

Pantheon Report

Generated at 2018-09-06 11:11:01 (UTC).
Data path: AWS Korea on `ens5` (*local*) → China on `eno1` (*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 `ntp.nict.jp` and have been applied to correct the timestamps in logs.

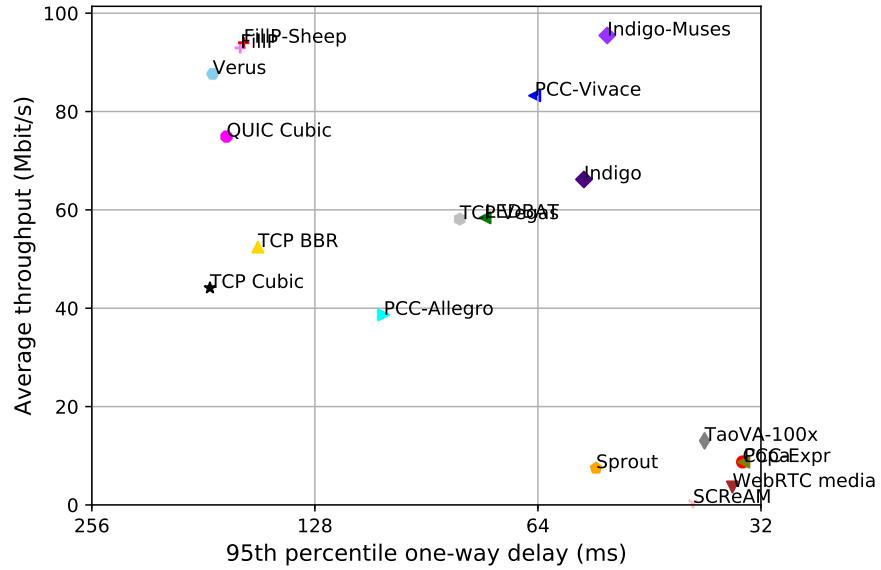
System info:

```
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
```

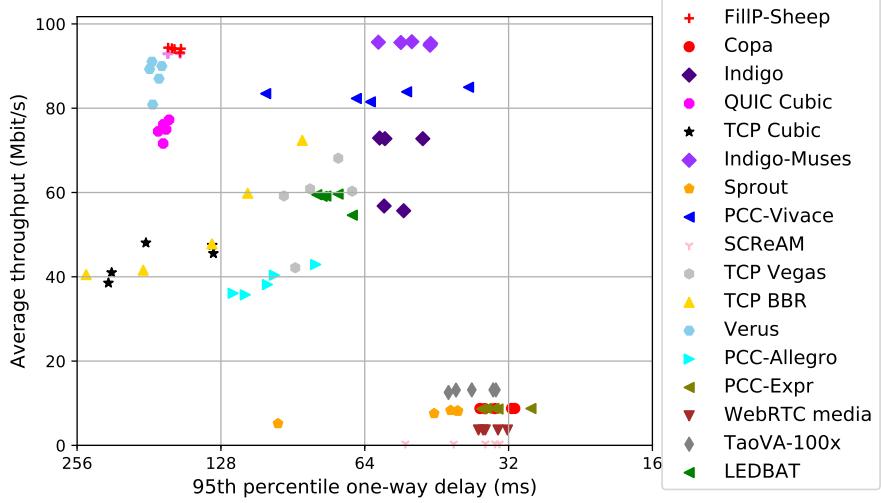
Git summary:

```
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 Korea to China, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Korea to China, 5 runs of 30s each per scheme
3 flows with 10s interval between flows



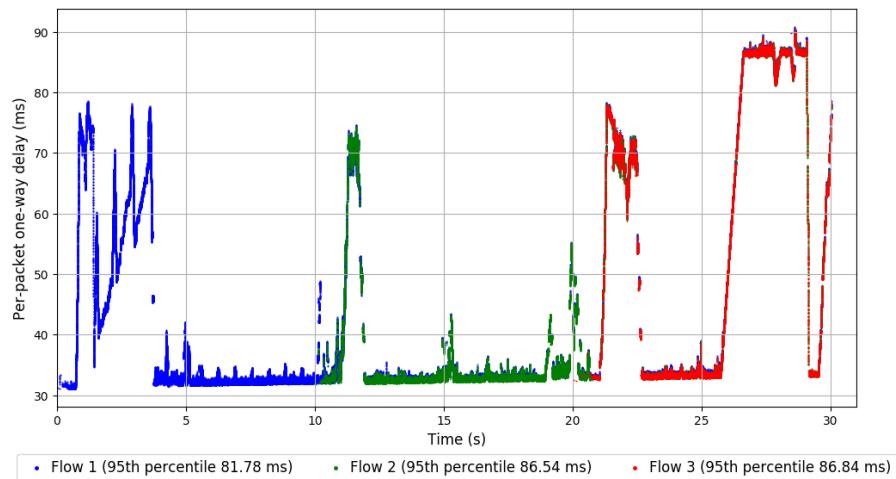
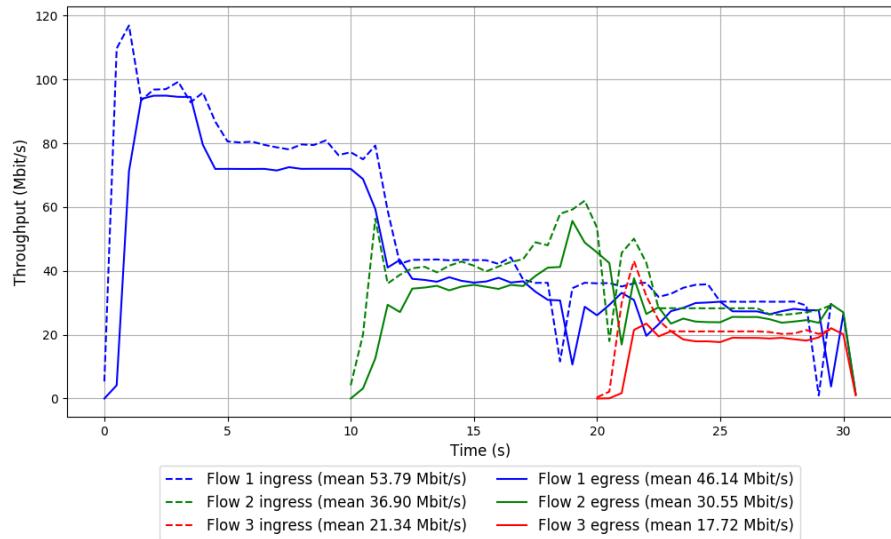
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	37.05	18.45	9.29	133.71	155.49	138.71	13.49	15.27	13.30
Copa	5	0.00	10.93	4.43	30.41	34.95	32.63	98.12	62.39	69.53
TCP Cubic	5	34.32	11.17	7.13	166.31	228.50	186.23	1.36	1.52	1.46
FillP	5	56.32	44.25	21.96	161.28	161.44	161.62	17.36	26.15	16.61
FillP-Sheep	5	55.26	37.45	41.96	159.25	159.62	160.26	7.41	14.94	32.02
Indigo	5	47.41	18.86	19.87	53.27	56.12	58.91	9.28	17.02	17.51
LEDBAT	5	39.86	23.74	8.18	74.81	75.87	77.00	0.02	0.02	0.00
Indigo-Muses	5	61.26	39.55	24.21	48.69	52.74	62.97	0.11	0.00	0.00
PCC-Allegro	5	56.09	23.55	16.84	99.78	106.02	113.98	18.18	38.76	64.63
PCC-Expr	5	0.02	10.94	4.36	35.29	33.76	33.69	85.71	48.47	44.34
QUIC Cubic	5	45.85	35.11	18.00	167.67	168.52	166.02	0.39	0.25	0.72
SCReAM	5	0.21	0.22	0.22	39.70	41.44	36.61	0.00	0.00	0.00
Sprout	5	0.00	7.84	6.88	32.20	53.49	52.89	66.89	0.00	0.00
TaoVA-100x	5	6.43	8.24	3.35	40.40	38.21	36.58	56.71	60.08	47.55
TCP Vegas	5	38.86	20.28	17.36	71.90	103.69	72.33	0.92	0.62	0.58
Verus	5	53.45	42.08	19.92	175.26	177.10	178.38	12.81	20.96	26.56
PCC-Vivace	5	64.36	22.48	11.87	51.17	72.81	73.75	0.00	0.01	0.02
WebRTC media	5	1.94	1.28	0.44	34.84	35.00	35.07	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2018-09-06 09:10:16
End at: 2018-09-06 09:10:46
Local clock offset: -1.605 ms
Remote clock offset: -22.279 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.39 Mbit/s
95th percentile per-packet one-way delay: 86.499 ms
Loss rate: 15.29%
-- Flow 1:
Average throughput: 46.14 Mbit/s
95th percentile per-packet one-way delay: 81.776 ms
Loss rate: 14.21%
-- Flow 2:
Average throughput: 30.55 Mbit/s
95th percentile per-packet one-way delay: 86.540 ms
Loss rate: 17.18%
-- Flow 3:
Average throughput: 17.72 Mbit/s
95th percentile per-packet one-way delay: 86.843 ms
Loss rate: 16.95%
```

Run 1: Report of TCP BBR — Data Link

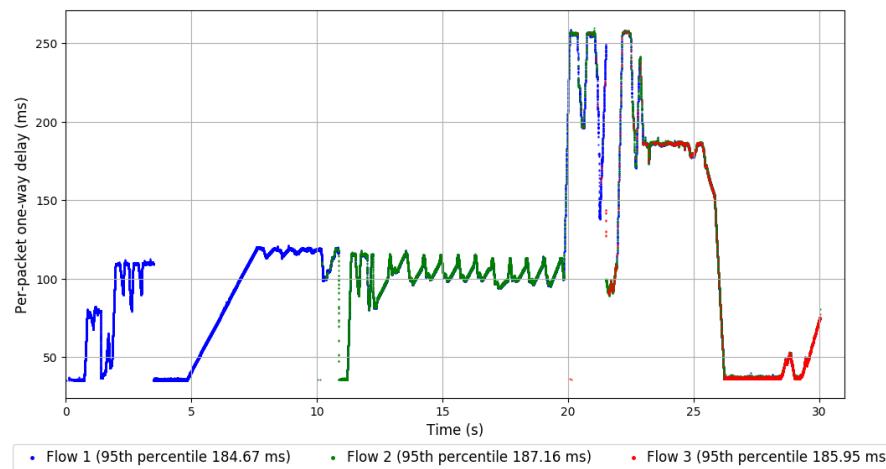
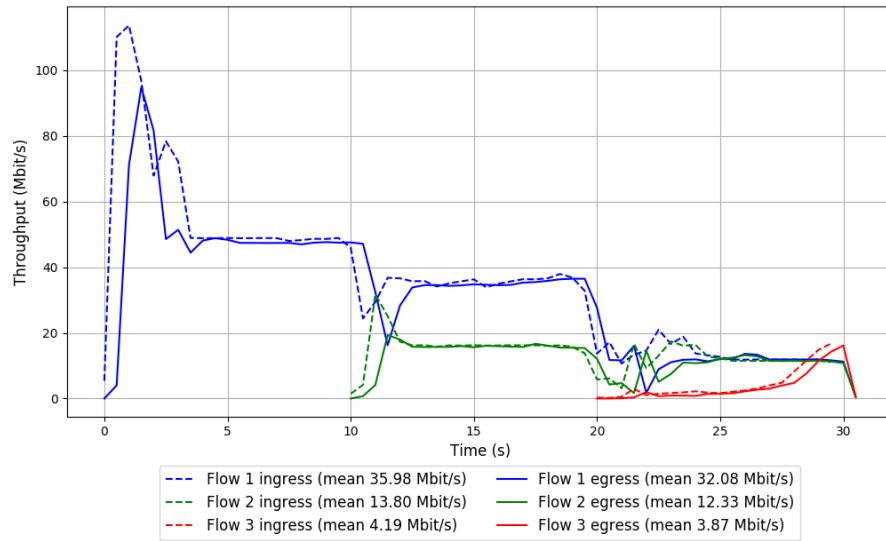


Run 2: Statistics of TCP BBR

```
Start at: 2018-09-06 09:33:21
End at: 2018-09-06 09:33:51
Local clock offset: 3.753 ms
Remote clock offset: -76.673 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.58 Mbit/s
95th percentile per-packet one-way delay: 186.118 ms
Loss rate: 10.69%
-- Flow 1:
Average throughput: 32.08 Mbit/s
95th percentile per-packet one-way delay: 184.674 ms
Loss rate: 10.83%
-- Flow 2:
Average throughput: 12.33 Mbit/s
95th percentile per-packet one-way delay: 187.164 ms
Loss rate: 10.63%
-- Flow 3:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 185.950 ms
Loss rate: 7.56%
```

Run 2: Report of TCP BBR — Data Link

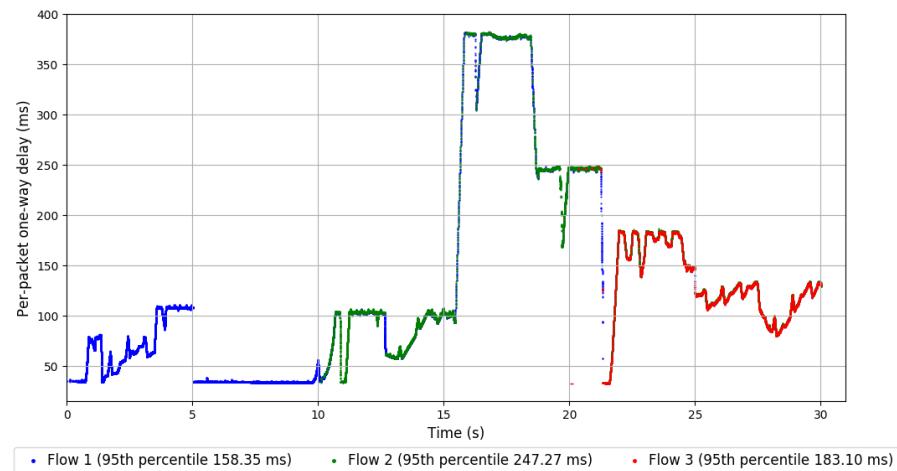
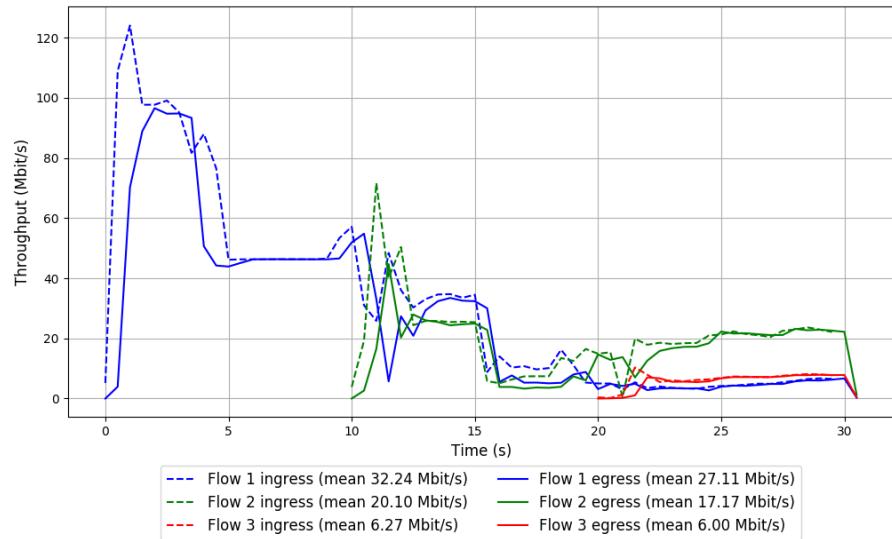


Run 3: Statistics of TCP BBR

```
Start at: 2018-09-06 09:56:17
End at: 2018-09-06 09:56:47
Local clock offset: 0.162 ms
Remote clock offset: -99.674 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.53 Mbit/s
95th percentile per-packet one-way delay: 245.062 ms
Loss rate: 15.04%
-- Flow 1:
Average throughput: 27.11 Mbit/s
95th percentile per-packet one-way delay: 158.350 ms
Loss rate: 15.92%
-- Flow 2:
Average throughput: 17.17 Mbit/s
95th percentile per-packet one-way delay: 247.274 ms
Loss rate: 14.59%
-- Flow 3:
Average throughput: 6.00 Mbit/s
95th percentile per-packet one-way delay: 183.101 ms
Loss rate: 4.36%
```

Run 3: Report of TCP BBR — Data Link

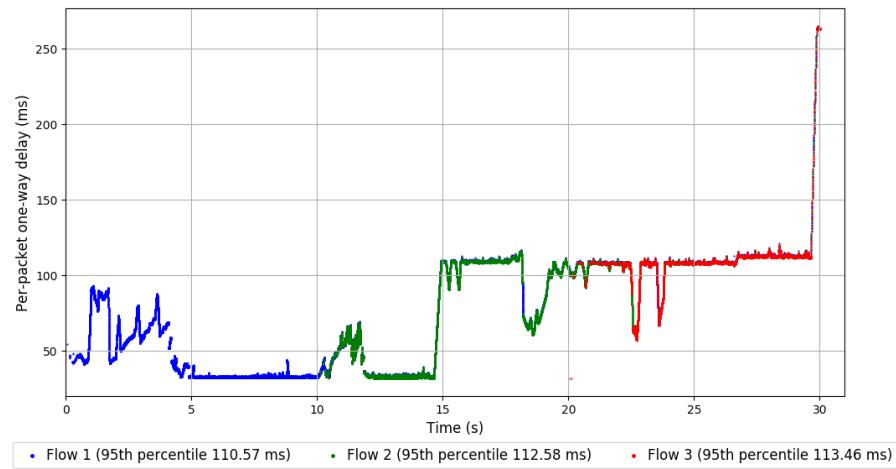
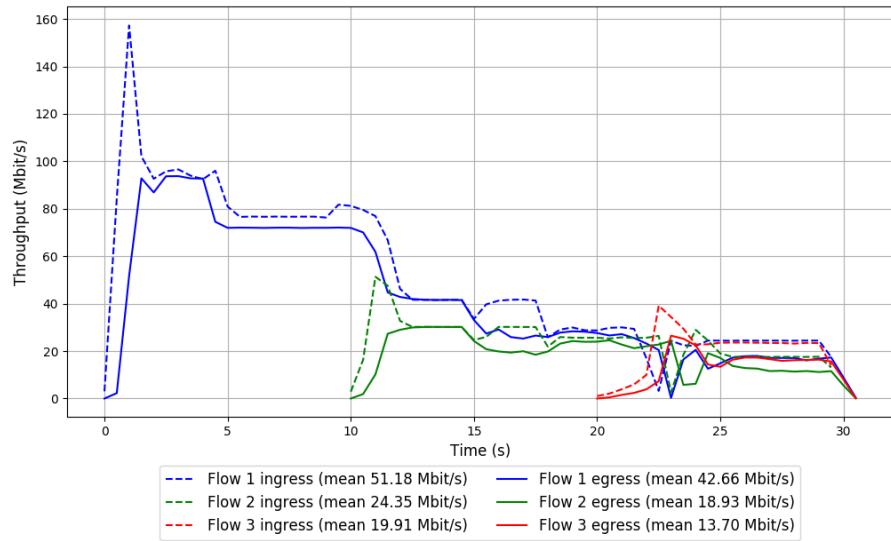


Run 4: Statistics of TCP BBR

```
Start at: 2018-09-06 10:19:17
End at: 2018-09-06 10:19:47
Local clock offset: -0.845 ms
Remote clock offset: -71.455 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.84 Mbit/s
95th percentile per-packet one-way delay: 112.524 ms
Loss rate: 19.22%
-- Flow 1:
Average throughput: 42.66 Mbit/s
95th percentile per-packet one-way delay: 110.573 ms
Loss rate: 16.71%
-- Flow 2:
Average throughput: 18.93 Mbit/s
95th percentile per-packet one-way delay: 112.580 ms
Loss rate: 22.28%
-- Flow 3:
Average throughput: 13.70 Mbit/s
95th percentile per-packet one-way delay: 113.459 ms
Loss rate: 31.07%
```

Run 4: Report of TCP BBR — Data Link

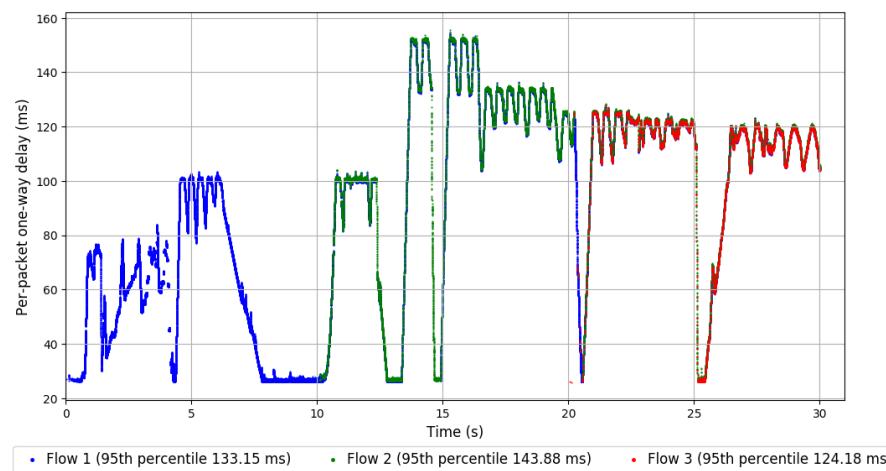
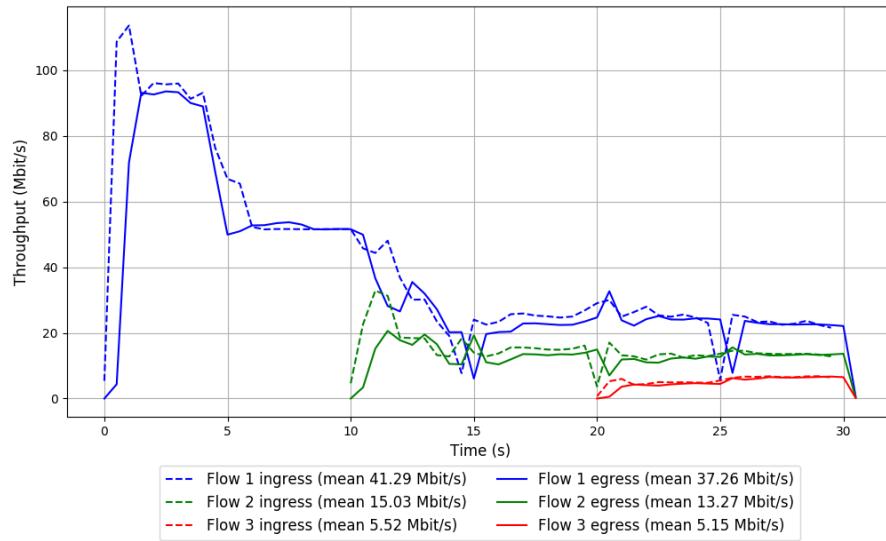


Run 5: Statistics of TCP BBR

```
Start at: 2018-09-06 10:42:19
End at: 2018-09-06 10:42:49
Local clock offset: 2.106 ms
Remote clock offset: -63.576 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.81 Mbit/s
95th percentile per-packet one-way delay: 133.688 ms
Loss rate: 10.02%
-- Flow 1:
Average throughput: 37.26 Mbit/s
95th percentile per-packet one-way delay: 133.153 ms
Loss rate: 9.76%
-- Flow 2:
Average throughput: 13.27 Mbit/s
95th percentile per-packet one-way delay: 143.878 ms
Loss rate: 11.69%
-- Flow 3:
Average throughput: 5.15 Mbit/s
95th percentile per-packet one-way delay: 124.183 ms
Loss rate: 6.57%
```

Run 5: Report of TCP BBR — Data Link

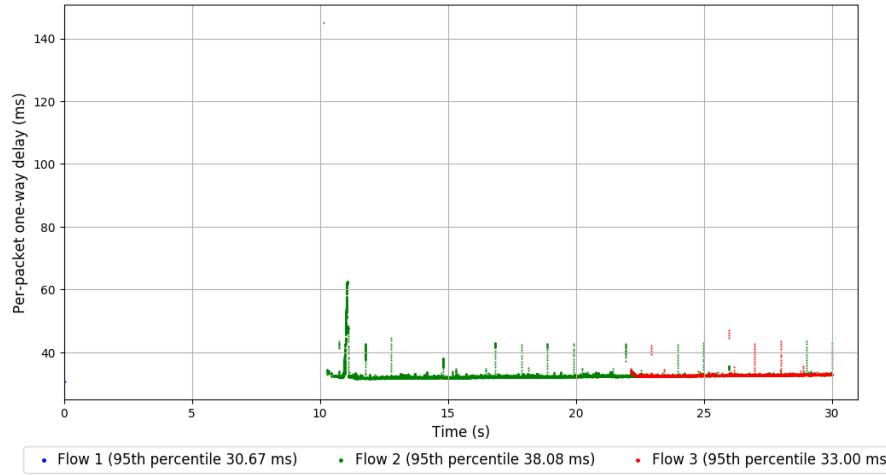
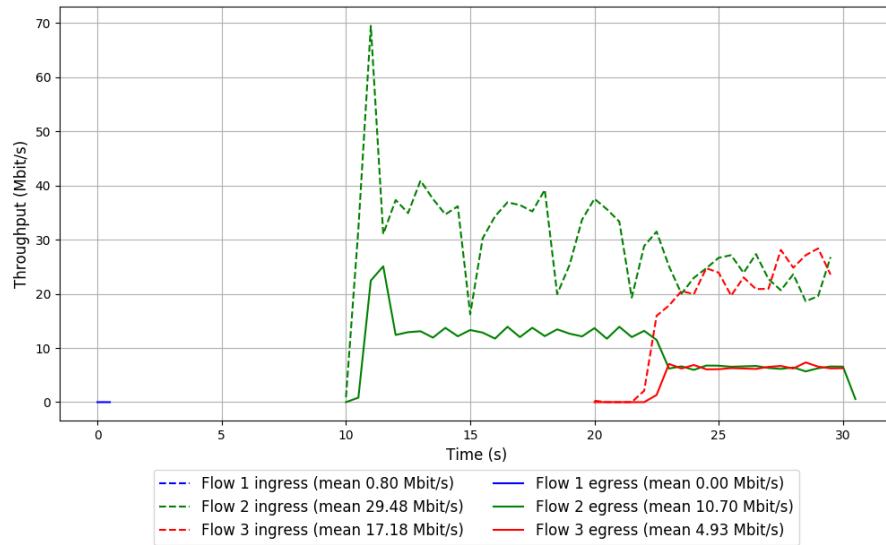


Run 1: Statistics of Copa

```
Start at: 2018-09-06 09:11:35
End at: 2018-09-06 09:12:05
Local clock offset: -1.783 ms
Remote clock offset: -28.602 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.72 Mbit/s
95th percentile per-packet one-way delay: 35.883 ms
Loss rate: 65.59%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 30.666 ms
Loss rate: 98.65%
-- Flow 2:
Average throughput: 10.70 Mbit/s
95th percentile per-packet one-way delay: 38.079 ms
Loss rate: 63.92%
-- Flow 3:
Average throughput: 4.93 Mbit/s
95th percentile per-packet one-way delay: 33.003 ms
Loss rate: 71.32%
```

Run 1: Report of Copa — Data Link

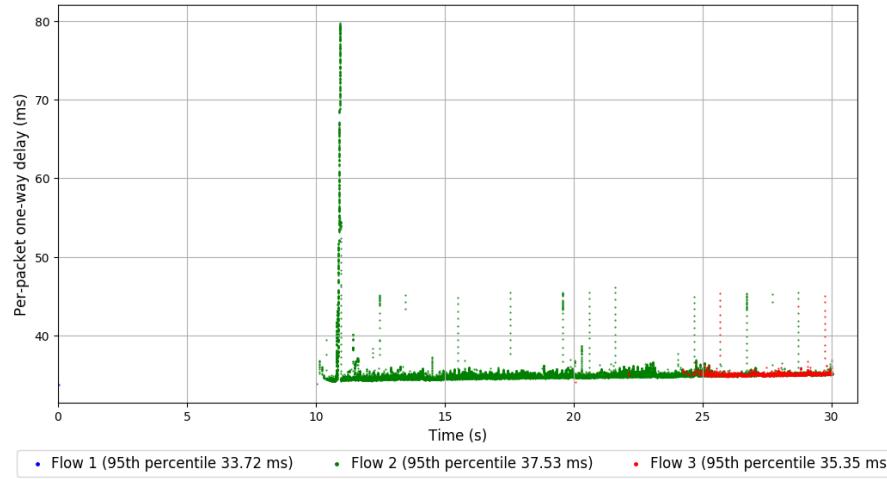
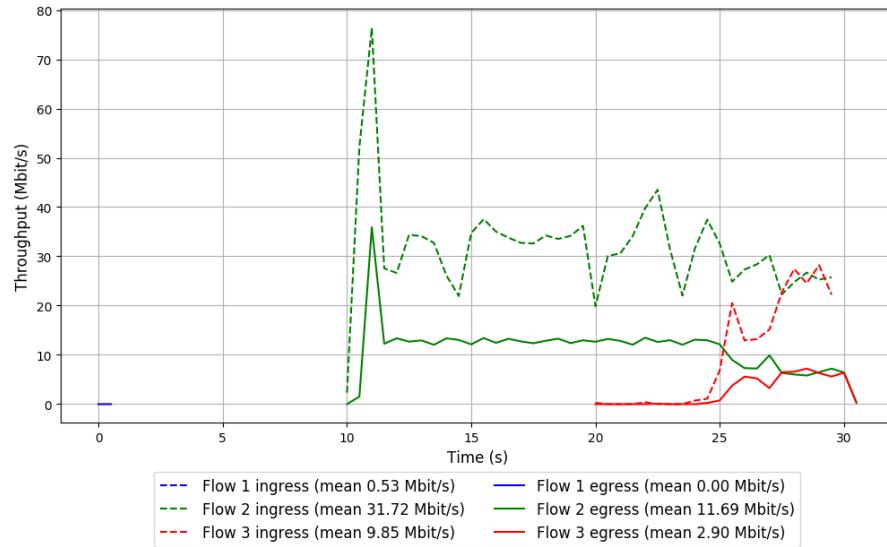


Run 2: Statistics of Copa

```
Start at: 2018-09-06 09:34:36
End at: 2018-09-06 09:35:06
Local clock offset: 4.061 ms
Remote clock offset: -81.09 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 36.733 ms
Loss rate: 64.13%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 33.719 ms
Loss rate: 97.99%
-- Flow 2:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 37.535 ms
Loss rate: 63.14%
-- Flow 3:
Average throughput: 2.90 Mbit/s
95th percentile per-packet one-way delay: 35.354 ms
Loss rate: 70.52%
```

Run 2: Report of Copa — Data Link

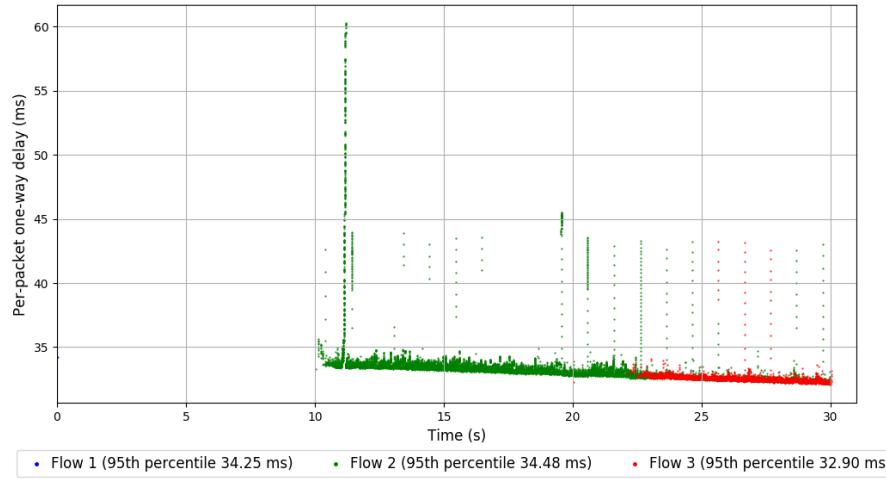
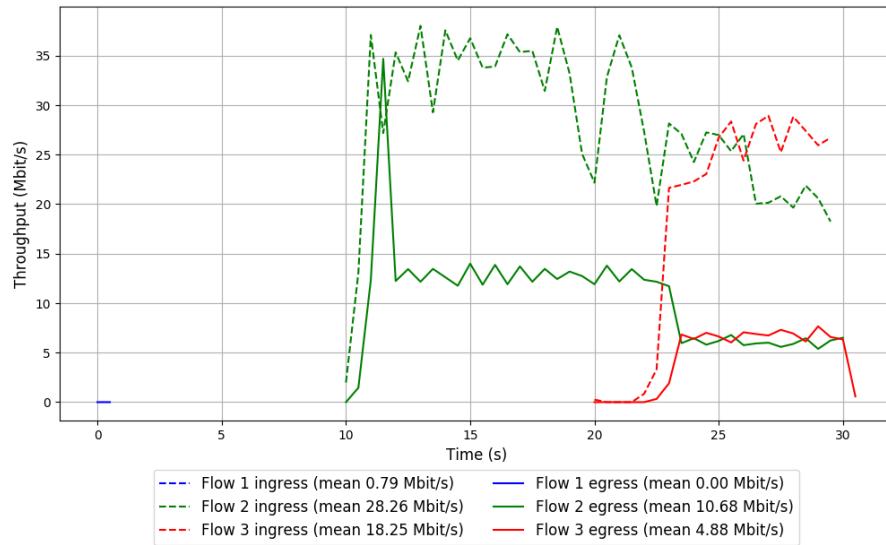


Run 3: Statistics of Copa

```
Start at: 2018-09-06 09:57:32
End at: 2018-09-06 09:58:02
Local clock offset: -0.303 ms
Remote clock offset: -94.858 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.72 Mbit/s
95th percentile per-packet one-way delay: 34.186 ms
Loss rate: 64.91%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 34.247 ms
Loss rate: 98.65%
-- Flow 2:
Average throughput: 10.68 Mbit/s
95th percentile per-packet one-way delay: 34.479 ms
Loss rate: 62.21%
-- Flow 3:
Average throughput: 4.88 Mbit/s
95th percentile per-packet one-way delay: 32.903 ms
Loss rate: 73.27%
```

Run 3: Report of Copa — Data Link

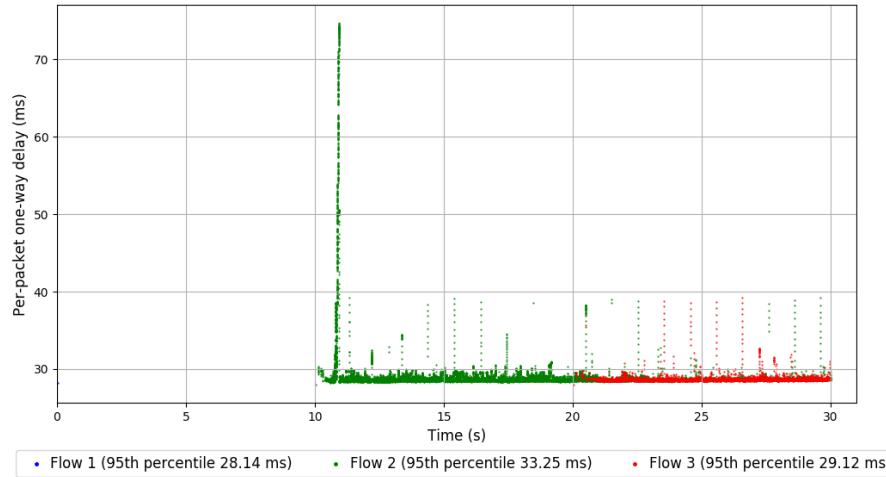
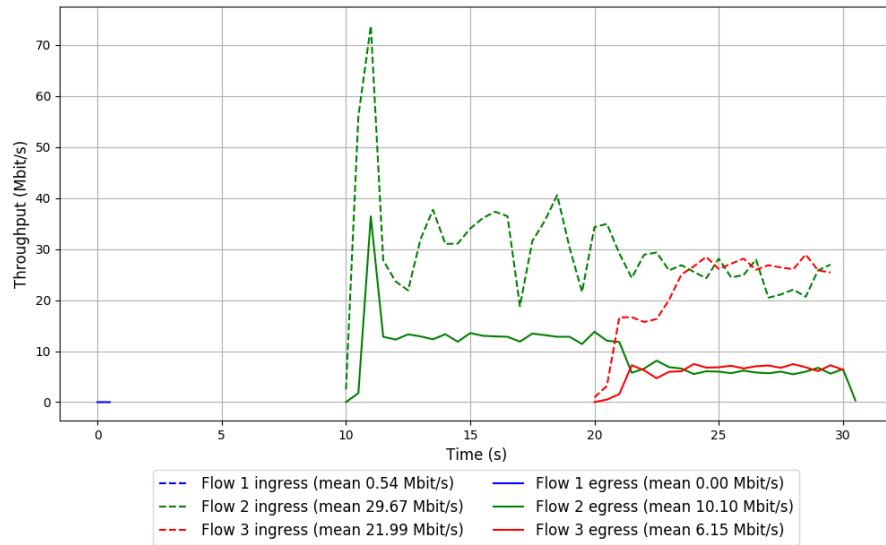


Run 4: Statistics of Copa

```
Start at: 2018-09-06 10:20:35
End at: 2018-09-06 10:21:05
Local clock offset: -0.344 ms
Remote clock offset: -75.873 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.76 Mbit/s
95th percentile per-packet one-way delay: 31.066 ms
Loss rate: 67.60%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 28.137 ms
Loss rate: 97.99%
-- Flow 2:
Average throughput: 10.10 Mbit/s
95th percentile per-packet one-way delay: 33.254 ms
Loss rate: 65.96%
-- Flow 3:
Average throughput: 6.15 Mbit/s
95th percentile per-packet one-way delay: 29.125 ms
Loss rate: 72.05%
```

Run 4: Report of Copa — Data Link

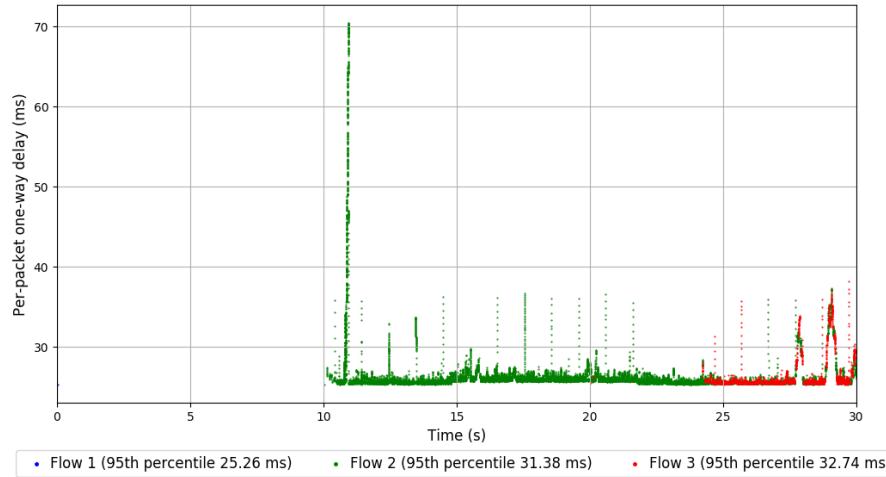
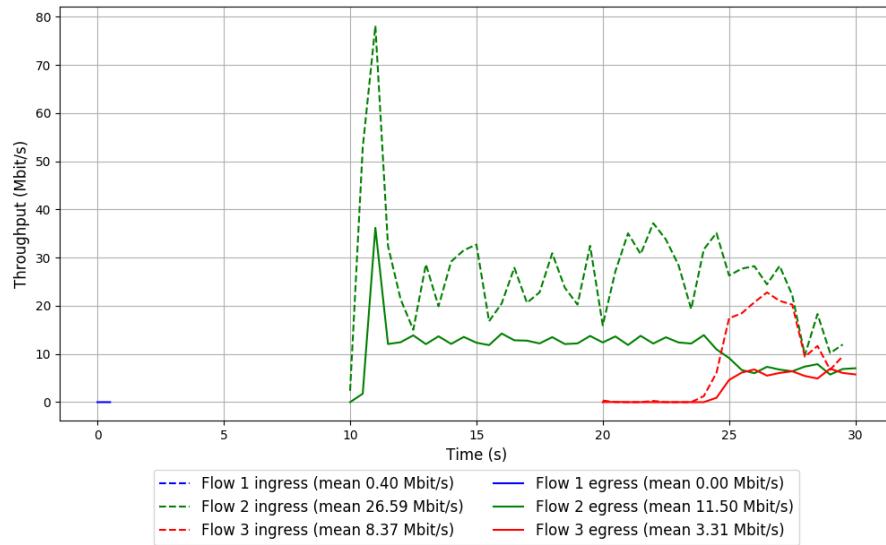


Run 5: Statistics of Copa

```
Start at: 2018-09-06 10:43:35
End at: 2018-09-06 10:44:05
Local clock offset: 2.159 ms
Remote clock offset: -64.344 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 31.550 ms
Loss rate: 57.25%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 25.262 ms
Loss rate: 97.34%
-- Flow 2:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 31.384 ms
Loss rate: 56.74%
-- Flow 3:
Average throughput: 3.31 Mbit/s
95th percentile per-packet one-way delay: 32.742 ms
Loss rate: 60.50%
```

Run 5: Report of Copa — Data Link

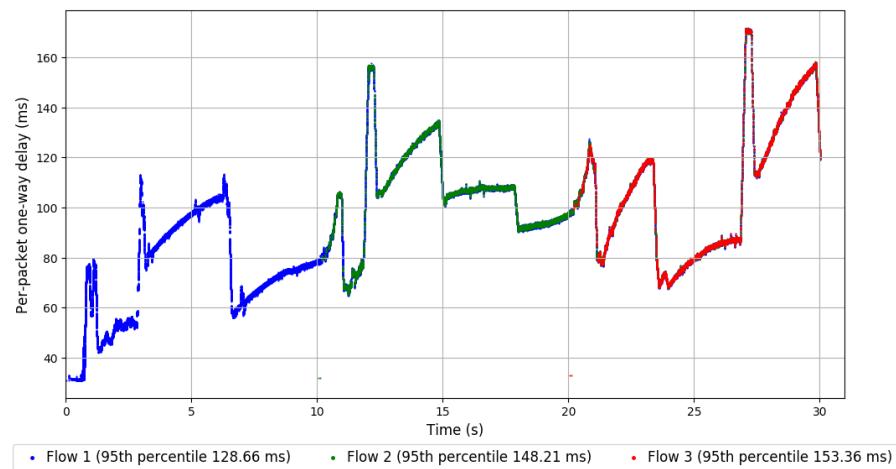
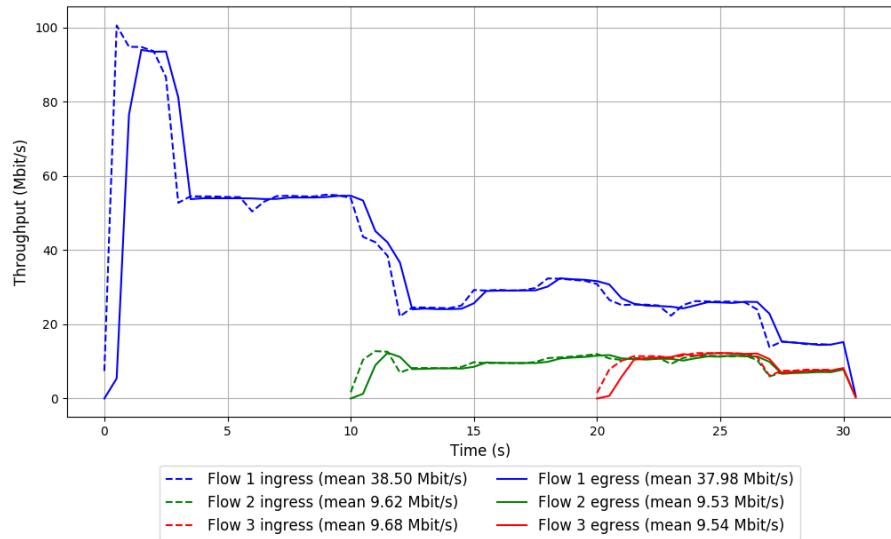


```
Run 1: Statistics of TCP Cubic

Start at: 2018-09-06 09:07:44
End at: 2018-09-06 09:08:14
Local clock offset: -1.266 ms
Remote clock offset: -8.478 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.50 Mbit/s
95th percentile per-packet one-way delay: 133.498 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 37.98 Mbit/s
95th percentile per-packet one-way delay: 128.656 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 148.205 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 153.357 ms
Loss rate: 1.44%
```

Run 1: Report of TCP Cubic — Data Link

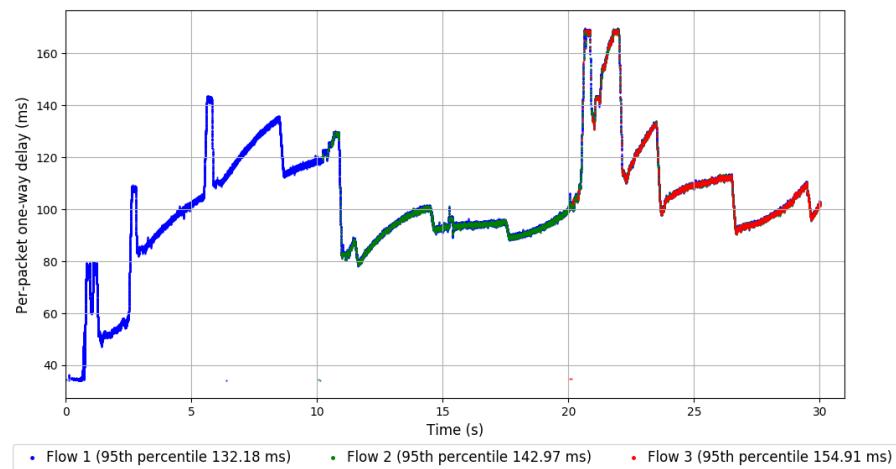
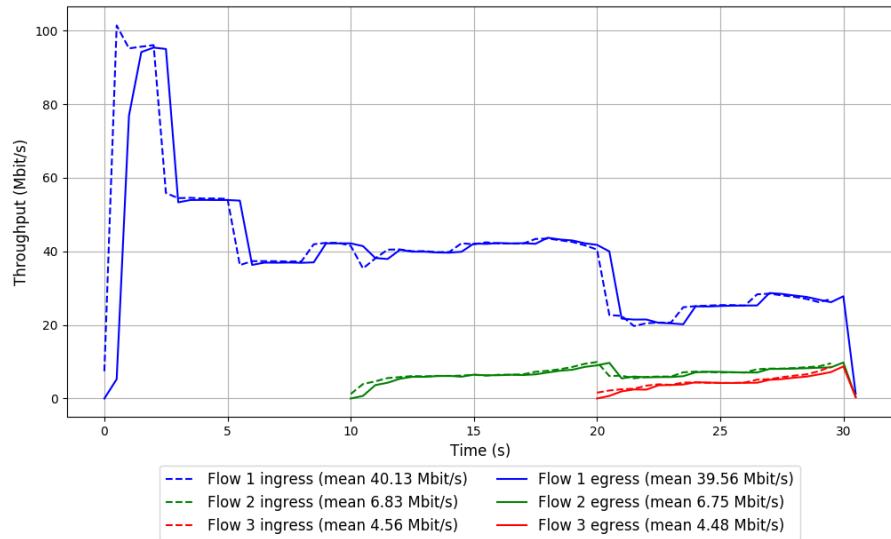


Run 2: Statistics of TCP Cubic

```
Start at: 2018-09-06 09:30:51
End at: 2018-09-06 09:31:21
Local clock offset: 3.326 ms
Remote clock offset: -72.632 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.54 Mbit/s
95th percentile per-packet one-way delay: 132.734 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 39.56 Mbit/s
95th percentile per-packet one-way delay: 132.179 ms
Loss rate: 1.41%
-- Flow 2:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 142.968 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 154.912 ms
Loss rate: 1.85%
```

Run 2: Report of TCP Cubic — Data Link

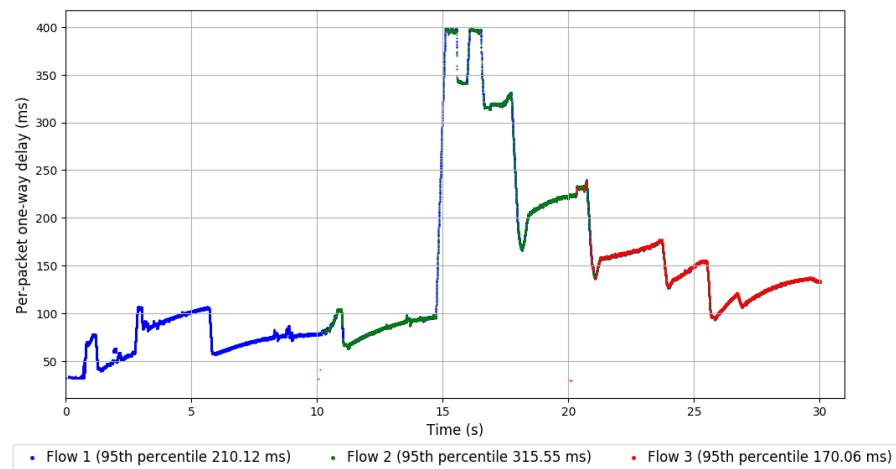
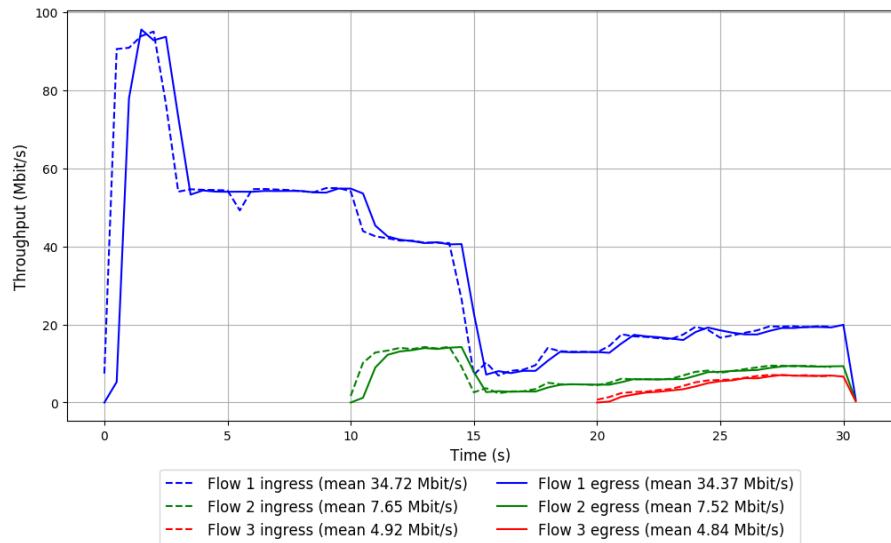


Run 3: Statistics of TCP Cubic

```
Start at: 2018-09-06 09:53:47
End at: 2018-09-06 09:54:17
Local clock offset: 0.747 ms
Remote clock offset: -116.569 ms

# Below is generated by plot.py at 2018-09-06 11:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 216.769 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 34.37 Mbit/s
95th percentile per-packet one-way delay: 210.125 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 315.546 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 170.064 ms
Loss rate: 1.78%
```

Run 3: Report of TCP Cubic — Data Link

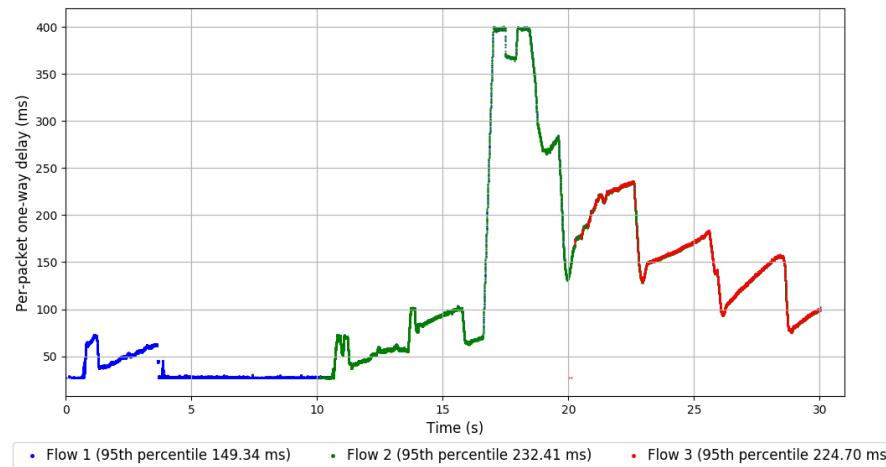
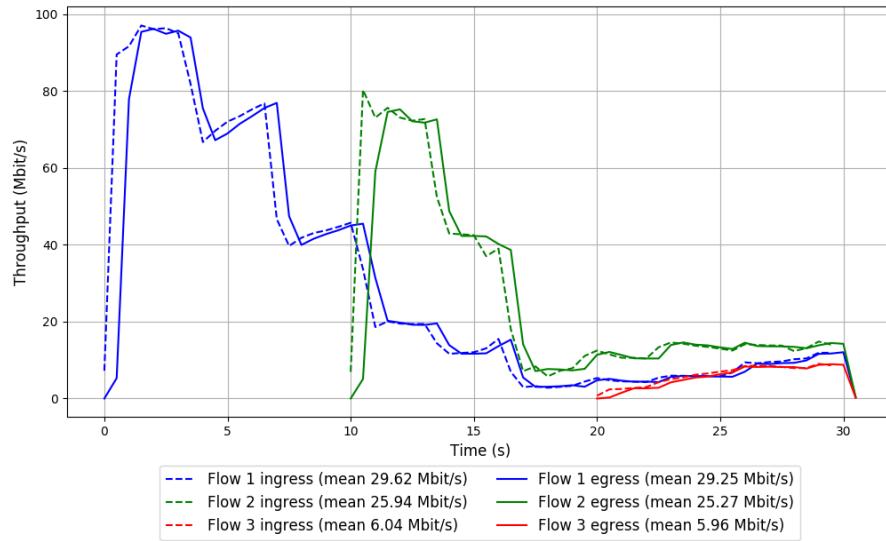


Run 4: Statistics of TCP Cubic

```
Start at: 2018-09-06 10:16:46
End at: 2018-09-06 10:17:16
Local clock offset: -1.88 ms
Remote clock offset: -76.548 ms

# Below is generated by plot.py at 2018-09-06 11:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.06 Mbit/s
95th percentile per-packet one-way delay: 183.725 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 29.25 Mbit/s
95th percentile per-packet one-way delay: 149.338 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 25.27 Mbit/s
95th percentile per-packet one-way delay: 232.407 ms
Loss rate: 2.58%
-- Flow 3:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 224.700 ms
Loss rate: 1.25%
```

Run 4: Report of TCP Cubic — Data Link

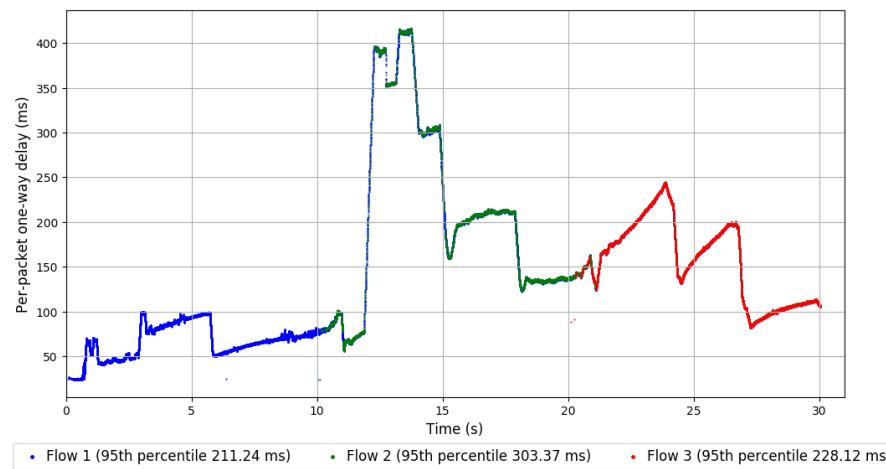
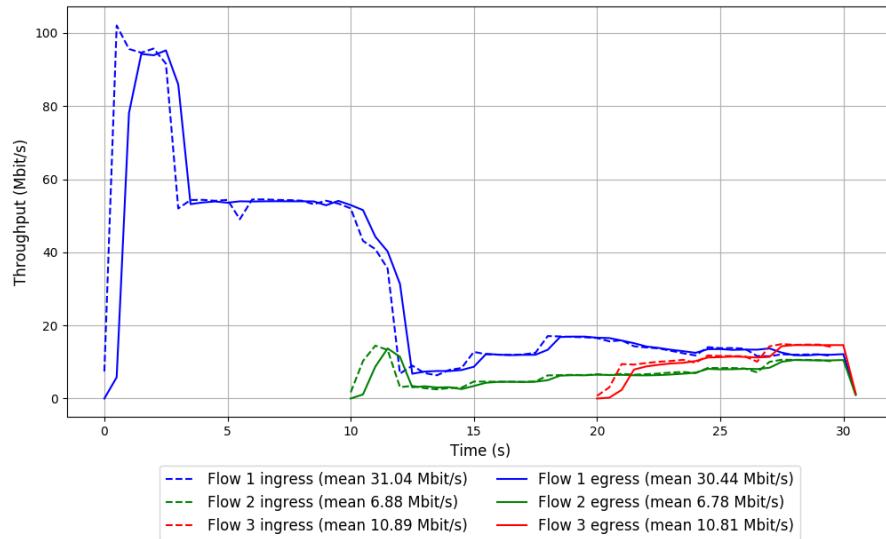


Run 5: Statistics of TCP Cubic

```
Start at: 2018-09-06 10:39:47
End at: 2018-09-06 10:40:17
Local clock offset: 1.927 ms
Remote clock offset: -66.426 ms

# Below is generated by plot.py at 2018-09-06 11:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 220.105 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 30.44 Mbit/s
95th percentile per-packet one-way delay: 211.235 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 6.78 Mbit/s
95th percentile per-packet one-way delay: 303.369 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 228.124 ms
Loss rate: 0.97%
```

Run 5: Report of TCP Cubic — Data Link

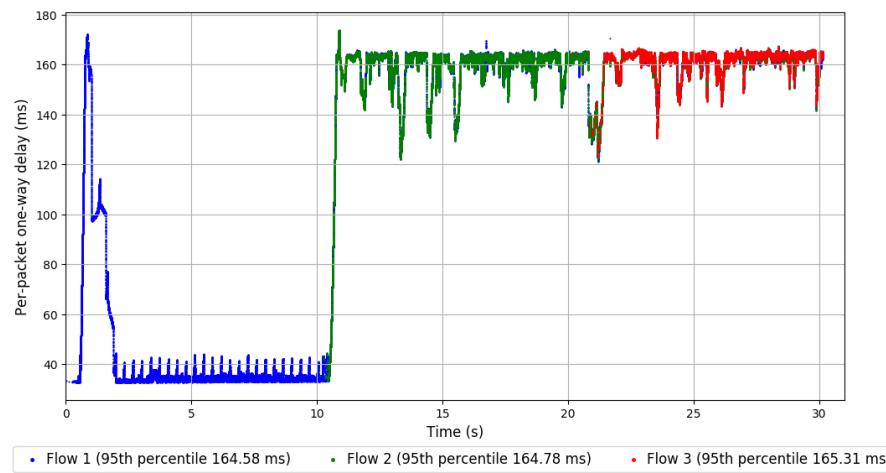
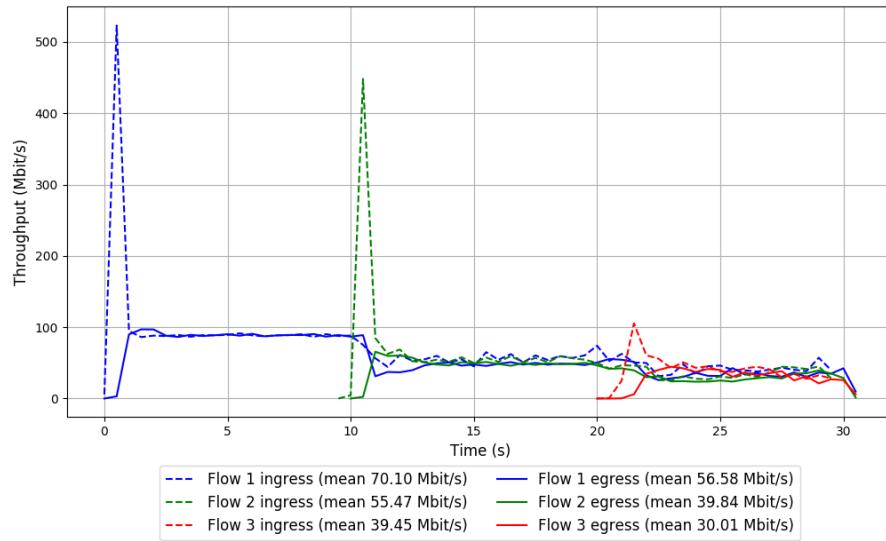


```
Run 1: Statistics of FillP

Start at: 2018-09-06 09:21:54
End at: 2018-09-06 09:22:24
Local clock offset: 1.307 ms
Remote clock offset: -54.356 ms

# Below is generated by plot.py at 2018-09-06 11:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.97 Mbit/s
95th percentile per-packet one-way delay: 164.774 ms
Loss rate: 22.28%
-- Flow 1:
Average throughput: 56.58 Mbit/s
95th percentile per-packet one-way delay: 164.583 ms
Loss rate: 18.93%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 164.781 ms
Loss rate: 28.05%
-- Flow 3:
Average throughput: 30.01 Mbit/s
95th percentile per-packet one-way delay: 165.311 ms
Loss rate: 23.95%
```

Run 1: Report of FillP — Data Link

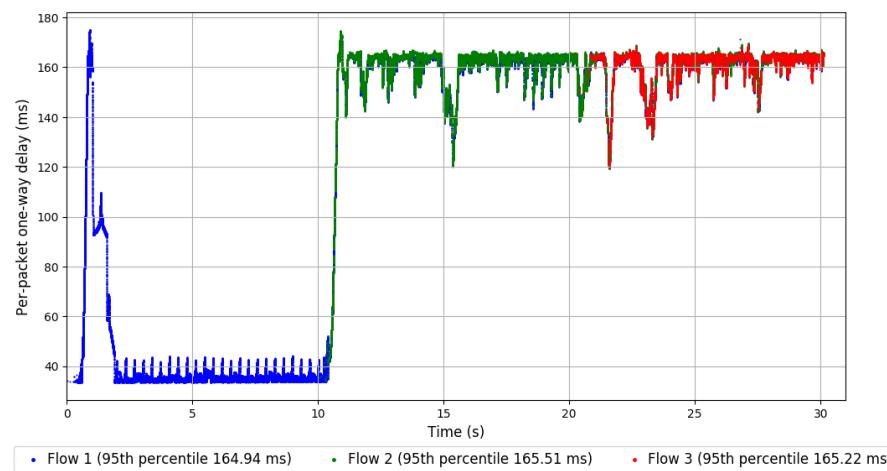
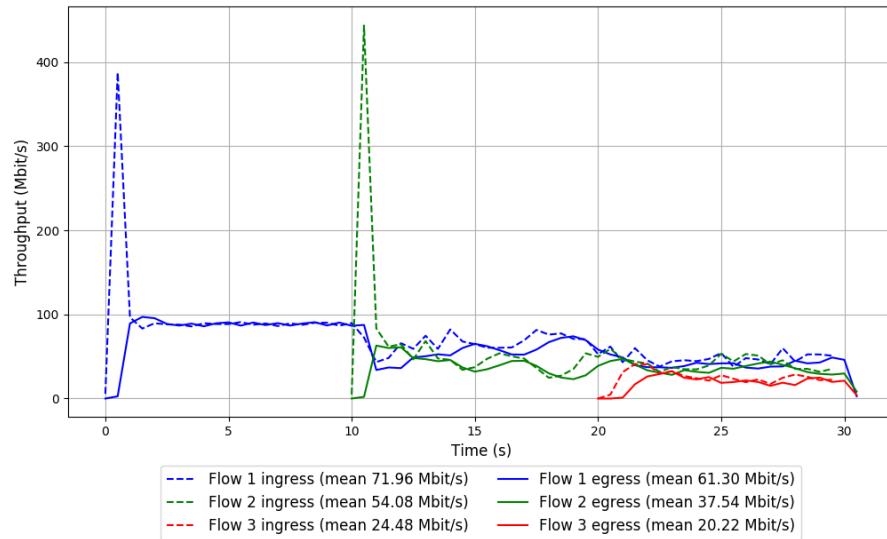


Run 2: Statistics of FillP

```
Start at: 2018-09-06 09:44:58
End at: 2018-09-06 09:45:28
Local clock offset: 4.845 ms
Remote clock offset: -102.164 ms

# Below is generated by plot.py at 2018-09-06 11:05:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 165.180 ms
Loss rate: 19.67%
-- Flow 1:
Average throughput: 61.30 Mbit/s
95th percentile per-packet one-way delay: 164.941 ms
Loss rate: 14.70%
-- Flow 2:
Average throughput: 37.54 Mbit/s
95th percentile per-packet one-way delay: 165.508 ms
Loss rate: 30.13%
-- Flow 3:
Average throughput: 20.22 Mbit/s
95th percentile per-packet one-way delay: 165.216 ms
Loss rate: 17.38%
```

Run 2: Report of FillP — Data Link

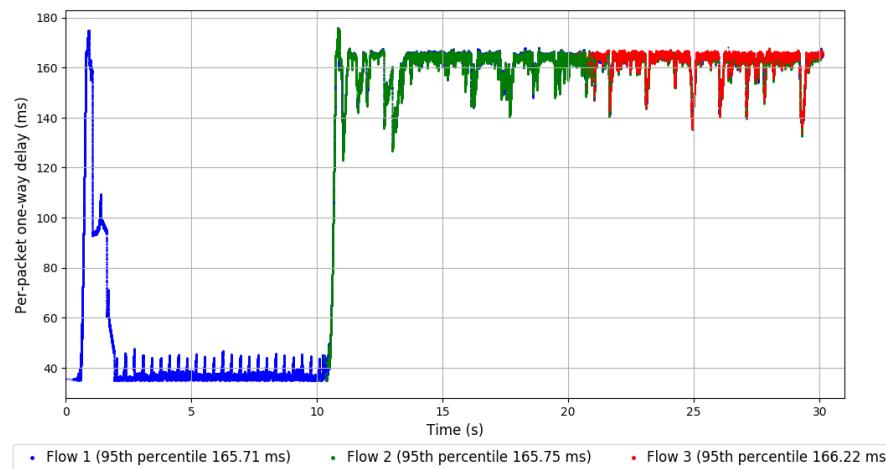
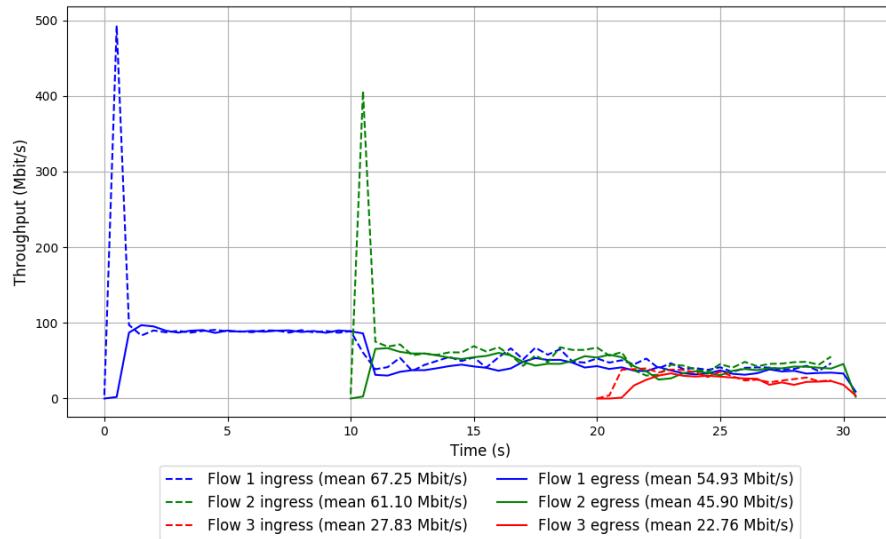


```
Run 3: Statistics of FillP
```

```
Start at: 2018-09-06 10:07:53
End at: 2018-09-06 10:08:23
Local clock offset: -1.76 ms
Remote clock offset: -70.381 ms

# Below is generated by plot.py at 2018-09-06 11:05:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.93 Mbit/s
95th percentile per-packet one-way delay: 165.813 ms
Loss rate: 20.34%
-- Flow 1:
Average throughput: 54.93 Mbit/s
95th percentile per-packet one-way delay: 165.712 ms
Loss rate: 17.96%
-- Flow 2:
Average throughput: 45.90 Mbit/s
95th percentile per-packet one-way delay: 165.747 ms
Loss rate: 24.75%
-- Flow 3:
Average throughput: 22.76 Mbit/s
95th percentile per-packet one-way delay: 166.219 ms
Loss rate: 18.21%
```

Run 3: Report of FillP — Data Link

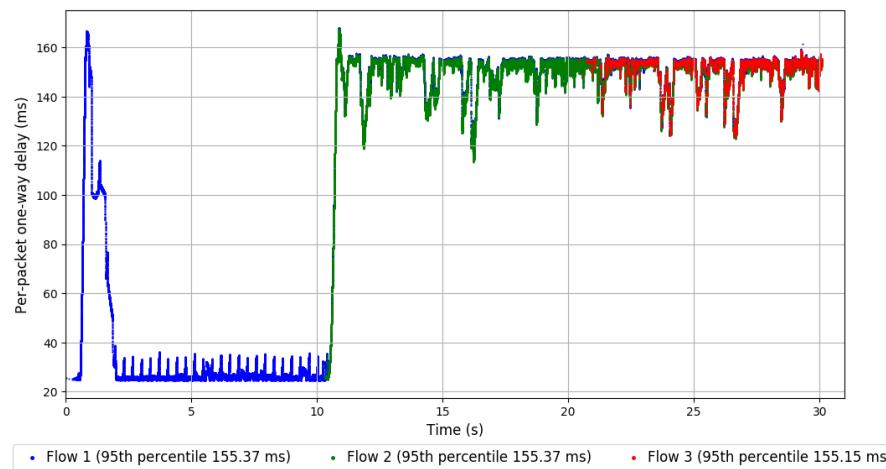
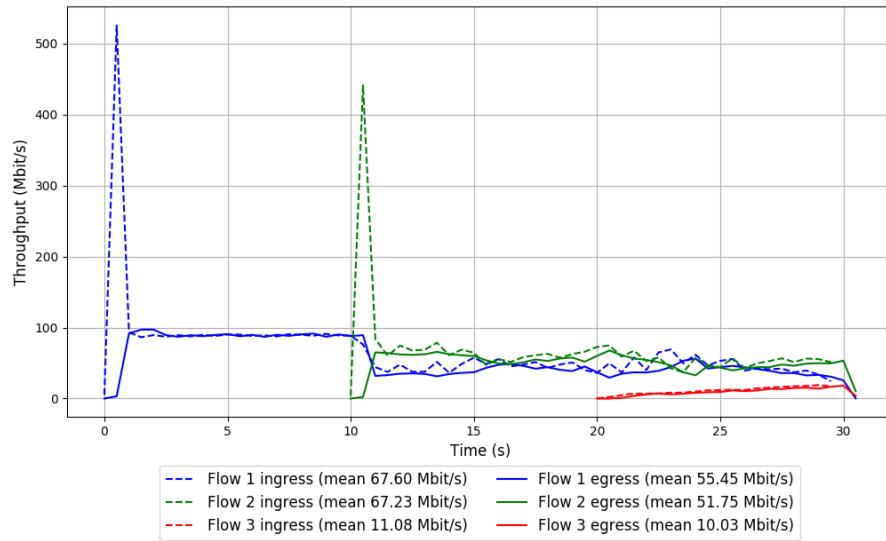


Run 4: Statistics of FillP

```
Start at: 2018-09-06 10:30:51
End at: 2018-09-06 10:31:21
Local clock offset: 1.548 ms
Remote clock offset: -73.852 ms

# Below is generated by plot.py at 2018-09-06 11:05:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.10 Mbit/s
95th percentile per-packet one-way delay: 155.363 ms
Loss rate: 19.41%
-- Flow 1:
Average throughput: 55.45 Mbit/s
95th percentile per-packet one-way delay: 155.373 ms
Loss rate: 17.88%
-- Flow 2:
Average throughput: 51.75 Mbit/s
95th percentile per-packet one-way delay: 155.368 ms
Loss rate: 22.55%
-- Flow 3:
Average throughput: 10.03 Mbit/s
95th percentile per-packet one-way delay: 155.150 ms
Loss rate: 9.40%
```

Run 4: Report of FillP — Data Link

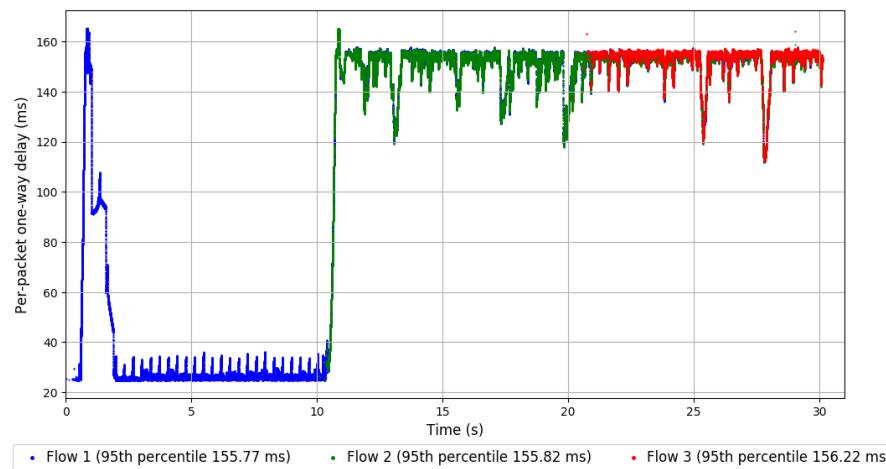
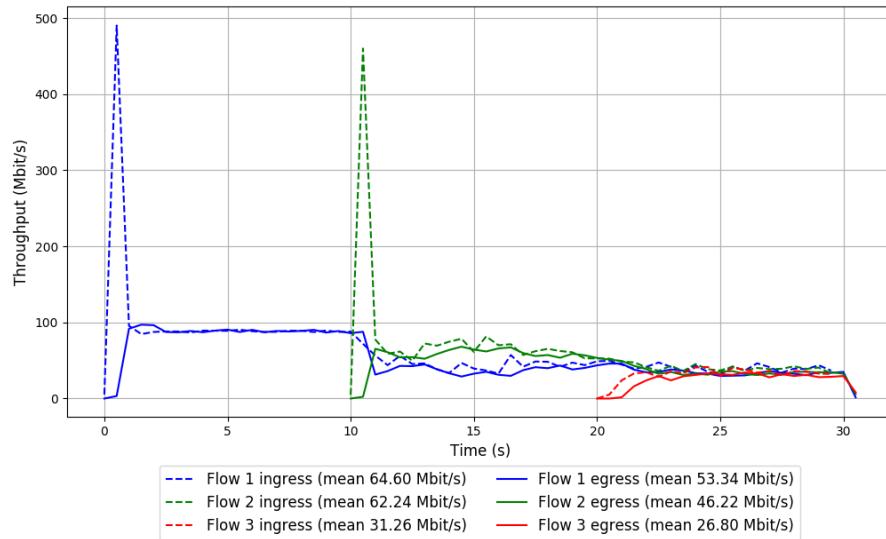


```
Run 5: Statistics of FillP
```

```
Start at: 2018-09-06 10:53:44
End at: 2018-09-06 10:54:14
Local clock offset: 3.645 ms
Remote clock offset: -64.086 ms

# Below is generated by plot.py at 2018-09-06 11:05:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.87 Mbit/s
95th percentile per-packet one-way delay: 155.888 ms
Loss rate: 19.86%
-- Flow 1:
Average throughput: 53.34 Mbit/s
95th percentile per-packet one-way delay: 155.773 ms
Loss rate: 17.32%
-- Flow 2:
Average throughput: 46.22 Mbit/s
95th percentile per-packet one-way delay: 155.819 ms
Loss rate: 25.26%
-- Flow 3:
Average throughput: 26.80 Mbit/s
95th percentile per-packet one-way delay: 156.217 ms
Loss rate: 14.12%
```

Run 5: Report of FillP — Data Link

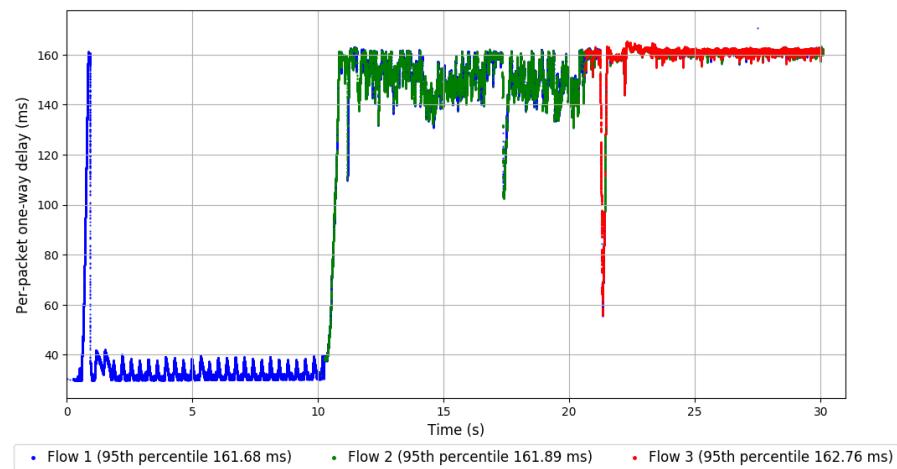
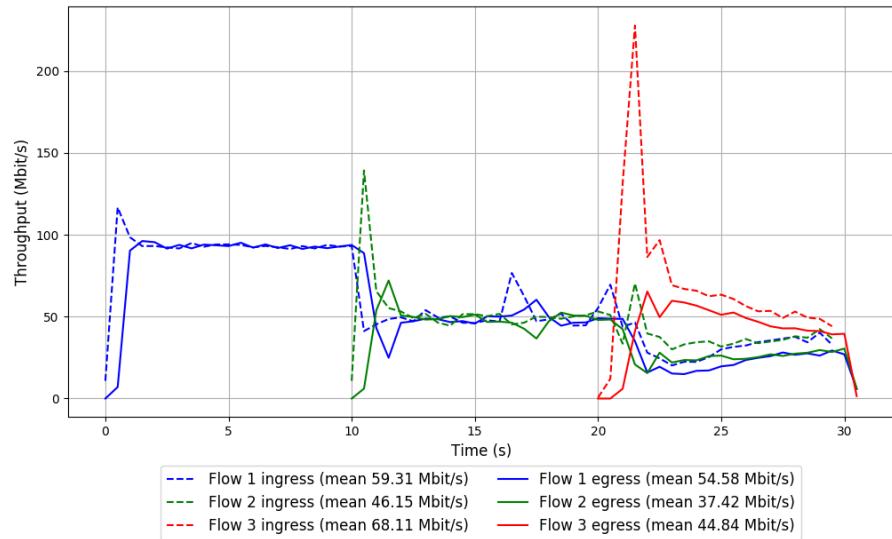


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2018-09-06 09:19:09
End at: 2018-09-06 09:19:39
Local clock offset: 0.147 ms
Remote clock offset: -50.95 ms

# Below is generated by plot.py at 2018-09-06 11:05:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.23 Mbit/s
95th percentile per-packet one-way delay: 162.087 ms
Loss rate: 15.95%
-- Flow 1:
Average throughput: 54.58 Mbit/s
95th percentile per-packet one-way delay: 161.679 ms
Loss rate: 7.58%
-- Flow 2:
Average throughput: 37.42 Mbit/s
95th percentile per-packet one-way delay: 161.894 ms
Loss rate: 18.40%
-- Flow 3:
Average throughput: 44.84 Mbit/s
95th percentile per-packet one-way delay: 162.763 ms
Loss rate: 34.61%
```

Run 1: Report of FillP-Sheep — Data Link

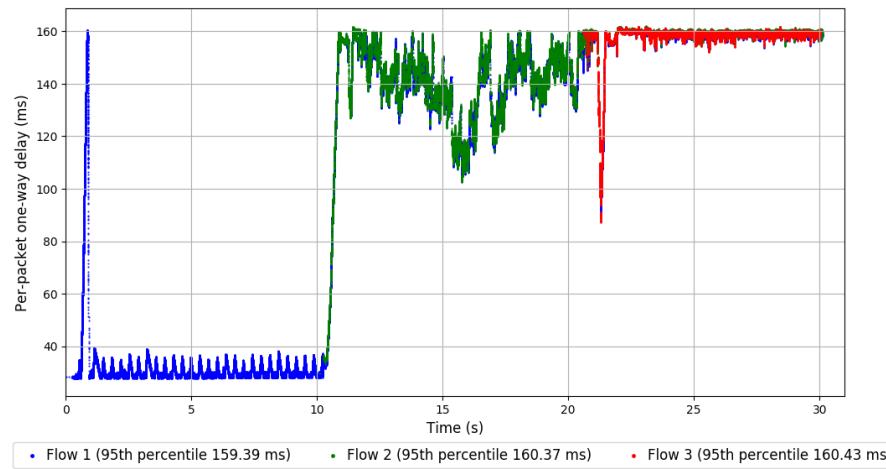
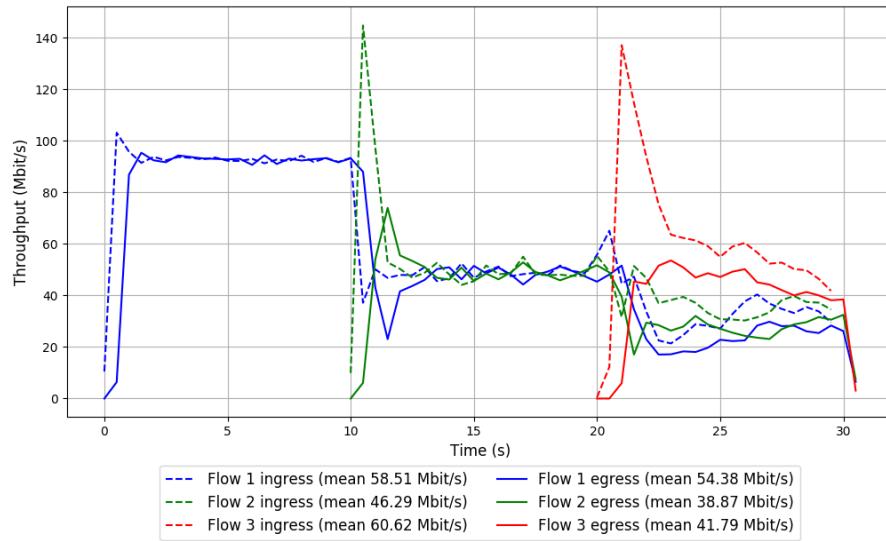


Run 2: Statistics of FillP-Sheep

```
Start at: 2018-09-06 09:42:15
End at: 2018-09-06 09:42:45
Local clock offset: 4.459 ms
Remote clock offset: -102.226 ms

# Below is generated by plot.py at 2018-09-06 11:05:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.04 Mbit/s
95th percentile per-packet one-way delay: 160.107 ms
Loss rate: 13.68%
-- Flow 1:
Average throughput: 54.38 Mbit/s
95th percentile per-packet one-way delay: 159.388 ms
Loss rate: 6.65%
-- Flow 2:
Average throughput: 38.87 Mbit/s
95th percentile per-packet one-way delay: 160.370 ms
Loss rate: 15.48%
-- Flow 3:
Average throughput: 41.79 Mbit/s
95th percentile per-packet one-way delay: 160.428 ms
Loss rate: 31.38%
```

Run 2: Report of FillP-Sheep — Data Link

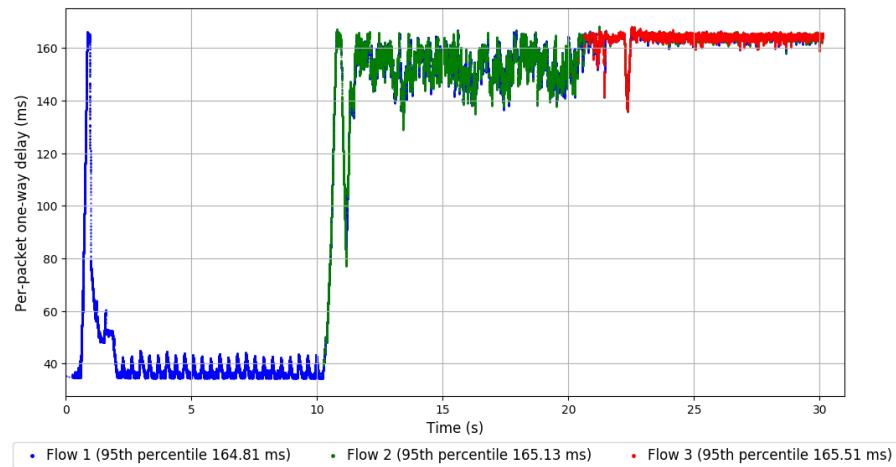
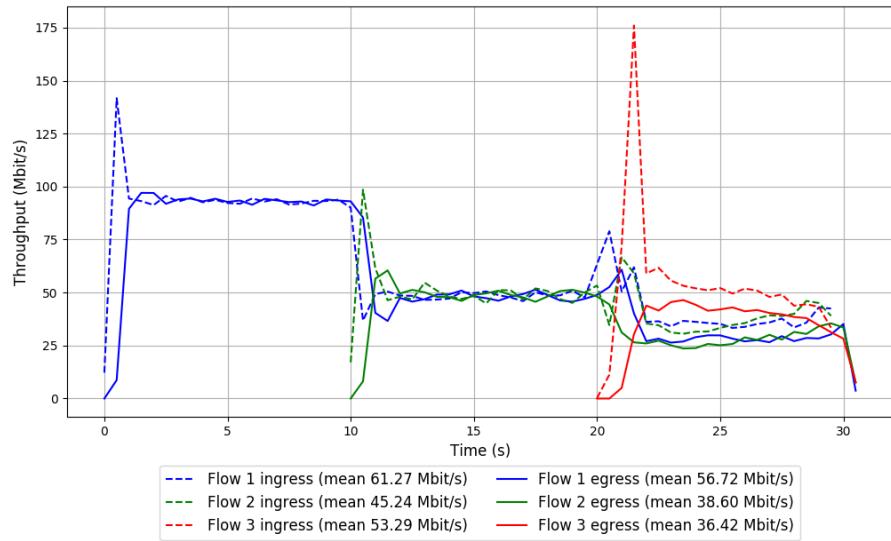


Run 3: Statistics of FillP-Sheep

```
Start at: 2018-09-06 10:05:10
End at: 2018-09-06 10:05:40
Local clock offset: -1.354 ms
Remote clock offset: -73.703 ms

# Below is generated by plot.py at 2018-09-06 11:05:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 165.094 ms
Loss rate: 13.09%
-- Flow 1:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 164.808 ms
Loss rate: 7.26%
-- Flow 2:
Average throughput: 38.60 Mbit/s
95th percentile per-packet one-way delay: 165.127 ms
Loss rate: 14.14%
-- Flow 3:
Average throughput: 36.42 Mbit/s
95th percentile per-packet one-way delay: 165.510 ms
Loss rate: 31.54%
```

Run 3: Report of FillP-Sheep — Data Link

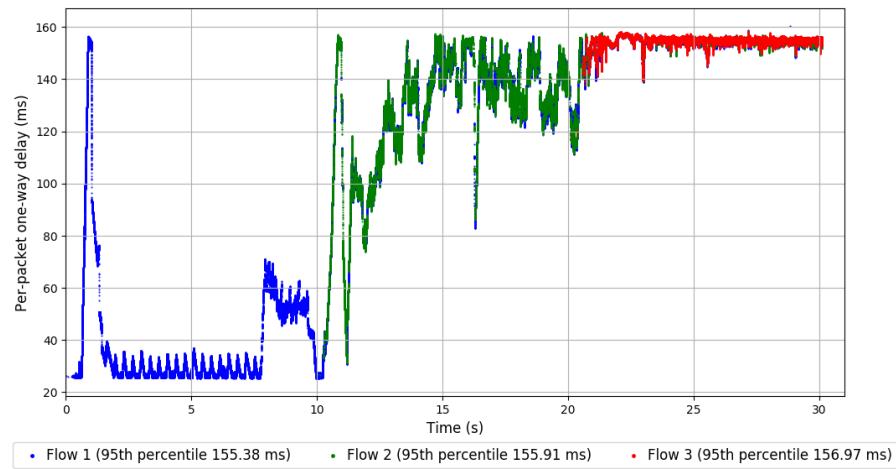
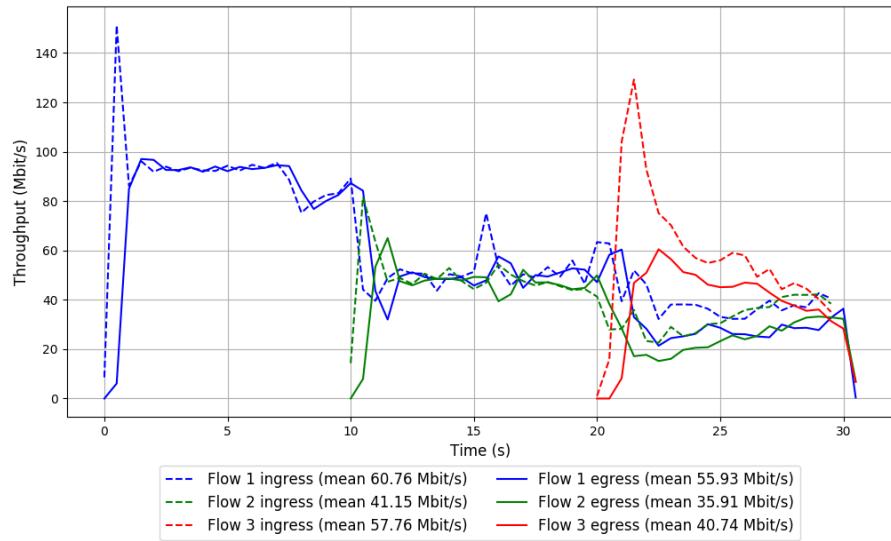


Run 4: Statistics of FillP-Sheep

```
Start at: 2018-09-06 10:28:08
End at: 2018-09-06 10:28:38
Local clock offset: 1.297 ms
Remote clock offset: -78.245 ms

# Below is generated by plot.py at 2018-09-06 11:06:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.19 Mbit/s
95th percentile per-packet one-way delay: 155.961 ms
Loss rate: 12.78%
-- Flow 1:
Average throughput: 55.93 Mbit/s
95th percentile per-packet one-way delay: 155.377 ms
Loss rate: 7.88%
-- Flow 2:
Average throughput: 35.91 Mbit/s
95th percentile per-packet one-way delay: 155.911 ms
Loss rate: 12.16%
-- Flow 3:
Average throughput: 40.74 Mbit/s
95th percentile per-packet one-way delay: 156.973 ms
Loss rate: 29.21%
```

Run 4: Report of FillP-Sheep — Data Link

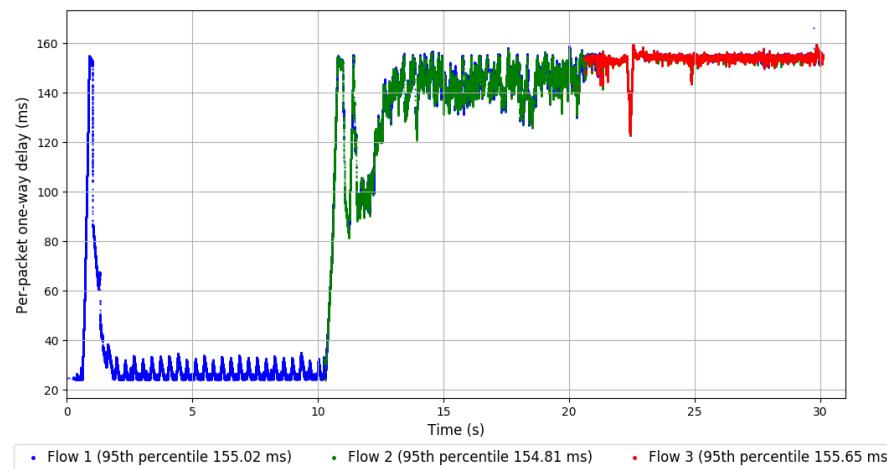
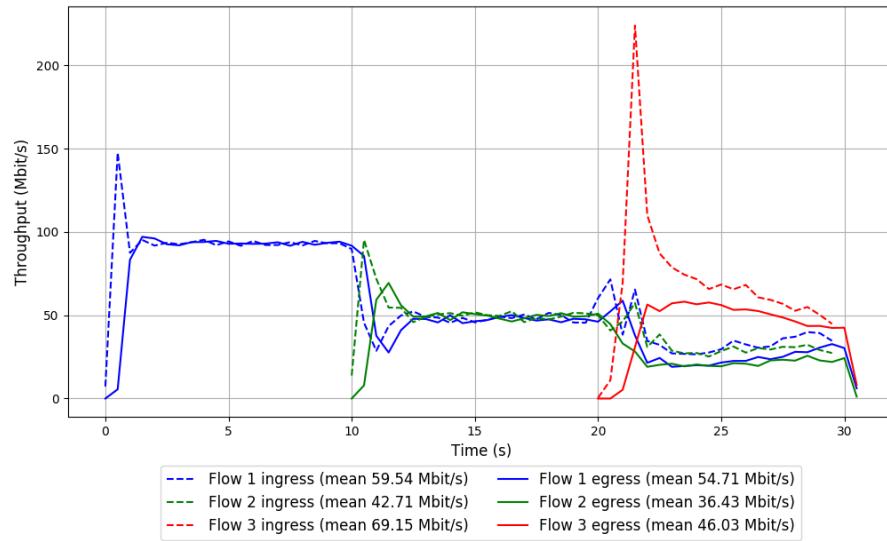


Run 5: Statistics of FillP-Sheep

```
Start at: 2018-09-06 10:51:04
End at: 2018-09-06 10:51:34
Local clock offset: 3.165 ms
Remote clock offset: -64.933 ms

# Below is generated by plot.py at 2018-09-06 11:06:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.13 Mbit/s
95th percentile per-packet one-way delay: 155.154 ms
Loss rate: 14.75%
-- Flow 1:
Average throughput: 54.71 Mbit/s
95th percentile per-packet one-way delay: 155.022 ms
Loss rate: 7.70%
-- Flow 2:
Average throughput: 36.43 Mbit/s
95th percentile per-packet one-way delay: 154.809 ms
Loss rate: 14.51%
-- Flow 3:
Average throughput: 46.03 Mbit/s
95th percentile per-packet one-way delay: 155.647 ms
Loss rate: 33.35%
```

Run 5: Report of FillP-Sheep — Data Link

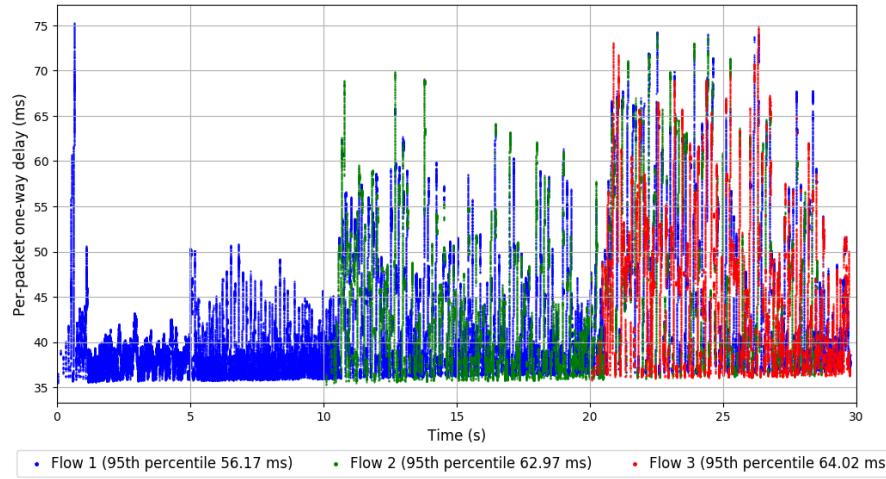
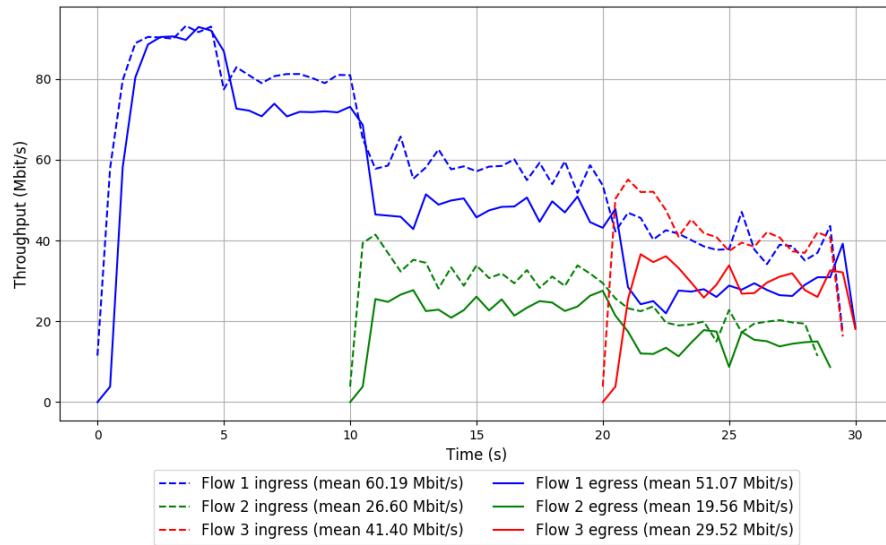


Run 1: Statistics of Indigo

```
Start at: 2018-09-06 09:28:11
End at: 2018-09-06 09:28:41
Local clock offset: 3.116 ms
Remote clock offset: -65.568 ms

# Below is generated by plot.py at 2018-09-06 11:06:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.92 Mbit/s
95th percentile per-packet one-way delay: 59.581 ms
Loss rate: 19.33%
-- Flow 1:
Average throughput: 51.07 Mbit/s
95th percentile per-packet one-way delay: 56.174 ms
Loss rate: 15.14%
-- Flow 2:
Average throughput: 19.56 Mbit/s
95th percentile per-packet one-way delay: 62.966 ms
Loss rate: 26.82%
-- Flow 3:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 64.022 ms
Loss rate: 28.70%
```

Run 1: Report of Indigo — Data Link

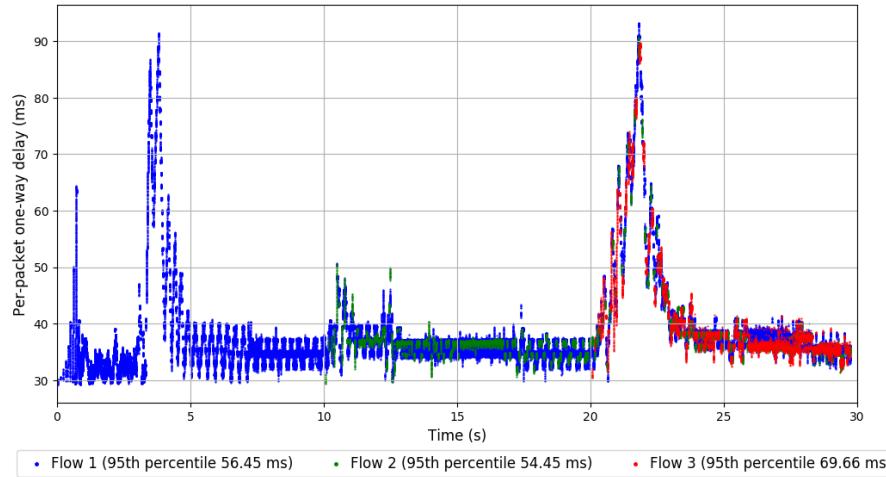
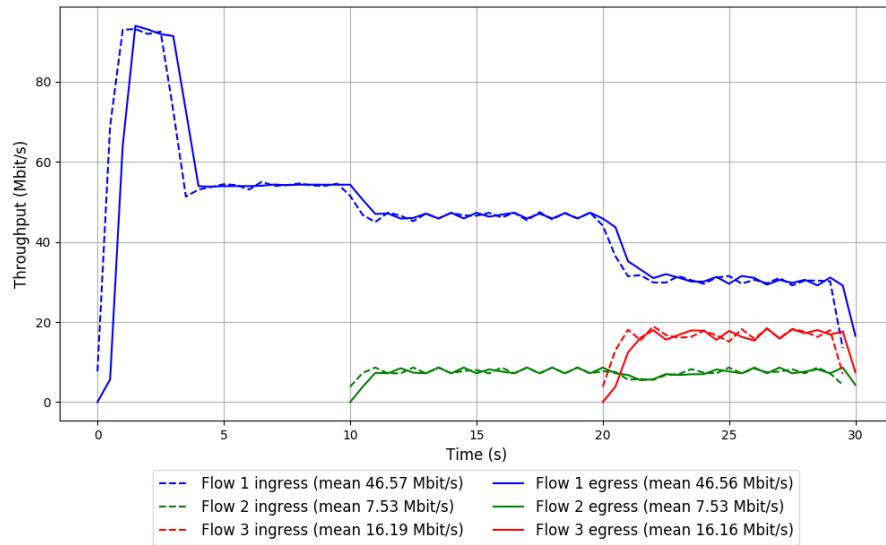


Run 2: Statistics of Indigo

```
Start at: 2018-09-06 09:51:14
End at: 2018-09-06 09:51:44
Local clock offset: 1.715 ms
Remote clock offset: -119.21 ms

# Below is generated by plot.py at 2018-09-06 11:06:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.80 Mbit/s
95th percentile per-packet one-way delay: 58.295 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 46.56 Mbit/s
95th percentile per-packet one-way delay: 56.455 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 54.446 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.16 Mbit/s
95th percentile per-packet one-way delay: 69.662 ms
Loss rate: 0.16%
```

Run 2: Report of Indigo — Data Link

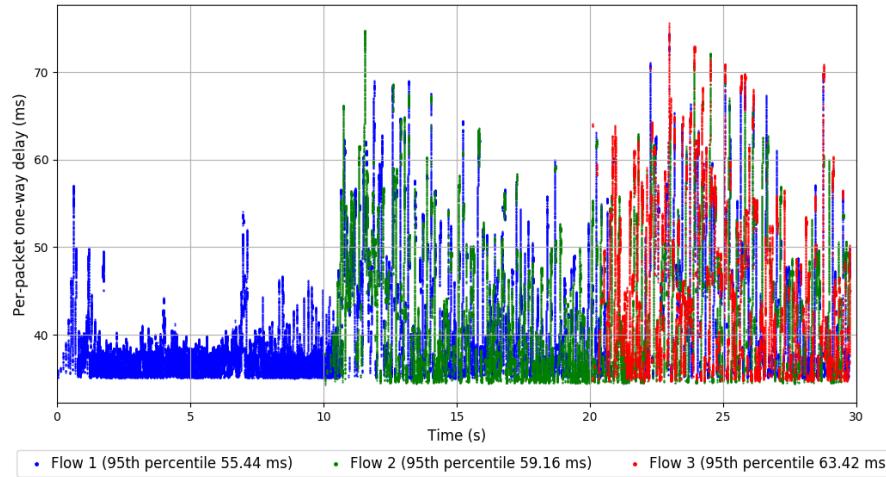
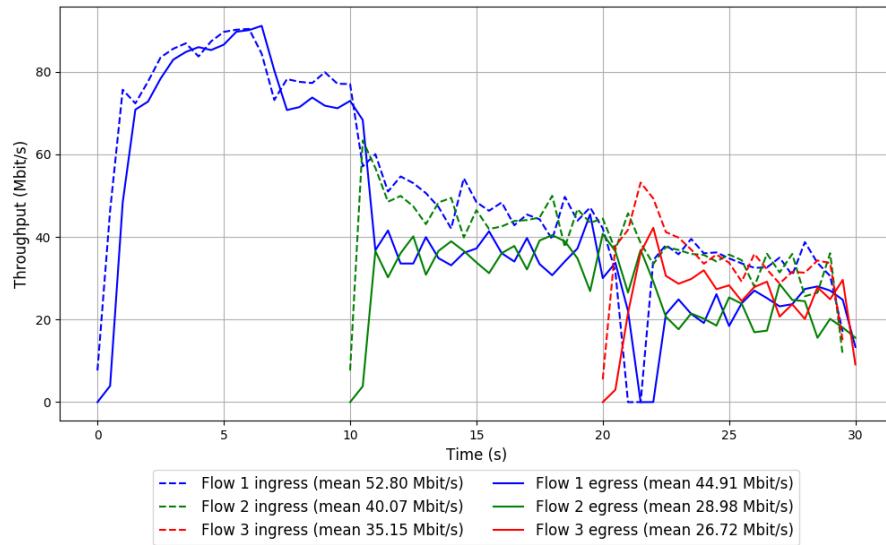


Run 3: Statistics of Indigo

```
Start at: 2018-09-06 10:14:09
End at: 2018-09-06 10:14:39
Local clock offset: -2.19 ms
Remote clock offset: -68.28 ms

# Below is generated by plot.py at 2018-09-06 11:06:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.77 Mbit/s
95th percentile per-packet one-way delay: 58.072 ms
Loss rate: 19.79%
-- Flow 1:
Average throughput: 44.91 Mbit/s
95th percentile per-packet one-way delay: 55.444 ms
Loss rate: 14.95%
-- Flow 2:
Average throughput: 28.98 Mbit/s
95th percentile per-packet one-way delay: 59.158 ms
Loss rate: 27.63%
-- Flow 3:
Average throughput: 26.72 Mbit/s
95th percentile per-packet one-way delay: 63.424 ms
Loss rate: 23.95%
```

Run 3: Report of Indigo — Data Link

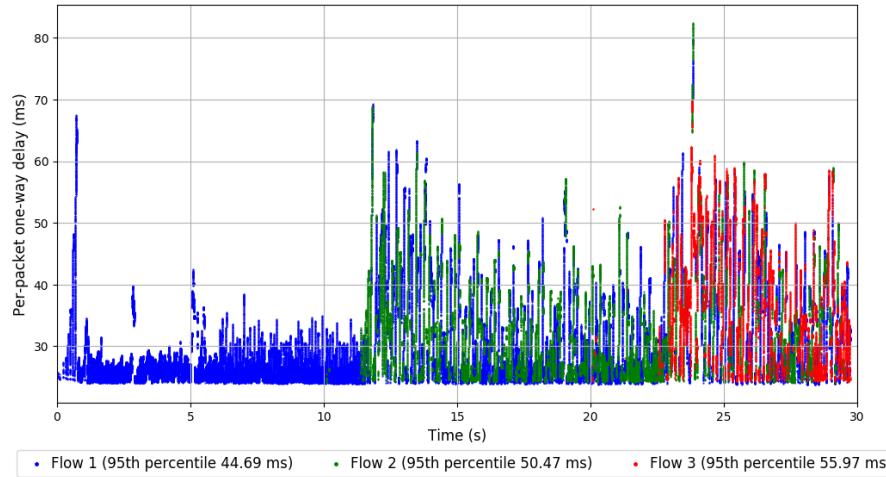
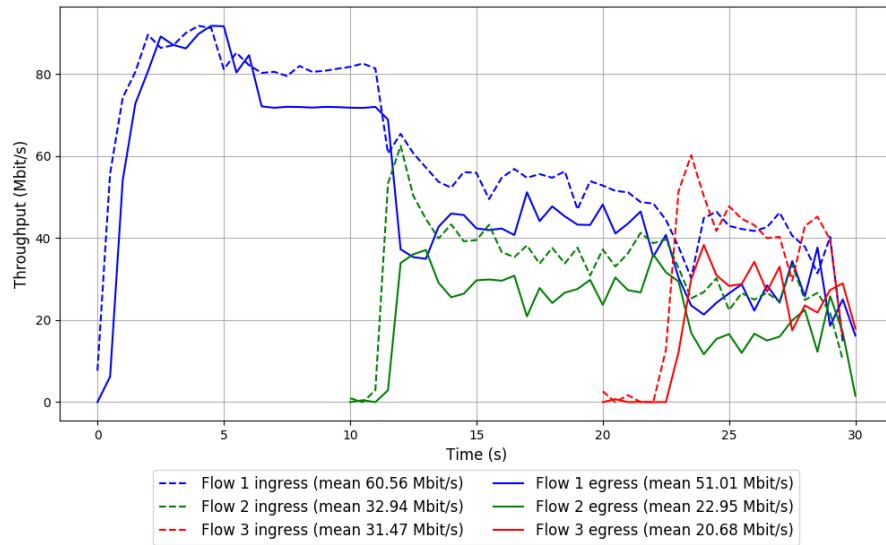


Run 4: Statistics of Indigo

```
Start at: 2018-09-06 10:37:06
End at: 2018-09-06 10:37:36
Local clock offset: 1.972 ms
Remote clock offset: -67.892 ms

# Below is generated by plot.py at 2018-09-06 11:06:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.77 Mbit/s
95th percentile per-packet one-way delay: 48.380 ms
Loss rate: 21.29%
-- Flow 1:
Average throughput: 51.01 Mbit/s
95th percentile per-packet one-way delay: 44.690 ms
Loss rate: 15.74%
-- Flow 2:
Average throughput: 22.95 Mbit/s
95th percentile per-packet one-way delay: 50.465 ms
Loss rate: 30.63%
-- Flow 3:
Average throughput: 20.68 Mbit/s
95th percentile per-packet one-way delay: 55.969 ms
Loss rate: 34.26%
```

Run 4: Report of Indigo — Data Link

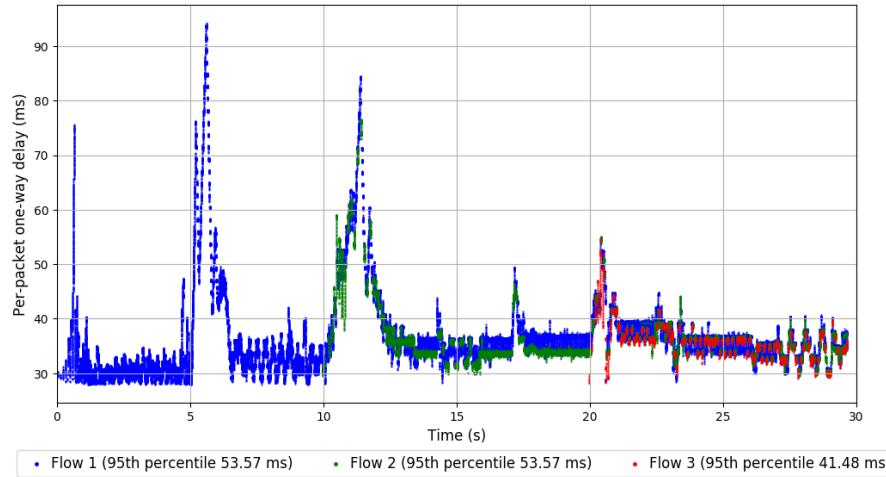
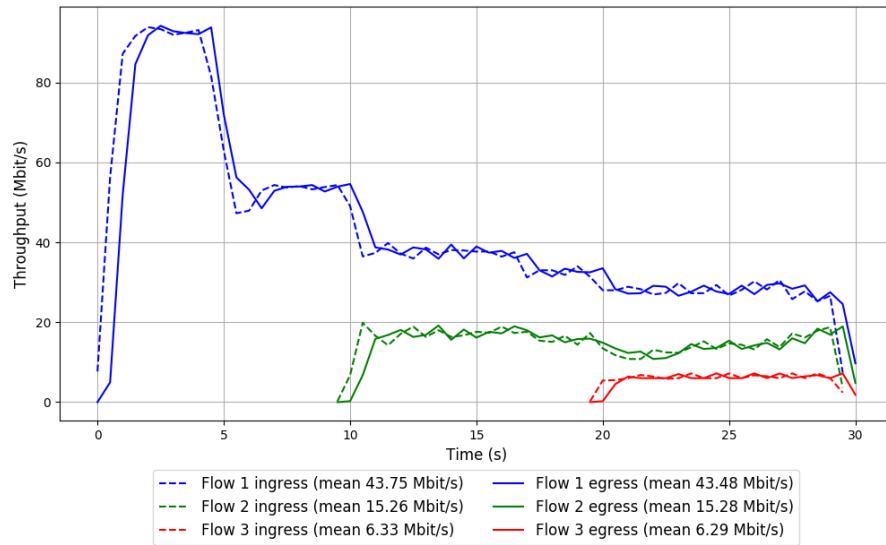


Run 5: Statistics of Indigo

```
Start at: 2018-09-06 10:59:57
End at: 2018-09-06 11:00:27
Local clock offset: 3.899 ms
Remote clock offset: -62.386 ms

# Below is generated by plot.py at 2018-09-06 11:06:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.67 Mbit/s
95th percentile per-packet one-way delay: 53.059 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 43.48 Mbit/s
95th percentile per-packet one-way delay: 53.569 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 15.28 Mbit/s
95th percentile per-packet one-way delay: 53.573 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 6.29 Mbit/s
95th percentile per-packet one-way delay: 41.477 ms
Loss rate: 0.47%
```

Run 5: Report of Indigo — Data Link

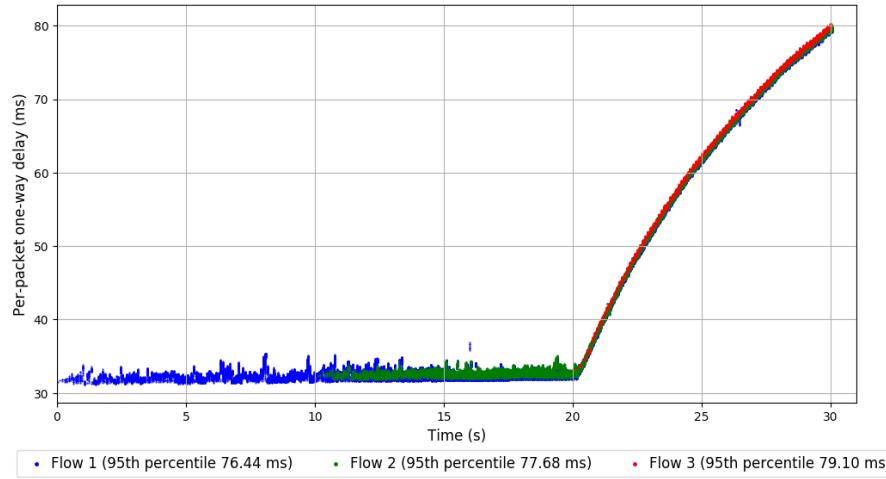
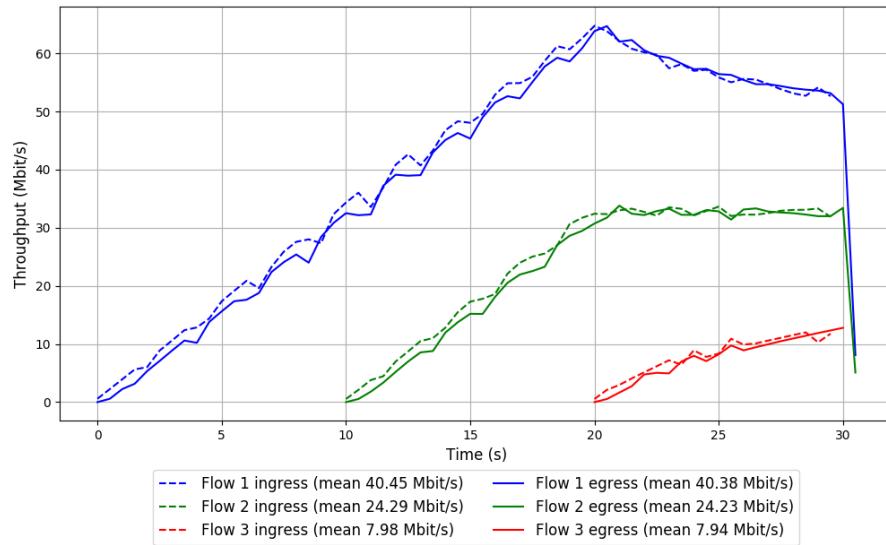


```
Run 1: Statistics of LEDBAT

Start at: 2018-09-06 09:24:28
End at: 2018-09-06 09:24:58
Local clock offset: 2.183 ms
Remote clock offset: -61.714 ms

# Below is generated by plot.py at 2018-09-06 11:06:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.15 Mbit/s
95th percentile per-packet one-way delay: 77.198 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 40.38 Mbit/s
95th percentile per-packet one-way delay: 76.437 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 24.23 Mbit/s
95th percentile per-packet one-way delay: 77.684 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 79.103 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

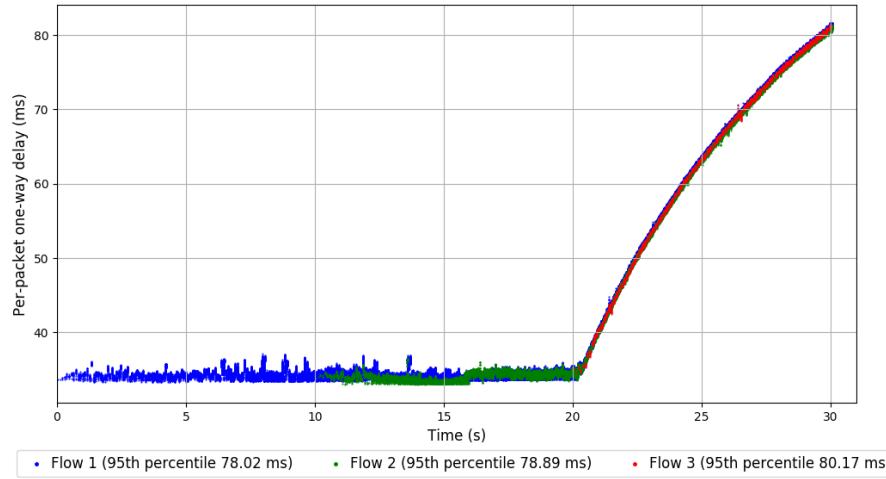
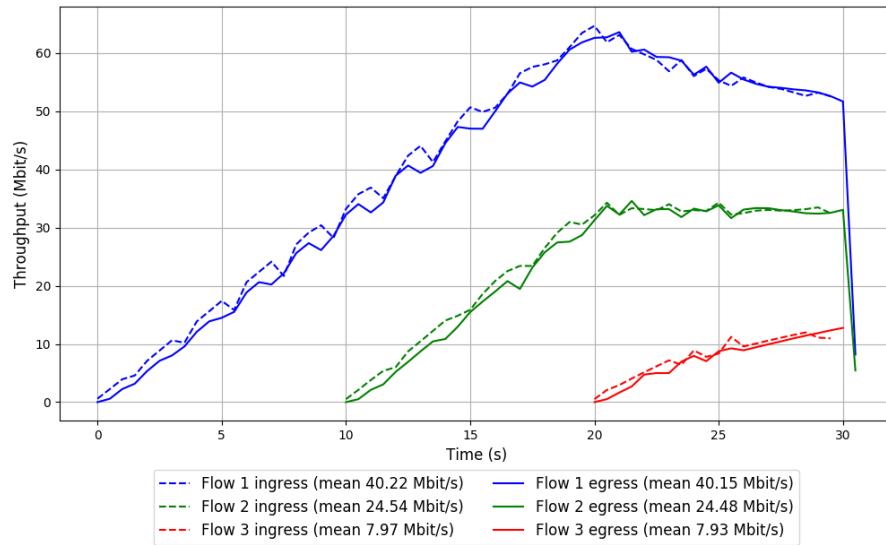


Run 2: Statistics of LEDBAT

```
Start at: 2018-09-06 09:47:33
End at: 2018-09-06 09:48:03
Local clock offset: 3.398 ms
Remote clock offset: -108.059 ms

# Below is generated by plot.py at 2018-09-06 11:06:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.09 Mbit/s
95th percentile per-packet one-way delay: 78.604 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 40.15 Mbit/s
95th percentile per-packet one-way delay: 78.022 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 24.48 Mbit/s
95th percentile per-packet one-way delay: 78.892 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 80.171 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

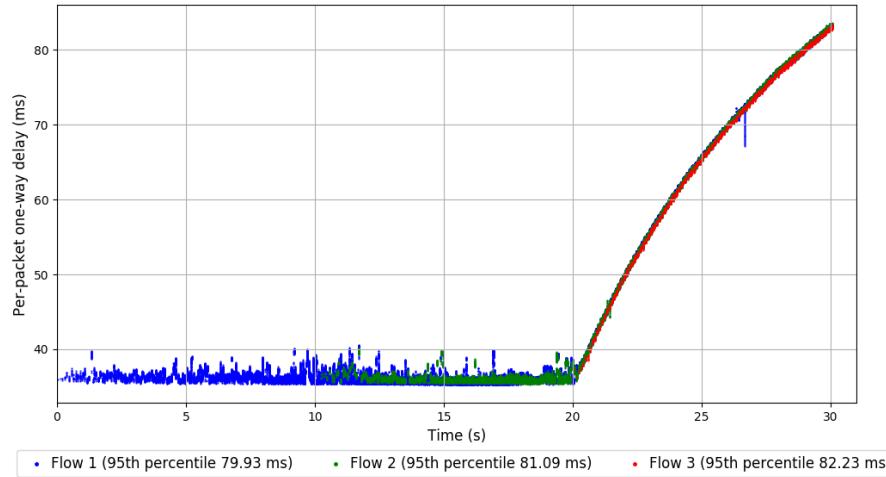
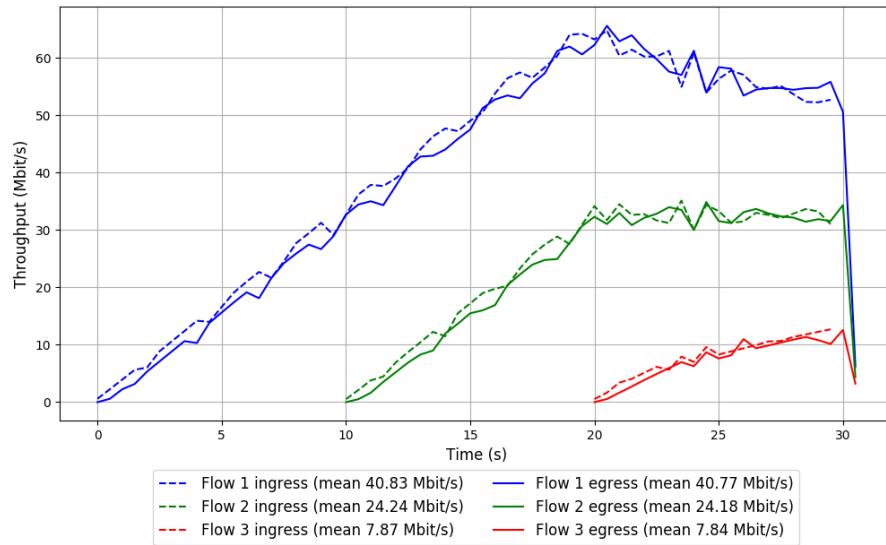


Run 3: Statistics of LEDBAT

```
Start at: 2018-09-06 10:10:27
End at: 2018-09-06 10:10:57
Local clock offset: -1.991 ms
Remote clock offset: -68.637 ms

# Below is generated by plot.py at 2018-09-06 11:07:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.48 Mbit/s
95th percentile per-packet one-way delay: 80.664 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 40.77 Mbit/s
95th percentile per-packet one-way delay: 79.928 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 24.18 Mbit/s
95th percentile per-packet one-way delay: 81.093 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 82.230 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

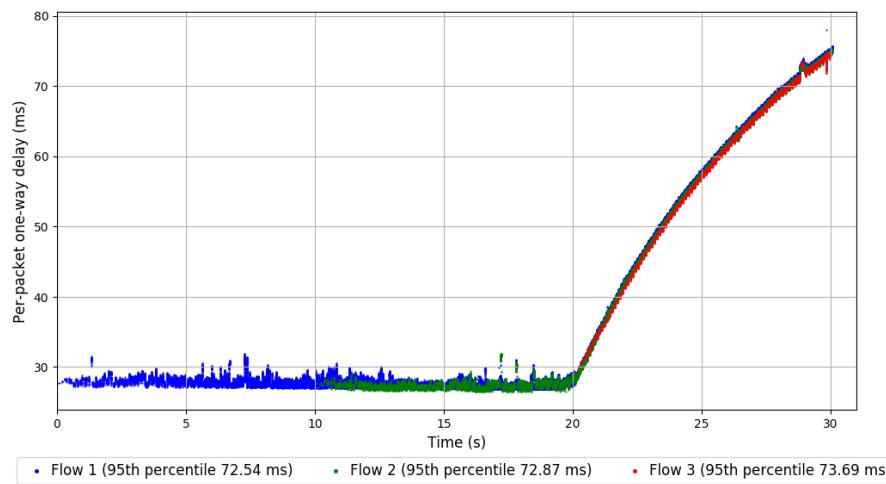
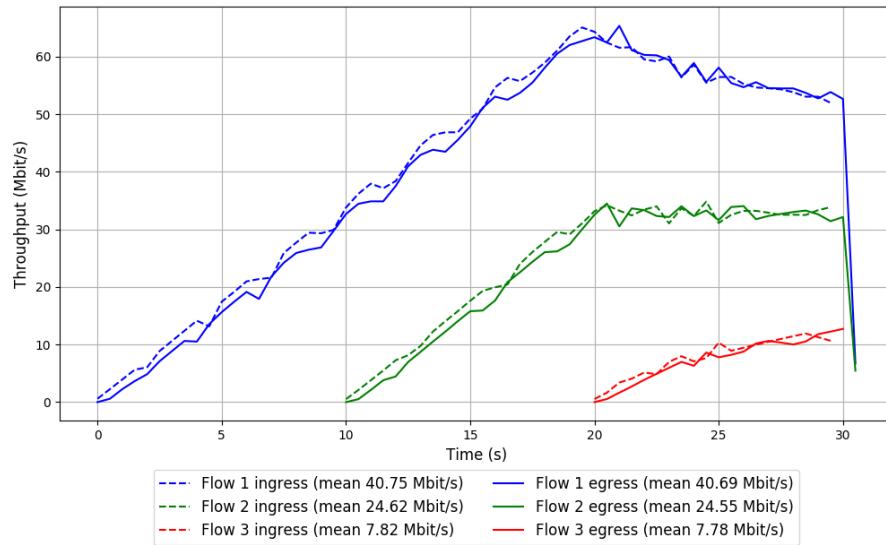


Run 4: Statistics of LEDBAT

```
Start at: 2018-09-06 10:33:24
End at: 2018-09-06 10:33:54
Local clock offset: 1.693 ms
Remote clock offset: -68.292 ms

# Below is generated by plot.py at 2018-09-06 11:07:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 72.787 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 72.536 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.55 Mbit/s
95th percentile per-packet one-way delay: 72.866 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 73.689 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

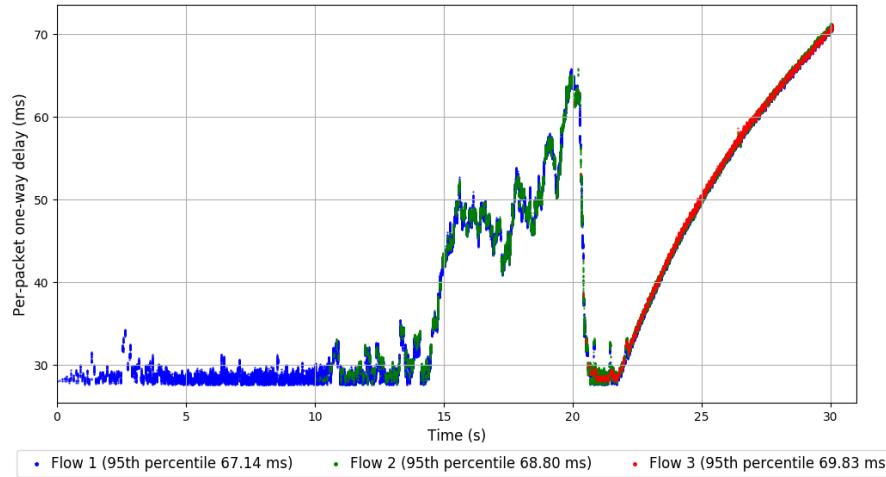
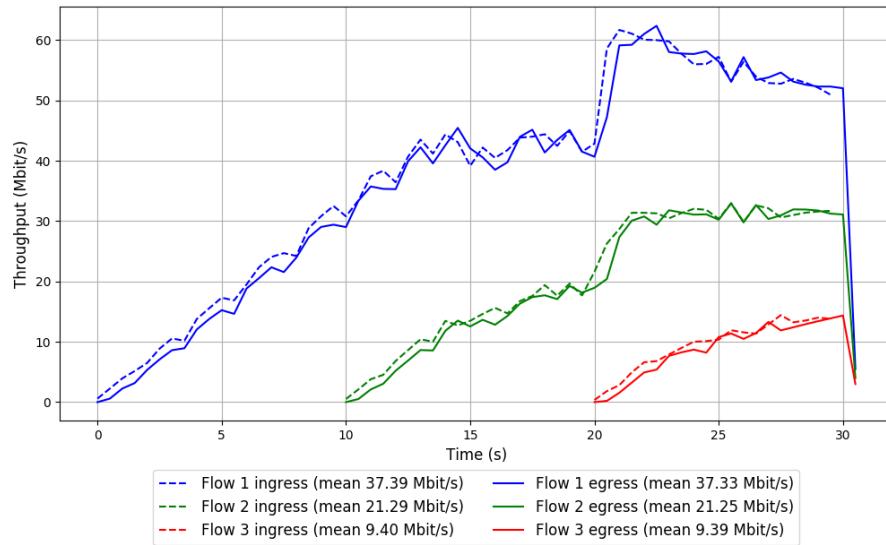


Run 5: Statistics of LEDBAT

```
Start at: 2018-09-06 10:56:16
End at: 2018-09-06 10:56:46
Local clock offset: 3.771 ms
Remote clock offset: -61.674 ms

# Below is generated by plot.py at 2018-09-06 11:07:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.62 Mbit/s
95th percentile per-packet one-way delay: 67.962 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 37.33 Mbit/s
95th percentile per-packet one-way delay: 67.140 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.25 Mbit/s
95th percentile per-packet one-way delay: 68.801 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 69.829 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

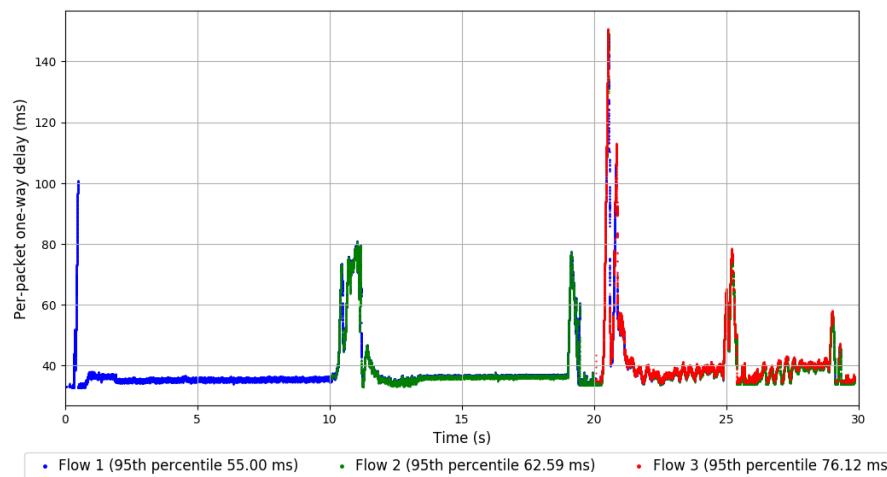
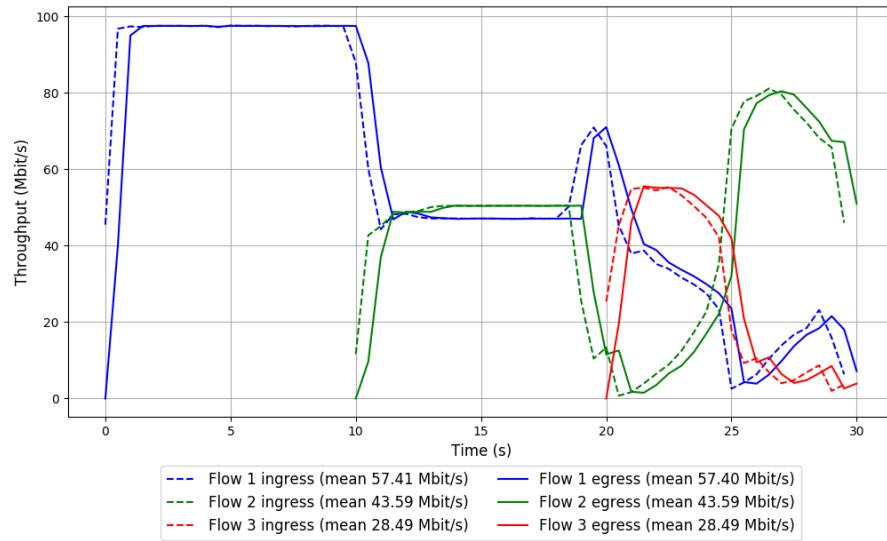


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-09-06 09:17:49
End at: 2018-09-06 09:18:19
Local clock offset: -0.658 ms
Remote clock offset: -45.119 ms

# Below is generated by plot.py at 2018-09-06 11:07:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 59.932 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.40 Mbit/s
95th percentile per-packet one-way delay: 55.004 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.59 Mbit/s
95th percentile per-packet one-way delay: 62.590 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.49 Mbit/s
95th percentile per-packet one-way delay: 76.119 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-Muses — Data Link

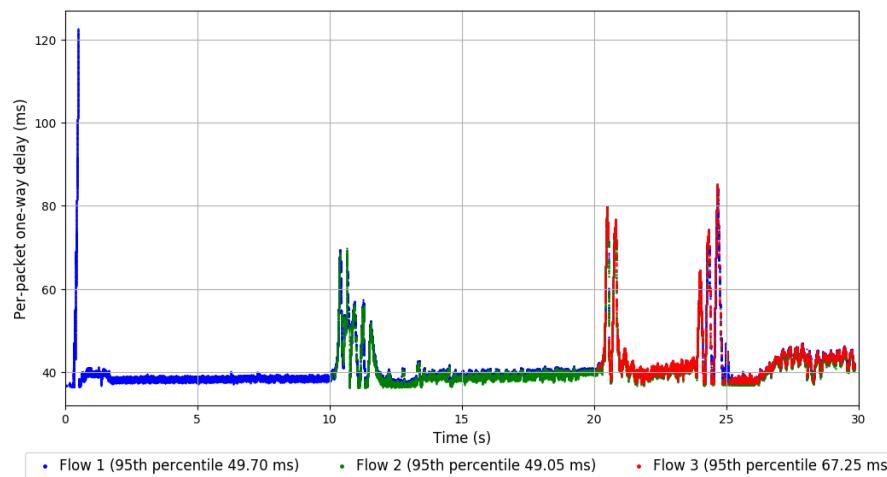
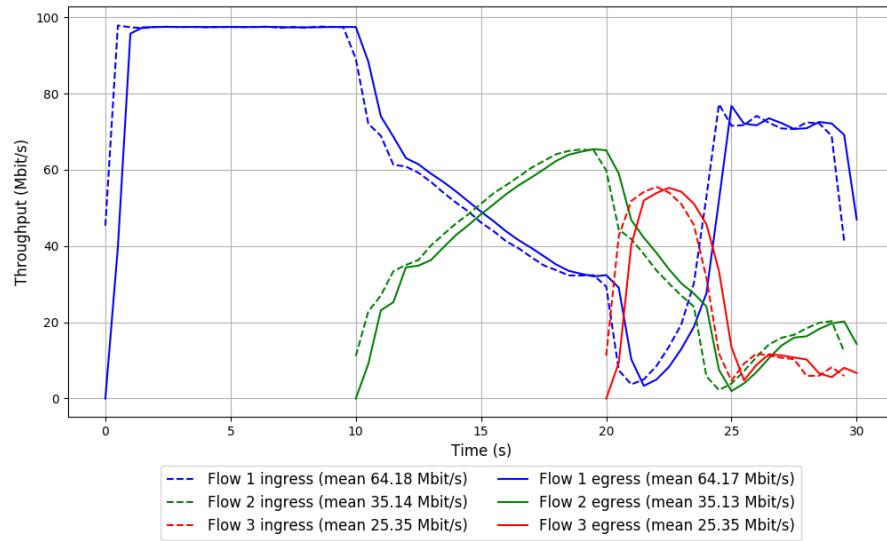


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-09-06 09:40:56
End at: 2018-09-06 09:41:26
Local clock offset: 4.702 ms
Remote clock offset: -91.192 ms

# Below is generated by plot.py at 2018-09-06 11:07:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.78 Mbit/s
95th percentile per-packet one-way delay: 51.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.17 Mbit/s
95th percentile per-packet one-way delay: 49.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.13 Mbit/s
95th percentile per-packet one-way delay: 49.048 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 67.252 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-Muses — Data Link

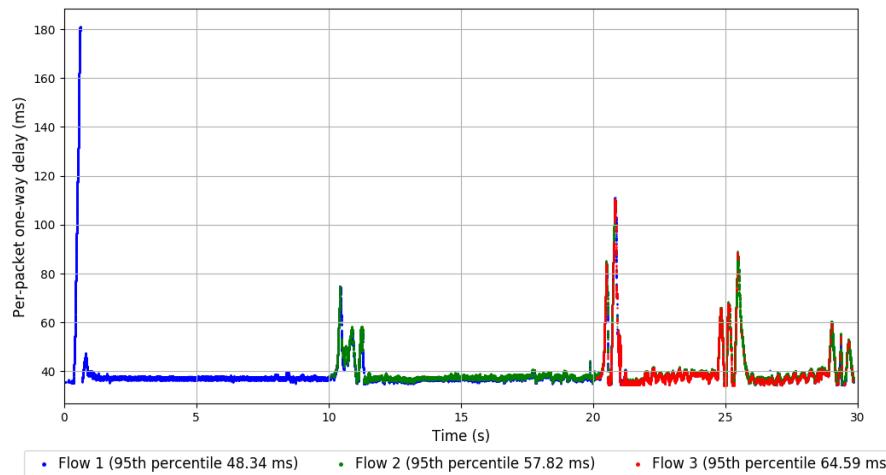
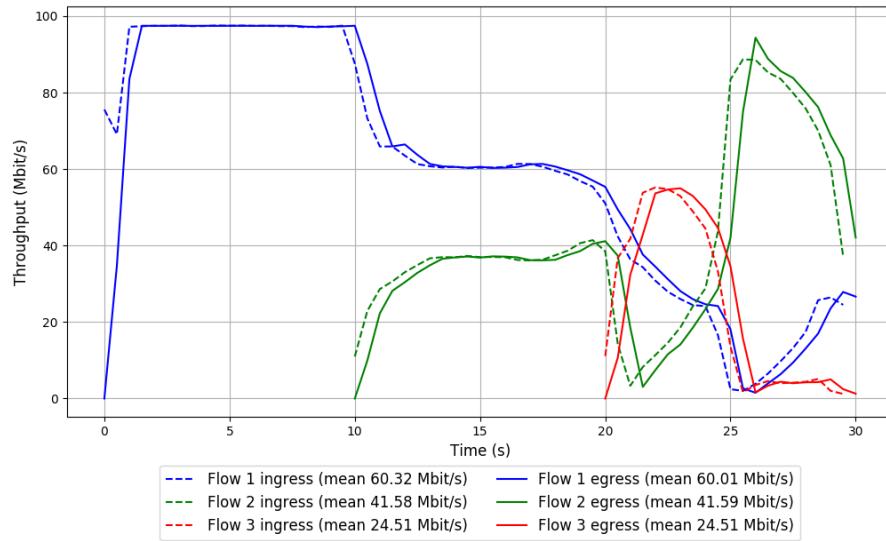


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-09-06 10:03:47
End at: 2018-09-06 10:04:17
Local clock offset: -1.319 ms
Remote clock offset: -75.681 ms

# Below is generated by plot.py at 2018-09-06 11:07:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.60 Mbit/s
95th percentile per-packet one-way delay: 53.771 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 48.339 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 41.59 Mbit/s
95th percentile per-packet one-way delay: 57.820 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 64.586 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-Muses — Data Link

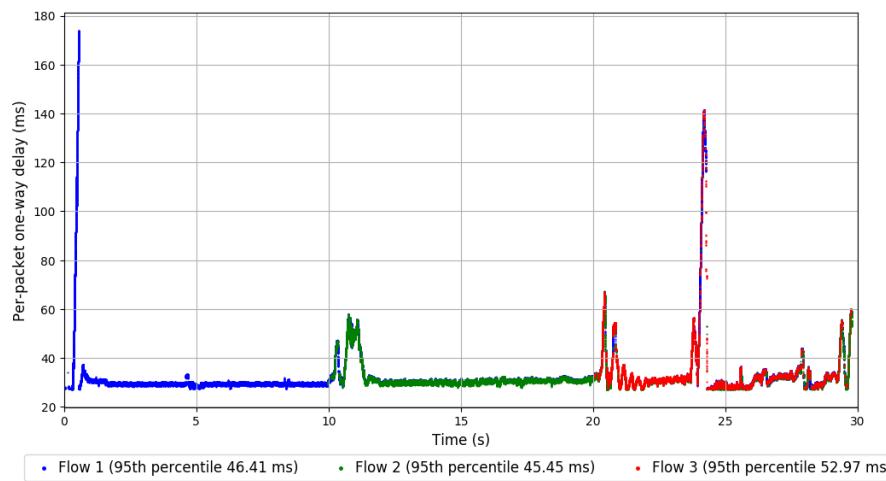
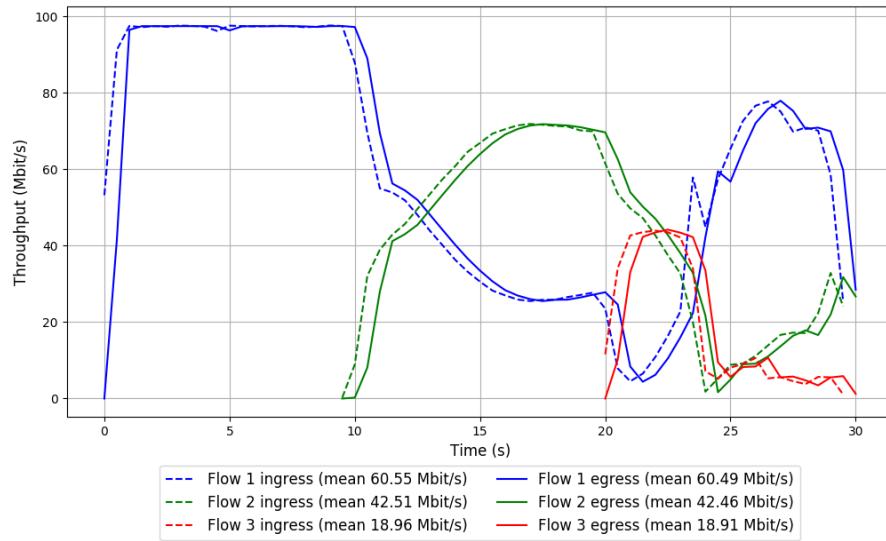


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-09-06 10:26:48
End at: 2018-09-06 10:27:18
Local clock offset: 0.762 ms
Remote clock offset: -78.99 ms

# Below is generated by plot.py at 2018-09-06 11:08:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.95 Mbit/s
95th percentile per-packet one-way delay: 46.719 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 60.49 Mbit/s
95th percentile per-packet one-way delay: 46.412 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 42.46 Mbit/s
95th percentile per-packet one-way delay: 45.455 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.91 Mbit/s
95th percentile per-packet one-way delay: 52.969 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-Muses — Data Link

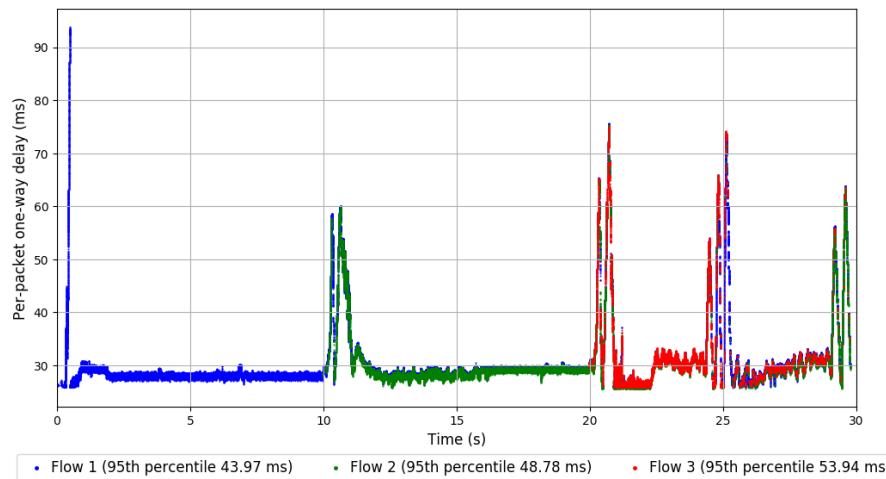
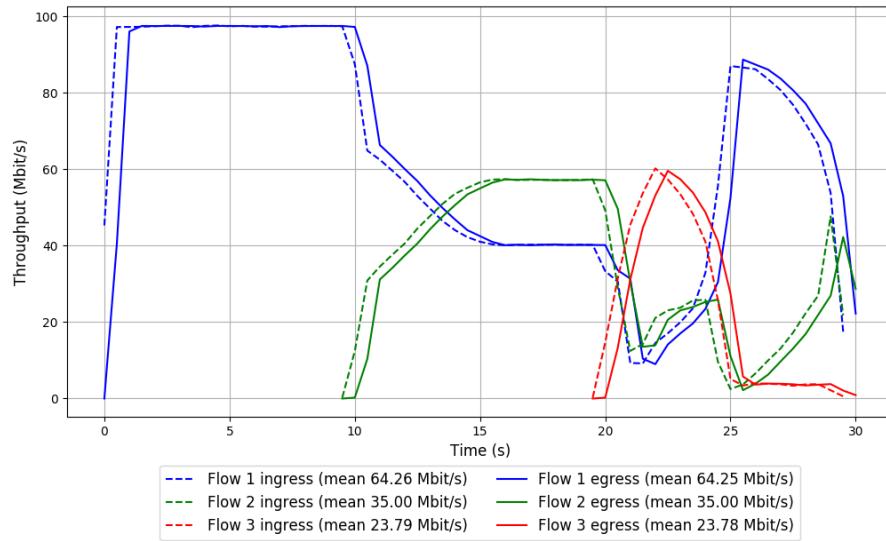


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-09-06 10:49:46
End at: 2018-09-06 10:50:16
Local clock offset: 2.956 ms
Remote clock offset: -63.414 ms

# Below is generated by plot.py at 2018-09-06 11:08:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 46.576 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.25 Mbit/s
95th percentile per-packet one-way delay: 43.973 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.00 Mbit/s
95th percentile per-packet one-way delay: 48.785 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.78 Mbit/s
95th percentile per-packet one-way delay: 53.940 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-Muses — Data Link

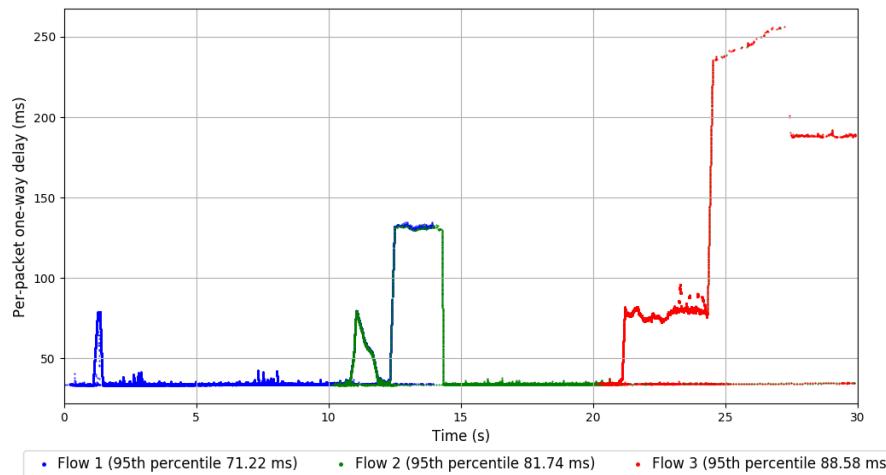
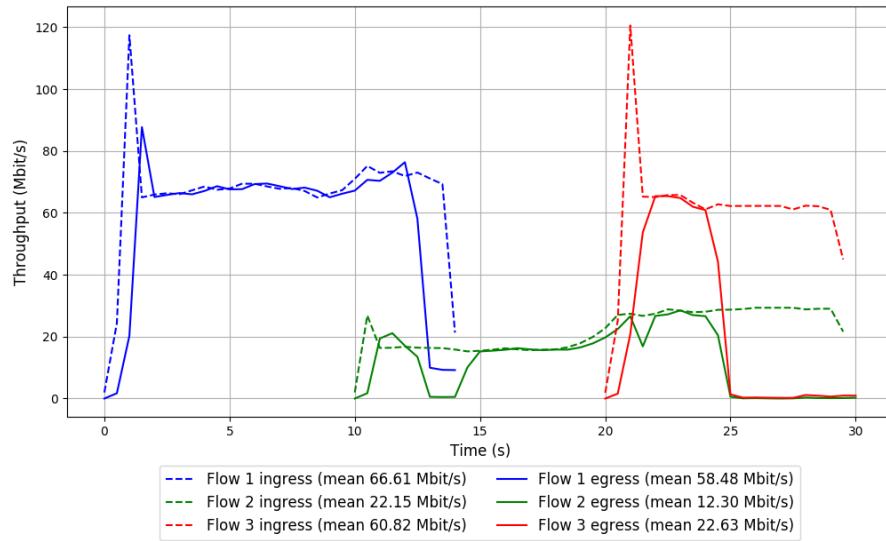


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-09-06 09:15:14
End at: 2018-09-06 09:15:44
Local clock offset: -2.161 ms
Remote clock offset: -38.094 ms

# Below is generated by plot.py at 2018-09-06 11:08:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.91 Mbit/s
95th percentile per-packet one-way delay: 81.072 ms
Loss rate: 35.33%
-- Flow 1:
Average throughput: 58.48 Mbit/s
95th percentile per-packet one-way delay: 71.216 ms
Loss rate: 13.60%
-- Flow 2:
Average throughput: 12.30 Mbit/s
95th percentile per-packet one-way delay: 81.738 ms
Loss rate: 44.48%
-- Flow 3:
Average throughput: 22.63 Mbit/s
95th percentile per-packet one-way delay: 88.580 ms
Loss rate: 62.80%
```

Run 1: Report of PCC-Allegro — Data Link

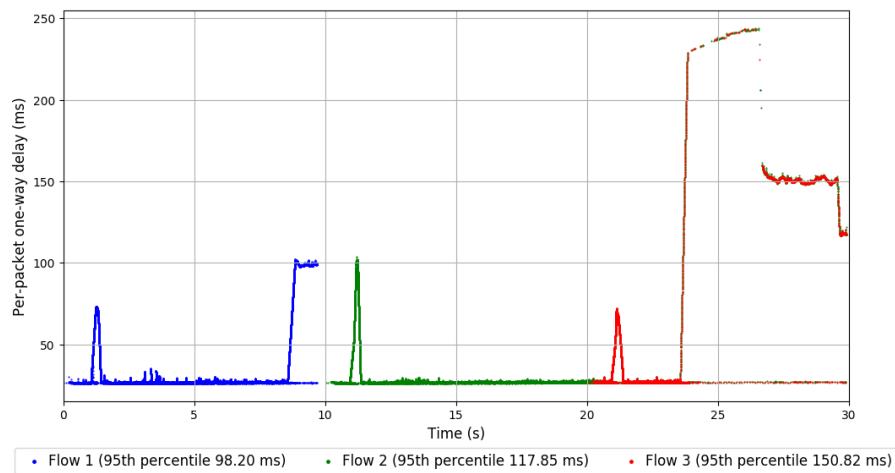
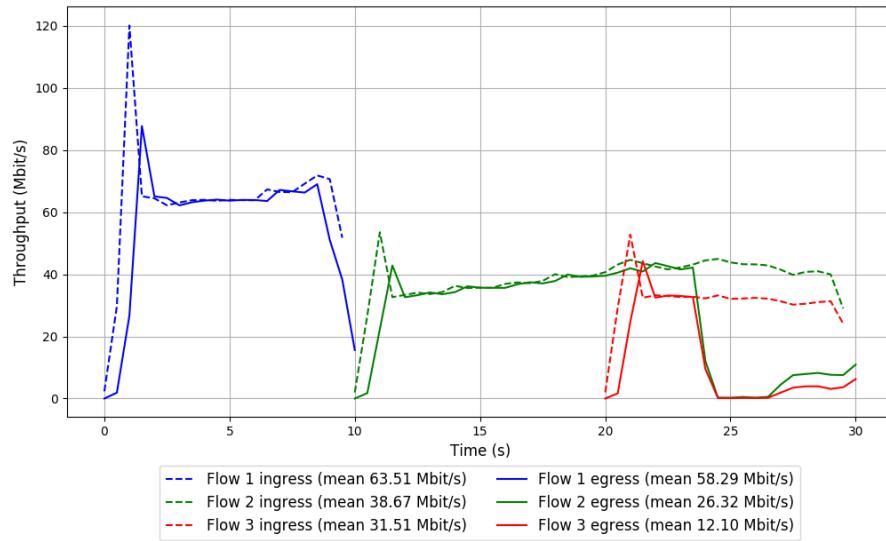


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-09-06 09:38:18
End at: 2018-09-06 09:38:48
Local clock offset: 4.302 ms
Remote clock offset: -96.0 ms

# Below is generated by plot.py at 2018-09-06 11:08:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.37 Mbit/s
95th percentile per-packet one-way delay: 98.933 ms
Loss rate: 29.26%
-- Flow 1:
Average throughput: 58.29 Mbit/s
95th percentile per-packet one-way delay: 98.201 ms
Loss rate: 10.00%
-- Flow 2:
Average throughput: 26.32 Mbit/s
95th percentile per-packet one-way delay: 117.852 ms
Loss rate: 31.91%
-- Flow 3:
Average throughput: 12.10 Mbit/s
95th percentile per-packet one-way delay: 150.824 ms
Loss rate: 61.59%
```

Run 2: Report of PCC-Allegro — Data Link

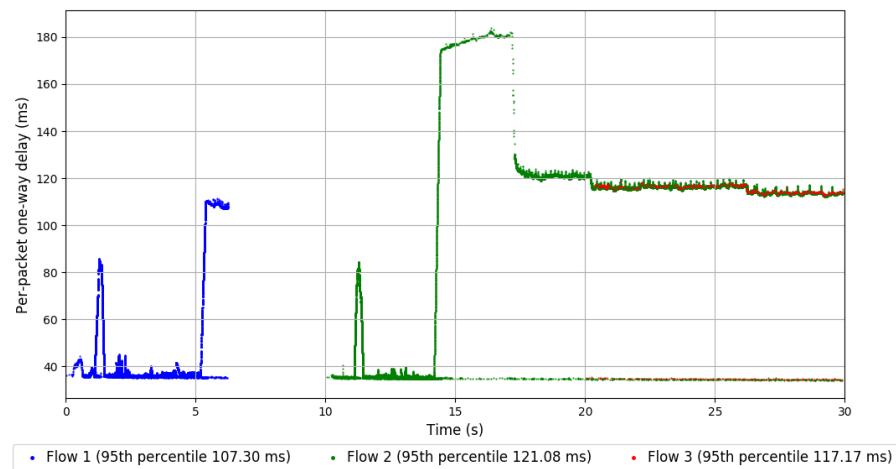
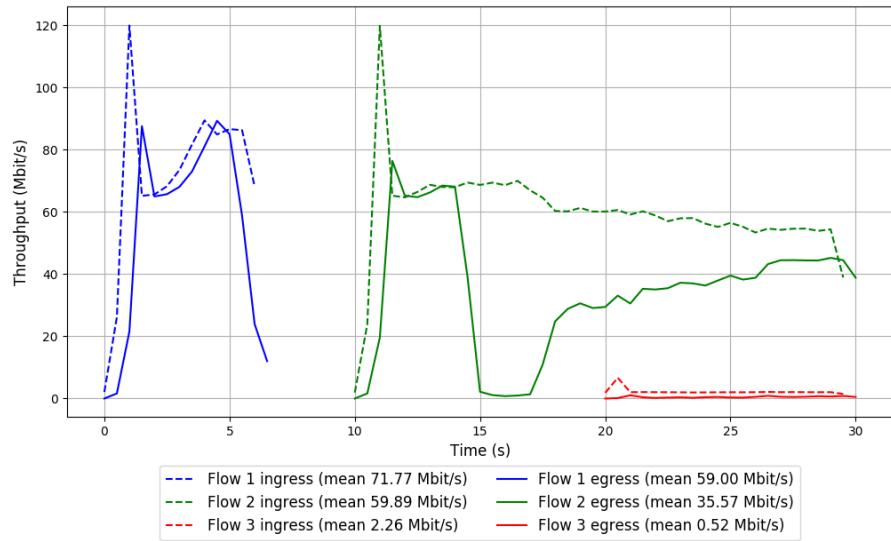


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-09-06 10:01:09
End at: 2018-09-06 10:01:39
Local clock offset: -1.026 ms
Remote clock offset: -81.021 ms

# Below is generated by plot.py at 2018-09-06 11:08:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.08 Mbit/s
95th percentile per-packet one-way delay: 120.671 ms
Loss rate: 35.47%
-- Flow 1:
Average throughput: 59.00 Mbit/s
95th percentile per-packet one-way delay: 107.300 ms
Loss rate: 20.19%
-- Flow 2:
Average throughput: 35.57 Mbit/s
95th percentile per-packet one-way delay: 121.076 ms
Loss rate: 40.59%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 117.169 ms
Loss rate: 77.12%
```

Run 3: Report of PCC-Allegro — Data Link

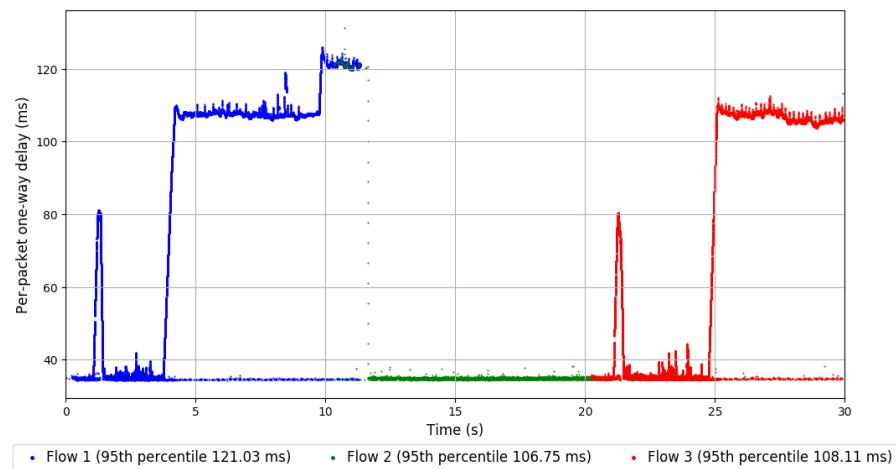
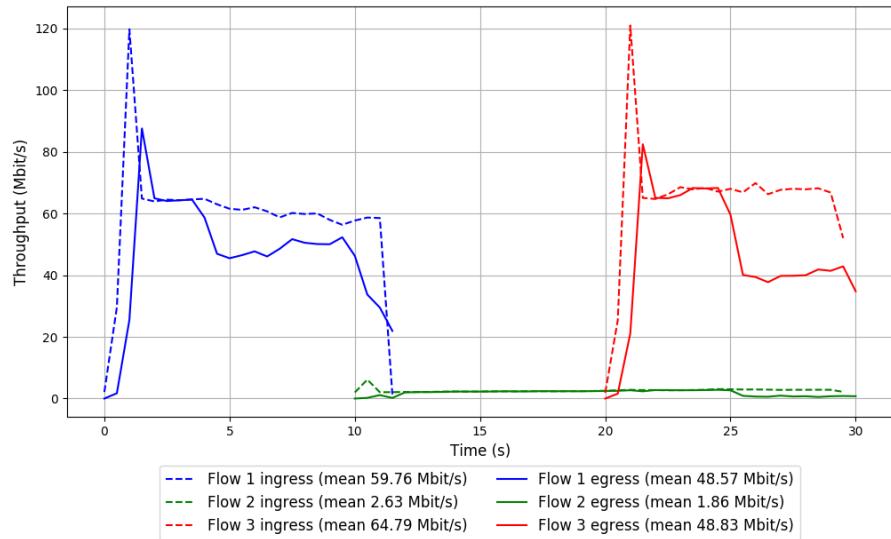


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-09-06 10:24:13
End at: 2018-09-06 10:24:43
Local clock offset: 0.606 ms
Remote clock offset: -70.192 ms

# Below is generated by plot.py at 2018-09-06 11:08:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.73 Mbit/s
95th percentile per-packet one-way delay: 113.805 ms
Loss rate: 22.57%
-- Flow 1:
Average throughput: 48.57 Mbit/s
95th percentile per-packet one-way delay: 121.032 ms
Loss rate: 20.18%
-- Flow 2:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 106.748 ms
Loss rate: 29.10%
-- Flow 3:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 108.113 ms
Loss rate: 24.61%
```

Run 4: Report of PCC-Allegro — Data Link

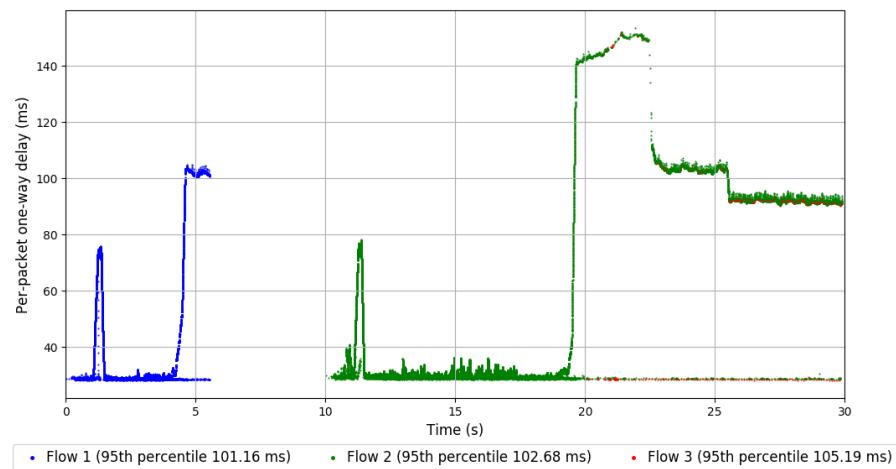
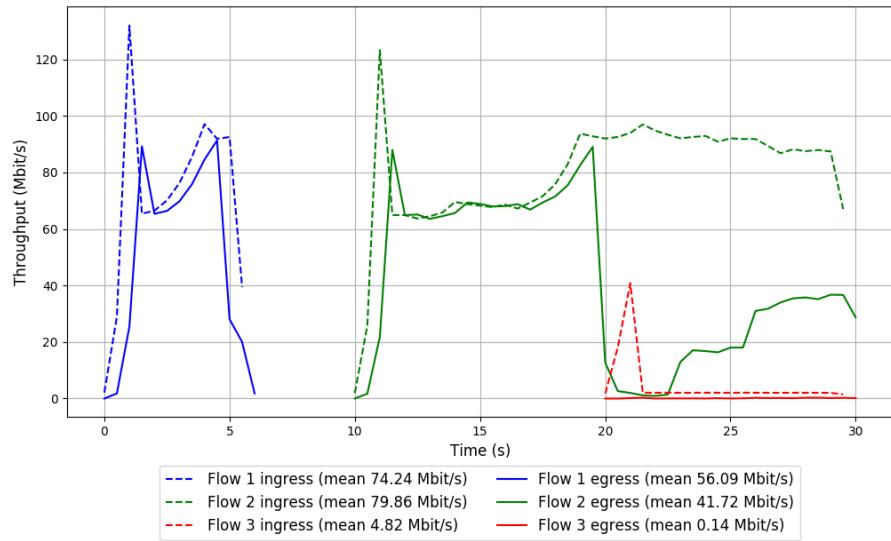


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-09-06 10:47:12
End at: 2018-09-06 10:47:42
Local clock offset: 2.647 ms
Remote clock offset: -60.612 ms

# Below is generated by plot.py at 2018-09-06 11:08:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.16 Mbit/s
95th percentile per-packet one-way delay: 102.291 ms
Loss rate: 44.59%
-- Flow 1:
Average throughput: 56.09 Mbit/s
95th percentile per-packet one-way delay: 101.163 ms
Loss rate: 26.91%
-- Flow 2:
Average throughput: 41.72 Mbit/s
95th percentile per-packet one-way delay: 102.683 ms
Loss rate: 47.74%
-- Flow 3:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 105.194 ms
Loss rate: 97.01%
```

Run 5: Report of PCC-Allegro — Data Link

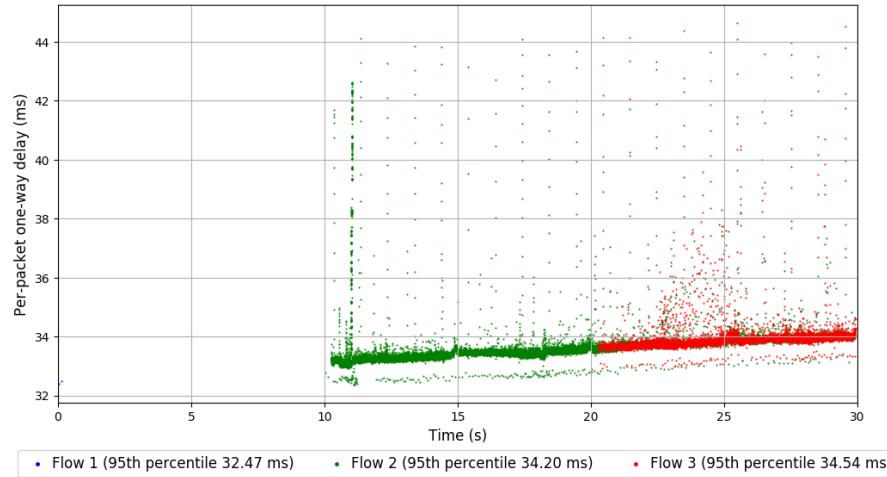
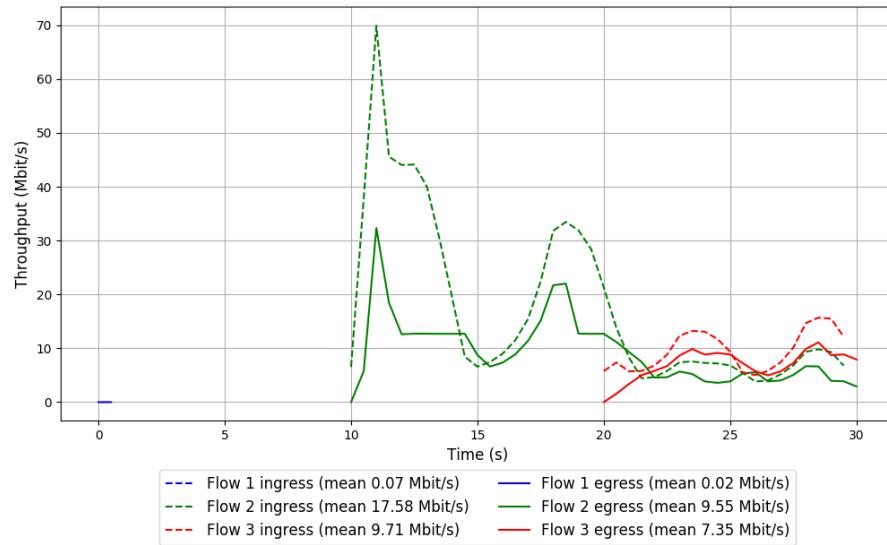


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2018-09-06 09:23:15
End at: 2018-09-06 09:23:45
Local clock offset: 1.784 ms
Remote clock offset: -58.23 ms

# Below is generated by plot.py at 2018-09-06 11:08:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.78 Mbit/s
95th percentile per-packet one-way delay: 34.337 ms
Loss rate: 41.09%
-- Flow 1:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 32.471 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 34.198 ms
Loss rate: 45.70%
-- Flow 3:
Average throughput: 7.35 Mbit/s
95th percentile per-packet one-way delay: 34.542 ms
Loss rate: 24.28%
```

Run 1: Report of PCC-Expr — Data Link

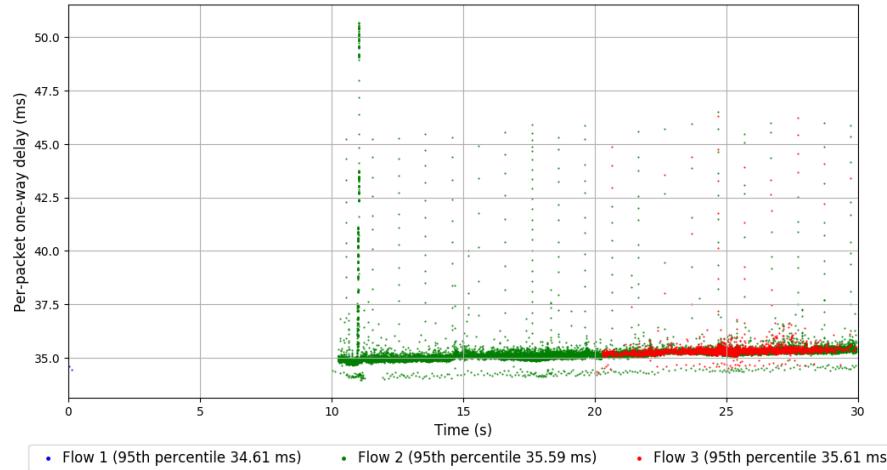
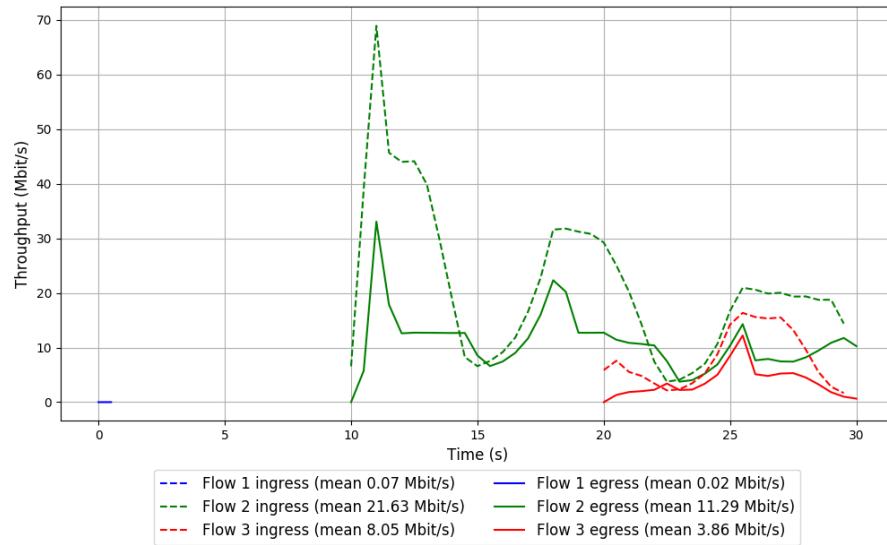


Run 2: Statistics of PCC-Expr

```
Start at: 2018-09-06 09:46:20
End at: 2018-09-06 09:46:50
Local clock offset: 4.35 ms
Remote clock offset: -104.408 ms

# Below is generated by plot.py at 2018-09-06 11:08:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.78 Mbit/s
95th percentile per-packet one-way delay: 35.592 ms
Loss rate: 48.49%
-- Flow 1:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 34.608 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 35.589 ms
Loss rate: 47.82%
-- Flow 3:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 35.606 ms
Loss rate: 52.11%
```

Run 2: Report of PCC-Expr — Data Link

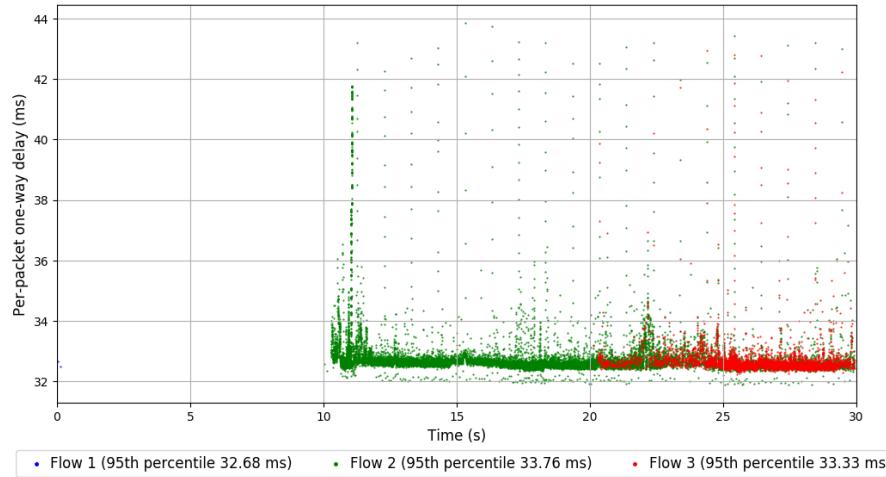
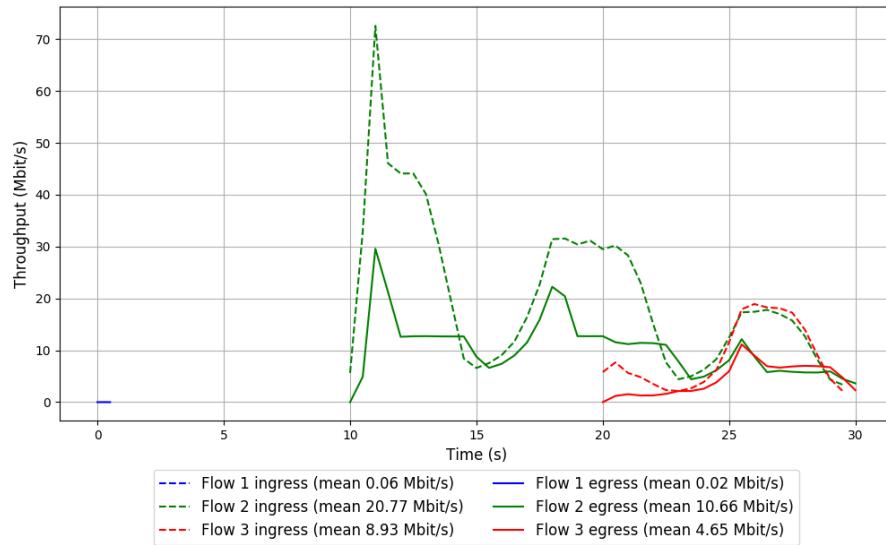


Run 3: Statistics of PCC-Expr

```
Start at: 2018-09-06 10:09:15
End at: 2018-09-06 10:09:45
Local clock offset: -1.724 ms
Remote clock offset: -71.995 ms

# Below is generated by plot.py at 2018-09-06 11:08:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 33.674 ms
Loss rate: 48.56%
-- Flow 1:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 32.681 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.66 Mbit/s
95th percentile per-packet one-way delay: 33.763 ms
Loss rate: 48.70%
-- Flow 3:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 33.326 ms
Loss rate: 47.92%
```

Run 3: Report of PCC-Expr — Data Link

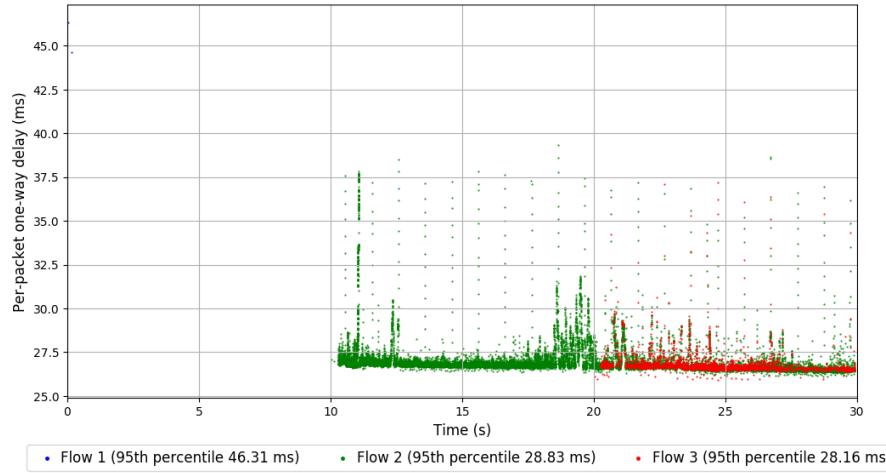
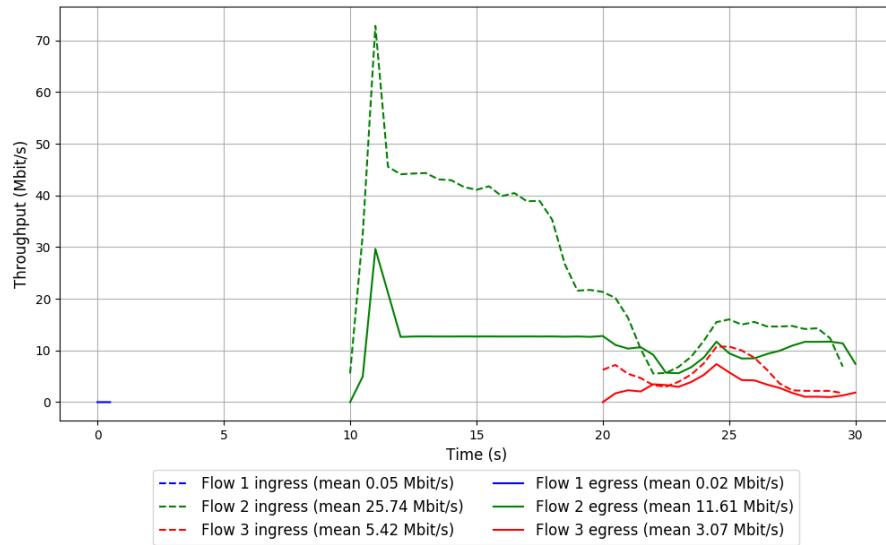


Run 4: Statistics of PCC-Expr

```
Start at: 2018-09-06 10:32:12
End at: 2018-09-06 10:32:42
Local clock offset: 1.471 ms
Remote clock offset: -70.226 ms

# Below is generated by plot.py at 2018-09-06 11:08:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 28.733 ms
Loss rate: 53.79%
-- Flow 1:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 46.314 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 11.61 Mbit/s
95th percentile per-packet one-way delay: 28.826 ms
Loss rate: 54.89%
-- Flow 3:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 28.157 ms
Loss rate: 43.32%
```

Run 4: Report of PCC-Expr — Data Link

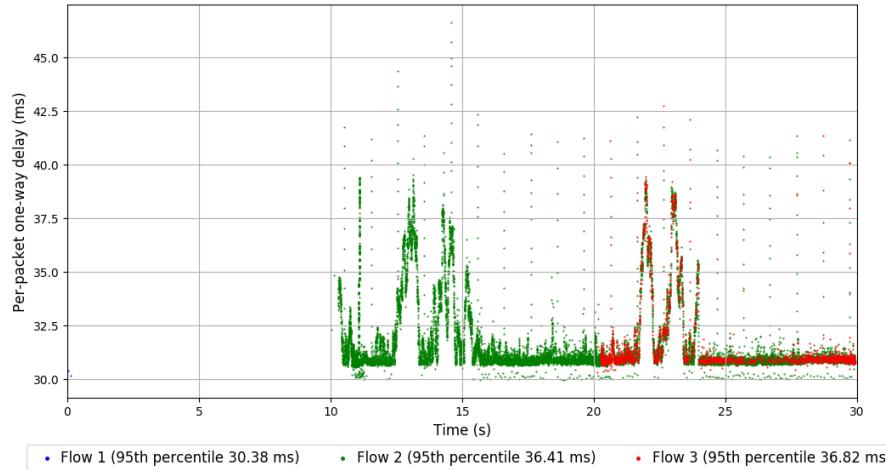
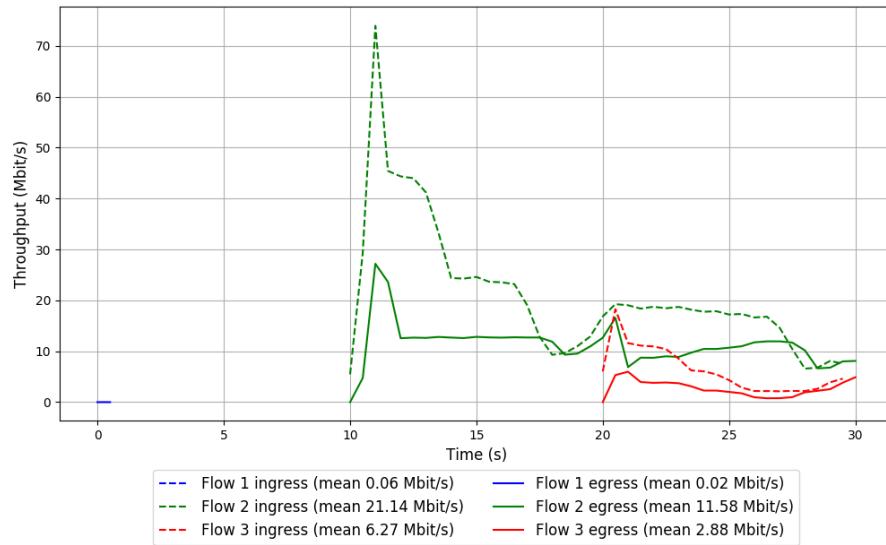


Run 5: Statistics of PCC-Expr

```
Start at: 2018-09-06 10:55:04
End at: 2018-09-06 10:55:34
Local clock offset: 3.726 ms
Remote clock offset: -58.893 ms

# Below is generated by plot.py at 2018-09-06 11:08:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.65 Mbit/s
95th percentile per-packet one-way delay: 36.454 ms
Loss rate: 46.37%
-- Flow 1:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 30.384 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 36.412 ms
Loss rate: 45.24%
-- Flow 3:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 36.824 ms
Loss rate: 54.05%
```

Run 5: Report of PCC-Expr — Data Link

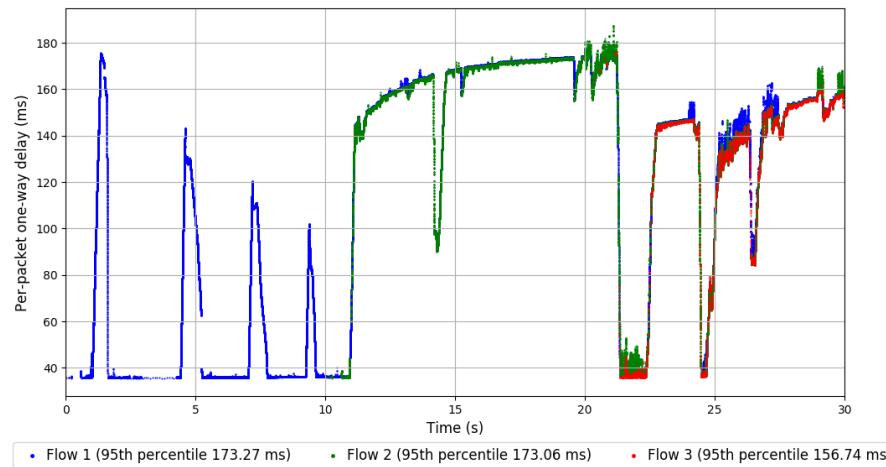
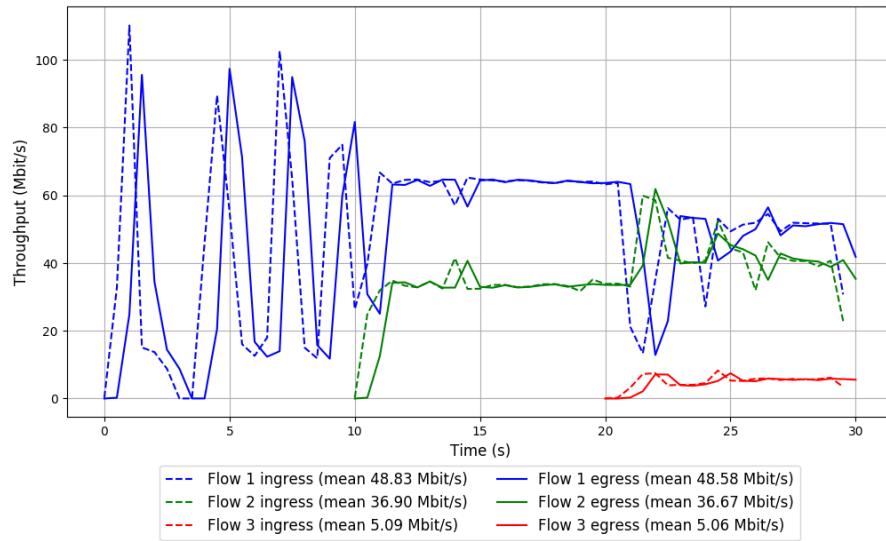


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-09-06 09:29:34
End at: 2018-09-06 09:30:04
Local clock offset: 3.236 ms
Remote clock offset: -68.533 ms

# Below is generated by plot.py at 2018-09-06 11:08:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.50 Mbit/s
95th percentile per-packet one-way delay: 173.192 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 48.58 Mbit/s
95th percentile per-packet one-way delay: 173.266 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 36.67 Mbit/s
95th percentile per-packet one-way delay: 173.055 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 156.736 ms
Loss rate: 0.58%
```

Run 1: Report of QUIC Cubic — Data Link

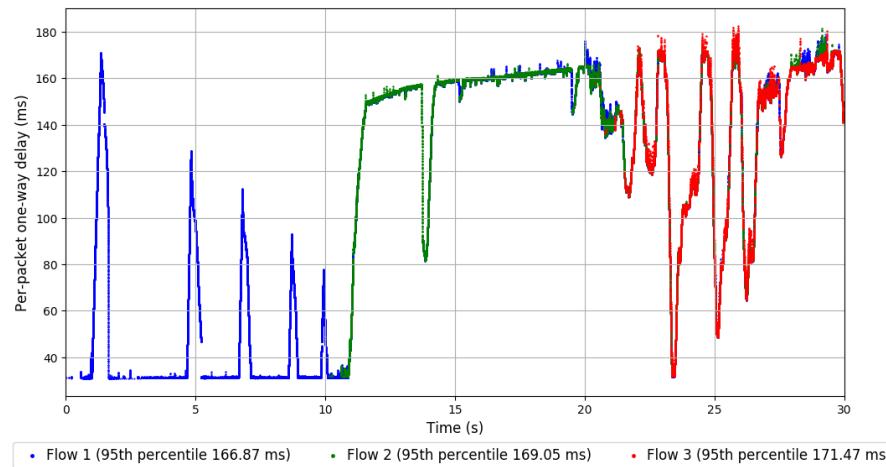
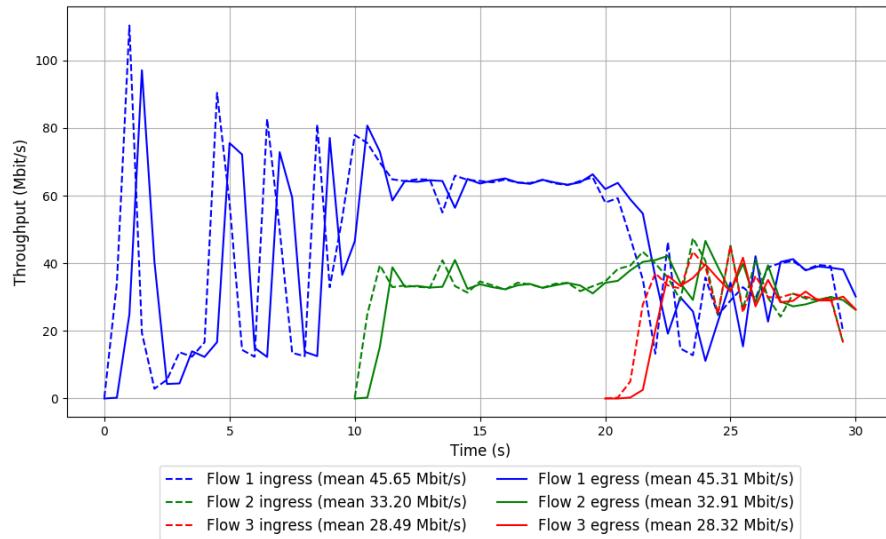


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-09-06 09:52:30
End at: 2018-09-06 09:53:00
Local clock offset: 1.076 ms
Remote clock offset: -120.006 ms

# Below is generated by plot.py at 2018-09-06 11:09:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.17 Mbit/s
95th percentile per-packet one-way delay: 168.954 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 45.31 Mbit/s
95th percentile per-packet one-way delay: 166.865 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 32.91 Mbit/s
95th percentile per-packet one-way delay: 169.052 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 28.32 Mbit/s
95th percentile per-packet one-way delay: 171.473 ms
Loss rate: 0.78%
```

Run 2: Report of QUIC Cubic — Data Link

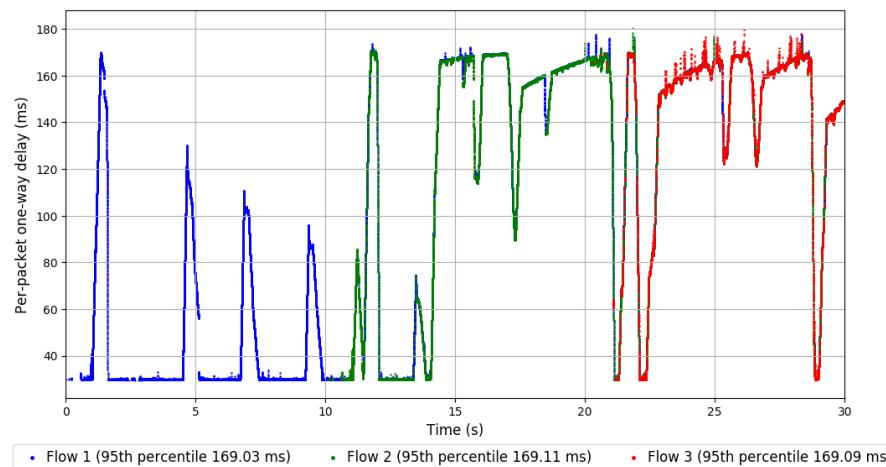
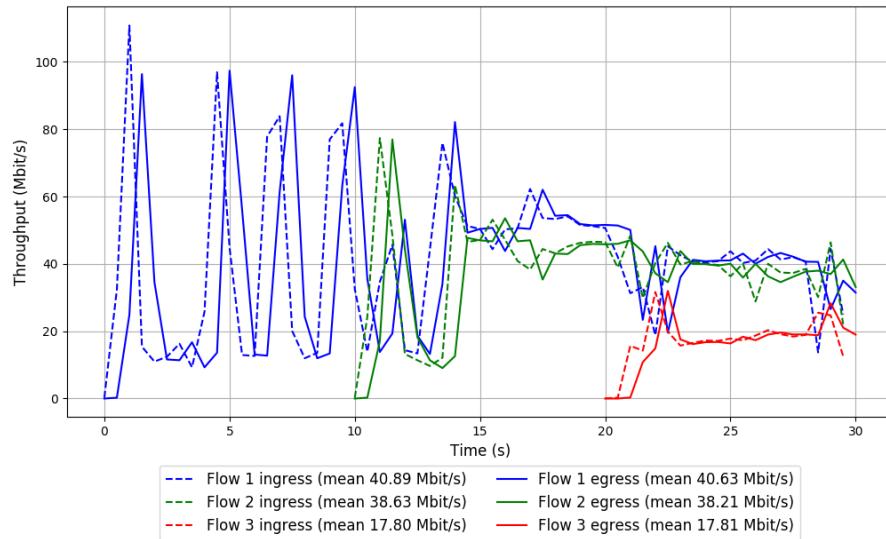


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-09-06 10:15:28
End at: 2018-09-06 10:15:58
Local clock offset: -2.39 ms
Remote clock offset: -73.593 ms

# Below is generated by plot.py at 2018-09-06 11:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.63 Mbit/s
95th percentile per-packet one-way delay: 169.075 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 169.035 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 38.21 Mbit/s
95th percentile per-packet one-way delay: 169.113 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 17.81 Mbit/s
95th percentile per-packet one-way delay: 169.095 ms
Loss rate: 0.13%
```

Run 3: Report of QUIC Cubic — Data Link

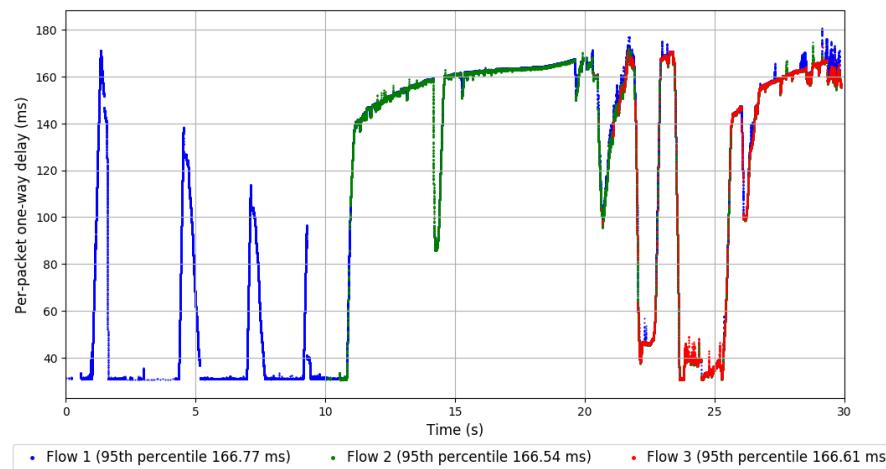
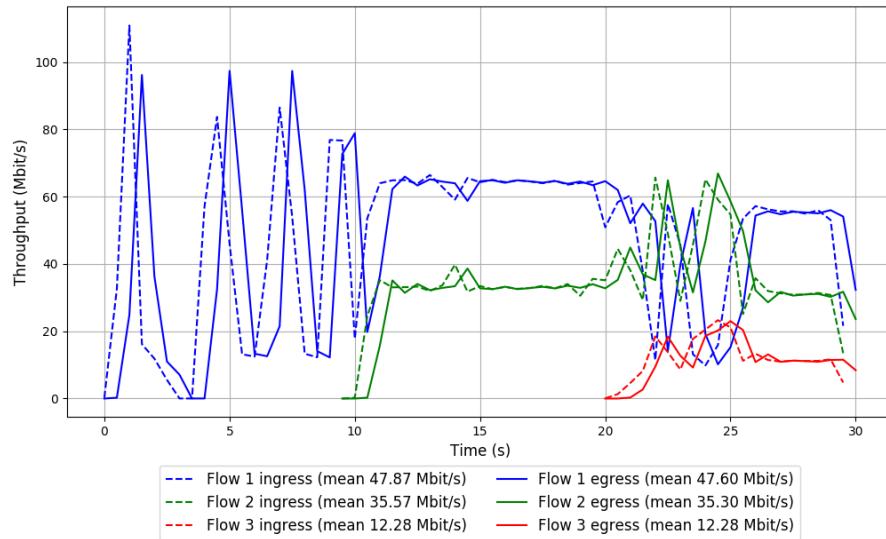


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-09-06 10:38:30
End at: 2018-09-06 10:39:00
Local clock offset: 1.968 ms
Remote clock offset: -60.427 ms

# Below is generated by plot.py at 2018-09-06 11:09:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.96 Mbit/s
95th percentile per-packet one-way delay: 166.679 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 47.60 Mbit/s
95th percentile per-packet one-way delay: 166.768 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 35.30 Mbit/s
95th percentile per-packet one-way delay: 166.539 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 12.28 Mbit/s
95th percentile per-packet one-way delay: 166.614 ms
Loss rate: 0.05%
```

Run 4: Report of QUIC Cubic — Data Link

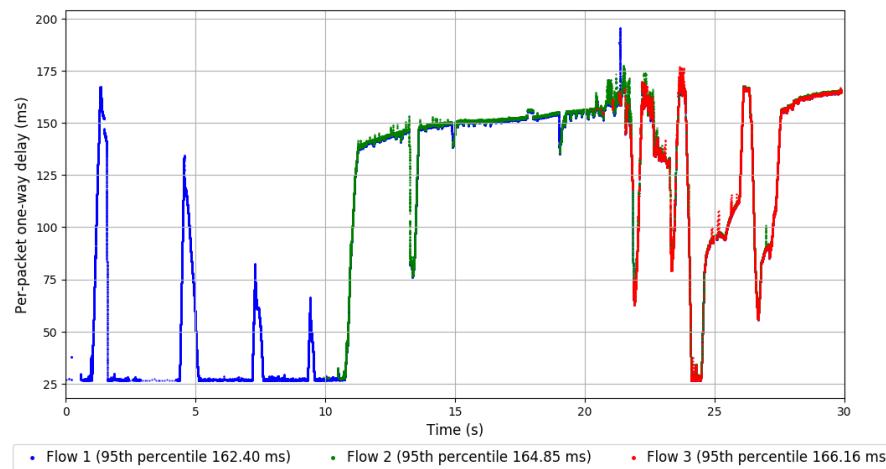
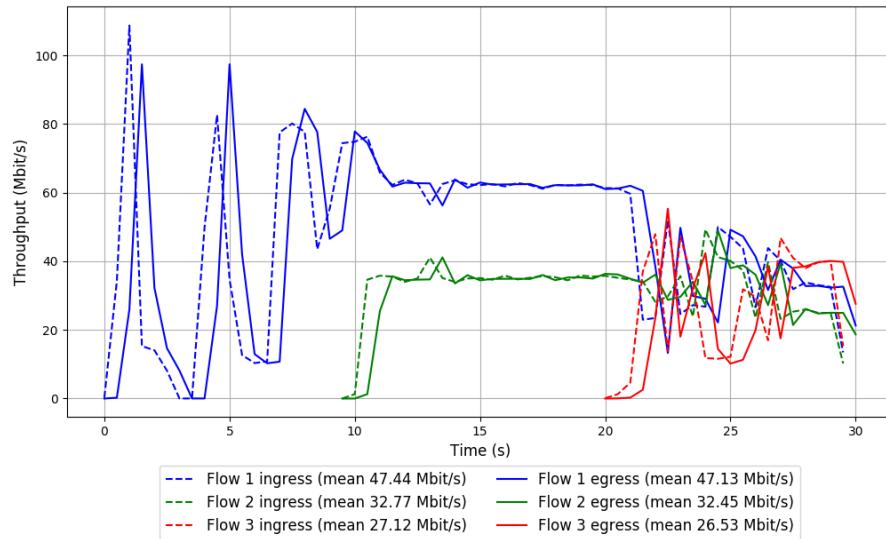


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-09-06 11:01:13
End at: 2018-09-06 11:01:43
Local clock offset: 4.004 ms
Remote clock offset: -63.171 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.25 Mbit/s
95th percentile per-packet one-way delay: 164.366 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 47.13 Mbit/s
95th percentile per-packet one-way delay: 162.397 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 164.849 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 26.53 Mbit/s
95th percentile per-packet one-way delay: 166.160 ms
Loss rate: 2.07%
```

Run 5: Report of QUIC Cubic — Data Link

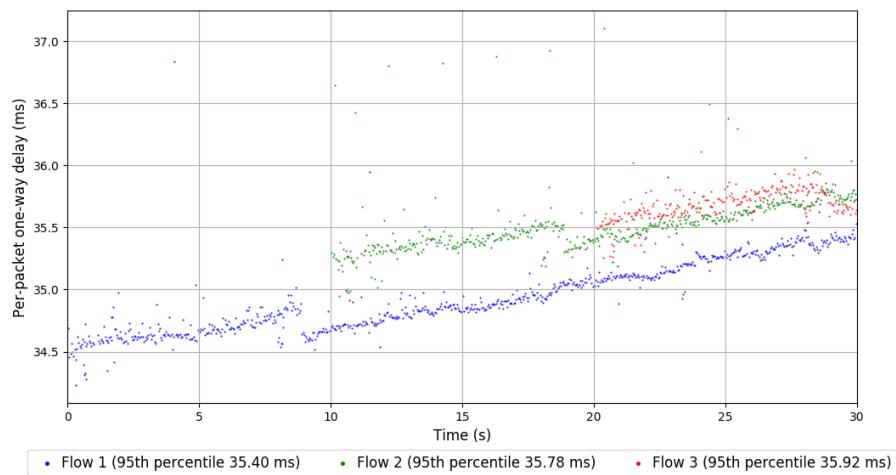
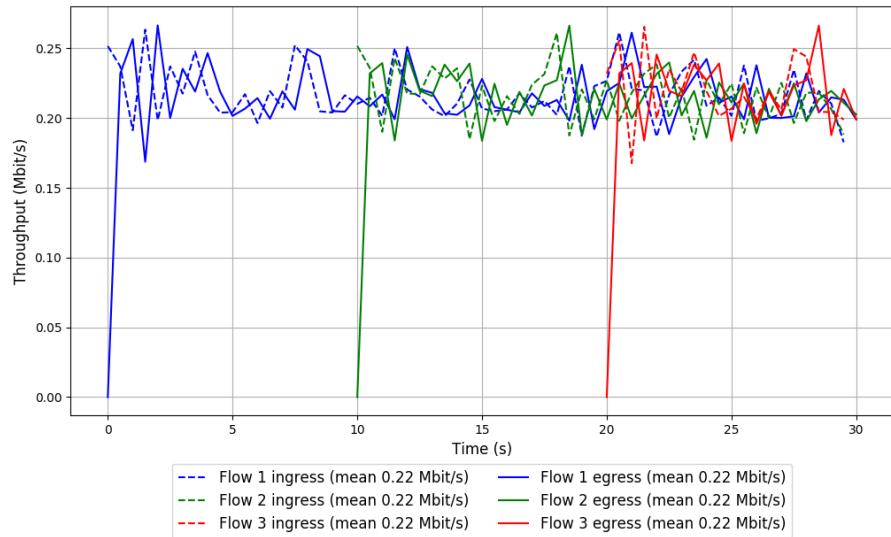


```
Run 1: Statistics of SCReAM

Start at: 2018-09-06 09:27:00
End at: 2018-09-06 09:27:30
Local clock offset: 2.631 ms
Remote clock offset: -64.045 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 35.791 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 35.397 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 35.778 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 35.925 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

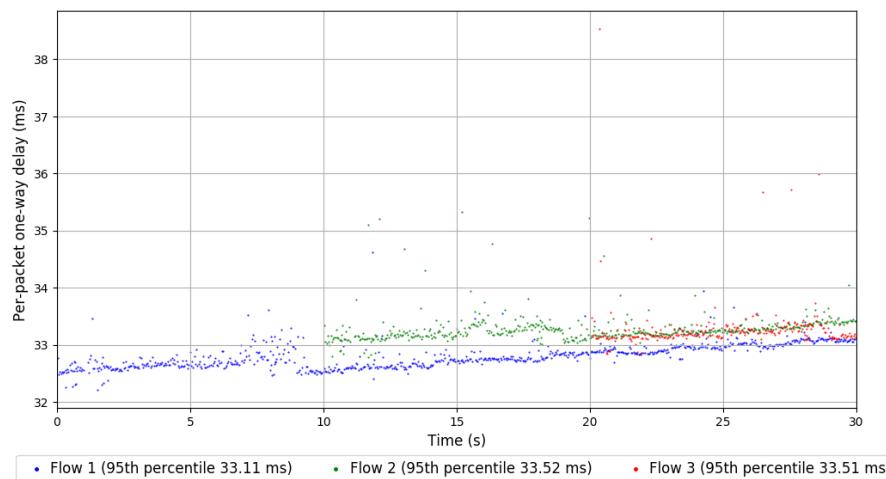
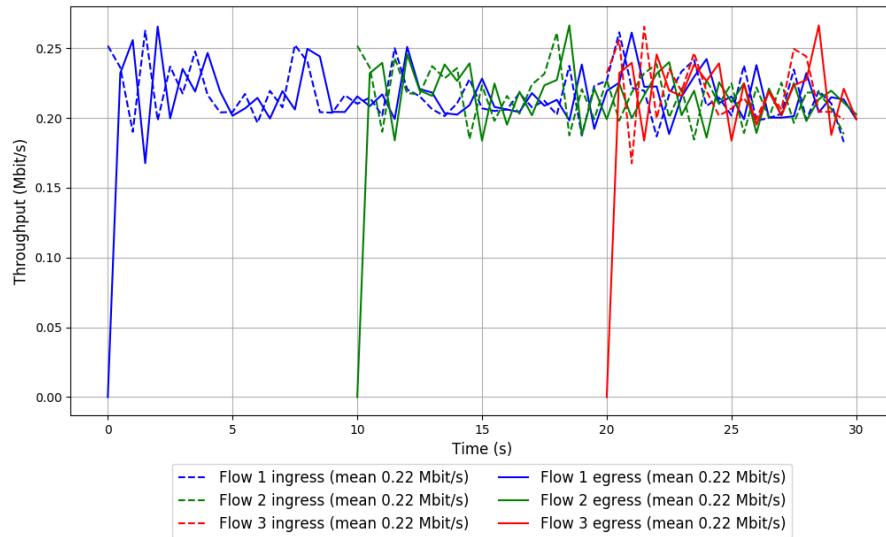


Run 2: Statistics of SCReAM

```
Start at: 2018-09-06 09:50:03
End at: 2018-09-06 09:50:33
Local clock offset: 2.281 ms
Remote clock offset: -113.923 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 33.429 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.111 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.519 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.505 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

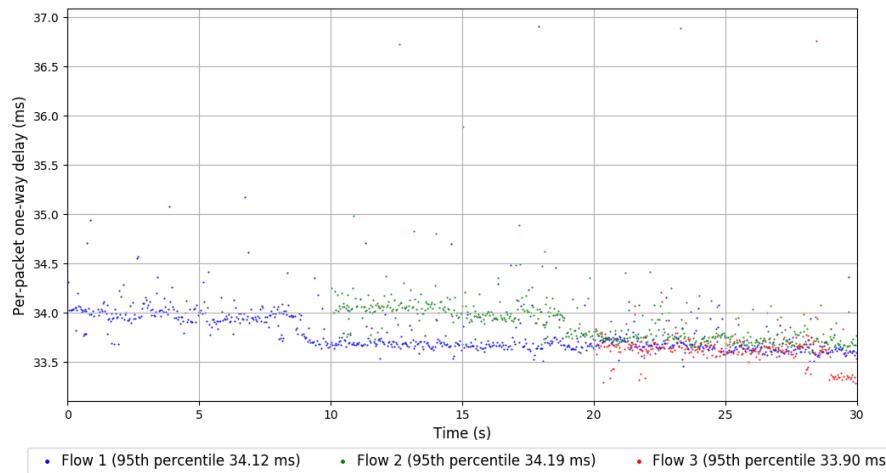
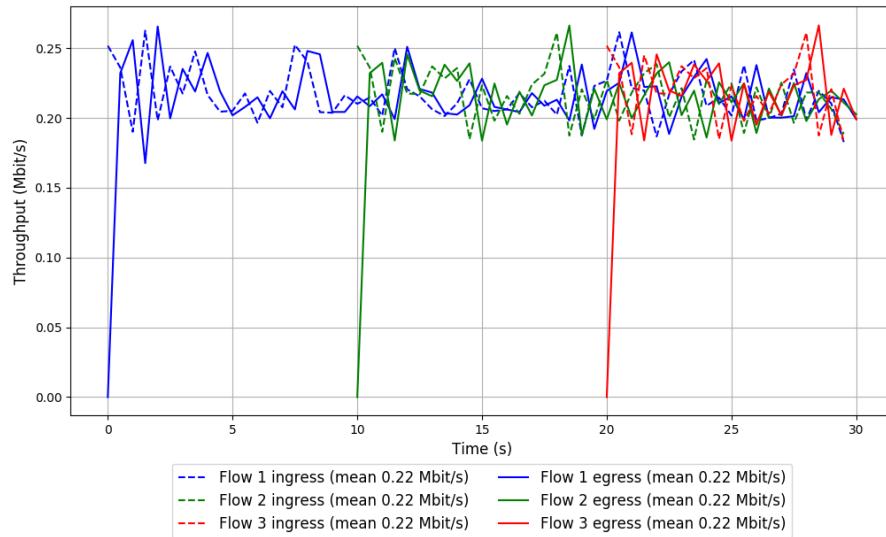


Run 3: Statistics of SCReAM

```
Start at: 2018-09-06 10:12:58
End at: 2018-09-06 10:13:28
Local clock offset: -2.256 ms
Remote clock offset: -69.935 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 34.139 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 34.118 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 34.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.898 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

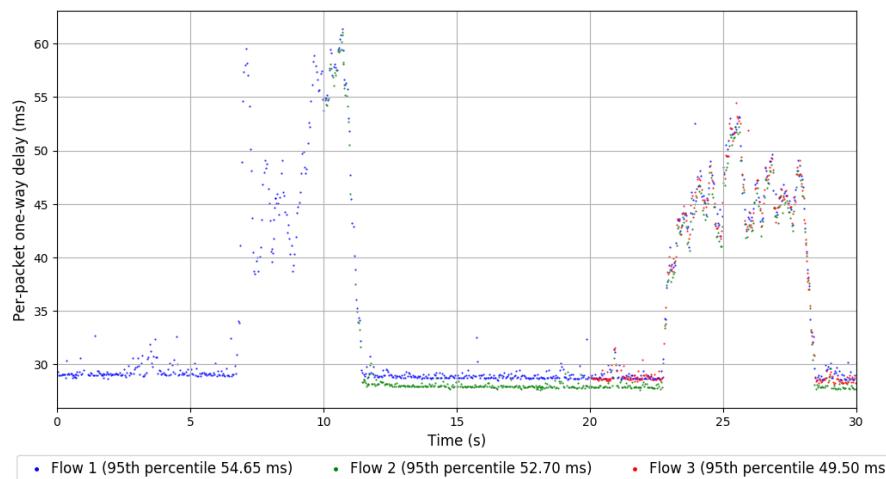
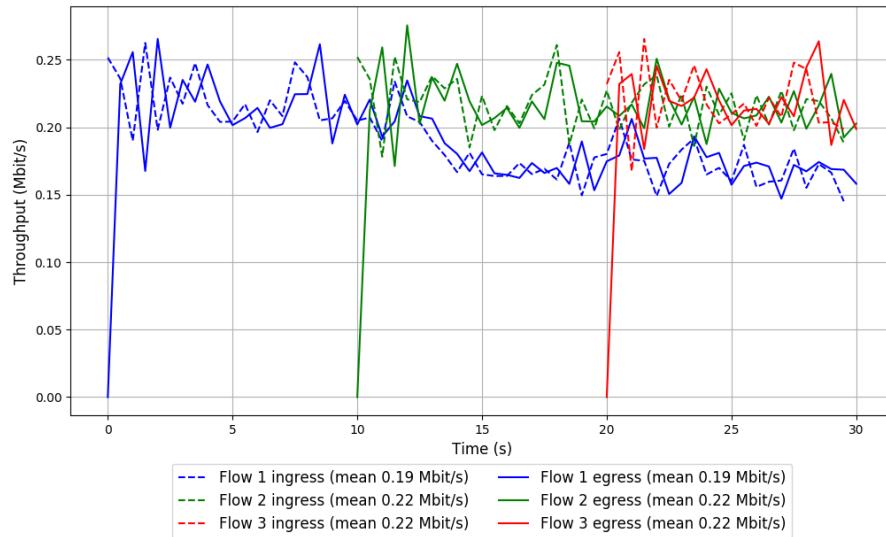


Run 4: Statistics of SCReAM

```
Start at: 2018-09-06 10:35:55
End at: 2018-09-06 10:36:25
Local clock offset: 1.987 ms
Remote clock offset: -64.463 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 52.617 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 54.652 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.700 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.504 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

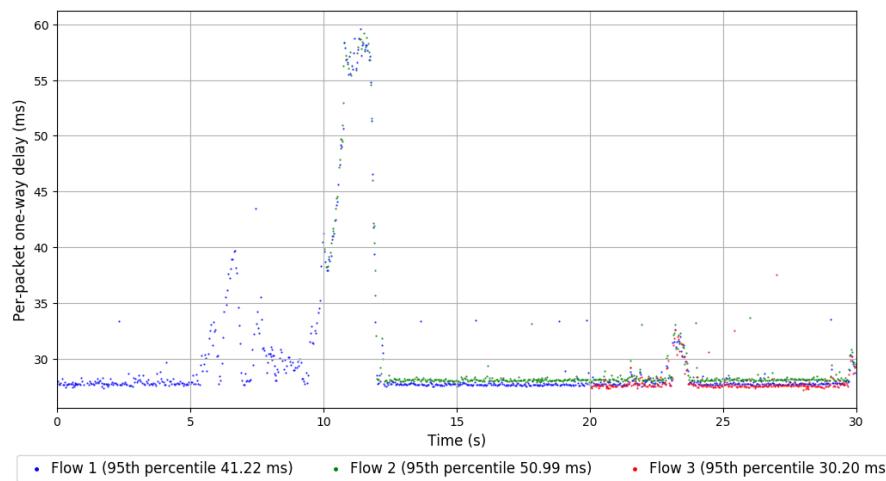
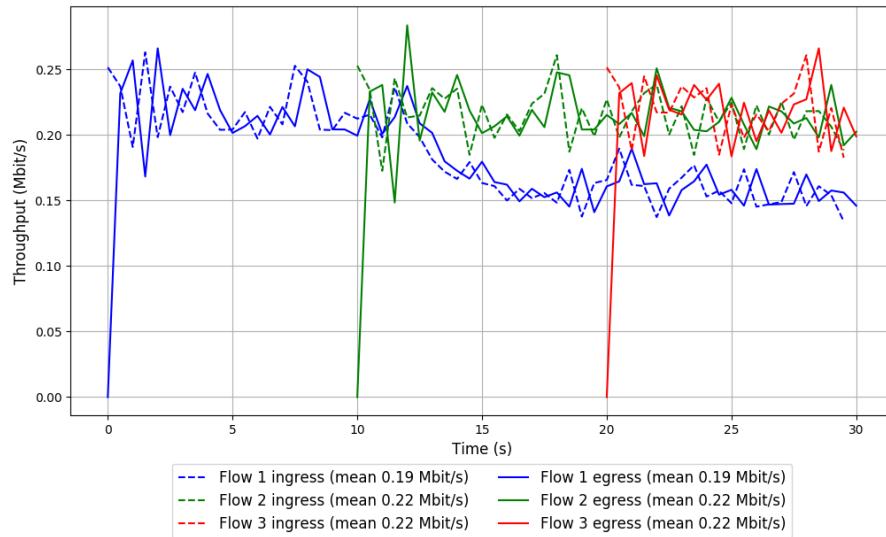


Run 5: Statistics of SCReAM

```
Start at: 2018-09-06 10:58:46
End at: 2018-09-06 10:59:16
Local clock offset: 3.828 ms
Remote clock offset: -62.477 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 41.675 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 41.224 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.992 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.201 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

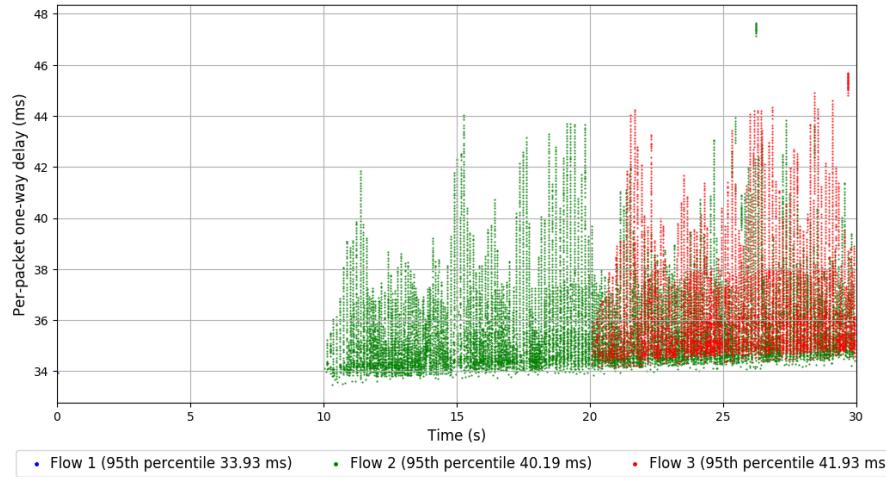
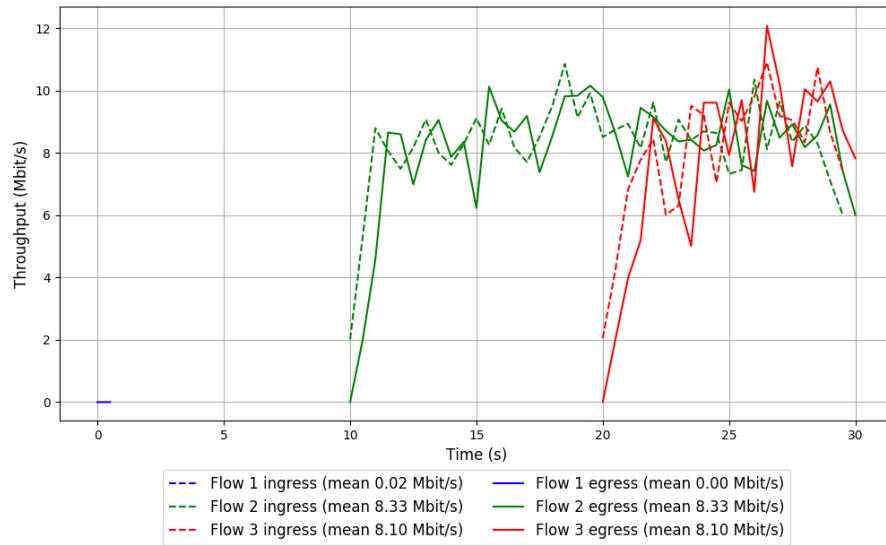


Run 1: Statistics of Sprout

```
Start at: 2018-09-06 09:25:46
End at: 2018-09-06 09:26:16
Local clock offset: 2.568 ms
Remote clock offset: -62.315 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 40.938 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 33.934 ms
Loss rate: 66.89%
-- Flow 2:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 40.187 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.10 Mbit/s
95th percentile per-packet one-way delay: 41.930 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

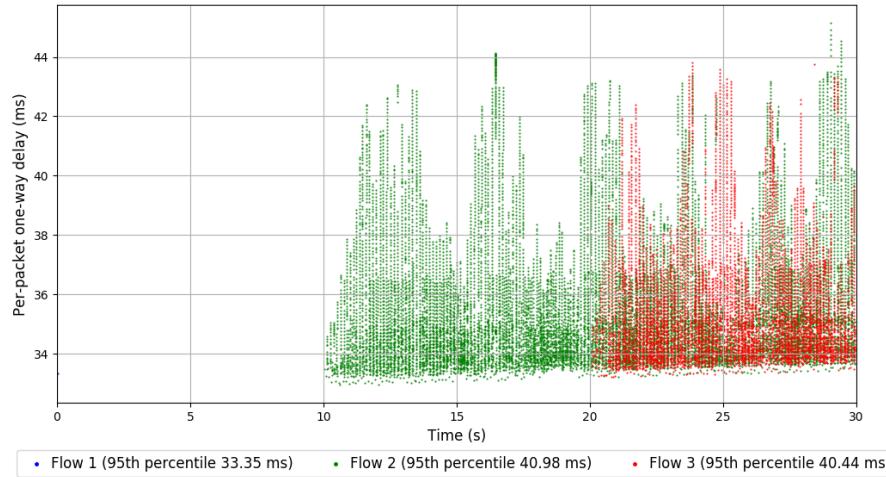
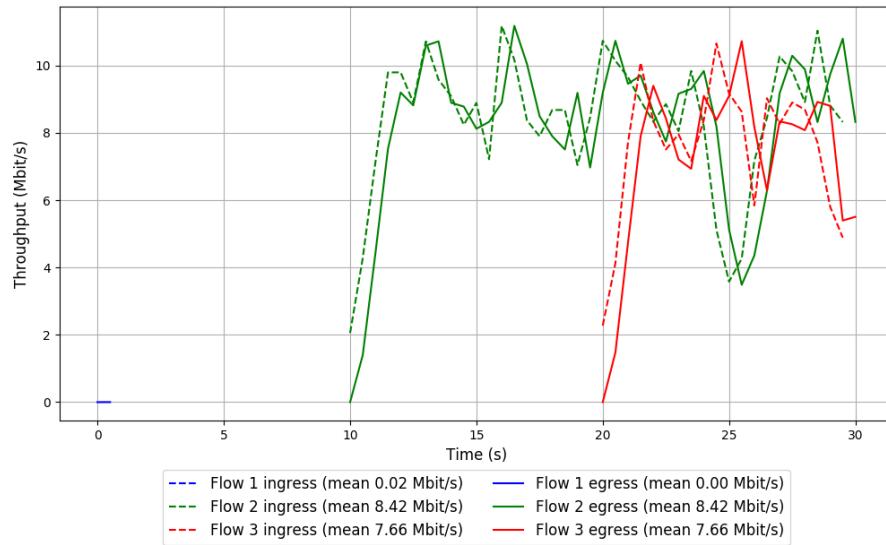


Run 2: Statistics of Sprout

```
Start at: 2018-09-06 09:48:50
End at: 2018-09-06 09:49:20
Local clock offset: 2.774 ms
Remote clock offset: -110.911 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 40.830 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 33.355 ms
Loss rate: 66.89%
-- Flow 2:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 40.978 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 40.436 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

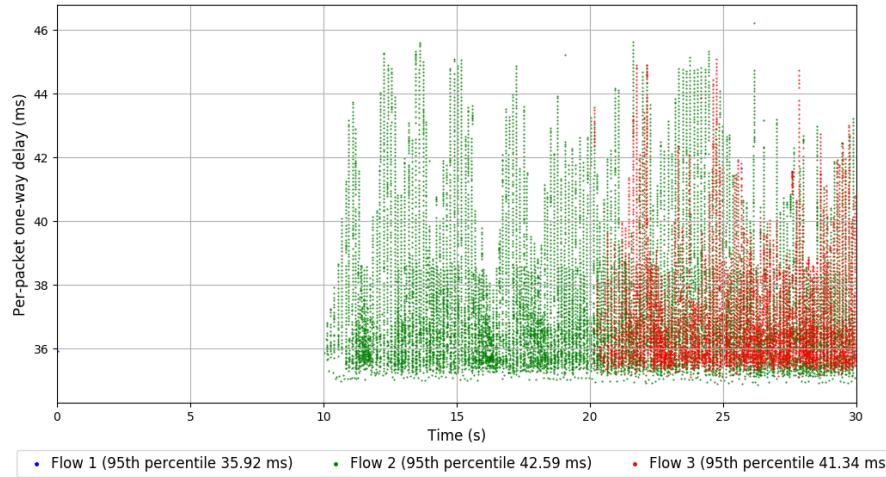
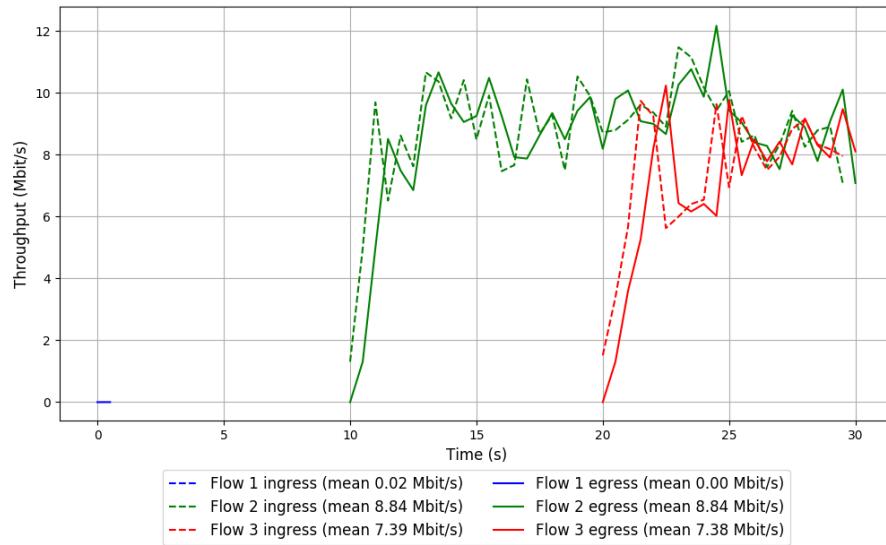


Run 3: Statistics of Sprout

```
Start at: 2018-09-06 10:11:45
End at: 2018-09-06 10:12:16
Local clock offset: -1.977 ms
Remote clock offset: -68.221 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 42.310 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 35.917 ms
Loss rate: 66.89%
-- Flow 2:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 42.591 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.38 Mbit/s
95th percentile per-packet one-way delay: 41.342 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

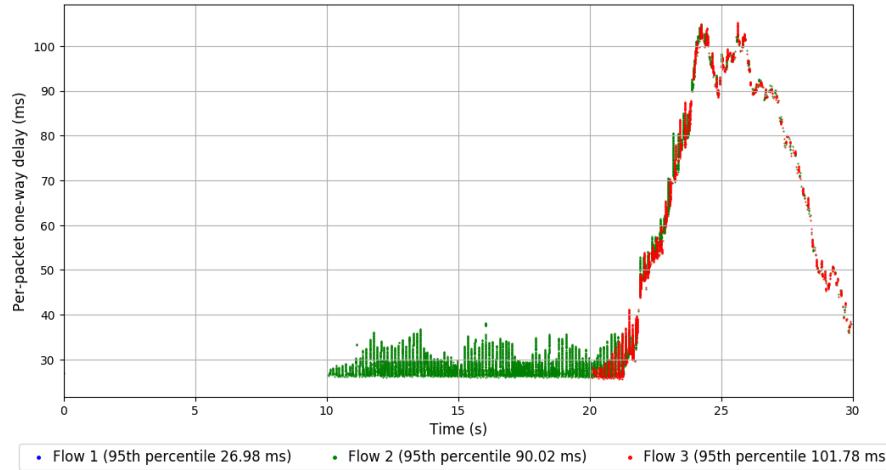
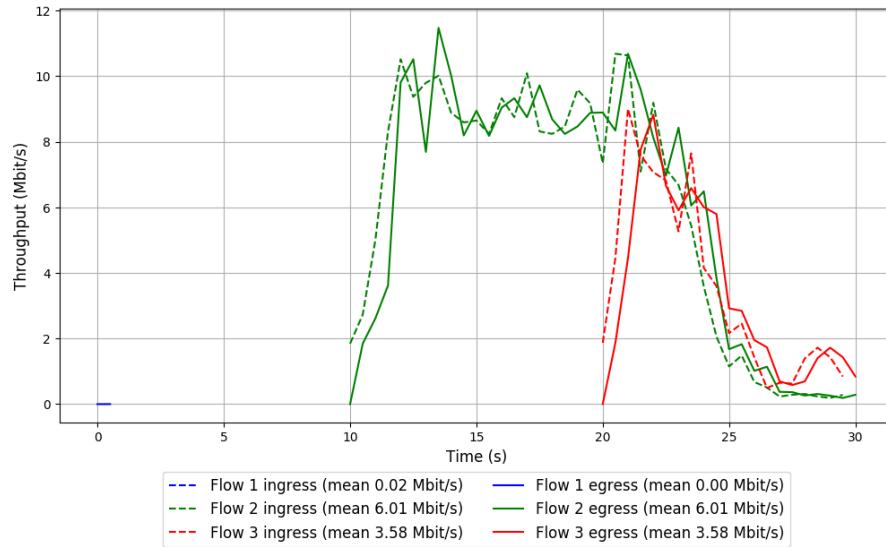


Run 4: Statistics of Sprout

```
Start at: 2018-09-06 10:34:43
End at: 2018-09-06 10:35:13
Local clock offset: 1.902 ms
Remote clock offset: -67.258 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 97.217 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 26.975 ms
Loss rate: 66.89%
-- Flow 2:
Average throughput: 6.01 Mbit/s
95th percentile per-packet one-way delay: 90.021 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 101.785 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

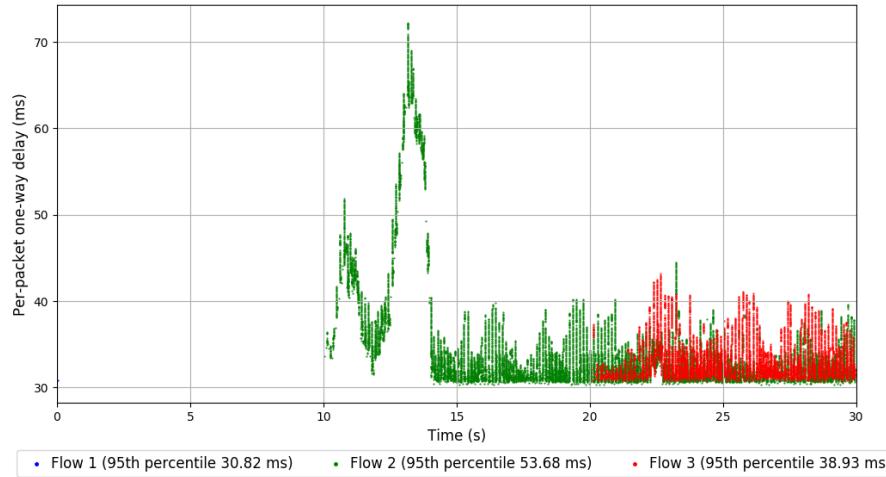
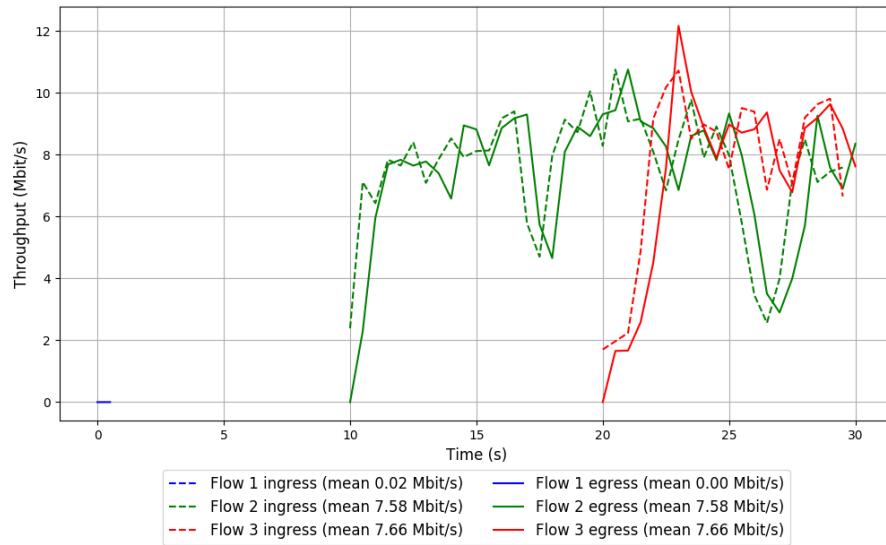


Run 5: Statistics of Sprout

```
Start at: 2018-09-06 10:57:33
End at: 2018-09-06 10:58:03
Local clock offset: 3.884 ms
Remote clock offset: -59.028 ms

# Below is generated by plot.py at 2018-09-06 11:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.57 Mbit/s
95th percentile per-packet one-way delay: 45.807 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 30.825 ms
Loss rate: 66.89%
-- Flow 2:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 53.682 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 38.932 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

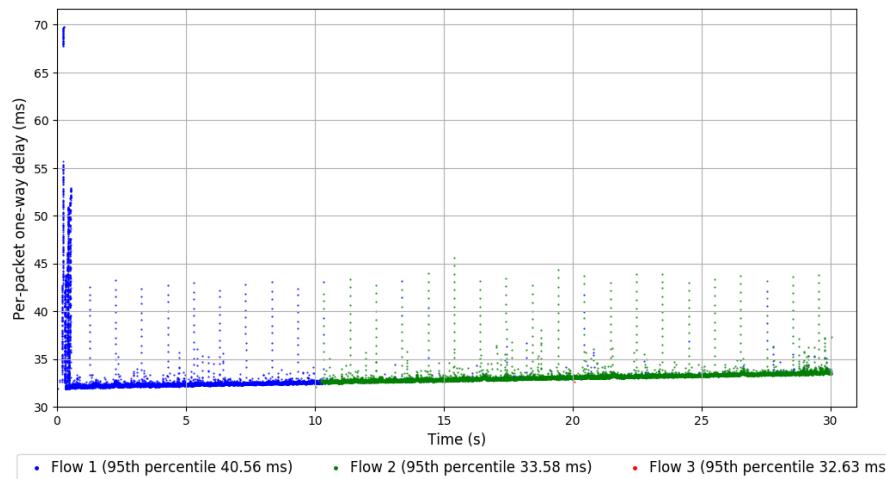
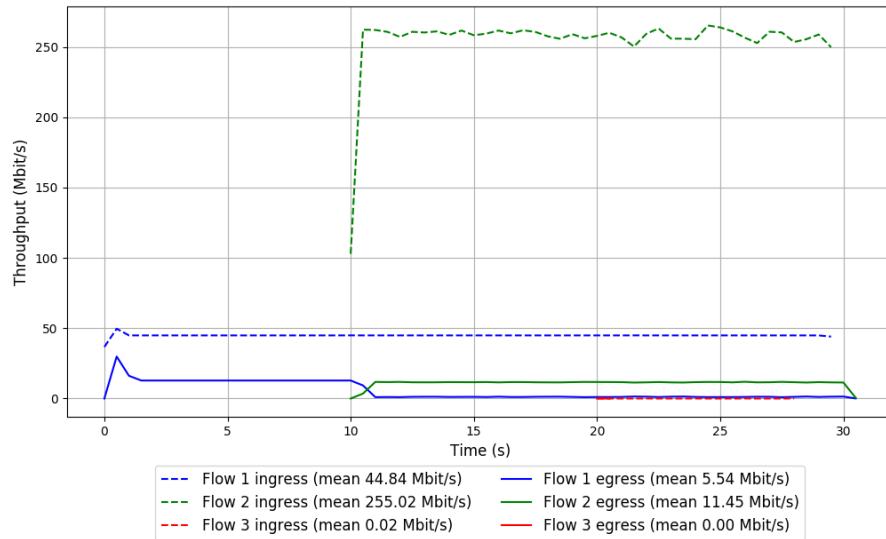


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-09-06 09:13:59
End at: 2018-09-06 09:14:29
Local clock offset: -1.939 ms
Remote clock offset: -35.812 ms

# Below is generated by plot.py at 2018-09-06 11:09:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 34.021 ms
Loss rate: 93.87%
-- Flow 1:
Average throughput: 5.54 Mbit/s
95th percentile per-packet one-way delay: 40.557 ms
Loss rate: 87.64%
-- Flow 2:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 33.583 ms
Loss rate: 95.51%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 32.635 ms
Loss rate: 99.19%
```

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

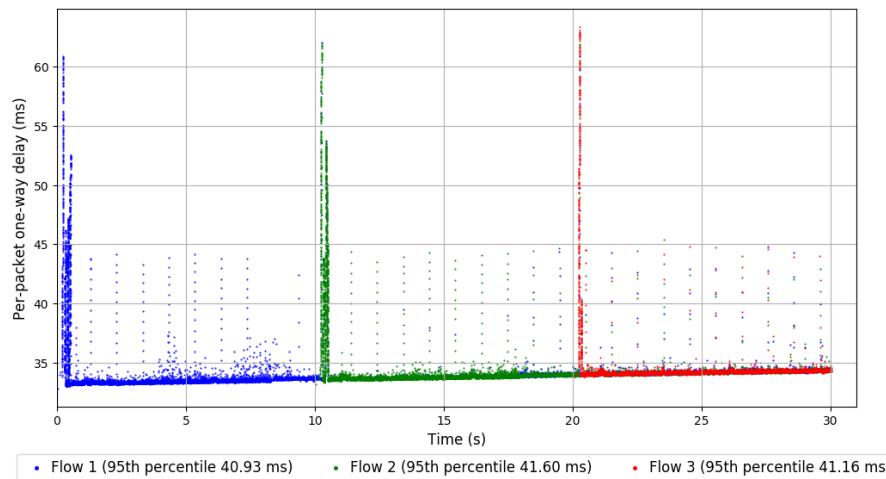
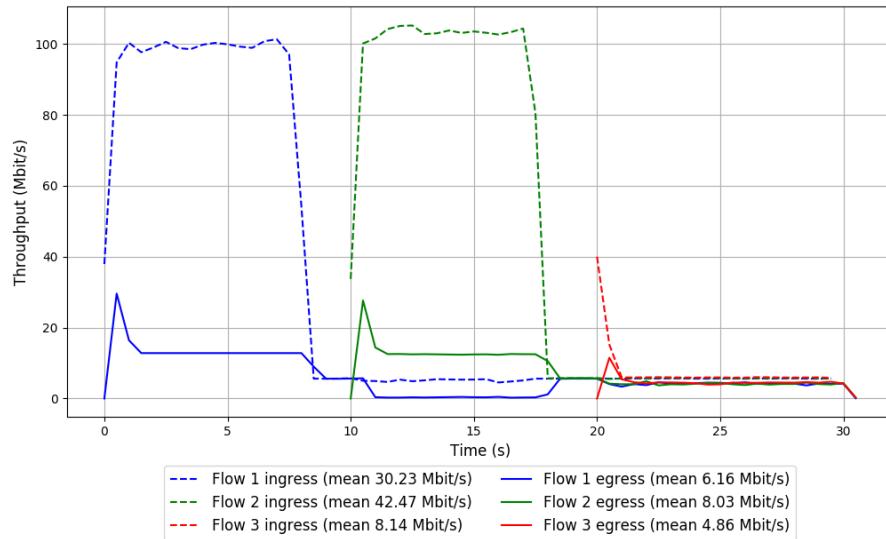


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-09-06 09:37:04
End at: 2018-09-06 09:37:34
Local clock offset: 4.246 ms
Remote clock offset: -87.075 ms

# Below is generated by plot.py at 2018-09-06 11:09:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 41.222 ms
Loss rate: 78.58%
-- Flow 1:
Average throughput: 6.16 Mbit/s
95th percentile per-packet one-way delay: 40.930 ms
Loss rate: 79.64%
-- Flow 2:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 41.603 ms
Loss rate: 81.10%
-- Flow 3:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 41.165 ms
Loss rate: 40.36%
```

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

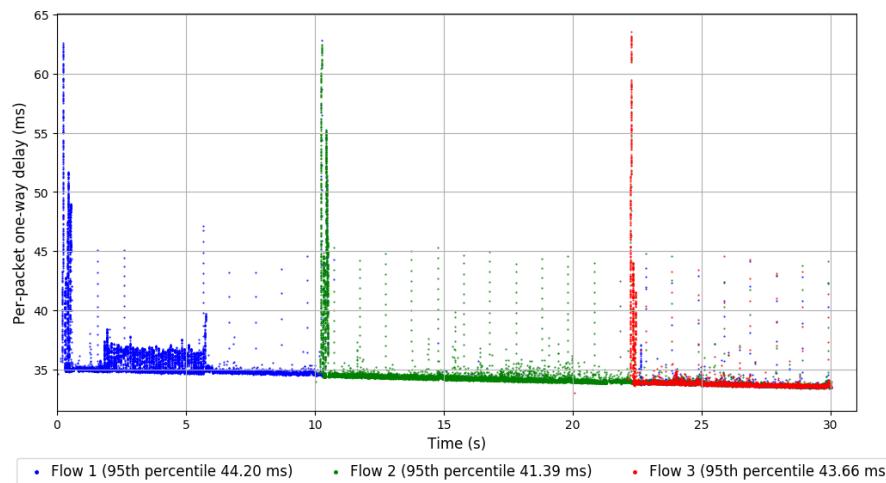
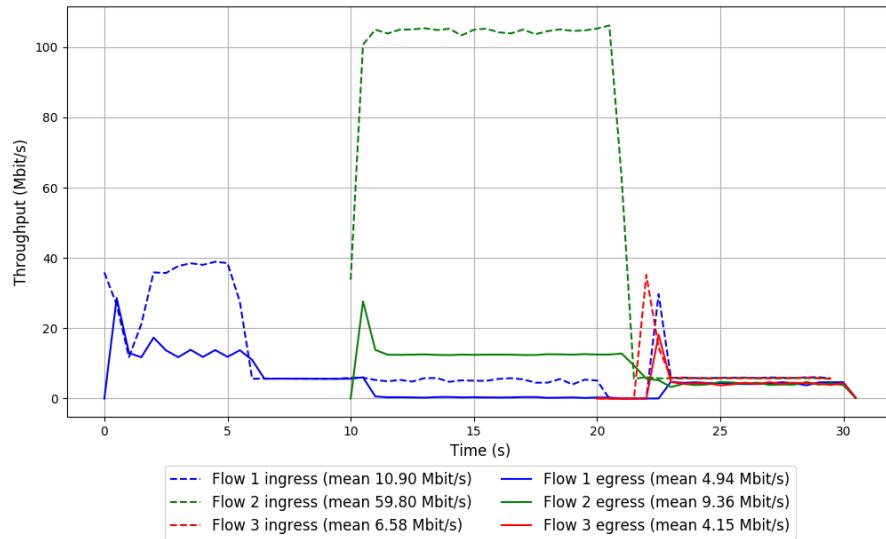


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-09-06 09:59:55
End at: 2018-09-06 10:00:25
Local clock offset: -0.613 ms
Remote clock offset: -85.451 ms

# Below is generated by plot.py at 2018-09-06 11:09:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 42.747 ms
Loss rate: 76.28%
-- Flow 1:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 44.205 ms
Loss rate: 54.65%
-- Flow 2:
Average throughput: 9.36 Mbit/s
95th percentile per-packet one-way delay: 41.389 ms
Loss rate: 84.35%
-- Flow 3:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 43.659 ms
Loss rate: 37.03%
```

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

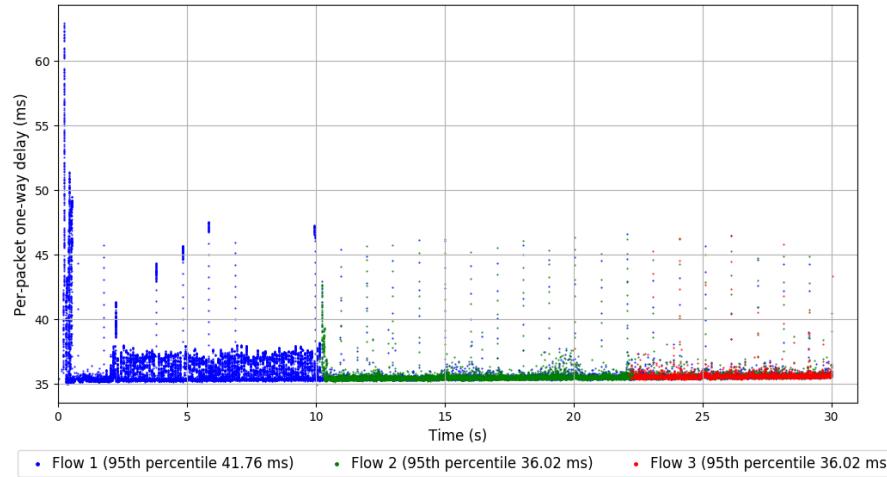
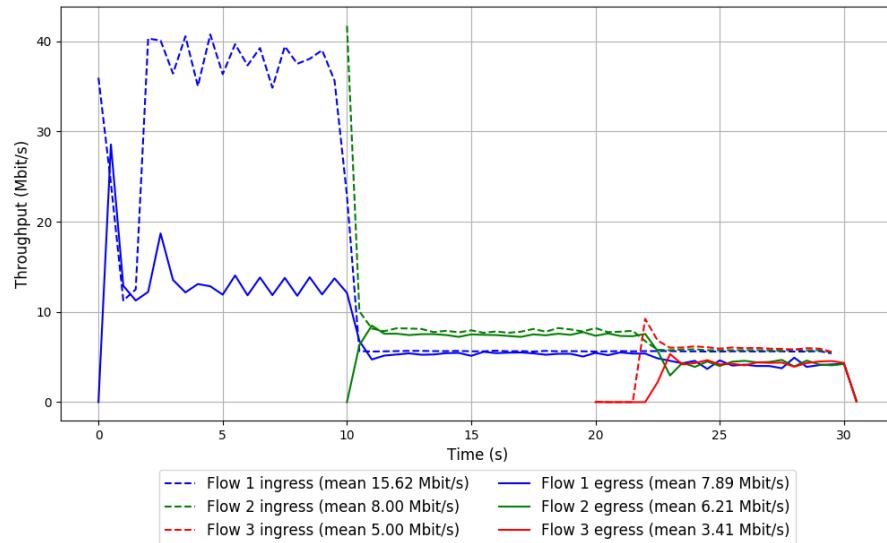


Run 4: Statistics of TaoVA-100x

```
Start at: 2018-09-06 10:23:00
End at: 2018-09-06 10:23:30
Local clock offset: 0.293 ms
Remote clock offset: -69.57 ms

# Below is generated by plot.py at 2018-09-06 11:09:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 38.209 ms
Loss rate: 41.76%
-- Flow 1:
Average throughput: 7.89 Mbit/s
95th percentile per-packet one-way delay: 41.755 ms
Loss rate: 49.47%
-- Flow 2:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 36.019 ms
Loss rate: 22.28%
-- Flow 3:
Average throughput: 3.41 Mbit/s
95th percentile per-packet one-way delay: 36.023 ms
Loss rate: 31.66%
```

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

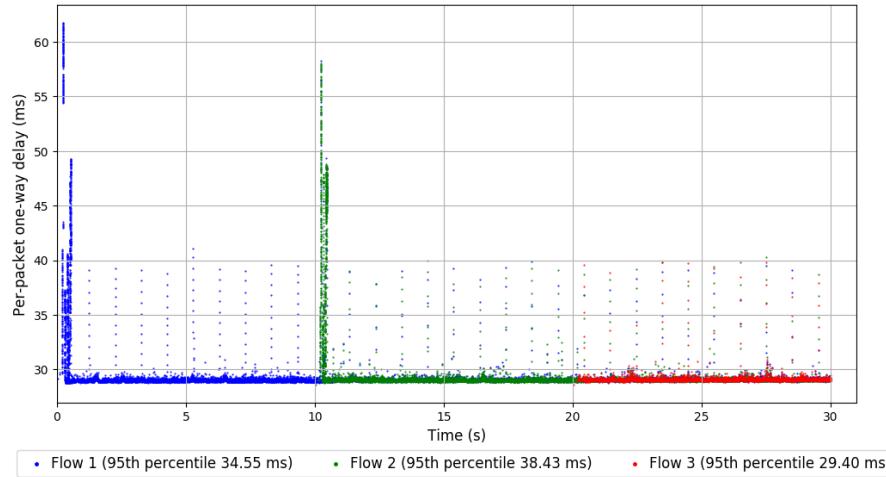
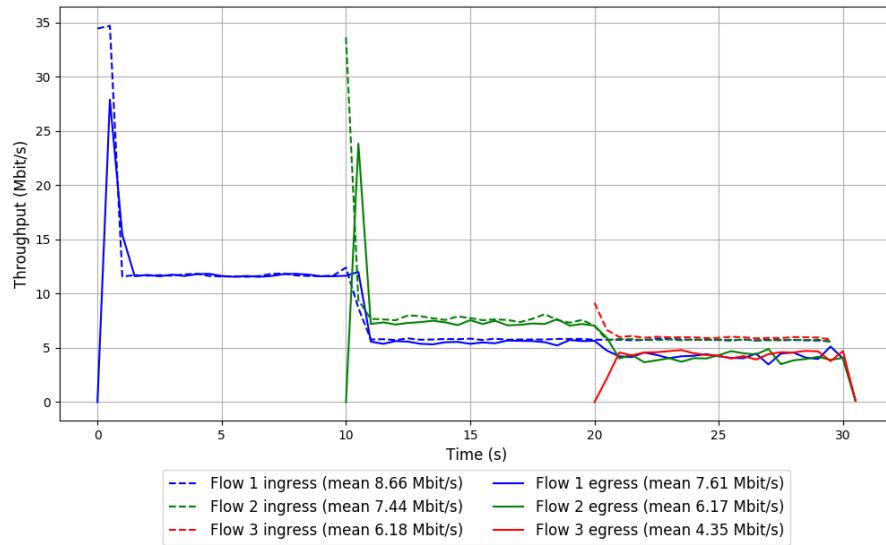


Run 5: Statistics of TaoVA-100x

```
Start at: 2018-09-06 10:45:59
End at: 2018-09-06 10:46:29
Local clock offset: 2.512 ms
Remote clock offset: -60.429 ms

# Below is generated by plot.py at 2018-09-06 11:09:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.17 Mbit/s
95th percentile per-packet one-way delay: 34.465 ms
Loss rate: 16.00%
-- Flow 1:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 34.551 ms
Loss rate: 12.14%
-- Flow 2:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 38.431 ms
Loss rate: 17.16%
-- Flow 3:
Average throughput: 4.35 Mbit/s
95th percentile per-packet one-way delay: 29.400 ms
Loss rate: 29.51%
```

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

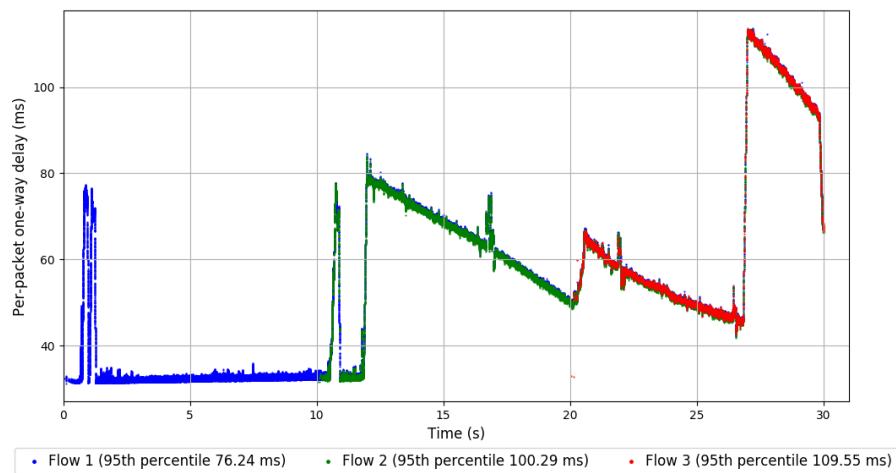
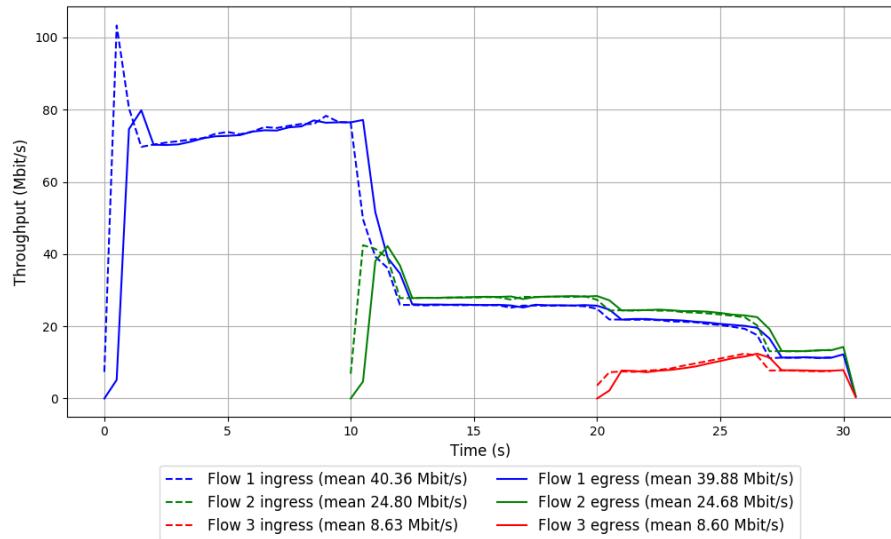


Run 1: Statistics of TCP Vegas

```
Start at: 2018-09-06 09:08:59
End at: 2018-09-06 09:09:29
Local clock offset: -1.697 ms
Remote clock offset: -16.202 ms

# Below is generated by plot.py at 2018-09-06 11:09:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 94.515 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 39.88 Mbit/s
95th percentile per-packet one-way delay: 76.239 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 100.293 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 109.551 ms
Loss rate: 0.39%
```

Run 1: Report of TCP Vegas — Data Link

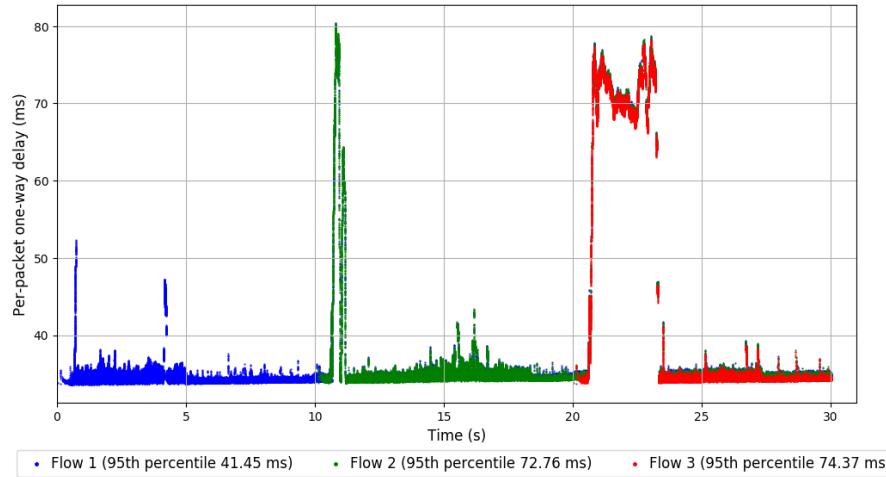
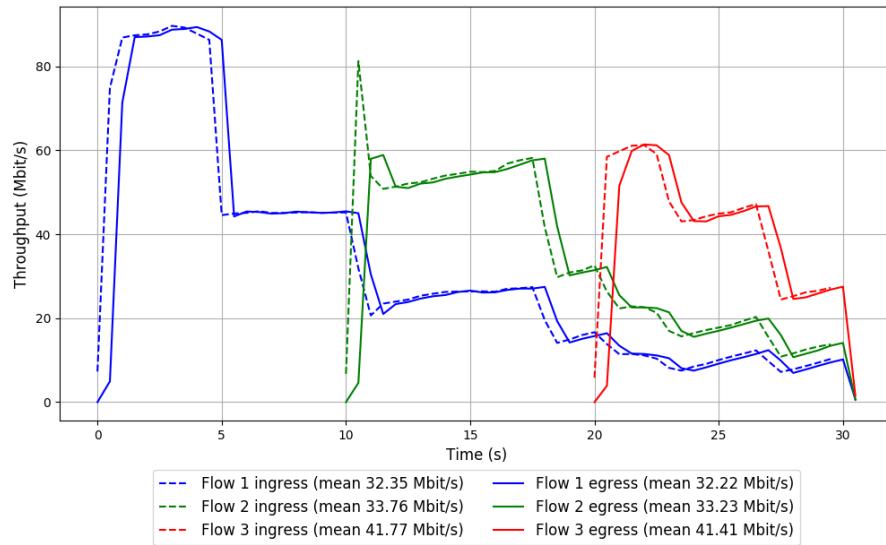


Run 2: Statistics of TCP Vegas

```
Start at: 2018-09-06 09:32:05
End at: 2018-09-06 09:32:35
Local clock offset: 3.71 ms
Remote clock offset: -75.961 ms

# Below is generated by plot.py at 2018-09-06 11:09:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.13 Mbit/s
95th percentile per-packet one-way delay: 72.714 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 32.22 Mbit/s
95th percentile per-packet one-way delay: 41.451 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 33.23 Mbit/s
95th percentile per-packet one-way delay: 72.757 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 41.41 Mbit/s
95th percentile per-packet one-way delay: 74.371 ms
Loss rate: 0.85%
```

Run 2: Report of TCP Vegas — Data Link

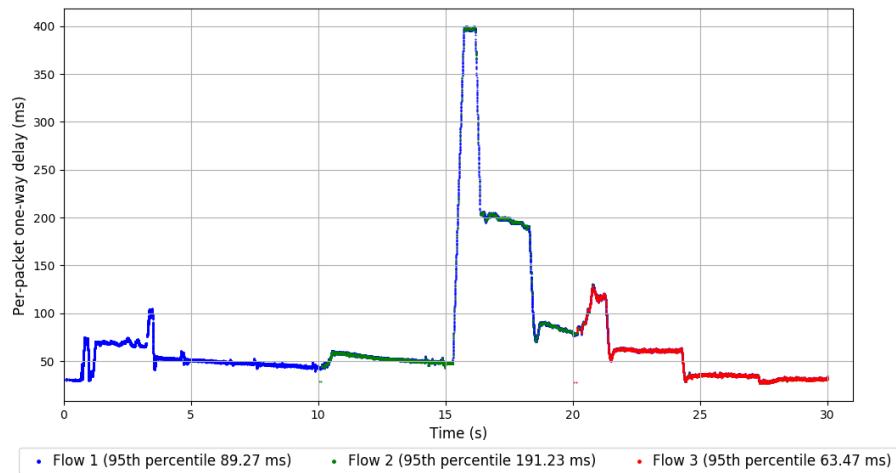
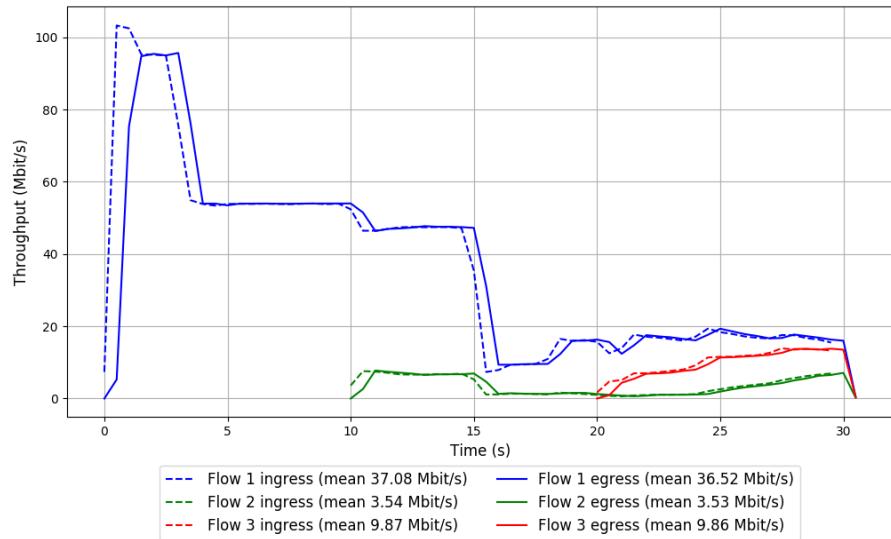


Run 3: Statistics of TCP Vegas

```
Start at: 2018-09-06 09:55:02
End at: 2018-09-06 09:55:32
Local clock offset: 0.239 ms
Remote clock offset: -111.558 ms

# Below is generated by plot.py at 2018-09-06 11:09:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.15 Mbit/s
95th percentile per-packet one-way delay: 89.463 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 36.52 Mbit/s
95th percentile per-packet one-way delay: 89.272 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 3.53 Mbit/s
95th percentile per-packet one-way delay: 191.229 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 9.86 Mbit/s
95th percentile per-packet one-way delay: 63.465 ms
Loss rate: 0.06%
```

Run 3: Report of TCP Vegas — Data Link

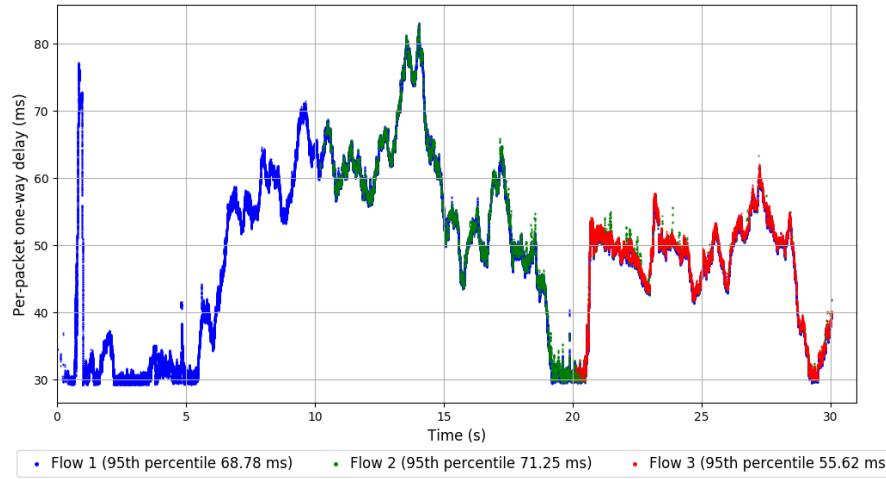
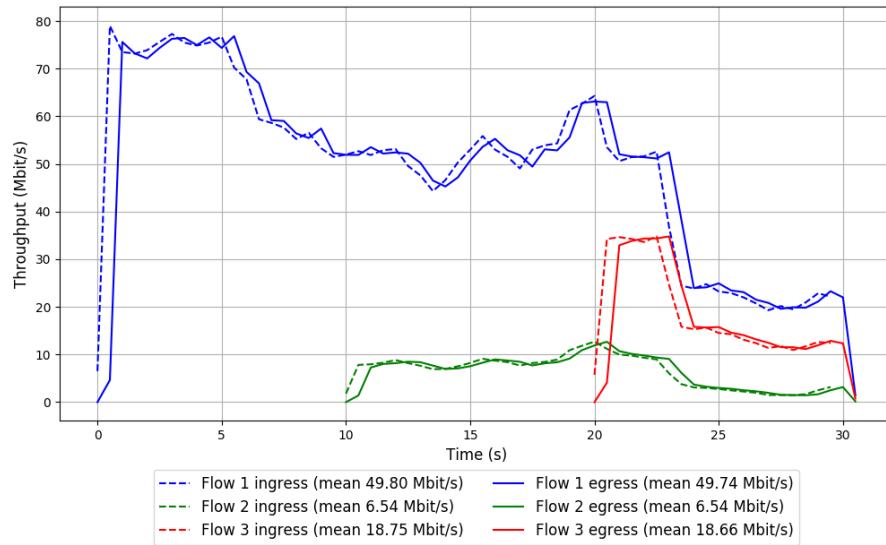


Run 4: Statistics of TCP Vegas

```
Start at: 2018-09-06 10:18:01
End at: 2018-09-06 10:18:31
Local clock offset: -1.229 ms
Remote clock offset: -74.15 ms

# Below is generated by plot.py at 2018-09-06 11:09:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.30 Mbit/s
95th percentile per-packet one-way delay: 68.017 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 49.74 Mbit/s
95th percentile per-packet one-way delay: 68.780 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 6.54 Mbit/s
95th percentile per-packet one-way delay: 71.249 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 18.66 Mbit/s
95th percentile per-packet one-way delay: 55.617 ms
Loss rate: 0.37%
```

Run 4: Report of TCP Vegas — Data Link

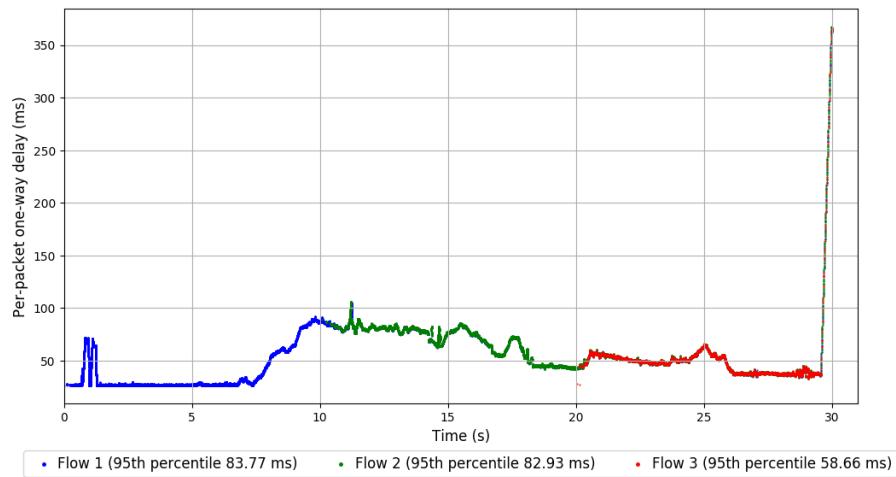
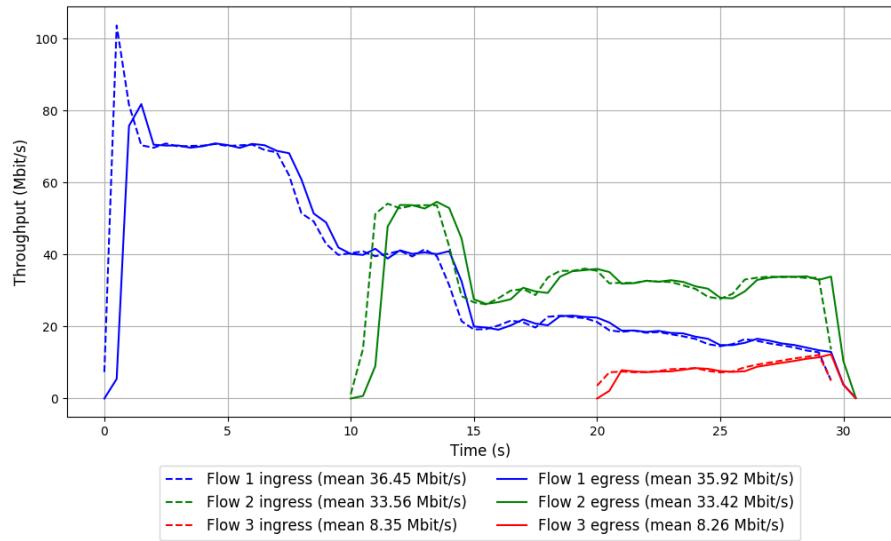


Run 5: Statistics of TCP Vegas

```
Start at: 2018-09-06 10:41:02
End at: 2018-09-06 10:41:33
Local clock offset: 1.967 ms
Remote clock offset: -63.945 ms

# Below is generated by plot.py at 2018-09-06 11:09:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.86 Mbit/s
95th percentile per-packet one-way delay: 83.288 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 35.92 Mbit/s
95th percentile per-packet one-way delay: 83.770 ms
Loss rate: 1.40%
-- Flow 2:
Average throughput: 33.42 Mbit/s
95th percentile per-packet one-way delay: 82.932 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 8.26 Mbit/s
95th percentile per-packet one-way delay: 58.663 ms
Loss rate: 1.21%
```

Run 5: Report of TCP Vegas — Data Link

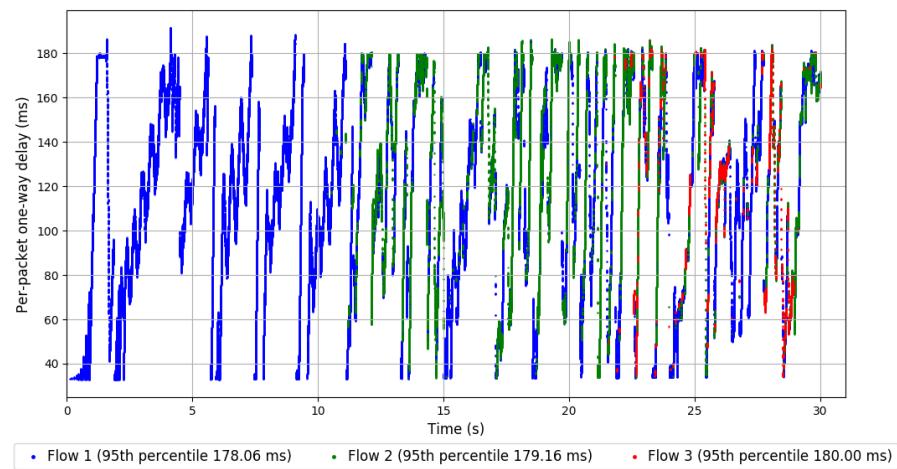
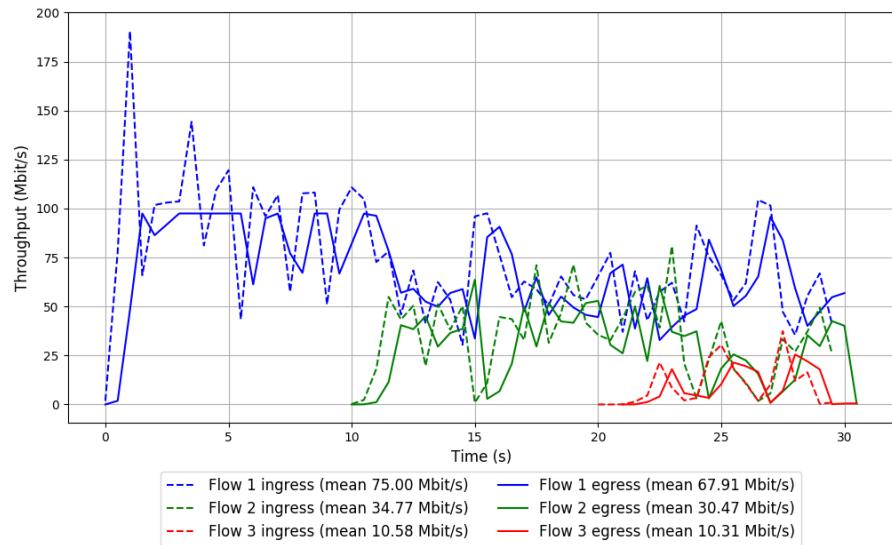


Run 1: Statistics of Verus

```
Start at: 2018-09-06 09:20:31
End at: 2018-09-06 09:21:01
Local clock offset: 0.645 ms
Remote clock offset: -51.55 ms

# Below is generated by plot.py at 2018-09-06 11:10:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.04 Mbit/s
95th percentile per-packet one-way delay: 178.431 ms
Loss rate: 9.84%
-- Flow 1:
Average throughput: 67.91 Mbit/s
95th percentile per-packet one-way delay: 178.055 ms
Loss rate: 9.05%
-- Flow 2:
Average throughput: 30.47 Mbit/s
95th percentile per-packet one-way delay: 179.162 ms
Loss rate: 12.07%
-- Flow 3:
Average throughput: 10.31 Mbit/s
95th percentile per-packet one-way delay: 180.005 ms
Loss rate: 12.18%
```

Run 1: Report of Verus — Data Link

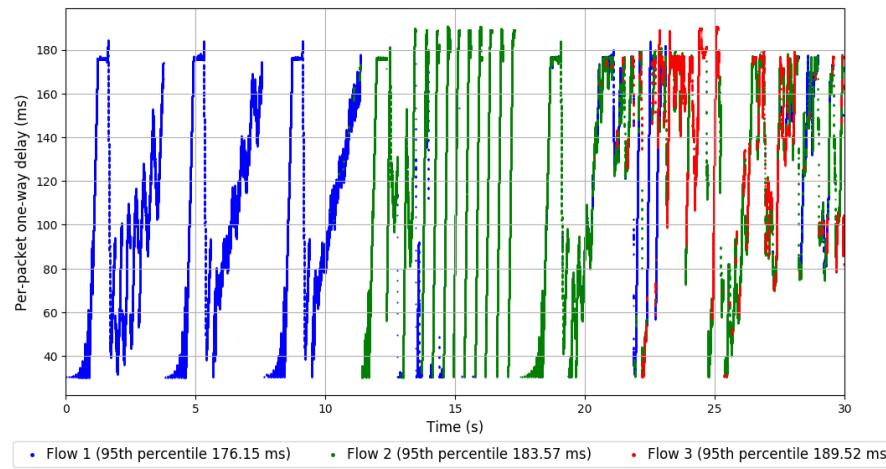
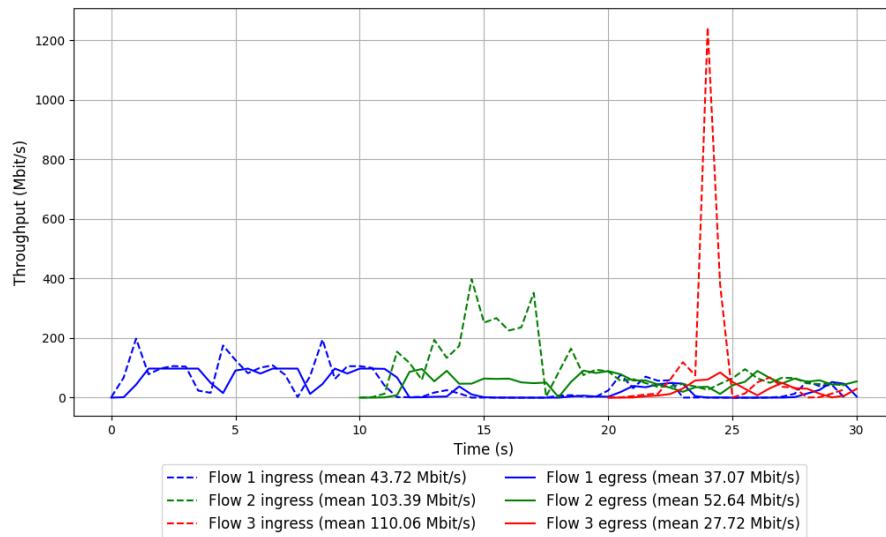


Run 2: Statistics of Verus

```
Start at: 2018-09-06 09:43:36
End at: 2018-09-06 09:44:06
Local clock offset: 4.774 ms
Remote clock offset: -102.964 ms

# Below is generated by plot.py at 2018-09-06 11:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.87 Mbit/s
95th percentile per-packet one-way delay: 177.827 ms
Loss rate: 45.21%
-- Flow 1:
Average throughput: 37.07 Mbit/s
95th percentile per-packet one-way delay: 176.148 ms
Loss rate: 14.87%
-- Flow 2:
Average throughput: 52.64 Mbit/s
95th percentile per-packet one-way delay: 183.566 ms
Loss rate: 48.94%
-- Flow 3:
Average throughput: 27.72 Mbit/s
95th percentile per-packet one-way delay: 189.516 ms
Loss rate: 74.84%
```

Run 2: Report of Verus — Data Link

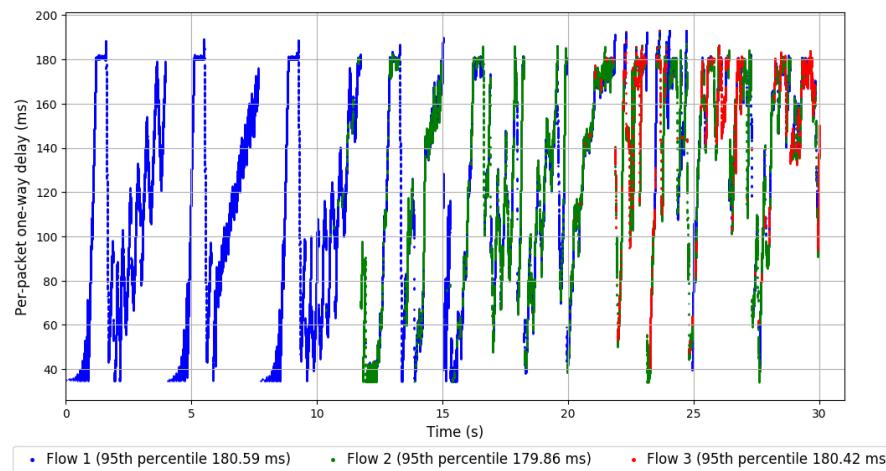
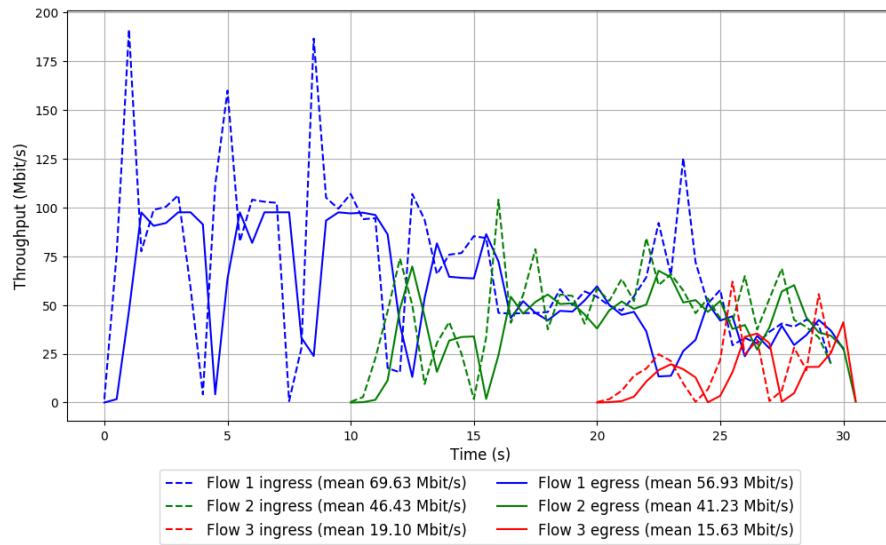


Run 3: Statistics of Verus

```
Start at: 2018-09-06 10:06:32
End at: 2018-09-06 10:07:02
Local clock offset: -1.578 ms
Remote clock offset: -72.443 ms

# Below is generated by plot.py at 2018-09-06 11:10:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.29 Mbit/s
95th percentile per-packet one-way delay: 180.478 ms
Loss rate: 15.94%
-- Flow 1:
Average throughput: 56.93 Mbit/s
95th percentile per-packet one-way delay: 180.589 ms
Loss rate: 18.04%
-- Flow 2:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 179.859 ms
Loss rate: 10.85%
-- Flow 3:
Average throughput: 15.63 Mbit/s
95th percentile per-packet one-way delay: 180.421 ms
Loss rate: 17.68%
```

Run 3: Report of Verus — Data Link

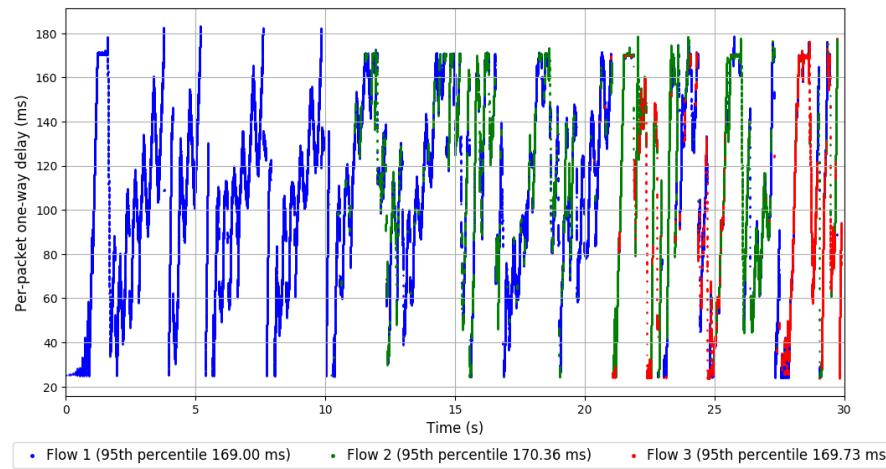
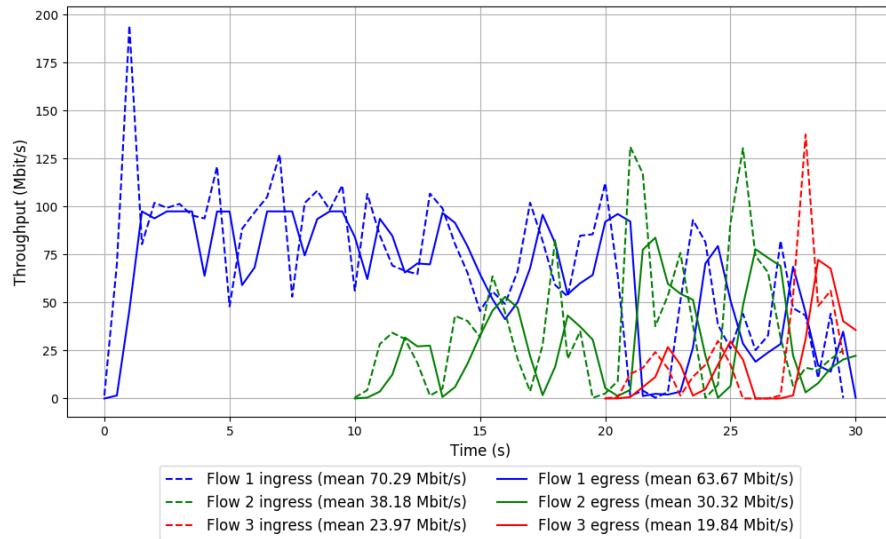


Run 4: Statistics of Verus

```
Start at: 2018-09-06 10:29:29
End at: 2018-09-06 10:29:59
Local clock offset: 1.316 ms
Remote clock offset: -76.499 ms

# Below is generated by plot.py at 2018-09-06 11:10:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.99 Mbit/s
95th percentile per-packet one-way delay: 170.164 ms
Loss rate: 12.55%
-- Flow 1:
Average throughput: 63.67 Mbit/s
95th percentile per-packet one-way delay: 168.998 ms
Loss rate: 9.23%
-- Flow 2:
Average throughput: 30.32 Mbit/s
95th percentile per-packet one-way delay: 170.359 ms
Loss rate: 20.29%
-- Flow 3:
Average throughput: 19.84 Mbit/s
95th percentile per-packet one-way delay: 169.728 ms
Loss rate: 17.62%
```

Run 4: Report of Verus — Data Link

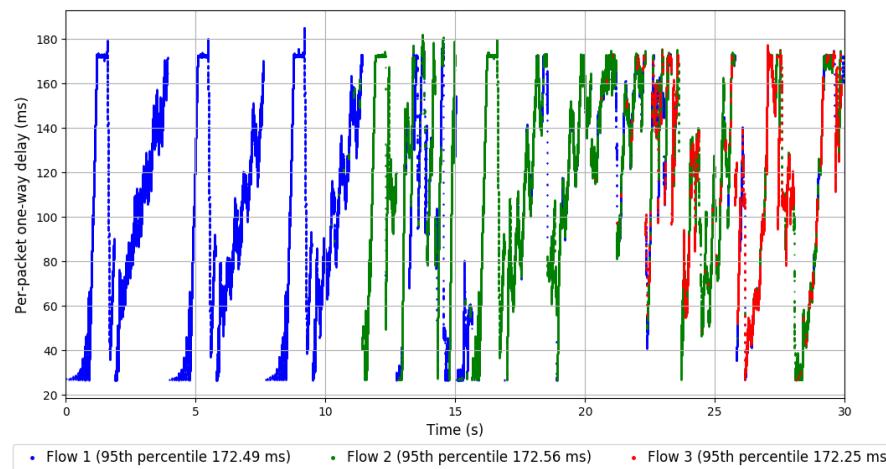
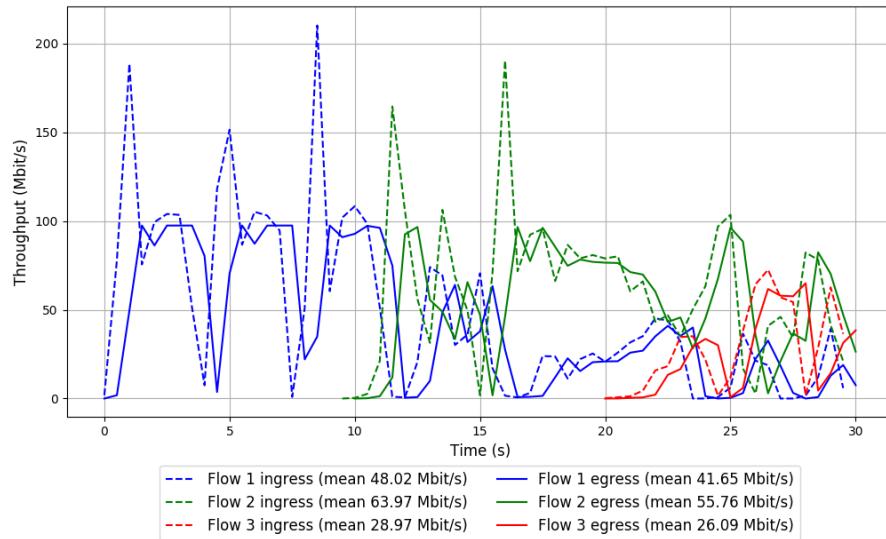


Run 5: Statistics of Verus

```
Start at: 2018-09-06 10:52:24
End at: 2018-09-06 10:52:54
Local clock offset: 3.509 ms
Remote clock offset: -62.525 ms

# Below is generated by plot.py at 2018-09-06 11:10:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.01 Mbit/s
95th percentile per-packet one-way delay: 172.498 ms
Loss rate: 12.55%
-- Flow 1:
Average throughput: 41.65 Mbit/s
95th percentile per-packet one-way delay: 172.490 ms
Loss rate: 12.87%
-- Flow 2:
Average throughput: 55.76 Mbit/s
95th percentile per-packet one-way delay: 172.562 ms
Loss rate: 12.65%
-- Flow 3:
Average throughput: 26.09 Mbit/s
95th percentile per-packet one-way delay: 172.251 ms
Loss rate: 10.49%
```

Run 5: Report of Verus — Data Link

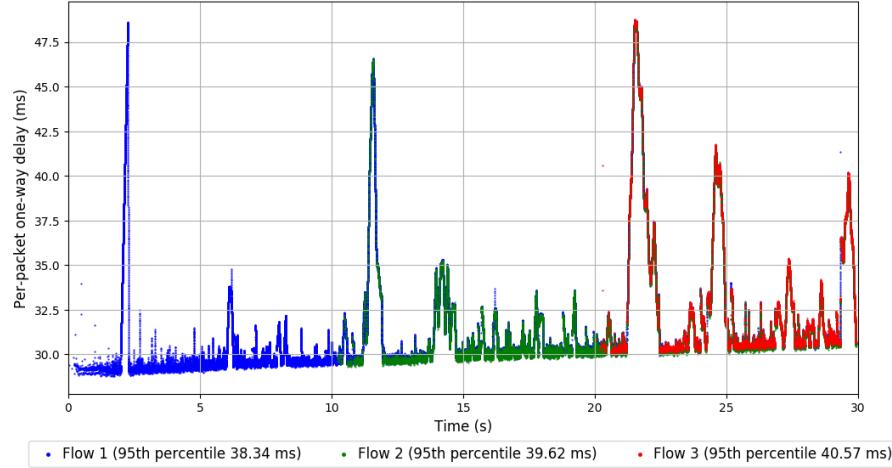
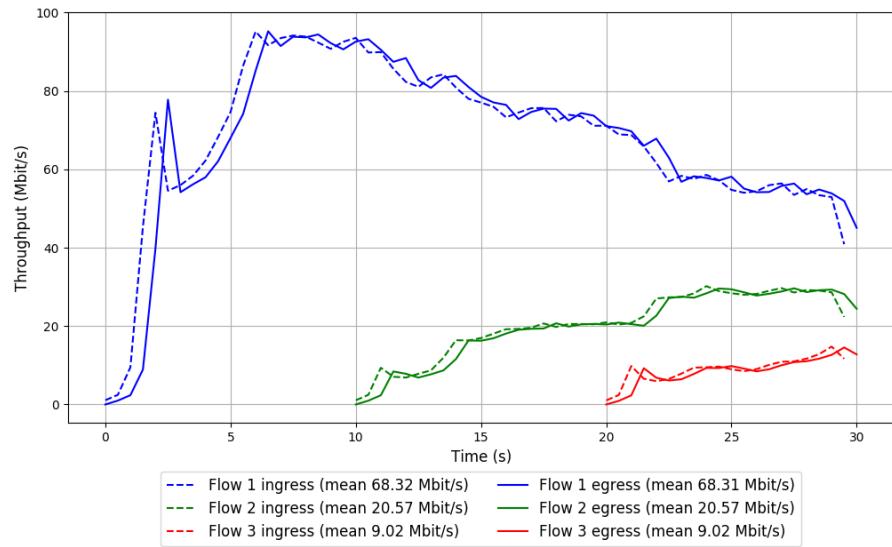


```
Run 1: Statistics of PCC-Vivace

Start at: 2018-09-06 09:16:28
End at: 2018-09-06 09:16:58
Local clock offset: -1.243 ms
Remote clock offset: -45.616 ms

# Below is generated by plot.py at 2018-09-06 11:10:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.97 Mbit/s
95th percentile per-packet one-way delay: 38.813 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.31 Mbit/s
95th percentile per-packet one-way delay: 38.340 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.57 Mbit/s
95th percentile per-packet one-way delay: 39.617 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 40.570 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Vivace — Data Link

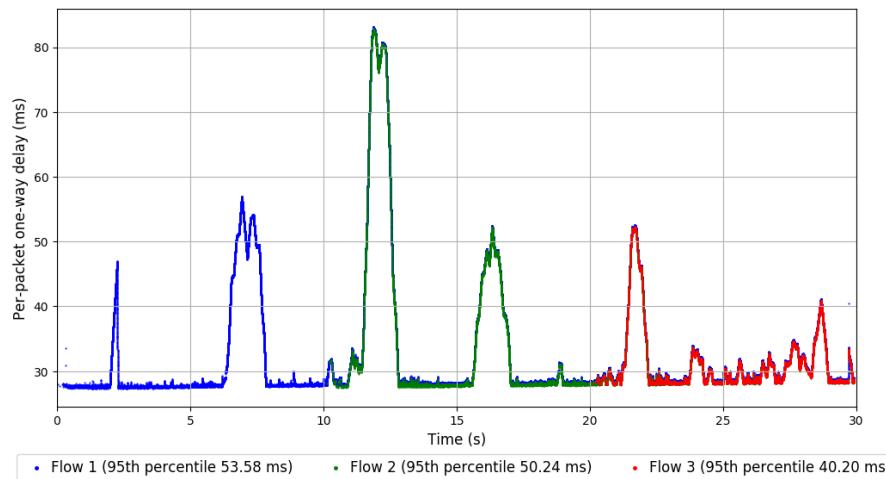
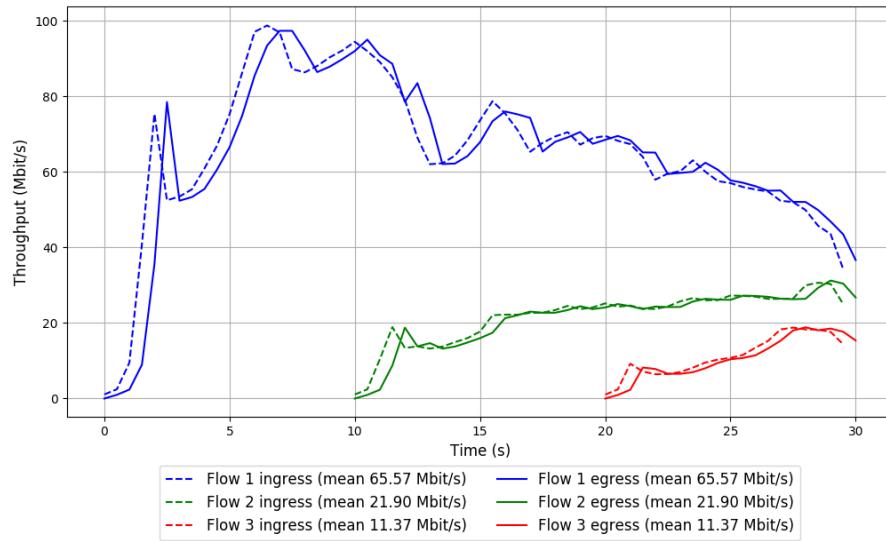


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-09-06 09:39:33
End at: 2018-09-06 09:40:03
Local clock offset: 4.354 ms
Remote clock offset: -97.193 ms

# Below is generated by plot.py at 2018-09-06 11:10:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.89 Mbit/s
95th percentile per-packet one-way delay: 52.316 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.57 Mbit/s
95th percentile per-packet one-way delay: 53.579 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.90 Mbit/s
95th percentile per-packet one-way delay: 50.243 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.37 Mbit/s
95th percentile per-packet one-way delay: 40.195 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Vivace — Data Link

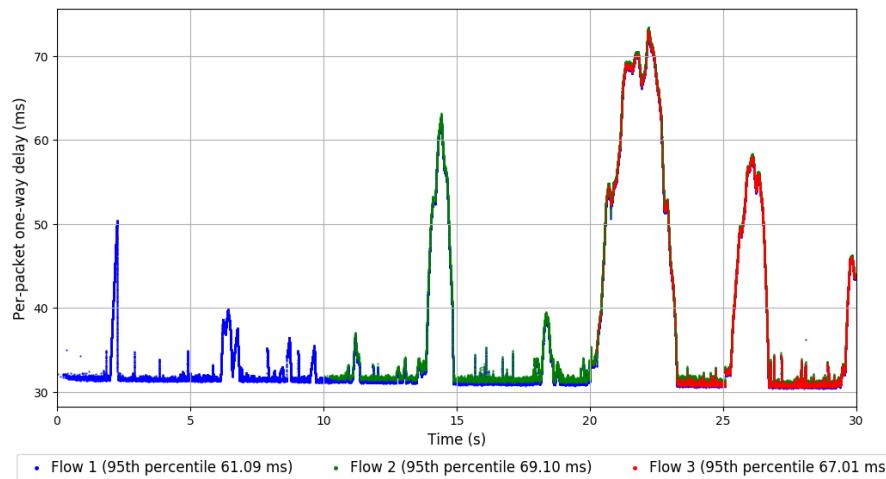
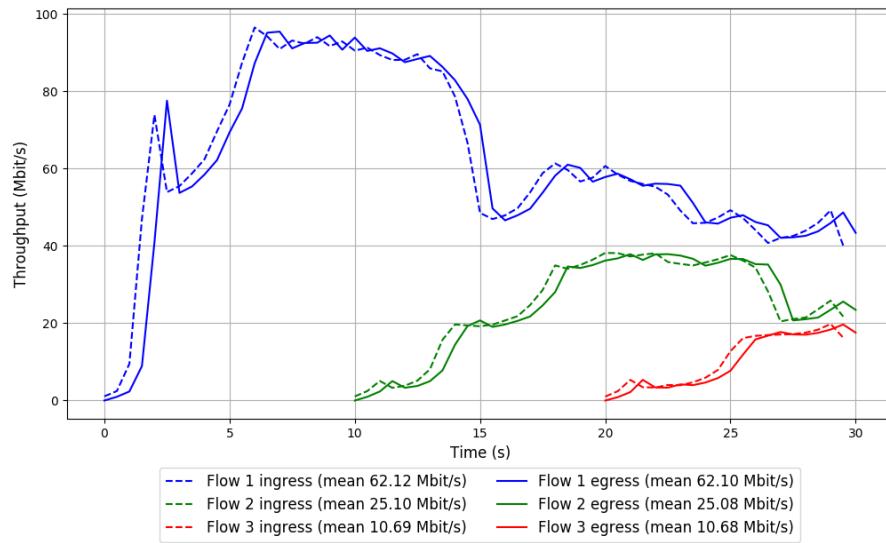


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-09-06 10:02:24
End at: 2018-09-06 10:02:54
Local clock offset: -1.066 ms
Remote clock offset: -81.753 ms

# Below is generated by plot.py at 2018-09-06 11:10:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.31 Mbit/s
95th percentile per-packet one-way delay: 66.663 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.10 Mbit/s
95th percentile per-packet one-way delay: 61.094 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.08 Mbit/s
95th percentile per-packet one-way delay: 69.100 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.68 Mbit/s
95th percentile per-packet one-way delay: 67.014 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link

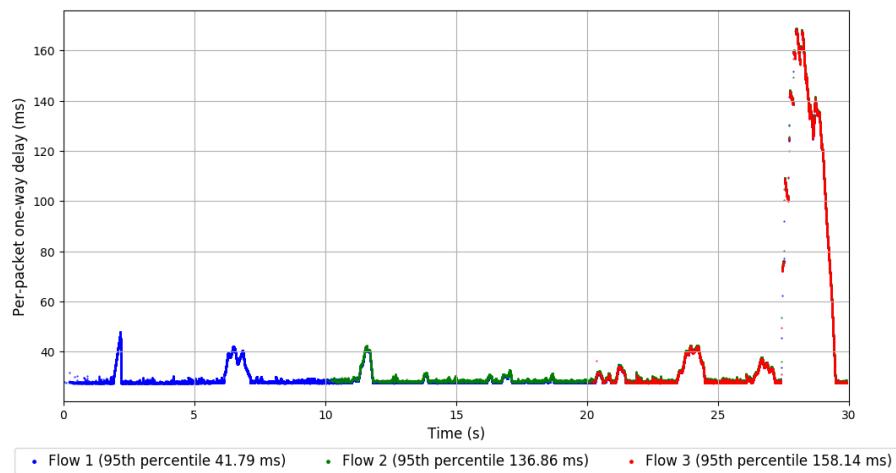
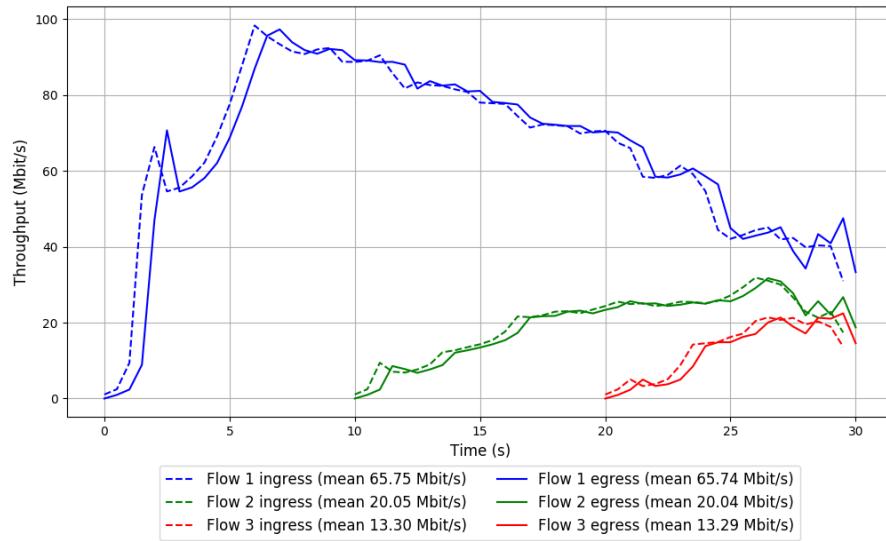


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-09-06 10:25:27
End at: 2018-09-06 10:25:57
Local clock offset: 0.823 ms
Remote clock offset: -77.356 ms

# Below is generated by plot.py at 2018-09-06 11:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.46 Mbit/s
95th percentile per-packet one-way delay: 103.174 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 65.74 Mbit/s
95th percentile per-packet one-way delay: 41.790 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 136.858 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 158.139 ms
Loss rate: 0.11%
```

Run 4: Report of PCC-Vivace — Data Link

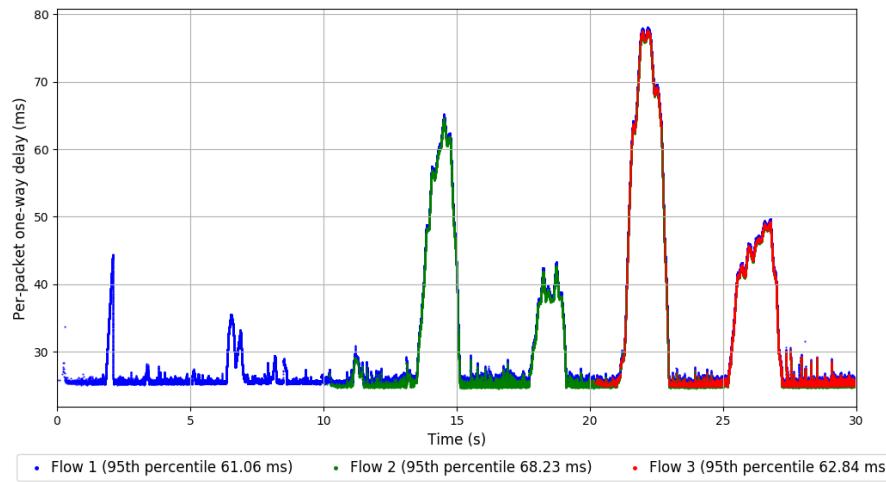
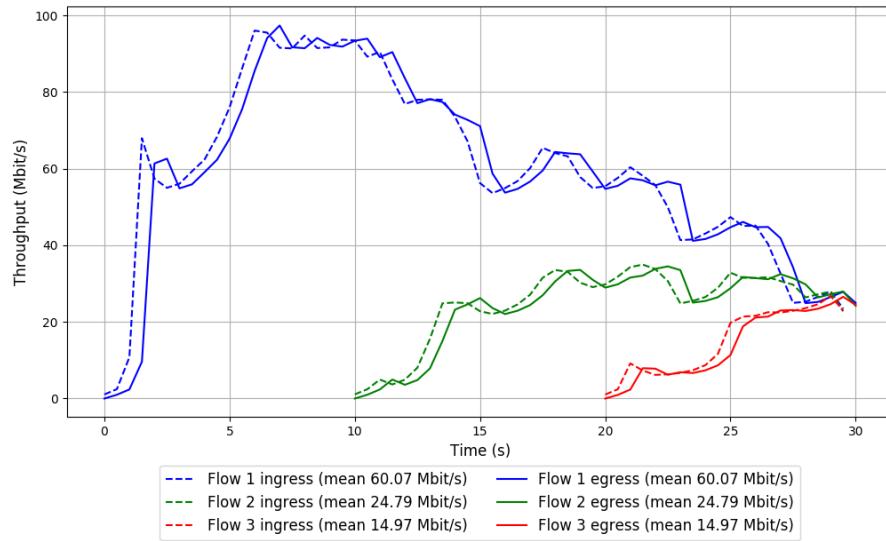


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-09-06 10:48:27
End at: 2018-09-06 10:48:57
Local clock offset: 2.711 ms
Remote clock offset: -63.991 ms

# Below is generated by plot.py at 2018-09-06 11:11:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.51 Mbit/s
95th percentile per-packet one-way delay: 62.290 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.07 Mbit/s
95th percentile per-packet one-way delay: 61.064 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.79 Mbit/s
95th percentile per-packet one-way delay: 68.231 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.97 Mbit/s
95th percentile per-packet one-way delay: 62.839 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Vivace — Data Link

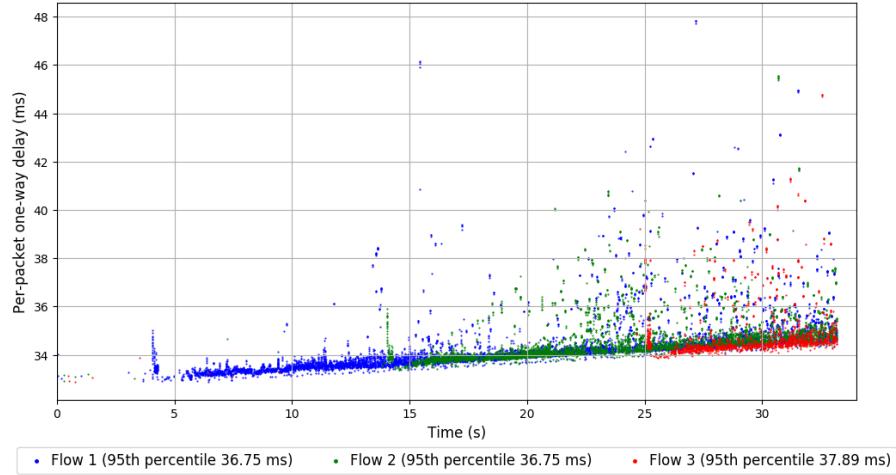
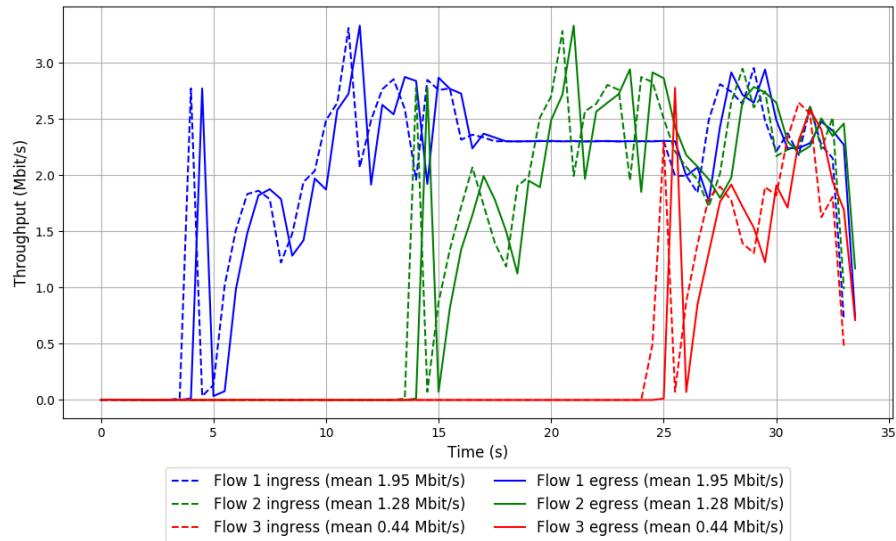


```
Run 1: Statistics of WebRTC media

Start at: 2018-09-06 09:12:47
End at: 2018-09-06 09:13:17
Local clock offset: -1.931 ms
Remote clock offset: -30.37 ms

# Below is generated by plot.py at 2018-09-06 11:11:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 36.995 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 36.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 36.752 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 37.893 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

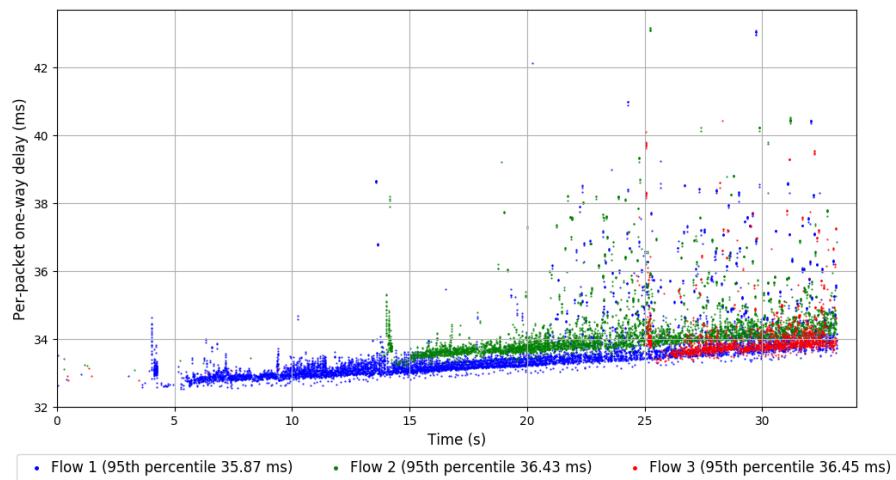
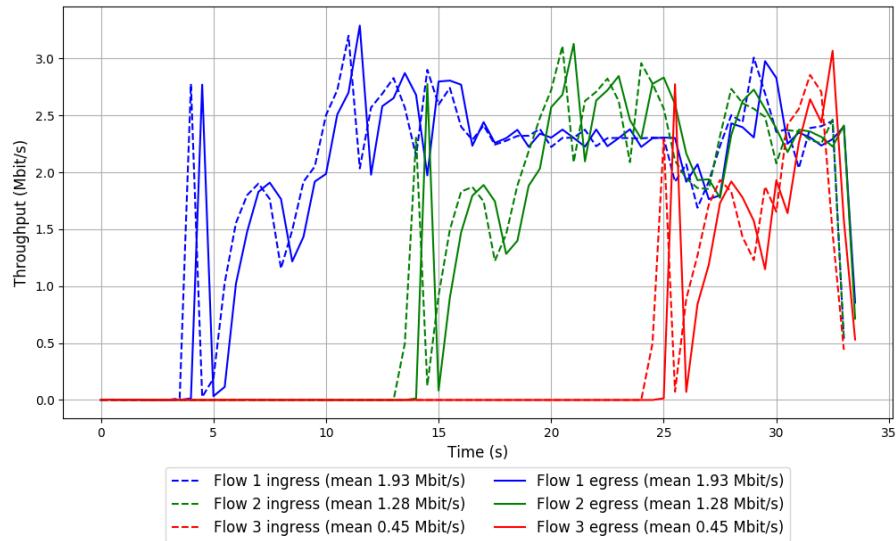


Run 2: Statistics of WebRTC media

```
Start at: 2018-09-06 09:35:48
End at: 2018-09-06 09:36:18
Local clock offset: 4.022 ms
Remote clock offset: -84.265 ms

# Below is generated by plot.py at 2018-09-06 11:11:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 36.183 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 35.867 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 36.426 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 36.455 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

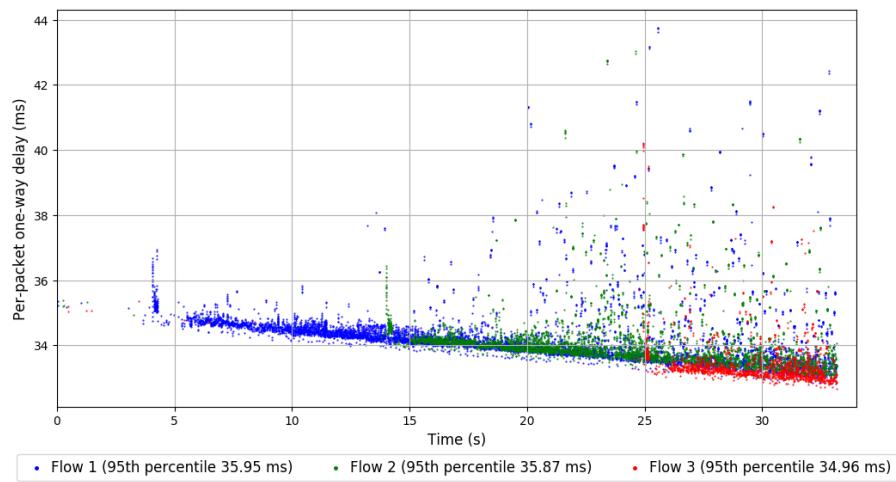
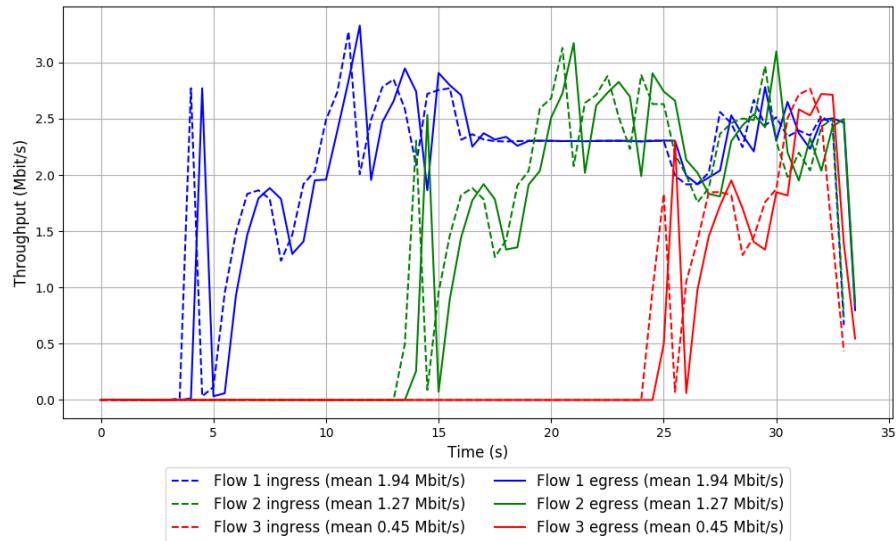


```
Run 3: Statistics of WebRTC media

Start at: 2018-09-06 09:58:44
End at: 2018-09-06 09:59:14
Local clock offset: -0.339 ms
Remote clock offset: -89.08 ms

# Below is generated by plot.py at 2018-09-06 11:11:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 35.807 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 35.950 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 35.865 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 34.961 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

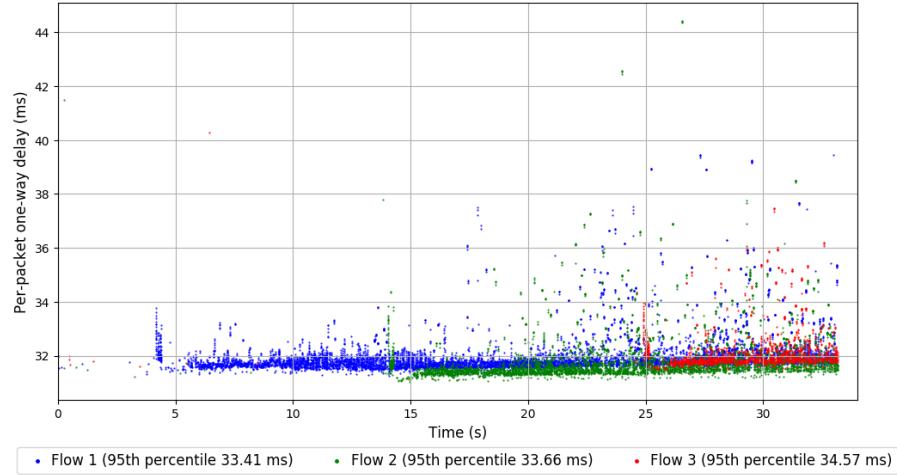
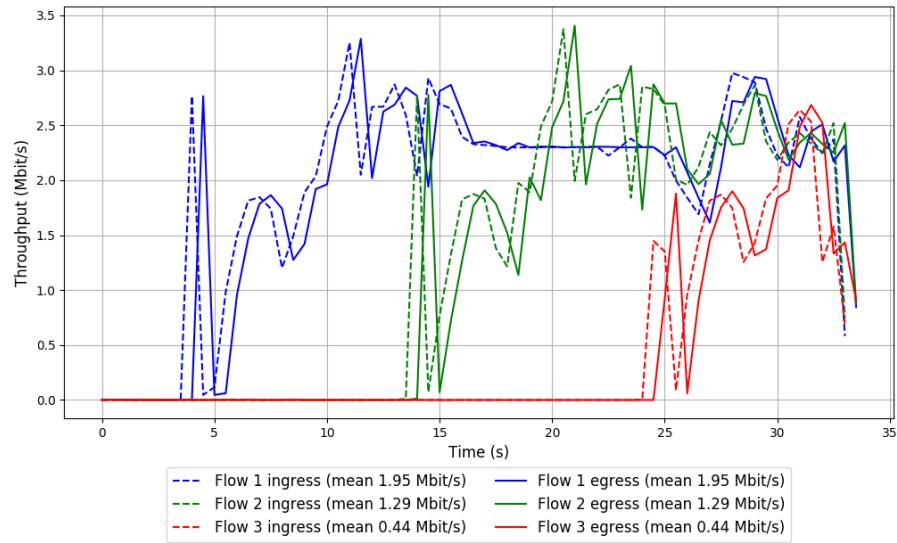


Run 4: Statistics of WebRTC media

```
Start at: 2018-09-06 10:21:49
End at: 2018-09-06 10:22:19
Local clock offset: 0.098 ms
Remote clock offset: -72.788 ms

# Below is generated by plot.py at 2018-09-06 11:11:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 33.673 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 33.413 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 33.664 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 34.572 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-09-06 10:44:47
End at: 2018-09-06 10:45:17
Local clock offset: 2.264 ms
Remote clock offset: -59.611 ms

# Below is generated by plot.py at 2018-09-06 11:11:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 32.172 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 32.218 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 32.309 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 31.490 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

