

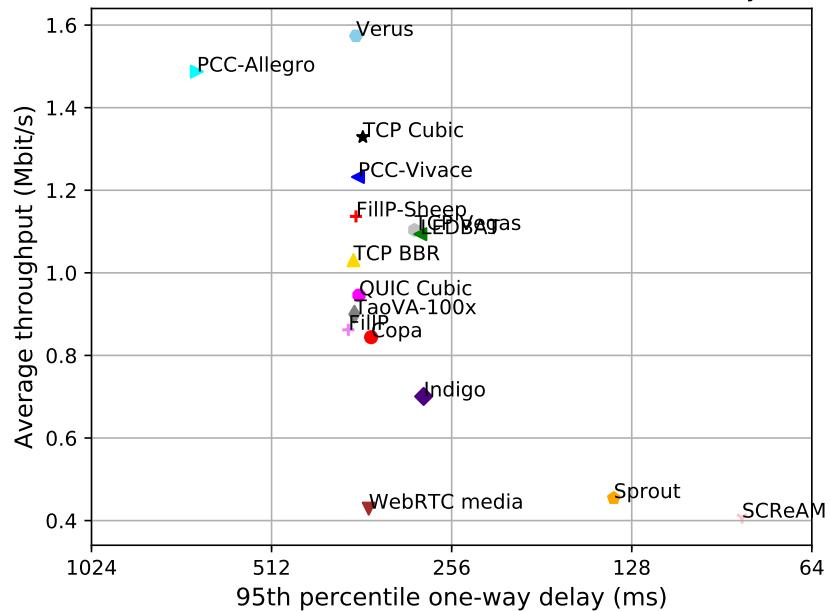
Pantheon Report

Generated at 2018-07-10 19:44:07 (UTC).
Data path: India ppp0 ppp0 (*remote*) → AWS India 1 Ethernet (*local*).
Repeated the test of 17 congestion control schemes 3 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
NTP offsets were measured against nets.org.sg and have been applied to correct the timestamps in logs.

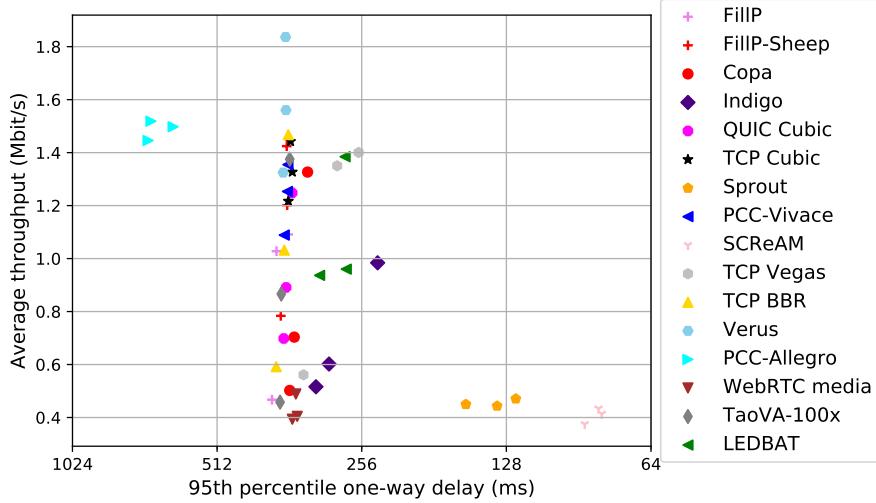
Git summary:

```
branch: master @ 9250dbeec7fb57193cdff1ba8c440b4e16ab30f0
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 37162fe9af85249aeccac061c93e75640ef710b5
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from India ppp0 to AWS India 1, 3 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from India ppp0 to AWS India 1, 3 runs of 30s each per scheme
3 flows with 10s interval between flows



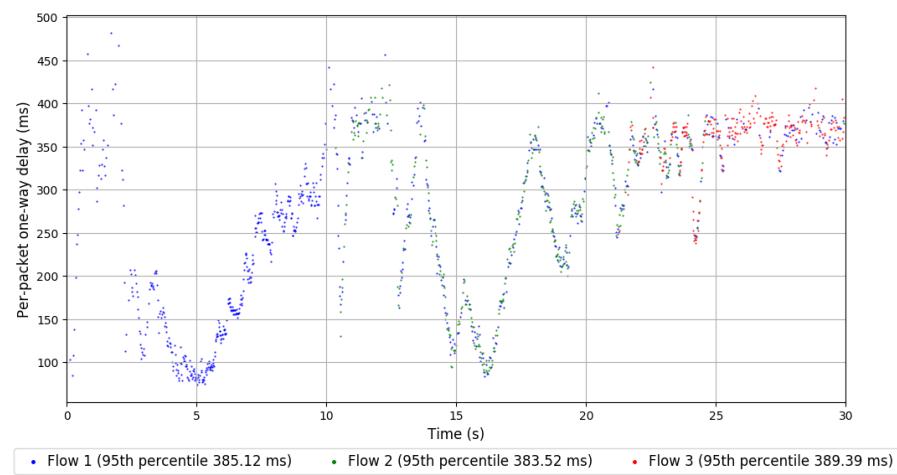
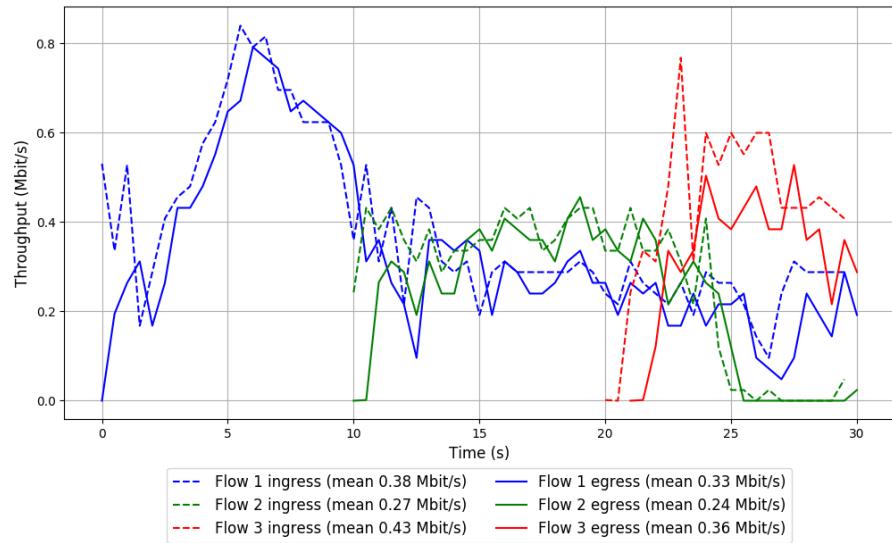
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	0.60	0.44	0.43	372.19	373.84	376.44	13.98	20.93	31.45
Copa		0.51	0.37	0.29	344.94	350.72	357.25	5.45	7.92	9.11
TCP Cubic		0.79	0.56	0.55	360.05	360.55	361.72	3.70	5.76	9.54
FillP		0.55	0.30	0.34	435.22	377.37	386.70	55.90	55.07	58.70
FillP-Sheep		0.78	0.37	0.38	369.14	370.73	368.00	47.86	72.09	74.32
Indigo		0.36	0.29	0.47	267.20	289.21	308.71	3.76	6.07	9.15
LEDBAT		0.53	0.62	0.59	277.31	291.98	290.76	0.43	0.86	3.12
PCC-Allegro		0.87	0.71	0.55	392.99	719.82	832.80	64.36	80.74	90.17
PCC-Expr		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
QUIC Cubic		0.60	0.37	0.35	363.99	366.31	374.28	15.43	23.18	32.07
SCReAM		0.21	0.20	0.21	84.72	84.25	82.97	0.25	0.38	0.70
Sprout		0.22	0.24	0.24	137.79	132.97	145.99	0.84	0.67	1.65
TaoVA-100x		0.69	0.25	0.35	370.47	380.15	389.98	35.34	63.74	57.55
TCP Vegas		0.58	0.51	0.59	280.70	302.97	323.58	1.34	1.97	2.82
Verus		1.42	0.20	0.10	369.27	408.44	369.49	24.74	64.79	56.96
PCC-Vivace		0.75	0.55	0.38	363.96	371.22	371.99	44.07	60.25	70.92
WebRTC media		0.15	0.19	0.09	349.00	350.98	357.84	11.35	7.82	16.82

Run 1: Statistics of TCP BBR

```
Start at: 2018-07-10 18:54:04
End at: 2018-07-10 18:54:34
Local clock offset: 2.312 ms
Remote clock offset: -8.197 ms

# Below is generated by plot.py at 2018-07-10 19:43:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 385.666 ms
Loss rate: 16.09%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 385.118 ms
Loss rate: 12.55%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 383.522 ms
Loss rate: 14.66%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 389.386 ms
Loss rate: 27.33%
```

Run 1: Report of TCP BBR — Data Link

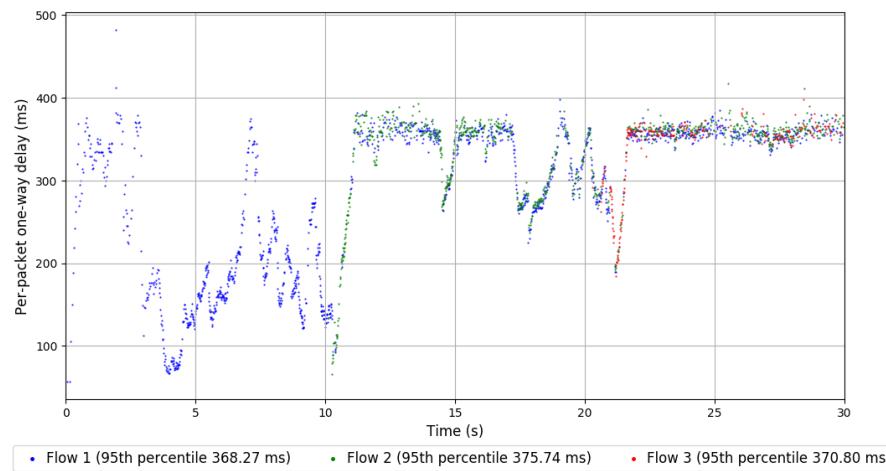
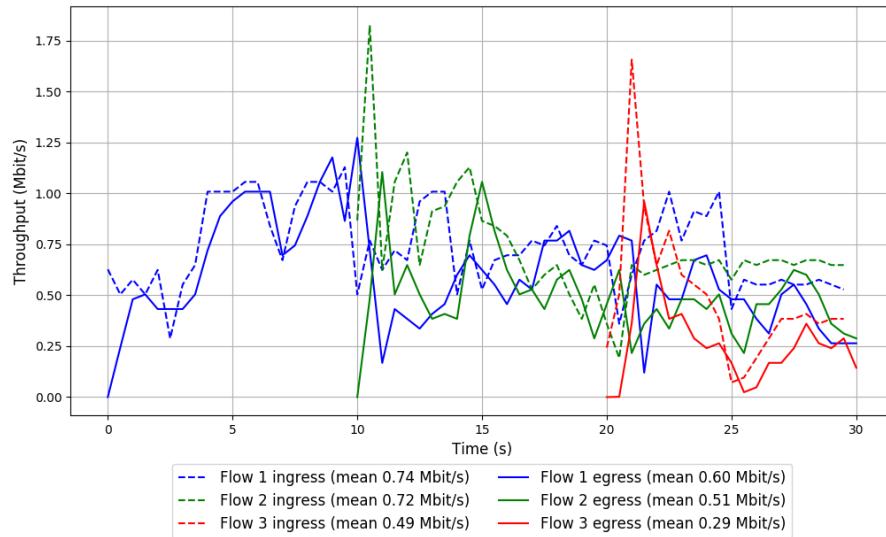


Run 2: Statistics of TCP BBR

```
Start at: 2018-07-10 19:12:51
End at: 2018-07-10 19:13:21
Local clock offset: -0.429 ms
Remote clock offset: -2.49 ms

# Below is generated by plot.py at 2018-07-10 19:43:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 371.011 ms
Loss rate: 25.43%
-- Flow 1:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 368.267 ms
Loss rate: 18.46%
-- Flow 2:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 375.735 ms
Loss rate: 30.40%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 370.803 ms
Loss rate: 42.14%
```

Run 2: Report of TCP BBR — Data Link

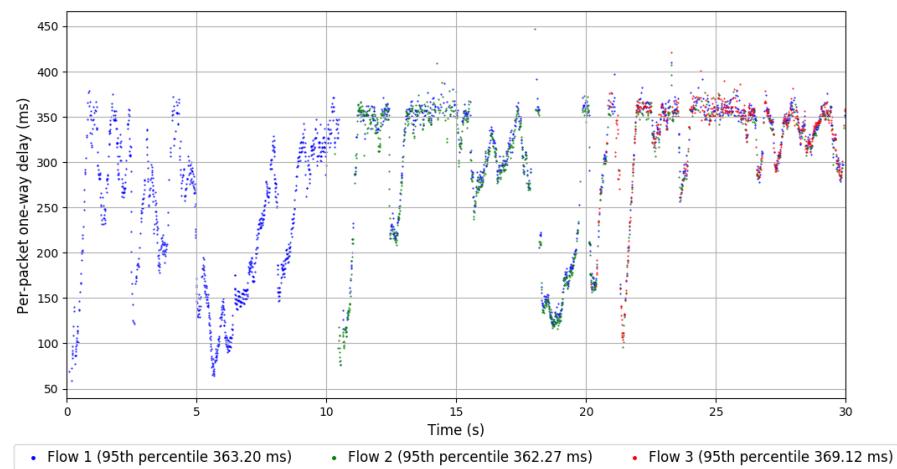
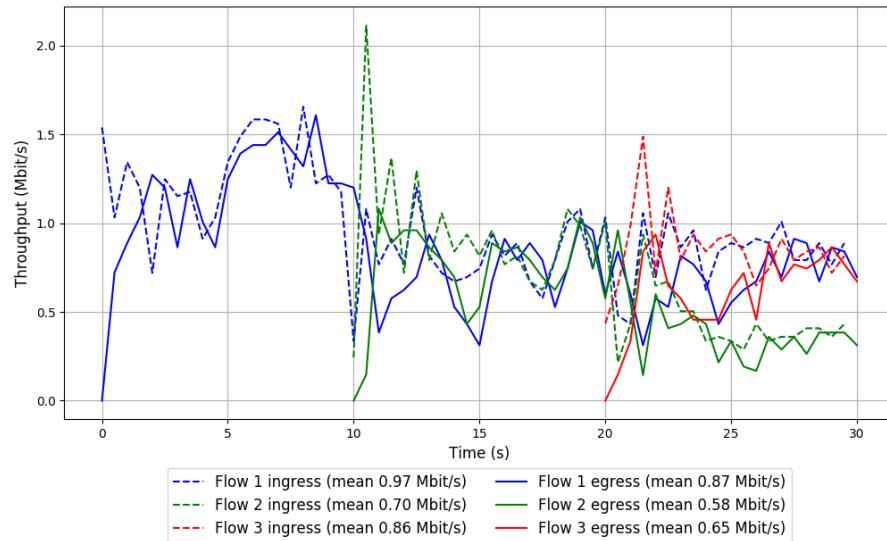


Run 3: Statistics of TCP BBR

```
Start at: 2018-07-10 19:31:34
End at: 2018-07-10 19:32:04
Local clock offset: -1.284 ms
Remote clock offset: -0.582 ms

# Below is generated by plot.py at 2018-07-10 19:43:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 364.058 ms
Loss rate: 15.07%
-- Flow 1:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 363.198 ms
Loss rate: 10.93%
-- Flow 2:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 362.271 ms
Loss rate: 17.73%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 369.123 ms
Loss rate: 24.89%
```

Run 3: Report of TCP BBR — Data Link

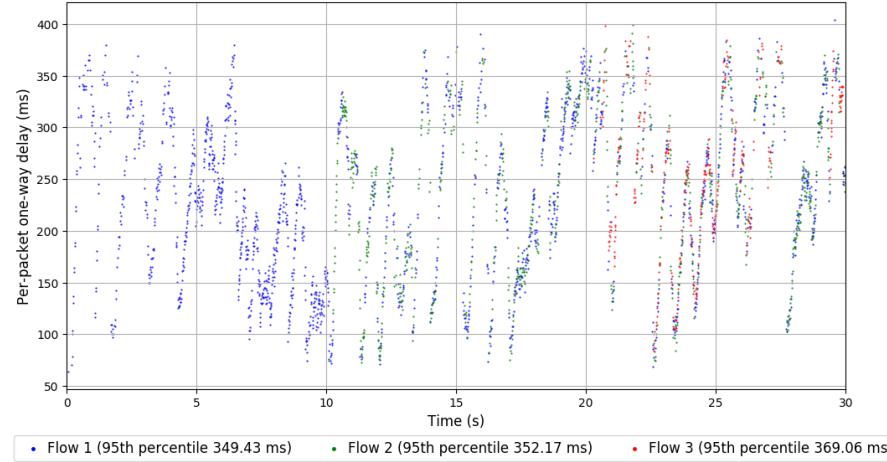
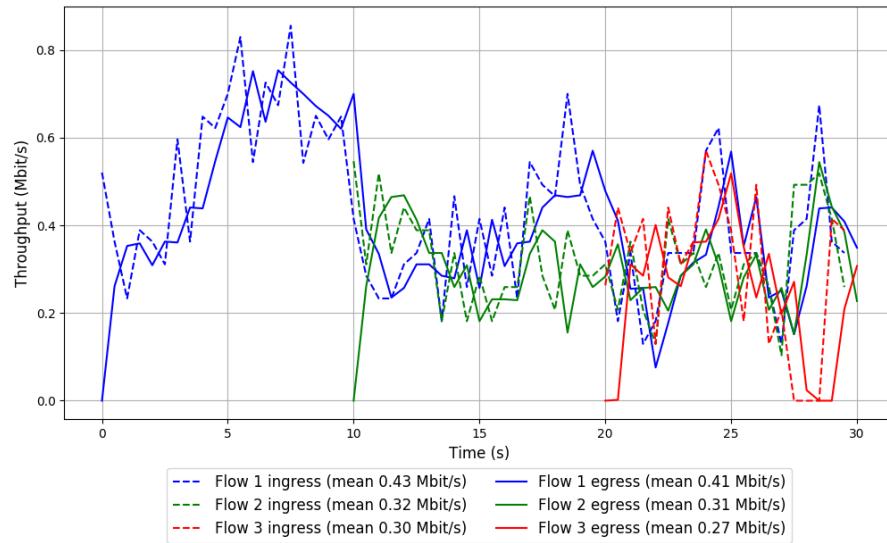


Run 1: Statistics of Copa

```
Start at: 2018-07-10 18:48:34
End at: 2018-07-10 18:49:04
Local clock offset: 3.467 ms
Remote clock offset: -6.981 ms

# Below is generated by plot.py at 2018-07-10 19:43:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 353.758 ms
Loss rate: 5.52%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 349.427 ms
Loss rate: 3.87%
-- Flow 2:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 352.165 ms
Loss rate: 4.87%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 369.061 ms
Loss rate: 14.03%
```

Run 1: Report of Copa — Data Link

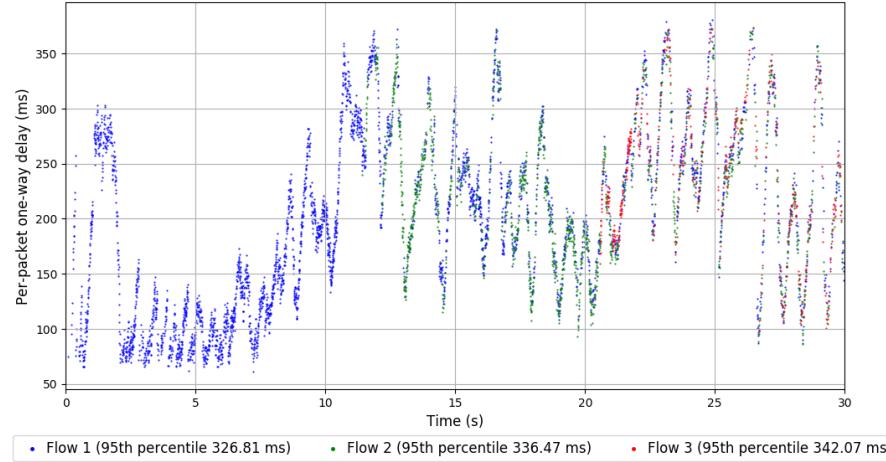
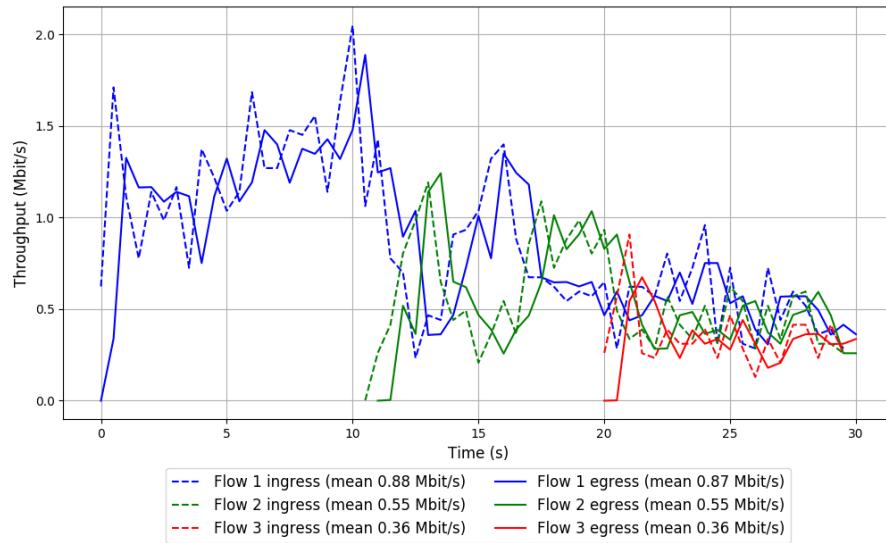


Run 2: Statistics of Copa

```
Start at: 2018-07-10 19:07:14
End at: 2018-07-10 19:07:44
Local clock offset: 3.061 ms
Remote clock offset: -3.243 ms

# Below is generated by plot.py at 2018-07-10 19:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 331.838 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 326.806 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 336.467 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 342.071 ms
Loss rate: 2.75%
```

Run 2: Report of Copa — Data Link

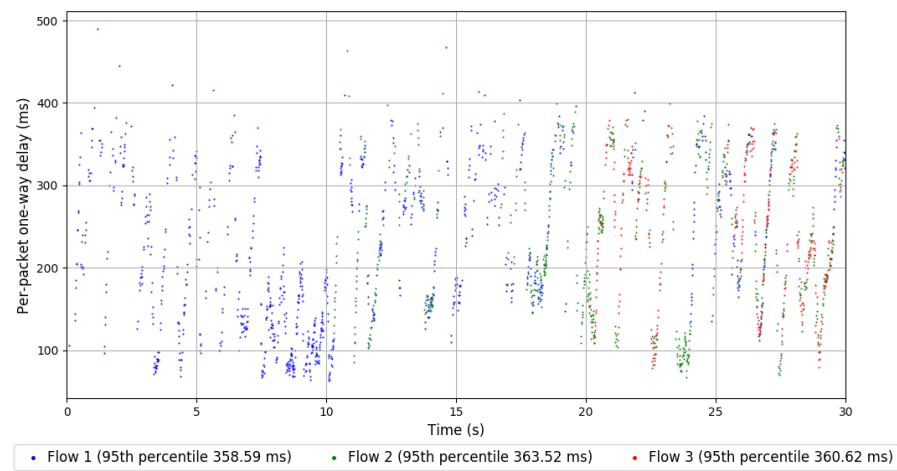
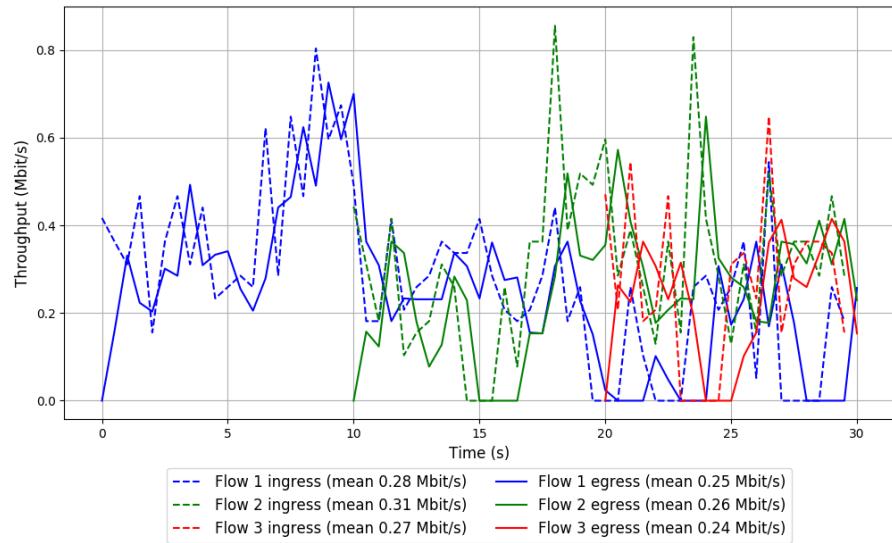


Run 3: Statistics of Copa

```
Start at: 2018-07-10 19:25:59
End at: 2018-07-10 19:26:29
Local clock offset: -2.227 ms
Remote clock offset: -1.382 ms

# Below is generated by plot.py at 2018-07-10 19:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 361.520 ms
Loss rate: 13.22%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 358.588 ms
Loss rate: 11.15%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 363.521 ms
Loss rate: 17.11%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 360.621 ms
Loss rate: 10.55%
```

Run 3: Report of Copa — Data Link

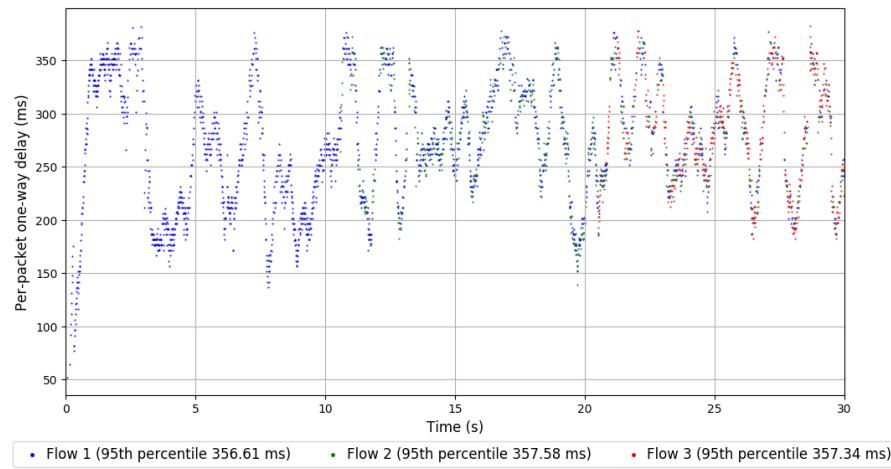
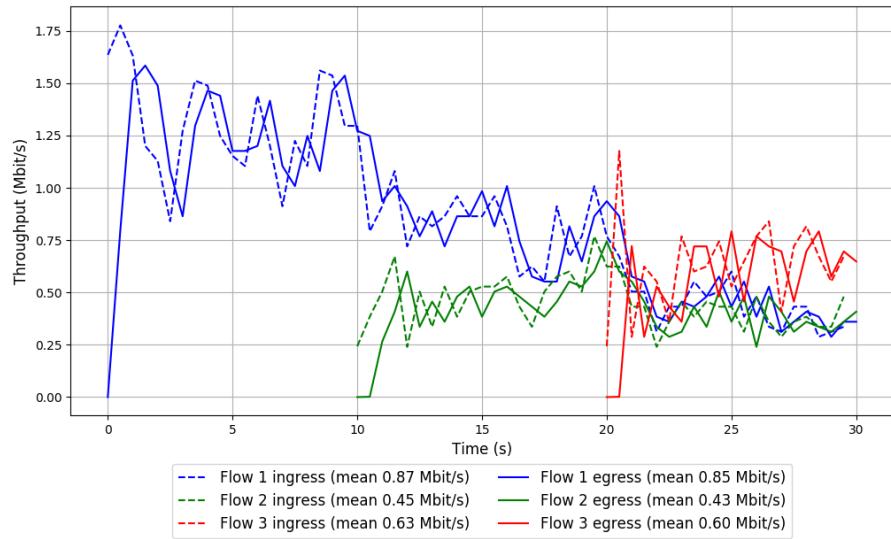


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-07-10 19:02:51
End at: 2018-07-10 19:03:21
Local clock offset: -0.759 ms
Remote clock offset: -4.796 ms

# Below is generated by plot.py at 2018-07-10 19:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 357.103 ms
Loss rate: 4.00%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 356.612 ms
Loss rate: 2.48%
-- Flow 2:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 357.585 ms
Loss rate: 5.38%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 357.339 ms
Loss rate: 8.38%
```

Run 1: Report of TCP Cubic — Data Link

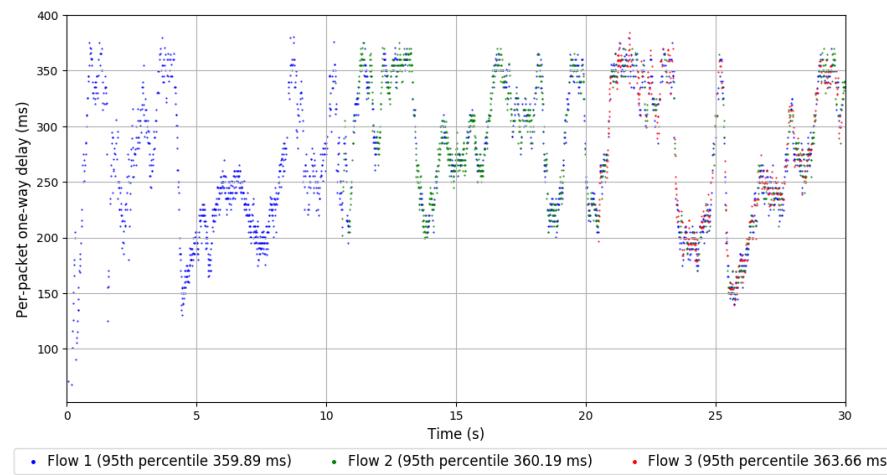
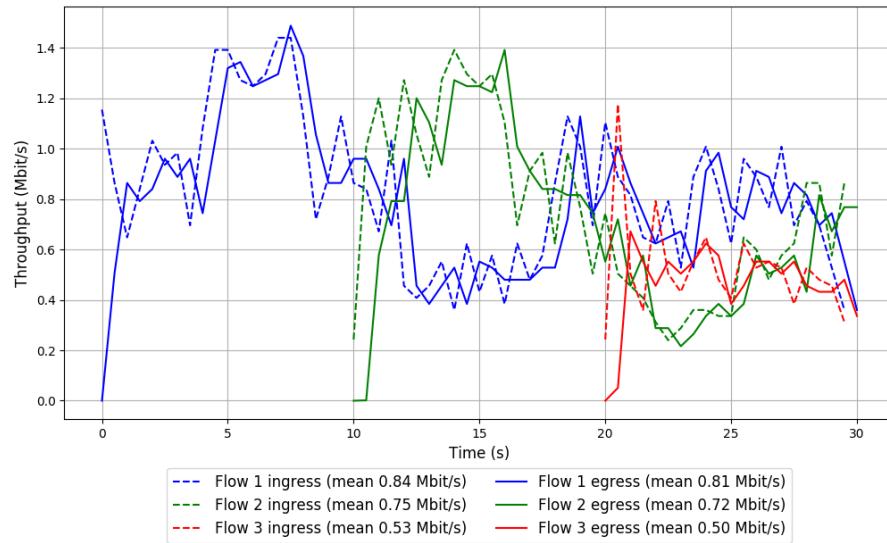


Run 2: Statistics of TCP Cubic

```
Start at: 2018-07-10 19:21:36
End at: 2018-07-10 19:22:06
Local clock offset: 2.173 ms
Remote clock offset: -1.758 ms

# Below is generated by plot.py at 2018-07-10 19:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 360.034 ms
Loss rate: 4.87%
-- Flow 1:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 359.891 ms
Loss rate: 3.36%
-- Flow 2:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 360.191 ms
Loss rate: 6.37%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 363.658 ms
Loss rate: 7.78%
```

Run 2: Report of TCP Cubic — Data Link

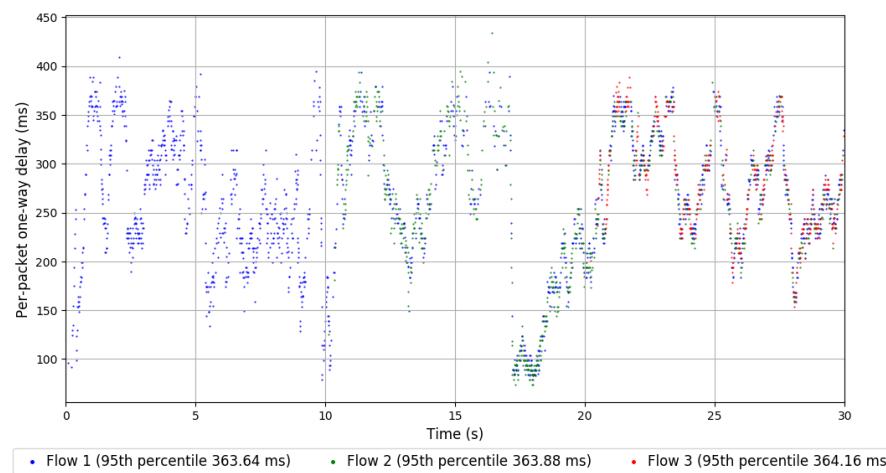
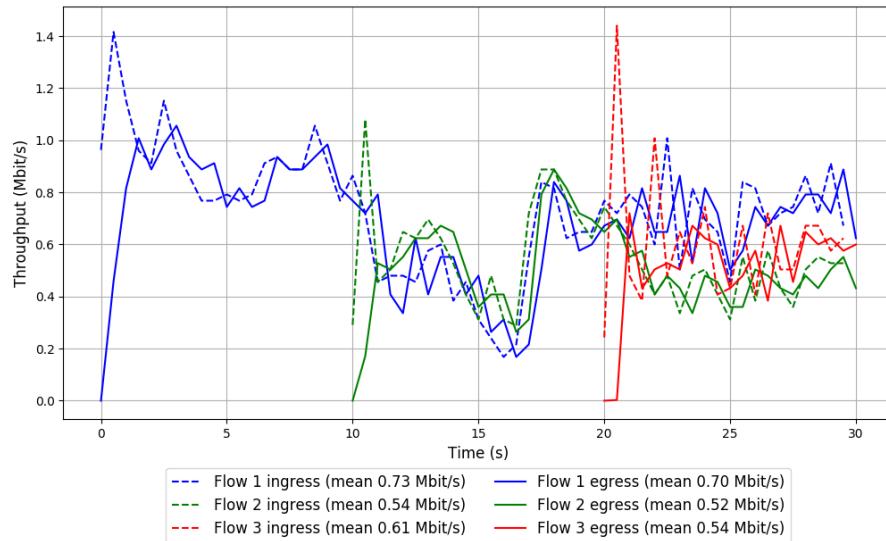


Run 3: Statistics of TCP Cubic

```
Start at: 2018-07-10 19:40:23
End at: 2018-07-10 19:40:53
Local clock offset: 3.605 ms
Remote clock offset: -6.152 ms

# Below is generated by plot.py at 2018-07-10 19:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 363.837 ms
Loss rate: 6.45%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 363.643 ms
Loss rate: 5.25%
-- Flow 2:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 363.879 ms
Loss rate: 5.53%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 364.161 ms
Loss rate: 12.45%
```

Run 3: Report of TCP Cubic — Data Link

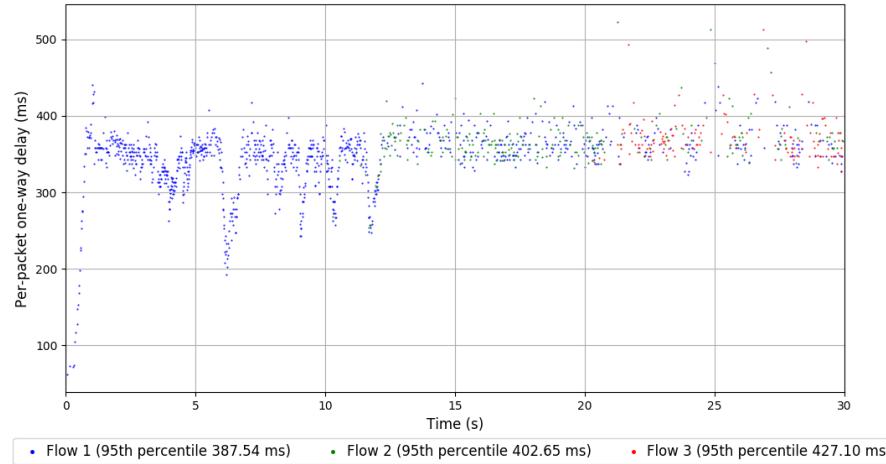
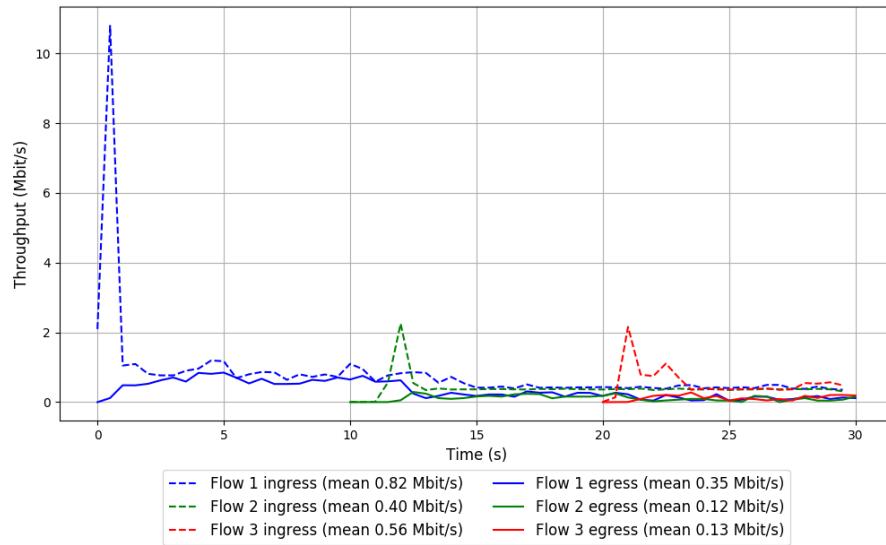


```
Run 1: Statistics of FillP

Start at: 2018-07-10 18:49:39
End at: 2018-07-10 18:50:09
Local clock offset: 3.212 ms
Remote clock offset: -8.379 ms

# Below is generated by plot.py at 2018-07-10 19:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 393.573 ms
Loss rate: 63.30%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 387.537 ms
Loss rate: 57.68%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 402.653 ms
Loss rate: 71.12%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 427.103 ms
Loss rate: 76.89%
```

Run 1: Report of FillP — Data Link

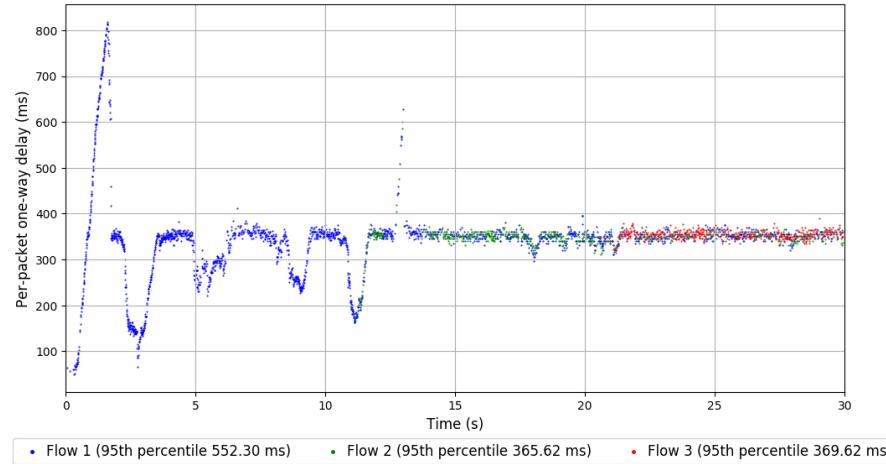
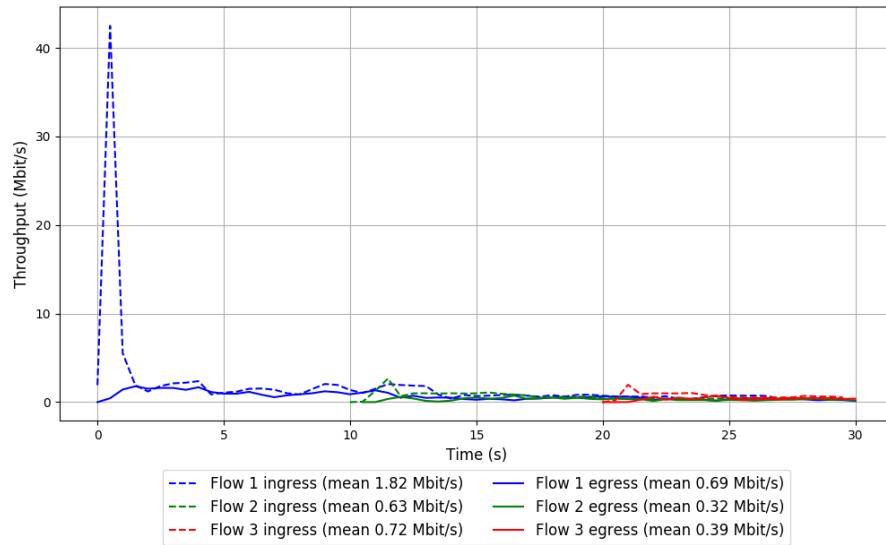


Run 2: Statistics of FillP

```
Start at: 2018-07-10 19:08:21
End at: 2018-07-10 19:08:51
Local clock offset: 2.502 ms
Remote clock offset: -3.352 ms

# Below is generated by plot.py at 2018-07-10 19:43:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 385.089 ms
Loss rate: 58.57%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 552.297 ms
Loss rate: 61.95%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 365.621 ms
Loss rate: 50.23%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 369.617 ms
Loss rate: 47.53%
```

Run 2: Report of FillP — Data Link

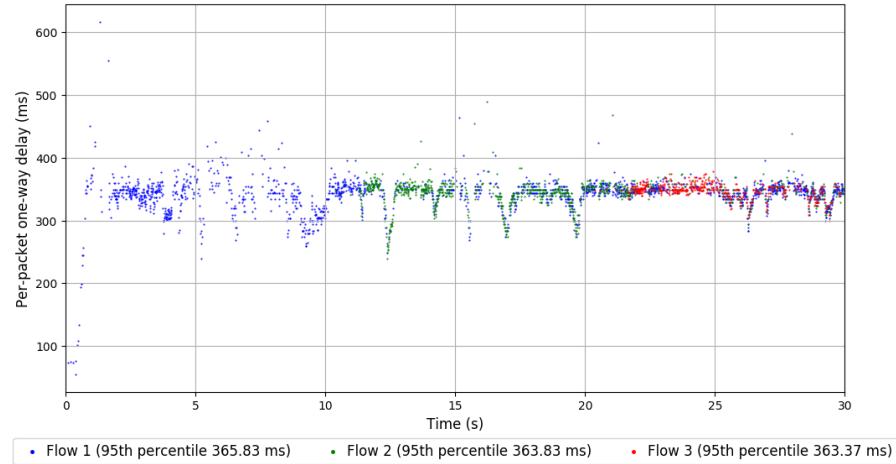
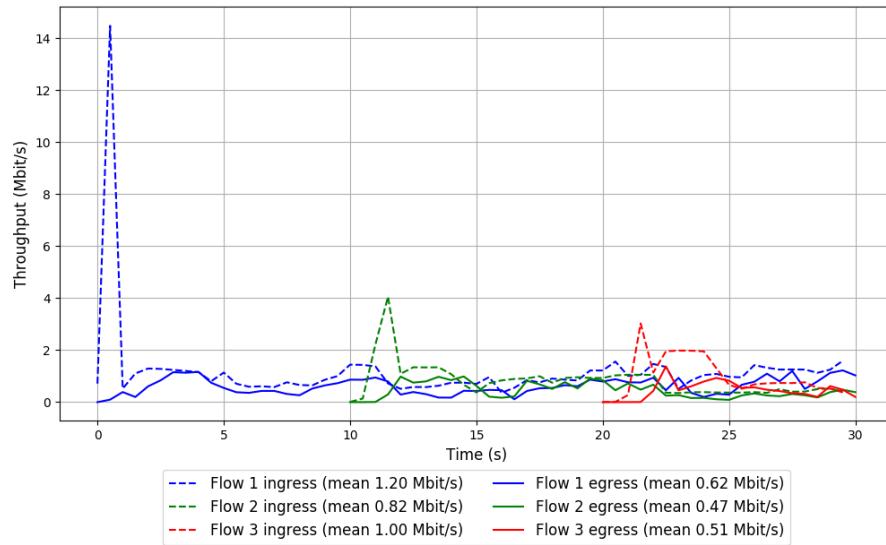


Run 3: Statistics of FillP

```
Start at: 2018-07-10 19:27:04
End at: 2018-07-10 19:27:34
Local clock offset: 1.093 ms
Remote clock offset: -1.375 ms

# Below is generated by plot.py at 2018-07-10 19:43:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 364.196 ms
Loss rate: 47.54%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 365.830 ms
Loss rate: 48.08%
-- Flow 2:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 363.827 ms
Loss rate: 43.86%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 363.366 ms
Loss rate: 51.69%
```

Run 3: Report of FillP — Data Link

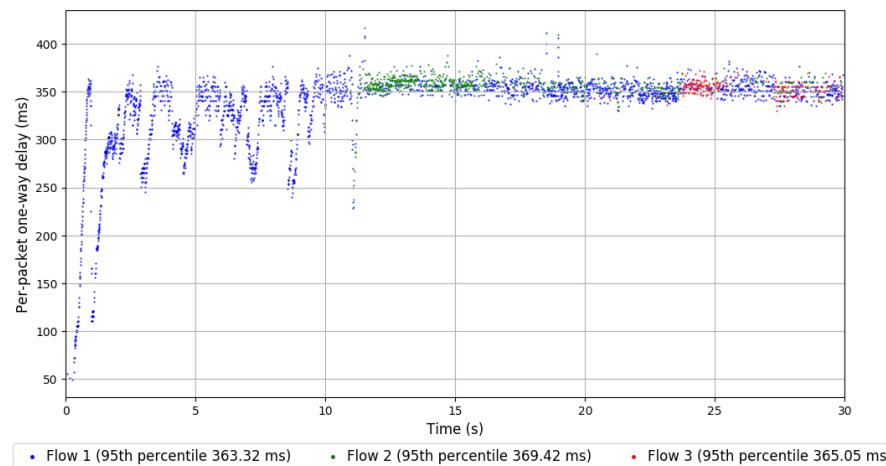
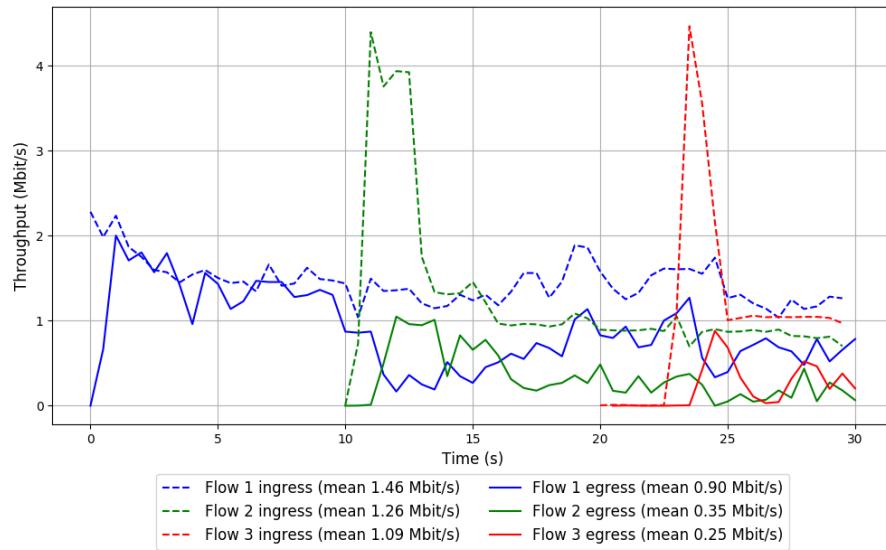


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2018-07-10 19:05:03
End at: 2018-07-10 19:05:33
Local clock offset: 1.201 ms
Remote clock offset: -3.96 ms

# Below is generated by plot.py at 2018-07-10 19:43:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 365.938 ms
Loss rate: 54.92%
-- Flow 1:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 363.319 ms
Loss rate: 38.79%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 369.423 ms
Loss rate: 72.78%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 365.051 ms
Loss rate: 78.75%
```

Run 1: Report of FillP-Sheep — Data Link

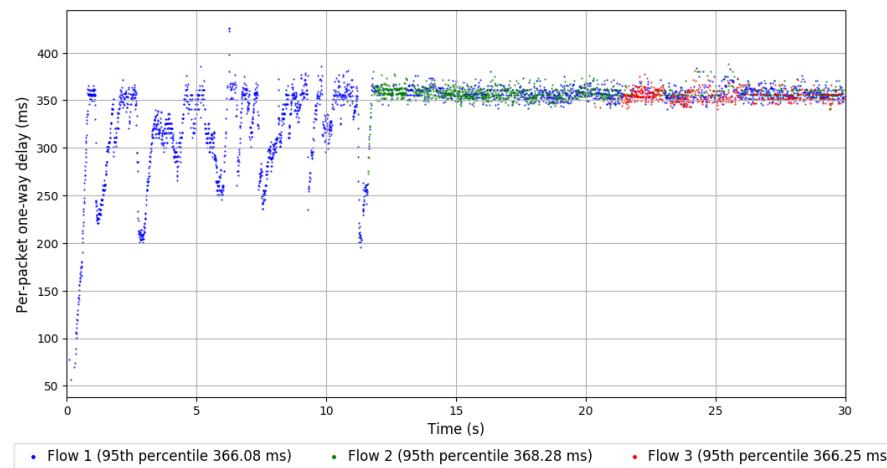
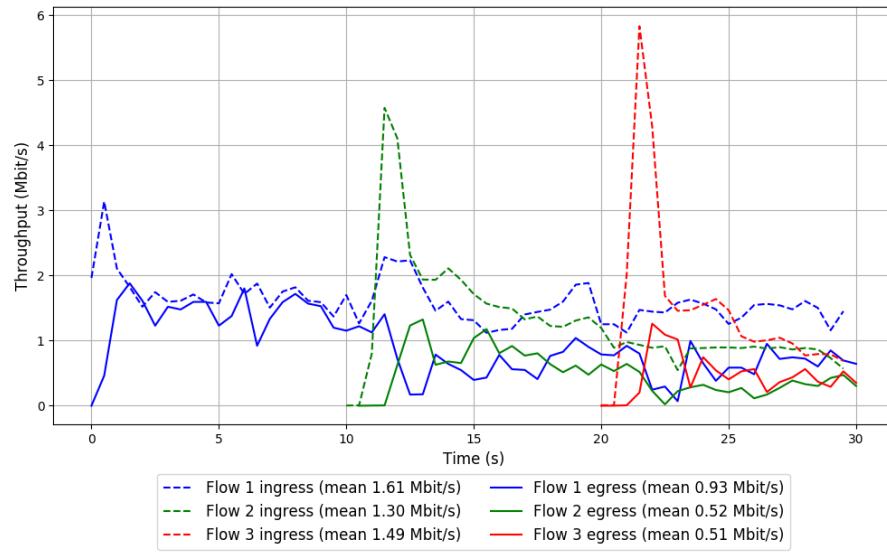


Run 2: Statistics of FillP-Sheep

```
Start at: 2018-07-10 19:23:48
End at: 2018-07-10 19:24:18
Local clock offset: 3.206 ms
Remote clock offset: -1.023 ms

# Below is generated by plot.py at 2018-07-10 19:43:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 366.702 ms
Loss rate: 51.99%
-- Flow 1:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 366.083 ms
Loss rate: 42.47%
-- Flow 2:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 368.284 ms
Loss rate: 61.28%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 366.254 ms
Loss rate: 66.94%
```

Run 2: Report of FillP-Sheep — Data Link

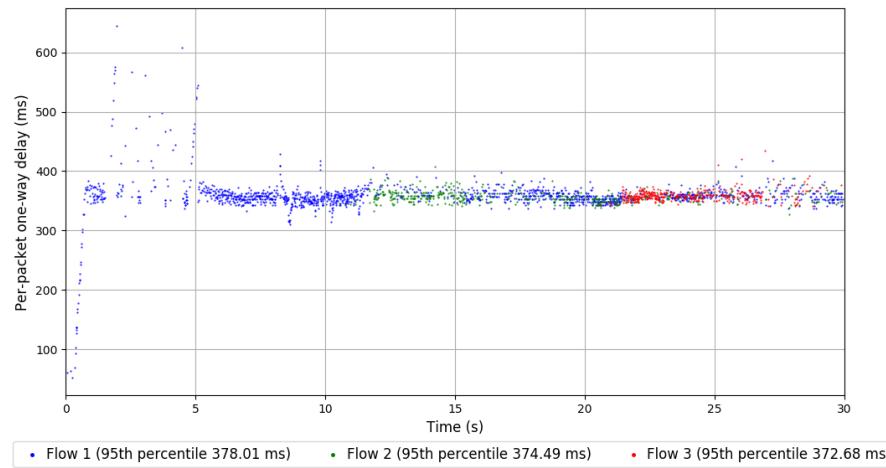
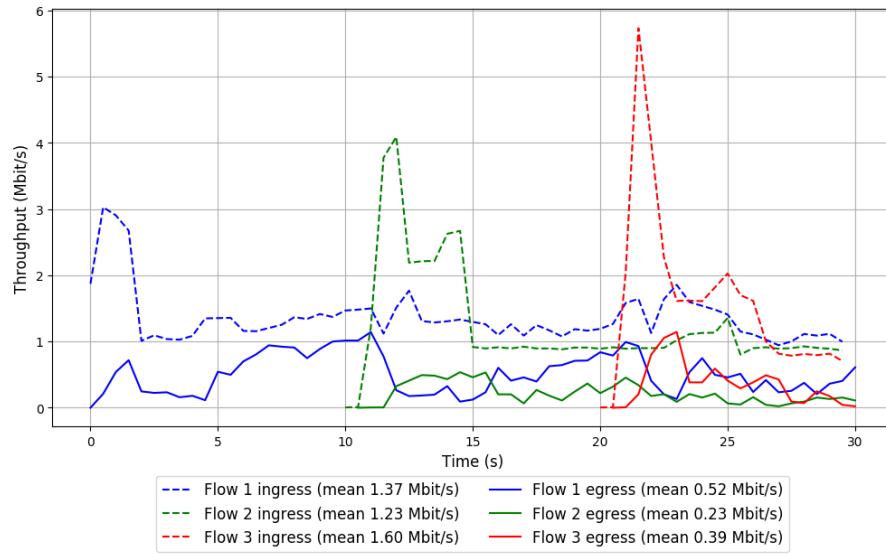


Run 3: Statistics of FillP-Sheep

```
Start at: 2018-07-10 19:42:49
End at: 2018-07-10 19:43:19
Local clock offset: 1.272 ms
Remote clock offset: -7.202 ms

# Below is generated by plot.py at 2018-07-10 19:43:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 377.314 ms
Loss rate: 71.25%
-- Flow 1:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 378.008 ms
Loss rate: 62.33%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 374.493 ms
Loss rate: 82.20%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 372.683 ms
Loss rate: 77.27%
```

Run 3: Report of FillP-Sheep — Data Link

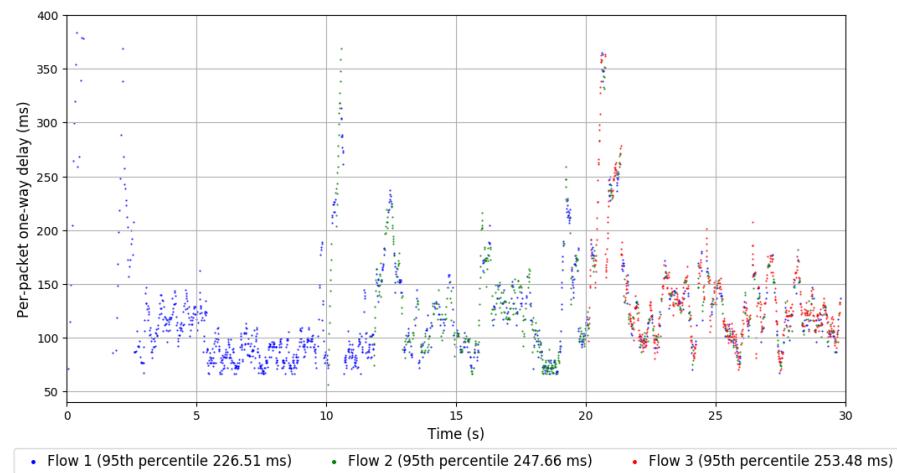
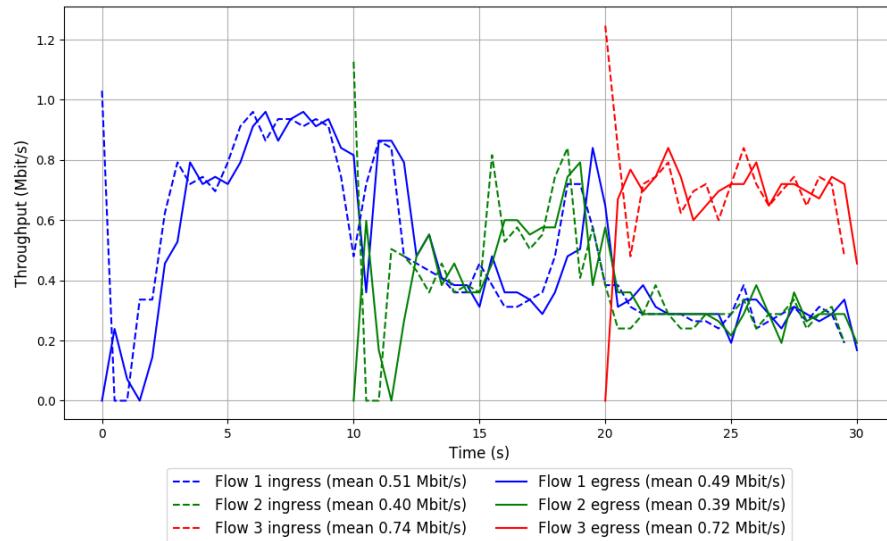


Run 1: Statistics of Indigo

```
Start at: 2018-07-10 18:56:16
End at: 2018-07-10 18:56:46
Local clock offset: -0.22 ms
Remote clock offset: -7.718 ms

# Below is generated by plot.py at 2018-07-10 19:43:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 237.212 ms
Loss rate: 2.83%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 226.512 ms
Loss rate: 2.79%
-- Flow 2:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 247.657 ms
Loss rate: 2.91%
-- Flow 3:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 253.482 ms
Loss rate: 2.83%
```

Run 1: Report of Indigo — Data Link

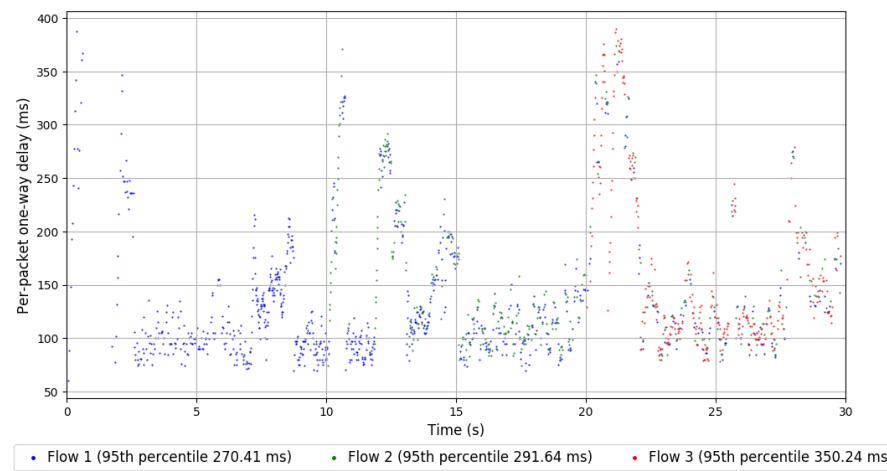
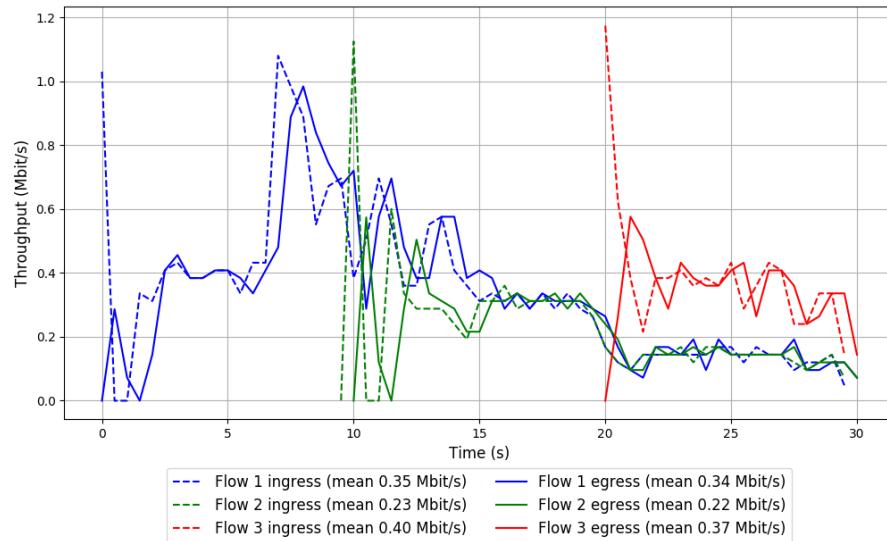


Run 2: Statistics of Indigo

```
Start at: 2018-07-10 19:15:03
End at: 2018-07-10 19:15:33
Local clock offset: 3.911 ms
Remote clock offset: -1.456 ms

# Below is generated by plot.py at 2018-07-10 19:43:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 299.432 ms
Loss rate: 5.21%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 270.412 ms
Loss rate: 3.48%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 291.637 ms
Loss rate: 5.50%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 350.238 ms
Loss rate: 9.42%
```

Run 2: Report of Indigo — Data Link

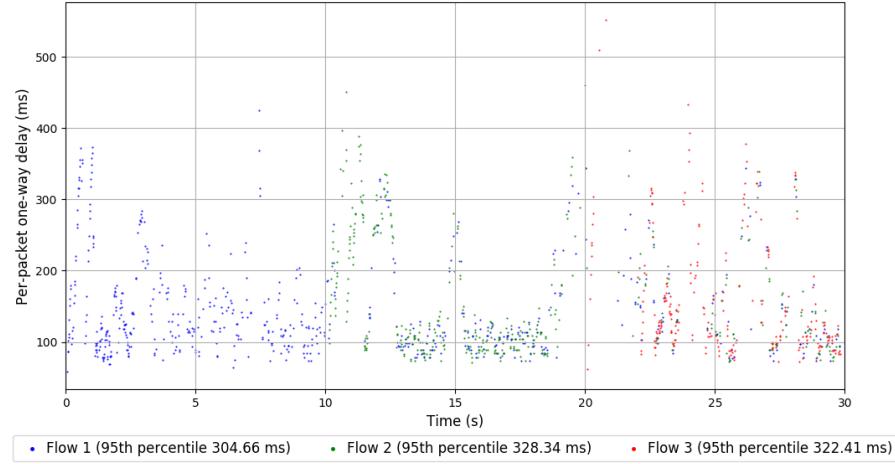
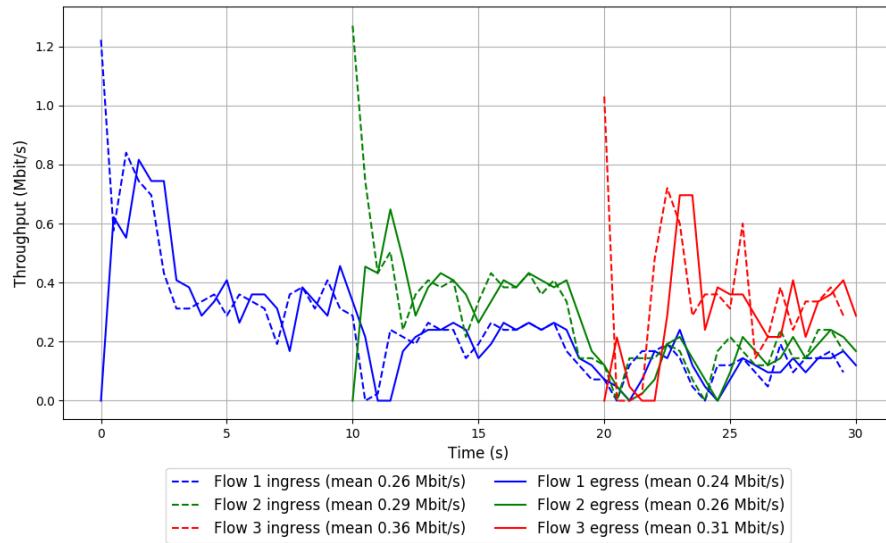


Run 3: Statistics of Indigo

```
Start at: 2018-07-10 19:33:45
End at: 2018-07-10 19:34:15
Local clock offset: 3.111 ms
Remote clock offset: -2.528 ms

# Below is generated by plot.py at 2018-07-10 19:43:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 318.796 ms
Loss rate: 8.77%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 304.662 ms
Loss rate: 5.02%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 328.340 ms
Loss rate: 9.79%
-- Flow 3:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 322.410 ms
Loss rate: 15.21%
```

Run 3: Report of Indigo — Data Link

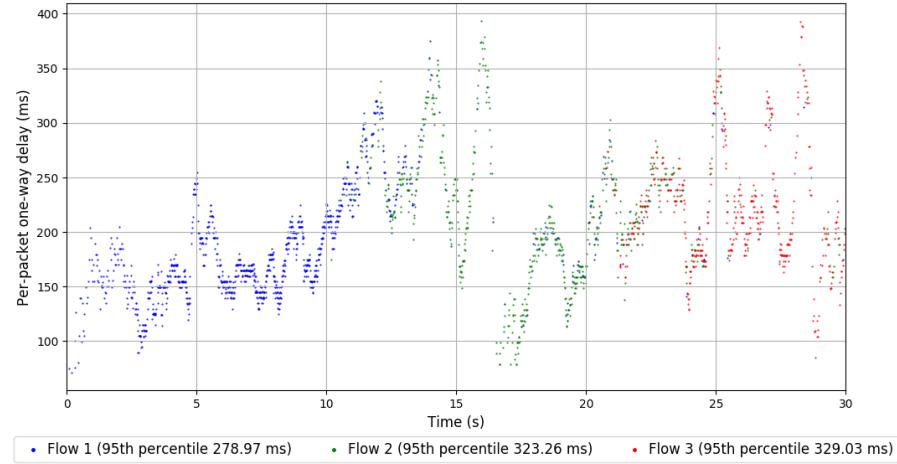
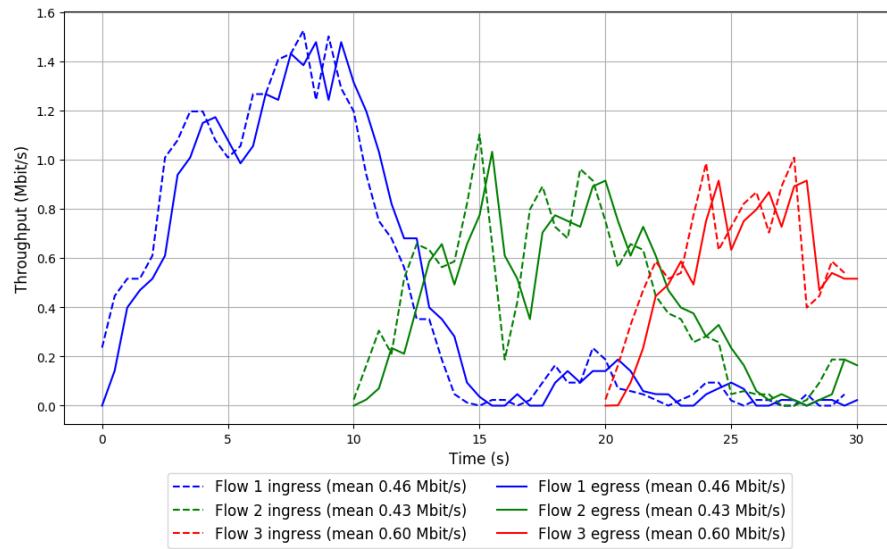


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-07-10 18:50:46
End at: 2018-07-10 18:51:16
Local clock offset: 2.712 ms
Remote clock offset: -7.907 ms

# Below is generated by plot.py at 2018-07-10 19:43:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 313.270 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 278.974 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 323.264 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 329.027 ms
Loss rate: 3.12%
```

Run 1: Report of LEDBAT — Data Link

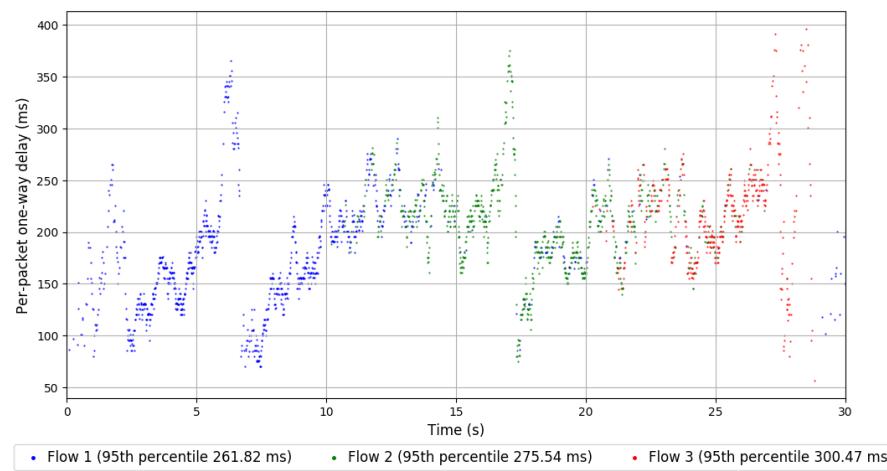
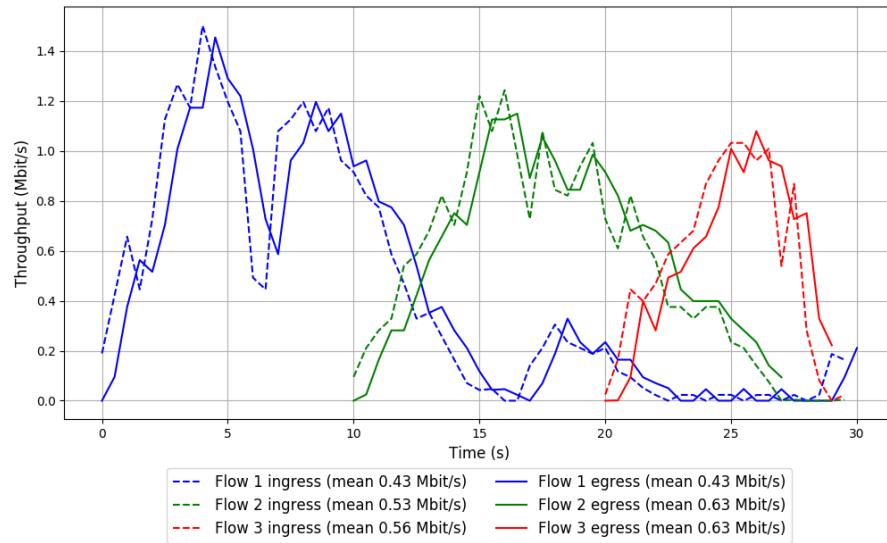


Run 2: Statistics of LEDBAT

```
Start at: 2018-07-10 19:09:33
End at: 2018-07-10 19:10:03
Local clock offset: 0.536 ms
Remote clock offset: -2.028 ms

# Below is generated by plot.py at 2018-07-10 19:43:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 275.756 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 261.824 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 275.539 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 300.471 ms
Loss rate: 2.75%
```

Run 2: Report of LEDBAT — Data Link

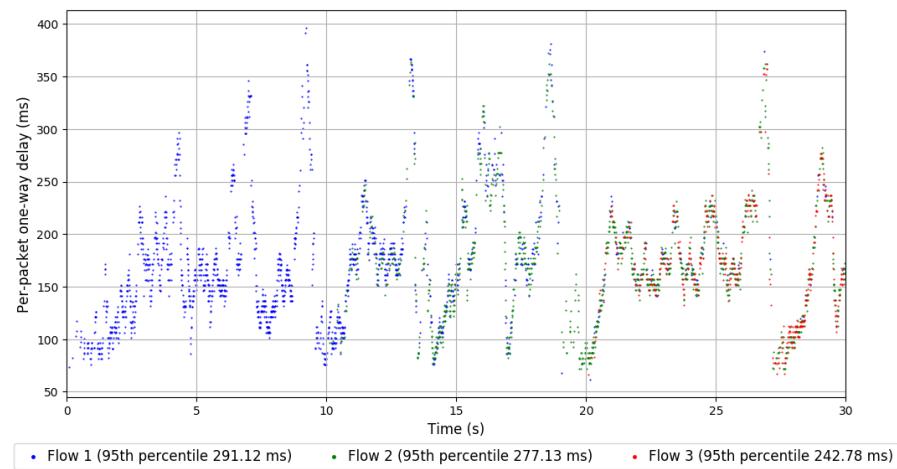
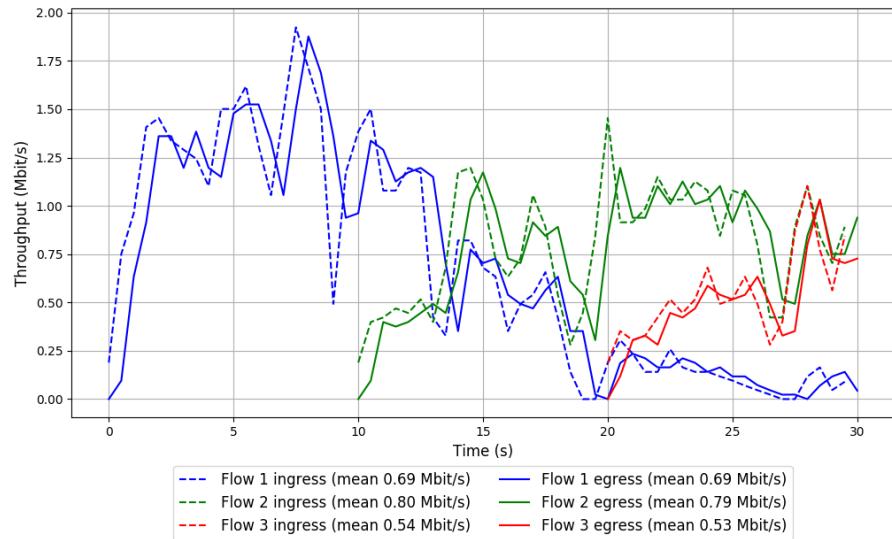


Run 3: Statistics of LEDBAT

```
Start at: 2018-07-10 19:28:10
End at: 2018-07-10 19:28:40
Local clock offset: 2.5 ms
Remote clock offset: -0.262 ms

# Below is generated by plot.py at 2018-07-10 19:43:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 277.295 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 291.122 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 277.130 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 242.784 ms
Loss rate: 3.50%
```

Run 3: Report of LEDBAT — Data Link

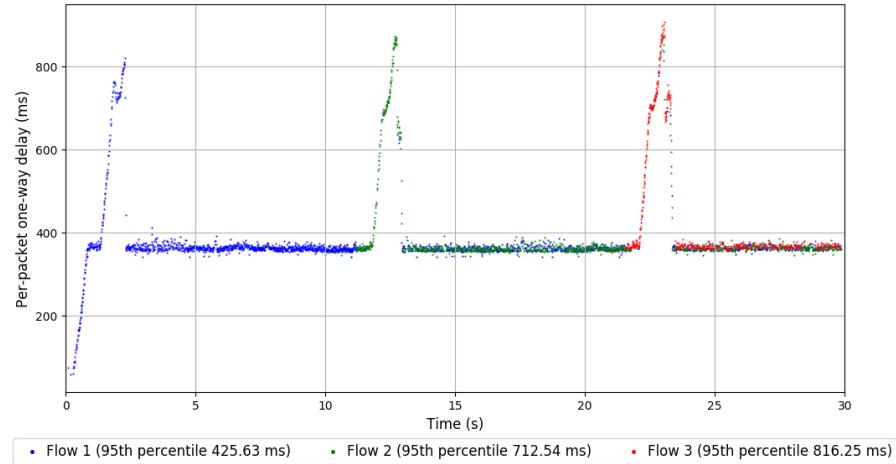
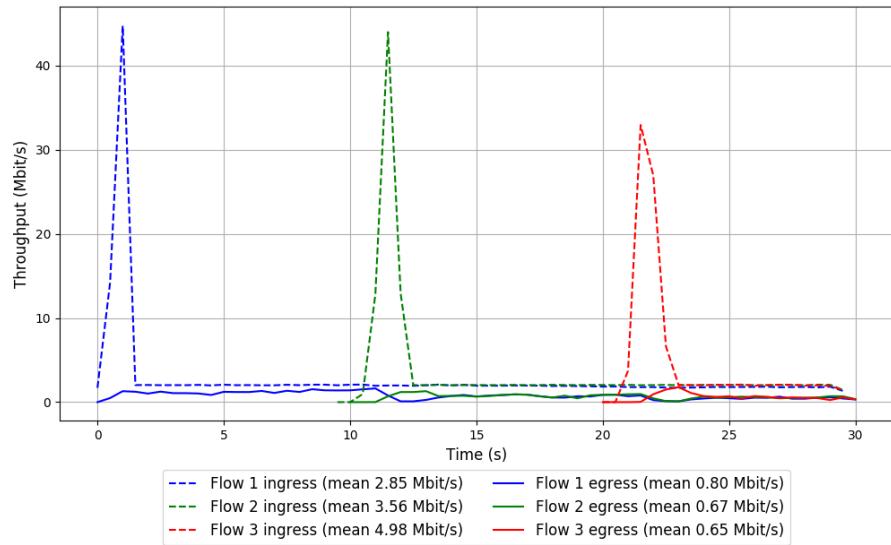


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-07-10 19:00:40
End at: 2018-07-10 19:01:10
Local clock offset: 3.122 ms
Remote clock offset: -4.745 ms

# Below is generated by plot.py at 2018-07-10 19:43:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 712.637 ms
Loss rate: 78.96%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 425.630 ms
Loss rate: 71.97%
-- Flow 2:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 712.537 ms
Loss rate: 81.51%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 816.253 ms
Loss rate: 87.43%
```

Run 1: Report of PCC-Allegro — Data Link

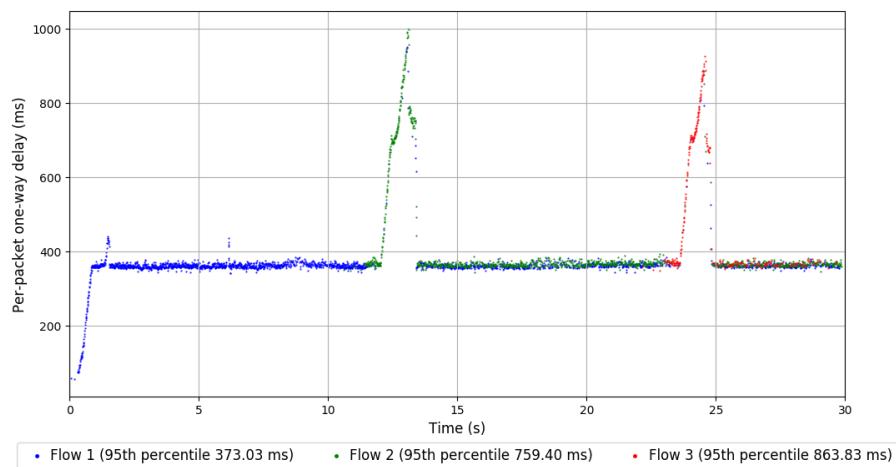
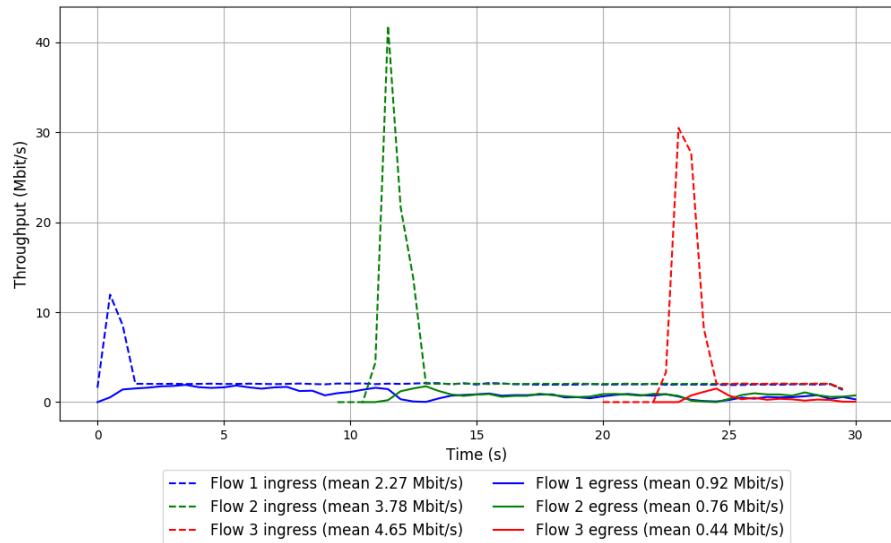


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-07-10 19:19:25
End at: 2018-07-10 19:19:55
Local clock offset: 0.434 ms
Remote clock offset: -1.635 ms

# Below is generated by plot.py at 2018-07-10 19:43:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 702.930 ms
Loss rate: 76.02%
-- Flow 1:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 373.030 ms
Loss rate: 59.76%
-- Flow 2:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 759.399 ms
Loss rate: 80.52%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 863.827 ms
Loss rate: 92.72%
```

Run 2: Report of PCC-Allegro — Data Link

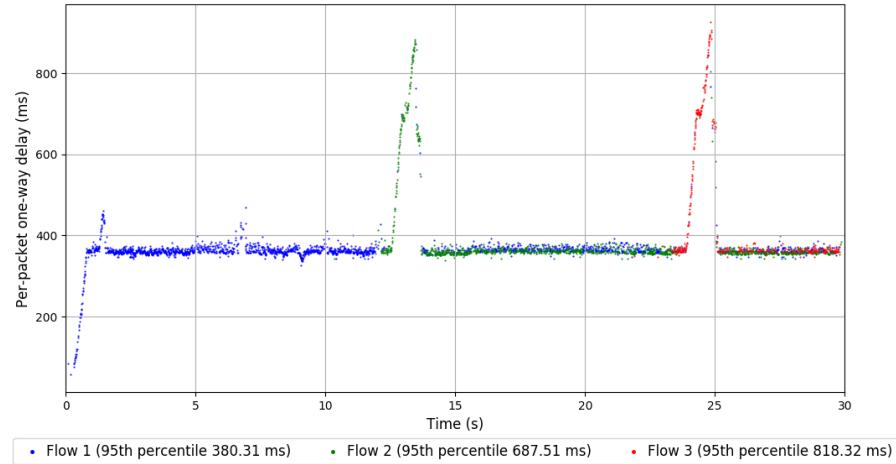
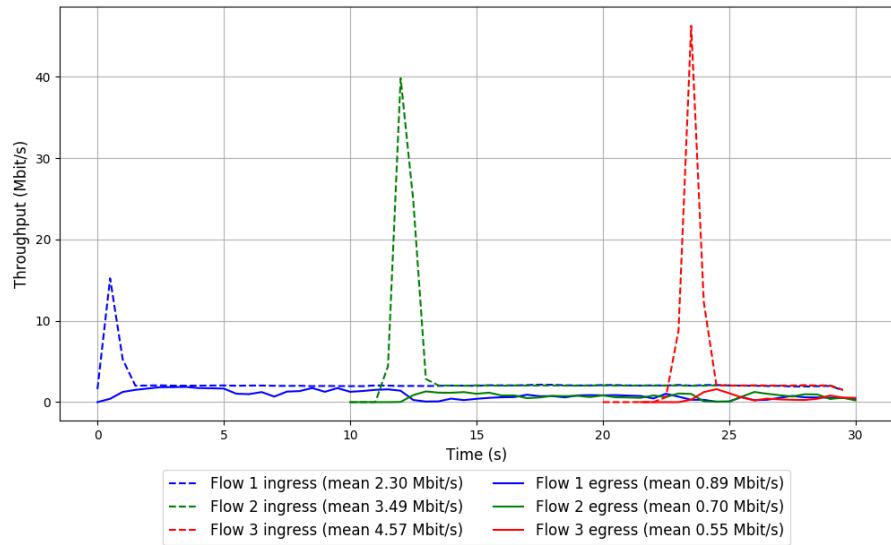


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-07-10 19:38:07
End at: 2018-07-10 19:38:37
Local clock offset: -0.571 ms
Remote clock offset: -5.142 ms

# Below is generated by plot.py at 2018-07-10 19:43:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 632.056 ms
Loss rate: 75.63%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 380.307 ms
Loss rate: 61.36%
-- Flow 2:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 687.514 ms
Loss rate: 80.20%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 818.319 ms
Loss rate: 90.37%
```

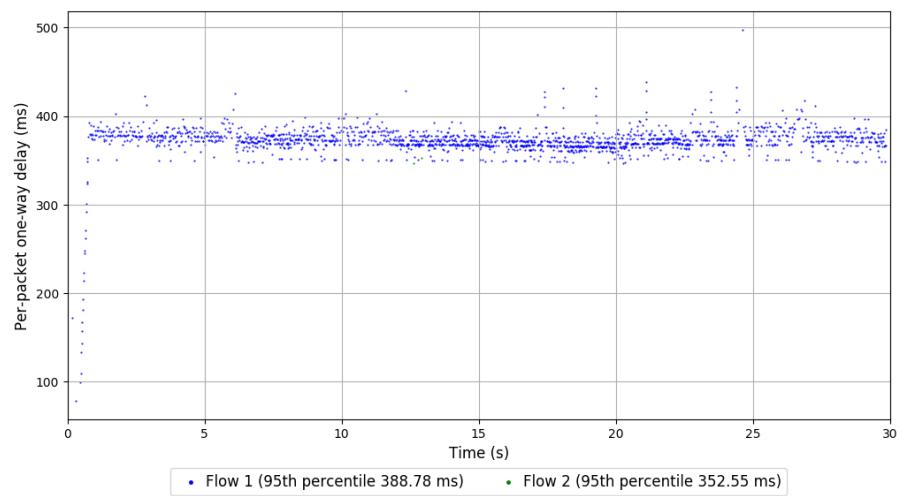
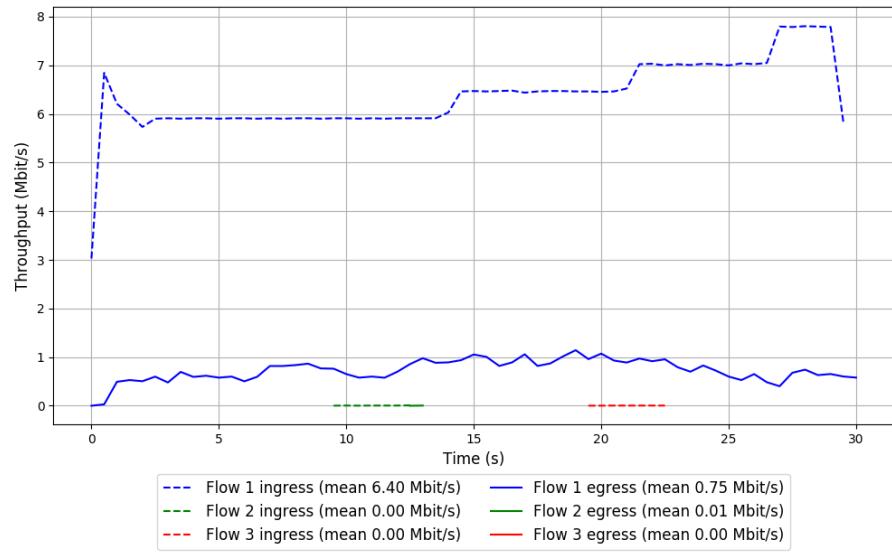
Run 3: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-07-10 18:51:51
End at: 2018-07-10 18:52:21
Local clock offset: 0.218 ms
Remote clock offset: -7.758 ms

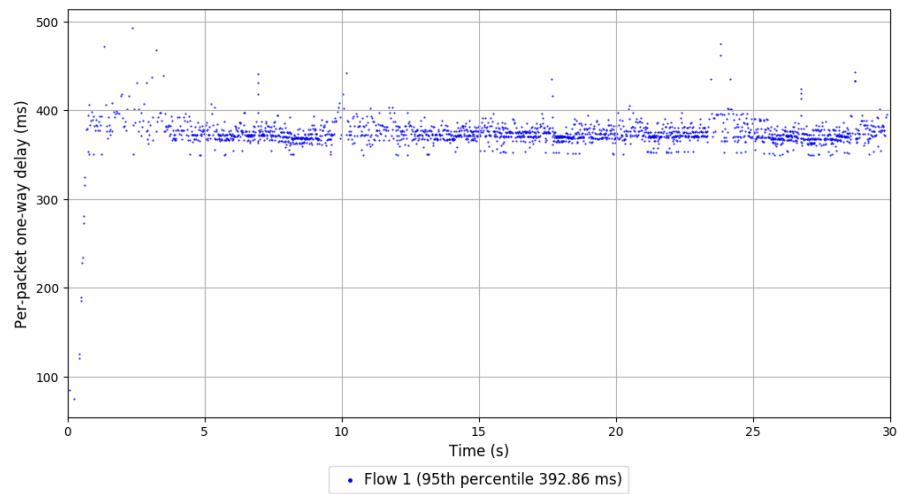
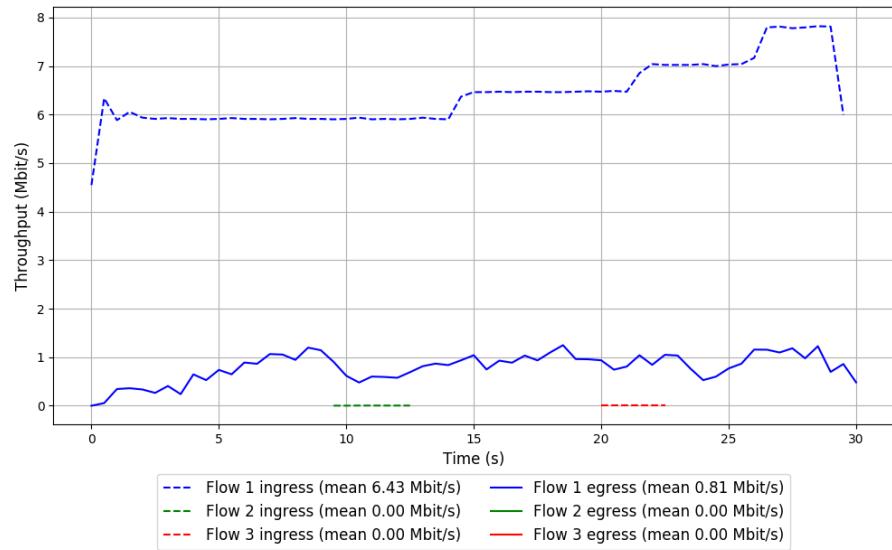
Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-07-10 19:10:38
End at: 2018-07-10 19:11:08
Local clock offset: 2.573 ms
Remote clock offset: -2.634 ms

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

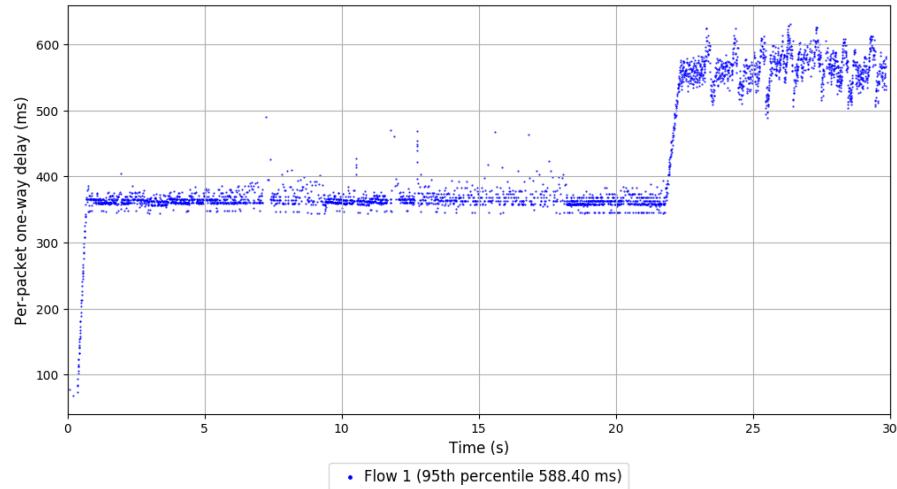
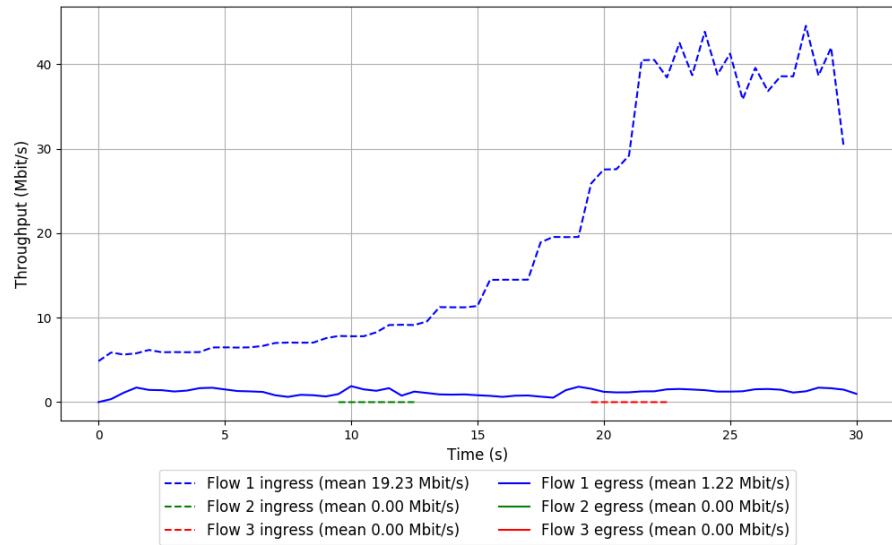
Start at: 2018-07-10 19:29:22

End at: 2018-07-10 19:29:52

Local clock offset: -1.78 ms

Remote clock offset: 0.28 ms

Run 3: Report of PCC-Expr — Data Link

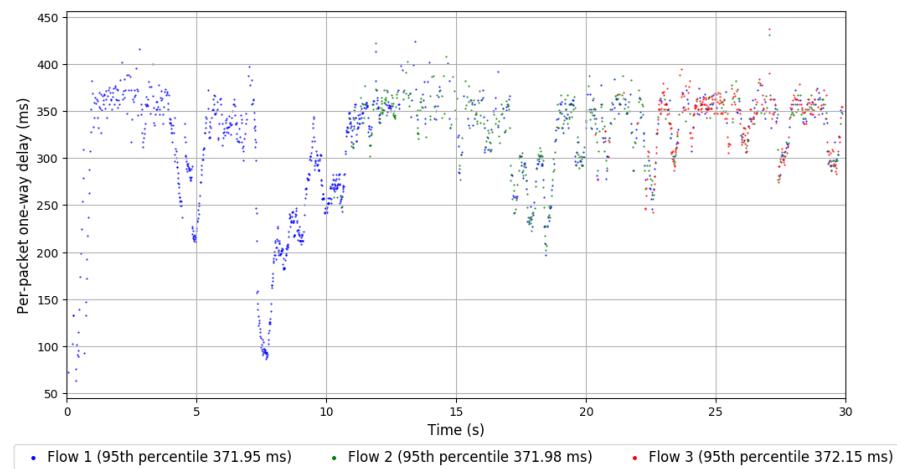
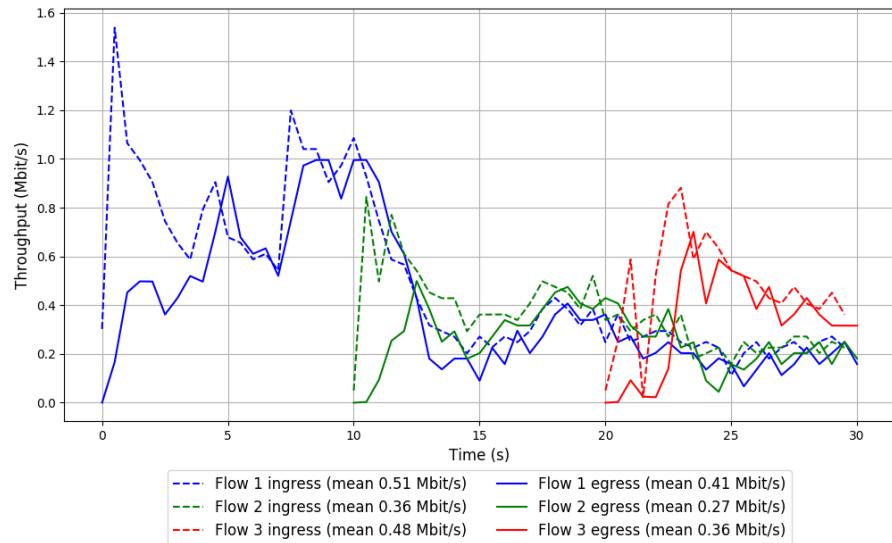


Run 1: Statistics of QUIC Cubic

```
Start at: 2018-07-10 18:47:27
End at: 2018-07-10 18:47:57
Local clock offset: -0.559 ms
Remote clock offset: -7.888 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 372.004 ms
Loss rate: 23.03%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 371.955 ms
Loss rate: 20.15%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 371.978 ms
Loss rate: 25.77%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 372.151 ms
Loss rate: 28.06%
```

Run 1: Report of QUIC Cubic — Data Link

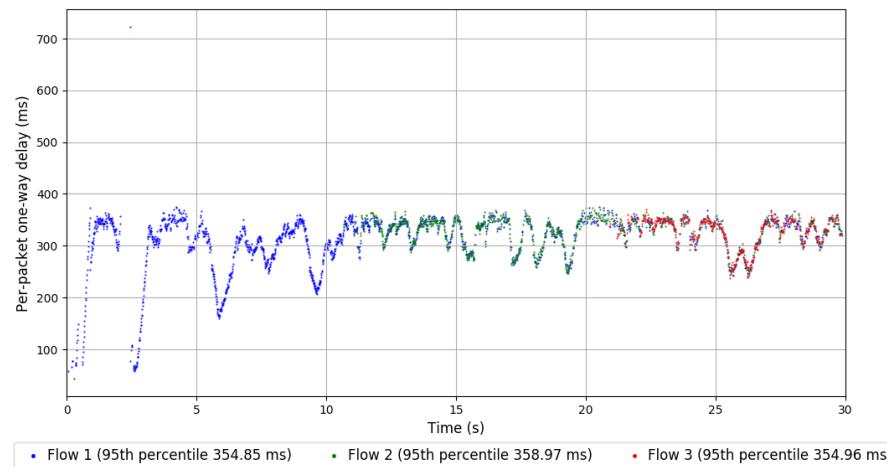
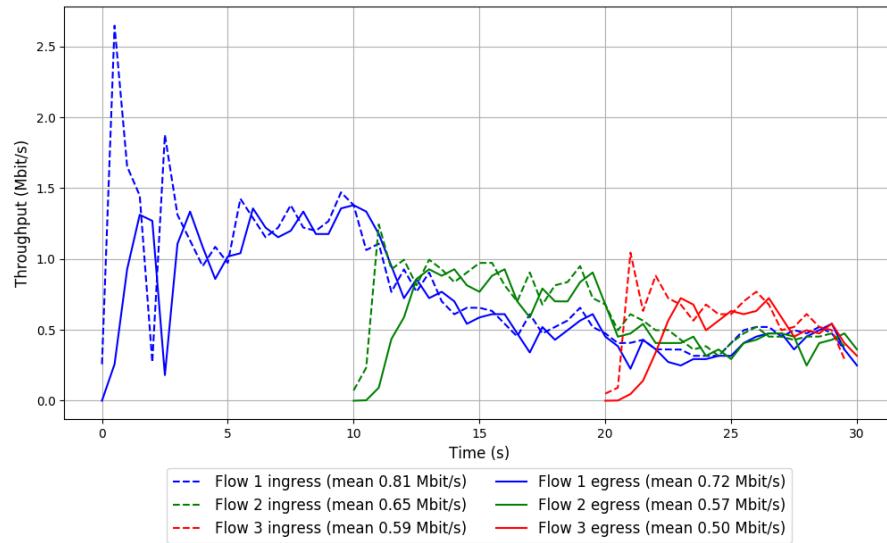


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-07-10 19:06:09
End at: 2018-07-10 19:06:39
Local clock offset: -0.313 ms
Remote clock offset: -3.752 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 357.247 ms
Loss rate: 13.07%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 354.852 ms
Loss rate: 11.58%
-- Flow 2:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 358.970 ms
Loss rate: 13.15%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 354.961 ms
Loss rate: 19.03%
```

Run 2: Report of QUIC Cubic — Data Link

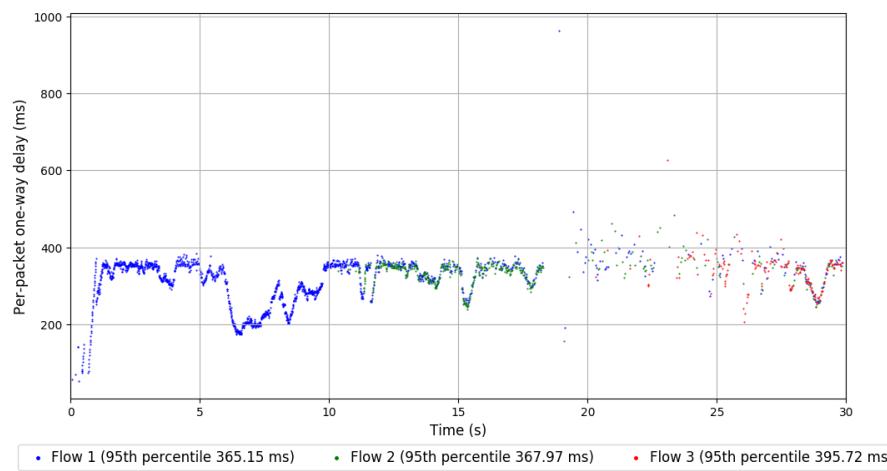
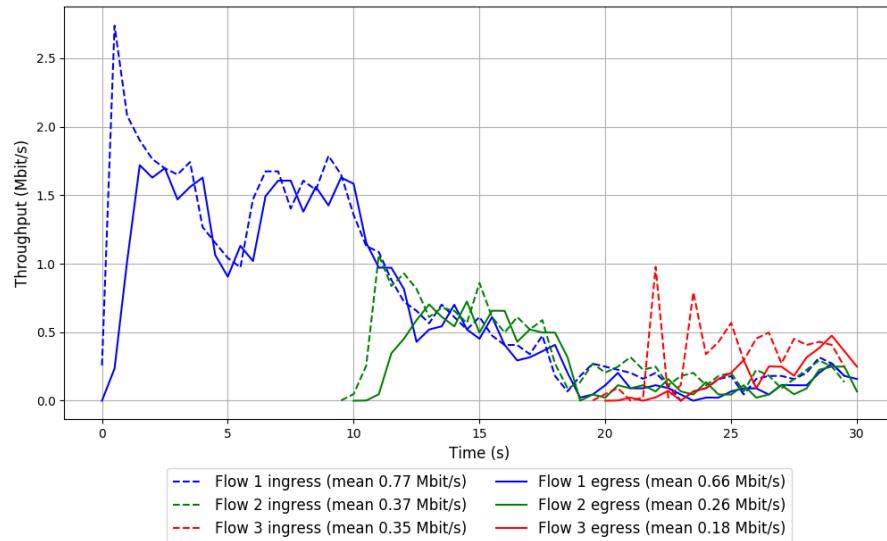


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-07-10 19:24:53
End at: 2018-07-10 19:25:23
Local clock offset: 1.326 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 367.769 ms
Loss rate: 21.58%
-- Flow 1:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 365.149 ms
Loss rate: 14.57%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 367.974 ms
Loss rate: 30.61%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 395.719 ms
Loss rate: 49.11%
```

Run 3: Report of QUIC Cubic — Data Link

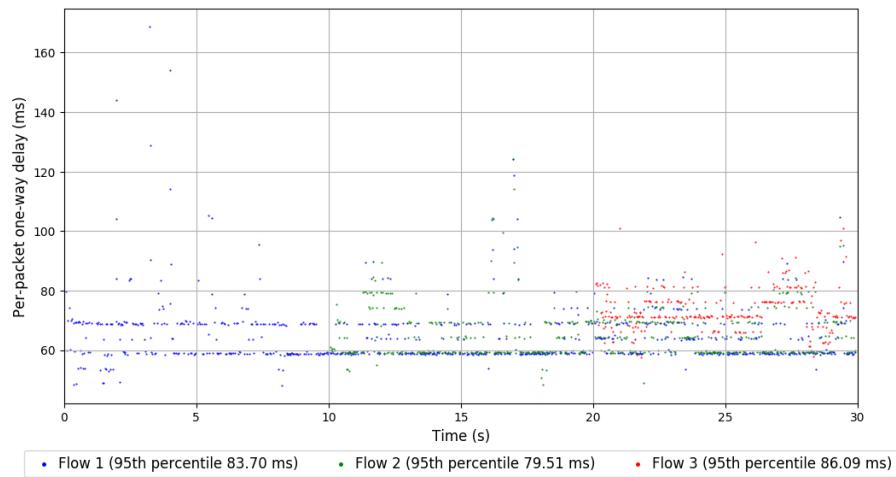
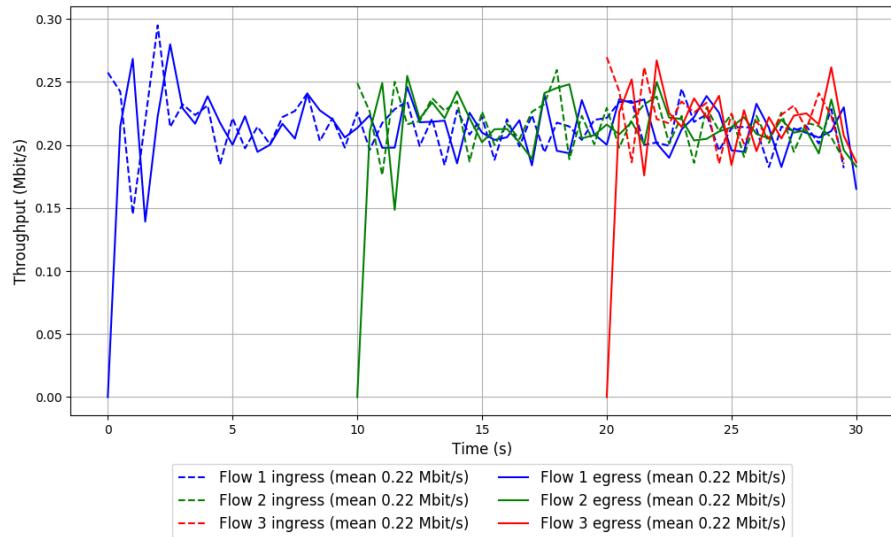


```
Run 1: Statistics of SCReAM

Start at: 2018-07-10 19:01:46
End at: 2018-07-10 19:02:16
Local clock offset: 3.21 ms
Remote clock offset: -5.677 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 82.301 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.705 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 79.514 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.093 ms
Loss rate: 0.70%
```

Run 1: Report of SCReAM — Data Link

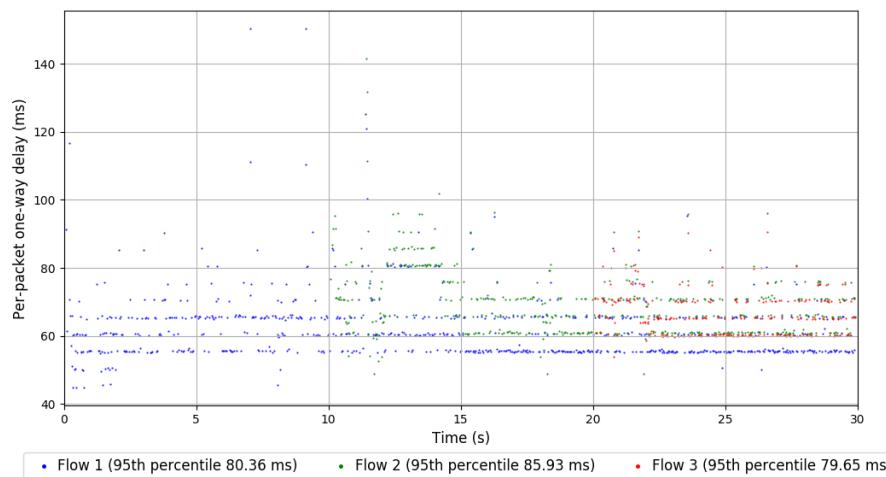
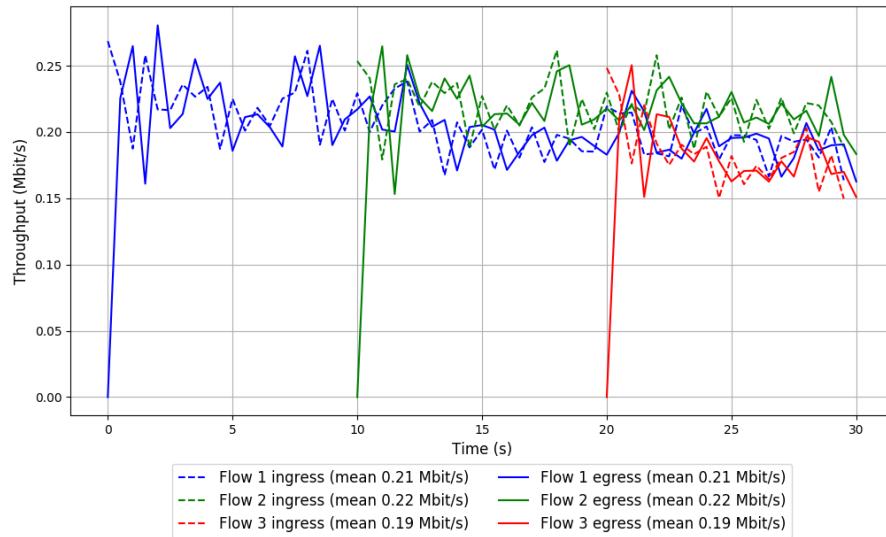


Run 2: Statistics of SCReAM

```
Start at: 2018-07-10 19:20:30
End at: 2018-07-10 19:21:00
Local clock offset: 1.736 ms
Remote clock offset: -0.605 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 81.017 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 80.356 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.928 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 79.650 ms
Loss rate: 0.68%
```

Run 2: Report of SCReAM — Data Link

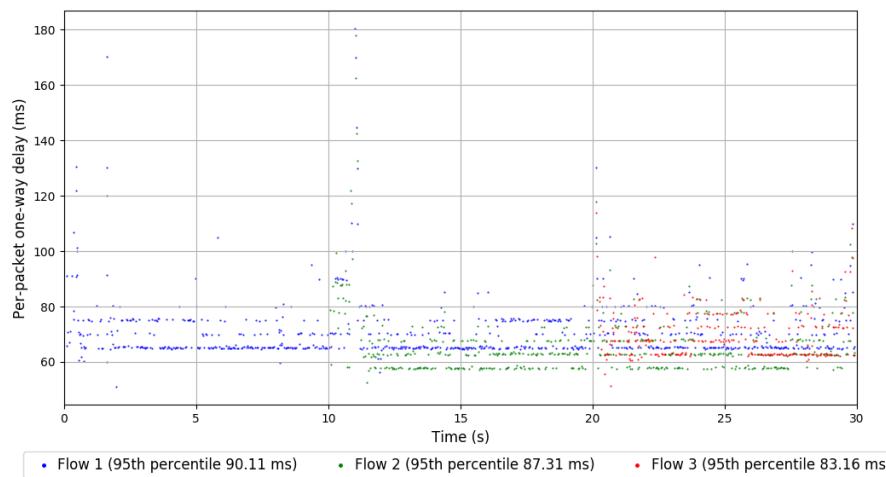
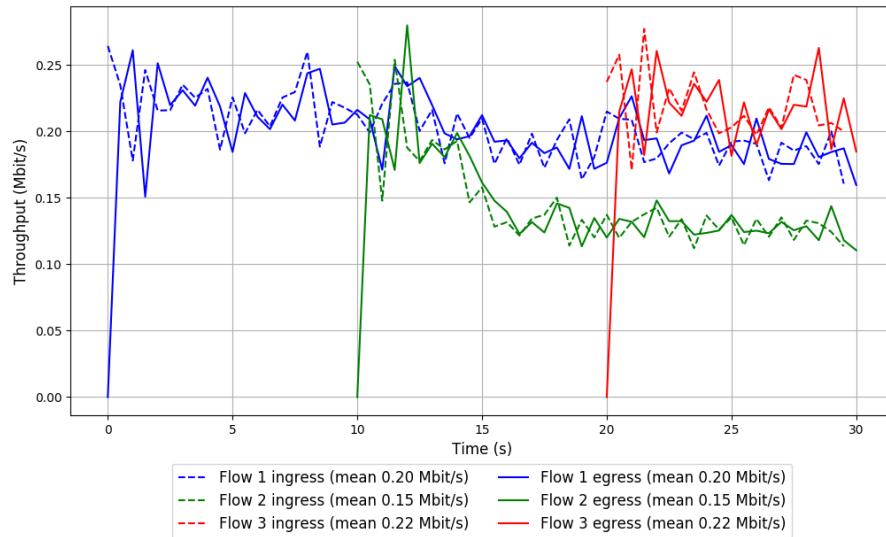


Run 3: Statistics of SCReAM

```
Start at: 2018-07-10 19:39:18
End at: 2018-07-10 19:39:48
Local clock offset: 3.819 ms
Remote clock offset: -5.763 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 87.927 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 90.111 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 87.311 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.159 ms
Loss rate: 0.71%
```

Run 3: Report of SCReAM — Data Link

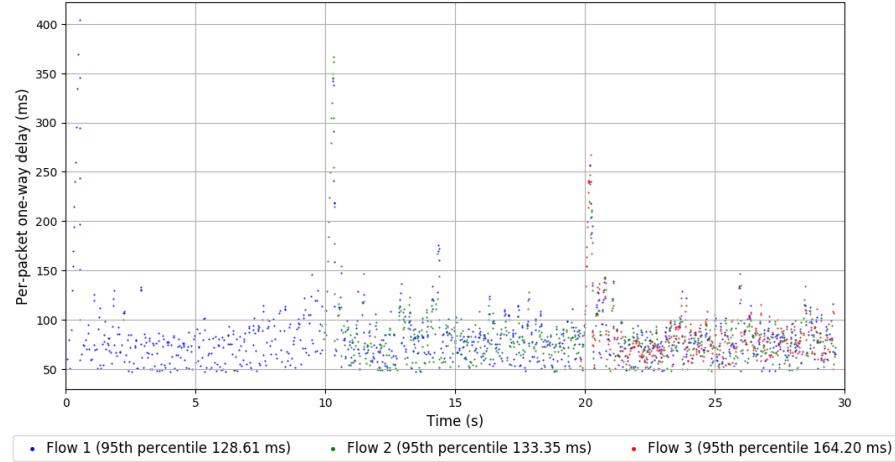
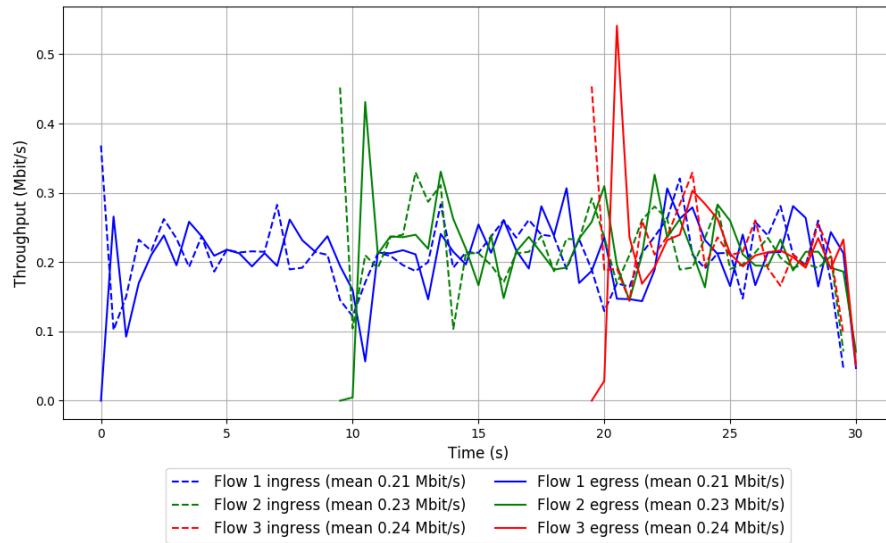


Run 1: Statistics of Sprout

```
Start at: 2018-07-10 18:55:10
End at: 2018-07-10 18:55:40
Local clock offset: 0.88 ms
Remote clock offset: -7.865 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 133.793 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 128.610 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 133.350 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 164.198 ms
Loss rate: 1.97%
```

Run 1: Report of Sprout — Data Link

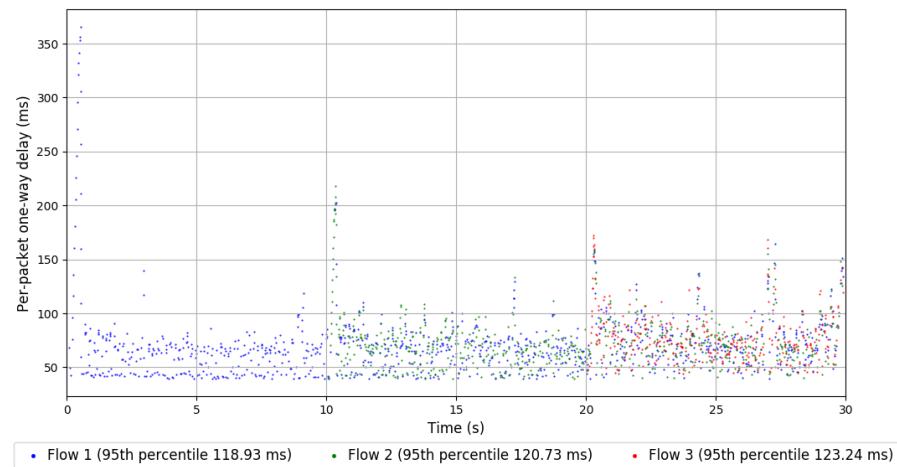
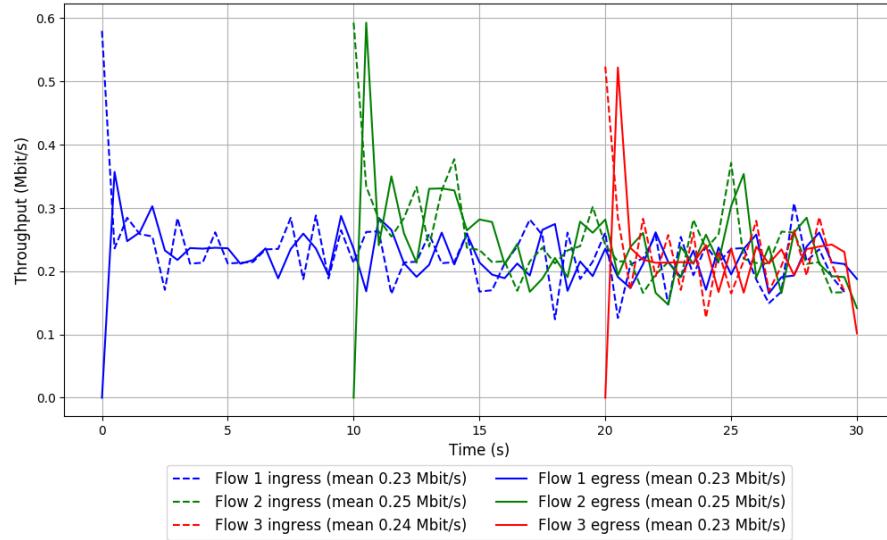


Run 2: Statistics of Sprout

```
Start at: 2018-07-10 19:13:57
End at: 2018-07-10 19:14:27
Local clock offset: -3.535 ms
Remote clock offset: -2.215 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 122.344 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 118.926 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 120.726 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 123.244 ms
Loss rate: 1.98%
```

Run 2: Report of Sprout — Data Link

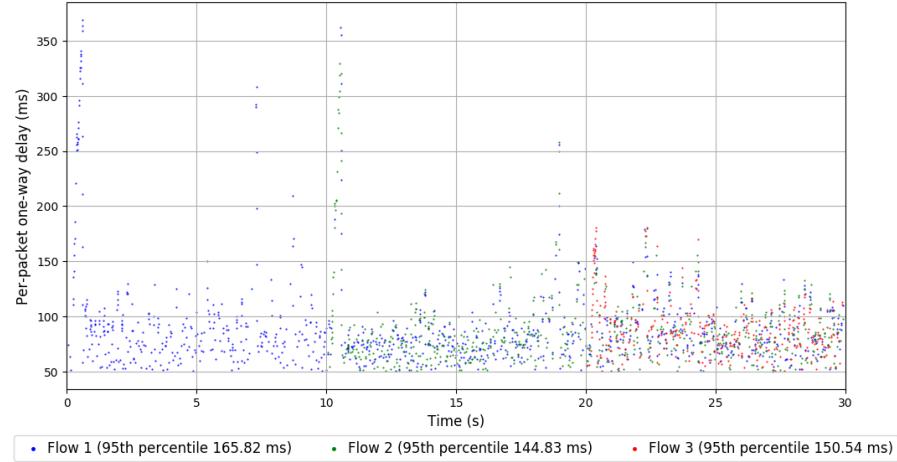
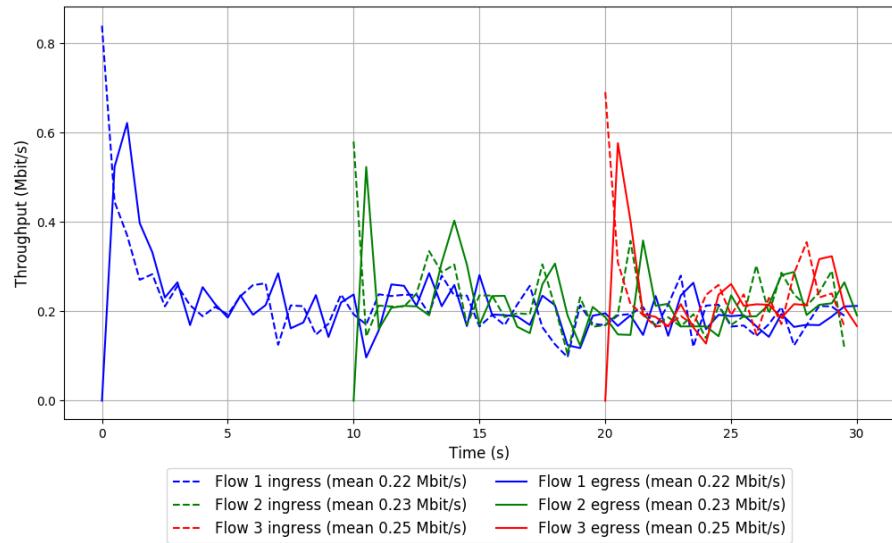


Run 3: Statistics of Sprout

```
Start at: 2018-07-10 19:32:40
End at: 2018-07-10 19:33:10
Local clock offset: 3.122 ms
Remote clock offset: -2.385 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 155.395 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 165.822 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 144.834 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 150.536 ms
Loss rate: 1.01%
```

Run 3: Report of Sprout — Data Link

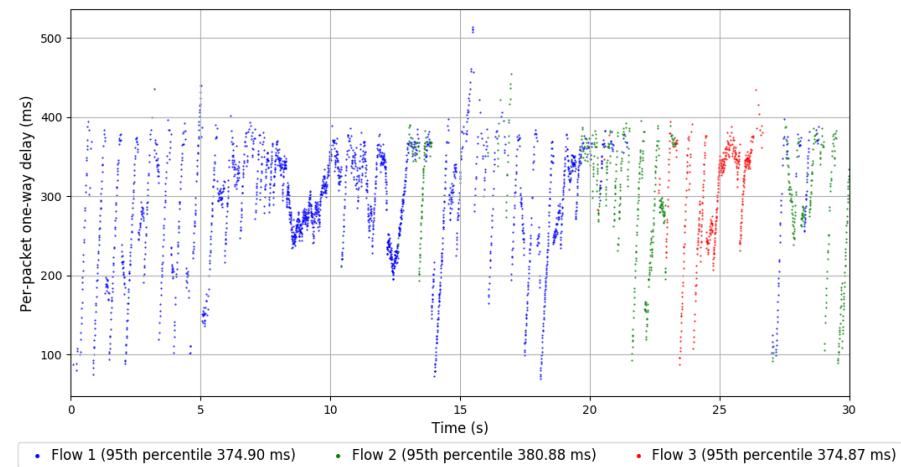
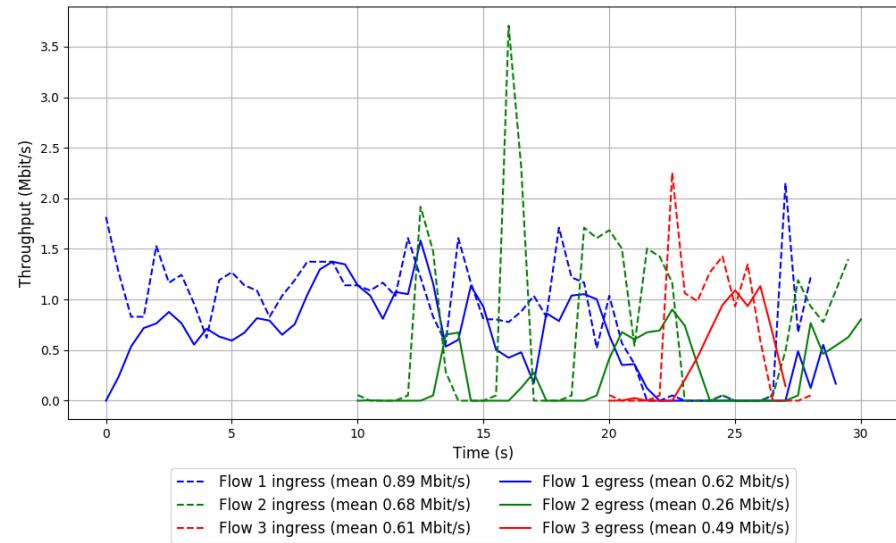


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-07-10 18:52:58
End at: 2018-07-10 18:53:28
Local clock offset: 2.273 ms
Remote clock offset: -7.809 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 376.439 ms
Loss rate: 40.97%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 374.897 ms
Loss rate: 30.18%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 380.875 ms
Loss rate: 62.39%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 374.866 ms
Loss rate: 37.67%
```

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

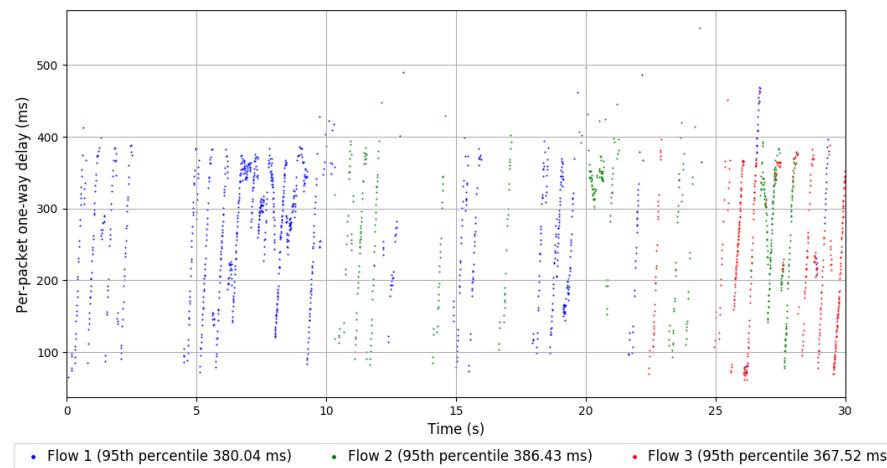
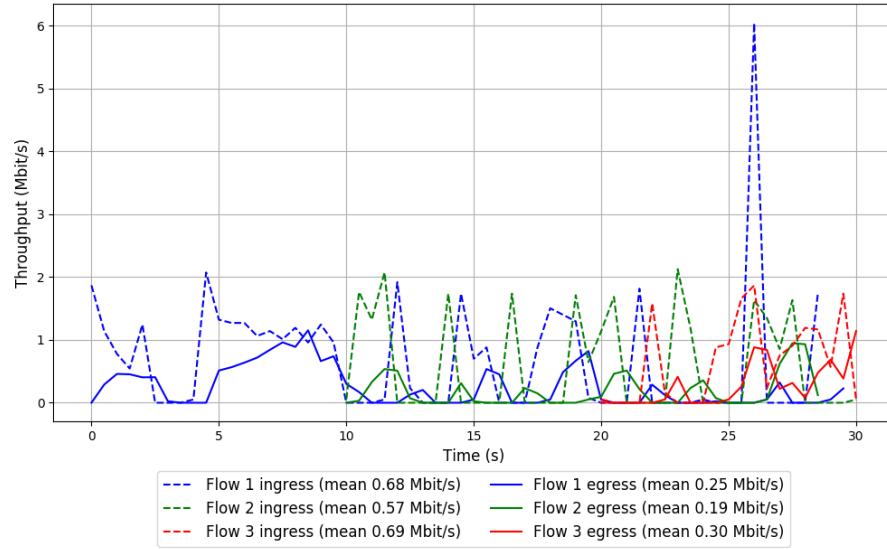


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-07-10 19:11:45
End at: 2018-07-10 19:12:15
Local clock offset: 2.66 ms
Remote clock offset: -1.793 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 378.624 ms
Loss rate: 63.91%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 380.039 ms
Loss rate: 62.68%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 386.426 ms
Loss rate: 69.75%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 367.520 ms
Loss rate: 57.79%
```

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

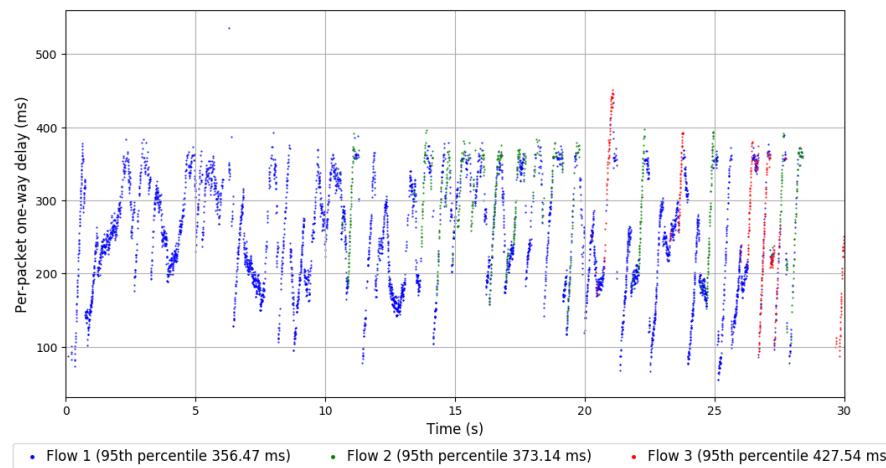
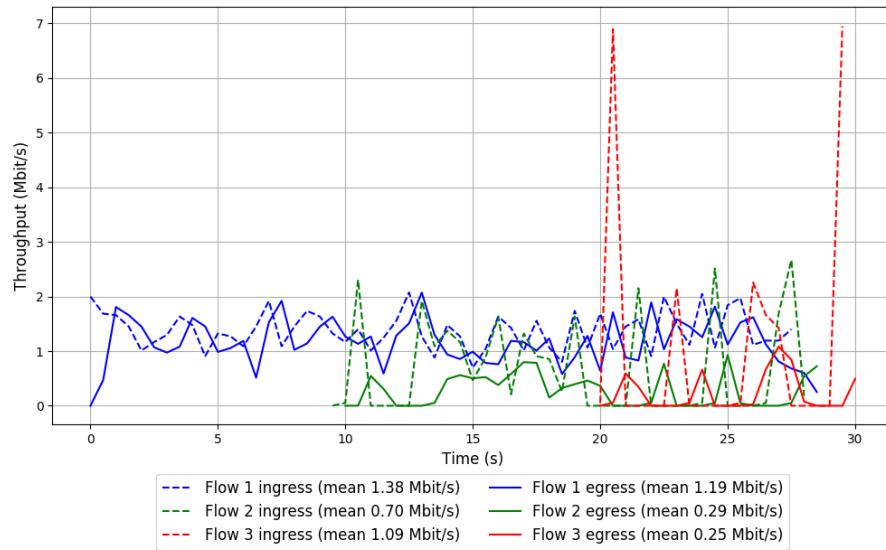


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-07-10 19:30:29
End at: 2018-07-10 19:30:59
Local clock offset: 0.364 ms
Remote clock offset: -0.962 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 361.560 ms
Loss rate: 33.65%
-- Flow 1:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 356.466 ms
Loss rate: 13.16%
-- Flow 2:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 373.145 ms
Loss rate: 59.09%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 427.544 ms
Loss rate: 77.20%
```

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

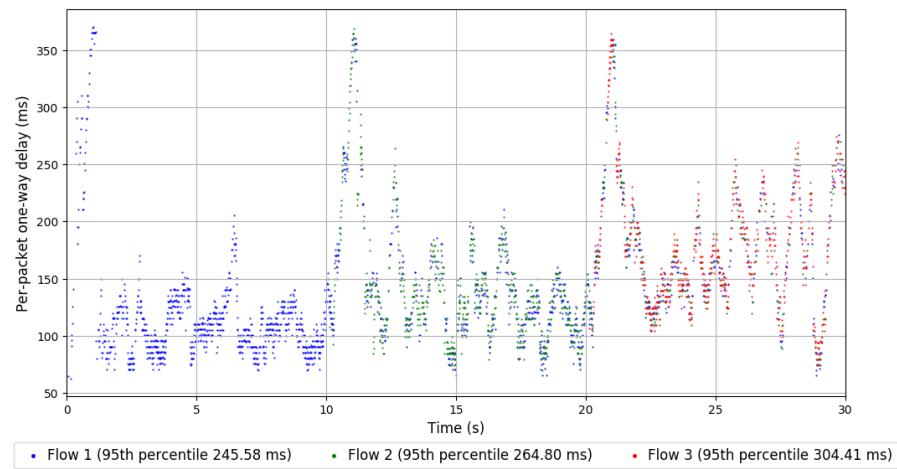
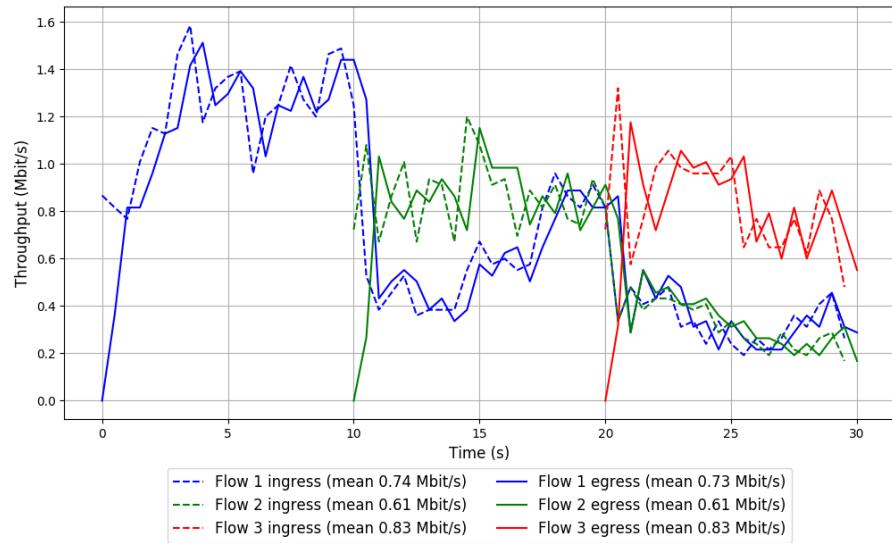


Run 1: Statistics of TCP Vegas

```
Start at: 2018-07-10 18:58:27
End at: 2018-07-10 18:58:57
Local clock offset: 0.715 ms
Remote clock offset: -7.047 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 259.810 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 245.580 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 264.796 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 304.406 ms
Loss rate: 1.45%
```

Run 1: Report of TCP Vegas — Data Link

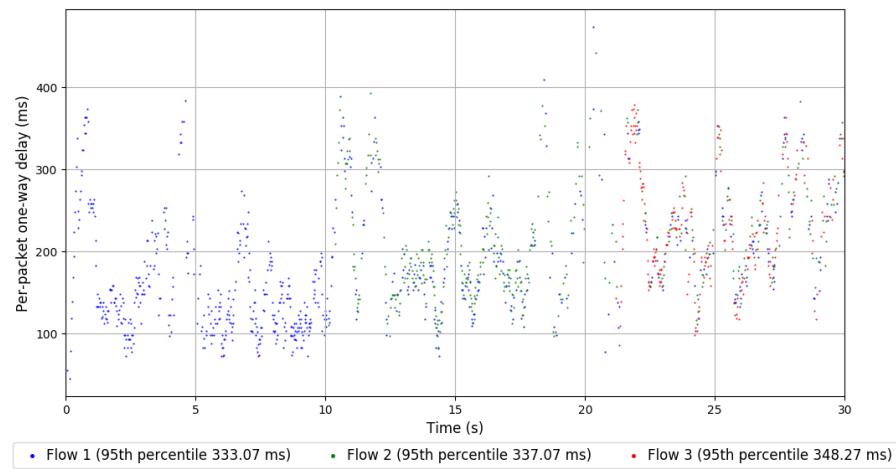
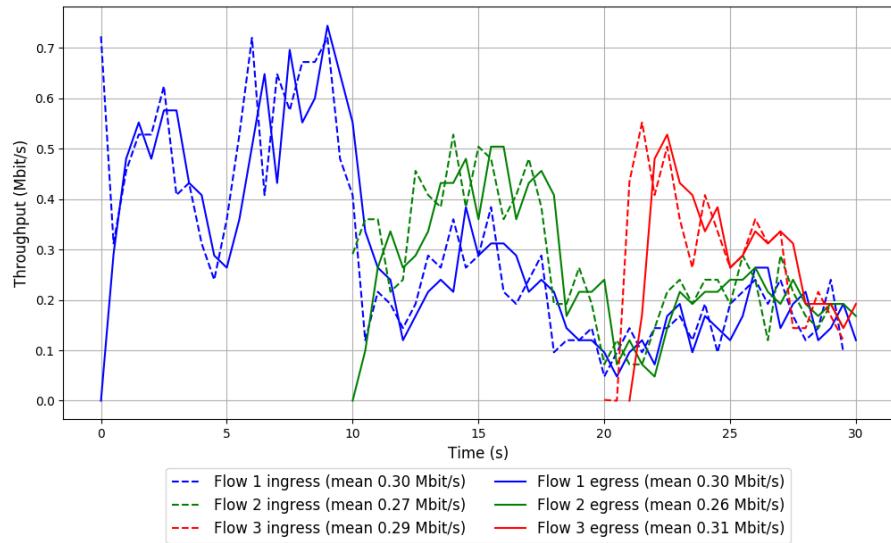


Run 2: Statistics of TCP Vegas

```
Start at: 2018-07-10 19:17:13
End at: 2018-07-10 19:17:43
Local clock offset: 0.812 ms
Remote clock offset: -0.578 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 338.386 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 333.069 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 337.073 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 348.266 ms
Loss rate: 2.16%
```

Run 2: Report of TCP Vegas — Data Link

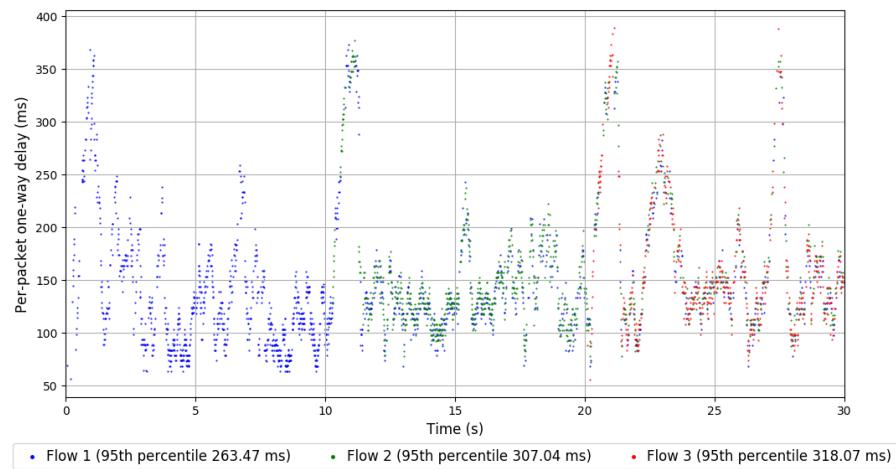
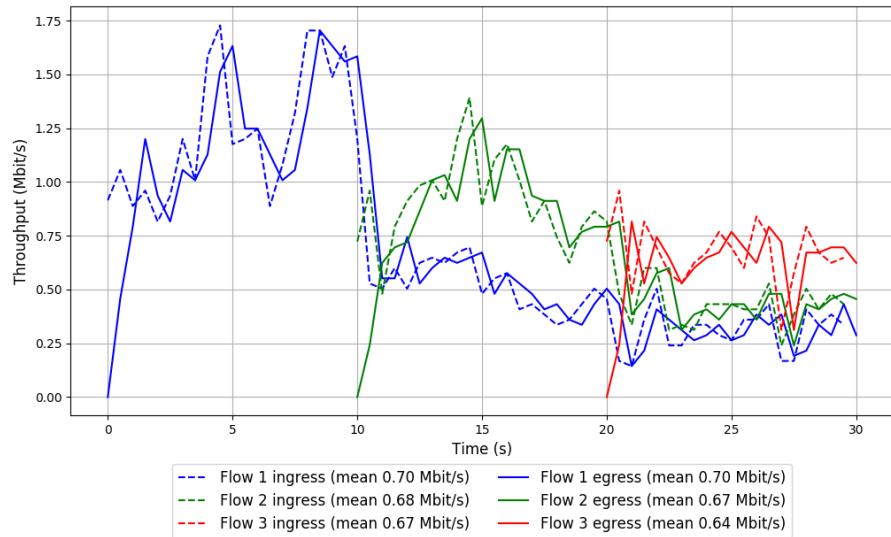


Run 3: Statistics of TCP Vegas

```
Start at: 2018-07-10 19:35:56
End at: 2018-07-10 19:36:26
Local clock offset: 0.719 ms
Remote clock offset: -4.16 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 287.929 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 263.466 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 307.041 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 318.068 ms
Loss rate: 4.86%
```

Run 3: Report of TCP Vegas — Data Link

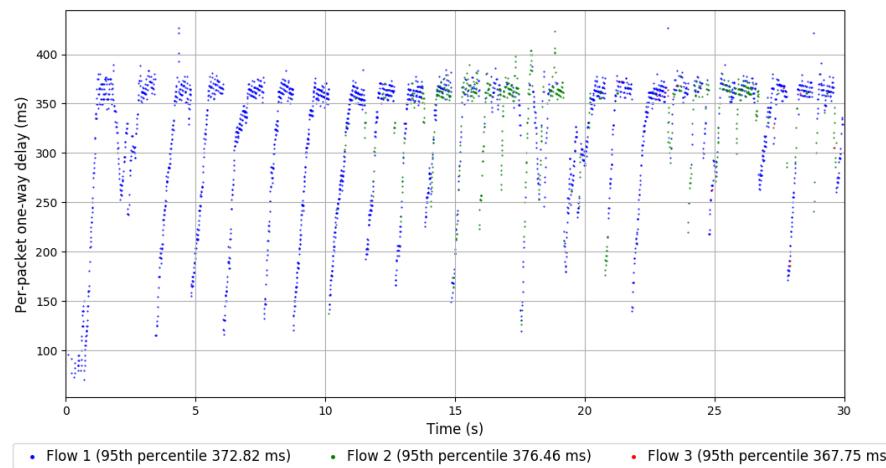
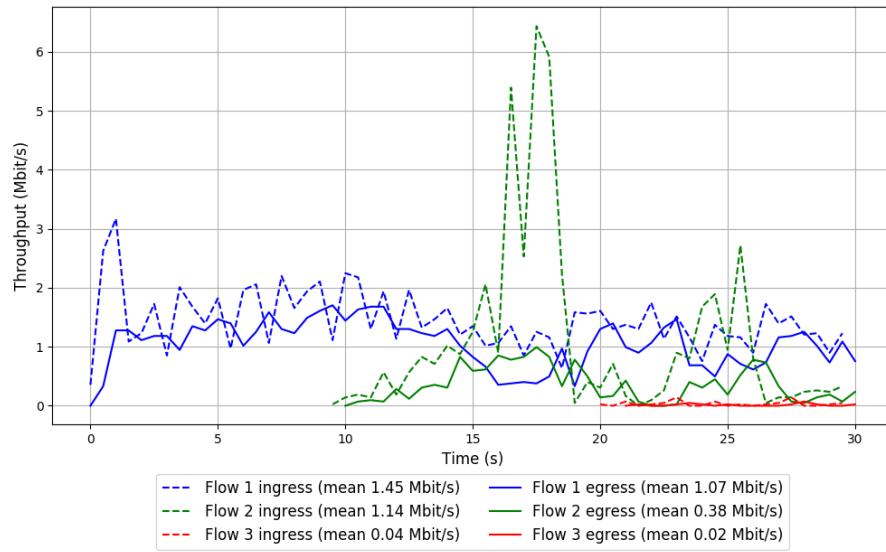


Run 1: Statistics of Verus

```
Start at: 2018-07-10 19:03:57
End at: 2018-07-10 19:04:27
Local clock offset: 3.201 ms
Remote clock offset: -3.685 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 373.078 ms
Loss rate: 40.47%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 372.823 ms
Loss rate: 26.52%
-- Flow 2:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 376.457 ms
Loss rate: 67.10%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 367.755 ms
Loss rate: 58.62%
```

Run 1: Report of Verus — Data Link

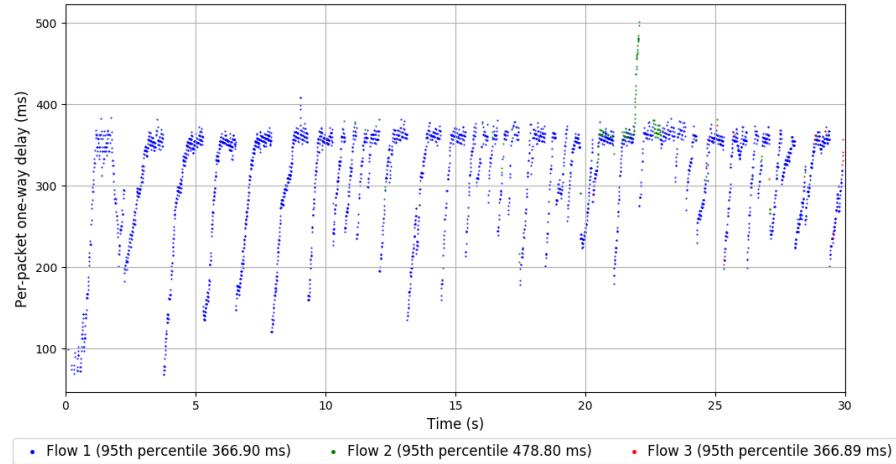
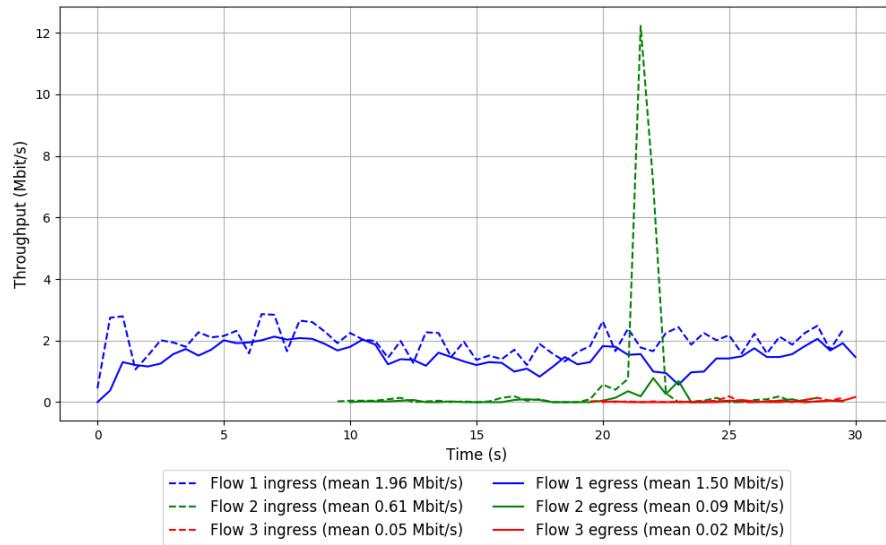


Run 2: Statistics of Verus

```
Start at: 2018-07-10 19:22:41
End at: 2018-07-10 19:23:11
Local clock offset: 0.441 ms
Remote clock offset: -1.054 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 368.108 ms
Loss rate: 34.09%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 366.900 ms
Loss rate: 23.74%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 478.797 ms
Loss rate: 85.90%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 366.891 ms
Loss rate: 48.65%
```

Run 2: Report of Verus — Data Link

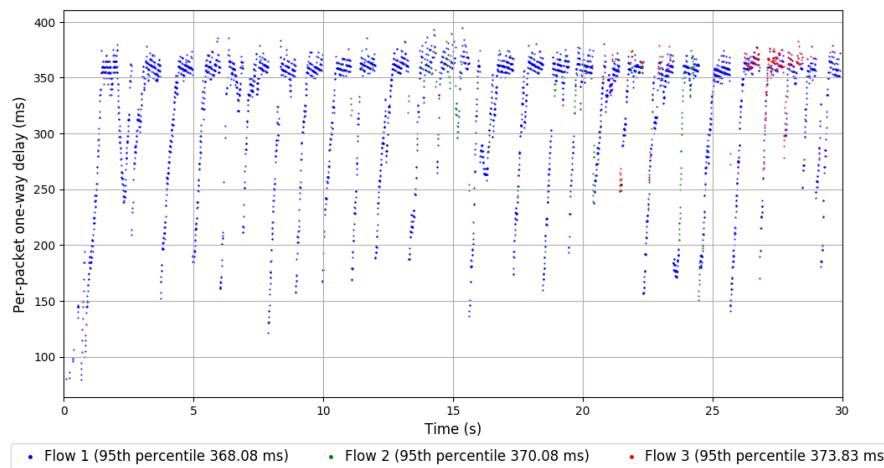
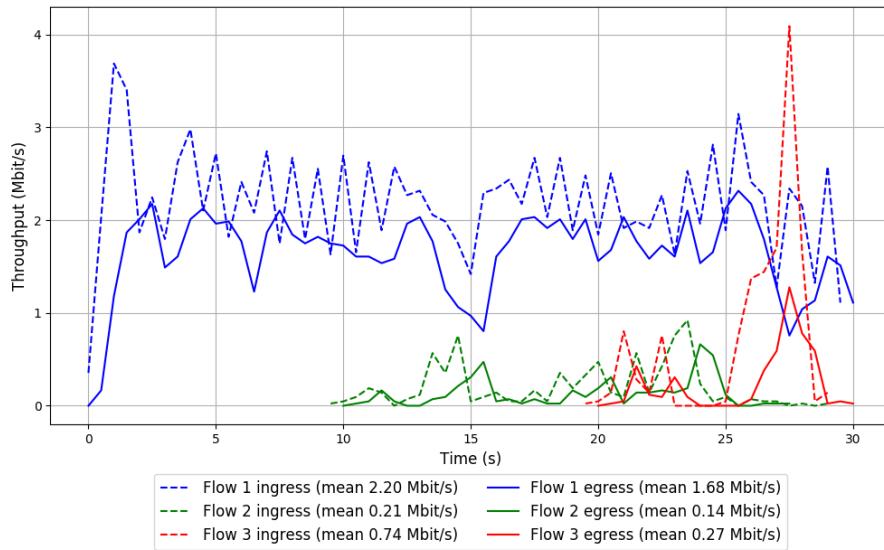


Run 3: Statistics of Verus

```
Start at: 2018-07-10 19:41:29
End at: 2018-07-10 19:41:59
Local clock offset: 3.247 ms
Remote clock offset: -6.355 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 368.726 ms
Loss rate: 28.35%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 368.079 ms
Loss rate: 23.95%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 370.080 ms
Loss rate: 41.37%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 373.830 ms
Loss rate: 63.62%
```

Run 3: Report of Verus — Data Link

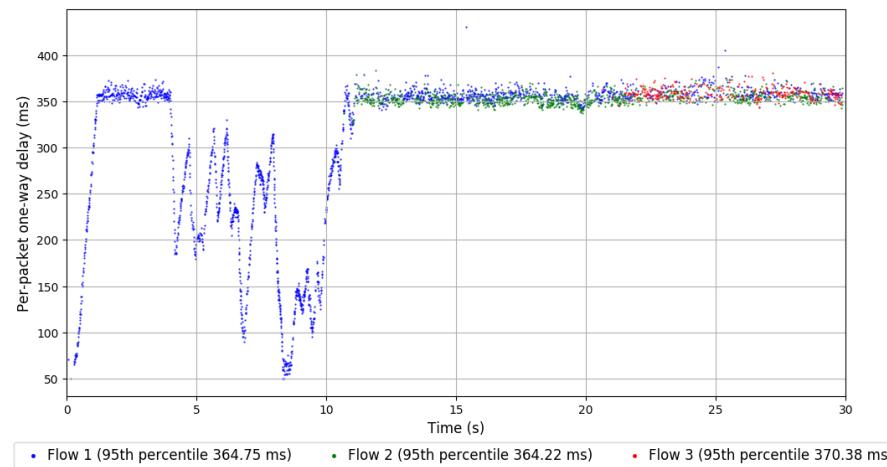
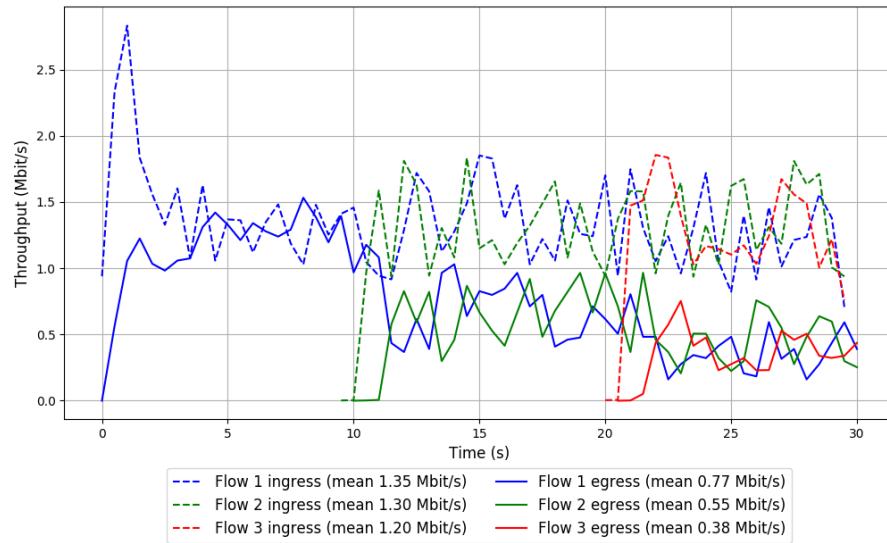


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2018-07-10 18:59:33
End at: 2018-07-10 19:00:03
Local clock offset: 0.583 ms
Remote clock offset: -5.501 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 365.545 ms
Loss rate: 52.17%
-- Flow 1:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 364.753 ms
Loss rate: 43.03%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 364.218 ms
Loss rate: 57.95%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 370.384 ms
Loss rate: 70.74%
```

Run 1: Report of PCC-Vivace — Data Link

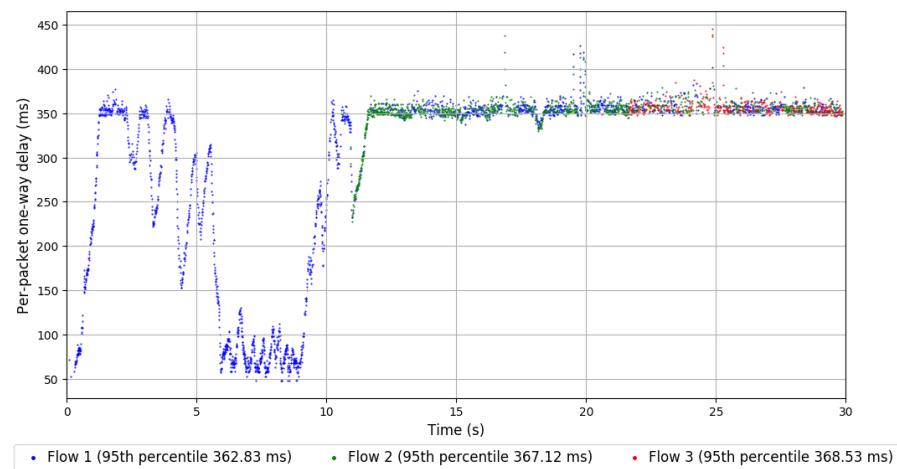
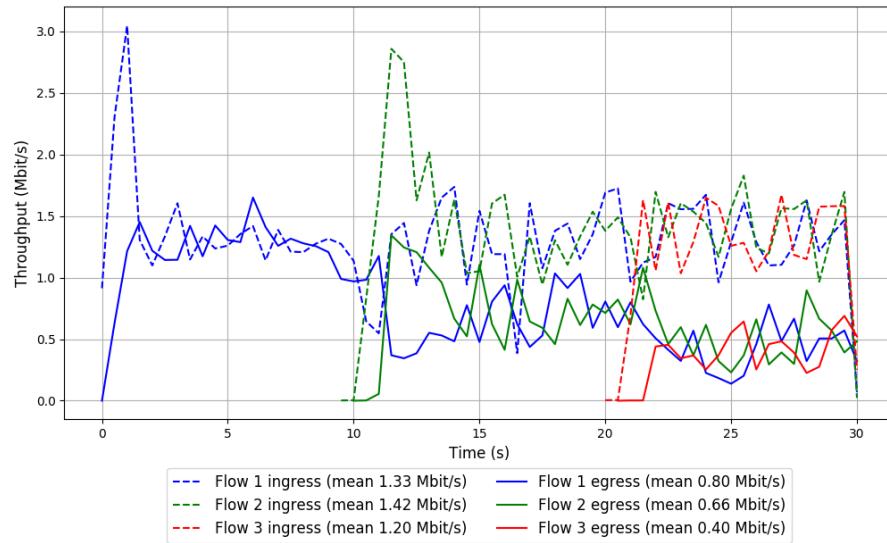


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-07-10 19:18:19
End at: 2018-07-10 19:18:49
Local clock offset: 2.44 ms
Remote clock offset: -1.532 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 364.719 ms
Loss rate: 49.83%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 362.828 ms
Loss rate: 40.09%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 367.120 ms
Loss rate: 54.82%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 368.527 ms
Loss rate: 70.02%
```

Run 2: Report of PCC-Vivace — Data Link

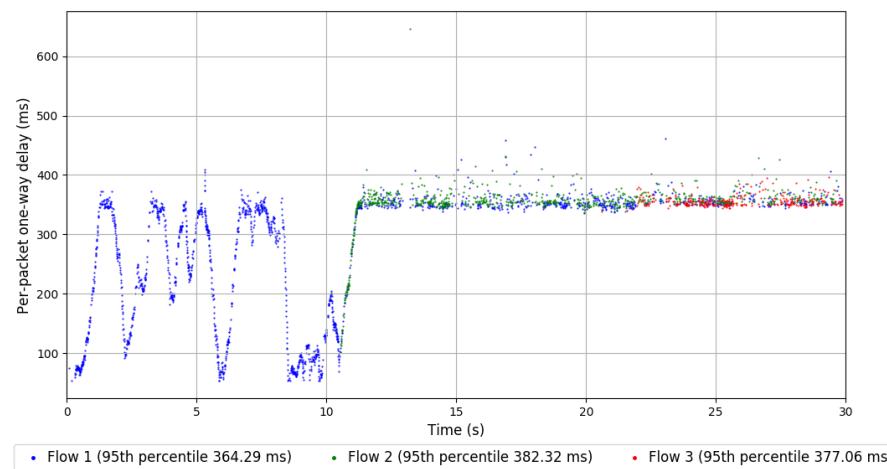
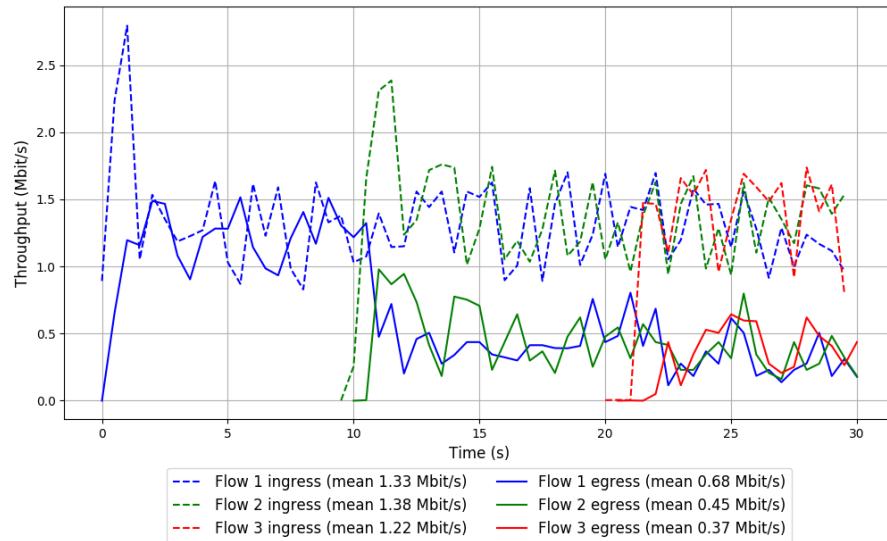


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-07-10 19:37:01
End at: 2018-07-10 19:37:31
Local clock offset: -0.469 ms
Remote clock offset: -4.87 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 371.169 ms
Loss rate: 59.13%
-- Flow 1:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 364.287 ms
Loss rate: 49.09%
-- Flow 2:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 382.316 ms
Loss rate: 67.97%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 377.061 ms
Loss rate: 71.99%
```

Run 3: Report of PCC-Vivace — Data Link

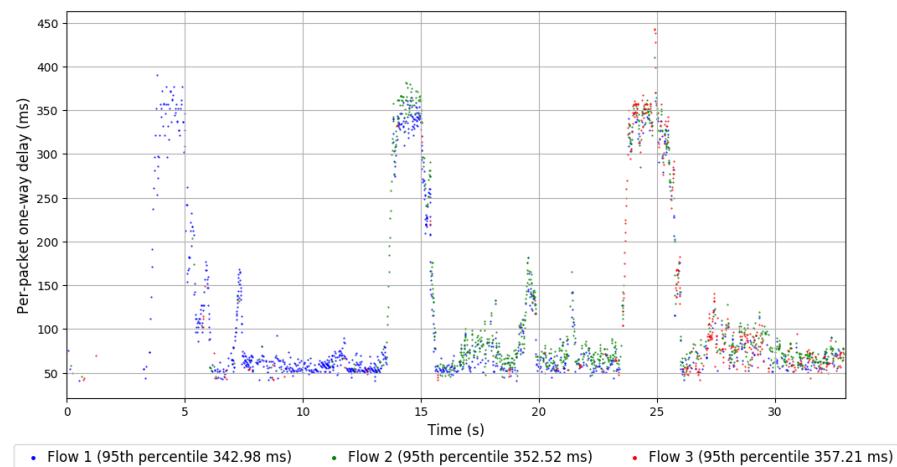
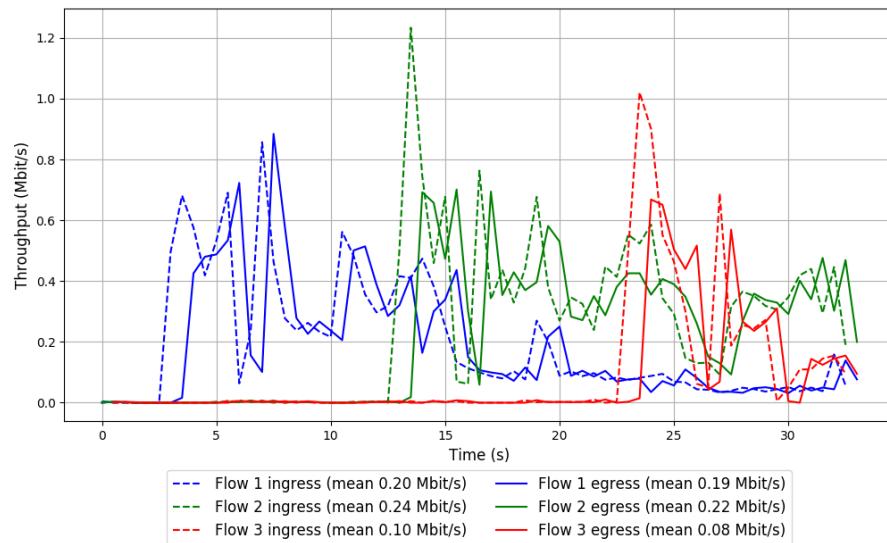


```
Run 1: Statistics of WebRTC media

Start at: 2018-07-10 18:57:22
End at: 2018-07-10 18:57:52
Local clock offset: -2.462 ms
Remote clock offset: -7.602 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 351.031 ms
Loss rate: 8.69%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 342.976 ms
Loss rate: 7.31%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 352.517 ms
Loss rate: 7.33%
-- Flow 3:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 357.208 ms
Loss rate: 15.03%
```

Run 1: Report of WebRTC media — Data Link

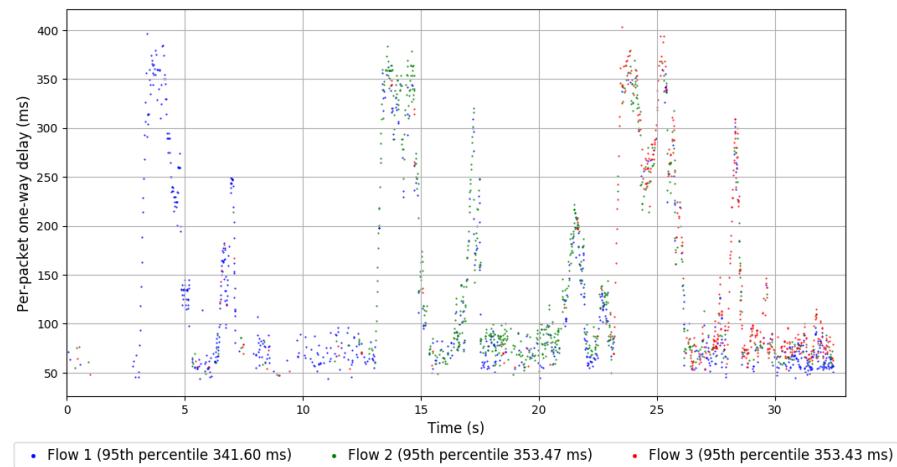
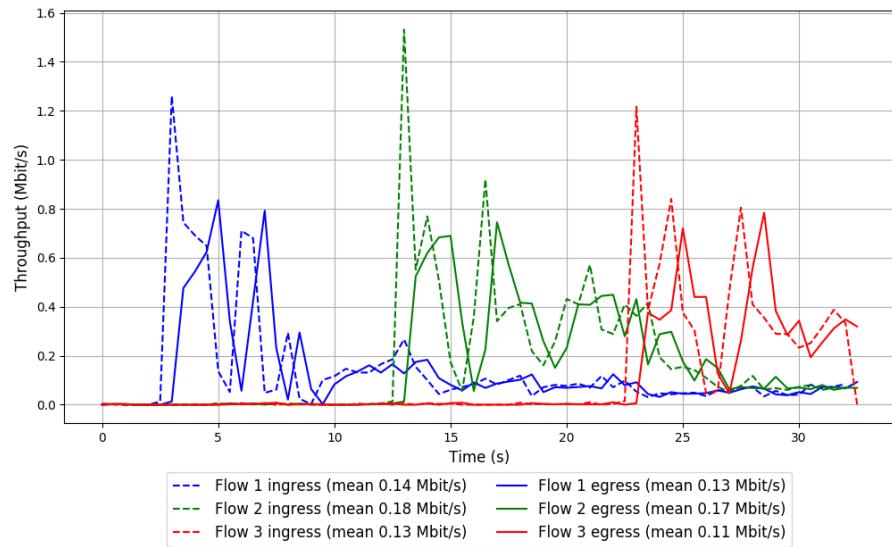


Run 2: Statistics of WebRTC media

```
Start at: 2018-07-10 19:16:08
End at: 2018-07-10 19:16:38
Local clock offset: 1.937 ms
Remote clock offset: -0.482 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 348.724 ms
Loss rate: 9.13%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 341.597 ms
Loss rate: 7.71%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 353.471 ms
Loss rate: 7.72%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 353.434 ms
Loss rate: 12.78%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

```
Start at: 2018-07-10 19:34:50
End at: 2018-07-10 19:35:20
Local clock offset: -0.263 ms
Remote clock offset: -3.9 ms

# Below is generated by plot.py at 2018-07-10 19:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 356.969 ms
Loss rate: 15.80%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 362.437 ms
Loss rate: 19.03%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 346.957 ms
Loss rate: 8.41%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 362.886 ms
Loss rate: 22.65%
```

Run 3: Report of WebRTC media — Data Link

