

## Pantheon Report

Generated at 2018-09-06 12:33:34 (UTC).  
Data path: AWS India 2 on `ens5` (*local*) → Saudi Arabia on `enp2s0` (*remote*).  
Repeated the test of 18 congestion control schemes 5 times.  
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

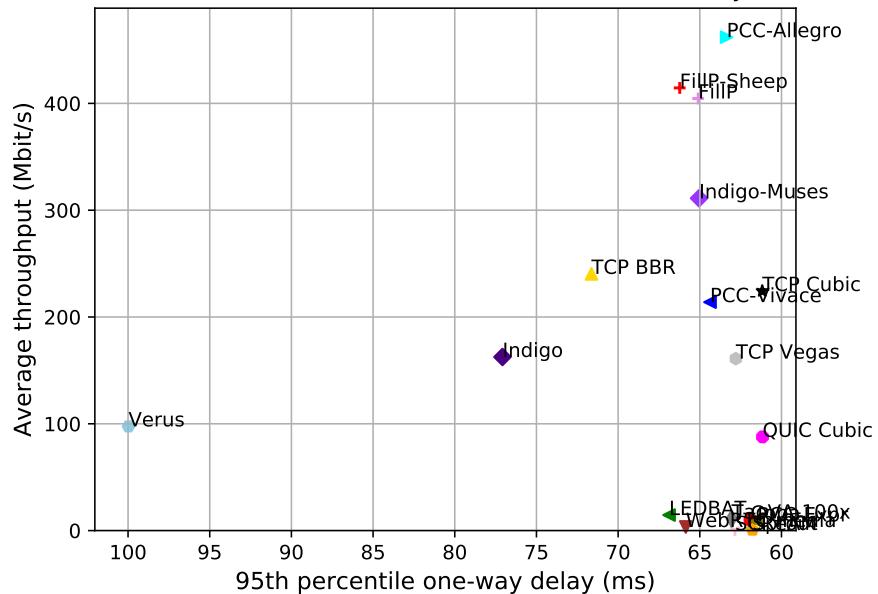
System info:

```
Linux 4.15.0-1020-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
net.ipv4.tcp_mem = 536870912 536870912 536870912
```

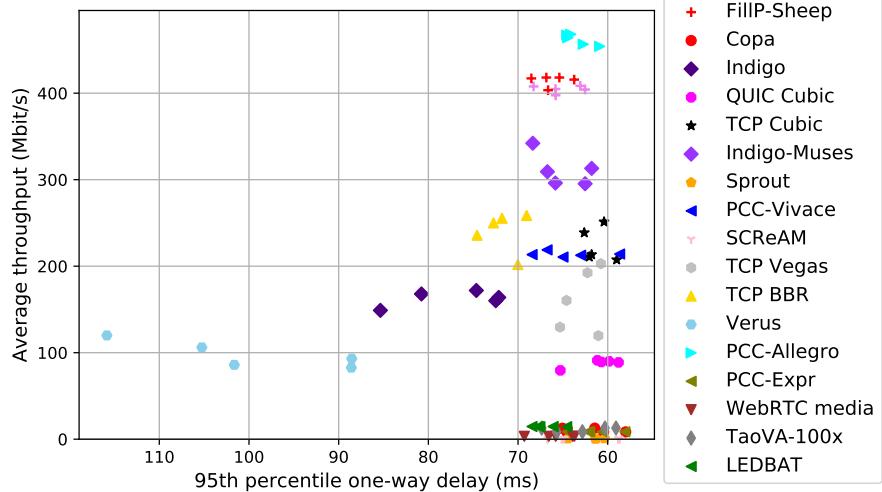
Git summary:

```
branch: muses @ f392ce15d580343f4432c3d7e068b3290f03eb4a
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ a28d20fb82a95a965a3da65fd1eb71b8994e9b84
third_party/pantheon-tunnel @ cbfce6db5ff5740dafe1771f813cd646339e1952
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
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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



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



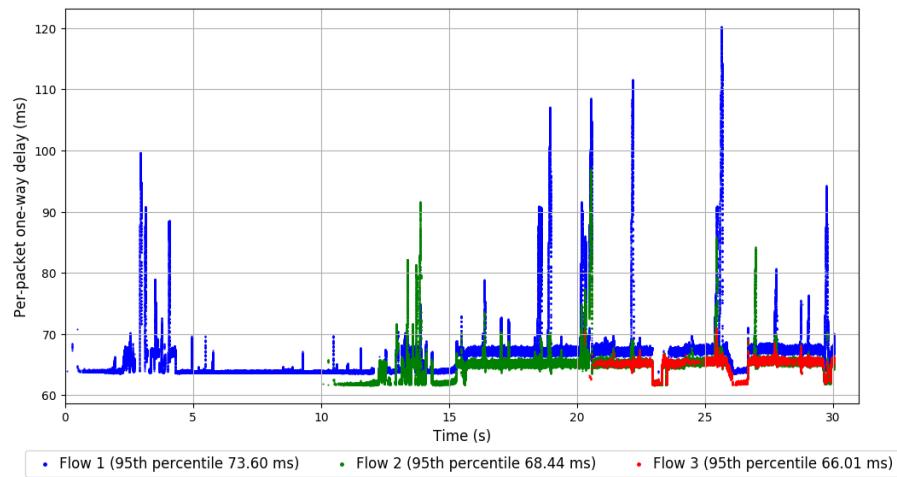
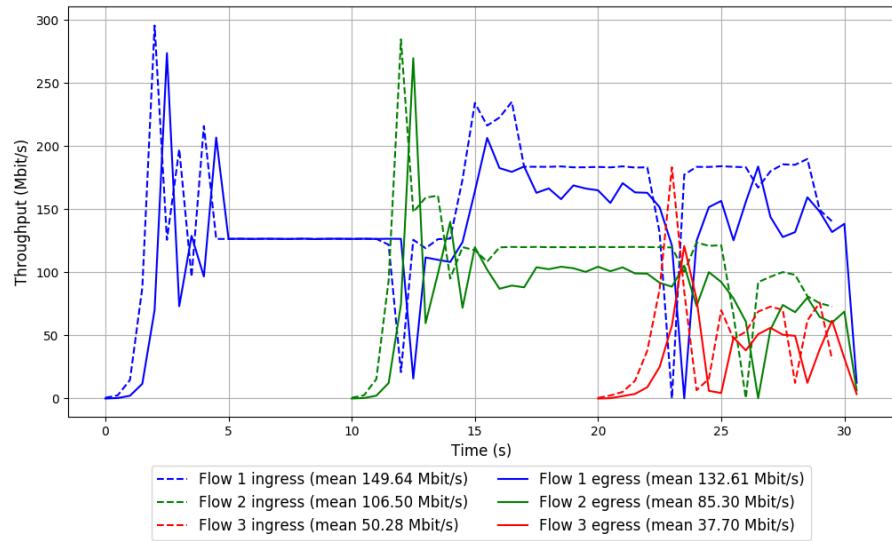
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	185.72	63.62	36.88	73.74	68.97	67.94	11.22	18.58	18.27
Copa	5	3.81	8.28	2.55	61.45	61.94	61.78	82.92	67.56	79.62
TCP Cubic	5	140.98	81.49	87.37	60.74	60.73	61.30	1.22	1.29	1.51
FillP	5	342.73	68.33	49.94	65.93	64.27	63.34	15.03	15.84	16.61
FillP-Sheep	5	284.63	142.41	105.71	65.56	65.44	65.99	16.93	20.94	23.90
Indigo	5	81.99	79.91	86.41	78.07	77.57	71.54	9.63	16.48	24.74
LEDBAT	5	9.44	6.24	3.01	67.17	66.51	64.47	0.00	0.00	0.00
Indigo-Muses	5	233.33	81.61	73.66	66.28	62.90	64.85	8.60	11.13	14.35
PCC-Allegro	5	432.45	32.46	24.14	63.05	63.73	63.34	4.75	2.01	2.40
PCC-Expr	5	0.01	11.07	3.82	61.97	61.48	61.50	83.43	35.53	39.10
QUIC Cubic	5	53.05	40.13	24.77	59.83	61.36	64.70	0.00	0.00	0.00
SCReAM	5	0.22	0.22	0.22	61.98	61.10	61.81	0.00	0.00	0.00
Sprout	5	0.28	0.29	0.42	61.49	60.92	61.10	0.00	0.00	0.00
TaoVA-100x	5	4.68	7.09	5.39	63.20	61.55	58.90	58.13	43.07	54.85
TCP Vegas	5	82.99	78.55	77.19	63.20	61.56	64.17	1.63	1.52	2.58
Verus	5	54.34	58.39	20.60	88.55	102.73	83.87	54.63	53.83	31.12
PCC-Vivace	5	183.66	38.75	13.54	64.36	63.88	63.90	1.61	1.33	1.59
WebRTC media	5	1.82	1.17	0.41	65.81	65.66	64.52	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2018-09-06 09:23:28
End at: 2018-09-06 09:23:58
Local clock offset: 2.32 ms
Remote clock offset: -35.024 ms

# Below is generated by plot.py at 2018-09-06 12:12:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 201.94 Mbit/s
95th percentile per-packet one-way delay: 70.028 ms
Loss rate: 14.88%
-- Flow 1:
Average throughput: 132.61 Mbit/s
95th percentile per-packet one-way delay: 73.603 ms
Loss rate: 11.37%
-- Flow 2:
Average throughput: 85.30 Mbit/s
95th percentile per-packet one-way delay: 68.443 ms
Loss rate: 19.90%
-- Flow 3:
Average throughput: 37.70 Mbit/s
95th percentile per-packet one-way delay: 66.009 ms
Loss rate: 25.01%
```

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

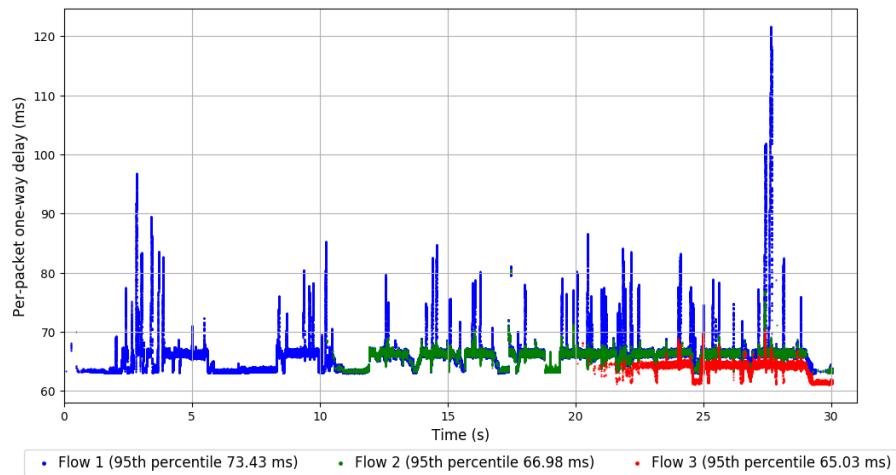
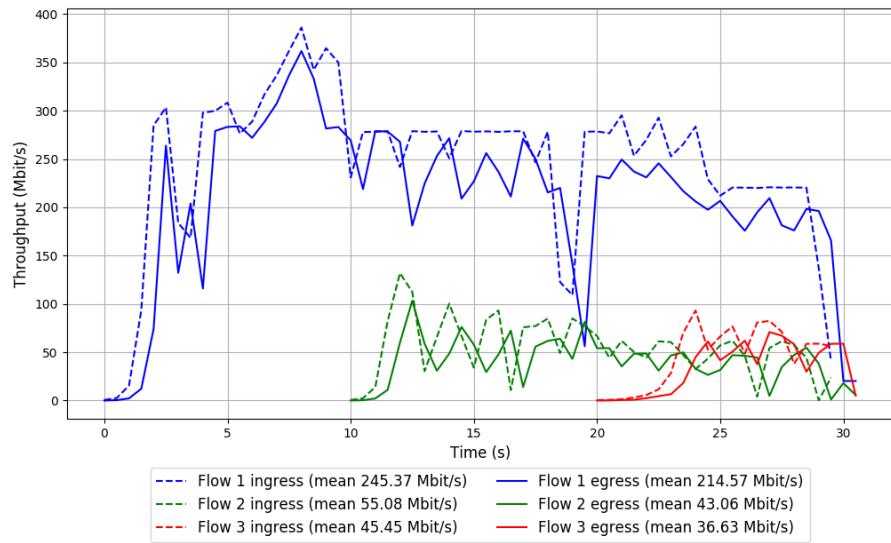


Run 2: Statistics of TCP BBR

```
Start at: 2018-09-06 10:12:24
End at: 2018-09-06 10:12:54
Local clock offset: 0.56 ms
Remote clock offset: -36.086 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.42 Mbit/s
95th percentile per-packet one-way delay: 71.790 ms
Loss rate: 14.05%
-- Flow 1:
Average throughput: 214.57 Mbit/s
95th percentile per-packet one-way delay: 73.426 ms
Loss rate: 12.55%
-- Flow 2:
Average throughput: 43.06 Mbit/s
95th percentile per-packet one-way delay: 66.976 ms
Loss rate: 21.82%
-- Flow 3:
Average throughput: 36.63 Mbit/s
95th percentile per-packet one-way delay: 65.029 ms
Loss rate: 19.42%
```

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

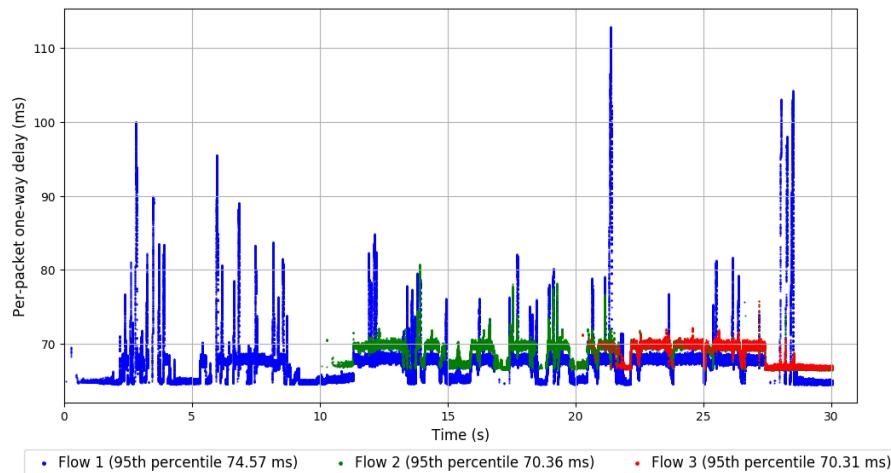
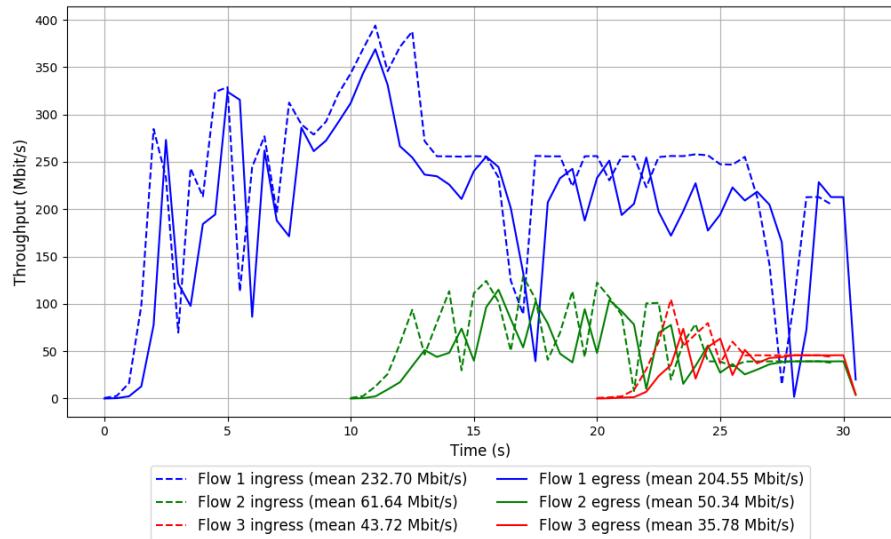


Run 3: Statistics of TCP BBR

```
Start at: 2018-09-06 10:59:28
End at: 2018-09-06 10:59:58
Local clock offset: -1.476 ms
Remote clock offset: -32.145 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.99 Mbit/s
95th percentile per-packet one-way delay: 72.735 ms
Loss rate: 13.29%
-- Flow 1:
Average throughput: 204.55 Mbit/s
95th percentile per-packet one-way delay: 74.568 ms
Loss rate: 12.10%
-- Flow 2:
Average throughput: 50.34 Mbit/s
95th percentile per-packet one-way delay: 70.361 ms
Loss rate: 18.32%
-- Flow 3:
Average throughput: 35.78 Mbit/s
95th percentile per-packet one-way delay: 70.310 ms
Loss rate: 18.15%
```

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

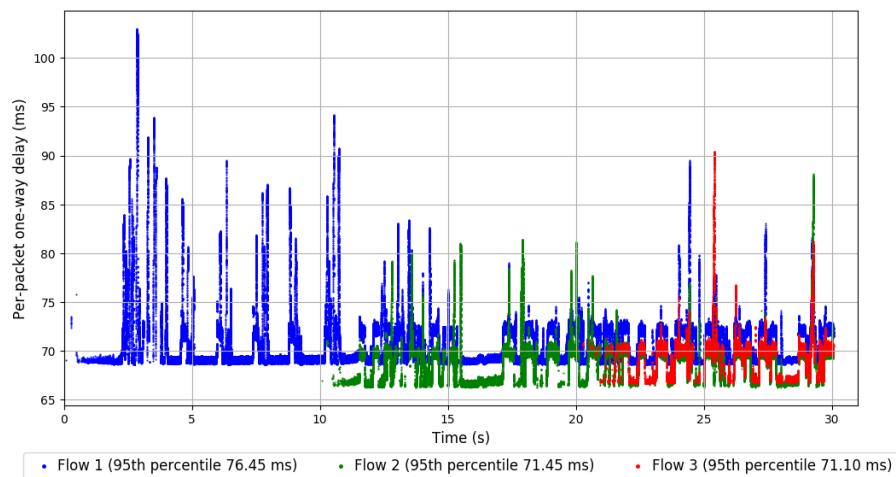
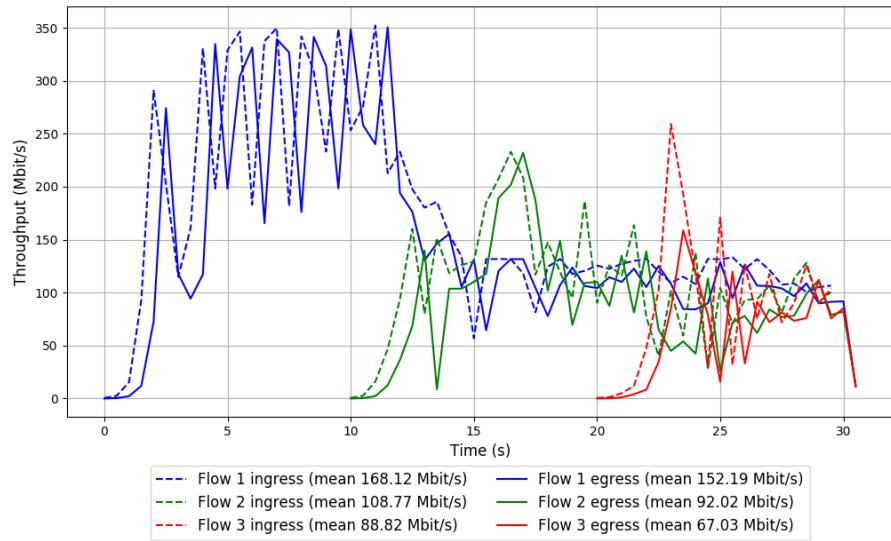


Run 4: Statistics of TCP BBR

```
Start at: 2018-09-06 11:25:25
End at: 2018-09-06 11:25:55
Local clock offset: -0.769 ms
Remote clock offset: -29.859 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 235.79 Mbit/s
95th percentile per-packet one-way delay: 74.569 ms
Loss rate: 12.70%
-- Flow 1:
Average throughput: 152.19 Mbit/s
95th percentile per-packet one-way delay: 76.450 ms
Loss rate: 9.46%
-- Flow 2:
Average throughput: 92.02 Mbit/s
95th percentile per-packet one-way delay: 71.455 ms
Loss rate: 15.38%
-- Flow 3:
Average throughput: 67.03 Mbit/s
95th percentile per-packet one-way delay: 71.098 ms
Loss rate: 24.53%
```

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

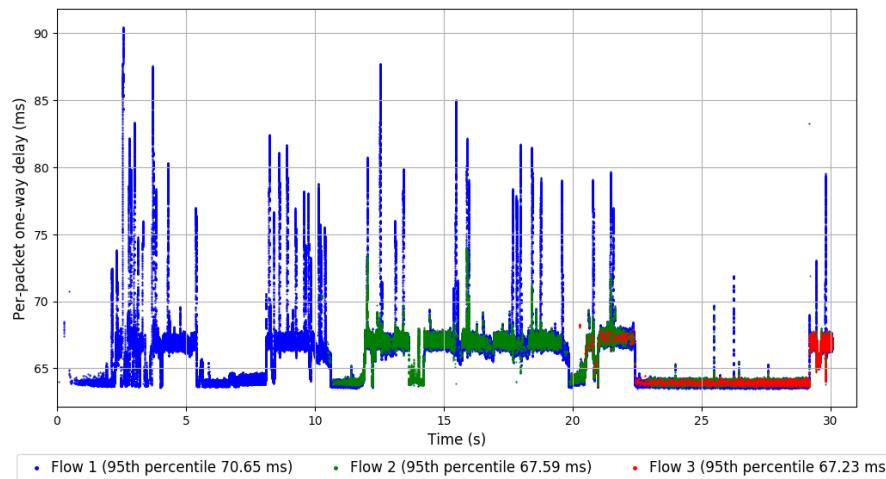
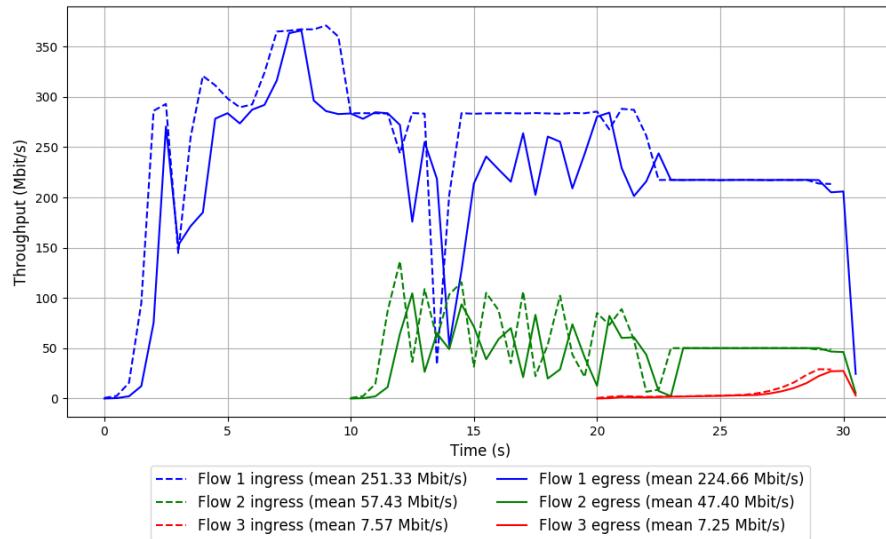


Run 5: Statistics of TCP BBR

```
Start at: 2018-09-06 11:51:22
End at: 2018-09-06 11:51:52
Local clock offset: -5.813 ms
Remote clock offset: -37.647 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.65 Mbit/s
95th percentile per-packet one-way delay: 69.047 ms
Loss rate: 11.45%
-- Flow 1:
Average throughput: 224.66 Mbit/s
95th percentile per-packet one-way delay: 70.649 ms
Loss rate: 10.60%
-- Flow 2:
Average throughput: 47.40 Mbit/s
95th percentile per-packet one-way delay: 67.591 ms
Loss rate: 17.46%
-- Flow 3:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 67.230 ms
Loss rate: 4.22%
```

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

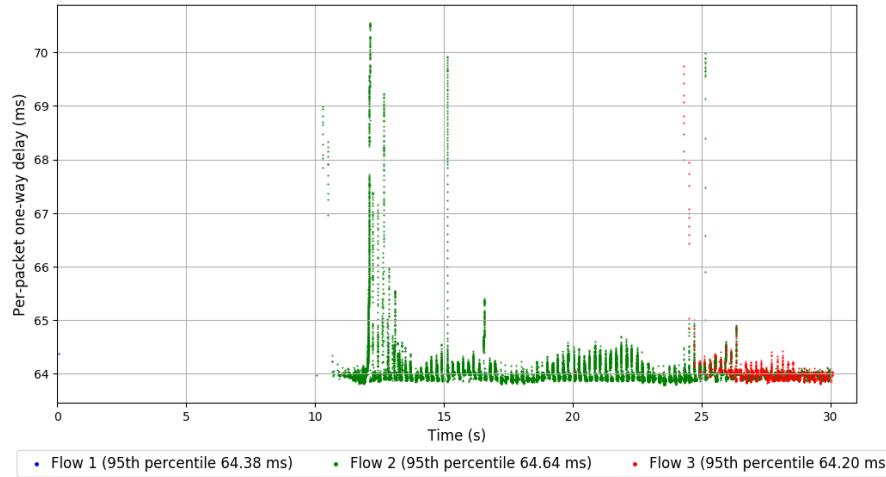
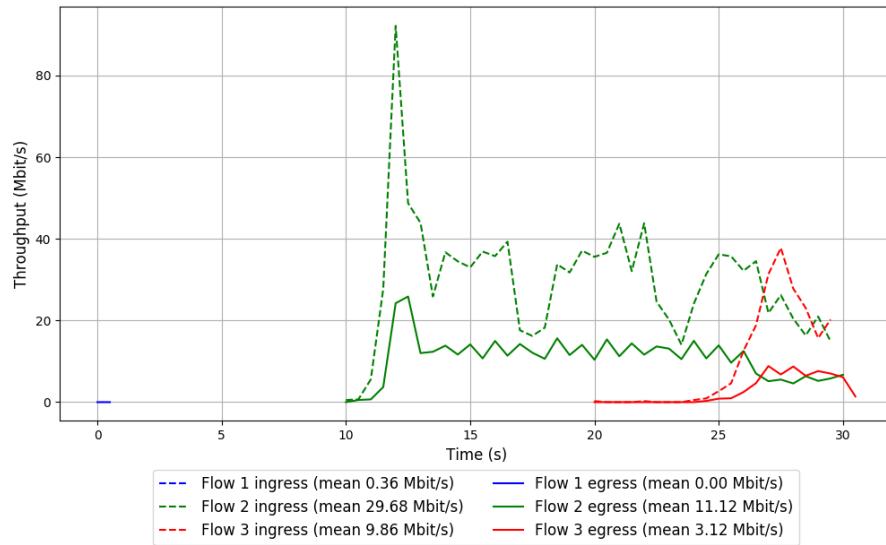


Run 1: Statistics of Copa

```
Start at: 2018-09-06 09:07:49
End at: 2018-09-06 09:08:19
Local clock offset: 1.459 ms
Remote clock offset: -34.119 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 64.561 ms
Loss rate: 63.37%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 64.383 ms
Loss rate: 98.65%
-- Flow 2:
Average throughput: 11.12 Mbit/s
95th percentile per-packet one-way delay: 64.641 ms
Loss rate: 62.53%
-- Flow 3:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 64.200 ms
Loss rate: 68.38%
```

Run 1: Report of Copa — Data Link

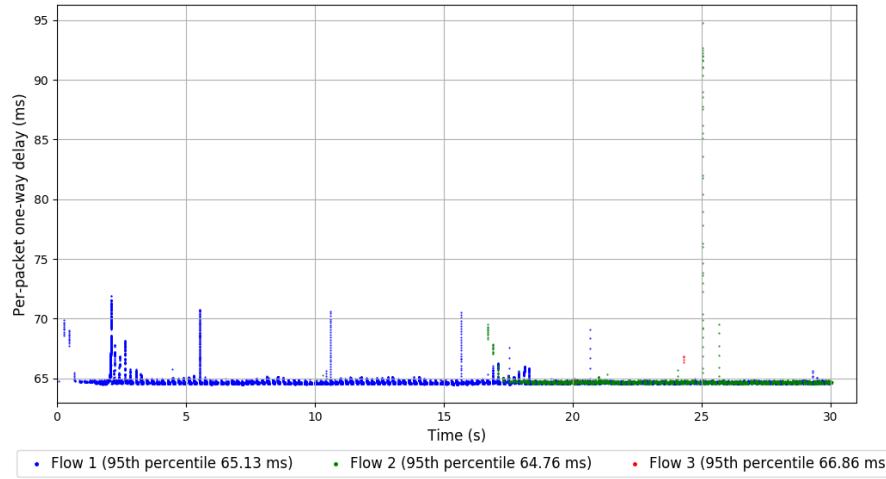
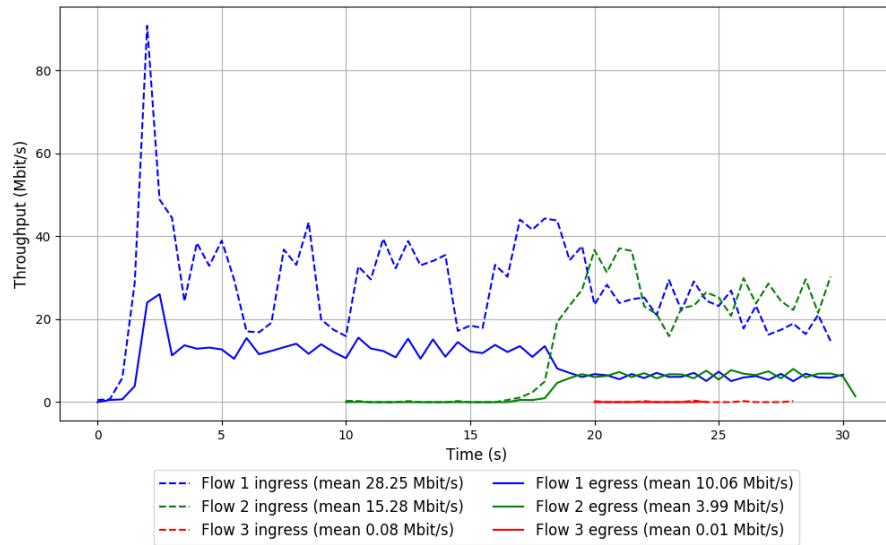


Run 2: Statistics of Copa

```
Start at: 2018-09-06 09:56:42
End at: 2018-09-06 09:57:12
Local clock offset: -0.647 ms
Remote clock offset: -34.286 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 65.053 ms
Loss rate: 66.93%
-- Flow 1:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 65.128 ms
Loss rate: 64.40%
-- Flow 2:
Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 64.761 ms
Loss rate: 73.86%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 66.862 ms
Loss rate: 92.59%
```

## Run 2: Report of Copa — Data Link

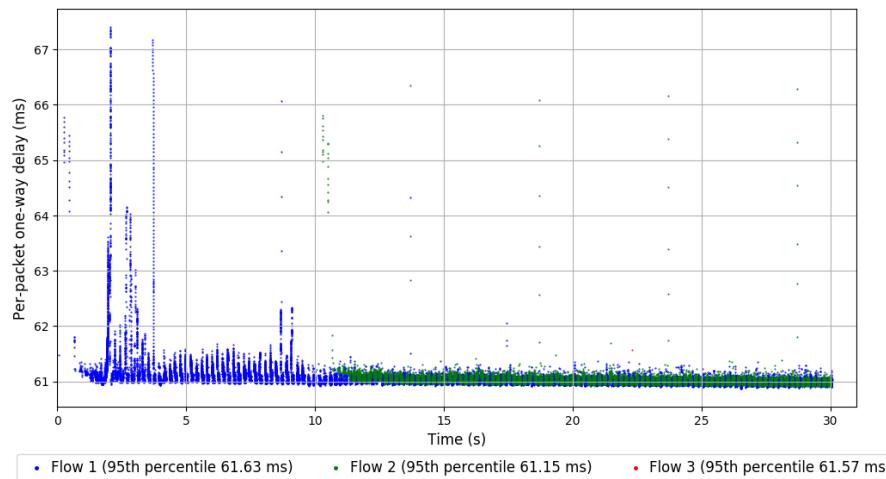
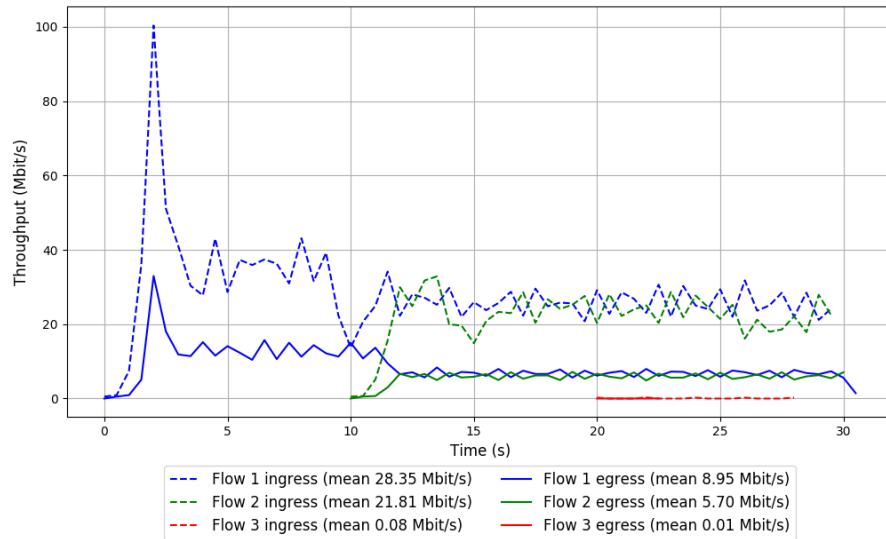


Run 3: Statistics of Copa

```
Start at: 2018-09-06 10:49:33
End at: 2018-09-06 10:50:03
Local clock offset: 0.34 ms
Remote clock offset: -35.144 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 61.447 ms
Loss rate: 70.30%
-- Flow 1:
Average throughput: 8.95 Mbit/s
95th percentile per-packet one-way delay: 61.627 ms
Loss rate: 68.45%
-- Flow 2:
Average throughput: 5.70 Mbit/s
95th percentile per-packet one-way delay: 61.153 ms
Loss rate: 73.89%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 61.574 ms
Loss rate: 97.92%
```

### Run 3: Report of Copa — Data Link

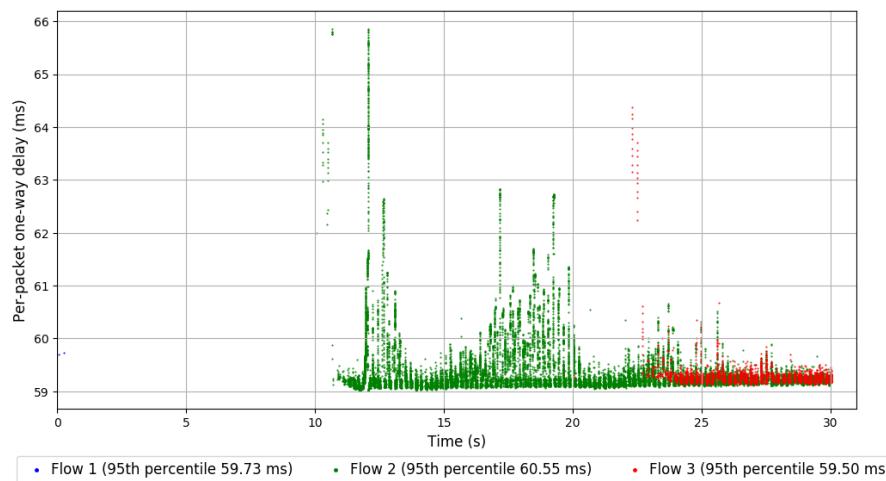
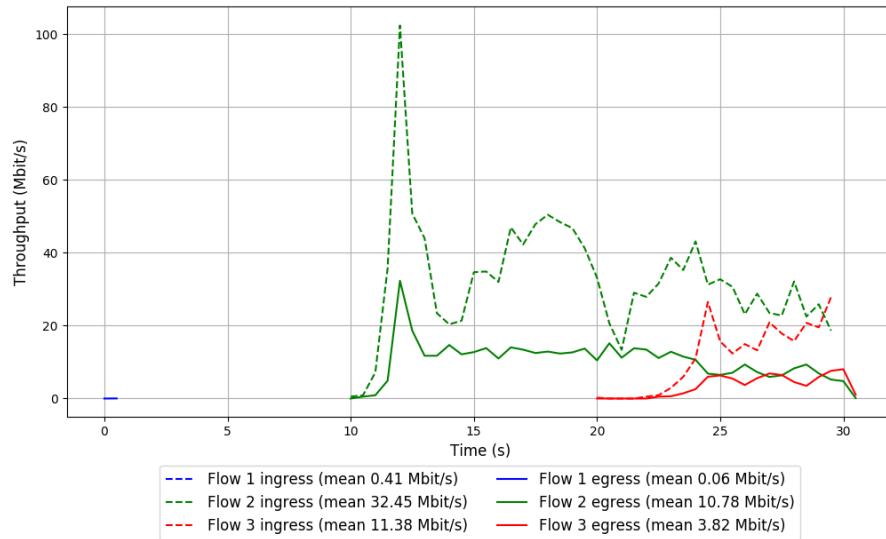


Run 4: Statistics of Copa

```
Start at: 2018-09-06 11:15:29
End at: 2018-09-06 11:15:59
Local clock offset: -1.417 ms
Remote clock offset: -36.432 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 60.464 ms
Loss rate: 66.73%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 59.730 ms
Loss rate: 84.72%
-- Flow 2:
Average throughput: 10.78 Mbit/s
95th percentile per-packet one-way delay: 60.550 ms
Loss rate: 66.78%
-- Flow 3:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 59.497 ms
Loss rate: 66.43%
```

## Run 4: Report of Copa — Data Link

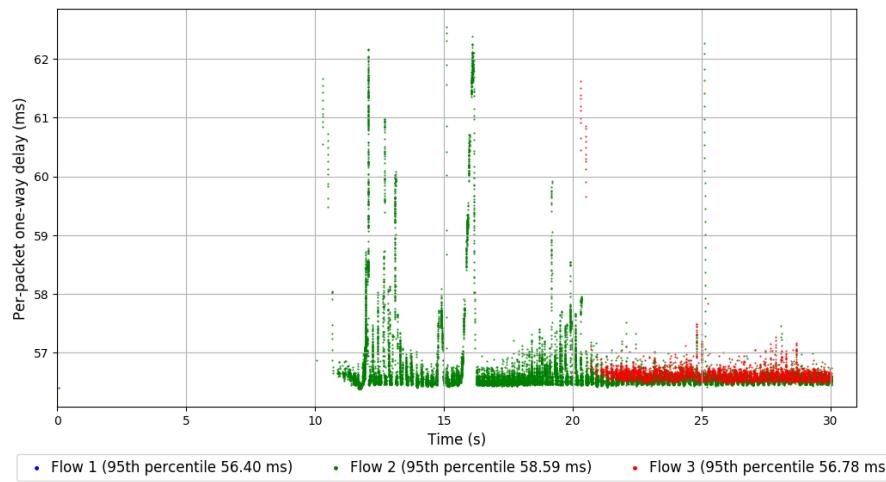
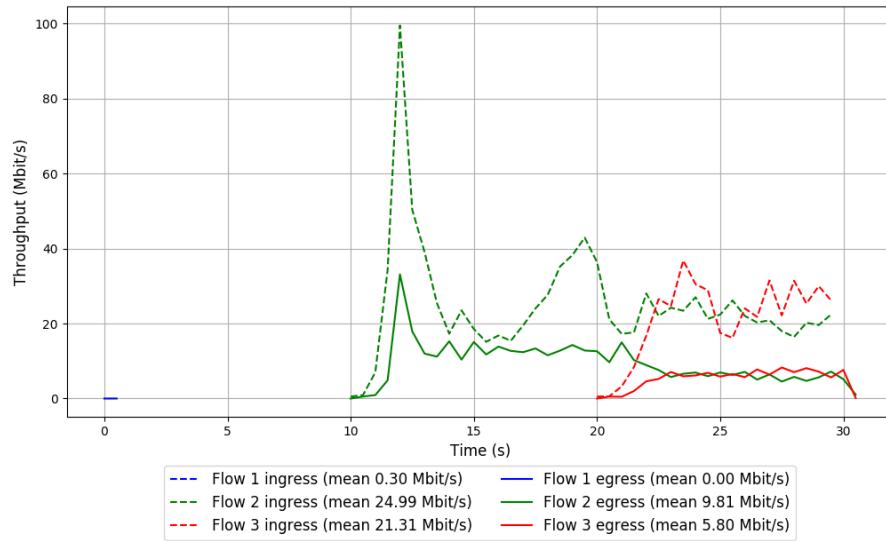


Run 5: Statistics of Copa

```
Start at: 2018-09-06 11:41:25
End at: 2018-09-06 11:41:55
Local clock offset: 3.266 ms
Remote clock offset: -36.643 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 57.999 ms
Loss rate: 64.34%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 56.400 ms
Loss rate: 98.39%
-- Flow 2:
Average throughput: 9.81 Mbit/s
95th percentile per-packet one-way delay: 58.592 ms
Loss rate: 60.75%
-- Flow 3:
Average throughput: 5.80 Mbit/s
95th percentile per-packet one-way delay: 56.779 ms
Loss rate: 72.79%
```

## Run 5: Report of Copa — Data Link

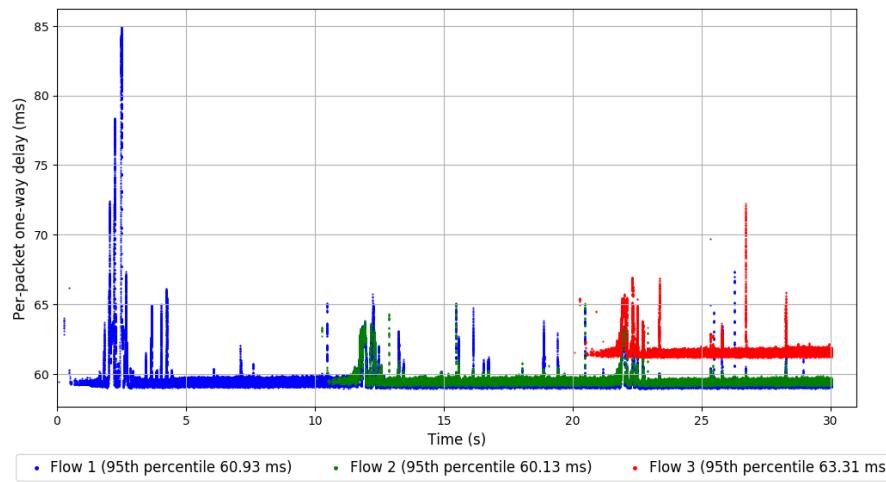
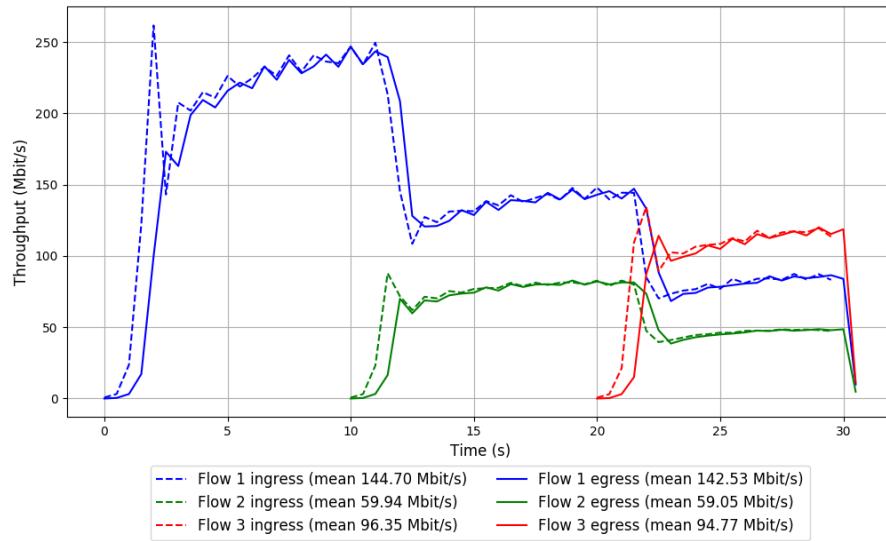


```
Run 1: Statistics of TCP Cubic

Start at: 2018-09-06 09:25:00
End at: 2018-09-06 09:25:30
Local clock offset: 0.842 ms
Remote clock offset: -38.852 ms

# Below is generated by plot.py at 2018-09-06 12:13:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.36 Mbit/s
95th percentile per-packet one-way delay: 61.798 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 142.53 Mbit/s
95th percentile per-packet one-way delay: 60.929 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 59.05 Mbit/s
95th percentile per-packet one-way delay: 60.134 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 63.306 ms
Loss rate: 1.64%
```

Run 1: Report of TCP Cubic — Data Link

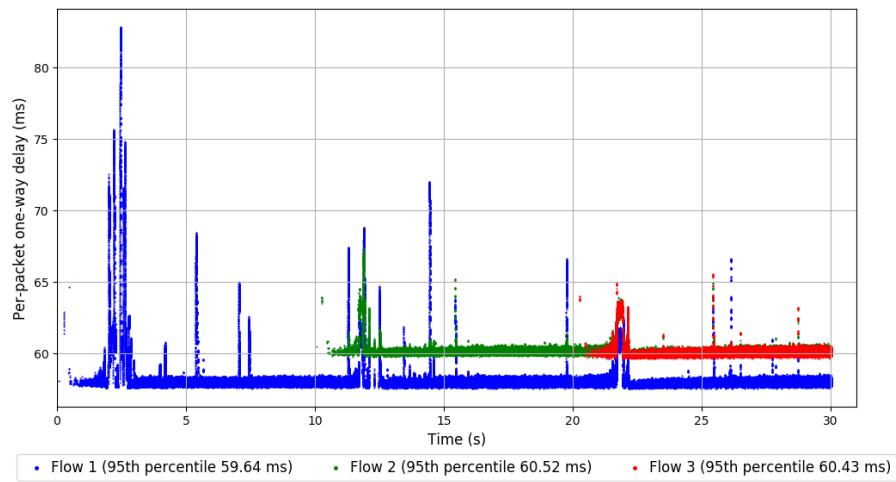
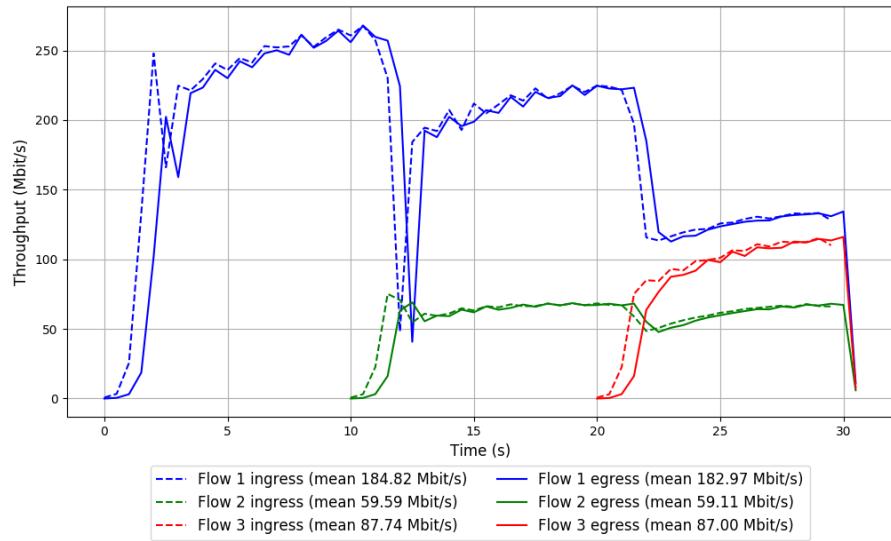


Run 2: Statistics of TCP Cubic

```
Start at: 2018-09-06 10:13:59
End at: 2018-09-06 10:14:29
Local clock offset: 1.623 ms
Remote clock offset: -38.416 ms

# Below is generated by plot.py at 2018-09-06 12:13:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.25 Mbit/s
95th percentile per-packet one-way delay: 60.409 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 182.97 Mbit/s
95th percentile per-packet one-way delay: 59.637 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 59.11 Mbit/s
95th percentile per-packet one-way delay: 60.515 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 87.00 Mbit/s
95th percentile per-packet one-way delay: 60.427 ms
Loss rate: 0.86%
```

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

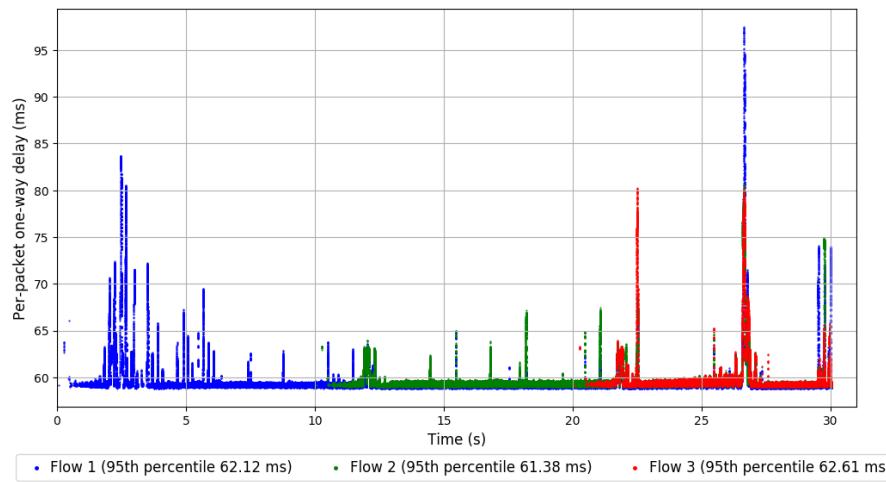
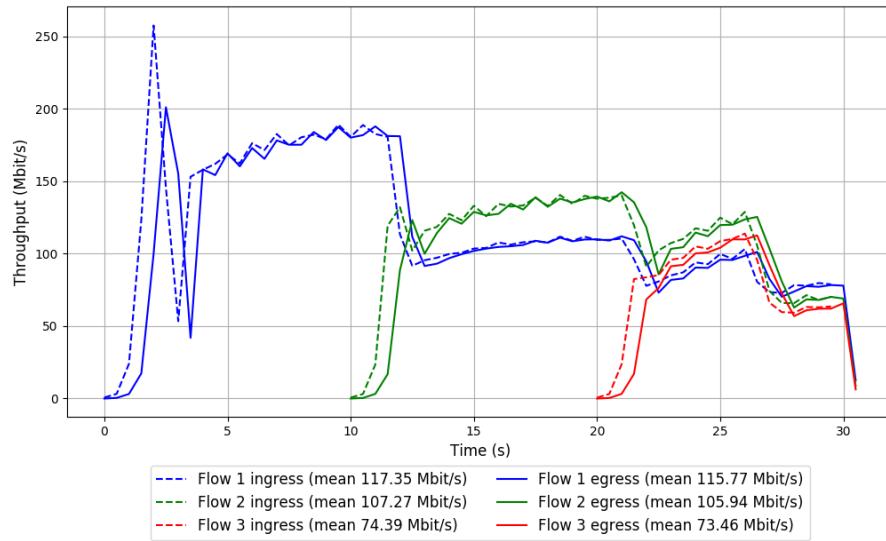


Run 3: Statistics of TCP Cubic

```
Start at: 2018-09-06 11:01:03
End at: 2018-09-06 11:01:33
Local clock offset: -1.461 ms
Remote clock offset: -37.278 ms

# Below is generated by plot.py at 2018-09-06 12:13:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.77 Mbit/s
95th percentile per-packet one-way delay: 62.062 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 115.77 Mbit/s
95th percentile per-packet one-way delay: 62.115 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 105.94 Mbit/s
95th percentile per-packet one-way delay: 61.383 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 73.46 Mbit/s
95th percentile per-packet one-way delay: 62.609 ms
Loss rate: 1.24%
```

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

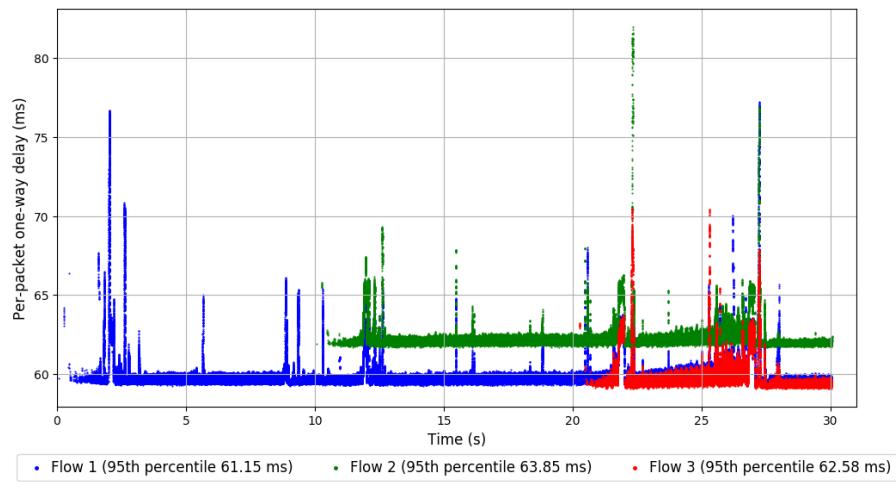
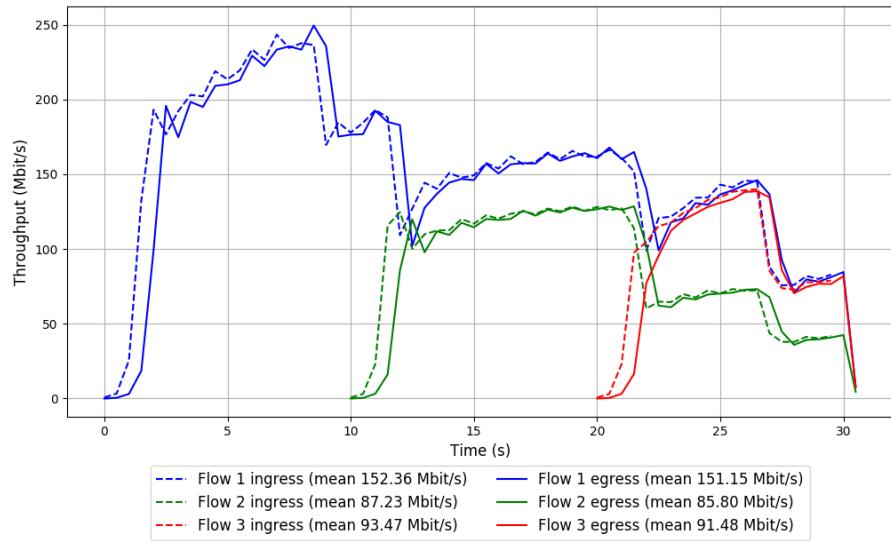


Run 4: Statistics of TCP Cubic

```
Start at: 2018-09-06 11:26:59
End at: 2018-09-06 11:27:29
Local clock offset: 2.486 ms
Remote clock offset: -33.746 ms

# Below is generated by plot.py at 2018-09-06 12:14:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 238.72 Mbit/s
95th percentile per-packet one-way delay: 62.615 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 151.15 Mbit/s
95th percentile per-packet one-way delay: 61.148 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 85.80 Mbit/s
95th percentile per-packet one-way delay: 63.850 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 91.48 Mbit/s
95th percentile per-packet one-way delay: 62.578 ms
Loss rate: 2.12%
```

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

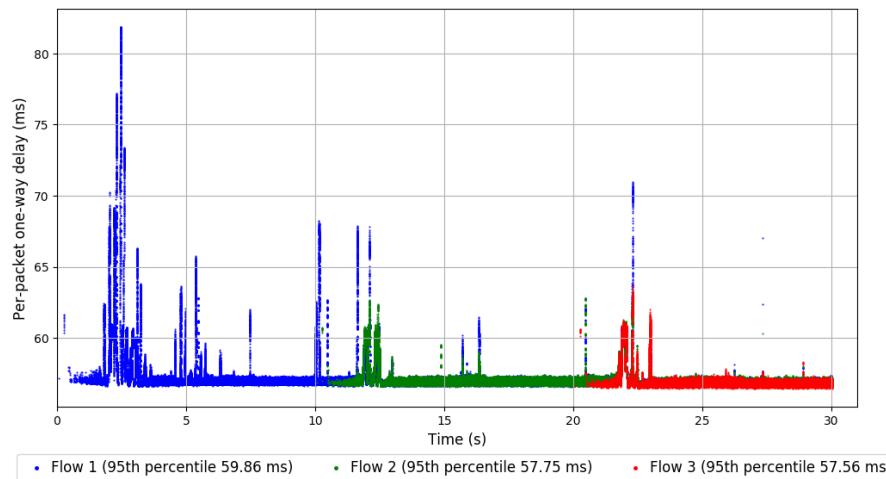
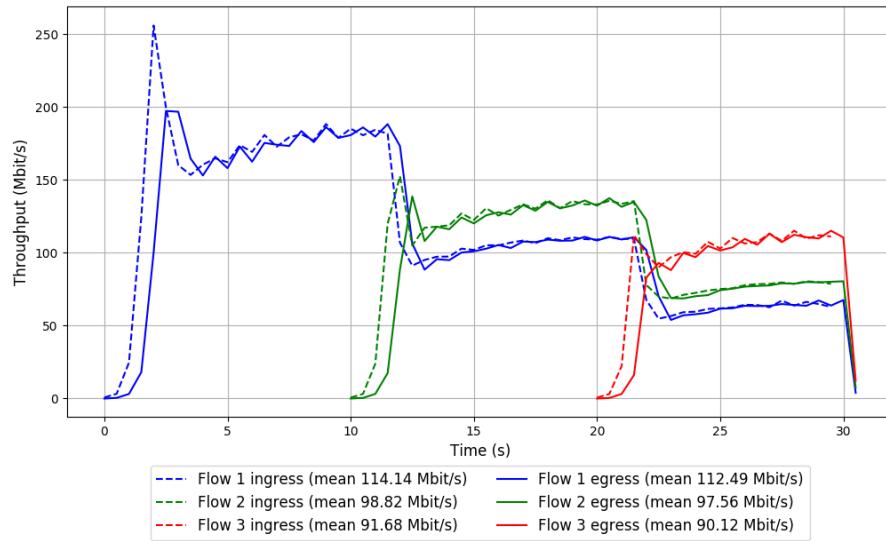


Run 5: Statistics of TCP Cubic

```
Start at: 2018-09-06 11:52:56
End at: 2018-09-06 11:53:26
Local clock offset: 2.116 ms
Remote clock offset: -36.419 ms

# Below is generated by plot.py at 2018-09-06 12:14:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 207.44 Mbit/s
95th percentile per-packet one-way delay: 59.000 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 112.49 Mbit/s
95th percentile per-packet one-way delay: 59.856 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 97.56 Mbit/s
95th percentile per-packet one-way delay: 57.752 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 90.12 Mbit/s
95th percentile per-packet one-way delay: 57.564 ms
Loss rate: 1.70%
```

Run 5: Report of TCP Cubic — Data Link

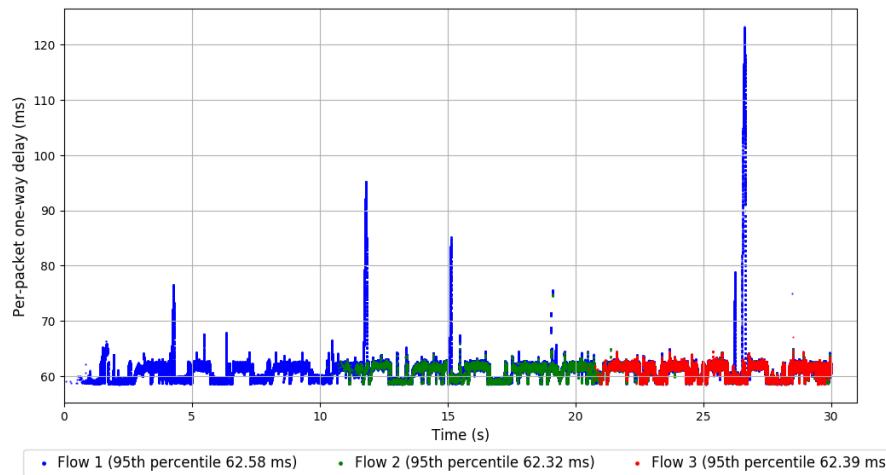
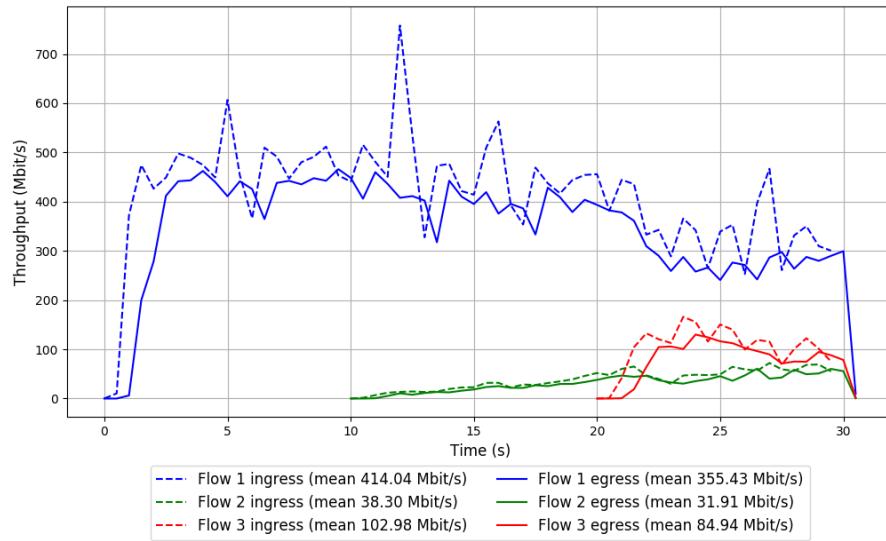


```
Run 1: Statistics of FillP

Start at: 2018-09-06 09:52:23
End at: 2018-09-06 09:52:53
Local clock offset: 1.505 ms
Remote clock offset: -37.795 ms

# Below is generated by plot.py at 2018-09-06 12:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.23 Mbit/s
95th percentile per-packet one-way delay: 62.531 ms
Loss rate: 14.65%
-- Flow 1:
Average throughput: 355.43 Mbit/s
95th percentile per-packet one-way delay: 62.579 ms
Loss rate: 14.15%
-- Flow 2:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 62.316 ms
Loss rate: 16.68%
-- Flow 3:
Average throughput: 84.94 Mbit/s
95th percentile per-packet one-way delay: 62.387 ms
Loss rate: 19.20%
```

Run 1: Report of FillP — Data Link

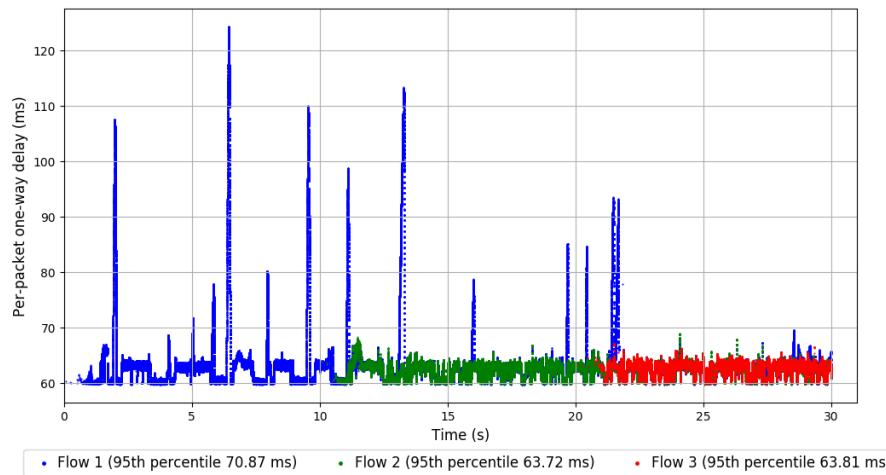
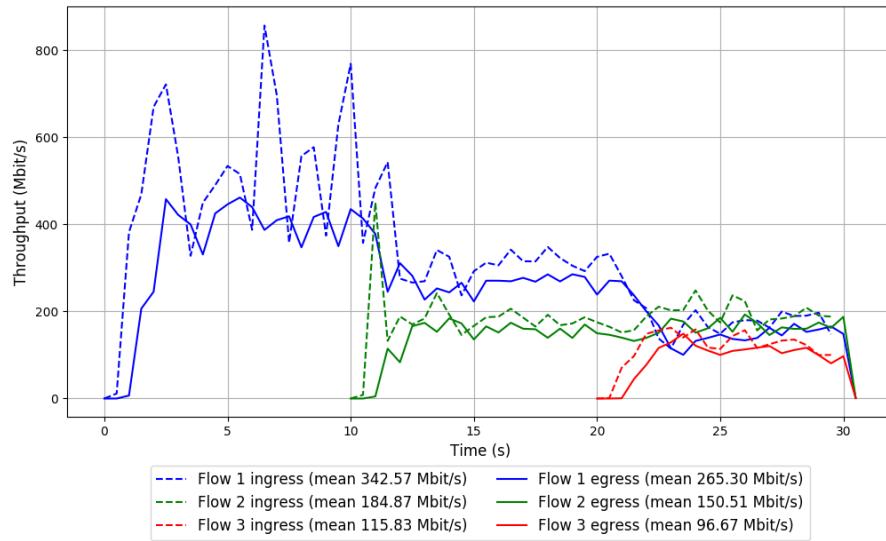


Run 2: Statistics of FillP

```
Start at: 2018-09-06 10:39:12
End at: 2018-09-06 10:39:42
Local clock offset: 3.321 ms
Remote clock offset: -34.052 ms

# Below is generated by plot.py at 2018-09-06 12:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.57 Mbit/s
95th percentile per-packet one-way delay: 65.808 ms
Loss rate: 21.13%
-- Flow 1:
Average throughput: 265.30 Mbit/s
95th percentile per-packet one-way delay: 70.869 ms
Loss rate: 22.55%
-- Flow 2:
Average throughput: 150.51 Mbit/s
95th percentile per-packet one-way delay: 63.719 ms
Loss rate: 18.59%
-- Flow 3:
Average throughput: 96.67 Mbit/s
95th percentile per-packet one-way delay: 63.807 ms
Loss rate: 16.56%
```

## Run 2: Report of FillP — Data Link

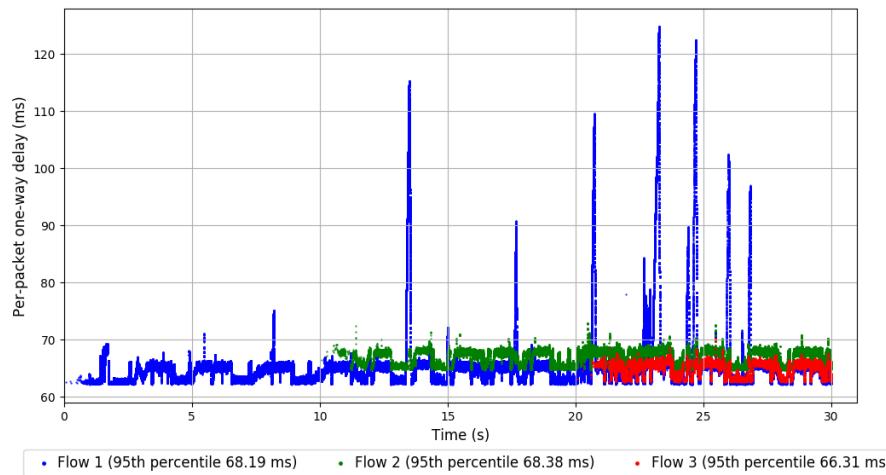
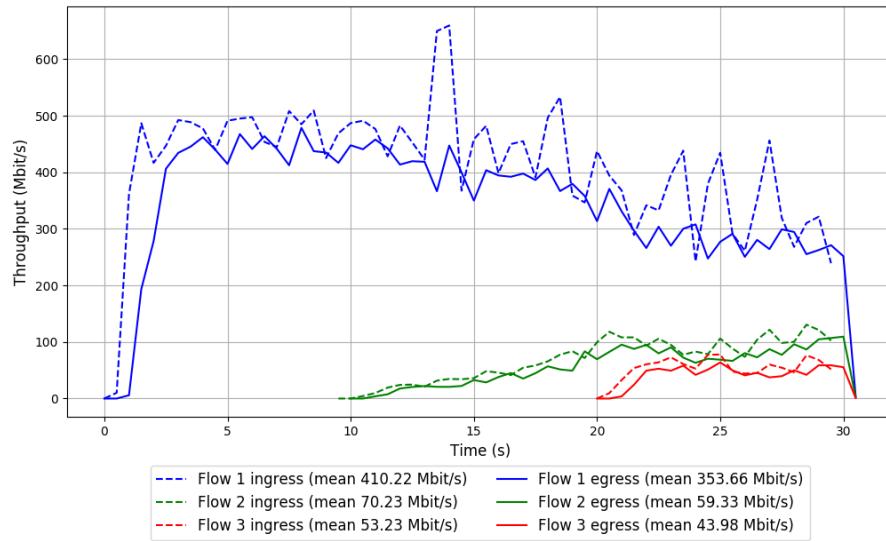


Run 3: Statistics of FillP

```
Start at: 2018-09-06 11:11:09
End at: 2018-09-06 11:11:39
Local clock offset: -2.316 ms
Remote clock offset: -33.825 ms

# Below is generated by plot.py at 2018-09-06 12:18:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 407.75 Mbit/s
95th percentile per-packet one-way delay: 68.270 ms
Loss rate: 14.09%
-- Flow 1:
Average throughput: 353.66 Mbit/s
95th percentile per-packet one-way delay: 68.185 ms
Loss rate: 13.78%
-- Flow 2:
Average throughput: 59.33 Mbit/s
95th percentile per-packet one-way delay: 68.384 ms
Loss rate: 15.53%
-- Flow 3:
Average throughput: 43.98 Mbit/s
95th percentile per-packet one-way delay: 66.305 ms
Loss rate: 17.36%
```

Run 3: Report of FillP — Data Link

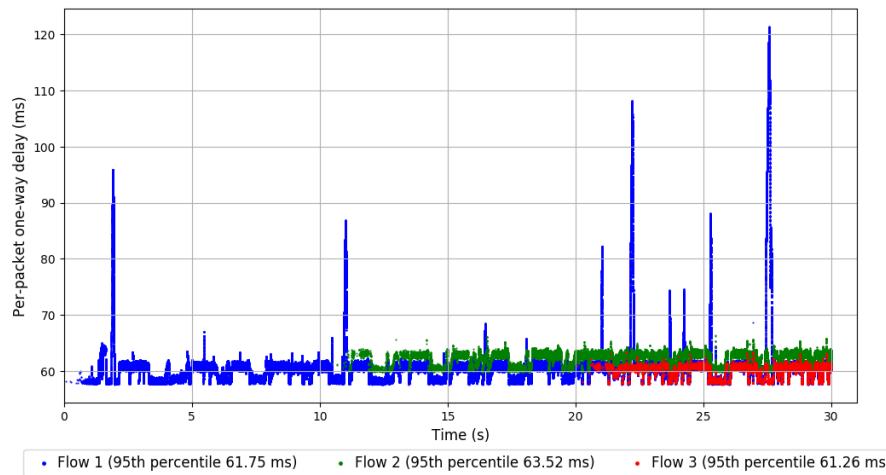
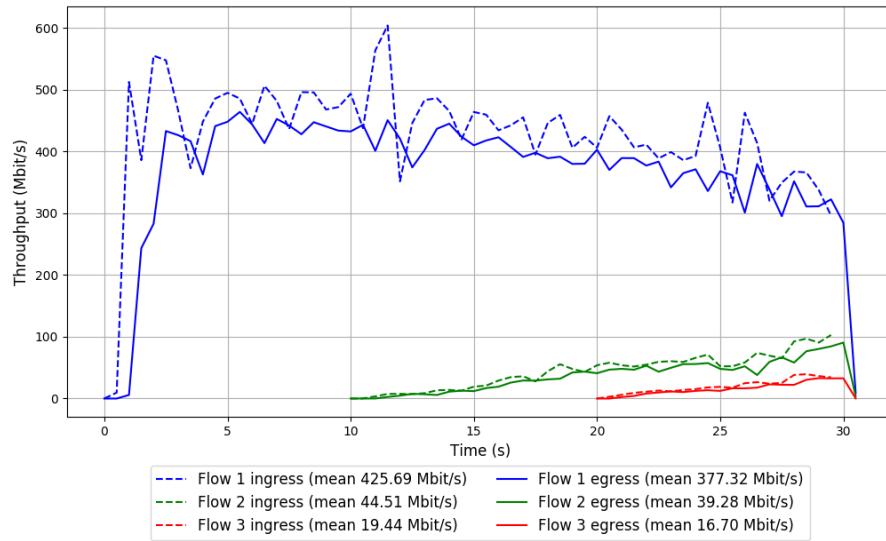


Run 4: Statistics of FillP

```
Start at: 2018-09-06 11:37:07
End at: 2018-09-06 11:37:37
Local clock offset: 1.532 ms
Remote clock offset: -36.893 ms

# Below is generated by plot.py at 2018-09-06 12:18:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 408.47 Mbit/s
95th percentile per-packet one-way delay: 63.062 ms
Loss rate: 11.53%
-- Flow 1:
Average throughput: 377.32 Mbit/s
95th percentile per-packet one-way delay: 61.753 ms
Loss rate: 11.35%
-- Flow 2:
Average throughput: 39.28 Mbit/s
95th percentile per-packet one-way delay: 63.523 ms
Loss rate: 13.54%
-- Flow 3:
Average throughput: 16.70 Mbit/s
95th percentile per-packet one-way delay: 61.259 ms
Loss rate: 14.09%
```

## Run 4: Report of FillP — Data Link

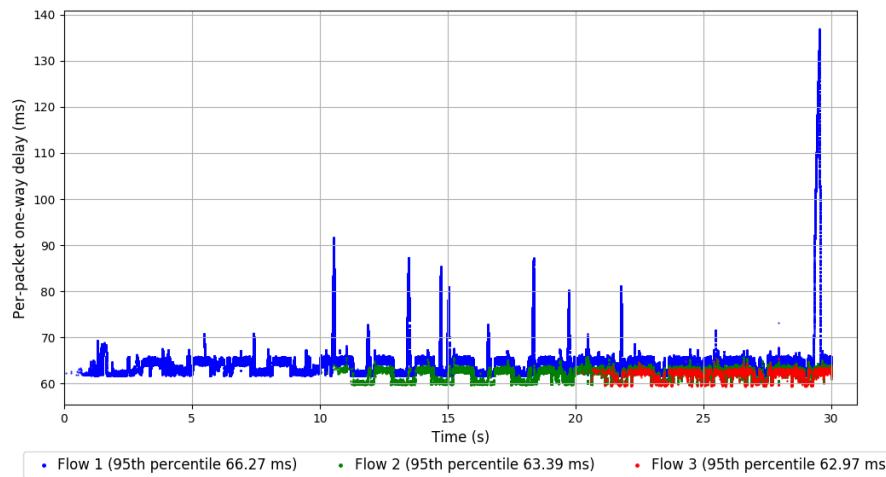
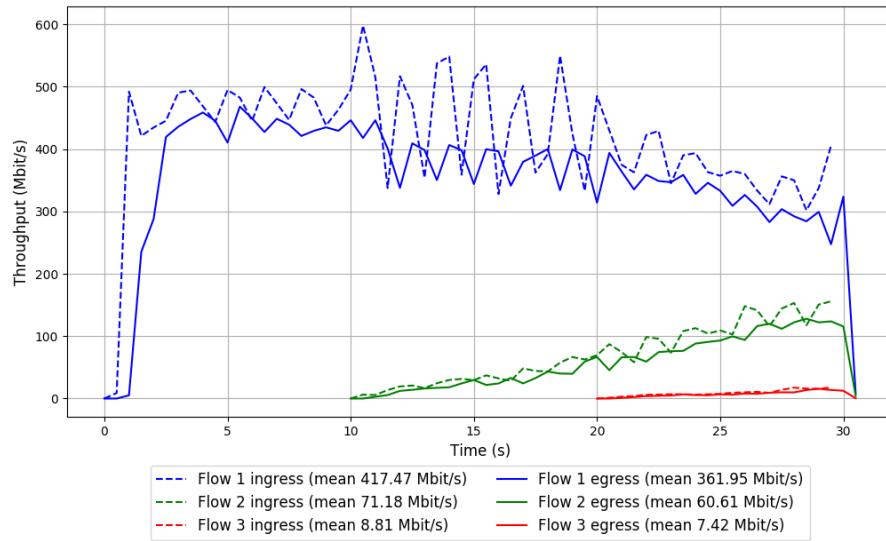


Run 5: Statistics of FillP

```
Start at: 2018-09-06 12:03:05
End at: 2018-09-06 12:03:35
Local clock offset: 1.364 ms
Remote clock offset: -33.897 ms

# Below is generated by plot.py at 2018-09-06 12:18:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.77 Mbit/s
95th percentile per-packet one-way delay: 65.822 ms
Loss rate: 13.47%
-- Flow 1:
Average throughput: 361.95 Mbit/s
95th percentile per-packet one-way delay: 66.270 ms
Loss rate: 13.30%
-- Flow 2:
Average throughput: 60.61 Mbit/s
95th percentile per-packet one-way delay: 63.386 ms
Loss rate: 14.86%
-- Flow 3:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 62.966 ms
Loss rate: 15.84%
```

Run 5: Report of FillP — Data Link

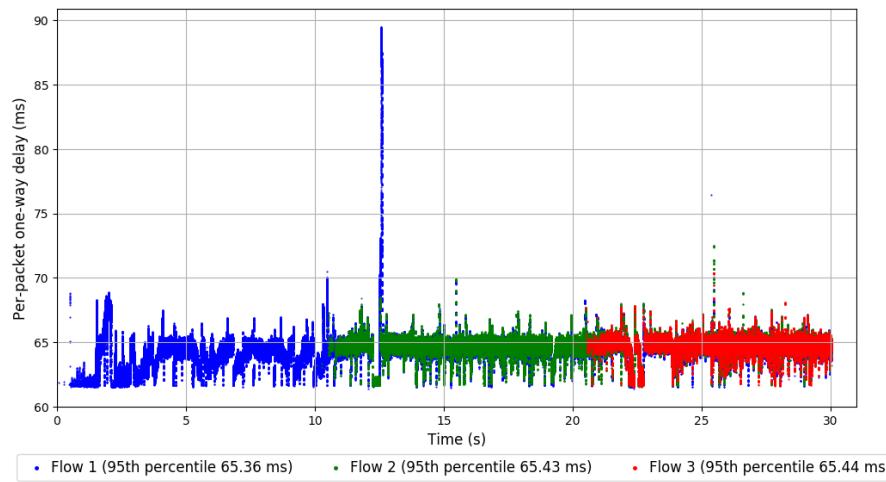
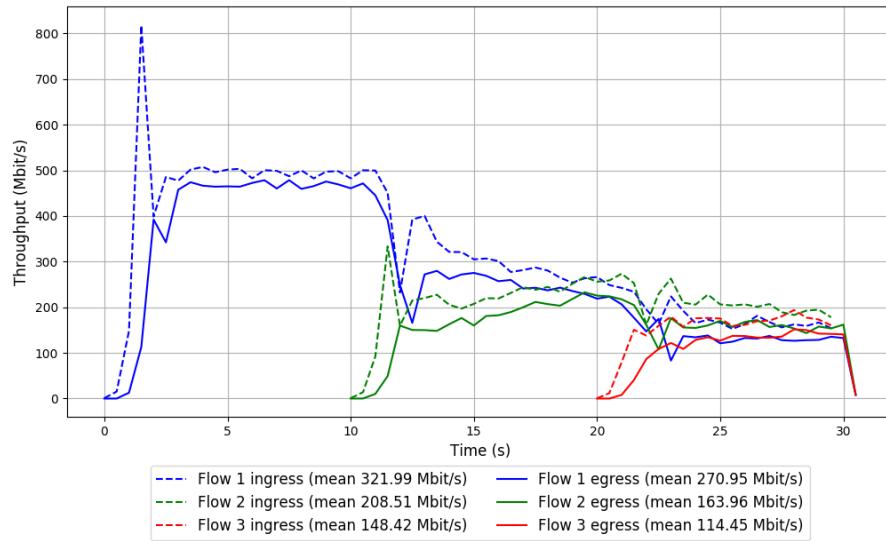


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2018-09-06 09:35:59
End at: 2018-09-06 09:36:29
Local clock offset: 3.501 ms
Remote clock offset: -33.368 ms

# Below is generated by plot.py at 2018-09-06 12:19:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.09 Mbit/s
95th percentile per-packet one-way delay: 65.397 ms
Loss rate: 18.03%
-- Flow 1:
Average throughput: 270.95 Mbit/s
95th percentile per-packet one-way delay: 65.358 ms
Loss rate: 15.84%
-- Flow 2:
Average throughput: 163.96 Mbit/s
95th percentile per-packet one-way delay: 65.426 ms
Loss rate: 21.36%
-- Flow 3:
Average throughput: 114.45 Mbit/s
95th percentile per-packet one-way delay: 65.441 ms
Loss rate: 22.89%
```

Run 1: Report of FillP-Sheep — Data Link

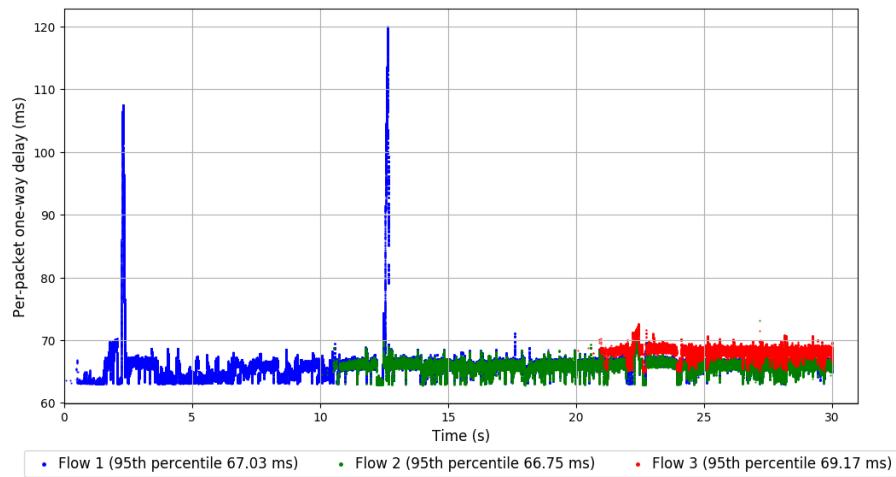
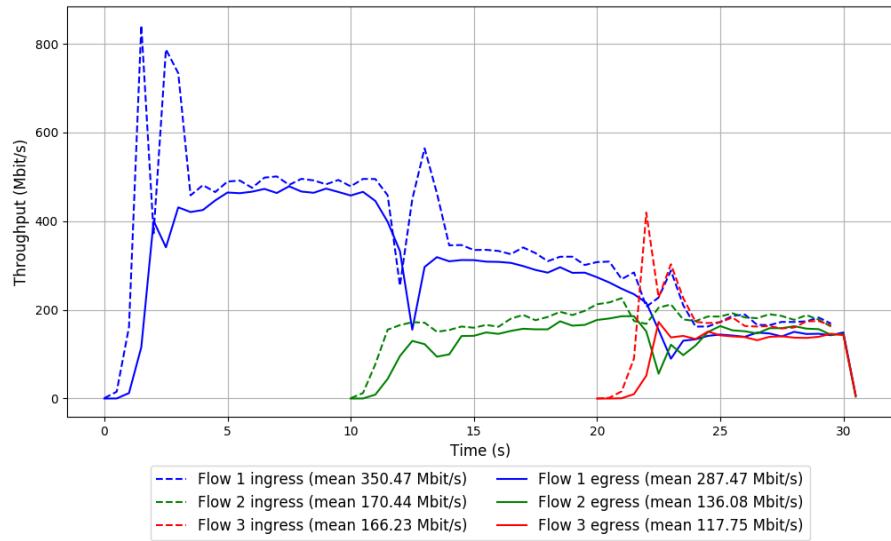


Run 2: Statistics of FillP-Sheep

```
Start at: 2018-09-06 10:29:09
End at: 2018-09-06 10:29:39
Local clock offset: 1.026 ms
Remote clock offset: -33.593 ms

# Below is generated by plot.py at 2018-09-06 12:21:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.11 Mbit/s
95th percentile per-packet one-way delay: 68.516 ms
Loss rate: 19.64%
-- Flow 1:
Average throughput: 287.47 Mbit/s
95th percentile per-packet one-way delay: 67.025 ms
Loss rate: 17.97%
-- Flow 2:
Average throughput: 136.08 Mbit/s
95th percentile per-packet one-way delay: 66.753 ms
Loss rate: 20.15%
-- Flow 3:
Average throughput: 117.75 Mbit/s
95th percentile per-packet one-way delay: 69.171 ms
Loss rate: 29.17%
```

Run 2: Report of FillP-Sheep — Data Link

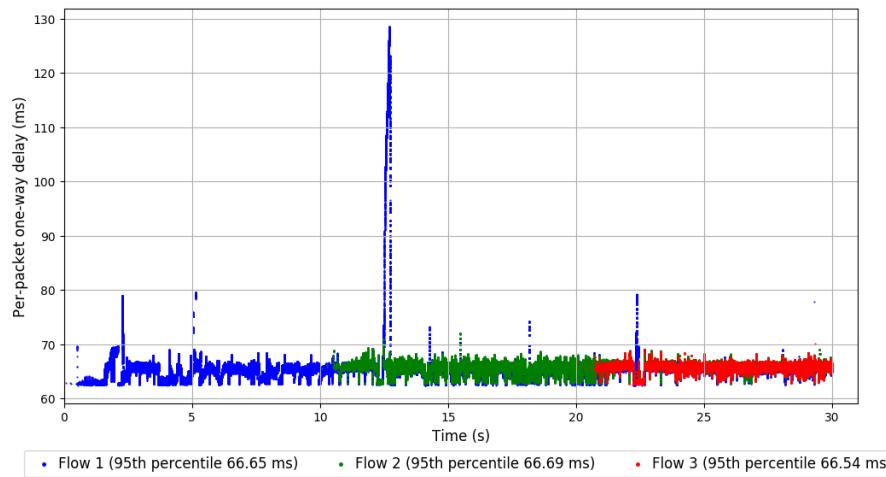
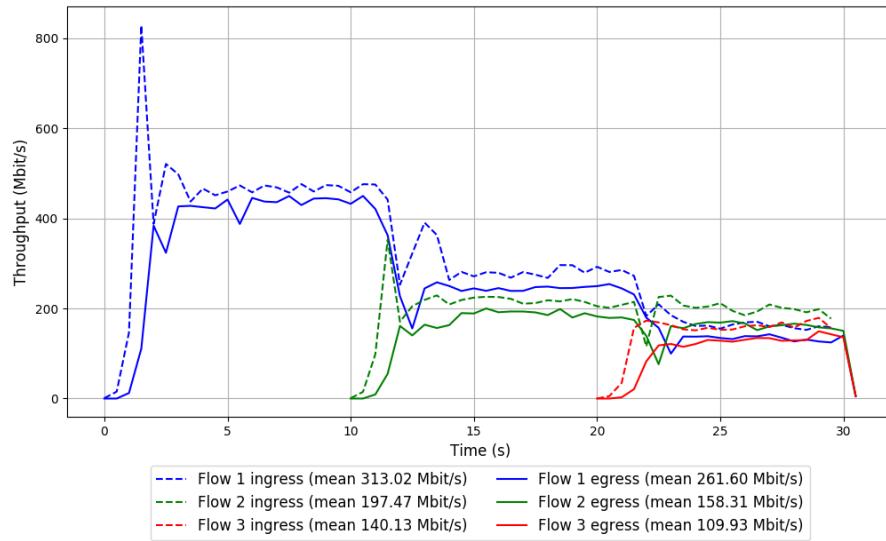


Run 3: Statistics of FillP-Sheep

```
Start at: 2018-09-06 11:06:34
End at: 2018-09-06 11:07:04
Local clock offset: 0.226 ms
Remote clock offset: -31.242 ms

# Below is generated by plot.py at 2018-09-06 12:21:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 403.46 Mbit/s
95th percentile per-packet one-way delay: 66.651 ms
Loss rate: 17.82%
-- Flow 1:
Average throughput: 261.60 Mbit/s
95th percentile per-packet one-way delay: 66.654 ms
Loss rate: 16.42%
-- Flow 2:
Average throughput: 158.31 Mbit/s
95th percentile per-packet one-way delay: 66.685 ms
Loss rate: 19.83%
-- Flow 3:
Average throughput: 109.93 Mbit/s
95th percentile per-packet one-way delay: 66.544 ms
Loss rate: 21.56%
```

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

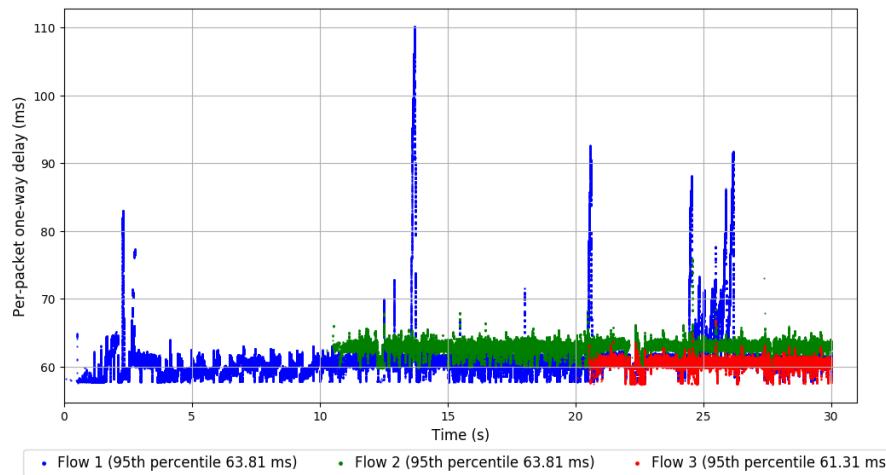
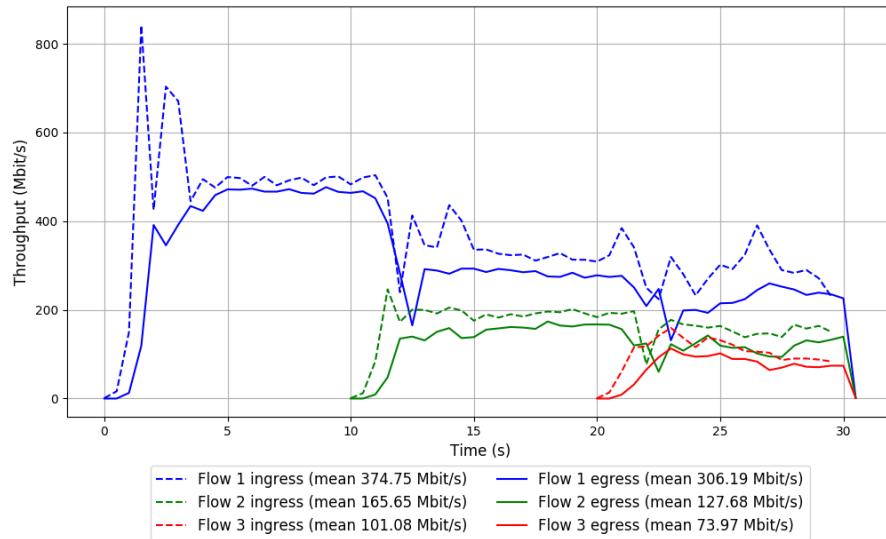


Run 4: Statistics of FillP-Sheep

```
Start at: 2018-09-06 11:32:35
End at: 2018-09-06 11:33:05
Local clock offset: 2.205 ms
Remote clock offset: -36.235 ms

# Below is generated by plot.py at 2018-09-06 12:25:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 415.69 Mbit/s
95th percentile per-packet one-way delay: 63.740 ms
Loss rate: 19.83%
-- Flow 1:
Average throughput: 306.19 Mbit/s
95th percentile per-packet one-way delay: 63.810 ms
Loss rate: 18.29%
-- Flow 2:
Average throughput: 127.68 Mbit/s
95th percentile per-packet one-way delay: 63.811 ms
Loss rate: 22.92%
-- Flow 3:
Average throughput: 73.97 Mbit/s
95th percentile per-packet one-way delay: 61.307 ms
Loss rate: 26.81%
```

Run 4: Report of FillP-Sheep — Data Link

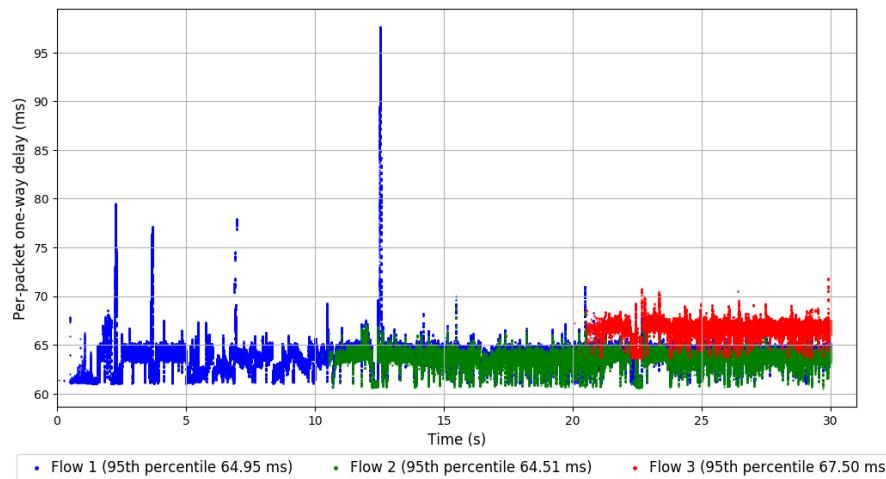
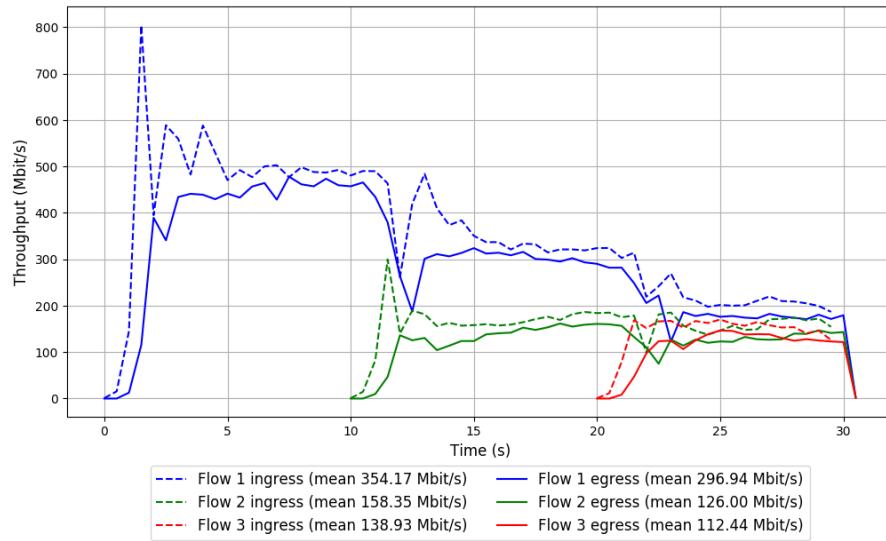


Run 5: Statistics of FillP-Sheep

```
Start at: 2018-09-06 11:58:30
End at: 2018-09-06 11:59:00
Local clock offset: 1.671 ms
Remote clock offset: -32.369 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.09 Mbit/s
95th percentile per-packet one-way delay: 66.846 ms
Loss rate: 17.31%
-- Flow 1:
Average throughput: 296.94 Mbit/s
95th percentile per-packet one-way delay: 64.946 ms
Loss rate: 16.15%
-- Flow 2:
Average throughput: 126.00 Mbit/s
95th percentile per-packet one-way delay: 64.513 ms
Loss rate: 20.43%
-- Flow 3:
Average throughput: 112.44 Mbit/s
95th percentile per-packet one-way delay: 67.495 ms
Loss rate: 19.07%
```

Run 5: Report of FillP-Sheep — Data Link

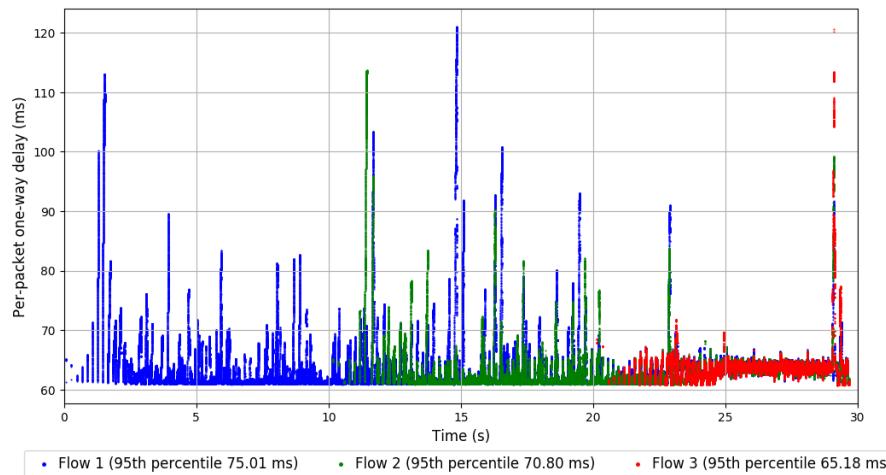
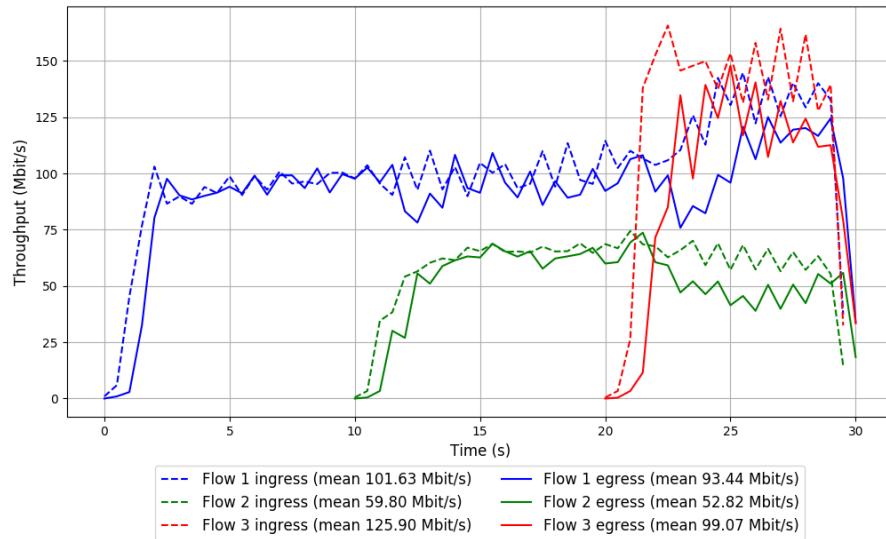


Run 1: Statistics of Indigo

```
Start at: 2018-09-06 09:39:15
End at: 2018-09-06 09:39:45
Local clock offset: 1.999 ms
Remote clock offset: -35.451 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.12 Mbit/s
95th percentile per-packet one-way delay: 72.484 ms
Loss rate: 11.82%
-- Flow 1:
Average throughput: 93.44 Mbit/s
95th percentile per-packet one-way delay: 75.008 ms
Loss rate: 8.06%
-- Flow 2:
Average throughput: 52.82 Mbit/s
95th percentile per-packet one-way delay: 70.803 ms
Loss rate: 11.70%
-- Flow 3:
Average throughput: 99.07 Mbit/s
95th percentile per-packet one-way delay: 65.182 ms
Loss rate: 21.36%
```

Run 1: Report of Indigo — Data Link

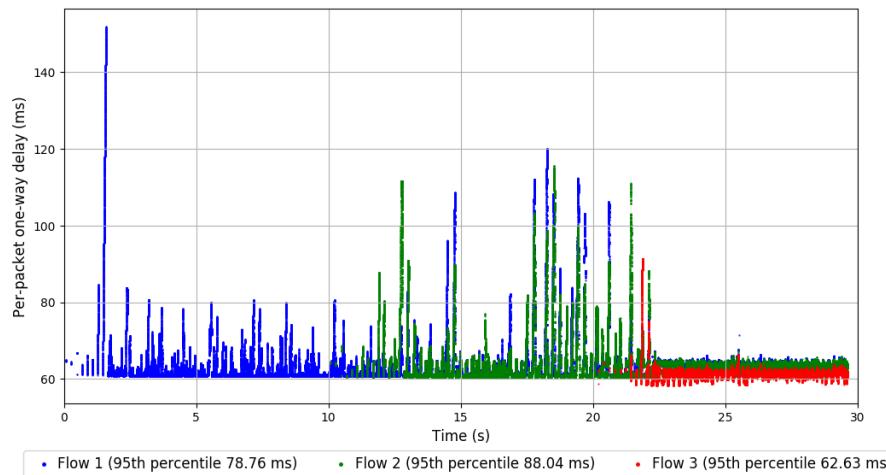
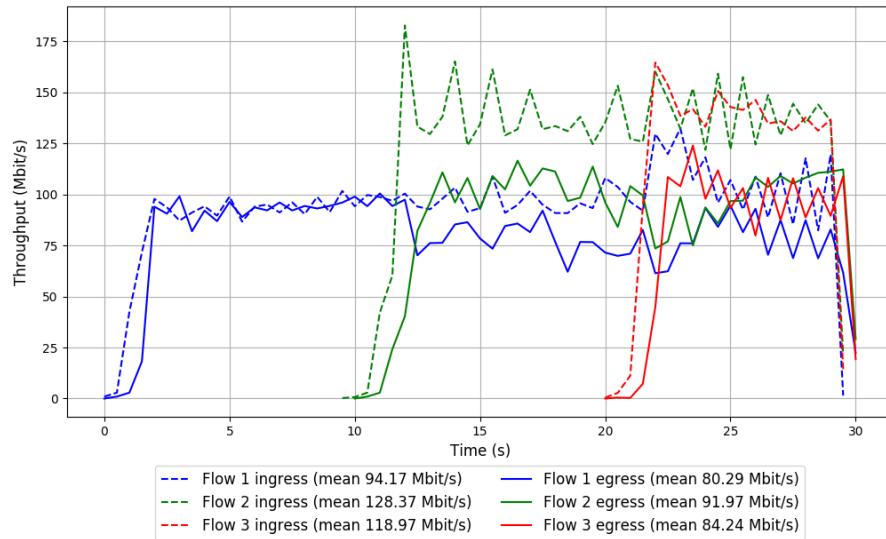


Run 2: Statistics of Indigo

```
Start at: 2018-09-06 10:37:41
End at: 2018-09-06 10:38:11
Local clock offset: 1.259 ms
Remote clock offset: -37.801 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 167.91 Mbit/s
95th percentile per-packet one-way delay: 80.770 ms
Loss rate: 22.60%
-- Flow 1:
Average throughput: 80.29 Mbit/s
95th percentile per-packet one-way delay: 78.760 ms
Loss rate: 14.74%
-- Flow 2:
Average throughput: 91.97 Mbit/s
95th percentile per-packet one-way delay: 88.039 ms
Loss rate: 28.36%
-- Flow 3:
Average throughput: 84.24 Mbit/s
95th percentile per-packet one-way delay: 62.629 ms
Loss rate: 29.17%
```

## Run 2: Report of Indigo — Data Link

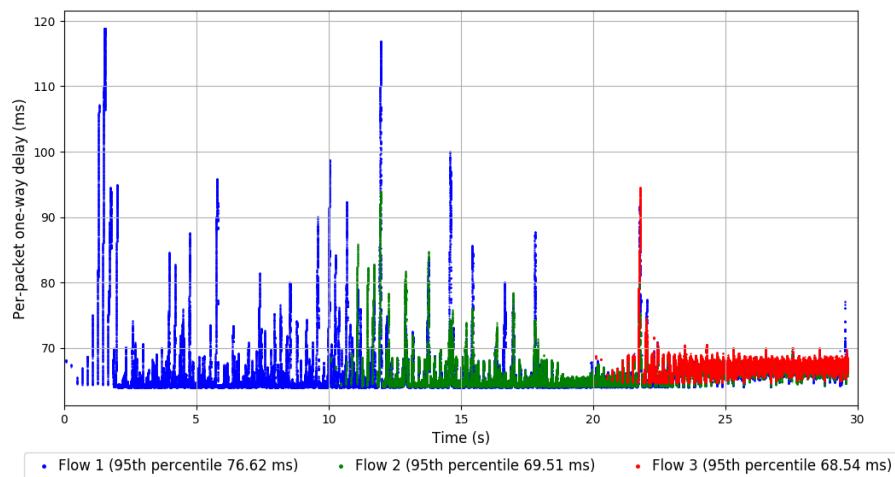
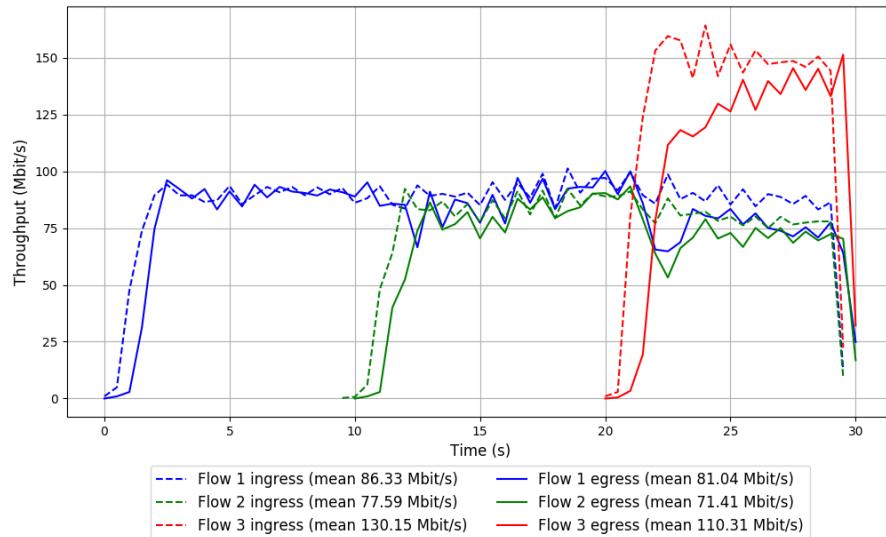


Run 3: Statistics of Indigo

```
Start at: 2018-09-06 11:09:40
End at: 2018-09-06 11:10:10
Local clock offset: -2.127 ms
Remote clock offset: -31.94 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 163.87 Mbit/s
95th percentile per-packet one-way delay: 72.150 ms
Loss rate: 8.78%
-- Flow 1:
Average throughput: 81.04 Mbit/s
95th percentile per-packet one-way delay: 76.623 ms
Loss rate: 6.14%
-- Flow 2:
Average throughput: 71.41 Mbit/s
95th percentile per-packet one-way delay: 69.507 ms
Loss rate: 7.95%
-- Flow 3:
Average throughput: 110.31 Mbit/s
95th percentile per-packet one-way delay: 68.541 ms
Loss rate: 15.23%
```

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

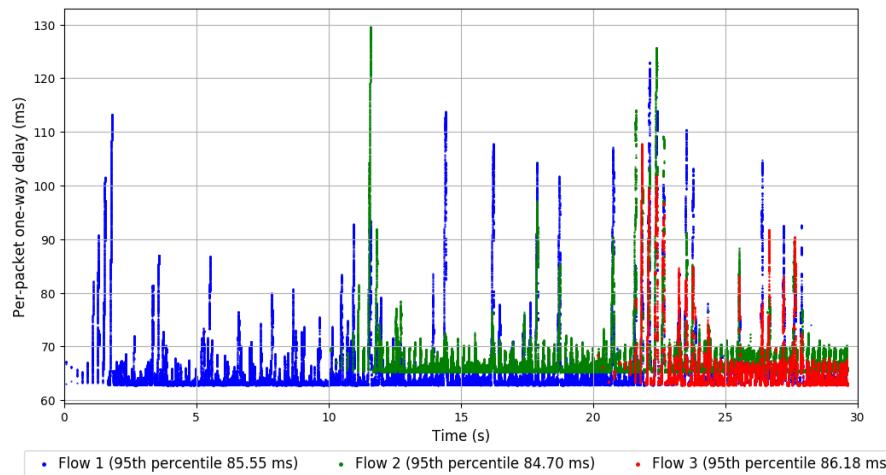
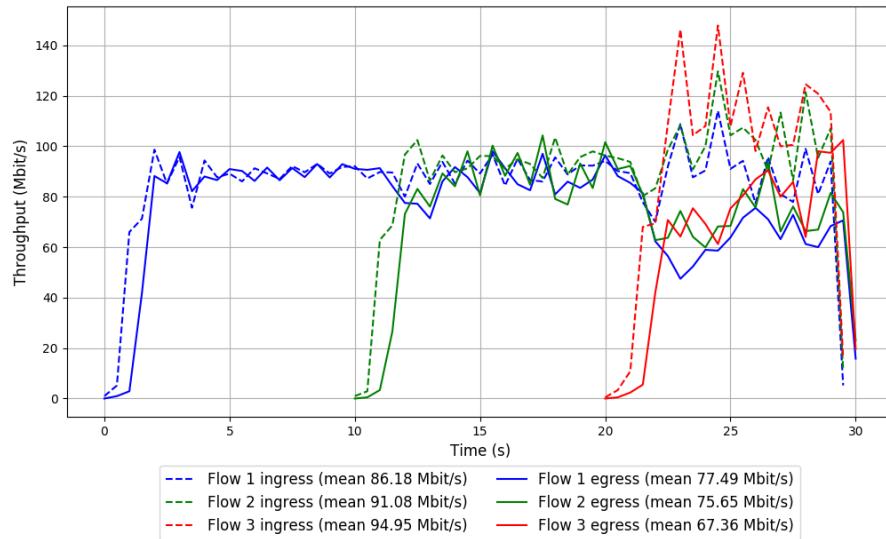


Run 4: Statistics of Indigo

```
Start at: 2018-09-06 11:35:38
End at: 2018-09-06 11:36:08
Local clock offset: 0.962 ms
Remote clock offset: -32.038 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.94 Mbit/s
95th percentile per-packet one-way delay: 85.349 ms
Loss rate: 15.69%
-- Flow 1:
Average throughput: 77.49 Mbit/s
95th percentile per-packet one-way delay: 85.548 ms
Loss rate: 10.08%
-- Flow 2:
Average throughput: 75.65 Mbit/s
95th percentile per-packet one-way delay: 84.698 ms
Loss rate: 16.95%
-- Flow 3:
Average throughput: 67.36 Mbit/s
95th percentile per-packet one-way delay: 86.181 ms
Loss rate: 29.09%
```

## Run 4: Report of Indigo — Data Link

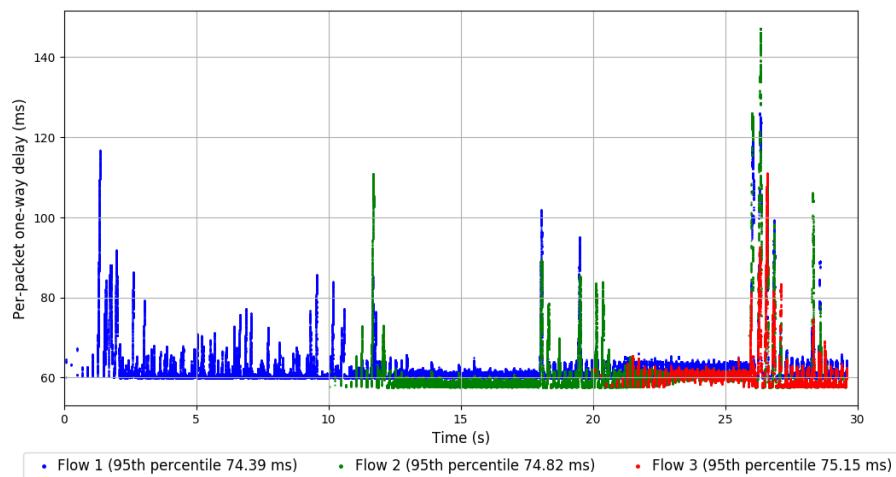
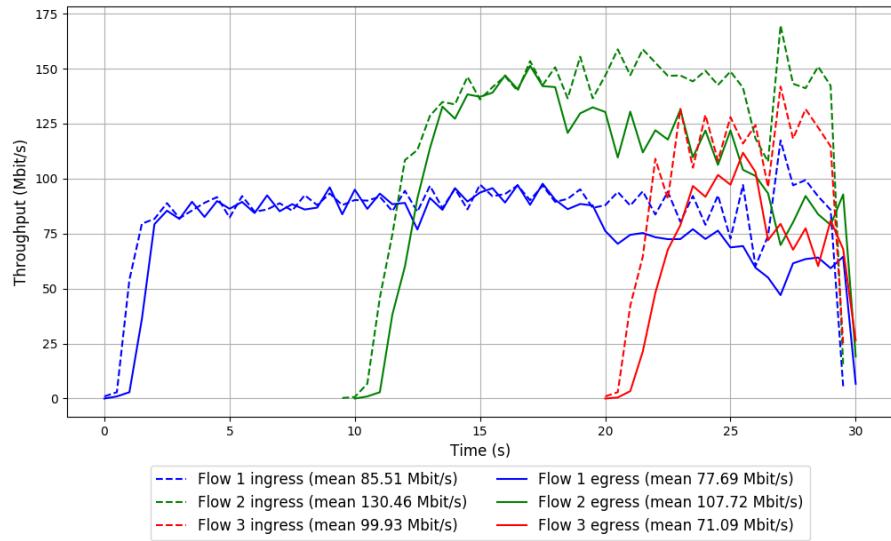


Run 5: Statistics of Indigo

```
Start at: 2018-09-06 12:01:34
End at: 2018-09-06 12:02:04
Local clock offset: -0.579 ms
Remote clock offset: -37.523 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 171.92 Mbit/s
95th percentile per-packet one-way delay: 74.650 ms
Loss rate: 15.76%
-- Flow 1:
Average throughput: 77.69 Mbit/s
95th percentile per-packet one-way delay: 74.391 ms
Loss rate: 9.14%
-- Flow 2:
Average throughput: 107.72 Mbit/s
95th percentile per-packet one-way delay: 74.821 ms
Loss rate: 17.42%
-- Flow 3:
Average throughput: 71.09 Mbit/s
95th percentile per-packet one-way delay: 75.150 ms
Loss rate: 28.86%
```

## Run 5: Report of Indigo — Data Link

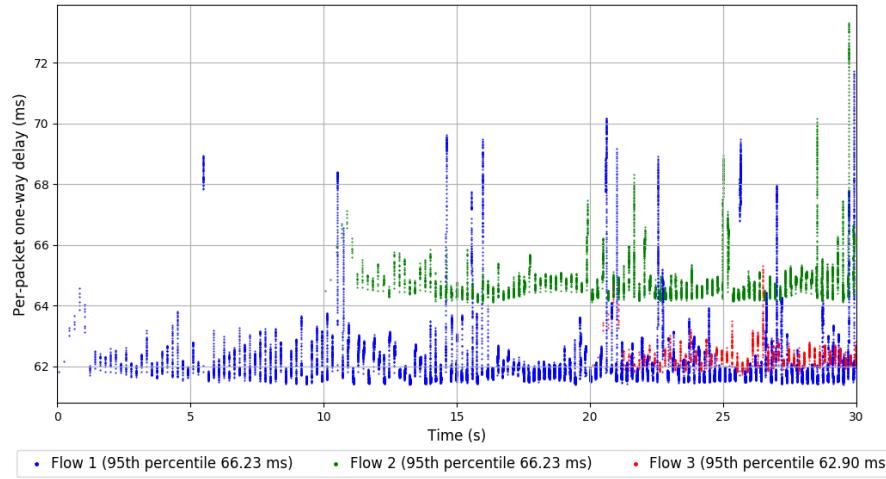
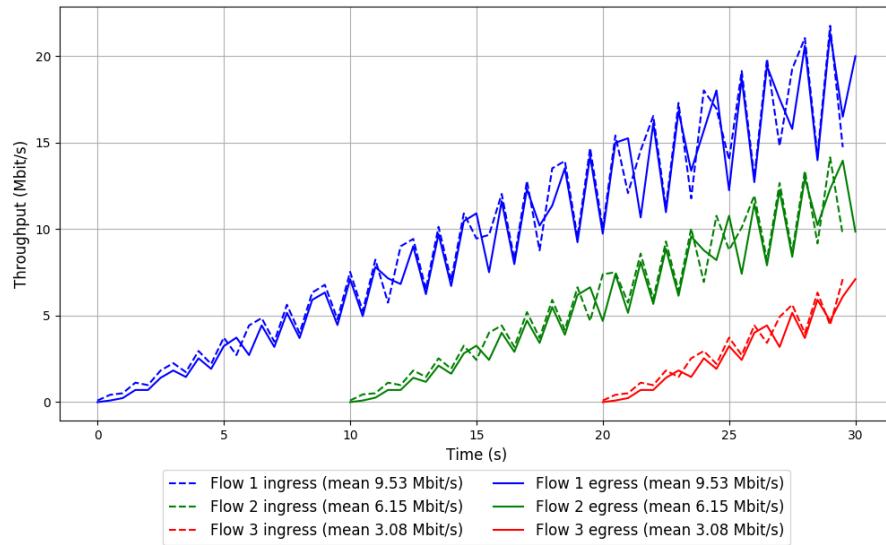


```
Run 1: Statistics of LEDBAT

Start at: 2018-09-06 09:09:10
End at: 2018-09-06 09:09:40
Local clock offset: 3.488 ms
Remote clock offset: -33.933 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.60 Mbit/s
95th percentile per-packet one-way delay: 66.089 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 66.234 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.15 Mbit/s
95th percentile per-packet one-way delay: 66.229 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 62.900 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

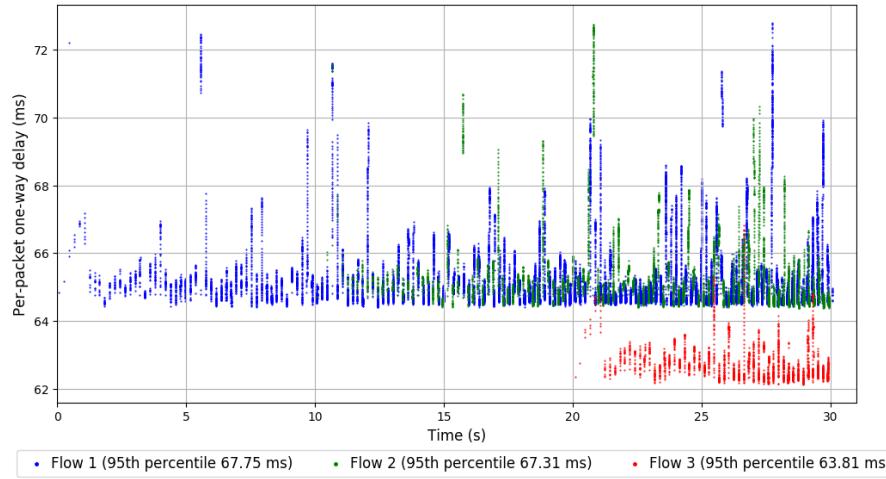
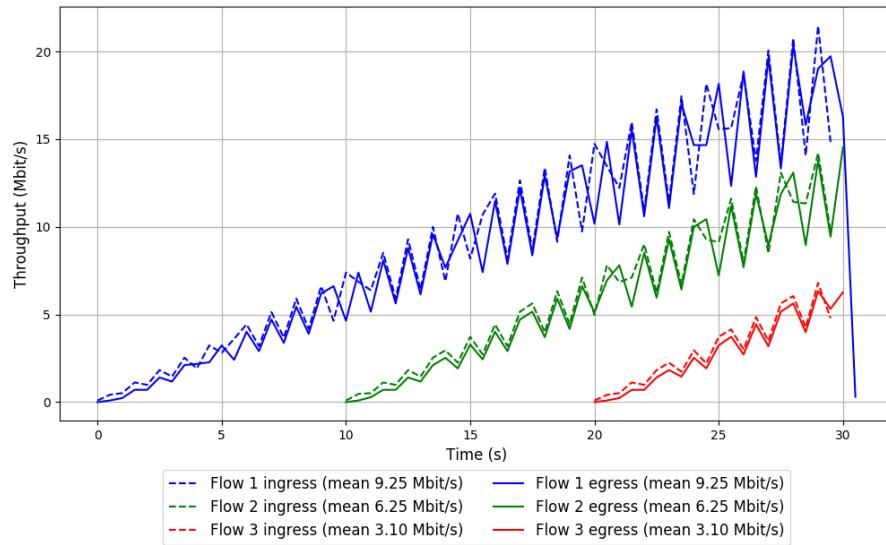


Run 2: Statistics of LEDBAT

```
Start at: 2018-09-06 09:58:01
End at: 2018-09-06 09:58:31
Local clock offset: 1.22 ms
Remote clock offset: -34.391 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.40 Mbit/s
95th percentile per-packet one-way delay: 67.567 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 67.748 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.25 Mbit/s
95th percentile per-packet one-way delay: 67.307 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 63.814 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

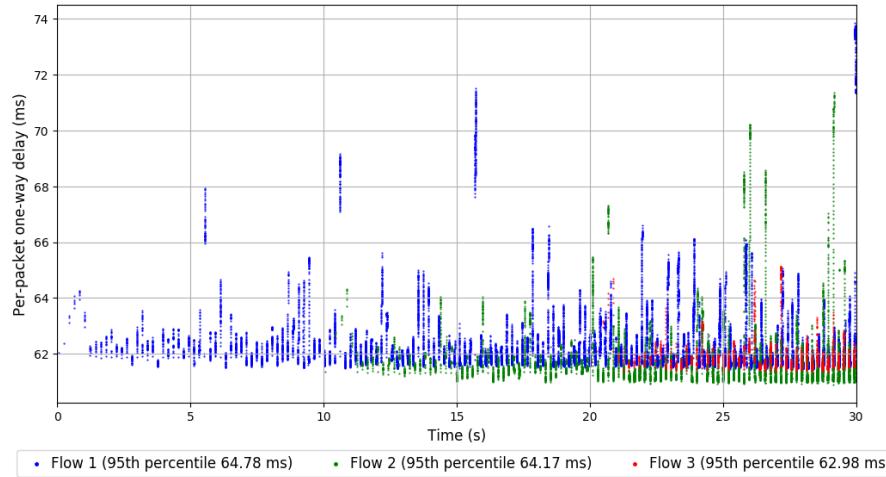
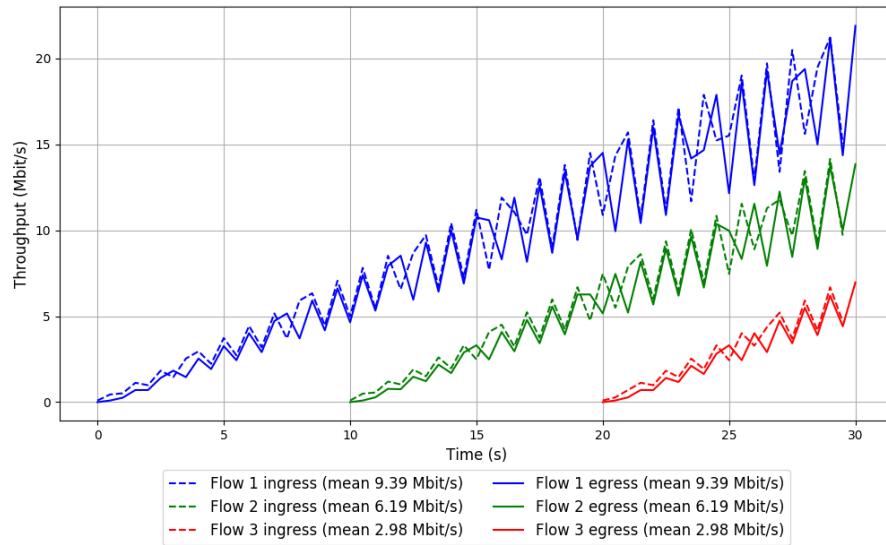


Run 3: Statistics of LEDBAT

```
Start at: 2018-09-06 10:50:53
End at: 2018-09-06 10:51:23
Local clock offset: 0.426 ms
Remote clock offset: -36.922 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.48 Mbit/s
95th percentile per-packet one-way delay: 64.578 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 64.778 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.19 Mbit/s
95th percentile per-packet one-way delay: 64.175 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 62.976 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

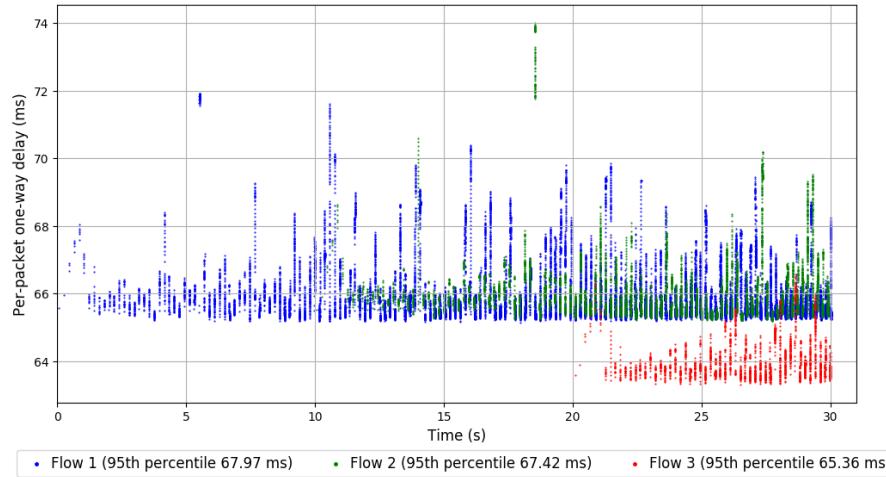
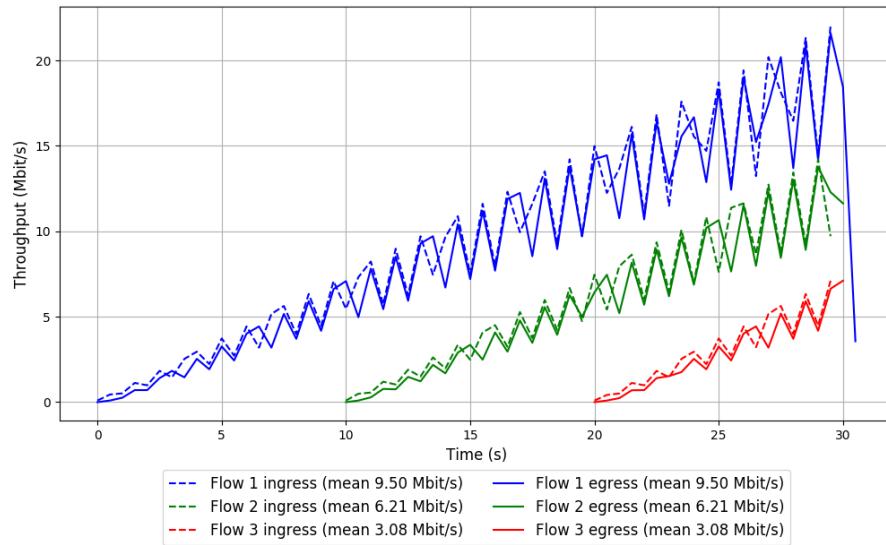


Run 4: Statistics of LEDBAT

```
Start at: 2018-09-06 11:16:48
End at: 2018-09-06 11:17:18
Local clock offset: -0.842 ms
Remote clock offset: -32.1 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.63 Mbit/s
95th percentile per-packet one-way delay: 67.745 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 67.972 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 67.423 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 65.364 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

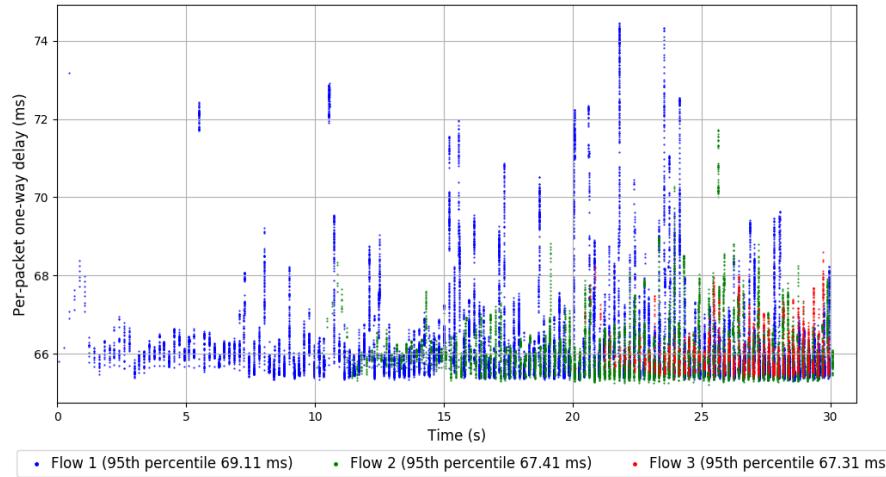
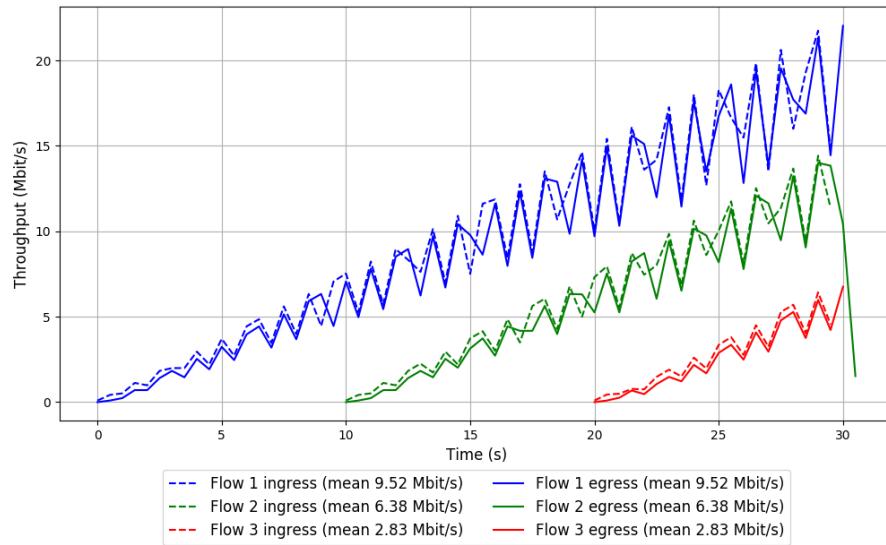


Run 5: Statistics of LEDBAT

```
Start at: 2018-09-06 11:42:44
End at: 2018-09-06 11:43:14
Local clock offset: 1.031 ms
Remote clock offset: -29.832 ms

# Below is generated by plot.py at 2018-09-06 12:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.66 Mbit/s
95th percentile per-packet one-way delay: 68.444 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 69.113 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.38 Mbit/s
95th percentile per-packet one-way delay: 67.407 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 67.310 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

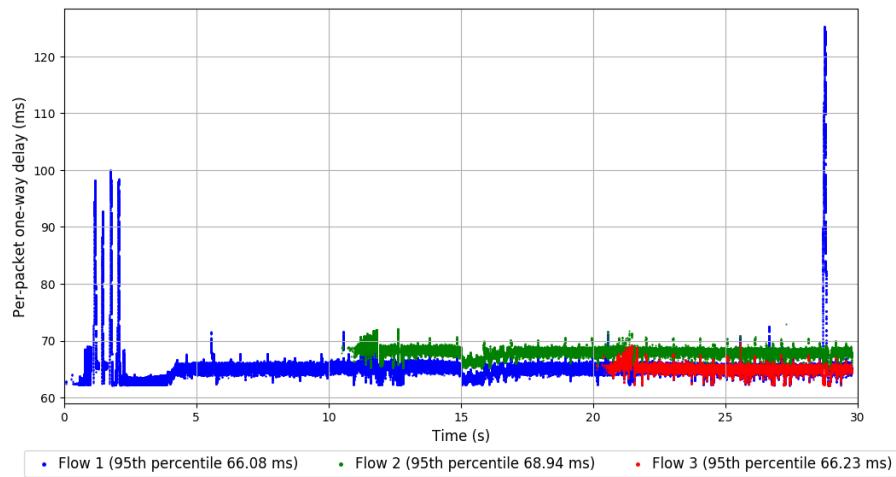
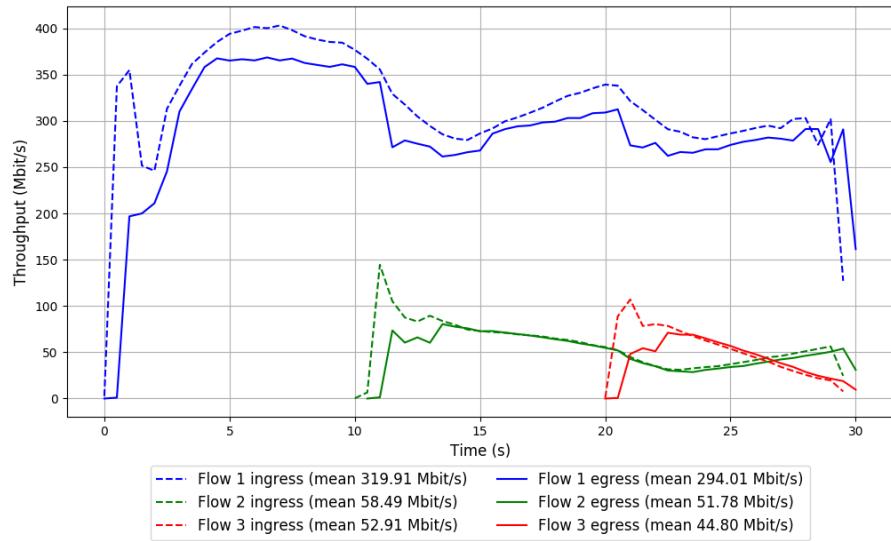


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-09-06 09:21:51
End at: 2018-09-06 09:22:21
Local clock offset: 0.229 ms
Remote clock offset: -36.27 ms

# Below is generated by plot.py at 2018-09-06 12:25:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 342.12 Mbit/s
95th percentile per-packet one-way delay: 68.357 ms
Loss rate: 8.76%
-- Flow 1:
Average throughput: 294.01 Mbit/s
95th percentile per-packet one-way delay: 66.075 ms
Loss rate: 8.09%
-- Flow 2:
Average throughput: 51.78 Mbit/s
95th percentile per-packet one-way delay: 68.941 ms
Loss rate: 11.49%
-- Flow 3:
Average throughput: 44.80 Mbit/s
95th percentile per-packet one-way delay: 66.234 ms
Loss rate: 15.33%
```

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

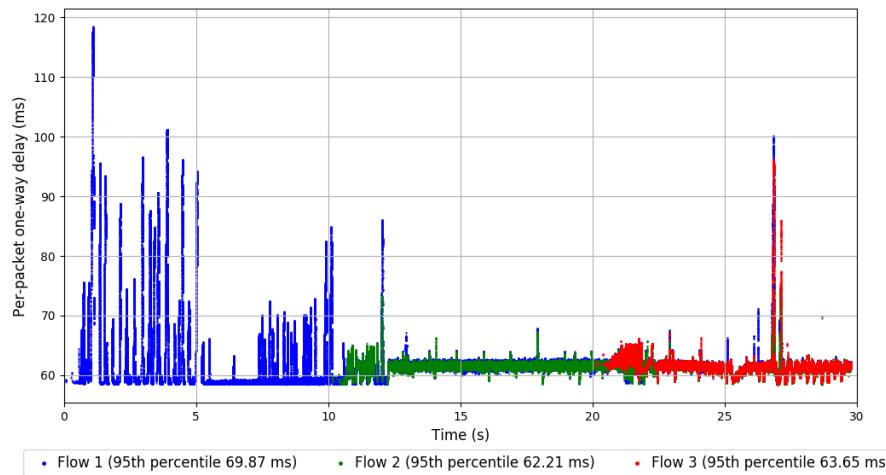
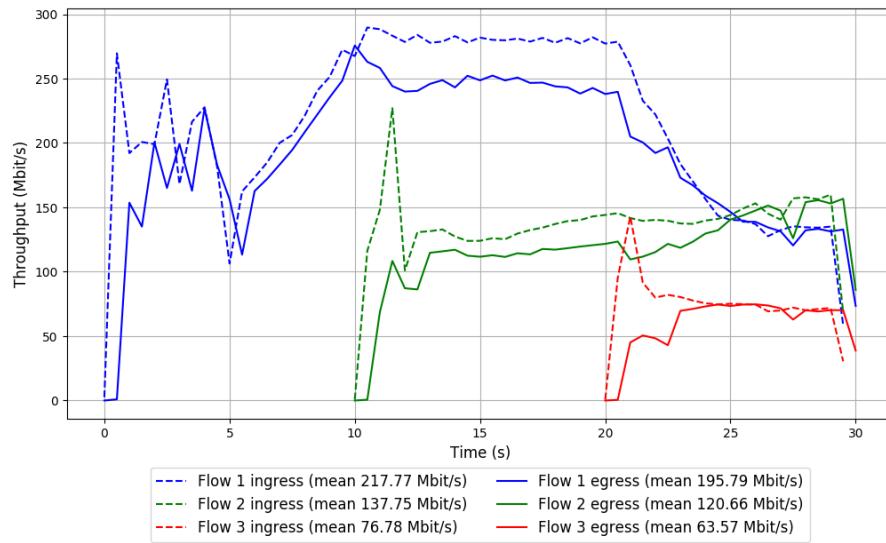


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-09-06 10:10:40
End at: 2018-09-06 10:11:10
Local clock offset: 3.936 ms
Remote clock offset: -35.296 ms

# Below is generated by plot.py at 2018-09-06 12:25:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 296.14 Mbit/s
95th percentile per-packet one-way delay: 65.837 ms
Loss rate: 11.25%
-- Flow 1:
Average throughput: 195.79 Mbit/s
95th percentile per-packet one-way delay: 69.868 ms
Loss rate: 10.08%
-- Flow 2:
Average throughput: 120.66 Mbit/s
95th percentile per-packet one-way delay: 62.214 ms
Loss rate: 12.40%
-- Flow 3:
Average throughput: 63.57 Mbit/s
95th percentile per-packet one-way delay: 63.653 ms
Loss rate: 17.21%
```

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

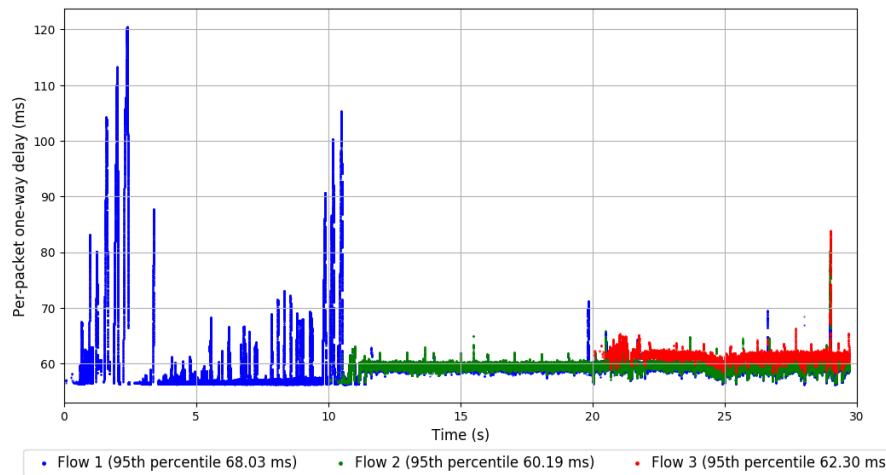
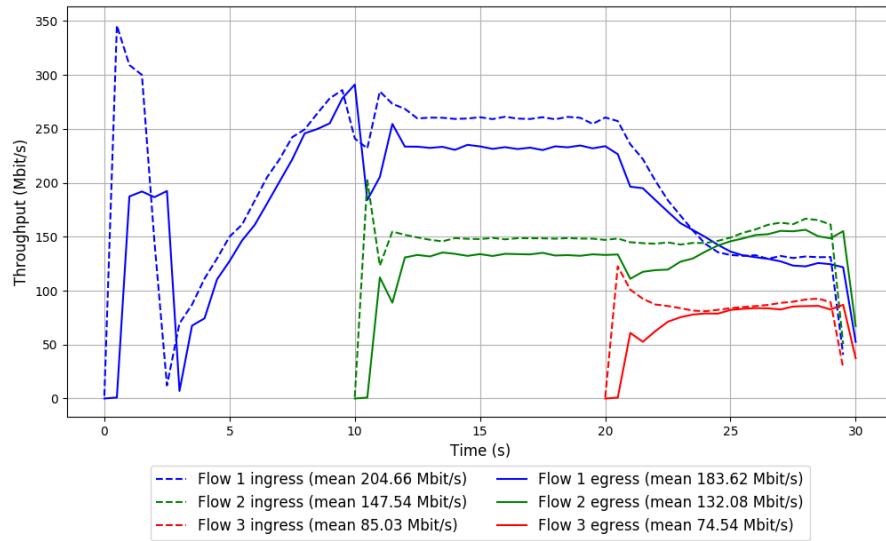


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-09-06 10:57:54
End at: 2018-09-06 10:58:24
Local clock offset: 1.416 ms
Remote clock offset: -37.449 ms

# Below is generated by plot.py at 2018-09-06 12:25:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.32 Mbit/s
95th percentile per-packet one-way delay: 62.521 ms
Loss rate: 10.50%
-- Flow 1:
Average throughput: 183.62 Mbit/s
95th percentile per-packet one-way delay: 68.027 ms
Loss rate: 10.27%
-- Flow 2:
Average throughput: 132.08 Mbit/s
95th percentile per-packet one-way delay: 60.192 ms
Loss rate: 10.46%
-- Flow 3:
Average throughput: 74.54 Mbit/s
95th percentile per-packet one-way delay: 62.297 ms
Loss rate: 12.34%
```

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

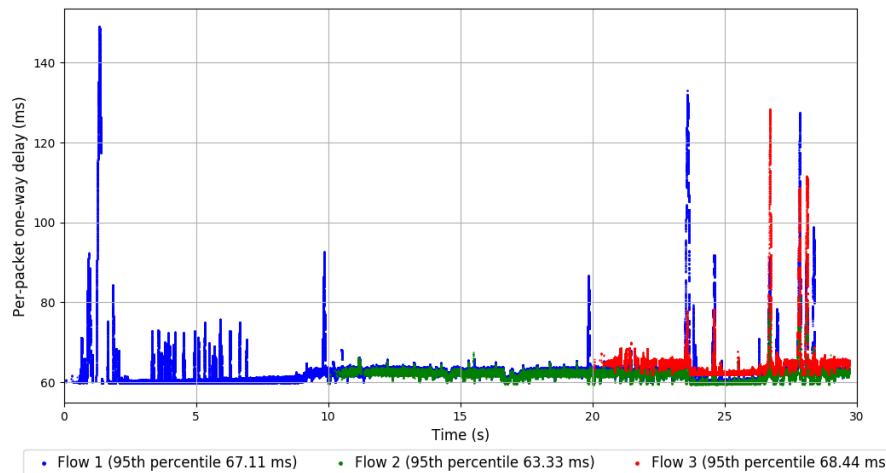
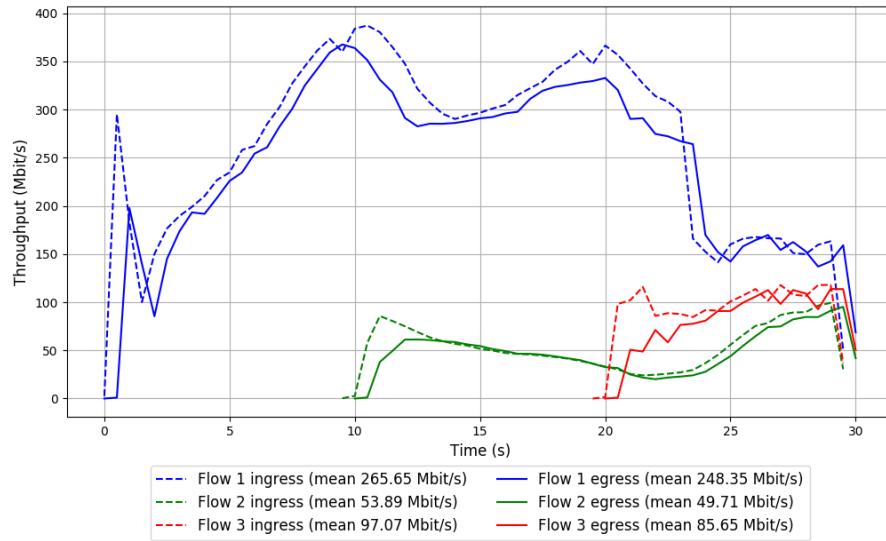


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-09-06 11:23:51
End at: 2018-09-06 11:24:21
Local clock offset: -0.611 ms
Remote clock offset: -36.437 ms

# Below is generated by plot.py at 2018-09-06 12:25:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 309.22 Mbit/s
95th percentile per-packet one-way delay: 66.726 ms
Loss rate: 7.14%
-- Flow 1:
Average throughput: 248.35 Mbit/s
95th percentile per-packet one-way delay: 67.109 ms
Loss rate: 6.50%
-- Flow 2:
Average throughput: 49.71 Mbit/s
95th percentile per-packet one-way delay: 63.328 ms
Loss rate: 7.76%
-- Flow 3:
Average throughput: 85.65 Mbit/s
95th percentile per-packet one-way delay: 68.441 ms
Loss rate: 11.76%
```

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

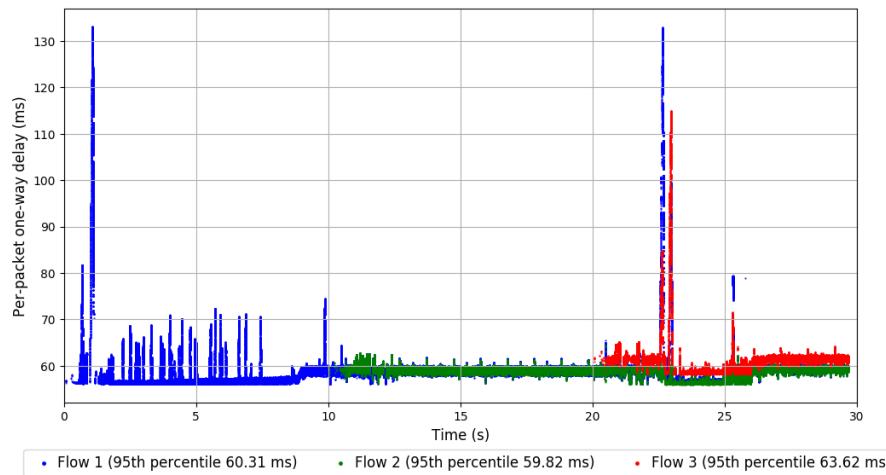
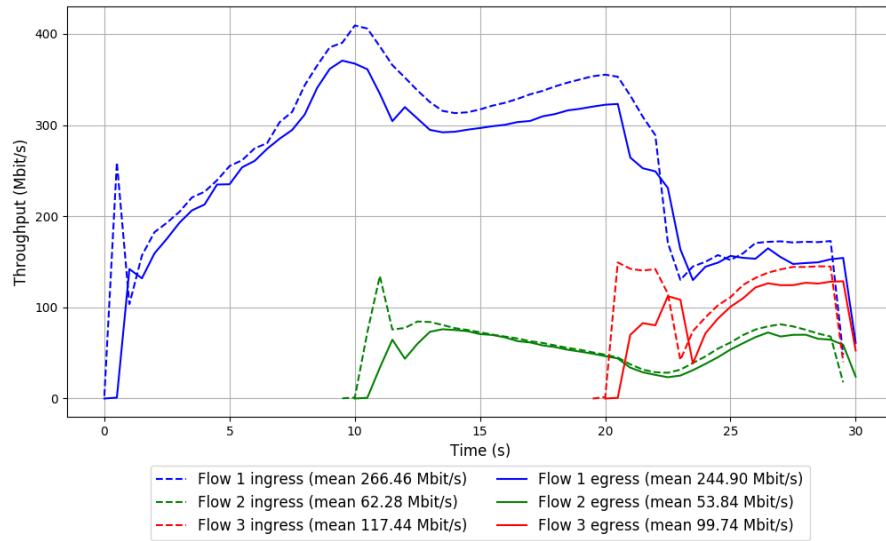


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-09-06 11:49:47
End at: 2018-09-06 11:50:17
Local clock offset: 2.469 ms
Remote clock offset: -37.016 ms

# Below is generated by plot.py at 2018-09-06 12:25:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.06 Mbit/s
95th percentile per-packet one-way delay: 61.789 ms
Loss rate: 9.51%
-- Flow 1:
Average throughput: 244.90 Mbit/s
95th percentile per-packet one-way delay: 60.310 ms
Loss rate: 8.08%
-- Flow 2:
Average throughput: 53.84 Mbit/s
95th percentile per-packet one-way delay: 59.824 ms
Loss rate: 13.54%
-- Flow 3:
Average throughput: 99.74 Mbit/s
95th percentile per-packet one-way delay: 63.625 ms
Loss rate: 15.12%
```

Run 5: Report of Indigo-Muses — Data Link

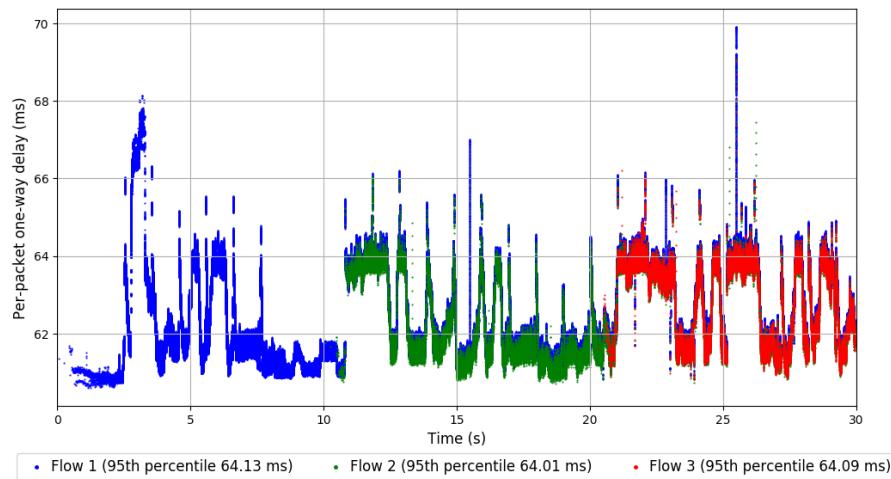
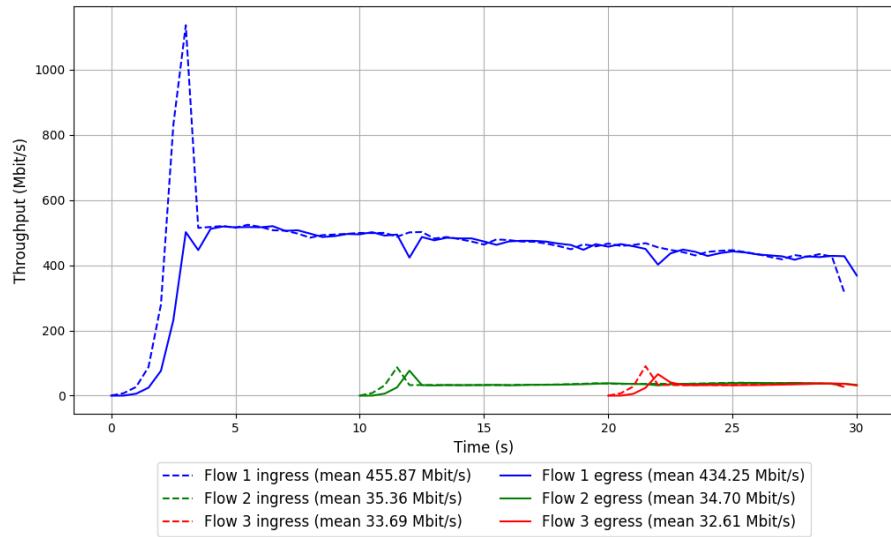


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-09-06 09:18:59
End at: 2018-09-06 09:19:29
Local clock offset: -0.455 ms
Remote clock offset: -38.52 ms

# Below is generated by plot.py at 2018-09-06 12:28:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.07 Mbit/s
95th percentile per-packet one-way delay: 64.120 ms
Loss rate: 4.57%
-- Flow 1:
Average throughput: 434.25 Mbit/s
95th percentile per-packet one-way delay: 64.126 ms
Loss rate: 4.74%
-- Flow 2:
Average throughput: 34.70 Mbit/s
95th percentile per-packet one-way delay: 64.012 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 32.61 Mbit/s
95th percentile per-packet one-way delay: 64.091 ms
Loss rate: 3.23%
```

## Run 1: Report of PCC-Allegro — Data Link

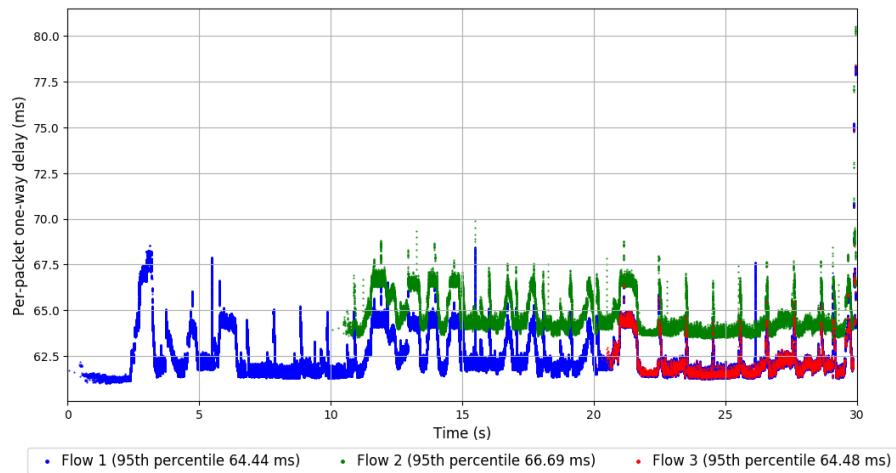
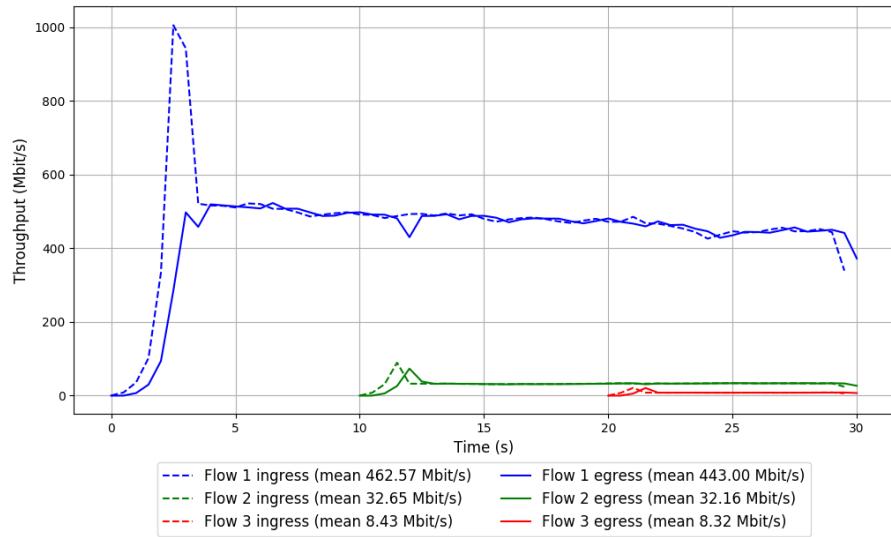


```
Run 2: Statistics of PCC-Allegro
```

```
Start at: 2018-09-06 10:02:12
End at: 2018-09-06 10:02:42
Local clock offset: 1.395 ms
Remote clock offset: -35.204 ms

# Below is generated by plot.py at 2018-09-06 12:30:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.13 Mbit/s
95th percentile per-packet one-way delay: 64.569 ms
Loss rate: 4.04%
-- Flow 1:
Average throughput: 443.00 Mbit/s
95th percentile per-packet one-way delay: 64.443 ms
Loss rate: 4.18%
-- Flow 2:
Average throughput: 32.16 Mbit/s
95th percentile per-packet one-way delay: 66.693 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 64.476 ms
Loss rate: 1.13%
```

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

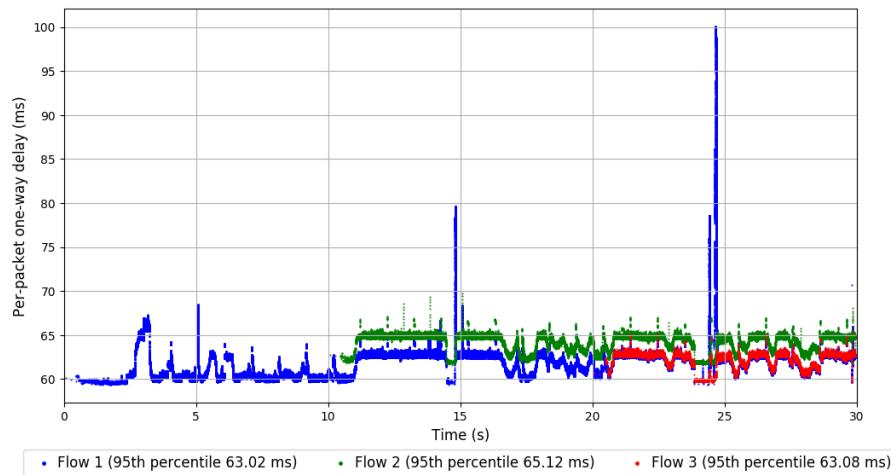
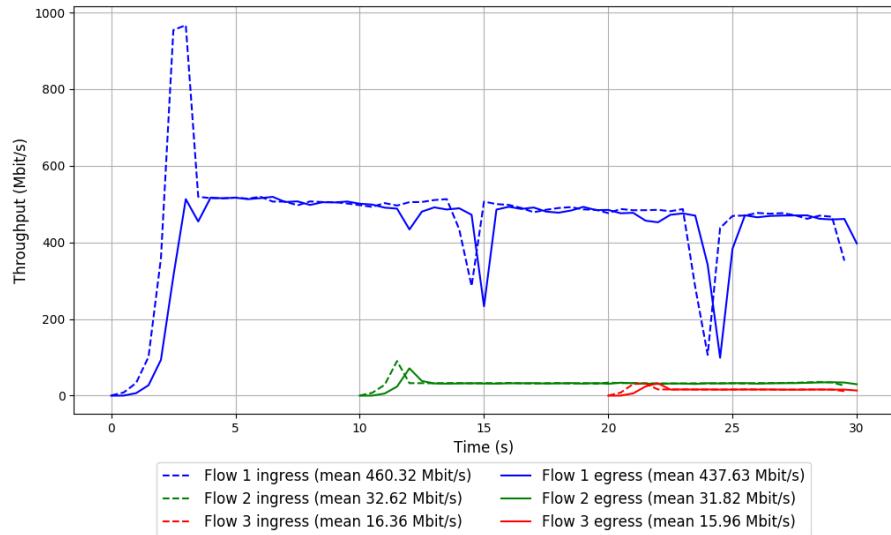


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-09-06 10:55:03
End at: 2018-09-06 10:55:33
Local clock offset: 2.7 ms
Remote clock offset: -33.076 ms

# Below is generated by plot.py at 2018-09-06 12:30:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.04 Mbit/s
95th percentile per-packet one-way delay: 64.461 ms
Loss rate: 4.78%
-- Flow 1:
Average throughput: 437.63 Mbit/s
95th percentile per-packet one-way delay: 63.021 ms
Loss rate: 4.92%
-- Flow 2:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 65.124 ms
Loss rate: 2.44%
-- Flow 3:
Average throughput: 15.96 Mbit/s
95th percentile per-packet one-way delay: 63.083 ms
Loss rate: 2.46%
```

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

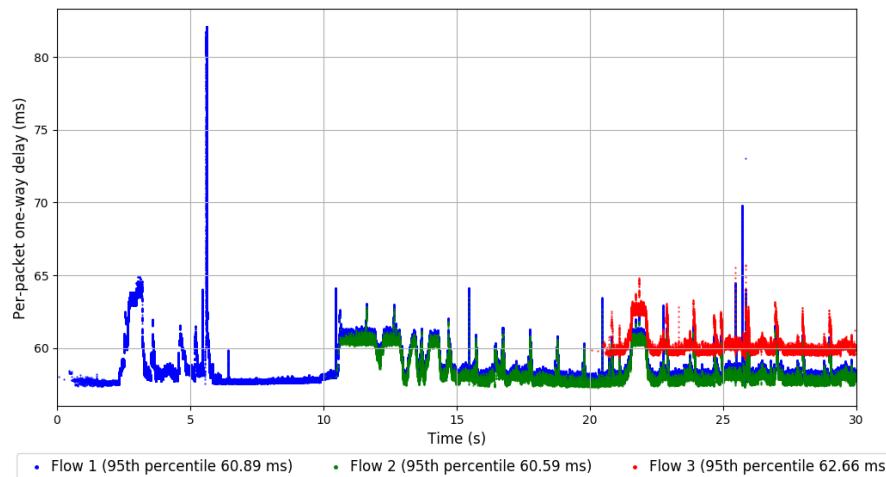
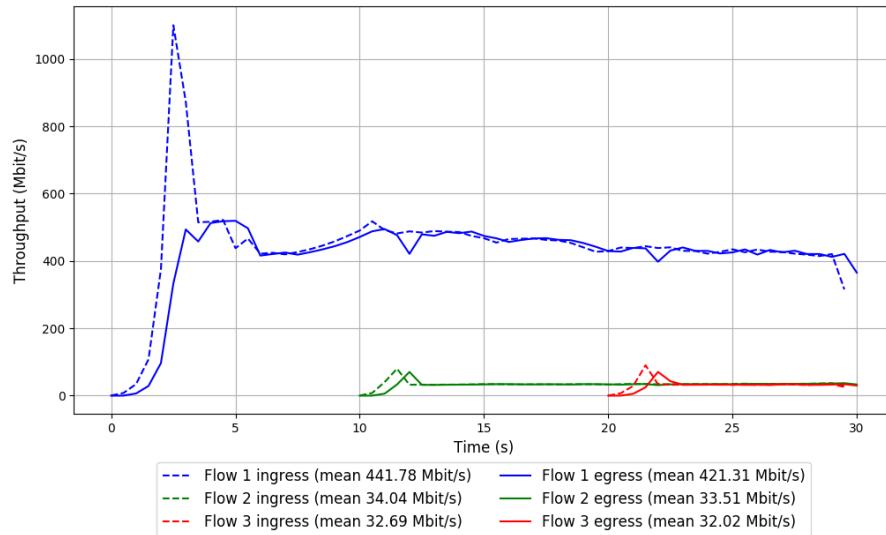


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-09-06 11:20:59
End at: 2018-09-06 11:21:29
Local clock offset: 1.088 ms
Remote clock offset: -36.875 ms

# Below is generated by plot.py at 2018-09-06 12:30:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 454.10 Mbit/s
95th percentile per-packet one-way delay: 60.895 ms
Loss rate: 4.43%
-- Flow 1:
Average throughput: 421.31 Mbit/s
95th percentile per-packet one-way delay: 60.888 ms
Loss rate: 4.63%
-- Flow 2:
Average throughput: 33.51 Mbit/s
95th percentile per-packet one-way delay: 60.593 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 62.662 ms
Loss rate: 2.04%
```

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

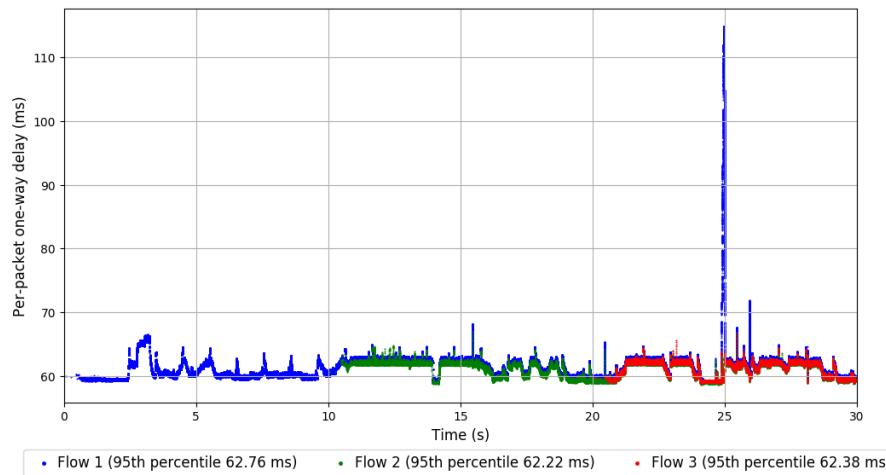
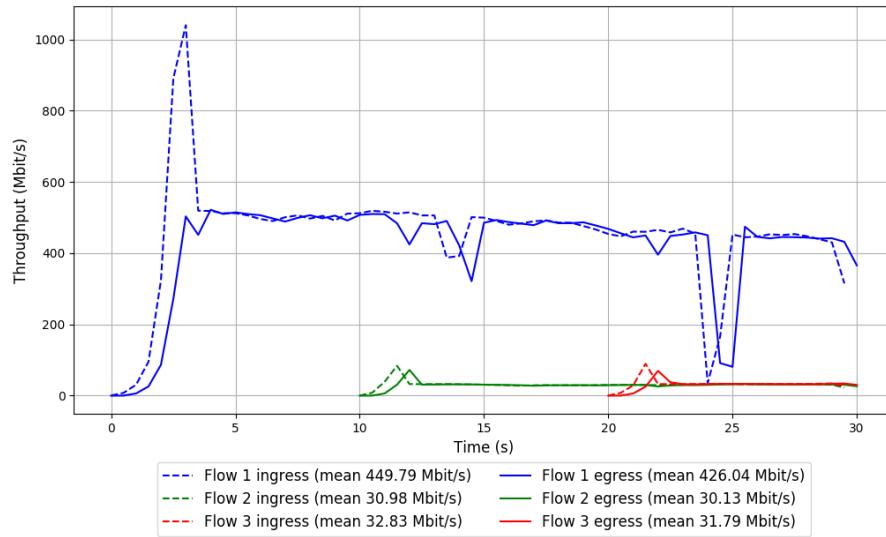


```
Run 5: Statistics of PCC-Allegro
```

```
Start at: 2018-09-06 11:46:55
End at: 2018-09-06 11:47:25
Local clock offset: 0.243 ms
Remote clock offset: -36.726 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 456.56 Mbit/s
95th percentile per-packet one-way delay: 62.735 ms
Loss rate: 5.12%
-- Flow 1:
Average throughput: 426.04 Mbit/s
95th percentile per-packet one-way delay: 62.758 ms
Loss rate: 5.28%
-- Flow 2:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 62.222 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 31.79 Mbit/s
95th percentile per-packet one-way delay: 62.375 ms
Loss rate: 3.15%
```

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

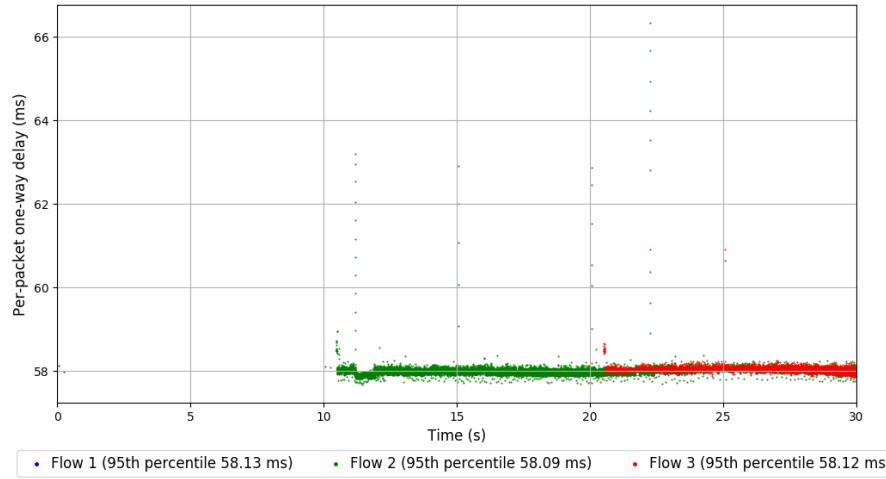
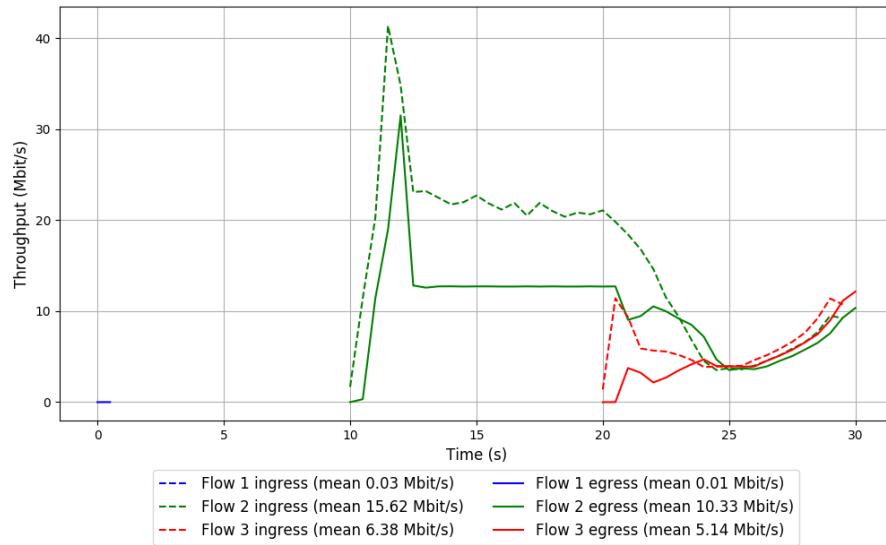


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2018-09-06 09:29:13
End at: 2018-09-06 09:29:43
Local clock offset: 2.787 ms
Remote clock offset: -38.195 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 58.097 ms
Loss rate: 31.44%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 58.128 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.33 Mbit/s
95th percentile per-packet one-way delay: 58.091 ms
Loss rate: 33.88%
-- Flow 3:
Average throughput: 5.14 Mbit/s
95th percentile per-packet one-way delay: 58.117 ms
Loss rate: 19.37%
```

## Run 1: Report of PCC-Expr — Data Link

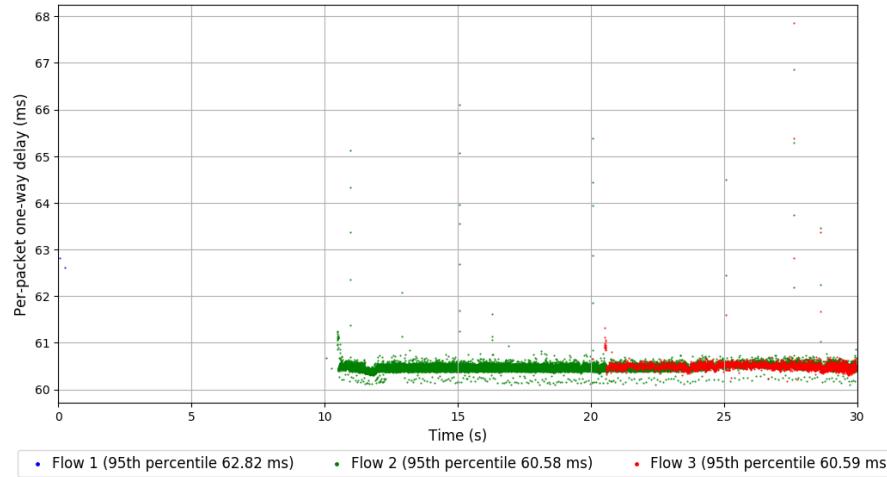
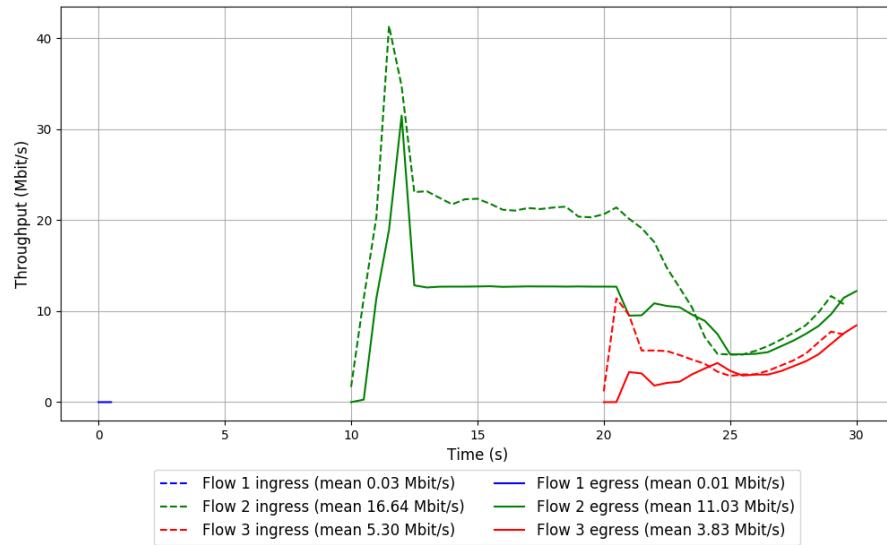


Run 2: Statistics of PCC-Expr

```
Start at: 2018-09-06 10:27:50
End at: 2018-09-06 10:28:20
Local clock offset: 2.445 ms
Remote clock offset: -34.968 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 60.584 ms
Loss rate: 32.88%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 62.822 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 11.03 Mbit/s
95th percentile per-packet one-way delay: 60.582 ms
Loss rate: 33.69%
-- Flow 3:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 60.592 ms
Loss rate: 27.72%
```

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

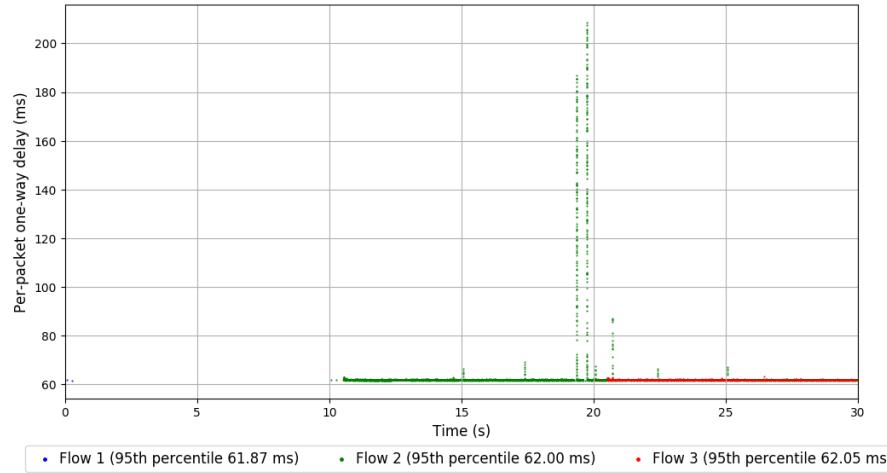
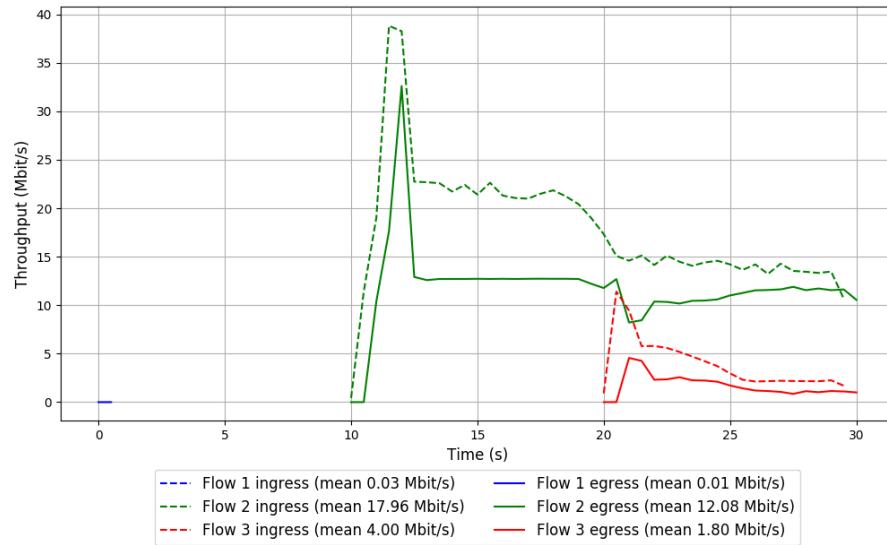


Run 3: Statistics of PCC-Expr

```
Start at: 2018-09-06 11:05:15
End at: 2018-09-06 11:05:45
Local clock offset: -0.162 ms
Remote clock offset: -33.053 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.63 Mbit/s
95th percentile per-packet one-way delay: 62.011 ms
Loss rate: 34.98%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 61.874 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 12.08 Mbit/s
95th percentile per-packet one-way delay: 62.002 ms
Loss rate: 32.76%
-- Flow 3:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 62.046 ms
Loss rate: 55.12%
```

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

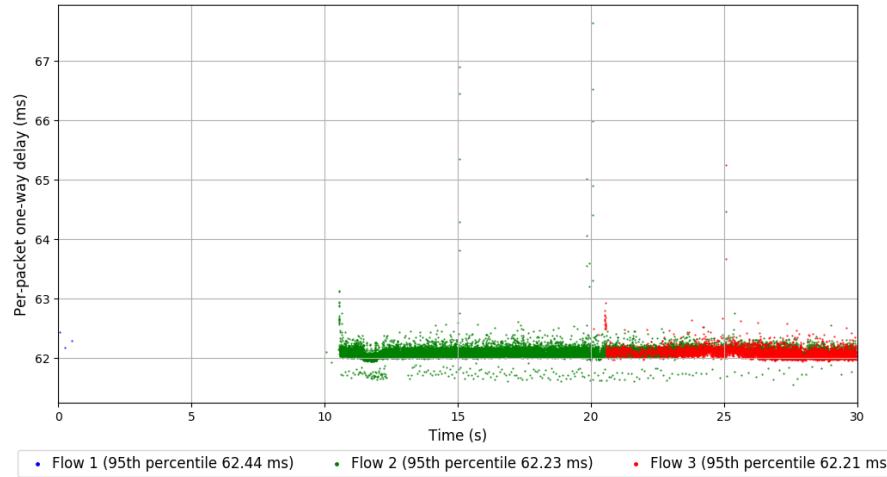
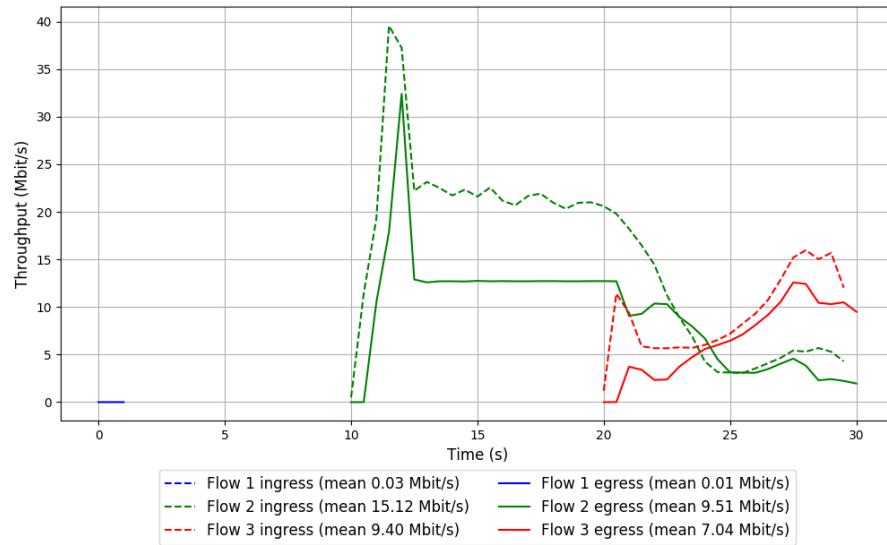


Run 4: Statistics of PCC-Expr

```
Start at: 2018-09-06 11:31:16
End at: 2018-09-06 11:31:46
Local clock offset: 0.043 ms
Remote clock offset: -34.06 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.65 Mbit/s
95th percentile per-packet one-way delay: 62.223 ms
Loss rate: 34.25%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 62.436 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 62.227 ms
Loss rate: 37.09%
-- Flow 3:
Average throughput: 7.04 Mbit/s
95th percentile per-packet one-way delay: 62.208 ms
Loss rate: 25.03%
```

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

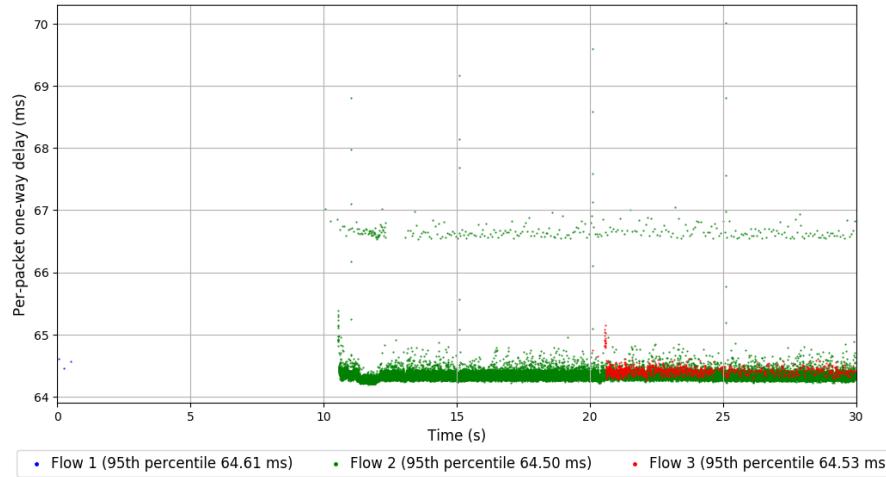
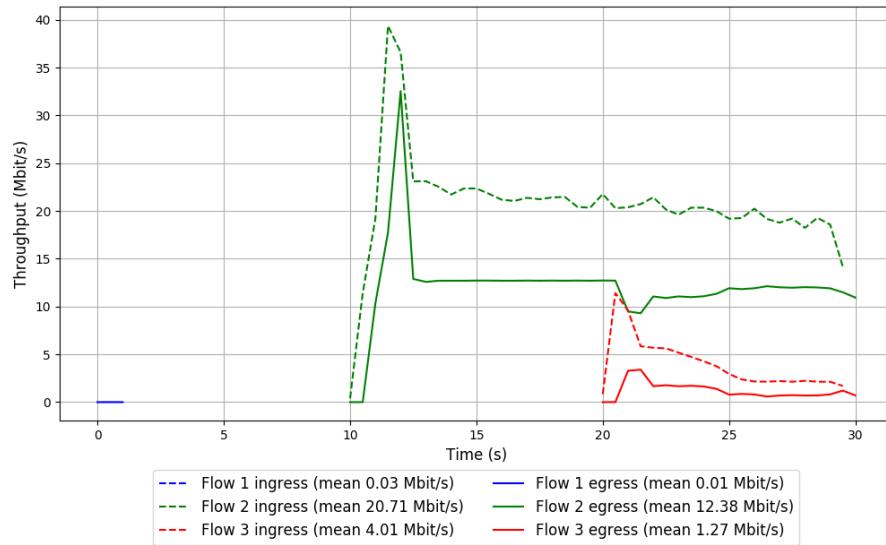


Run 5: Statistics of PCC-Expr

```
Start at: 2018-09-06 11:57:11
End at: 2018-09-06 11:57:41
Local clock offset: -1.234 ms
Remote clock offset: -32.043 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.65 Mbit/s
95th percentile per-packet one-way delay: 64.507 ms
Loss rate: 42.71%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 64.605 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 64.504 ms
Loss rate: 40.25%
-- Flow 3:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 64.535 ms
Loss rate: 68.27%
```

Run 5: Report of PCC-Expr — Data Link

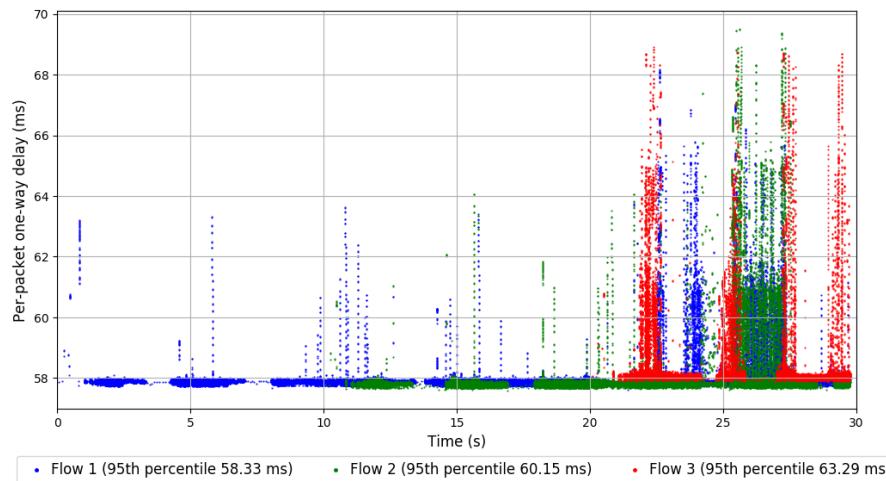
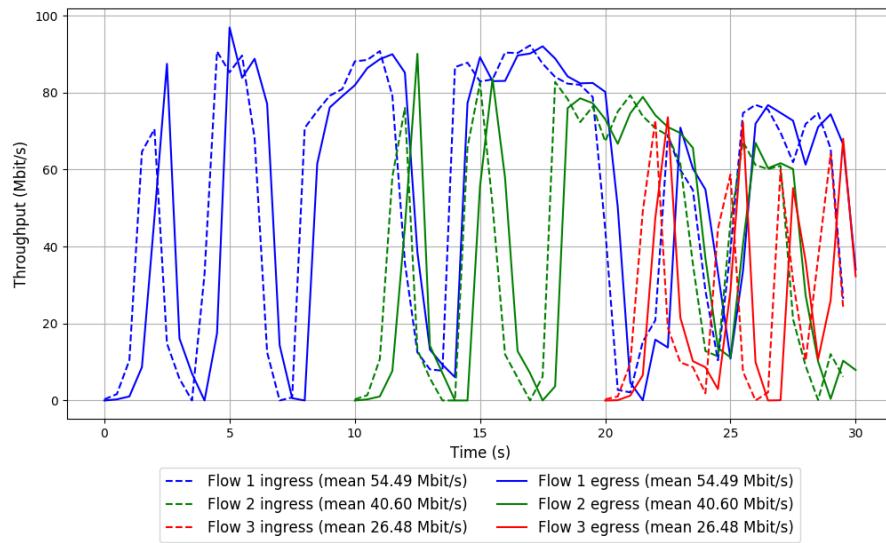


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-09-06 09:55:18
End at: 2018-09-06 09:55:48
Local clock offset: 1.62 ms
Remote clock offset: -38.661 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.02 Mbit/s
95th percentile per-packet one-way delay: 59.850 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.49 Mbit/s
95th percentile per-packet one-way delay: 58.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.60 Mbit/s
95th percentile per-packet one-way delay: 60.149 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.48 Mbit/s
95th percentile per-packet one-way delay: 63.292 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

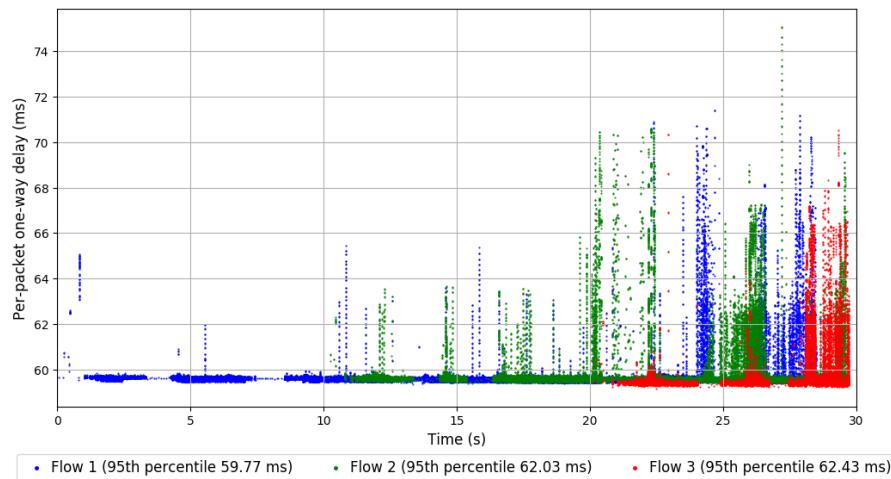
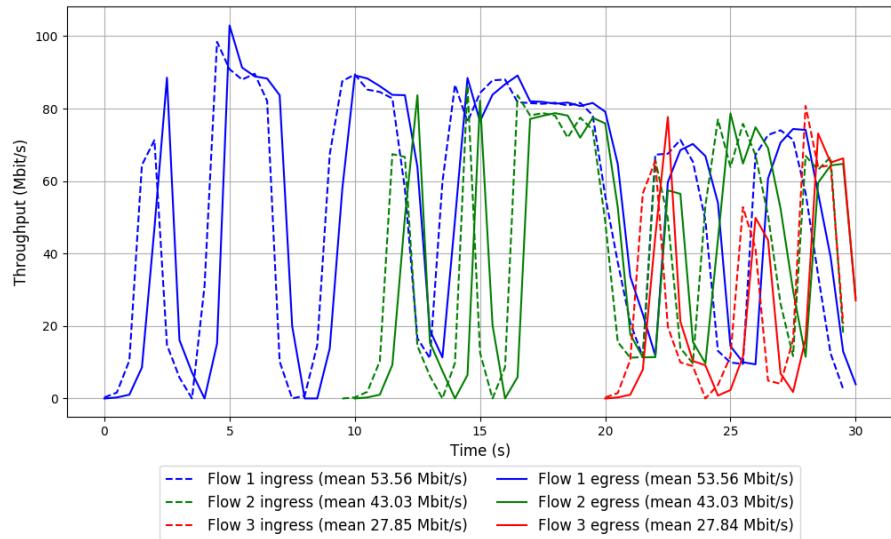


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-09-06 10:48:09
End at: 2018-09-06 10:48:39
Local clock offset: 2.417 ms
Remote clock offset: -34.634 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.17 Mbit/s
95th percentile per-packet one-way delay: 61.160 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.56 Mbit/s
95th percentile per-packet one-way delay: 59.774 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.03 Mbit/s
95th percentile per-packet one-way delay: 62.029 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.84 Mbit/s
95th percentile per-packet one-way delay: 62.428 ms
Loss rate: 0.00%
```

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

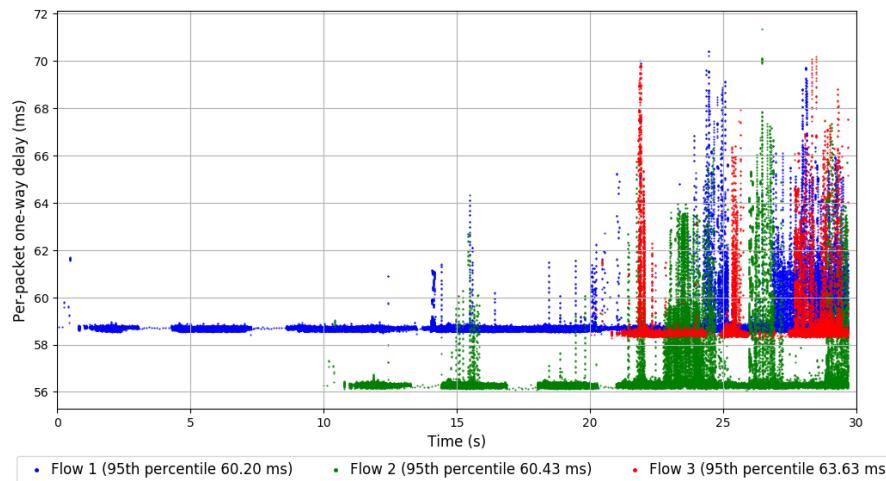
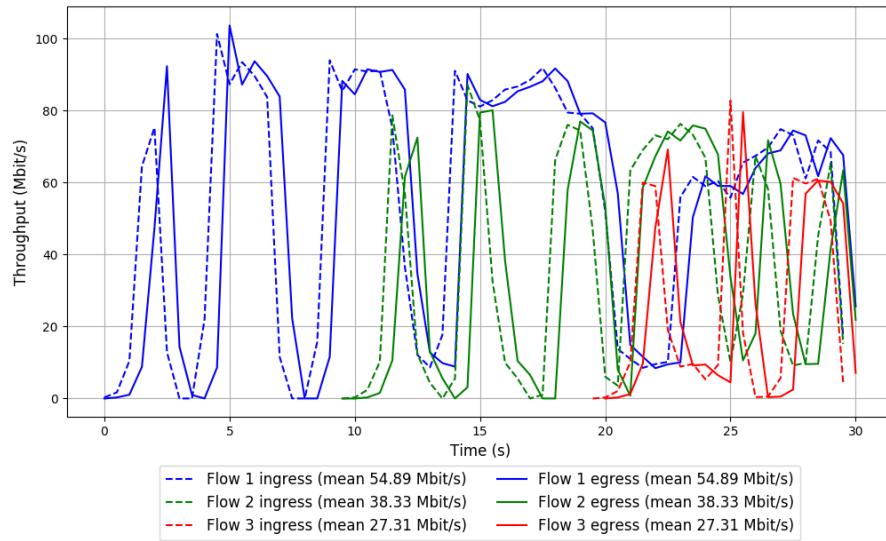


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-09-06 11:14:06
End at: 2018-09-06 11:14:36
Local clock offset: -0.862 ms
Remote clock offset: -38.438 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.27 Mbit/s
95th percentile per-packet one-way delay: 60.713 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.89 Mbit/s
95th percentile per-packet one-way delay: 60.196 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.33 Mbit/s
95th percentile per-packet one-way delay: 60.431 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.31 Mbit/s
95th percentile per-packet one-way delay: 63.635 ms
Loss rate: 0.00%
```

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

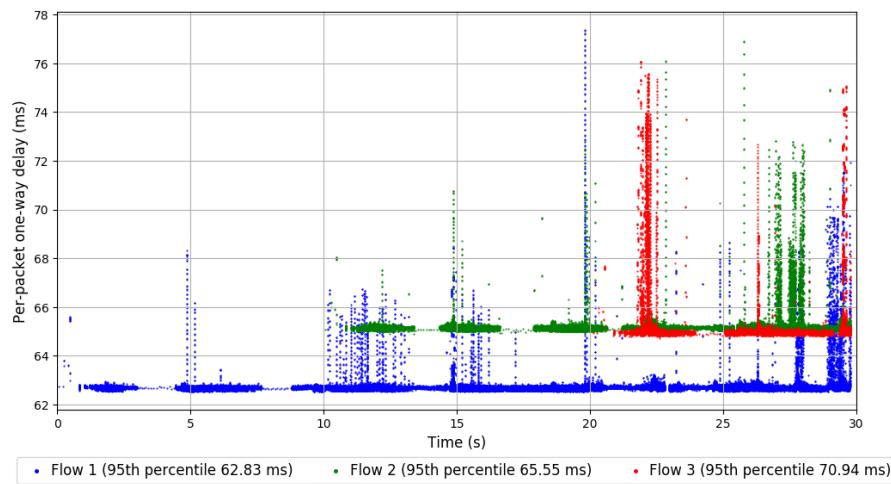
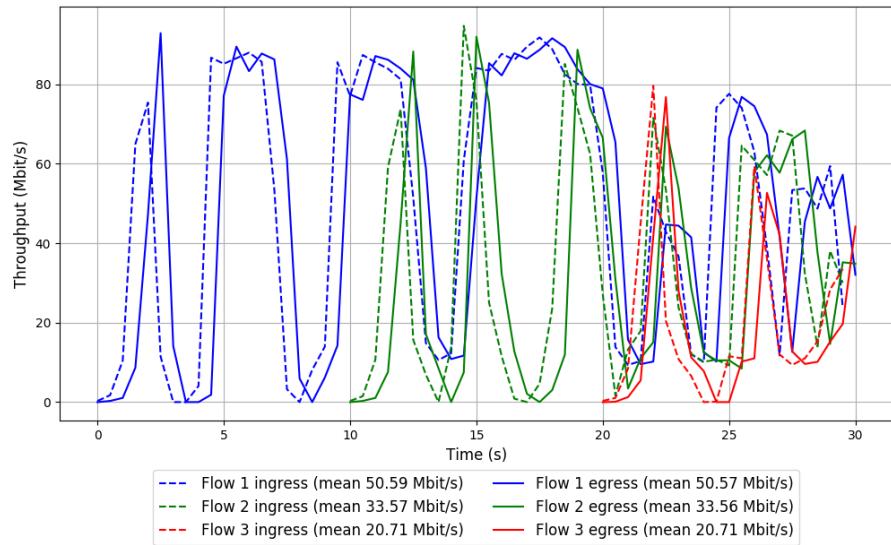


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-09-06 11:40:02
End at: 2018-09-06 11:40:32
Local clock offset: 1.403 ms
Remote clock offset: -32.105 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.55 Mbit/s
95th percentile per-packet one-way delay: 65.282 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.57 Mbit/s
95th percentile per-packet one-way delay: 62.833 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.56 Mbit/s
95th percentile per-packet one-way delay: 65.549 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.71 Mbit/s
95th percentile per-packet one-way delay: 70.939 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

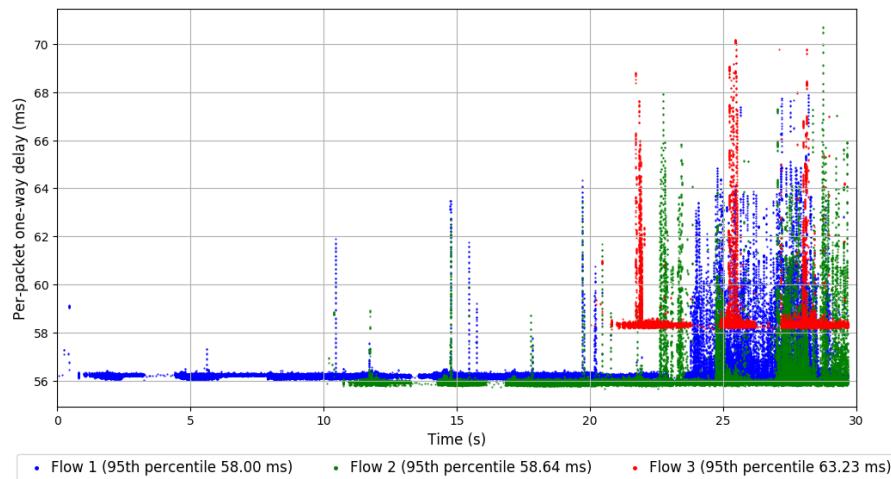
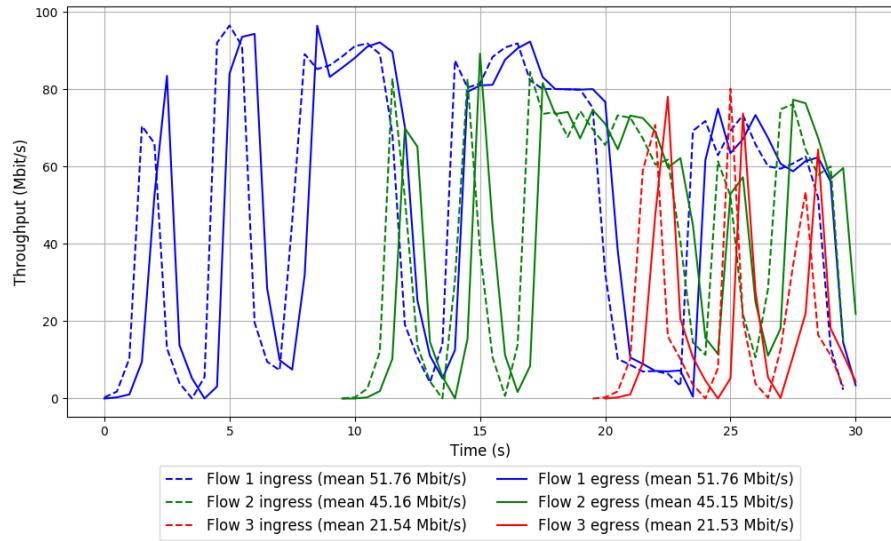


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-09-06 12:06:00
End at: 2018-09-06 12:06:30
Local clock offset: 2.025 ms
Remote clock offset: -36.443 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 58.793 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.76 Mbit/s
95th percentile per-packet one-way delay: 58.002 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.15 Mbit/s
95th percentile per-packet one-way delay: 58.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.53 Mbit/s
95th percentile per-packet one-way delay: 63.228 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

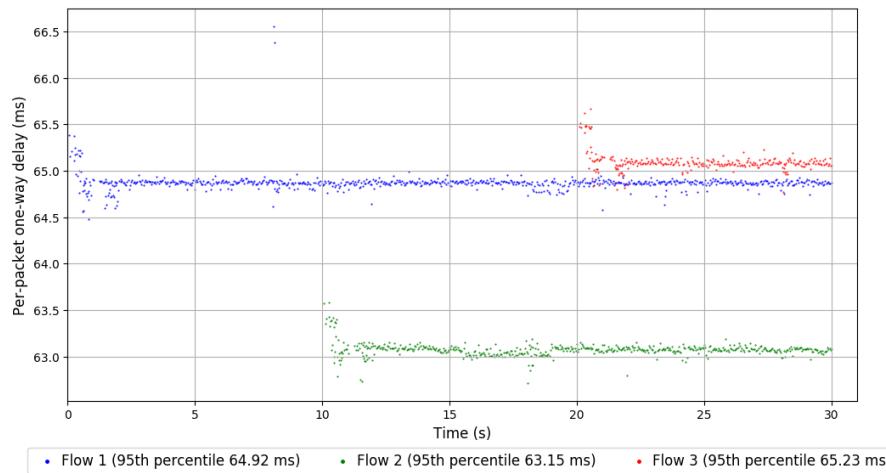
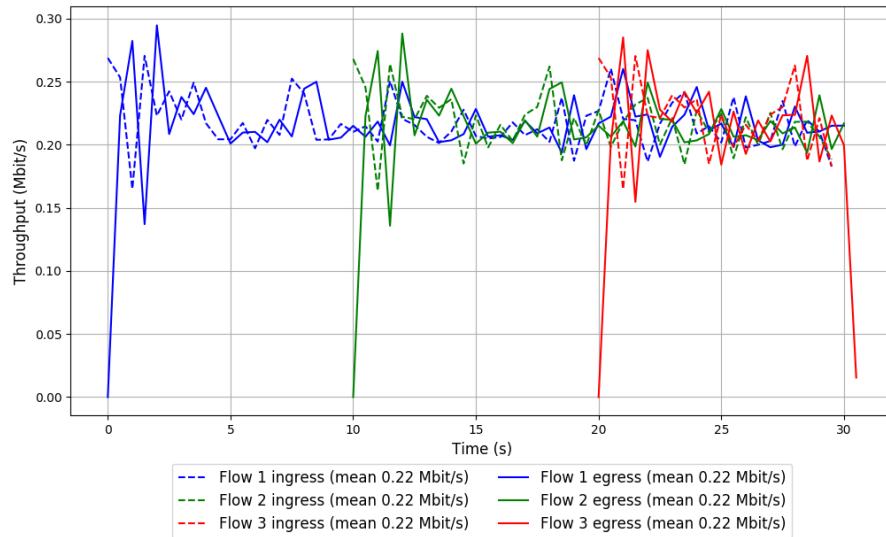


```
Run 1: Statistics of SCReAM

Start at: 2018-09-06 09:20:35
End at: 2018-09-06 09:21:05
Local clock offset: 0.388 ms
Remote clock offset: -36.039 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 65.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.922 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.149 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.227 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

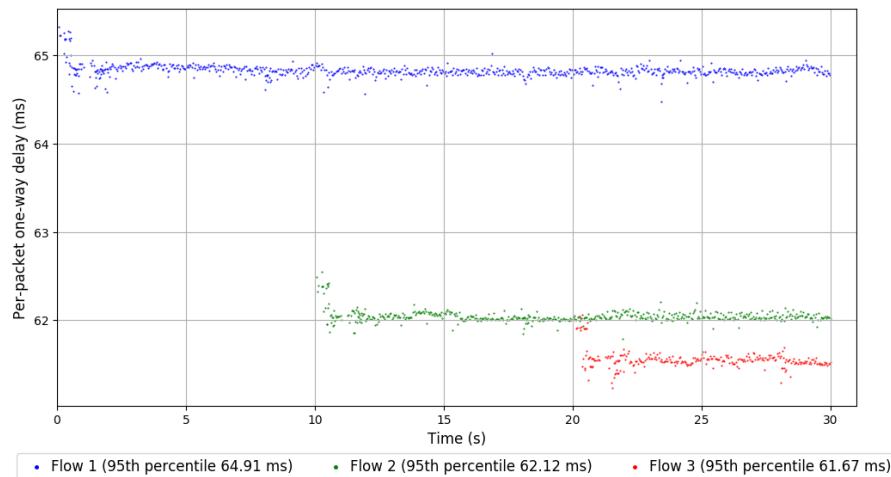
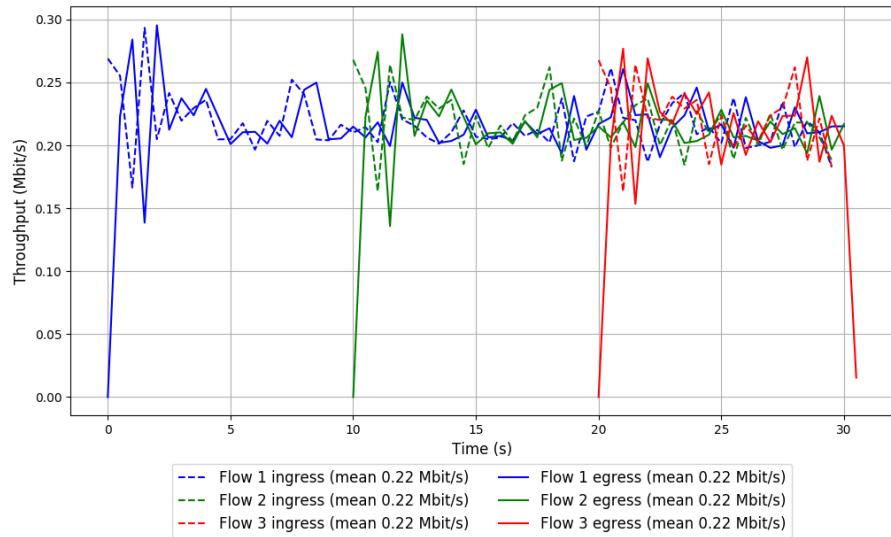


Run 2: Statistics of SCReAM

```
Start at: 2018-09-06 10:03:47
End at: 2018-09-06 10:04:17
Local clock offset: 1.983 ms
Remote clock offset: -34.222 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 64.890 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.910 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.124 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.670 ms
Loss rate: 0.00%
```

## Run 2: Report of SCReAM — Data Link

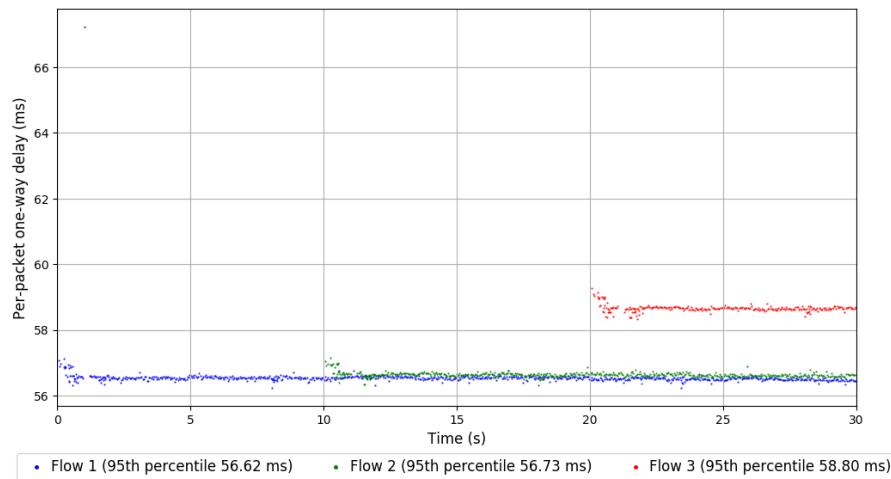
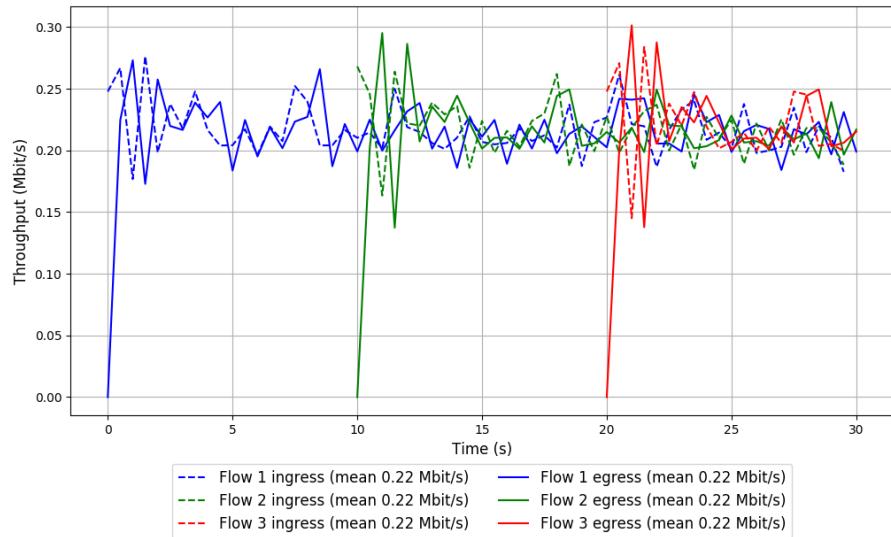


Run 3: Statistics of SCReAM

```
Start at: 2018-09-06 10:56:38
End at: 2018-09-06 10:57:08
Local clock offset: 2.379 ms
Remote clock offset: -36.636 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 58.683 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.615 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.731 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.805 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

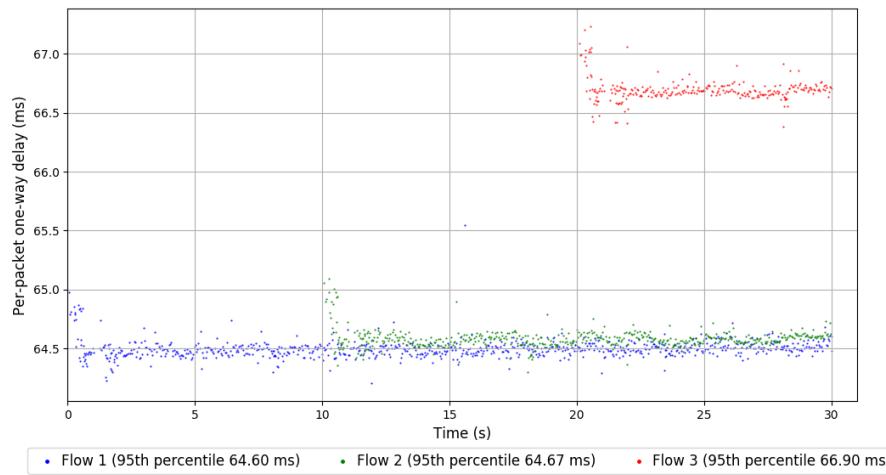
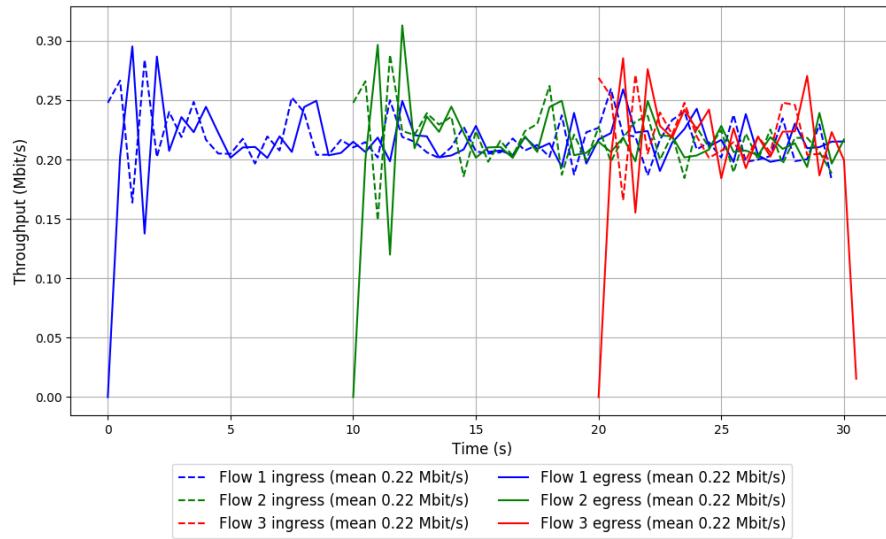


Run 4: Statistics of SCReAM

```
Start at: 2018-09-06 11:22:35
End at: 2018-09-06 11:23:05
Local clock offset: -0.863 ms
Remote clock offset: -31.86 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 66.712 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.597 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.671 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 66.903 ms
Loss rate: 0.00%
```

## Run 4: Report of SCReAM — Data Link

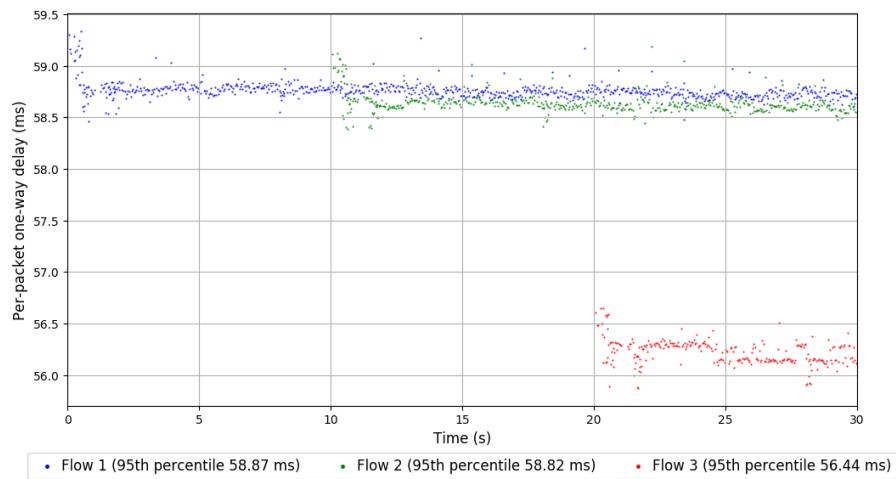
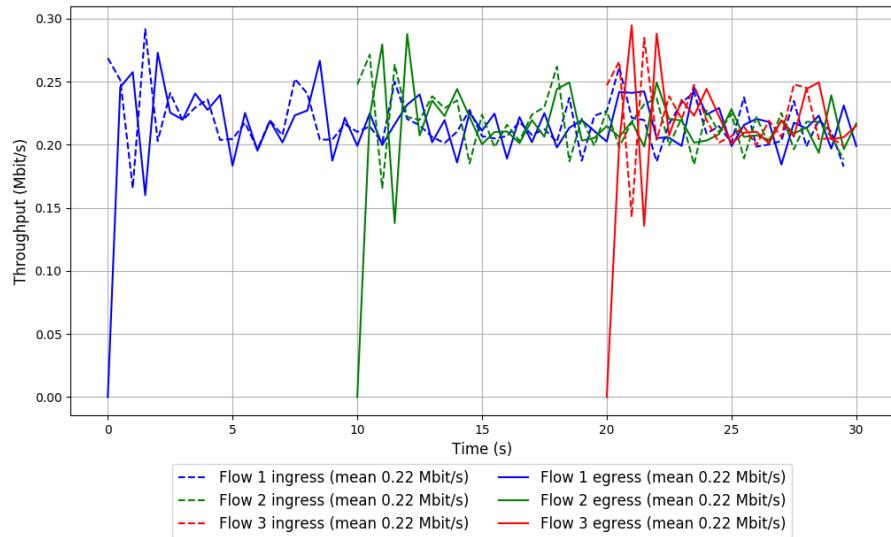


Run 5: Statistics of SCReAM

```
Start at: 2018-09-06 11:48:30
End at: 2018-09-06 11:49:00
Local clock offset: 3.553 ms
Remote clock offset: -36.142 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 58.836 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.865 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.822 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.437 ms
Loss rate: 0.00%
```

## Run 5: Report of SCReAM — Data Link

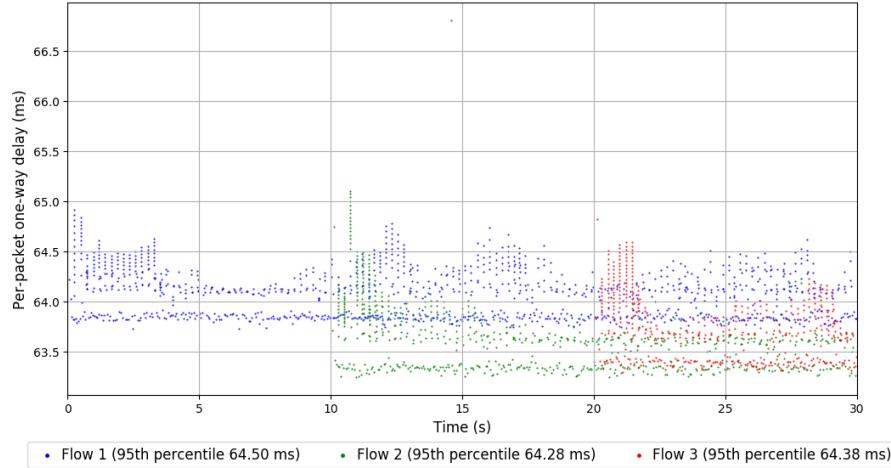
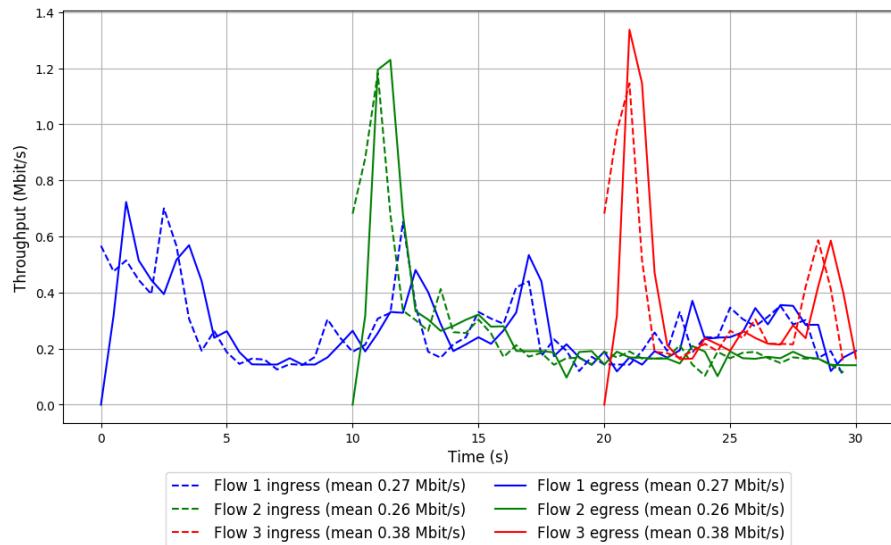


Run 1: Statistics of Sprout

```
Start at: 2018-09-06 09:16:03
End at: 2018-09-06 09:16:33
Local clock offset: -0.245 ms
Remote clock offset: -35.538 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 64.467 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 64.504 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 64.280 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 64.378 ms
Loss rate: 0.00%
```

## Run 1: Report of Sprout — Data Link

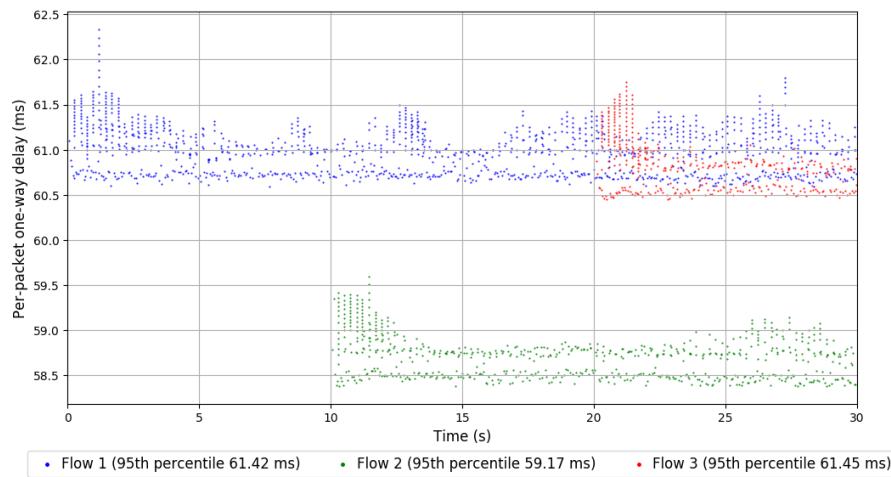
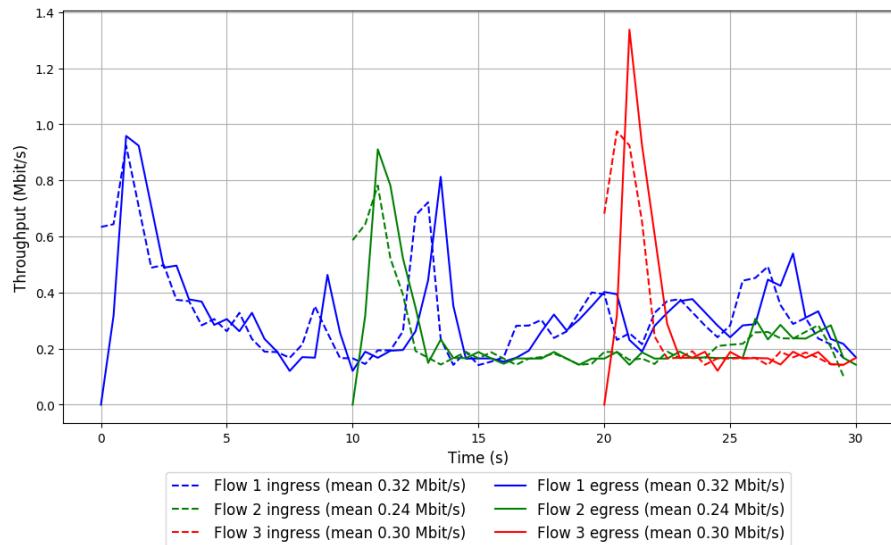


Run 2: Statistics of Sprout

```
Start at: 2018-09-06 09:59:21
End at: 2018-09-06 09:59:51
Local clock offset: 2.951 ms
Remote clock offset: -36.444 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 61.375 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 61.420 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 59.171 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 61.455 ms
Loss rate: 0.00%
```

## Run 2: Report of Sprout — Data Link

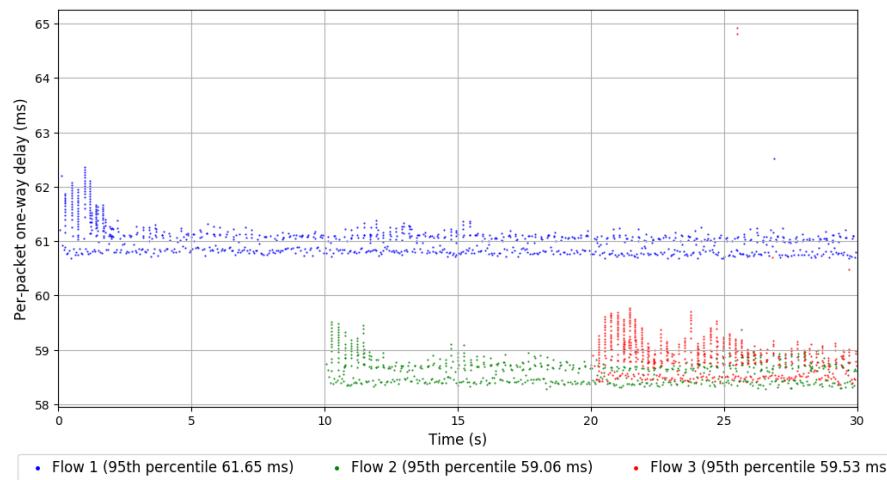
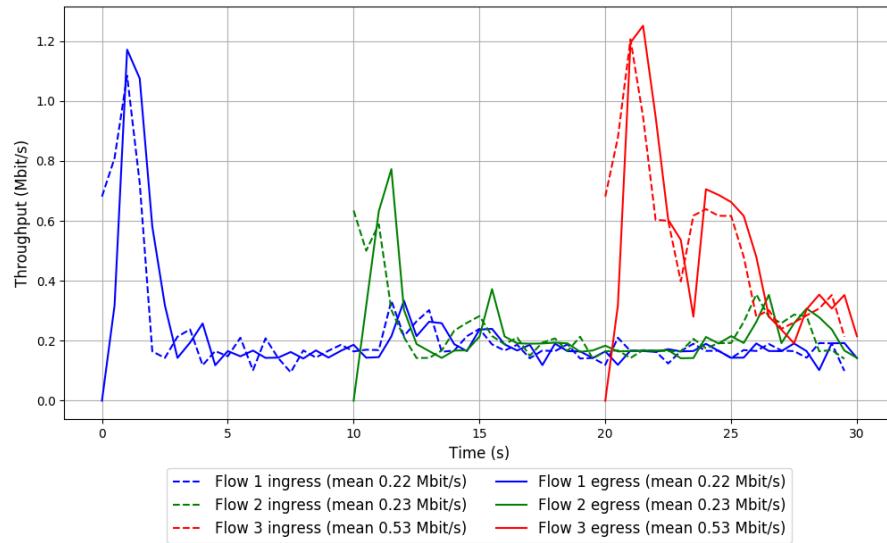


Run 3: Statistics of Sprout

```
Start at: 2018-09-06 10:52:12
End at: 2018-09-06 10:52:42
Local clock offset: -0.018 ms
Remote clock offset: -37.319 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 61.306 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.652 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 59.063 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 59.529 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

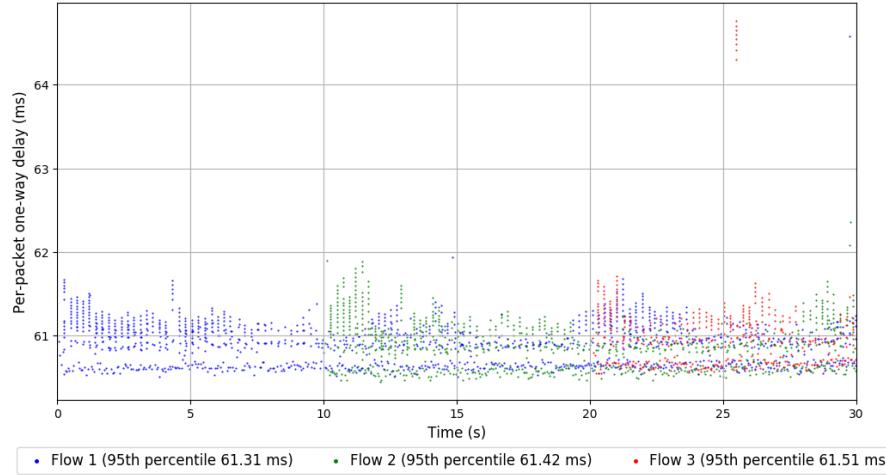
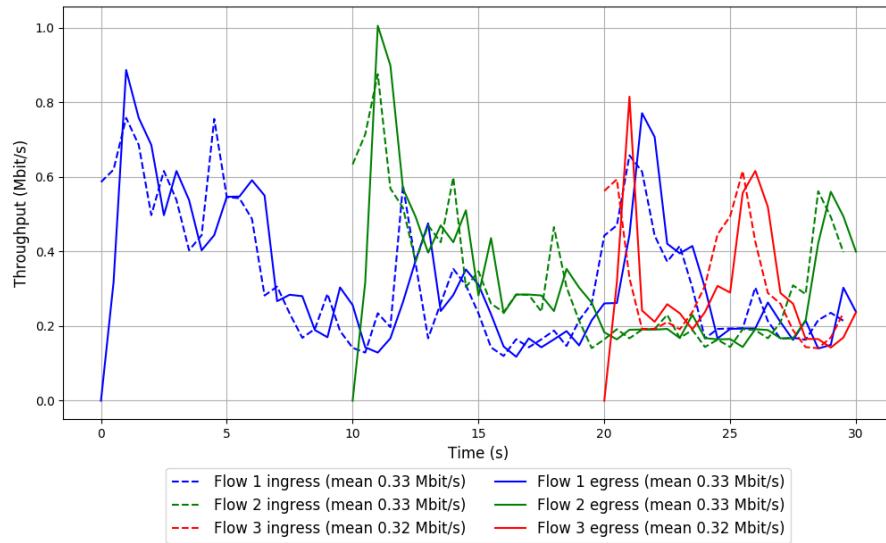


Run 4: Statistics of Sprout

```
Start at: 2018-09-06 11:18:08
End at: 2018-09-06 11:18:38
Local clock offset: 0.648 ms
Remote clock offset: -33.401 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 61.382 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 61.310 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 61.424 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 61.509 ms
Loss rate: 0.00%
```

## Run 4: Report of Sprout — Data Link

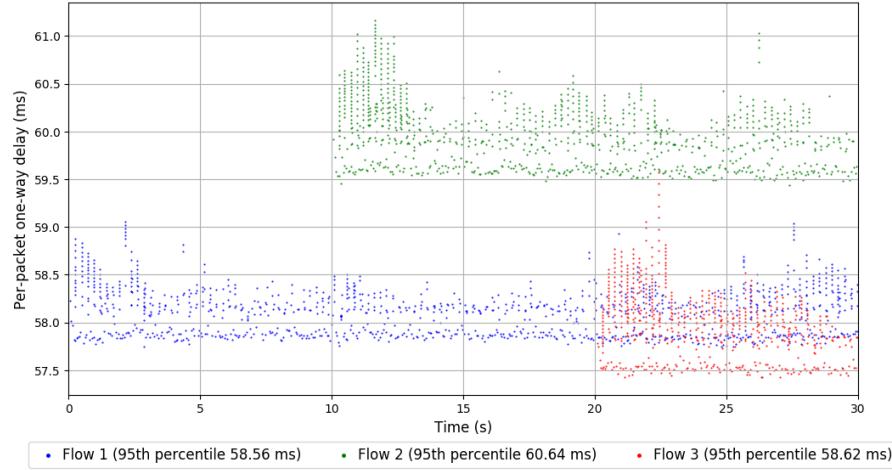
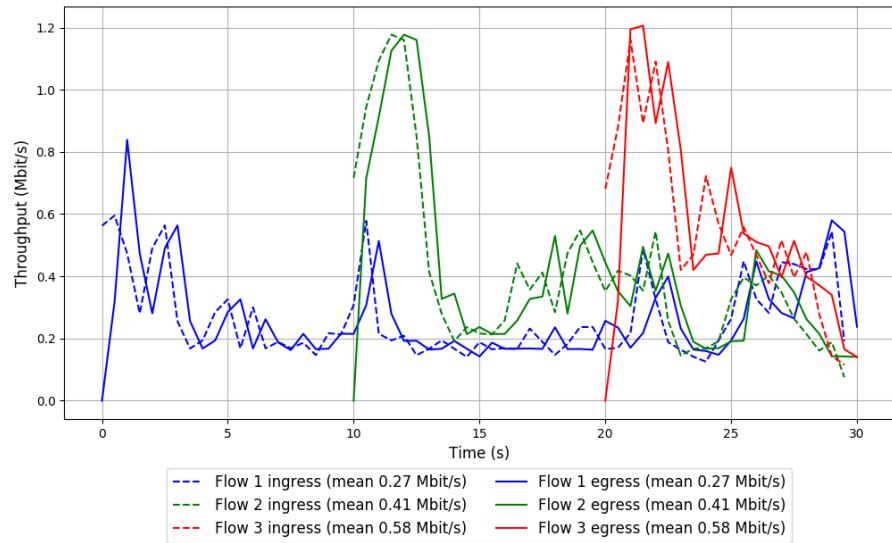


Run 5: Statistics of Sprout

```
Start at: 2018-09-06 11:44:04
End at: 2018-09-06 11:44:34
Local clock offset: 1.424 ms
Remote clock offset: -37.347 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 60.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 58.557 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 60.637 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 58.615 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

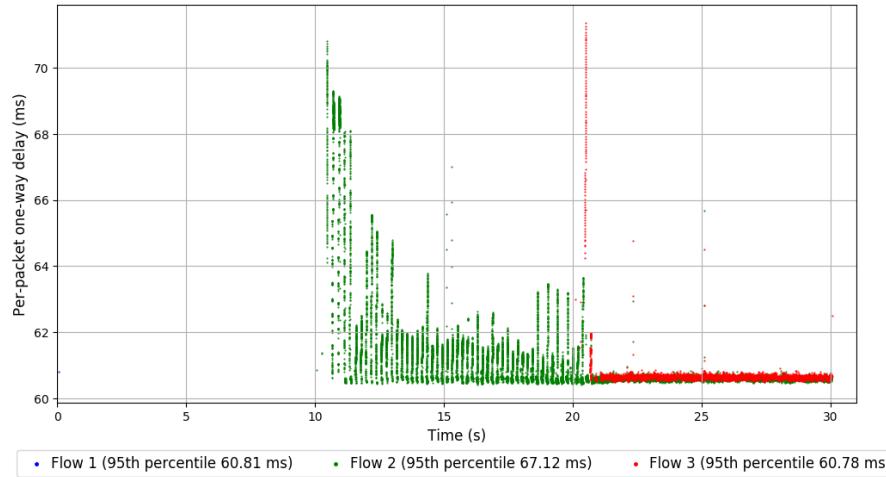
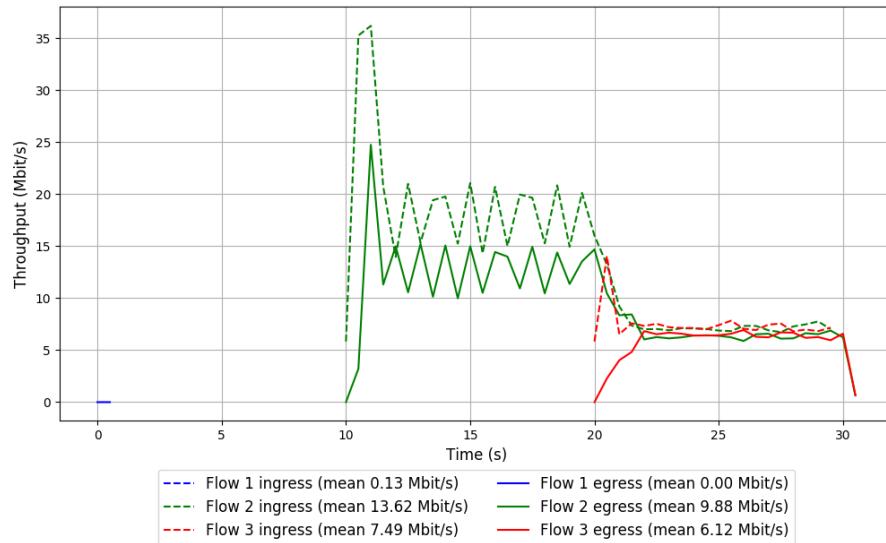


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-09-06 09:54:00
End at: 2018-09-06 09:54:30
Local clock offset: 1.023 ms
Remote clock offset: -36.747 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 65.701 ms
Loss rate: 25.46%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 60.806 ms
Loss rate: 96.07%
-- Flow 2:
Average throughput: 9.88 Mbit/s
95th percentile per-packet one-way delay: 67.125 ms
Loss rate: 27.42%
-- Flow 3:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 60.785 ms
Loss rate: 18.28%
```

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

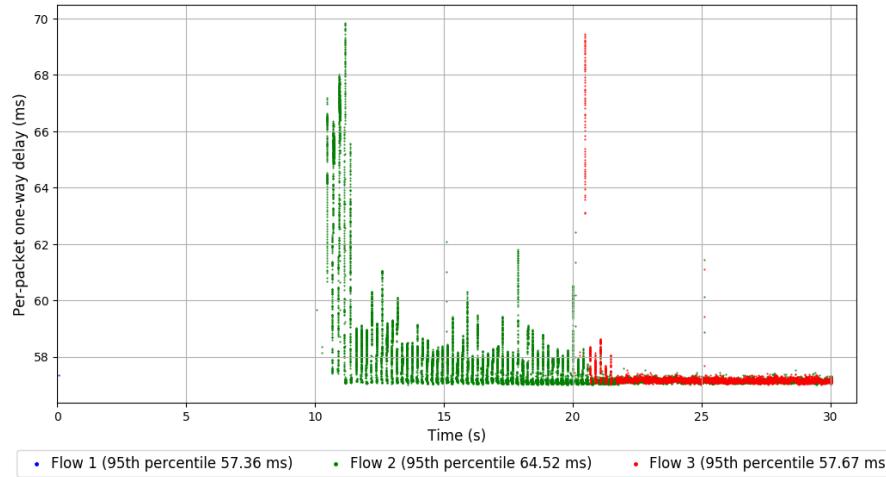
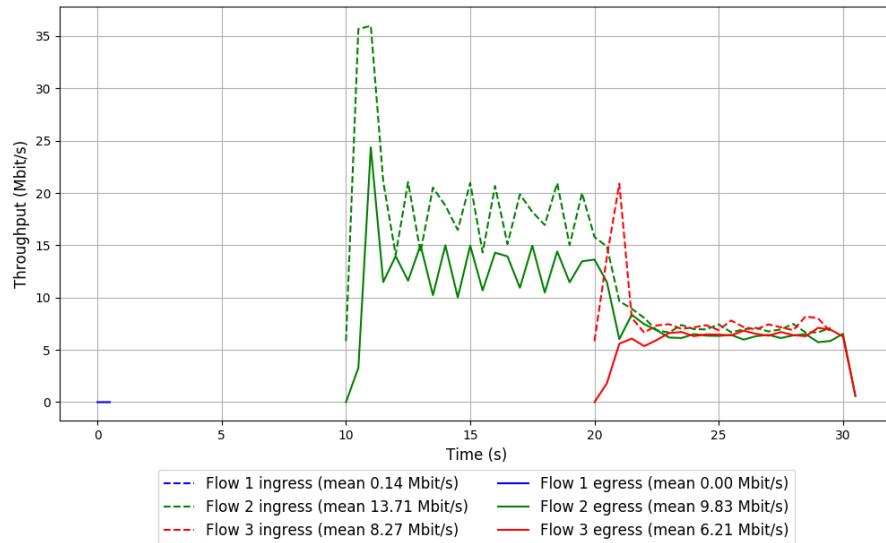


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-09-06 10:46:50
End at: 2018-09-06 10:47:20
Local clock offset: 2.373 ms
Remote clock offset: -37.602 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.61 Mbit/s
95th percentile per-packet one-way delay: 62.824 ms
Loss rate: 27.53%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 57.361 ms
Loss rate: 96.07%
-- Flow 2:
Average throughput: 9.83 Mbit/s
95th percentile per-packet one-way delay: 64.516 ms
Loss rate: 28.30%
-- Flow 3:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 57.668 ms
Loss rate: 24.95%
```

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

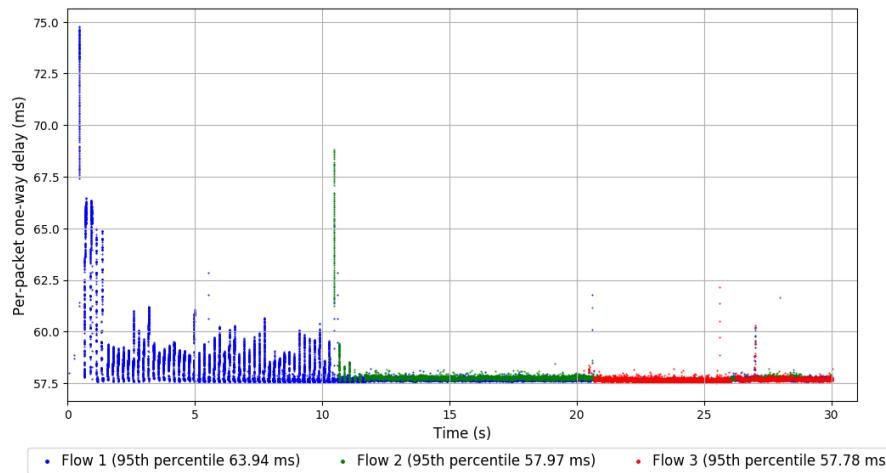
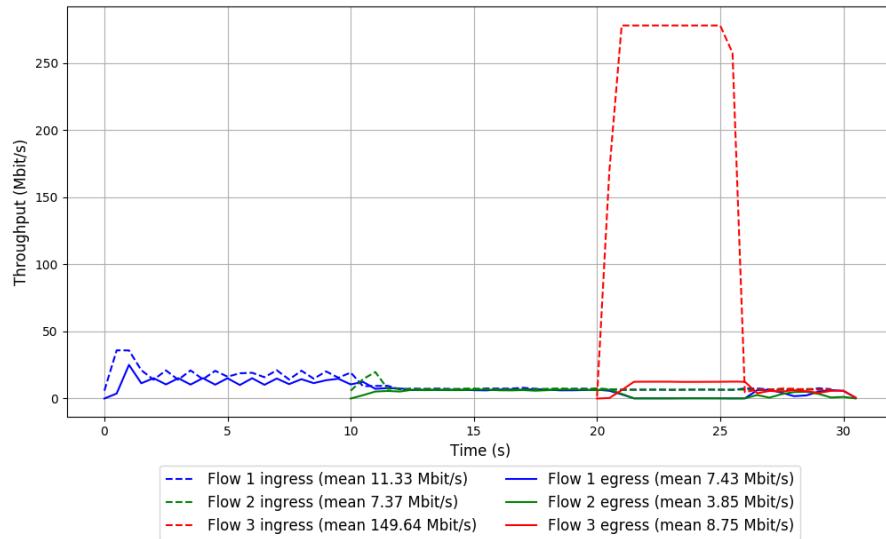


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-09-06 11:12:46
End at: 2018-09-06 11:13:16
Local clock offset: 0.946 ms
Remote clock offset: -35.664 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.91 Mbit/s
95th percentile per-packet one-way delay: 60.310 ms
Loss rate: 80.44%
-- Flow 1:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 63.935 ms
Loss rate: 34.38%
-- Flow 2:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 57.968 ms
Loss rate: 47.79%
-- Flow 3:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 57.778 ms
Loss rate: 94.15%
```

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

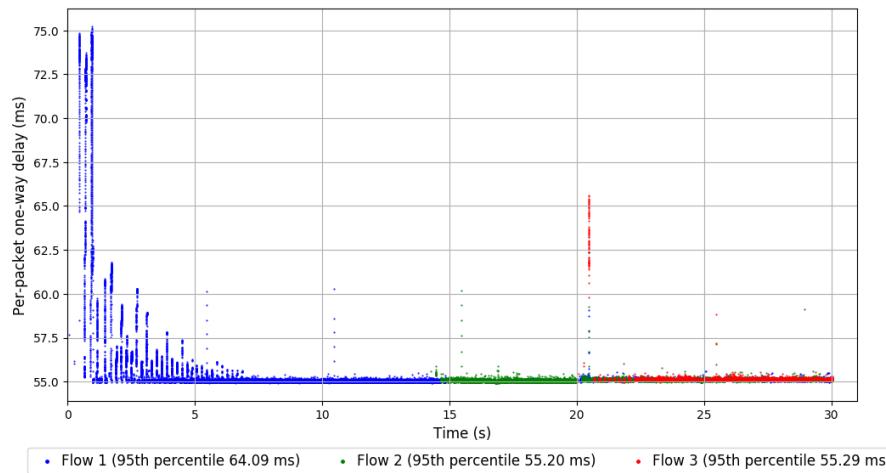
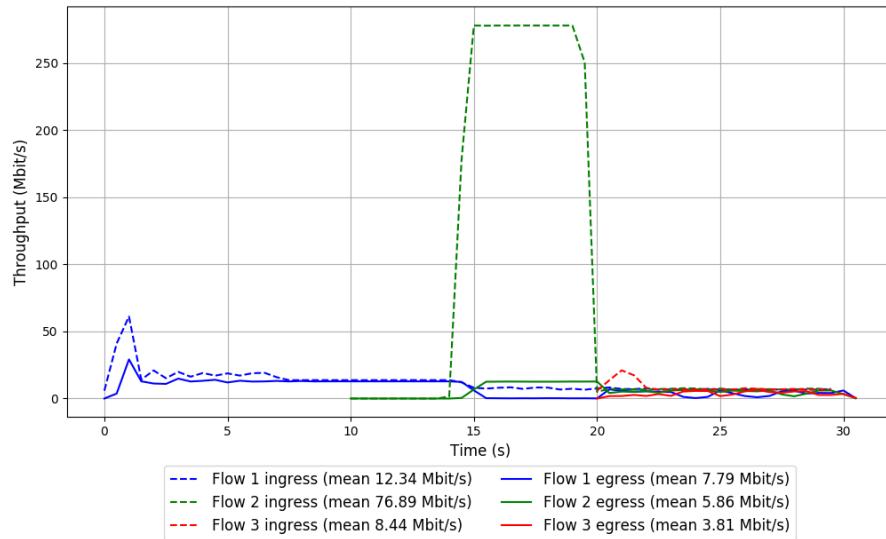


Run 4: Statistics of TaoVA-100x

```
Start at: 2018-09-06 11:38:43
End at: 2018-09-06 11:39:13
Local clock offset: 2.477 ms
Remote clock offset: -38.906 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.96 Mbit/s
95th percentile per-packet one-way delay: 59.081 ms
Loss rate: 80.47%
-- Flow 1:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 64.086 ms
Loss rate: 36.89%
-- Flow 2:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 55.198 ms
Loss rate: 92.37%
-- Flow 3:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 55.286 ms
Loss rate: 54.86%
```

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

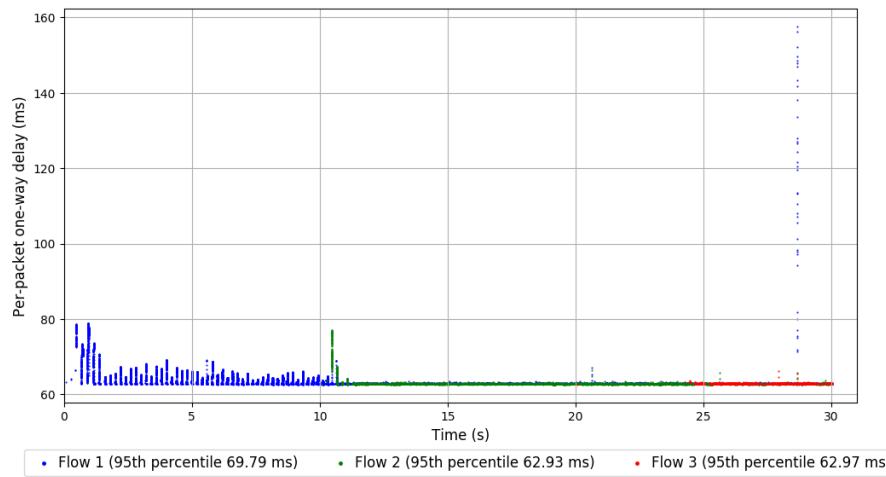
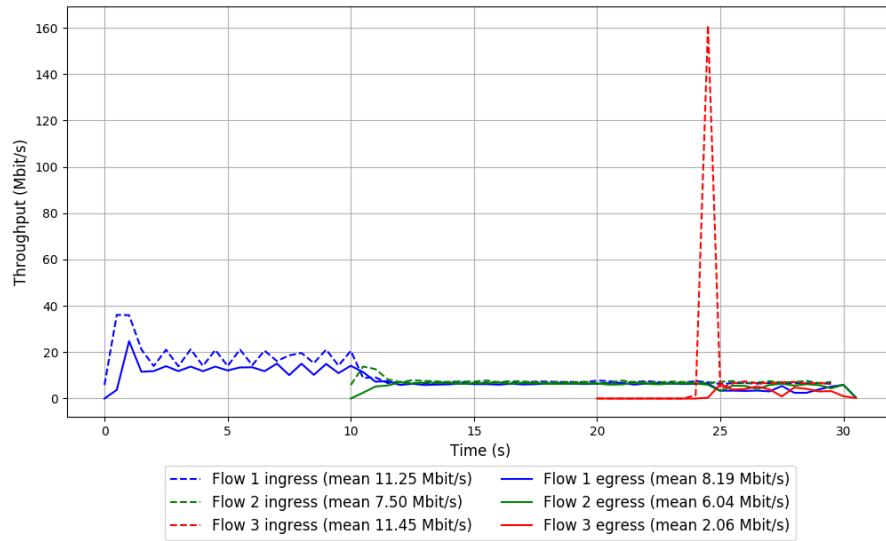


Run 5: Statistics of TaoVA-100x

```
Start at: 2018-09-06 12:04:40
End at: 2018-09-06 12:05:10
Local clock offset: -1.497 ms
Remote clock offset: -33.547 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.89 Mbit/s
95th percentile per-packet one-way delay: 67.359 ms
Loss rate: 35.69%
-- Flow 1:
Average throughput: 8.19 Mbit/s
95th percentile per-packet one-way delay: 69.787 ms
Loss rate: 27.23%
-- Flow 2:
Average throughput: 6.04 Mbit/s
95th percentile per-packet one-way delay: 62.934 ms
Loss rate: 19.47%
-- Flow 3:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 62.972 ms
Loss rate: 82.00%
```

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

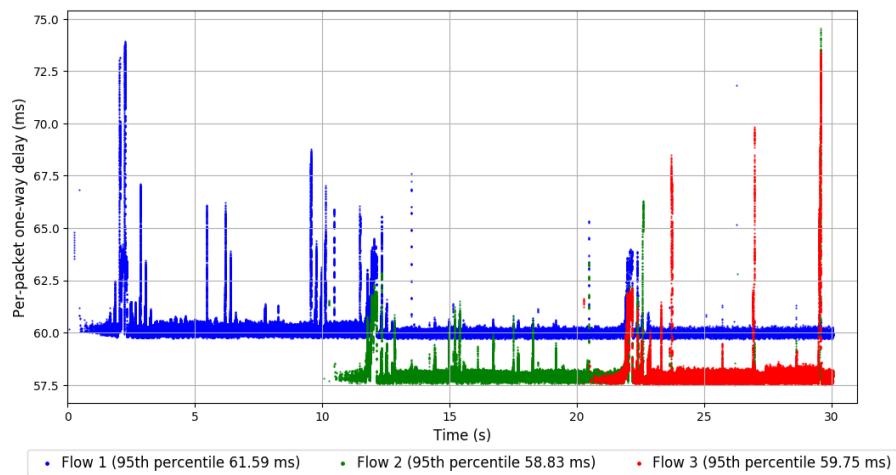
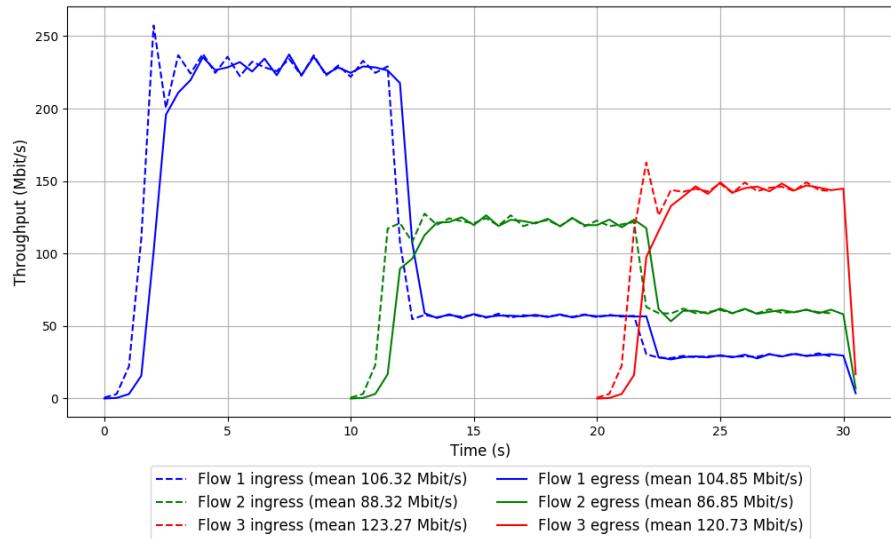


Run 1: Statistics of TCP Vegas

```
Start at: 2018-09-06 09:37:46
End at: 2018-09-06 09:38:16
Local clock offset: 1.656 ms
Remote clock offset: -39.157 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.86 Mbit/s
95th percentile per-packet one-way delay: 60.756 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 104.85 Mbit/s
95th percentile per-packet one-way delay: 61.593 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 86.85 Mbit/s
95th percentile per-packet one-way delay: 58.832 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 120.73 Mbit/s
95th percentile per-packet one-way delay: 59.751 ms
Loss rate: 2.06%
```

Run 1: Report of TCP Vegas — Data Link

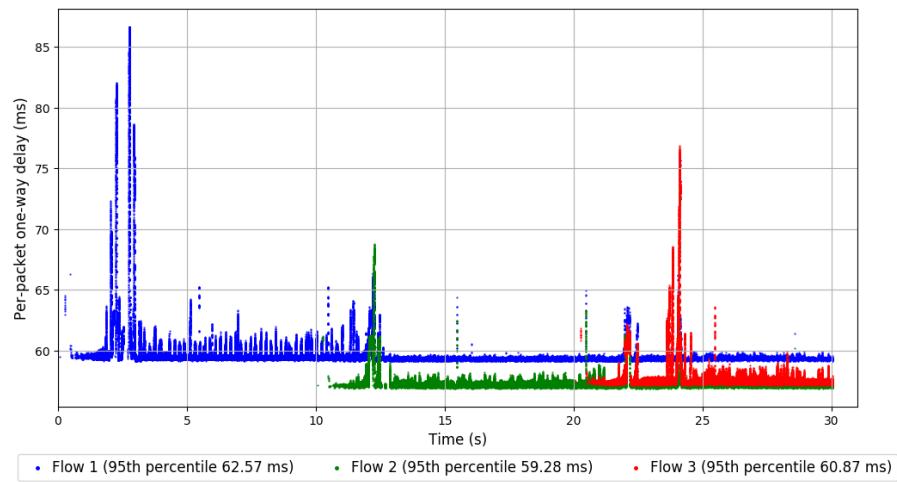
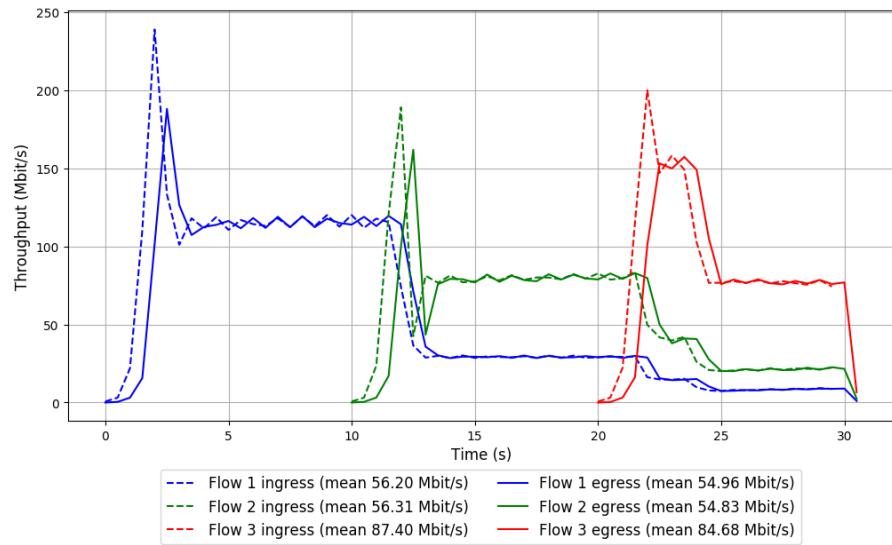


Run 2: Statistics of TCP Vegas

```
Start at: 2018-09-06 10:36:16
End at: 2018-09-06 10:36:46
Local clock offset: 2.813 ms
Remote clock offset: -37.571 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 119.64 Mbit/s
95th percentile per-packet one-way delay: 61.045 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 54.96 Mbit/s
95th percentile per-packet one-way delay: 62.574 ms
Loss rate: 2.21%
-- Flow 2:
Average throughput: 54.83 Mbit/s
95th percentile per-packet one-way delay: 59.283 ms
Loss rate: 2.63%
-- Flow 3:
Average throughput: 84.68 Mbit/s
95th percentile per-packet one-way delay: 60.871 ms
Loss rate: 3.11%
```

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

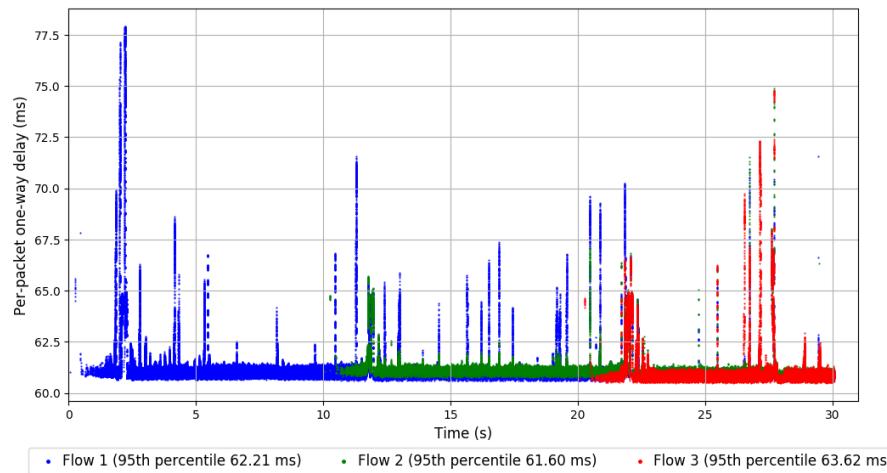
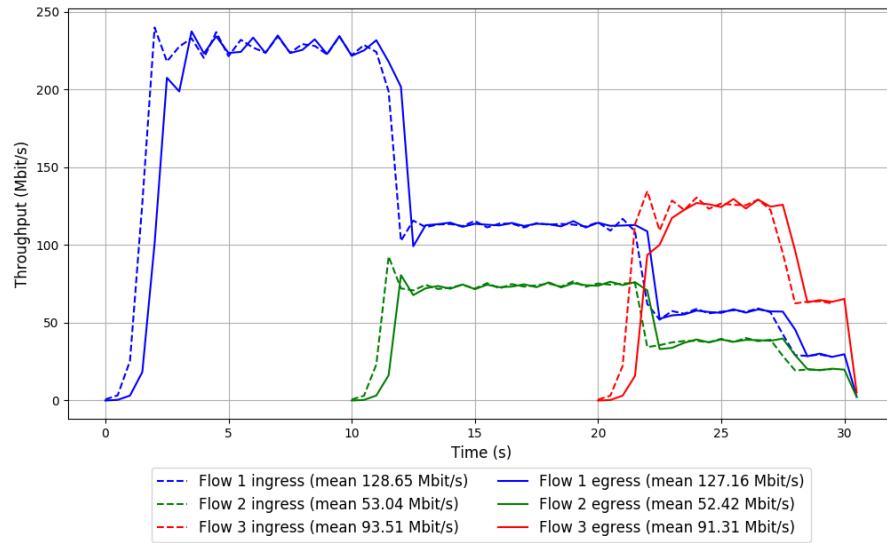


Run 3: Statistics of TCP Vegas

```
Start at: 2018-09-06 11:08:11
End at: 2018-09-06 11:08:41
Local clock offset: 1.601 ms
Remote clock offset: -32.054 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 192.45 Mbit/s
95th percentile per-packet one-way delay: 62.258 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 127.16 Mbit/s
95th percentile per-packet one-way delay: 62.213 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 52.42 Mbit/s
95th percentile per-packet one-way delay: 61.605 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 91.31 Mbit/s
95th percentile per-packet one-way delay: 63.619 ms
Loss rate: 2.35%
```

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

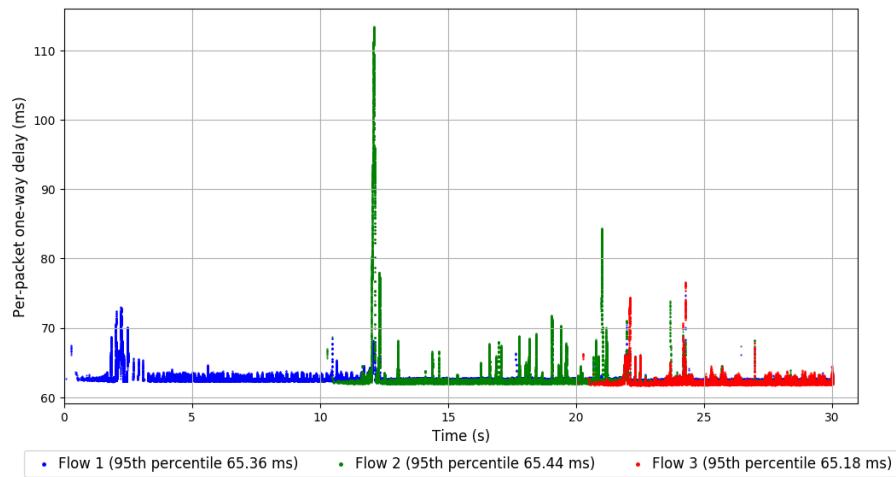
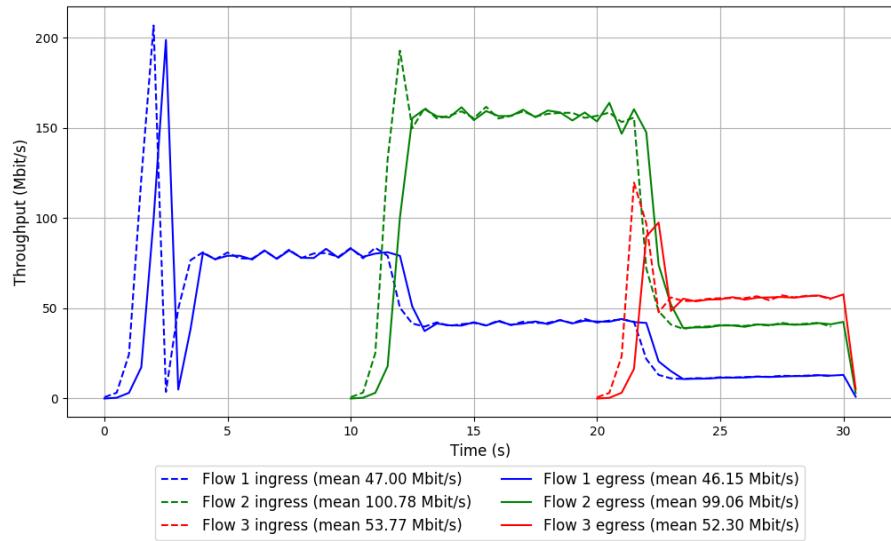


Run 4: Statistics of TCP Vegas

```
Start at: 2018-09-06 11:34:13
End at: 2018-09-06 11:34:43
Local clock offset: 1.812 ms
Remote clock offset: -32.173 ms

# Below is generated by plot.py at 2018-09-06 12:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.55 Mbit/s
95th percentile per-packet one-way delay: 65.323 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 46.15 Mbit/s
95th percentile per-packet one-way delay: 65.358 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 99.06 Mbit/s
95th percentile per-packet one-way delay: 65.442 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 52.30 Mbit/s
95th percentile per-packet one-way delay: 65.176 ms
Loss rate: 2.72%
```

Run 4: Report of TCP Vegas — Data Link

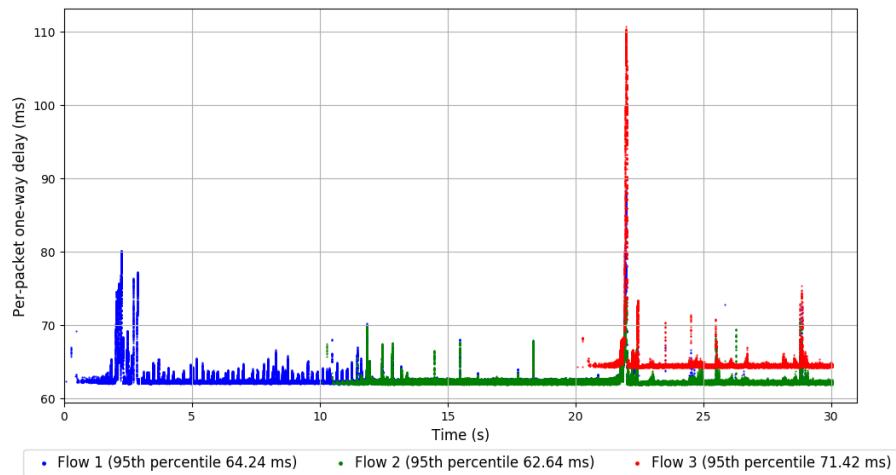
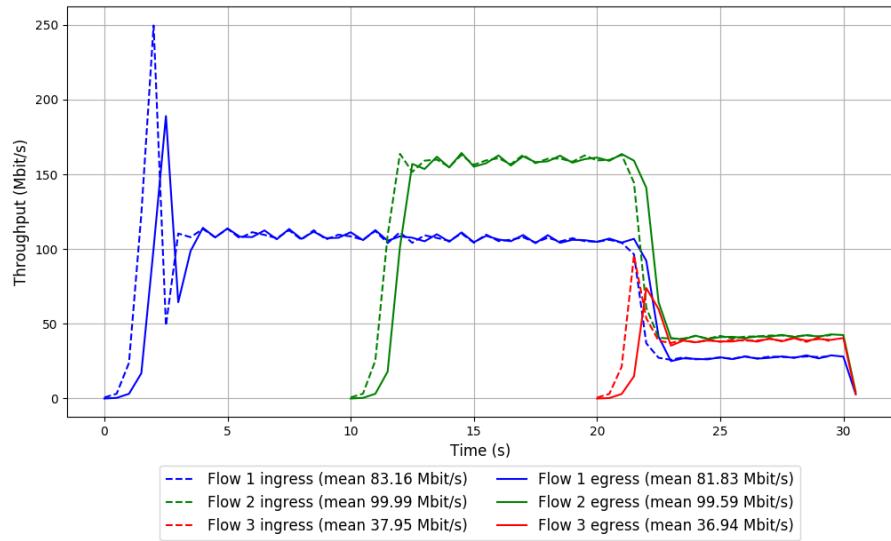


Run 5: Statistics of TCP Vegas

```
Start at: 2018-09-06 12:00:08
End at: 2018-09-06 12:00:38
Local clock offset: 1.799 ms
Remote clock offset: -31.059 ms

# Below is generated by plot.py at 2018-09-06 12:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.44 Mbit/s
95th percentile per-packet one-way delay: 64.596 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 81.83 Mbit/s
95th percentile per-packet one-way delay: 64.238 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 99.59 Mbit/s
95th percentile per-packet one-way delay: 62.636 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 36.94 Mbit/s
95th percentile per-packet one-way delay: 71.424 ms
Loss rate: 2.66%
```

Run 5: Report of TCP Vegas — Data Link

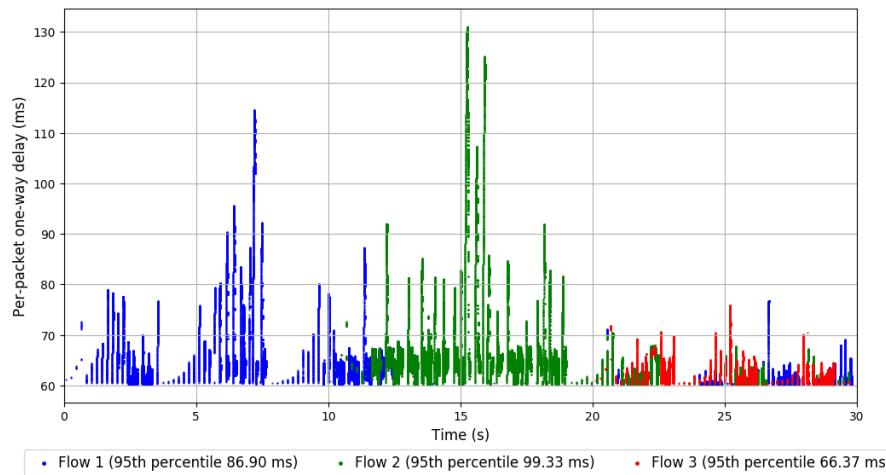
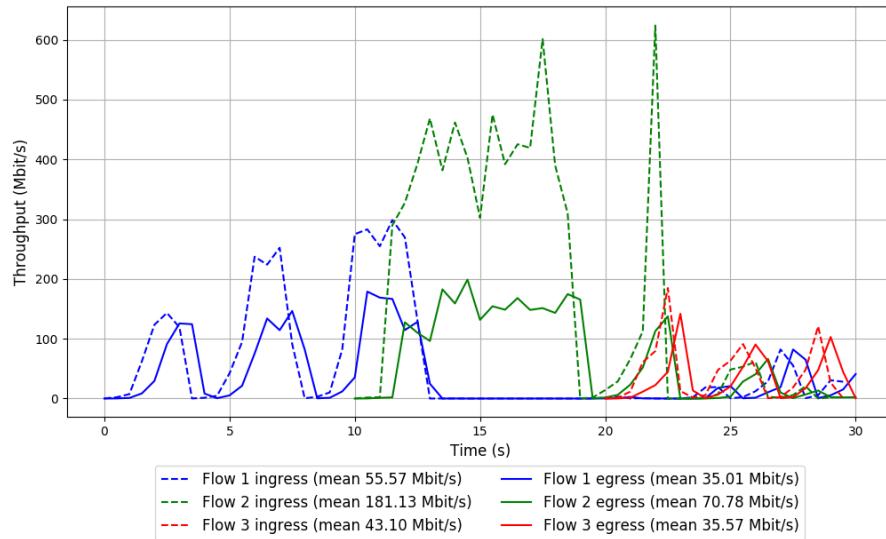


Run 1: Statistics of Verus

```
Start at: 2018-09-06 09:26:29
End at: 2018-09-06 09:26:59
Local clock offset: 3.203 ms
Remote clock offset: -35.323 ms

# Below is generated by plot.py at 2018-09-06 12:31:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.12 Mbit/s
95th percentile per-packet one-way delay: 88.545 ms
Loss rate: 50.67%
-- Flow 1:
Average throughput: 35.01 Mbit/s
95th percentile per-packet one-way delay: 86.896 ms
Loss rate: 36.99%
-- Flow 2:
Average throughput: 70.78 Mbit/s
95th percentile per-packet one-way delay: 99.328 ms
Loss rate: 60.92%
-- Flow 3:
Average throughput: 35.57 Mbit/s
95th percentile per-packet one-way delay: 66.374 ms
Loss rate: 17.47%
```

Run 1: Report of Verus — Data Link

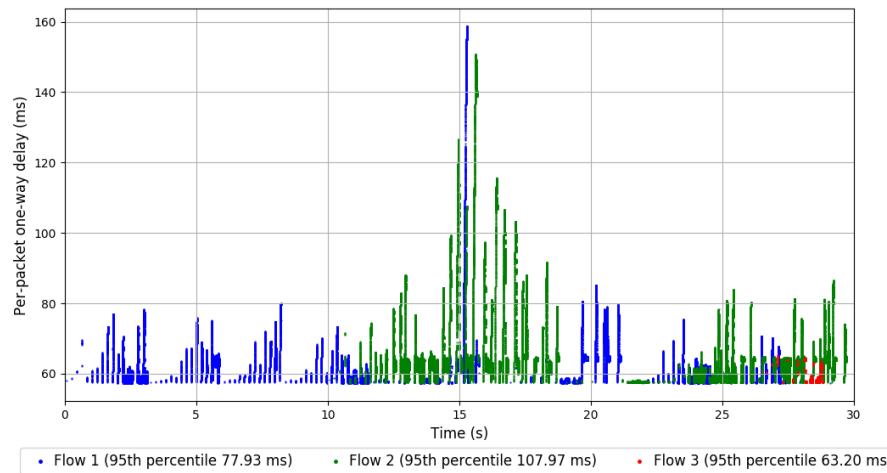
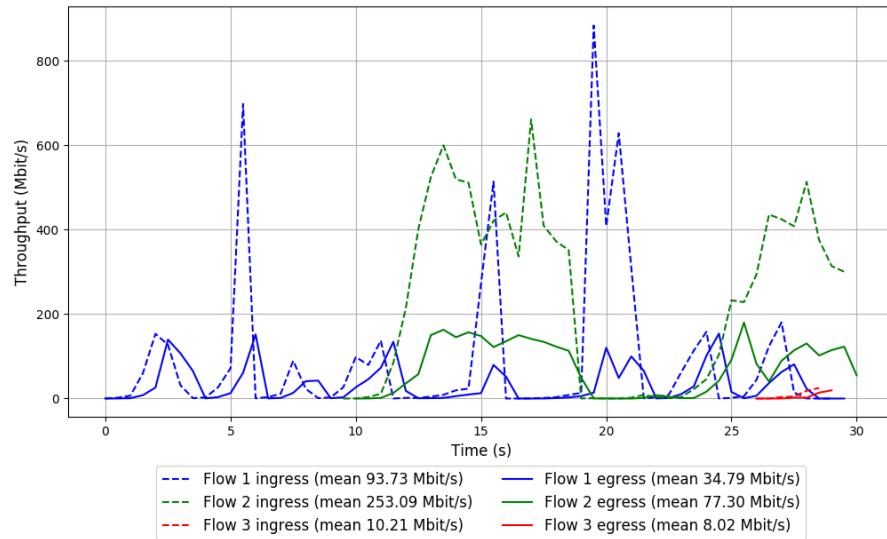


Run 2: Statistics of Verus

```
Start at: 2018-09-06 10:24:58
End at: 2018-09-06 10:25:28
Local clock offset: 1.937 ms
Remote clock offset: -38.355 ms

# Below is generated by plot.py at 2018-09-06 12:31:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.95 Mbit/s
95th percentile per-packet one-way delay: 101.636 ms
Loss rate: 67.07%
-- Flow 1:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 77.928 ms
Loss rate: 63.12%
-- Flow 2:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 107.965 ms
Loss rate: 69.45%
-- Flow 3:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 63.195 ms
Loss rate: 27.50%
```

Run 2: Report of Verus — Data Link

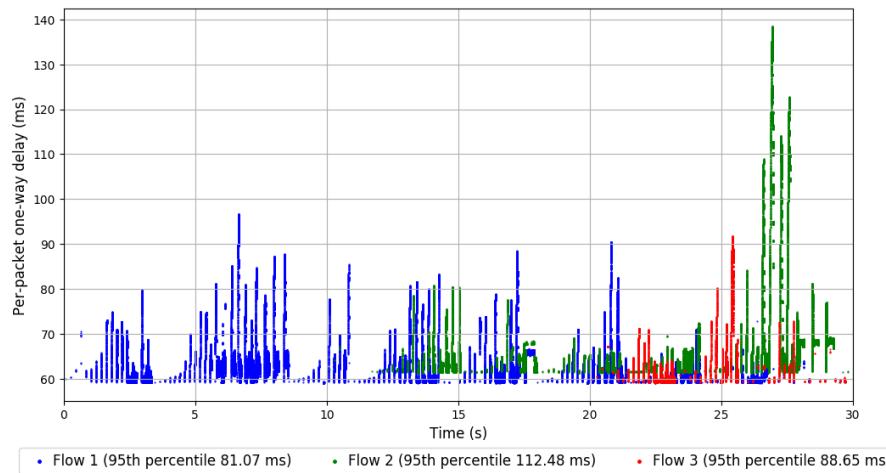
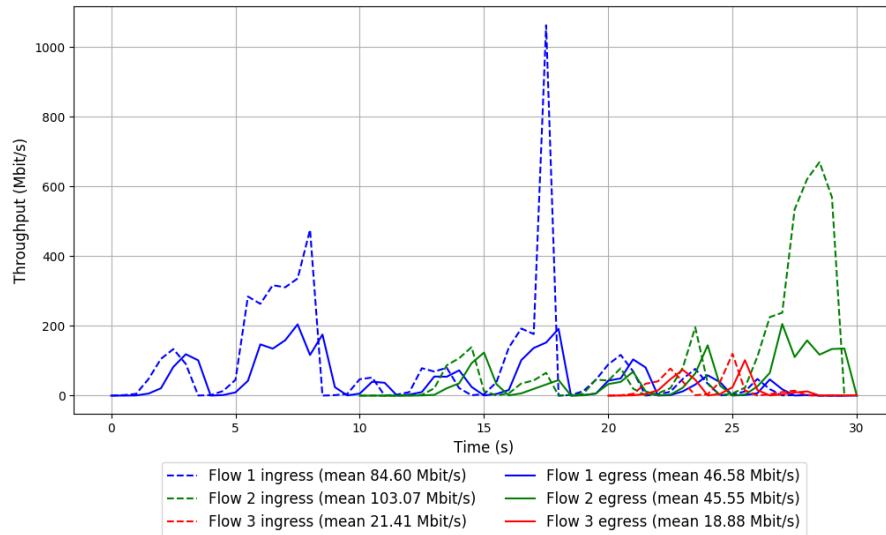


Run 3: Statistics of Verus

```
Start at: 2018-09-06 11:02:33
End at: 2018-09-06 11:03:03
Local clock offset: -1.327 ms
Remote clock offset: -36.889 ms

# Below is generated by plot.py at 2018-09-06 12:31:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.70 Mbit/s
95th percentile per-packet one-way delay: 88.591 ms
Loss rate: 48.15%
-- Flow 1:
Average throughput: 46.58 Mbit/s
95th percentile per-packet one-way delay: 81.071 ms
Loss rate: 44.95%
-- Flow 2:
Average throughput: 45.55 Mbit/s
95th percentile per-packet one-way delay: 112.478 ms
Loss rate: 55.81%
-- Flow 3:
Average throughput: 18.88 Mbit/s
95th percentile per-packet one-way delay: 88.653 ms
Loss rate: 11.84%
```

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

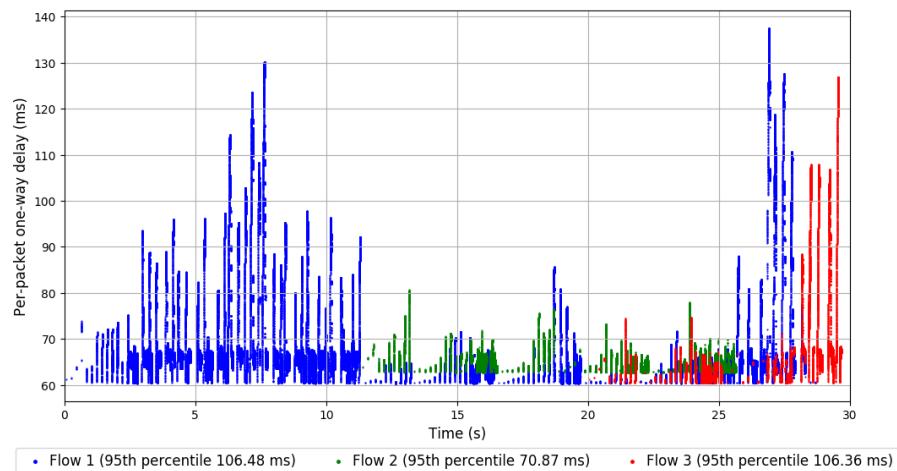
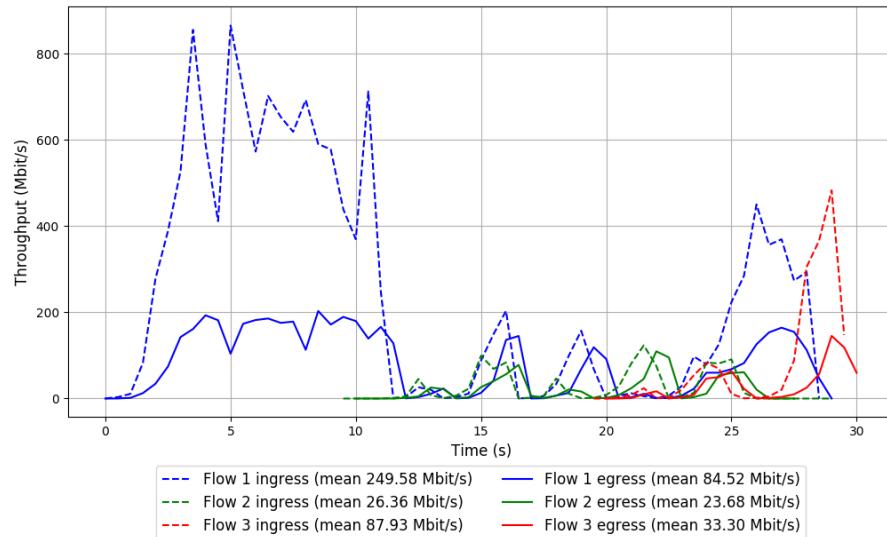


Run 4: Statistics of Verus

```
Start at: 2018-09-06 11:28:30
End at: 2018-09-06 11:29:00
Local clock offset: 2.828 ms
Remote clock offset: -32.81 ms

# Below is generated by plot.py at 2018-09-06 12:32:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.13 Mbit/s
95th percentile per-packet one-way delay: 105.257 ms
Loss rate: 63.22%
-- Flow 1:
Average throughput: 84.52 Mbit/s
95th percentile per-packet one-way delay: 106.481 ms
Loss rate: 66.36%
-- Flow 2:
Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 70.874 ms
Loss rate: 20.36%
-- Flow 3:
Average throughput: 33.30 Mbit/s
95th percentile per-packet one-way delay: 106.363 ms
Loss rate: 62.11%
```

Run 4: Report of Verus — Data Link

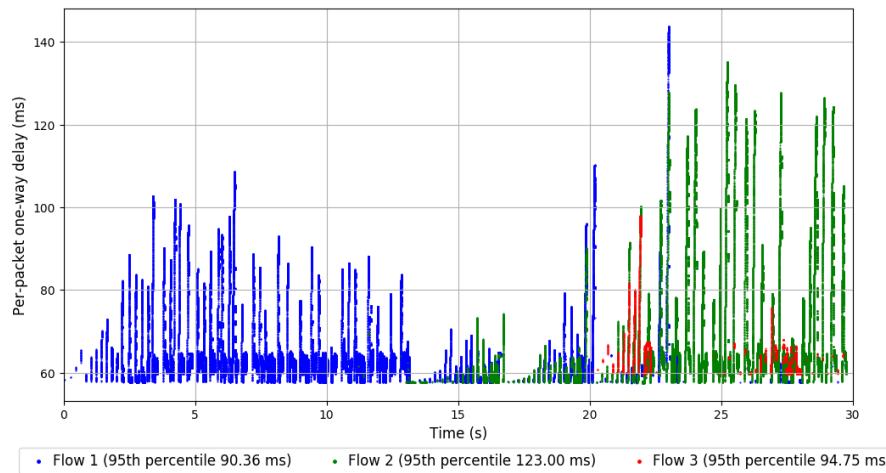
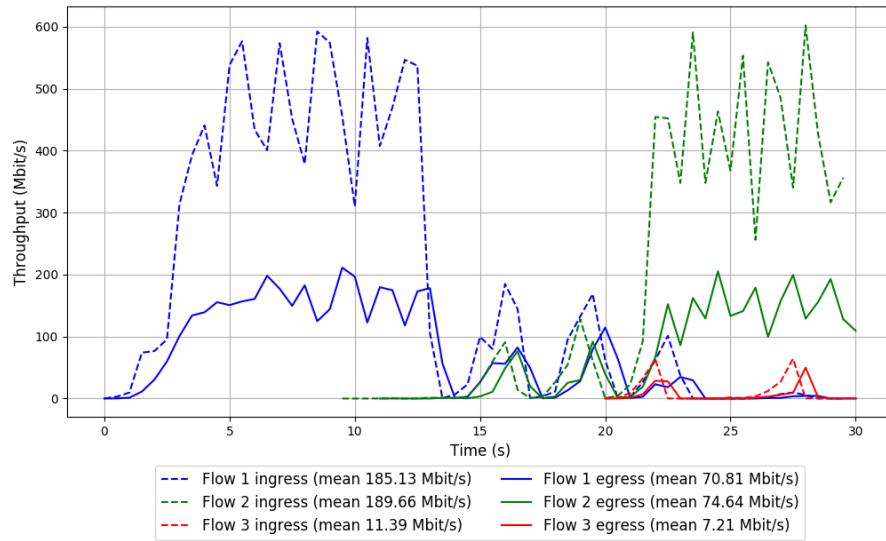


Run 5: Statistics of Verus

```
Start at: 2018-09-06 11:54:25
End at: 2018-09-06 11:54:55
Local clock offset: -0.973 ms
Remote clock offset: -38.536 ms

# Below is generated by plot.py at 2018-09-06 12:32:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 119.95 Mbit/s
95th percentile per-packet one-way delay: 115.844 ms
Loss rate: 61.81%
-- Flow 1:
Average throughput: 70.81 Mbit/s
95th percentile per-packet one-way delay: 90.365 ms
Loss rate: 61.75%
-- Flow 2:
Average throughput: 74.64 Mbit/s
95th percentile per-packet one-way delay: 123.000 ms
Loss rate: 62.63%
-- Flow 3:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 94.753 ms
Loss rate: 36.70%
```

Run 5: Report of Verus — Data Link

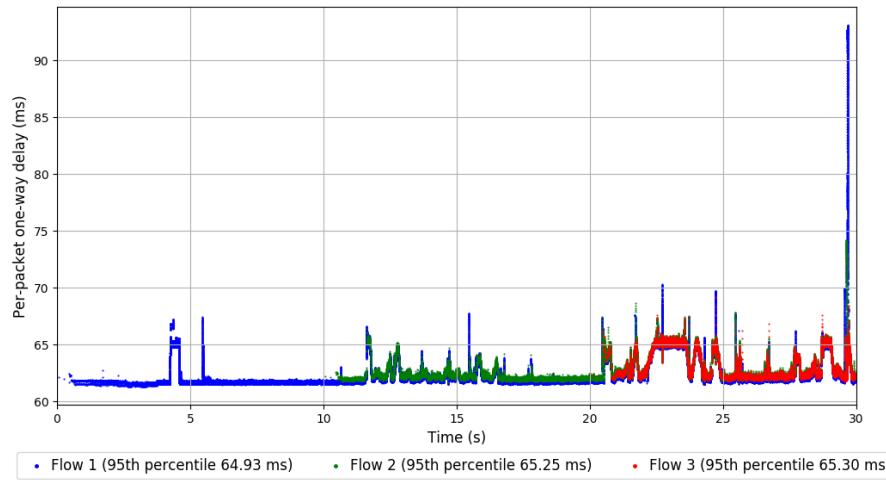
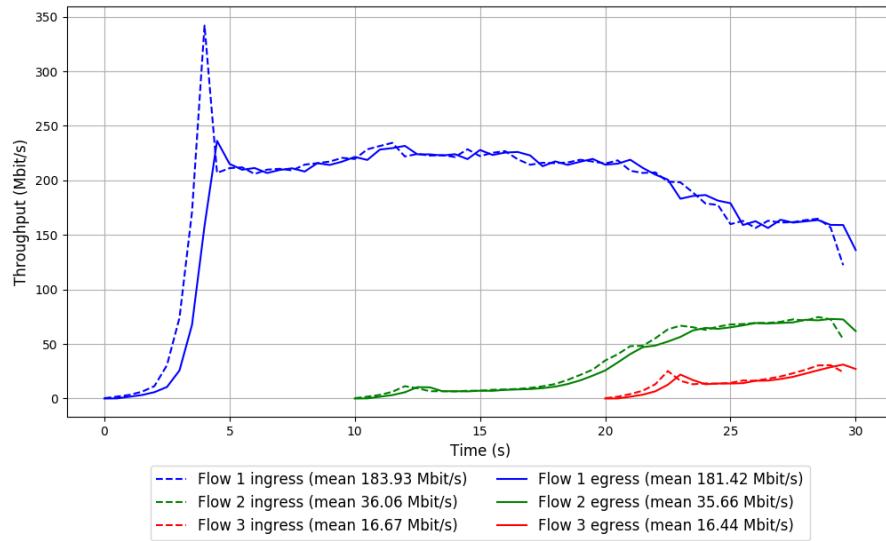


```
Run 1: Statistics of PCC-Vivace

Start at: 2018-09-06 09:17:21
End at: 2018-09-06 09:17:51
Local clock offset: -0.183 ms
Remote clock offset: -37.381 ms

# Below is generated by plot.py at 2018-09-06 12:33:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.57 Mbit/s
95th percentile per-packet one-way delay: 64.990 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 181.42 Mbit/s
95th percentile per-packet one-way delay: 64.930 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 35.66 Mbit/s
95th percentile per-packet one-way delay: 65.254 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 16.44 Mbit/s
95th percentile per-packet one-way delay: 65.302 ms
Loss rate: 1.35%
```

Run 1: Report of PCC-Vivace — Data Link

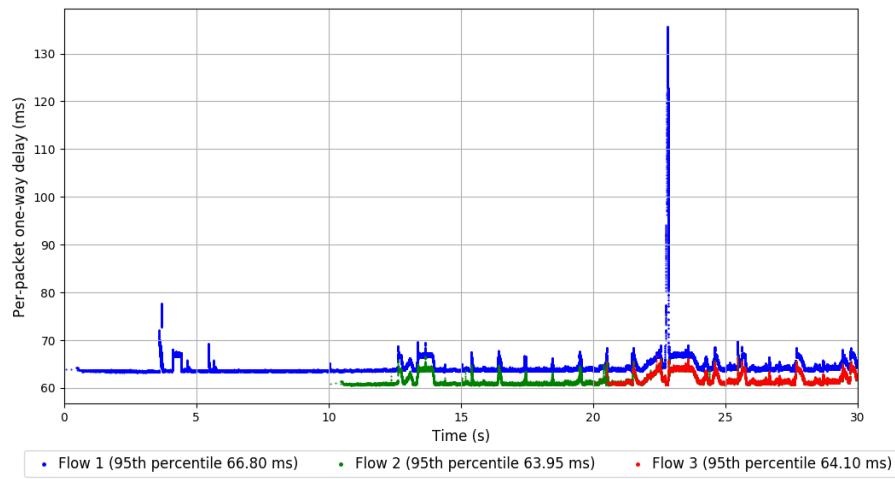
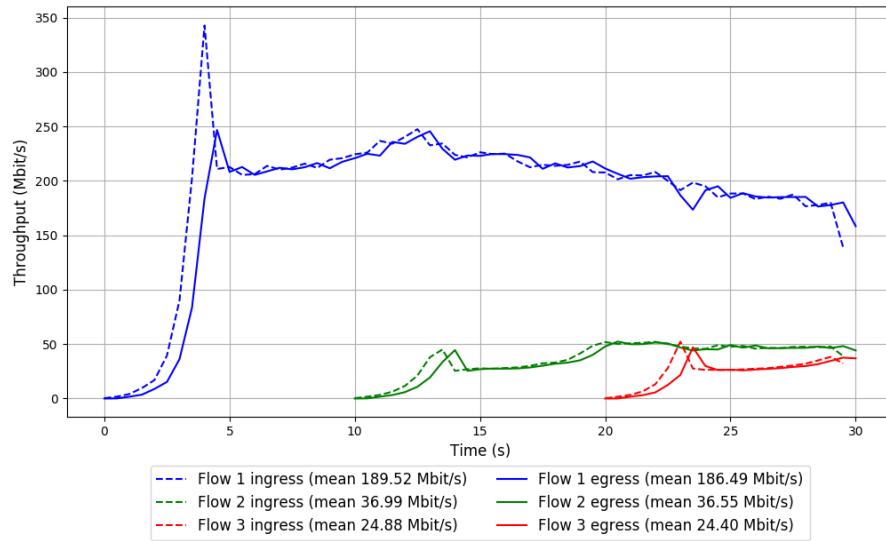


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-09-06 10:00:38
End at: 2018-09-06 10:01:08
Local clock offset: 3.541 ms
Remote clock offset: -33.703 ms

# Below is generated by plot.py at 2018-09-06 12:33:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 218.86 Mbit/s
95th percentile per-packet one-way delay: 66.765 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 186.49 Mbit/s
95th percentile per-packet one-way delay: 66.799 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 36.55 Mbit/s
95th percentile per-packet one-way delay: 63.948 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 64.097 ms
Loss rate: 1.94%
```

Run 2: Report of PCC-Vivace — Data Link

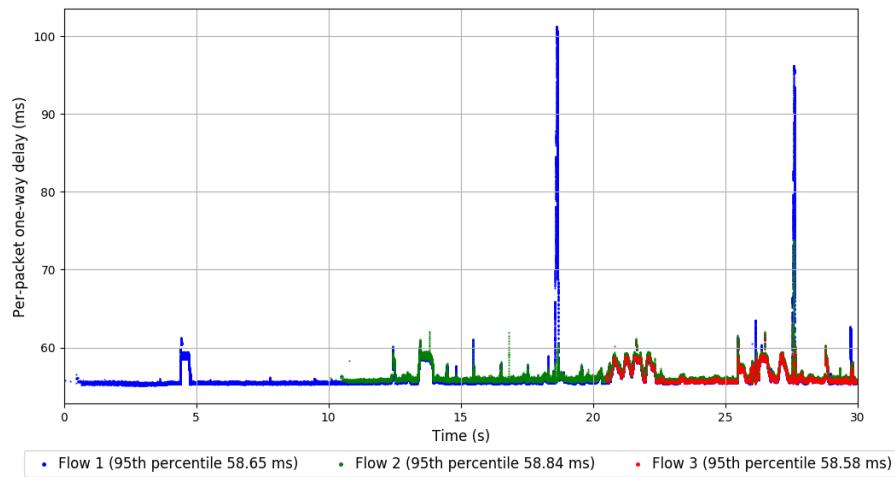
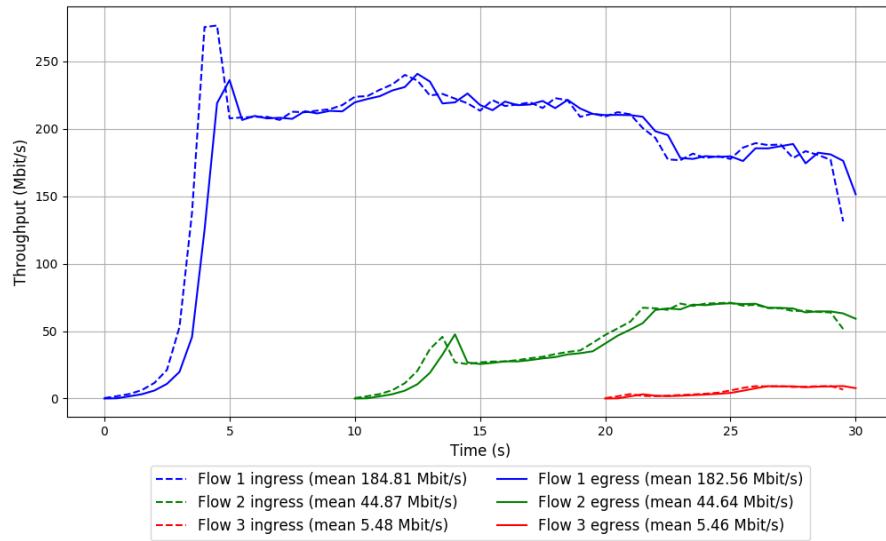


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-09-06 10:53:30
End at: 2018-09-06 10:54:00
Local clock offset: 2.674 ms
Remote clock offset: -37.447 ms

# Below is generated by plot.py at 2018-09-06 12:33:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 214.05 Mbit/s
95th percentile per-packet one-way delay: 58.675 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 182.56 Mbit/s
95th percentile per-packet one-way delay: 58.646 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 44.64 Mbit/s
95th percentile per-packet one-way delay: 58.843 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 58.584 ms
Loss rate: 0.40%
```

Run 3: Report of PCC-Vivace — Data Link

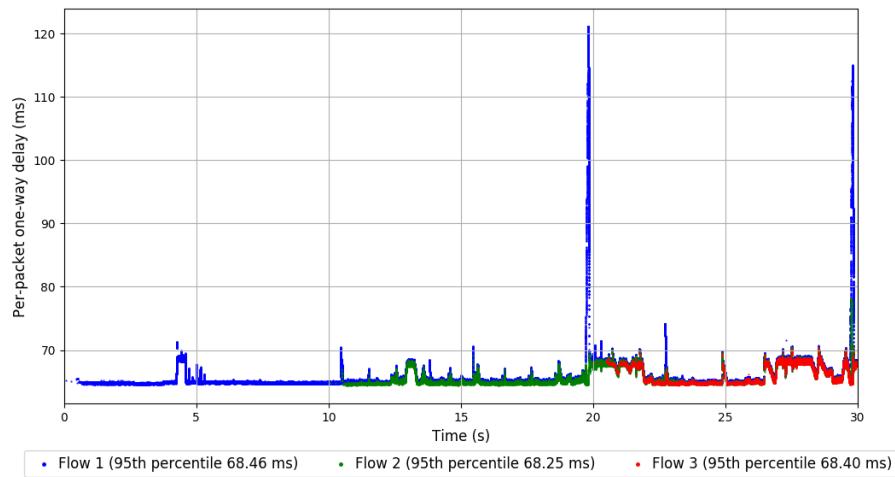
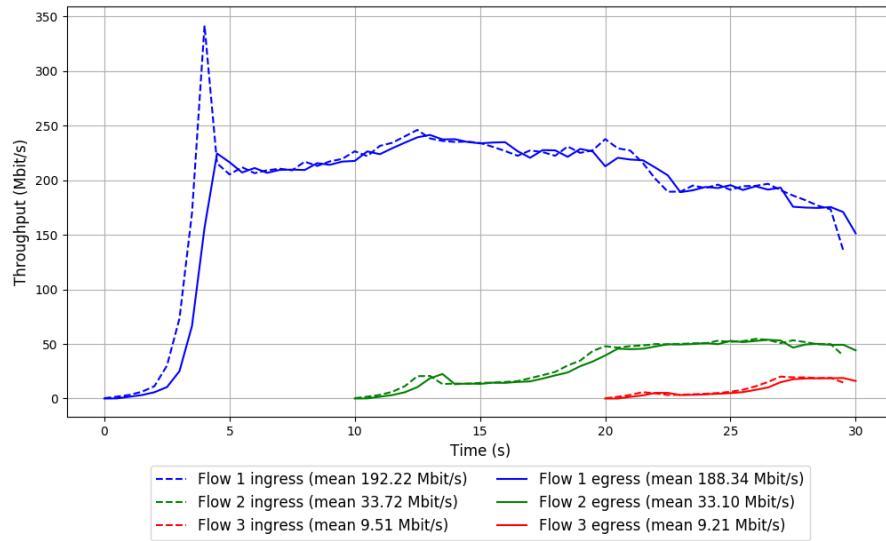


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-09-06 11:19:26
End at: 2018-09-06 11:19:56
Local clock offset: -1.286 ms
Remote clock offset: -31.617 ms

# Below is generated by plot.py at 2018-09-06 12:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.40 Mbit/s
95th percentile per-packet one-way delay: 68.437 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 188.34 Mbit/s
95th percentile per-packet one-way delay: 68.457 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 33.10 Mbit/s
95th percentile per-packet one-way delay: 68.248 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 68.400 ms
Loss rate: 3.18%
```

Run 4: Report of PCC-Vivace — Data Link

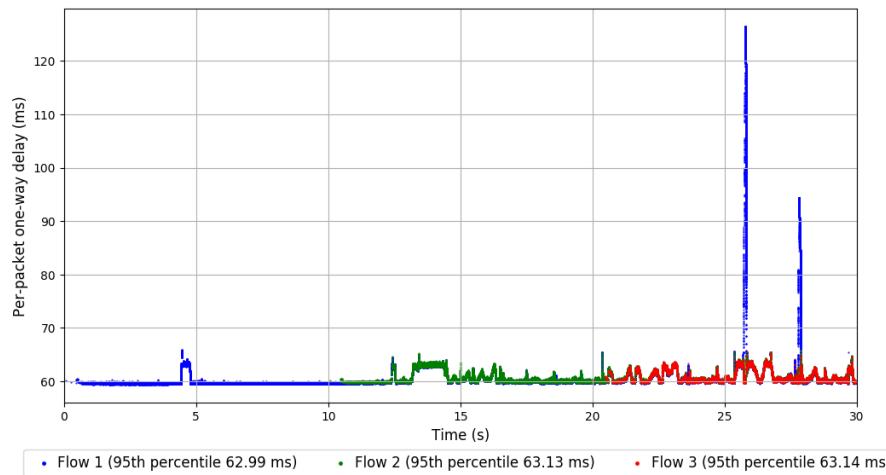
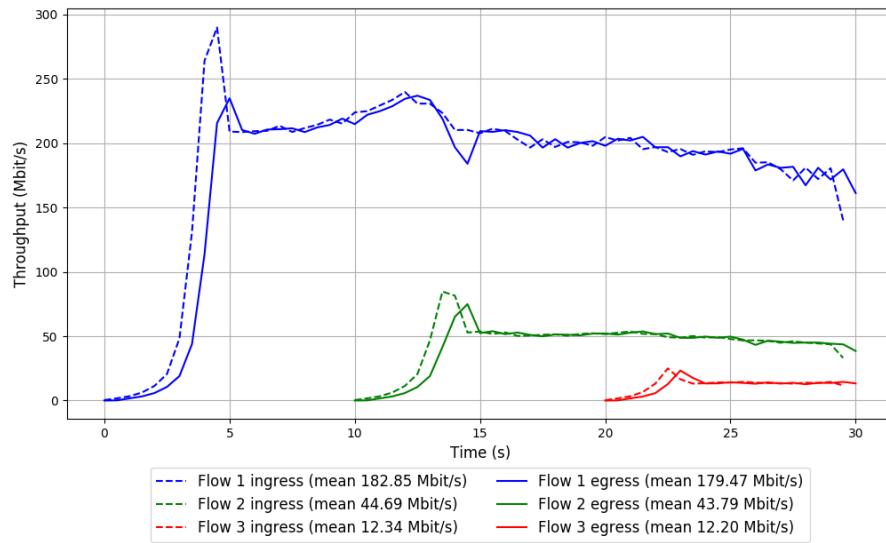


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-09-06 11:45:21
End at: 2018-09-06 11:45:51
Local clock offset: 2.27 ms
Remote clock offset: -34.367 ms

# Below is generated by plot.py at 2018-09-06 12:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.63 Mbit/s
95th percentile per-packet one-way delay: 63.019 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 179.47 Mbit/s
95th percentile per-packet one-way delay: 62.992 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 43.79 Mbit/s
95th percentile per-packet one-way delay: 63.127 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 63.138 ms
Loss rate: 1.07%
```

Run 5: Report of PCC-Vivace — Data Link

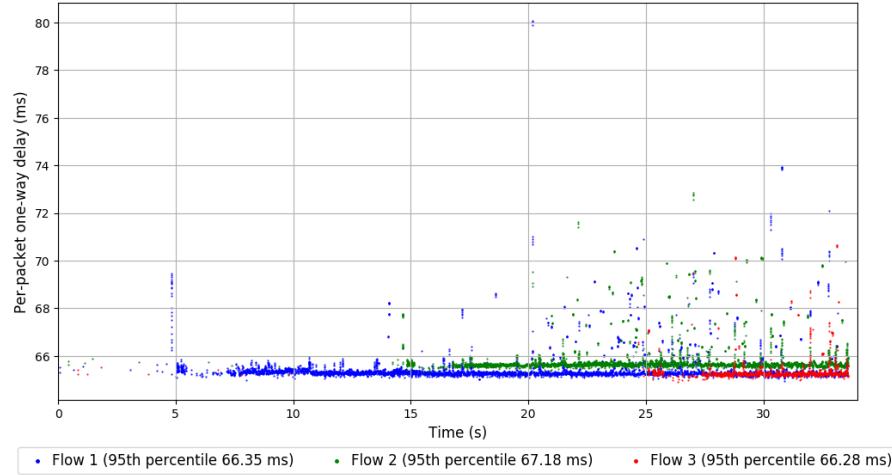
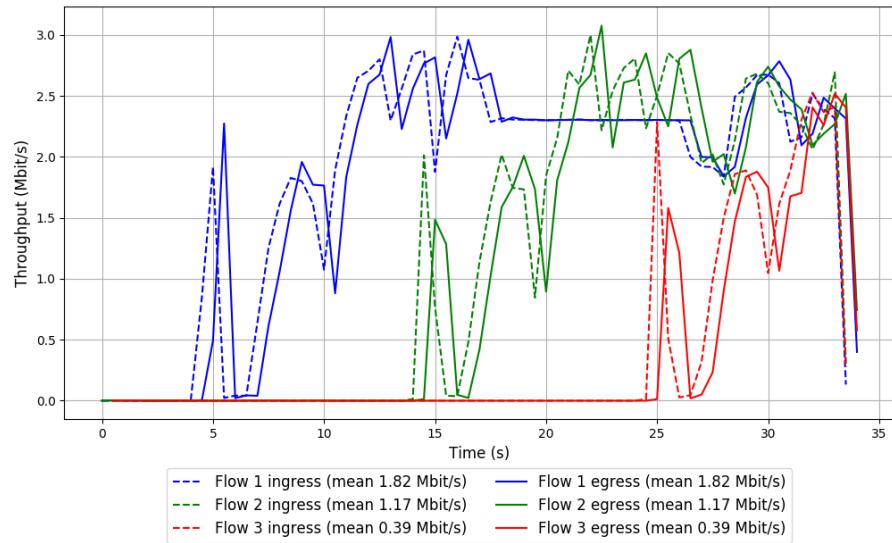


```
Run 1: Statistics of WebRTC media

Start at: 2018-09-06 09:27:55
End at: 2018-09-06 09:28:25
Local clock offset: 1.631 ms
Remote clock offset: -31.79 ms

# Below is generated by plot.py at 2018-09-06 12:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 66.577 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 66.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 67.181 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 66.283 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

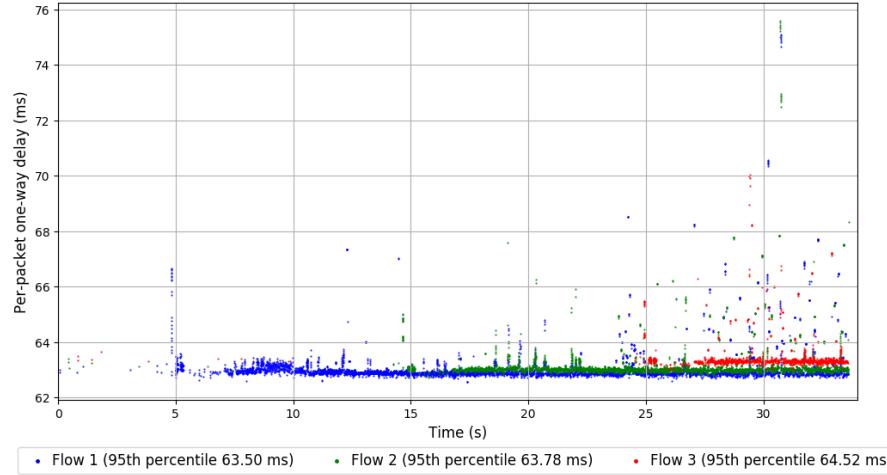
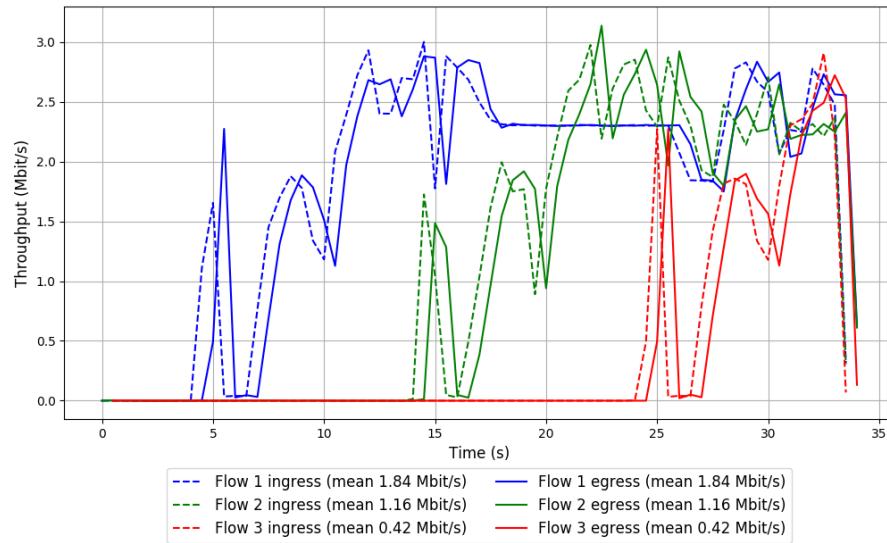


Run 2: Statistics of WebRTC media

```
Start at: 2018-09-06 10:26:32
End at: 2018-09-06 10:27:02
Local clock offset: 0.784 ms
Remote clock offset: -33.821 ms

# Below is generated by plot.py at 2018-09-06 12:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 63.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 63.503 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 63.781 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 64.521 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

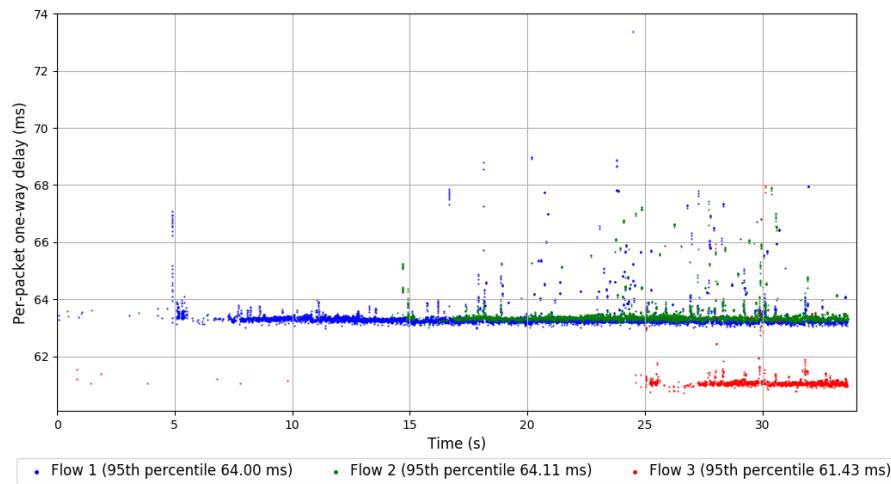
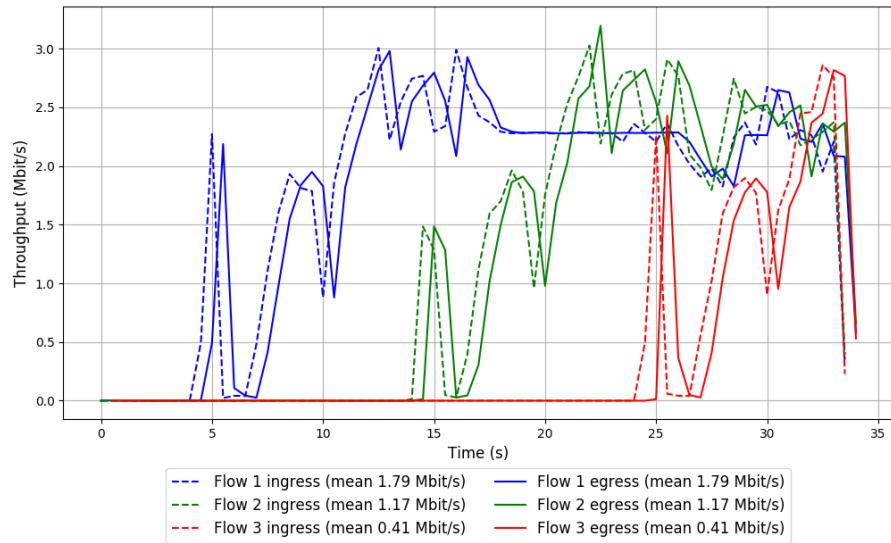


```
Run 3: Statistics of WebRTC media

Start at: 2018-09-06 11:03:57
End at: 2018-09-06 11:04:27
Local clock offset: -0.326 ms
Remote clock offset: -34.01 ms

# Below is generated by plot.py at 2018-09-06 12:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 63.895 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 63.998 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 64.109 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 61.432 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

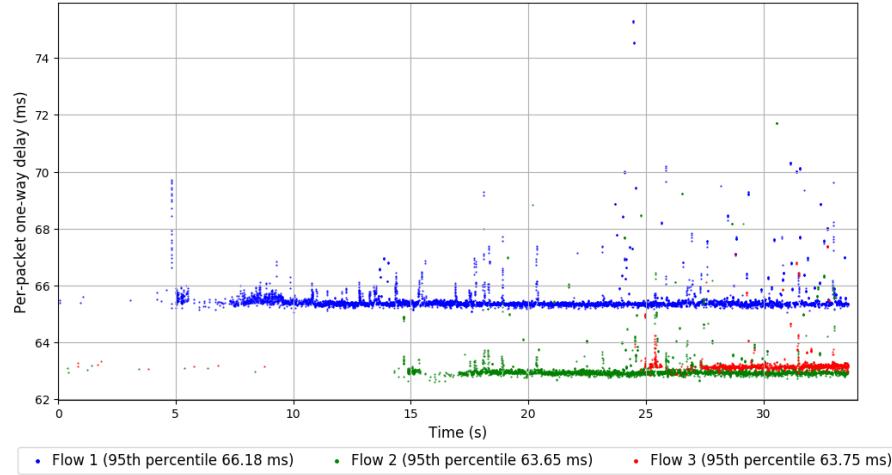
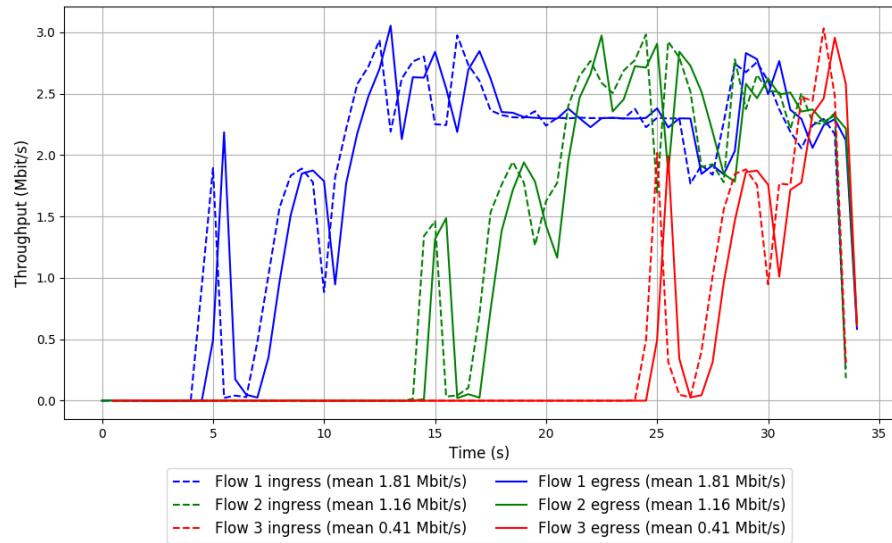


Run 4: Statistics of WebRTC media

```
Start at: 2018-09-06 11:29:58
End at: 2018-09-06 11:30:28
Local clock offset: 0.965 ms
Remote clock offset: -32.028 ms

# Below is generated by plot.py at 2018-09-06 12:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 65.804 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 66.183 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 63.652 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 63.749 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-09-06 11:55:53
End at: 2018-09-06 11:56:23
Local clock offset: -1.353 ms
Remote clock offset: -30.245 ms

# Below is generated by plot.py at 2018-09-06 12:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 69.298 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 69.027 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 69.591 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 66.615 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

