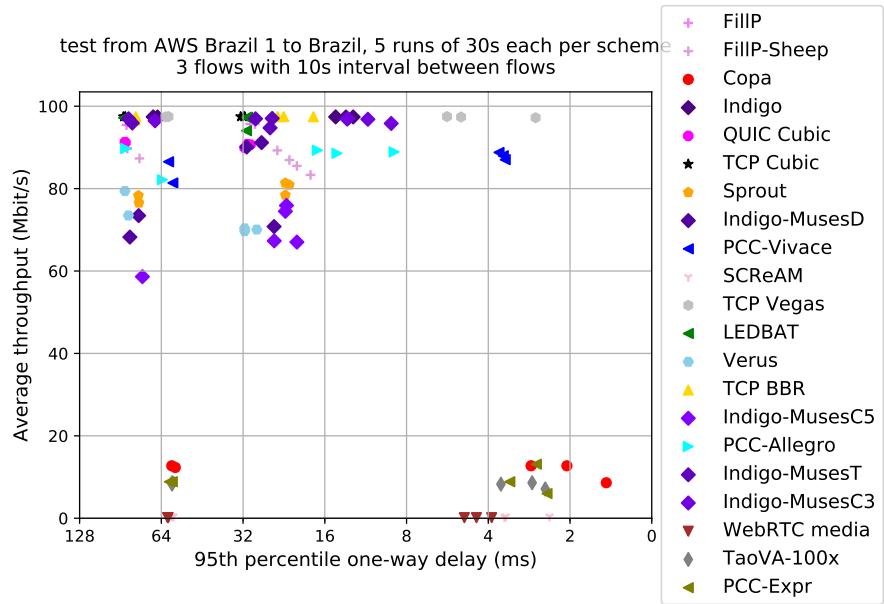
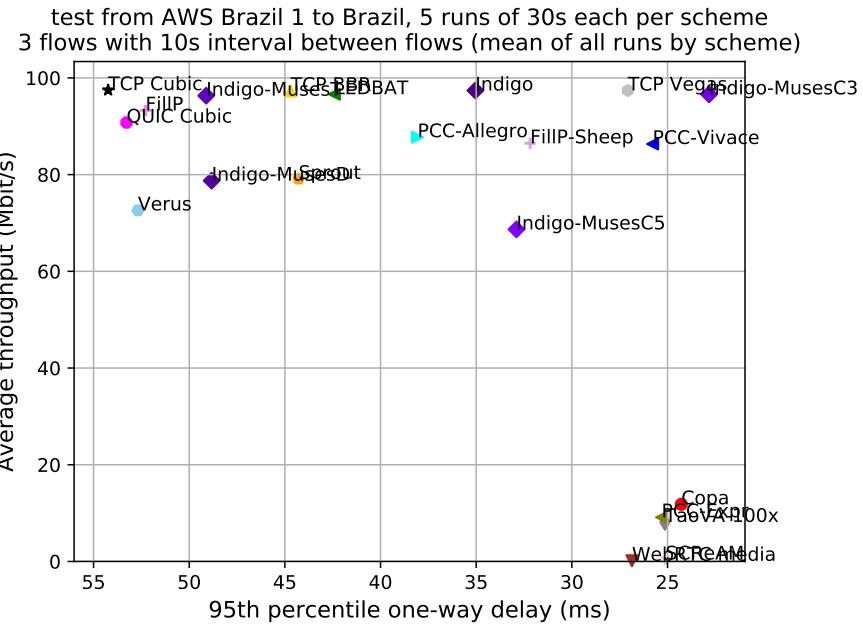


Pantheon Report

Generated at 2019-05-30 02:37:11 (UTC).
Data path: AWS Brazil 1 on `ens5` (*local*) → Brazil on `p4p1` (*remote*).
Repeated the test of 21 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
System info:  
Linux 4.15.0-1035-aws  
net.core.default_qdisc = fq  
net.core.rmem_default = 16777216  
net.core.rmem_max = 536870912  
net.core.wmem_default = 16777216  
net.core.wmem_max = 536870912  
net.ipv4.tcp_rmem = 4096 16777216 536870912  
net.ipv4.tcp_wmem = 4096 16777216 536870912  
  
Git summary:  
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee  
third_party/fillp @ d6da1459332fceef56963885d7eba17e6a32d4519  
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9  
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4  
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d  
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf  
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966  
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd  
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1  
M receiver/src/buffer.h  
M receiver/src/core.cpp  
M sender/src/buffer.h  
M sender/src/core.cpp  
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab  
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42  
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2  
M src/ScreamClient  
M src/ScreamServer  
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26  
M src/examples/cellsim.cc  
M src/examples/sproutbt2.cc  
M src/network/sproutconn.cc  
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494  
M src/verus.hpp  
M tools/plot.py
```

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



4

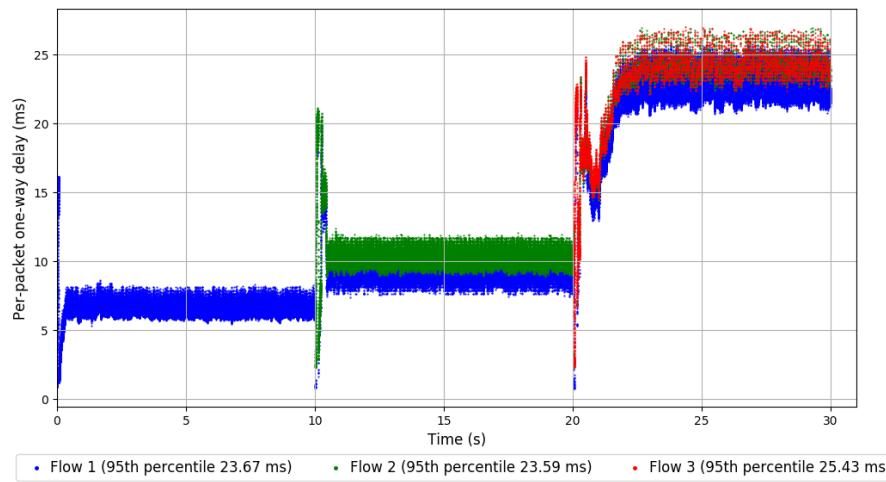
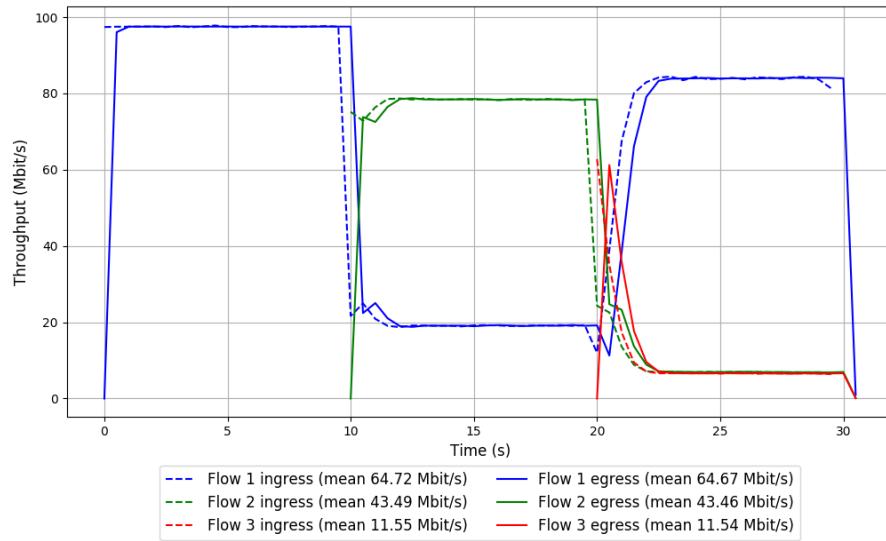
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	64.62	38.68	20.78	44.03	46.10	47.10	0.03	0.06	0.09
Copa	5	8.22	4.88	1.38	23.99	23.90	24.27	73.10	78.76	84.69
TCP Cubic	5	65.28	35.68	25.40	54.04	54.12	54.63	0.04	0.04	0.04
FillP	5	49.30	46.53	39.17	51.12	52.04	52.51	11.36	18.25	40.23
FillP-Sheep	5	54.16	30.35	36.55	28.85	32.04	35.87	0.77	1.49	3.10
Indigo	5	47.26	41.00	70.44	33.15	34.75	35.88	0.00	0.00	0.00
Indigo-MusesC3	5	57.00	40.61	43.24	21.74	22.90	22.47	0.00	0.00	0.00
Indigo-MusesC5	5	33.79	37.14	35.21	31.78	33.02	33.91	0.00	0.00	0.00
Indigo-MusesD	5	46.83	32.52	35.05	48.30	48.23	50.03	0.11	0.28	1.16
Indigo-MusesT	5	57.82	46.13	27.96	46.94	49.79	52.02	0.18	0.46	0.94
LEDBAT	5	63.12	34.26	32.20	42.27	42.95	42.23	0.03	0.08	0.14
PCC-Allegro	5	64.55	28.69	12.48	36.48	42.74	34.81	0.12	0.28	0.08
PCC-Expr	5	1.82	8.32	6.55	24.38	26.27	24.38	72.84	24.26	26.98
QUIC Cubic	5	58.75	35.03	26.53	53.17	53.03	53.56	0.14	0.17	0.25
SCReAM	5	0.20	0.20	0.22	24.18	24.16	24.44	0.00	0.00	0.00
Sprout	5	43.33	36.79	34.19	42.89	44.62	45.68	0.00	0.00	0.00
TaoVA-100x	5	0.00	9.99	4.57	24.40	25.15	24.42	95.92	81.56	94.68
TCP Vegas	5	47.77	45.25	58.61	27.78	26.18	26.65	0.00	0.00	0.00
Verus	5	39.26	36.05	28.42	50.93	53.18	54.50	16.03	8.00	27.99
PCC-Vivace	5	54.99	34.29	25.87	25.21	25.98	26.63	0.03	0.03	0.06
WebRTC media	5	0.05	0.05	0.05	26.89	27.22	26.71	0.00	0.00	0.02

Run 1: Statistics of TCP BBR

```
Start at: 2019-05-30 00:36:47
End at: 2019-05-30 00:37:17
Local clock offset: -4.526 ms
Remote clock offset: -0.632 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 23.887 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.67 Mbit/s
95th percentile per-packet one-way delay: 23.666 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.46 Mbit/s
95th percentile per-packet one-way delay: 23.589 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.54 Mbit/s
95th percentile per-packet one-way delay: 25.434 ms
Loss rate: 0.00%
```

Run 1: Report of TCP BBR — Data Link

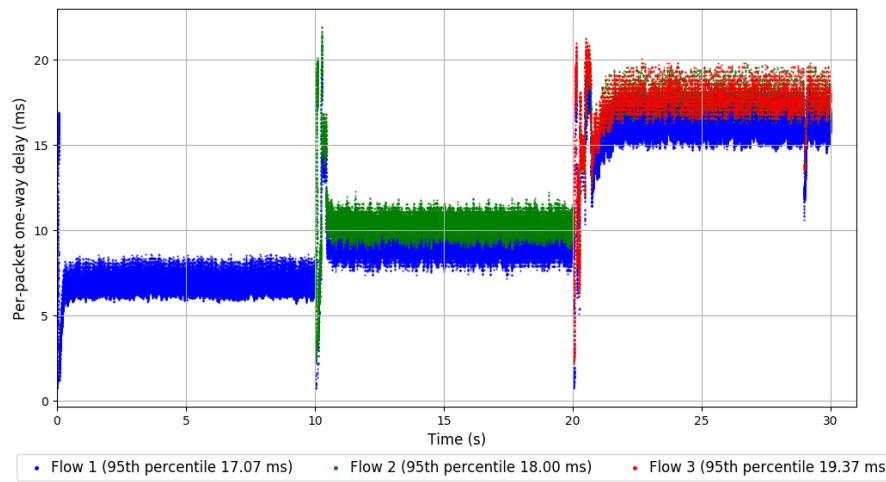
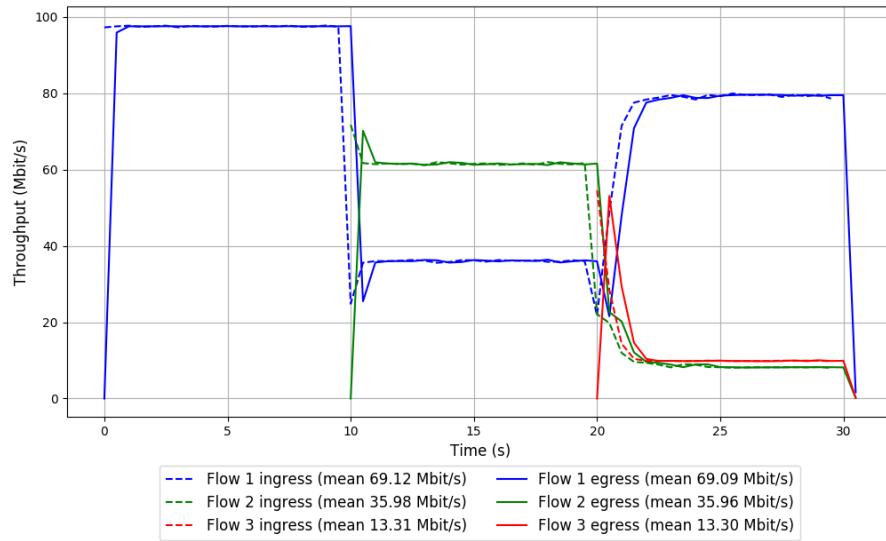


Run 2: Statistics of TCP BBR

```
Start at: 2019-05-30 01:00:39
End at: 2019-05-30 01:01:09
Local clock offset: -5.025 ms
Remote clock offset: -0.321 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 17.616 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.09 Mbit/s
95th percentile per-packet one-way delay: 17.069 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.96 Mbit/s
95th percentile per-packet one-way delay: 17.997 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.30 Mbit/s
95th percentile per-packet one-way delay: 19.367 ms
Loss rate: 0.00%
```

Run 2: Report of TCP BBR — Data Link

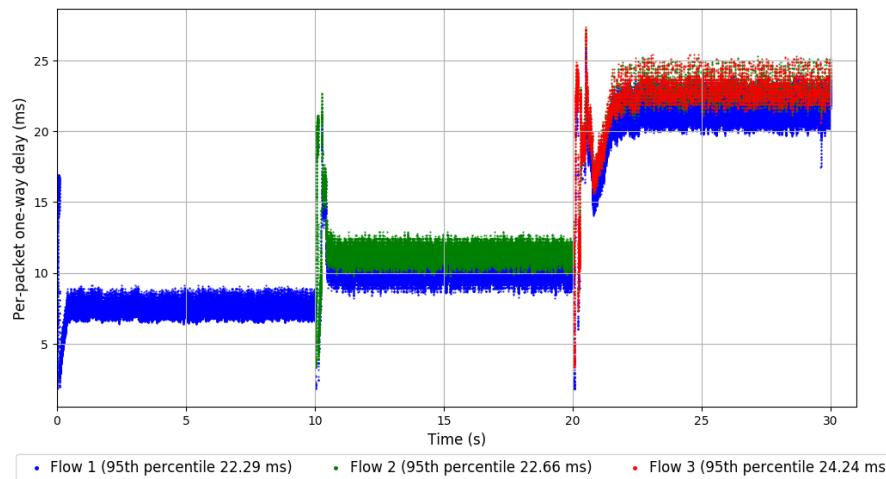
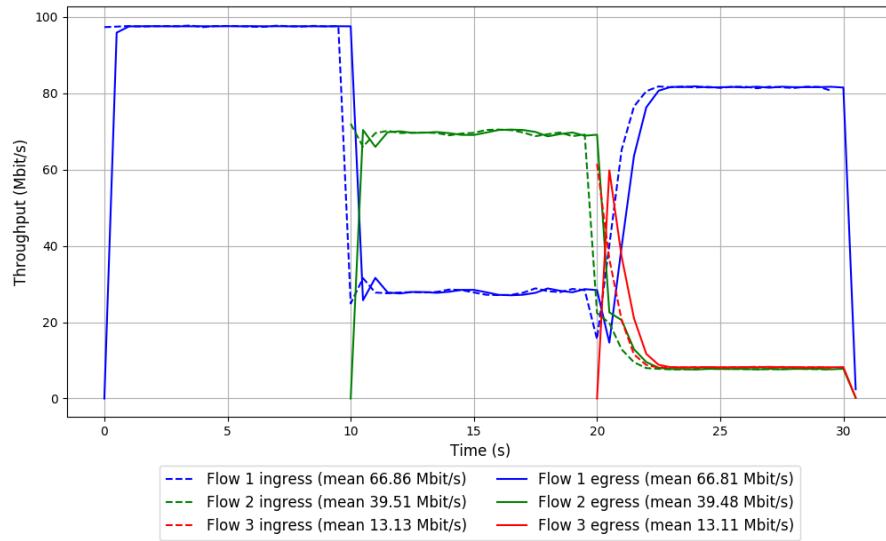


Run 3: Statistics of TCP BBR

```
Start at: 2019-05-30 01:24:33
End at: 2019-05-30 01:25:03
Local clock offset: -4.444 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 22.663 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.81 Mbit/s
95th percentile per-packet one-way delay: 22.294 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.48 Mbit/s
95th percentile per-packet one-way delay: 22.665 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 24.237 ms
Loss rate: 0.00%
```

Run 3: Report of TCP BBR — Data Link

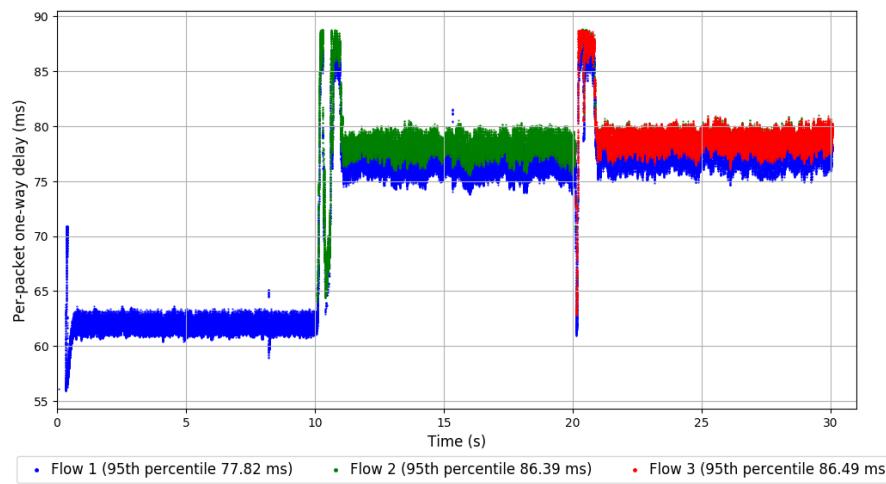
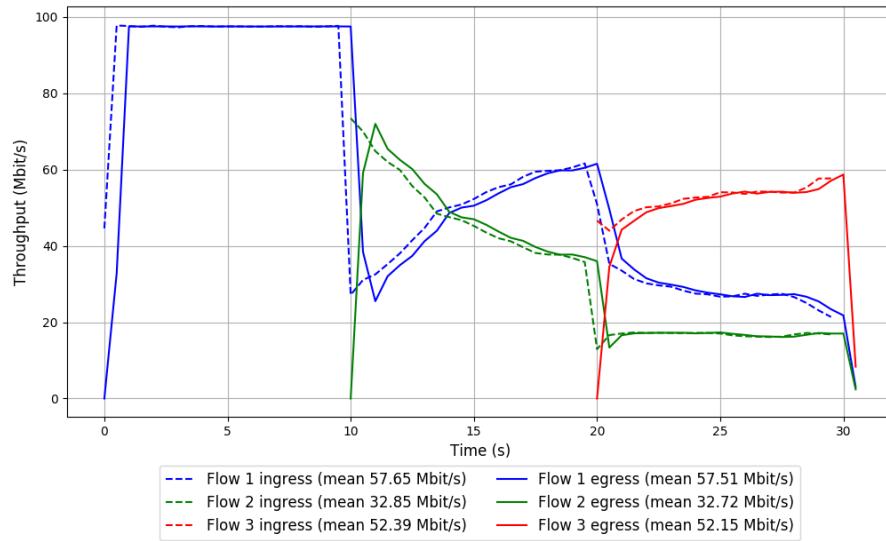


Run 4: Statistics of TCP BBR

```
Start at: 2019-05-30 01:48:26
End at: 2019-05-30 01:48:56
Local clock offset: -58.303 ms
Remote clock offset: 0.324 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.63 Mbit/s
95th percentile per-packet one-way delay: 79.869 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 57.51 Mbit/s
95th percentile per-packet one-way delay: 77.820 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 32.72 Mbit/s
95th percentile per-packet one-way delay: 86.389 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 52.15 Mbit/s
95th percentile per-packet one-way delay: 86.486 ms
Loss rate: 0.45%
```

Run 4: Report of TCP BBR — Data Link

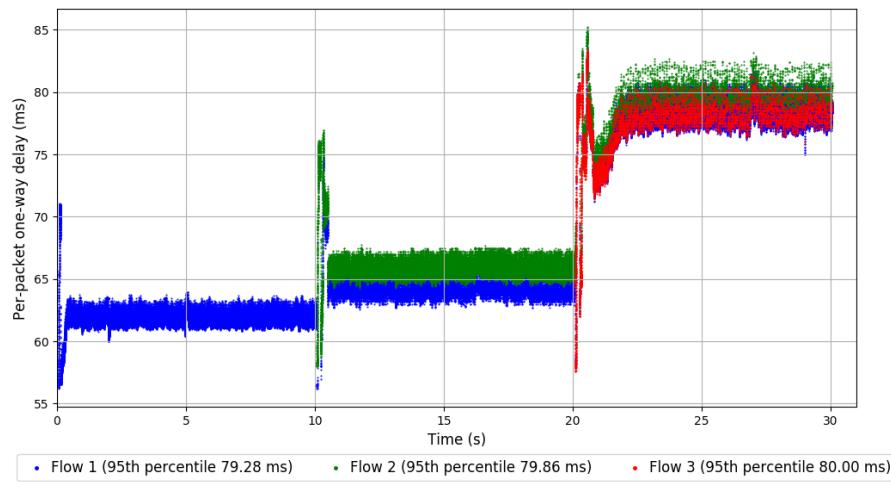
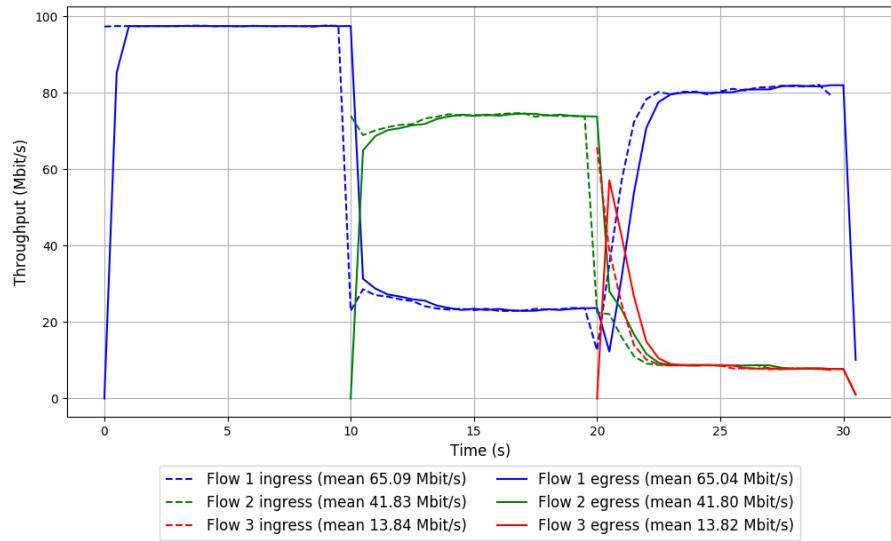


Run 5: Statistics of TCP BBR

```
Start at: 2019-05-30 02:12:20
End at: 2019-05-30 02:12:50
Local clock offset: -59.03 ms
Remote clock offset: 0.414 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 79.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.04 Mbit/s
95th percentile per-packet one-way delay: 79.277 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.80 Mbit/s
95th percentile per-packet one-way delay: 79.861 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.82 Mbit/s
95th percentile per-packet one-way delay: 79.998 ms
Loss rate: 0.00%
```

Run 5: Report of TCP BBR — Data Link

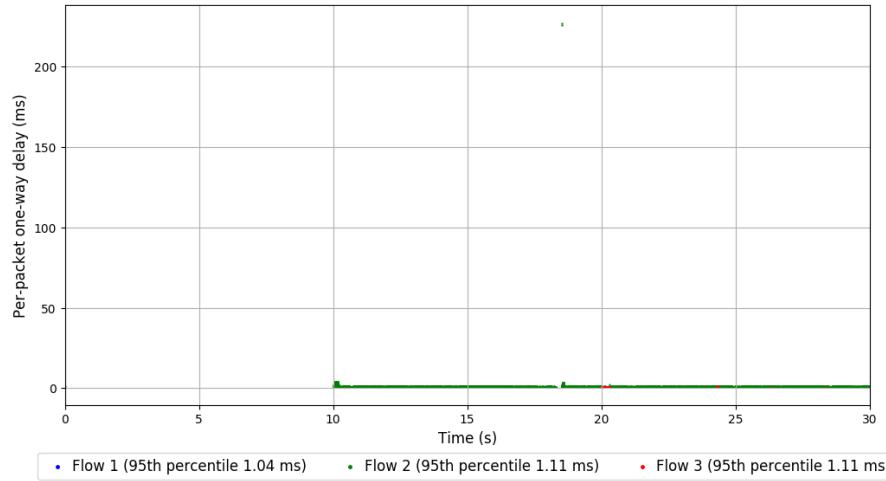
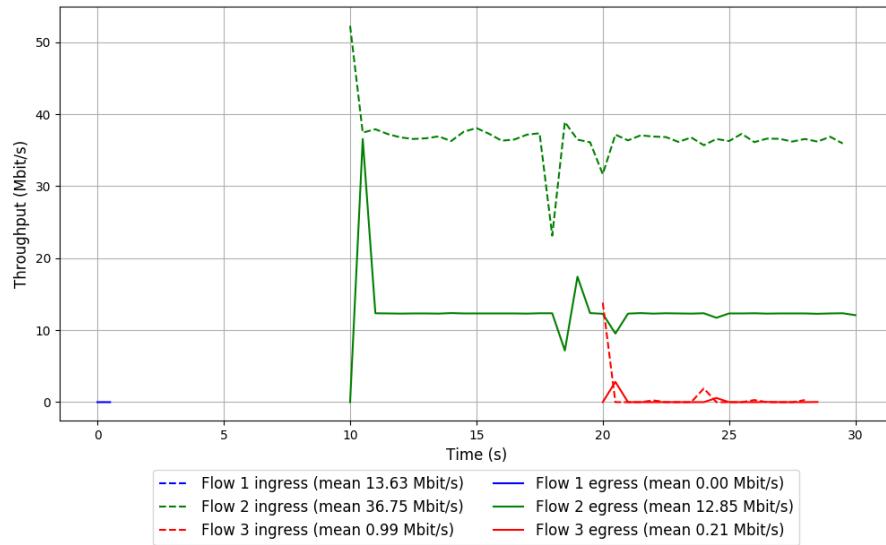


Run 1: Statistics of Copa

```
Start at: 2019-05-30 00:30:03
End at: 2019-05-30 00:30:33
Local clock offset: -4.486 ms
Remote clock offset: -0.616 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 1.113 ms
Loss rate: 65.20%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.038 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 12.85 Mbit/s
95th percentile per-packet one-way delay: 1.113 ms
Loss rate: 65.04%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 1.108 ms
Loss rate: 79.18%
```

Run 1: Report of Copa — Data Link

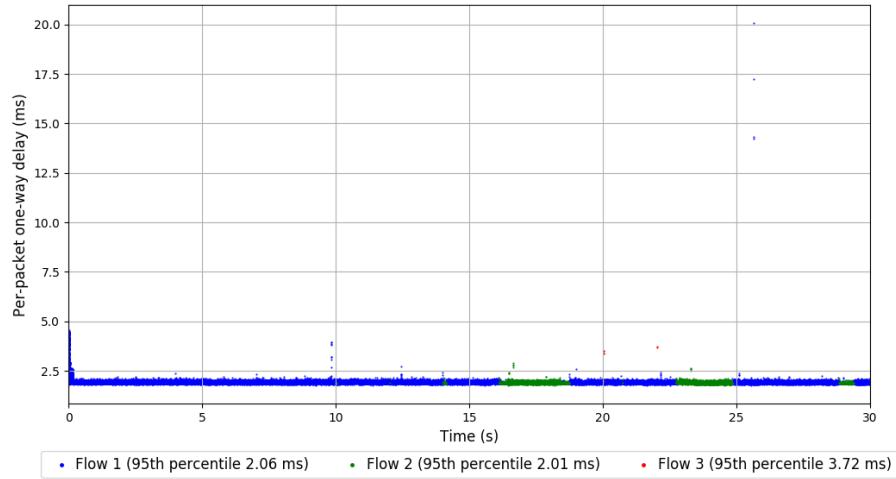
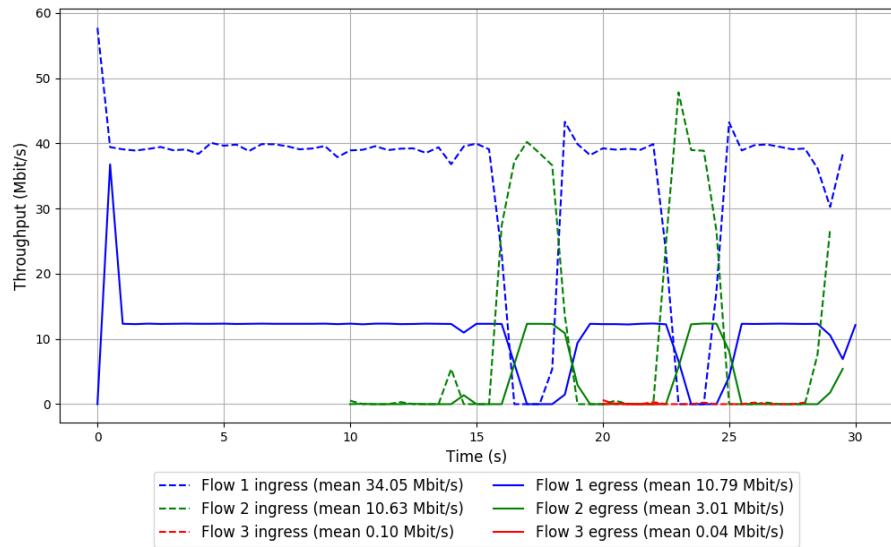


Run 2: Statistics of Copa

```
Start at: 2019-05-30 00:53:55
End at: 2019-05-30 00:54:25
Local clock offset: -5.954 ms
Remote clock offset: -0.35 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 2.054 ms
Loss rate: 68.91%
-- Flow 1:
Average throughput: 10.79 Mbit/s
95th percentile per-packet one-way delay: 2.065 ms
Loss rate: 68.32%
-- Flow 2:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 2.014 ms
Loss rate: 71.71%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 3.717 ms
Loss rate: 91.19%
```

Run 2: Report of Copa — Data Link

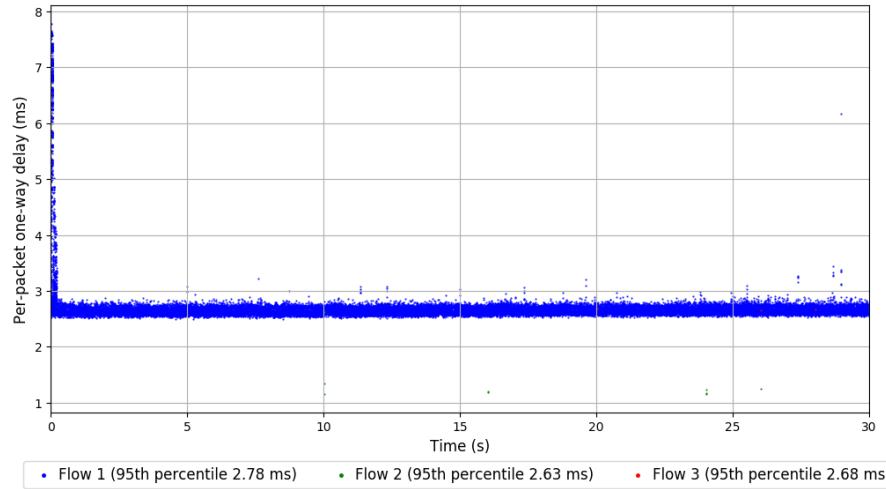
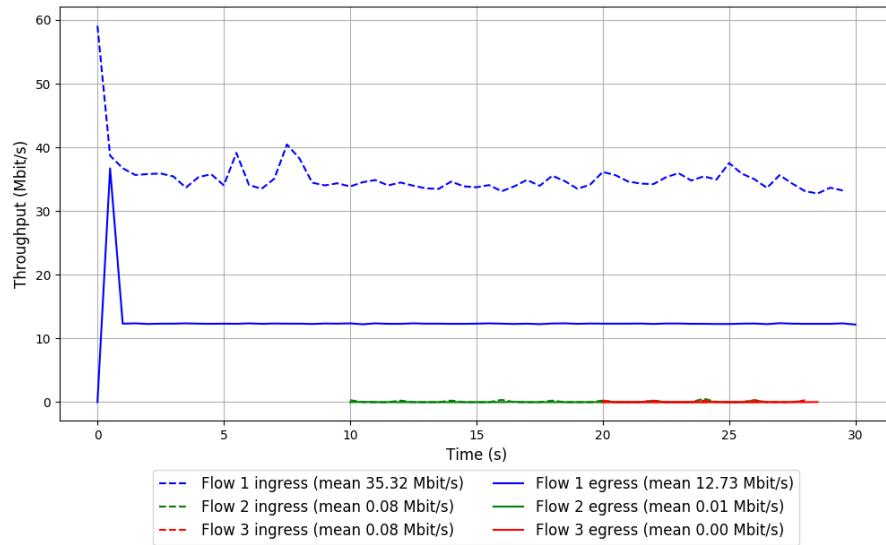


Run 3: Statistics of Copa

```
Start at: 2019-05-30 01:17:49
End at: 2019-05-30 01:18:19
Local clock offset: -4.015 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 2.783 ms
Loss rate: 64.03%
-- Flow 1:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 2.783 ms
Loss rate: 63.97%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 2.628 ms
Loss rate: 93.43%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.678 ms
Loss rate: 96.21%
```

Run 3: Report of Copa — Data Link

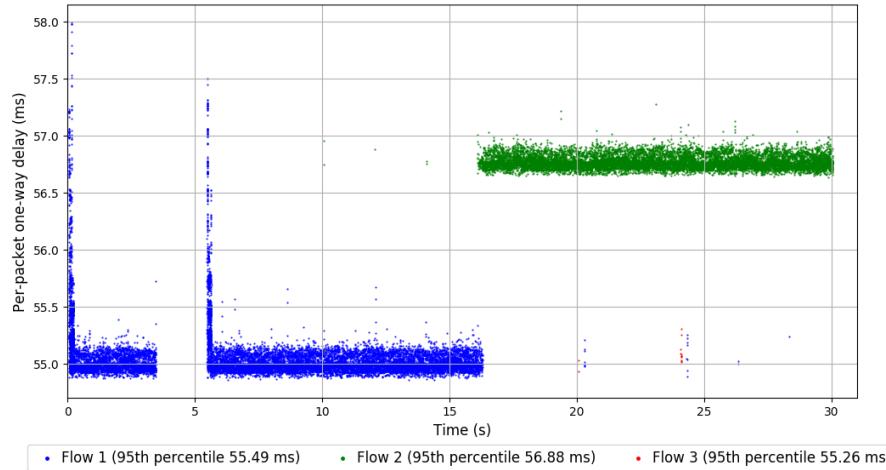
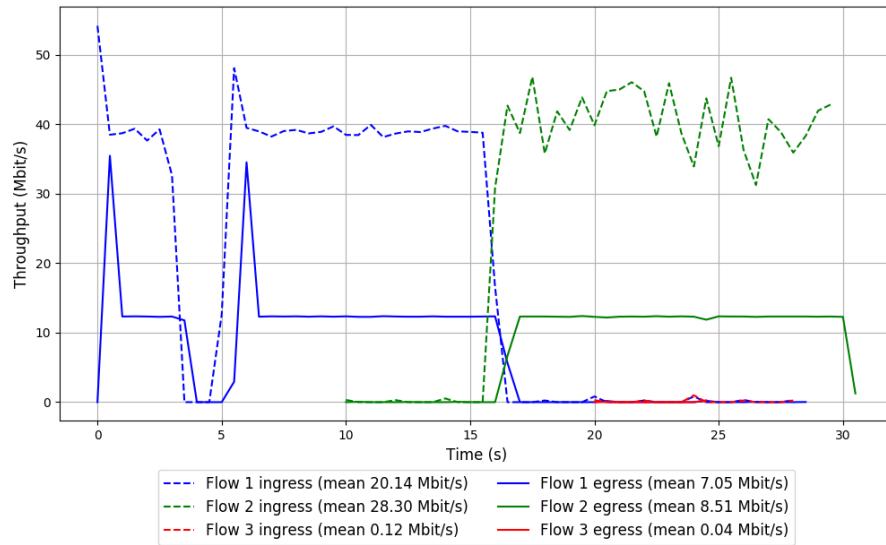


Run 4: Statistics of Copa

```
Start at: 2019-05-30 01:41:42
End at: 2019-05-30 01:42:12
Local clock offset: -57.534 ms
Remote clock offset: 0.134 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.32 Mbit/s
95th percentile per-packet one-way delay: 56.851 ms
Loss rate: 67.49%
-- Flow 1:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 55.489 ms
Loss rate: 65.01%
-- Flow 2:
Average throughput: 8.51 Mbit/s
95th percentile per-packet one-way delay: 56.877 ms
Loss rate: 69.95%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 55.258 ms
Loss rate: 85.45%
```

Run 4: Report of Copa — Data Link

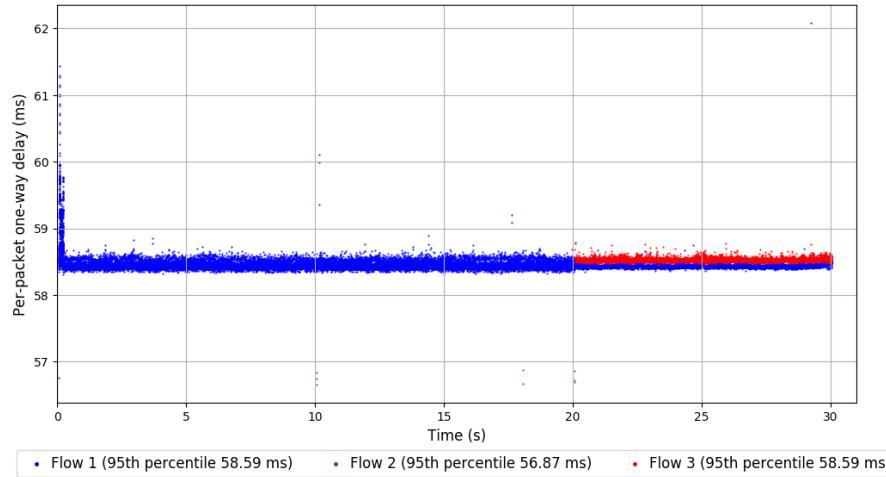
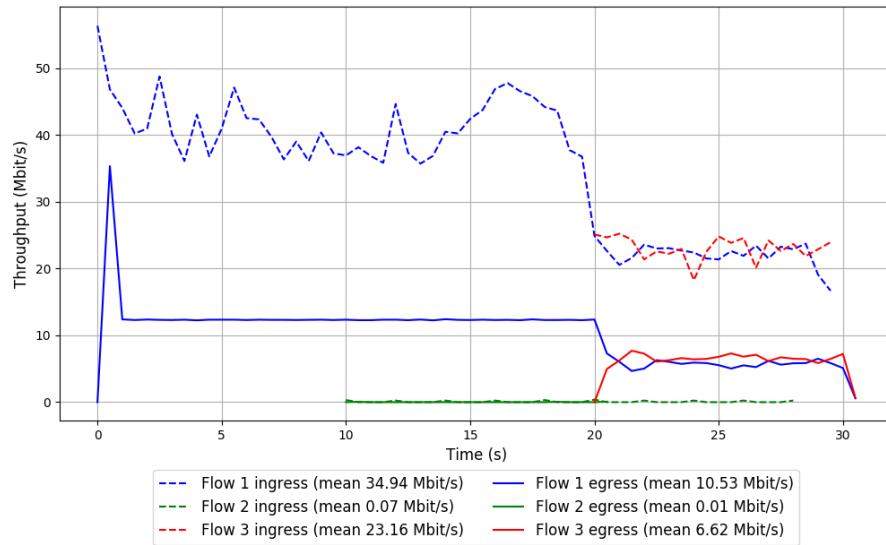


Run 5: Statistics of Copa

```
Start at: 2019-05-30 02:05:35
End at: 2019-05-30 02:06:05
Local clock offset: -58.884 ms
Remote clock offset: 0.415 ms

# Below is generated by plot.py at 2019-05-30 02:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 70.17%
-- Flow 1:
Average throughput: 10.53 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 69.87%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 56.871 ms
Loss rate: 93.68%
-- Flow 3:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 71.42%
```

Run 5: Report of Copa — Data Link

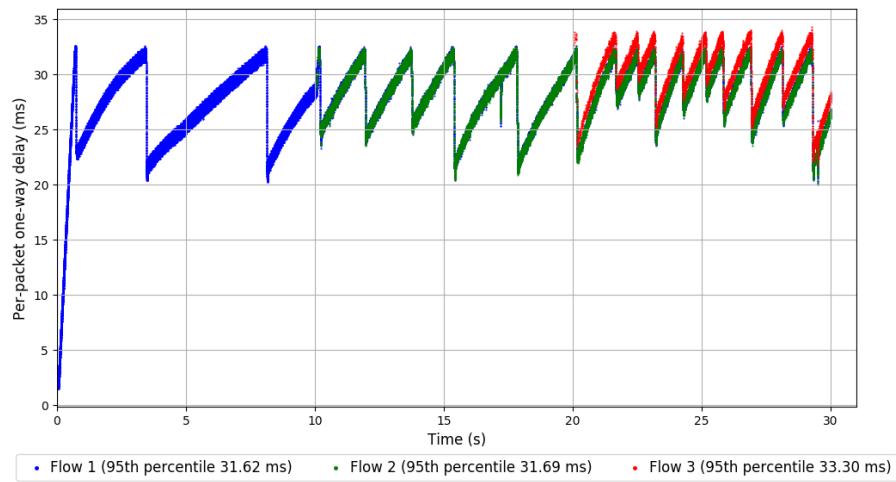
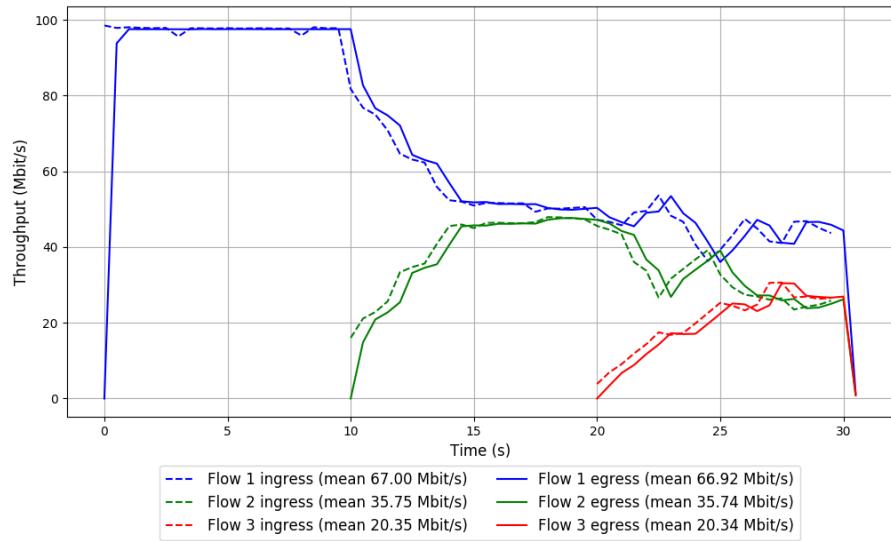


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-05-30 00:37:56
End at: 2019-05-30 00:38:26
Local clock offset: -5.34 ms
Remote clock offset: -0.706 ms

# Below is generated by plot.py at 2019-05-30 02:27:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 31.824 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 66.92 Mbit/s
95th percentile per-packet one-way delay: 31.617 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 35.74 Mbit/s
95th percentile per-packet one-way delay: 31.690 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 20.34 Mbit/s
95th percentile per-packet one-way delay: 33.304 ms
Loss rate: 0.06%
```

Run 1: Report of TCP Cubic — Data Link

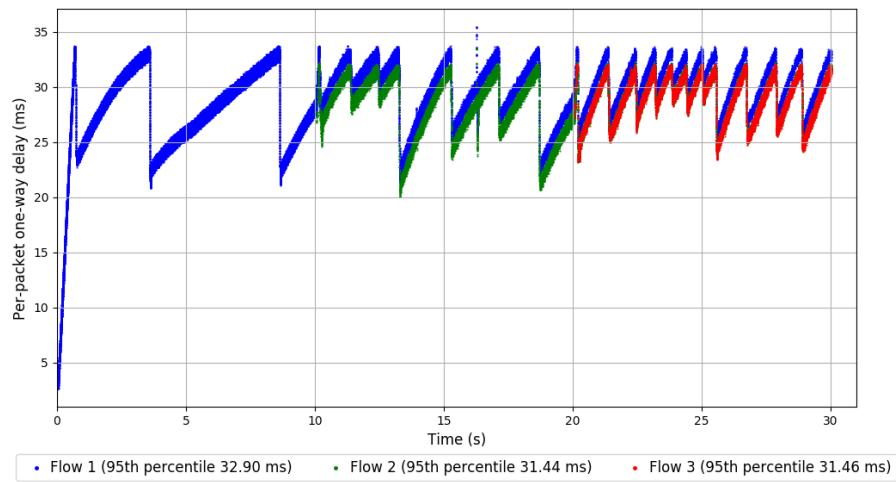
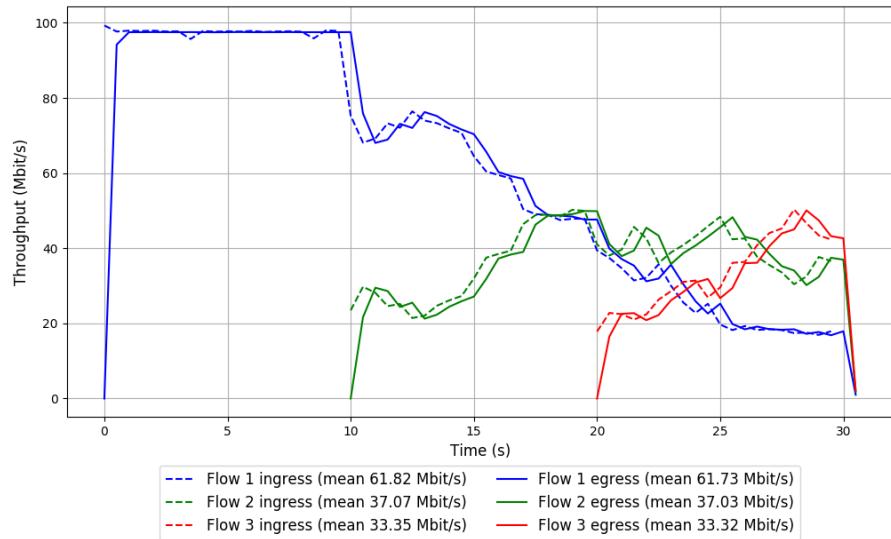


Run 2: Statistics of TCP Cubic

```
Start at: 2019-05-30 01:01:48
End at: 2019-05-30 01:02:18
Local clock offset: -5.276 ms
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2019-05-30 02:27:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 32.668 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 61.73 Mbit/s
95th percentile per-packet one-way delay: 32.901 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 37.03 Mbit/s
95th percentile per-packet one-way delay: 31.438 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 33.32 Mbit/s
95th percentile per-packet one-way delay: 31.463 ms
Loss rate: 0.04%
```

Run 2: Report of TCP Cubic — Data Link

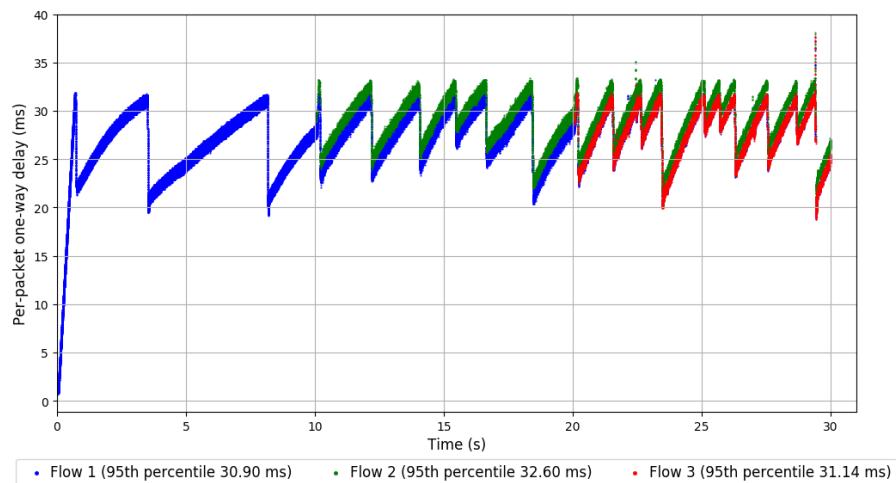
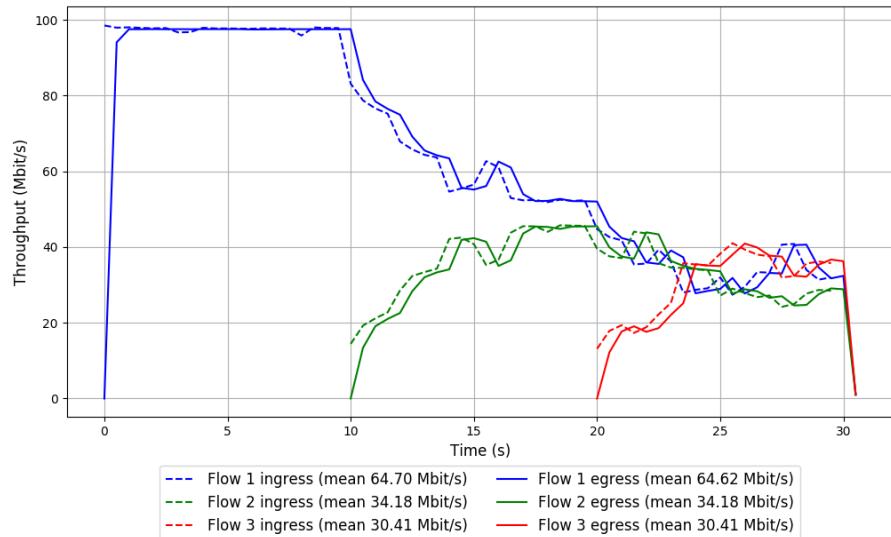


Run 3: Statistics of TCP Cubic

```
Start at: 2019-05-30 01:25:42
End at: 2019-05-30 01:26:12
Local clock offset: -3.382 ms
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2019-05-30 02:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 31.579 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 64.62 Mbit/s
95th percentile per-packet one-way delay: 30.899 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 34.18 Mbit/s
95th percentile per-packet one-way delay: 32.599 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 30.41 Mbit/s
95th percentile per-packet one-way delay: 31.138 ms
Loss rate: 0.03%
```

Run 3: Report of TCP Cubic — Data Link

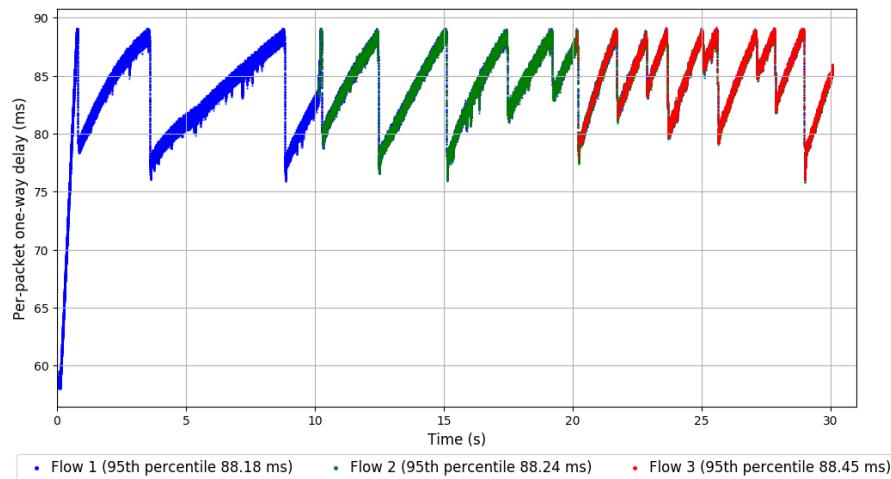
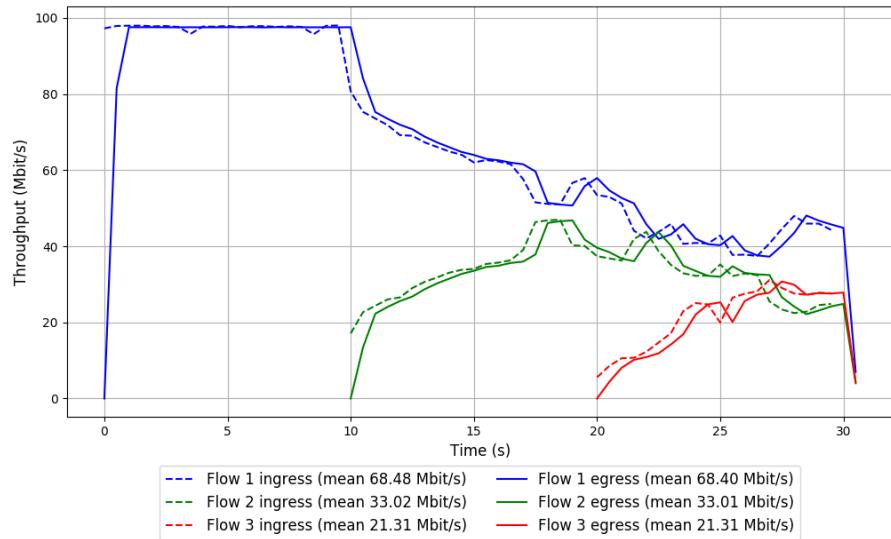


Run 4: Statistics of TCP Cubic

```
Start at: 2019-05-30 01:49:35
End at: 2019-05-30 01:50:05
Local clock offset: -58.659 ms
Remote clock offset: 0.359 ms

# Below is generated by plot.py at 2019-05-30 02:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 88.255 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 68.40 Mbit/s
95th percentile per-packet one-way delay: 88.184 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 33.01 Mbit/s
95th percentile per-packet one-way delay: 88.243 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 88.451 ms
Loss rate: 0.04%
```

Run 4: Report of TCP Cubic — Data Link

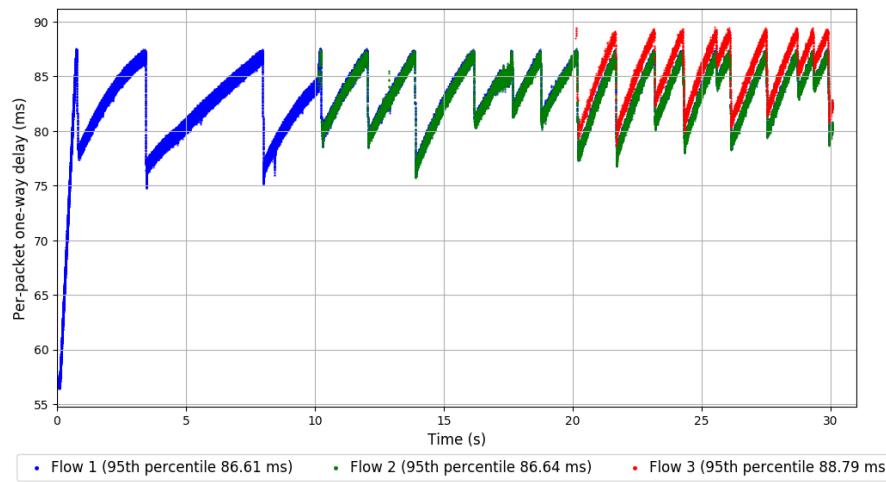
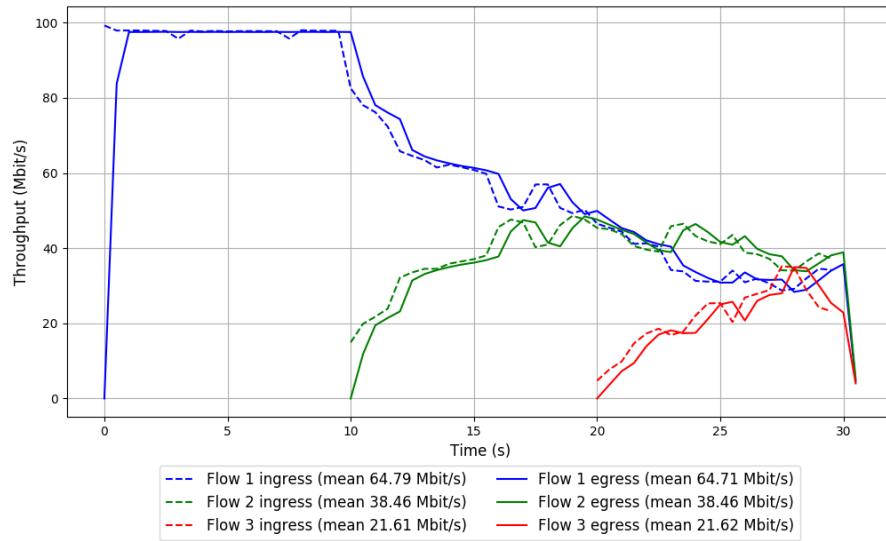


Run 5: Statistics of TCP Cubic

```
Start at: 2019-05-30 02:13:29
End at: 2019-05-30 02:13:59
Local clock offset: -59.396 ms
Remote clock offset: 0.405 ms

# Below is generated by plot.py at 2019-05-30 02:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 86.861 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 64.71 Mbit/s
95th percentile per-packet one-way delay: 86.606 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 86.642 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 21.62 Mbit/s
95th percentile per-packet one-way delay: 88.790 ms
Loss rate: 0.04%
```

Run 5: Report of TCP Cubic — Data Link

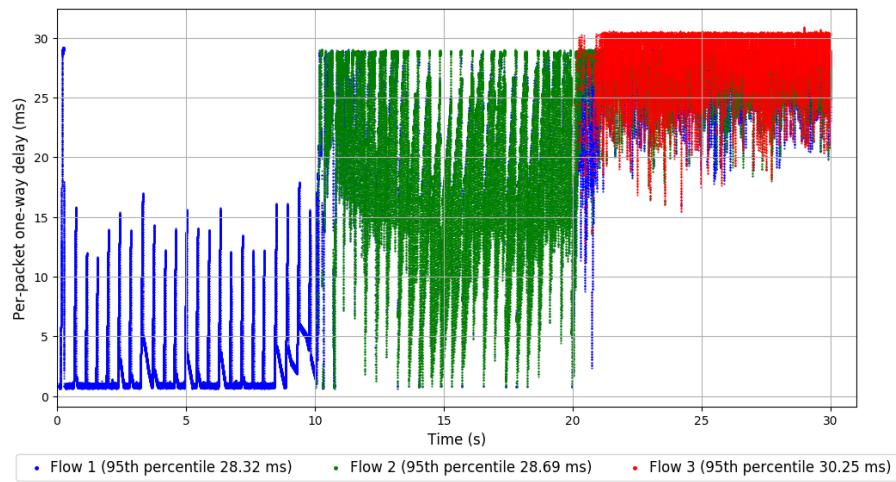
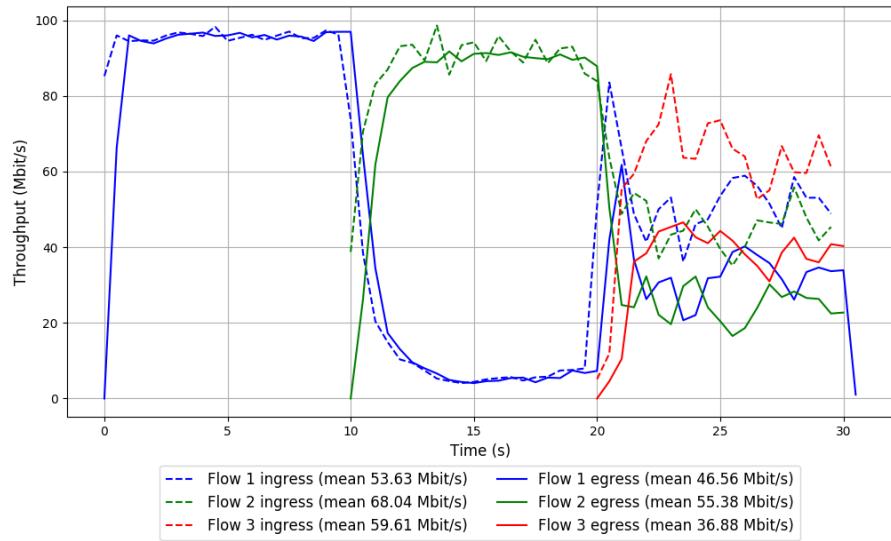


```
Run 1: Statistics of FillP

Start at: 2019-05-30 00:33:22
End at: 2019-05-30 00:33:52
Local clock offset: -4.532 ms
Remote clock offset: -0.663 ms

# Below is generated by plot.py at 2019-05-30 02:28:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.69 Mbit/s
95th percentile per-packet one-way delay: 28.933 ms
Loss rate: 19.33%
-- Flow 1:
Average throughput: 46.56 Mbit/s
95th percentile per-packet one-way delay: 28.316 ms
Loss rate: 13.10%
-- Flow 2:
Average throughput: 55.38 Mbit/s
95th percentile per-packet one-way delay: 28.687 ms
Loss rate: 18.52%
-- Flow 3:
Average throughput: 36.88 Mbit/s
95th percentile per-packet one-way delay: 30.250 ms
Loss rate: 38.06%
```

Run 1: Report of FillP — Data Link

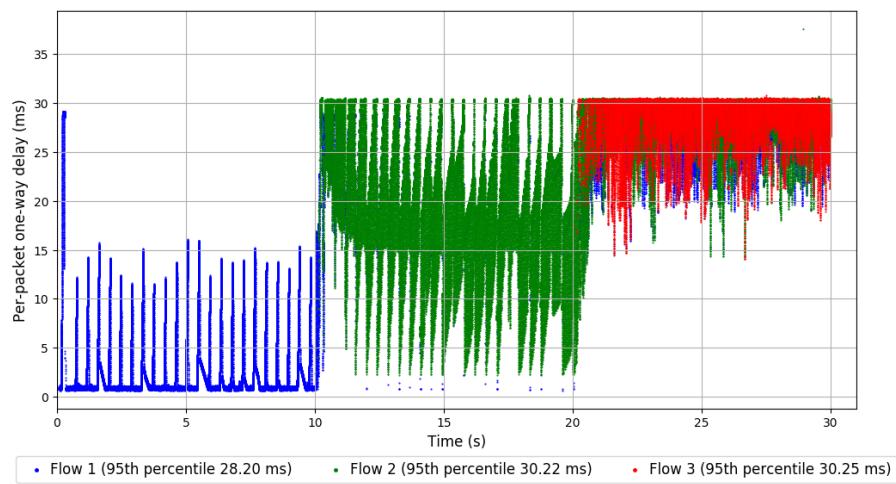
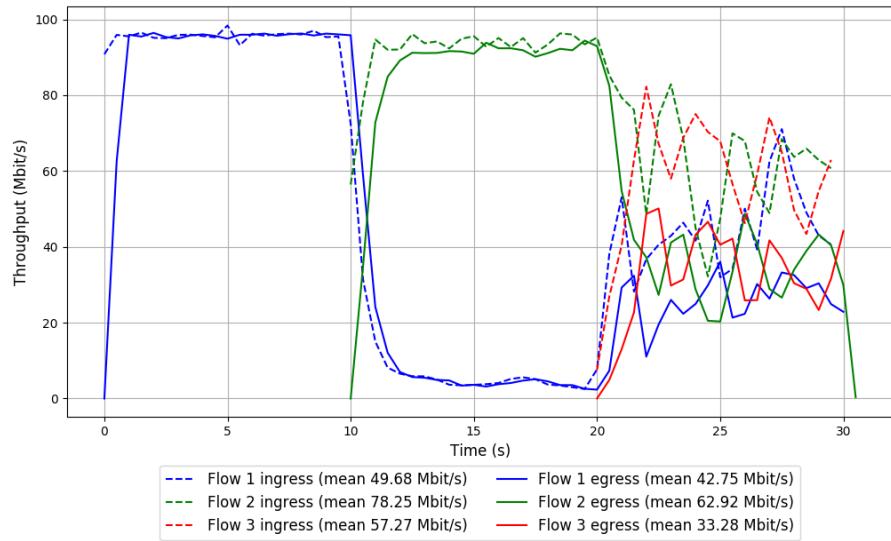


```
Run 2: Statistics of FillP
```

```
Start at: 2019-05-30 00:57:14
End at: 2019-05-30 00:57:44
Local clock offset: -5.004 ms
Remote clock offset: -0.324 ms

# Below is generated by plot.py at 2019-05-30 02:28:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 30.114 ms
Loss rate: 20.70%
-- Flow 1:
Average throughput: 42.75 Mbit/s
95th percentile per-packet one-way delay: 28.198 ms
Loss rate: 13.89%
-- Flow 2:
Average throughput: 62.92 Mbit/s
95th percentile per-packet one-way delay: 30.224 ms
Loss rate: 19.49%
-- Flow 3:
Average throughput: 33.28 Mbit/s
95th percentile per-packet one-way delay: 30.252 ms
Loss rate: 41.85%
```

Run 2: Report of FillP — Data Link

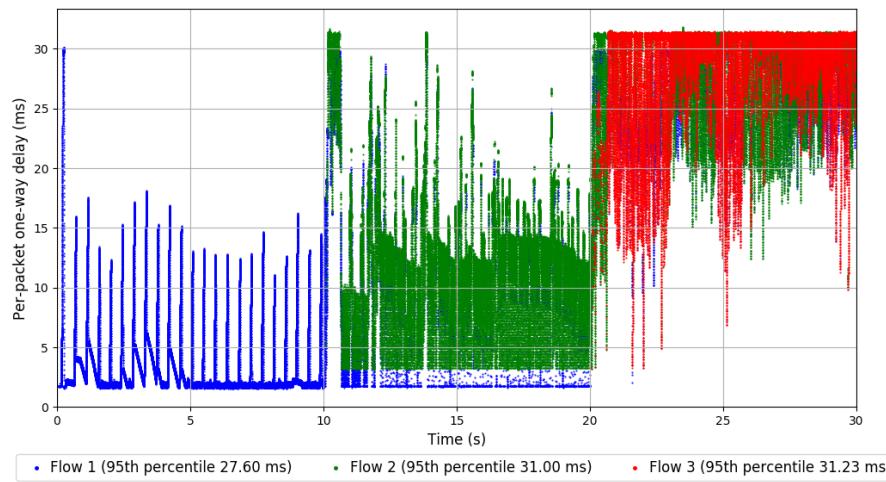
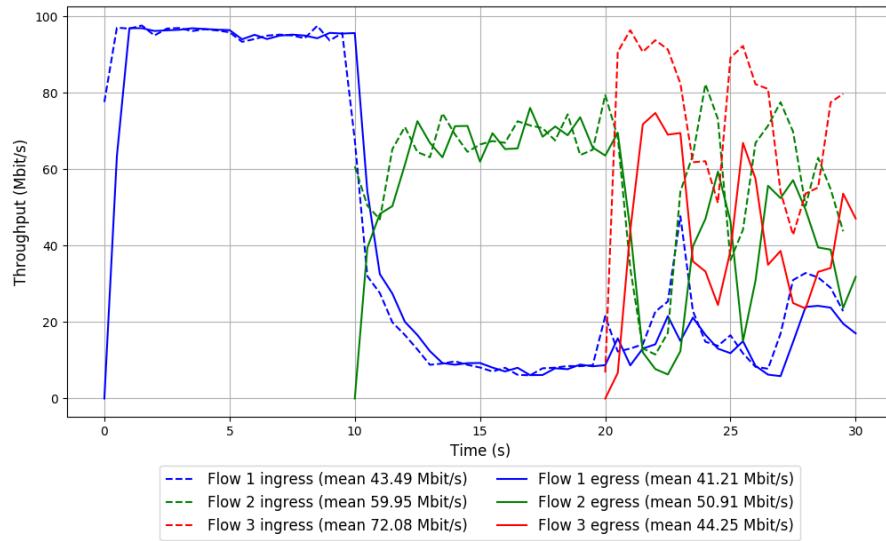


Run 3: Statistics of FillP

```
Start at: 2019-05-30 01:21:08
End at: 2019-05-30 01:21:38
Local clock offset: -4.439 ms
Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2019-05-30 02:28:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.84 Mbit/s
95th percentile per-packet one-way delay: 31.019 ms
Loss rate: 16.25%
-- Flow 1:
Average throughput: 41.21 Mbit/s
95th percentile per-packet one-way delay: 27.596 ms
Loss rate: 5.16%
-- Flow 2:
Average throughput: 50.91 Mbit/s
95th percentile per-packet one-way delay: 31.002 ms
Loss rate: 14.97%
-- Flow 3:
Average throughput: 44.25 Mbit/s
95th percentile per-packet one-way delay: 31.226 ms
Loss rate: 38.50%
```

Run 3: Report of FillP — Data Link

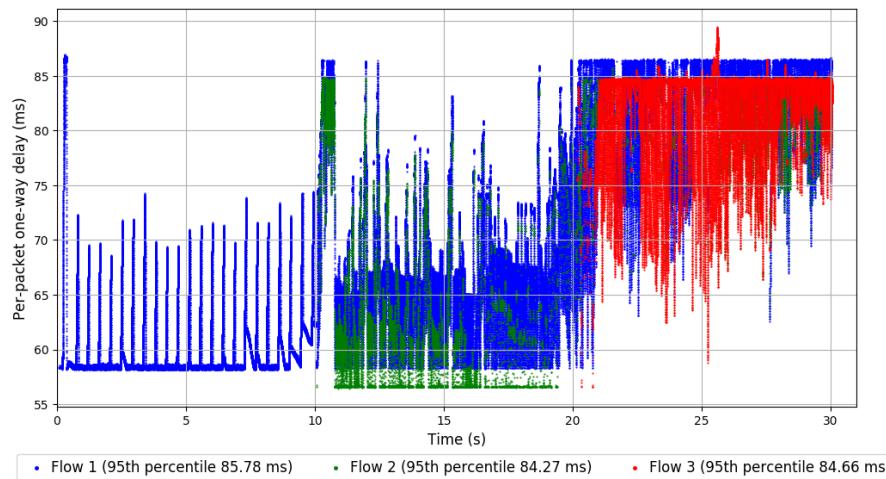
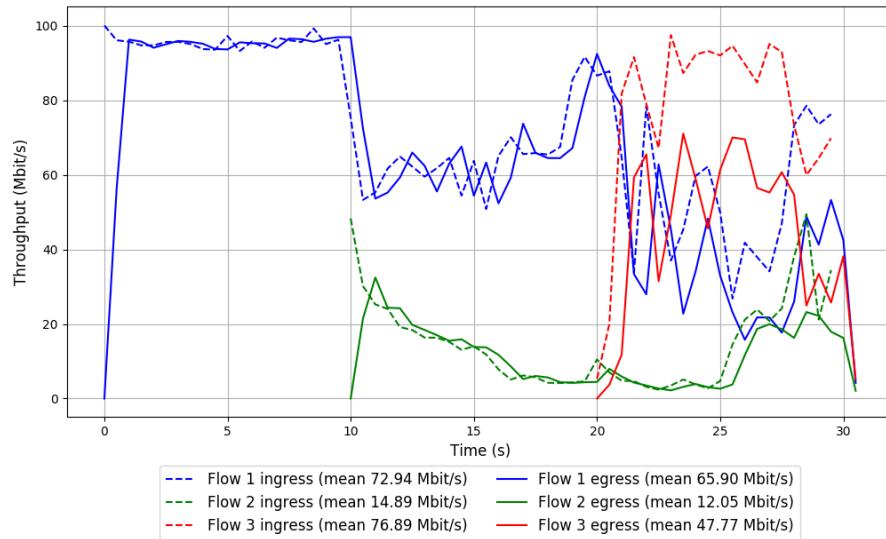


Run 4: Statistics of FillP

```
Start at: 2019-05-30 01:45:01
End at: 2019-05-30 01:45:31
Local clock offset: -59.067 ms
Remote clock offset: 0.25 ms

# Below is generated by plot.py at 2019-05-30 02:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.76 Mbit/s
95th percentile per-packet one-way delay: 85.383 ms
Loss rate: 17.10%
-- Flow 1:
Average throughput: 65.90 Mbit/s
95th percentile per-packet one-way delay: 85.782 ms
Loss rate: 9.57%
-- Flow 2:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 84.268 ms
Loss rate: 19.02%
-- Flow 3:
Average throughput: 47.77 Mbit/s
95th percentile per-packet one-way delay: 84.664 ms
Loss rate: 37.84%
```

Run 4: Report of FillP — Data Link

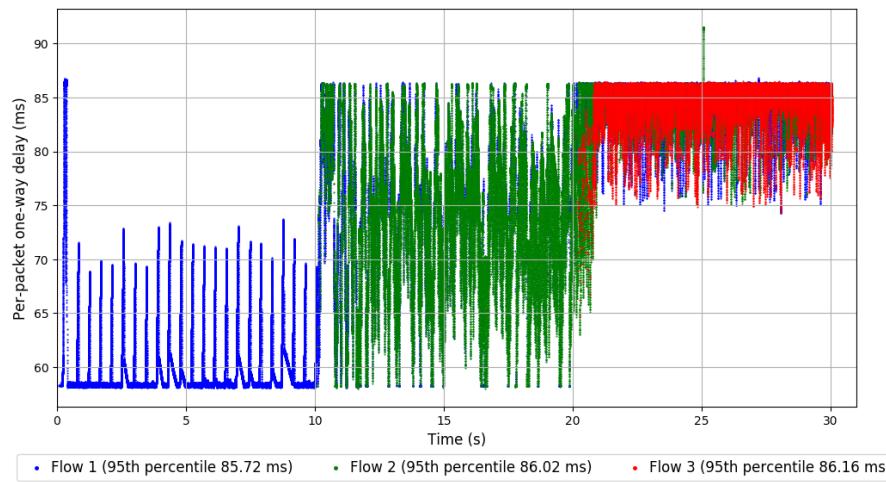
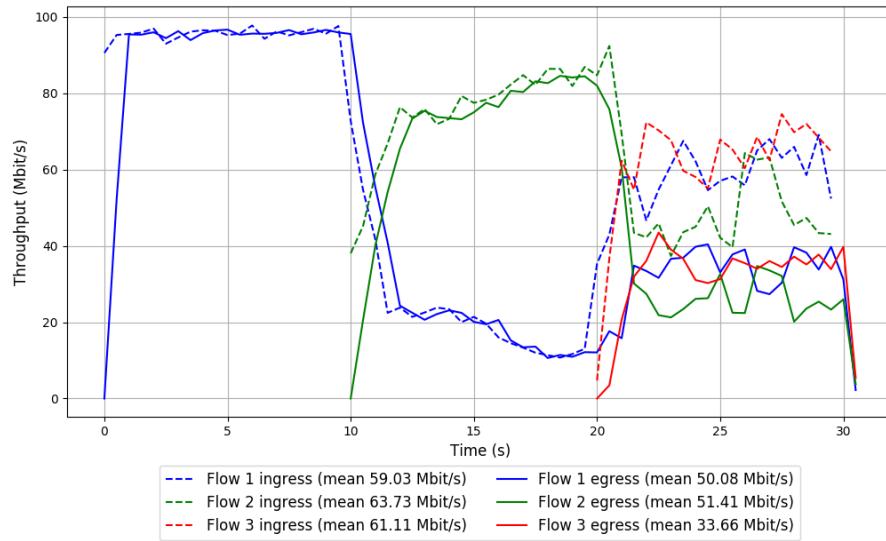


Run 5: Statistics of FillP

```
Start at: 2019-05-30 02:08:55
End at: 2019-05-30 02:09:25
Local clock offset: -58.929 ms
Remote clock offset: 0.386 ms

# Below is generated by plot.py at 2019-05-30 02:28:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.43 Mbit/s
95th percentile per-packet one-way delay: 85.977 ms
Loss rate: 21.51%
-- Flow 1:
Average throughput: 50.08 Mbit/s
95th percentile per-packet one-way delay: 85.723 ms
Loss rate: 15.10%
-- Flow 2:
Average throughput: 51.41 Mbit/s
95th percentile per-packet one-way delay: 86.023 ms
Loss rate: 19.25%
-- Flow 3:
Average throughput: 33.66 Mbit/s
95th percentile per-packet one-way delay: 86.161 ms
Loss rate: 44.91%
```

Run 5: Report of FillP — Data Link

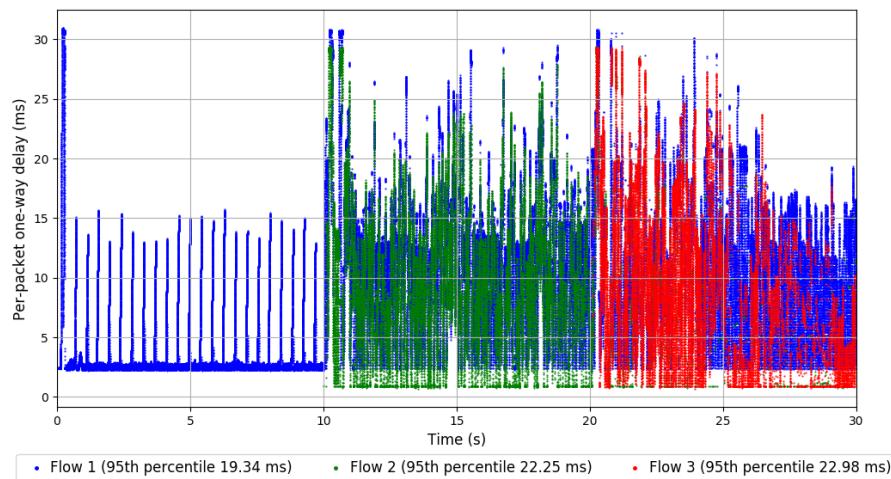
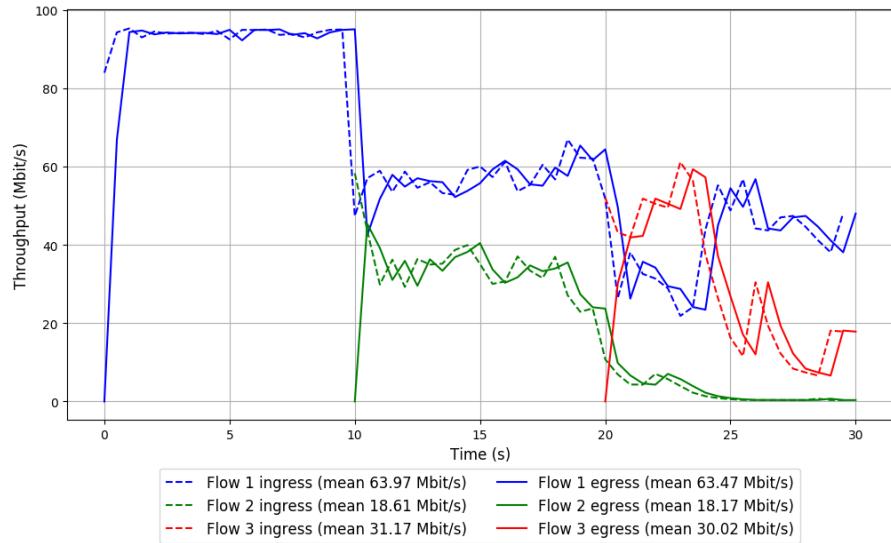


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-05-30 00:25:27
End at: 2019-05-30 00:25:57
Local clock offset: -4.509 ms
Remote clock offset: -0.674 ms

# Below is generated by plot.py at 2019-05-30 02:28:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.51 Mbit/s
95th percentile per-packet one-way delay: 20.275 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 63.47 Mbit/s
95th percentile per-packet one-way delay: 19.344 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 18.17 Mbit/s
95th percentile per-packet one-way delay: 22.246 ms
Loss rate: 2.31%
-- Flow 3:
Average throughput: 30.02 Mbit/s
95th percentile per-packet one-way delay: 22.985 ms
Loss rate: 3.70%
```

Run 1: Report of FillP-Sheep — Data Link

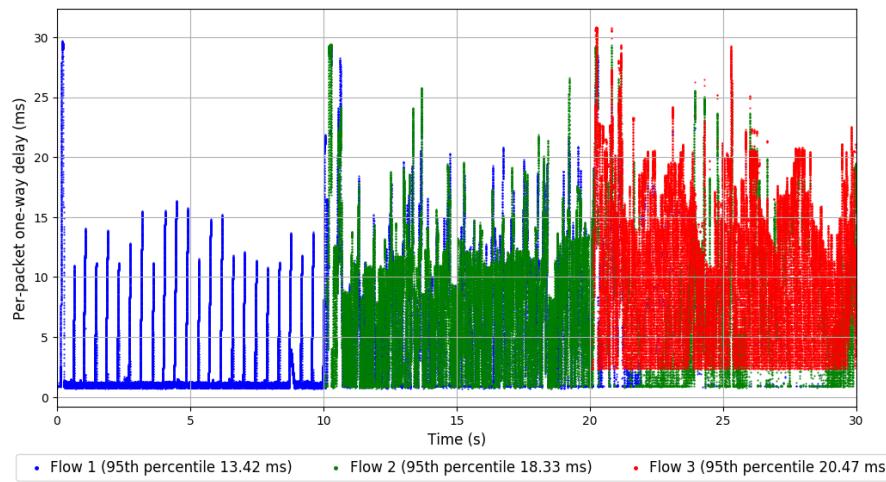
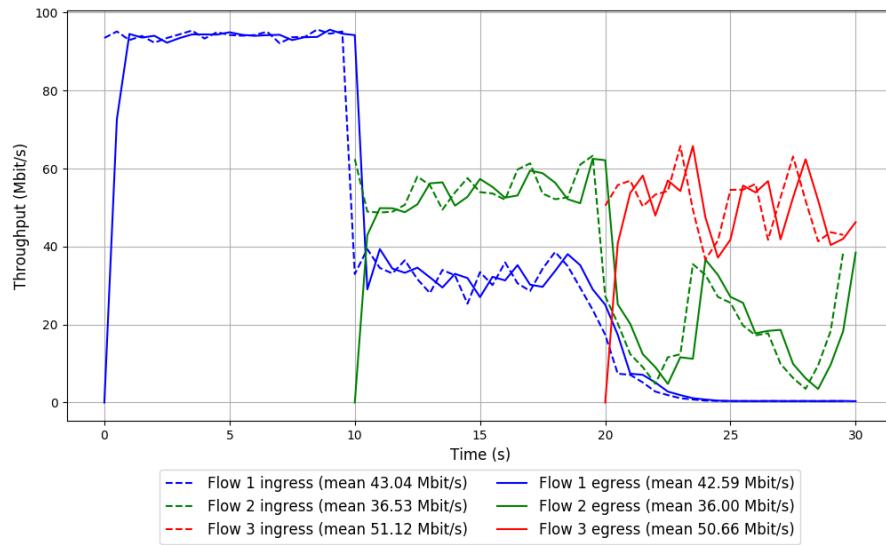


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-05-30 00:49:19
End at: 2019-05-30 00:49:49
Local clock offset: -4.932 ms
Remote clock offset: -0.4 ms

# Below is generated by plot.py at 2019-05-30 02:29:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.33 Mbit/s
95th percentile per-packet one-way delay: 18.060 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 42.59 Mbit/s
95th percentile per-packet one-way delay: 13.418 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 36.00 Mbit/s
95th percentile per-packet one-way delay: 18.328 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 50.66 Mbit/s
95th percentile per-packet one-way delay: 20.471 ms
Loss rate: 0.89%
```

Run 2: Report of FillP-Sheep — Data Link

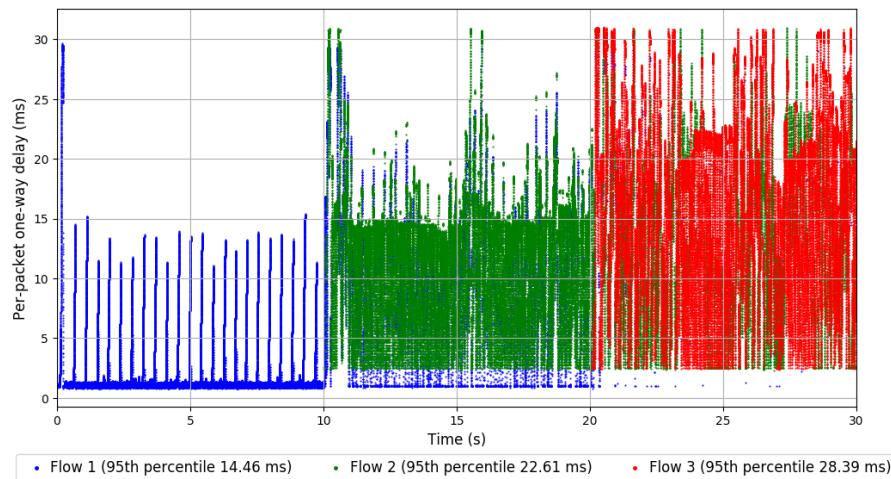
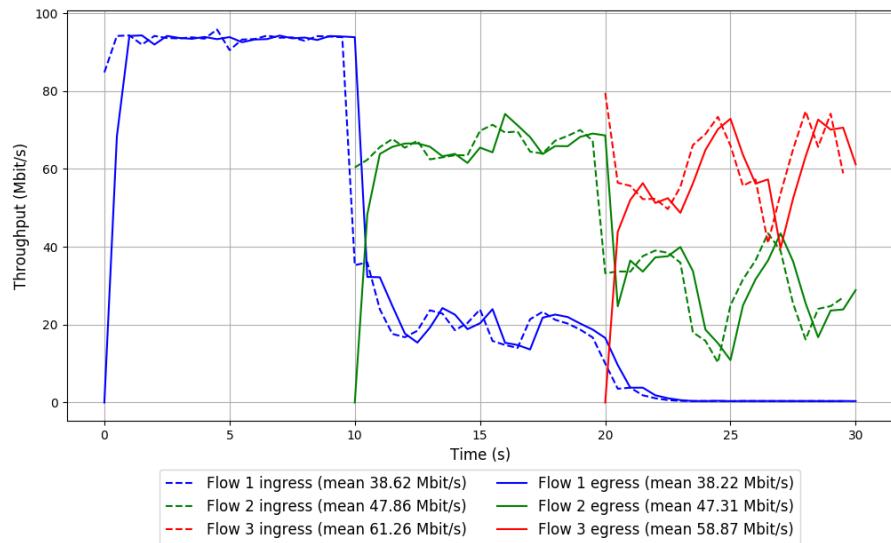


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-05-30 01:13:13
End at: 2019-05-30 01:13:43
Local clock offset: -4.276 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-05-30 02:29:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.27 Mbit/s
95th percentile per-packet one-way delay: 23.933 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 14.463 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 47.31 Mbit/s
95th percentile per-packet one-way delay: 22.612 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 58.87 Mbit/s
95th percentile per-packet one-way delay: 28.393 ms
Loss rate: 3.77%
```

Run 3: Report of FillP-Sheep — Data Link

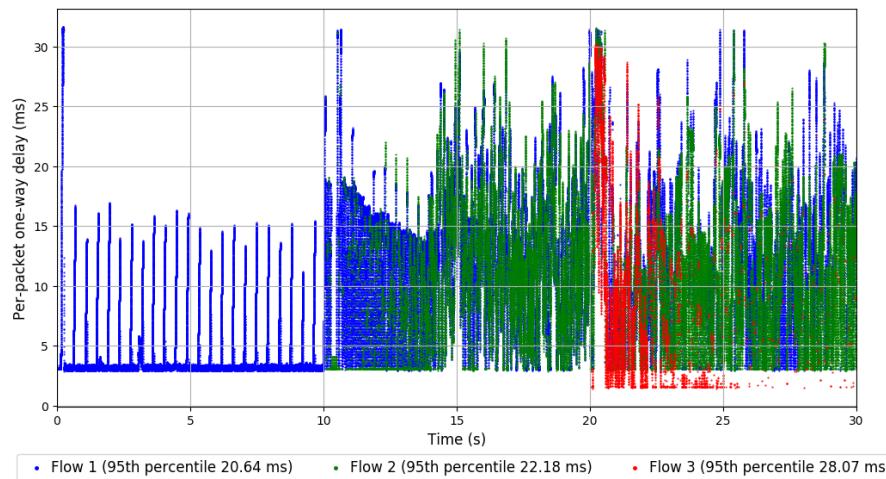
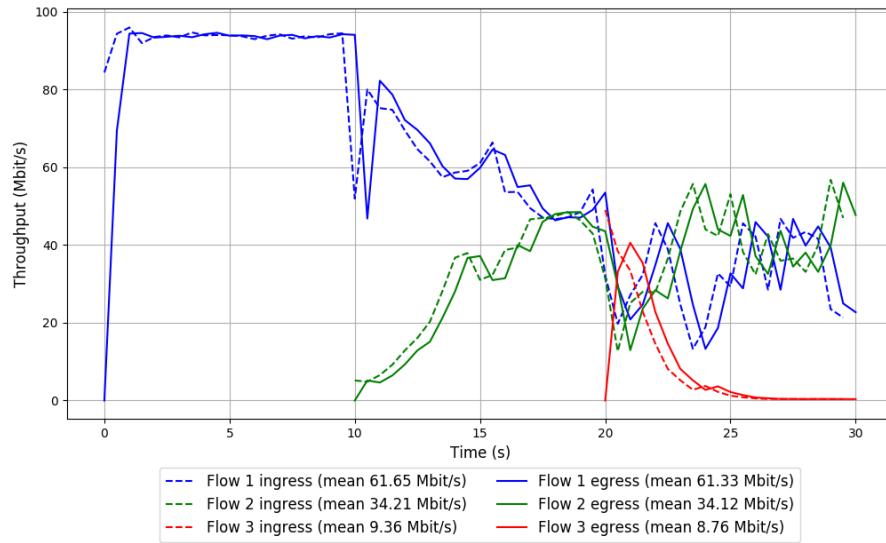


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-05-30 01:37:06
End at: 2019-05-30 01:37:36
Local clock offset: -3.805 ms
Remote clock offset: 0.171 ms

# Below is generated by plot.py at 2019-05-30 02:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.94 Mbit/s
95th percentile per-packet one-way delay: 21.600 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 61.33 Mbit/s
95th percentile per-packet one-way delay: 20.638 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 34.12 Mbit/s
95th percentile per-packet one-way delay: 22.182 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 8.76 Mbit/s
95th percentile per-packet one-way delay: 28.074 ms
Loss rate: 6.39%
```

Run 4: Report of FillP-Sheep — Data Link

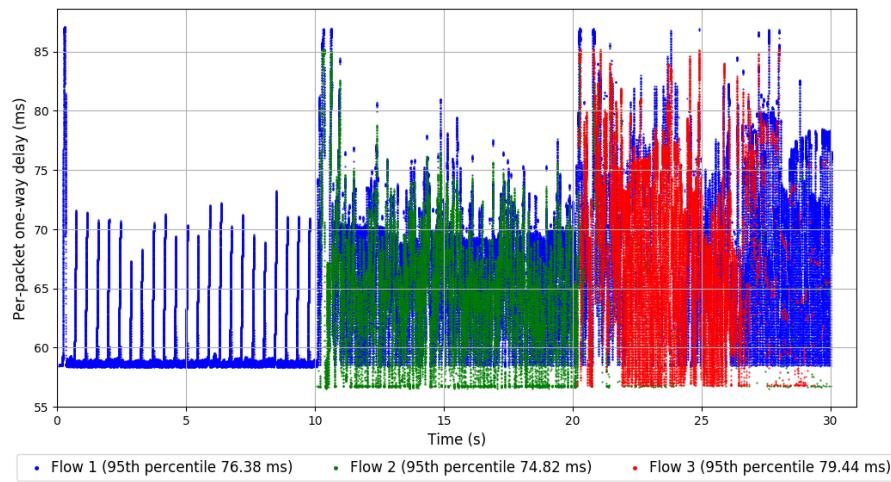
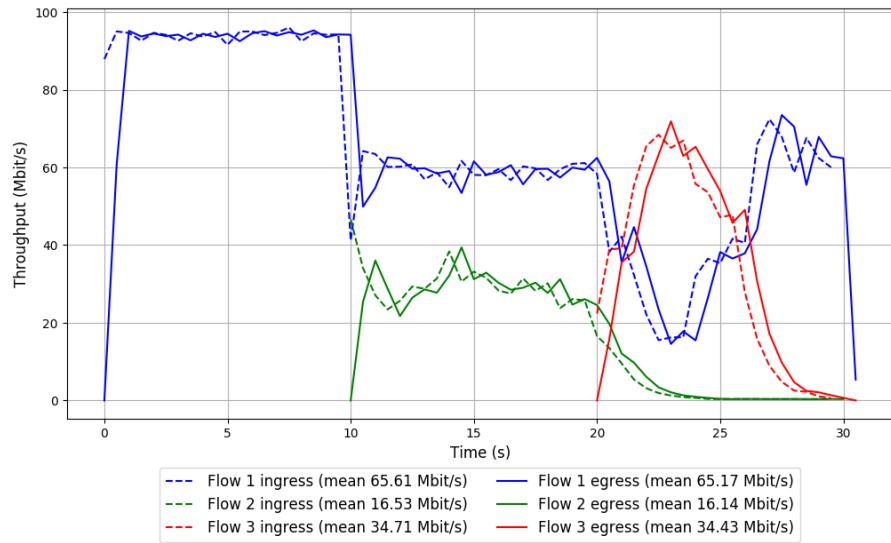


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-05-30 02:00:59
End at: 2019-05-30 02:01:29
Local clock offset: -58.936 ms
Remote clock offset: 0.424 ms

# Below is generated by plot.py at 2019-05-30 02:29:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.33 Mbit/s
95th percentile per-packet one-way delay: 77.044 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 65.17 Mbit/s
95th percentile per-packet one-way delay: 76.383 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 16.14 Mbit/s
95th percentile per-packet one-way delay: 74.816 ms
Loss rate: 2.34%
-- Flow 3:
Average throughput: 34.43 Mbit/s
95th percentile per-packet one-way delay: 79.442 ms
Loss rate: 0.73%
```

Run 5: Report of FillP-Sheep — Data Link

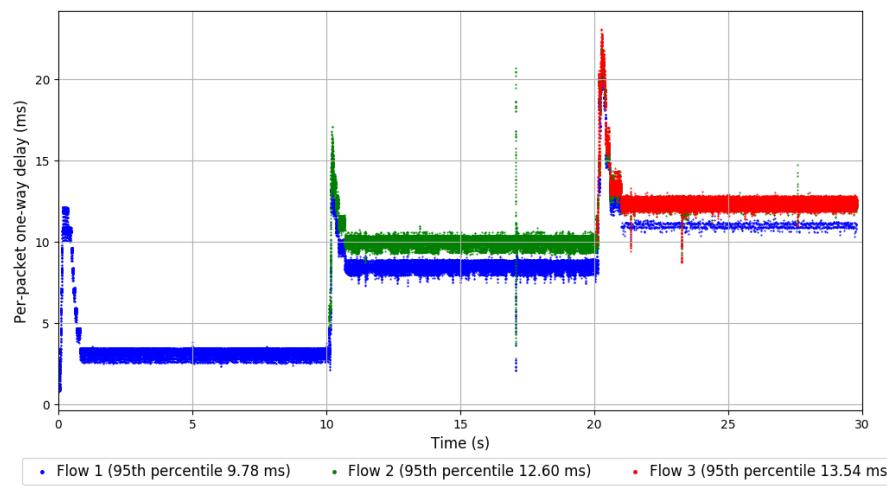
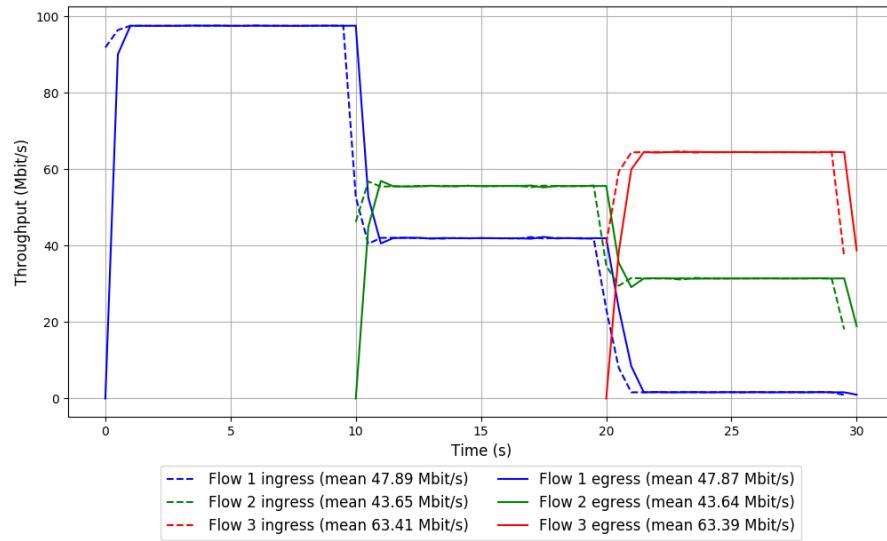


Run 1: Statistics of Indigo

```
Start at: 2019-05-30 00:35:36
End at: 2019-05-30 00:36:06
Local clock offset: -4.538 ms
Remote clock offset: -0.638 ms

# Below is generated by plot.py at 2019-05-30 02:29:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 12.581 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.87 Mbit/s
95th percentile per-packet one-way delay: 9.778 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.64 Mbit/s
95th percentile per-packet one-way delay: 12.595 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.39 Mbit/s
95th percentile per-packet one-way delay: 13.545 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link

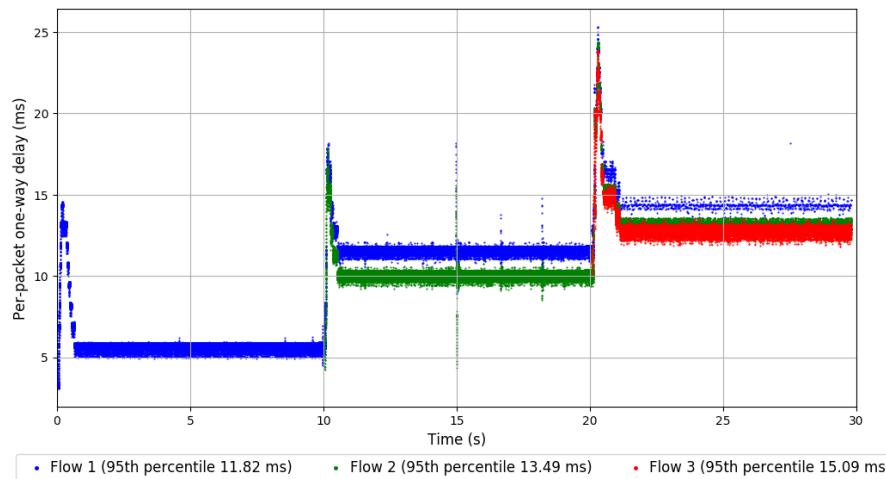
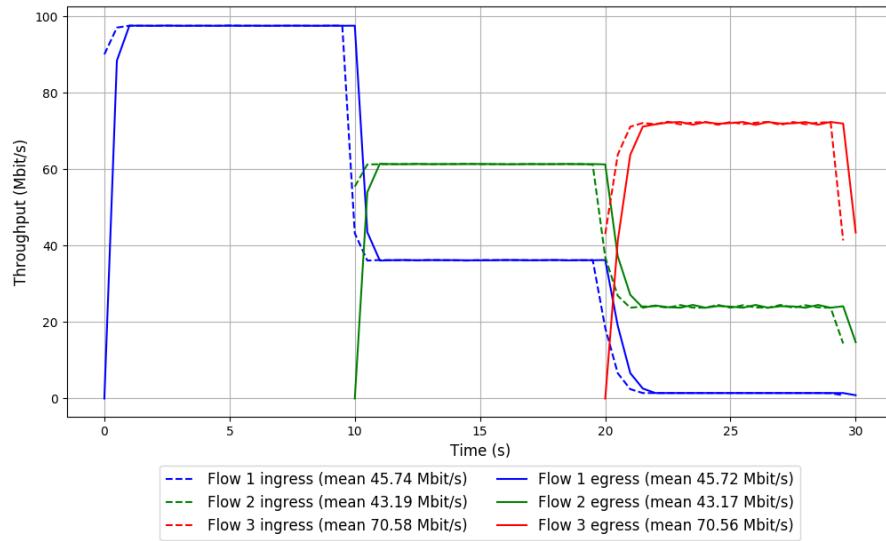


Run 2: Statistics of Indigo

```
Start at: 2019-05-30 00:59:29
End at: 2019-05-30 00:59:59
Local clock offset: -5.808 ms
Remote clock offset: -0.279 ms

# Below is generated by plot.py at 2019-05-30 02:29:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 13.378 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.72 Mbit/s
95th percentile per-packet one-way delay: 11.822 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.17 Mbit/s
95th percentile per-packet one-way delay: 13.490 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.56 Mbit/s
95th percentile per-packet one-way delay: 15.092 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link

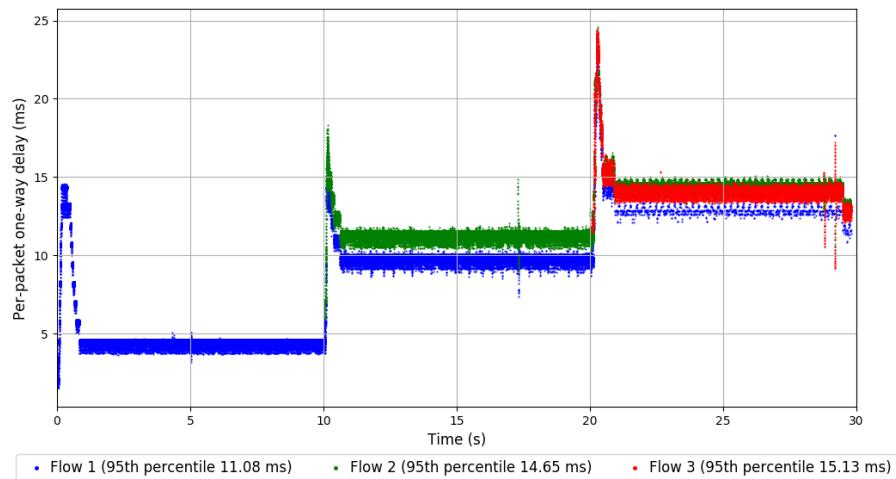
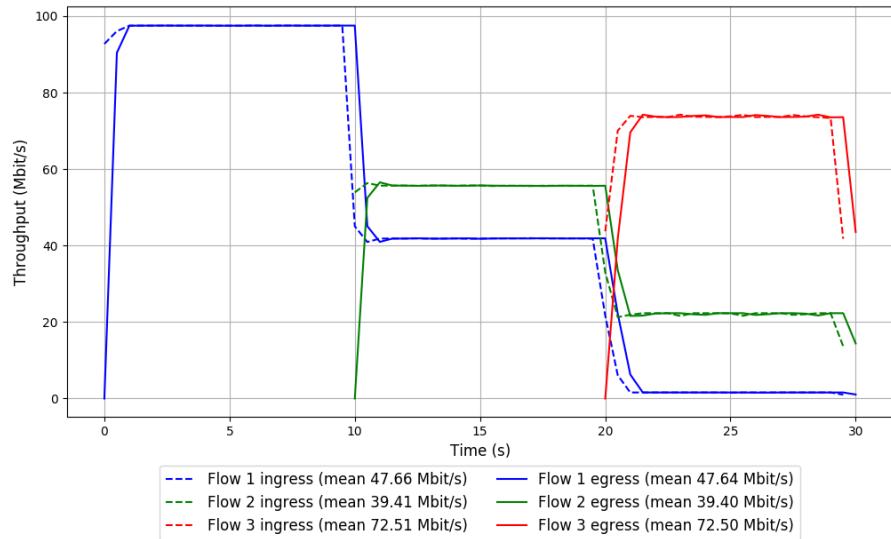


Run 3: Statistics of Indigo

```
Start at: 2019-05-30 01:23:22
End at: 2019-05-30 01:23:52
Local clock offset: -4.27 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-05-30 02:29:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 14.595 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.64 Mbit/s
95th percentile per-packet one-way delay: 11.077 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 14.648 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 72.50 Mbit/s
95th percentile per-packet one-way delay: 15.131 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link

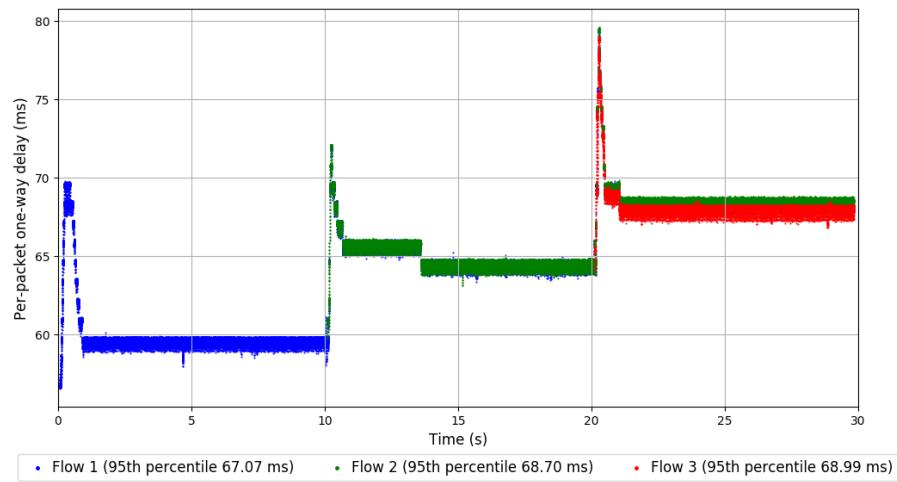
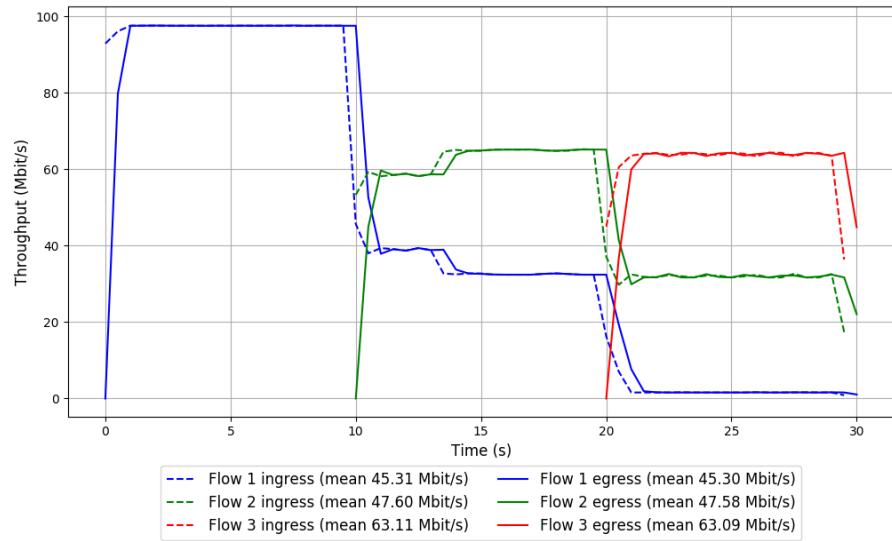


Run 4: Statistics of Indigo

```
Start at: 2019-05-30 01:47:16
End at: 2019-05-30 01:47:46
Local clock offset: -58.989 ms
Remote clock offset: 0.274 ms

# Below is generated by plot.py at 2019-05-30 02:30:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 68.573 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.30 Mbit/s
95th percentile per-packet one-way delay: 67.068 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.58 Mbit/s
95th percentile per-packet one-way delay: 68.699 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.09 Mbit/s
95th percentile per-packet one-way delay: 68.989 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link

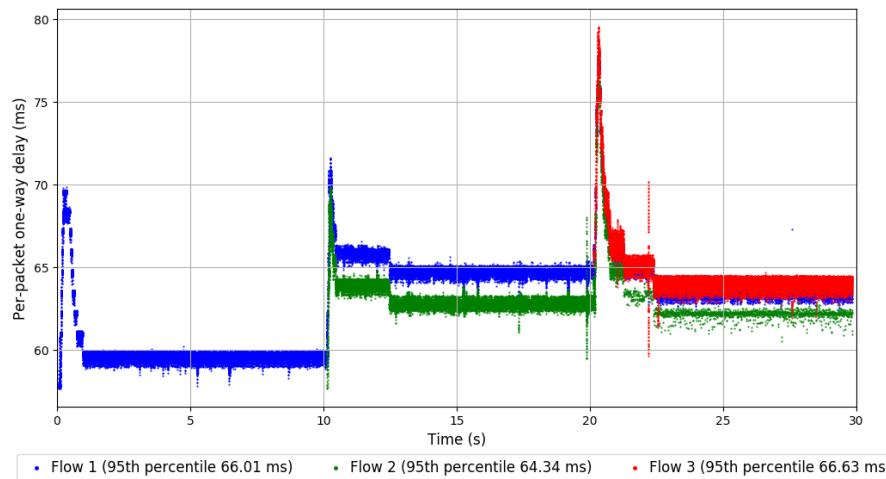
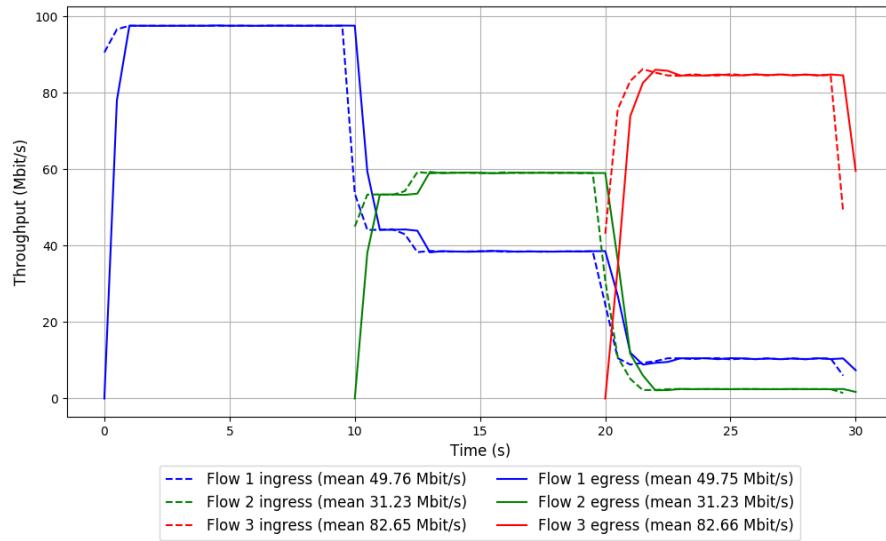


Run 5: Statistics of Indigo

```
Start at: 2019-05-30 02:11:09
End at: 2019-05-30 02:11:39
Local clock offset: -58.557 ms
Remote clock offset: 0.322 ms

# Below is generated by plot.py at 2019-05-30 02:30:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 66.095 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.75 Mbit/s
95th percentile per-packet one-way delay: 66.012 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.23 Mbit/s
95th percentile per-packet one-way delay: 64.338 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 82.66 Mbit/s
95th percentile per-packet one-way delay: 66.633 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link

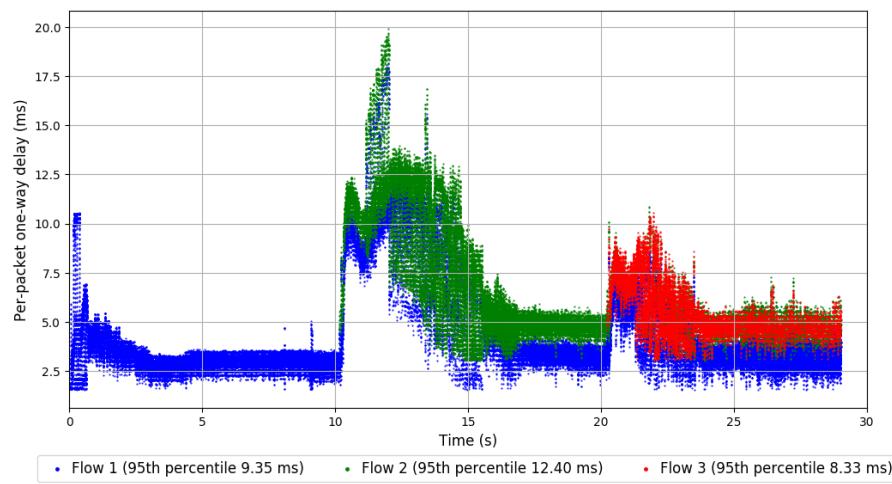
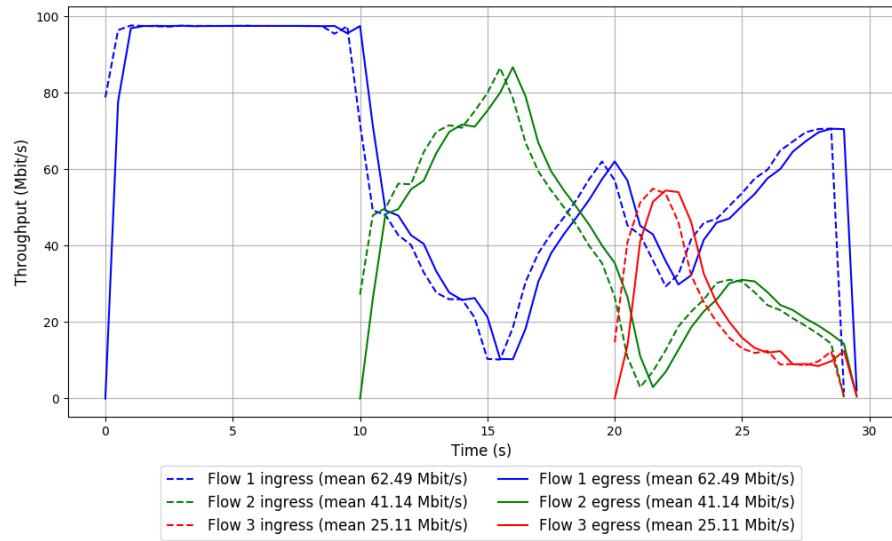


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-05-30 00:27:43
End at: 2019-05-30 00:28:13
Local clock offset: -5.256 ms
Remote clock offset: -0.689 ms

# Below is generated by plot.py at 2019-05-30 02:30:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.84 Mbit/s
95th percentile per-packet one-way delay: 11.105 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.49 Mbit/s
95th percentile per-packet one-way delay: 9.345 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 12.402 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.11 Mbit/s
95th percentile per-packet one-way delay: 8.330 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesC3 — Data Link

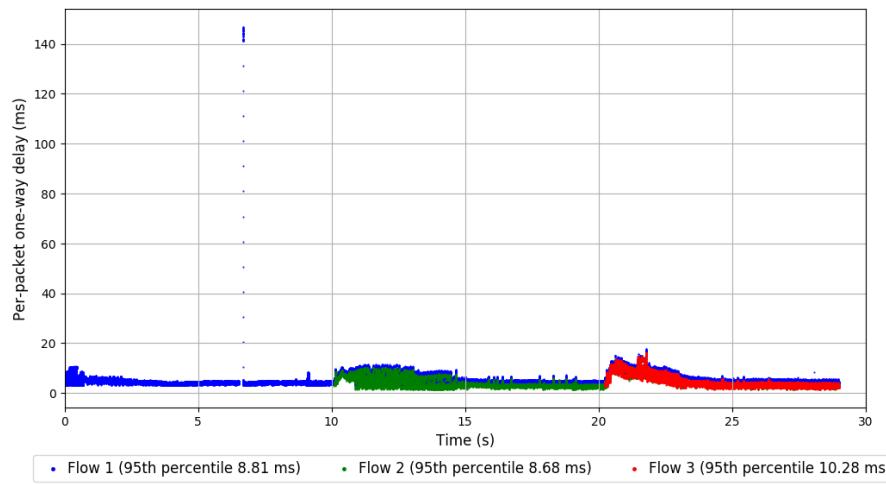
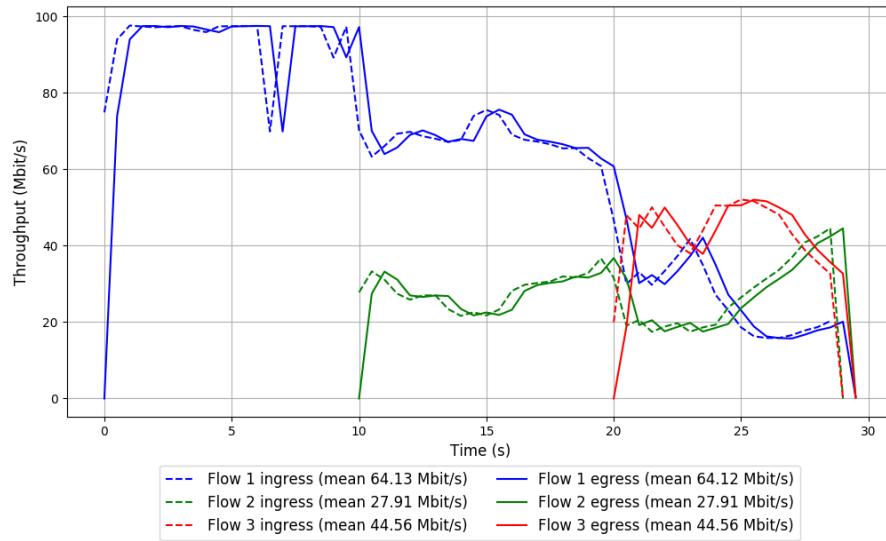


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-05-30 00:51:36
End at: 2019-05-30 00:52:06
Local clock offset: -5.705 ms
Remote clock offset: -0.452 ms

# Below is generated by plot.py at 2019-05-30 02:30:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 9.112 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.12 Mbit/s
95th percentile per-packet one-way delay: 8.814 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.91 Mbit/s
95th percentile per-packet one-way delay: 8.675 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.56 Mbit/s
95th percentile per-packet one-way delay: 10.276 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesC3 — Data Link

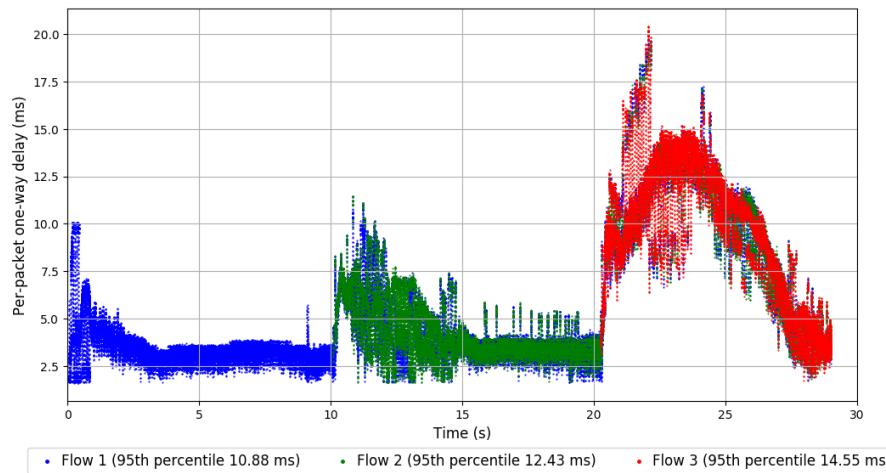
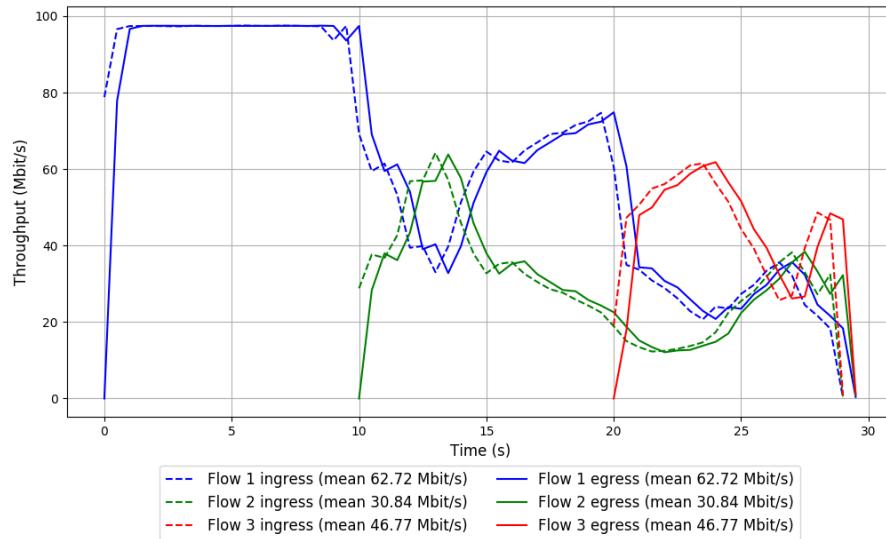


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-05-30 01:15:29
End at: 2019-05-30 01:15:59
Local clock offset: -4.775 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-05-30 02:30:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.97 Mbit/s
95th percentile per-packet one-way delay: 13.190 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.72 Mbit/s
95th percentile per-packet one-way delay: 10.877 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.84 Mbit/s
95th percentile per-packet one-way delay: 12.428 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.77 Mbit/s
95th percentile per-packet one-way delay: 14.552 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesC3 — Data Link

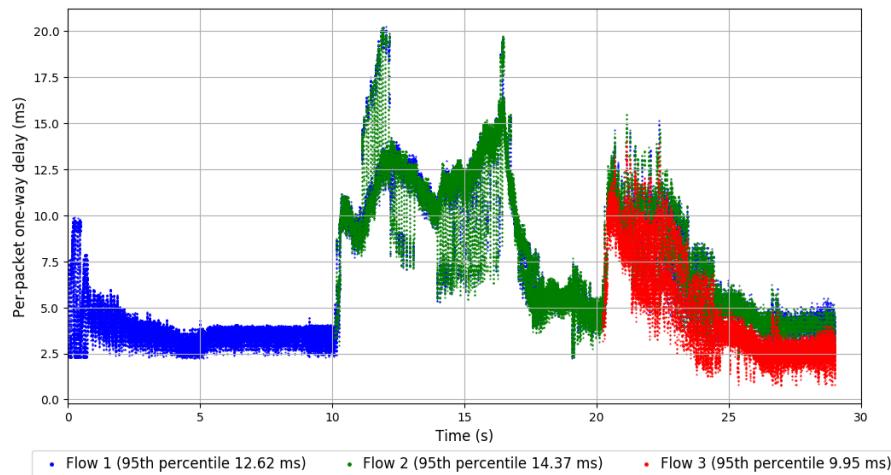
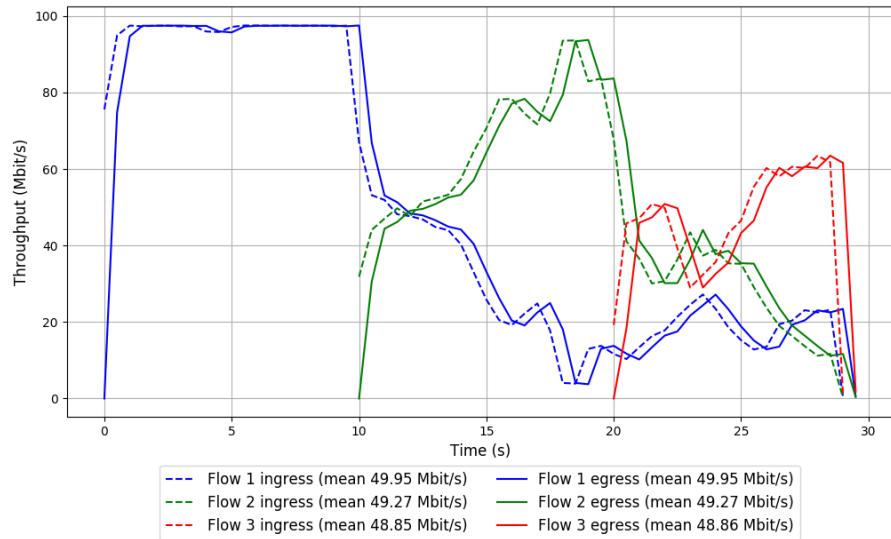


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-05-30 01:39:22
End at: 2019-05-30 01:39:52
Local clock offset: -3.017 ms
Remote clock offset: 0.188 ms

# Below is generated by plot.py at 2019-05-30 02:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.89 Mbit/s
95th percentile per-packet one-way delay: 13.246 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.95 Mbit/s
95th percentile per-packet one-way delay: 12.622 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.27 Mbit/s
95th percentile per-packet one-way delay: 14.371 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.86 Mbit/s
95th percentile per-packet one-way delay: 9.946 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesC3 — Data Link

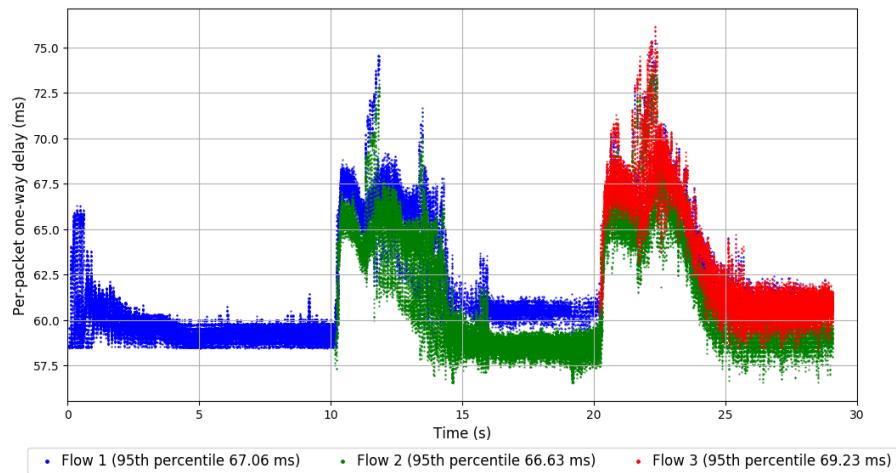
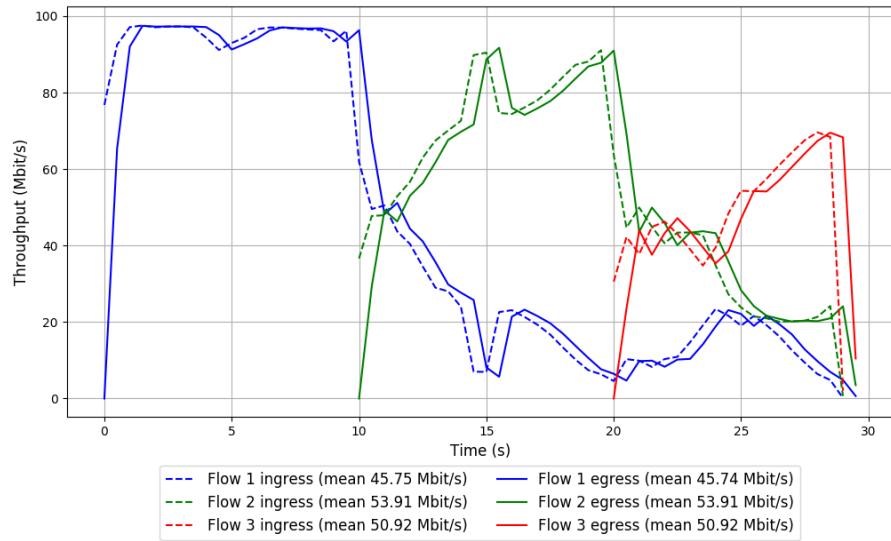


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-05-30 02:03:15
End at: 2019-05-30 02:03:45
Local clock offset: -58.899 ms
Remote clock offset: 0.32 ms

# Below is generated by plot.py at 2019-05-30 02:30:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 67.494 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.74 Mbit/s
95th percentile per-packet one-way delay: 67.057 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.91 Mbit/s
95th percentile per-packet one-way delay: 66.633 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.92 Mbit/s
95th percentile per-packet one-way delay: 69.231 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC3 — Data Link

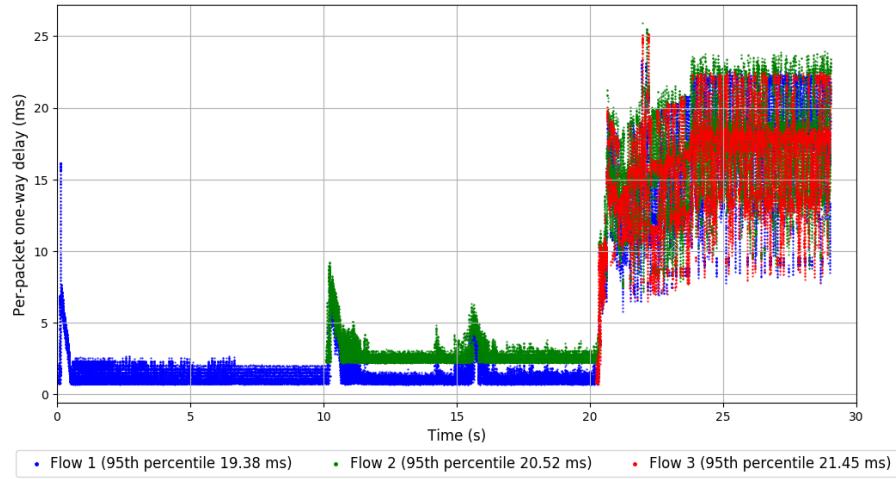
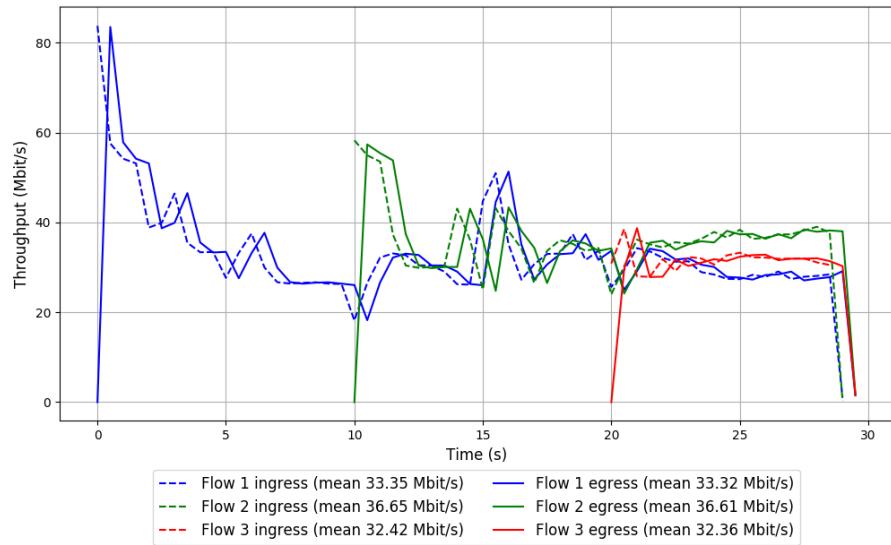


```
Run 1: Statistics of Indigo-MusesC5
```

```
Start at: 2019-05-30 00:26:35
End at: 2019-05-30 00:27:05
Local clock offset: -4.469 ms
Remote clock offset: -0.76 ms

# Below is generated by plot.py at 2019-05-30 02:30:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.02 Mbit/s
95th percentile per-packet one-way delay: 20.274 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.32 Mbit/s
95th percentile per-packet one-way delay: 19.380 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.61 Mbit/s
95th percentile per-packet one-way delay: 20.520 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 21.448 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesC5 — Data Link

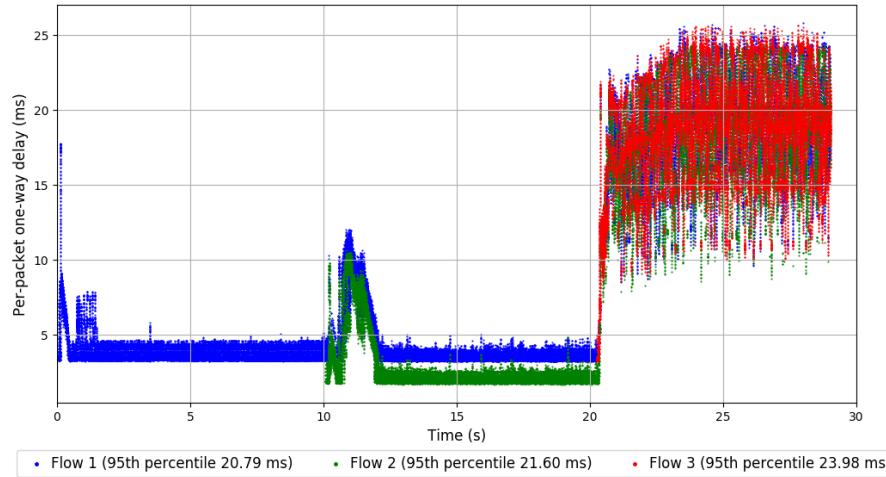
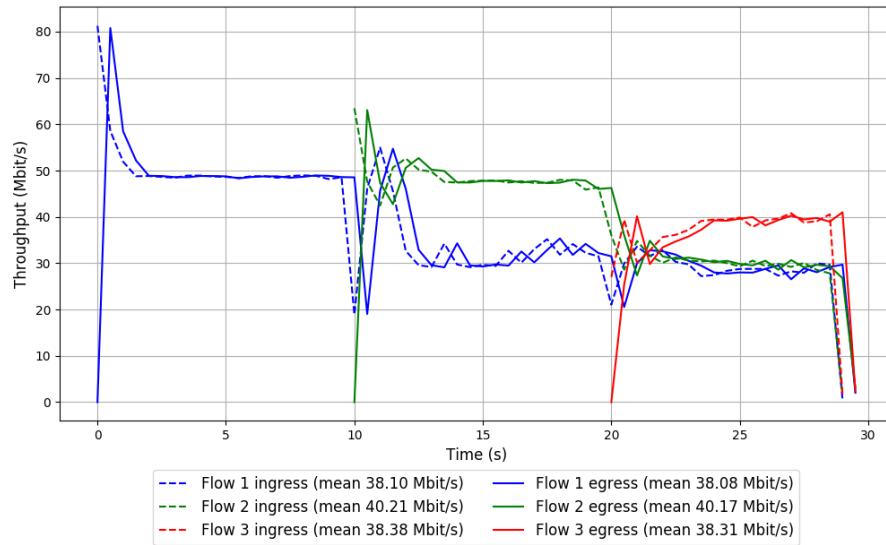


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-05-30 00:50:27
End at: 2019-05-30 00:50:57
Local clock offset: -5.88 ms
Remote clock offset: -0.446 ms

# Below is generated by plot.py at 2019-05-30 02:30:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.91 Mbit/s
95th percentile per-packet one-way delay: 22.148 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.08 Mbit/s
95th percentile per-packet one-way delay: 20.790 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.17 Mbit/s
95th percentile per-packet one-way delay: 21.600 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.31 Mbit/s
95th percentile per-packet one-way delay: 23.982 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesC5 — Data Link

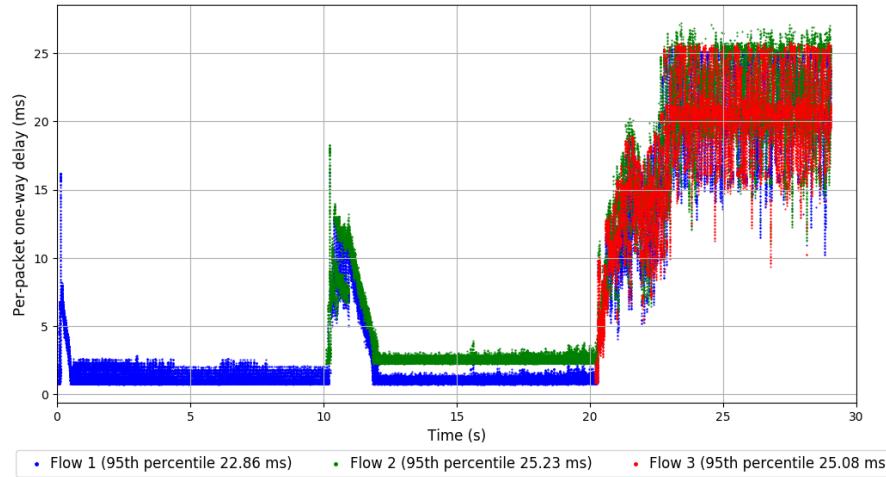
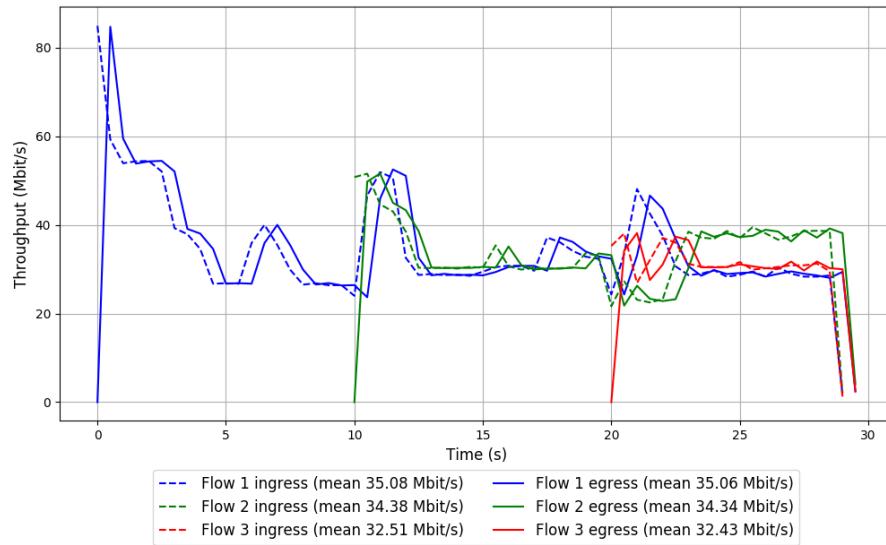


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-05-30 01:14:21
End at: 2019-05-30 01:14:51
Local clock offset: -4.085 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2019-05-30 02:31:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.32 Mbit/s
95th percentile per-packet one-way delay: 24.569 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.06 Mbit/s
95th percentile per-packet one-way delay: 22.858 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.34 Mbit/s
95th percentile per-packet one-way delay: 25.230 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 25.077 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesC5 — Data Link

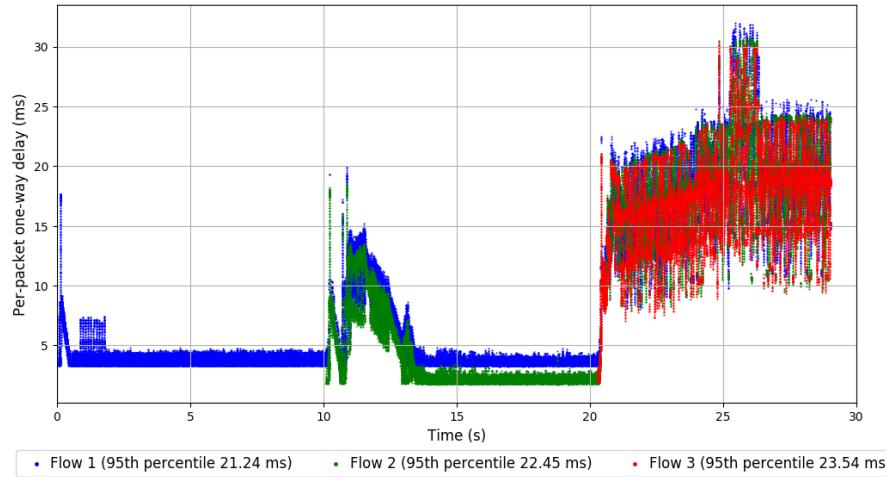
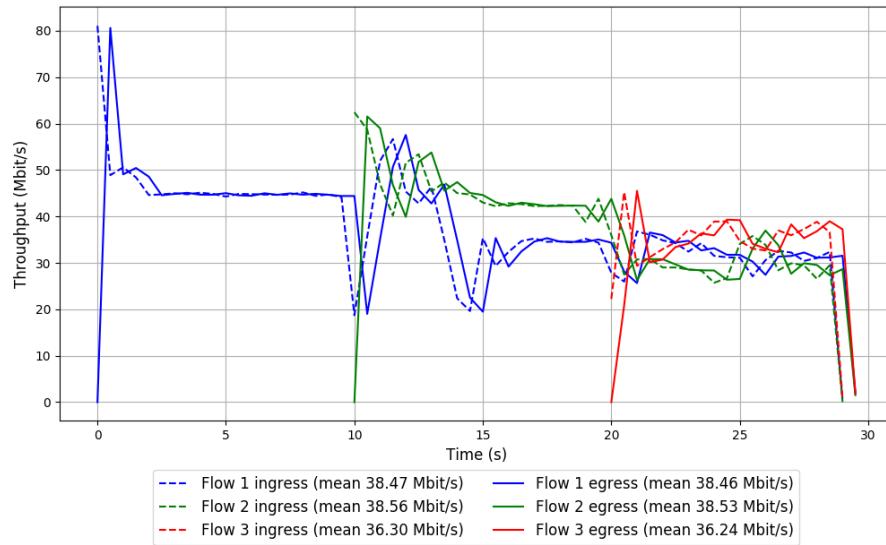


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-05-30 01:38:14
End at: 2019-05-30 01:38:44
Local clock offset: -4.028 ms
Remote clock offset: 0.199 ms

# Below is generated by plot.py at 2019-05-30 02:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.49 Mbit/s
95th percentile per-packet one-way delay: 22.352 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 21.238 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.53 Mbit/s
95th percentile per-packet one-way delay: 22.452 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.24 Mbit/s
95th percentile per-packet one-way delay: 23.537 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesC5 — Data Link

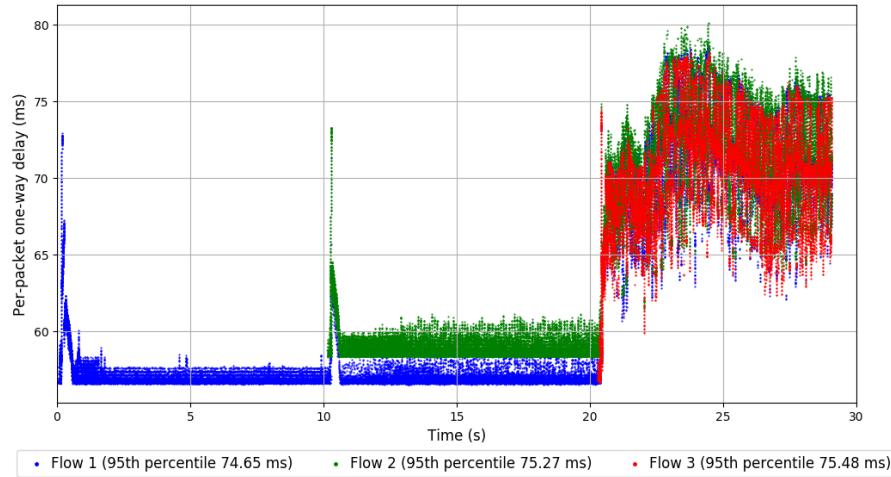
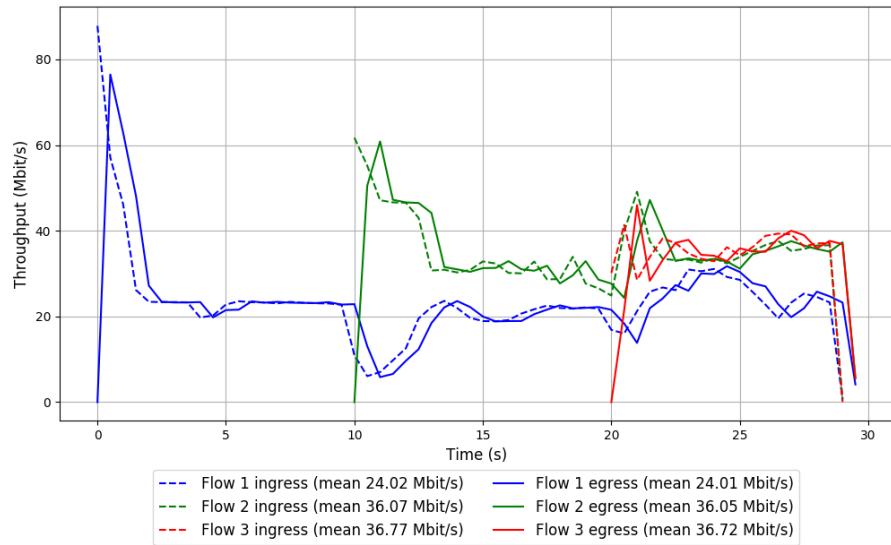


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-05-30 02:02:08
End at: 2019-05-30 02:02:38
Local clock offset: -58.919 ms
Remote clock offset: 0.393 ms

# Below is generated by plot.py at 2019-05-30 02:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.63 Mbit/s
95th percentile per-packet one-way delay: 75.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.01 Mbit/s
95th percentile per-packet one-way delay: 74.647 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 75.274 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.72 Mbit/s
95th percentile per-packet one-way delay: 75.481 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC5 — Data Link

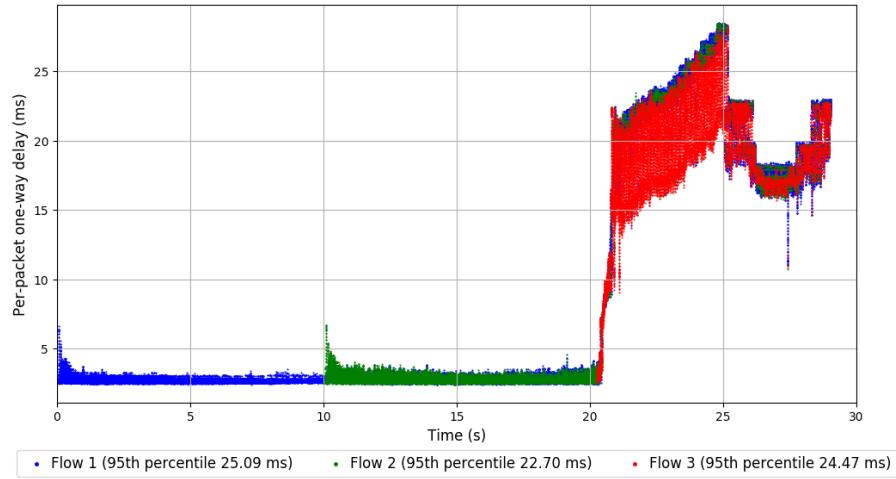
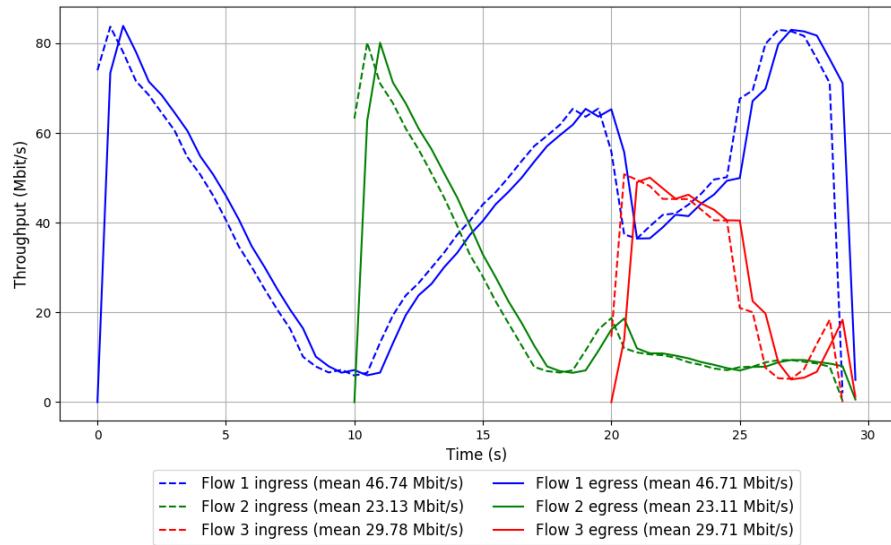


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-05-30 00:44:47
End at: 2019-05-30 00:45:17
Local clock offset: -4.979 ms
Remote clock offset: -0.531 ms

# Below is generated by plot.py at 2019-05-30 02:31:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.79 Mbit/s
95th percentile per-packet one-way delay: 24.601 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.71 Mbit/s
95th percentile per-packet one-way delay: 25.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.11 Mbit/s
95th percentile per-packet one-way delay: 22.699 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 24.470 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesD — Data Link

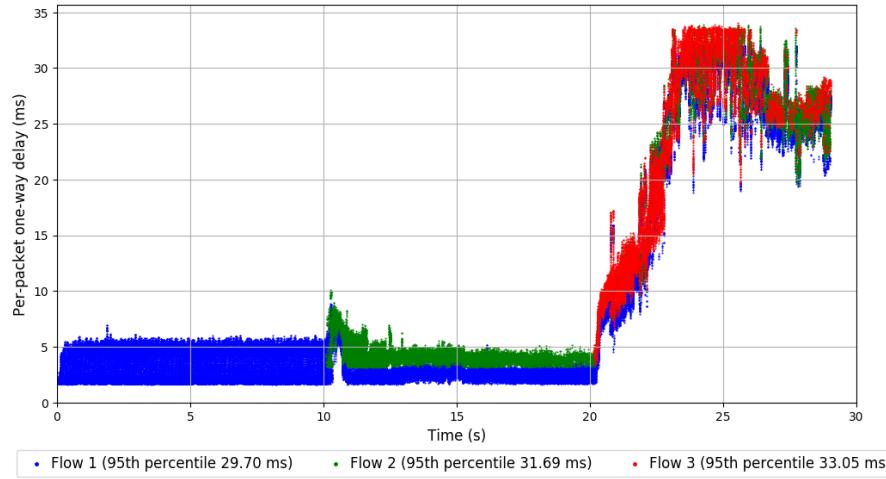
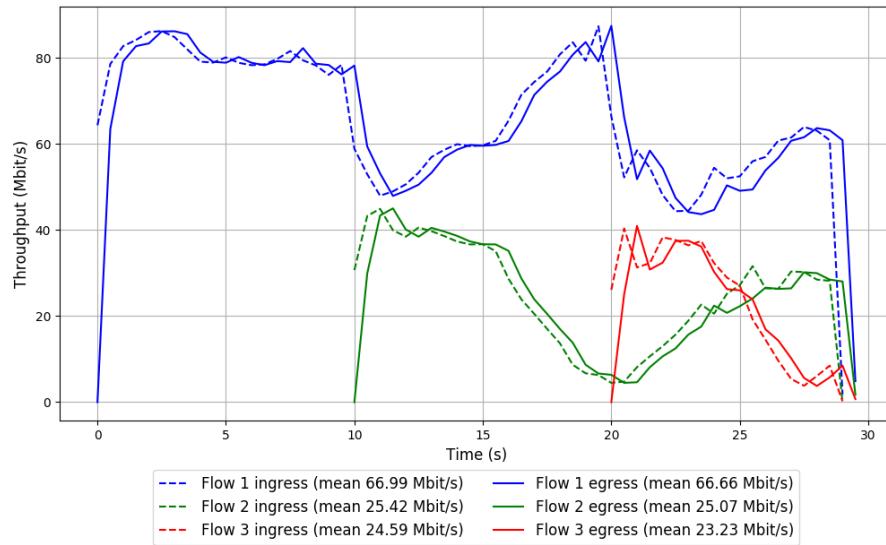


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-05-30 01:08:39
End at: 2019-05-30 01:09:09
Local clock offset: -5.73 ms
Remote clock offset: -0.22 ms

# Below is generated by plot.py at 2019-05-30 02:31:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.10 Mbit/s
95th percentile per-packet one-way delay: 31.023 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 66.66 Mbit/s
95th percentile per-packet one-way delay: 29.695 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 25.07 Mbit/s
95th percentile per-packet one-way delay: 31.688 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 23.23 Mbit/s
95th percentile per-packet one-way delay: 33.045 ms
Loss rate: 5.28%
```

Run 2: Report of Indigo-MusesD — Data Link

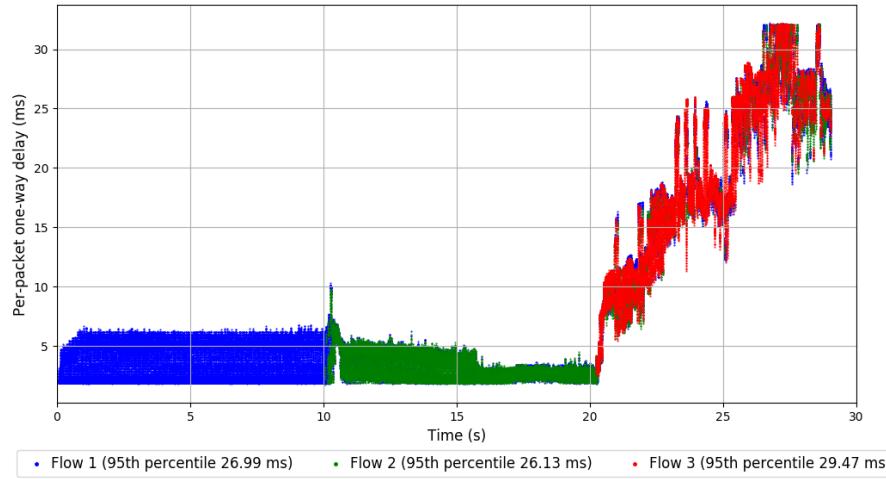
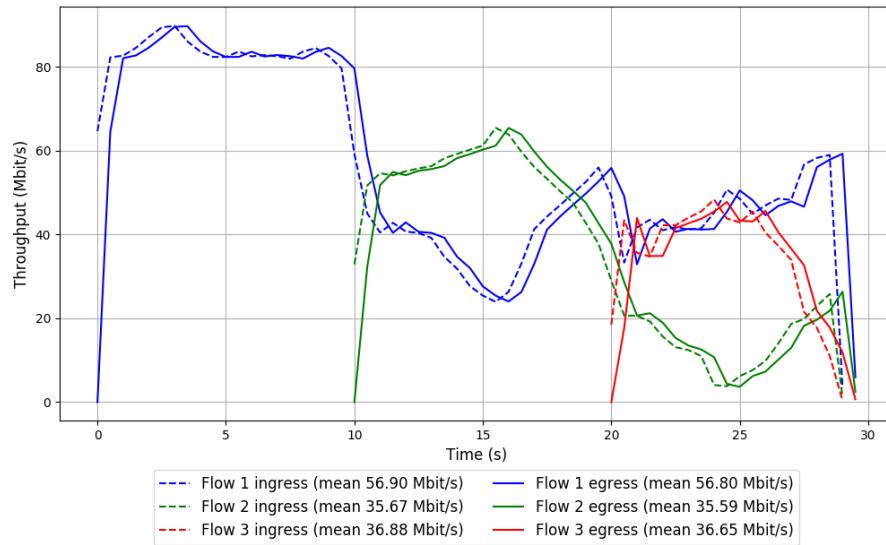


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-05-30 01:32:32
End at: 2019-05-30 01:33:02
Local clock offset: -4.145 ms
Remote clock offset: 0.208 ms

# Below is generated by plot.py at 2019-05-30 02:31:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.17 Mbit/s
95th percentile per-packet one-way delay: 27.357 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 56.80 Mbit/s
95th percentile per-packet one-way delay: 26.994 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 35.59 Mbit/s
95th percentile per-packet one-way delay: 26.133 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 36.65 Mbit/s
95th percentile per-packet one-way delay: 29.469 ms
Loss rate: 0.40%
```

Run 3: Report of Indigo-MusesD — Data Link

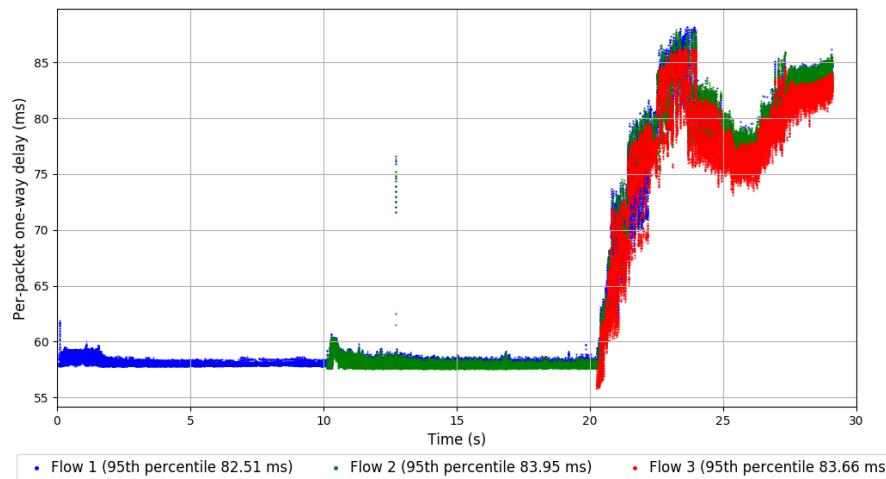
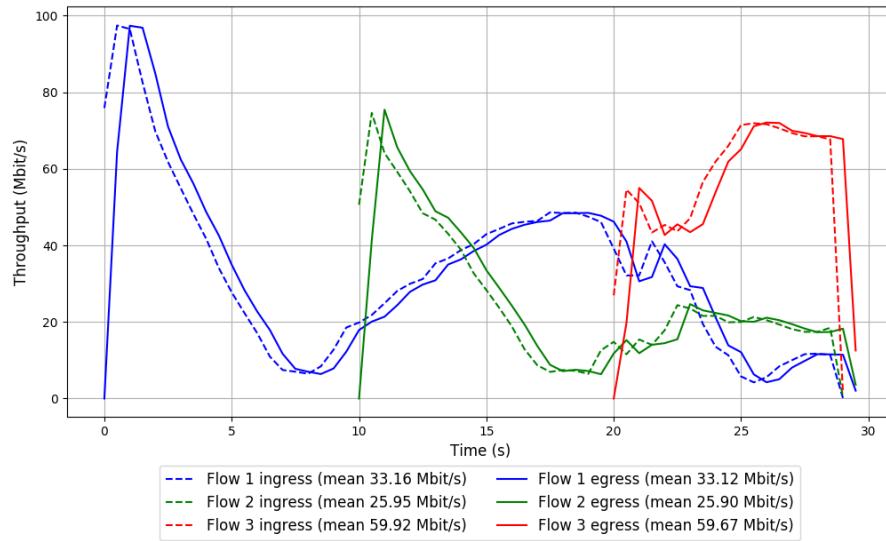


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-05-30 01:56:26
End at: 2019-05-30 01:56:56
Local clock offset: -58.291 ms
Remote clock offset: 0.327 ms

# Below is generated by plot.py at 2019-05-30 02:31:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.23 Mbit/s
95th percentile per-packet one-way delay: 83.571 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 33.12 Mbit/s
95th percentile per-packet one-way delay: 82.510 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 25.90 Mbit/s
95th percentile per-packet one-way delay: 83.948 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 59.67 Mbit/s
95th percentile per-packet one-way delay: 83.655 ms
Loss rate: 0.11%
```

Run 4: Report of Indigo-MusesD — Data Link

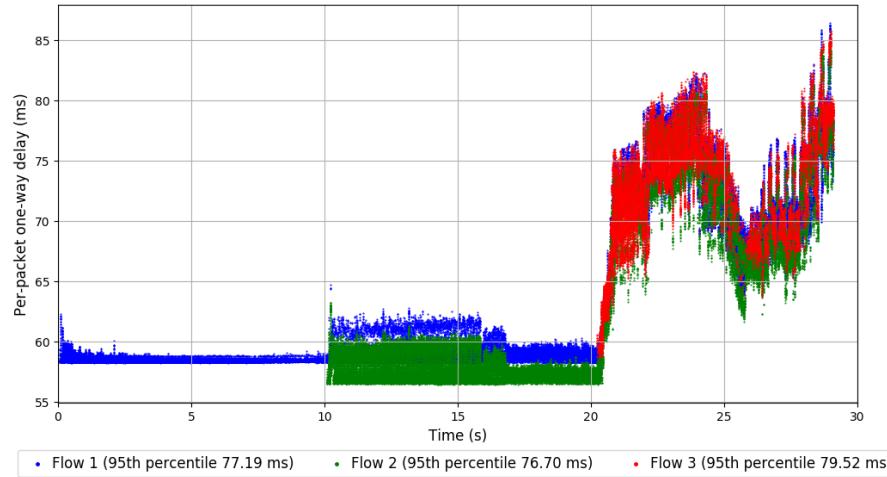
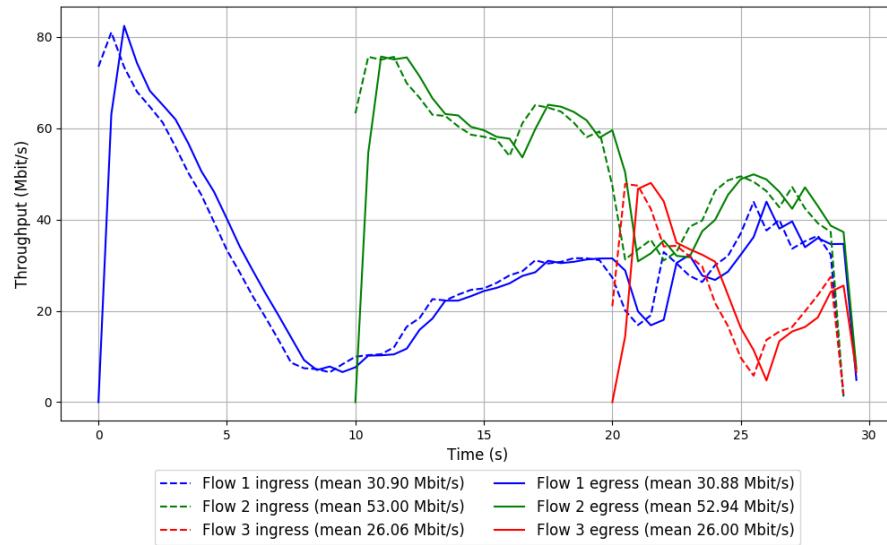


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-05-30 02:20:21
End at: 2019-05-30 02:20:51
Local clock offset: -59.789 ms
Remote clock offset: 0.4 ms

# Below is generated by plot.py at 2019-05-30 02:31:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.44 Mbit/s
95th percentile per-packet one-way delay: 77.594 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.88 Mbit/s
95th percentile per-packet one-way delay: 77.194 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.94 Mbit/s
95th percentile per-packet one-way delay: 76.696 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.00 Mbit/s
95th percentile per-packet one-way delay: 79.523 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

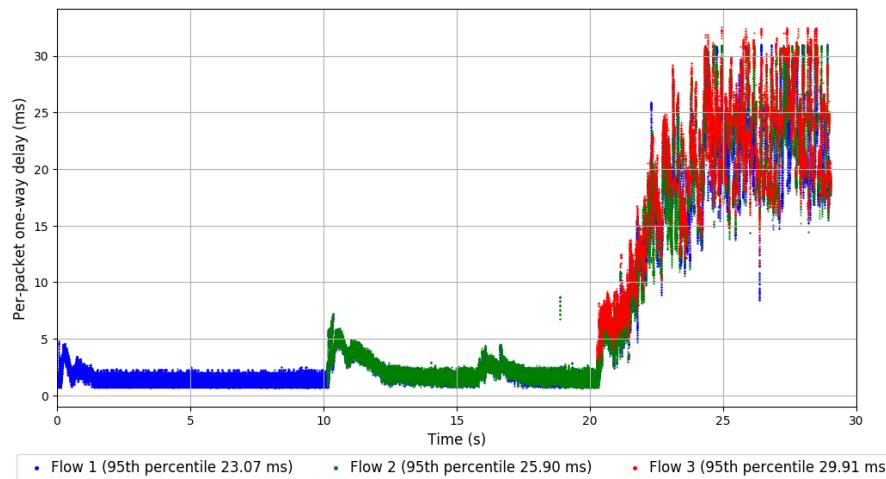
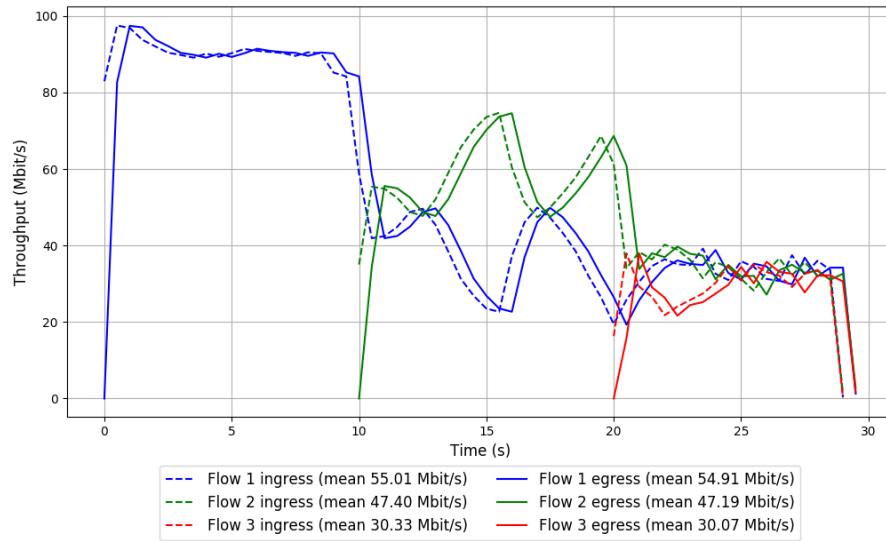


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-05-30 00:42:33
End at: 2019-05-30 00:43:03
Local clock offset: -4.708 ms
Remote clock offset: -0.617 ms

# Below is generated by plot.py at 2019-05-30 02:32:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.74 Mbit/s
95th percentile per-packet one-way delay: 25.452 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 54.91 Mbit/s
95th percentile per-packet one-way delay: 23.066 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 47.19 Mbit/s
95th percentile per-packet one-way delay: 25.902 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 30.07 Mbit/s
95th percentile per-packet one-way delay: 29.911 ms
Loss rate: 0.69%
```

Run 1: Report of Indigo-MusesT — Data Link

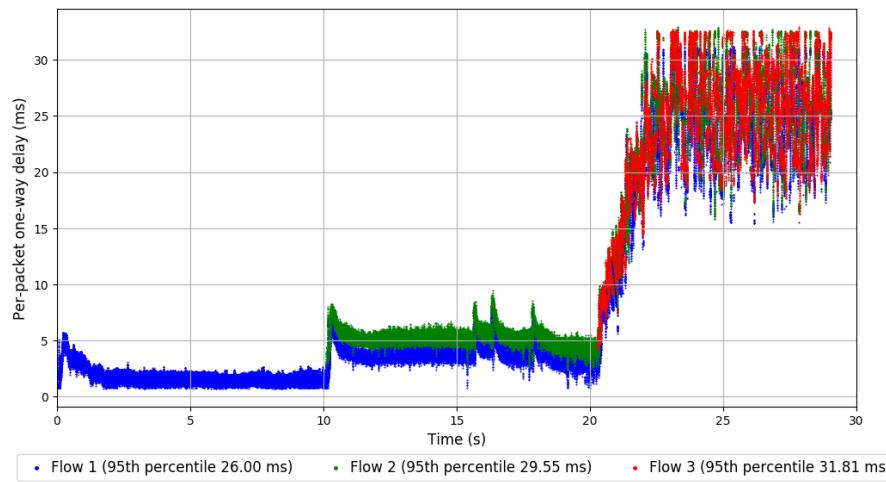
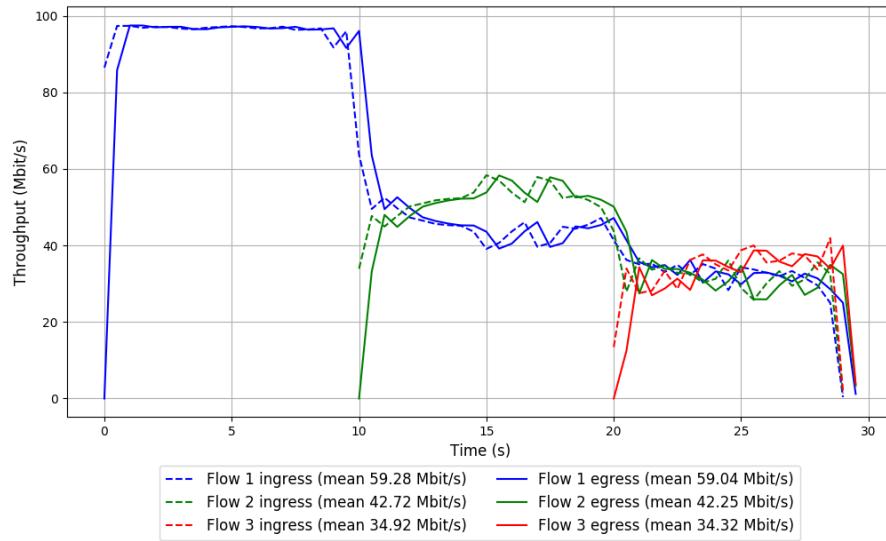


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-05-30 01:06:25
End at: 2019-05-30 01:06:55
Local clock offset: -5.091 ms
Remote clock offset: -0.204 ms

# Below is generated by plot.py at 2019-05-30 02:32:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.96 Mbit/s
95th percentile per-packet one-way delay: 28.789 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 25.999 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 29.553 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 34.32 Mbit/s
95th percentile per-packet one-way delay: 31.812 ms
Loss rate: 1.40%
```

Run 2: Report of Indigo-MusesT — Data Link

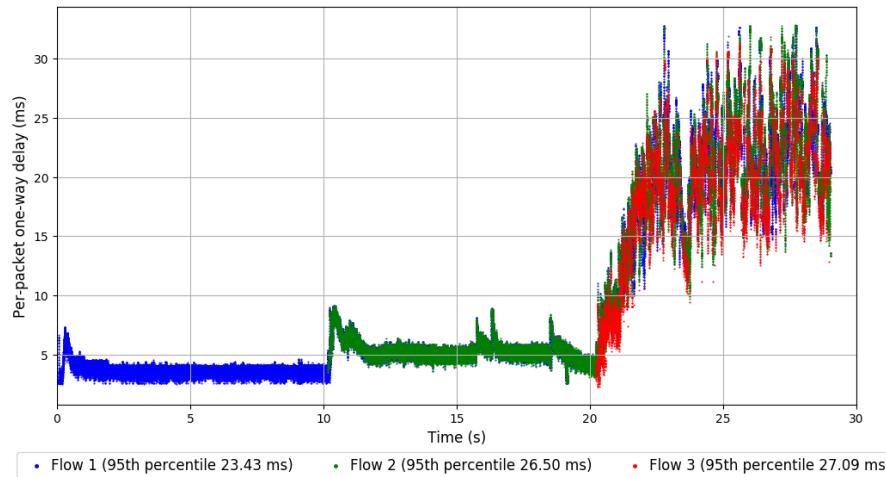
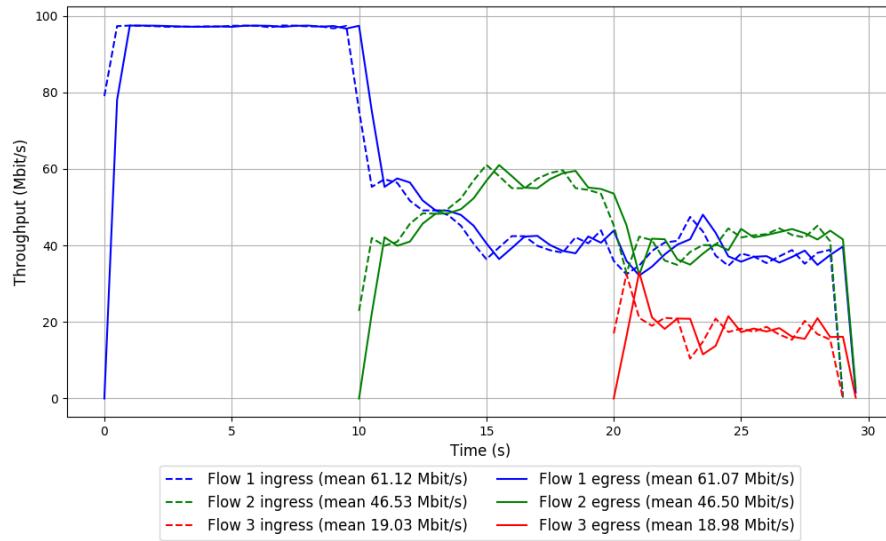


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-05-30 01:30:18
End at: 2019-05-30 01:30:48
Local clock offset: -3.484 ms
Remote clock offset: 0.108 ms

# Below is generated by plot.py at 2019-05-30 02:32:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.04 Mbit/s
95th percentile per-packet one-way delay: 24.995 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 61.07 Mbit/s
95th percentile per-packet one-way delay: 23.434 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.50 Mbit/s
95th percentile per-packet one-way delay: 26.496 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 18.98 Mbit/s
95th percentile per-packet one-way delay: 27.086 ms
Loss rate: 0.07%
```

Run 3: Report of Indigo-MusesT — Data Link

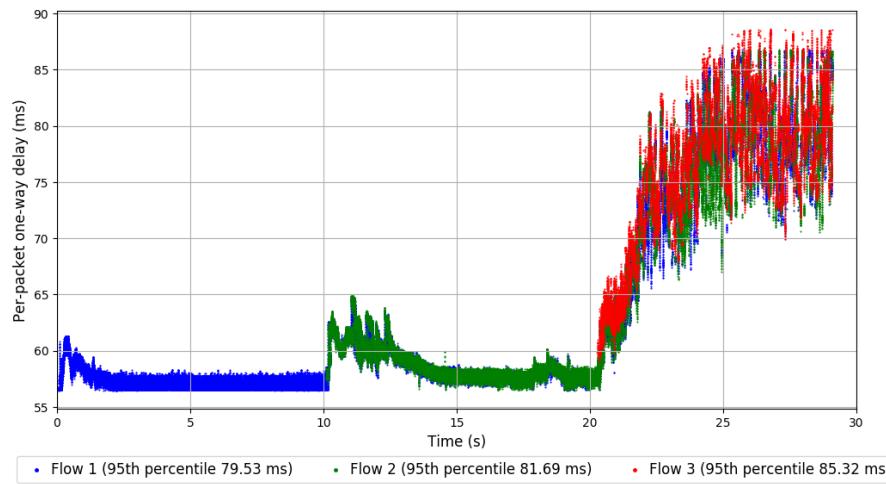
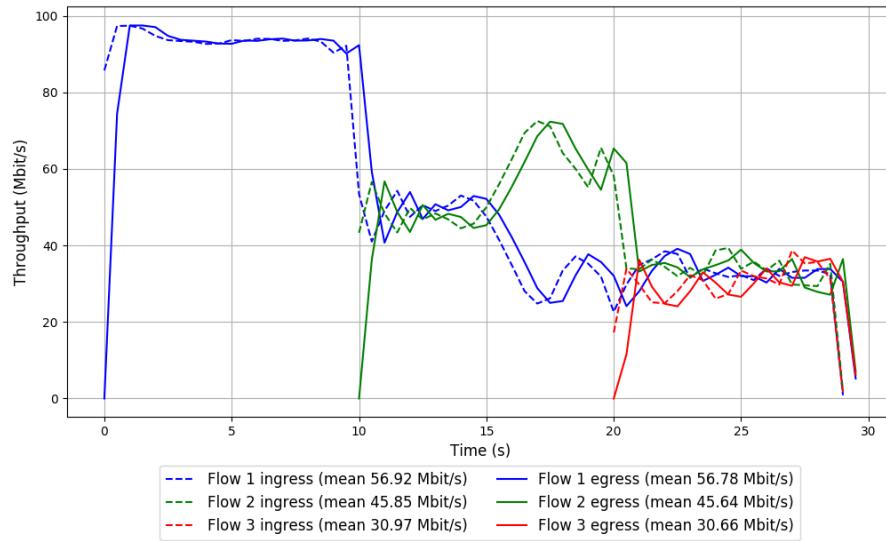


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-05-30 01:54:12
End at: 2019-05-30 01:54:42
Local clock offset: -58.948 ms
Remote clock offset: 0.246 ms

# Below is generated by plot.py at 2019-05-30 02:32:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 81.861 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 56.78 Mbit/s
95th percentile per-packet one-way delay: 79.532 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 45.64 Mbit/s
95th percentile per-packet one-way delay: 81.686 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 30.66 Mbit/s
95th percentile per-packet one-way delay: 85.324 ms
Loss rate: 0.67%
```

Run 4: Report of Indigo-MusesT — Data Link

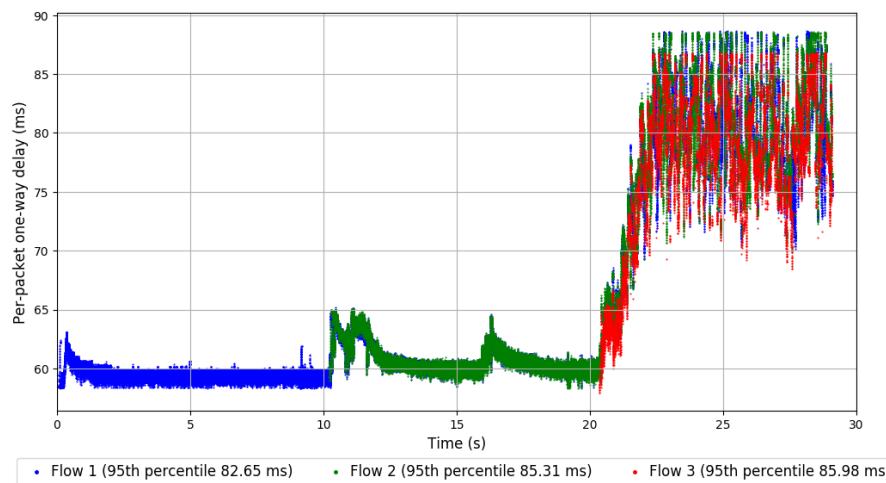
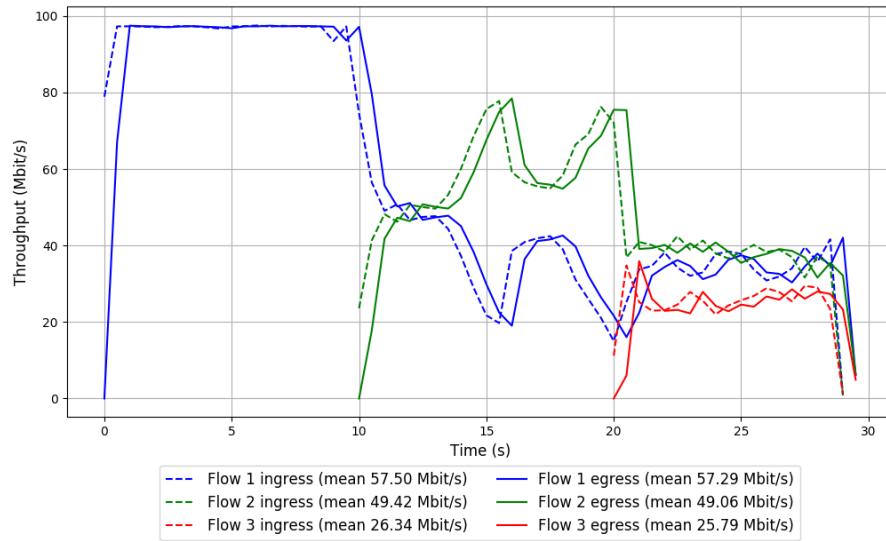


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-05-30 02:18:06
End at: 2019-05-30 02:18:36
Local clock offset: -59.756 ms
Remote clock offset: 0.378 ms

# Below is generated by plot.py at 2019-05-30 02:32:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.95 Mbit/s
95th percentile per-packet one-way delay: 84.469 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 57.29 Mbit/s
95th percentile per-packet one-way delay: 82.650 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 49.06 Mbit/s
95th percentile per-packet one-way delay: 85.307 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 25.79 Mbit/s
95th percentile per-packet one-way delay: 85.978 ms
Loss rate: 1.87%
```

Run 5: Report of Indigo-MusesT — Data Link

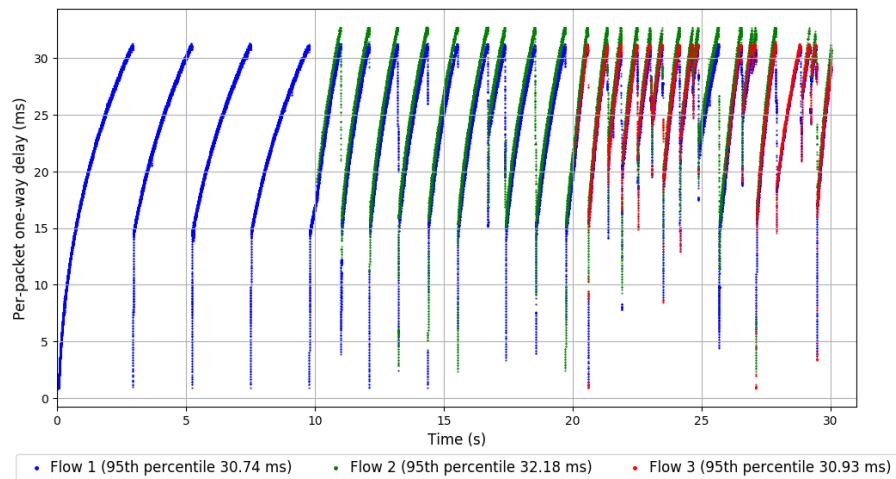
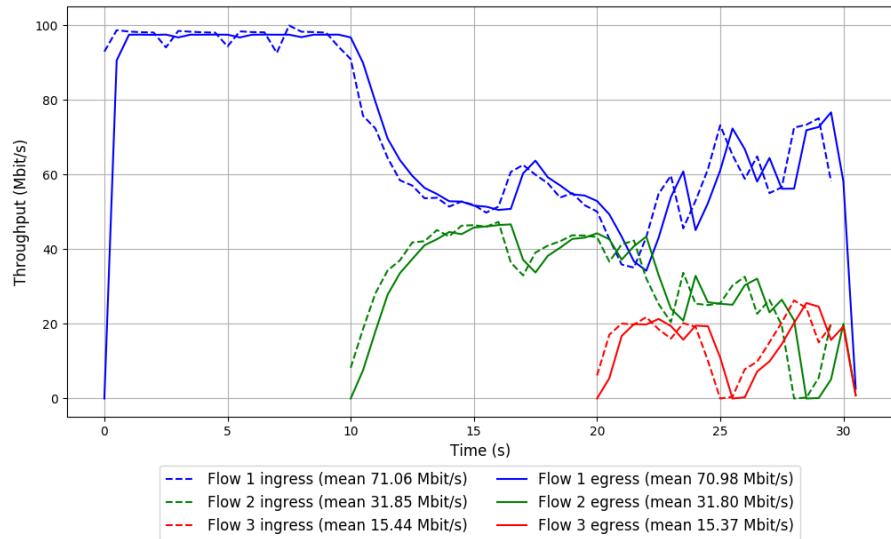


Run 1: Statistics of LEDBAT

```
Start at: 2019-05-30 00:28:52
End at: 2019-05-30 00:29:22
Local clock offset: -4.551 ms
Remote clock offset: -0.669 ms

# Below is generated by plot.py at 2019-05-30 02:32:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.27 Mbit/s
95th percentile per-packet one-way delay: 30.998 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 70.98 Mbit/s
95th percentile per-packet one-way delay: 30.736 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 31.80 Mbit/s
95th percentile per-packet one-way delay: 32.179 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 15.37 Mbit/s
95th percentile per-packet one-way delay: 30.931 ms
Loss rate: 0.43%
```

Run 1: Report of LEDBAT — Data Link

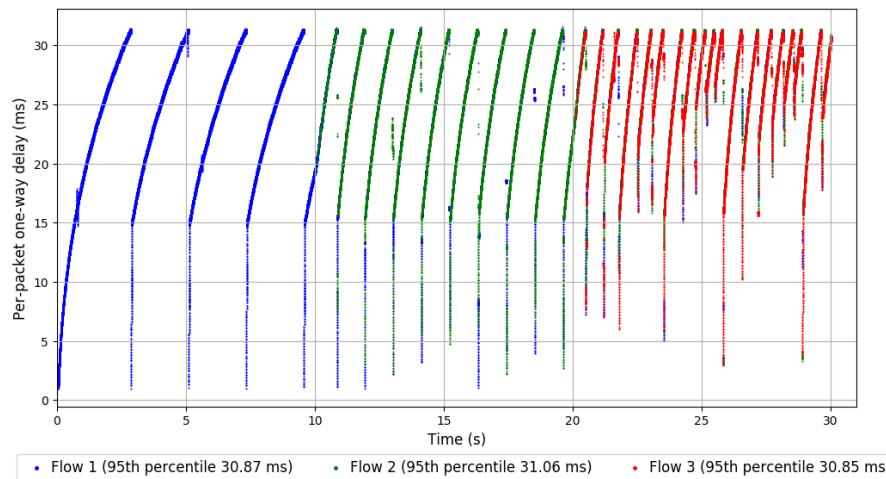
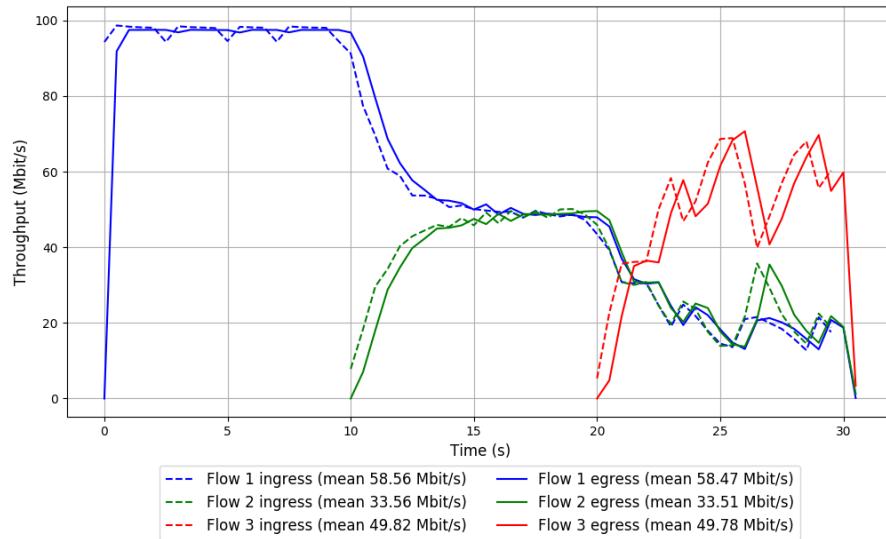


Run 2: Statistics of LEDBAT

```
Start at: 2019-05-30 00:52:45
End at: 2019-05-30 00:53:15
Local clock offset: -5.14 ms
Remote clock offset: -0.396 ms

# Below is generated by plot.py at 2019-05-30 02:32:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.32 Mbit/s
95th percentile per-packet one-way delay: 30.892 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 58.47 Mbit/s
95th percentile per-packet one-way delay: 30.867 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 33.51 Mbit/s
95th percentile per-packet one-way delay: 31.060 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 49.78 Mbit/s
95th percentile per-packet one-way delay: 30.854 ms
Loss rate: 0.01%
```

Run 2: Report of LEDBAT — Data Link

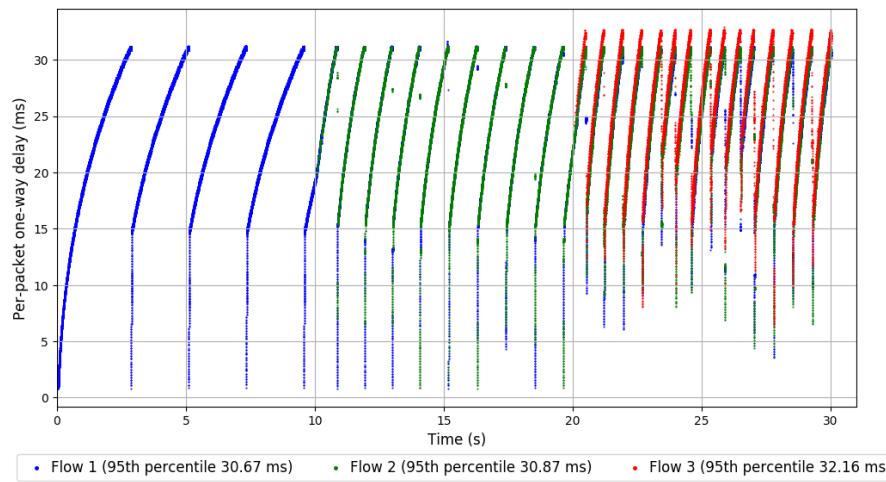
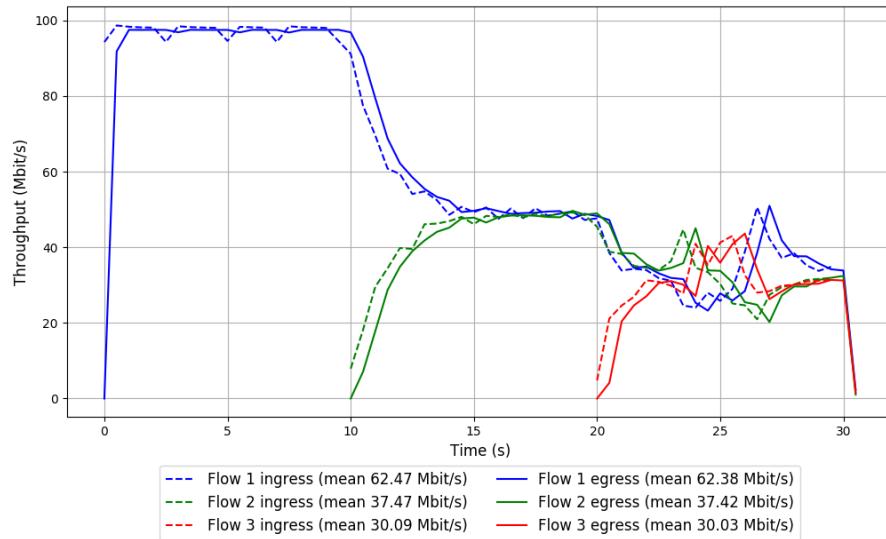


Run 3: Statistics of LEDBAT

```
Start at: 2019-05-30 01:16:38
End at: 2019-05-30 01:17:08
Local clock offset: -3.884 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2019-05-30 02:32:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.29 Mbit/s
95th percentile per-packet one-way delay: 30.898 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 62.38 Mbit/s
95th percentile per-packet one-way delay: 30.673 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 37.42 Mbit/s
95th percentile per-packet one-way delay: 30.870 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 30.03 Mbit/s
95th percentile per-packet one-way delay: 32.159 ms
Loss rate: 0.12%
```

Run 3: Report of LEDBAT — Data Link

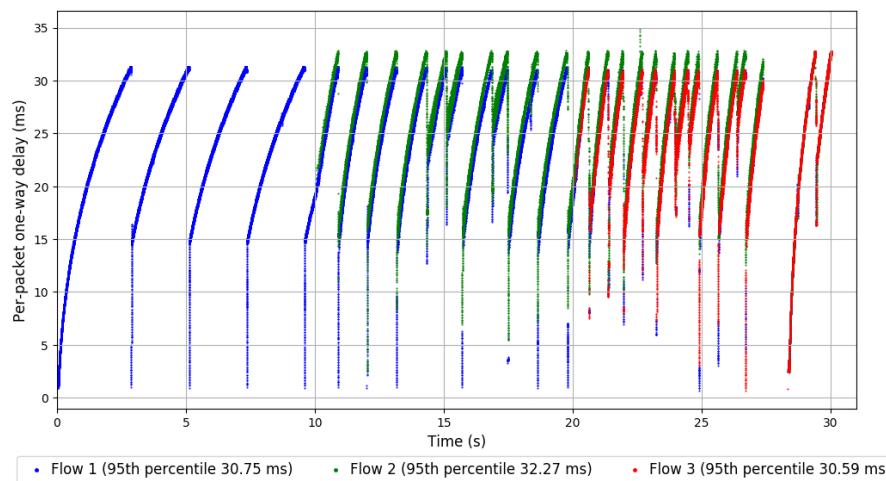
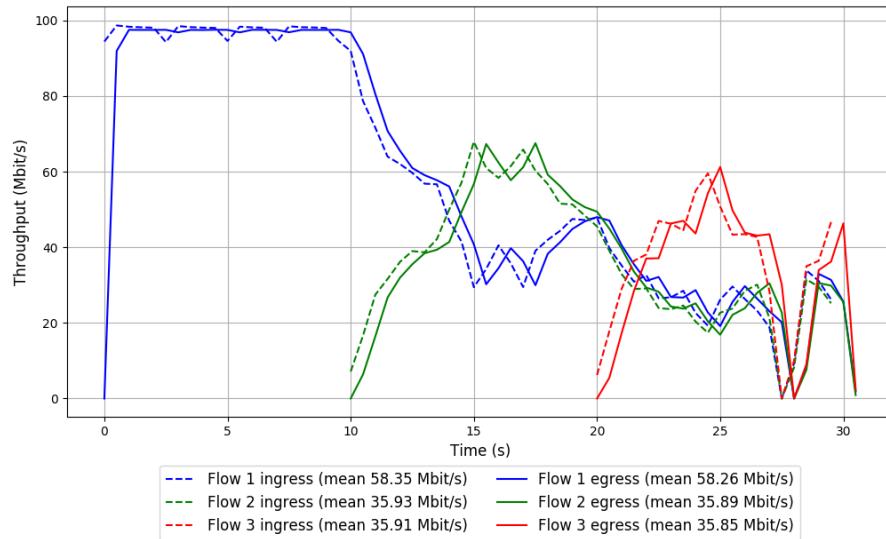


Run 4: Statistics of LEDBAT

```
Start at: 2019-05-30 01:40:31
End at: 2019-05-30 01:41:01
Local clock offset: -3.248 ms
Remote clock offset: 0.144 ms

# Below is generated by plot.py at 2019-05-30 02:33:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.05 Mbit/s
95th percentile per-packet one-way delay: 31.089 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 58.26 Mbit/s
95th percentile per-packet one-way delay: 30.749 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 35.89 Mbit/s
95th percentile per-packet one-way delay: 32.266 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 35.85 Mbit/s
95th percentile per-packet one-way delay: 30.587 ms
Loss rate: 0.04%
```

Run 4: Report of LEDBAT — Data Link

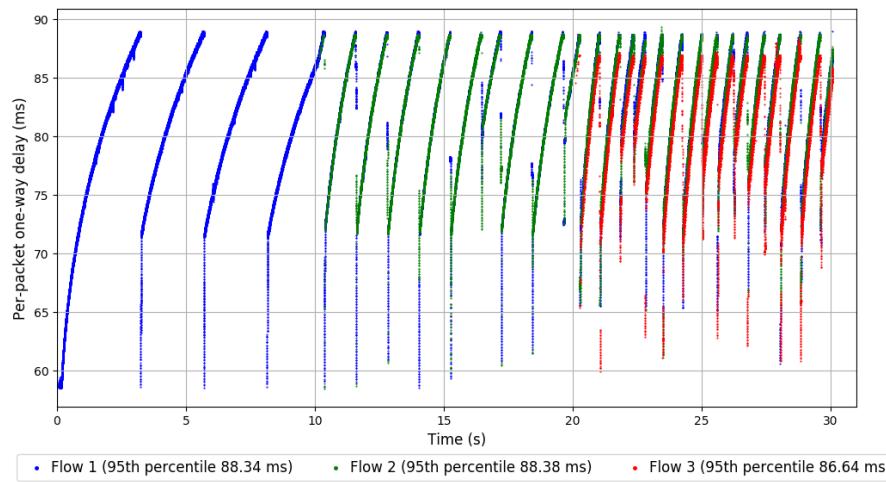
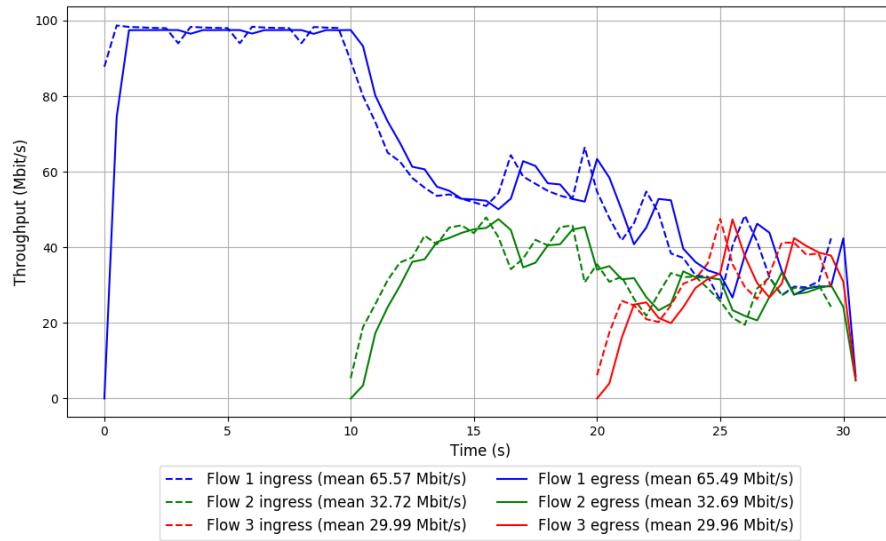


Run 5: Statistics of LEDBAT

```
Start at: 2019-05-30 02:04:25
End at: 2019-05-30 02:04:55
Local clock offset: -58.905 ms
Remote clock offset: 0.335 ms

# Below is generated by plot.py at 2019-05-30 02:33:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.19 Mbit/s
95th percentile per-packet one-way delay: 88.208 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 65.49 Mbit/s
95th percentile per-packet one-way delay: 88.344 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 32.69 Mbit/s
95th percentile per-packet one-way delay: 88.383 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 86.638 ms
Loss rate: 0.10%
```

Run 5: Report of LEDBAT — Data Link

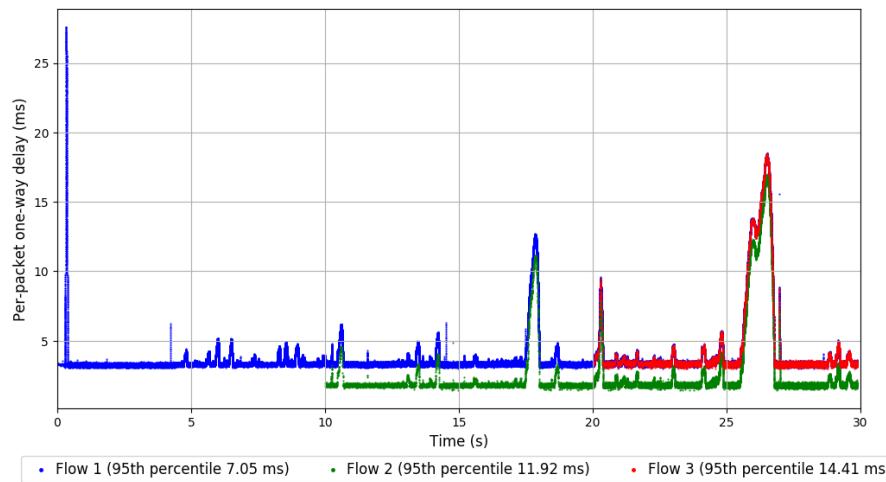
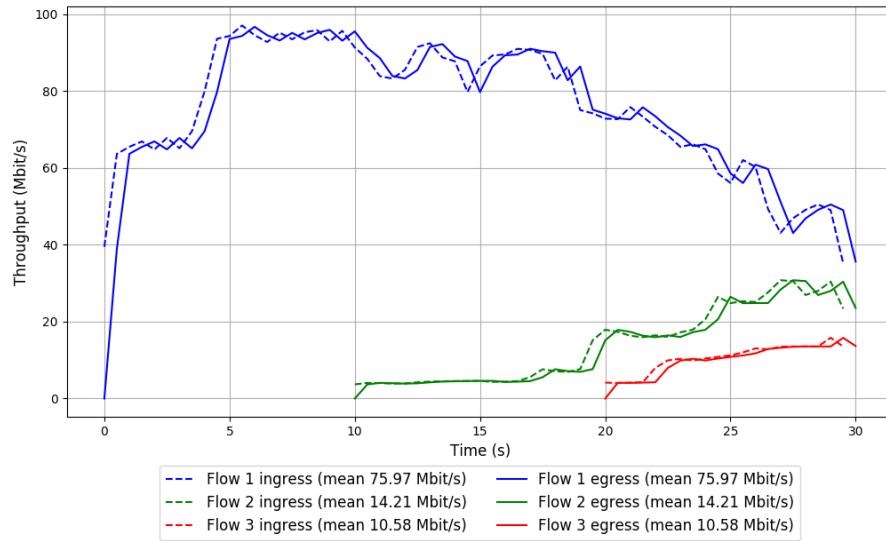


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-05-30 00:39:05
End at: 2019-05-30 00:39:35
Local clock offset: -5.594 ms
Remote clock offset: -0.704 ms

# Below is generated by plot.py at 2019-05-30 02:33:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.91 Mbit/s
95th percentile per-packet one-way delay: 8.889 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.97 Mbit/s
95th percentile per-packet one-way delay: 7.047 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.21 Mbit/s
95th percentile per-packet one-way delay: 11.920 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.58 Mbit/s
95th percentile per-packet one-way delay: 14.408 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Allegro — Data Link

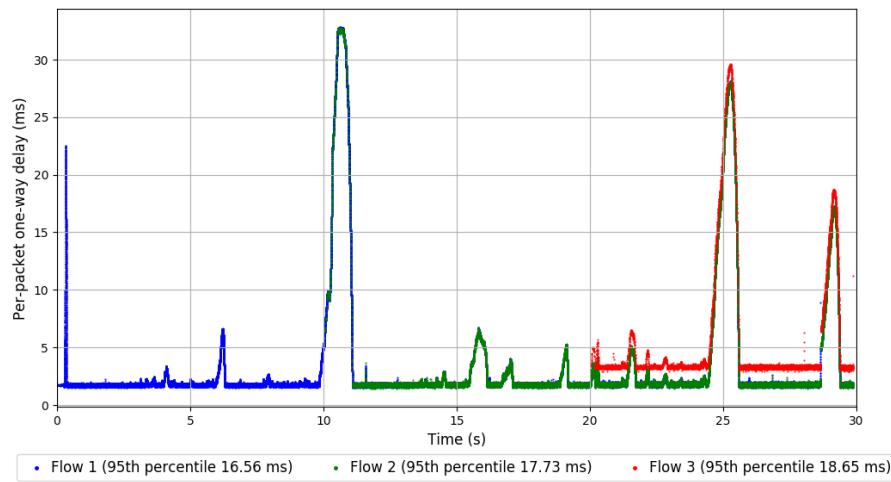
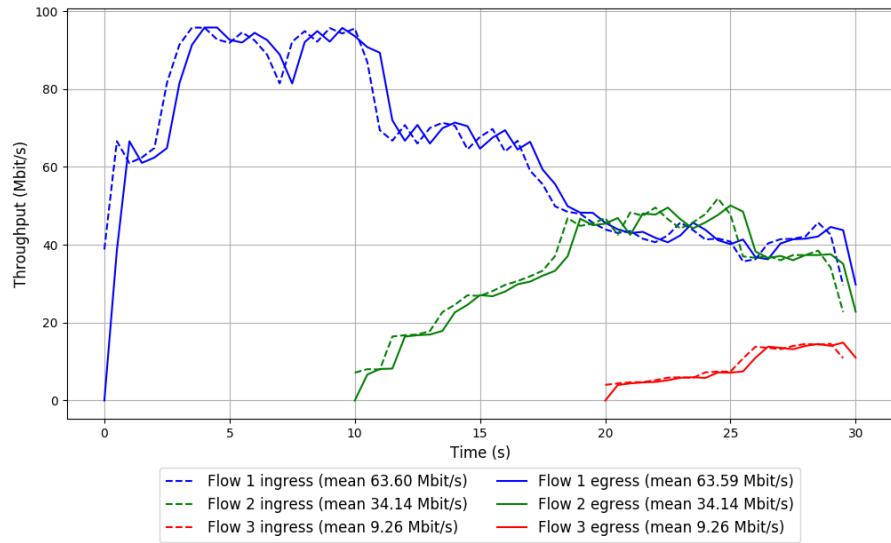


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-05-30 01:02:58
End at: 2019-05-30 01:03:28
Local clock offset: -5.85 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2019-05-30 02:33:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.31 Mbit/s
95th percentile per-packet one-way delay: 17.041 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 63.59 Mbit/s
95th percentile per-packet one-way delay: 16.560 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 17.725 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 9.26 Mbit/s
95th percentile per-packet one-way delay: 18.653 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Allegro — Data Link

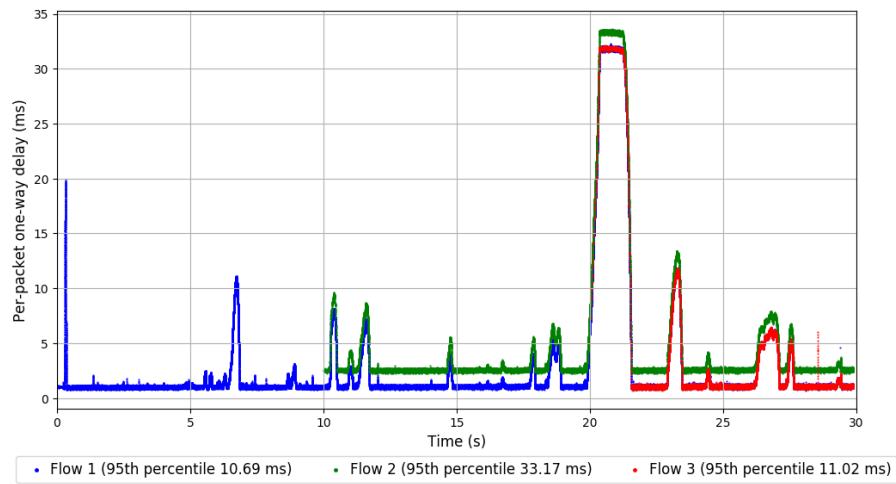
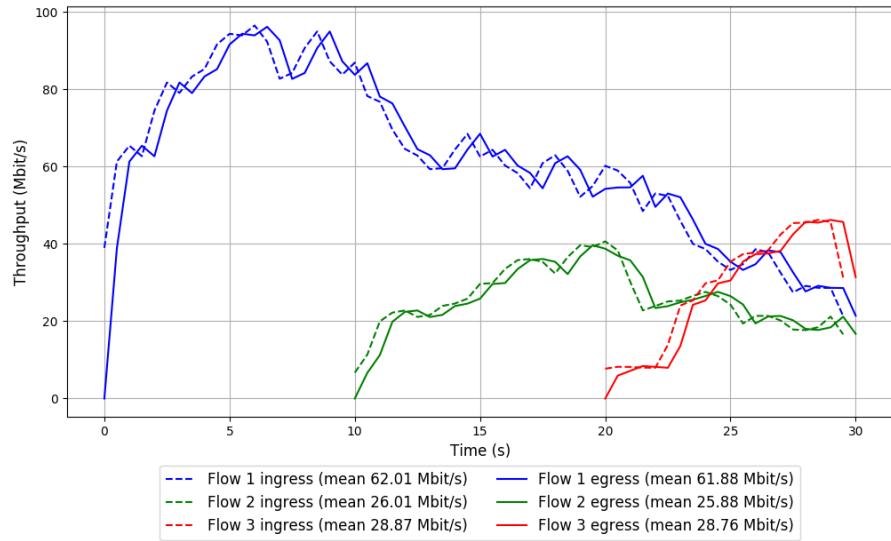


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-05-30 01:26:51
End at: 2019-05-30 01:27:21
Local clock offset: -3.39 ms
Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2019-05-30 02:33:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.57 Mbit/s
95th percentile per-packet one-way delay: 14.434 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 61.88 Mbit/s
95th percentile per-packet one-way delay: 10.688 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 25.88 Mbit/s
95th percentile per-packet one-way delay: 33.174 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 28.76 Mbit/s
95th percentile per-packet one-way delay: 11.018 ms
Loss rate: 0.42%
```

Run 3: Report of PCC-Allegro — Data Link

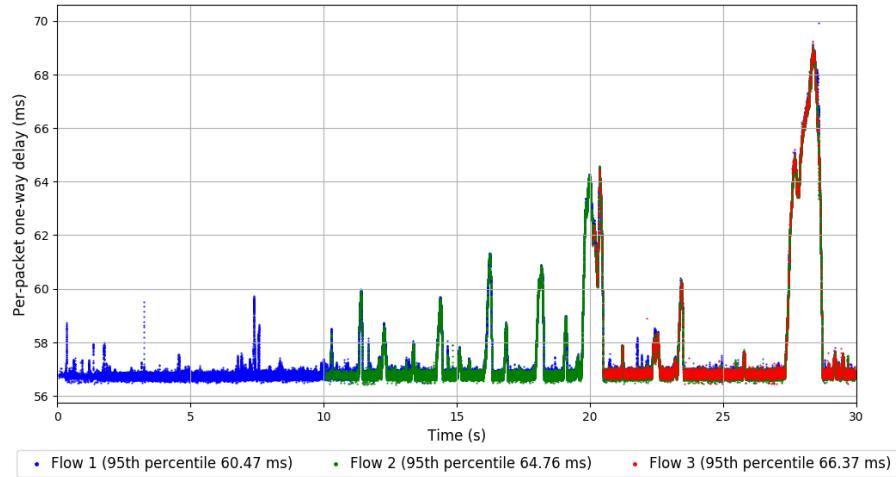
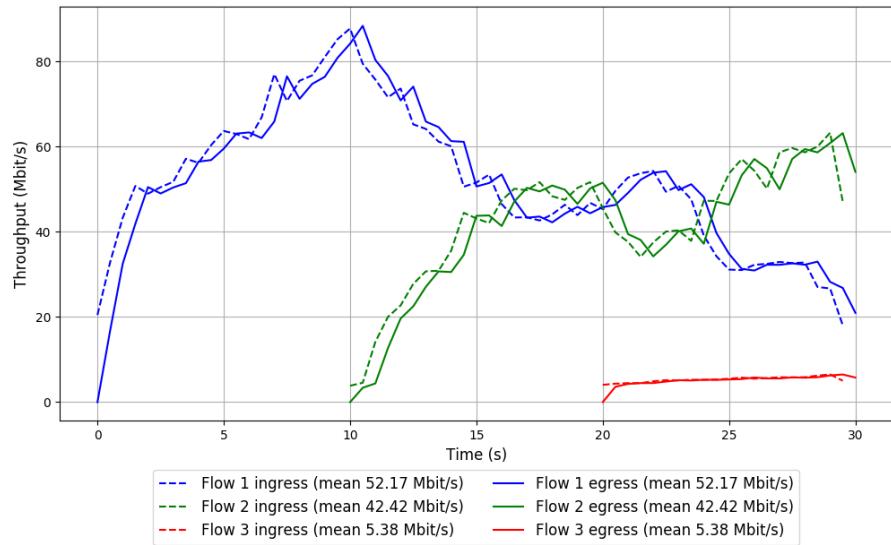


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-05-30 01:50:45
End at: 2019-05-30 01:51:15
Local clock offset: -59.085 ms
Remote clock offset: 0.309 ms

# Below is generated by plot.py at 2019-05-30 02:33:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.15 Mbit/s
95th percentile per-packet one-way delay: 63.413 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.17 Mbit/s
95th percentile per-packet one-way delay: 60.474 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.42 Mbit/s
95th percentile per-packet one-way delay: 64.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.38 Mbit/s
95th percentile per-packet one-way delay: 66.370 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Allegro — Data Link

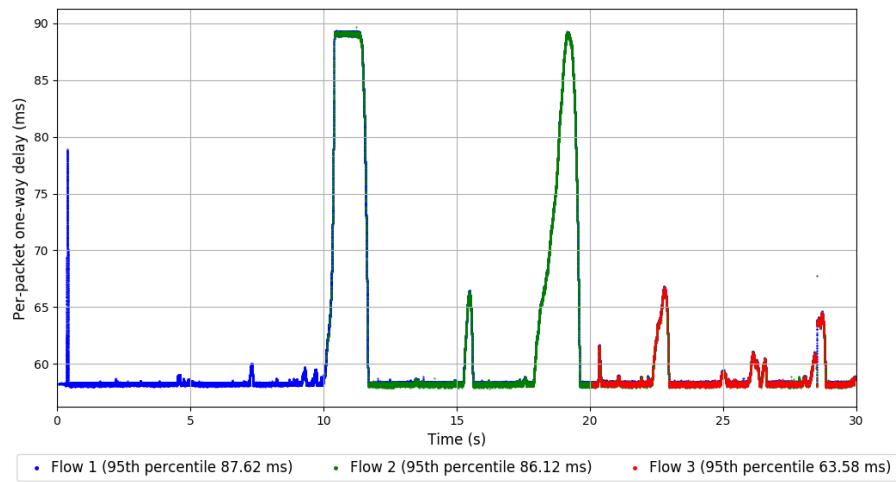
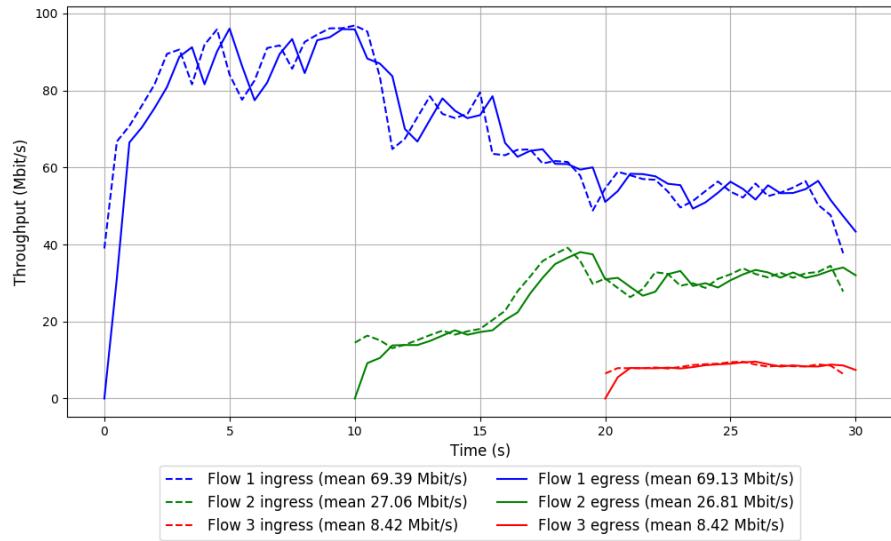


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-05-30 02:14:39
End at: 2019-05-30 02:15:09
Local clock offset: -59.276 ms
Remote clock offset: 0.465 ms

# Below is generated by plot.py at 2019-05-30 02:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.73 Mbit/s
95th percentile per-packet one-way delay: 86.554 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 69.13 Mbit/s
95th percentile per-packet one-way delay: 87.619 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 26.81 Mbit/s
95th percentile per-packet one-way delay: 86.123 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 63.584 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Allegro — Data Link

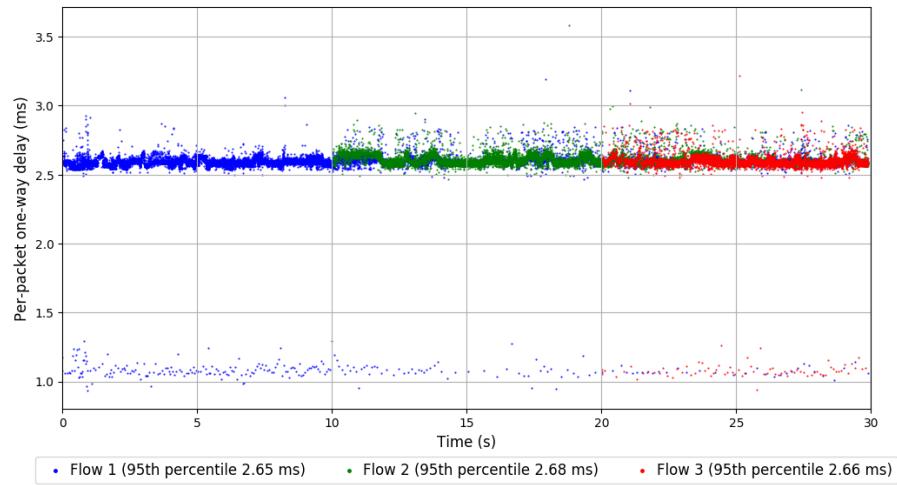
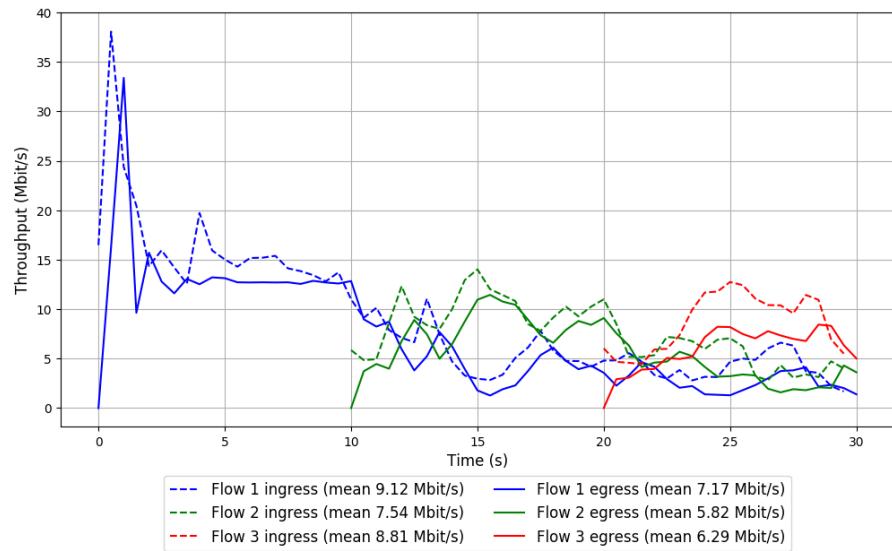


Run 1: Statistics of PCC-Expr

```
Start at: 2019-05-30 00:34:30
End at: 2019-05-30 00:35:01
Local clock offset: -4.737 ms
Remote clock offset: -0.644 ms

# Below is generated by plot.py at 2019-05-30 02:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 2.661 ms
Loss rate: 23.05%
-- Flow 1:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 2.647 ms
Loss rate: 21.36%
-- Flow 2:
Average throughput: 5.82 Mbit/s
95th percentile per-packet one-way delay: 2.678 ms
Loss rate: 22.92%
-- Flow 3:
Average throughput: 6.29 Mbit/s
95th percentile per-packet one-way delay: 2.660 ms
Loss rate: 28.58%
```

Run 1: Report of PCC-Expr — Data Link

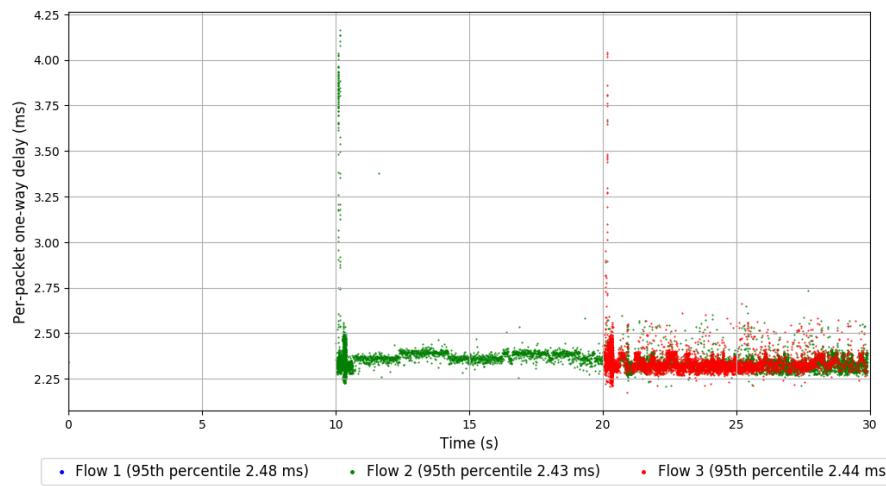
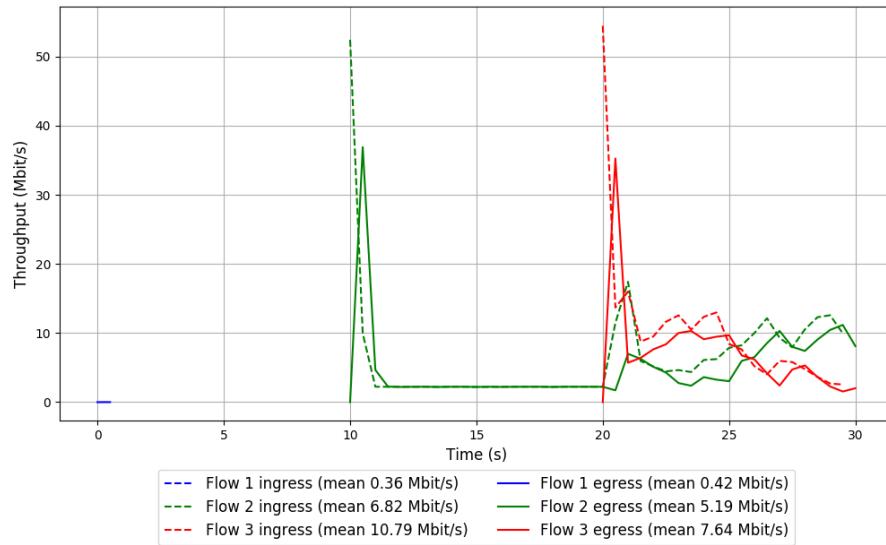


Run 2: Statistics of PCC-Expr

```
Start at: 2019-05-30 00:58:23
End at: 2019-05-30 00:58:53
Local clock offset: -4.996 ms
Remote clock offset: -0.324 ms

# Below is generated by plot.py at 2019-05-30 02:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 2.431 ms
Loss rate: 26.21%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 2.481 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 5.19 Mbit/s
95th percentile per-packet one-way delay: 2.427 ms
Loss rate: 23.86%
-- Flow 3:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 2.435 ms
Loss rate: 29.18%
```

Run 2: Report of PCC-Expr — Data Link

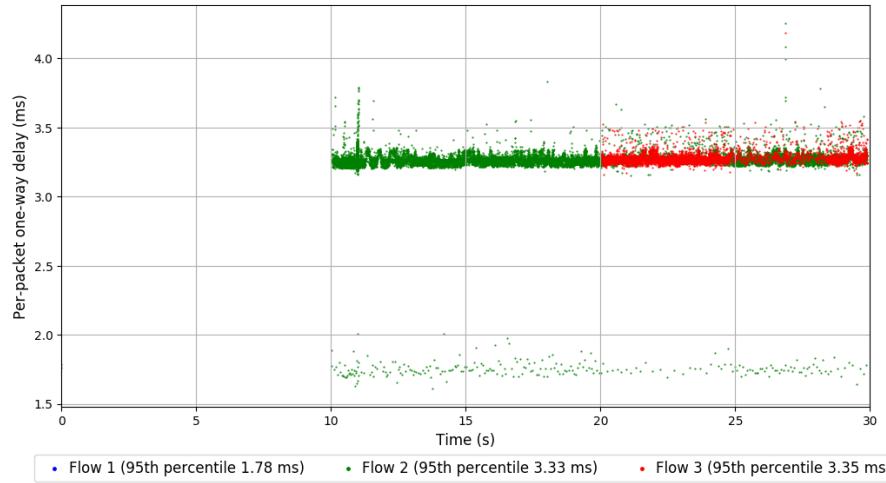
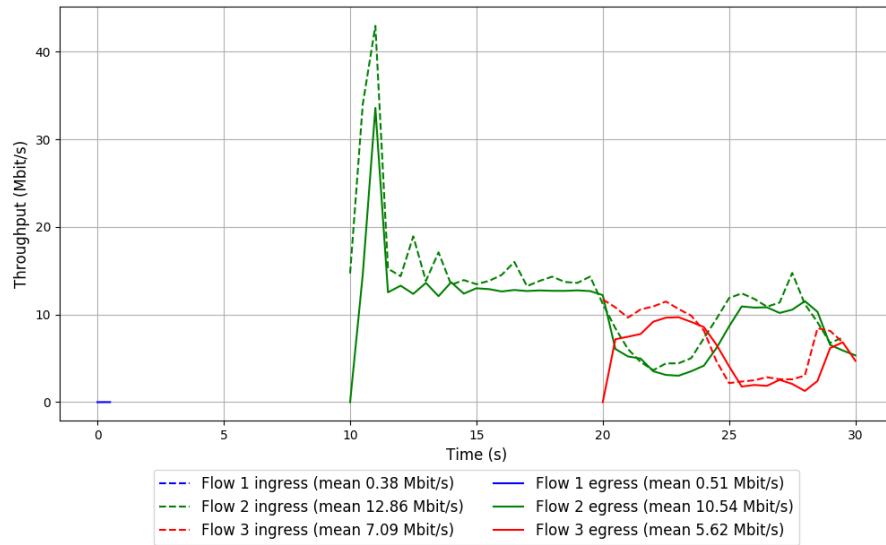


Run 3: Statistics of PCC-Expr

```
Start at: 2019-05-30 01:22:16
End at: 2019-05-30 01:22:46
Local clock offset: -4.407 ms
Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2019-05-30 02:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 3.333 ms
Loss rate: 18.63%
-- Flow 1:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 1.784 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.54 Mbit/s
95th percentile per-packet one-way delay: 3.329 ms
Loss rate: 18.04%
-- Flow 3:
Average throughput: 5.62 Mbit/s
95th percentile per-packet one-way delay: 3.353 ms
Loss rate: 20.77%
```

Run 3: Report of PCC-Expr — Data Link

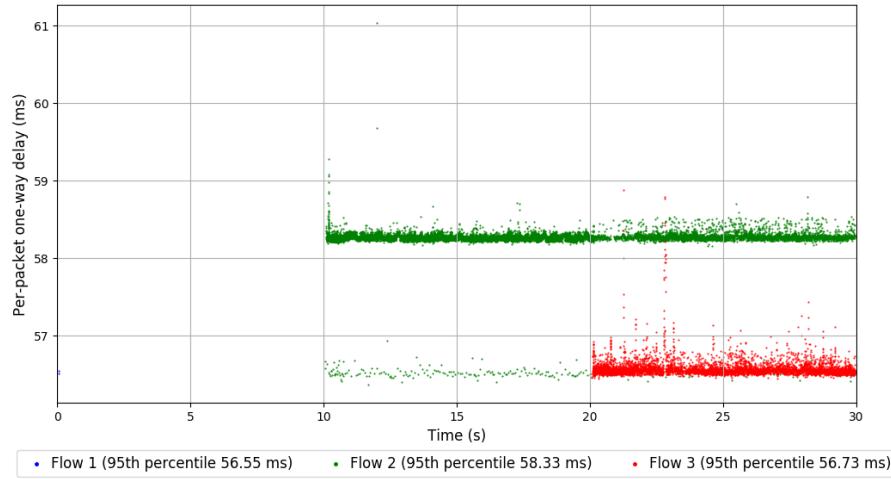
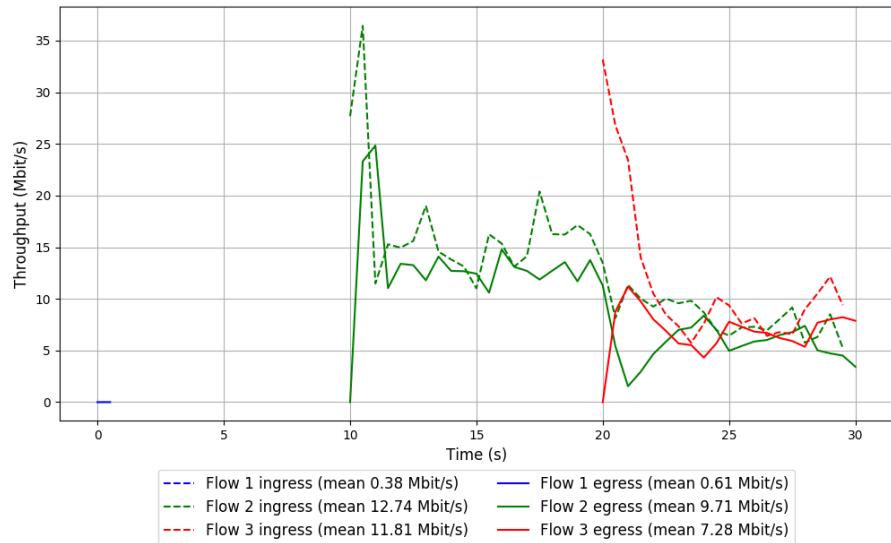


Run 4: Statistics of PCC-Expr

```
Start at: 2019-05-30 01:46:10
End at: 2019-05-30 01:46:40
Local clock offset: -58.985 ms
Remote clock offset: 0.227 ms

# Below is generated by plot.py at 2019-05-30 02:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 58.327 ms
Loss rate: 28.35%
-- Flow 1:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 56.548 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.71 Mbit/s
95th percentile per-packet one-way delay: 58.333 ms
Loss rate: 23.74%
-- Flow 3:
Average throughput: 7.28 Mbit/s
95th percentile per-packet one-way delay: 56.728 ms
Loss rate: 38.35%
```

Run 4: Report of PCC-Expr — Data Link

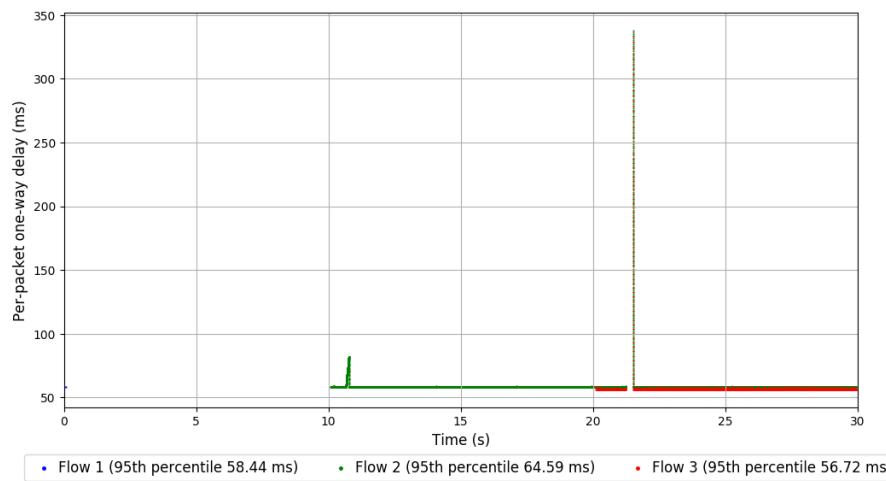
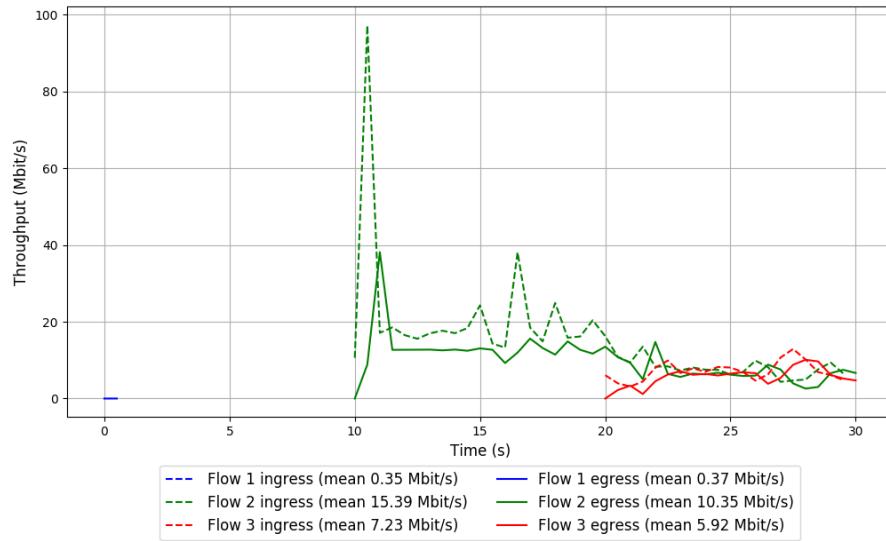


Run 5: Statistics of PCC-Expr

```
Start at: 2019-05-30 02:10:04
End at: 2019-05-30 02:10:34
Local clock offset: -59.139 ms
Remote clock offset: 0.375 ms

# Below is generated by plot.py at 2019-05-30 02:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 59.812 ms
Loss rate: 29.95%
-- Flow 1:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 58.443 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.35 Mbit/s
95th percentile per-packet one-way delay: 64.593 ms
Loss rate: 32.73%
-- Flow 3:
Average throughput: 5.92 Mbit/s
95th percentile per-packet one-way delay: 56.715 ms
Loss rate: 18.03%
```

Run 5: Report of PCC-Expr — Data Link

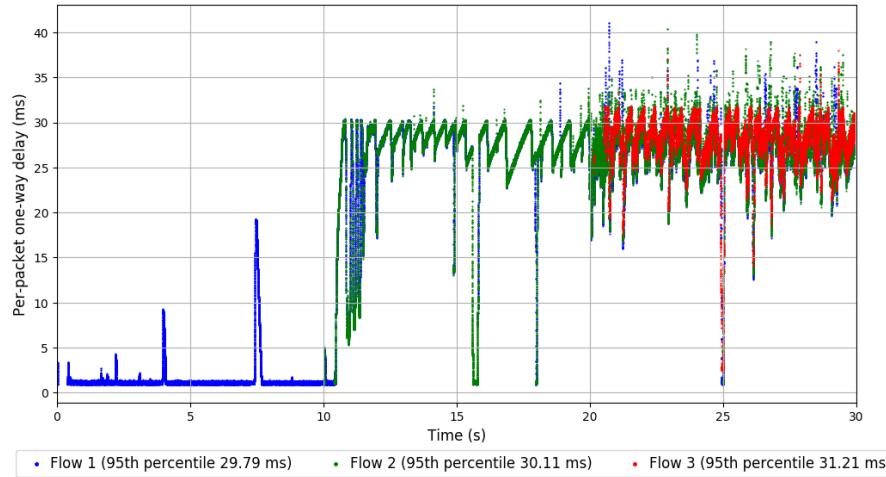
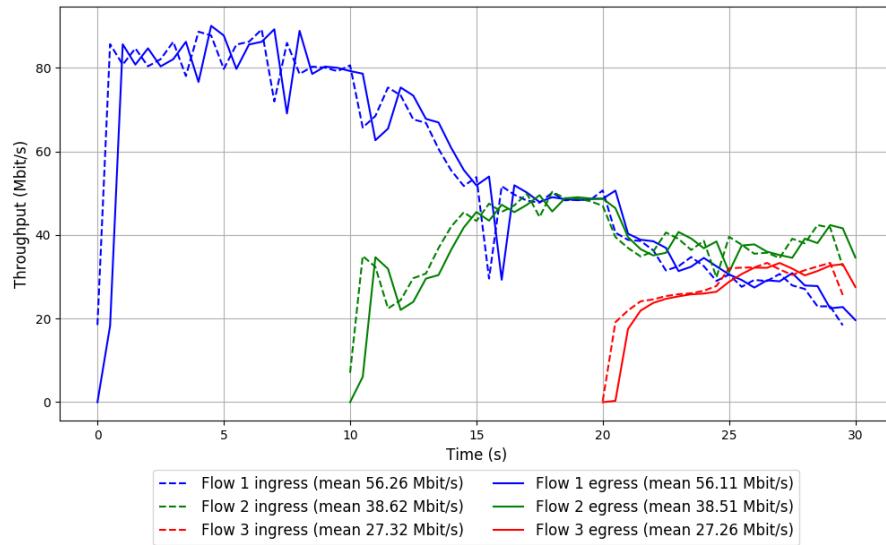


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2019-05-30 00:48:10
End at: 2019-05-30 00:48:40
Local clock offset: -5.052 ms
Remote clock offset: -0.479 ms

# Below is generated by plot.py at 2019-05-30 02:34:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 30.035 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 56.11 Mbit/s
95th percentile per-packet one-way delay: 29.789 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 38.51 Mbit/s
95th percentile per-packet one-way delay: 30.110 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 31.206 ms
Loss rate: 0.20%
```

Run 1: Report of QUIC Cubic — Data Link

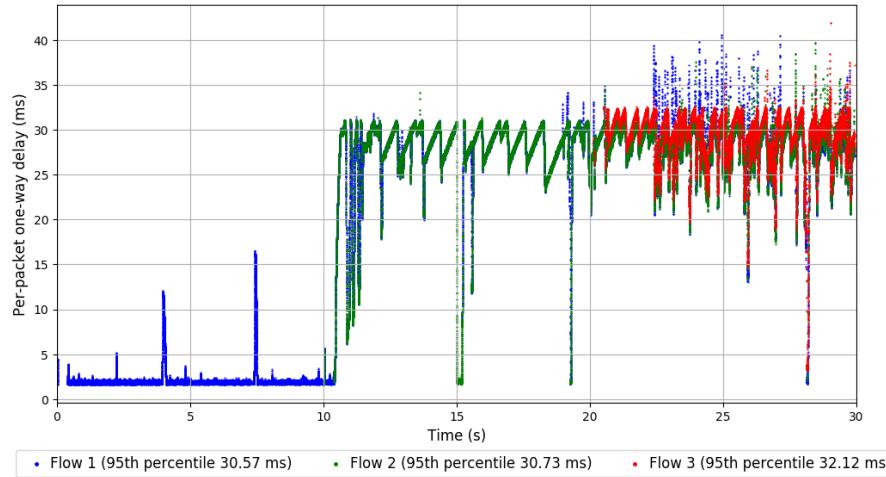
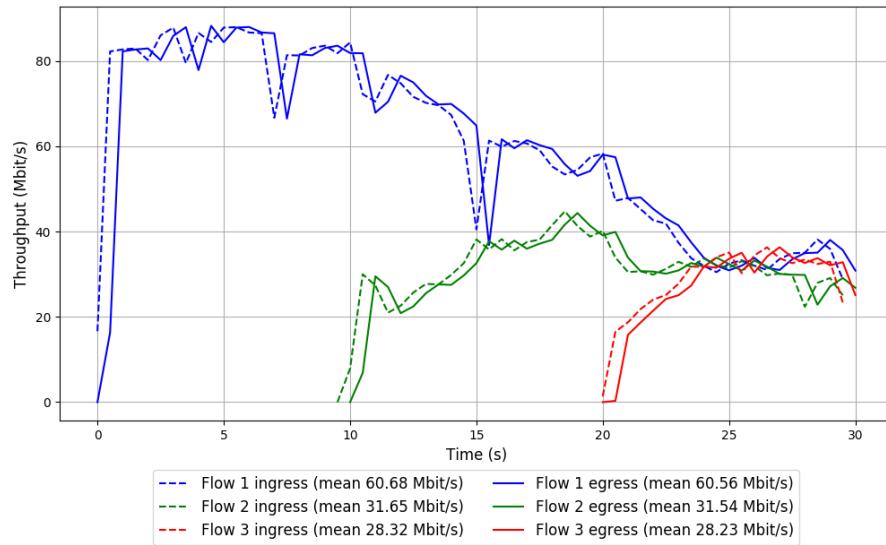


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-05-30 01:12:04
End at: 2019-05-30 01:12:34
Local clock offset: -5.15 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-05-30 02:34:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.81 Mbit/s
95th percentile per-packet one-way delay: 30.847 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 60.56 Mbit/s
95th percentile per-packet one-way delay: 30.572 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 31.54 Mbit/s
95th percentile per-packet one-way delay: 30.730 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 28.23 Mbit/s
95th percentile per-packet one-way delay: 32.120 ms
Loss rate: 0.23%
```

Run 2: Report of QUIC Cubic — Data Link

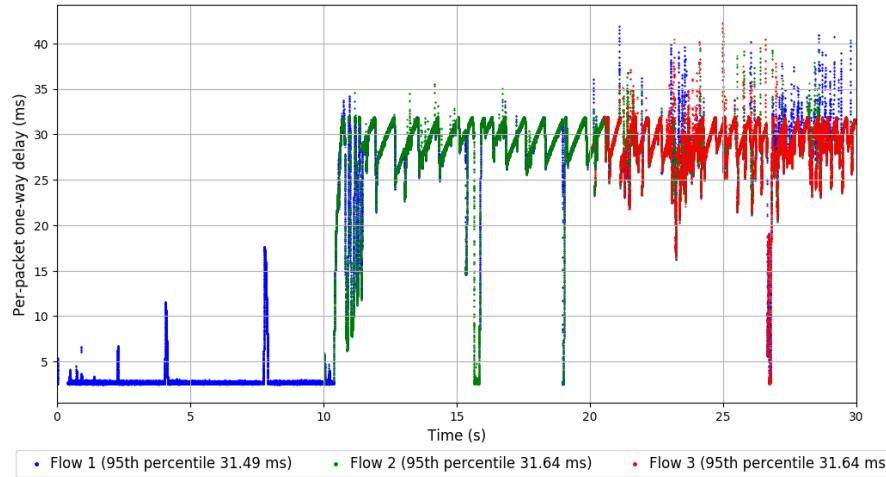
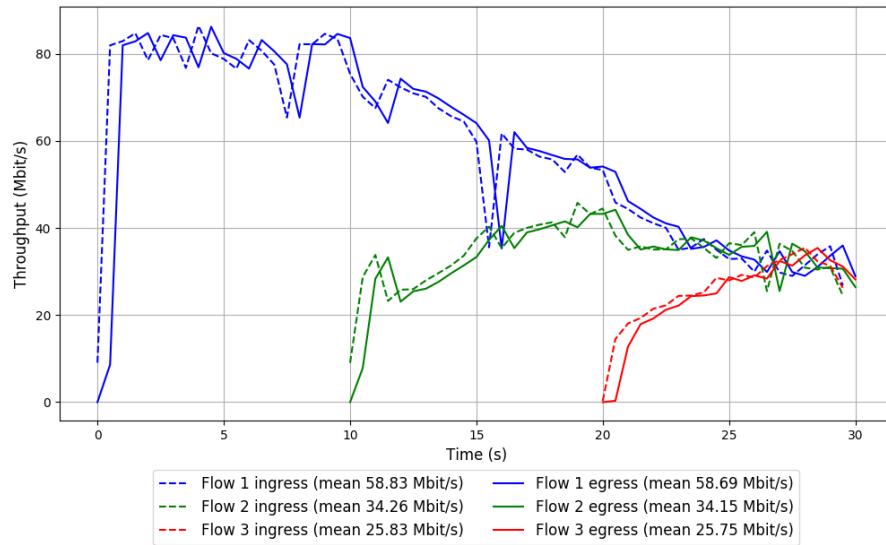


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-05-30 01:35:57
End at: 2019-05-30 01:36:27
Local clock offset: -3.272 ms
Remote clock offset: 0.225 ms

# Below is generated by plot.py at 2019-05-30 02:34:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.87 Mbit/s
95th percentile per-packet one-way delay: 31.564 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 58.69 Mbit/s
95th percentile per-packet one-way delay: 31.489 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 34.15 Mbit/s
95th percentile per-packet one-way delay: 31.637 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 25.75 Mbit/s
95th percentile per-packet one-way delay: 31.637 ms
Loss rate: 0.27%
```

Run 3: Report of QUIC Cubic — Data Link

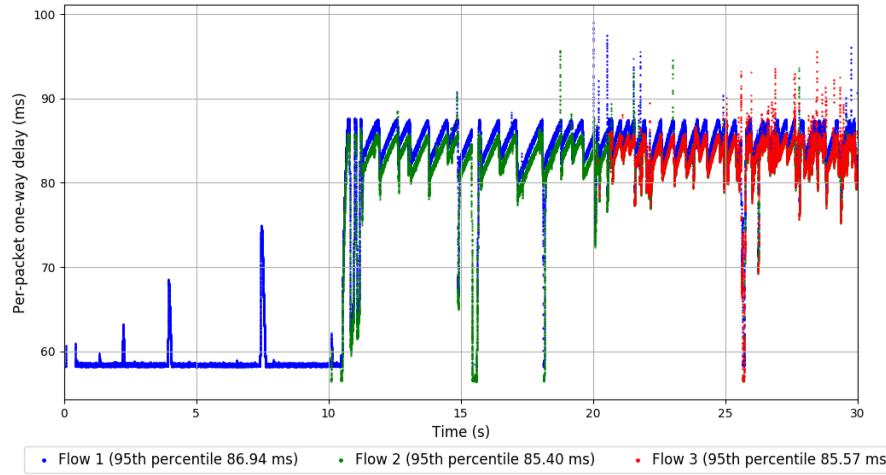
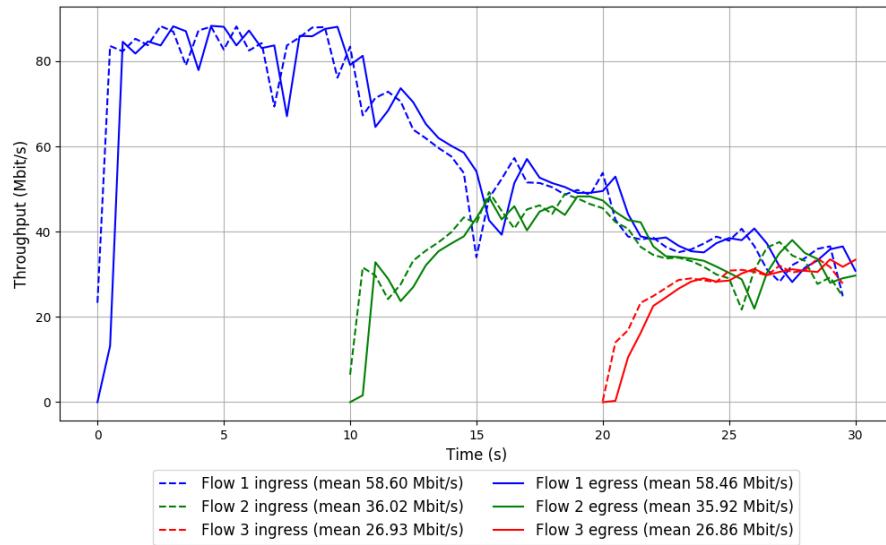


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-05-30 01:59:50
End at: 2019-05-30 02:00:20
Local clock offset: -58.874 ms
Remote clock offset: 0.325 ms

# Below is generated by plot.py at 2019-05-30 02:34:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.16 Mbit/s
95th percentile per-packet one-way delay: 86.756 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 58.46 Mbit/s
95th percentile per-packet one-way delay: 86.936 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 35.92 Mbit/s
95th percentile per-packet one-way delay: 85.397 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 26.86 Mbit/s
95th percentile per-packet one-way delay: 85.570 ms
Loss rate: 0.27%
```

Run 4: Report of QUIC Cubic — Data Link

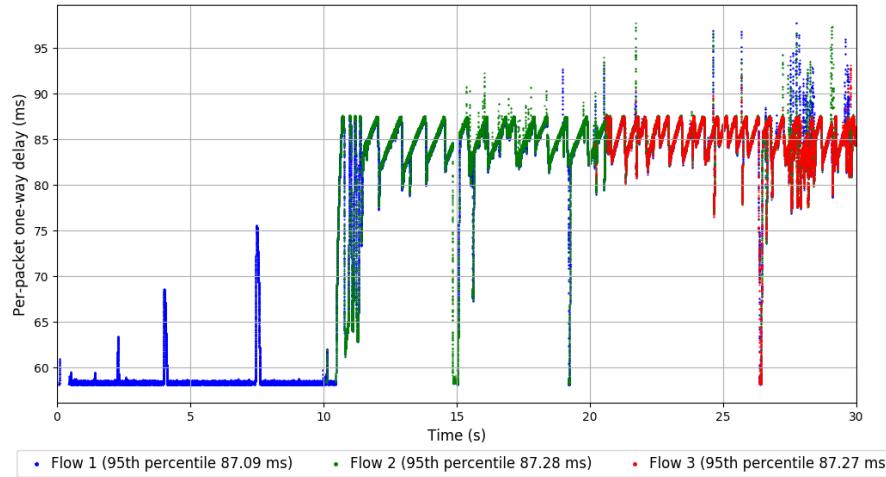
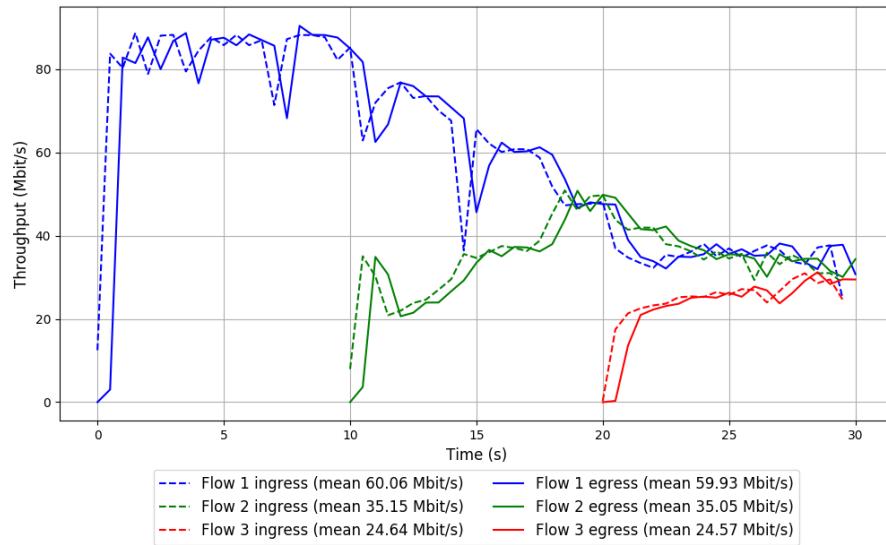


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-05-30 02:23:46
End at: 2019-05-30 02:24:16
Local clock offset: -59.852 ms
Remote clock offset: 0.35 ms

# Below is generated by plot.py at 2019-05-30 02:34:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.30 Mbit/s
95th percentile per-packet one-way delay: 87.187 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 59.93 Mbit/s
95th percentile per-packet one-way delay: 87.086 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 35.05 Mbit/s
95th percentile per-packet one-way delay: 87.277 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 24.57 Mbit/s
95th percentile per-packet one-way delay: 87.265 ms
Loss rate: 0.28%
```

Run 5: Report of QUIC Cubic — Data Link

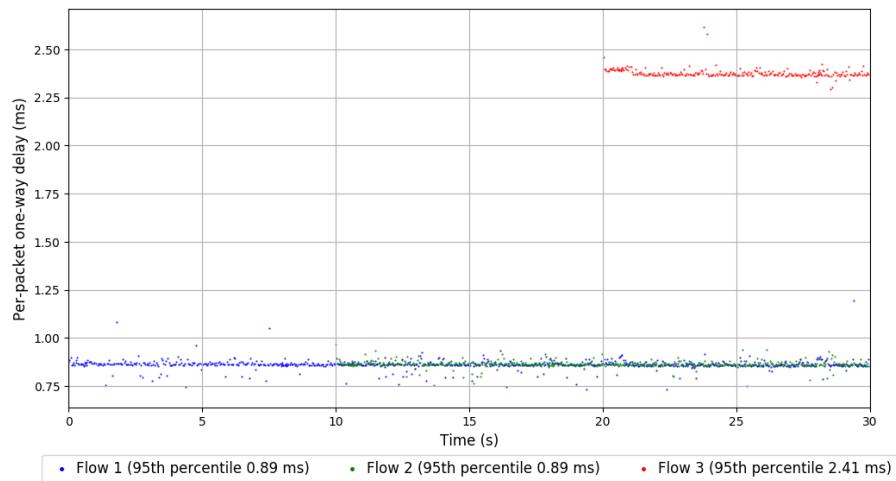
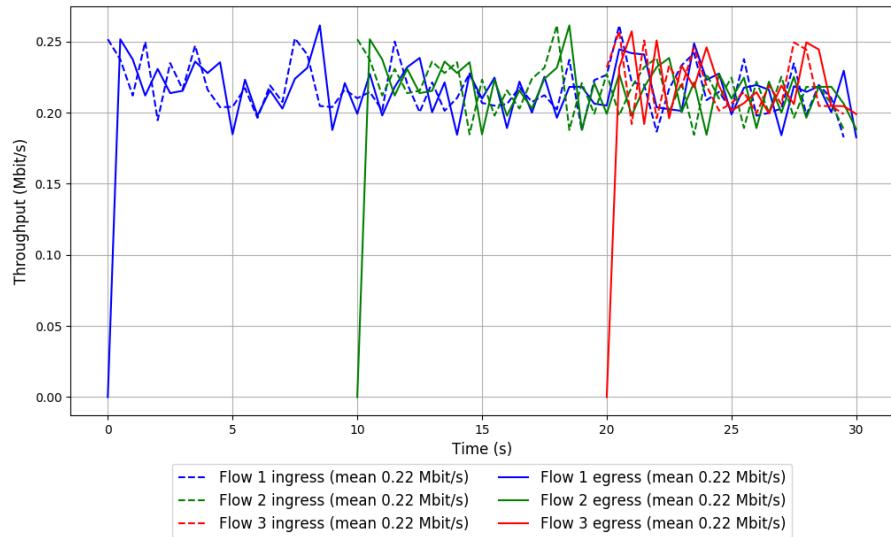


```
Run 1: Statistics of SCReAM

Start at: 2019-05-30 00:31:09
End at: 2019-05-30 00:31:39
Local clock offset: -4.502 ms
Remote clock offset: -0.691 ms

# Below is generated by plot.py at 2019-05-30 02:34:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.380 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.892 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.891 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.406 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

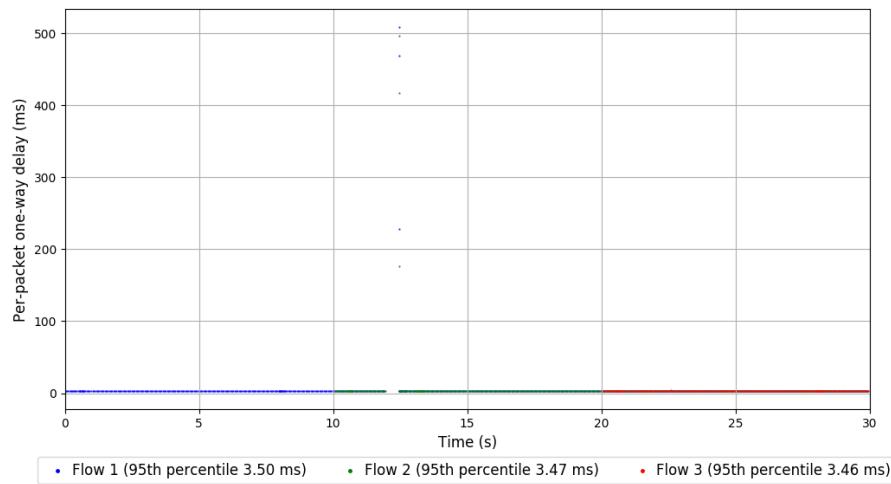
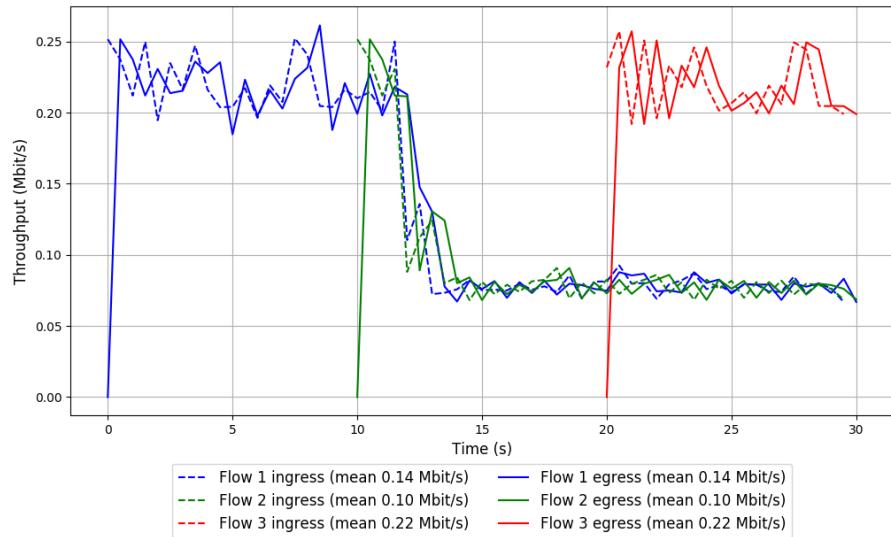


Run 2: Statistics of SCReAM

```
Start at: 2019-05-30 00:55:01
End at: 2019-05-30 00:55:32
Local clock offset: -5.972 ms
Remote clock offset: -0.309 ms

# Below is generated by plot.py at 2019-05-30 02:34:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 3.484 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.495 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 3.470 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.462 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

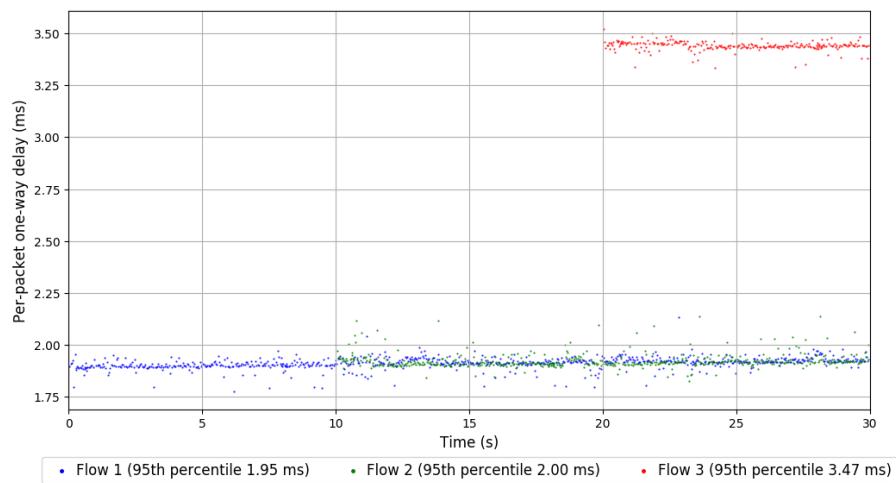
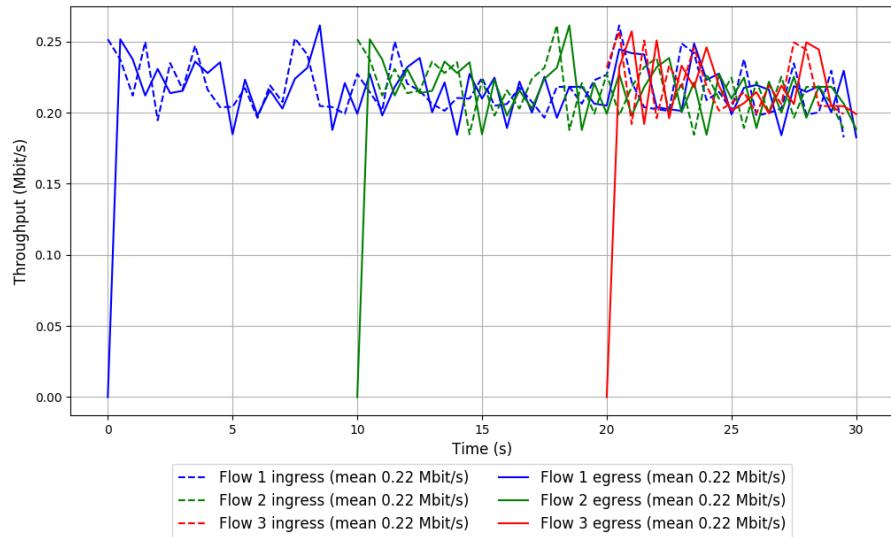


Run 3: Statistics of SCReAM

```
Start at: 2019-05-30 01:18:55
End at: 2019-05-30 01:19:25
Local clock offset: -4.717 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-05-30 02:34:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 3.450 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.954 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.000 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.472 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

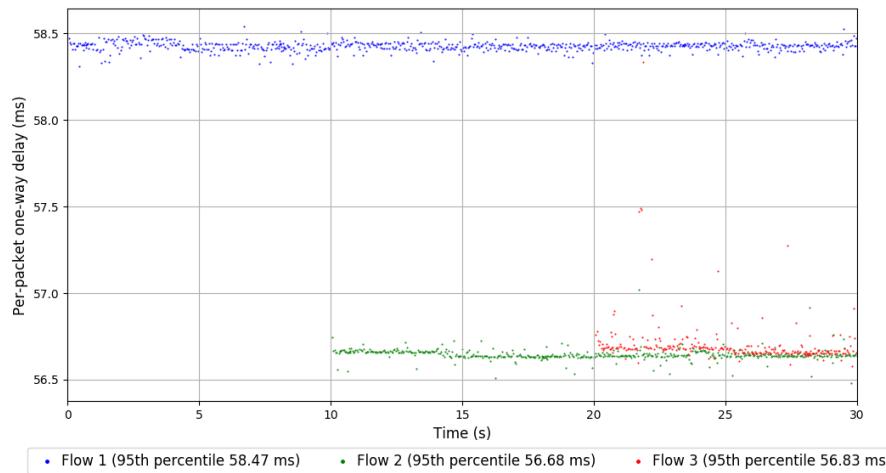
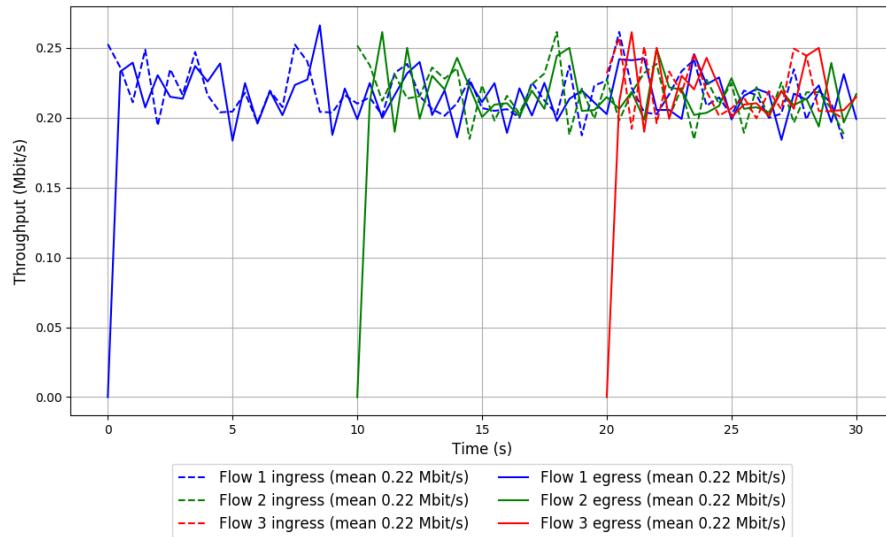


Run 4: Statistics of SCReAM

```
Start at: 2019-05-30 01:42:48
End at: 2019-05-30 01:43:18
Local clock offset: -59.021 ms
Remote clock offset: 0.263 ms

# Below is generated by plot.py at 2019-05-30 02:34:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 58.455 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.468 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.679 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.828 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

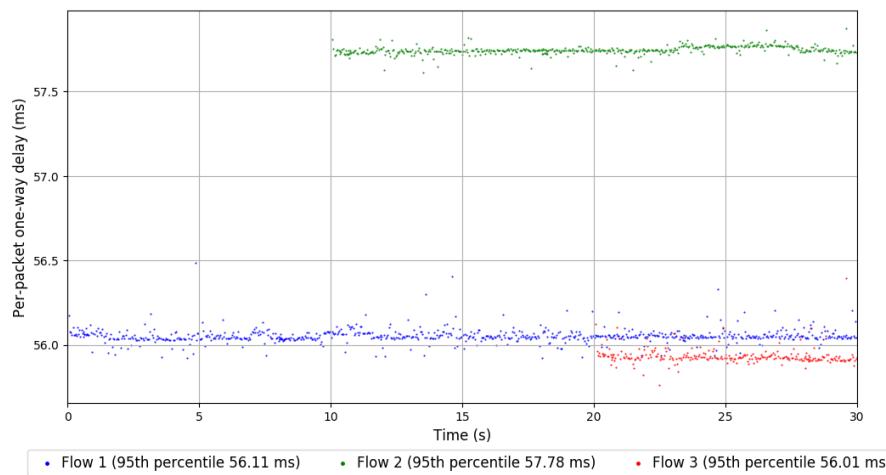
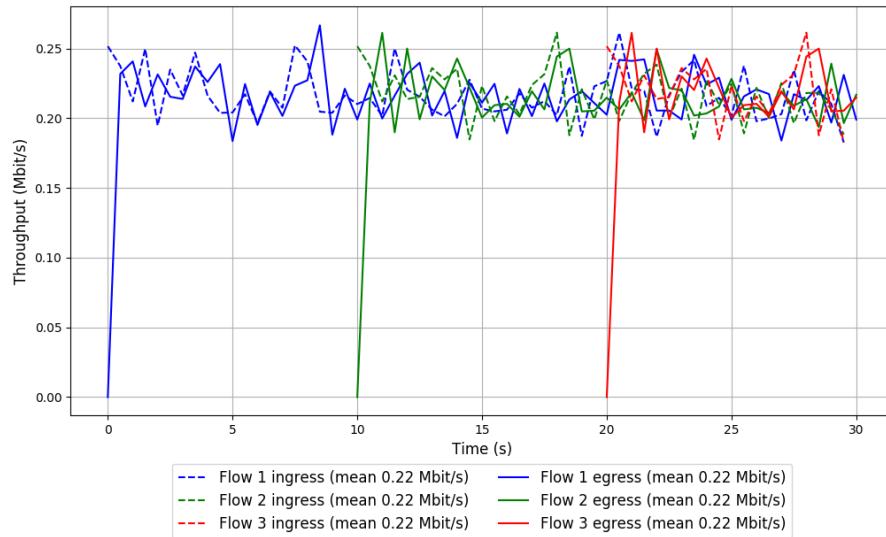


Run 5: Statistics of SCReAM

```
Start at: 2019-05-30 02:06:42
End at: 2019-05-30 02:07:12
Local clock offset: -58.098 ms
Remote clock offset: 0.366 ms

# Below is generated by plot.py at 2019-05-30 02:34:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 57.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.107 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.780 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.014 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

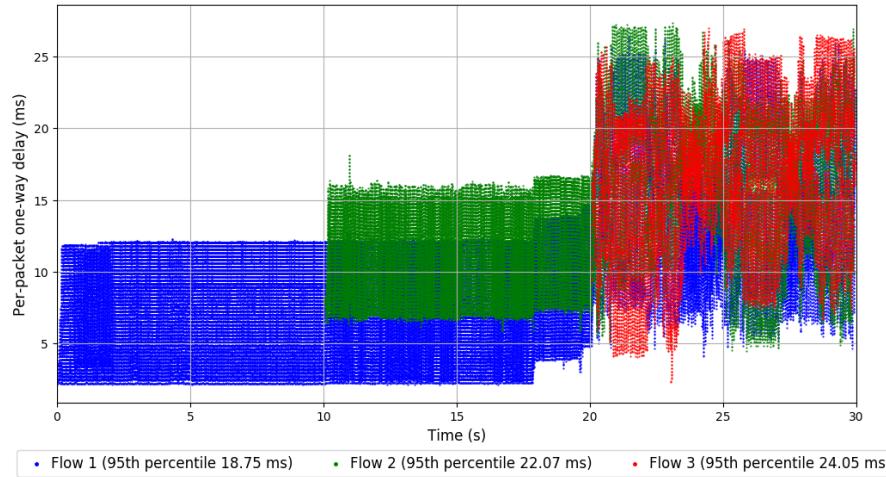
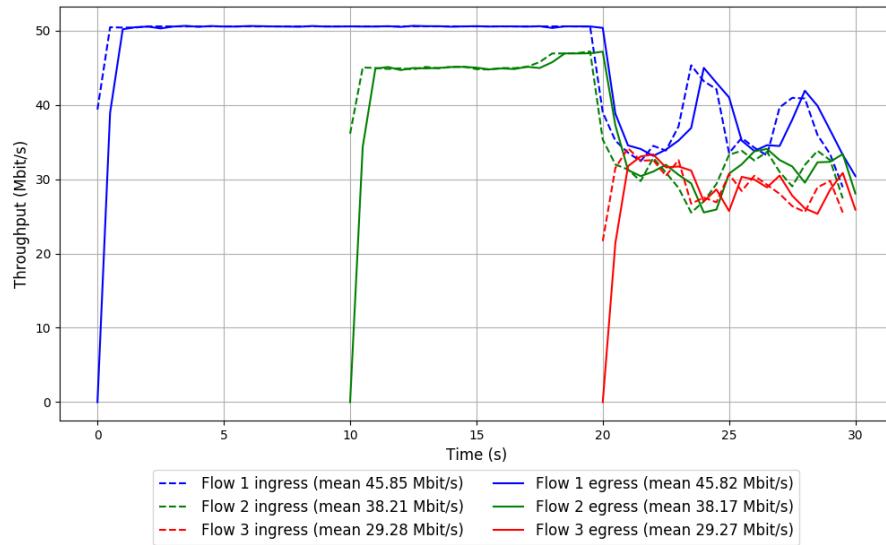


Run 1: Statistics of Sprout

```
Start at: 2019-05-30 00:32:14
End at: 2019-05-30 00:32:44
Local clock offset: -4.514 ms
Remote clock offset: -0.754 ms

# Below is generated by plot.py at 2019-05-30 02:34:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.90 Mbit/s
95th percentile per-packet one-way delay: 21.615 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.82 Mbit/s
95th percentile per-packet one-way delay: 18.749 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.17 Mbit/s
95th percentile per-packet one-way delay: 22.068 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.27 Mbit/s
95th percentile per-packet one-way delay: 24.054 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

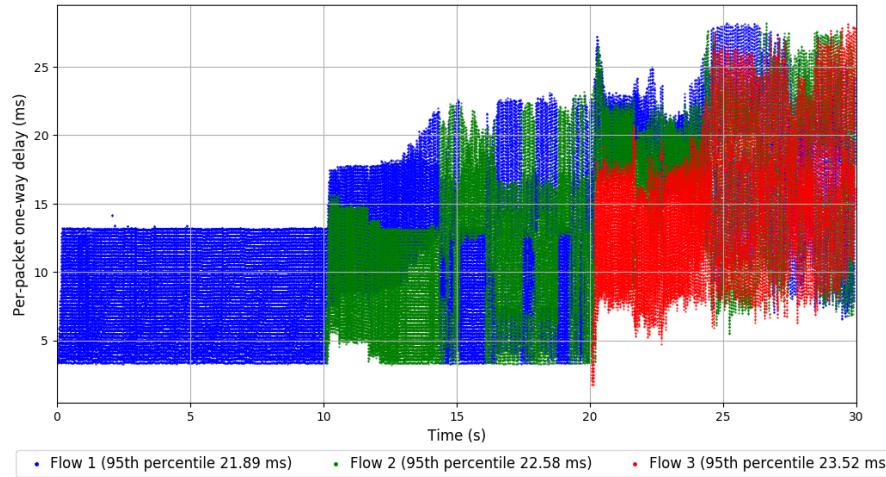
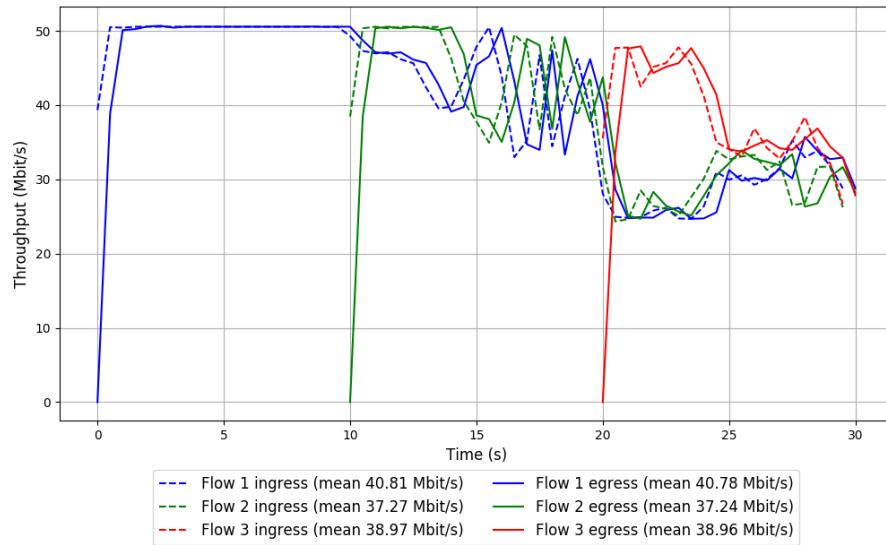


Run 2: Statistics of Sprout

```
Start at: 2019-05-30 00:56:07
End at: 2019-05-30 00:56:37
Local clock offset: -5.996 ms
Remote clock offset: -0.347 ms

# Below is generated by plot.py at 2019-05-30 02:34:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.44 Mbit/s
95th percentile per-packet one-way delay: 22.358 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.78 Mbit/s
95th percentile per-packet one-way delay: 21.890 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.24 Mbit/s
95th percentile per-packet one-way delay: 22.576 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.96 Mbit/s
95th percentile per-packet one-way delay: 23.516 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

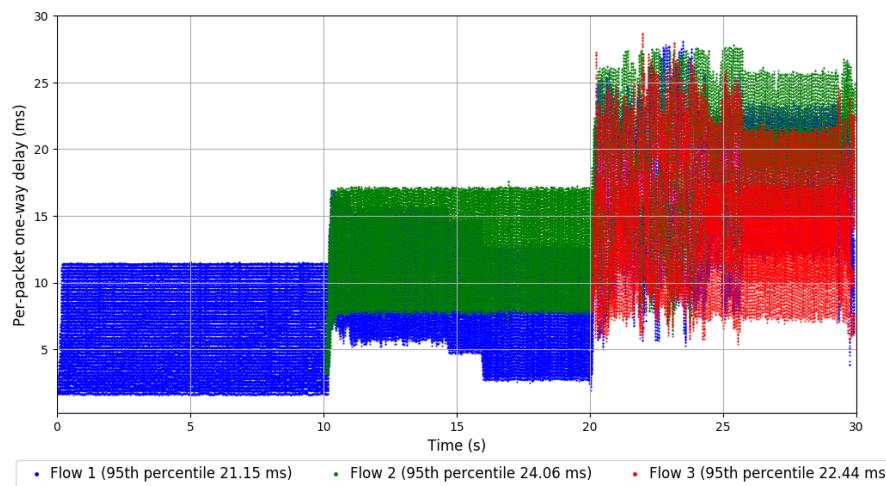
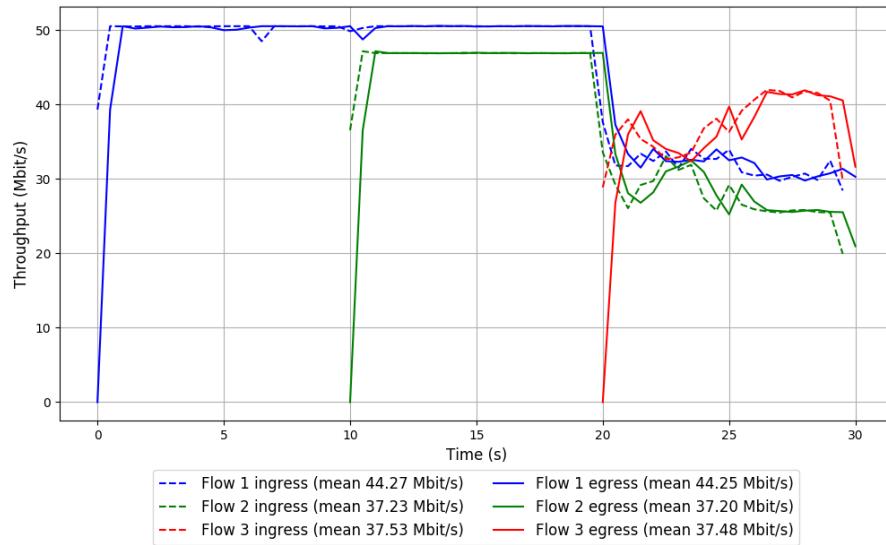


Run 3: Statistics of Sprout

```
Start at: 2019-05-30 01:20:00
End at: 2019-05-30 01:20:30
Local clock offset: -4.426 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2019-05-30 02:34:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.36 Mbit/s
95th percentile per-packet one-way delay: 22.368 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.25 Mbit/s
95th percentile per-packet one-way delay: 21.151 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.20 Mbit/s
95th percentile per-packet one-way delay: 24.057 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.48 Mbit/s
95th percentile per-packet one-way delay: 22.438 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

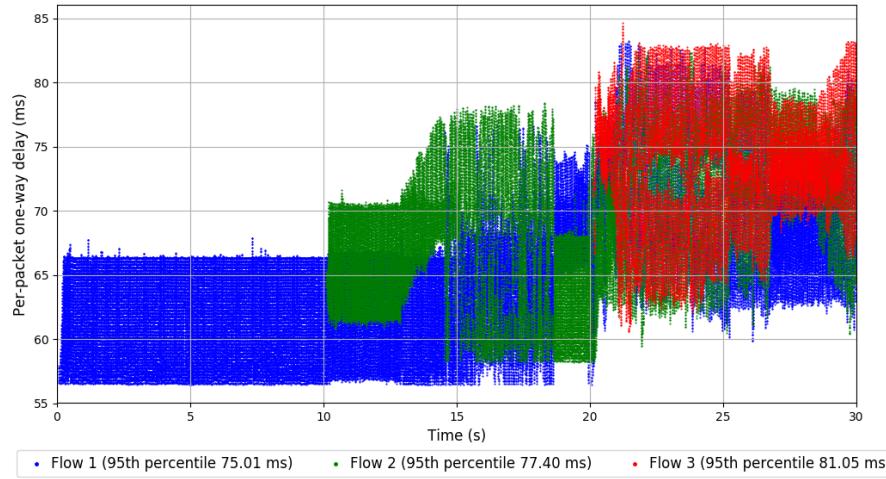
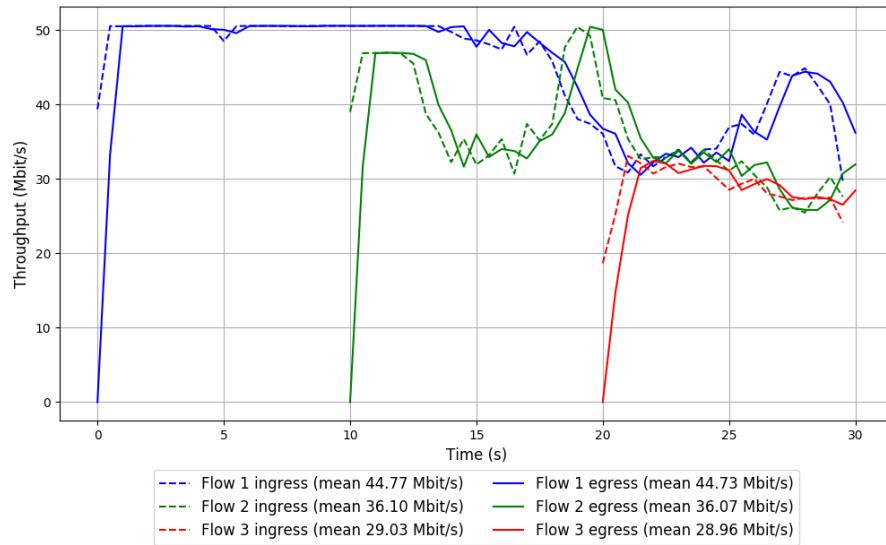


Run 4: Statistics of Sprout

```
Start at: 2019-05-30 01:43:53
End at: 2019-05-30 01:44:23
Local clock offset: -58.95 ms
Remote clock offset: 0.241 ms

# Below is generated by plot.py at 2019-05-30 02:35:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.31 Mbit/s
95th percentile per-packet one-way delay: 77.708 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.73 Mbit/s
95th percentile per-packet one-way delay: 75.009 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.07 Mbit/s
95th percentile per-packet one-way delay: 77.404 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.96 Mbit/s
95th percentile per-packet one-way delay: 81.046 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

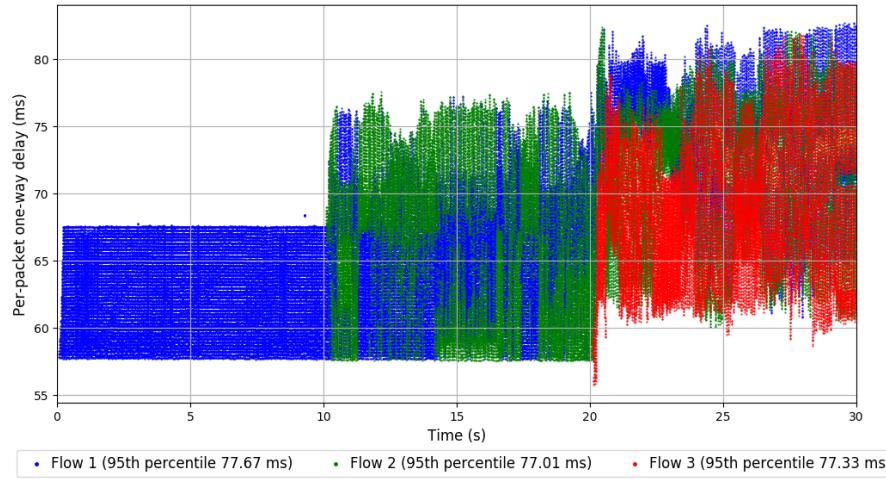
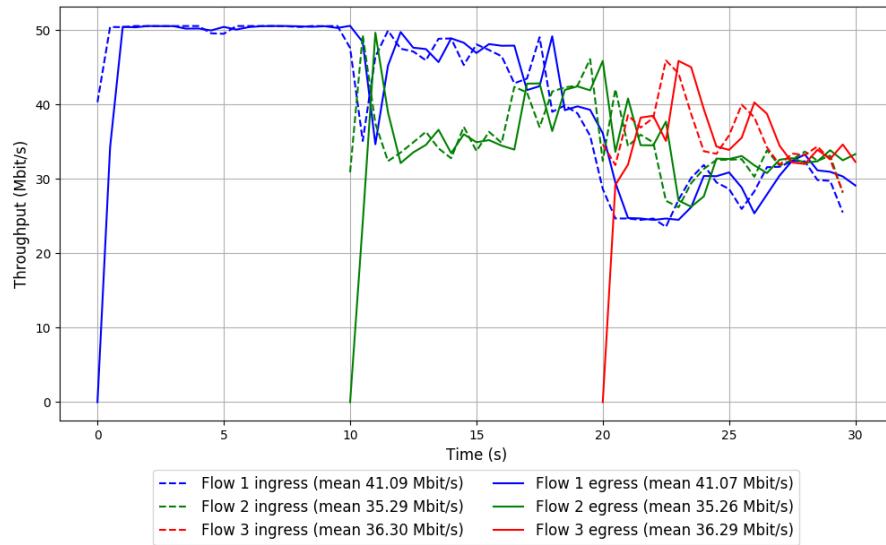


Run 5: Statistics of Sprout

```
Start at: 2019-05-30 02:07:47
End at: 2019-05-30 02:08:17
Local clock offset: -58.222 ms
Remote clock offset: 0.383 ms

# Below is generated by plot.py at 2019-05-30 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.52 Mbit/s
95th percentile per-packet one-way delay: 77.375 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.07 Mbit/s
95th percentile per-packet one-way delay: 77.674 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.26 Mbit/s
95th percentile per-packet one-way delay: 77.012 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.29 Mbit/s
95th percentile per-packet one-way delay: 77.331 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

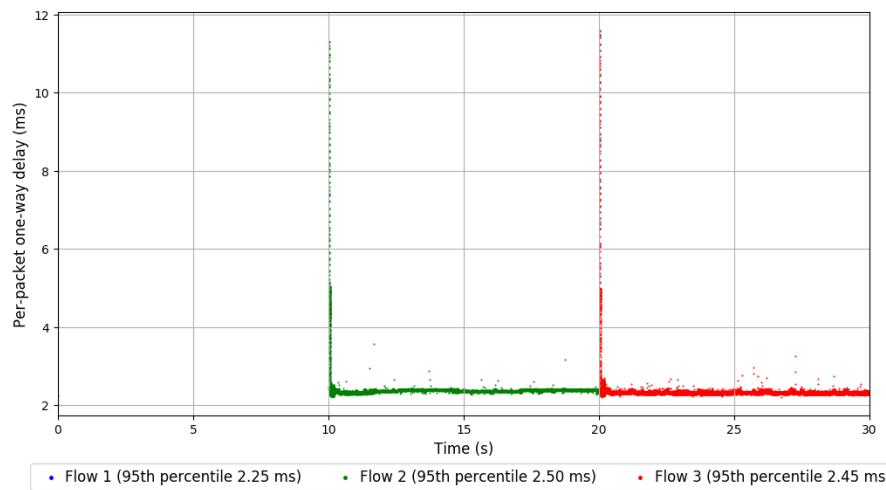
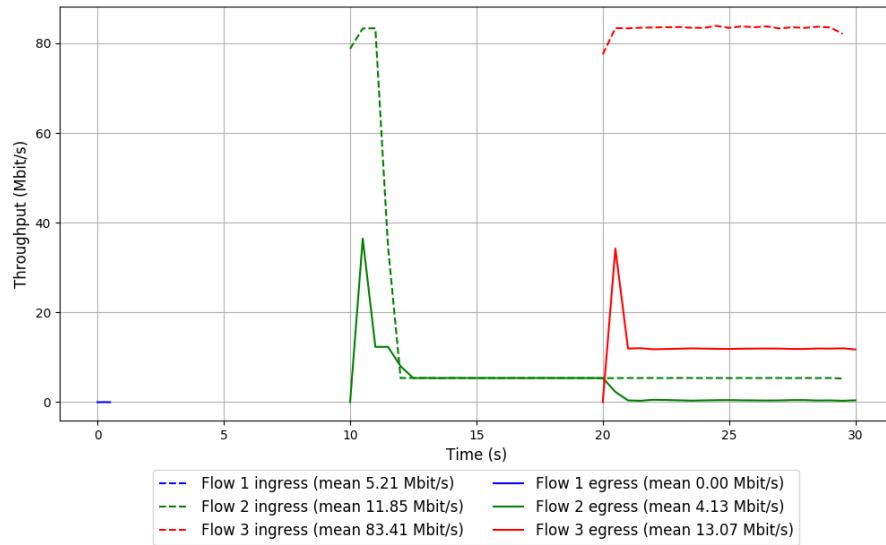


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-05-30 00:47:04
End at: 2019-05-30 00:47:34
Local clock offset: -4.82 ms
Remote clock offset: -0.51 ms

# Below is generated by plot.py at 2019-05-30 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.10 Mbit/s
95th percentile per-packet one-way delay: 2.467 ms
Loss rate: 80.08%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.245 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 2.503 ms
Loss rate: 65.14%
-- Flow 3:
Average throughput: 13.07 Mbit/s
95th percentile per-packet one-way delay: 2.451 ms
Loss rate: 84.34%
```

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

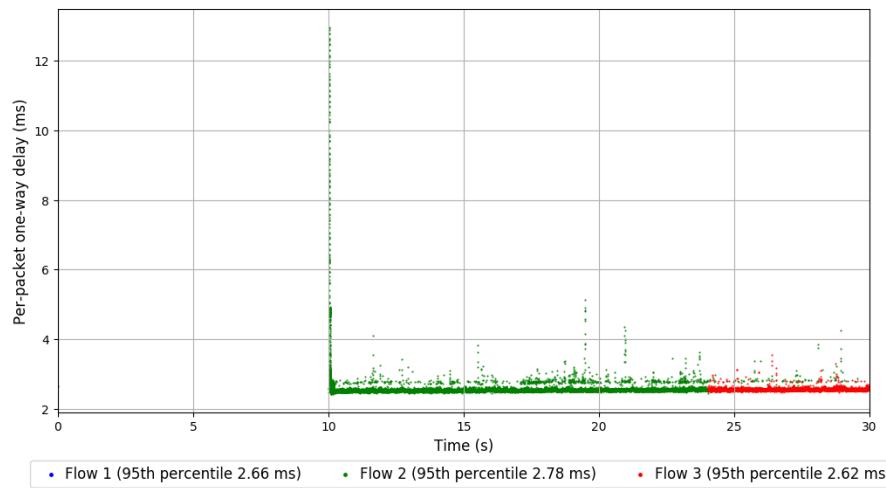
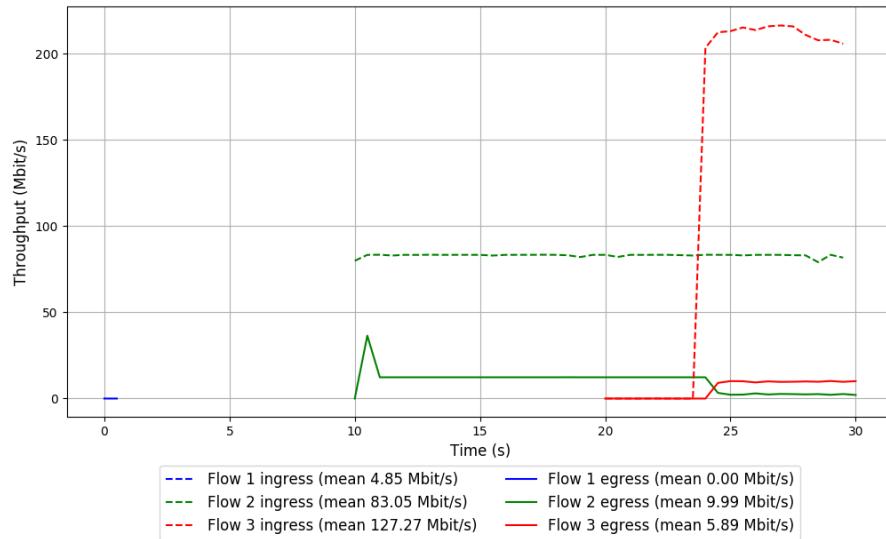


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-05-30 01:10:57
End at: 2019-05-30 01:11:27
Local clock offset: -4.59 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2019-05-30 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 2.758 ms
Loss rate: 91.18%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.658 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.99 Mbit/s
95th percentile per-packet one-way delay: 2.780 ms
Loss rate: 87.97%
-- Flow 3:
Average throughput: 5.89 Mbit/s
95th percentile per-packet one-way delay: 2.624 ms
Loss rate: 95.37%
```

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

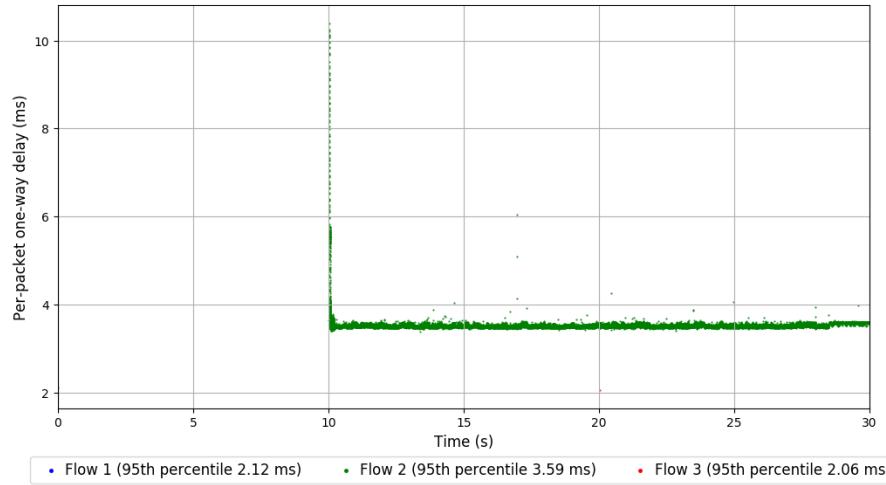
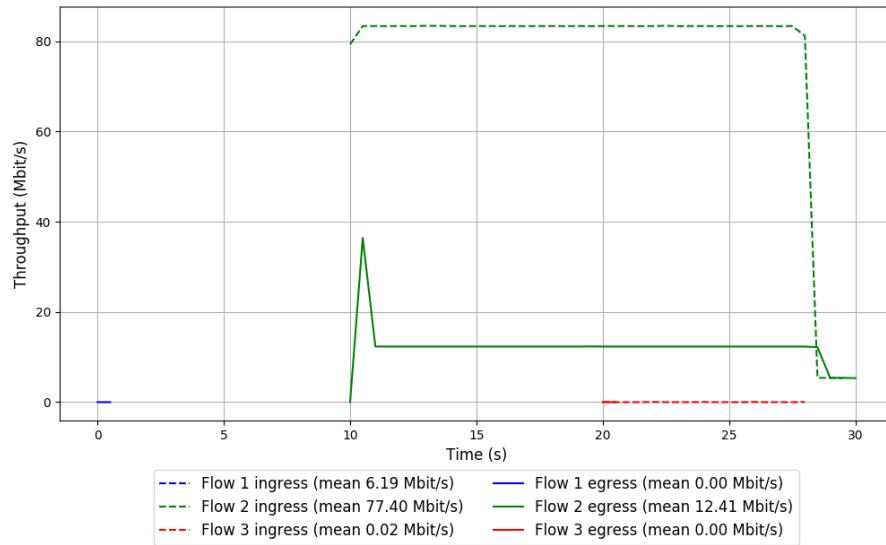


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-05-30 01:34:50
End at: 2019-05-30 01:35:20
Local clock offset: -4.161 ms
Remote clock offset: 0.219 ms

# Below is generated by plot.py at 2019-05-30 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 3.594 ms
Loss rate: 83.97%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.119 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 3.594 ms
Loss rate: 83.97%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.060 ms
Loss rate: 99.16%
```

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

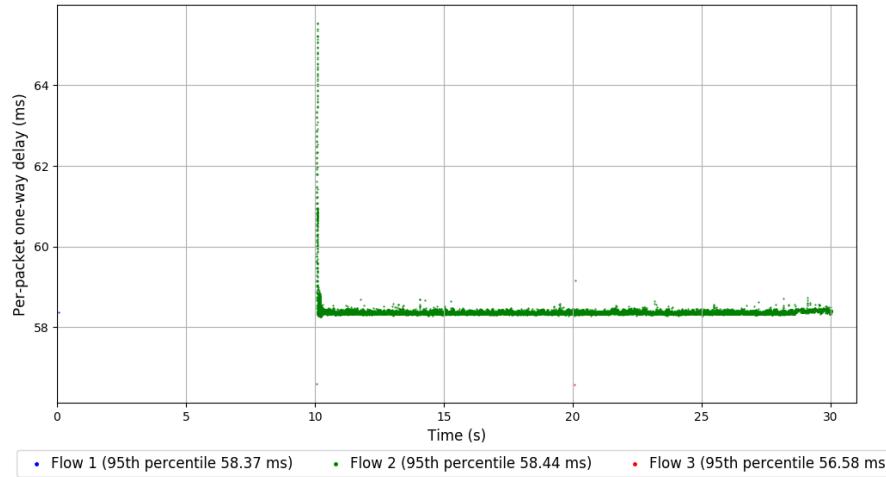
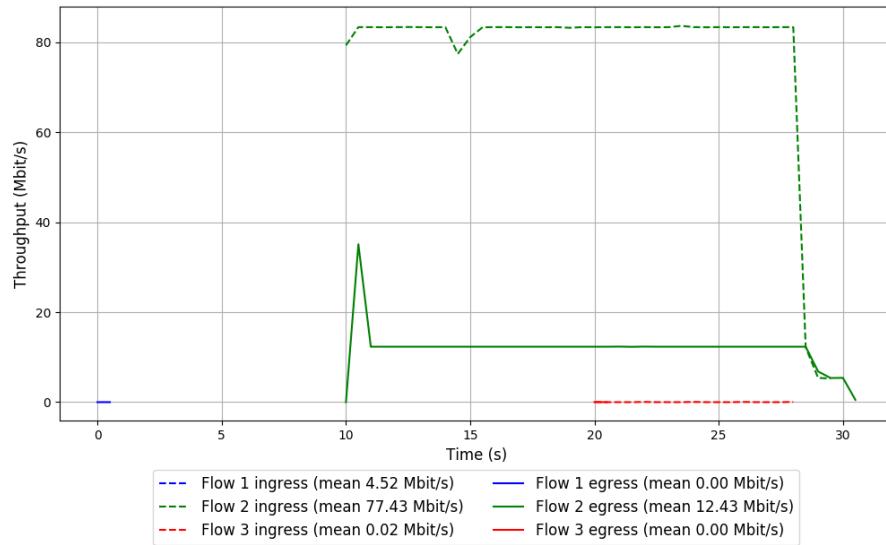


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-05-30 01:58:44
End at: 2019-05-30 01:59:14
Local clock offset: -58.838 ms
Remote clock offset: 0.336 ms

# Below is generated by plot.py at 2019-05-30 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 58.440 ms
Loss rate: 83.95%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 58.374 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 58.440 ms
Loss rate: 83.94%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 56.584 ms
Loss rate: 99.16%
```

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

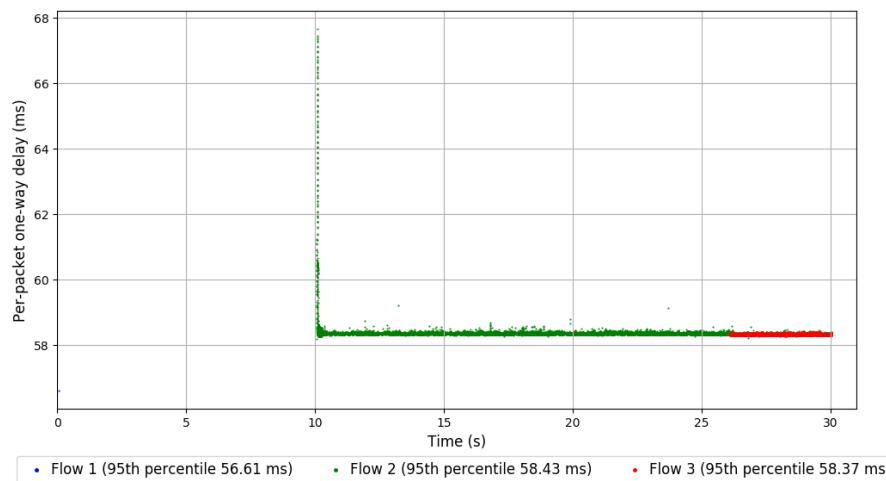
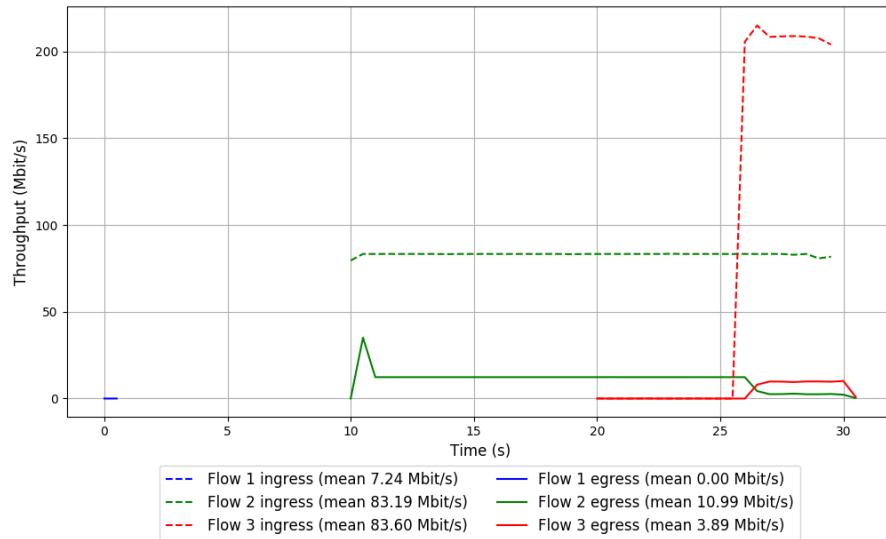


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-05-30 02:22:39
End at: 2019-05-30 02:23:09
Local clock offset: -59.874 ms
Remote clock offset: 0.332 ms

# Below is generated by plot.py at 2019-05-30 02:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 58.430 ms
Loss rate: 89.65%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 56.609 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 58.434 ms
Loss rate: 86.78%
-- Flow 3:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 58.374 ms
Loss rate: 95.35%
```

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

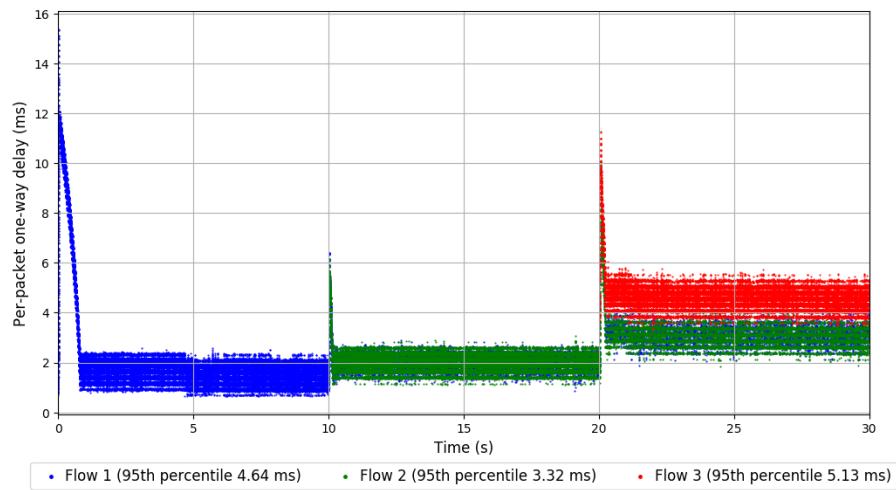
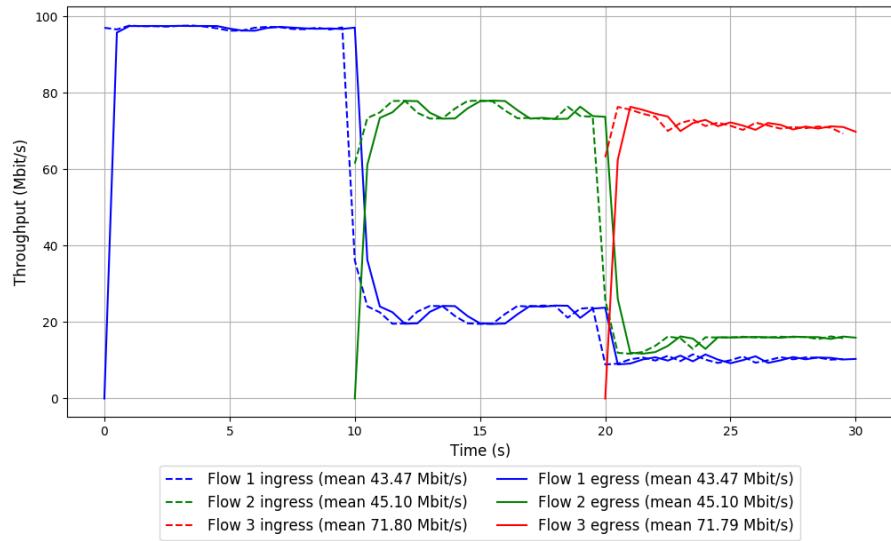


Run 1: Statistics of TCP Vegas

```
Start at: 2019-05-30 00:40:13
End at: 2019-05-30 00:40:43
Local clock offset: -4.63 ms
Remote clock offset: -0.655 ms

# Below is generated by plot.py at 2019-05-30 02:35:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.37 Mbit/s
95th percentile per-packet one-way delay: 5.039 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.47 Mbit/s
95th percentile per-packet one-way delay: 4.644 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.10 Mbit/s
95th percentile per-packet one-way delay: 3.322 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.79 Mbit/s
95th percentile per-packet one-way delay: 5.133 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link

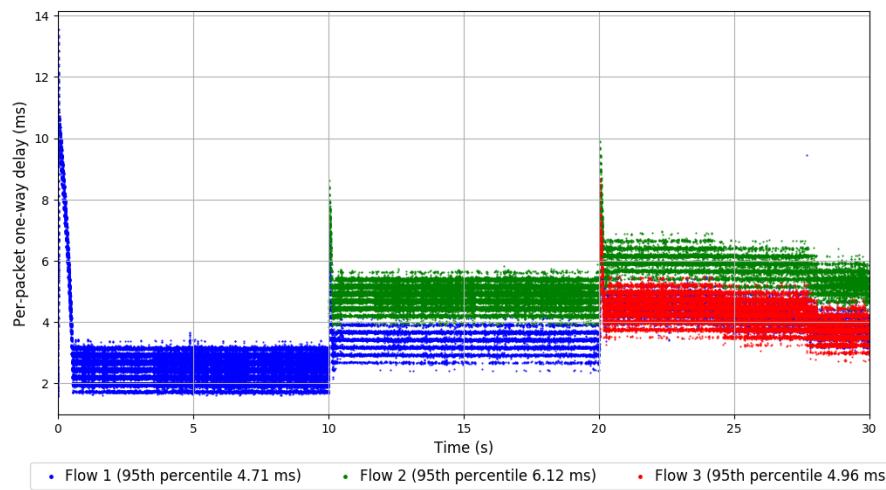
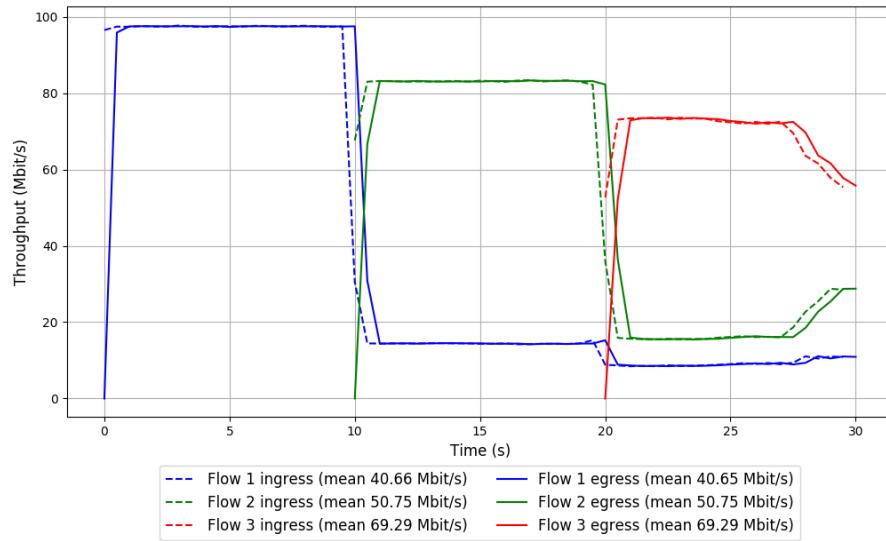


Run 2: Statistics of TCP Vegas

```
Start at: 2019-05-30 01:04:05
End at: 2019-05-30 01:04:35
Local clock offset: -5.856 ms
Remote clock offset: -0.231 ms

# Below is generated by plot.py at 2019-05-30 02:36:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 5.677 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 4.709 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.75 Mbit/s
95th percentile per-packet one-way delay: 6.123 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.29 Mbit/s
95th percentile per-packet one-way delay: 4.956 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link

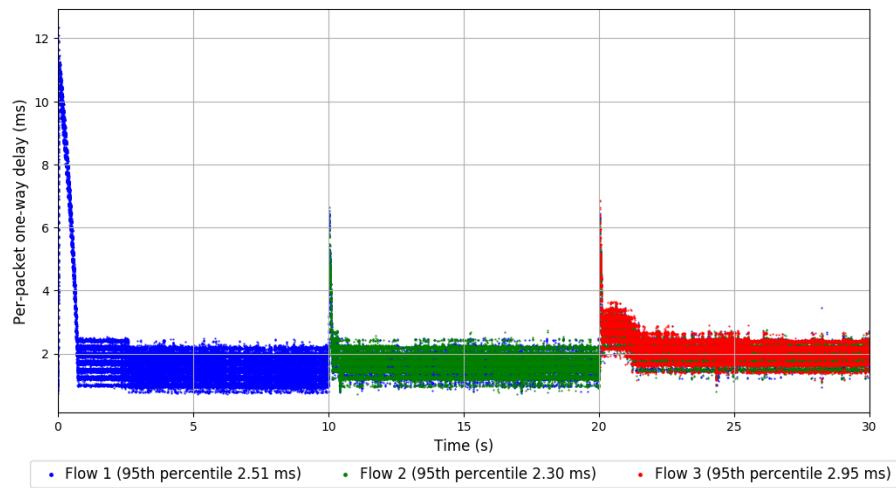
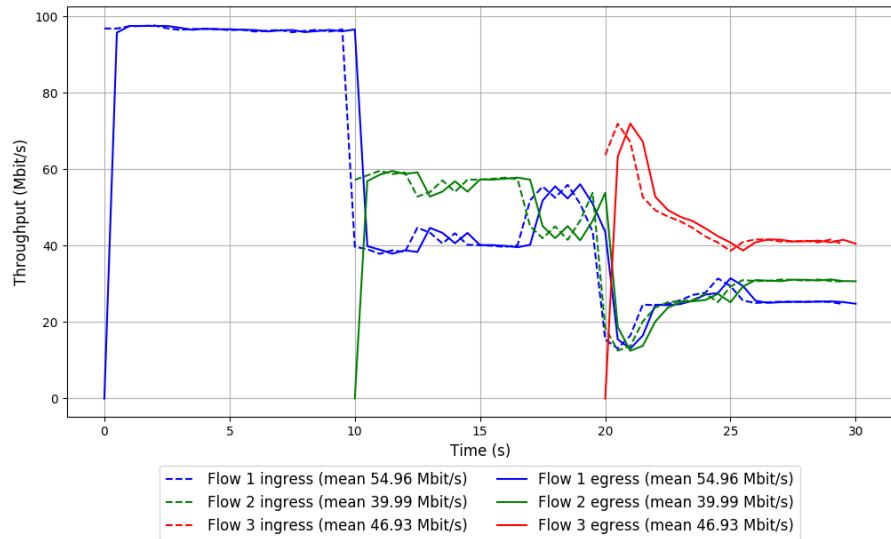


Run 3: Statistics of TCP Vegas

```
Start at: 2019-05-30 01:27:59
End at: 2019-05-30 01:28:29
Local clock offset: -3.296 ms
Remote clock offset: 0.076 ms

# Below is generated by plot.py at 2019-05-30 02:36:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 2.677 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.96 Mbit/s
95th percentile per-packet one-way delay: 2.506 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.99 Mbit/s
95th percentile per-packet one-way delay: 2.304 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.93 Mbit/s
95th percentile per-packet one-way delay: 2.951 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Vegas — Data Link

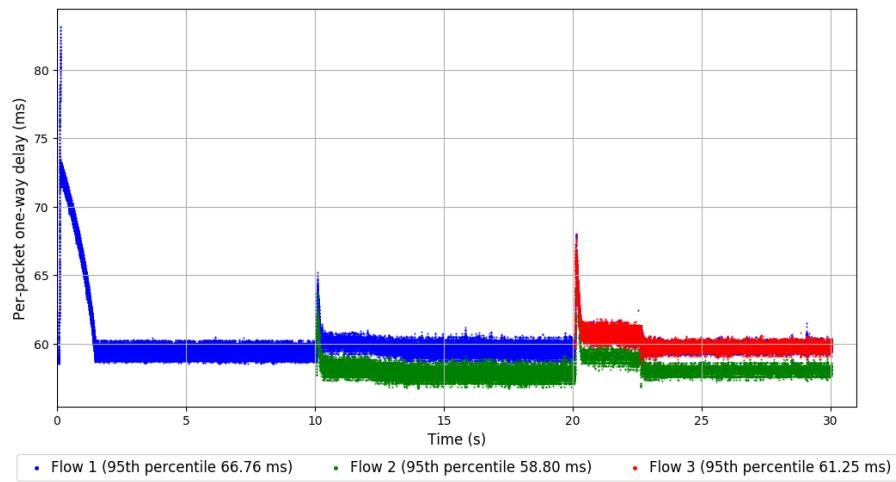
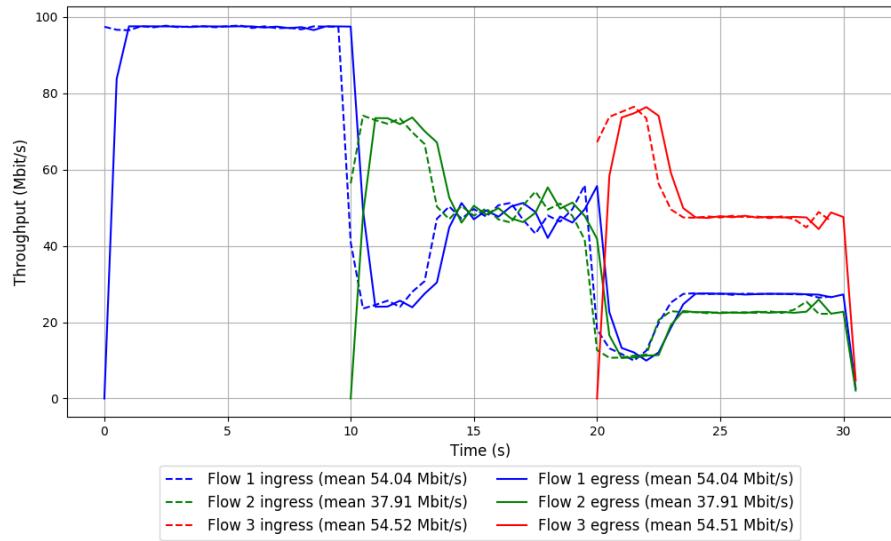


Run 4: Statistics of TCP Vegas

```
Start at: 2019-05-30 01:51:52
End at: 2019-05-30 01:52:22
Local clock offset: -59.105 ms
Remote clock offset: 0.359 ms

# Below is generated by plot.py at 2019-05-30 02:36:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 61.747 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.04 Mbit/s
95th percentile per-packet one-way delay: 66.758 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.91 Mbit/s
95th percentile per-packet one-way delay: 58.805 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.51 Mbit/s
95th percentile per-packet one-way delay: 61.252 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link

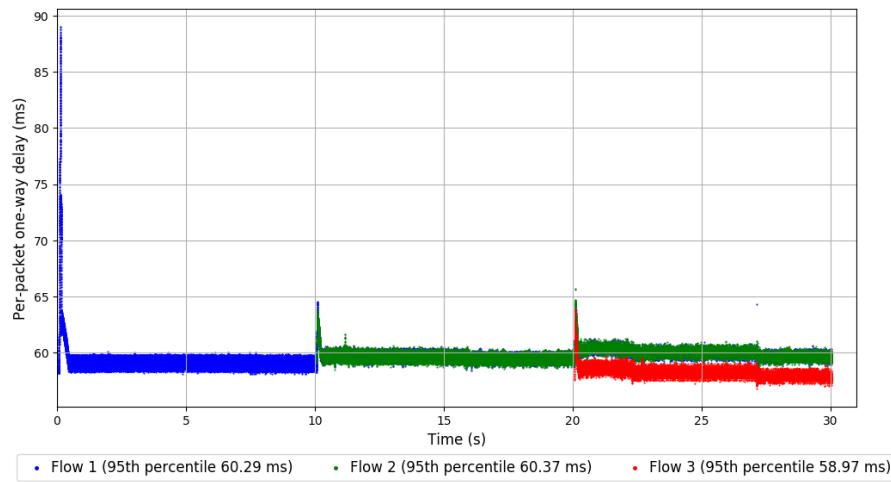
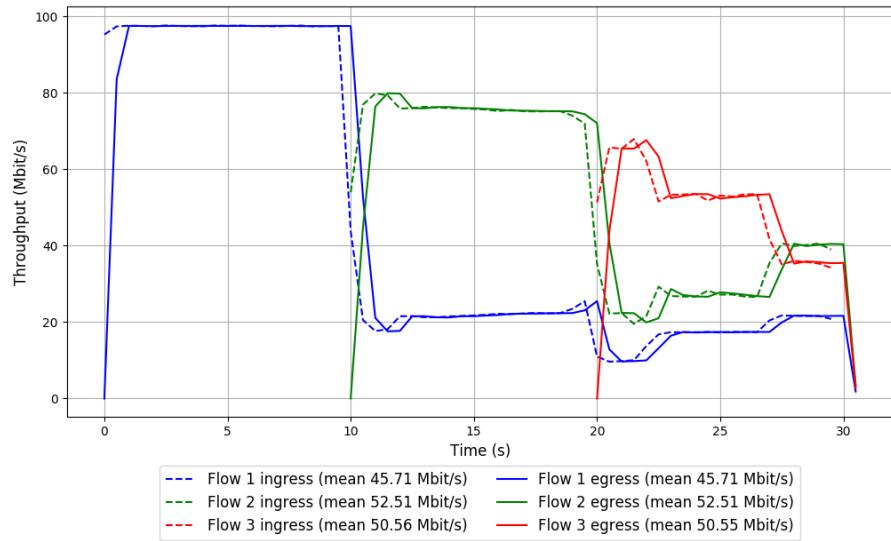


Run 5: Statistics of TCP Vegas

```
Start at: 2019-05-30 02:15:47
End at: 2019-05-30 02:16:17
Local clock offset: -59.521 ms
Remote clock offset: 0.32 ms

# Below is generated by plot.py at 2019-05-30 02:36:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 60.245 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.71 Mbit/s
95th percentile per-packet one-way delay: 60.287 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.51 Mbit/s
95th percentile per-packet one-way delay: 60.368 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.55 Mbit/s
95th percentile per-packet one-way delay: 58.969 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Vegas — Data Link

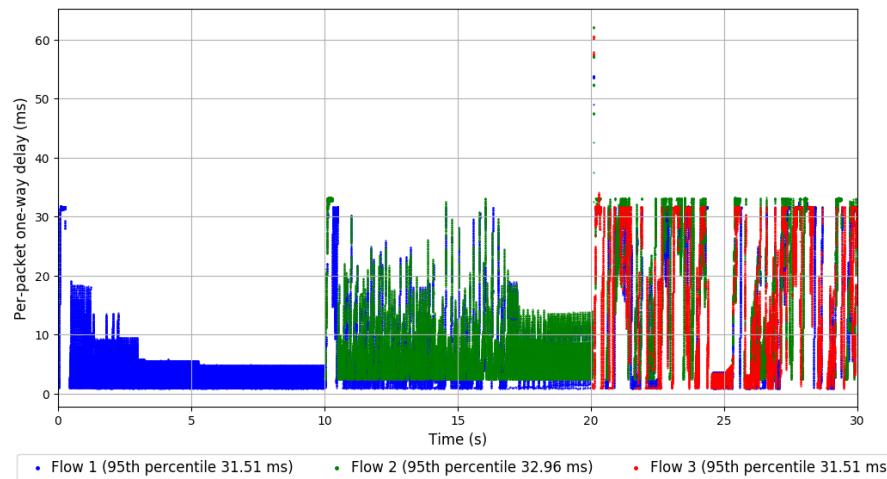
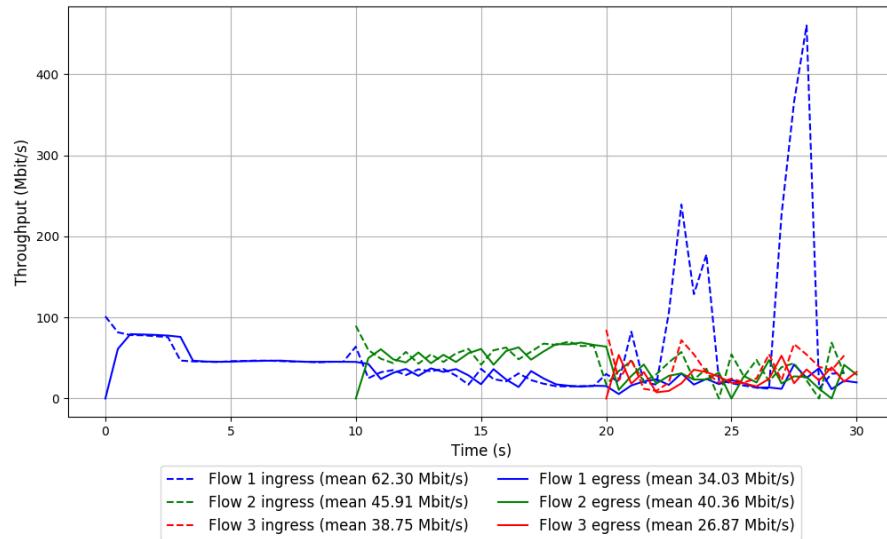


Run 1: Statistics of Verus

```
Start at: 2019-05-30 00:45:55
End at: 2019-05-30 00:46:25
Local clock offset: -5.036 ms
Remote clock offset: -0.533 ms

# Below is generated by plot.py at 2019-05-30 02:36:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.66 Mbit/s
95th percentile per-packet one-way delay: 31.558 ms
Loss rate: 33.85%
-- Flow 1:
Average throughput: 34.03 Mbit/s
95th percentile per-packet one-way delay: 31.508 ms
Loss rate: 45.32%
-- Flow 2:
Average throughput: 40.36 Mbit/s
95th percentile per-packet one-way delay: 32.961 ms
Loss rate: 11.96%
-- Flow 3:
Average throughput: 26.87 Mbit/s
95th percentile per-packet one-way delay: 31.513 ms
Loss rate: 30.47%
```

Run 1: Report of Verus — Data Link

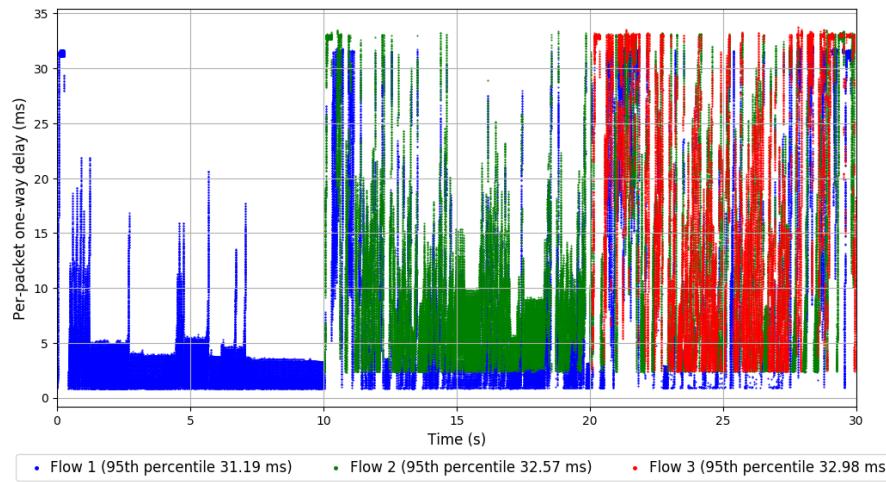
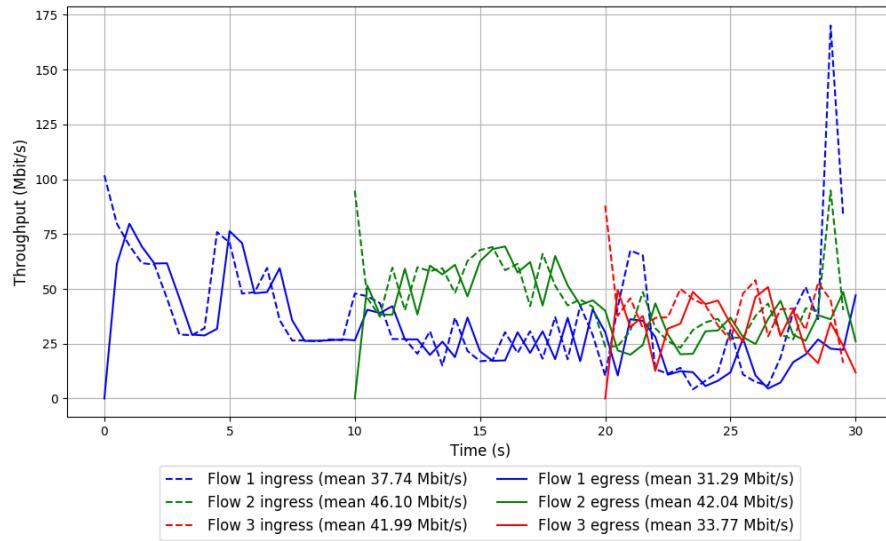


Run 2: Statistics of Verus

```
Start at: 2019-05-30 01:09:48
End at: 2019-05-30 01:10:18
Local clock offset: -4.692 ms
Remote clock offset: -0.138 ms

# Below is generated by plot.py at 2019-05-30 02:36:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.37 Mbit/s
95th percentile per-packet one-way delay: 31.595 ms
Loss rate: 14.38%
-- Flow 1:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 31.191 ms
Loss rate: 17.06%
-- Flow 2:
Average throughput: 42.04 Mbit/s
95th percentile per-packet one-way delay: 32.573 ms
Loss rate: 8.68%
-- Flow 3:
Average throughput: 33.77 Mbit/s
95th percentile per-packet one-way delay: 32.980 ms
Loss rate: 19.66%
```

Run 2: Report of Verus — Data Link

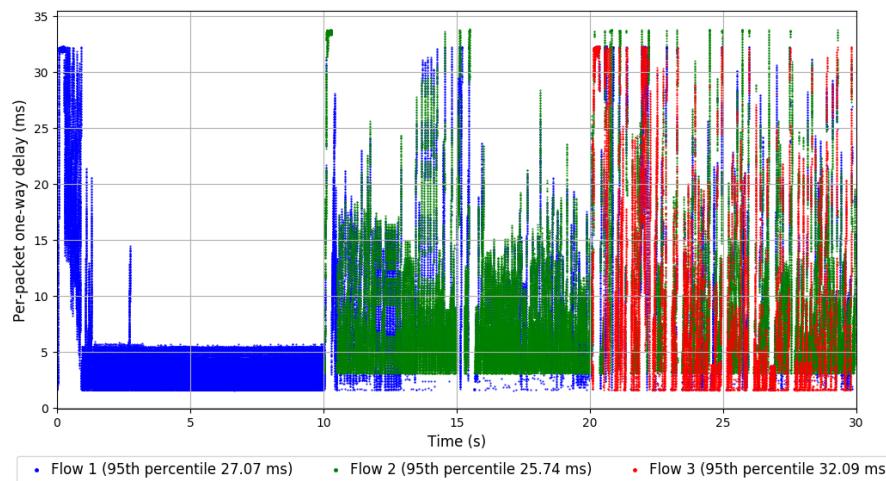
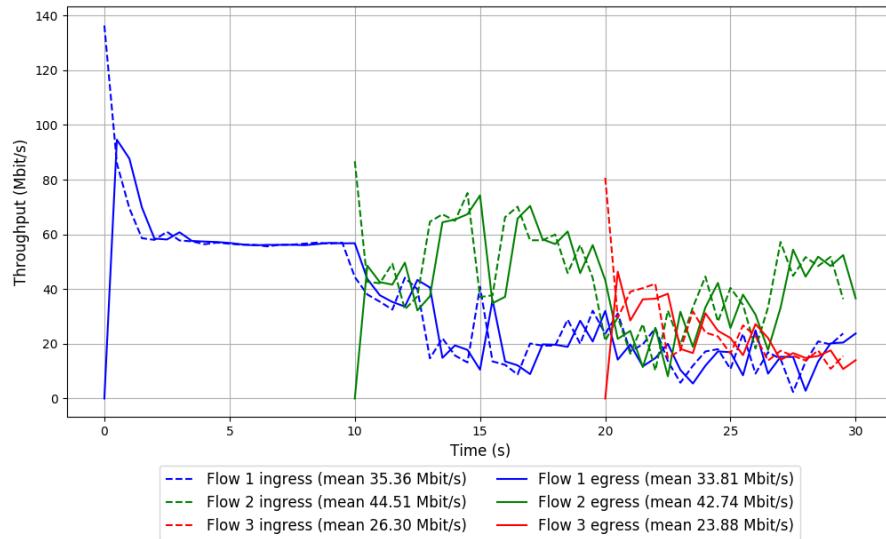


Run 3: Statistics of Verus

```
Start at: 2019-05-30 01:33:41
End at: 2019-05-30 01:34:11
Local clock offset: -3.949 ms
Remote clock offset: 0.121 ms

# Below is generated by plot.py at 2019-05-30 02:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.06 Mbit/s
95th percentile per-packet one-way delay: 28.497 ms
Loss rate: 4.72%
-- Flow 1:
Average throughput: 33.81 Mbit/s
95th percentile per-packet one-way delay: 27.071 ms
Loss rate: 4.31%
-- Flow 2:
Average throughput: 42.74 Mbit/s
95th percentile per-packet one-way delay: 25.741 ms
Loss rate: 3.97%
-- Flow 3:
Average throughput: 23.88 Mbit/s
95th percentile per-packet one-way delay: 32.088 ms
Loss rate: 8.98%
```

Run 3: Report of Verus — Data Link

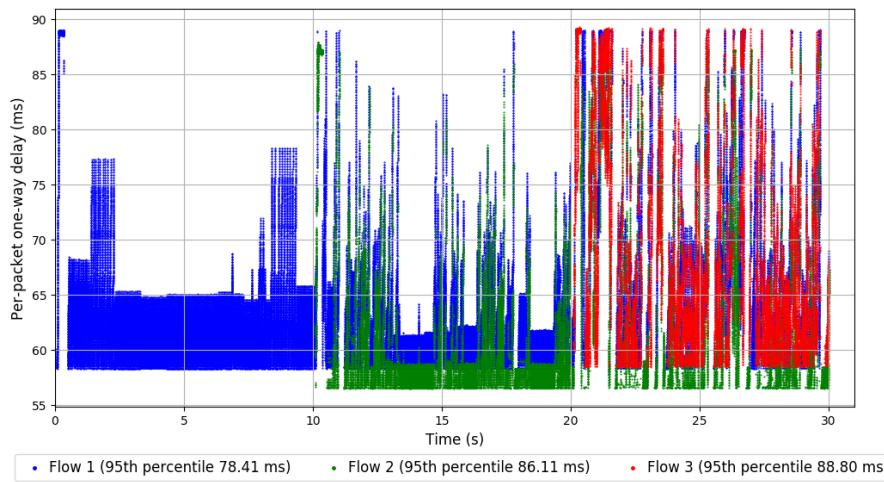
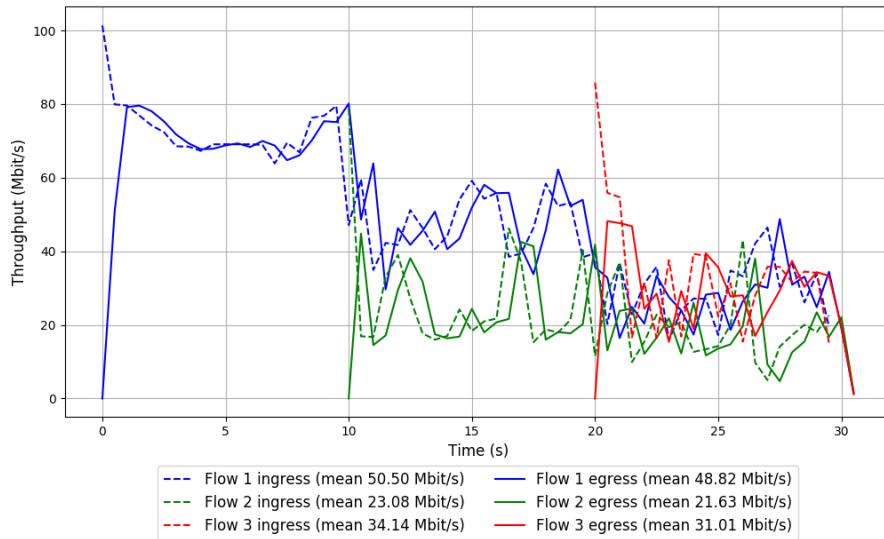


Run 4: Statistics of Verus

```
Start at: 2019-05-30 01:57:34
End at: 2019-05-30 01:58:04
Local clock offset: -58.908 ms
Remote clock offset: 0.33 ms

# Below is generated by plot.py at 2019-05-30 02:36:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.48 Mbit/s
95th percentile per-packet one-way delay: 84.621 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 48.82 Mbit/s
95th percentile per-packet one-way delay: 78.408 ms
Loss rate: 3.29%
-- Flow 2:
Average throughput: 21.63 Mbit/s
95th percentile per-packet one-way delay: 86.106 ms
Loss rate: 6.27%
-- Flow 3:
Average throughput: 31.01 Mbit/s
95th percentile per-packet one-way delay: 88.803 ms
Loss rate: 9.08%
```

Run 4: Report of Verus — Data Link

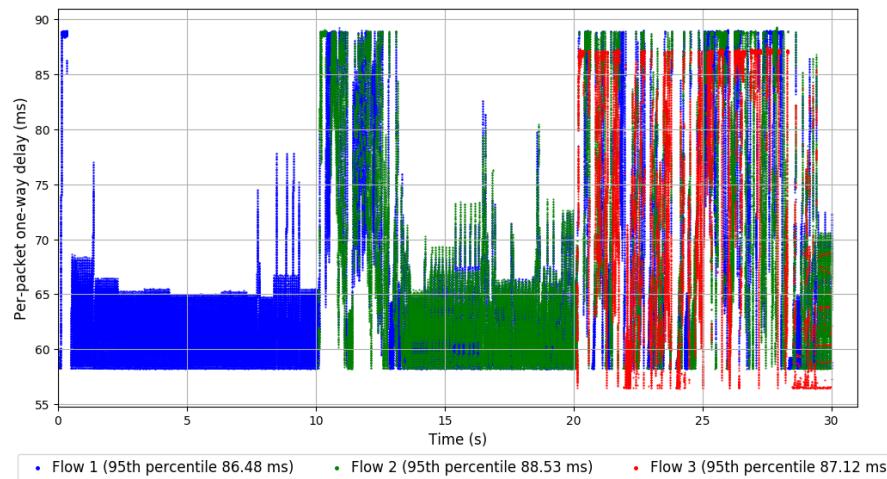
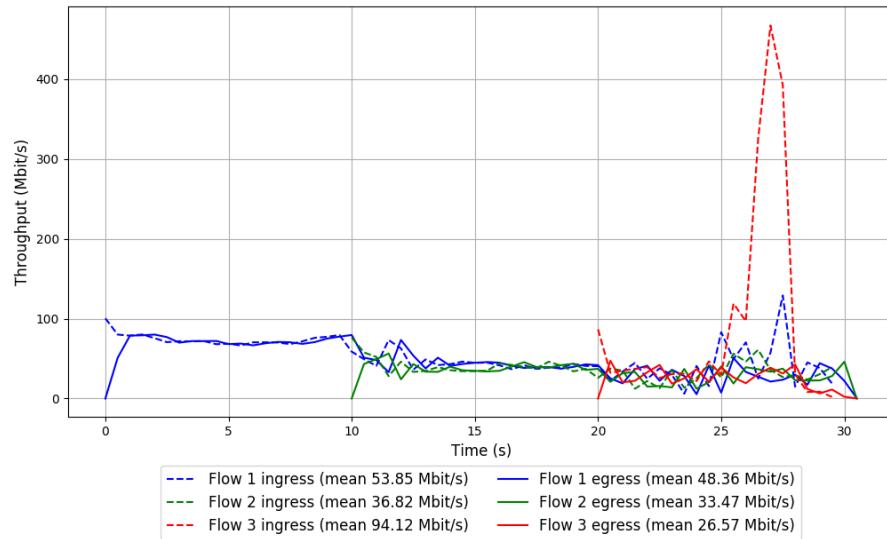


Run 5: Statistics of Verus

```
Start at: 2019-05-30 02:21:29
End at: 2019-05-30 02:21:59
Local clock offset: -59.785 ms
Remote clock offset: 0.457 ms

# Below is generated by plot.py at 2019-05-30 02:37:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.42 Mbit/s
95th percentile per-packet one-way delay: 87.152 ms
Loss rate: 27.47%
-- Flow 1:
Average throughput: 48.36 Mbit/s
95th percentile per-packet one-way delay: 86.482 ms
Loss rate: 10.19%
-- Flow 2:
Average throughput: 33.47 Mbit/s
95th percentile per-packet one-way delay: 88.534 ms
Loss rate: 9.10%
-- Flow 3:
Average throughput: 26.57 Mbit/s
95th percentile per-packet one-way delay: 87.118 ms
Loss rate: 71.77%
```

Run 5: Report of Verus — Data Link

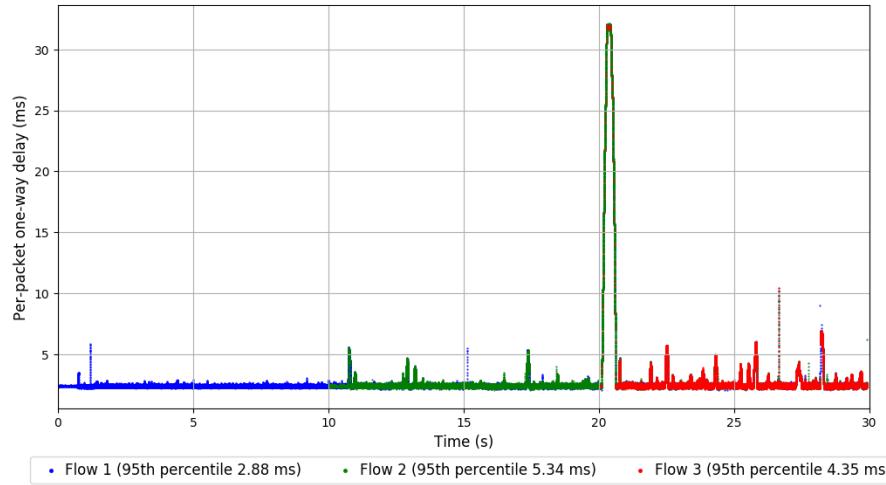
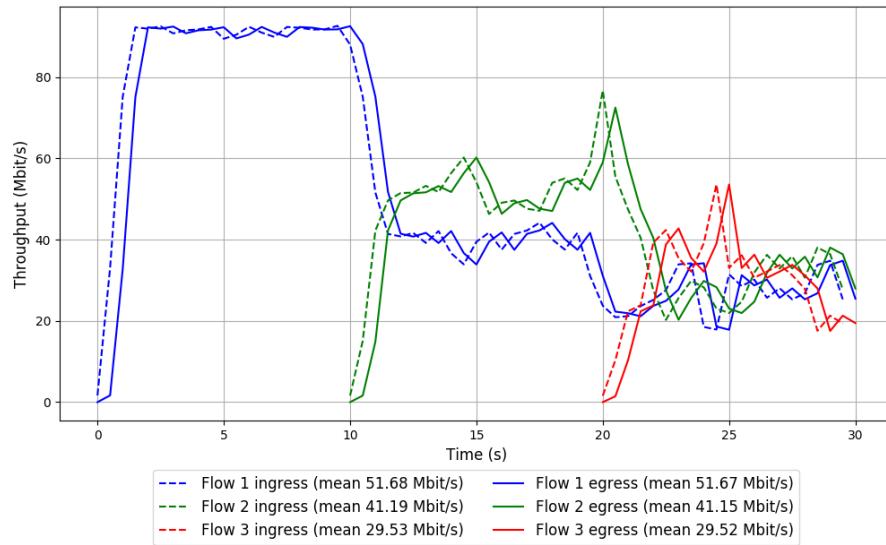


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-05-30 00:41:22
End at: 2019-05-30 00:41:52
Local clock offset: -4.676 ms
Remote clock offset: -0.589 ms

# Below is generated by plot.py at 2019-05-30 02:37:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.78 Mbit/s
95th percentile per-packet one-way delay: 3.653 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 51.67 Mbit/s
95th percentile per-packet one-way delay: 2.883 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 41.15 Mbit/s
95th percentile per-packet one-way delay: 5.340 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 4.346 ms
Loss rate: 0.01%
```

Run 1: Report of PCC-Vivace — Data Link

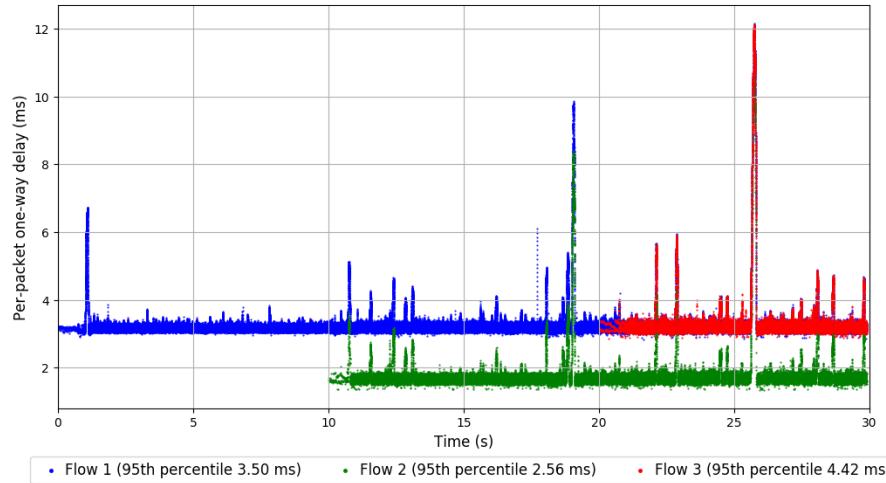
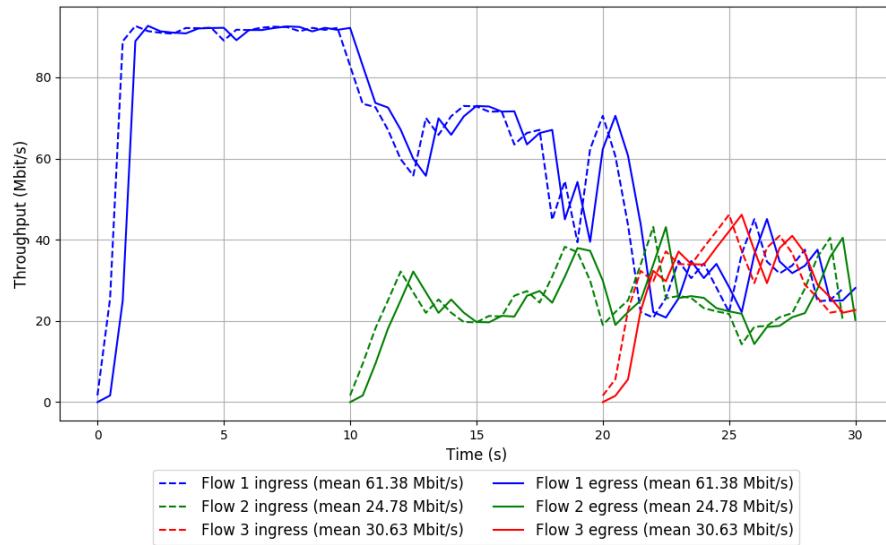


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-05-30 01:05:15
End at: 2019-05-30 01:05:45
Local clock offset: -5.86 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2019-05-30 02:37:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.98 Mbit/s
95th percentile per-packet one-way delay: 3.523 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.38 Mbit/s
95th percentile per-packet one-way delay: 3.496 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 2.563 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.63 Mbit/s
95th percentile per-packet one-way delay: 4.421 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Vivace — Data Link

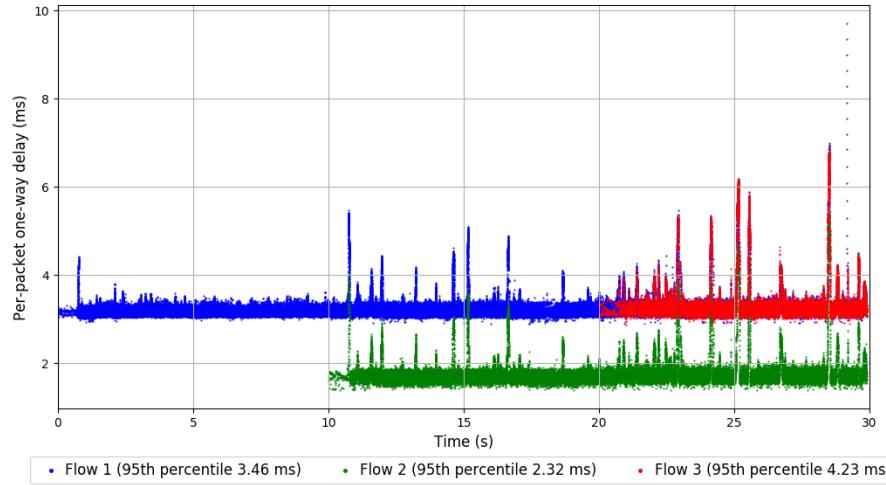
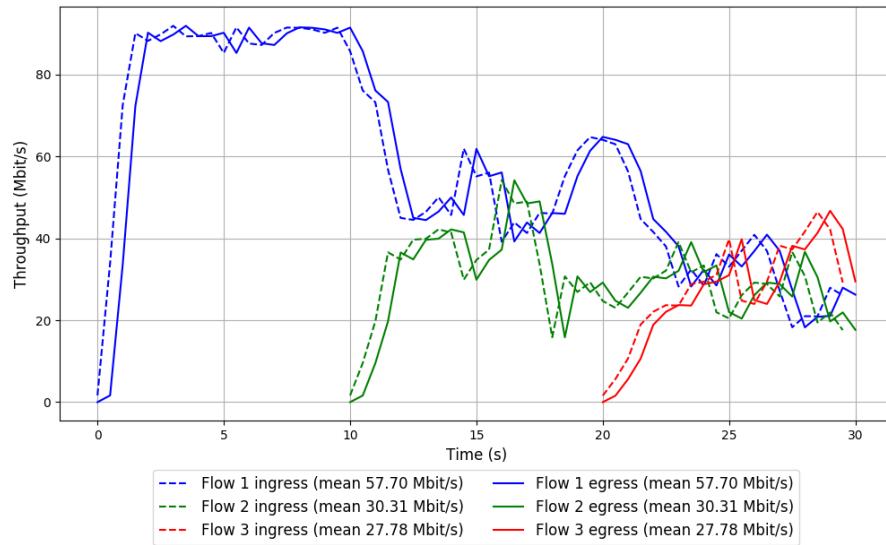


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-05-30 01:29:08
End at: 2019-05-30 01:29:38
Local clock offset: -4.044 ms
Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2019-05-30 02:37:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.03 Mbit/s
95th percentile per-packet one-way delay: 3.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.70 Mbit/s
95th percentile per-packet one-way delay: 3.461 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.31 Mbit/s
95th percentile per-packet one-way delay: 2.323 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.78 Mbit/s
95th percentile per-packet one-way delay: 4.226 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link

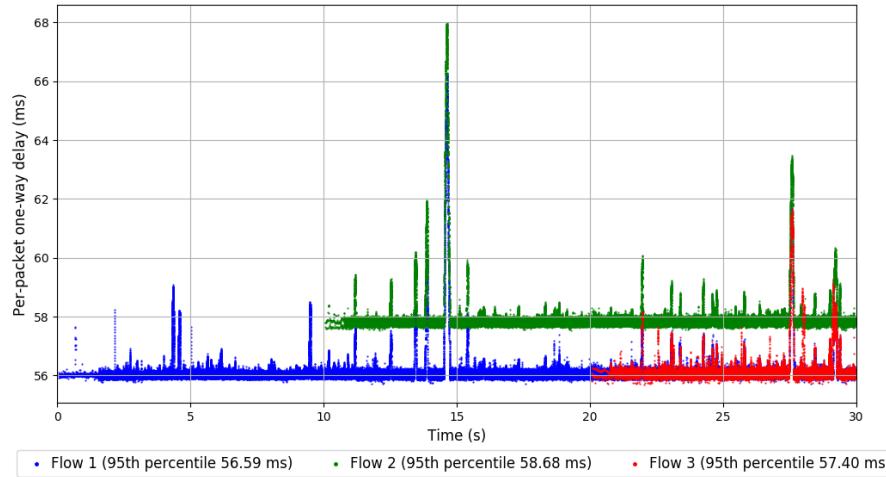
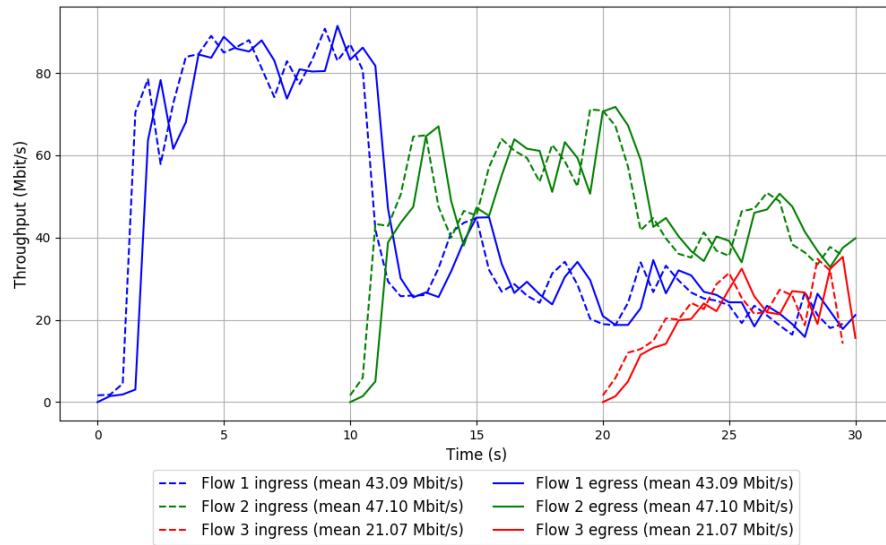


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-05-30 01:53:02
End at: 2019-05-30 01:53:32
Local clock offset: -58.32 ms
Remote clock offset: 0.332 ms

# Below is generated by plot.py at 2019-05-30 02:37:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.38 Mbit/s
95th percentile per-packet one-way delay: 58.064 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.09 Mbit/s
95th percentile per-packet one-way delay: 56.585 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.10 Mbit/s
95th percentile per-packet one-way delay: 58.683 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.07 Mbit/s
95th percentile per-packet one-way delay: 57.404 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Vivace — Data Link

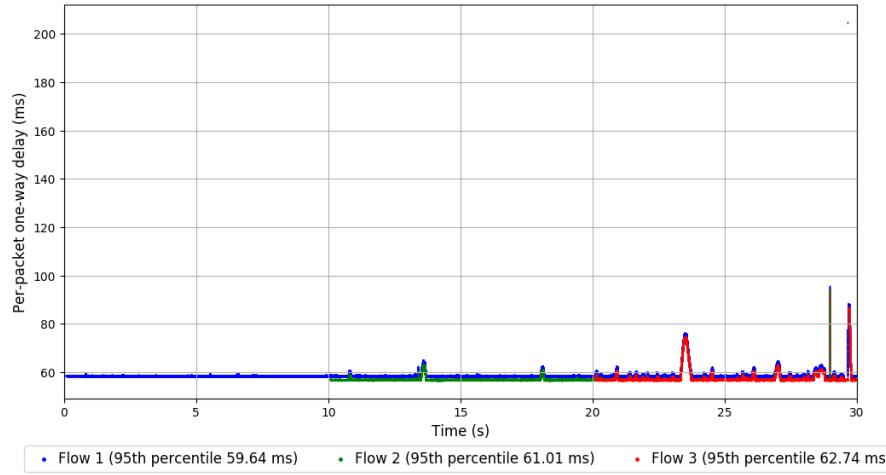
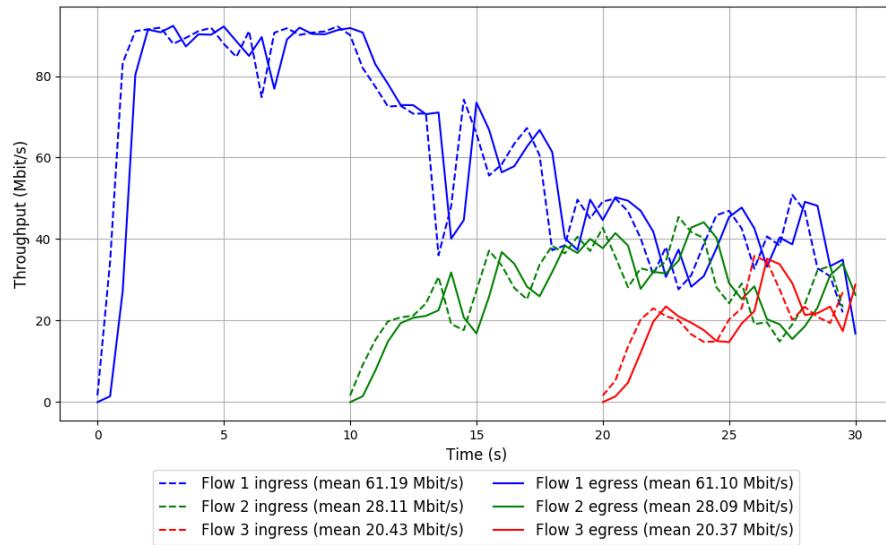


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-05-30 02:16:56
End at: 2019-05-30 02:17:26
Local clock offset: -59.737 ms
Remote clock offset: 0.384 ms

# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.52 Mbit/s
95th percentile per-packet one-way delay: 60.200 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 61.10 Mbit/s
95th percentile per-packet one-way delay: 59.640 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 28.09 Mbit/s
95th percentile per-packet one-way delay: 61.010 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 20.37 Mbit/s
95th percentile per-packet one-way delay: 62.740 ms
Loss rate: 0.30%
```

Run 5: Report of PCC-Vivace — Data Link

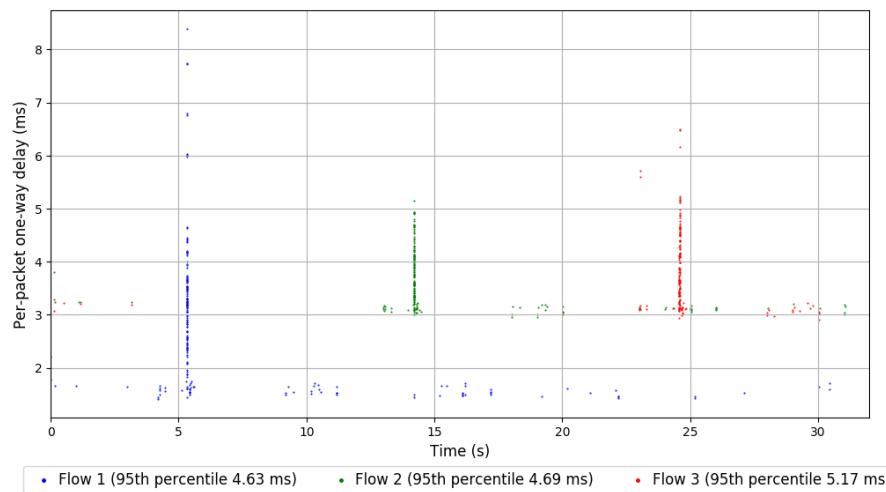
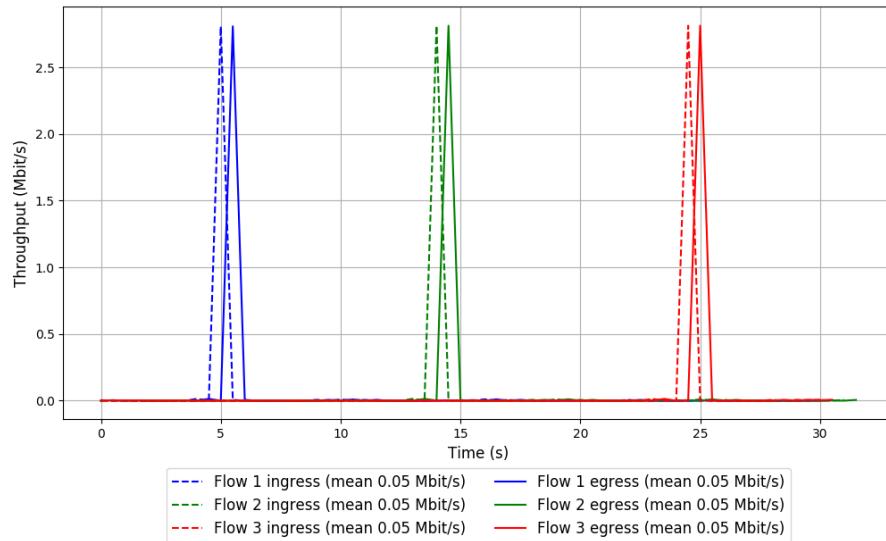


Run 1: Statistics of WebRTC media

```
Start at: 2019-05-30 00:43:42
End at: 2019-05-30 00:44:12
Local clock offset: -5.542 ms
Remote clock offset: -0.547 ms

# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.899 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.634 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.691 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.166 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

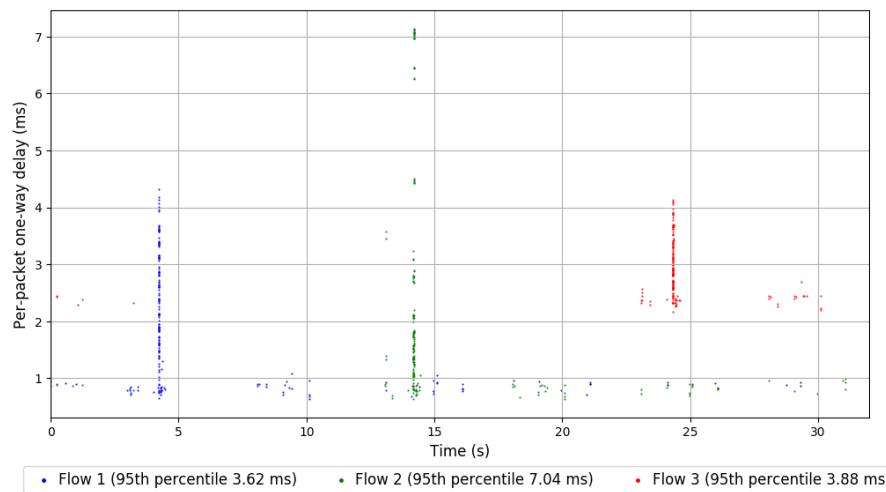
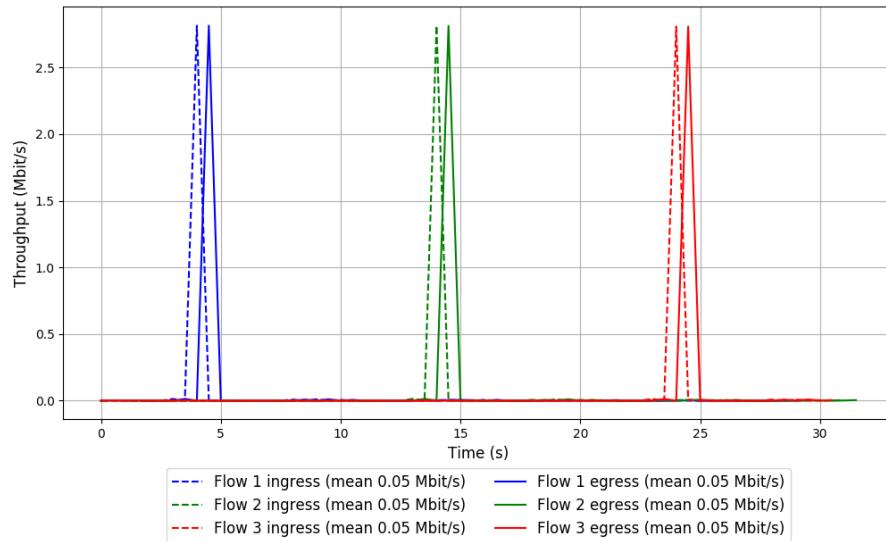


Run 2: Statistics of WebRTC media

```
Start at: 2019-05-30 01:07:34
End at: 2019-05-30 01:08:04
Local clock offset: -5.073 ms
Remote clock offset: -0.284 ms

# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.422 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.624 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.040 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.881 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

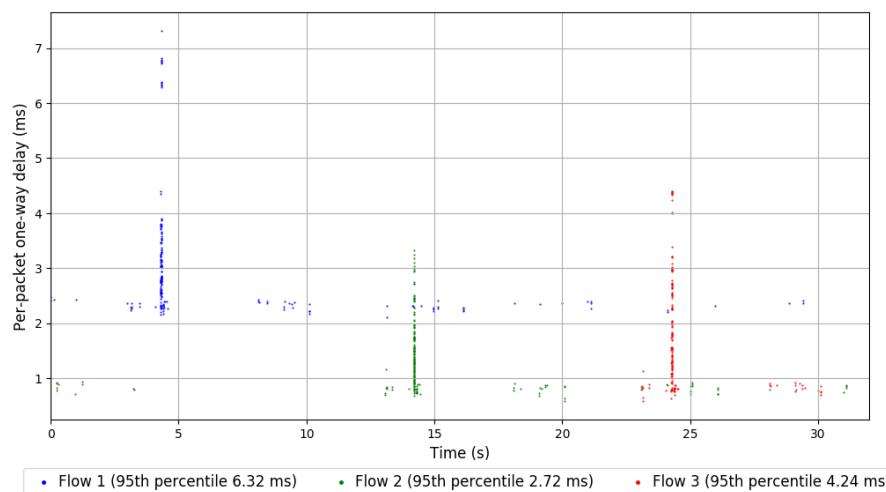
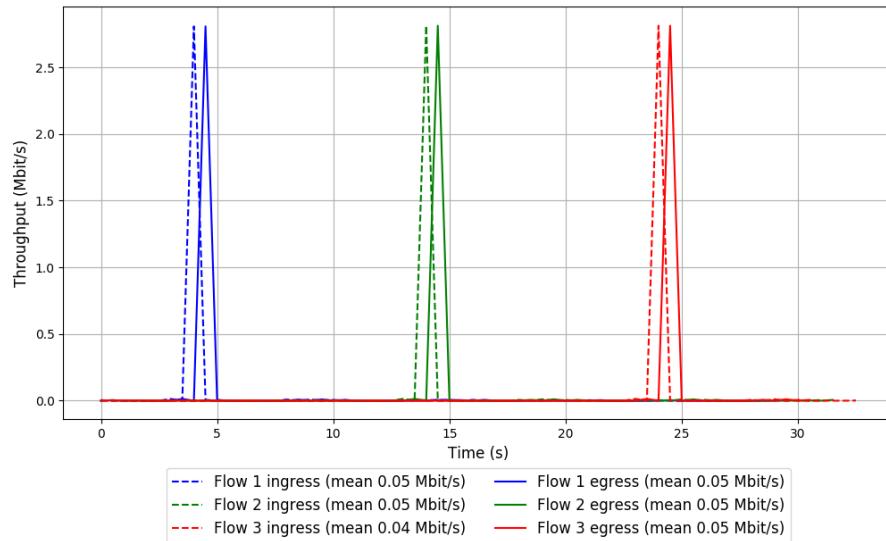


```
Run 3: Statistics of WebRTC media

Start at: 2019-05-30 01:31:27
End at: 2019-05-30 01:31:57
Local clock offset: -3.208 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.888 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.324 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.721 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.239 ms
Loss rate: 0.05%
```

Run 3: Report of WebRTC media — Data Link

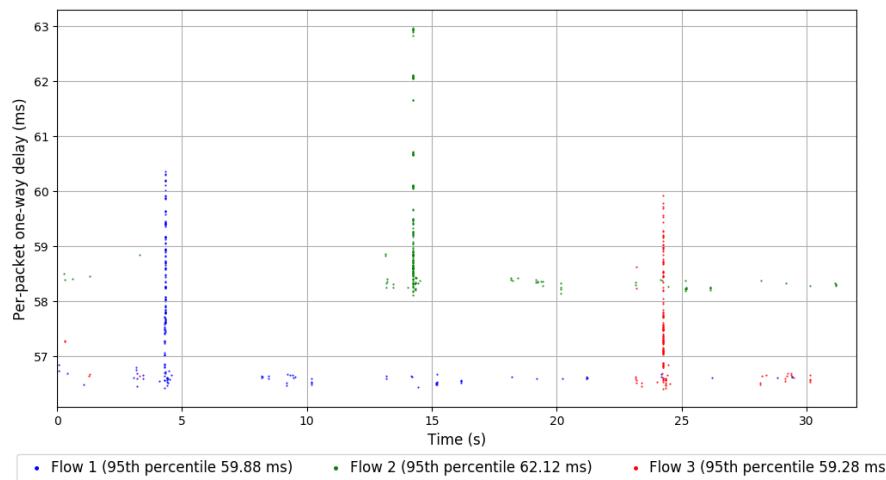
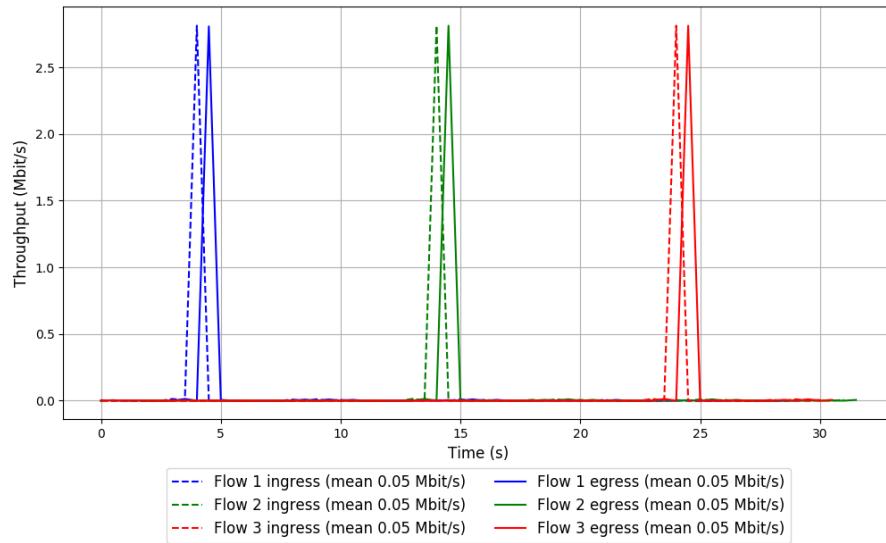


Run 4: Statistics of WebRTC media

```
Start at: 2019-05-30 01:55:21
End at: 2019-05-30 01:55:51
Local clock offset: -58.901 ms
Remote clock offset: 0.357 ms

# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.663 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.884 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 62.118 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.278 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-05-30 02:19:15
End at: 2019-05-30 02:19:45
Local clock offset: -59.757 ms
Remote clock offset: 0.468 ms

# Below is generated by plot.py at 2019-05-30 02:37:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.428 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.545 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.983 ms
Loss rate: 0.05%
```

Run 5: Report of WebRTC media — Data Link

