

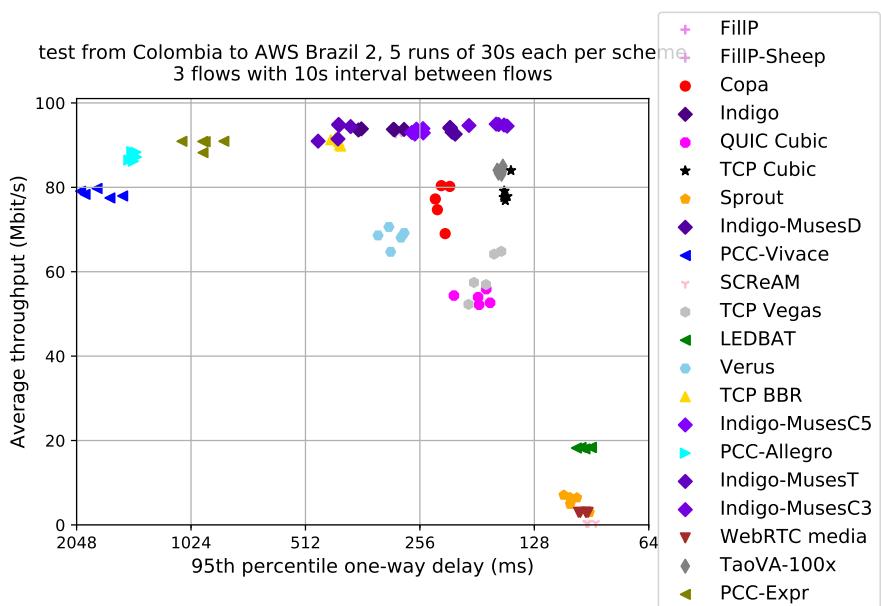
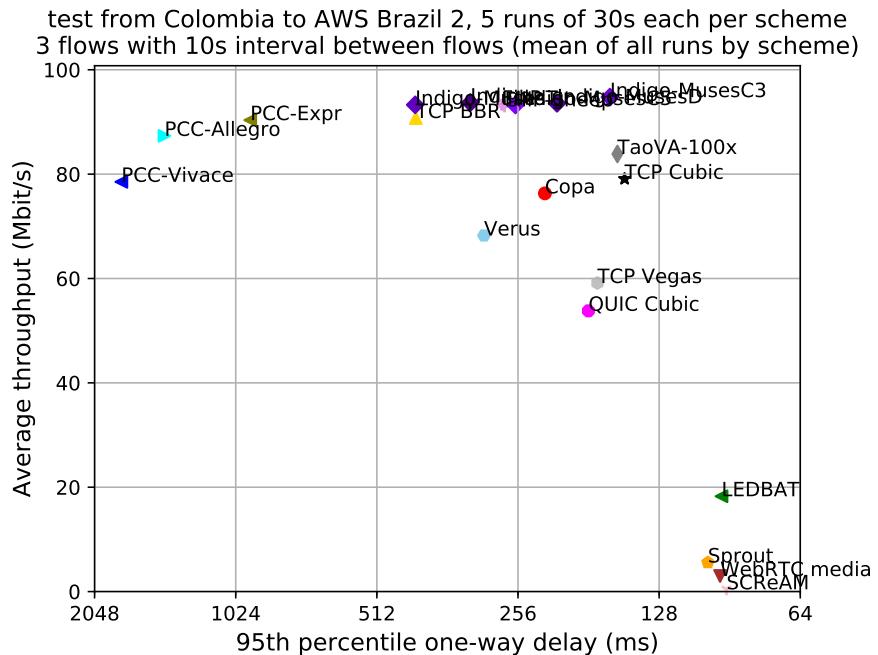
## Pantheon Report

Generated at 2019-02-05 20:41:21 (UTC).  
Data path: Colombia on p4p1 (*remote*) → AWS Brazil 2 on ens5 (*local*).  
Repeated the test of 21 congestion control schemes 5 times.  
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.  
NTP offsets were measured against gps.ntp.br and have been applied to correct the timestamps in logs.

System info:  
Linux 4.15.0-1031-aws  
net.core.default\_qdisc = fq  
net.core.rmem\_default = 16777216  
net.core.rmem\_max = 536870912  
net.core.wmem\_default = 16777216  
net.core.wmem\_max = 536870912  
net.ipv4.tcp\_rmem = 4096 16777216 536870912  
net.ipv4.tcp\_wmem = 4096 16777216 536870912

Git summary:  
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee  
third\_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519  
third\_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9  
third\_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4  
third\_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d  
third\_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf  
third\_party/muses @ 5ce721187ad823da20955337730c746486ca4966  
third\_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd  
third\_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1  
M receiver/src/buffer.h  
M receiver/src/core.cpp  
M sender/src/buffer.h  
M sender/src/core.cpp  
third\_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab  
third\_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42  
third\_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2  
M src/ScreamClient  
M src/ScreamServer  
third\_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26  
M src/examples/cellsim.cc  
M src/examples/sproutbt2.cc  
M src/network/sproutconn.cc  
third\_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494  
M src/verus.hpp  
M tools/plot.py

third\_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4  
third\_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851



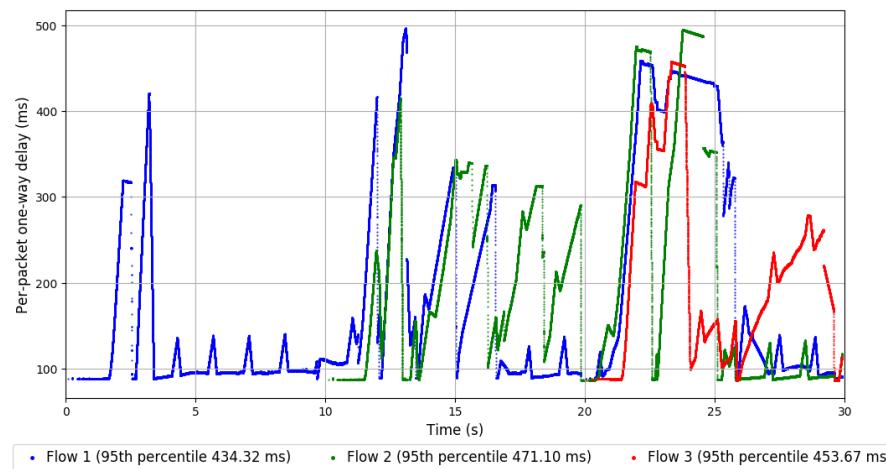
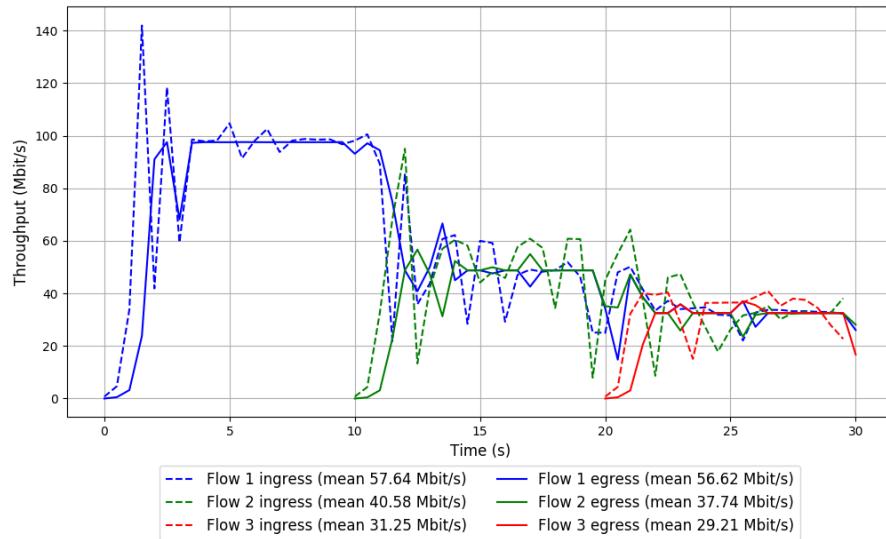
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	55.83	37.70	30.18	405.50	440.69	447.22	2.87	5.95	7.74
Copa		45.98	31.82	27.97	225.52	128.48	182.49	0.58	0.91	1.79
TCP Cubic		43.90	35.73	34.93	175.04	147.19	135.45	0.38	0.74	2.08
FillP		57.43	39.32	29.72	289.35	254.19	313.01	1.21	3.33	4.01
FillP-Sheep		58.03	38.87	27.82	286.63	245.16	273.78	0.96	2.02	4.21
Indigo		58.43	38.87	29.24	343.65	140.24	136.29	5.04	1.27	2.96
Indigo-MusesC3		60.36	40.24	30.18	161.77	175.64	159.87	2.19	2.42	3.44
Indigo-MusesC5		58.60	40.59	29.67	253.01	256.98	298.36	2.86	4.57	6.18
Indigo-MusesD		60.71	38.28	28.76	217.40	173.49	151.15	6.22	4.45	4.55
Indigo-MusesT		59.50	39.75	27.79	413.62	442.62	464.08	6.33	6.37	9.21
LEDBAT		11.90	7.75	3.75	93.03	94.21	93.45	1.15	1.76	3.55
PCC-Allegro		54.97	34.26	29.51	1494.99	1161.10	1473.78	26.00	13.52	21.53
PCC-Expr		57.09	39.20	25.10	985.20	803.48	244.54	24.51	7.91	3.94
QUIC Cubic		33.66	21.86	17.25	127.83	224.90	312.00	0.57	1.40	3.05
SCReAM		0.22	0.22	0.22	92.14	91.49	90.69	0.54	0.99	1.85
Sprout		3.39	2.57	1.50	99.84	97.54	94.02	0.73	1.11	2.38
TaoVA-100x		49.39	37.24	29.61	153.89	162.05	152.46	0.48	0.88	2.11
TCP Vegas		34.08	26.97	21.75	189.38	151.51	170.68	0.50	1.02	2.09
Verus		39.22	32.51	22.93	289.28	299.14	452.15	1.12	1.43	2.92
PCC-Vivace		51.27	29.97	22.55	1888.34	771.58	347.24	5.55	4.93	3.03
WebRTC media		1.69	0.93	0.38	91.76	92.29	93.76	0.62	0.63	1.99

Run 1: Statistics of TCP BBR

```
Start at: 2019-02-05 18:17:34
End at: 2019-02-05 18:18:04
Local clock offset: 2.4 ms
Remote clock offset: 4.236 ms

# Below is generated by plot.py at 2019-02-05 20:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.27 Mbit/s
95th percentile per-packet one-way delay: 439.200 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 56.62 Mbit/s
95th percentile per-packet one-way delay: 434.320 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 37.74 Mbit/s
95th percentile per-packet one-way delay: 471.102 ms
Loss rate: 7.79%
-- Flow 3:
Average throughput: 29.21 Mbit/s
95th percentile per-packet one-way delay: 453.669 ms
Loss rate: 8.11%
```

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

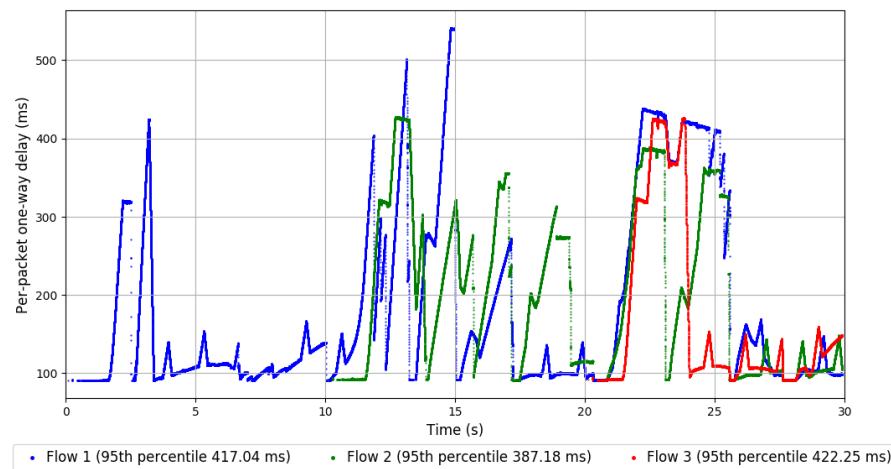
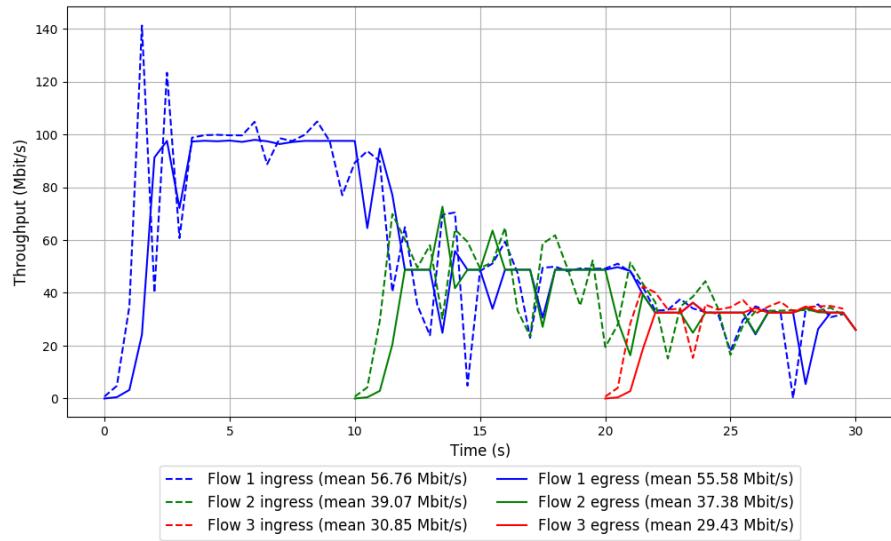


Run 2: Statistics of TCP BBR

```
Start at: 2019-02-05 18:44:33
End at: 2019-02-05 18:45:03
Local clock offset: -0.532 ms
Remote clock offset: 2.8 ms

# Below is generated by plot.py at 2019-02-05 20:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.08 Mbit/s
95th percentile per-packet one-way delay: 416.289 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 55.58 Mbit/s
95th percentile per-packet one-way delay: 417.037 ms
Loss rate: 2.64%
-- Flow 2:
Average throughput: 37.38 Mbit/s
95th percentile per-packet one-way delay: 387.181 ms
Loss rate: 5.16%
-- Flow 3:
Average throughput: 29.43 Mbit/s
95th percentile per-packet one-way delay: 422.248 ms
Loss rate: 6.28%
```

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

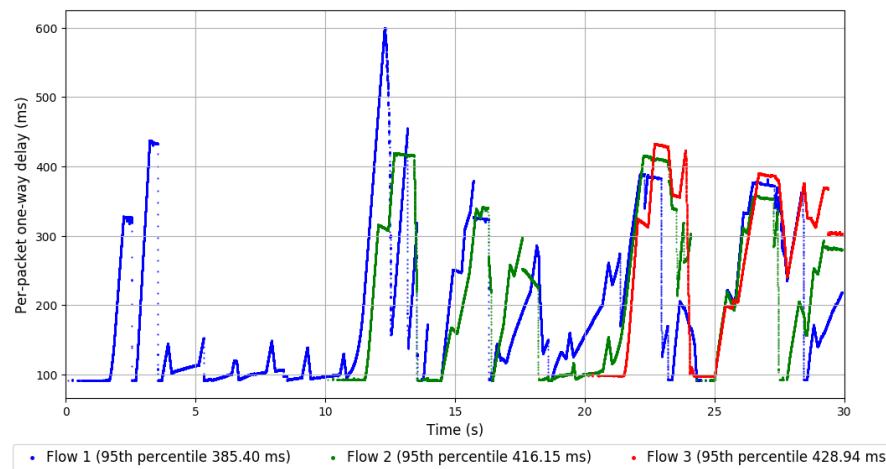
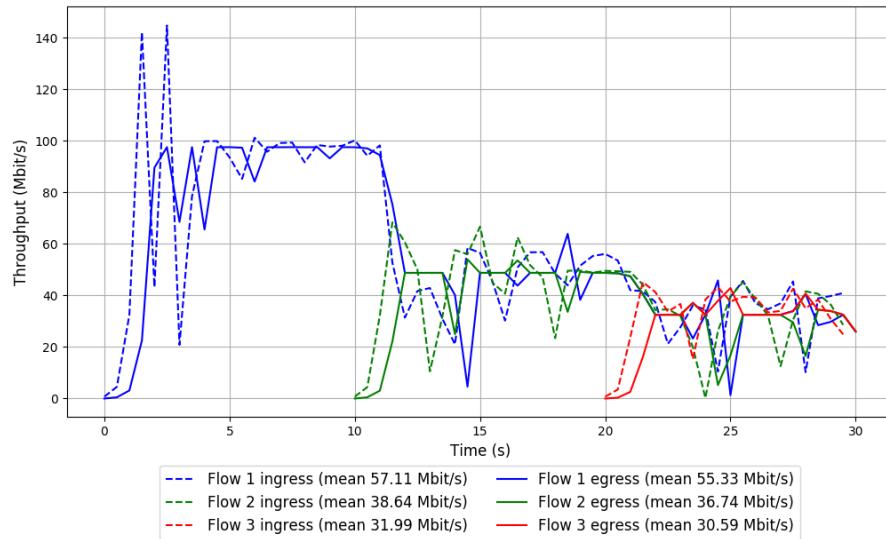


Run 3: Statistics of TCP BBR

```
Start at: 2019-02-05 19:11:35
End at: 2019-02-05 19:12:05
Local clock offset: -1.259 ms
Remote clock offset: 3.698 ms

# Below is generated by plot.py at 2019-02-05 20:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.77 Mbit/s
95th percentile per-packet one-way delay: 413.630 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 55.33 Mbit/s
95th percentile per-packet one-way delay: 385.398 ms
Loss rate: 3.67%
-- Flow 2:
Average throughput: 36.74 Mbit/s
95th percentile per-packet one-way delay: 416.149 ms
Loss rate: 5.72%
-- Flow 3:
Average throughput: 30.59 Mbit/s
95th percentile per-packet one-way delay: 428.942 ms
Loss rate: 6.11%
```

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

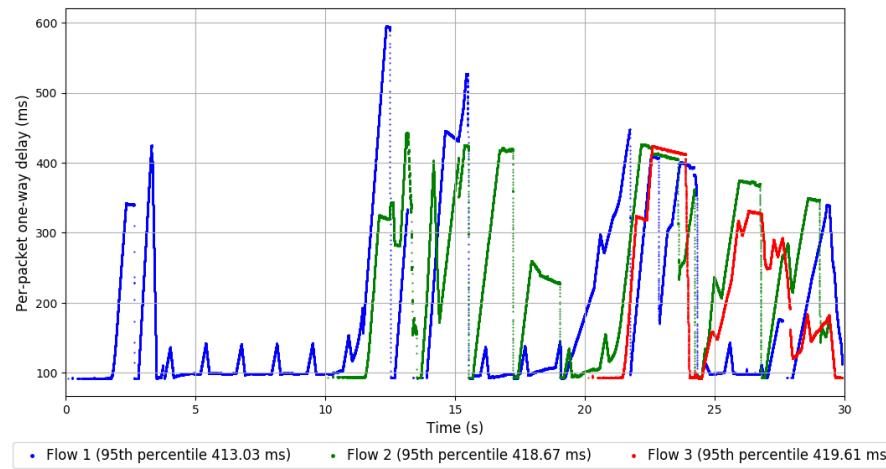
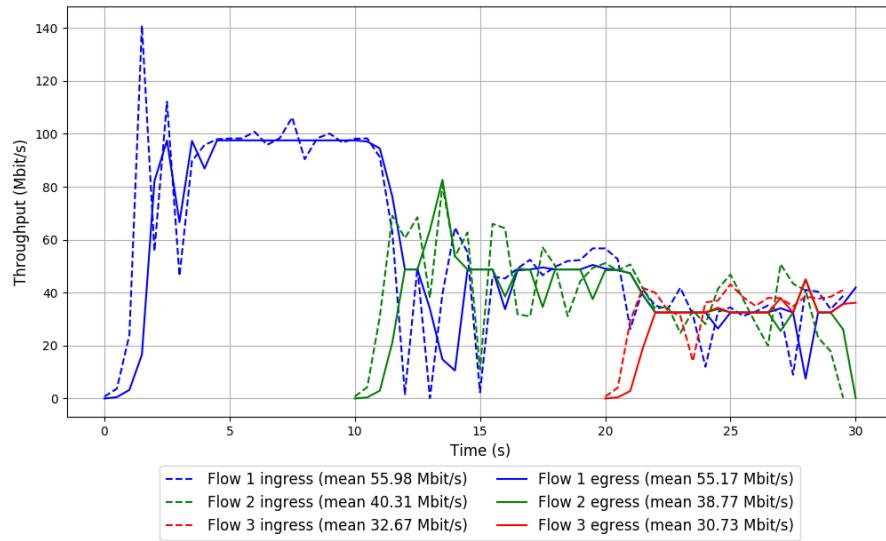


Run 4: Statistics of TCP BBR

```
Start at: 2019-02-05 19:38:36
End at: 2019-02-05 19:39:06
Local clock offset: -2.129 ms
Remote clock offset: 2.579 ms

# Below is generated by plot.py at 2019-02-05 20:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.88 Mbit/s
95th percentile per-packet one-way delay: 418.744 ms
Loss rate: 3.42%
-- Flow 1:
Average throughput: 55.17 Mbit/s
95th percentile per-packet one-way delay: 413.033 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 38.77 Mbit/s
95th percentile per-packet one-way delay: 418.668 ms
Loss rate: 4.67%
-- Flow 3:
Average throughput: 30.73 Mbit/s
95th percentile per-packet one-way delay: 419.612 ms
Loss rate: 7.59%
```

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

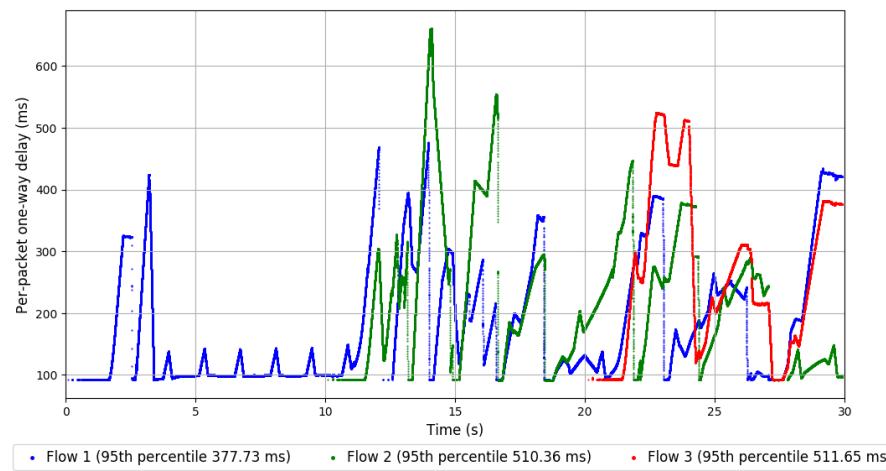
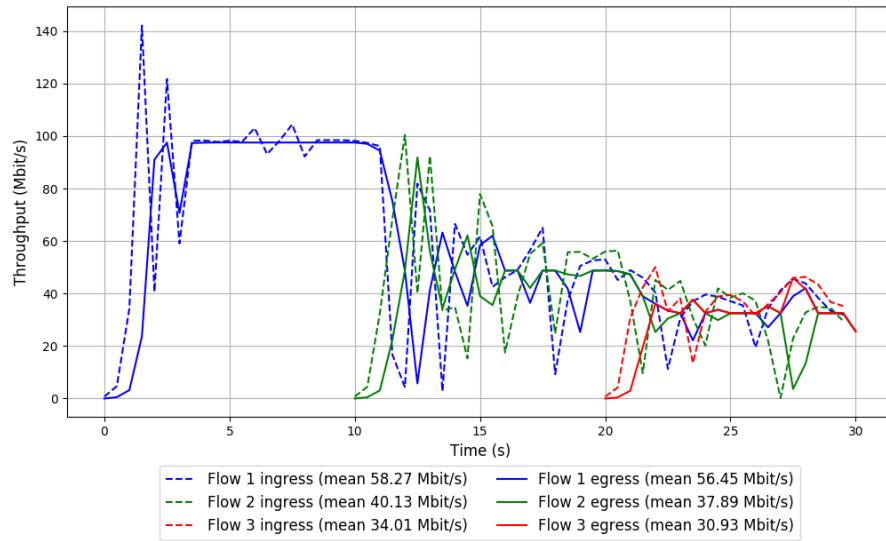


Run 5: Statistics of TCP BBR

```
Start at: 2019-02-05 20:05:36
End at: 2019-02-05 20:06:06
Local clock offset: -1.944 ms
Remote clock offset: 2.582 ms

# Below is generated by plot.py at 2019-02-05 20:29:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.77 Mbit/s
95th percentile per-packet one-way delay: 426.212 ms
Loss rate: 5.25%
-- Flow 1:
Average throughput: 56.45 Mbit/s
95th percentile per-packet one-way delay: 377.730 ms
Loss rate: 3.68%
-- Flow 2:
Average throughput: 37.89 Mbit/s
95th percentile per-packet one-way delay: 510.364 ms
Loss rate: 6.41%
-- Flow 3:
Average throughput: 30.93 Mbit/s
95th percentile per-packet one-way delay: 511.652 ms
Loss rate: 10.61%
```

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

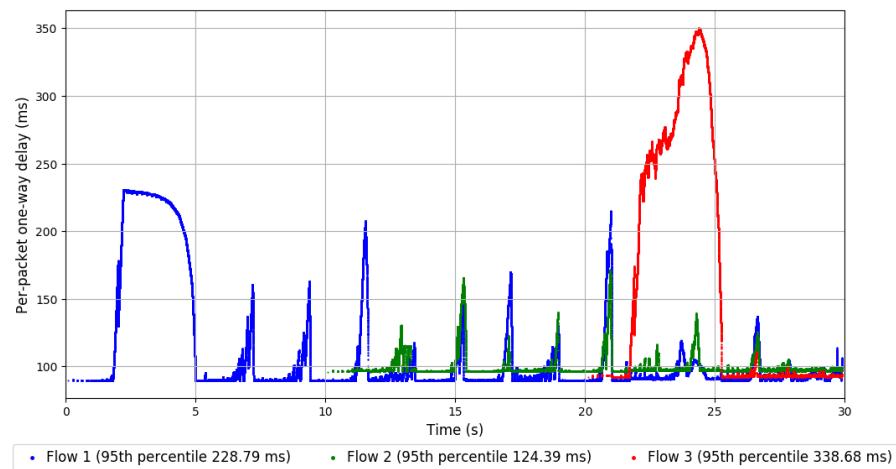
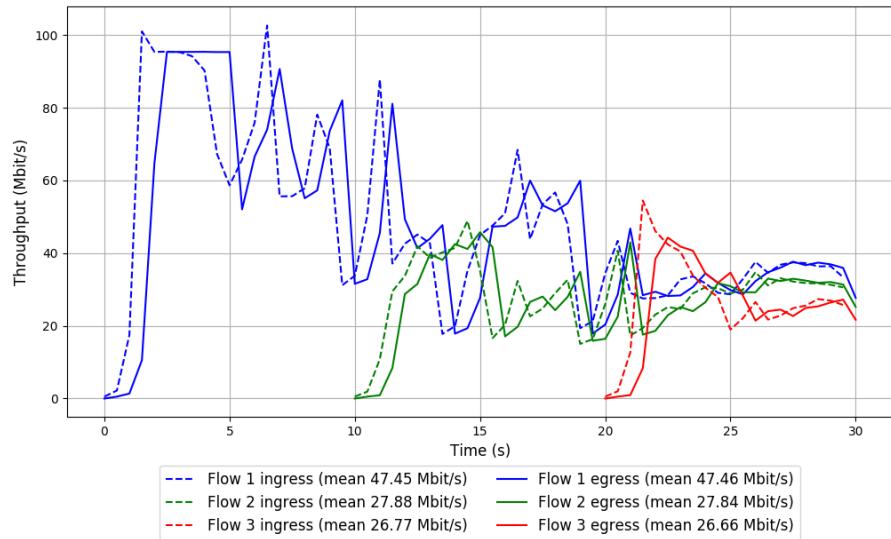


Run 1: Statistics of Copa

```
Start at: 2019-02-05 18:18:53
End at: 2019-02-05 18:19:23
Local clock offset: 1.742 ms
Remote clock offset: 0.423 ms

# Below is generated by plot.py at 2019-02-05 20:30:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.70 Mbit/s
95th percentile per-packet one-way delay: 230.275 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 47.46 Mbit/s
95th percentile per-packet one-way delay: 228.790 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 27.84 Mbit/s
95th percentile per-packet one-way delay: 124.389 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 26.66 Mbit/s
95th percentile per-packet one-way delay: 338.681 ms
Loss rate: 2.09%
```

## Run 1: Report of Copa — Data Link

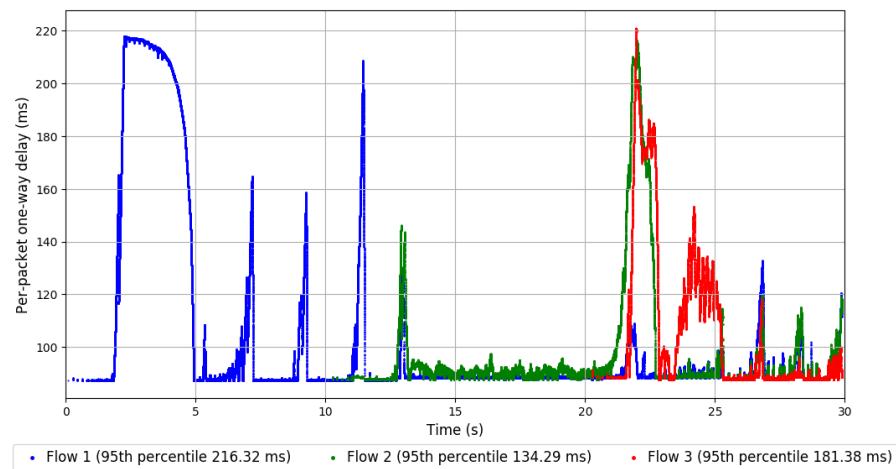
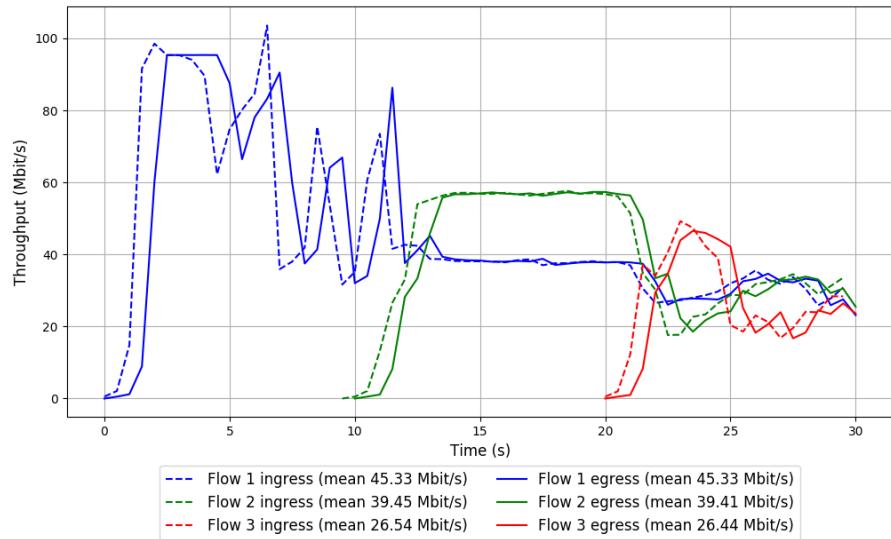


Run 2: Statistics of Copa

```
Start at: 2019-02-05 18:45:52
End at: 2019-02-05 18:46:22
Local clock offset: -0.497 ms
Remote clock offset: 6.586 ms

# Below is generated by plot.py at 2019-02-05 20:30:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.21 Mbit/s
95th percentile per-packet one-way delay: 213.609 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 45.33 Mbit/s
95th percentile per-packet one-way delay: 216.321 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 39.41 Mbit/s
95th percentile per-packet one-way delay: 134.289 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 26.44 Mbit/s
95th percentile per-packet one-way delay: 181.381 ms
Loss rate: 2.12%
```

## Run 2: Report of Copa — Data Link

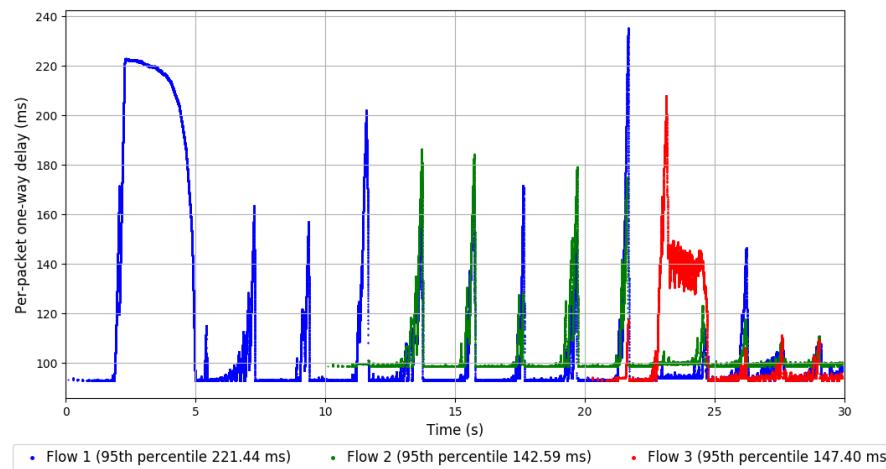
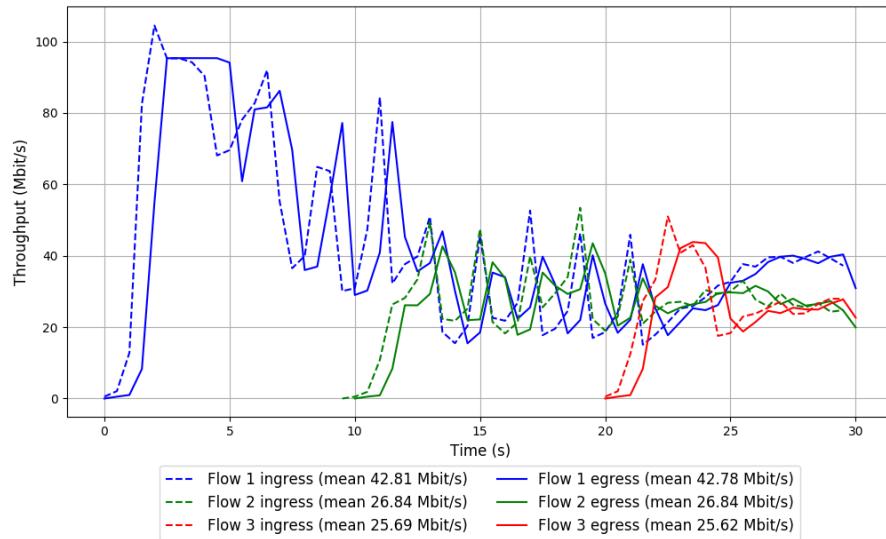


Run 3: Statistics of Copa

```
Start at: 2019-02-05 19:12:54
End at: 2019-02-05 19:13:24
Local clock offset: -1.225 ms
Remote clock offset: 2.672 ms

# Below is generated by plot.py at 2019-02-05 20:30:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.03 Mbit/s
95th percentile per-packet one-way delay: 219.653 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 42.78 Mbit/s
95th percentile per-packet one-way delay: 221.440 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 26.84 Mbit/s
95th percentile per-packet one-way delay: 142.595 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 25.62 Mbit/s
95th percentile per-packet one-way delay: 147.400 ms
Loss rate: 2.04%
```

### Run 3: Report of Copa — Data Link

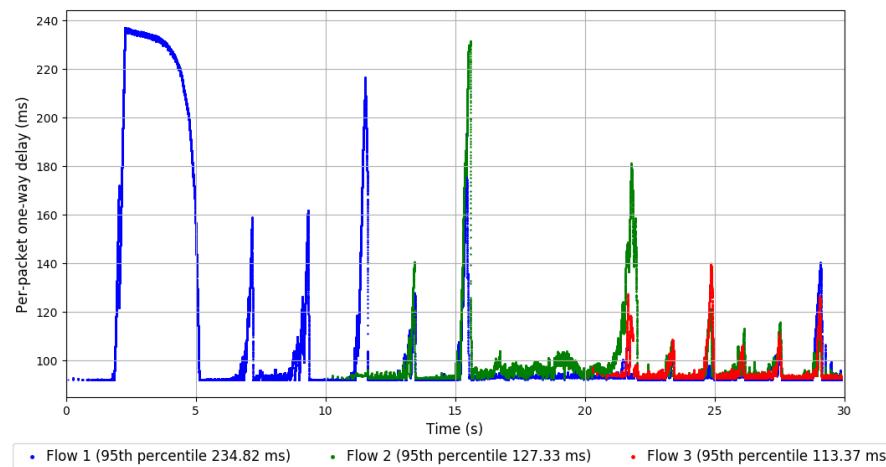
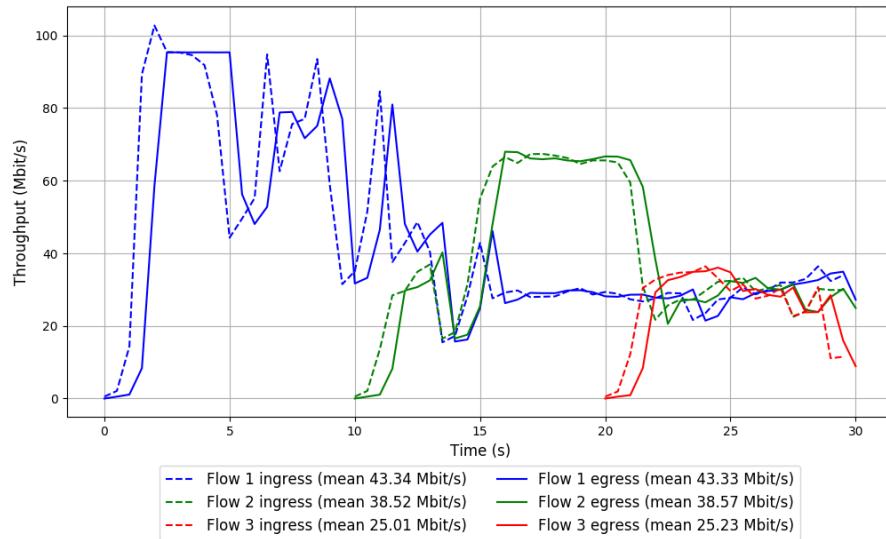


Run 4: Statistics of Copa

```
Start at: 2019-02-05 19:39:55
End at: 2019-02-05 19:40:25
Local clock offset: -2.193 ms
Remote clock offset: 2.441 ms

# Below is generated by plot.py at 2019-02-05 20:31:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.24 Mbit/s
95th percentile per-packet one-way delay: 233.142 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 43.33 Mbit/s
95th percentile per-packet one-way delay: 234.821 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 127.330 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 25.23 Mbit/s
95th percentile per-packet one-way delay: 113.372 ms
Loss rate: 0.90%
```

## Run 4: Report of Copa — Data Link

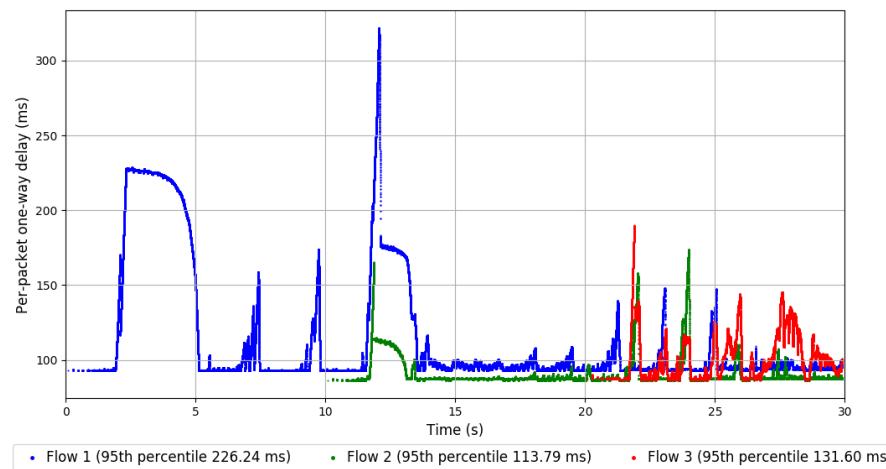
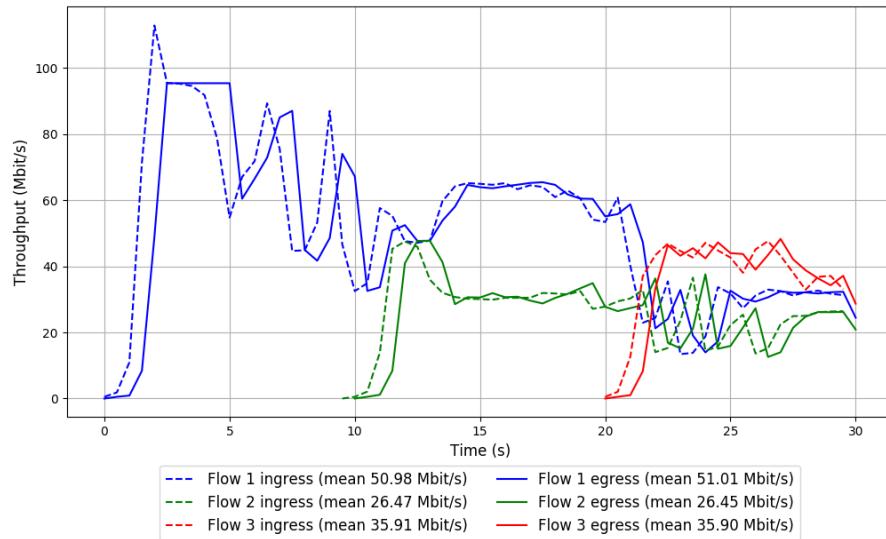


Run 5: Statistics of Copa

```
Start at: 2019-02-05 20:06:56
End at: 2019-02-05 20:07:26
Local clock offset: -2.688 ms
Remote clock offset: 6.33 ms

# Below is generated by plot.py at 2019-02-05 20:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.40 Mbit/s
95th percentile per-packet one-way delay: 224.885 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 51.01 Mbit/s
95th percentile per-packet one-way delay: 226.241 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 26.45 Mbit/s
95th percentile per-packet one-way delay: 113.792 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 35.90 Mbit/s
95th percentile per-packet one-way delay: 131.600 ms
Loss rate: 1.78%
```

Run 5: Report of Copa — Data Link

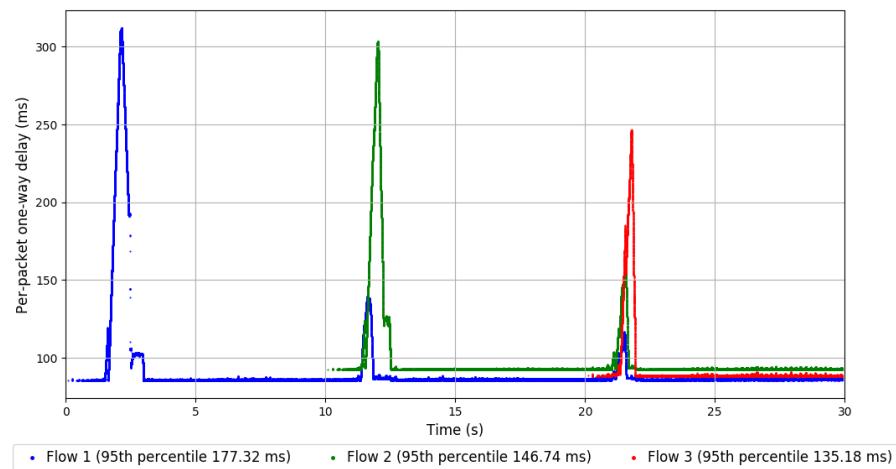
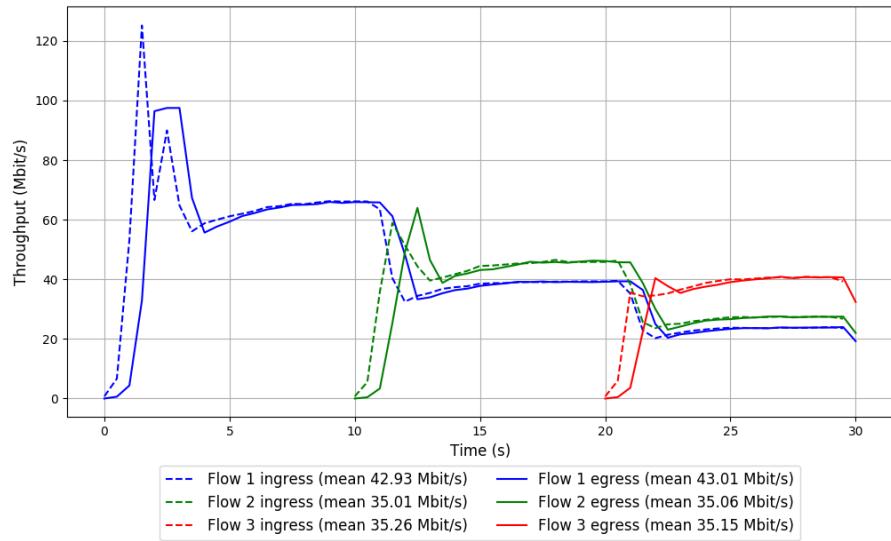


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-02-05 18:20:13
End at: 2019-02-05 18:20:43
Local clock offset: 1.267 ms
Remote clock offset: 4.632 ms

# Below is generated by plot.py at 2019-02-05 20:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.82 Mbit/s
95th percentile per-packet one-way delay: 150.869 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 43.01 Mbit/s
95th percentile per-packet one-way delay: 177.323 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 35.06 Mbit/s
95th percentile per-packet one-way delay: 146.743 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 135.184 ms
Loss rate: 2.05%
```

Run 1: Report of TCP Cubic — Data Link

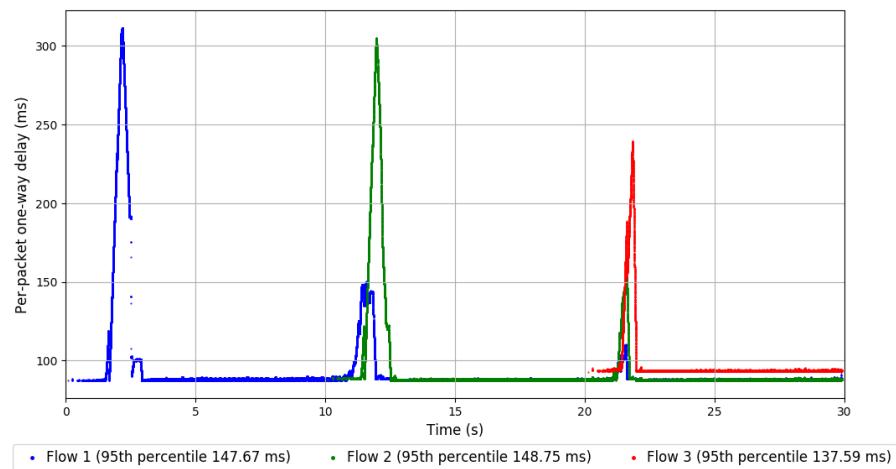
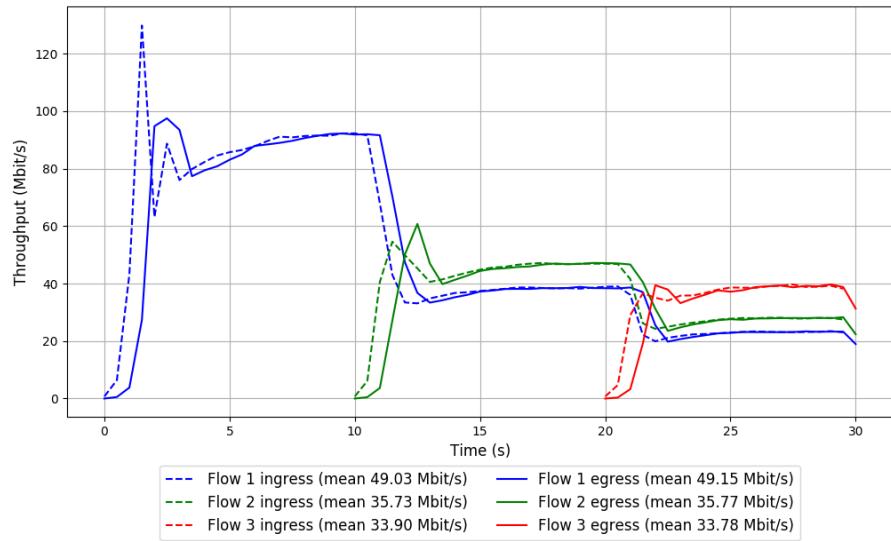


Run 2: Statistics of TCP Cubic

```
Start at: 2019-02-05 18:47:13
End at: 2019-02-05 18:47:43
Local clock offset: -0.743 ms
Remote clock offset: 6.762 ms

# Below is generated by plot.py at 2019-02-05 20:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.99 Mbit/s
95th percentile per-packet one-way delay: 147.504 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 49.15 Mbit/s
95th percentile per-packet one-way delay: 147.670 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 35.77 Mbit/s
95th percentile per-packet one-way delay: 148.746 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 33.78 Mbit/s
95th percentile per-packet one-way delay: 137.586 ms
Loss rate: 2.17%
```

Run 2: Report of TCP Cubic — Data Link

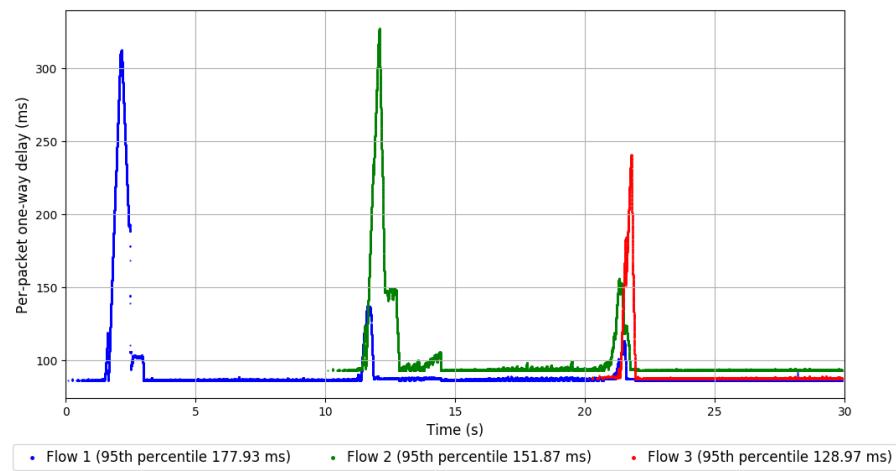
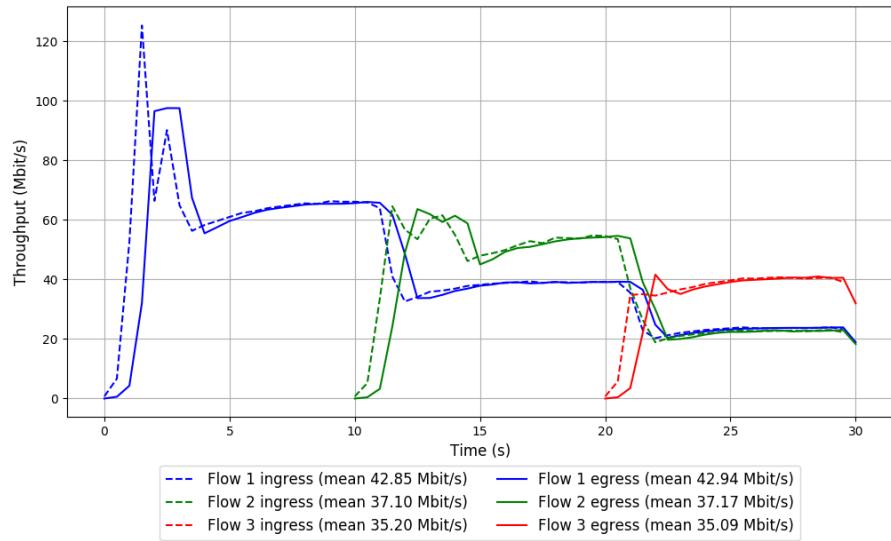


Run 3: Statistics of TCP Cubic

```
Start at: 2019-02-05 19:14:14
End at: 2019-02-05 19:14:44
Local clock offset: -1.952 ms
Remote clock offset: 7.426 ms

# Below is generated by plot.py at 2019-02-05 20:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.13 Mbit/s
95th percentile per-packet one-way delay: 153.594 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 42.94 Mbit/s
95th percentile per-packet one-way delay: 177.925 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 37.17 Mbit/s
95th percentile per-packet one-way delay: 151.873 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 35.09 Mbit/s
95th percentile per-packet one-way delay: 128.967 ms
Loss rate: 2.04%
```

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

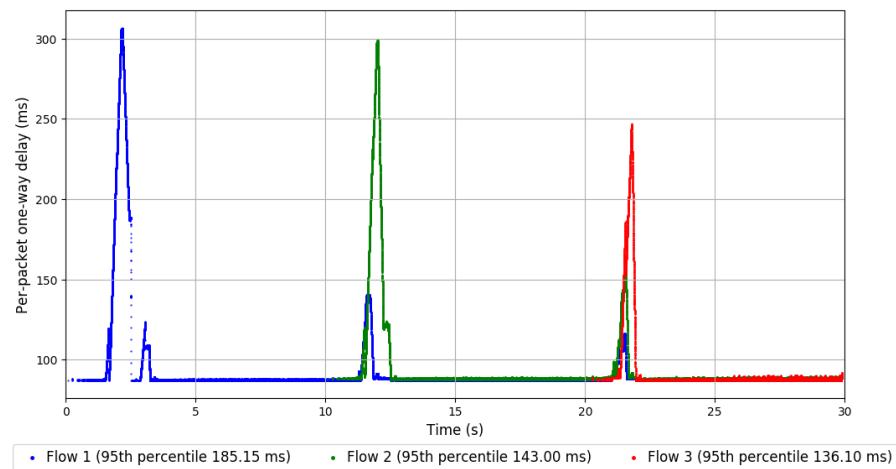
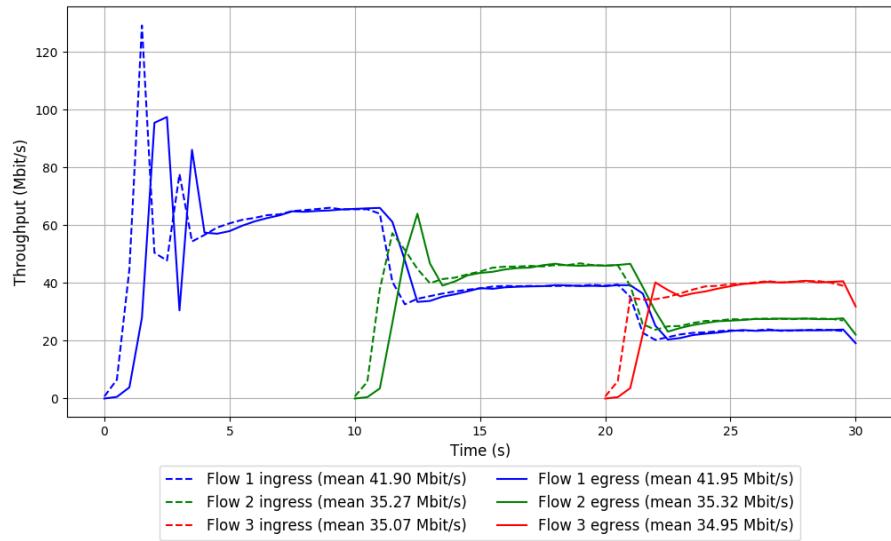


Run 4: Statistics of TCP Cubic

```
Start at: 2019-02-05 19:41:15
End at: 2019-02-05 19:41:45
Local clock offset: -2.098 ms
Remote clock offset: 7.262 ms

# Below is generated by plot.py at 2019-02-05 20:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.88 Mbit/s
95th percentile per-packet one-way delay: 152.604 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 41.95 Mbit/s
95th percentile per-packet one-way delay: 185.149 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 35.32 Mbit/s
95th percentile per-packet one-way delay: 142.997 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 136.105 ms
Loss rate: 2.06%
```

Run 4: Report of TCP Cubic — Data Link

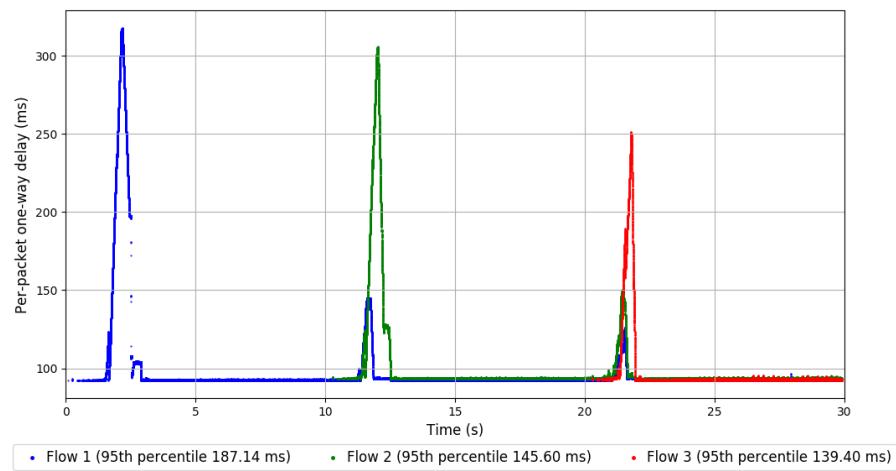
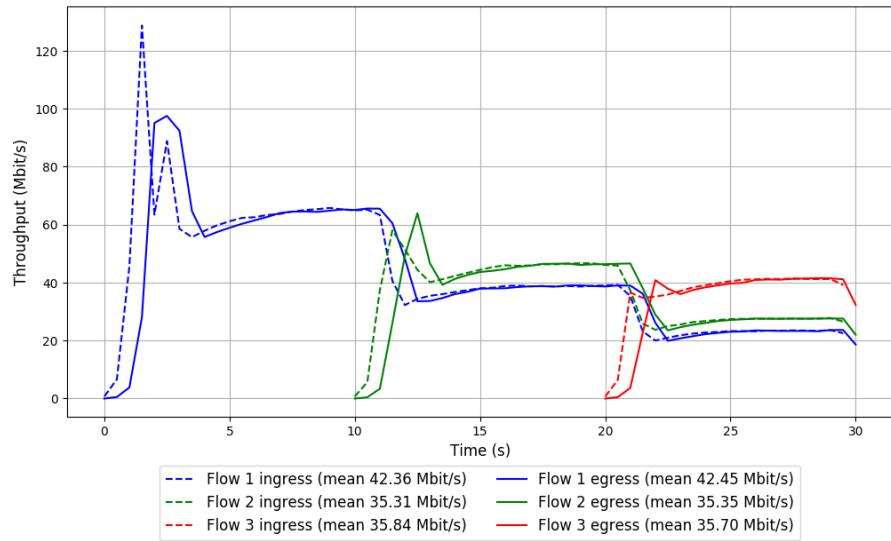


Run 5: Statistics of TCP Cubic

```
Start at: 2019-02-05 20:08:16
End at: 2019-02-05 20:08:46
Local clock offset: -1.922 ms
Remote clock offset: 1.426 ms

# Below is generated by plot.py at 2019-02-05 20:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.63 Mbit/s
95th percentile per-packet one-way delay: 153.865 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 42.45 Mbit/s
95th percentile per-packet one-way delay: 187.139 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 35.35 Mbit/s
95th percentile per-packet one-way delay: 145.596 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 35.70 Mbit/s
95th percentile per-packet one-way delay: 139.403 ms
Loss rate: 2.10%
```

Run 5: Report of TCP Cubic — Data Link

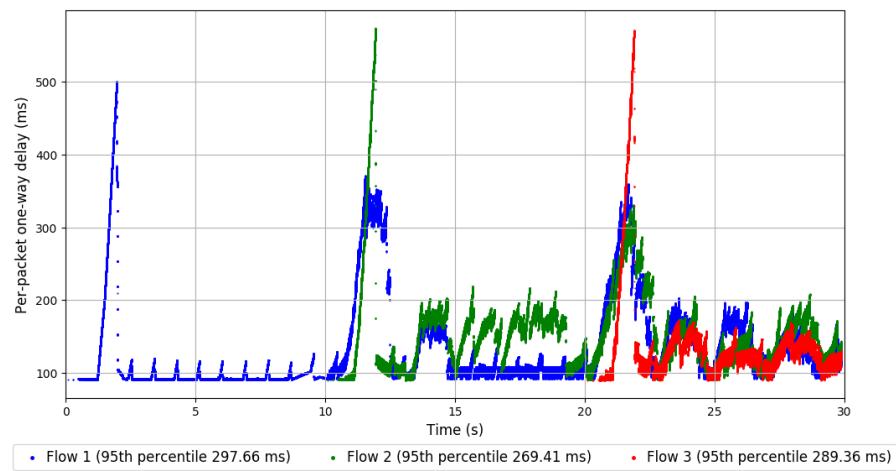
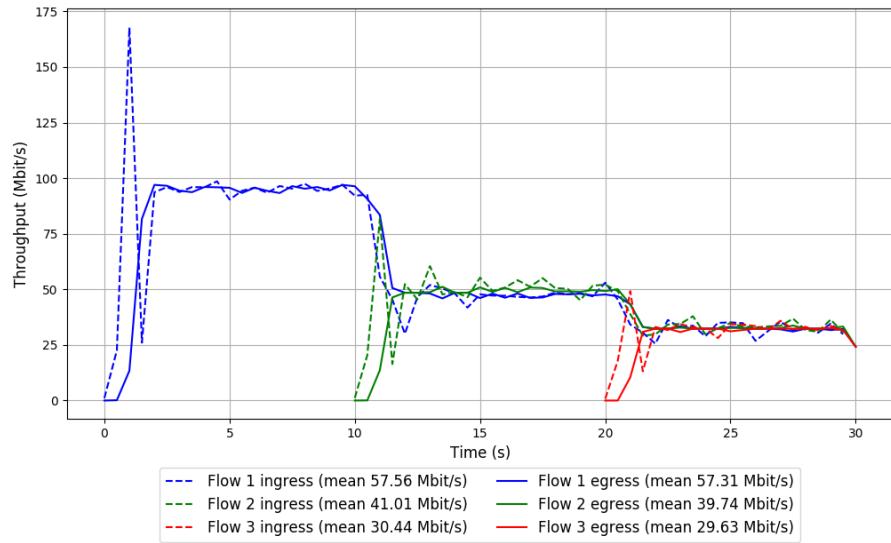


```
Run 1: Statistics of FillP

Start at: 2019-02-05 18:34:12
End at: 2019-02-05 18:34:42
Local clock offset: -0.327 ms
Remote clock offset: 1.806 ms

# Below is generated by plot.py at 2019-02-05 20:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.42 Mbit/s
95th percentile per-packet one-way delay: 287.660 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 57.31 Mbit/s
95th percentile per-packet one-way delay: 297.657 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 39.74 Mbit/s
95th percentile per-packet one-way delay: 269.411 ms
Loss rate: 3.92%
-- Flow 3:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 289.363 ms
Loss rate: 4.33%
```

Run 1: Report of FillP — Data Link

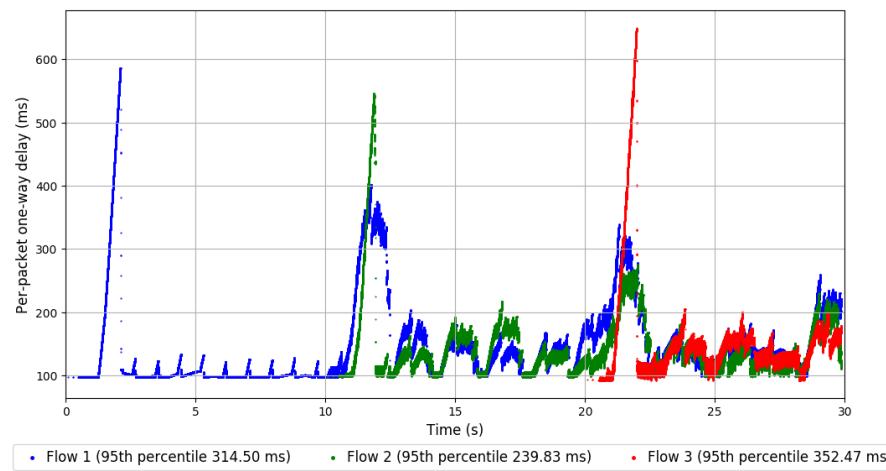
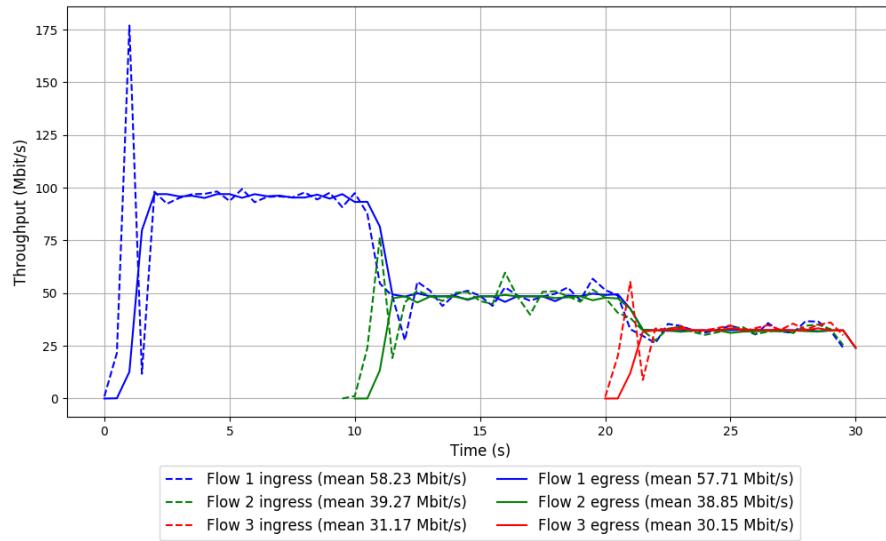


Run 2: Statistics of FillP

```
Start at: 2019-02-05 19:01:14
End at: 2019-02-05 19:01:44
Local clock offset: -1.47 ms
Remote clock offset: 3.665 ms

# Below is generated by plot.py at 2019-02-05 20:31:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.42 Mbit/s
95th percentile per-packet one-way delay: 294.811 ms
Loss rate: 1.96%
-- Flow 1:
Average throughput: 57.71 Mbit/s
95th percentile per-packet one-way delay: 314.503 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 38.85 Mbit/s
95th percentile per-packet one-way delay: 239.826 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 30.15 Mbit/s
95th percentile per-packet one-way delay: 352.470 ms
Loss rate: 4.94%
```

## Run 2: Report of FillP — Data Link

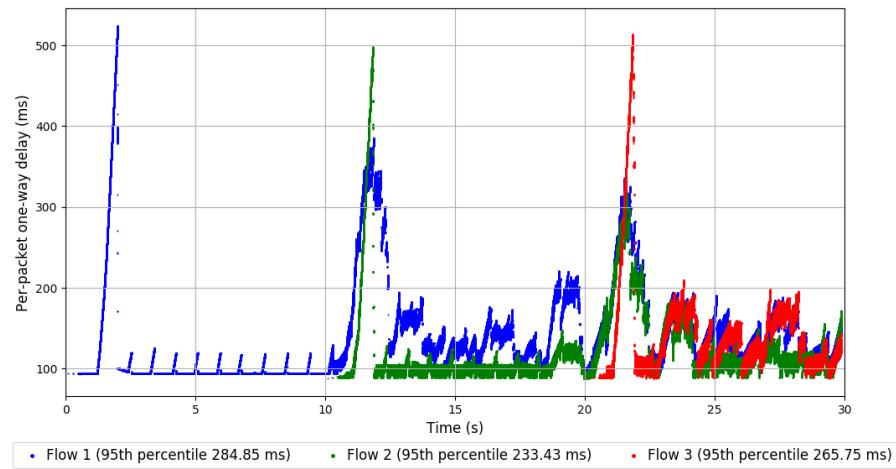
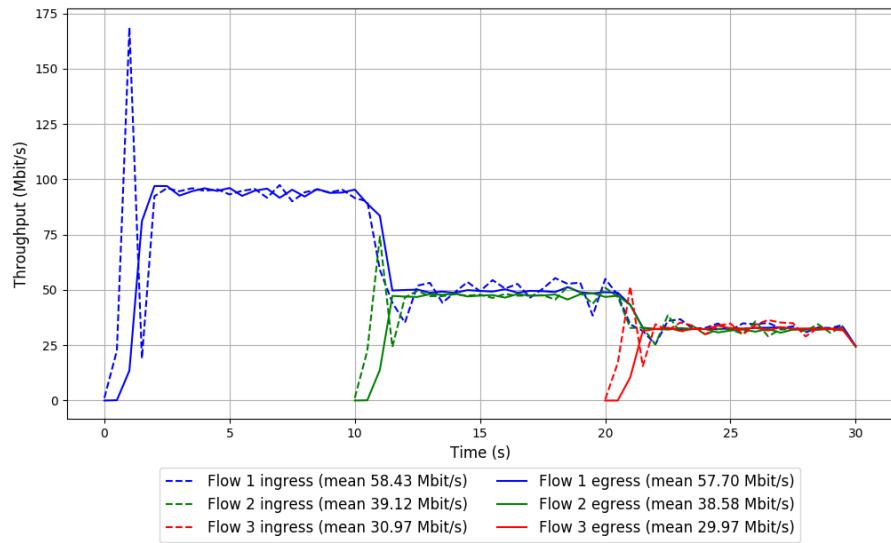


Run 3: Statistics of FillP

```
Start at: 2019-02-05 19:28:15
End at: 2019-02-05 19:28:45
Local clock offset: -2.092 ms
Remote clock offset: 7.954 ms

# Below is generated by plot.py at 2019-02-05 20:31:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.17 Mbit/s
95th percentile per-packet one-way delay: 270.579 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 57.70 Mbit/s
95th percentile per-packet one-way delay: 284.849 ms
Loss rate: 1.76%
-- Flow 2:
Average throughput: 38.58 Mbit/s
95th percentile per-packet one-way delay: 233.433 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 29.97 Mbit/s
95th percentile per-packet one-way delay: 265.746 ms
Loss rate: 4.91%
```

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

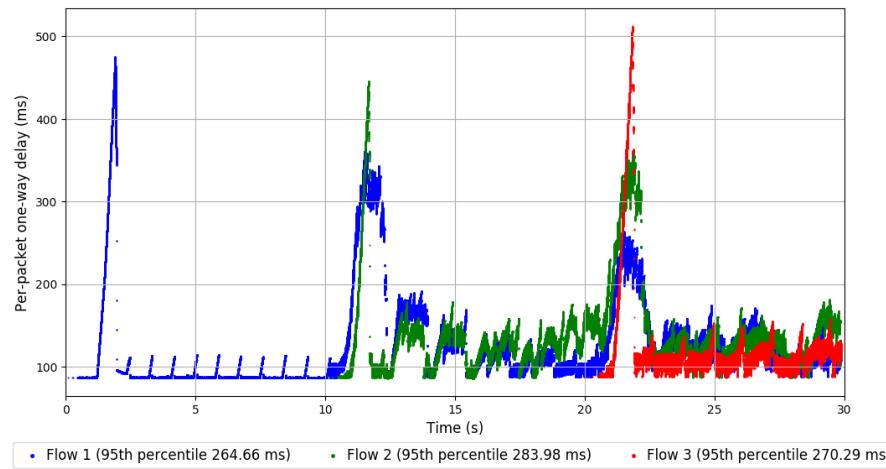
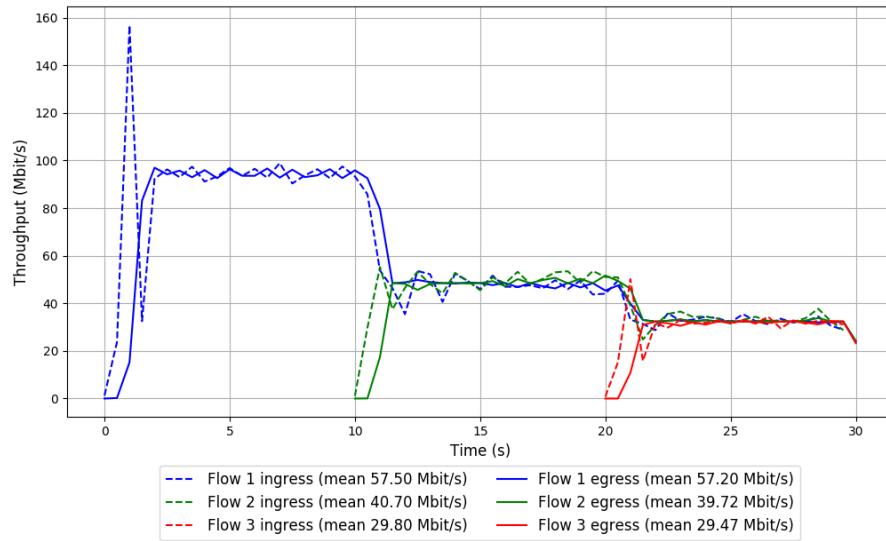


Run 4: Statistics of FillP

```
Start at: 2019-02-05 19:55:15
End at: 2019-02-05 19:55:45
Local clock offset: -2.828 ms
Remote clock offset: 6.634 ms

# Below is generated by plot.py at 2019-02-05 20:32:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: 268.574 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 57.20 Mbit/s
95th percentile per-packet one-way delay: 264.657 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 283.982 ms
Loss rate: 3.25%
-- Flow 3:
Average throughput: 29.47 Mbit/s
95th percentile per-packet one-way delay: 270.287 ms
Loss rate: 2.77%
```

## Run 4: Report of FillP — Data Link

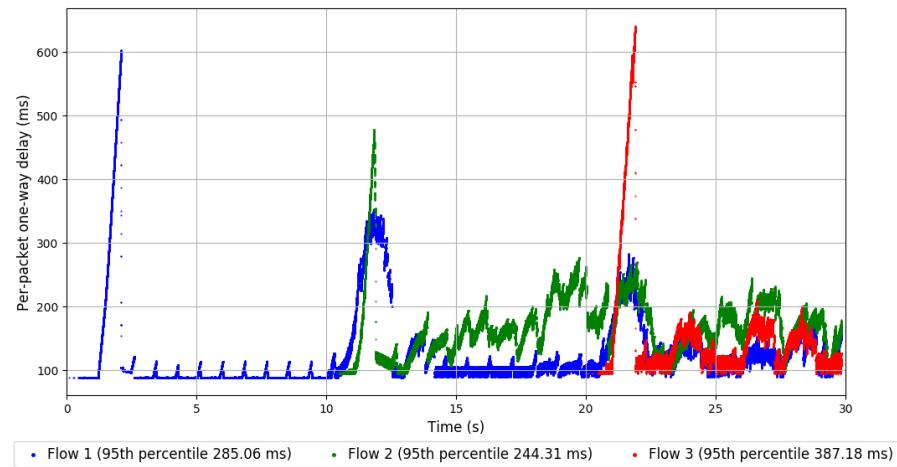
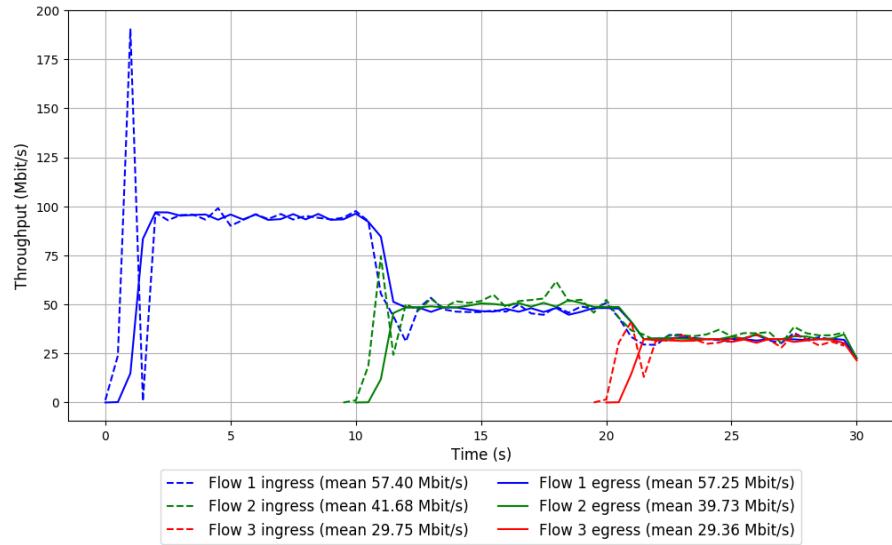


```
Run 5: Statistics of FillP
```

```
Start at: 2019-02-05 20:22:18
End at: 2019-02-05 20:22:48
Local clock offset: -5.396 ms
Remote clock offset: 5.187 ms

# Below is generated by plot.py at 2019-02-05 20:32:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.32 Mbit/s
95th percentile per-packet one-way delay: 264.495 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 57.25 Mbit/s
95th percentile per-packet one-way delay: 285.065 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 39.73 Mbit/s
95th percentile per-packet one-way delay: 244.311 ms
Loss rate: 5.50%
-- Flow 3:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 387.184 ms
Loss rate: 3.09%
```

## Run 5: Report of FillP — Data Link

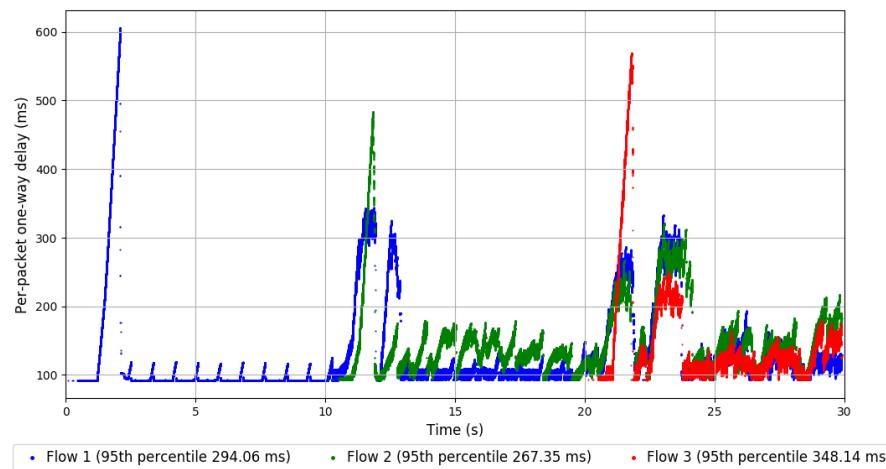
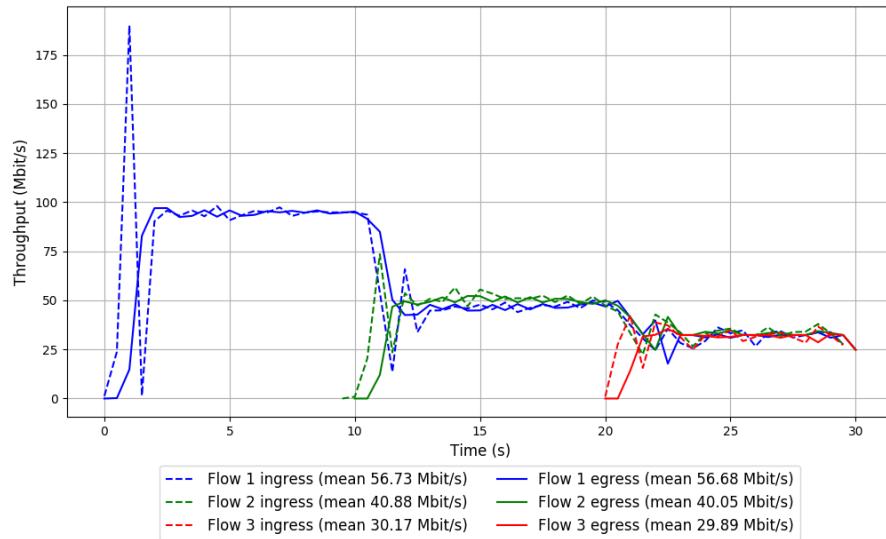


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-02-05 18:36:47
End at: 2019-02-05 18:37:17
Local clock offset: -0.923 ms
Remote clock offset: 0.676 ms

# Below is generated by plot.py at 2019-02-05 20:32:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.09 Mbit/s
95th percentile per-packet one-way delay: 285.819 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 56.68 Mbit/s
95th percentile per-packet one-way delay: 294.063 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 40.05 Mbit/s
95th percentile per-packet one-way delay: 267.345 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 29.89 Mbit/s
95th percentile per-packet one-way delay: 348.140 ms
Loss rate: 2.63%
```

Run 1: Report of FillP-Sheep — Data Link

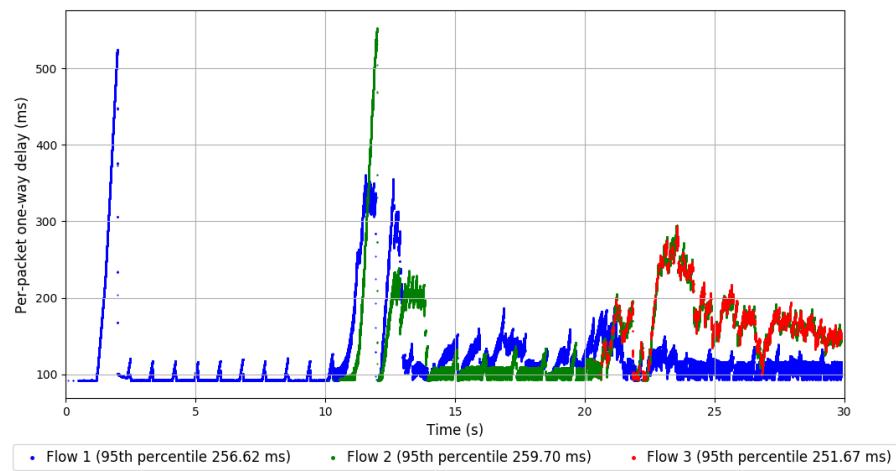
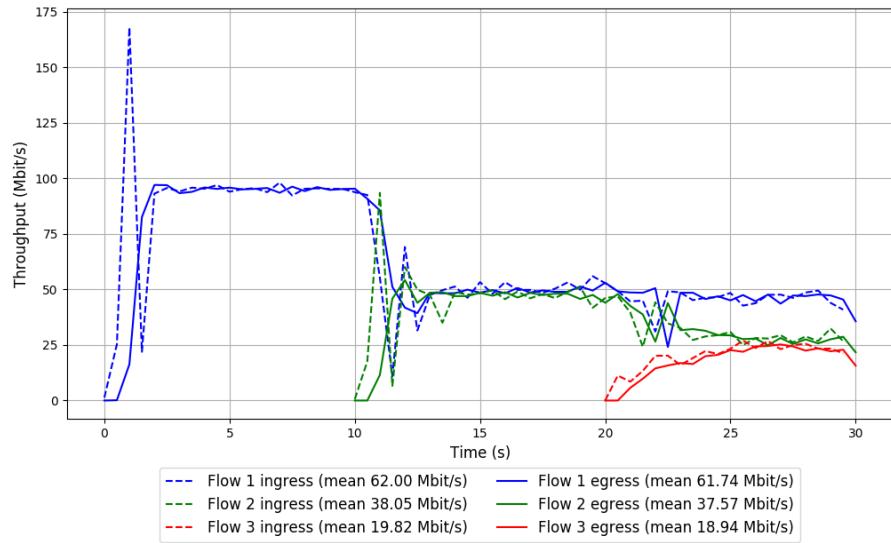


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-02-05 19:03:49
End at: 2019-02-05 19:04:19
Local clock offset: -1.411 ms
Remote clock offset: 2.601 ms

# Below is generated by plot.py at 2019-02-05 20:32:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.87 Mbit/s
95th percentile per-packet one-way delay: 256.501 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 61.74 Mbit/s
95th percentile per-packet one-way delay: 256.619 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 37.57 Mbit/s
95th percentile per-packet one-way delay: 259.699 ms
Loss rate: 2.12%
-- Flow 3:
Average throughput: 18.94 Mbit/s
95th percentile per-packet one-way delay: 251.673 ms
Loss rate: 6.24%
```

## Run 2: Report of FillP-Sheep — Data Link

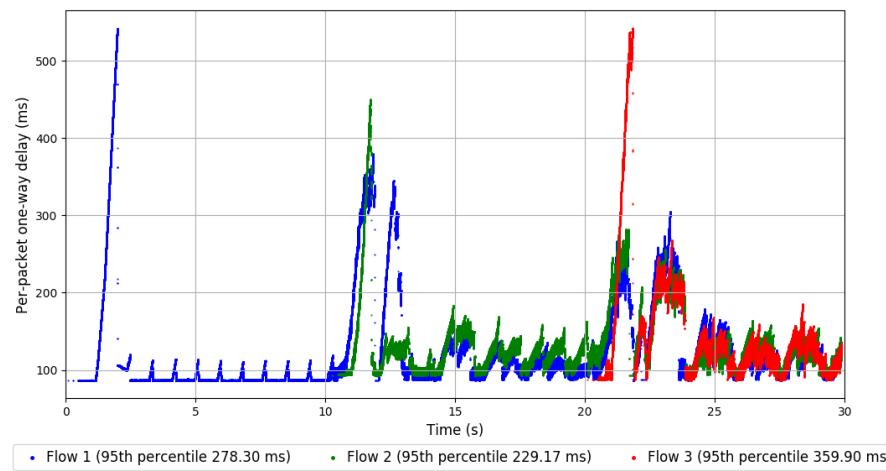
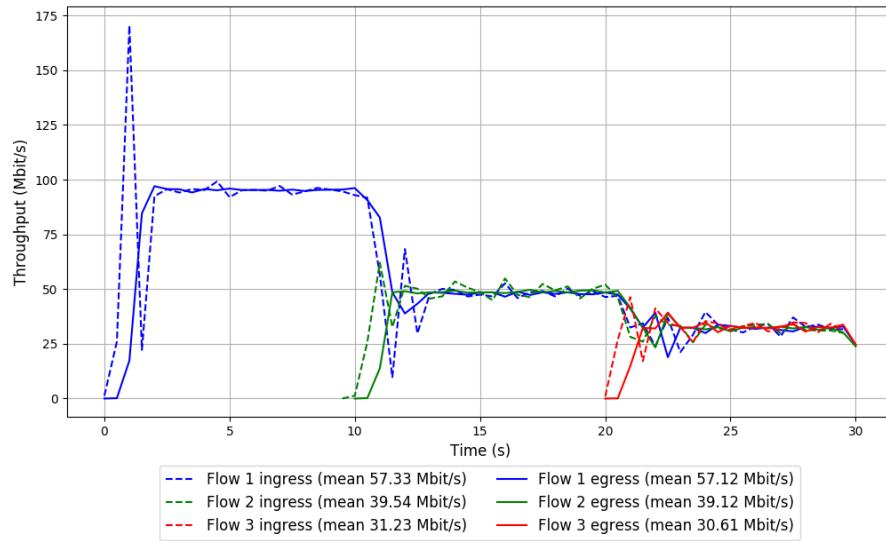


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-02-05 19:30:50
End at: 2019-02-05 19:31:20
Local clock offset: -2.136 ms
Remote clock offset: 9.246 ms

# Below is generated by plot.py at 2019-02-05 20:32:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.17 Mbit/s
95th percentile per-packet one-way delay: 256.827 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 57.12 Mbit/s
95th percentile per-packet one-way delay: 278.295 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 229.166 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 359.901 ms
Loss rate: 3.56%
```

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

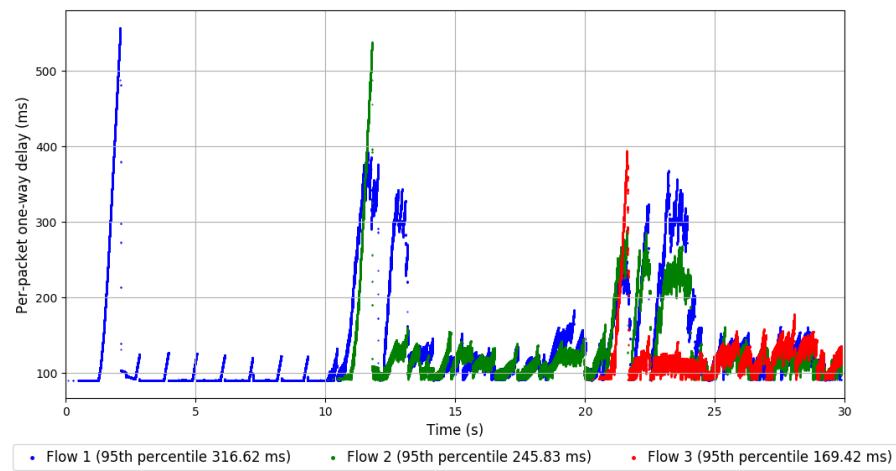
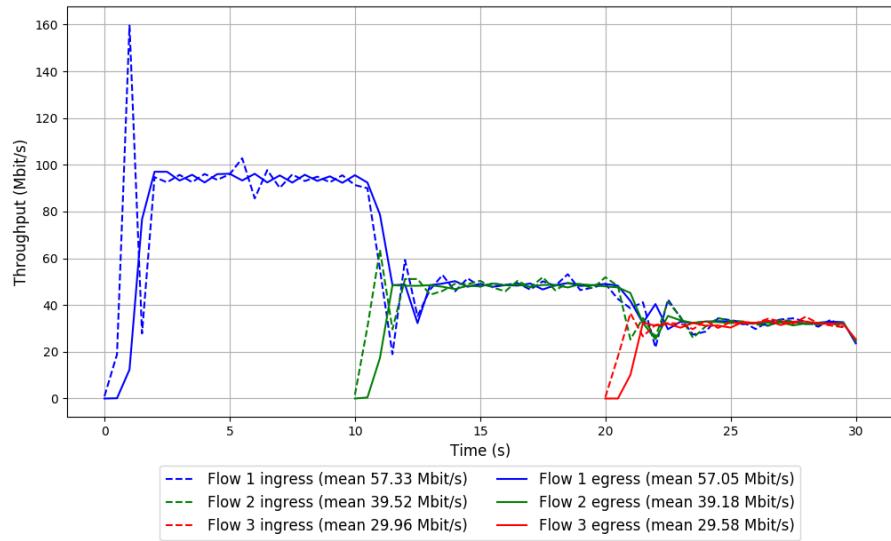


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-02-05 19:57:50
End at: 2019-02-05 19:58:20
Local clock offset: -2.82 ms
Remote clock offset: 2.599 ms

# Below is generated by plot.py at 2019-02-05 20:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.78 Mbit/s
95th percentile per-packet one-way delay: 296.199 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 316.622 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 39.18 Mbit/s
95th percentile per-packet one-way delay: 245.830 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 29.58 Mbit/s
95th percentile per-packet one-way delay: 169.423 ms
Loss rate: 3.01%
```

Run 4: Report of FillP-Sheep — Data Link

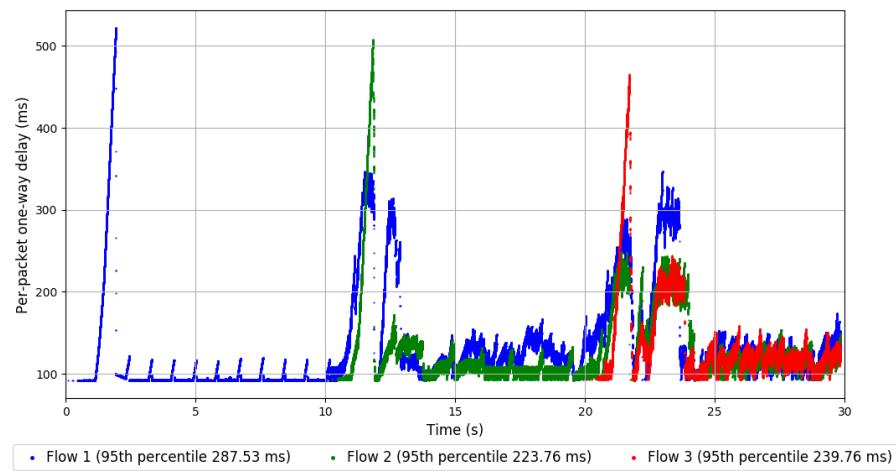
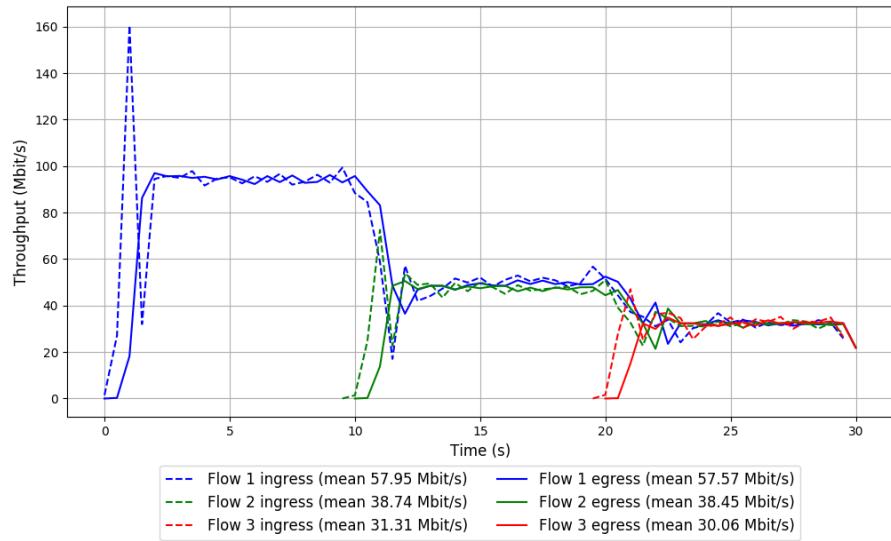


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-02-05 20:24:52
End at: 2019-02-05 20:25:22
Local clock offset: -5.39 ms
Remote clock offset: 2.361 ms

# Below is generated by plot.py at 2019-02-05 20:33:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.03 Mbit/s
95th percentile per-packet one-way delay: 271.868 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 57.57 Mbit/s
95th percentile per-packet one-way delay: 287.531 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 223.759 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: 239.761 ms
Loss rate: 5.59%
```

Run 5: Report of FillP-Sheep — Data Link

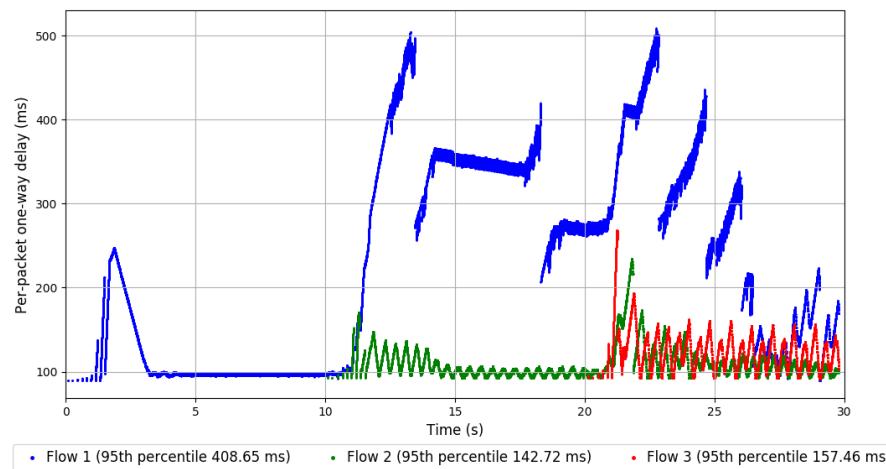
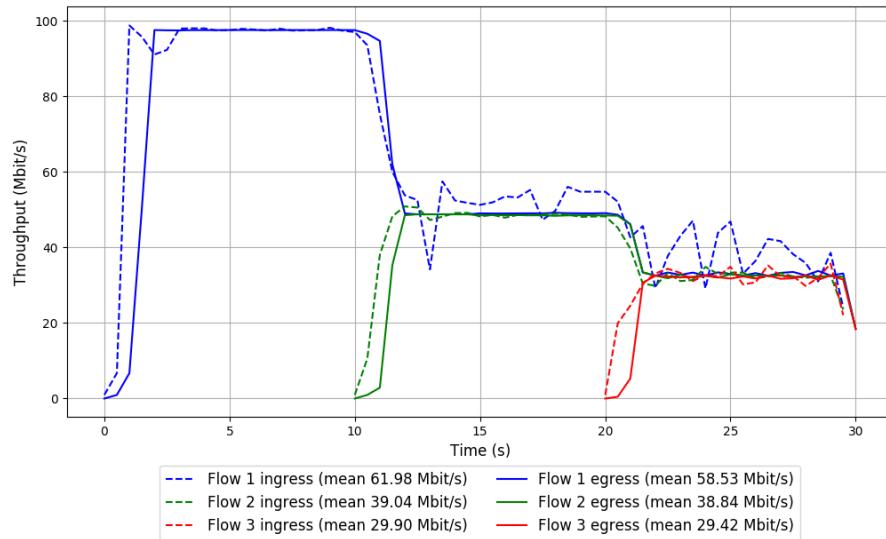


Run 1: Statistics of Indigo

```
Start at: 2019-02-05 18:24:06
End at: 2019-02-05 18:24:36
Local clock offset: 0.269 ms
Remote clock offset: 0.647 ms

# Below is generated by plot.py at 2019-02-05 20:33:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.85 Mbit/s
95th percentile per-packet one-way delay: 364.935 ms
Loss rate: 4.56%
-- Flow 1:
Average throughput: 58.53 Mbit/s
95th percentile per-packet one-way delay: 408.655 ms
Loss rate: 6.10%
-- Flow 2:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 142.718 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 29.42 Mbit/s
95th percentile per-packet one-way delay: 157.462 ms
Loss rate: 3.33%
```

## Run 1: Report of Indigo — Data Link

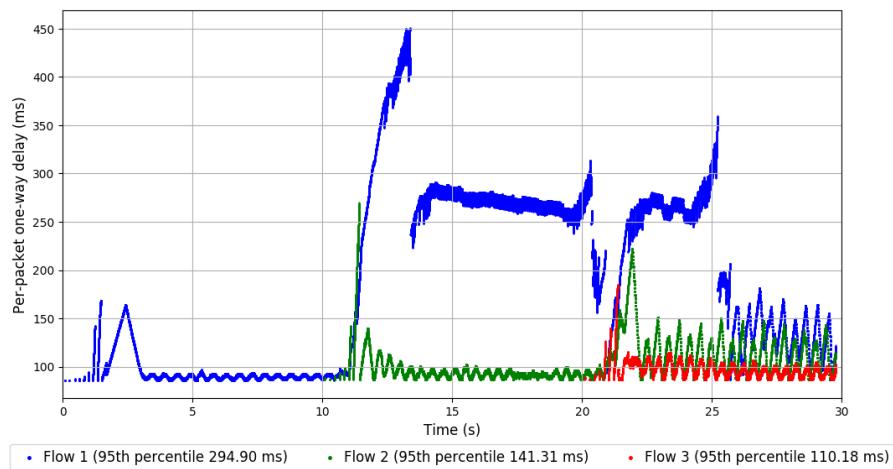
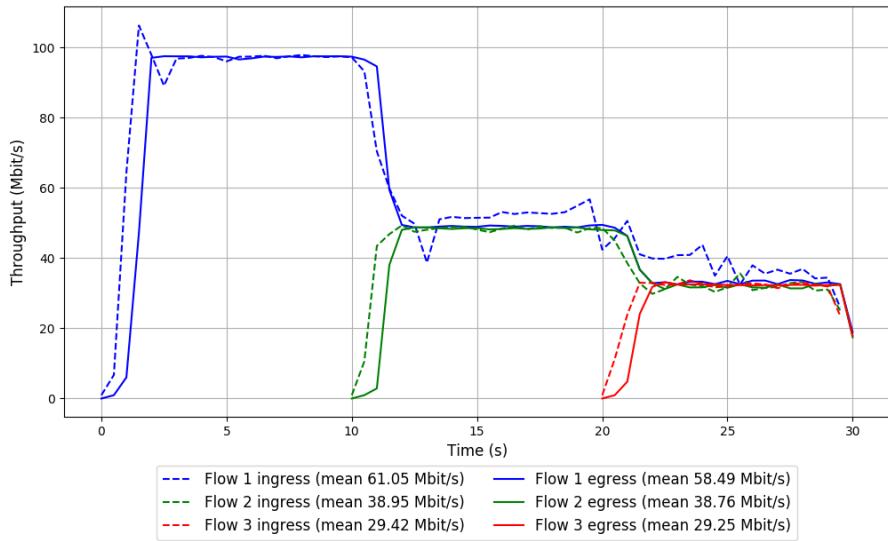


Run 2: Statistics of Indigo

```
Start at: 2019-02-05 18:51:07
End at: 2019-02-05 18:51:37
Local clock offset: -1.513 ms
Remote clock offset: 7.924 ms

# Below is generated by plot.py at 2019-02-05 20:33:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 281.771 ms
Loss rate: 3.57%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 294.902 ms
Loss rate: 4.72%
-- Flow 2:
Average throughput: 38.76 Mbit/s
95th percentile per-packet one-way delay: 141.307 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 29.25 Mbit/s
95th percentile per-packet one-way delay: 110.184 ms
Loss rate: 2.32%
```

Run 2: Report of Indigo — Data Link

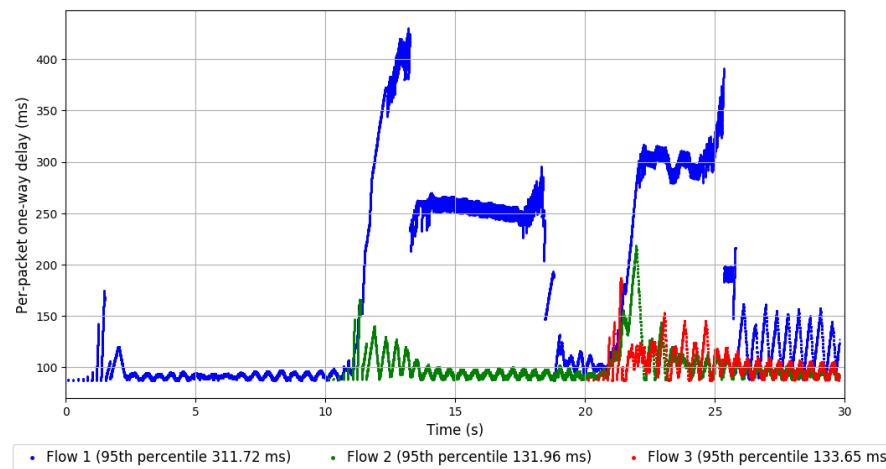
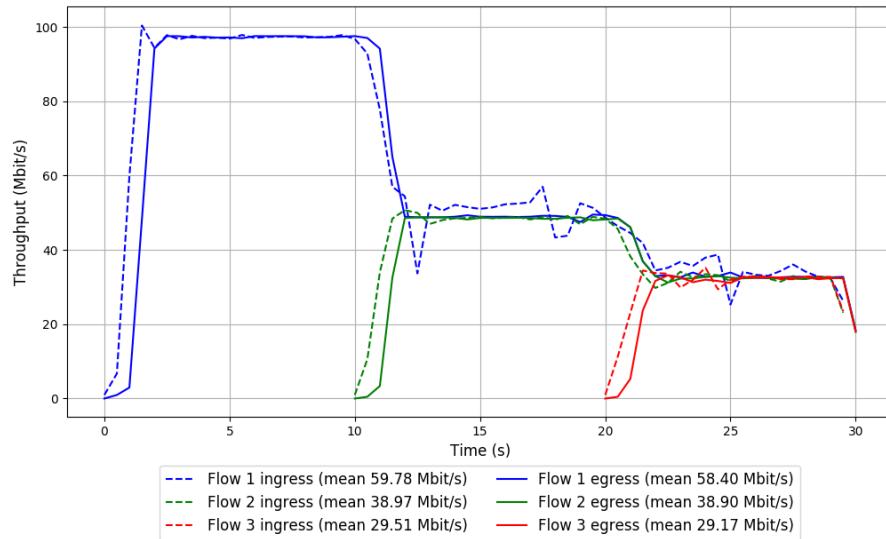


Run 3: Statistics of Indigo

```
Start at: 2019-02-05 19:18:07
End at: 2019-02-05 19:18:37
Local clock offset: -2.198 ms
Remote clock offset: 7.593 ms

# Below is generated by plot.py at 2019-02-05 20:33:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 298.673 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 58.40 Mbit/s
95th percentile per-packet one-way delay: 311.721 ms
Loss rate: 2.88%
-- Flow 2:
Average throughput: 38.90 Mbit/s
95th percentile per-packet one-way delay: 131.959 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 29.17 Mbit/s
95th percentile per-packet one-way delay: 133.654 ms
Loss rate: 2.89%
```

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

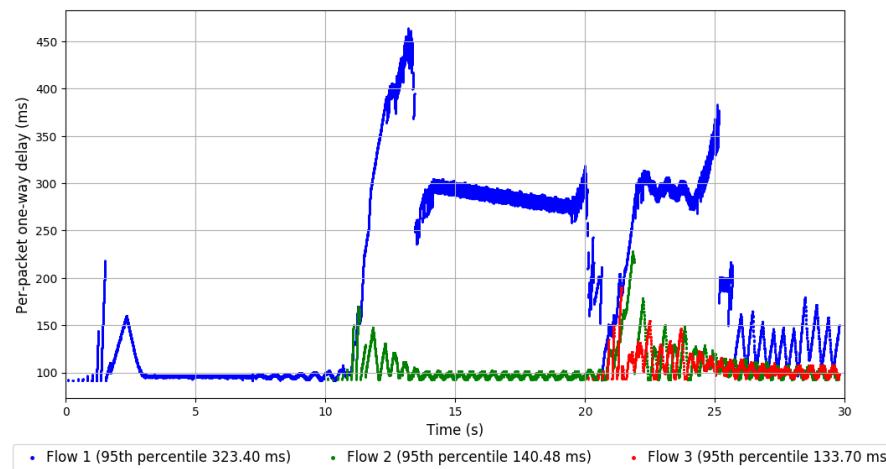
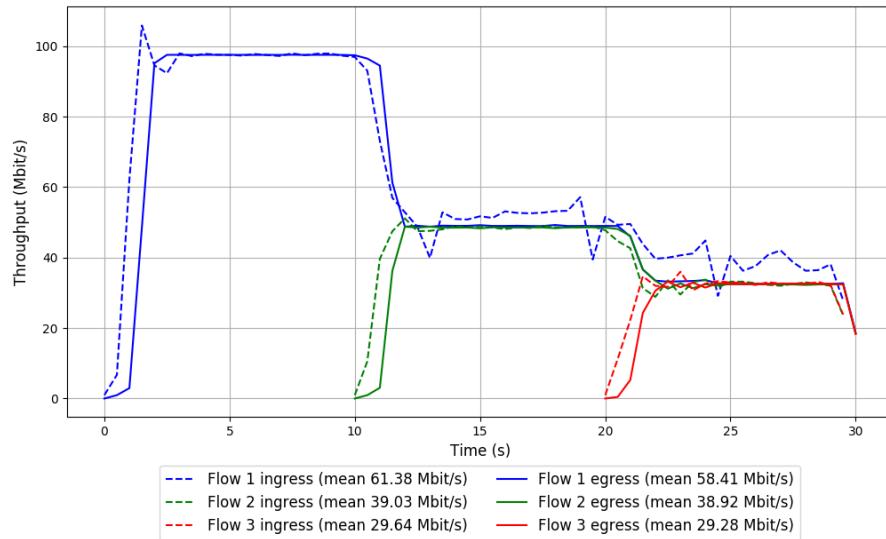


Run 4: Statistics of Indigo

```
Start at: 2019-02-05 19:45:08
End at: 2019-02-05 19:45:38
Local clock offset: -2.811 ms
Remote clock offset: 1.959 ms

# Below is generated by plot.py at 2019-02-05 20:33:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 300.563 ms
Loss rate: 4.01%
-- Flow 1:
Average throughput: 58.41 Mbit/s
95th percentile per-packet one-way delay: 323.401 ms
Loss rate: 5.39%
-- Flow 2:
Average throughput: 38.92 Mbit/s
95th percentile per-packet one-way delay: 140.476 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 29.28 Mbit/s
95th percentile per-packet one-way delay: 133.700 ms
Loss rate: 2.96%
```

## Run 4: Report of Indigo — Data Link

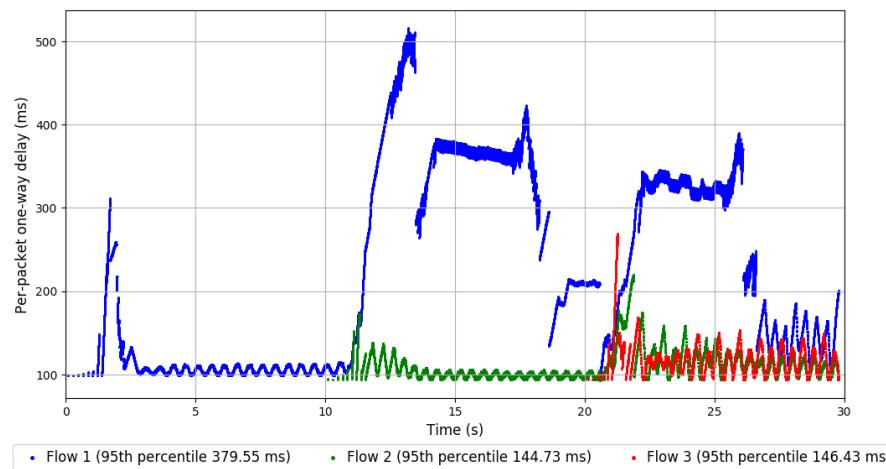
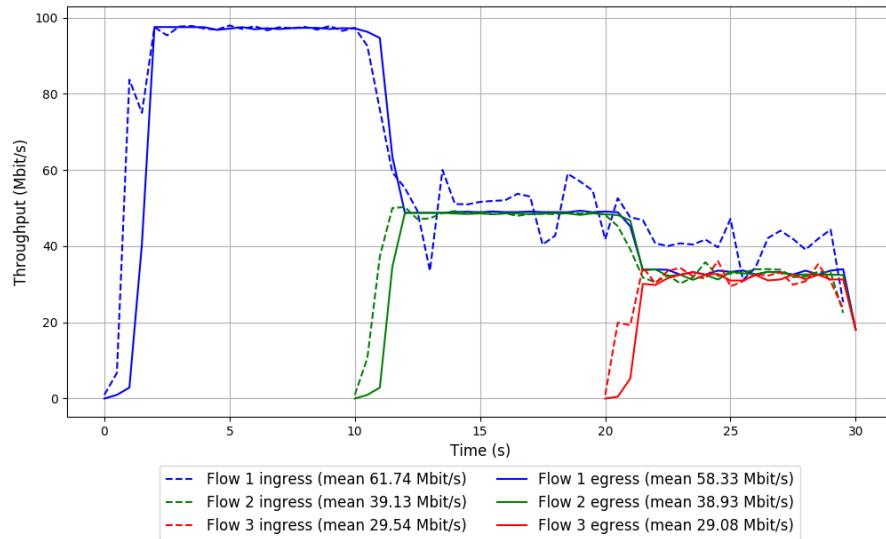


Run 5: Statistics of Indigo

```
Start at: 2019-02-05 20:12:10
End at: 2019-02-05 20:12:40
Local clock offset: -1.915 ms
Remote clock offset: 1.327 ms

# Below is generated by plot.py at 2019-02-05 20:33:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.59 Mbit/s
95th percentile per-packet one-way delay: 371.499 ms
Loss rate: 4.56%
-- Flow 1:
Average throughput: 58.33 Mbit/s
95th percentile per-packet one-way delay: 379.549 ms
Loss rate: 6.09%
-- Flow 2:
Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 144.726 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 29.08 Mbit/s
95th percentile per-packet one-way delay: 146.430 ms
Loss rate: 3.29%
```

## Run 5: Report of Indigo — Data Link

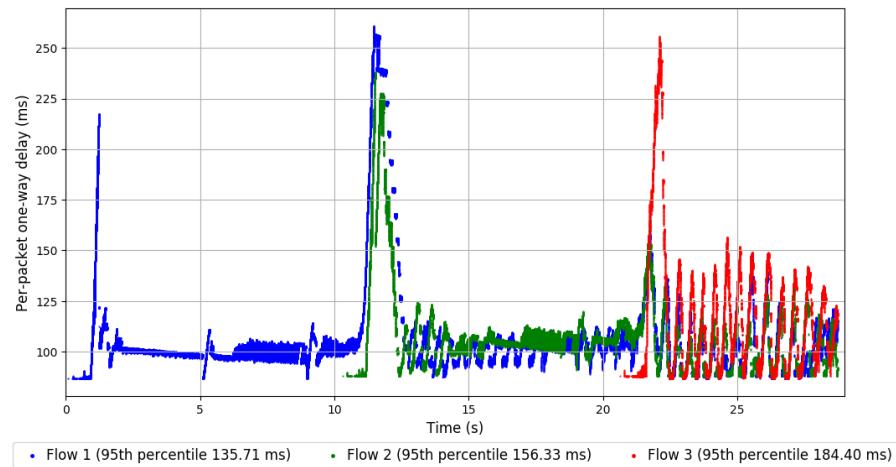
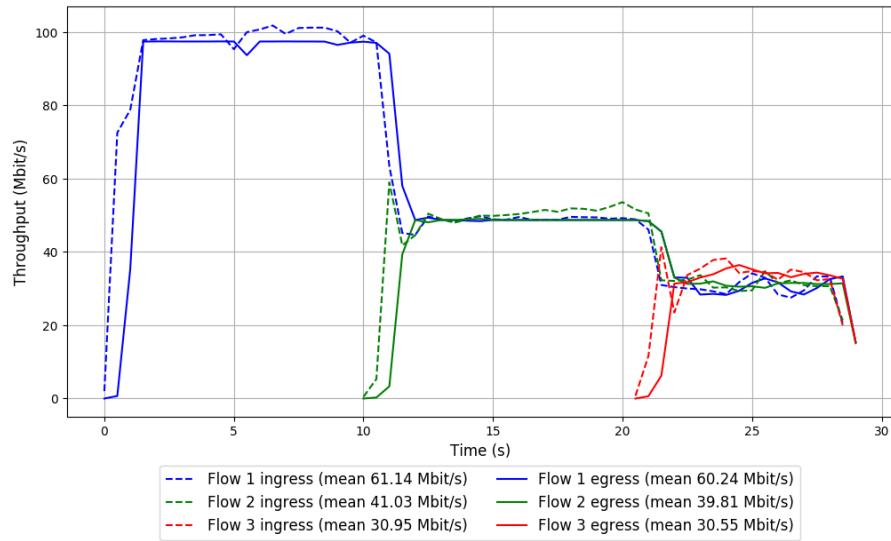


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-02-05 18:13:38
End at: 2019-02-05 18:14:08
Local clock offset: 2.789 ms
Remote clock offset: 3.096 ms

# Below is generated by plot.py at 2019-02-05 20:33:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.50 Mbit/s
95th percentile per-packet one-way delay: 150.919 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 60.24 Mbit/s
95th percentile per-packet one-way delay: 135.711 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 156.332 ms
Loss rate: 3.86%
-- Flow 3:
Average throughput: 30.55 Mbit/s
95th percentile per-packet one-way delay: 184.400 ms
Loss rate: 3.33%
```

## Run 1: Report of Indigo-MusesC3 — Data Link

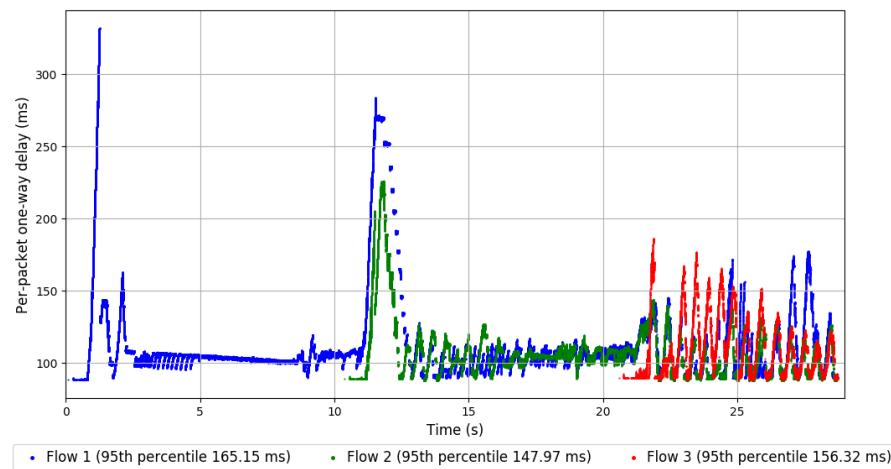
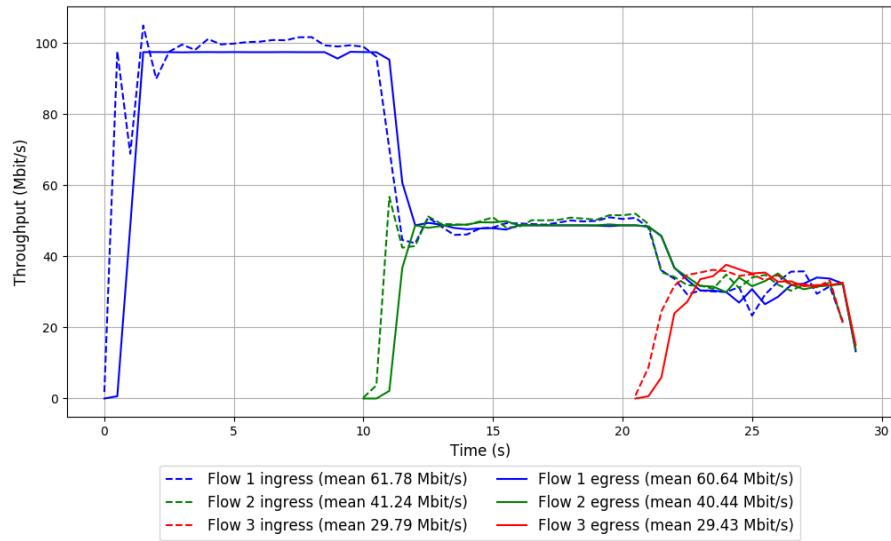


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-02-05 18:40:37
End at: 2019-02-05 18:41:07
Local clock offset: -0.822 ms
Remote clock offset: 5.04 ms

# Below is generated by plot.py at 2019-02-05 20:34:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.89 Mbit/s
95th percentile per-packet one-way delay: 158.908 ms
Loss rate: 2.64%
-- Flow 1:
Average throughput: 60.64 Mbit/s
95th percentile per-packet one-way delay: 165.153 ms
Loss rate: 2.44%
-- Flow 2:
Average throughput: 40.44 Mbit/s
95th percentile per-packet one-way delay: 147.966 ms
Loss rate: 2.89%
-- Flow 3:
Average throughput: 29.43 Mbit/s
95th percentile per-packet one-way delay: 156.318 ms
Loss rate: 3.25%
```

## Run 2: Report of Indigo-MusesC3 — Data Link

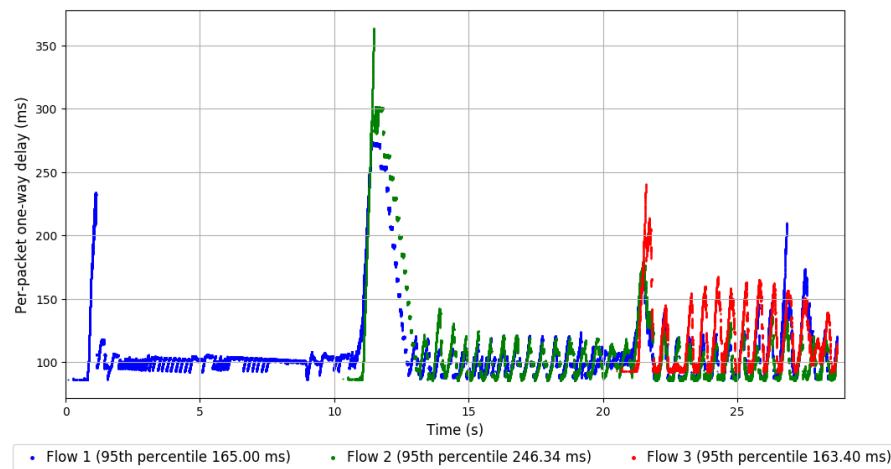
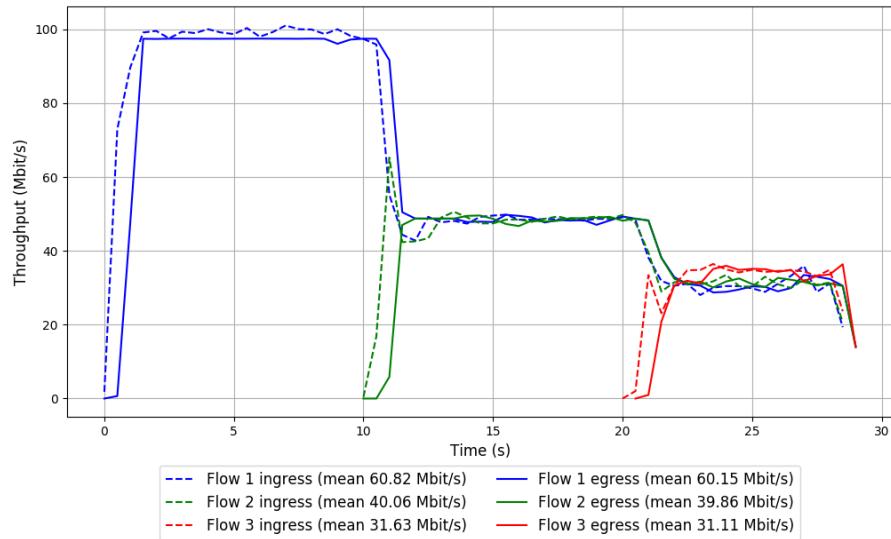


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-02-05 19:07:39
End at: 2019-02-05 19:08:09
Local clock offset: -2.141 ms
Remote clock offset: 8.437 ms

# Below is generated by plot.py at 2019-02-05 20:34:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.65 Mbit/s
95th percentile per-packet one-way delay: 190.173 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 60.15 Mbit/s
95th percentile per-packet one-way delay: 165.003 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 39.86 Mbit/s
95th percentile per-packet one-way delay: 246.341 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 31.11 Mbit/s
95th percentile per-packet one-way delay: 163.398 ms
Loss rate: 3.66%
```

### Run 3: Report of Indigo-MusesC3 — Data Link

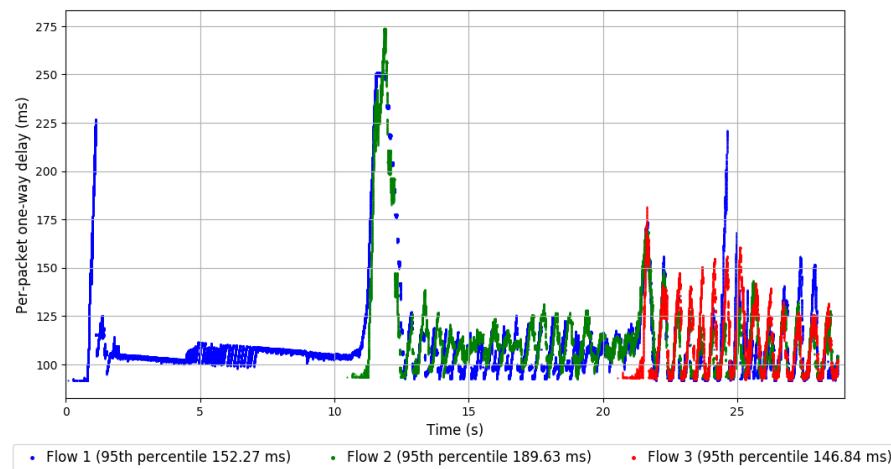
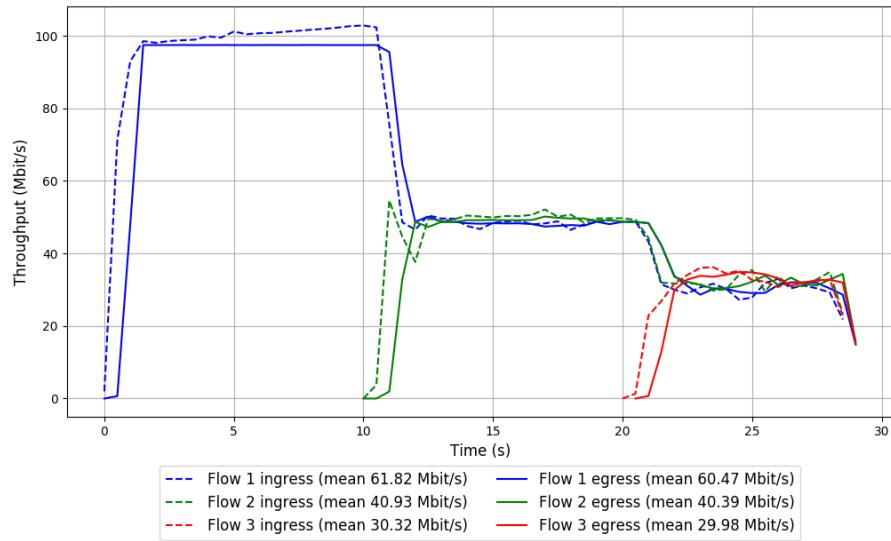


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-02-05 19:34:40
End at: 2019-02-05 19:35:10
Local clock offset: -2.909 ms
Remote clock offset: 3.183 ms

# Below is generated by plot.py at 2019-02-05 20:34:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 153.786 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 60.47 Mbit/s
95th percentile per-packet one-way delay: 152.274 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 40.39 Mbit/s
95th percentile per-packet one-way delay: 189.626 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 29.98 Mbit/s
95th percentile per-packet one-way delay: 146.837 ms
Loss rate: 3.19%
```

## Run 4: Report of Indigo-MusesC3 — Data Link

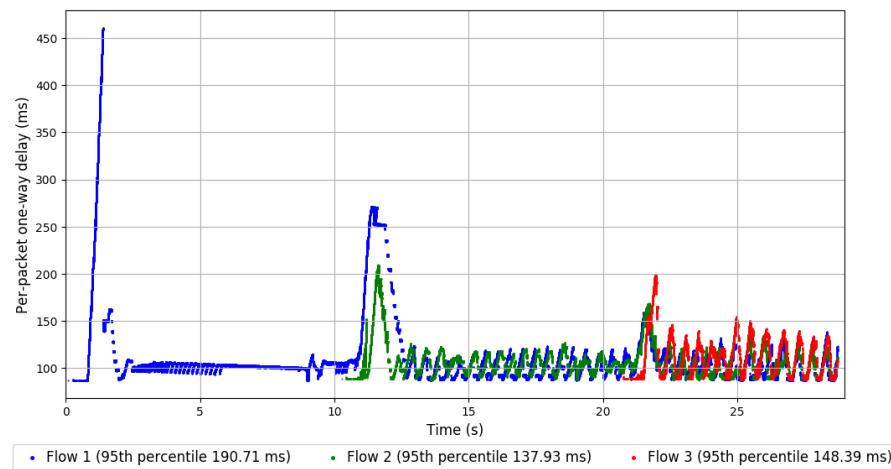
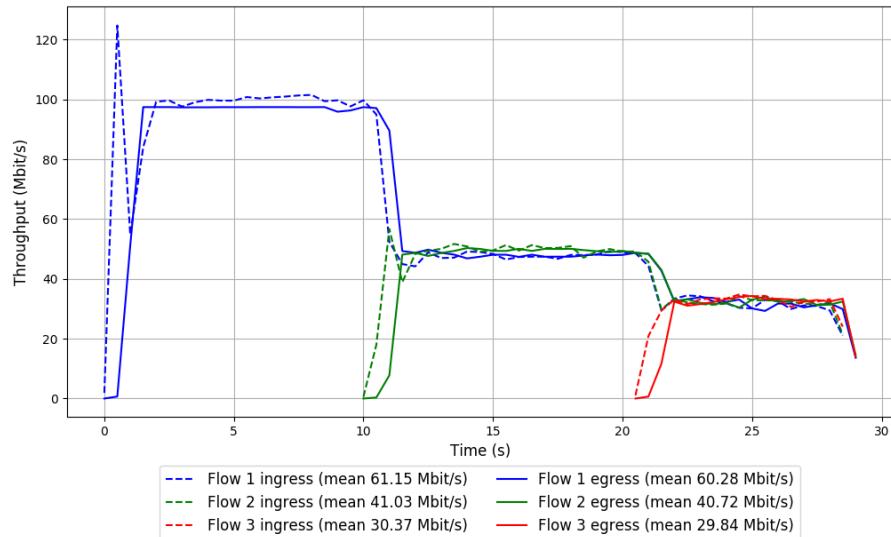


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-02-05 20:01:40
End at: 2019-02-05 20:02:10
Local clock offset: -2.763 ms
Remote clock offset: 6.278 ms

# Below is generated by plot.py at 2019-02-05 20:34:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.99 Mbit/s
95th percentile per-packet one-way delay: 161.253 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 60.28 Mbit/s
95th percentile per-packet one-way delay: 190.709 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 40.72 Mbit/s
95th percentile per-packet one-way delay: 137.934 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 29.84 Mbit/s
95th percentile per-packet one-way delay: 148.394 ms
Loss rate: 3.78%
```

## Run 5: Report of Indigo-MusesC3 — Data Link

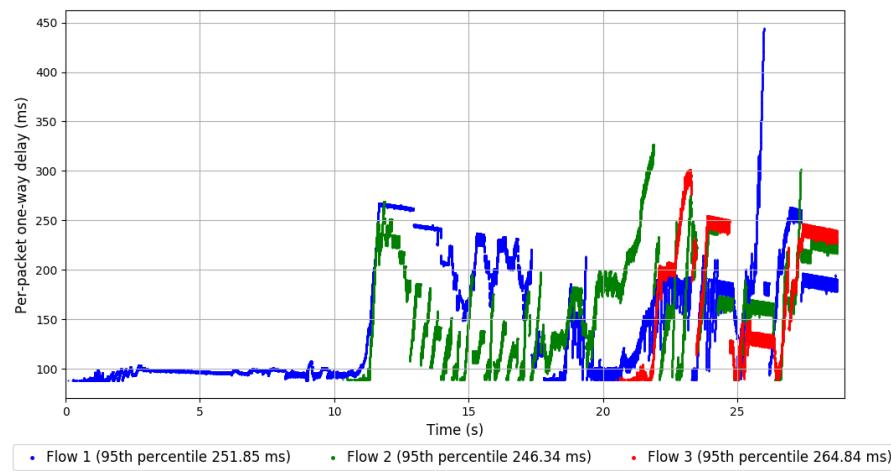
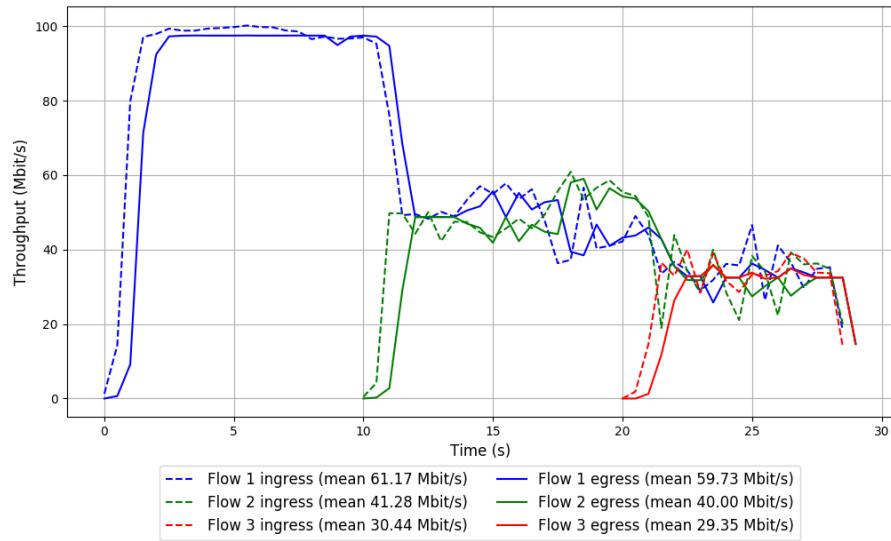


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-02-05 18:22:48
End at: 2019-02-05 18:23:18
Local clock offset: 0.602 ms
Remote clock offset: 4.403 ms

# Below is generated by plot.py at 2019-02-05 20:34:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.92 Mbit/s
95th percentile per-packet one-way delay: 251.304 ms
Loss rate: 3.29%
-- Flow 1:
Average throughput: 59.73 Mbit/s
95th percentile per-packet one-way delay: 251.846 ms
Loss rate: 2.74%
-- Flow 2:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 246.341 ms
Loss rate: 3.86%
-- Flow 3:
Average throughput: 29.35 Mbit/s
95th percentile per-packet one-way delay: 264.837 ms
Loss rate: 5.41%
```

Run 1: Report of Indigo-MusesC5 — Data Link

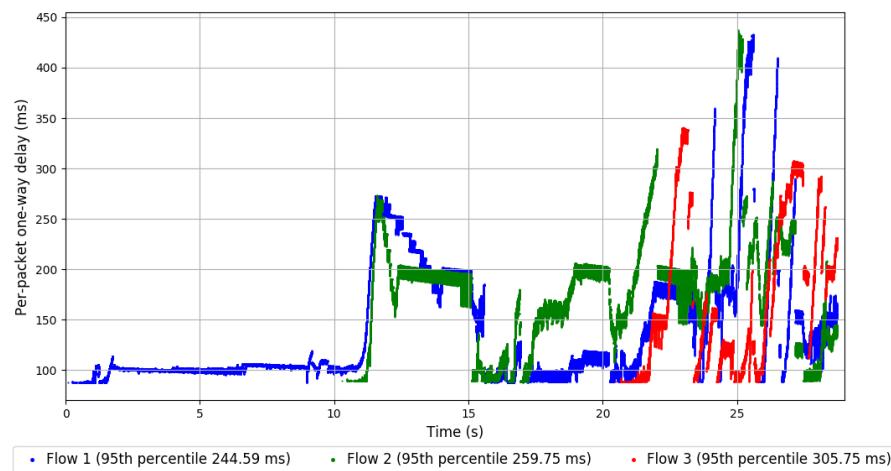
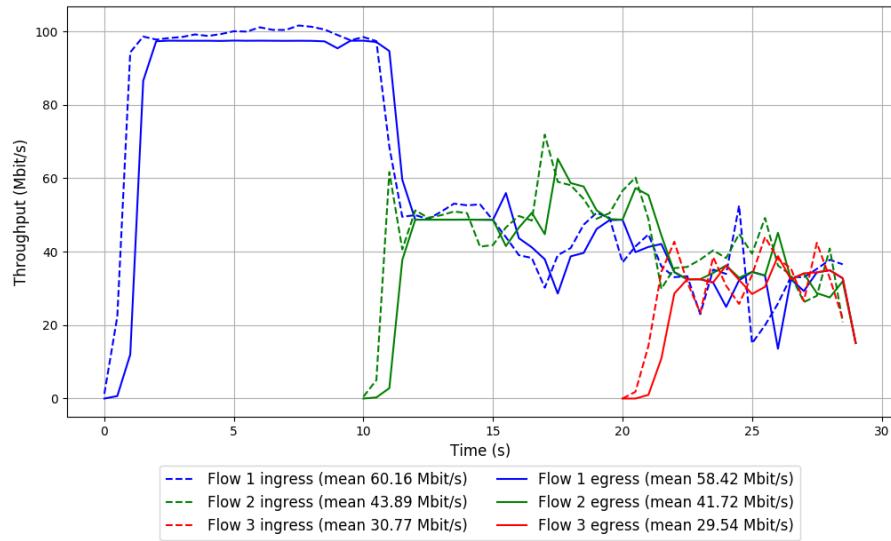


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-02-05 18:49:50
End at: 2019-02-05 18:50:20
Local clock offset: -0.565 ms
Remote clock offset: 6.721 ms

# Below is generated by plot.py at 2019-02-05 20:34:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 261.383 ms
Loss rate: 4.35%
-- Flow 1:
Average throughput: 58.42 Mbit/s
95th percentile per-packet one-way delay: 244.592 ms
Loss rate: 3.44%
-- Flow 2:
Average throughput: 41.72 Mbit/s
95th percentile per-packet one-way delay: 259.745 ms
Loss rate: 5.77%
-- Flow 3:
Average throughput: 29.54 Mbit/s
95th percentile per-packet one-way delay: 305.750 ms
Loss rate: 5.96%
```

## Run 2: Report of Indigo-MusesC5 — Data Link

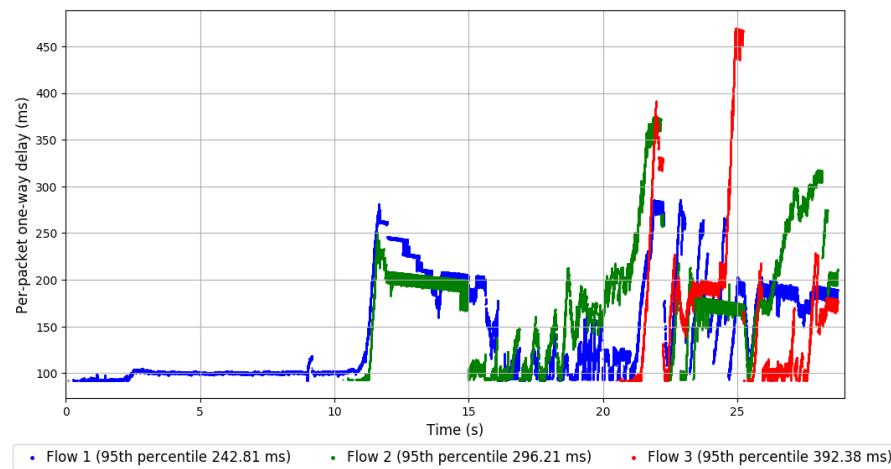
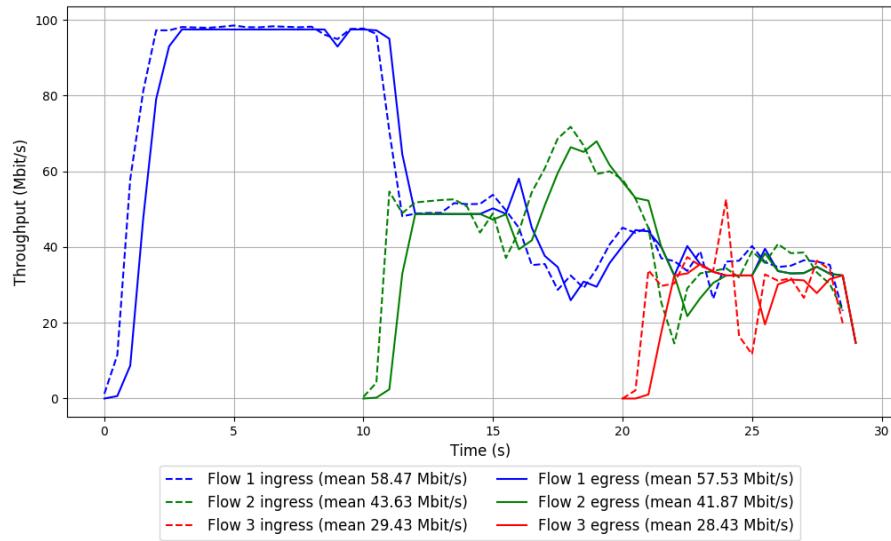


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-02-05 19:16:49
End at: 2019-02-05 19:17:19
Local clock offset: -2.004 ms
Remote clock offset: 2.718 ms

# Below is generated by plot.py at 2019-02-05 20:34:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.64 Mbit/s
95th percentile per-packet one-way delay: 263.868 ms
Loss rate: 3.28%
-- Flow 1:
Average throughput: 57.53 Mbit/s
95th percentile per-packet one-way delay: 242.814 ms
Loss rate: 2.21%
-- Flow 2:
Average throughput: 41.87 Mbit/s
95th percentile per-packet one-way delay: 296.209 ms
Loss rate: 4.90%
-- Flow 3:
Average throughput: 28.43 Mbit/s
95th percentile per-packet one-way delay: 392.375 ms
Loss rate: 5.26%
```

### Run 3: Report of Indigo-MusesC5 — Data Link

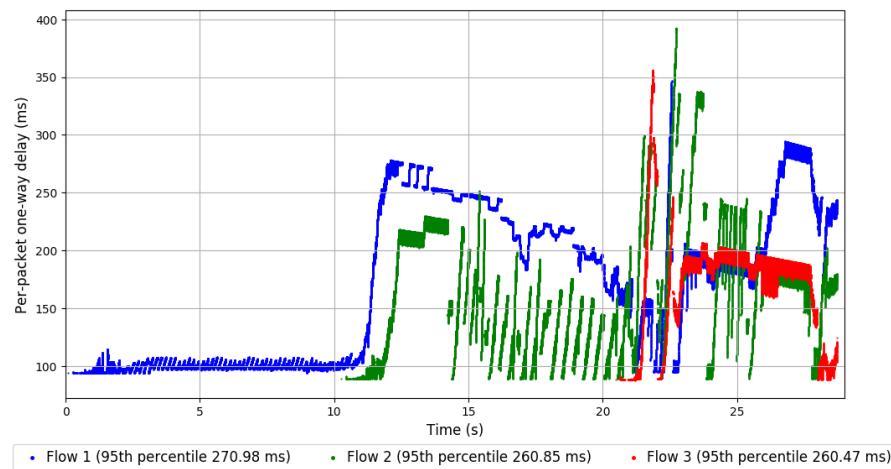
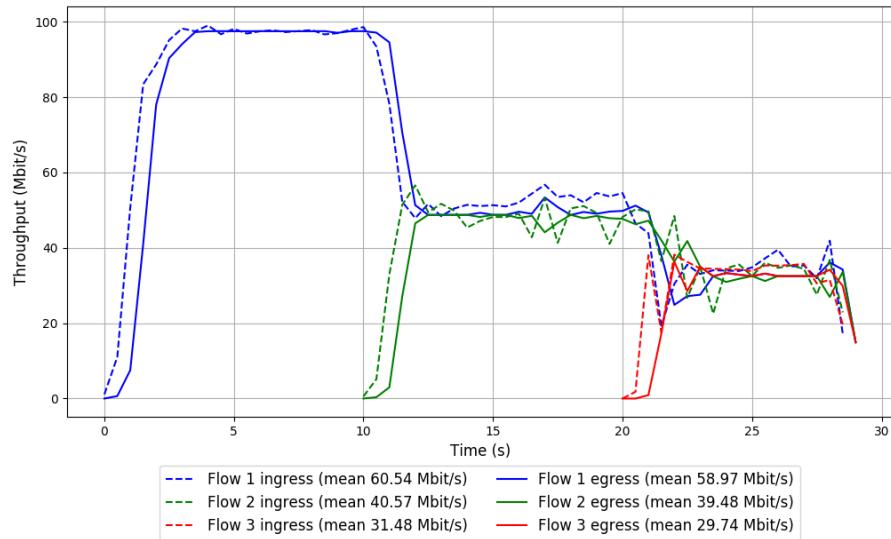


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-02-05 19:43:51
End at: 2019-02-05 19:44:21
Local clock offset: -2.834 ms
Remote clock offset: 5.852 ms

# Below is generated by plot.py at 2019-02-05 20:34:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.99 Mbit/s
95th percentile per-packet one-way delay: 268.826 ms
Loss rate: 3.63%
-- Flow 1:
Average throughput: 58.97 Mbit/s
95th percentile per-packet one-way delay: 270.980 ms
Loss rate: 3.19%
-- Flow 2:
Average throughput: 39.48 Mbit/s
95th percentile per-packet one-way delay: 260.849 ms
Loss rate: 3.57%
-- Flow 3:
Average throughput: 29.74 Mbit/s
95th percentile per-packet one-way delay: 260.470 ms
Loss rate: 6.71%
```

Run 4: Report of Indigo-MusesC5 — Data Link

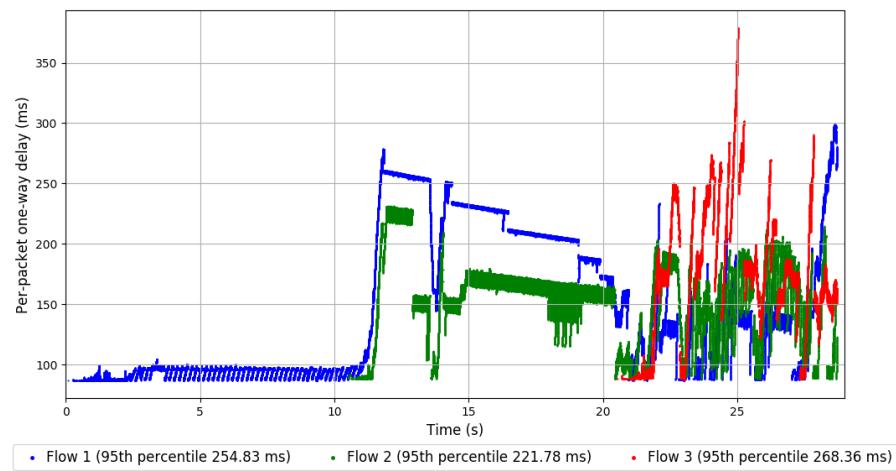
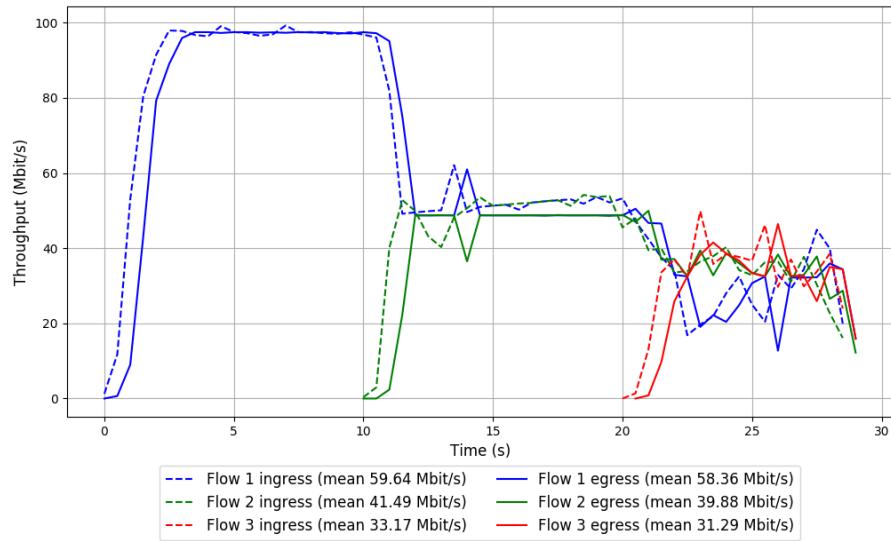


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-02-05 20:10:52
End at: 2019-02-05 20:11:22
Local clock offset: -2.651 ms
Remote clock offset: 6.186 ms

# Below is generated by plot.py at 2019-02-05 20:35:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.89 Mbit/s
95th percentile per-packet one-way delay: 250.817 ms
Loss rate: 3.79%
-- Flow 1:
Average throughput: 58.36 Mbit/s
95th percentile per-packet one-way delay: 254.826 ms
Loss rate: 2.74%
-- Flow 2:
Average throughput: 39.88 Mbit/s
95th percentile per-packet one-way delay: 221.776 ms
Loss rate: 4.77%
-- Flow 3:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 268.364 ms
Loss rate: 7.57%
```

## Run 5: Report of Indigo-MusesC5 — Data Link

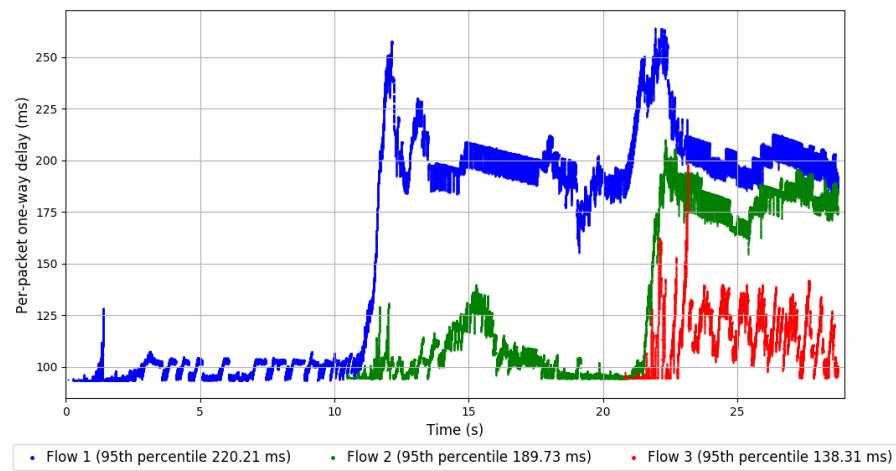
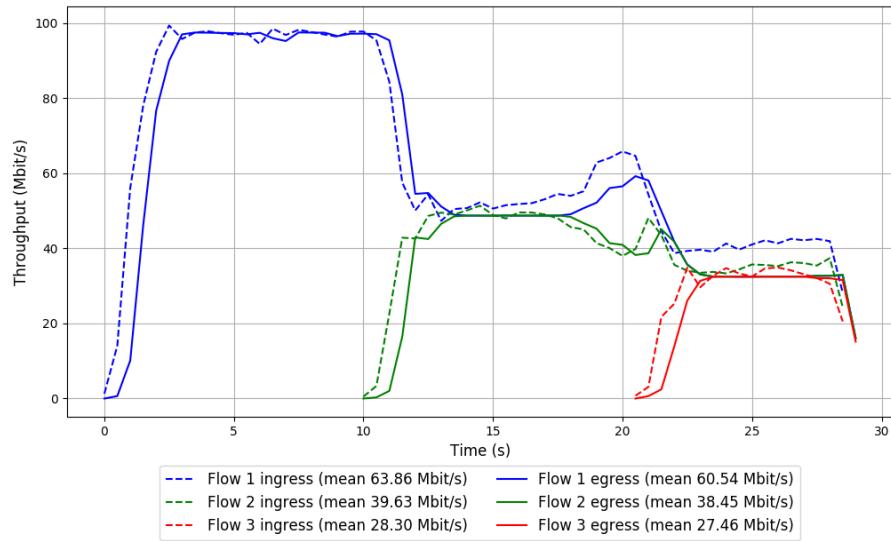


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-02-05 18:16:16
End at: 2019-02-05 18:16:46
Local clock offset: 3.071 ms
Remote clock offset: -0.728 ms

# Below is generated by plot.py at 2019-02-05 20:35:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 210.652 ms
Loss rate: 5.20%
-- Flow 1:
Average throughput: 60.54 Mbit/s
95th percentile per-packet one-way delay: 220.207 ms
Loss rate: 5.74%
-- Flow 2:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 189.733 ms
Loss rate: 3.89%
-- Flow 3:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 138.306 ms
Loss rate: 5.03%
```

Run 1: Report of Indigo-MusesD — Data Link

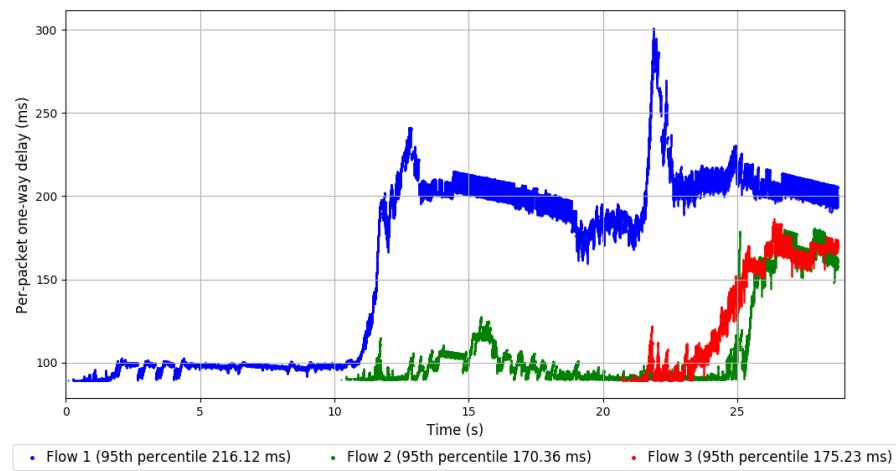
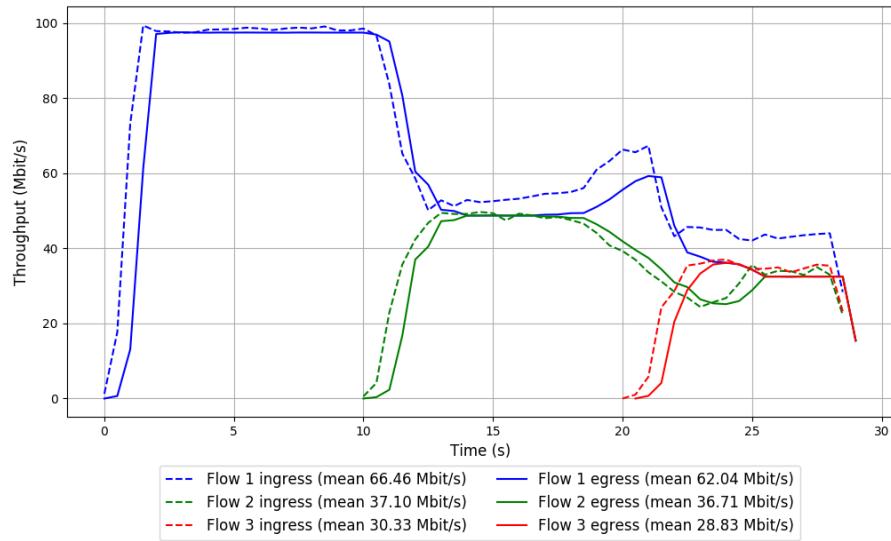


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-02-05 18:43:15
End at: 2019-02-05 18:43:46
Local clock offset: 0.157 ms
Remote clock offset: 5.379 ms

# Below is generated by plot.py at 2019-02-05 20:35:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.96 Mbit/s
95th percentile per-packet one-way delay: 212.680 ms
Loss rate: 5.91%
-- Flow 1:
Average throughput: 62.04 Mbit/s
95th percentile per-packet one-way delay: 216.118 ms
Loss rate: 7.21%
-- Flow 2:
Average throughput: 36.71 Mbit/s
95th percentile per-packet one-way delay: 170.359 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 28.83 Mbit/s
95th percentile per-packet one-way delay: 175.229 ms
Loss rate: 6.85%
```

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

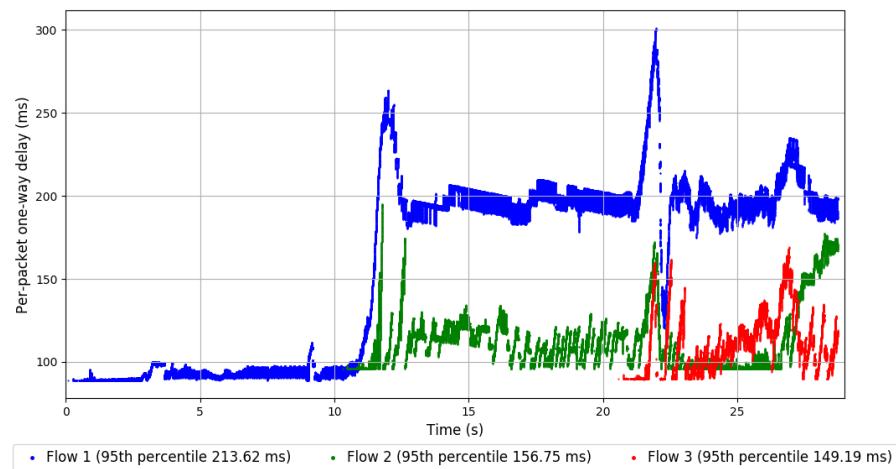
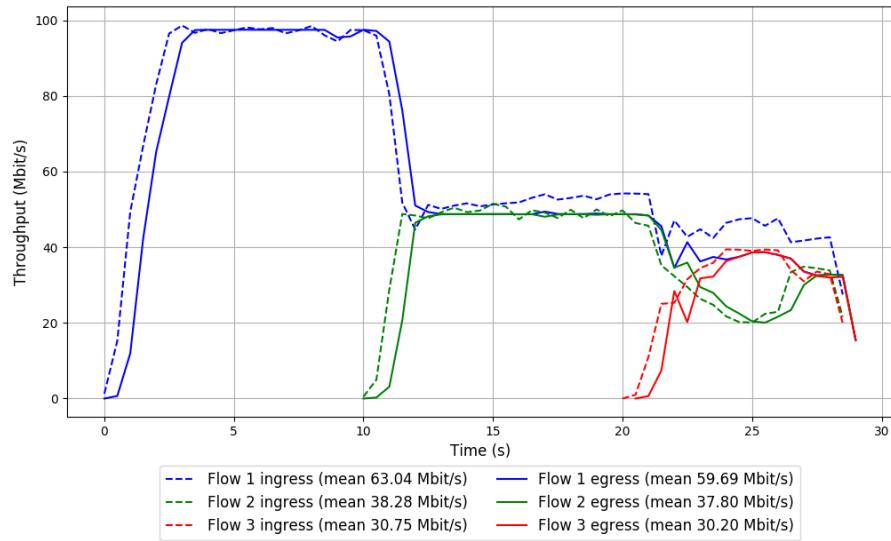


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-02-05 19:10:18
End at: 2019-02-05 19:10:48
Local clock offset: -1.308 ms
Remote clock offset: 6.24 ms

# Below is generated by plot.py at 2019-02-05 20:35:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.60 Mbit/s
95th percentile per-packet one-way delay: 206.719 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 59.69 Mbit/s
95th percentile per-packet one-way delay: 213.620 ms
Loss rate: 5.85%
-- Flow 2:
Average throughput: 37.80 Mbit/s
95th percentile per-packet one-way delay: 156.747 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 30.20 Mbit/s
95th percentile per-packet one-way delay: 149.192 ms
Loss rate: 3.81%
```

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

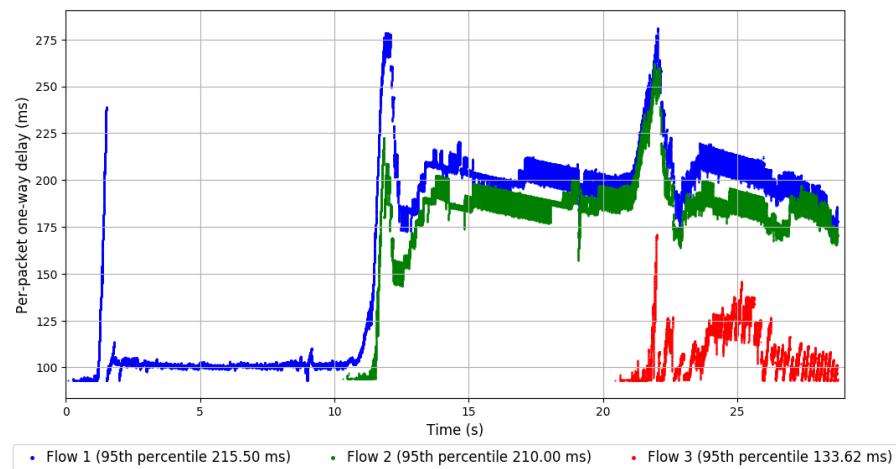
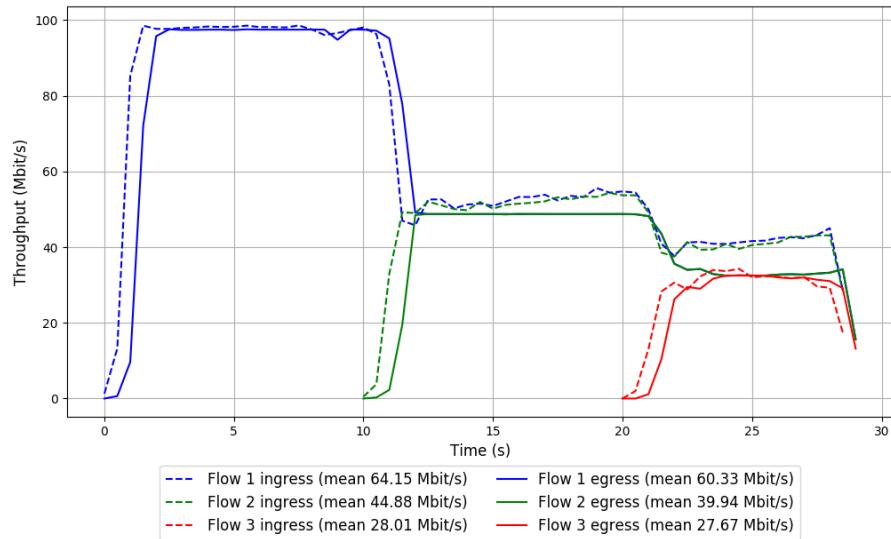


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-02-05 19:37:18
End at: 2019-02-05 19:37:48
Local clock offset: -2.142 ms
Remote clock offset: 2.706 ms

# Below is generated by plot.py at 2019-02-05 20:35:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.03 Mbit/s
95th percentile per-packet one-way delay: 213.549 ms
Loss rate: 7.75%
-- Flow 1:
Average throughput: 60.33 Mbit/s
95th percentile per-packet one-way delay: 215.499 ms
Loss rate: 6.48%
-- Flow 2:
Average throughput: 39.94 Mbit/s
95th percentile per-packet one-way delay: 209.999 ms
Loss rate: 11.85%
-- Flow 3:
Average throughput: 27.67 Mbit/s
95th percentile per-packet one-way delay: 133.625 ms
Loss rate: 3.25%
```

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

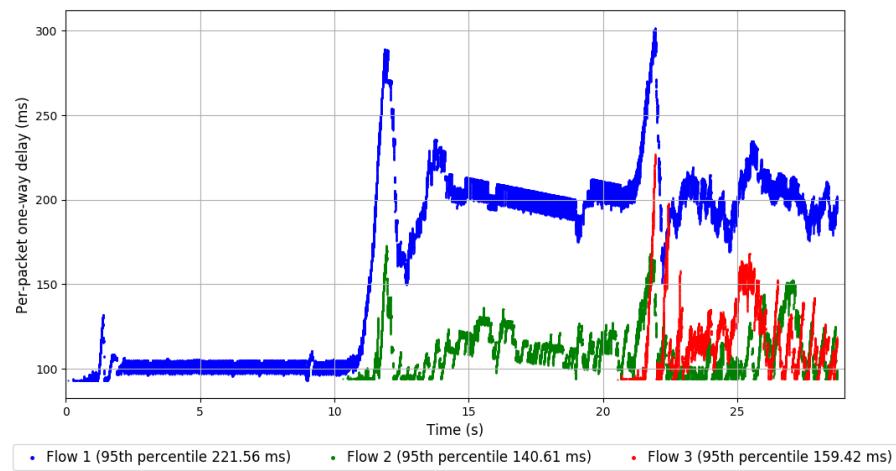
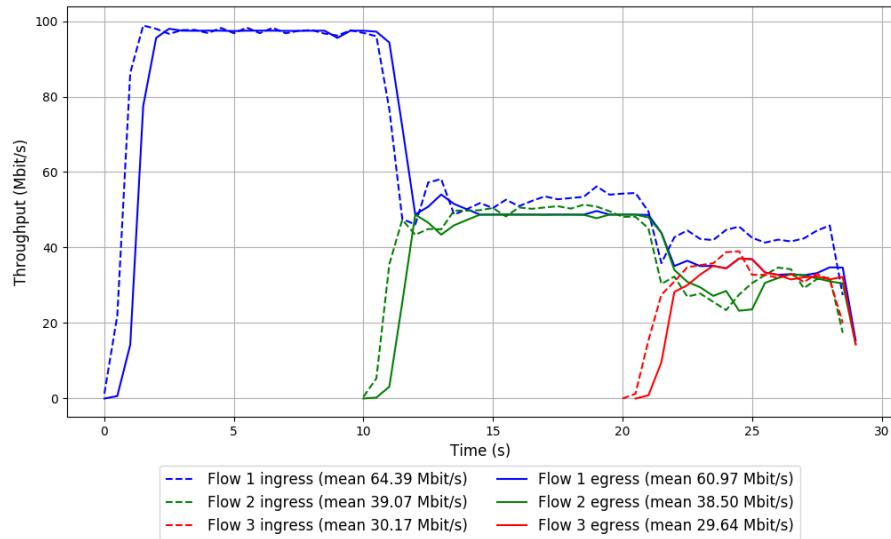


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-02-05 20:04:19
End at: 2019-02-05 20:04:49
Local clock offset: -2.041 ms
Remote clock offset: 1.403 ms

# Below is generated by plot.py at 2019-02-05 20:35:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.22 Mbit/s
95th percentile per-packet one-way delay: 213.240 ms
Loss rate: 4.77%
-- Flow 1:
Average throughput: 60.97 Mbit/s
95th percentile per-packet one-way delay: 221.561 ms
Loss rate: 5.84%
-- Flow 2:
Average throughput: 38.50 Mbit/s
95th percentile per-packet one-way delay: 140.611 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 29.64 Mbit/s
95th percentile per-packet one-way delay: 159.422 ms
Loss rate: 3.82%
```

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

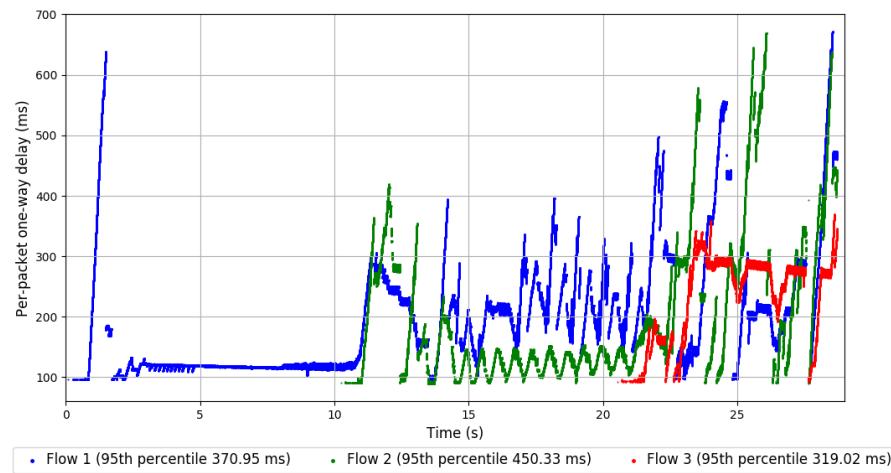
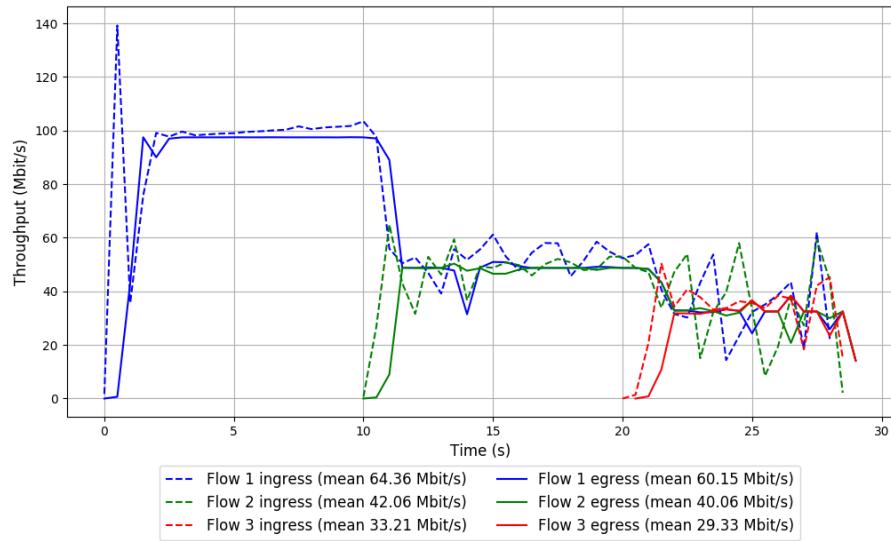


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-02-05 18:28:03
End at: 2019-02-05 18:28:33
Local clock offset: -0.096 ms
Remote clock offset: 0.835 ms

# Below is generated by plot.py at 2019-02-05 20:35:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 389.429 ms
Loss rate: 6.47%
-- Flow 1:
Average throughput: 60.15 Mbit/s
95th percentile per-packet one-way delay: 370.951 ms
Loss rate: 5.77%
-- Flow 2:
Average throughput: 40.06 Mbit/s
95th percentile per-packet one-way delay: 450.334 ms
Loss rate: 5.65%
-- Flow 3:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 319.016 ms
Loss rate: 13.38%
```

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

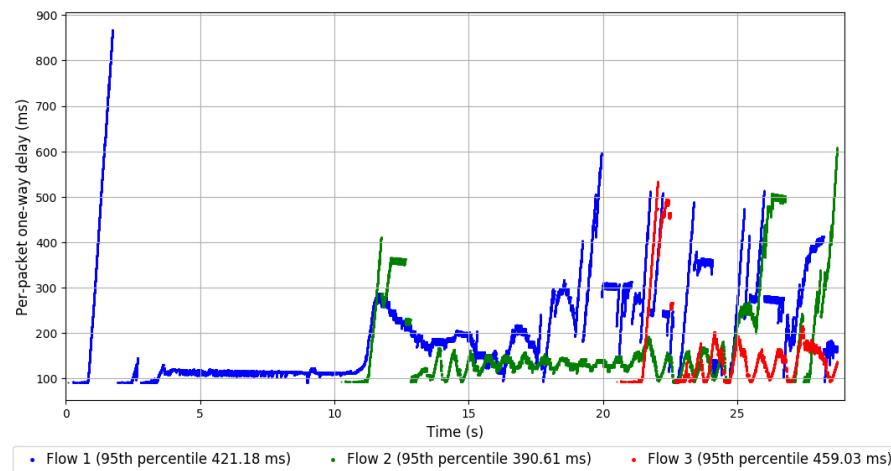
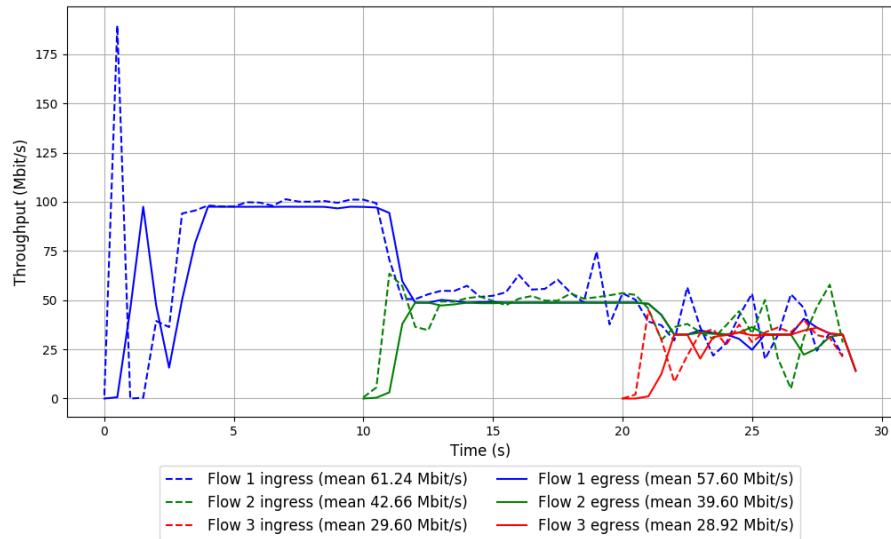


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-02-05 18:55:04
End at: 2019-02-05 18:55:34
Local clock offset: -1.244 ms
Remote clock offset: 3.622 ms

# Below is generated by plot.py at 2019-02-05 20:36:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.47 Mbit/s
95th percentile per-packet one-way delay: 420.533 ms
Loss rate: 6.57%
-- Flow 1:
Average throughput: 57.60 Mbit/s
95th percentile per-packet one-way delay: 421.177 ms
Loss rate: 6.50%
-- Flow 2:
Average throughput: 39.60 Mbit/s
95th percentile per-packet one-way delay: 390.608 ms
Loss rate: 7.44%
-- Flow 3:
Average throughput: 28.92 Mbit/s
95th percentile per-packet one-way delay: 459.031 ms
Loss rate: 4.33%
```

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

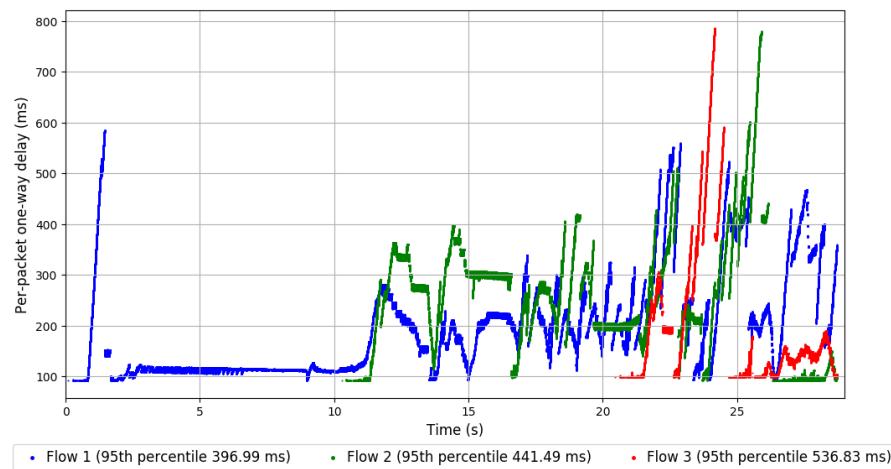
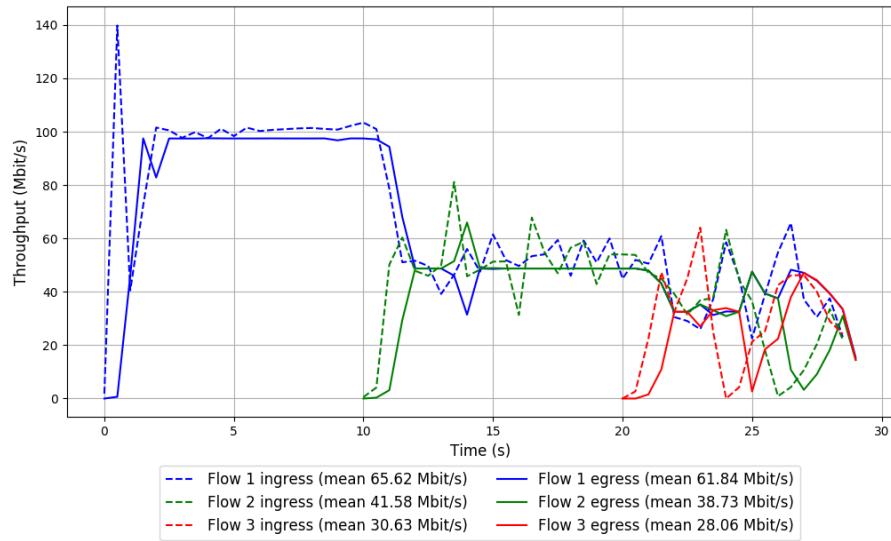


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-02-05 19:22:04
End at: 2019-02-05 19:22:34
Local clock offset: -1.822 ms
Remote clock offset: 4.033 ms

# Below is generated by plot.py at 2019-02-05 20:36:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.90 Mbit/s
95th percentile per-packet one-way delay: 418.841 ms
Loss rate: 6.99%
-- Flow 1:
Average throughput: 61.84 Mbit/s
95th percentile per-packet one-way delay: 396.990 ms
Loss rate: 6.23%
-- Flow 2:
Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 441.492 ms
Loss rate: 7.72%
-- Flow 3:
Average throughput: 28.06 Mbit/s
95th percentile per-packet one-way delay: 536.834 ms
Loss rate: 10.34%
```

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

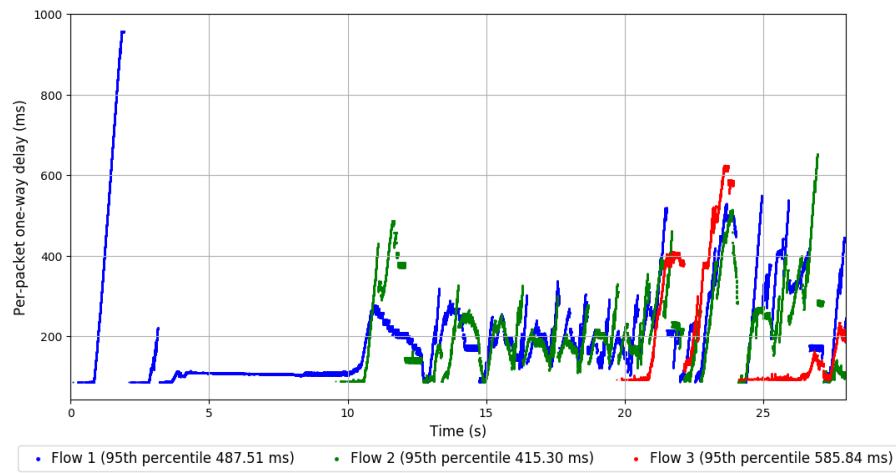
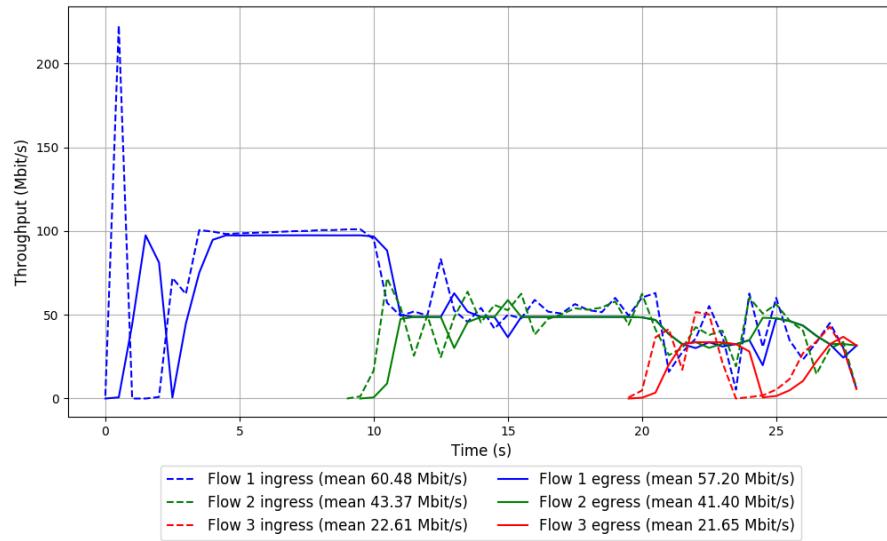


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-02-05 19:49:05
End at: 2019-02-05 19:49:35
Local clock offset: -2.075 ms
Remote clock offset: 7.451 ms

# Below is generated by plot.py at 2019-02-05 20:36:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.94 Mbit/s
95th percentile per-packet one-way delay: 474.253 ms
Loss rate: 5.82%
-- Flow 1:
Average throughput: 57.20 Mbit/s
95th percentile per-packet one-way delay: 487.509 ms
Loss rate: 5.99%
-- Flow 2:
Average throughput: 41.40 Mbit/s
95th percentile per-packet one-way delay: 415.300 ms
Loss rate: 5.37%
-- Flow 3:
Average throughput: 21.65 Mbit/s
95th percentile per-packet one-way delay: 585.843 ms
Loss rate: 6.20%
```

Run 4: Report of Indigo-MusesT — Data Link

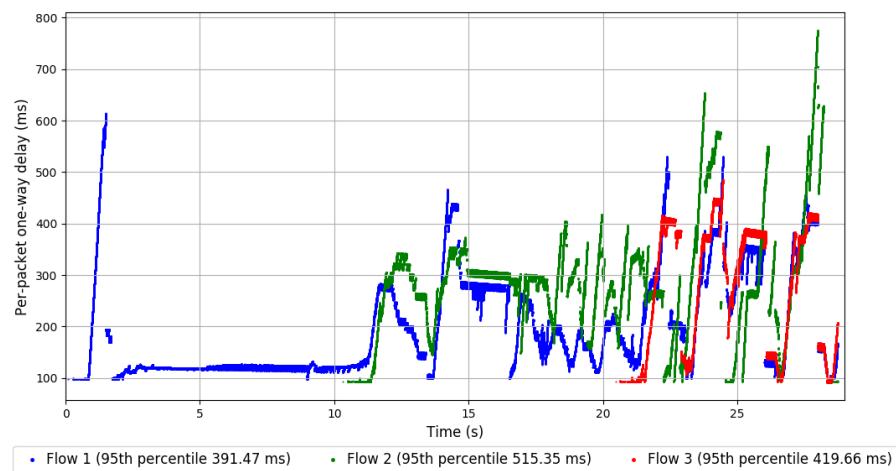
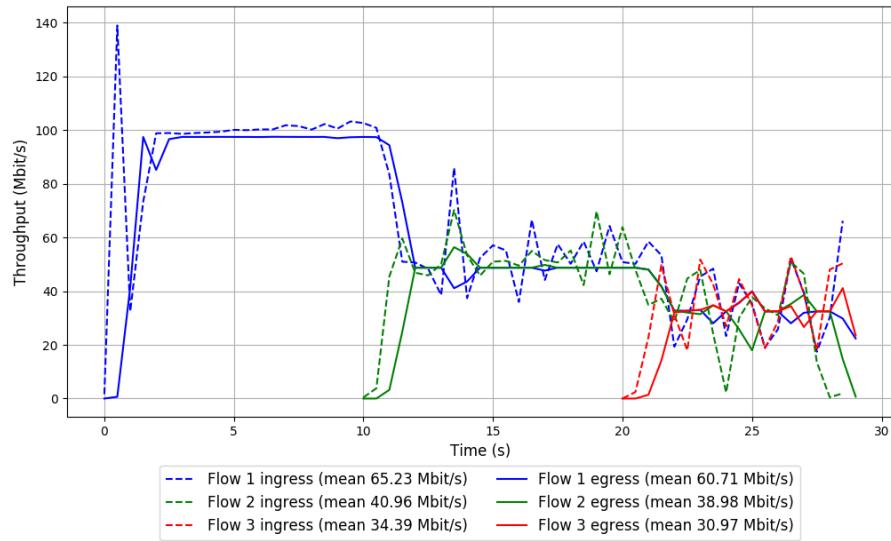


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-02-05 20:16:07
End at: 2019-02-05 20:16:37
Local clock offset: -1.949 ms
Remote clock offset: 2.426 ms

# Below is generated by plot.py at 2019-02-05 20:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.69 Mbit/s
95th percentile per-packet one-way delay: 417.629 ms
Loss rate: 7.23%
-- Flow 1:
Average throughput: 60.71 Mbit/s
95th percentile per-packet one-way delay: 391.470 ms
Loss rate: 7.15%
-- Flow 2:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 515.353 ms
Loss rate: 5.66%
-- Flow 3:
Average throughput: 30.97 Mbit/s
95th percentile per-packet one-way delay: 419.664 ms
Loss rate: 11.80%
```

Run 5: Report of Indigo-MusesT — Data Link

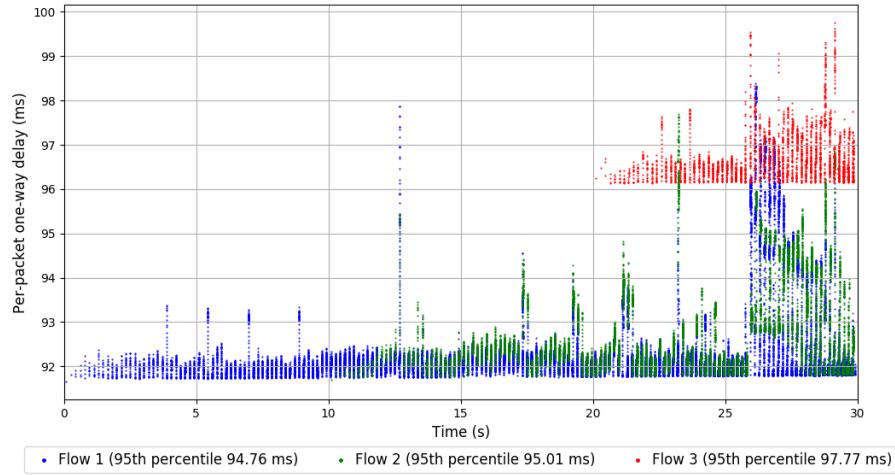
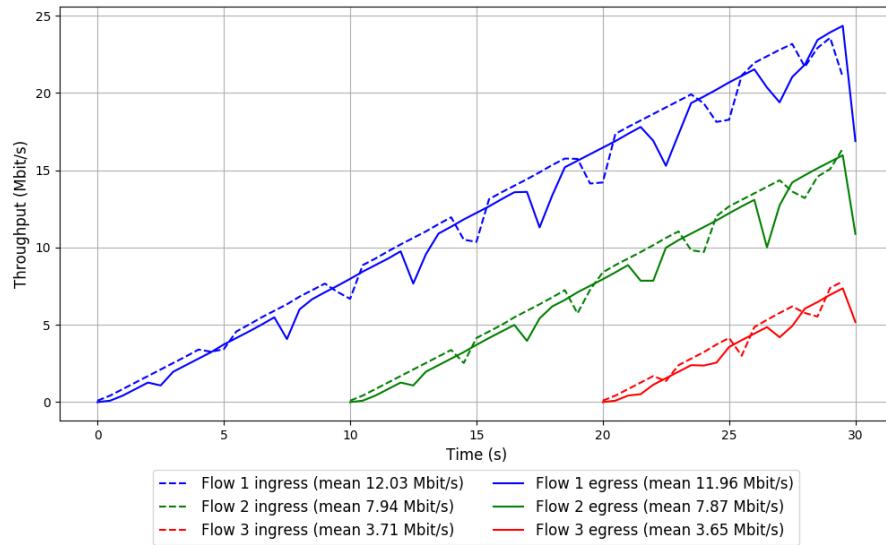


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2019-02-05 18:30:32
End at: 2019-02-05 18:31:02
Local clock offset: -0.229 ms
Remote clock offset: 1.447 ms

# Below is generated by plot.py at 2019-02-05 20:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.36 Mbit/s
95th percentile per-packet one-way delay: 96.449 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 11.96 Mbit/s
95th percentile per-packet one-way delay: 94.760 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 95.011 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 97.770 ms
Loss rate: 3.60%
```

Run 1: Report of LEDBAT — Data Link

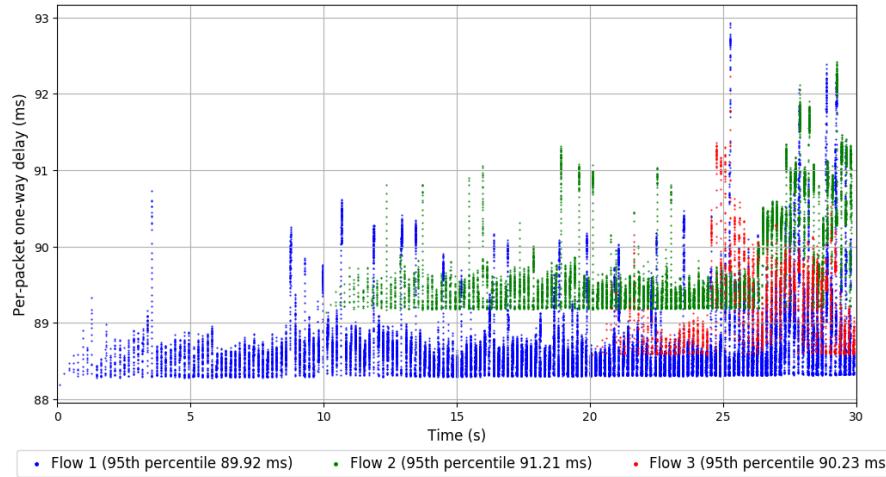
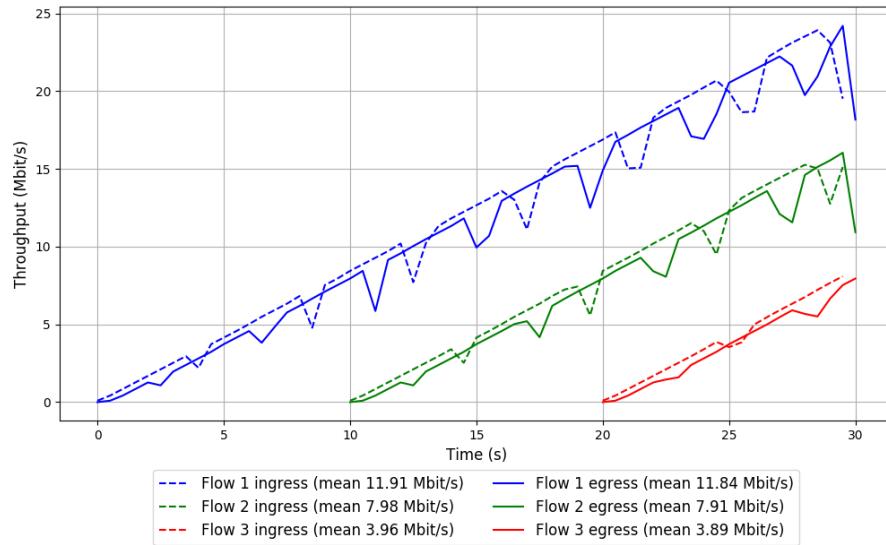


Run 2: Statistics of LEDBAT

```
Start at: 2019-02-05 18:57:34
End at: 2019-02-05 18:58:04
Local clock offset: -1.314 ms
Remote clock offset: 6.284 ms

# Below is generated by plot.py at 2019-02-05 20:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 90.770 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 89.918 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 91.207 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 90.234 ms
Loss rate: 3.47%
```

## Run 2: Report of LEDBAT — Data Link

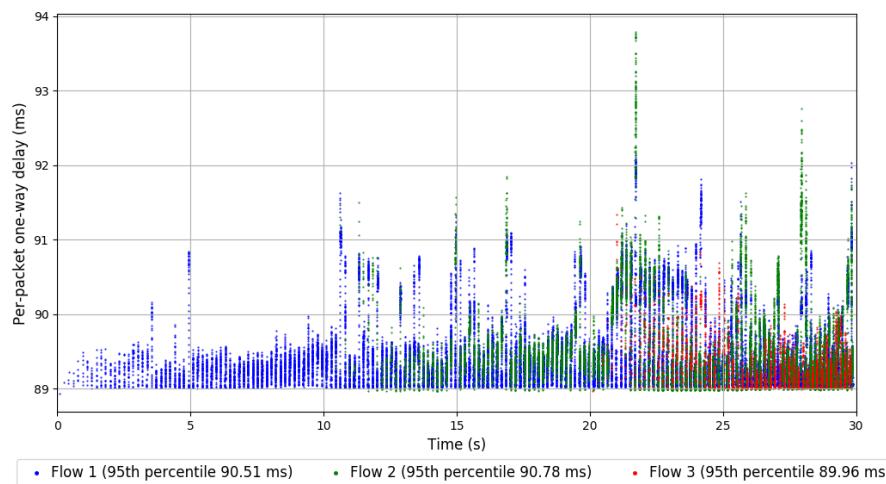
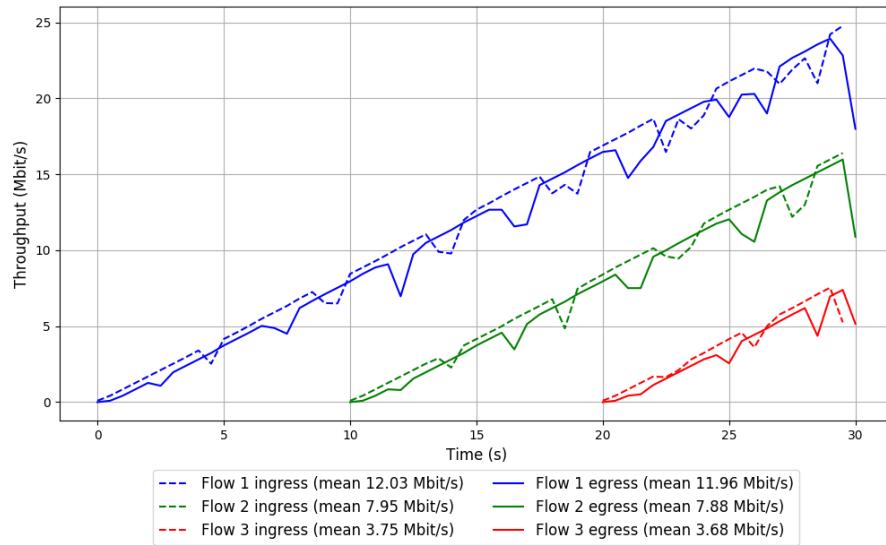


Run 3: Statistics of LEDBAT

```
Start at: 2019-02-05 19:24:34
End at: 2019-02-05 19:25:04
Local clock offset: -1.973 ms
Remote clock offset: 6.958 ms

# Below is generated by plot.py at 2019-02-05 20:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.38 Mbit/s
95th percentile per-packet one-way delay: 90.576 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 11.96 Mbit/s
95th percentile per-packet one-way delay: 90.509 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 90.780 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 89.957 ms
Loss rate: 3.60%
```

Run 3: Report of LEDBAT — Data Link

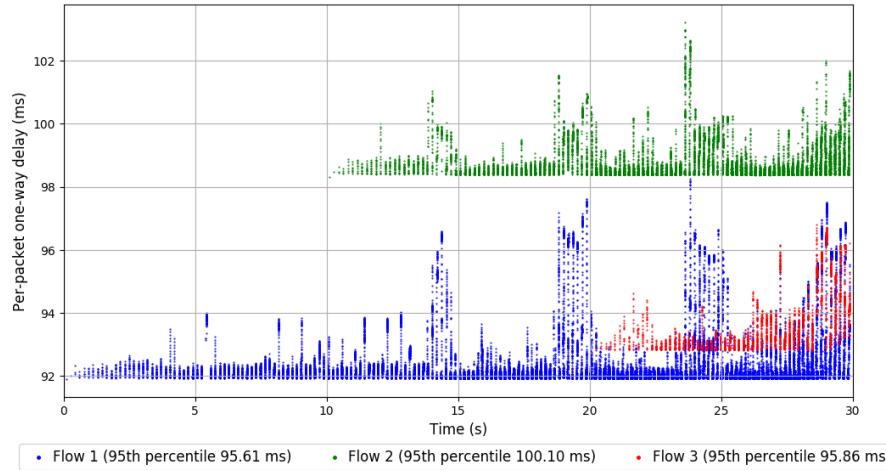
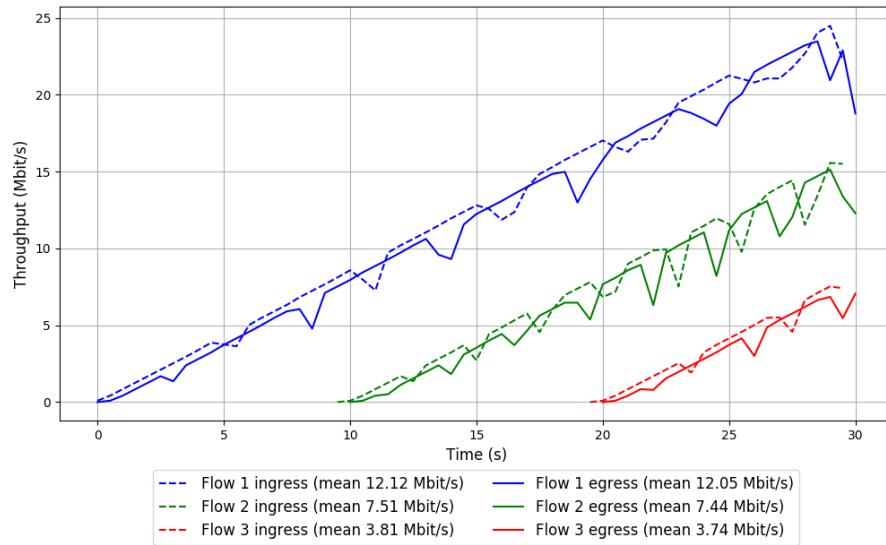


Run 4: Statistics of LEDBAT

```
Start at: 2019-02-05 19:51:35
End at: 2019-02-05 19:52:05
Local clock offset: -2.085 ms
Remote clock offset: 1.755 ms

# Below is generated by plot.py at 2019-02-05 20:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.22 Mbit/s
95th percentile per-packet one-way delay: 99.212 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 95.607 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 7.44 Mbit/s
95th percentile per-packet one-way delay: 100.096 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 3.74 Mbit/s
95th percentile per-packet one-way delay: 95.861 ms
Loss rate: 3.52%
```

Run 4: Report of LEDBAT — Data Link

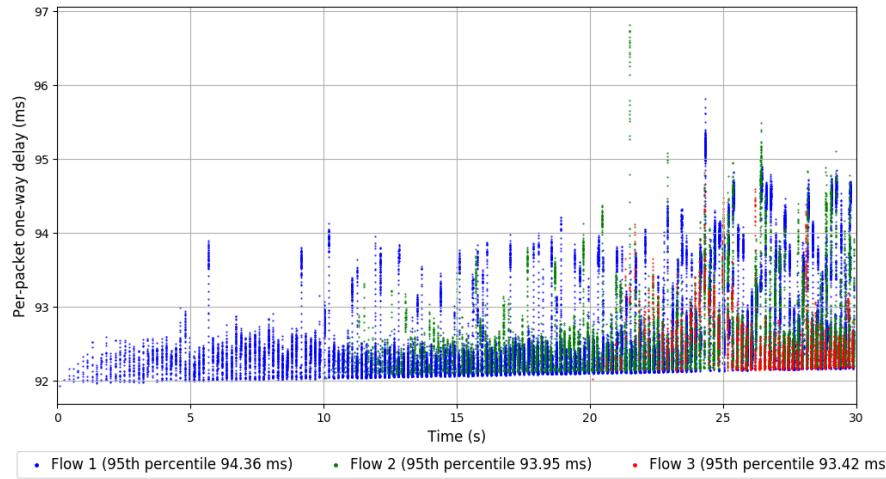
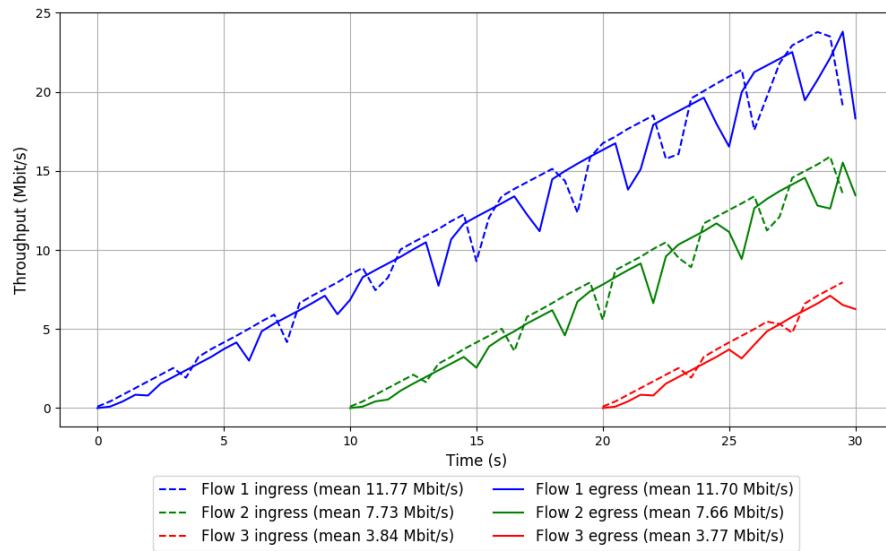


Run 5: Statistics of LEDBAT

```
Start at: 2019-02-05 20:18:37
End at: 2019-02-05 20:19:07
Local clock offset: -3.212 ms
Remote clock offset: 2.489 ms

# Below is generated by plot.py at 2019-02-05 20:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.03 Mbit/s
95th percentile per-packet one-way delay: 94.197 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 11.70 Mbit/s
95th percentile per-packet one-way delay: 94.365 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 93.952 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 93.419 ms
Loss rate: 3.54%
```

Run 5: Report of LEDBAT — Data Link

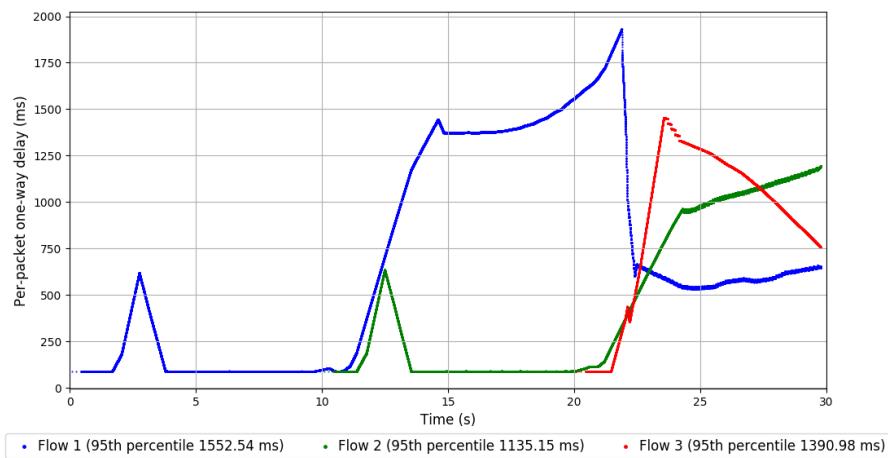
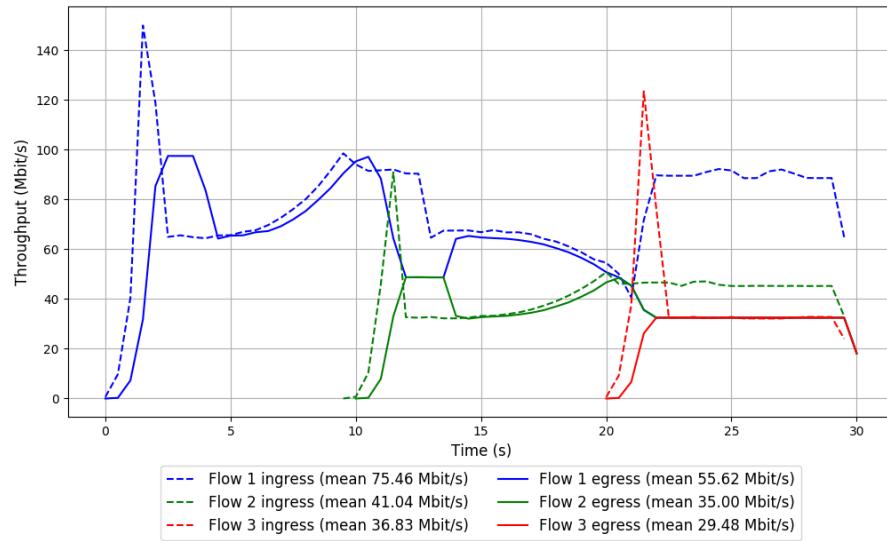


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-02-05 18:38:04
End at: 2019-02-05 18:38:34
Local clock offset: -0.106 ms
Remote clock offset: 6.235 ms

# Below is generated by plot.py at 2019-02-05 20:36:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.44 Mbit/s
95th percentile per-packet one-way delay: 1465.658 ms
Loss rate: 23.48%
-- Flow 1:
Average throughput: 55.62 Mbit/s
95th percentile per-packet one-way delay: 1552.543 ms
Loss rate: 26.72%
-- Flow 2:
Average throughput: 35.00 Mbit/s
95th percentile per-packet one-way delay: 1135.150 ms
Loss rate: 15.48%
-- Flow 3:
Average throughput: 29.48 Mbit/s
95th percentile per-packet one-way delay: 1390.983 ms
Loss rate: 21.33%
```

Run 1: Report of PCC-Allegro — Data Link

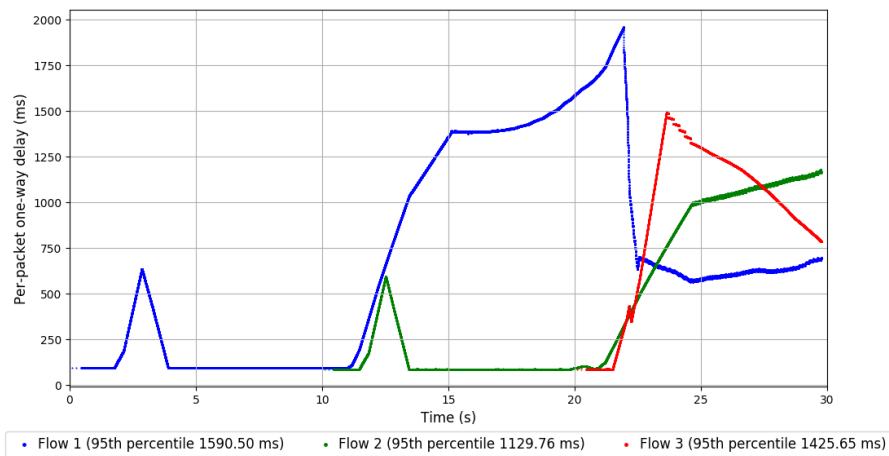
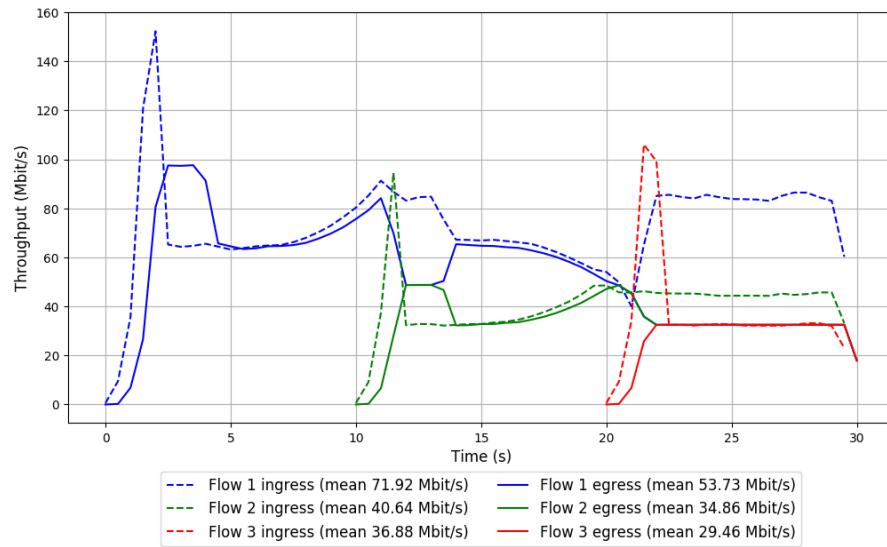


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-02-05 19:05:06
End at: 2019-02-05 19:05:36
Local clock offset: -2.179 ms
Remote clock offset: 7.385 ms

# Below is generated by plot.py at 2019-02-05 20:37:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.46 Mbit/s
95th percentile per-packet one-way delay: 1492.248 ms
Loss rate: 22.66%
-- Flow 1:
Average throughput: 53.73 Mbit/s
95th percentile per-packet one-way delay: 1590.502 ms
Loss rate: 25.74%
-- Flow 2:
Average throughput: 34.86 Mbit/s
95th percentile per-packet one-way delay: 1129.759 ms
Loss rate: 14.99%
-- Flow 3:
Average throughput: 29.46 Mbit/s
95th percentile per-packet one-way delay: 1425.646 ms
Loss rate: 21.50%
```

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

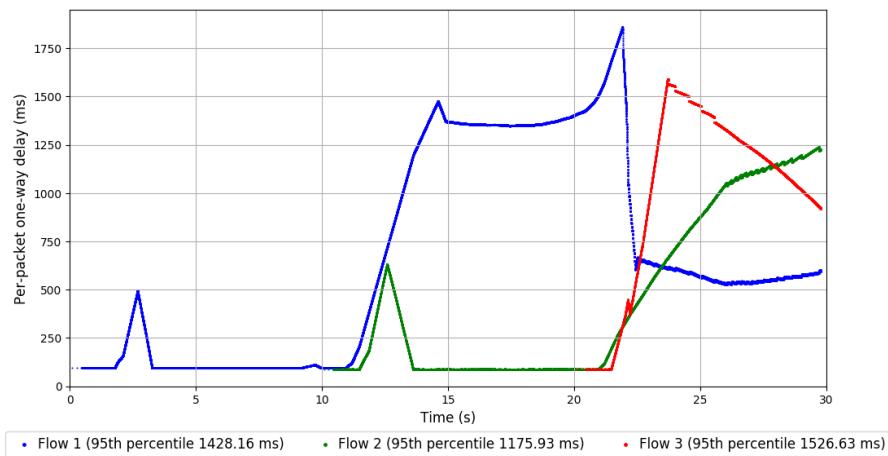
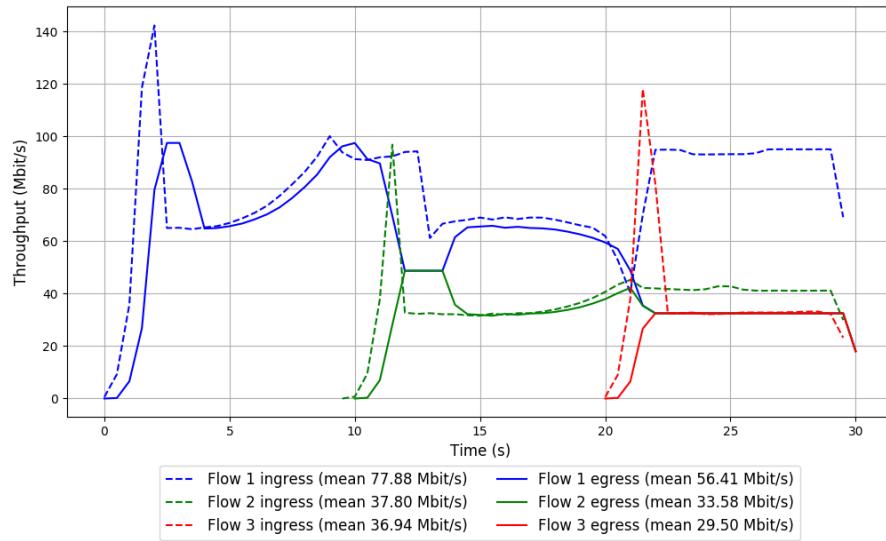


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-02-05 19:32:07
End at: 2019-02-05 19:32:37
Local clock offset: -2.976 ms
Remote clock offset: 7.855 ms

# Below is generated by plot.py at 2019-02-05 20:37:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.32 Mbit/s
95th percentile per-packet one-way delay: 1429.563 ms
Loss rate: 23.81%
-- Flow 1:
Average throughput: 56.41 Mbit/s
95th percentile per-packet one-way delay: 1428.158 ms
Loss rate: 28.00%
-- Flow 2:
Average throughput: 33.58 Mbit/s
95th percentile per-packet one-way delay: 1175.934 ms
Loss rate: 11.92%
-- Flow 3:
Average throughput: 29.50 Mbit/s
95th percentile per-packet one-way delay: 1526.629 ms
Loss rate: 21.55%
```

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

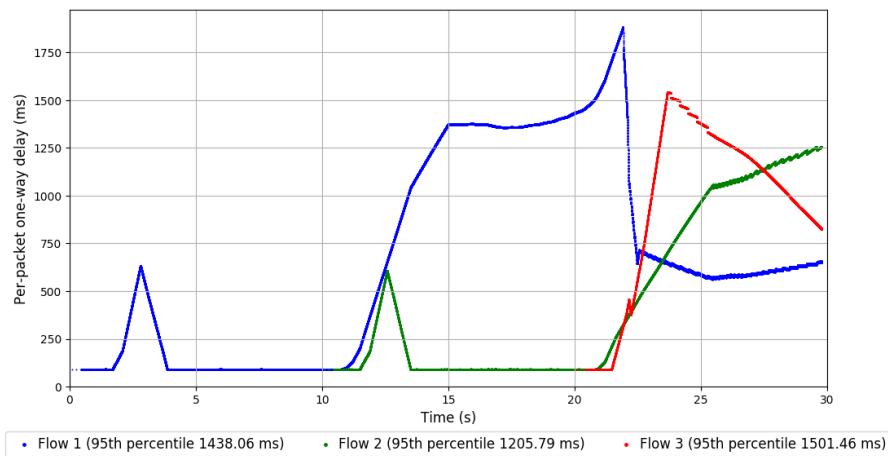
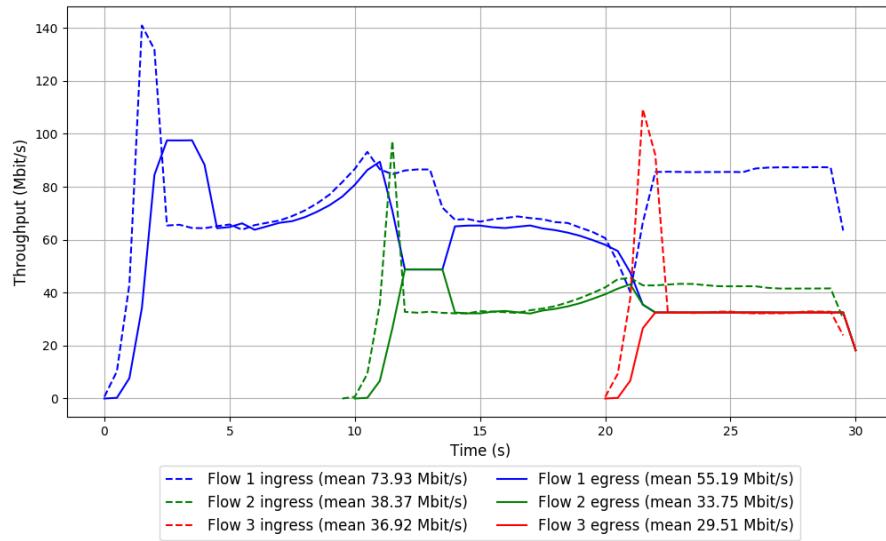


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-02-05 19:59:07
End at: 2019-02-05 19:59:37
Local clock offset: -2.867 ms
Remote clock offset: 2.736 ms

# Below is generated by plot.py at 2019-02-05 20:37:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.20 Mbit/s
95th percentile per-packet one-way delay: 1425.191 ms
Loss rate: 22.34%
-- Flow 1:
Average throughput: 55.19 Mbit/s
95th percentile per-packet one-way delay: 1438.058 ms
Loss rate: 25.77%
-- Flow 2:
Average throughput: 33.75 Mbit/s
95th percentile per-packet one-way delay: 1205.791 ms
Loss rate: 12.83%
-- Flow 3:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 1501.461 ms
Loss rate: 21.47%
```

Run 4: Report of PCC-Allegro — Data Link

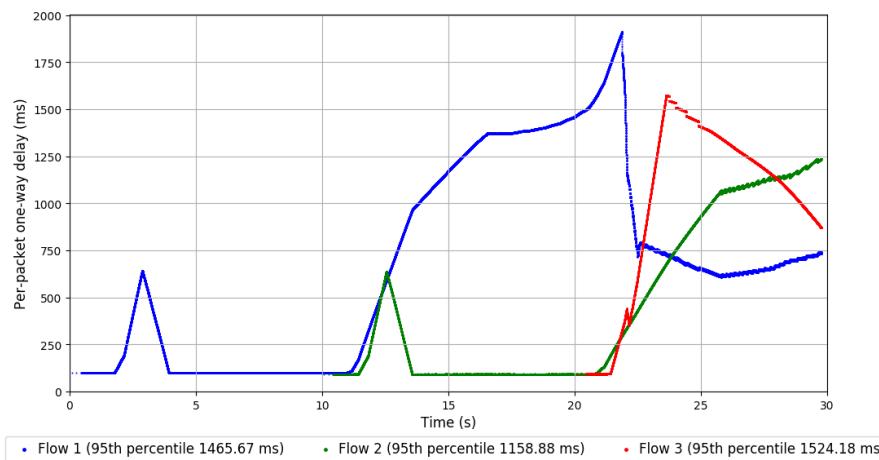
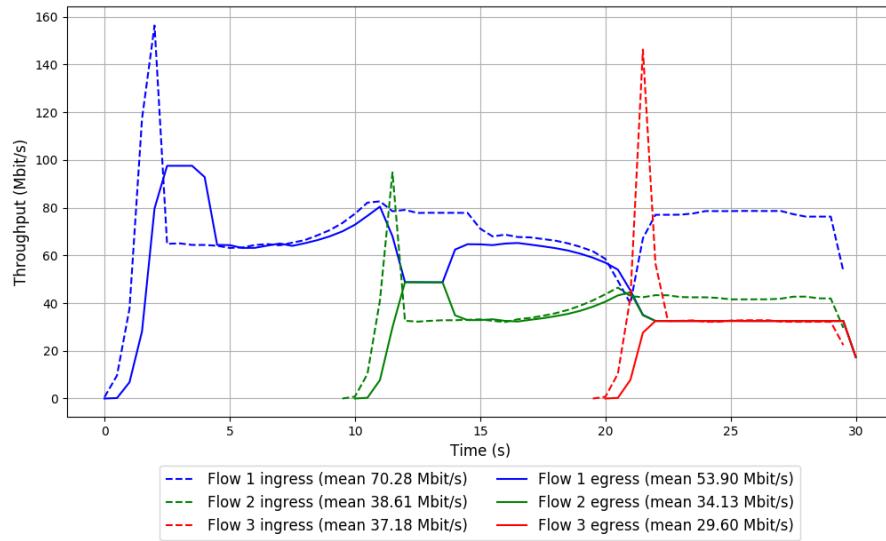


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-02-05 20:26:09
End at: 2019-02-05 20:26:39
Local clock offset: -6.484 ms
Remote clock offset: 1.128 ms

# Below is generated by plot.py at 2019-02-05 20:37:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.20 Mbit/s
95th percentile per-packet one-way delay: 1451.867 ms
Loss rate: 20.85%
-- Flow 1:
Average throughput: 53.90 Mbit/s
95th percentile per-packet one-way delay: 1465.673 ms
Loss rate: 23.78%
-- Flow 2:
Average throughput: 34.13 Mbit/s
95th percentile per-packet one-way delay: 1158.877 ms
Loss rate: 12.39%
-- Flow 3:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 1524.179 ms
Loss rate: 21.80%
```

Run 5: Report of PCC-Allegro — Data Link

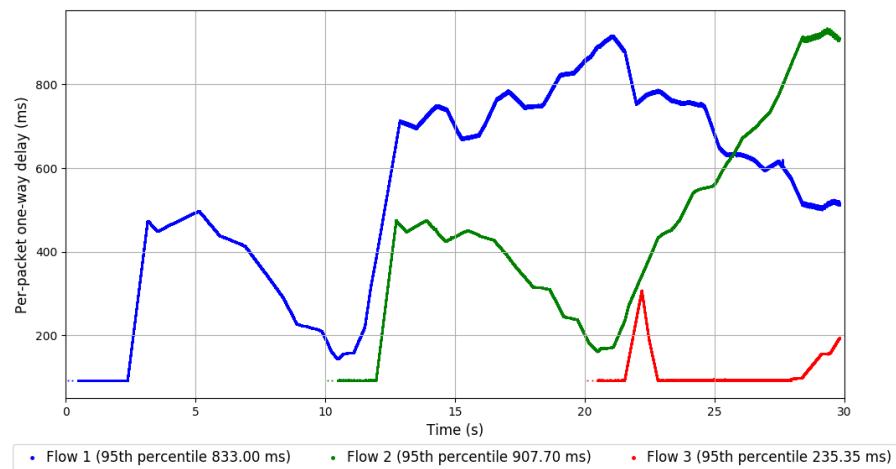
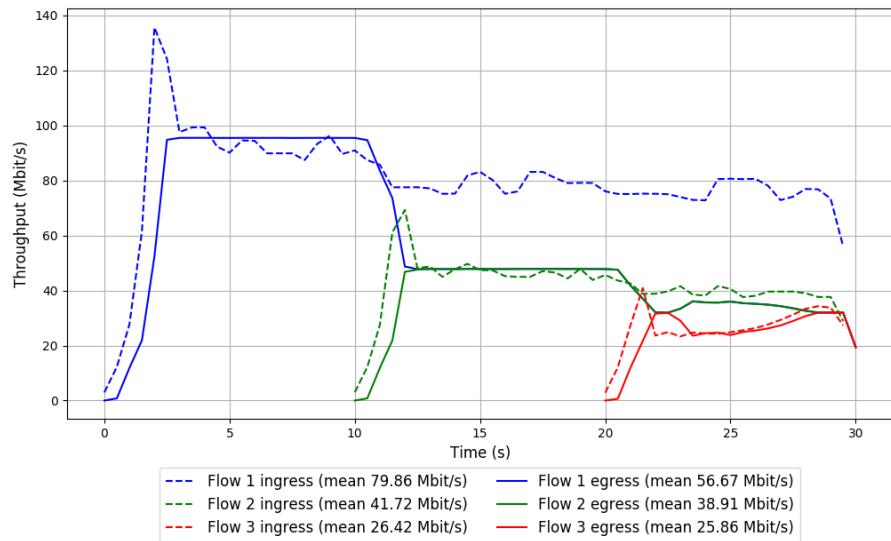


Run 1: Statistics of PCC-Expr

```
Start at: 2019-02-05 18:26:41
End at: 2019-02-05 18:27:11
Local clock offset: 0.026 ms
Remote clock offset: 0.555 ms

# Below is generated by plot.py at 2019-02-05 20:38:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.93 Mbit/s
95th percentile per-packet one-way delay: 839.450 ms
Loss rate: 22.30%
-- Flow 1:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 832.996 ms
Loss rate: 29.44%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 907.701 ms
Loss rate: 7.53%
-- Flow 3:
Average throughput: 25.86 Mbit/s
95th percentile per-packet one-way delay: 235.350 ms
Loss rate: 3.83%
```

Run 1: Report of PCC-Expr — Data Link

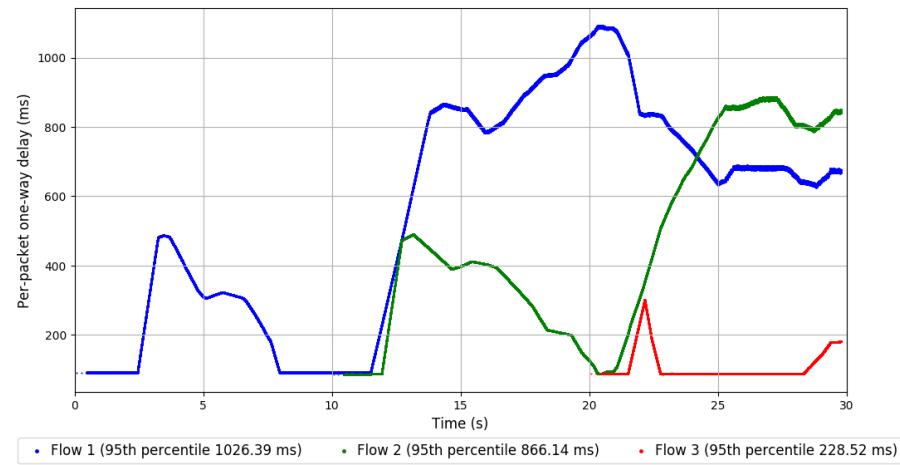
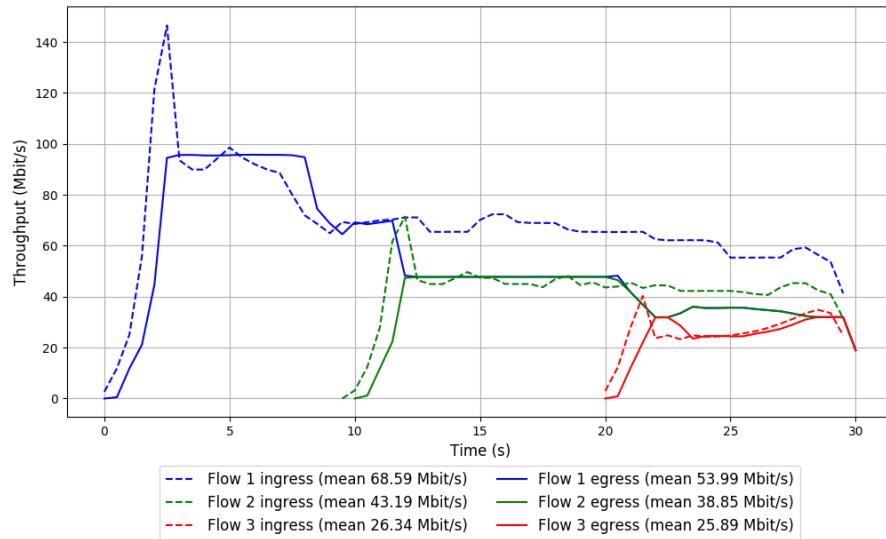


Run 2: Statistics of PCC-Expr

```
Start at: 2019-02-05 18:53:42
End at: 2019-02-05 18:54:12
Local clock offset: -1.824 ms
Remote clock offset: 8.344 ms

# Below is generated by plot.py at 2019-02-05 20:38:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.23 Mbit/s
95th percentile per-packet one-way delay: 952.564 ms
Loss rate: 17.29%
-- Flow 1:
Average throughput: 53.99 Mbit/s
95th percentile per-packet one-way delay: 1026.387 ms
Loss rate: 21.76%
-- Flow 2:
Average throughput: 38.85 Mbit/s
95th percentile per-packet one-way delay: 866.142 ms
Loss rate: 10.82%
-- Flow 3:
Average throughput: 25.89 Mbit/s
95th percentile per-packet one-way delay: 228.520 ms
Loss rate: 3.42%
```

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

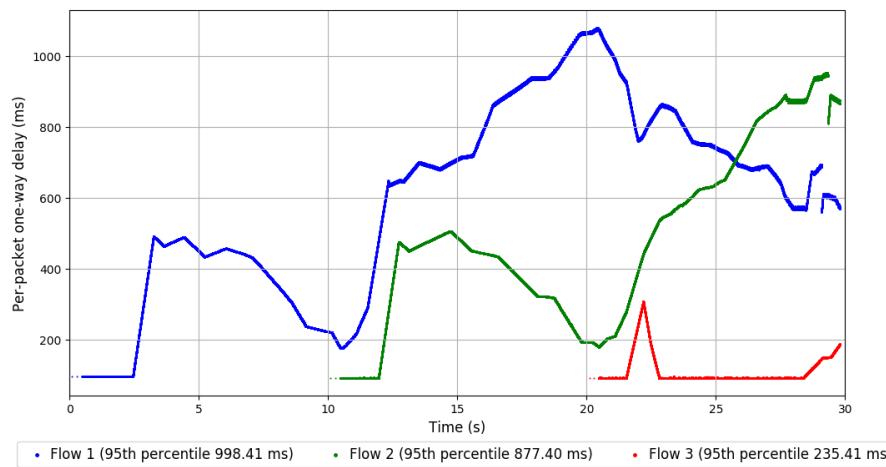
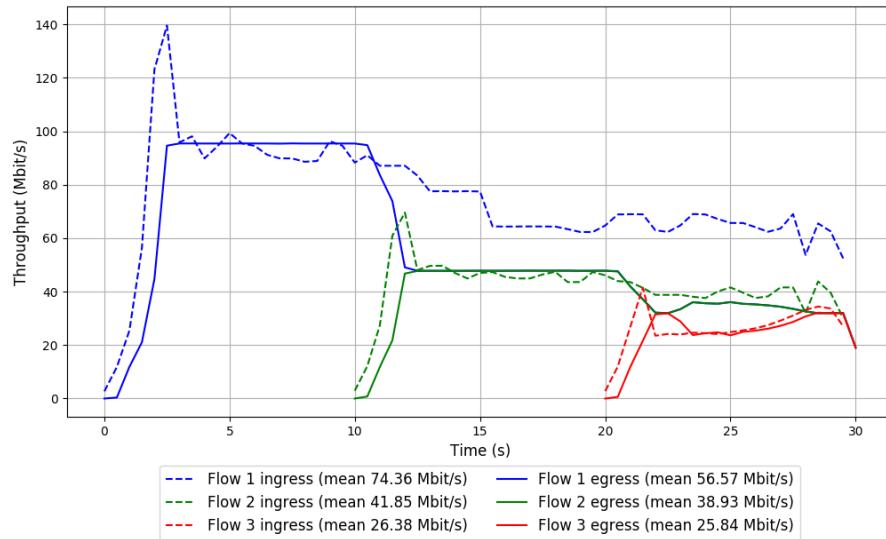


Run 3: Statistics of PCC-Expr

```
Start at: 2019-02-05 19:20:42
End at: 2019-02-05 19:21:12
Local clock offset: -2.478 ms
Remote clock offset: 3.705 ms

# Below is generated by plot.py at 2019-02-05 20:38:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.82 Mbit/s
95th percentile per-packet one-way delay: 940.289 ms
Loss rate: 18.60%
-- Flow 1:
Average throughput: 56.57 Mbit/s
95th percentile per-packet one-way delay: 998.412 ms
Loss rate: 24.39%
-- Flow 2:
Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 877.404 ms
Loss rate: 7.79%
-- Flow 3:
Average throughput: 25.84 Mbit/s
95th percentile per-packet one-way delay: 235.413 ms
Loss rate: 3.79%
```

Run 3: Report of PCC-Expr — Data Link

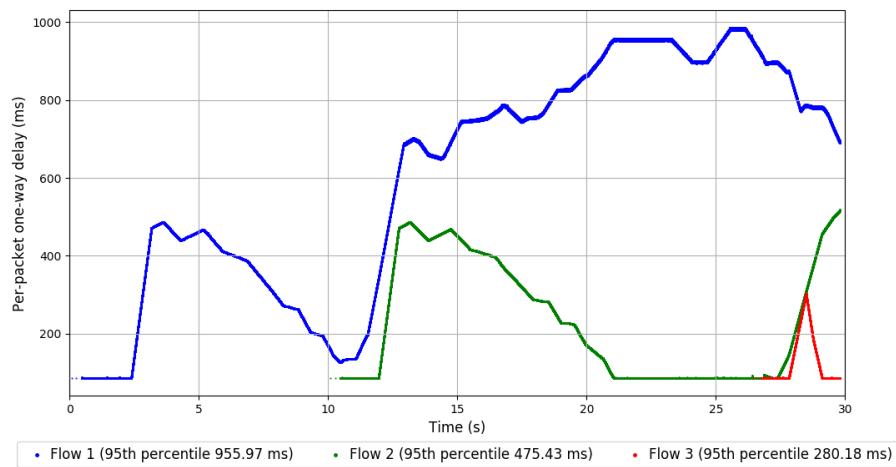
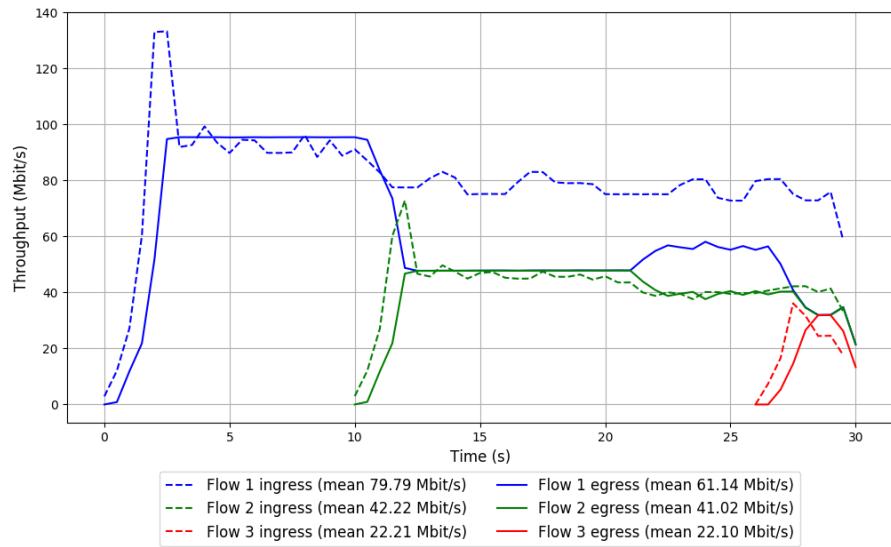


Run 4: Statistics of PCC-Expr

```
Start at: 2019-02-05 19:47:44
End at: 2019-02-05 19:48:14
Local clock offset: -2.839 ms
Remote clock offset: 8.105 ms

# Below is generated by plot.py at 2019-02-05 20:39:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.87 Mbit/s
95th percentile per-packet one-way delay: 953.974 ms
Loss rate: 18.26%
-- Flow 1:
Average throughput: 61.14 Mbit/s
95th percentile per-packet one-way delay: 955.965 ms
Loss rate: 23.82%
-- Flow 2:
Average throughput: 41.02 Mbit/s
95th percentile per-packet one-way delay: 475.427 ms
Loss rate: 3.68%
-- Flow 3:
Average throughput: 22.10 Mbit/s
95th percentile per-packet one-way delay: 280.181 ms
Loss rate: 5.35%
```

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

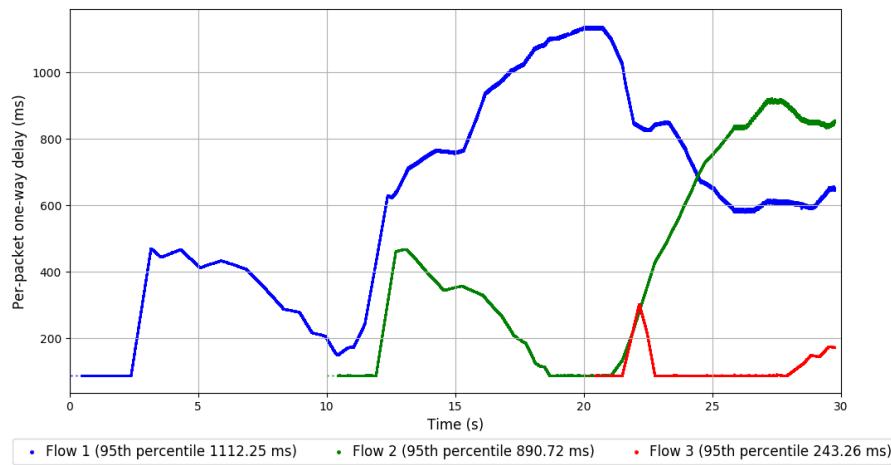
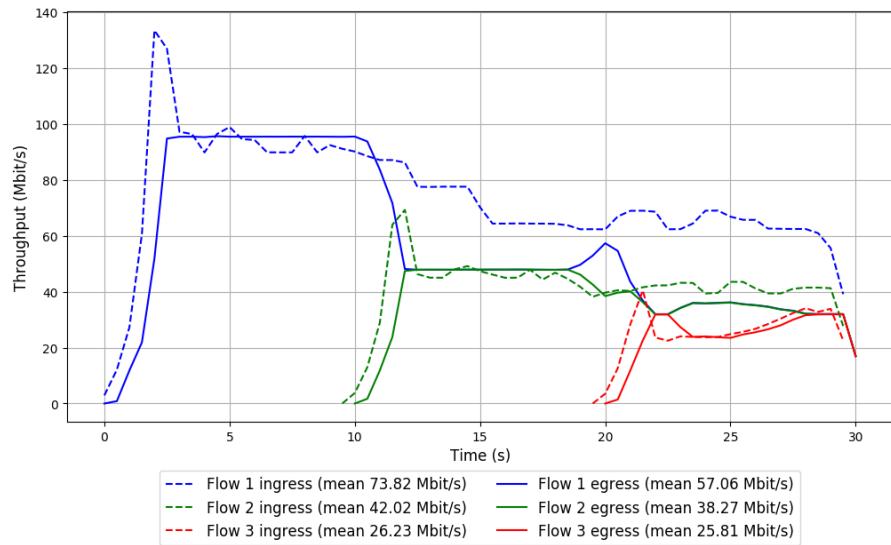


Run 5: Statistics of PCC-Expr

```
Start at: 2019-02-05 20:14:45
End at: 2019-02-05 20:15:15
Local clock offset: -1.829 ms
Remote clock offset: 7.259 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.91 Mbit/s
95th percentile per-packet one-way delay: 1082.144 ms
Loss rate: 18.19%
-- Flow 1:
Average throughput: 57.06 Mbit/s
95th percentile per-packet one-way delay: 1112.249 ms
Loss rate: 23.16%
-- Flow 2:
Average throughput: 38.27 Mbit/s
95th percentile per-packet one-way delay: 890.724 ms
Loss rate: 9.71%
-- Flow 3:
Average throughput: 25.81 Mbit/s
95th percentile per-packet one-way delay: 243.260 ms
Loss rate: 3.31%
```

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

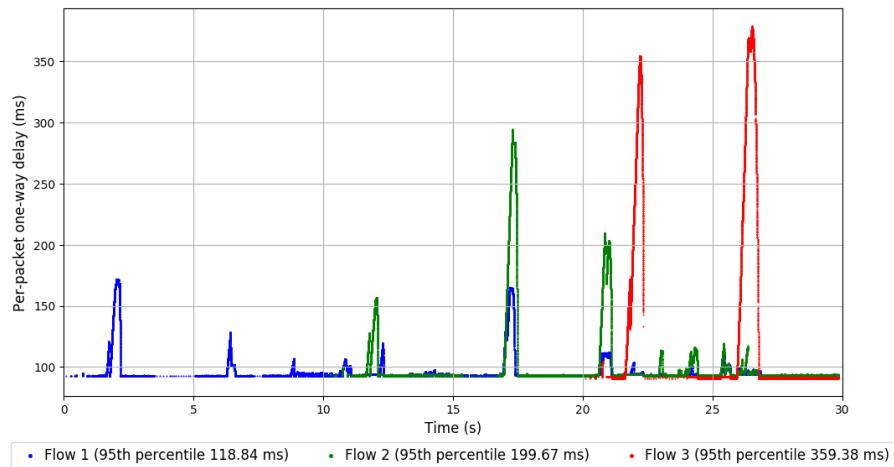
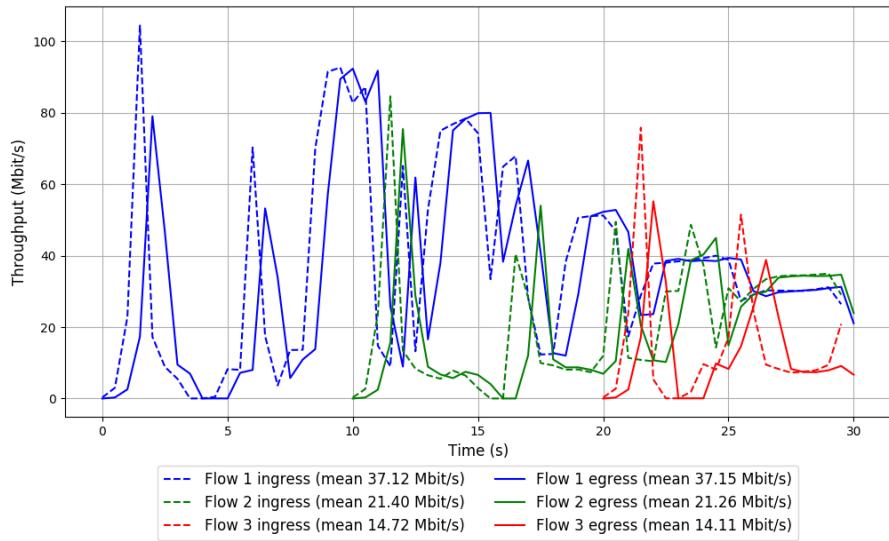


Run 1: Statistics of QUIC Cubic

```
Start at: 2019-02-05 18:25:25
End at: 2019-02-05 18:25:55
Local clock offset: 0.181 ms
Remote clock offset: -0.41 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 171.203 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 37.15 Mbit/s
95th percentile per-packet one-way delay: 118.838 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 21.26 Mbit/s
95th percentile per-packet one-way delay: 199.667 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 14.11 Mbit/s
95th percentile per-packet one-way delay: 359.376 ms
Loss rate: 5.75%
```

Run 1: Report of QUIC Cubic — Data Link

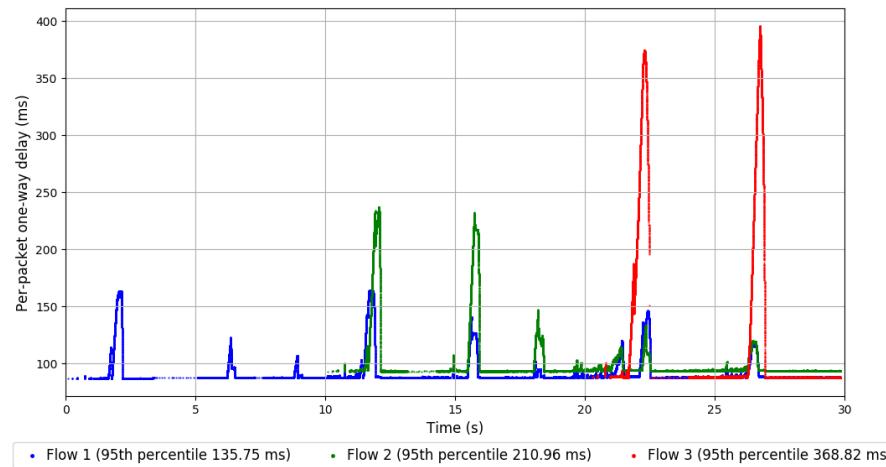
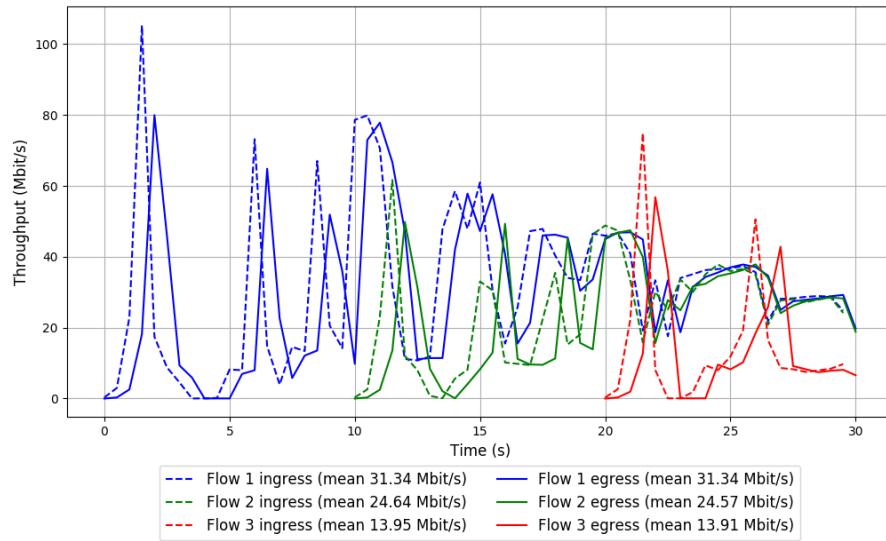


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-02-05 18:52:26
End at: 2019-02-05 18:52:56
Local clock offset: -1.692 ms
Remote clock offset: 7.258 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.18 Mbit/s
95th percentile per-packet one-way delay: 178.848 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 31.34 Mbit/s
95th percentile per-packet one-way delay: 135.748 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 24.57 Mbit/s
95th percentile per-packet one-way delay: 210.963 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 13.91 Mbit/s
95th percentile per-packet one-way delay: 368.820 ms
Loss rate: 2.03%
```

Run 2: Report of QUIC Cubic — Data Link

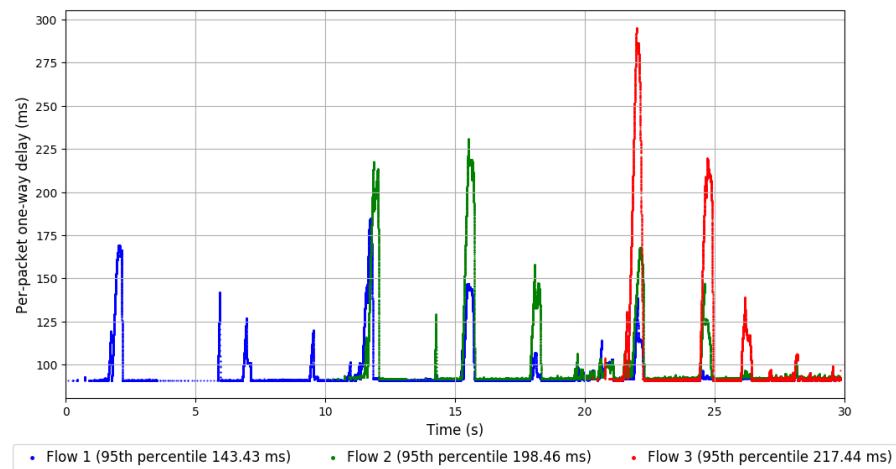
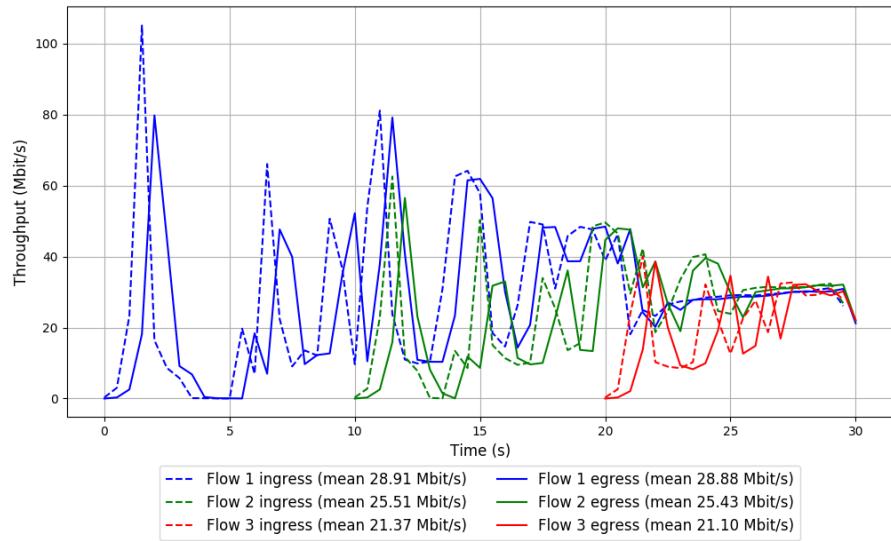


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-02-05 19:19:26
End at: 2019-02-05 19:19:56
Local clock offset: -1.583 ms
Remote clock offset: 4.049 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.64 Mbit/s
95th percentile per-packet one-way delay: 167.325 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 28.88 Mbit/s
95th percentile per-packet one-way delay: 143.432 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 25.43 Mbit/s
95th percentile per-packet one-way delay: 198.459 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 217.445 ms
Loss rate: 2.91%
```

Run 3: Report of QUIC Cubic — Data Link

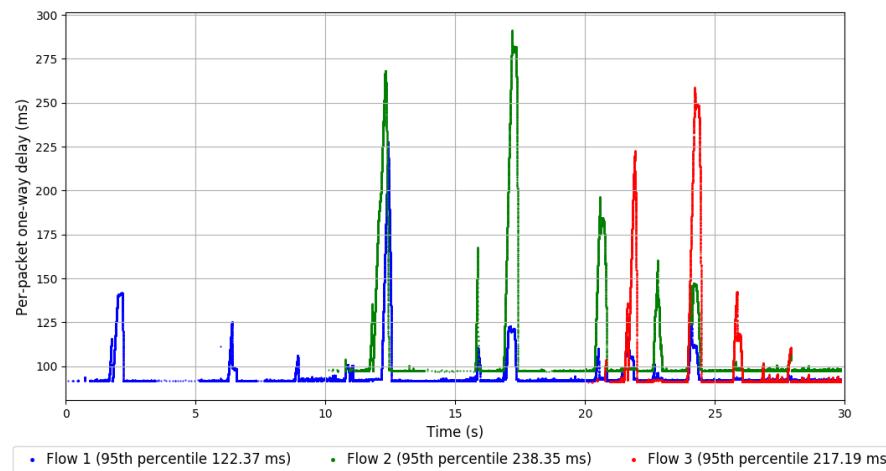
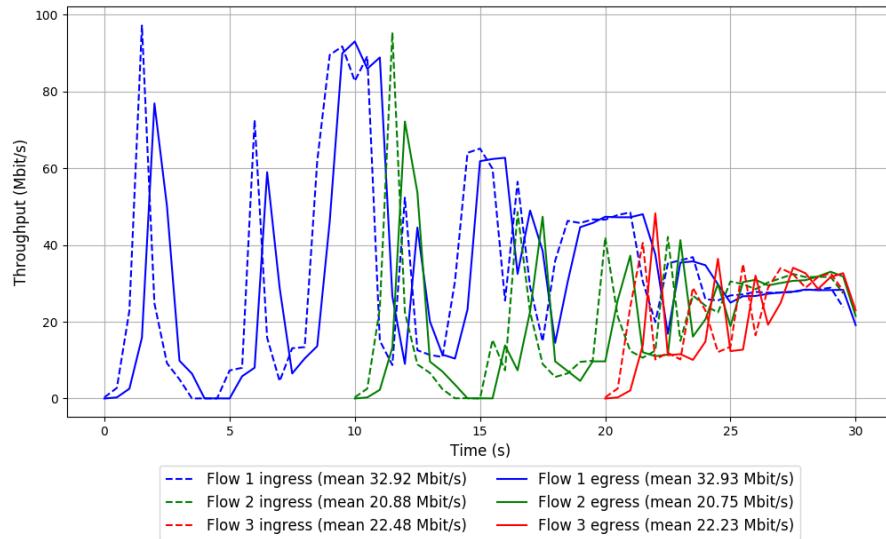


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-02-05 19:46:28
End at: 2019-02-05 19:46:58
Local clock offset: -2.053 ms
Remote clock offset: 3.07 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.96 Mbit/s
95th percentile per-packet one-way delay: 179.925 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 32.93 Mbit/s
95th percentile per-packet one-way delay: 122.370 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 20.75 Mbit/s
95th percentile per-packet one-way delay: 238.347 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 22.23 Mbit/s
95th percentile per-packet one-way delay: 217.193 ms
Loss rate: 2.80%
```

Run 4: Report of QUIC Cubic — Data Link

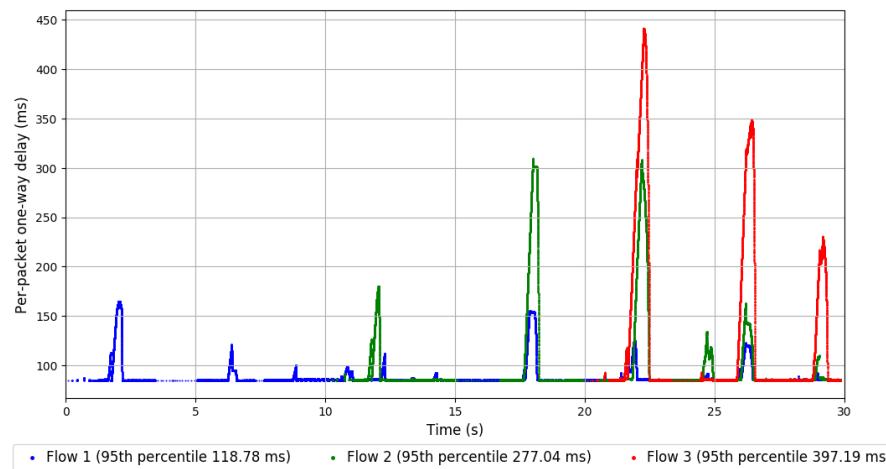
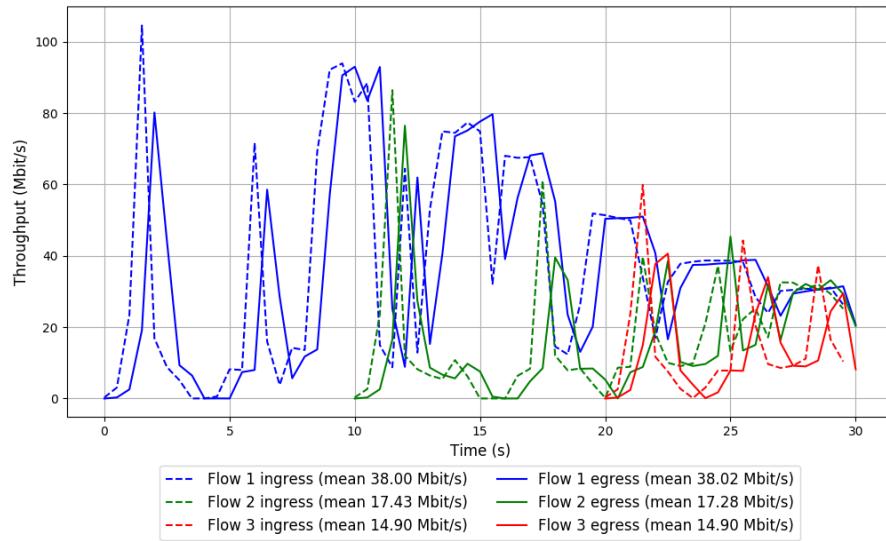


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-02-05 20:13:29
End at: 2019-02-05 20:13:59
Local clock offset: -2.665 ms
Remote clock offset: 7.606 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.35 Mbit/s
95th percentile per-packet one-way delay: 208.341 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 38.02 Mbit/s
95th percentile per-packet one-way delay: 118.780 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 17.28 Mbit/s
95th percentile per-packet one-way delay: 277.044 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 14.90 Mbit/s
95th percentile per-packet one-way delay: 397.189 ms
Loss rate: 1.77%
```

Run 5: Report of QUIC Cubic — Data Link

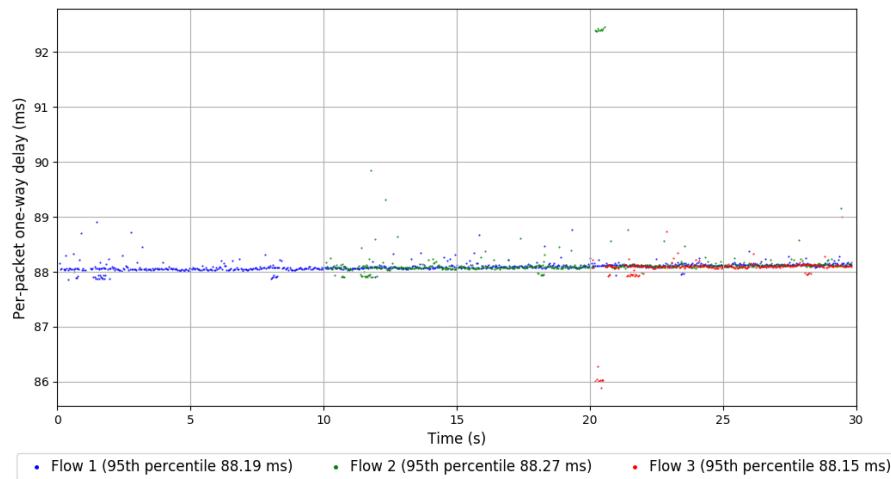
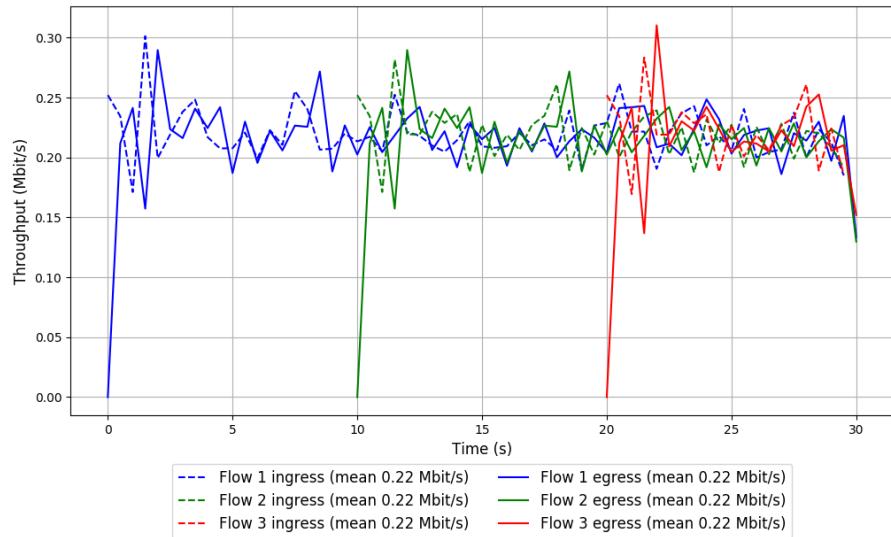


Run 1: Statistics of SCReAM

```
Start at: 2019-02-05 18:29:20
End at: 2019-02-05 18:29:50
Local clock offset: -0.197 ms
Remote clock offset: 4.955 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 88.213 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.192 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.267 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.146 ms
Loss rate: 1.85%
```

Run 1: Report of SCReAM — Data Link

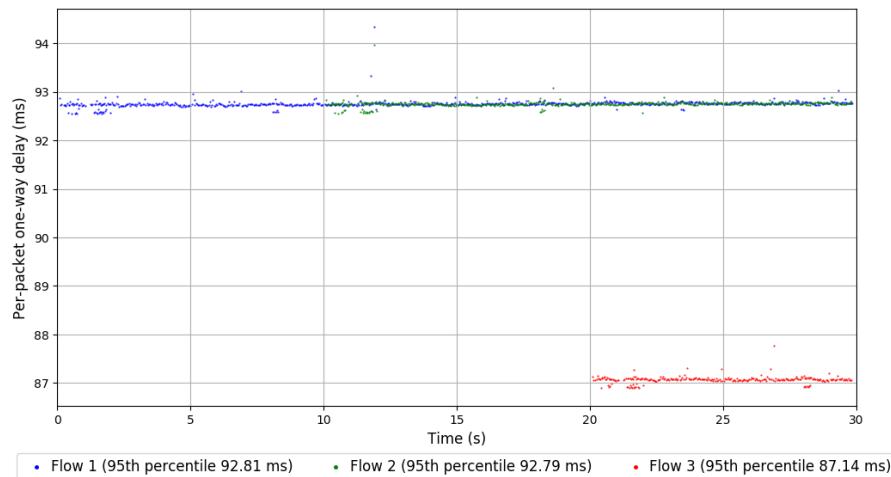
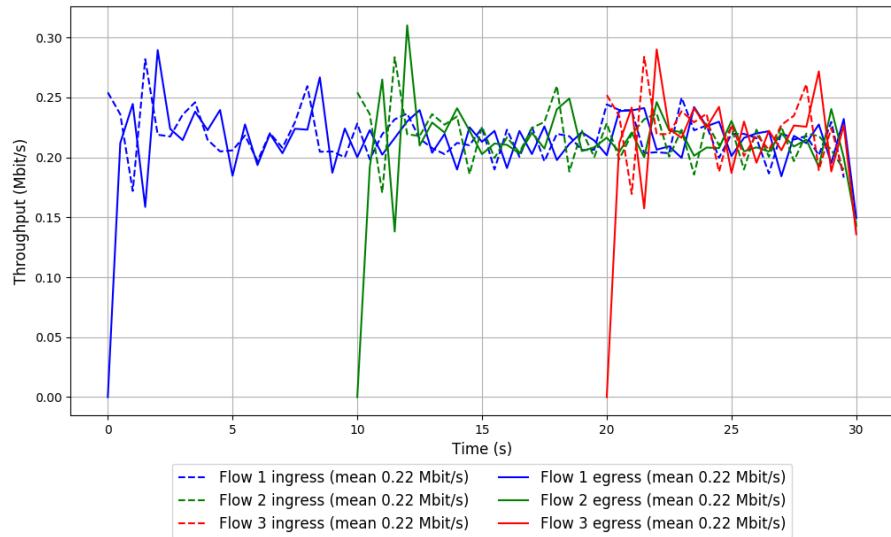


Run 2: Statistics of SCReAM

```
Start at: 2019-02-05 18:56:21
End at: 2019-02-05 18:56:51
Local clock offset: -1.267 ms
Remote clock offset: 8.366 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 92.797 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.808 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.793 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.136 ms
Loss rate: 1.85%
```

Run 2: Report of SCReAM — Data Link

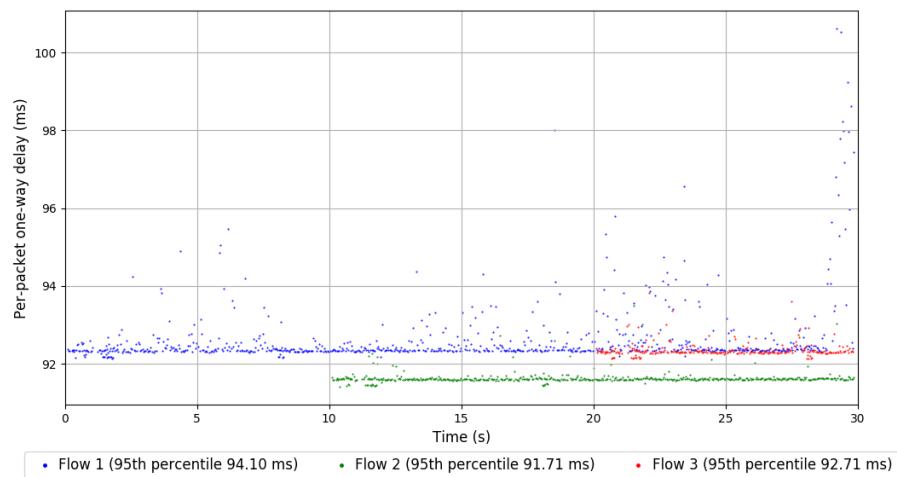
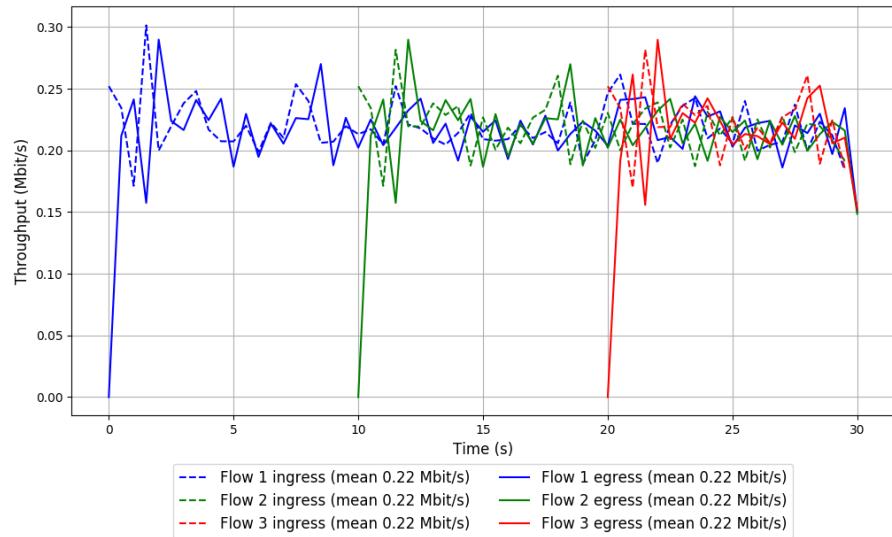


Run 3: Statistics of SCReAM

```
Start at: 2019-02-05 19:23:22
End at: 2019-02-05 19:23:52
Local clock offset: -2.668 ms
Remote clock offset: 2.889 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 93.312 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 94.097 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.711 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.706 ms
Loss rate: 1.85%
```

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

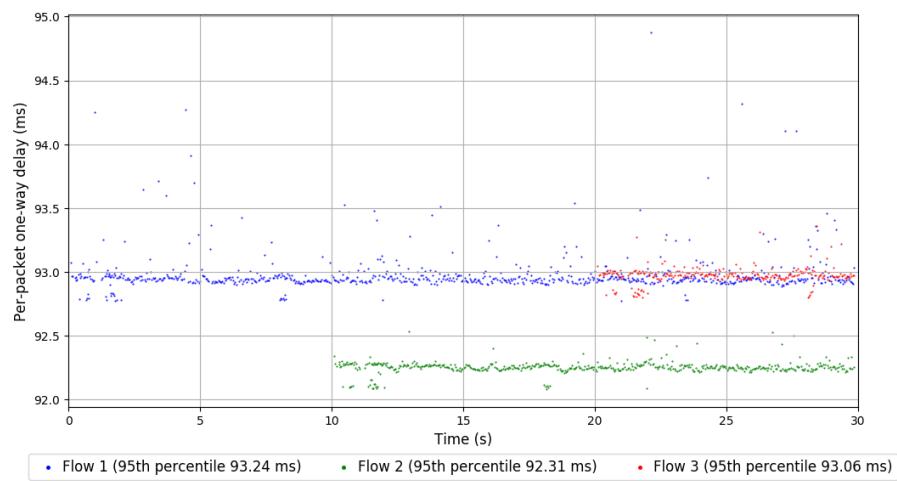
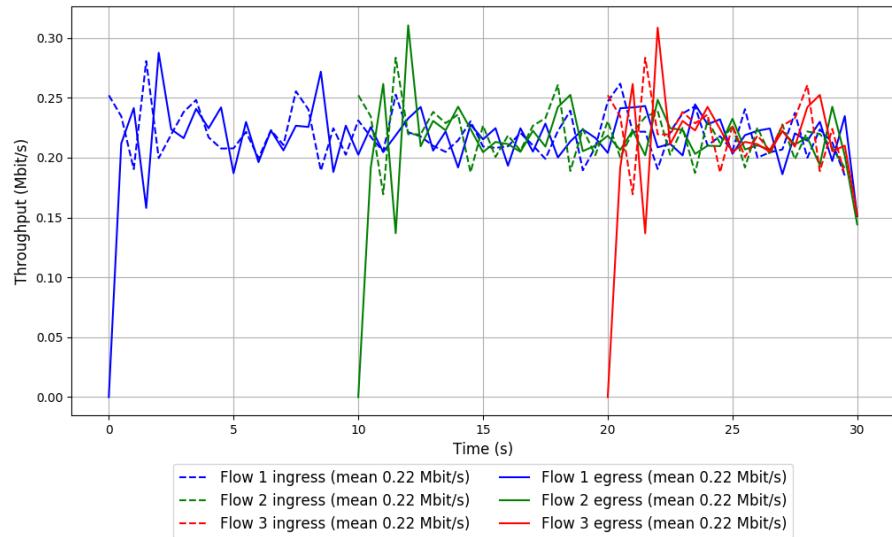


Run 4: Statistics of SCReAM

```
Start at: 2019-02-05 19:50:23
End at: 2019-02-05 19:50:53
Local clock offset: -2.079 ms
Remote clock offset: 1.658 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 93.072 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.238 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.305 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.055 ms
Loss rate: 1.85%
```

## Run 4: Report of SCReAM — Data Link

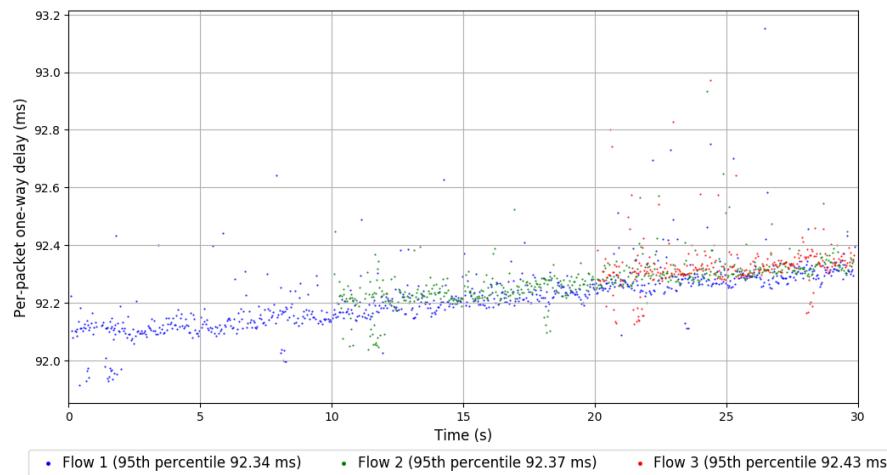
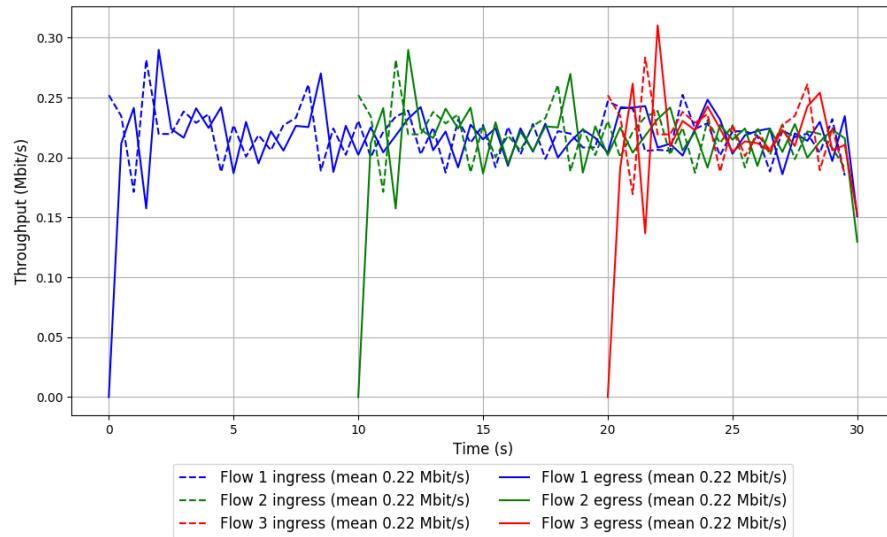


Run 5: Statistics of SCReAM

```
Start at: 2019-02-05 20:17:24
End at: 2019-02-05 20:17:54
Local clock offset: -2.633 ms
Remote clock offset: 2.412 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 92.382 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.344 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.374 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.428 ms
Loss rate: 1.85%
```

## Run 5: Report of SCReAM — Data Link

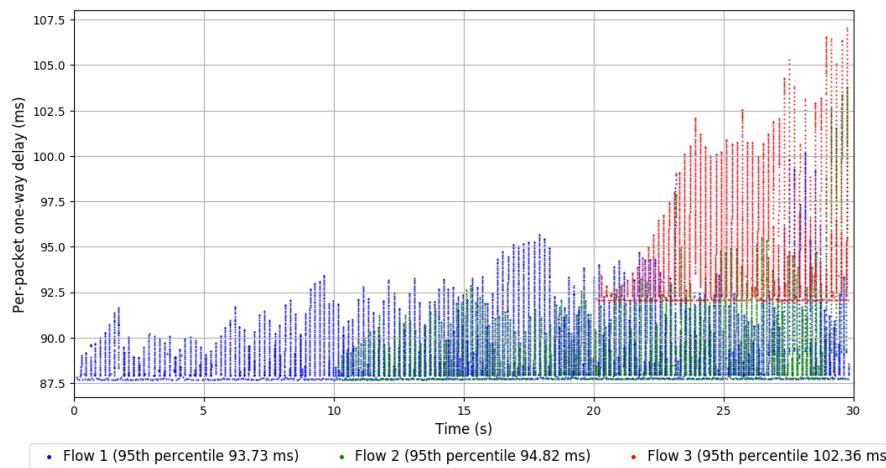
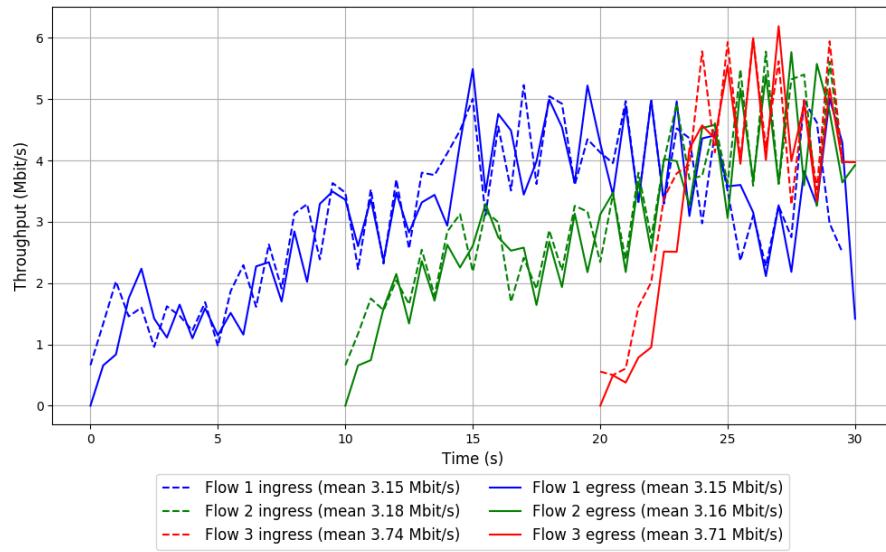


Run 1: Statistics of Sprout

```
Start at: 2019-02-05 18:31:47
End at: 2019-02-05 18:32:17
Local clock offset: -0.249 ms
Remote clock offset: 5.51 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 98.935 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 93.730 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 94.816 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 102.359 ms
Loss rate: 2.71%
```

Run 1: Report of Sprout — Data Link

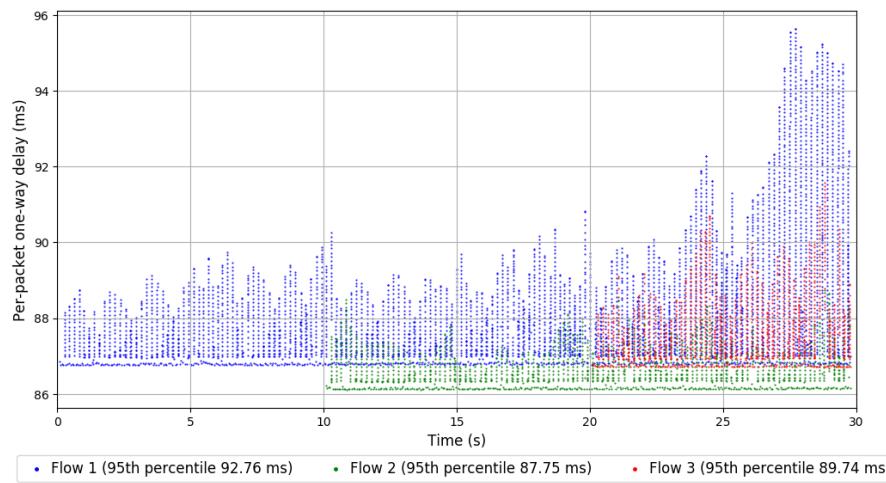
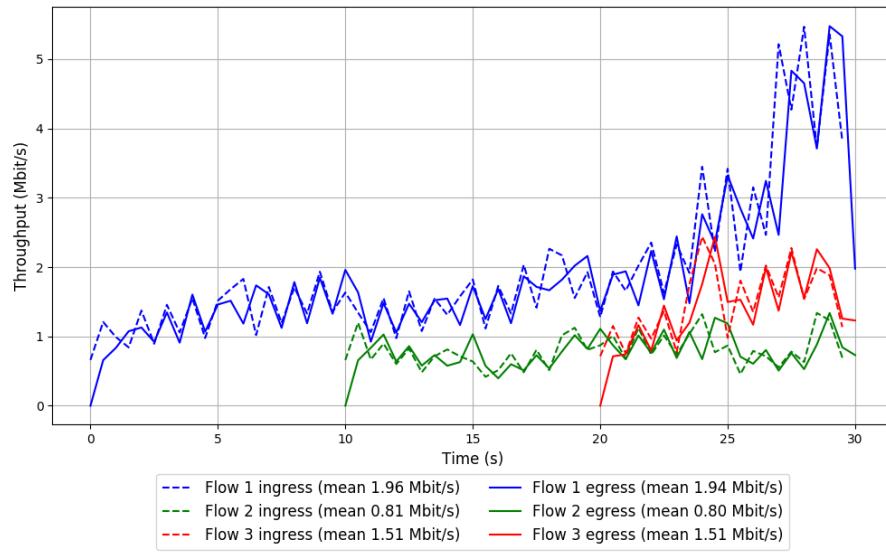


Run 2: Statistics of Sprout

```
Start at: 2019-02-05 18:58:48
End at: 2019-02-05 18:59:18
Local clock offset: -1.433 ms
Remote clock offset: 8.544 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 91.714 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 92.760 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 87.750 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 89.741 ms
Loss rate: 1.79%
```

Run 2: Report of Sprout — Data Link

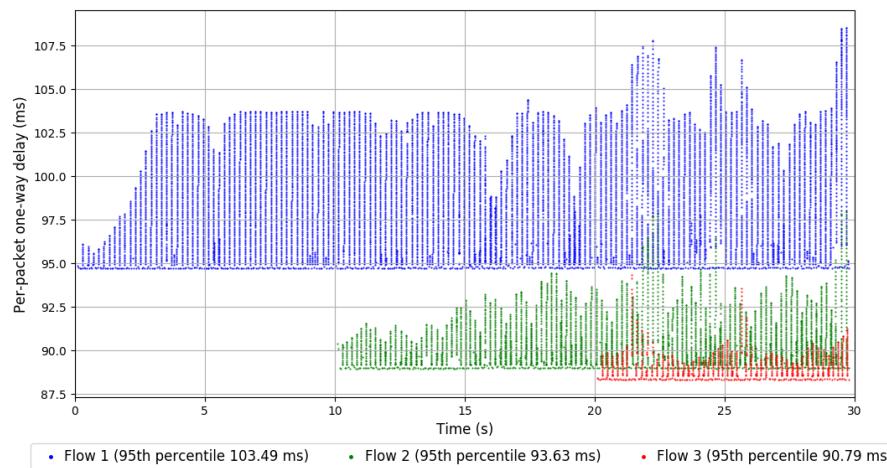
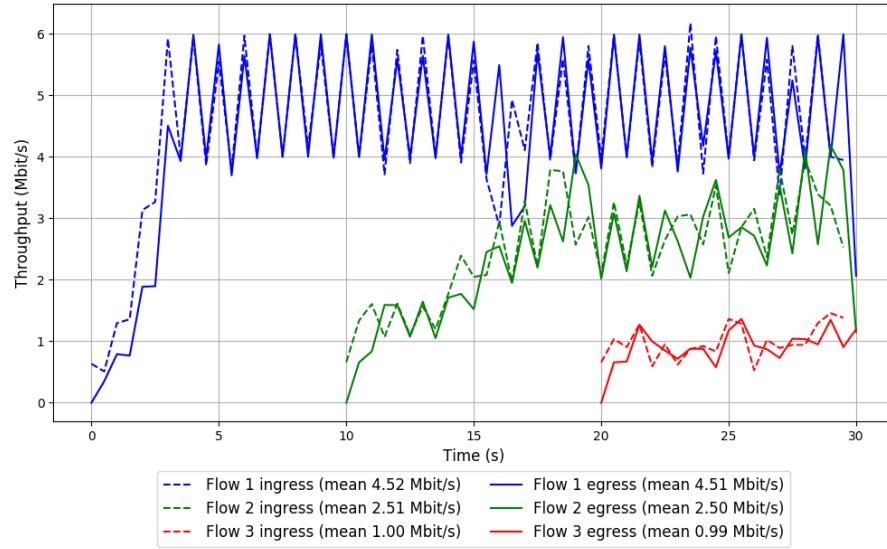


Run 3: Statistics of Sprout

```
Start at: 2019-02-05 19:25:49
End at: 2019-02-05 19:26:19
Local clock offset: -2.022 ms
Remote clock offset: 6.811 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 103.156 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 103.489 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 93.630 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 90.786 ms
Loss rate: 3.73%
```

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

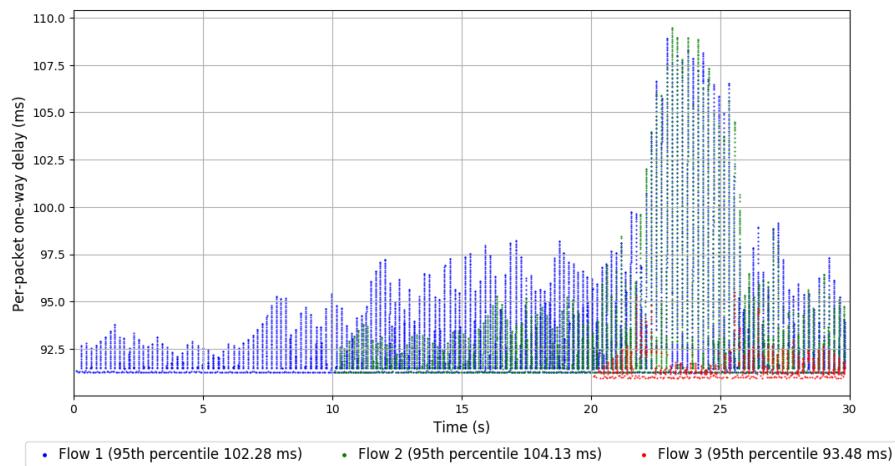
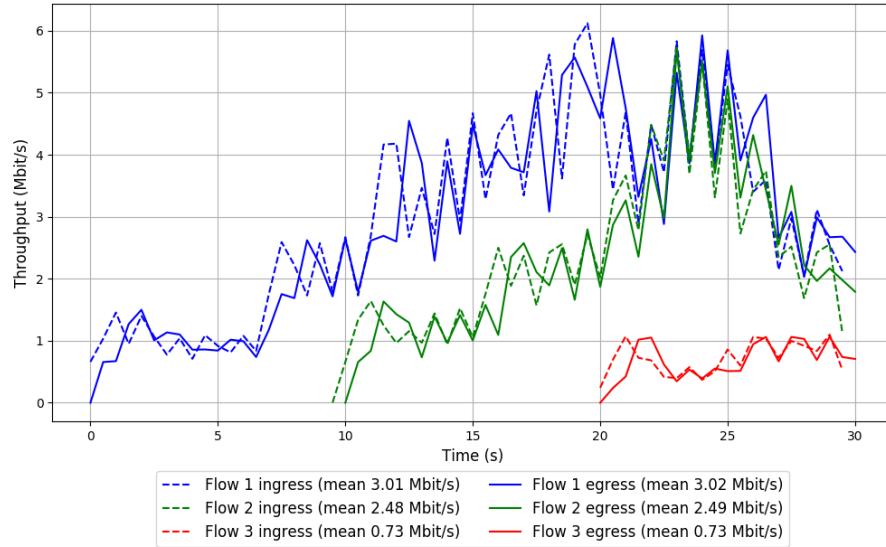


Run 4: Statistics of Sprout

```
Start at: 2019-02-05 19:52:50
End at: 2019-02-05 19:53:20
Local clock offset: -2.071 ms
Remote clock offset: 2.5 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.91 Mbit/s
95th percentile per-packet one-way delay: 102.972 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 102.282 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 104.133 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 93.483 ms
Loss rate: 1.29%
```

## Run 4: Report of Sprout — Data Link

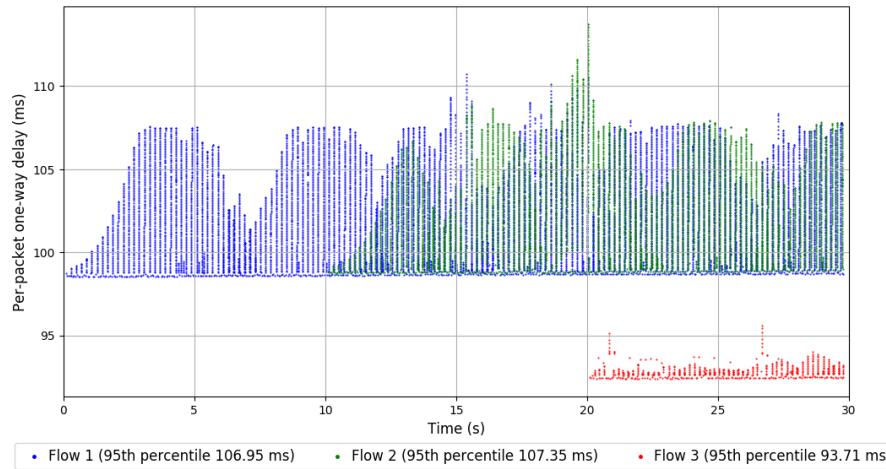
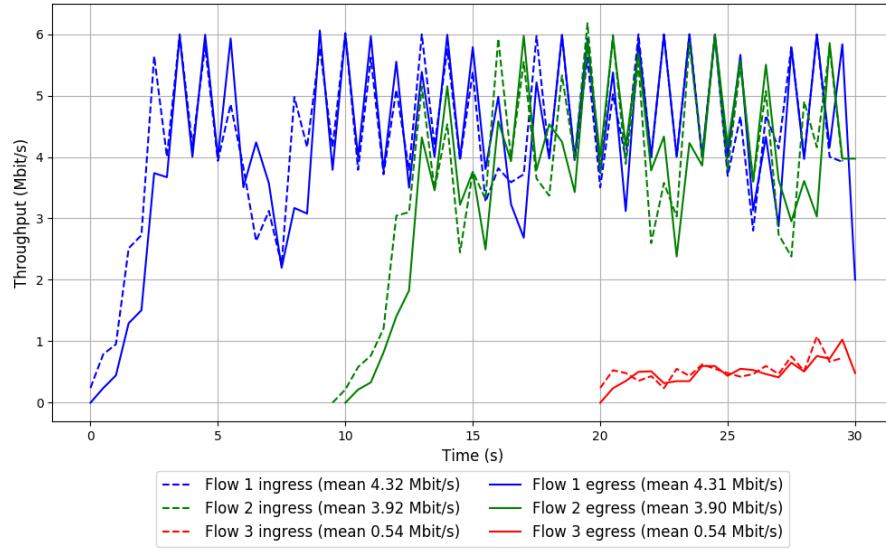


Run 5: Statistics of Sprout

```
Start at: 2019-02-05 20:19:51
End at: 2019-02-05 20:20:21
Local clock offset: -3.752 ms
Remote clock offset: 1.265 ms

# Below is generated by plot.py at 2019-02-05 20:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 107.062 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 106.947 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 107.353 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 93.706 ms
Loss rate: 2.36%
```

Run 5: Report of Sprout — Data Link

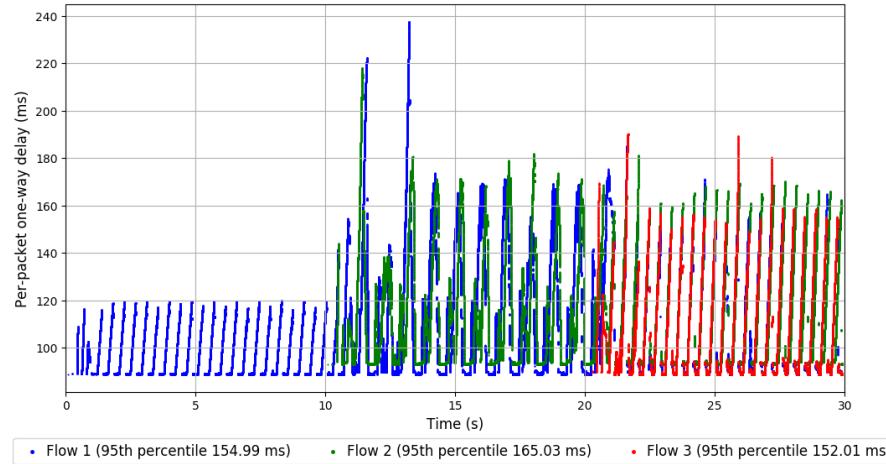
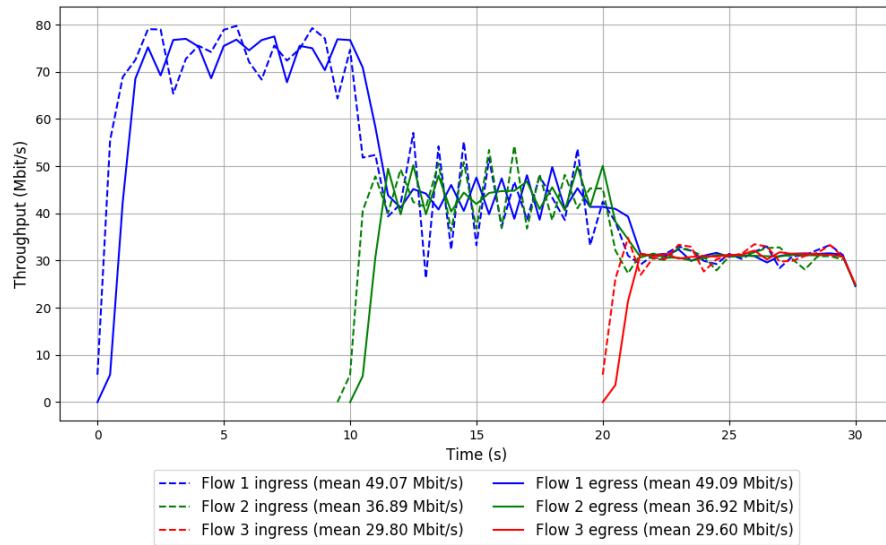


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-02-05 18:14:56
End at: 2019-02-05 18:15:26
Local clock offset: 2.973 ms
Remote clock offset: 3.14 ms

# Below is generated by plot.py at 2019-02-05 20:40:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.35 Mbit/s
95th percentile per-packet one-way delay: 159.045 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 49.09 Mbit/s
95th percentile per-packet one-way delay: 154.993 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 36.92 Mbit/s
95th percentile per-packet one-way delay: 165.029 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 152.013 ms
Loss rate: 2.43%
```

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

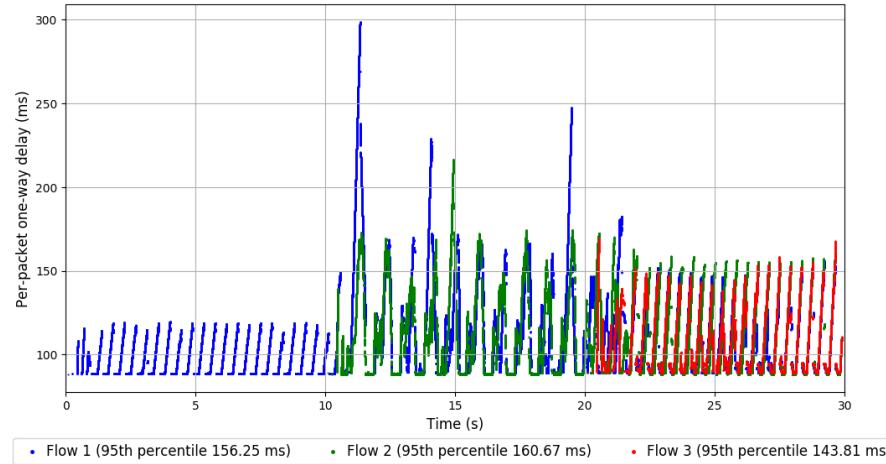
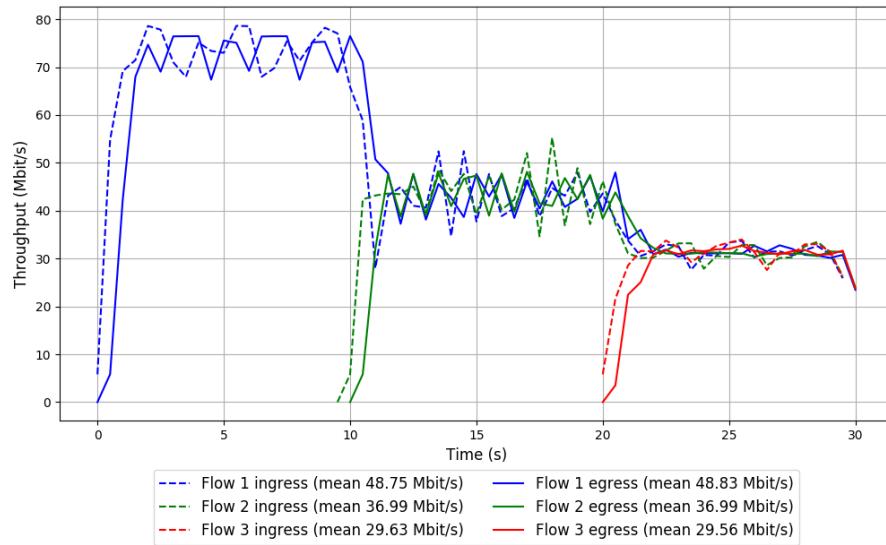


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-02-05 18:41:55
End at: 2019-02-05 18:42:25
Local clock offset: 0.067 ms
Remote clock offset: 5.284 ms

# Below is generated by plot.py at 2019-02-05 20:40:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.11 Mbit/s
95th percentile per-packet one-way delay: 156.071 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 156.247 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 160.669 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 29.56 Mbit/s
95th percentile per-packet one-way delay: 143.810 ms
Loss rate: 1.95%
```

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

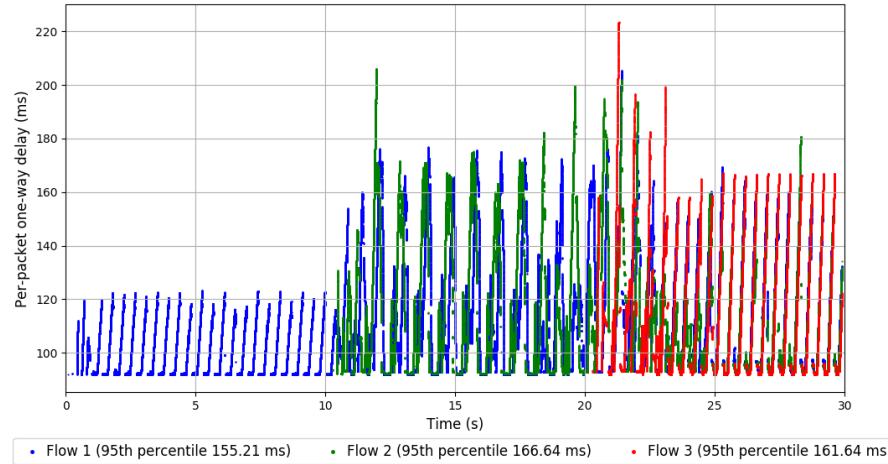
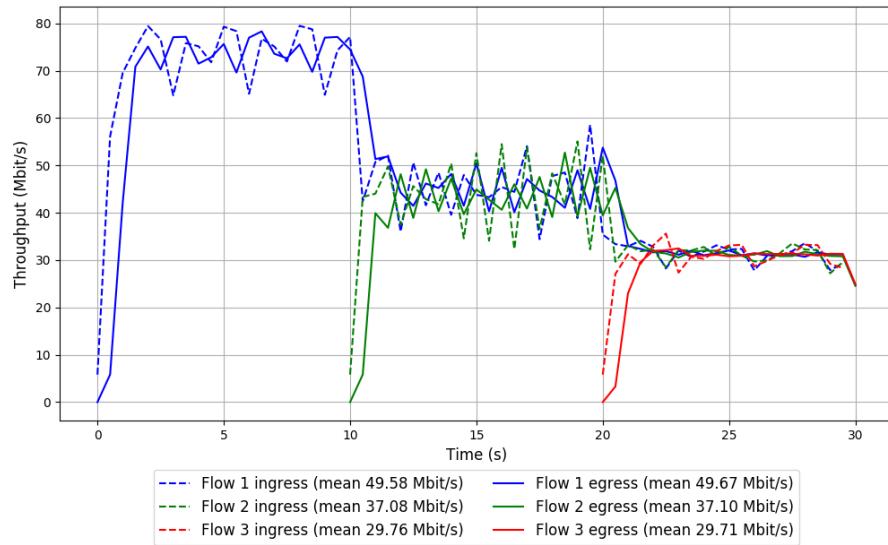


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-02-05 19:08:57
End at: 2019-02-05 19:09:27
Local clock offset: -2.122 ms
Remote clock offset: 2.617 ms

# Below is generated by plot.py at 2019-02-05 20:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.08 Mbit/s
95th percentile per-packet one-way delay: 160.173 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 49.67 Mbit/s
95th percentile per-packet one-way delay: 155.206 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 37.10 Mbit/s
95th percentile per-packet one-way delay: 166.642 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 161.637 ms
Loss rate: 1.93%
```

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

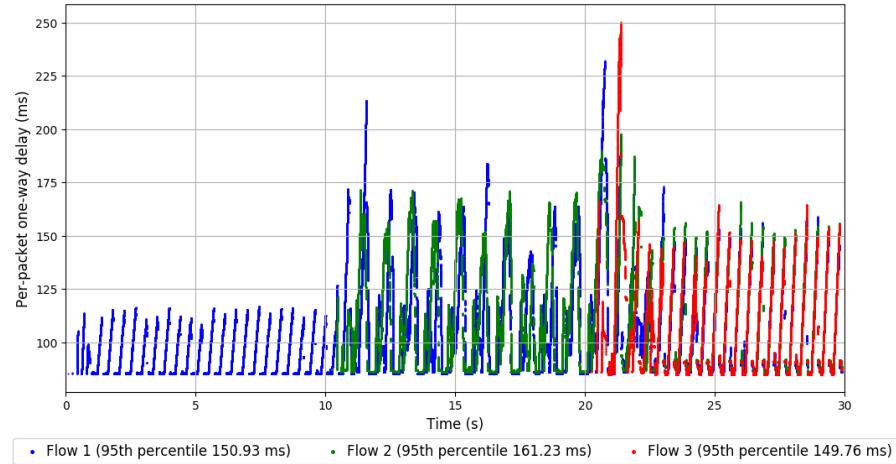
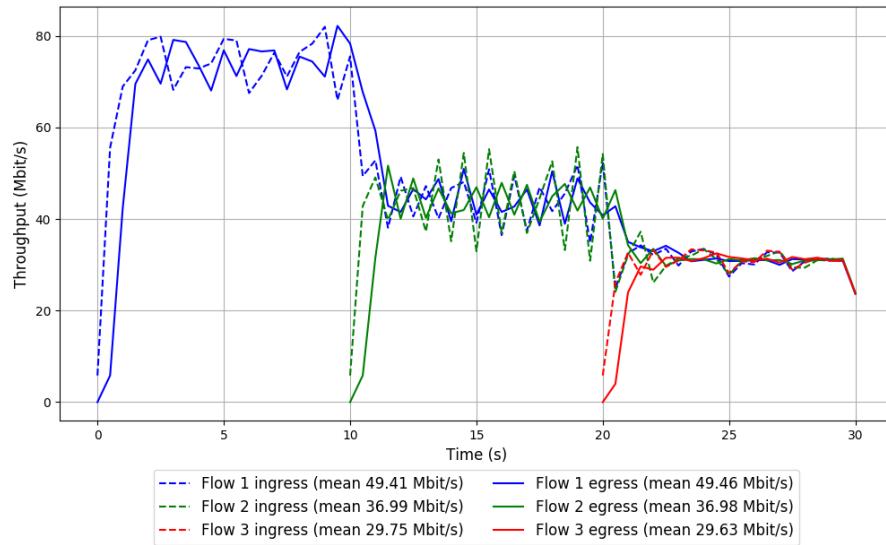


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-02-05 19:35:58
End at: 2019-02-05 19:36:28
Local clock offset: -2.918 ms
Remote clock offset: 9.248 ms

# Below is generated by plot.py at 2019-02-05 20:40:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.76 Mbit/s
95th percentile per-packet one-way delay: 155.498 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 49.46 Mbit/s
95th percentile per-packet one-way delay: 150.933 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 161.231 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 149.764 ms
Loss rate: 2.13%
```

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

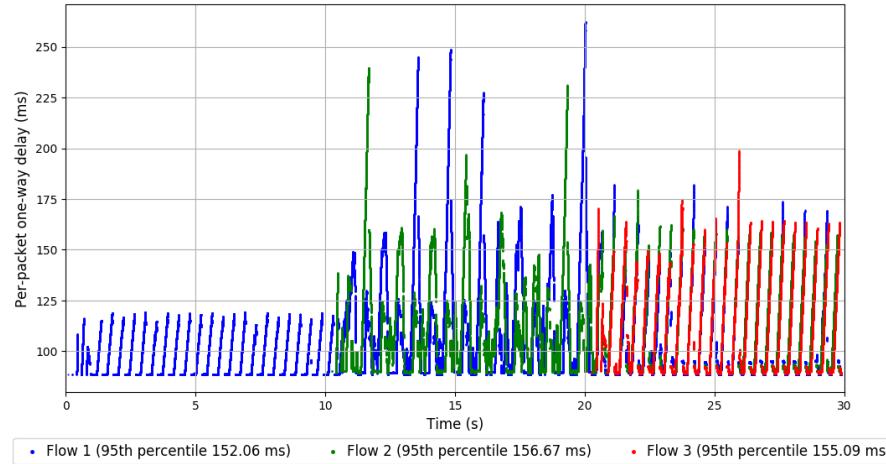
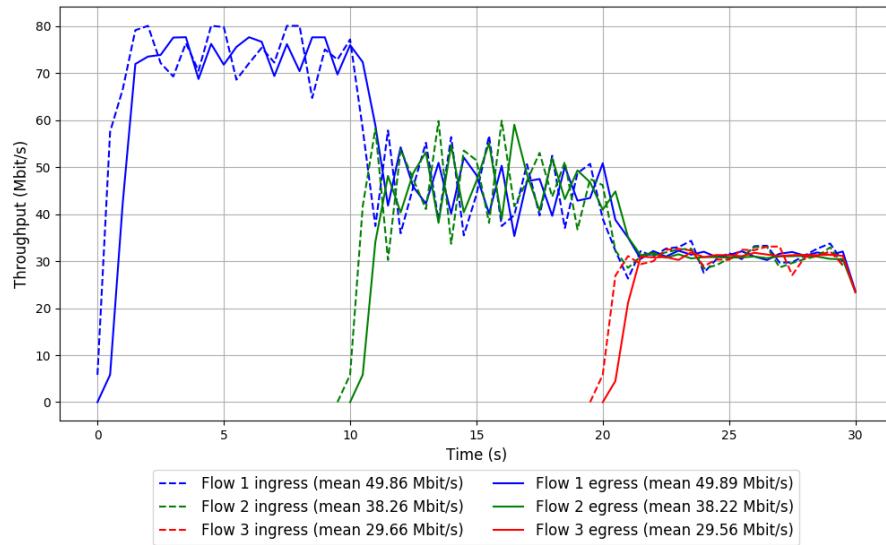


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-02-05 20:02:58
End at: 2019-02-05 20:03:28
Local clock offset: -1.983 ms
Remote clock offset: 5.232 ms

# Below is generated by plot.py at 2019-02-05 20:40:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.02 Mbit/s
95th percentile per-packet one-way delay: 154.875 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 49.89 Mbit/s
95th percentile per-packet one-way delay: 152.057 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 156.667 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 29.56 Mbit/s
95th percentile per-packet one-way delay: 155.093 ms
Loss rate: 2.09%
```

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

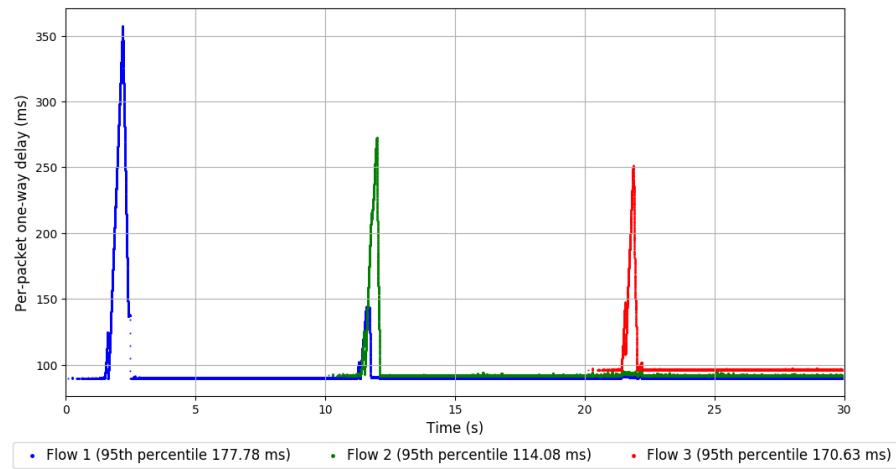
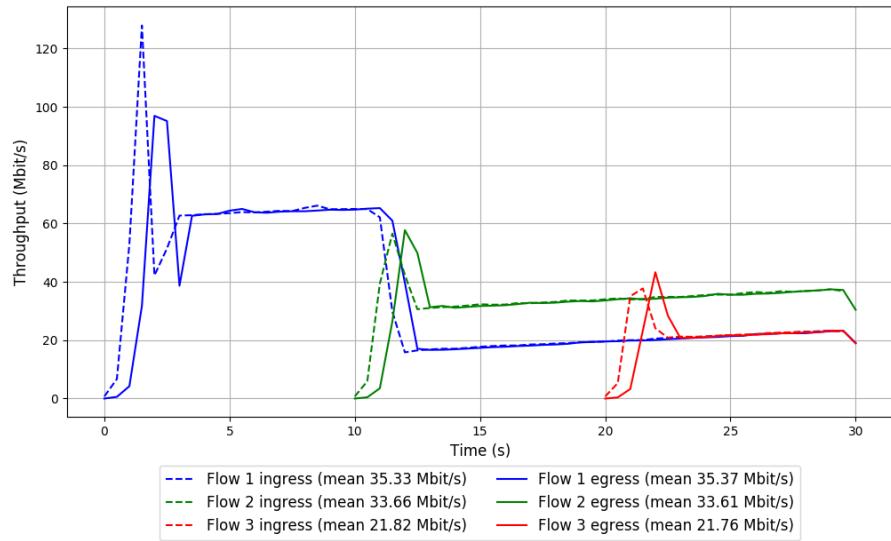


Run 1: Statistics of TCP Vegas

```
Start at: 2019-02-05 18:12:22
End at: 2019-02-05 18:12:52
Local clock offset: 2.682 ms
Remote clock offset: 0.487 ms

# Below is generated by plot.py at 2019-02-05 20:40:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.82 Mbit/s
95th percentile per-packet one-way delay: 156.386 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 177.783 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 33.61 Mbit/s
95th percentile per-packet one-way delay: 114.084 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 21.76 Mbit/s
95th percentile per-packet one-way delay: 170.629 ms
Loss rate: 2.05%
```

Run 1: Report of TCP Vegas — Data Link

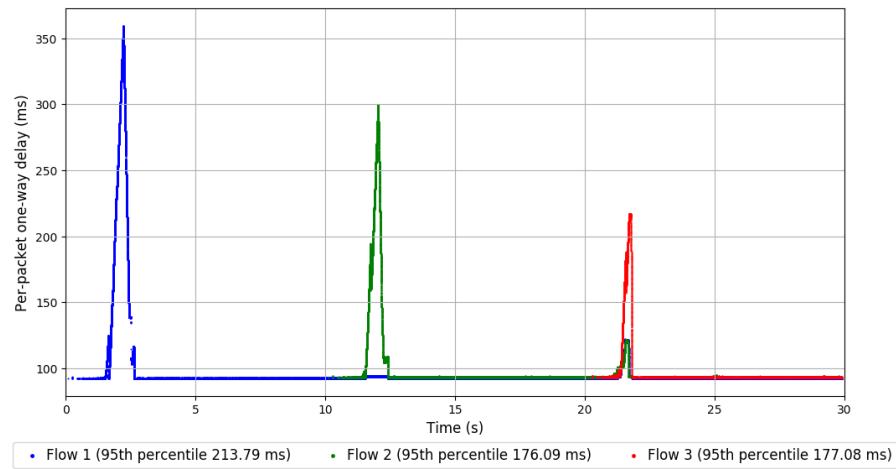
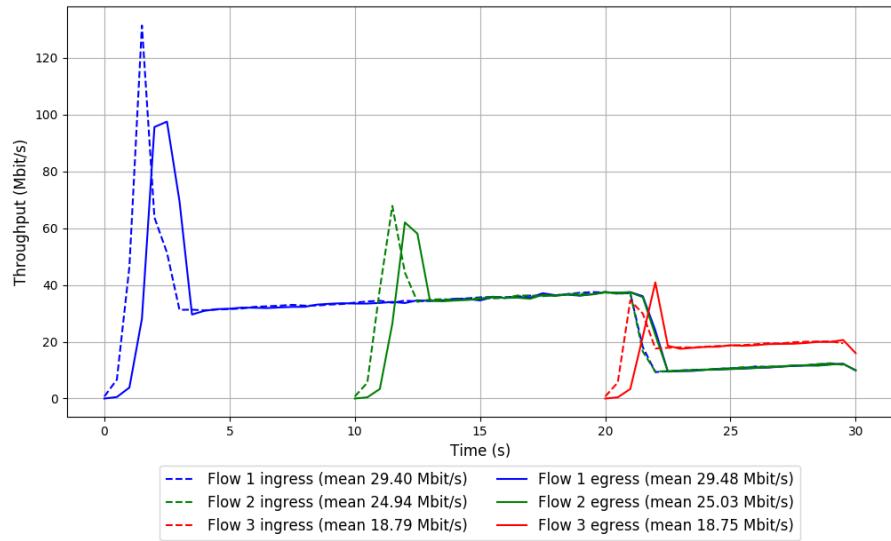


Run 2: Statistics of TCP Vegas

```
Start at: 2019-02-05 18:39:21
End at: 2019-02-05 18:39:51
Local clock offset: -0.056 ms
Remote clock offset: 1.096 ms

# Below is generated by plot.py at 2019-02-05 20:40:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.26 Mbit/s
95th percentile per-packet one-way delay: 190.724 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 29.48 Mbit/s
95th percentile per-packet one-way delay: 213.786 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 25.03 Mbit/s
95th percentile per-packet one-way delay: 176.093 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 18.75 Mbit/s
95th percentile per-packet one-way delay: 177.083 ms
Loss rate: 1.94%
```

Run 2: Report of TCP Vegas — Data Link

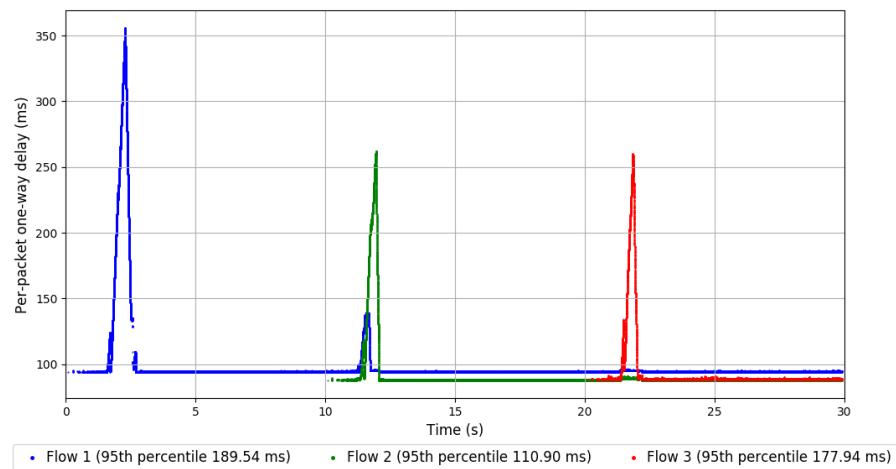
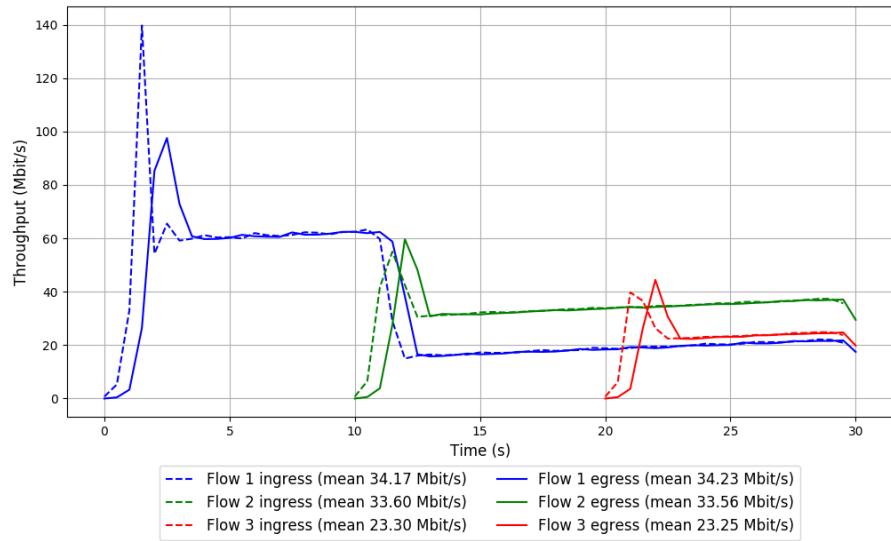


Run 3: Statistics of TCP Vegas

```
Start at: 2019-02-05 19:06:23
End at: 2019-02-05 19:06:53
Local clock offset: -2.22 ms
Remote clock offset: 6.242 ms

# Below is generated by plot.py at 2019-02-05 20:40:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.17 Mbit/s
95th percentile per-packet one-way delay: 163.331 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 34.23 Mbit/s
95th percentile per-packet one-way delay: 189.536 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 33.56 Mbit/s
95th percentile per-packet one-way delay: 110.901 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 23.25 Mbit/s
95th percentile per-packet one-way delay: 177.942 ms
Loss rate: 1.96%
```

Run 3: Report of TCP Vegas — Data Link

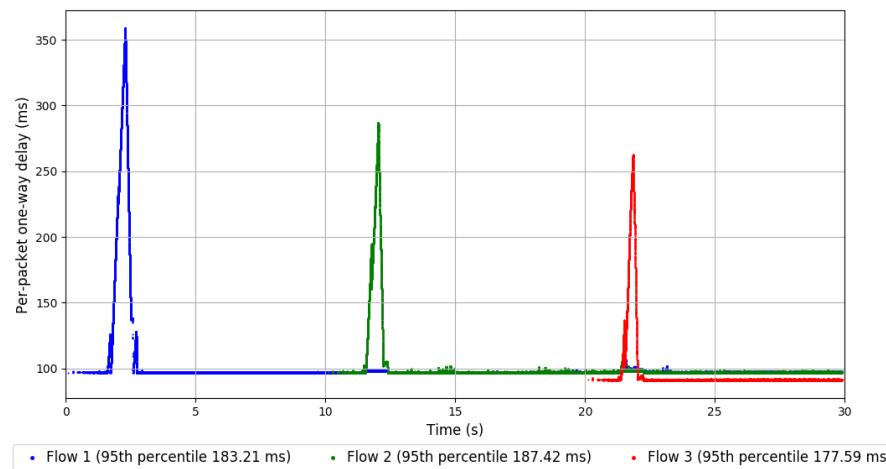
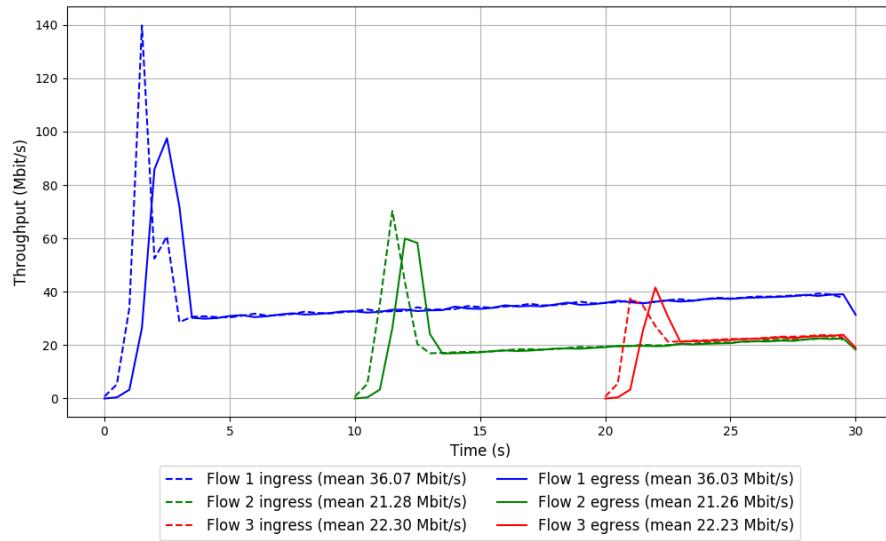


Run 4: Statistics of TCP Vegas

```
Start at: 2019-02-05 19:33:24
End at: 2019-02-05 19:33:54
Local clock offset: -2.92 ms
Remote clock offset: 4.358 ms

# Below is generated by plot.py at 2019-02-05 20:40:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.45 Mbit/s
95th percentile per-packet one-way delay: 184.560 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 36.03 Mbit/s
95th percentile per-packet one-way delay: 183.213 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 21.26 Mbit/s
95th percentile per-packet one-way delay: 187.418 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 22.23 Mbit/s
95th percentile per-packet one-way delay: 177.590 ms
Loss rate: 2.02%
```

Run 4: Report of TCP Vegas — Data Link

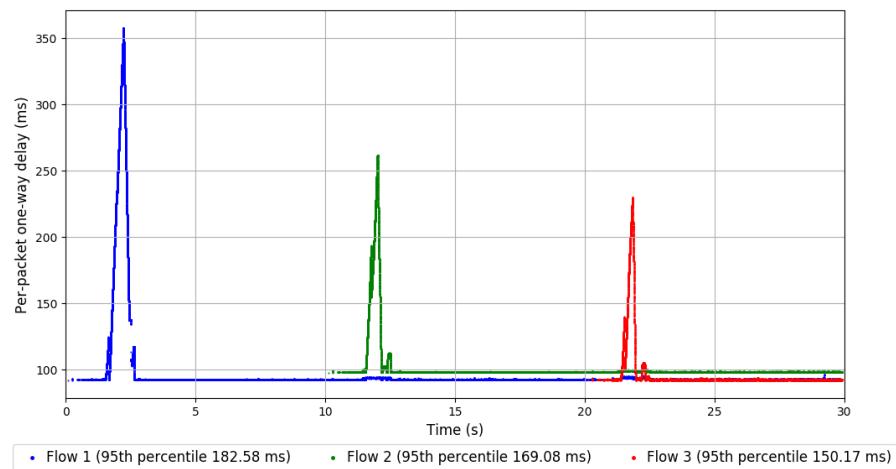
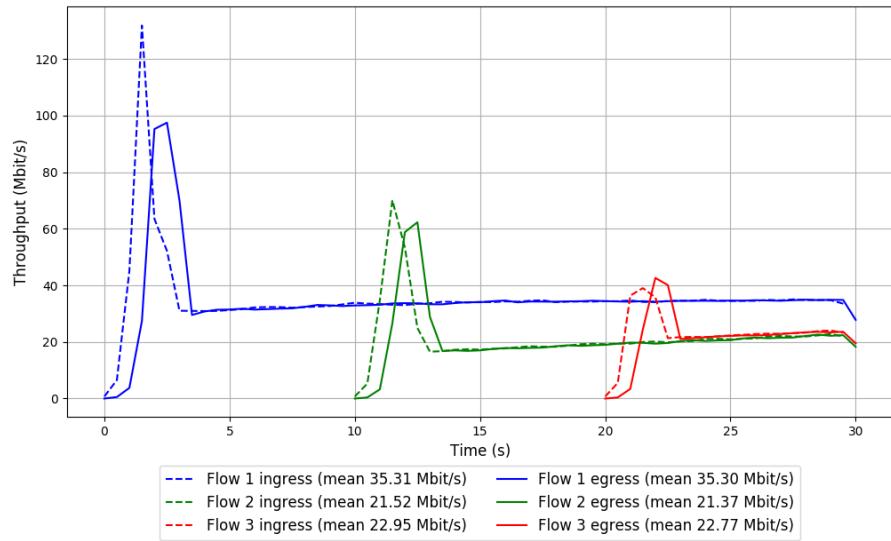


Run 5: Statistics of TCP Vegas

```
Start at: 2019-02-05 20:00:24
End at: 2019-02-05 20:00:54
Local clock offset: -2.835 ms
Remote clock offset: 1.289 ms

# Below is generated by plot.py at 2019-02-05 20:40:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 171.560 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 35.30 Mbit/s
95th percentile per-packet one-way delay: 182.584 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 21.37 Mbit/s
95th percentile per-packet one-way delay: 169.078 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 22.77 Mbit/s
95th percentile per-packet one-way delay: 150.167 ms
Loss rate: 2.50%
```

Run 5: Report of TCP Vegas — Data Link

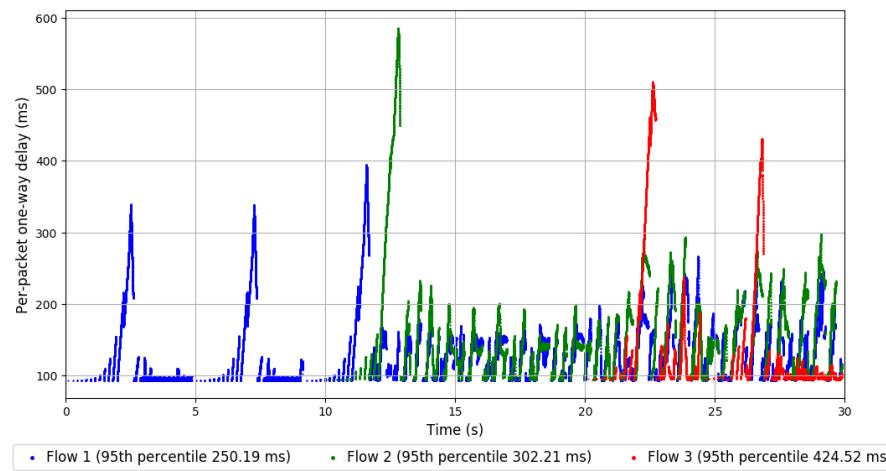
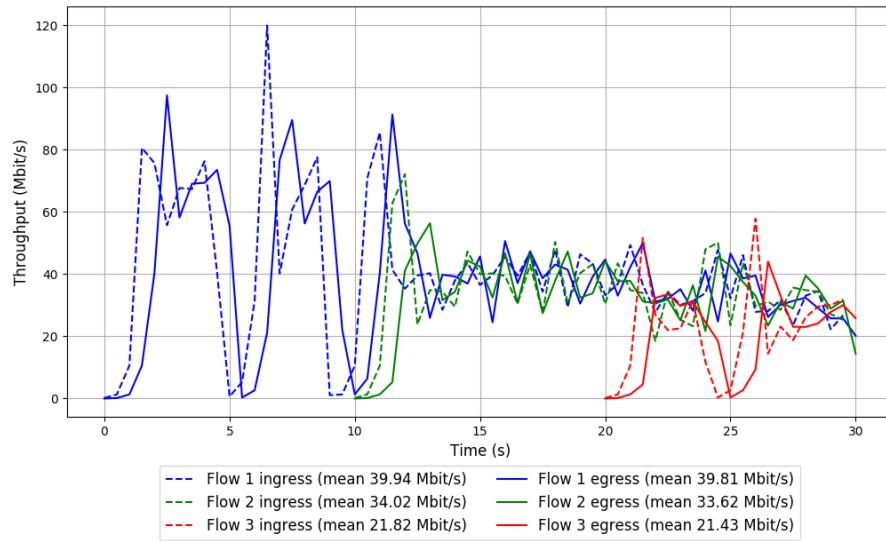


Run 1: Statistics of Verus

```
Start at: 2019-02-05 18:35:29
End at: 2019-02-05 18:35:59
Local clock offset: 0.507 ms
Remote clock offset: 0.858 ms

# Below is generated by plot.py at 2019-02-05 20:40:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.17 Mbit/s
95th percentile per-packet one-way delay: 281.657 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 250.187 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 33.62 Mbit/s
95th percentile per-packet one-way delay: 302.210 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 21.43 Mbit/s
95th percentile per-packet one-way delay: 424.517 ms
Loss rate: 3.48%
```

Run 1: Report of Verus — Data Link

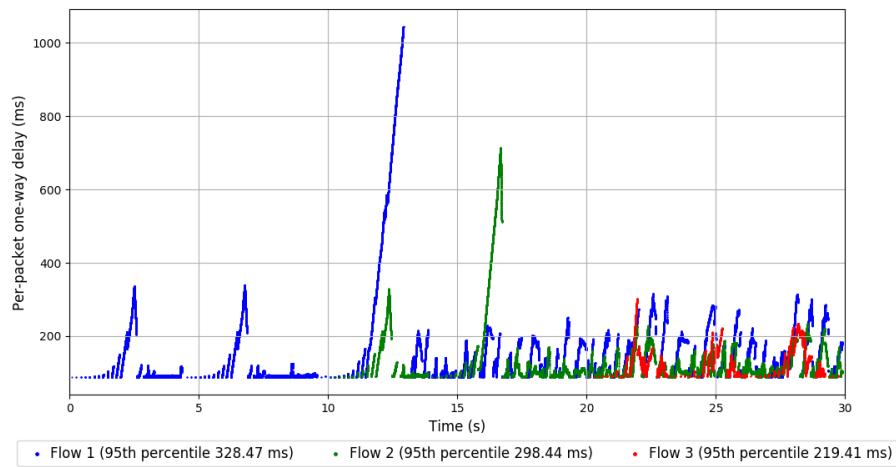
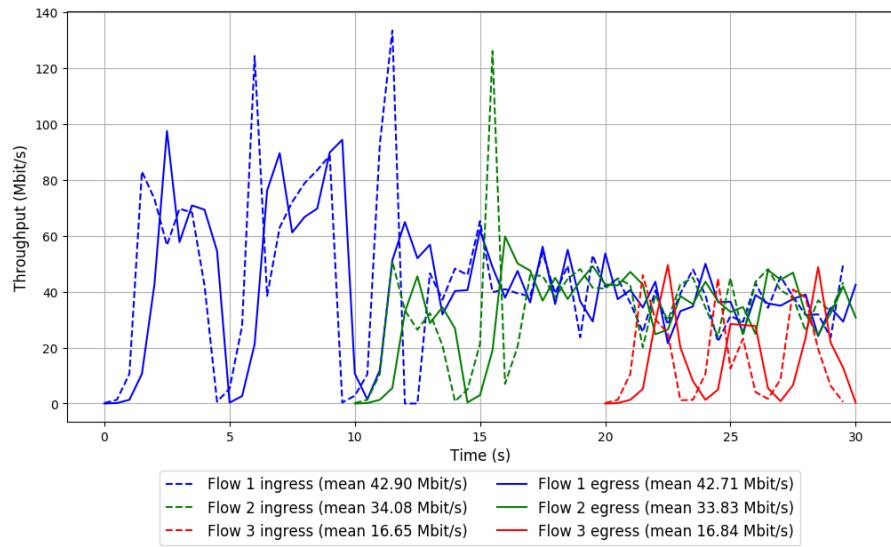


Run 2: Statistics of Verus

```
Start at: 2019-02-05 19:02:31
End at: 2019-02-05 19:03:01
Local clock offset: -1.412 ms
Remote clock offset: 7.495 ms

# Below is generated by plot.py at 2019-02-05 20:40:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.62 Mbit/s
95th percentile per-packet one-way delay: 308.860 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 42.71 Mbit/s
95th percentile per-packet one-way delay: 328.474 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 33.83 Mbit/s
95th percentile per-packet one-way delay: 298.436 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 16.84 Mbit/s
95th percentile per-packet one-way delay: 219.410 ms
Loss rate: 0.63%
```

## Run 2: Report of Verus — Data Link

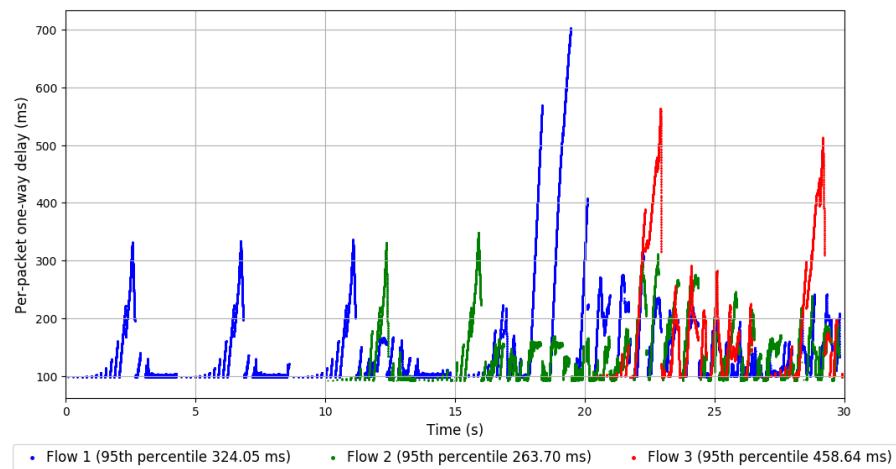
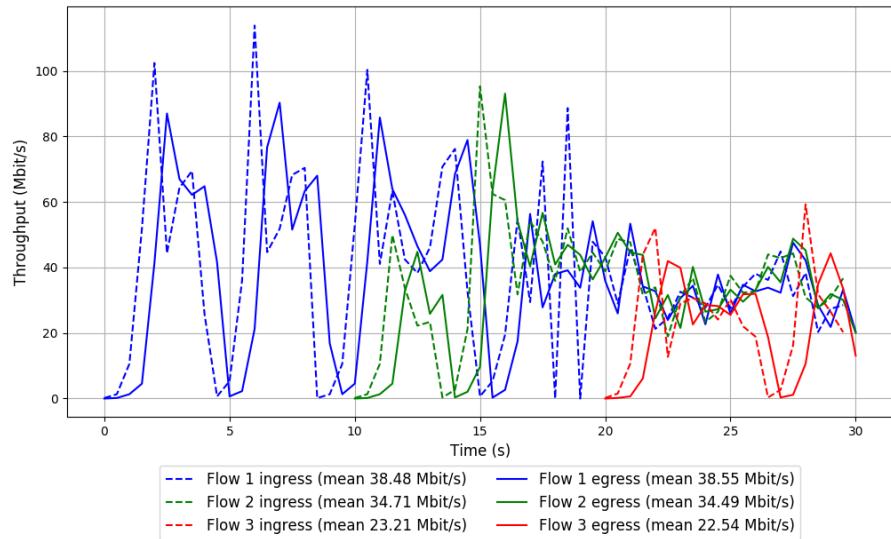


Run 3: Statistics of Verus

```
Start at: 2019-02-05 19:29:32
End at: 2019-02-05 19:30:02
Local clock offset: -2.179 ms
Remote clock offset: 3.115 ms

# Below is generated by plot.py at 2019-02-05 20:40:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.61 Mbit/s
95th percentile per-packet one-way delay: 329.882 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 324.046 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 34.49 Mbit/s
95th percentile per-packet one-way delay: 263.699 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 22.54 Mbit/s
95th percentile per-packet one-way delay: 458.637 ms
Loss rate: 4.64%
```

Run 3: Report of Verus — Data Link

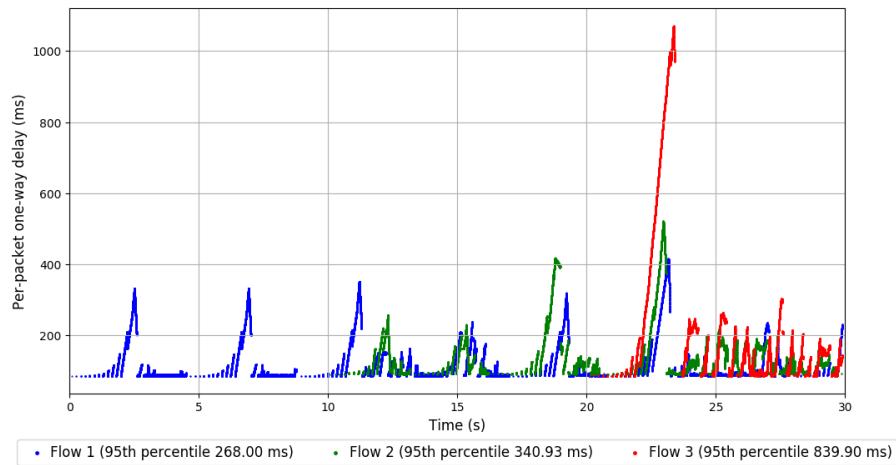
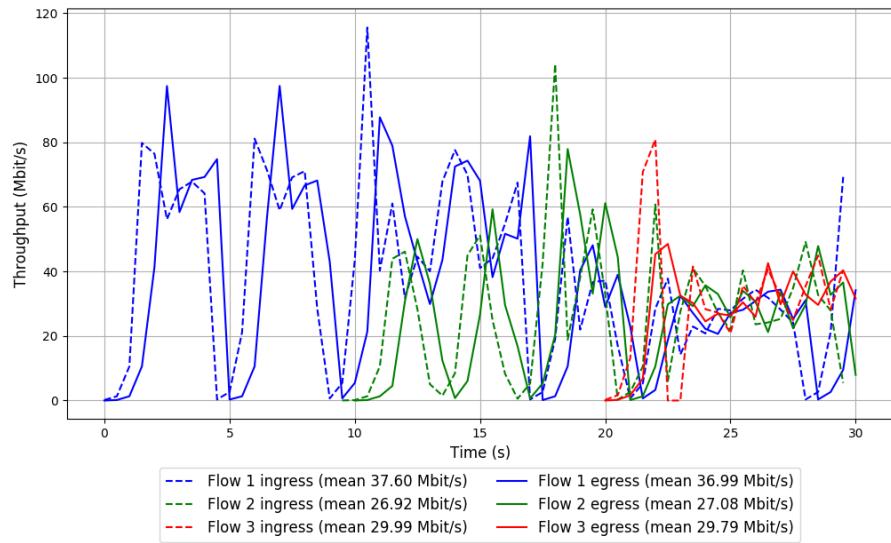


Run 4: Statistics of Verus

```
Start at: 2019-02-05 19:56:33
End at: 2019-02-05 19:57:03
Local clock offset: -2.815 ms
Remote clock offset: 7.501 ms

# Below is generated by plot.py at 2019-02-05 20:40:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.72 Mbit/s
95th percentile per-packet one-way delay: 305.587 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 268.005 ms
Loss rate: 2.19%
-- Flow 2:
Average throughput: 27.08 Mbit/s
95th percentile per-packet one-way delay: 340.934 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 29.79 Mbit/s
95th percentile per-packet one-way delay: 839.897 ms
Loss rate: 2.38%
```

## Run 4: Report of Verus — Data Link

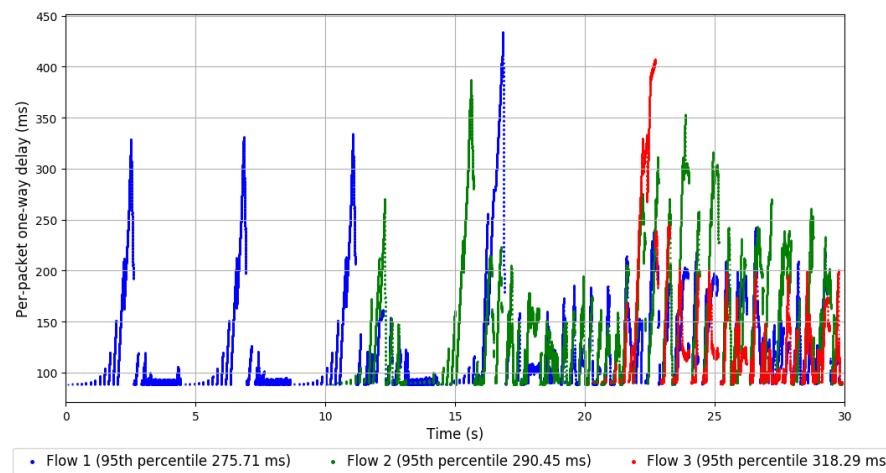
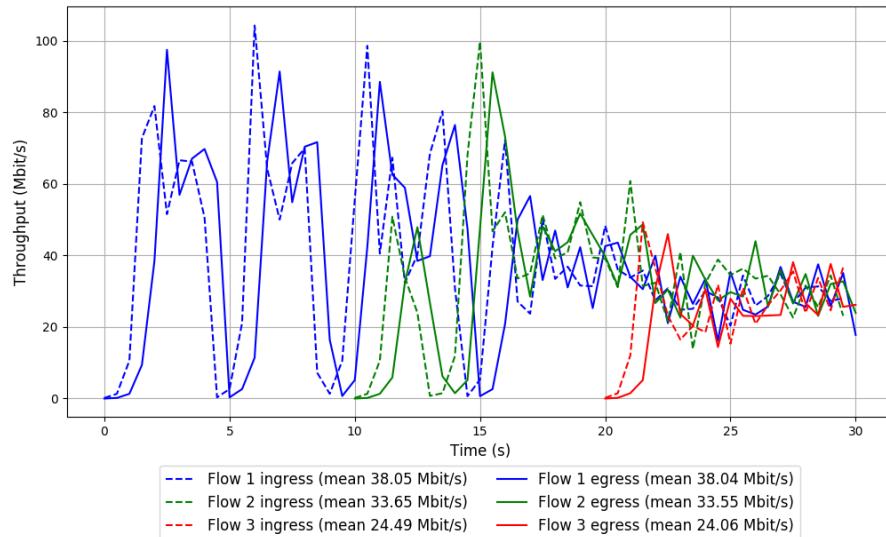


Run 5: Statistics of Verus

```
Start at: 2019-02-05 20:23:35
End at: 2019-02-05 20:24:05
Local clock offset: -5.003 ms
Remote clock offset: 4.972 ms

# Below is generated by plot.py at 2019-02-05 20:40:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.08 Mbit/s
95th percentile per-packet one-way delay: 286.988 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 38.04 Mbit/s
95th percentile per-packet one-way delay: 275.711 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 33.55 Mbit/s
95th percentile per-packet one-way delay: 290.446 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 318.286 ms
Loss rate: 3.46%
```

## Run 5: Report of Verus — Data Link

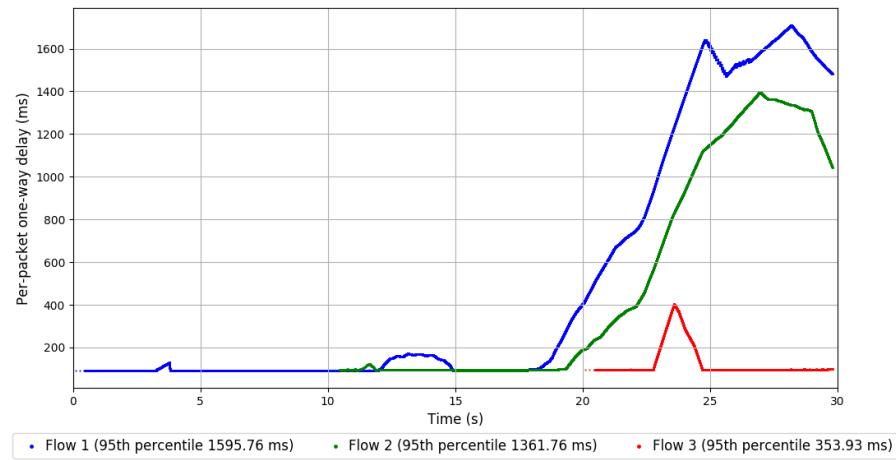
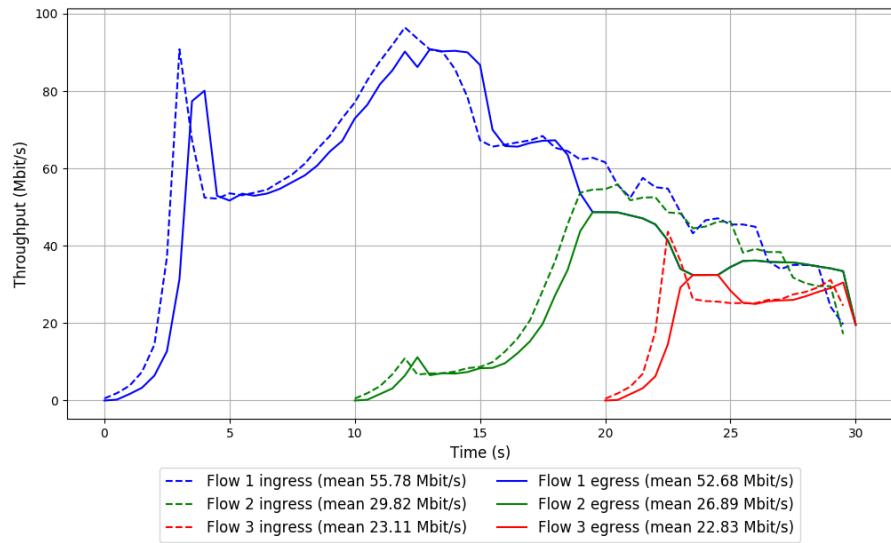


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-02-05 18:21:30
End at: 2019-02-05 18:22:00
Local clock offset: 0.951 ms
Remote clock offset: 0.678 ms

# Below is generated by plot.py at 2019-02-05 20:41:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.96 Mbit/s
95th percentile per-packet one-way delay: 1549.579 ms
Loss rate: 6.89%
-- Flow 1:
Average throughput: 52.68 Mbit/s
95th percentile per-packet one-way delay: 1595.756 ms
Loss rate: 6.10%
-- Flow 2:
Average throughput: 26.89 Mbit/s
95th percentile per-packet one-way delay: 1361.756 ms
Loss rate: 10.63%
-- Flow 3:
Average throughput: 22.83 Mbit/s
95th percentile per-packet one-way delay: 353.930 ms
Loss rate: 2.93%
```

Run 1: Report of PCC-Vivace — Data Link

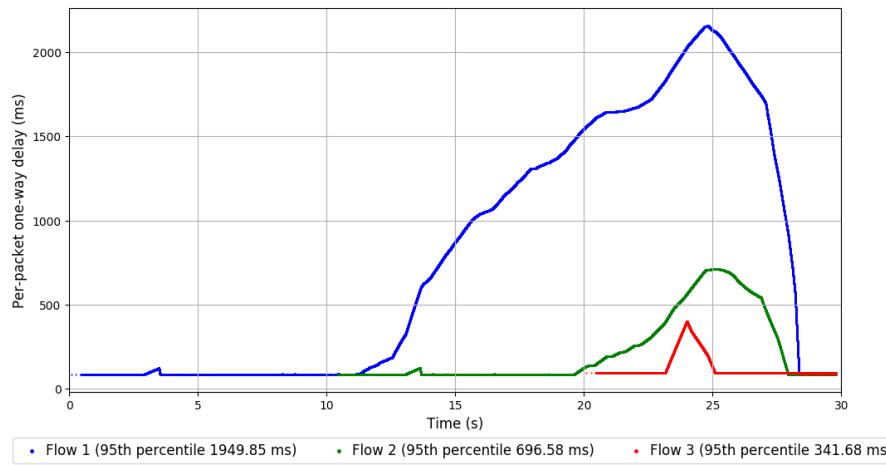
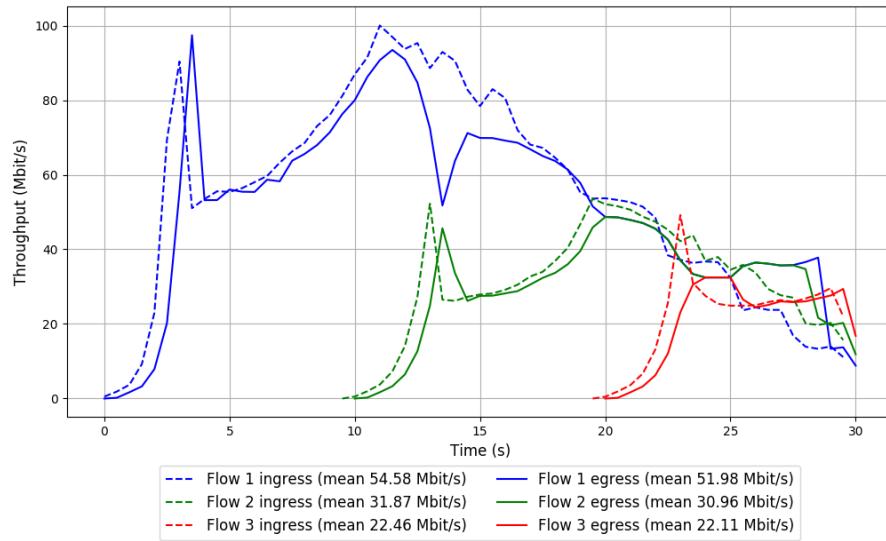


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-02-05 18:48:31
End at: 2019-02-05 18:49:01
Local clock offset: -1.025 ms
Remote clock offset: 7.843 ms

# Below is generated by plot.py at 2019-02-05 20:41:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 1809.875 ms
Loss rate: 4.72%
-- Flow 1:
Average throughput: 51.98 Mbit/s
95th percentile per-packet one-way delay: 1949.846 ms
Loss rate: 5.31%
-- Flow 2:
Average throughput: 30.96 Mbit/s
95th percentile per-packet one-way delay: 696.582 ms
Loss rate: 3.71%
-- Flow 3:
Average throughput: 22.11 Mbit/s
95th percentile per-packet one-way delay: 341.681 ms
Loss rate: 3.31%
```

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

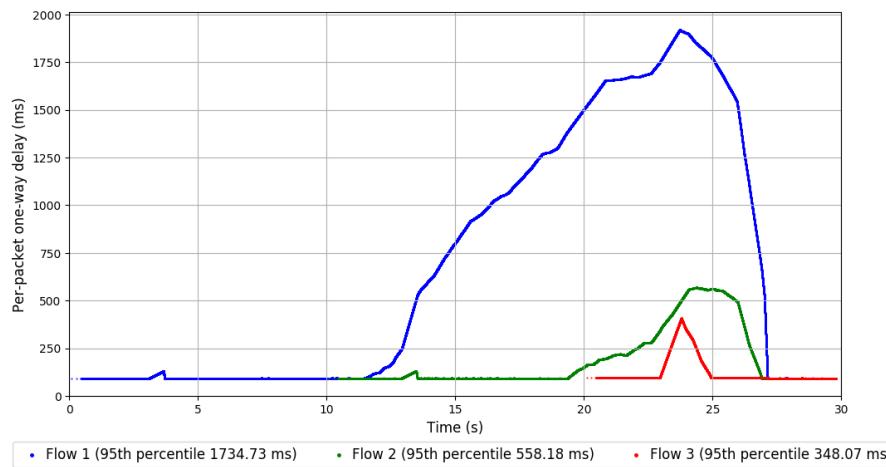
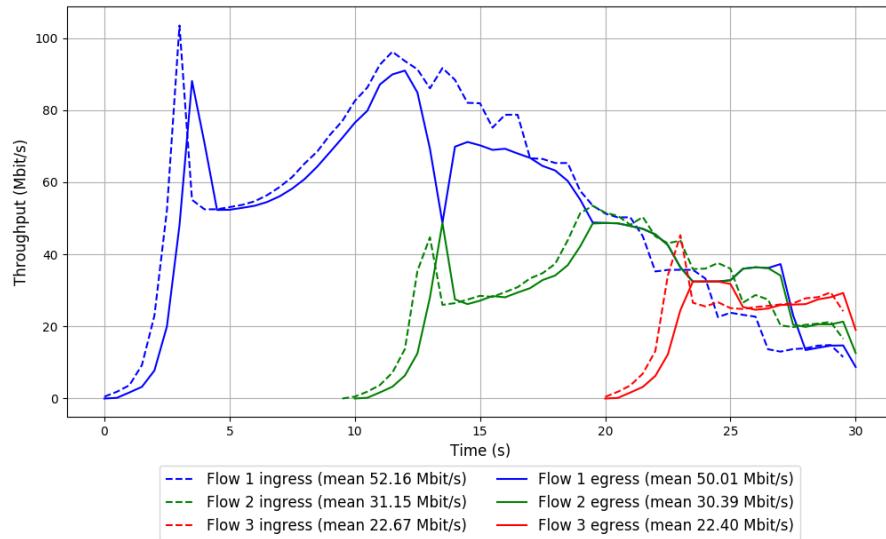


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-02-05 19:15:31
End at: 2019-02-05 19:16:01
Local clock offset: -1.138 ms
Remote clock offset: 2.674 ms

# Below is generated by plot.py at 2019-02-05 20:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.49 Mbit/s
95th percentile per-packet one-way delay: 1673.915 ms
Loss rate: 4.15%
-- Flow 1:
Average throughput: 50.01 Mbit/s
95th percentile per-packet one-way delay: 1734.732 ms
Loss rate: 4.67%
-- Flow 2:
Average throughput: 30.39 Mbit/s
95th percentile per-packet one-way delay: 558.176 ms
Loss rate: 3.27%
-- Flow 3:
Average throughput: 22.40 Mbit/s
95th percentile per-packet one-way delay: 348.066 ms
Loss rate: 2.93%
```

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

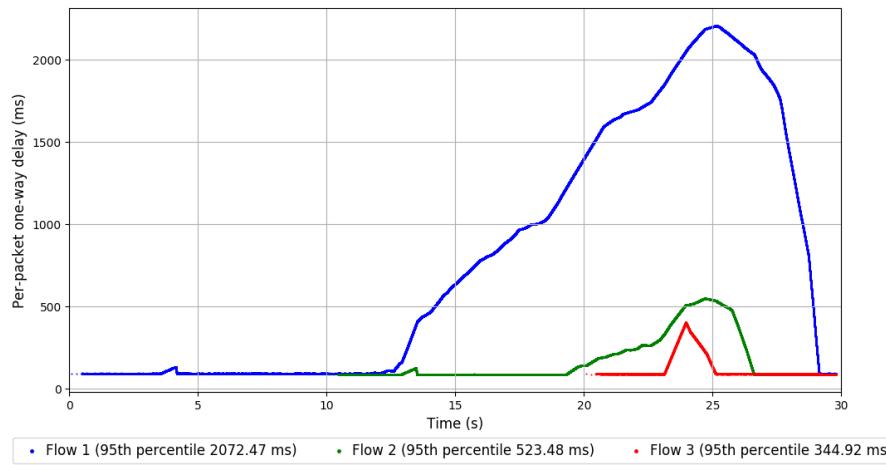
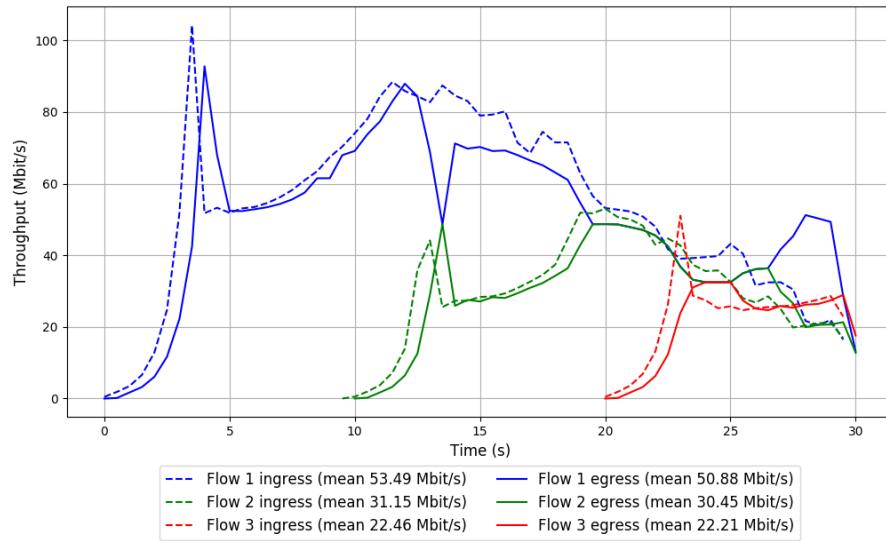


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-02-05 19:42:32
End at: 2019-02-05 19:43:02
Local clock offset: -2.076 ms
Remote clock offset: 6.076 ms

# Below is generated by plot.py at 2019-02-05 20:41:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.34 Mbit/s
95th percentile per-packet one-way delay: 1946.119 ms
Loss rate: 4.62%
-- Flow 1:
Average throughput: 50.88 Mbit/s
95th percentile per-packet one-way delay: 2072.470 ms
Loss rate: 5.45%
-- Flow 2:
Average throughput: 30.45 Mbit/s
95th percentile per-packet one-way delay: 523.479 ms
Loss rate: 3.11%
-- Flow 3:
Average throughput: 22.21 Mbit/s
95th percentile per-packet one-way delay: 344.918 ms
Loss rate: 2.87%
```

Run 4: Report of PCC-Vivace — Data Link

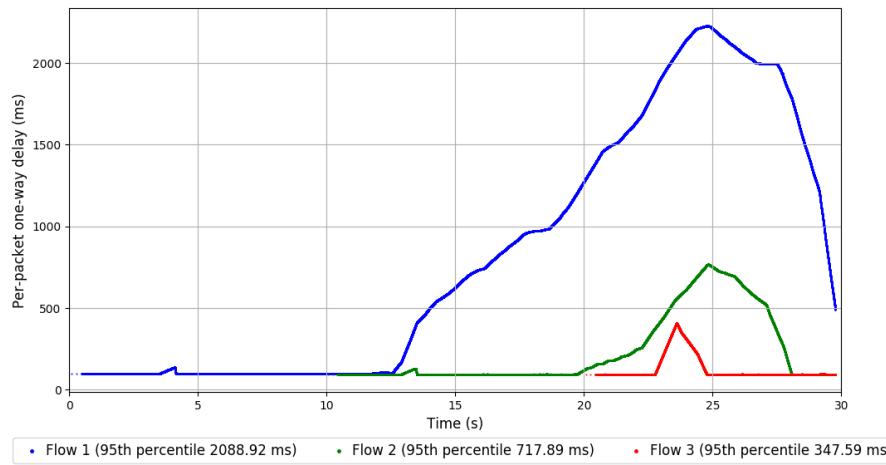
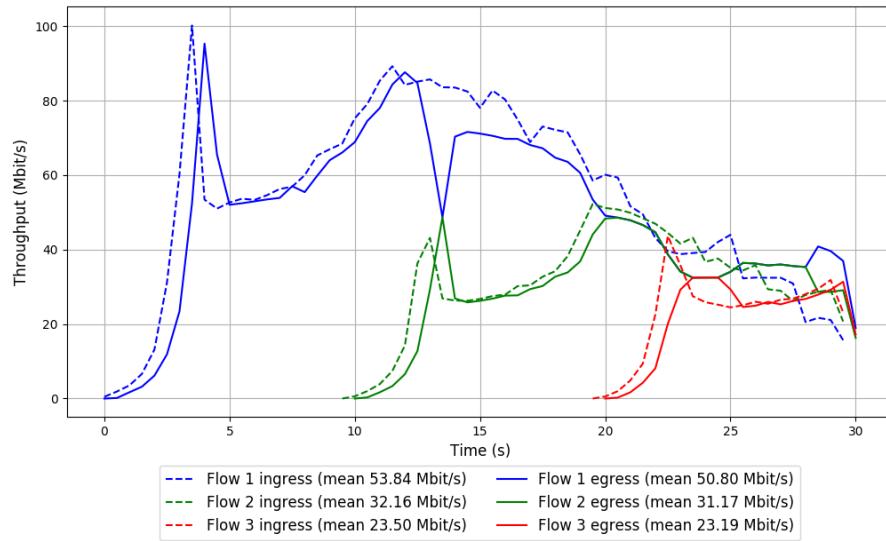


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-02-05 20:09:33
End at: 2019-02-05 20:10:03
Local clock offset: -1.883 ms
Remote clock offset: 1.231 ms

# Below is generated by plot.py at 2019-02-05 20:41:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.08 Mbit/s
95th percentile per-packet one-way delay: 1998.986 ms
Loss rate: 5.32%
-- Flow 1:
Average throughput: 50.80 Mbit/s
95th percentile per-packet one-way delay: 2088.916 ms
Loss rate: 6.20%
-- Flow 2:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 717.886 ms
Loss rate: 3.93%
-- Flow 3:
Average throughput: 23.19 Mbit/s
95th percentile per-packet one-way delay: 347.594 ms
Loss rate: 3.09%
```

Run 5: Report of PCC-Vivace — Data Link

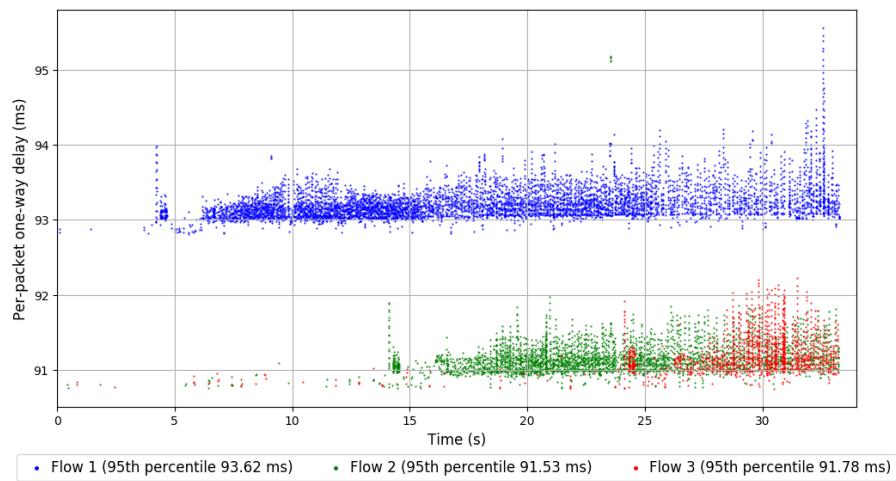
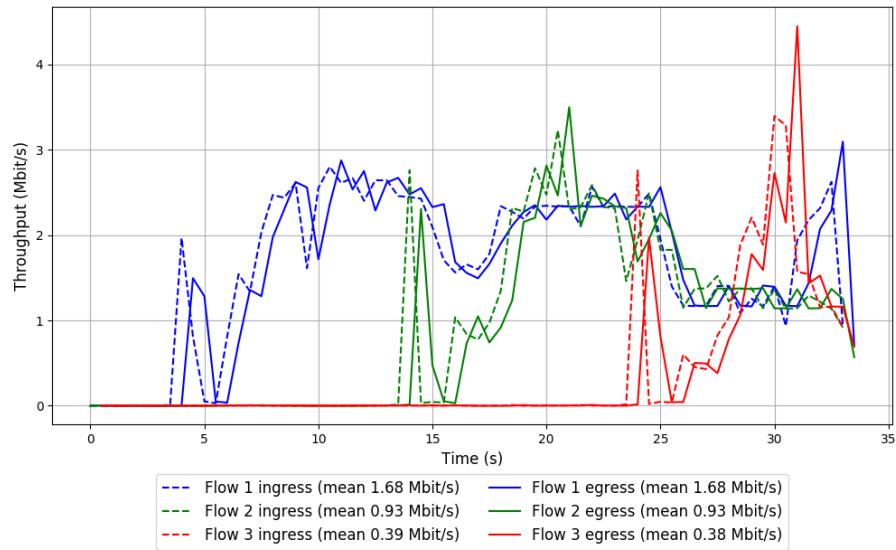


Run 1: Statistics of WebRTC media

```
Start at: 2019-02-05 18:33:00
End at: 2019-02-05 18:33:30
Local clock offset: -0.28 ms
Remote clock offset: 0.502 ms

# Below is generated by plot.py at 2019-02-05 20:41:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 93.519 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 93.624 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 91.527 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 91.784 ms
Loss rate: 1.82%
```

Run 1: Report of WebRTC media — Data Link

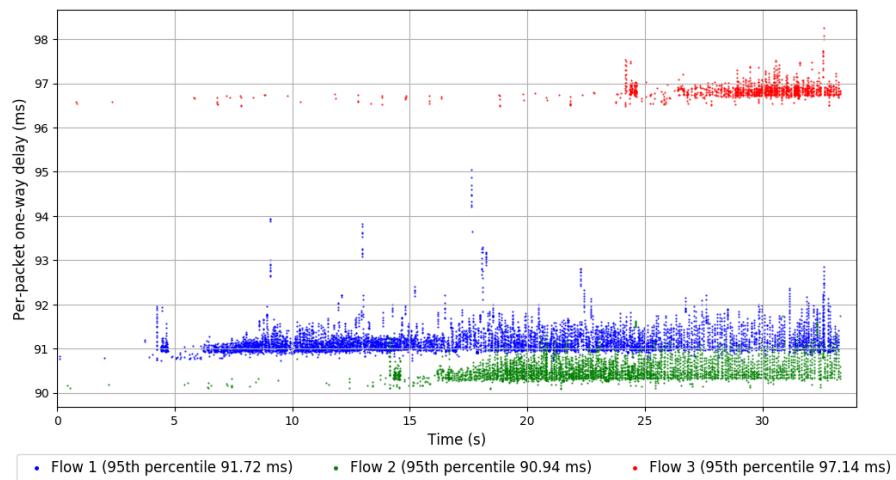
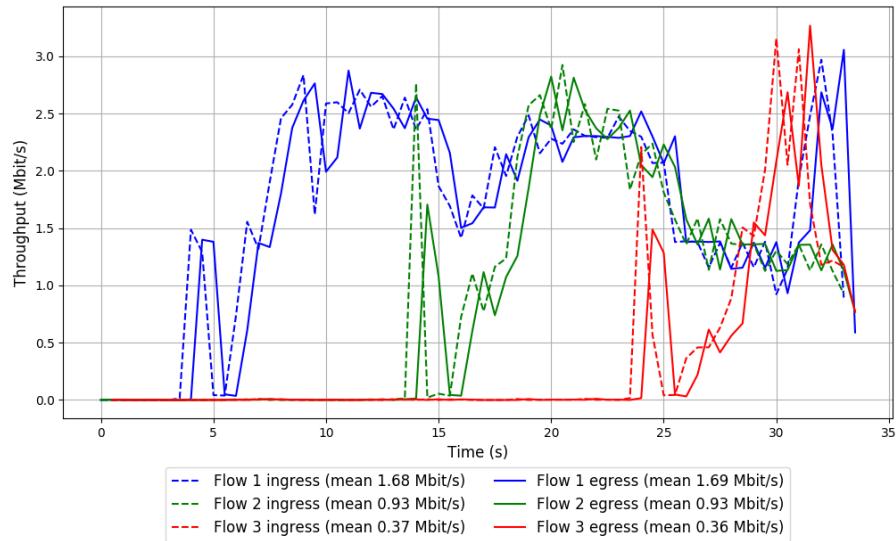


Run 2: Statistics of WebRTC media

```
Start at: 2019-02-05 19:00:01
End at: 2019-02-05 19:00:31
Local clock offset: -2.219 ms
Remote clock offset: 3.765 ms

# Below is generated by plot.py at 2019-02-05 20:41:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 96.847 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 91.721 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 90.938 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 97.135 ms
Loss rate: 2.56%
```

Run 2: Report of WebRTC media — Data Link

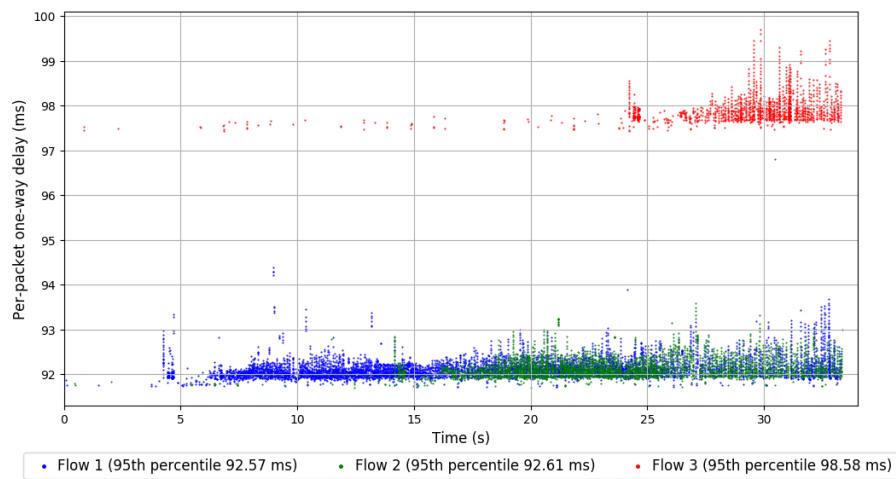
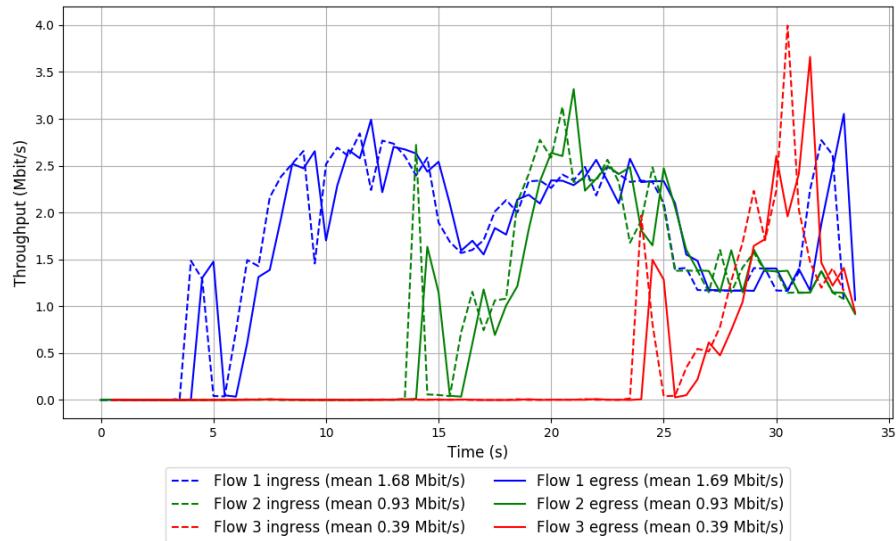


```
Run 3: Statistics of WebRTC media

Start at: 2019-02-05 19:27:02
End at: 2019-02-05 19:27:32
Local clock offset: -2.05 ms
Remote clock offset: 4.1 ms

# Below is generated by plot.py at 2019-02-05 20:41:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 97.921 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 92.566 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 92.615 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 98.575 ms
Loss rate: 1.81%
```

Run 3: Report of WebRTC media — Data Link

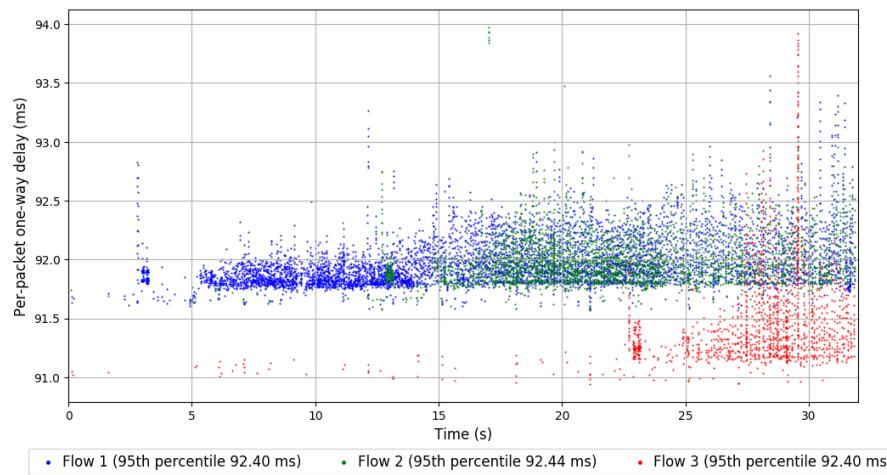
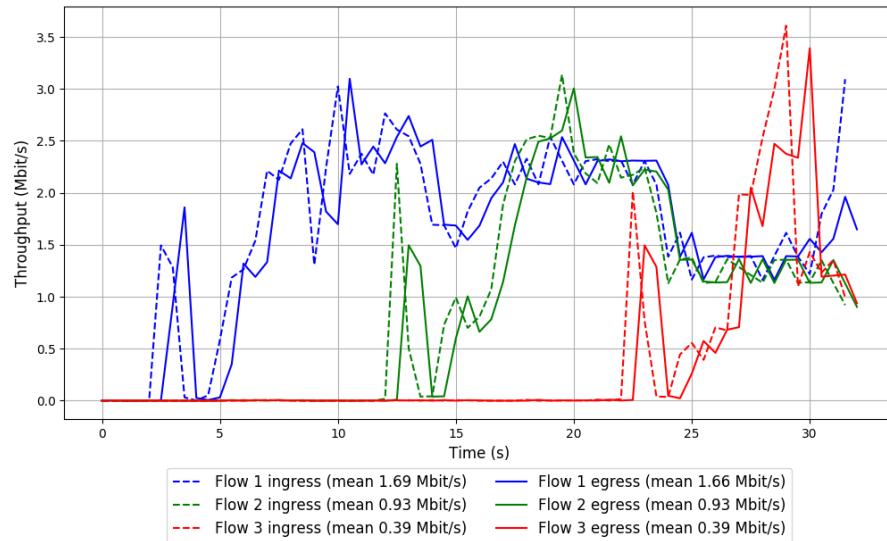


Run 4: Statistics of WebRTC media

```
Start at: 2019-02-05 19:54:03
End at: 2019-02-05 19:54:33
Local clock offset: -2.138 ms
Remote clock offset: 2.673 ms

# Below is generated by plot.py at 2019-02-05 20:41:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 92.414 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 92.401 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 92.439 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 92.403 ms
Loss rate: 1.88%
```

Run 4: Report of WebRTC media — Data Link



```
Run 5: Statistics of WebRTC media

Start at: 2019-02-05 20:21:04
End at: 2019-02-05 20:21:34
Local clock offset: -4.958 ms
Remote clock offset: 6.077 ms

# Below is generated by plot.py at 2019-02-05 20:41:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.99 Mbit/s
95th percentile per-packet one-way delay: 93.708 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 88.493 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 93.951 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 88.899 ms
Loss rate: 1.86%
```

Run 5: Report of WebRTC media — Data Link

