way delay: 49.365 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 48.204 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 47.550 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 8.91 Mbit/s
95th percentile per-packet one-way delay: 49.556 ms
Loss rate: 0.85%
```

Run 3: Report of Sprout — Data Link

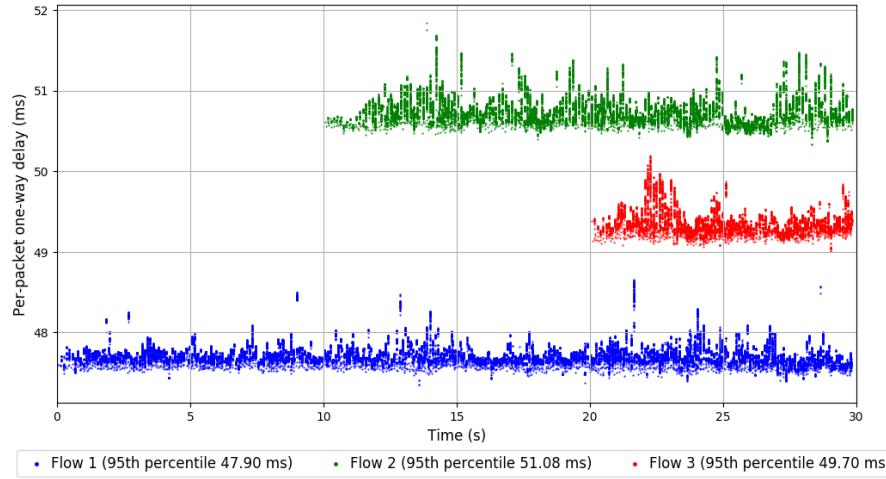
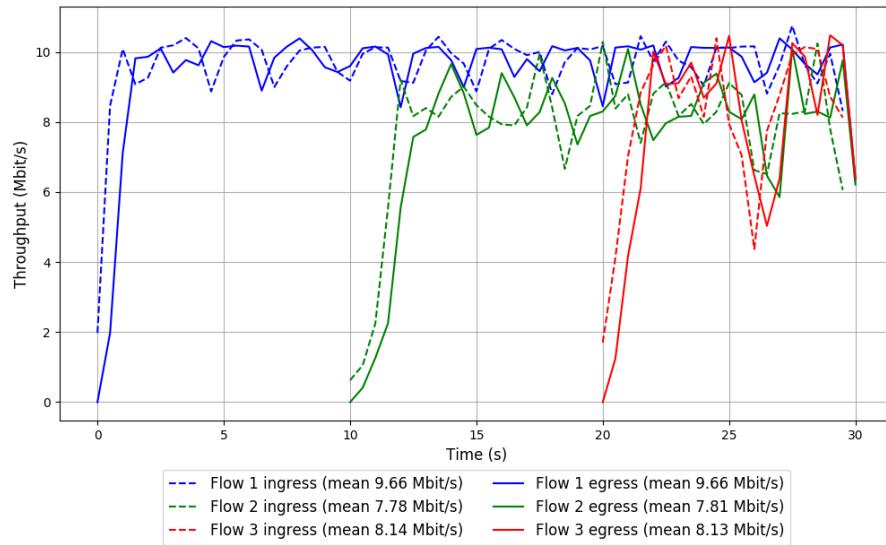


Run 4: Statistics of Sprout

```
Start at: 2018-10-26 23:17:29
End at: 2018-10-26 23:17:59
Local clock offset: 0.22 ms
Remote clock offset: -0.285 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.51 Mbit/s
95th percentile per-packet one-way delay: 50.900 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 9.66 Mbit/s
95th percentile per-packet one-way delay: 47.901 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 7.81 Mbit/s
95th percentile per-packet one-way delay: 51.077 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 49.697 ms
Loss rate: 1.21%
```

Run 4: Report of Sprout — Data Link

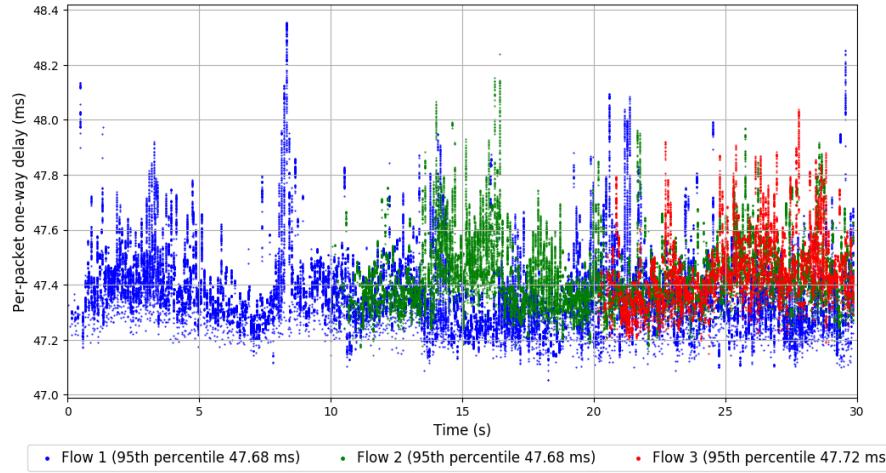
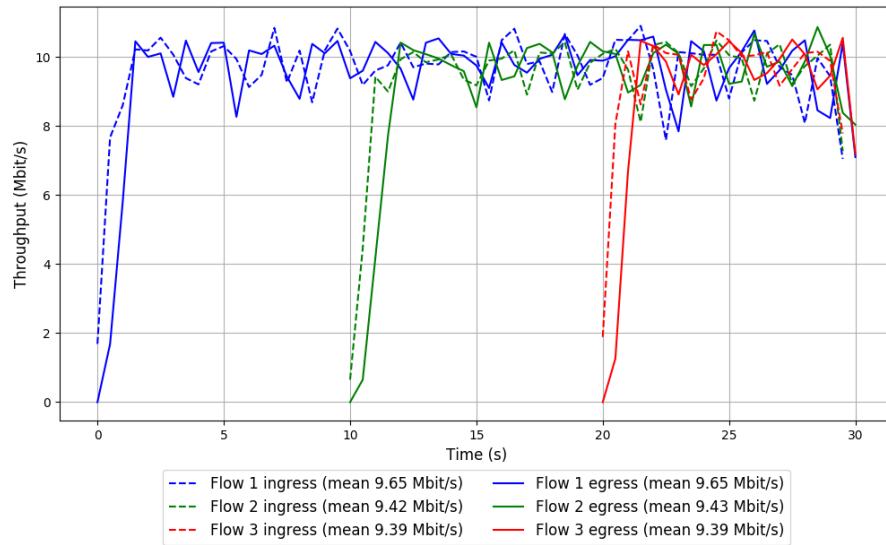


Run 5: Statistics of Sprout

```
Start at: 2018-10-26 23:48:37
End at: 2018-10-26 23:49:07
Local clock offset: -0.088 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2018-10-27 02:18:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.99 Mbit/s
95th percentile per-packet one-way delay: 47.685 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 47.678 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 47.676 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 47.717 ms
Loss rate: 1.06%
```

Run 5: Report of Sprout — Data Link

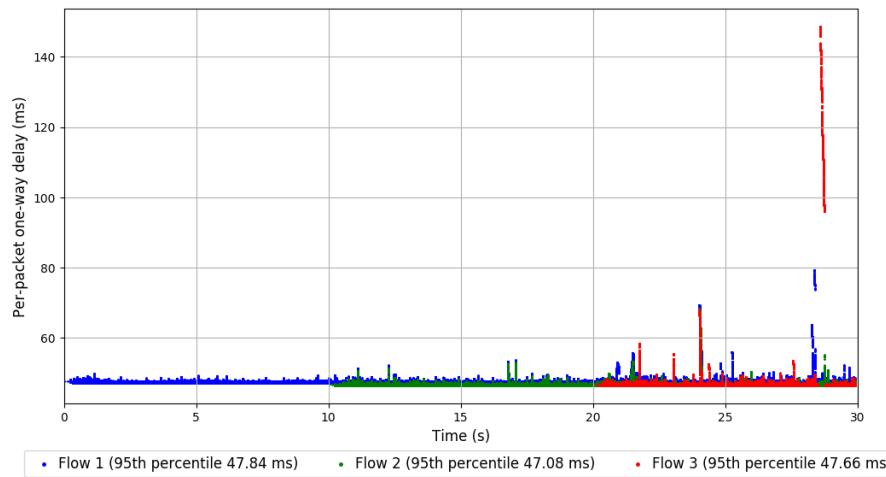
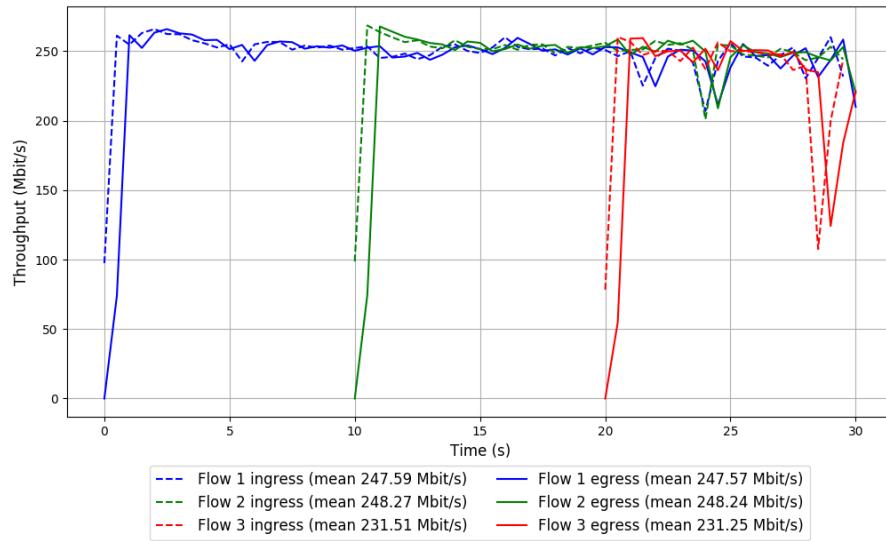


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-10-26 21:28:31
End at: 2018-10-26 21:29:01
Local clock offset: -0.073 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-10-27 02:27:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.89 Mbit/s
95th percentile per-packet one-way delay: 47.675 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 247.57 Mbit/s
95th percentile per-packet one-way delay: 47.835 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 248.24 Mbit/s
95th percentile per-packet one-way delay: 47.084 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 231.25 Mbit/s
95th percentile per-packet one-way delay: 47.664 ms
Loss rate: 1.05%
```

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

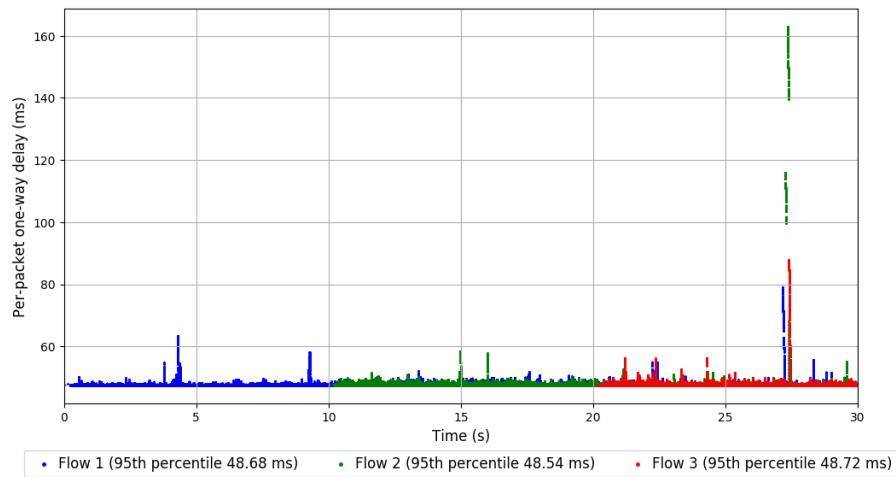
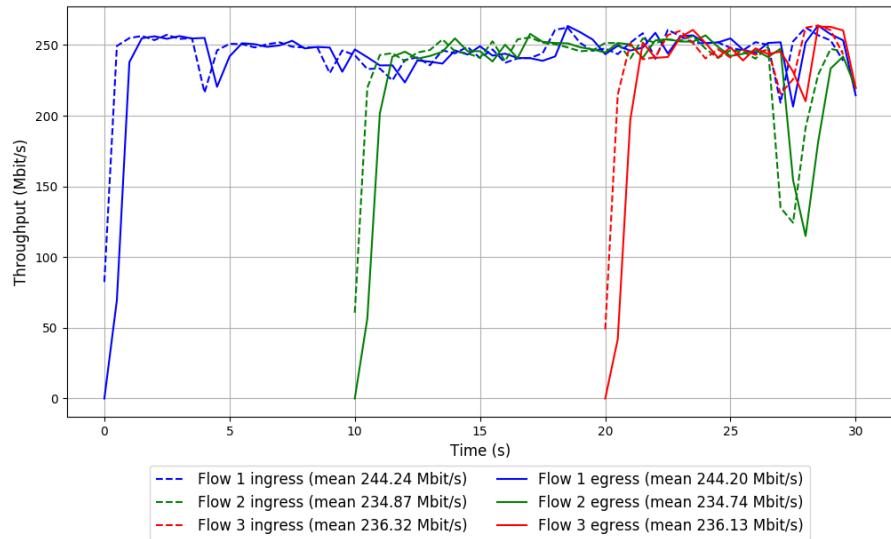


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-10-26 21:59:53
End at: 2018-10-26 22:00:23
Local clock offset: 0.234 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-10-27 02:27:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 478.16 Mbit/s
95th percentile per-packet one-way delay: 48.639 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 244.20 Mbit/s
95th percentile per-packet one-way delay: 48.677 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 234.74 Mbit/s
95th percentile per-packet one-way delay: 48.539 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 236.13 Mbit/s
95th percentile per-packet one-way delay: 48.724 ms
Loss rate: 1.02%
```

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

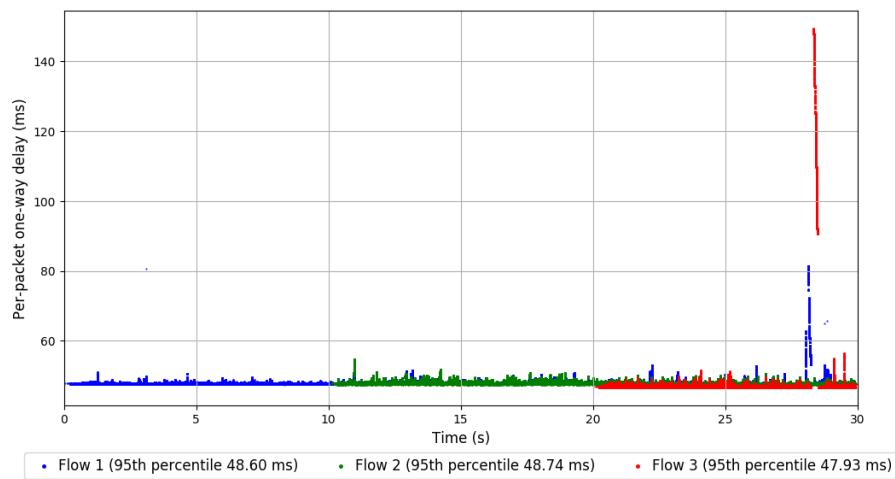
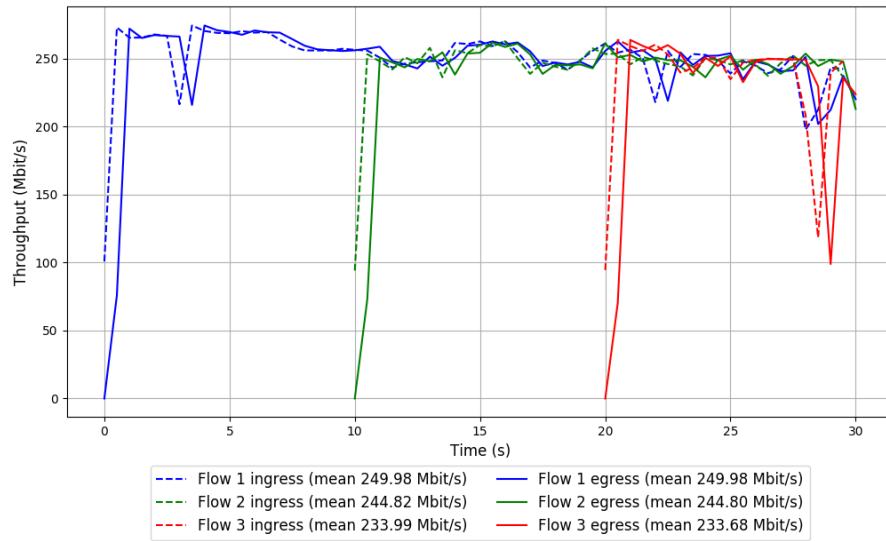


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-10-26 22:30:57
End at: 2018-10-26 22:31:27
Local clock offset: 0.208 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2018-10-27 02:27:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.99 Mbit/s
95th percentile per-packet one-way delay: 48.635 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 249.98 Mbit/s
95th percentile per-packet one-way delay: 48.600 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 244.80 Mbit/s
95th percentile per-packet one-way delay: 48.739 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 233.68 Mbit/s
95th percentile per-packet one-way delay: 47.926 ms
Loss rate: 1.07%
```

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

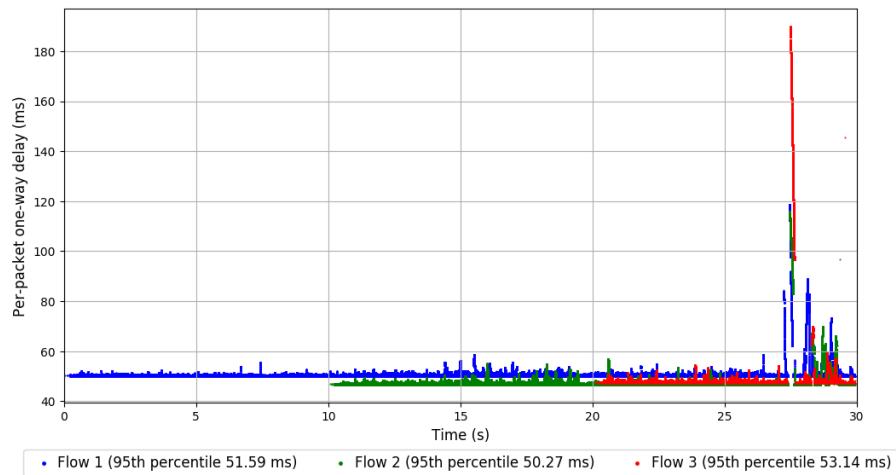
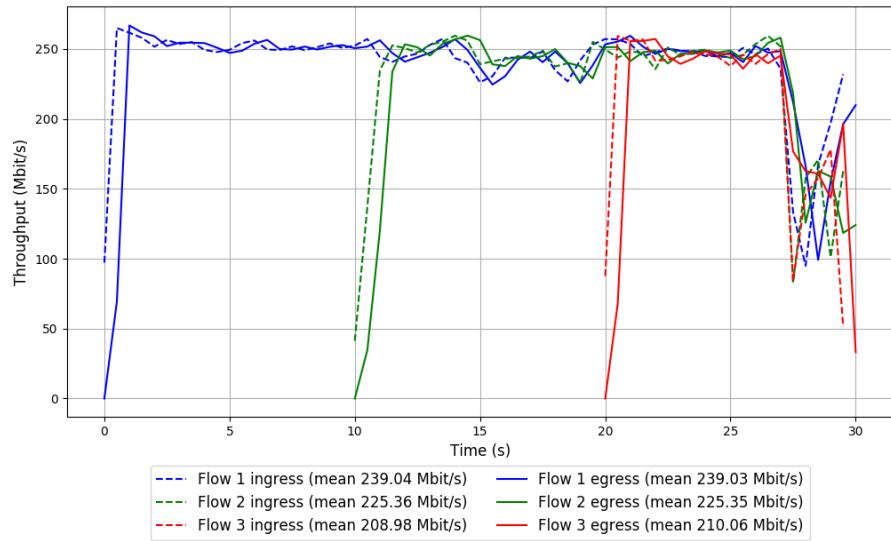


Run 4: Statistics of TaoVA-100x

```
Start at: 2018-10-26 23:02:14
End at: 2018-10-26 23:02:44
Local clock offset: 0.206 ms
Remote clock offset: -0.222 ms

# Below is generated by plot.py at 2018-10-27 02:27:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 458.26 Mbit/s
95th percentile per-packet one-way delay: 51.490 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 239.03 Mbit/s
95th percentile per-packet one-way delay: 51.585 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 225.35 Mbit/s
95th percentile per-packet one-way delay: 50.272 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 210.06 Mbit/s
95th percentile per-packet one-way delay: 53.138 ms
Loss rate: 0.43%
```

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

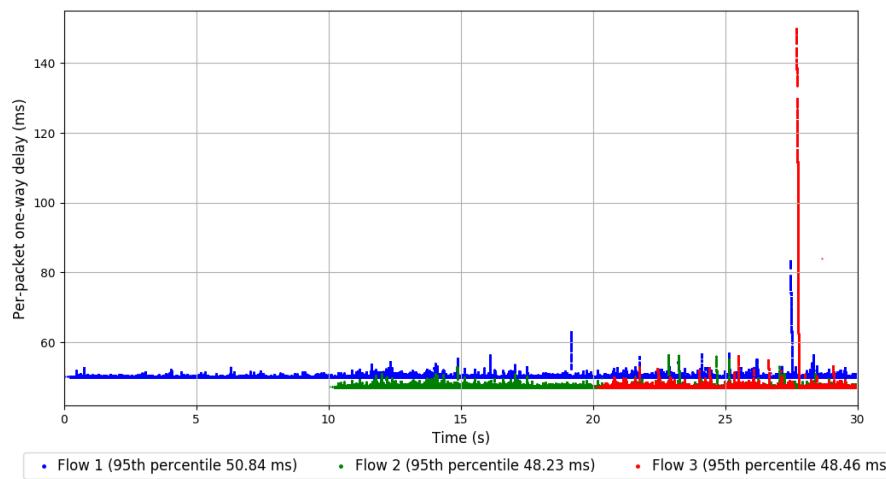
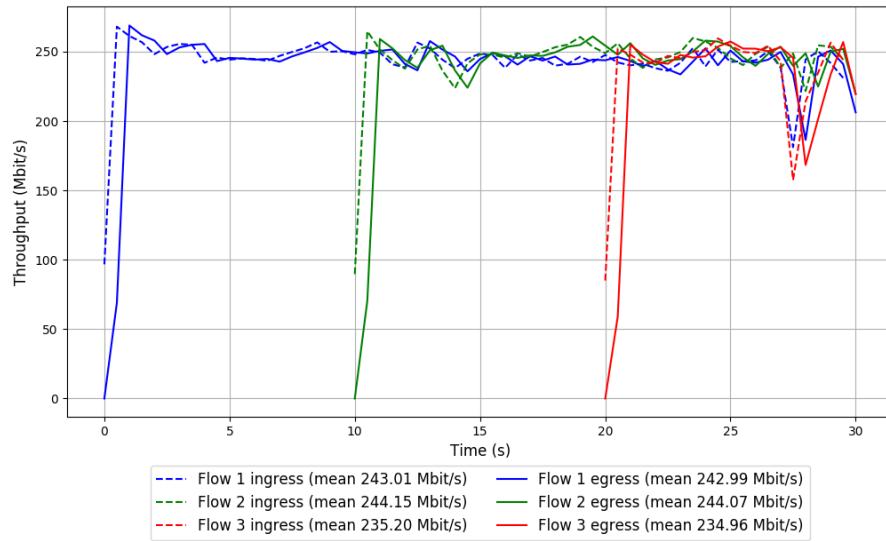


Run 5: Statistics of TaoVA-100x

```
Start at: 2018-10-26 23:33:24
End at: 2018-10-26 23:33:54
Local clock offset: -0.1 ms
Remote clock offset: -0.247 ms

# Below is generated by plot.py at 2018-10-27 02:27:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 482.78 Mbit/s
95th percentile per-packet one-way delay: 50.499 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 242.99 Mbit/s
95th percentile per-packet one-way delay: 50.841 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 244.07 Mbit/s
95th percentile per-packet one-way delay: 48.233 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 234.96 Mbit/s
95th percentile per-packet one-way delay: 48.459 ms
Loss rate: 1.06%
```

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

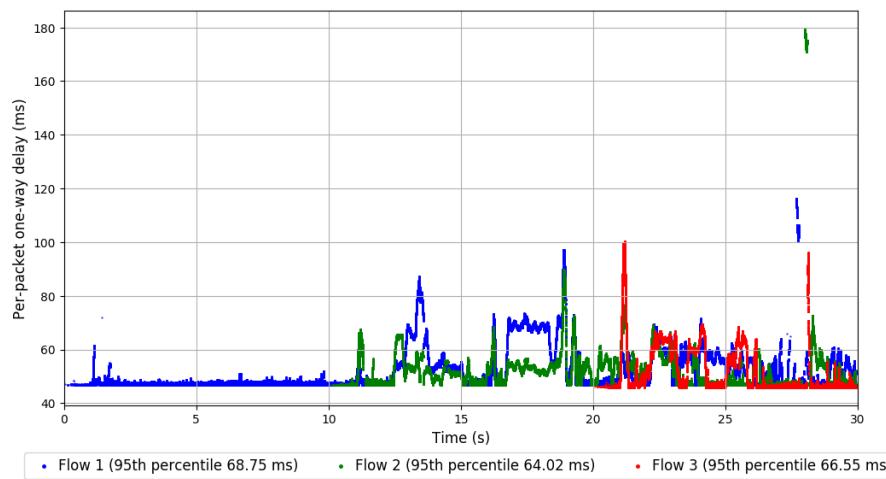
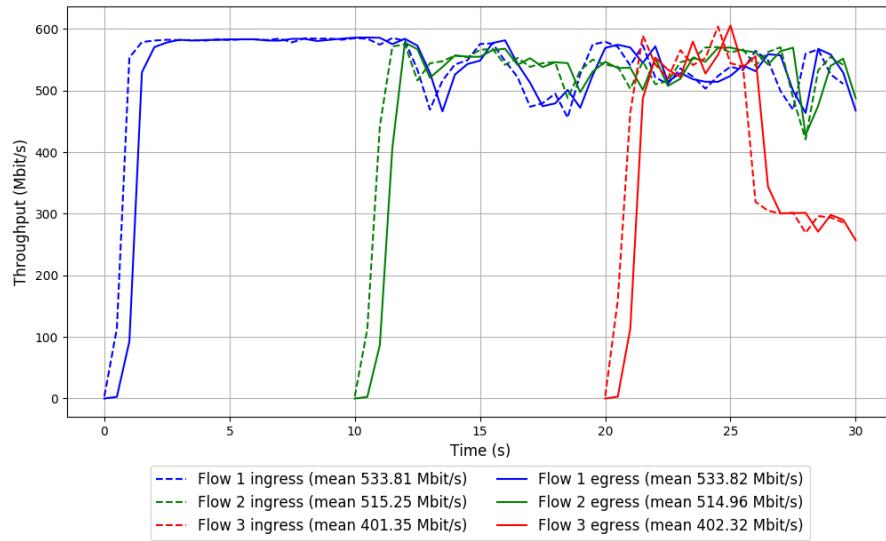


Run 1: Statistics of TCP Vegas

```
Start at: 2018-10-26 21:32:32
End at: 2018-10-26 21:33:02
Local clock offset: -0.486 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-10-27 02:33:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1009.10 Mbit/s
95th percentile per-packet one-way delay: 67.659 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 533.82 Mbit/s
95th percentile per-packet one-way delay: 68.747 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 514.96 Mbit/s
95th percentile per-packet one-way delay: 64.021 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 402.32 Mbit/s
95th percentile per-packet one-way delay: 66.545 ms
Loss rate: 0.70%
```

Run 1: Report of TCP Vegas — Data Link

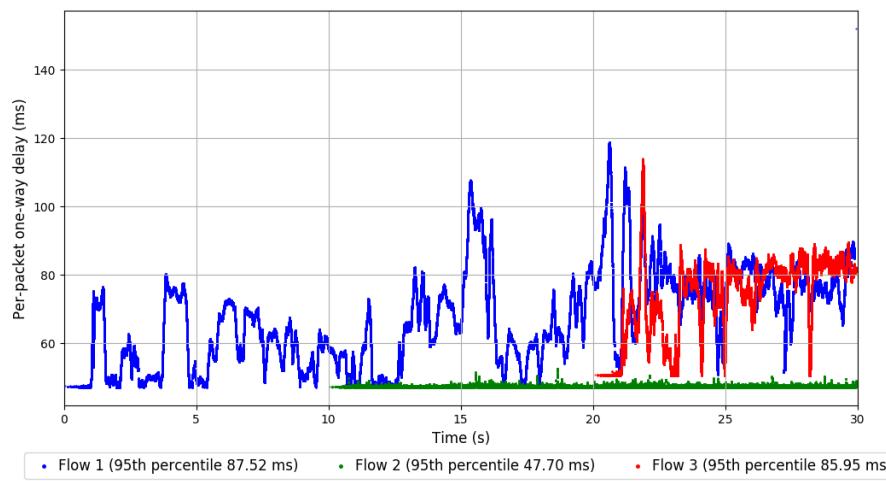
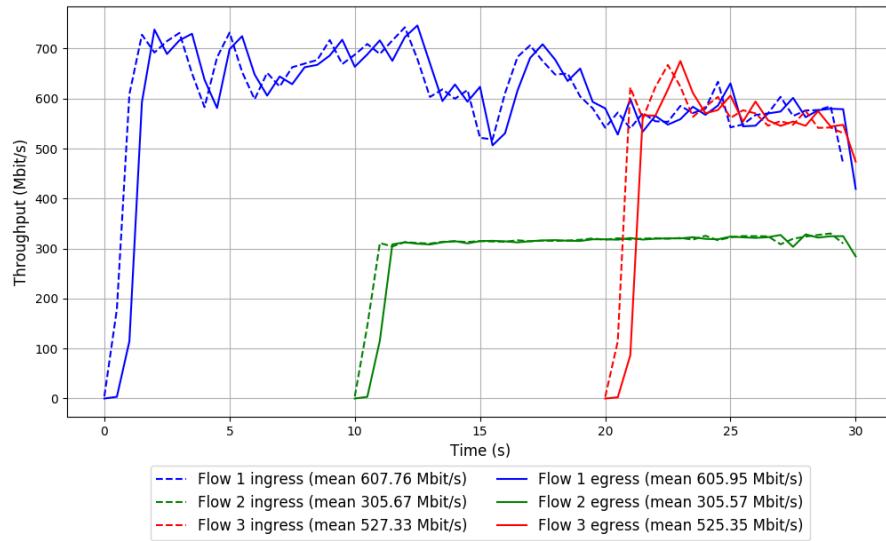


Run 2: Statistics of TCP Vegas

```
Start at: 2018-10-26 22:03:46
End at: 2018-10-26 22:04:16
Local clock offset: -0.176 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-10-27 02:34:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 982.33 Mbit/s
95th percentile per-packet one-way delay: 85.452 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 605.95 Mbit/s
95th percentile per-packet one-way delay: 87.523 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 305.57 Mbit/s
95th percentile per-packet one-way delay: 47.702 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 525.35 Mbit/s
95th percentile per-packet one-way delay: 85.953 ms
Loss rate: 1.35%
```

Run 2: Report of TCP Vegas — Data Link

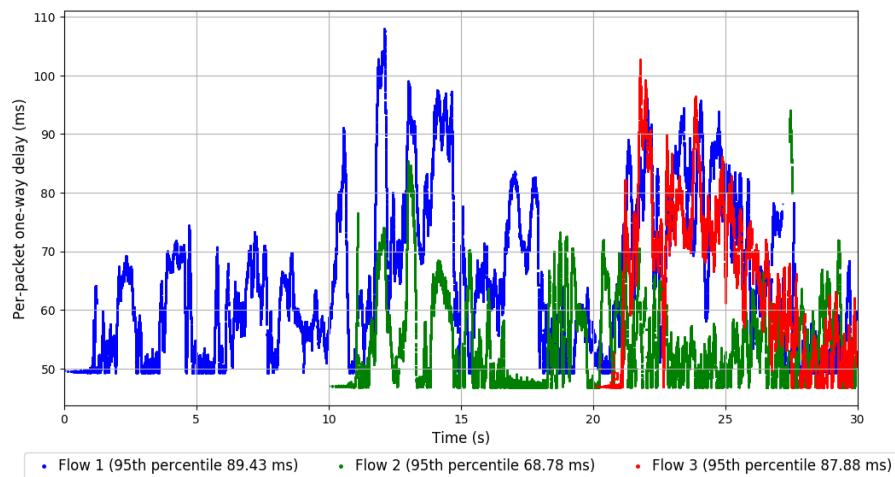
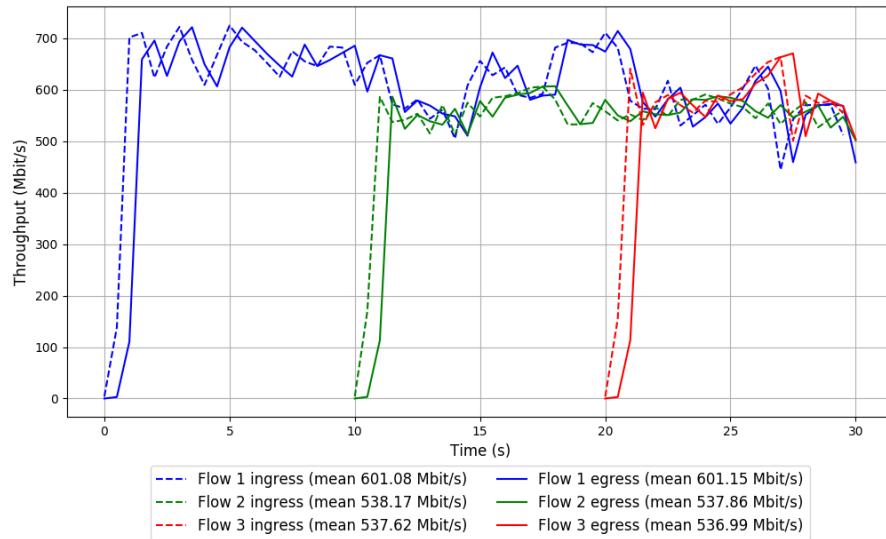


Run 3: Statistics of TCP Vegas

```
Start at: 2018-10-26 22:34:53
End at: 2018-10-26 22:35:23
Local clock offset: -0.536 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-10-27 02:40:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1136.32 Mbit/s
95th percentile per-packet one-way delay: 86.153 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 601.15 Mbit/s
95th percentile per-packet one-way delay: 89.426 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 537.86 Mbit/s
95th percentile per-packet one-way delay: 68.778 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 536.99 Mbit/s
95th percentile per-packet one-way delay: 87.880 ms
Loss rate: 1.07%
```

Run 3: Report of TCP Vegas — Data Link

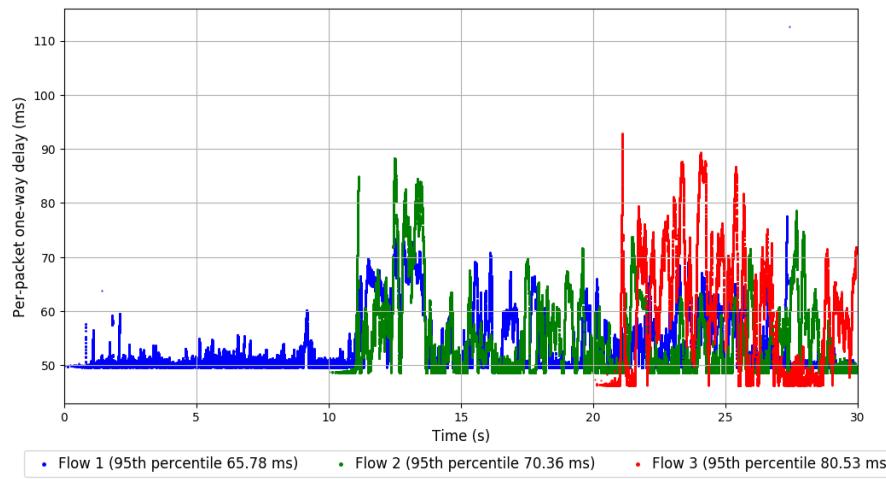
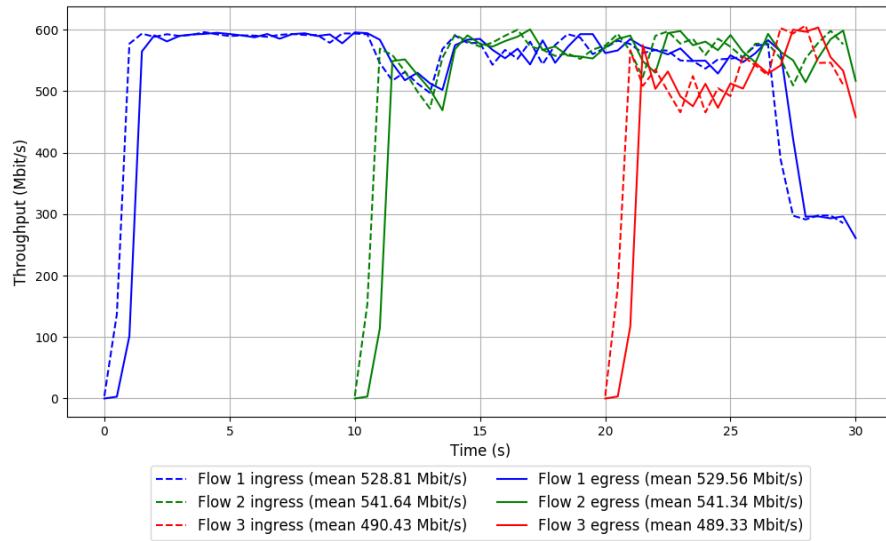


Run 4: Statistics of TCP Vegas

```
Start at: 2018-10-26 23:06:01
End at: 2018-10-26 23:06:31
Local clock offset: -0.153 ms
Remote clock offset: -0.228 ms

# Below is generated by plot.py at 2018-10-27 02:45:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1051.44 Mbit/s
95th percentile per-packet one-way delay: 70.189 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 529.56 Mbit/s
95th percentile per-packet one-way delay: 65.778 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 541.34 Mbit/s
95th percentile per-packet one-way delay: 70.359 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 489.33 Mbit/s
95th percentile per-packet one-way delay: 80.532 ms
Loss rate: 1.17%
```

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

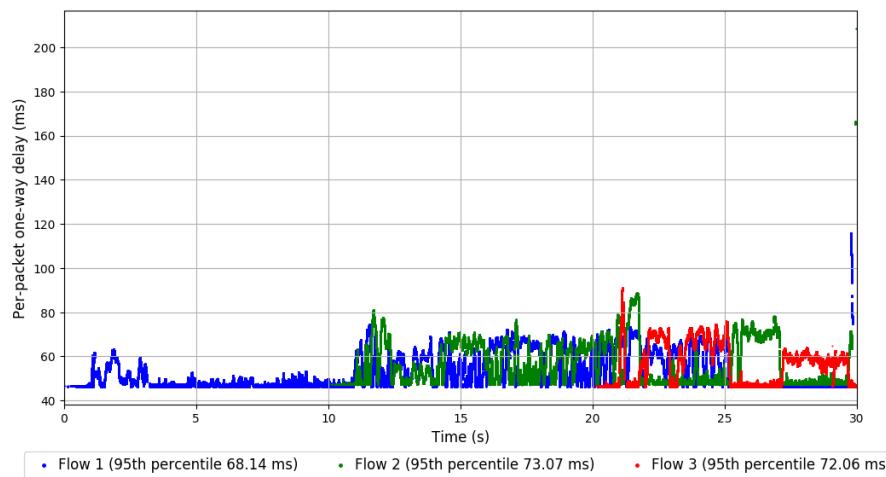
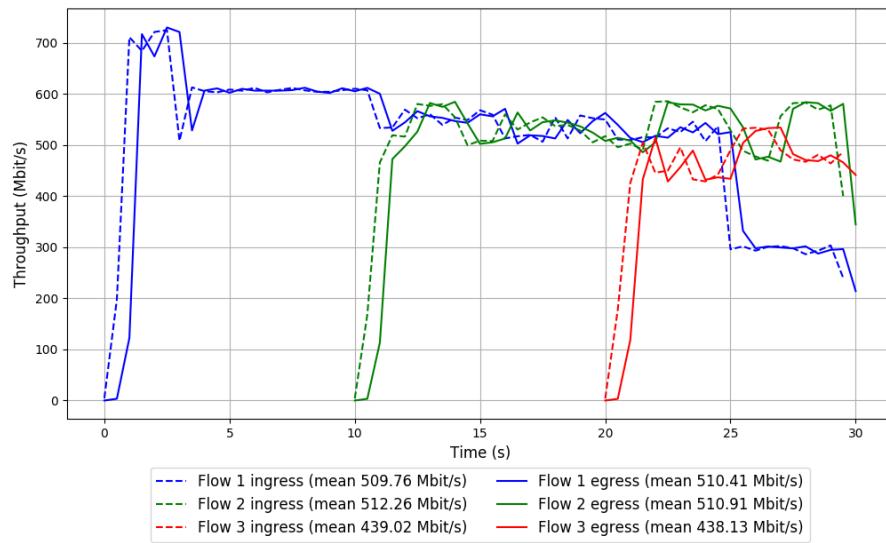


Run 5: Statistics of TCP Vegas

```
Start at: 2018-10-26 23:37:18
End at: 2018-10-26 23:37:48
Local clock offset: -0.063 ms
Remote clock offset: -0.168 ms

# Below is generated by plot.py at 2018-10-27 02:45:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 994.32 Mbit/s
95th percentile per-packet one-way delay: 70.803 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 510.41 Mbit/s
95th percentile per-packet one-way delay: 68.139 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 510.91 Mbit/s
95th percentile per-packet one-way delay: 73.072 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 438.13 Mbit/s
95th percentile per-packet one-way delay: 72.056 ms
Loss rate: 1.14%
```

Run 5: Report of TCP Vegas — Data Link

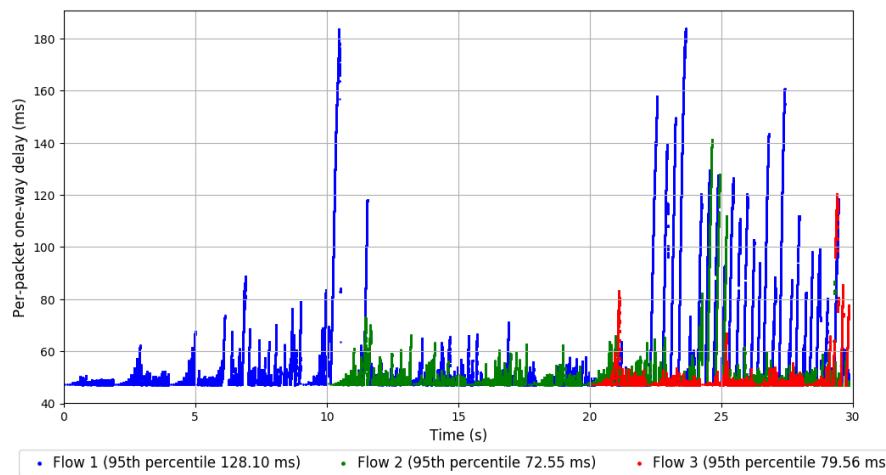
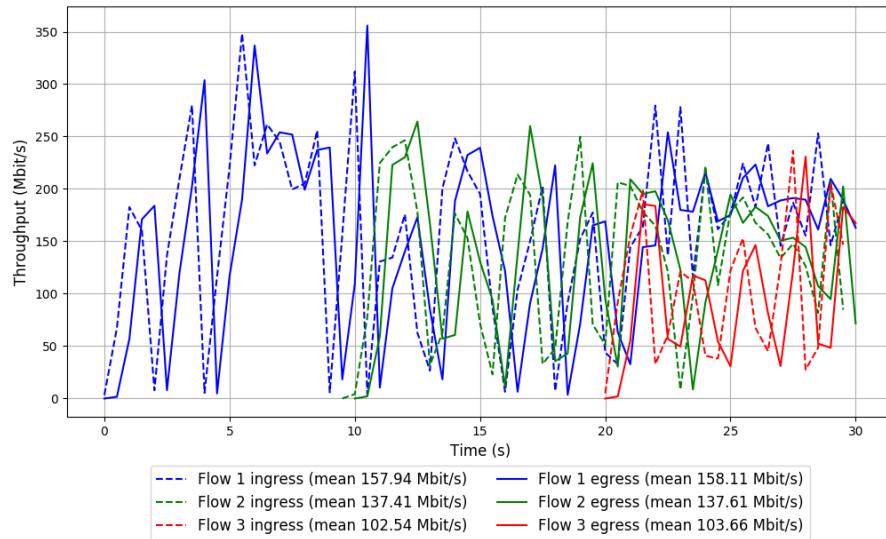


Run 1: Statistics of Verus

```
Start at: 2018-10-26 21:51:59
End at: 2018-10-26 21:52:29
Local clock offset: -0.115 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-10-27 02:45:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.62 Mbit/s
95th percentile per-packet one-way delay: 113.797 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 158.11 Mbit/s
95th percentile per-packet one-way delay: 128.100 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 137.61 Mbit/s
95th percentile per-packet one-way delay: 72.548 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 103.66 Mbit/s
95th percentile per-packet one-way delay: 79.558 ms
Loss rate: 0.08%
```

Run 1: Report of Verus — Data Link

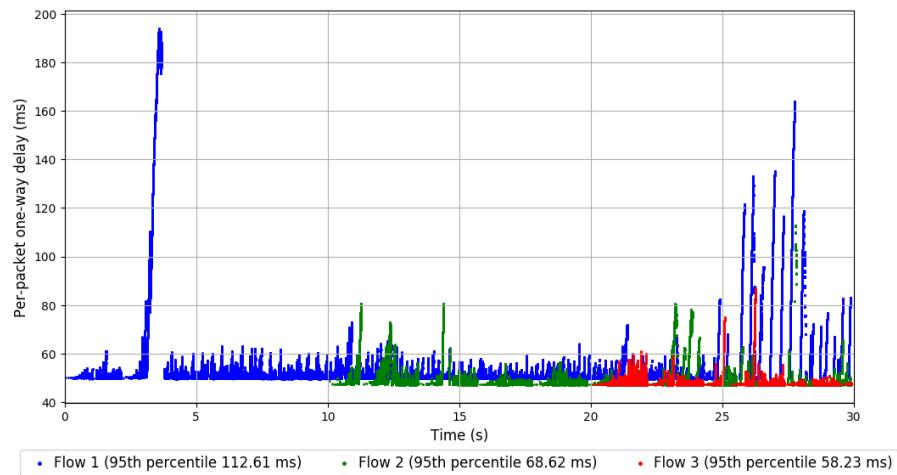
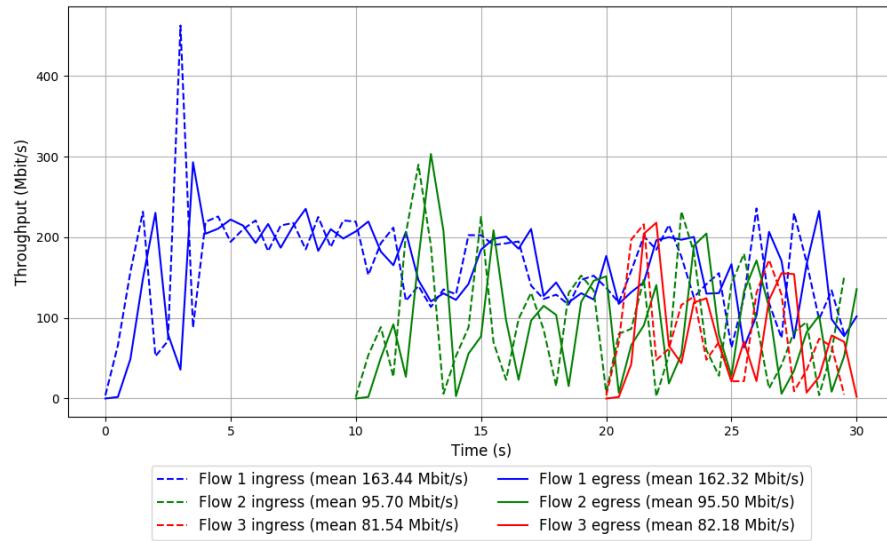


Run 2: Statistics of Verus

```
Start at: 2018-10-26 22:23:15
End at: 2018-10-26 22:23:45
Local clock offset: -0.217 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-10-27 02:45:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.69 Mbit/s
95th percentile per-packet one-way delay: 93.450 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 162.32 Mbit/s
95th percentile per-packet one-way delay: 112.612 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 95.50 Mbit/s
95th percentile per-packet one-way delay: 68.617 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 82.18 Mbit/s
95th percentile per-packet one-way delay: 58.231 ms
Loss rate: 0.17%
```

Run 2: Report of Verus — Data Link

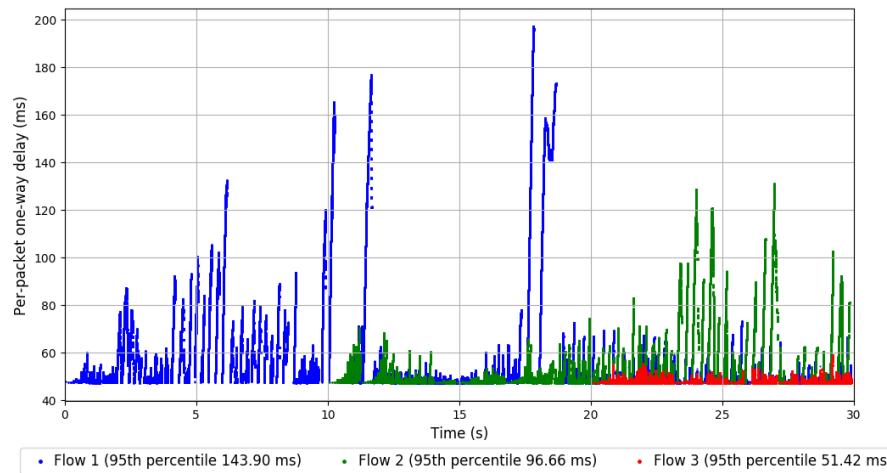
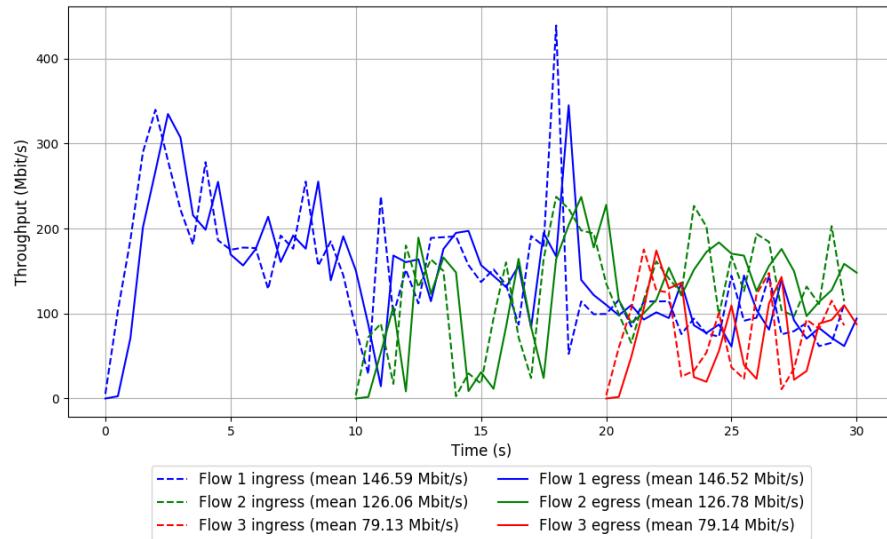


Run 3: Statistics of Verus

```
Start at: 2018-10-26 22:54:28
End at: 2018-10-26 22:54:58
Local clock offset: -0.15 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2018-10-27 02:45:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.55 Mbit/s
95th percentile per-packet one-way delay: 115.670 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 146.52 Mbit/s
95th percentile per-packet one-way delay: 143.901 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 126.78 Mbit/s
95th percentile per-packet one-way delay: 96.661 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 79.14 Mbit/s
95th percentile per-packet one-way delay: 51.419 ms
Loss rate: 0.34%
```

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

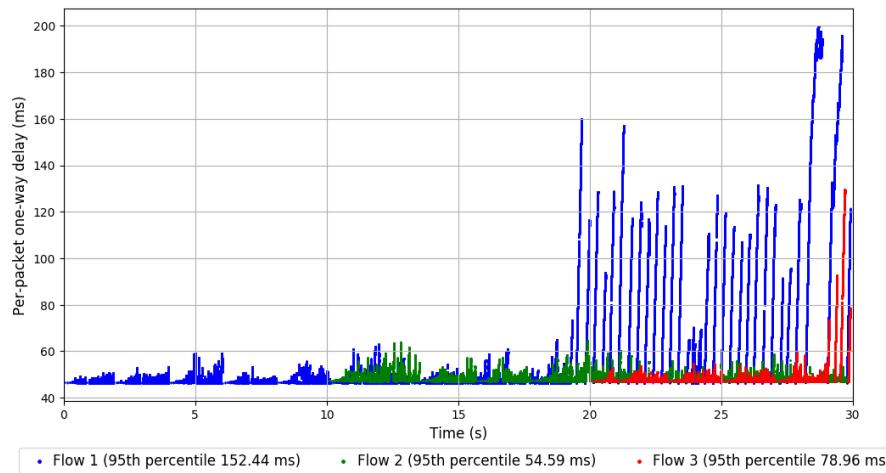
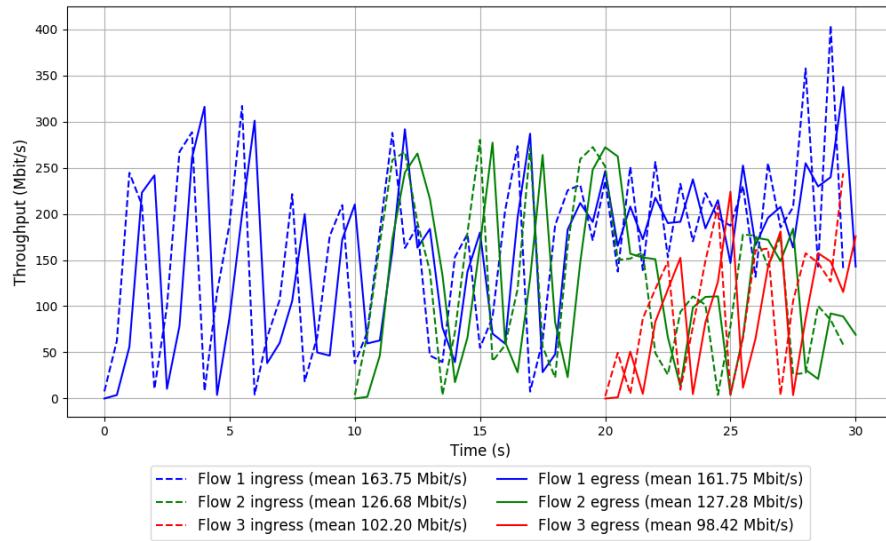


Run 4: Statistics of Verus

```
Start at: 2018-10-26 23:25:42
End at: 2018-10-26 23:26:12
Local clock offset: -0.135 ms
Remote clock offset: -0.29 ms

# Below is generated by plot.py at 2018-10-27 02:45:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.54 Mbit/s
95th percentile per-packet one-way delay: 126.062 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 161.75 Mbit/s
95th percentile per-packet one-way delay: 152.435 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 127.28 Mbit/s
95th percentile per-packet one-way delay: 54.593 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.42 Mbit/s
95th percentile per-packet one-way delay: 78.956 ms
Loss rate: 4.77%
```

## Run 4: Report of Verus — Data Link

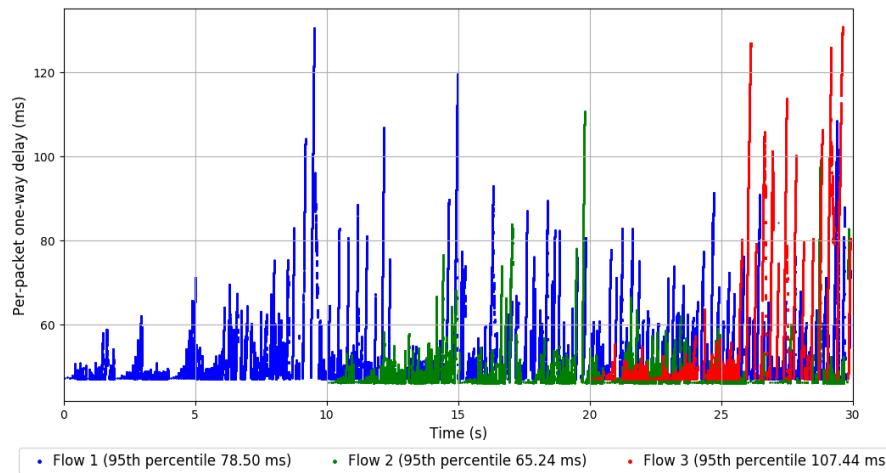
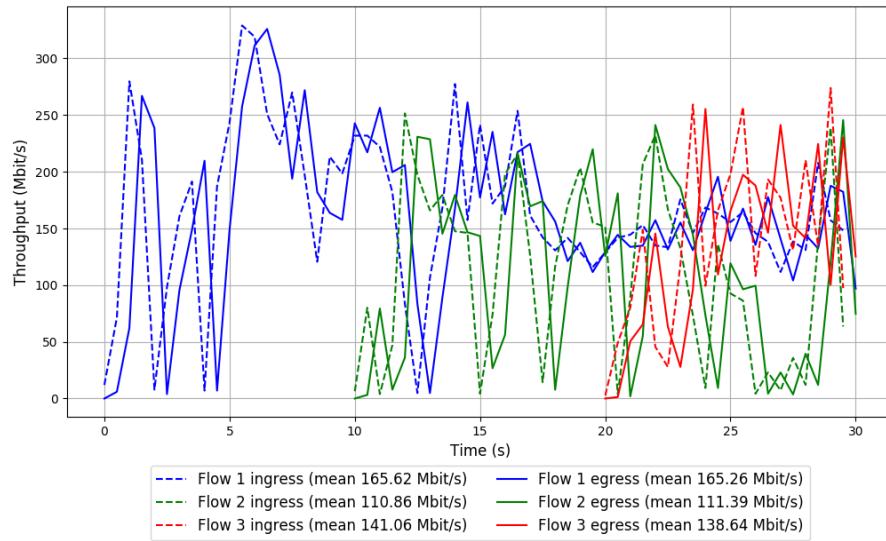


Run 5: Statistics of Verus

```
Start at: 2018-10-26 23:56:52
End at: 2018-10-26 23:57:22
Local clock offset: -0.086 ms
Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2018-10-27 02:45:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.75 Mbit/s
95th percentile per-packet one-way delay: 85.065 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 165.26 Mbit/s
95th percentile per-packet one-way delay: 78.504 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 111.39 Mbit/s
95th percentile per-packet one-way delay: 65.244 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 138.64 Mbit/s
95th percentile per-packet one-way delay: 107.445 ms
Loss rate: 1.79%
```

Run 5: Report of Verus — Data Link

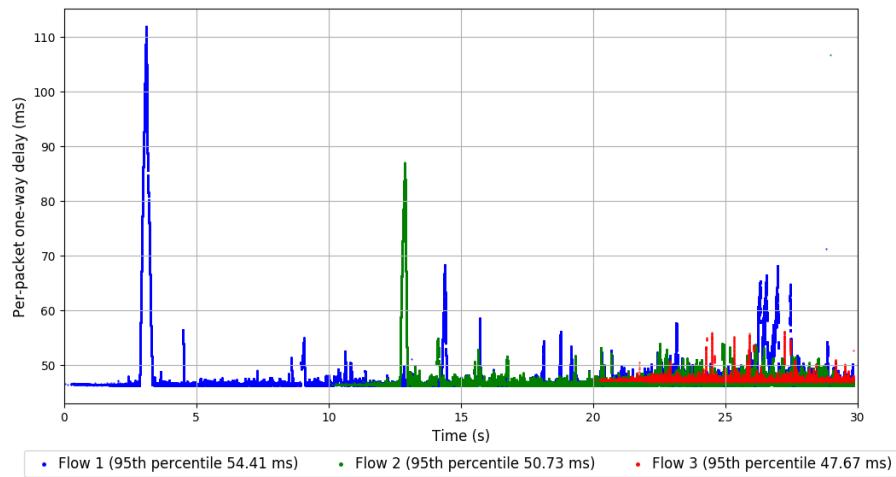
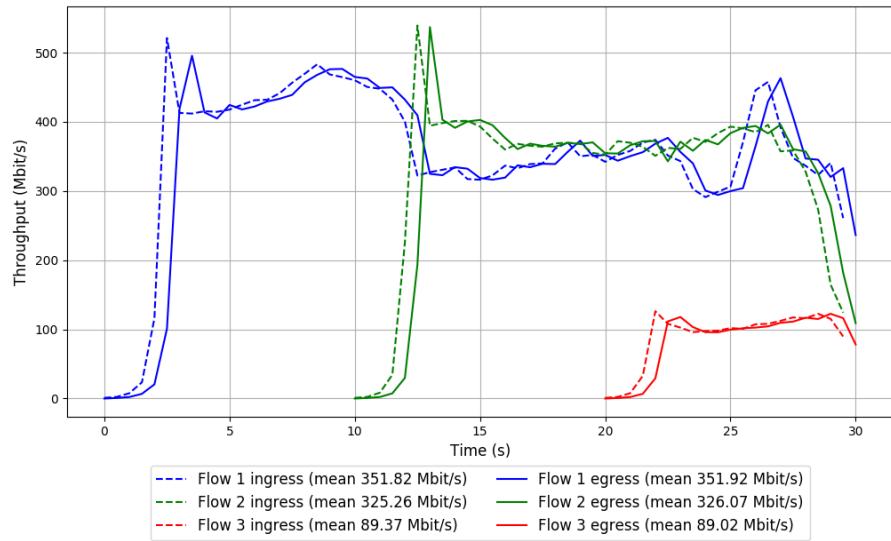


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2018-10-26 21:54:45
End at: 2018-10-26 21:55:15
Local clock offset: -0.09 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-10-27 02:46:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.55 Mbit/s
95th percentile per-packet one-way delay: 52.263 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 351.92 Mbit/s
95th percentile per-packet one-way delay: 54.414 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 326.07 Mbit/s
95th percentile per-packet one-way delay: 50.727 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 89.02 Mbit/s
95th percentile per-packet one-way delay: 47.673 ms
Loss rate: 1.28%
```

Run 1: Report of PCC-Vivace — Data Link

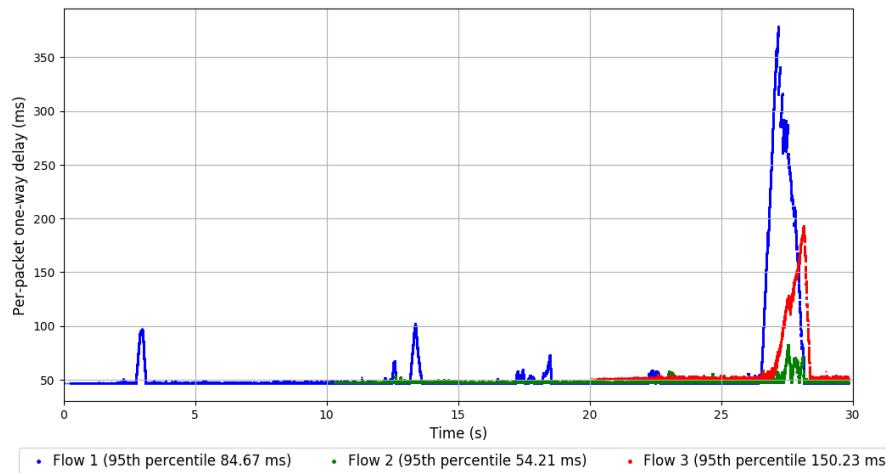
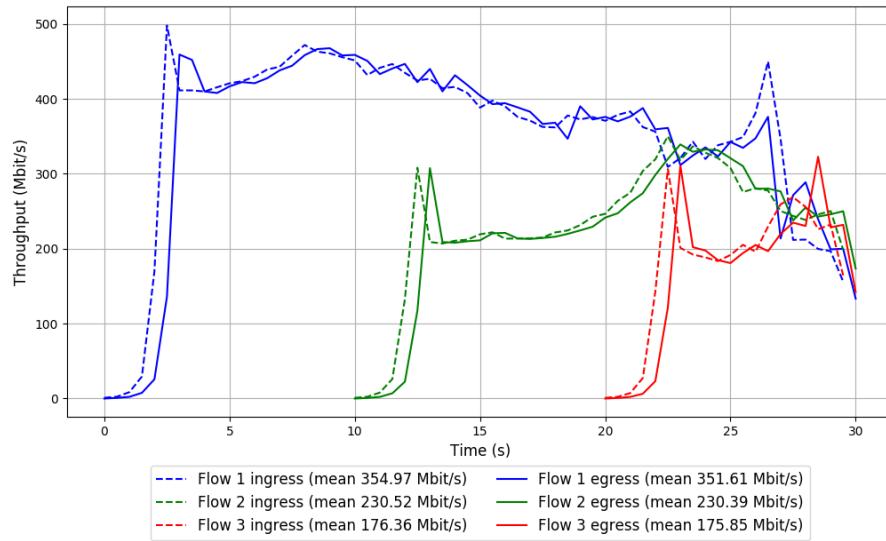


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-10-26 22:25:59
End at: 2018-10-26 22:26:29
Local clock offset: 0.161 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-10-27 02:46:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 562.24 Mbit/s
95th percentile per-packet one-way delay: 80.845 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 351.61 Mbit/s
95th percentile per-packet one-way delay: 84.672 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 230.39 Mbit/s
95th percentile per-packet one-way delay: 54.209 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 175.85 Mbit/s
95th percentile per-packet one-way delay: 150.231 ms
Loss rate: 1.29%
```

Run 2: Report of PCC-Vivace — Data Link

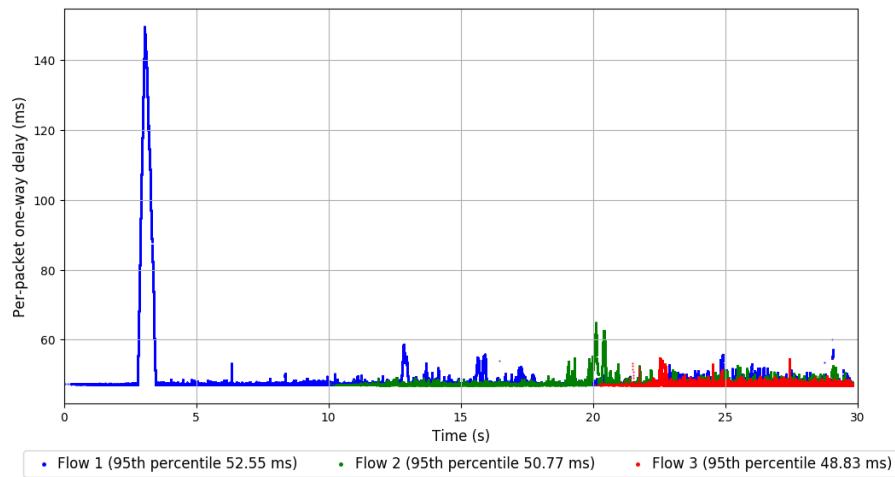
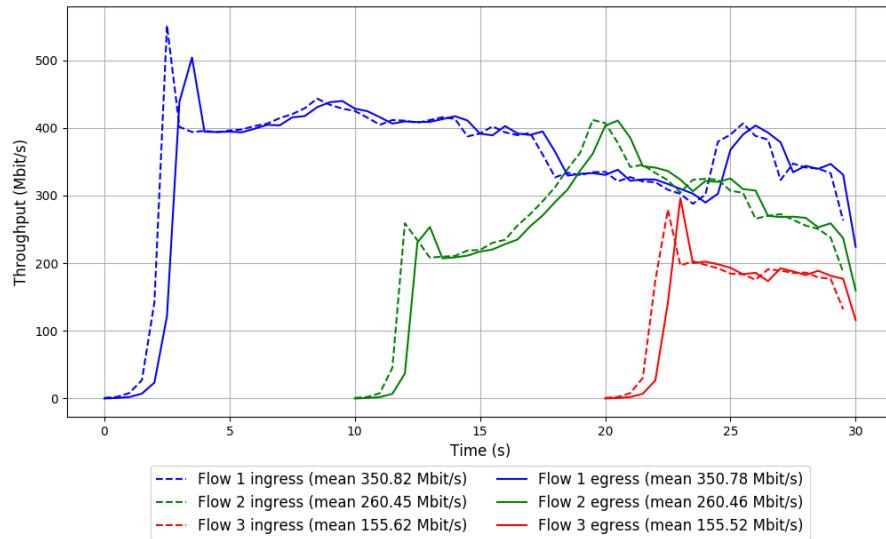


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-10-26 22:57:12
End at: 2018-10-26 22:57:42
Local clock offset: -0.189 ms
Remote clock offset: -0.142 ms

# Below is generated by plot.py at 2018-10-27 02:47:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 574.61 Mbit/s
95th percentile per-packet one-way delay: 51.414 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 350.78 Mbit/s
95th percentile per-packet one-way delay: 52.555 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 260.46 Mbit/s
95th percentile per-packet one-way delay: 50.773 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 155.52 Mbit/s
95th percentile per-packet one-way delay: 48.827 ms
Loss rate: 1.03%
```

Run 3: Report of PCC-Vivace — Data Link

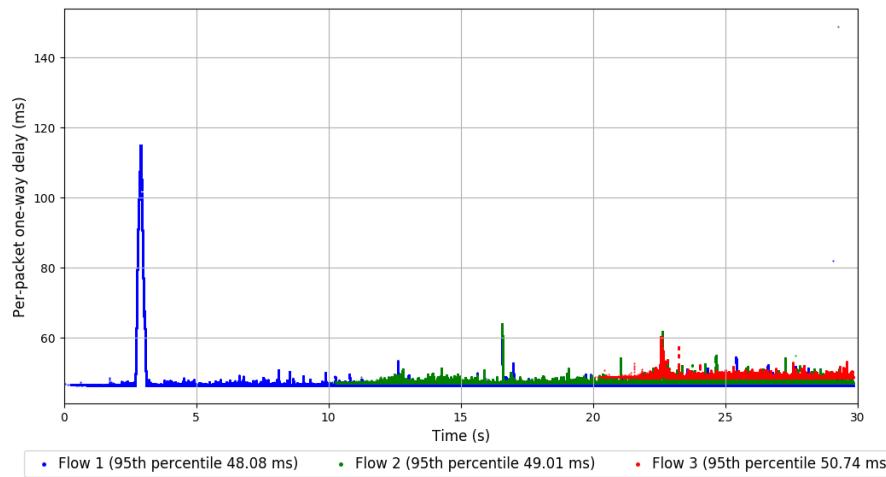
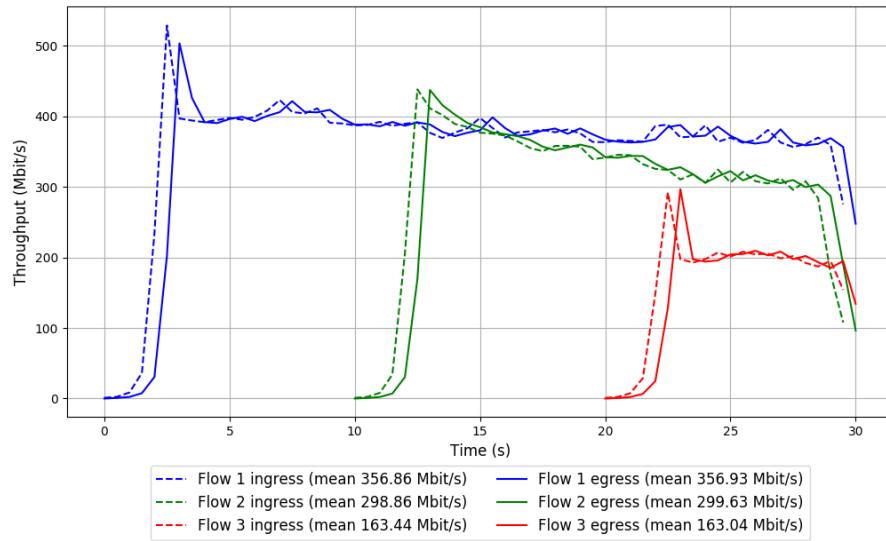


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-10-26 23:28:28
End at: 2018-10-26 23:28:58
Local clock offset: -0.111 ms
Remote clock offset: -0.336 ms

# Below is generated by plot.py at 2018-10-27 02:48:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 609.31 Mbit/s
95th percentile per-packet one-way delay: 49.178 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 356.93 Mbit/s
95th percentile per-packet one-way delay: 48.082 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 299.63 Mbit/s
95th percentile per-packet one-way delay: 49.011 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 163.04 Mbit/s
95th percentile per-packet one-way delay: 50.740 ms
Loss rate: 1.23%
```

Run 4: Report of PCC-Vivace — Data Link

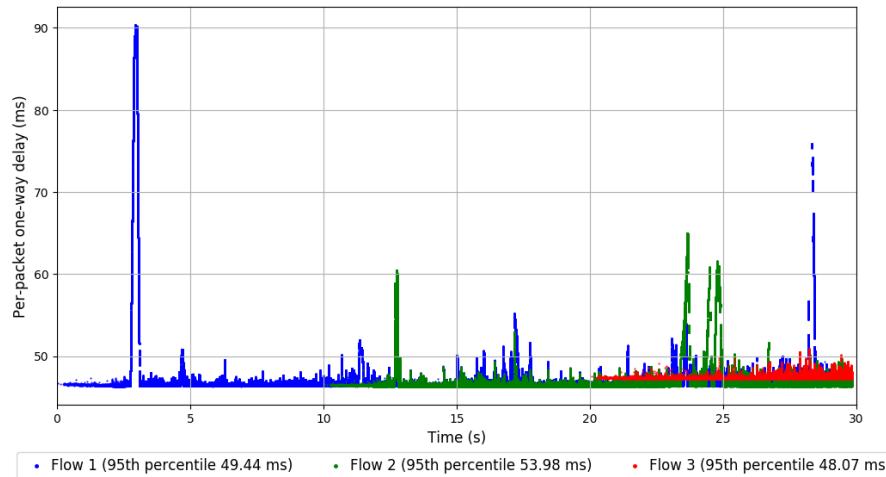
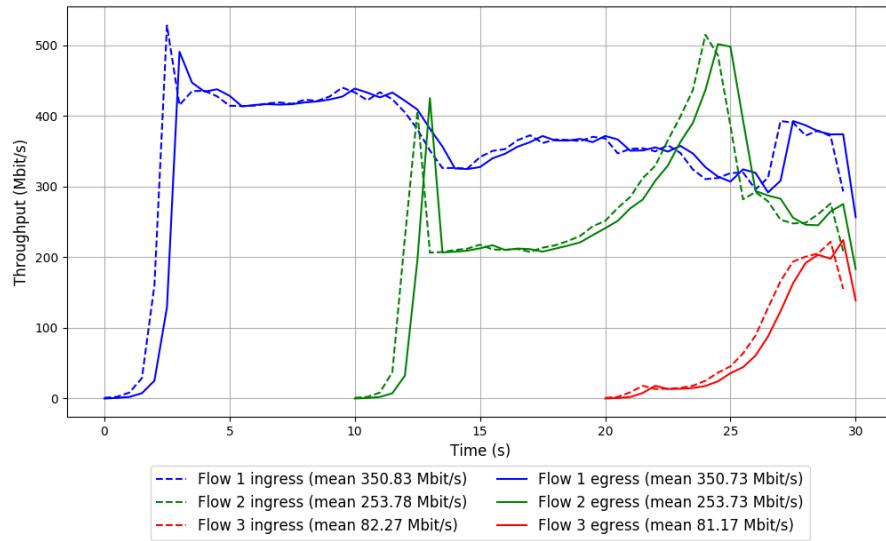


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-10-26 23:59:39
End at: 2018-10-27 00:00:09
Local clock offset: -0.037 ms
Remote clock offset: 0.067 ms

# Below is generated by plot.py at 2018-10-27 02:48:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 545.87 Mbit/s
95th percentile per-packet one-way delay: 50.160 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 350.73 Mbit/s
95th percentile per-packet one-way delay: 49.441 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 253.73 Mbit/s
95th percentile per-packet one-way delay: 53.982 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 81.17 Mbit/s
95th percentile per-packet one-way delay: 48.068 ms
Loss rate: 2.28%
```

Run 5: Report of PCC-Vivace — Data Link

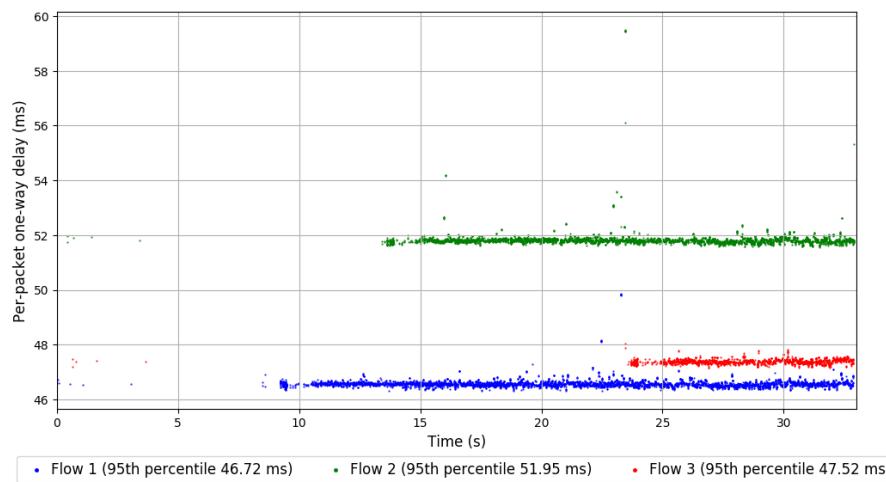
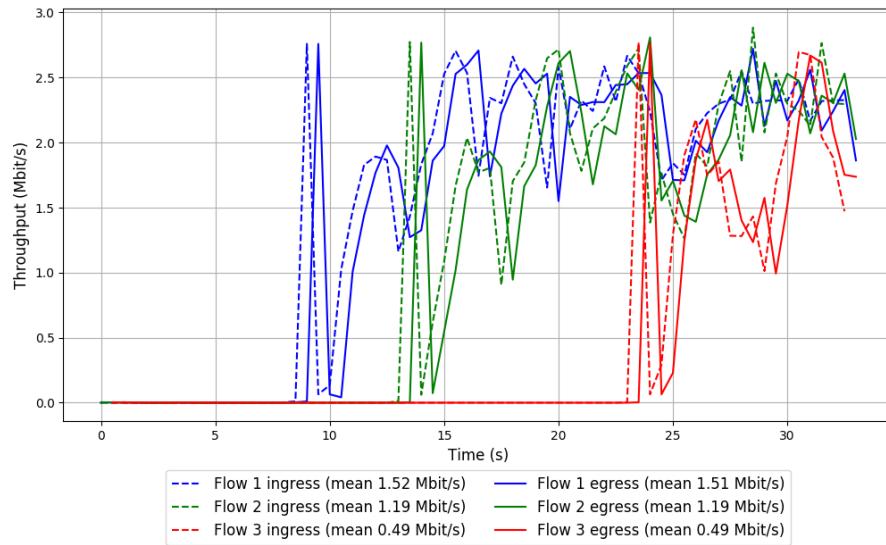


```
Run 1: Statistics of WebRTC media

Start at: 2018-10-26 21:27:20
End at: 2018-10-26 21:27:50
Local clock offset: -0.127 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-10-27 02:48:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 51.880 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 46.719 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 51.955 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 47.521 ms
Loss rate: 0.01%
```

Run 1: Report of WebRTC media — Data Link

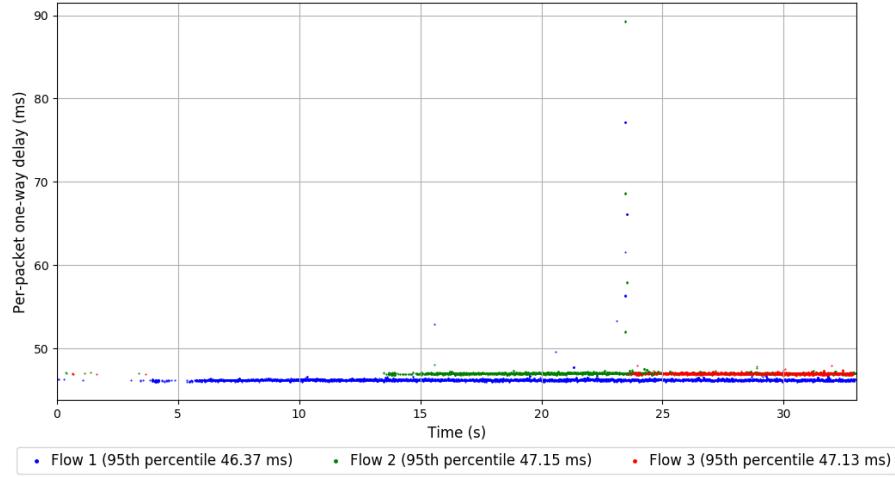
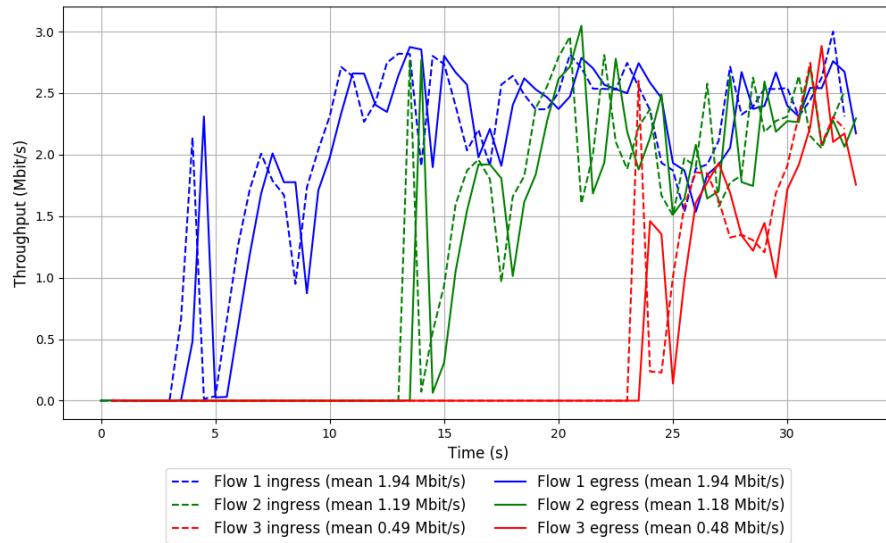


Run 2: Statistics of WebRTC media

```
Start at: 2018-10-26 21:58:43
End at: 2018-10-26 21:59:13
Local clock offset: -0.477 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-10-27 02:48:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 47.115 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 46.372 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 47.153 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 47.132 ms
Loss rate: 2.30%
```

Run 2: Report of WebRTC media — Data Link

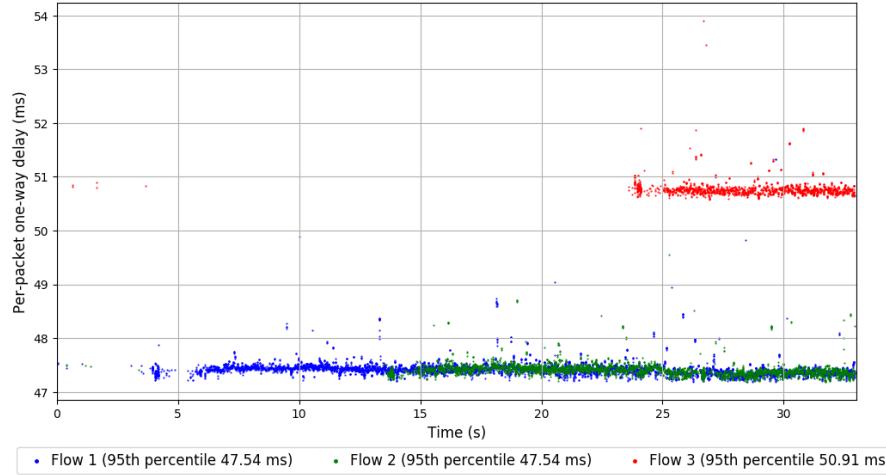
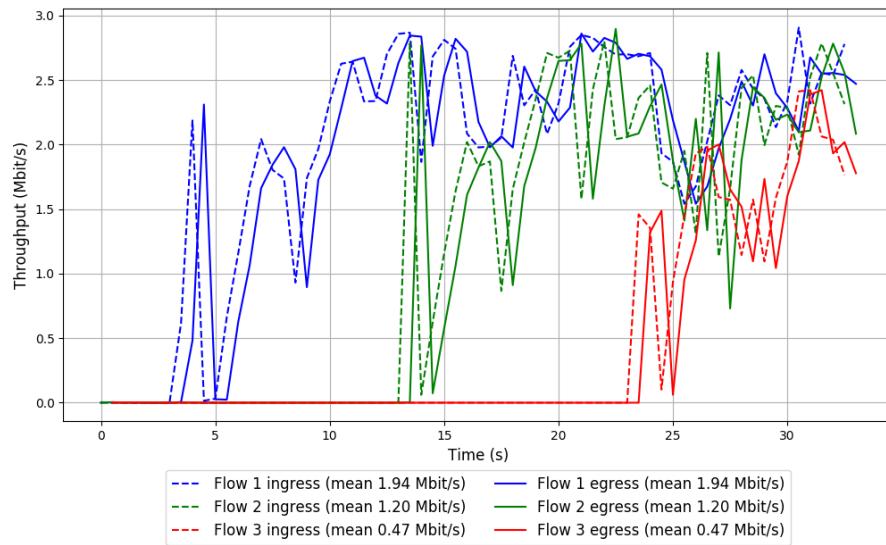


Run 3: Statistics of WebRTC media

```
Start at: 2018-10-26 22:29:46
End at: 2018-10-26 22:30:16
Local clock offset: -0.133 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2018-10-27 02:48:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 50.765 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 47.543 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 47.536 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 50.910 ms
Loss rate: 0.85%
```

Run 3: Report of WebRTC media — Data Link

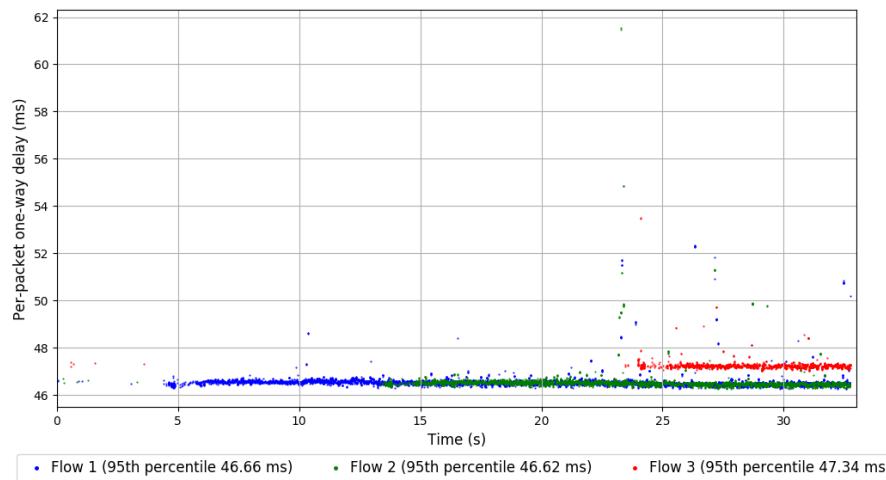
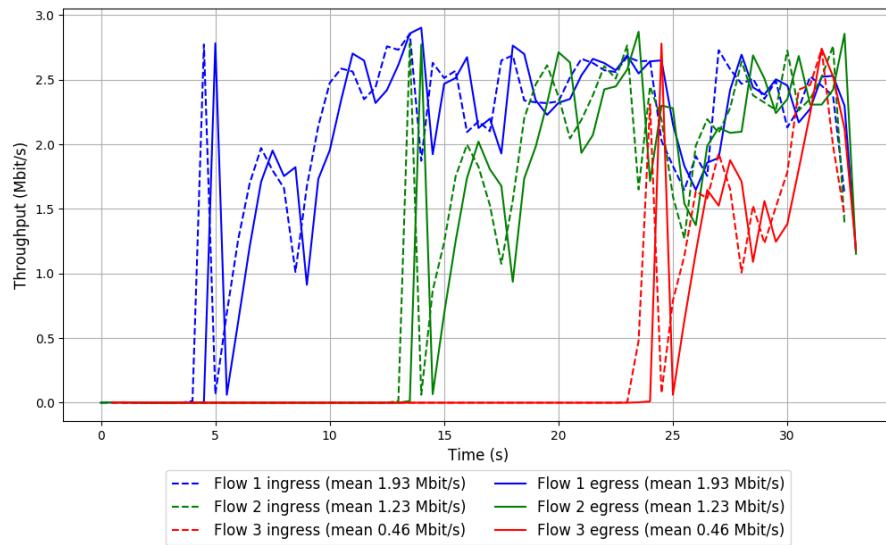


Run 4: Statistics of WebRTC media

```
Start at: 2018-10-26 23:01:04
End at: 2018-10-26 23:01:34
Local clock offset: -0.199 ms
Remote clock offset: -0.19 ms

# Below is generated by plot.py at 2018-10-27 02:48:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.59 Mbit/s
95th percentile per-packet one-way delay: 47.243 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 46.665 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 46.625 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 47.335 ms
Loss rate: 1.33%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-10-26 23:32:14
End at: 2018-10-26 23:32:44
Local clock offset: -0.086 ms
Remote clock offset: -0.296 ms

# Below is generated by plot.py at 2018-10-27 02:48:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.59 Mbit/s
95th percentile per-packet one-way delay: 50.137 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 50.175 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 47.578 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 46.773 ms
Loss rate: 1.22%
```

Run 5: Report of WebRTC media — Data Link

