

Pantheon Report

Generated at 2017-09-08 03:42:11 (UTC).

Data path: GCE Sydney Ethernet (*remote*) → GCE Iowa Ethernet (*local*).

Repeated the test of 15 congestion control schemes 10 times.

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

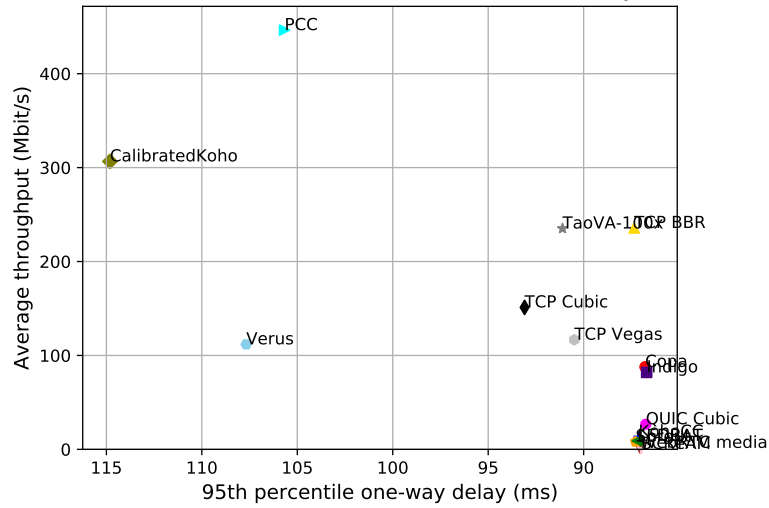
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

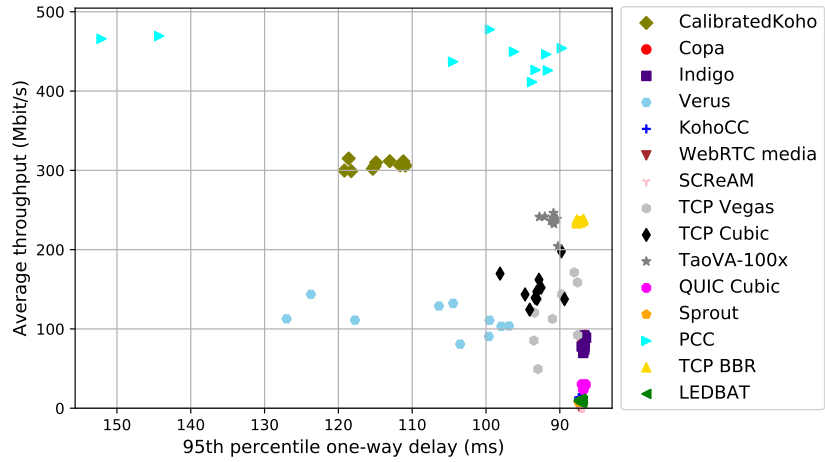
Git summary:

```
branch: master @ 2a98508c2457474d84cd2966a42b80b0bc62ecaf
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 10192113fb6902d25c86e0e3e4c85d7a05e43d7e
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
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/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  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/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE Sydney Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
 3 flows with 10s interval between flows



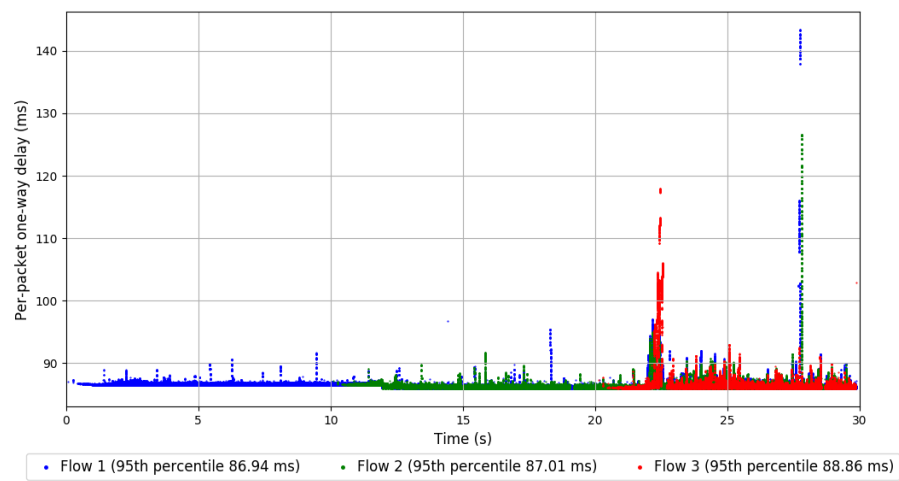
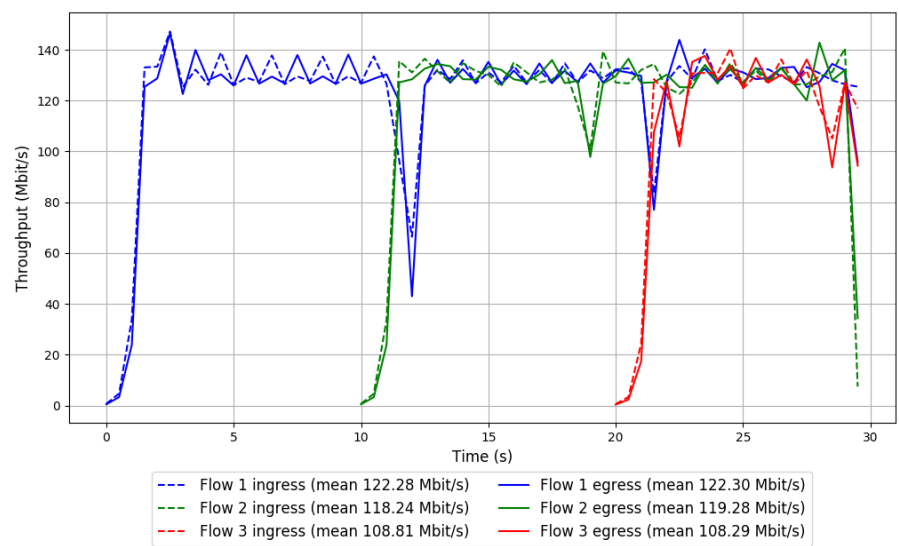
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	121.23	118.43	110.24	87.10	87.31	88.91	0.62	0.75	2.10
CalibratedKoho	10	205.92	125.64	52.83	117.96	109.83	102.95	0.42	0.96	5.13
Copa	9	50.98	42.79	35.29	86.75	86.68	86.78	0.41	0.61	3.14
TCP Cubic	10	73.61	86.94	60.46	91.39	93.02	94.69	0.74	0.79	2.34
Indigo	10	28.53	60.90	39.78	86.68	86.72	86.56	0.69	0.64	2.00
KohoCC	10	6.73	6.64	6.39	87.17	87.05	87.05	0.66	0.92	1.72
LEDBAT	10	5.41	4.33	2.35	87.21	87.15	87.02	1.15	1.79	4.19
PCC	10	282.60	176.23	146.98	110.98	92.53	91.44	0.46	0.72	2.25
QUIC Cubic	10	0.06	26.63	27.55	86.80	86.66	86.65	0.00	0.74	1.97
SCReAM	10	0.21	0.22	0.22	86.88	86.81	86.80	0.53	0.87	1.58
Sprout	10	4.32	4.06	3.20	87.29	87.26	87.15	0.66	1.07	2.86
TaoVA-100x	10	144.43	106.44	81.15	90.41	91.64	92.62	0.41	0.81	2.77
TCP Vegas	8	55.62	67.88	52.64	320.29	89.99	91.72	0.49	0.70	1.80
Verus	10	66.35	47.26	44.35	110.98	106.73	104.42	0.45	0.87	1.35
WebRTC media	10	0.15	1.39	0.30	87.09	87.05	86.83	0.23	1.20	4.60

```
Run 1: Statistics of TCP BBR

Start at: 2017-09-07 21:59:46
End at: 2017-09-07 22:00:16

# Below is generated by plot.py at 2017-09-08 03:07:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.64 Mbit/s
95th percentile per-packet one-way delay: 87.098 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 122.30 Mbit/s
95th percentile per-packet one-way delay: 86.942 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 119.28 Mbit/s
95th percentile per-packet one-way delay: 87.007 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 108.29 Mbit/s
95th percentile per-packet one-way delay: 88.864 ms
Loss rate: 2.17%
```

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-09-07 22:13:01

End at: 2017-09-07 22:13:31

Below is generated by plot.py at 2017-09-08 03:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 236.17 Mbit/s

95th percentile per-packet one-way delay: 87.404 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 121.95 Mbit/s

95th percentile per-packet one-way delay: 87.020 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 118.00 Mbit/s

95th percentile per-packet one-way delay: 87.445 ms

Loss rate: 1.02%

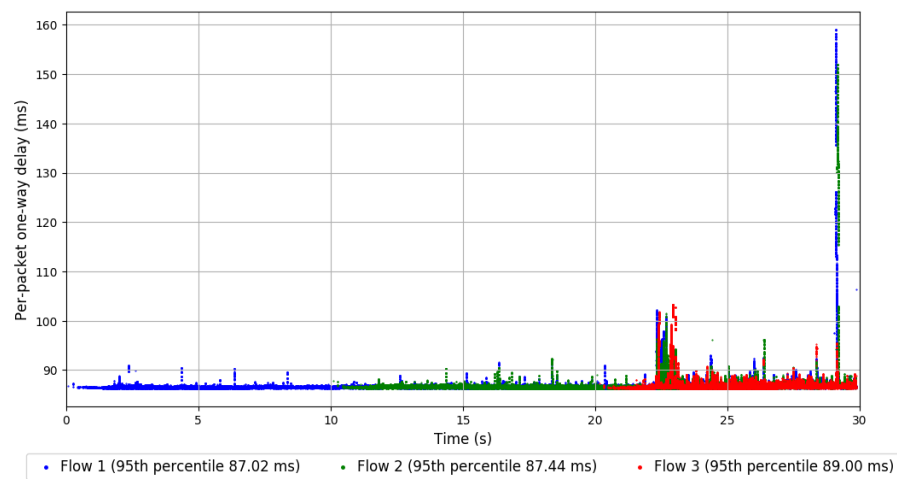
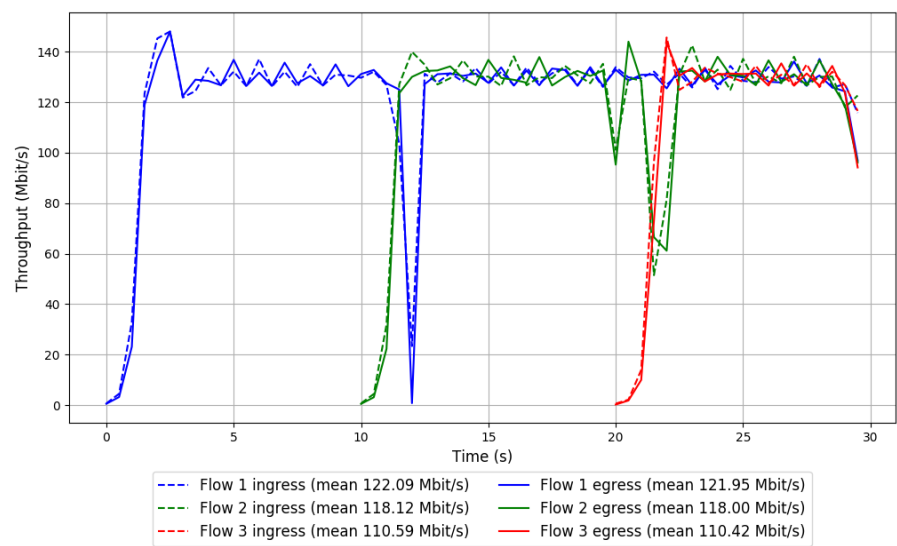
-- Flow 3:

Average throughput: 110.42 Mbit/s

95th percentile per-packet one-way delay: 88.996 ms

Loss rate: 2.13%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-09-07 22:26:06

End at: 2017-09-07 22:26:36

Below is generated by plot.py at 2017-09-08 03:08:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 235.12 Mbit/s

95th percentile per-packet one-way delay: 87.730 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 119.08 Mbit/s

95th percentile per-packet one-way delay: 87.479 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 120.55 Mbit/s

95th percentile per-packet one-way delay: 87.563 ms

Loss rate: 0.00%

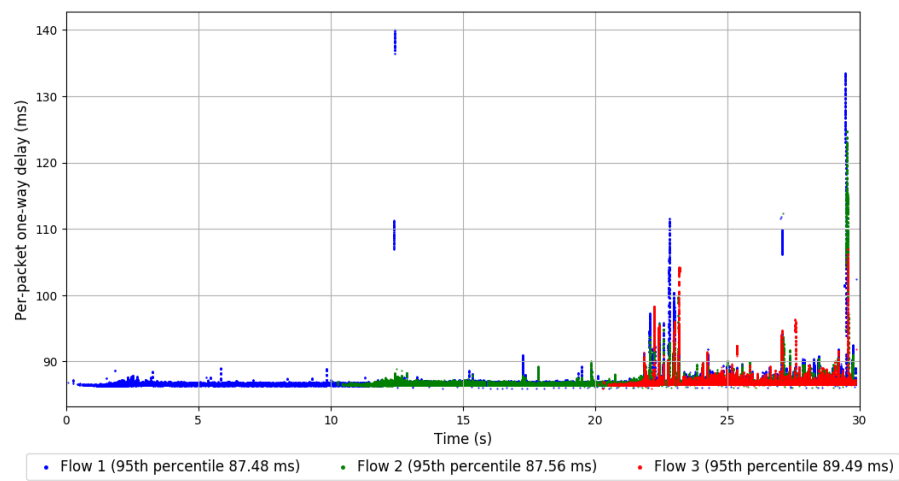
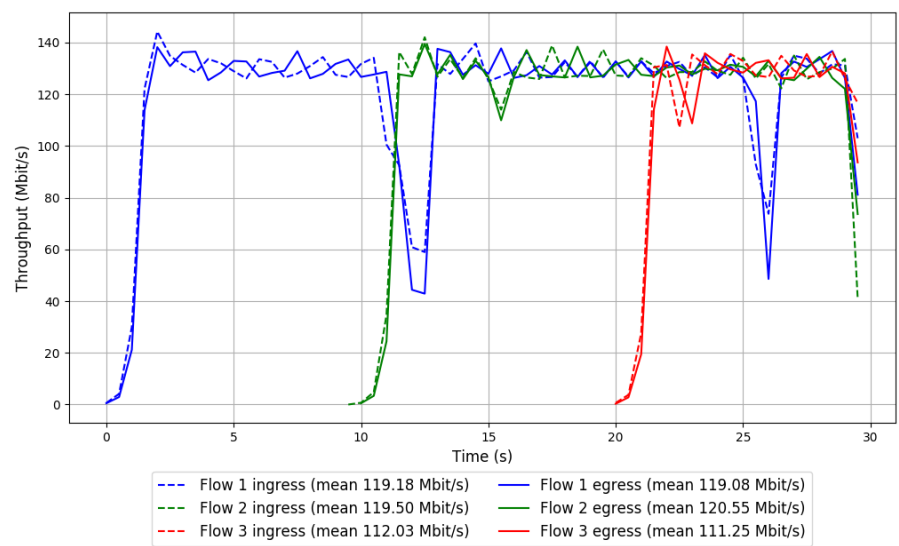
-- Flow 3:

Average throughput: 111.25 Mbit/s

95th percentile per-packet one-way delay: 89.494 ms

Loss rate: 2.11%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-09-07 22:39:11

End at: 2017-09-07 22:39:42

Below is generated by plot.py at 2017-09-08 03:08:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 236.29 Mbit/s

95th percentile per-packet one-way delay: 86.836 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 122.33 Mbit/s

95th percentile per-packet one-way delay: 86.757 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 117.26 Mbit/s

95th percentile per-packet one-way delay: 86.890 ms

Loss rate: 1.04%

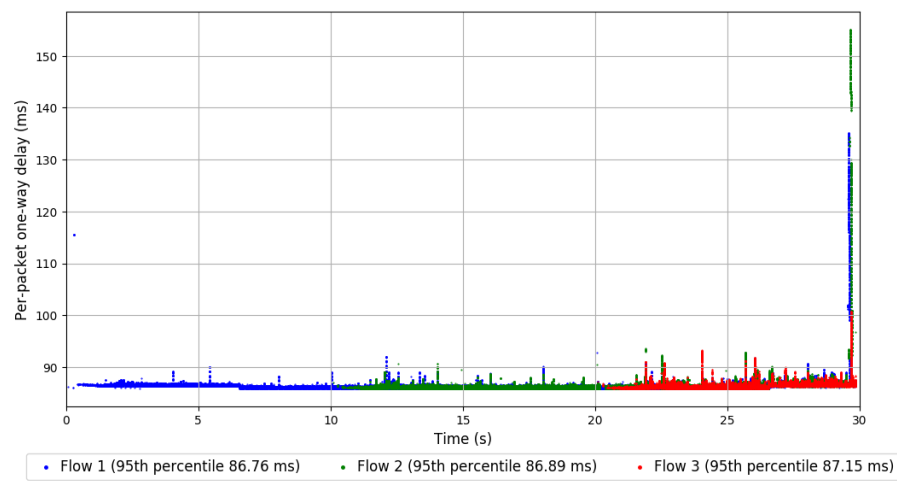
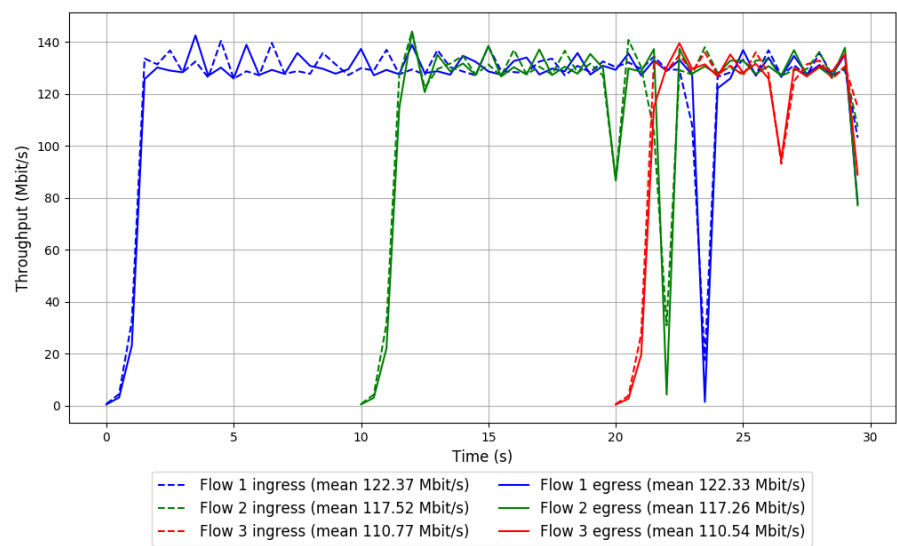
-- Flow 3:

Average throughput: 110.54 Mbit/s

95th percentile per-packet one-way delay: 87.154 ms

Loss rate: 2.03%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-09-07 22:52:09

End at: 2017-09-07 22:52:39

Below is generated by plot.py at 2017-09-08 03:08:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 234.38 Mbit/s

95th percentile per-packet one-way delay: 87.511 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 120.57 Mbit/s

95th percentile per-packet one-way delay: 87.178 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 118.16 Mbit/s

95th percentile per-packet one-way delay: 87.472 ms

Loss rate: 1.00%

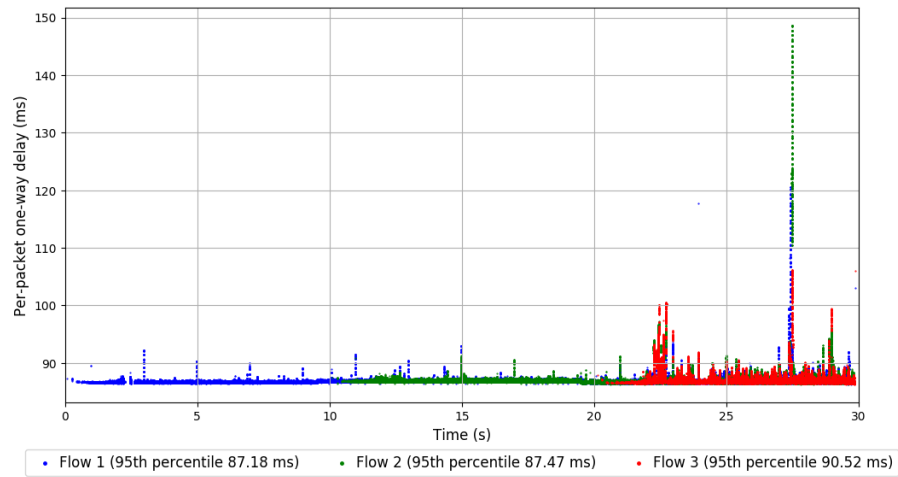
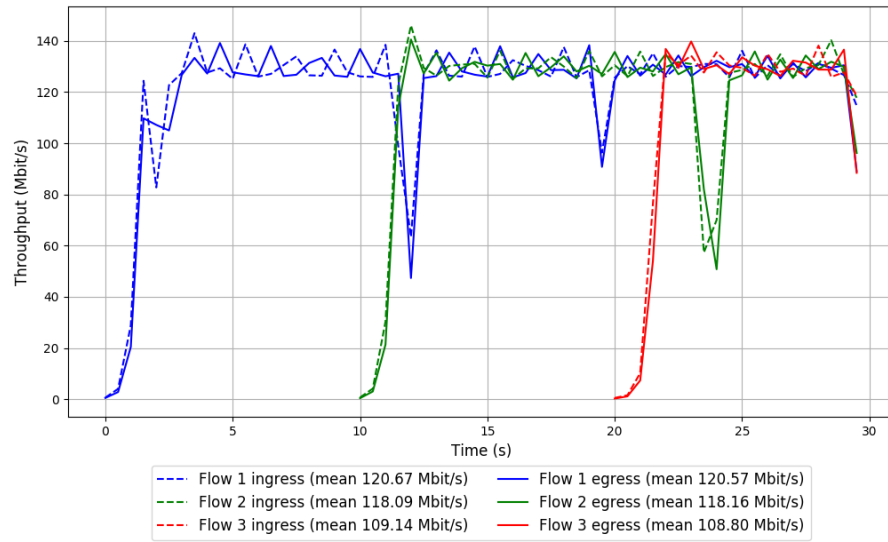
-- Flow 3:

Average throughput: 108.80 Mbit/s

95th percentile per-packet one-way delay: 90.519 ms

Loss rate: 2.11%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-09-07 23:05:25

End at: 2017-09-07 23:05:55

Below is generated by plot.py at 2017-09-08 03:09:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.33 Mbit/s

95th percentile per-packet one-way delay: 87.691 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 123.96 Mbit/s

95th percentile per-packet one-way delay: 87.334 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 119.06 Mbit/s

95th percentile per-packet one-way delay: 87.667 ms

Loss rate: 0.48%

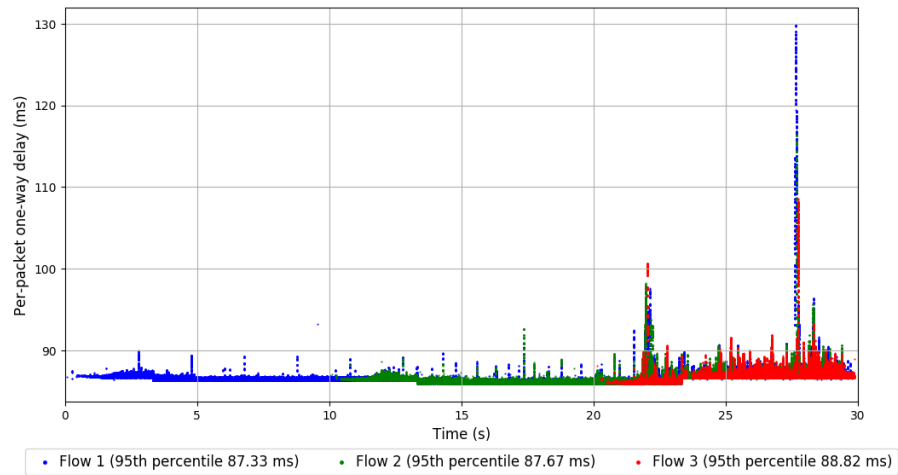
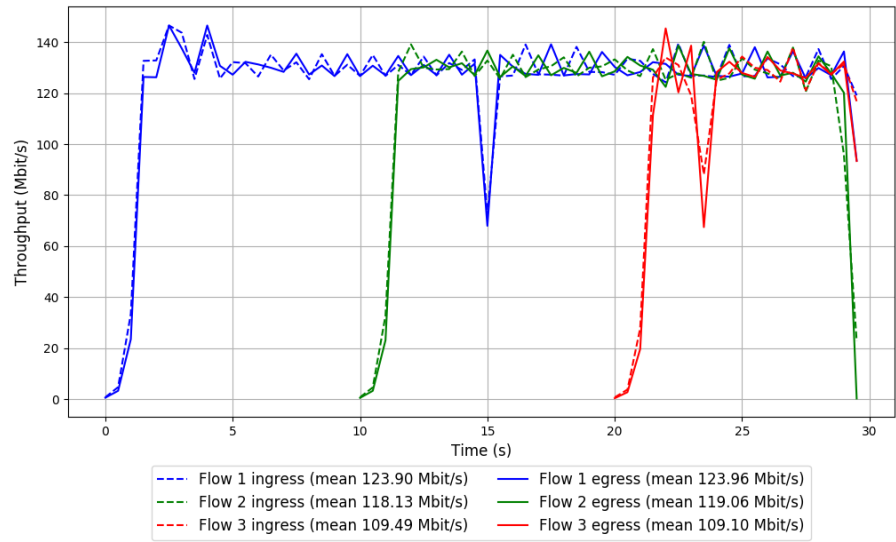
-- Flow 3:

Average throughput: 109.10 Mbit/s

95th percentile per-packet one-way delay: 88.824 ms

Loss rate: 2.12%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-09-07 23:18:26

End at: 2017-09-07 23:18:56

Below is generated by plot.py at 2017-09-08 03:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 233.26 Mbit/s

95th percentile per-packet one-way delay: 87.652 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 118.11 Mbit/s

95th percentile per-packet one-way delay: 87.295 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 120.00 Mbit/s

95th percentile per-packet one-way delay: 87.735 ms

Loss rate: 1.02%

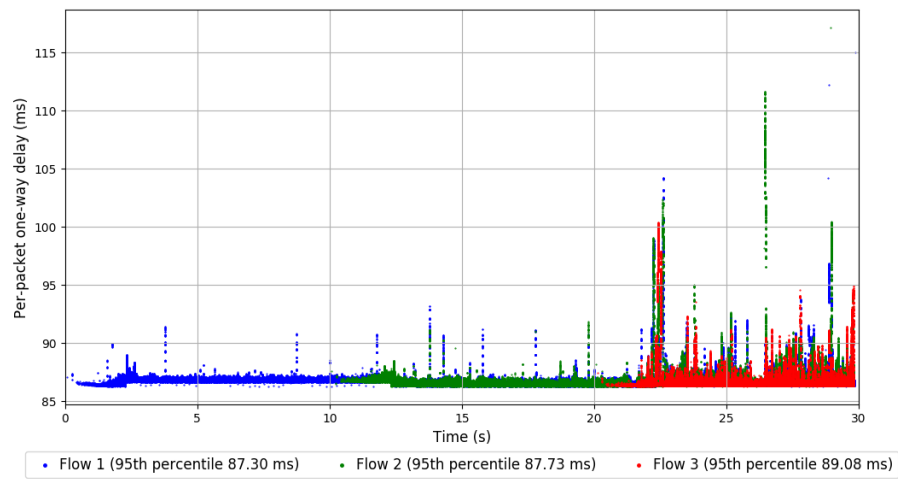
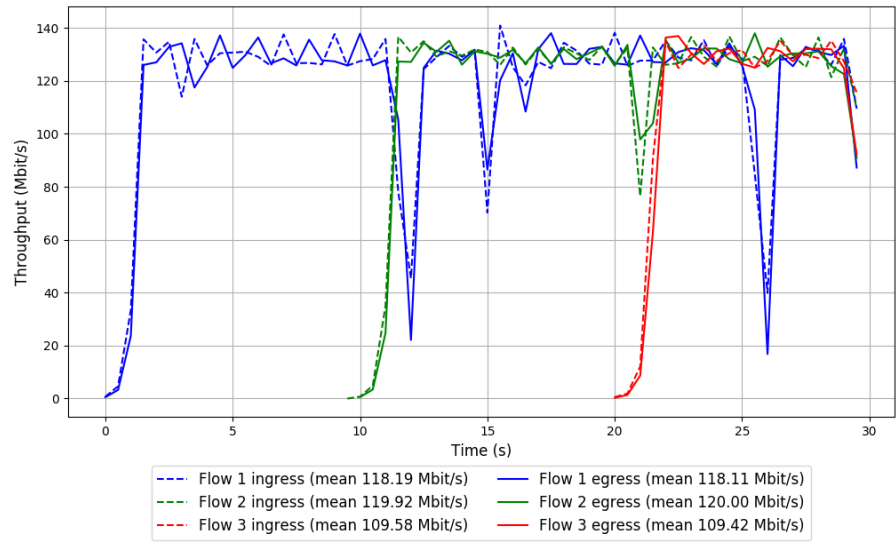
-- Flow 3:

Average throughput: 109.42 Mbit/s

95th percentile per-packet one-way delay: 89.085 ms

Loss rate: 2.26%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-09-07 23:31:33

End at: 2017-09-07 23:32:03

Below is generated by plot.py at 2017-09-08 03:09:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 233.60 Mbit/s

95th percentile per-packet one-way delay: 87.627 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 119.21 Mbit/s

95th percentile per-packet one-way delay: 87.206 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 117.32 Mbit/s

95th percentile per-packet one-way delay: 87.431 ms

Loss rate: 0.95%

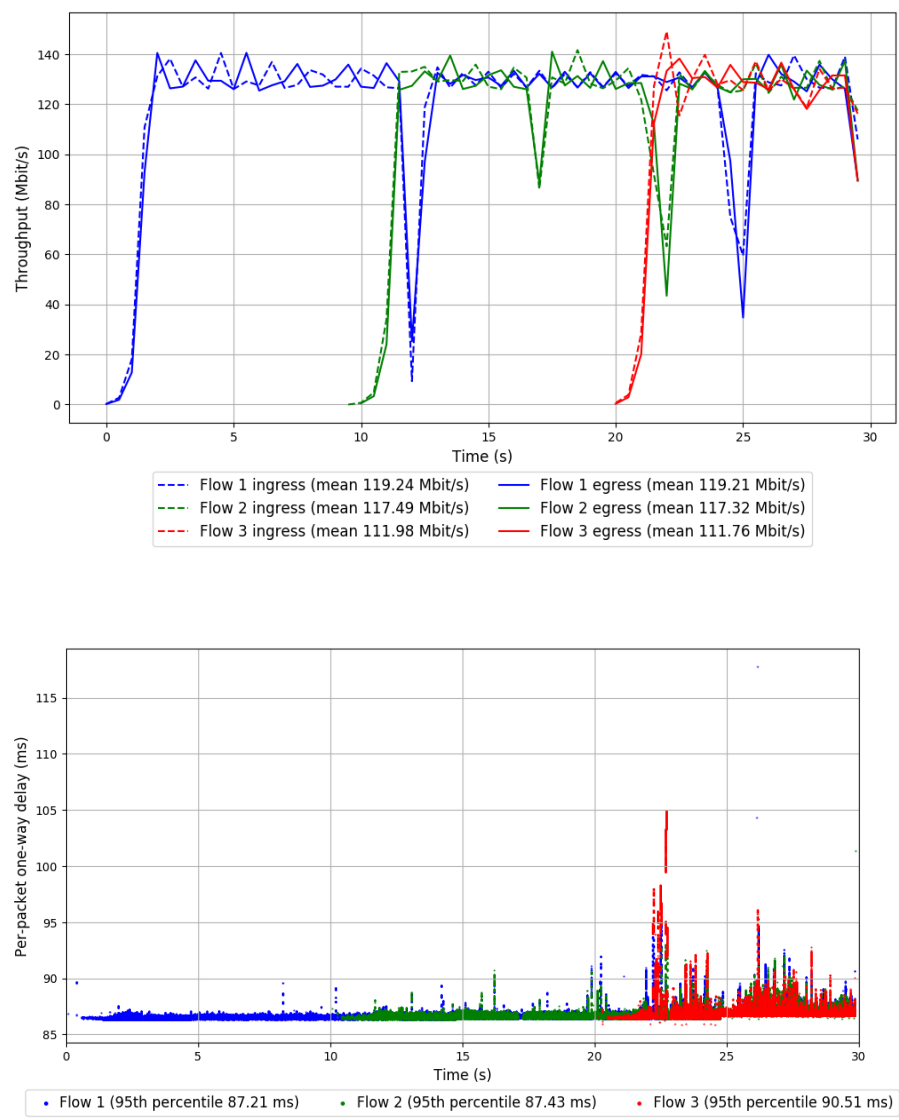
-- Flow 3:

Average throughput: 111.76 Mbit/s

95th percentile per-packet one-way delay: 90.509 ms

Loss rate: 2.04%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-09-07 23:44:42

End at: 2017-09-07 23:45:12

Below is generated by plot.py at 2017-09-08 03:10:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.90 Mbit/s

95th percentile per-packet one-way delay: 86.801 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 124.35 Mbit/s

95th percentile per-packet one-way delay: 86.731 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 117.82 Mbit/s

95th percentile per-packet one-way delay: 86.791 ms

Loss rate: 1.02%

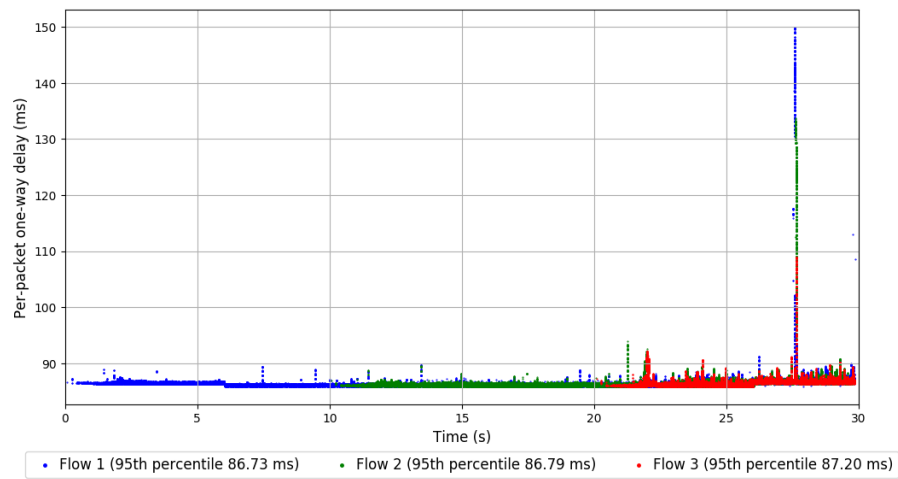
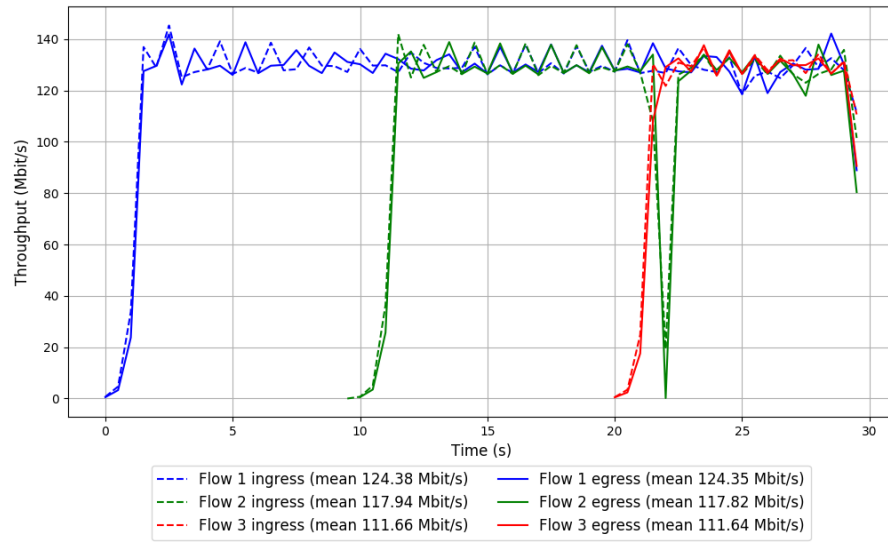
-- Flow 3:

Average throughput: 111.64 Mbit/s

95th percentile per-packet one-way delay: 87.199 ms

Loss rate: 1.96%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-09-07 23:57:47

End at: 2017-09-07 23:58:17

Below is generated by plot.py at 2017-09-08 03:10:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 234.46 Mbit/s

95th percentile per-packet one-way delay: 87.204 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 120.44 Mbit/s

95th percentile per-packet one-way delay: 87.039 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 116.87 Mbit/s

95th percentile per-packet one-way delay: 87.126 ms

Loss rate: 0.95%

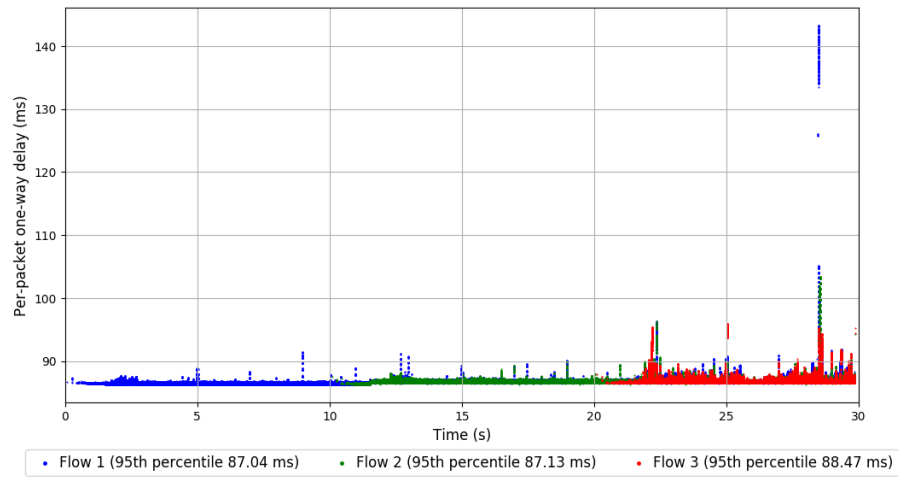
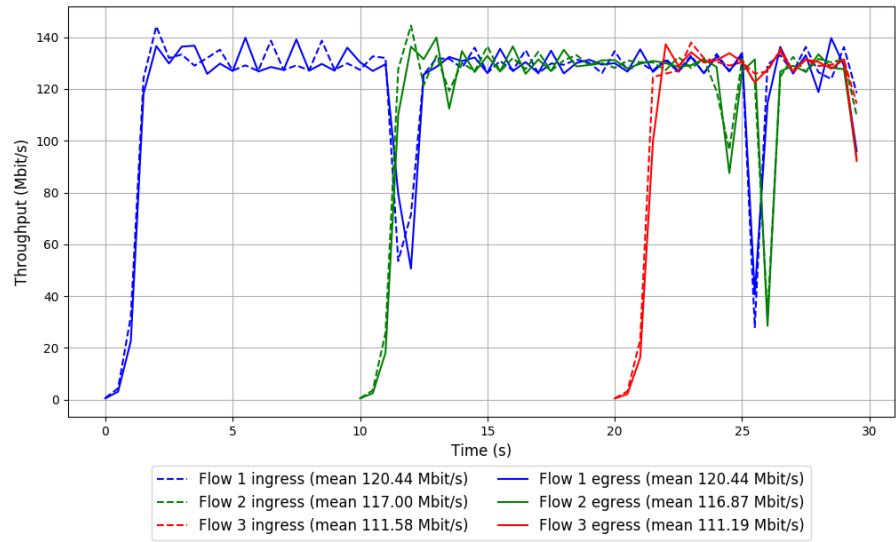
-- Flow 3:

Average throughput: 111.19 Mbit/s

95th percentile per-packet one-way delay: 88.470 ms

Loss rate: 2.04%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-09-07 21:56:54

End at: 2017-09-07 21:57:24

Below is generated by plot.py at 2017-09-08 03:11:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 314.94 Mbit/s

95th percentile per-packet one-way delay: 118.606 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 209.92 Mbit/s

95th percentile per-packet one-way delay: 123.050 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 130.32 Mbit/s

95th percentile per-packet one-way delay: 107.414 ms

Loss rate: 0.93%

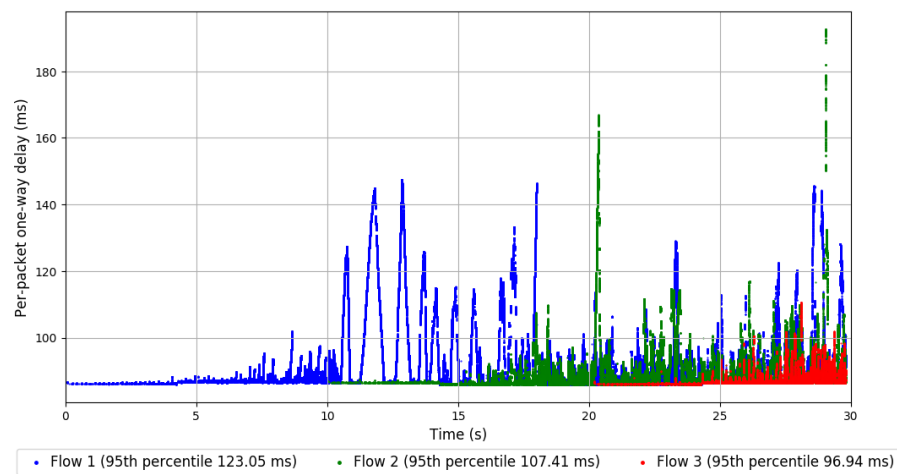
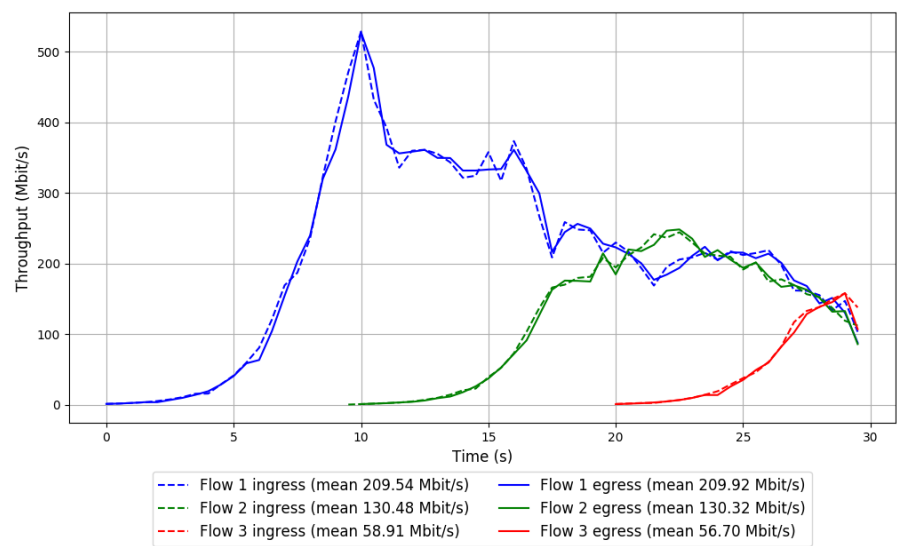
-- Flow 3:

Average throughput: 56.70 Mbit/s

95th percentile per-packet one-way delay: 96.939 ms

Loss rate: 5.48%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-09-07 22:10:04

End at: 2017-09-07 22:10:34

Below is generated by plot.py at 2017-09-08 03:11:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 306.26 Mbit/s

95th percentile per-packet one-way delay: 111.638 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 205.76 Mbit/s

95th percentile per-packet one-way delay: 114.862 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 125.79 Mbit/s

95th percentile per-packet one-way delay: 108.670 ms

Loss rate: 0.96%

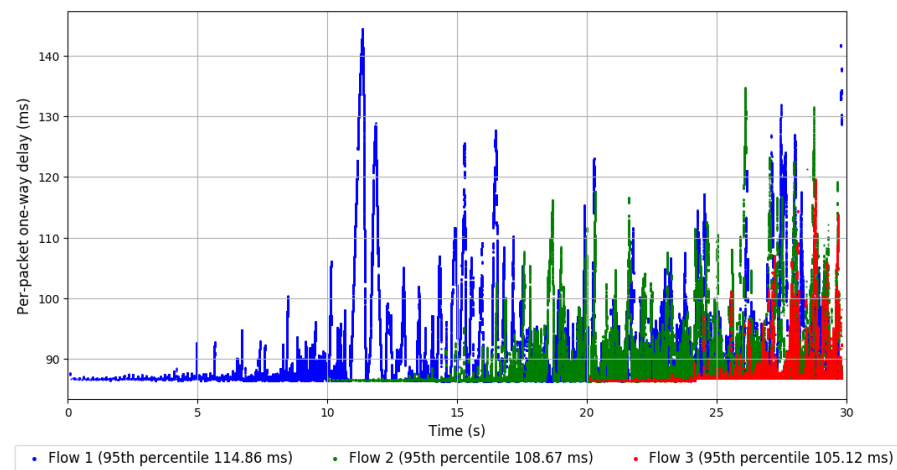
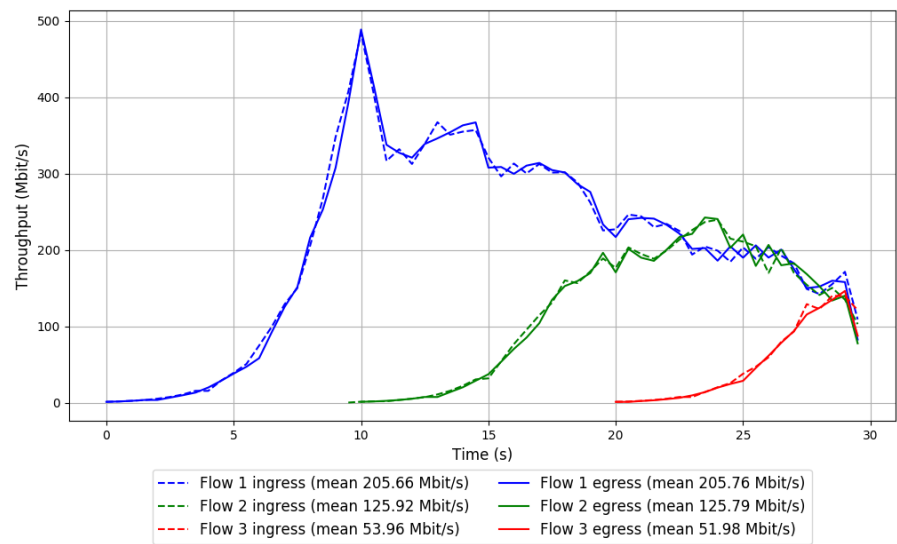
-- Flow 3:

Average throughput: 51.98 Mbit/s

95th percentile per-packet one-way delay: 105.118 ms

Loss rate: 5.27%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-09-07 22:23:21

End at: 2017-09-07 22:23:51

Below is generated by plot.py at 2017-09-08 03:12:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 302.01 Mbit/s

95th percentile per-packet one-way delay: 115.336 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 199.67 Mbit/s

95th percentile per-packet one-way delay: 117.652 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 128.40 Mbit/s

95th percentile per-packet one-way delay: 109.928 ms

Loss rate: 1.01%

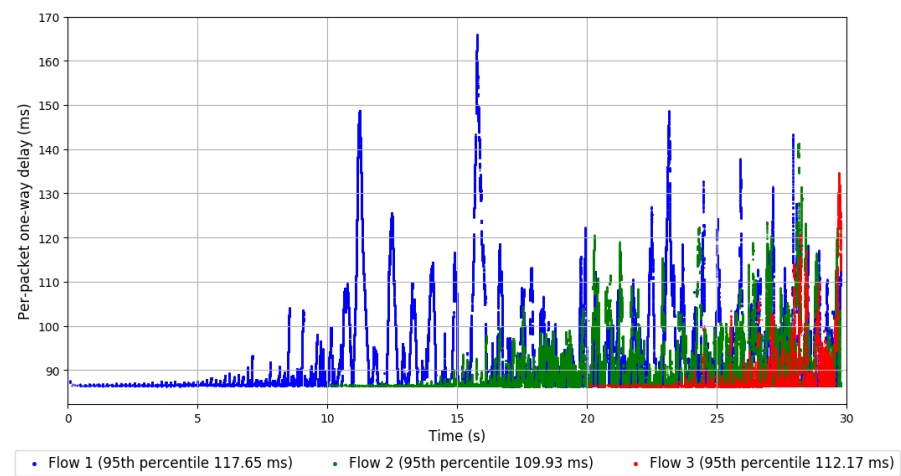
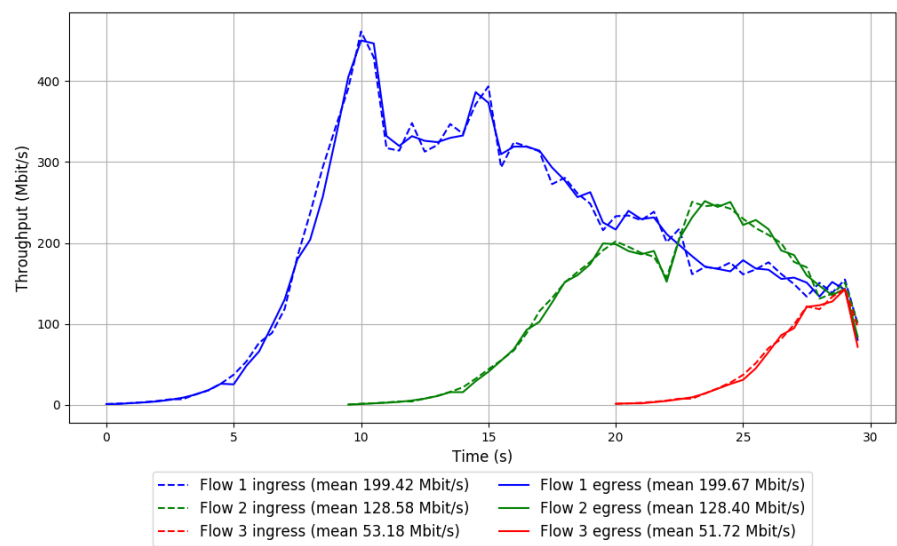
-- Flow 3:

Average throughput: 51.72 Mbit/s

95th percentile per-packet one-way delay: 112.168 ms

Loss rate: 4.46%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-09-07 22:36:21

End at: 2017-09-07 22:36:51

Below is generated by plot.py at 2017-09-08 03:12:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 311.57 Mbit/s

95th percentile per-packet one-way delay: 113.035 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 207.66 Mbit/s

95th percentile per-packet one-way delay: 114.899 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 129.10 Mbit/s

95th percentile per-packet one-way delay: 109.934 ms

Loss rate: 1.07%

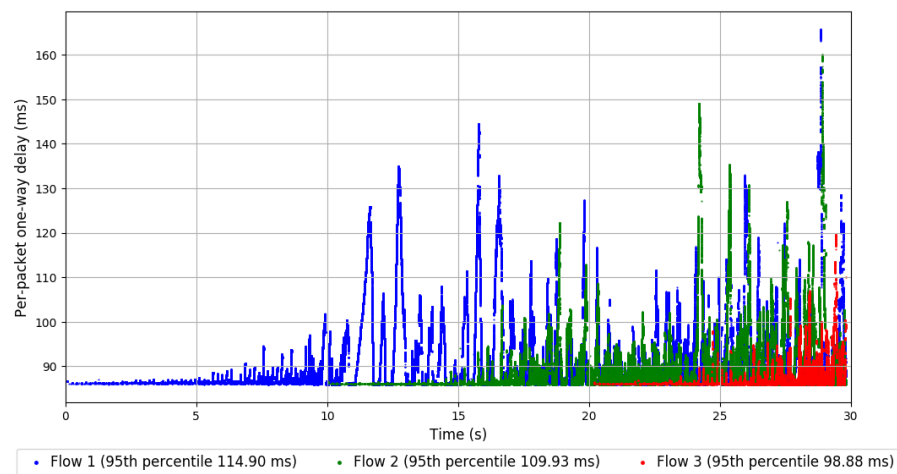
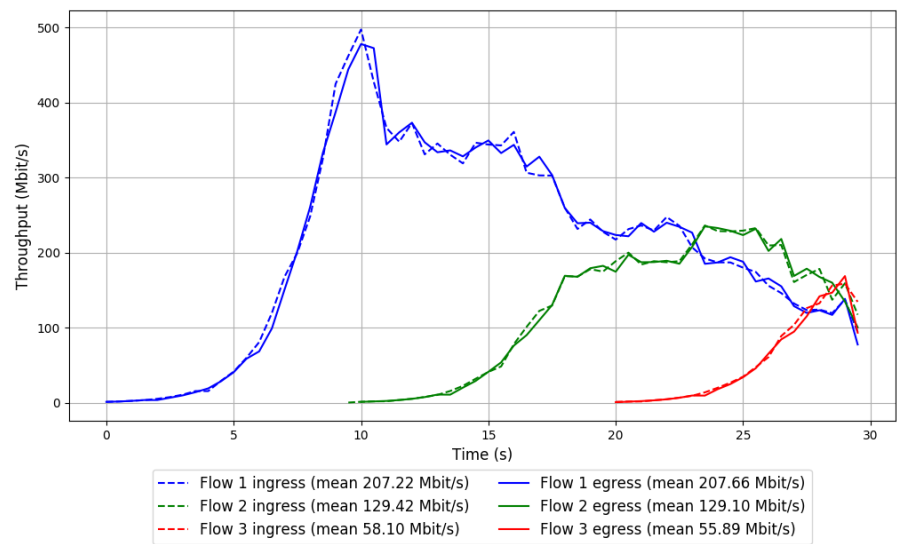
-- Flow 3:

Average throughput: 55.89 Mbit/s

95th percentile per-packet one-way delay: 98.882 ms

Loss rate: 5.40%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-09-07 22:49:20

End at: 2017-09-07 22:49:50

Below is generated by plot.py at 2017-09-08 03:13:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 305.27 Mbit/s

95th percentile per-packet one-way delay: 115.091 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 210.81 Mbit/s

95th percentile per-packet one-way delay: 119.053 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 118.18 Mbit/s

95th percentile per-packet one-way delay: 108.953 ms

Loss rate: 0.84%

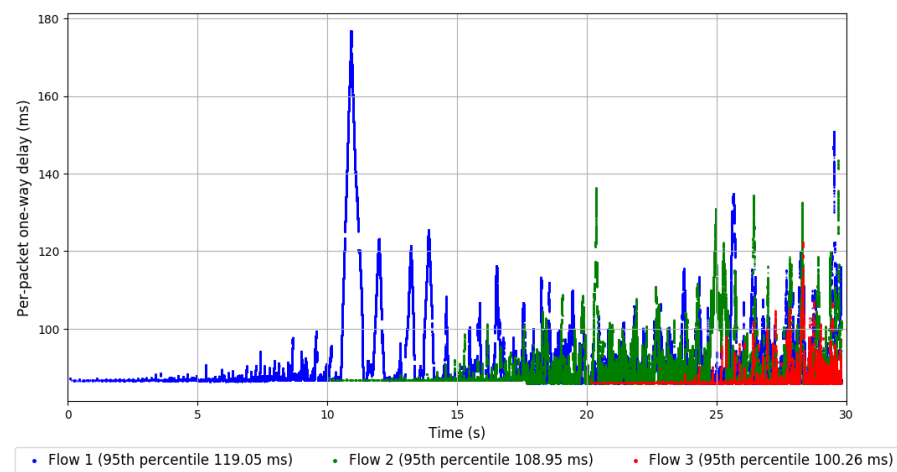
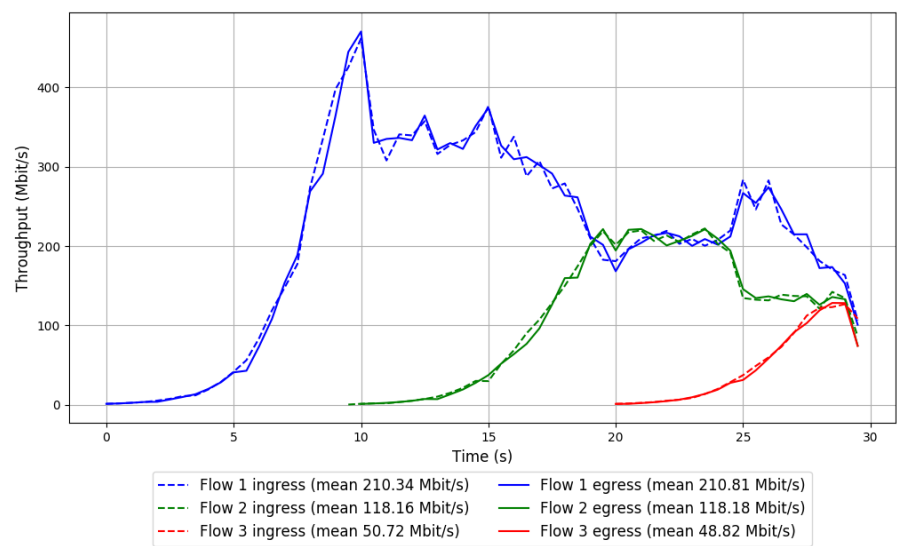
-- Flow 3:

Average throughput: 48.82 Mbit/s

95th percentile per-packet one-way delay: 100.261 ms

Loss rate: 5.39%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-09-07 23:02:24

End at: 2017-09-07 23:02:54

Below is generated by plot.py at 2017-09-08 03:13:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 311.35 Mbit/s

95th percentile per-packet one-way delay: 111.207 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 213.73 Mbit/s

95th percentile per-packet one-way delay: 112.597 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 122.68 Mbit/s

95th percentile per-packet one-way delay: 108.112 ms

Loss rate: 1.10%

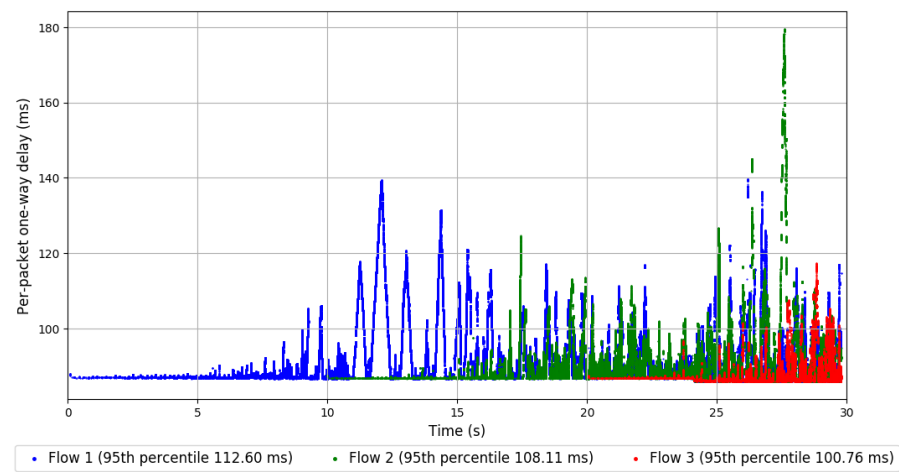
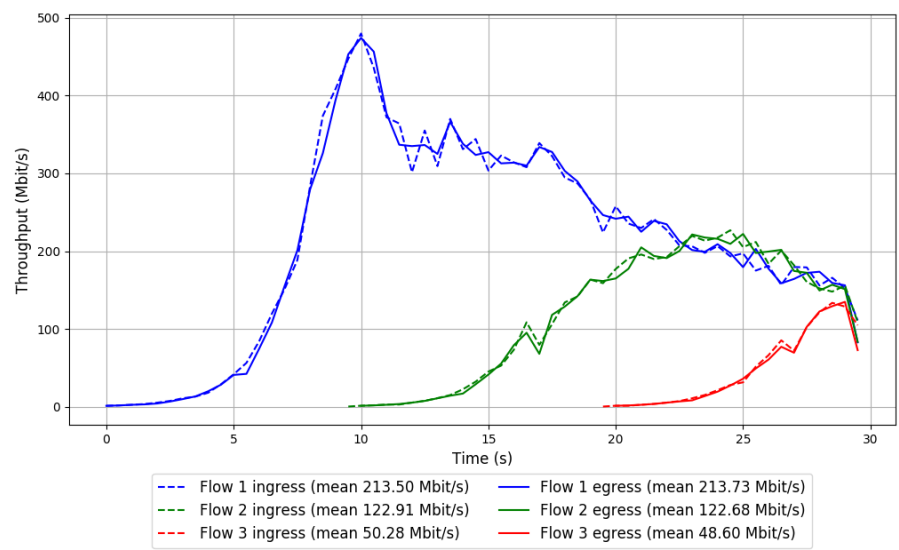
-- Flow 3:

Average throughput: 48.60 Mbit/s

95th percentile per-packet one-way delay: 100.758 ms

Loss rate: 5.08%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-09-07 23:15:38

End at: 2017-09-07 23:16:08

Below is generated by plot.py at 2017-09-08 03:14:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 305.98 Mbit/s

95th percentile per-packet one-way delay: 110.907 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 205.09 Mbit/s

95th percentile per-packet one-way delay: 113.620 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 126.55 Mbit/s

95th percentile per-packet one-way delay: 106.722 ms

Loss rate: 1.16%

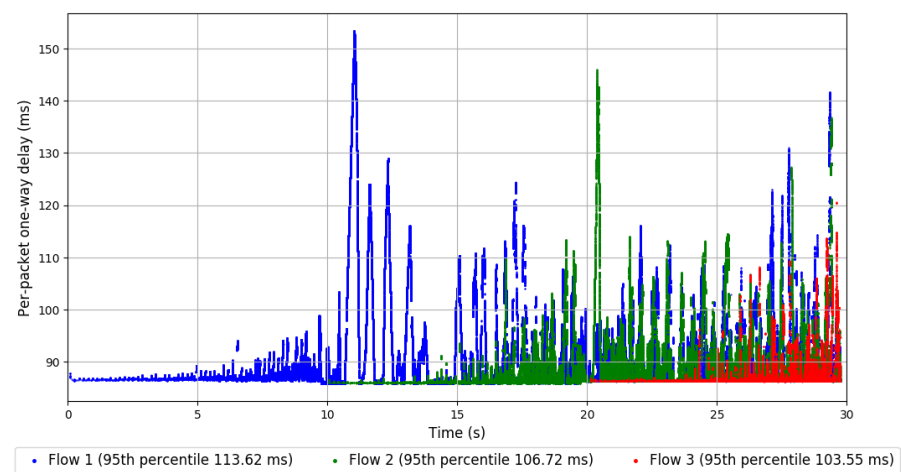
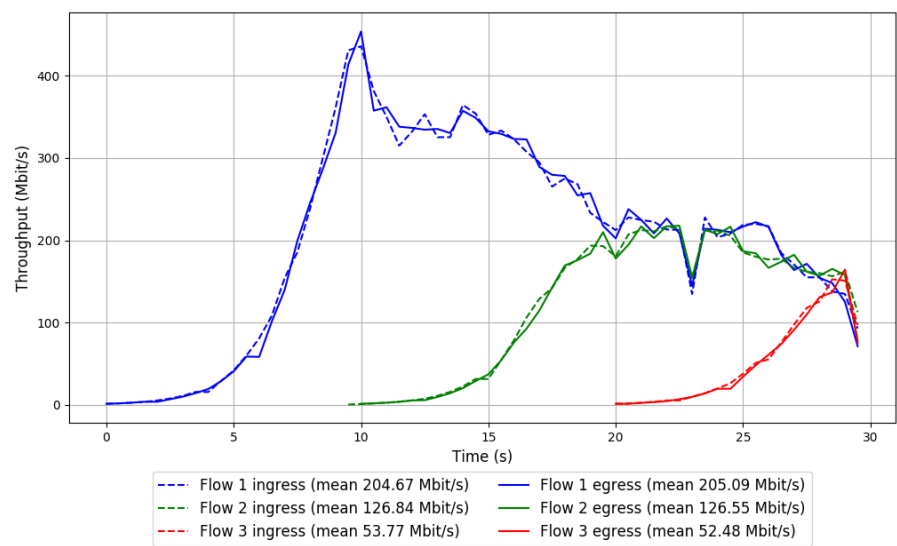
-- Flow 3:

Average throughput: 52.48 Mbit/s

95th percentile per-packet one-way delay: 103.551 ms

Loss rate: 4.16%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-09-07 23:28:40

End at: 2017-09-07 23:29:10

Below is generated by plot.py at 2017-09-08 03:14:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.10 Mbit/s

95th percentile per-packet one-way delay: 118.259 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 196.93 Mbit/s

95th percentile per-packet one-way delay: 122.502 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 127.51 Mbit/s

95th percentile per-packet one-way delay: 114.318 ms

Loss rate: 0.92%

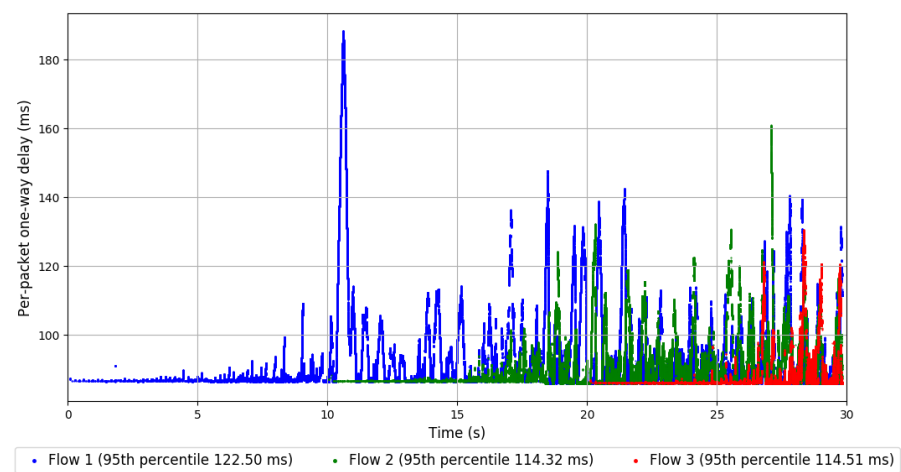
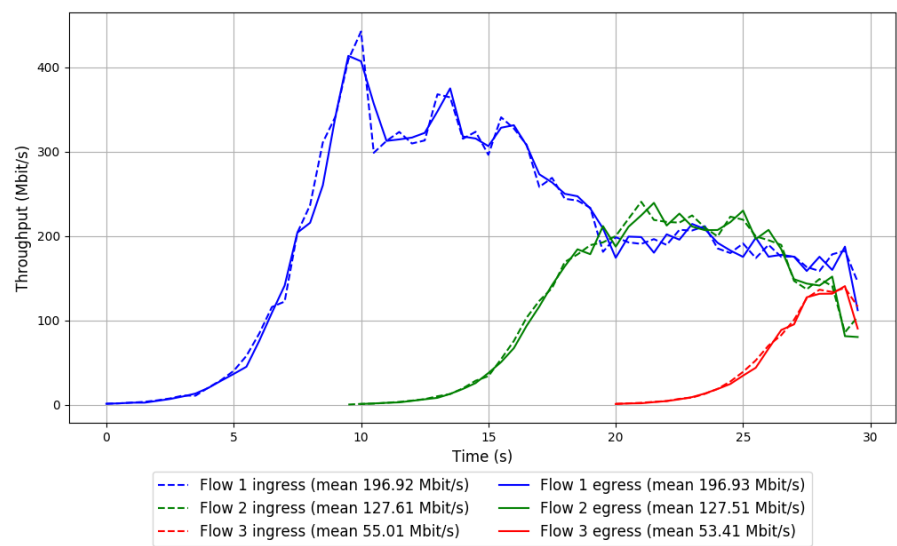
-- Flow 3:

Average throughput: 53.41 Mbit/s

95th percentile per-packet one-way delay: 114.514 ms

Loss rate: 4.59%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-09-07 23:41:47

End at: 2017-09-07 23:42:17

Below is generated by plot.py at 2017-09-08 03:15:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.71 Mbit/s

95th percentile per-packet one-way delay: 119.183 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 200.30 Mbit/s

95th percentile per-packet one-way delay: 124.327 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 123.29 Mbit/s

95th percentile per-packet one-way delay: 111.575 ms

Loss rate: 0.82%

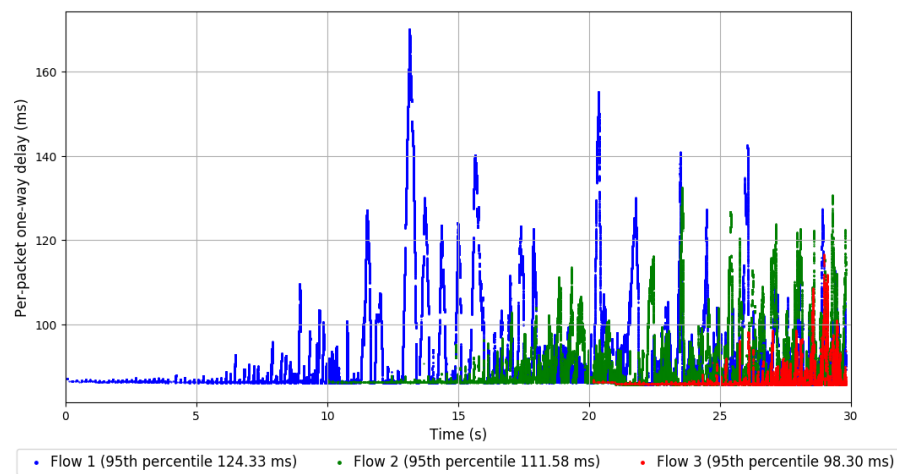
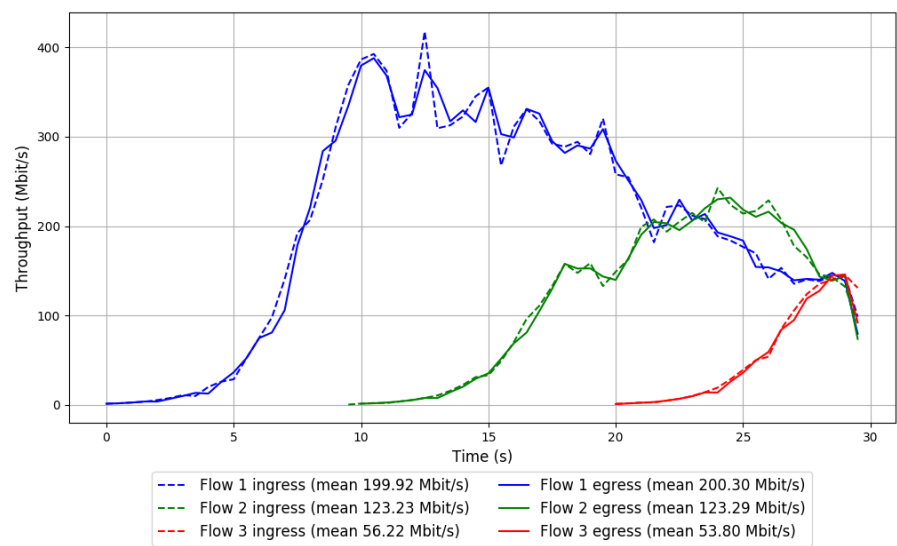
-- Flow 3:

Average throughput: 53.80 Mbit/s

95th percentile per-packet one-way delay: 98.300 ms

Loss rate: 5.92%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-09-07 23:55:00

End at: 2017-09-07 23:55:30

Below is generated by plot.py at 2017-09-08 03:16:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 309.92 Mbit/s

95th percentile per-packet one-way delay: 114.891 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 209.33 Mbit/s

95th percentile per-packet one-way delay: 117.001 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 124.61 Mbit/s

95th percentile per-packet one-way delay: 112.718 ms

Loss rate: 0.80%

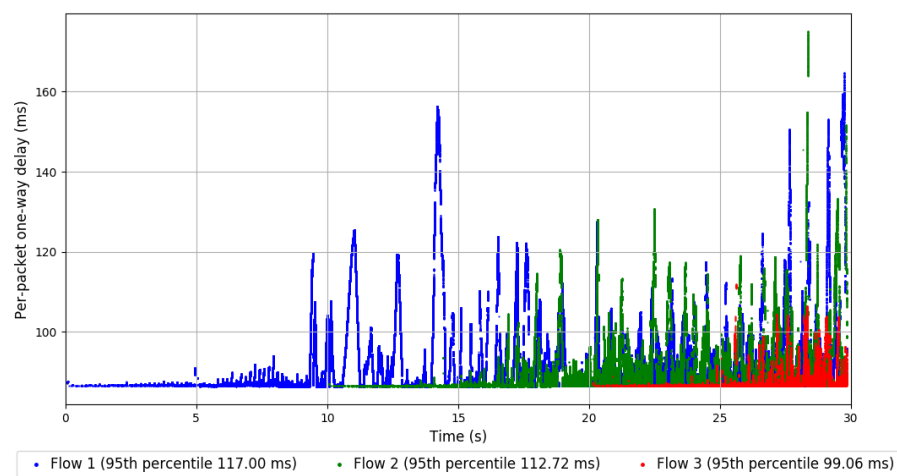
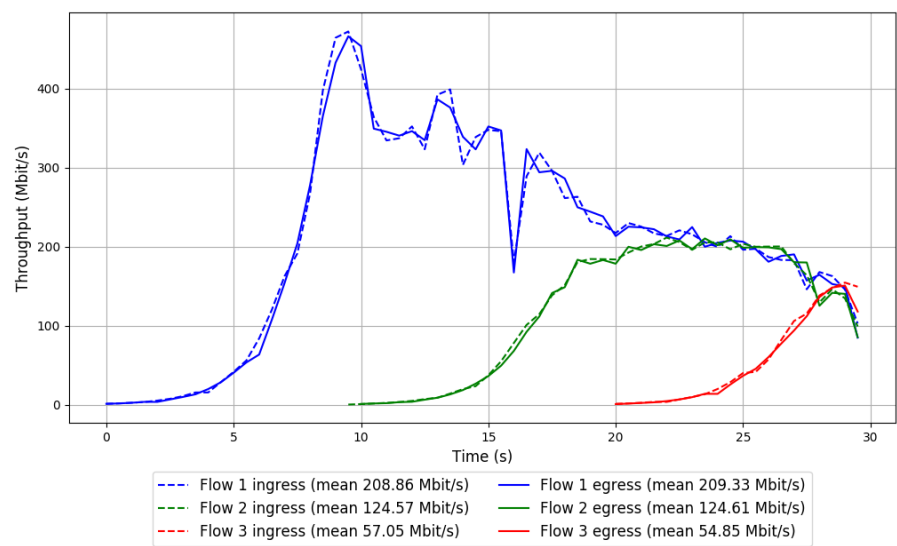
-- Flow 3:

Average throughput: 54.85 Mbit/s

95th percentile per-packet one-way delay: 99.059 ms

Loss rate: 5.55%

Run 10: Report of CalibratedKoho — Data Link

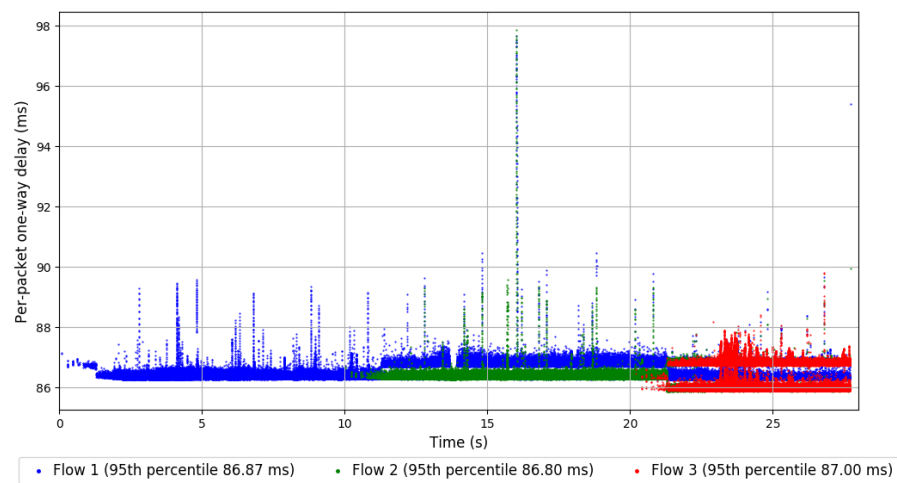
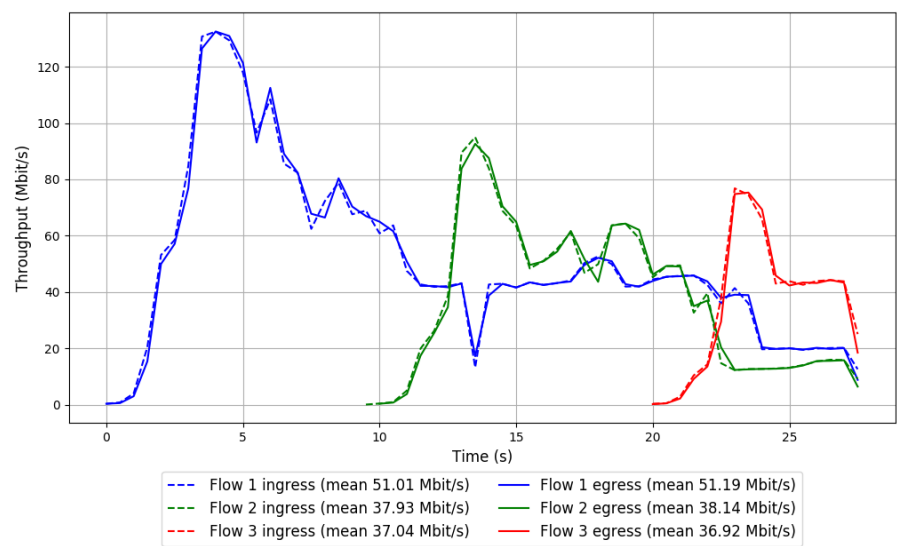


```
Run 1: Statistics of Copa

Start at: 2017-09-07 21:50:05
End at: 2017-09-07 21:50:35

# Below is generated by plot.py at 2017-09-08 03:16:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.66 Mbit/s
95th percentile per-packet one-way delay: 86.869 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 51.19 Mbit/s
95th percentile per-packet one-way delay: 86.867 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 38.14 Mbit/s
95th percentile per-packet one-way delay: 86.797 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 36.92 Mbit/s
95th percentile per-packet one-way delay: 87.005 ms
Loss rate: 2.59%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-09-07 22:03:14

End at: 2017-09-07 22:03:44

Below is generated by plot.py at 2017-09-08 03:16:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.08 Mbit/s

95th percentile per-packet one-way delay: 86.727 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 50.54 Mbit/s

95th percentile per-packet one-way delay: 86.670 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 43.78 Mbit/s

95th percentile per-packet one-way delay: 86.823 ms

Loss rate: 1.03%

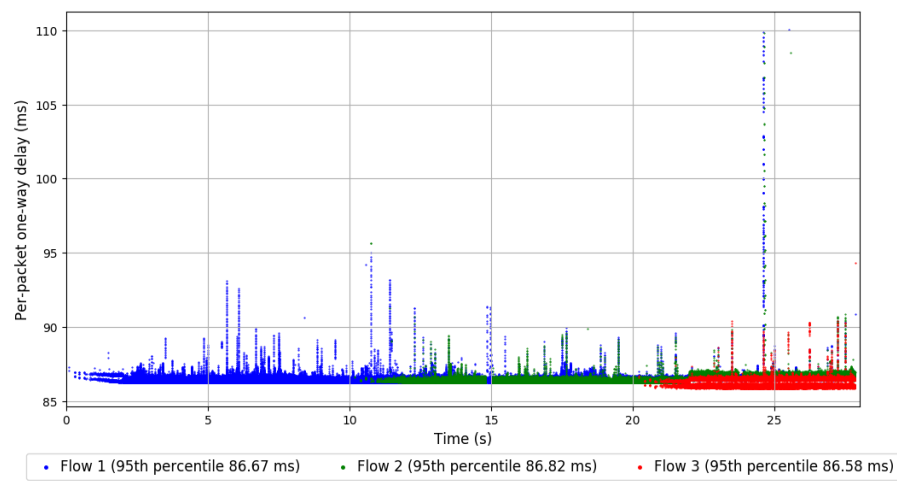
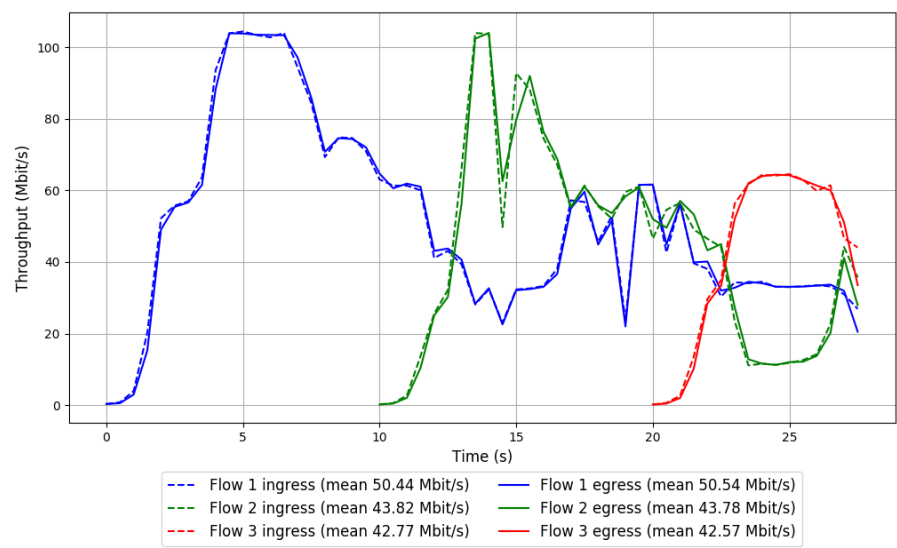
-- Flow 3:

Average throughput: 42.57 Mbit/s

95th percentile per-packet one-way delay: 86.582 ms

Loss rate: 2.59%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-09-07 22:16:31

End at: 2017-09-07 22:17:01

Below is generated by plot.py at 2017-09-08 03:16:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.57 Mbit/s

95th percentile per-packet one-way delay: 86.585 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 52.04 Mbit/s

95th percentile per-packet one-way delay: 86.605 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 48.65 Mbit/s

95th percentile per-packet one-way delay: 86.531 ms

Loss rate: 0.57%

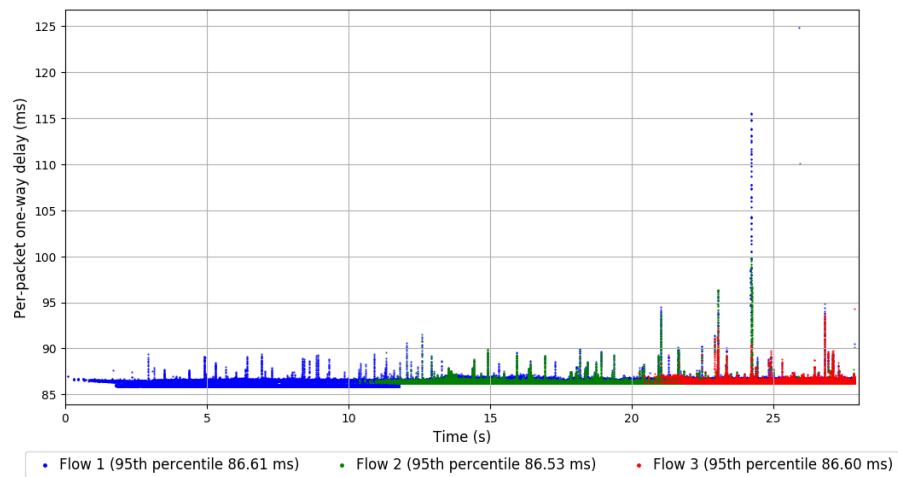
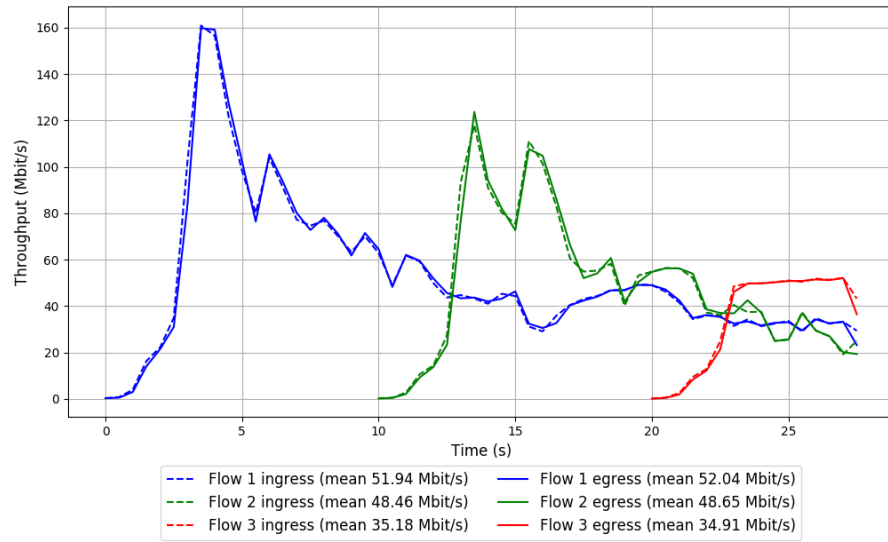
-- Flow 3:

Average throughput: 34.91 Mbit/s

95th percentile per-packet one-way delay: 86.600 ms

Loss rate: 2.89%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-09-07 22:29:32

End at: 2017-09-07 22:30:02

Below is generated by plot.py at 2017-09-08 03:17:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.17 Mbit/s

95th percentile per-packet one-way delay: 86.870 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 52.60 Mbit/s

95th percentile per-packet one-way delay: 86.808 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 41.62 Mbit/s

95th percentile per-packet one-way delay: 86.833 ms

Loss rate: 0.77%

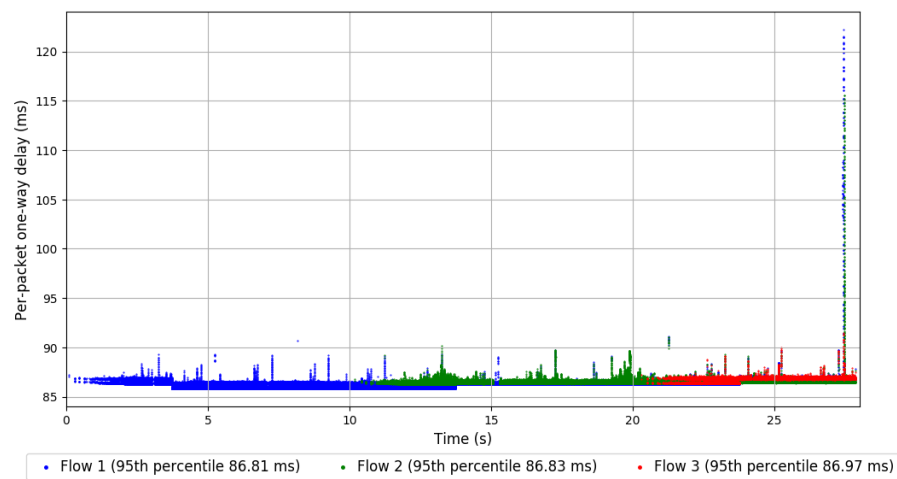
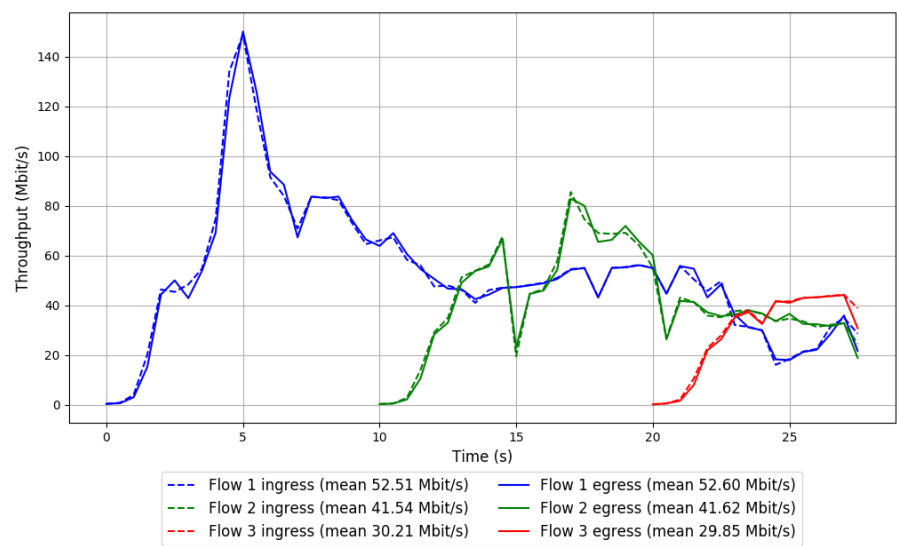
-- Flow 3:

Average throughput: 29.85 Mbit/s

95th percentile per-packet one-way delay: 86.975 ms

Loss rate: 3.38%

Run 4: Report of Copa — Data Link

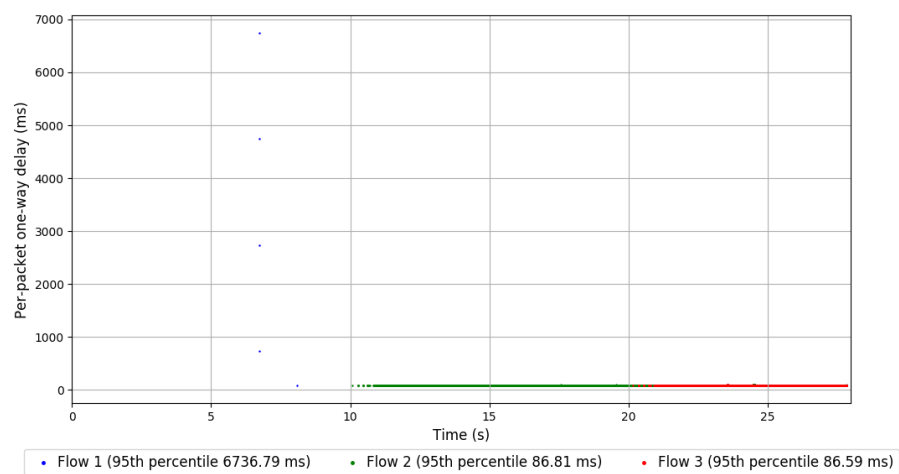
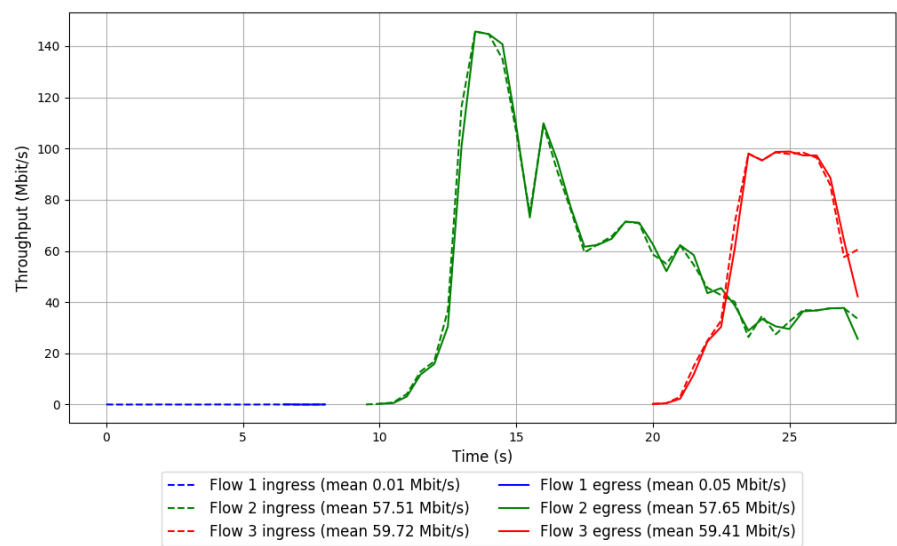


Run 5: Statistics of Copa

Start at: 2017-09-07 22:42:36

End at: 2017-09-07 22:43:06

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-09-07 22:55:35

End at: 2017-09-07 22:56:05

Below is generated by plot.py at 2017-09-08 03:17:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.21 Mbit/s

95th percentile per-packet one-way delay: 86.604 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 49.80 Mbit/s

95th percentile per-packet one-way delay: 86.583 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 40.49 Mbit/s

95th percentile per-packet one-way delay: 86.624 ms

Loss rate: 0.50%

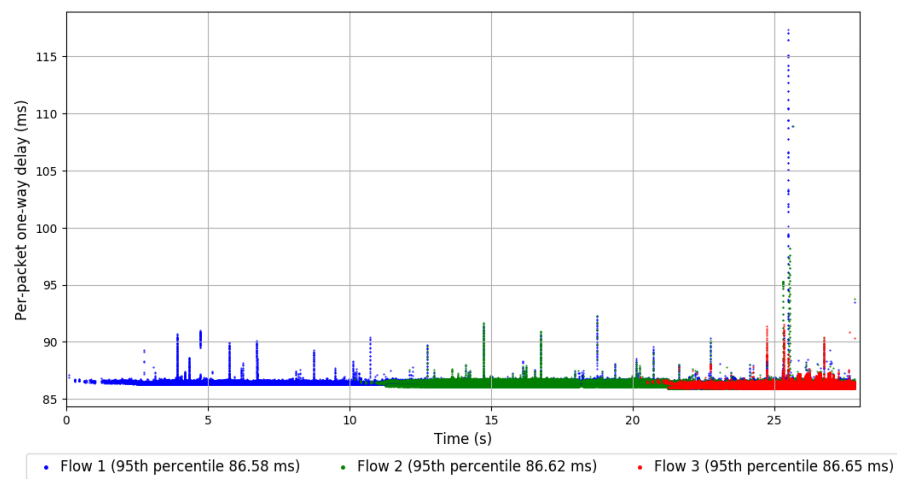
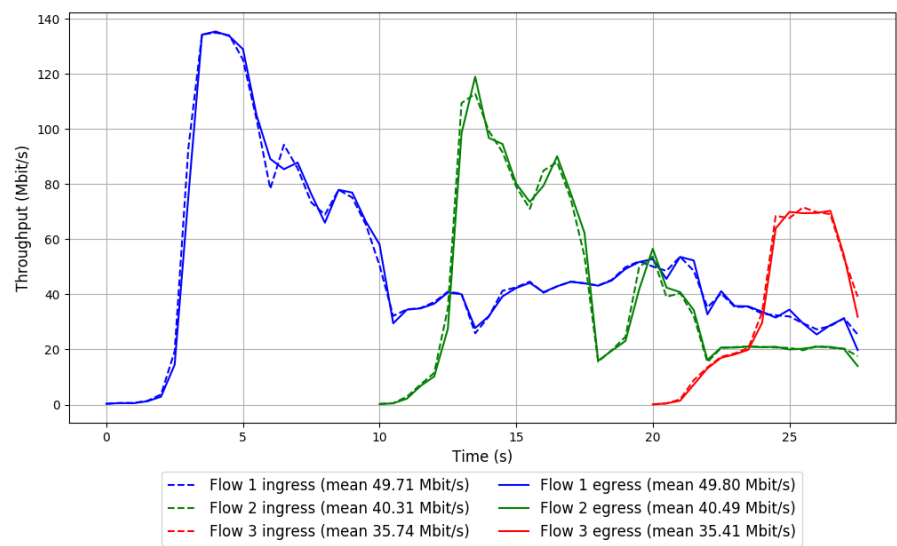
-- Flow 3:

Average throughput: 35.41 Mbit/s

95th percentile per-packet one-way delay: 86.646 ms

Loss rate: 3.17%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-09-07 23:08:52

End at: 2017-09-07 23:09:22

Below is generated by plot.py at 2017-09-08 03:17:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.06 Mbit/s

95th percentile per-packet one-way delay: 86.924 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 53.92 Mbit/s

95th percentile per-packet one-way delay: 86.962 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 41.35 Mbit/s

95th percentile per-packet one-way delay: 86.802 ms

Loss rate: 0.62%

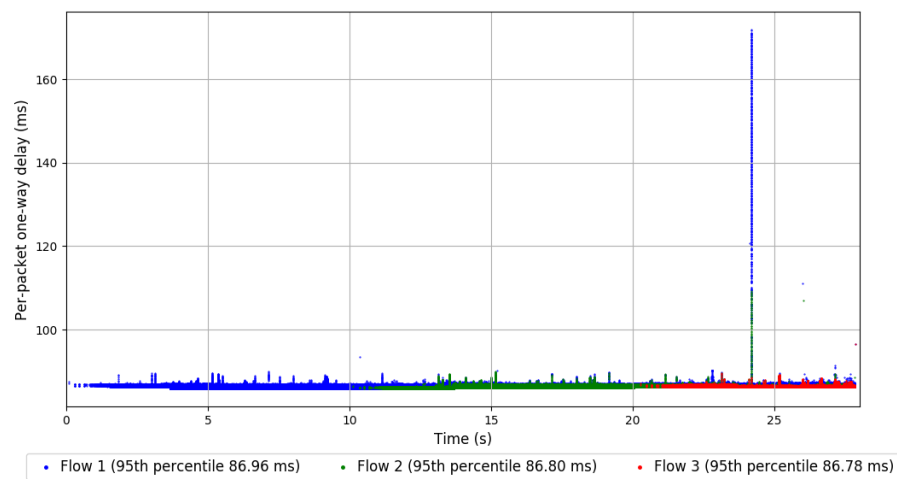
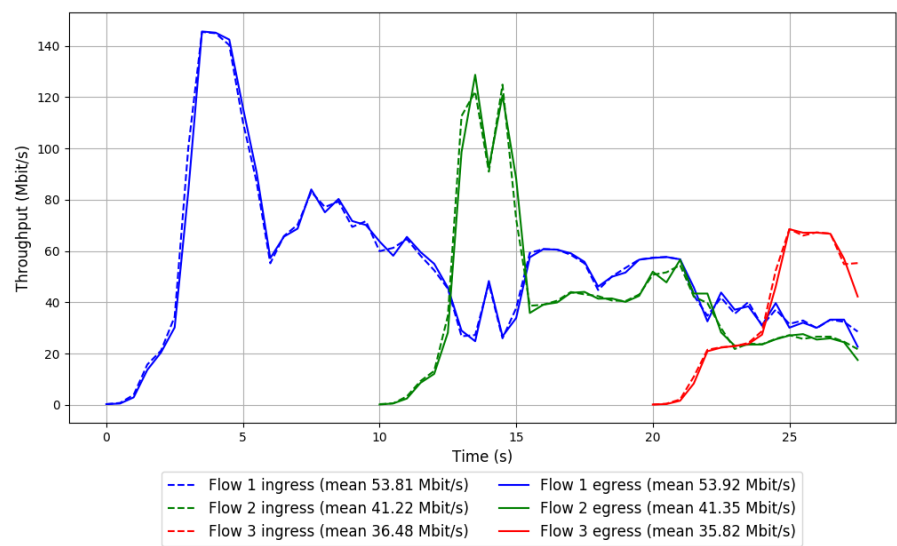
-- Flow 3:

Average throughput: 35.82 Mbit/s

95th percentile per-packet one-way delay: 86.781 ms

Loss rate: 3.91%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-09-07 23:21:53

End at: 2017-09-07 23:22:23

Below is generated by plot.py at 2017-09-08 03:18:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.78 Mbit/s

95th percentile per-packet one-way delay: 87.046 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 51.53 Mbit/s

95th percentile per-packet one-way delay: 87.089 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 44.21 Mbit/s

95th percentile per-packet one-way delay: 86.447 ms

Loss rate: 0.74%

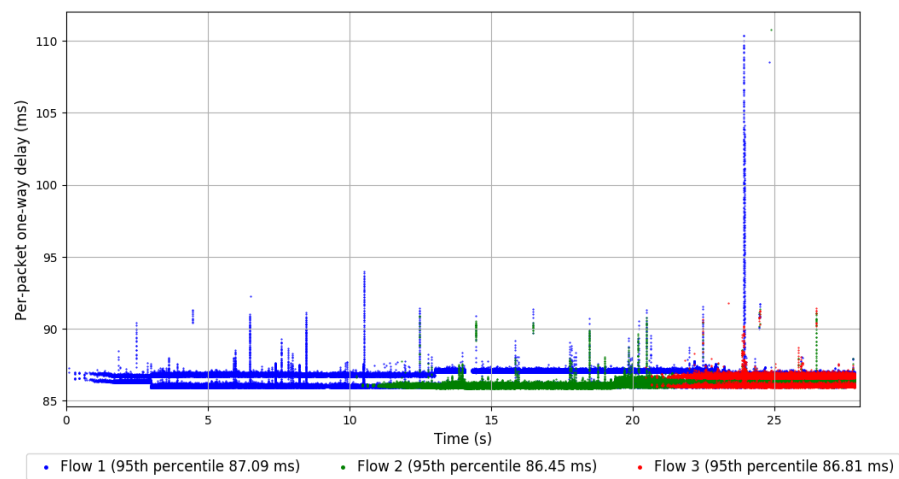
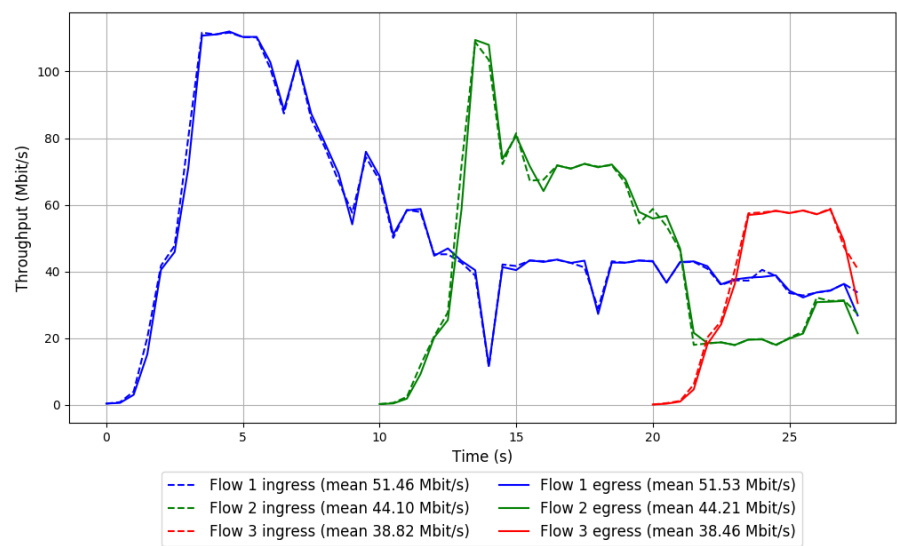
-- Flow 3:

Average throughput: 38.46 Mbit/s

95th percentile per-packet one-way delay: 86.809 ms

Loss rate: 3.19%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-09-07 23:34:58

End at: 2017-09-07 23:35:28

Below is generated by plot.py at 2017-09-08 03:18:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.74 Mbit/s

95th percentile per-packet one-way delay: 86.723 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 50.62 Mbit/s

95th percentile per-packet one-way delay: 86.570 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 45.85 Mbit/s

95th percentile per-packet one-way delay: 86.761 ms

Loss rate: 0.49%

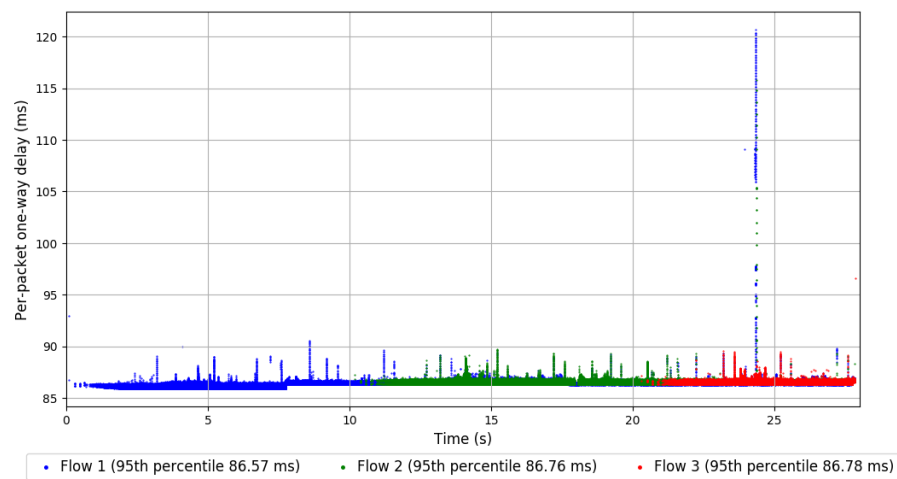
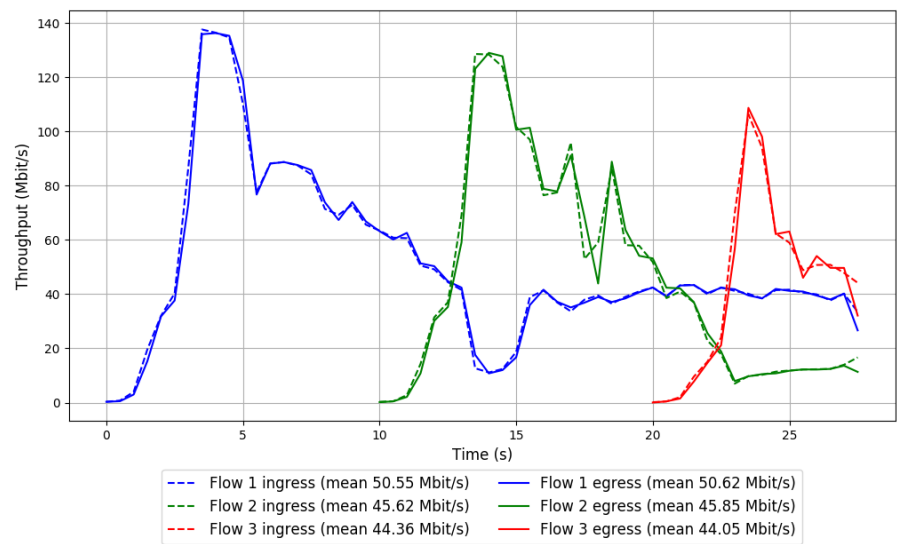
-- Flow 3:

Average throughput: 44.05 Mbit/s

95th percentile per-packet one-way delay: 86.776 ms

Loss rate: 2.85%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-09-07 23:48:11

End at: 2017-09-07 23:48:41

Below is generated by plot.py at 2017-09-08 03:18:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.04 Mbit/s

95th percentile per-packet one-way delay: 86.680 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 46.57 Mbit/s

95th percentile per-packet one-way delay: 86.619 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 41.02 Mbit/s

95th percentile per-packet one-way delay: 86.516 ms

Loss rate: 0.38%

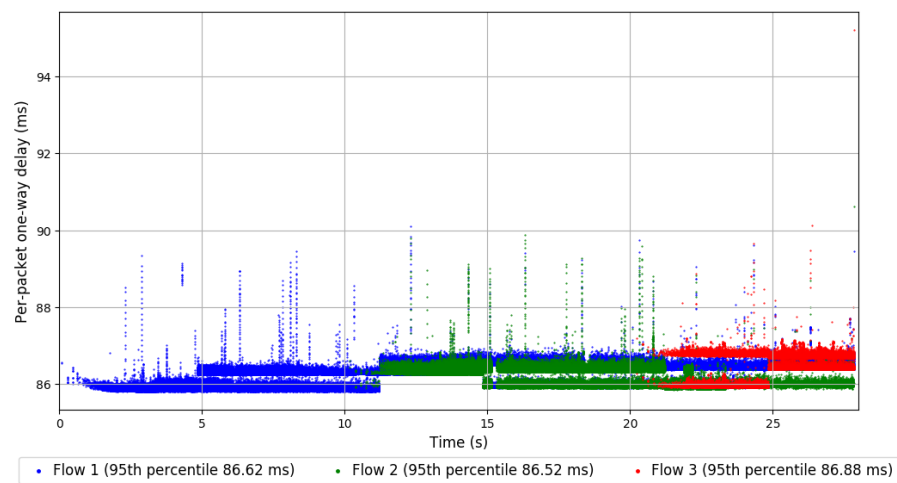
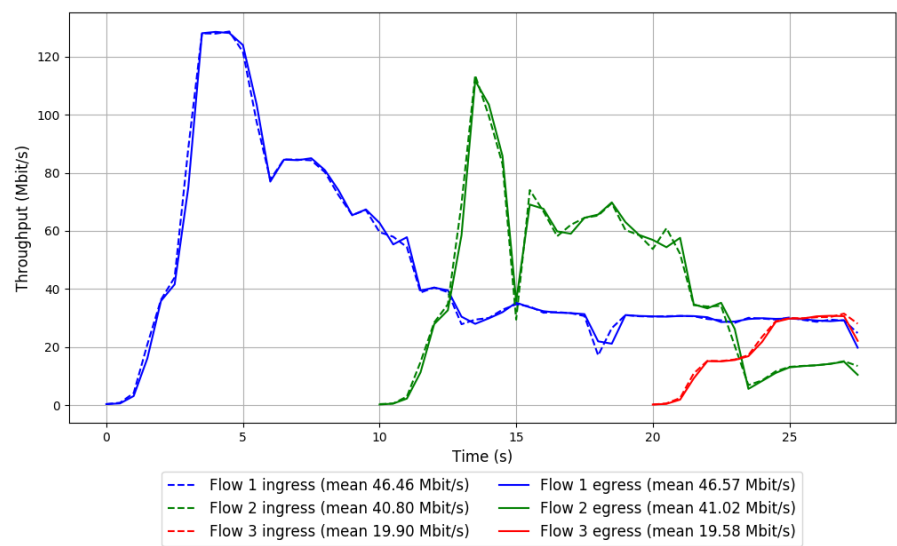
-- Flow 3:

Average throughput: 19.58 Mbit/s

95th percentile per-packet one-way delay: 86.883 ms

Loss rate: 3.69%

Run 10: Report of Copa — Data Link

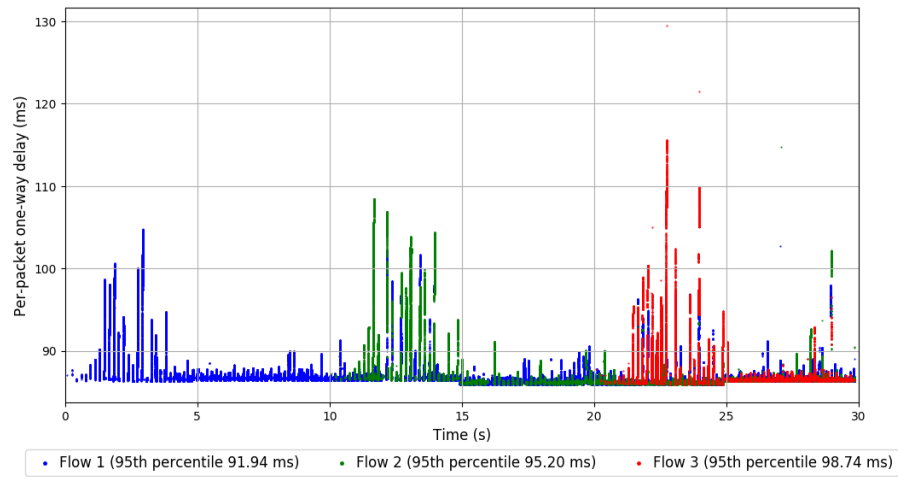
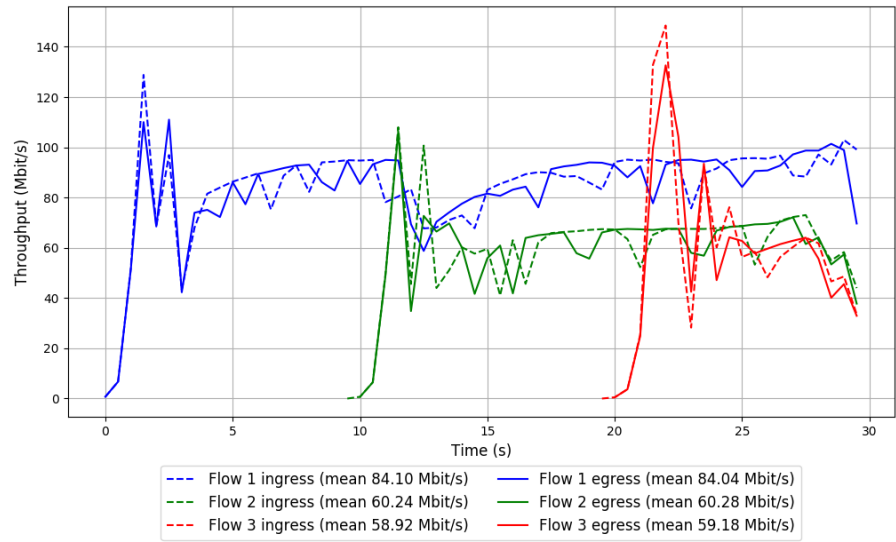


```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-07 21:58:53
End at: 2017-09-07 21:59:23

# Below is generated by plot.py at 2017-09-08 03:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.51 Mbit/s
95th percentile per-packet one-way delay: 94.707 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 84.04 Mbit/s
95th percentile per-packet one-way delay: 91.937 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 60.28 Mbit/s
95th percentile per-packet one-way delay: 95.197 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 98.744 ms
Loss rate: 1.44%
```

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-09-07 22:12:07

End at: 2017-09-07 22:12:37

Below is generated by plot.py at 2017-09-08 03:19:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.07 Mbit/s

95th percentile per-packet one-way delay: 92.822 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 74.15 Mbit/s

95th percentile per-packet one-way delay: 89.264 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 91.26 Mbit/s

95th percentile per-packet one-way delay: 90.729 ms

Loss rate: 1.12%

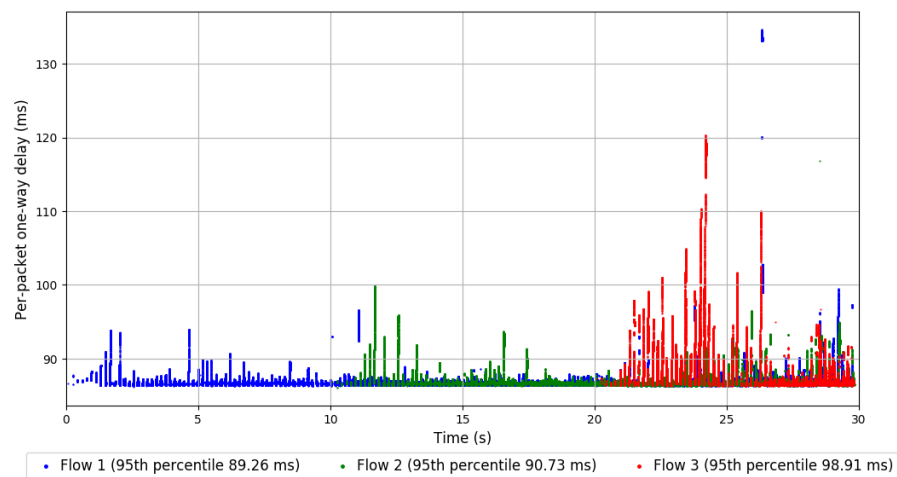
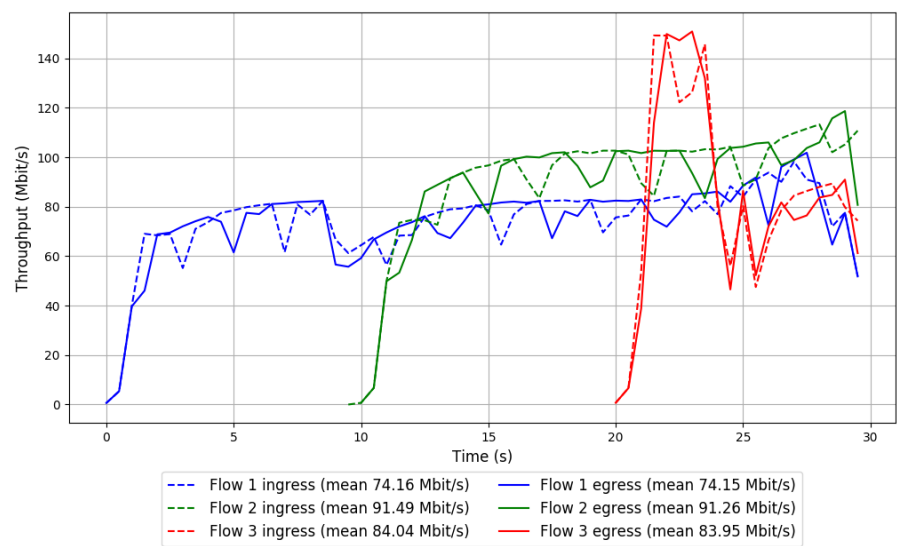
-- Flow 3:

Average throughput: 83.95 Mbit/s

95th percentile per-packet one-way delay: 98.910 ms

Loss rate: 1.86%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-09-07 22:25:14

End at: 2017-09-07 22:25:44

Below is generated by plot.py at 2017-09-08 03:19:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.17 Mbit/s

95th percentile per-packet one-way delay: 93.351 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 61.87 Mbit/s

95th percentile per-packet one-way delay: 91.655 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 81.94 Mbit/s

95th percentile per-packet one-way delay: 92.035 ms

Loss rate: 0.77%

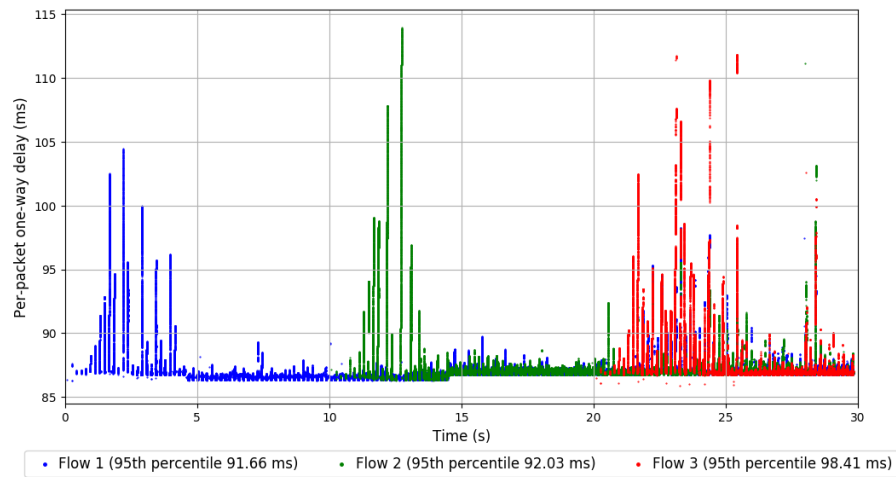
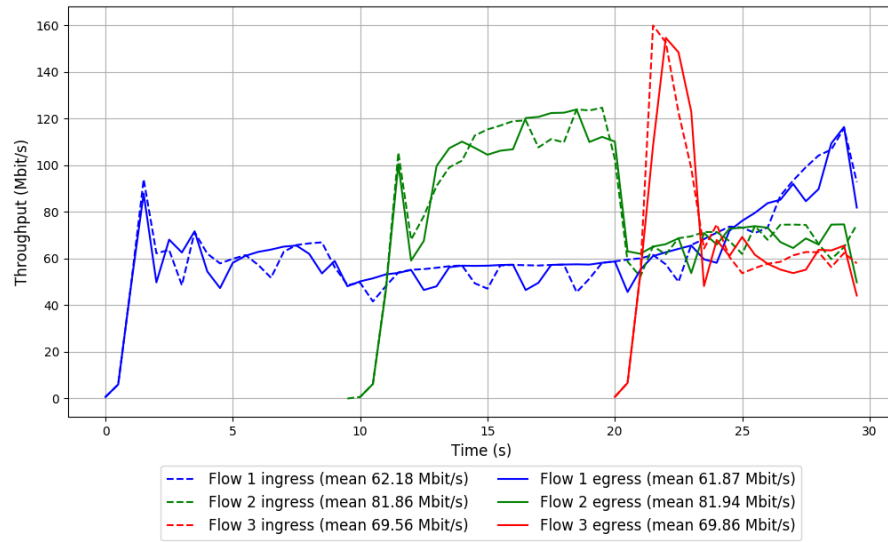
-- Flow 3:

Average throughput: 69.86 Mbit/s

95th percentile per-packet one-way delay: 98.409 ms

Loss rate: 1.60%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-09-07 22:38:18

End at: 2017-09-07 22:38:48

Below is generated by plot.py at 2017-09-08 03:19:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.02 Mbit/s

95th percentile per-packet one-way delay: 92.533 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 60.98 Mbit/s

95th percentile per-packet one-way delay: 91.447 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 103.76 Mbit/s

95th percentile per-packet one-way delay: 92.849 ms

Loss rate: 0.39%

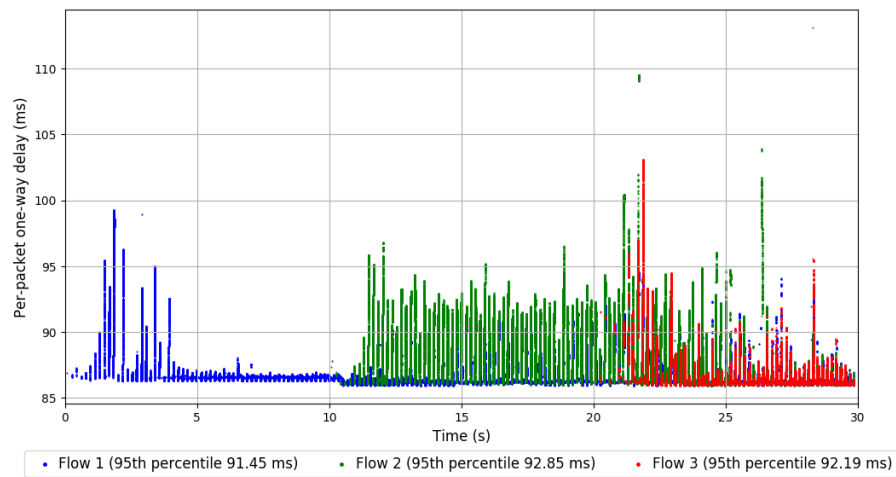
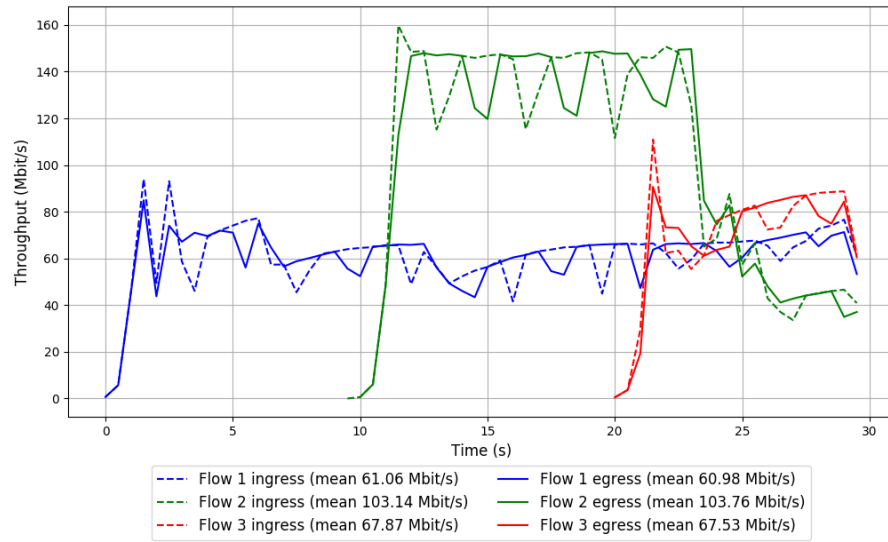
-- Flow 3:

Average throughput: 67.53 Mbit/s

95th percentile per-packet one-way delay: 92.190 ms

Loss rate: 2.20%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-09-07 22:51:17

End at: 2017-09-07 22:51:47

Below is generated by plot.py at 2017-09-08 03:19:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.28 Mbit/s

95th percentile per-packet one-way delay: 94.082 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 41.69 Mbit/s

95th percentile per-packet one-way delay: 92.031 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 95.91 Mbit/s

95th percentile per-packet one-way delay: 94.670 ms

Loss rate: 0.59%

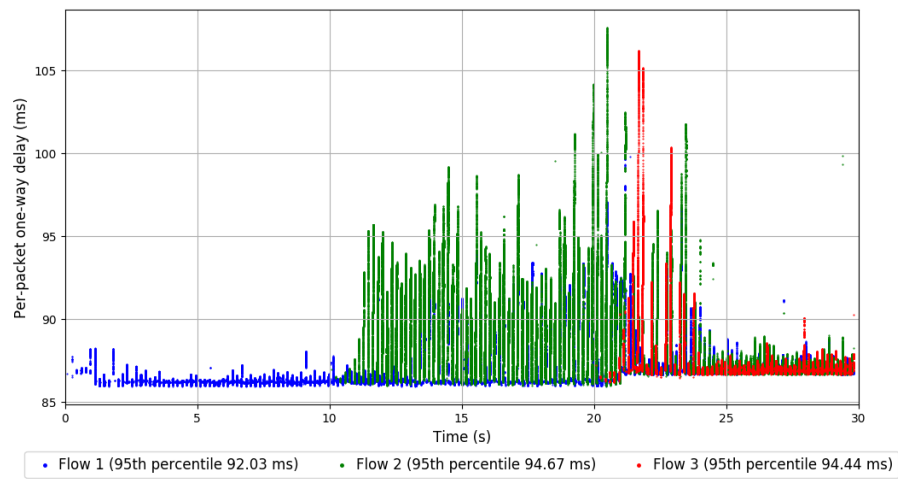
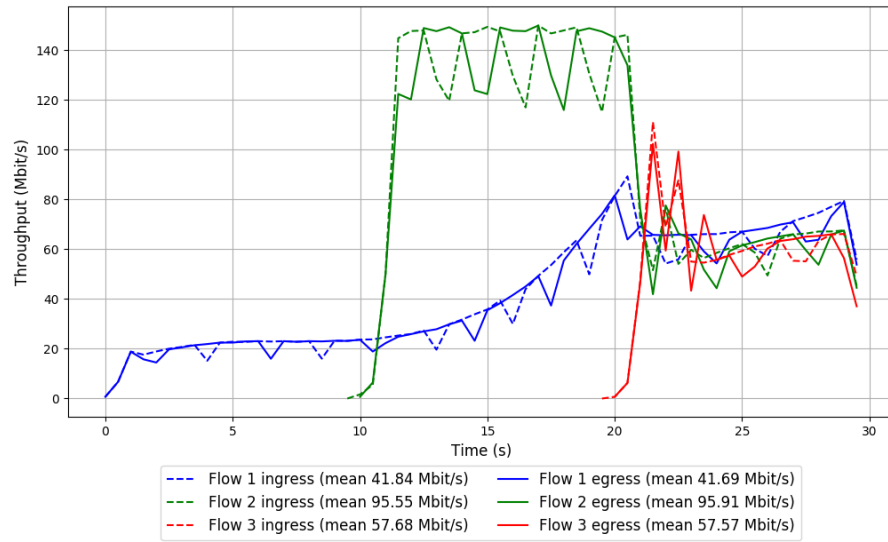
-- Flow 3:

Average throughput: 57.57 Mbit/s

95th percentile per-packet one-way delay: 94.440 ms

Loss rate: 1.94%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-09-07 23:04:28

End at: 2017-09-07 23:04:58

Below is generated by plot.py at 2017-09-08 03:20:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 197.85 Mbit/s

95th percentile per-packet one-way delay: 89.784 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 116.89 Mbit/s

95th percentile per-packet one-way delay: 89.172 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 88.16 Mbit/s

95th percentile per-packet one-way delay: 88.761 ms

Loss rate: 1.08%

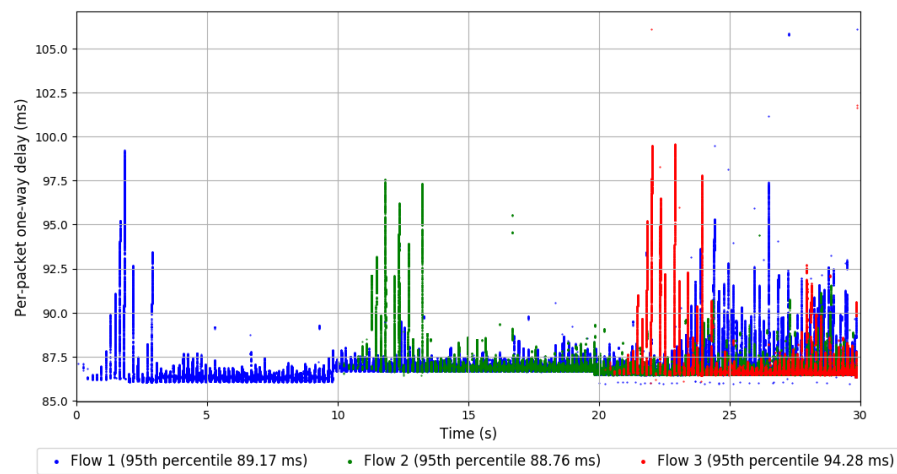
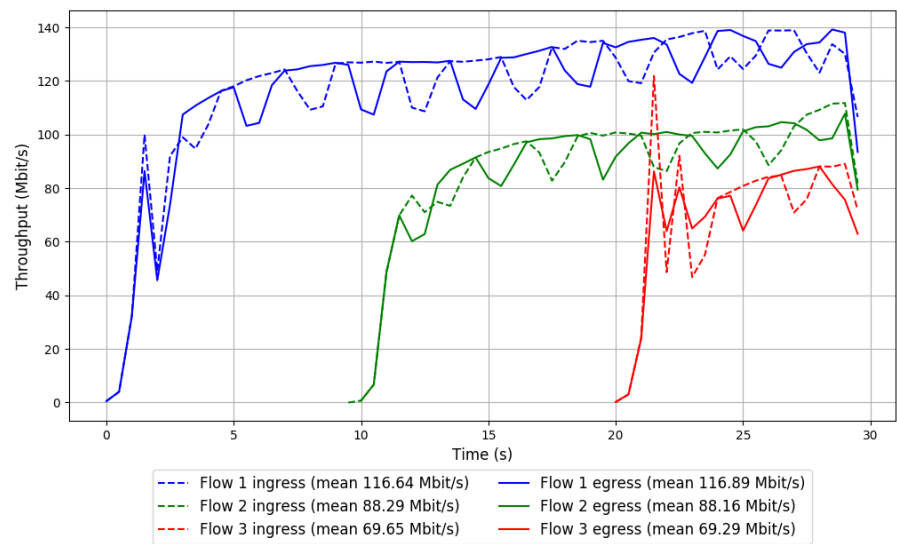
-- Flow 3:

Average throughput: 69.29 Mbit/s

95th percentile per-packet one-way delay: 94.277 ms

Loss rate: 2.17%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-09-07 23:17:33

End at: 2017-09-07 23:18:03

Below is generated by plot.py at 2017-09-08 03:20:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.56 Mbit/s

95th percentile per-packet one-way delay: 89.369 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 71.12 Mbit/s

95th percentile per-packet one-way delay: 89.805 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 71.99 Mbit/s

95th percentile per-packet one-way delay: 88.523 ms

Loss rate: 1.16%

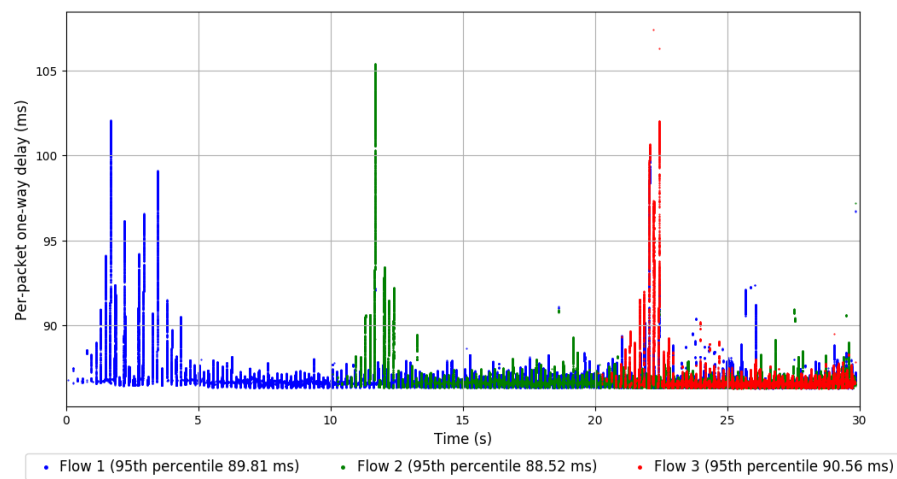
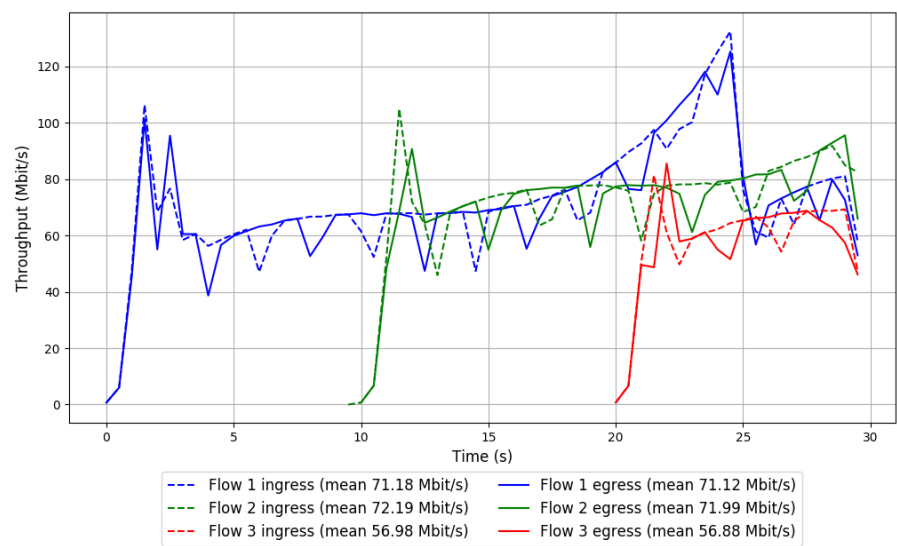
-- Flow 3:

Average throughput: 56.88 Mbit/s

95th percentile per-packet one-way delay: 90.555 ms

Loss rate: 2.04%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-09-07 23:30:37

End at: 2017-09-07 23:31:07

Below is generated by plot.py at 2017-09-08 03:20:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 169.73 Mbit/s

95th percentile per-packet one-way delay: 98.096 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 70.40 Mbit/s

95th percentile per-packet one-way delay: 95.544 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 115.11 Mbit/s

95th percentile per-packet one-way delay: 99.766 ms

Loss rate: 0.43%

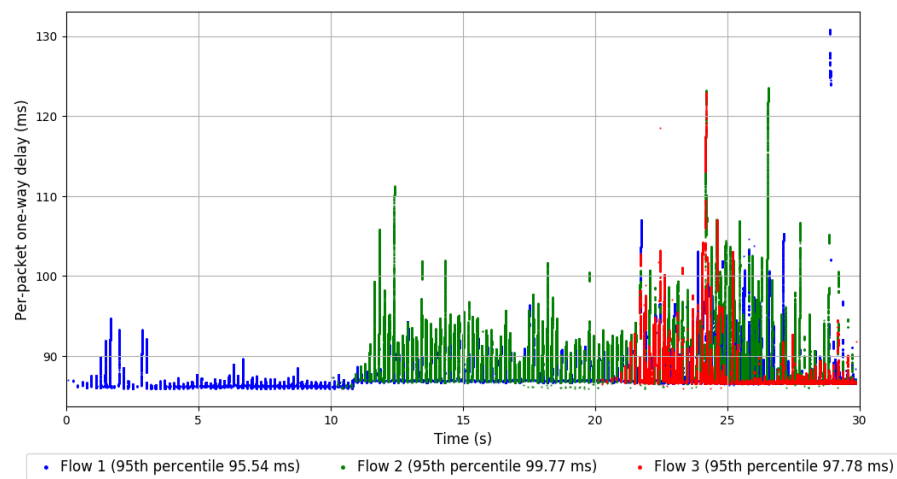
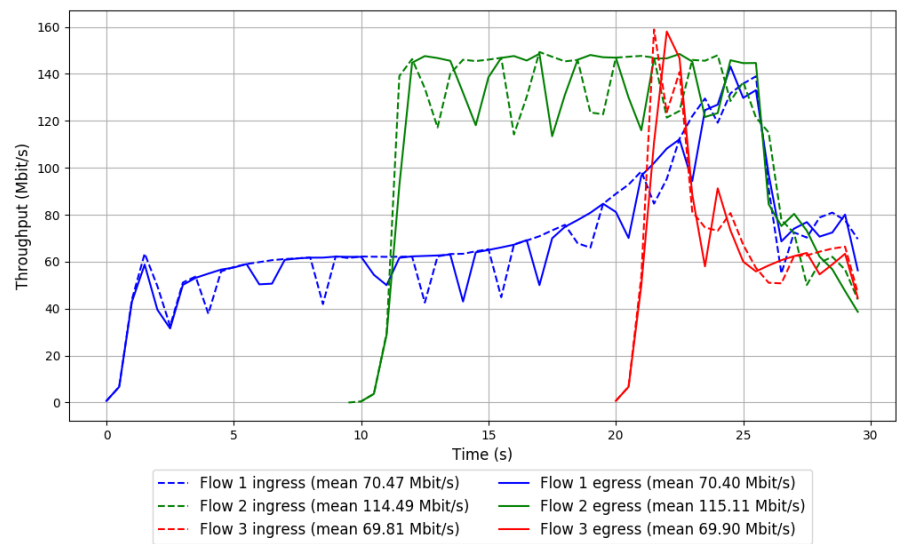
-- Flow 3:

Average throughput: 69.90 Mbit/s

95th percentile per-packet one-way delay: 97.782 ms

Loss rate: 1.61%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-09-07 23:43:48

End at: 2017-09-07 23:44:18

Below is generated by plot.py at 2017-09-08 03:20:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 147.02 Mbit/s

95th percentile per-packet one-way delay: 93.120 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 77.86 Mbit/s

95th percentile per-packet one-way delay: 91.714 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 70.63 Mbit/s

95th percentile per-packet one-way delay: 93.564 ms

Loss rate: 0.88%

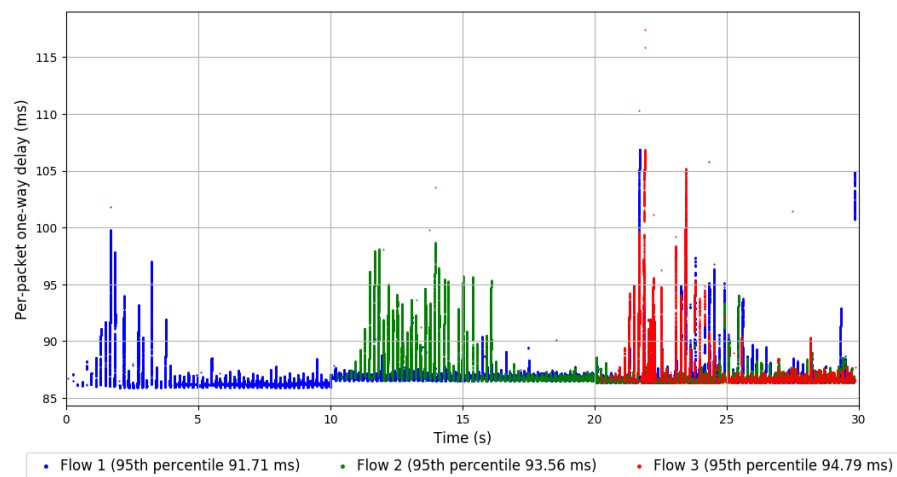
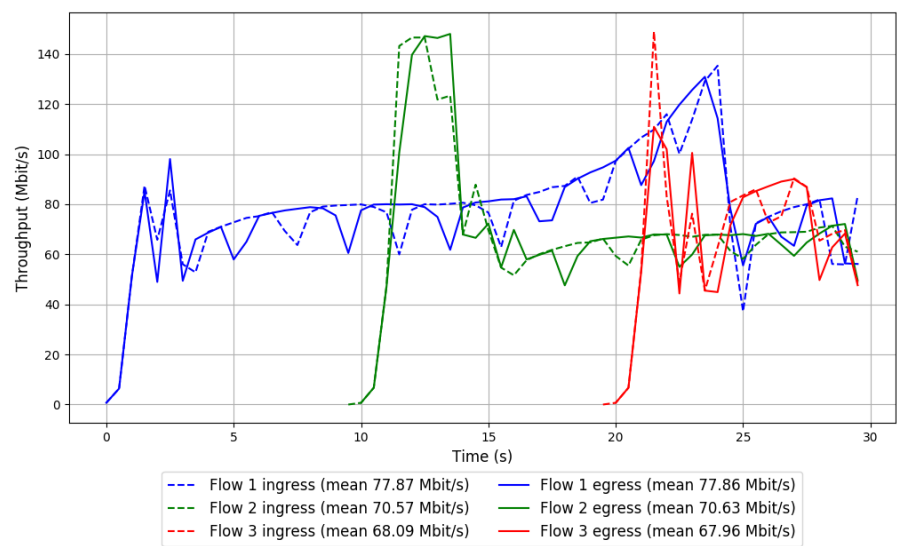
-- Flow 3:

Average throughput: 67.96 Mbit/s

95th percentile per-packet one-way delay: 94.788 ms

Loss rate: 1.78%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-09-07 23:56:54

End at: 2017-09-07 23:57:24

Below is generated by plot.py at 2017-09-08 03:21:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.85 Mbit/s

95th percentile per-packet one-way delay: 93.089 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 77.09 Mbit/s

95th percentile per-packet one-way delay: 91.313 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 90.39 Mbit/s

95th percentile per-packet one-way delay: 94.145 ms

Loss rate: 0.63%

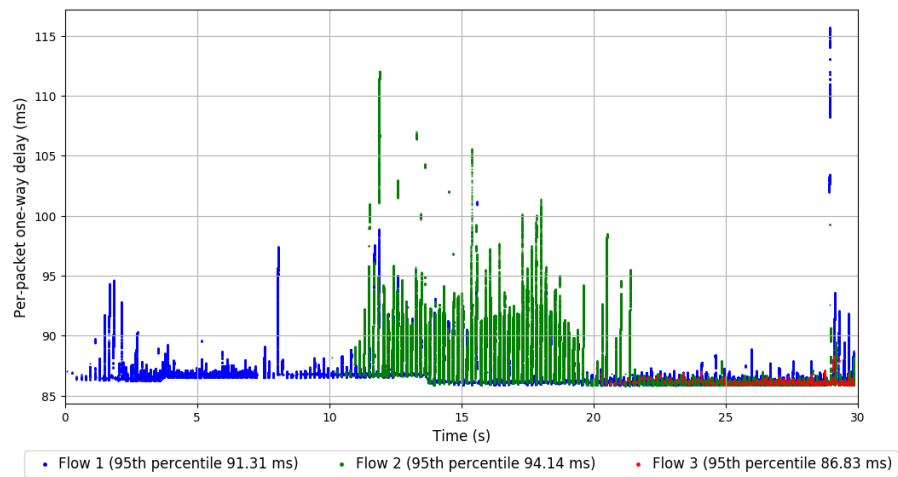
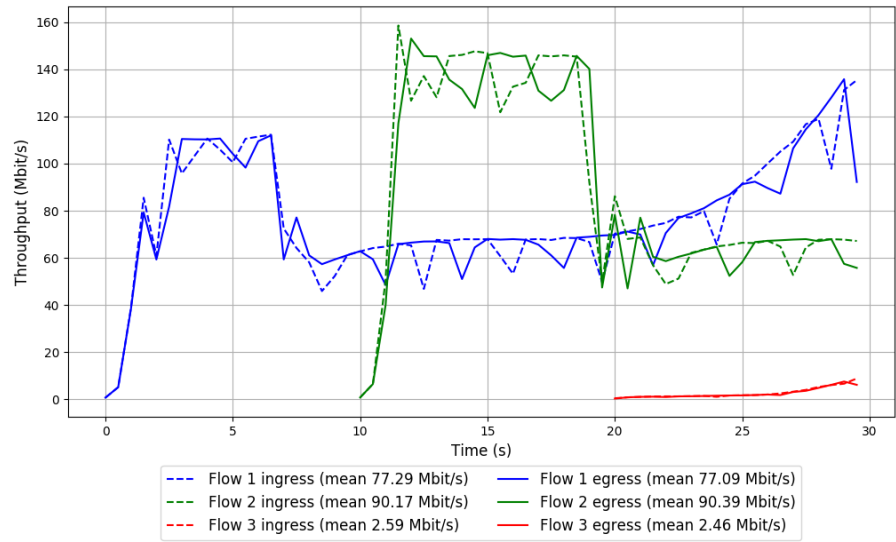
-- Flow 3:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 86.834 ms

Loss rate: 6.75%

Run 10: Report of TCP Cubic — Data Link

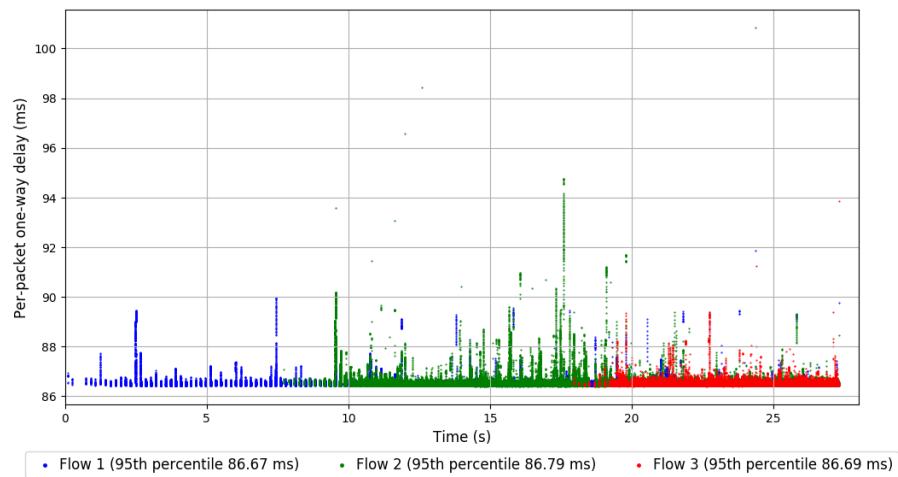
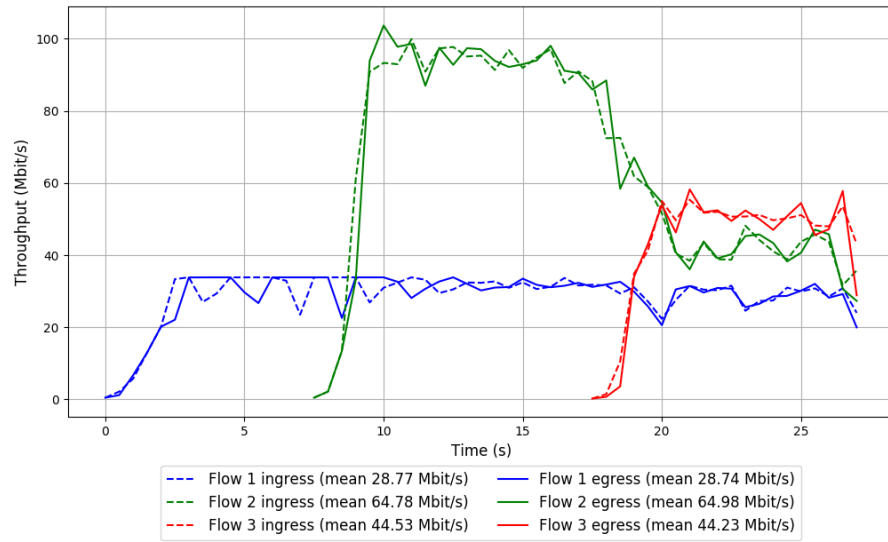


```
Run 1: Statistics of Indigo

Start at: 2017-09-07 21:48:21
End at: 2017-09-07 21:48:51

# Below is generated by plot.py at 2017-09-08 03:21:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 86.726 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 28.74 Mbit/s
95th percentile per-packet one-way delay: 86.668 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 64.98 Mbit/s
95th percentile per-packet one-way delay: 86.792 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 44.23 Mbit/s
95th percentile per-packet one-way delay: 86.687 ms
Loss rate: 2.43%
```

Run 1: Report of Indigo — Data Link

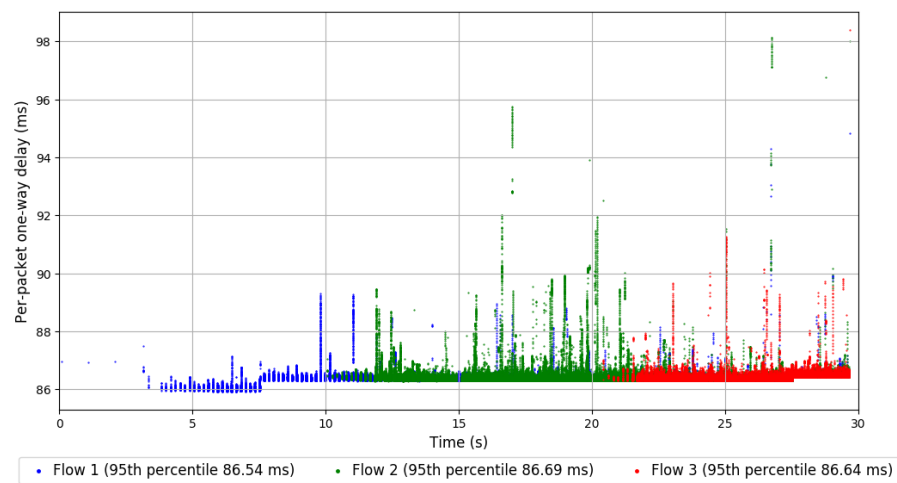
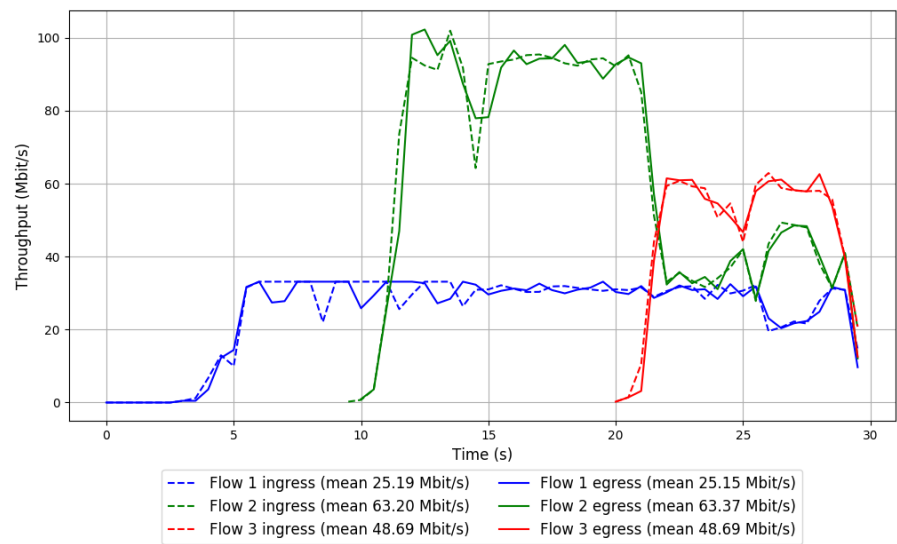


```
Run 2: Statistics of Indigo

Start at: 2017-09-07 22:01:30
End at: 2017-09-07 22:02:00

# Below is generated by plot.py at 2017-09-08 03:21:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.33 Mbit/s
95th percentile per-packet one-way delay: 86.626 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 25.15 Mbit/s
95th percentile per-packet one-way delay: 86.538 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 63.37 Mbit/s
95th percentile per-packet one-way delay: 86.689 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 48.69 Mbit/s
95th percentile per-packet one-way delay: 86.640 ms
Loss rate: 1.76%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-09-07 22:14:45

End at: 2017-09-07 22:15:15

Below is generated by plot.py at 2017-09-08 03:21:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.81 Mbit/s

95th percentile per-packet one-way delay: 87.038 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 24.20 Mbit/s

95th percentile per-packet one-way delay: 87.014 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 65.09 Mbit/s

95th percentile per-packet one-way delay: 87.058 ms

Loss rate: 0.58%

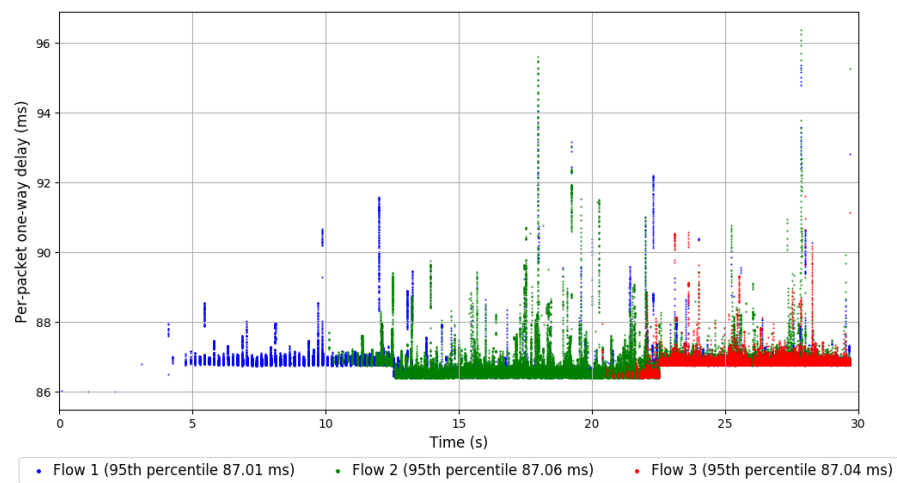
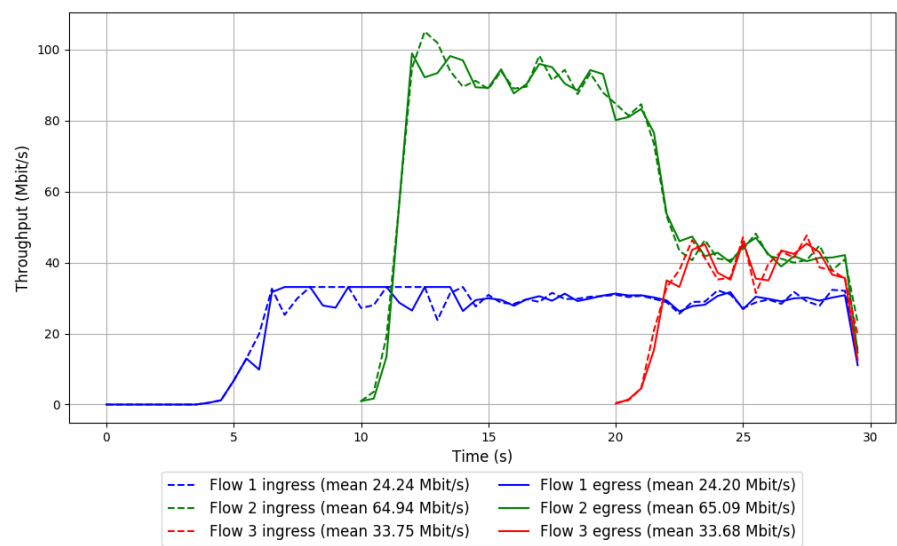
-- Flow 3:

Average throughput: 33.68 Mbit/s

95th percentile per-packet one-way delay: 87.039 ms

Loss rate: 1.98%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-09-07 22:27:49

End at: 2017-09-07 22:28:19

Below is generated by plot.py at 2017-09-08 03:21:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.06 Mbit/s

95th percentile per-packet one-way delay: 86.680 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 26.50 Mbit/s

95th percentile per-packet one-way delay: 86.555 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 69.24 Mbit/s

95th percentile per-packet one-way delay: 86.825 ms

Loss rate: 0.60%

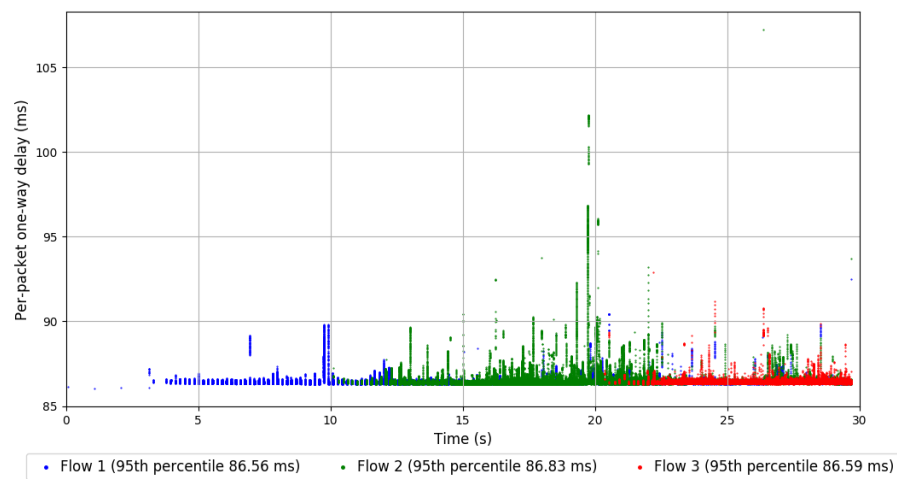
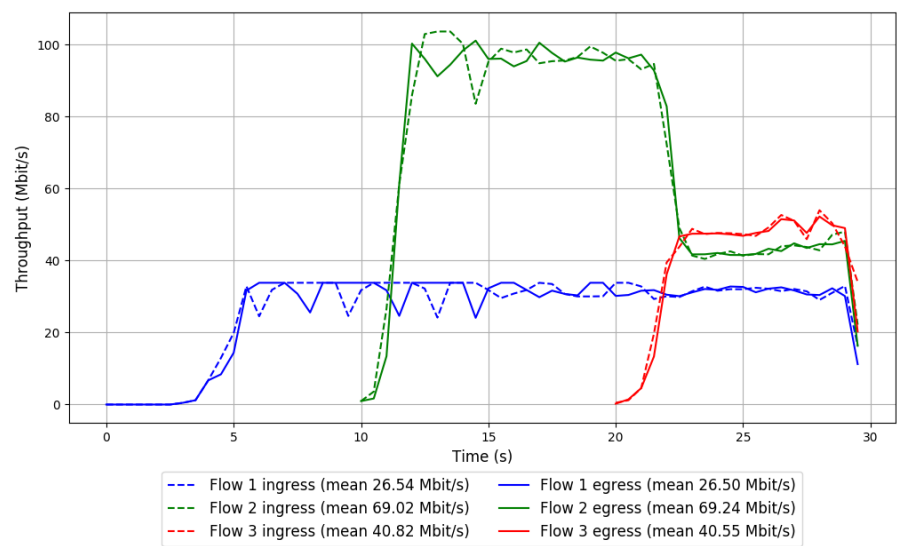
-- Flow 3:

Average throughput: 40.55 Mbit/s

95th percentile per-packet one-way delay: 86.592 ms

Loss rate: 2.50%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-09-07 22:40:55

End at: 2017-09-07 22:41:25

Below is generated by plot.py at 2017-09-08 03:21:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.81 Mbit/s

95th percentile per-packet one-way delay: 86.661 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 40.43 Mbit/s

95th percentile per-packet one-way delay: 86.617 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 61.11 Mbit/s

95th percentile per-packet one-way delay: 86.739 ms

Loss rate: 0.72%

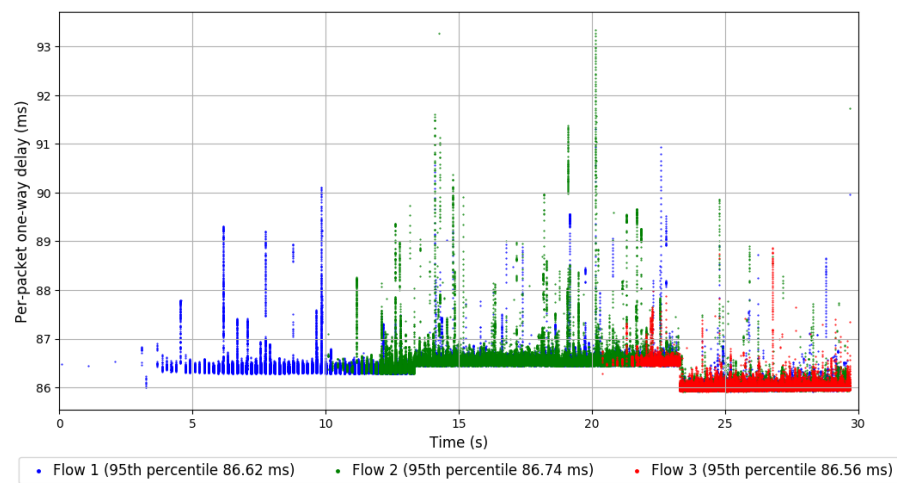
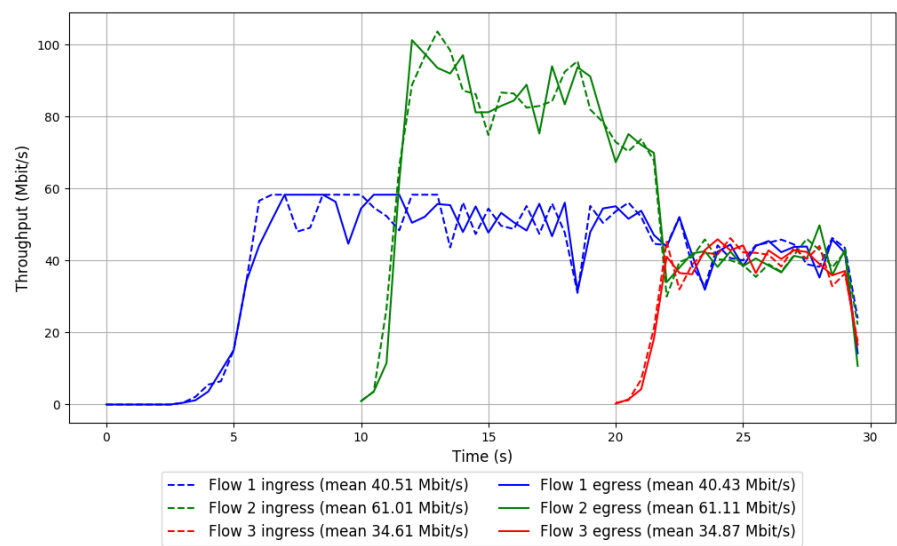
-- Flow 3:

Average throughput: 34.87 Mbit/s

95th percentile per-packet one-way delay: 86.563 ms

Loss rate: 1.18%

Run 5: Report of Indigo — Data Link

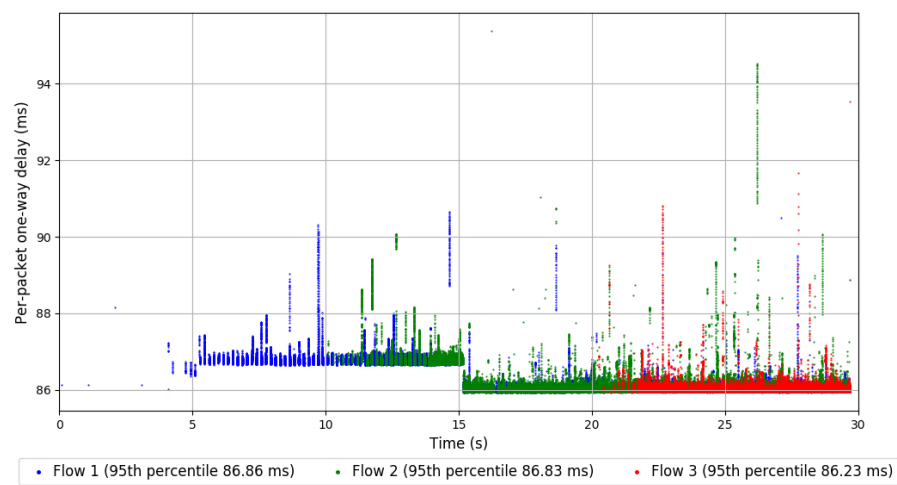
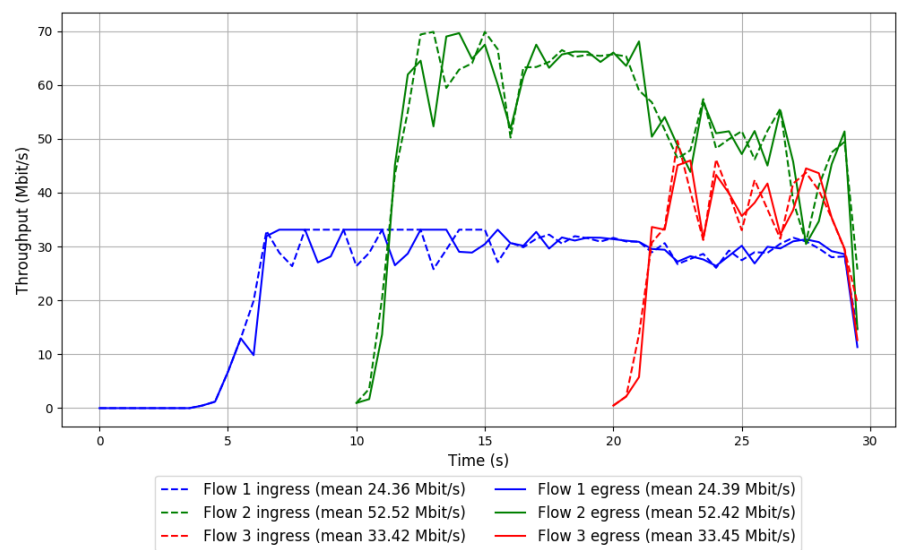


```
Run 6: Statistics of Indigo

Start at: 2017-09-07 22:53:53
End at: 2017-09-07 22:54:23

# Below is generated by plot.py at 2017-09-08 03:21:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.70 Mbit/s
95th percentile per-packet one-way delay: 86.825 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 86.856 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 52.42 Mbit/s
95th percentile per-packet one-way delay: 86.826 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 33.45 Mbit/s
95th percentile per-packet one-way delay: 86.235 ms
Loss rate: 1.62%
```

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-09-07 23:07:10

End at: 2017-09-07 23:07:40

Below is generated by plot.py at 2017-09-08 03:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.80 Mbit/s

95th percentile per-packet one-way delay: 86.650 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 31.85 Mbit/s

95th percentile per-packet one-way delay: 86.661 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 46.37 Mbit/s

95th percentile per-packet one-way delay: 86.720 ms

Loss rate: 0.58%

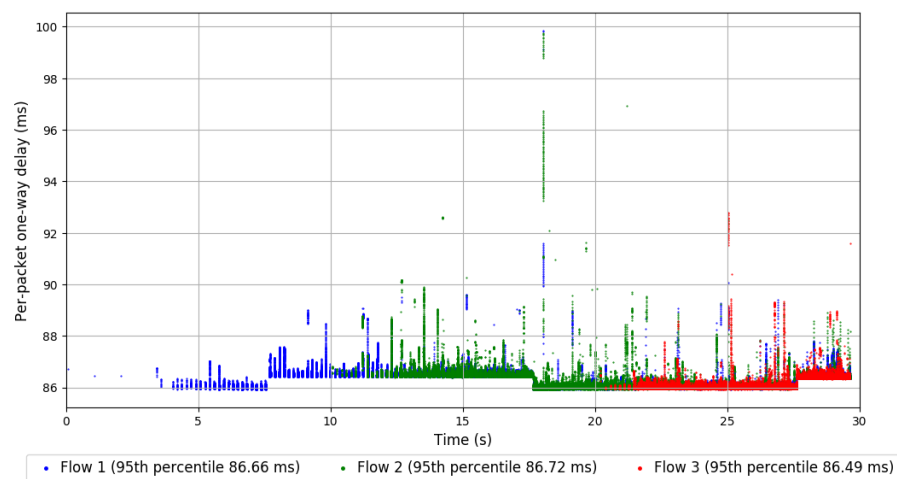
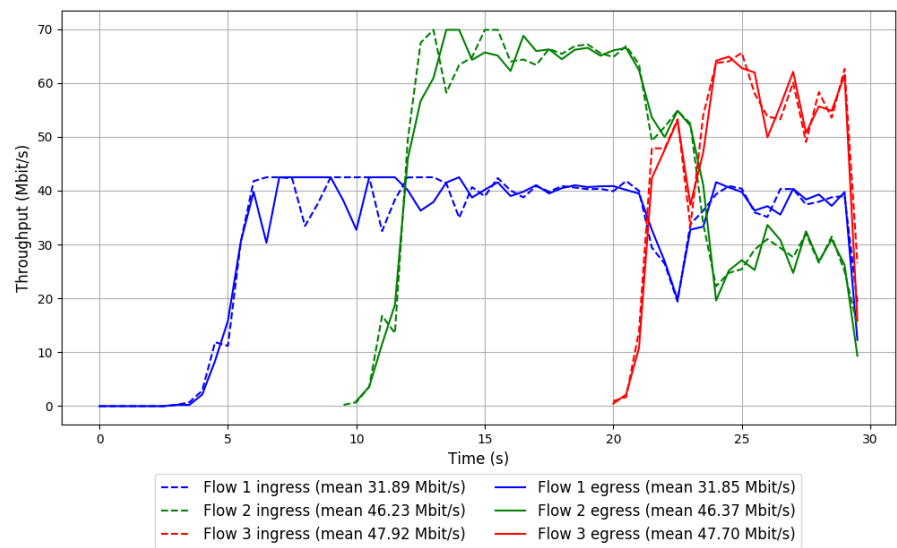
-- Flow 3:

Average throughput: 47.70 Mbit/s

95th percentile per-packet one-way delay: 86.493 ms

Loss rate: 2.21%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-09-07 23:20:09

End at: 2017-09-07 23:20:39

Below is generated by plot.py at 2017-09-08 03:22:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.86 Mbit/s

95th percentile per-packet one-way delay: 86.691 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 15.44 Mbit/s

95th percentile per-packet one-way delay: 86.830 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 67.63 Mbit/s

95th percentile per-packet one-way delay: 86.547 ms

Loss rate: 0.55%

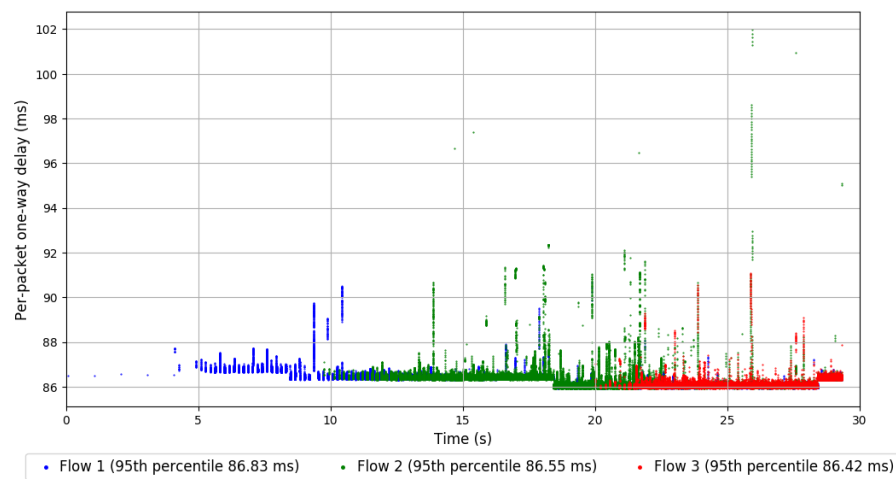
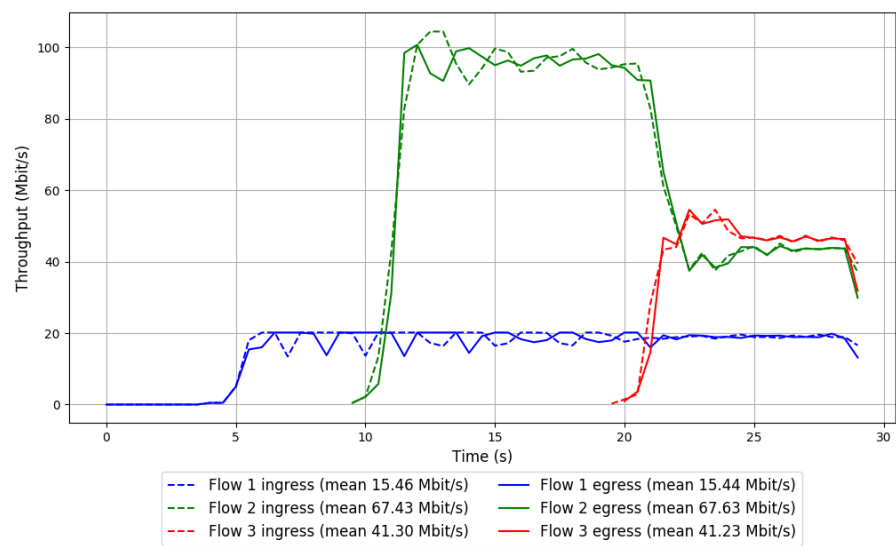
-- Flow 3:

Average throughput: 41.23 Mbit/s

95th percentile per-packet one-way delay: 86.421 ms

Loss rate: 1.97%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-09-07 23:33:17

End at: 2017-09-07 23:33:47

Below is generated by plot.py at 2017-09-08 03:22:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.91 Mbit/s

95th percentile per-packet one-way delay: 86.449 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 44.75 Mbit/s

95th percentile per-packet one-way delay: 86.471 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 51.15 Mbit/s

95th percentile per-packet one-way delay: 86.354 ms

Loss rate: 0.57%

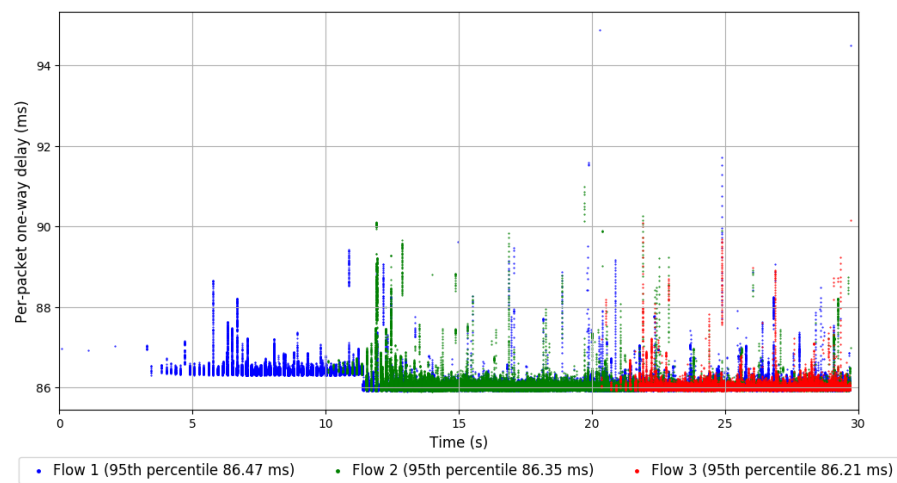
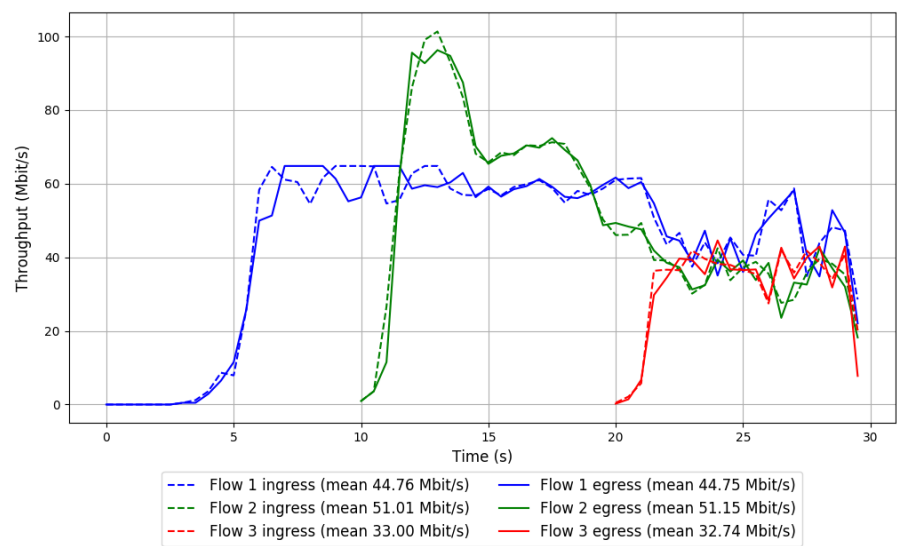
-- Flow 3:

Average throughput: 32.74 Mbit/s

95th percentile per-packet one-way delay: 86.212 ms

Loss rate: 2.55%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-09-07 23:46:25

End at: 2017-09-07 23:46:55

Below is generated by plot.py at 2017-09-08 03:22:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.49 Mbit/s

95th percentile per-packet one-way delay: 86.647 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 23.90 Mbit/s

95th percentile per-packet one-way delay: 86.625 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 67.69 Mbit/s

95th percentile per-packet one-way delay: 86.623 ms

Loss rate: 0.59%

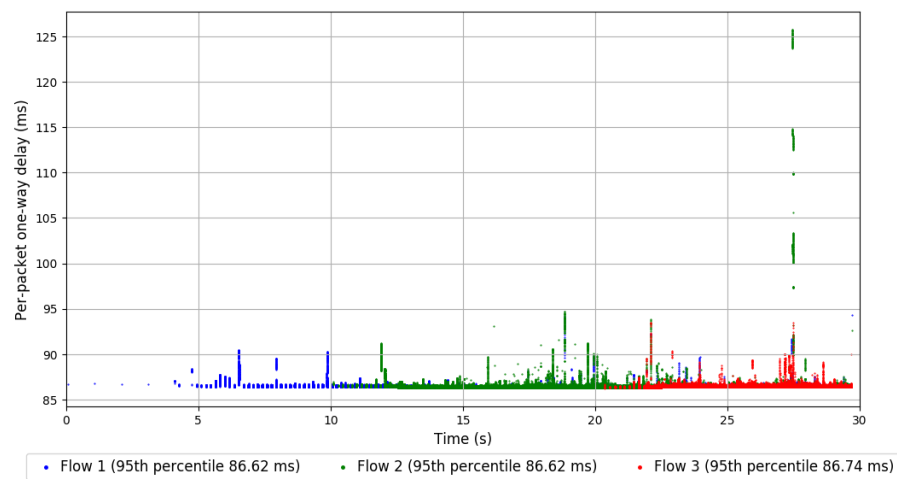
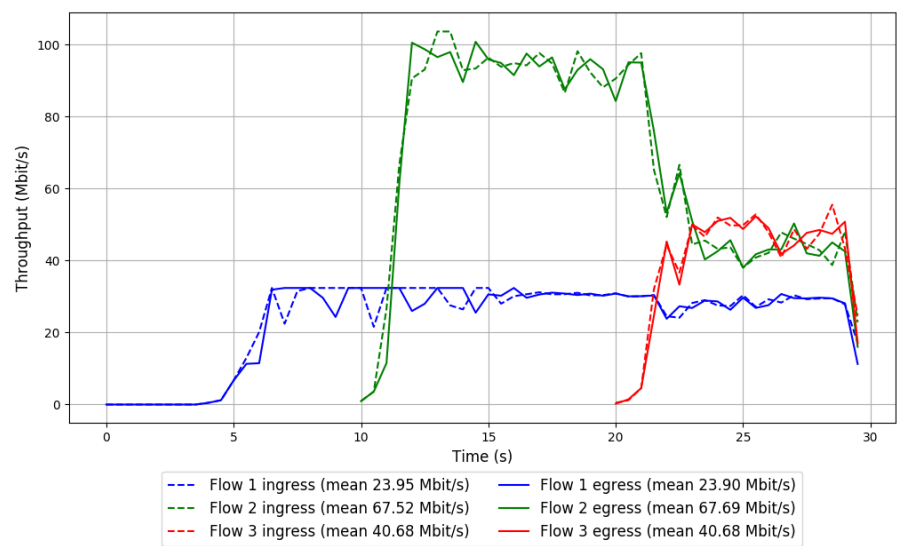
-- Flow 3:

Average throughput: 40.68 Mbit/s

95th percentile per-packet one-way delay: 86.739 ms

Loss rate: 1.81%

Run 10: Report of Indigo — Data Link

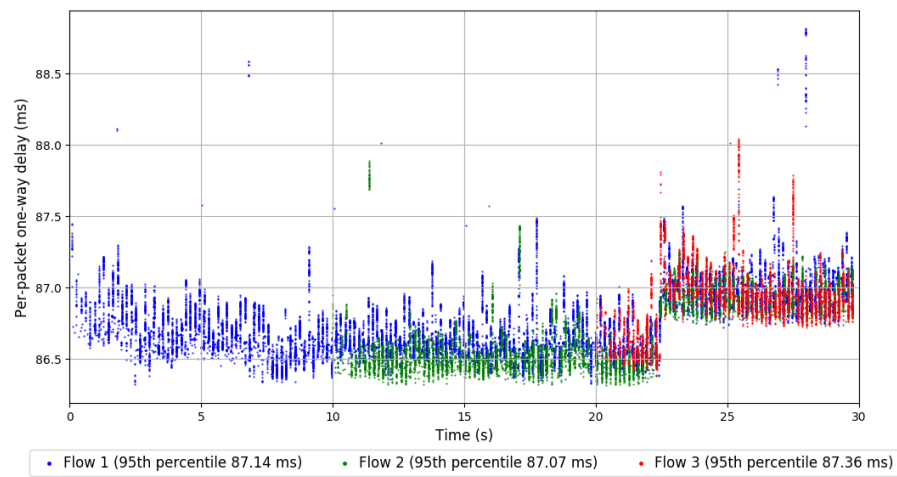
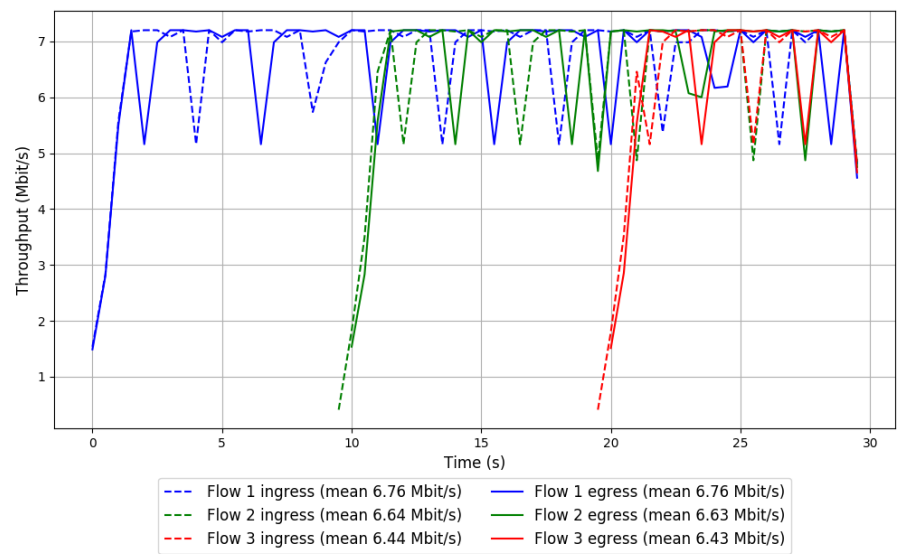


```
Run 1: Statistics of KohoCC

Start at: 2017-09-07 21:53:56
End at: 2017-09-07 21:54:26

# Below is generated by plot.py at 2017-09-08 03:22:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 87.149 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 6.76 Mbit/s
95th percentile per-packet one-way delay: 87.141 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 87.067 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 87.363 ms
Loss rate: 1.90%
```

Run 1: Report of KohoCC — Data Link

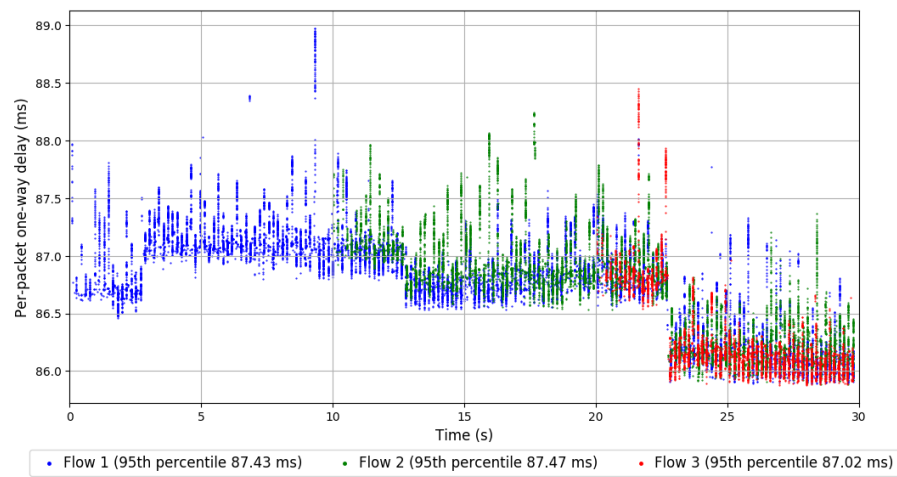
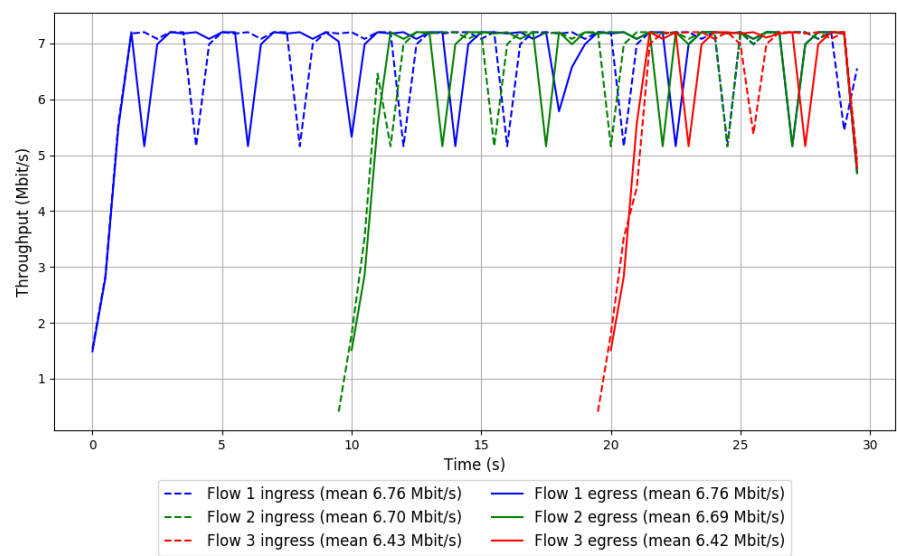


```
Run 2: Statistics of KohoCC

Start at: 2017-09-07 22:07:05
End at: 2017-09-07 22:07:35

# Below is generated by plot.py at 2017-09-08 03:22:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 87.427 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 6.76 Mbit/s
95th percentile per-packet one-way delay: 87.428 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 87.470 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 87.015 ms
Loss rate: 1.88%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-09-07 22:20:23

End at: 2017-09-07 22:20:53

Below is generated by plot.py at 2017-09-08 03:22:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.30 Mbit/s

95th percentile per-packet one-way delay: 87.390 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 87.498 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 6.67 Mbit/s

95th percentile per-packet one-way delay: 87.186 ms

Loss rate: 1.03%

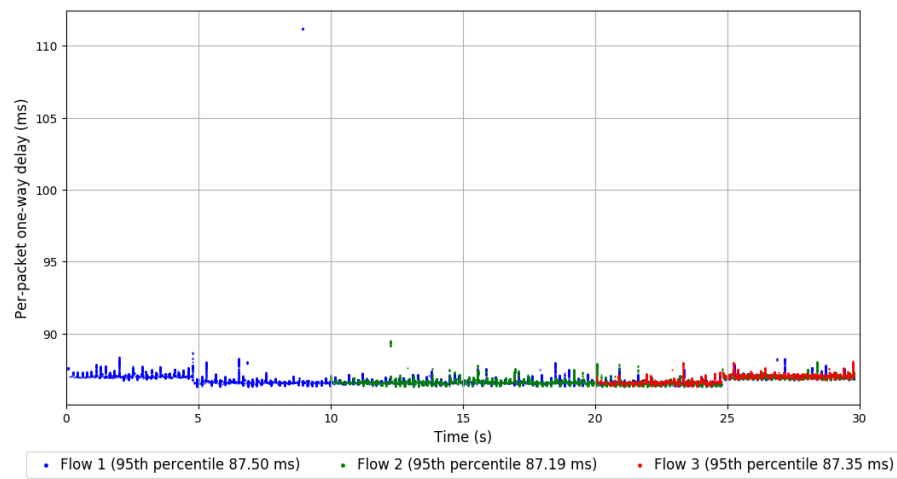
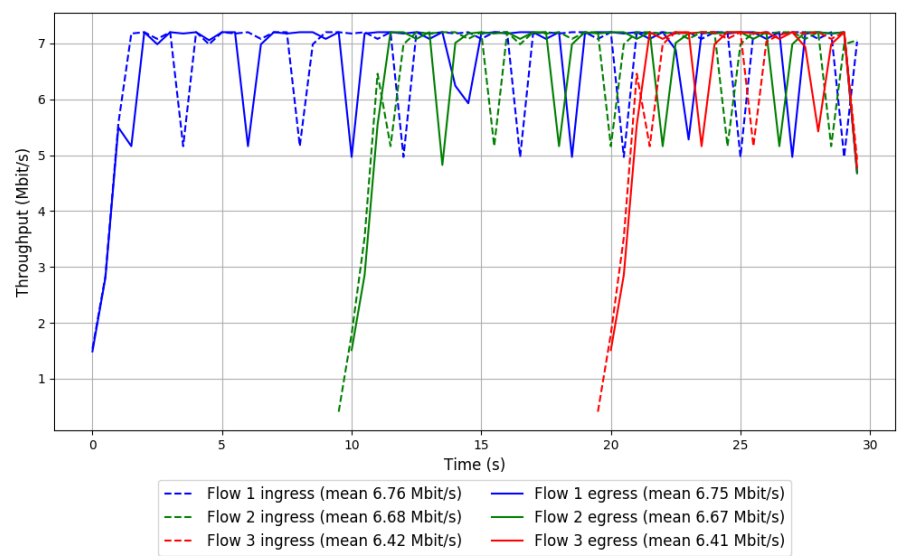
-- Flow 3:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 87.351 ms

Loss rate: 1.88%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-09-07 22:33:23

End at: 2017-09-07 22:33:53

Below is generated by plot.py at 2017-09-08 03:22:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.25 Mbit/s

95th percentile per-packet one-way delay: 86.990 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 87.009 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 6.64 Mbit/s

95th percentile per-packet one-way delay: 86.923 ms

Loss rate: 0.93%

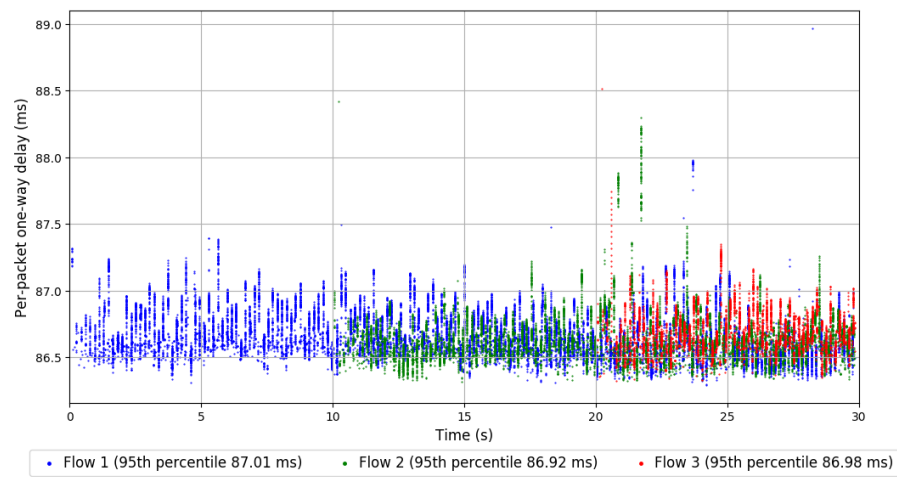
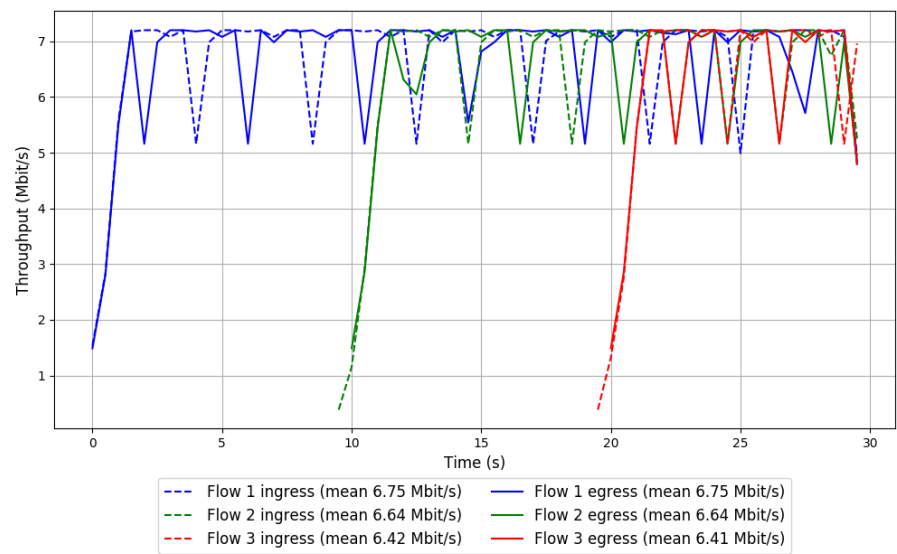
-- Flow 3:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 86.980 ms

Loss rate: 1.88%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-09-07 22:46:24

End at: 2017-09-07 22:46:54

Below is generated by plot.py at 2017-09-08 03:22:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.19 Mbit/s

95th percentile per-packet one-way delay: 87.173 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 6.68 Mbit/s

95th percentile per-packet one-way delay: 87.192 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 6.65 Mbit/s

95th percentile per-packet one-way delay: 87.171 ms

Loss rate: 0.91%

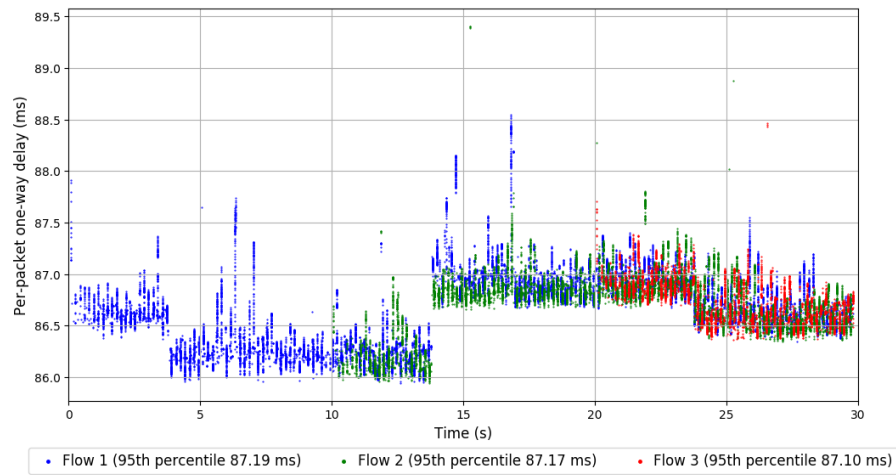
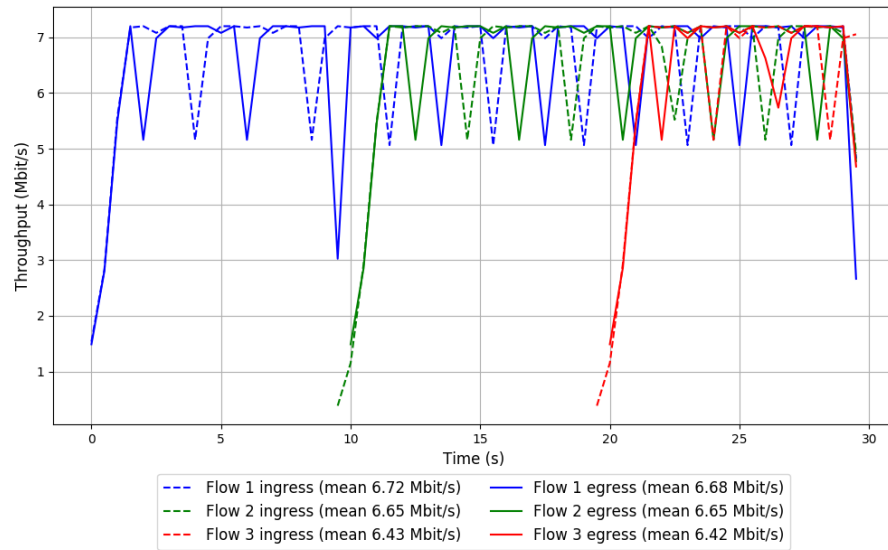
-- Flow 3:

Average throughput: 6.42 Mbit/s

95th percentile per-packet one-way delay: 87.103 ms

Loss rate: 1.88%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-09-07 22:59:26

End at: 2017-09-07 22:59:56

Below is generated by plot.py at 2017-09-08 03:22:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.18 Mbit/s

95th percentile per-packet one-way delay: 87.192 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 6.74 Mbit/s

95th percentile per-packet one-way delay: 87.284 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 6.57 Mbit/s

95th percentile per-packet one-way delay: 86.990 ms

Loss rate: 0.92%

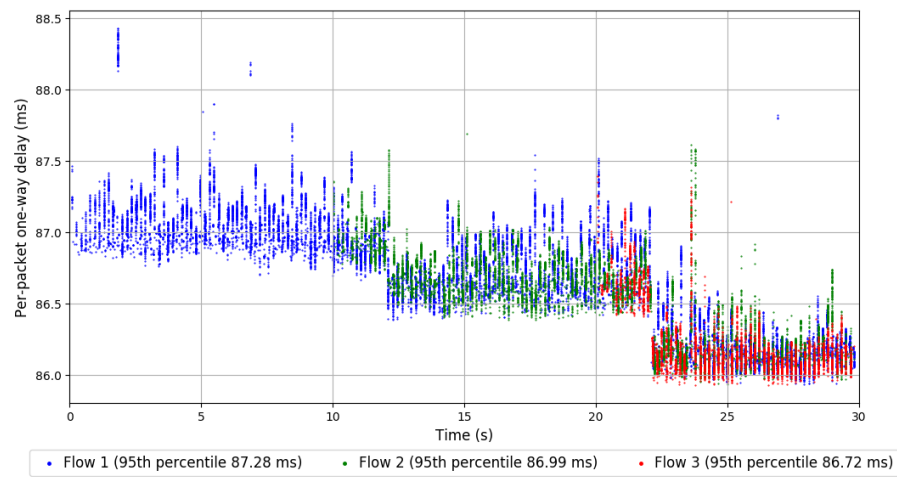
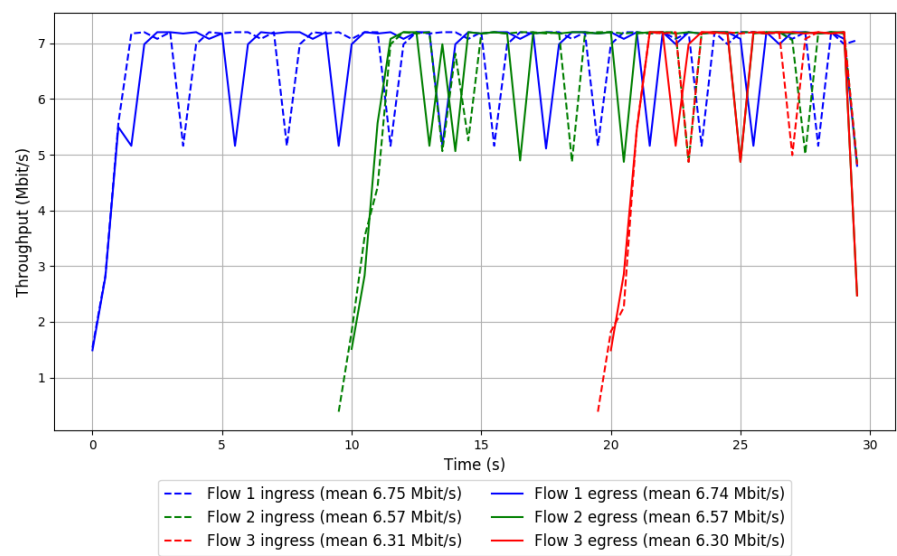
-- Flow 3:

Average throughput: 6.30 Mbit/s

95th percentile per-packet one-way delay: 86.725 ms

Loss rate: 1.92%

Run 6: Report of KohoCC — Data Link

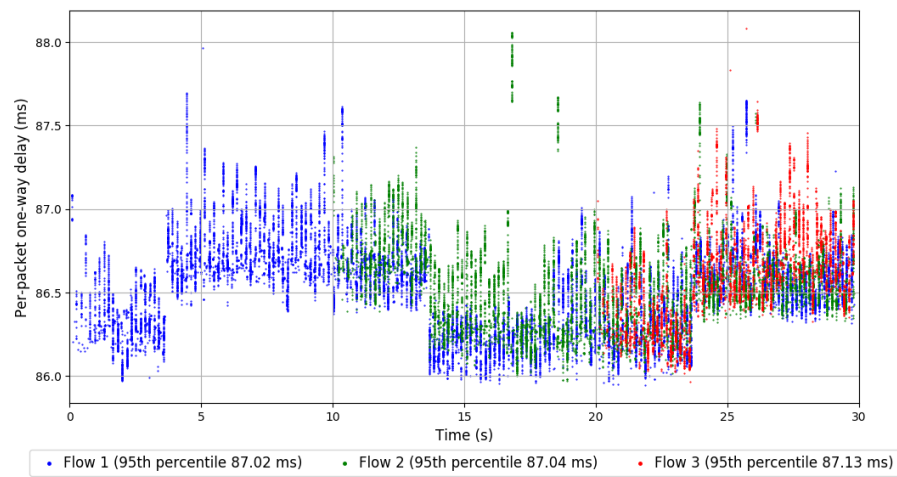
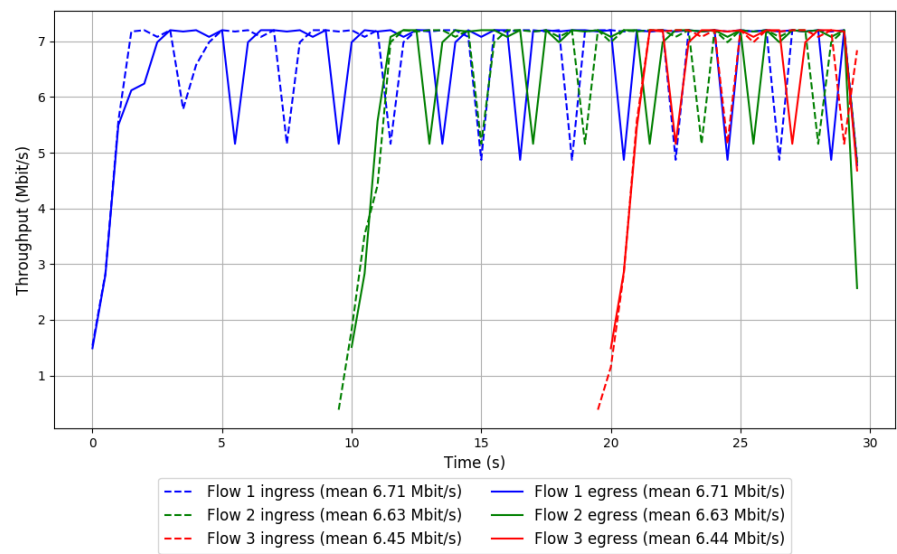


```
Run 7: Statistics of KohoCC

Start at: 2017-09-07 23:12:44
End at: 2017-09-07 23:13:14

# Below is generated by plot.py at 2017-09-08 03:22:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.22 Mbit/s
95th percentile per-packet one-way delay: 87.040 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 87.020 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 87.038 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 87.130 ms
Loss rate: 1.88%
```

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-09-07 23:25:45

End at: 2017-09-07 23:26:15

Below is generated by plot.py at 2017-09-08 03:22:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.16 Mbit/s

95th percentile per-packet one-way delay: 87.193 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 6.72 Mbit/s

95th percentile per-packet one-way delay: 87.198 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 6.58 Mbit/s

95th percentile per-packet one-way delay: 87.140 ms

Loss rate: 0.92%

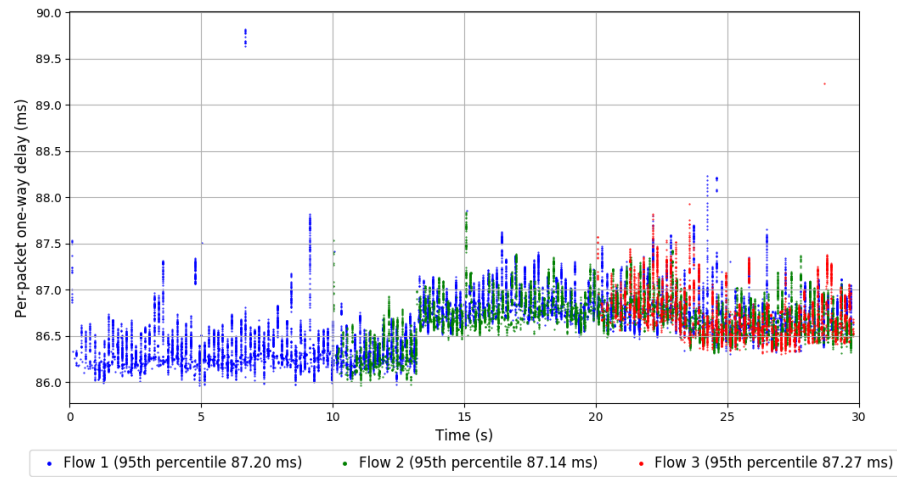
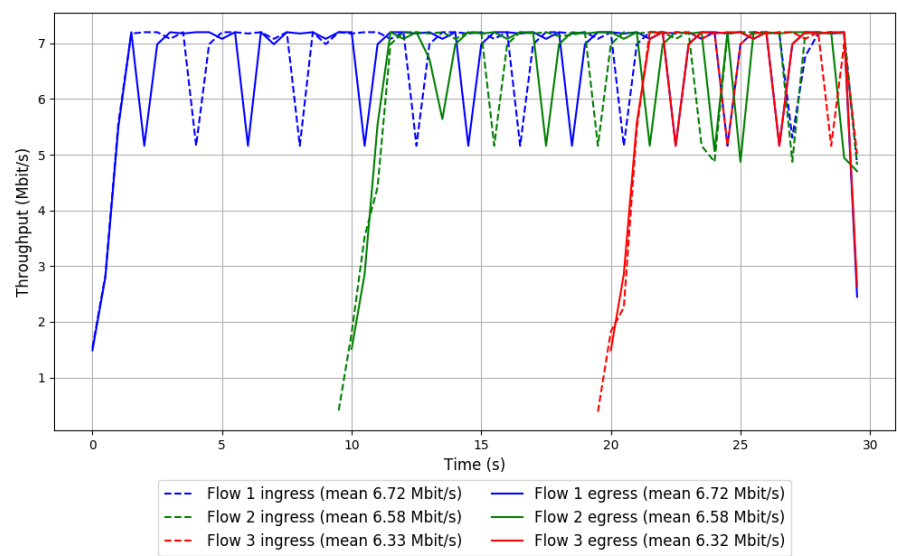
-- Flow 3:

Average throughput: 6.32 Mbit/s

95th percentile per-packet one-way delay: 87.268 ms

Loss rate: 1.91%

Run 8: Report of KohoCC — Data Link

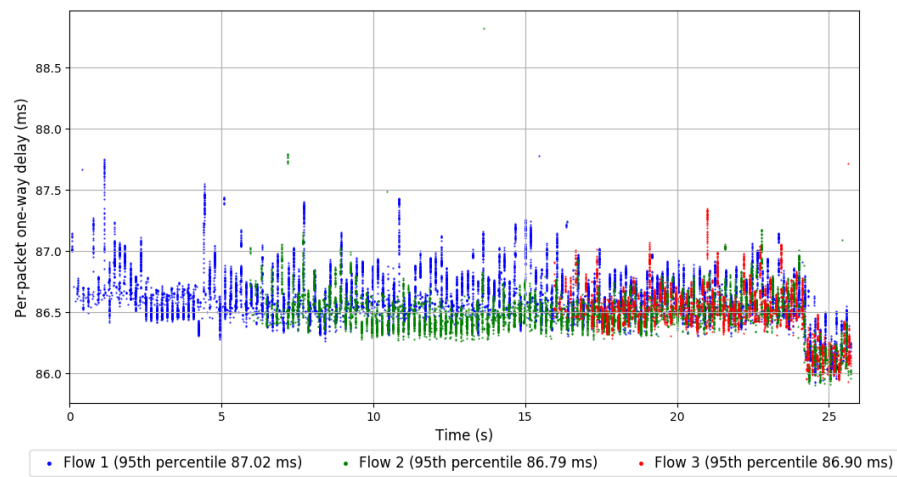
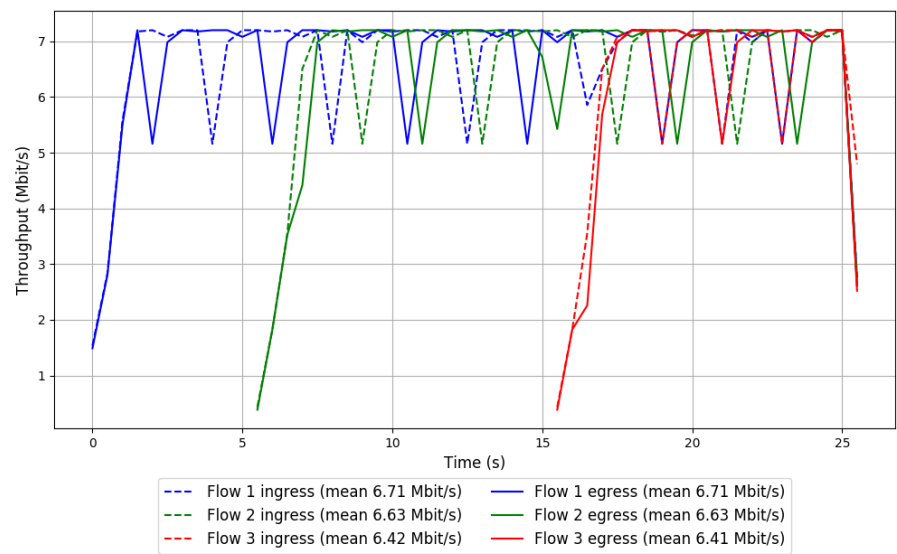


```
Run 9: Statistics of KohoCC

Start at: 2017-09-07 23:38:50
End at: 2017-09-07 23:39:20

# Below is generated by plot.py at 2017-09-08 03:22:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.26 Mbit/s
95th percentile per-packet one-way delay: 86.949 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 87.016 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 86.788 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 86.896 ms
Loss rate: 1.88%
```

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-09-07 23:52:01

End at: 2017-09-07 23:52:31

Below is generated by plot.py at 2017-09-08 03:22:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.27 Mbit/s

95th percentile per-packet one-way delay: 86.796 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 6.76 Mbit/s

95th percentile per-packet one-way delay: 86.870 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 6.70 Mbit/s

95th percentile per-packet one-way delay: 86.770 ms

Loss rate: 0.90%

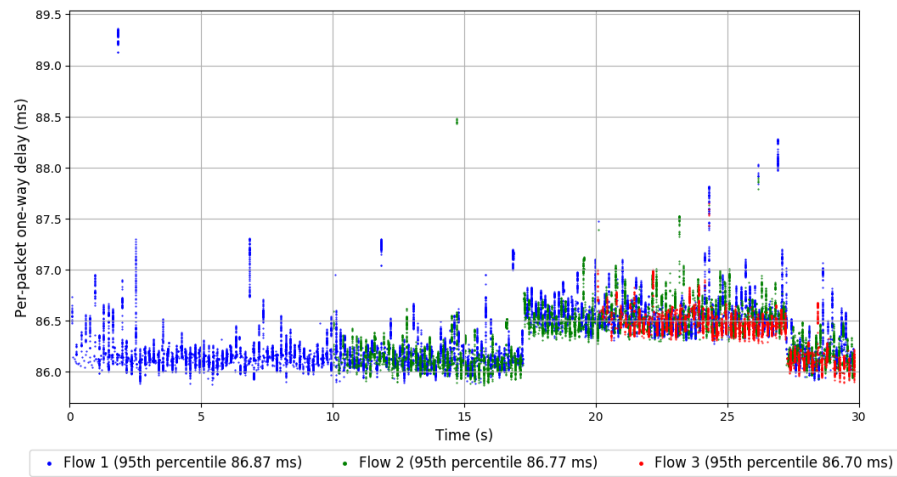
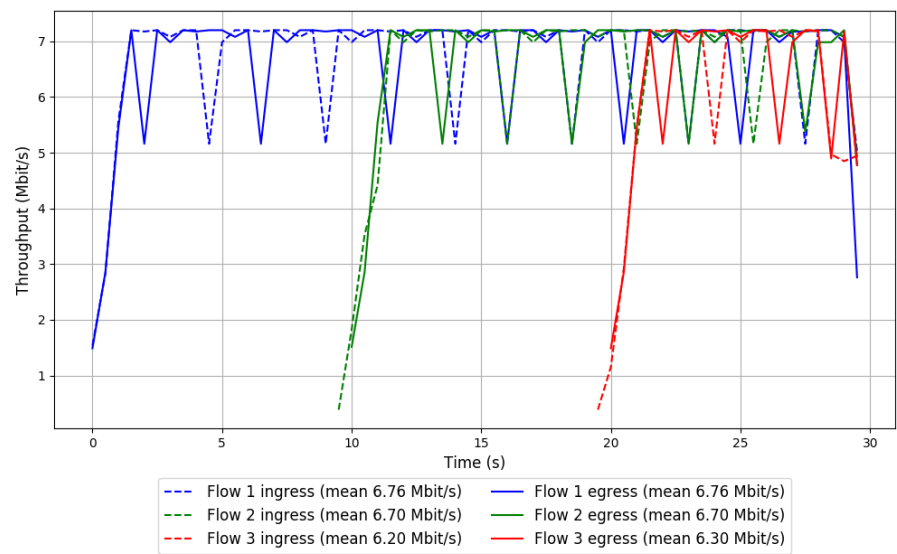
-- Flow 3:

Average throughput: 6.30 Mbit/s

95th percentile per-packet one-way delay: 86.700 ms

Loss rate: 0.16%

Run 10: Report of KohoCC — Data Link

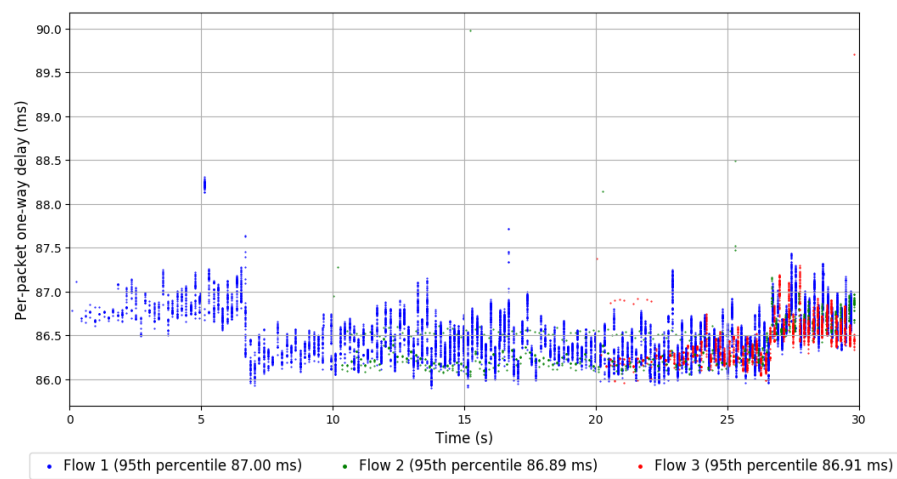
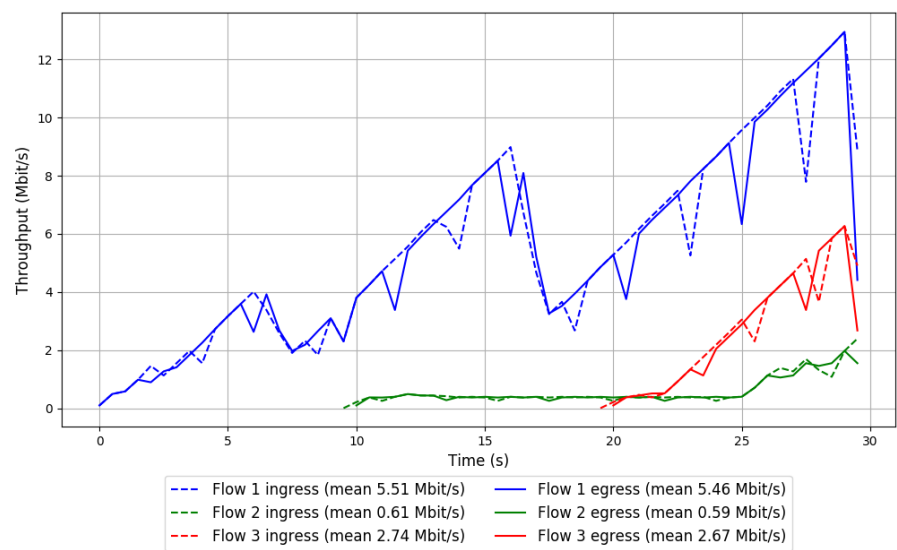


```
Run 1: Statistics of LEDBAT

Start at: 2017-09-07 21:53:11
End at: 2017-09-07 21:53:41

# Below is generated by plot.py at 2017-09-08 03:22:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 86.982 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 86.998 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 86.889 ms
Loss rate: 3.48%
-- Flow 3:
Average throughput: 2.67 Mbit/s
95th percentile per-packet one-way delay: 86.905 ms
Loss rate: 4.09%
```

Run 1: Report of LEDBAT — Data Link

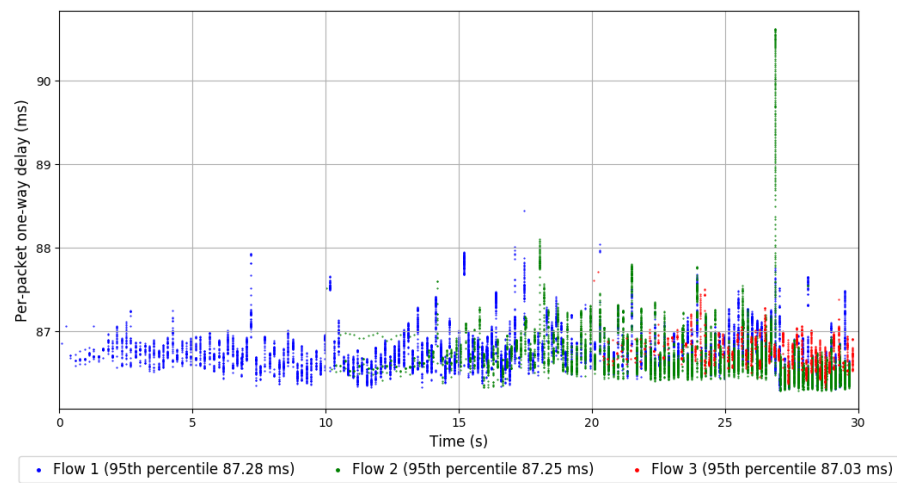
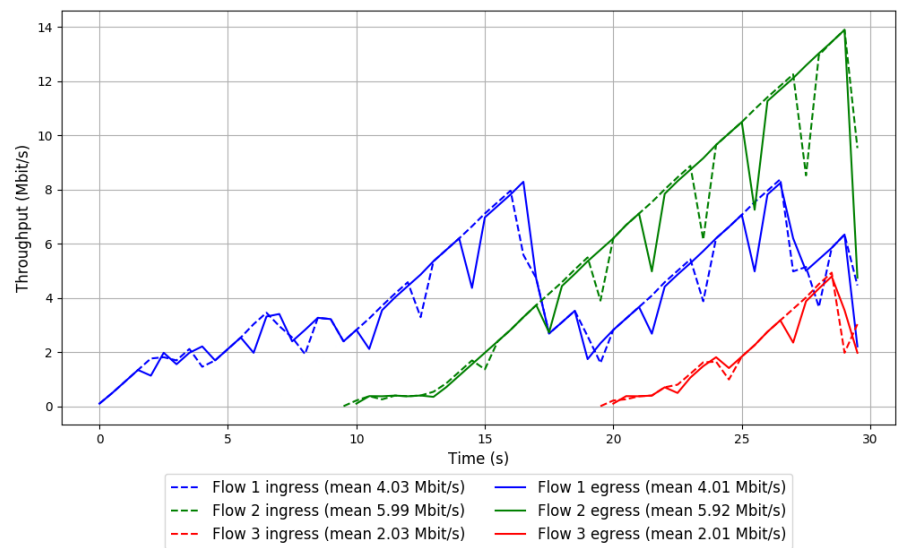


```
Run 2: Statistics of LEDBAT

Start at: 2017-09-07 22:06:21
End at: 2017-09-07 22:06:51

# Below is generated by plot.py at 2017-09-08 03:22:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.56 Mbit/s
95th percentile per-packet one-way delay: 87.244 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 87.281 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 5.92 Mbit/s
95th percentile per-packet one-way delay: 87.246 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 87.027 ms
Loss rate: 2.92%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-09-07 22:19:39

End at: 2017-09-07 22:20:09

Below is generated by plot.py at 2017-09-08 03:22:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.45 Mbit/s

95th percentile per-packet one-way delay: 87.447 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 5.18 Mbit/s

95th percentile per-packet one-way delay: 87.481 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 87.403 ms

Loss rate: 2.00%

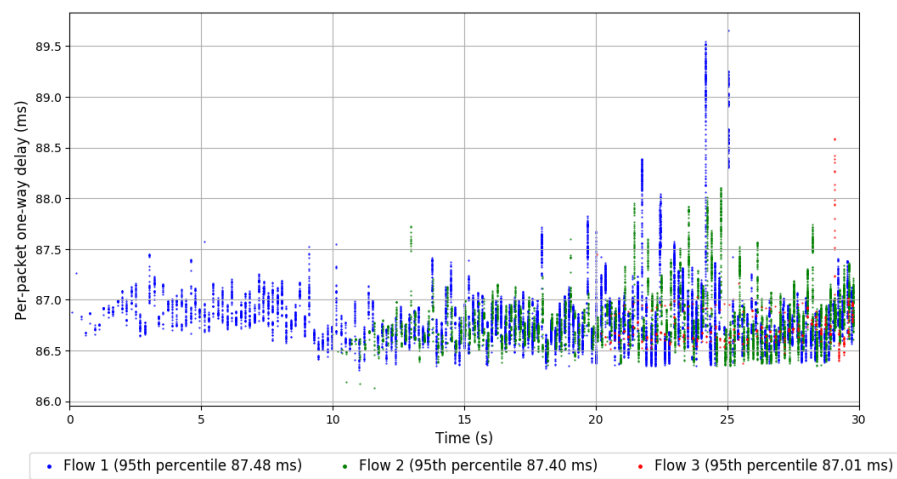
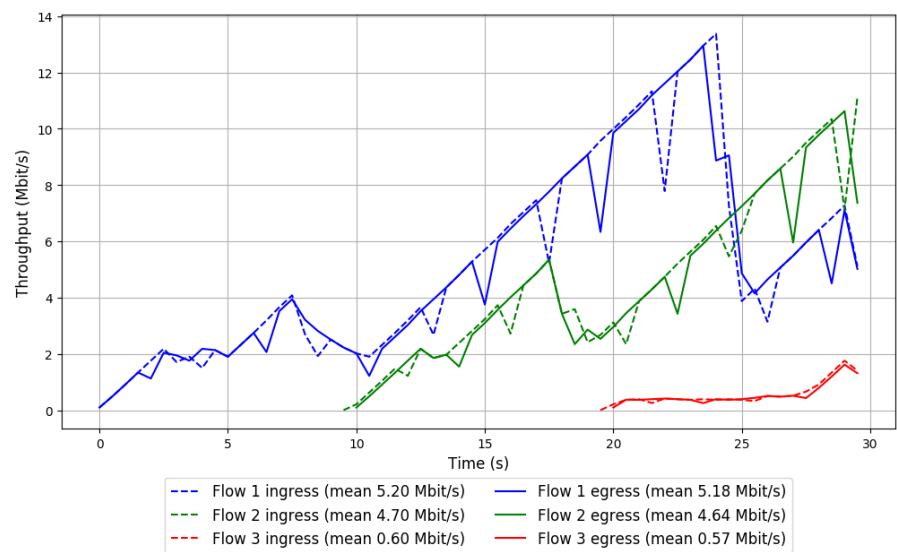
-- Flow 3:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 87.012 ms

Loss rate: 6.16%

Run 3: Report of LEDBAT — Data Link

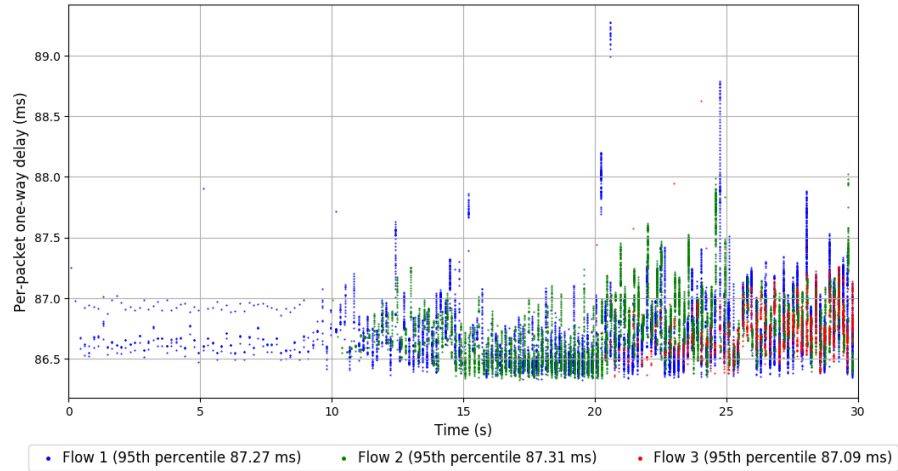
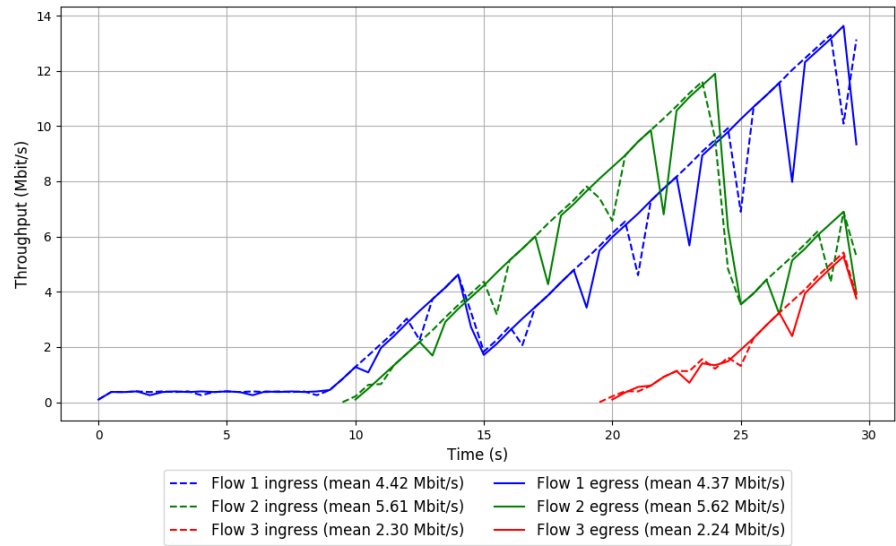


```
Run 4: Statistics of LEDBAT

Start at: 2017-09-07 22:32:39
End at: 2017-09-07 22:33:09

# Below is generated by plot.py at 2017-09-08 03:22:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 87.266 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 87.266 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 5.62 Mbit/s
95th percentile per-packet one-way delay: 87.312 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 87.089 ms
Loss rate: 4.34%
```

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-09-07 22:45:40

End at: 2017-09-07 22:46:10

Below is generated by plot.py at 2017-09-08 03:22:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.58 Mbit/s

95th percentile per-packet one-way delay: 87.360 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 5.59 Mbit/s

95th percentile per-packet one-way delay: 87.418 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 4.43 Mbit/s

95th percentile per-packet one-way delay: 87.247 ms

Loss rate: 1.60%

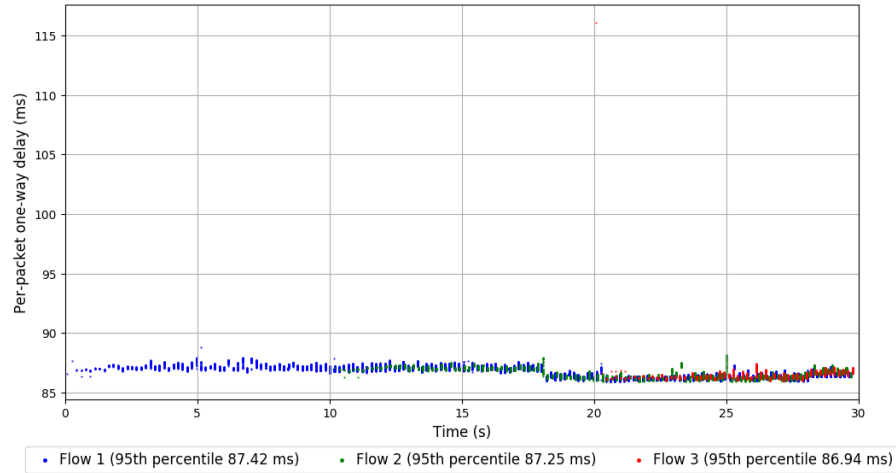
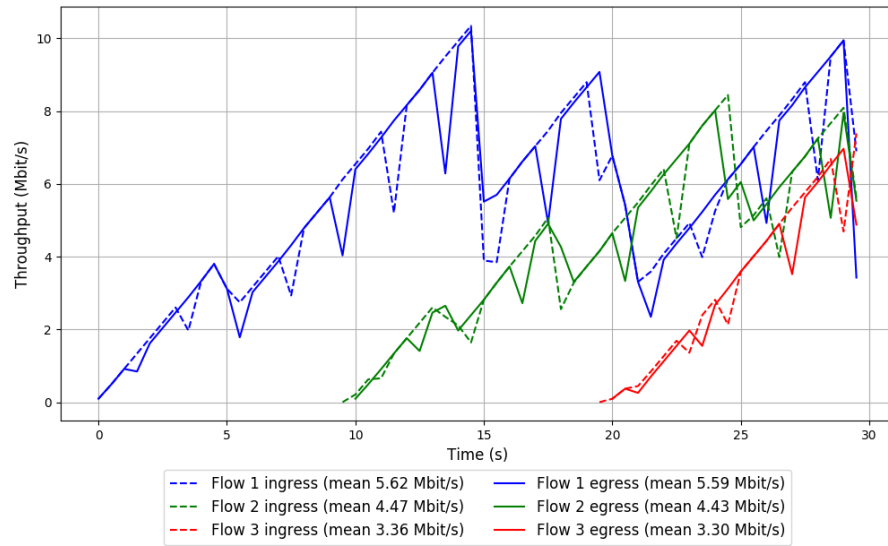
-- Flow 3:

Average throughput: 3.30 Mbit/s

95th percentile per-packet one-way delay: 86.941 ms

Loss rate: 3.78%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-09-07 22:58:42

End at: 2017-09-07 22:59:12

Below is generated by plot.py at 2017-09-08 03:22:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.98 Mbit/s

95th percentile per-packet one-way delay: 87.180 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 4.03 Mbit/s

95th percentile per-packet one-way delay: 87.195 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 87.204 ms

Loss rate: 1.74%

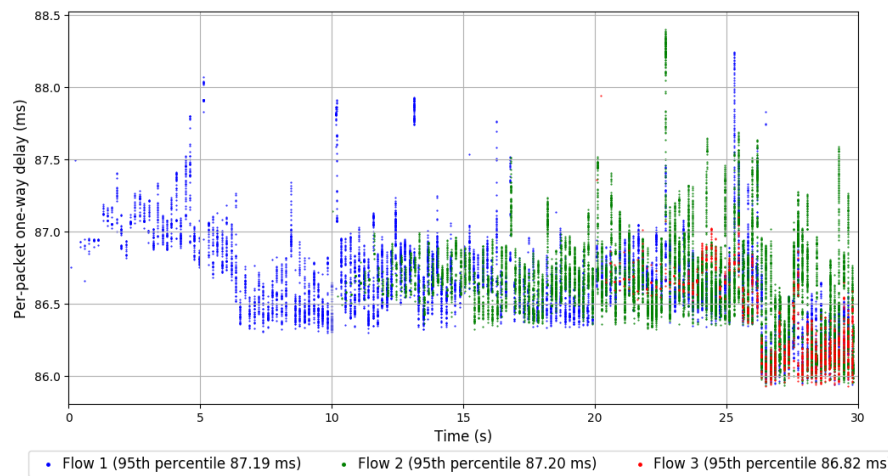
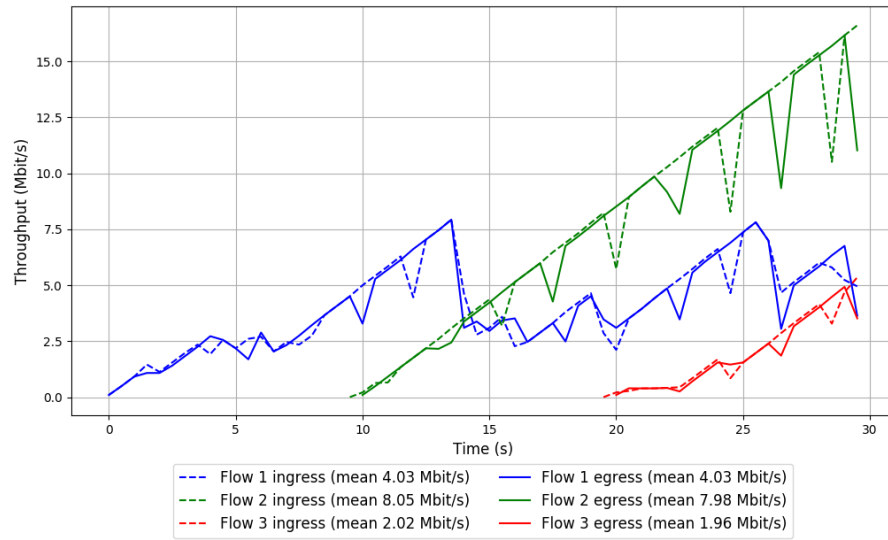
-- Flow 3:

Average throughput: 1.96 Mbit/s

95th percentile per-packet one-way delay: 86.824 ms

Loss rate: 4.57%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-09-07 23:12:00

End at: 2017-09-07 23:12:30

Below is generated by plot.py at 2017-09-08 03:22:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.82 Mbit/s

95th percentile per-packet one-way delay: 87.054 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 4.84 Mbit/s

95th percentile per-packet one-way delay: 87.047 ms

Loss rate: 1.53%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 86.726 ms

Loss rate: 1.30%

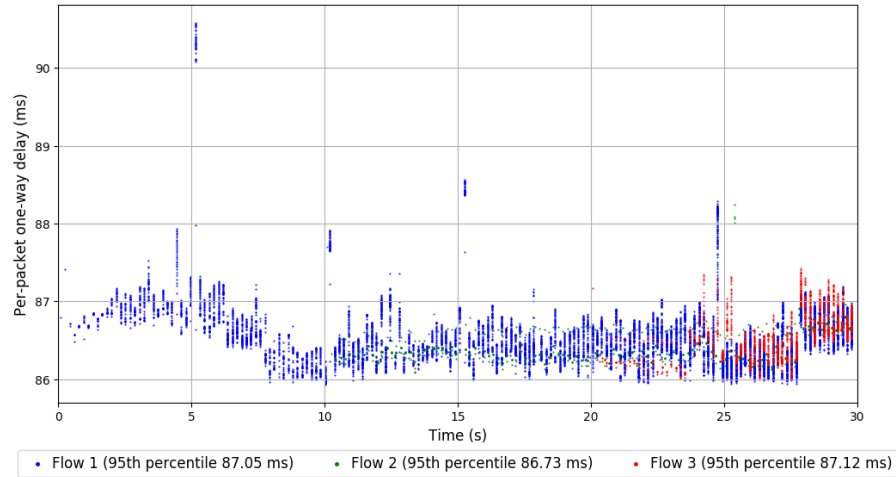
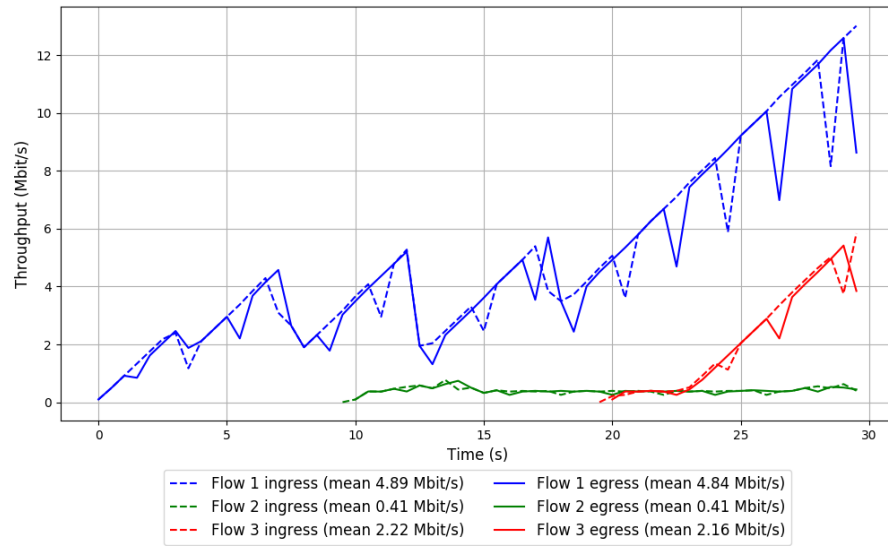
-- Flow 3:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 87.116 ms

Loss rate: 4.54%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-09-07 23:25:00

End at: 2017-09-07 23:25:30

Below is generated by plot.py at 2017-09-08 03:23:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.43 Mbit/s

95th percentile per-packet one-way delay: 87.432 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 5.37 Mbit/s

95th percentile per-packet one-way delay: 87.504 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 6.18 Mbit/s

95th percentile per-packet one-way delay: 87.403 ms

Loss rate: 0.84%

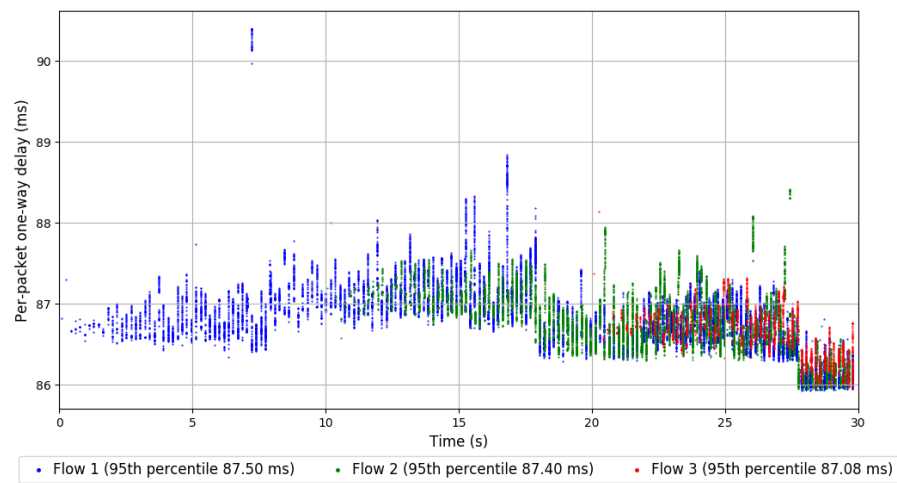
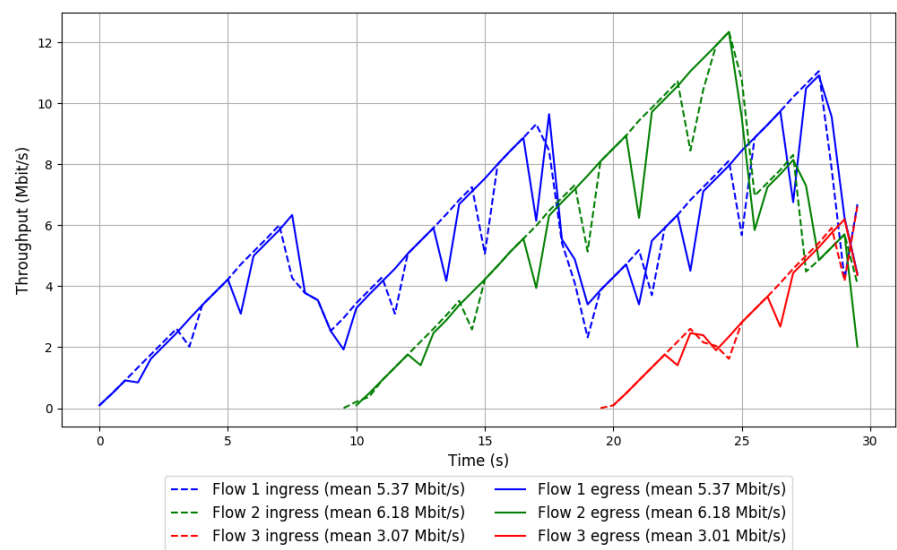
-- Flow 3:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 87.083 ms

Loss rate: 3.86%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-09-07 23:38:05

End at: 2017-09-07 23:38:35

Below is generated by plot.py at 2017-09-08 03:23:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.27 Mbit/s

95th percentile per-packet one-way delay: 87.091 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 9.78 Mbit/s

95th percentile per-packet one-way delay: 87.068 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 87.154 ms

Loss rate: 2.21%

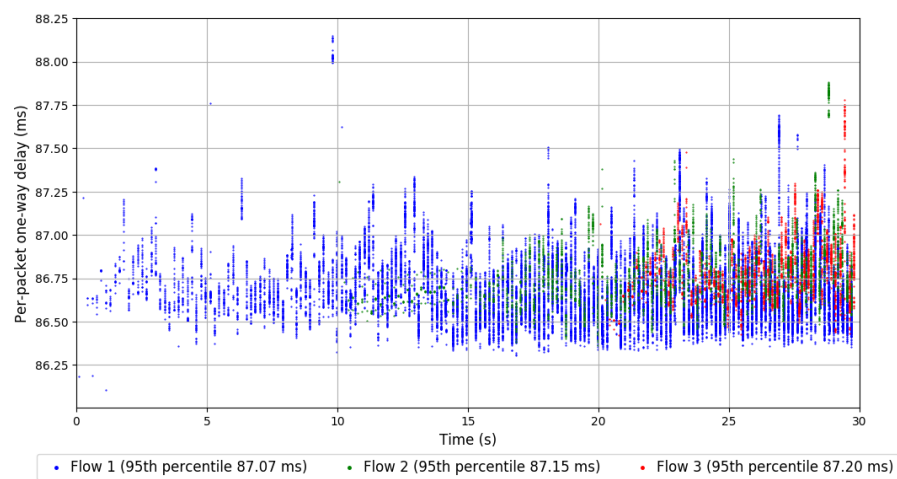
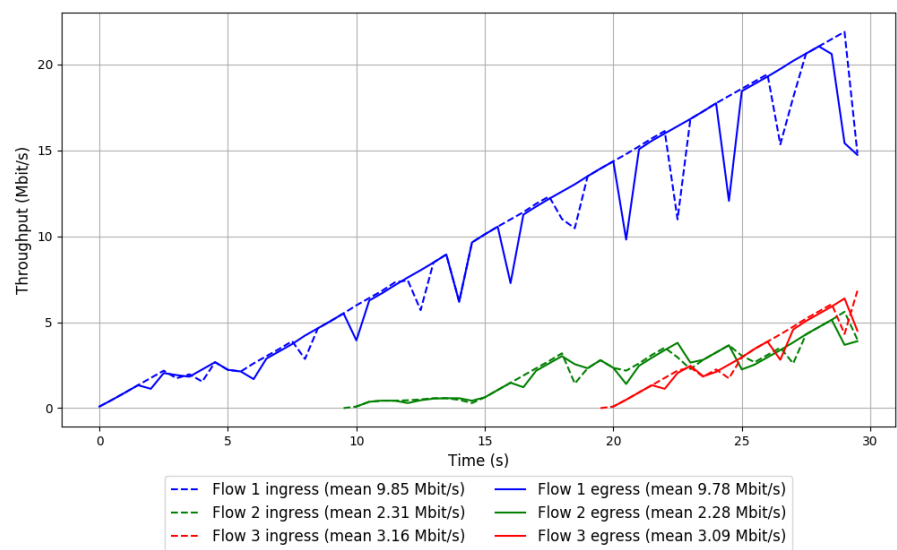
-- Flow 3:

Average throughput: 3.09 Mbit/s

95th percentile per-packet one-way delay: 87.203 ms

Loss rate: 3.73%

Run 9: Report of LEDBAT — Data Link

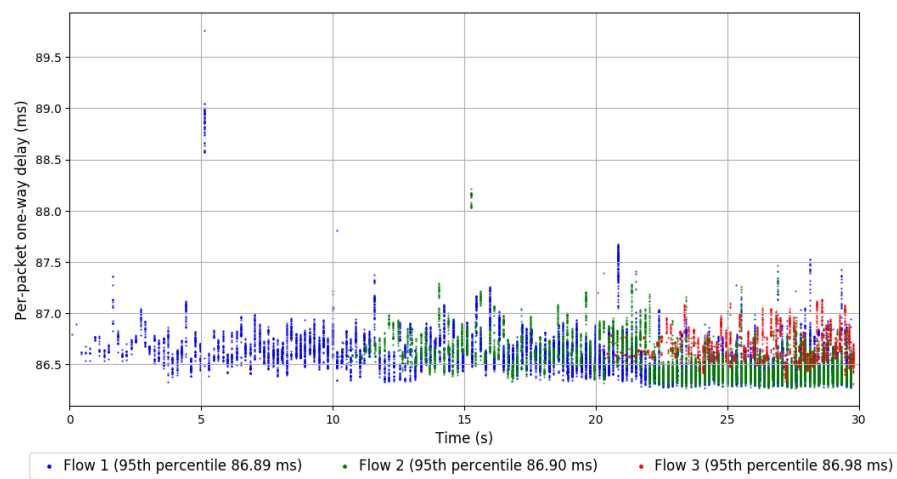
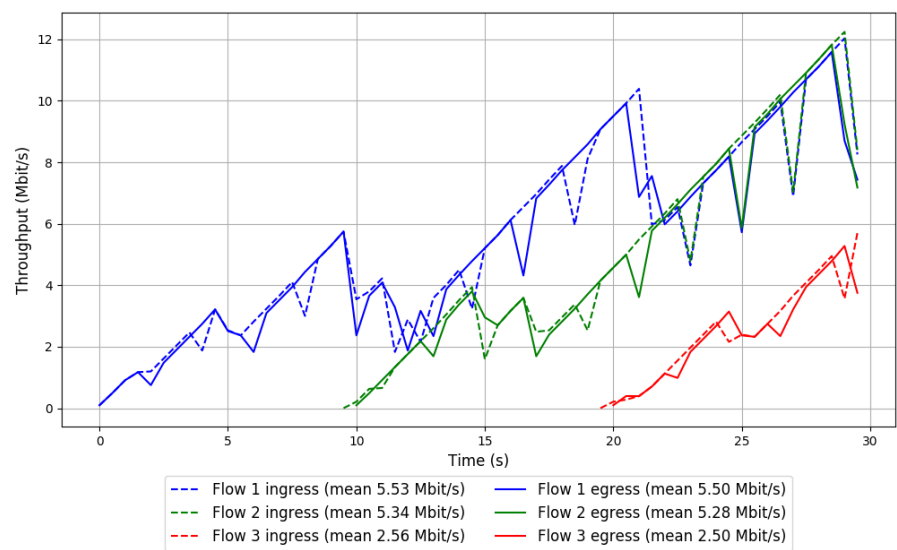


```
Run 10: Statistics of LEDBAT

Start at: 2017-09-07 23:51:17
End at: 2017-09-07 23:51:47

# Below is generated by plot.py at 2017-09-08 03:23:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.79 Mbit/s
95th percentile per-packet one-way delay: 86.907 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 5.50 Mbit/s
95th percentile per-packet one-way delay: 86.890 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 86.897 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 86.985 ms
Loss rate: 3.89%
```

Run 10: Report of LEDBAT — Data Link

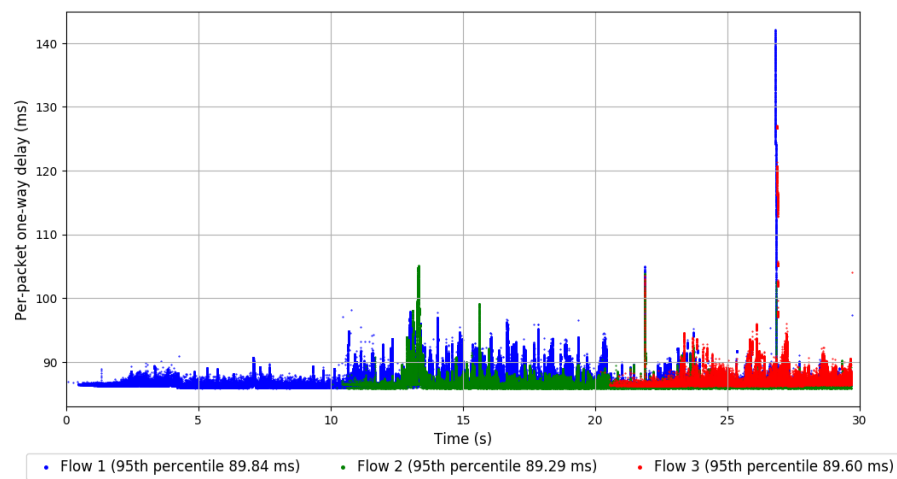
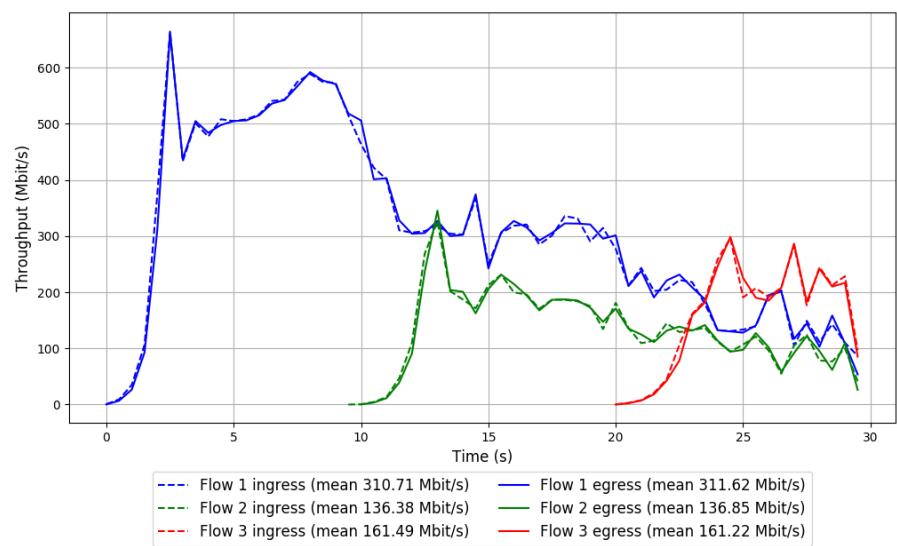


```
Run 1: Statistics of PCC

Start at: 2017-09-07 21:54:40
End at: 2017-09-07 21:55:10

# Below is generated by plot.py at 2017-09-08 03:24:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 454.07 Mbit/s
95th percentile per-packet one-way delay: 89.718 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 311.62 Mbit/s
95th percentile per-packet one-way delay: 89.839 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 136.85 Mbit/s
95th percentile per-packet one-way delay: 89.291 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 161.22 Mbit/s
95th percentile per-packet one-way delay: 89.604 ms
Loss rate: 1.85%
```

Run 1: Report of PCC — Data Link

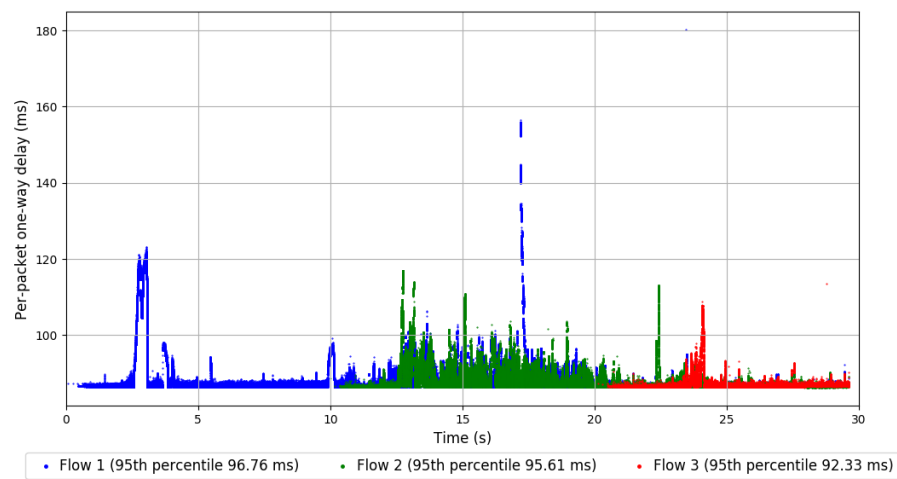
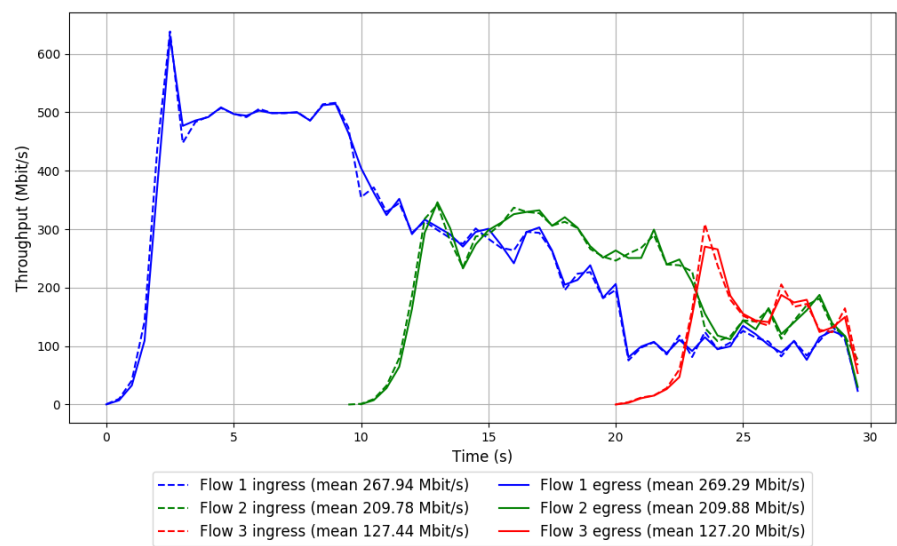


```
Run 2: Statistics of PCC

Start at: 2017-09-07 22:07:50
End at: 2017-09-07 22:08:20

# Below is generated by plot.py at 2017-09-08 03:24:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.62 Mbit/s
95th percentile per-packet one-way delay: 96.199 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 269.29 Mbit/s
95th percentile per-packet one-way delay: 96.763 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 209.88 Mbit/s
95th percentile per-packet one-way delay: 95.610 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 127.20 Mbit/s
95th percentile per-packet one-way delay: 92.332 ms
Loss rate: 1.96%
```

Run 2: Report of PCC — Data Link

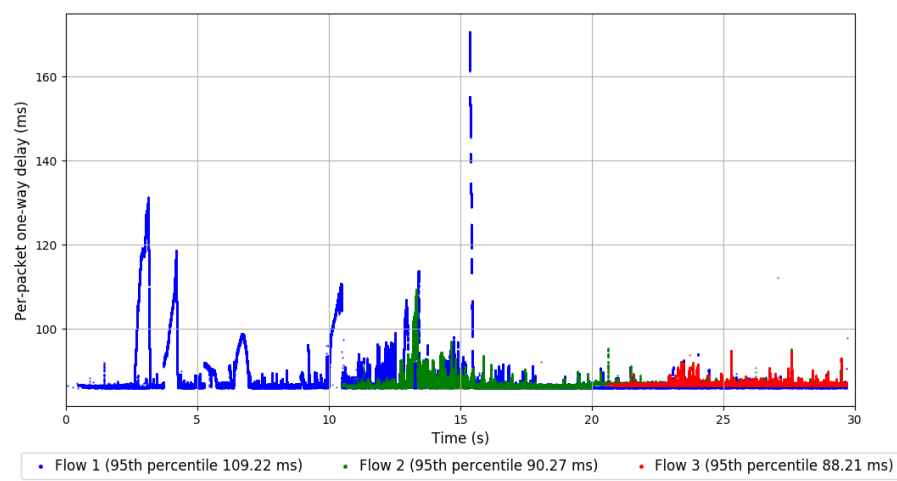
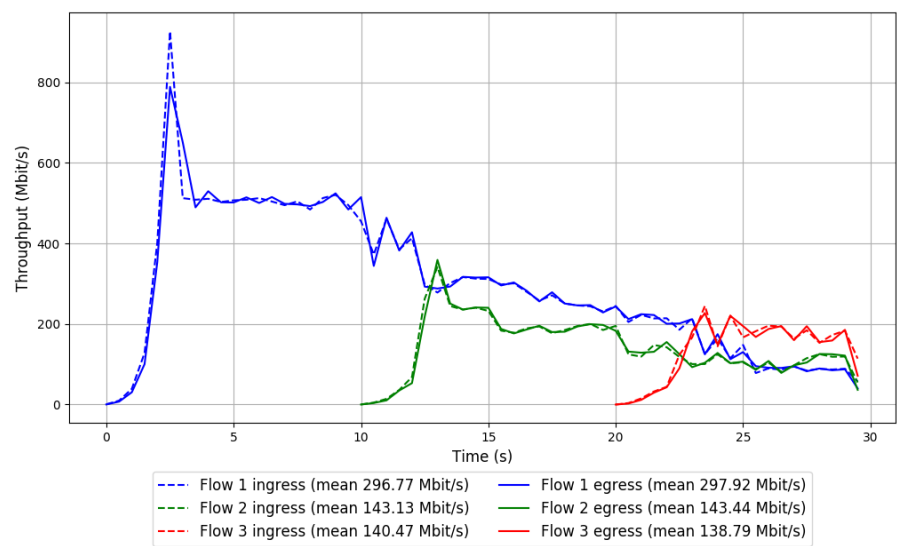


```
Run 3: Statistics of PCC

Start at: 2017-09-07 22:21:08
End at: 2017-09-07 22:21:38

# Below is generated by plot.py at 2017-09-08 03:26:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.98 Mbit/s
95th percentile per-packet one-way delay: 104.455 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 297.92 Mbit/s
95th percentile per-packet one-way delay: 109.220 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 143.44 Mbit/s
95th percentile per-packet one-way delay: 90.266 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 138.79 Mbit/s
95th percentile per-packet one-way delay: 88.212 ms
Loss rate: 2.98%
```

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-09-07 22:34:08

End at: 2017-09-07 22:34:38

Below is generated by plot.py at 2017-09-08 03:26:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 469.34 Mbit/s

95th percentile per-packet one-way delay: 144.261 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 299.42 Mbit/s

95th percentile per-packet one-way delay: 163.045 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 167.44 Mbit/s

95th percentile per-packet one-way delay: 90.590 ms

Loss rate: 0.81%

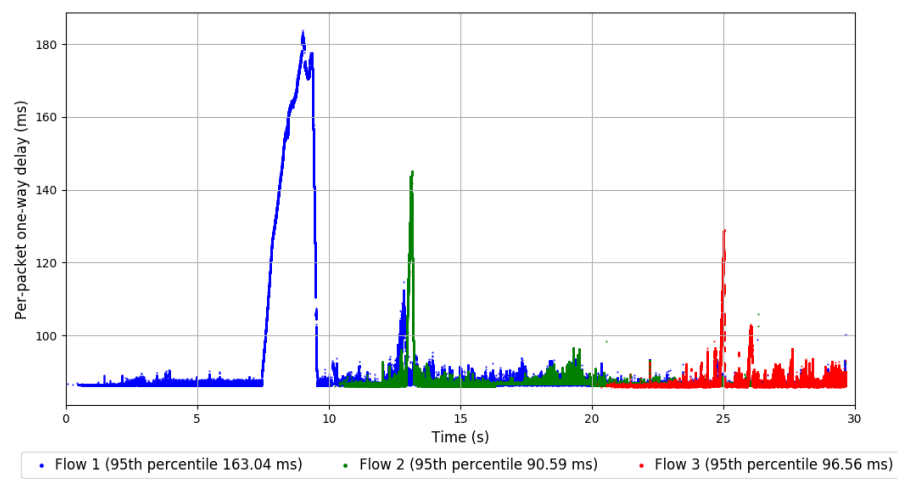
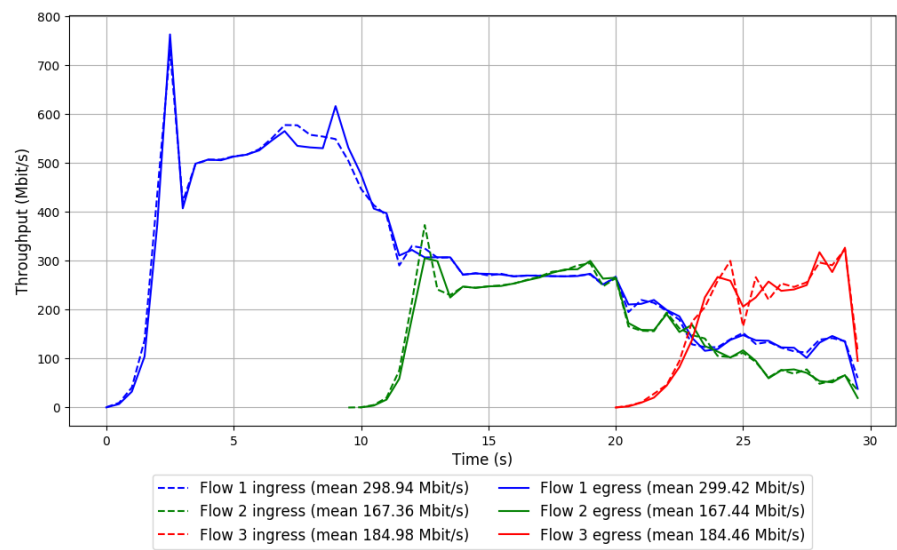
-- Flow 3:

Average throughput: 184.46 Mbit/s

95th percentile per-packet one-way delay: 96.563 ms

Loss rate: 2.05%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-09-07 22:47:09

End at: 2017-09-07 22:47:39

Below is generated by plot.py at 2017-09-08 03:27:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 426.61 Mbit/s

95th percentile per-packet one-way delay: 93.289 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 246.54 Mbit/s

95th percentile per-packet one-way delay: 90.332 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 194.36 Mbit/s

95th percentile per-packet one-way delay: 97.254 ms

Loss rate: 0.53%

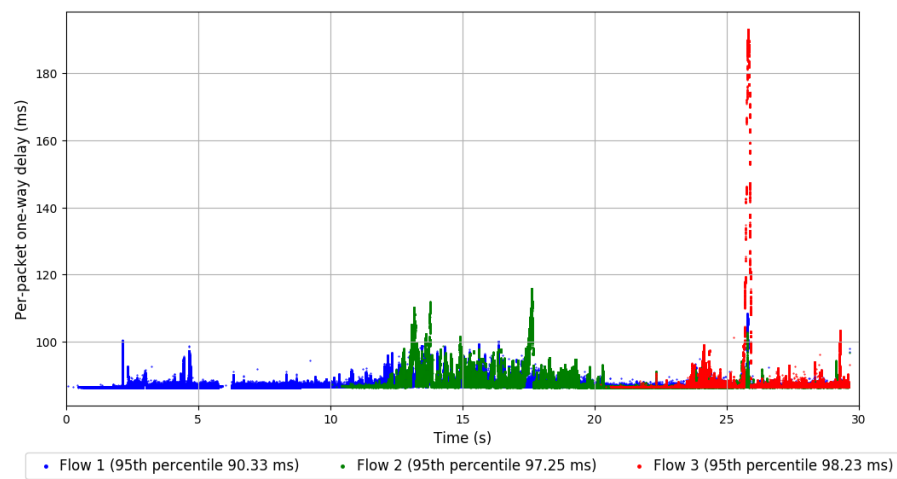
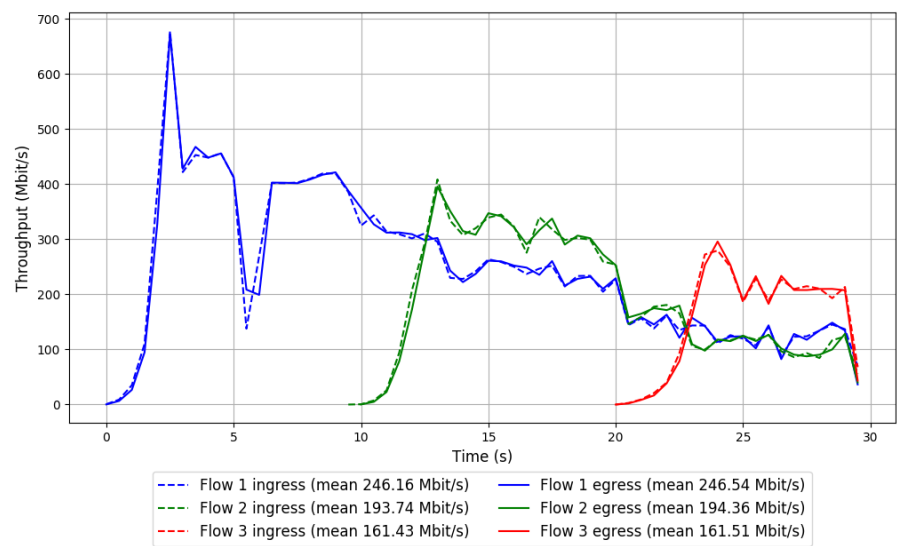
-- Flow 3:

Average throughput: 161.51 Mbit/s

95th percentile per-packet one-way delay: 98.226 ms

Loss rate: 1.73%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-09-07 23:00:11

End at: 2017-09-07 23:00:41

Below is generated by plot.py at 2017-09-08 03:27:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 465.89 Mbit/s

95th percentile per-packet one-way delay: 152.084 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 306.74 Mbit/s

95th percentile per-packet one-way delay: 178.234 ms

Loss rate: 1.99%

-- Flow 2:

Average throughput: 145.42 Mbit/s

95th percentile per-packet one-way delay: 93.091 ms

Loss rate: 0.60%

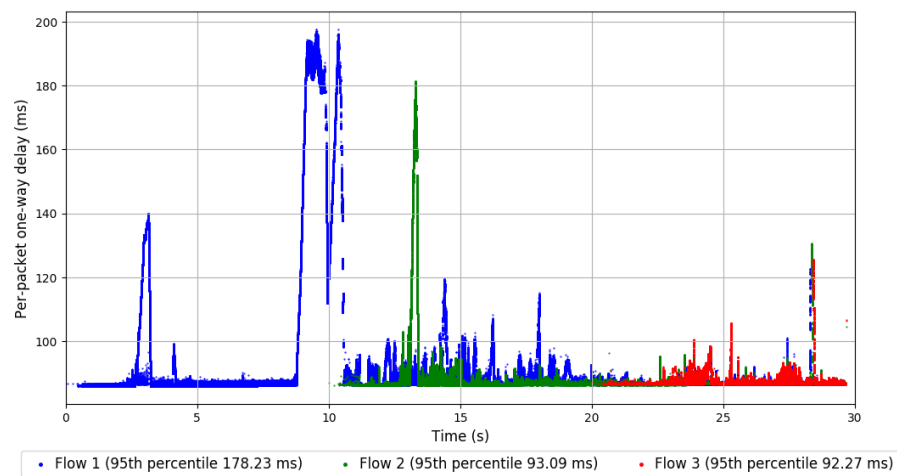
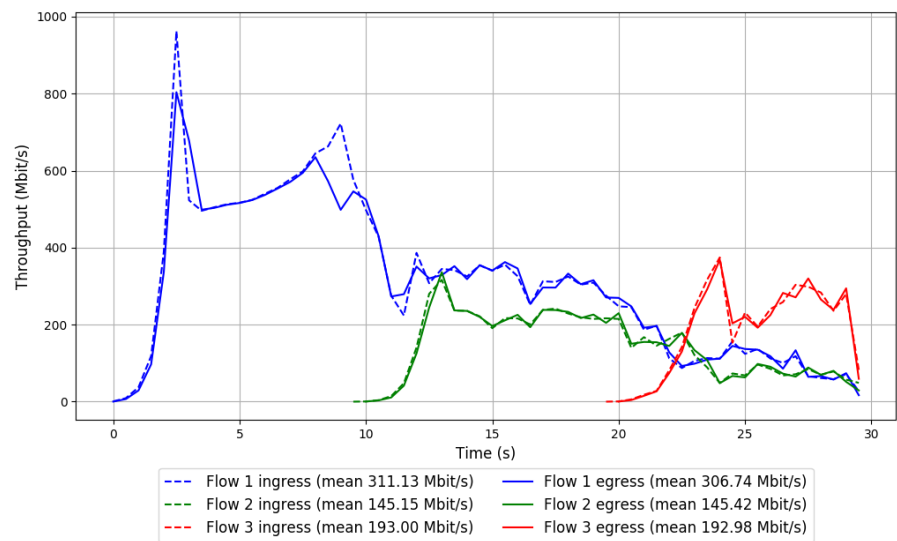
-- Flow 3:

Average throughput: 192.98 Mbit/s

95th percentile per-packet one-way delay: 92.270 ms

Loss rate: 1.62%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-09-07 23:13:29

End at: 2017-09-07 23:13:59

Below is generated by plot.py at 2017-09-08 03:28:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 446.36 Mbit/s

95th percentile per-packet one-way delay: 91.838 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 262.83 Mbit/s

95th percentile per-packet one-way delay: 90.680 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 218.21 Mbit/s

95th percentile per-packet one-way delay: 93.997 ms

Loss rate: 0.99%

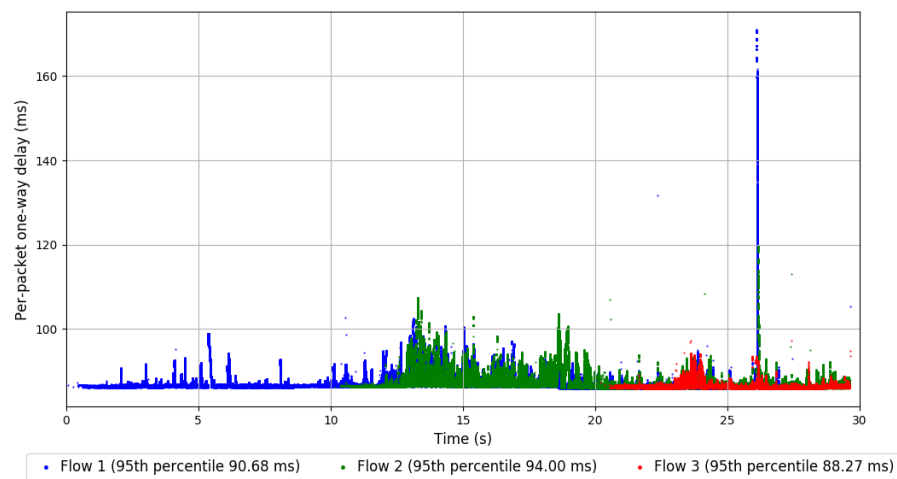
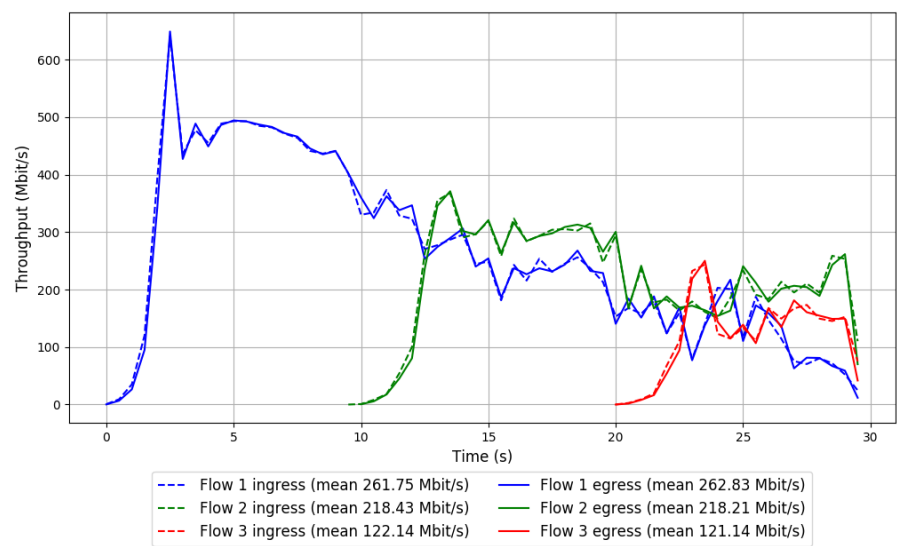
-- Flow 3:

Average throughput: 121.14 Mbit/s

95th percentile per-packet one-way delay: 88.274 ms

Loss rate: 2.59%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-09-07 23:26:29

End at: 2017-09-07 23:26:59

Below is generated by plot.py at 2017-09-08 03:29:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 411.36 Mbit/s

95th percentile per-packet one-way delay: 93.757 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 270.14 Mbit/s

95th percentile per-packet one-way delay: 95.137 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 137.40 Mbit/s

95th percentile per-packet one-way delay: 89.006 ms

Loss rate: 0.70%

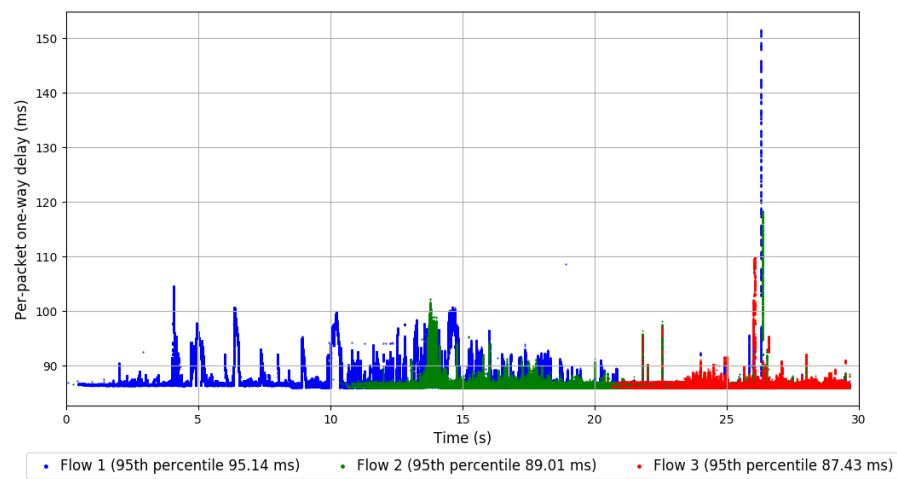
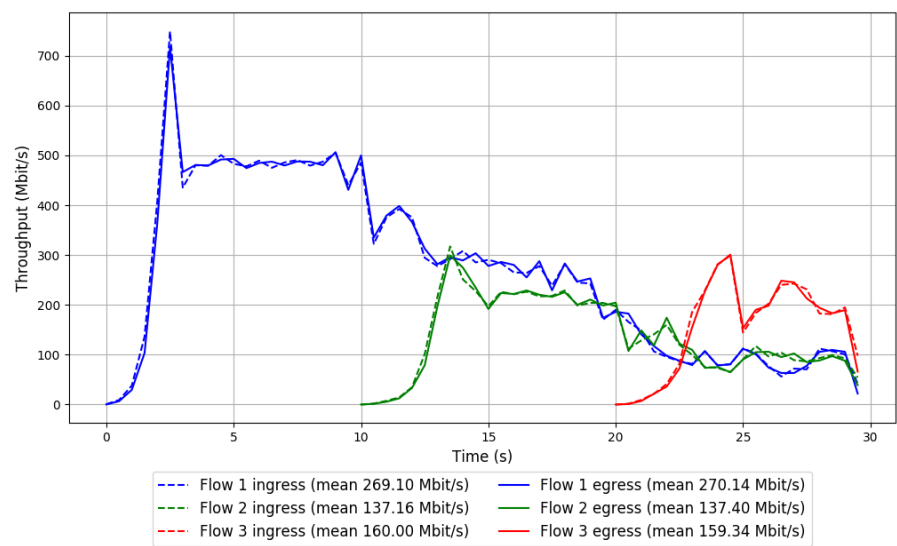
-- Flow 3:

Average throughput: 159.34 Mbit/s

95th percentile per-packet one-way delay: 87.427 ms

Loss rate: 2.25%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-09-07 23:39:34

End at: 2017-09-07 23:40:04

Below is generated by plot.py at 2017-09-08 03:30:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 425.96 Mbit/s

95th percentile per-packet one-way delay: 91.613 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 285.94 Mbit/s

95th percentile per-packet one-way delay: 96.355 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 173.70 Mbit/s

95th percentile per-packet one-way delay: 88.736 ms

Loss rate: 0.82%

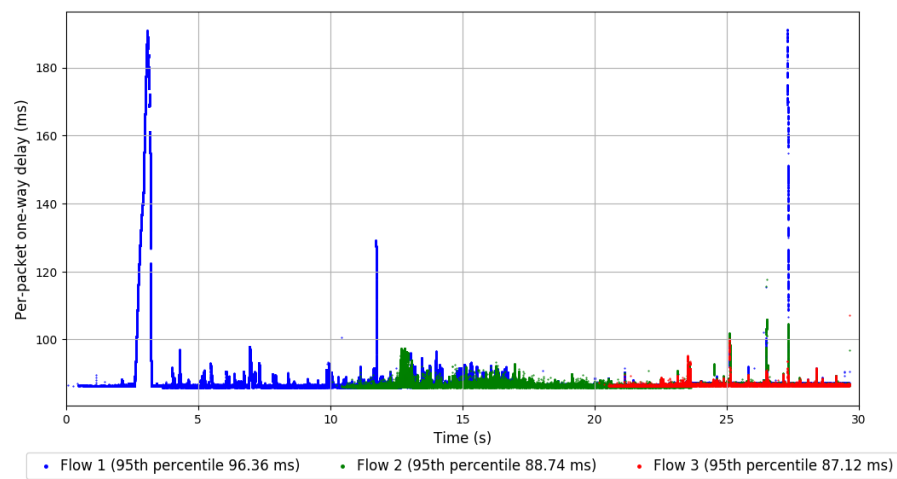
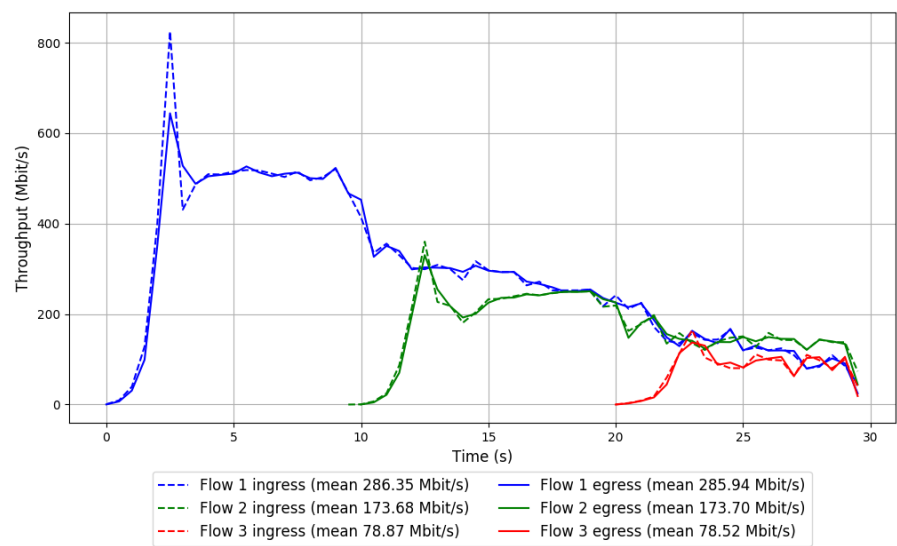
-- Flow 3:

Average throughput: 78.52 Mbit/s

95th percentile per-packet one-way delay: 87.117 ms

Loss rate: 2.05%

Run 9: Report of PCC — Data Link

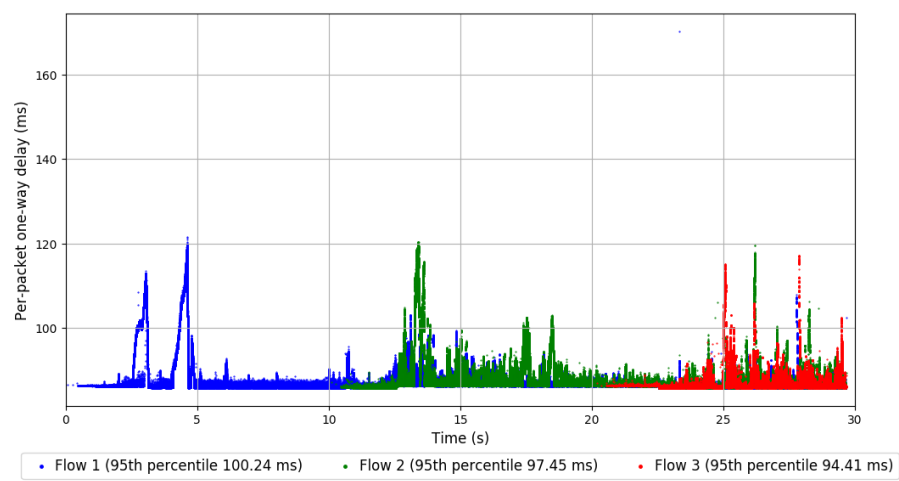
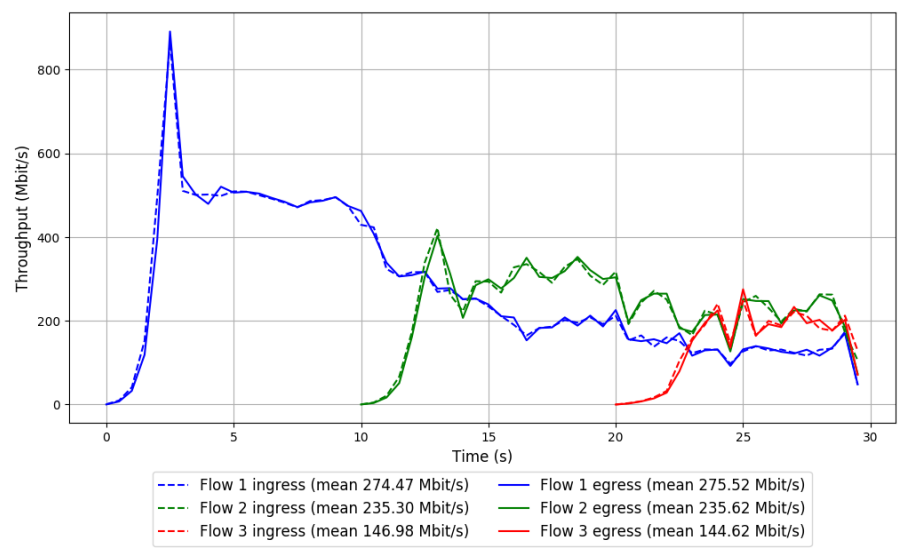


```
Run 10: Statistics of PCC

Start at: 2017-09-07 23:52:45
End at: 2017-09-07 23:53:15

# Below is generated by plot.py at 2017-09-08 03:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.64 Mbit/s
95th percentile per-packet one-way delay: 99.467 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 275.52 Mbit/s
95th percentile per-packet one-way delay: 100.238 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 235.62 Mbit/s
95th percentile per-packet one-way delay: 97.451 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 144.62 Mbit/s
95th percentile per-packet one-way delay: 94.410 ms
Loss rate: 3.39%
```

Run 10: Report of PCC — Data Link

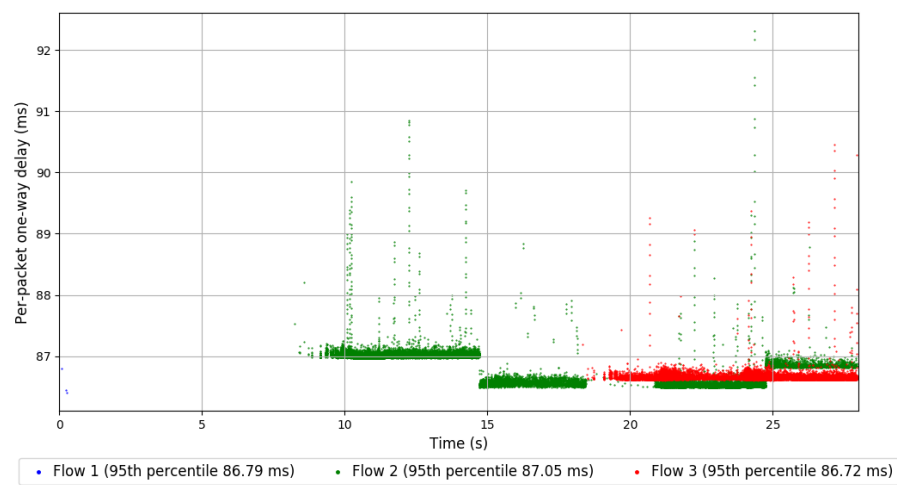
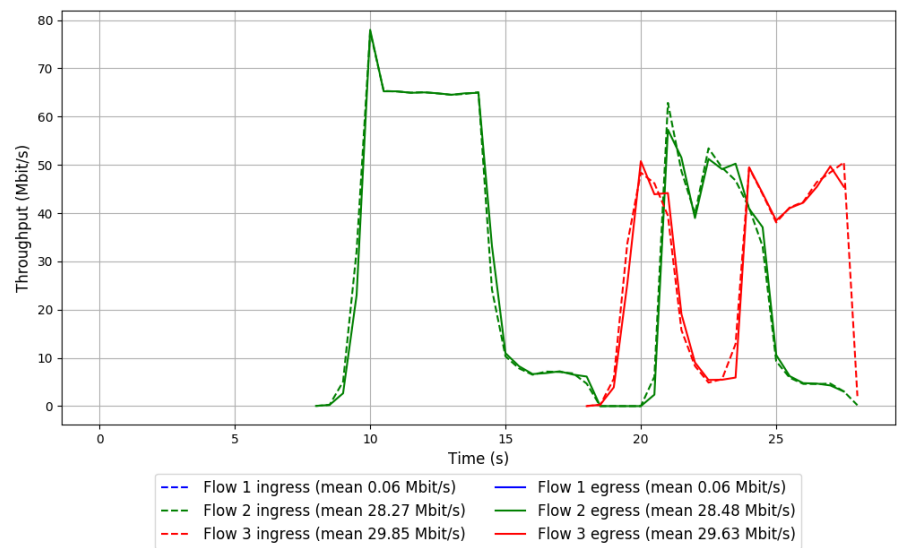


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-07 21:51:41
End at: 2017-09-07 21:52:11

# Below is generated by plot.py at 2017-09-08 03:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.35 Mbit/s
95th percentile per-packet one-way delay: 87.040 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 86.793 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.48 Mbit/s
95th percentile per-packet one-way delay: 87.050 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 86.718 ms
Loss rate: 2.45%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-09-07 22:04:51

End at: 2017-09-07 22:05:21

Below is generated by plot.py at 2017-09-08 03:30:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.48 Mbit/s

95th percentile per-packet one-way delay: 86.817 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.159 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.36 Mbit/s

95th percentile per-packet one-way delay: 86.817 ms

Loss rate: 1.55%

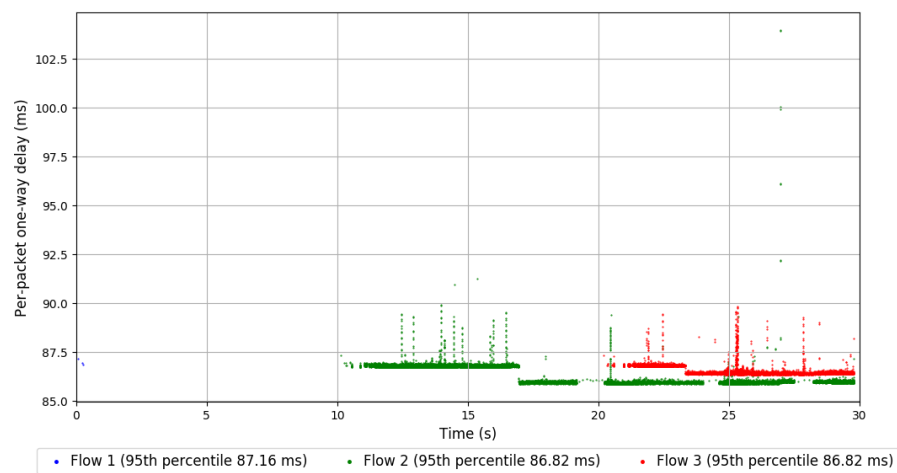
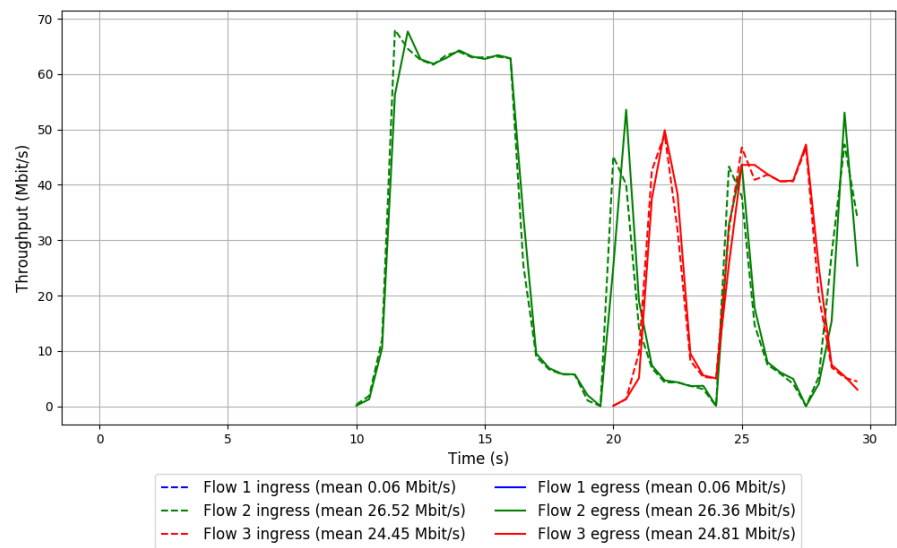
-- Flow 3:

Average throughput: 24.81 Mbit/s

95th percentile per-packet one-way delay: 86.817 ms

Loss rate: 0.48%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-09-07 22:18:08

End at: 2017-09-07 22:18:38

Below is generated by plot.py at 2017-09-08 03:30:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 24.90 Mbit/s

95th percentile per-packet one-way delay: 86.821 ms

Loss rate: 1.84%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.786 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 27.23 Mbit/s

95th percentile per-packet one-way delay: 86.818 ms

Loss rate: 1.31%

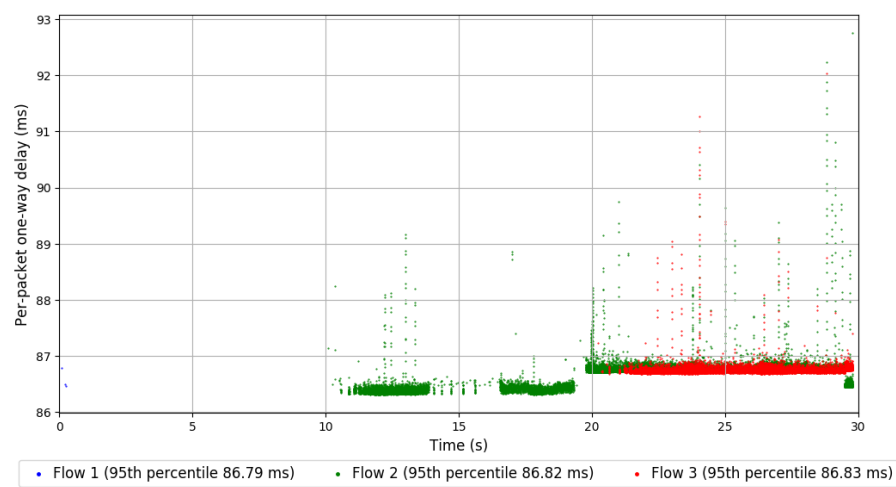
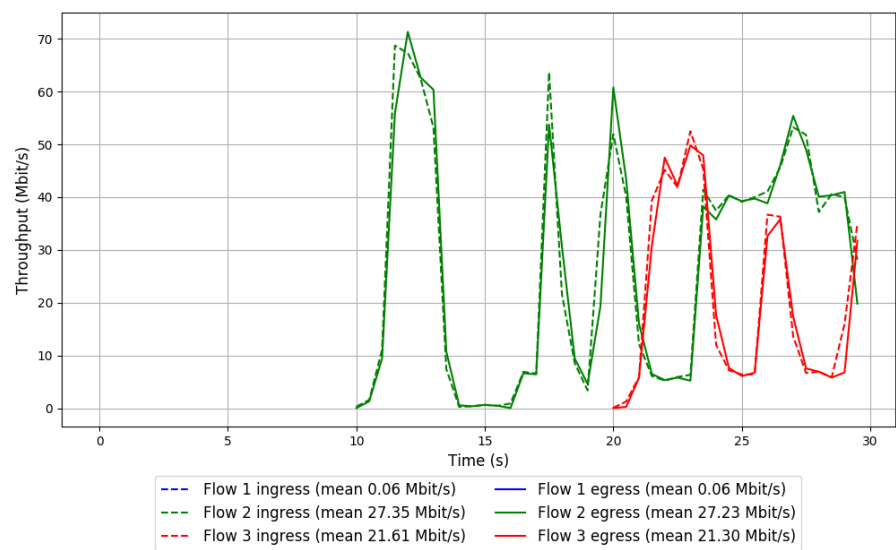
-- Flow 3:

Average throughput: 21.30 Mbit/s

95th percentile per-packet one-way delay: 86.827 ms

Loss rate: 3.20%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-09-07 22:31:09

End at: 2017-09-07 22:31:39

Below is generated by plot.py at 2017-09-08 03:30:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.36 Mbit/s

95th percentile per-packet one-way delay: 86.820 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.335 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.17 Mbit/s

95th percentile per-packet one-way delay: 86.495 ms

Loss rate: 0.13%

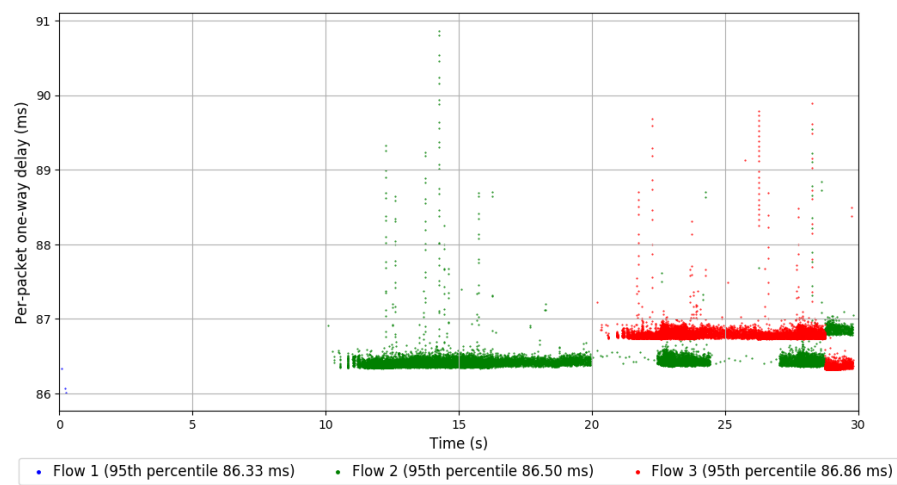
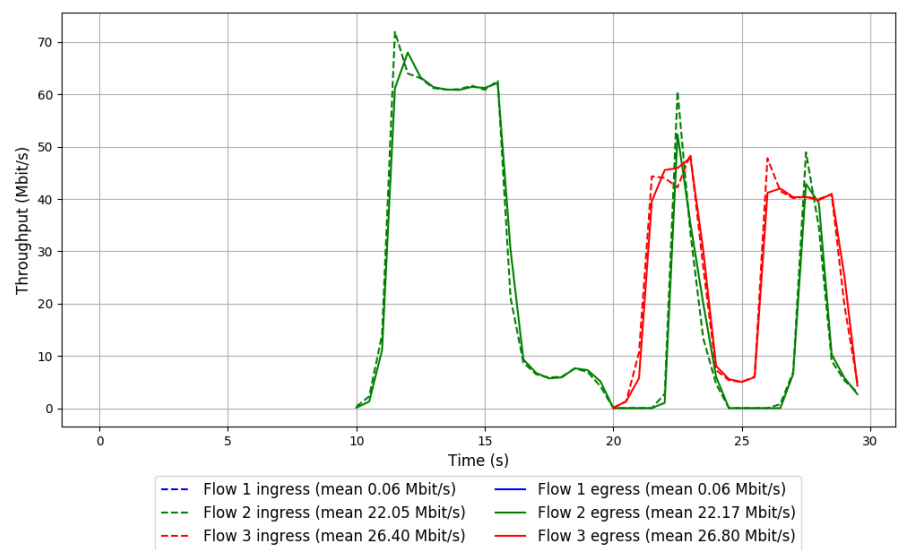
-- Flow 3:

Average throughput: 26.80 Mbit/s

95th percentile per-packet one-way delay: 86.855 ms

Loss rate: 0.39%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-07 22:44:09

End at: 2017-09-07 22:44:39

Below is generated by plot.py at 2017-09-08 03:30:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 30.45 Mbit/s

95th percentile per-packet one-way delay: 86.499 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.986 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.31 Mbit/s

95th percentile per-packet one-way delay: 86.512 ms

Loss rate: 0.14%

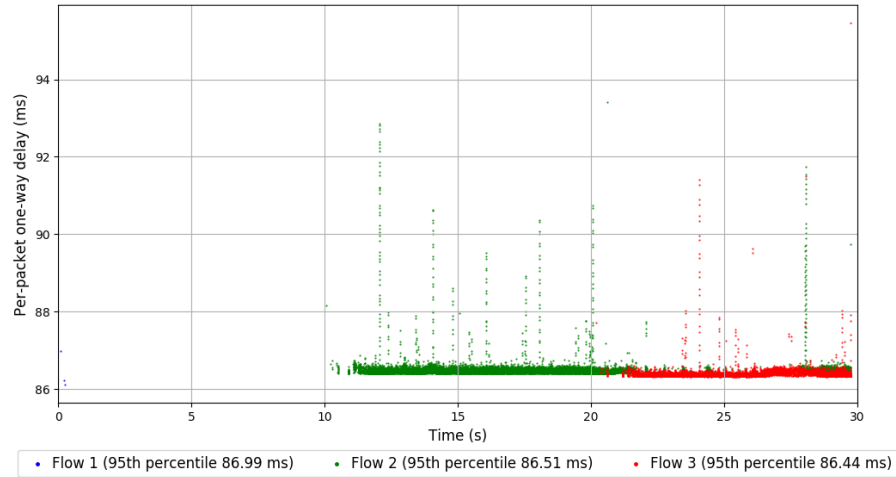
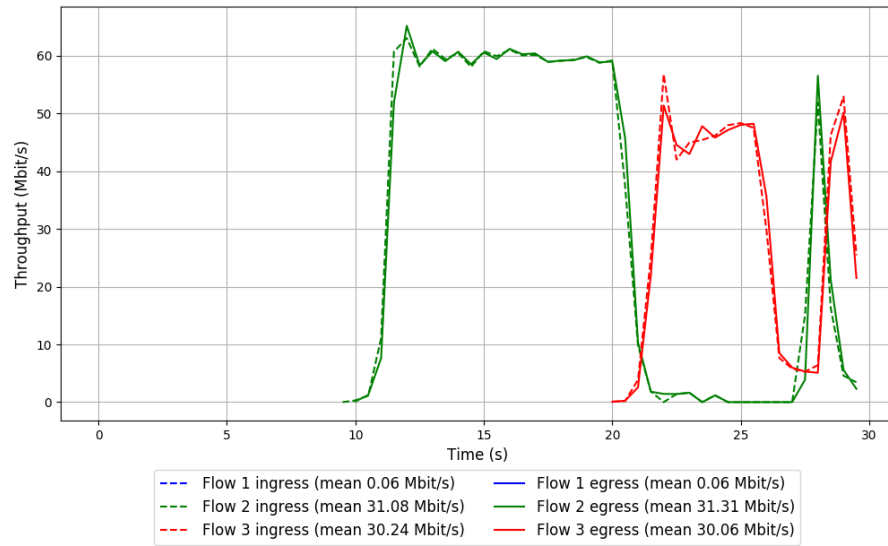
-- Flow 3:

Average throughput: 30.06 Mbit/s

95th percentile per-packet one-way delay: 86.435 ms

Loss rate: 2.29%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-09-07 22:57:12

End at: 2017-09-07 22:57:42

Below is generated by plot.py at 2017-09-08 03:31:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 29.06 Mbit/s

95th percentile per-packet one-way delay: 86.493 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.627 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 30.76 Mbit/s

95th percentile per-packet one-way delay: 85.991 ms

Loss rate: 0.00%

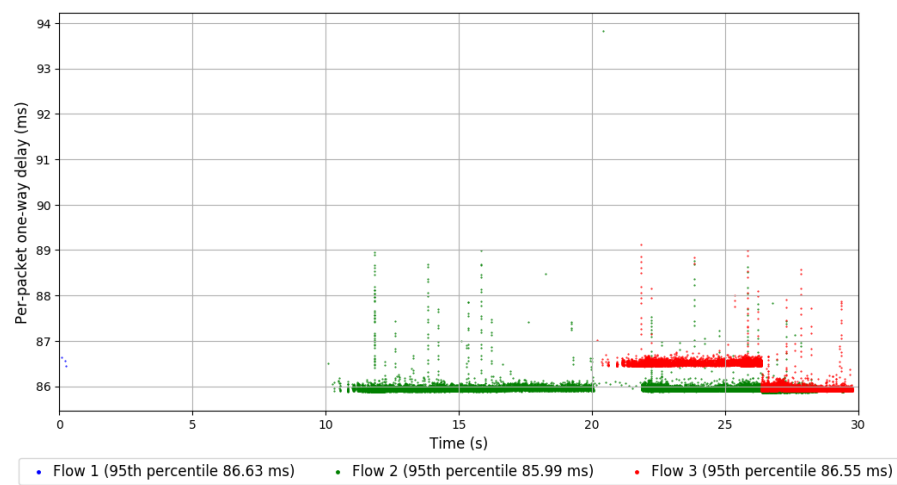
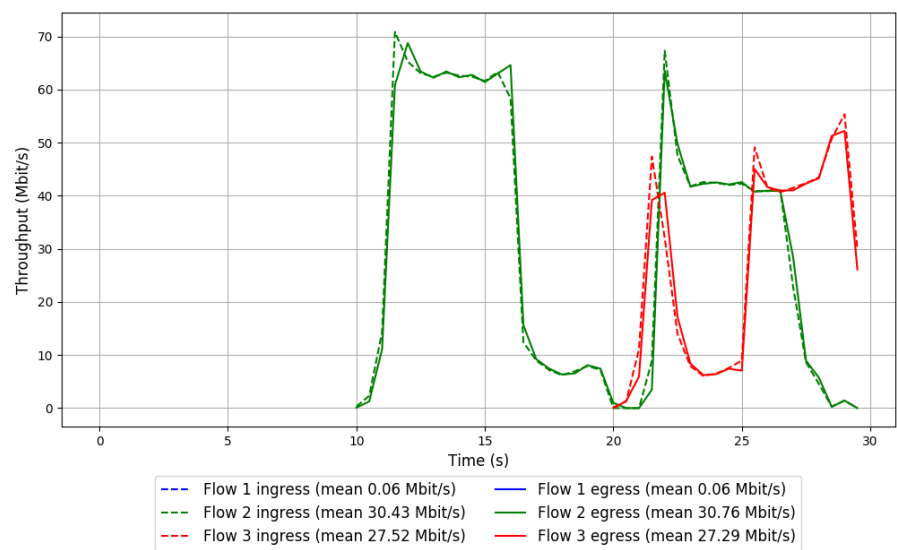
-- Flow 3:

Average throughput: 27.29 Mbit/s

95th percentile per-packet one-way delay: 86.552 ms

Loss rate: 2.60%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-09-07 23:10:30

End at: 2017-09-07 23:11:00

Below is generated by plot.py at 2017-09-08 03:31:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 24.84 Mbit/s

95th percentile per-packet one-way delay: 86.818 ms

Loss rate: 1.85%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.039 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.36 Mbit/s

95th percentile per-packet one-way delay: 86.834 ms

Loss rate: 1.65%

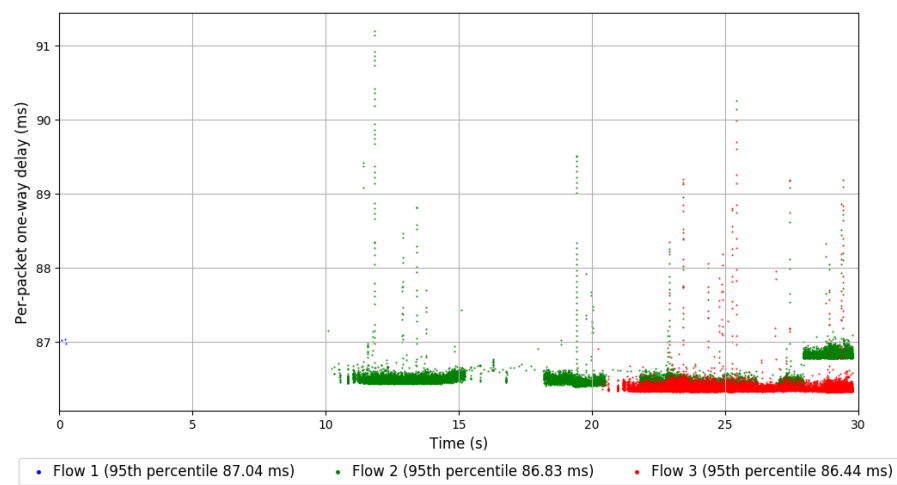
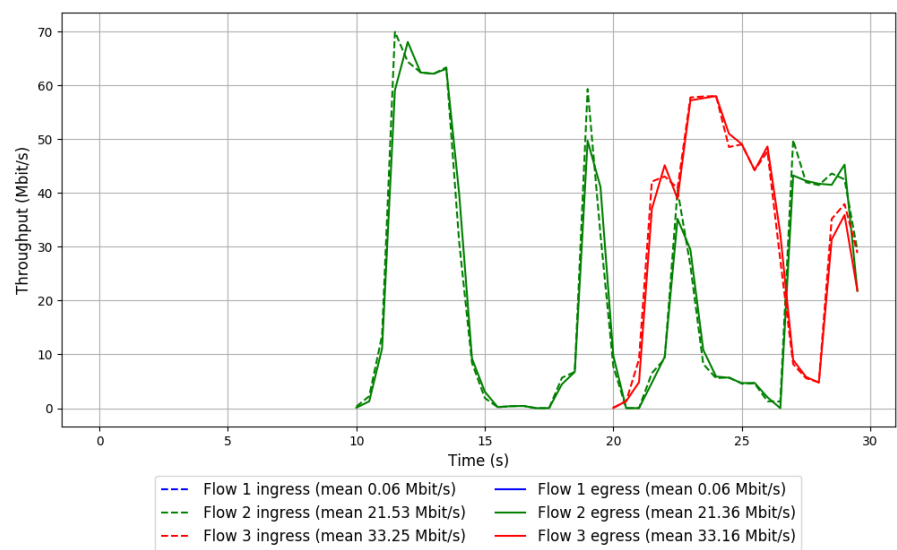
-- Flow 3:

Average throughput: 33.16 Mbit/s

95th percentile per-packet one-way delay: 86.438 ms

Loss rate: 2.12%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-09-07 23:23:30

End at: 2017-09-07 23:24:00

Below is generated by plot.py at 2017-09-08 03:31:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 29.01 Mbit/s

95th percentile per-packet one-way delay: 86.622 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.806 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.44 Mbit/s

95th percentile per-packet one-way delay: 86.505 ms

Loss rate: 0.00%

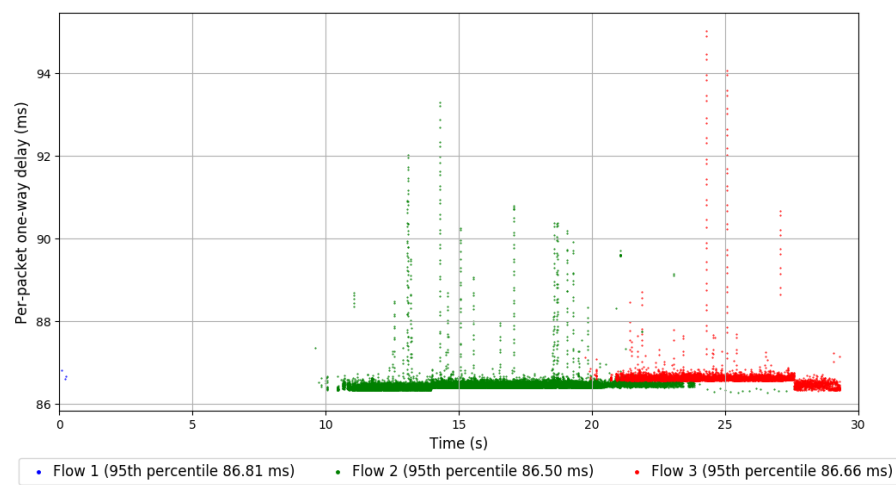
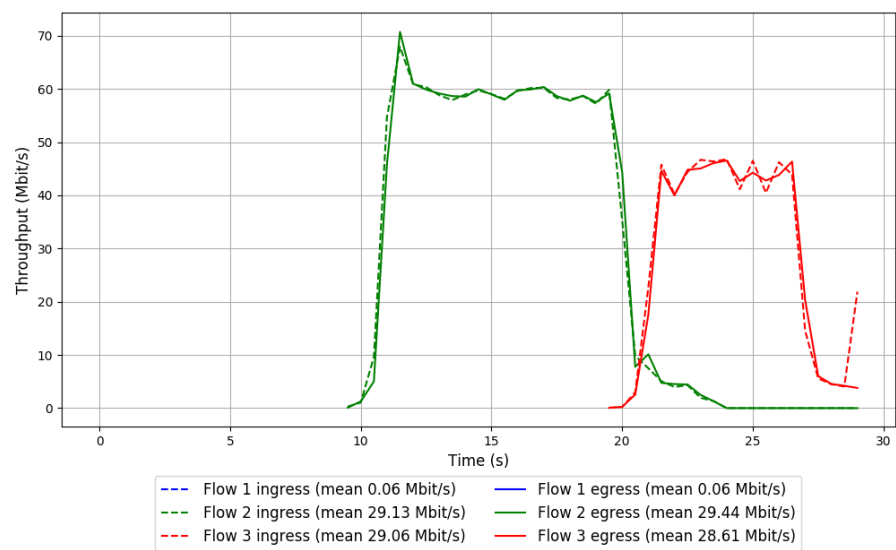
-- Flow 3:

Average throughput: 28.61 Mbit/s

95th percentile per-packet one-way delay: 86.660 ms

Loss rate: 3.32%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-09-07 23:36:35

End at: 2017-09-07 23:37:05

Below is generated by plot.py at 2017-09-08 03:31:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.97 Mbit/s

95th percentile per-packet one-way delay: 86.726 ms

Loss rate: 1.69%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.984 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.21 Mbit/s

95th percentile per-packet one-way delay: 86.731 ms

Loss rate: 2.19%

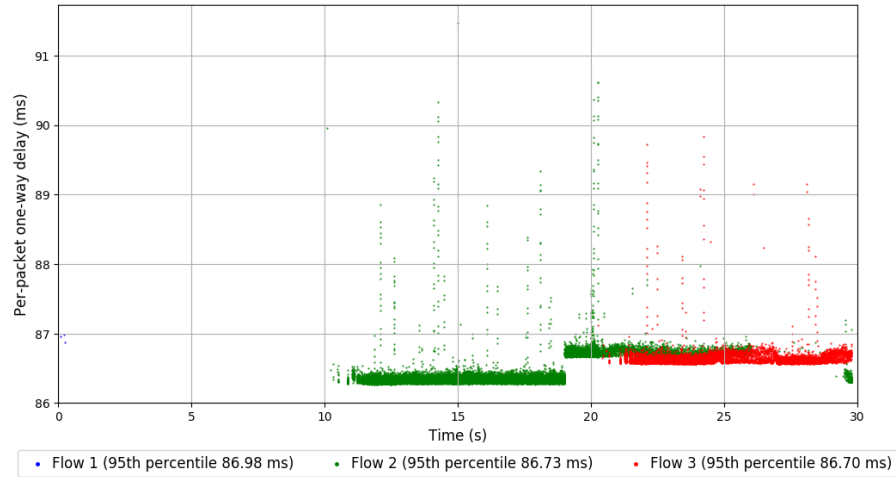
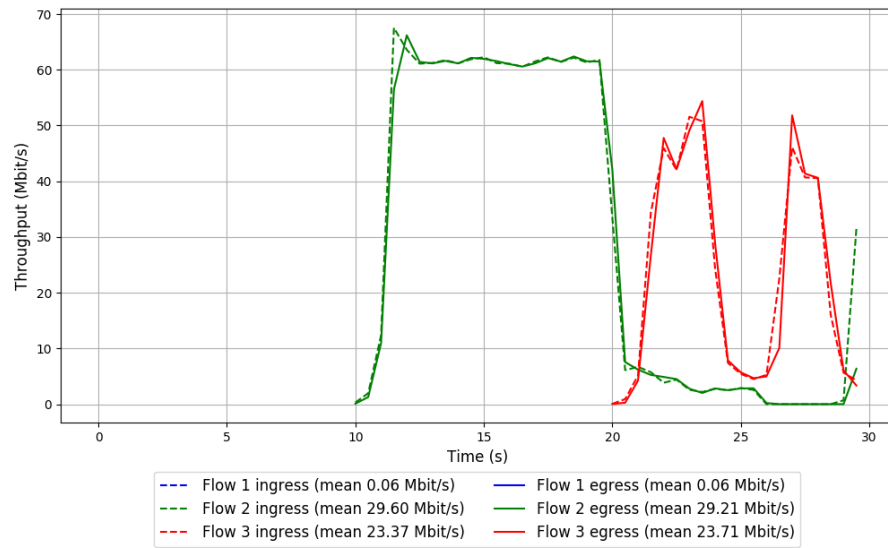
-- Flow 3:

Average throughput: 23.71 Mbit/s

95th percentile per-packet one-way delay: 86.700 ms

Loss rate: 0.39%

Run 9: Report of QUIC Cubic — Data Link

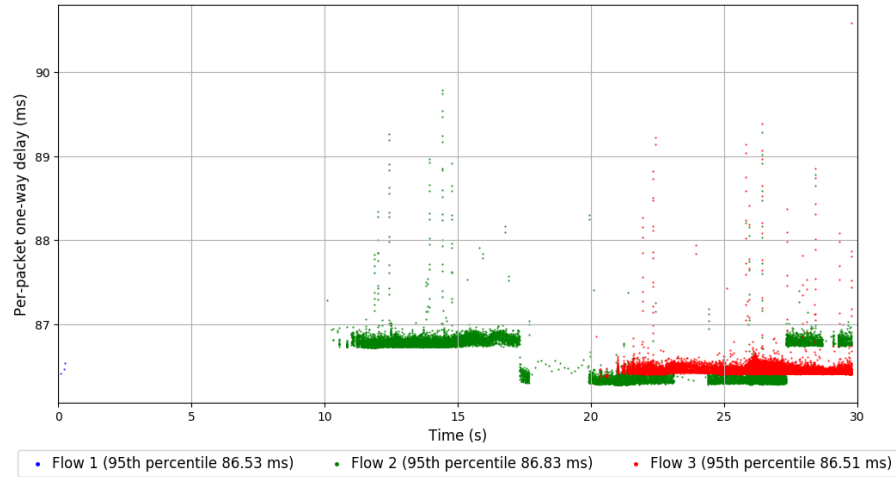
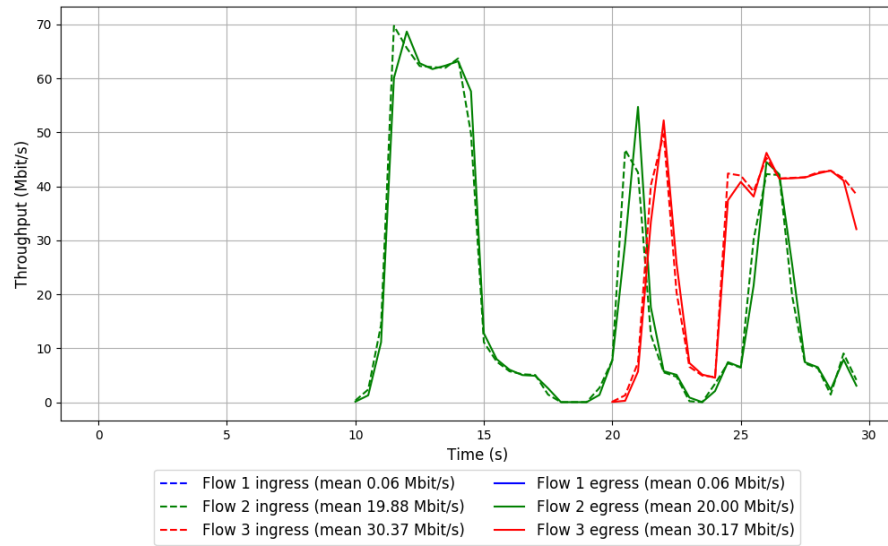


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-07 23:49:47
End at: 2017-09-07 23:50:17

# Below is generated by plot.py at 2017-09-08 03:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.02 Mbit/s
95th percentile per-packet one-way delay: 86.805 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 86.535 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 86.825 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 30.17 Mbit/s
95th percentile per-packet one-way delay: 86.510 ms
Loss rate: 2.41%
```

Run 10: Report of QUIC Cubic — Data Link

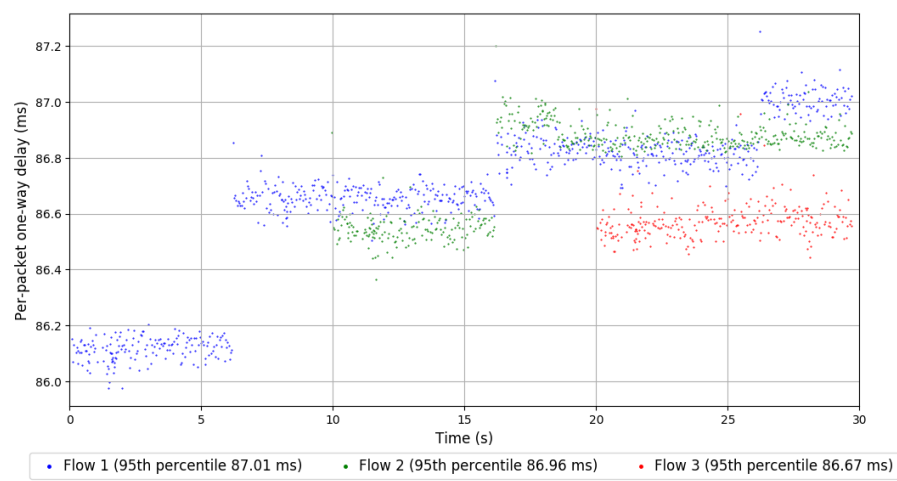
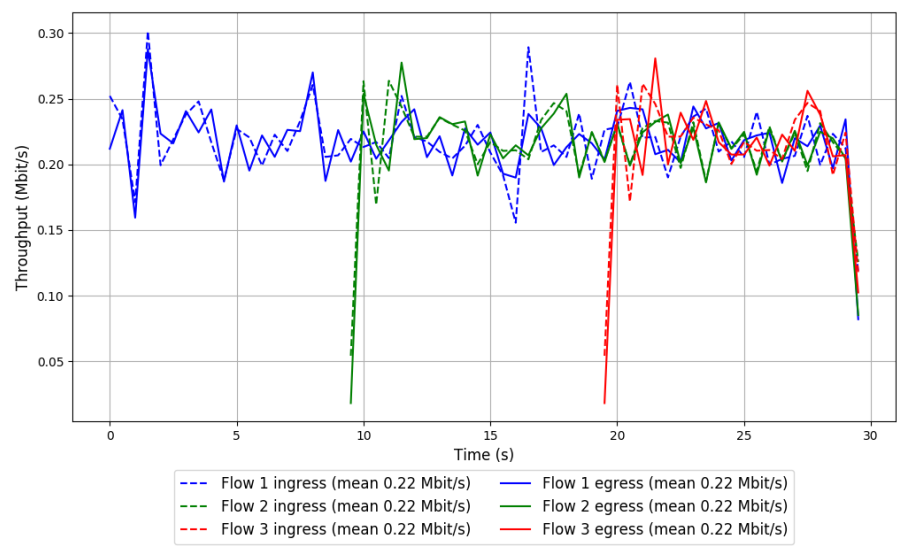


```
Run 1: Statistics of SReAM

Start at: 2017-09-07 21:52:28
End at: 2017-09-07 21:52:58

# Below is generated by plot.py at 2017-09-08 03:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.986 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.013 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.961 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.673 ms
Loss rate: 1.49%
```

Run 1: Report of SReAM — Data Link

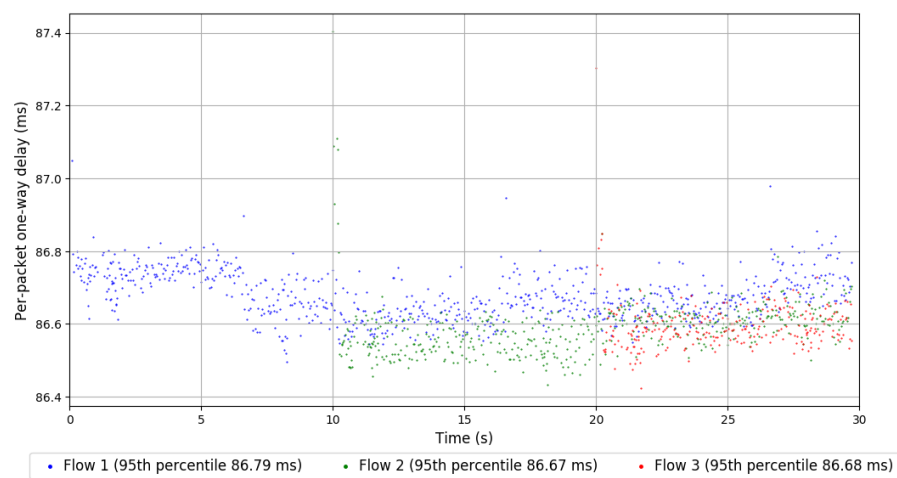
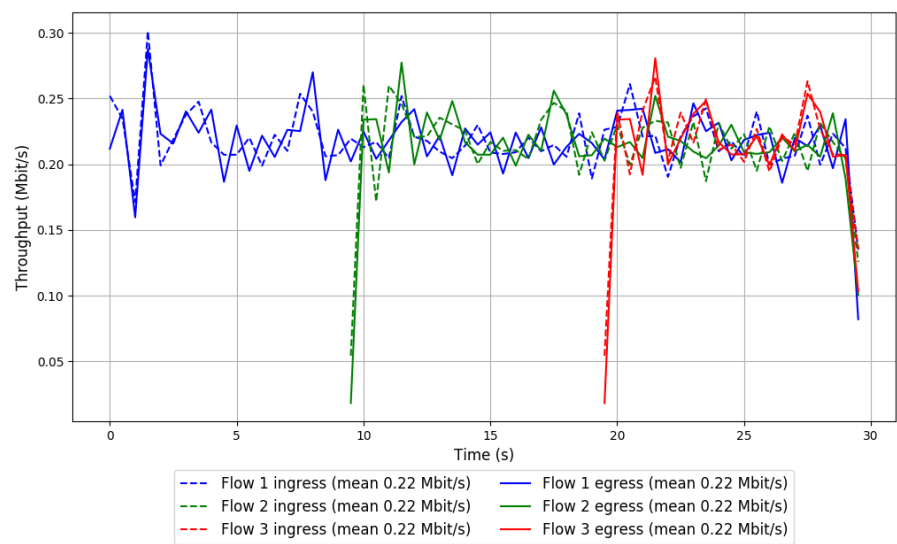


```
Run 2: Statistics of SReAM

Start at: 2017-09-07 22:05:38
End at: 2017-09-07 22:06:08

# Below is generated by plot.py at 2017-09-08 03:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.770 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.789 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.673 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.678 ms
Loss rate: 1.50%
```

Run 2: Report of SReAM — Data Link

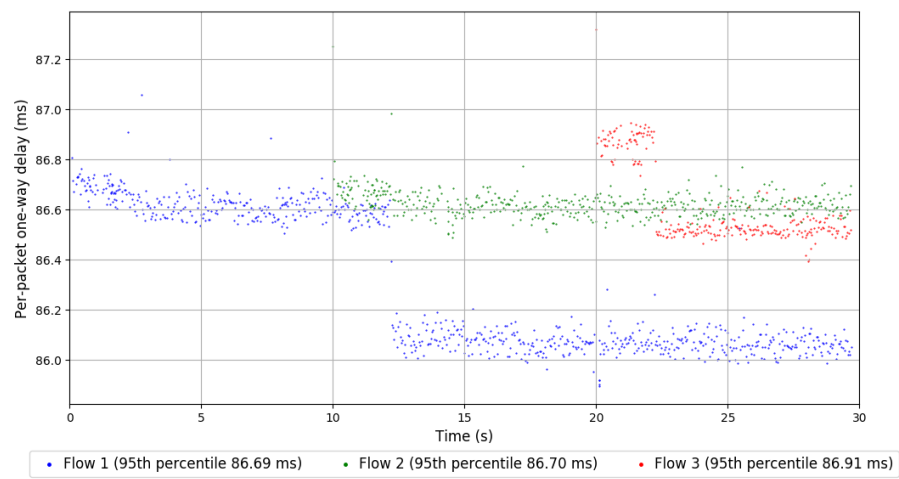
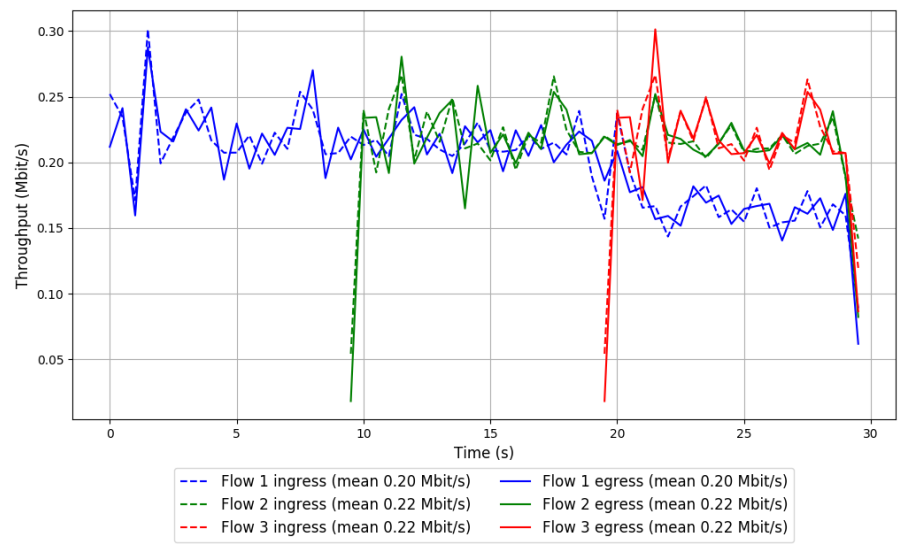


```
Run 3: Statistics of SReAM

Start at: 2017-09-07 22:18:56
End at: 2017-09-07 22:19:26

# Below is generated by plot.py at 2017-09-08 03:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 86.779 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 86.691 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.697 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.912 ms
Loss rate: 1.53%
```

Run 3: Report of SReAM — Data Link

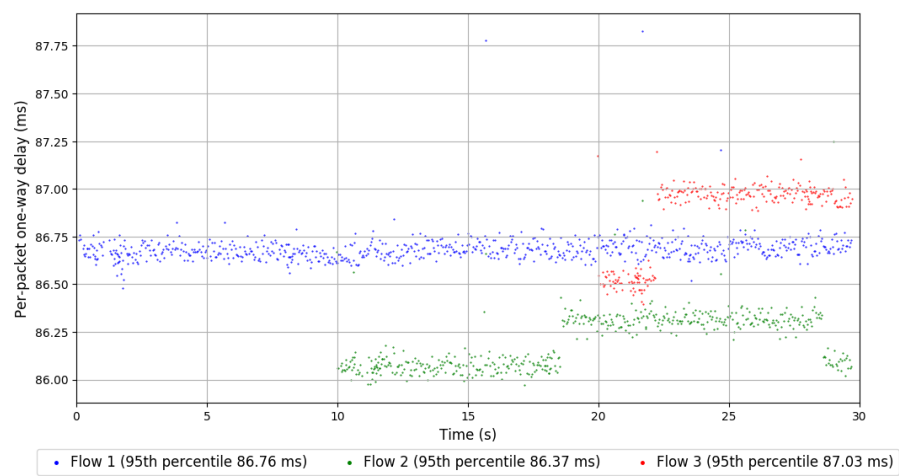
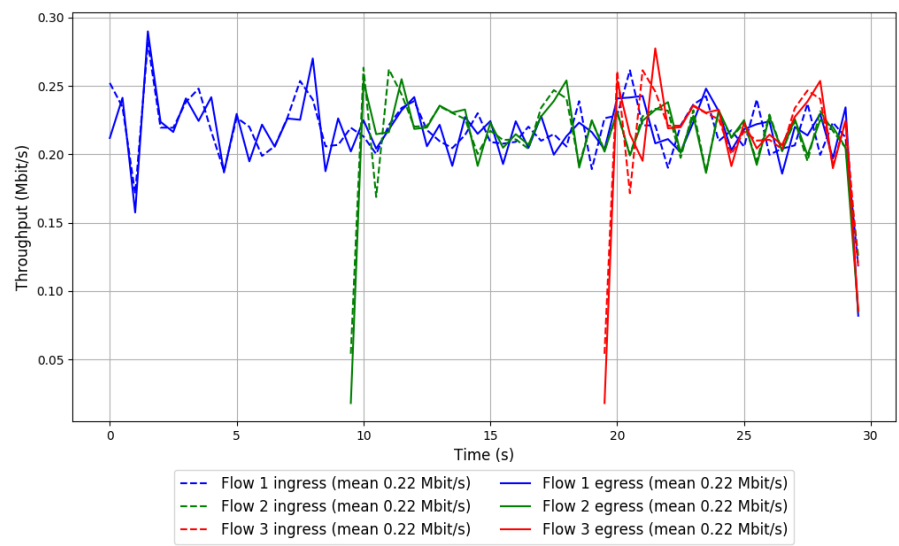


```
Run 4: Statistics of SCReAM

Start at: 2017-09-07 22:31:56
End at: 2017-09-07 22:32:26

# Below is generated by plot.py at 2017-09-08 03:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.989 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.756 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.373 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.034 ms
Loss rate: 1.50%
```

Run 4: Report of SReAM — Data Link

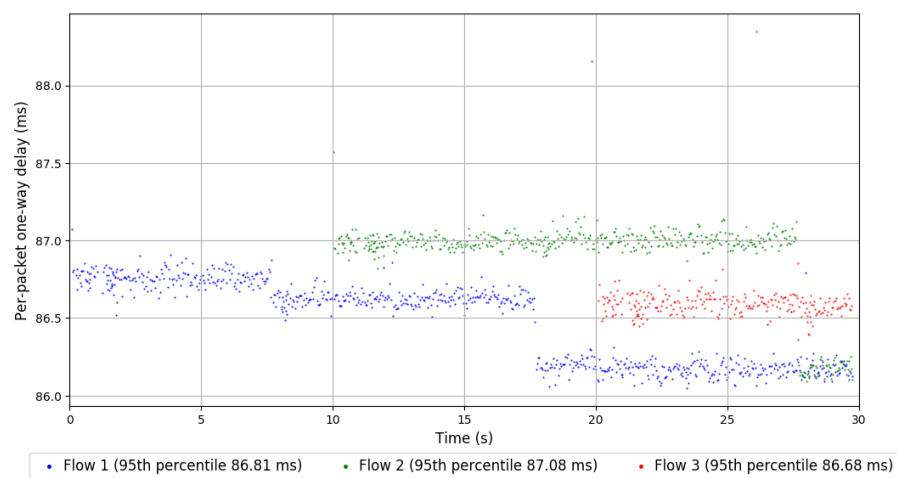
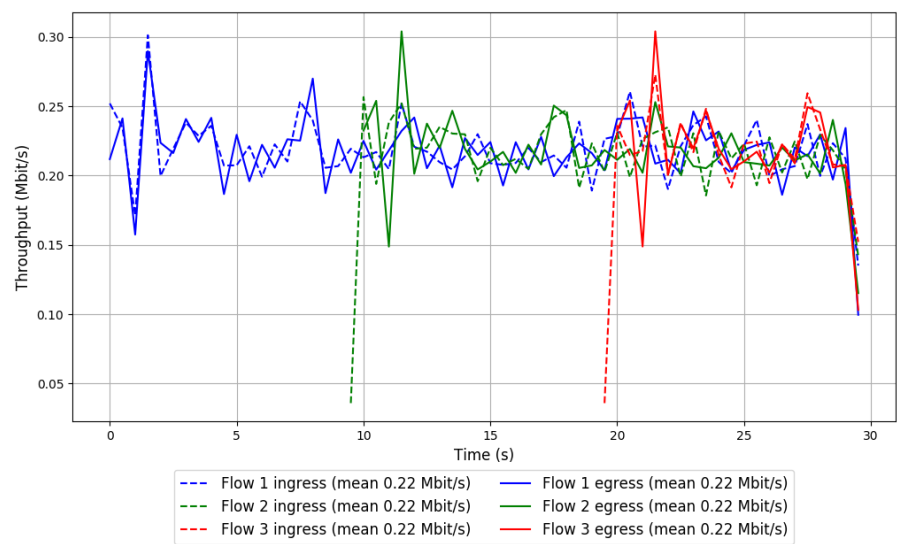


```
Run 5: Statistics of SReAM

Start at: 2017-09-07 22:44:57
End at: 2017-09-07 22:45:27

# Below is generated by plot.py at 2017-09-08 03:31:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.040 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.812 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.079 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.679 ms
Loss rate: 1.88%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-09-07 22:57:59

End at: 2017-09-07 22:58:29

Below is generated by plot.py at 2017-09-08 03:31:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 86.858 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.892 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.699 ms

Loss rate: 0.85%

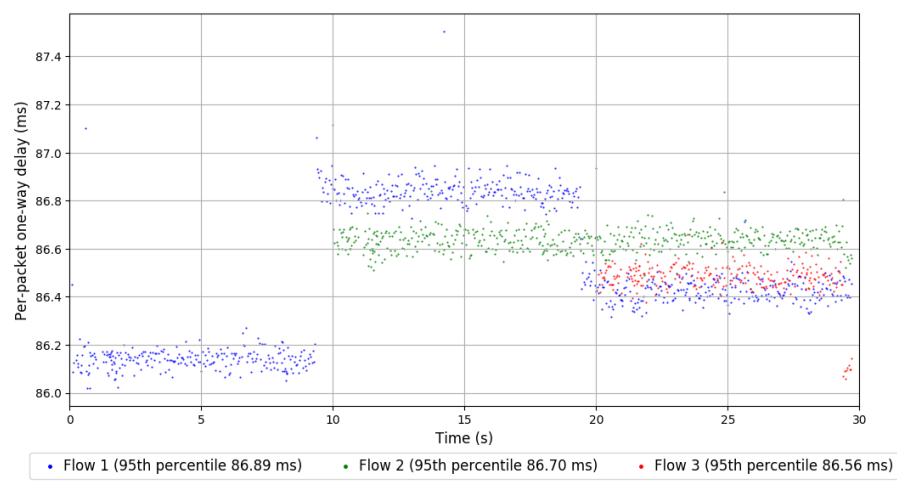
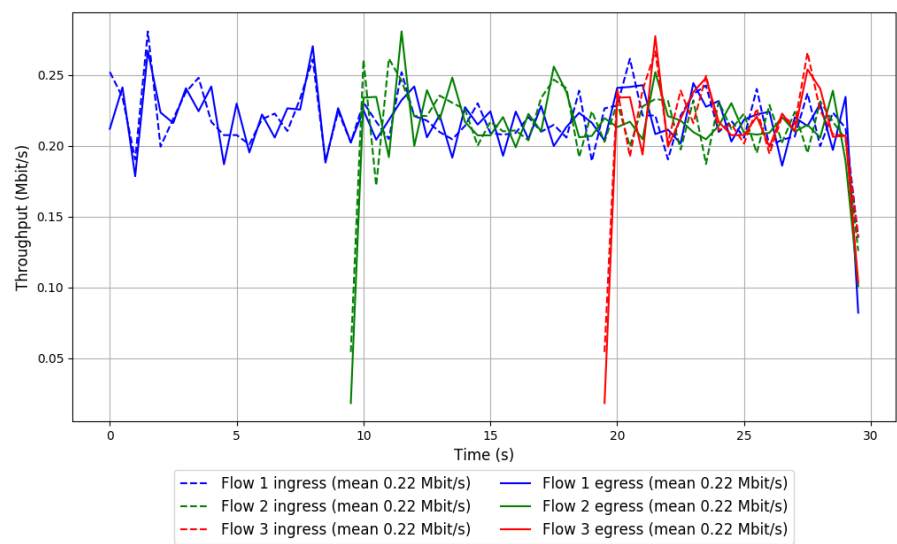
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.560 ms

Loss rate: 1.50%

Run 6: Report of SReAM — Data Link

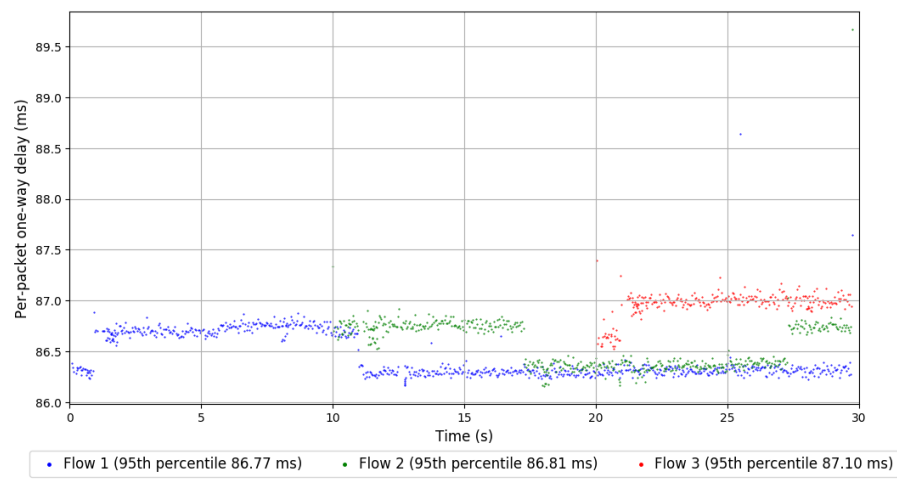
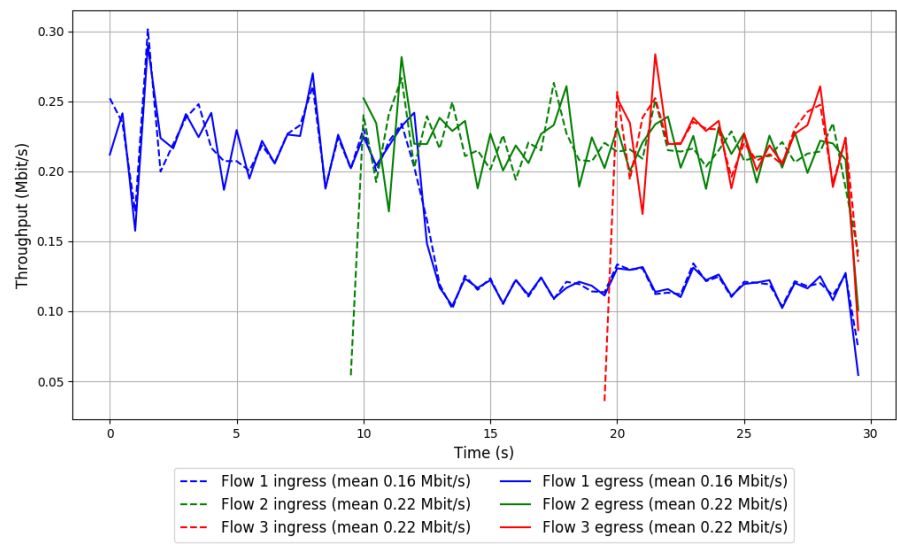


```
Run 7: Statistics of SReAM

Start at: 2017-09-07 23:11:17
End at: 2017-09-07 23:11:47

# Below is generated by plot.py at 2017-09-08 03:31:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 87.027 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 86.774 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.808 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.097 ms
Loss rate: 1.88%
```

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2017-09-07 23:24:17

End at: 2017-09-07 23:24:47

Below is generated by plot.py at 2017-09-08 03:31:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 87.084 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.103 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.003 ms

Loss rate: 0.85%

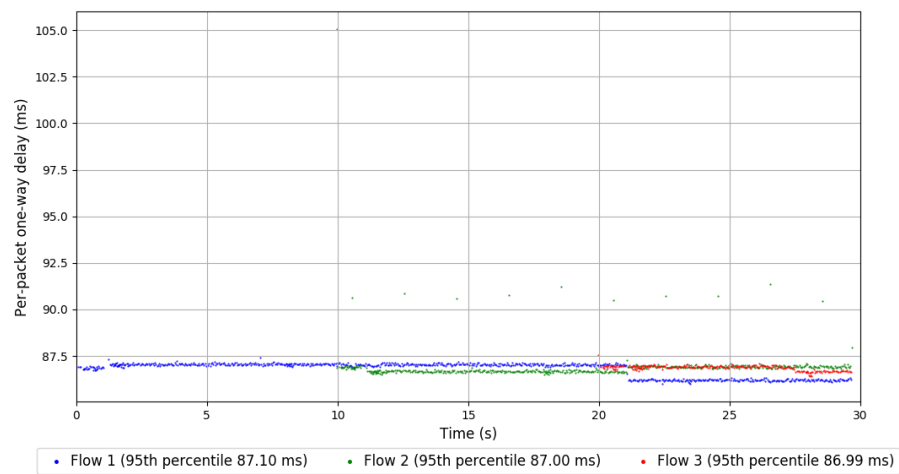
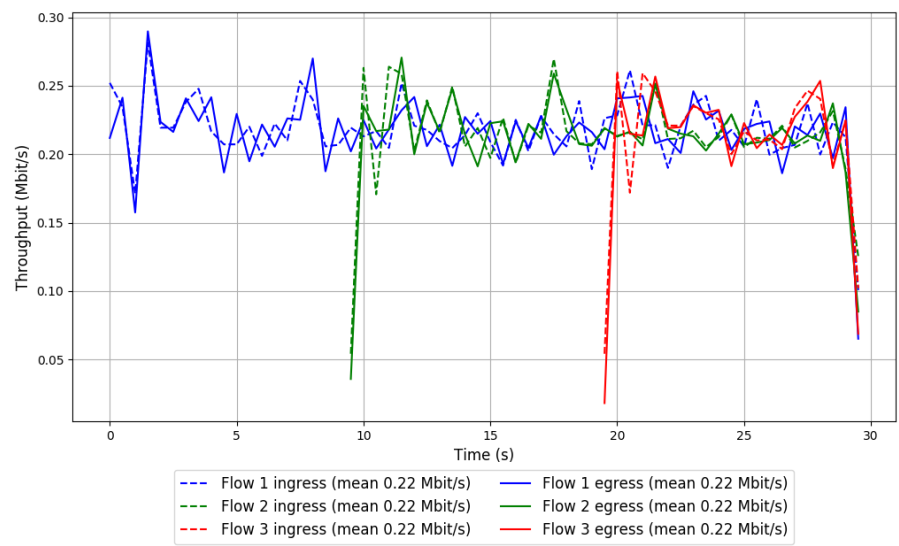
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.987 ms

Loss rate: 1.53%

Run 8: Report of SReAM — Data Link

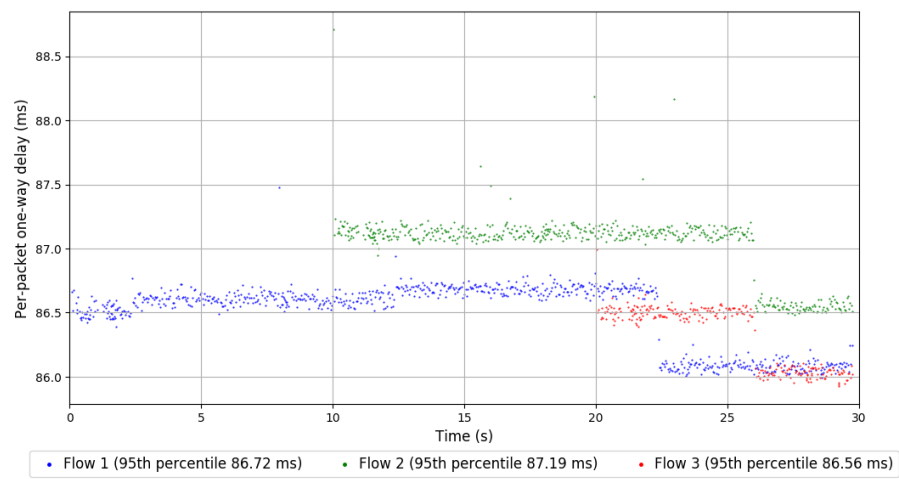
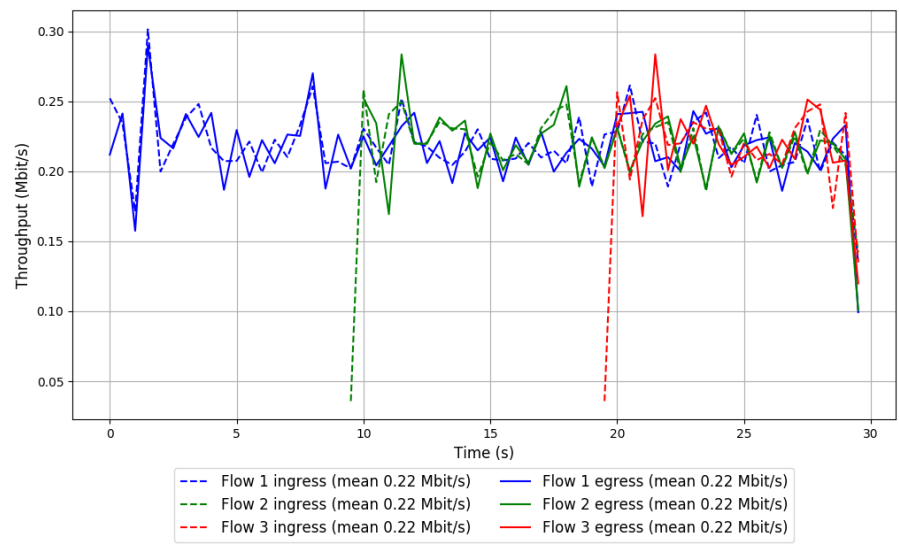


```
Run 9: Statistics of SCReAM

Start at: 2017-09-07 23:37:22
End at: 2017-09-07 23:37:52

# Below is generated by plot.py at 2017-09-08 03:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.167 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.722 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.194 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.555 ms
Loss rate: 1.50%
```

Run 9: Report of SReAM — Data Link

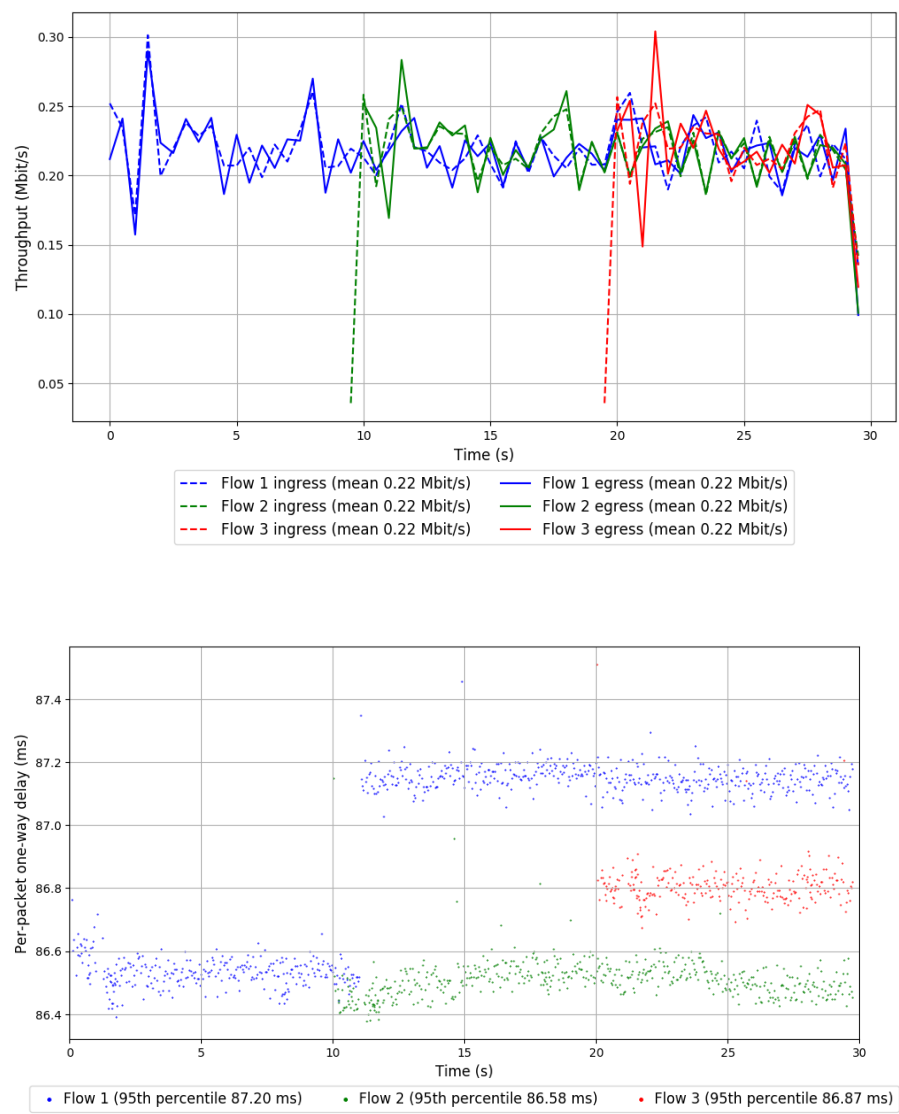


```
Run 10: Statistics of SReAM

Start at: 2017-09-07 23:50:33
End at: 2017-09-07 23:51:03

# Below is generated by plot.py at 2017-09-08 03:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.189 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.200 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.582 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.873 ms
Loss rate: 1.50%
```

Run 10: Report of SCReAM — Data Link

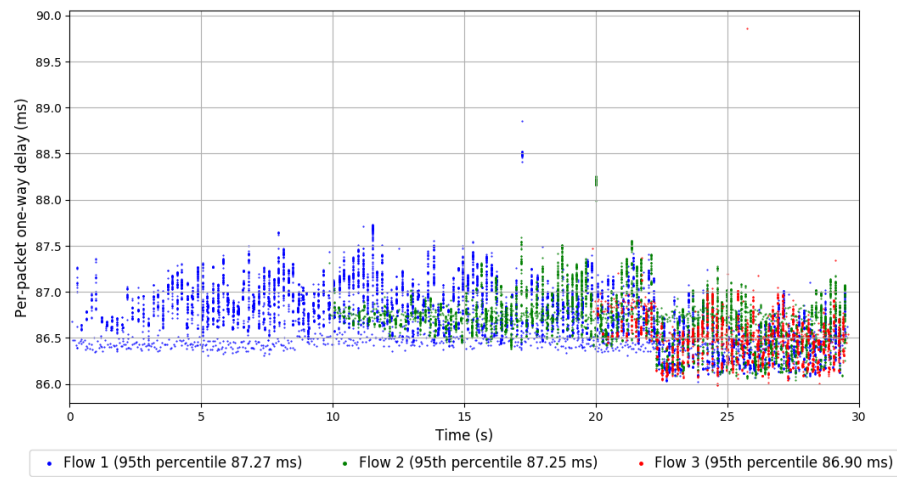
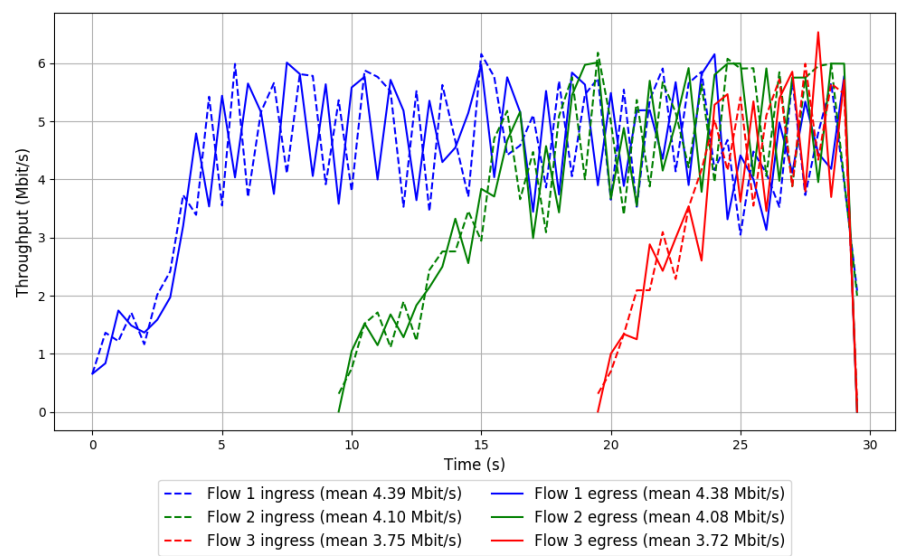


```
Run 1: Statistics of Sprout

Start at: 2017-09-07 22:00:46
End at: 2017-09-07 22:01:16

# Below is generated by plot.py at 2017-09-08 03:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 87.241 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 87.269 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 4.08 Mbit/s
95th percentile per-packet one-way delay: 87.249 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 3.72 Mbit/s
95th percentile per-packet one-way delay: 86.901 ms
Loss rate: 2.56%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-09-07 22:14:01

End at: 2017-09-07 22:14:31

Below is generated by plot.py at 2017-09-08 03:31:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.26 Mbit/s

95th percentile per-packet one-way delay: 87.269 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 87.263 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 87.241 ms

Loss rate: 1.35%

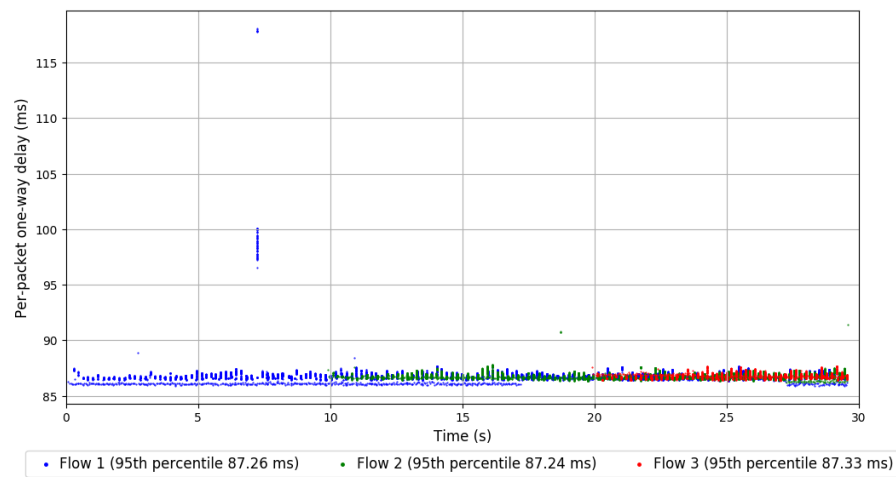
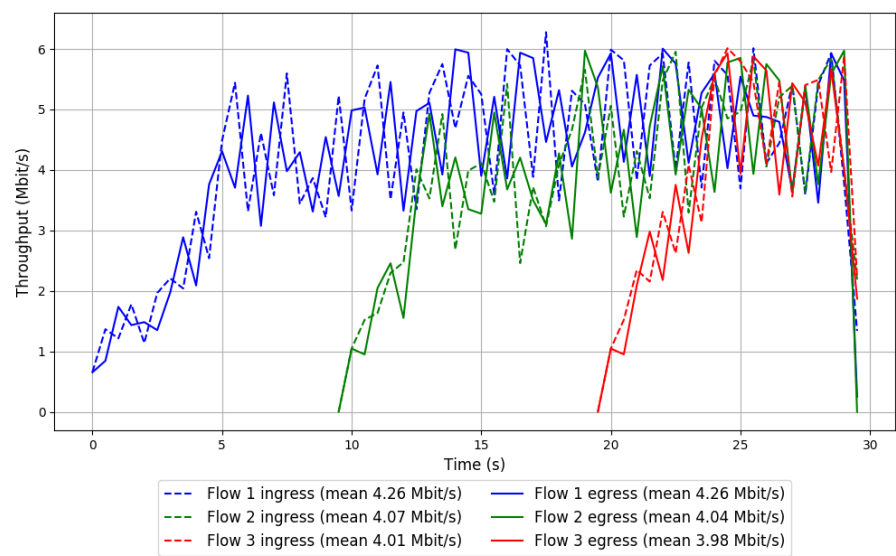
-- Flow 3:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 87.330 ms

Loss rate: 2.82%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-09-07 22:27:04

End at: 2017-09-07 22:27:34

Below is generated by plot.py at 2017-09-08 03:31:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.34 Mbit/s

95th percentile per-packet one-way delay: 87.186 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 87.192 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 87.203 ms

Loss rate: 1.17%

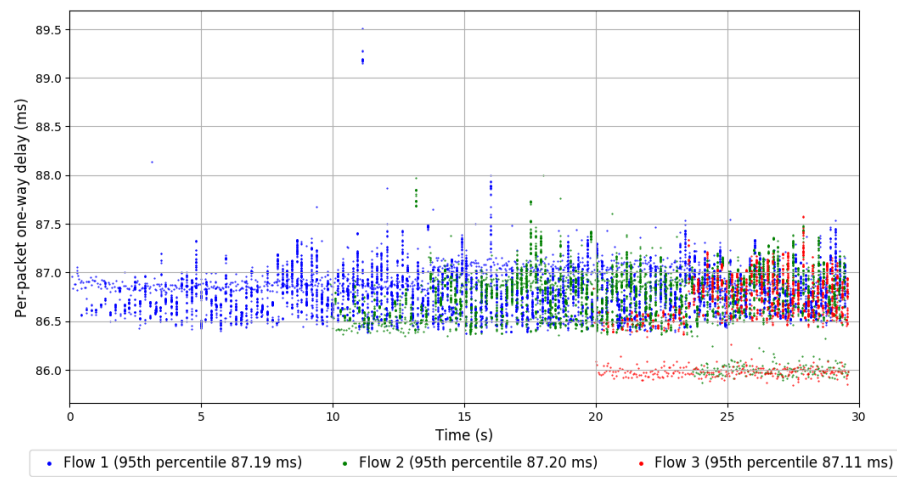
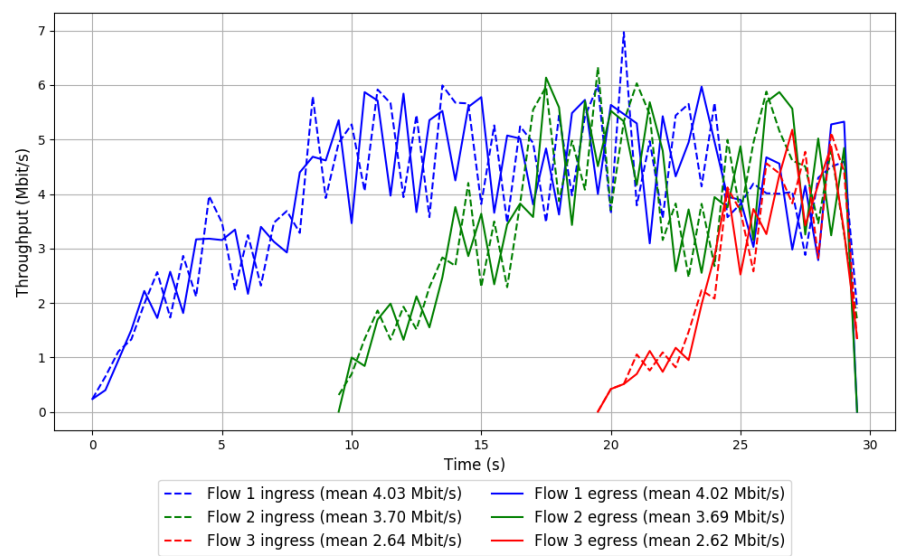
-- Flow 3:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 87.109 ms

Loss rate: 2.51%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-09-07 22:40:10

End at: 2017-09-07 22:40:40

Below is generated by plot.py at 2017-09-08 03:31:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.03 Mbit/s

95th percentile per-packet one-way delay: 87.271 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 87.273 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 4.28 Mbit/s

95th percentile per-packet one-way delay: 87.213 ms

Loss rate: 0.71%

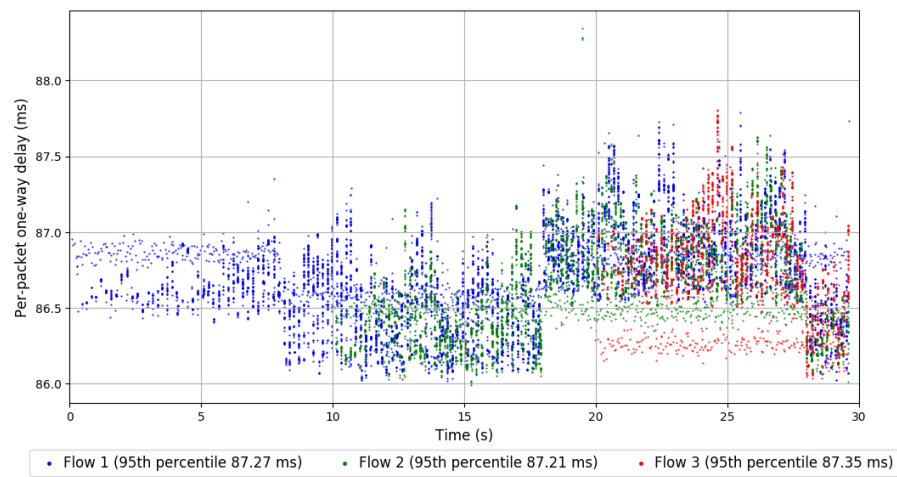
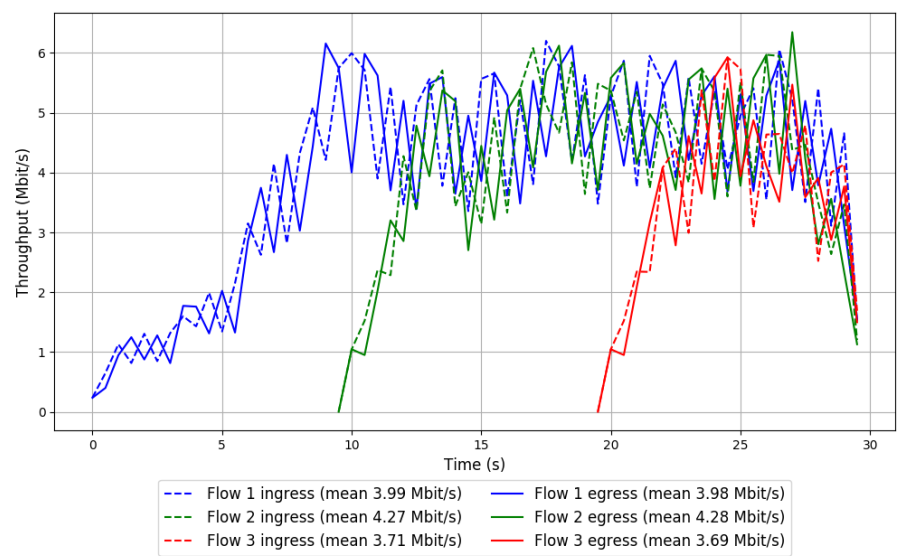
-- Flow 3:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 87.347 ms

Loss rate: 2.31%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-09-07 22:53:07

End at: 2017-09-07 22:53:37

Below is generated by plot.py at 2017-09-08 03:31:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.68 Mbit/s

95th percentile per-packet one-way delay: 87.494 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 4.34 Mbit/s

95th percentile per-packet one-way delay: 87.496 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 3.84 Mbit/s

95th percentile per-packet one-way delay: 87.533 ms

Loss rate: 1.05%

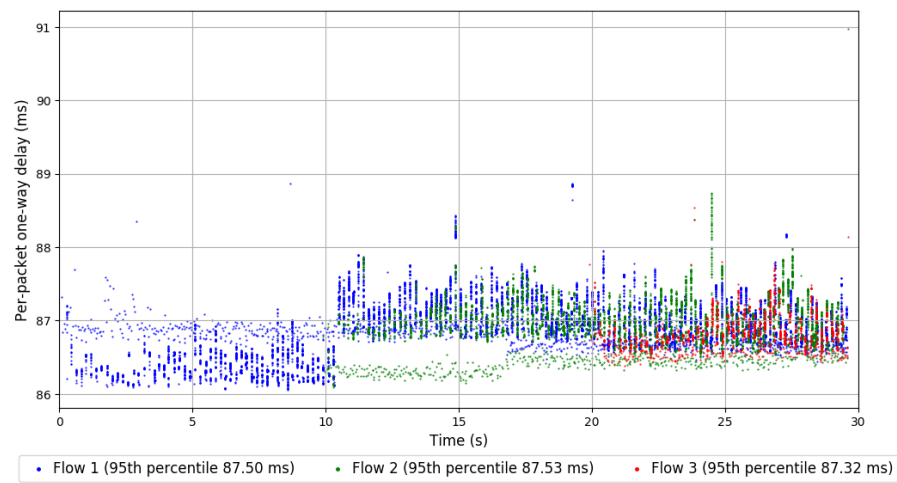
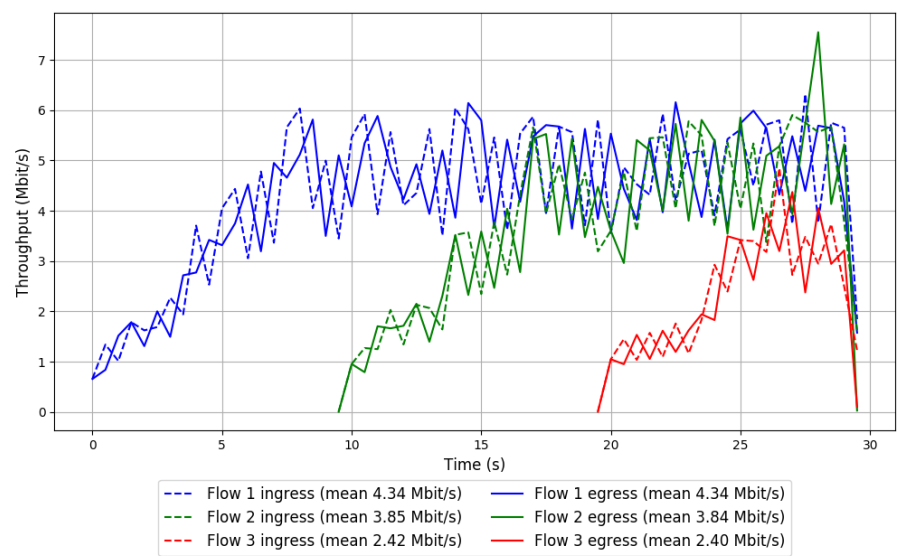
-- Flow 3:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 87.316 ms

Loss rate: 2.52%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-09-07 23:06:25

End at: 2017-09-07 23:06:55

Below is generated by plot.py at 2017-09-08 03:31:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.81 Mbit/s

95th percentile per-packet one-way delay: 87.332 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 4.50 Mbit/s

95th percentile per-packet one-way delay: 87.411 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 87.083 ms

Loss rate: 1.03%

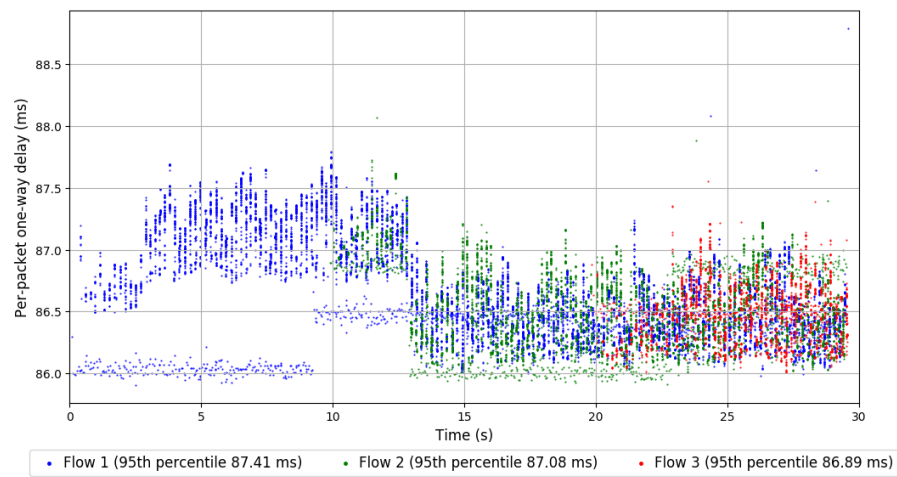
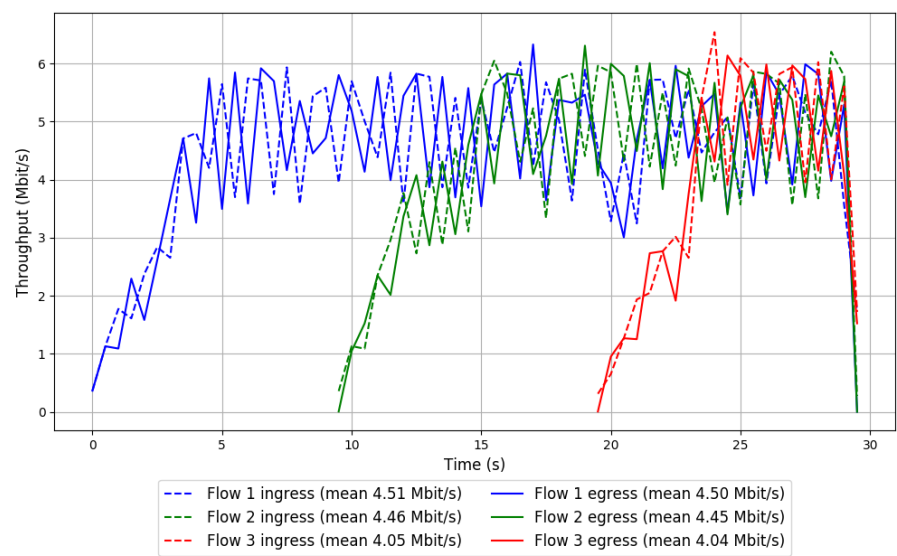
-- Flow 3:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 86.889 ms

Loss rate: 2.15%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-09-07 23:19:24

End at: 2017-09-07 23:19:54

Below is generated by plot.py at 2017-09-08 03:31:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 87.206 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 87.217 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 3.91 Mbit/s

95th percentile per-packet one-way delay: 87.228 ms

Loss rate: 0.91%

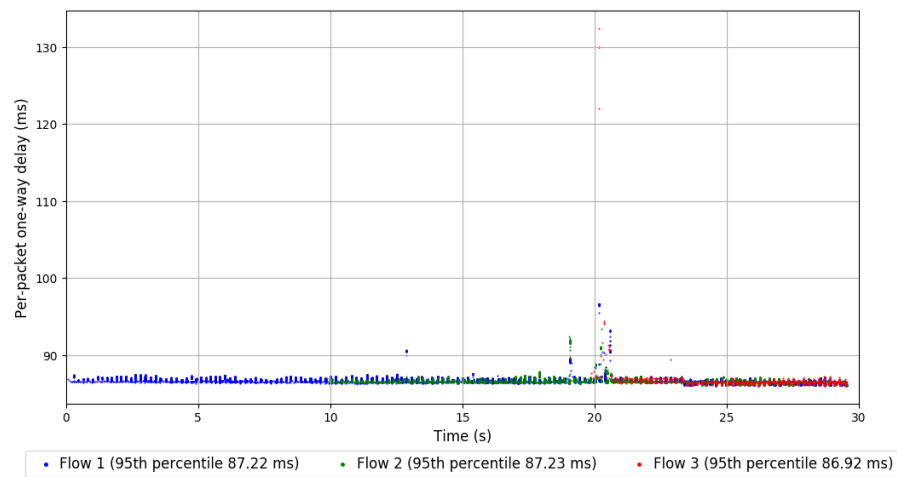
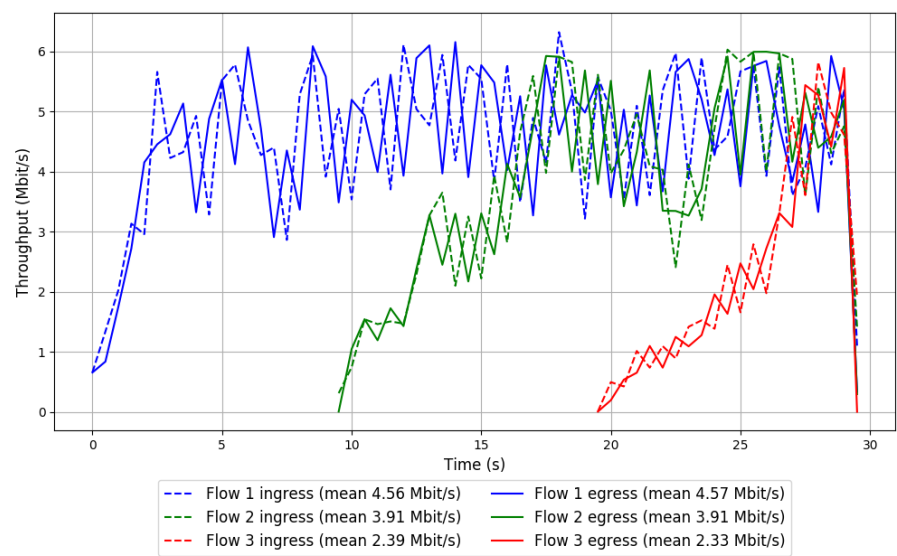
-- Flow 3:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 86.925 ms

Loss rate: 4.48%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-09-07 23:32:32

End at: 2017-09-07 23:33:02

Below is generated by plot.py at 2017-09-08 03:31:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 87.211 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 4.31 Mbit/s

95th percentile per-packet one-way delay: 87.226 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 87.150 ms

Loss rate: 1.08%

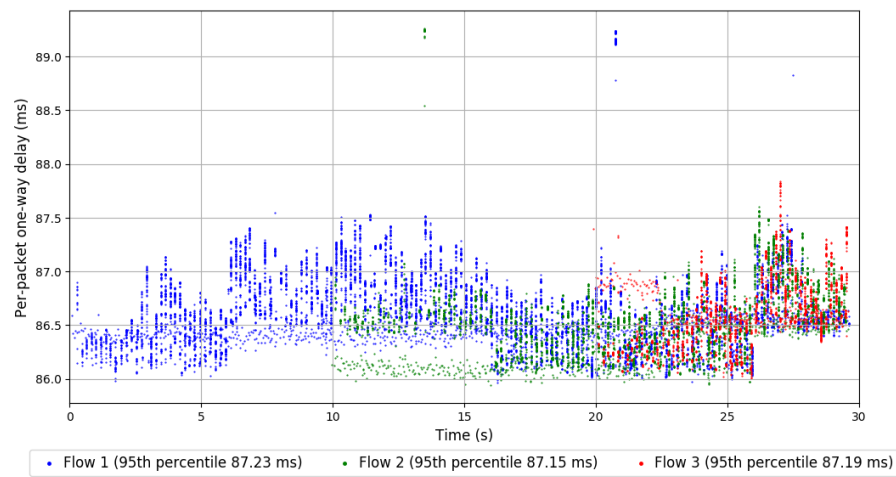
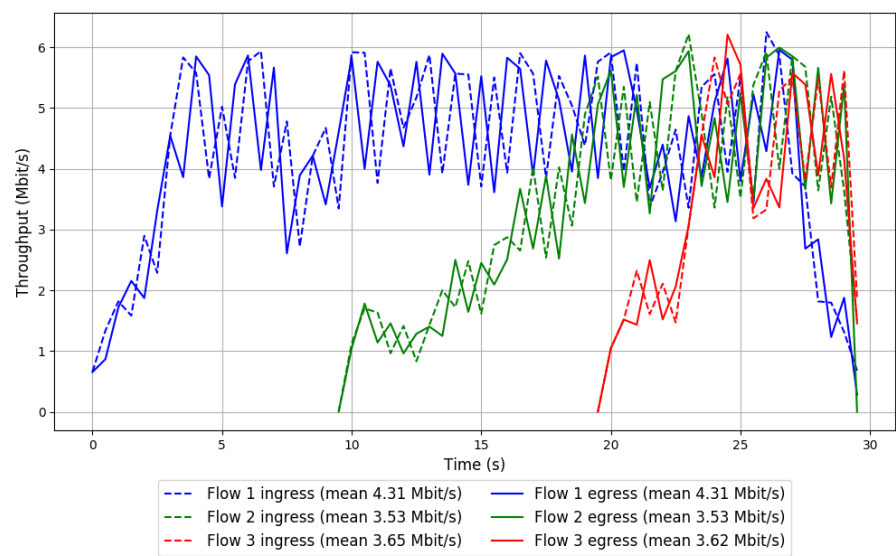
-- Flow 3:

Average throughput: 3.62 Mbit/s

95th percentile per-packet one-way delay: 87.192 ms

Loss rate: 2.59%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-09-07 23:45:41

End at: 2017-09-07 23:46:11

Below is generated by plot.py at 2017-09-08 03:31:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.15 Mbit/s

95th percentile per-packet one-way delay: 87.320 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 4.30 Mbit/s

95th percentile per-packet one-way delay: 87.266 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 4.61 Mbit/s

95th percentile per-packet one-way delay: 87.380 ms

Loss rate: 1.12%

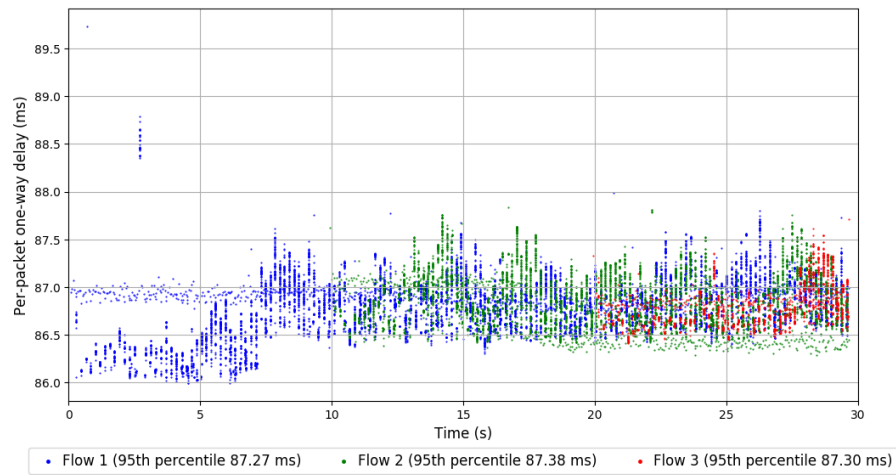
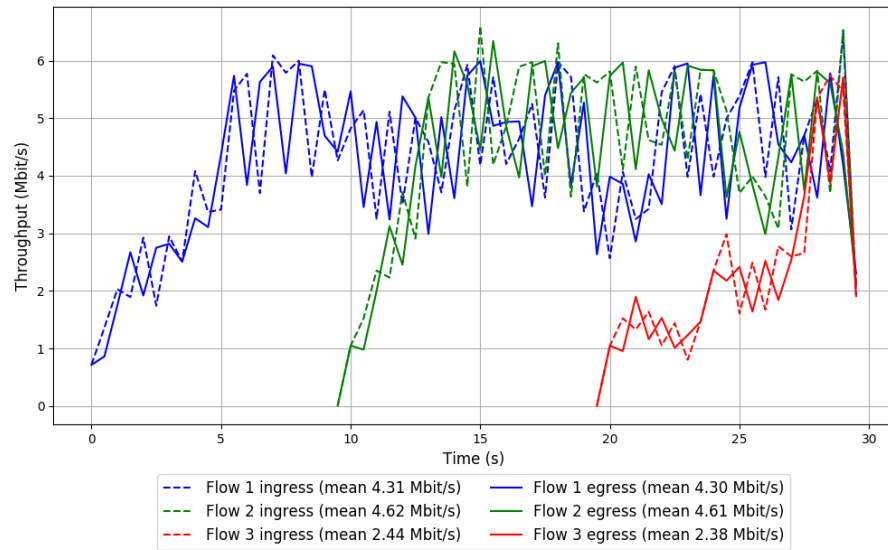
-- Flow 3:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 87.297 ms

Loss rate: 3.75%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-09-07 23:58:45

End at: 2017-09-07 23:59:15

Below is generated by plot.py at 2017-09-08 03:31:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.38 Mbit/s

95th percentile per-packet one-way delay: 87.301 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 87.290 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 87.343 ms

Loss rate: 1.06%

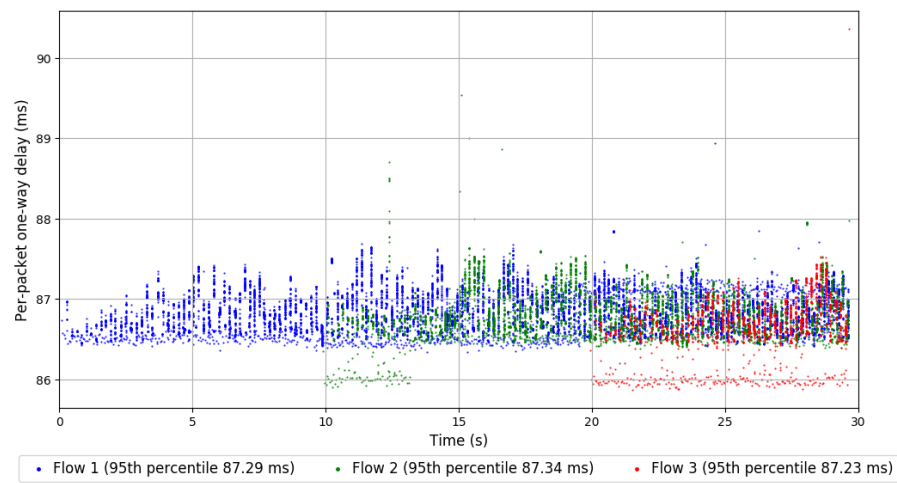
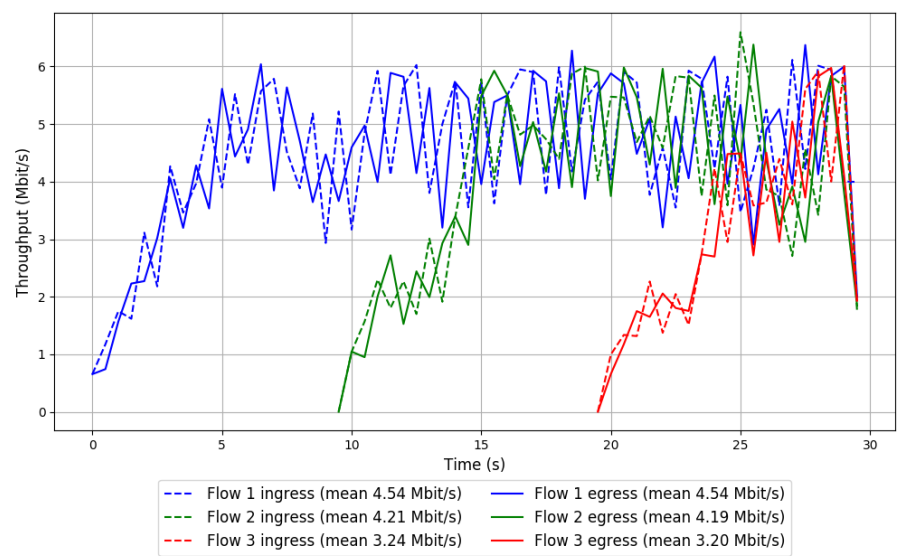
-- Flow 3:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 87.226 ms

Loss rate: 2.92%

Run 10: Report of Sprout — Data Link

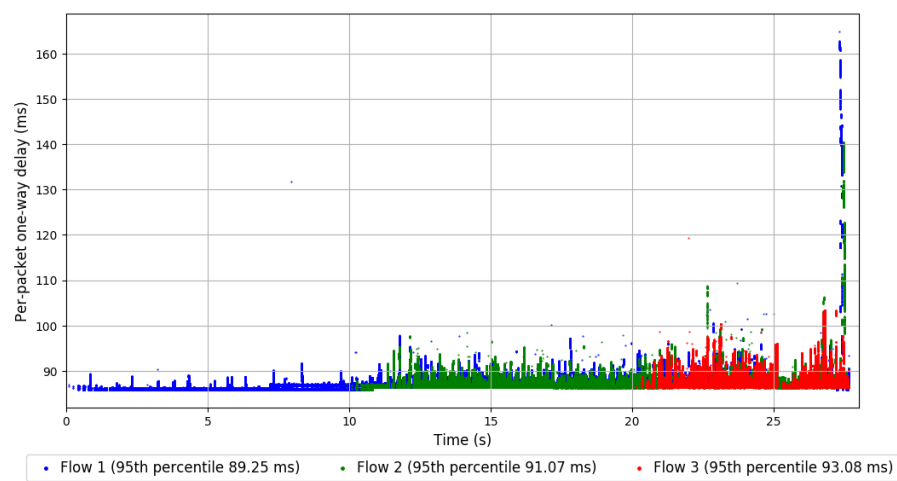
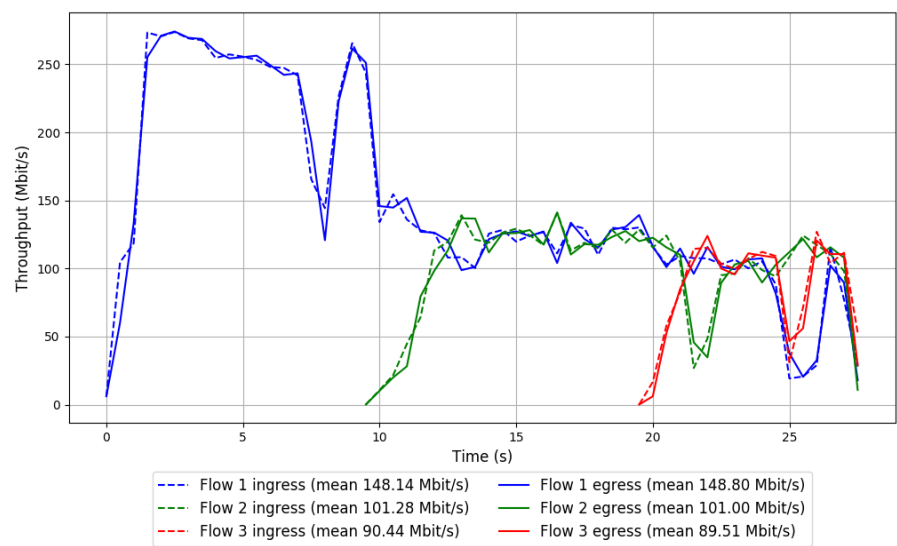


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-07 21:55:45
End at: 2017-09-07 21:56:15

# Below is generated by plot.py at 2017-09-08 03:32:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 238.69 Mbit/s
95th percentile per-packet one-way delay: 90.397 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 148.80 Mbit/s
95th percentile per-packet one-way delay: 89.247 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 101.00 Mbit/s
95th percentile per-packet one-way delay: 91.071 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 89.51 Mbit/s
95th percentile per-packet one-way delay: 93.083 ms
Loss rate: 3.21%
```

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

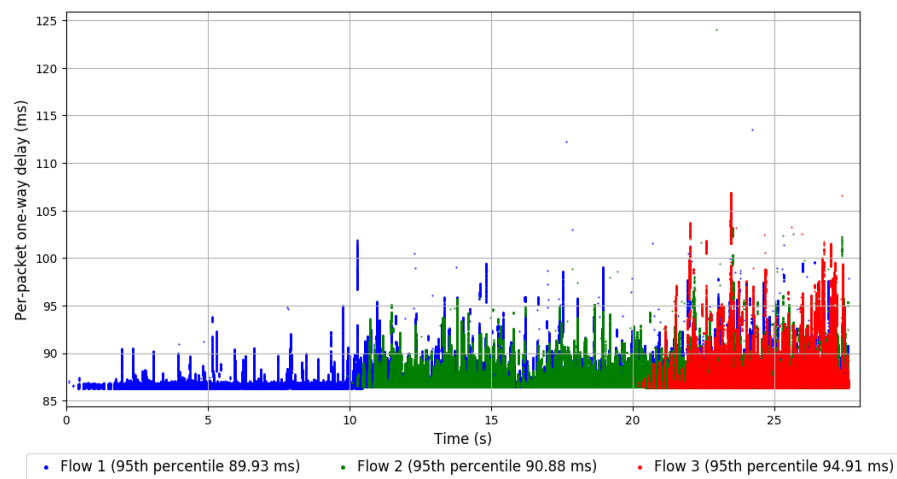
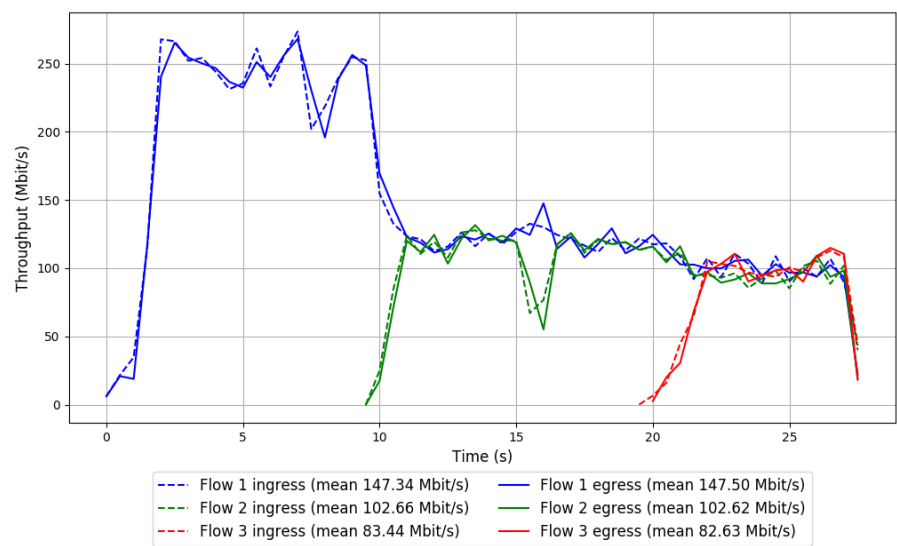


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-07 22:08:55
End at: 2017-09-07 22:09:25

# Below is generated by plot.py at 2017-09-08 03:32:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.23 Mbit/s
95th percentile per-packet one-way delay: 90.928 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 147.50 Mbit/s
95th percentile per-packet one-way delay: 89.928 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 102.62 Mbit/s
95th percentile per-packet one-way delay: 90.884 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 82.63 Mbit/s
95th percentile per-packet one-way delay: 94.909 ms
Loss rate: 3.08%
```

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

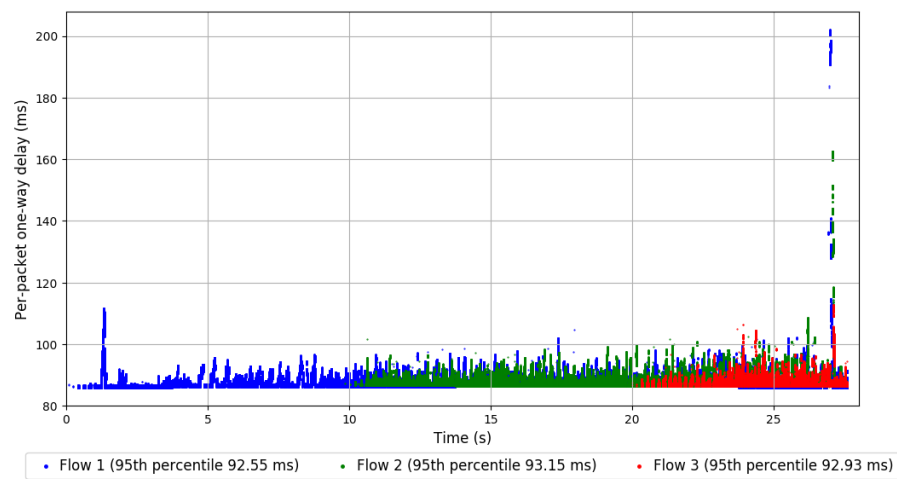
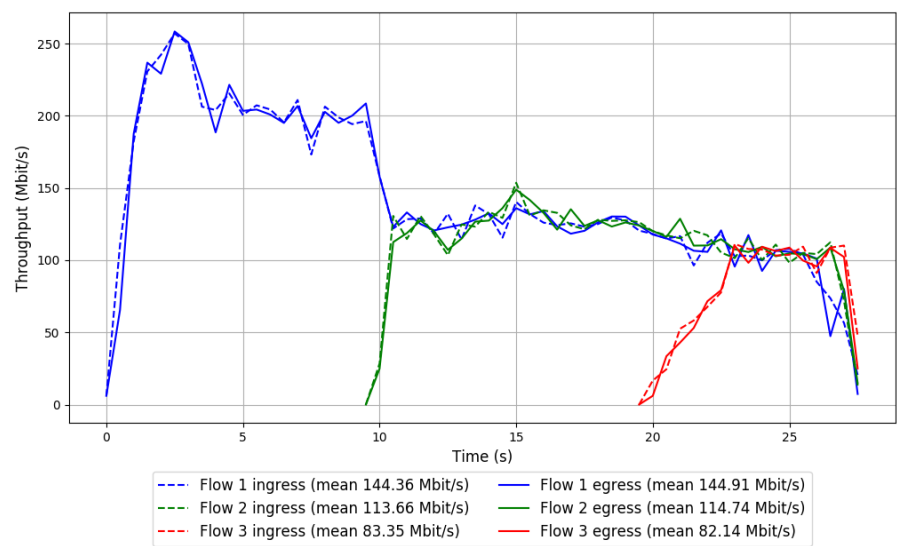


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-09-07 22:22:12
End at: 2017-09-07 22:22:42

# Below is generated by plot.py at 2017-09-08 03:34:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.34 Mbit/s
95th percentile per-packet one-way delay: 92.767 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 144.91 Mbit/s
95th percentile per-packet one-way delay: 92.549 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 114.74 Mbit/s
95th percentile per-packet one-way delay: 93.151 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 82.14 Mbit/s
95th percentile per-packet one-way delay: 92.931 ms
Loss rate: 3.64%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-09-07 22:35:14

End at: 2017-09-07 22:35:44

Below is generated by plot.py at 2017-09-08 03:34:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 235.12 Mbit/s

95th percentile per-packet one-way delay: 90.906 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 143.39 Mbit/s

95th percentile per-packet one-way delay: 90.375 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 109.21 Mbit/s

95th percentile per-packet one-way delay: 91.711 ms

Loss rate: 1.16%

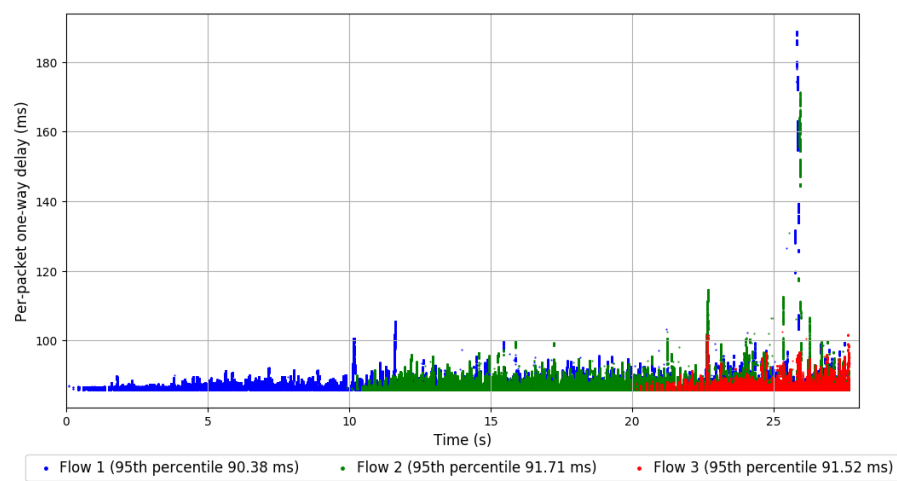
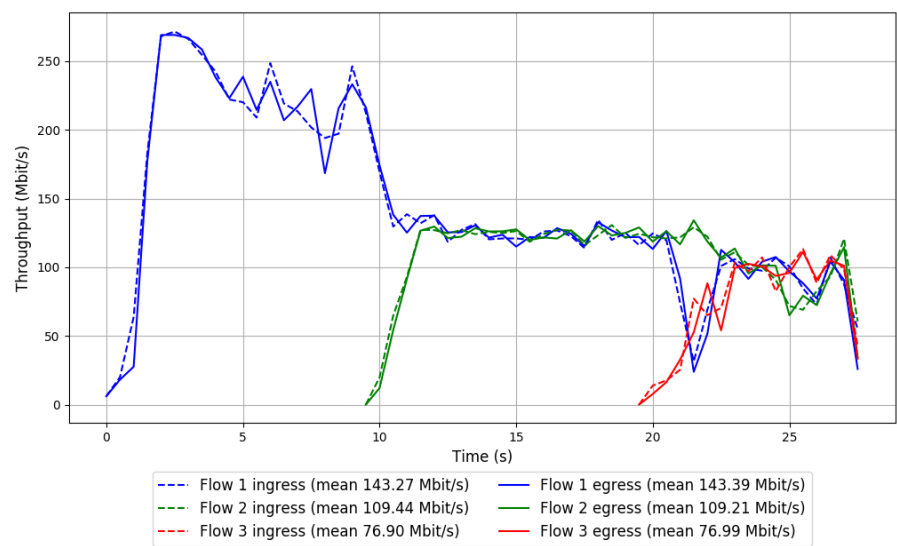
-- Flow 3:

Average throughput: 76.99 Mbit/s

95th percentile per-packet one-way delay: 91.515 ms

Loss rate: 2.15%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-09-07 22:48:12

End at: 2017-09-07 22:48:42

Below is generated by plot.py at 2017-09-08 03:35:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 239.38 Mbit/s

95th percentile per-packet one-way delay: 90.911 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 149.05 Mbit/s

95th percentile per-packet one-way delay: 90.007 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 106.61 Mbit/s

95th percentile per-packet one-way delay: 91.740 ms

Loss rate: 1.11%

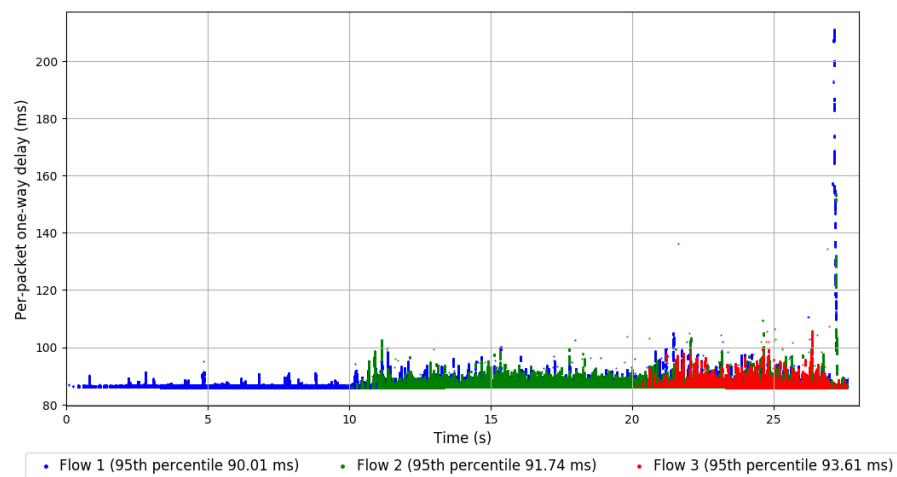
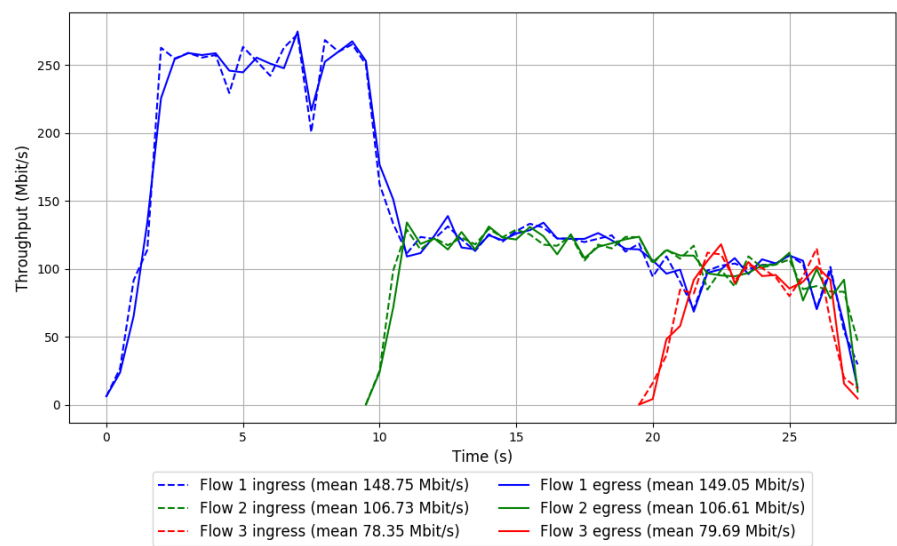
-- Flow 3:

Average throughput: 79.69 Mbit/s

95th percentile per-packet one-way delay: 93.609 ms

Loss rate: 0.99%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-09-07 23:01:15

End at: 2017-09-07 23:01:45

Below is generated by plot.py at 2017-09-08 03:35:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 236.29 Mbit/s

95th percentile per-packet one-way delay: 91.211 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 146.94 Mbit/s

95th percentile per-packet one-way delay: 90.621 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 113.31 Mbit/s

95th percentile per-packet one-way delay: 92.154 ms

Loss rate: 0.94%

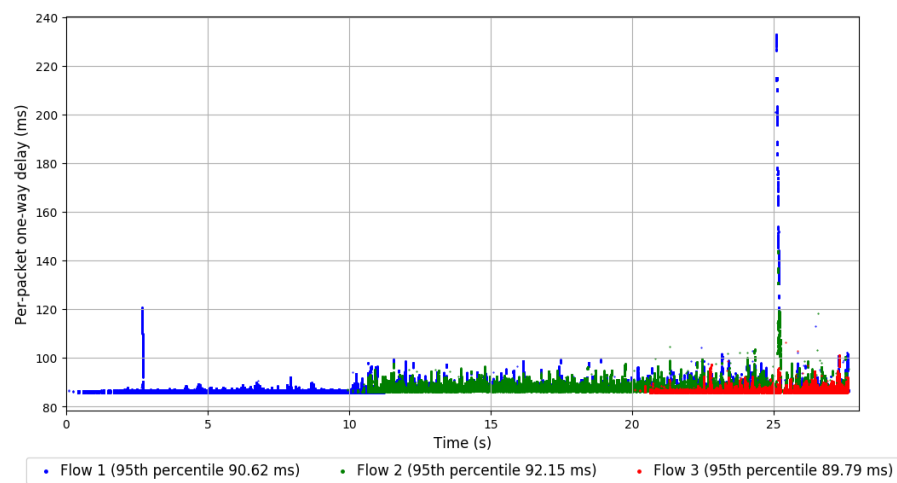
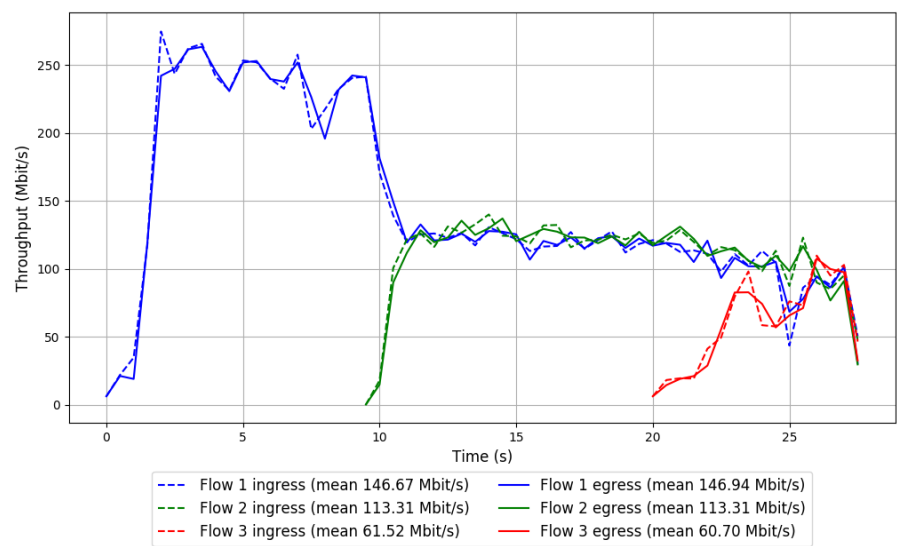
-- Flow 3:

Average throughput: 60.70 Mbit/s

95th percentile per-packet one-way delay: 89.786 ms

Loss rate: 3.69%

Run 6: Report of TaoVA-100x — Data Link

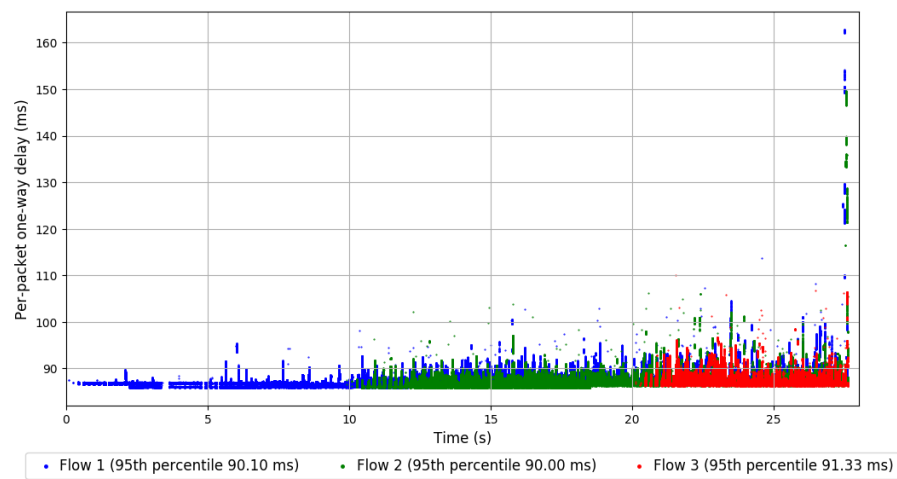
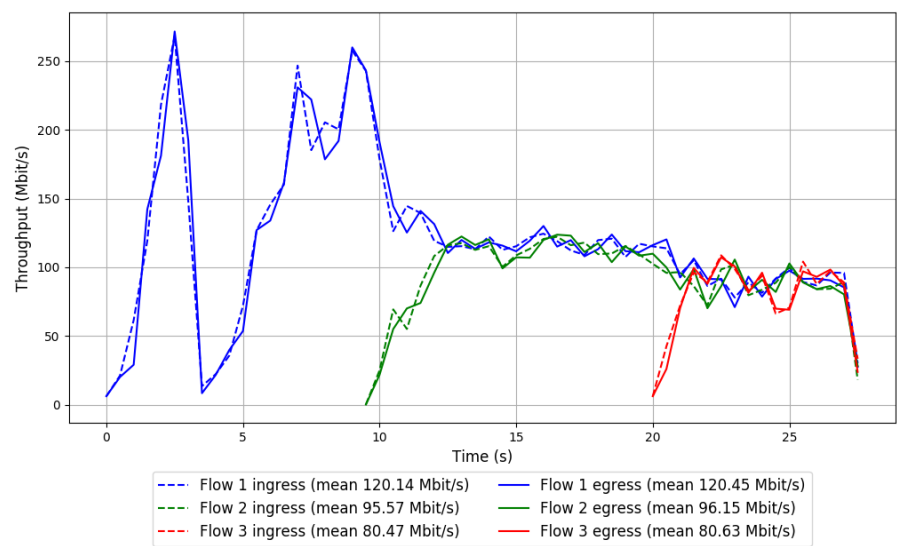


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-07 23:14:34
End at: 2017-09-07 23:15:04

# Below is generated by plot.py at 2017-09-08 03:36:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 204.15 Mbit/s
95th percentile per-packet one-way delay: 90.266 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 120.45 Mbit/s
95th percentile per-packet one-way delay: 90.100 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 96.15 Mbit/s
95th percentile per-packet one-way delay: 90.005 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 80.63 Mbit/s
95th percentile per-packet one-way delay: 91.326 ms
Loss rate: 2.13%
```

Run 7: Report of TaoVA-100x — Data Link

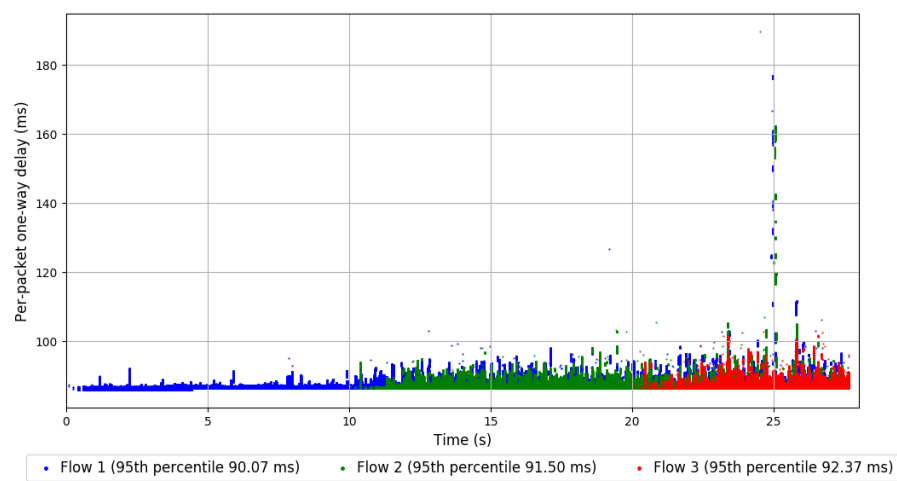
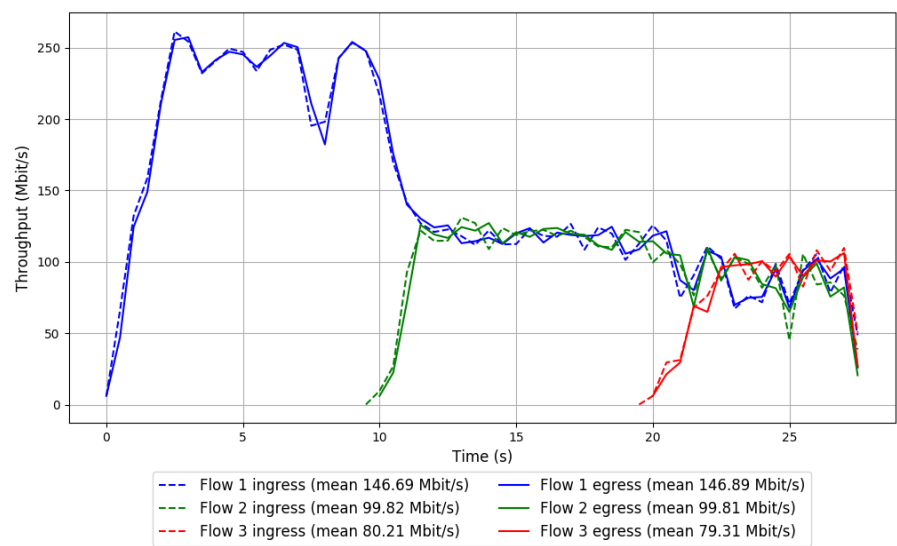


```
Run 8: Statistics of TaoVA-100x

Start at: 2017-09-07 23:27:31
End at: 2017-09-07 23:28:01

# Below is generated by plot.py at 2017-09-08 03:37:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.51 Mbit/s
95th percentile per-packet one-way delay: 90.786 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 146.89 Mbit/s
95th percentile per-packet one-way delay: 90.068 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 99.81 Mbit/s
95th percentile per-packet one-way delay: 91.500 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 79.31 Mbit/s
95th percentile per-packet one-way delay: 92.368 ms
Loss rate: 3.27%
```

Run 8: Report of TaoVA-100x — Data Link

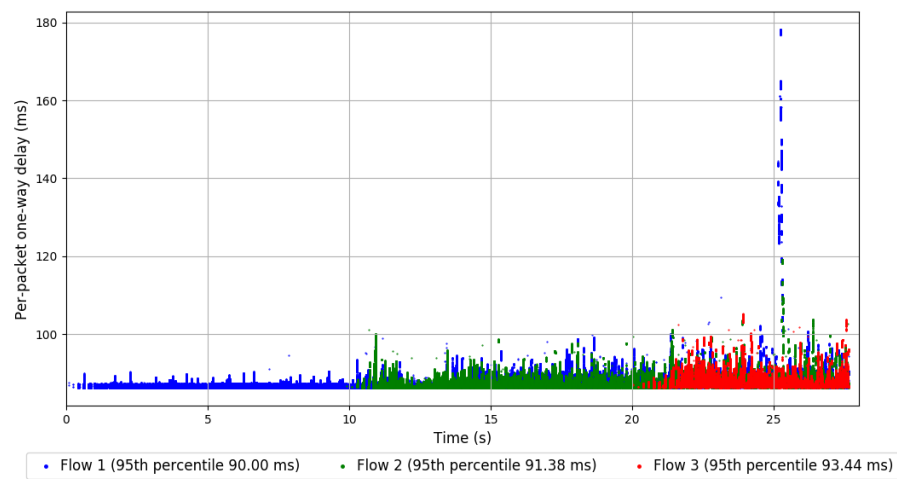
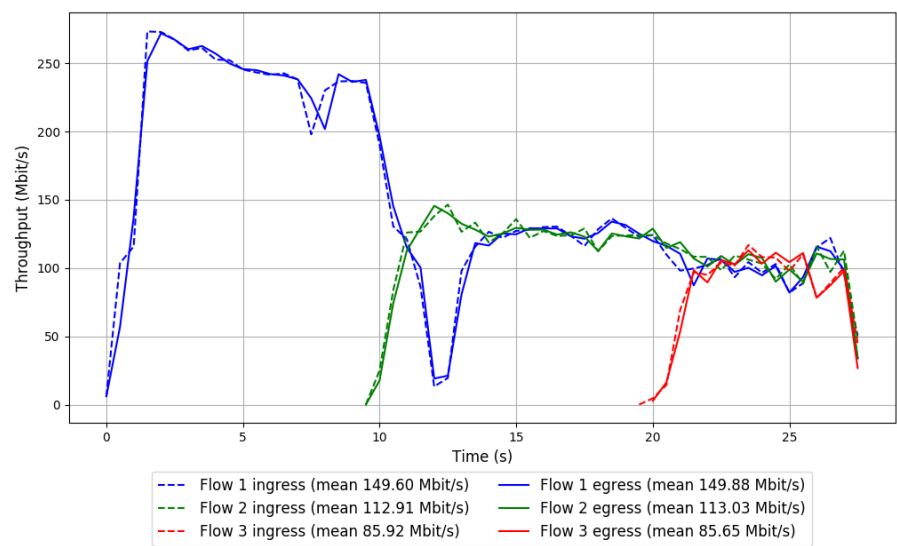


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-07 23:40:37
End at: 2017-09-07 23:41:07

# Below is generated by plot.py at 2017-09-08 03:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 246.18 Mbit/s
95th percentile per-packet one-way delay: 90.859 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 149.88 Mbit/s
95th percentile per-packet one-way delay: 90.001 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 113.03 Mbit/s
95th percentile per-packet one-way delay: 91.379 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 85.65 Mbit/s
95th percentile per-packet one-way delay: 93.443 ms
Loss rate: 2.74%
```

Run 9: Report of TaoVA-100x — Data Link

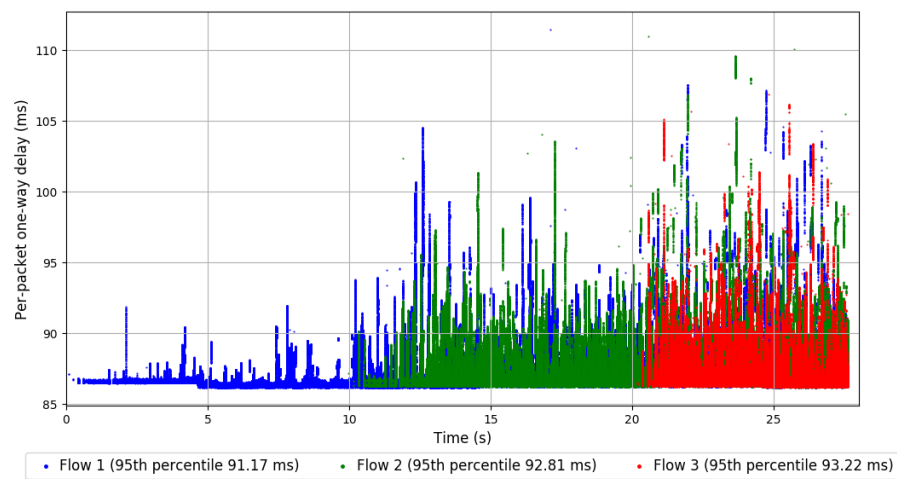
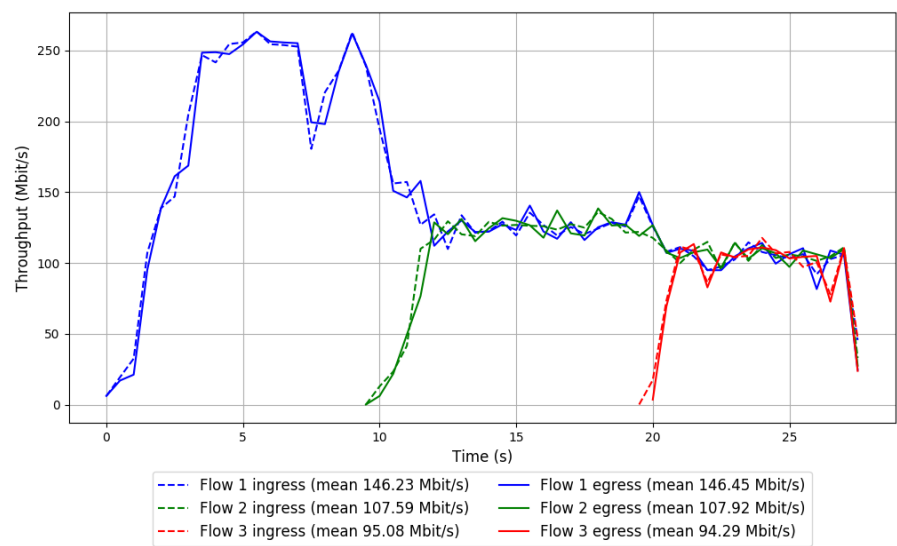


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-07 23:53:51
End at: 2017-09-07 23:54:21

# Below is generated by plot.py at 2017-09-08 03:38:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.57 Mbit/s
95th percentile per-packet one-way delay: 92.040 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 146.45 Mbit/s
95th percentile per-packet one-way delay: 91.173 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 107.92 Mbit/s
95th percentile per-packet one-way delay: 92.807 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 94.29 Mbit/s
95th percentile per-packet one-way delay: 93.224 ms
Loss rate: 2.82%
```

Run 10: Report of TaoVA-100x — Data Link



Run 1: Statistics of TCP Vegas

Start at: 2017-09-07 21:58:02

End at: 2017-09-07 21:58:32

Below is generated by plot.py at 2017-09-08 03:38:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.51 Mbit/s

95th percentile per-packet one-way delay: 93.447 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 37.82 Mbit/s

95th percentile per-packet one-way delay: 89.093 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 87.18 Mbit/s

95th percentile per-packet one-way delay: 93.800 ms

Loss rate: 0.31%

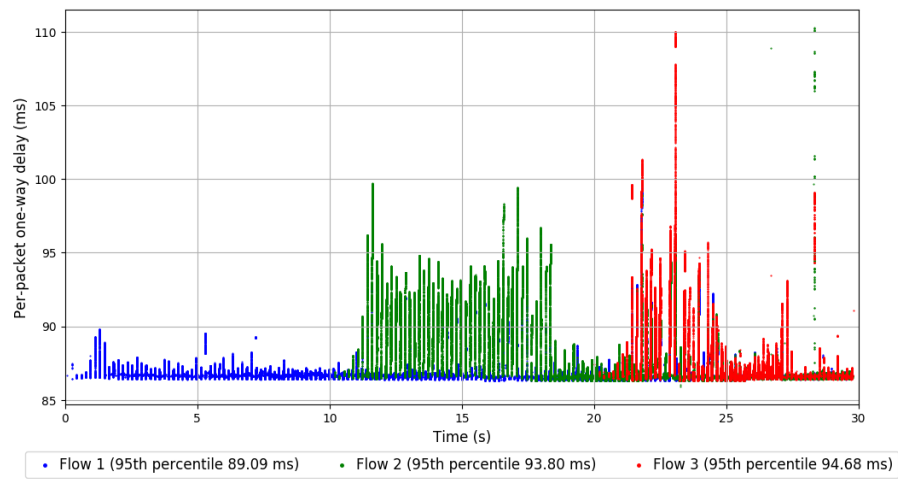
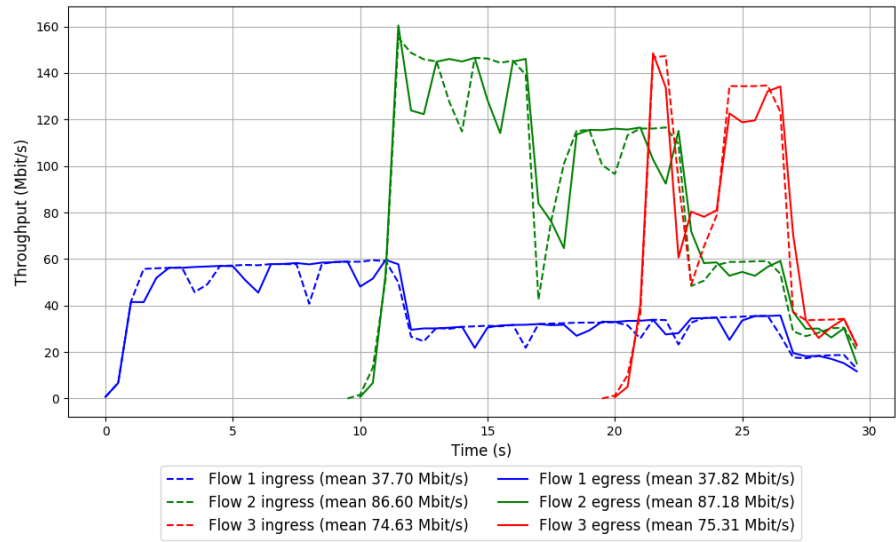
-- Flow 3:

Average throughput: 75.31 Mbit/s

95th percentile per-packet one-way delay: 94.683 ms

Loss rate: 0.79%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-09-07 22:11:14

End at: 2017-09-07 22:11:44

Below is generated by plot.py at 2017-09-08 03:38:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.62 Mbit/s

95th percentile per-packet one-way delay: 89.735 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 88.11 Mbit/s

95th percentile per-packet one-way delay: 89.241 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 45.62 Mbit/s

95th percentile per-packet one-way delay: 89.490 ms

Loss rate: 0.48%

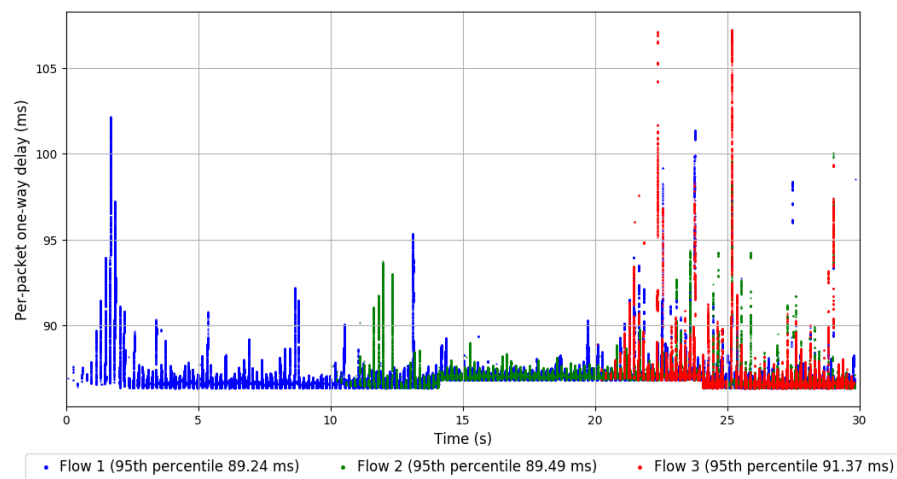
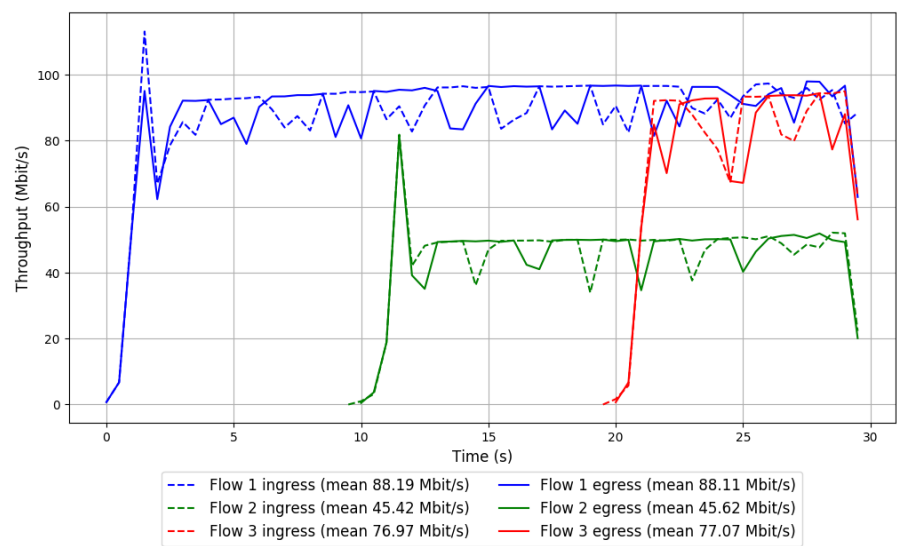
-- Flow 3:

Average throughput: 77.07 Mbit/s

95th percentile per-packet one-way delay: 91.367 ms

Loss rate: 2.07%

Run 2: Report of TCP Vegas — Data Link

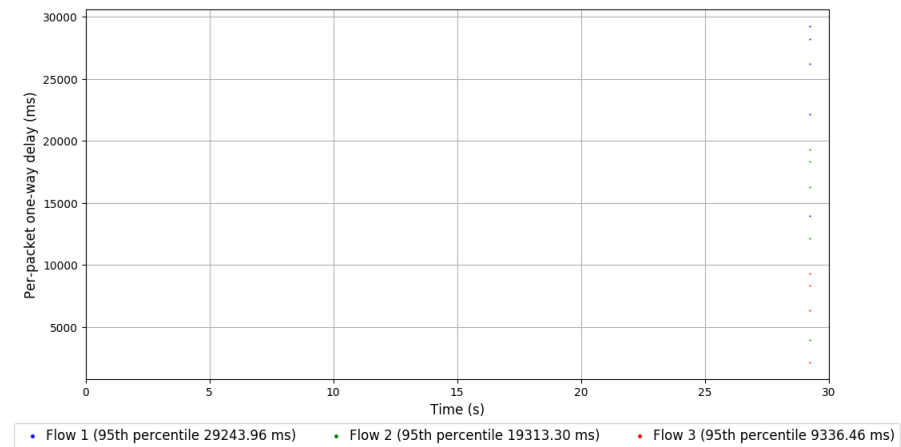
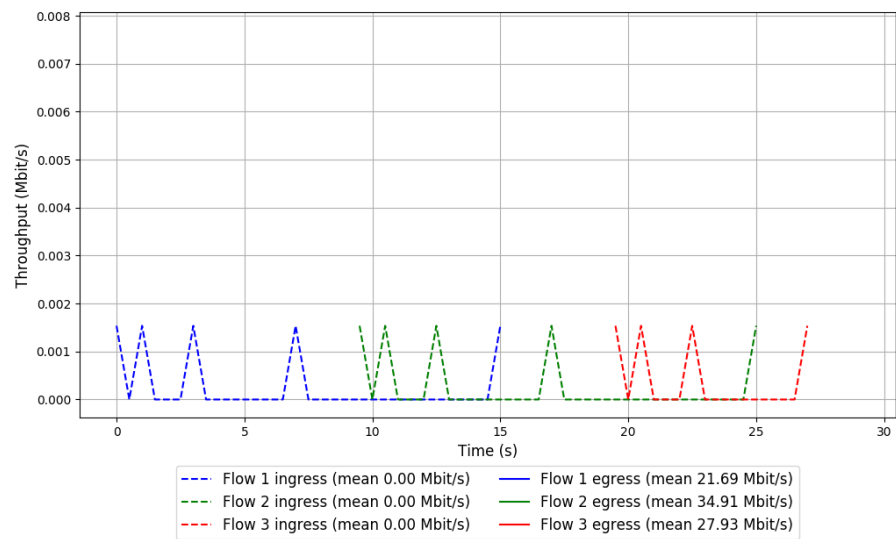


Run 3: Statistics of TCP Vegas

Start at: 2017-09-07 22:24:30

End at: 2017-09-07 22:25:00

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-09-07 22:37:29

End at: 2017-09-07 22:37:59

Below is generated by plot.py at 2017-09-08 03:38:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.35 Mbit/s

95th percentile per-packet one-way delay: 93.516 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 31.68 Mbit/s

95th percentile per-packet one-way delay: 95.669 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 45.62 Mbit/s

95th percentile per-packet one-way delay: 87.475 ms

Loss rate: 0.96%

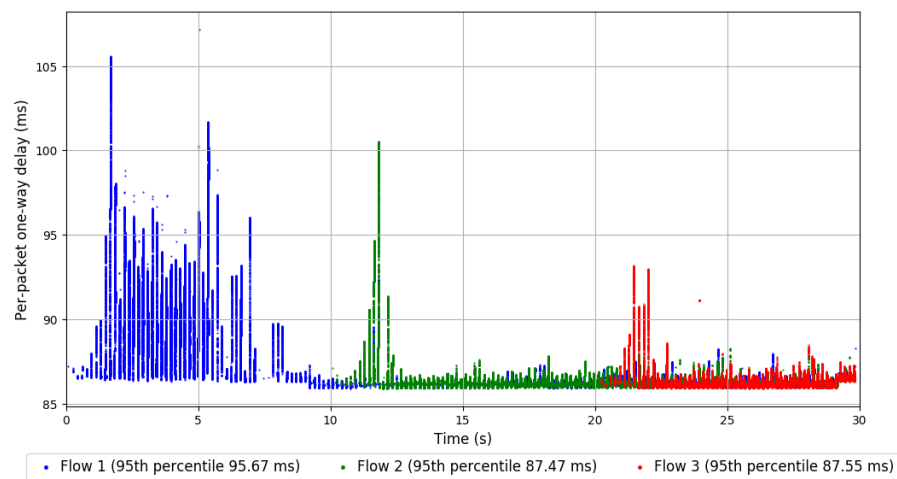
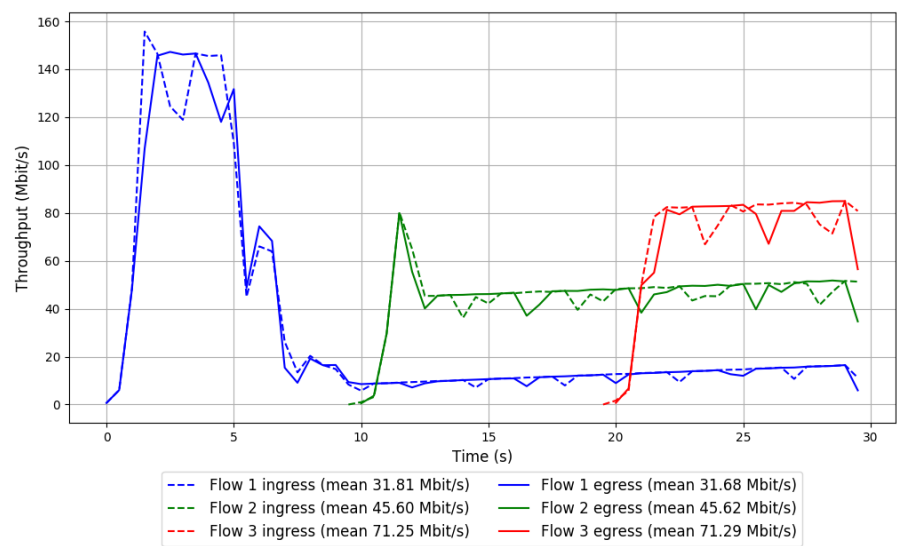
-- Flow 3:

Average throughput: 71.29 Mbit/s

95th percentile per-packet one-way delay: 87.545 ms

Loss rate: 2.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-09-07 22:50:28

End at: 2017-09-07 22:50:58

Below is generated by plot.py at 2017-09-08 03:39:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.15 Mbit/s

95th percentile per-packet one-way delay: 87.578 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 43.46 Mbit/s

95th percentile per-packet one-way delay: 87.505 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 52.85 Mbit/s

95th percentile per-packet one-way delay: 87.644 ms

Loss rate: 0.98%

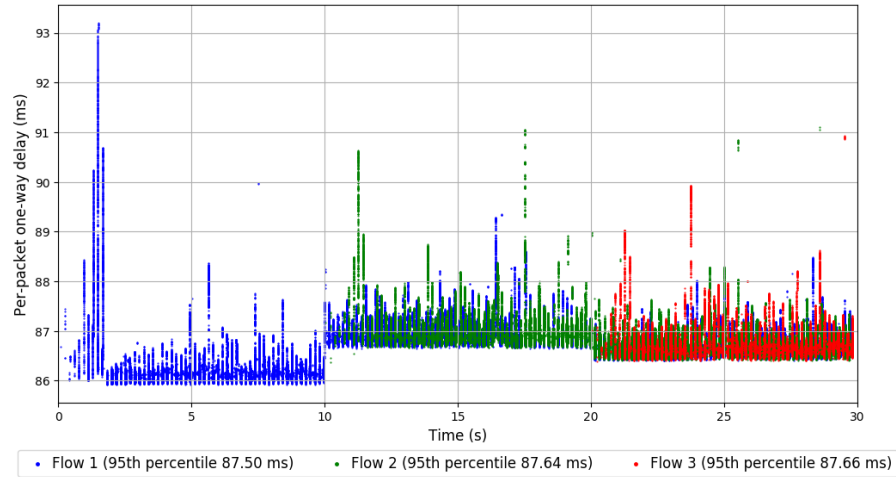
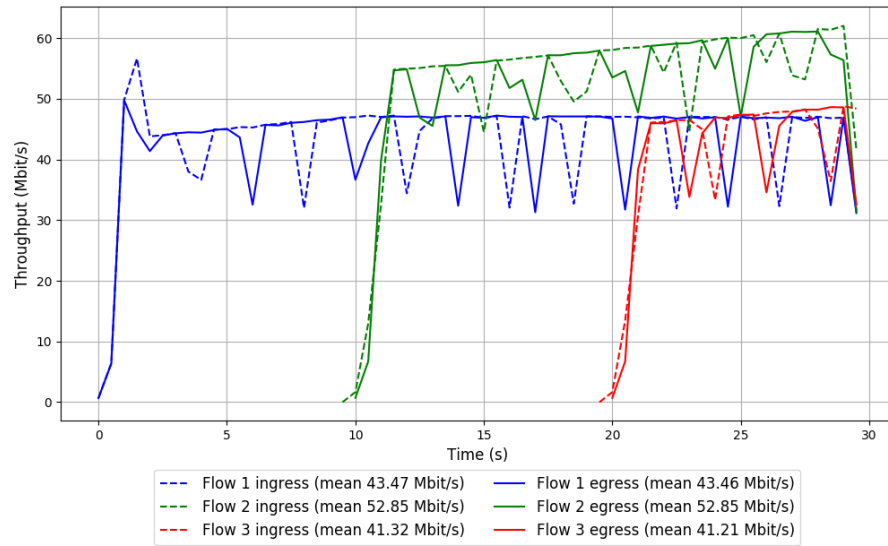
-- Flow 3:

Average throughput: 41.21 Mbit/s

95th percentile per-packet one-way delay: 87.663 ms

Loss rate: 1.99%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-09-07 23:03:34

End at: 2017-09-07 23:04:04

Below is generated by plot.py at 2017-09-08 03:39:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 171.27 Mbit/s

95th percentile per-packet one-way delay: 88.049 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 78.77 Mbit/s

95th percentile per-packet one-way delay: 87.681 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 120.21 Mbit/s

95th percentile per-packet one-way delay: 88.024 ms

Loss rate: 0.92%

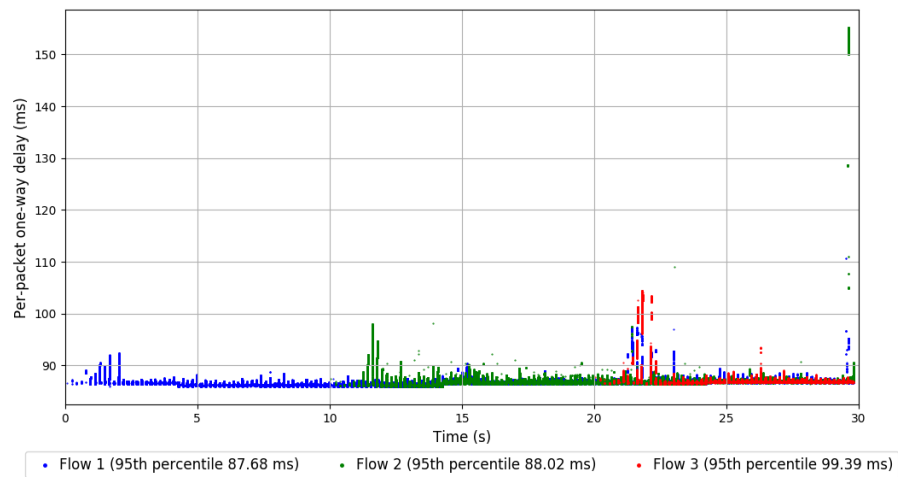
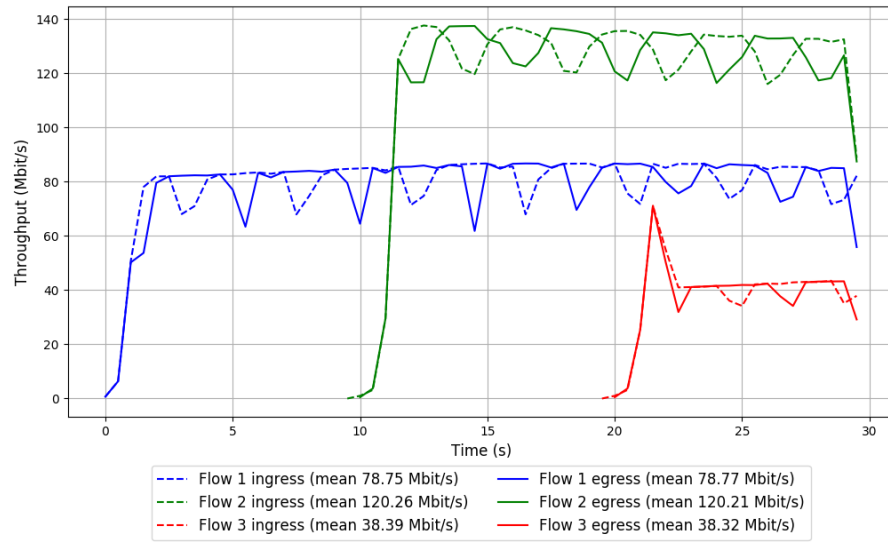
-- Flow 3:

Average throughput: 38.32 Mbit/s

95th percentile per-packet one-way delay: 99.390 ms

Loss rate: 1.92%

Run 6: Report of TCP Vegas — Data Link

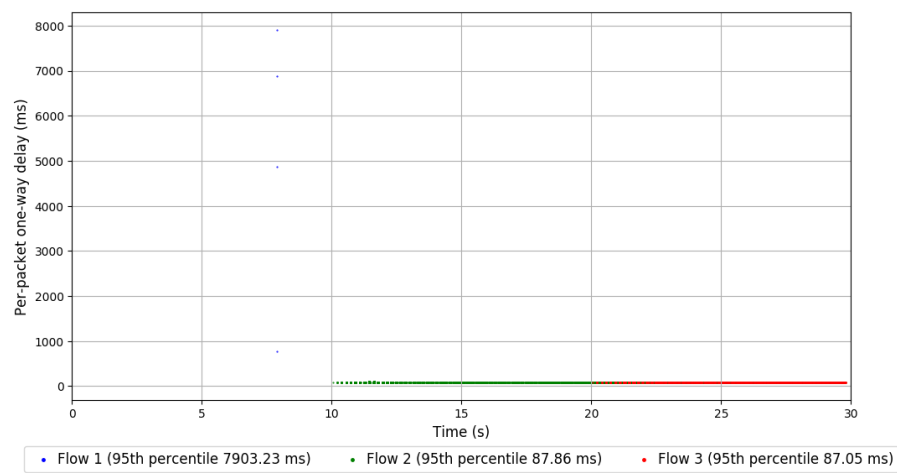
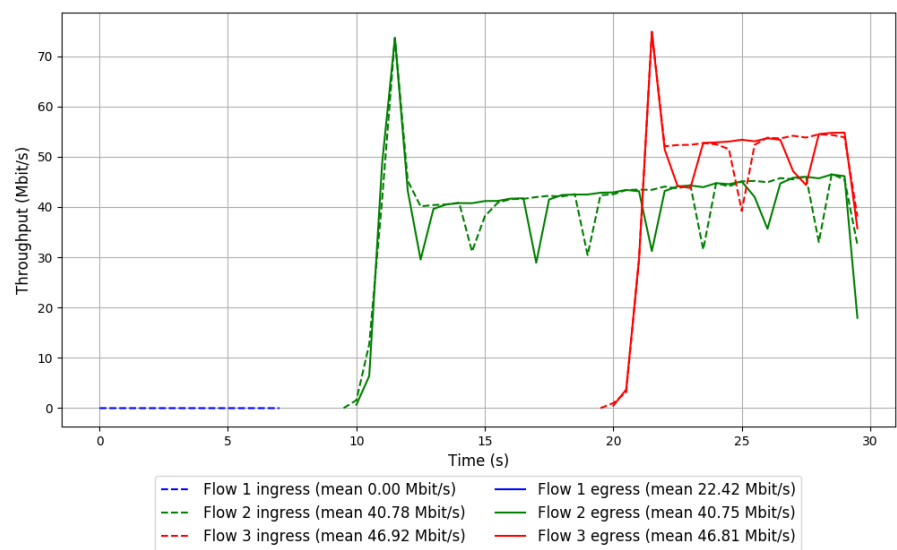


Run 7: Statistics of TCP Vegas

Start at: 2017-09-07 23:16:47

End at: 2017-09-07 23:17:17

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-09-07 23:29:47

End at: 2017-09-07 23:30:17

Below is generated by plot.py at 2017-09-08 03:39:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.62 Mbit/s

95th percentile per-packet one-way delay: 90.996 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 65.40 Mbit/s

95th percentile per-packet one-way delay: 87.809 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 52.44 Mbit/s

95th percentile per-packet one-way delay: 93.095 ms

Loss rate: 0.77%

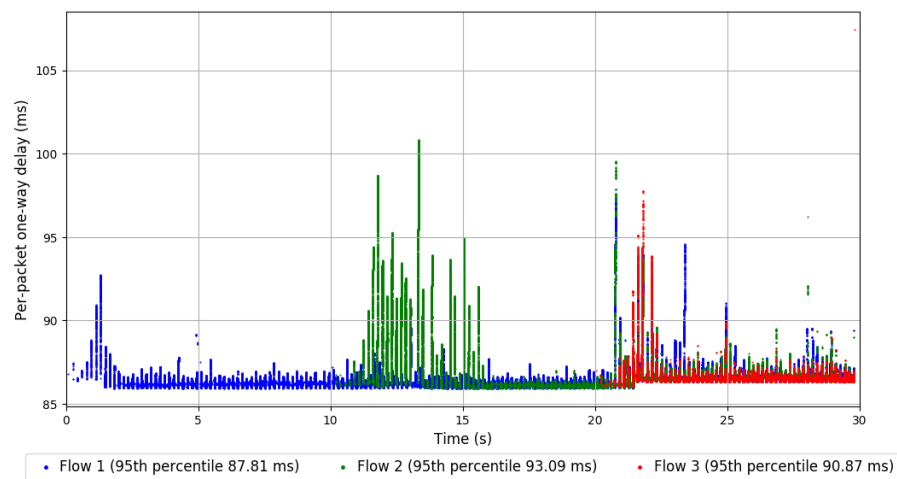
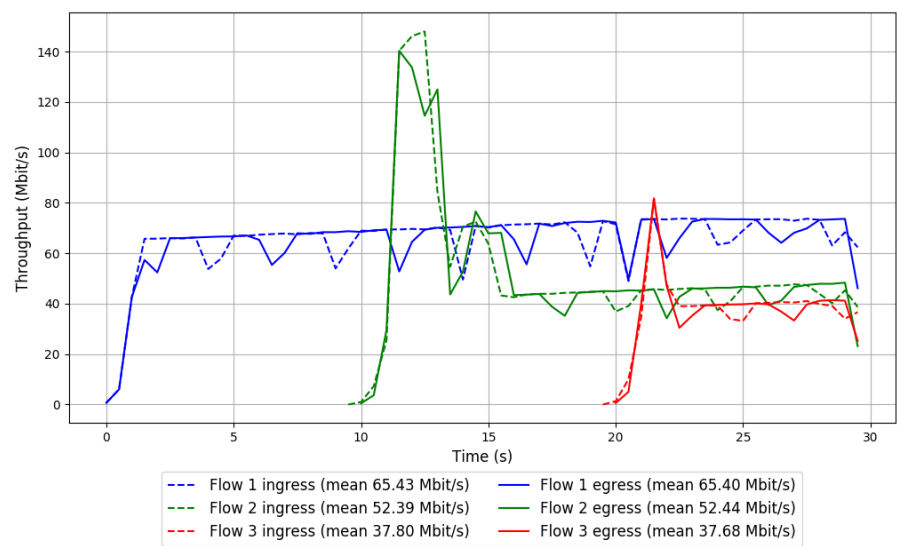
-- Flow 3:

Average throughput: 37.68 Mbit/s

95th percentile per-packet one-way delay: 90.871 ms

Loss rate: 1.85%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-09-07 23:42:55

End at: 2017-09-07 23:43:25

Below is generated by plot.py at 2017-09-08 03:40:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 158.63 Mbit/s

95th percentile per-packet one-way delay: 87.608 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 86.16 Mbit/s

95th percentile per-packet one-way delay: 87.567 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 88.18 Mbit/s

95th percentile per-packet one-way delay: 87.592 ms

Loss rate: 0.54%

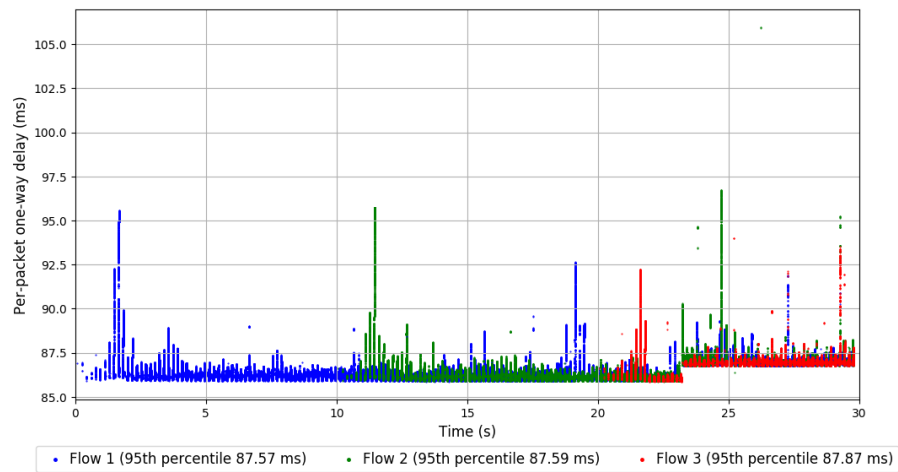
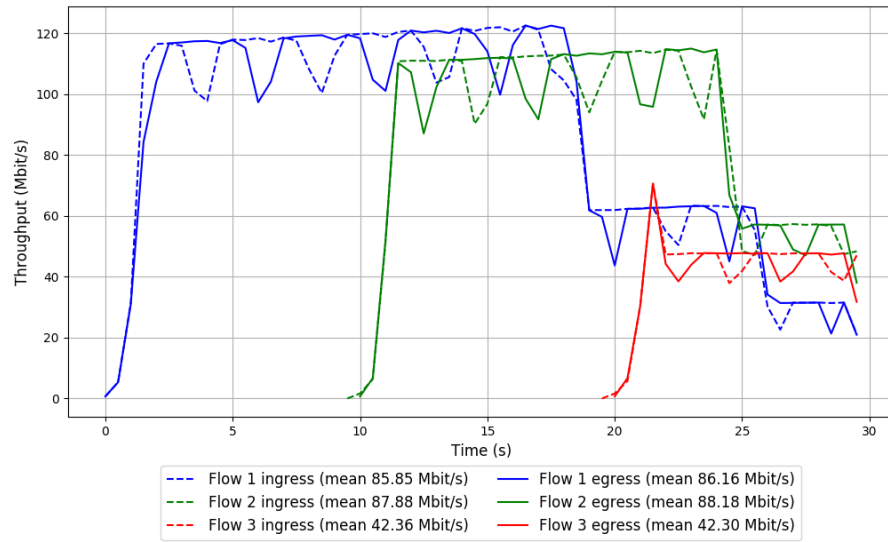
-- Flow 3:

Average throughput: 42.30 Mbit/s

95th percentile per-packet one-way delay: 87.871 ms

Loss rate: 1.89%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-09-07 23:56:08

End at: 2017-09-07 23:56:38

Below is generated by plot.py at 2017-09-08 03:40:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.36 Mbit/s

95th percentile per-packet one-way delay: 92.965 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 13.59 Mbit/s

95th percentile per-packet one-way delay: 1937.740 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.90 Mbit/s

95th percentile per-packet one-way delay: 92.820 ms

Loss rate: 0.61%

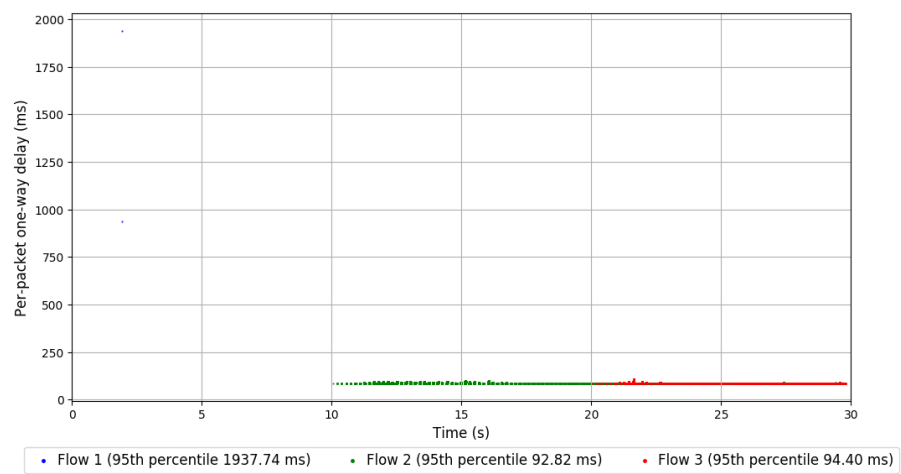
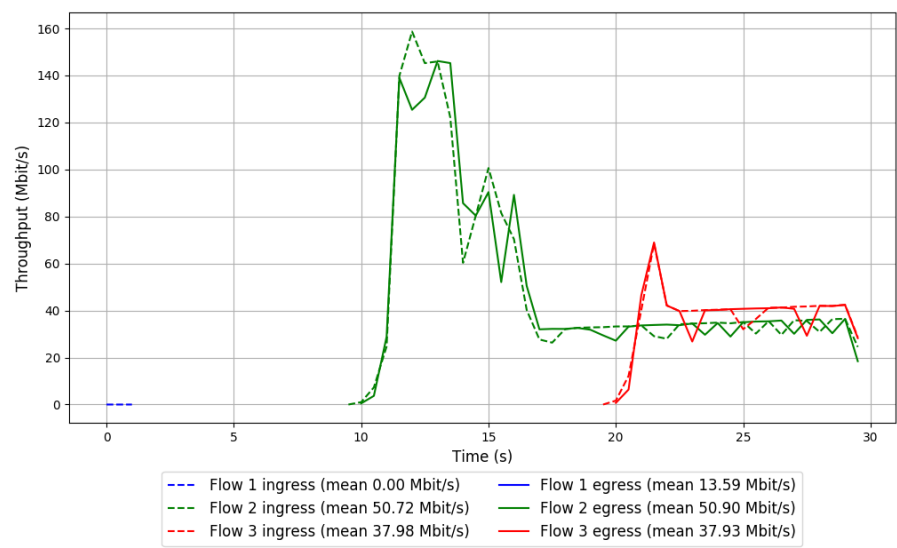
-- Flow 3:

Average throughput: 37.93 Mbit/s

95th percentile per-packet one-way delay: 94.400 ms

Loss rate: 1.89%

Run 10: Report of TCP Vegas — Data Link

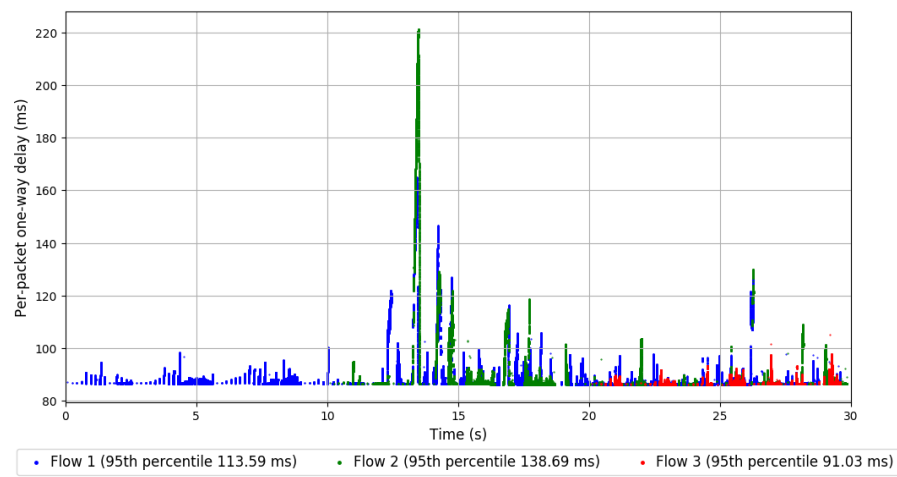
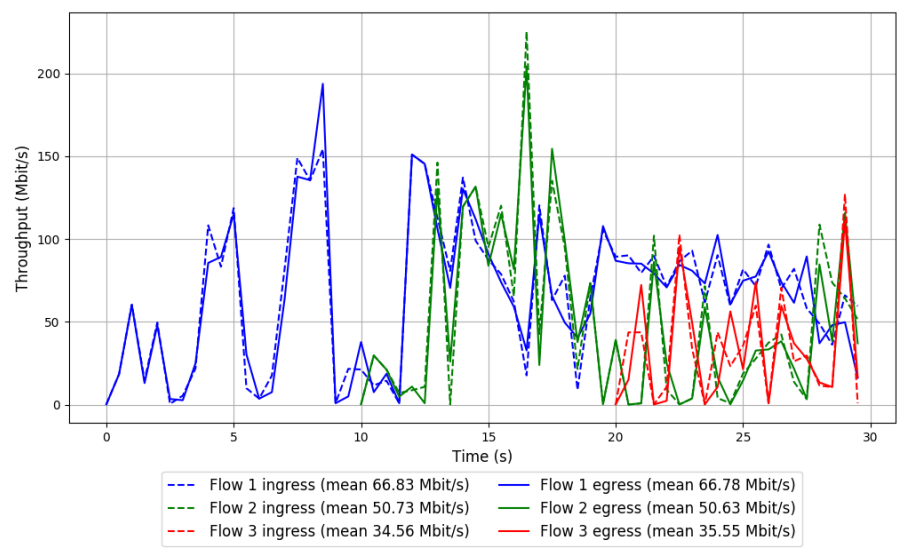


```
Run 1: Statistics of Verus

Start at: 2017-09-07 21:49:12
End at: 2017-09-07 21:49:42

# Below is generated by plot.py at 2017-09-08 03:40:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.14 Mbit/s
95th percentile per-packet one-way delay: 117.754 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 66.78 Mbit/s
95th percentile per-packet one-way delay: 113.587 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 138.692 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 35.55 Mbit/s
95th percentile per-packet one-way delay: 91.025 ms
Loss rate: 0.01%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-09-07 22:02:21

End at: 2017-09-07 22:02:51

Below is generated by plot.py at 2017-09-08 03:40:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.75 Mbit/s

95th percentile per-packet one-way delay: 127.013 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 55.37 Mbit/s

95th percentile per-packet one-way delay: 161.754 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 61.57 Mbit/s

95th percentile per-packet one-way delay: 104.477 ms

Loss rate: 0.00%

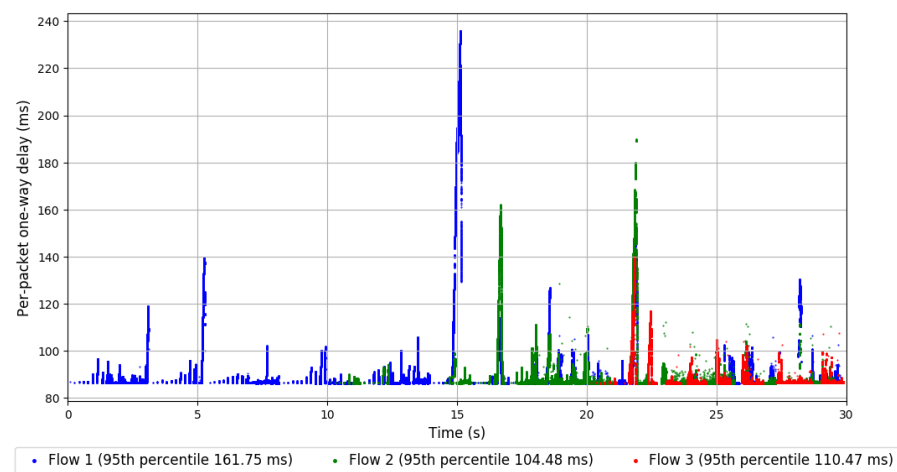
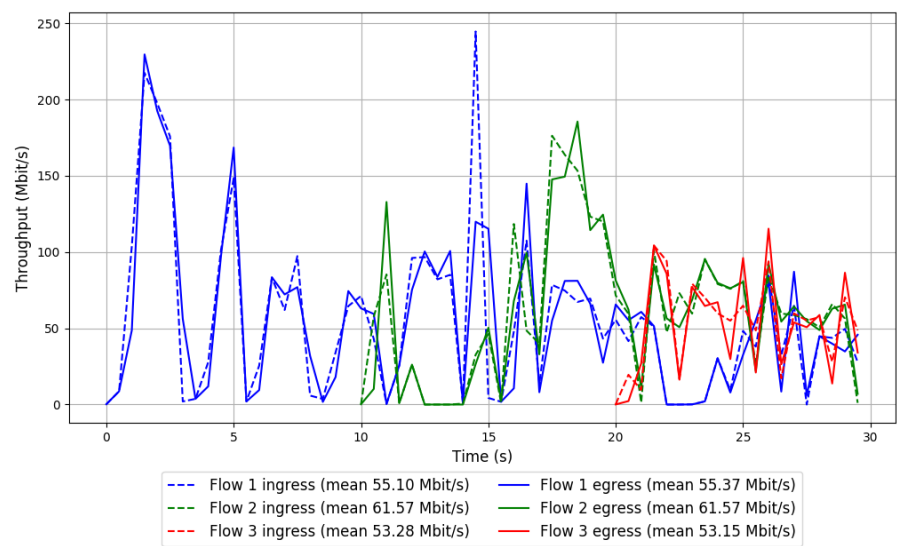
-- Flow 3:

Average throughput: 53.15 Mbit/s

95th percentile per-packet one-way delay: 110.467 ms

Loss rate: 2.08%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-09-07 22:15:36

End at: 2017-09-07 22:16:06

Below is generated by plot.py at 2017-09-08 03:40:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.23 Mbit/s

95th percentile per-packet one-way delay: 104.457 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 80.43 Mbit/s

95th percentile per-packet one-way delay: 103.744 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 57.43 Mbit/s

95th percentile per-packet one-way delay: 112.453 ms

Loss rate: 1.66%

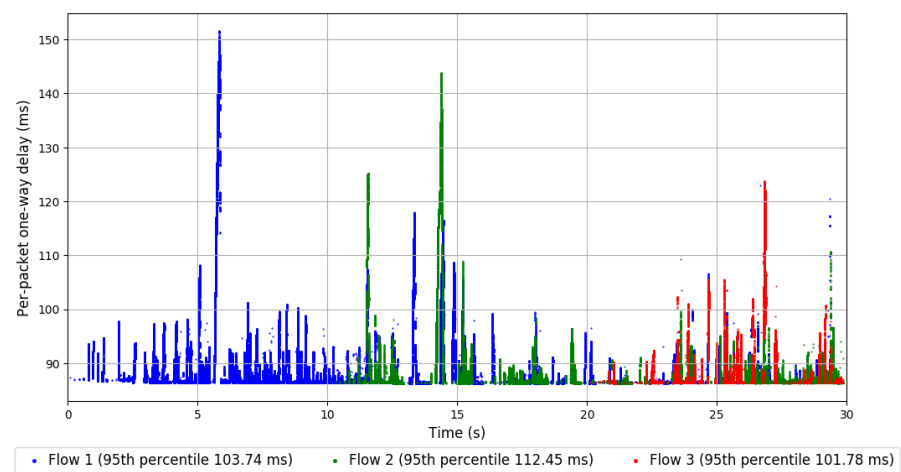
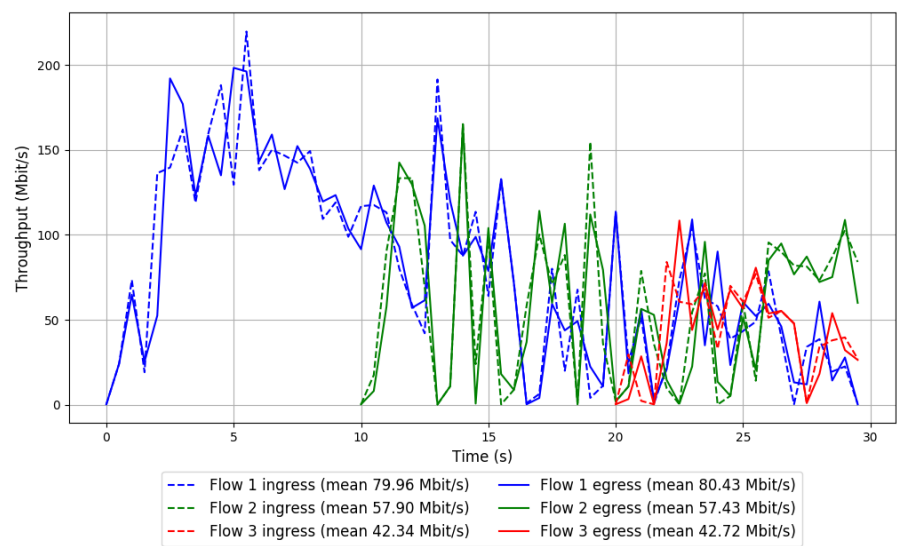
-- Flow 3:

Average throughput: 42.72 Mbit/s

95th percentile per-packet one-way delay: 101.776 ms

Loss rate: 0.99%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-09-07 22:28:39

End at: 2017-09-07 22:29:09

Below is generated by plot.py at 2017-09-08 03:41:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.96 Mbit/s

95th percentile per-packet one-way delay: 99.526 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 62.32 Mbit/s

95th percentile per-packet one-way delay: 101.269 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 46.89 Mbit/s

95th percentile per-packet one-way delay: 96.546 ms

Loss rate: 0.81%

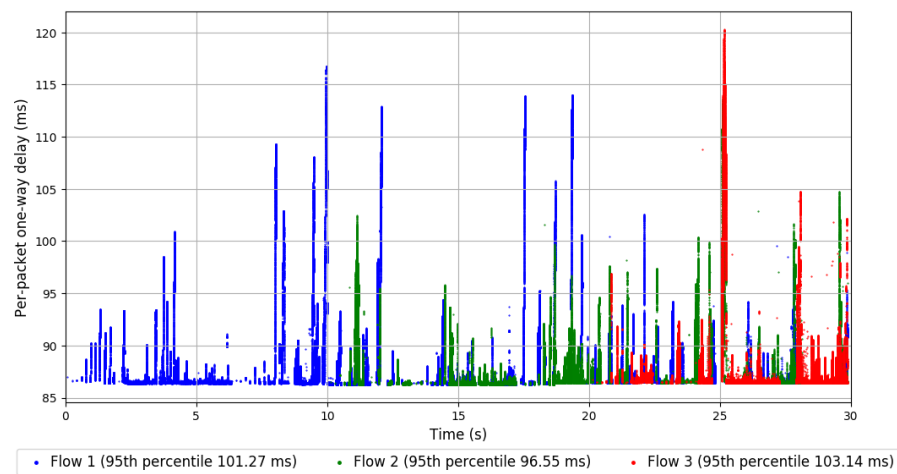
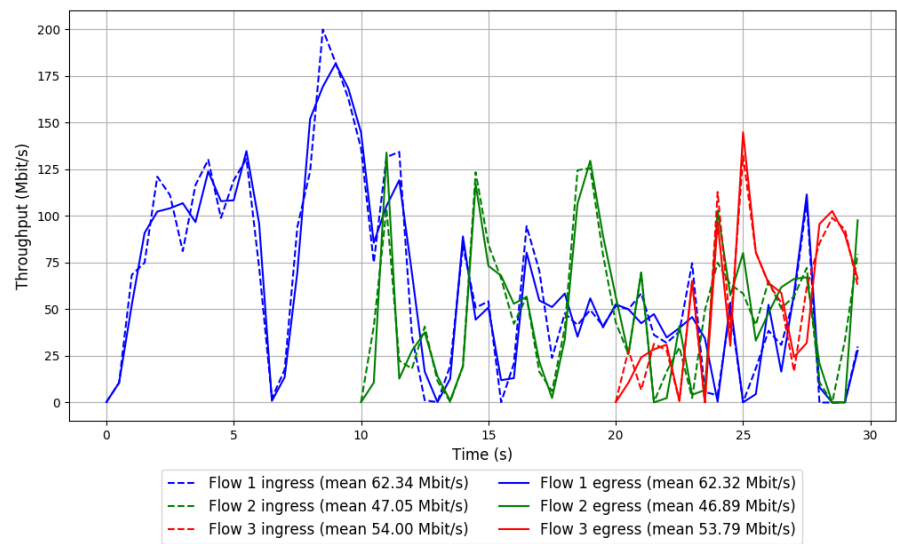
-- Flow 3:

Average throughput: 53.79 Mbit/s

95th percentile per-packet one-way delay: 103.135 ms

Loss rate: 1.40%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-09-07 22:41:46

End at: 2017-09-07 22:42:16

Below is generated by plot.py at 2017-09-08 03:41:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.81 Mbit/s

95th percentile per-packet one-way delay: 103.501 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 48.70 Mbit/s

95th percentile per-packet one-way delay: 103.930 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 36.03 Mbit/s

95th percentile per-packet one-way delay: 94.638 ms

Loss rate: 0.03%

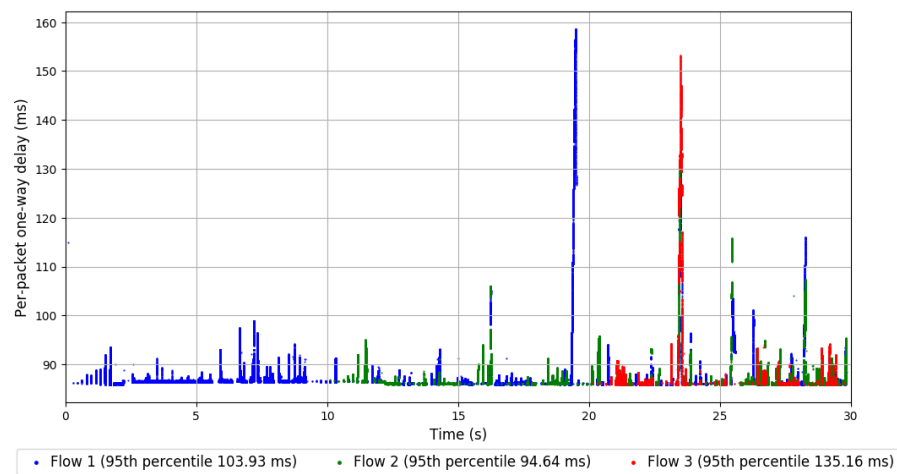
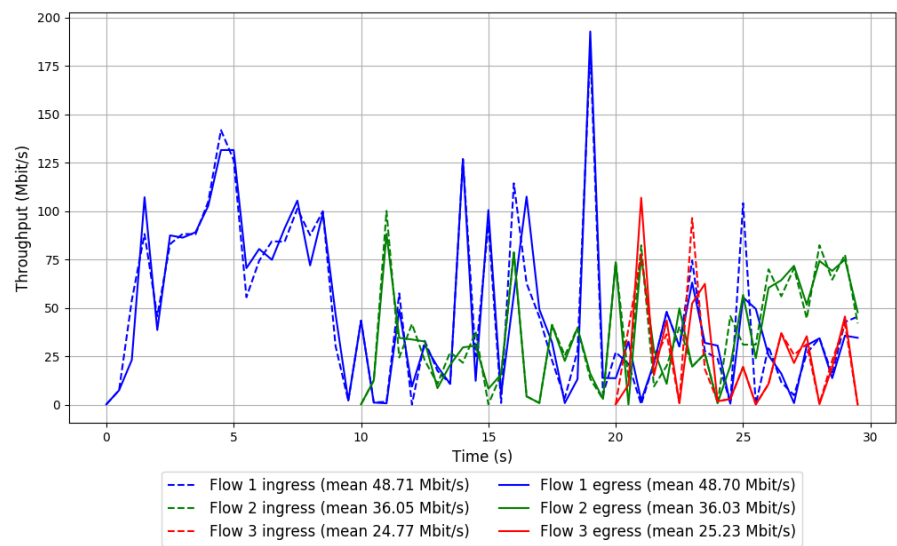
-- Flow 3:

Average throughput: 25.23 Mbit/s

95th percentile per-packet one-way delay: 135.156 ms

Loss rate: 0.01%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-09-07 22:54:42

End at: 2017-09-07 22:55:12

Below is generated by plot.py at 2017-09-08 03:41:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.29 Mbit/s

95th percentile per-packet one-way delay: 97.925 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 66.39 Mbit/s

95th percentile per-packet one-way delay: 93.479 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.55 Mbit/s

95th percentile per-packet one-way delay: 115.339 ms

Loss rate: 1.35%

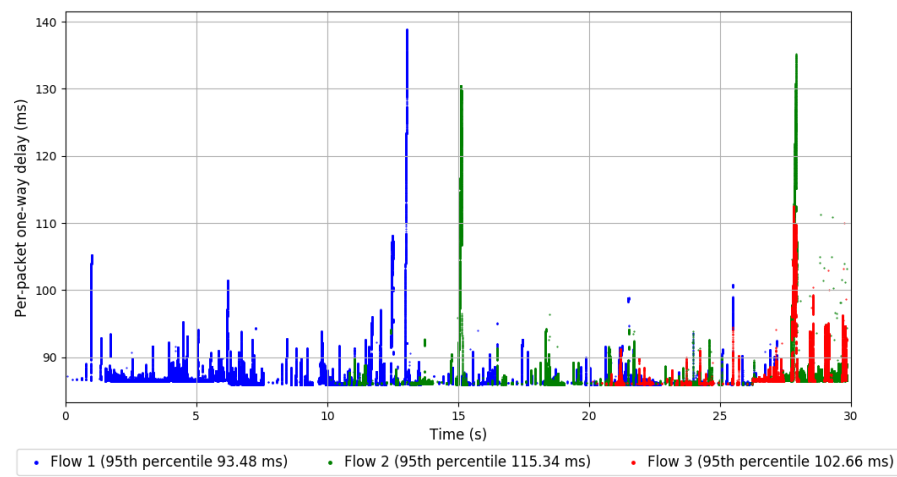
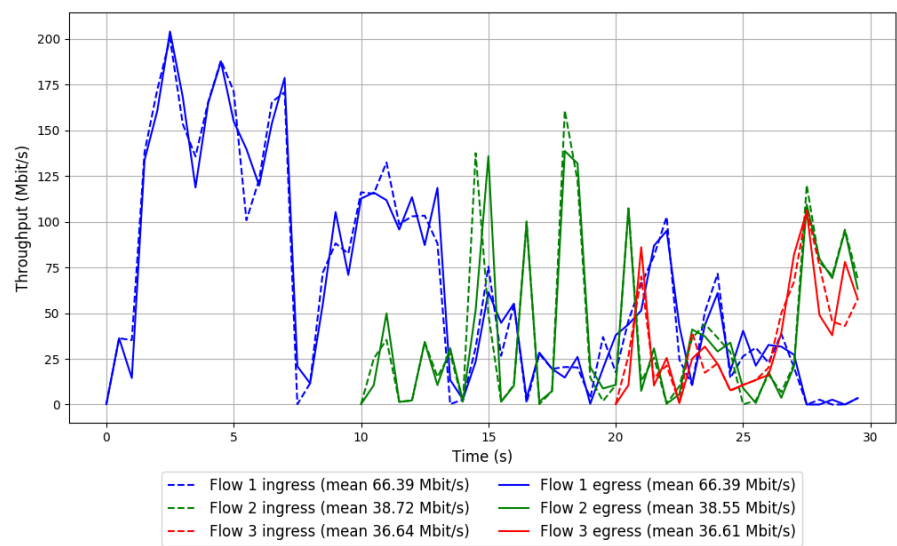
-- Flow 3:

Average throughput: 36.61 Mbit/s

95th percentile per-packet one-way delay: 102.657 ms

Loss rate: 0.00%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-09-07 23:08:00

End at: 2017-09-07 23:08:30

Below is generated by plot.py at 2017-09-08 03:41:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.77 Mbit/s

95th percentile per-packet one-way delay: 96.885 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 58.78 Mbit/s

95th percentile per-packet one-way delay: 99.033 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 50.95 Mbit/s

95th percentile per-packet one-way delay: 92.334 ms

Loss rate: 0.92%

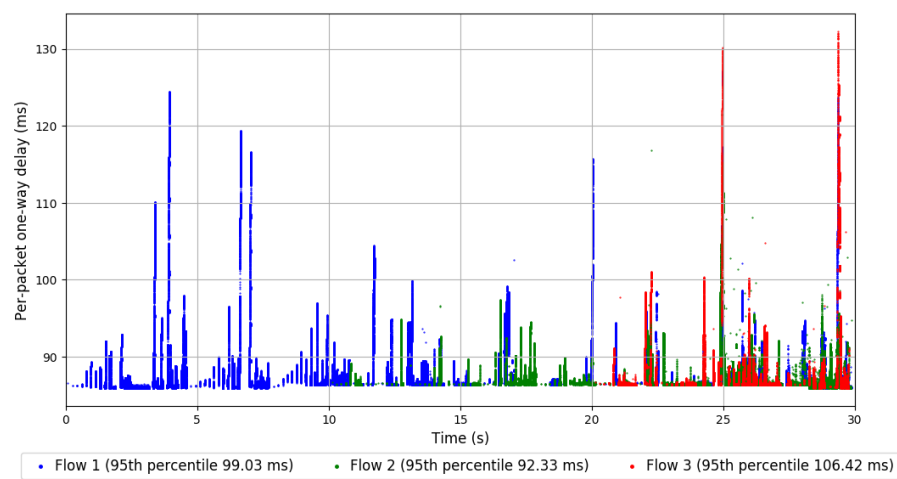
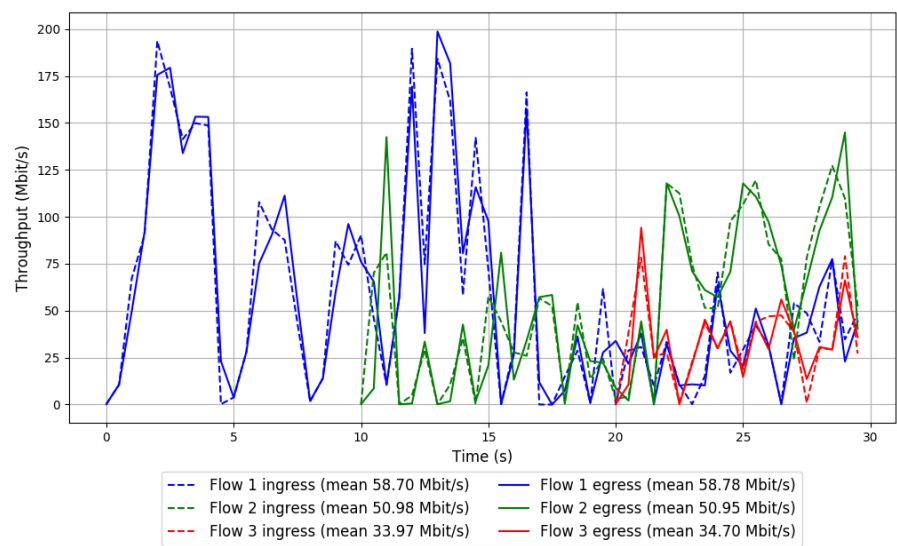
-- Flow 3:

Average throughput: 34.70 Mbit/s

95th percentile per-packet one-way delay: 106.421 ms

Loss rate: 0.65%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-09-07 23:20:59

End at: 2017-09-07 23:21:29

Below is generated by plot.py at 2017-09-08 03:41:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 128.89 Mbit/s

95th percentile per-packet one-way delay: 106.379 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 75.08 Mbit/s

95th percentile per-packet one-way delay: 105.838 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.33 Mbit/s

95th percentile per-packet one-way delay: 111.539 ms

Loss rate: 0.00%

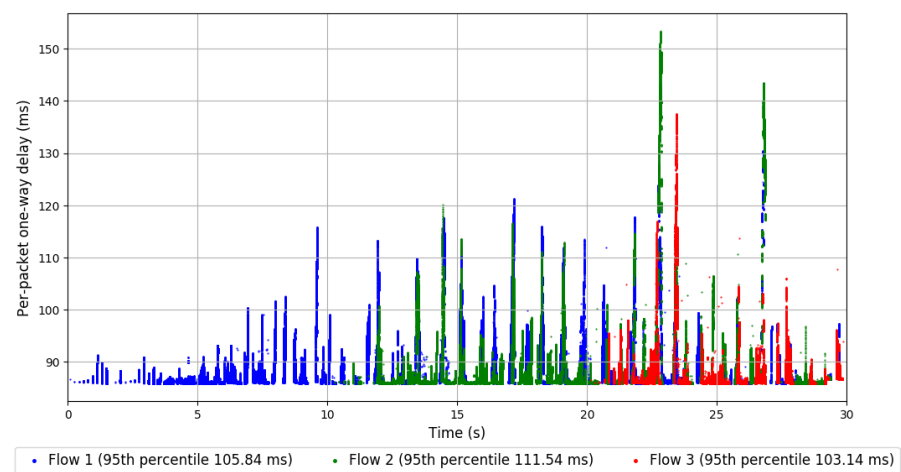
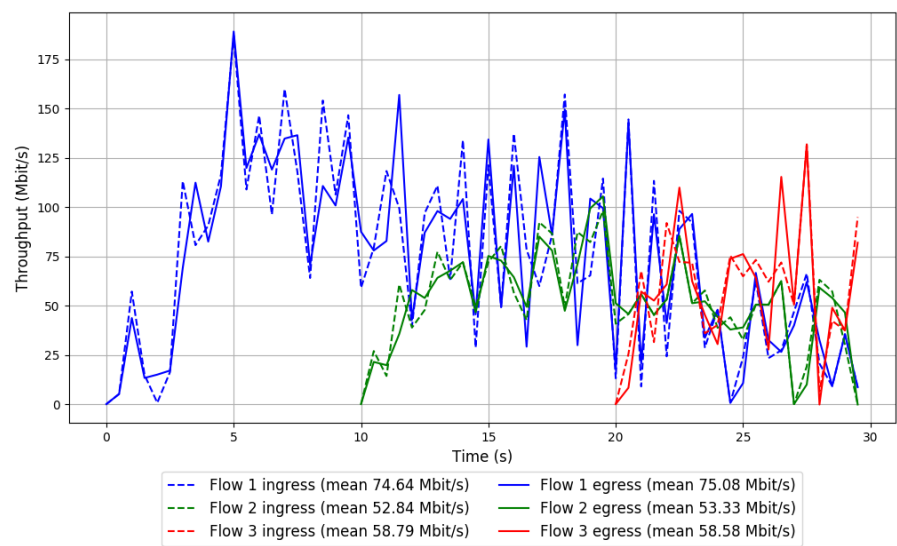
-- Flow 3:

Average throughput: 58.58 Mbit/s

95th percentile per-packet one-way delay: 103.139 ms

Loss rate: 1.13%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-09-07 23:34:08

End at: 2017-09-07 23:34:38

Below is generated by plot.py at 2017-09-08 03:41:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.53 Mbit/s

95th percentile per-packet one-way delay: 99.624 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 41.32 Mbit/s

95th percentile per-packet one-way delay: 94.627 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 44.24 Mbit/s

95th percentile per-packet one-way delay: 107.139 ms

Loss rate: 1.36%

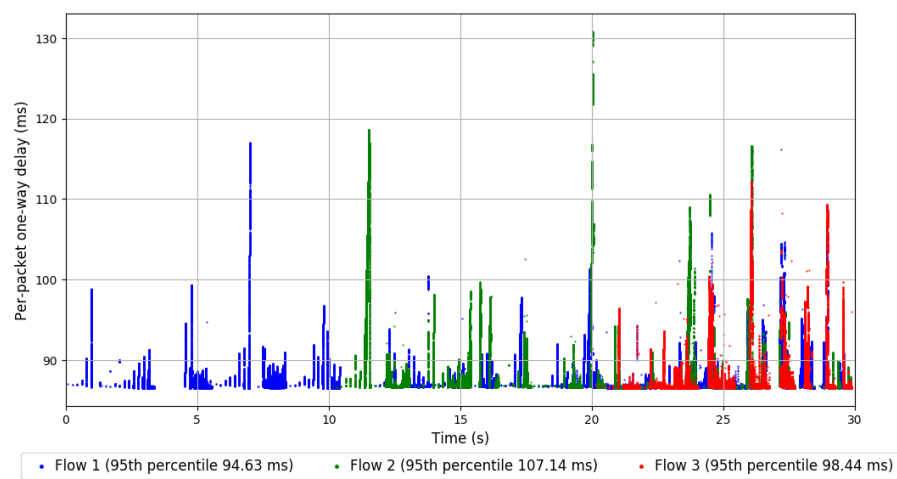
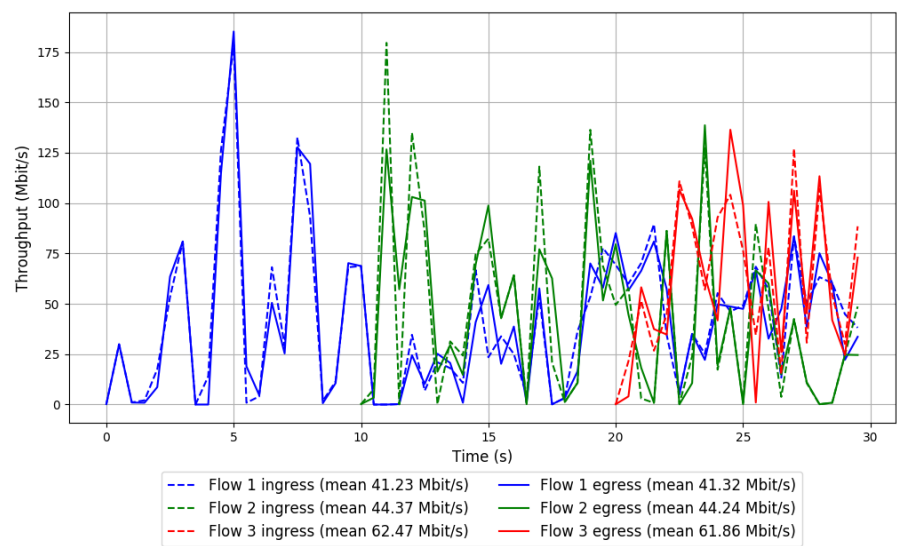
-- Flow 3:

Average throughput: 61.86 Mbit/s

95th percentile per-packet one-way delay: 98.443 ms

Loss rate: 2.70%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-09-07 23:47:16

End at: 2017-09-07 23:47:46

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.68 Mbit/s

95th percentile per-packet one-way delay: 123.721 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 108.35 Mbit/s

95th percentile per-packet one-way delay: 132.504 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 33.01 Mbit/s

95th percentile per-packet one-way delay: 94.186 ms

Loss rate: 1.43%

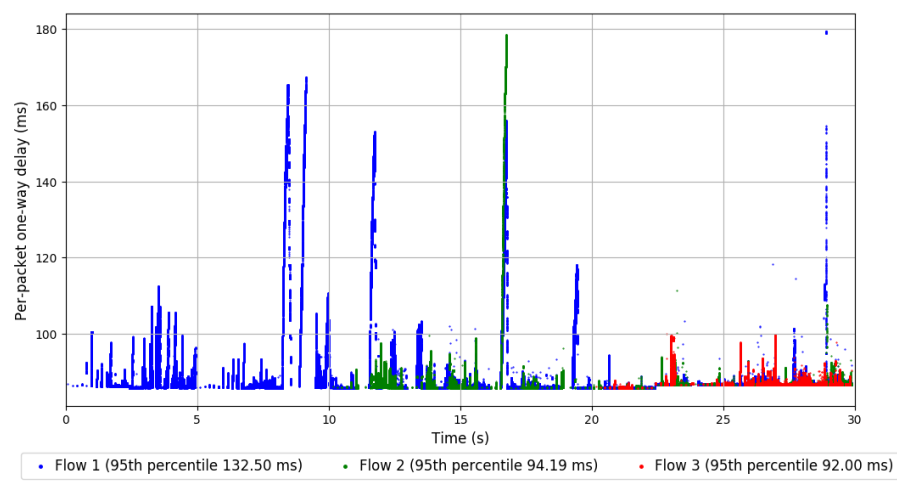
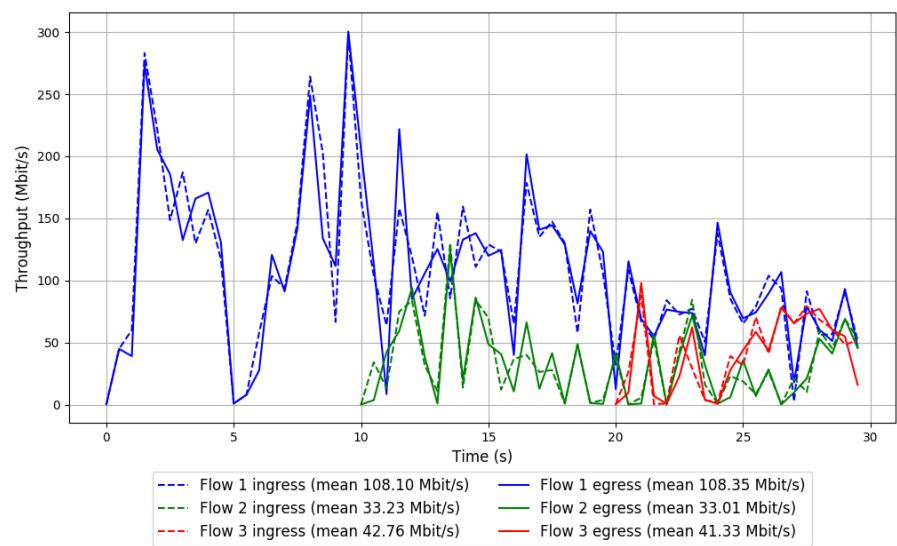
-- Flow 3:

Average throughput: 41.33 Mbit/s

95th percentile per-packet one-way delay: 91.996 ms

Loss rate: 4.58%

Run 10: Report of Verus — Data Link

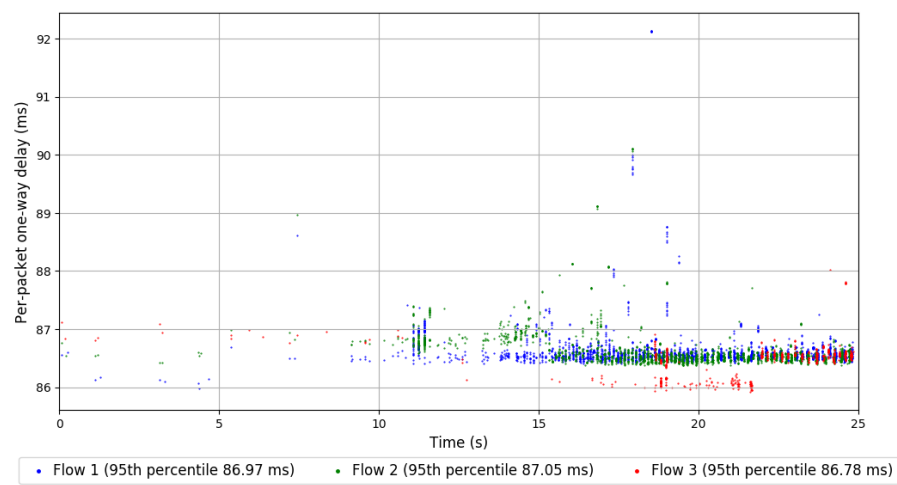
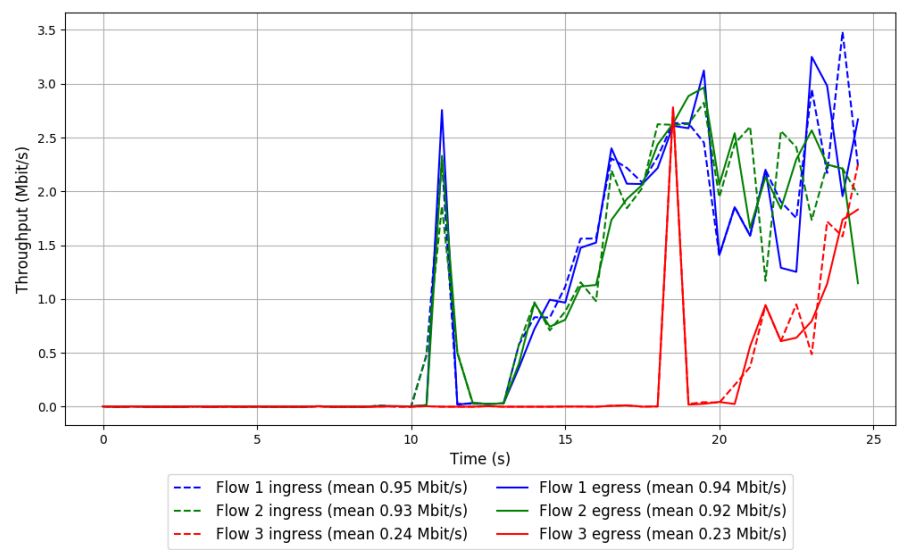


```
Run 1: Statistics of WebRTC media

Start at: 2017-09-07 21:50:58
End at: 2017-09-07 21:51:28

# Below is generated by plot.py at 2017-09-08 03:42:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 86.985 ms
Loss rate: 2.61%
-- Flow 1:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 86.973 ms
Loss rate: 2.31%
-- Flow 2:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 87.047 ms
Loss rate: 1.78%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 86.778 ms
Loss rate: 7.00%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-09-07 22:04:07

End at: 2017-09-07 22:04:37

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 86.869 ms

Loss rate: 2.03%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.041 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 86.787 ms

Loss rate: 1.54%

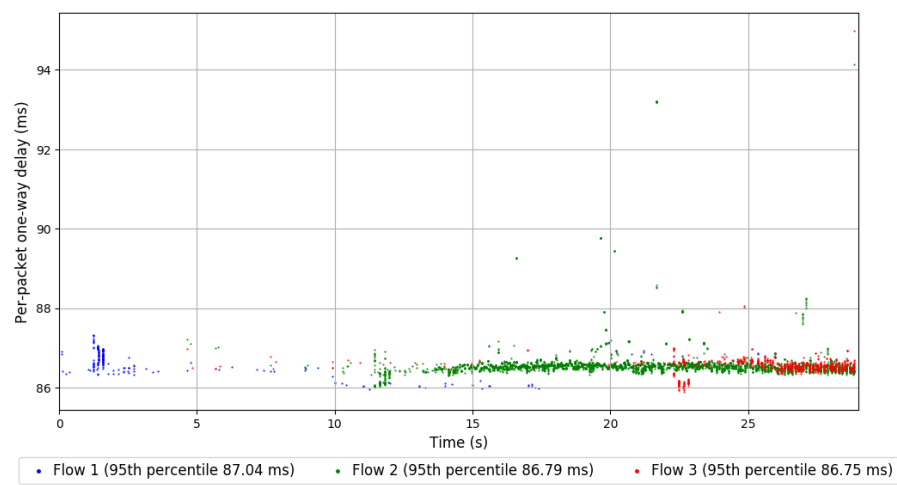
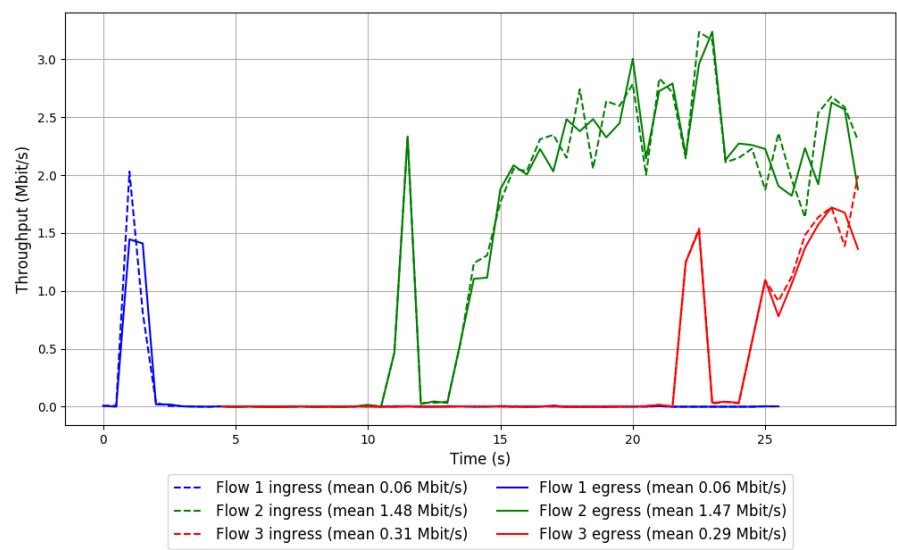
-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 86.755 ms

Loss rate: 4.79%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-09-07 22:17:25

End at: 2017-09-07 22:17:55

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 87.277 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.081 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 87.338 ms

Loss rate: 0.76%

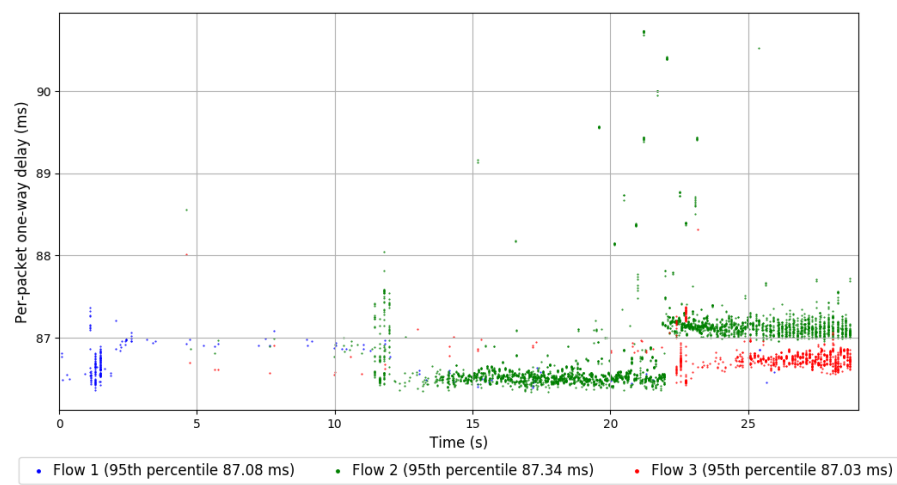
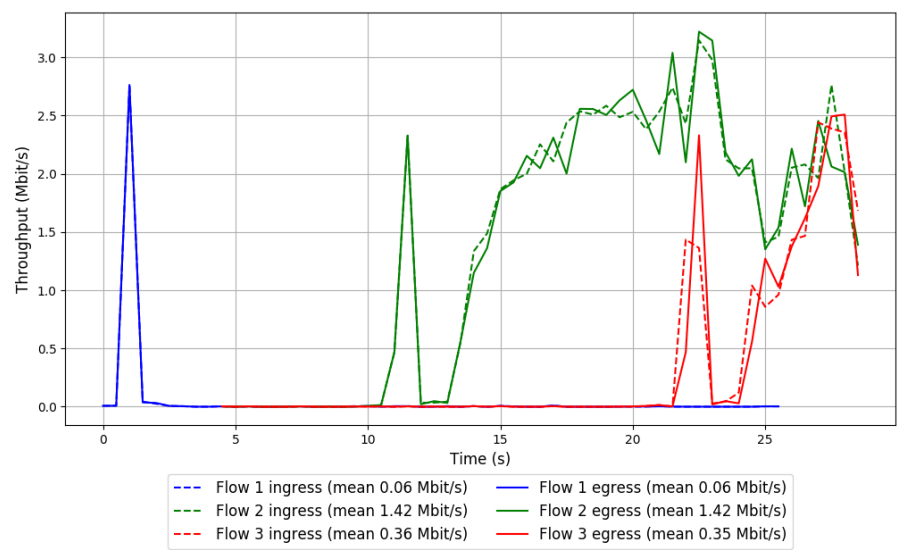
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 87.032 ms

Loss rate: 4.80%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-09-07 22:30:26

End at: 2017-09-07 22:30:56

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 86.987 ms

Loss rate: 1.75%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.253 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 87.005 ms

Loss rate: 0.80%

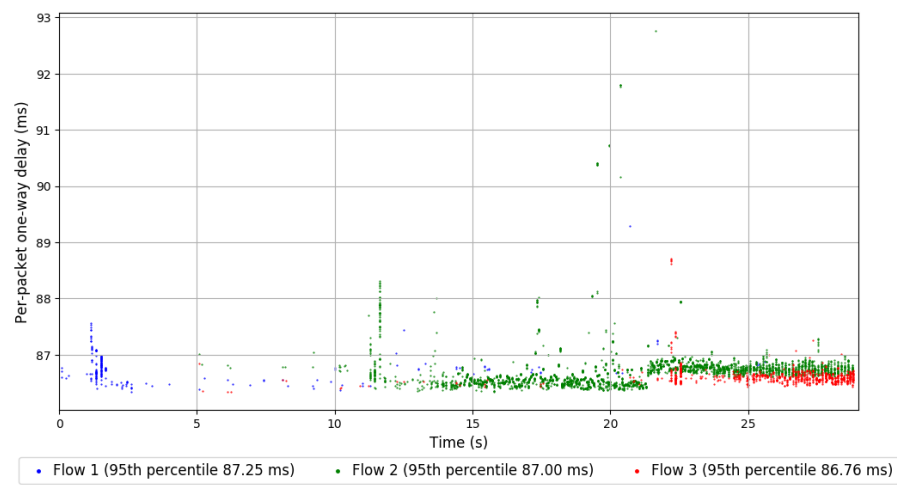
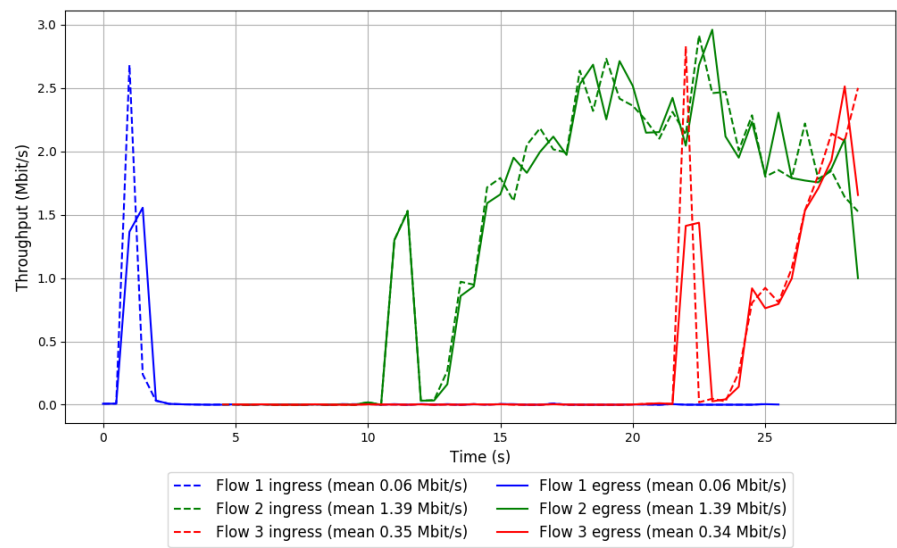
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 86.759 ms

Loss rate: 5.81%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-09-07 22:43:26

End at: 2017-09-07 22:43:56

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 87.017 ms

Loss rate: 1.96%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.542 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 86.897 ms

Loss rate: 1.39%

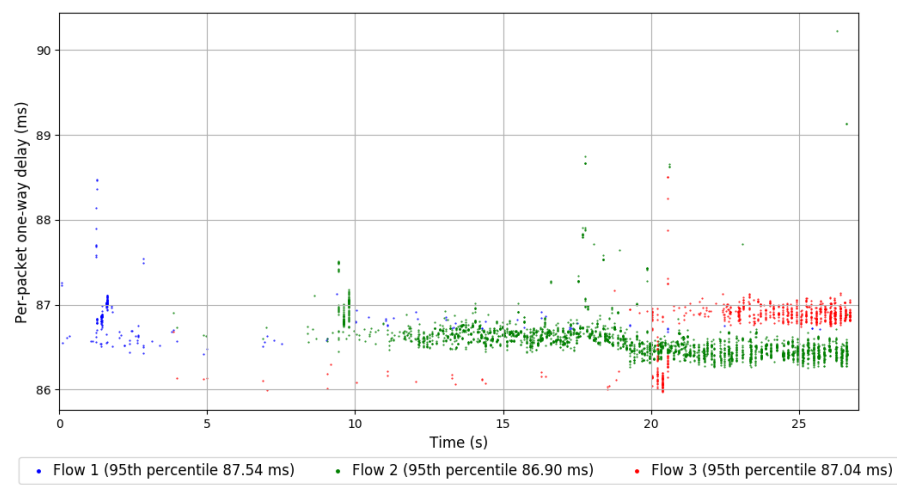
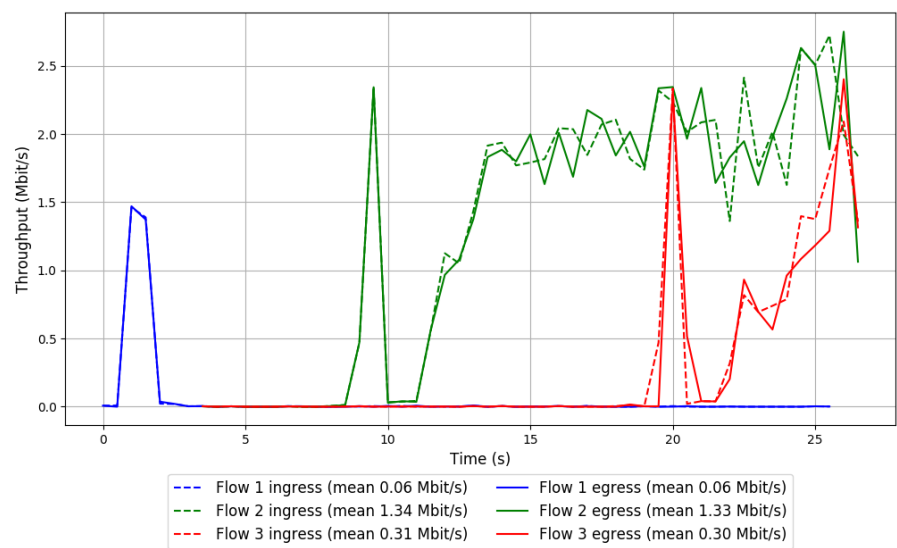
-- Flow 3:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 87.040 ms

Loss rate: 4.86%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-09-07 22:56:28

End at: 2017-09-07 22:56:58

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 86.854 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.147 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 86.785 ms

Loss rate: 1.17%

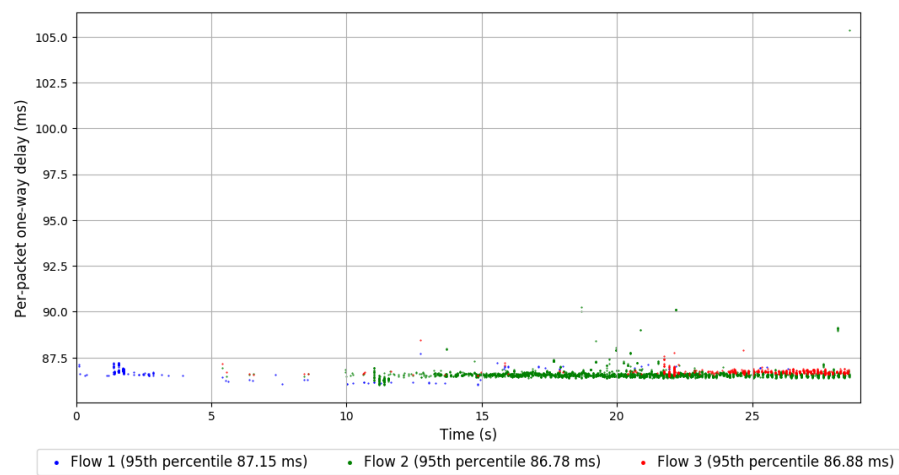
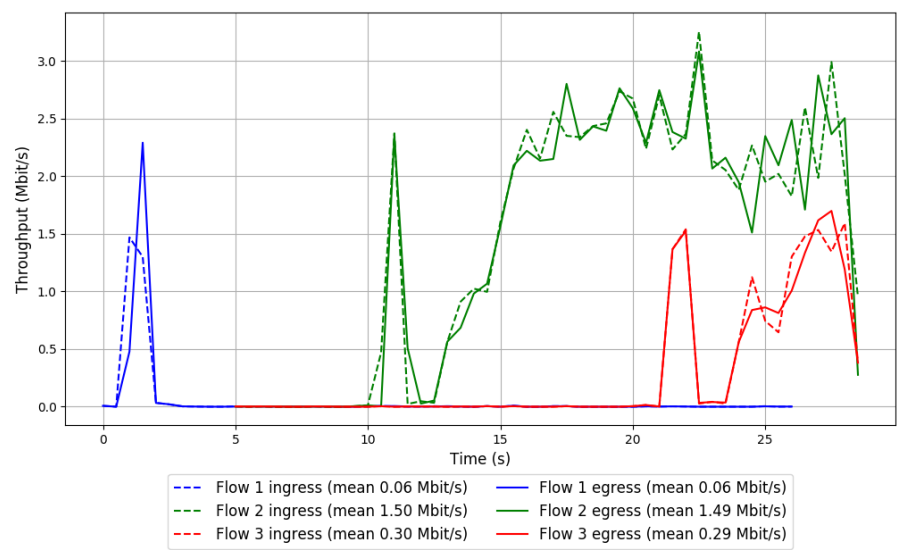
-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 86.880 ms

Loss rate: 2.93%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-09-07 23:09:46

End at: 2017-09-07 23:10:16

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 87.343 ms

Loss rate: 2.35%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.688 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 87.356 ms

Loss rate: 1.58%

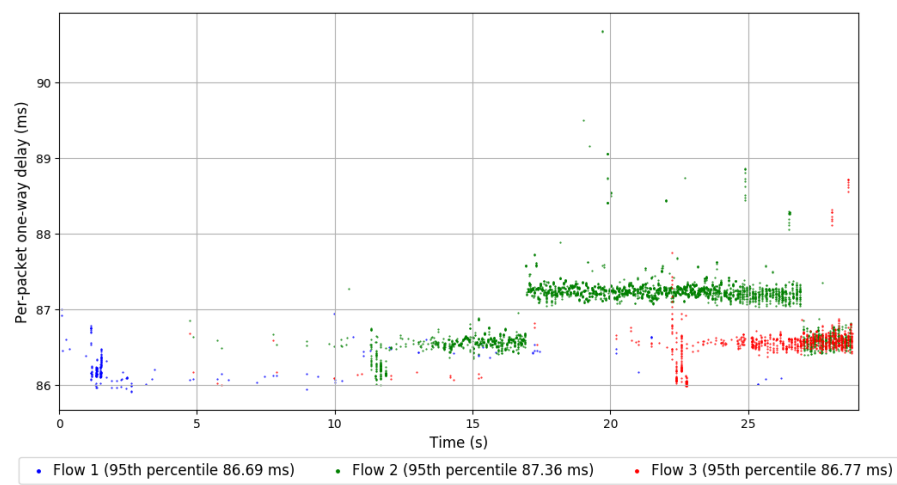
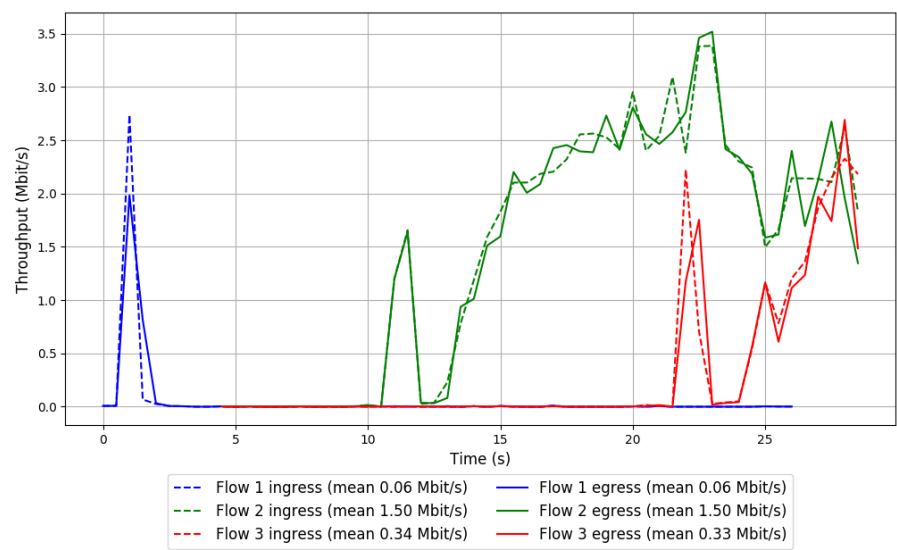
-- Flow 3:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 86.770 ms

Loss rate: 6.15%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-09-07 23:22:46

End at: 2017-09-07 23:23:16

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 87.130 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.031 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 87.144 ms

Loss rate: 0.27%

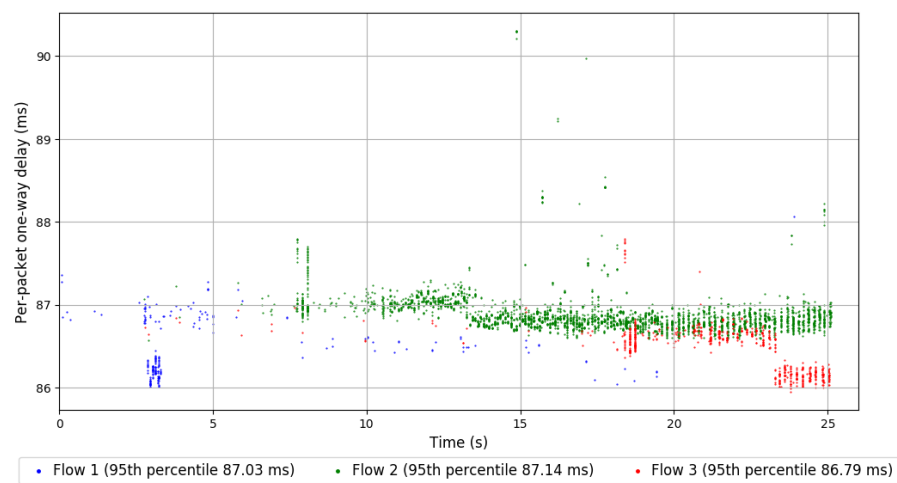
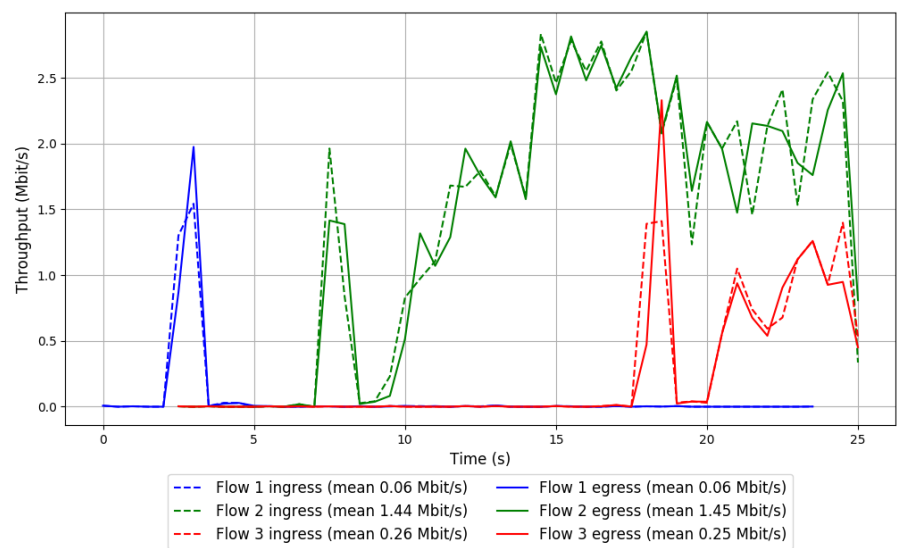
-- Flow 3:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 86.790 ms

Loss rate: 4.49%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-09-07 23:35:52

End at: 2017-09-07 23:36:22

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 87.135 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.178 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 87.154 ms

Loss rate: 1.35%

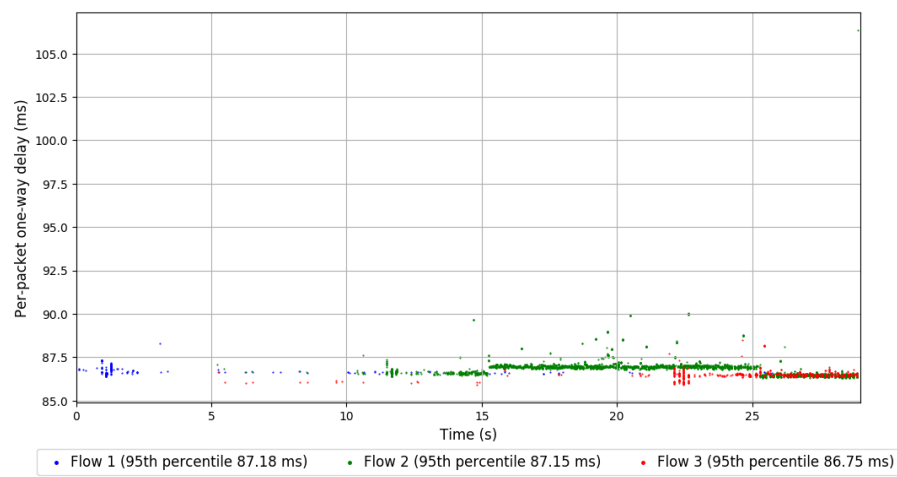
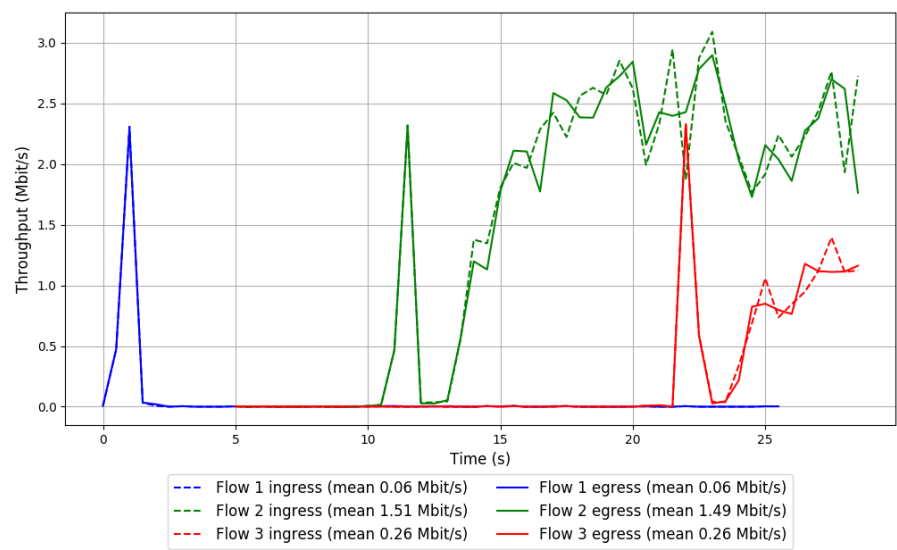
-- Flow 3:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 86.749 ms

Loss rate: 1.95%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-09-07 23:49:04

End at: 2017-09-07 23:49:34

Below is generated by plot.py at 2017-09-08 03:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 86.928 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.937 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 86.948 ms

Loss rate: 1.35%

-- Flow 3:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 86.748 ms

Loss rate: 3.22%

Run 10: Report of WebRTC media — Data Link

