

Pantheon Report

Generated at 2018-06-06 02:18:51 (UTC).

Data path: India ppp0 ppp0 (*remote*) → AWS India 1 Ethernet (*local*).

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.

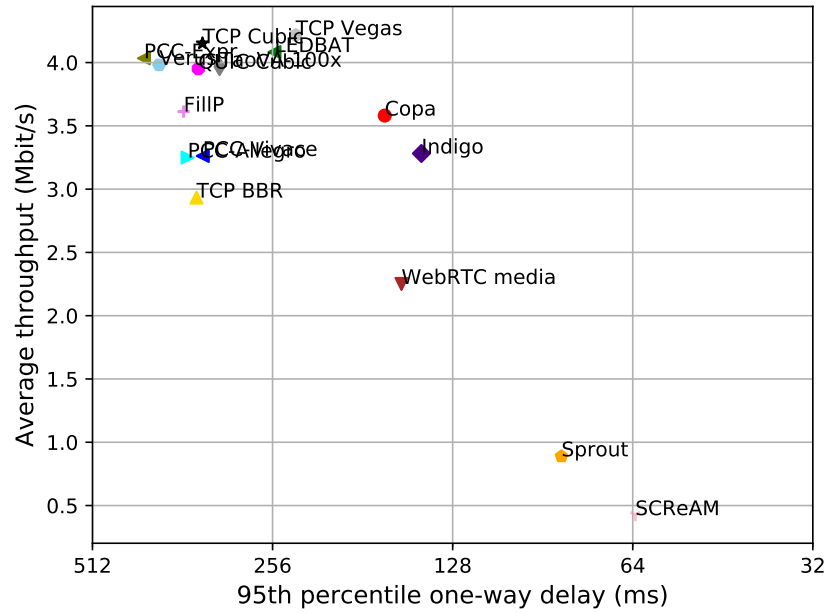
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

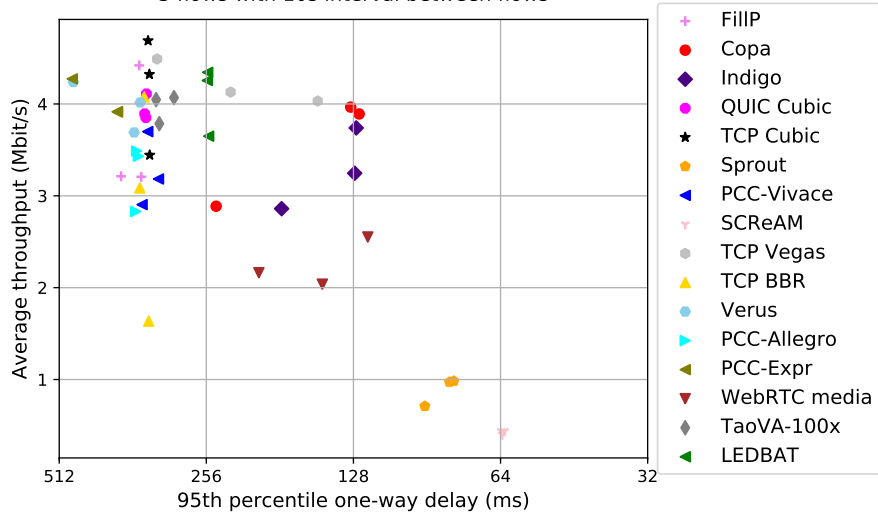
Git summary:

```
branch: master @ 227fdf9a3757f17b88537cceed5743a33037a3d2
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 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	1.78	1.49	0.99	340.48	344.96	344.61	8.43	15.18	14.19
Copa	3	2.11	1.60	1.24	154.27	162.93	188.41	0.33	0.61	1.50
TCP Cubic	3	2.59	1.93	0.89	333.63	338.26	340.11	1.35	2.14	5.96
FillP	3	2.21	1.61	1.09	355.54	417.59	349.23	37.73	35.15	29.93
Indigo	3	1.64	1.65	1.65	119.72	142.69	164.63	0.30	0.92	1.35
LEDBAT	3	2.63	1.72	0.98	234.22	275.34	286.00	0.10	1.15	2.93
PCC-Allegro	3	1.69	1.62	1.48	348.25	351.43	710.66	20.08	24.53	64.74
PCC-Expr	3	2.26	1.78	1.90	356.05	483.54	466.56	43.93	57.75	68.01
QUIC Cubic	3	2.70	1.31	1.20	340.33	341.45	341.29	3.63	5.01	7.17
SCReAM	3	0.22	0.21	0.21	63.14	62.22	62.58	0.26	0.37	0.81
Sprout	3	0.43	0.45	0.51	83.94	83.93	84.00	0.19	0.43	0.39
TaoVA-100x	3	2.35	1.69	1.50	297.50	334.77	334.33	3.53	8.76	9.66
TCP Vegas	3	1.88	1.93	3.21	184.30	239.21	247.64	0.20	1.30	3.02
Verus	3	3.71	0.36	0.15	365.03	406.86	357.83	39.97	61.23	59.02
PCC-Vivace	3	1.82	1.41	1.55	325.34	336.64	341.79	2.53	4.55	8.35
WebRTC media	3	1.32	0.63	0.32	157.15	169.54	146.38	0.39	0.66	0.91

Run 1: Statistics of TCP BBR

Start at: 2018-06-06 01:27:03

End at: 2018-06-06 01:27:33

Local clock offset: 1.689 ms

Remote clock offset: -7.3 ms

Below is generated by plot.py at 2018-06-06 02:18:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 343.108 ms

Loss rate: 8.02%

-- Flow 1:

Average throughput: 2.75 Mbit/s

95th percentile per-packet one-way delay: 342.191 ms

Loss rate: 5.77%

-- Flow 2:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 345.511 ms

Loss rate: 12.93%

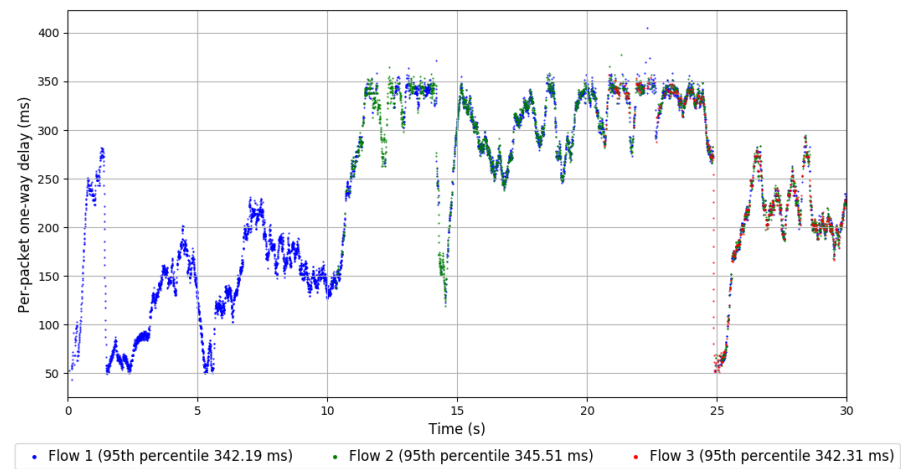
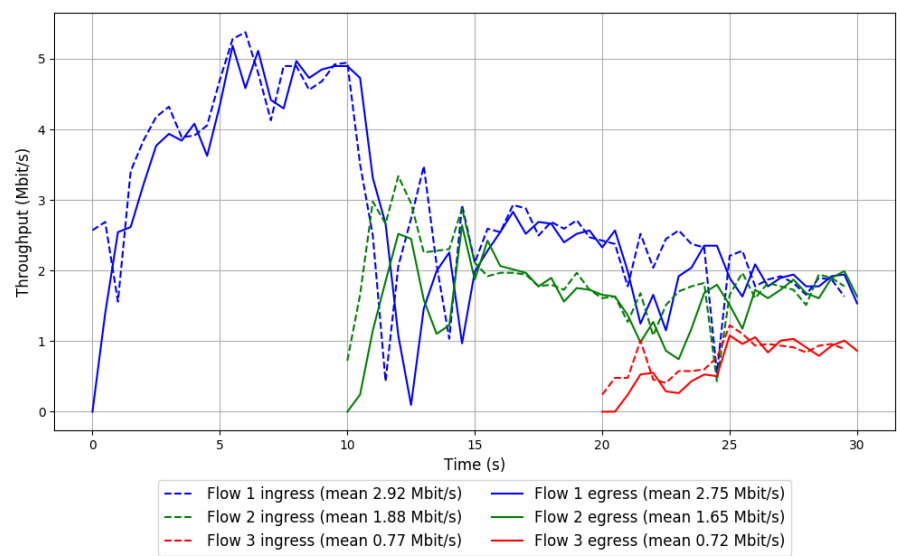
-- Flow 3:

Average throughput: 0.72 Mbit/s

95th percentile per-packet one-way delay: 342.313 ms

Loss rate: 9.57%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-06-06 01:44:30

End at: 2018-06-06 01:45:00

Local clock offset: 2.436 ms

Remote clock offset: -9.17 ms

Below is generated by plot.py at 2018-06-06 02:18:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.09 Mbit/s

95th percentile per-packet one-way delay: 350.224 ms

Loss rate: 17.60%

-- Flow 1:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 347.040 ms

Loss rate: 8.54%

-- Flow 2:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 352.714 ms

Loss rate: 24.12%

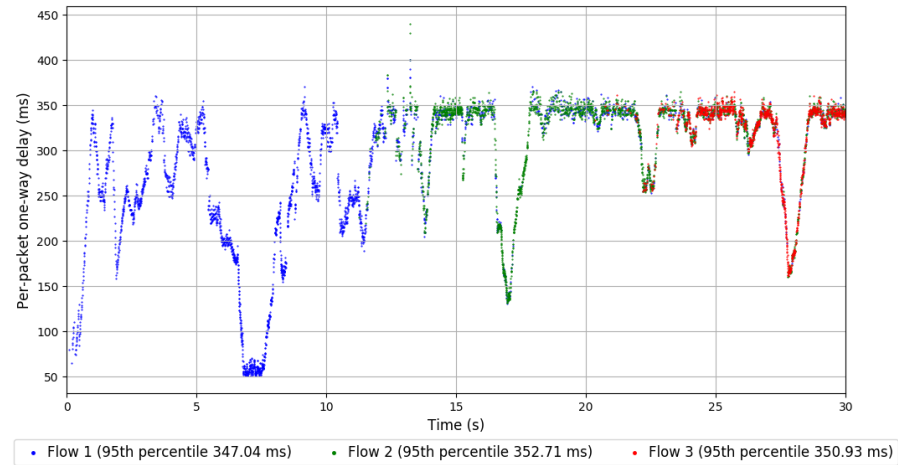
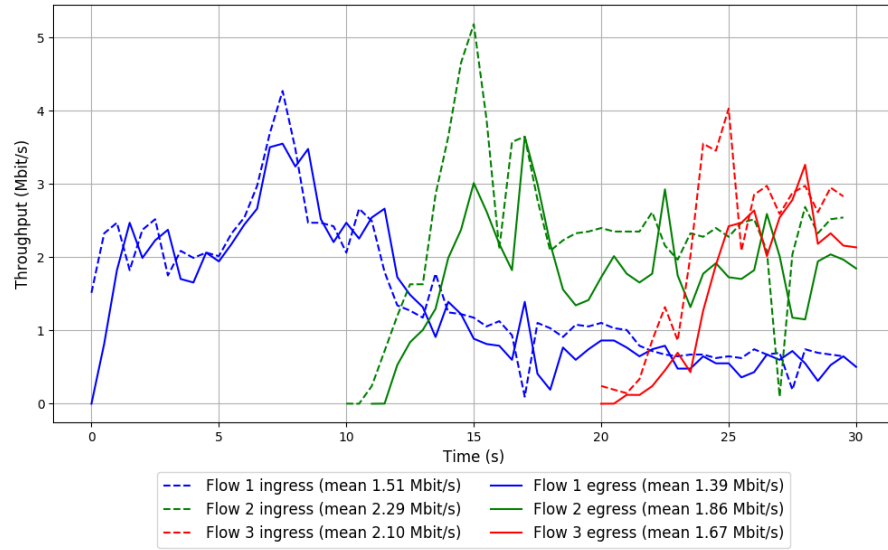
-- Flow 3:

Average throughput: 1.67 Mbit/s

95th percentile per-packet one-way delay: 350.932 ms

Loss rate: 22.97%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-06-06 02:01:59

End at: 2018-06-06 02:02:29

Local clock offset: -4.142 ms

Remote clock offset: 1.977 ms

Below is generated by plot.py at 2018-06-06 02:18:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 335.819 ms

Loss rate: 10.09%

-- Flow 1:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 332.216 ms

Loss rate: 10.97%

-- Flow 2:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 336.650 ms

Loss rate: 8.49%

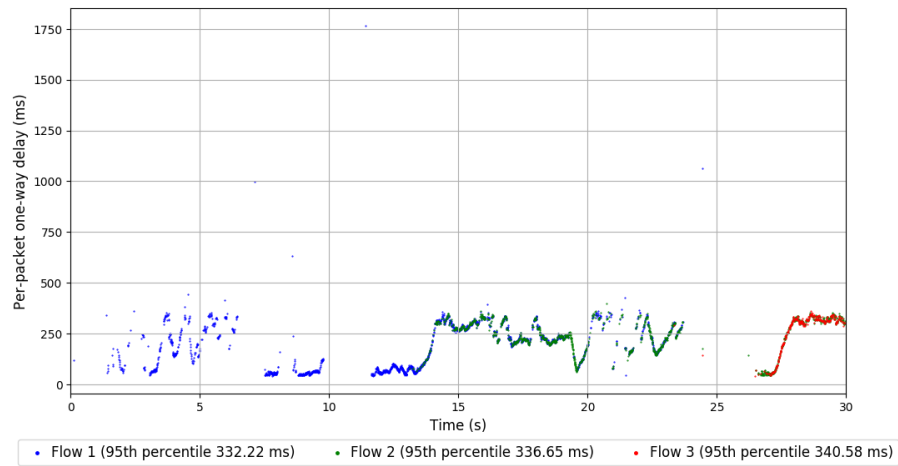
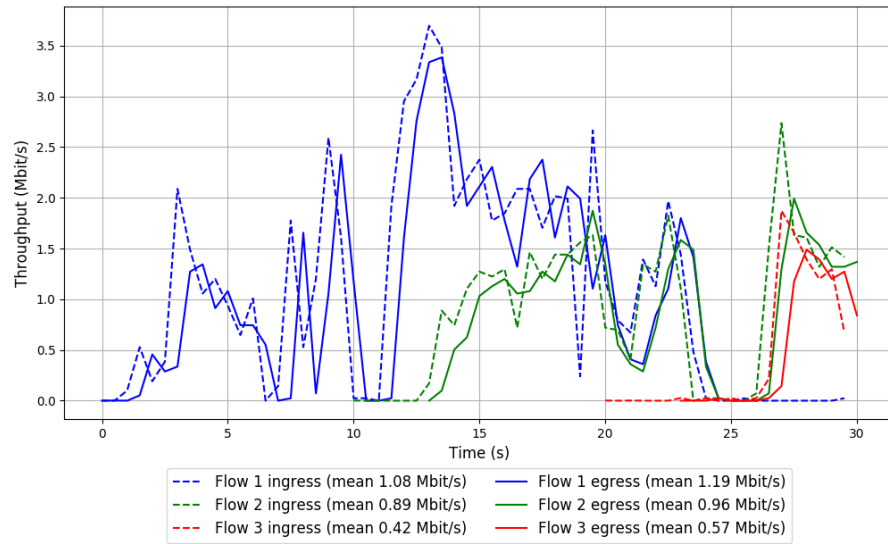
-- Flow 3:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 340.576 ms

Loss rate: 10.04%

Run 3: Report of TCP BBR — Data Link

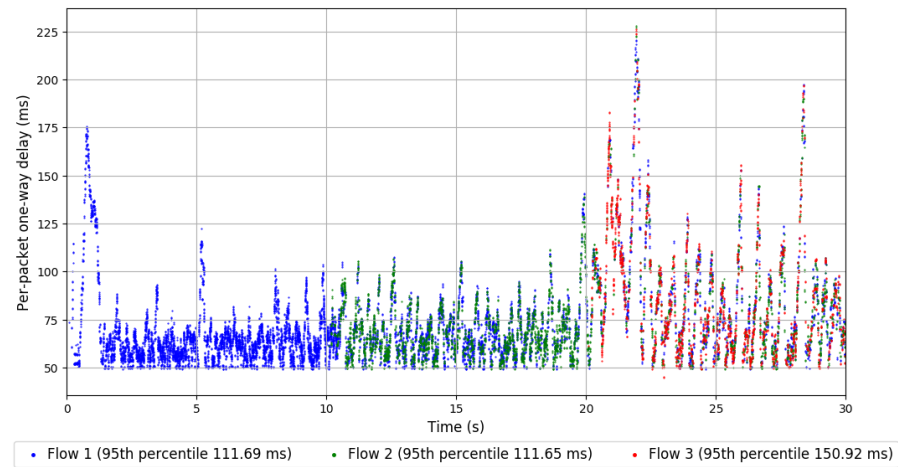
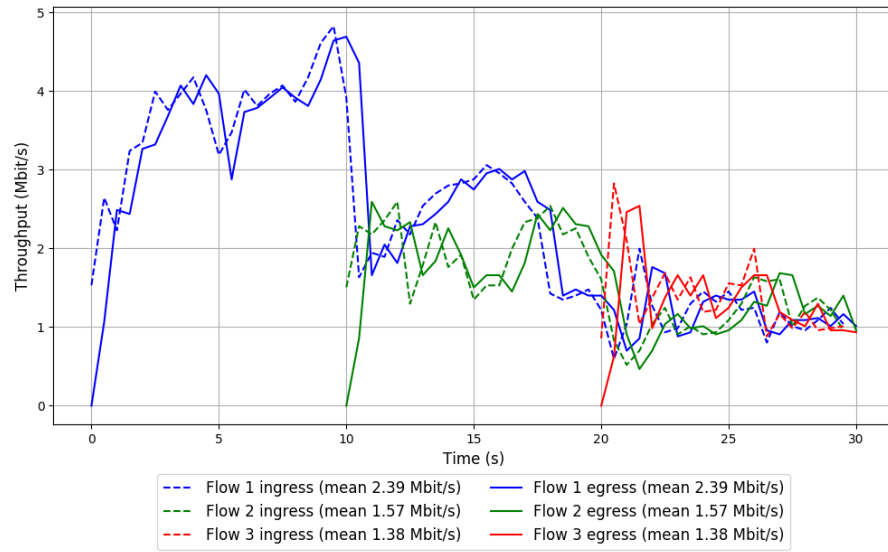


Run 1: Statistics of Copa

Start at: 2018-06-06 01:31:24
End at: 2018-06-06 01:31:54
Local clock offset: 1.478 ms
Remote clock offset: -8.139 ms

Below is generated by plot.py at 2018-06-06 02:18:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 124.595 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 111.685 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 111.647 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 150.923 ms
Loss rate: 0.75%

Run 1: Report of Copa — Data Link

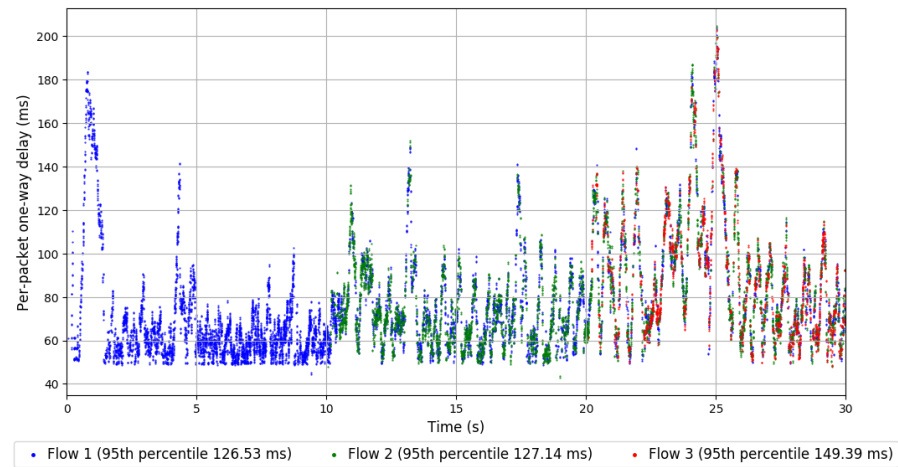
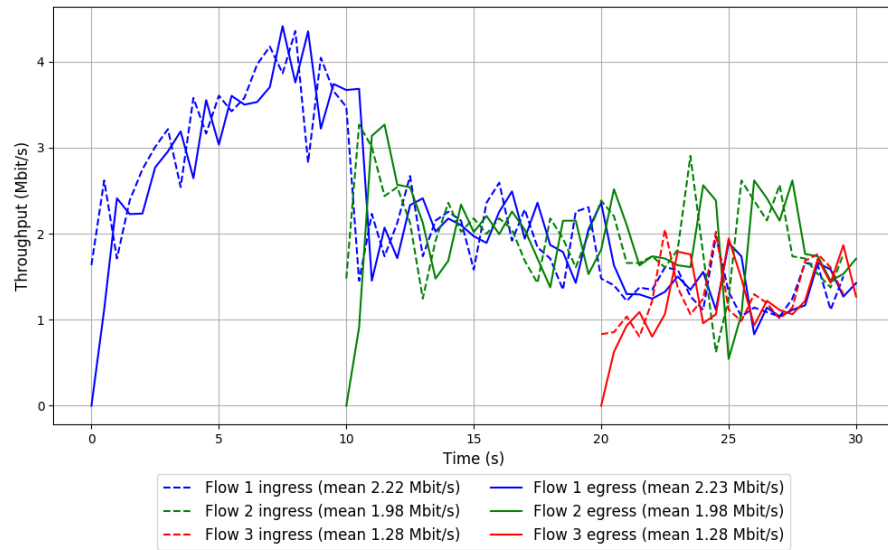


Run 2: Statistics of Copa

Start at: 2018-06-06 01:48:52
End at: 2018-06-06 01:49:22
Local clock offset: 0.734 ms
Remote clock offset: -7.072 ms

Below is generated by plot.py at 2018-06-06 02:18:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.97 Mbit/s
95th percentile per-packet one-way delay: 129.658 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 126.532 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 127.144 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 149.391 ms
Loss rate: 1.01%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-06-06 02:06:20

End at: 2018-06-06 02:06:50

Local clock offset: 1.037 ms

Remote clock offset: 1.913 ms

Below is generated by plot.py at 2018-06-06 02:18:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.89 Mbit/s

95th percentile per-packet one-way delay: 244.427 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 224.591 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 249.988 ms

Loss rate: 1.19%

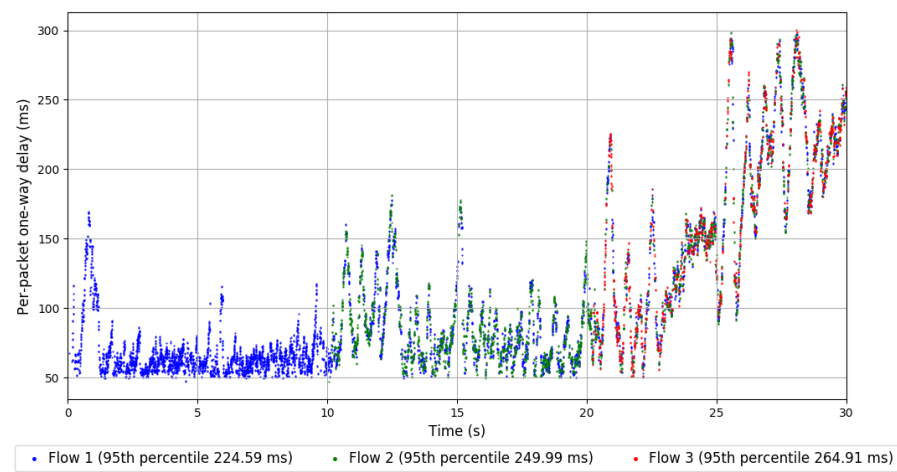
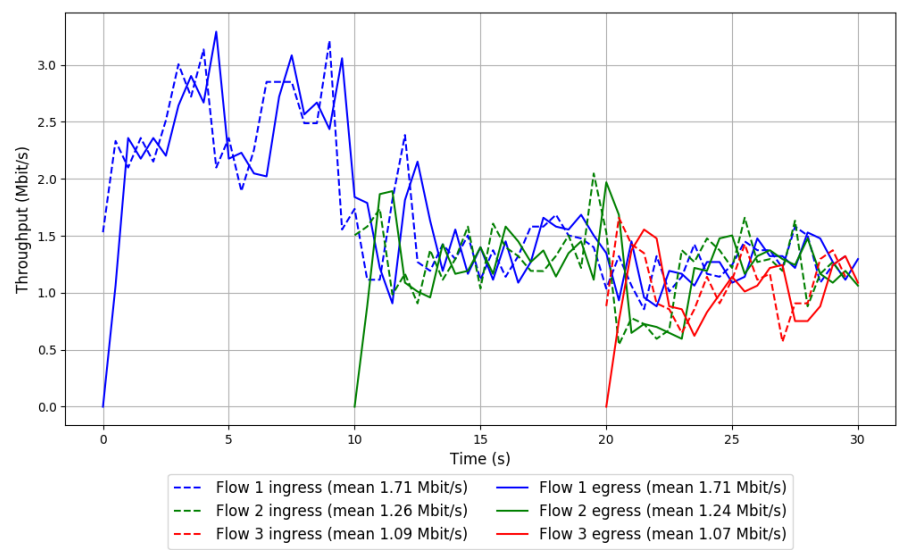
-- Flow 3:

Average throughput: 1.07 Mbit/s

95th percentile per-packet one-way delay: 264.906 ms

Loss rate: 2.75%

Run 3: Report of Copa — Data Link

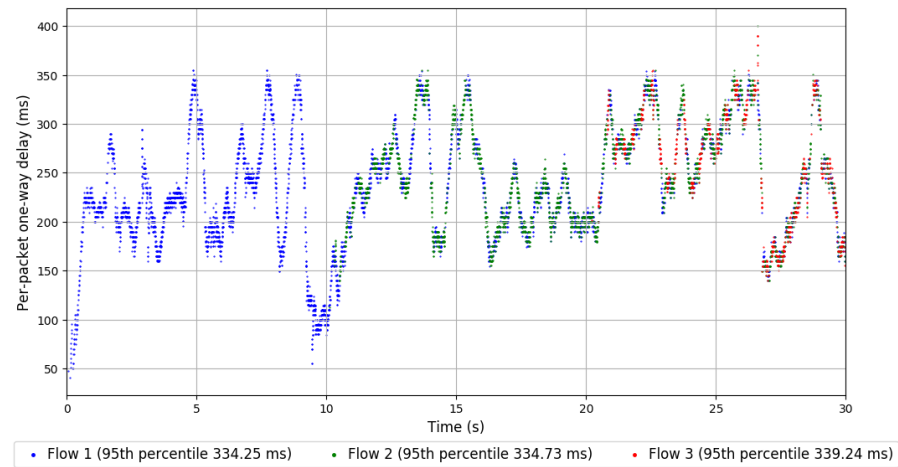
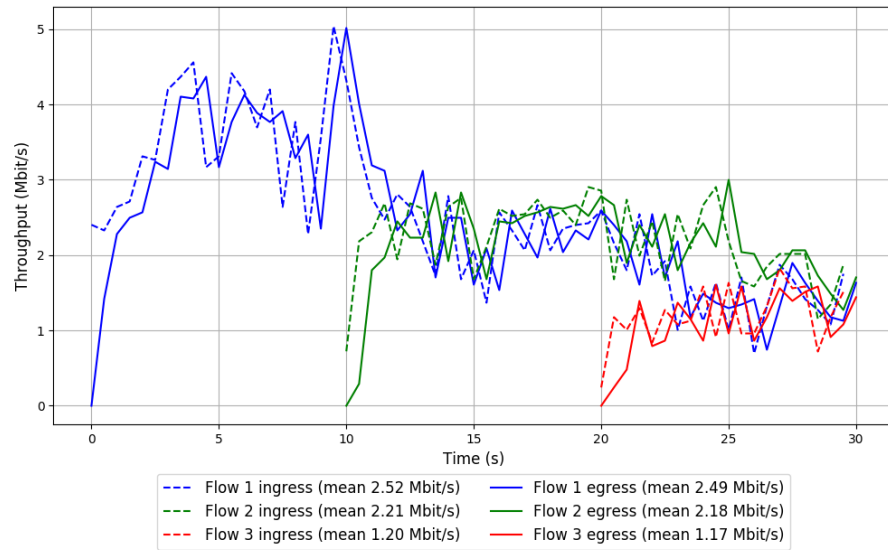


Run 1: Statistics of TCP Cubic

Start at: 2018-06-06 01:33:36
End at: 2018-06-06 01:34:06
Local clock offset: 0.325 ms
Remote clock offset: -8.199 ms

Below is generated by plot.py at 2018-06-06 02:18:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 334.713 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 334.251 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 334.730 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 339.243 ms
Loss rate: 4.04%

Run 1: Report of TCP Cubic — Data Link

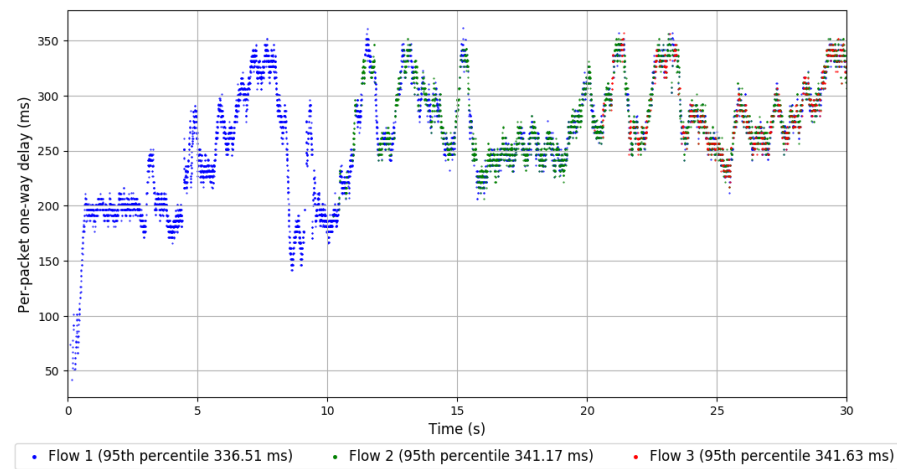
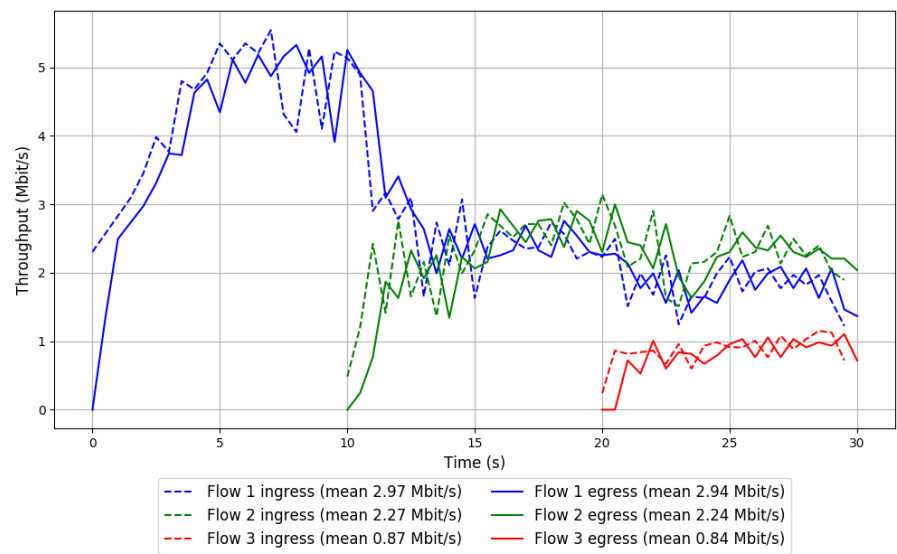


Run 2: Statistics of TCP Cubic

Start at: 2018-06-06 01:51:03
End at: 2018-06-06 01:51:33
Local clock offset: 2.926 ms
Remote clock offset: -3.855 ms

Below is generated by plot.py at 2018-06-06 02:18:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.69 Mbit/s
95th percentile per-packet one-way delay: 336.817 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 2.94 Mbit/s
95th percentile per-packet one-way delay: 336.513 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 341.169 ms
Loss rate: 2.12%
-- Flow 3:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 341.629 ms
Loss rate: 6.49%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-06-06 02:08:31

End at: 2018-06-06 02:09:01

Local clock offset: -0.633 ms

Remote clock offset: 2.51 ms

Below is generated by plot.py at 2018-06-06 02:18:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 334.288 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 330.125 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 338.889 ms

Loss rate: 2.57%

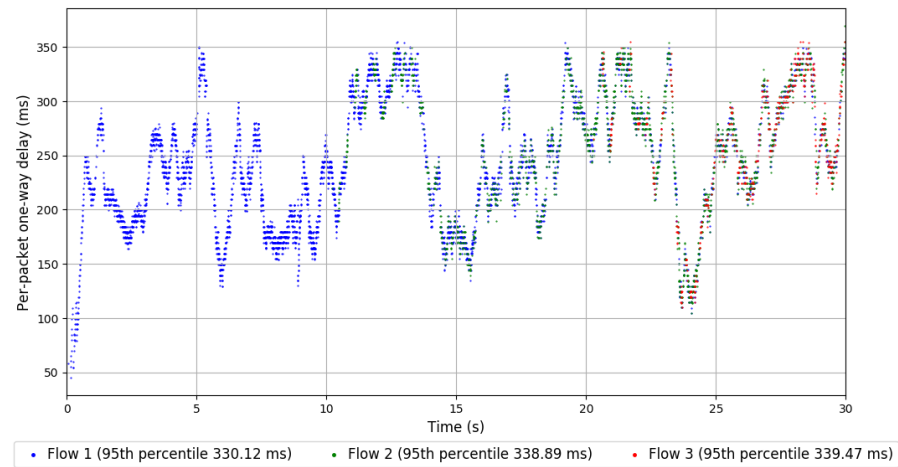
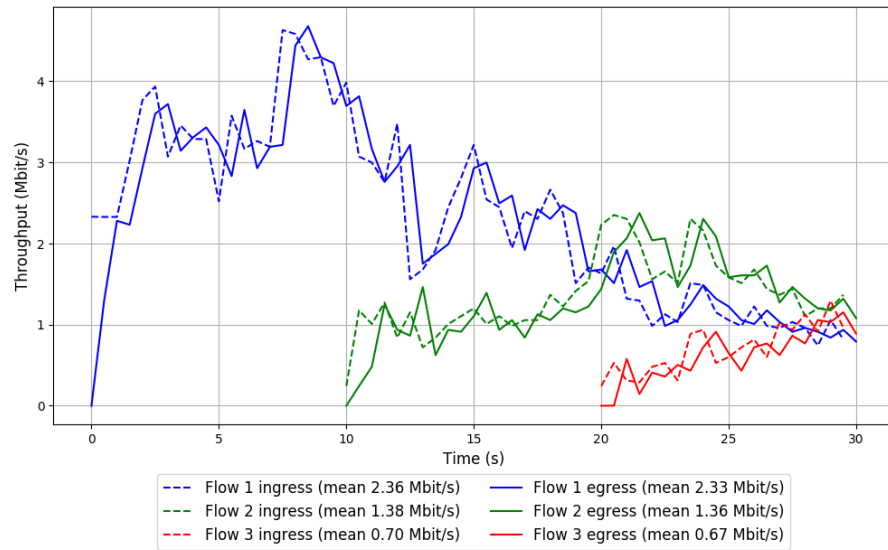
-- Flow 3:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 339.470 ms

Loss rate: 7.35%

Run 3: Report of TCP Cubic — Data Link

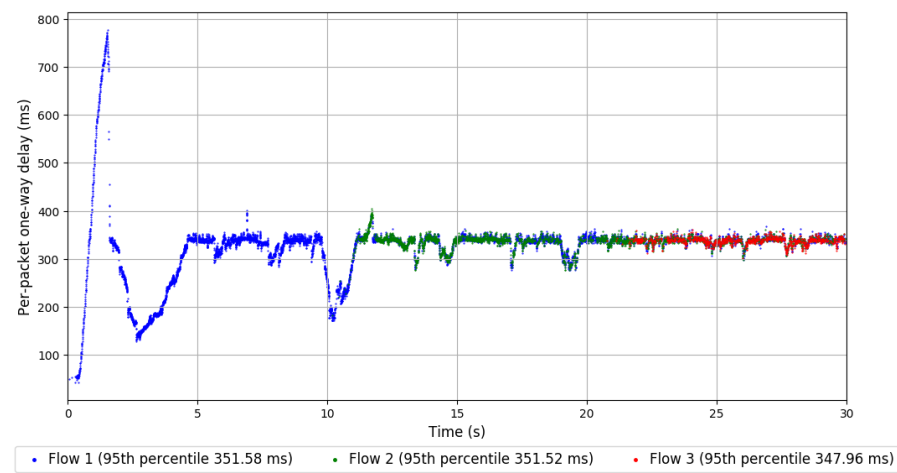
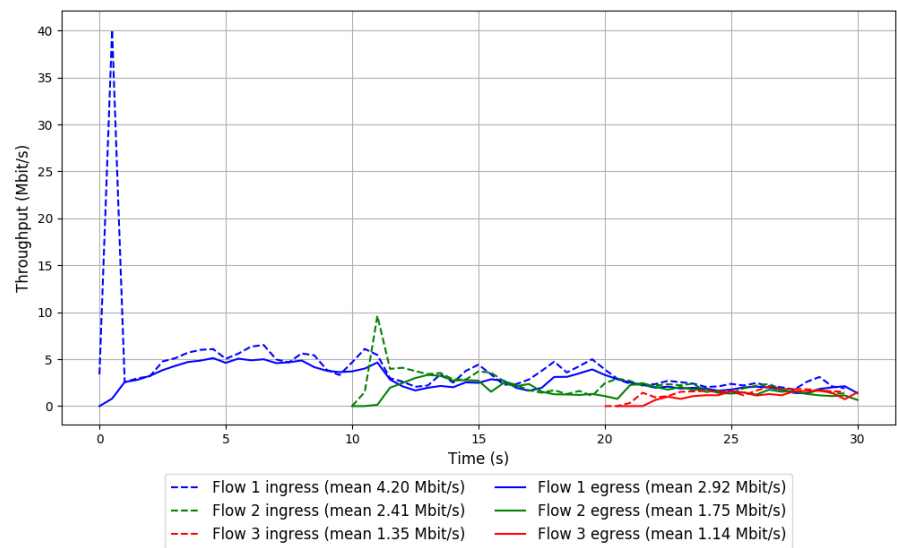


Run 1: Statistics of FillP

Start at: 2018-06-06 01:28:08
End at: 2018-06-06 01:28:38
Local clock offset: 1.981 ms
Remote clock offset: -7.676 ms

Below is generated by plot.py at 2018-06-06 02:18:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 351.131 ms
Loss rate: 29.45%
-- Flow 1:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 351.582 ms
Loss rate: 30.76%
-- Flow 2:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 351.516 ms
Loss rate: 28.16%
-- Flow 3:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 347.962 ms
Loss rate: 21.71%

Run 1: Report of FillP — Data Link

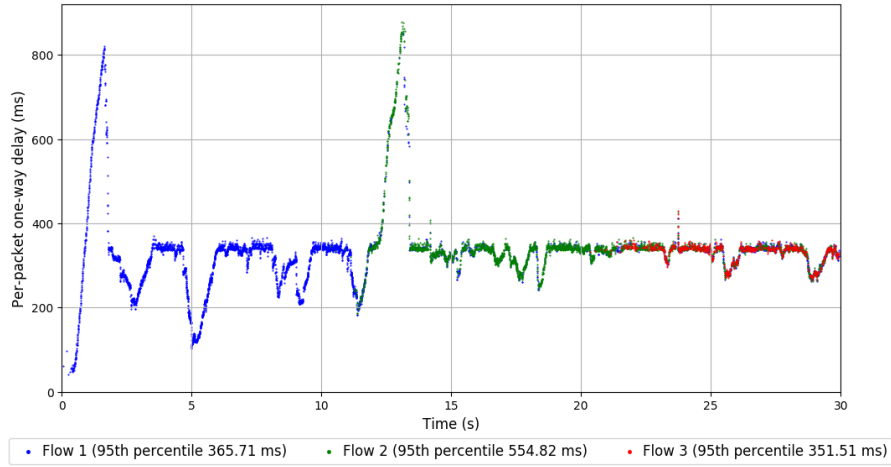
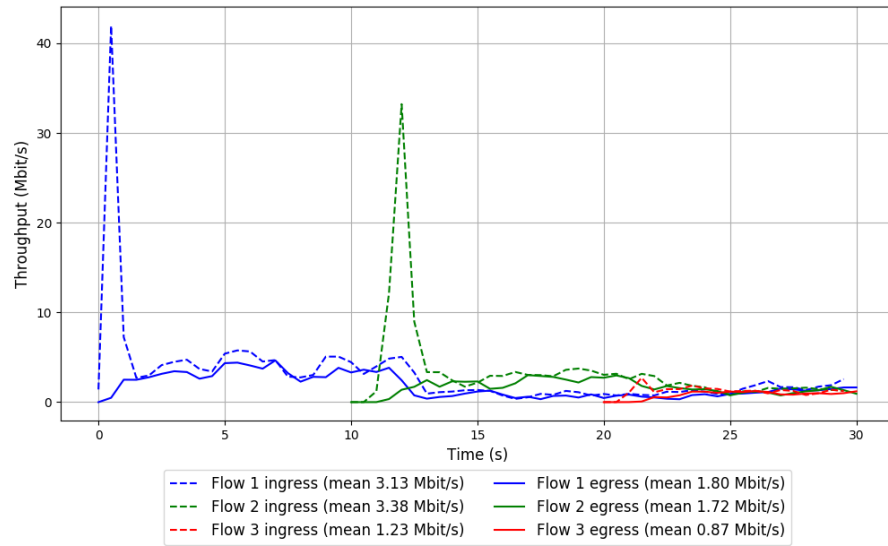


Run 2: Statistics of FillP

Start at: 2018-06-06 01:45:36
End at: 2018-06-06 01:46:06
Local clock offset: 1.81 ms
Remote clock offset: -8.259 ms

Below is generated by plot.py at 2018-06-06 02:18:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 382.491 ms
Loss rate: 44.58%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 365.706 ms
Loss rate: 42.46%
-- Flow 2:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 554.823 ms
Loss rate: 49.96%
-- Flow 3:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 351.506 ms
Loss rate: 31.13%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-06-06 02:03:04

End at: 2018-06-06 02:03:34

Local clock offset: -3.09 ms

Remote clock offset: 2.209 ms

Below is generated by plot.py at 2018-06-06 02:18:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.21 Mbit/s

95th percentile per-packet one-way delay: 347.773 ms

Loss rate: 36.48%

-- Flow 1:

Average throughput: 1.90 Mbit/s

95th percentile per-packet one-way delay: 349.336 ms

Loss rate: 39.97%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 346.428 ms

Loss rate: 27.32%

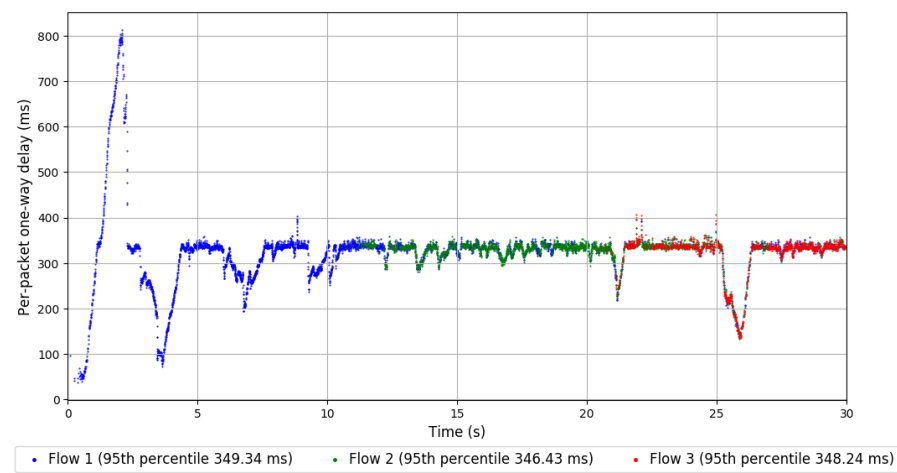
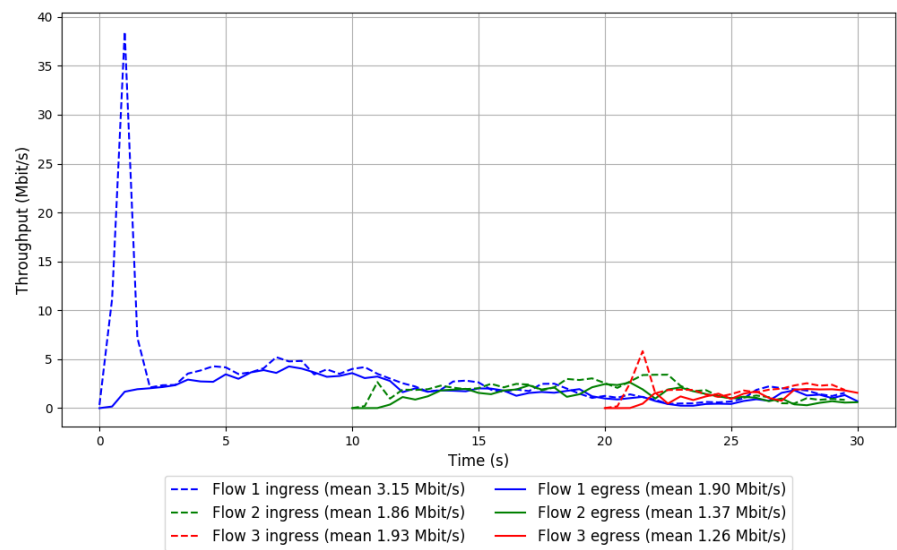
-- Flow 3:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 348.235 ms

Loss rate: 36.94%

Run 3: Report of FillP — Data Link

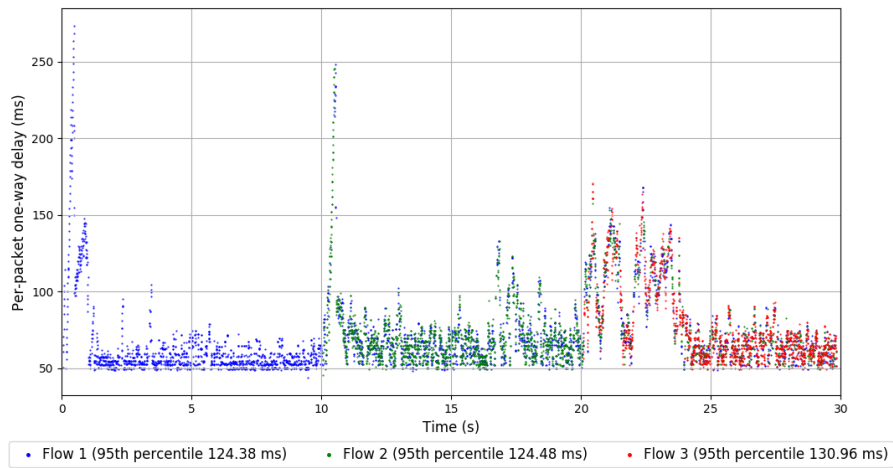
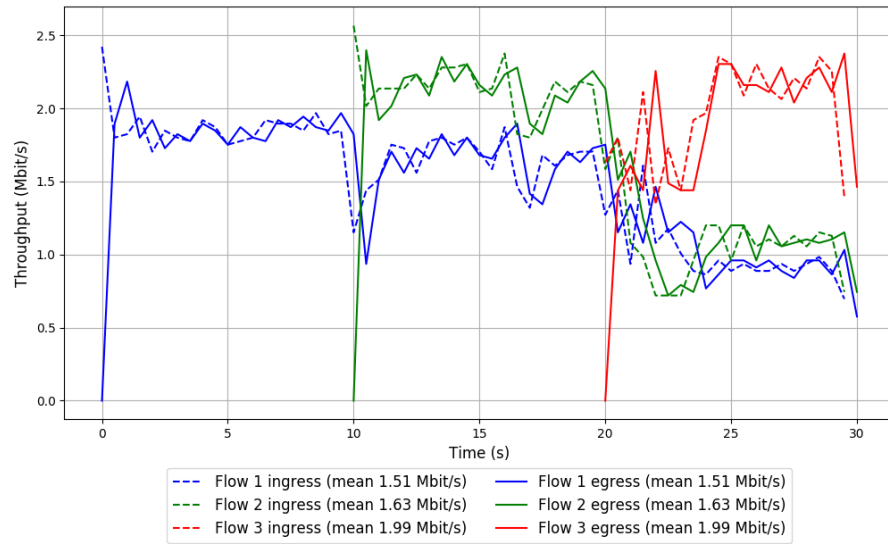


Run 1: Statistics of Indigo

Start at: 2018-06-06 01:34:41
End at: 2018-06-06 01:35:11
Local clock offset: 0.841 ms
Remote clock offset: -8.052 ms

Below is generated by plot.py at 2018-06-06 02:18:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 127.239 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 124.384 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 124.480 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 130.962 ms
Loss rate: 0.55%

Run 1: Report of Indigo — Data Link

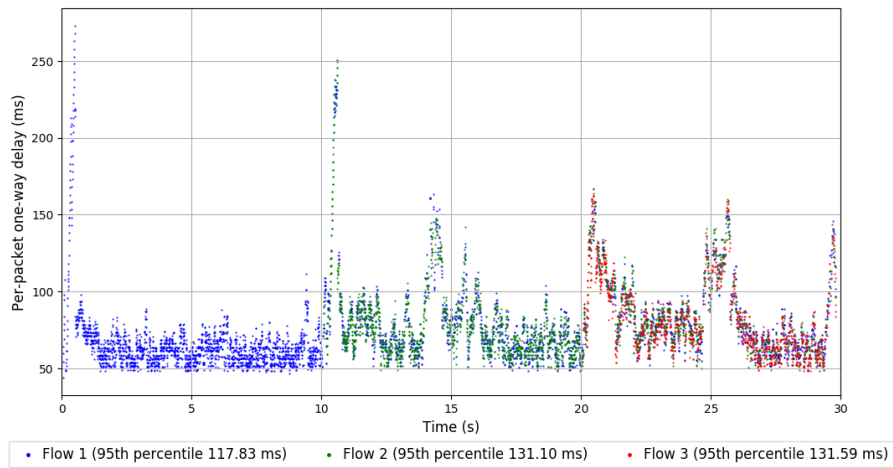
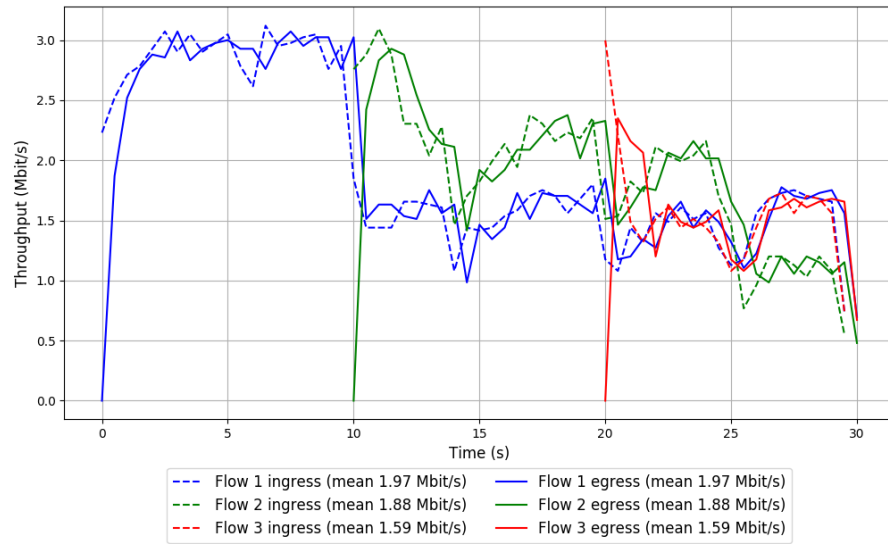


Run 2: Statistics of Indigo

Start at: 2018-06-06 01:52:09
End at: 2018-06-06 01:52:39
Local clock offset: 0.091 ms
Remote clock offset: -3.557 ms

Below is generated by plot.py at 2018-06-06 02:18:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.74 Mbit/s
95th percentile per-packet one-way delay: 126.318 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 117.833 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 131.104 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 131.594 ms
Loss rate: 0.69%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-06-06 02:09:36

End at: 2018-06-06 02:10:06

Local clock offset: 0.237 ms

Remote clock offset: 2.794 ms

Below is generated by plot.py at 2018-06-06 02:18:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.86 Mbit/s

95th percentile per-packet one-way delay: 179.534 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 116.936 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 172.490 ms

Loss rate: 2.29%

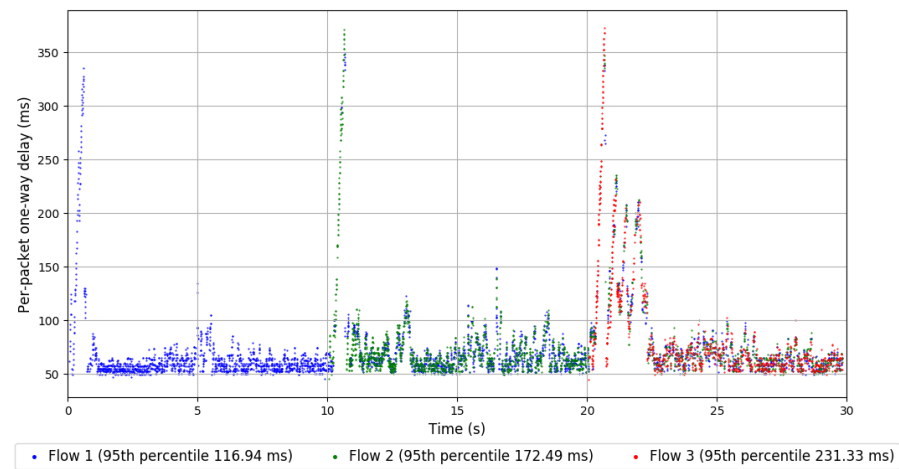
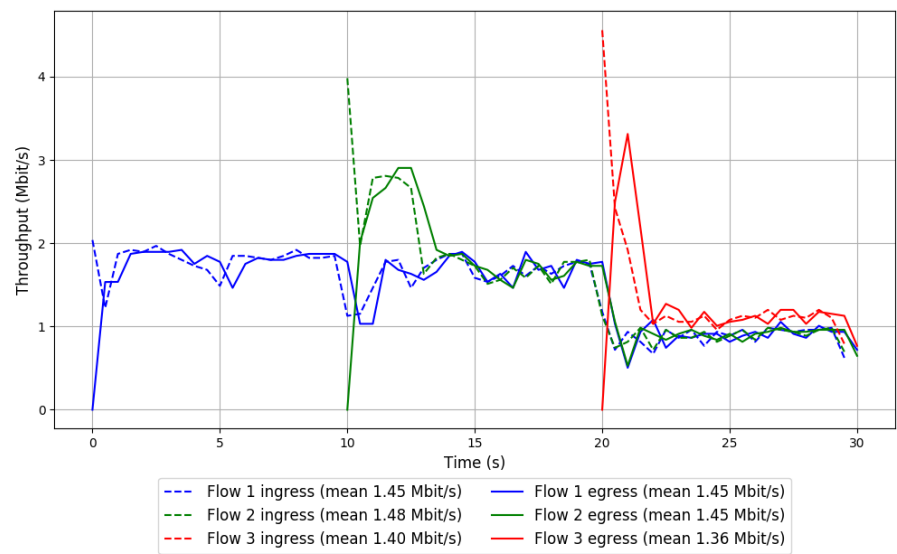
-- Flow 3:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 231.328 ms

Loss rate: 2.80%

Run 3: Report of Indigo — Data Link

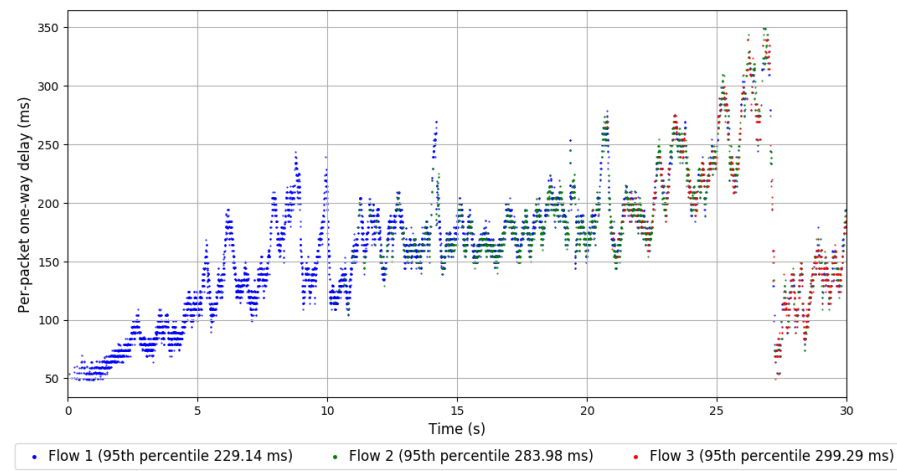
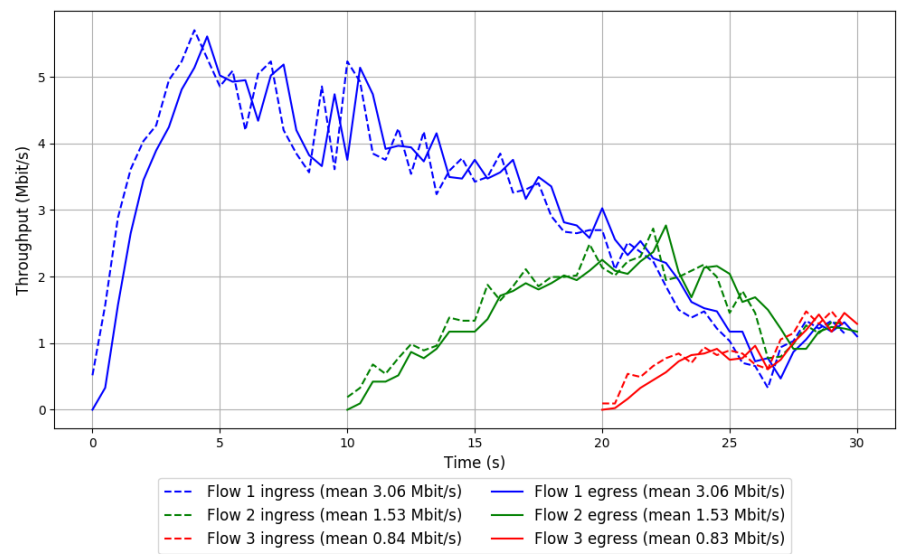


```
Run 1: Statistics of LEDBAT

Start at: 2018-06-06 01:36:52
End at: 2018-06-06 01:37:22
Local clock offset: 0.88 ms
Remote clock offset: -8.014 ms

# Below is generated by plot.py at 2018-06-06 02:18:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 254.365 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 3.06 Mbit/s
95th percentile per-packet one-way delay: 229.137 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 283.977 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 299.291 ms
Loss rate: 2.67%
```

Run 1: Report of LEDBAT — Data Link

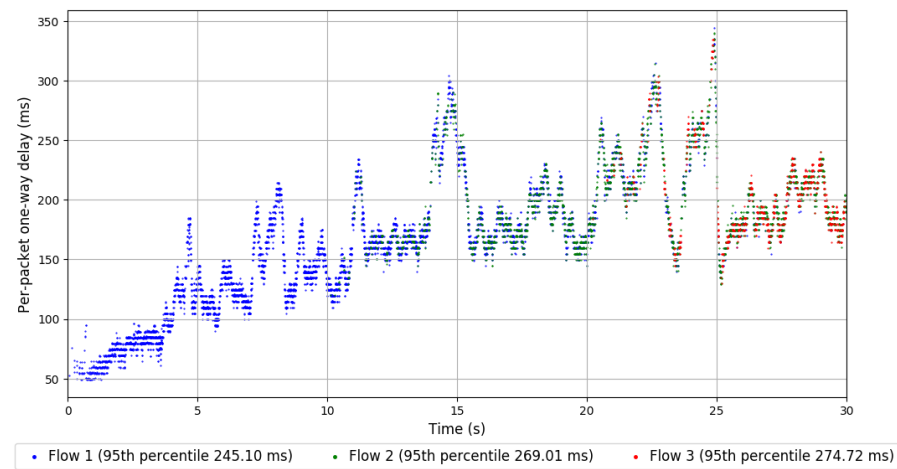
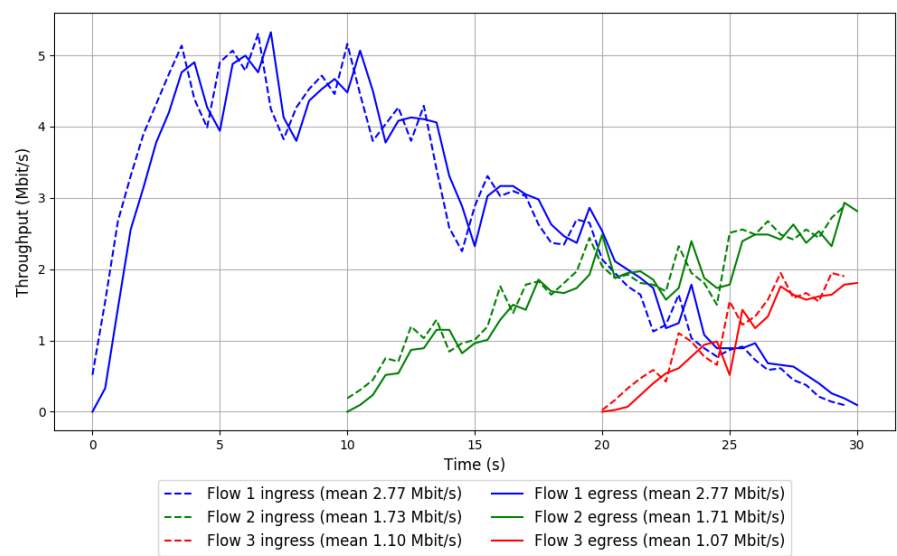


Run 2: Statistics of LEDBAT

Start at: 2018-06-06 01:54:20
End at: 2018-06-06 01:54:50
Local clock offset: 1.066 ms
Remote clock offset: -2.427 ms

Below is generated by plot.py at 2018-06-06 02:18:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 254.861 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 245.098 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 269.006 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 274.722 ms
Loss rate: 4.31%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-06-06 02:11:48

End at: 2018-06-06 02:12:18

Local clock offset: 0.439 ms

Remote clock offset: 4.25 ms

Below is generated by plot.py at 2018-06-06 02:18:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.65 Mbit/s

95th percentile per-packet one-way delay: 253.245 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 228.413 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 273.024 ms

Loss rate: 1.04%

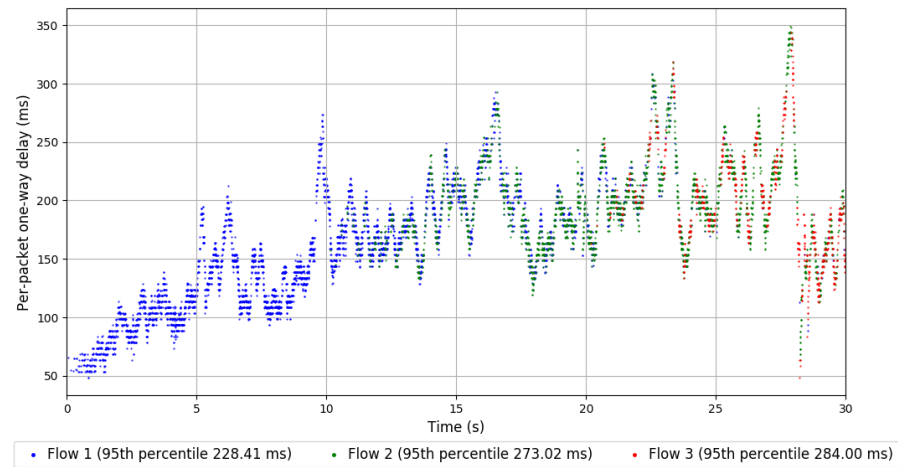
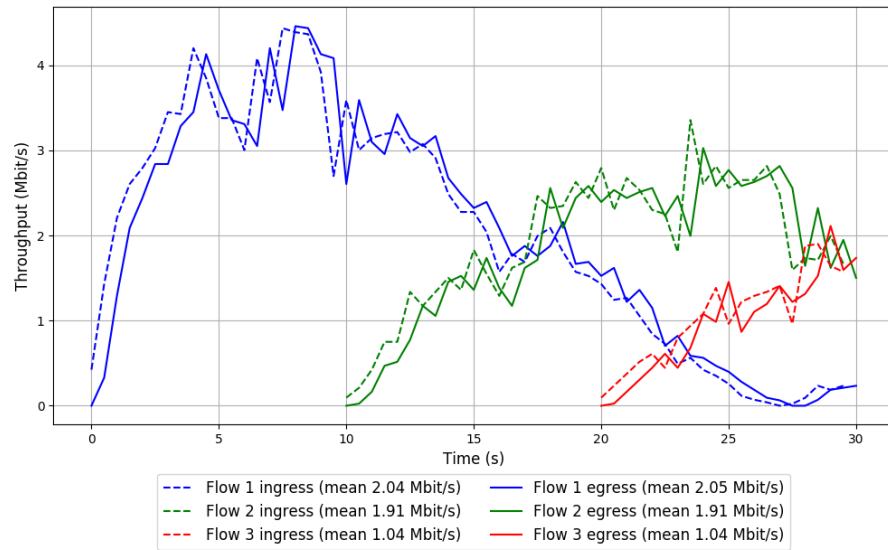
-- Flow 3:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 284.002 ms

Loss rate: 1.82%

Run 3: Report of LEDBAT — Data Link

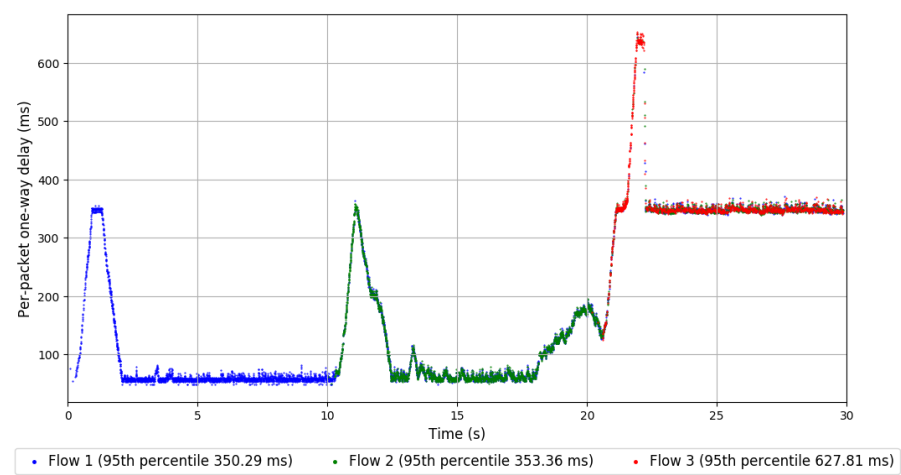
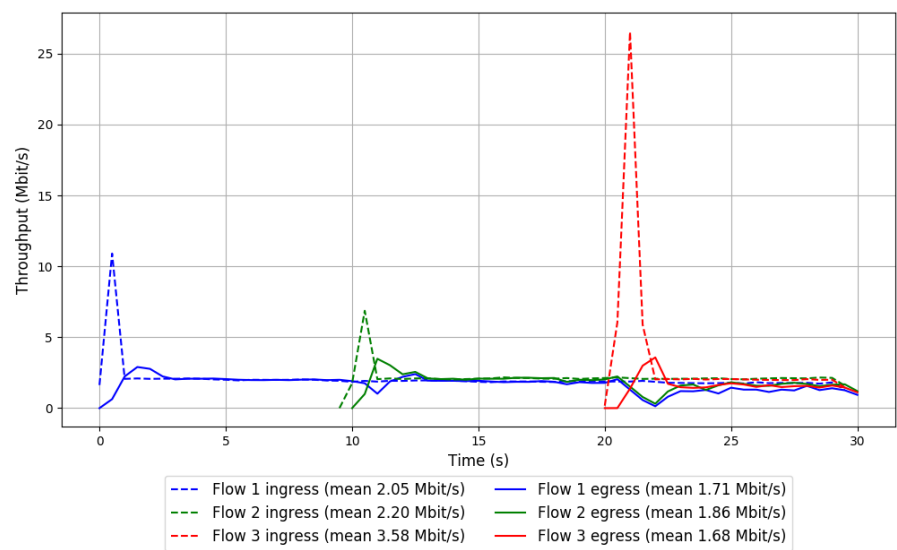


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-06 01:42:20
End at: 2018-06-06 01:42:50
Local clock offset: 1.48 ms
Remote clock offset: -8.966 ms

# Below is generated by plot.py at 2018-06-06 02:18:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.49 Mbit/s
95th percentile per-packet one-way delay: 355.428 ms
Loss rate: 25.92%
-- Flow 1:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 350.288 ms
Loss rate: 16.77%
-- Flow 2:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 353.361 ms
Loss rate: 16.16%
-- Flow 3:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 627.812 ms
Loss rate: 53.96%
```


Run 1: Report of PCC-Allegro — Data Link

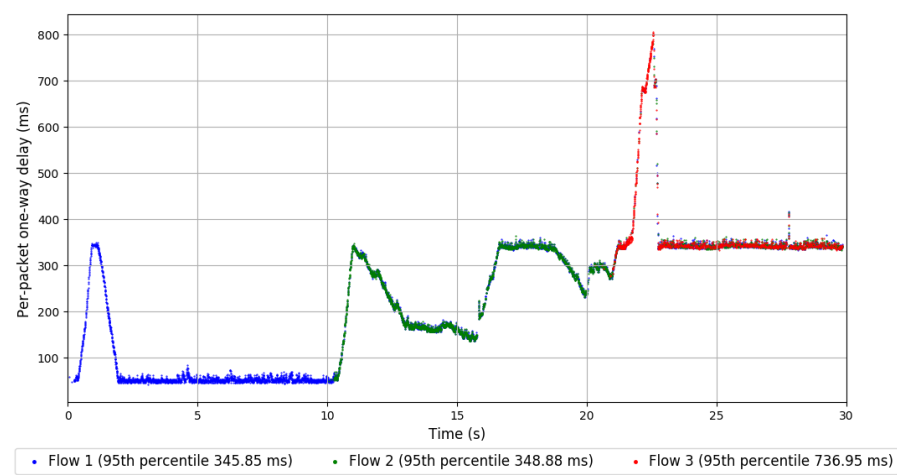
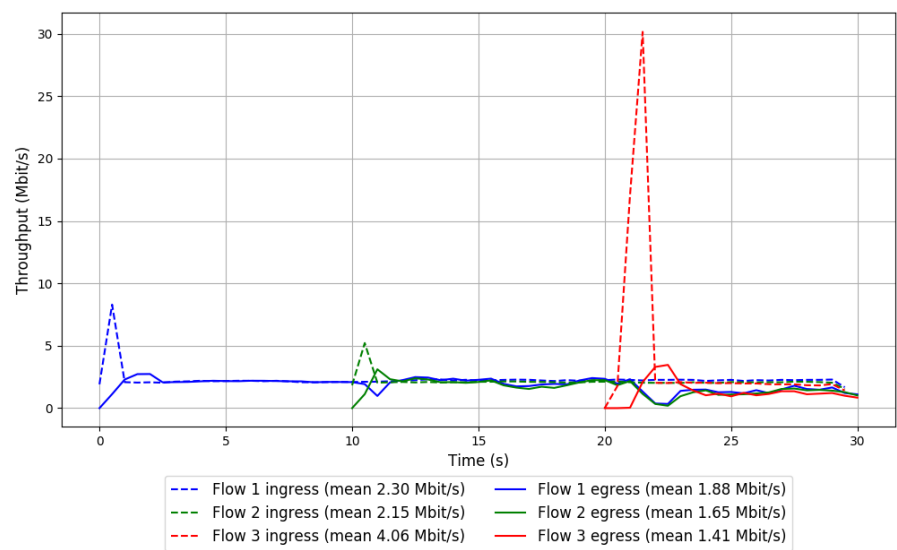


Run 2: Statistics of PCC-Allegro

Start at: 2018-06-06 01:59:48
End at: 2018-06-06 02:00:18
Local clock offset: -1.172 ms
Remote clock offset: -0.143 ms

Below is generated by plot.py at 2018-06-06 02:18:24
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 352.492 ms
Loss rate: 32.47%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 345.850 ms
Loss rate: 18.28%
-- Flow 2:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 348.877 ms
Loss rate: 23.51%
-- Flow 3:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 736.953 ms
Loss rate: 66.44%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-06-06 02:17:15

End at: 2018-06-06 02:17:45

Local clock offset: -0.17 ms

Remote clock offset: 4.776 ms

Below is generated by plot.py at 2018-06-06 02:18:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.83 Mbit/s

95th percentile per-packet one-way delay: 356.972 ms

Loss rate: 43.71%

-- Flow 1:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 348.616 ms

Loss rate: 25.20%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 352.054 ms

Loss rate: 33.91%

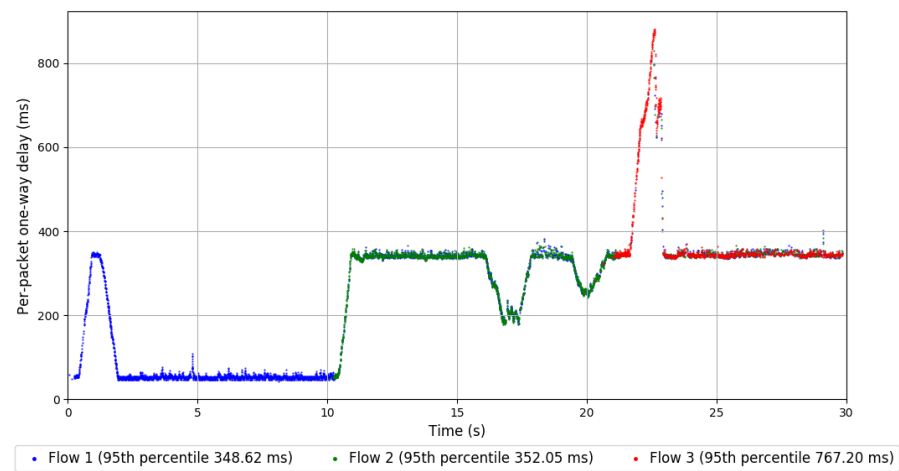
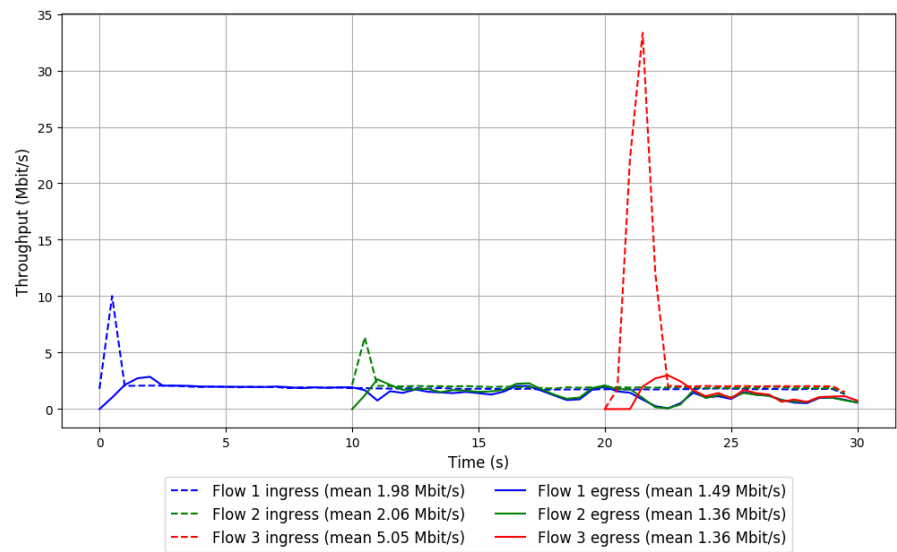
-- Flow 3:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 767.200 ms

Loss rate: 73.83%

Run 3: Report of PCC-Allegro — Data Link

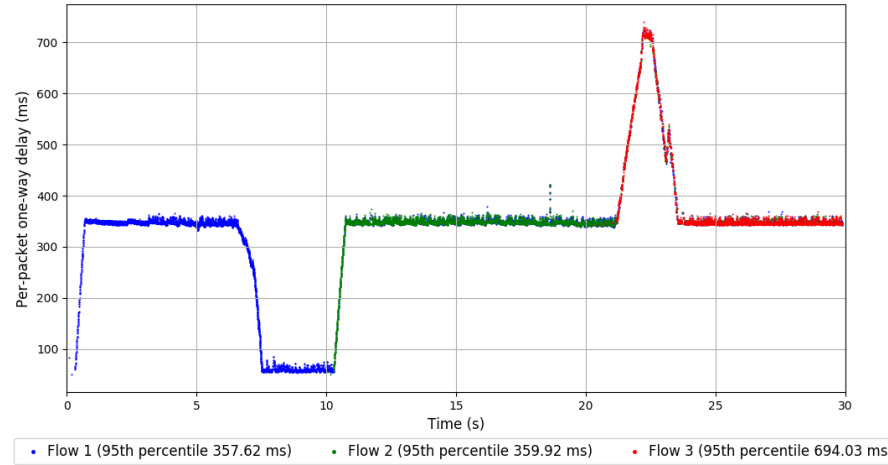
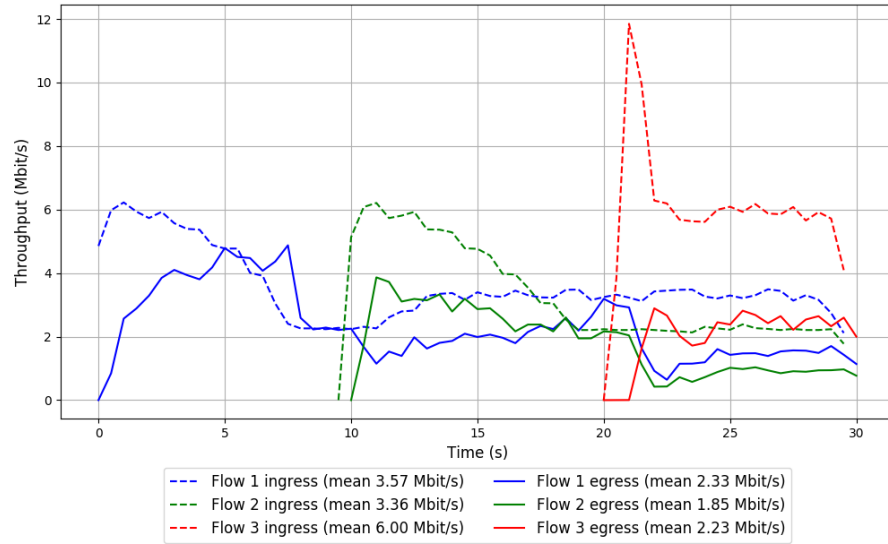


```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-06 01:40:08
End at: 2018-06-06 01:40:38
Local clock offset: 2.413 ms
Remote clock offset: -7.547 ms

# Below is generated by plot.py at 2018-06-06 02:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 481.460 ms
Loss rate: 45.33%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 357.621 ms
Loss rate: 35.07%
-- Flow 2:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 359.923 ms
Loss rate: 45.06%
-- Flow 3:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 694.027 ms
Loss rate: 64.15%
```

Run 1: Report of PCC-Expr — Data Link

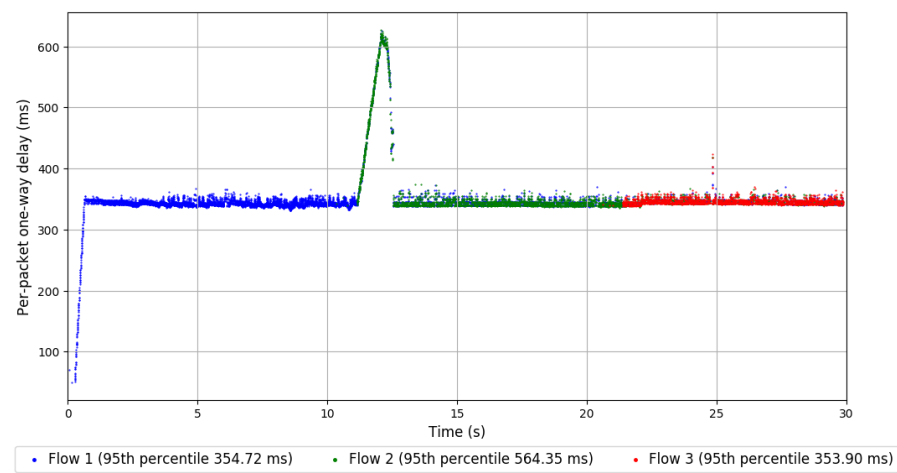
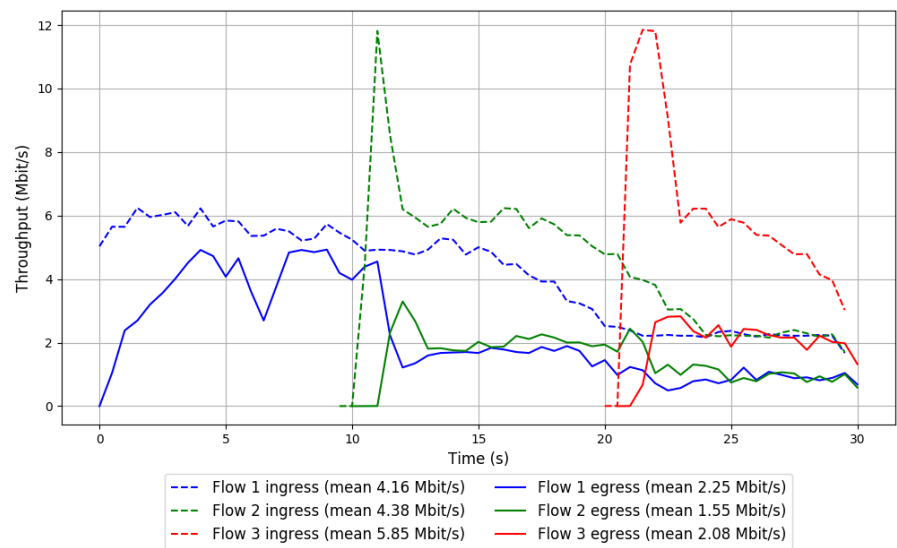


```
Run 2: Statistics of PCC-Expr

Start at: 2018-06-06 01:57:36
End at: 2018-06-06 01:58:06
Local clock offset: 2.085 ms
Remote clock offset: -0.58 ms

# Below is generated by plot.py at 2018-06-06 02:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 389.738 ms
Loss rate: 56.64%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 354.723 ms
Loss rate: 45.99%
-- Flow 2:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 564.346 ms
Loss rate: 65.23%
-- Flow 3:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 353.903 ms
Loss rate: 66.58%
```


Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2018-06-06 02:15:04

End at: 2018-06-06 02:15:34

Local clock offset: 0.86 ms

Remote clock offset: 4.285 ms

Below is generated by plot.py at 2018-06-06 02:18:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.91 Mbit/s

95th percentile per-packet one-way delay: 388.902 ms

Loss rate: 59.08%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 355.796 ms

Loss rate: 50.73%

-- Flow 2:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 526.360 ms

Loss rate: 62.97%

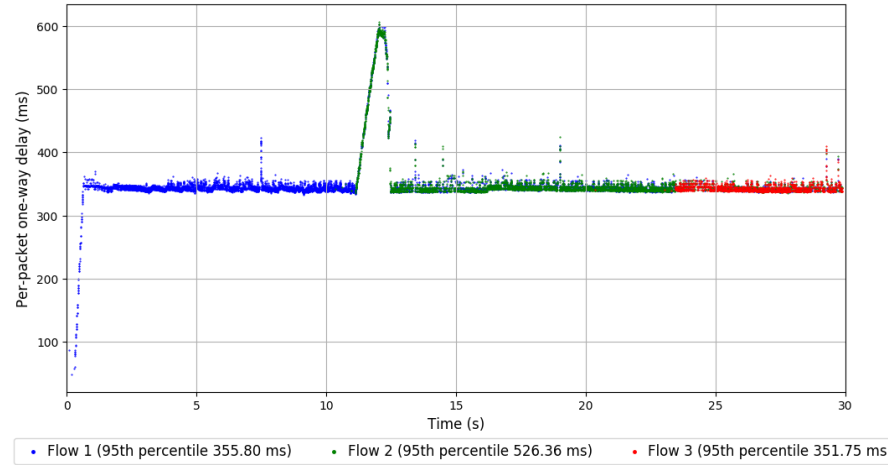
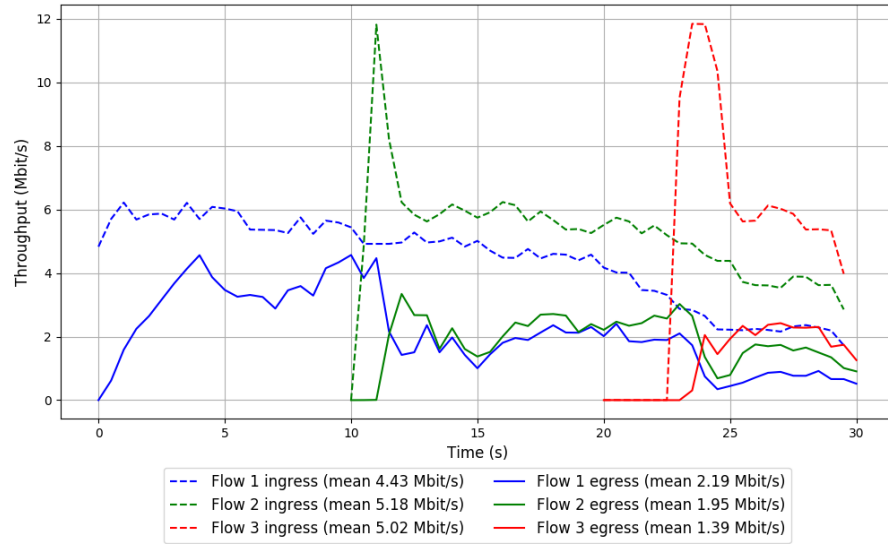
-- Flow 3:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 351.748 ms

Loss rate: 73.30%

Run 3: Report of PCC-Expr — Data Link

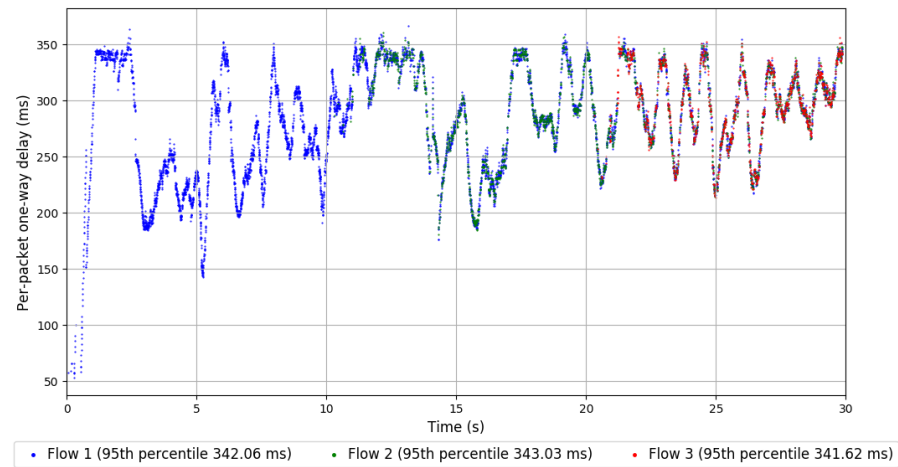
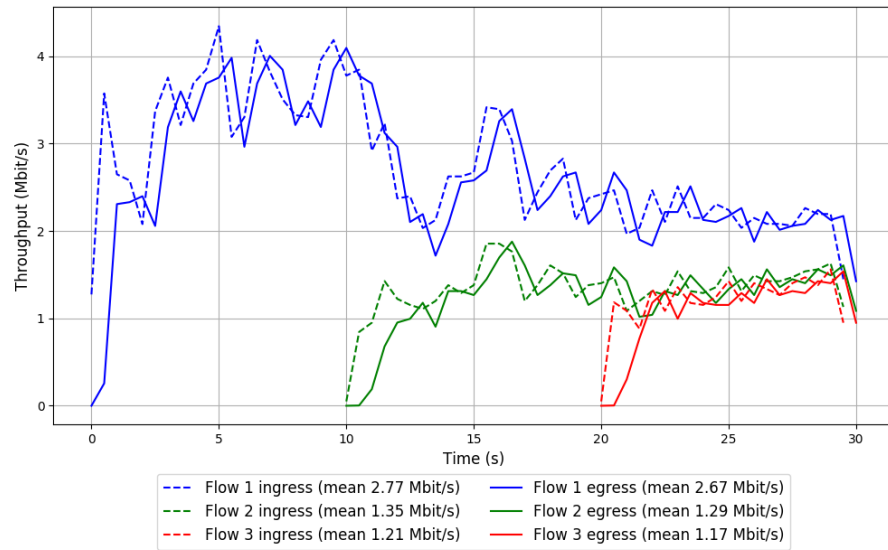


Run 1: Statistics of QUIC Cubic

Start at: 2018-06-06 01:32:31
End at: 2018-06-06 01:33:01
Local clock offset: 1.586 ms
Remote clock offset: -8.279 ms

Below is generated by plot.py at 2018-06-06 02:18:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 342.252 ms
Loss rate: 4.45%
-- Flow 1:
Average throughput: 2.67 Mbit/s
95th percentile per-packet one-way delay: 342.061 ms
Loss rate: 3.86%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 343.028 ms
Loss rate: 5.44%
-- Flow 3:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 341.615 ms
Loss rate: 6.33%

Run 1: Report of QUIC Cubic — Data Link

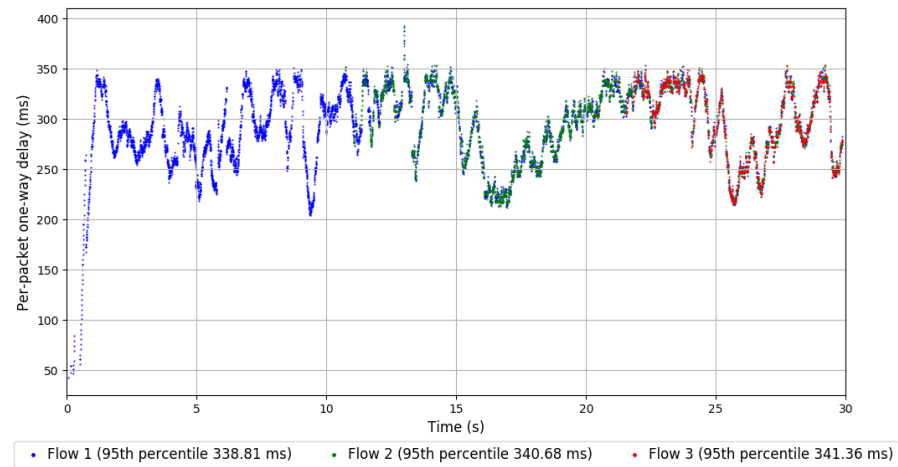
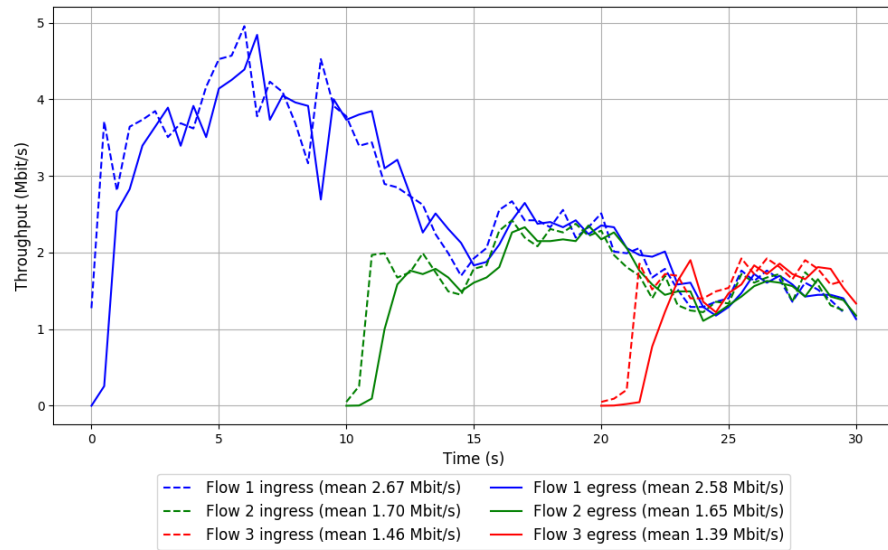


Run 2: Statistics of QUIC Cubic

Start at: 2018-06-06 01:49:57
End at: 2018-06-06 01:50:27
Local clock offset: -0.786 ms
Remote clock offset: -4.896 ms

Below is generated by plot.py at 2018-06-06 02:18:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 339.497 ms
Loss rate: 4.09%
-- Flow 1:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 338.814 ms
Loss rate: 3.22%
-- Flow 2:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 340.681 ms
Loss rate: 4.30%
-- Flow 3:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 341.357 ms
Loss rate: 8.38%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-06-06 02:07:26

End at: 2018-06-06 02:07:56

Local clock offset: -0.399 ms

Remote clock offset: 3.035 ms

Below is generated by plot.py at 2018-06-06 02:18:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.85 Mbit/s

95th percentile per-packet one-way delay: 340.330 ms

Loss rate: 4.33%

-- Flow 1:

Average throughput: 2.86 Mbit/s

95th percentile per-packet one-way delay: 340.122 ms

Loss rate: 3.82%

-- Flow 2:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 340.639 ms

Loss rate: 5.28%

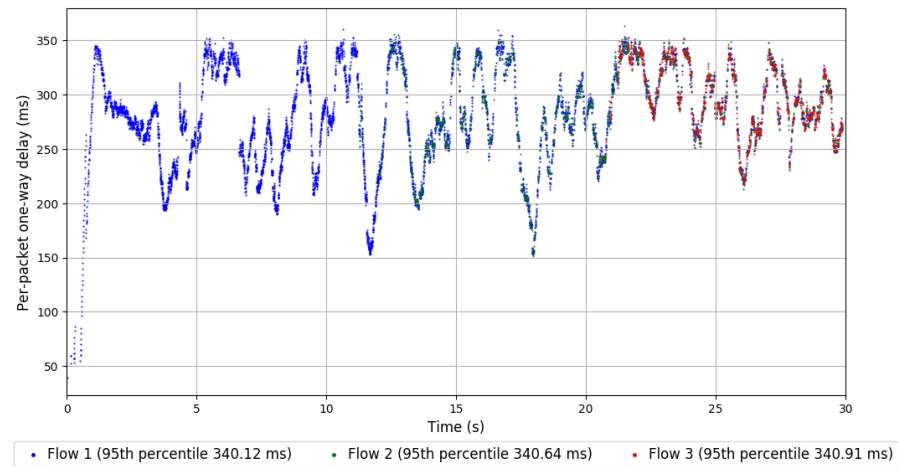
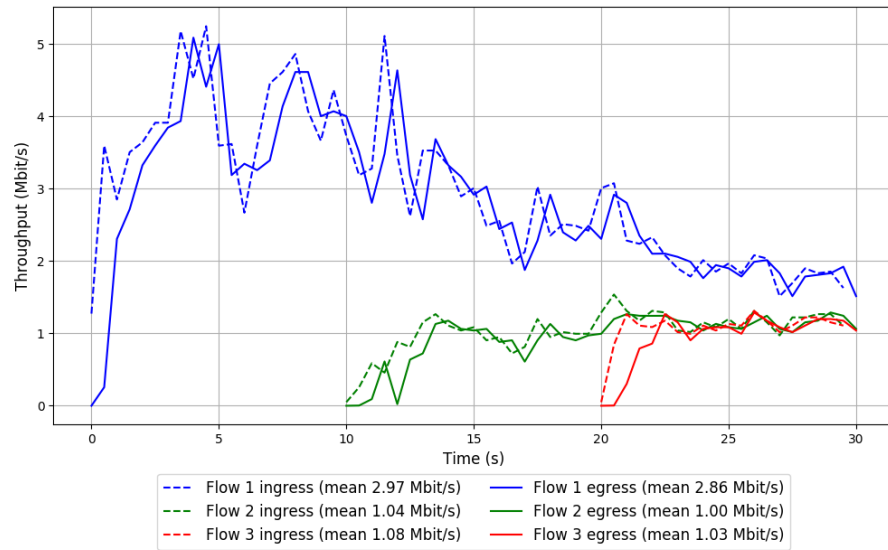
-- Flow 3:

Average throughput: 1.03 Mbit/s

95th percentile per-packet one-way delay: 340.908 ms

Loss rate: 6.81%

Run 3: Report of QUIC Cubic — Data Link

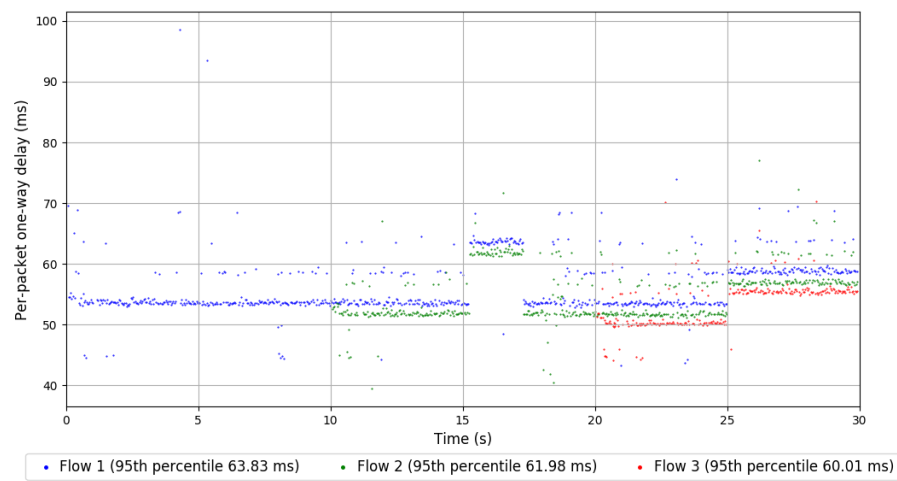
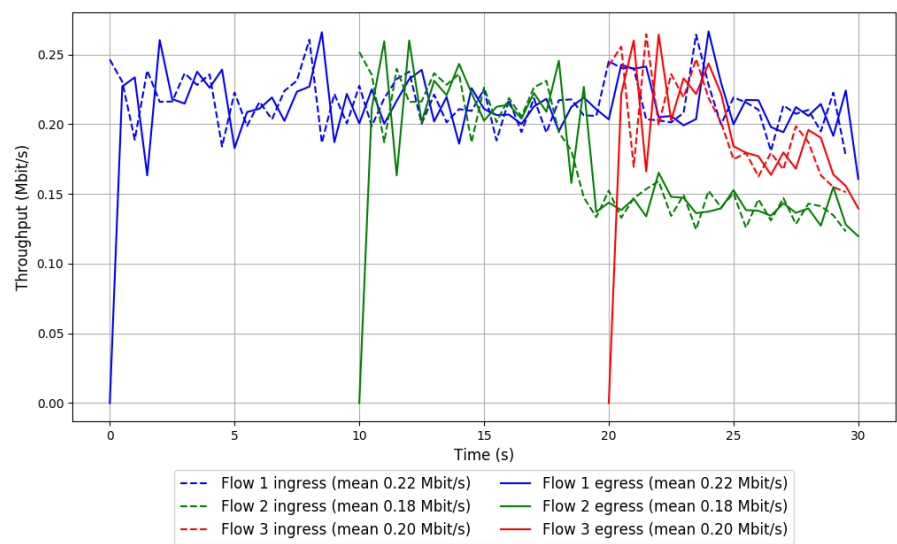


```
Run 1: Statistics of SCReAM

Start at: 2018-06-06 01:39:03
End at: 2018-06-06 01:39:33
Local clock offset: 2.741 ms
Remote clock offset: -8.094 ms

# Below is generated by plot.py at 2018-06-06 02:18:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 63.542 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.827 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 61.984 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 60.012 ms
Loss rate: 1.00%
```

Run 1: Report of SCReAM — Data Link

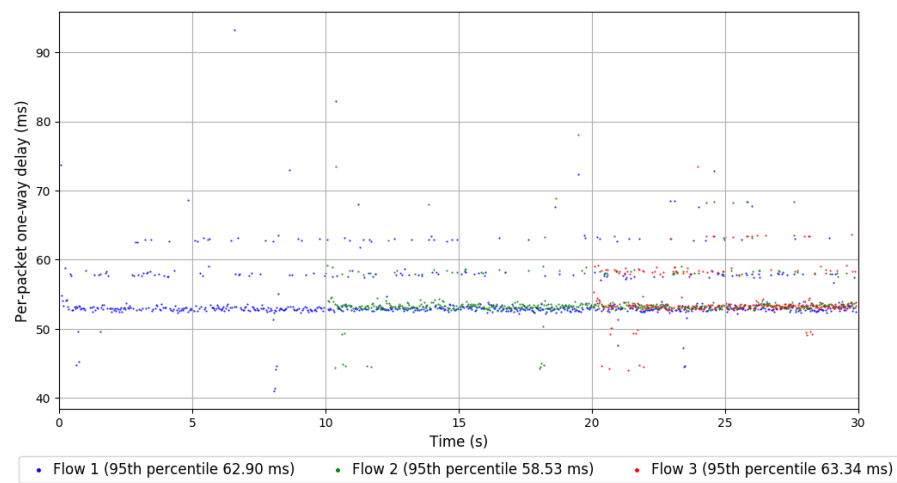
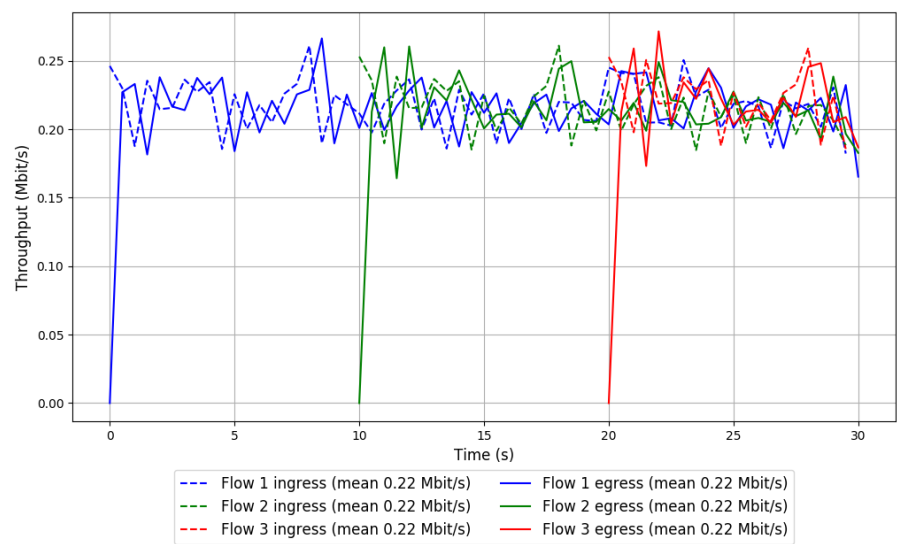


Run 2: Statistics of SReAM

Start at: 2018-06-06 01:56:31
End at: 2018-06-06 01:57:01
Local clock offset: 1.794 ms
Remote clock offset: -1.749 ms

Below is generated by plot.py at 2018-06-06 02:18:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 62.850 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.900 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.526 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.343 ms
Loss rate: 0.71%

Run 2: Report of SReAM — Data Link

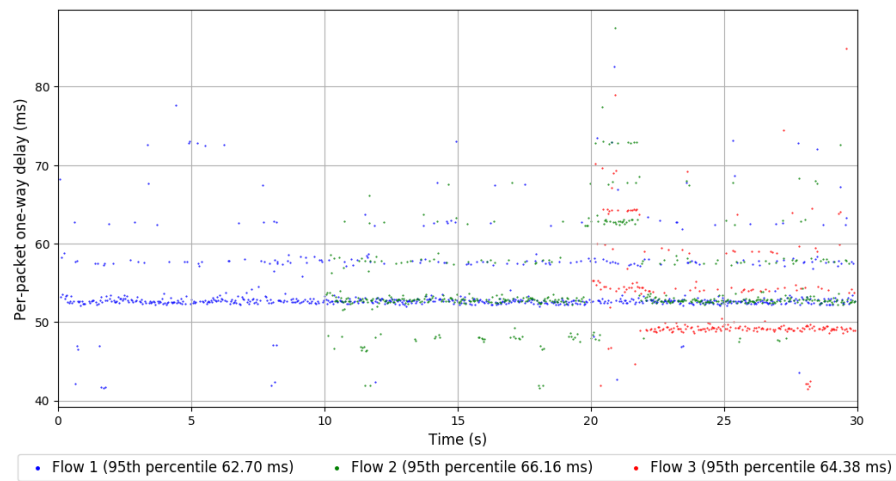
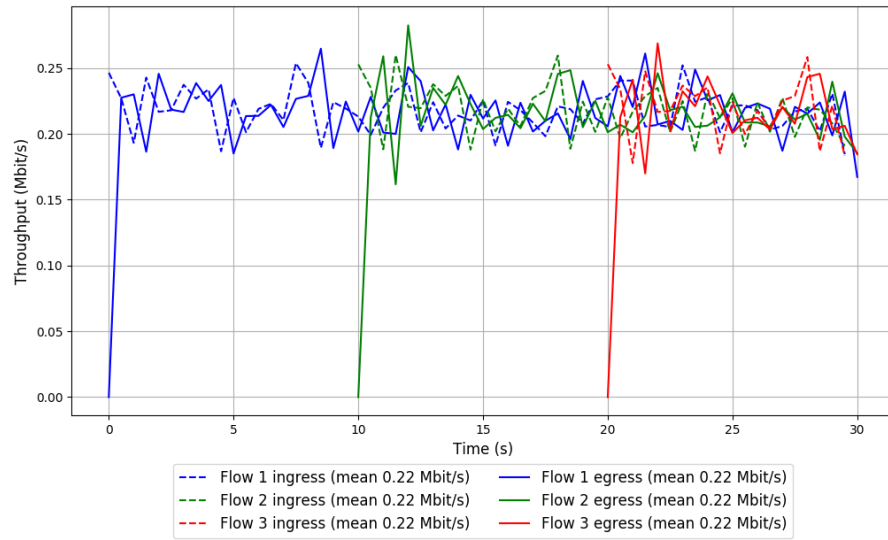


Run 3: Statistics of SReAM

Start at: 2018-06-06 02:13:59
End at: 2018-06-06 02:14:29
Local clock offset: -0.497 ms
Remote clock offset: 4.032 ms

Below is generated by plot.py at 2018-06-06 02:18:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 63.774 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.701 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 66.162 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.378 ms
Loss rate: 0.71%

Run 3: Report of SReAM — Data Link

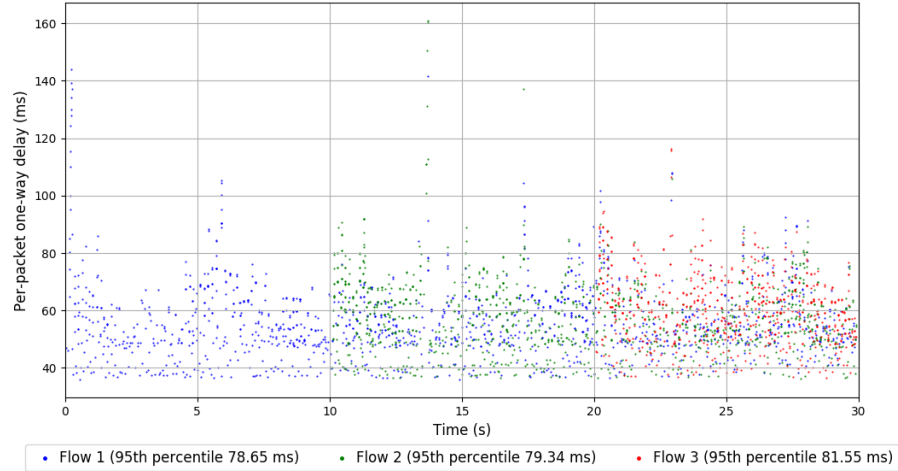
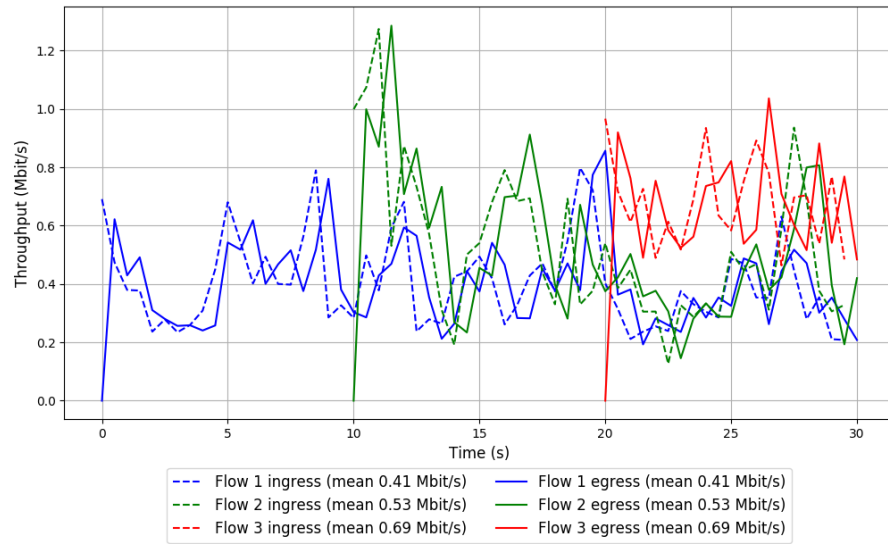


Run 1: Statistics of Sprout

Start at: 2018-06-06 01:29:14
End at: 2018-06-06 01:29:44
Local clock offset: -1.129 ms
Remote clock offset: -8.211 ms

Below is generated by plot.py at 2018-06-06 02:18:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 79.772 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 78.652 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 79.345 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 81.547 ms
Loss rate: 0.01%

Run 1: Report of Sprout — Data Link

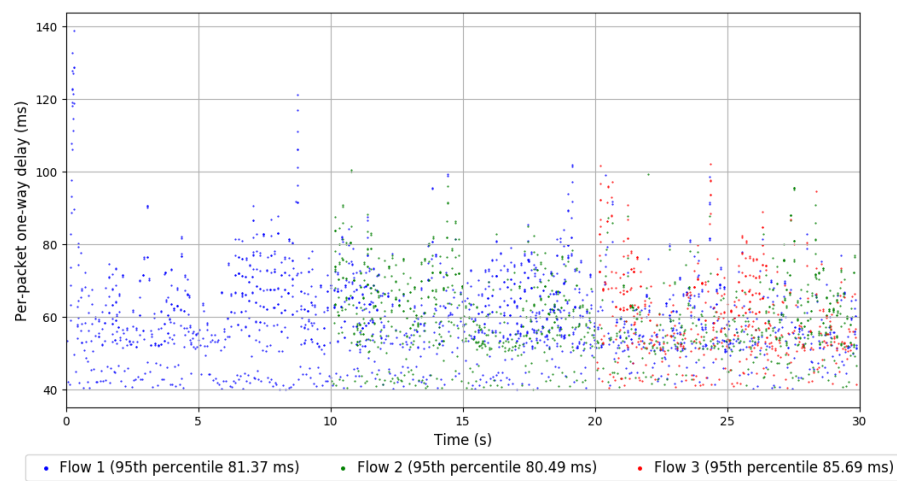
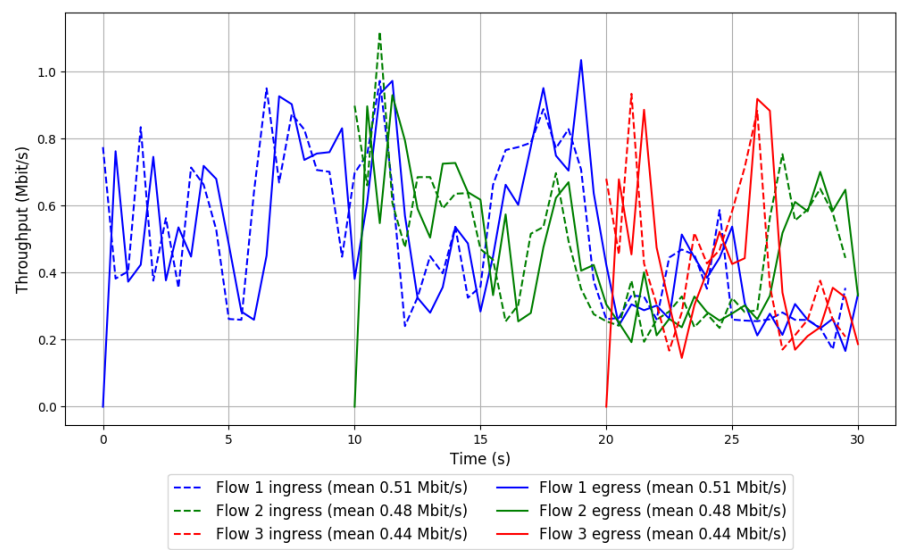


Run 2: Statistics of Sprout

Start at: 2018-06-06 01:46:41
End at: 2018-06-06 01:47:11
Local clock offset: 2.269 ms
Remote clock offset: -9.186 ms

```
# Below is generated by plot.py at 2018-06-06 02:18:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 81.420 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 81.371 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 80.489 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 85.690 ms
Loss rate: 0.27%
```

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-06-06 02:04:09

End at: 2018-06-06 02:04:39

Local clock offset: 1.977 ms

Remote clock offset: 1.945 ms

Below is generated by plot.py at 2018-06-06 02:18:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 91.439 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 91.803 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 91.955 ms

Loss rate: 0.36%

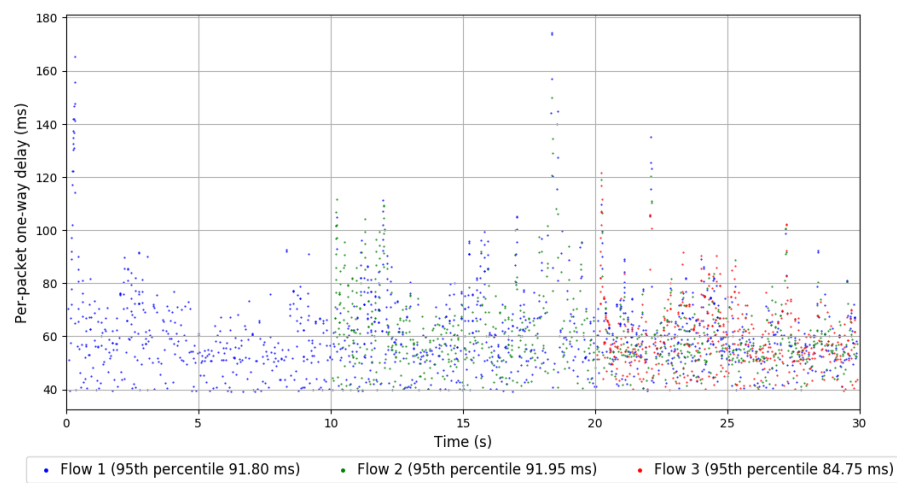
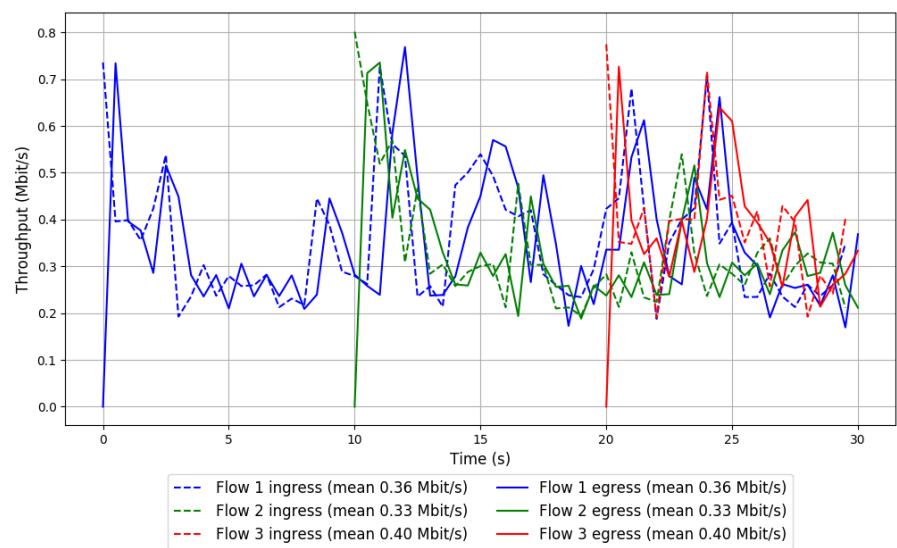
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 84.751 ms

Loss rate: 0.88%

Run 3: Report of Sprout — Data Link

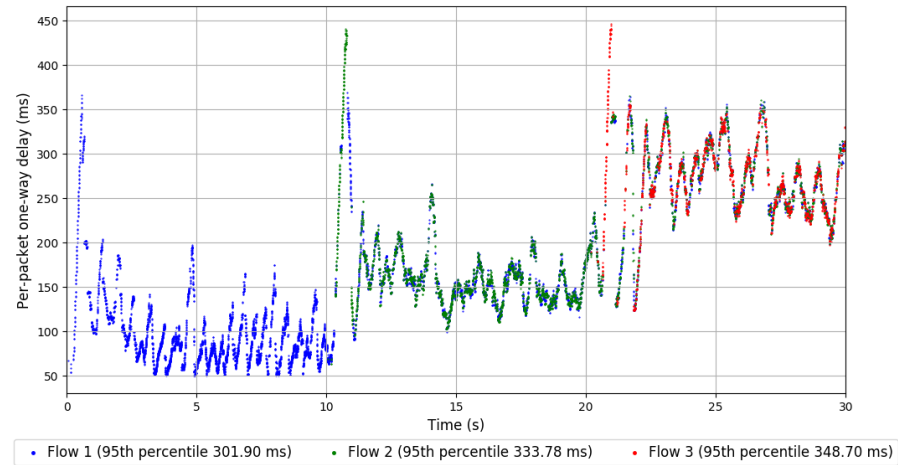
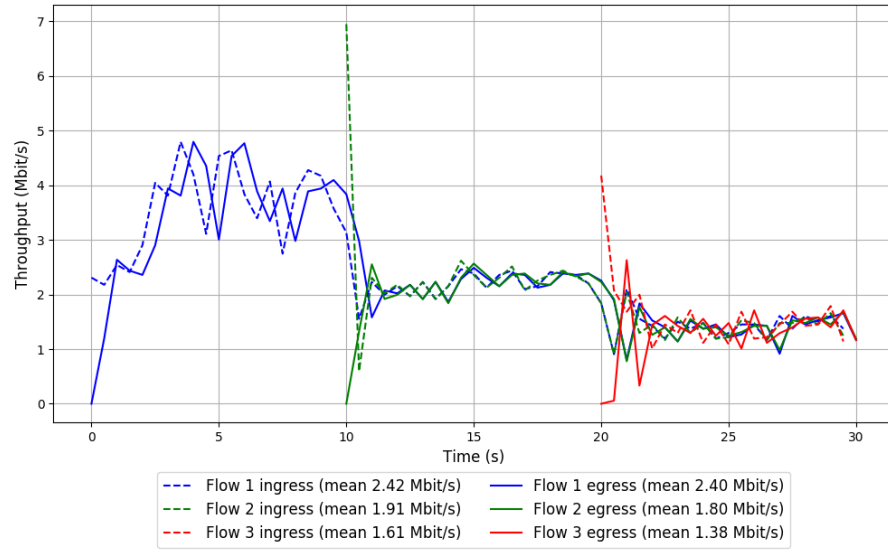


Run 1: Statistics of TaoVA-100x

Start at: 2018-06-06 01:30:19
End at: 2018-06-06 01:30:49
Local clock offset: 1.864 ms
Remote clock offset: -8.516 ms

Below is generated by plot.py at 2018-06-06 02:18:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 324.276 ms
Loss rate: 4.56%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 301.898 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 333.777 ms
Loss rate: 6.18%
-- Flow 3:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 348.697 ms
Loss rate: 15.85%

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

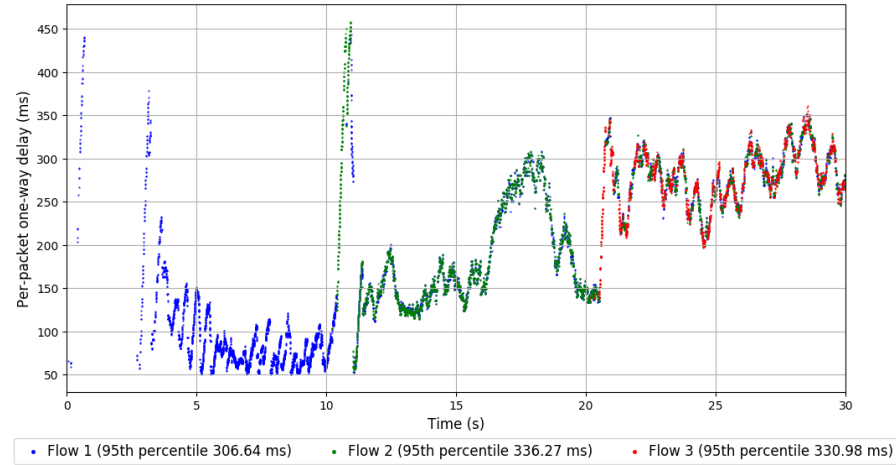
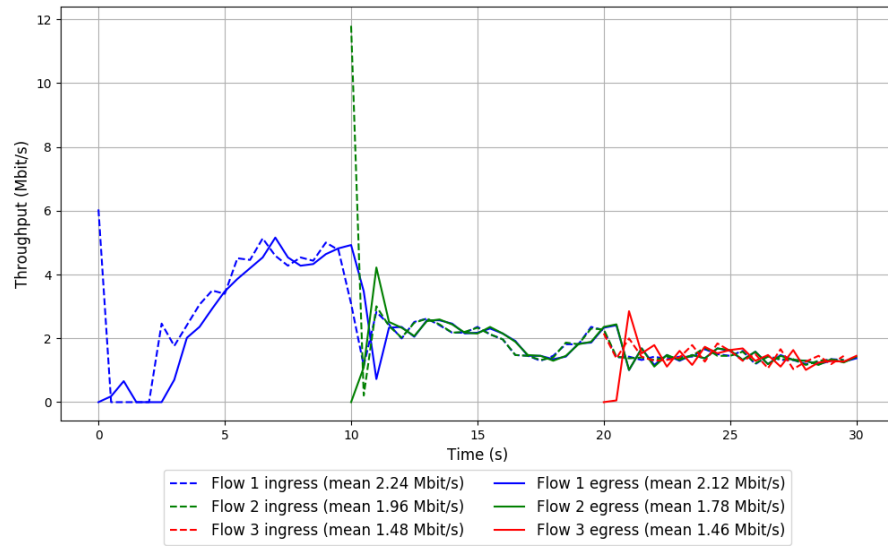


Run 2: Statistics of TaoVA-100x

Start at: 2018-06-06 01:47:46
End at: 2018-06-06 01:48:16
Local clock offset: 1.989 ms
Remote clock offset: -8.304 ms

Below is generated by plot.py at 2018-06-06 02:18:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 319.459 ms
Loss rate: 6.46%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 306.644 ms
Loss rate: 5.53%
-- Flow 2:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 336.269 ms
Loss rate: 9.31%
-- Flow 3:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 330.976 ms
Loss rate: 3.11%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-06-06 02:05:15

End at: 2018-06-06 02:05:45

Local clock offset: -4.037 ms

Remote clock offset: 1.699 ms

Below is generated by plot.py at 2018-06-06 02:18:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 298.109 ms

Loss rate: 6.50%

-- Flow 1:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 283.959 ms

Loss rate: 3.86%

-- Flow 2:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 334.278 ms

Loss rate: 10.79%

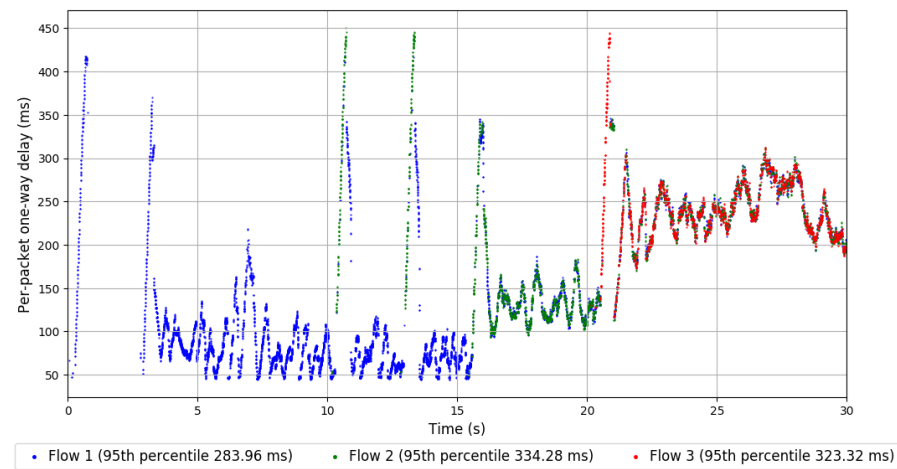
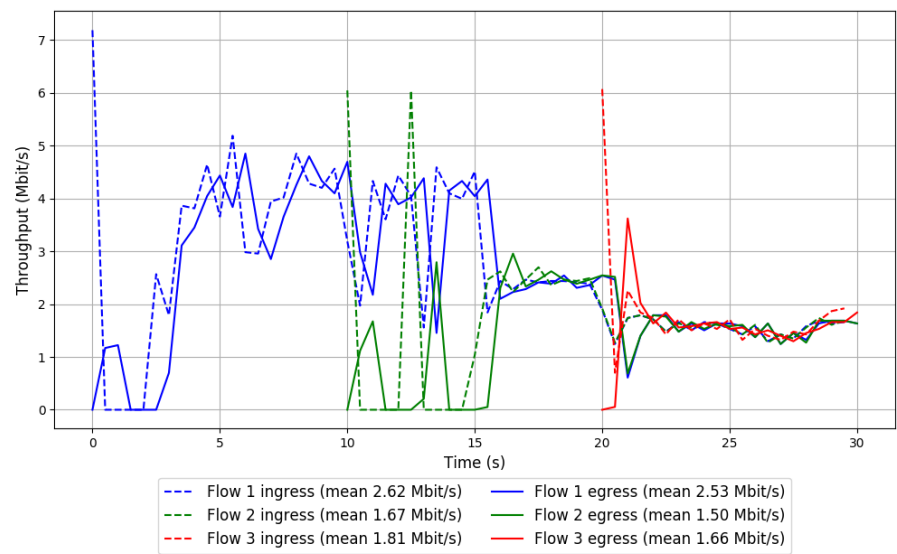
-- Flow 3:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 323.318 ms

Loss rate: 10.02%

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

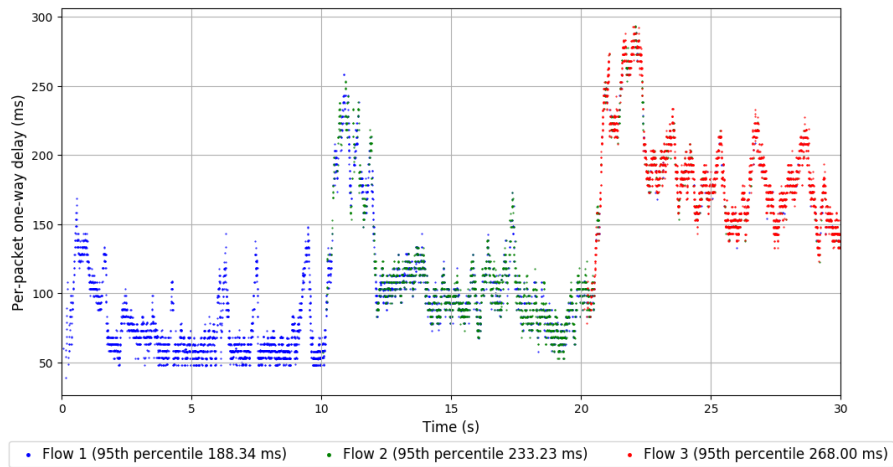
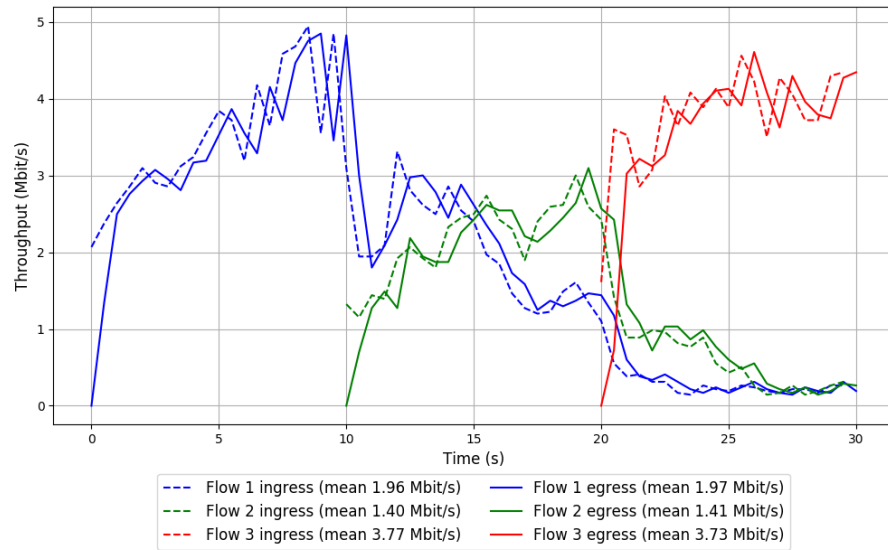


Run 1: Statistics of TCP Vegas

Start at: 2018-06-06 01:35:47
End at: 2018-06-06 01:36:17
Local clock offset: -0.772 ms
Remote clock offset: -8.351 ms

Below is generated by plot.py at 2018-06-06 02:18:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 228.322 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 188.335 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 233.226 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 268.005 ms
Loss rate: 1.82%

Run 1: Report of TCP Vegas — Data Link

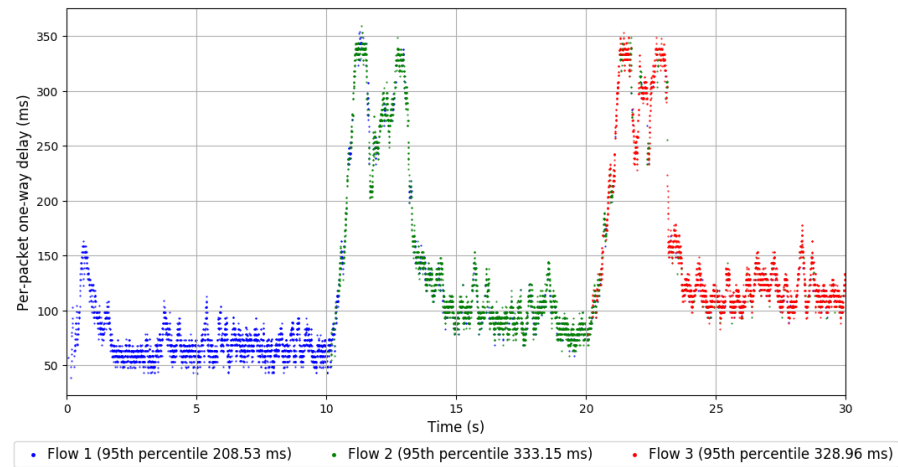
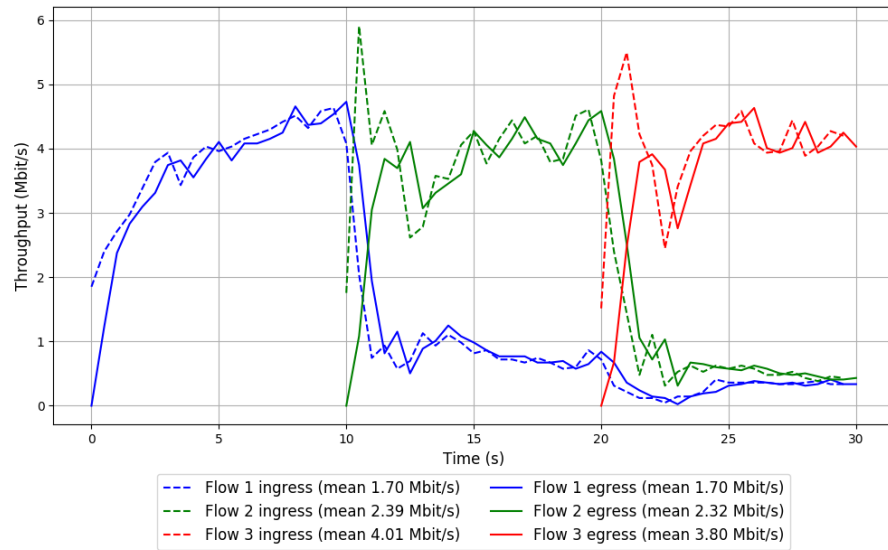


Run 2: Statistics of TCP Vegas

Start at: 2018-06-06 01:53:14
End at: 2018-06-06 01:53:44
Local clock offset: -5.758 ms
Remote clock offset: -3.435 ms

Below is generated by plot.py at 2018-06-06 02:18:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 322.807 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 208.525 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 333.148 ms
Loss rate: 3.45%
-- Flow 3:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 328.957 ms
Loss rate: 6.16%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-06-06 02:10:42

End at: 2018-06-06 02:11:12

Local clock offset: -1.946 ms

Remote clock offset: 4.232 ms

Below is generated by plot.py at 2018-06-06 02:18:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.03 Mbit/s

95th percentile per-packet one-way delay: 151.430 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 1.97 Mbit/s

95th percentile per-packet one-way delay: 156.046 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 151.260 ms

Loss rate: 0.29%

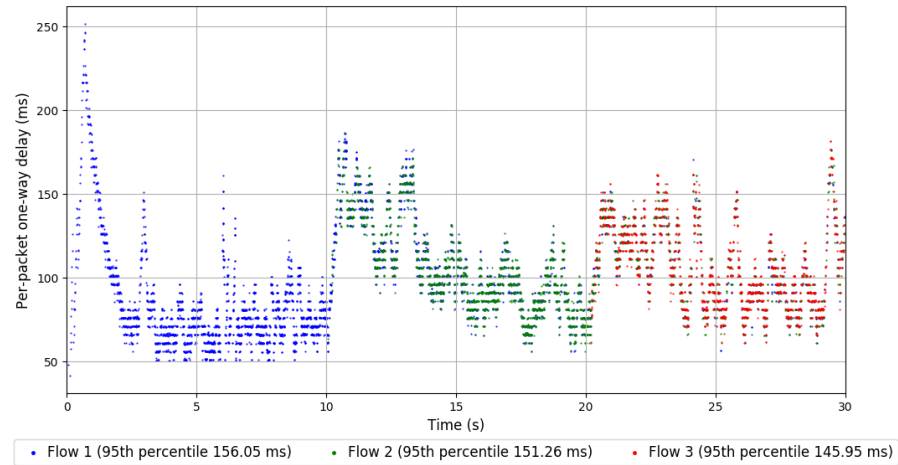
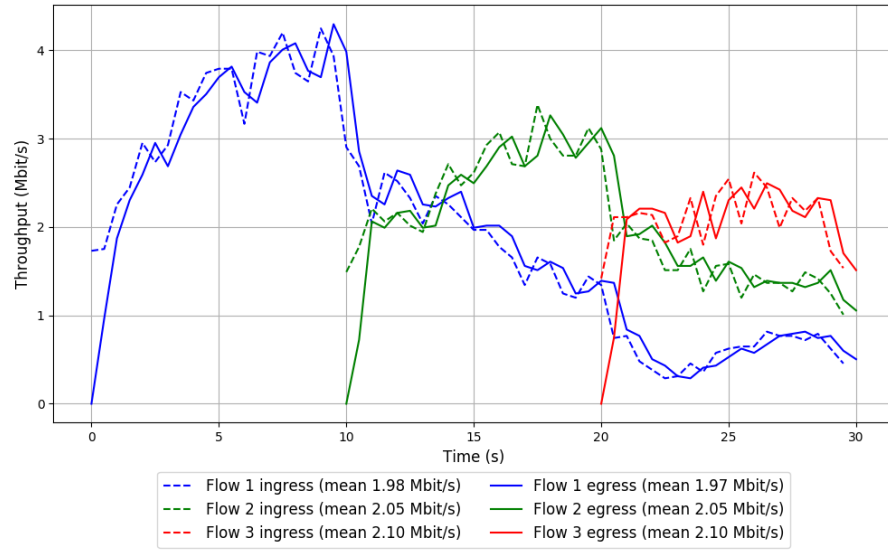
-- Flow 3:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 145.948 ms

Loss rate: 1.09%

Run 3: Report of TCP Vegas — Data Link

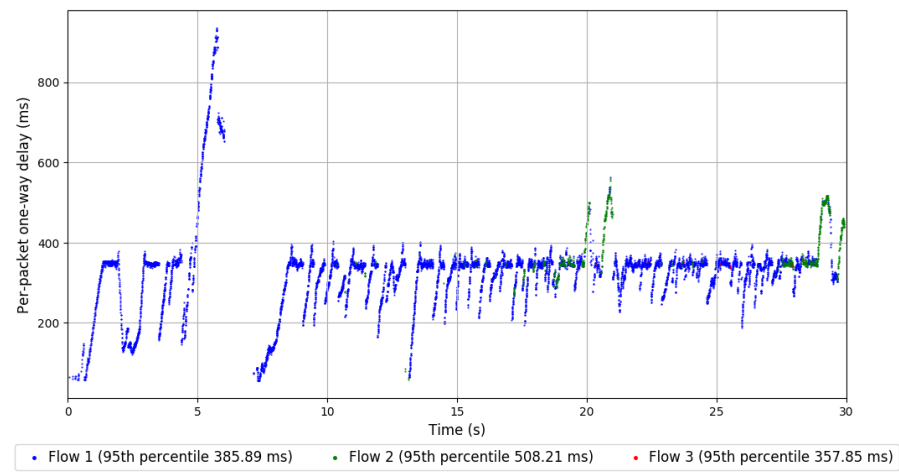
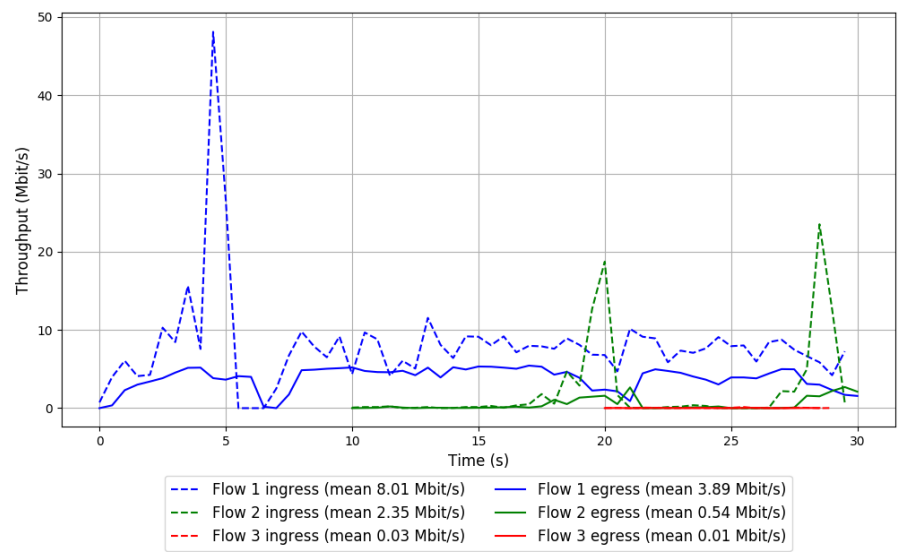


Run 1: Statistics of Verus

Start at: 2018-06-06 01:41:14
End at: 2018-06-06 01:41:44
Local clock offset: 0.819 ms
Remote clock offset: -7.904 ms

Below is generated by plot.py at 2018-06-06 02:18:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 479.036 ms
Loss rate: 55.82%
-- Flow 1:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 385.888 ms
Loss rate: 51.68%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 508.206 ms
Loss rate: 77.20%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 357.850 ms
Loss rate: 65.38%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-06-06 01:58:42

End at: 2018-06-06 01:59:12

Local clock offset: 1.139 ms

Remote clock offset: 0.031 ms

Below is generated by plot.py at 2018-06-06 02:18:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 349.662 ms

Loss rate: 27.71%

-- Flow 1:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 349.114 ms

Loss rate: 24.13%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 354.396 ms

Loss rate: 51.33%

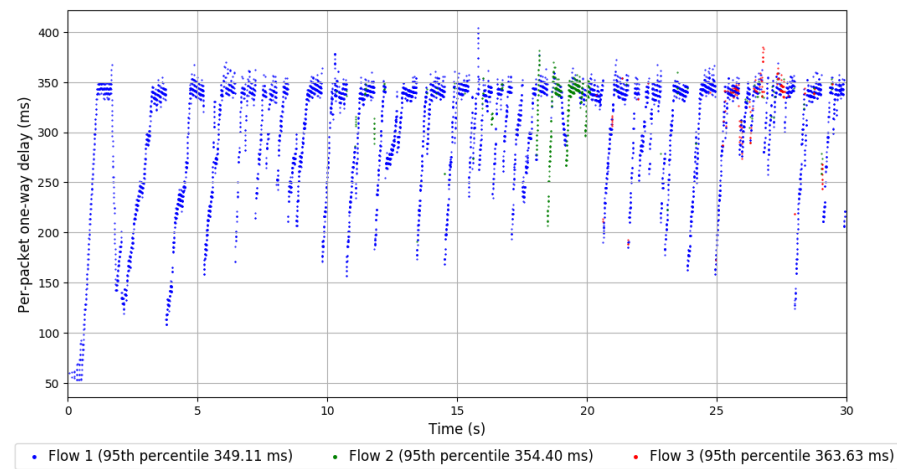
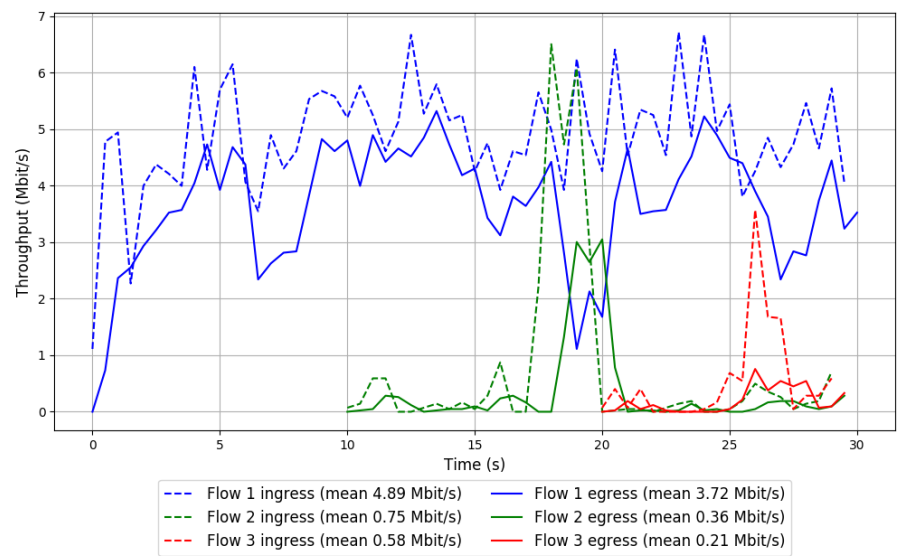
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 363.627 ms

Loss rate: 63.51%

Run 2: Report of Verus — Data Link

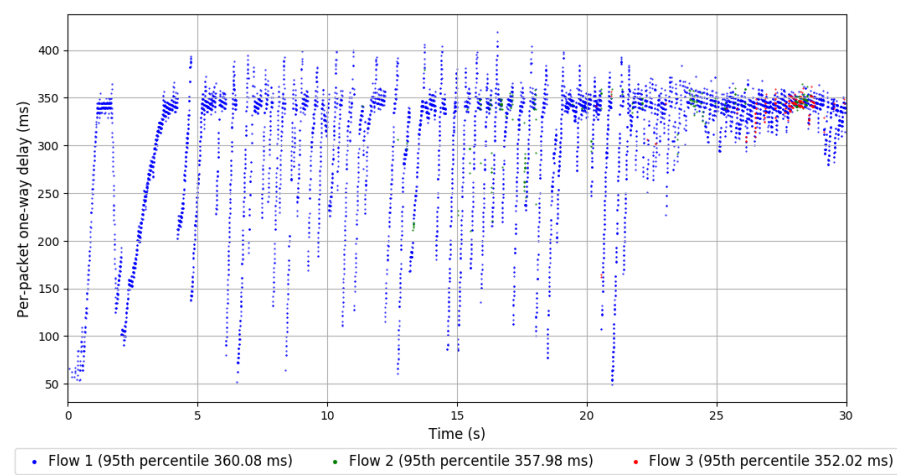
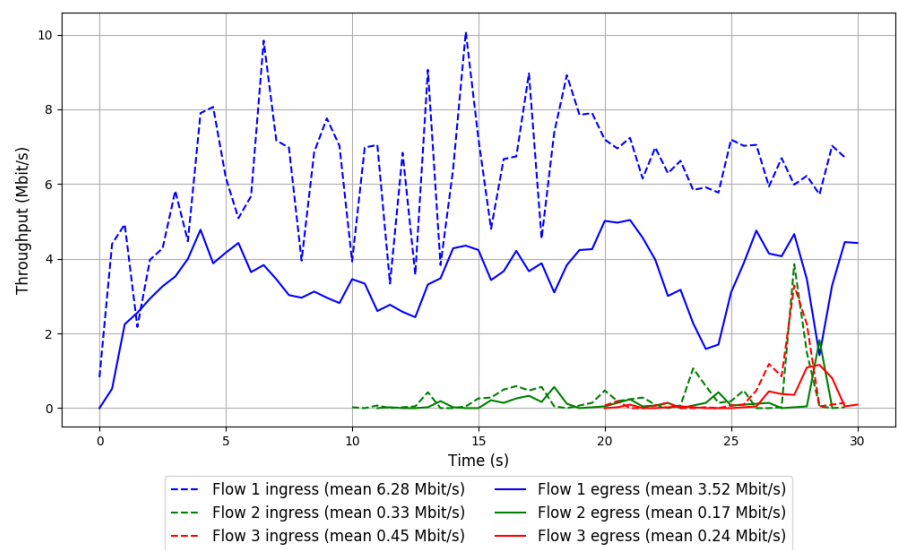


Run 3: Statistics of Verus

Start at: 2018-06-06 02:16:10
End at: 2018-06-06 02:16:40
Local clock offset: 2.487 ms
Remote clock offset: 5.545 ms

Below is generated by plot.py at 2018-06-06 02:18:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.69 Mbit/s
95th percentile per-packet one-way delay: 359.684 ms
Loss rate: 44.56%
-- Flow 1:
Average throughput: 3.52 Mbit/s
95th percentile per-packet one-way delay: 360.084 ms
Loss rate: 44.11%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 357.978 ms
Loss rate: 55.17%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 352.024 ms
Loss rate: 48.16%

Run 3: Report of Verus — Data Link

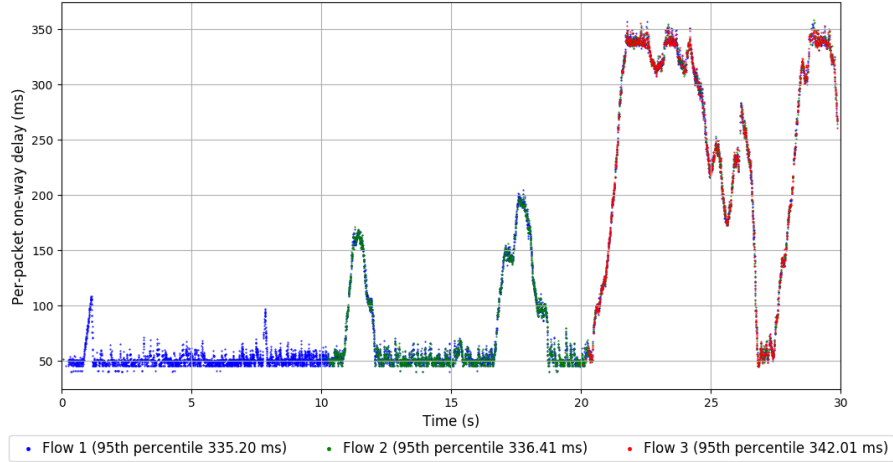
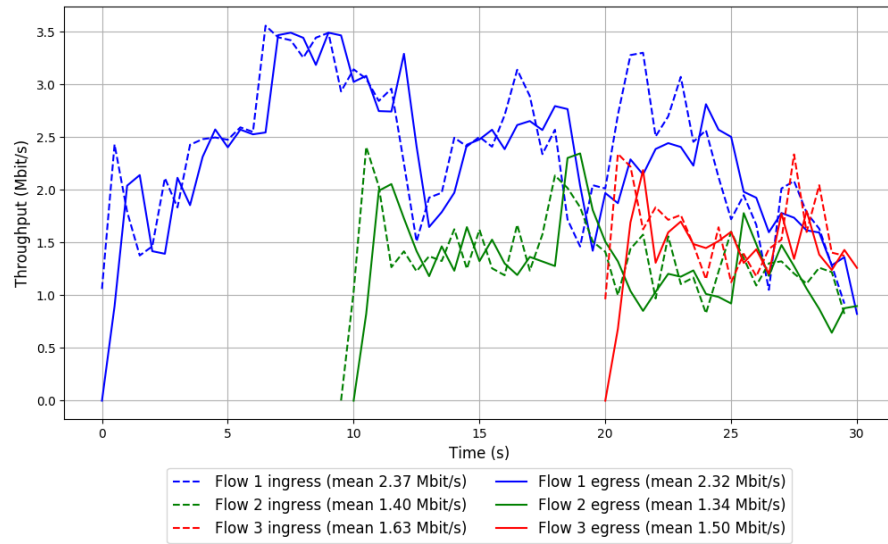


Run 1: Statistics of PCC-Vivace

Start at: 2018-06-06 01:25:57
End at: 2018-06-06 01:26:27
Local clock offset: -0.577 ms
Remote clock offset: -7.615 ms

Below is generated by plot.py at 2018-06-06 02:18:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.70 Mbit/s
95th percentile per-packet one-way delay: 337.387 ms
Loss rate: 3.88%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 335.196 ms
Loss rate: 2.62%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 336.412 ms
Loss rate: 4.37%
-- Flow 3:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 342.015 ms
Loss rate: 8.60%

Run 1: Report of PCC-Vivace — Data Link

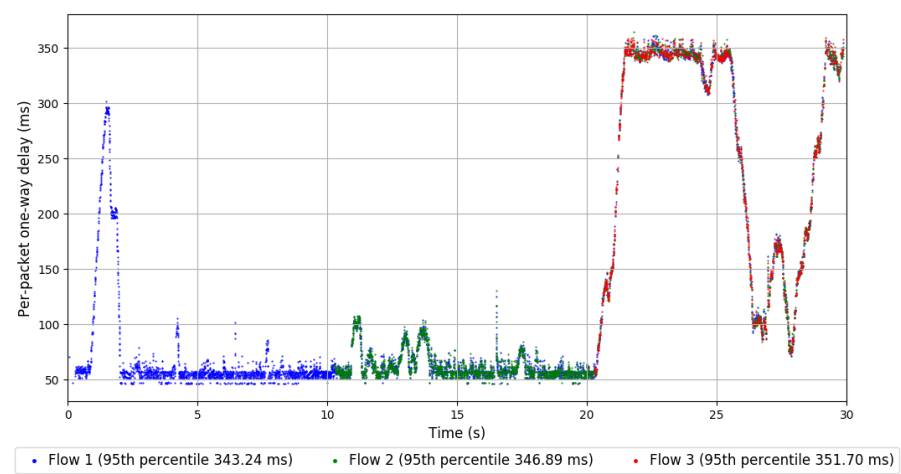
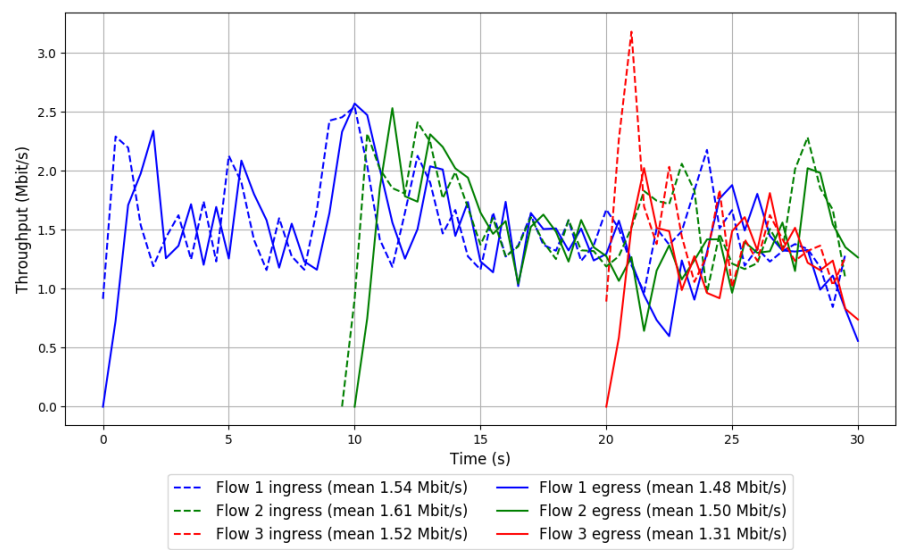


Run 2: Statistics of PCC-Vivace

Start at: 2018-06-06 01:43:25
End at: 2018-06-06 01:43:55
Local clock offset: -1.025 ms
Remote clock offset: -9.093 ms

Below is generated by plot.py at 2018-06-06 02:18:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.90 Mbit/s
95th percentile per-packet one-way delay: 346.515 ms
Loss rate: 6.94%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 343.242 ms
Loss rate: 4.23%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 346.886 ms
Loss rate: 7.14%
-- Flow 3:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 351.705 ms
Loss rate: 14.83%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-06-06 02:00:53

End at: 2018-06-06 02:01:23

Local clock offset: -2.869 ms

Remote clock offset: 1.102 ms

Below is generated by plot.py at 2018-06-06 02:18:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 320.768 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 297.570 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 326.609 ms

Loss rate: 2.15%

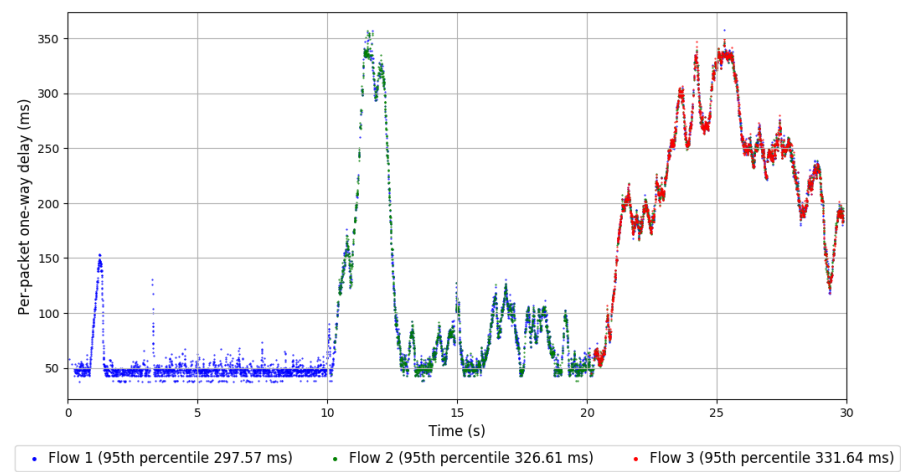
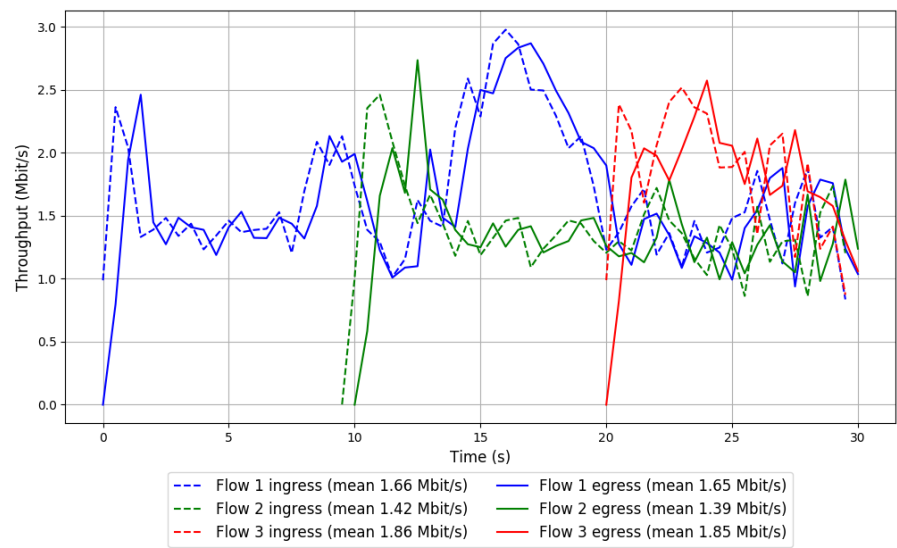
-- Flow 3:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 331.636 ms

Loss rate: 1.61%

Run 3: Report of PCC-Vivace — Data Link

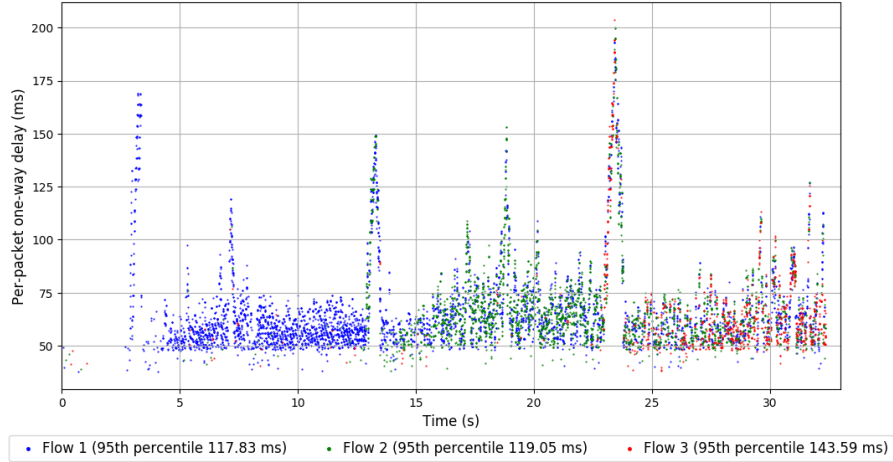
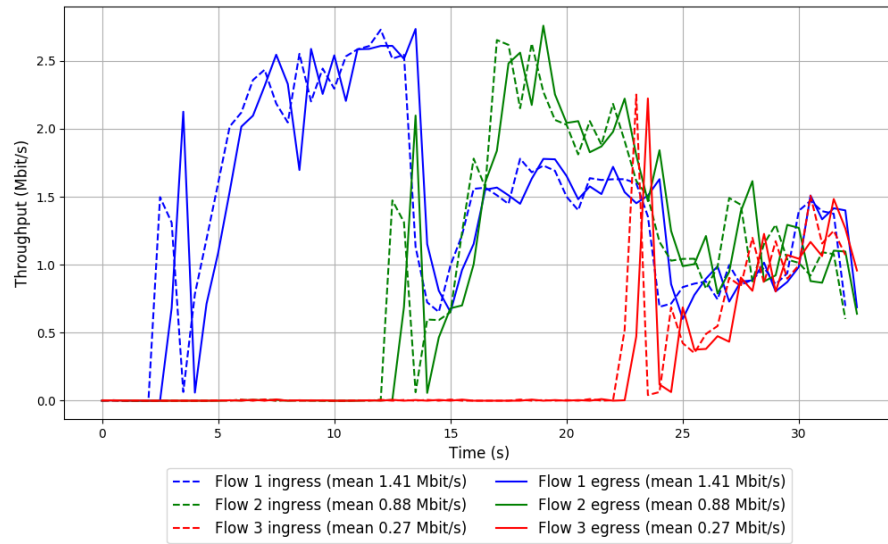


Run 1: Statistics of WebRTC media

Start at: 2018-06-06 01:37:58
End at: 2018-06-06 01:38:28
Local clock offset: 0.037 ms
Remote clock offset: -8.685 ms

Below is generated by plot.py at 2018-06-06 02:18:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 119.619 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 117.827 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 119.045 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 143.589 ms
Loss rate: 1.24%

Run 1: Report of WebRTC media — Data Link

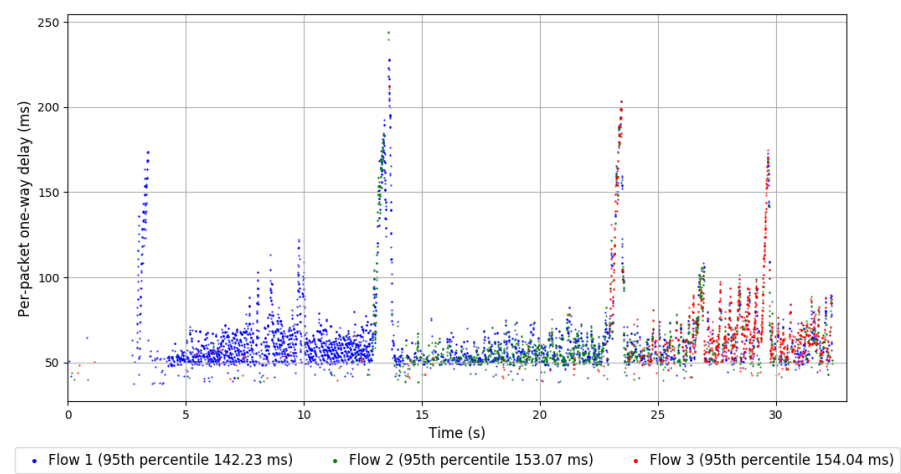
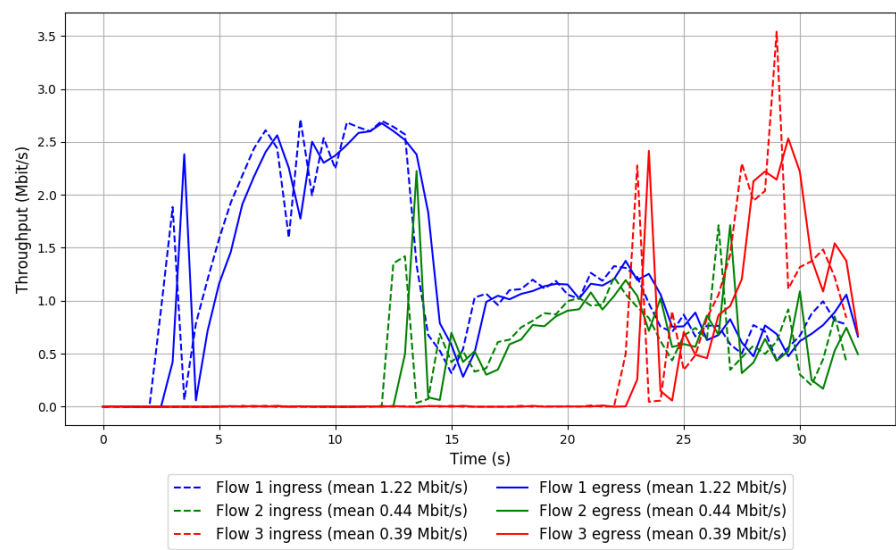


Run 2: Statistics of WebRTC media

Start at: 2018-06-06 01:55:25
End at: 2018-06-06 01:55:55
Local clock offset: 1.048 ms
Remote clock offset: -1.186 ms

Below is generated by plot.py at 2018-06-06 02:18:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 148.182 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 142.228 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 153.074 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 154.043 ms
Loss rate: 0.92%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-06-06 02:12:53

End at: 2018-06-06 02:13:23

Local clock offset: -1.794 ms

Remote clock offset: 3.943 ms

Below is generated by plot.py at 2018-06-06 02:18:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 199.840 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 211.389 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 236.499 ms

Loss rate: 1.63%

-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 141.502 ms

Loss rate: 0.56%

Run 3: Report of WebRTC media — Data Link

