

Pantheon Report

Generated at 2019-01-22 02:02:34 (UTC).

Data path: Colombia cellular on `ppp0` (*remote*) → AWS Brazil 2 on `ens5` (*local*).

Repeated the test of 21 congestion control schemes 3 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

System info:

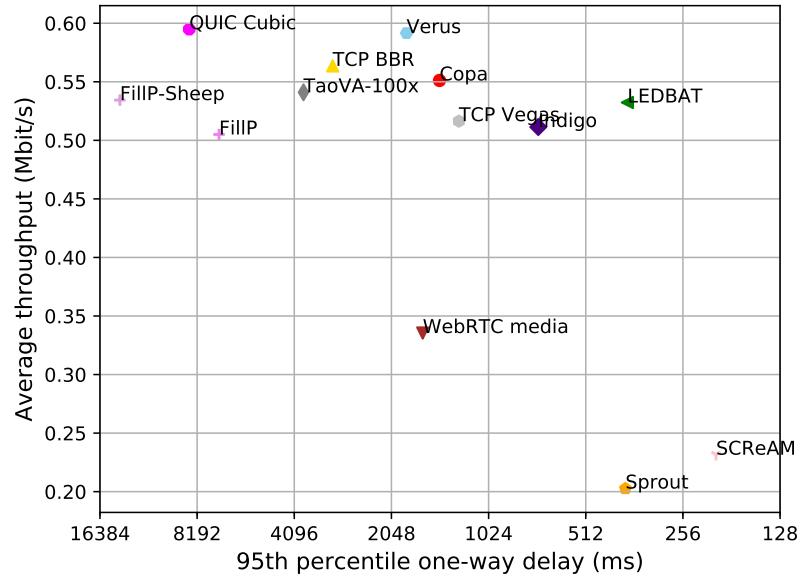
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

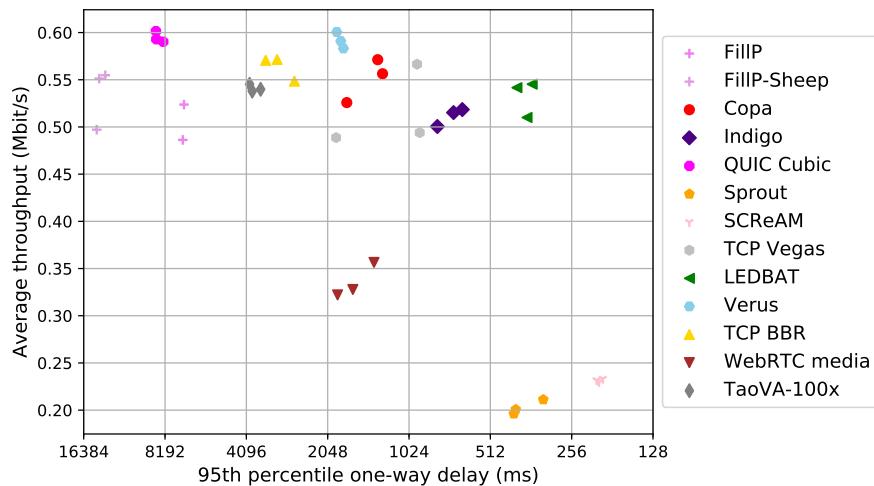
```
branch: muses @ 89d24e57783e7fbfec537a619071de937b639e38
third_party/fillp @ d6da1459332fce56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fc45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 1ddcff131048c6962f123bcd22b4d166a422adde
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
```

```
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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



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



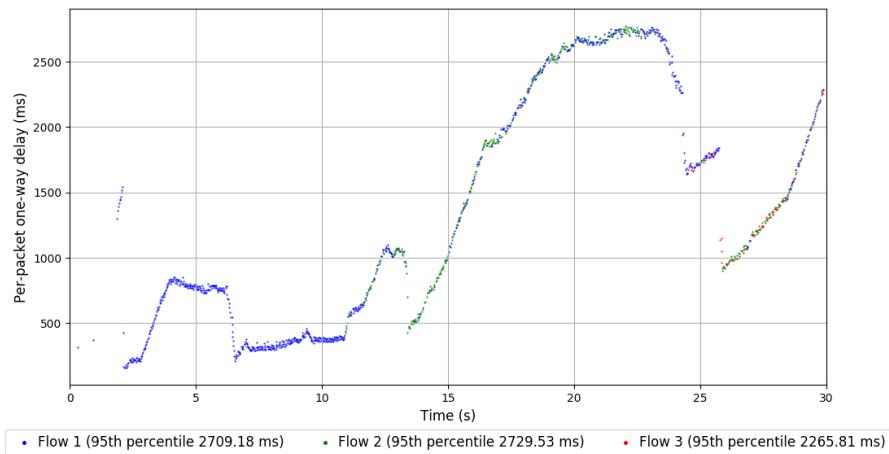
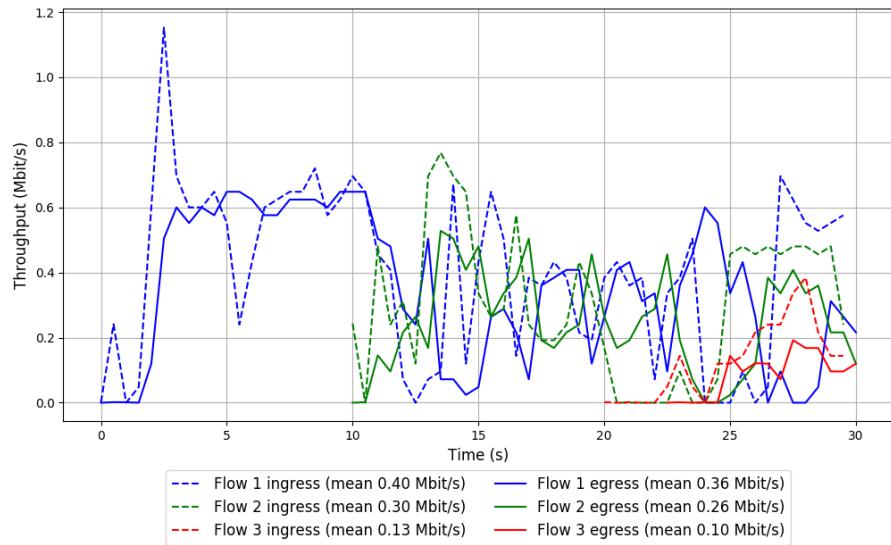
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	0.37	0.28	0.06	3105.72	3123.42	2589.76	5.24	9.60	37.68
Copa	3	0.37	0.22	0.14	1423.76	1470.77	1544.09	4.18	6.17	7.15
TCP Cubic	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FillP	2	0.50	0.01	0.00	7039.29	6142.93	6566.61	22.02	0.00	82.28
FillP-Sheep	3	0.53	0.01	0.01	14304.46	8005.99	4168.82	15.22	0.00	99.14
Indigo	3	0.28	0.24	0.23	615.15	739.33	807.04	0.82	0.94	2.19
Indigo-MusesC3	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indigo-MusesC5	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indigo-MusesD	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indigo-MusesT	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEDBAT	3	0.26	0.29	0.25	366.33	381.36	386.71	0.00	0.72	5.14
PCC-Allegro	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCC-Expr	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
QUIC Cubic	3	0.58	0.02	0.00	8639.57	8585.92	9001.33	31.24	15.49	77.78
SCReAM	3	0.08	0.15	0.15	192.07	210.78	234.19	0.74	0.97	1.81
Sprout	3	0.10	0.10	0.11	933.03	268.54	319.12	0.67	1.14	2.13
TaoVA-100x	3	0.33	0.24	0.23	2669.84	3729.96	4490.30	4.34	11.04	19.05
TCP Vegas	3	0.26	0.25	0.27	1135.47	1249.02	1368.52	1.29	3.34	12.53
Verus	3	0.58	0.01	0.01	1837.60	1816.29	1768.19	4.65	6.43	12.73
PCC-Vivace	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WebRTC media	3	0.13	0.13	0.07	1583.90	1641.37	1579.73	0.83	0.93	6.61

Run 1: Statistics of TCP BBR

```
Start at: 2019-01-22 01:09:37
End at: 2019-01-22 01:10:07
Local clock offset: -0.633 ms
Remote clock offset: 7.378 ms

# Below is generated by plot.py at 2019-01-22 02:01:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 2719.110 ms
Loss rate: 15.45%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 2709.181 ms
Loss rate: 11.54%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 2729.533 ms
Loss rate: 16.86%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 2265.808 ms
Loss rate: 45.18%
```

Run 1: Report of TCP BBR — Data Link

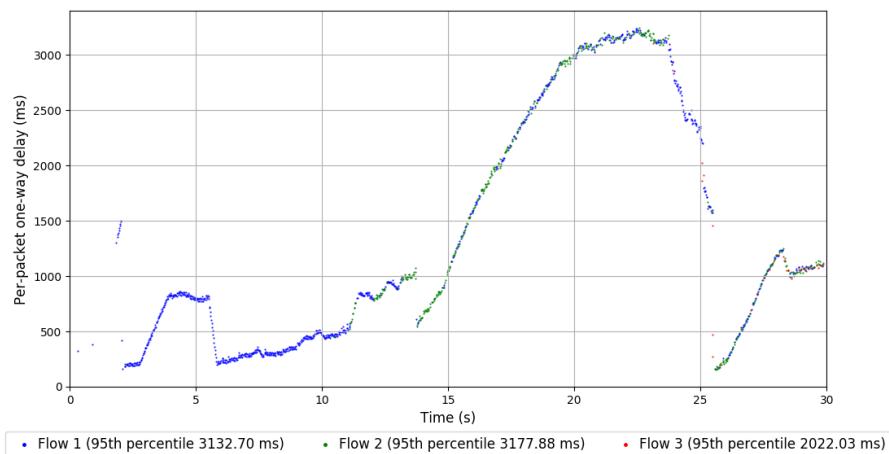
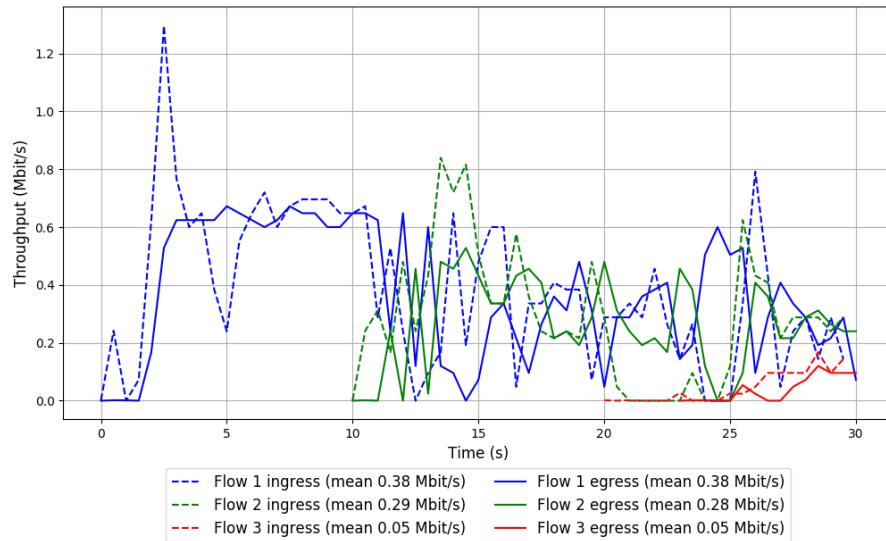


Run 2: Statistics of TCP BBR

```
Start at: 2019-01-22 01:35:23
End at: 2019-01-22 01:35:53
Local clock offset: -7.397 ms
Remote clock offset: 3.321 ms

# Below is generated by plot.py at 2019-01-22 02:01:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 3151.072 ms
Loss rate: 4.22%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 3132.695 ms
Loss rate: 2.30%
-- Flow 2:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 3177.877 ms
Loss rate: 5.69%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2022.032 ms
Loss rate: 33.88%
```

Run 2: Report of TCP BBR — Data Link

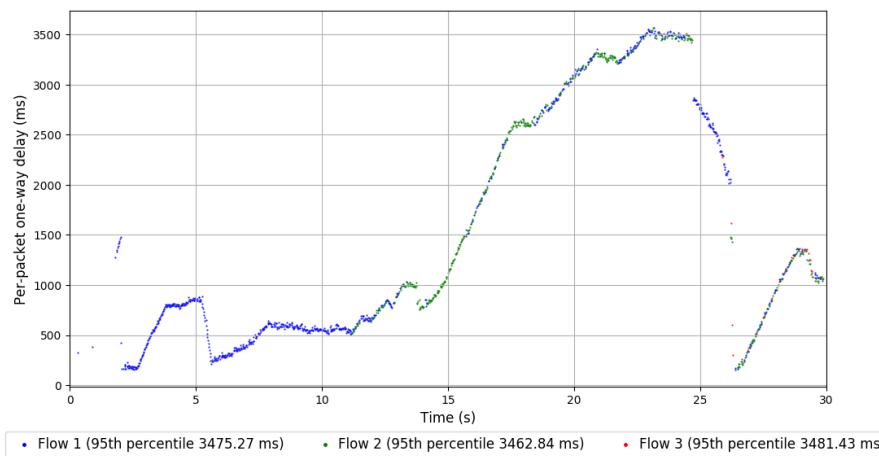
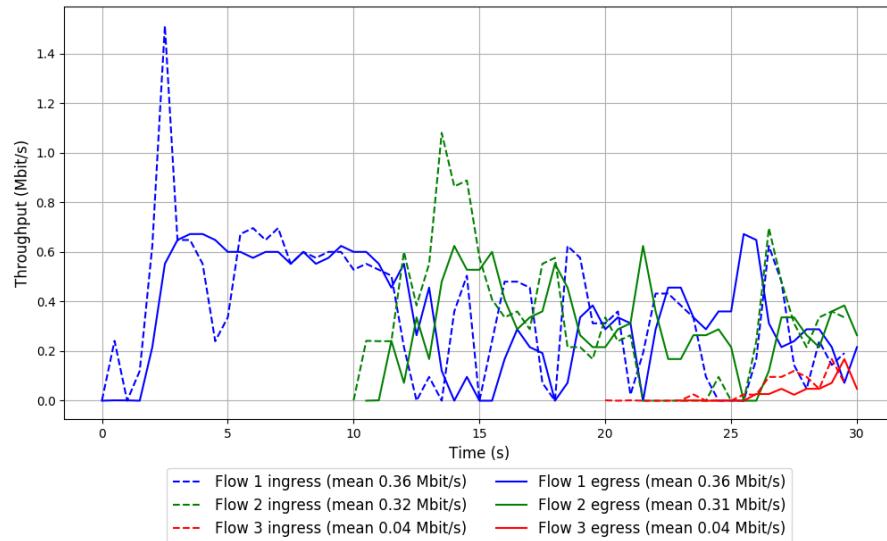


Run 3: Statistics of TCP BBR

```
Start at: 2019-01-22 02:01:07
End at: 2019-01-22 02:01:37
Local clock offset: -3.152 ms
Remote clock offset: 2.033 ms

# Below is generated by plot.py at 2019-01-22 02:01:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 3474.346 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 3475.269 ms
Loss rate: 1.88%
-- Flow 2:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 3462.842 ms
Loss rate: 6.24%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 3481.429 ms
Loss rate: 33.98%
```

Run 3: Report of TCP BBR — Data Link

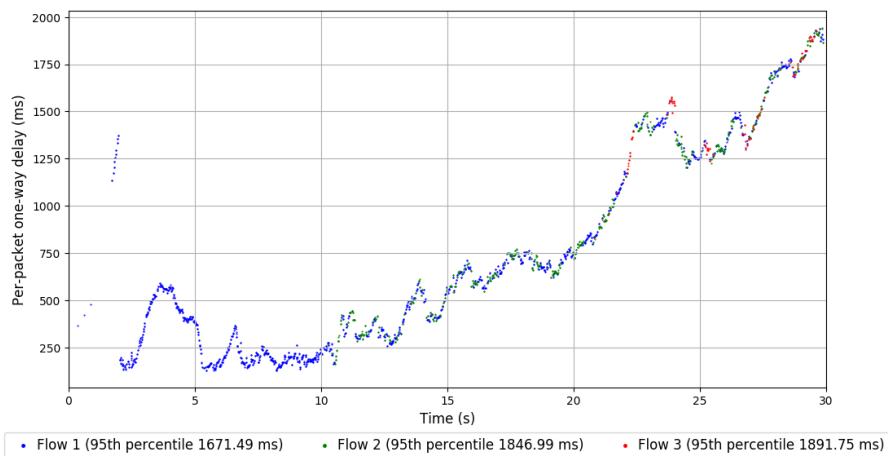
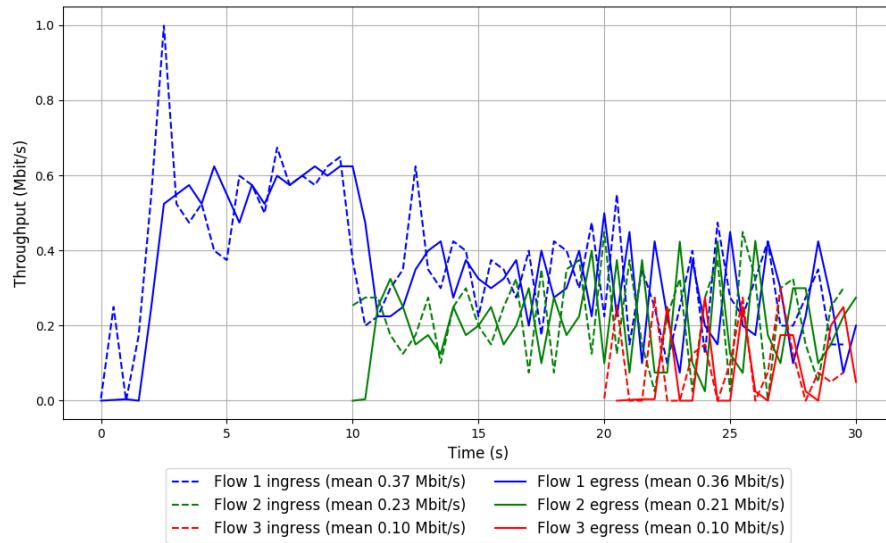


Run 1: Statistics of Copa

```
Start at: 2019-01-22 00:49:55
End at: 2019-01-22 00:50:25
Local clock offset: -4.819 ms
Remote clock offset: 1.515 ms

# Below is generated by plot.py at 2019-01-22 02:01:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 1740.328 ms
Loss rate: 5.62%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 1671.494 ms
Loss rate: 4.19%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 1846.986 ms
Loss rate: 8.05%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 1891.754 ms
Loss rate: 10.61%
```

Run 1: Report of Copa — Data Link

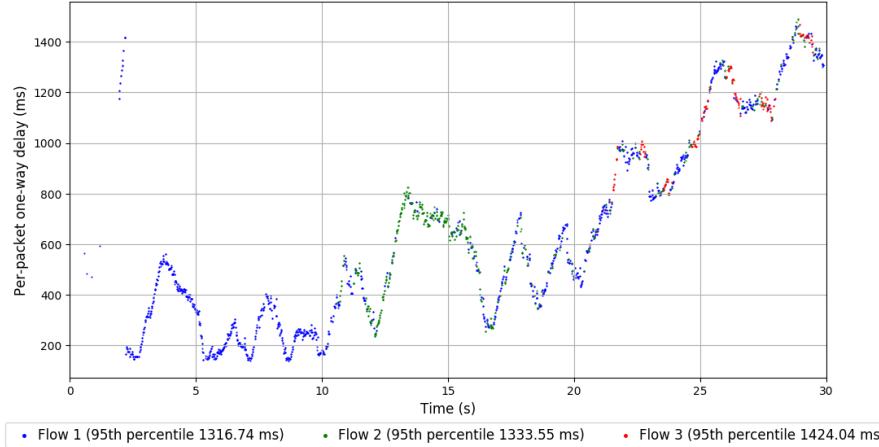
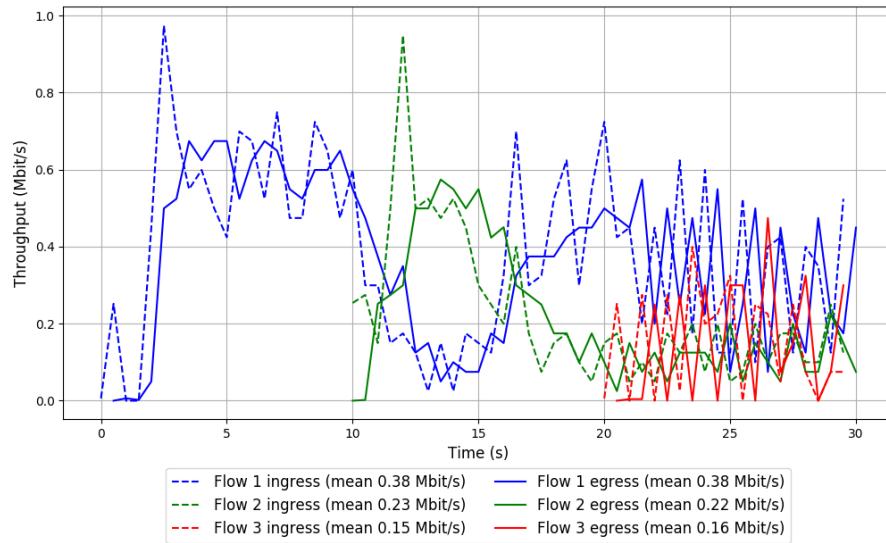


Run 2: Statistics of Copa

```
Start at: 2019-01-22 01:15:45
End at: 2019-01-22 01:16:15
Local clock offset: -0.791 ms
Remote clock offset: 7.838 ms

# Below is generated by plot.py at 2019-01-22 02:01:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 1337.151 ms
Loss rate: 4.35%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 1316.737 ms
Loss rate: 3.92%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1333.549 ms
Loss rate: 5.20%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 1424.035 ms
Loss rate: 5.03%
```

Run 2: Report of Copa — Data Link

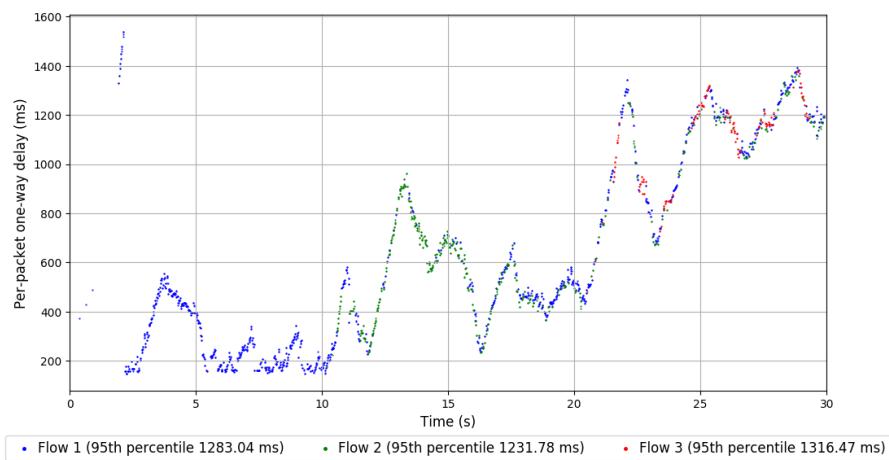
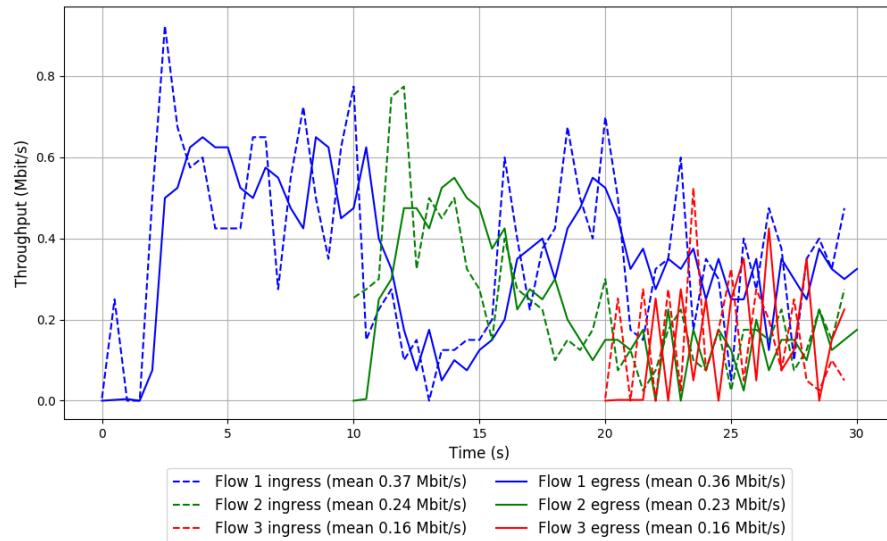


Run 3: Statistics of Copa

```
Start at: 2019-01-22 01:41:30
End at: 2019-01-22 01:42:00
Local clock offset: -7.122 ms
Remote clock offset: 1.81 ms

# Below is generated by plot.py at 2019-01-22 02:01:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 1283.043 ms
Loss rate: 4.78%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 1283.043 ms
Loss rate: 4.43%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 1231.782 ms
Loss rate: 5.25%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 1316.469 ms
Loss rate: 5.82%
```

Run 3: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

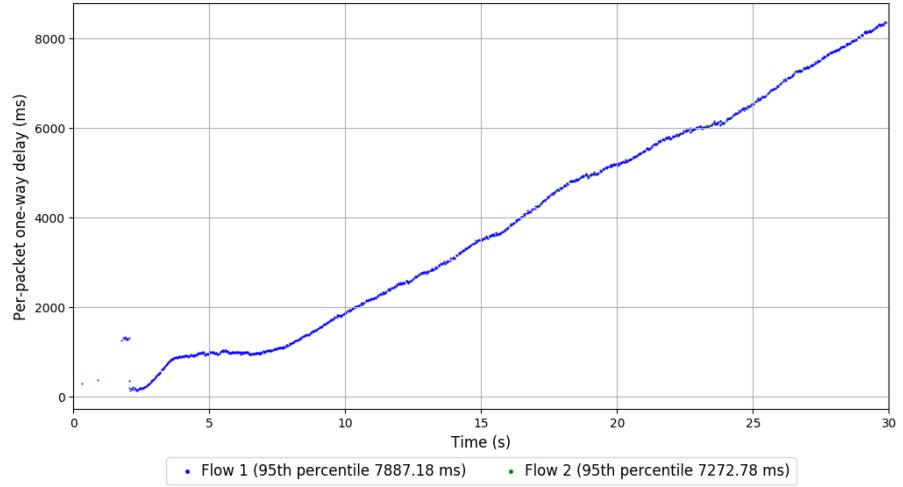
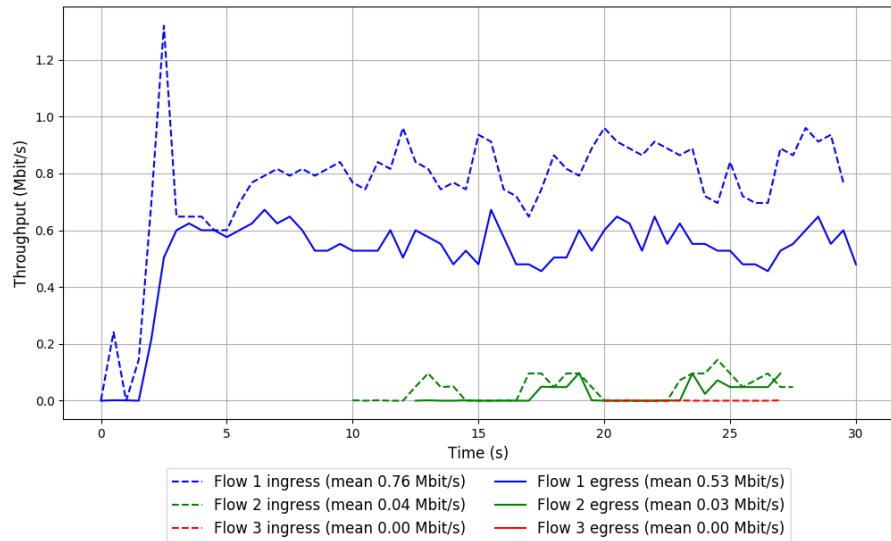
Start at: 2019-01-22 00:54:52

End at: 2019-01-22 00:55:22

Local clock offset: -3.125 ms

Remote clock offset: 0.997 ms

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

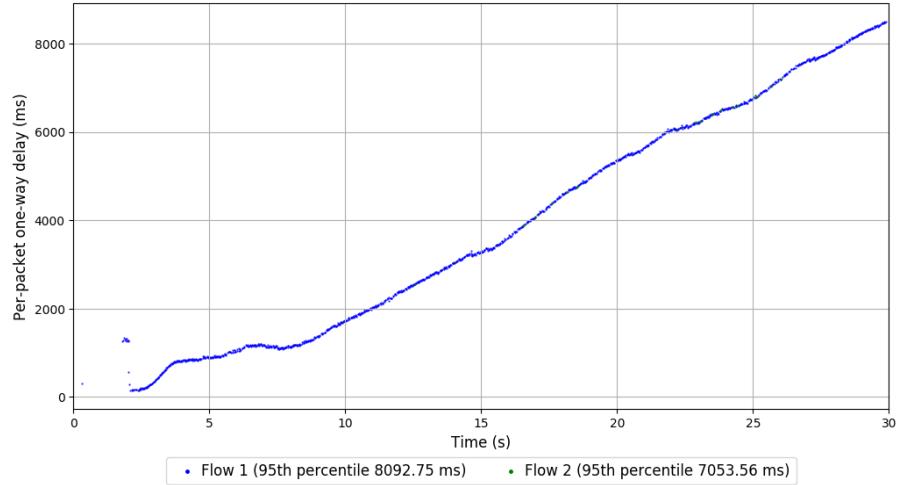
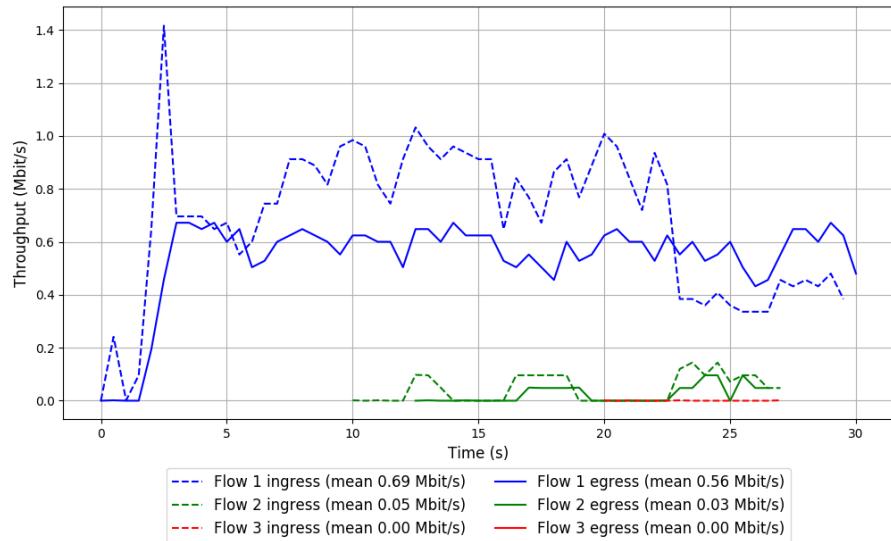
Start at: 2019-01-22 01:20:40

End at: 2019-01-22 01:21:10

Local clock offset: -3.686 ms

Remote clock offset: 8.964 ms

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

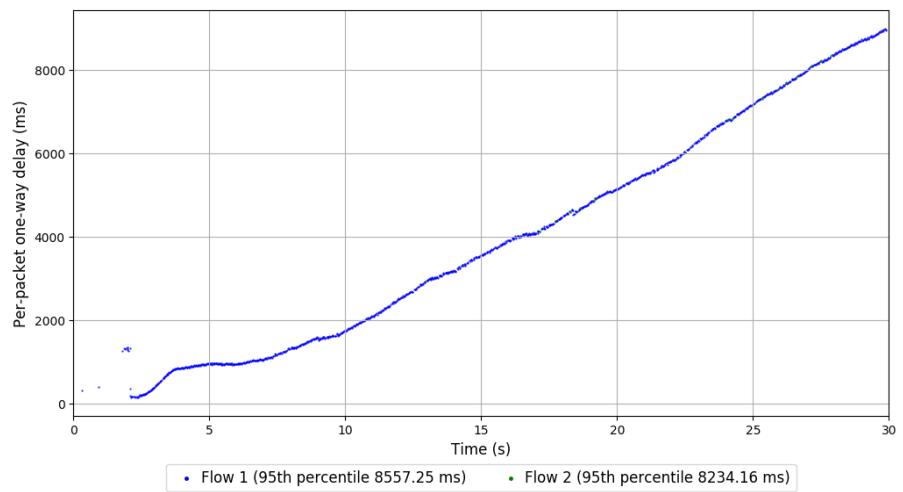
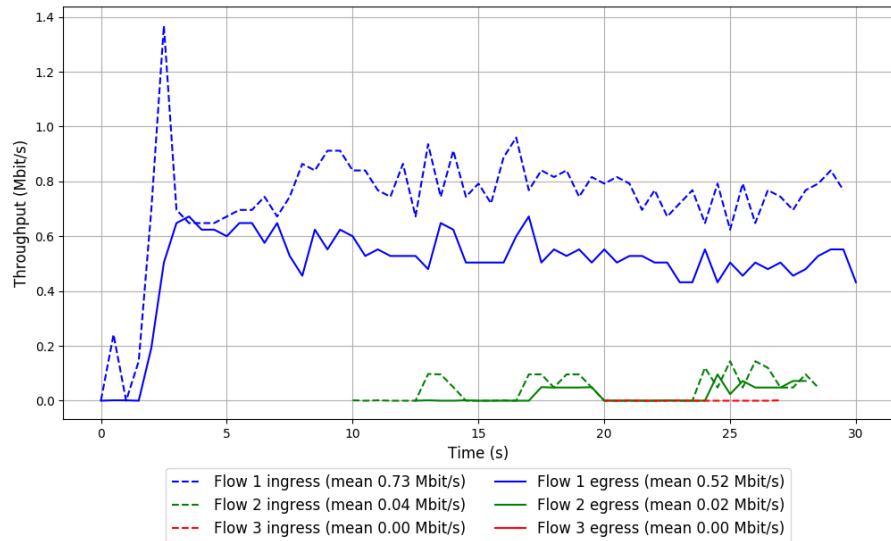
Start at: 2019-01-22 01:46:25

End at: 2019-01-22 01:46:55

Local clock offset: -7.233 ms

Remote clock offset: 1.994 ms

Run 3: Report of TCP Cubic — Data Link

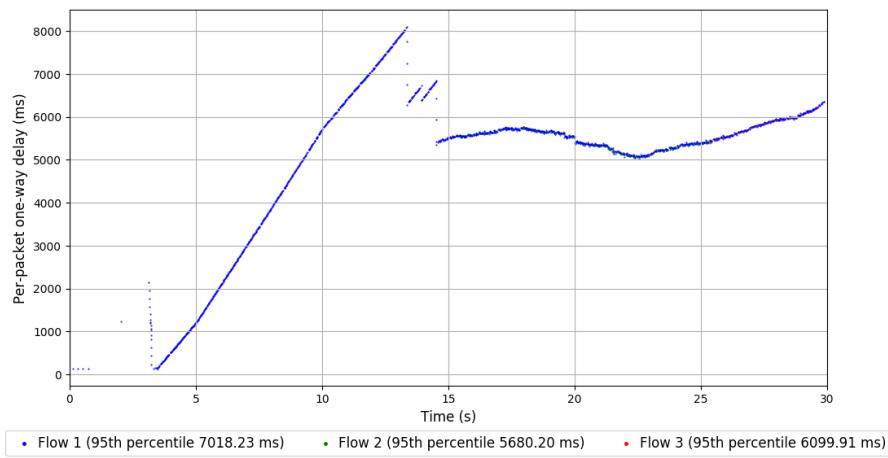
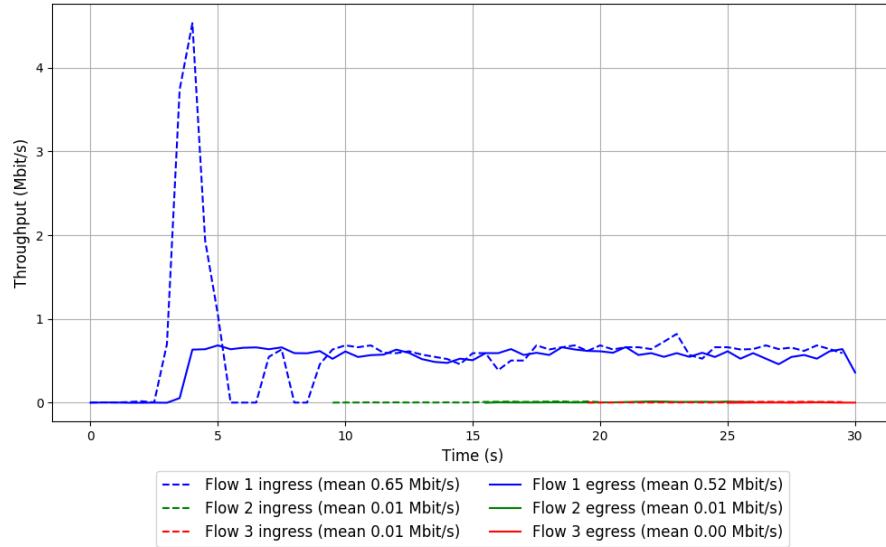


```
Run 1: Statistics of FillP

Start at: 2019-01-22 00:48:42
End at: 2019-01-22 00:49:12
Local clock offset: -6.032 ms
Remote clock offset: 5.345 ms

# Below is generated by plot.py at 2019-01-22 02:01:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 6970.368 ms
Loss rate: 21.00%
-- Flow 1:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 7018.229 ms
Loss rate: 20.88%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 5680.202 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 6099.915 ms
Loss rate: 80.92%
```

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

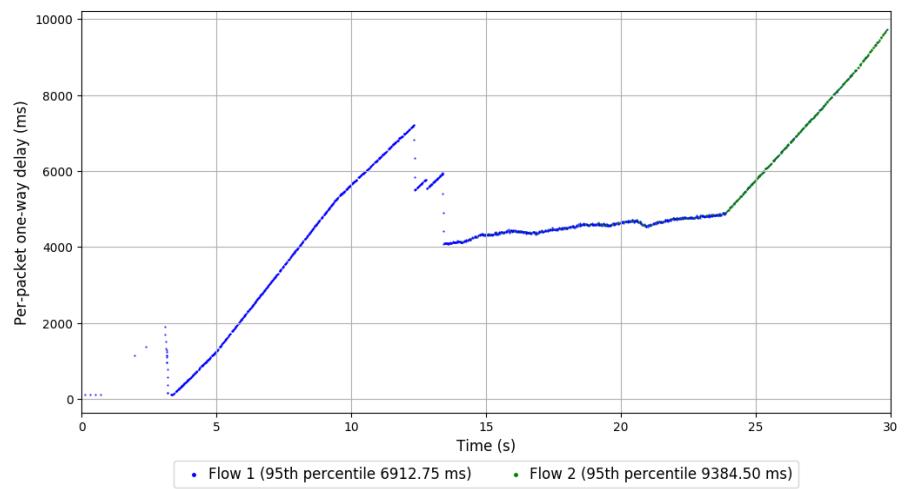
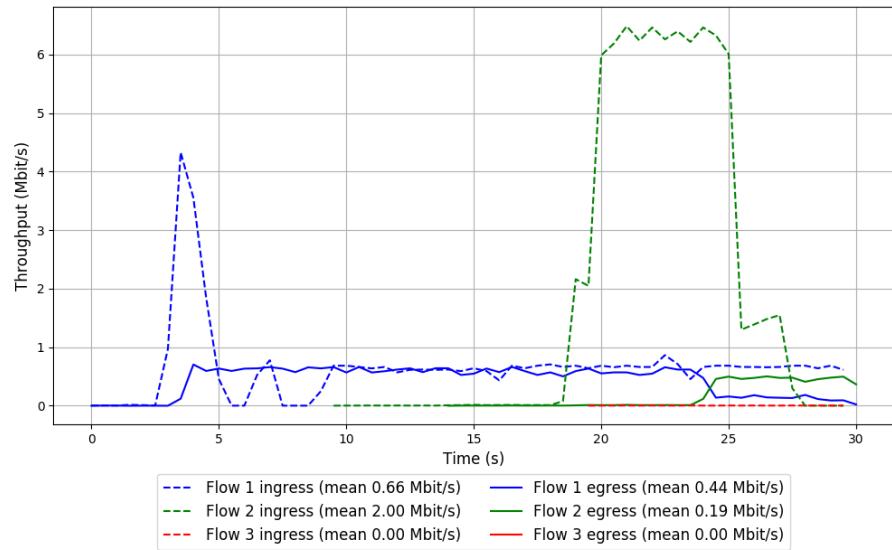
Start at: 2019-01-22 01:14:31

End at: 2019-01-22 01:15:01

Local clock offset: -0.88 ms

Remote clock offset: 7.741 ms

Run 2: Report of FillP — Data Link

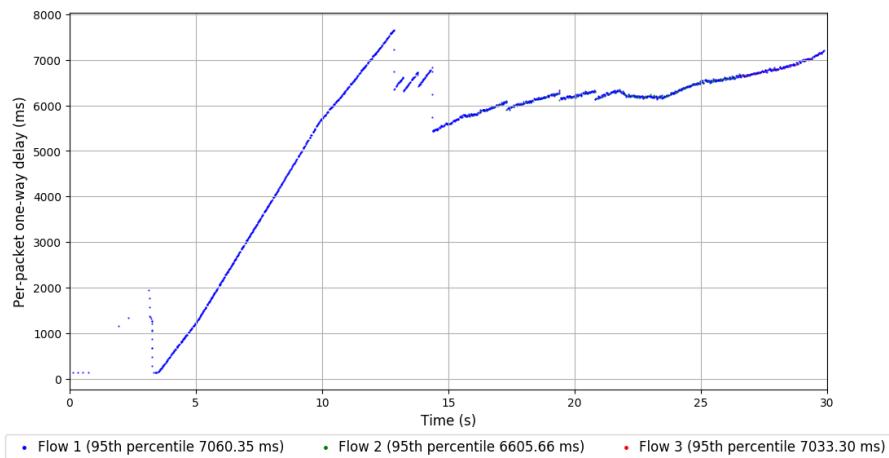
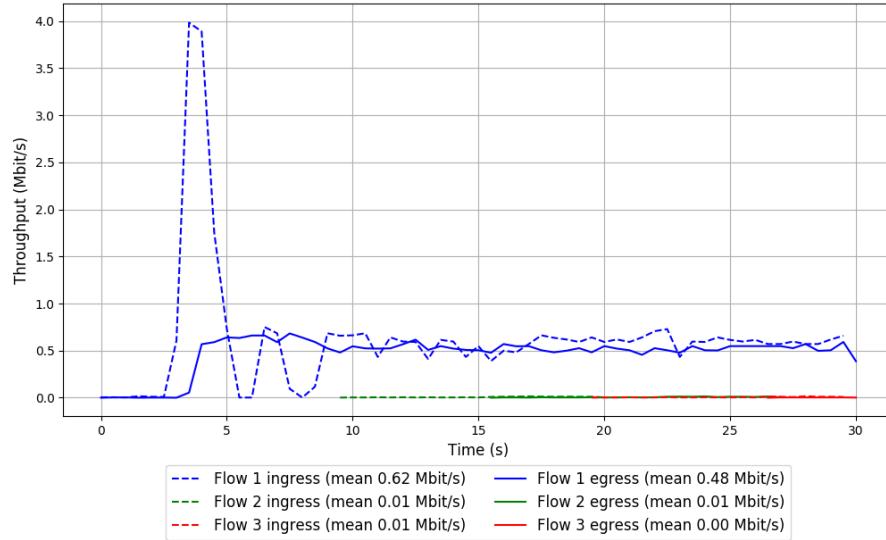


Run 3: Statistics of FillP

```
Start at: 2019-01-22 01:40:16
End at: 2019-01-22 01:40:46
Local clock offset: -7.813 ms
Remote clock offset: 3.197 ms

# Below is generated by plot.py at 2019-01-22 02:01:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 7041.088 ms
Loss rate: 23.28%
-- Flow 1:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 7060.349 ms
Loss rate: 23.17%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 6605.658 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 7033.299 ms
Loss rate: 83.63%
```

Run 3: Report of FillP — Data Link

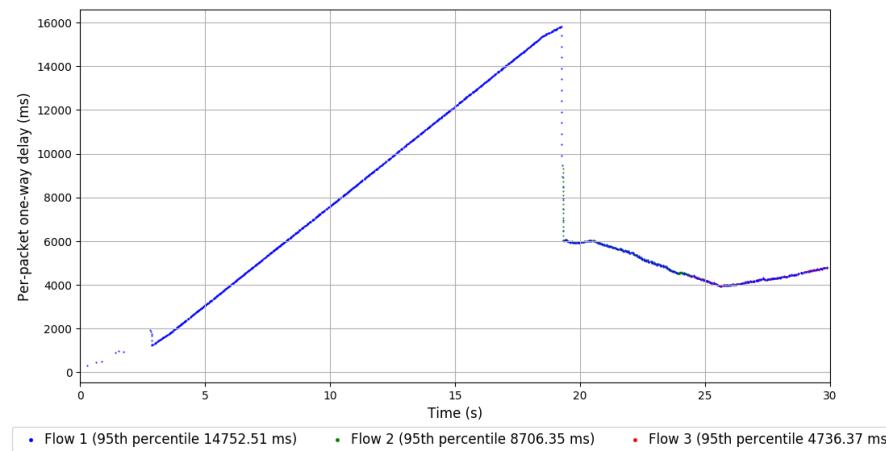
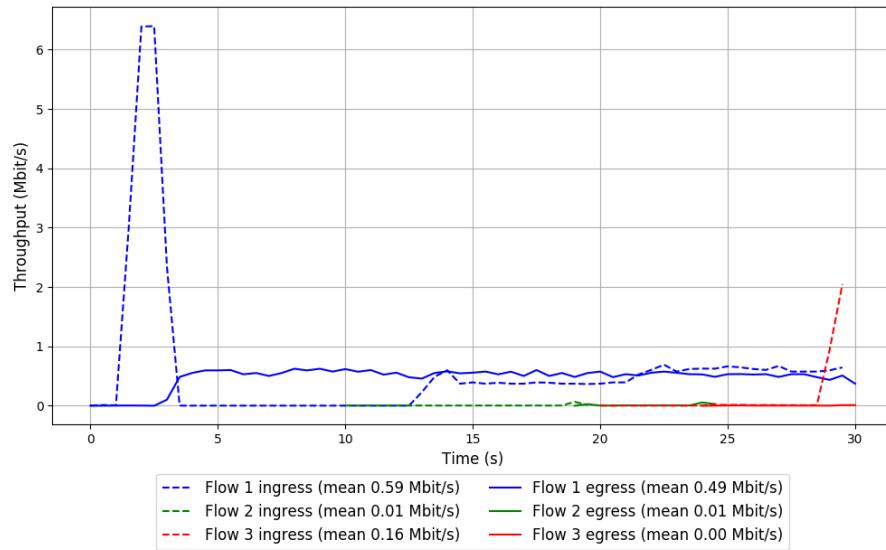


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-01-22 00:53:36
End at: 2019-01-22 00:54:06
Local clock offset: -4.18 ms
Remote clock offset: 5.458 ms

# Below is generated by plot.py at 2019-01-22 02:01:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 14659.485 ms
Loss rate: 23.66%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 14752.509 ms
Loss rate: 17.12%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 8706.354 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4736.368 ms
Loss rate: 98.30%
```

Run 1: Report of FillP-Sheep — Data Link

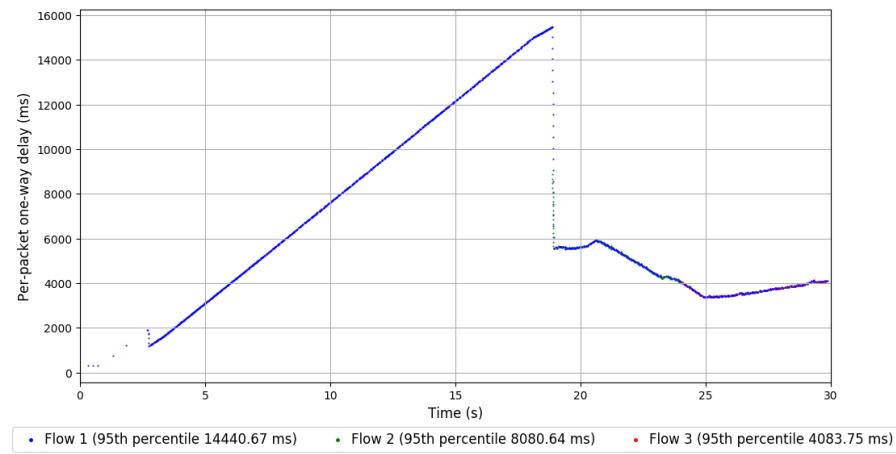
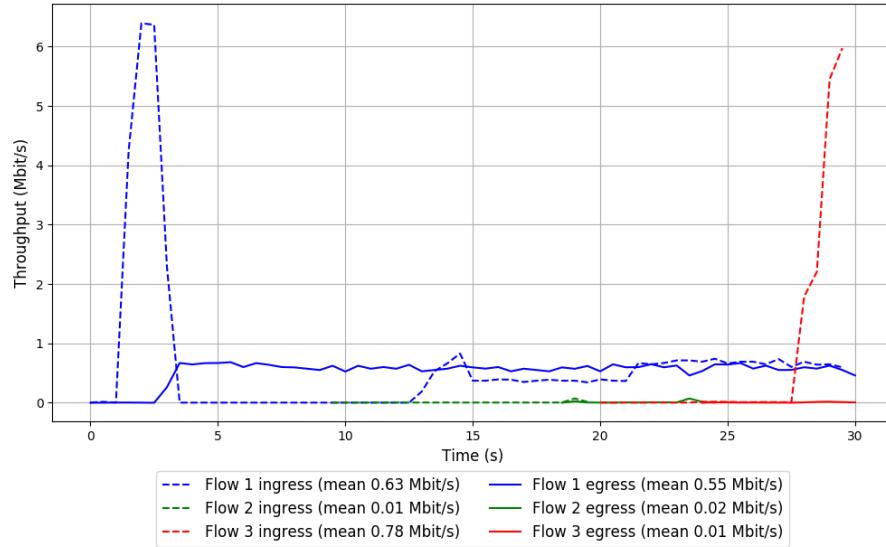


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-01-22 01:19:26
End at: 2019-01-22 01:19:56
Local clock offset: -2.258 ms
Remote clock offset: 3.087 ms

# Below is generated by plot.py at 2019-01-22 02:01:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 14357.396 ms
Loss rate: 39.22%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 14440.665 ms
Loss rate: 14.66%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 8080.641 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 4083.752 ms
Loss rate: 99.46%
```

Run 2: Report of FillP-Sheep — Data Link

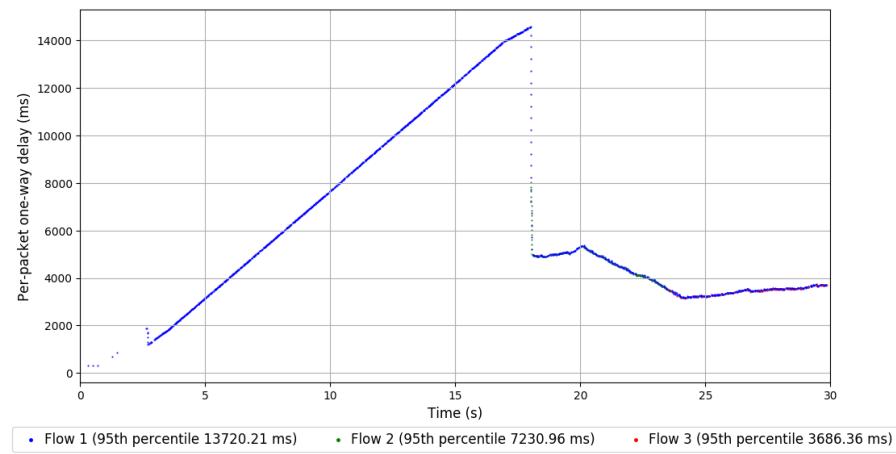
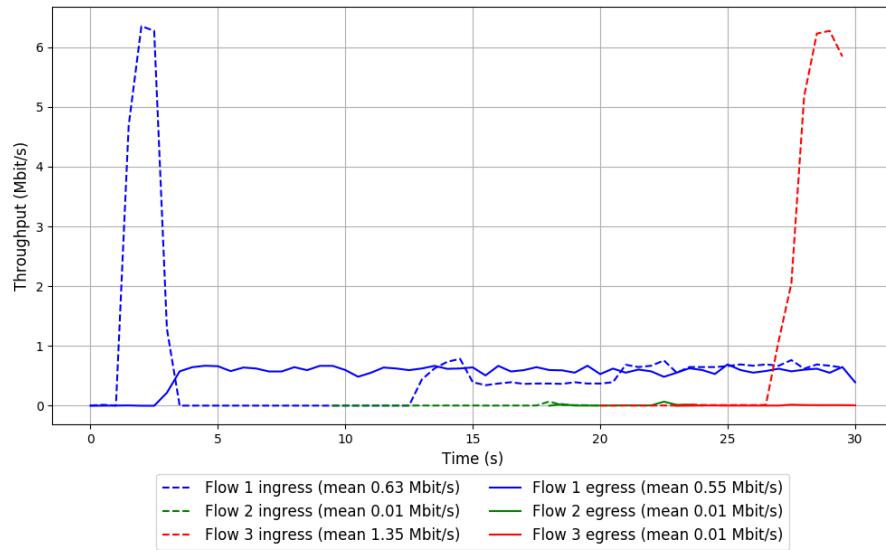


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-01-22 01:45:11
End at: 2019-01-22 01:45:41
Local clock offset: -8.118 ms
Remote clock offset: 7.966 ms

# Below is generated by plot.py at 2019-01-22 02:02:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 13629.489 ms
Loss rate: 49.32%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 13720.207 ms
Loss rate: 13.89%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 7230.961 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 3686.355 ms
Loss rate: 99.65%
```

Run 3: Report of FillP-Sheep — Data Link

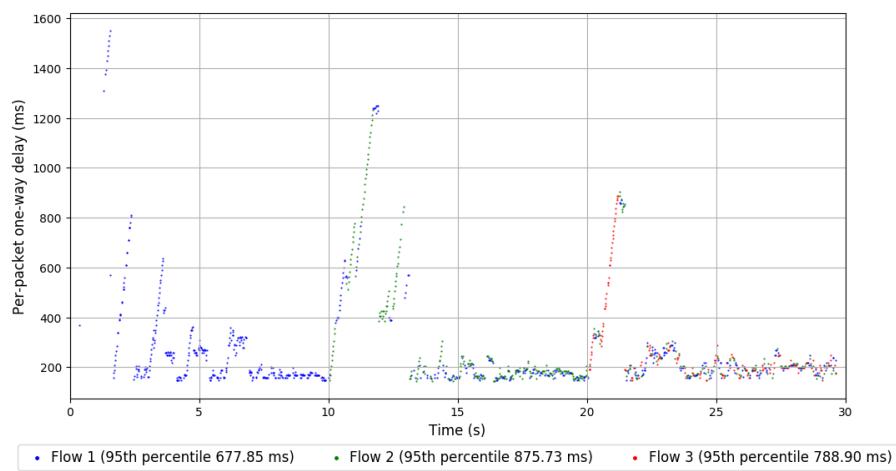
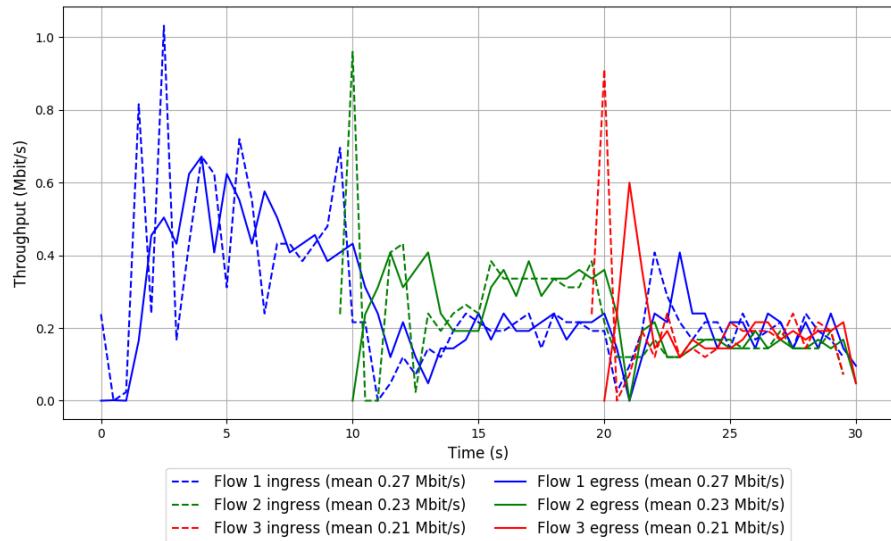


Run 1: Statistics of Indigo

```
Start at: 2019-01-22 00:45:02
End at: 2019-01-22 00:45:32
Local clock offset: -7.469 ms
Remote clock offset: 5.385 ms

# Below is generated by plot.py at 2019-01-22 02:02:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 804.347 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 677.847 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 875.731 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 788.900 ms
Loss rate: 2.33%
```

Run 1: Report of Indigo — Data Link

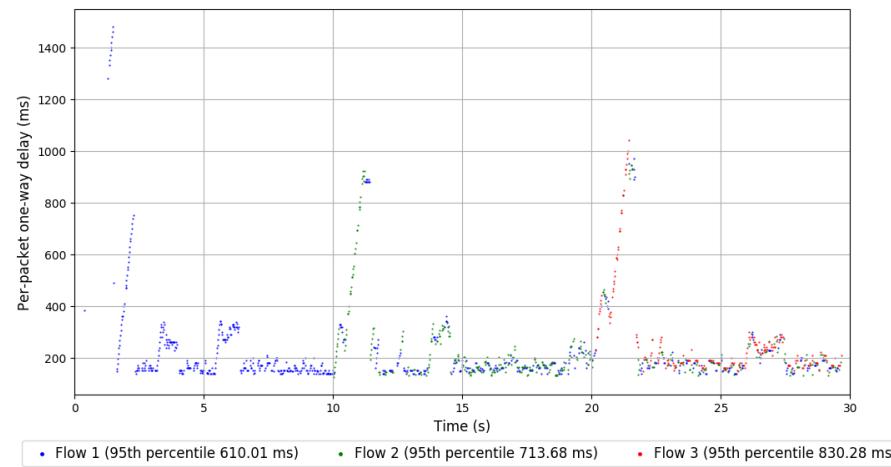
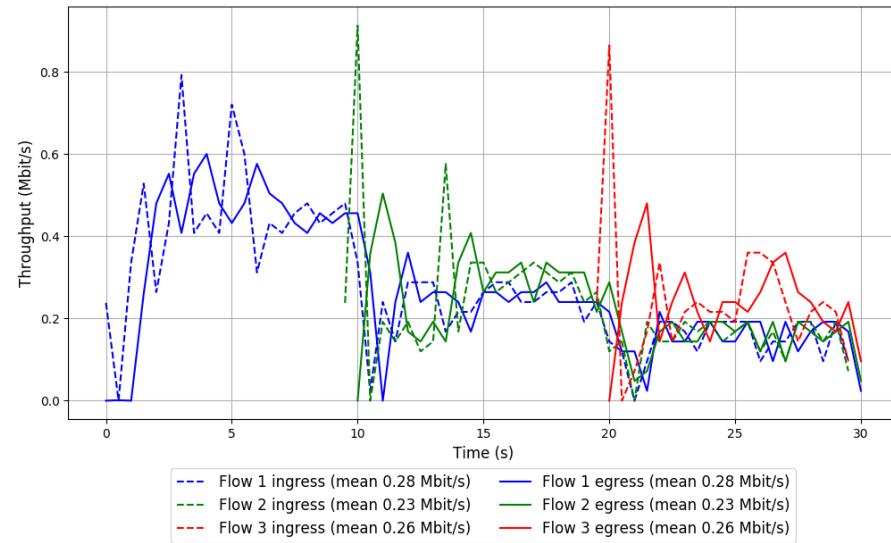


Run 2: Statistics of Indigo

```
Start at: 2019-01-22 01:10:50
End at: 2019-01-22 01:11:20
Local clock offset: -0.48 ms
Remote clock offset: 3.504 ms

# Below is generated by plot.py at 2019-01-22 02:02:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 700.483 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 610.006 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 713.678 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 830.276 ms
Loss rate: 1.88%
```

Run 2: Report of Indigo — Data Link

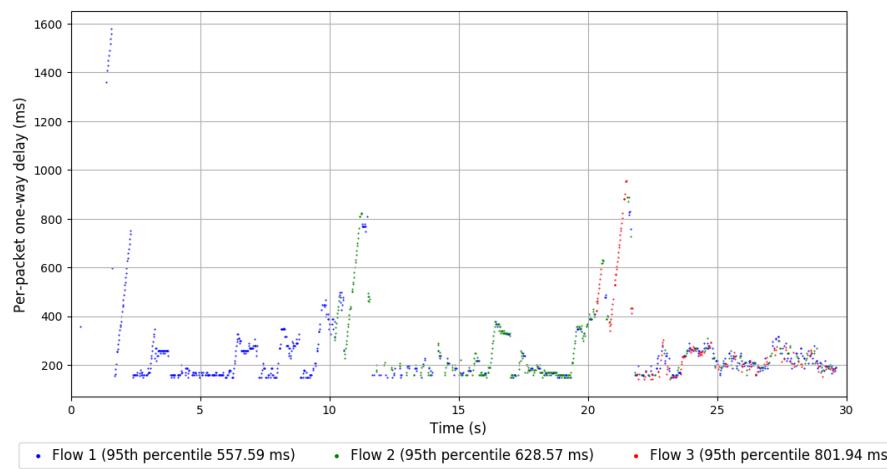
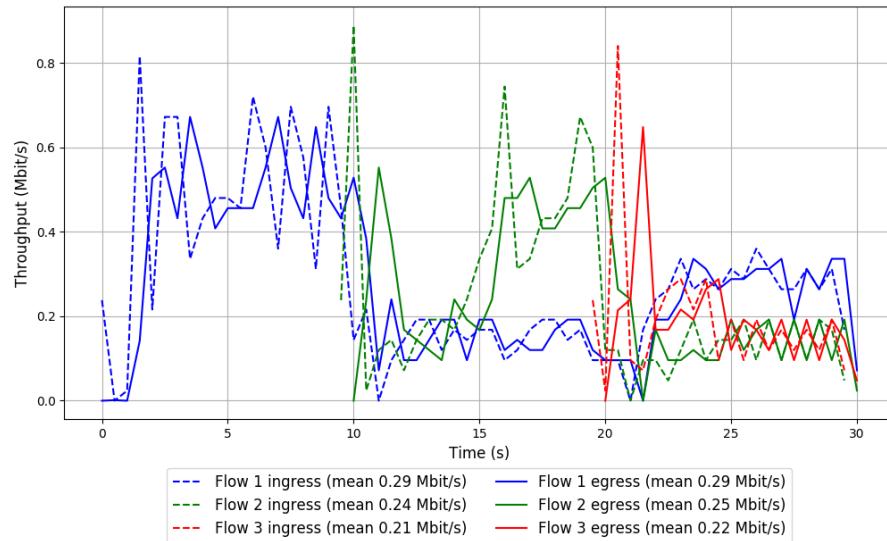


Run 3: Statistics of Indigo

```
Start at: 2019-01-22 01:36:36
End at: 2019-01-22 01:37:06
Local clock offset: -6.735 ms
Remote clock offset: 3.5 ms

# Below is generated by plot.py at 2019-01-22 02:02:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 650.223 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 557.593 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 628.574 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 801.936 ms
Loss rate: 2.37%
```

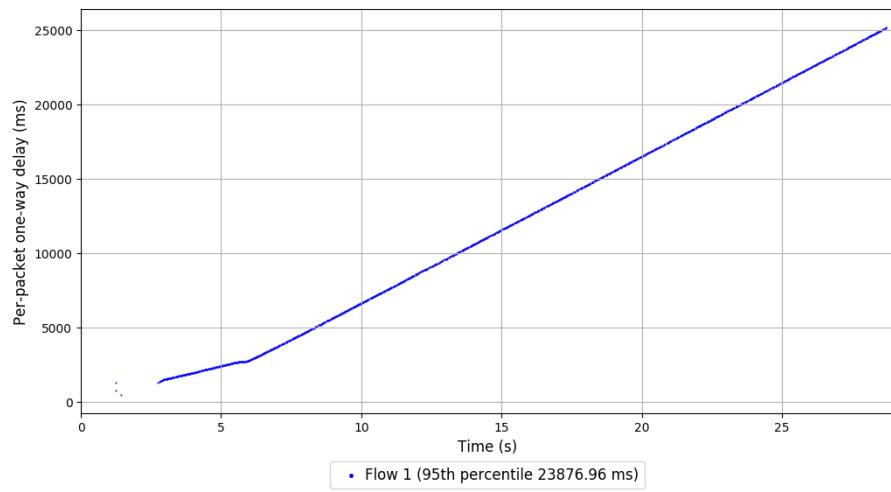
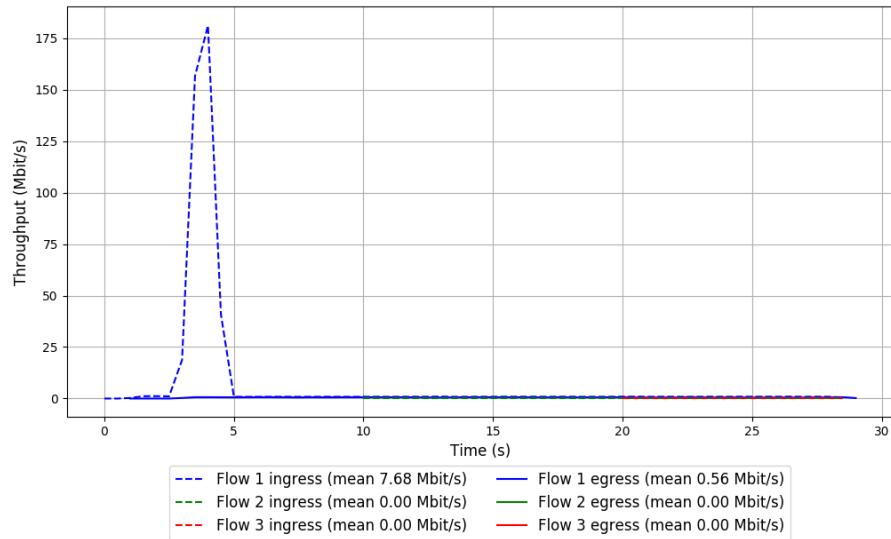
Run 3: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-22 01:05:56
End at: 2019-01-22 01:06:26
Local clock offset: -1.873 ms
Remote clock offset: 2.316 ms

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

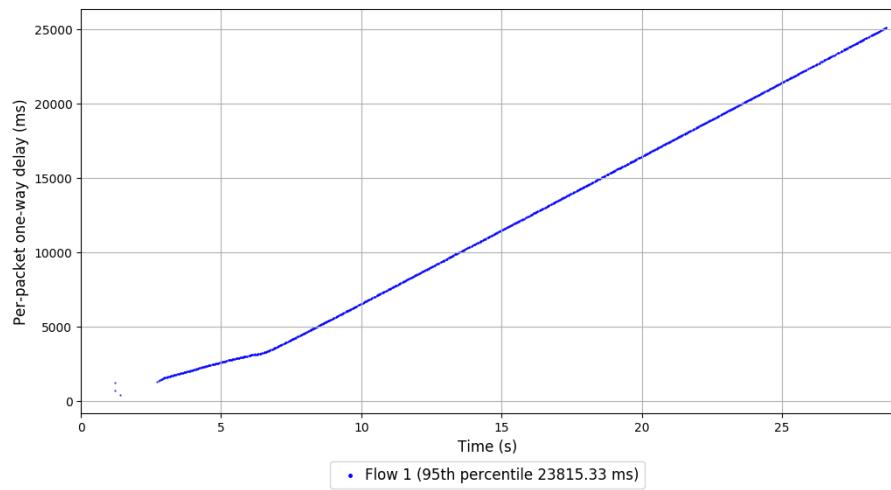
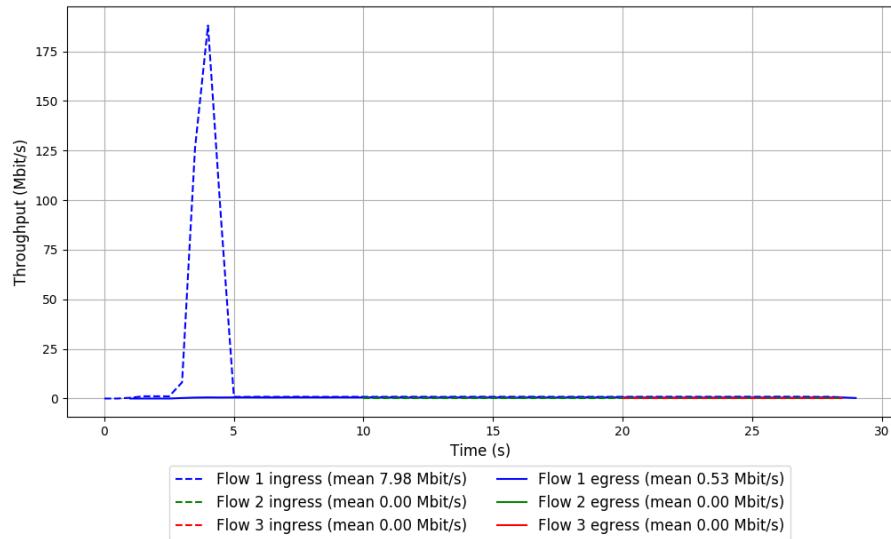
Start at: 2019-01-22 01:31:43

End at: 2019-01-22 01:32:13

Local clock offset: -6.894 ms

Remote clock offset: 8.636 ms

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

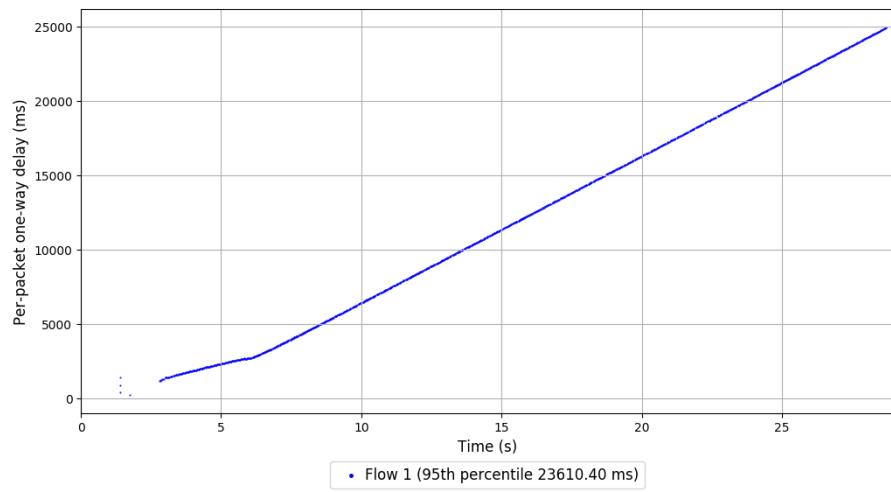
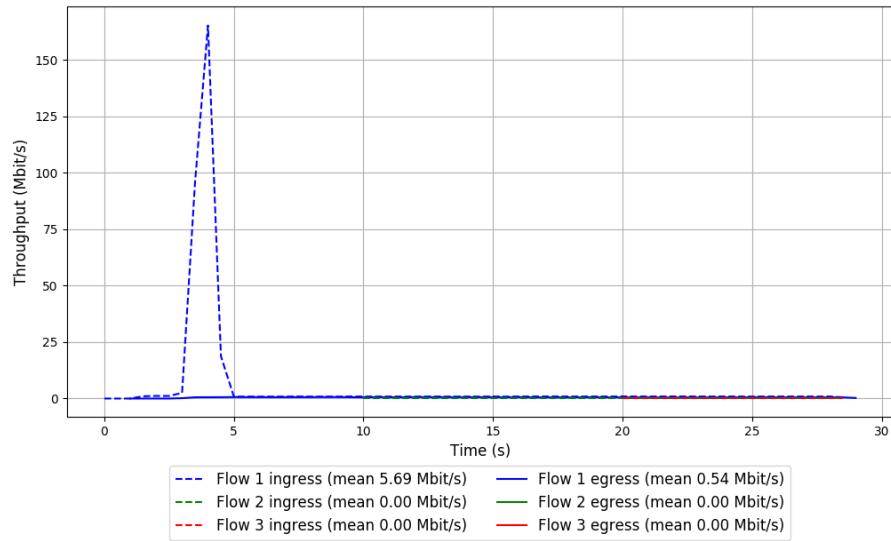
Start at: 2019-01-22 01:57:26

End at: 2019-01-22 01:57:56

Local clock offset: -3.758 ms

Remote clock offset: 6.857 ms

Run 3: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

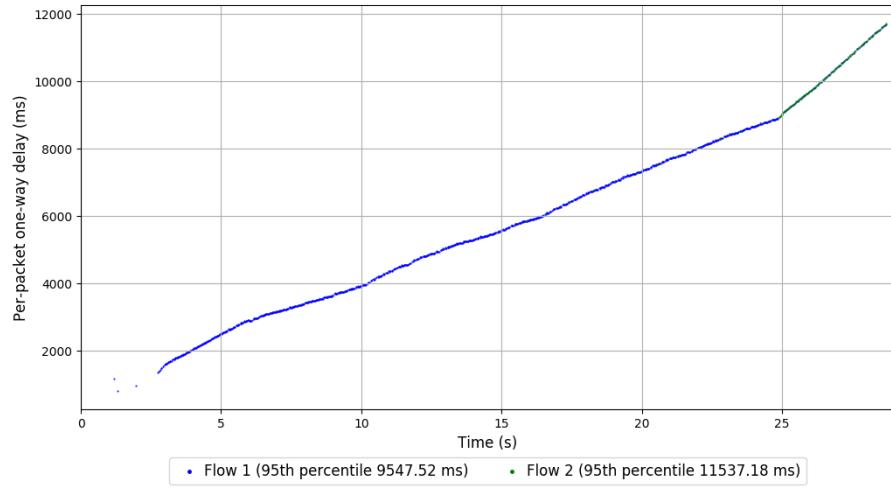
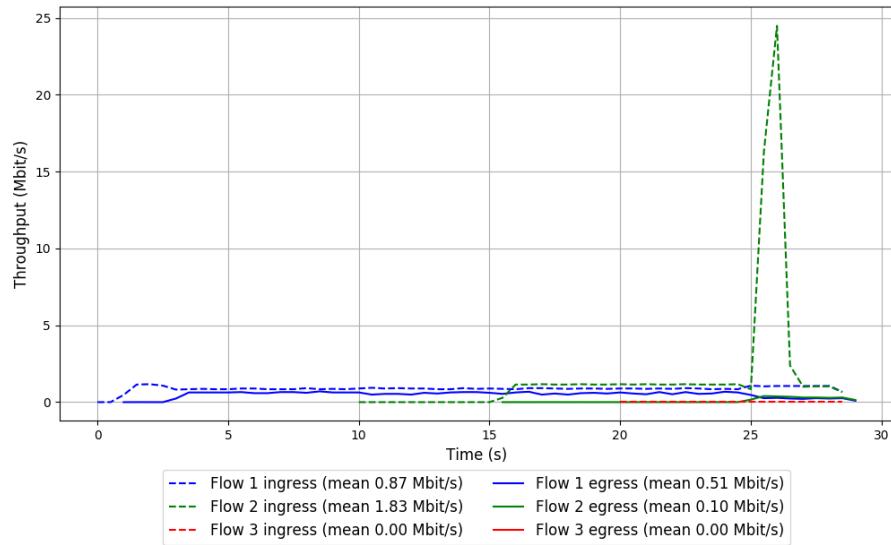
Start at: 2019-01-22 00:58:35

End at: 2019-01-22 00:59:05

Local clock offset: -2.23 ms

Remote clock offset: 1.593 ms

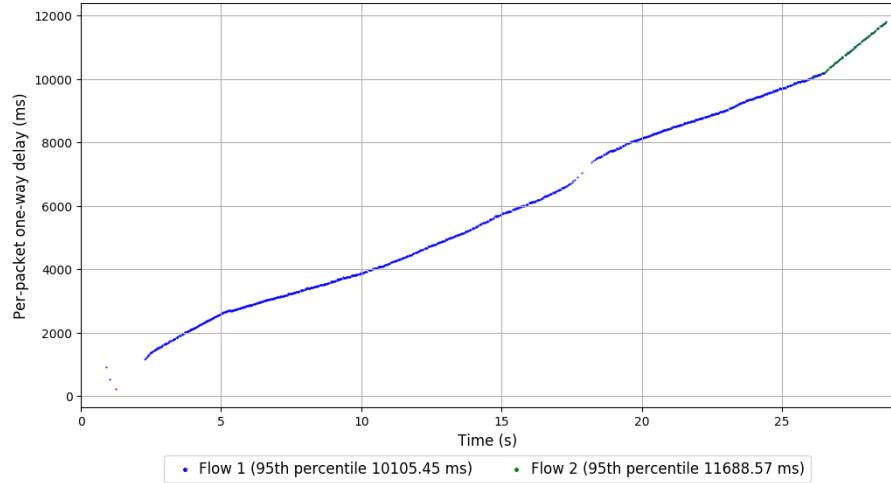
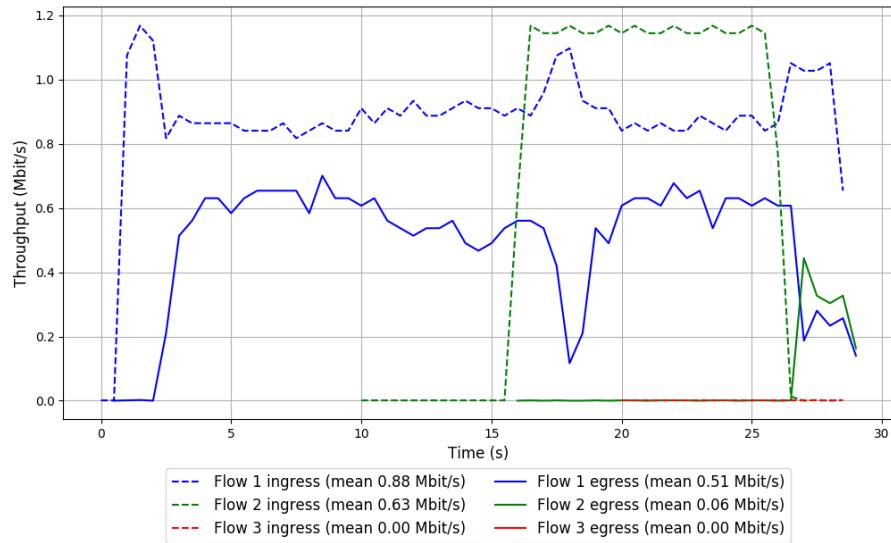
Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-22 01:24:21
End at: 2019-01-22 01:24:51
Local clock offset: -4.453 ms
Remote clock offset: 7.091 ms

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

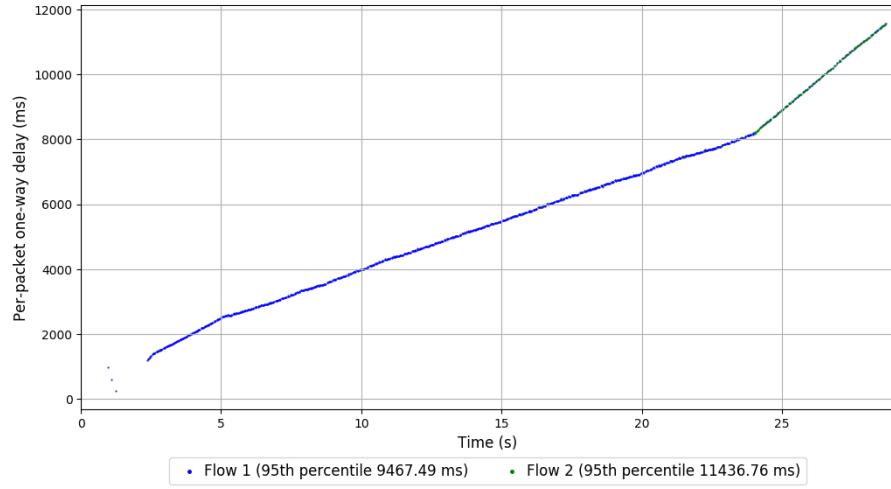
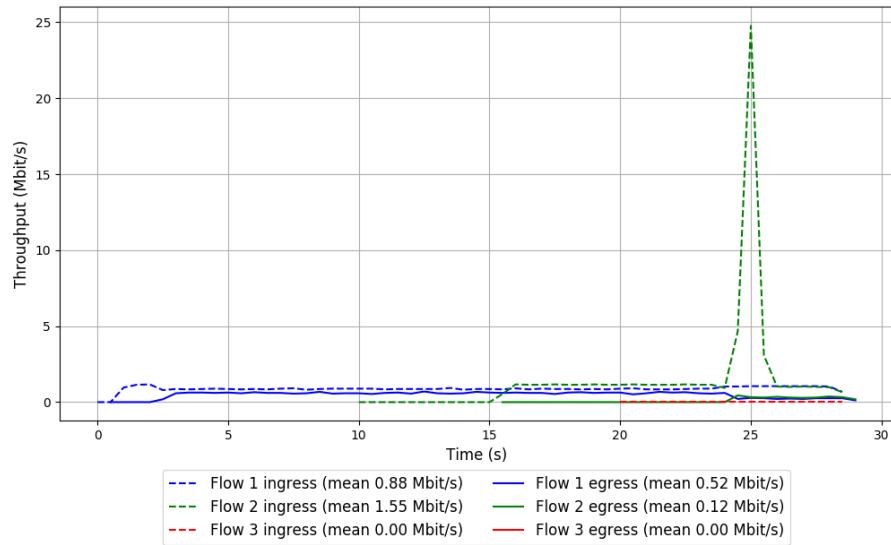
Start at: 2019-01-22 01:50:05

End at: 2019-01-22 01:50:35

Local clock offset: -5.228 ms

Remote clock offset: 7.118 ms

Run 3: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

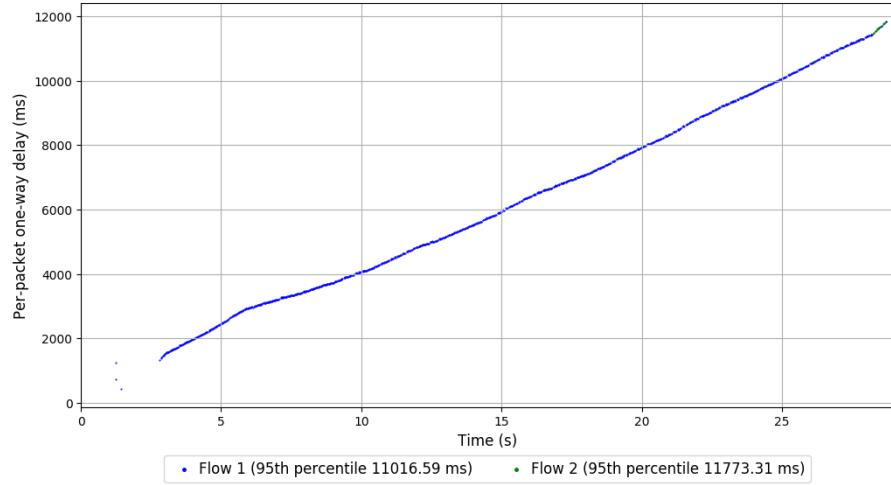
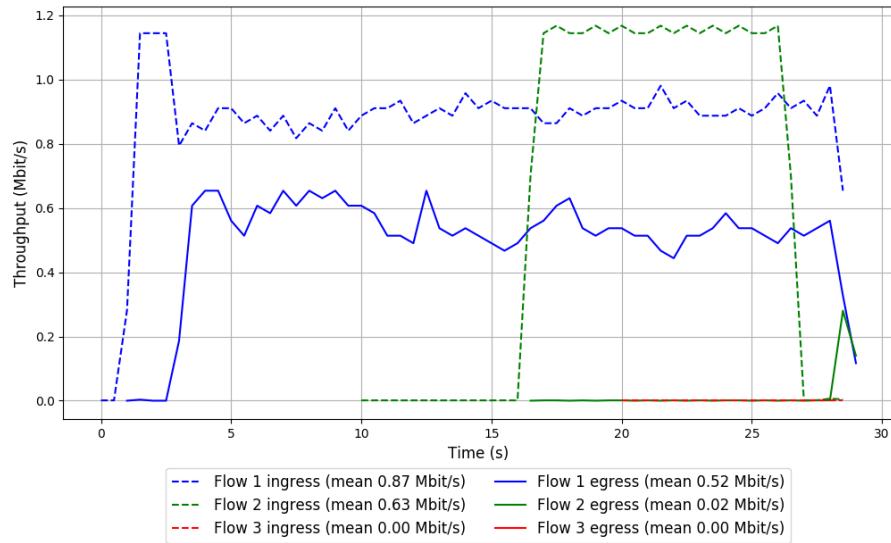
Start at: 2019-01-22 00:57:20

End at: 2019-01-22 00:57:50

Local clock offset: -2.481 ms

Remote clock offset: 6.301 ms

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

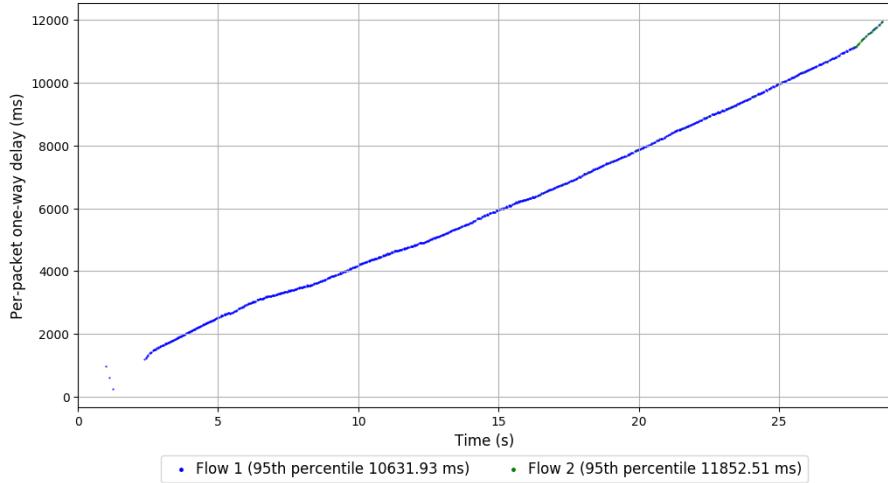
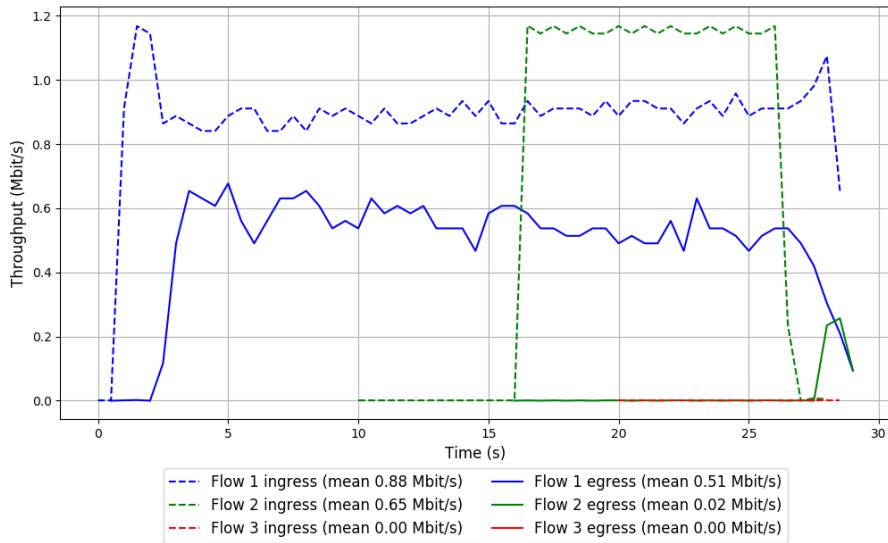
Start at: 2019-01-22 01:23:08

End at: 2019-01-22 01:23:38

Local clock offset: -4.033 ms

Remote clock offset: 3.132 ms

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

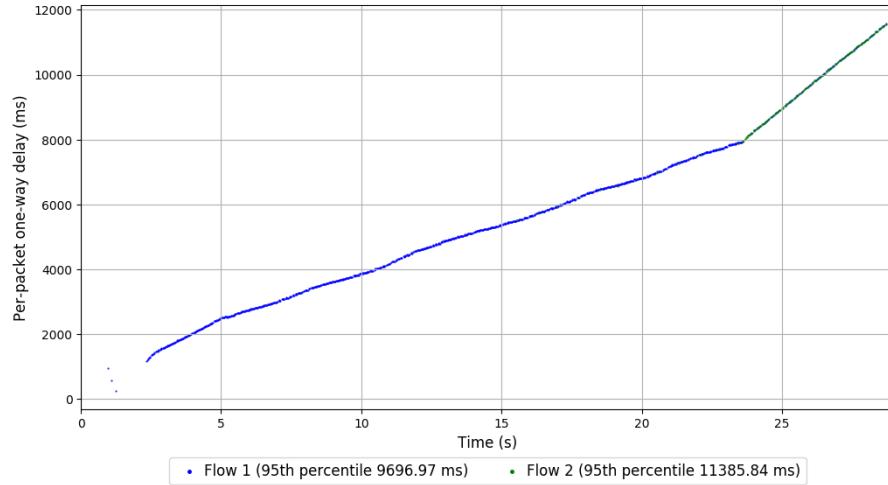
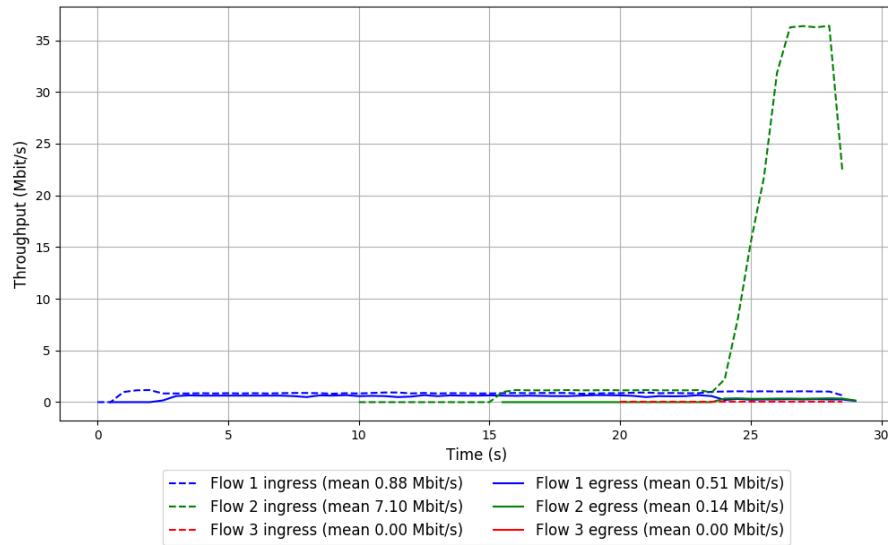
Start at: 2019-01-22 01:48:52

End at: 2019-01-22 01:49:22

Local clock offset: -6.527 ms

Remote clock offset: 1.996 ms

Run 3: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

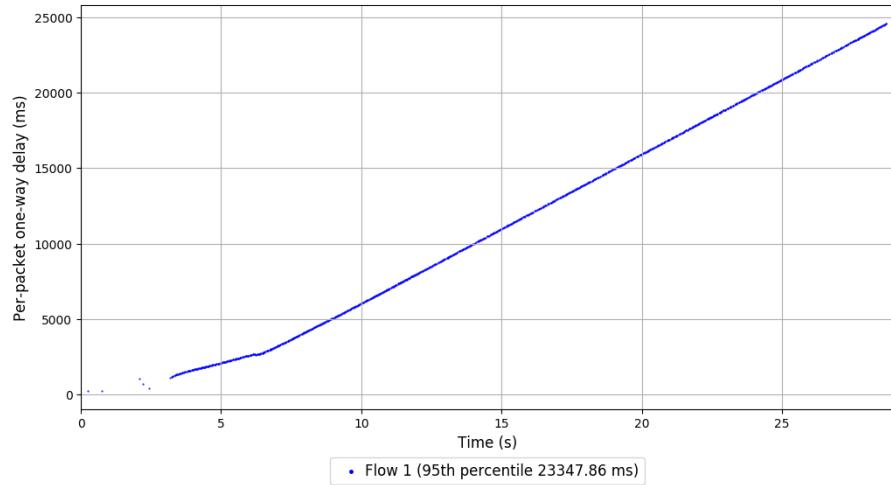
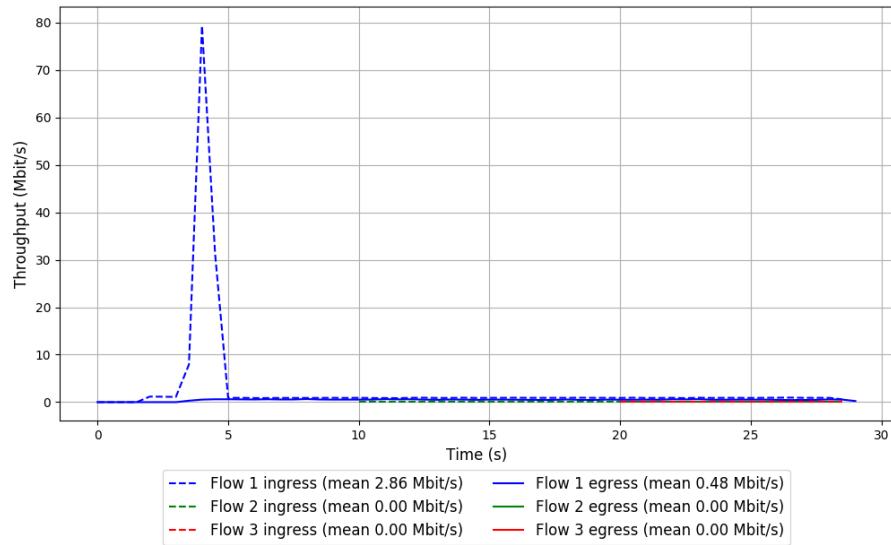
Start at: 2019-01-22 00:47:29

End at: 2019-01-22 00:47:59

Local clock offset: -6.644 ms

Remote clock offset: 6.427 ms

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

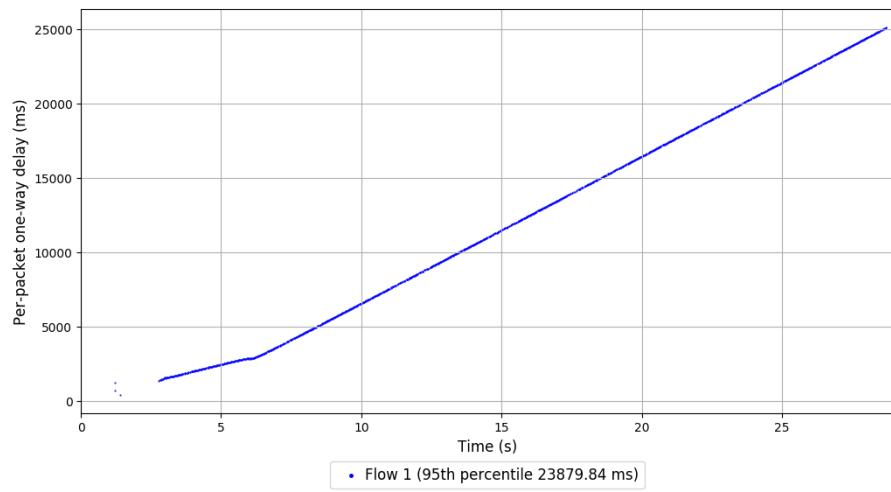
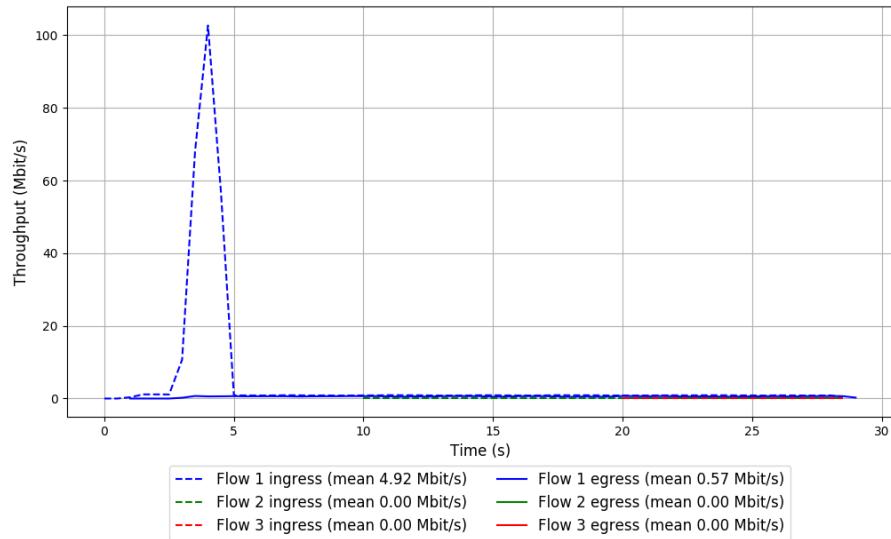
Start at: 2019-01-22 01:13:17

End at: 2019-01-22 01:13:47

Local clock offset: -0.261 ms

Remote clock offset: 7.662 ms

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

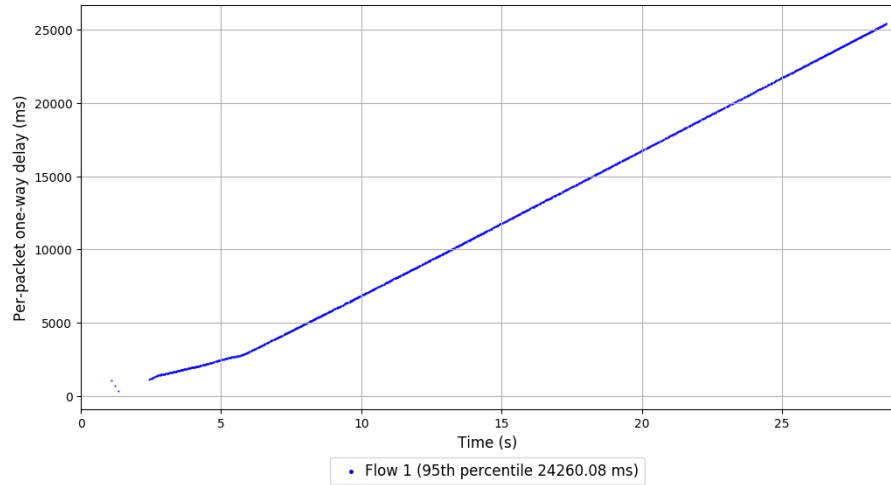
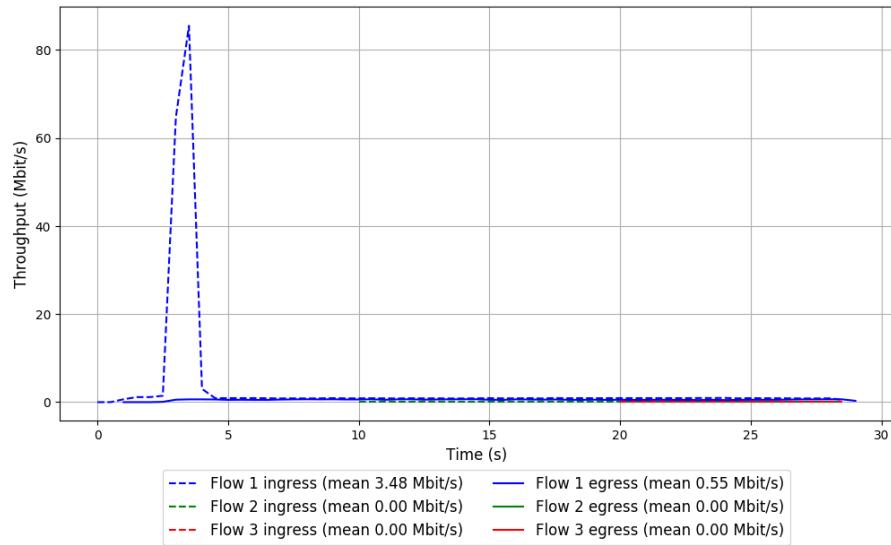
Start at: 2019-01-22 01:39:03

End at: 2019-01-22 01:39:33

Local clock offset: -7.726 ms

Remote clock offset: 2.231 ms

Run 3: Report of Indigo-MusesT — Data Link

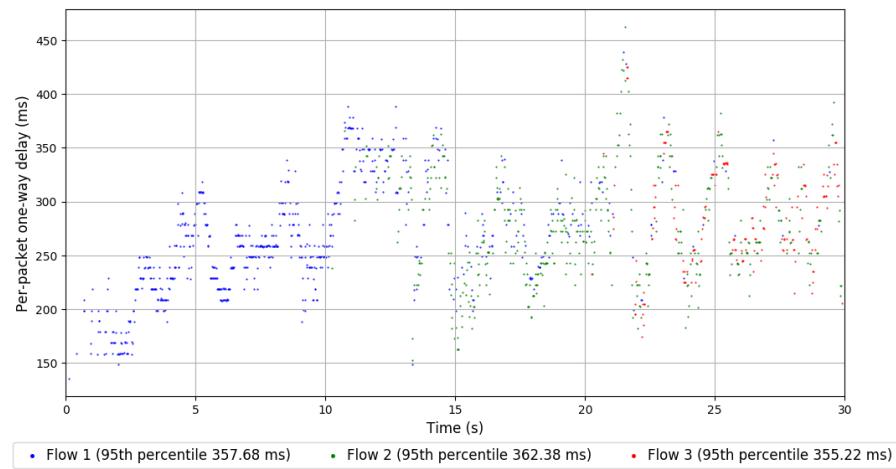
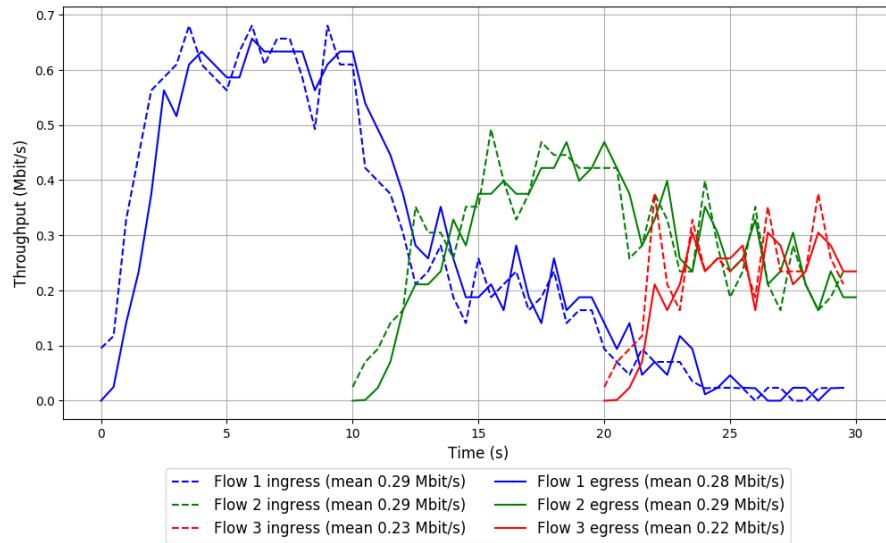


Run 1: Statistics of LEDBAT

```
Start at: 2019-01-22 01:07:10
End at: 2019-01-22 01:07:40
Local clock offset: -1.673 ms
Remote clock offset: 7.196 ms

# Below is generated by plot.py at 2019-01-22 02:02:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 358.538 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 357.682 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 362.383 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 355.220 ms
Loss rate: 4.21%
```

Run 1: Report of LEDBAT — Data Link

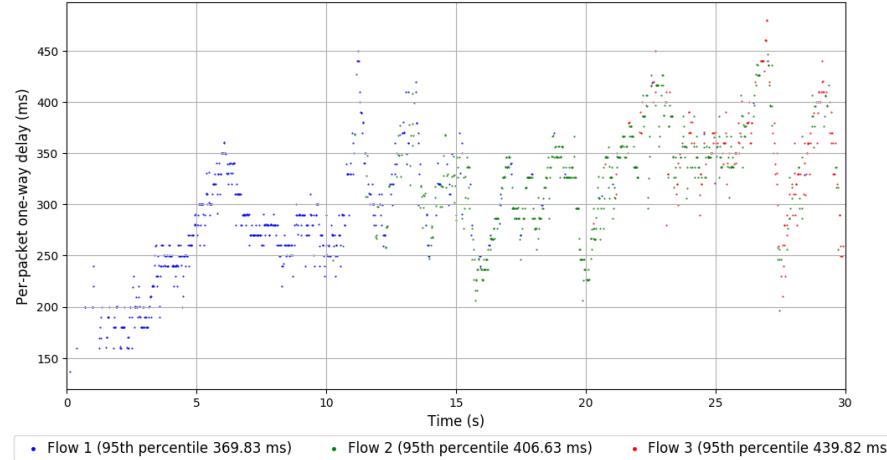
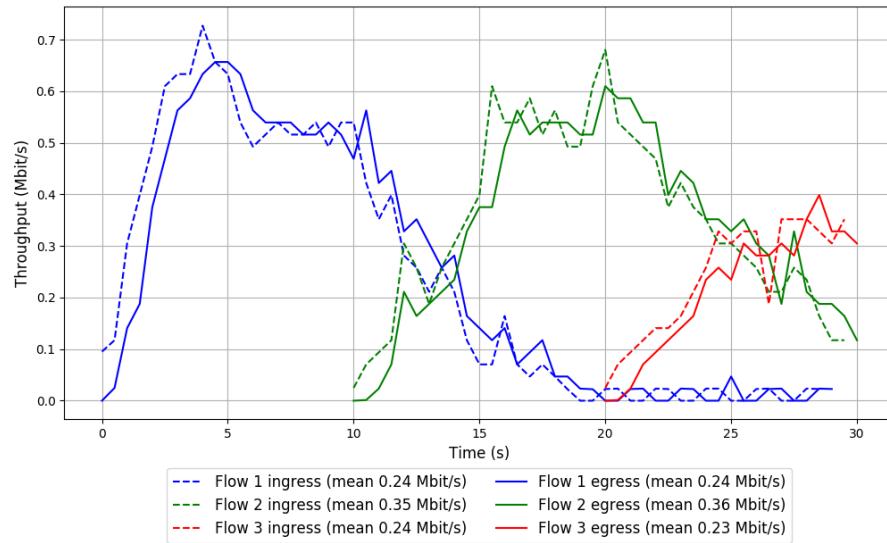


Run 2: Statistics of LEDBAT

```
Start at: 2019-01-22 01:32:56
End at: 2019-01-22 01:33:26
Local clock offset: -6.348 ms
Remote clock offset: 8.325 ms

# Below is generated by plot.py at 2019-01-22 02:02:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 408.325 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 369.833 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 406.630 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 439.822 ms
Loss rate: 4.95%
```

Run 2: Report of LEDBAT — Data Link

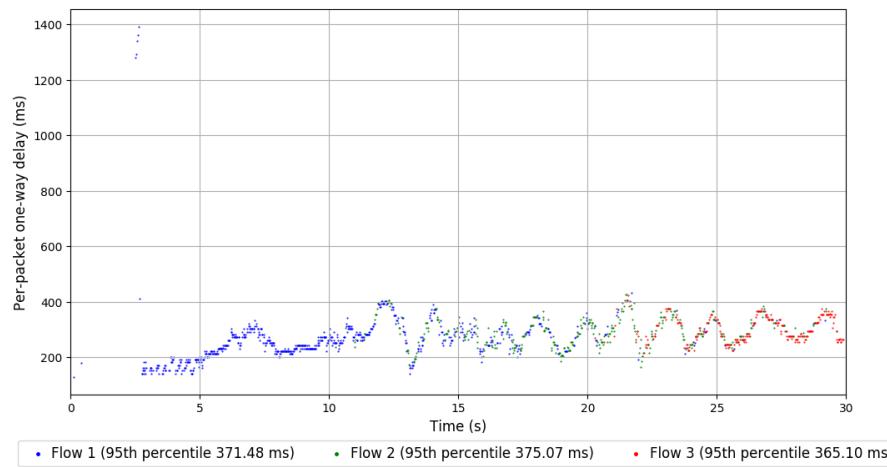
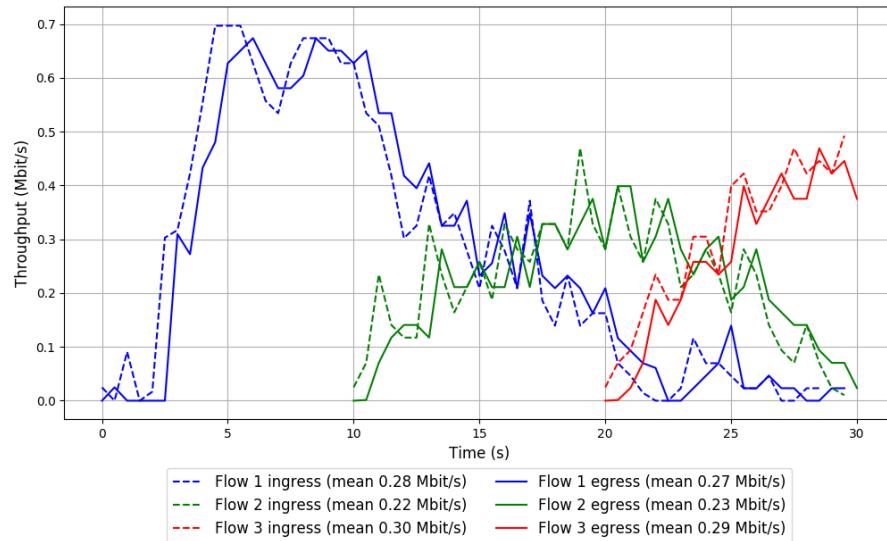


Run 3: Statistics of LEDBAT

```
Start at: 2019-01-22 01:58:40
End at: 2019-01-22 01:59:10
Local clock offset: -3.521 ms
Remote clock offset: 3.14 ms

# Below is generated by plot.py at 2019-01-22 02:02:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 374.630 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 371.484 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 375.070 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 365.098 ms
Loss rate: 6.27%
```

Run 3: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

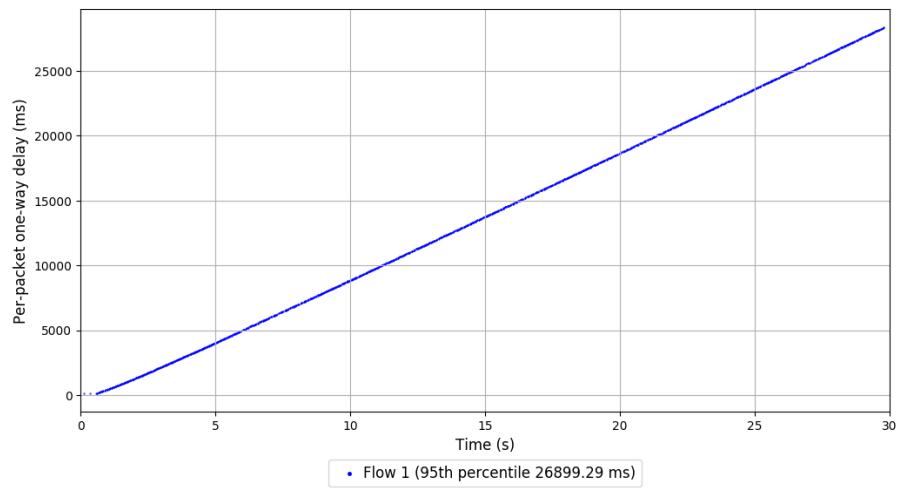
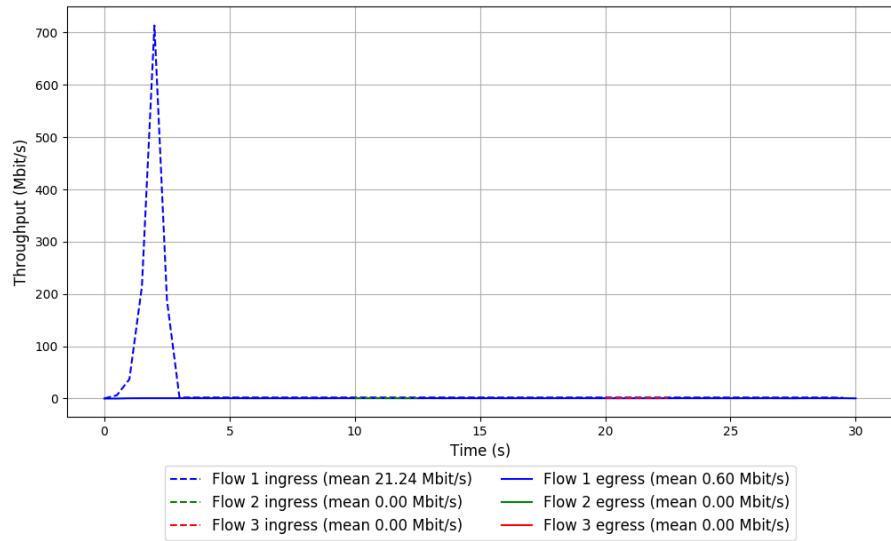
Start at: 2019-01-22 00:59:48

End at: 2019-01-22 01:00:18

Local clock offset: -2.731 ms

Remote clock offset: 2.905 ms

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

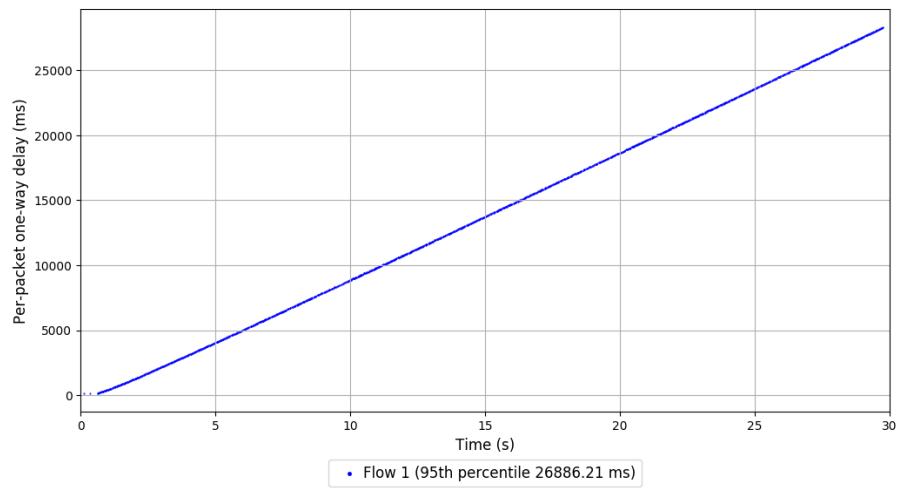
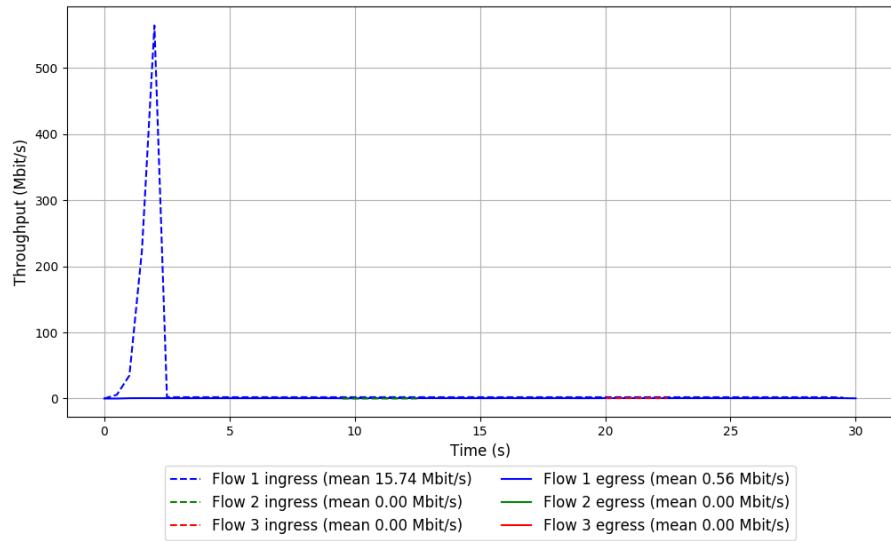
Start at: 2019-01-22 01:25:33

End at: 2019-01-22 01:26:03

Local clock offset: -5.684 ms

Remote clock offset: 3.153 ms

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

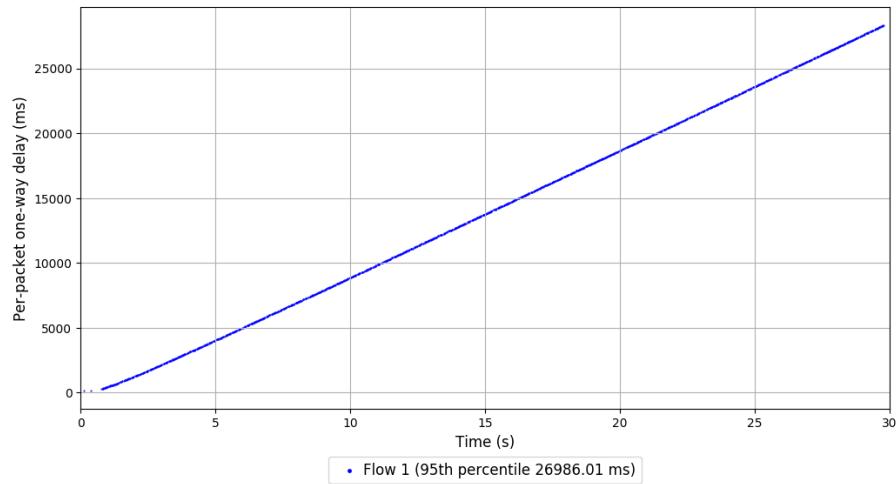
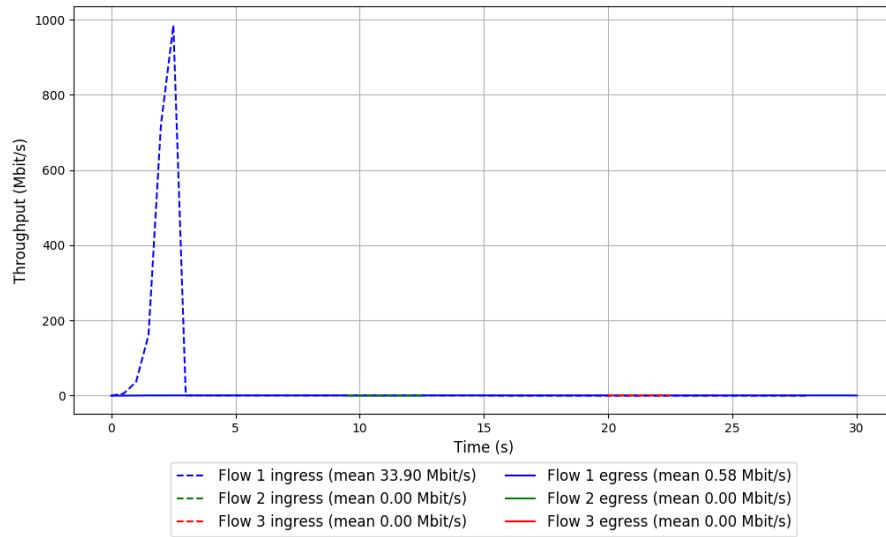
Start at: 2019-01-22 01:51:18

End at: 2019-01-22 01:51:48

Local clock offset: -5.585 ms

Remote clock offset: 6.895 ms

Run 3: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

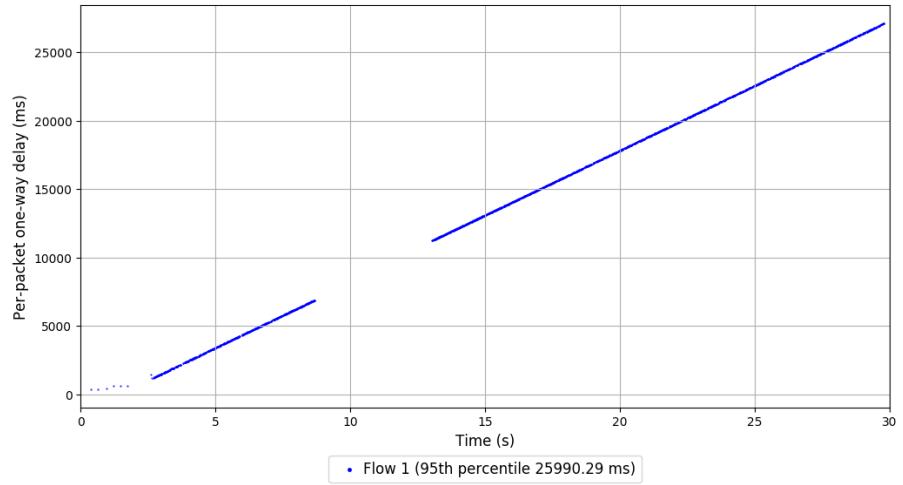
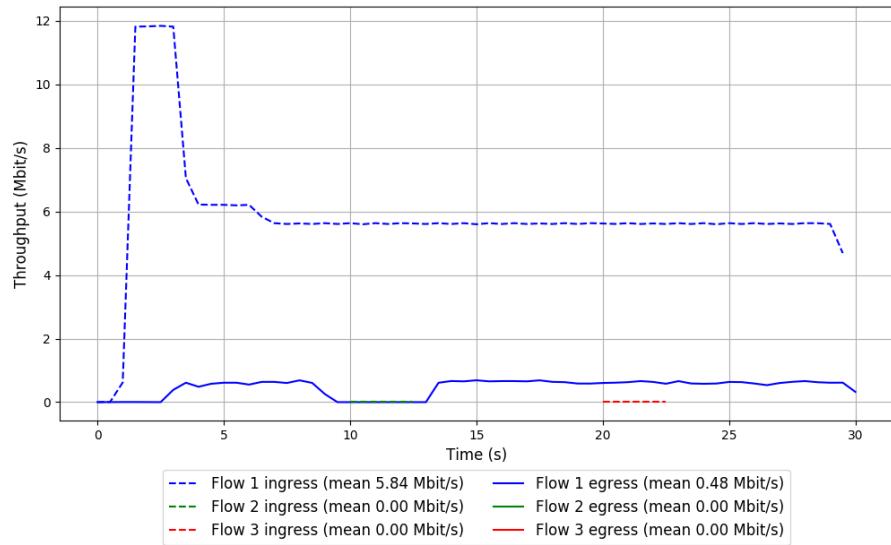
Start at: 2019-01-22 00:56:06

End at: 2019-01-22 00:56:36

Local clock offset: -3.575 ms

Remote clock offset: 6.12 ms

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

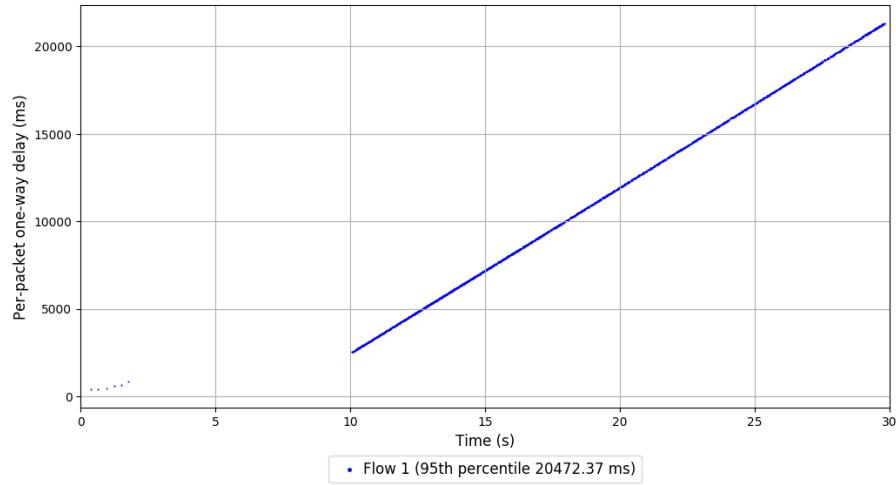
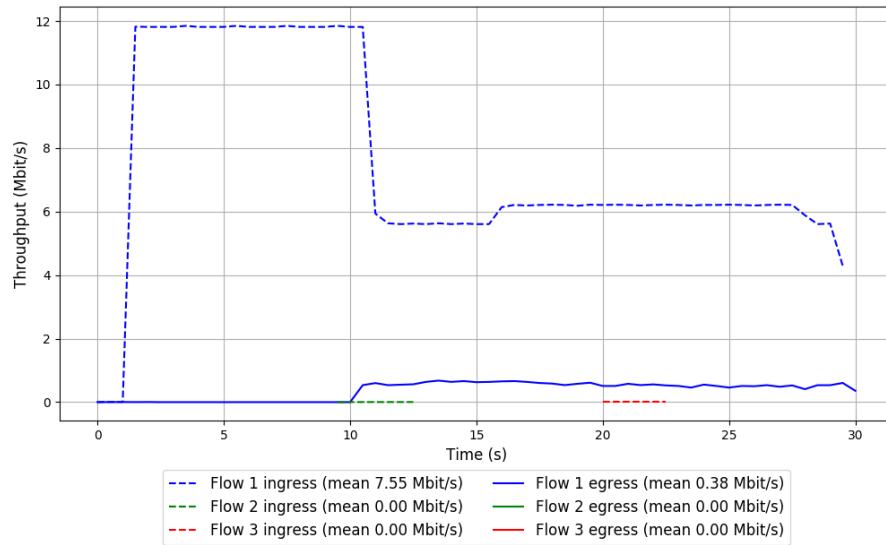
Start at: 2019-01-22 01:21:54

End at: 2019-01-22 01:22:24

Local clock offset: -4.206 ms

Remote clock offset: 9.358 ms

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

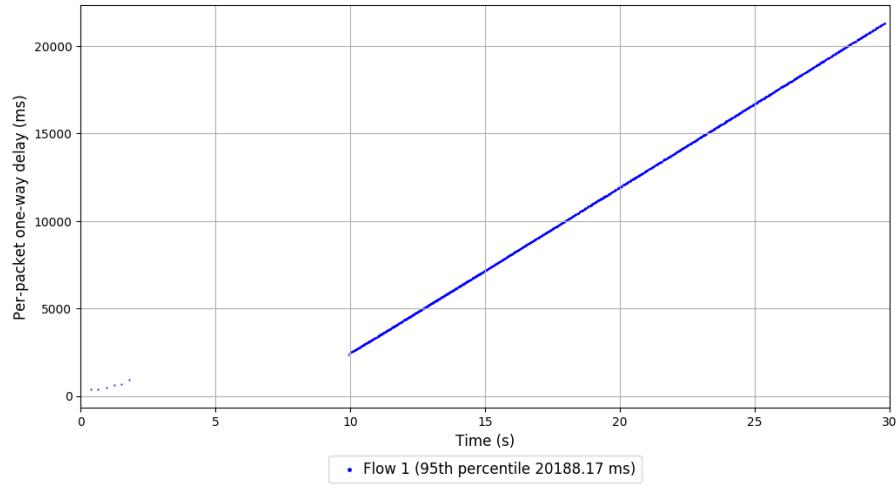
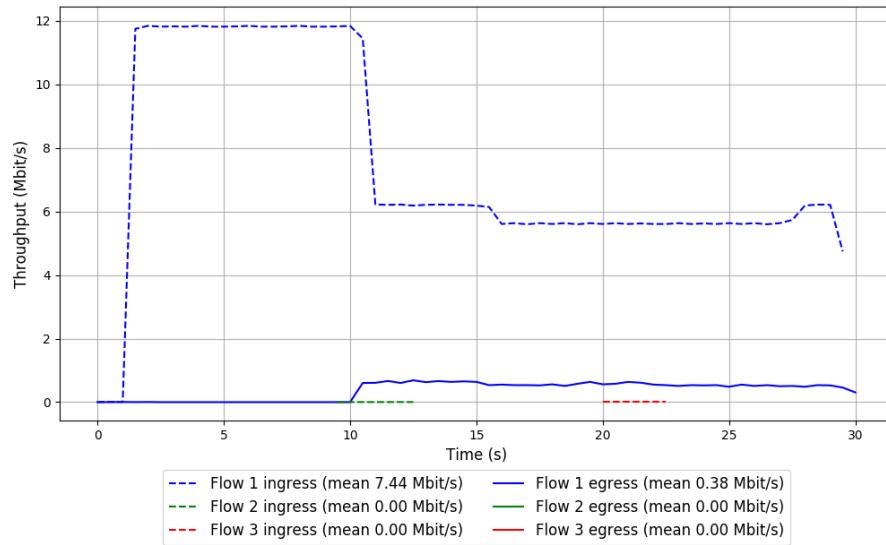
Start at: 2019-01-22 01:47:38

End at: 2019-01-22 01:48:08

Local clock offset: -6.49 ms

Remote clock offset: 8.24 ms

Run 3: Report of PCC-Expr — Data Link

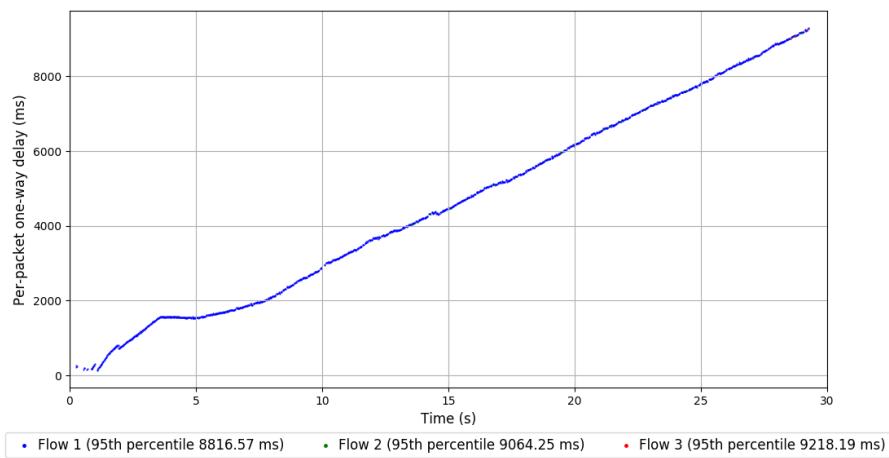
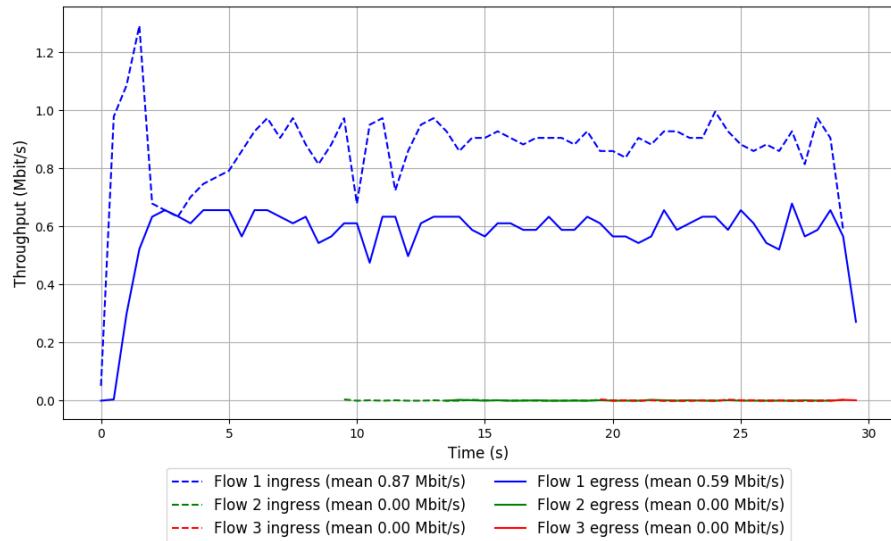


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-22 01:08:23
End at: 2019-01-22 01:08:53
Local clock offset: -0.772 ms
Remote clock offset: 2.481 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 8826.811 ms
Loss rate: 32.80%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 8816.565 ms
Loss rate: 32.78%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 9064.248 ms
Loss rate: 41.67%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 9218.194 ms
Loss rate: 75.00%
```

Run 1: Report of QUIC Cubic — Data Link

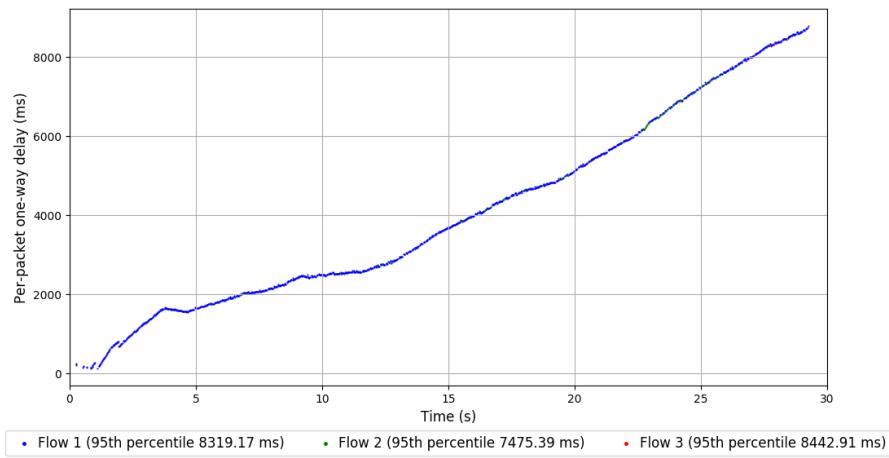
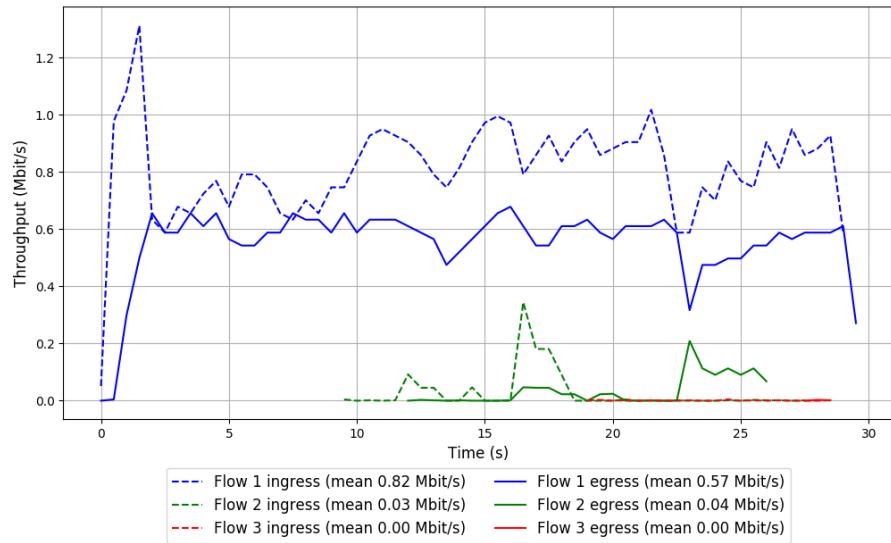


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-01-22 01:34:09
End at: 2019-01-22 01:34:39
Local clock offset: -6.457 ms
Remote clock offset: 2.354 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 8317.758 ms
Loss rate: 29.94%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 8319.168 ms
Loss rate: 30.55%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 7475.392 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 8442.905 ms
Loss rate: 75.00%
```

Run 2: Report of QUIC Cubic — Data Link

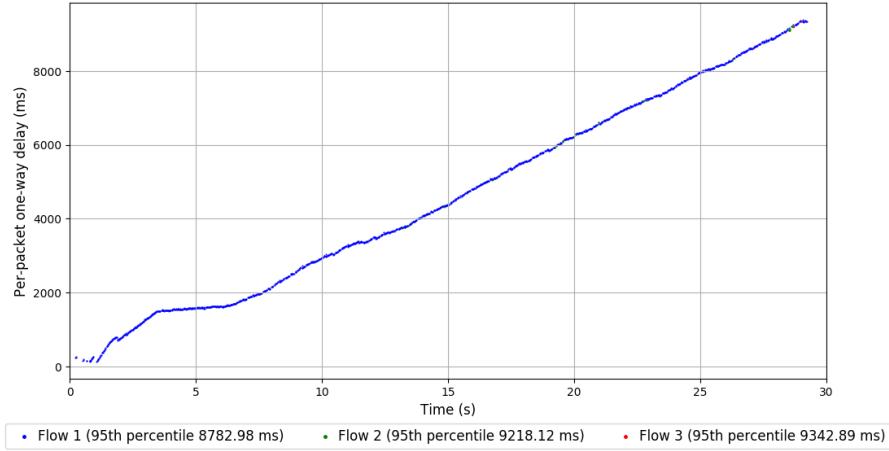
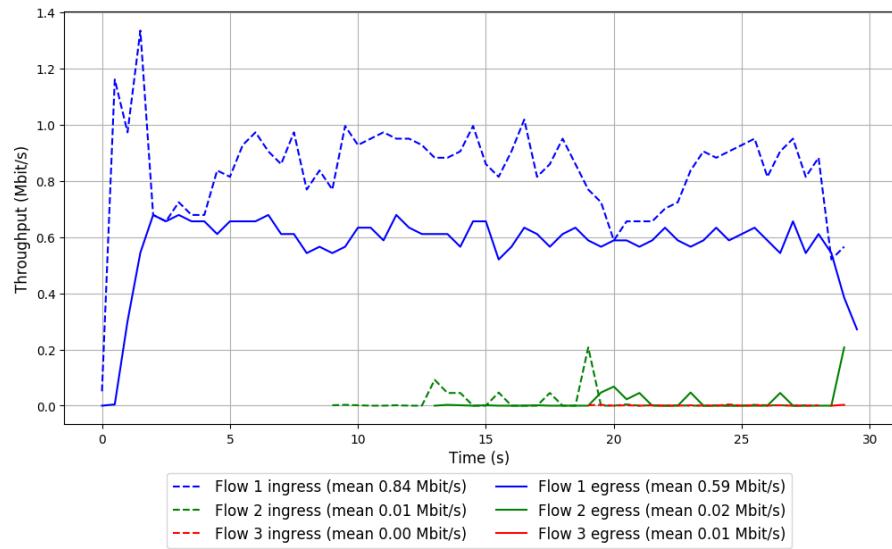


```
Run 3: Statistics of QUIC Cubic
```

```
Start at: 2019-01-22 01:59:53
End at: 2019-01-22 02:00:23
Local clock offset: -2.552 ms
Remote clock offset: 5.775 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 8852.911 ms
Loss rate: 30.13%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 8782.978 ms
Loss rate: 30.39%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 9218.116 ms
Loss rate: 3.24%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 9342.893 ms
Loss rate: 83.33%
```

Run 3: Report of QUIC Cubic — Data Link

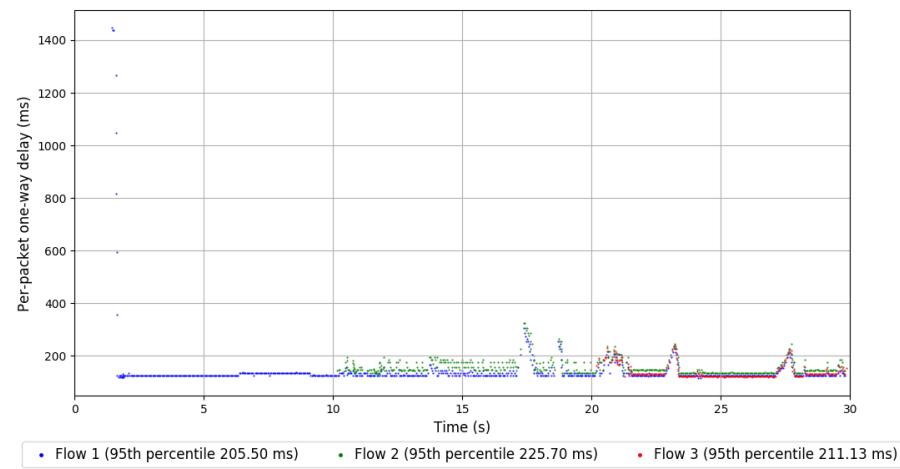
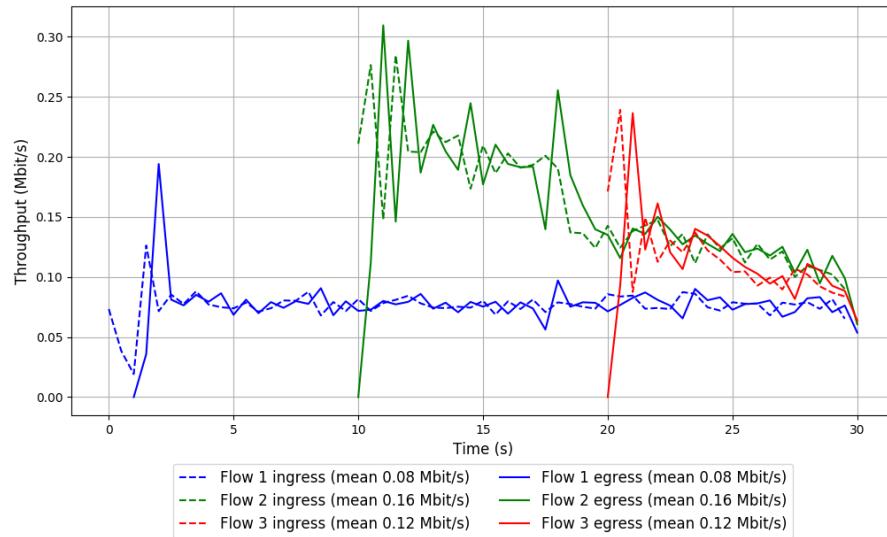


```
Run 1: Statistics of SCReAM

Start at: 2019-01-22 00:51:09
End at: 2019-01-22 00:51:39
Local clock offset: -4.225 ms
Remote clock offset: 6.523 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 207.057 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 205.502 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 225.701 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 211.127 ms
Loss rate: 1.75%
```

Run 1: Report of SCReAM — Data Link

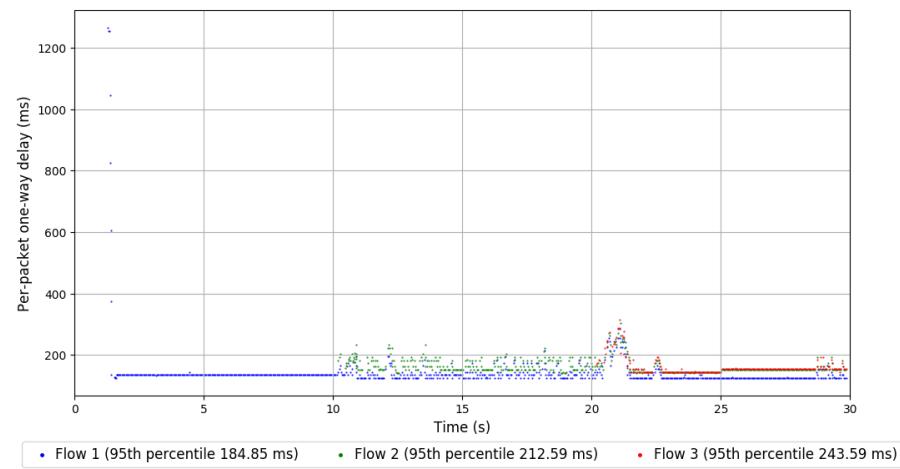
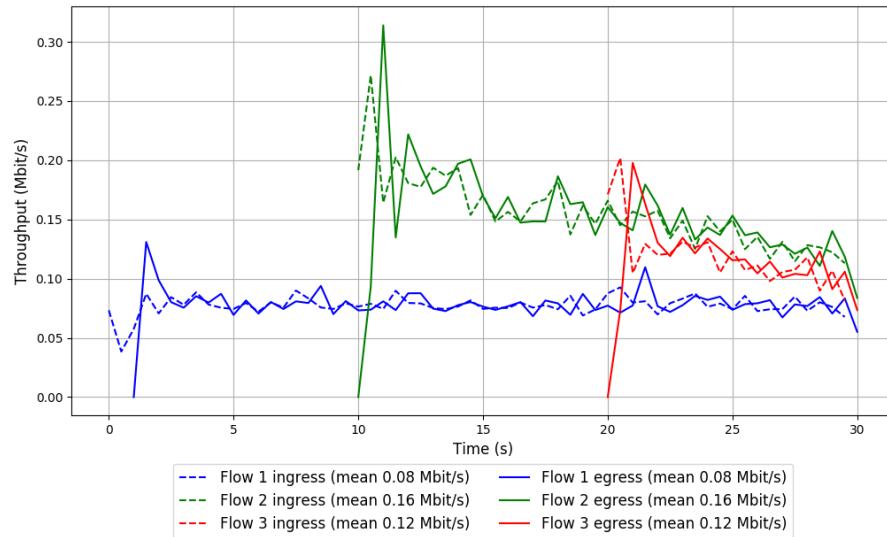


Run 2: Statistics of SCReAM

```
Start at: 2019-01-22 01:16:59
End at: 2019-01-22 01:17:29
Local clock offset: -1.319 ms
Remote clock offset: 2.984 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 202.881 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 184.846 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 212.587 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 243.593 ms
Loss rate: 1.67%
```

Run 2: Report of SCReAM — Data Link

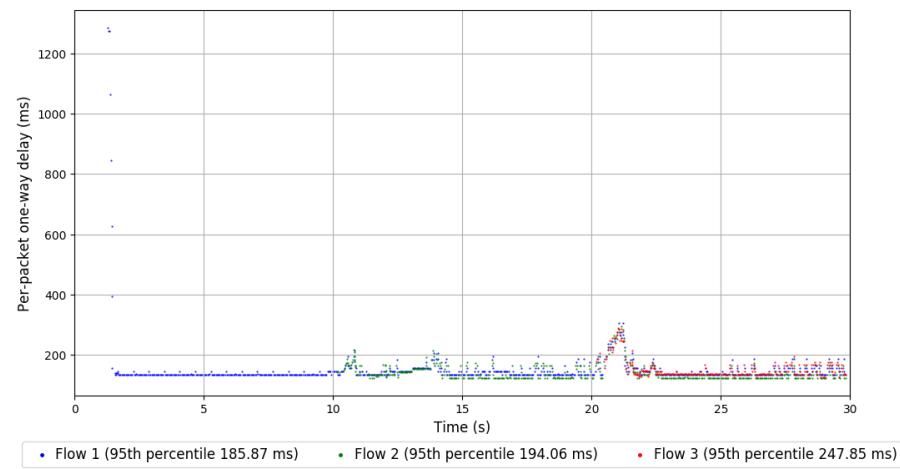
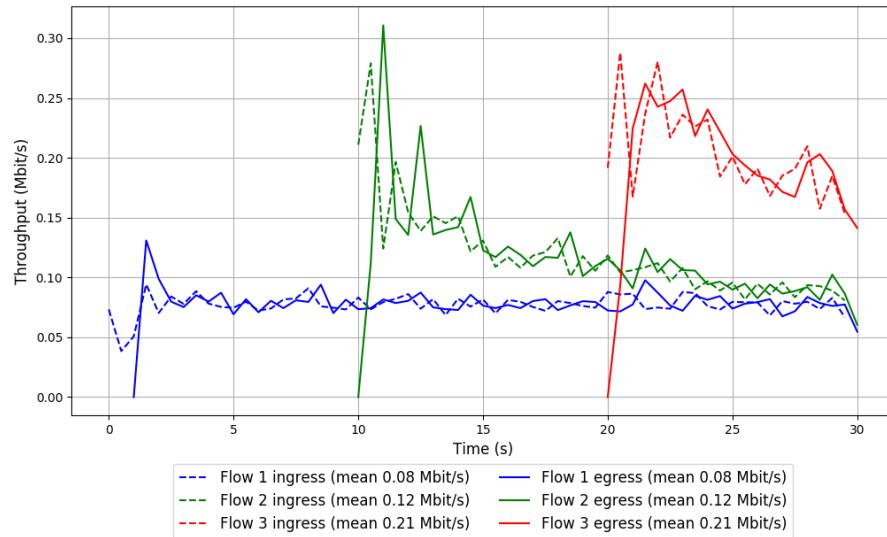


Run 3: Statistics of SCReAM

```
Start at: 2019-01-22 01:42:44
End at: 2019-01-22 01:43:14
Local clock offset: -7.982 ms
Remote clock offset: 2.028 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 196.327 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 185.874 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 194.061 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 247.846 ms
Loss rate: 2.01%
```

Run 3: Report of SCReAM — Data Link

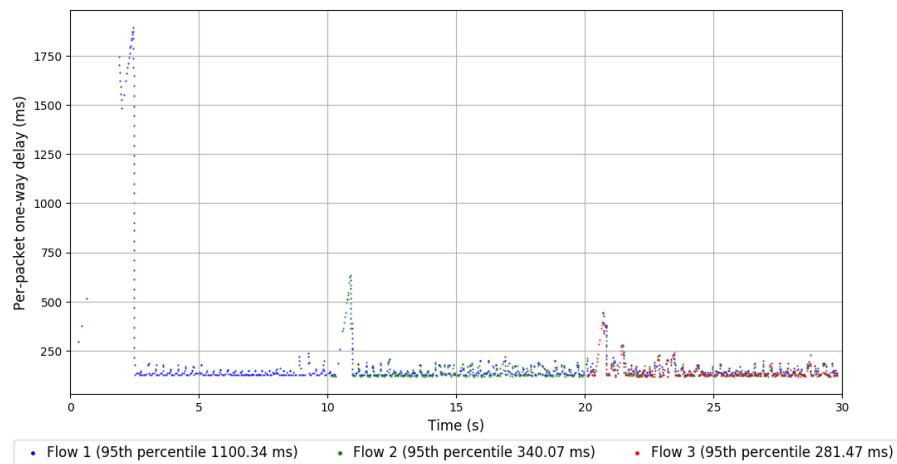
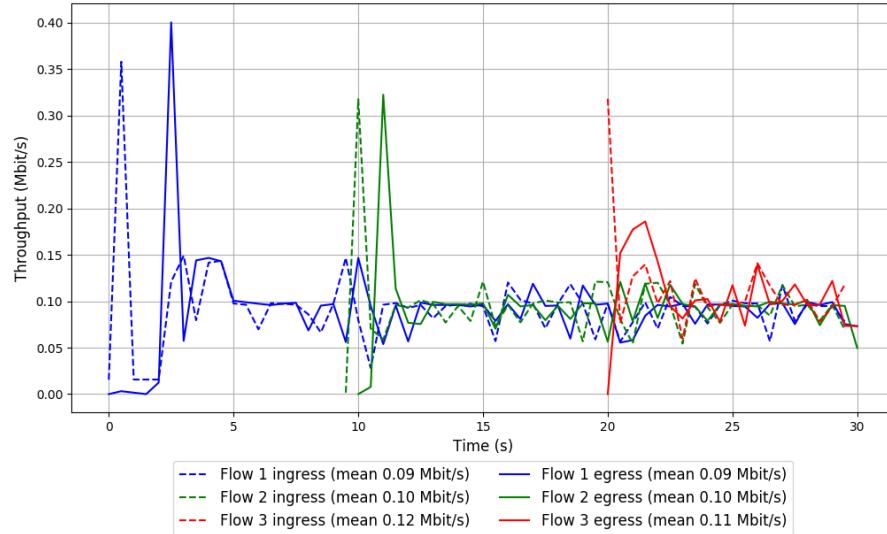


Run 1: Statistics of Sprout

```
Start at: 2019-01-22 01:04:43
End at: 2019-01-22 01:05:13
Local clock offset: -1.255 ms
Remote clock offset: 3.213 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 419.064 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 1100.336 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 340.068 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 281.473 ms
Loss rate: 3.06%
```

Run 1: Report of Sprout — Data Link

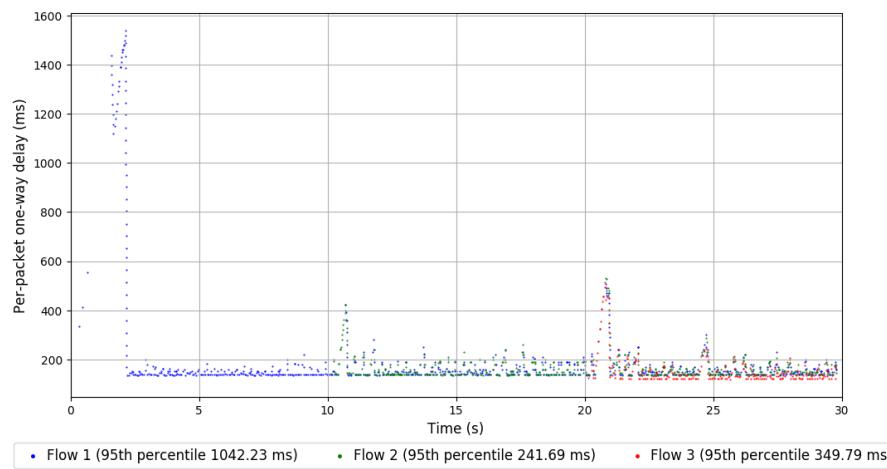
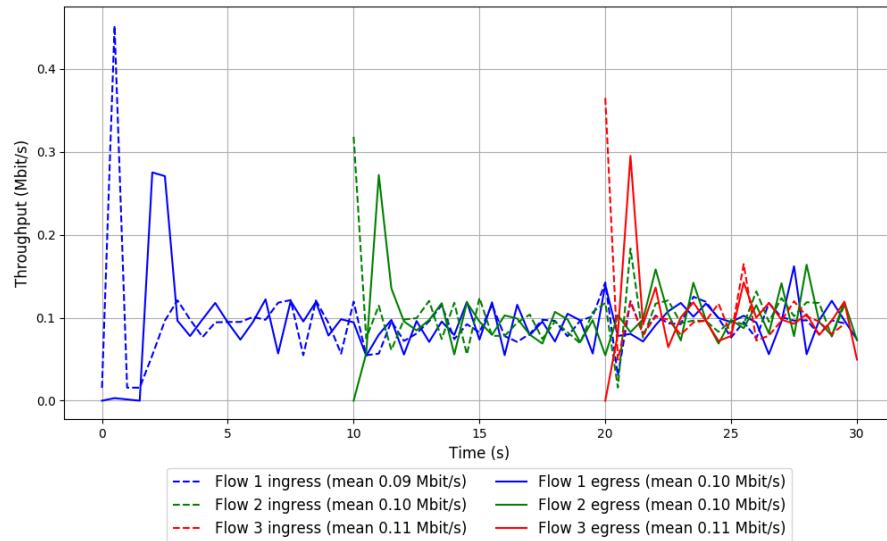


Run 2: Statistics of Sprout

```
Start at: 2019-01-22 01:30:29
End at: 2019-01-22 01:30:59
Local clock offset: -5.957 ms
Remote clock offset: 2.658 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 412.319 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 1042.232 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 241.692 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 349.789 ms
Loss rate: 2.19%
```

Run 2: Report of Sprout — Data Link

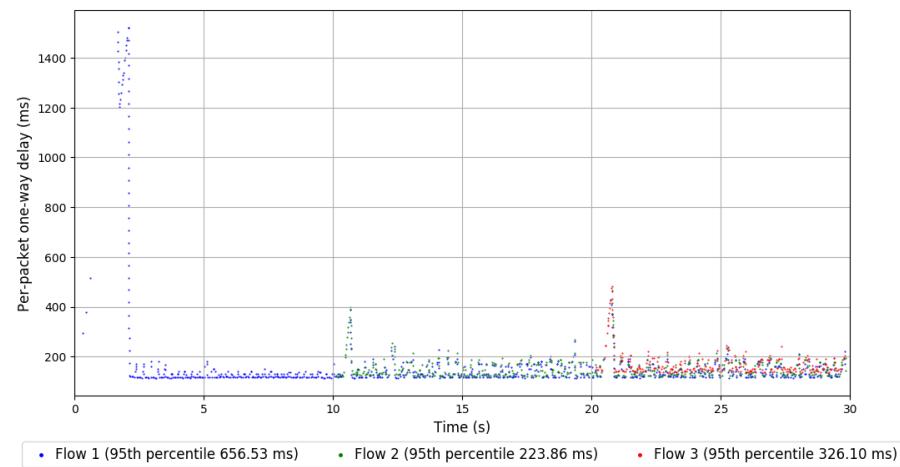
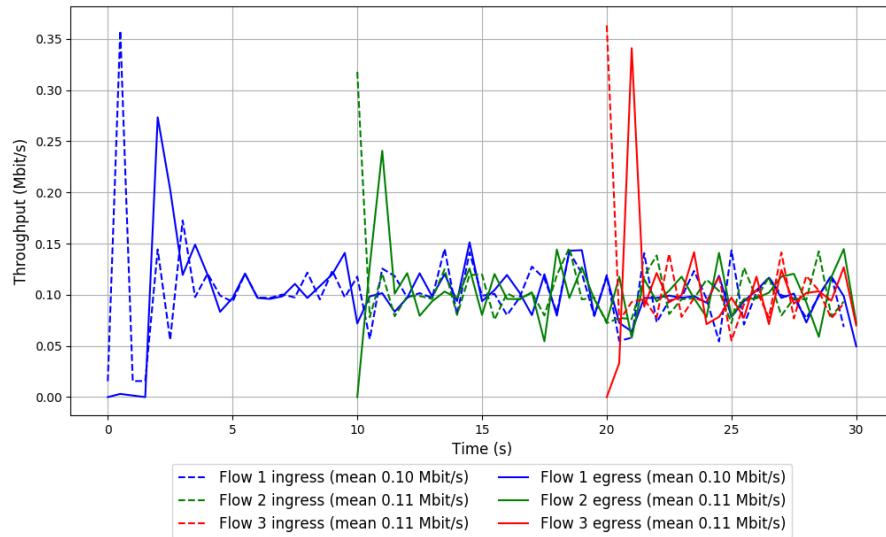


Run 3: Statistics of Sprout

```
Start at: 2019-01-22 01:56:13
End at: 2019-01-22 01:56:43
Local clock offset: -4.048 ms
Remote clock offset: 5.783 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 326.098 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 656.535 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 223.864 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 326.098 ms
Loss rate: 1.14%
```

Run 3: Report of Sprout — Data Link

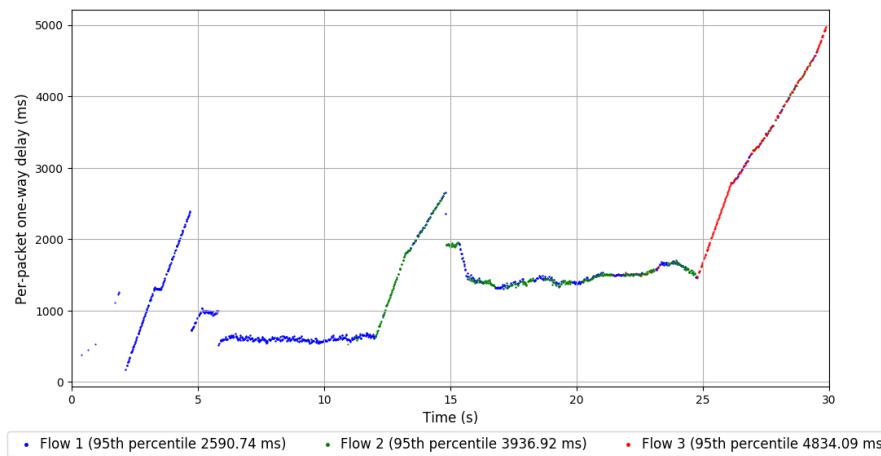
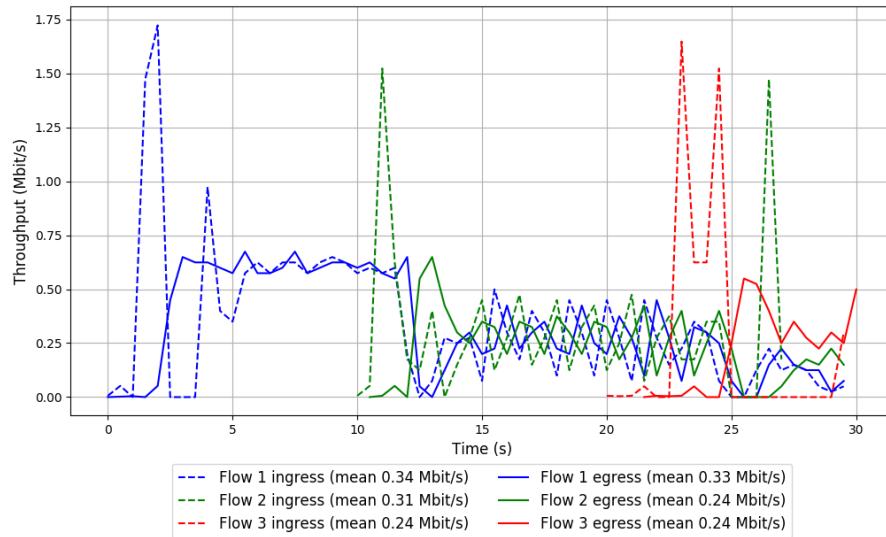


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-01-22 00:46:15
End at: 2019-01-22 00:46:45
Local clock offset: -6.592 ms
Remote clock offset: 1.66 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 3985.387 ms
Loss rate: 9.48%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 2590.745 ms
Loss rate: 4.35%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 3936.924 ms
Loss rate: 15.44%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 4834.085 ms
Loss rate: 17.74%
```

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

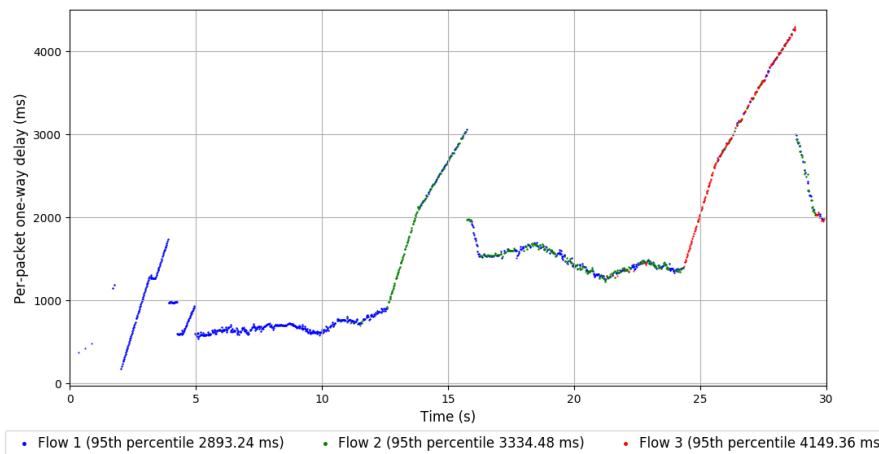
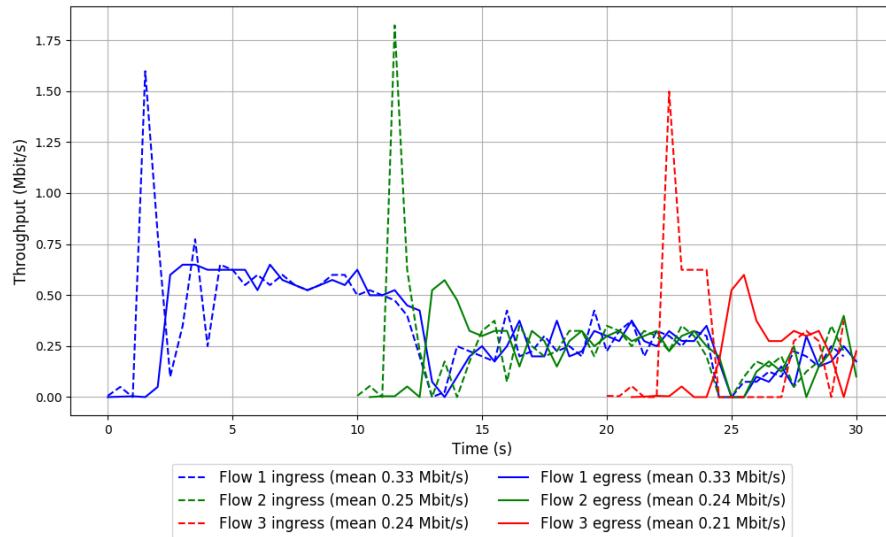


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-01-22 01:12:04
End at: 2019-01-22 01:12:34
Local clock offset: -1.154 ms
Remote clock offset: 2.611 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 3626.804 ms
Loss rate: 7.93%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 2893.237 ms
Loss rate: 4.23%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 3334.477 ms
Loss rate: 8.83%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 4149.364 ms
Loss rate: 21.86%
```

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

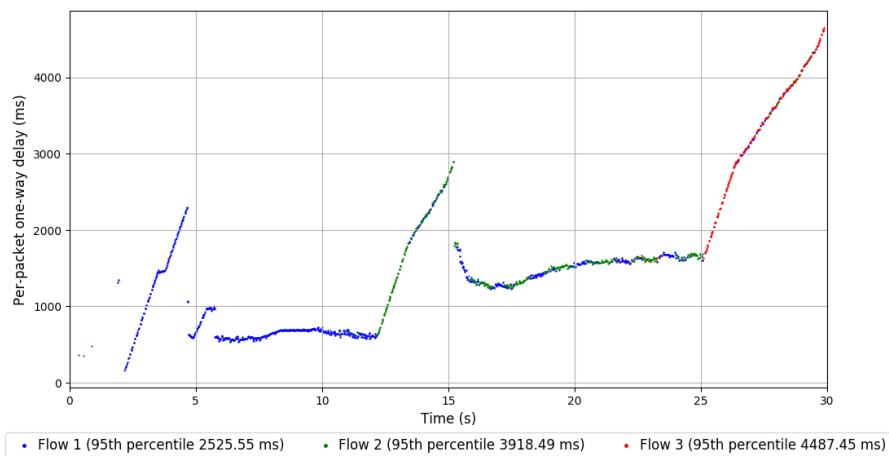
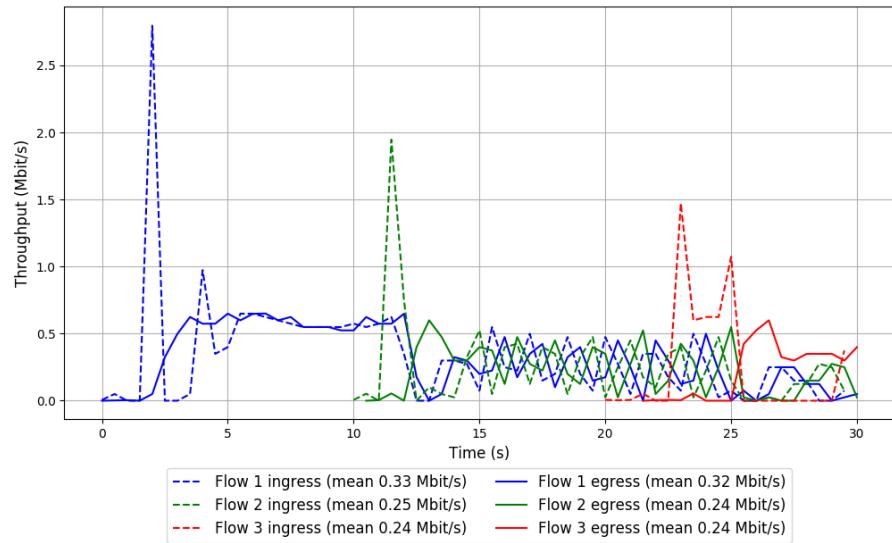


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-01-22 01:37:50
End at: 2019-01-22 01:38:20
Local clock offset: -7.606 ms
Remote clock offset: 5.959 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 3895.095 ms
Loss rate: 7.56%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 2525.552 ms
Loss rate: 4.45%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 3918.491 ms
Loss rate: 8.85%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 4487.453 ms
Loss rate: 17.55%
```

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

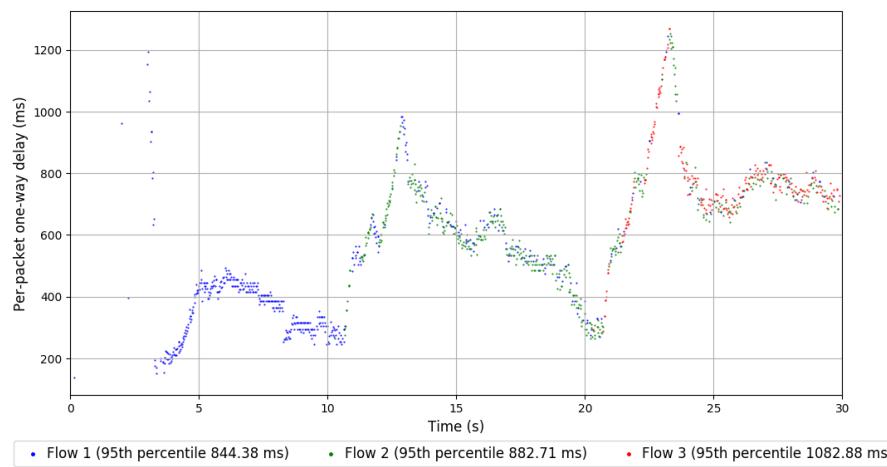
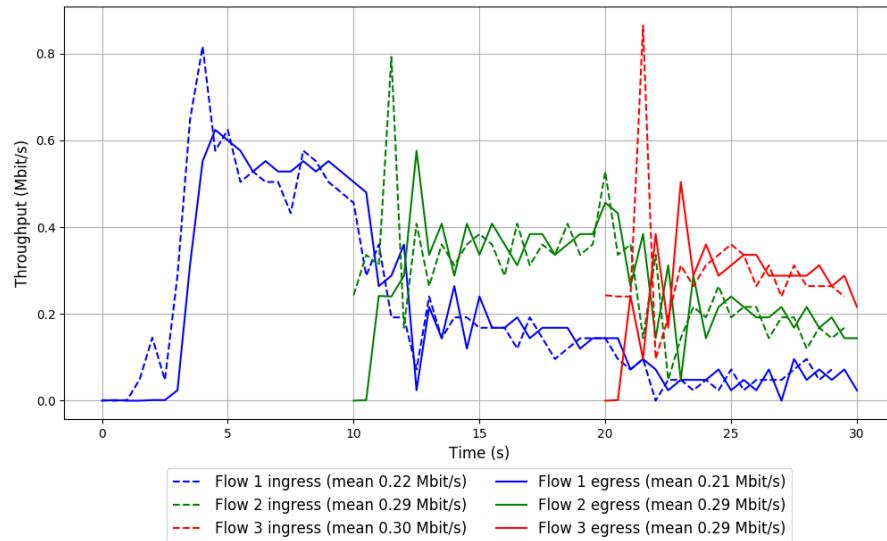


Run 1: Statistics of TCP Vegas

```
Start at: 2019-01-22 01:02:15
End at: 2019-01-22 01:02:45
Local clock offset: -1.597 ms
Remote clock offset: 7.079 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 934.670 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 844.378 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 882.705 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 1082.885 ms
Loss rate: 6.85%
```

Run 1: Report of TCP Vegas — Data Link

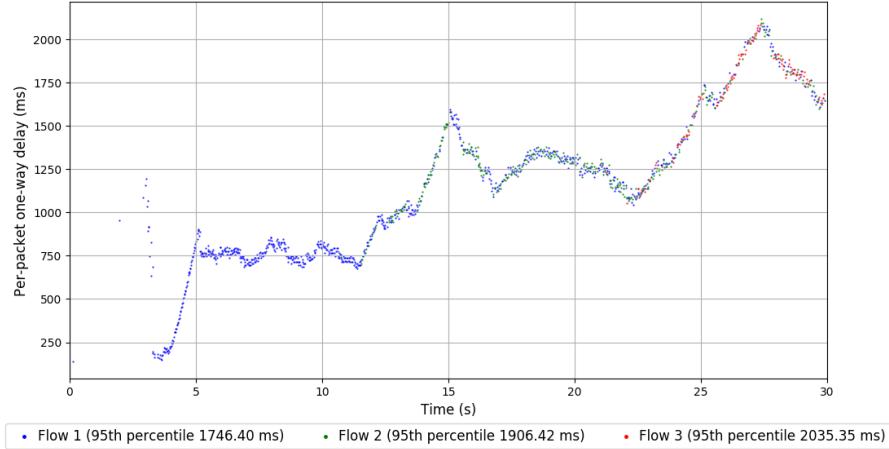
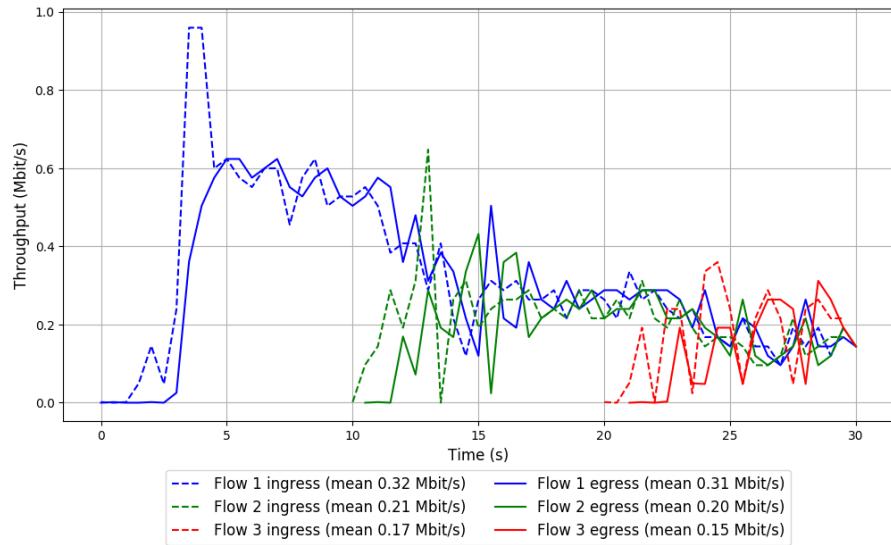


Run 2: Statistics of TCP Vegas

```
Start at: 2019-01-22 01:28:02
End at: 2019-01-22 01:28:32
Local clock offset: -6.227 ms
Remote clock offset: 4.224 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 1906.241 ms
Loss rate: 6.12%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 1746.396 ms
Loss rate: 3.00%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 1906.418 ms
Loss rate: 6.36%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 2035.348 ms
Loss rate: 23.04%
```

Run 2: Report of TCP Vegas — Data Link

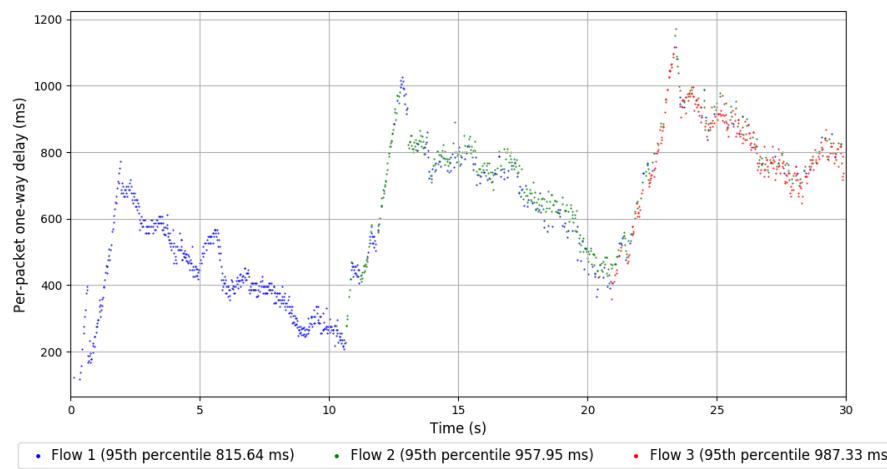
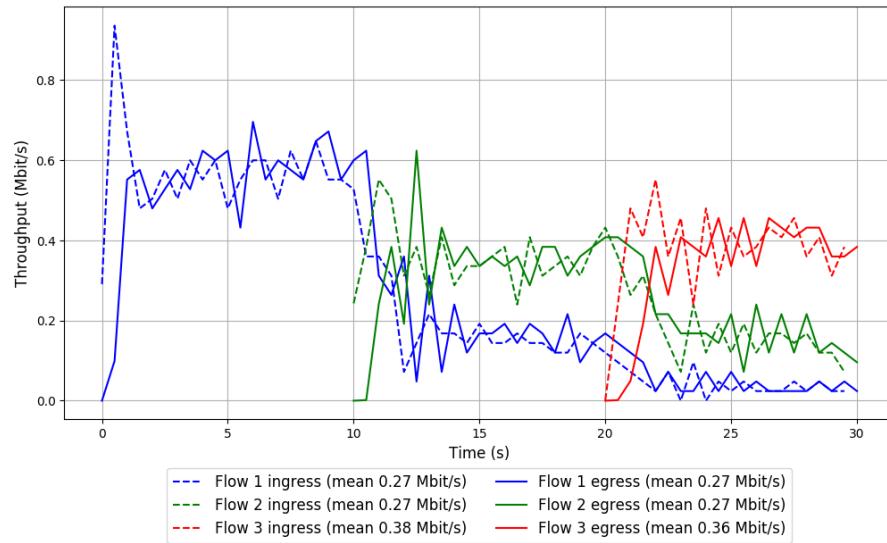


Run 3: Statistics of TCP Vegas

```
Start at: 2019-01-22 01:53:46
End at: 2019-01-22 01:54:16
Local clock offset: -3.892 ms
Remote clock offset: 6.732 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 956.081 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 815.644 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 957.945 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 987.331 ms
Loss rate: 7.71%
```

Run 3: Report of TCP Vegas — Data Link

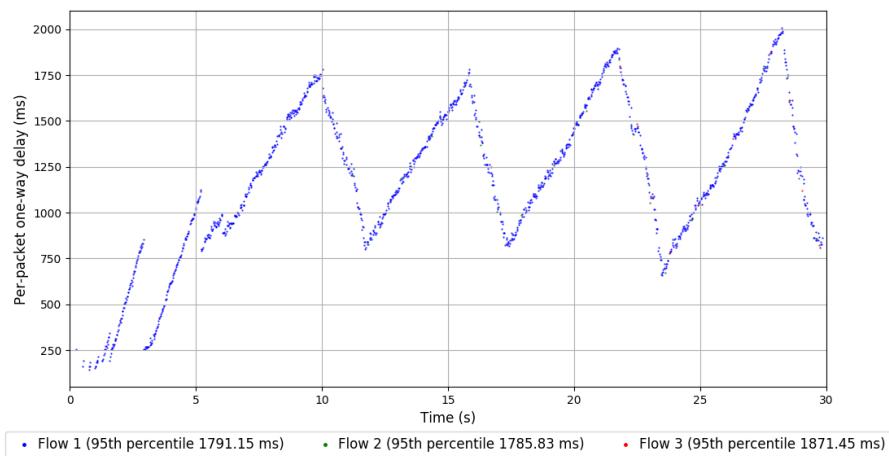
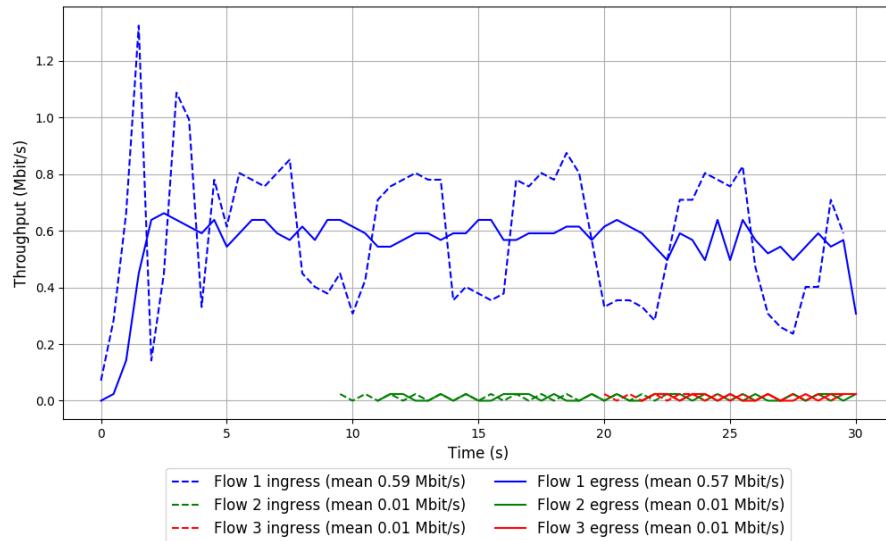


Run 1: Statistics of Verus

```
Start at: 2019-01-22 01:03:29
End at: 2019-01-22 01:03:59
Local clock offset: -1.41 ms
Remote clock offset: 7.203 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1791.289 ms
Loss rate: 3.76%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 1791.149 ms
Loss rate: 3.70%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1785.829 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1871.454 ms
Loss rate: 9.09%
```

Run 1: Report of Verus — Data Link

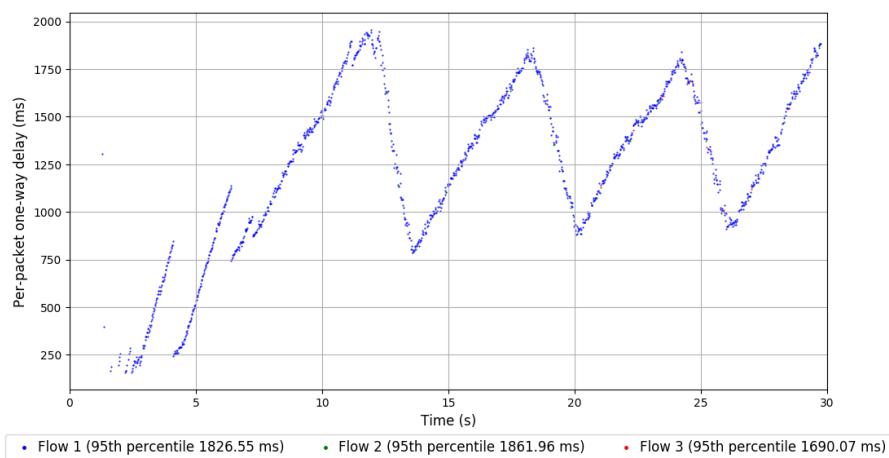
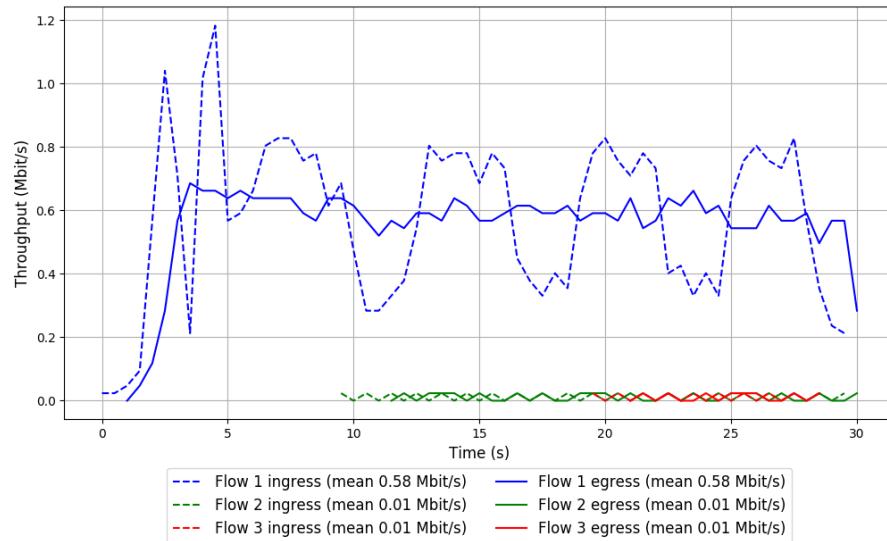


Run 2: Statistics of Verus

```
Start at: 2019-01-22 01:29:15
End at: 2019-01-22 01:29:45
Local clock offset: -6.485 ms
Remote clock offset: 7.876 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1831.553 ms
Loss rate: 4.82%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1826.552 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1861.956 ms
Loss rate: 9.52%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1690.066 ms
Loss rate: 20.00%
```

Run 2: Report of Verus — Data Link

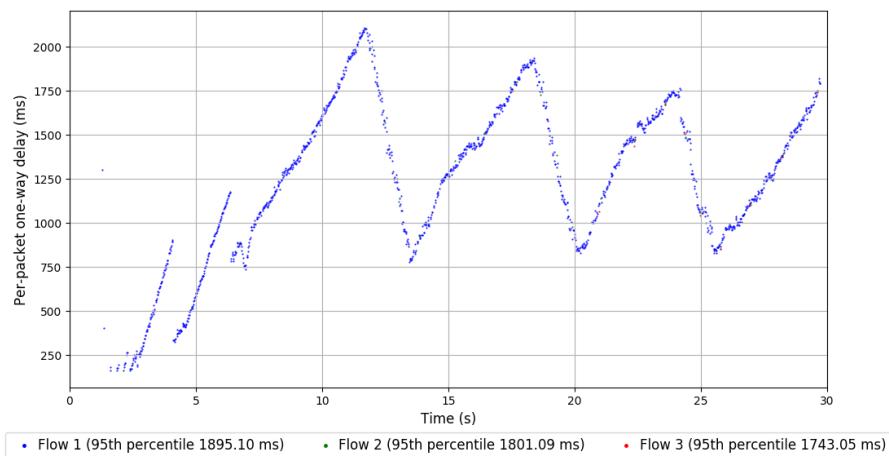
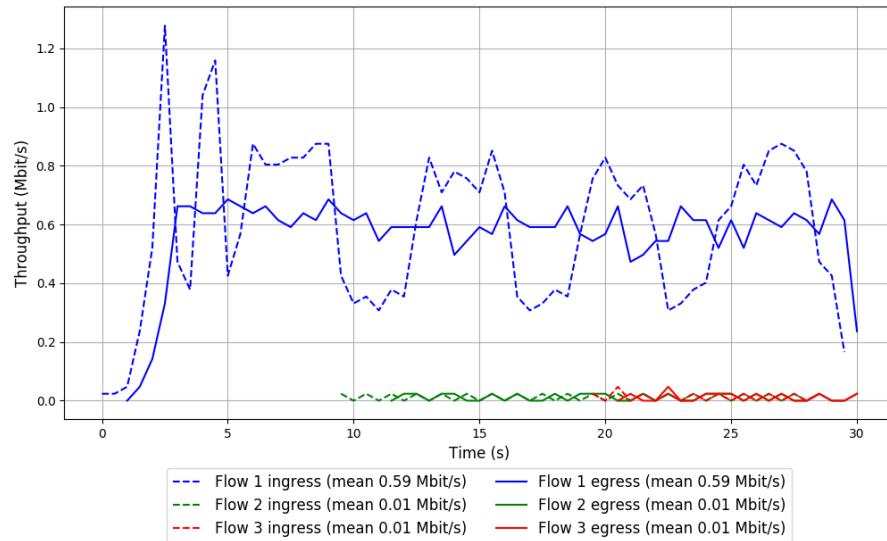


Run 3: Statistics of Verus

```
Start at: 2019-01-22 01:54:59
End at: 2019-01-22 01:55:29
Local clock offset: -4.363 ms
Remote clock offset: 6.847 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 1895.104 ms
Loss rate: 5.62%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1895.104 ms
Loss rate: 5.61%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1801.094 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1743.049 ms
Loss rate: 9.09%
```

Run 3: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

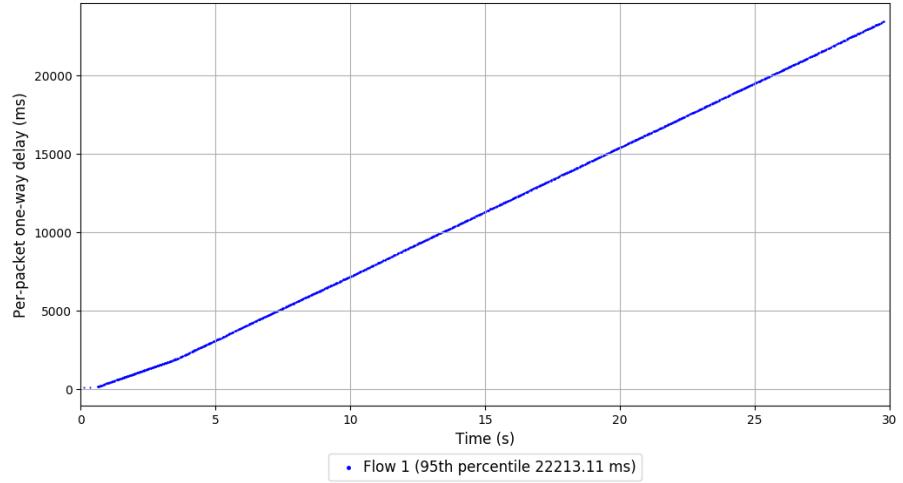
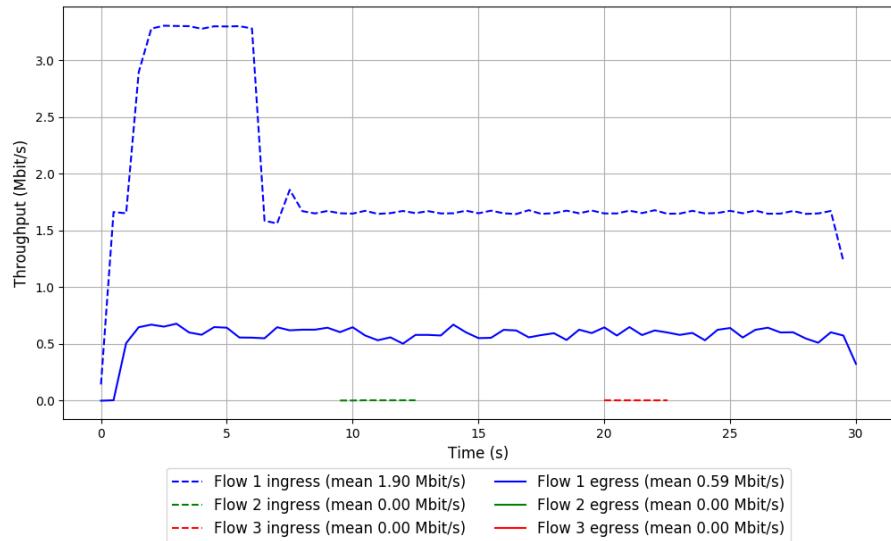
Start at: 2019-01-22 01:01:02

End at: 2019-01-22 01:01:32

Local clock offset: -1.866 ms

Remote clock offset: 6.743 ms

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

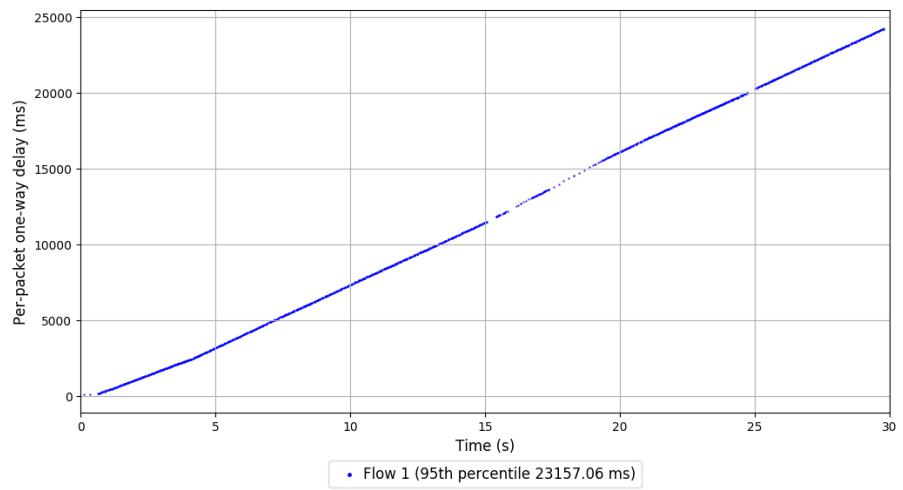
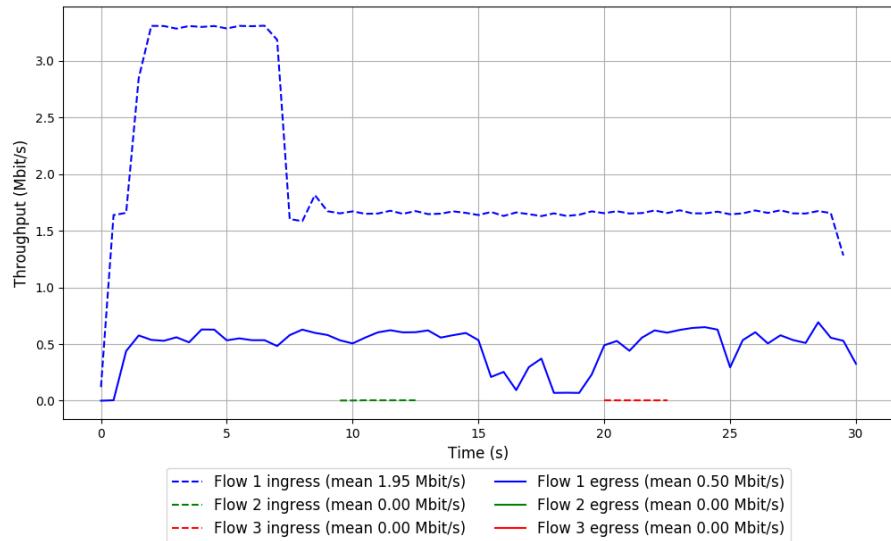
Start at: 2019-01-22 01:26:48

End at: 2019-01-22 01:27:18

Local clock offset: -5.126 ms

Remote clock offset: 8.035 ms

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

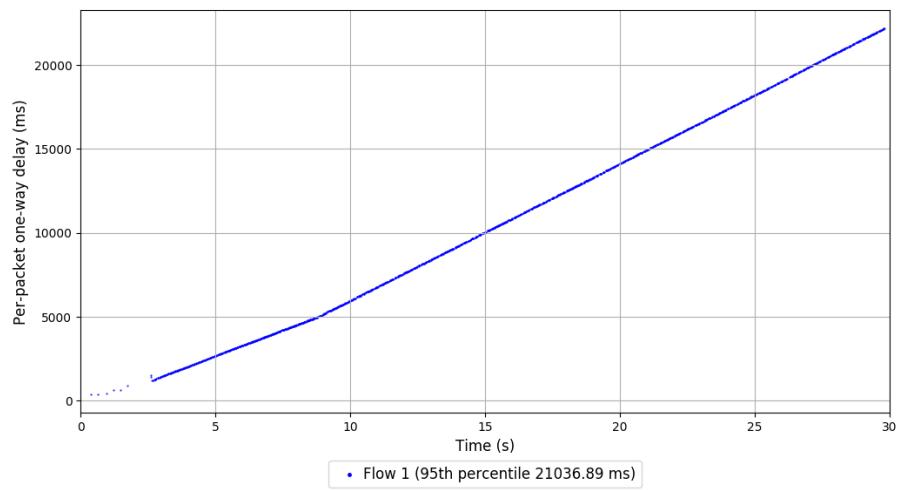
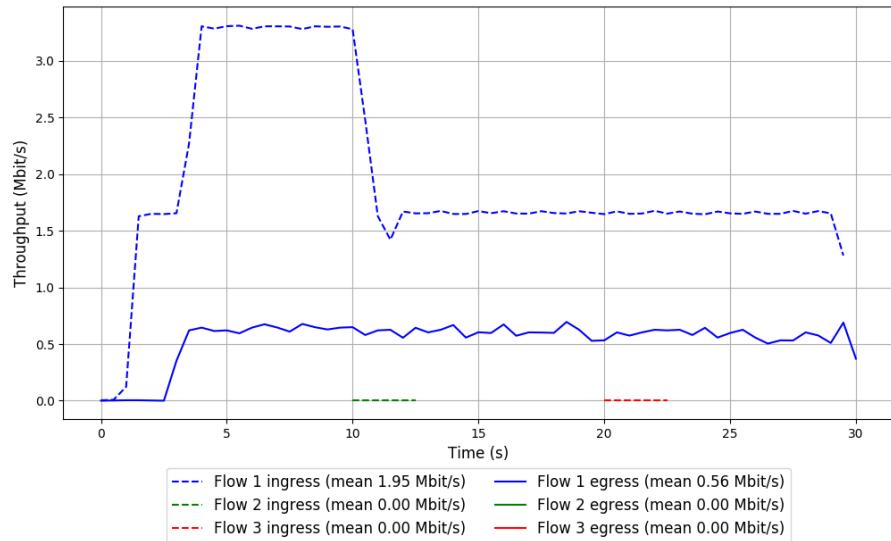
Start at: 2019-01-22 01:52:33

End at: 2019-01-22 01:53:03

Local clock offset: -5.171 ms

Remote clock offset: 3.072 ms

Run 3: Report of PCC-Vivace — Data Link

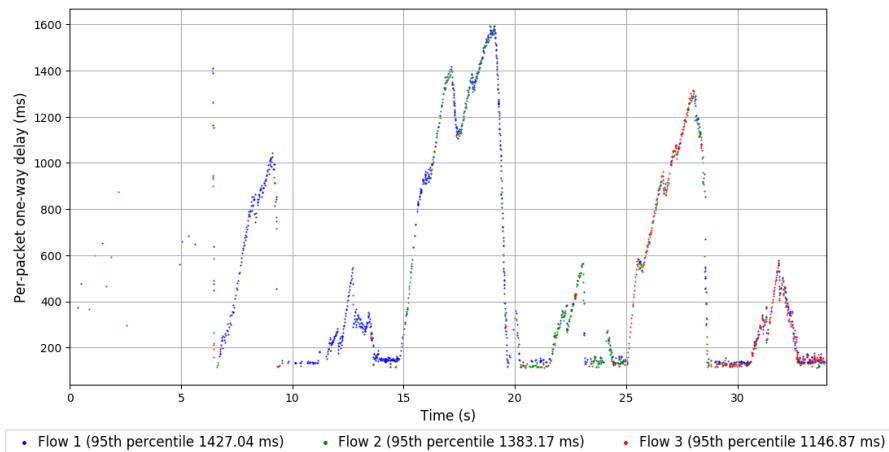
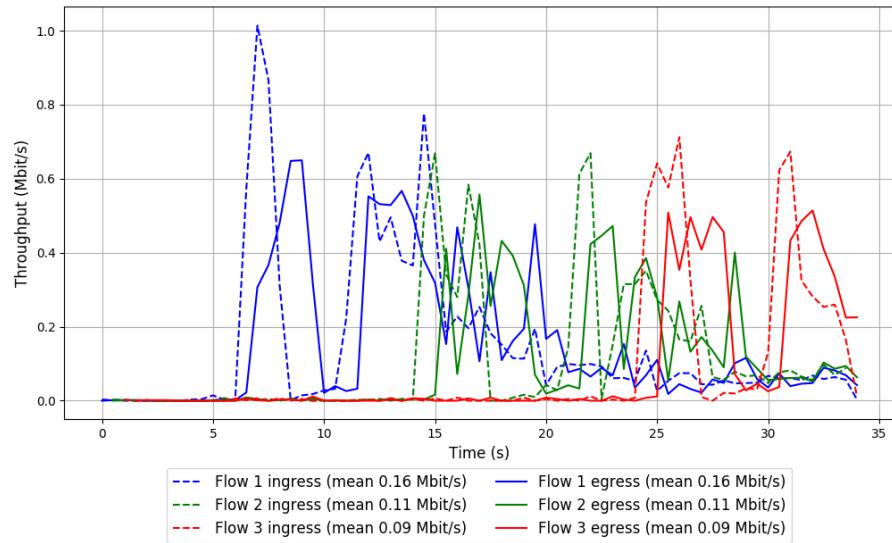


Run 1: Statistics of WebRTC media

```
Start at: 2019-01-22 00:52:22
End at: 2019-01-22 00:52:52
Local clock offset: -3.842 ms
Remote clock offset: 5.396 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 1380.176 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 1427.042 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 1383.169 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 1146.866 ms
Loss rate: 1.10%
```

Run 1: Report of WebRTC media — Data Link

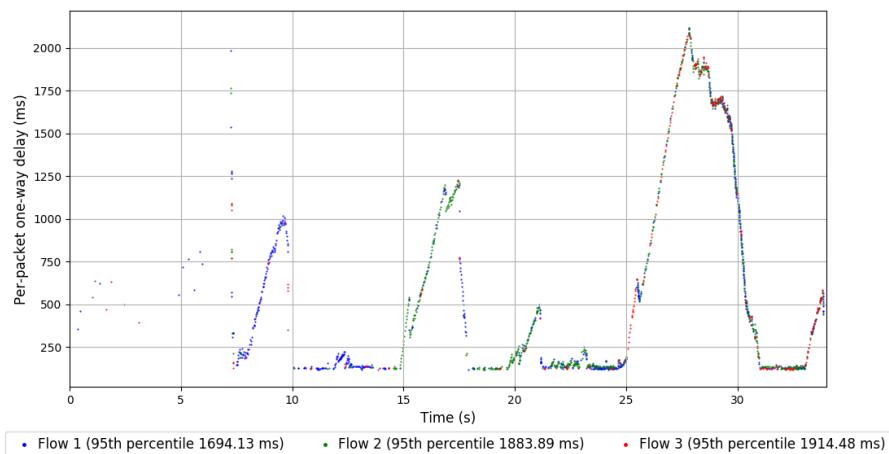
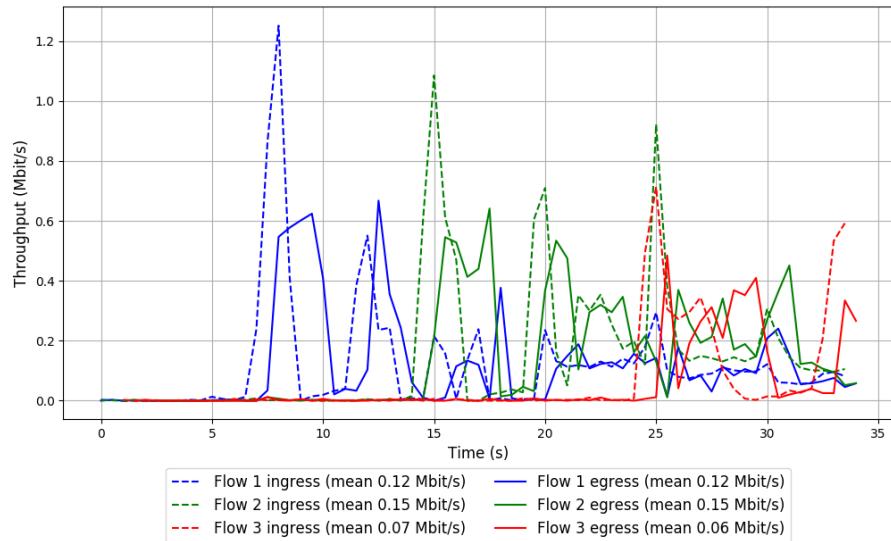


Run 2: Statistics of WebRTC media

```
Start at: 2019-01-22 01:18:13
End at: 2019-01-22 01:18:43
Local clock offset: -1.605 ms
Remote clock offset: 4.093 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 1882.740 ms
Loss rate: 4.18%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 1694.134 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1883.886 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 1914.484 ms
Loss rate: 16.46%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

```
Start at: 2019-01-22 01:43:57
End at: 2019-01-22 01:44:27
Local clock offset: -7.275 ms
Remote clock offset: 5.539 ms

# Below is generated by plot.py at 2019-01-22 02:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 1652.902 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 1630.524 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 1657.053 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 1677.848 ms
Loss rate: 2.26%
```

Run 3: Report of WebRTC media — Data Link

