

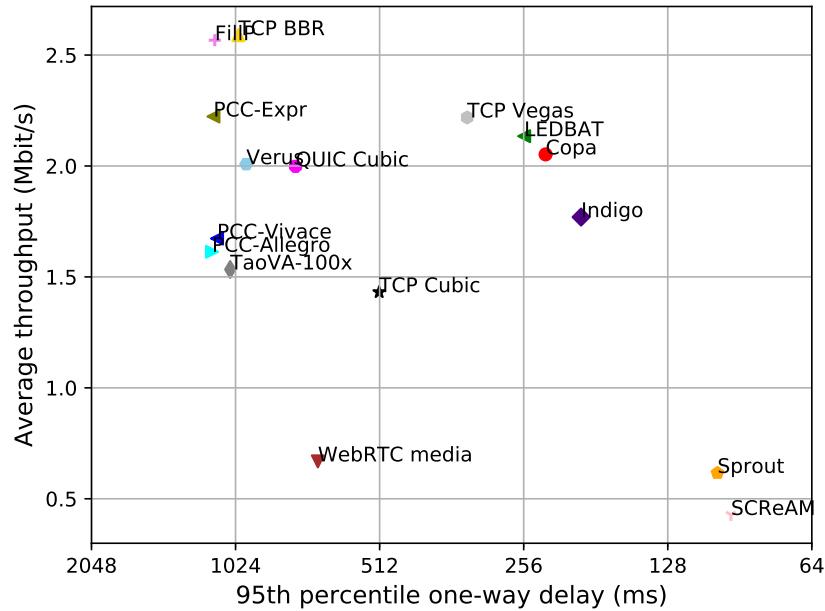
Pantheon Report

Generated at 2018-06-05 10:54:13 (UTC).
Data path: AWS India 1 Ethernet (*local*) → India ppp0 ppp0 (*remote*).
Repeated the test of 16 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.

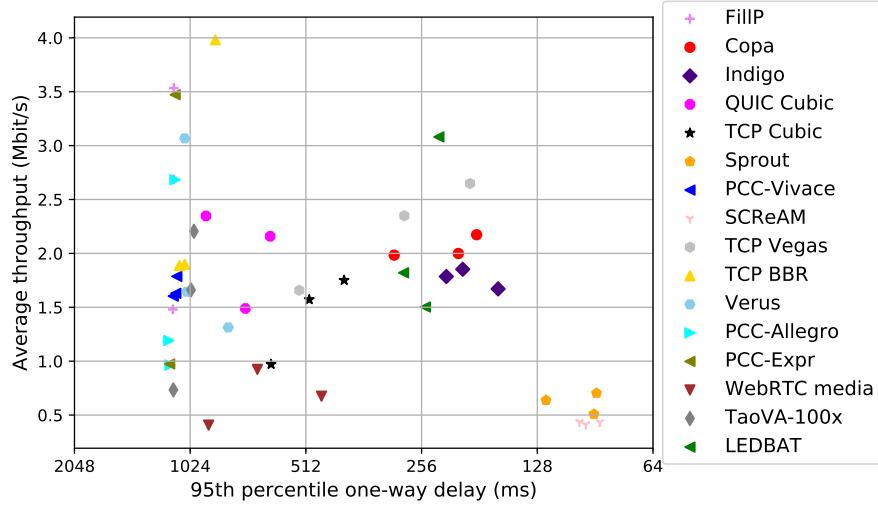
Git summary:

```
branch: master @ 227fdf9a3757f17b88537cce5743a33037a3d2
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
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 @ c838669682f0c19f6baf92afc9a596a406d48c1f
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 AWS India 1 to India ppp0, 3 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



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



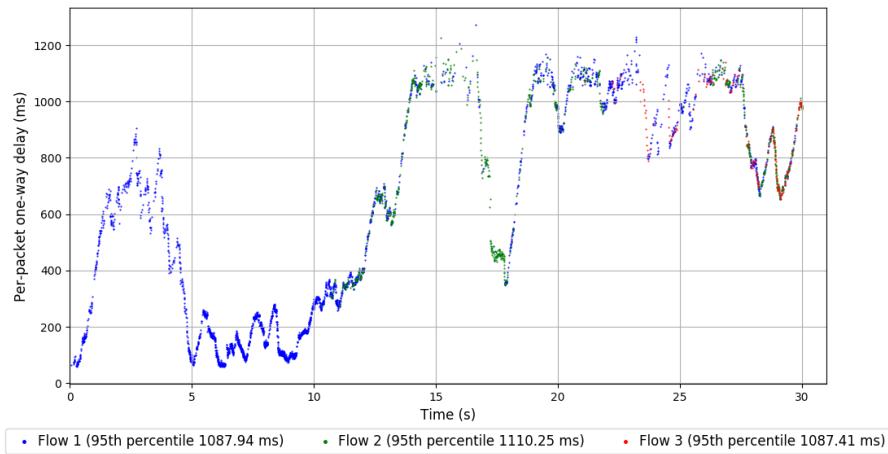
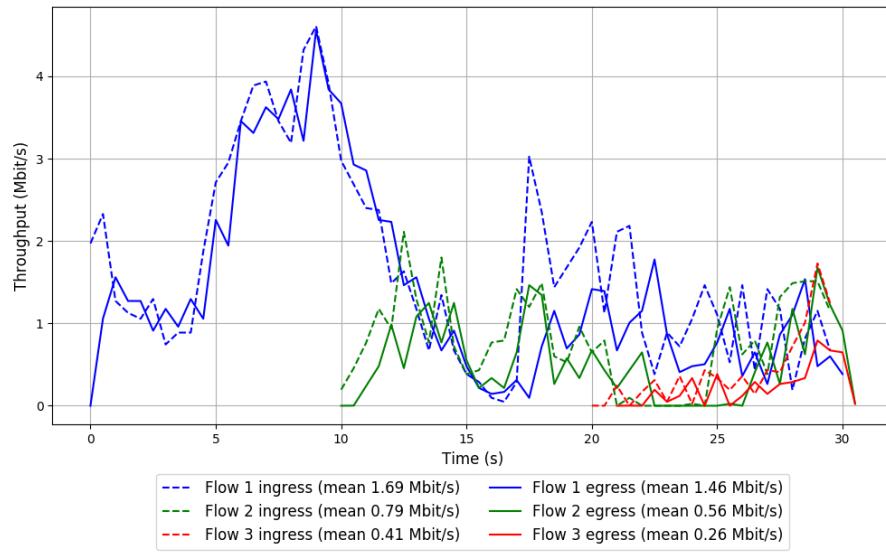
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	1.96	0.64	0.67	998.21	1033.19	871.17	6.92	13.82	20.91
Copa		1.26	0.89	0.60	214.81	235.95	266.45	0.45	0.85	1.81
TCP Cubic		0.78	0.60	0.77	462.53	556.97	549.23	1.63	3.07	3.59
FillP		1.80	0.86	0.78	1126.76	1130.35	1141.95	66.19	42.13	65.34
Indigo		0.96	0.68	1.10	173.10	188.25	274.15	0.10	0.06	0.48
LEDBAT		1.25	0.97	0.76	248.02	258.81	280.86	0.50	0.90	1.62
PCC-Allegro		1.09	0.64	0.37	1131.11	1132.89	1147.99	56.76	77.09	87.21
PCC-Expr		1.59	1.00	0.00	1137.32	1141.67	1082.09	73.43	86.08	92.31
QUIC Cubic		1.28	0.70	0.83	742.09	770.77	943.99	2.16	4.27	6.70
SCReAM		0.22	0.22	0.21	95.10	91.50	103.29	0.11	0.17	0.30
Sprout		0.31	0.31	0.30	94.77	96.33	112.74	0.30	0.07	0.13
TaoVA-100x		0.89	0.75	0.49	1008.18	1017.38	1114.44	24.09	10.90	51.20
TCP Vegas		1.19	0.96	1.18	244.21	273.68	500.02	0.24	0.43	1.08
Verus		1.40	0.50	0.91	914.22	889.78	974.71	12.26	8.12	12.34
PCC-Vivace		1.01	0.76	0.59	1109.55	1129.49	1126.48	27.93	46.87	54.47
WebRTC media		0.38	0.17	0.12	687.06	723.98	669.76	2.53	3.75	6.65

Run 1: Statistics of TCP BBR

```
Start at: 2018-06-05 10:03:56
End at: 2018-06-05 10:04:26
Local clock offset: -1.355 ms
Remote clock offset: 12.443 ms

# Below is generated by plot.py at 2018-06-05 10:53:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 1092.938 ms
Loss rate: 19.56%
-- Flow 1:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 1087.945 ms
Loss rate: 14.31%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 1110.249 ms
Loss rate: 30.31%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 1087.414 ms
Loss rate: 42.95%
```

Run 1: Report of TCP BBR — Data Link

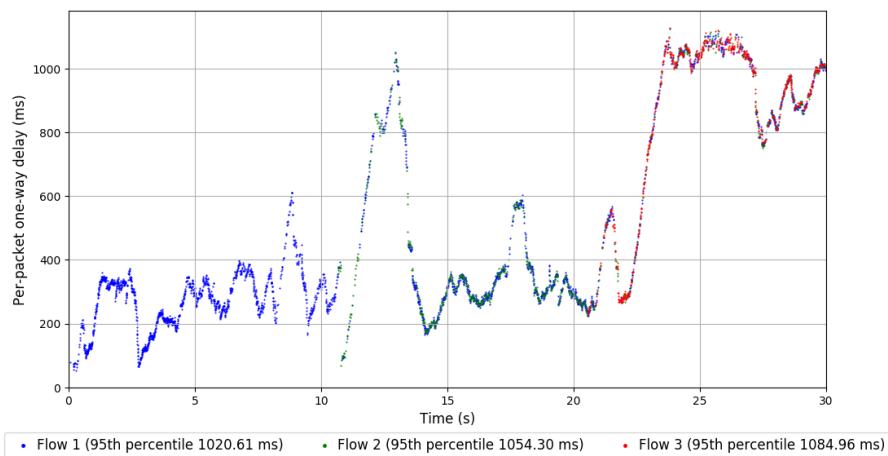
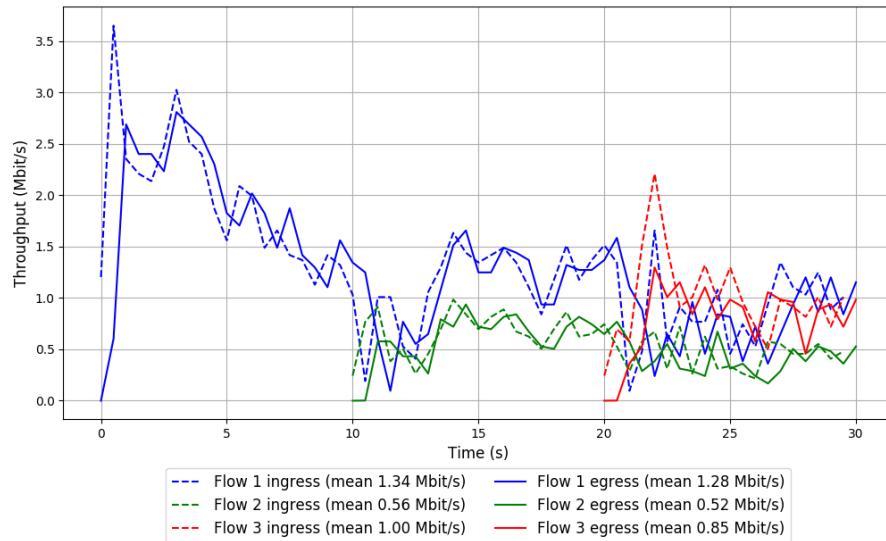


Run 2: Statistics of TCP BBR

```
Start at: 2018-06-05 10:21:44
End at: 2018-06-05 10:22:14
Local clock offset: -0.26 ms
Remote clock offset: 6.869 ms

# Below is generated by plot.py at 2018-06-05 10:53:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 1057.622 ms
Loss rate: 7.14%
-- Flow 1:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 1020.608 ms
Loss rate: 4.55%
-- Flow 2:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 1054.299 ms
Loss rate: 7.81%
-- Flow 3:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 1084.964 ms
Loss rate: 16.78%
```

Run 2: Report of TCP BBR — Data Link

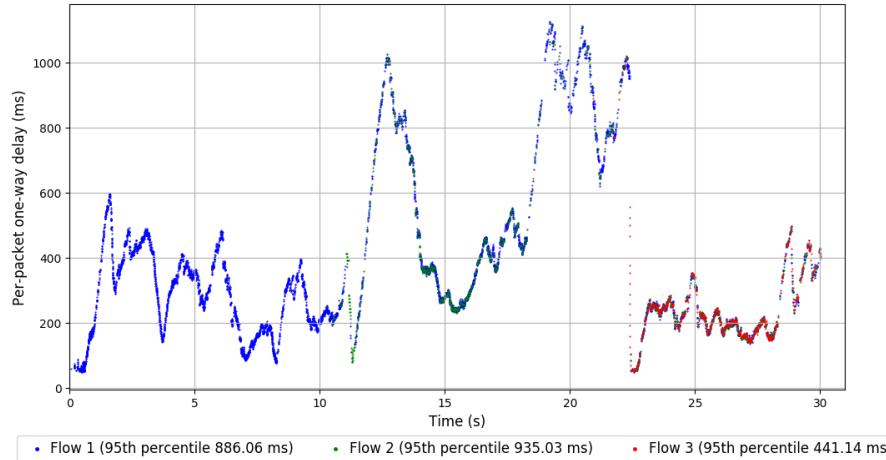
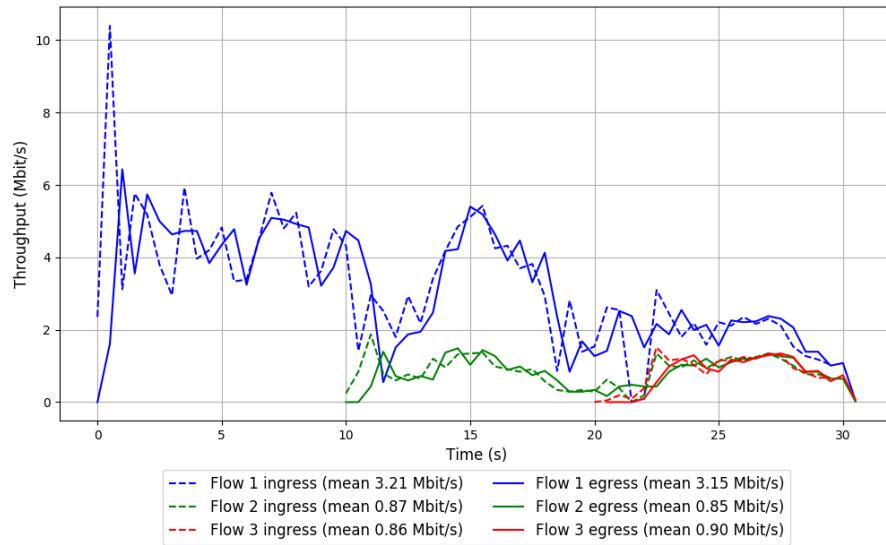


Run 3: Statistics of TCP BBR

```
Start at: 2018-06-05 10:39:24
End at: 2018-06-05 10:39:54
Local clock offset: -0.926 ms
Remote clock offset: -2.843 ms

# Below is generated by plot.py at 2018-06-05 10:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 880.613 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 886.064 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 935.035 ms
Loss rate: 3.33%
-- Flow 3:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 441.145 ms
Loss rate: 2.99%
```

Run 3: Report of TCP BBR — Data Link

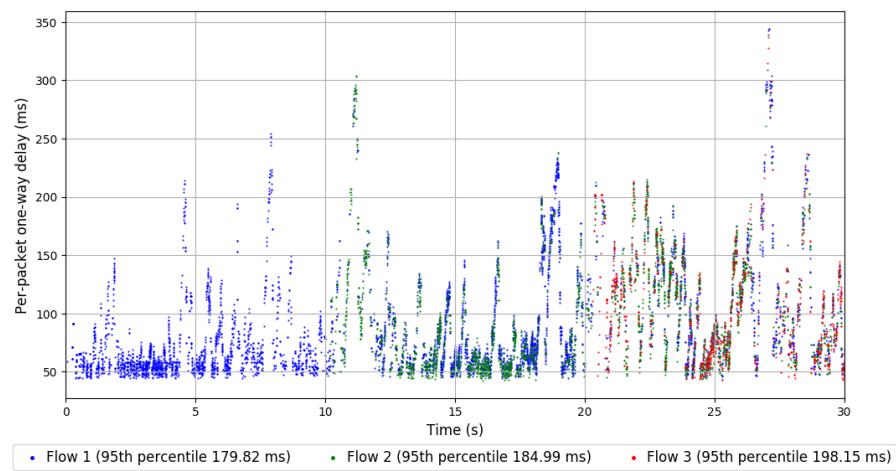
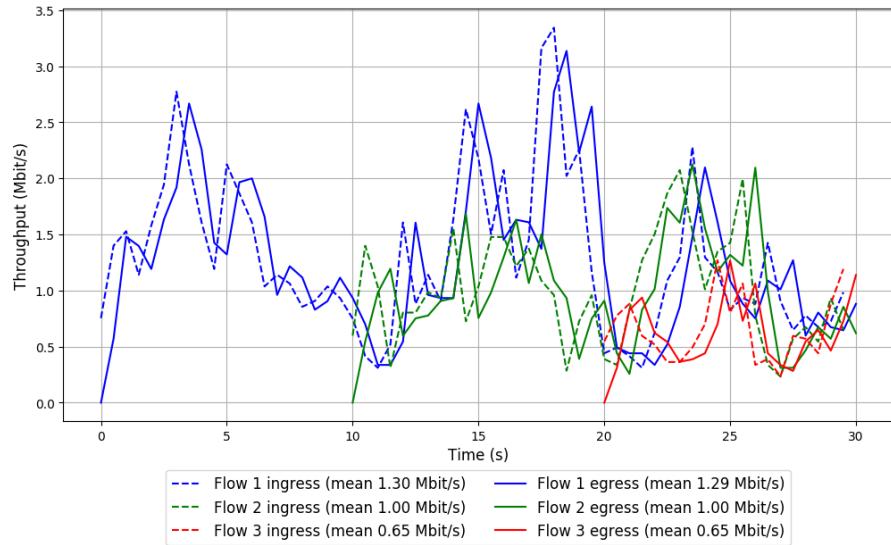


Run 1: Statistics of Copa

```
Start at: 2018-06-05 10:06:09
End at: 2018-06-05 10:06:39
Local clock offset: -3.772 ms
Remote clock offset: -4.049 ms

# Below is generated by plot.py at 2018-06-05 10:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 184.128 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 179.822 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 184.993 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 198.150 ms
Loss rate: 1.81%
```

Run 1: Report of Copa — Data Link

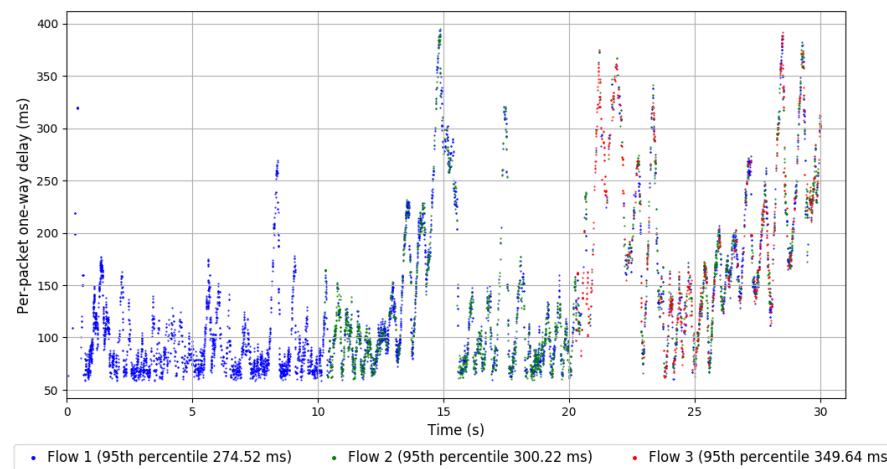
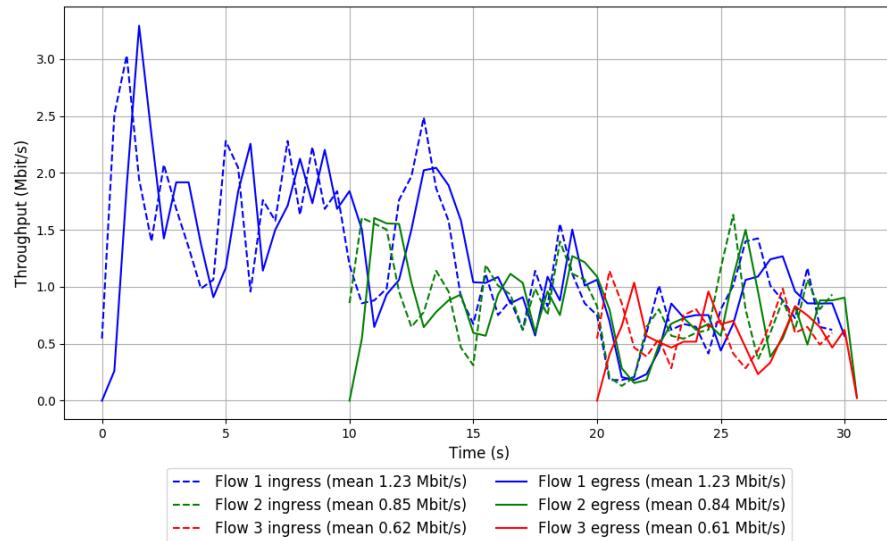


Run 2: Statistics of Copa

```
Start at: 2018-06-05 10:23:55
End at: 2018-06-05 10:24:25
Local clock offset: -3.196 ms
Remote clock offset: 9.99 ms

# Below is generated by plot.py at 2018-06-05 10:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 301.611 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 274.516 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 300.219 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 349.637 ms
Loss rate: 2.42%
```

Run 2: Report of Copa — Data Link

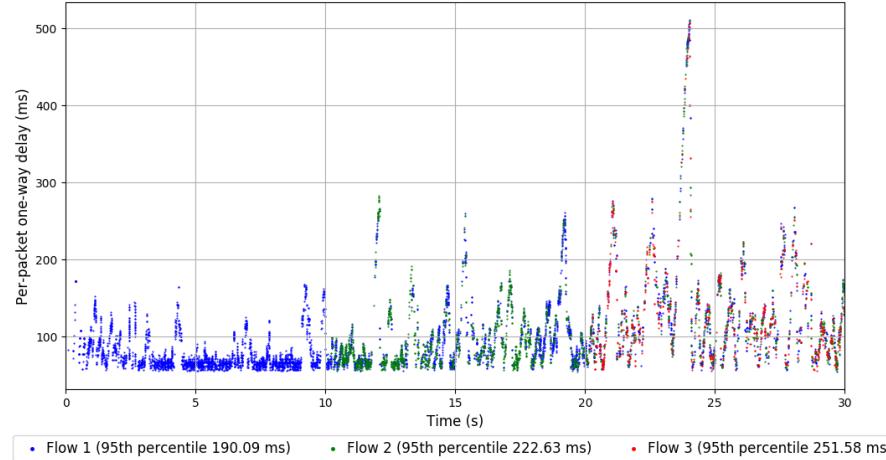
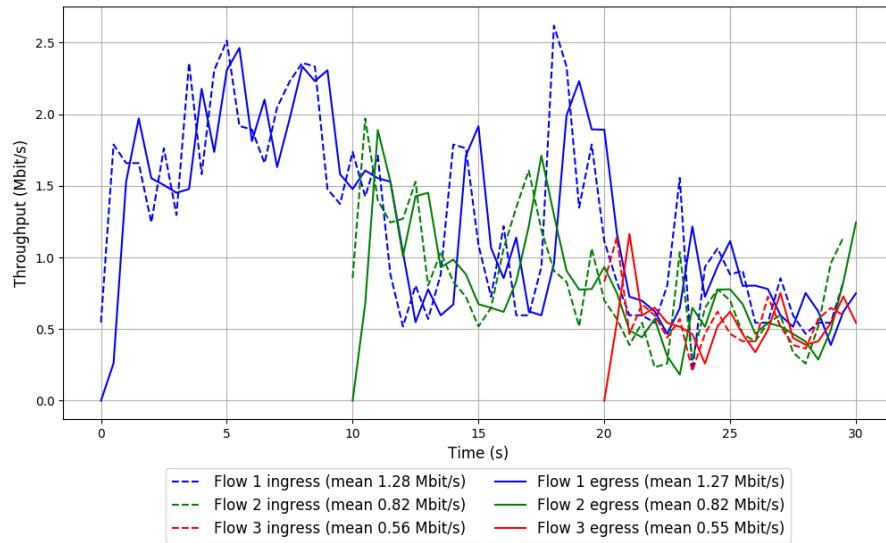


Run 3: Statistics of Copa

```
Start at: 2018-06-05 10:41:37
End at: 2018-06-05 10:42:07
Local clock offset: -2.143 ms
Remote clock offset: -0.344 ms

# Below is generated by plot.py at 2018-06-05 10:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 205.381 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 190.090 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 222.629 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 251.577 ms
Loss rate: 1.20%
```

Run 3: Report of Copa — Data Link

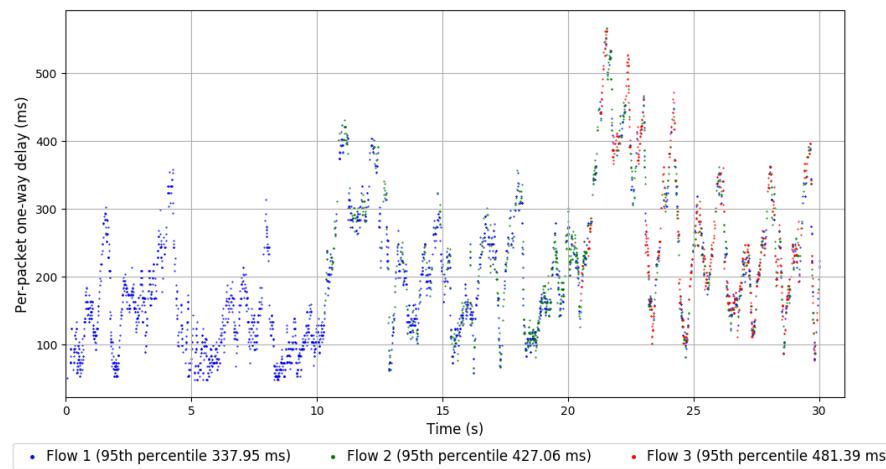
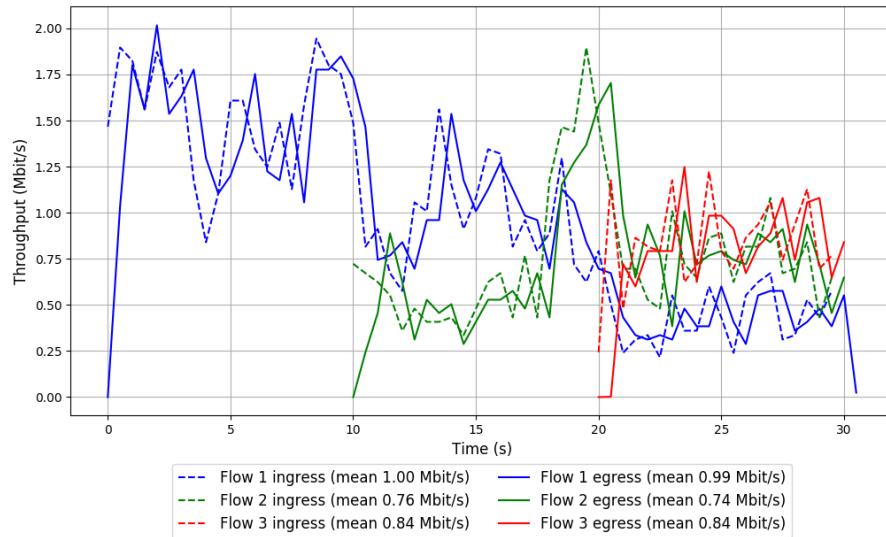


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-06-05 10:11:43
End at: 2018-06-05 10:12:13
Local clock offset: -1.653 ms
Remote clock offset: -2.54 ms

# Below is generated by plot.py at 2018-06-05 10:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 407.099 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 337.949 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 427.065 ms
Loss rate: 2.07%
-- Flow 3:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 481.386 ms
Loss rate: 2.73%
```

Run 1: Report of TCP Cubic — Data Link

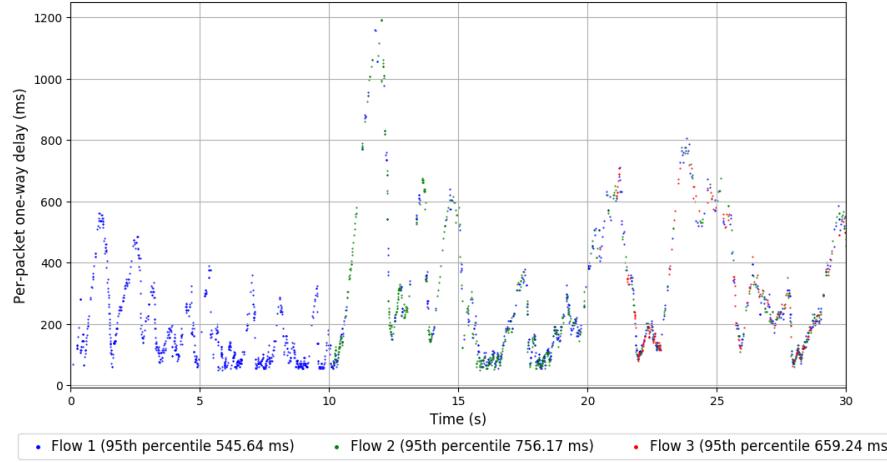
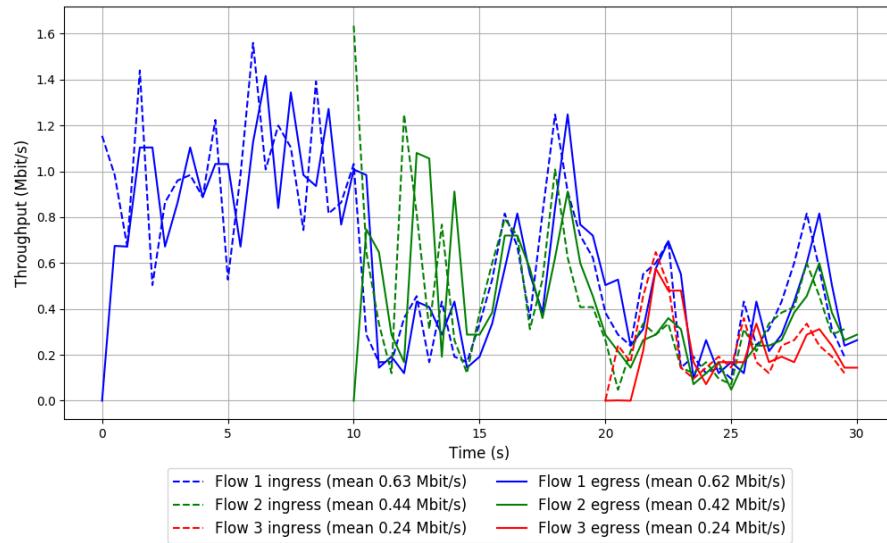


Run 2: Statistics of TCP Cubic

```
Start at: 2018-06-05 10:29:24
End at: 2018-06-05 10:29:54
Local clock offset: 0.046 ms
Remote clock offset: 1.843 ms

# Below is generated by plot.py at 2018-06-05 10:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 630.579 ms
Loss rate: 3.00%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 545.643 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 756.168 ms
Loss rate: 4.95%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 659.244 ms
Loss rate: 6.03%
```

Run 2: Report of TCP Cubic — Data Link

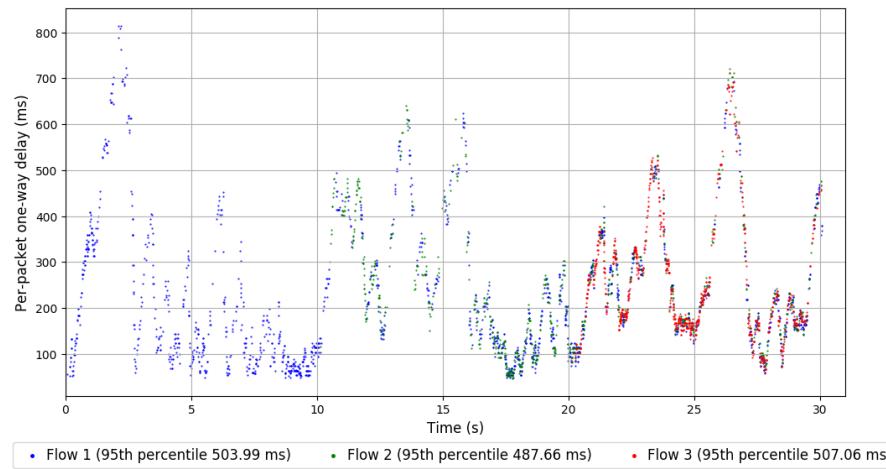
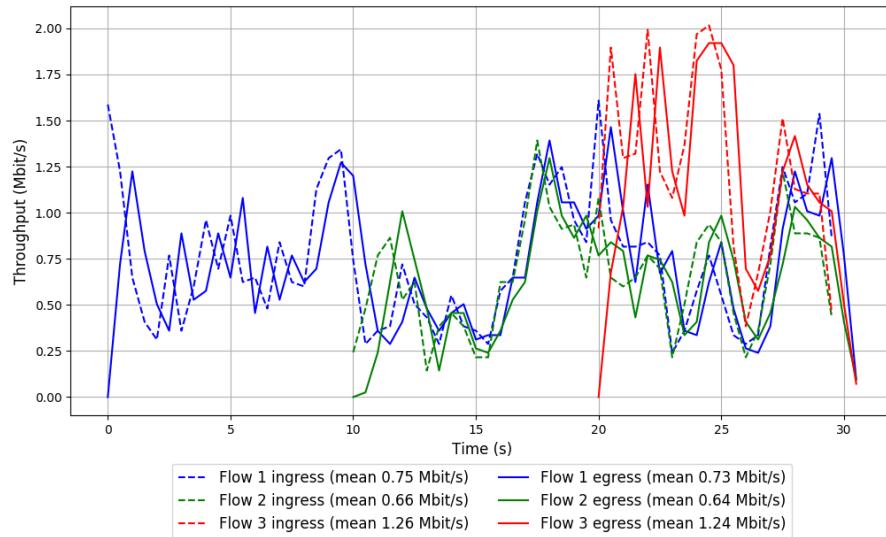


Run 3: Statistics of TCP Cubic

```
Start at: 2018-06-05 10:47:18
End at: 2018-06-05 10:47:48
Local clock offset: 3.043 ms
Remote clock offset: -3.869 ms

# Below is generated by plot.py at 2018-06-05 10:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 501.885 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 503.988 ms
Loss rate: 2.23%
-- Flow 2:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 487.664 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 507.055 ms
Loss rate: 2.01%
```

Run 3: Report of TCP Cubic — Data Link

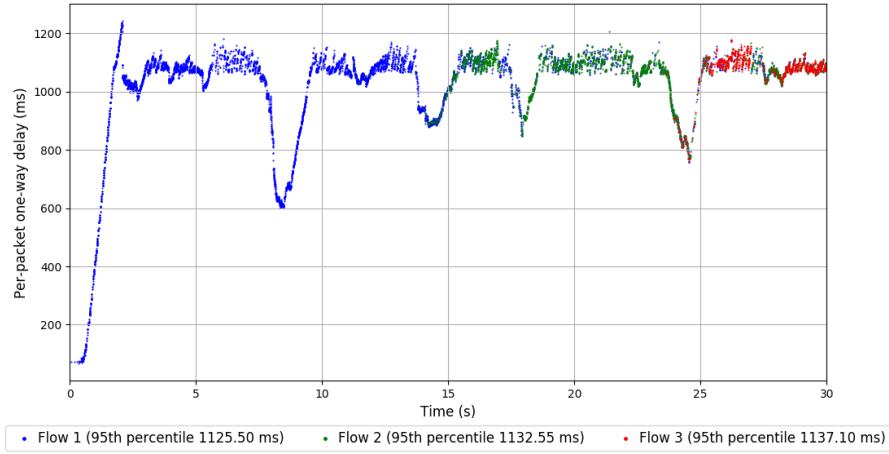
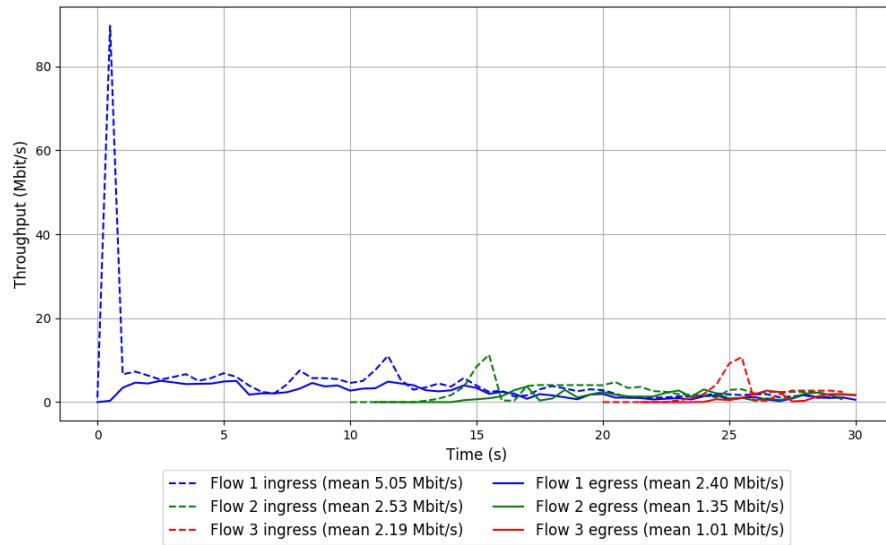


```
Run 1: Statistics of FillP

Start at: 2018-06-05 10:00:37
End at: 2018-06-05 10:01:07
Local clock offset: -3.326 ms
Remote clock offset: 16.743 ms

# Below is generated by plot.py at 2018-06-05 10:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.53 Mbit/s
95th percentile per-packet one-way delay: 1129.378 ms
Loss rate: 52.71%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 1125.499 ms
Loss rate: 52.56%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 1132.550 ms
Loss rate: 49.38%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 1137.102 ms
Loss rate: 61.55%
```

Run 1: Report of FillP — Data Link

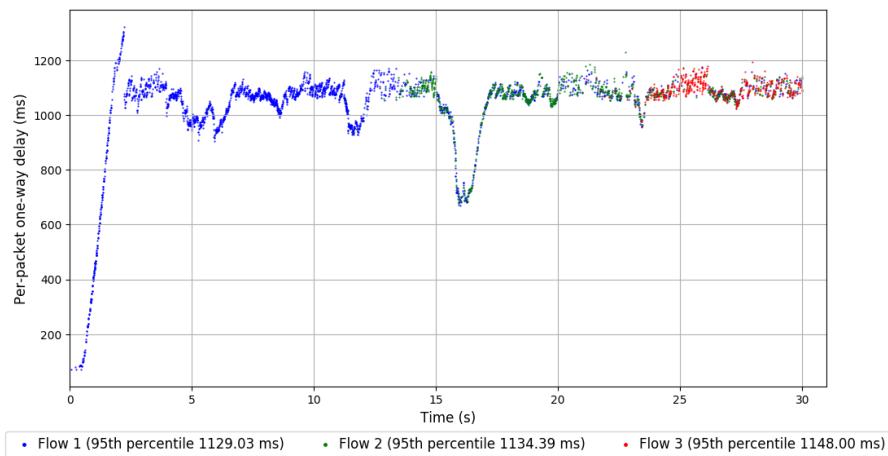
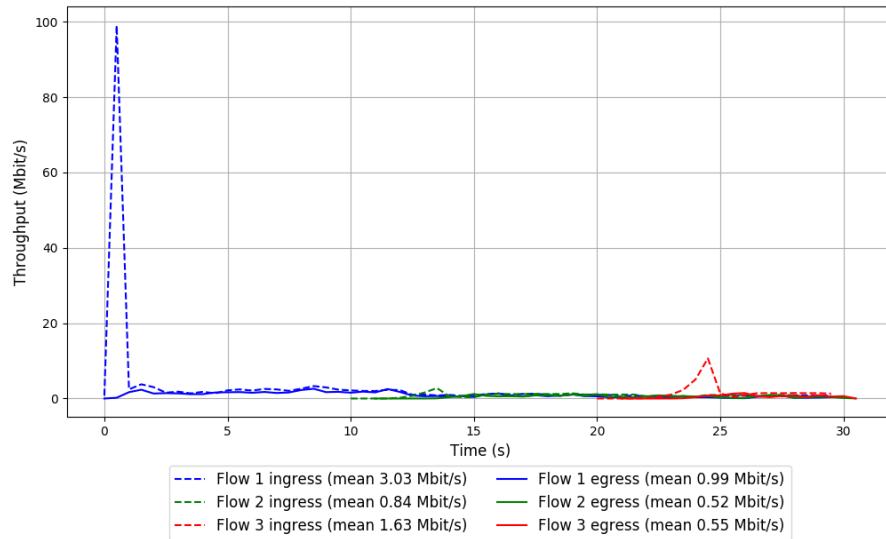


Run 2: Statistics of FillP

```
Start at: 2018-06-05 10:18:23
End at: 2018-06-05 10:18:53
Local clock offset: -0.921 ms
Remote clock offset: 17.127 ms

# Below is generated by plot.py at 2018-06-05 10:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 1135.841 ms
Loss rate: 64.12%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 1129.028 ms
Loss rate: 67.36%
-- Flow 2:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 1134.388 ms
Loss rate: 40.87%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 1147.997 ms
Loss rate: 70.03%
```

Run 2: Report of FillP — Data Link

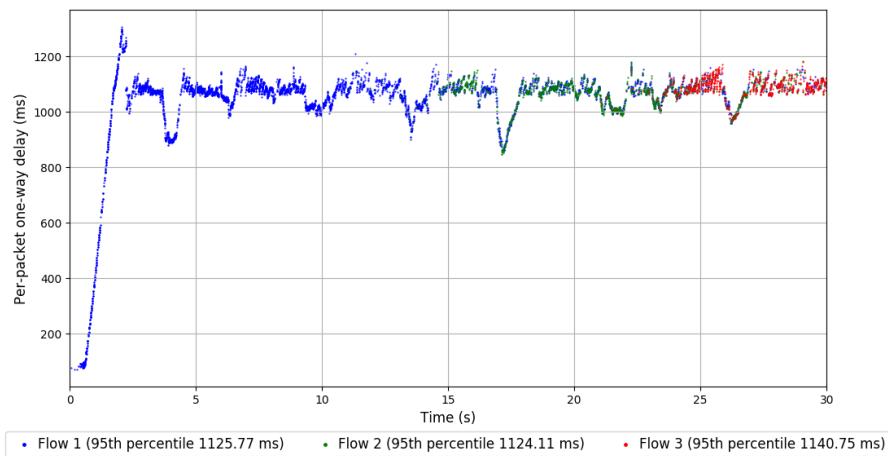
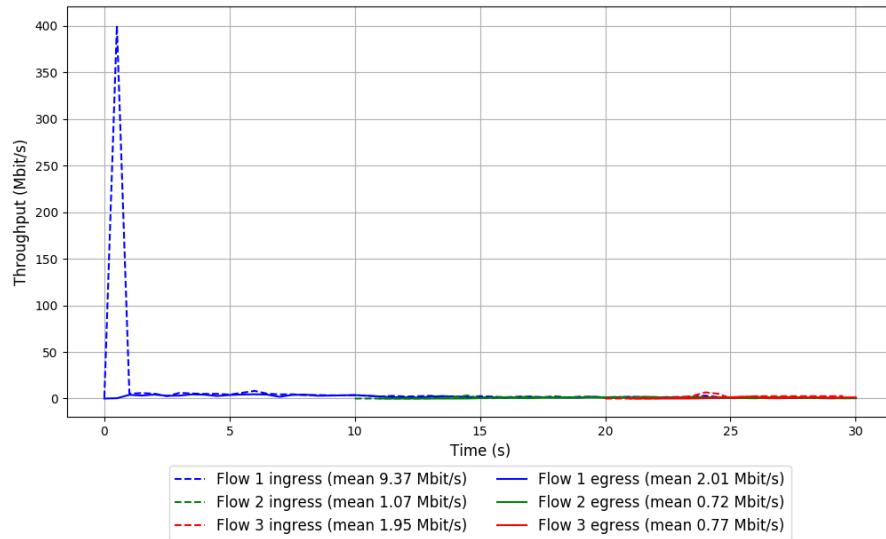


Run 3: Statistics of FillP

```
Start at: 2018-06-05 10:36:04
End at: 2018-06-05 10:36:34
Local clock offset: -2.734 ms
Remote clock offset: 8.465 ms

# Below is generated by plot.py at 2018-06-05 10:53:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 1129.428 ms
Loss rate: 74.98%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 1125.765 ms
Loss rate: 78.64%
-- Flow 2:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 1124.105 ms
Loss rate: 36.14%
-- Flow 3:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 1140.746 ms
Loss rate: 64.44%
```

Run 3: Report of FillP — Data Link

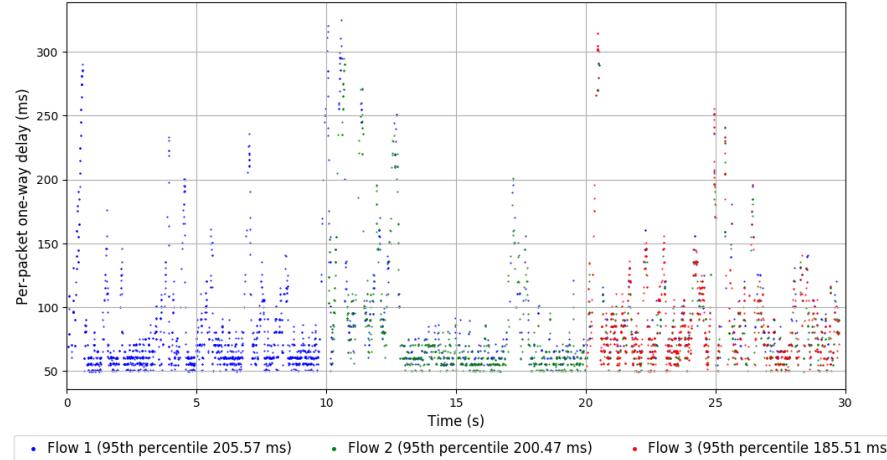
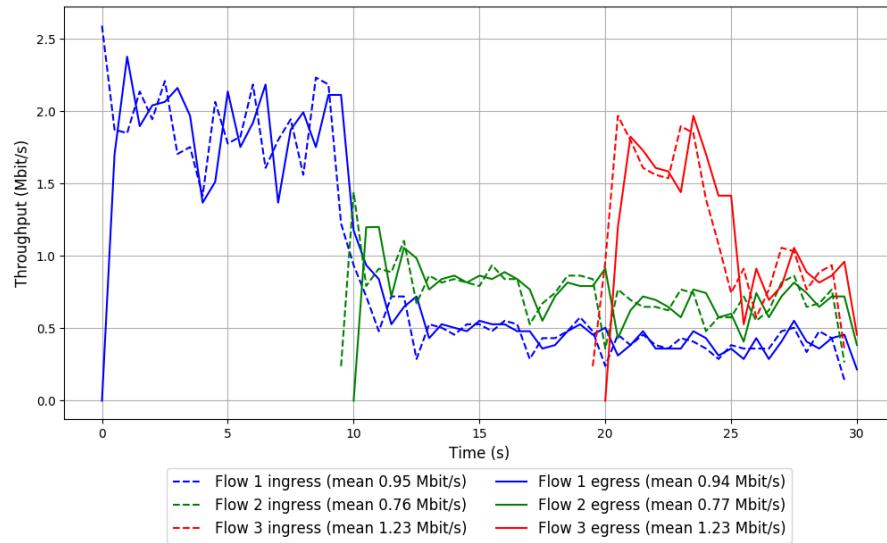


Run 1: Statistics of Indigo

```
Start at: 2018-06-05 10:02:50
End at: 2018-06-05 10:03:20
Local clock offset: -2.41 ms
Remote clock offset: 4.957 ms

# Below is generated by plot.py at 2018-06-05 10:53:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 200.064 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 205.573 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 200.474 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 185.510 ms
Loss rate: 0.30%
```

Run 1: Report of Indigo — Data Link

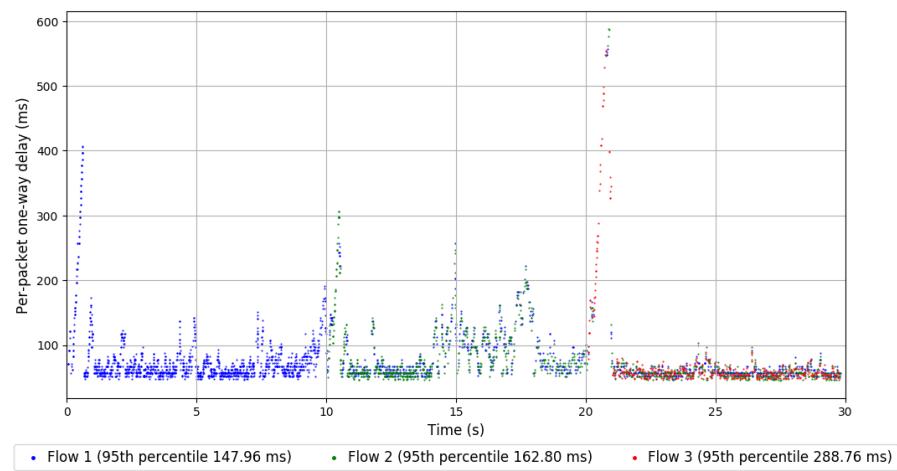
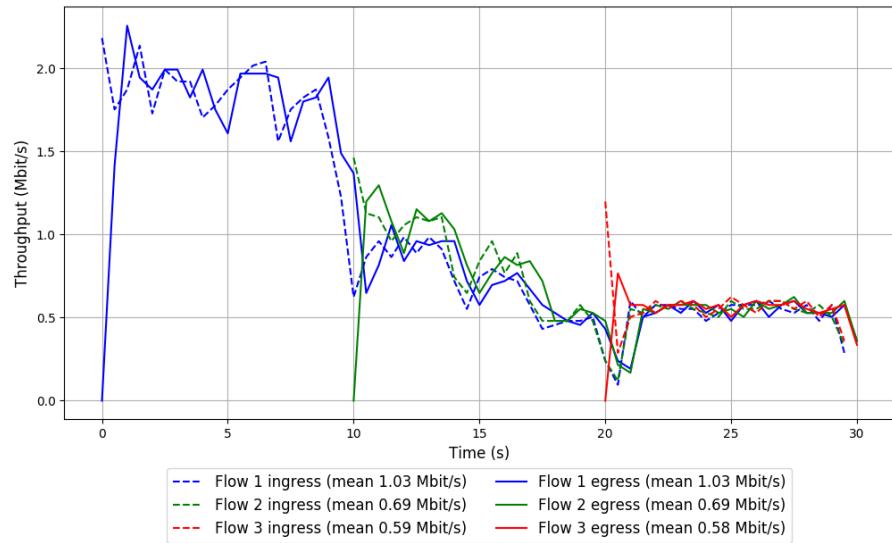


Run 2: Statistics of Indigo

```
Start at: 2018-06-05 10:20:34
End at: 2018-06-05 10:21:04
Local clock offset: 2.842 ms
Remote clock offset: 4.665 ms

# Below is generated by plot.py at 2018-06-05 10:53:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 161.846 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 147.958 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 162.798 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 288.761 ms
Loss rate: 1.05%
```

Run 2: Report of Indigo — Data Link

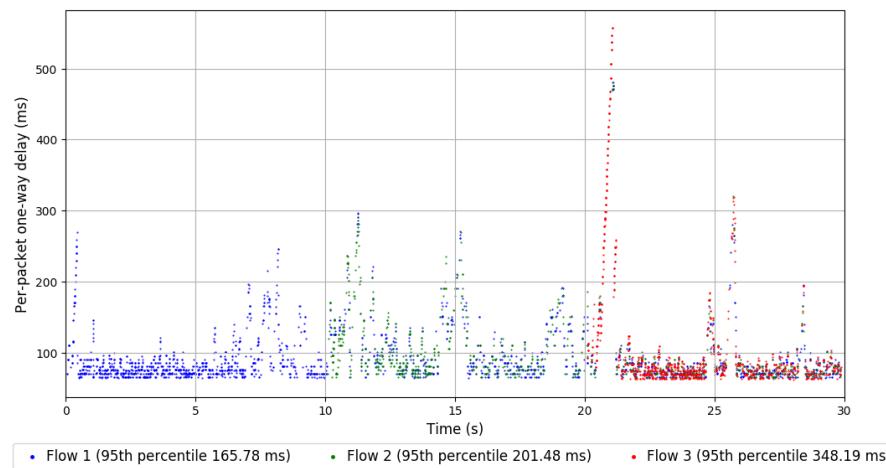
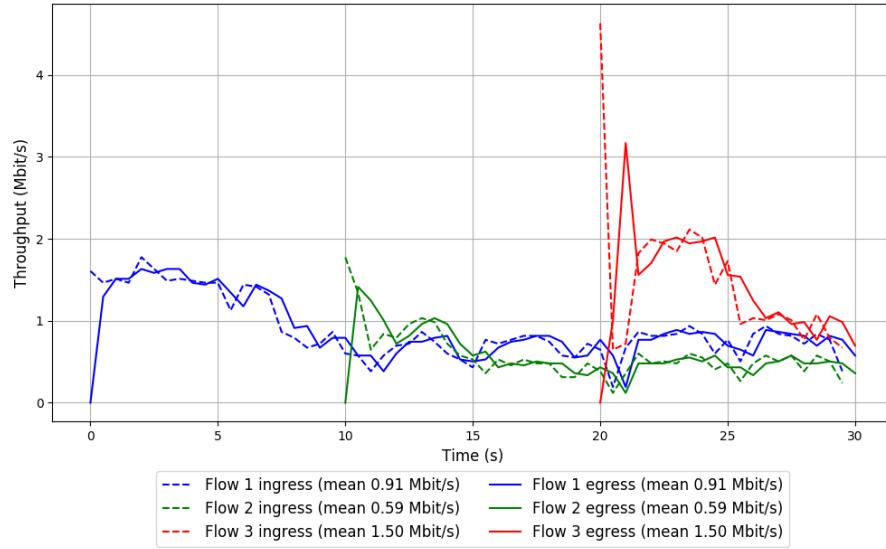


Run 3: Statistics of Indigo

```
Start at: 2018-06-05 10:38:17
End at: 2018-06-05 10:38:47
Local clock offset: -0.47 ms
Remote clock offset: 9.678 ms

# Below is generated by plot.py at 2018-06-05 10:53:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 220.722 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 165.779 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 201.481 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 348.192 ms
Loss rate: 0.08%
```

Run 3: Report of Indigo — Data Link

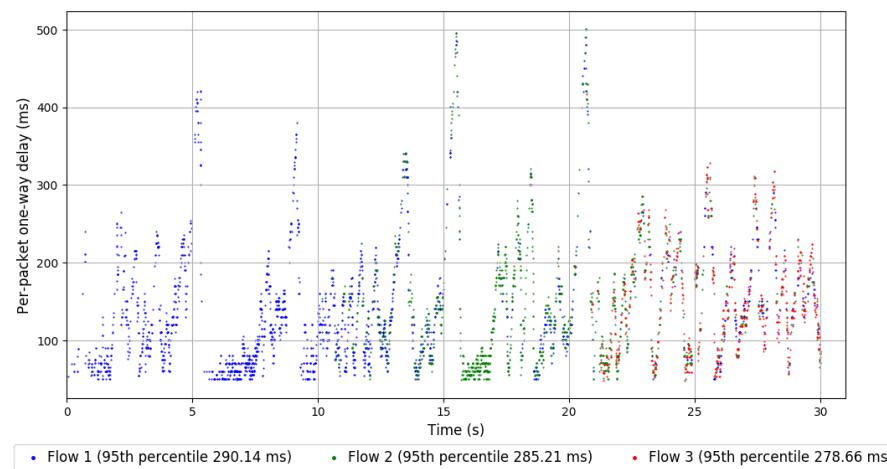
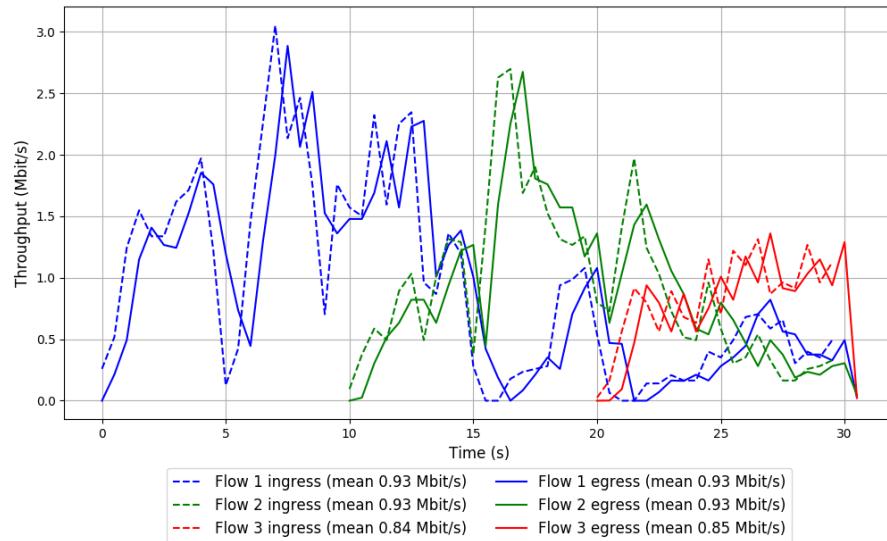


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-06-05 10:09:31
End at: 2018-06-05 10:10:01
Local clock offset: 0.451 ms
Remote clock offset: 2.115 ms

# Below is generated by plot.py at 2018-06-05 10:53:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 285.211 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 290.145 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 285.211 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 278.659 ms
Loss rate: 1.26%
```

Run 1: Report of LEDBAT — Data Link

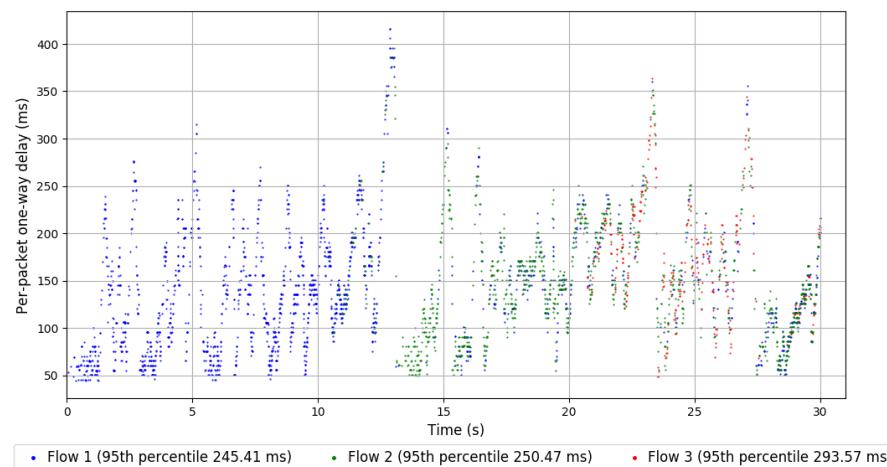
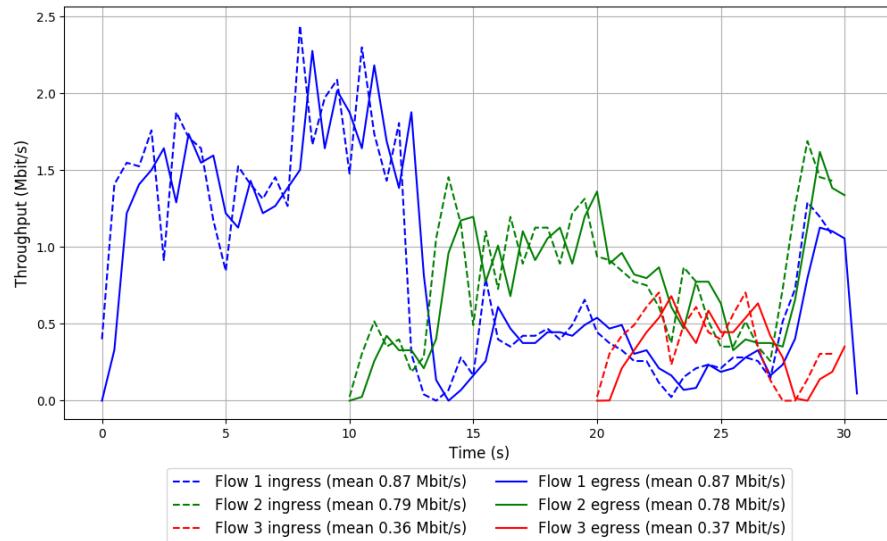


Run 2: Statistics of LEDBAT

```
Start at: 2018-06-05 10:27:12
End at: 2018-06-05 10:27:42
Local clock offset: 3.065 ms
Remote clock offset: 1.826 ms

# Below is generated by plot.py at 2018-06-05 10:53:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 250.284 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 245.408 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 250.470 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 293.572 ms
Loss rate: 1.62%
```

Run 2: Report of LEDBAT — Data Link

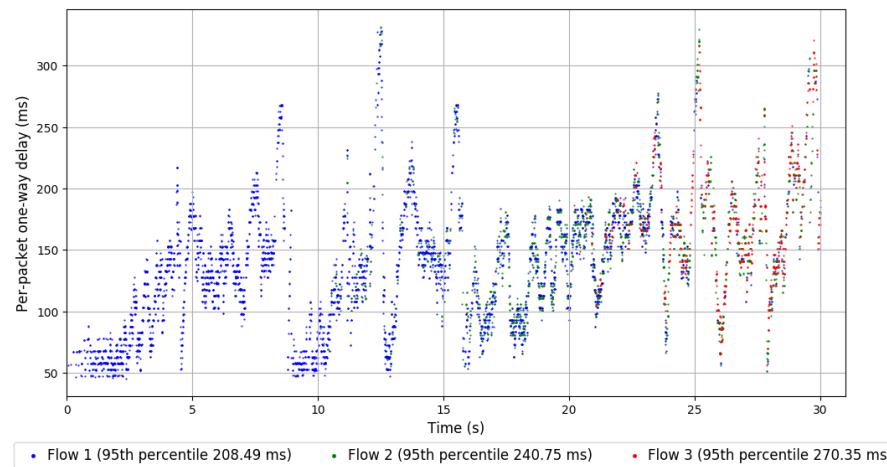
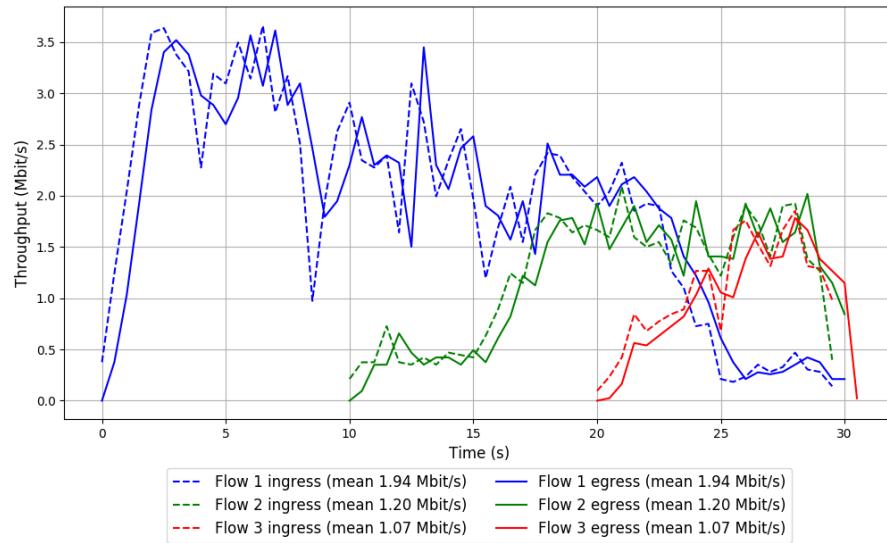


Run 3: Statistics of LEDBAT

```
Start at: 2018-06-05 10:45:00
End at: 2018-06-05 10:45:30
Local clock offset: -2.194 ms
Remote clock offset: -8.977 ms

# Below is generated by plot.py at 2018-06-05 10:53:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 230.846 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 208.494 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 240.755 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 270.347 ms
Loss rate: 1.98%
```

Run 3: Report of LEDBAT — Data Link

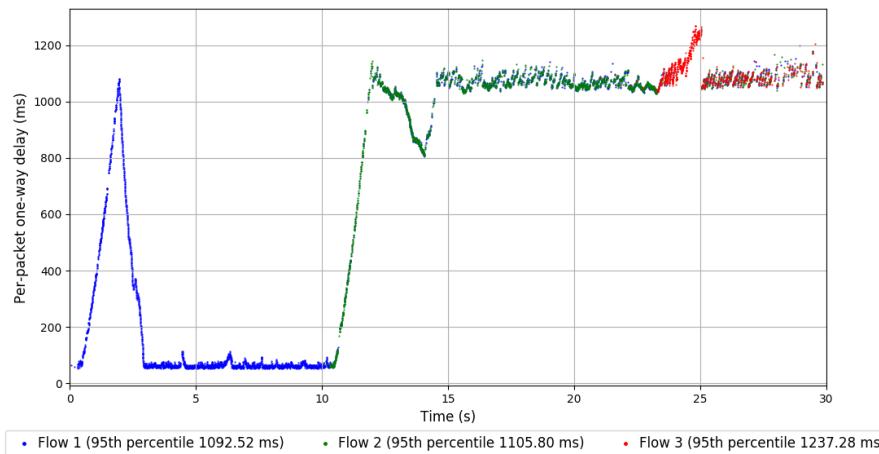
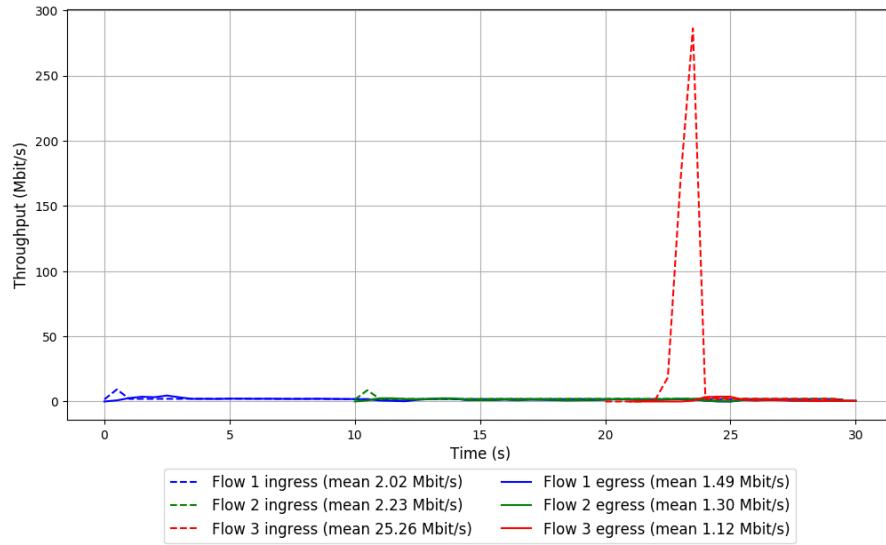


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-06-05 10:12:48
End at: 2018-06-05 10:13:18
Local clock offset: -0.436 ms
Remote clock offset: 7.61 ms

# Below is generated by plot.py at 2018-06-05 10:53:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 1121.223 ms
Loss rate: 77.42%
-- Flow 1:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 1092.524 ms
Loss rate: 26.34%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 1105.804 ms
Loss rate: 42.16%
-- Flow 3:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 1237.284 ms
Loss rate: 96.07%
```

Run 1: Report of PCC-Allegro — Data Link

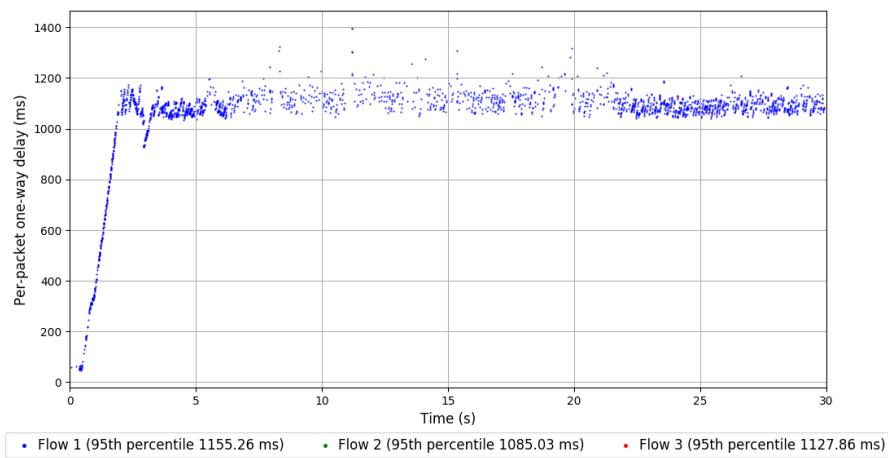
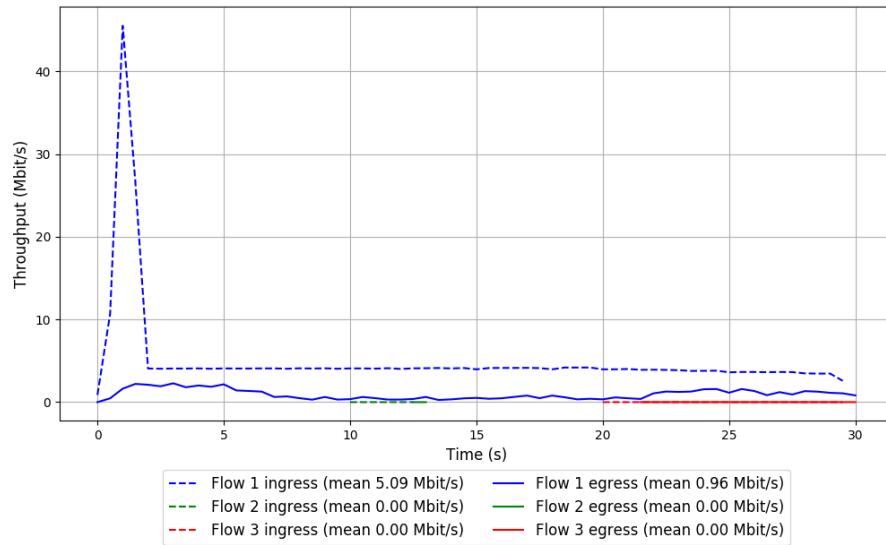


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-06-05 10:30:29
End at: 2018-06-05 10:30:59
Local clock offset: 3.574 ms
Remote clock offset: -1.025 ms

# Below is generated by plot.py at 2018-06-05 10:53:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 1155.261 ms
Loss rate: 81.11%
-- Flow 1:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 1155.261 ms
Loss rate: 81.11%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1085.029 ms
Loss rate: 92.31%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1127.858 ms
Loss rate: 73.25%
```

Run 2: Report of PCC-Allegro — Data Link

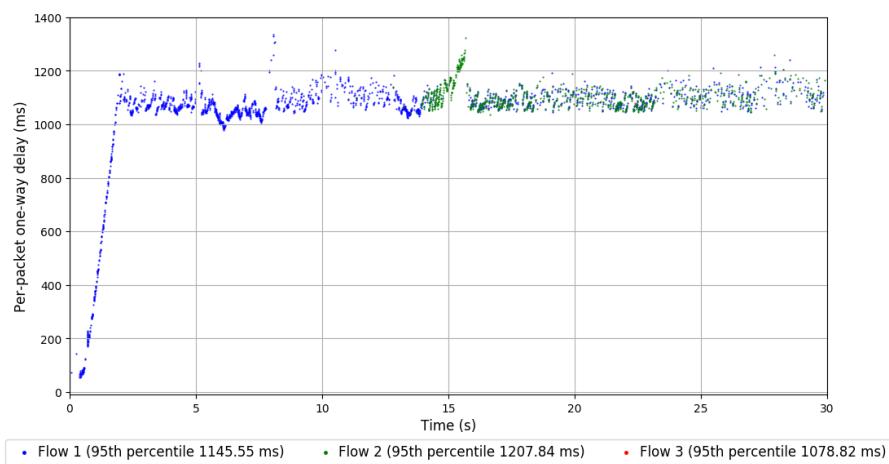
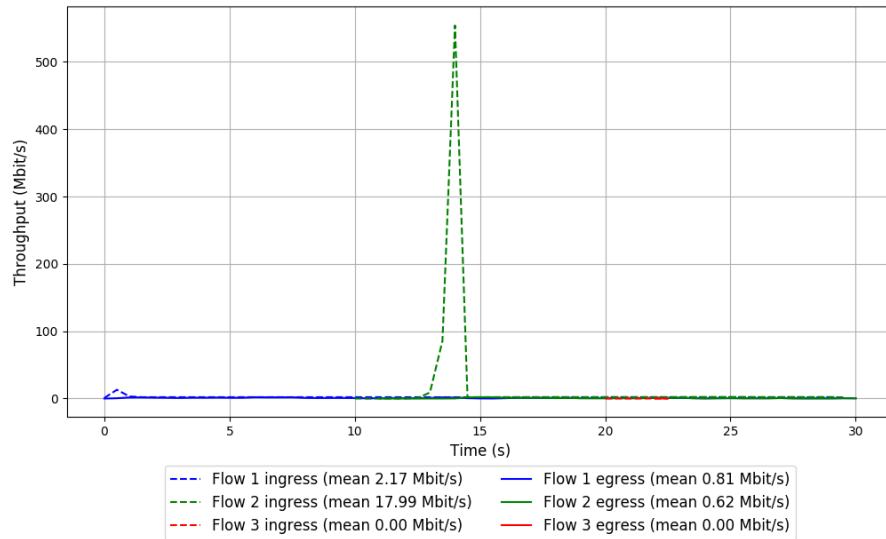


```
Run 3: Statistics of PCC-Allegro
```

```
Start at: 2018-06-05 10:48:23
End at: 2018-06-05 10:48:53
Local clock offset: 2.337 ms
Remote clock offset: -1.853 ms

# Below is generated by plot.py at 2018-06-05 10:53:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 1163.641 ms
Loss rate: 91.58%
-- Flow 1:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 1145.550 ms
Loss rate: 62.83%
-- Flow 2:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 1207.844 ms
Loss rate: 96.80%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1078.818 ms
Loss rate: 92.31%
```

Run 3: Report of PCC-Allegro — Data Link

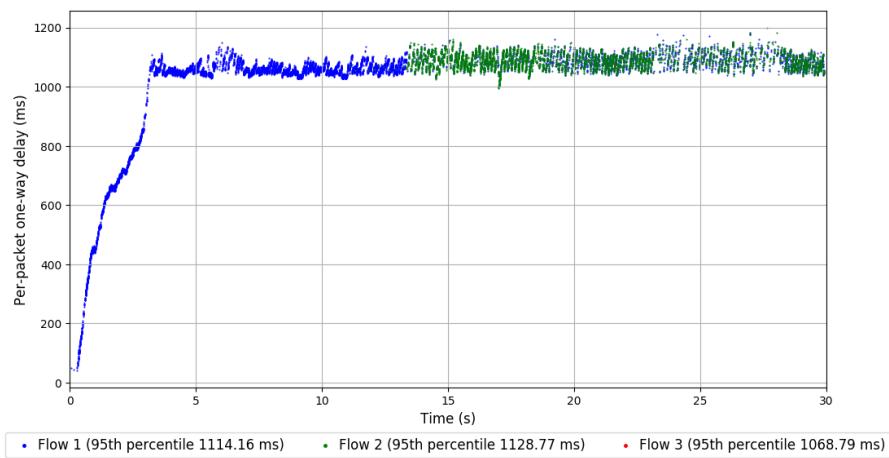
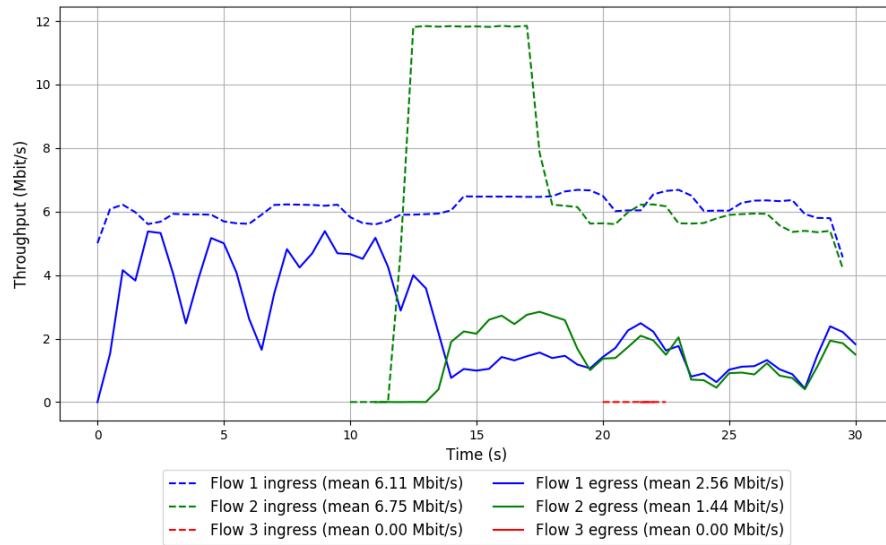


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2018-06-05 10:01:43
End at: 2018-06-05 10:02:13
Local clock offset: 0.422 ms
Remote clock offset: -2.563 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 1120.598 ms
Loss rate: 67.29%
-- Flow 1:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 1114.162 ms
Loss rate: 58.12%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 1128.771 ms
Loss rate: 79.77%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1068.793 ms
Loss rate: 92.31%
```

Run 1: Report of PCC-Expr — Data Link

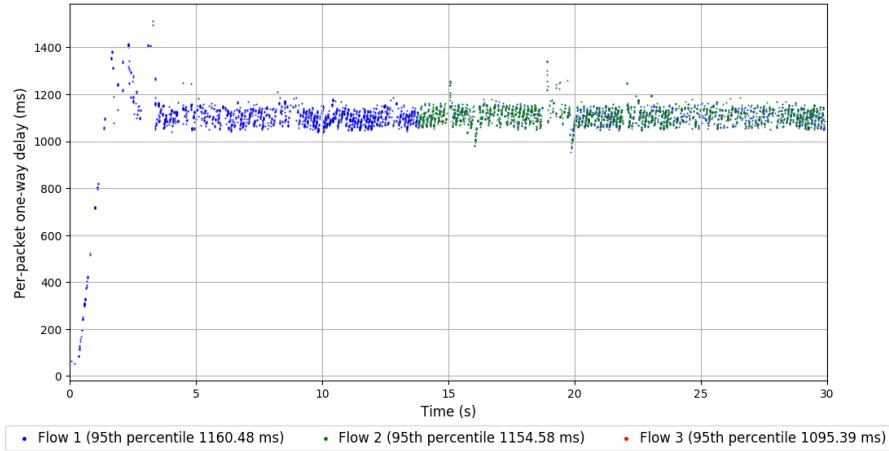
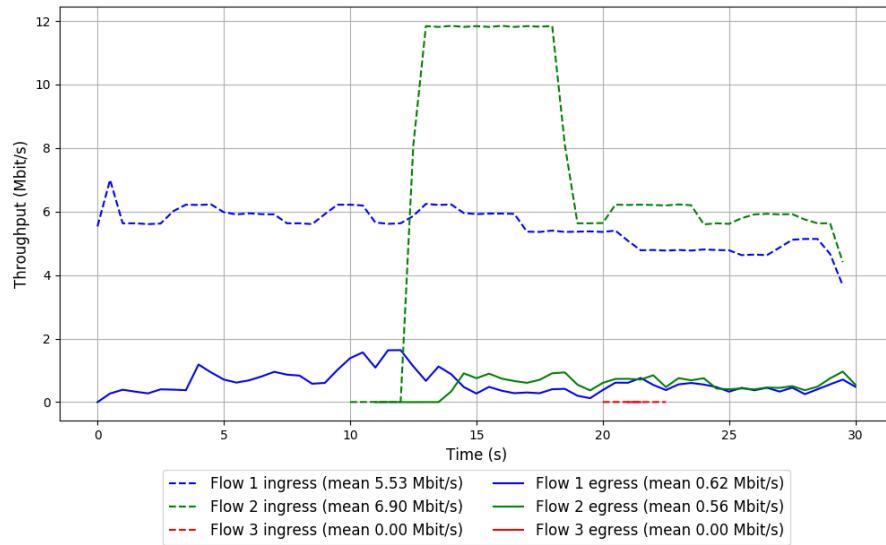


Run 2: Statistics of PCC-Expr

```
Start at: 2018-06-05 10:19:28
End at: 2018-06-05 10:19:58
Local clock offset: -1.423 ms
Remote clock offset: -2.537 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 1157.669 ms
Loss rate: 90.39%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 1160.482 ms
Loss rate: 88.74%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 1154.575 ms
Loss rate: 92.39%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1095.393 ms
Loss rate: 92.31%
```

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

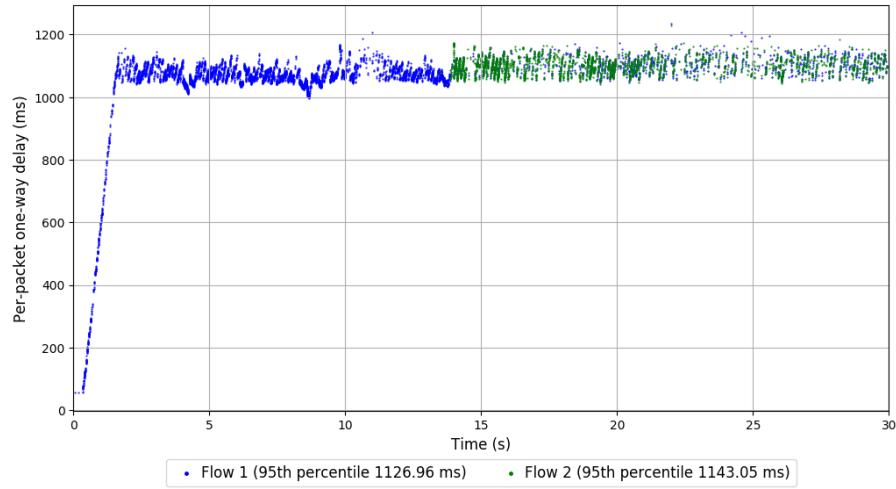
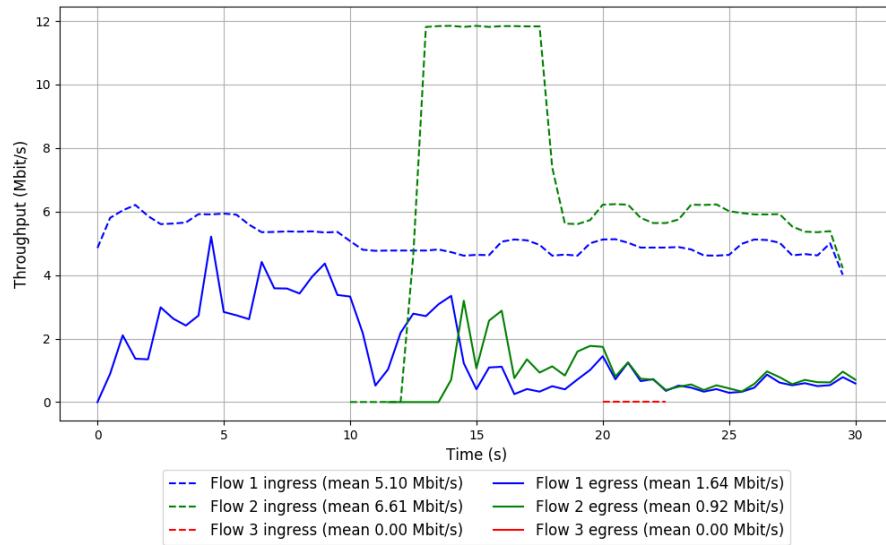
Start at: 2018-06-05 10:37:11

End at: 2018-06-05 10:37:41

Local clock offset: -0.006 ms

Remote clock offset: -5.9 ms

Run 3: Report of PCC-Expr — Data Link

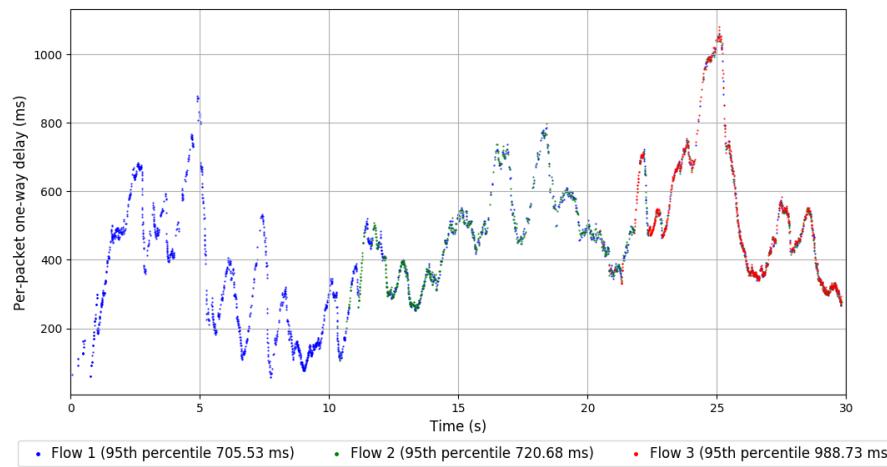
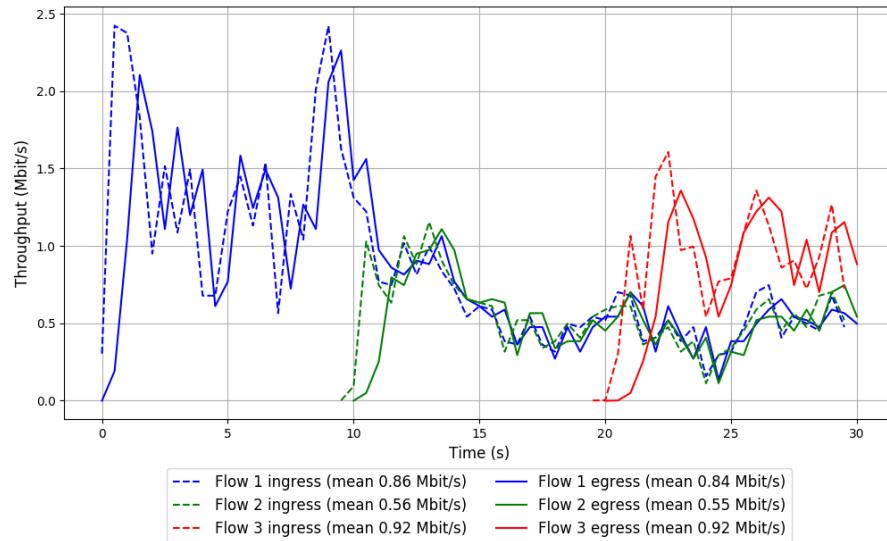


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-06-05 10:17:12
End at: 2018-06-05 10:17:42
Local clock offset: -3.078 ms
Remote clock offset: 4.408 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 735.814 ms
Loss rate: 3.17%
-- Flow 1:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 705.531 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 720.683 ms
Loss rate: 3.56%
-- Flow 3:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 988.732 ms
Loss rate: 4.76%
```

Run 1: Report of QUIC Cubic — Data Link

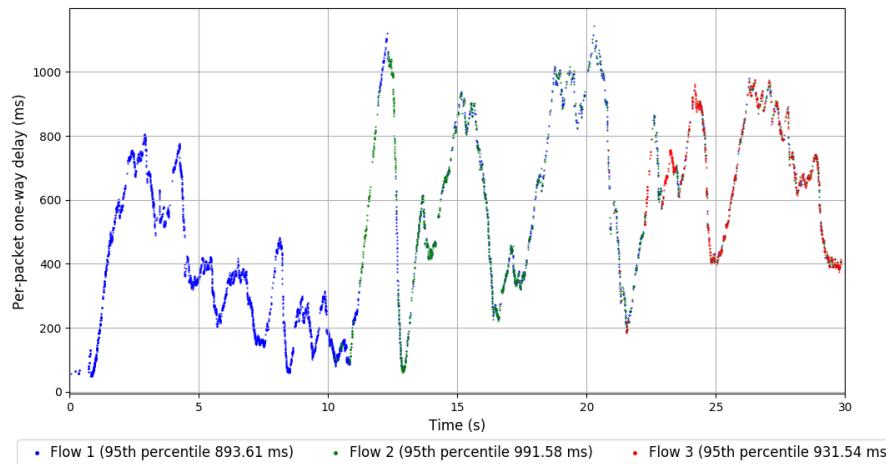
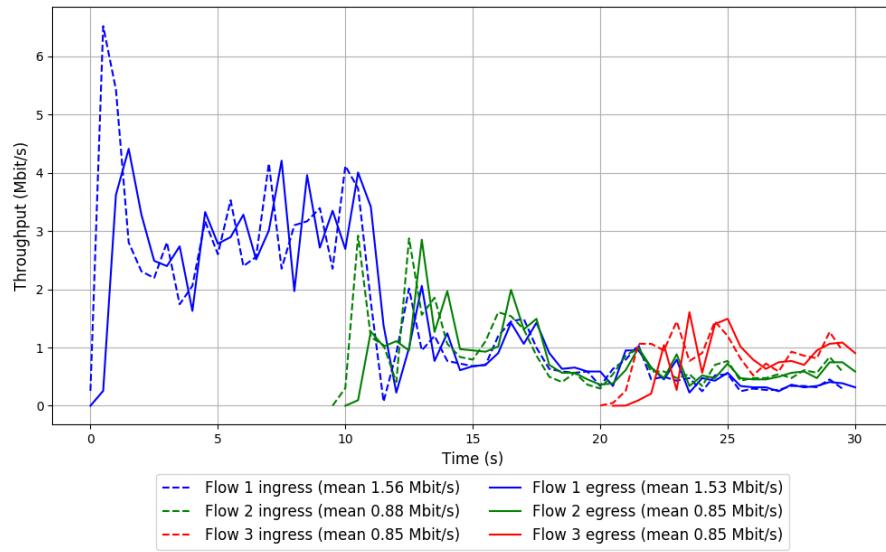


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-06-05 10:34:58
End at: 2018-06-05 10:35:28
Local clock offset: -1.677 ms
Remote clock offset: -9.39 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 931.545 ms
Loss rate: 3.07%
-- Flow 1:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 893.610 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 991.583 ms
Loss rate: 3.71%
-- Flow 3:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 931.545 ms
Loss rate: 7.62%
```

Run 2: Report of QUIC Cubic — Data Link

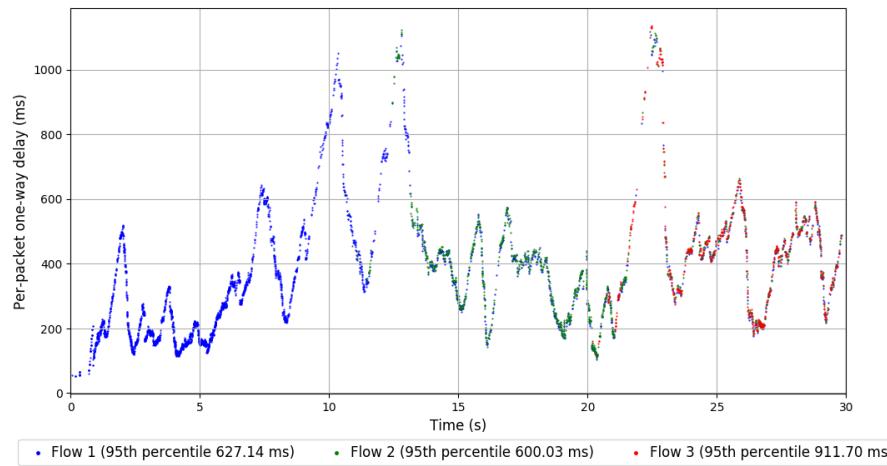
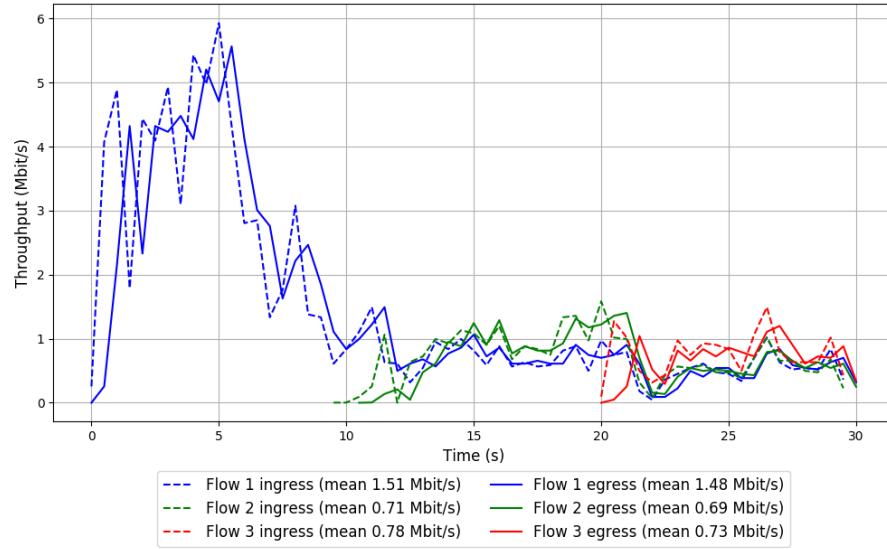


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-06-05 10:52:46
End at: 2018-06-05 10:53:16
Local clock offset: -0.62 ms
Remote clock offset: -11.29 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 634.041 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 627.144 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 600.033 ms
Loss rate: 5.54%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 911.701 ms
Loss rate: 7.73%
```

Run 3: Report of QUIC Cubic — Data Link

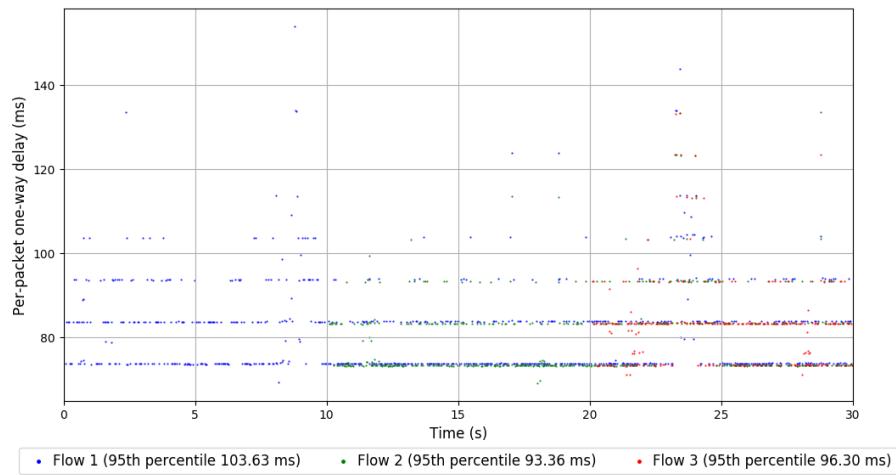
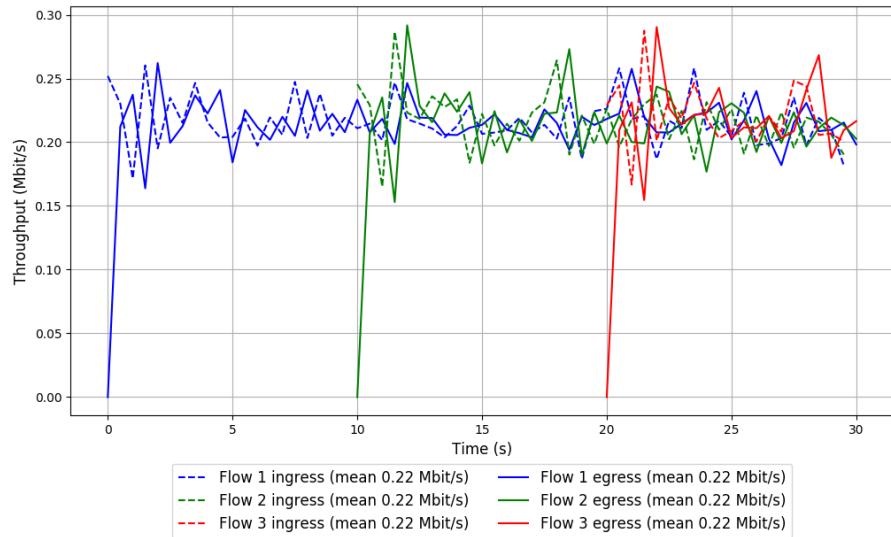


```
Run 1: Statistics of SCReAM
```

```
Start at: 2018-06-05 10:10:37
End at: 2018-06-05 10:11:07
Local clock offset: -3.381 ms
Remote clock offset: 18.823 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 99.506 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 103.632 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.358 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 96.295 ms
Loss rate: 0.35%
```

Run 1: Report of SCReAM — Data Link

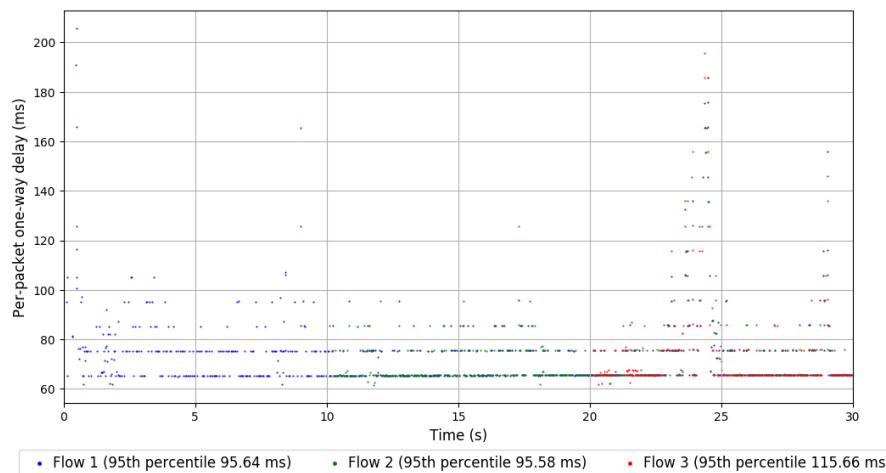
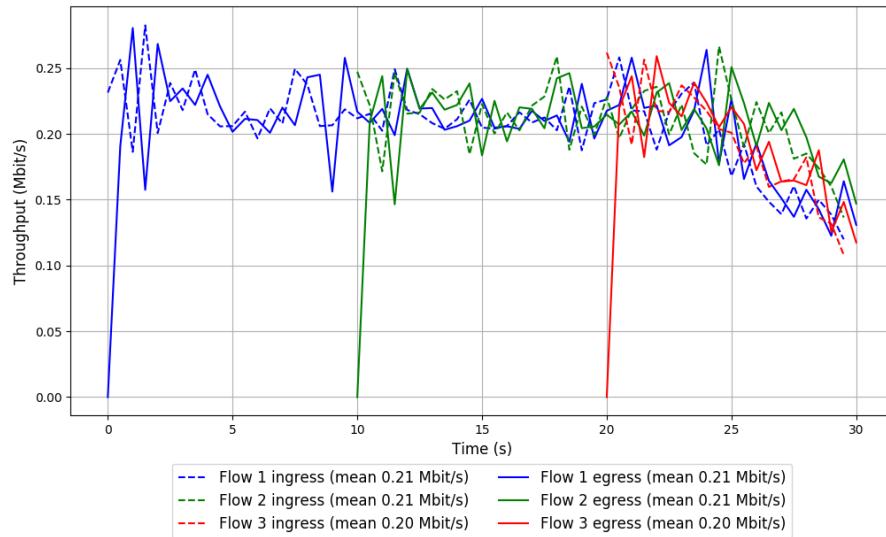


Run 2: Statistics of SCReAM

```
Start at: 2018-06-05 10:28:18
End at: 2018-06-05 10:28:48
Local clock offset: 0.816 ms
Remote clock offset: 9.97 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 95.734 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 95.640 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 95.584 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 115.660 ms
Loss rate: 0.24%
```

Run 2: Report of SCReAM — Data Link

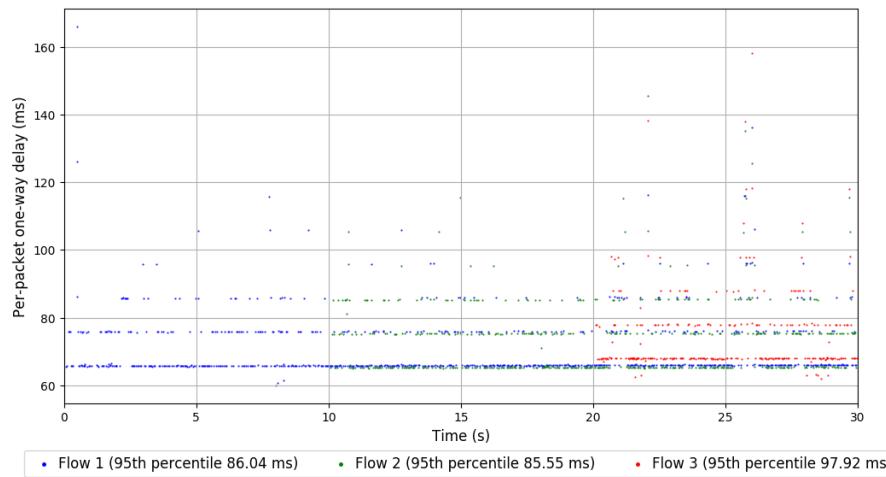
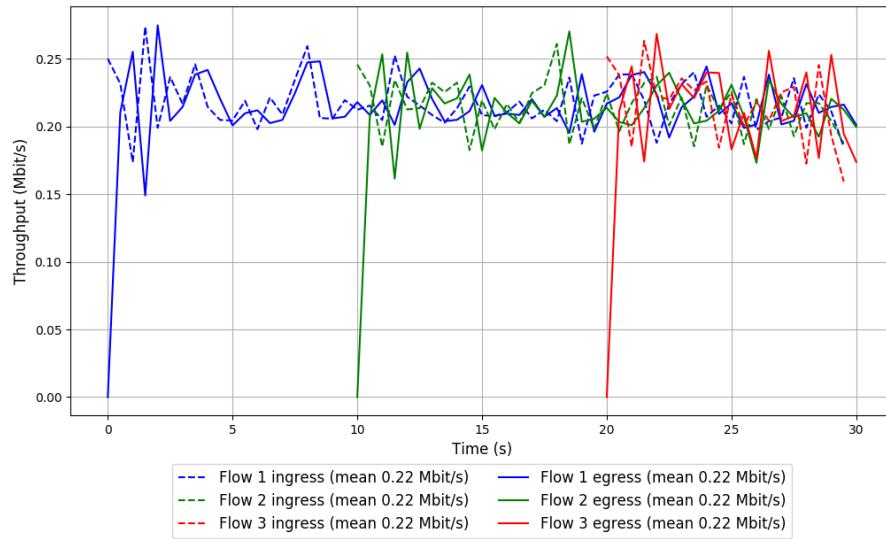


Run 3: Statistics of SCReAM

```
Start at: 2018-06-05 10:46:12
End at: 2018-06-05 10:46:42
Local clock offset: 1.808 ms
Remote clock offset: 4.76 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 88.043 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.038 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.554 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 97.923 ms
Loss rate: 0.31%
```

Run 3: Report of SCReAM — Data Link

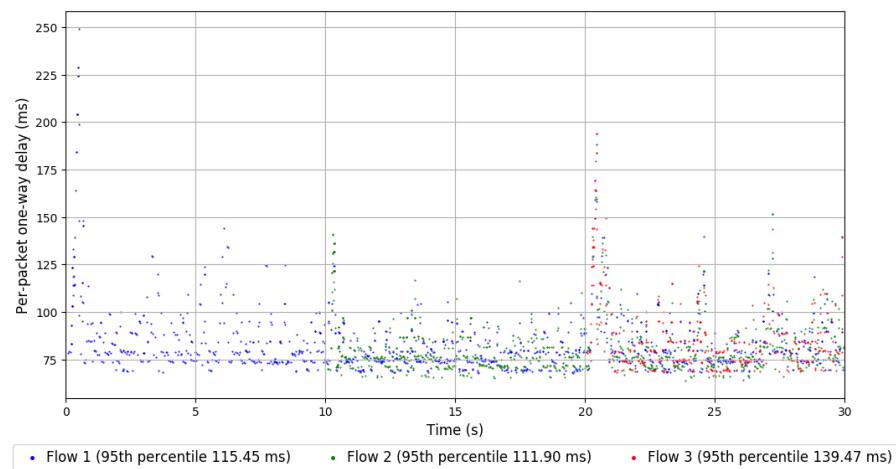
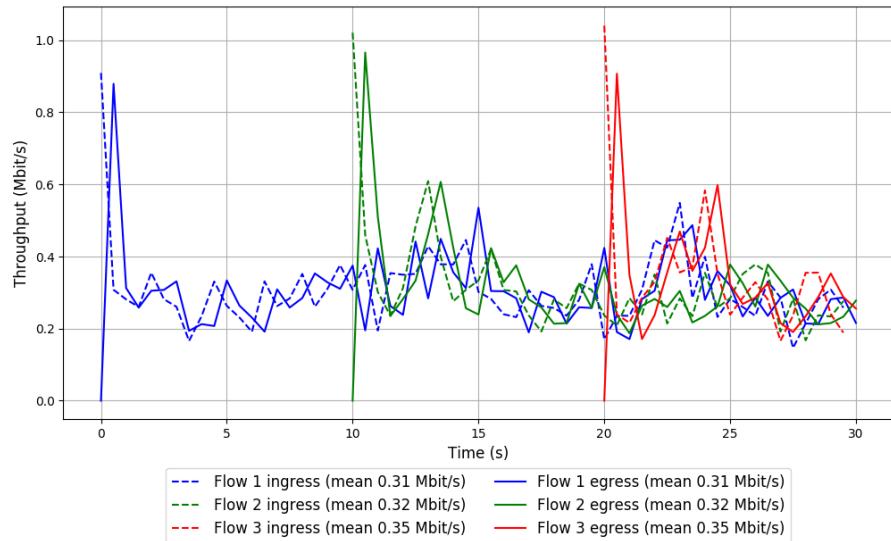


Run 1: Statistics of Sprout

```
Start at: 2018-06-05 10:16:06
End at: 2018-06-05 10:16:37
Local clock offset: -2.501 ms
Remote clock offset: 18.548 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 121.431 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 115.448 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 111.901 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 139.470 ms
Loss rate: 0.02%
```

Run 1: Report of Sprout — Data Link

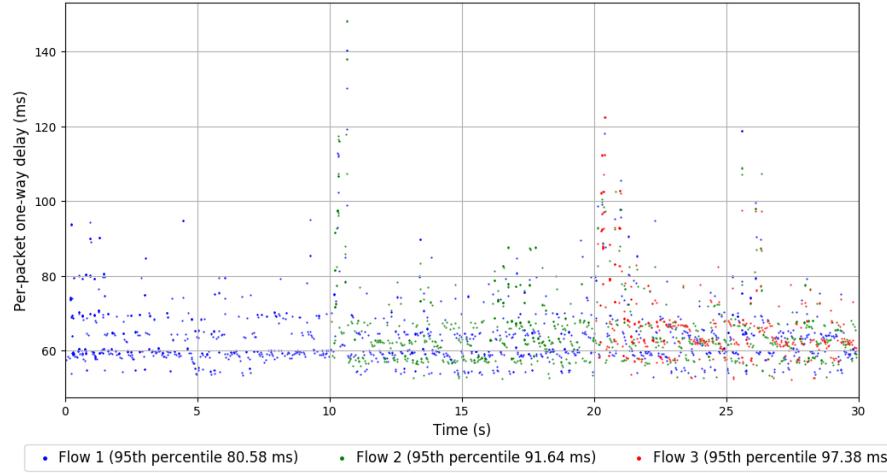
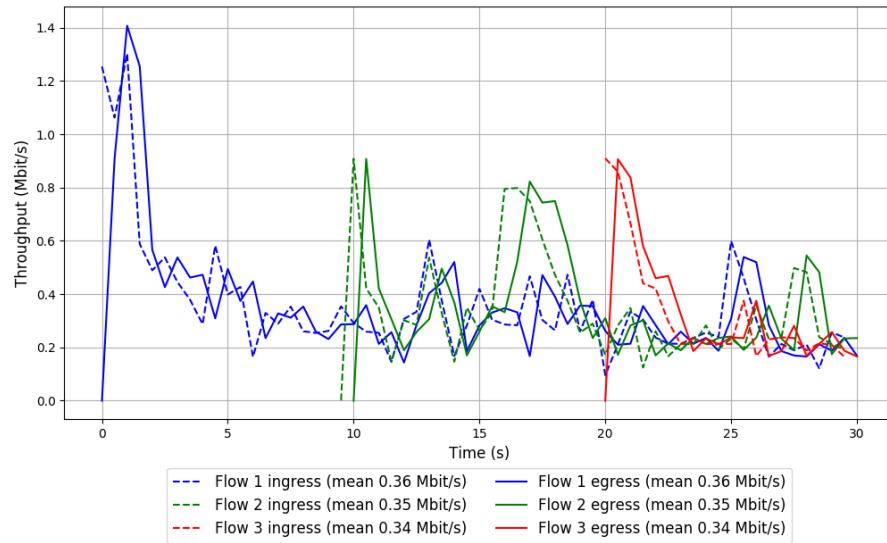


Run 2: Statistics of Sprout

```
Start at: 2018-06-05 10:33:47
End at: 2018-06-05 10:34:17
Local clock offset: -0.115 ms
Remote clock offset: 2.313 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 89.761 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 80.585 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 91.643 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 97.379 ms
Loss rate: 0.33%
```

Run 2: Report of Sprout — Data Link

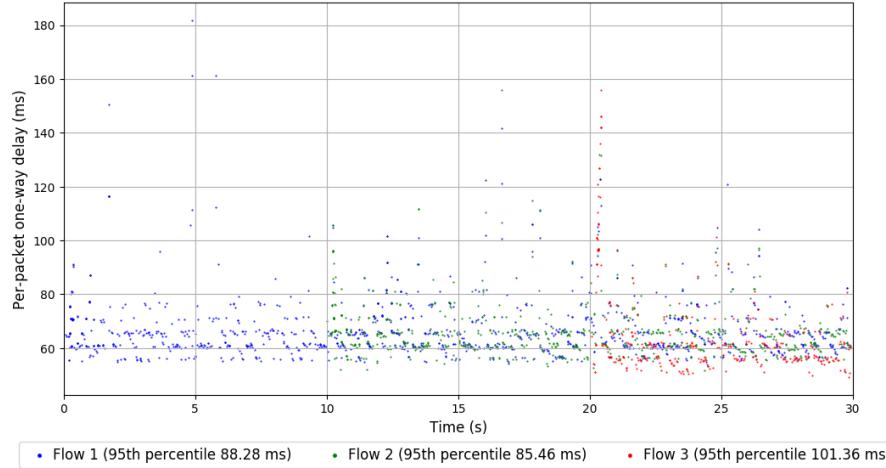
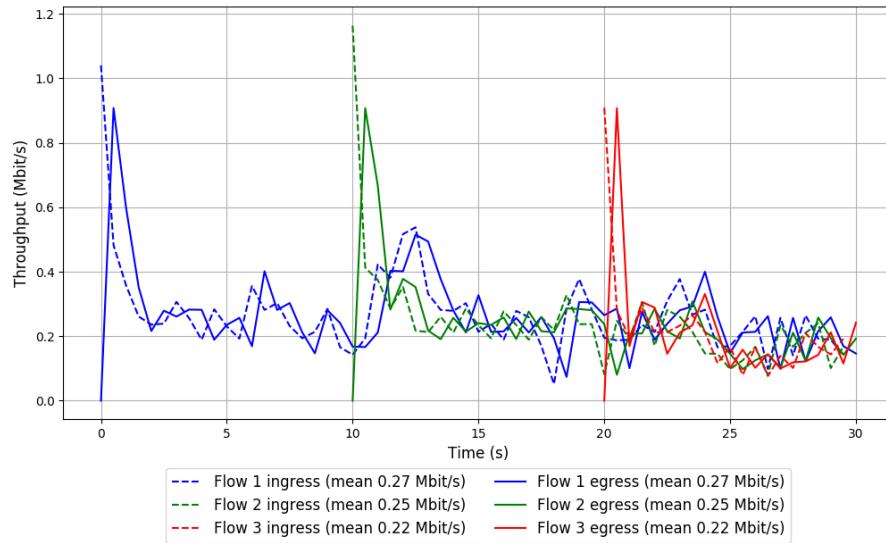


Run 3: Statistics of Sprout

```
Start at: 2018-06-05 10:51:41
End at: 2018-06-05 10:52:11
Local clock offset: -0.001 ms
Remote clock offset: -5.316 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 91.189 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 88.285 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 85.457 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 101.365 ms
Loss rate: 0.04%
```

Run 3: Report of Sprout — Data Link

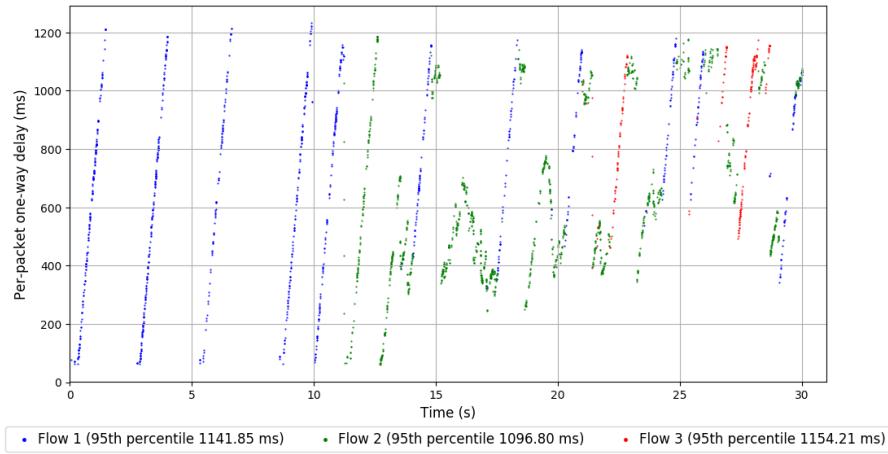
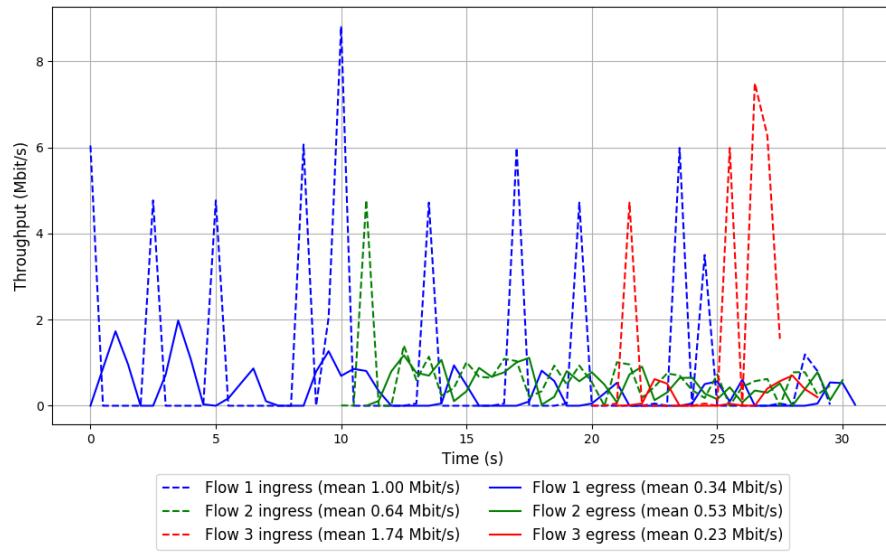


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-06-05 10:08:25
End at: 2018-06-05 10:08:55
Local clock offset: -2.334 ms
Remote clock offset: 12.861 ms

# Below is generated by plot.py at 2018-06-05 10:54:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 1132.314 ms
Loss rate: 60.63%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 1141.849 ms
Loss rate: 65.51%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 1096.797 ms
Loss rate: 22.86%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 1154.206 ms
Loss rate: 86.60%
```

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

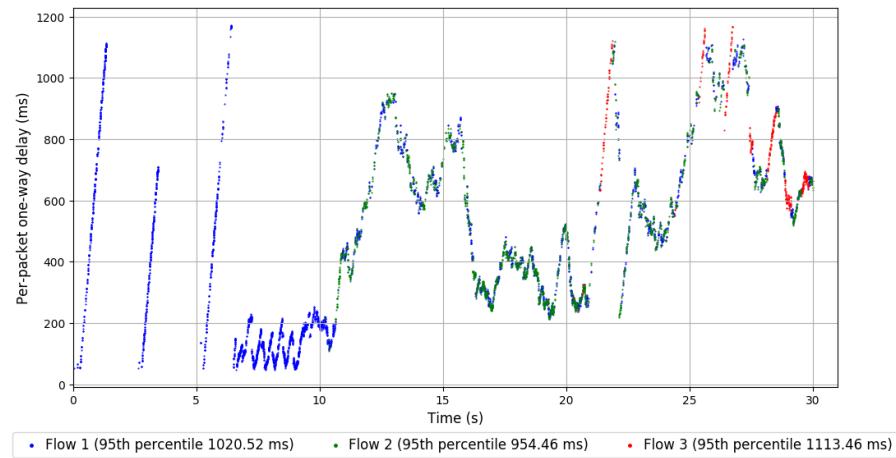
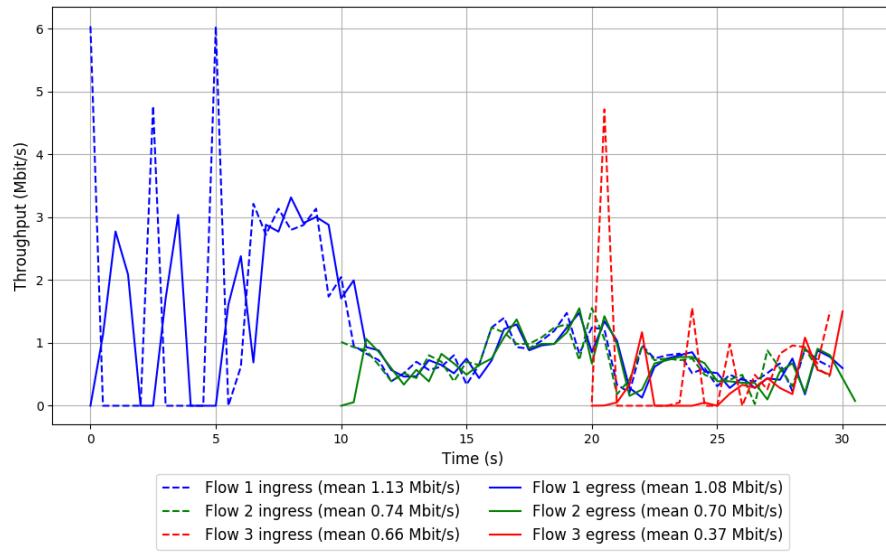


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-06-05 10:26:07
End at: 2018-06-05 10:26:37
Local clock offset: -4.859 ms
Remote clock offset: -2.42 ms

# Below is generated by plot.py at 2018-06-05 10:54:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 1018.771 ms
Loss rate: 9.95%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 1020.524 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 954.457 ms
Loss rate: 6.12%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 1113.459 ms
Loss rate: 46.35%
```

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

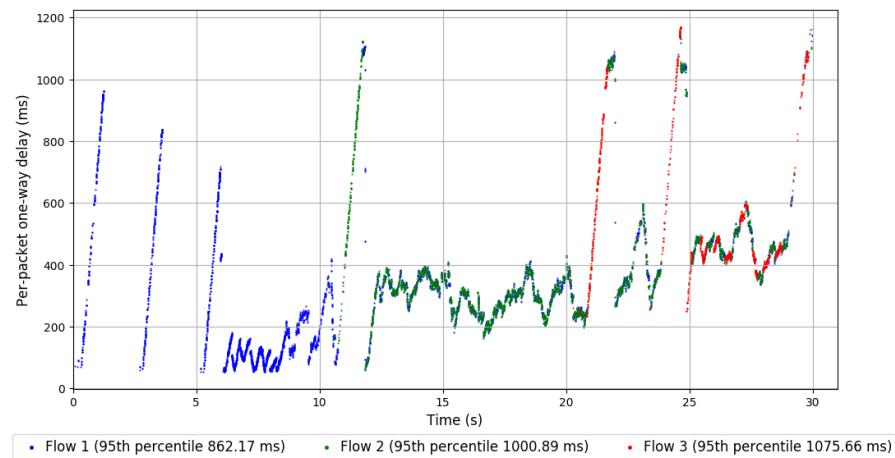
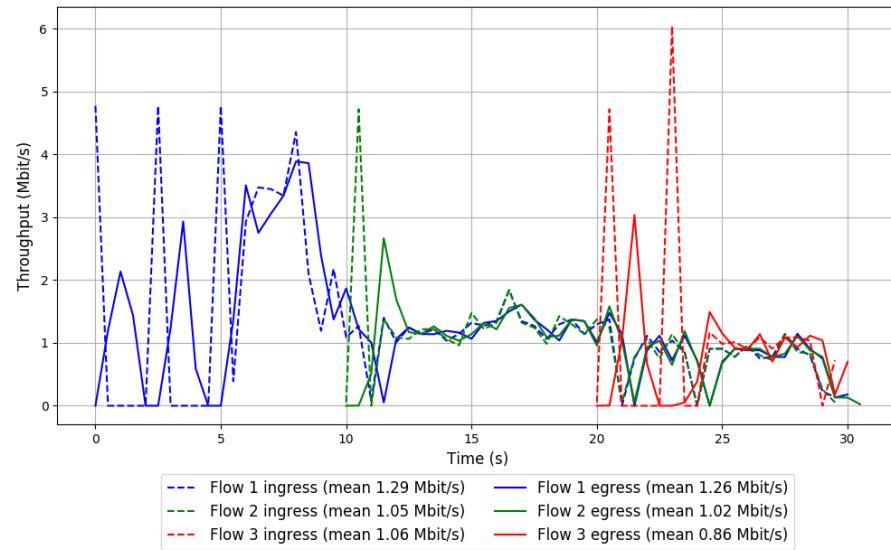


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-06-05 10:43:48
End at: 2018-06-05 10:44:18
Local clock offset: -1.074 ms
Remote clock offset: 0.877 ms

# Below is generated by plot.py at 2018-06-05 10:54:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 1001.202 ms
Loss rate: 5.35%
-- Flow 1:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 862.174 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 1000.894 ms
Loss rate: 3.73%
-- Flow 3:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 1075.663 ms
Loss rate: 20.65%
```

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

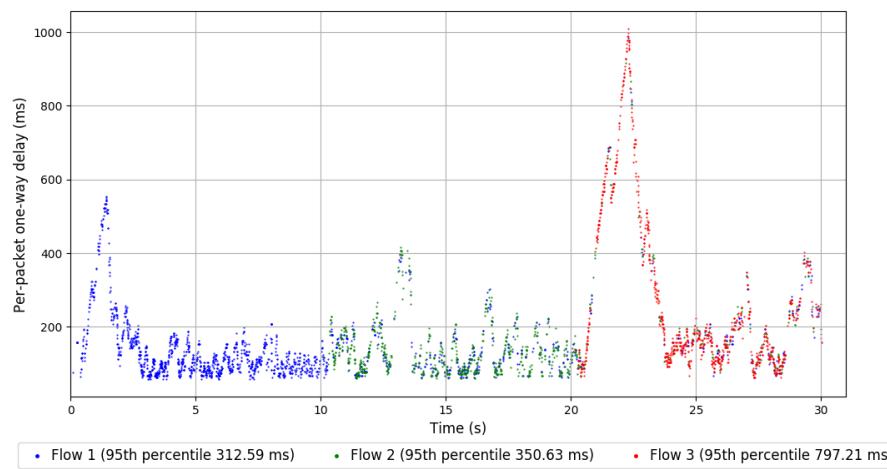
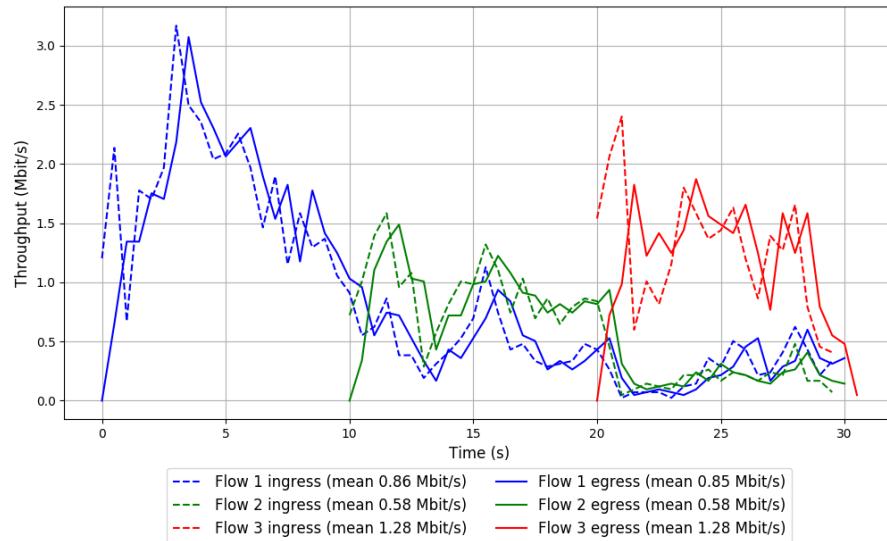


Run 1: Statistics of TCP Vegas

```
Start at: 2018-06-05 10:07:20
End at: 2018-06-05 10:07:50
Local clock offset: -1.548 ms
Remote clock offset: 13.5 ms

# Below is generated by plot.py at 2018-06-05 10:54:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 532.630 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 312.589 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 350.628 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 797.209 ms
Loss rate: 1.13%
```

Run 1: Report of TCP Vegas — Data Link

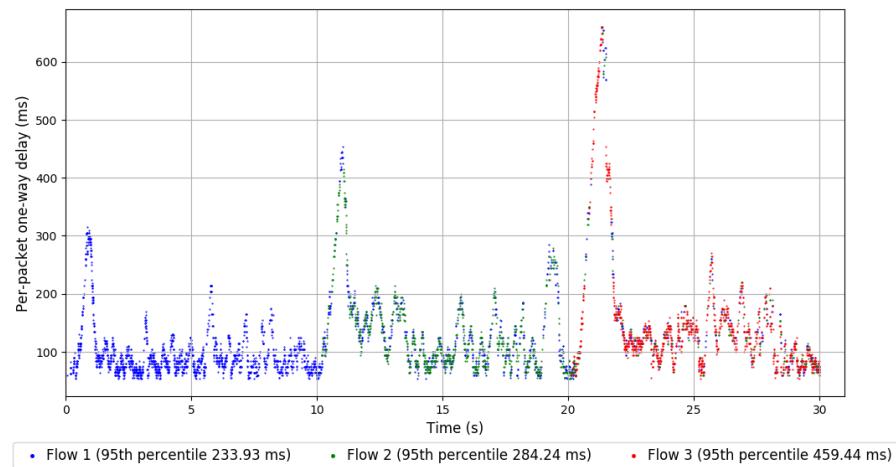
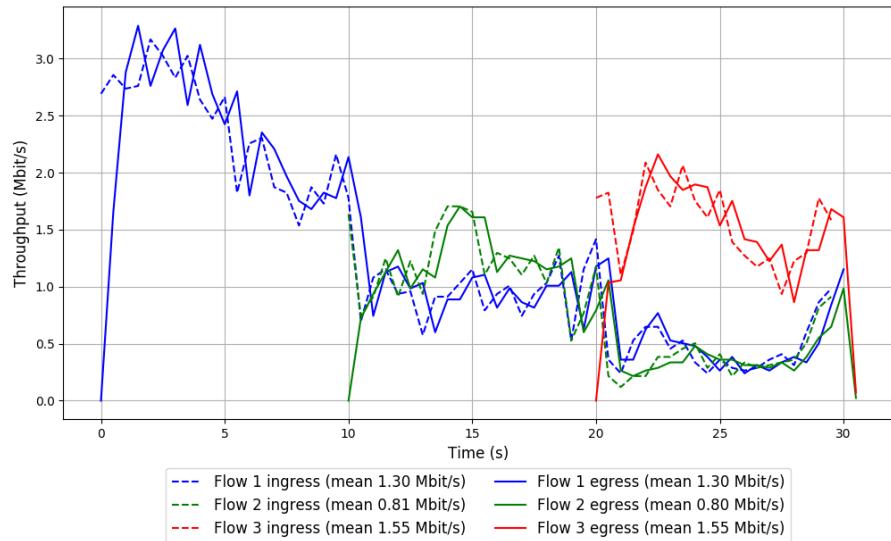


Run 2: Statistics of TCP Vegas

```
Start at: 2018-06-05 10:25:01
End at: 2018-06-05 10:25:31
Local clock offset: -0.23 ms
Remote clock offset: 6.407 ms

# Below is generated by plot.py at 2018-06-05 10:54:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 283.943 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 233.932 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 284.242 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 459.445 ms
Loss rate: 0.77%
```

Run 2: Report of TCP Vegas — Data Link

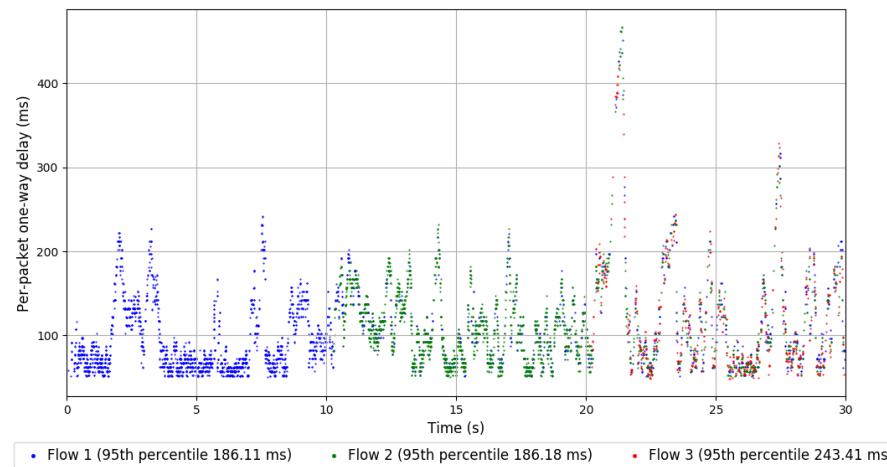
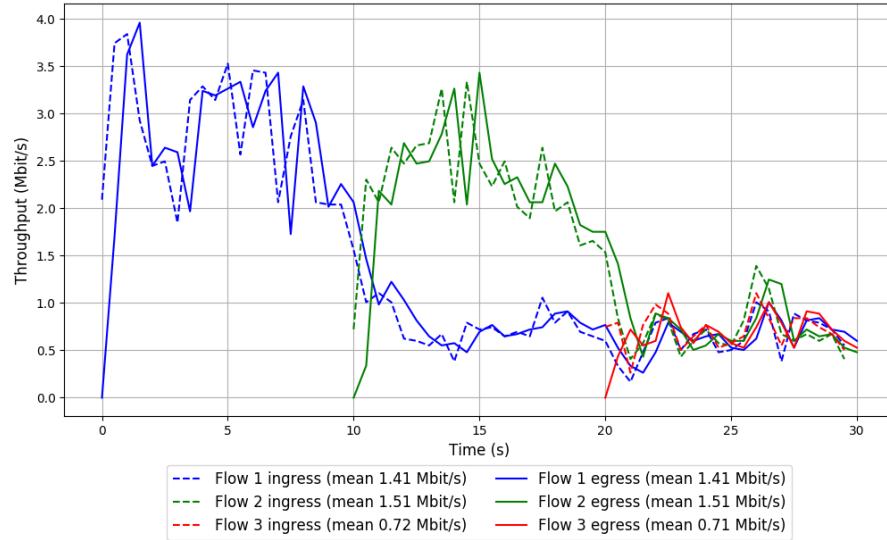


Run 3: Statistics of TCP Vegas

```
Start at: 2018-06-05 10:42:43
End at: 2018-06-05 10:43:13
Local clock offset: 1.212 ms
Remote clock offset: -3.672 ms

# Below is generated by plot.py at 2018-06-05 10:54:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 191.525 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 186.112 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 186.179 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 243.407 ms
Loss rate: 1.35%
```

Run 3: Report of TCP Vegas — Data Link

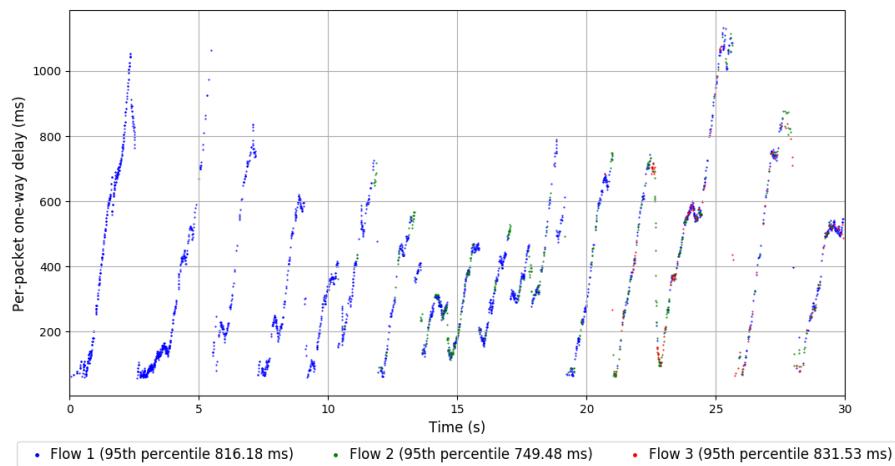
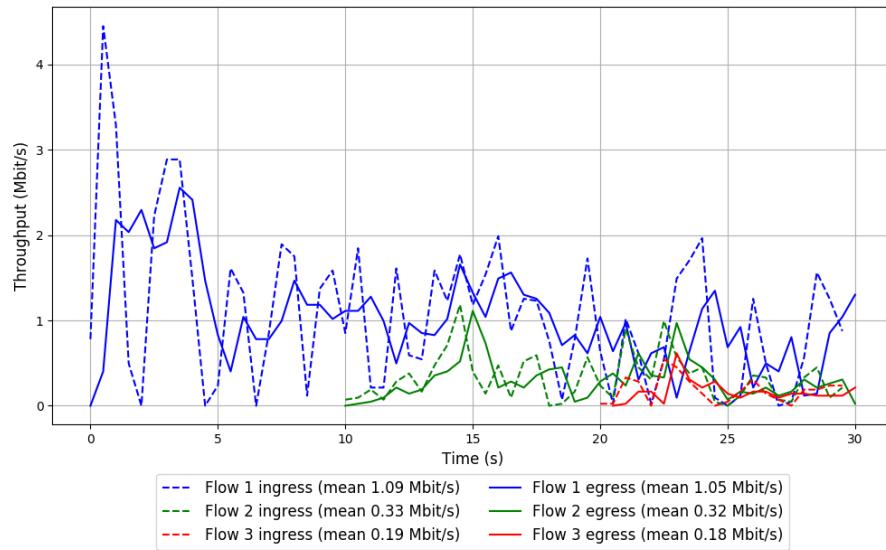


Run 1: Statistics of Verus

```
Start at: 2018-06-05 10:15:00
End at: 2018-06-05 10:15:30
Local clock offset: -0.534 ms
Remote clock offset: 13.272 ms

# Below is generated by plot.py at 2018-06-05 10:54:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 815.356 ms
Loss rate: 4.44%
-- Flow 1:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 816.178 ms
Loss rate: 4.02%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 749.478 ms
Loss rate: 5.08%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 831.531 ms
Loss rate: 9.68%
```

Run 1: Report of Verus — Data Link

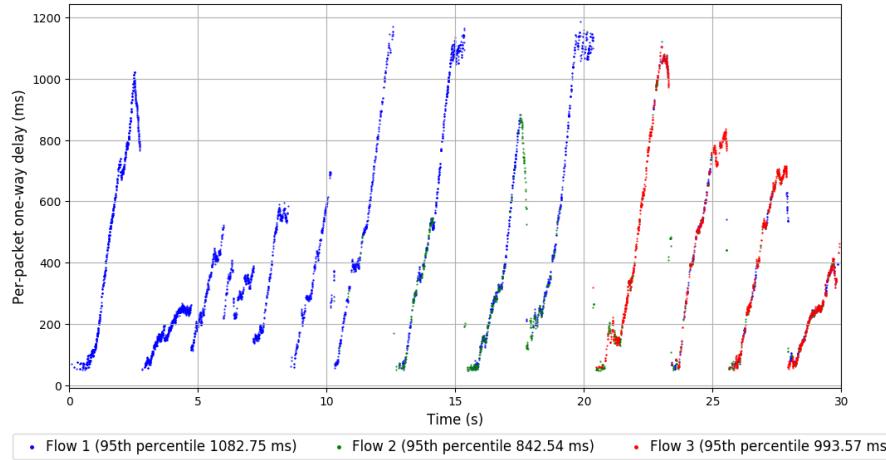
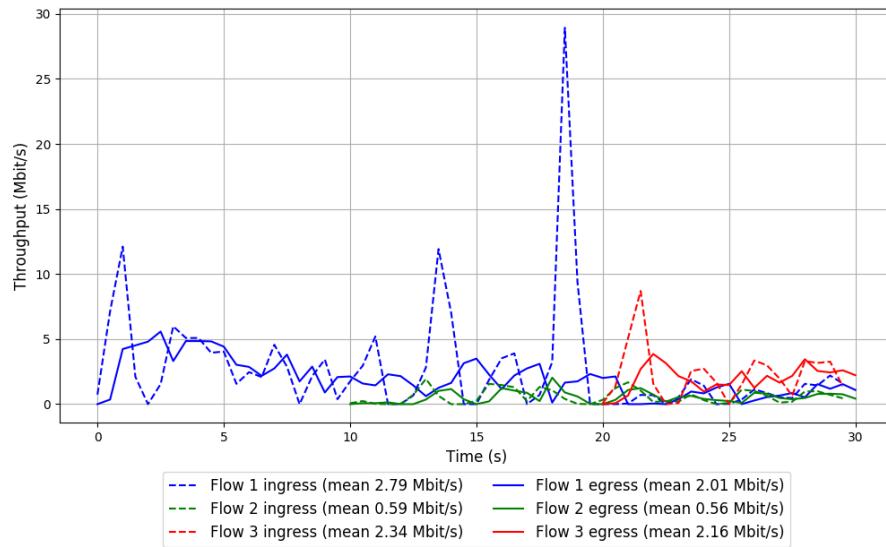


Run 2: Statistics of Verus

```
Start at: 2018-06-05 10:32:41
End at: 2018-06-05 10:33:11
Local clock offset: 2.58 ms
Remote clock offset: 3.54 ms

# Below is generated by plot.py at 2018-06-05 10:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 1057.888 ms
Loss rate: 22.24%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 1082.746 ms
Loss rate: 28.05%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 842.540 ms
Loss rate: 6.84%
-- Flow 3:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 993.571 ms
Loss rate: 8.86%
```

Run 2: Report of Verus — Data Link

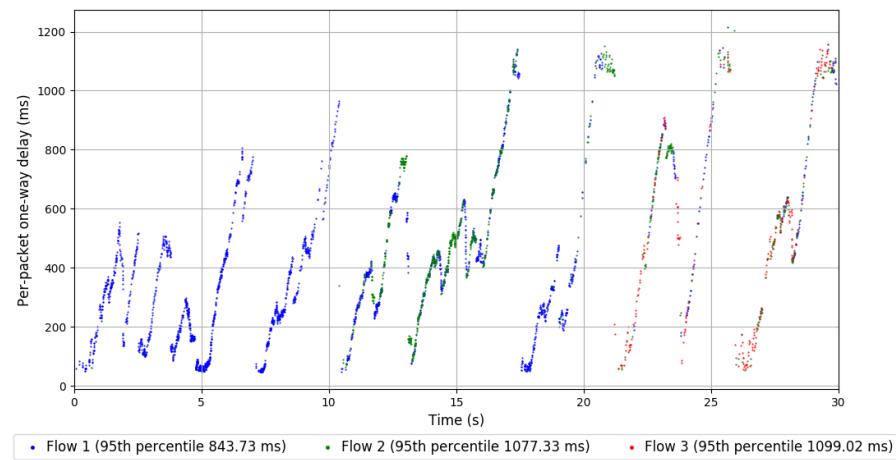
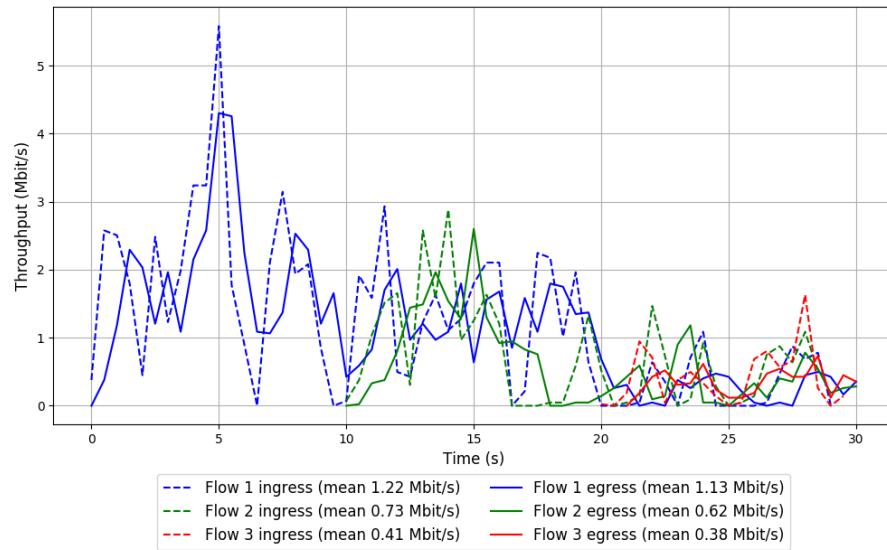


Run 3: Statistics of Verus

```
Start at: 2018-06-05 10:50:35
End at: 2018-06-05 10:51:05
Local clock offset: 0.823 ms
Remote clock offset: -5.84 ms

# Below is generated by plot.py at 2018-06-05 10:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 1044.867 ms
Loss rate: 7.74%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 843.726 ms
Loss rate: 4.70%
-- Flow 2:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 1077.326 ms
Loss rate: 12.45%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 1099.024 ms
Loss rate: 18.48%
```

Run 3: Report of Verus — Data Link

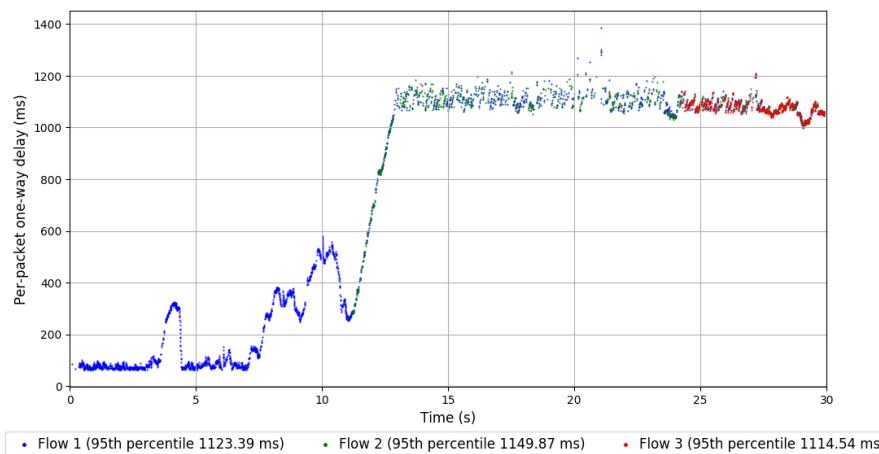
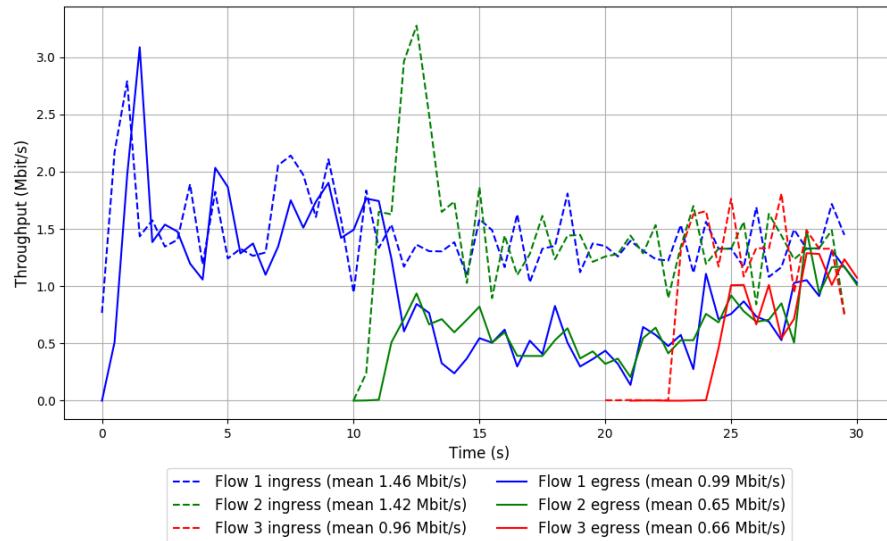


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2018-06-05 10:05:03
End at: 2018-06-05 10:05:33
Local clock offset: -0.24 ms
Remote clock offset: 14.162 ms

# Below is generated by plot.py at 2018-06-05 10:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 1133.362 ms
Loss rate: 41.17%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 1123.390 ms
Loss rate: 32.13%
-- Flow 2:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 1149.866 ms
Loss rate: 55.45%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 1114.543 ms
Loss rate: 40.28%
```

Run 1: Report of PCC-Vivace — Data Link

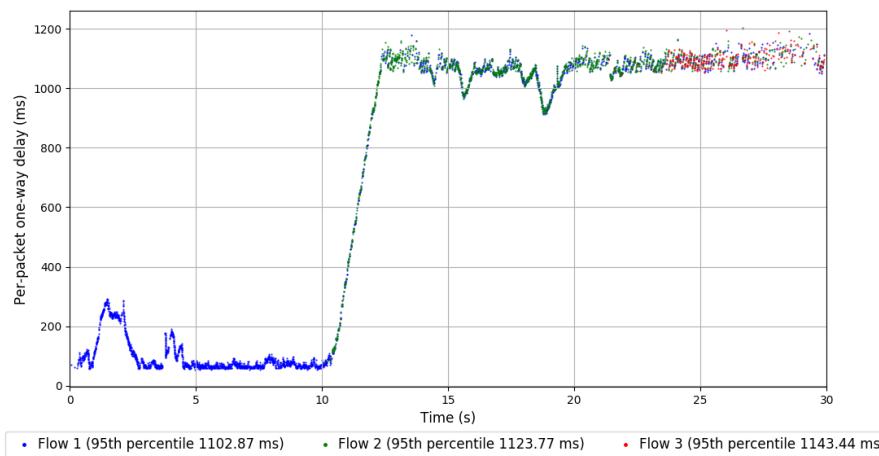
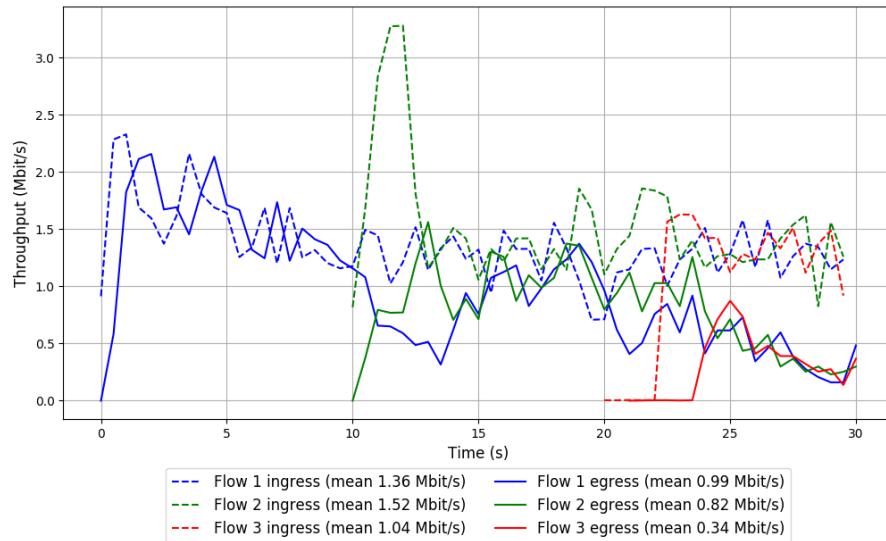


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-06-05 10:22:50
End at: 2018-06-05 10:23:20
Local clock offset: -0.667 ms
Remote clock offset: 6.357 ms

# Below is generated by plot.py at 2018-06-05 10:54:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 1115.746 ms
Loss rate: 40.04%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 1102.873 ms
Loss rate: 27.51%
-- Flow 2:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 1123.771 ms
Loss rate: 46.14%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 1143.443 ms
Loss rate: 71.65%
```

Run 2: Report of PCC-Vivace — Data Link

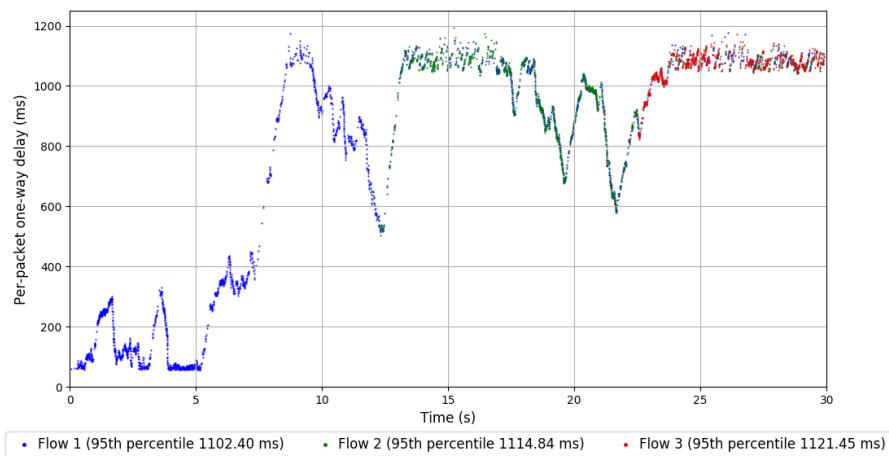
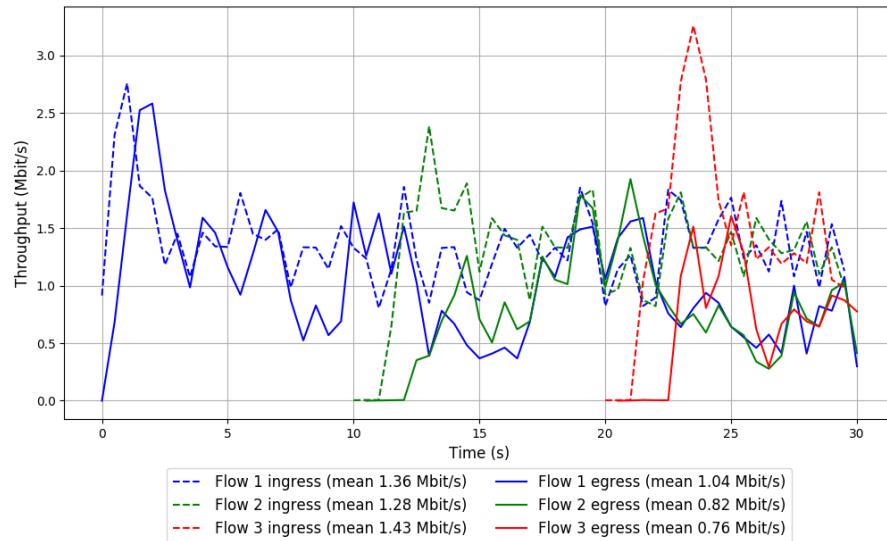


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-06-05 10:40:31
End at: 2018-06-05 10:41:01
Local clock offset: 2.891 ms
Remote clock offset: 0.244 ms

# Below is generated by plot.py at 2018-06-05 10:54:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 1109.391 ms
Loss rate: 33.65%
-- Flow 1:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 1102.401 ms
Loss rate: 24.15%
-- Flow 2:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 1114.844 ms
Loss rate: 39.01%
-- Flow 3:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 1121.455 ms
Loss rate: 51.48%
```

Run 3: Report of PCC-Vivace — Data Link

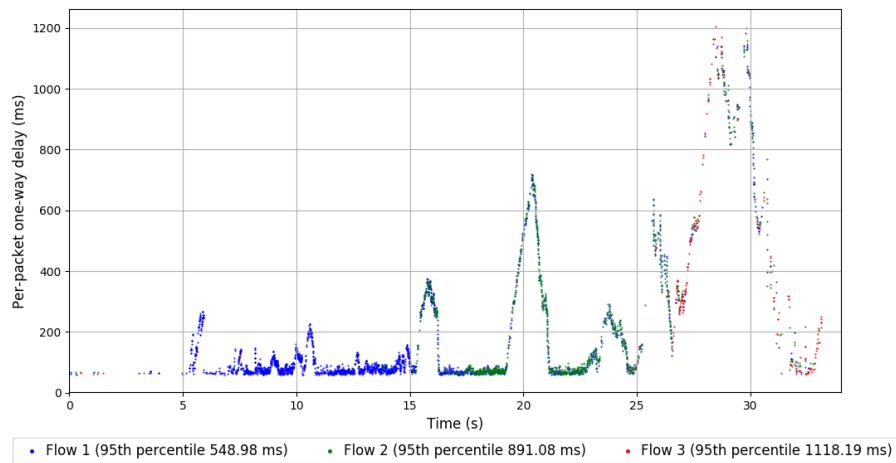
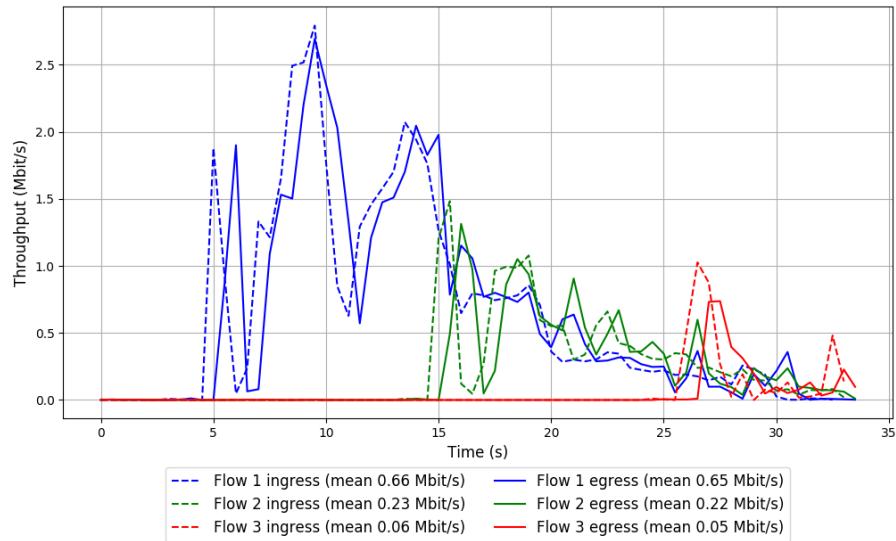


```
Run 1: Statistics of WebRTC media

Start at: 2018-06-05 10:13:55
End at: 2018-06-05 10:14:25
Local clock offset: -1.241 ms
Remote clock offset: 11.166 ms

# Below is generated by plot.py at 2018-06-05 10:54:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 684.469 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 548.980 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 891.081 ms
Loss rate: 2.55%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1118.189 ms
Loss rate: 16.96%
```

Run 1: Report of WebRTC media — Data Link

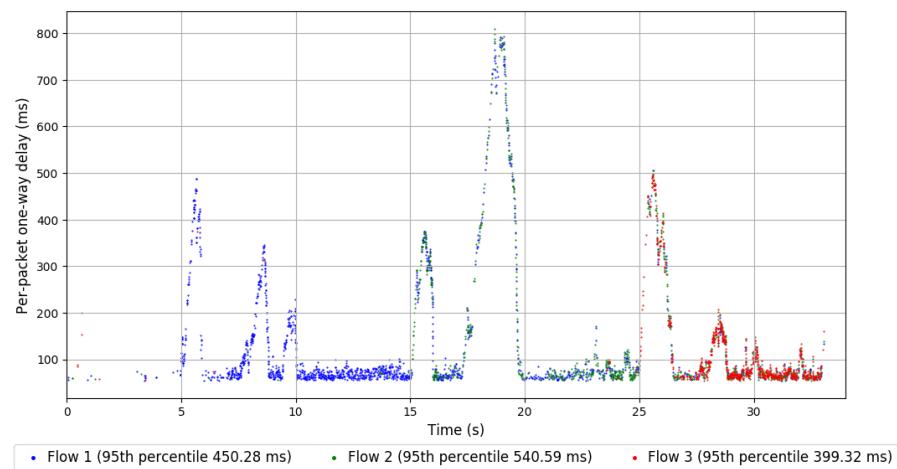
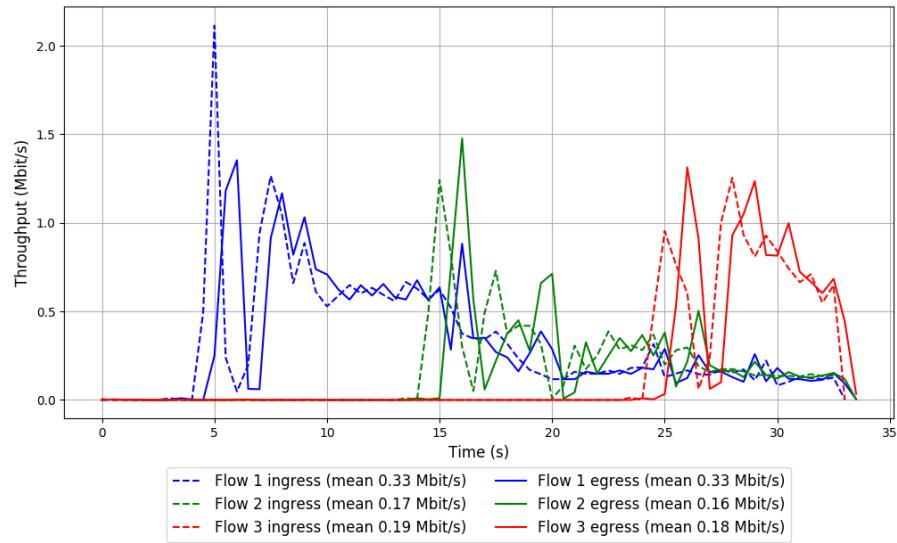


```
Run 2: Statistics of WebRTC media

Start at: 2018-06-05 10:31:35
End at: 2018-06-05 10:32:05
Local clock offset: -1.087 ms
Remote clock offset: 1.621 ms

# Below is generated by plot.py at 2018-06-05 10:54:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 466.280 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 450.284 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 540.590 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 399.318 ms
Loss rate: 2.02%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

```
Start at: 2018-06-05 10:49:29
End at: 2018-06-05 10:49:59
Local clock offset: -2.254 ms
Remote clock offset: -1.643 ms

# Below is generated by plot.py at 2018-06-05 10:54:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 916.795 ms
Loss rate: 5.19%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 1061.926 ms
Loss rate: 6.62%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 740.278 ms
Loss rate: 7.37%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 491.763 ms
Loss rate: 0.96%
```

Run 3: Report of WebRTC media — Data Link

