

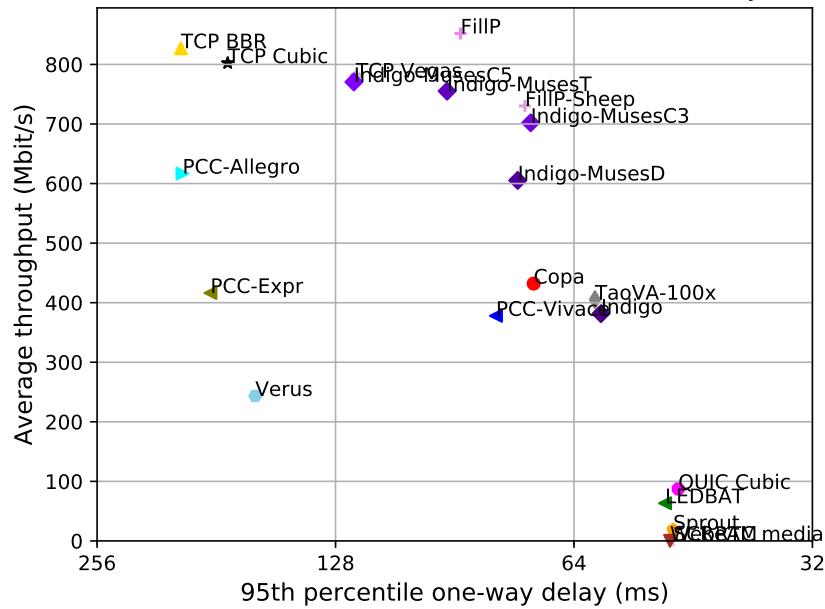
Pantheon Report

Generated at 2019-04-25 00:42:48 (UTC).
Data path: GCE Iowa on `ens4` (*remote*) → GCE London on `ens4` (*local*).
Repeated the test of 21 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

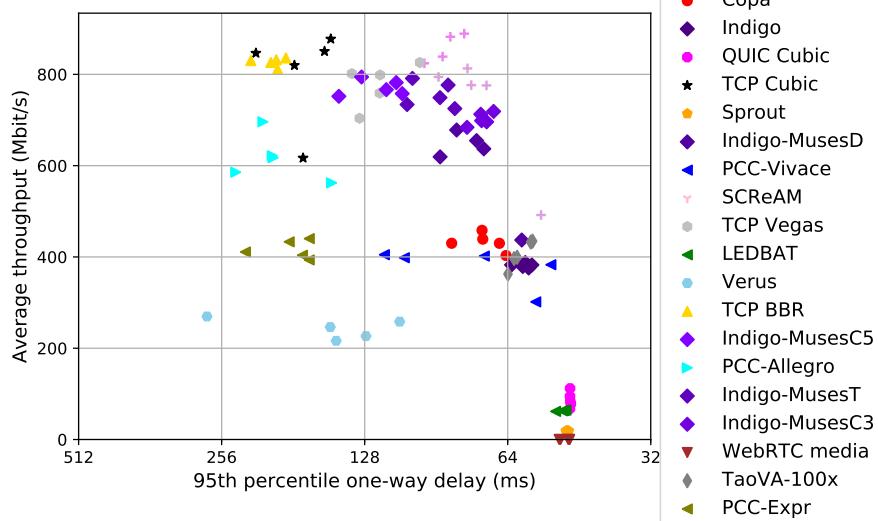
```
System info:  
Linux 4.15.0-1028-gcp  
net.core.default_qdisc = fq  
net.core.rmem_default = 16777216  
net.core.rmem_max = 536870912  
net.core.wmem_default = 16777216  
net.core.wmem_max = 536870912  
net.ipv4.tcp_rmem = 4096 16777216 536870912  
net.ipv4.tcp_wmem = 4096 16777216 536870912  
  
Git summary:  
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee  
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519  
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9  
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4  
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d  
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf  
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966  
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd  
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1  
M receiver/src/buffer.h  
M receiver/src/core.cpp  
M sender/src/buffer.h  
M sender/src/core.cpp  
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab  
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42  
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2  
M src/ScreamClient  
M src/ScreamServer  
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26  
M src/examples/cellsim.cc  
M src/examples/sproutbt2.cc  
M src/network/sproutconn.cc  
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494  
M src/verus.hpp  
M tools/plot.py
```

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

test from GCE Iowa to GCE London, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from GCE Iowa to GCE London, 5 runs of 30s each per scheme +
3 flows with 10s interval between flows



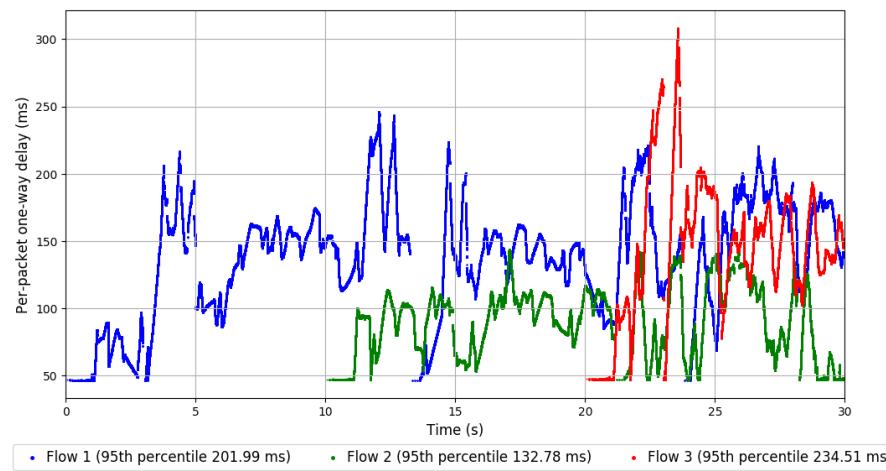
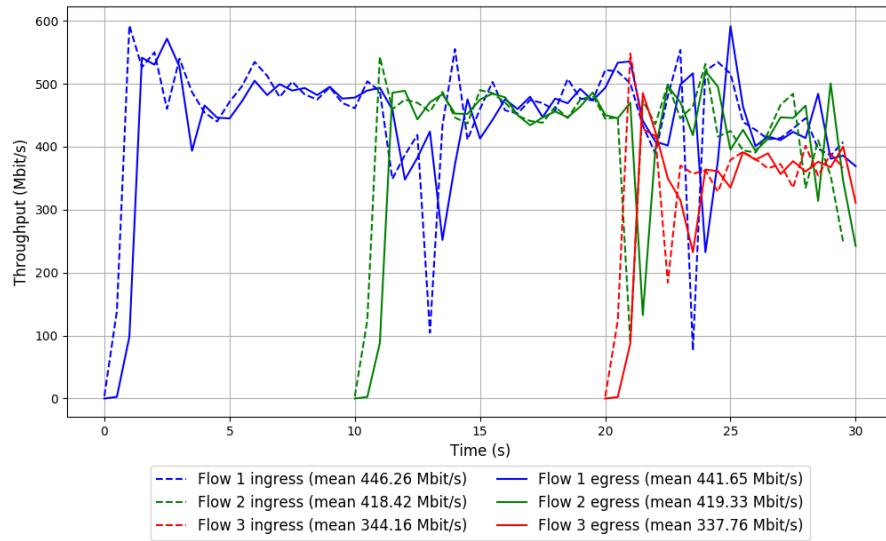
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	445.37	396.50	357.54	204.00	181.94	214.06	1.07	1.18	2.61
Copa	5	219.51	221.21	198.30	71.57	71.34	78.26	0.34	0.48	0.98
TCP Cubic	5	415.09	409.90	346.86	133.39	172.80	183.19	0.40	0.77	2.30
FillP	5	528.70	361.38	252.67	102.24	57.33	52.12	0.99	0.36	1.08
FillP-Sheep	5	430.56	323.18	258.37	79.81	52.67	53.03	0.42	0.42	1.04
Indigo	5	201.99	187.08	169.04	60.75	57.50	57.60	0.34	0.49	1.04
Indigo-MusesC3	5	421.25	342.18	233.22	70.40	81.15	53.43	0.23	0.43	2.01
Indigo-MusesC5	5	471.87	398.38	158.33	109.93	130.80	71.72	0.34	0.54	1.62
Indigo-MusesD	5	325.07	328.29	257.11	77.15	73.13	53.36	0.25	0.36	1.65
Indigo-MusesT	5	450.44	389.47	199.66	95.34	84.61	55.11	0.26	0.50	1.60
LEDBAT	5	40.45	27.61	13.74	49.34	48.40	47.85	0.63	0.95	1.91
PCC-Allegro	5	338.35	299.04	244.33	208.36	142.92	183.04	6.97	5.07	2.61
PCC-Expr	5	241.53	192.64	142.90	182.71	159.51	115.32	4.12	6.95	1.72
QUIC Cubic	5	56.27	29.35	34.43	47.28	46.99	46.96	0.34	1.18	0.80
SCReAM	5	0.22	0.22	0.22	47.89	47.47	47.23	0.28	0.57	1.02
Sprout	5	9.63	9.45	9.23	47.94	47.87	47.76	0.33	0.50	1.12
TaoVA-100x	5	218.45	192.90	176.90	57.83	61.88	64.98	0.32	0.38	1.29
TCP Vegas	5	418.40	354.75	373.85	116.07	100.38	98.93	0.33	0.52	1.26
Verus	5	137.23	114.38	92.11	128.61	162.45	91.81	0.76	4.38	1.49
PCC-Vivace	5	223.28	187.03	92.96	89.46	64.62	63.77	0.87	0.47	1.34
WebRTC media	5	0.05	0.05	0.05	47.80	47.32	47.90	0.01	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-04-24 19:26:50
End at: 2019-04-24 19:27:20
Local clock offset: 0.062 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2019-04-24 22:23:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 832.05 Mbit/s
95th percentile per-packet one-way delay: 196.420 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 441.65 Mbit/s
95th percentile per-packet one-way delay: 201.993 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 419.33 Mbit/s
95th percentile per-packet one-way delay: 132.777 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 337.76 Mbit/s
95th percentile per-packet one-way delay: 234.509 ms
Loss rate: 2.81%
```

Run 1: Report of TCP BBR — Data Link

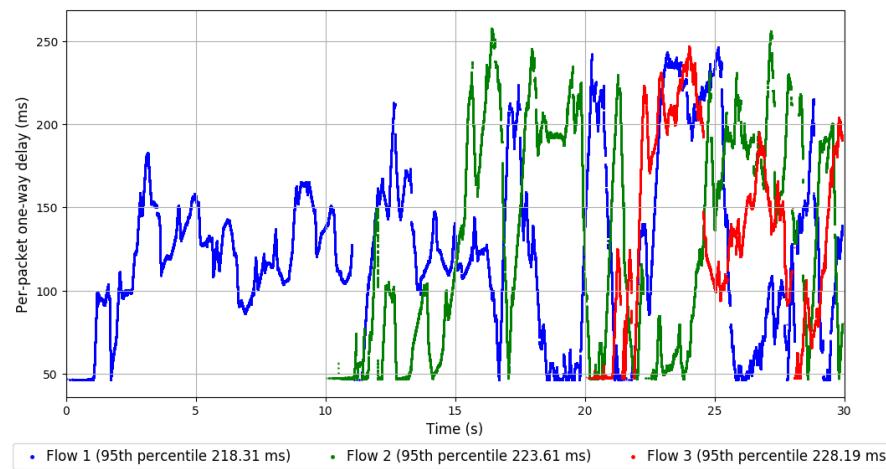
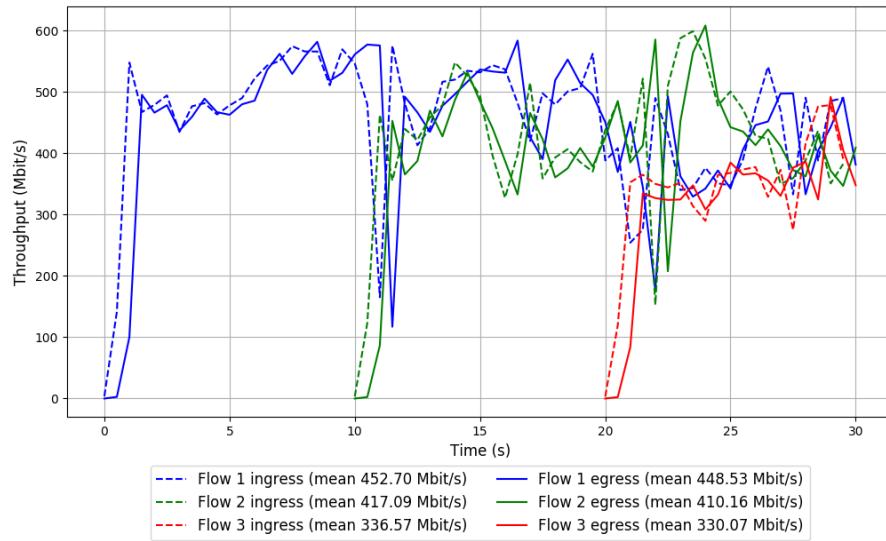


Run 2: Statistics of TCP BBR

```
Start at: 2019-04-24 20:01:25
End at: 2019-04-24 20:01:55
Local clock offset: -0.061 ms
Remote clock offset: -0.193 ms

# Below is generated by plot.py at 2019-04-24 22:23:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 830.33 Mbit/s
95th percentile per-packet one-way delay: 222.233 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 448.53 Mbit/s
95th percentile per-packet one-way delay: 218.315 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 410.16 Mbit/s
95th percentile per-packet one-way delay: 223.614 ms
Loss rate: 2.13%
-- Flow 3:
Average throughput: 330.07 Mbit/s
95th percentile per-packet one-way delay: 228.192 ms
Loss rate: 2.87%
```

Run 2: Report of TCP BBR — Data Link

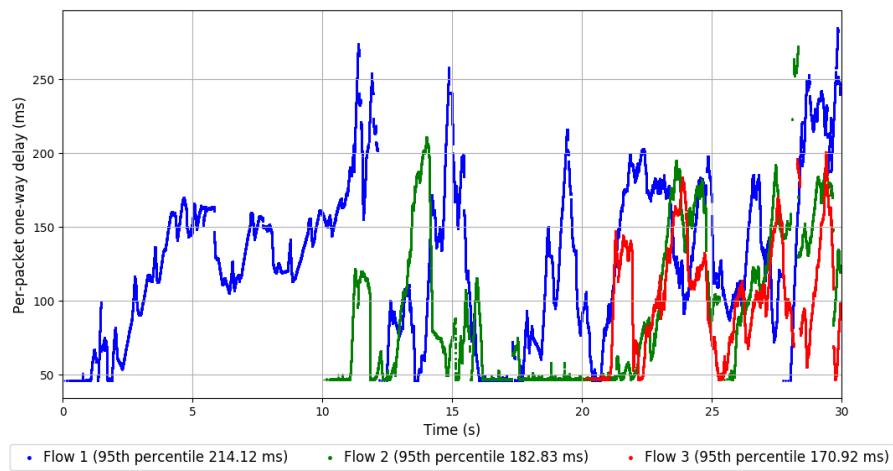
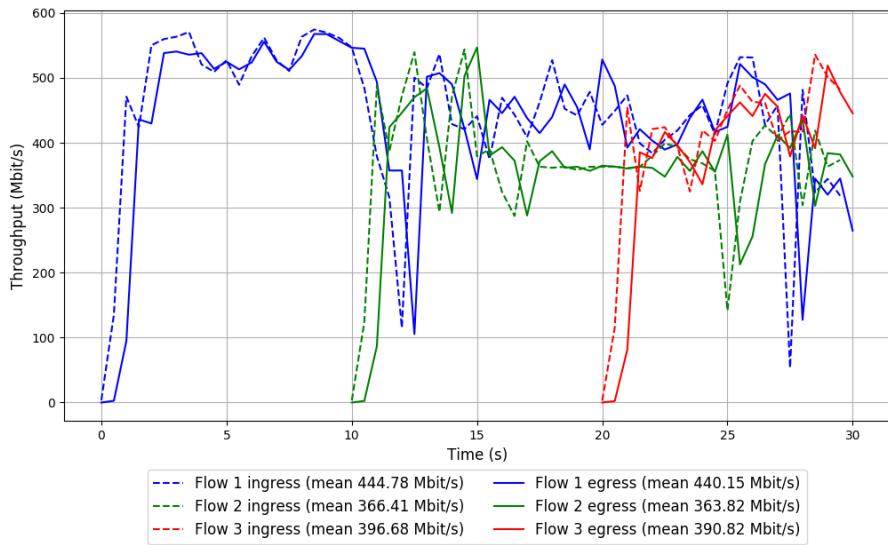


Run 3: Statistics of TCP BBR

```
Start at: 2019-04-24 20:36:03
End at: 2019-04-24 20:36:33
Local clock offset: -0.39 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2019-04-24 22:23:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 811.16 Mbit/s
95th percentile per-packet one-way delay: 195.157 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 440.15 Mbit/s
95th percentile per-packet one-way delay: 214.120 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 363.82 Mbit/s
95th percentile per-packet one-way delay: 182.828 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 390.82 Mbit/s
95th percentile per-packet one-way delay: 170.919 ms
Loss rate: 2.41%
```

Run 3: Report of TCP BBR — Data Link

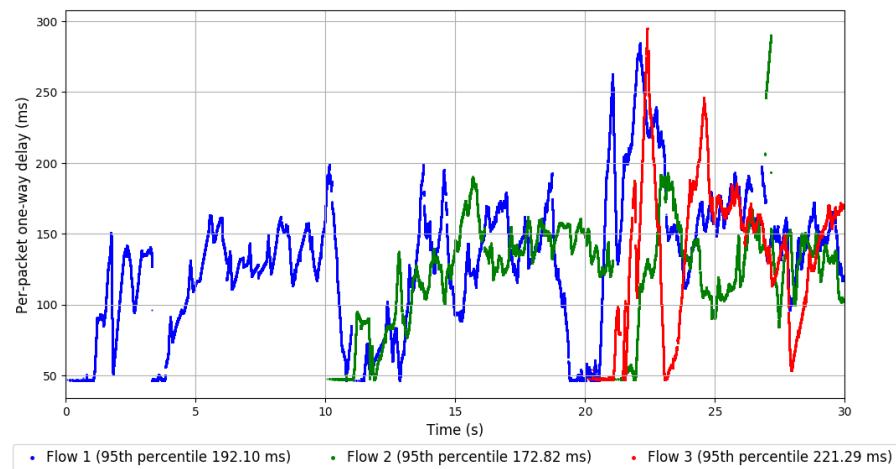
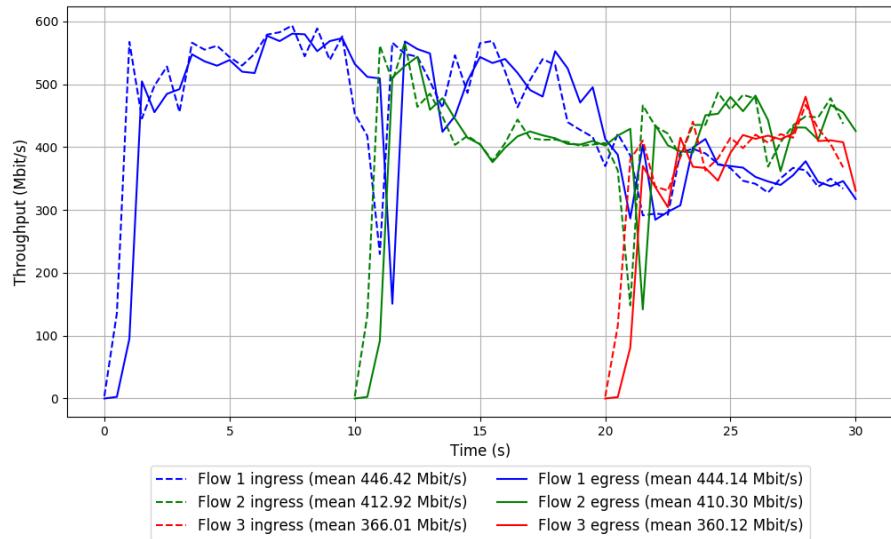


Run 4: Statistics of TCP BBR

```
Start at: 2019-04-24 21:10:35
End at: 2019-04-24 21:11:05
Local clock offset: 0.034 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-04-24 22:23:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 835.90 Mbit/s
95th percentile per-packet one-way delay: 187.569 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 444.14 Mbit/s
95th percentile per-packet one-way delay: 192.101 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 410.30 Mbit/s
95th percentile per-packet one-way delay: 172.816 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 360.12 Mbit/s
95th percentile per-packet one-way delay: 221.286 ms
Loss rate: 2.54%
```

Run 4: Report of TCP BBR — Data Link

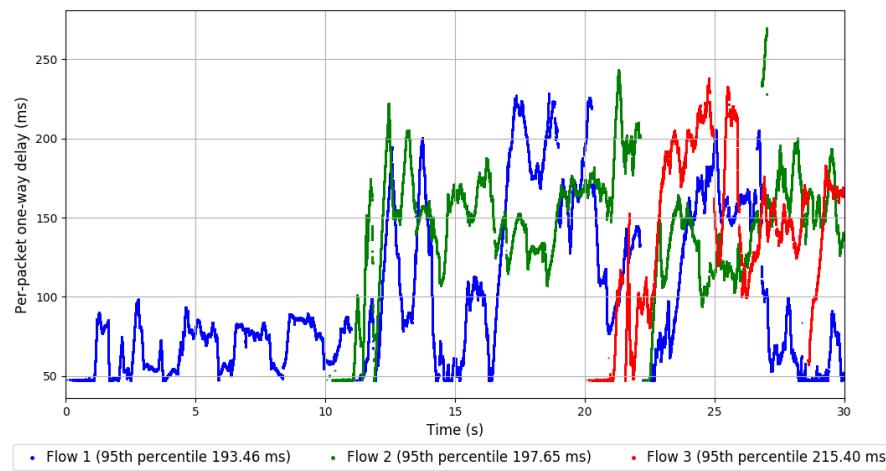
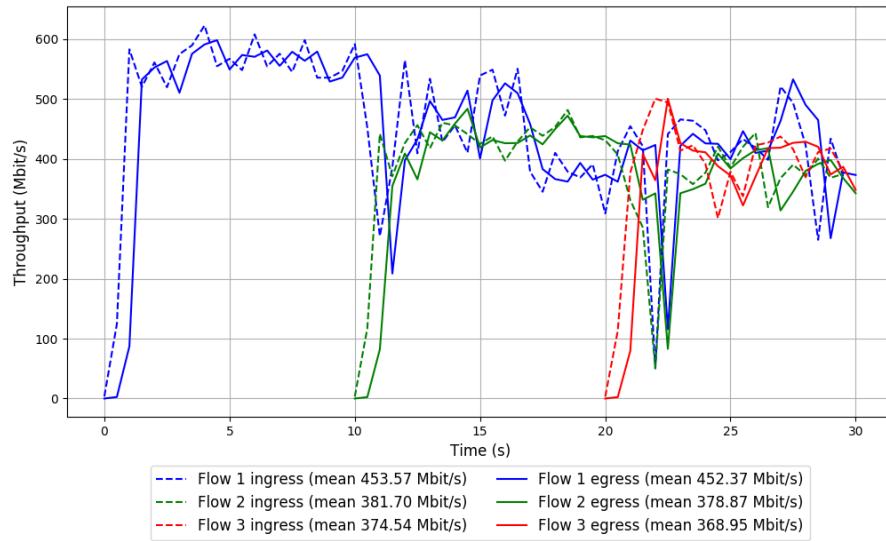


Run 5: Statistics of TCP BBR

```
Start at: 2019-04-24 21:44:56
End at: 2019-04-24 21:45:26
Local clock offset: 0.054 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2019-04-24 22:23:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 826.18 Mbit/s
95th percentile per-packet one-way delay: 201.724 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 452.37 Mbit/s
95th percentile per-packet one-way delay: 193.461 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 378.87 Mbit/s
95th percentile per-packet one-way delay: 197.645 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 368.95 Mbit/s
95th percentile per-packet one-way delay: 215.401 ms
Loss rate: 2.44%
```

Run 5: Report of TCP BBR — Data Link

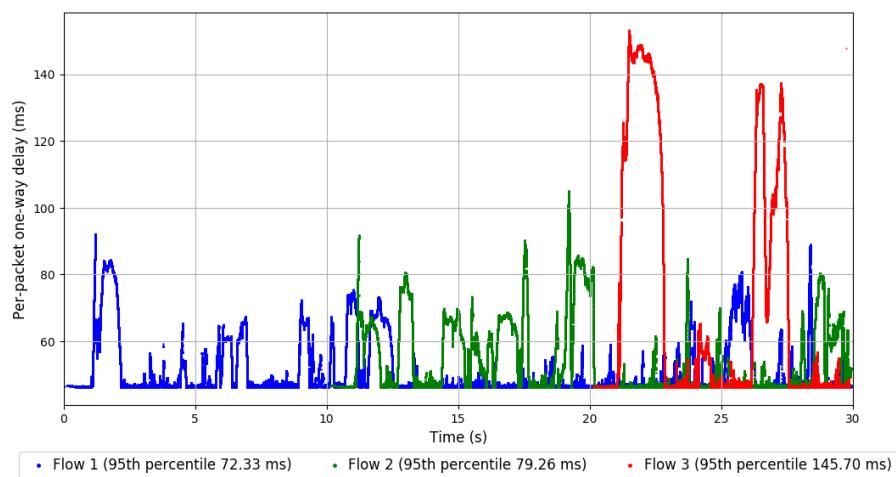
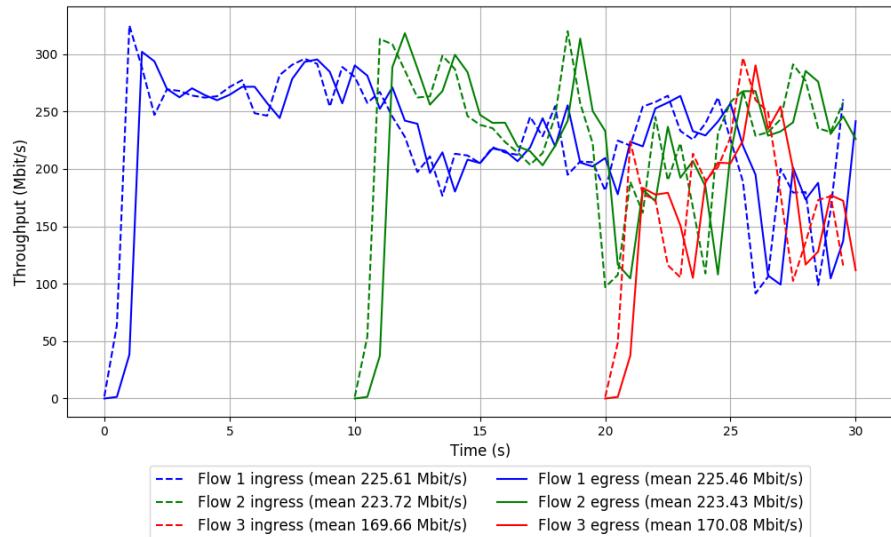


Run 1: Statistics of Copa

```
Start at: 2019-04-24 19:01:03
End at: 2019-04-24 19:01:33
Local clock offset: 0.016 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2019-04-24 22:23:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.97 Mbit/s
95th percentile per-packet one-way delay: 83.967 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 225.46 Mbit/s
95th percentile per-packet one-way delay: 72.329 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 223.43 Mbit/s
95th percentile per-packet one-way delay: 79.257 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 170.08 Mbit/s
95th percentile per-packet one-way delay: 145.701 ms
Loss rate: 0.70%
```

Run 1: Report of Copa — Data Link

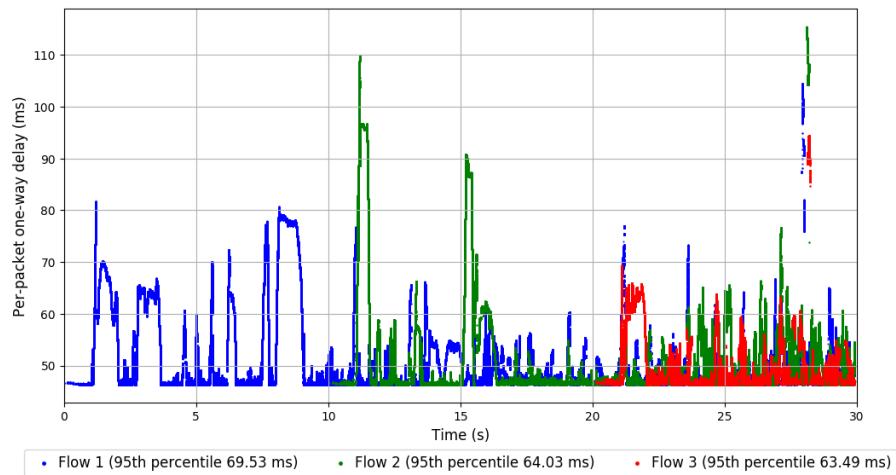
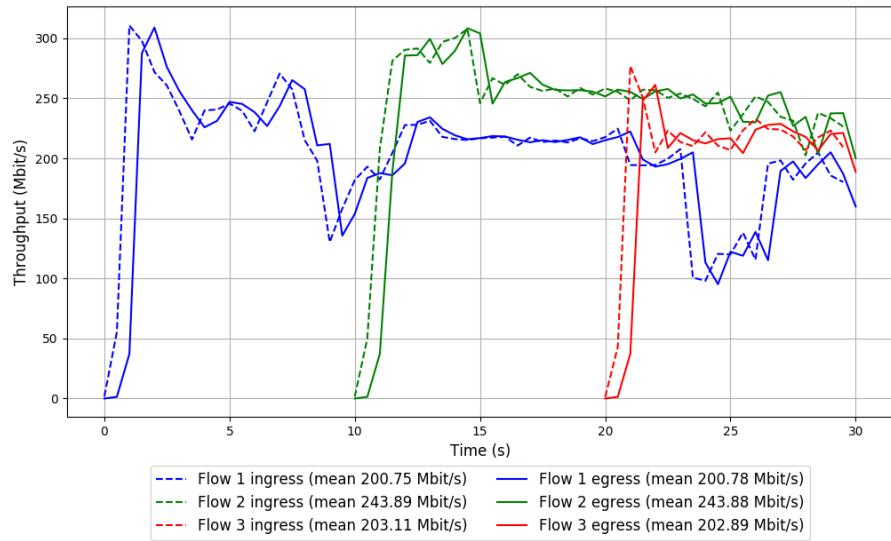


Run 2: Statistics of Copa

```
Start at: 2019-04-24 19:35:48
End at: 2019-04-24 19:36:18
Local clock offset: 0.008 ms
Remote clock offset: -0.155 ms

# Below is generated by plot.py at 2019-04-24 22:23:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.88 Mbit/s
95th percentile per-packet one-way delay: 66.631 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 200.78 Mbit/s
95th percentile per-packet one-way delay: 69.527 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 243.88 Mbit/s
95th percentile per-packet one-way delay: 64.032 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 202.89 Mbit/s
95th percentile per-packet one-way delay: 63.491 ms
Loss rate: 1.05%
```

Run 2: Report of Copa — Data Link

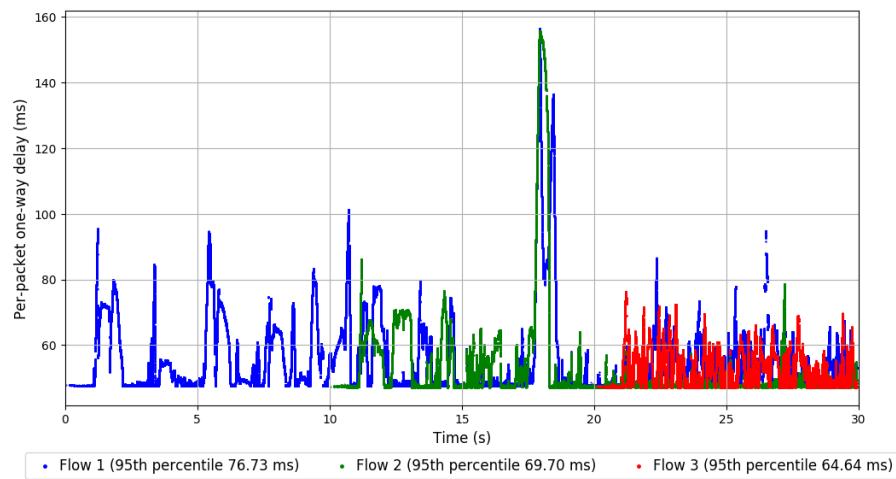
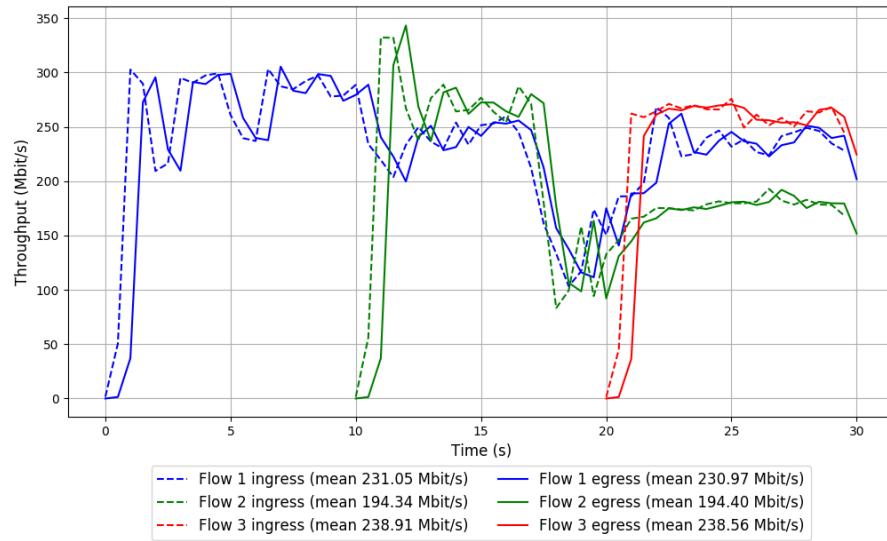


Run 3: Statistics of Copa

```
Start at: 2019-04-24 20:10:27
End at: 2019-04-24 20:10:57
Local clock offset: -0.082 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2019-04-24 22:23:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 439.03 Mbit/s
95th percentile per-packet one-way delay: 72.225 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 230.97 Mbit/s
95th percentile per-packet one-way delay: 76.734 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 194.40 Mbit/s
95th percentile per-packet one-way delay: 69.700 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 238.56 Mbit/s
95th percentile per-packet one-way delay: 64.635 ms
Loss rate: 1.10%
```

Run 3: Report of Copa — Data Link

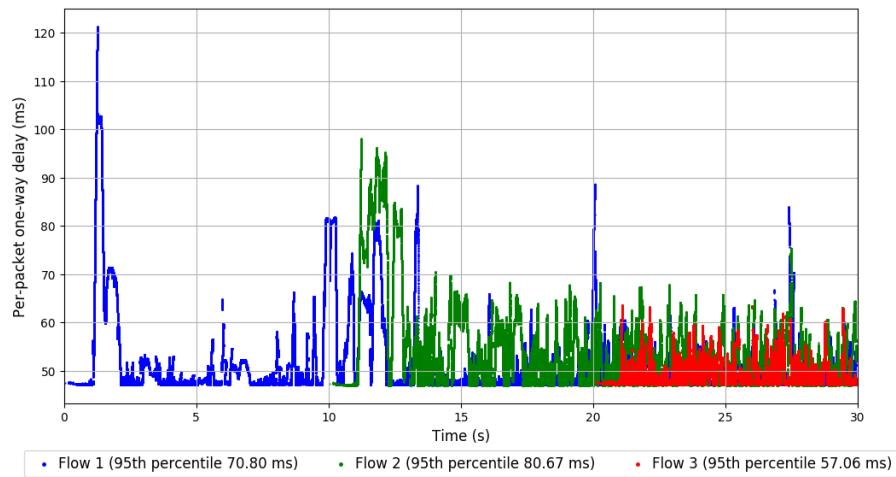
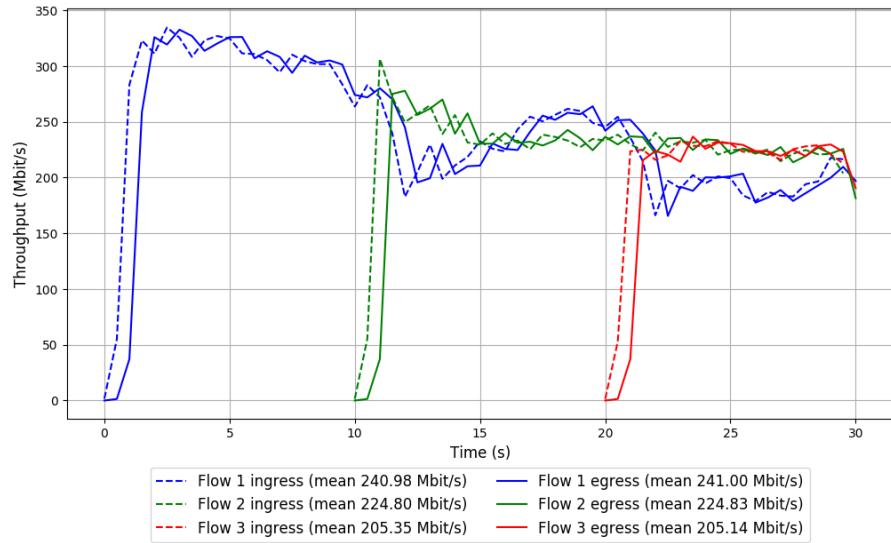


Run 4: Statistics of Copa

```
Start at: 2019-04-24 20:44:59
End at: 2019-04-24 20:45:29
Local clock offset: 0.031 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2019-04-24 22:39:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 458.29 Mbit/s
95th percentile per-packet one-way delay: 72.480 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 241.00 Mbit/s
95th percentile per-packet one-way delay: 70.798 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 224.83 Mbit/s
95th percentile per-packet one-way delay: 80.666 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 205.14 Mbit/s
95th percentile per-packet one-way delay: 57.058 ms
Loss rate: 1.04%
```

Run 4: Report of Copa — Data Link

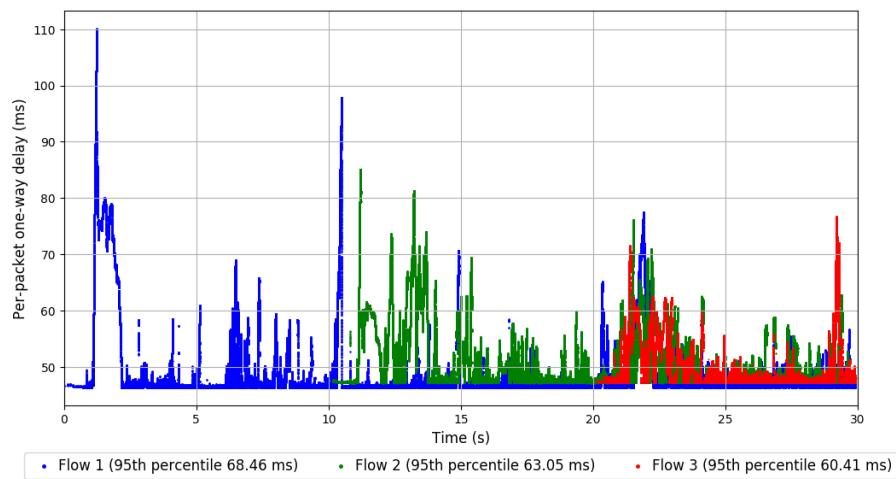
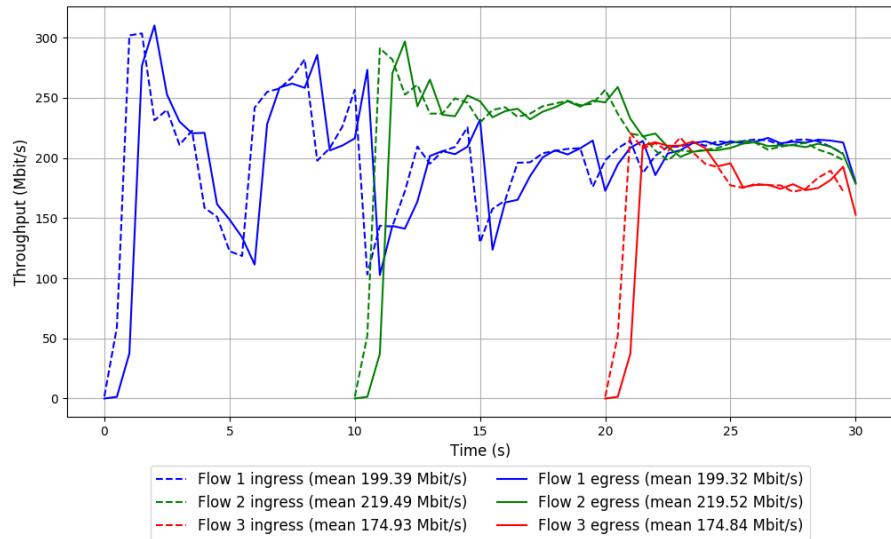


Run 5: Statistics of Copa

```
Start at: 2019-04-24 21:19:31
End at: 2019-04-24 21:20:01
Local clock offset: 0.025 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-04-24 22:39:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 403.05 Mbit/s
95th percentile per-packet one-way delay: 64.521 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 199.32 Mbit/s
95th percentile per-packet one-way delay: 68.462 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 219.52 Mbit/s
95th percentile per-packet one-way delay: 63.051 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 174.84 Mbit/s
95th percentile per-packet one-way delay: 60.408 ms
Loss rate: 0.99%
```

Run 5: Report of Copa — Data Link

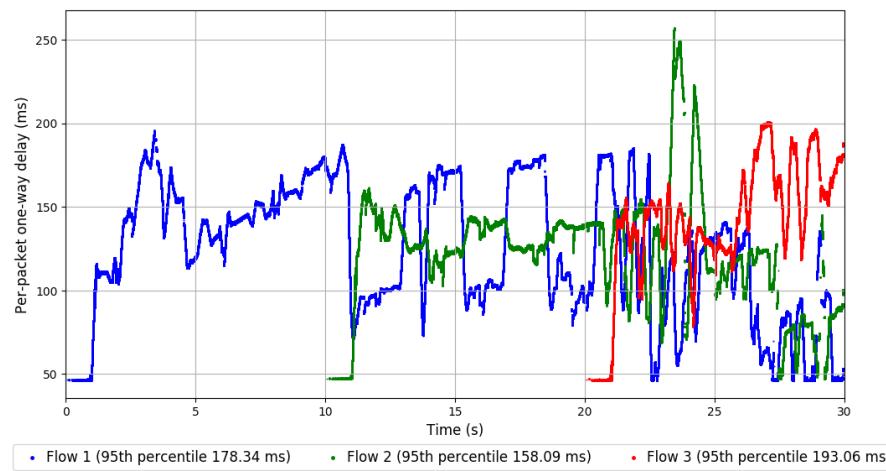
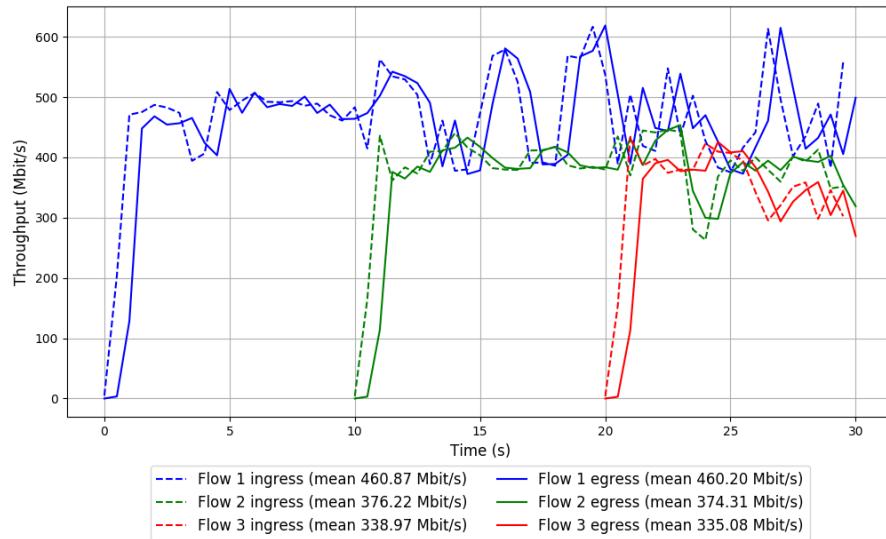


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-04-24 19:15:22
End at: 2019-04-24 19:15:52
Local clock offset: 0.049 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2019-04-24 22:39:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 819.81 Mbit/s
95th percentile per-packet one-way delay: 179.910 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 460.20 Mbit/s
95th percentile per-packet one-way delay: 178.339 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 374.31 Mbit/s
95th percentile per-packet one-way delay: 158.092 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 335.08 Mbit/s
95th percentile per-packet one-way delay: 193.062 ms
Loss rate: 2.09%
```

Run 1: Report of TCP Cubic — Data Link

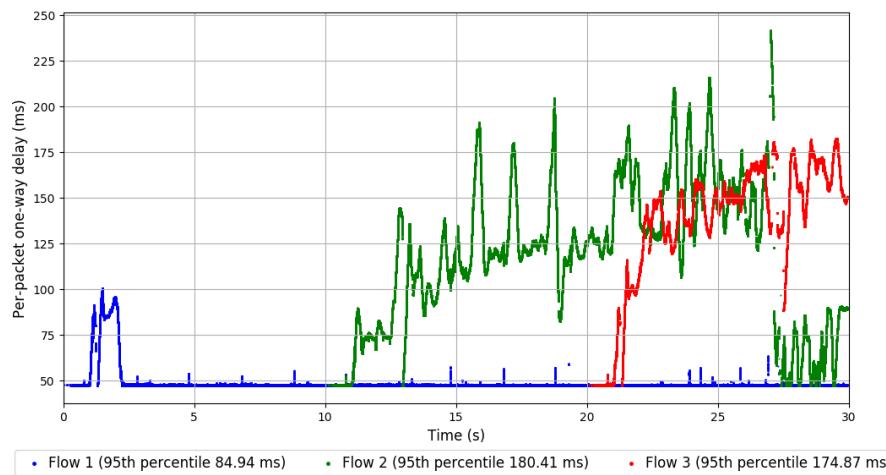
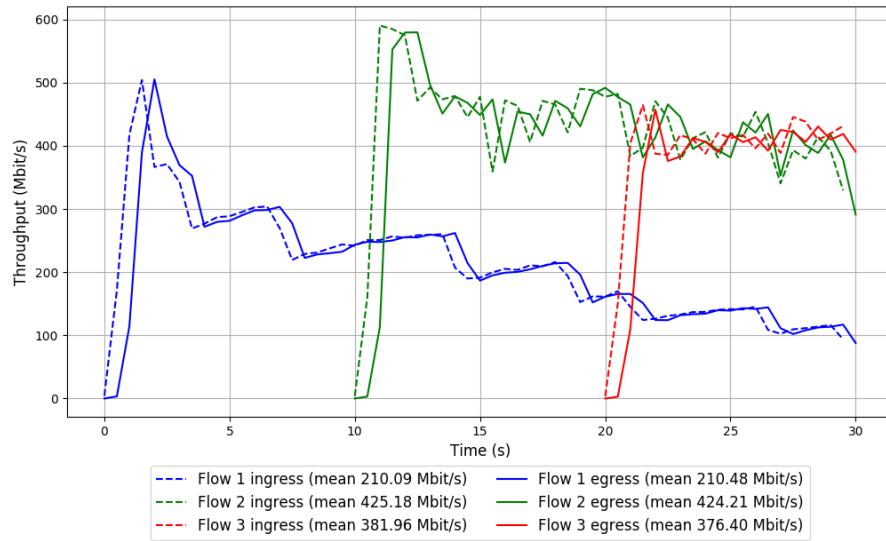


Run 2: Statistics of TCP Cubic

```
Start at: 2019-04-24 19:50:03
End at: 2019-04-24 19:50:33
Local clock offset: -0.05 ms
Remote clock offset: -0.173 ms

# Below is generated by plot.py at 2019-04-24 22:39:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.83 Mbit/s
95th percentile per-packet one-way delay: 172.539 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 210.48 Mbit/s
95th percentile per-packet one-way delay: 84.936 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 424.21 Mbit/s
95th percentile per-packet one-way delay: 180.412 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 376.40 Mbit/s
95th percentile per-packet one-way delay: 174.873 ms
Loss rate: 2.39%
```

Run 2: Report of TCP Cubic — Data Link

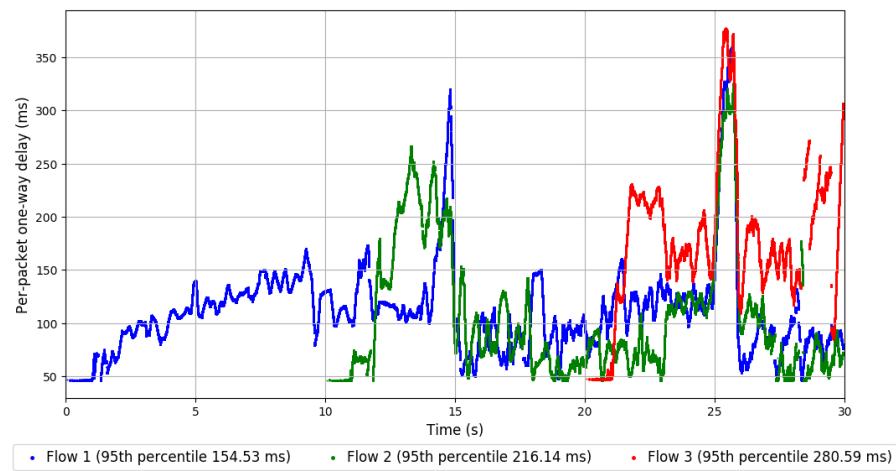
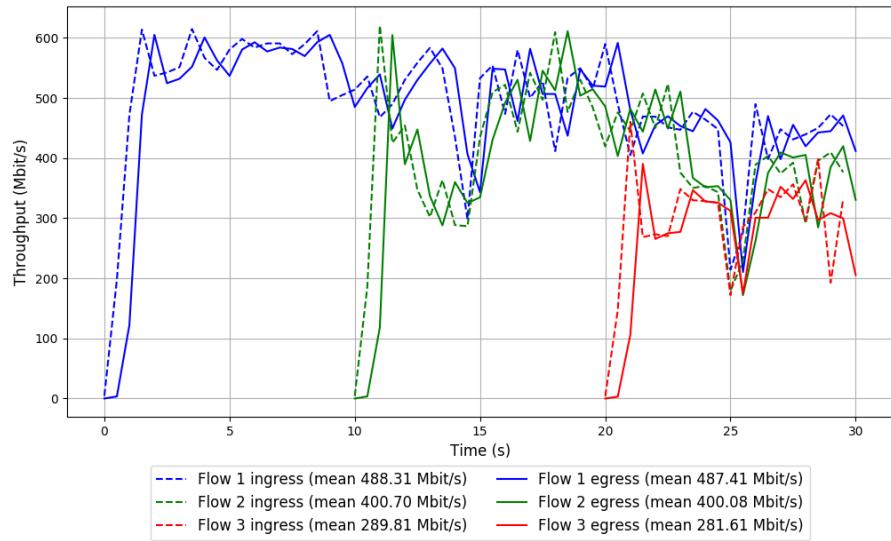


Run 3: Statistics of TCP Cubic

```
Start at: 2019-04-24 20:24:37
End at: 2019-04-24 20:25:07
Local clock offset: -0.003 ms
Remote clock offset: 0.021 ms

# Below is generated by plot.py at 2019-04-24 22:39:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 846.61 Mbit/s
95th percentile per-packet one-way delay: 216.866 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 487.41 Mbit/s
95th percentile per-packet one-way delay: 154.533 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 400.08 Mbit/s
95th percentile per-packet one-way delay: 216.144 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 281.61 Mbit/s
95th percentile per-packet one-way delay: 280.588 ms
Loss rate: 3.76%
```

Run 3: Report of TCP Cubic — Data Link

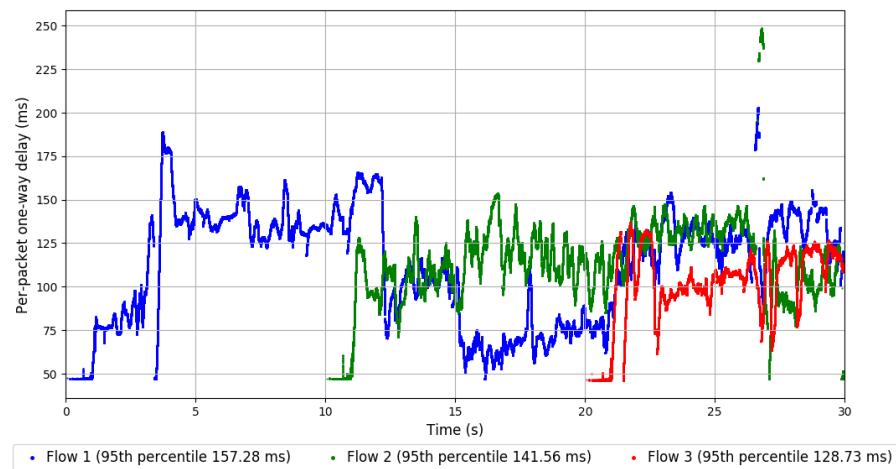
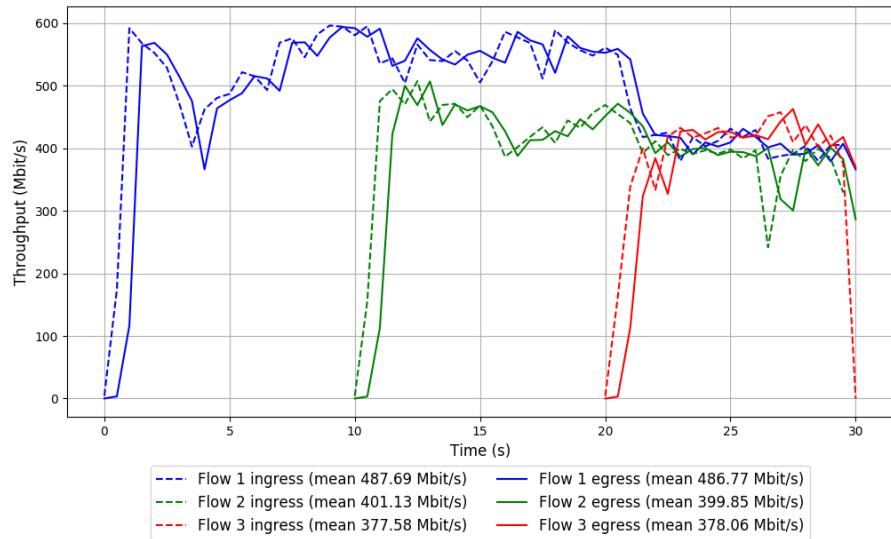


Run 4: Statistics of TCP Cubic

```
Start at: 2019-04-24 20:59:08
End at: 2019-04-24 20:59:38
Local clock offset: 0.006 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2019-04-24 22:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 877.56 Mbit/s
95th percentile per-packet one-way delay: 150.870 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 486.77 Mbit/s
95th percentile per-packet one-way delay: 157.279 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 399.85 Mbit/s
95th percentile per-packet one-way delay: 141.563 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 378.06 Mbit/s
95th percentile per-packet one-way delay: 128.734 ms
Loss rate: 1.41%
```

Run 4: Report of TCP Cubic — Data Link

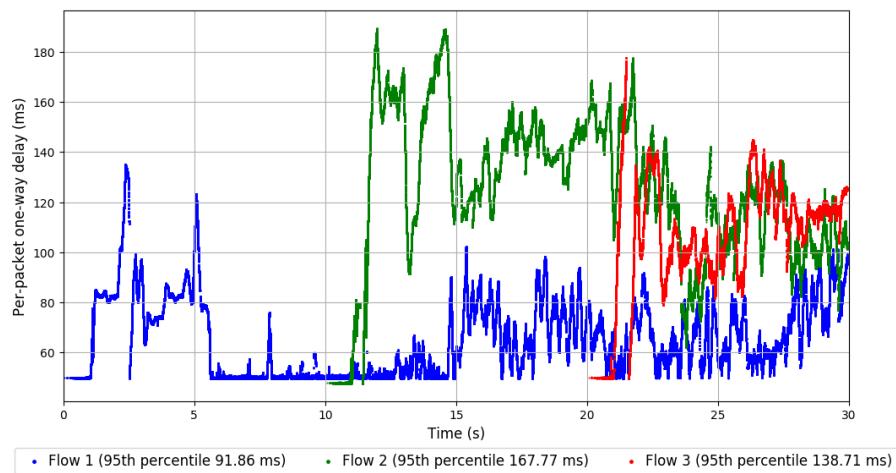
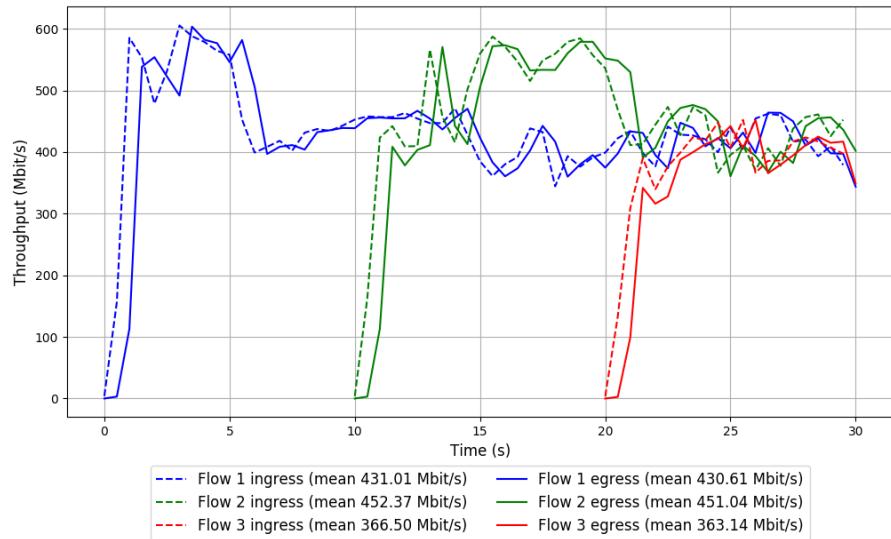


Run 5: Statistics of TCP Cubic

```
Start at: 2019-04-24 21:33:27
End at: 2019-04-24 21:33:57
Local clock offset: 0.4 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2019-04-24 22:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 850.50 Mbit/s
95th percentile per-packet one-way delay: 155.492 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 430.61 Mbit/s
95th percentile per-packet one-way delay: 91.862 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 451.04 Mbit/s
95th percentile per-packet one-way delay: 167.771 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 363.14 Mbit/s
95th percentile per-packet one-way delay: 138.705 ms
Loss rate: 1.87%
```

Run 5: Report of TCP Cubic — Data Link

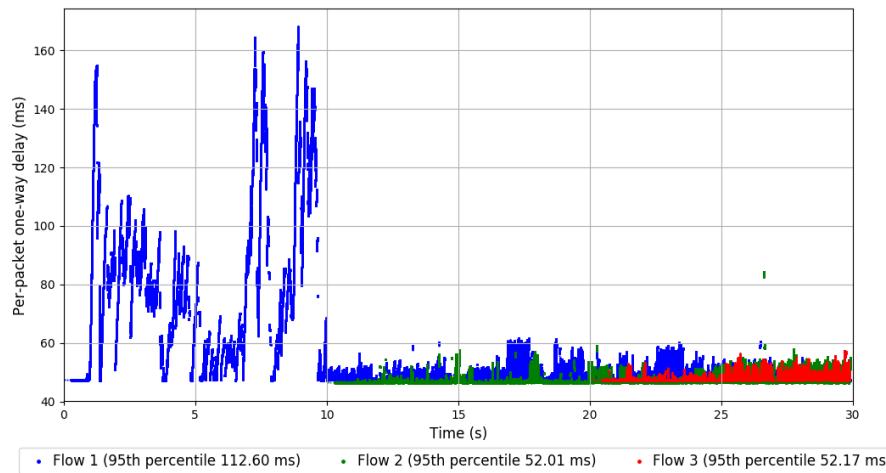
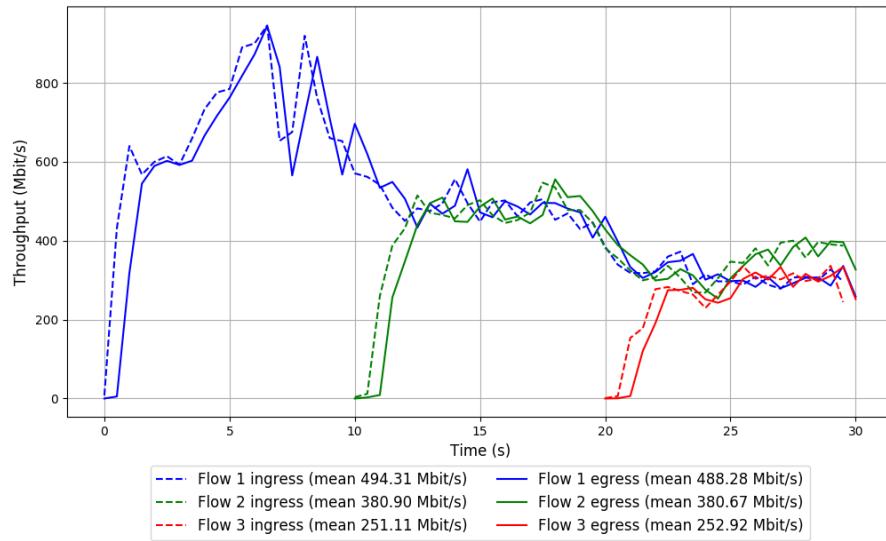


```
Run 1: Statistics of FillP
```

```
Start at: 2019-04-24 19:17:14
End at: 2019-04-24 19:17:44
Local clock offset: 0.077 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-04-24 22:42:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 824.23 Mbit/s
95th percentile per-packet one-way delay: 95.854 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 488.28 Mbit/s
95th percentile per-packet one-way delay: 112.603 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 380.67 Mbit/s
95th percentile per-packet one-way delay: 52.010 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 252.92 Mbit/s
95th percentile per-packet one-way delay: 52.175 ms
Loss rate: 0.62%
```

Run 1: Report of FillP — Data Link

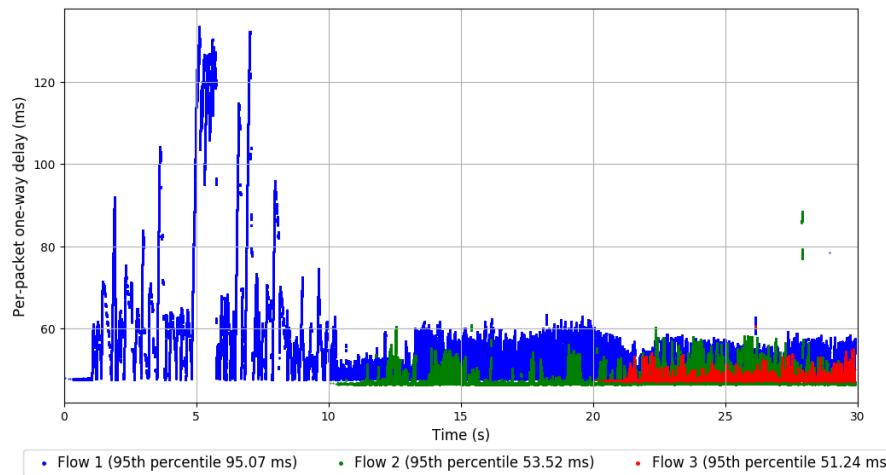
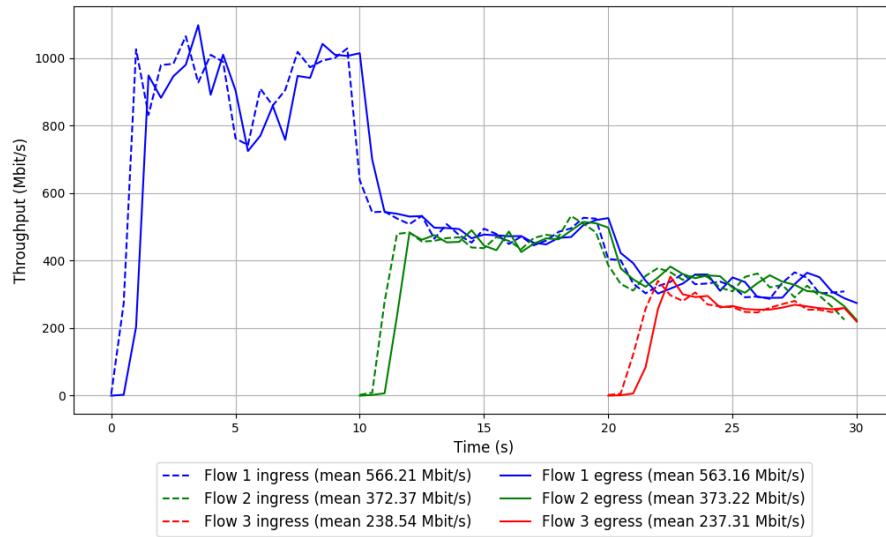


Run 2: Statistics of FillP

```
Start at: 2019-04-24 19:51:46
End at: 2019-04-24 19:52:16
Local clock offset: -0.049 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2019-04-24 22:56:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 889.22 Mbit/s
95th percentile per-packet one-way delay: 79.015 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 563.16 Mbit/s
95th percentile per-packet one-way delay: 95.072 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 373.22 Mbit/s
95th percentile per-packet one-way delay: 53.516 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 237.31 Mbit/s
95th percentile per-packet one-way delay: 51.244 ms
Loss rate: 1.32%
```

Run 2: Report of FillP — Data Link

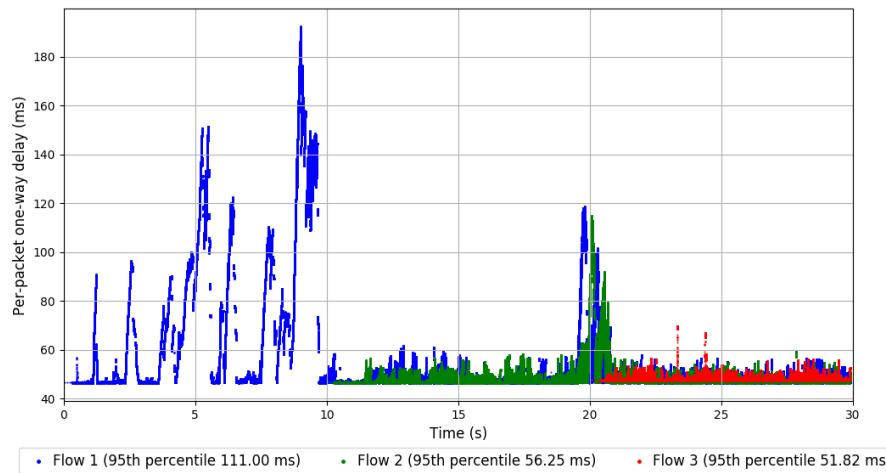
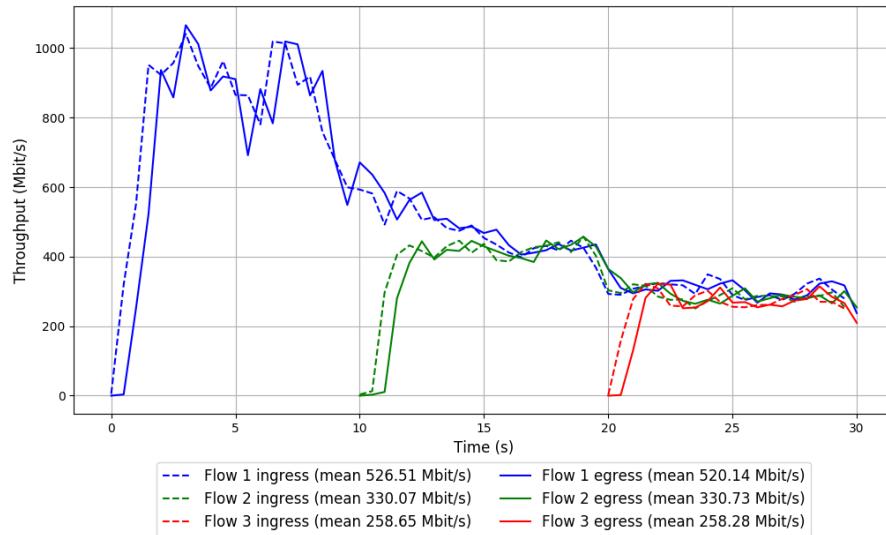


```
Run 3: Statistics of FillP
```

```
Start at: 2019-04-24 20:26:32
End at: 2019-04-24 20:27:02
Local clock offset: -0.017 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2019-04-24 22:57:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 825.11 Mbit/s
95th percentile per-packet one-way delay: 97.923 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 520.14 Mbit/s
95th percentile per-packet one-way delay: 111.004 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 330.73 Mbit/s
95th percentile per-packet one-way delay: 56.249 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 258.28 Mbit/s
95th percentile per-packet one-way delay: 51.821 ms
Loss rate: 1.19%
```

Run 3: Report of FillP — Data Link

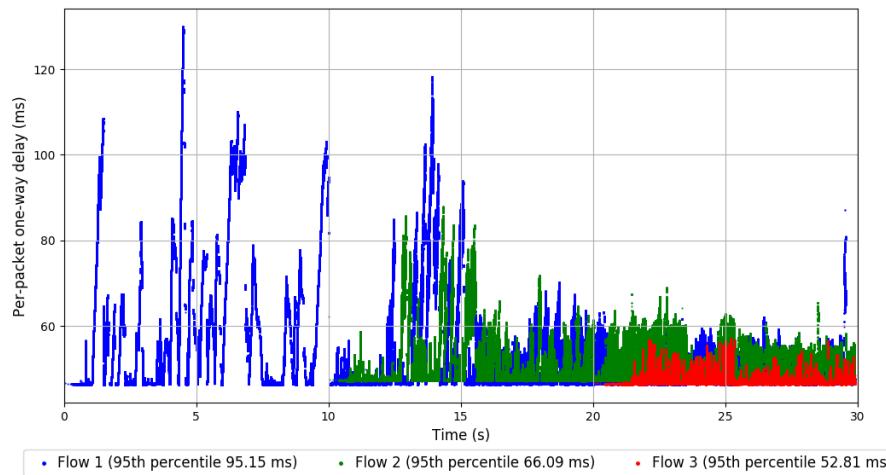
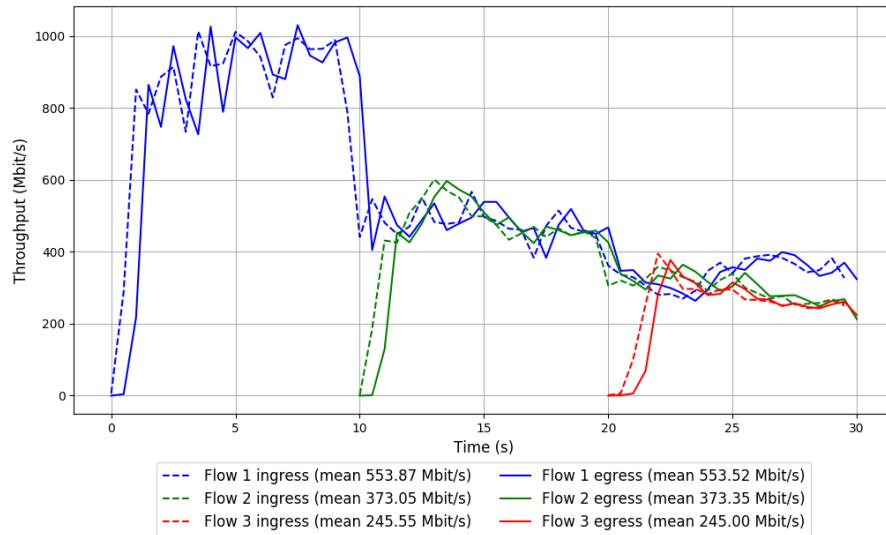


Run 4: Statistics of FillP

```
Start at: 2019-04-24 21:01:03
End at: 2019-04-24 21:01:33
Local clock offset: 0.011 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-04-24 22:59:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 882.31 Mbit/s
95th percentile per-packet one-way delay: 84.502 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 553.52 Mbit/s
95th percentile per-packet one-way delay: 95.151 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 373.35 Mbit/s
95th percentile per-packet one-way delay: 66.088 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 245.00 Mbit/s
95th percentile per-packet one-way delay: 52.814 ms
Loss rate: 1.17%
```

Run 4: Report of FillP — Data Link

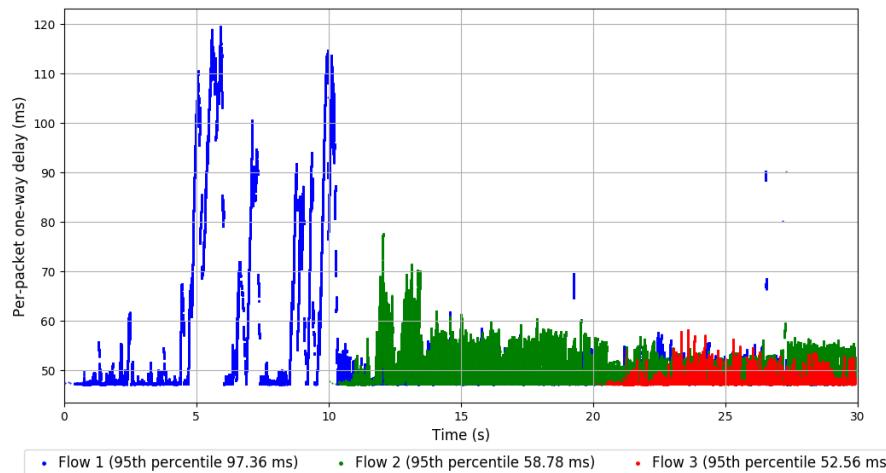
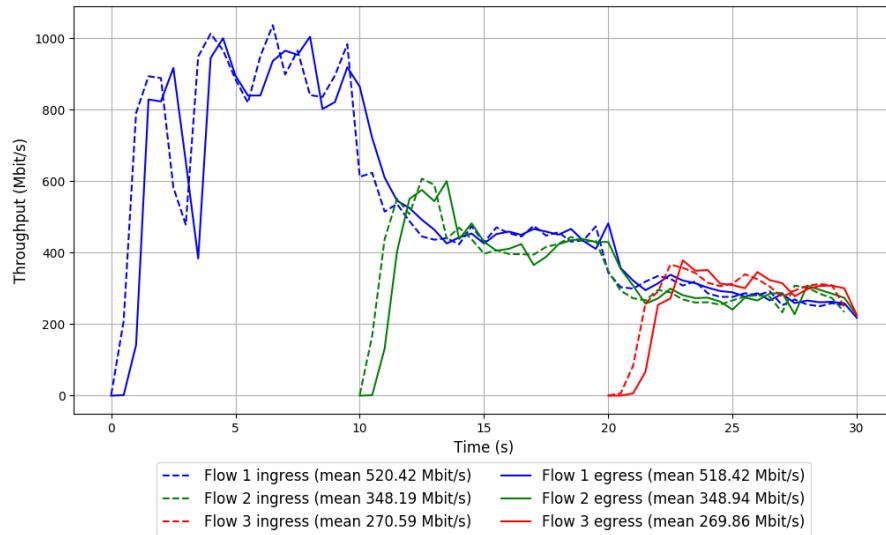


```
Run 5: Statistics of FillP
```

```
Start at: 2019-04-24 21:35:21
End at: 2019-04-24 21:35:51
Local clock offset: 0.041 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2019-04-24 22:59:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 838.88 Mbit/s
95th percentile per-packet one-way delay: 87.745 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 518.42 Mbit/s
95th percentile per-packet one-way delay: 97.357 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 348.94 Mbit/s
95th percentile per-packet one-way delay: 58.780 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 269.86 Mbit/s
95th percentile per-packet one-way delay: 52.565 ms
Loss rate: 1.10%
```

Run 5: Report of FillP — Data Link

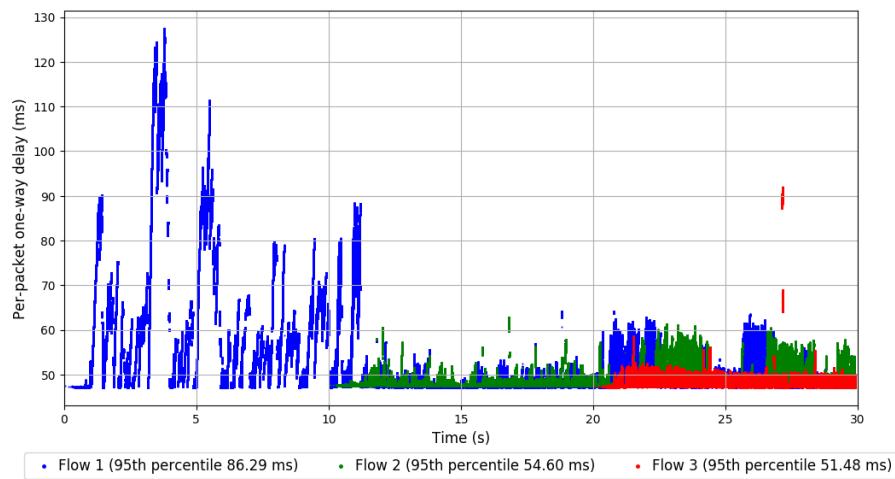
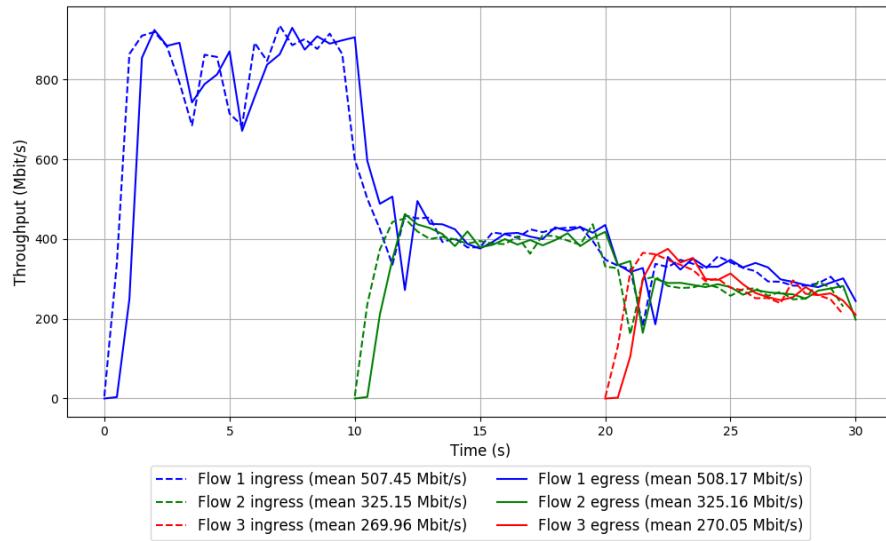


Run 1: Statistics of FillP-Sheep

```
Start at: 2019-04-24 19:10:34
End at: 2019-04-24 19:11:04
Local clock offset: 0.047 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-04-24 22:59:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 813.08 Mbit/s
95th percentile per-packet one-way delay: 77.776 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 508.17 Mbit/s
95th percentile per-packet one-way delay: 86.288 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 325.16 Mbit/s
95th percentile per-packet one-way delay: 54.604 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 270.05 Mbit/s
95th percentile per-packet one-way delay: 51.480 ms
Loss rate: 0.69%
```

Run 1: Report of FillP-Sheep — Data Link

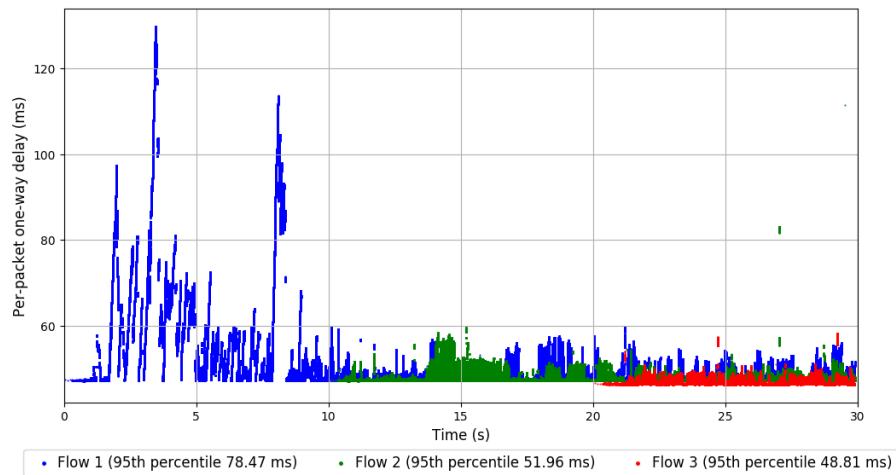
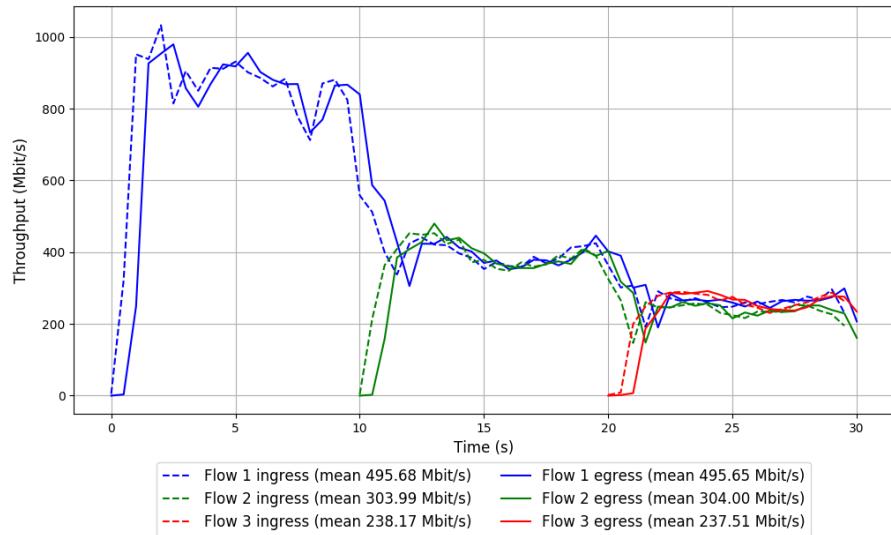


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-04-24 19:45:17
End at: 2019-04-24 19:45:47
Local clock offset: -0.04 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2019-04-24 22:59:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 775.81 Mbit/s
95th percentile per-packet one-way delay: 70.931 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 495.65 Mbit/s
95th percentile per-packet one-way delay: 78.467 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 304.00 Mbit/s
95th percentile per-packet one-way delay: 51.957 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 237.51 Mbit/s
95th percentile per-packet one-way delay: 48.809 ms
Loss rate: 1.37%
```

Run 2: Report of FillP-Sheep — Data Link

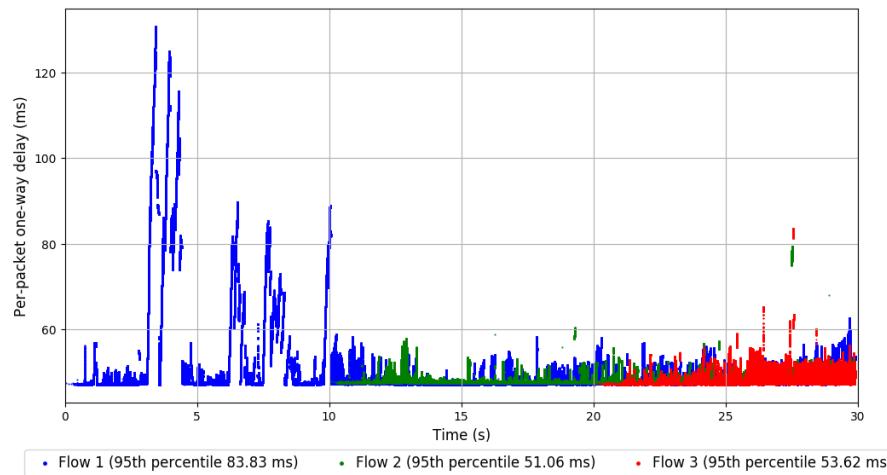
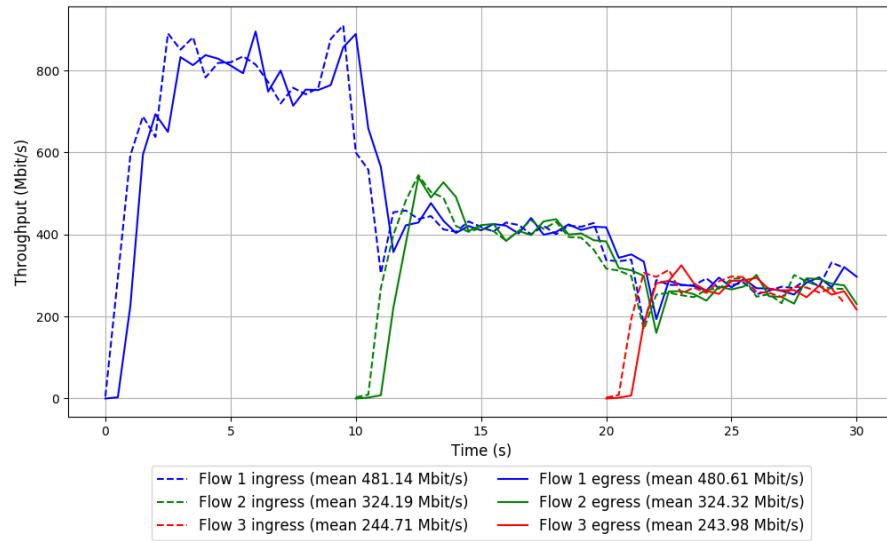


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-04-24 20:19:53
End at: 2019-04-24 20:20:23
Local clock offset: -0.048 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2019-04-24 22:59:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 776.45 Mbit/s
95th percentile per-packet one-way delay: 76.368 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 480.61 Mbit/s
95th percentile per-packet one-way delay: 83.825 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 324.32 Mbit/s
95th percentile per-packet one-way delay: 51.059 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 243.98 Mbit/s
95th percentile per-packet one-way delay: 53.622 ms
Loss rate: 1.06%
```

Run 3: Report of FillP-Sheep — Data Link

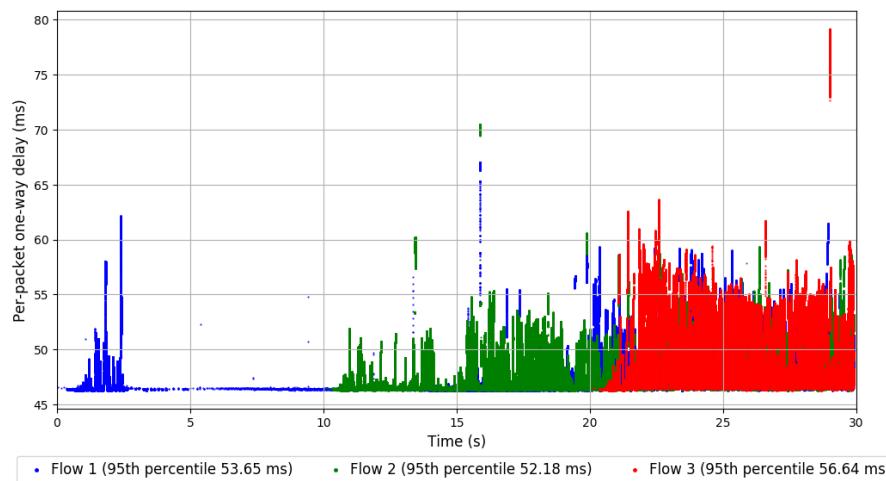
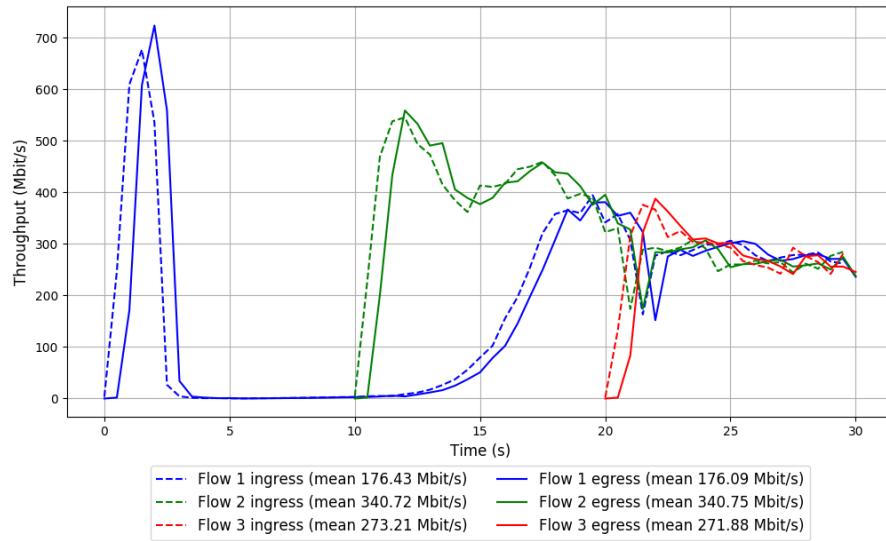


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-04-24 20:54:31
End at: 2019-04-24 20:55:01
Local clock offset: 0.0 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2019-04-24 22:59:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 491.87 Mbit/s
95th percentile per-packet one-way delay: 54.455 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 176.09 Mbit/s
95th percentile per-packet one-way delay: 53.654 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 340.75 Mbit/s
95th percentile per-packet one-way delay: 52.177 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 271.88 Mbit/s
95th percentile per-packet one-way delay: 56.639 ms
Loss rate: 1.27%
```

Run 4: Report of FillP-Sheep — Data Link

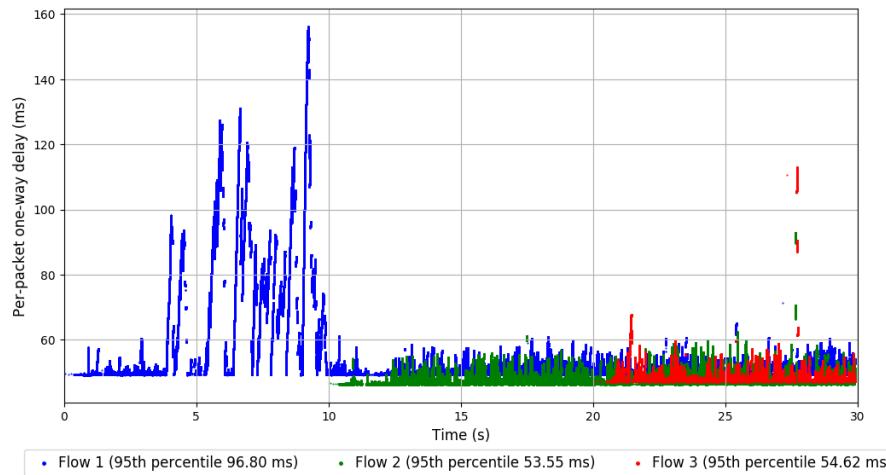
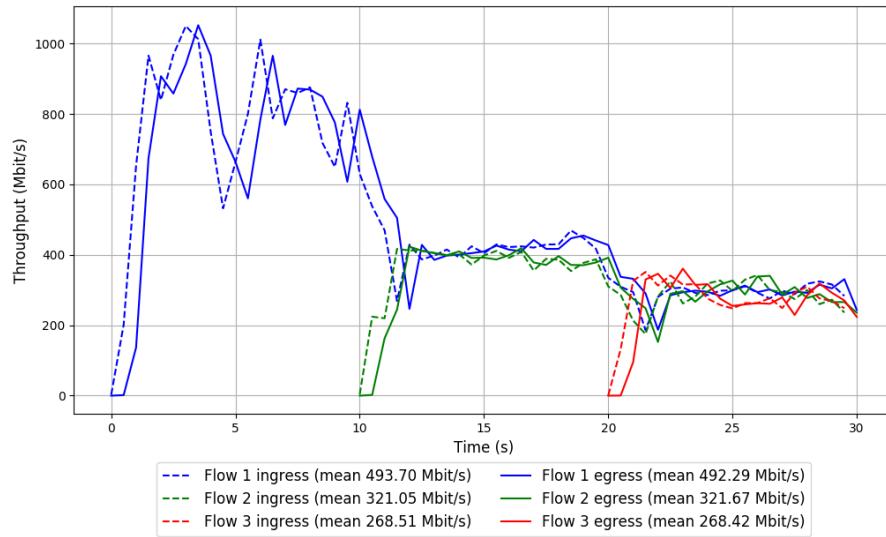


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-04-24 21:28:41
End at: 2019-04-24 21:29:11
Local clock offset: 0.028 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2019-04-24 23:14:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 794.32 Mbit/s
95th percentile per-packet one-way delay: 89.499 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 492.29 Mbit/s
95th percentile per-packet one-way delay: 96.799 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 321.67 Mbit/s
95th percentile per-packet one-way delay: 53.552 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 268.42 Mbit/s
95th percentile per-packet one-way delay: 54.617 ms
Loss rate: 0.82%
```

Run 5: Report of FillP-Sheep — Data Link

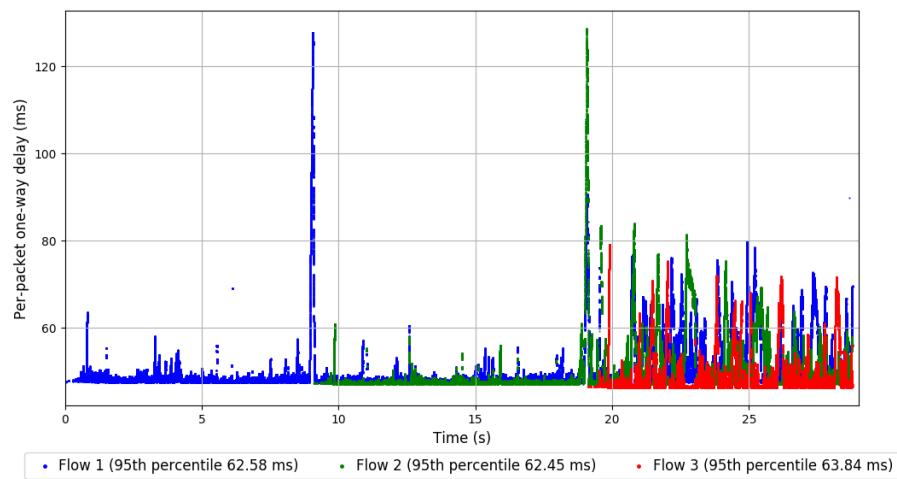
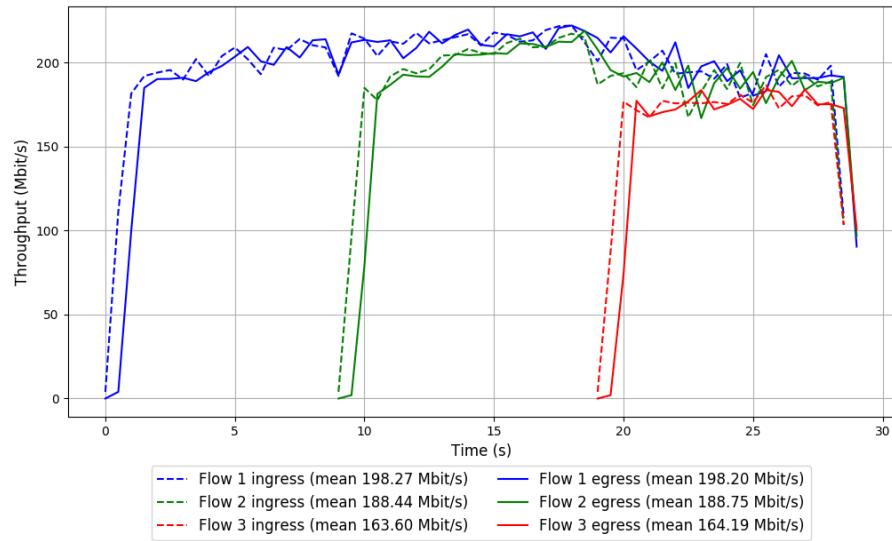


Run 1: Statistics of Indigo

```
Start at: 2019-04-24 19:28:45
End at: 2019-04-24 19:29:15
Local clock offset: 0.075 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2019-04-24 23:14:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.65 Mbit/s
95th percentile per-packet one-way delay: 62.816 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 198.20 Mbit/s
95th percentile per-packet one-way delay: 62.582 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 188.75 Mbit/s
95th percentile per-packet one-way delay: 62.451 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 164.19 Mbit/s
95th percentile per-packet one-way delay: 63.838 ms
Loss rate: 0.76%
```

Run 1: Report of Indigo — Data Link

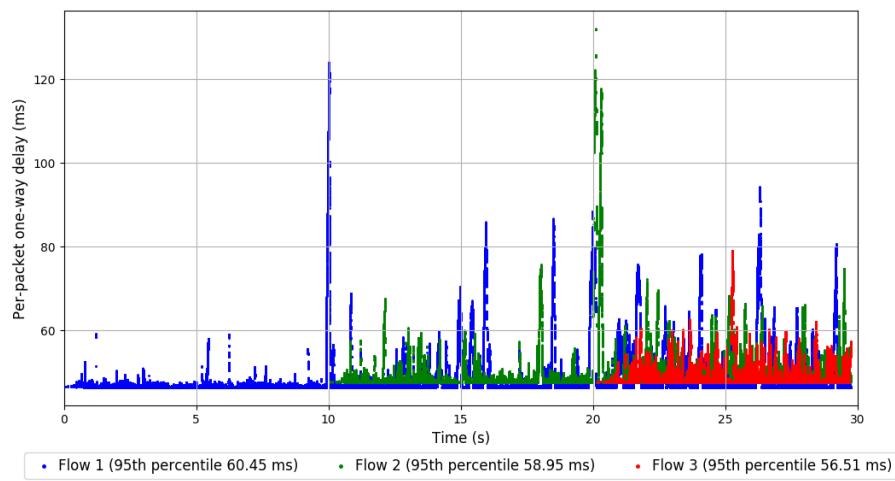
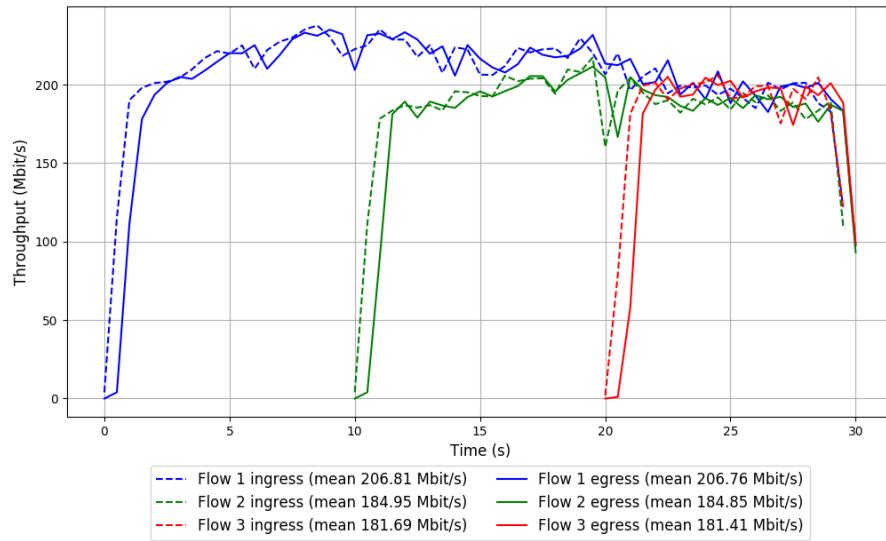


Run 2: Statistics of Indigo

```
Start at: 2019-04-24 20:03:21
End at: 2019-04-24 20:03:51
Local clock offset: -0.051 ms
Remote clock offset: -0.176 ms

# Below is generated by plot.py at 2019-04-24 23:14:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.75 Mbit/s
95th percentile per-packet one-way delay: 58.781 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 206.76 Mbit/s
95th percentile per-packet one-way delay: 60.448 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 184.85 Mbit/s
95th percentile per-packet one-way delay: 58.952 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 181.41 Mbit/s
95th percentile per-packet one-way delay: 56.506 ms
Loss rate: 1.14%
```

Run 2: Report of Indigo — Data Link

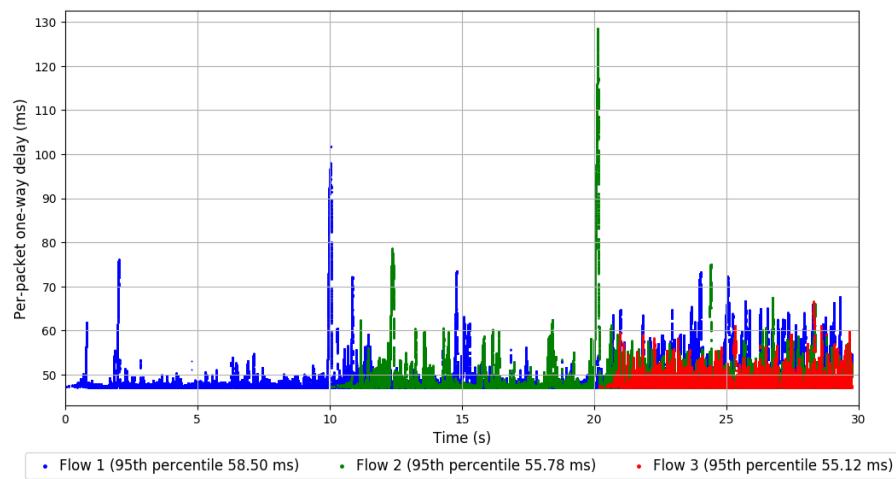
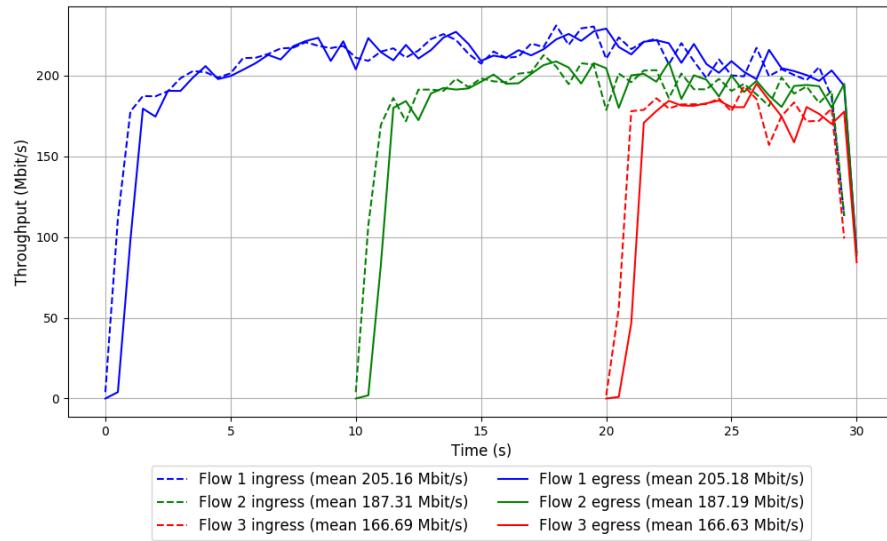


Run 3: Statistics of Indigo

```
Start at: 2019-04-24 20:37:58
End at: 2019-04-24 20:38:28
Local clock offset: -0.034 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-04-24 23:14:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.52 Mbit/s
95th percentile per-packet one-way delay: 56.926 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 205.18 Mbit/s
95th percentile per-packet one-way delay: 58.500 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 187.19 Mbit/s
95th percentile per-packet one-way delay: 55.777 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 166.63 Mbit/s
95th percentile per-packet one-way delay: 55.118 ms
Loss rate: 1.03%
```

Run 3: Report of Indigo — Data Link

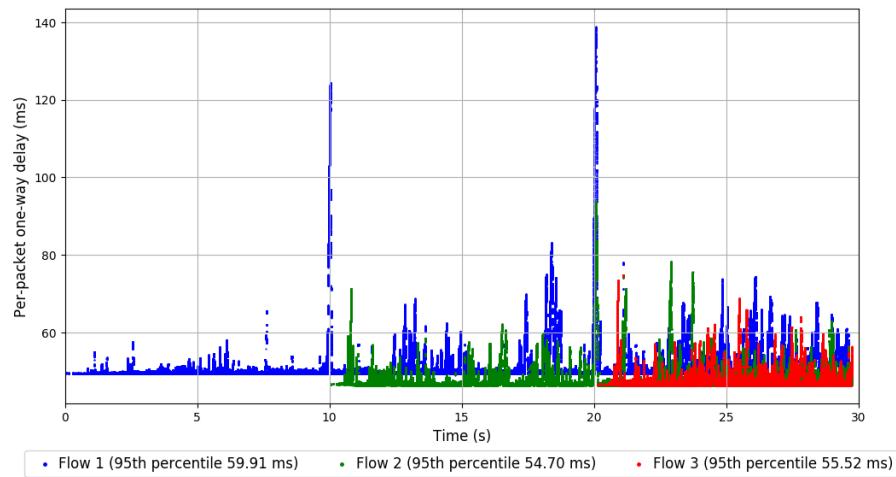
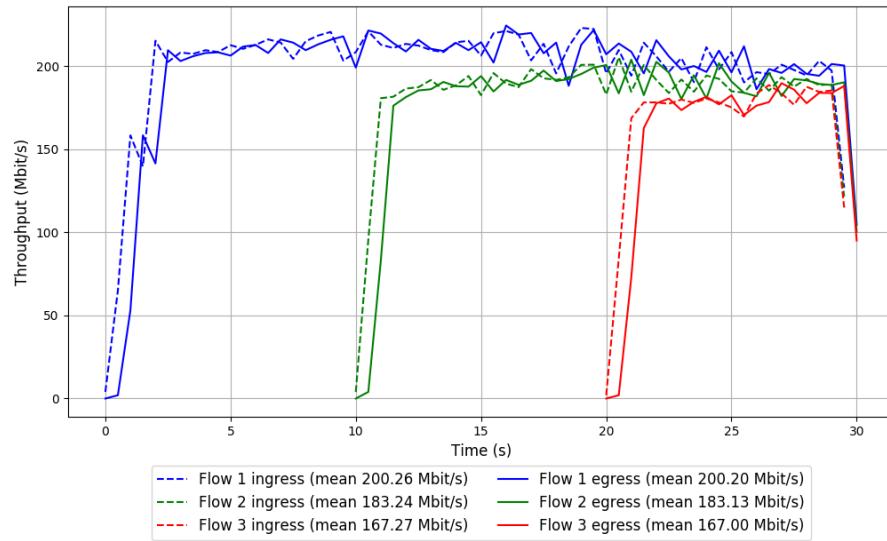


Run 4: Statistics of Indigo

```
Start at: 2019-04-24 21:12:31
End at: 2019-04-24 21:13:01
Local clock offset: 0.059 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2019-04-24 23:14:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.85 Mbit/s
95th percentile per-packet one-way delay: 57.826 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 200.20 Mbit/s
95th percentile per-packet one-way delay: 59.909 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 183.13 Mbit/s
95th percentile per-packet one-way delay: 54.698 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 167.00 Mbit/s
95th percentile per-packet one-way delay: 55.522 ms
Loss rate: 1.12%
```

Run 4: Report of Indigo — Data Link

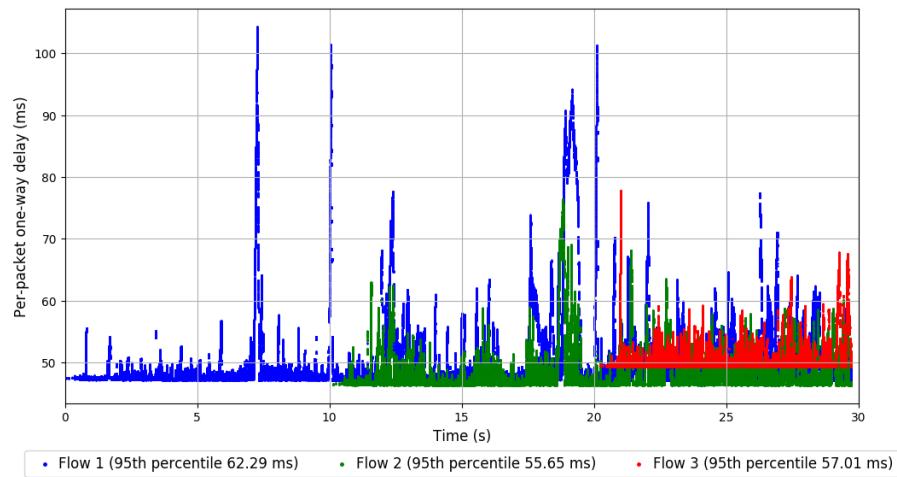
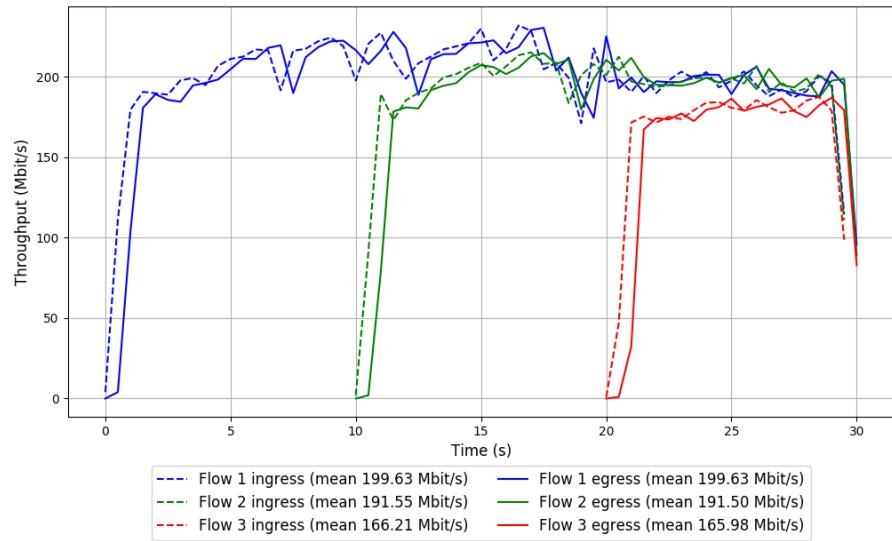


Run 5: Statistics of Indigo

```
Start at: 2019-04-24 21:46:51
End at: 2019-04-24 21:47:21
Local clock offset: 0.022 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2019-04-24 23:14:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.22 Mbit/s
95th percentile per-packet one-way delay: 59.503 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 199.63 Mbit/s
95th percentile per-packet one-way delay: 62.290 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 191.50 Mbit/s
95th percentile per-packet one-way delay: 55.645 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 165.98 Mbit/s
95th percentile per-packet one-way delay: 57.006 ms
Loss rate: 1.14%
```

Run 5: Report of Indigo — Data Link

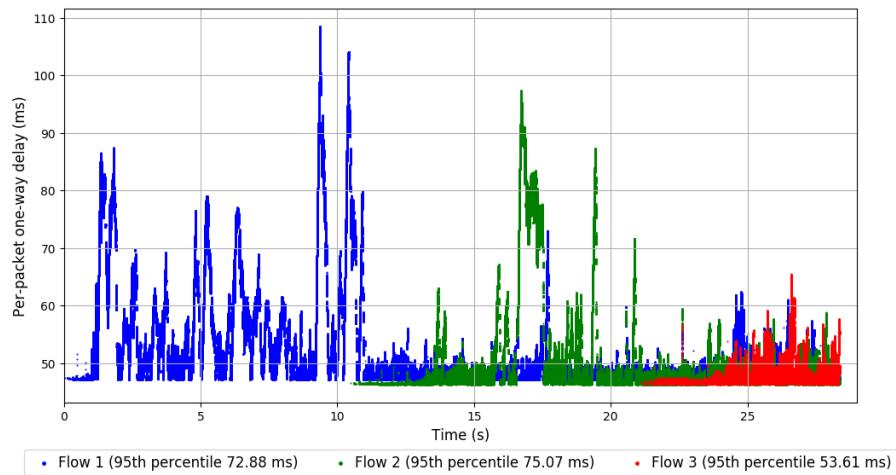
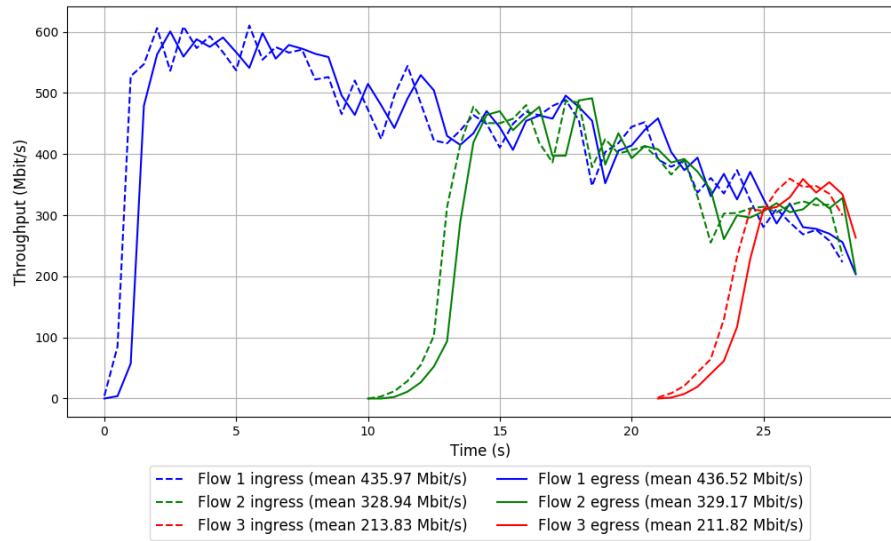


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 19:18:59
End at: 2019-04-24 19:19:29
Local clock offset: 0.063 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-04-24 23:14:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 698.53 Mbit/s
95th percentile per-packet one-way delay: 72.636 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 436.52 Mbit/s
95th percentile per-packet one-way delay: 72.879 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 329.17 Mbit/s
95th percentile per-packet one-way delay: 75.068 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 211.82 Mbit/s
95th percentile per-packet one-way delay: 53.608 ms
Loss rate: 2.22%
```

Run 1: Report of Indigo-MusesC3 — Data Link

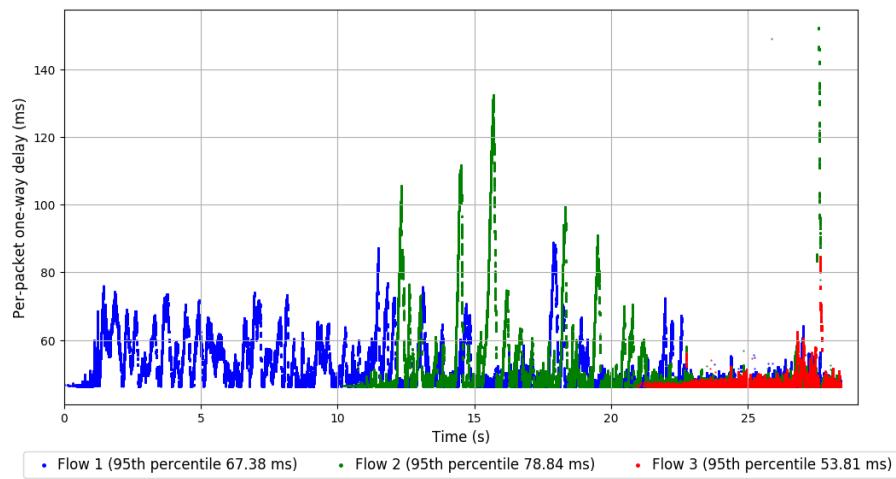
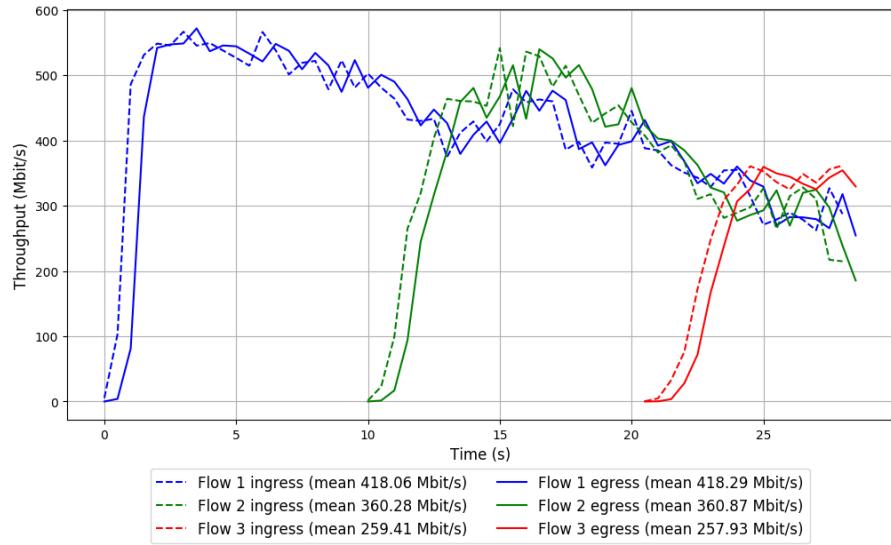


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 19:53:34
End at: 2019-04-24 19:54:04
Local clock offset: -0.027 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2019-04-24 23:14:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 718.87 Mbit/s
95th percentile per-packet one-way delay: 68.526 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 418.29 Mbit/s
95th percentile per-packet one-way delay: 67.377 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 360.87 Mbit/s
95th percentile per-packet one-way delay: 78.840 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 257.93 Mbit/s
95th percentile per-packet one-way delay: 53.809 ms
Loss rate: 1.80%
```

Run 2: Report of Indigo-MusesC3 — Data Link

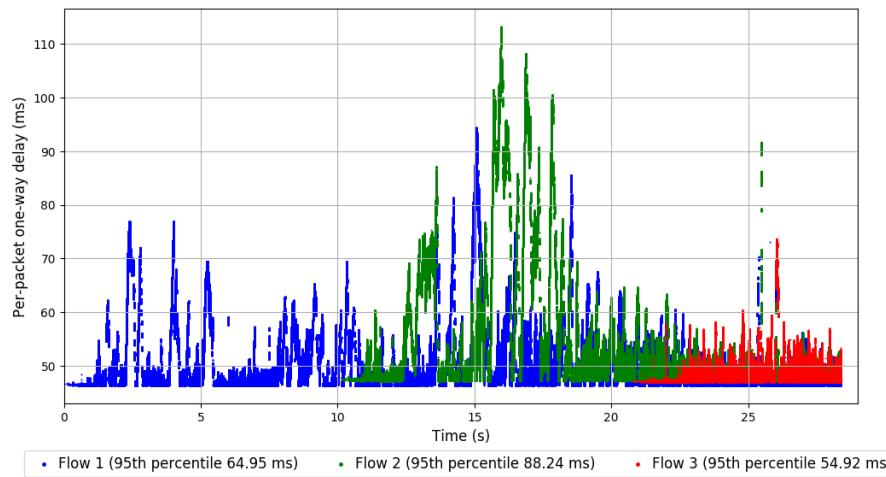
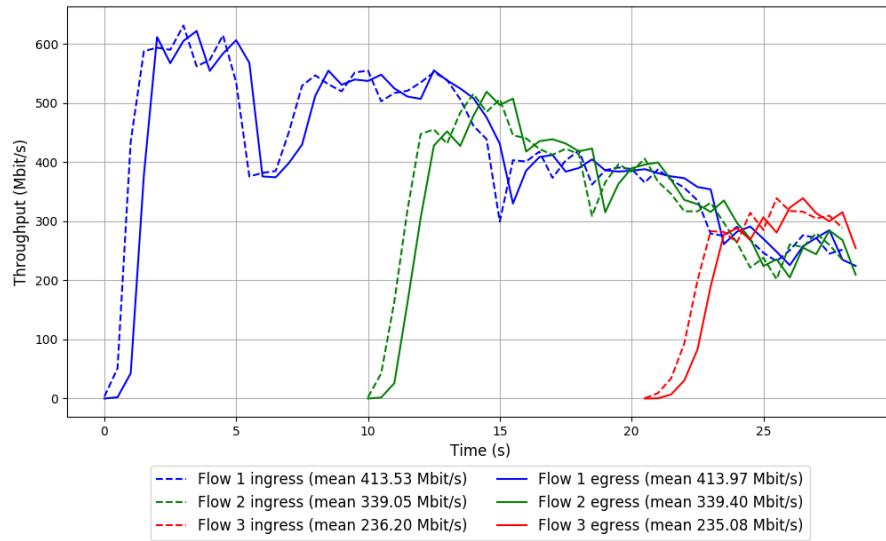


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 20:28:17
End at: 2019-04-24 20:28:47
Local clock offset: 0.0 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-04-24 23:24:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 695.99 Mbit/s
95th percentile per-packet one-way delay: 70.886 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 413.97 Mbit/s
95th percentile per-packet one-way delay: 64.947 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 339.40 Mbit/s
95th percentile per-packet one-way delay: 88.241 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 235.08 Mbit/s
95th percentile per-packet one-way delay: 54.920 ms
Loss rate: 1.71%
```

Run 3: Report of Indigo-MusesC3 — Data Link

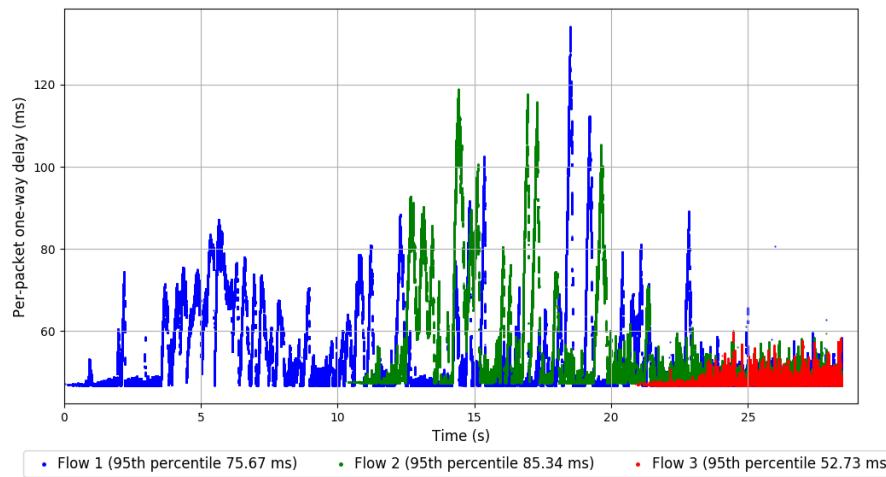
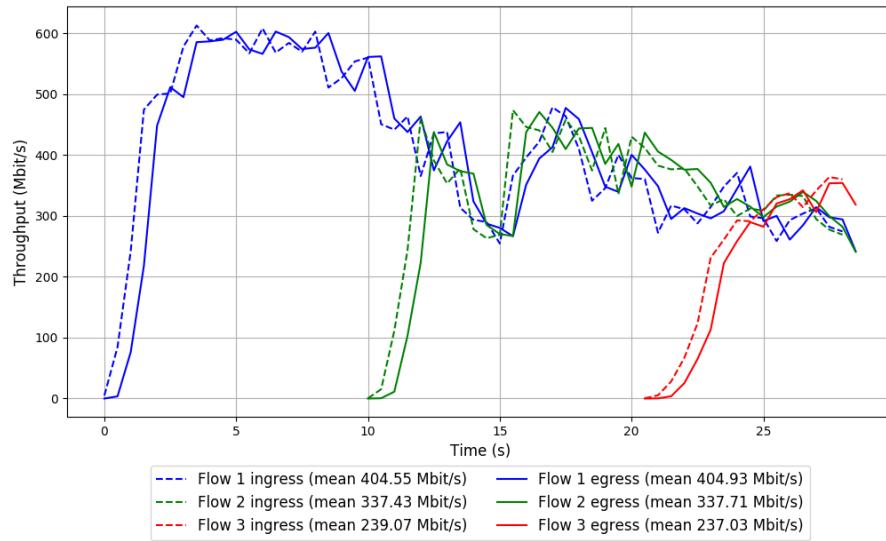


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 21:02:51
End at: 2019-04-24 21:03:21
Local clock offset: 0.456 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-04-24 23:25:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 683.96 Mbit/s
95th percentile per-packet one-way delay: 77.946 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 404.93 Mbit/s
95th percentile per-packet one-way delay: 75.666 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 337.71 Mbit/s
95th percentile per-packet one-way delay: 85.340 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 237.03 Mbit/s
95th percentile per-packet one-way delay: 52.735 ms
Loss rate: 2.09%
```

Run 4: Report of Indigo-MusesC3 — Data Link

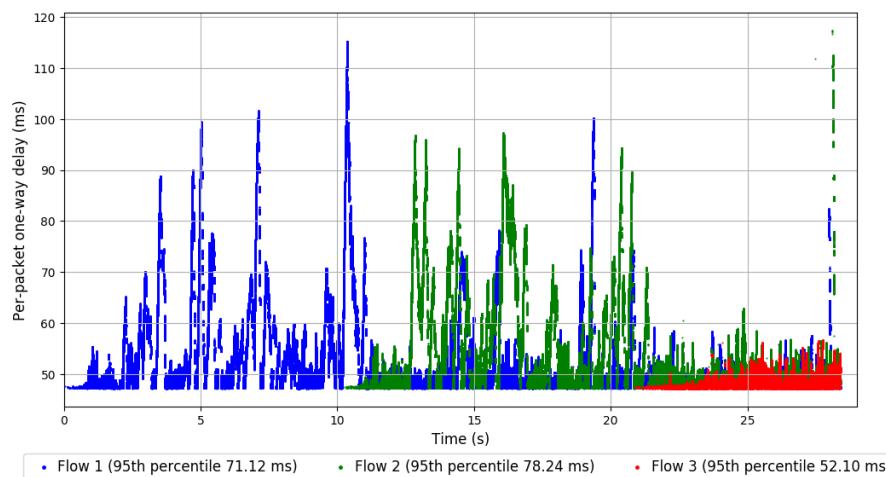
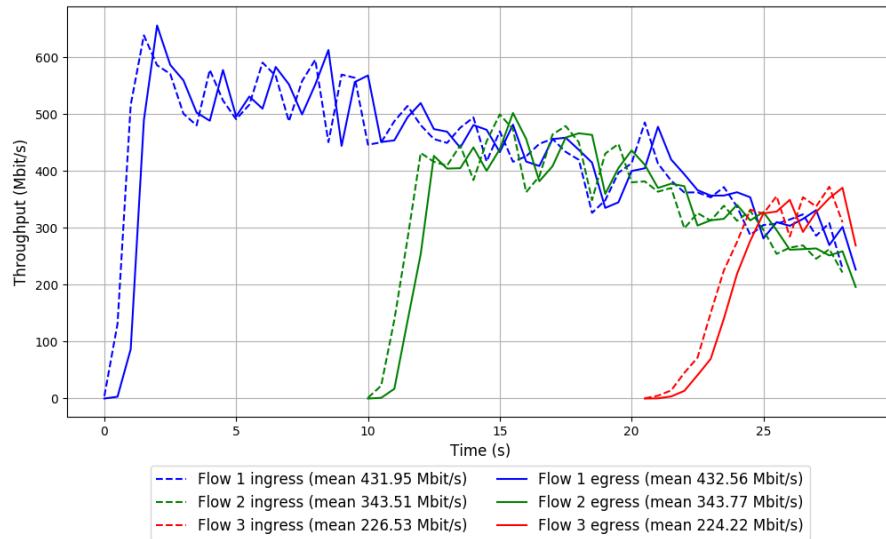


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 21:37:07
End at: 2019-04-24 21:37:37
Local clock offset: 0.053 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-04-24 23:25:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 712.61 Mbit/s
95th percentile per-packet one-way delay: 72.930 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 432.56 Mbit/s
95th percentile per-packet one-way delay: 71.116 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 343.77 Mbit/s
95th percentile per-packet one-way delay: 78.239 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 224.22 Mbit/s
95th percentile per-packet one-way delay: 52.100 ms
Loss rate: 2.25%
```

Run 5: Report of Indigo-MusesC3 — Data Link

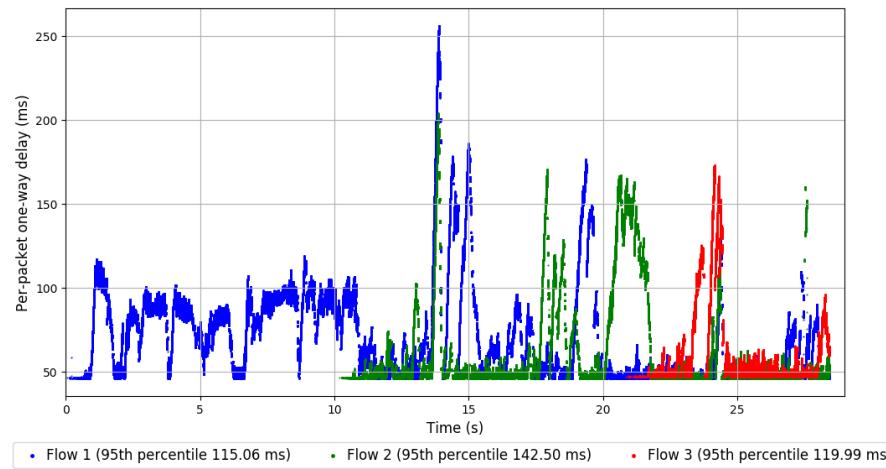
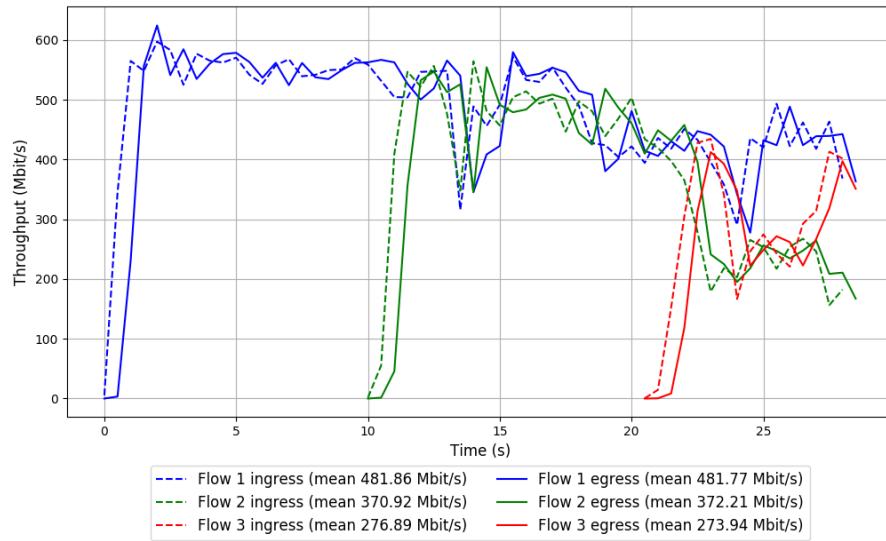


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 19:23:51
End at: 2019-04-24 19:24:21
Local clock offset: 0.073 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2019-04-24 23:27:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 794.31 Mbit/s
95th percentile per-packet one-way delay: 129.944 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 481.77 Mbit/s
95th percentile per-packet one-way delay: 115.056 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 372.21 Mbit/s
95th percentile per-packet one-way delay: 142.496 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 273.94 Mbit/s
95th percentile per-packet one-way delay: 119.993 ms
Loss rate: 2.22%
```

Run 1: Report of Indigo-MusesC5 — Data Link

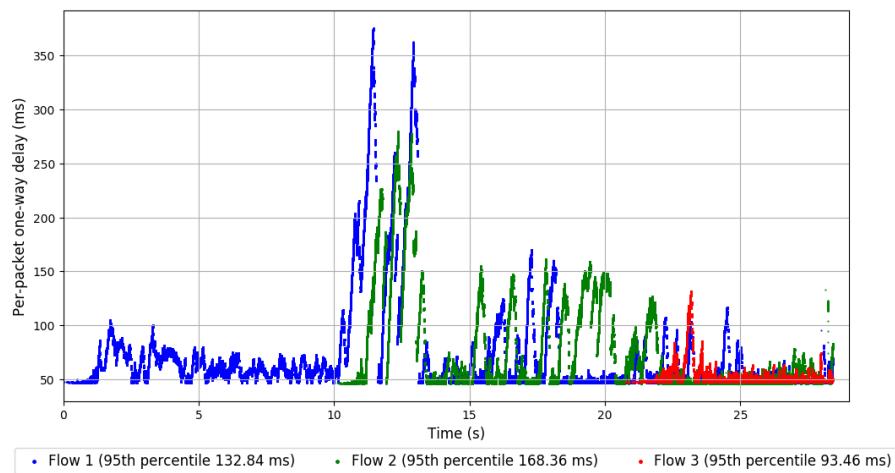
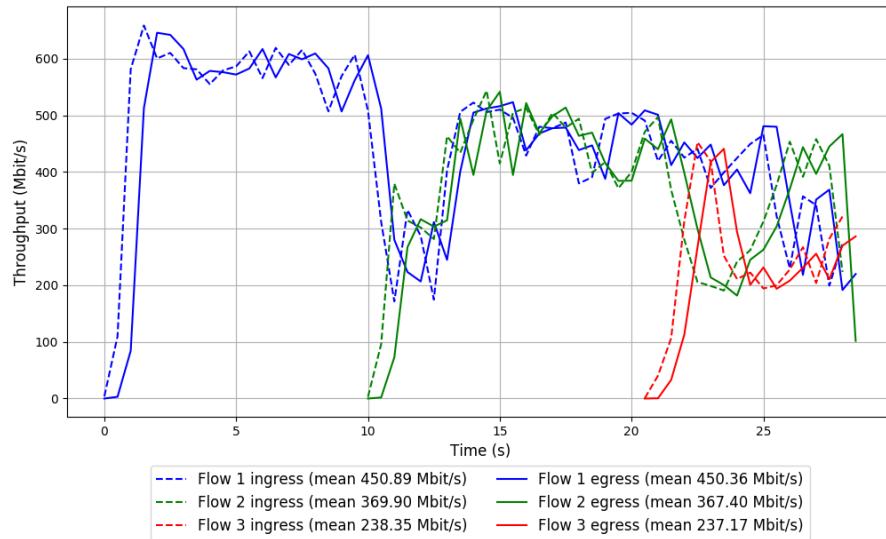


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 19:58:28
End at: 2019-04-24 19:58:58
Local clock offset: -0.034 ms
Remote clock offset: -0.201 ms

# Below is generated by plot.py at 2019-04-24 23:27:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 751.96 Mbit/s
95th percentile per-packet one-way delay: 145.052 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 450.36 Mbit/s
95th percentile per-packet one-way delay: 132.836 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 367.40 Mbit/s
95th percentile per-packet one-way delay: 168.356 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 237.17 Mbit/s
95th percentile per-packet one-way delay: 93.458 ms
Loss rate: 1.65%
```

Run 2: Report of Indigo-MusesC5 — Data Link

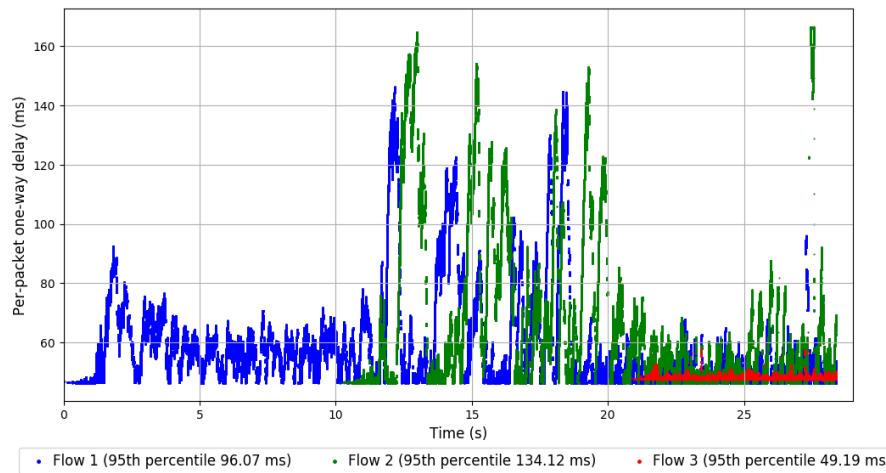
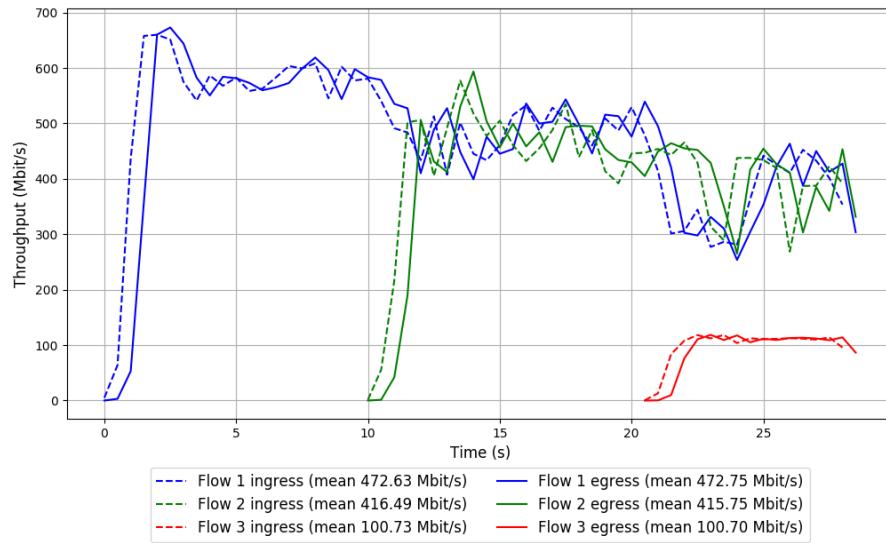


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 20:33:05
End at: 2019-04-24 20:33:35
Local clock offset: -0.06 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2019-04-24 23:27:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 766.46 Mbit/s
95th percentile per-packet one-way delay: 115.254 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 472.75 Mbit/s
95th percentile per-packet one-way delay: 96.072 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 415.75 Mbit/s
95th percentile per-packet one-way delay: 134.125 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 100.70 Mbit/s
95th percentile per-packet one-way delay: 49.185 ms
Loss rate: 1.29%
```

Run 3: Report of Indigo-MusesC5 — Data Link

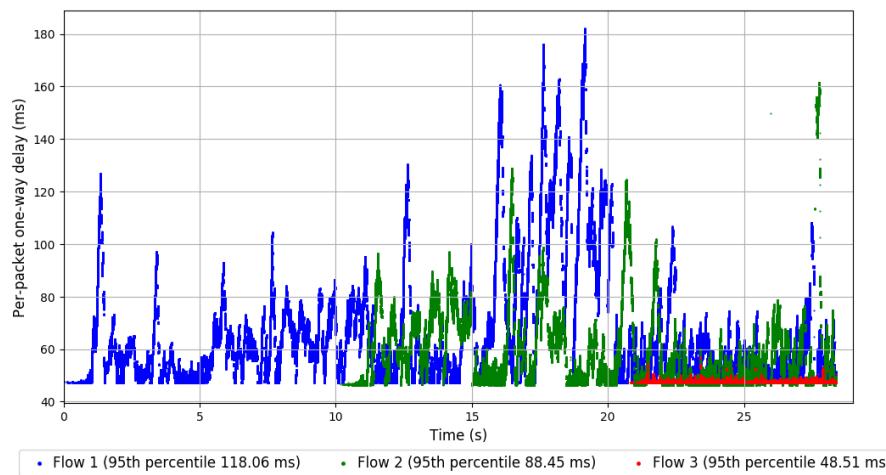
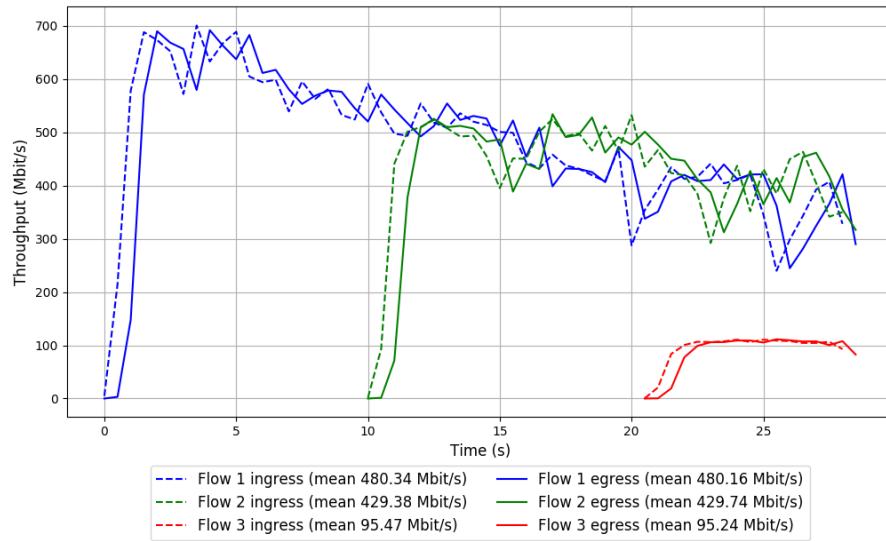


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 21:07:37
End at: 2019-04-24 21:08:07
Local clock offset: 0.074 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2019-04-24 23:28:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 782.02 Mbit/s
95th percentile per-packet one-way delay: 109.848 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 480.16 Mbit/s
95th percentile per-packet one-way delay: 118.055 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 429.74 Mbit/s
95th percentile per-packet one-way delay: 88.452 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 95.24 Mbit/s
95th percentile per-packet one-way delay: 48.505 ms
Loss rate: 1.41%
```

Run 4: Report of Indigo-MusesC5 — Data Link

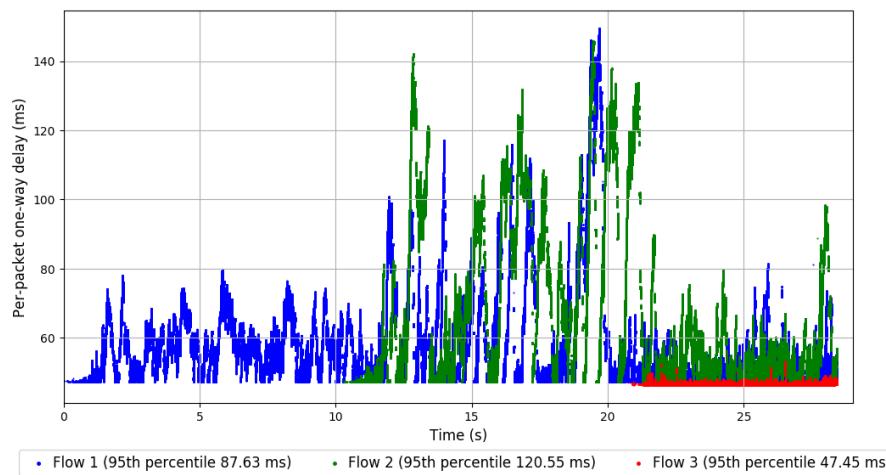
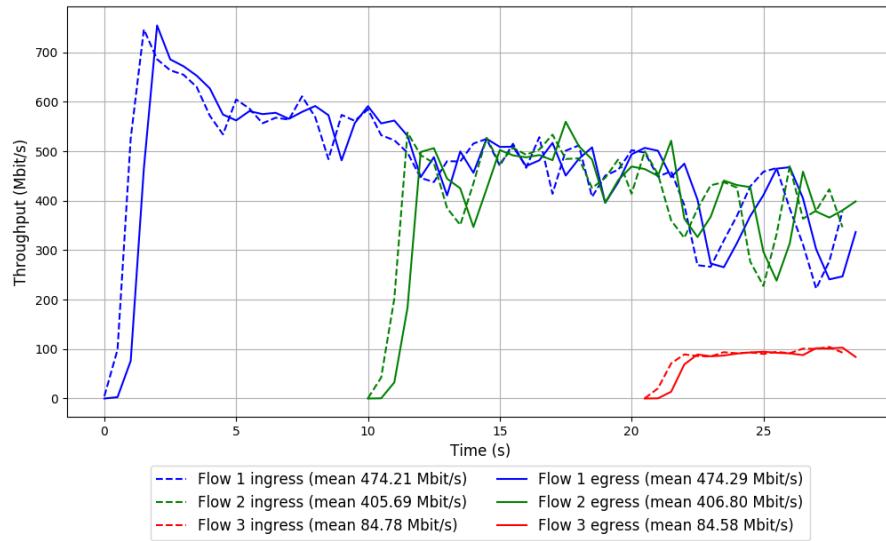


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 21:41:59
End at: 2019-04-24 21:42:29
Local clock offset: 0.02 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2019-04-24 23:28:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 757.80 Mbit/s
95th percentile per-packet one-way delay: 106.708 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 474.29 Mbit/s
95th percentile per-packet one-way delay: 87.634 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 406.80 Mbit/s
95th percentile per-packet one-way delay: 120.554 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 84.58 Mbit/s
95th percentile per-packet one-way delay: 47.447 ms
Loss rate: 1.55%
```

Run 5: Report of Indigo-MusesC5 — Data Link

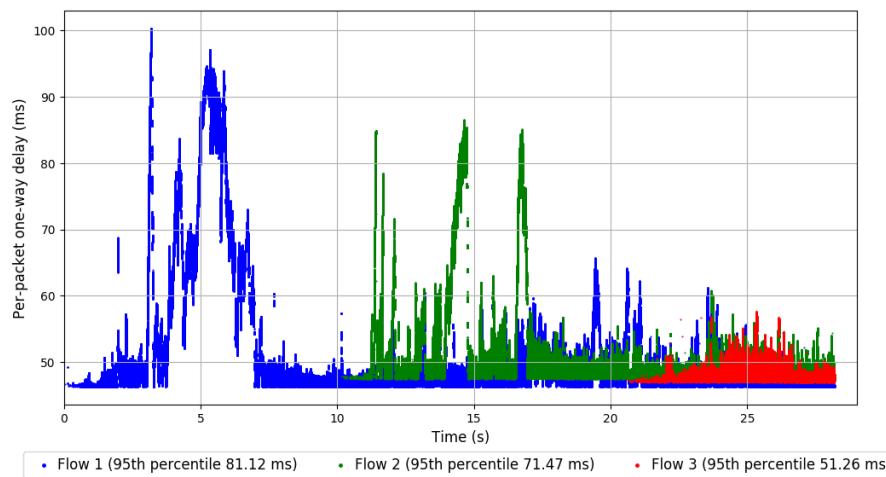
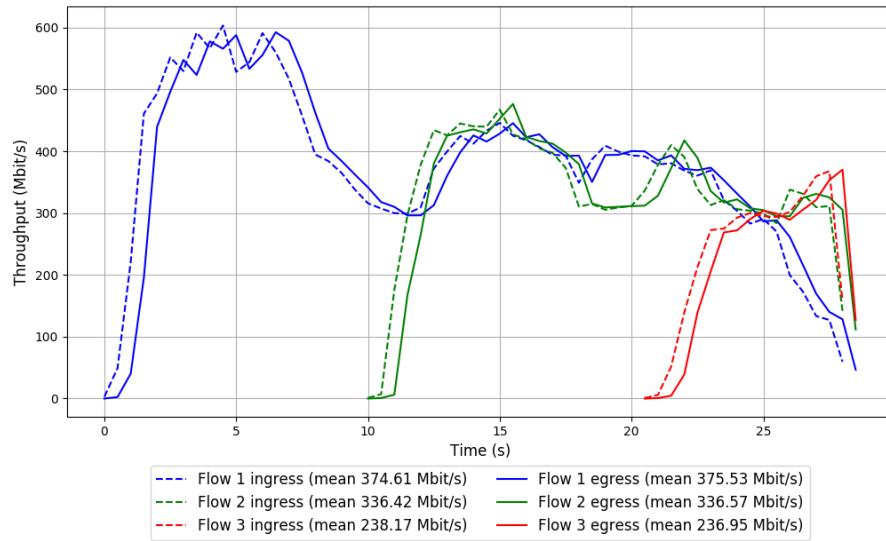


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 19:07:35
End at: 2019-04-24 19:08:05
Local clock offset: 0.049 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-04-24 23:36:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 654.93 Mbit/s
95th percentile per-packet one-way delay: 74.433 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 375.53 Mbit/s
95th percentile per-packet one-way delay: 81.117 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 336.57 Mbit/s
95th percentile per-packet one-way delay: 71.467 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 236.95 Mbit/s
95th percentile per-packet one-way delay: 51.259 ms
Loss rate: 1.77%
```

Run 1: Report of Indigo-MusesD — Data Link

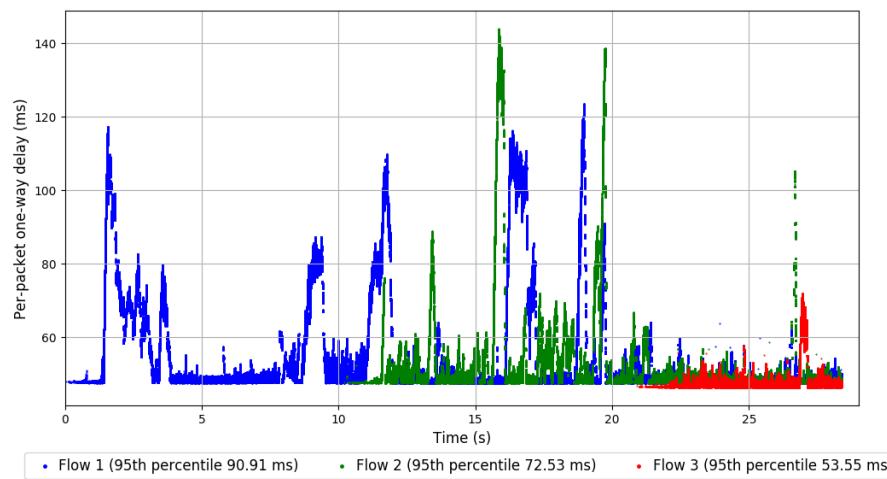
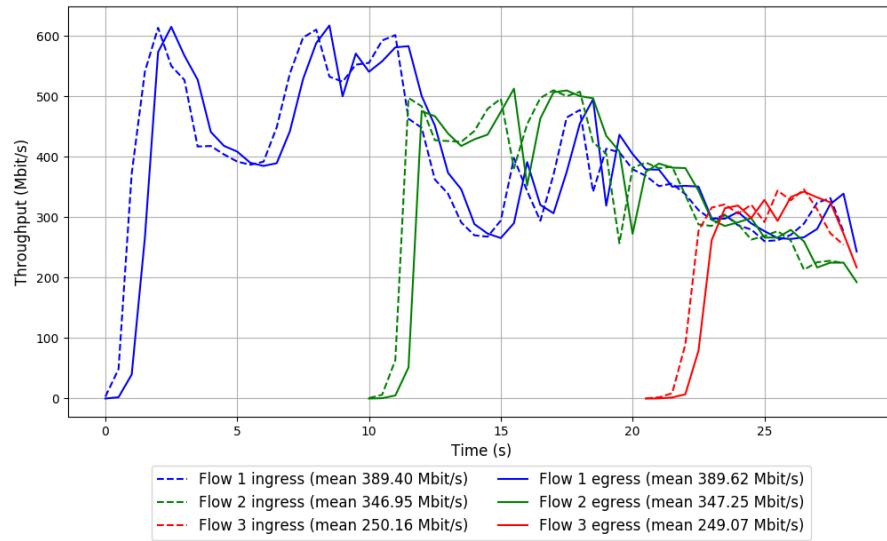


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 19:42:16
End at: 2019-04-24 19:42:46
Local clock offset: -0.033 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2019-04-24 23:37:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 678.12 Mbit/s
95th percentile per-packet one-way delay: 81.976 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 389.62 Mbit/s
95th percentile per-packet one-way delay: 90.912 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 347.25 Mbit/s
95th percentile per-packet one-way delay: 72.535 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 249.07 Mbit/s
95th percentile per-packet one-way delay: 53.549 ms
Loss rate: 1.69%
```

Run 2: Report of Indigo-MusesD — Data Link

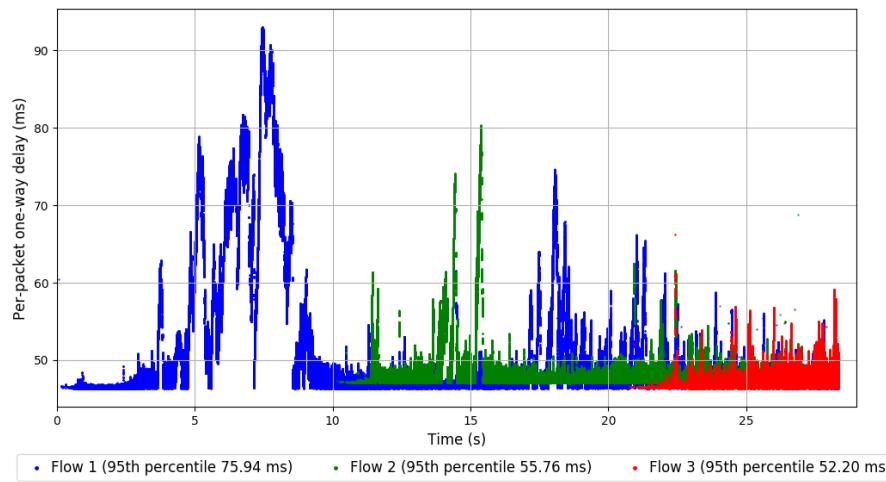
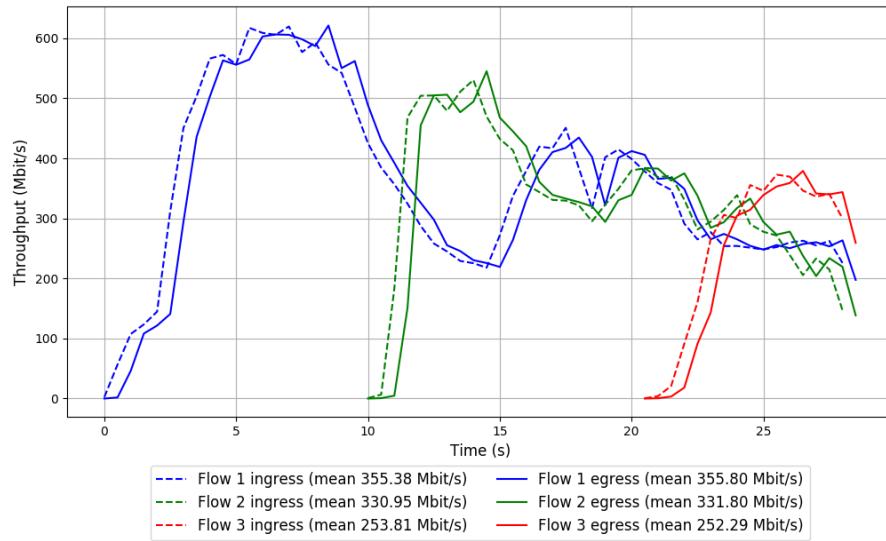


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 20:16:54
End at: 2019-04-24 20:17:24
Local clock offset: -0.014 ms
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2019-04-24 23:37:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 636.88 Mbit/s
95th percentile per-packet one-way delay: 71.864 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 355.80 Mbit/s
95th percentile per-packet one-way delay: 75.942 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 331.80 Mbit/s
95th percentile per-packet one-way delay: 55.759 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 252.29 Mbit/s
95th percentile per-packet one-way delay: 52.203 ms
Loss rate: 1.81%
```

Run 3: Report of Indigo-MusesD — Data Link

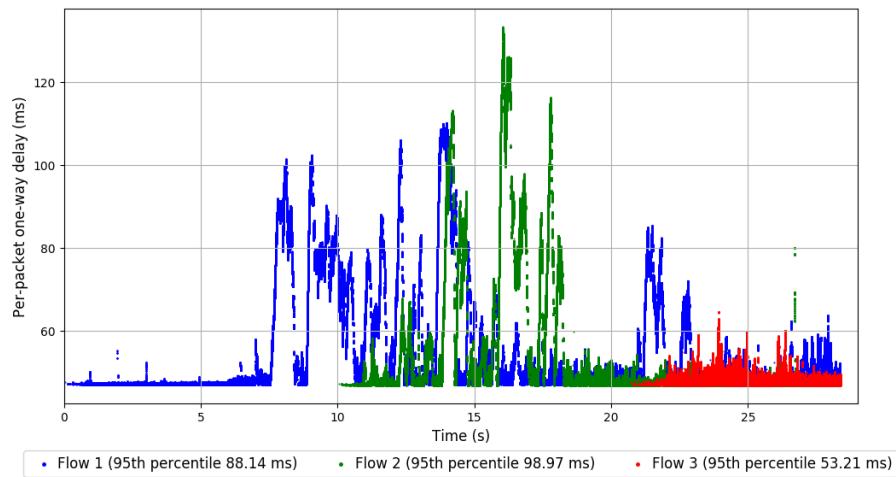
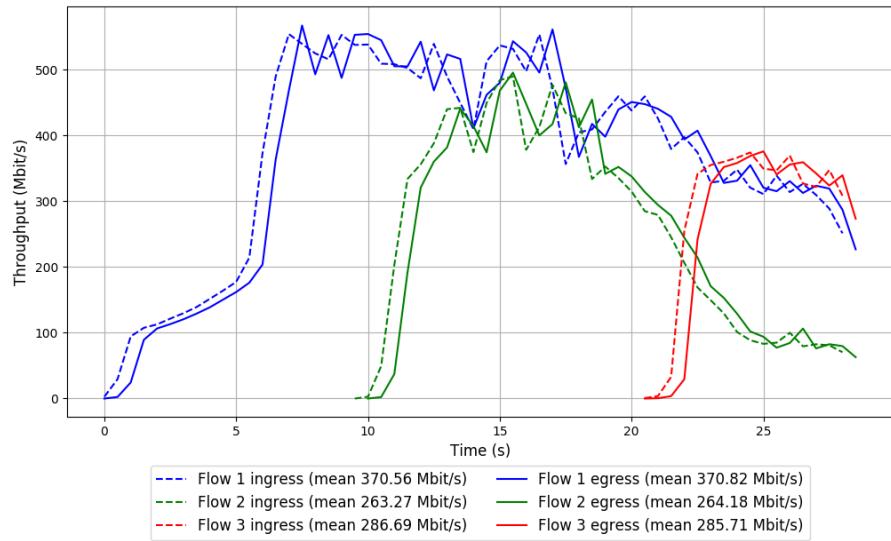


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 20:51:32
End at: 2019-04-24 20:52:02
Local clock offset: -0.003 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-04-24 23:39:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 619.28 Mbit/s
95th percentile per-packet one-way delay: 88.806 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 370.82 Mbit/s
95th percentile per-packet one-way delay: 88.137 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 264.18 Mbit/s
95th percentile per-packet one-way delay: 98.973 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 285.71 Mbit/s
95th percentile per-packet one-way delay: 53.210 ms
Loss rate: 1.54%
```

Run 4: Report of Indigo-MusesD — Data Link

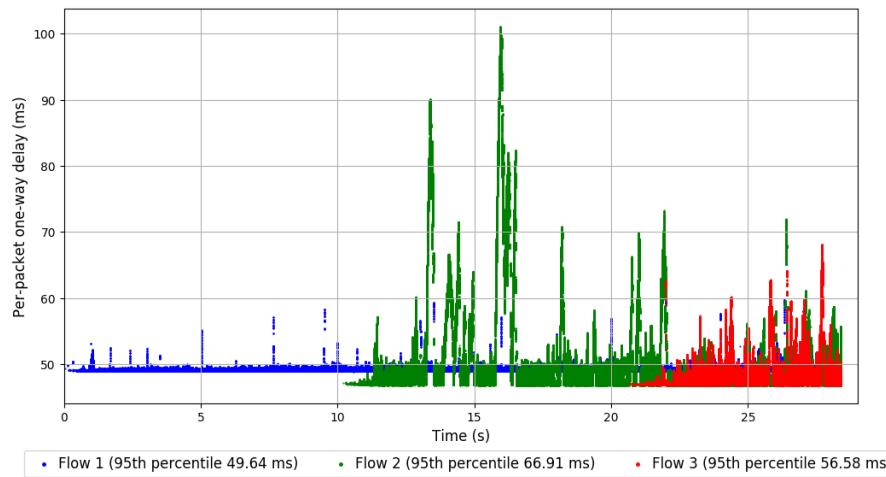
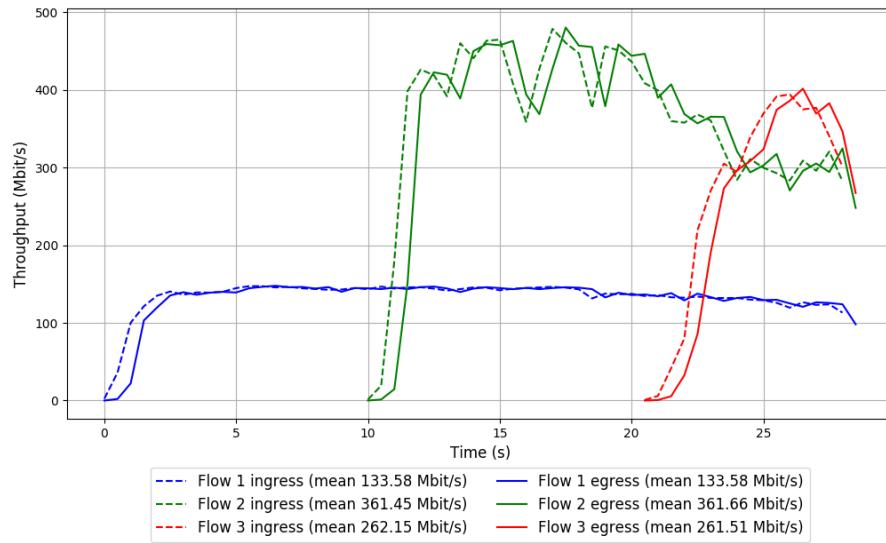


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 21:25:52
End at: 2019-04-24 21:26:22
Local clock offset: -0.335 ms
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2019-04-24 23:39:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 437.08 Mbit/s
95th percentile per-packet one-way delay: 59.795 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 133.58 Mbit/s
95th percentile per-packet one-way delay: 49.643 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 361.66 Mbit/s
95th percentile per-packet one-way delay: 66.909 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 261.51 Mbit/s
95th percentile per-packet one-way delay: 56.582 ms
Loss rate: 1.46%
```

Run 5: Report of Indigo-MusesD — Data Link

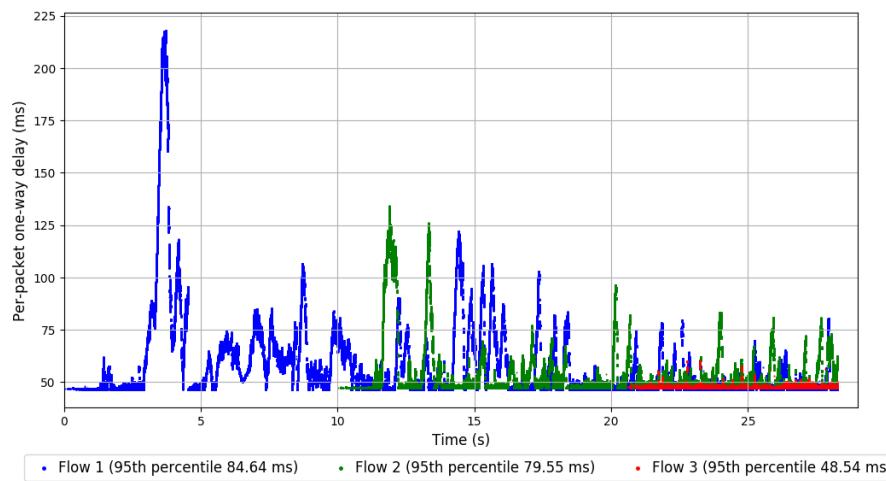
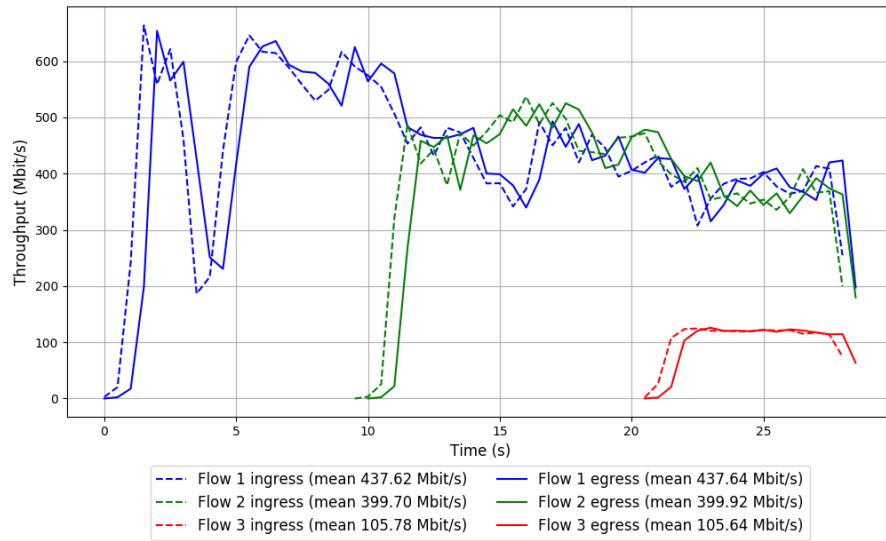


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 19:30:30
End at: 2019-04-24 19:31:00
Local clock offset: 0.078 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2019-04-24 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 725.04 Mbit/s
95th percentile per-packet one-way delay: 82.706 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 437.64 Mbit/s
95th percentile per-packet one-way delay: 84.643 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 399.92 Mbit/s
95th percentile per-packet one-way delay: 79.551 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 105.64 Mbit/s
95th percentile per-packet one-way delay: 48.543 ms
Loss rate: 1.36%
```

Run 1: Report of Indigo-MusesT — Data Link

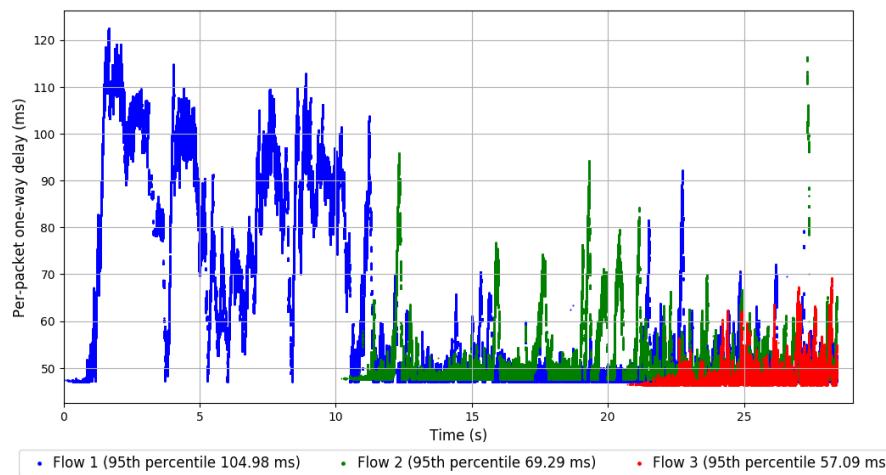
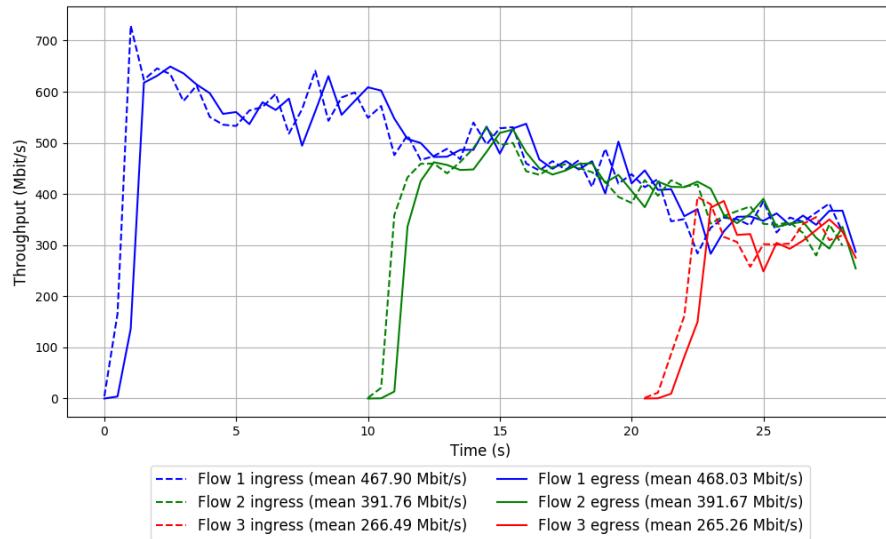


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 20:05:08
End at: 2019-04-24 20:05:38
Local clock offset: -0.043 ms
Remote clock offset: -0.142 ms

# Below is generated by plot.py at 2019-04-24 23:43:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 791.16 Mbit/s
95th percentile per-packet one-way delay: 101.555 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 468.03 Mbit/s
95th percentile per-packet one-way delay: 104.982 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 391.67 Mbit/s
95th percentile per-packet one-way delay: 69.291 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 265.26 Mbit/s
95th percentile per-packet one-way delay: 57.087 ms
Loss rate: 1.64%
```

Run 2: Report of Indigo-MusesT — Data Link

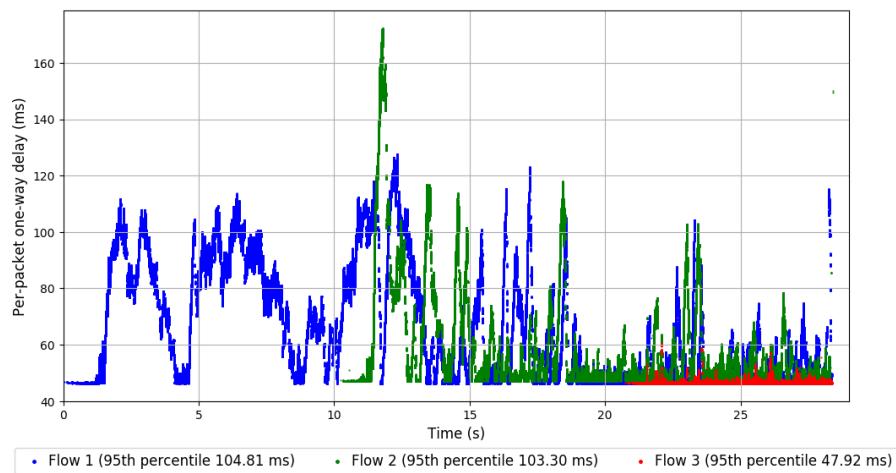
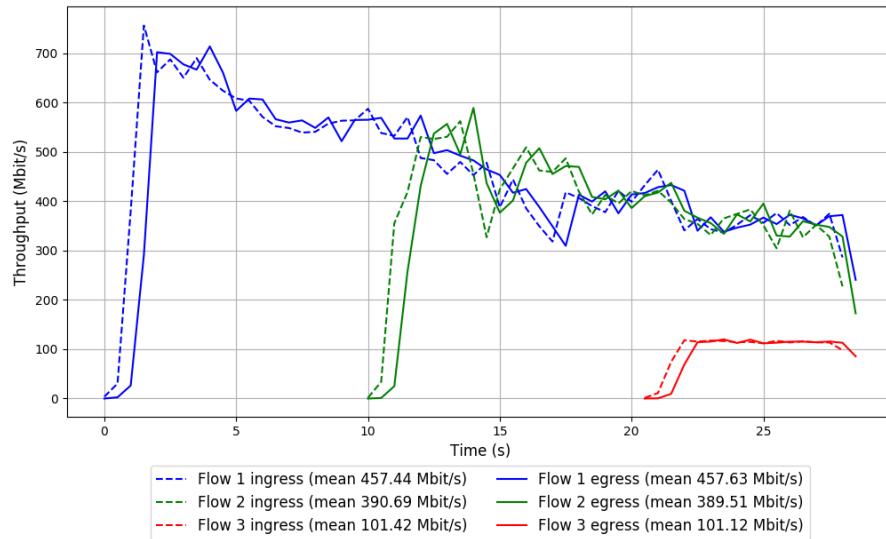


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 20:39:45
End at: 2019-04-24 20:40:15
Local clock offset: -0.016 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2019-04-24 23:43:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 733.91 Mbit/s
95th percentile per-packet one-way delay: 104.219 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 457.63 Mbit/s
95th percentile per-packet one-way delay: 104.807 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 389.51 Mbit/s
95th percentile per-packet one-way delay: 103.300 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 101.12 Mbit/s
95th percentile per-packet one-way delay: 47.923 ms
Loss rate: 1.51%
```

Run 3: Report of Indigo-MusesT — Data Link

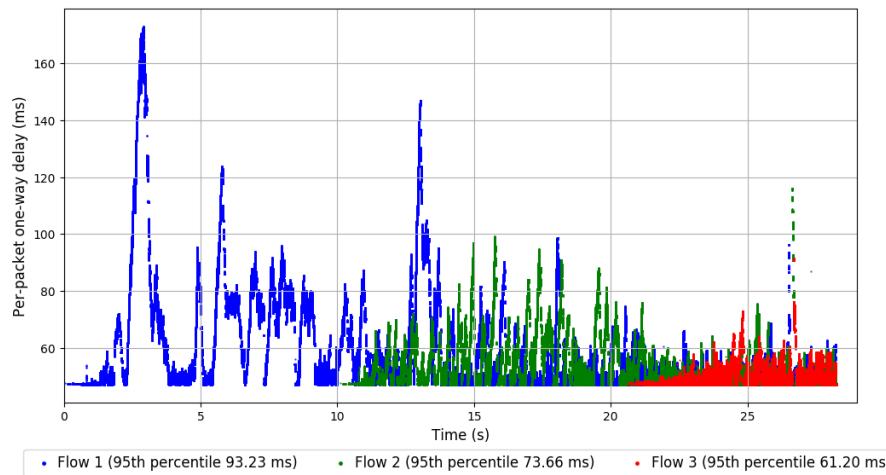
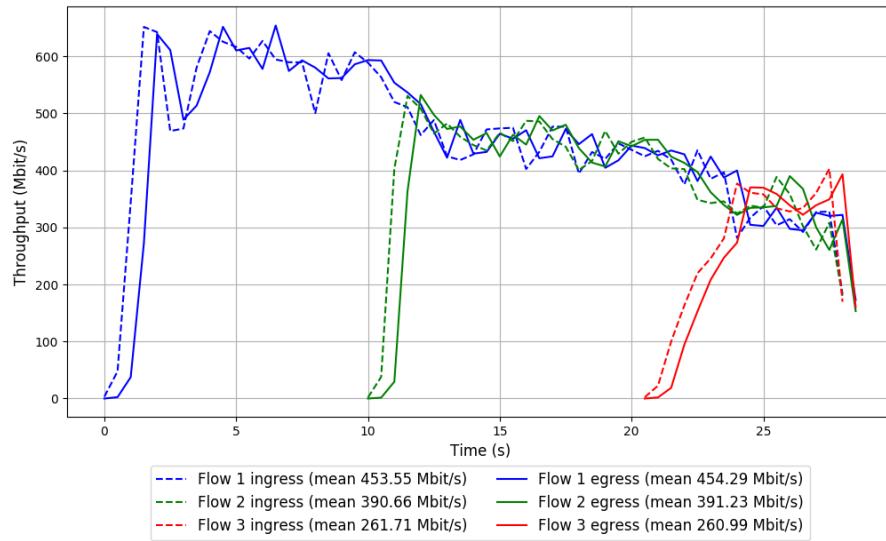


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 21:14:18
End at: 2019-04-24 21:14:48
Local clock offset: 0.051 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-04-24 23:49:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 776.58 Mbit/s
95th percentile per-packet one-way delay: 85.431 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 454.29 Mbit/s
95th percentile per-packet one-way delay: 93.233 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 391.23 Mbit/s
95th percentile per-packet one-way delay: 73.655 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 260.99 Mbit/s
95th percentile per-packet one-way delay: 61.196 ms
Loss rate: 1.51%
```

Run 4: Report of Indigo-MusesT — Data Link

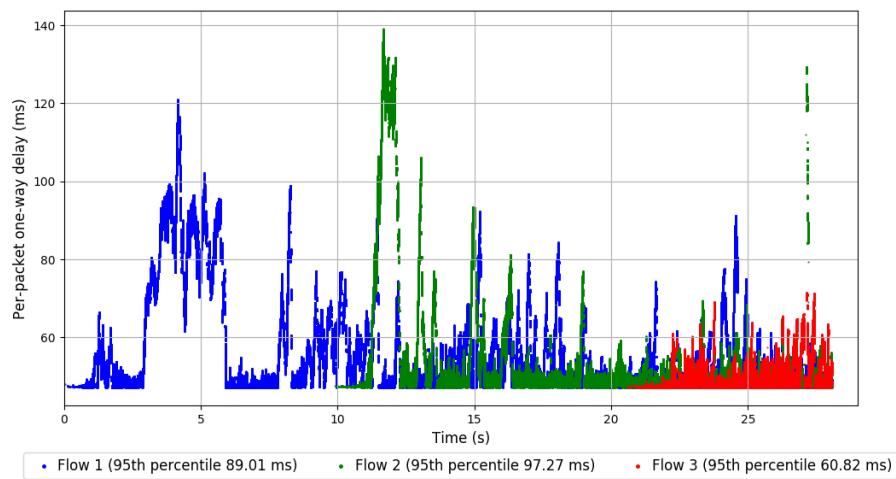
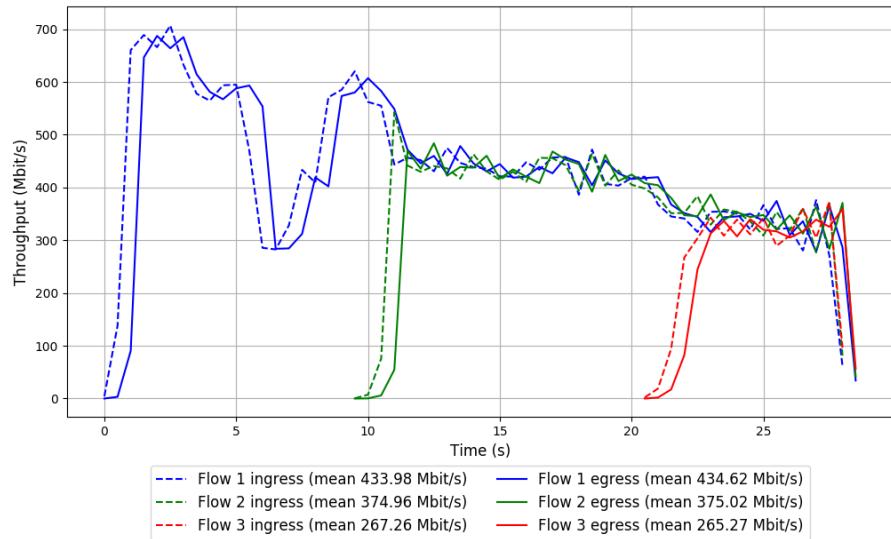


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 21:48:37
End at: 2019-04-24 21:49:07
Local clock offset: 0.046 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2019-04-24 23:50:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 749.04 Mbit/s
95th percentile per-packet one-way delay: 88.853 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 434.62 Mbit/s
95th percentile per-packet one-way delay: 89.012 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 375.02 Mbit/s
95th percentile per-packet one-way delay: 97.267 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 265.27 Mbit/s
95th percentile per-packet one-way delay: 60.823 ms
Loss rate: 1.97%
```

Run 5: Report of Indigo-MusesT — Data Link

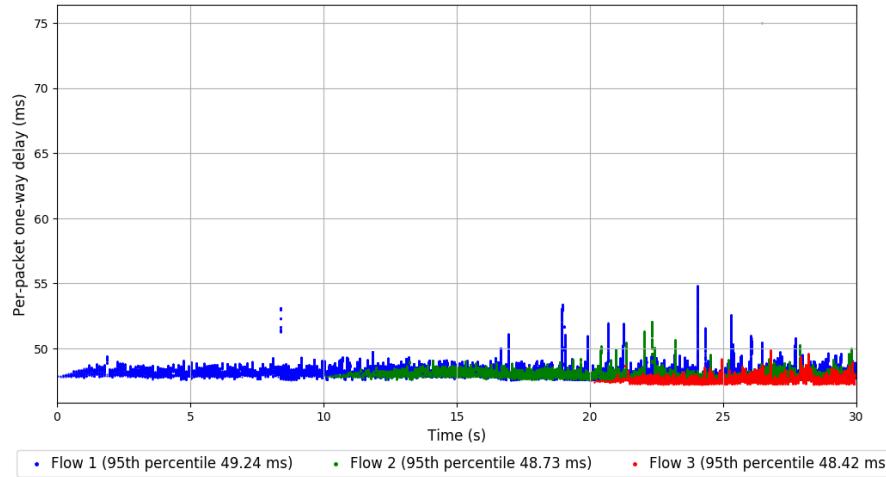
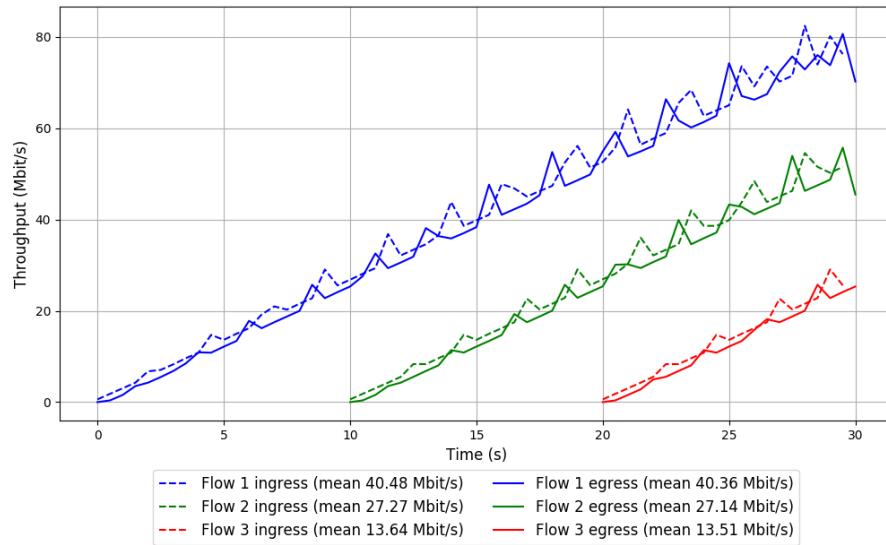


Run 1: Statistics of LEDBAT

```
Start at: 2019-04-24 19:09:17
End at: 2019-04-24 19:09:47
Local clock offset: 0.109 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-04-24 23:50:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.83 Mbit/s
95th percentile per-packet one-way delay: 49.115 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 40.36 Mbit/s
95th percentile per-packet one-way delay: 49.240 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.14 Mbit/s
95th percentile per-packet one-way delay: 48.733 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 13.51 Mbit/s
95th percentile per-packet one-way delay: 48.420 ms
Loss rate: 1.92%
```

Run 1: Report of LEDBAT — Data Link

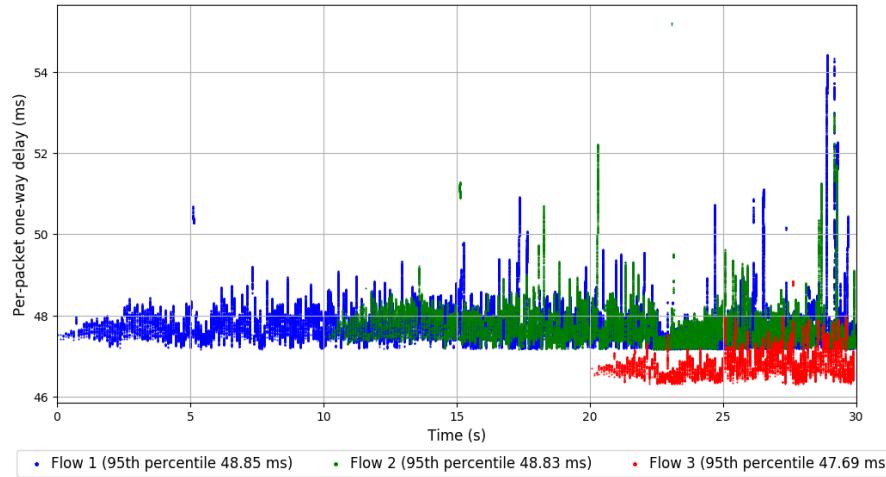
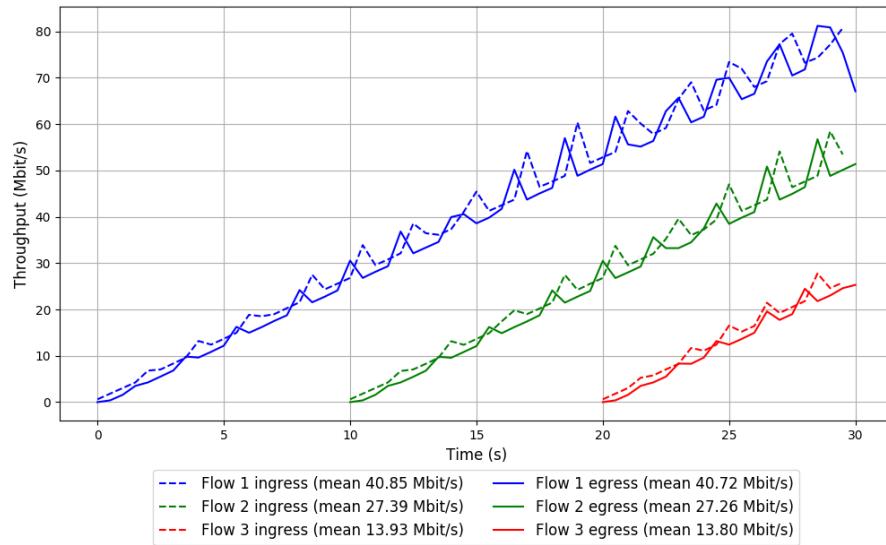


Run 2: Statistics of LEDBAT

```
Start at: 2019-04-24 19:43:59
End at: 2019-04-24 19:44:29
Local clock offset: -0.025 ms
Remote clock offset: -0.15 ms

# Below is generated by plot.py at 2019-04-24 23:50:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.39 Mbit/s
95th percentile per-packet one-way delay: 48.784 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 40.72 Mbit/s
95th percentile per-packet one-way delay: 48.848 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 48.825 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.80 Mbit/s
95th percentile per-packet one-way delay: 47.691 ms
Loss rate: 1.90%
```

Run 2: Report of LEDBAT — Data Link

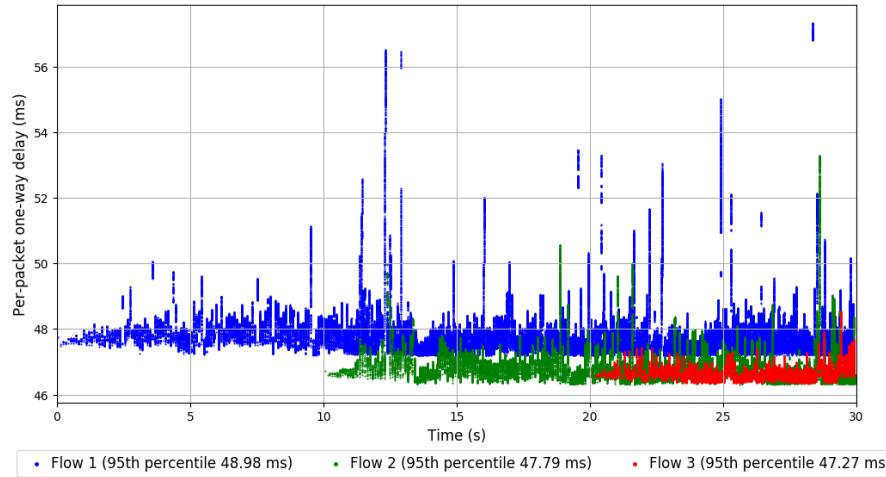
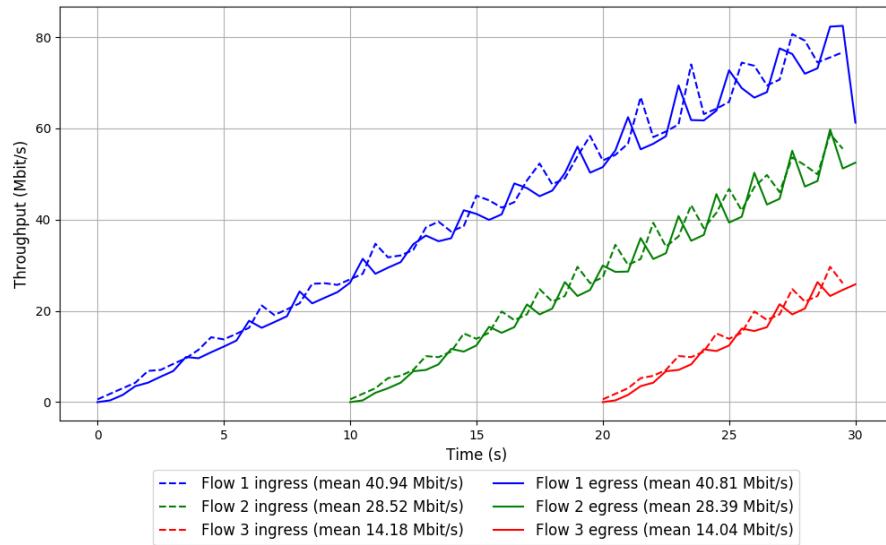


Run 3: Statistics of LEDBAT

```
Start at: 2019-04-24 20:18:36
End at: 2019-04-24 20:19:06
Local clock offset: -0.026 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-04-24 23:50:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.24 Mbit/s
95th percentile per-packet one-way delay: 48.654 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 48.976 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 28.39 Mbit/s
95th percentile per-packet one-way delay: 47.787 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 14.04 Mbit/s
95th percentile per-packet one-way delay: 47.267 ms
Loss rate: 1.88%
```

Run 3: Report of LEDBAT — Data Link

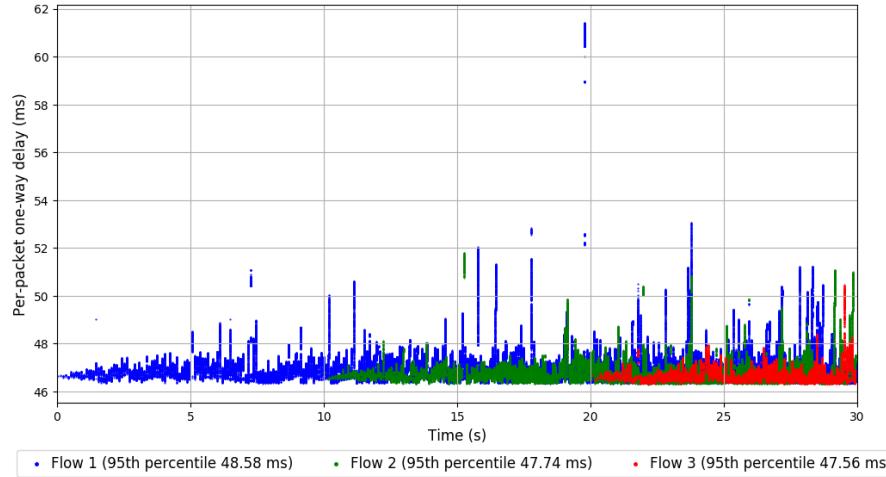
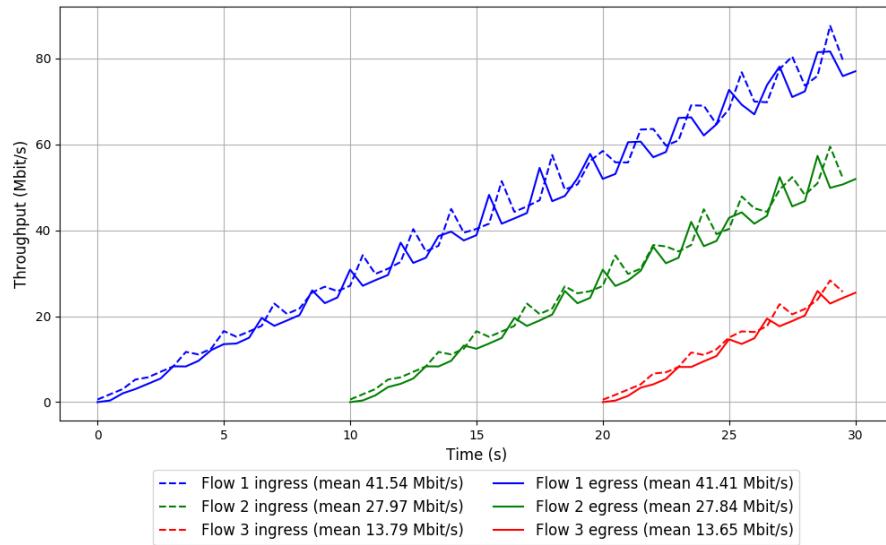


Run 4: Statistics of LEDBAT

```
Start at: 2019-04-24 20:53:13
End at: 2019-04-24 20:53:43
Local clock offset: 0.032 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-04-24 23:50:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.42 Mbit/s
95th percentile per-packet one-way delay: 48.260 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 41.41 Mbit/s
95th percentile per-packet one-way delay: 48.575 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 27.84 Mbit/s
95th percentile per-packet one-way delay: 47.738 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 13.65 Mbit/s
95th percentile per-packet one-way delay: 47.556 ms
Loss rate: 1.91%
```

Run 4: Report of LEDBAT — Data Link

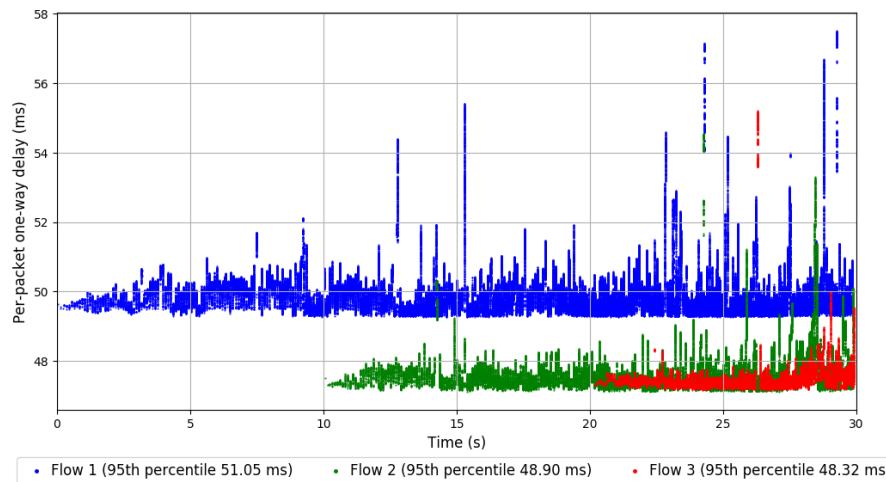
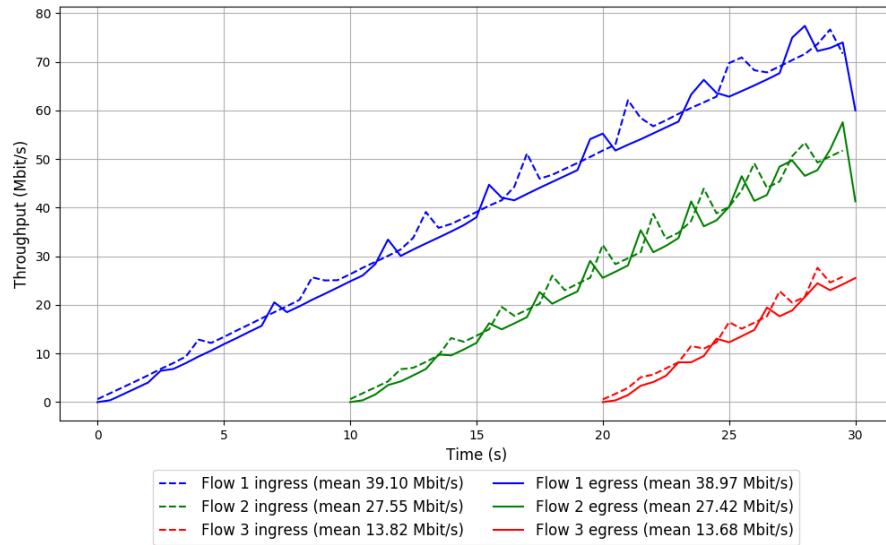


Run 5: Statistics of LEDBAT

```
Start at: 2019-04-24 21:27:24
End at: 2019-04-24 21:27:54
Local clock offset: 0.036 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-04-24 23:50:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.64 Mbit/s
95th percentile per-packet one-way delay: 50.746 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 38.97 Mbit/s
95th percentile per-packet one-way delay: 51.054 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 27.42 Mbit/s
95th percentile per-packet one-way delay: 48.899 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.68 Mbit/s
95th percentile per-packet one-way delay: 48.316 ms
Loss rate: 1.92%
```

Run 5: Report of LEDBAT — Data Link

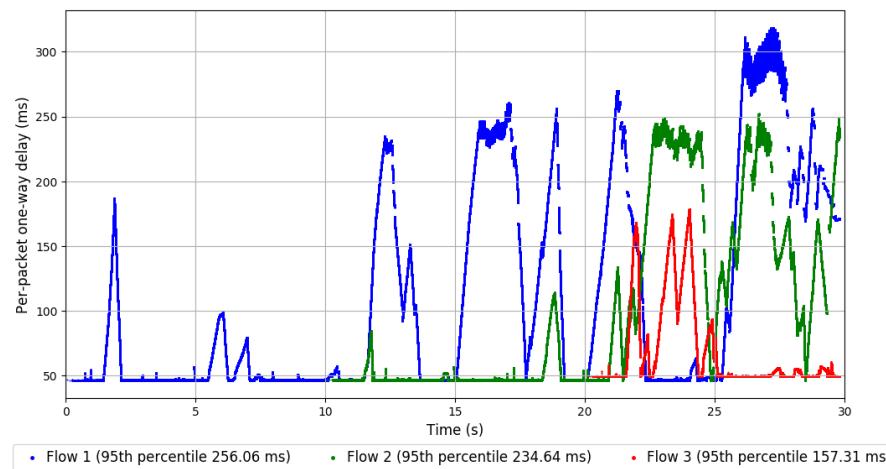
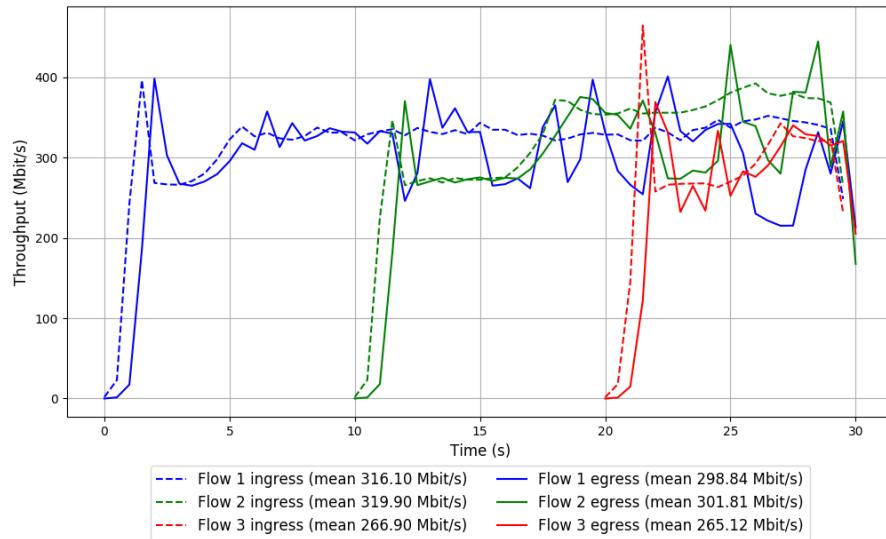


Run 1: Statistics of PCC-Allegro

```
Start at: 2019-04-24 18:59:13
End at: 2019-04-24 18:59:43
Local clock offset: 0.021 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2019-04-25 00:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.70 Mbit/s
95th percentile per-packet one-way delay: 239.059 ms
Loss rate: 5.30%
-- Flow 1:
Average throughput: 298.84 Mbit/s
95th percentile per-packet one-way delay: 256.063 ms
Loss rate: 5.76%
-- Flow 2:
Average throughput: 301.81 Mbit/s
95th percentile per-packet one-way delay: 234.642 ms
Loss rate: 6.11%
-- Flow 3:
Average throughput: 265.12 Mbit/s
95th percentile per-packet one-way delay: 157.312 ms
Loss rate: 1.66%
```

Run 1: Report of PCC-Allegro — Data Link

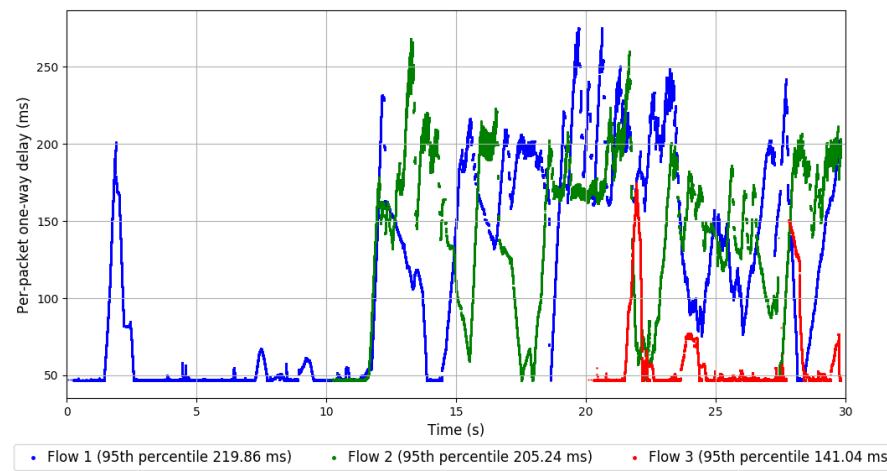
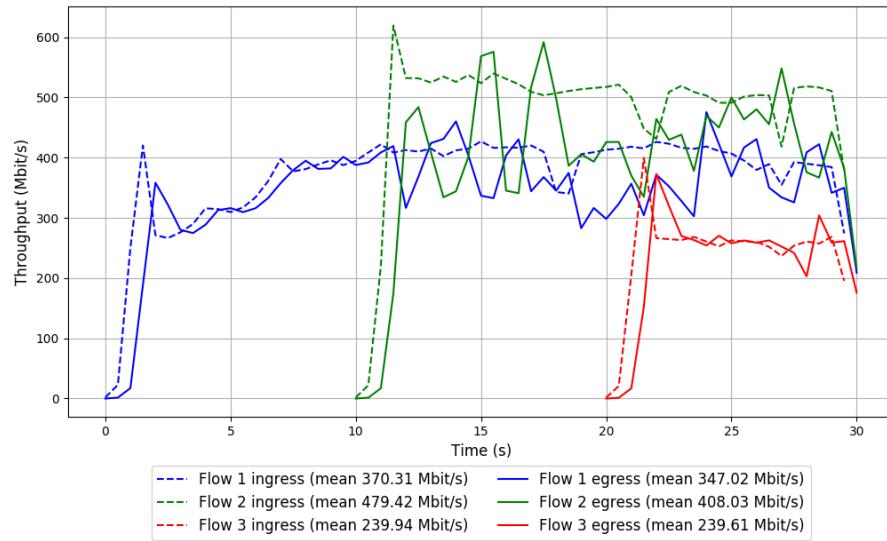


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-04-24 19:33:48
End at: 2019-04-24 19:34:18
Local clock offset: 0.358 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2019-04-25 00:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 696.13 Mbit/s
95th percentile per-packet one-way delay: 209.617 ms
Loss rate: 9.64%
-- Flow 1:
Average throughput: 347.02 Mbit/s
95th percentile per-packet one-way delay: 219.861 ms
Loss rate: 6.58%
-- Flow 2:
Average throughput: 408.03 Mbit/s
95th percentile per-packet one-way delay: 205.241 ms
Loss rate: 15.30%
-- Flow 3:
Average throughput: 239.61 Mbit/s
95th percentile per-packet one-way delay: 141.042 ms
Loss rate: 1.09%
```

Run 2: Report of PCC-Allegro — Data Link

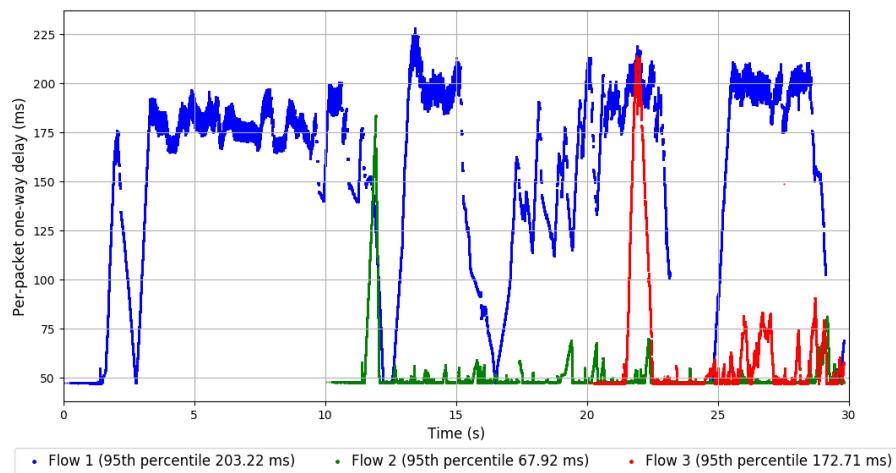
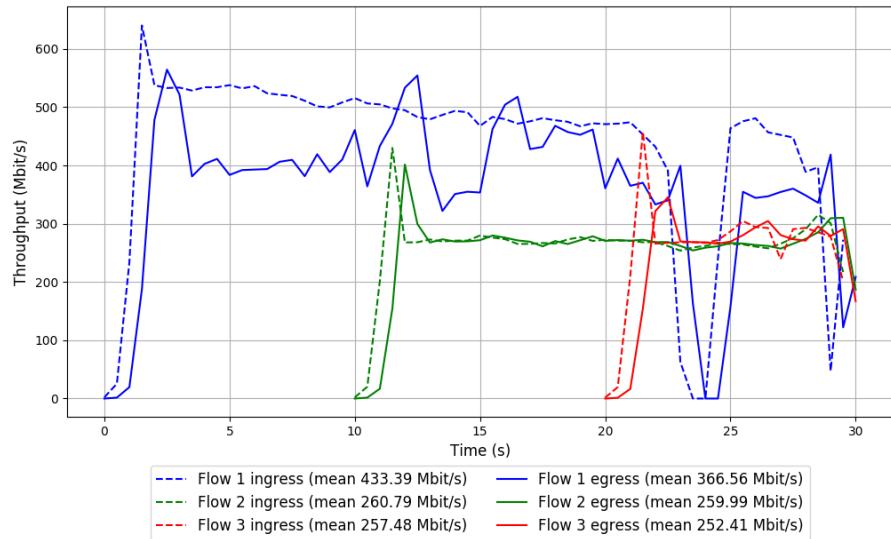


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-04-24 20:08:33
End at: 2019-04-24 20:09:03
Local clock offset: -0.042 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2019-04-25 00:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 621.77 Mbit/s
95th percentile per-packet one-way delay: 200.260 ms
Loss rate: 10.39%
-- Flow 1:
Average throughput: 366.56 Mbit/s
95th percentile per-packet one-way delay: 203.219 ms
Loss rate: 15.69%
-- Flow 2:
Average throughput: 259.99 Mbit/s
95th percentile per-packet one-way delay: 67.918 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 252.41 Mbit/s
95th percentile per-packet one-way delay: 172.705 ms
Loss rate: 2.92%
```

Run 3: Report of PCC-Allegro — Data Link

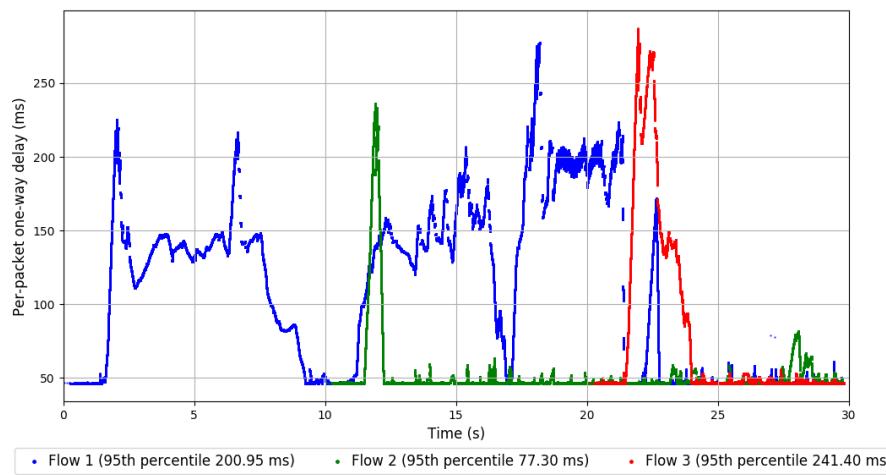
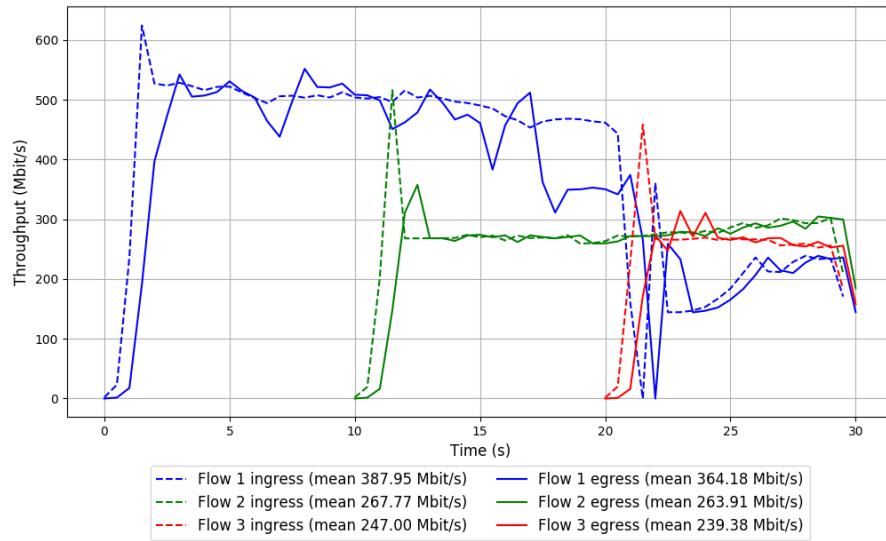


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-04-24 20:43:07
End at: 2019-04-24 20:43:37
Local clock offset: -0.026 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2019-04-25 00:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 617.46 Mbit/s
95th percentile per-packet one-way delay: 199.489 ms
Loss rate: 4.88%
-- Flow 1:
Average throughput: 364.18 Mbit/s
95th percentile per-packet one-way delay: 200.952 ms
Loss rate: 6.42%
-- Flow 2:
Average throughput: 263.91 Mbit/s
95th percentile per-packet one-way delay: 77.299 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 239.38 Mbit/s
95th percentile per-packet one-way delay: 241.401 ms
Loss rate: 4.02%
```

Run 4: Report of PCC-Allegro — Data Link

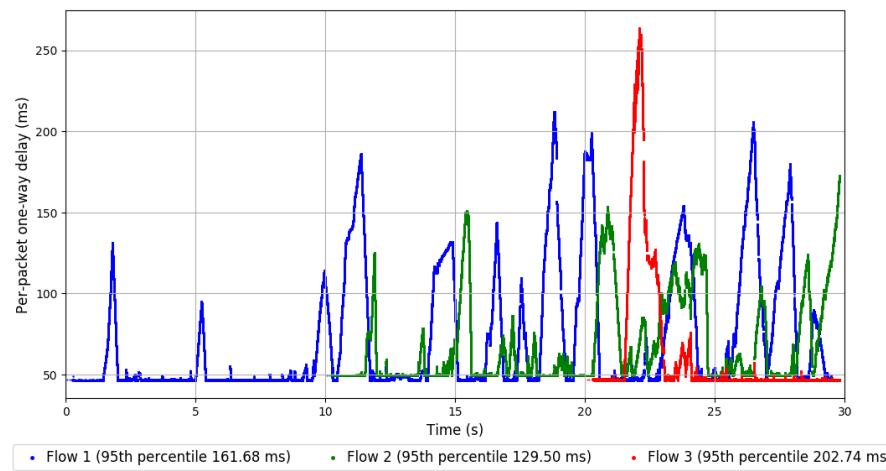
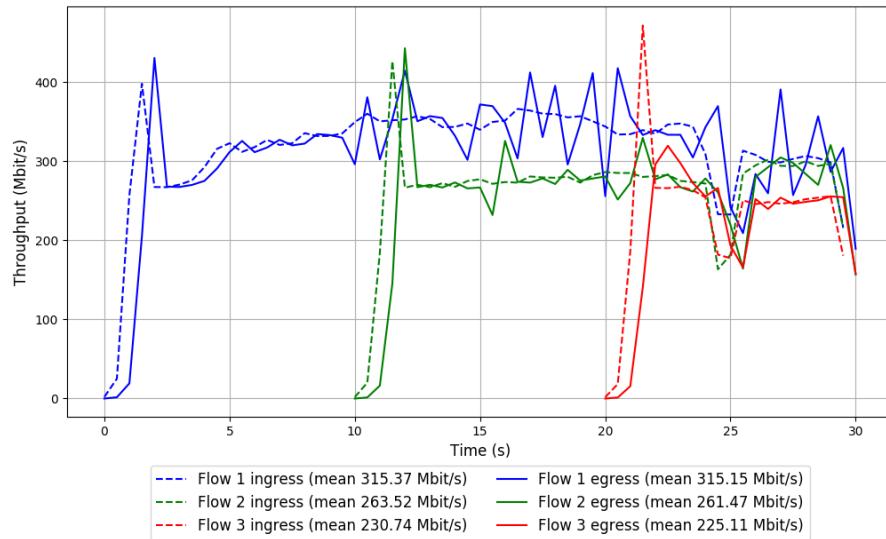


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-04-24 21:17:44
End at: 2019-04-24 21:18:14
Local clock offset: 0.044 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-04-25 00:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 562.29 Mbit/s
95th percentile per-packet one-way delay: 150.185 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 315.15 Mbit/s
95th percentile per-packet one-way delay: 161.681 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 261.47 Mbit/s
95th percentile per-packet one-way delay: 129.497 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 225.11 Mbit/s
95th percentile per-packet one-way delay: 202.736 ms
Loss rate: 3.38%
```

Run 5: Report of PCC-Allegro — Data Link

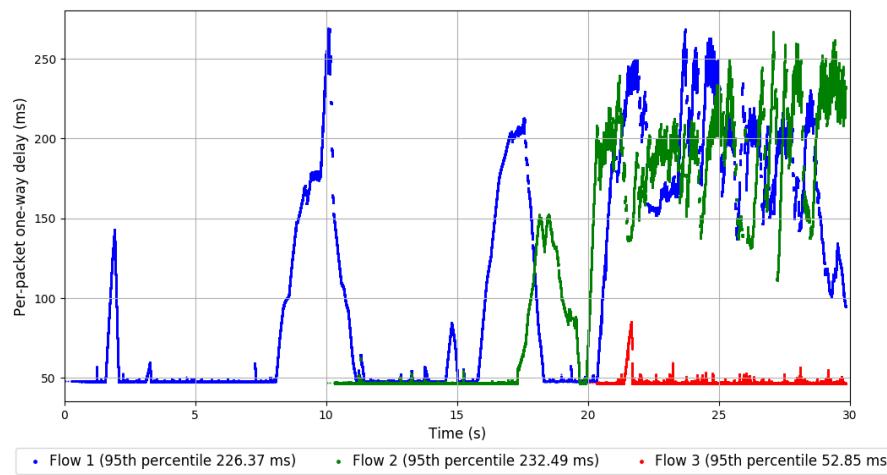
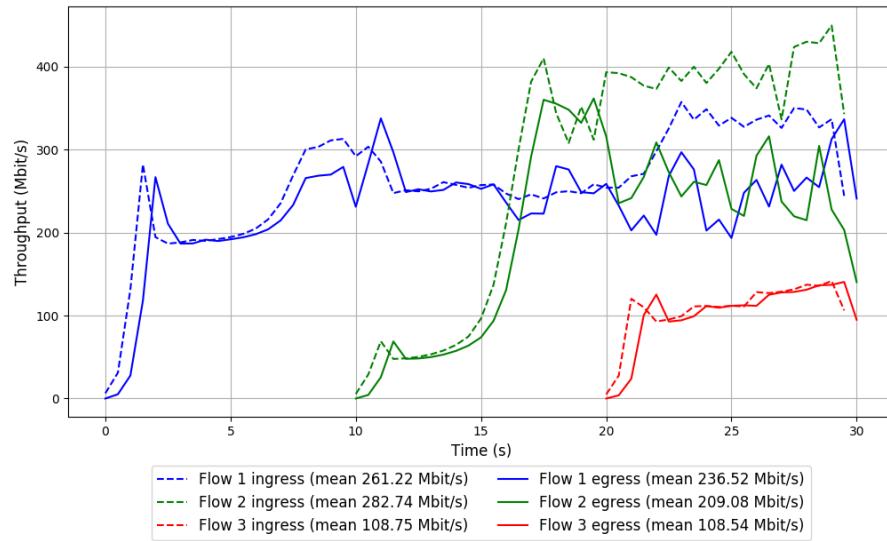


Run 1: Statistics of PCC-Expr

```
Start at: 2019-04-24 19:20:43
End at: 2019-04-24 19:21:13
Local clock offset: 0.101 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-04-25 00:09:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 410.90 Mbit/s
95th percentile per-packet one-way delay: 228.169 ms
Loss rate: 15.57%
-- Flow 1:
Average throughput: 236.52 Mbit/s
95th percentile per-packet one-way delay: 226.369 ms
Loss rate: 9.74%
-- Flow 2:
Average throughput: 209.08 Mbit/s
95th percentile per-packet one-way delay: 232.494 ms
Loss rate: 26.40%
-- Flow 3:
Average throughput: 108.54 Mbit/s
95th percentile per-packet one-way delay: 52.854 ms
Loss rate: 1.14%
```

Run 1: Report of PCC-Expr — Data Link

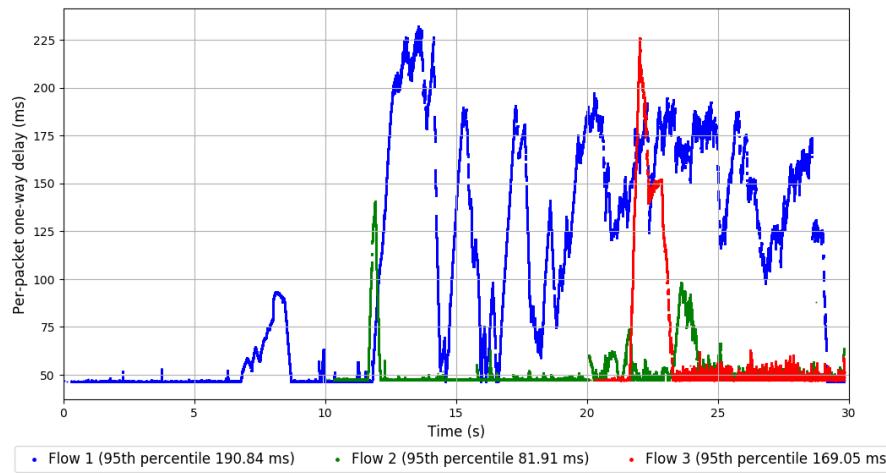
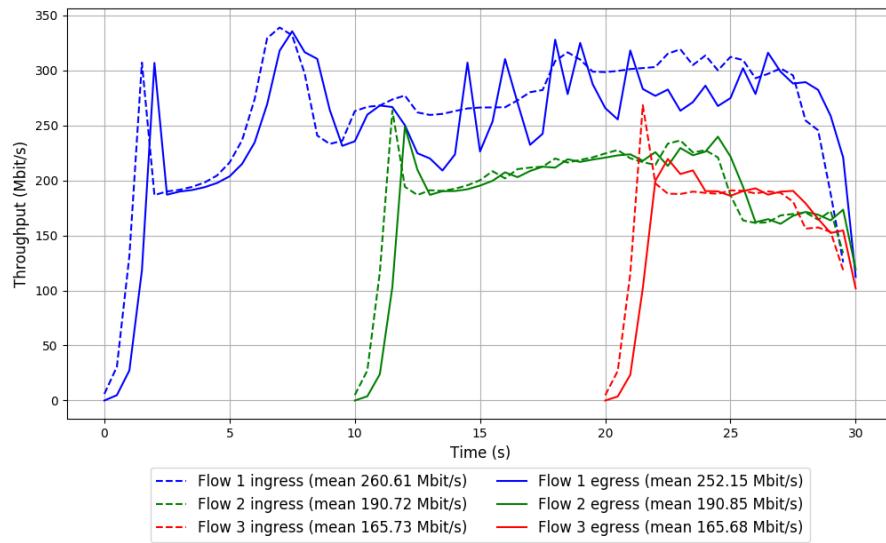


Run 2: Statistics of PCC-Expr

```
Start at: 2019-04-24 19:55:20
End at: 2019-04-24 19:55:50
Local clock offset: -0.034 ms
Remote clock offset: -0.157 ms

# Below is generated by plot.py at 2019-04-25 00:09:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 433.13 Mbit/s
95th percentile per-packet one-way delay: 184.574 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 252.15 Mbit/s
95th percentile per-packet one-way delay: 190.835 ms
Loss rate: 3.55%
-- Flow 2:
Average throughput: 190.85 Mbit/s
95th percentile per-packet one-way delay: 81.914 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 165.68 Mbit/s
95th percentile per-packet one-way delay: 169.051 ms
Loss rate: 1.10%
```

Run 2: Report of PCC-Expr — Data Link

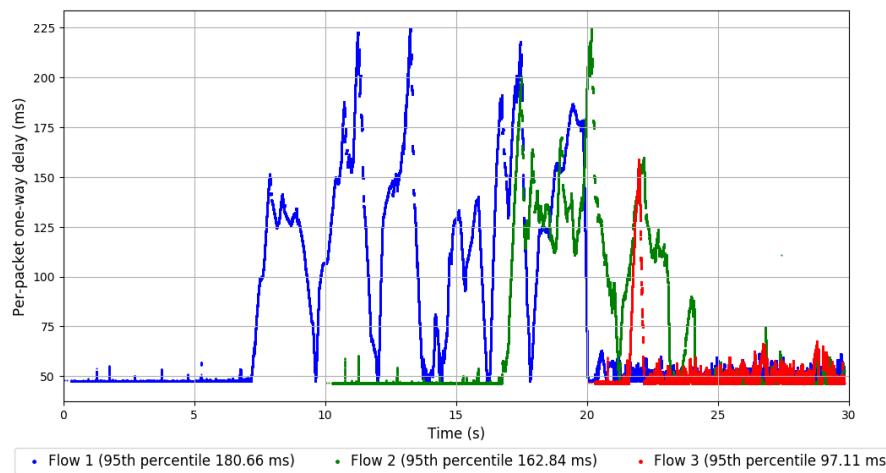
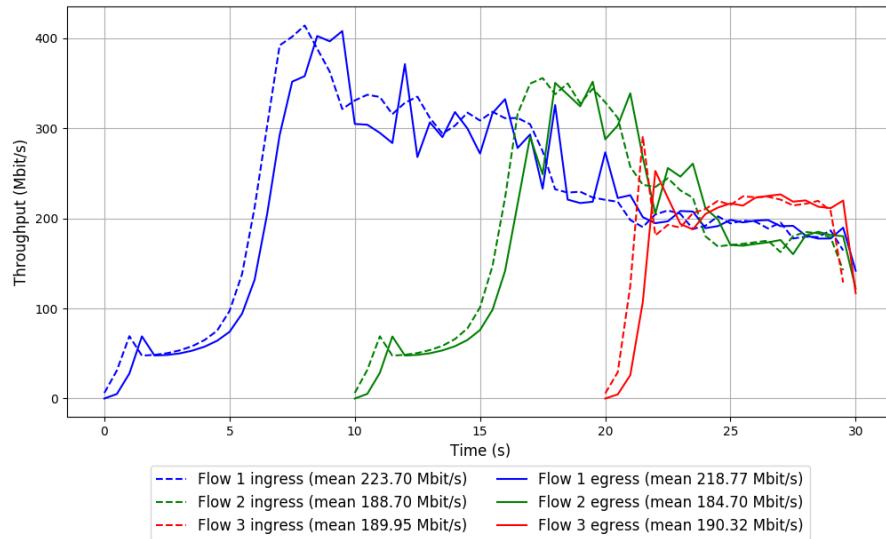


Run 3: Statistics of PCC-Expr

```
Start at: 2019-04-24 20:30:01
End at: 2019-04-24 20:30:31
Local clock offset: -0.02 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-04-25 00:09:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 403.78 Mbit/s
95th percentile per-packet one-way delay: 173.119 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 218.77 Mbit/s
95th percentile per-packet one-way delay: 180.659 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 184.70 Mbit/s
95th percentile per-packet one-way delay: 162.842 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 190.32 Mbit/s
95th percentile per-packet one-way delay: 97.110 ms
Loss rate: 0.77%
```

Run 3: Report of PCC-Expr — Data Link

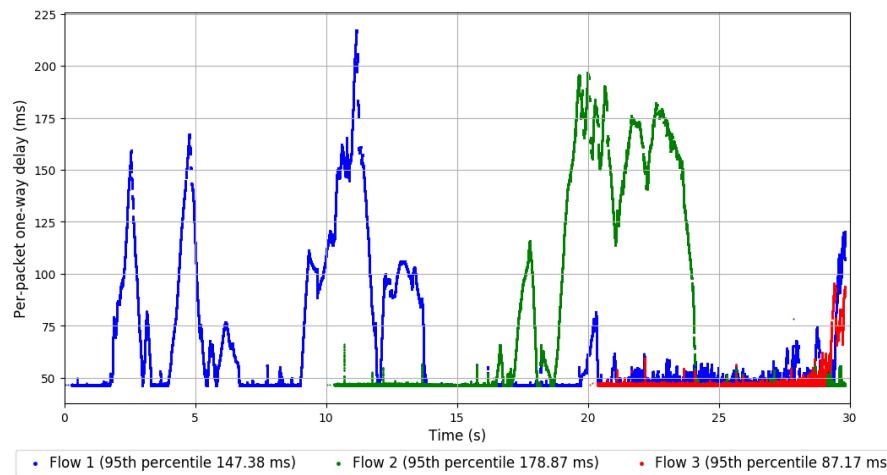
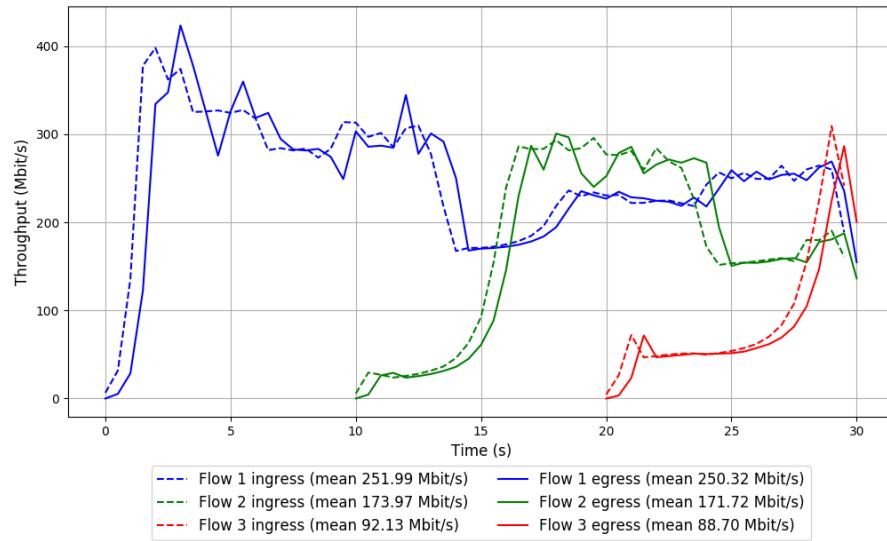


Run 4: Statistics of PCC-Expr

```
Start at: 2019-04-24 21:04:34
End at: 2019-04-24 21:05:04
Local clock offset: 0.039 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2019-04-25 00:14:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 393.43 Mbit/s
95th percentile per-packet one-way delay: 167.482 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 250.32 Mbit/s
95th percentile per-packet one-way delay: 147.385 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 171.72 Mbit/s
95th percentile per-packet one-way delay: 178.871 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 88.70 Mbit/s
95th percentile per-packet one-way delay: 87.172 ms
Loss rate: 4.64%
```

Run 4: Report of PCC-Expr — Data Link

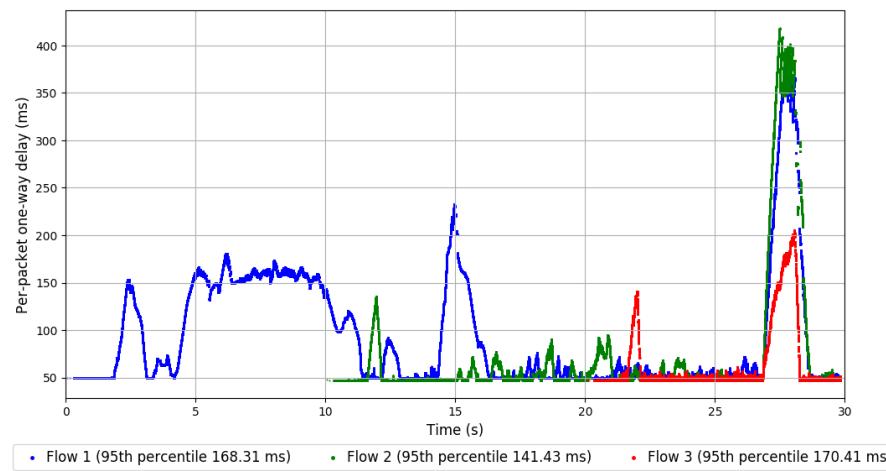
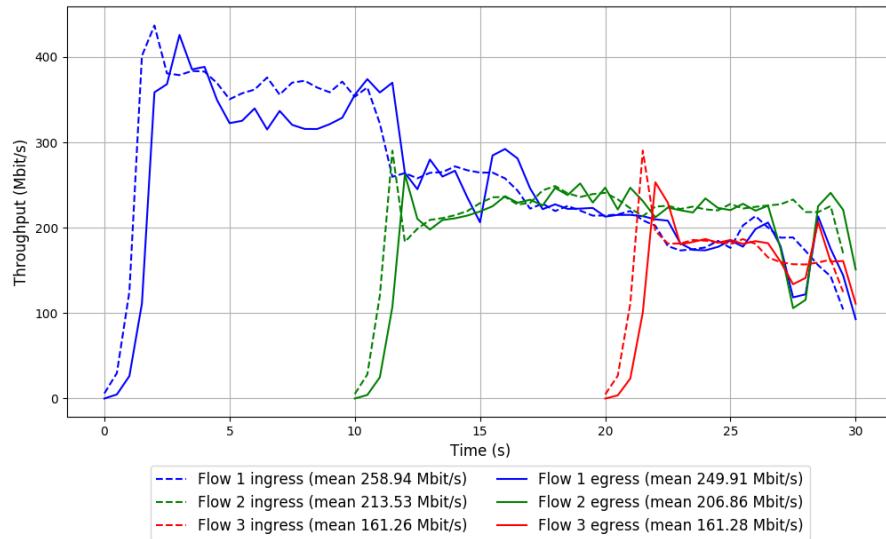


Run 5: Statistics of PCC-Expr

```
Start at: 2019-04-24 21:38:52
End at: 2019-04-24 21:39:22
Local clock offset: 0.045 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2019-04-25 00:20:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 440.17 Mbit/s
95th percentile per-packet one-way delay: 167.460 ms
Loss rate: 3.40%
-- Flow 1:
Average throughput: 249.91 Mbit/s
95th percentile per-packet one-way delay: 168.309 ms
Loss rate: 3.80%
-- Flow 2:
Average throughput: 206.86 Mbit/s
95th percentile per-packet one-way delay: 141.434 ms
Loss rate: 3.59%
-- Flow 3:
Average throughput: 161.28 Mbit/s
95th percentile per-packet one-way delay: 170.415 ms
Loss rate: 0.94%
```

Run 5: Report of PCC-Expr — Data Link

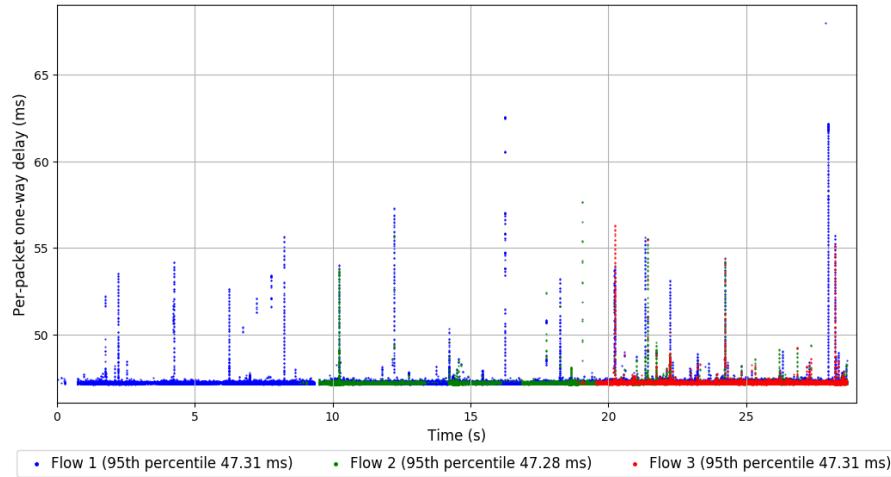
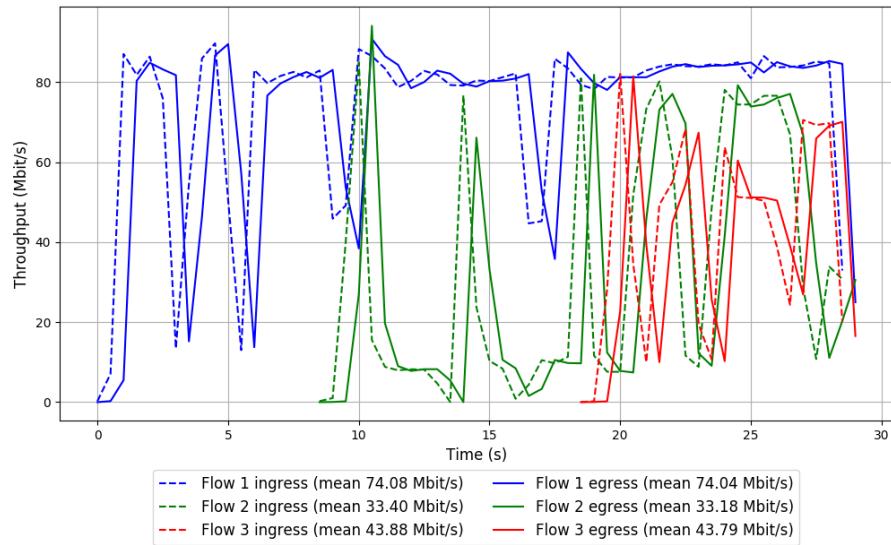


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-04-24 19:22:34
End at: 2019-04-24 19:23:04
Local clock offset: 0.044 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.02 Mbit/s
95th percentile per-packet one-way delay: 47.305 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 74.04 Mbit/s
95th percentile per-packet one-way delay: 47.312 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 33.18 Mbit/s
95th percentile per-packet one-way delay: 47.283 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 43.79 Mbit/s
95th percentile per-packet one-way delay: 47.311 ms
Loss rate: 1.15%
```

Run 1: Report of QUIC Cubic — Data Link

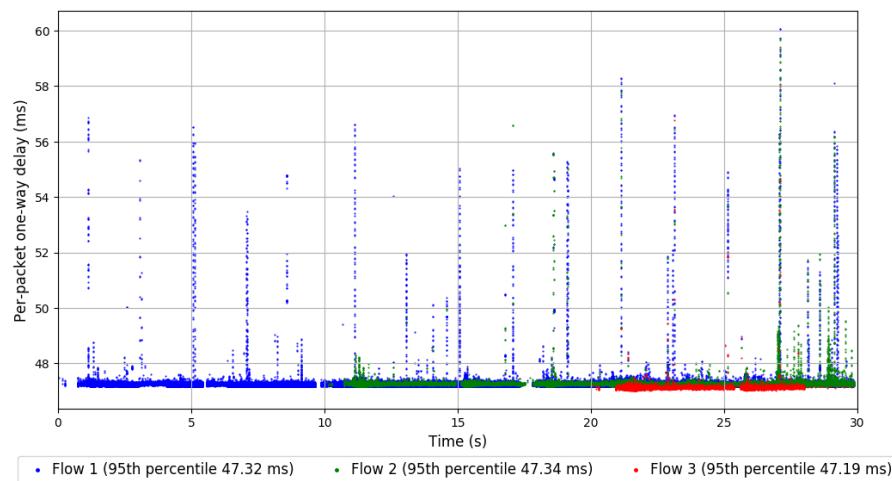
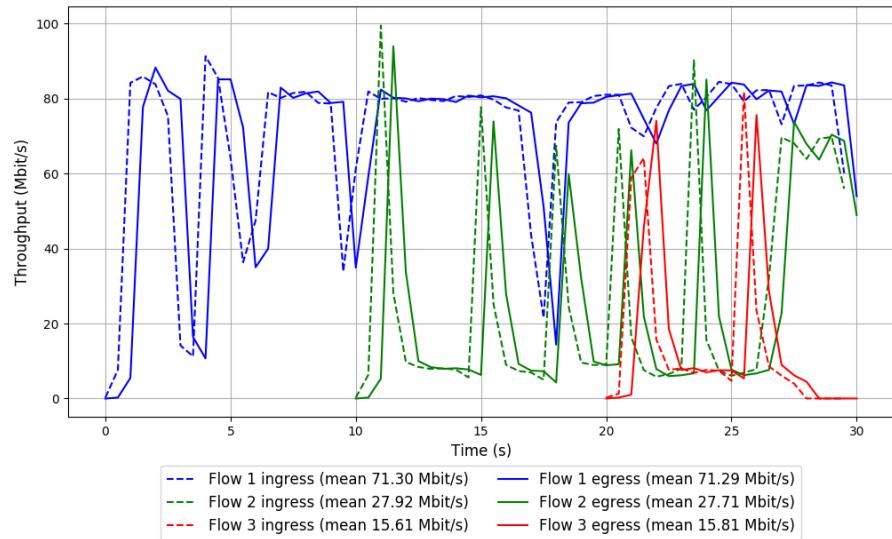


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-04-24 19:57:11
End at: 2019-04-24 19:57:41
Local clock offset: -0.061 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.84 Mbit/s
95th percentile per-packet one-way delay: 47.323 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 71.29 Mbit/s
95th percentile per-packet one-way delay: 47.322 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 27.71 Mbit/s
95th percentile per-packet one-way delay: 47.335 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 15.81 Mbit/s
95th percentile per-packet one-way delay: 47.194 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link

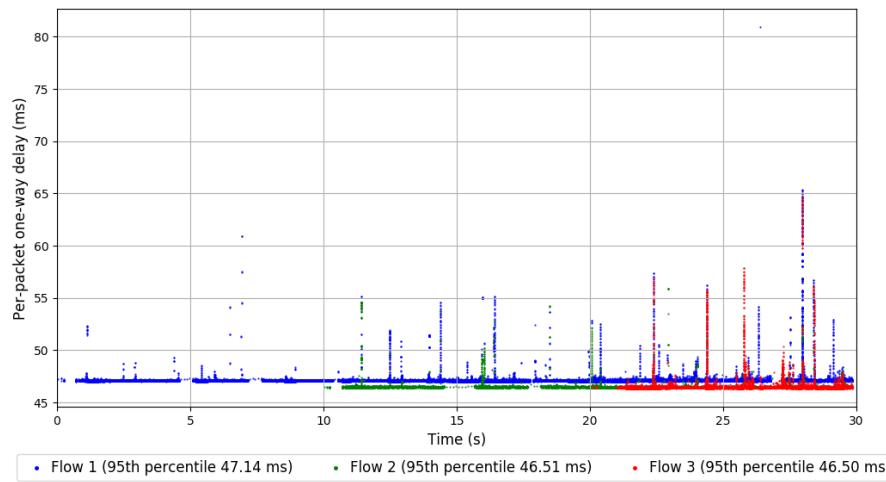
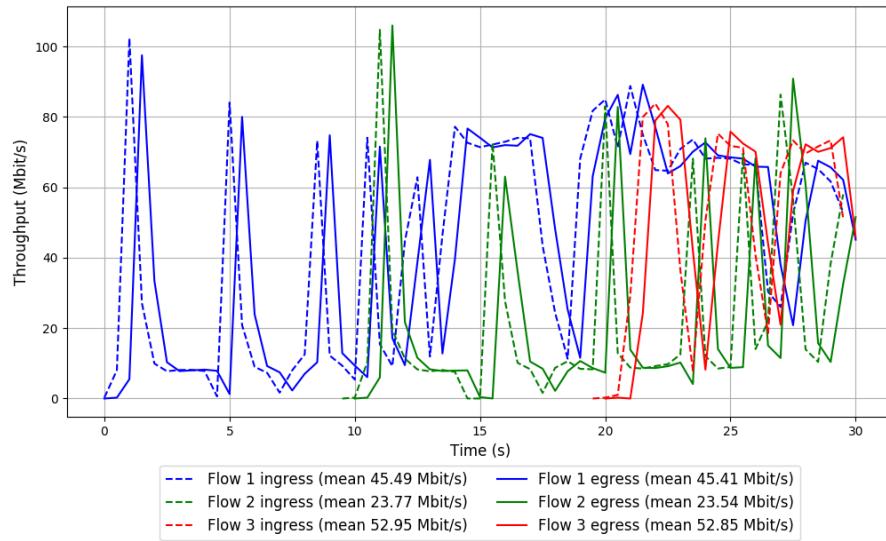


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-04-24 20:31:50
End at: 2019-04-24 20:32:20
Local clock offset: -0.034 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.45 Mbit/s
95th percentile per-packet one-way delay: 47.126 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 45.41 Mbit/s
95th percentile per-packet one-way delay: 47.144 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 23.54 Mbit/s
95th percentile per-packet one-way delay: 46.512 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 52.85 Mbit/s
95th percentile per-packet one-way delay: 46.496 ms
Loss rate: 1.14%
```

Run 3: Report of QUIC Cubic — Data Link

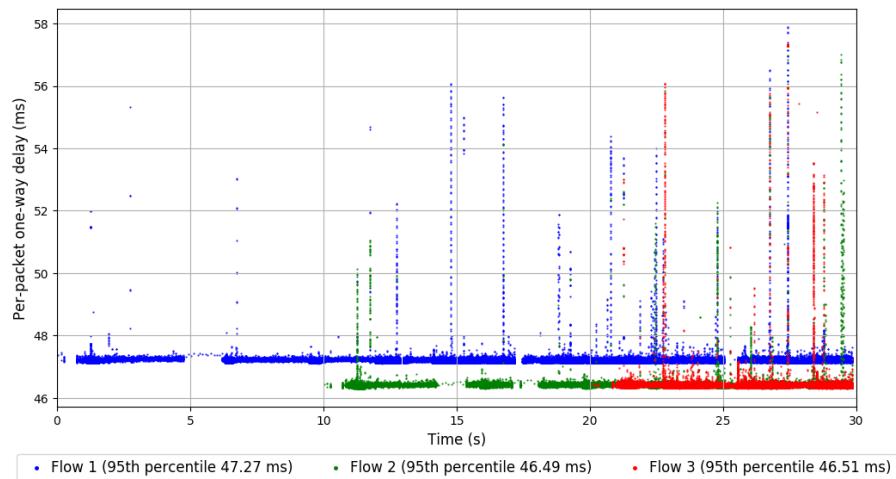
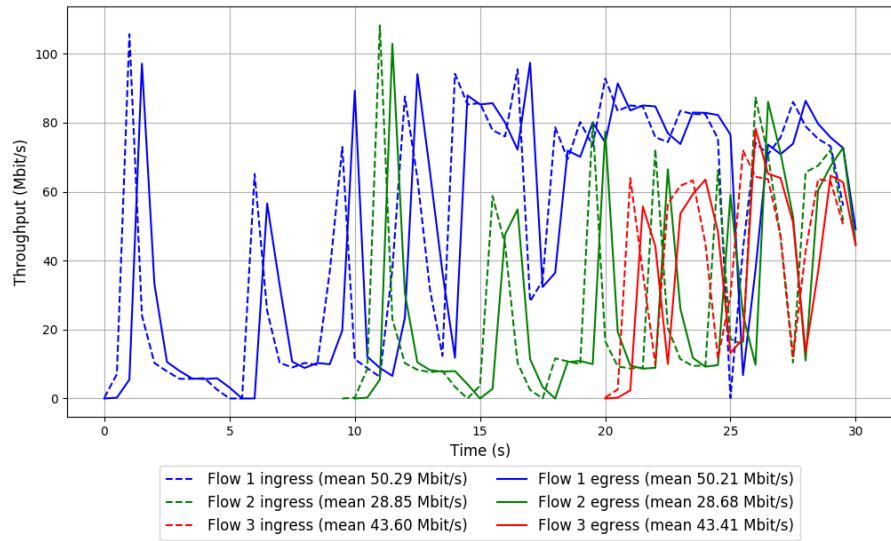


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-04-24 21:06:21
End at: 2019-04-24 21:06:51
Local clock offset: 0.054 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.51 Mbit/s
95th percentile per-packet one-way delay: 47.262 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 50.21 Mbit/s
95th percentile per-packet one-way delay: 47.275 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 28.68 Mbit/s
95th percentile per-packet one-way delay: 46.495 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 43.41 Mbit/s
95th percentile per-packet one-way delay: 46.505 ms
Loss rate: 1.39%
```

Run 4: Report of QUIC Cubic — Data Link

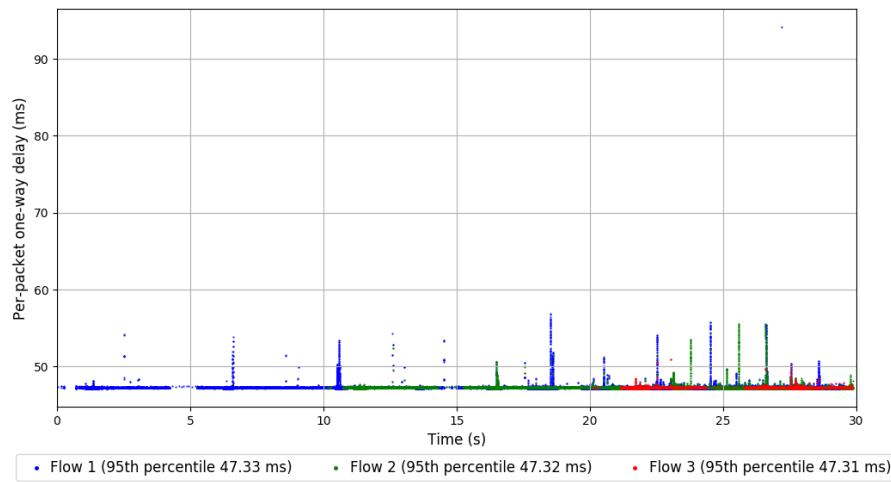
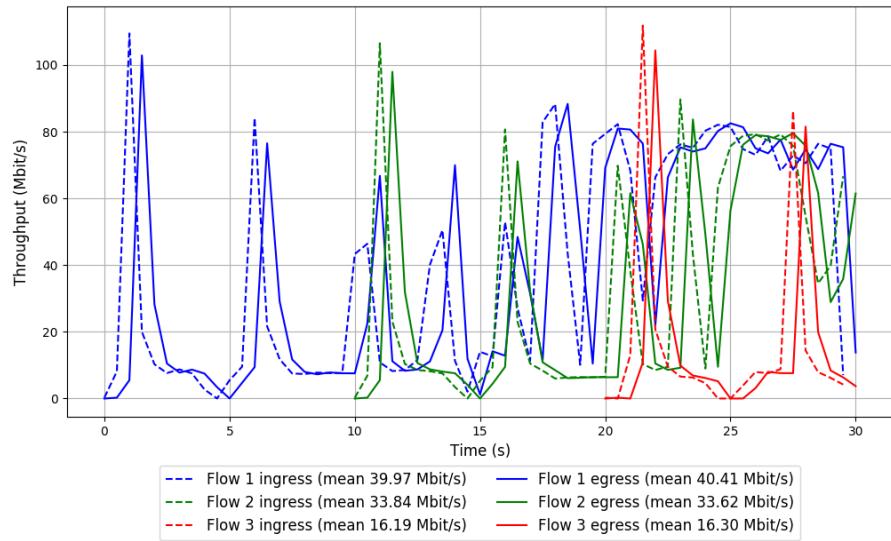


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-04-24 21:40:44
End at: 2019-04-24 21:41:14
Local clock offset: 0.027 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.73 Mbit/s
95th percentile per-packet one-way delay: 47.324 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 40.41 Mbit/s
95th percentile per-packet one-way delay: 47.330 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.62 Mbit/s
95th percentile per-packet one-way delay: 47.317 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 16.30 Mbit/s
95th percentile per-packet one-way delay: 47.306 ms
Loss rate: 0.30%
```

Run 5: Report of QUIC Cubic — Data Link

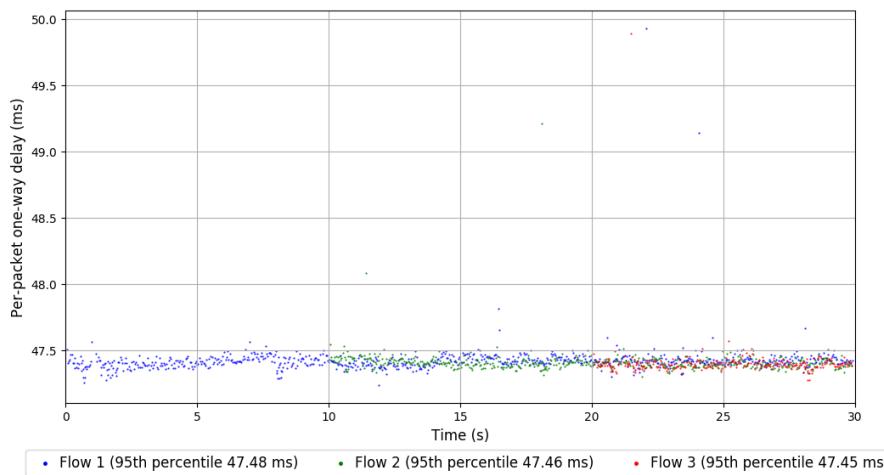
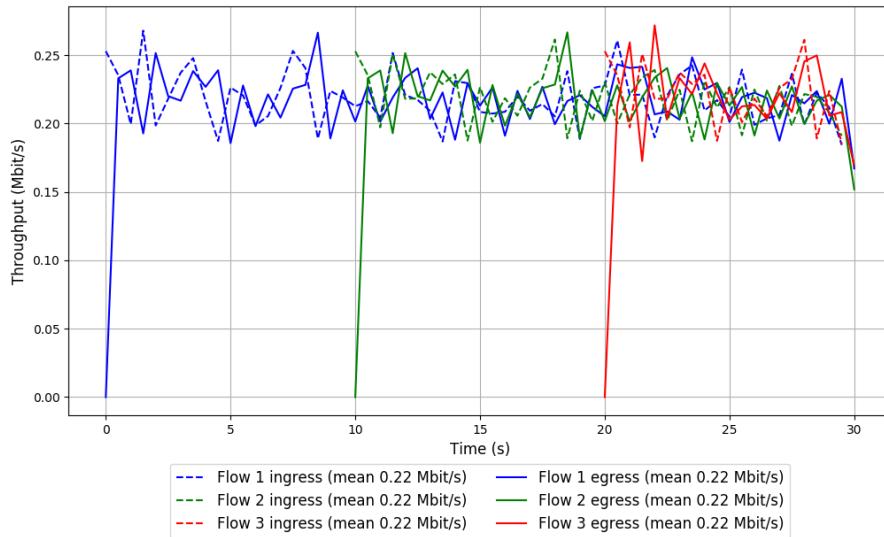


```
Run 1: Statistics of SCReAM

Start at: 2019-04-24 19:02:54
End at: 2019-04-24 19:03:24
Local clock offset: 0.038 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.475 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.483 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.464 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.454 ms
Loss rate: 1.09%
```

Run 1: Report of SCReAM — Data Link

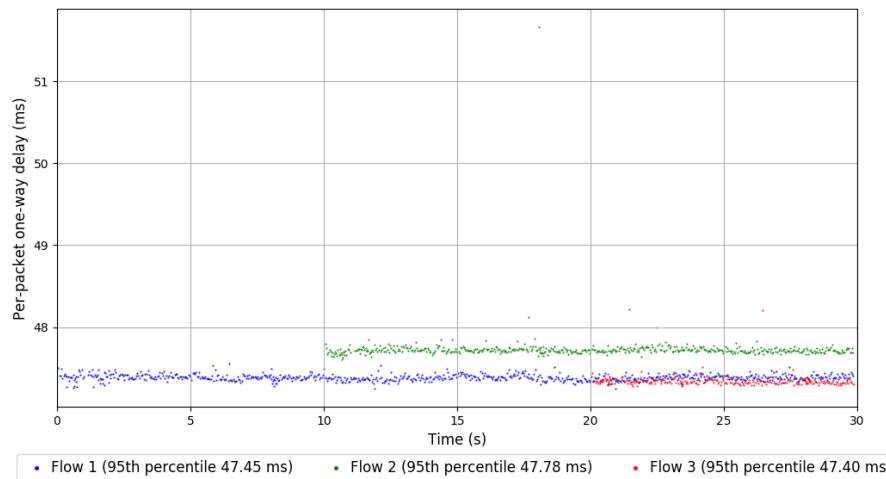
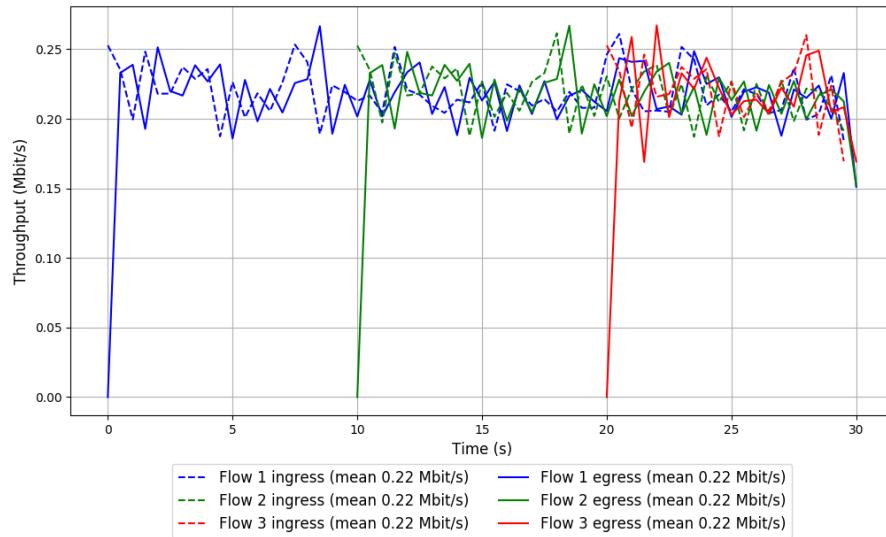


Run 2: Statistics of SCReAM

```
Start at: 2019-04-24 19:37:38
End at: 2019-04-24 19:38:08
Local clock offset: -0.019 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.754 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.451 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.780 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.401 ms
Loss rate: 0.74%
```

Run 2: Report of SCReAM — Data Link

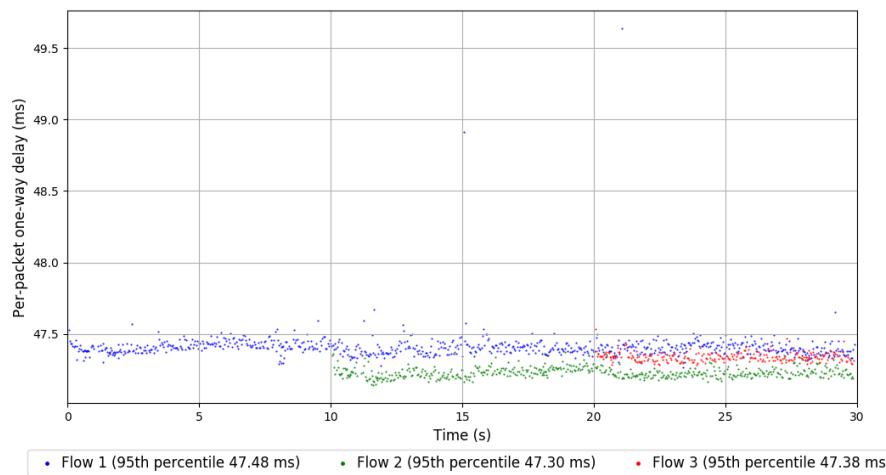
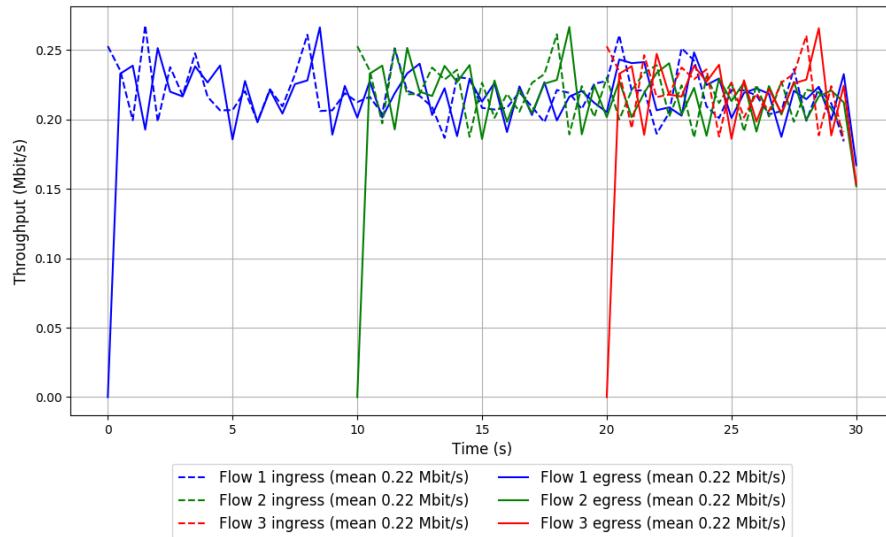


Run 3: Statistics of SCReAM

```
Start at: 2019-04-24 20:12:19
End at: 2019-04-24 20:12:49
Local clock offset: -0.023 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.459 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.483 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.297 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.385 ms
Loss rate: 1.09%
```

Run 3: Report of SCReAM — Data Link

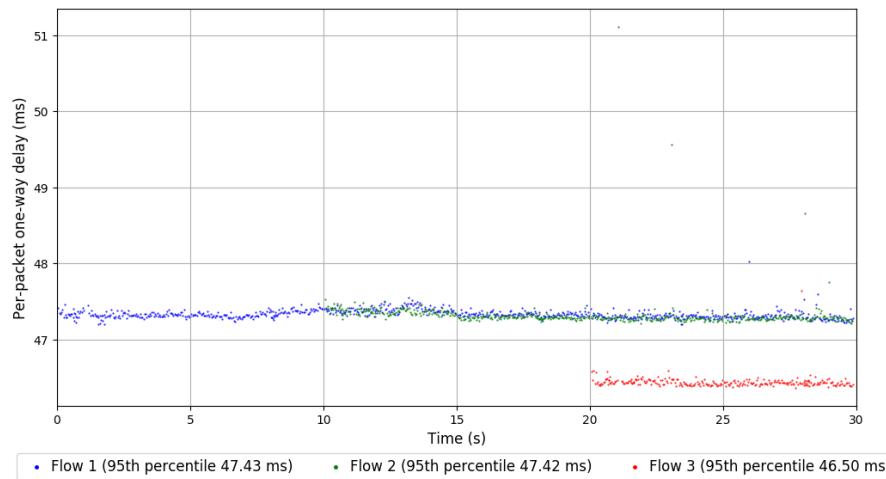
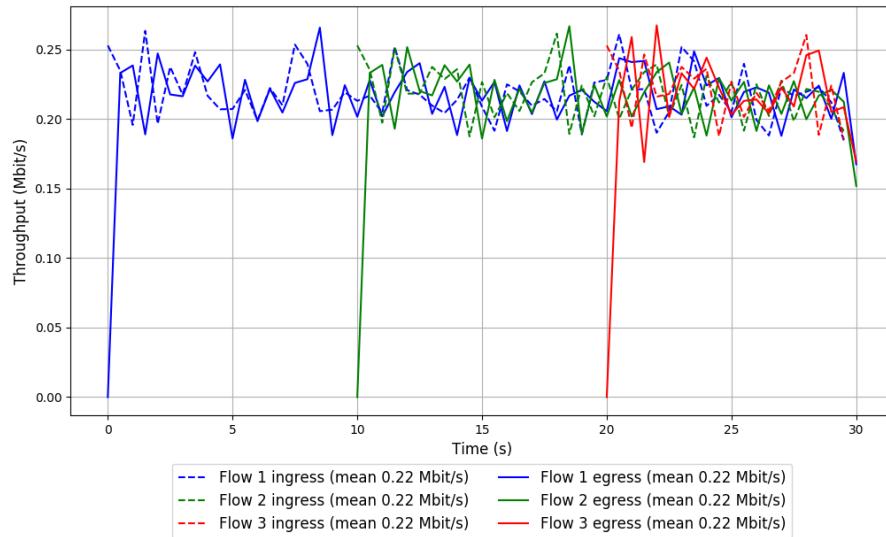


Run 4: Statistics of SCReAM

```
Start at: 2019-04-24 20:46:52
End at: 2019-04-24 20:47:22
Local clock offset: -0.025 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.417 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.430 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.416 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.503 ms
Loss rate: 1.09%
```

Run 4: Report of SCReAM — Data Link

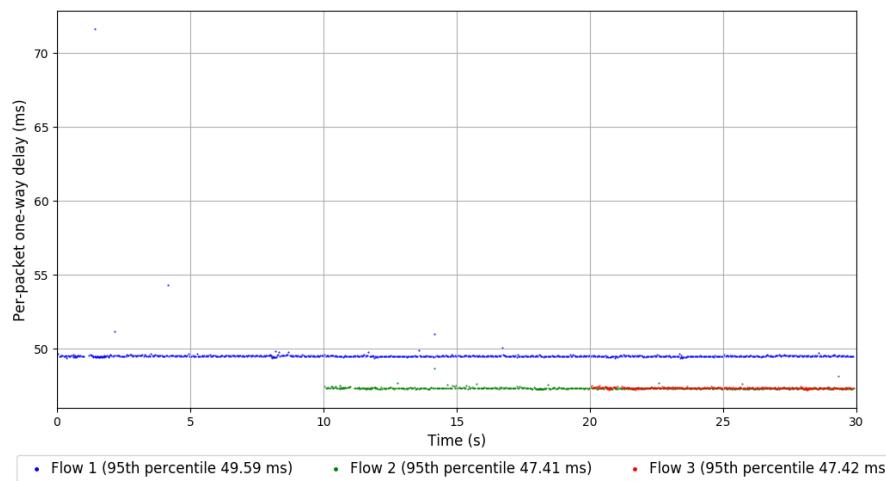
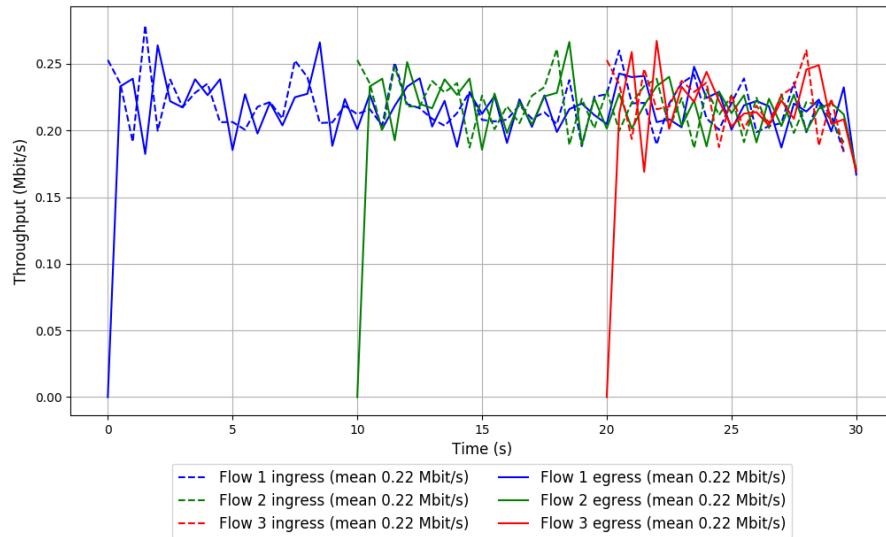


Run 5: Statistics of SCReAM

```
Start at: 2019-04-24 21:21:20
End at: 2019-04-24 21:21:50
Local clock offset: 0.033 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 49.570 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.588 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.414 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.417 ms
Loss rate: 1.09%
```

Run 5: Report of SCReAM — Data Link

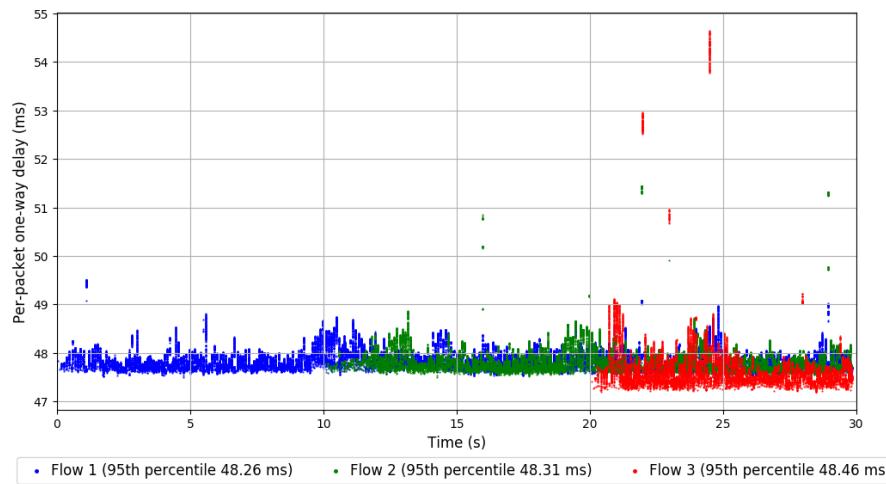
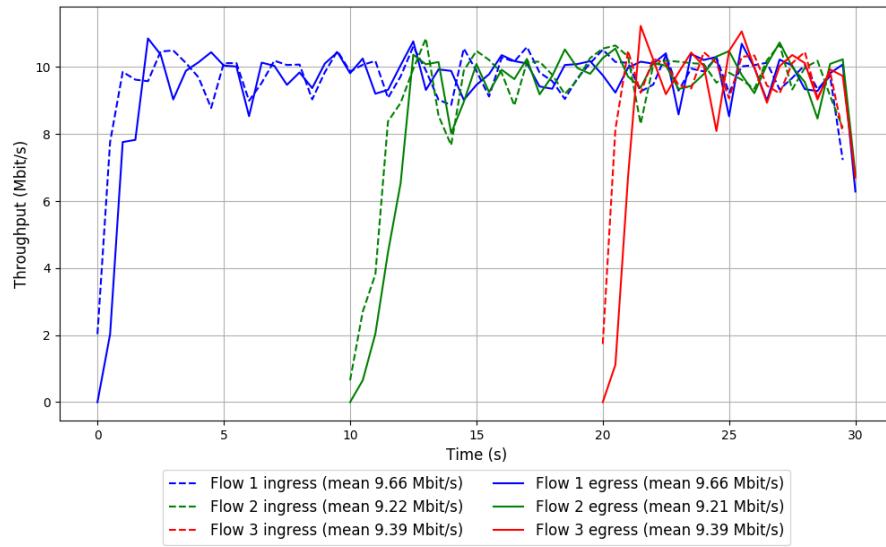


Run 1: Statistics of Sprout

```
Start at: 2019-04-24 19:12:18
End at: 2019-04-24 19:12:48
Local clock offset: 0.032 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.84 Mbit/s
95th percentile per-packet one-way delay: 48.294 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 9.66 Mbit/s
95th percentile per-packet one-way delay: 48.260 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 48.306 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 48.462 ms
Loss rate: 1.09%
```

Run 1: Report of Sprout — Data Link

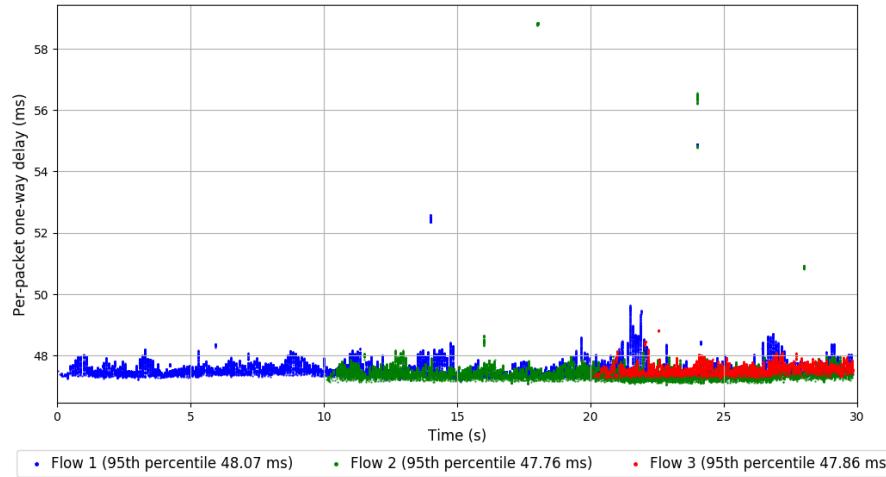
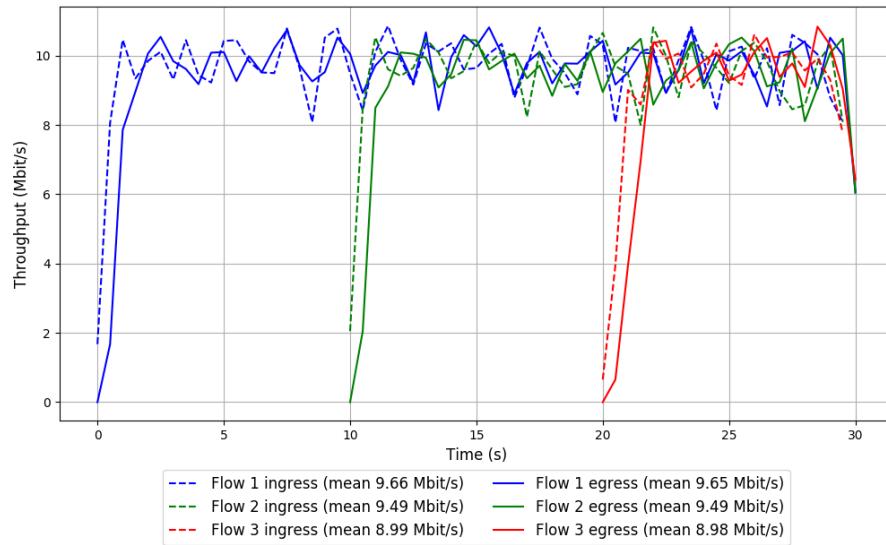


Run 2: Statistics of Sprout

```
Start at: 2019-04-24 19:47:00
End at: 2019-04-24 19:47:30
Local clock offset: -0.045 ms
Remote clock offset: -0.166 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.89 Mbit/s
95th percentile per-packet one-way delay: 47.954 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 48.071 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 9.49 Mbit/s
95th percentile per-packet one-way delay: 47.763 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 8.98 Mbit/s
95th percentile per-packet one-way delay: 47.864 ms
Loss rate: 1.13%
```

Run 2: Report of Sprout — Data Link

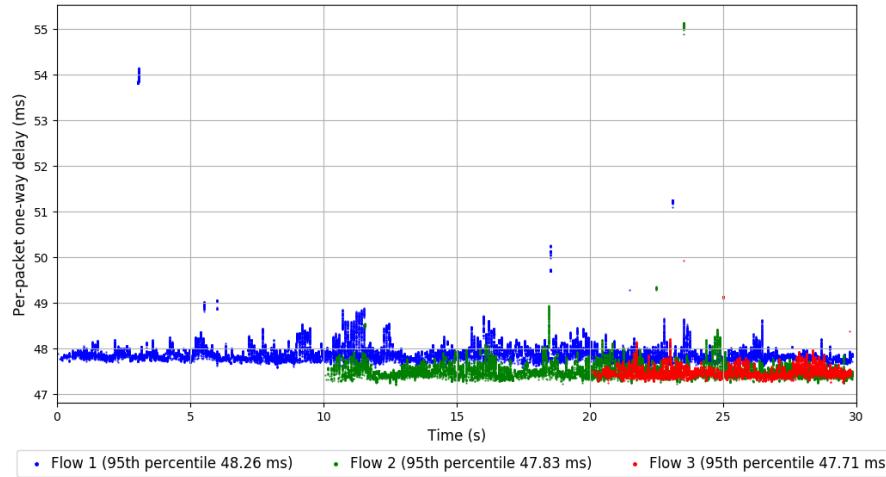
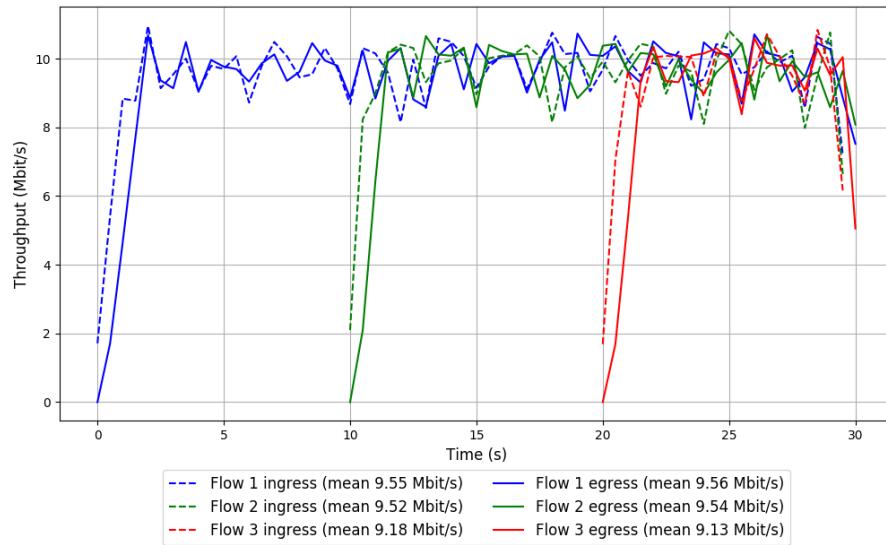


Run 3: Statistics of Sprout

```
Start at: 2019-04-24 20:21:37
End at: 2019-04-24 20:22:07
Local clock offset: -0.009 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.88 Mbit/s
95th percentile per-packet one-way delay: 48.129 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 9.56 Mbit/s
95th percentile per-packet one-way delay: 48.258 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 47.833 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 47.711 ms
Loss rate: 1.17%
```

Run 3: Report of Sprout — Data Link

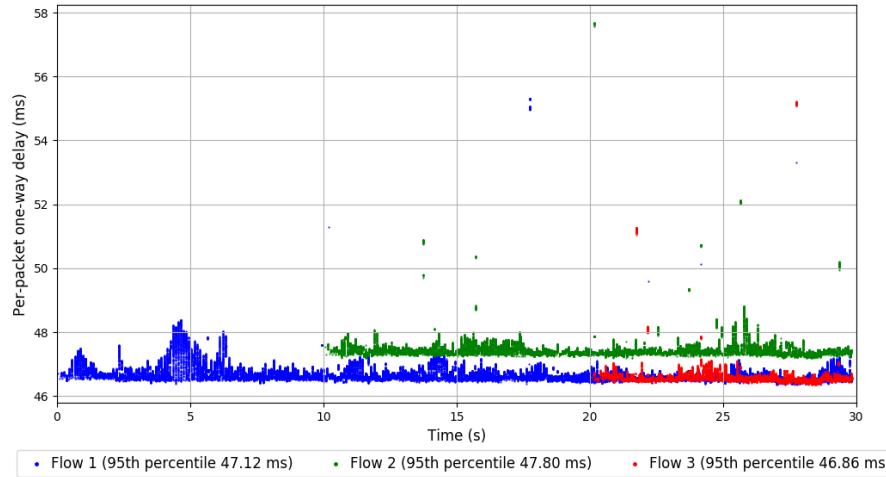
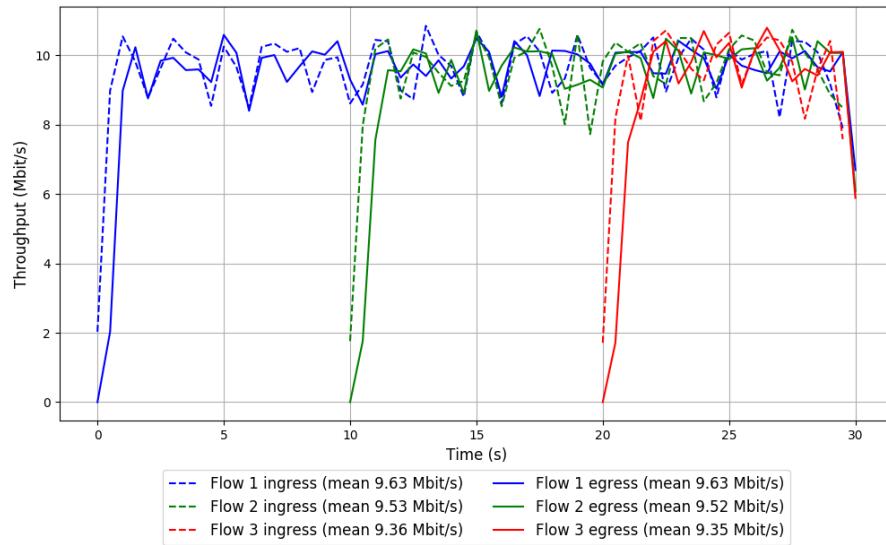


Run 4: Statistics of Sprout

```
Start at: 2019-04-24 20:56:02
End at: 2019-04-24 20:56:33
Local clock offset: 0.05 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.00 Mbit/s
95th percentile per-packet one-way delay: 47.606 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 9.63 Mbit/s
95th percentile per-packet one-way delay: 47.121 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 47.796 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 46.860 ms
Loss rate: 1.09%
```

Run 4: Report of Sprout — Data Link

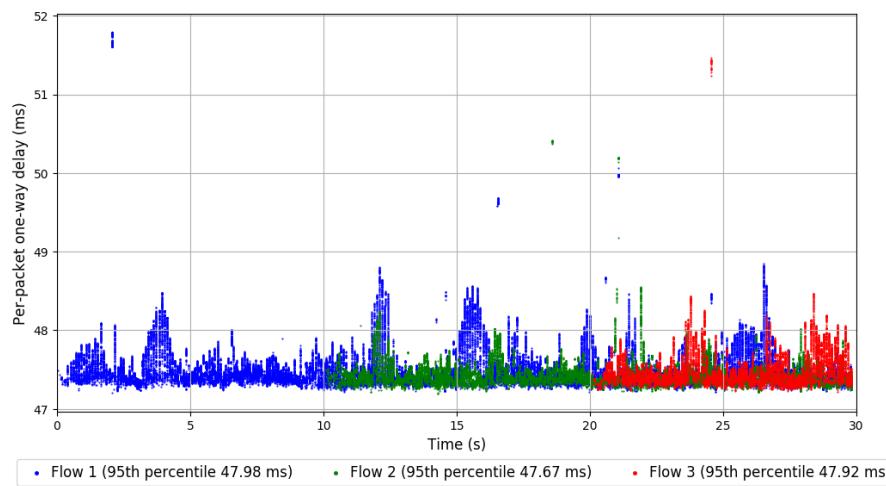
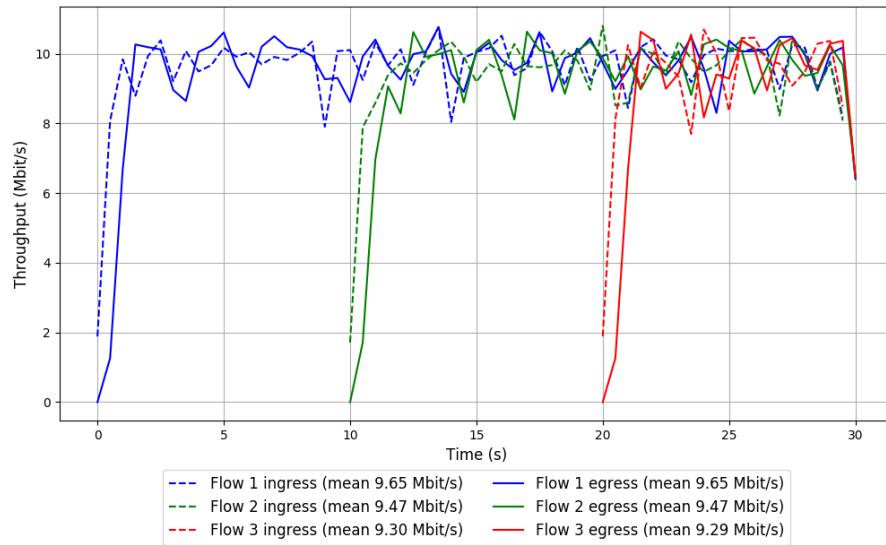


Run 5: Statistics of Sprout

```
Start at: 2019-04-24 21:30:26
End at: 2019-04-24 21:30:56
Local clock offset: 0.023 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2019-04-25 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.97 Mbit/s
95th percentile per-packet one-way delay: 47.895 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 47.985 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 9.47 Mbit/s
95th percentile per-packet one-way delay: 47.673 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 9.29 Mbit/s
95th percentile per-packet one-way delay: 47.919 ms
Loss rate: 1.10%
```

Run 5: Report of Sprout — Data Link

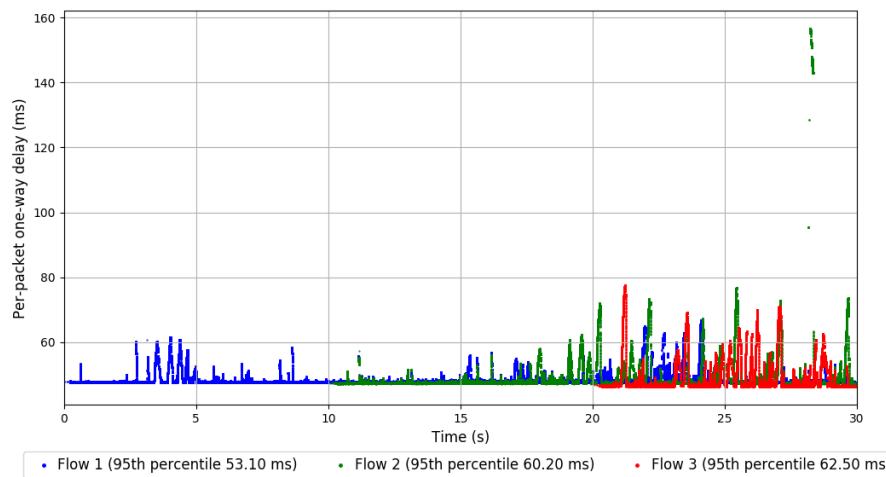
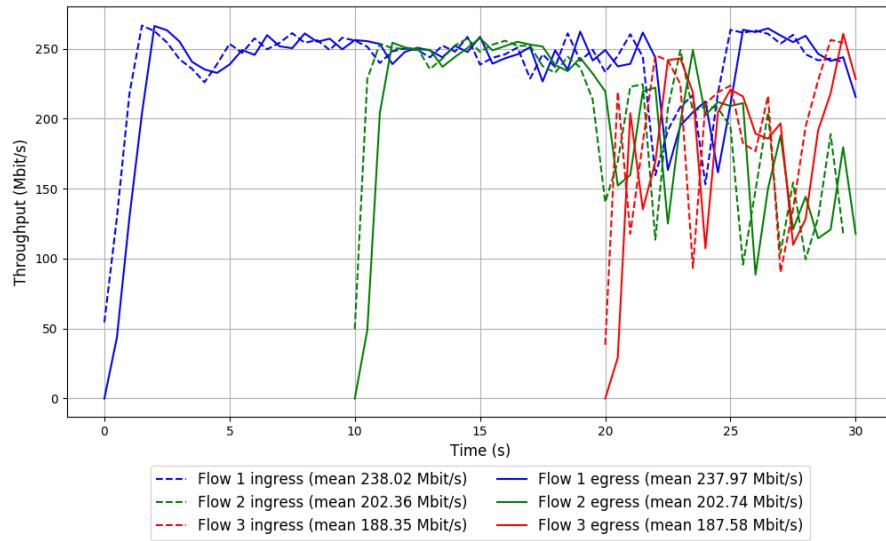


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-04-24 19:05:44
End at: 2019-04-24 19:06:14
Local clock offset: -0.001 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2019-04-25 00:25:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 434.67 Mbit/s
95th percentile per-packet one-way delay: 56.728 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 237.97 Mbit/s
95th percentile per-packet one-way delay: 53.099 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 202.74 Mbit/s
95th percentile per-packet one-way delay: 60.196 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 187.58 Mbit/s
95th percentile per-packet one-way delay: 62.504 ms
Loss rate: 1.35%
```

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

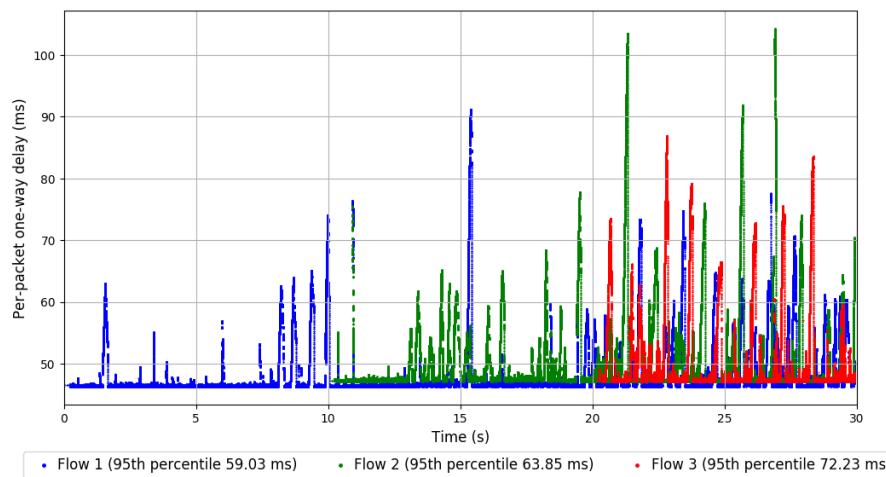
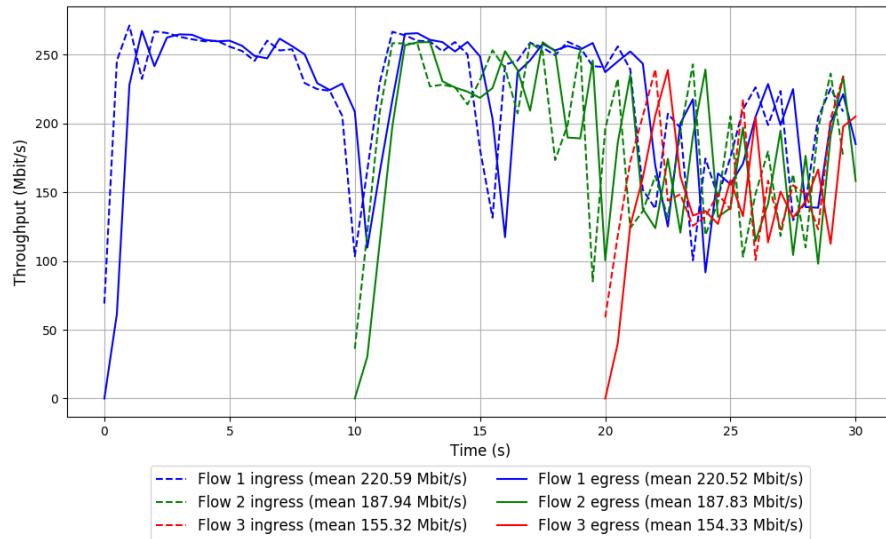


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-04-24 19:40:28
End at: 2019-04-24 19:40:58
Local clock offset: -0.03 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2019-04-25 00:25:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 396.38 Mbit/s
95th percentile per-packet one-way delay: 62.061 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 220.52 Mbit/s
95th percentile per-packet one-way delay: 59.031 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 187.83 Mbit/s
95th percentile per-packet one-way delay: 63.854 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 154.33 Mbit/s
95th percentile per-packet one-way delay: 72.231 ms
Loss rate: 1.59%
```

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

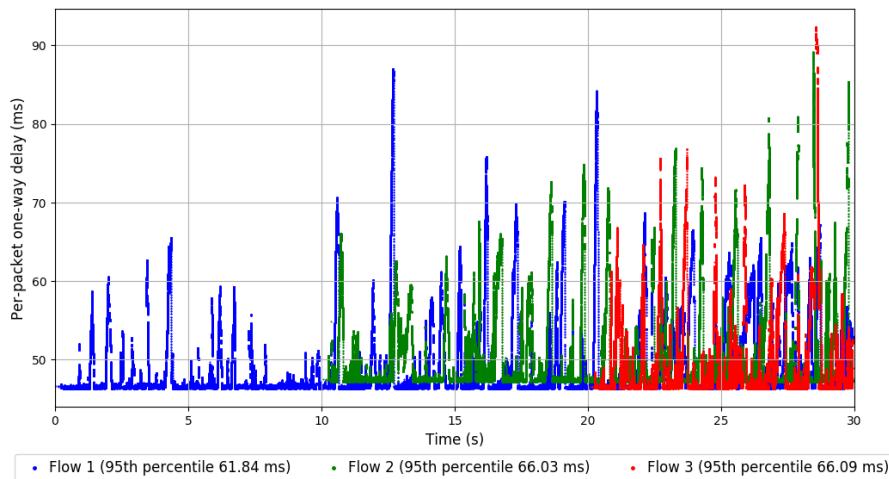
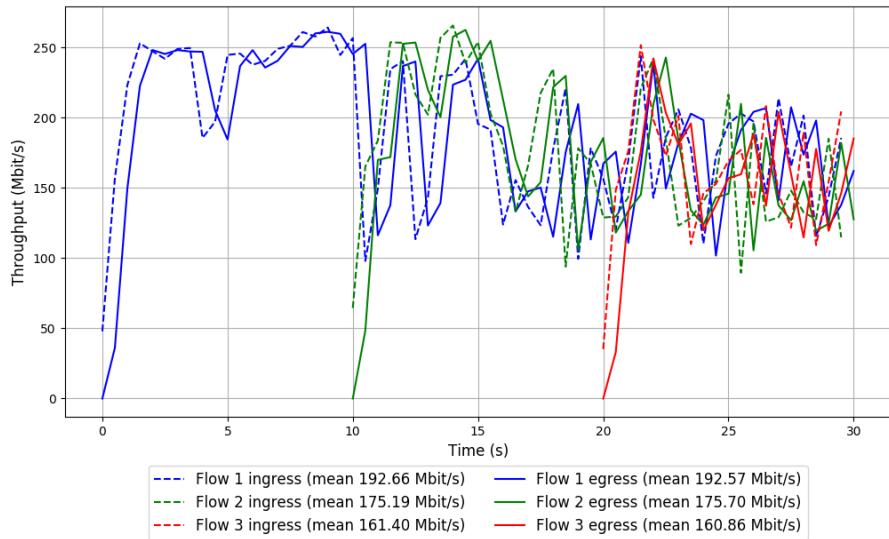


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-04-24 20:15:09
End at: 2019-04-24 20:15:39
Local clock offset: -0.002 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2019-04-25 00:25:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.50 Mbit/s
95th percentile per-packet one-way delay: 63.925 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 192.57 Mbit/s
95th percentile per-packet one-way delay: 61.839 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 175.70 Mbit/s
95th percentile per-packet one-way delay: 66.033 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 160.86 Mbit/s
95th percentile per-packet one-way delay: 66.087 ms
Loss rate: 1.28%
```

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

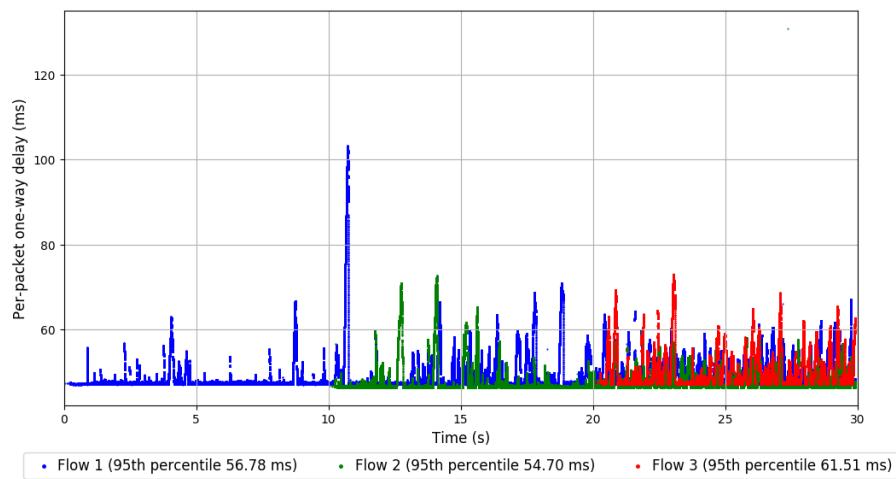
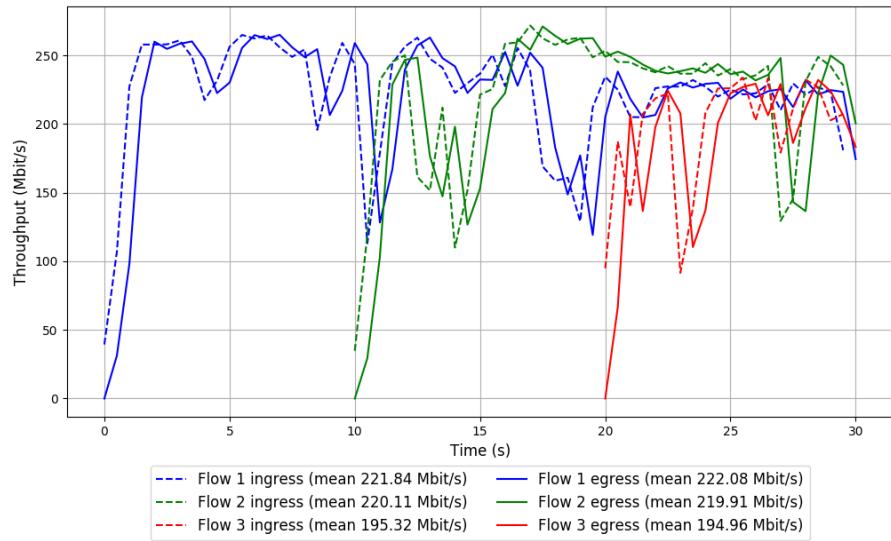


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-04-24 20:49:40
End at: 2019-04-24 20:50:10
Local clock offset: 0.042 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-04-25 00:25:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.62 Mbit/s
95th percentile per-packet one-way delay: 57.247 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 222.08 Mbit/s
95th percentile per-packet one-way delay: 56.781 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 219.91 Mbit/s
95th percentile per-packet one-way delay: 54.700 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 194.96 Mbit/s
95th percentile per-packet one-way delay: 61.505 ms
Loss rate: 1.13%
```

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

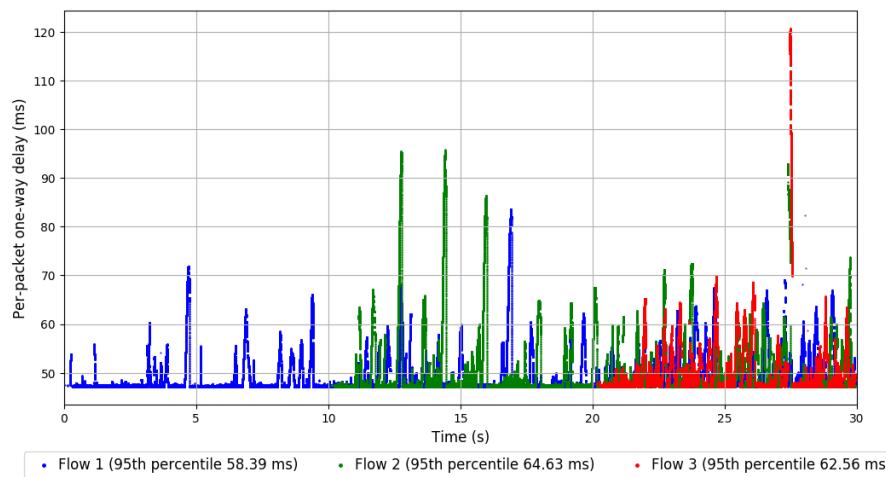
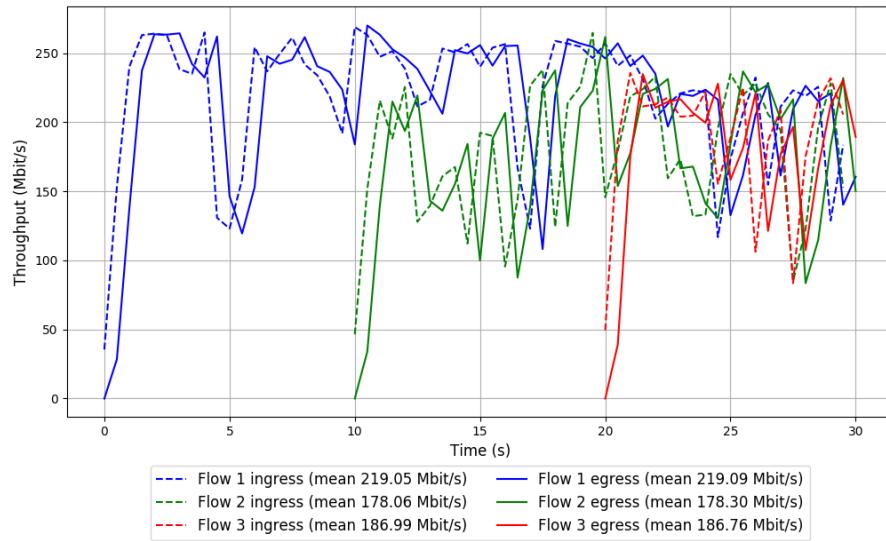


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-04-24 21:24:03
End at: 2019-04-24 21:24:33
Local clock offset: 0.026 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-04-25 00:25:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 399.36 Mbit/s
95th percentile per-packet one-way delay: 61.142 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 219.09 Mbit/s
95th percentile per-packet one-way delay: 58.386 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 178.30 Mbit/s
95th percentile per-packet one-way delay: 64.626 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 186.76 Mbit/s
95th percentile per-packet one-way delay: 62.562 ms
Loss rate: 1.08%
```

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

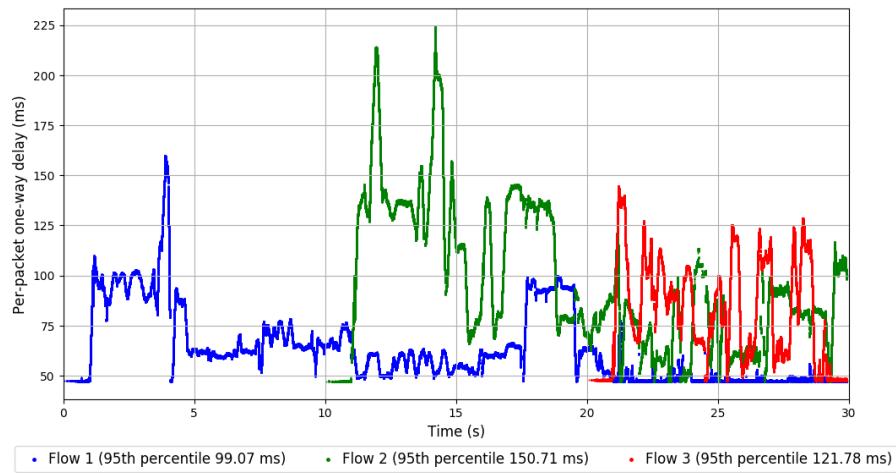
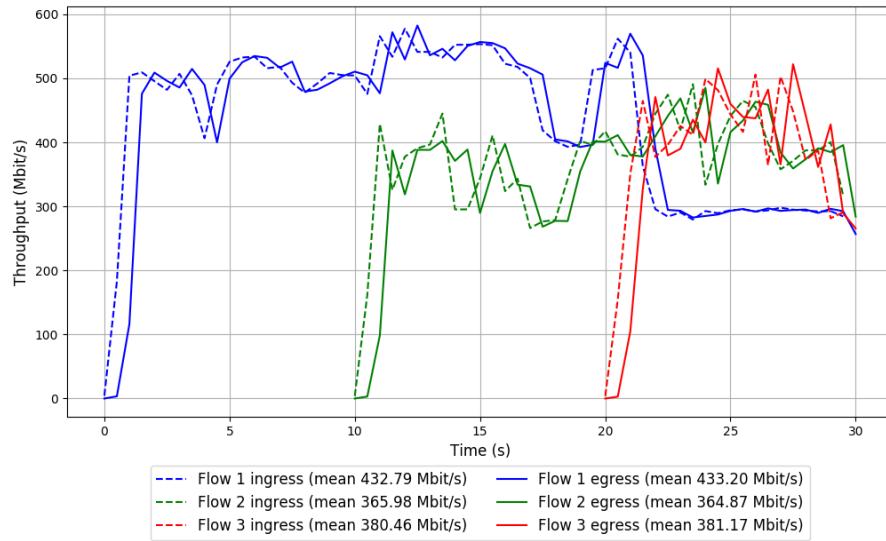


Run 1: Statistics of TCP Vegas

```
Start at: 2019-04-24 19:13:31
End at: 2019-04-24 19:14:01
Local clock offset: 0.066 ms
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2019-04-25 00:25:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 801.70 Mbit/s
95th percentile per-packet one-way delay: 136.206 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 433.20 Mbit/s
95th percentile per-packet one-way delay: 99.068 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 364.87 Mbit/s
95th percentile per-packet one-way delay: 150.707 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 381.17 Mbit/s
95th percentile per-packet one-way delay: 121.777 ms
Loss rate: 0.76%
```

Run 1: Report of TCP Vegas — Data Link

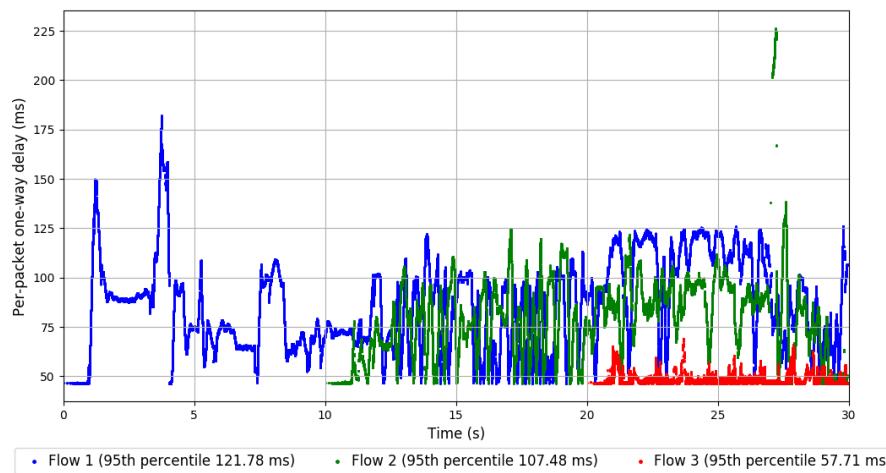
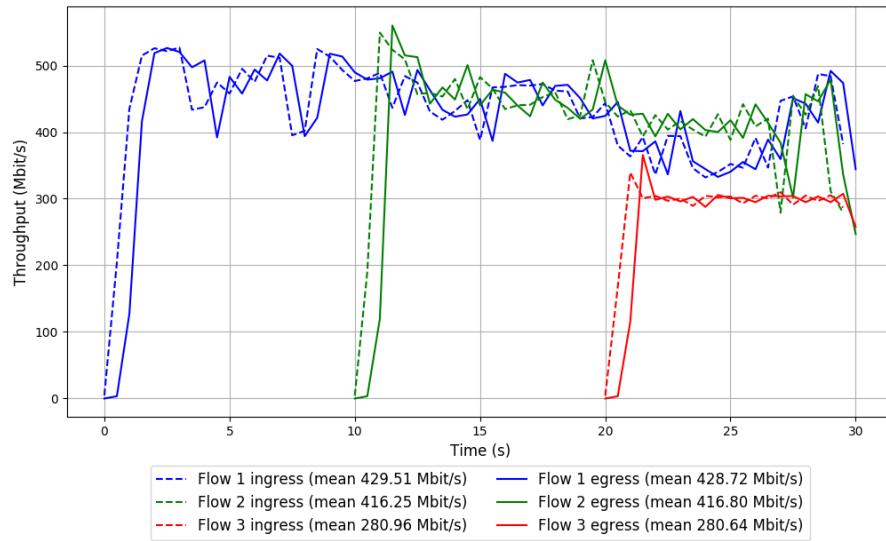


Run 2: Statistics of TCP Vegas

```
Start at: 2019-04-24 19:48:13
End at: 2019-04-24 19:48:43
Local clock offset: -0.004 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2019-04-25 00:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 798.79 Mbit/s
95th percentile per-packet one-way delay: 118.783 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 428.72 Mbit/s
95th percentile per-packet one-way delay: 121.781 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 416.80 Mbit/s
95th percentile per-packet one-way delay: 107.478 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 280.64 Mbit/s
95th percentile per-packet one-way delay: 57.709 ms
Loss rate: 1.05%
```

Run 2: Report of TCP Vegas — Data Link

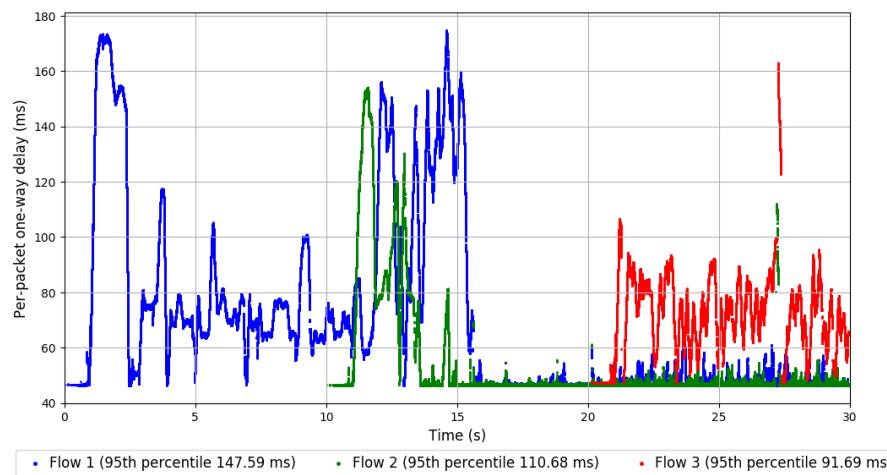
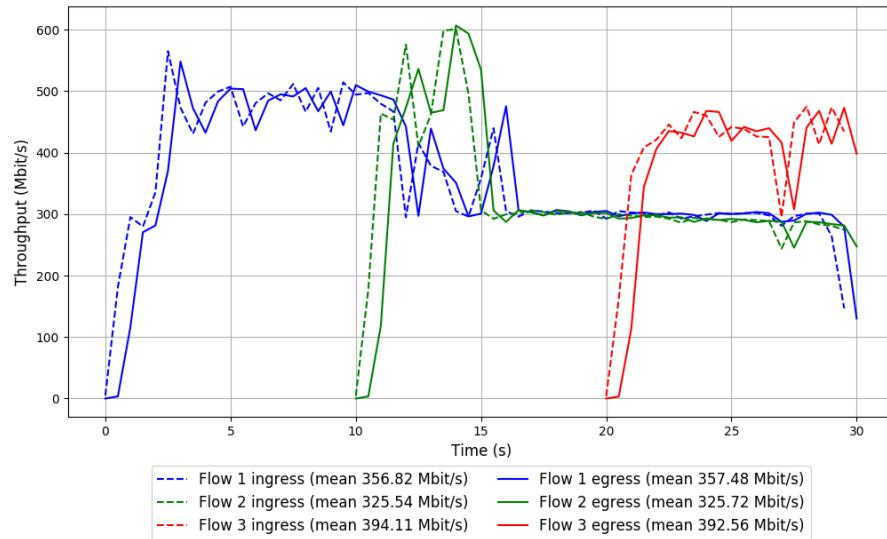


Run 3: Statistics of TCP Vegas

```
Start at: 2019-04-24 20:22:49
End at: 2019-04-24 20:23:19
Local clock offset: -0.01 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-04-25 00:35:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 703.79 Mbit/s
95th percentile per-packet one-way delay: 131.252 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 357.48 Mbit/s
95th percentile per-packet one-way delay: 147.593 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 325.72 Mbit/s
95th percentile per-packet one-way delay: 110.684 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 392.56 Mbit/s
95th percentile per-packet one-way delay: 91.694 ms
Loss rate: 1.33%
```

Run 3: Report of TCP Vegas — Data Link

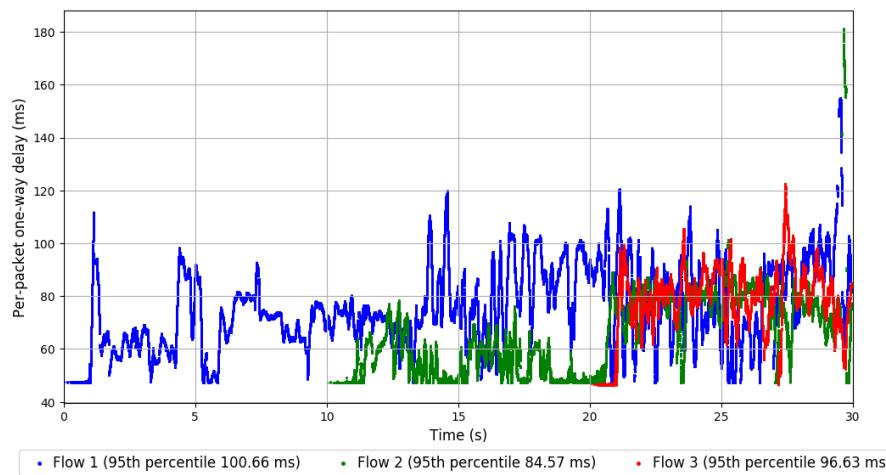
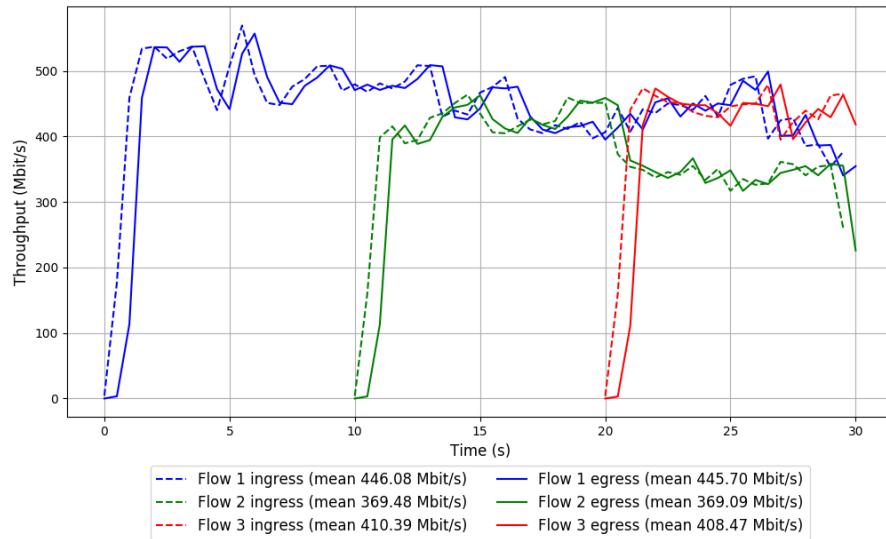


Run 4: Statistics of TCP Vegas

```
Start at: 2019-04-24 20:57:15
End at: 2019-04-24 20:57:45
Local clock offset: 0.061 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2019-04-25 00:40:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 826.01 Mbit/s
95th percentile per-packet one-way delay: 97.982 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 445.70 Mbit/s
95th percentile per-packet one-way delay: 100.662 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 369.09 Mbit/s
95th percentile per-packet one-way delay: 84.568 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 408.47 Mbit/s
95th percentile per-packet one-way delay: 96.631 ms
Loss rate: 1.40%
```

Run 4: Report of TCP Vegas — Data Link

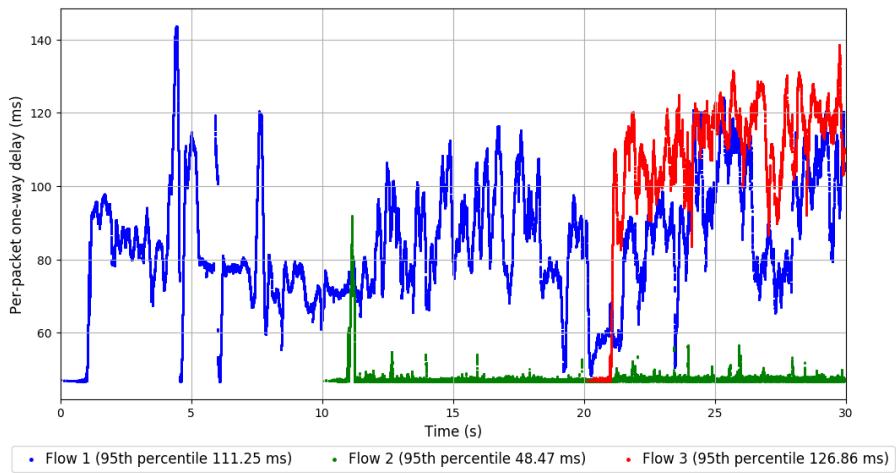
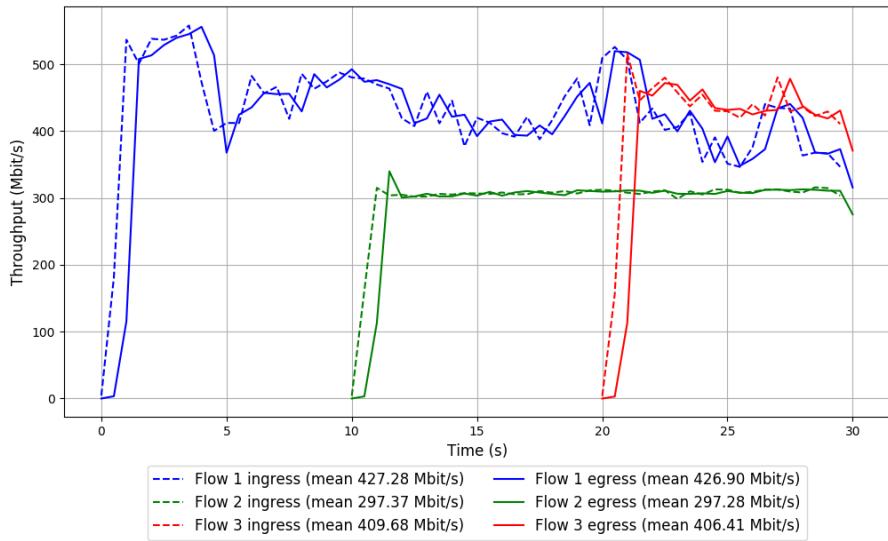


Run 5: Statistics of TCP Vegas

```
Start at: 2019-04-24 21:31:38
End at: 2019-04-24 21:32:08
Local clock offset: -0.329 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2019-04-25 00:40:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 758.90 Mbit/s
95th percentile per-packet one-way delay: 119.055 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 426.90 Mbit/s
95th percentile per-packet one-way delay: 111.245 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 297.28 Mbit/s
95th percentile per-packet one-way delay: 48.474 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 406.41 Mbit/s
95th percentile per-packet one-way delay: 126.856 ms
Loss rate: 1.74%
```

Run 5: Report of TCP Vegas — Data Link

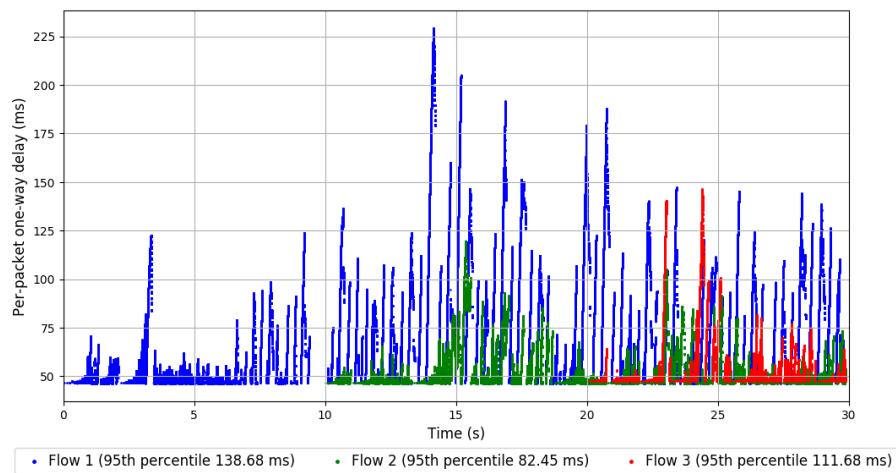
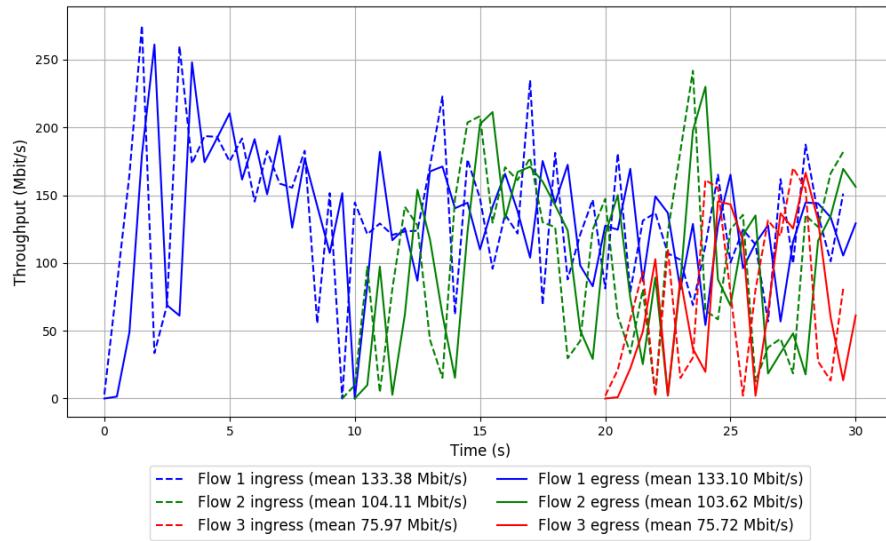


Run 1: Statistics of Verus

```
Start at: 2019-04-24 19:32:15
End at: 2019-04-24 19:32:45
Local clock offset: 0.003 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2019-04-25 00:40:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 226.63 Mbit/s
95th percentile per-packet one-way delay: 127.199 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 133.10 Mbit/s
95th percentile per-packet one-way delay: 138.677 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 103.62 Mbit/s
95th percentile per-packet one-way delay: 82.455 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 75.72 Mbit/s
95th percentile per-packet one-way delay: 111.683 ms
Loss rate: 1.30%
```

Run 1: Report of Verus — Data Link

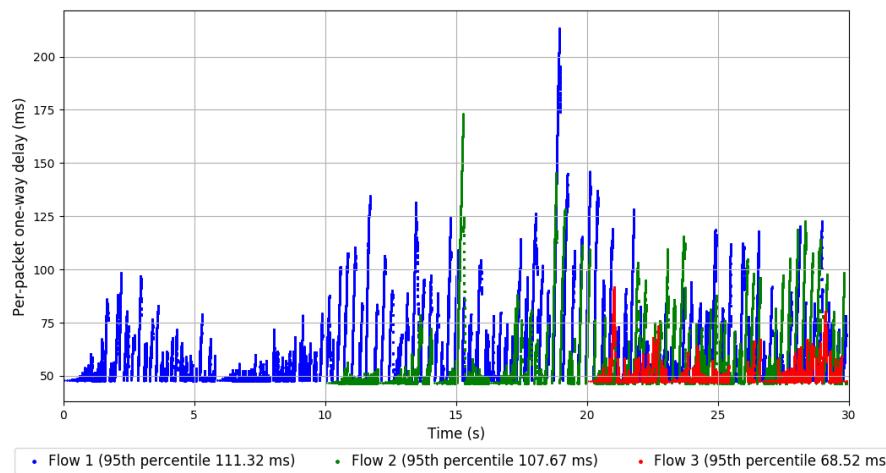
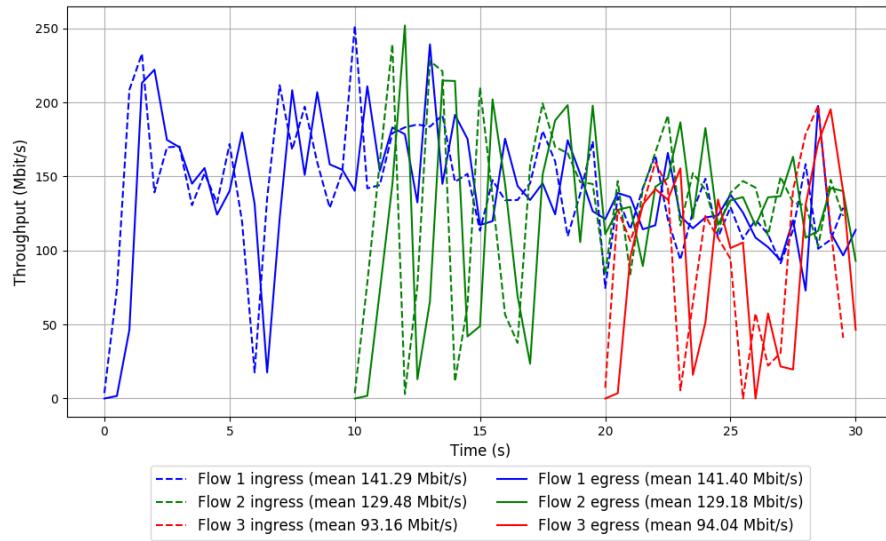


Run 2: Statistics of Verus

```
Start at: 2019-04-24 20:06:57
End at: 2019-04-24 20:07:27
Local clock offset: -0.013 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2019-04-25 00:40:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.25 Mbit/s
95th percentile per-packet one-way delay: 108.033 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 141.40 Mbit/s
95th percentile per-packet one-way delay: 111.321 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 129.18 Mbit/s
95th percentile per-packet one-way delay: 107.669 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 94.04 Mbit/s
95th percentile per-packet one-way delay: 68.518 ms
Loss rate: 0.02%
```

Run 2: Report of Verus — Data Link

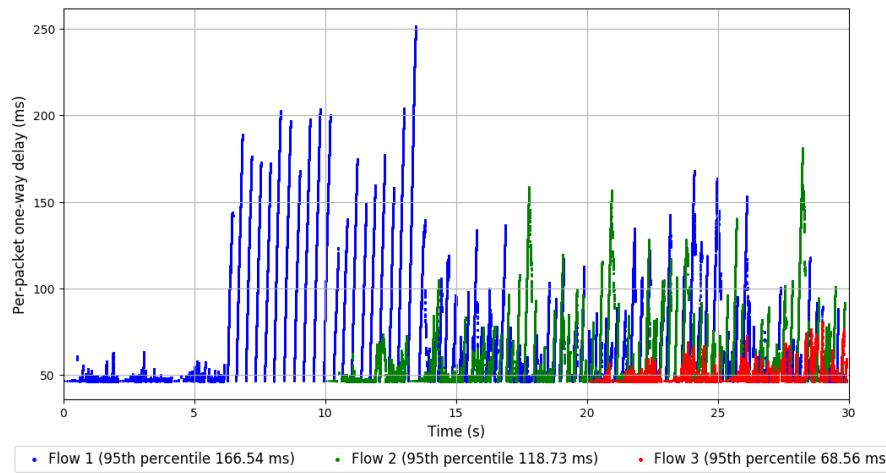
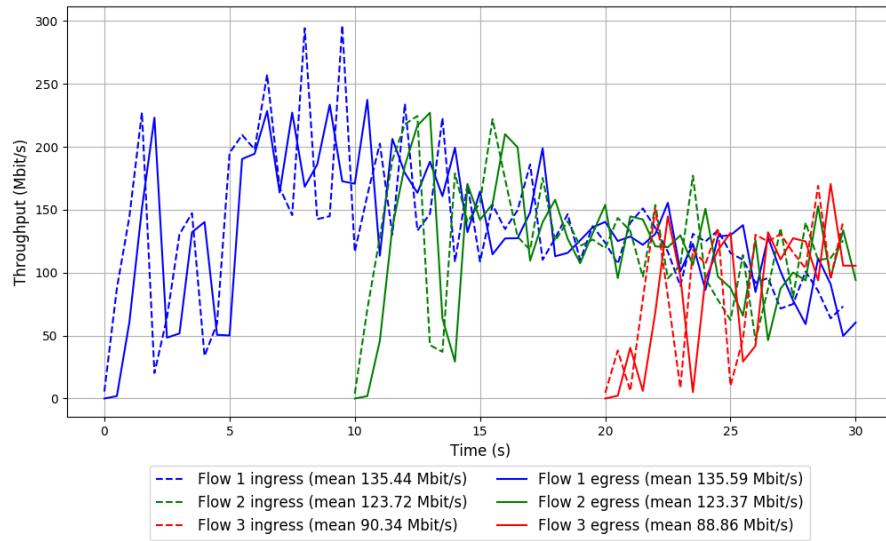


Run 3: Statistics of Verus

```
Start at: 2019-04-24 20:41:32
End at: 2019-04-24 20:42:02
Local clock offset: -0.028 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-04-25 00:40:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 246.37 Mbit/s
95th percentile per-packet one-way delay: 151.240 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 135.59 Mbit/s
95th percentile per-packet one-way delay: 166.544 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 123.37 Mbit/s
95th percentile per-packet one-way delay: 118.733 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 88.86 Mbit/s
95th percentile per-packet one-way delay: 68.558 ms
Loss rate: 2.53%
```

Run 3: Report of Verus — Data Link

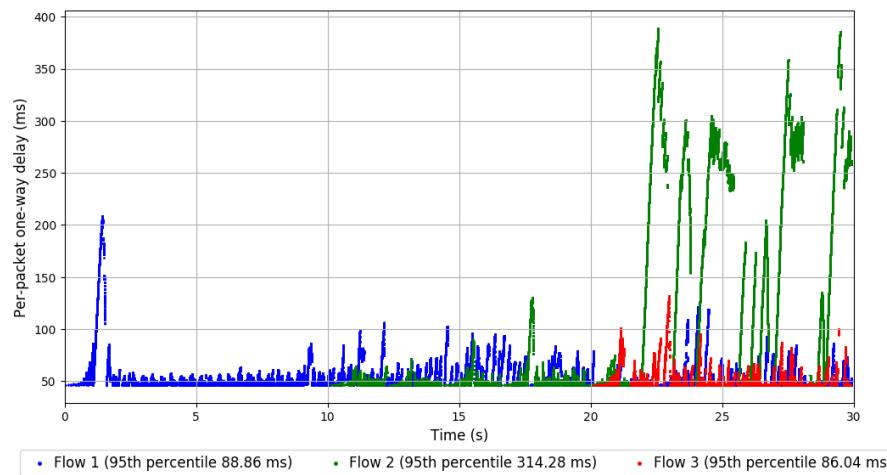
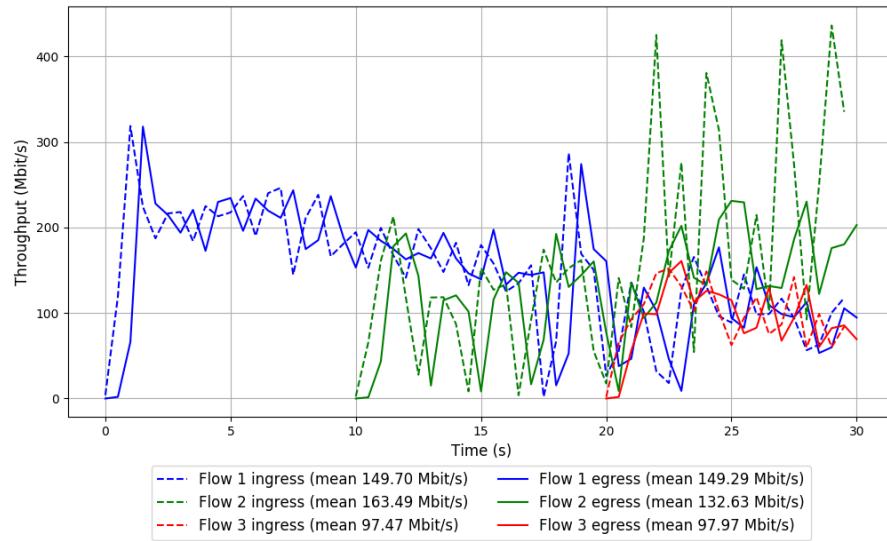


Run 4: Statistics of Verus

```
Start at: 2019-04-24 21:16:06
End at: 2019-04-24 21:16:36
Local clock offset: 0.013 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2019-04-25 00:40:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.53 Mbit/s
95th percentile per-packet one-way delay: 274.815 ms
Loss rate: 7.59%
-- Flow 1:
Average throughput: 149.29 Mbit/s
95th percentile per-packet one-way delay: 88.860 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 132.63 Mbit/s
95th percentile per-packet one-way delay: 314.276 ms
Loss rate: 19.27%
-- Flow 3:
Average throughput: 97.97 Mbit/s
95th percentile per-packet one-way delay: 86.039 ms
Loss rate: 0.76%
```

Run 4: Report of Verus — Data Link

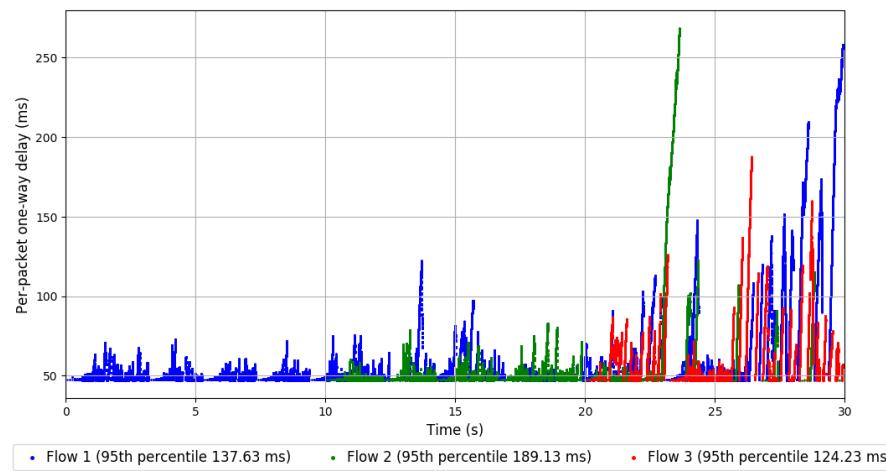
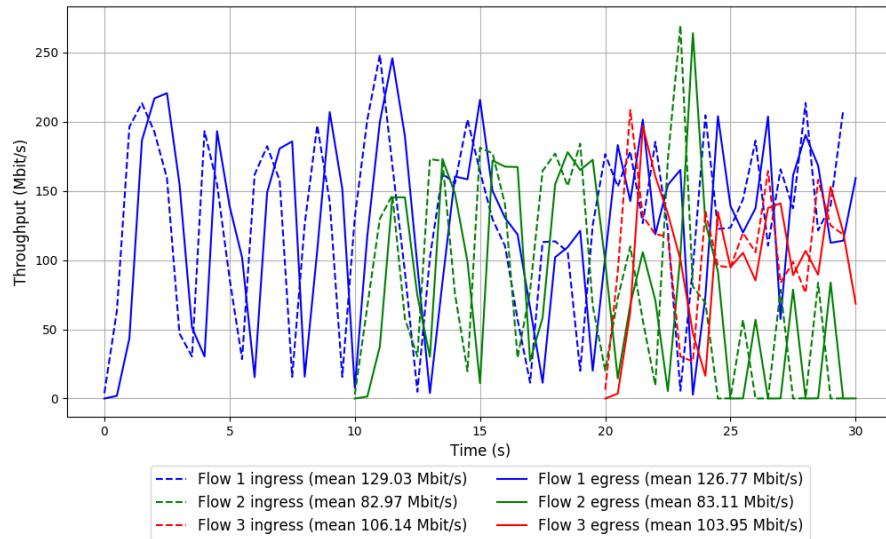


Run 5: Statistics of Verus

```
Start at: 2019-04-24 21:50:24
End at: 2019-04-24 21:50:54
Local clock offset: -0.027 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2019-04-25 00:40:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.24 Mbit/s
95th percentile per-packet one-way delay: 146.952 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 126.77 Mbit/s
95th percentile per-packet one-way delay: 137.626 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 83.11 Mbit/s
95th percentile per-packet one-way delay: 189.128 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 103.95 Mbit/s
95th percentile per-packet one-way delay: 124.233 ms
Loss rate: 2.83%
```

Run 5: Report of Verus — Data Link

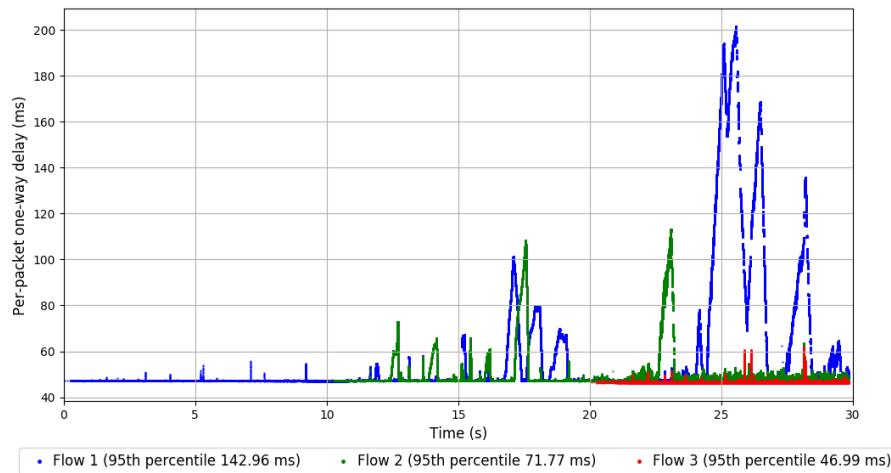
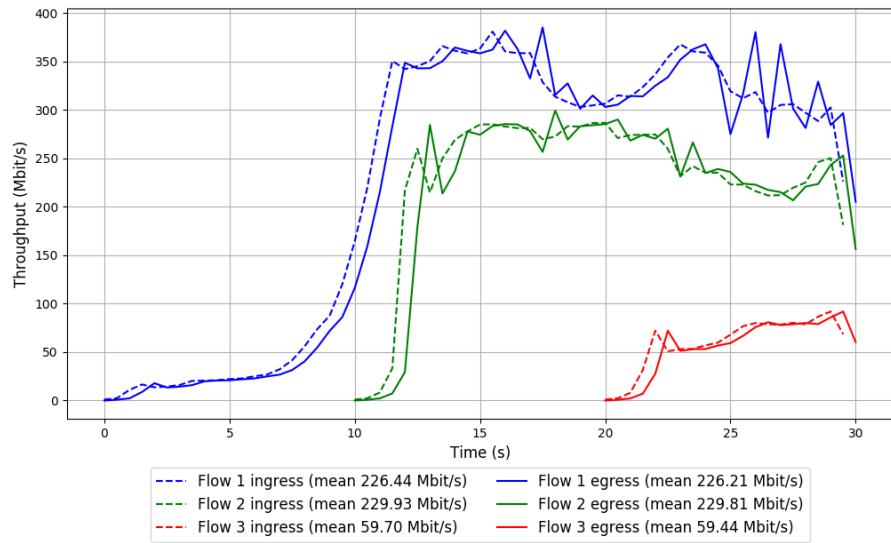


Run 1: Statistics of PCC-Vivace

```
Start at: 2019-04-24 19:04:05
End at: 2019-04-24 19:04:35
Local clock offset: -0.028 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2019-04-25 00:42:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 398.27 Mbit/s
95th percentile per-packet one-way delay: 105.647 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 226.21 Mbit/s
95th percentile per-packet one-way delay: 142.964 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 229.81 Mbit/s
95th percentile per-packet one-way delay: 71.772 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 59.44 Mbit/s
95th percentile per-packet one-way delay: 46.989 ms
Loss rate: 1.39%
```

Run 1: Report of PCC-Vivace — Data Link

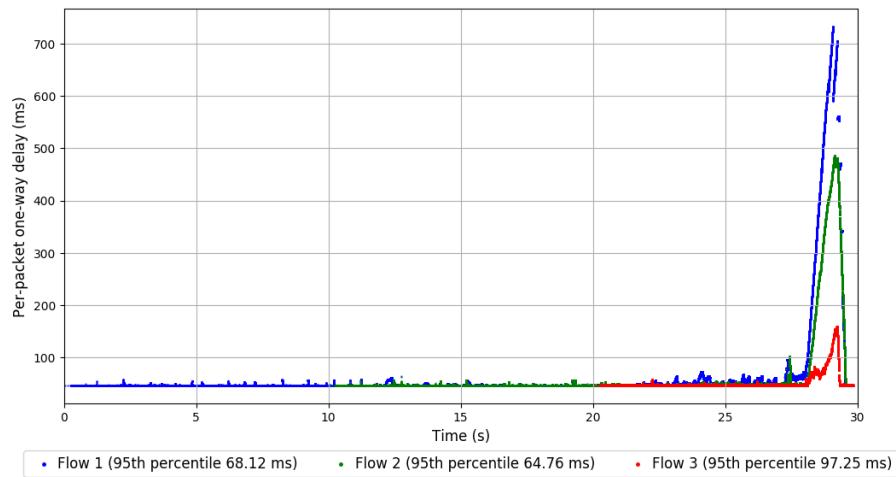
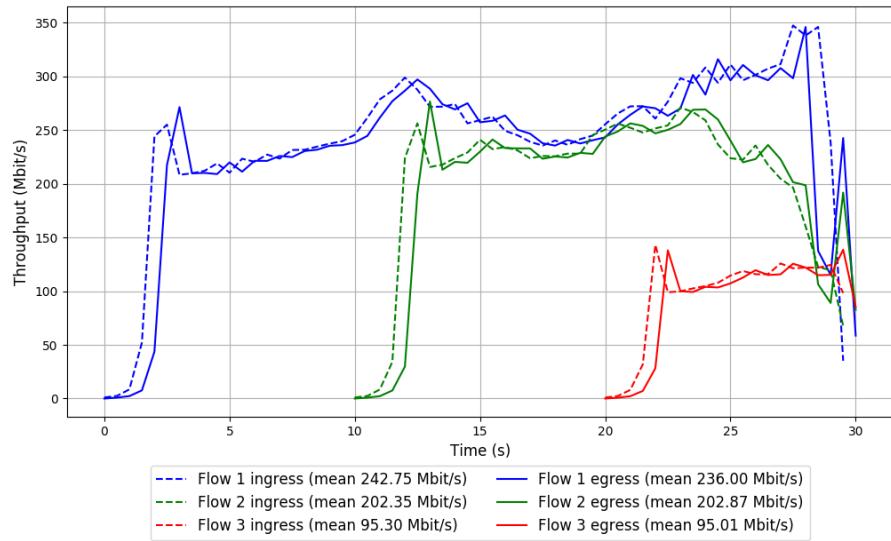


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-04-24 19:38:49
End at: 2019-04-24 19:39:19
Local clock offset: -0.006 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2019-04-25 00:42:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.85 Mbit/s
95th percentile per-packet one-way delay: 71.703 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 236.00 Mbit/s
95th percentile per-packet one-way delay: 68.120 ms
Loss rate: 3.09%
-- Flow 2:
Average throughput: 202.87 Mbit/s
95th percentile per-packet one-way delay: 64.762 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 95.01 Mbit/s
95th percentile per-packet one-way delay: 97.249 ms
Loss rate: 1.28%
```

Run 2: Report of PCC-Vivace — Data Link

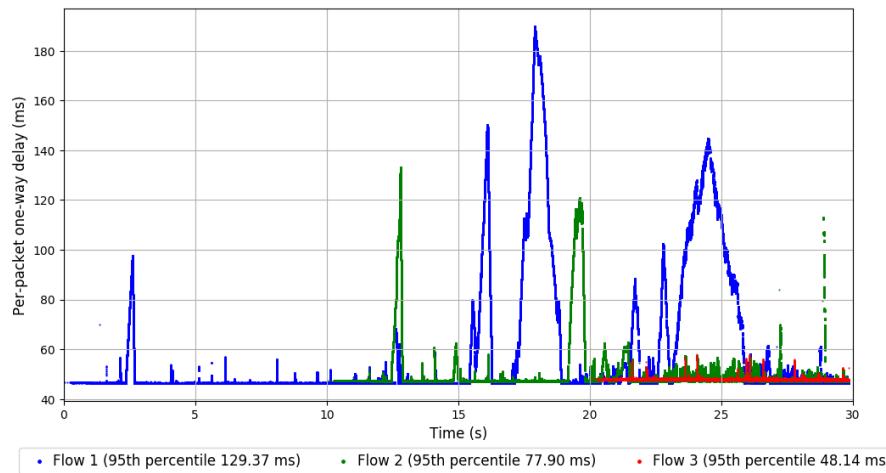
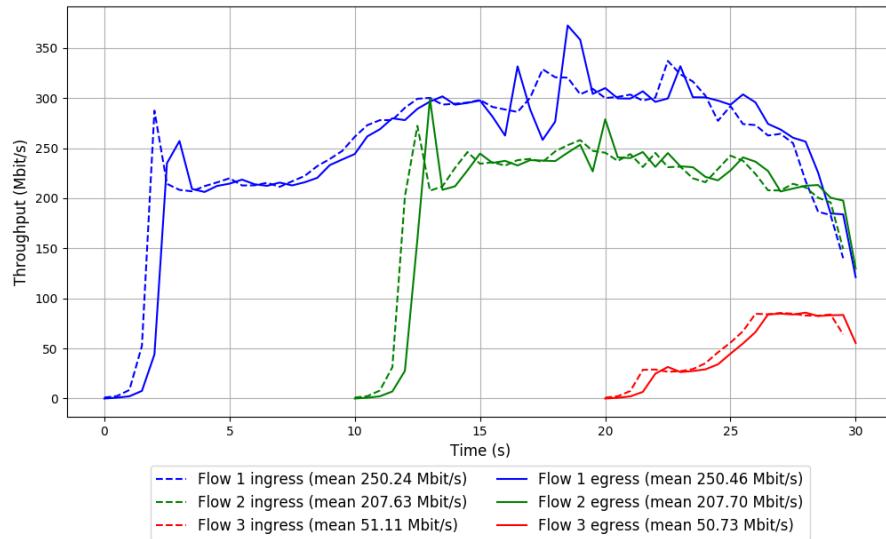


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-04-24 20:13:30
End at: 2019-04-24 20:14:00
Local clock offset: -0.01 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2019-04-25 00:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.94 Mbit/s
95th percentile per-packet one-way delay: 116.344 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 250.46 Mbit/s
95th percentile per-packet one-way delay: 129.368 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 207.70 Mbit/s
95th percentile per-packet one-way delay: 77.904 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 50.73 Mbit/s
95th percentile per-packet one-way delay: 48.136 ms
Loss rate: 1.65%
```

Run 3: Report of PCC-Vivace — Data Link

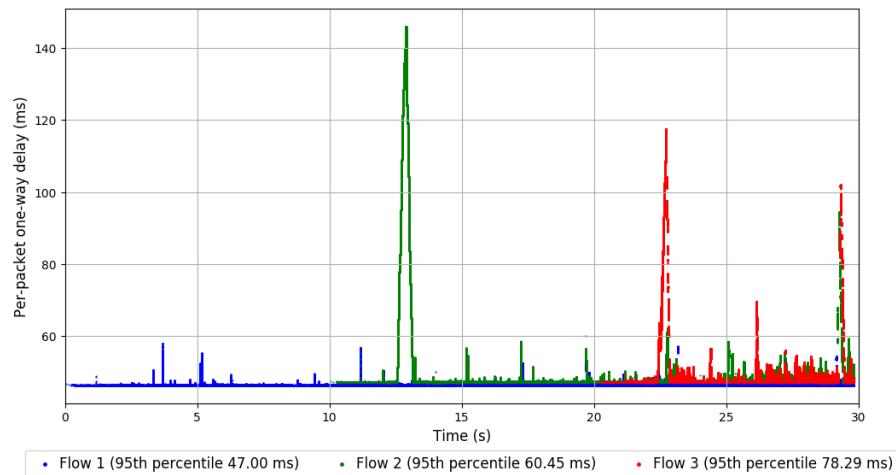
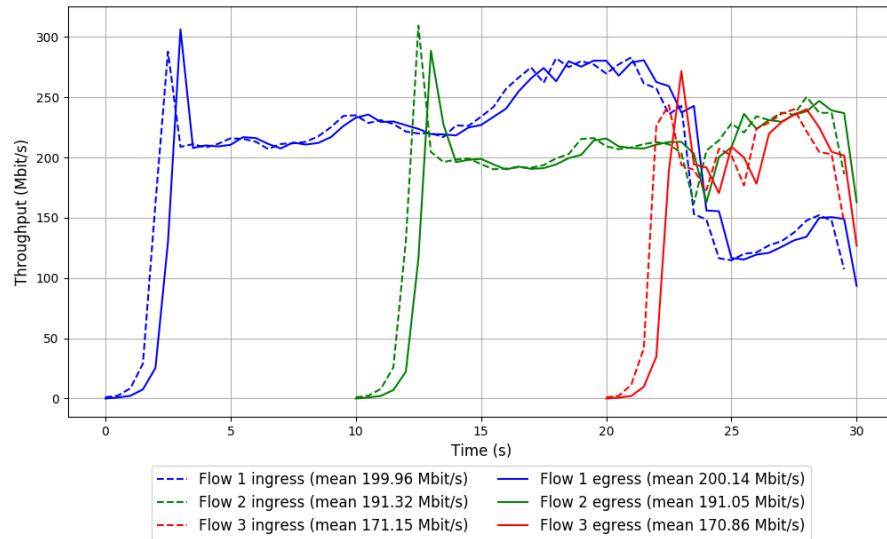


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-04-24 20:48:03
End at: 2019-04-24 20:48:33
Local clock offset: 0.016 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2019-04-25 00:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.96 Mbit/s
95th percentile per-packet one-way delay: 51.930 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 200.14 Mbit/s
95th percentile per-packet one-way delay: 46.998 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 191.05 Mbit/s
95th percentile per-packet one-way delay: 60.451 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 170.86 Mbit/s
95th percentile per-packet one-way delay: 78.294 ms
Loss rate: 1.13%
```

Run 4: Report of PCC-Vivace — Data Link

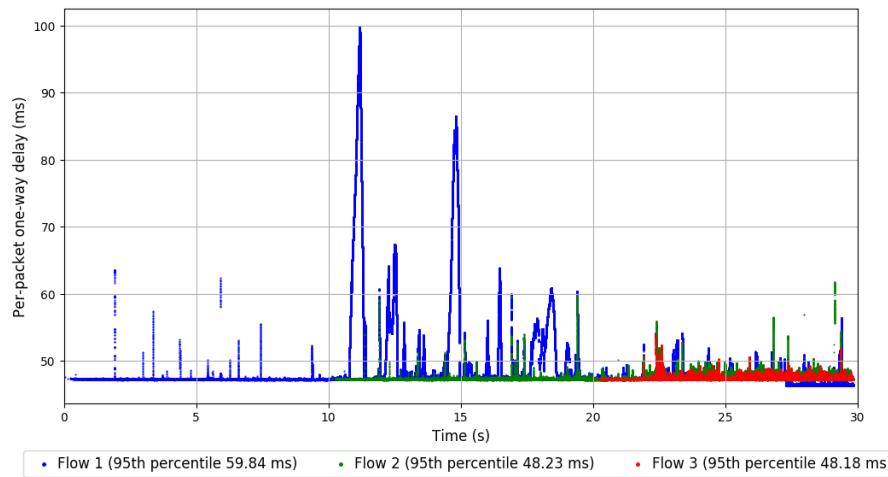
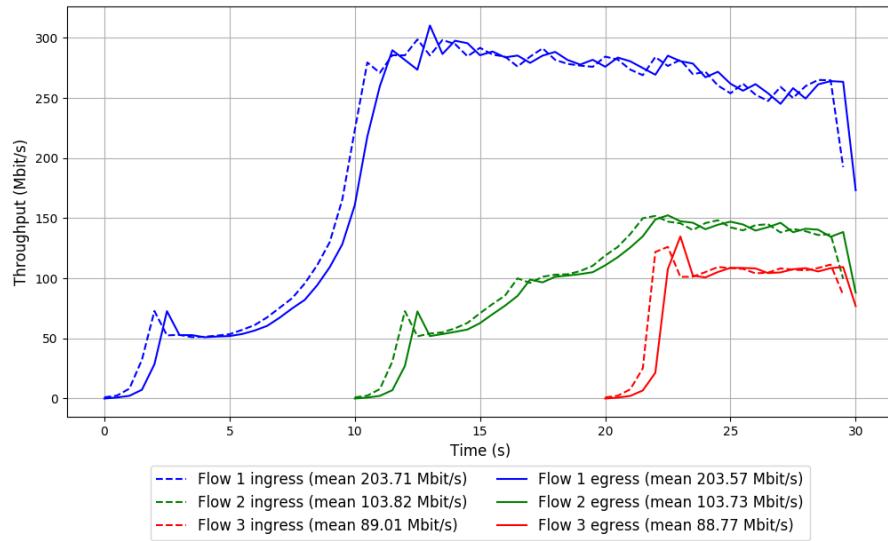


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-04-24 21:22:31
End at: 2019-04-24 21:23:01
Local clock offset: 0.042 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2019-04-25 00:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 301.54 Mbit/s
95th percentile per-packet one-way delay: 55.877 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 203.57 Mbit/s
95th percentile per-packet one-way delay: 59.843 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 103.73 Mbit/s
95th percentile per-packet one-way delay: 48.226 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 48.177 ms
Loss rate: 1.23%
```

Run 5: Report of PCC-Vivace — Data Link

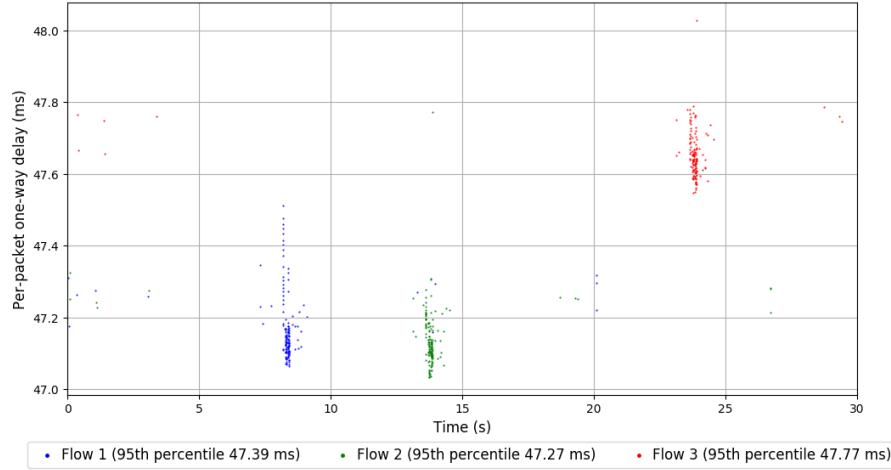
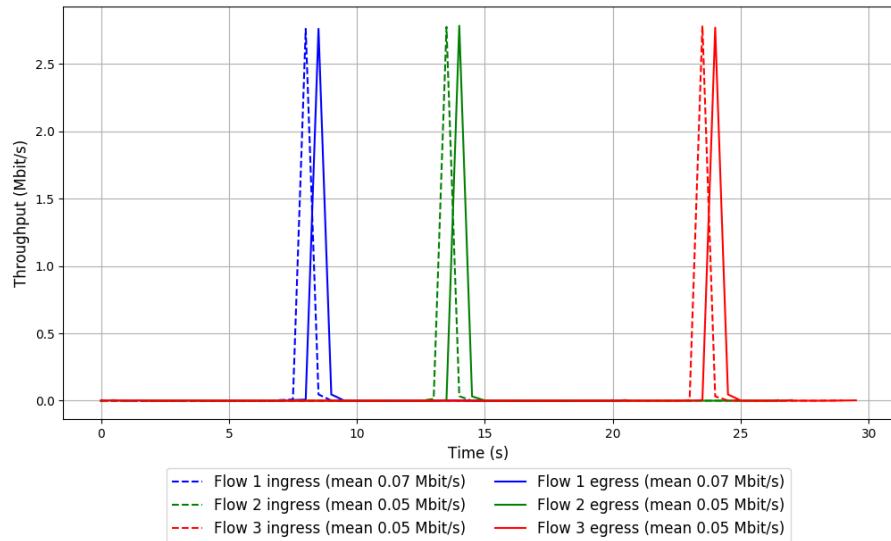


Run 1: Statistics of WebRTC media

```
Start at: 2019-04-24 19:25:40
End at: 2019-04-24 19:26:10
Local clock offset: 0.083 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2019-04-25 00:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.737 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 47.390 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.275 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.766 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

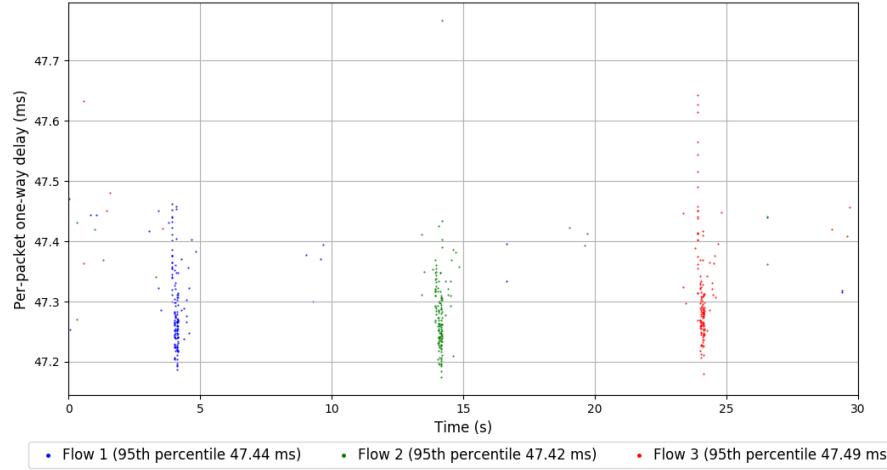
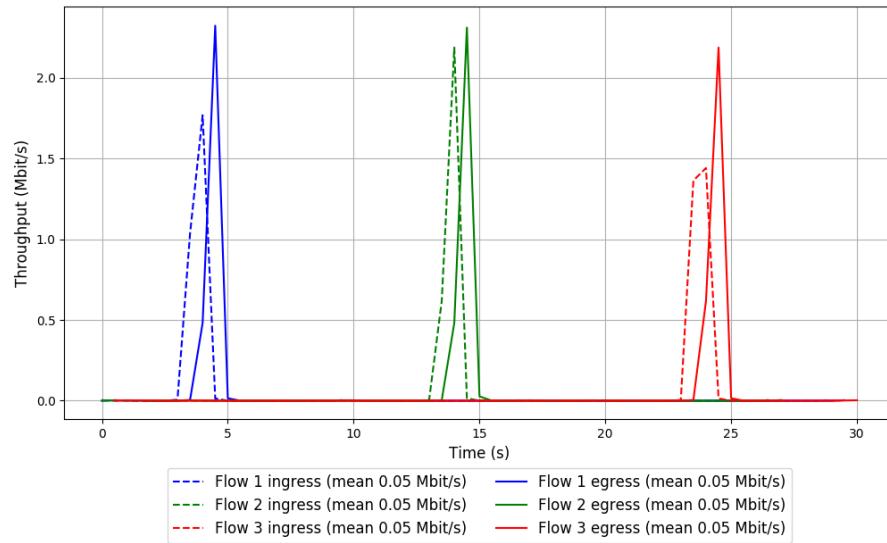


Run 2: Statistics of WebRTC media

```
Start at: 2019-04-24 20:00:14
End at: 2019-04-24 20:00:44
Local clock offset: -0.064 ms
Remote clock offset: -0.156 ms

# Below is generated by plot.py at 2019-04-25 00:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.446 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.440 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.419 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.490 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

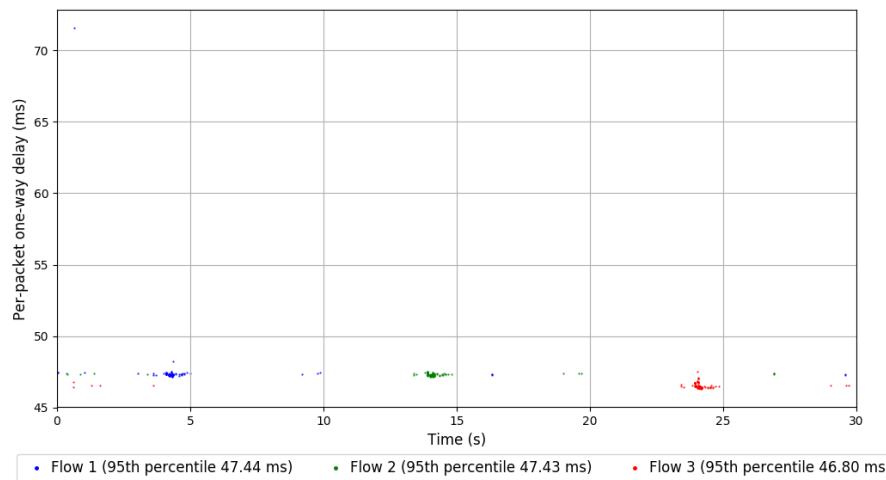
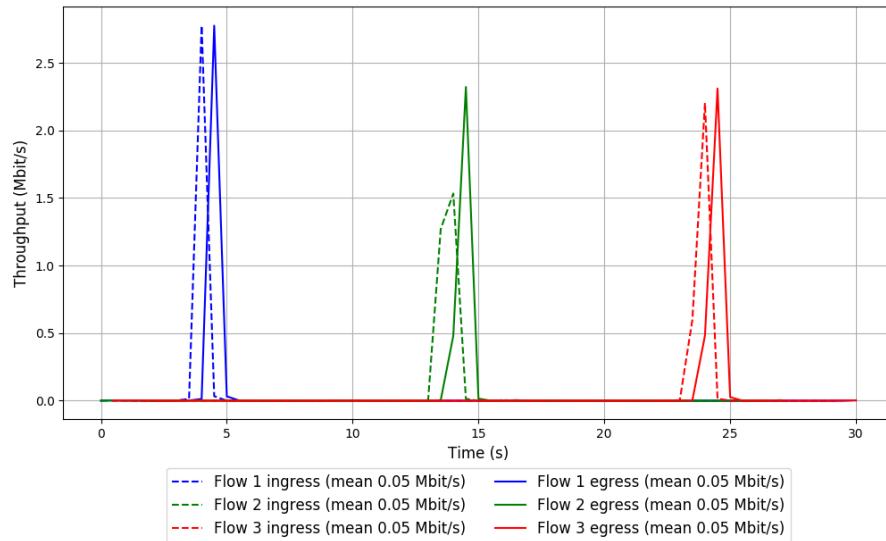


Run 3: Statistics of WebRTC media

```
Start at: 2019-04-24 20:34:53
End at: 2019-04-24 20:35:23
Local clock offset: -0.066 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2019-04-25 00:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.422 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.436 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.434 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.799 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

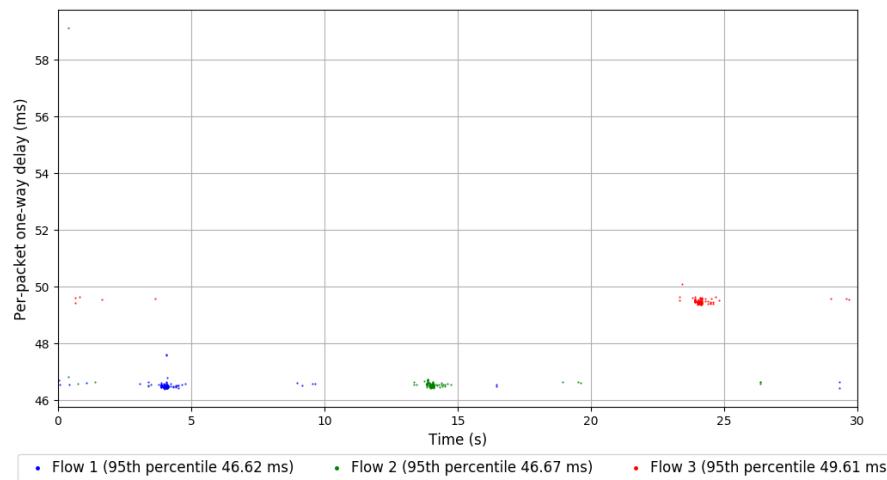
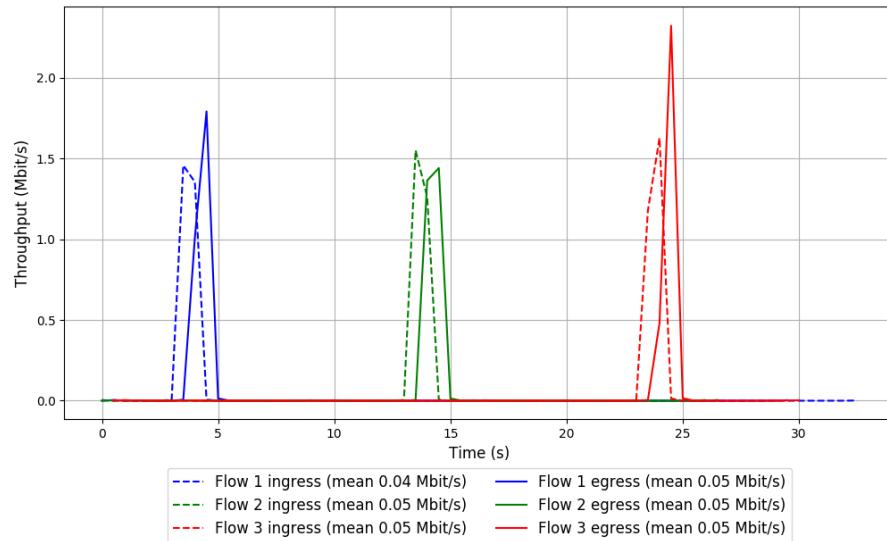


Run 4: Statistics of WebRTC media

```
Start at: 2019-04-24 21:09:25
End at: 2019-04-24 21:09:55
Local clock offset: 0.058 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2019-04-25 00:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 49.556 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.617 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.671 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 49.610 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-04-24 21:43:45
End at: 2019-04-24 21:44:15
Local clock offset: 0.417 ms
Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-04-25 00:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 49.879 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 50.140 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.825 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.840 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

