

Pantheon Report

Generated at 2019-01-25 21:40:18 (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:

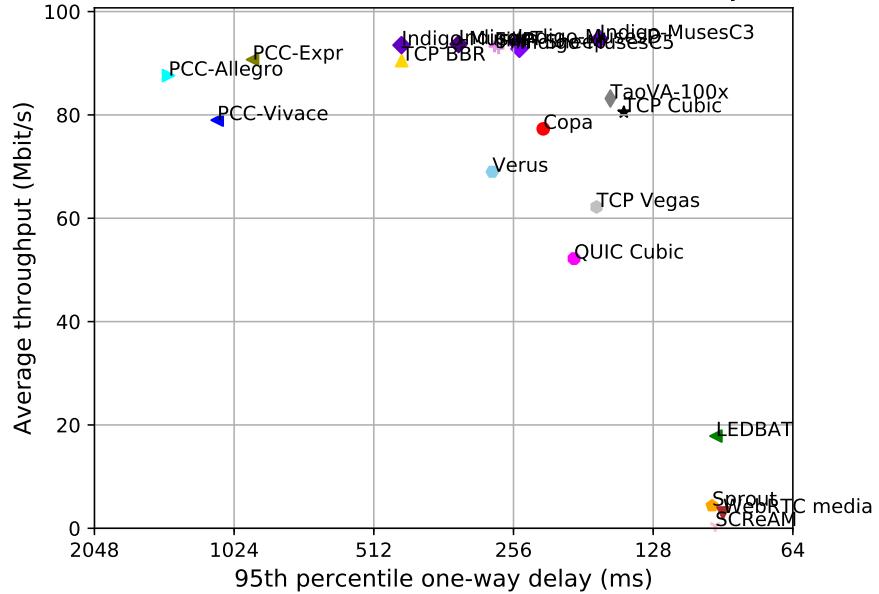
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

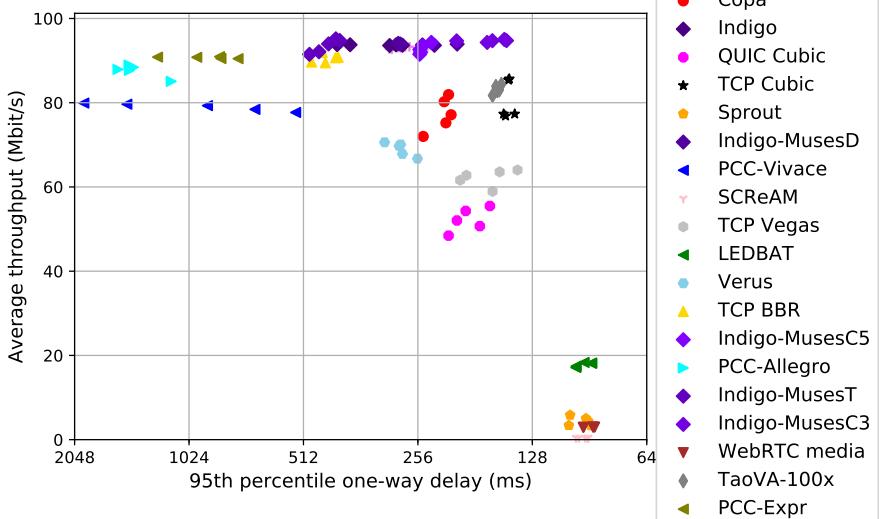
```
branch: muses @ 0b8e9a949603c3842368430acf469eec3b941f9f
third_party/fillp @ d6da1459332fceef56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ d9c5ea33091330aca25ecd105ab2db6d34d5c40d
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from Colombia to AWS Brazil 2, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from Colombia to AWS Brazil 2, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows



4

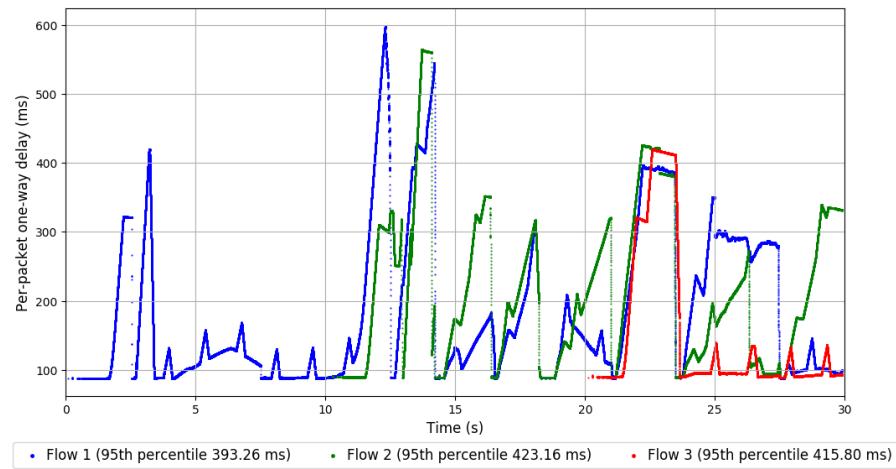
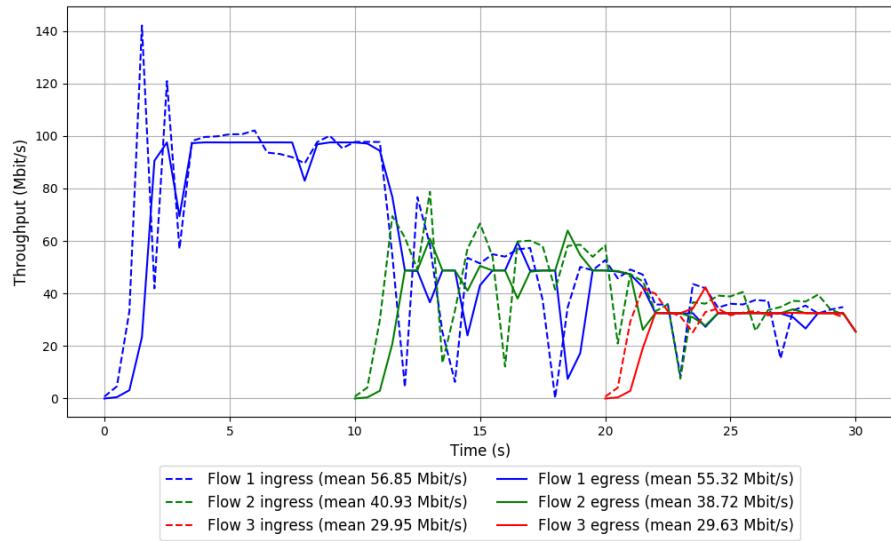
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	54.91	38.69	30.34	419.22	522.98	403.41	2.70	5.85	6.58
Copa	5	46.75	32.43	27.41	216.18	134.64	174.95	0.65	0.95	2.11
TCP Cubic	5	44.95	36.71	34.10	170.89	136.23	139.12	0.37	0.95	1.96
FillP	5	57.32	39.35	29.90	292.99	256.61	294.82	1.10	3.04	3.93
FillP-Sheep	5	57.06	39.01	30.25	291.77	223.69	315.96	1.02	1.86	3.53
Indigo	5	58.47	38.83	29.19	361.45	166.34	137.65	4.88	1.39	2.90
Indigo-MusesC3	5	60.35	40.04	30.36	149.88	215.19	162.10	1.97	2.02	3.15
Indigo-MusesC5	5	57.79	40.84	30.06	238.00	269.88	262.67	3.42	4.26	6.68
Indigo-MusesD	5	61.75	37.26	28.65	255.41	223.39	191.29	4.80	4.50	7.12
Indigo-MusesT	5	59.61	39.24	30.00	423.99	441.33	505.80	6.18	6.56	7.76
LEDBAT	5	11.48	7.74	3.78	93.82	92.98	91.60	1.17	1.75	3.54
PCC-Allegro	5	55.20	34.37	29.48	1364.59	1009.41	1458.74	25.46	13.92	21.34
PCC-Expr	5	56.51	38.52	26.45	943.23	861.00	245.39	26.18	5.73	3.30
QUIC Cubic	5	32.47	21.22	17.30	140.76	229.60	319.63	0.60	1.48	2.35
SCReAM	5	0.22	0.22	0.22	91.66	91.56	92.68	0.51	0.95	1.78
Sprout	5	2.71	1.41	2.29	94.34	90.89	93.39	0.89	0.89	2.17
TaoVA-100x	5	48.93	37.20	29.00	154.92	162.65	157.84	0.46	0.91	2.00
TCP Vegas	5	35.22	30.78	19.85	172.36	126.02	224.52	0.44	1.20	2.03
Verus	5	43.23	28.22	21.54	268.49	316.46	289.06	0.92	1.29	3.81
PCC-Vivace	5	50.67	31.56	22.64	1109.39	489.72	327.33	3.60	3.49	2.90
WebRTC media	5	1.69	0.92	0.38	89.21	89.27	90.74	0.31	0.75	1.51

Run 1: Statistics of TCP BBR

```
Start at: 2019-01-25 19:28:02
End at: 2019-01-25 19:28:32
Local clock offset: -7.727 ms
Remote clock offset: 5.366 ms

# Below is generated by plot.py at 2019-01-25 21:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 414.894 ms
Loss rate: 4.06%
-- Flow 1:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 393.265 ms
Loss rate: 3.24%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 423.160 ms
Loss rate: 6.22%
-- Flow 3:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 415.798 ms
Loss rate: 2.78%
```

Run 1: Report of TCP BBR — Data Link

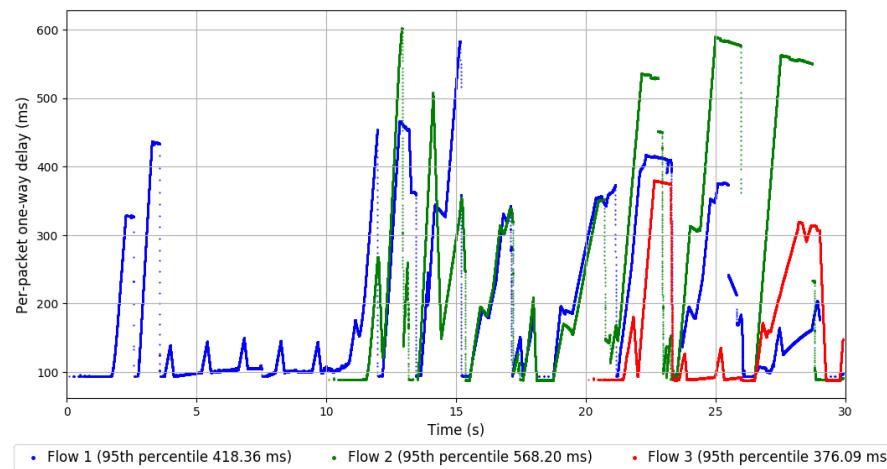
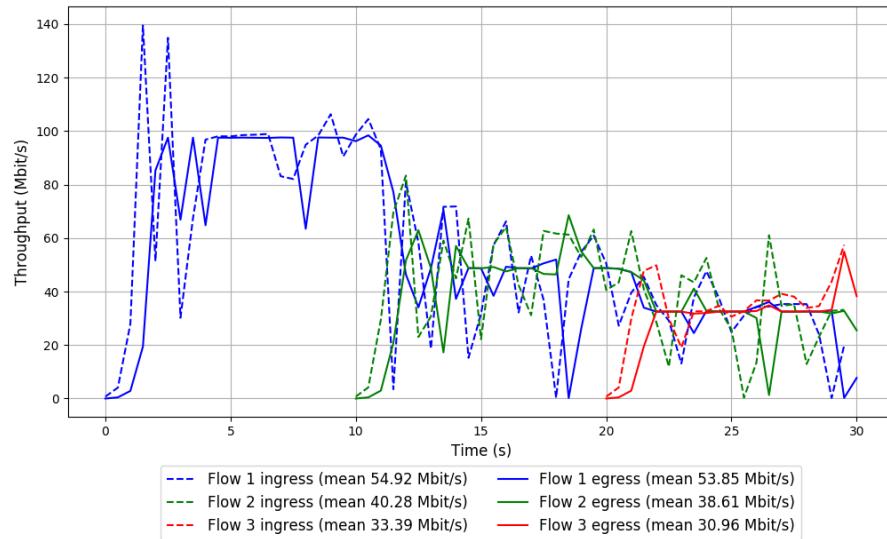


Run 2: Statistics of TCP BBR

```
Start at: 2019-01-25 19:55:00
End at: 2019-01-25 19:55:30
Local clock offset: -7.154 ms
Remote clock offset: 7.029 ms

# Below is generated by plot.py at 2019-01-25 21:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.66 Mbit/s
95th percentile per-packet one-way delay: 487.485 ms
Loss rate: 3.99%
-- Flow 1:
Average throughput: 53.85 Mbit/s
95th percentile per-packet one-way delay: 418.362 ms
Loss rate: 2.53%
-- Flow 2:
Average throughput: 38.61 Mbit/s
95th percentile per-packet one-way delay: 568.203 ms
Loss rate: 4.97%
-- Flow 3:
Average throughput: 30.96 Mbit/s
95th percentile per-packet one-way delay: 376.091 ms
Loss rate: 8.89%
```

Run 2: Report of TCP BBR — Data Link

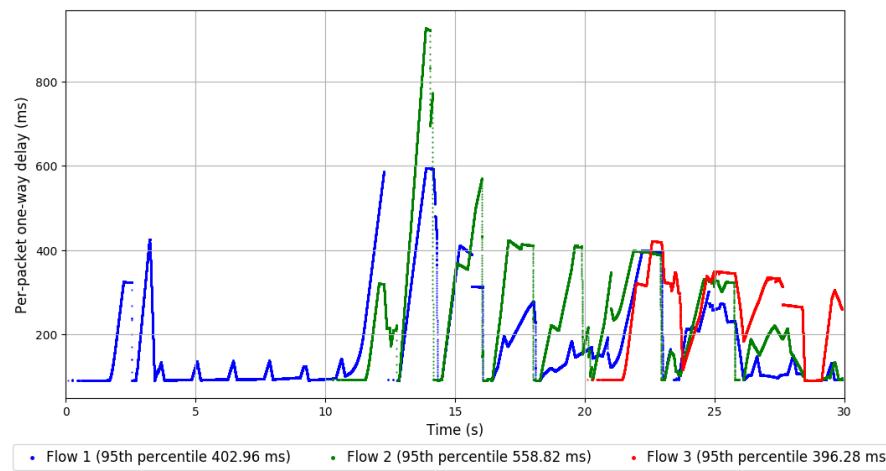
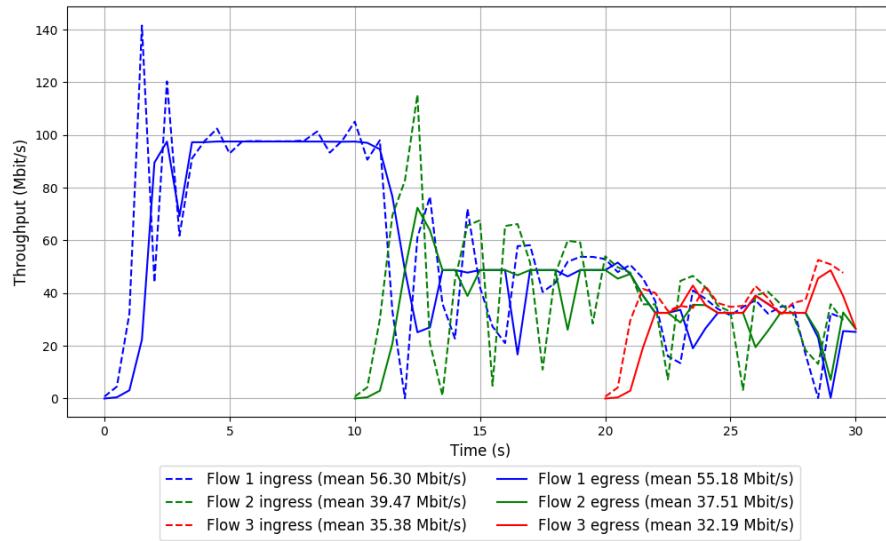


Run 3: Statistics of TCP BBR

```
Start at: 2019-01-25 20:21:57
End at: 2019-01-25 20:22:27
Local clock offset: -2.259 ms
Remote clock offset: 1.646 ms

# Below is generated by plot.py at 2019-01-25 21:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 421.440 ms
Loss rate: 4.45%
-- Flow 1:
Average throughput: 55.18 Mbit/s
95th percentile per-packet one-way delay: 402.962 ms
Loss rate: 2.55%
-- Flow 2:
Average throughput: 37.51 Mbit/s
95th percentile per-packet one-way delay: 558.819 ms
Loss rate: 5.78%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 396.280 ms
Loss rate: 10.59%
```

Run 3: Report of TCP BBR — Data Link

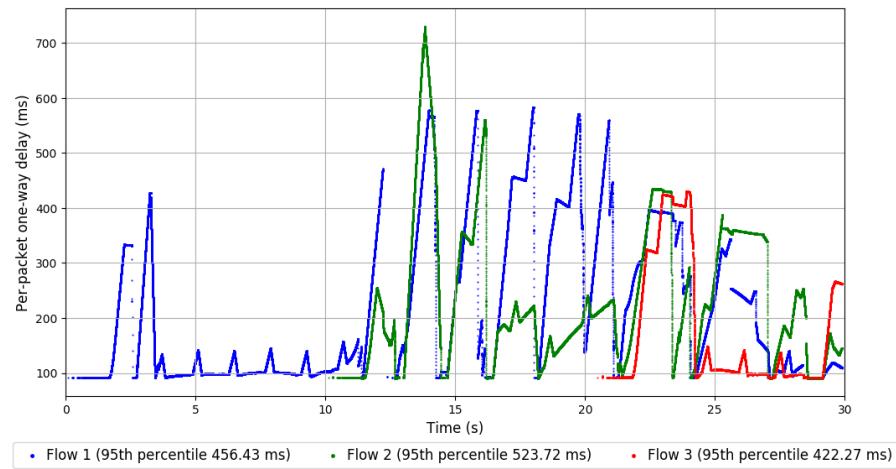
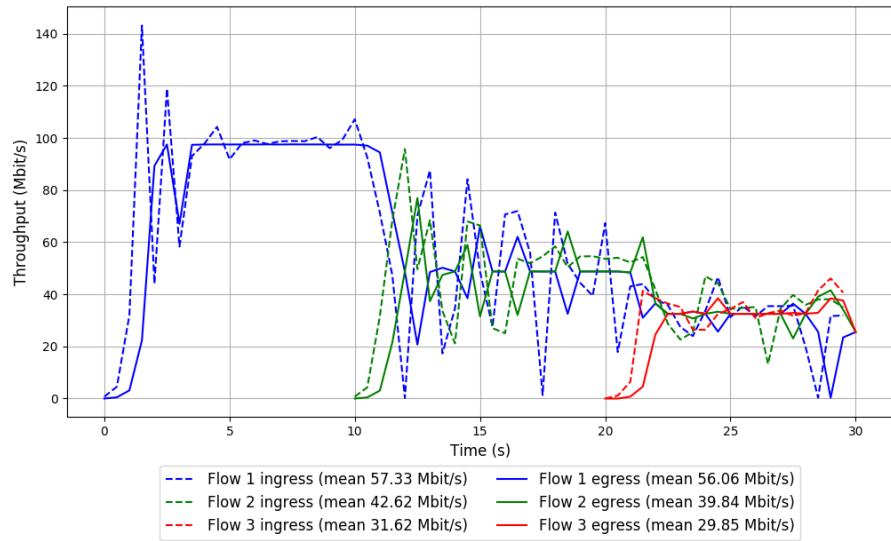


Run 4: Statistics of TCP BBR

```
Start at: 2019-01-25 20:48:56
End at: 2019-01-25 20:49:26
Local clock offset: -3.108 ms
Remote clock offset: 1.882 ms

# Below is generated by plot.py at 2019-01-25 21:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.93 Mbit/s
95th percentile per-packet one-way delay: 456.784 ms
Loss rate: 4.61%
-- Flow 1:
Average throughput: 56.06 Mbit/s
95th percentile per-packet one-way delay: 456.430 ms
Loss rate: 2.79%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 523.724 ms
Loss rate: 7.32%
-- Flow 3:
Average throughput: 29.85 Mbit/s
95th percentile per-packet one-way delay: 422.269 ms
Loss rate: 7.29%
```

Run 4: Report of TCP BBR — Data Link

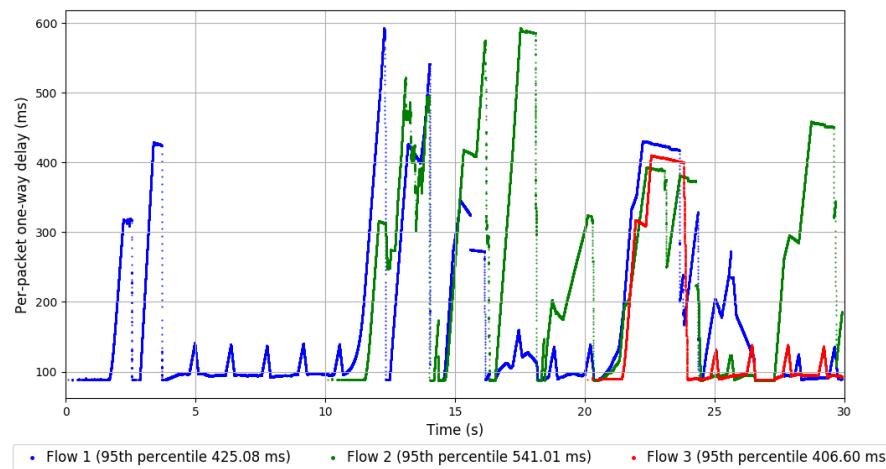
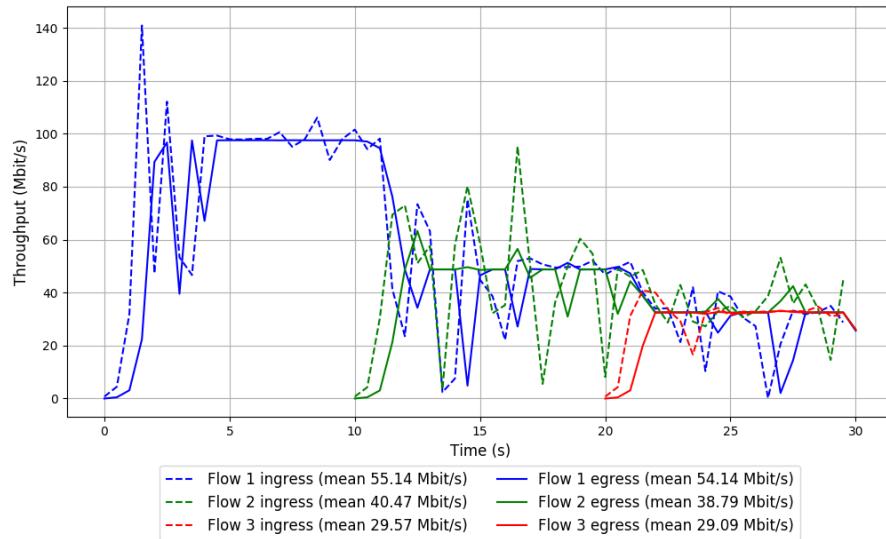


Run 5: Statistics of TCP BBR

```
Start at: 2019-01-25 21:15:56
End at: 2019-01-25 21:16:26
Local clock offset: -6.798 ms
Remote clock offset: 6.295 ms

# Below is generated by plot.py at 2019-01-25 21:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.47 Mbit/s
95th percentile per-packet one-way delay: 448.340 ms
Loss rate: 3.24%
-- Flow 1:
Average throughput: 54.14 Mbit/s
95th percentile per-packet one-way delay: 425.083 ms
Loss rate: 2.38%
-- Flow 2:
Average throughput: 38.79 Mbit/s
95th percentile per-packet one-way delay: 541.014 ms
Loss rate: 4.98%
-- Flow 3:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 406.597 ms
Loss rate: 3.34%
```

Run 5: Report of TCP BBR — Data Link

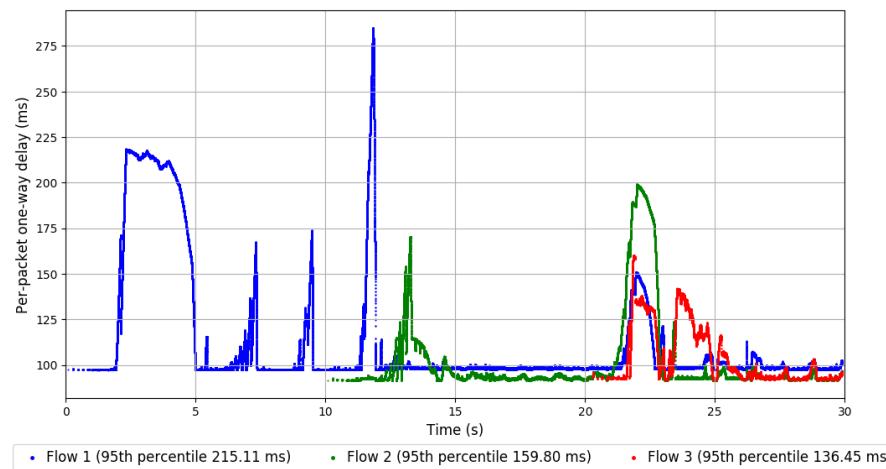
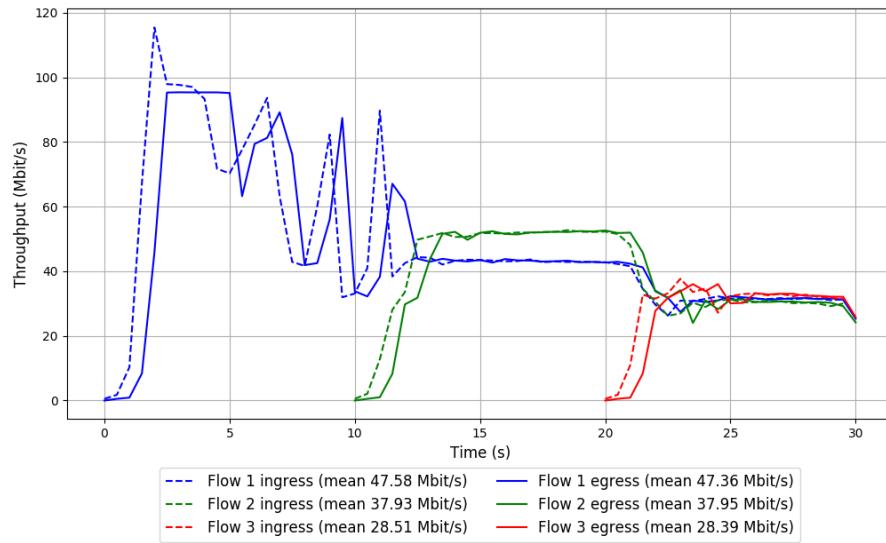


Run 1: Statistics of Copa

```
Start at: 2019-01-25 19:13:52
End at: 2019-01-25 19:14:22
Local clock offset: -6.632 ms
Remote clock offset: 2.115 ms

# Below is generated by plot.py at 2019-01-25 21:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.92 Mbit/s
95th percentile per-packet one-way delay: 212.603 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 47.36 Mbit/s
95th percentile per-packet one-way delay: 215.112 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 37.95 Mbit/s
95th percentile per-packet one-way delay: 159.804 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 28.39 Mbit/s
95th percentile per-packet one-way delay: 136.449 ms
Loss rate: 2.12%
```

Run 1: Report of Copa — Data Link

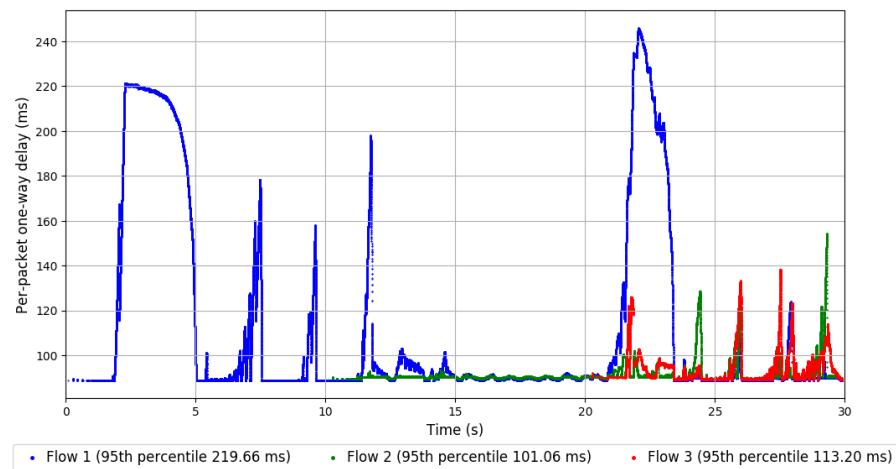
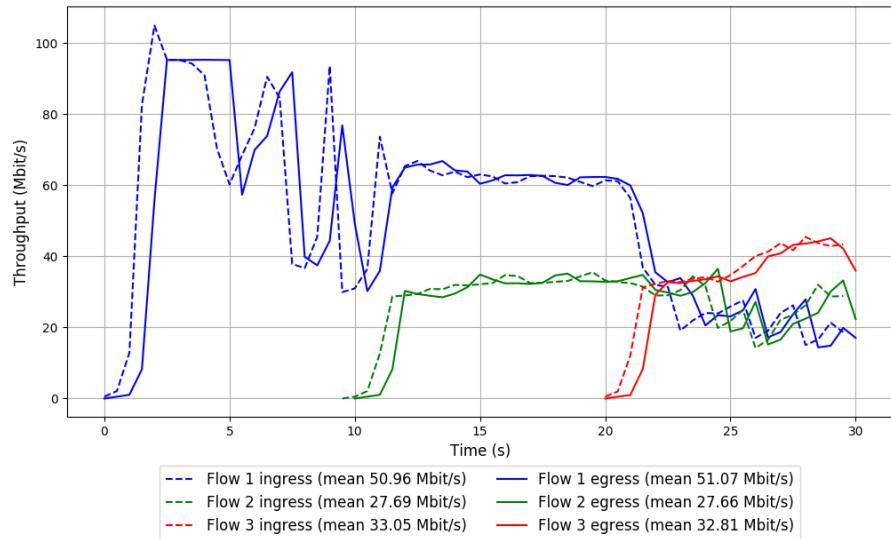


Run 2: Statistics of Copa

```
Start at: 2019-01-25 19:40:51
End at: 2019-01-25 19:41:21
Local clock offset: -6.308 ms
Remote clock offset: 5.837 ms

# Below is generated by plot.py at 2019-01-25 21:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.24 Mbit/s
95th percentile per-packet one-way delay: 218.286 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 51.07 Mbit/s
95th percentile per-packet one-way delay: 219.658 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 27.66 Mbit/s
95th percentile per-packet one-way delay: 101.064 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 32.81 Mbit/s
95th percentile per-packet one-way delay: 113.202 ms
Loss rate: 2.43%
```

Run 2: Report of Copa — Data Link

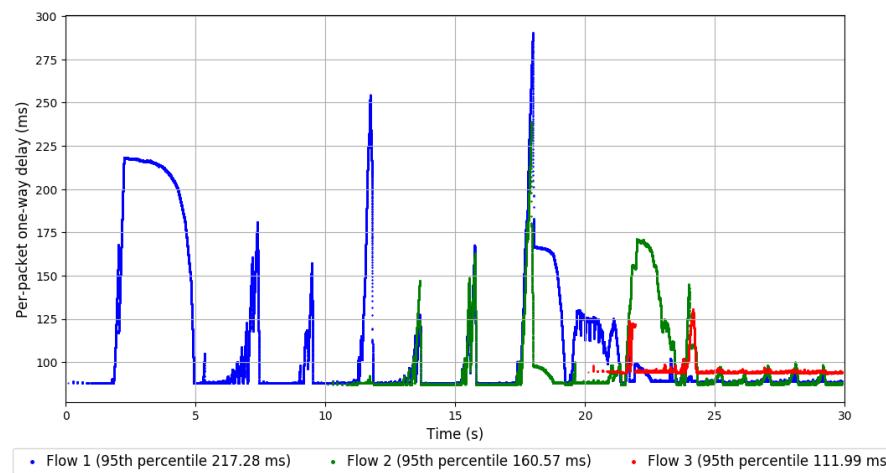
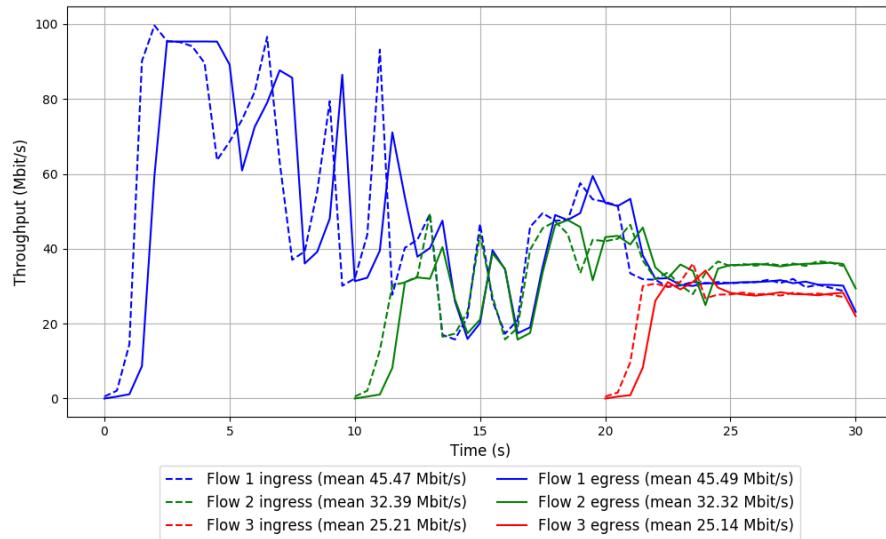


Run 3: Statistics of Copa

```
Start at: 2019-01-25 20:07:48
End at: 2019-01-25 20:08:18
Local clock offset: -3.446 ms
Remote clock offset: 5.875 ms

# Below is generated by plot.py at 2019-01-25 21:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.22 Mbit/s
95th percentile per-packet one-way delay: 216.095 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 45.49 Mbit/s
95th percentile per-packet one-way delay: 217.282 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 32.32 Mbit/s
95th percentile per-packet one-way delay: 160.571 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 25.14 Mbit/s
95th percentile per-packet one-way delay: 111.987 ms
Loss rate: 2.03%
```

Run 3: Report of Copa — Data Link

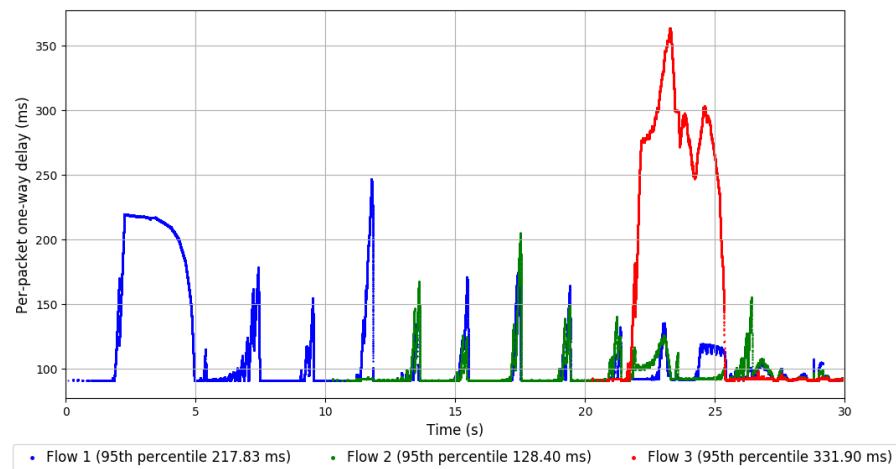
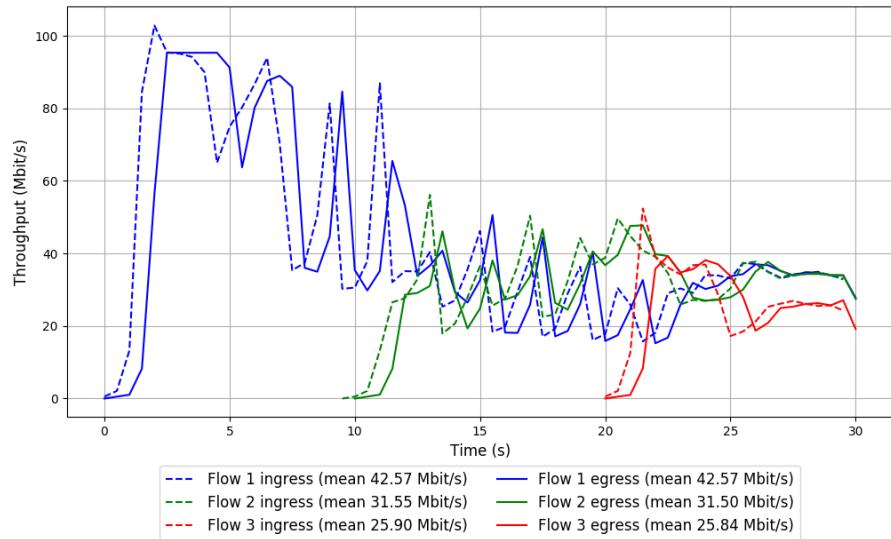


Run 4: Statistics of Copa

```
Start at: 2019-01-25 20:34:48
End at: 2019-01-25 20:35:18
Local clock offset: -2.49 ms
Remote clock offset: 1.884 ms

# Below is generated by plot.py at 2019-01-25 21:30:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.00 Mbit/s
95th percentile per-packet one-way delay: 247.885 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 42.57 Mbit/s
95th percentile per-packet one-way delay: 217.832 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 31.50 Mbit/s
95th percentile per-packet one-way delay: 128.402 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 25.84 Mbit/s
95th percentile per-packet one-way delay: 331.902 ms
Loss rate: 1.95%
```

Run 4: Report of Copa — Data Link

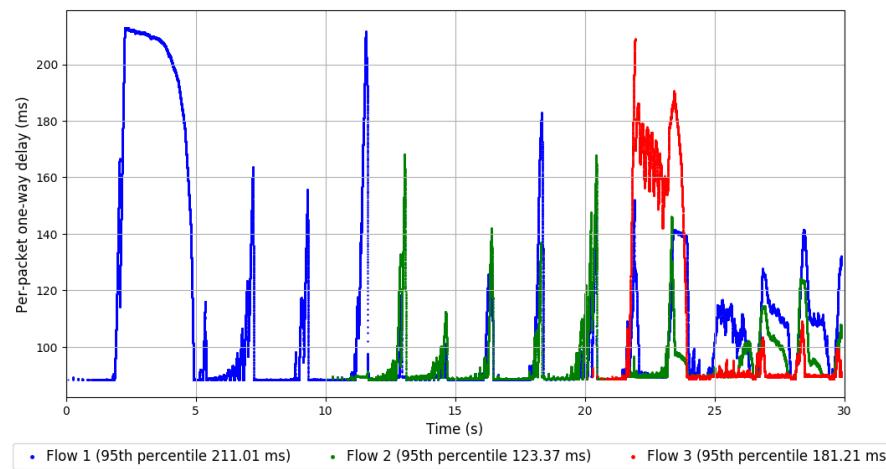
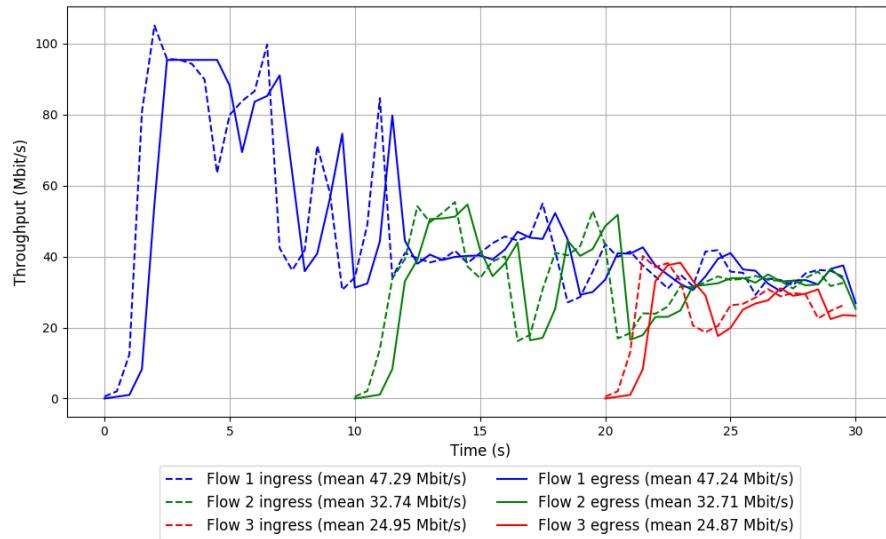


Run 5: Statistics of Copa

```
Start at: 2019-01-25 21:01:46
End at: 2019-01-25 21:02:16
Local clock offset: -3.549 ms
Remote clock offset: 5.415 ms

# Below is generated by plot.py at 2019-01-25 21:30:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.14 Mbit/s
95th percentile per-packet one-way delay: 209.364 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 47.24 Mbit/s
95th percentile per-packet one-way delay: 211.013 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 32.71 Mbit/s
95th percentile per-packet one-way delay: 123.370 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 181.212 ms
Loss rate: 2.03%
```

Run 5: Report of Copa — Data Link

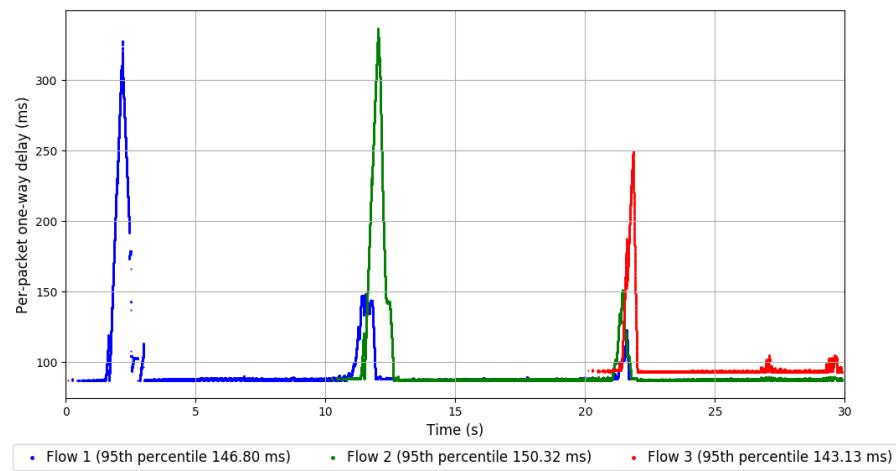
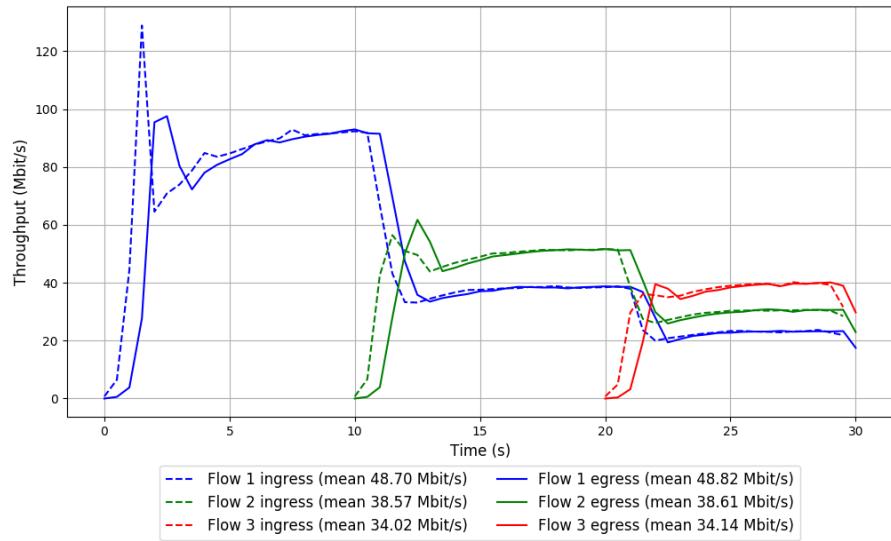


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-01-25 19:21:39
End at: 2019-01-25 19:22:09
Local clock offset: -6.54 ms
Remote clock offset: 7.265 ms

# Below is generated by plot.py at 2019-01-25 21:30:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.68 Mbit/s
95th percentile per-packet one-way delay: 147.155 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 48.82 Mbit/s
95th percentile per-packet one-way delay: 146.800 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 38.61 Mbit/s
95th percentile per-packet one-way delay: 150.323 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 143.132 ms
Loss rate: 1.43%
```

Run 1: Report of TCP Cubic — Data Link

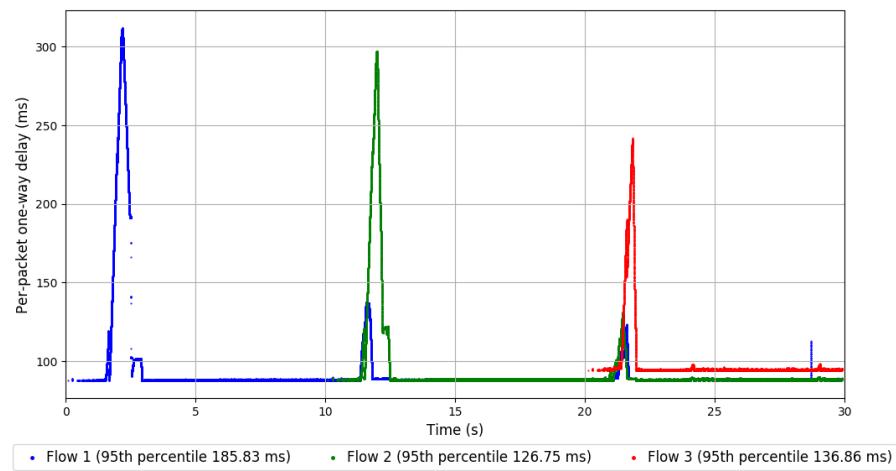
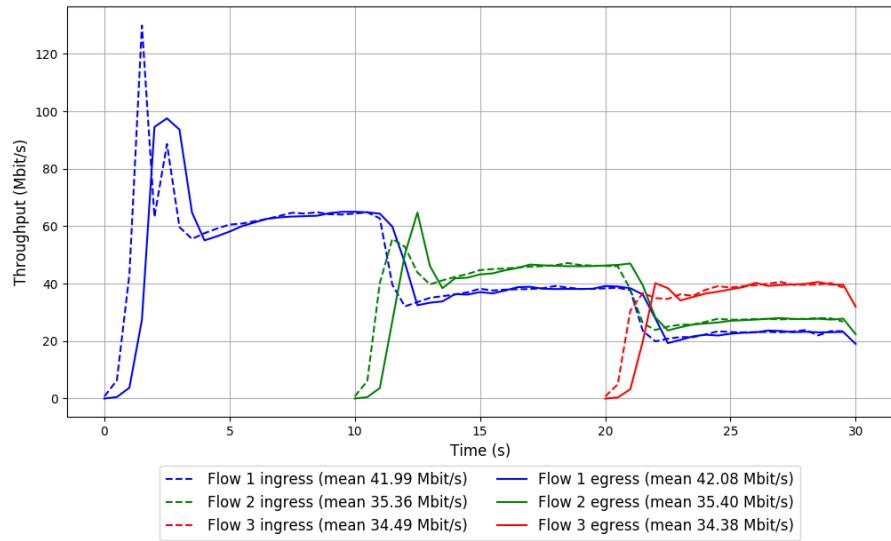


Run 2: Statistics of TCP Cubic

```
Start at: 2019-01-25 19:48:38
End at: 2019-01-25 19:49:08
Local clock offset: -6.292 ms
Remote clock offset: 6.79 ms

# Below is generated by plot.py at 2019-01-25 21:30:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.87 Mbit/s
95th percentile per-packet one-way delay: 150.528 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 42.08 Mbit/s
95th percentile per-packet one-way delay: 185.826 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 35.40 Mbit/s
95th percentile per-packet one-way delay: 126.748 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 34.38 Mbit/s
95th percentile per-packet one-way delay: 136.860 ms
Loss rate: 2.11%
```

Run 2: Report of TCP Cubic — Data Link

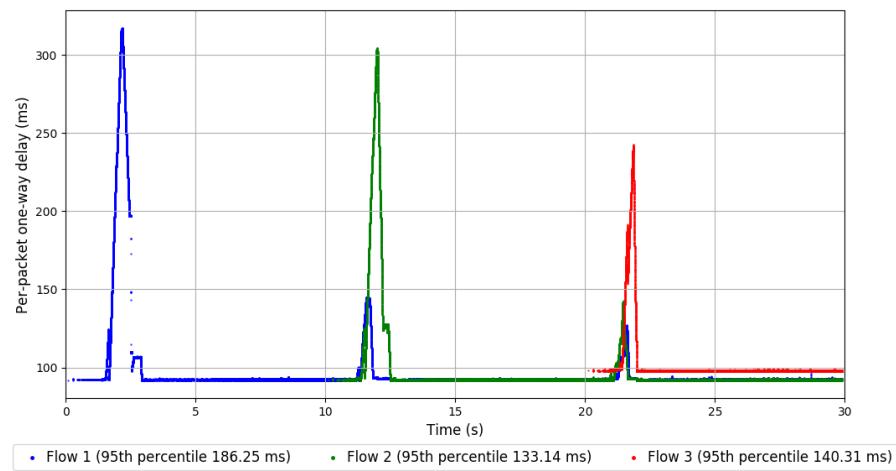
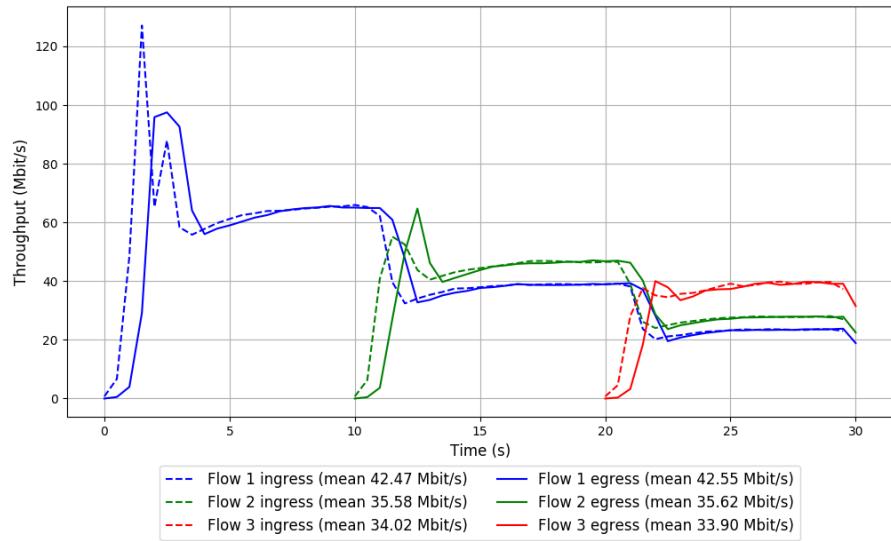


Run 3: Statistics of TCP Cubic

```
Start at: 2019-01-25 20:15:35
End at: 2019-01-25 20:16:05
Local clock offset: -2.034 ms
Remote clock offset: 1.946 ms

# Below is generated by plot.py at 2019-01-25 21:30:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.34 Mbit/s
95th percentile per-packet one-way delay: 152.325 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 42.55 Mbit/s
95th percentile per-packet one-way delay: 186.250 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 35.62 Mbit/s
95th percentile per-packet one-way delay: 133.142 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 33.90 Mbit/s
95th percentile per-packet one-way delay: 140.315 ms
Loss rate: 2.14%
```

Run 3: Report of TCP Cubic — Data Link

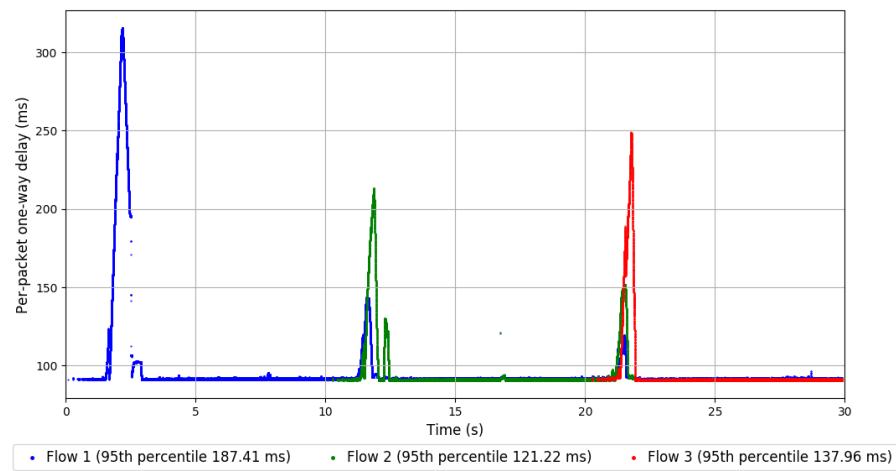
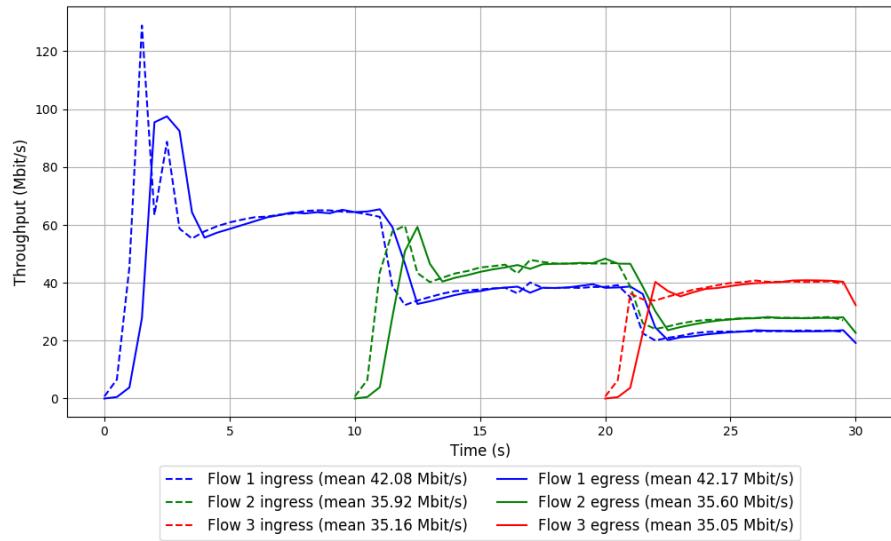


Run 4: Statistics of TCP Cubic

```
Start at: 2019-01-25 20:42:34
End at: 2019-01-25 20:43:04
Local clock offset: -3.003 ms
Remote clock offset: 1.903 ms

# Below is generated by plot.py at 2019-01-25 21:30:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.34 Mbit/s
95th percentile per-packet one-way delay: 142.412 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 42.17 Mbit/s
95th percentile per-packet one-way delay: 187.406 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 35.60 Mbit/s
95th percentile per-packet one-way delay: 121.218 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 35.05 Mbit/s
95th percentile per-packet one-way delay: 137.964 ms
Loss rate: 2.03%
```

Run 4: Report of TCP Cubic — Data Link

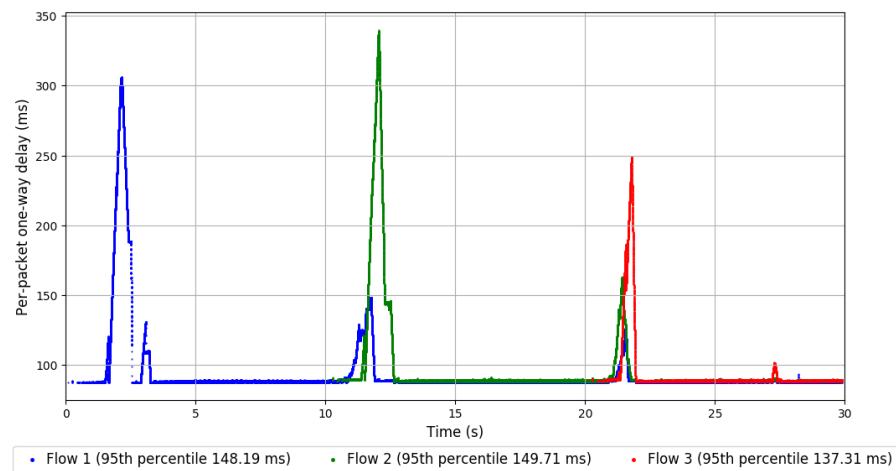
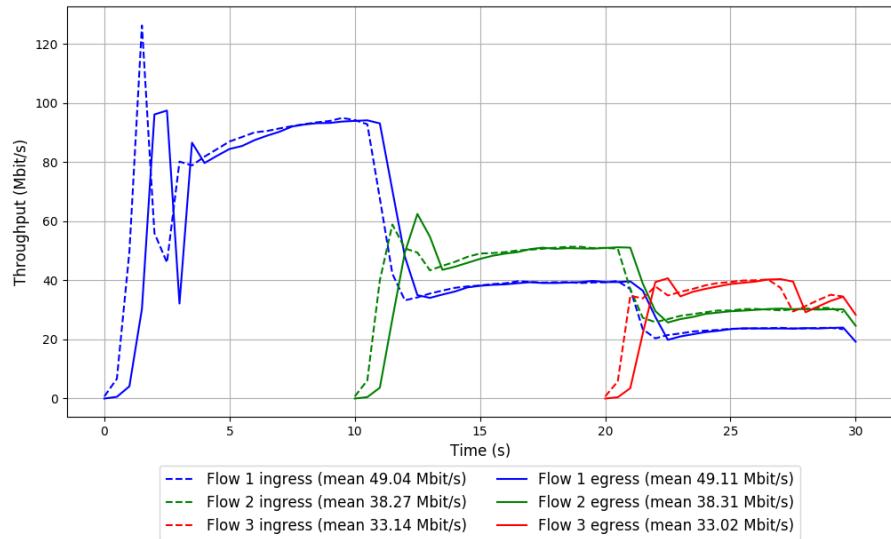


Run 5: Statistics of TCP Cubic

```
Start at: 2019-01-25 21:09:33
End at: 2019-01-25 21:10:03
Local clock offset: -5.765 ms
Remote clock offset: 5.87 ms

# Below is generated by plot.py at 2019-01-25 21:30:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.39 Mbit/s
95th percentile per-packet one-way delay: 147.938 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 49.11 Mbit/s
95th percentile per-packet one-way delay: 148.186 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 38.31 Mbit/s
95th percentile per-packet one-way delay: 149.708 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 33.02 Mbit/s
95th percentile per-packet one-way delay: 137.310 ms
Loss rate: 2.07%
```

Run 5: Report of TCP Cubic — Data Link

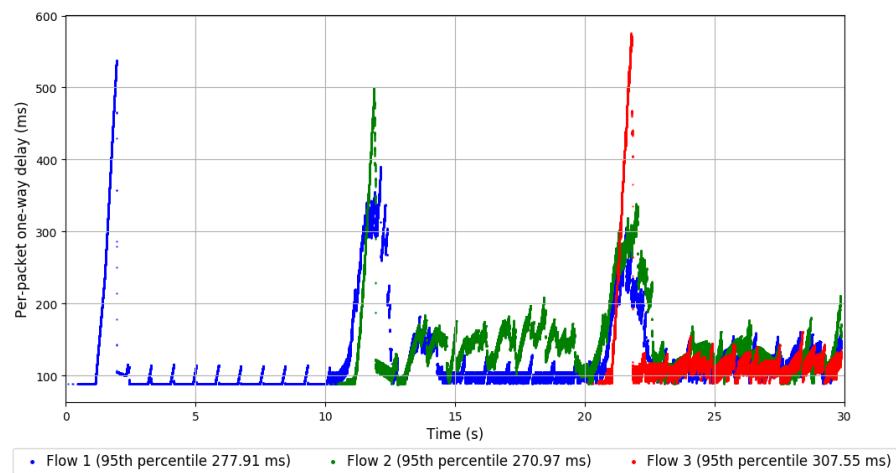
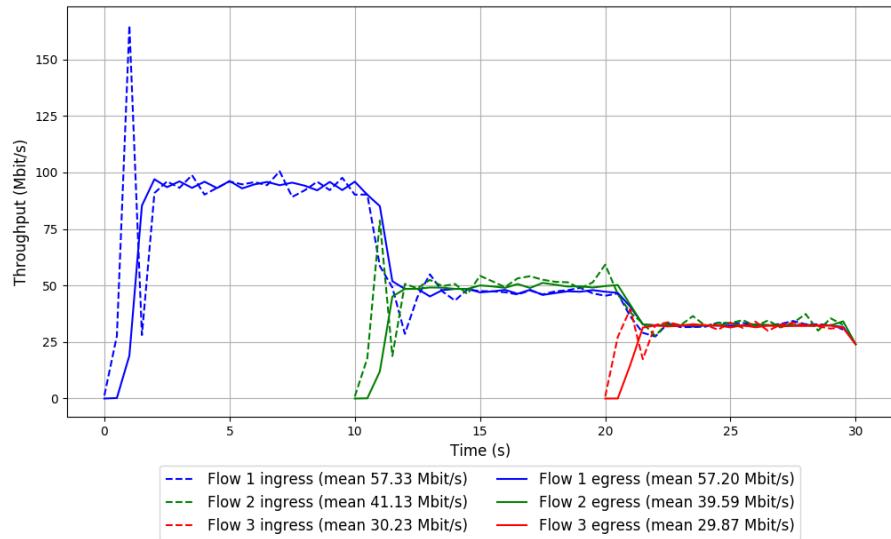


```
Run 1: Statistics of FillP

Start at: 2019-01-25 19:16:33
End at: 2019-01-25 19:17:03
Local clock offset: -6.119 ms
Remote clock offset: 6.236 ms

# Below is generated by plot.py at 2019-01-25 21:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 276.437 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 57.20 Mbit/s
95th percentile per-packet one-way delay: 277.907 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 39.59 Mbit/s
95th percentile per-packet one-way delay: 270.972 ms
Loss rate: 4.53%
-- Flow 3:
Average throughput: 29.87 Mbit/s
95th percentile per-packet one-way delay: 307.551 ms
Loss rate: 2.89%
```

Run 1: Report of FillP — Data Link

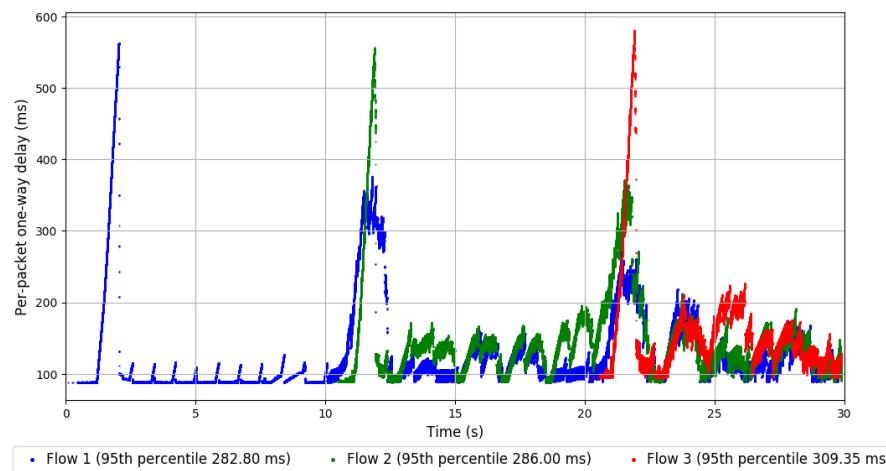
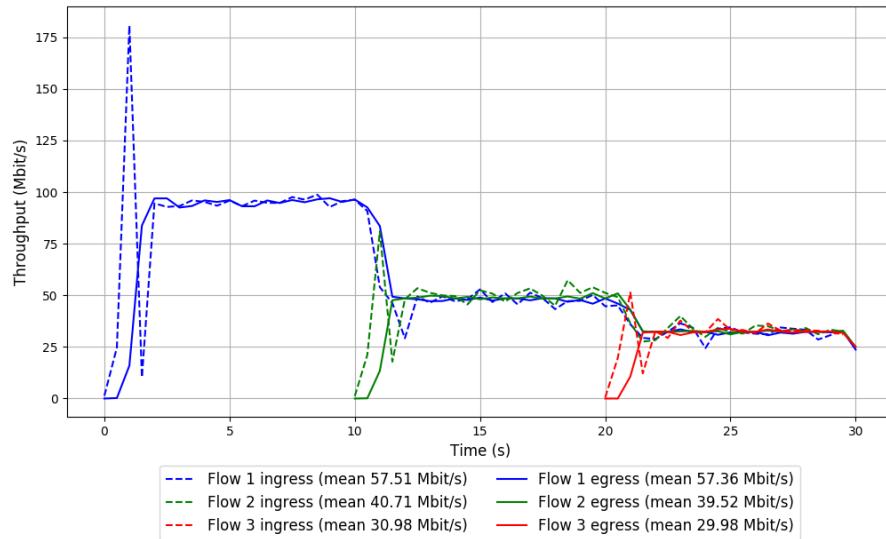


Run 2: Statistics of FillP

```
Start at: 2019-01-25 19:43:32
End at: 2019-01-25 19:44:02
Local clock offset: -6.287 ms
Remote clock offset: 6.8 ms

# Below is generated by plot.py at 2019-01-25 21:30:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.44 Mbit/s
95th percentile per-packet one-way delay: 285.421 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 57.36 Mbit/s
95th percentile per-packet one-way delay: 282.796 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 39.52 Mbit/s
95th percentile per-packet one-way delay: 286.005 ms
Loss rate: 3.76%
-- Flow 3:
Average throughput: 29.98 Mbit/s
95th percentile per-packet one-way delay: 309.346 ms
Loss rate: 4.87%
```

Run 2: Report of FillP — Data Link

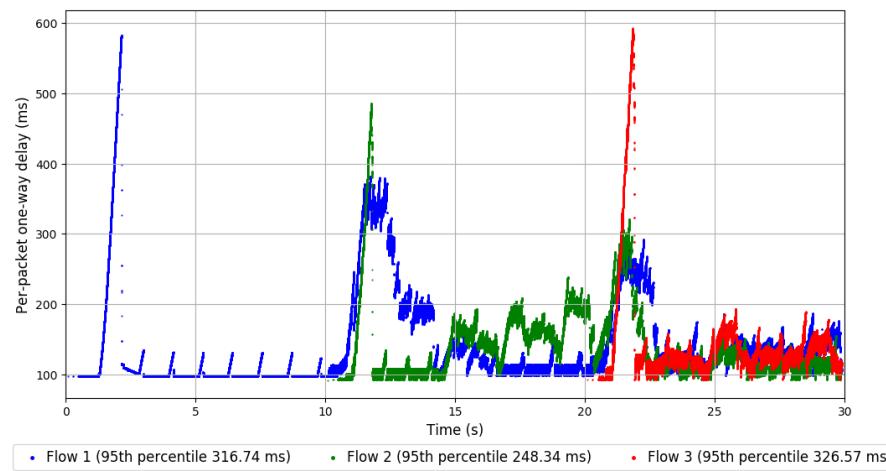
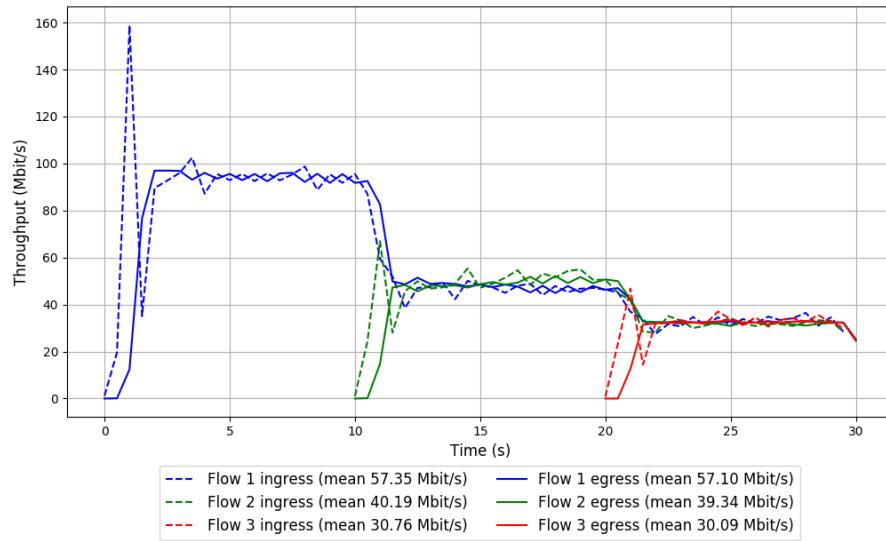


Run 3: Statistics of FillP

```
Start at: 2019-01-25 20:10:29
End at: 2019-01-25 20:10:59
Local clock offset: -2.791 ms
Remote clock offset: 2.244 ms

# Below is generated by plot.py at 2019-01-25 21:30:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.12 Mbit/s
95th percentile per-packet one-way delay: 289.014 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 57.10 Mbit/s
95th percentile per-packet one-way delay: 316.743 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 39.34 Mbit/s
95th percentile per-packet one-way delay: 248.344 ms
Loss rate: 2.90%
-- Flow 3:
Average throughput: 30.09 Mbit/s
95th percentile per-packet one-way delay: 326.569 ms
Loss rate: 3.88%
```

Run 3: Report of FillP — Data Link

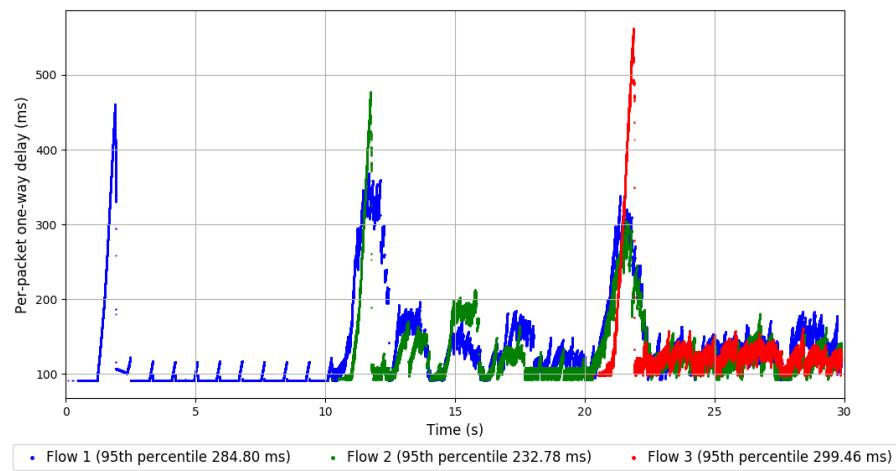
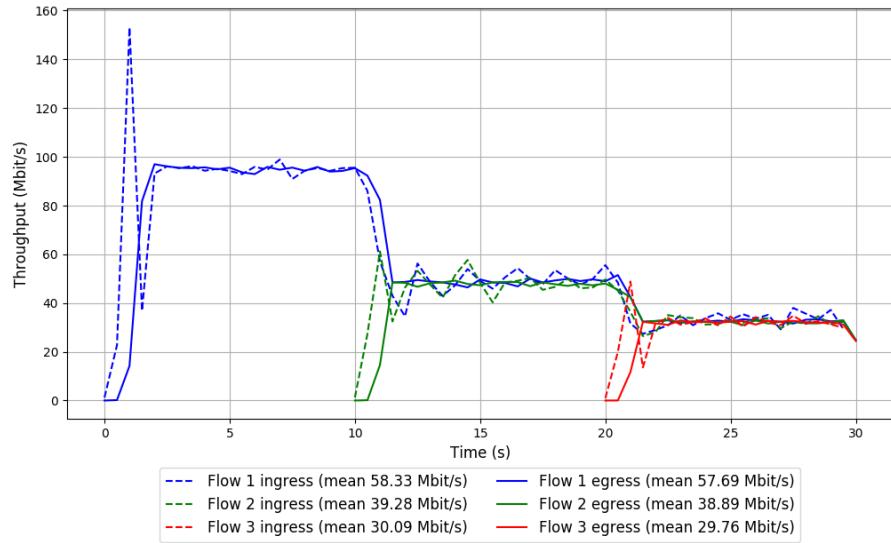


Run 4: Statistics of FillP

```
Start at: 2019-01-25 20:37:28
End at: 2019-01-25 20:37:58
Local clock offset: -2.727 ms
Remote clock offset: 1.654 ms

# Below is generated by plot.py at 2019-01-25 21:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 269.413 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 57.69 Mbit/s
95th percentile per-packet one-way delay: 284.802 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 38.89 Mbit/s
95th percentile per-packet one-way delay: 232.780 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 29.76 Mbit/s
95th percentile per-packet one-way delay: 299.462 ms
Loss rate: 2.84%
```

Run 4: Report of FillP — Data Link

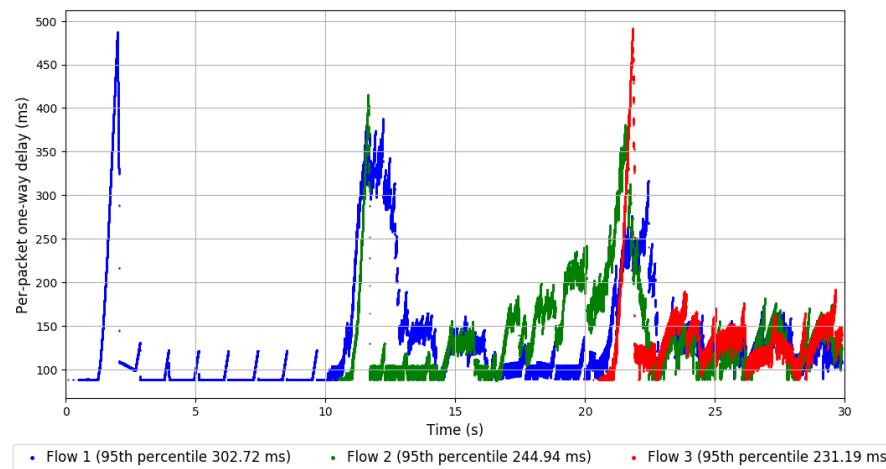
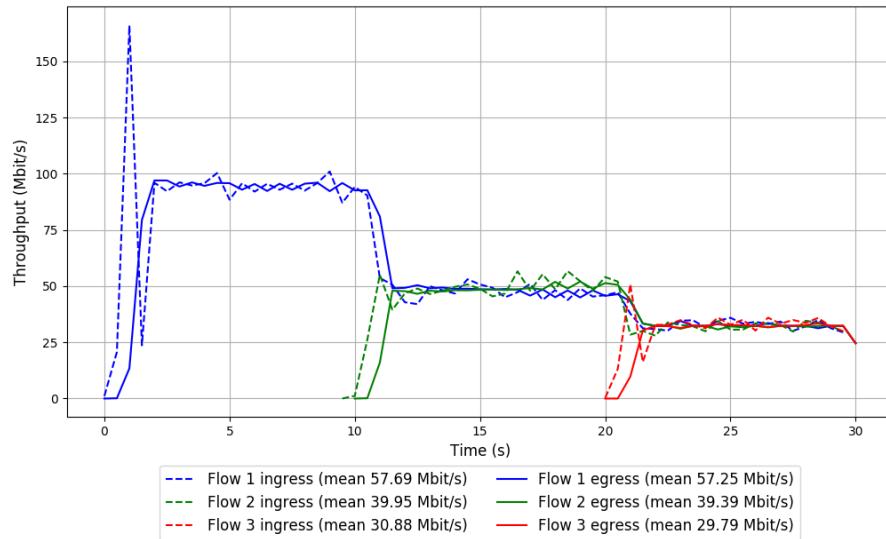


Run 5: Statistics of FillP

```
Start at: 2019-01-25 21:04:27
End at: 2019-01-25 21:04:57
Local clock offset: -4.503 ms
Remote clock offset: 5.79 ms

# Below is generated by plot.py at 2019-01-25 21:31:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 286.044 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 57.25 Mbit/s
95th percentile per-packet one-way delay: 302.718 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 39.39 Mbit/s
95th percentile per-packet one-way delay: 244.935 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 29.79 Mbit/s
95th percentile per-packet one-way delay: 231.194 ms
Loss rate: 5.15%
```

Run 5: Report of FillP — Data Link

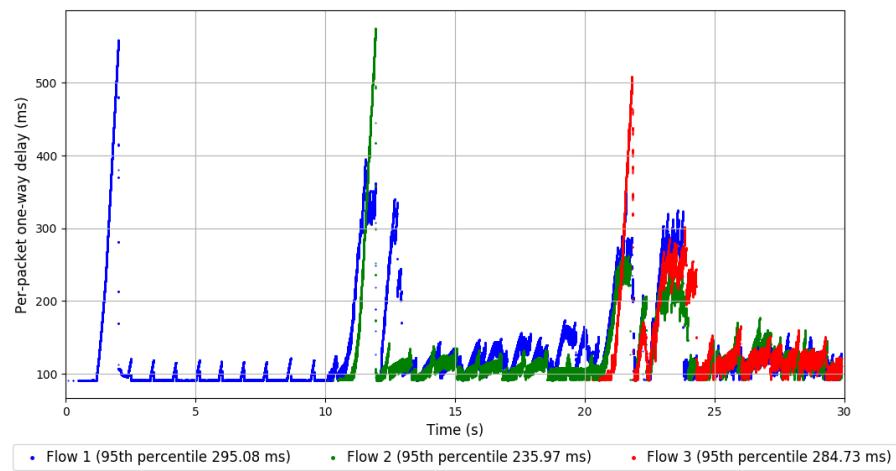
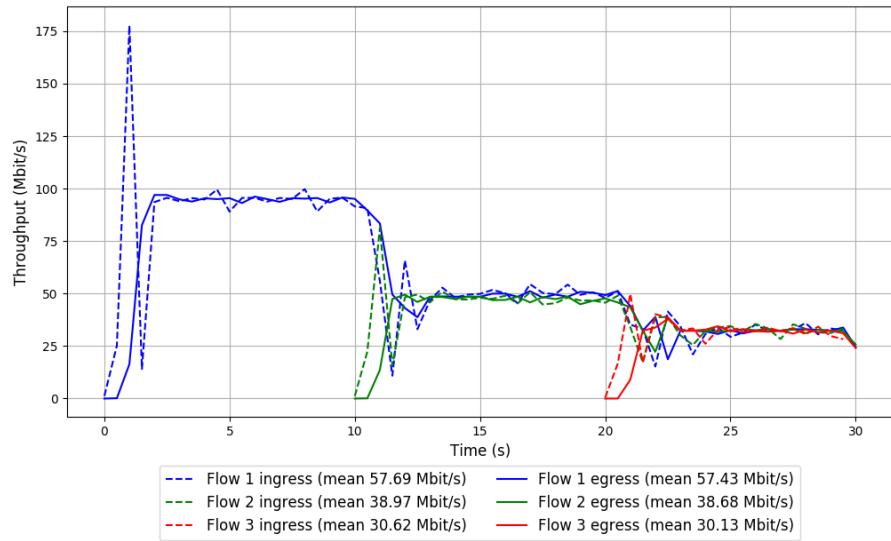


Run 1: Statistics of FillP-Sheep

```
Start at: 2019-01-25 19:34:34
End at: 2019-01-25 19:35:04
Local clock offset: -7.38 ms
Remote clock offset: 2.768 ms

# Below is generated by plot.py at 2019-01-25 21:31:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 282.756 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 57.43 Mbit/s
95th percentile per-packet one-way delay: 295.083 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 38.68 Mbit/s
95th percentile per-packet one-way delay: 235.965 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 284.730 ms
Loss rate: 3.06%
```

Run 1: Report of FillP-Sheep — Data Link

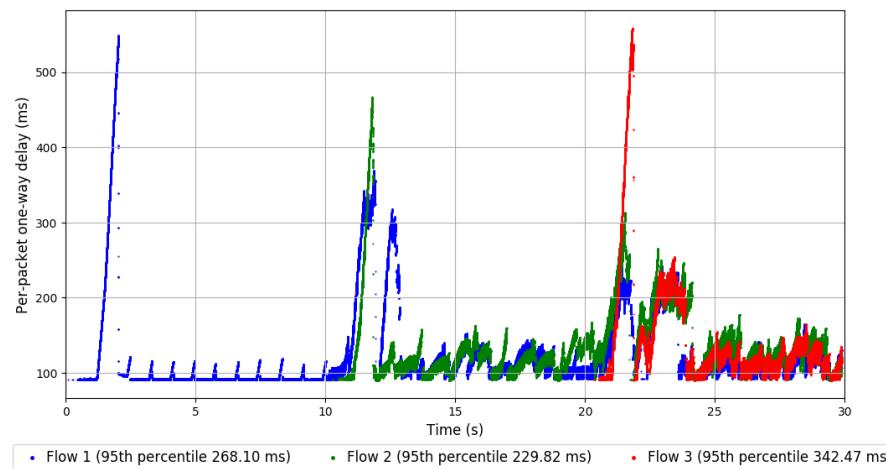
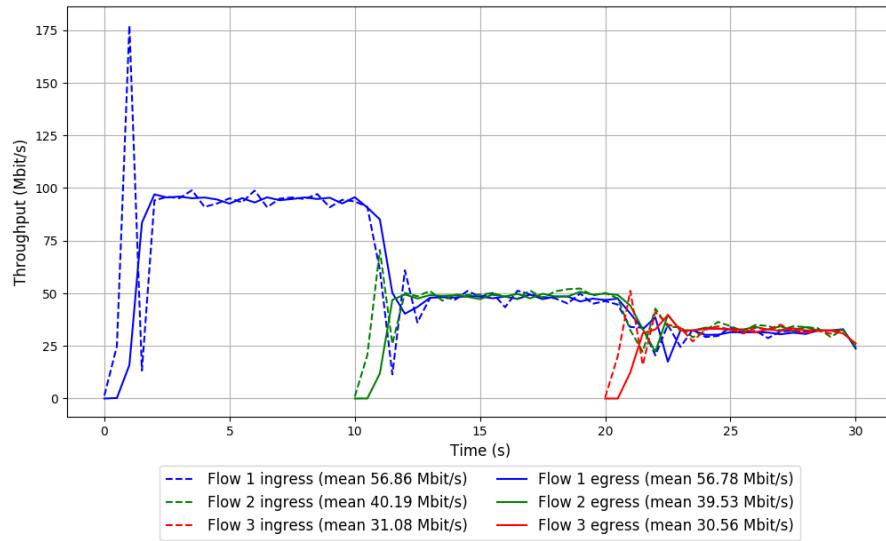


```
Run 2: Statistics of FillP-Sheep
```

```
Start at: 2019-01-25 20:01:32
End at: 2019-01-25 20:02:02
Local clock offset: -6.217 ms
Remote clock offset: 2.464 ms

# Below is generated by plot.py at 2019-01-25 21:31:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.04 Mbit/s
95th percentile per-packet one-way delay: 250.276 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 56.78 Mbit/s
95th percentile per-packet one-way delay: 268.102 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 39.53 Mbit/s
95th percentile per-packet one-way delay: 229.818 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 30.56 Mbit/s
95th percentile per-packet one-way delay: 342.468 ms
Loss rate: 3.28%
```

Run 2: Report of FillP-Sheep — Data Link

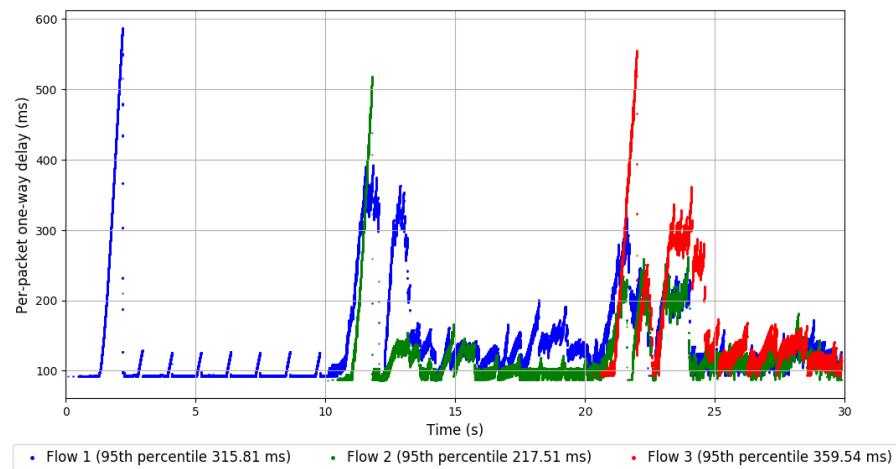
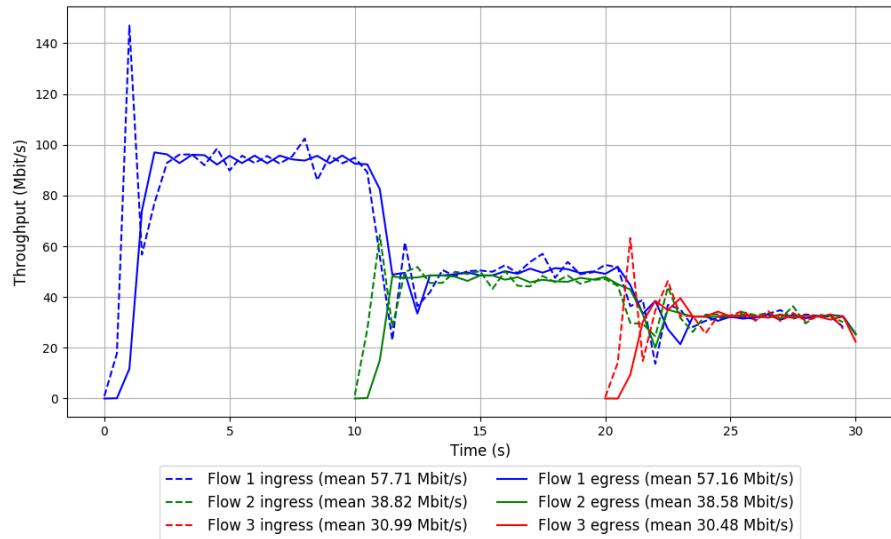


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-01-25 20:28:30
End at: 2019-01-25 20:29:00
Local clock offset: -1.778 ms
Remote clock offset: 5.941 ms

# Below is generated by plot.py at 2019-01-25 21:31:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.76 Mbit/s
95th percentile per-packet one-way delay: 303.729 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 57.16 Mbit/s
95th percentile per-packet one-way delay: 315.811 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 38.58 Mbit/s
95th percentile per-packet one-way delay: 217.515 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 30.48 Mbit/s
95th percentile per-packet one-way delay: 359.536 ms
Loss rate: 3.40%
```

Run 3: Report of FillP-Sheep — Data Link

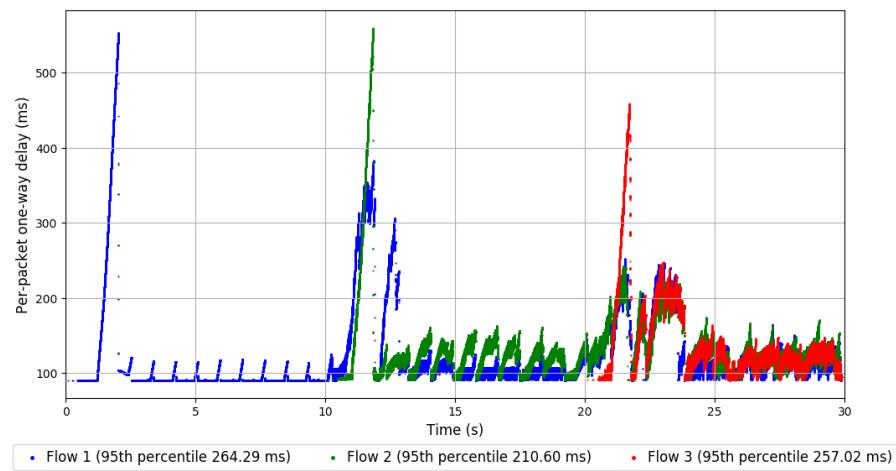
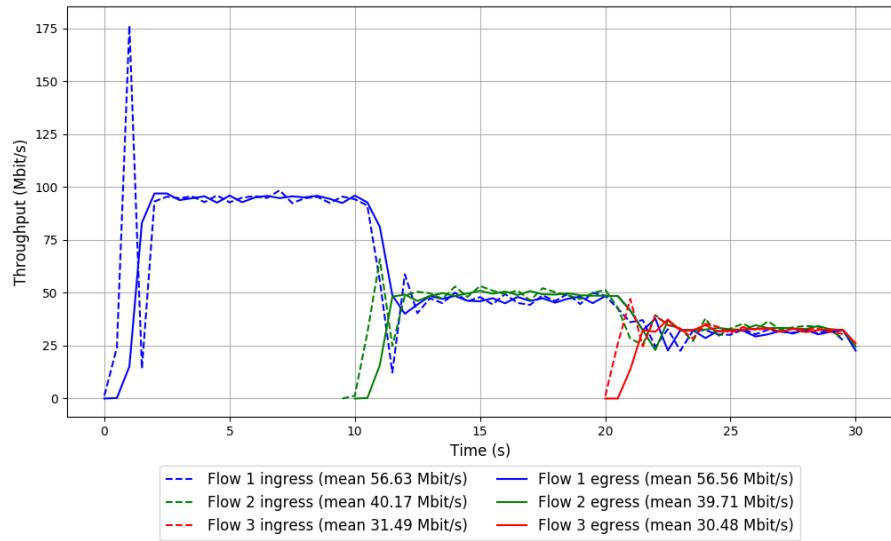


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-01-25 20:55:29
End at: 2019-01-25 20:55:59
Local clock offset: -3.136 ms
Remote clock offset: 1.915 ms

# Below is generated by plot.py at 2019-01-25 21:32:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.94 Mbit/s
95th percentile per-packet one-way delay: 241.786 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 56.56 Mbit/s
95th percentile per-packet one-way delay: 264.291 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 210.605 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 30.48 Mbit/s
95th percentile per-packet one-way delay: 257.024 ms
Loss rate: 4.77%
```

Run 4: Report of FillP-Sheep — Data Link

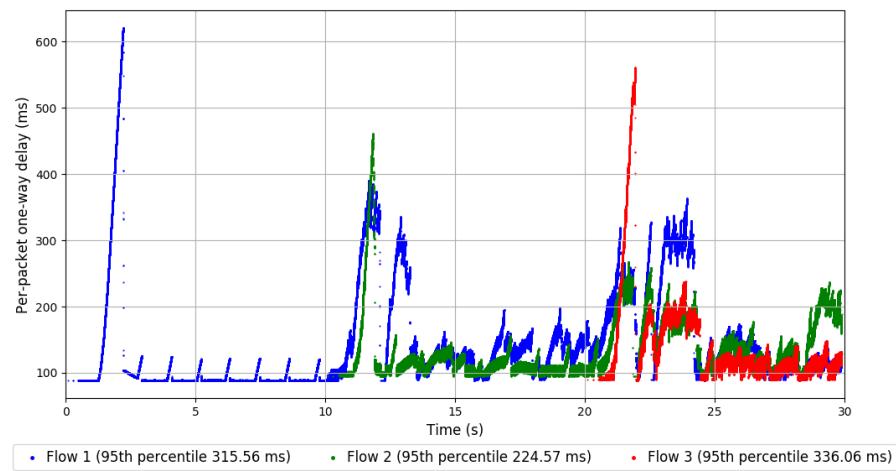
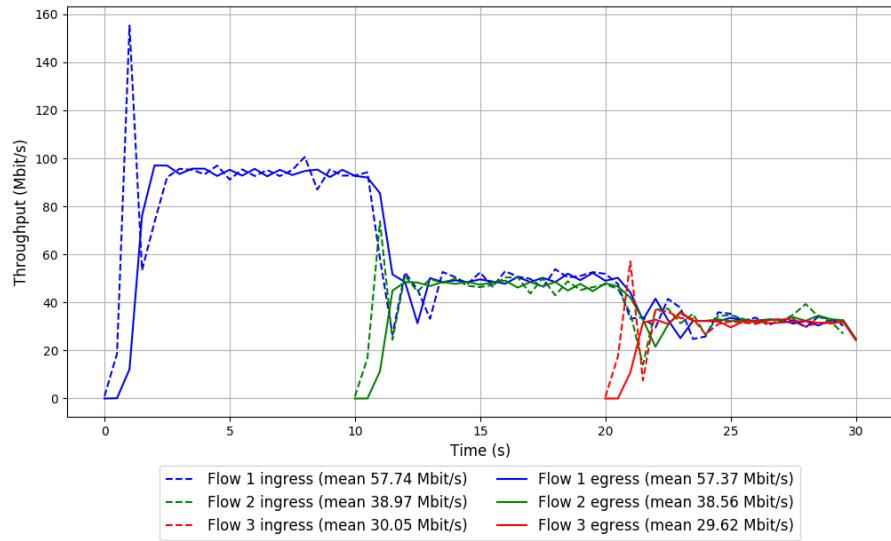


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-01-25 21:22:29
End at: 2019-01-25 21:22:59
Local clock offset: -7.427 ms
Remote clock offset: 6.364 ms

# Below is generated by plot.py at 2019-01-25 21:32:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.69 Mbit/s
95th percentile per-packet one-way delay: 299.494 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 57.37 Mbit/s
95th percentile per-packet one-way delay: 315.558 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 38.56 Mbit/s
95th percentile per-packet one-way delay: 224.572 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 29.62 Mbit/s
95th percentile per-packet one-way delay: 336.063 ms
Loss rate: 3.13%
```

Run 5: Report of FillP-Sheep — Data Link

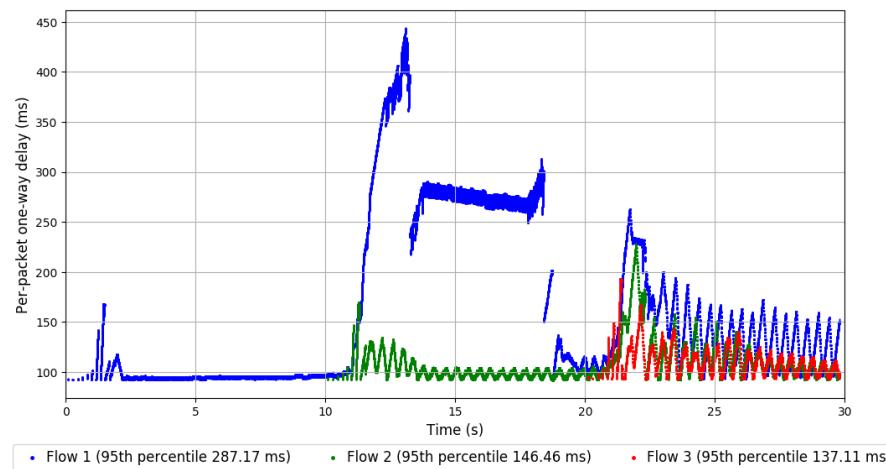
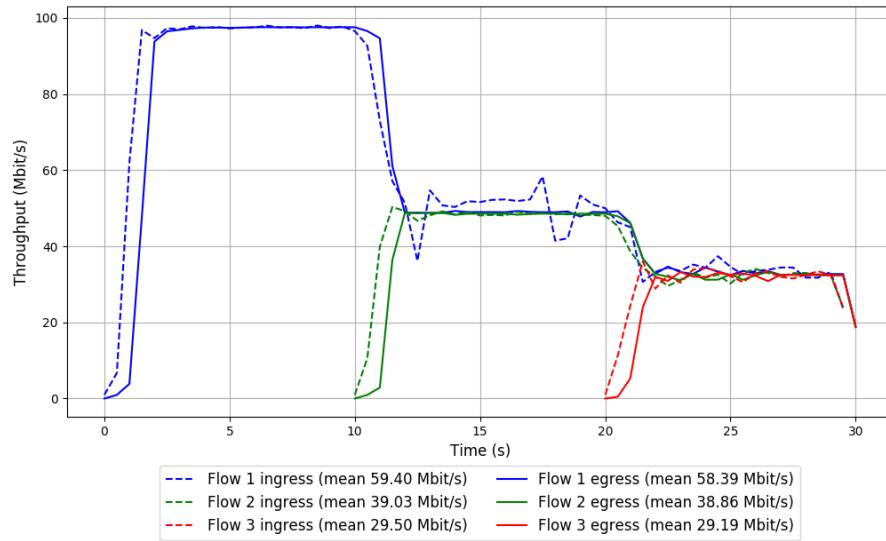


Run 1: Statistics of Indigo

```
Start at: 2019-01-25 19:20:20
End at: 2019-01-25 19:20:50
Local clock offset: -6.442 ms
Remote clock offset: 2.396 ms

# Below is generated by plot.py at 2019-01-25 21:32:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.66 Mbit/s
95th percentile per-packet one-way delay: 280.966 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 58.39 Mbit/s
95th percentile per-packet one-way delay: 287.173 ms
Loss rate: 2.26%
-- Flow 2:
Average throughput: 38.86 Mbit/s
95th percentile per-packet one-way delay: 146.460 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 29.19 Mbit/s
95th percentile per-packet one-way delay: 137.112 ms
Loss rate: 2.75%
```

Run 1: Report of Indigo — Data Link

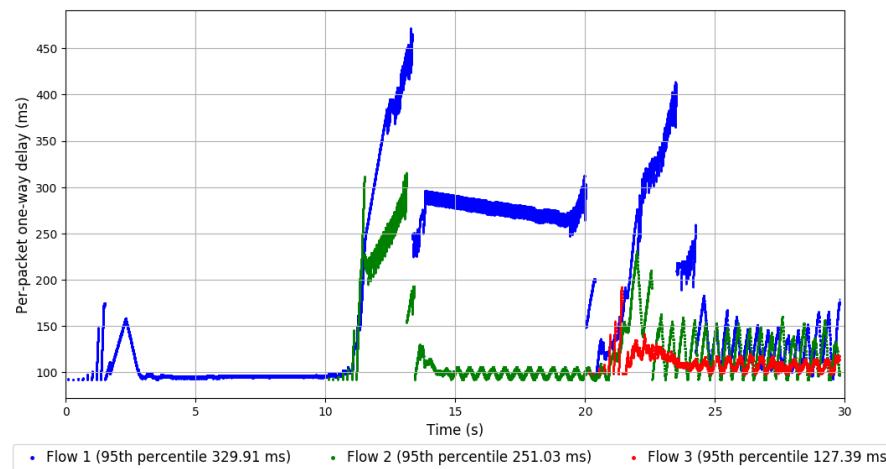
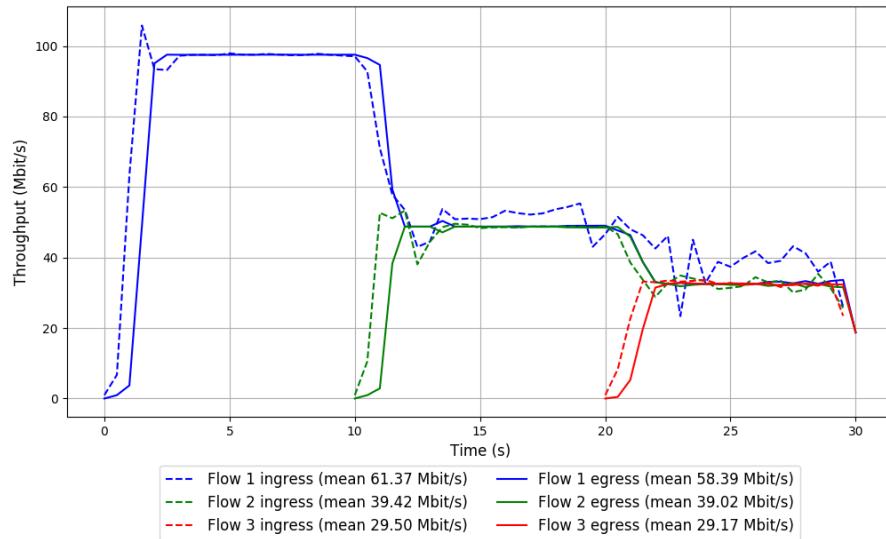


Run 2: Statistics of Indigo

```
Start at: 2019-01-25 19:47:19
End at: 2019-01-25 19:47:49
Local clock offset: -6.285 ms
Remote clock offset: 3.366 ms

# Below is generated by plot.py at 2019-01-25 21:32:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 292.359 ms
Loss rate: 4.20%
-- Flow 1:
Average throughput: 58.39 Mbit/s
95th percentile per-packet one-way delay: 329.911 ms
Loss rate: 5.39%
-- Flow 2:
Average throughput: 39.02 Mbit/s
95th percentile per-packet one-way delay: 251.034 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 29.17 Mbit/s
95th percentile per-packet one-way delay: 127.388 ms
Loss rate: 2.92%
```

Run 2: Report of Indigo — Data Link

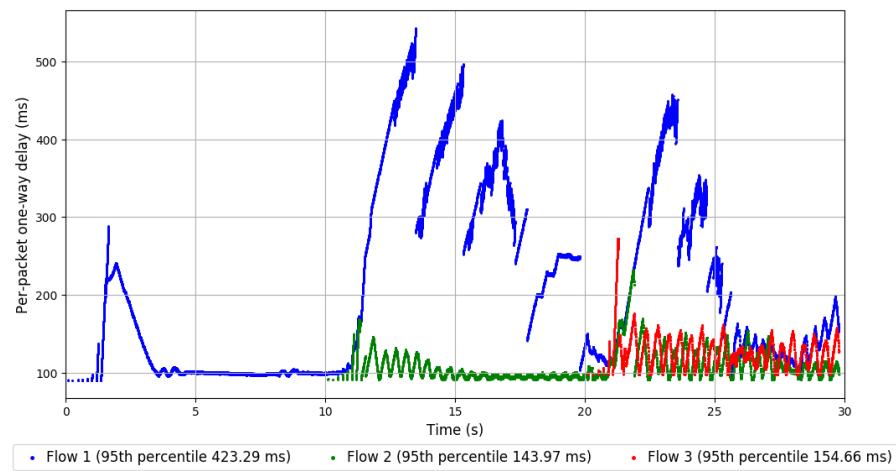
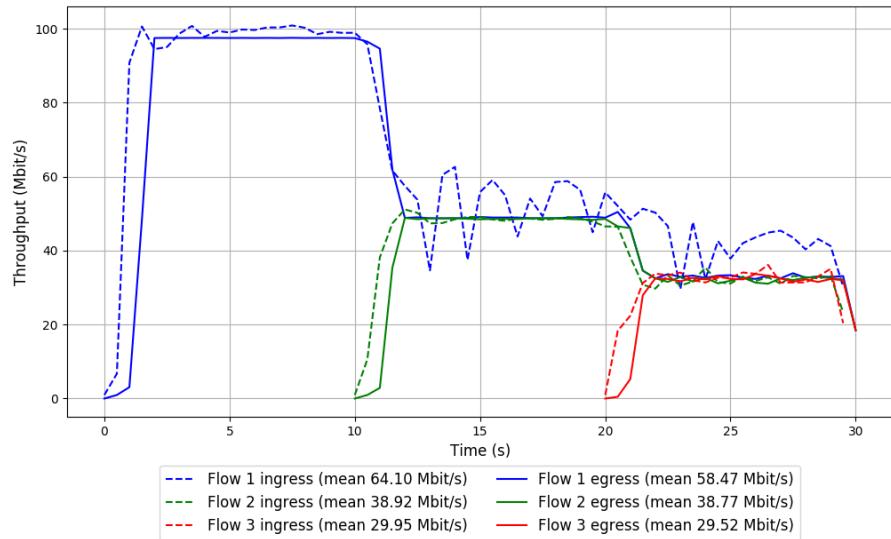


Run 3: Statistics of Indigo

```
Start at: 2019-01-25 20:14:16
End at: 2019-01-25 20:14:46
Local clock offset: -2.997 ms
Remote clock offset: 2.095 ms

# Below is generated by plot.py at 2019-01-25 21:32:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.76 Mbit/s
95th percentile per-packet one-way delay: 386.025 ms
Loss rate: 6.63%
-- Flow 1:
Average throughput: 58.47 Mbit/s
95th percentile per-packet one-way delay: 423.292 ms
Loss rate: 9.31%
-- Flow 2:
Average throughput: 38.77 Mbit/s
95th percentile per-packet one-way delay: 143.971 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 154.659 ms
Loss rate: 3.25%
```

Run 3: Report of Indigo — Data Link

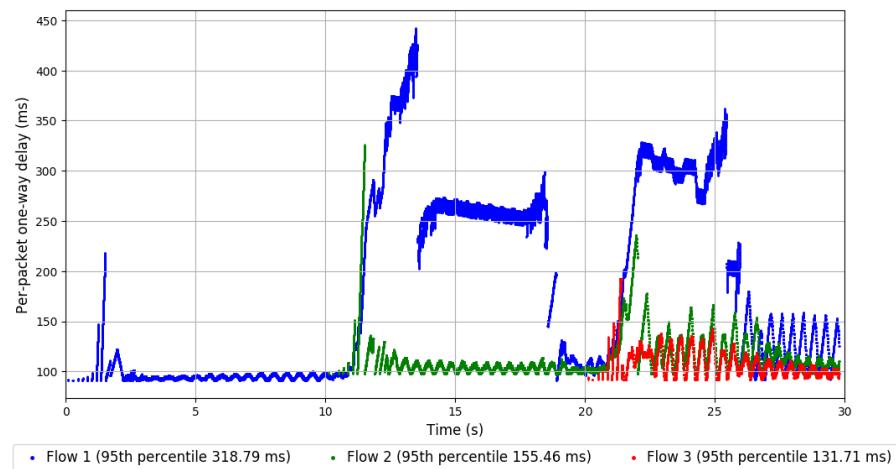
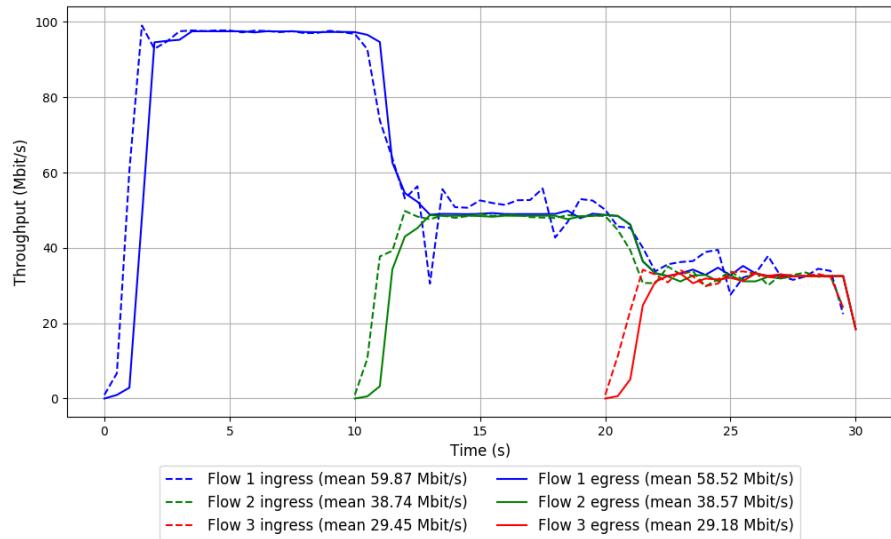


Run 4: Statistics of Indigo

```
Start at: 2019-01-25 20:41:15
End at: 2019-01-25 20:41:45
Local clock offset: -2.94 ms
Remote clock offset: 1.924 ms

# Below is generated by plot.py at 2019-01-25 21:32:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.58 Mbit/s
95th percentile per-packet one-way delay: 303.797 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 58.52 Mbit/s
95th percentile per-packet one-way delay: 318.792 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 155.464 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 131.714 ms
Loss rate: 2.65%
```

Run 4: Report of Indigo — Data Link

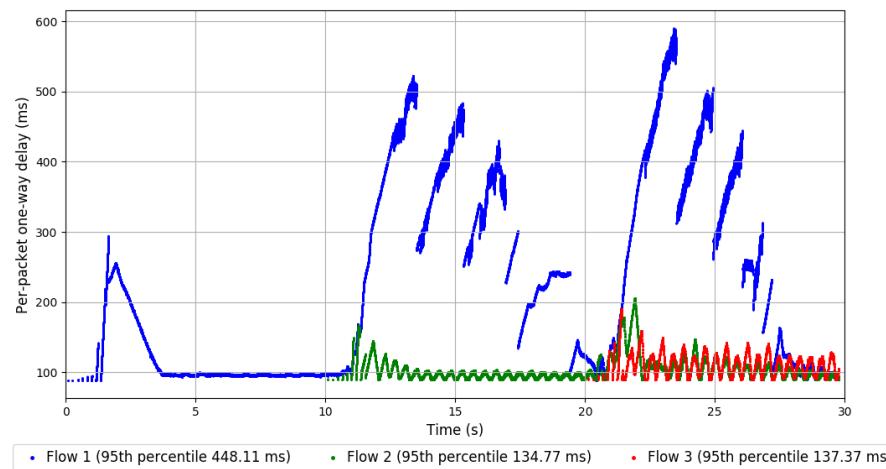
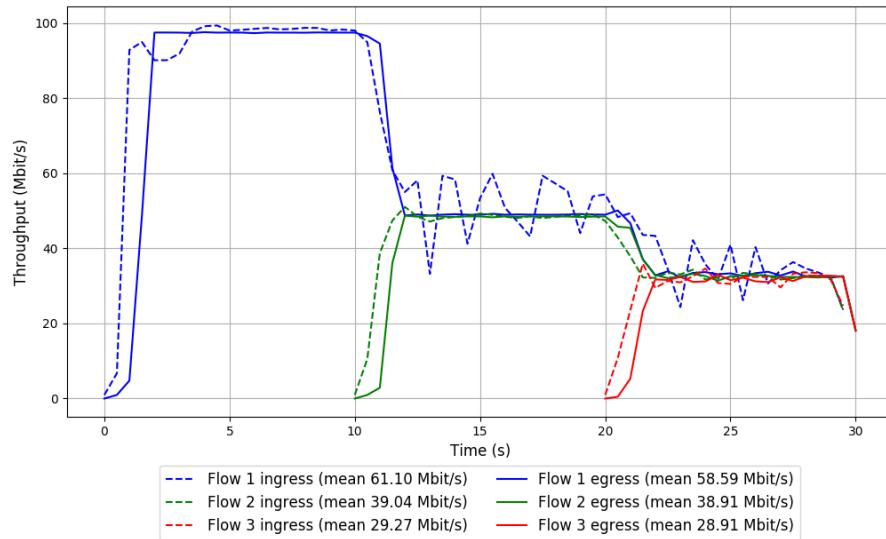


Run 5: Statistics of Indigo

```
Start at: 2019-01-25 21:08:14
End at: 2019-01-25 21:08:44
Local clock offset: -5.554 ms
Remote clock offset: 5.763 ms

# Below is generated by plot.py at 2019-01-25 21:32:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 417.541 ms
Loss rate: 3.56%
-- Flow 1:
Average throughput: 58.59 Mbit/s
95th percentile per-packet one-way delay: 448.107 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 134.771 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 28.91 Mbit/s
95th percentile per-packet one-way delay: 137.370 ms
Loss rate: 2.93%
```

Run 5: Report of Indigo — Data Link

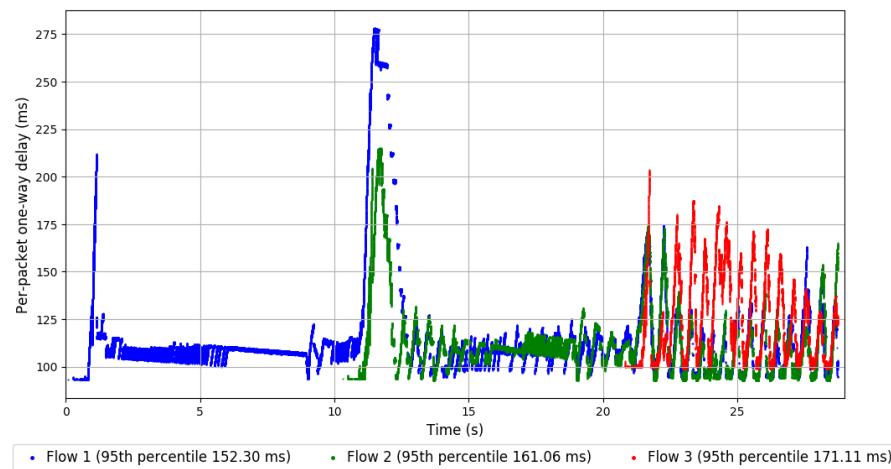
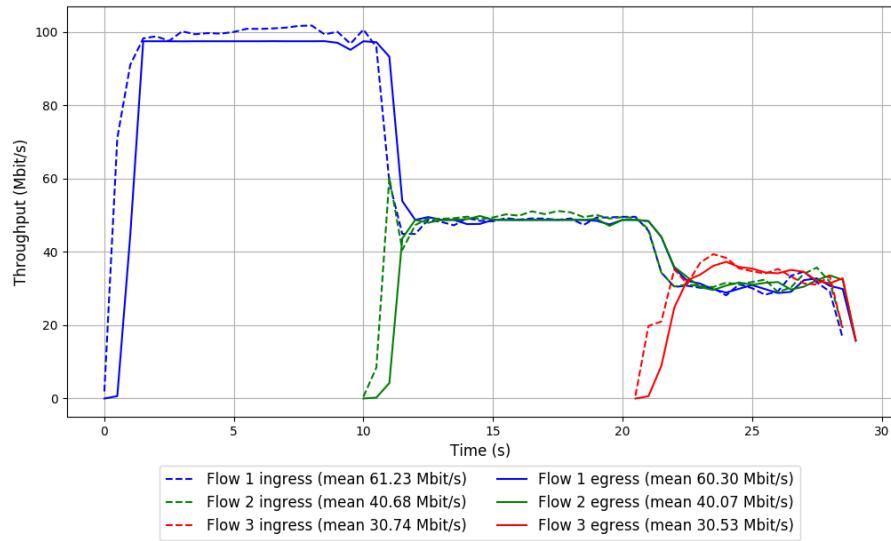


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-01-25 19:22:57
End at: 2019-01-25 19:23:27
Local clock offset: -6.712 ms
Remote clock offset: 1.12 ms

# Below is generated by plot.py at 2019-01-25 21:32:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.73 Mbit/s
95th percentile per-packet one-way delay: 163.039 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 60.30 Mbit/s
95th percentile per-packet one-way delay: 152.299 ms
Loss rate: 2.11%
-- Flow 2:
Average throughput: 40.07 Mbit/s
95th percentile per-packet one-way delay: 161.061 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 30.53 Mbit/s
95th percentile per-packet one-way delay: 171.108 ms
Loss rate: 2.91%
```

Run 1: Report of Indigo-MusesC3 — Data Link

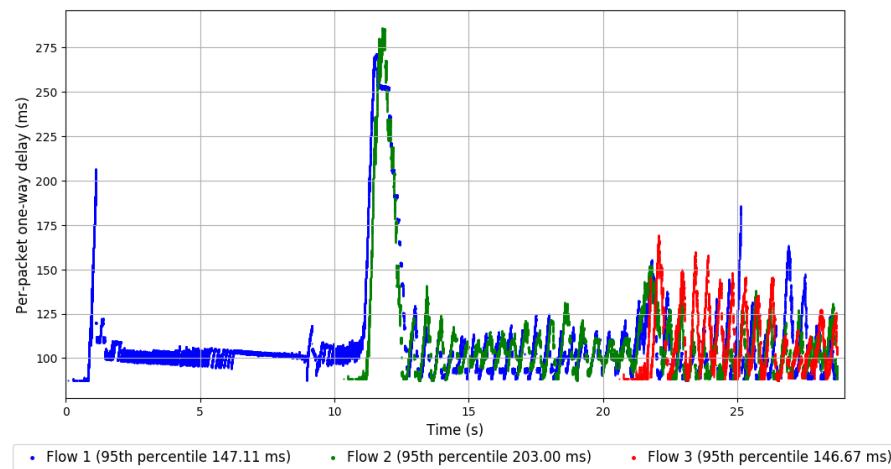
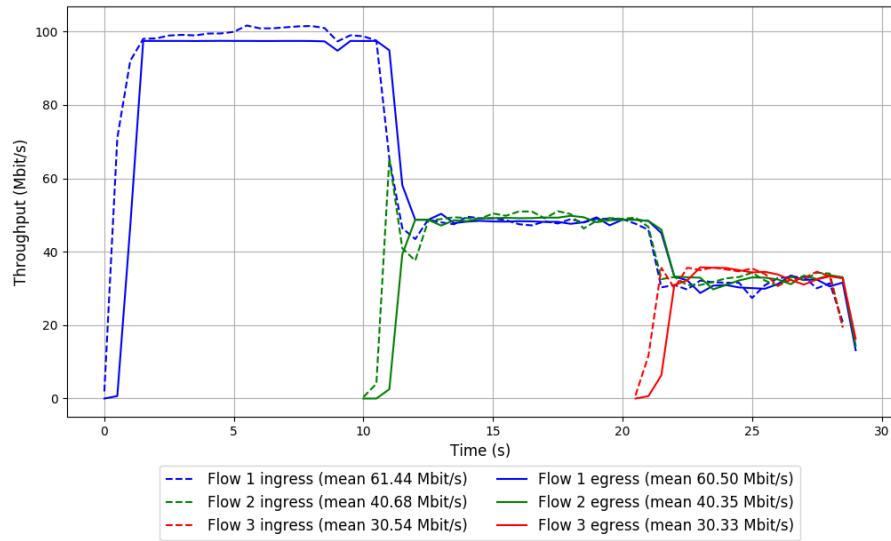


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-01-25 19:49:55
End at: 2019-01-25 19:50:25
Local clock offset: -7.144 ms
Remote clock offset: 7.099 ms

# Below is generated by plot.py at 2019-01-25 21:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.03 Mbit/s
95th percentile per-packet one-way delay: 151.641 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 60.50 Mbit/s
95th percentile per-packet one-way delay: 147.107 ms
Loss rate: 2.11%
-- Flow 2:
Average throughput: 40.35 Mbit/s
95th percentile per-packet one-way delay: 203.002 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 30.33 Mbit/s
95th percentile per-packet one-way delay: 146.673 ms
Loss rate: 2.76%
```

Run 2: Report of Indigo-MusesC3 — Data Link

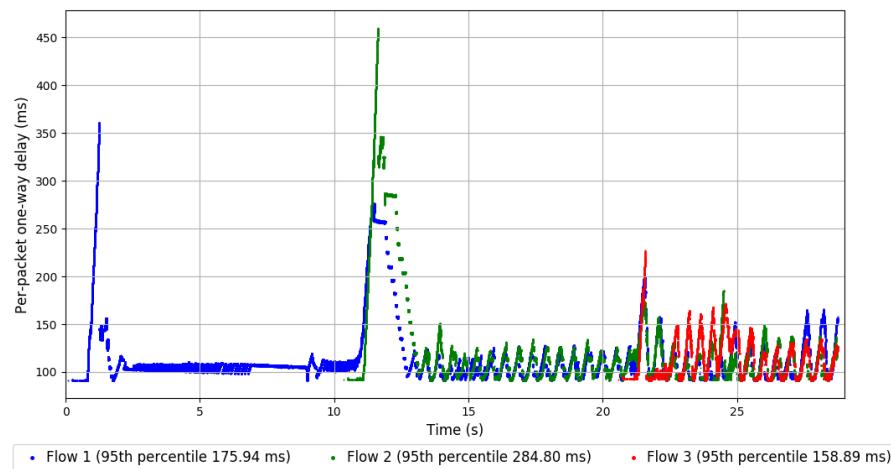
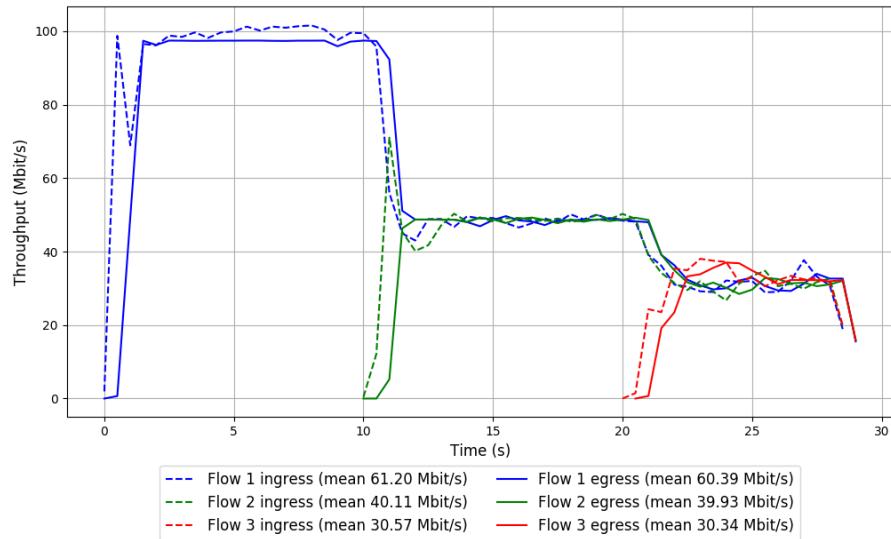


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-01-25 20:16:52
End at: 2019-01-25 20:17:22
Local clock offset: -2.729 ms
Remote clock offset: 1.943 ms

# Below is generated by plot.py at 2019-01-25 21:33:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.69 Mbit/s
95th percentile per-packet one-way delay: 202.448 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 60.39 Mbit/s
95th percentile per-packet one-way delay: 175.945 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 39.93 Mbit/s
95th percentile per-packet one-way delay: 284.801 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 158.894 ms
Loss rate: 2.80%
```

Run 3: Report of Indigo-MusesC3 — Data Link

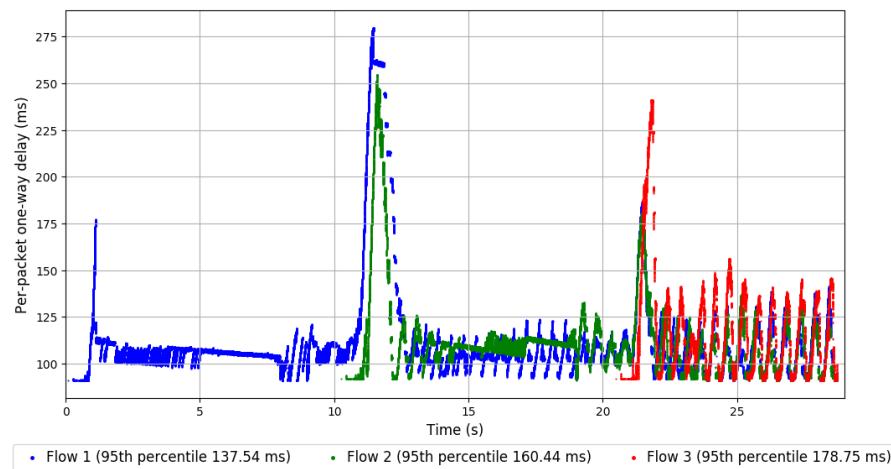
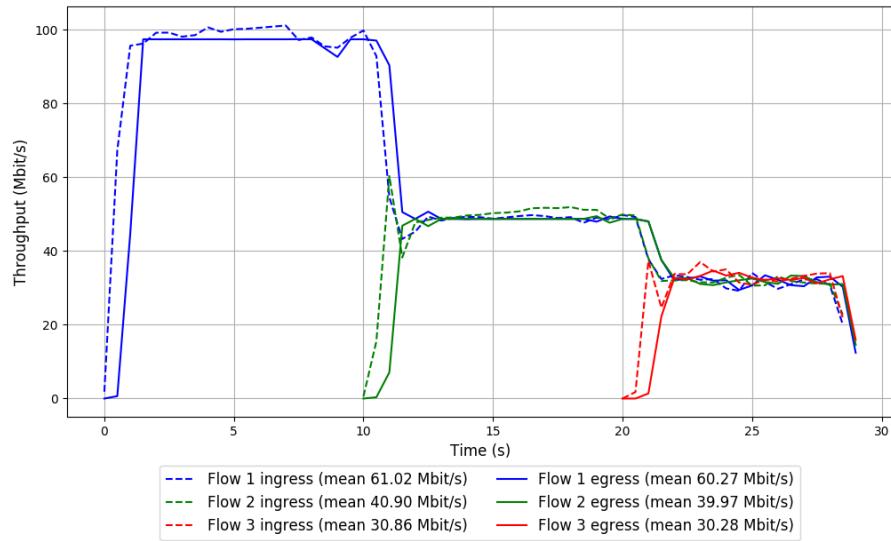


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-01-25 20:43:51
End at: 2019-01-25 20:44:21
Local clock offset: -3.029 ms
Remote clock offset: 1.918 ms

# Below is generated by plot.py at 2019-01-25 21:33:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.75 Mbit/s
95th percentile per-packet one-way delay: 149.649 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 60.27 Mbit/s
95th percentile per-packet one-way delay: 137.542 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 39.97 Mbit/s
95th percentile per-packet one-way delay: 160.438 ms
Loss rate: 3.19%
-- Flow 3:
Average throughput: 30.28 Mbit/s
95th percentile per-packet one-way delay: 178.745 ms
Loss rate: 3.95%
```

Run 4: Report of Indigo-MusesC3 — Data Link

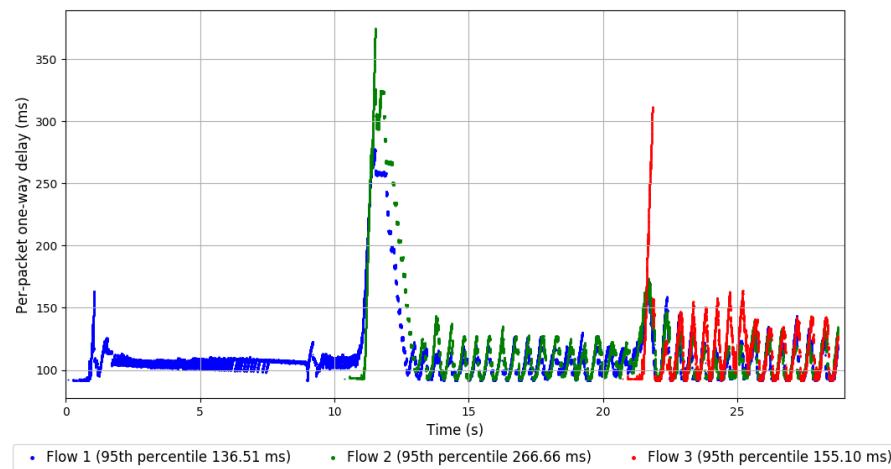
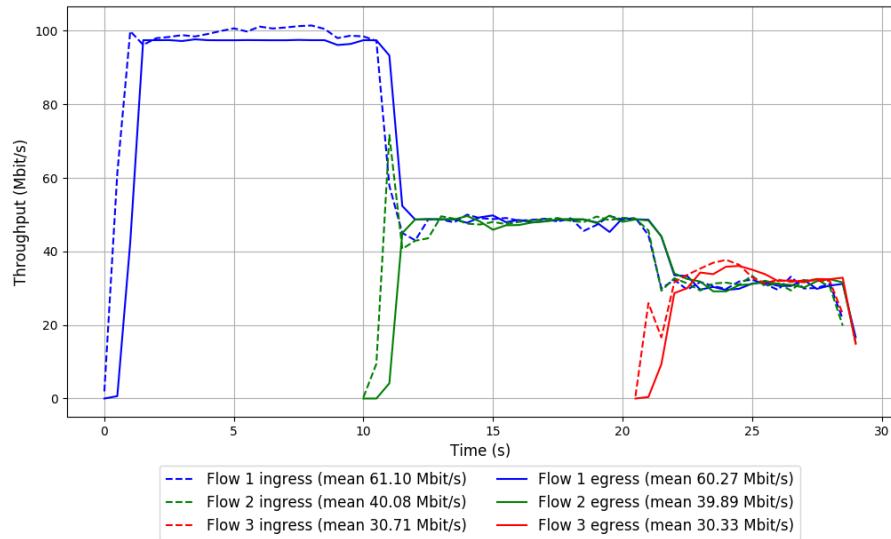


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-01-25 21:10:50
End at: 2019-01-25 21:11:20
Local clock offset: -6.037 ms
Remote clock offset: 1.915 ms

# Below is generated by plot.py at 2019-01-25 21:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.32 Mbit/s
95th percentile per-packet one-way delay: 168.266 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 60.27 Mbit/s
95th percentile per-packet one-way delay: 136.509 ms
Loss rate: 1.94%
-- Flow 2:
Average throughput: 39.89 Mbit/s
95th percentile per-packet one-way delay: 266.656 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 30.33 Mbit/s
95th percentile per-packet one-way delay: 155.104 ms
Loss rate: 3.32%
```

Run 5: Report of Indigo-MusesC3 — Data Link

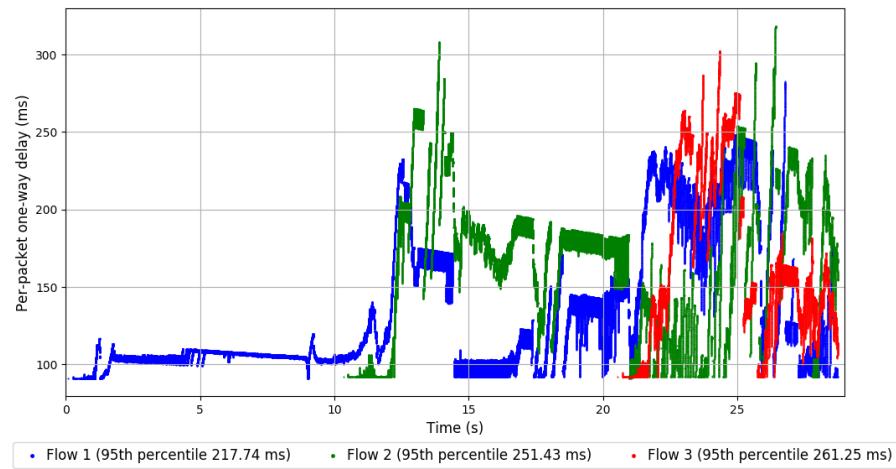
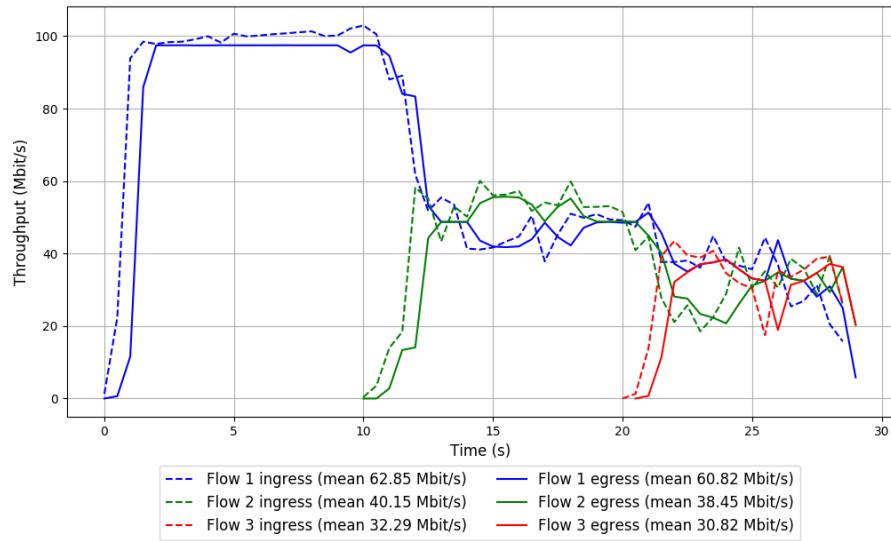


```
Run 1: Statistics of Indigo-MusesC5
```

```
Start at: 2019-01-25 19:24:14
End at: 2019-01-25 19:24:44
Local clock offset: -7.494 ms
Remote clock offset: 2.276 ms

# Below is generated by plot.py at 2019-01-25 21:33:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.33 Mbit/s
95th percentile per-packet one-way delay: 236.006 ms
Loss rate: 4.38%
-- Flow 1:
Average throughput: 60.82 Mbit/s
95th percentile per-packet one-way delay: 217.743 ms
Loss rate: 3.76%
-- Flow 2:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 251.432 ms
Loss rate: 5.12%
-- Flow 3:
Average throughput: 30.82 Mbit/s
95th percentile per-packet one-way delay: 261.251 ms
Loss rate: 6.53%
```

Run 1: Report of Indigo-MusesC5 — Data Link

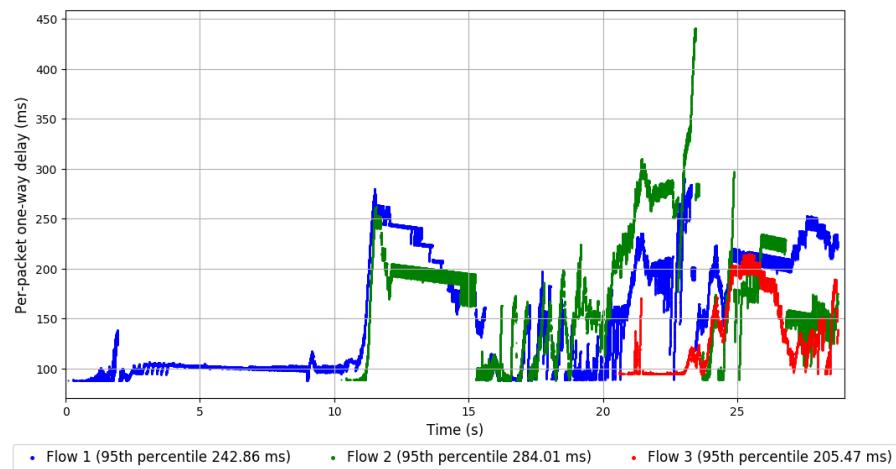
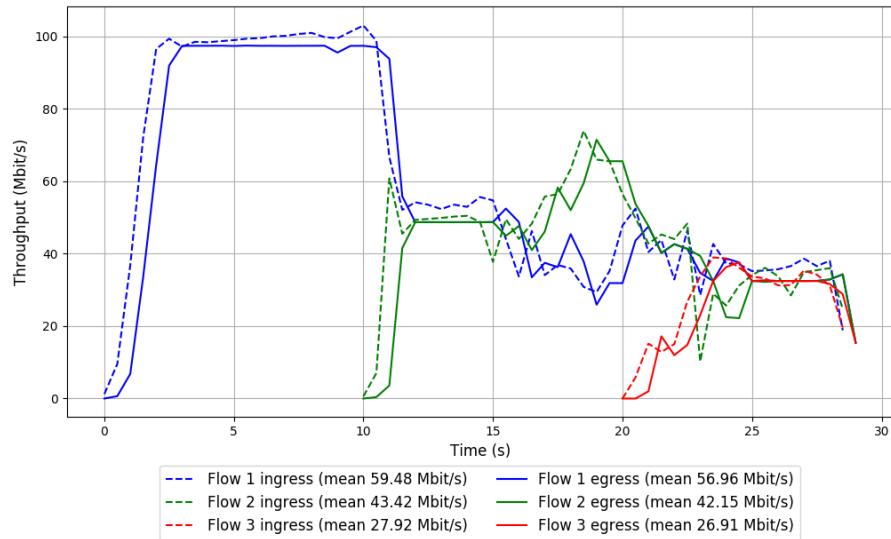


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-01-25 19:51:13
End at: 2019-01-25 19:51:43
Local clock offset: -6.332 ms
Remote clock offset: 7.215 ms

# Below is generated by plot.py at 2019-01-25 21:33:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.94 Mbit/s
95th percentile per-packet one-way delay: 252.048 ms
Loss rate: 4.41%
-- Flow 1:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 242.856 ms
Loss rate: 4.53%
-- Flow 2:
Average throughput: 42.15 Mbit/s
95th percentile per-packet one-way delay: 284.009 ms
Loss rate: 3.80%
-- Flow 3:
Average throughput: 26.91 Mbit/s
95th percentile per-packet one-way delay: 205.470 ms
Loss rate: 5.65%
```

Run 2: Report of Indigo-MusesC5 — Data Link

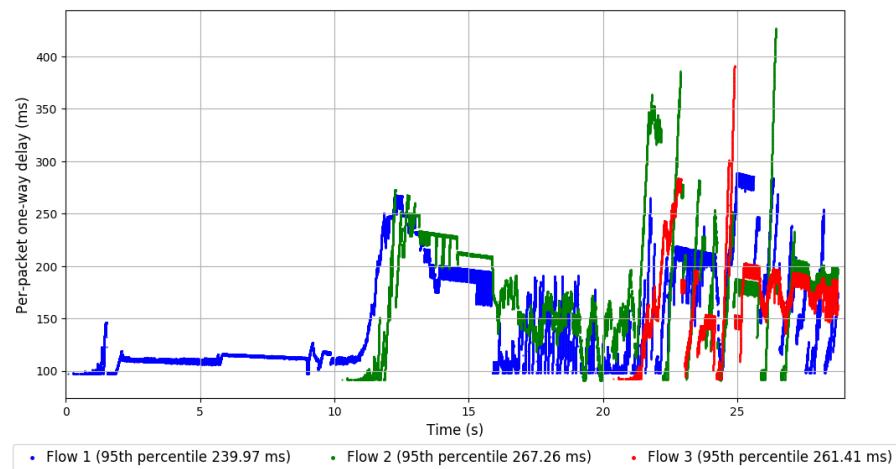
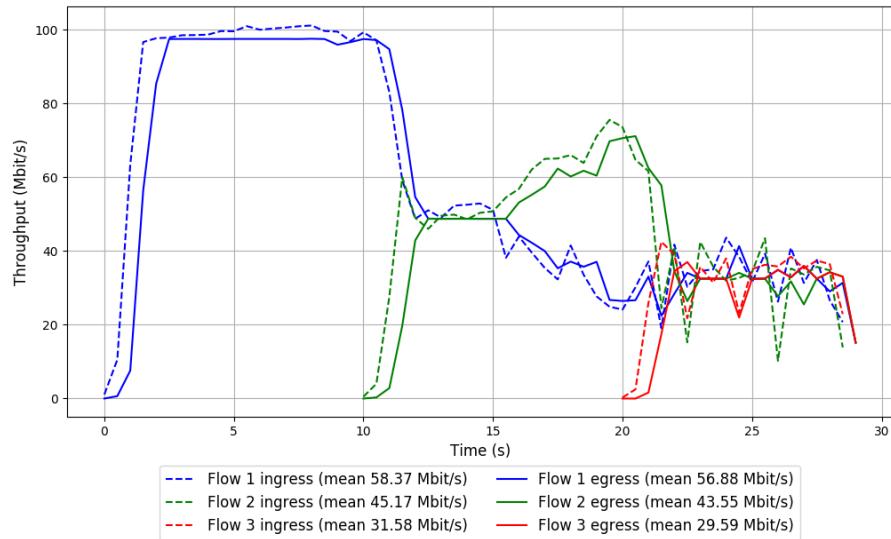


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-01-25 20:18:09
End at: 2019-01-25 20:18:39
Local clock offset: -2.526 ms
Remote clock offset: 1.506 ms

# Below is generated by plot.py at 2019-01-25 21:33:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.54 Mbit/s
95th percentile per-packet one-way delay: 248.739 ms
Loss rate: 4.00%
-- Flow 1:
Average throughput: 56.88 Mbit/s
95th percentile per-packet one-way delay: 239.972 ms
Loss rate: 3.12%
-- Flow 2:
Average throughput: 43.55 Mbit/s
95th percentile per-packet one-way delay: 267.264 ms
Loss rate: 4.41%
-- Flow 3:
Average throughput: 29.59 Mbit/s
95th percentile per-packet one-way delay: 261.414 ms
Loss rate: 8.22%
```

Run 3: Report of Indigo-MusesC5 — Data Link

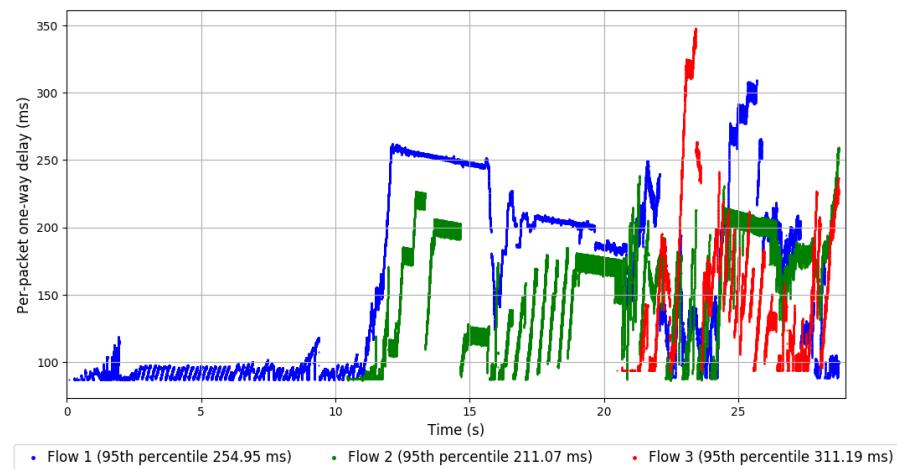
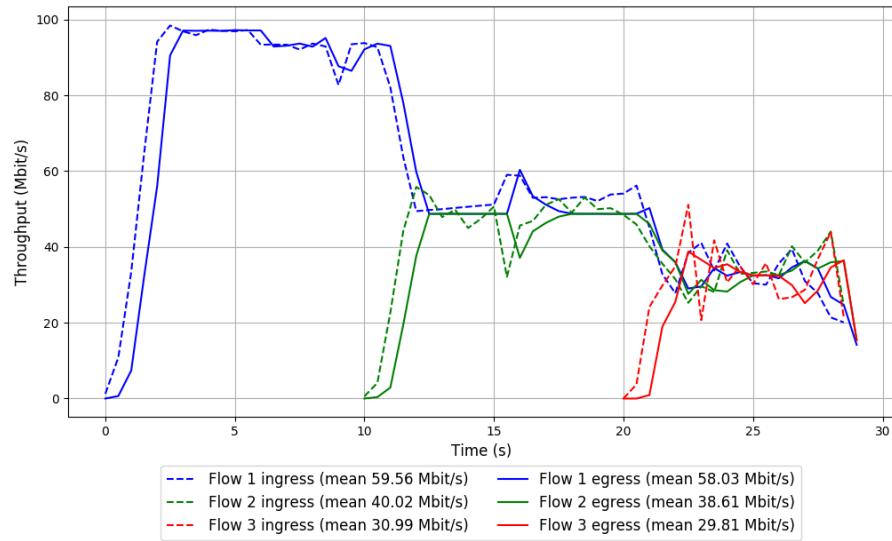


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-01-25 20:45:09
End at: 2019-01-25 20:45:39
Local clock offset: -3.049 ms
Remote clock offset: 5.9 ms

# Below is generated by plot.py at 2019-01-25 21:33:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.51 Mbit/s
95th percentile per-packet one-way delay: 253.159 ms
Loss rate: 3.74%
-- Flow 1:
Average throughput: 58.03 Mbit/s
95th percentile per-packet one-way delay: 254.948 ms
Loss rate: 3.15%
-- Flow 2:
Average throughput: 38.61 Mbit/s
95th percentile per-packet one-way delay: 211.069 ms
Loss rate: 4.40%
-- Flow 3:
Average throughput: 29.81 Mbit/s
95th percentile per-packet one-way delay: 311.195 ms
Loss rate: 5.76%
```

Run 4: Report of Indigo-MusesC5 — Data Link

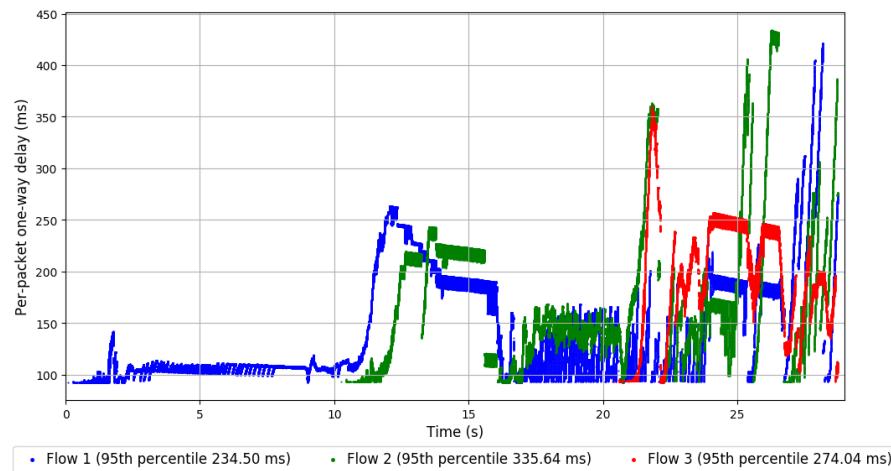
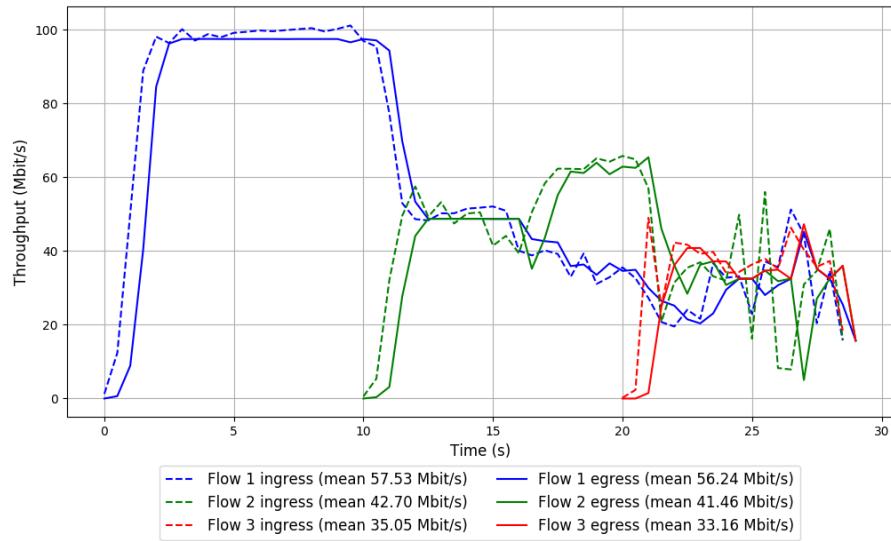


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-01-25 21:12:08
End at: 2019-01-25 21:12:38
Local clock offset: -6.288 ms
Remote clock offset: 1.854 ms

# Below is generated by plot.py at 2019-01-25 21:34:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 253.064 ms
Loss rate: 3.36%
-- Flow 1:
Average throughput: 56.24 Mbit/s
95th percentile per-packet one-way delay: 234.497 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 41.46 Mbit/s
95th percentile per-packet one-way delay: 335.637 ms
Loss rate: 3.55%
-- Flow 3:
Average throughput: 33.16 Mbit/s
95th percentile per-packet one-way delay: 274.042 ms
Loss rate: 7.26%
```

Run 5: Report of Indigo-MusesC5 — Data Link

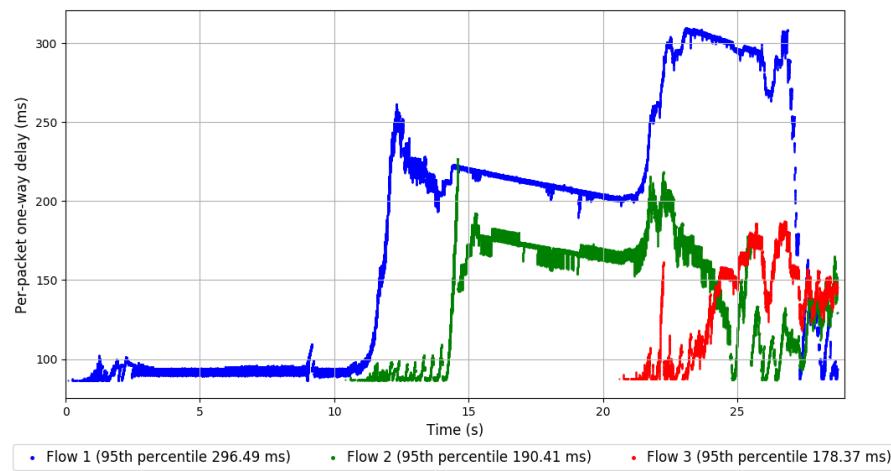
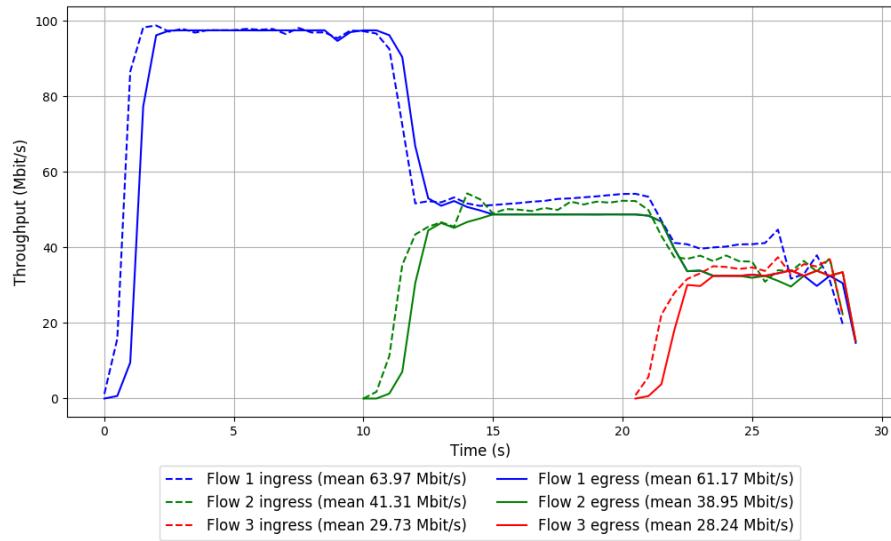


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-01-25 19:26:44
End at: 2019-01-25 19:27:14
Local clock offset: -7.642 ms
Remote clock offset: 7.598 ms

# Below is generated by plot.py at 2019-01-25 21:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 288.321 ms
Loss rate: 5.57%
-- Flow 1:
Average throughput: 61.17 Mbit/s
95th percentile per-packet one-way delay: 296.487 ms
Loss rate: 4.95%
-- Flow 2:
Average throughput: 38.95 Mbit/s
95th percentile per-packet one-way delay: 190.414 ms
Loss rate: 6.60%
-- Flow 3:
Average throughput: 28.24 Mbit/s
95th percentile per-packet one-way delay: 178.373 ms
Loss rate: 6.96%
```

Run 1: Report of Indigo-MusesD — Data Link

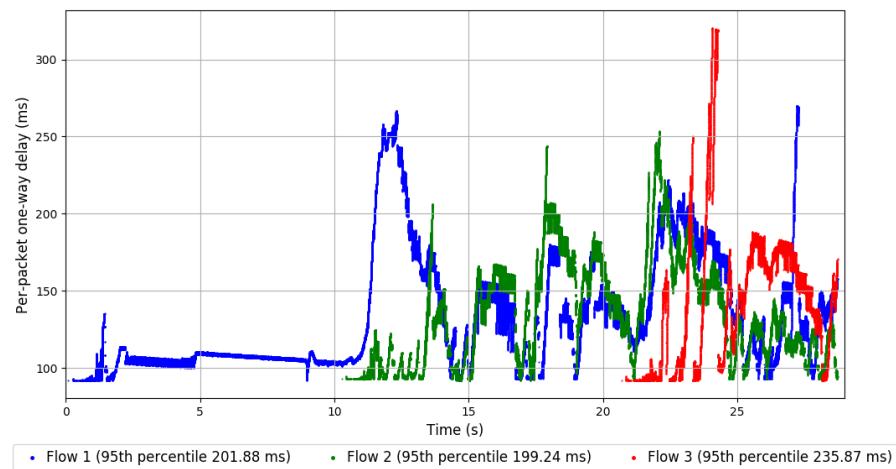
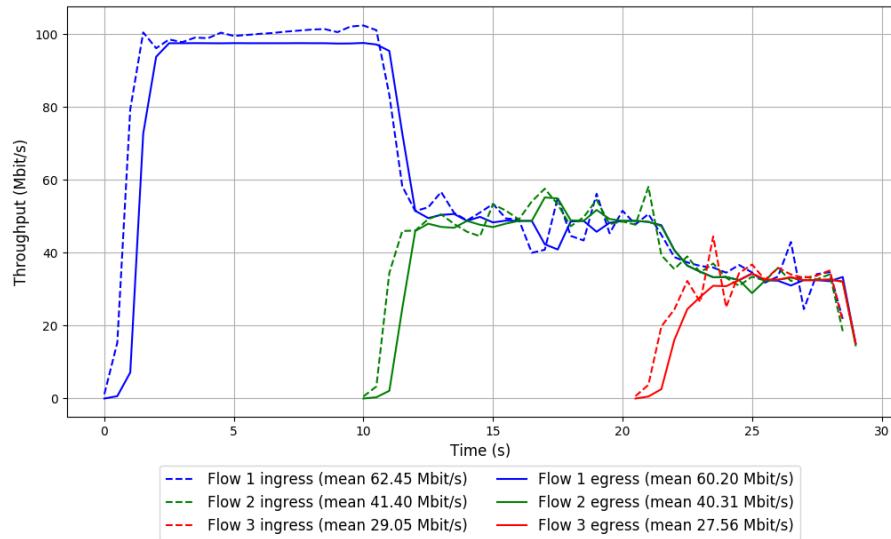


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-01-25 19:53:42
End at: 2019-01-25 19:54:12
Local clock offset: -6.385 ms
Remote clock offset: 3.366 ms

# Below is generated by plot.py at 2019-01-25 21:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.92 Mbit/s
95th percentile per-packet one-way delay: 201.801 ms
Loss rate: 4.19%
-- Flow 1:
Average throughput: 60.20 Mbit/s
95th percentile per-packet one-way delay: 201.882 ms
Loss rate: 4.18%
-- Flow 2:
Average throughput: 40.31 Mbit/s
95th percentile per-packet one-way delay: 199.239 ms
Loss rate: 3.55%
-- Flow 3:
Average throughput: 27.56 Mbit/s
95th percentile per-packet one-way delay: 235.867 ms
Loss rate: 6.40%
```

Run 2: Report of Indigo-MusesD — Data Link

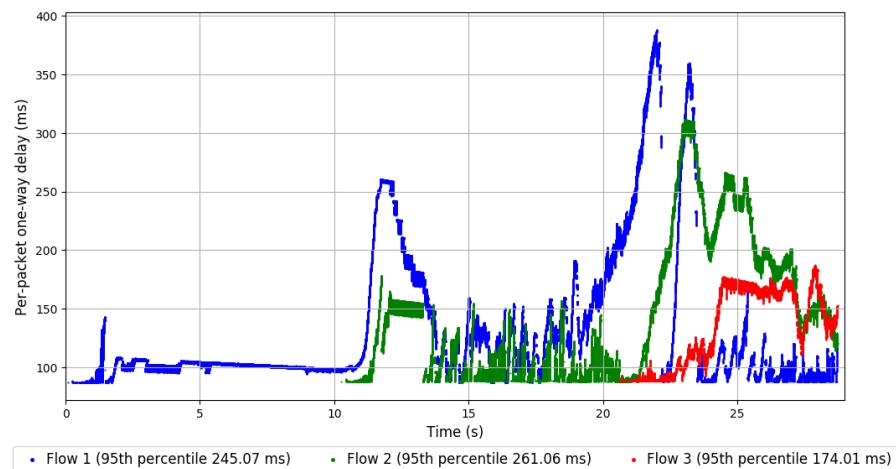
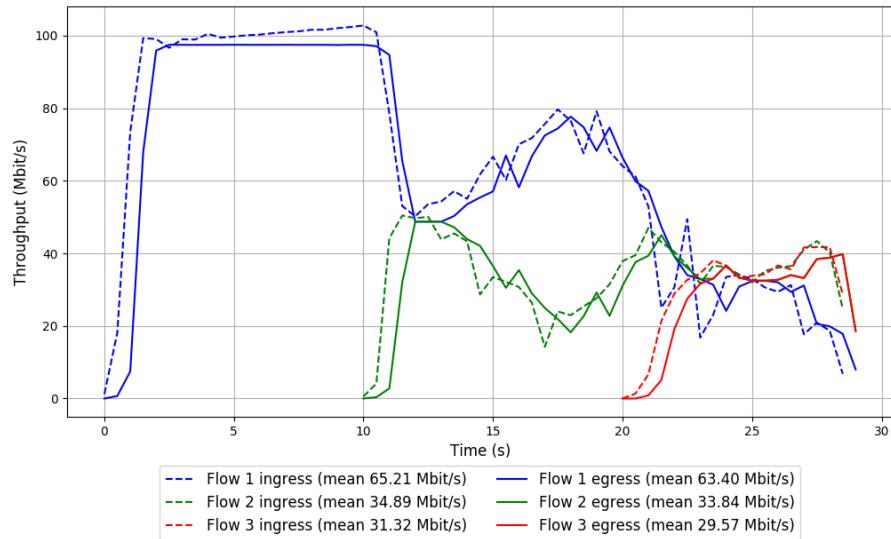


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-01-25 20:20:39
End at: 2019-01-25 20:21:09
Local clock offset: -1.546 ms
Remote clock offset: 5.712 ms

# Below is generated by plot.py at 2019-01-25 21:34:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 249.075 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 63.40 Mbit/s
95th percentile per-packet one-way delay: 245.071 ms
Loss rate: 3.35%
-- Flow 2:
Average throughput: 33.84 Mbit/s
95th percentile per-packet one-way delay: 261.058 ms
Loss rate: 3.90%
-- Flow 3:
Average throughput: 29.57 Mbit/s
95th percentile per-packet one-way delay: 174.013 ms
Loss rate: 7.53%
```

Run 3: Report of Indigo-MusesD — Data Link

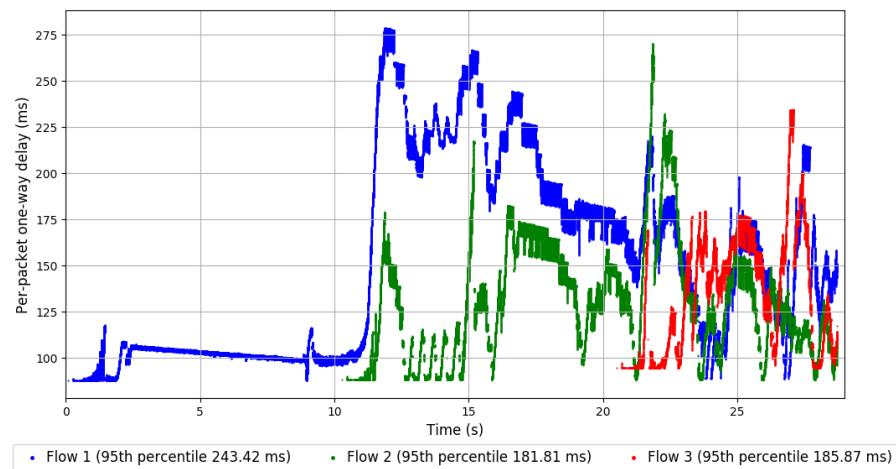
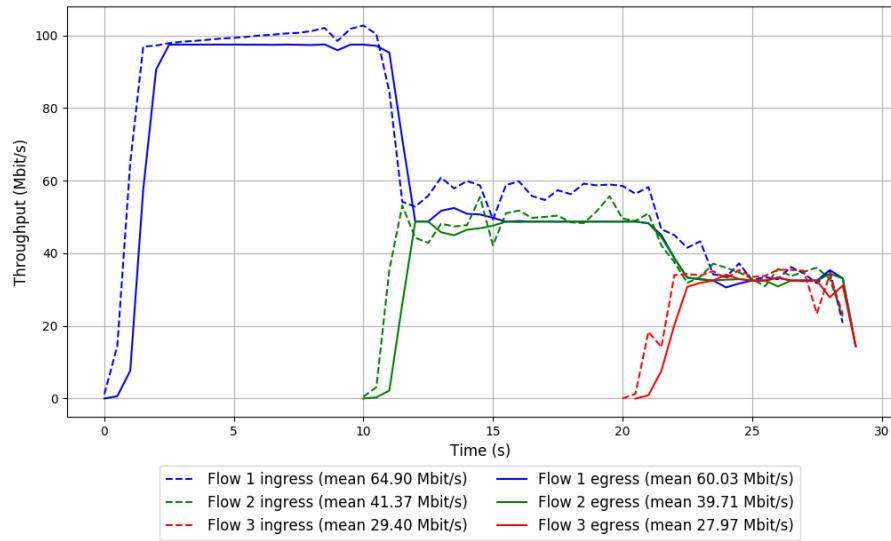


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-01-25 20:47:38
End at: 2019-01-25 20:48:08
Local clock offset: -2.352 ms
Remote clock offset: 6.016 ms

# Below is generated by plot.py at 2019-01-25 21:34:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 231.653 ms
Loss rate: 7.10%
-- Flow 1:
Average throughput: 60.03 Mbit/s
95th percentile per-packet one-way delay: 243.424 ms
Loss rate: 8.05%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 181.811 ms
Loss rate: 4.88%
-- Flow 3:
Average throughput: 27.97 Mbit/s
95th percentile per-packet one-way delay: 185.866 ms
Loss rate: 6.83%
```

Run 4: Report of Indigo-MusesD — Data Link

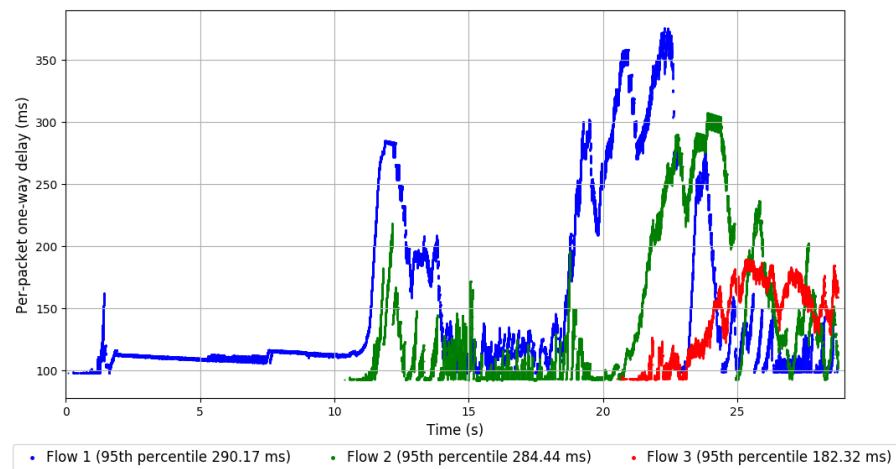
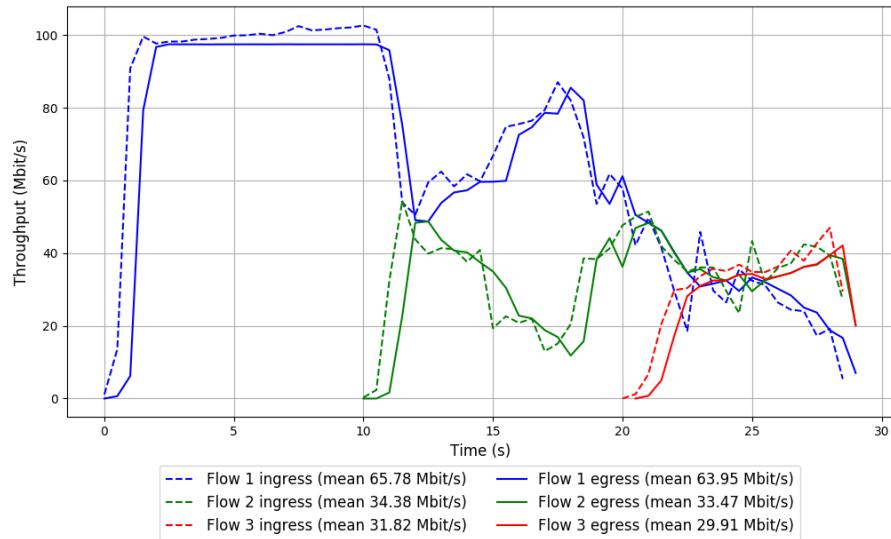


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-01-25 21:14:38
End at: 2019-01-25 21:15:08
Local clock offset: -6.616 ms
Remote clock offset: 2.146 ms

# Below is generated by plot.py at 2019-01-25 21:34:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.93 Mbit/s
95th percentile per-packet one-way delay: 284.637 ms
Loss rate: 3.90%
-- Flow 1:
Average throughput: 63.95 Mbit/s
95th percentile per-packet one-way delay: 290.167 ms
Loss rate: 3.45%
-- Flow 2:
Average throughput: 33.47 Mbit/s
95th percentile per-packet one-way delay: 284.438 ms
Loss rate: 3.57%
-- Flow 3:
Average throughput: 29.91 Mbit/s
95th percentile per-packet one-way delay: 182.320 ms
Loss rate: 7.89%
```

Run 5: Report of Indigo-MusesD — Data Link

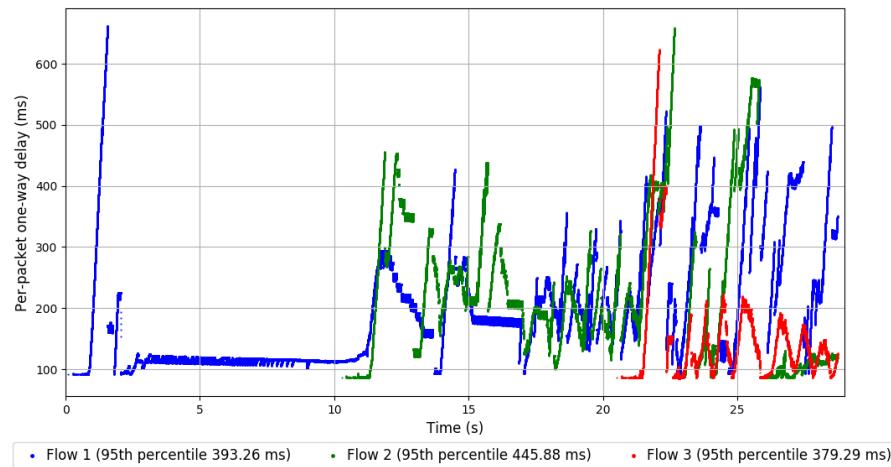
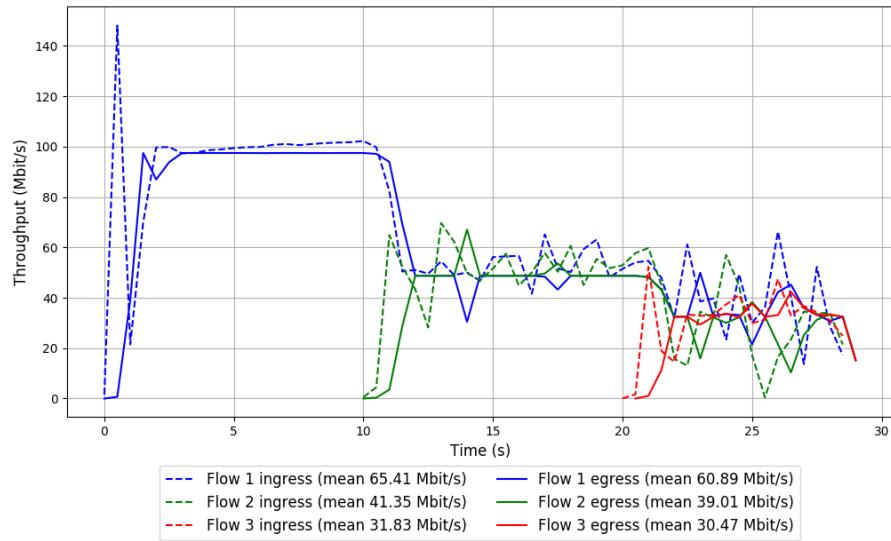


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-01-25 19:33:17
End at: 2019-01-25 19:33:47
Local clock offset: -7.478 ms
Remote clock offset: 7.655 ms

# Below is generated by plot.py at 2019-01-25 21:34:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 411.004 ms
Loss rate: 6.97%
-- Flow 1:
Average throughput: 60.89 Mbit/s
95th percentile per-packet one-way delay: 393.256 ms
Loss rate: 7.26%
-- Flow 2:
Average throughput: 39.01 Mbit/s
95th percentile per-packet one-way delay: 445.882 ms
Loss rate: 6.53%
-- Flow 3:
Average throughput: 30.47 Mbit/s
95th percentile per-packet one-way delay: 379.288 ms
Loss rate: 6.18%
```

Run 1: Report of Indigo-MusesT — Data Link

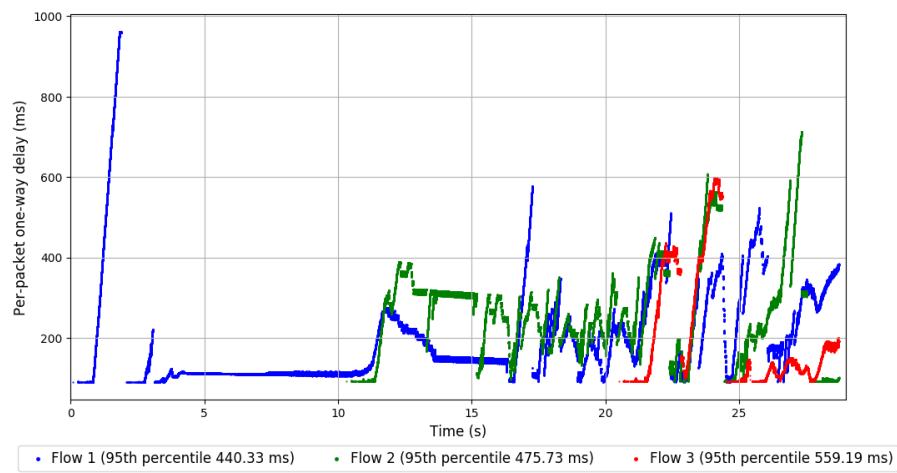
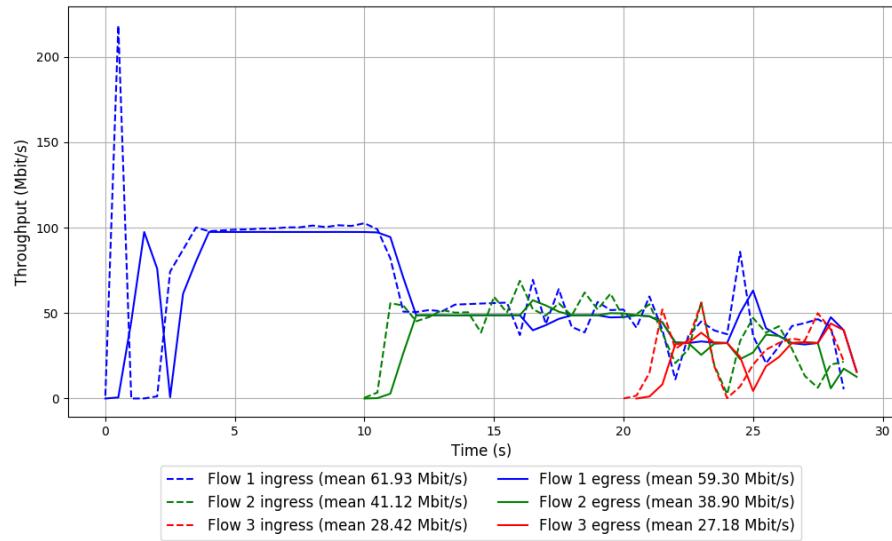


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-01-25 20:00:14
End at: 2019-01-25 20:00:44
Local clock offset: -6.854 ms
Remote clock offset: 2.514 ms

# Below is generated by plot.py at 2019-01-25 21:34:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.10 Mbit/s
95th percentile per-packet one-way delay: 466.196 ms
Loss rate: 5.32%
-- Flow 1:
Average throughput: 59.30 Mbit/s
95th percentile per-packet one-way delay: 440.333 ms
Loss rate: 4.79%
-- Flow 2:
Average throughput: 38.90 Mbit/s
95th percentile per-packet one-way delay: 475.734 ms
Loss rate: 6.26%
-- Flow 3:
Average throughput: 27.18 Mbit/s
95th percentile per-packet one-way delay: 559.189 ms
Loss rate: 6.23%
```

Run 2: Report of Indigo-MusesT — Data Link

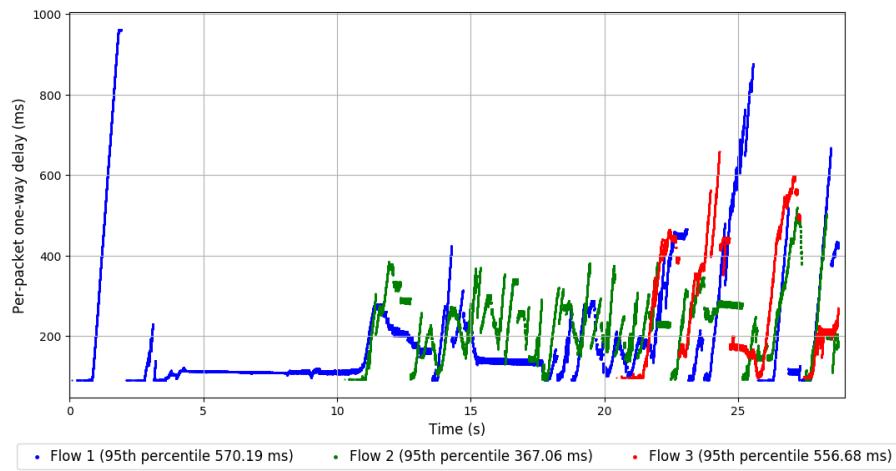
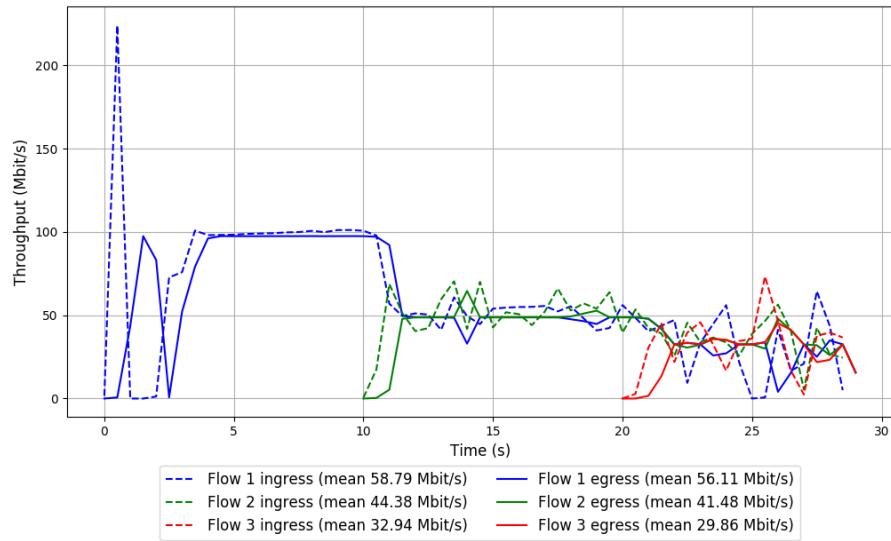


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-01-25 20:27:12
End at: 2019-01-25 20:27:42
Local clock offset: -1.841 ms
Remote clock offset: 1.74 ms

# Below is generated by plot.py at 2019-01-25 21:35:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.49 Mbit/s
95th percentile per-packet one-way delay: 493.721 ms
Loss rate: 6.26%
-- Flow 1:
Average throughput: 56.11 Mbit/s
95th percentile per-packet one-way delay: 570.187 ms
Loss rate: 4.87%
-- Flow 2:
Average throughput: 41.48 Mbit/s
95th percentile per-packet one-way delay: 367.056 ms
Loss rate: 7.40%
-- Flow 3:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 556.683 ms
Loss rate: 11.27%
```

Run 3: Report of Indigo-MusesT — Data Link

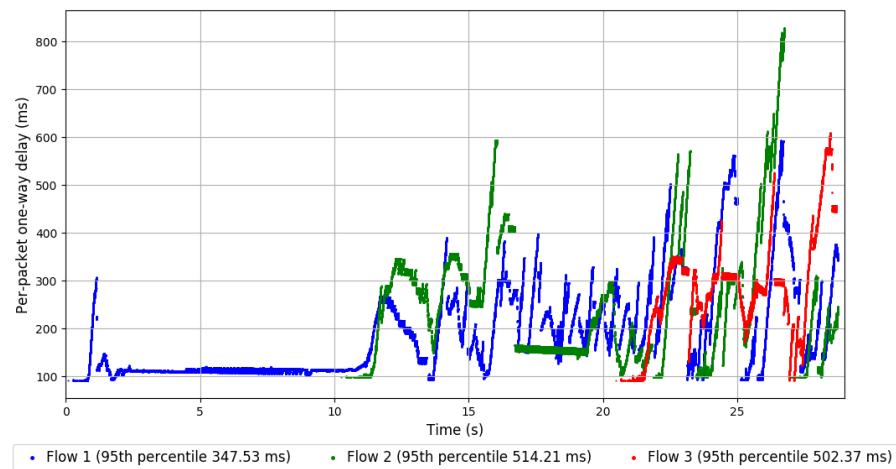
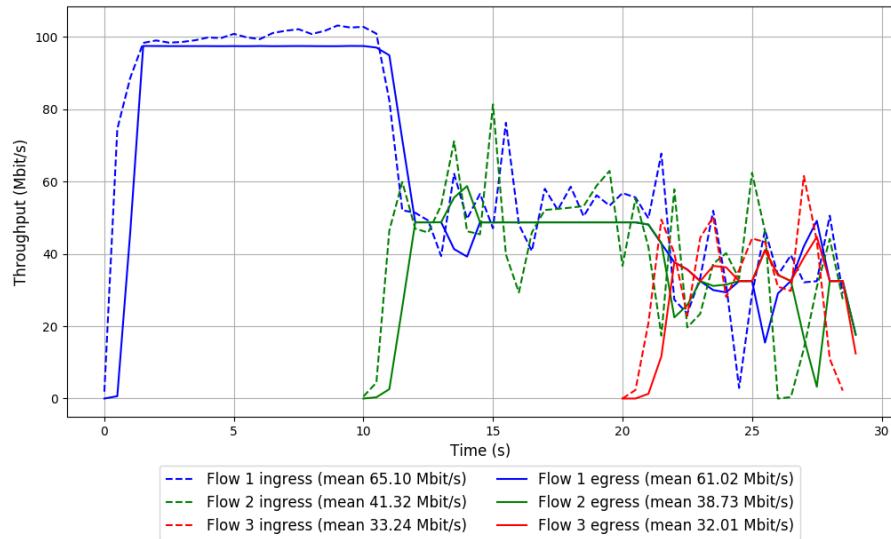


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-01-25 20:54:12
End at: 2019-01-25 20:54:42
Local clock offset: -2.441 ms
Remote clock offset: 1.544 ms

# Below is generated by plot.py at 2019-01-25 21:35:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.18 Mbit/s
95th percentile per-packet one-way delay: 420.808 ms
Loss rate: 6.78%
-- Flow 1:
Average throughput: 61.02 Mbit/s
95th percentile per-packet one-way delay: 347.528 ms
Loss rate: 6.82%
-- Flow 2:
Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 514.212 ms
Loss rate: 6.85%
-- Flow 3:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 502.373 ms
Loss rate: 6.27%
```

Run 4: Report of Indigo-MusesT — Data Link

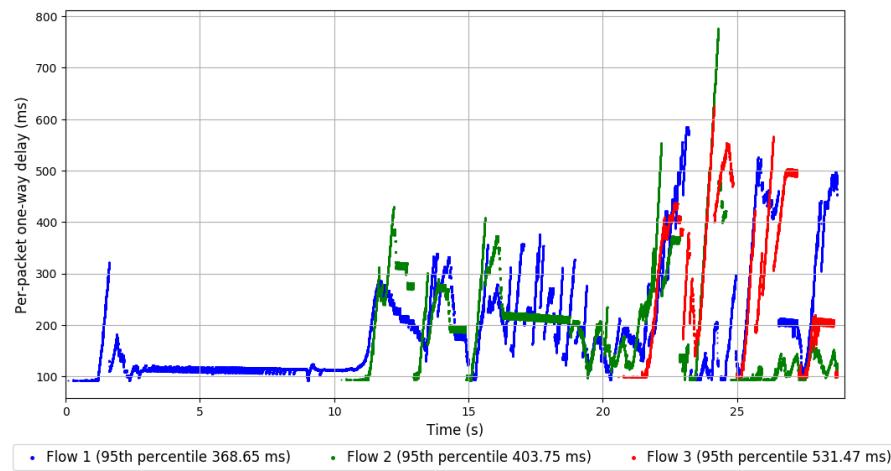
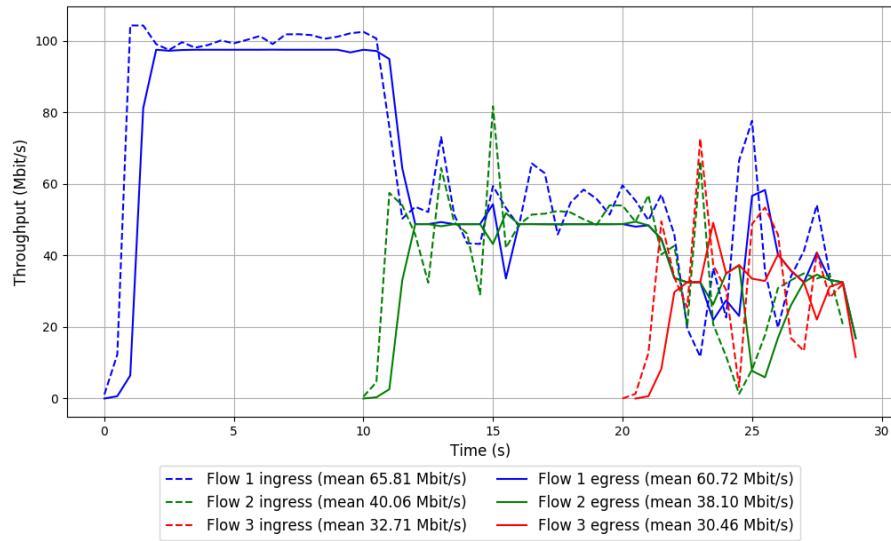


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-01-25 21:21:11
End at: 2019-01-25 21:21:41
Local clock offset: -7.391 ms
Remote clock offset: 2.502 ms

# Below is generated by plot.py at 2019-01-25 21:35:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.97 Mbit/s
95th percentile per-packet one-way delay: 439.845 ms
Loss rate: 6.95%
-- Flow 1:
Average throughput: 60.72 Mbit/s
95th percentile per-packet one-way delay: 368.655 ms
Loss rate: 7.15%
-- Flow 2:
Average throughput: 38.10 Mbit/s
95th percentile per-packet one-way delay: 403.755 ms
Loss rate: 5.75%
-- Flow 3:
Average throughput: 30.46 Mbit/s
95th percentile per-packet one-way delay: 531.474 ms
Loss rate: 8.86%
```

Run 5: Report of Indigo-MusesT — Data Link

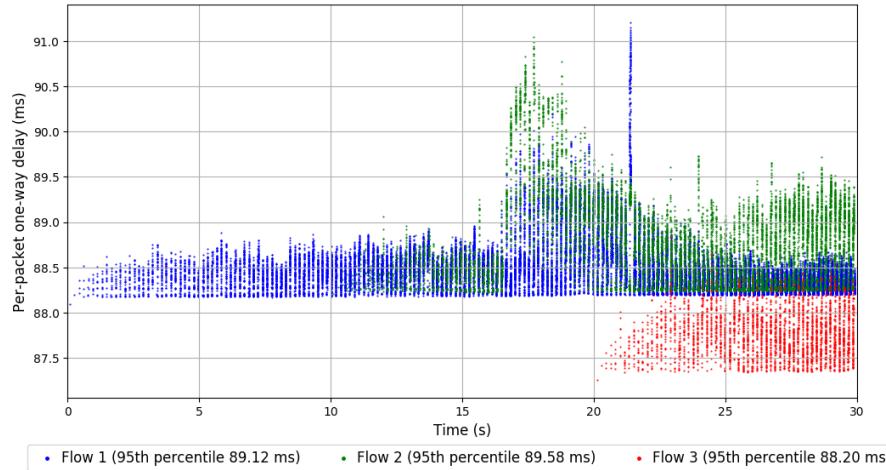
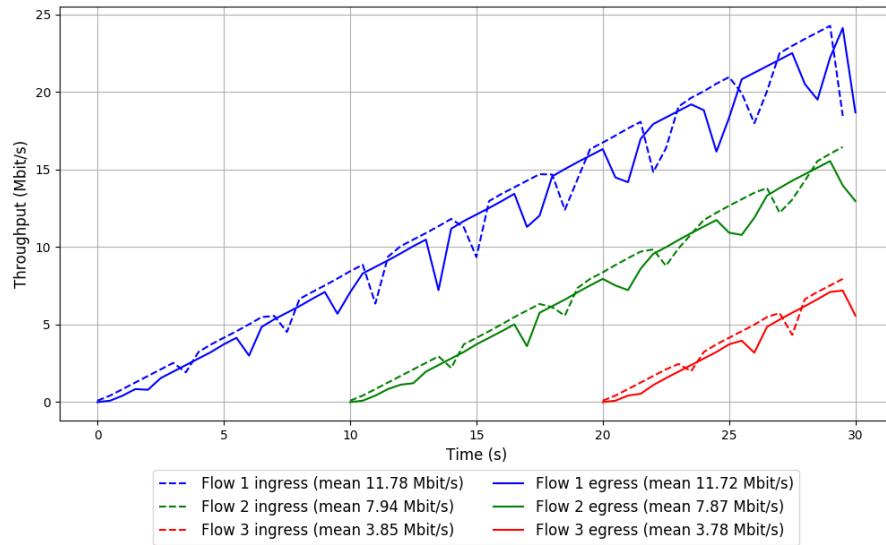


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2019-01-25 19:17:50
End at: 2019-01-25 19:18:20
Local clock offset: -6.27 ms
Remote clock offset: 6.356 ms

# Below is generated by plot.py at 2019-01-25 21:35:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.17 Mbit/s
95th percentile per-packet one-way delay: 89.272 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 11.72 Mbit/s
95th percentile per-packet one-way delay: 89.116 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 89.579 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 3.78 Mbit/s
95th percentile per-packet one-way delay: 88.198 ms
Loss rate: 3.53%
```

Run 1: Report of LEDBAT — Data Link

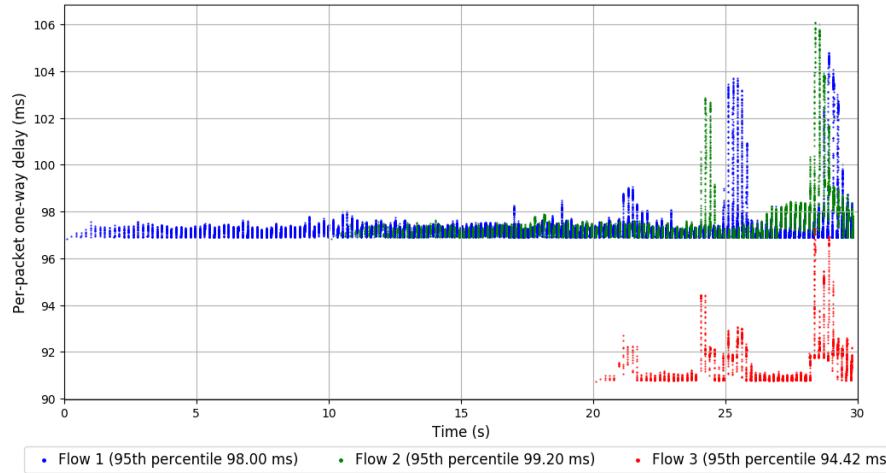
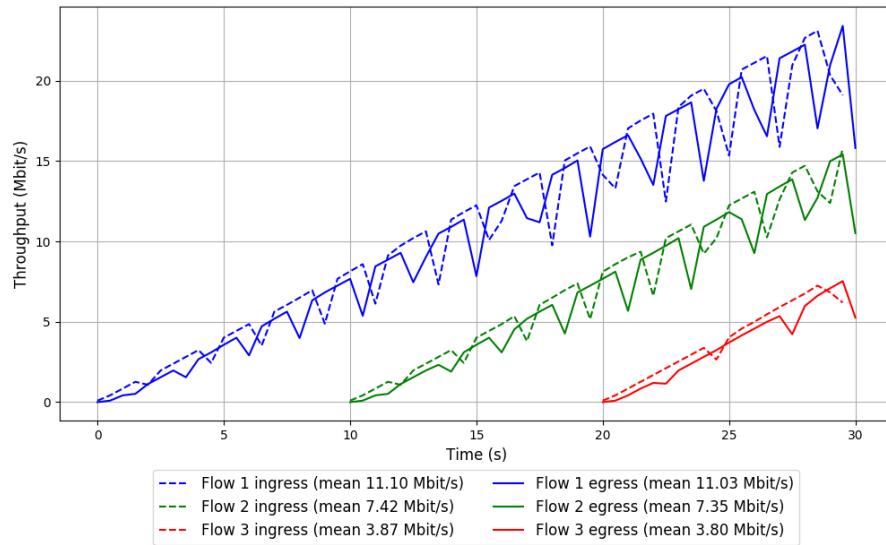


Run 2: Statistics of LEDBAT

```
Start at: 2019-01-25 19:44:49
End at: 2019-01-25 19:45:19
Local clock offset: -7.11 ms
Remote clock offset: 3.133 ms

# Below is generated by plot.py at 2019-01-25 21:35:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.14 Mbit/s
95th percentile per-packet one-way delay: 98.371 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 11.03 Mbit/s
95th percentile per-packet one-way delay: 97.996 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 7.35 Mbit/s
95th percentile per-packet one-way delay: 99.197 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 94.418 ms
Loss rate: 3.54%
```

Run 2: Report of LEDBAT — Data Link

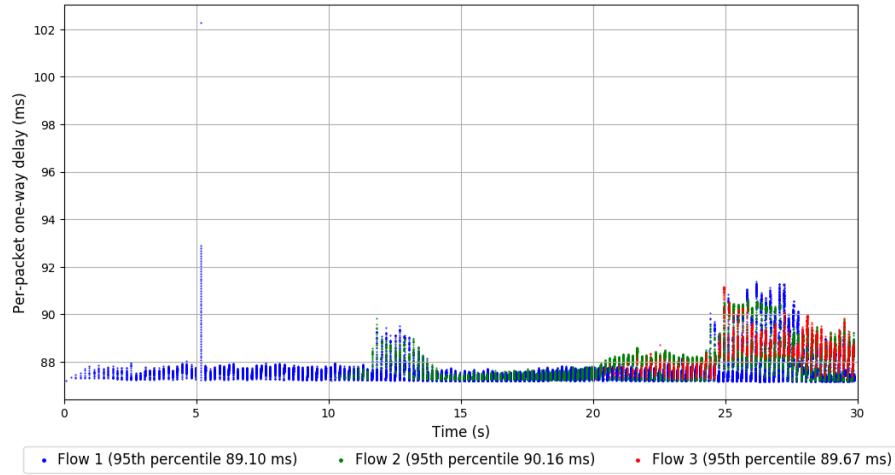
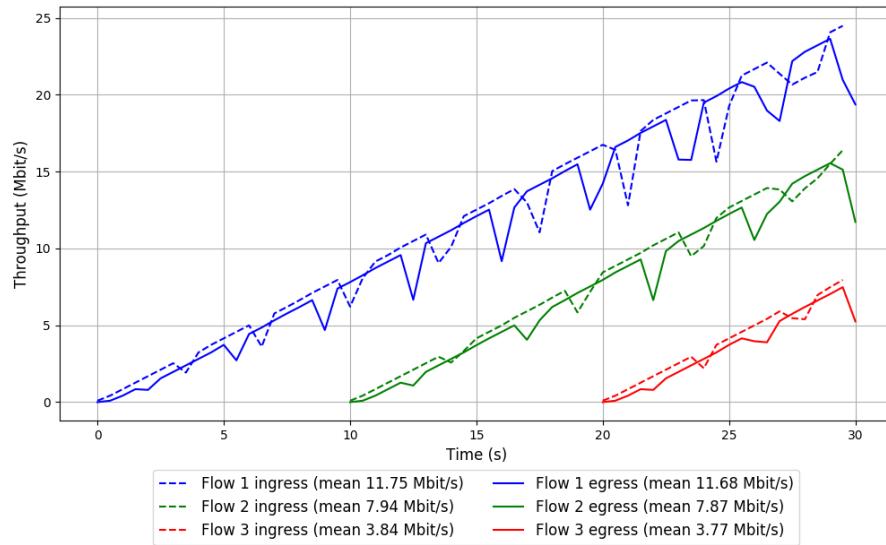


Run 3: Statistics of LEDBAT

```
Start at: 2019-01-25 20:11:46
End at: 2019-01-25 20:12:16
Local clock offset: -3.399 ms
Remote clock offset: 5.804 ms

# Below is generated by plot.py at 2019-01-25 21:35:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.14 Mbit/s
95th percentile per-packet one-way delay: 89.479 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 89.097 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 90.155 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 89.672 ms
Loss rate: 3.54%
```

Run 3: Report of LEDBAT — Data Link

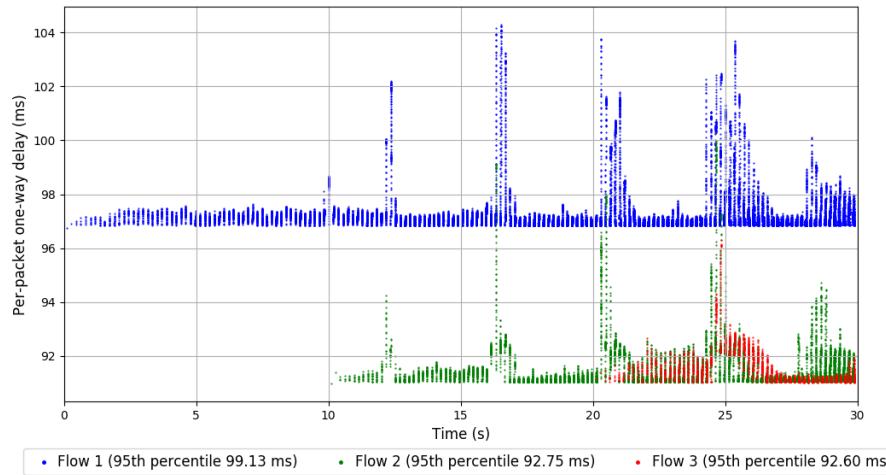
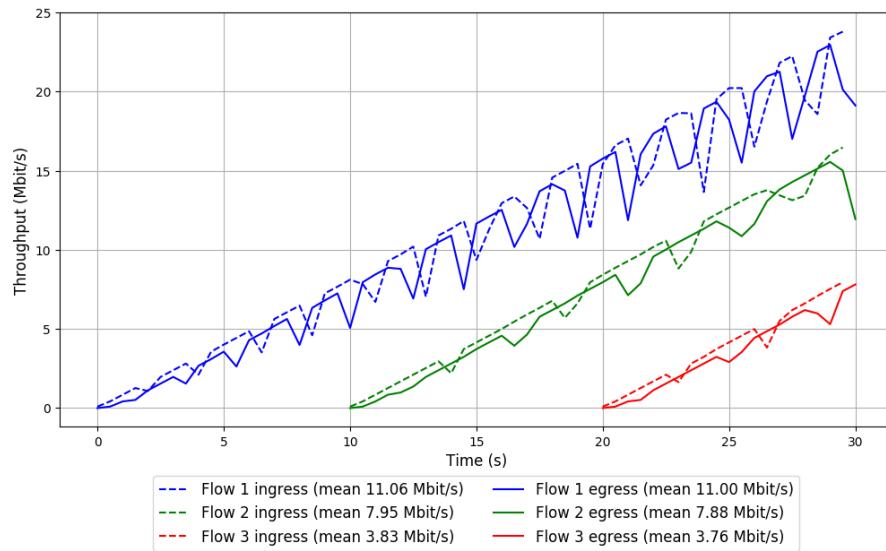


Run 4: Statistics of LEDBAT

```
Start at: 2019-01-25 20:38:45
End at: 2019-01-25 20:39:15
Local clock offset: -2.798 ms
Remote clock offset: 2.03 ms

# Below is generated by plot.py at 2019-01-25 21:35:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.45 Mbit/s
95th percentile per-packet one-way delay: 98.167 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 11.00 Mbit/s
95th percentile per-packet one-way delay: 99.128 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 92.745 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 92.598 ms
Loss rate: 3.54%
```

Run 4: Report of LEDBAT — Data Link

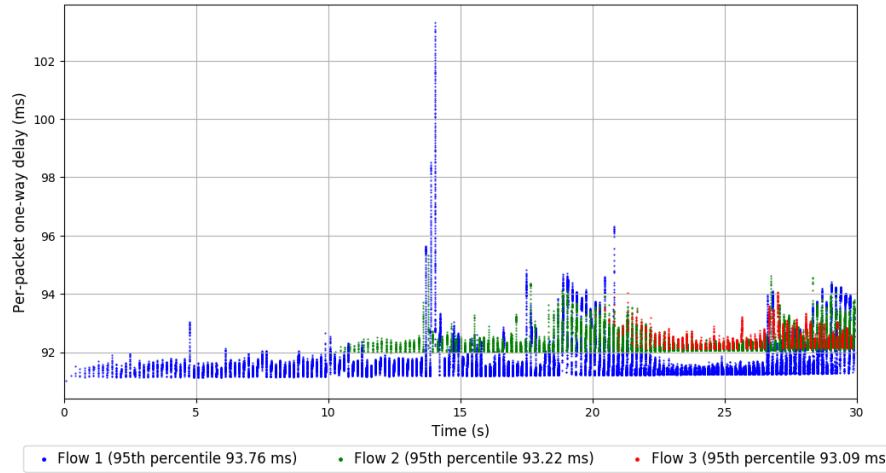
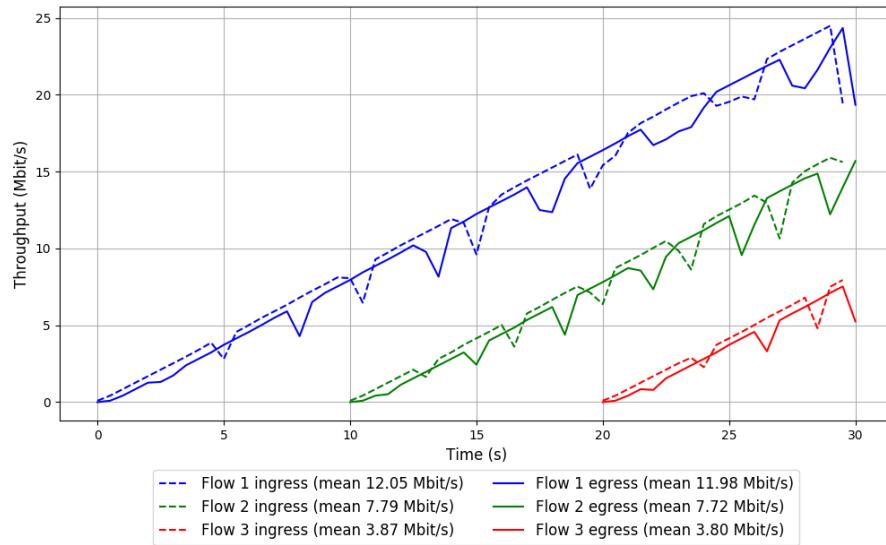


Run 5: Statistics of LEDBAT

```
Start at: 2019-01-25 21:05:44
End at: 2019-01-25 21:06:14
Local clock offset: -4.834 ms
Remote clock offset: 2.057 ms

# Below is generated by plot.py at 2019-01-25 21:35:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.34 Mbit/s
95th percentile per-packet one-way delay: 93.554 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 11.98 Mbit/s
95th percentile per-packet one-way delay: 93.762 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 7.72 Mbit/s
95th percentile per-packet one-way delay: 93.223 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 93.095 ms
Loss rate: 3.53%
```

Run 5: Report of LEDBAT — Data Link

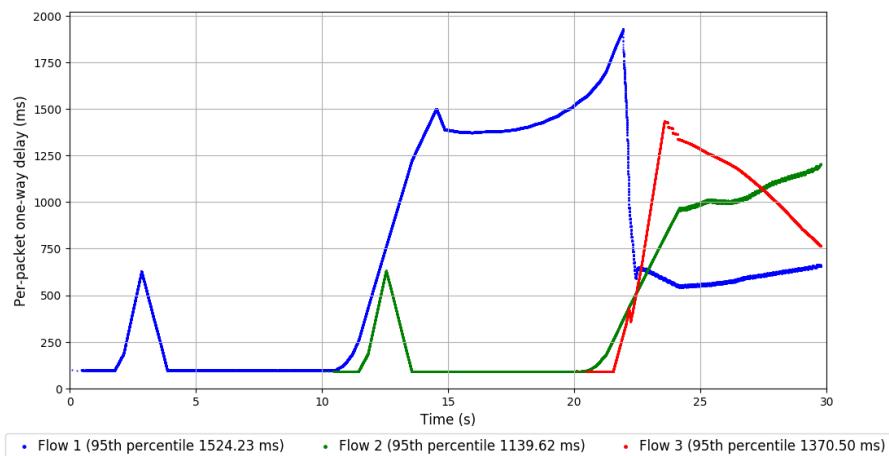
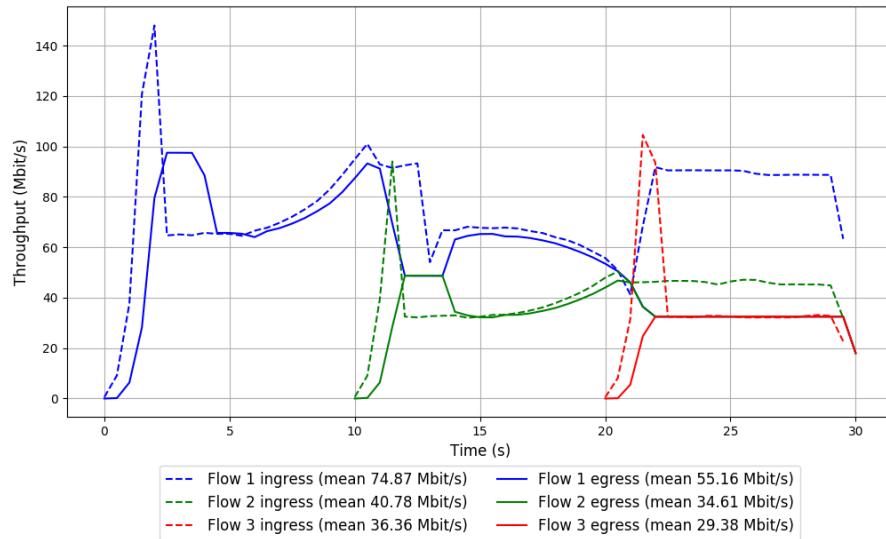


Run 1: Statistics of PCC-Allegro

```
Start at: 2019-01-25 19:37:08
End at: 2019-01-25 19:37:38
Local clock offset: -6.471 ms
Remote clock offset: 2.91 ms

# Below is generated by plot.py at 2019-01-25 21:35:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.68 Mbit/s
95th percentile per-packet one-way delay: 1468.884 ms
Loss rate: 23.52%
-- Flow 1:
Average throughput: 55.16 Mbit/s
95th percentile per-packet one-way delay: 1524.228 ms
Loss rate: 26.76%
-- Flow 2:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 1139.625 ms
Loss rate: 15.87%
-- Flow 3:
Average throughput: 29.38 Mbit/s
95th percentile per-packet one-way delay: 1370.496 ms
Loss rate: 20.59%
```

Run 1: Report of PCC-Allegro — Data Link

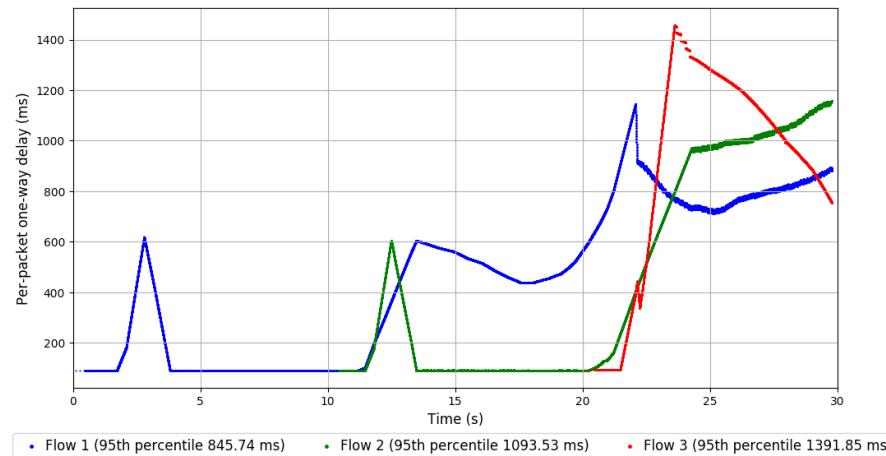
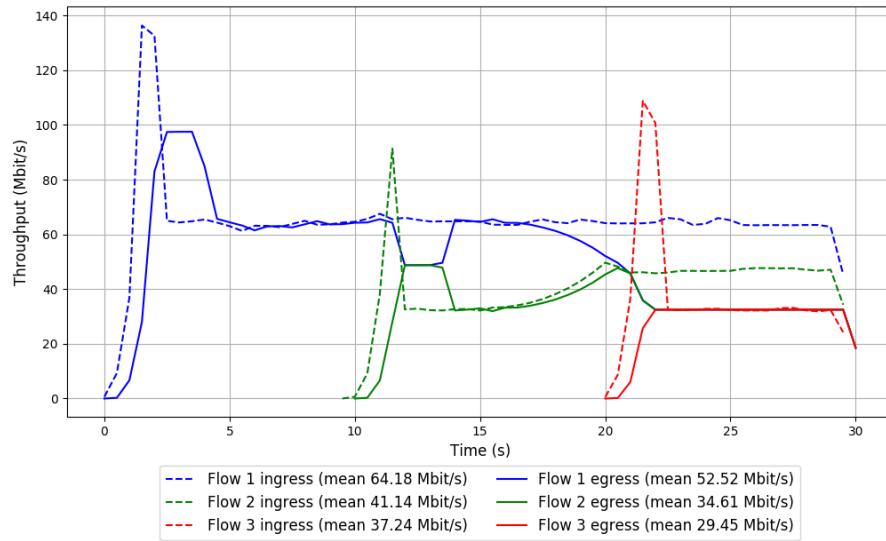


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-01-25 20:04:06
End at: 2019-01-25 20:04:36
Local clock offset: -4.551 ms
Remote clock offset: 2.554 ms

# Below is generated by plot.py at 2019-01-25 21:35:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.07 Mbit/s
95th percentile per-packet one-way delay: 1140.426 ms
Loss rate: 18.53%
-- Flow 1:
Average throughput: 52.52 Mbit/s
95th percentile per-packet one-way delay: 845.742 ms
Loss rate: 18.63%
-- Flow 2:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 1093.530 ms
Loss rate: 16.62%
-- Flow 3:
Average throughput: 29.45 Mbit/s
95th percentile per-packet one-way delay: 1391.851 ms
Loss rate: 22.28%
```

Run 2: Report of PCC-Allegro — Data Link

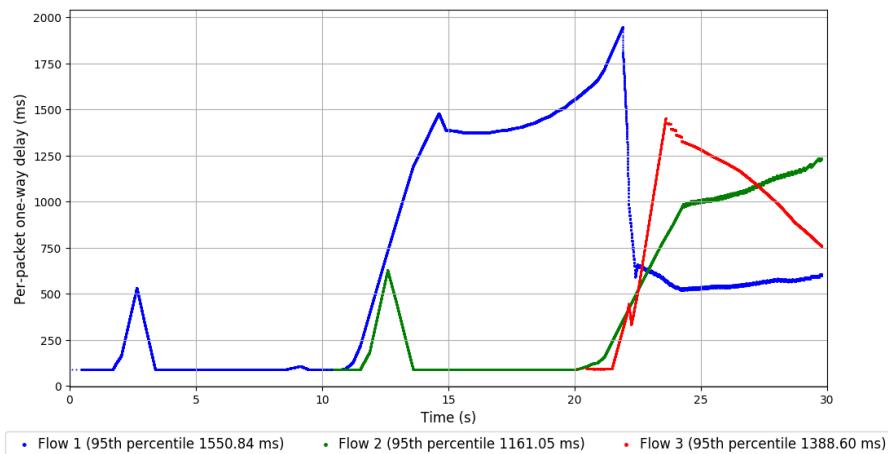
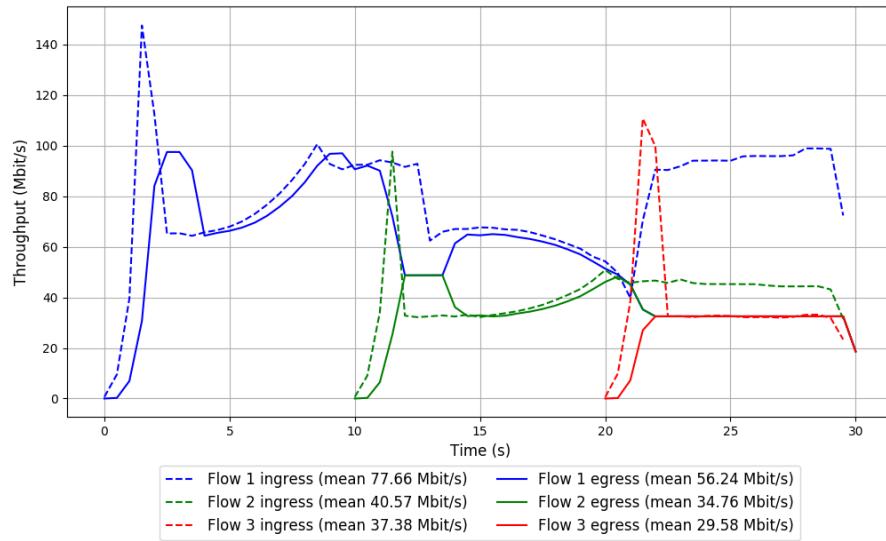


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-01-25 20:31:05
End at: 2019-01-25 20:31:35
Local clock offset: -1.974 ms
Remote clock offset: 1.43 ms

# Below is generated by plot.py at 2019-01-25 21:36:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.94 Mbit/s
95th percentile per-packet one-way delay: 1472.565 ms
Loss rate: 24.40%
-- Flow 1:
Average throughput: 56.24 Mbit/s
95th percentile per-packet one-way delay: 1550.839 ms
Loss rate: 27.99%
-- Flow 2:
Average throughput: 34.76 Mbit/s
95th percentile per-packet one-way delay: 1161.049 ms
Loss rate: 15.06%
-- Flow 3:
Average throughput: 29.58 Mbit/s
95th percentile per-packet one-way delay: 1388.595 ms
Loss rate: 22.22%
```

Run 3: Report of PCC-Allegro — Data Link

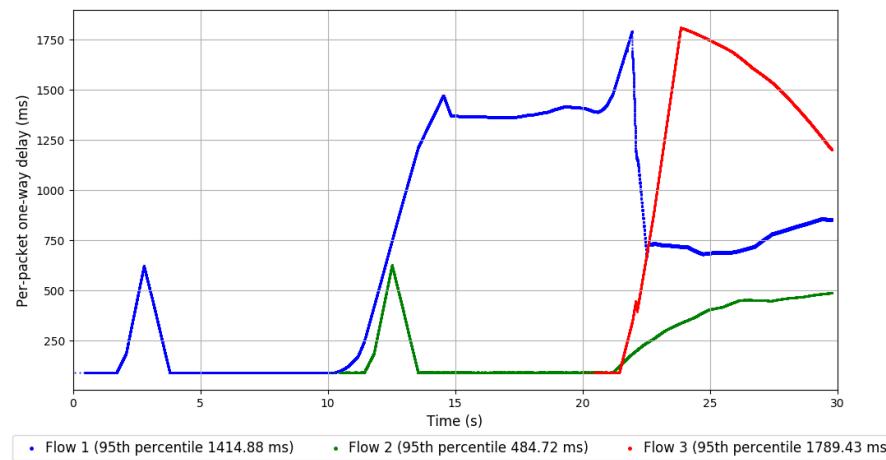
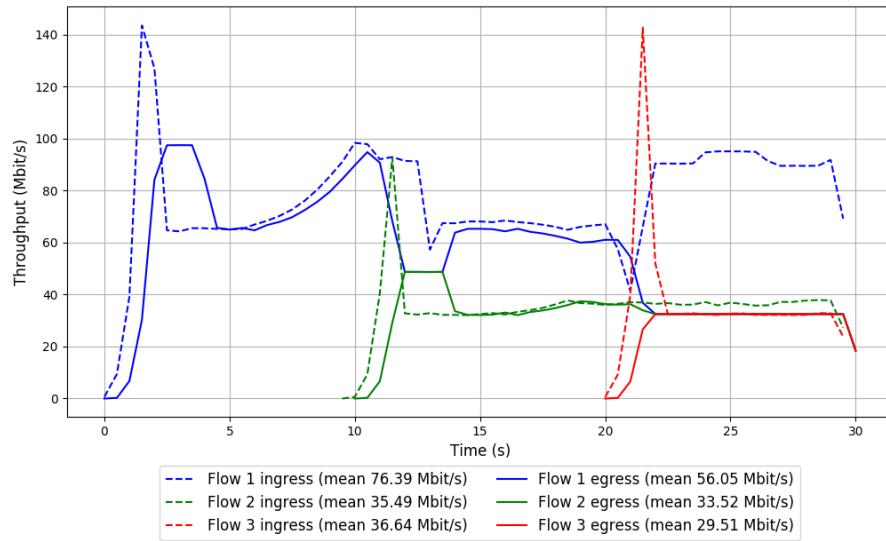


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-01-25 20:58:04
End at: 2019-01-25 20:58:34
Local clock offset: -2.382 ms
Remote clock offset: 1.855 ms

# Below is generated by plot.py at 2019-01-25 21:36:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.91 Mbit/s
95th percentile per-packet one-way delay: 1574.256 ms
Loss rate: 22.02%
-- Flow 1:
Average throughput: 56.05 Mbit/s
95th percentile per-packet one-way delay: 1414.879 ms
Loss rate: 27.04%
-- Flow 2:
Average throughput: 33.52 Mbit/s
95th percentile per-packet one-way delay: 484.719 ms
Loss rate: 6.36%
-- Flow 3:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 1789.430 ms
Loss rate: 20.84%
```

Run 4: Report of PCC-Allegro — Data Link

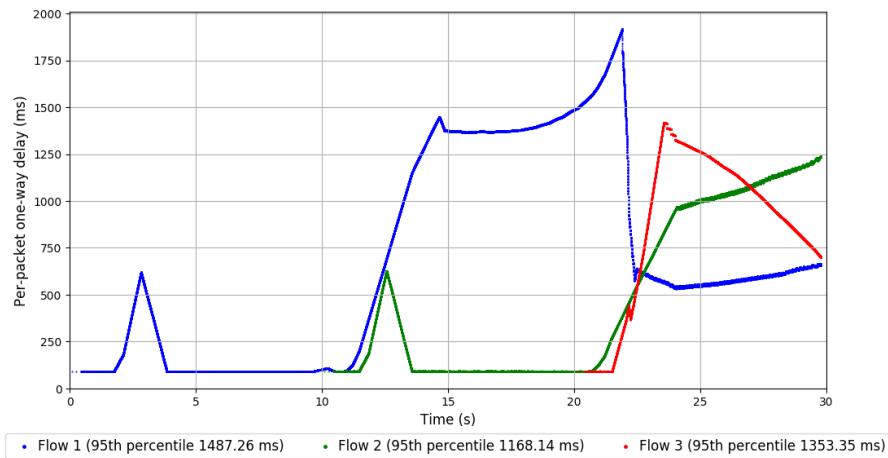
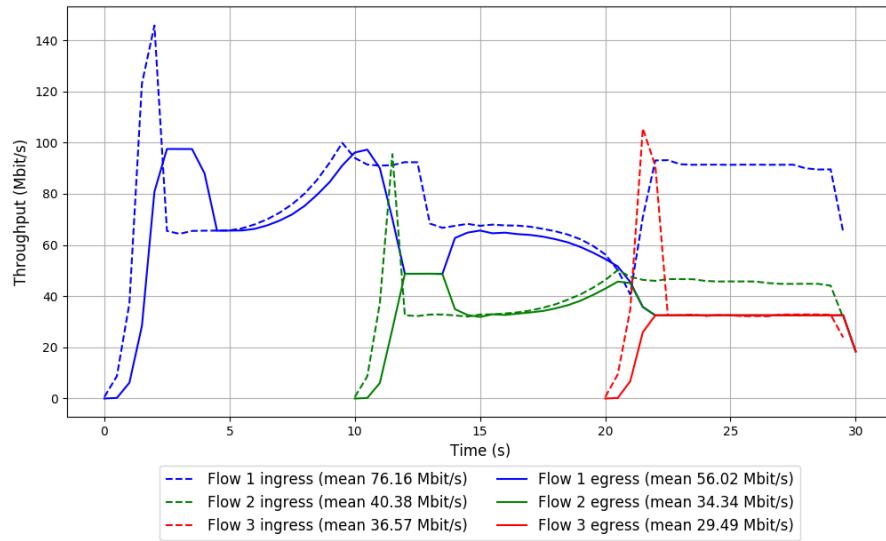


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-01-25 21:25:03
End at: 2019-01-25 21:25:33
Local clock offset: -8.395 ms
Remote clock offset: 2.669 ms

# Below is generated by plot.py at 2019-01-25 21:36:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.42 Mbit/s
95th percentile per-packet one-way delay: 1434.111 ms
Loss rate: 23.61%
-- Flow 1:
Average throughput: 56.02 Mbit/s
95th percentile per-packet one-way delay: 1487.255 ms
Loss rate: 26.86%
-- Flow 2:
Average throughput: 34.34 Mbit/s
95th percentile per-packet one-way delay: 1168.140 ms
Loss rate: 15.69%
-- Flow 3:
Average throughput: 29.49 Mbit/s
95th percentile per-packet one-way delay: 1353.345 ms
Loss rate: 20.77%
```

Run 5: Report of PCC-Allegro — Data Link

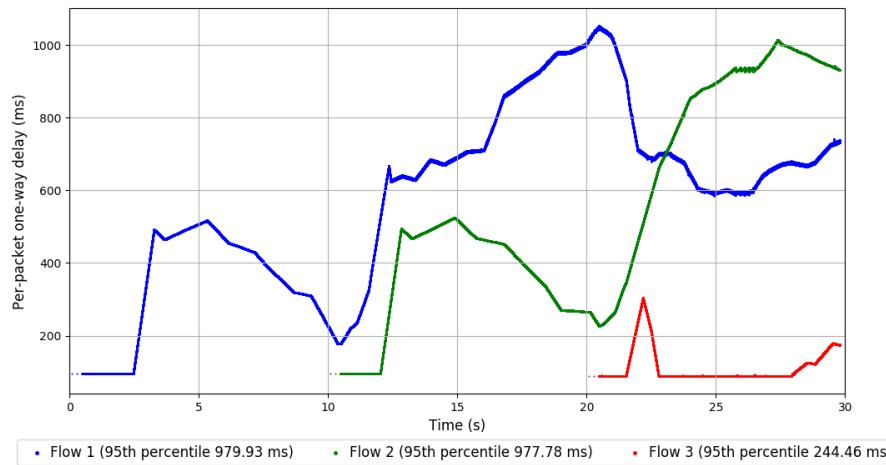
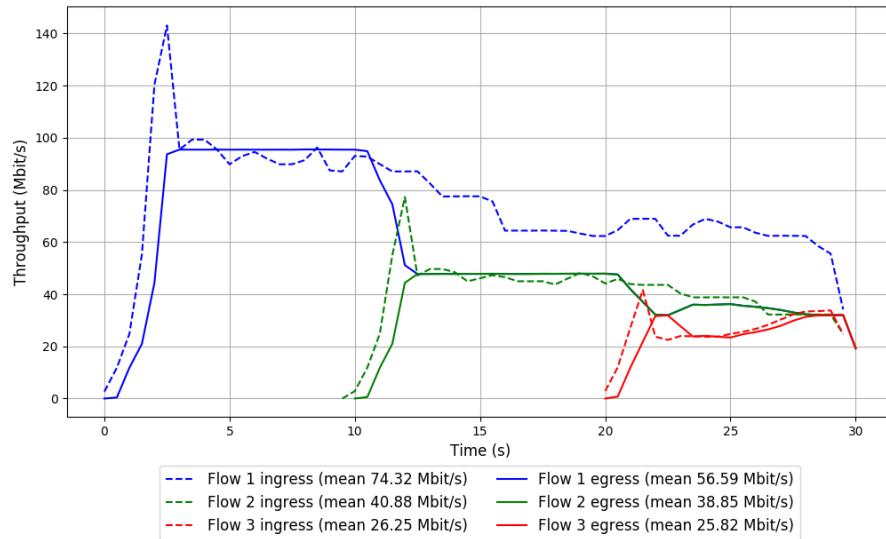


Run 1: Statistics of PCC-Expr

```
Start at: 2019-01-25 19:29:20
End at: 2019-01-25 19:29:50
Local clock offset: -7.022 ms
Remote clock offset: 5.533 ms

# Below is generated by plot.py at 2019-01-25 21:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.79 Mbit/s
95th percentile per-packet one-way delay: 977.226 ms
Loss rate: 17.96%
-- Flow 1:
Average throughput: 56.59 Mbit/s
95th percentile per-packet one-way delay: 979.929 ms
Loss rate: 24.12%
-- Flow 2:
Average throughput: 38.85 Mbit/s
95th percentile per-packet one-way delay: 977.777 ms
Loss rate: 5.83%
-- Flow 3:
Average throughput: 25.82 Mbit/s
95th percentile per-packet one-way delay: 244.455 ms
Loss rate: 3.33%
```

Run 1: Report of PCC-Expr — Data Link

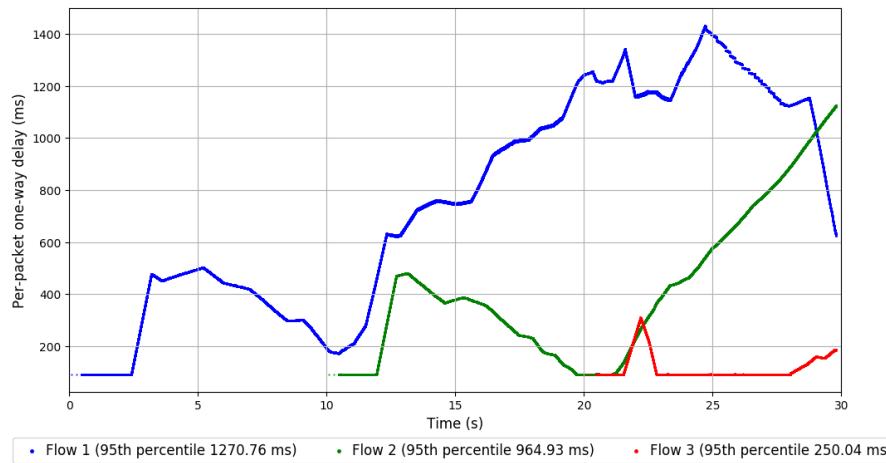
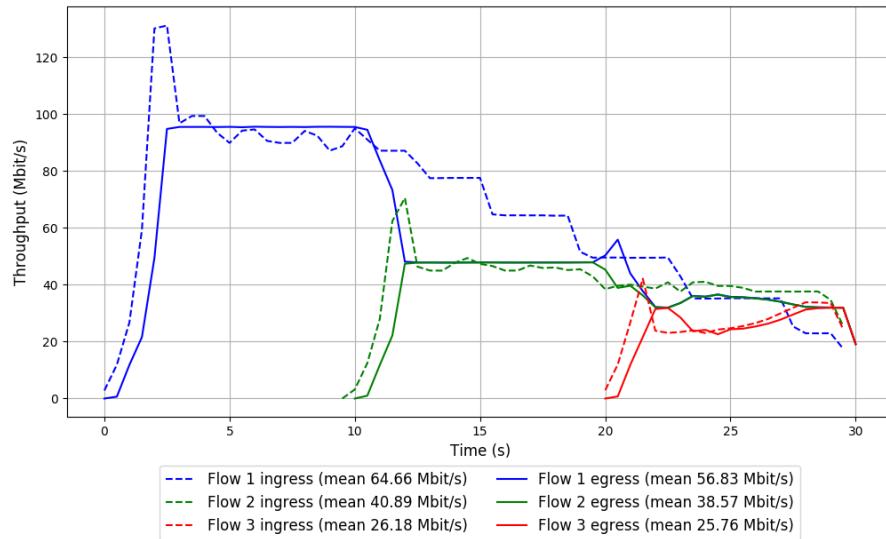


Run 2: Statistics of PCC-Expr

```
Start at: 2019-01-25 19:56:19
End at: 2019-01-25 19:56:49
Local clock offset: -7.24 ms
Remote clock offset: 3.697 ms

# Below is generated by plot.py at 2019-01-25 21:37:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.83 Mbit/s
95th percentile per-packet one-way delay: 1239.405 ms
Loss rate: 10.16%
-- Flow 1:
Average throughput: 56.83 Mbit/s
95th percentile per-packet one-way delay: 1270.761 ms
Loss rate: 12.62%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 964.929 ms
Loss rate: 6.50%
-- Flow 3:
Average throughput: 25.76 Mbit/s
95th percentile per-packet one-way delay: 250.043 ms
Loss rate: 3.33%
```

Run 2: Report of PCC-Expr — Data Link

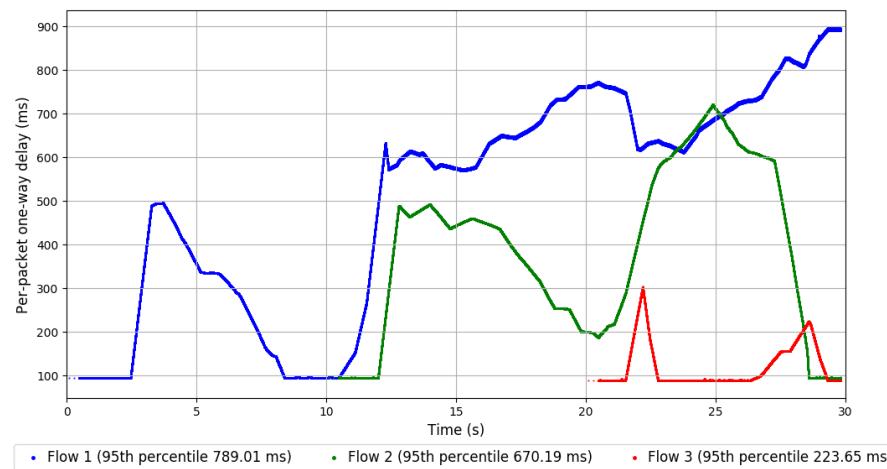
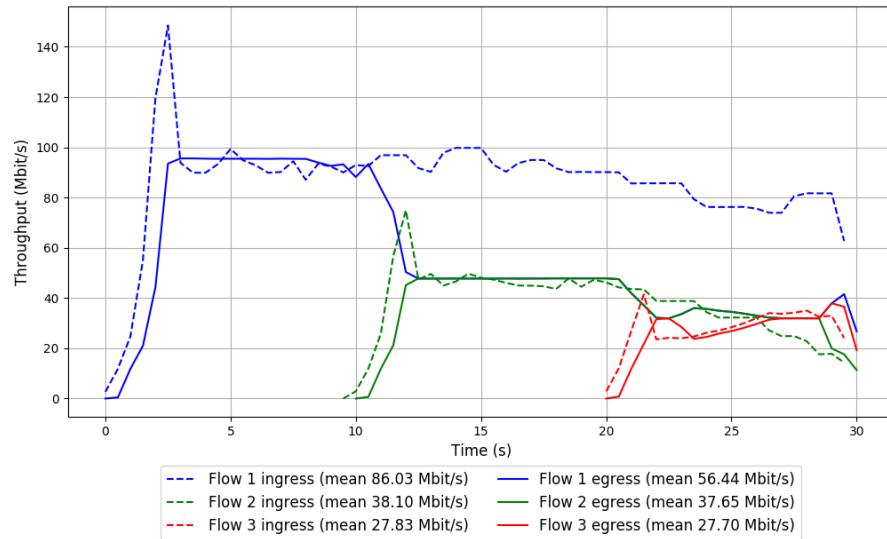


Run 3: Statistics of PCC-Expr

```
Start at: 2019-01-25 20:23:15
End at: 2019-01-25 20:23:45
Local clock offset: -1.389 ms
Remote clock offset: 5.554 ms

# Below is generated by plot.py at 2019-01-25 21:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.46 Mbit/s
95th percentile per-packet one-way delay: 761.009 ms
Loss rate: 25.42%
-- Flow 1:
Average throughput: 56.44 Mbit/s
95th percentile per-packet one-way delay: 789.007 ms
Loss rate: 34.79%
-- Flow 2:
Average throughput: 37.65 Mbit/s
95th percentile per-packet one-way delay: 670.190 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 223.645 ms
Loss rate: 2.19%
```

Run 3: Report of PCC-Expr — Data Link

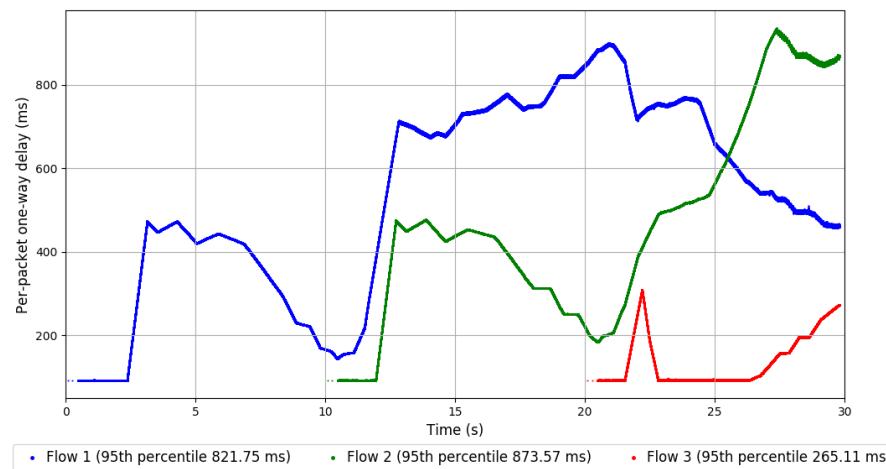
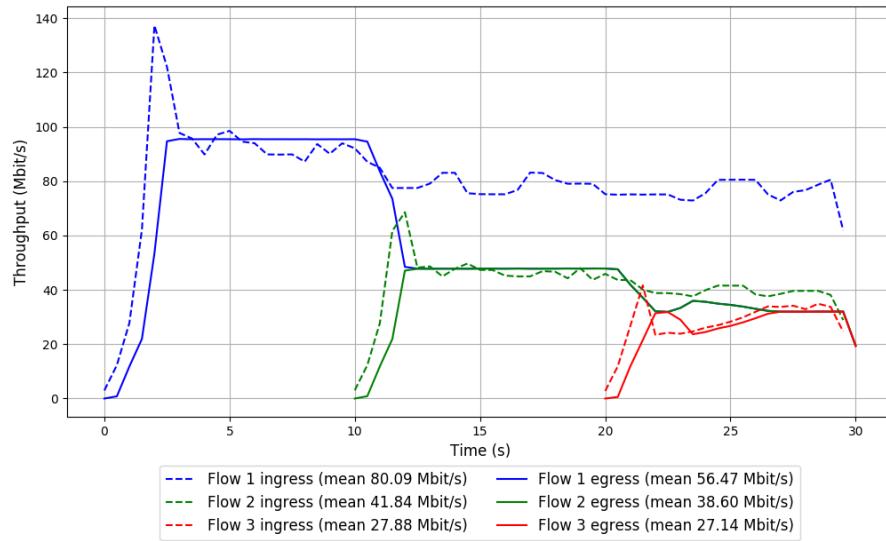


Run 4: Statistics of PCC-Expr

```
Start at: 2019-01-25 20:50:15
End at: 2019-01-25 20:50:45
Local clock offset: -3.139 ms
Remote clock offset: 1.577 ms

# Below is generated by plot.py at 2019-01-25 21:37:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.94 Mbit/s
95th percentile per-packet one-way delay: 851.316 ms
Loss rate: 22.81%
-- Flow 1:
Average throughput: 56.47 Mbit/s
95th percentile per-packet one-way delay: 821.754 ms
Loss rate: 29.90%
-- Flow 2:
Average throughput: 38.60 Mbit/s
95th percentile per-packet one-way delay: 873.572 ms
Loss rate: 8.55%
-- Flow 3:
Average throughput: 27.14 Mbit/s
95th percentile per-packet one-way delay: 265.110 ms
Loss rate: 4.33%
```

Run 4: Report of PCC-Expr — Data Link

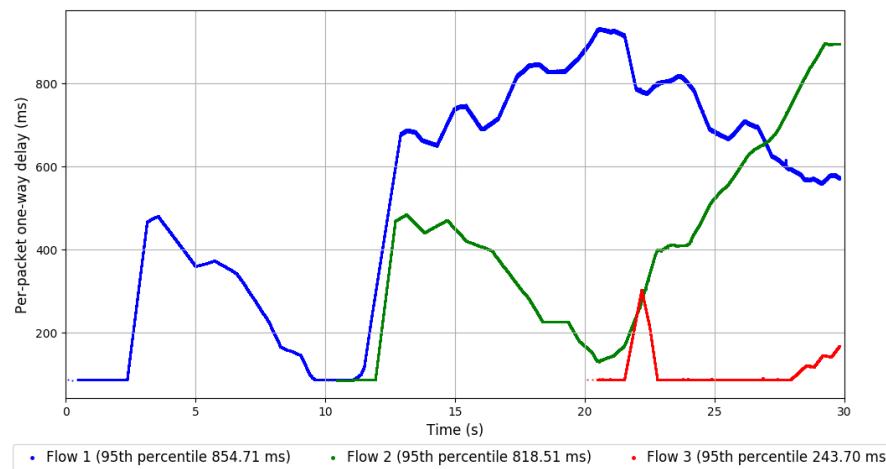
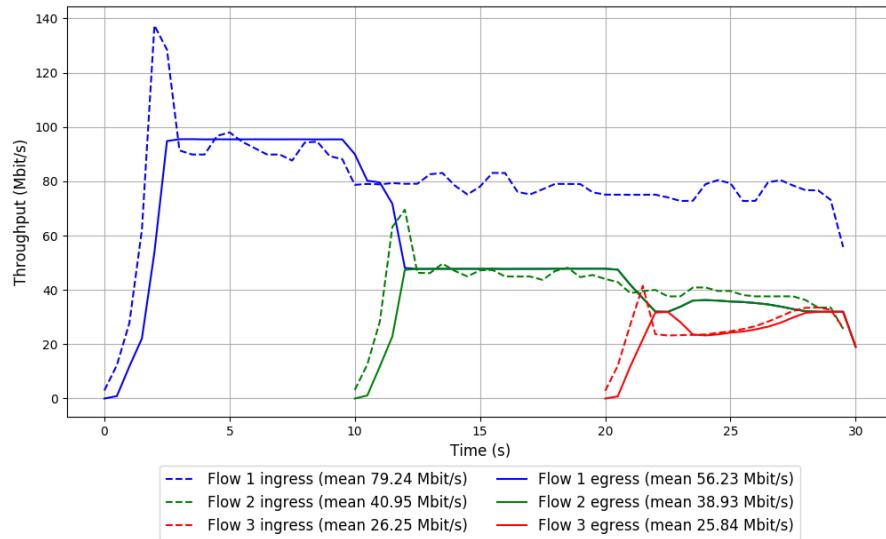


Run 5: Statistics of PCC-Expr

```
Start at: 2019-01-25 21:17:14
End at: 2019-01-25 21:17:44
Local clock offset: -7.678 ms
Remote clock offset: 6.591 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.49 Mbit/s
95th percentile per-packet one-way delay: 844.175 ms
Loss rate: 21.87%
-- Flow 1:
Average throughput: 56.23 Mbit/s
95th percentile per-packet one-way delay: 854.712 ms
Loss rate: 29.45%
-- Flow 2:
Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 818.515 ms
Loss rate: 5.74%
-- Flow 3:
Average throughput: 25.84 Mbit/s
95th percentile per-packet one-way delay: 243.701 ms
Loss rate: 3.33%
```

Run 5: Report of PCC-Expr — Data Link

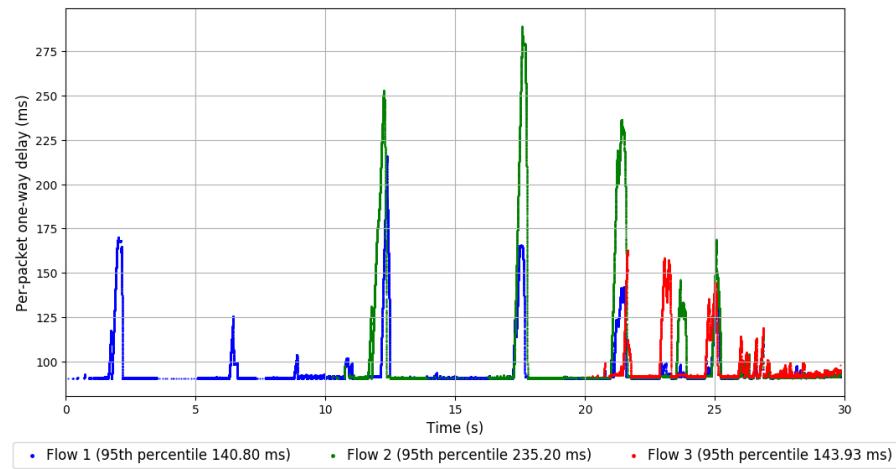
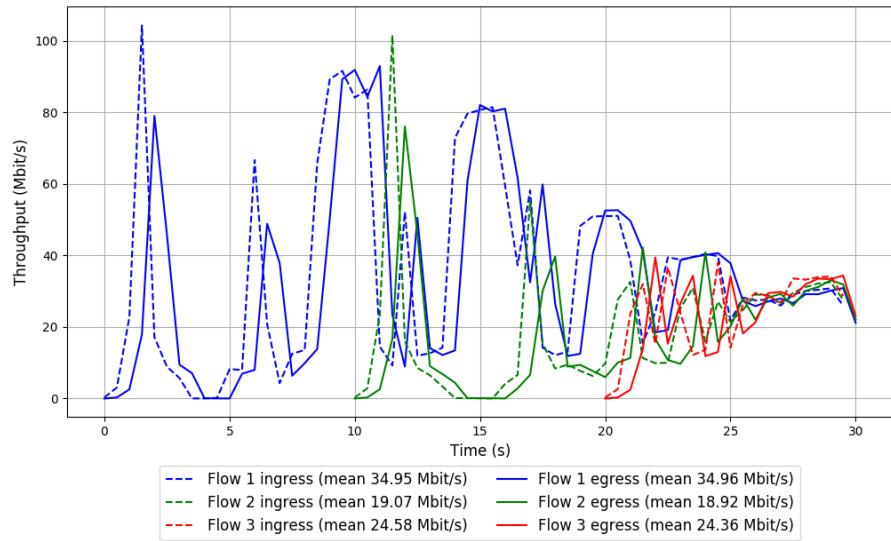


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-25 19:19:04
End at: 2019-01-25 19:19:34
Local clock offset: -7.183 ms
Remote clock offset: 2.3 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.48 Mbit/s
95th percentile per-packet one-way delay: 165.502 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 34.96 Mbit/s
95th percentile per-packet one-way delay: 140.804 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 18.92 Mbit/s
95th percentile per-packet one-way delay: 235.201 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 143.928 ms
Loss rate: 2.57%
```

Run 1: Report of QUIC Cubic — Data Link

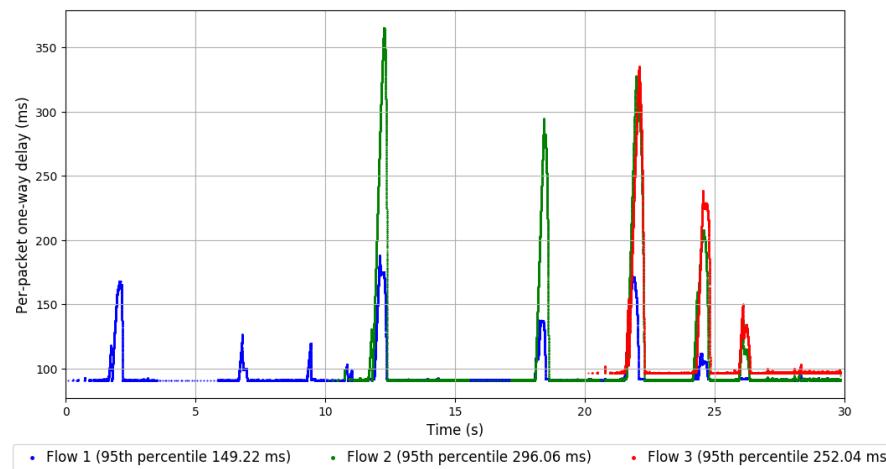
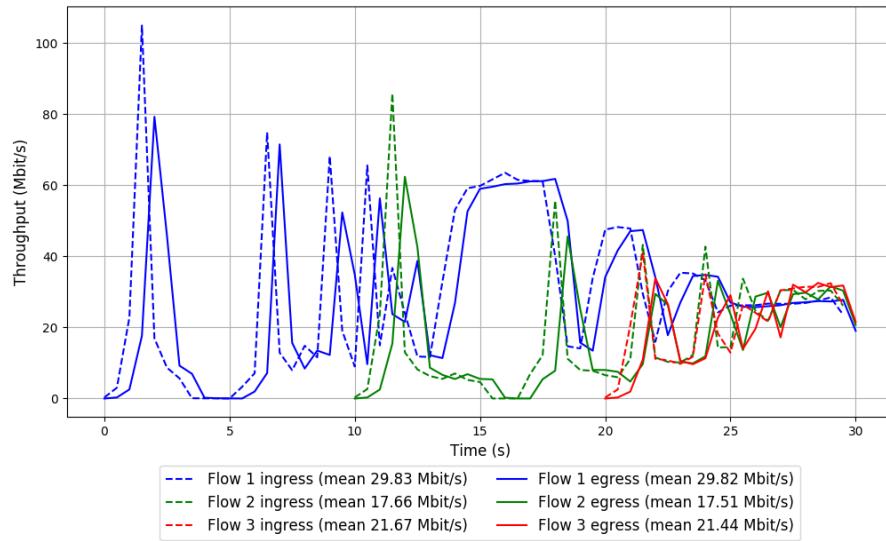


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-01-25 19:46:04
End at: 2019-01-25 19:46:34
Local clock offset: -7.087 ms
Remote clock offset: 3.476 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.44 Mbit/s
95th percentile per-packet one-way delay: 212.593 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 29.82 Mbit/s
95th percentile per-packet one-way delay: 149.216 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 17.51 Mbit/s
95th percentile per-packet one-way delay: 296.056 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 21.44 Mbit/s
95th percentile per-packet one-way delay: 252.042 ms
Loss rate: 2.82%
```

Run 2: Report of QUIC Cubic — Data Link

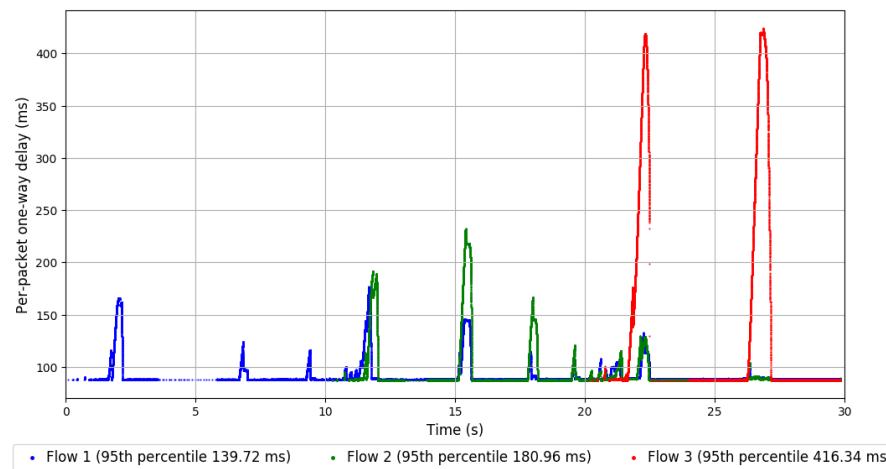
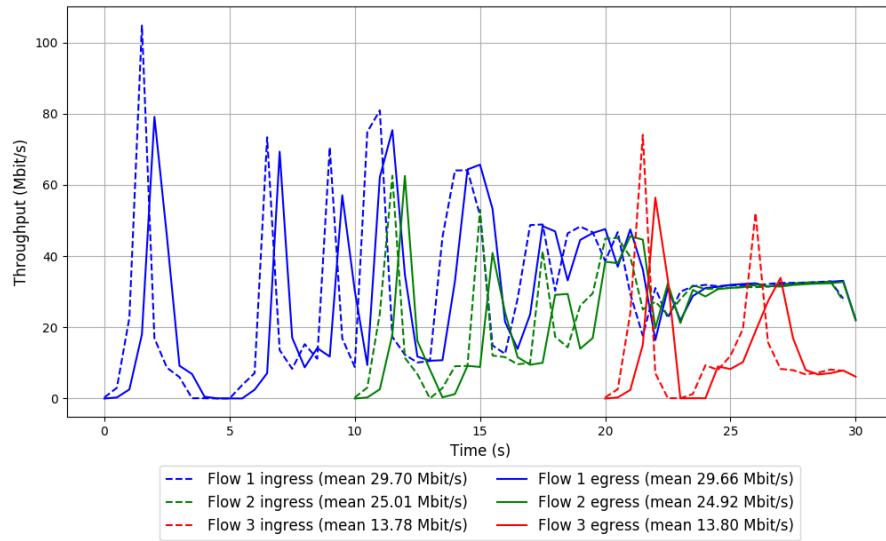


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-01-25 20:13:00
End at: 2019-01-25 20:13:30
Local clock offset: -2.447 ms
Remote clock offset: 5.679 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.70 Mbit/s
95th percentile per-packet one-way delay: 175.903 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 29.66 Mbit/s
95th percentile per-packet one-way delay: 139.722 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 24.92 Mbit/s
95th percentile per-packet one-way delay: 180.962 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 13.80 Mbit/s
95th percentile per-packet one-way delay: 416.341 ms
Loss rate: 1.57%
```

Run 3: Report of QUIC Cubic — Data Link

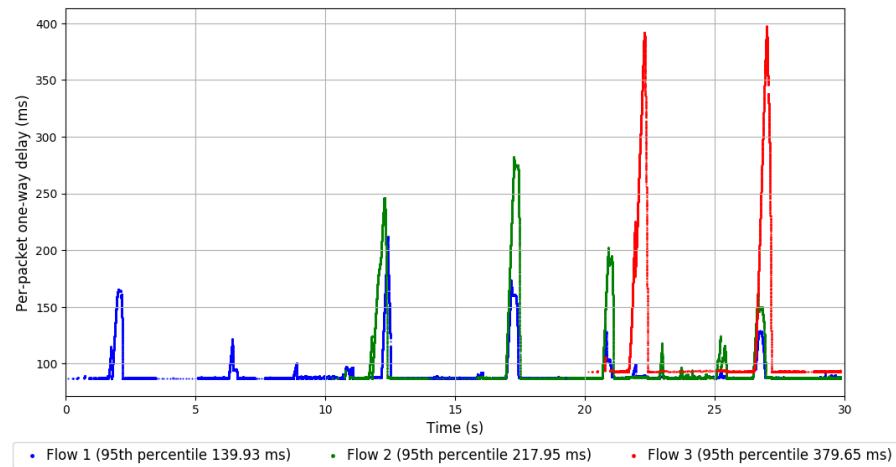
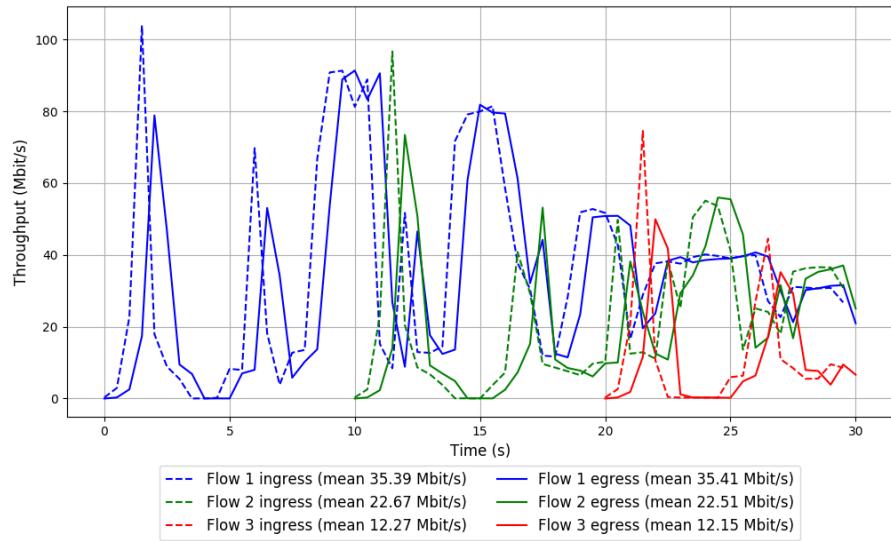


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-01-25 20:39:59
End at: 2019-01-25 20:40:29
Local clock offset: -2.873 ms
Remote clock offset: 5.956 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.31 Mbit/s
95th percentile per-packet one-way delay: 191.627 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 35.41 Mbit/s
95th percentile per-packet one-way delay: 139.928 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 22.51 Mbit/s
95th percentile per-packet one-way delay: 217.948 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 12.15 Mbit/s
95th percentile per-packet one-way delay: 379.653 ms
Loss rate: 2.77%
```

Run 4: Report of QUIC Cubic — Data Link

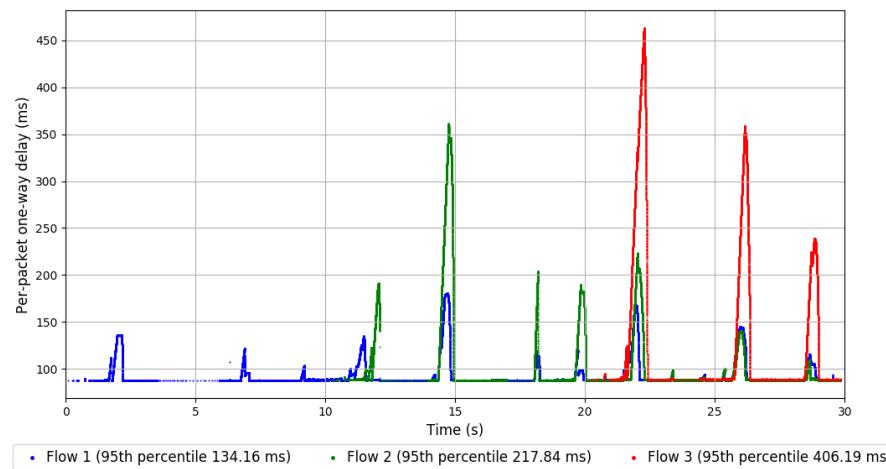
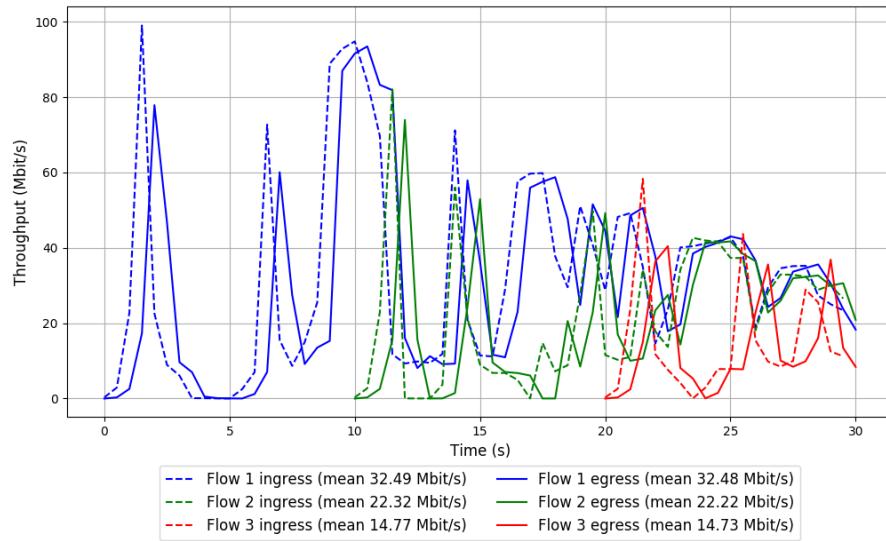


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-01-25 21:06:58
End at: 2019-01-25 21:07:28
Local clock offset: -5.257 ms
Remote clock offset: 5.511 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.04 Mbit/s
95th percentile per-packet one-way delay: 202.093 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 134.155 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 22.22 Mbit/s
95th percentile per-packet one-way delay: 217.842 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 14.73 Mbit/s
95th percentile per-packet one-way delay: 406.186 ms
Loss rate: 2.00%
```

Run 5: Report of QUIC Cubic — Data Link

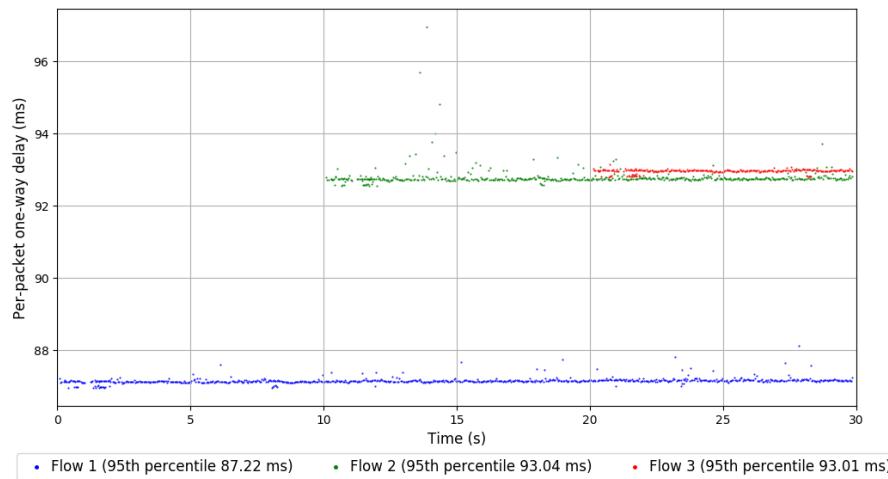
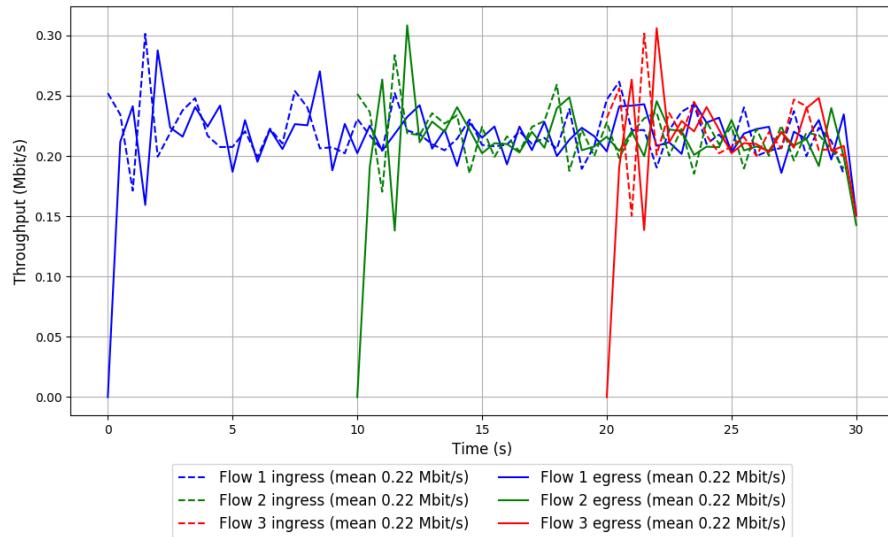


Run 1: Statistics of SCReAM

```
Start at: 2019-01-25 19:25:32
End at: 2019-01-25 19:26:02
Local clock offset: -6.797 ms
Remote clock offset: 7.615 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 92.990 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.225 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.044 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.010 ms
Loss rate: 1.85%
```

Run 1: Report of SCReAM — Data Link

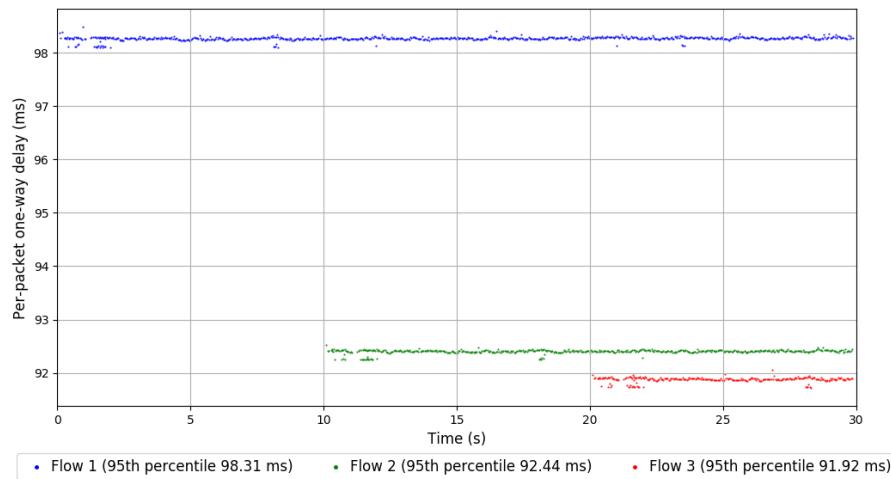
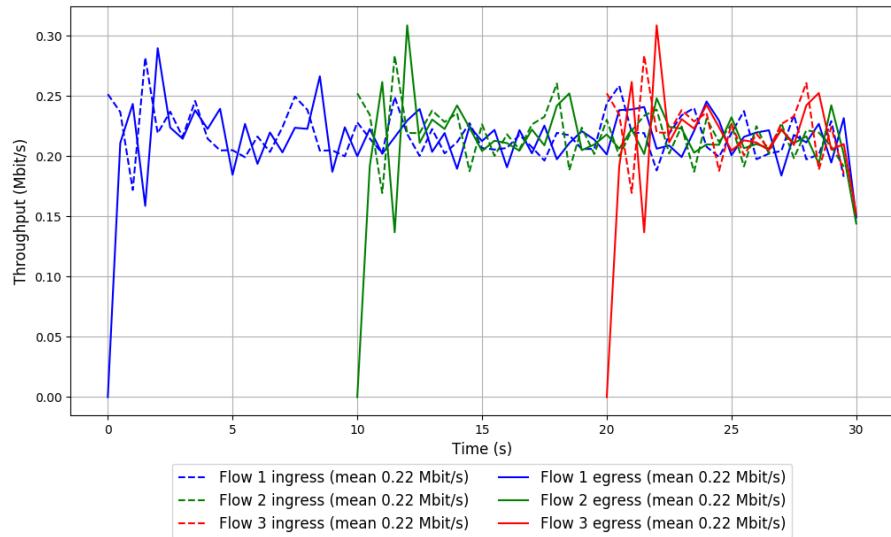


Run 2: Statistics of SCReAM

```
Start at: 2019-01-25 19:52:30
End at: 2019-01-25 19:53:00
Local clock offset: -6.409 ms
Remote clock offset: 2.951 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 98.298 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 98.305 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.436 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.921 ms
Loss rate: 1.85%
```

Run 2: Report of SCReAM — Data Link

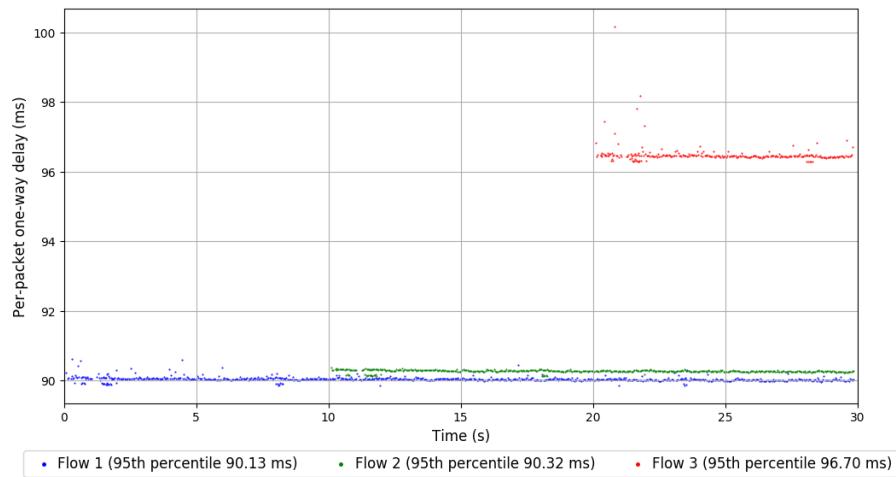
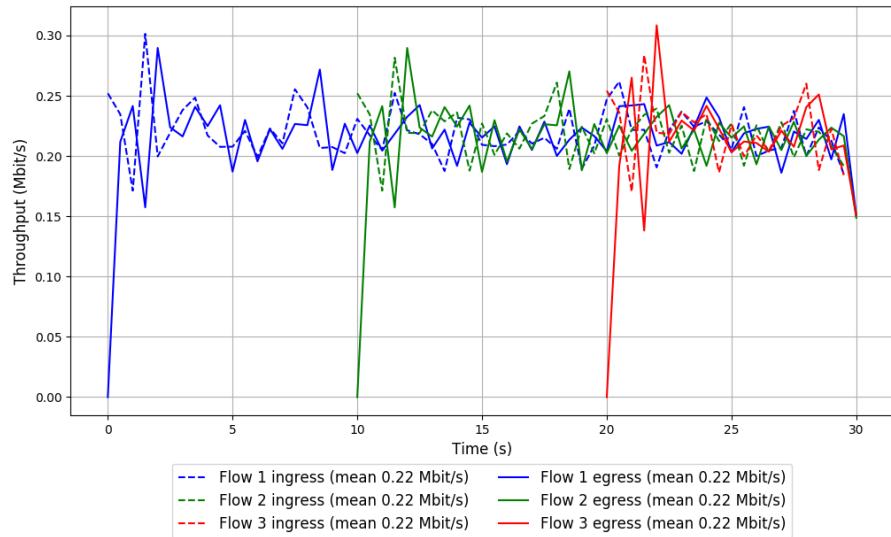


Run 3: Statistics of SCReAM

```
Start at: 2019-01-25 20:19:27
End at: 2019-01-25 20:19:57
Local clock offset: -2.439 ms
Remote clock offset: 2.061 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 96.468 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.128 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.318 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 96.703 ms
Loss rate: 1.84%
```

Run 3: Report of SCReAM — Data Link

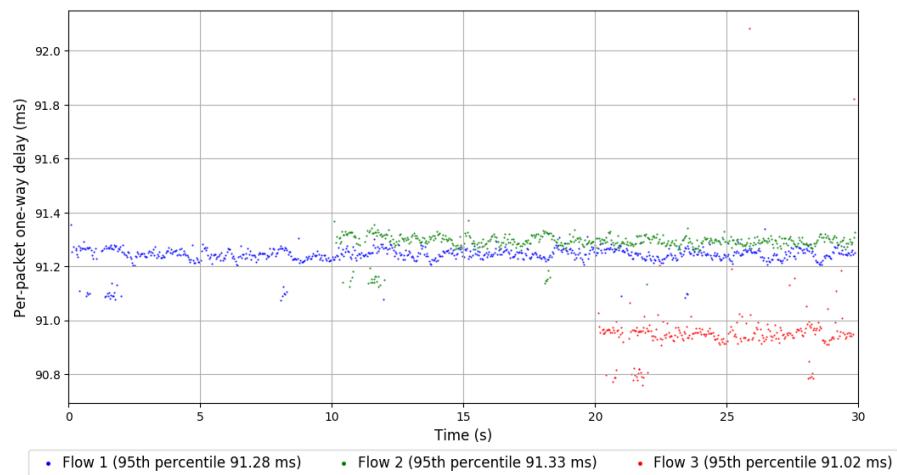
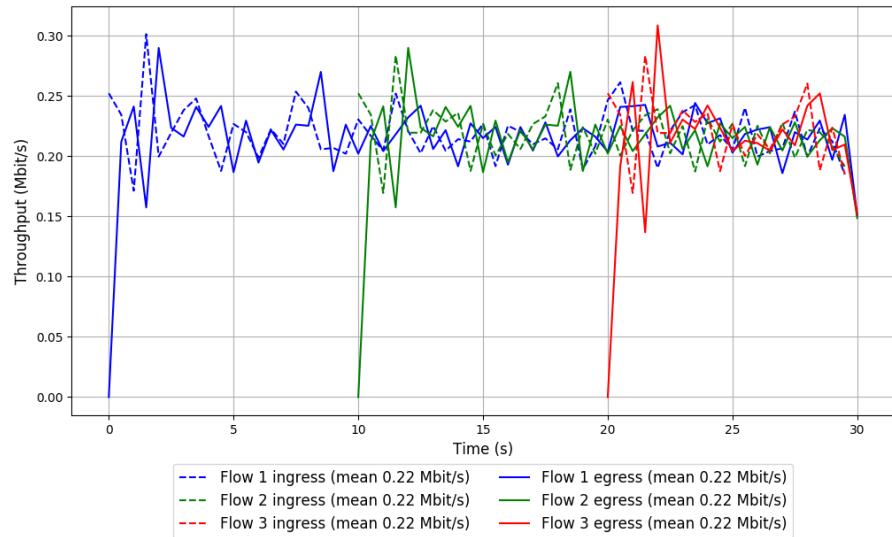


Run 4: Statistics of SCReAM

```
Start at: 2019-01-25 20:46:26
End at: 2019-01-25 20:46:56
Local clock offset: -2.328 ms
Remote clock offset: 1.956 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 91.315 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.275 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.325 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.022 ms
Loss rate: 1.85%
```

Run 4: Report of SCReAM — Data Link

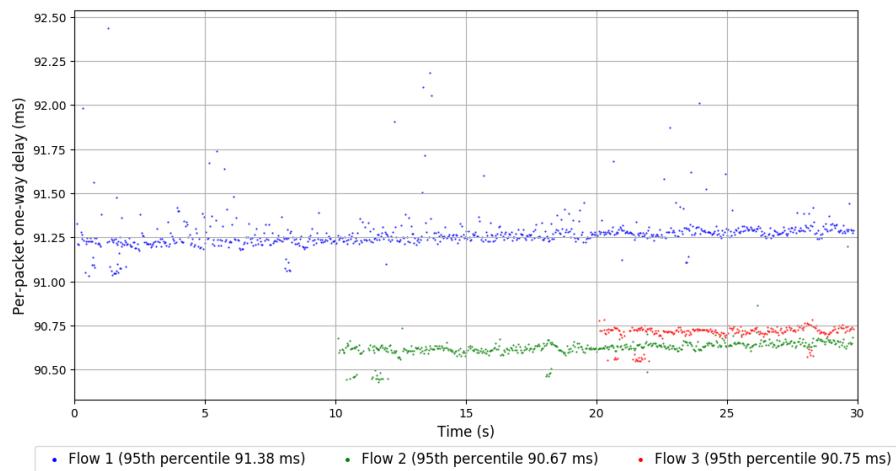
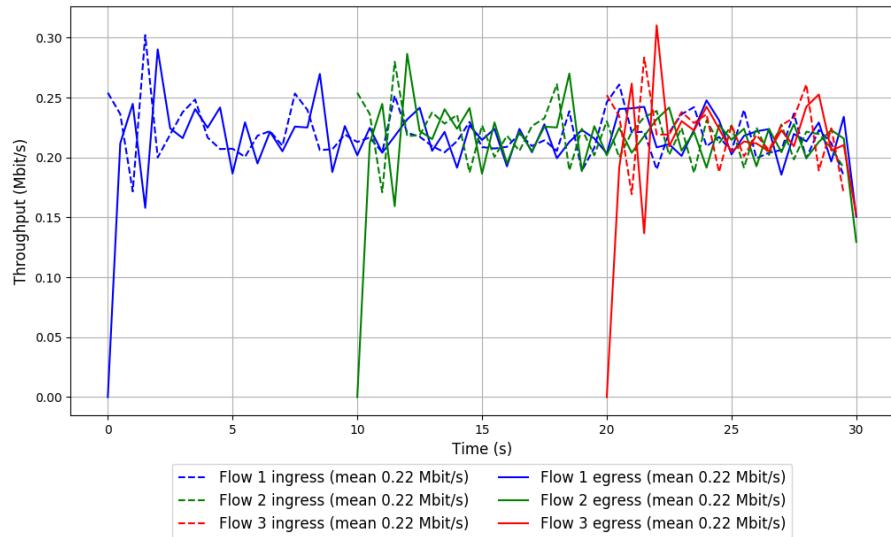


Run 5: Statistics of SCReAM

```
Start at: 2019-01-25 21:13:26
End at: 2019-01-25 21:13:56
Local clock offset: -7.206 ms
Remote clock offset: 2.438 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 91.325 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.384 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.671 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.751 ms
Loss rate: 1.50%
```

Run 5: Report of SCReAM — Data Link

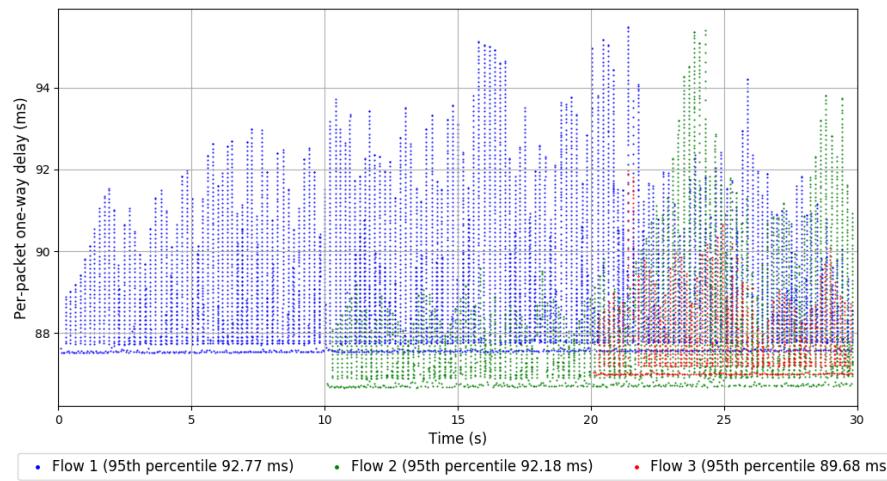
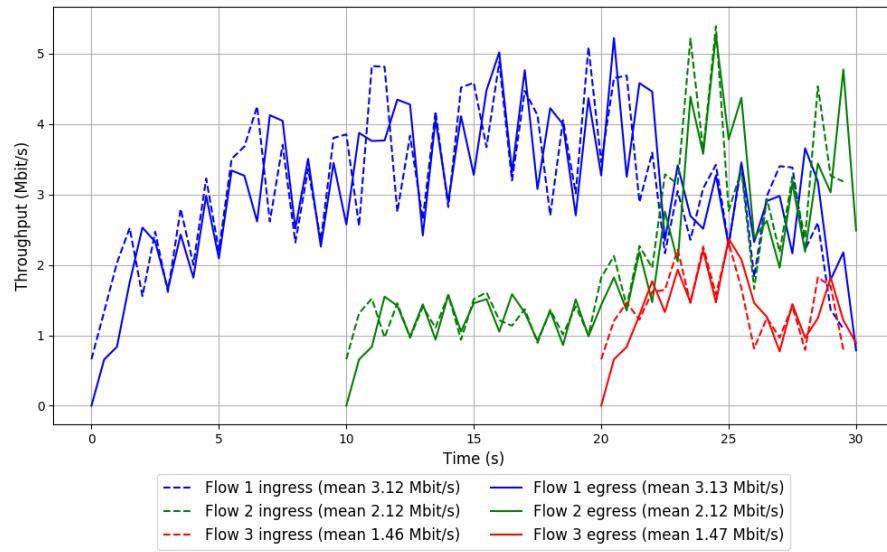


Run 1: Statistics of Sprout

```
Start at: 2019-01-25 19:12:39
End at: 2019-01-25 19:13:09
Local clock offset: -6.556 ms
Remote clock offset: 6.063 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 92.489 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 92.769 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 92.176 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 89.679 ms
Loss rate: 1.35%
```

Run 1: Report of Sprout — Data Link

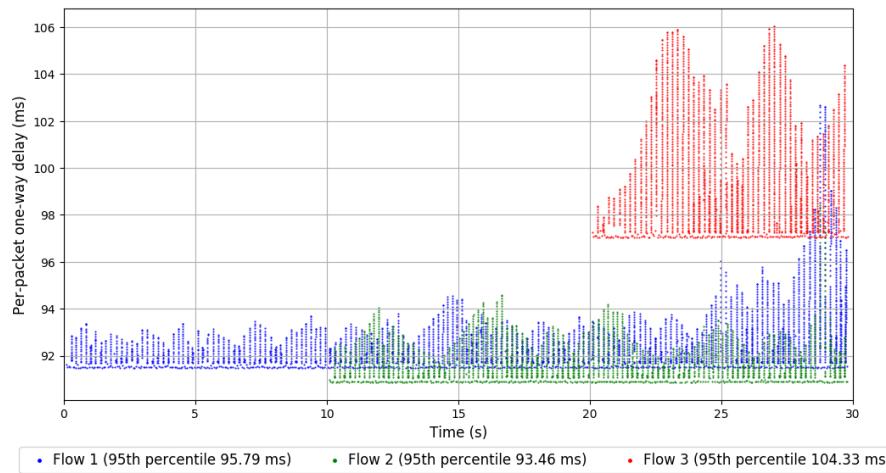
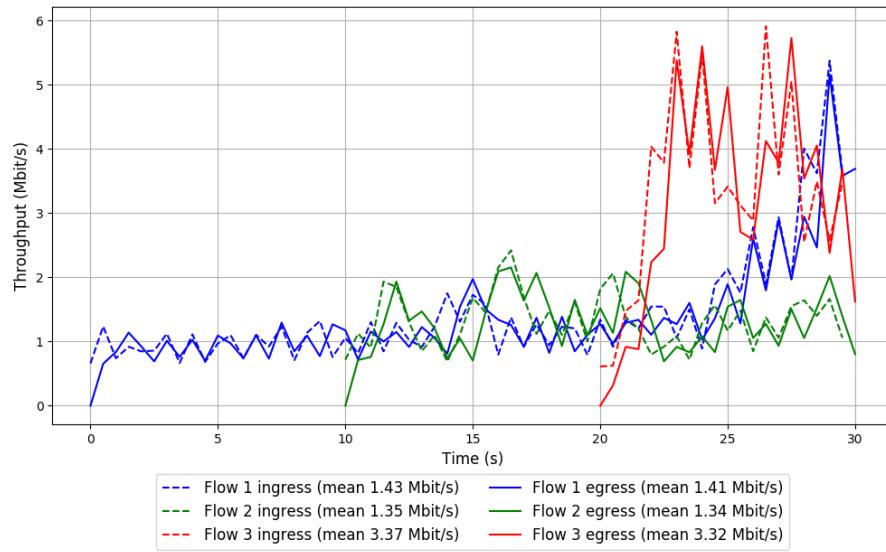


Run 2: Statistics of Sprout

```
Start at: 2019-01-25 19:39:38
End at: 2019-01-25 19:40:08
Local clock offset: -7.094 ms
Remote clock offset: 2.733 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 102.588 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 95.789 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 93.459 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 104.325 ms
Loss rate: 2.79%
```

Run 2: Report of Sprout — Data Link

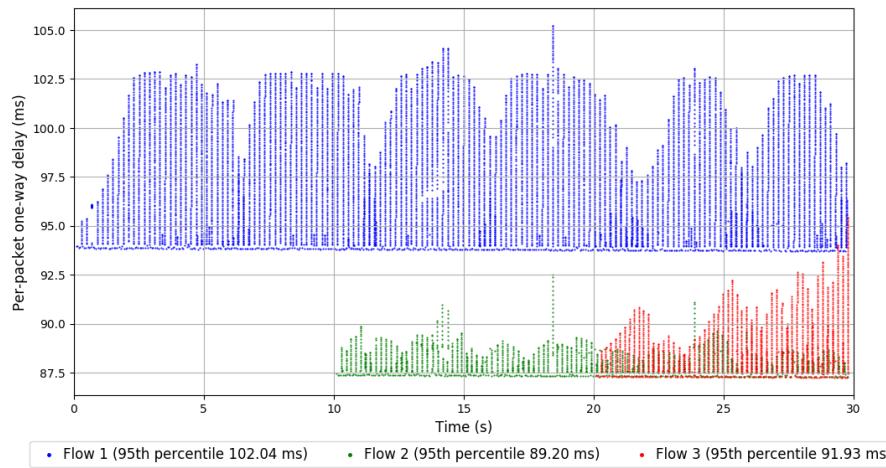
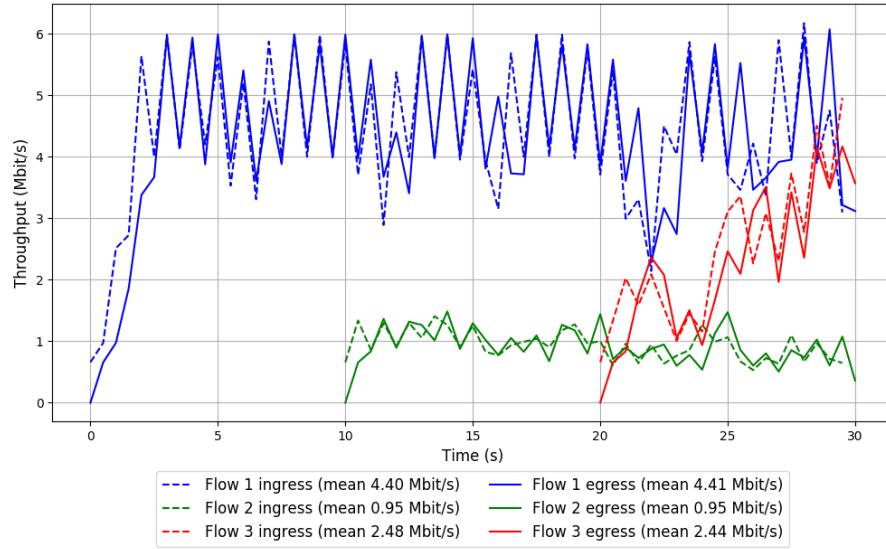


Run 3: Statistics of Sprout

```
Start at: 2019-01-25 20:06:35
End at: 2019-01-25 20:07:05
Local clock offset: -3.65 ms
Remote clock offset: 5.712 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 101.796 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 102.040 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 89.201 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 91.927 ms
Loss rate: 3.64%
```

Run 3: Report of Sprout — Data Link

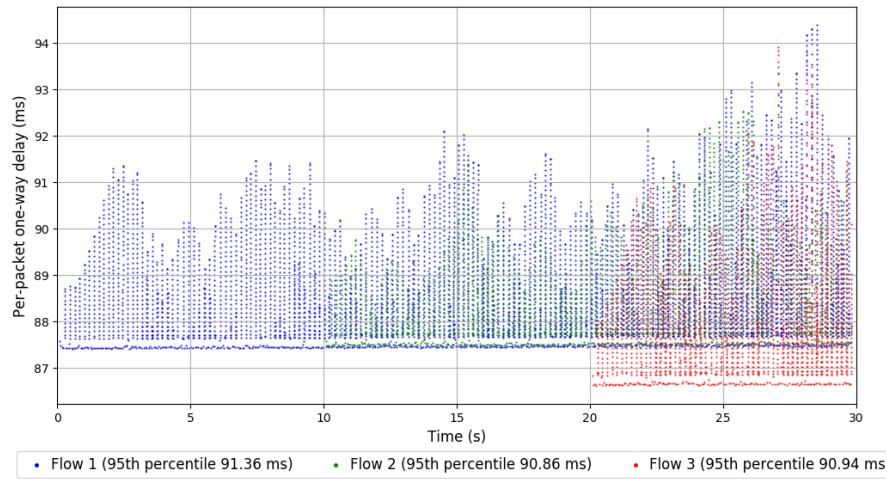
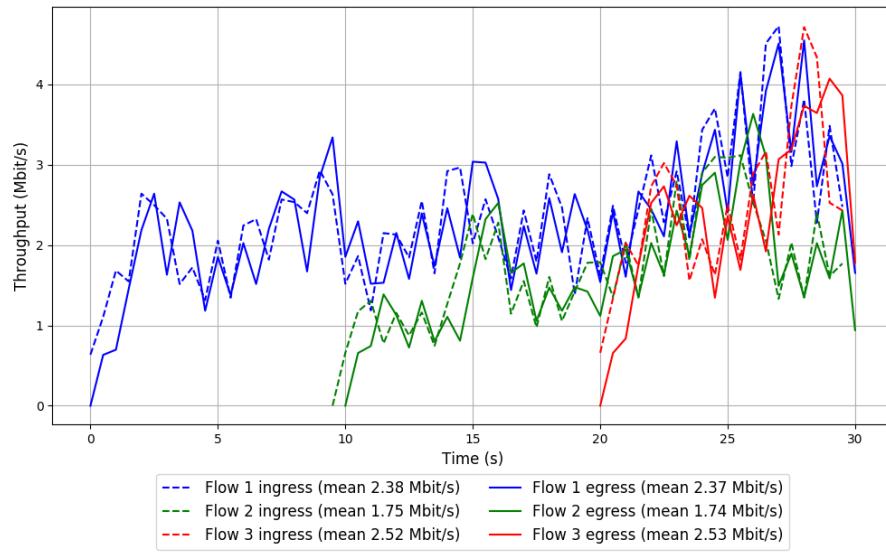


Run 4: Statistics of Sprout

```
Start at: 2019-01-25 20:33:35
End at: 2019-01-25 20:34:05
Local clock offset: -2.327 ms
Remote clock offset: 5.438 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 91.195 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 91.365 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 90.857 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 90.935 ms
Loss rate: 1.31%
```

Run 4: Report of Sprout — Data Link

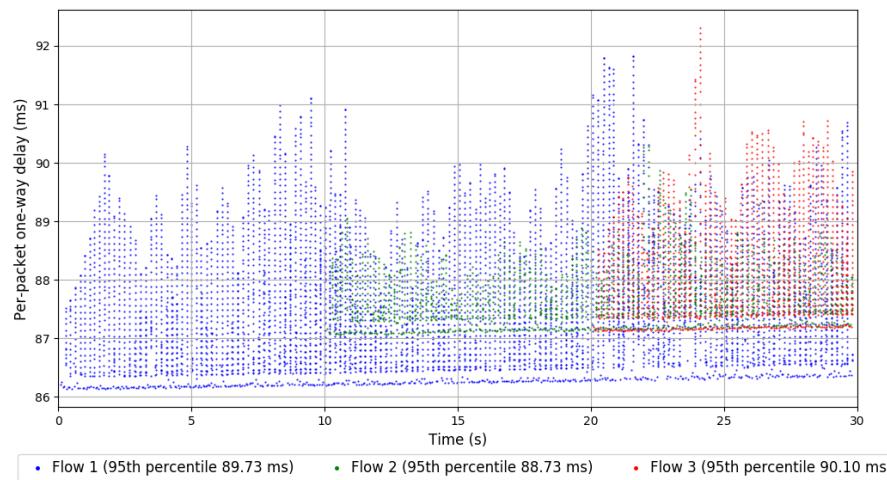
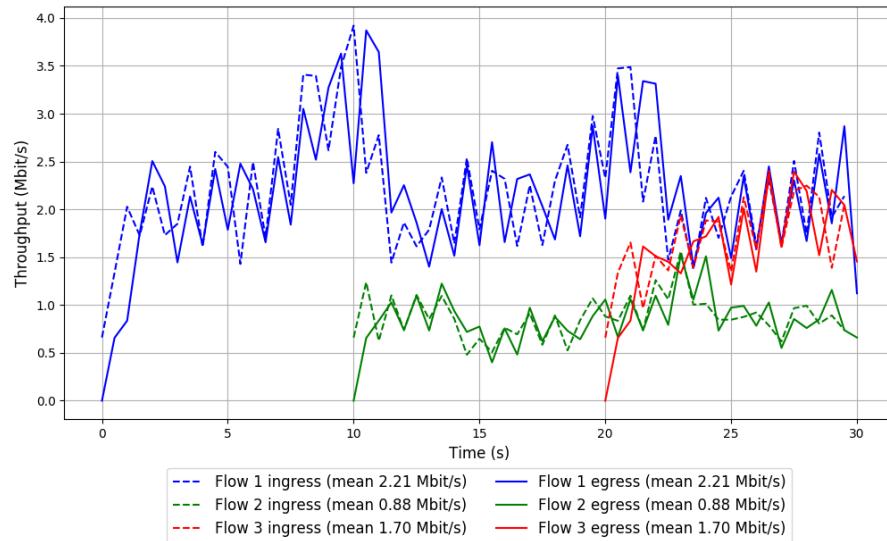


Run 5: Statistics of Sprout

```
Start at: 2019-01-25 21:00:33
End at: 2019-01-25 21:01:03
Local clock offset: -3.677 ms
Remote clock offset: 5.996 ms

# Below is generated by plot.py at 2019-01-25 21:37:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 89.718 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 89.726 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 88.734 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 90.096 ms
Loss rate: 1.77%
```

Run 5: Report of Sprout — Data Link

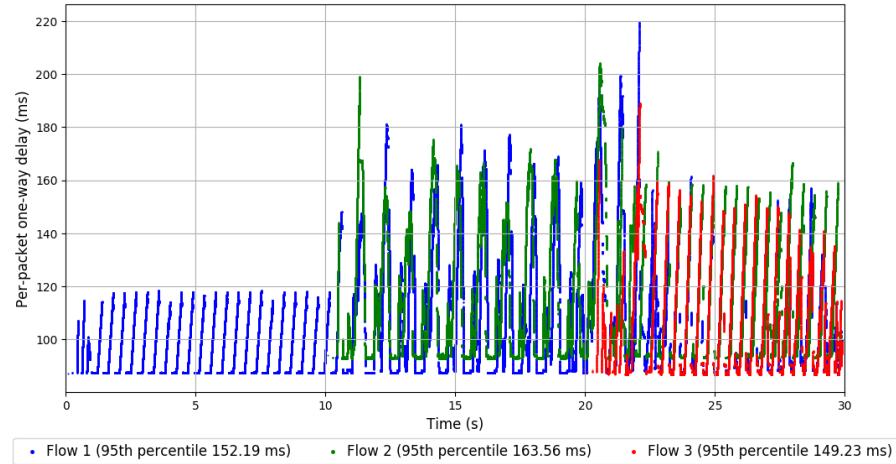
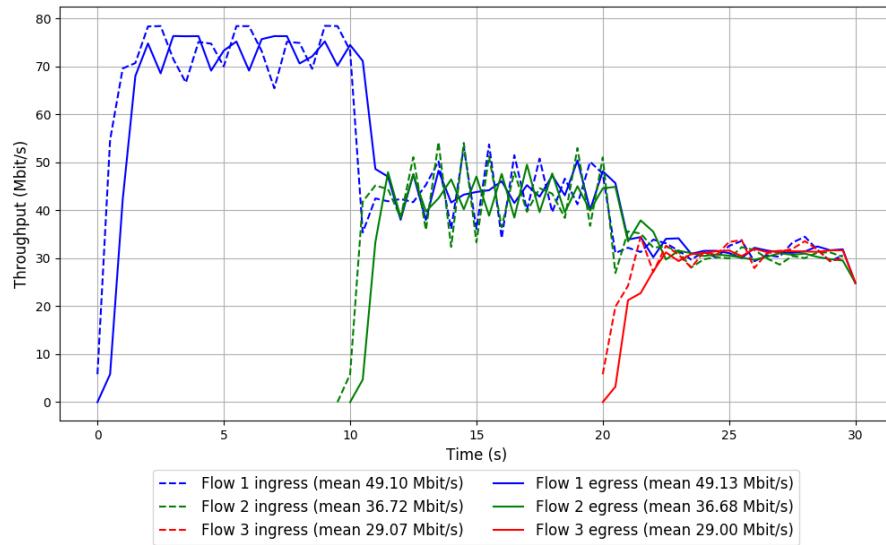


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-01-25 19:15:13
End at: 2019-01-25 19:15:43
Local clock offset: -6.778 ms
Remote clock offset: 6.37 ms

# Below is generated by plot.py at 2019-01-25 21:38:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.02 Mbit/s
95th percentile per-packet one-way delay: 156.397 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 49.13 Mbit/s
95th percentile per-packet one-way delay: 152.187 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 36.68 Mbit/s
95th percentile per-packet one-way delay: 163.560 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 29.00 Mbit/s
95th percentile per-packet one-way delay: 149.231 ms
Loss rate: 1.96%
```

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

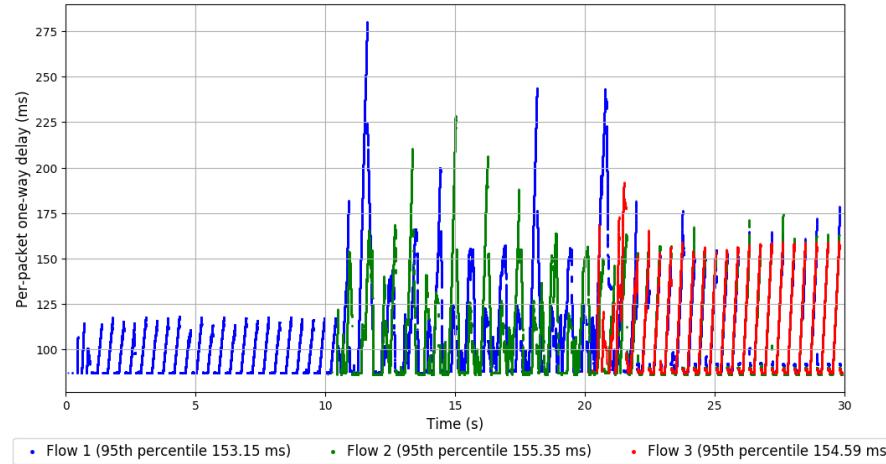
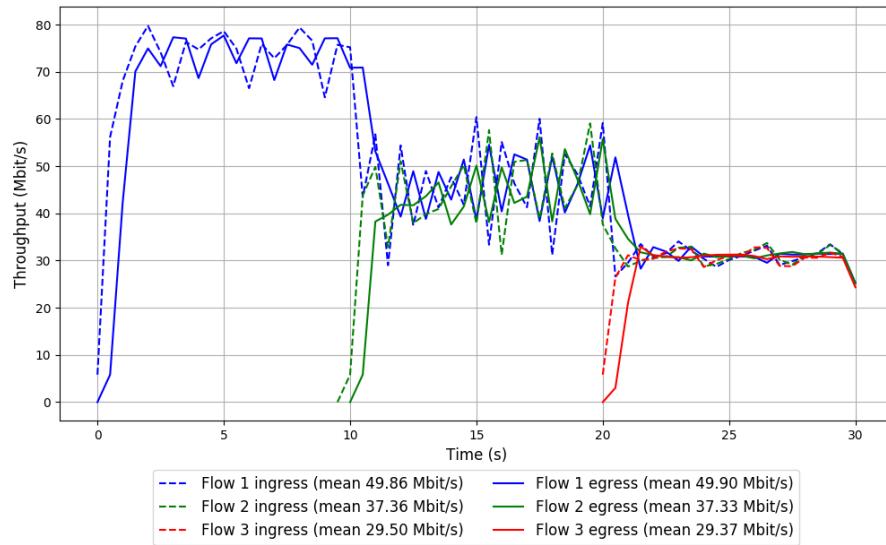


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-01-25 19:42:12
End at: 2019-01-25 19:42:42
Local clock offset: -6.294 ms
Remote clock offset: 8.131 ms

# Below is generated by plot.py at 2019-01-25 21:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.36 Mbit/s
95th percentile per-packet one-way delay: 154.327 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 49.90 Mbit/s
95th percentile per-packet one-way delay: 153.153 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 37.33 Mbit/s
95th percentile per-packet one-way delay: 155.347 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 29.37 Mbit/s
95th percentile per-packet one-way delay: 154.592 ms
Loss rate: 2.19%
```

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

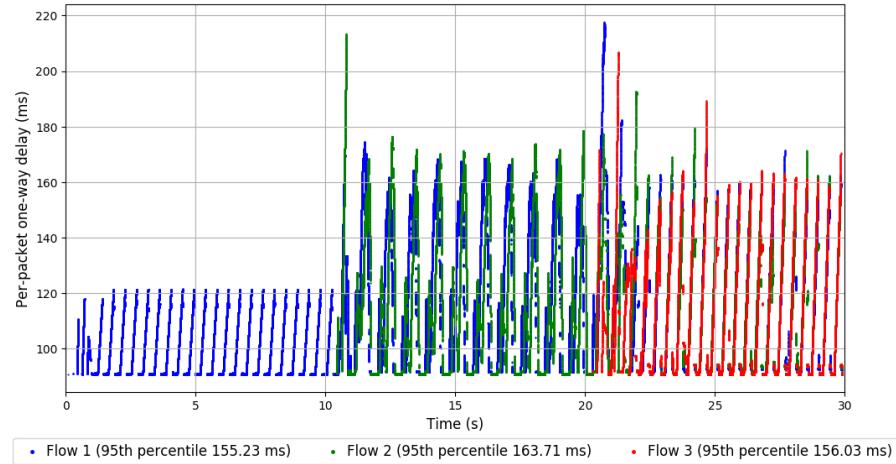
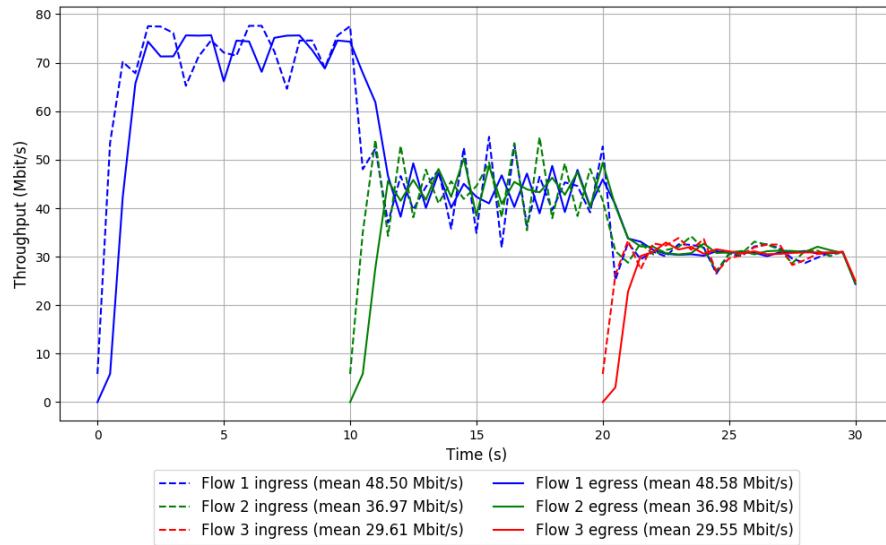


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-01-25 20:09:08
End at: 2019-01-25 20:09:38
Local clock offset: -3.856 ms
Remote clock offset: 2.354 ms

# Below is generated by plot.py at 2019-01-25 21:39:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.87 Mbit/s
95th percentile per-packet one-way delay: 158.282 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 48.58 Mbit/s
95th percentile per-packet one-way delay: 155.232 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 163.710 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 29.55 Mbit/s
95th percentile per-packet one-way delay: 156.025 ms
Loss rate: 1.94%
```

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

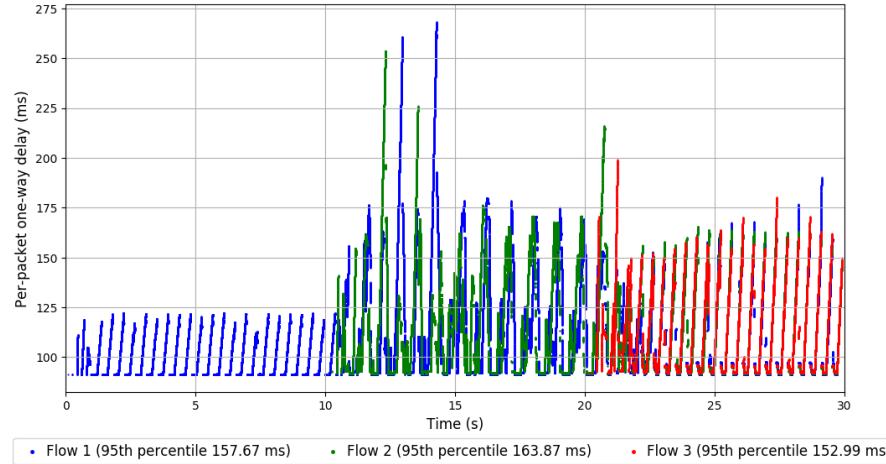
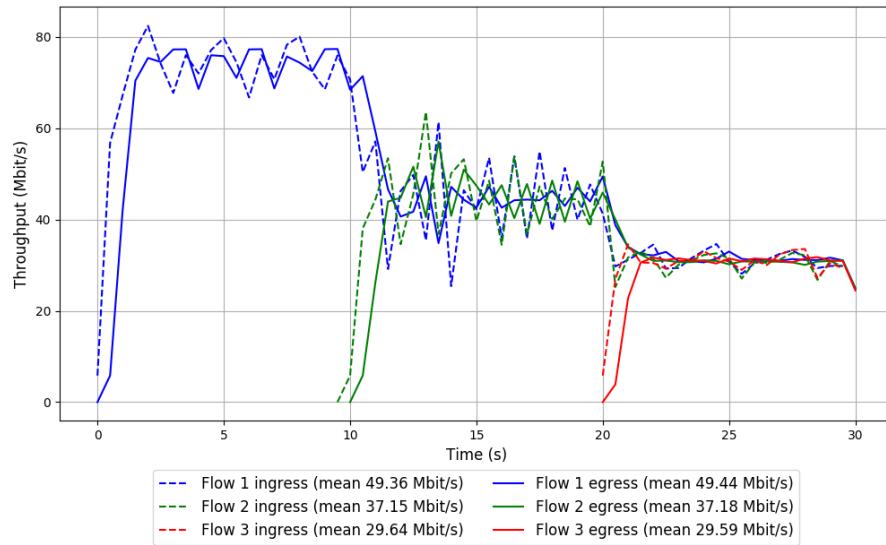


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-01-25 20:36:07
End at: 2019-01-25 20:36:37
Local clock offset: -1.855 ms
Remote clock offset: 1.895 ms

# Below is generated by plot.py at 2019-01-25 21:39:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.88 Mbit/s
95th percentile per-packet one-way delay: 159.594 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 49.44 Mbit/s
95th percentile per-packet one-way delay: 157.671 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 37.18 Mbit/s
95th percentile per-packet one-way delay: 163.873 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 29.59 Mbit/s
95th percentile per-packet one-way delay: 152.993 ms
Loss rate: 1.87%
```

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

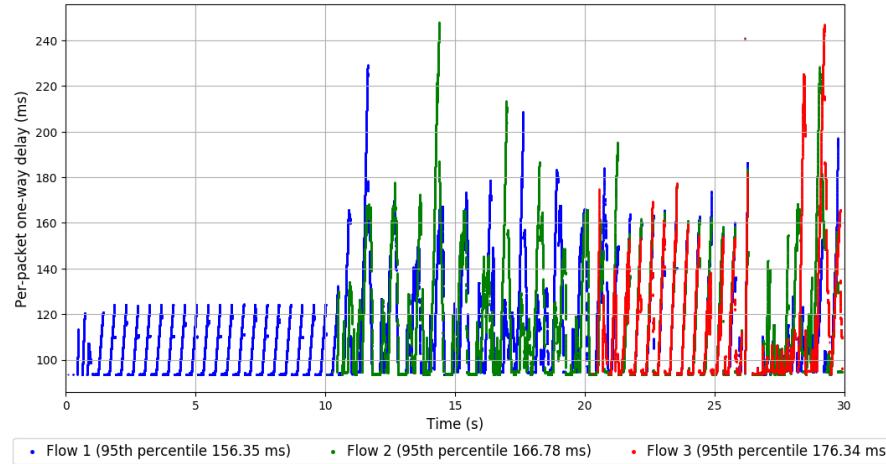
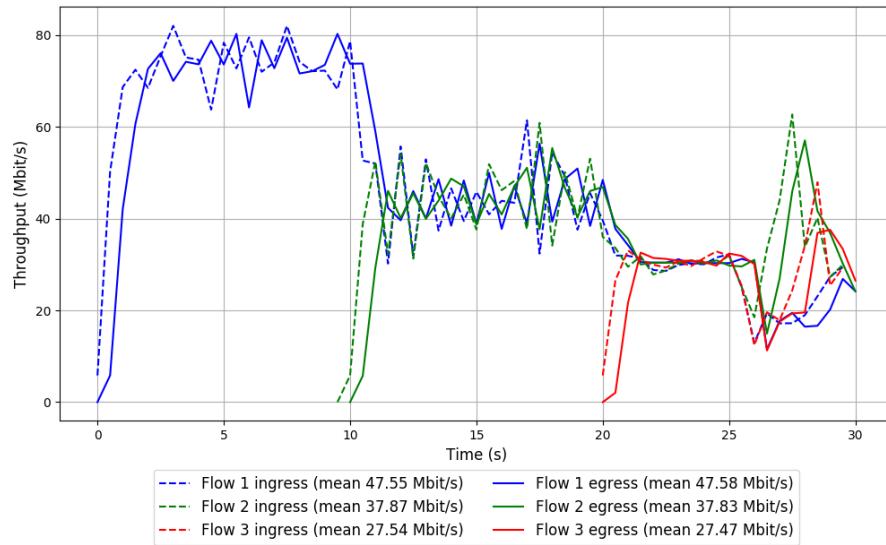


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-01-25 21:03:06
End at: 2019-01-25 21:03:36
Local clock offset: -3.94 ms
Remote clock offset: 5.909 ms

# Below is generated by plot.py at 2019-01-25 21:39:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.73 Mbit/s
95th percentile per-packet one-way delay: 162.854 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 47.58 Mbit/s
95th percentile per-packet one-way delay: 156.349 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 37.83 Mbit/s
95th percentile per-packet one-way delay: 166.775 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 27.47 Mbit/s
95th percentile per-packet one-way delay: 176.344 ms
Loss rate: 2.05%
```

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

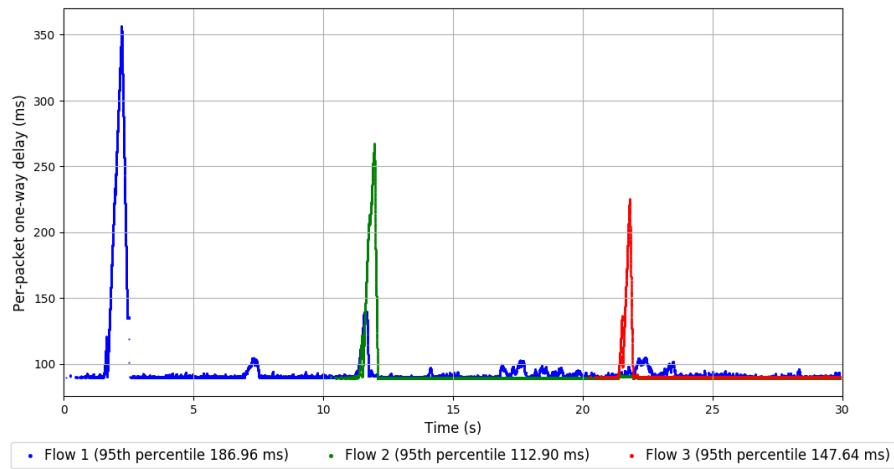
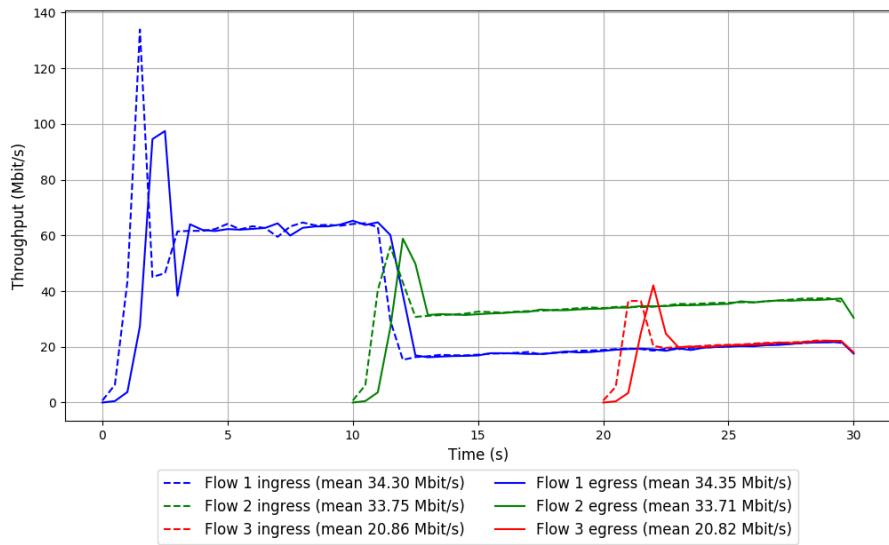


Run 1: Statistics of TCP Vegas

```
Start at: 2019-01-25 19:30:42
End at: 2019-01-25 19:31:12
Local clock offset: -6.891 ms
Remote clock offset: 5.228 ms

# Below is generated by plot.py at 2019-01-25 21:39:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.58 Mbit/s
95th percentile per-packet one-way delay: 156.022 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 34.35 Mbit/s
95th percentile per-packet one-way delay: 186.958 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 33.71 Mbit/s
95th percentile per-packet one-way delay: 112.898 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 20.82 Mbit/s
95th percentile per-packet one-way delay: 147.643 ms
Loss rate: 1.93%
```

Run 1: Report of TCP Vegas — Data Link

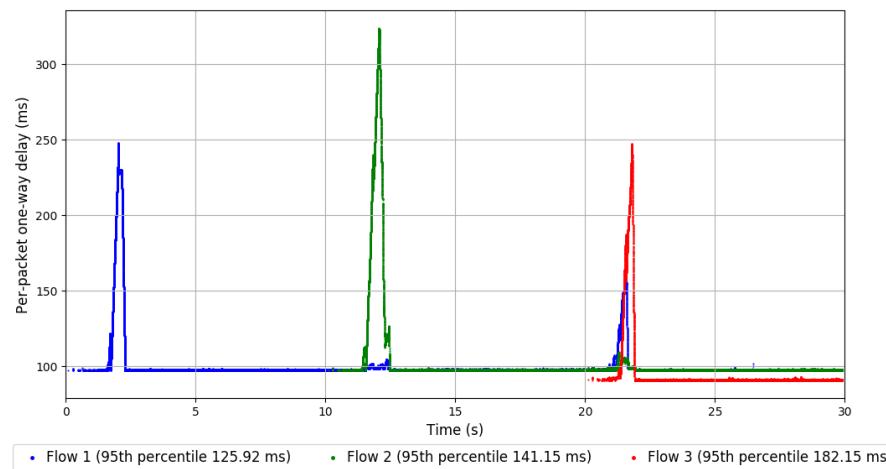
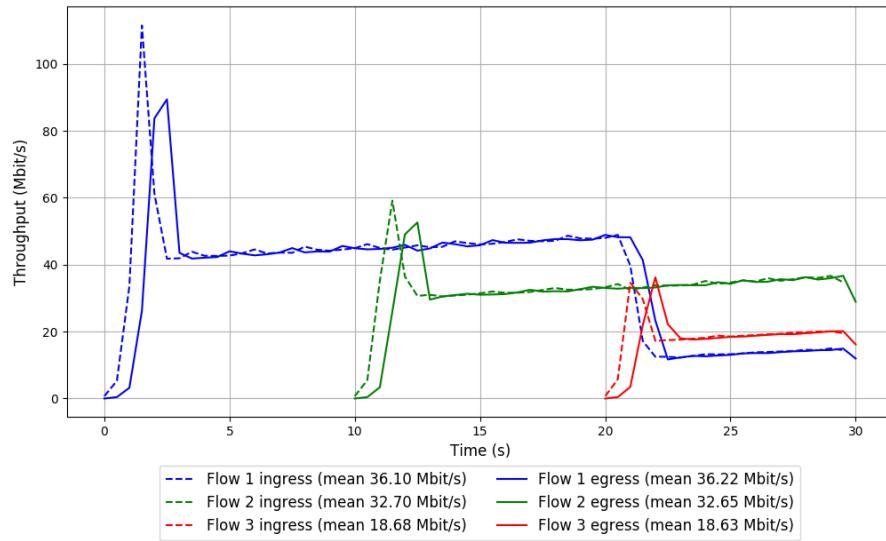


Run 2: Statistics of TCP Vegas

```
Start at: 2019-01-25 19:57:40
End at: 2019-01-25 19:58:10
Local clock offset: -6.452 ms
Remote clock offset: 3.444 ms

# Below is generated by plot.py at 2019-01-25 21:39:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.03 Mbit/s
95th percentile per-packet one-way delay: 139.961 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 36.22 Mbit/s
95th percentile per-packet one-way delay: 125.915 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 32.65 Mbit/s
95th percentile per-packet one-way delay: 141.149 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 18.63 Mbit/s
95th percentile per-packet one-way delay: 182.145 ms
Loss rate: 1.94%
```

Run 2: Report of TCP Vegas — Data Link

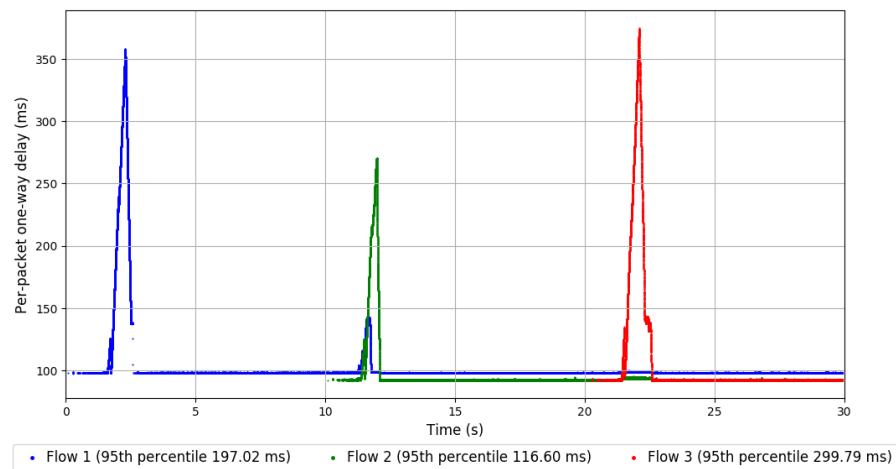
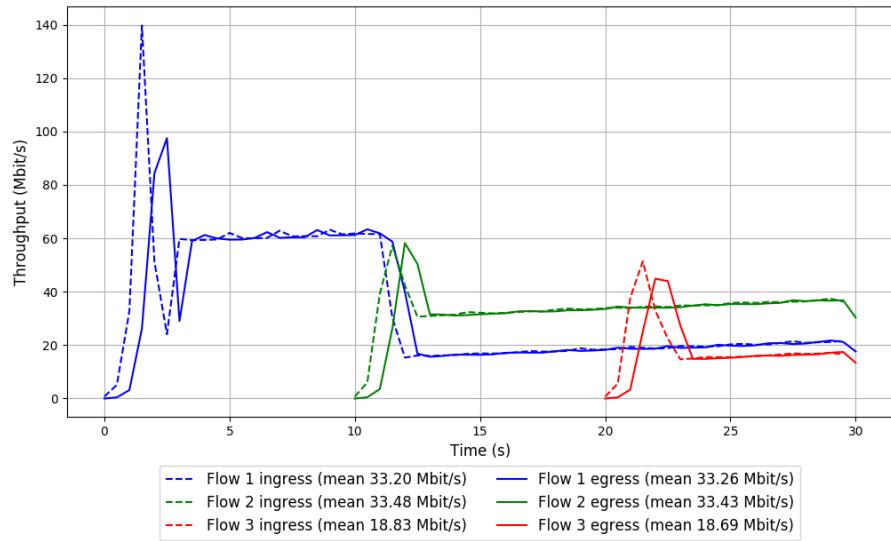


Run 3: Statistics of TCP Vegas

```
Start at: 2019-01-25 20:24:38
End at: 2019-01-25 20:25:08
Local clock offset: -1.252 ms
Remote clock offset: 1.443 ms

# Below is generated by plot.py at 2019-01-25 21:39:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.61 Mbit/s
95th percentile per-packet one-way delay: 198.198 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 33.26 Mbit/s
95th percentile per-packet one-way delay: 197.020 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 33.43 Mbit/s
95th percentile per-packet one-way delay: 116.602 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 18.69 Mbit/s
95th percentile per-packet one-way delay: 299.785 ms
Loss rate: 2.46%
```

Run 3: Report of TCP Vegas — Data Link

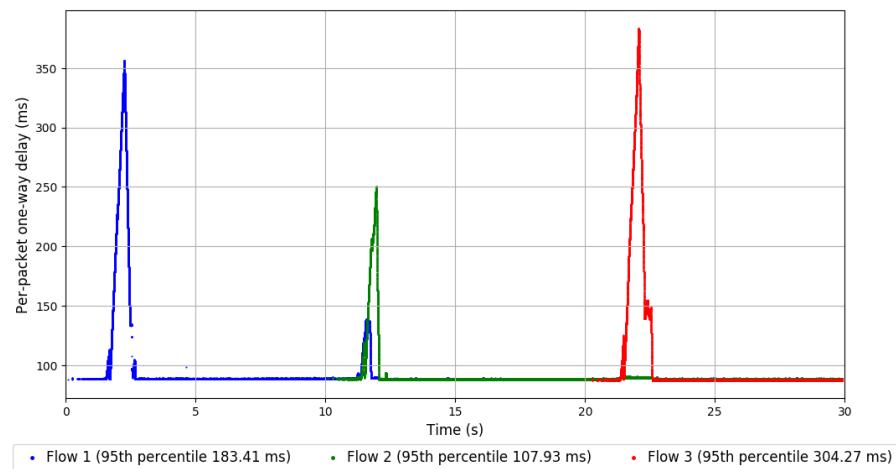
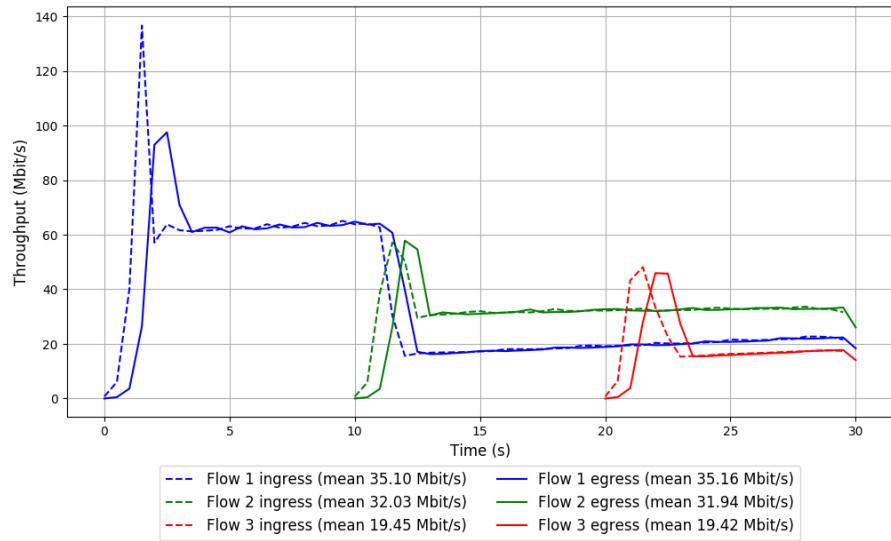


Run 4: Statistics of TCP Vegas

```
Start at: 2019-01-25 20:51:37
End at: 2019-01-25 20:52:07
Local clock offset: -2.373 ms
Remote clock offset: 5.476 ms

# Below is generated by plot.py at 2019-01-25 21:39:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.76 Mbit/s
95th percentile per-packet one-way delay: 190.806 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 35.16 Mbit/s
95th percentile per-packet one-way delay: 183.406 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 31.94 Mbit/s
95th percentile per-packet one-way delay: 107.928 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 19.42 Mbit/s
95th percentile per-packet one-way delay: 304.275 ms
Loss rate: 1.83%
```

Run 4: Report of TCP Vegas — Data Link

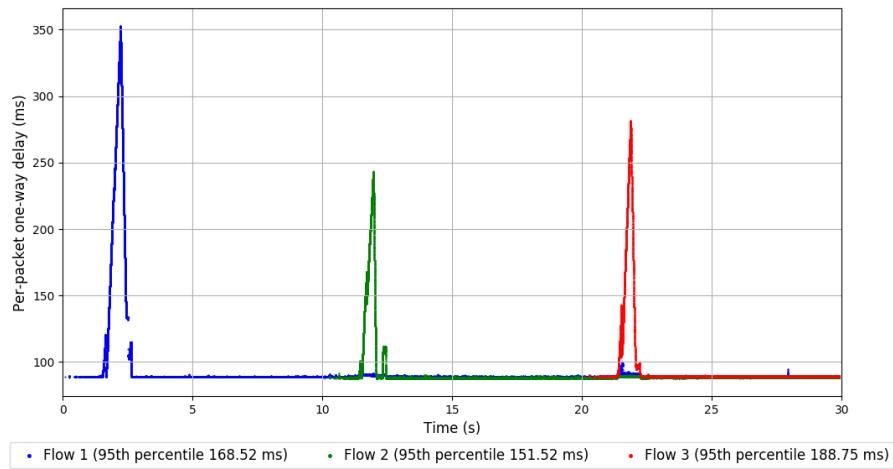
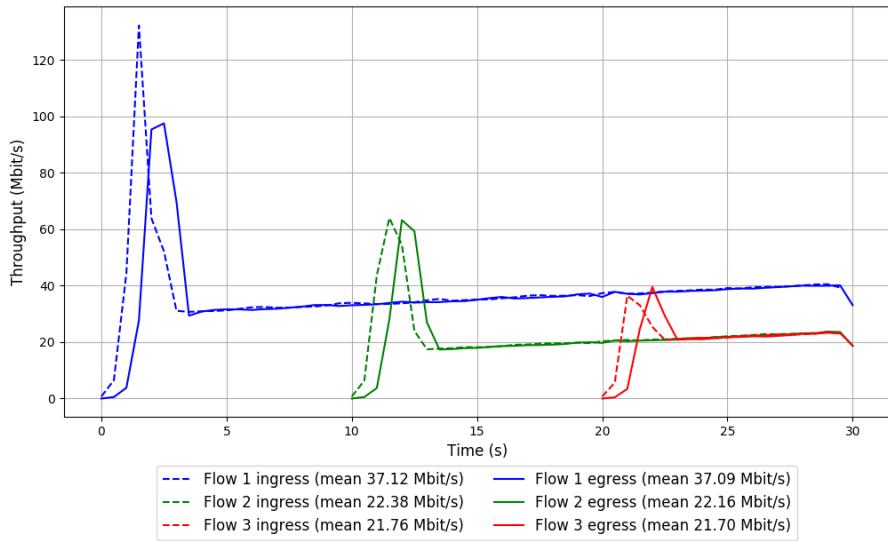


Run 5: Statistics of TCP Vegas

```
Start at: 2019-01-25 21:18:36
End at: 2019-01-25 21:19:06
Local clock offset: -7.064 ms
Remote clock offset: 6.227 ms

# Below is generated by plot.py at 2019-01-25 21:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 162.851 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 37.09 Mbit/s
95th percentile per-packet one-way delay: 168.523 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 22.16 Mbit/s
95th percentile per-packet one-way delay: 151.523 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 21.70 Mbit/s
95th percentile per-packet one-way delay: 188.752 ms
Loss rate: 1.98%
```

Run 5: Report of TCP Vegas — Data Link

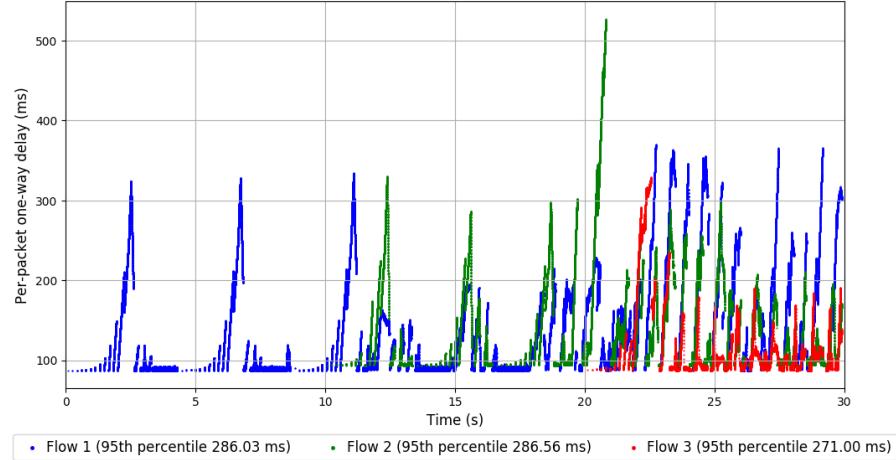
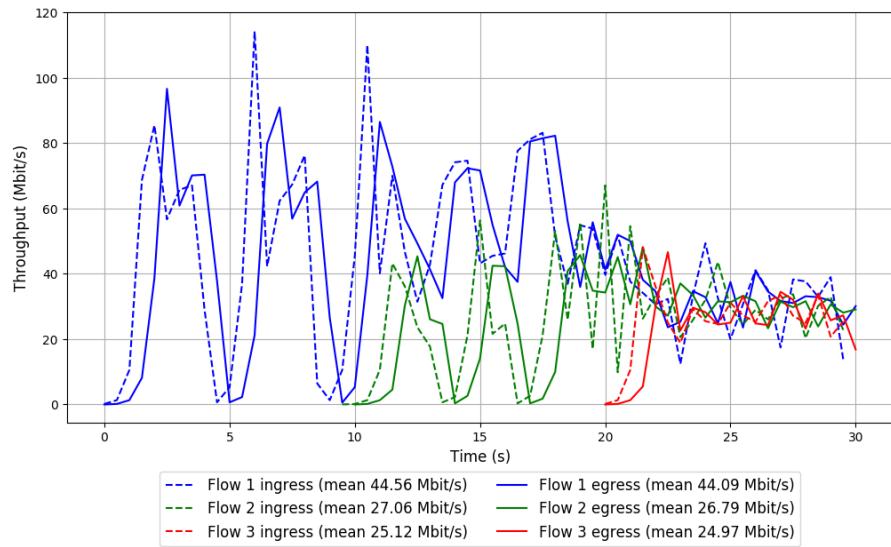


Run 1: Statistics of Verus

```
Start at: 2019-01-25 19:35:51
End at: 2019-01-25 19:36:21
Local clock offset: -7.231 ms
Remote clock offset: 6.998 ms

# Below is generated by plot.py at 2019-01-25 21:39:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.09 Mbit/s
95th percentile per-packet one-way delay: 284.147 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 44.09 Mbit/s
95th percentile per-packet one-way delay: 286.034 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 26.79 Mbit/s
95th percentile per-packet one-way delay: 286.559 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 24.97 Mbit/s
95th percentile per-packet one-way delay: 271.004 ms
Loss rate: 2.20%
```

Run 1: Report of Verus — Data Link

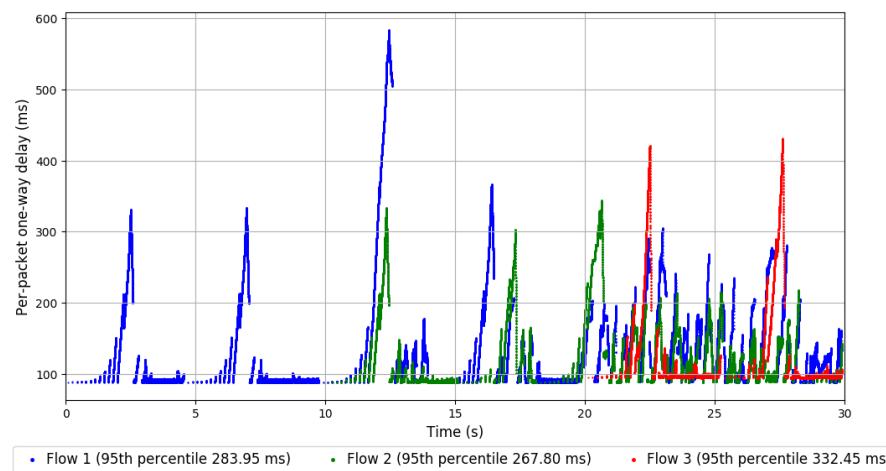
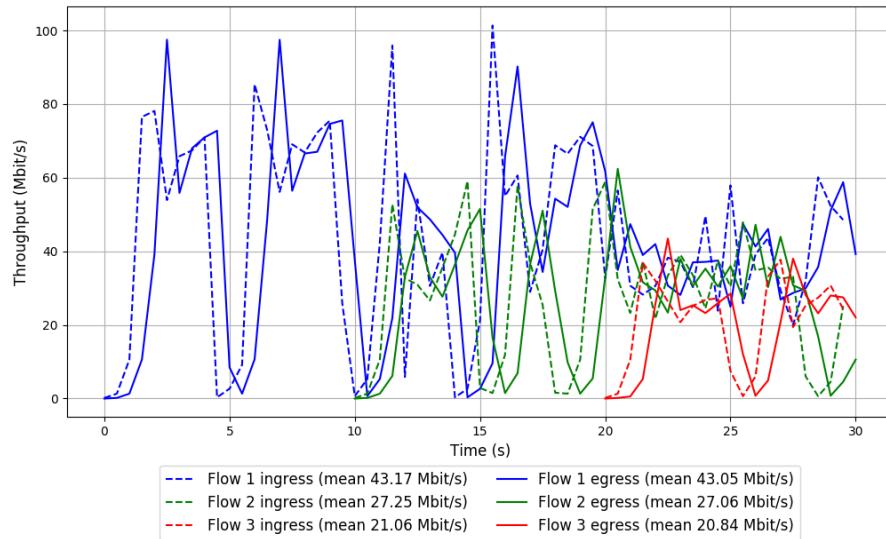


Run 2: Statistics of Verus

```
Start at: 2019-01-25 20:02:49
End at: 2019-01-25 20:03:19
Local clock offset: -4.92 ms
Remote clock offset: 6.117 ms

# Below is generated by plot.py at 2019-01-25 21:39:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.85 Mbit/s
95th percentile per-packet one-way delay: 281.087 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 283.948 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 27.06 Mbit/s
95th percentile per-packet one-way delay: 267.801 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 20.84 Mbit/s
95th percentile per-packet one-way delay: 332.448 ms
Loss rate: 2.85%
```

Run 2: Report of Verus — Data Link

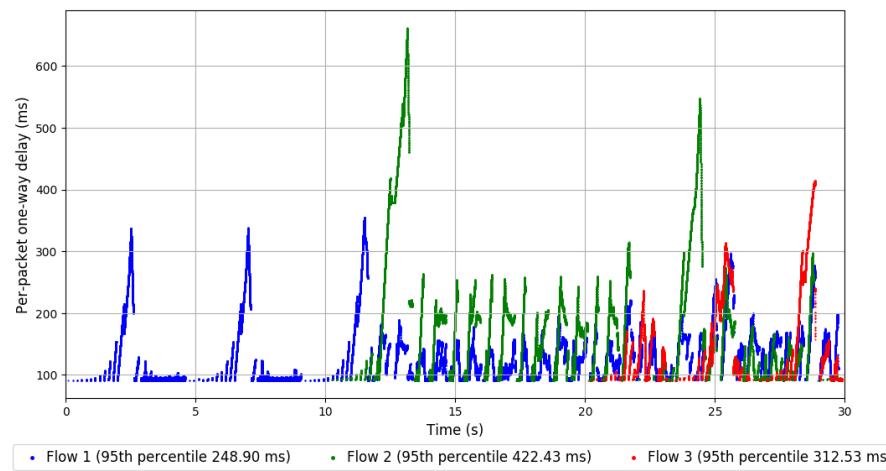
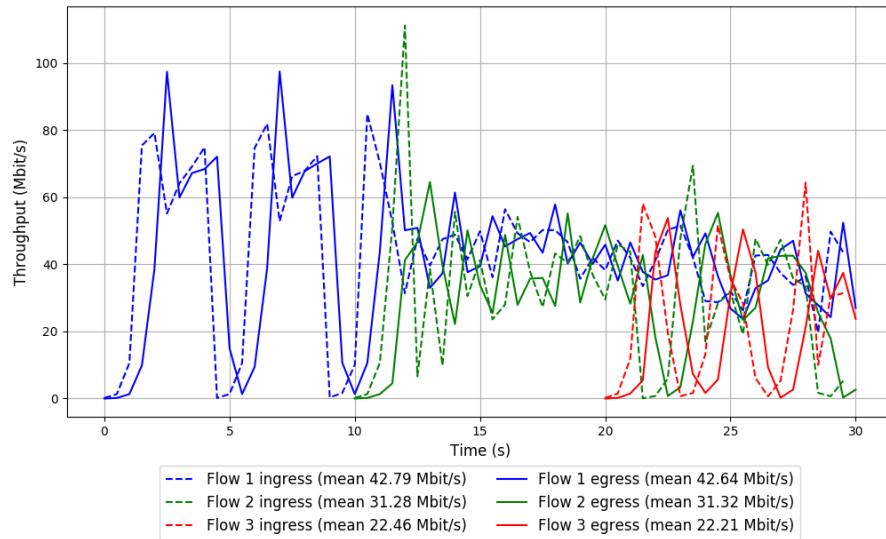


Run 3: Statistics of Verus

```
Start at: 2019-01-25 20:29:47
End at: 2019-01-25 20:30:17
Local clock offset: -1.727 ms
Remote clock offset: 1.846 ms

# Below is generated by plot.py at 2019-01-25 21:39:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.61 Mbit/s
95th percentile per-packet one-way delay: 313.210 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 42.64 Mbit/s
95th percentile per-packet one-way delay: 248.901 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 31.32 Mbit/s
95th percentile per-packet one-way delay: 422.429 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 22.21 Mbit/s
95th percentile per-packet one-way delay: 312.532 ms
Loss rate: 2.42%
```

Run 3: Report of Verus — Data Link

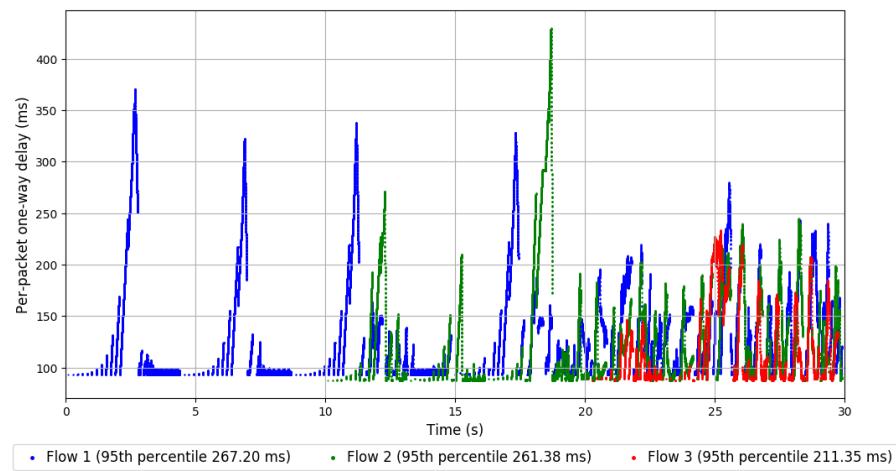
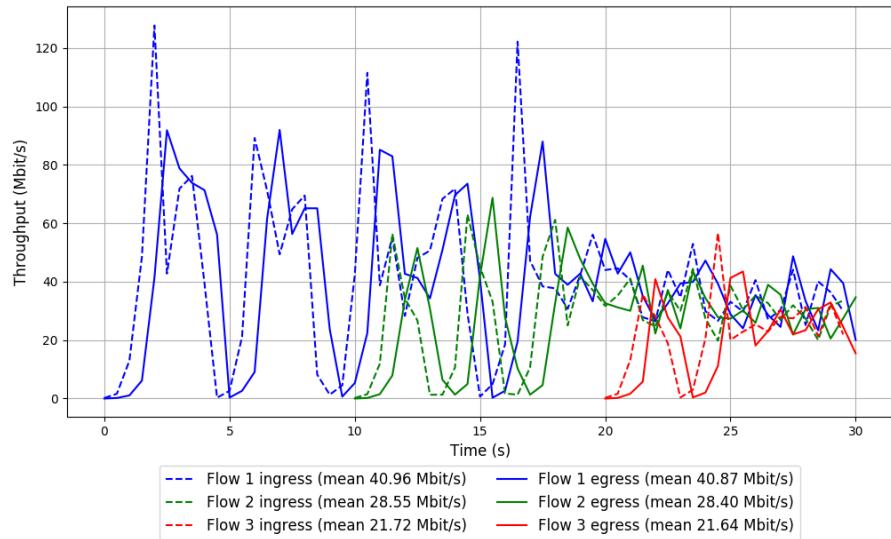


Run 4: Statistics of Verus

```
Start at: 2019-01-25 20:56:46
End at: 2019-01-25 20:57:16
Local clock offset: -3.143 ms
Remote clock offset: 5.24 ms

# Below is generated by plot.py at 2019-01-25 21:39:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.72 Mbit/s
95th percentile per-packet one-way delay: 256.682 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 267.200 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 28.40 Mbit/s
95th percentile per-packet one-way delay: 261.381 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 21.64 Mbit/s
95th percentile per-packet one-way delay: 211.354 ms
Loss rate: 3.61%
```

Run 4: Report of Verus — Data Link

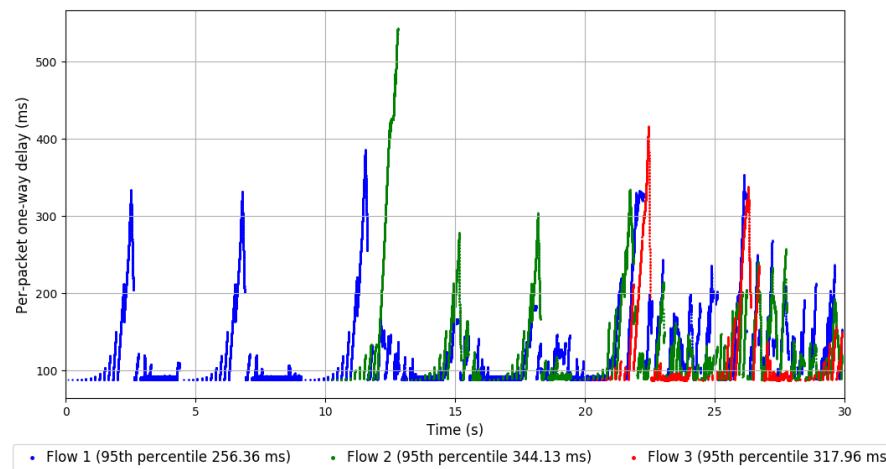
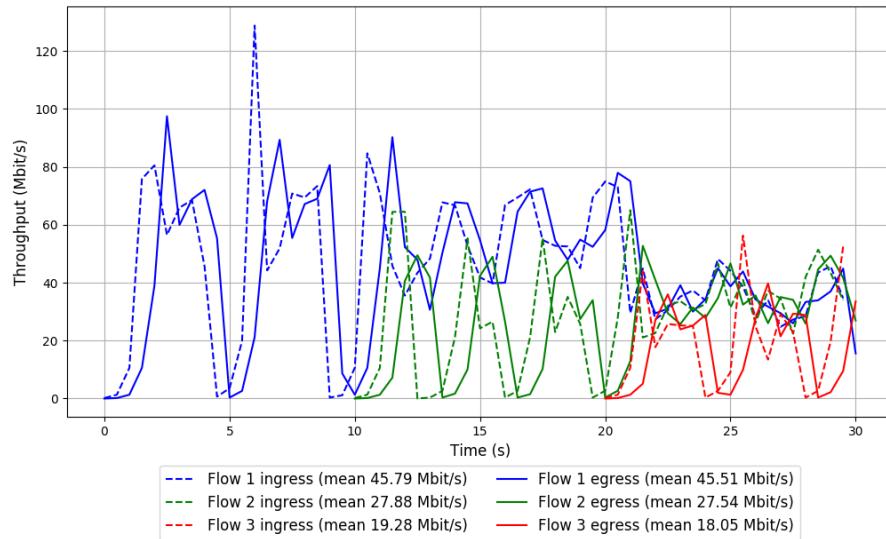


Run 5: Statistics of Verus

```
Start at: 2019-01-25 21:23:46
End at: 2019-01-25 21:24:16
Local clock offset: -8.371 ms
Remote clock offset: 6.149 ms

# Below is generated by plot.py at 2019-01-25 21:39:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.74 Mbit/s
95th percentile per-packet one-way delay: 286.813 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 45.51 Mbit/s
95th percentile per-packet one-way delay: 256.358 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 27.54 Mbit/s
95th percentile per-packet one-way delay: 344.128 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 18.05 Mbit/s
95th percentile per-packet one-way delay: 317.963 ms
Loss rate: 7.96%
```

Run 5: Report of Verus — Data Link

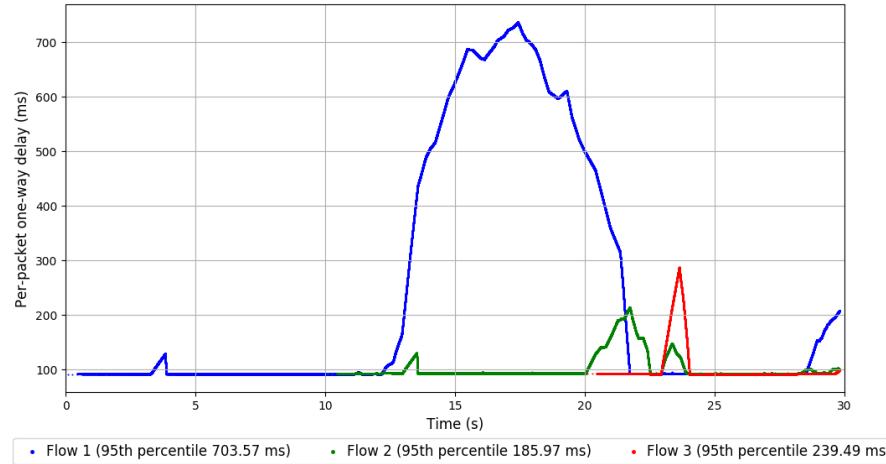
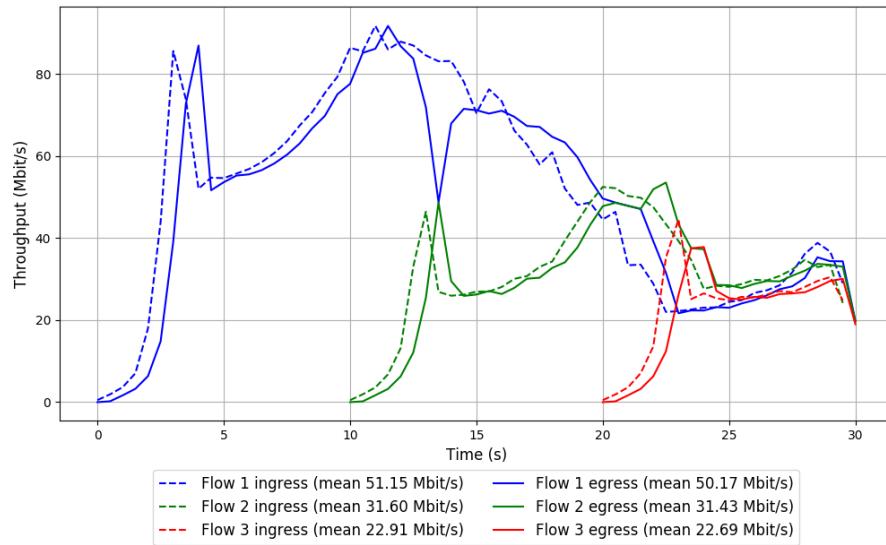


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-01-25 19:31:58
End at: 2019-01-25 19:32:28
Local clock offset: -6.754 ms
Remote clock offset: 2.718 ms

# Below is generated by plot.py at 2019-01-25 21:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.42 Mbit/s
95th percentile per-packet one-way delay: 686.971 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 50.17 Mbit/s
95th percentile per-packet one-way delay: 703.566 ms
Loss rate: 2.48%
-- Flow 2:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 185.968 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 22.69 Mbit/s
95th percentile per-packet one-way delay: 239.493 ms
Loss rate: 2.69%
```

Run 1: Report of PCC-Vivace — Data Link

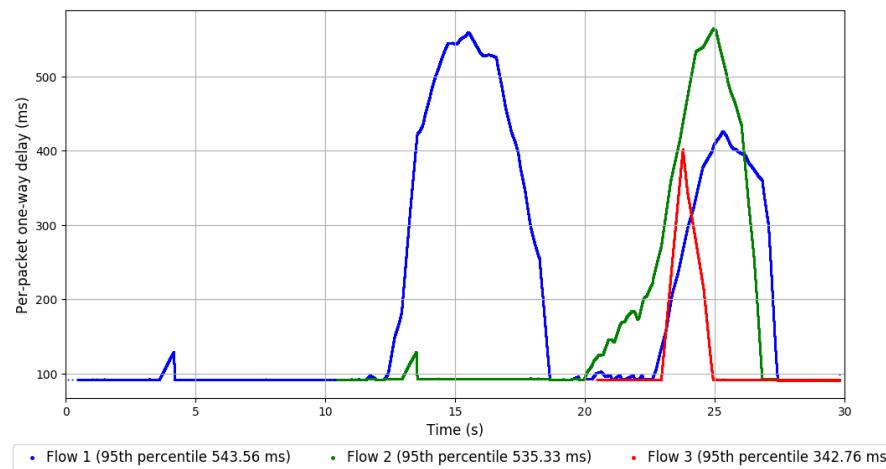
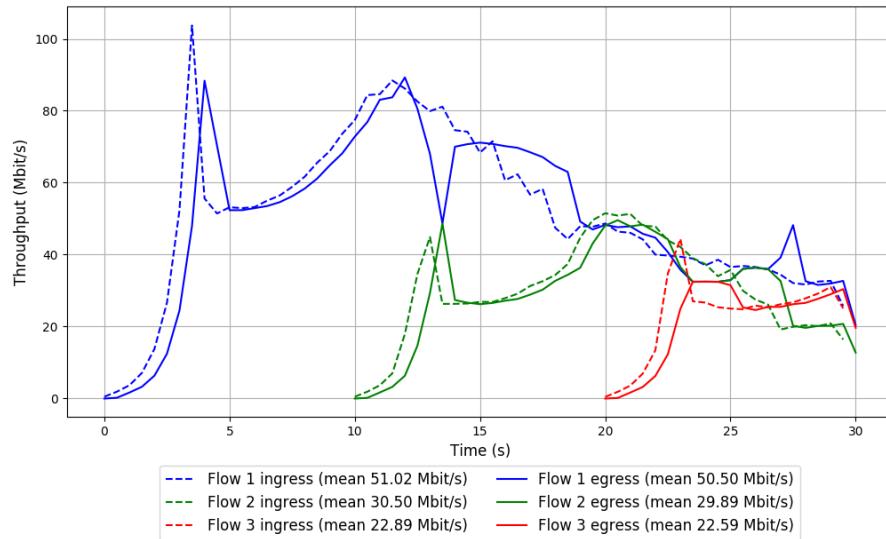


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-01-25 19:58:56
End at: 2019-01-25 19:59:26
Local clock offset: -6.483 ms
Remote clock offset: 3.215 ms

# Below is generated by plot.py at 2019-01-25 21:40:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.69 Mbit/s
95th percentile per-packet one-way delay: 536.946 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 50.50 Mbit/s
95th percentile per-packet one-way delay: 543.556 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 29.89 Mbit/s
95th percentile per-packet one-way delay: 535.331 ms
Loss rate: 2.86%
-- Flow 3:
Average throughput: 22.59 Mbit/s
95th percentile per-packet one-way delay: 342.761 ms
Loss rate: 3.02%
```

Run 2: Report of PCC-Vivace — Data Link

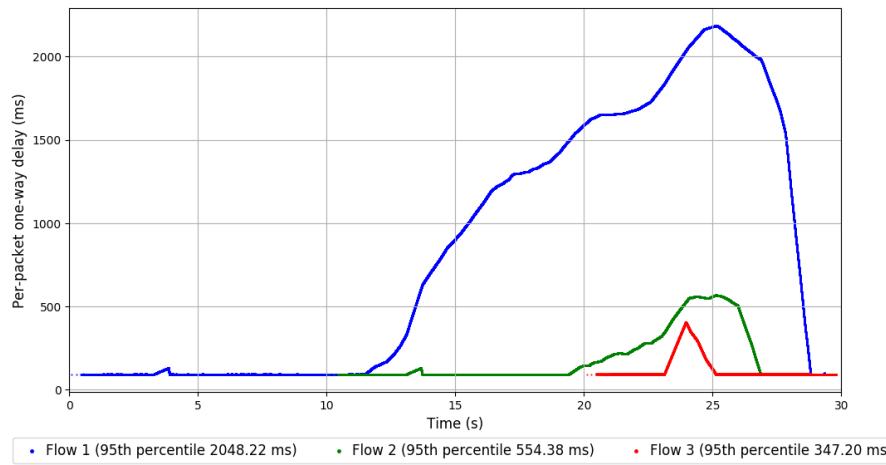
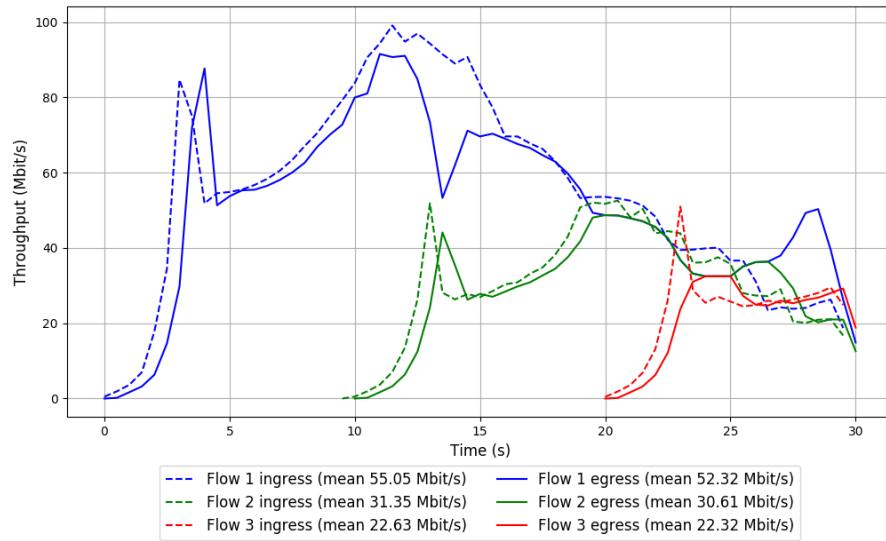


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-01-25 20:25:54
End at: 2019-01-25 20:26:24
Local clock offset: -1.925 ms
Remote clock offset: 1.232 ms

# Below is generated by plot.py at 2019-01-25 21:40:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.91 Mbit/s
95th percentile per-packet one-way delay: 1936.769 ms
Loss rate: 4.71%
-- Flow 1:
Average throughput: 52.32 Mbit/s
95th percentile per-packet one-way delay: 2048.225 ms
Loss rate: 5.50%
-- Flow 2:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 554.382 ms
Loss rate: 3.20%
-- Flow 3:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 347.205 ms
Loss rate: 3.09%
```

Run 3: Report of PCC-Vivace — Data Link

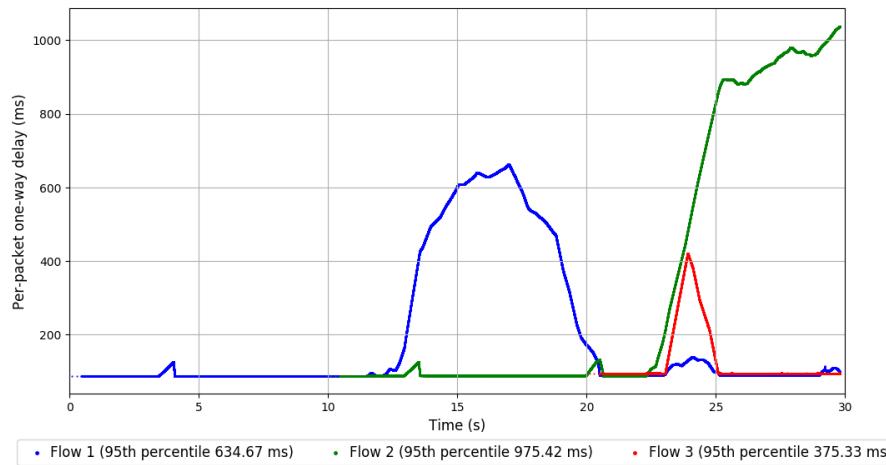
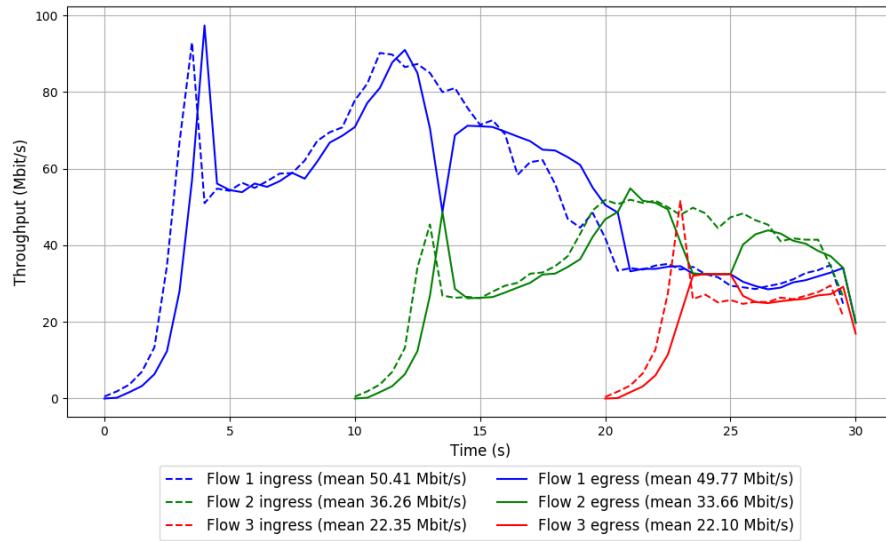


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-01-25 20:52:53
End at: 2019-01-25 20:53:23
Local clock offset: -2.452 ms
Remote clock offset: 5.431 ms

# Below is generated by plot.py at 2019-01-25 21:40:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.31 Mbit/s
95th percentile per-packet one-way delay: 915.929 ms
Loss rate: 3.73%
-- Flow 1:
Average throughput: 49.77 Mbit/s
95th percentile per-packet one-way delay: 634.670 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 33.66 Mbit/s
95th percentile per-packet one-way delay: 975.425 ms
Loss rate: 7.95%
-- Flow 3:
Average throughput: 22.10 Mbit/s
95th percentile per-packet one-way delay: 375.327 ms
Loss rate: 2.94%
```

Run 4: Report of PCC-Vivace — Data Link

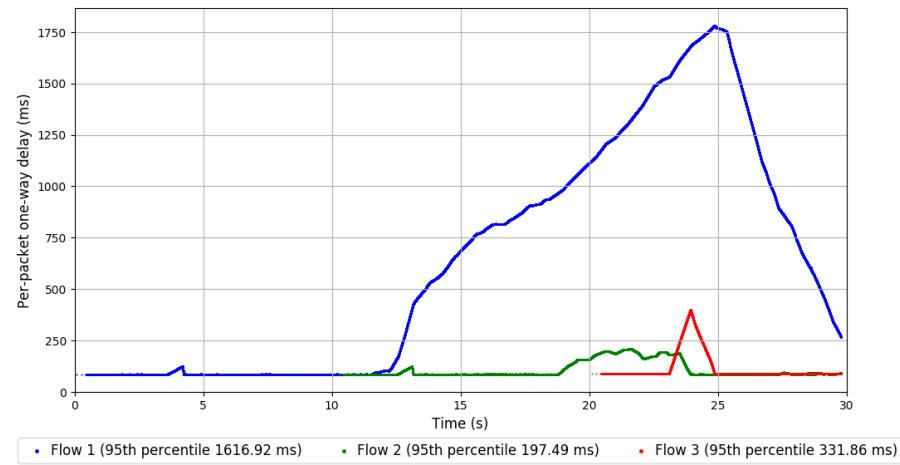
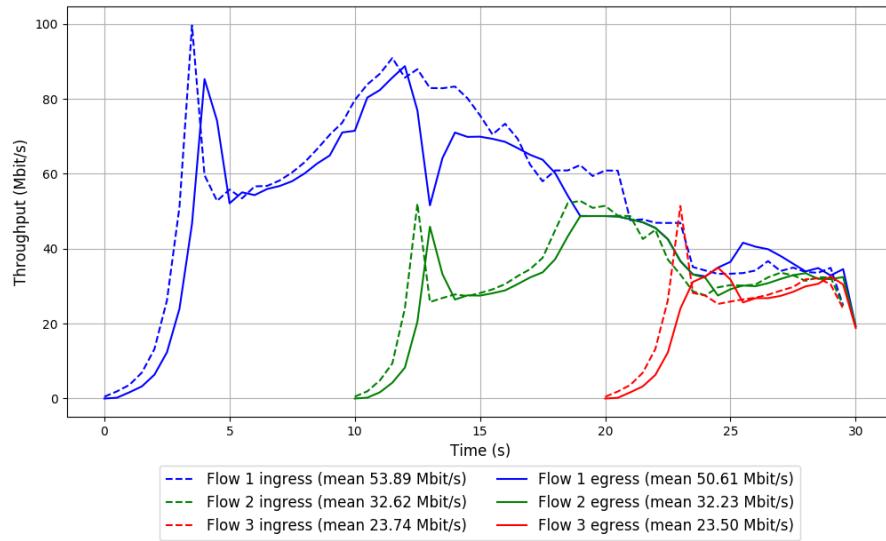


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-01-25 21:19:52
End at: 2019-01-25 21:20:22
Local clock offset: -7.955 ms
Remote clock offset: 6.68 ms

# Below is generated by plot.py at 2019-01-25 21:40:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.65 Mbit/s
95th percentile per-packet one-way delay: 1492.494 ms
Loss rate: 5.07%
-- Flow 1:
Average throughput: 50.61 Mbit/s
95th percentile per-packet one-way delay: 1616.922 ms
Loss rate: 6.62%
-- Flow 2:
Average throughput: 32.23 Mbit/s
95th percentile per-packet one-way delay: 197.490 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 23.50 Mbit/s
95th percentile per-packet one-way delay: 331.858 ms
Loss rate: 2.74%
```

Run 5: Report of PCC-Vivace — Data Link

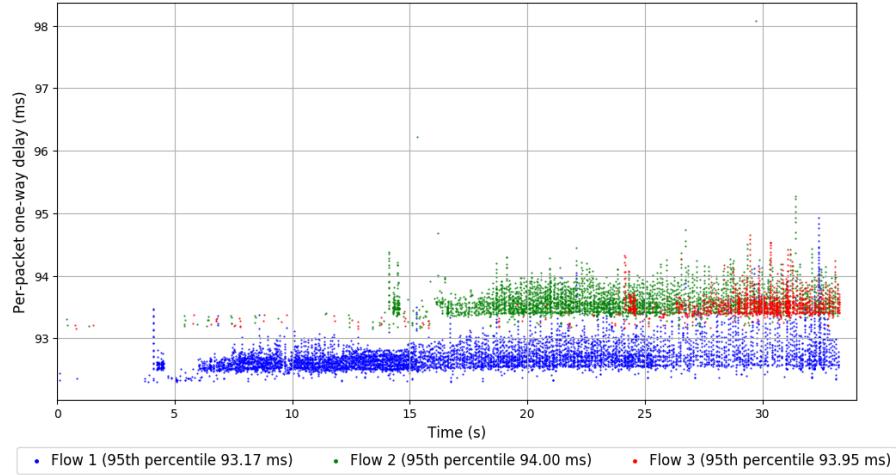
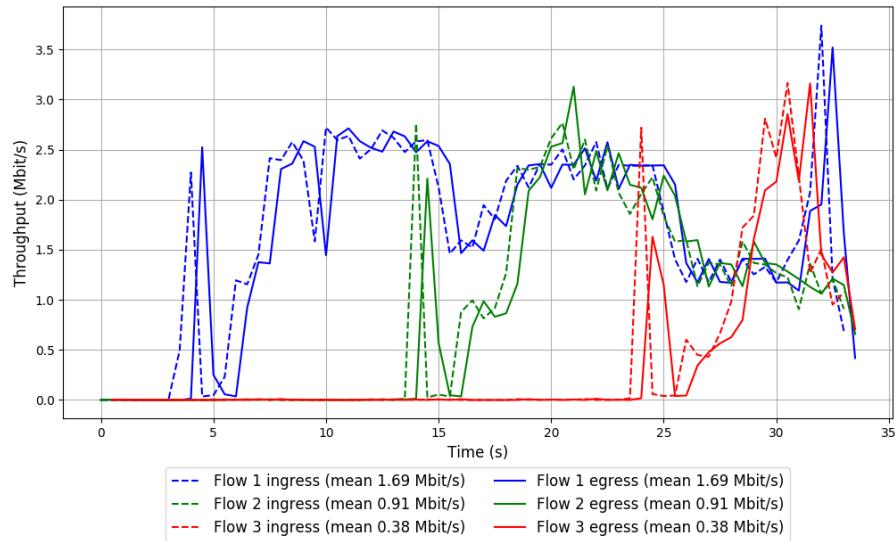


```
Run 1: Statistics of WebRTC media

Start at: 2019-01-25 19:11:26
End at: 2019-01-25 19:11:56
Local clock offset: -5.653 ms
Remote clock offset: 1.191 ms

# Below is generated by plot.py at 2019-01-25 21:40:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 93.853 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 93.170 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 93.999 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 93.947 ms
Loss rate: 1.47%
```

Run 1: Report of WebRTC media — Data Link

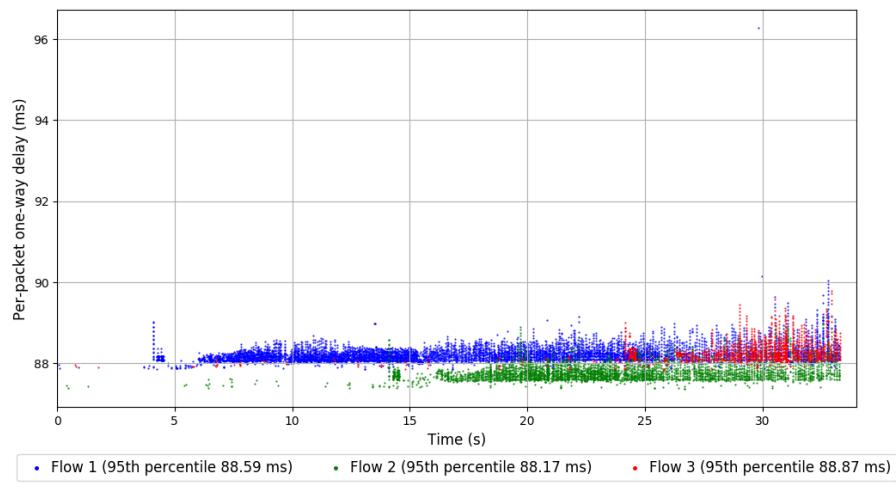
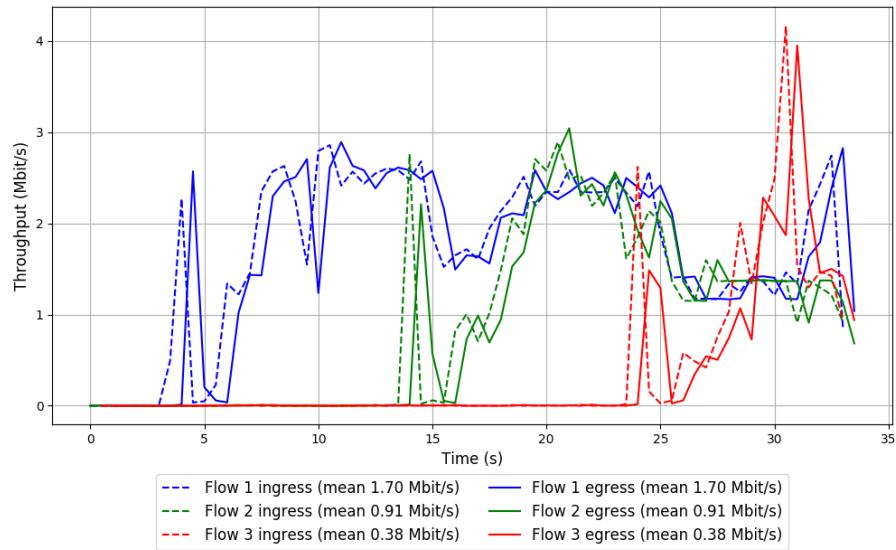


Run 2: Statistics of WebRTC media

```
Start at: 2019-01-25 19:38:25
End at: 2019-01-25 19:38:55
Local clock offset: -6.448 ms
Remote clock offset: 6.91 ms

# Below is generated by plot.py at 2019-01-25 21:40:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 88.583 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 88.586 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 88.175 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 88.871 ms
Loss rate: 0.94%
```

Run 2: Report of WebRTC media — Data Link

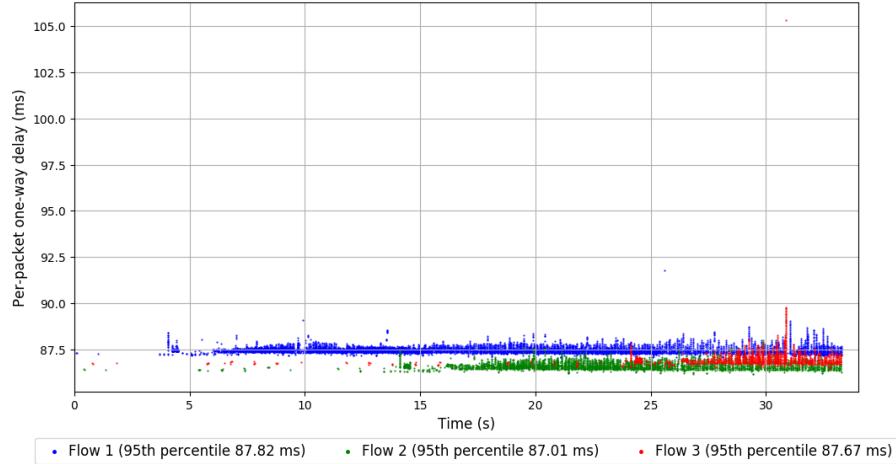
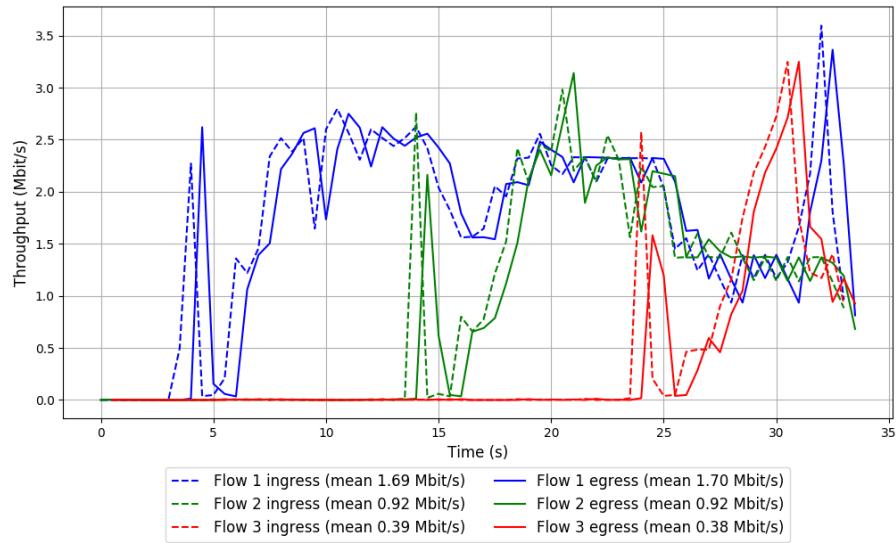


```
Run 3: Statistics of WebRTC media

Start at: 2019-01-25 20:05:22
End at: 2019-01-25 20:05:52
Local clock offset: -4.773 ms
Remote clock offset: 6.059 ms

# Below is generated by plot.py at 2019-01-25 21:40:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 87.751 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 87.823 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 87.006 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 87.666 ms
Loss rate: 1.82%
```

Run 3: Report of WebRTC media — Data Link

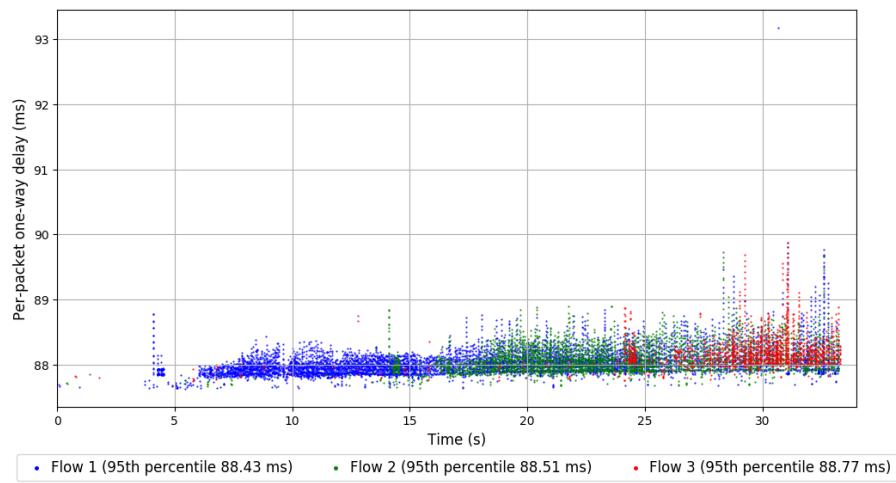
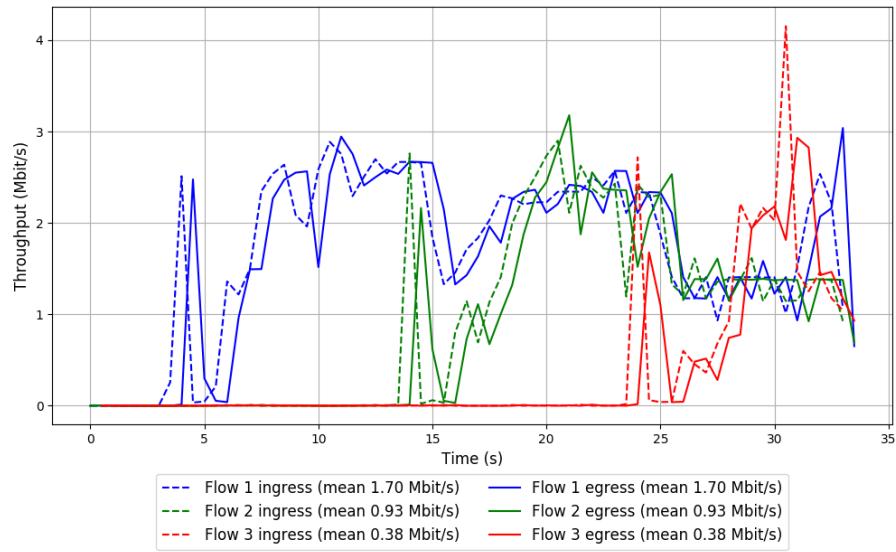


Run 4: Statistics of WebRTC media

```
Start at: 2019-01-25 20:32:22
End at: 2019-01-25 20:32:52
Local clock offset: -1.42 ms
Remote clock offset: 5.938 ms

# Below is generated by plot.py at 2019-01-25 21:40:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.99 Mbit/s
95th percentile per-packet one-way delay: 88.510 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 88.426 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 88.507 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 88.773 ms
Loss rate: 1.39%
```

Run 4: Report of WebRTC media — Data Link



```
Run 5: Statistics of WebRTC media

Start at: 2019-01-25 20:59:20
End at: 2019-01-25 20:59:50
Local clock offset: -3.114 ms
Remote clock offset: 5.153 ms

# Below is generated by plot.py at 2019-01-25 21:40:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 93.999 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 88.064 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 88.676 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 94.464 ms
Loss rate: 1.91%
```

Run 5: Report of WebRTC media — Data Link

