

## Pantheon Report

Generated at 2017-08-12 06:24:02 (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.

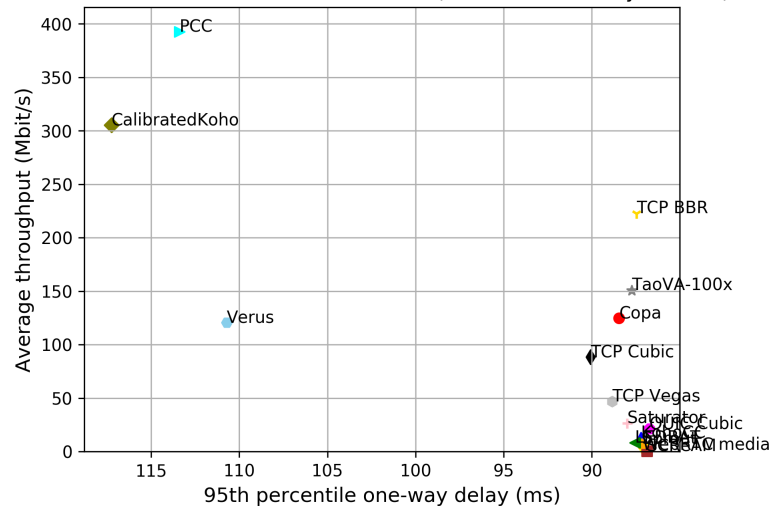
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

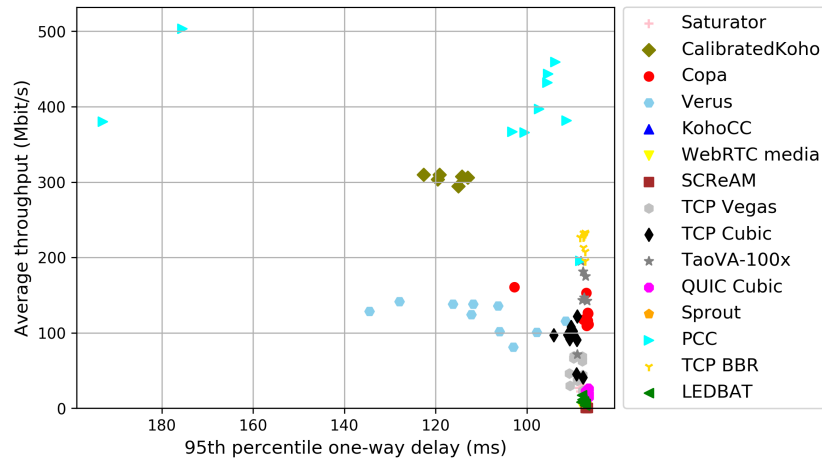
Git summary:

```
branch: master @ e43be7582298d552838afcf6382342bf187fbbd6
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
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-quick @ 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





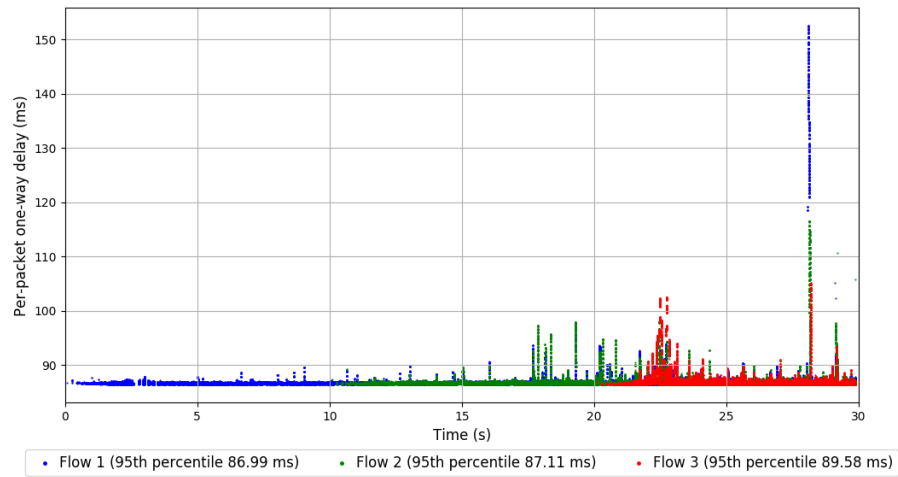
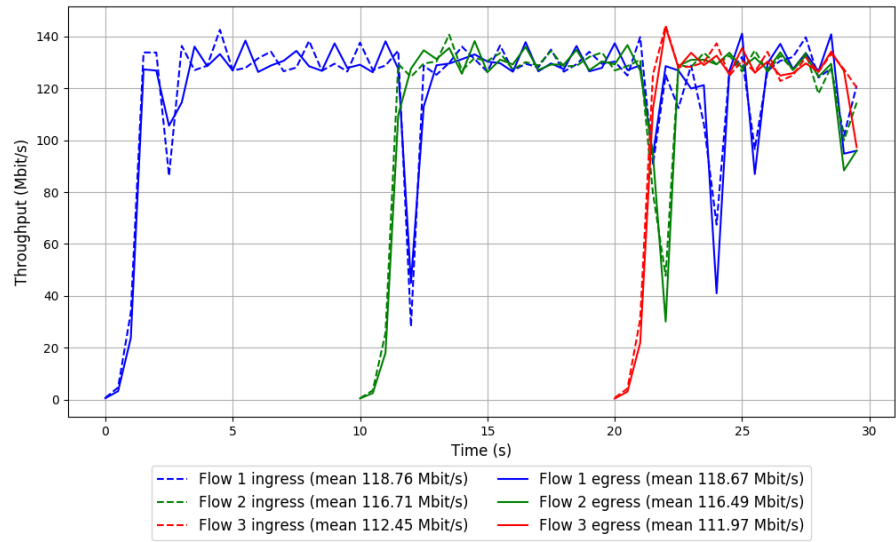
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	114.59	109.07	109.01	87.14	87.46	89.35	0.69	1.26	2.17
CalibratedKoho	6	204.50	125.20	52.10	119.27	113.86	103.61	1.00	1.13	5.41
Copa	10	78.80	51.62	41.64	88.99	87.01	86.91	0.36	0.97	2.16
TCP Cubic	9	41.04	49.41	41.99	89.20	89.19	92.04	0.90	1.57	3.06
KohoCC	10	6.71	6.63	6.38	87.21	87.19	87.21	0.69	0.96	2.15
LEDBAT	10	4.93	3.94	2.66	87.61	87.50	87.27	1.61	2.63	3.01
PCC	10	244.41	157.28	140.78	429.04	91.15	91.70	2.64	2.80	2.88
QUIC Cubic	10	0.06	21.87	20.96	86.69	86.59	86.57	0.00	1.17	2.97
Saturator	10	13.58	13.52	13.32	88.03	87.85	88.15	0.81	0.94	2.02
SCReAM	10	0.22	0.22	0.22	86.77	86.70	86.76	0.54	0.84	1.55
Sprout	8	3.89	3.53	3.22	87.16	87.17	87.17	1.86	2.14	2.53
TaoVA-100x	7	161.85	129.59	167.93	87.57	87.44	87.63	0.06	0.44	0.84
TCP Vegas	10	18.27	26.75	33.26	88.63	88.29	89.03	0.78	1.09	2.64
Verus	10	75.62	53.36	29.27	115.90	105.30	97.16	4.65	4.08	9.13
WebRTC media	10	0.52	1.26	0.26	87.25	87.11	87.19	0.27	1.30	5.38

```
Run 1: Statistics of TCP BBR

Start at: 2017-08-12 00:49:31
End at: 2017-08-12 00:50:01

# Below is generated by plot.py at 2017-08-12 05:57:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.67 Mbit/s
95th percentile per-packet one-way delay: 87.238 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 118.67 Mbit/s
95th percentile per-packet one-way delay: 86.987 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 116.49 Mbit/s
95th percentile per-packet one-way delay: 87.113 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 111.97 Mbit/s
95th percentile per-packet one-way delay: 89.582 ms
Loss rate: 2.05%
```

# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-12 01:02:48

End at: 2017-08-12 01:03:18

# Below is generated by plot.py at 2017-08-12 05:57:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 227.03 Mbit/s

95th percentile per-packet one-way delay: 87.631 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 117.52 Mbit/s

95th percentile per-packet one-way delay: 87.272 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 113.21 Mbit/s

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

Loss rate: 1.04%

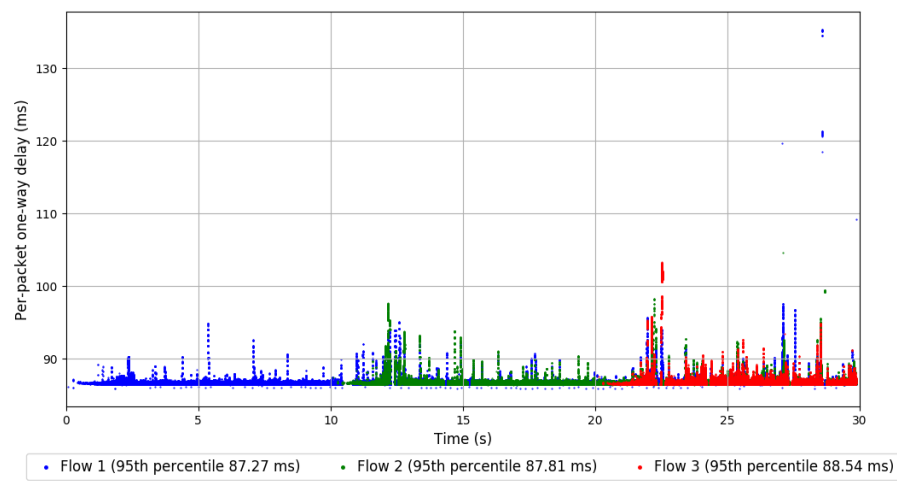
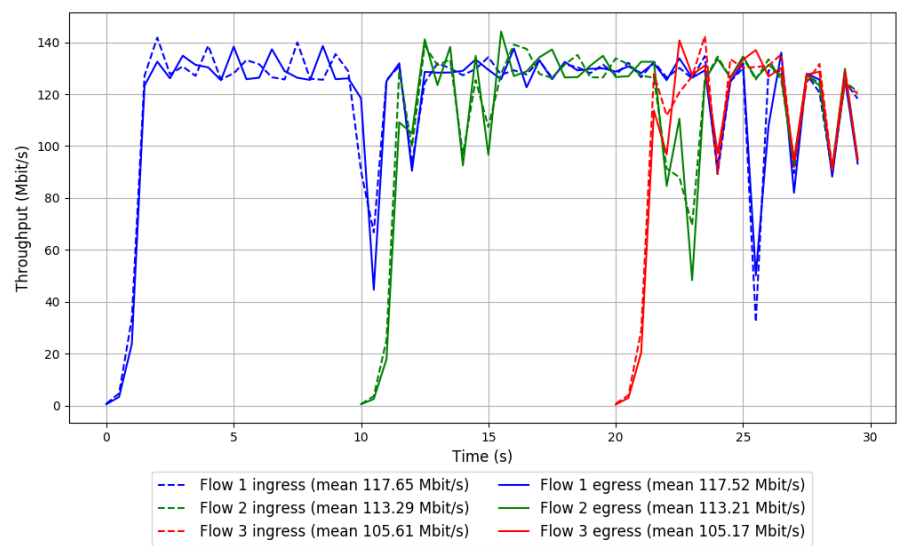
-- Flow 3:

Average throughput: 105.17 Mbit/s

95th percentile per-packet one-way delay: 88.536 ms

Loss rate: 2.27%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-12 01:16:25

End at: 2017-08-12 01:16:55

# Below is generated by plot.py at 2017-08-12 05:58:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 228.35 Mbit/s

95th percentile per-packet one-way delay: 87.426 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 117.34 Mbit/s

95th percentile per-packet one-way delay: 87.037 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 113.38 Mbit/s

95th percentile per-packet one-way delay: 87.135 ms

Loss rate: 1.00%

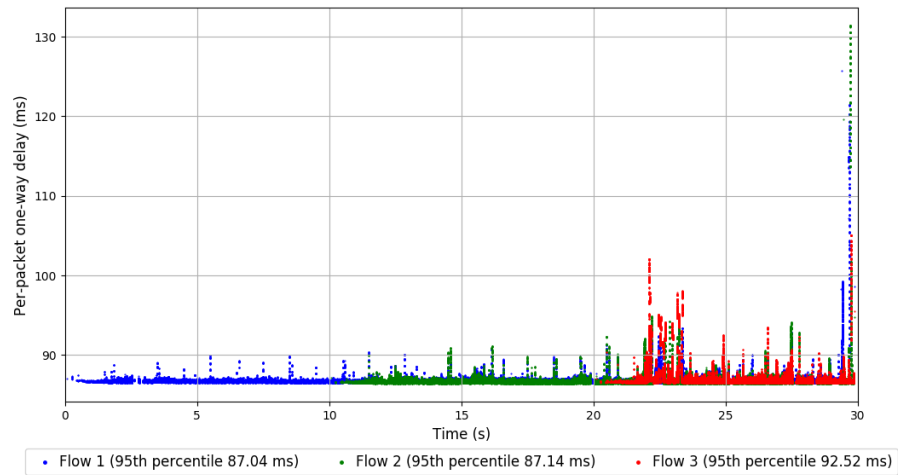
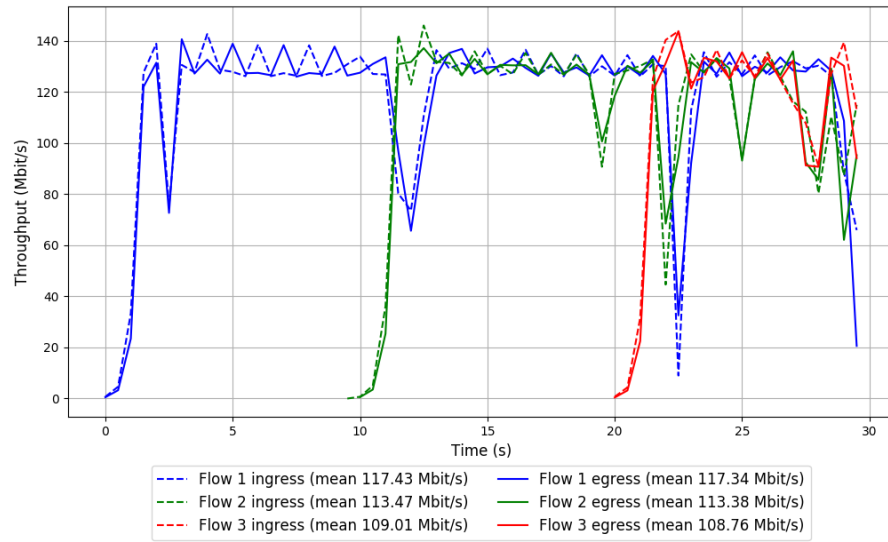
-- Flow 3:

Average throughput: 108.76 Mbit/s

95th percentile per-packet one-way delay: 92.523 ms

Loss rate: 2.07%

### Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-12 01:30:44

End at: 2017-08-12 01:31:14

# Below is generated by plot.py at 2017-08-12 05:58:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 207.93 Mbit/s

95th percentile per-packet one-way delay: 87.245 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 116.43 Mbit/s

95th percentile per-packet one-way delay: 86.983 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 82.00 Mbit/s

95th percentile per-packet one-way delay: 87.002 ms

Loss rate: 2.09%

-- Flow 3:

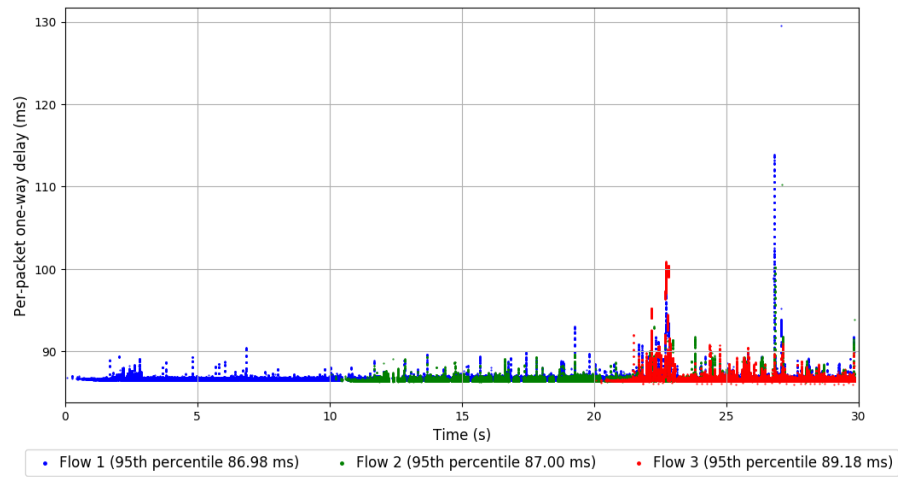
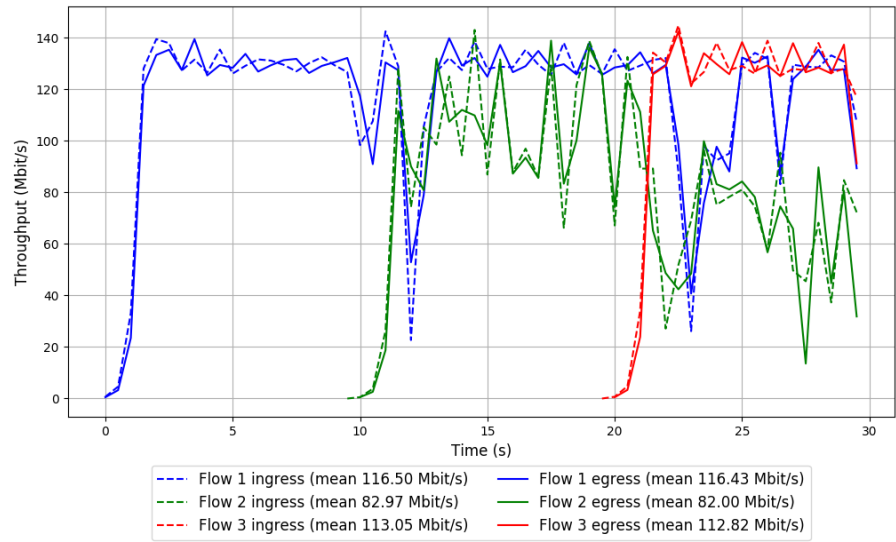
Average throughput: 112.82 Mbit/s

95th percentile per-packet one-way delay: 89.184 ms

Loss rate: 1.95%



#### Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-12 01:44:37

End at: 2017-08-12 01:45:07

# Below is generated by plot.py at 2017-08-12 05:58:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 195.42 Mbit/s

95th percentile per-packet one-way delay: 87.255 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 82.45 Mbit/s

95th percentile per-packet one-way delay: 86.996 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 115.44 Mbit/s

95th percentile per-packet one-way delay: 87.224 ms

Loss rate: 1.02%

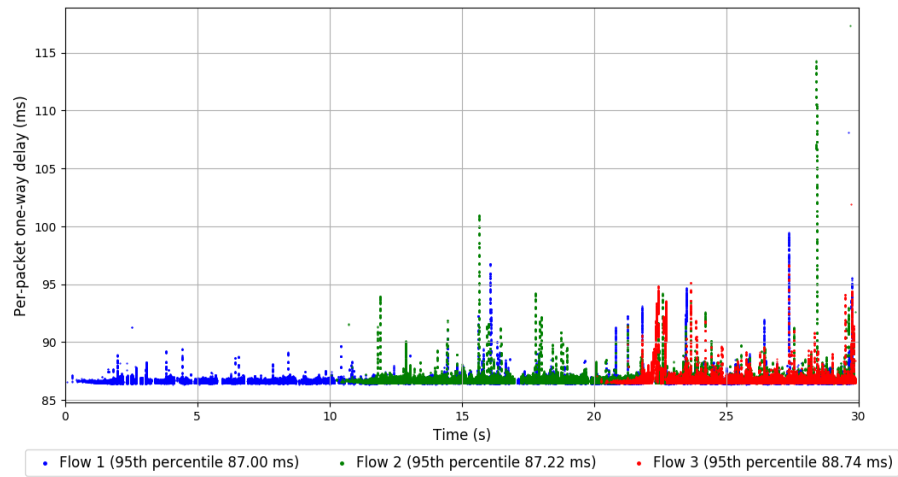
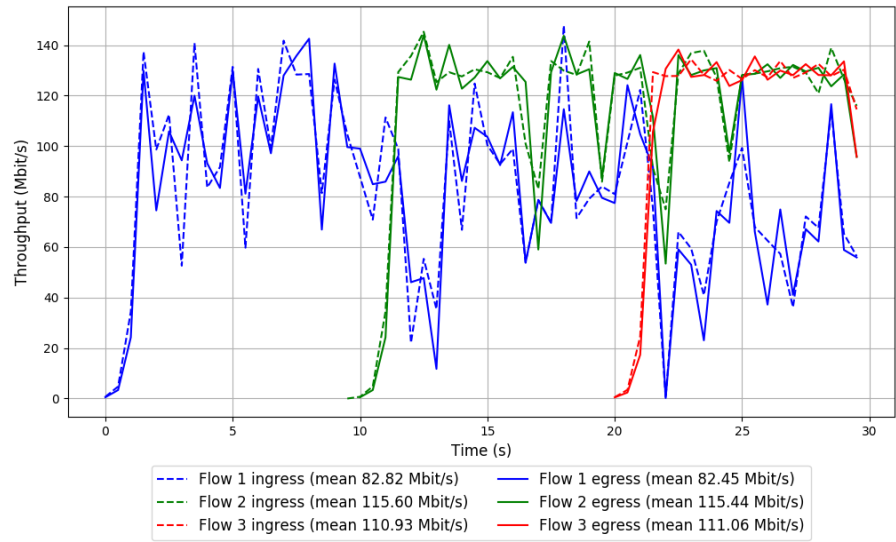
-- Flow 3:

Average throughput: 111.06 Mbit/s

95th percentile per-packet one-way delay: 88.737 ms

Loss rate: 1.79%

# Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-12 01:57:40

End at: 2017-08-12 01:58:10

# Below is generated by plot.py at 2017-08-12 05:59:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 226.33 Mbit/s

95th percentile per-packet one-way delay: 88.289 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 115.75 Mbit/s

95th percentile per-packet one-way delay: 87.639 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 113.13 Mbit/s

95th percentile per-packet one-way delay: 88.291 ms

Loss rate: 1.06%

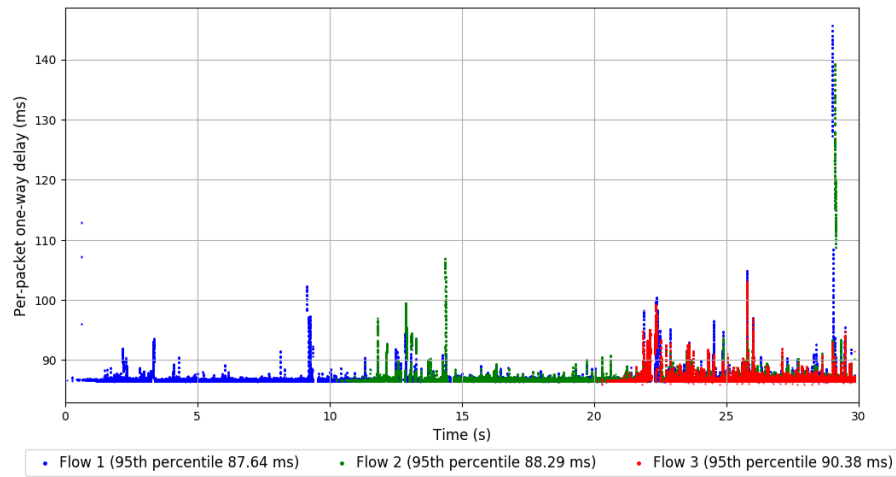
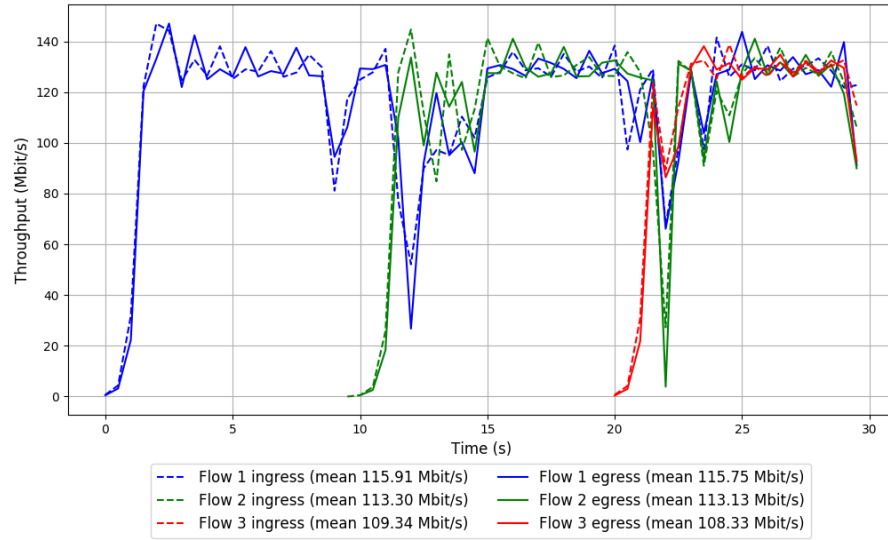
-- Flow 3:

Average throughput: 108.33 Mbit/s

95th percentile per-packet one-way delay: 90.379 ms

Loss rate: 2.74%

# Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-12 02:11:34

End at: 2017-08-12 02:12:04

# Below is generated by plot.py at 2017-08-12 05:59:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 233.19 Mbit/s

95th percentile per-packet one-way delay: 87.181 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 121.02 Mbit/s

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

Loss rate: 0.63%

-- Flow 2:

Average throughput: 115.21 Mbit/s

95th percentile per-packet one-way delay: 87.289 ms

Loss rate: 1.03%

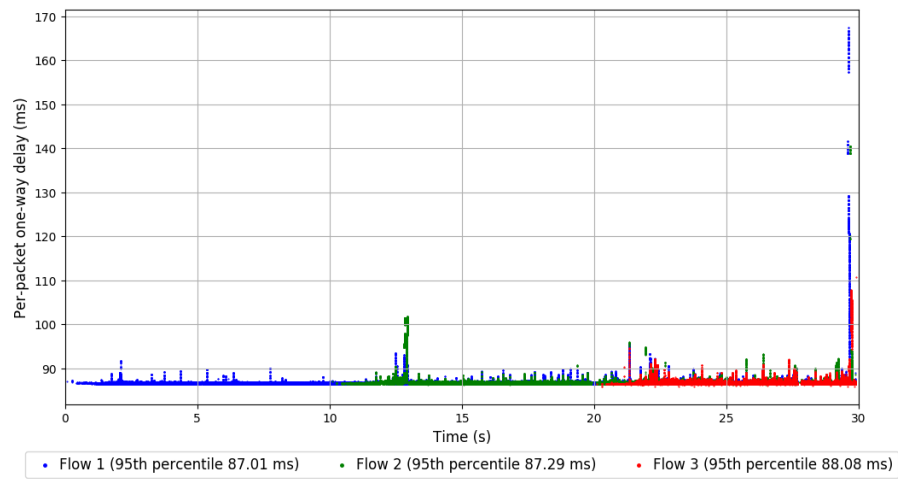
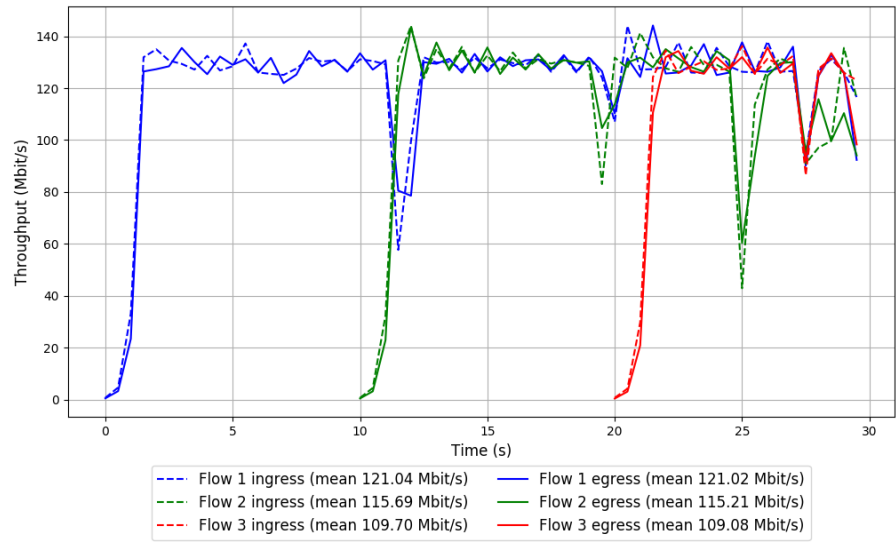
-- Flow 3:

Average throughput: 109.08 Mbit/s

95th percentile per-packet one-way delay: 88.078 ms

Loss rate: 2.08%

## Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-12 02:25:44

End at: 2017-08-12 02:26:14

# Below is generated by plot.py at 2017-08-12 05:59:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 213.01 Mbit/s

95th percentile per-packet one-way delay: 87.574 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 120.76 Mbit/s

95th percentile per-packet one-way delay: 87.298 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 86.23 Mbit/s

95th percentile per-packet one-way delay: 88.037 ms

Loss rate: 2.47%

-- Flow 3:

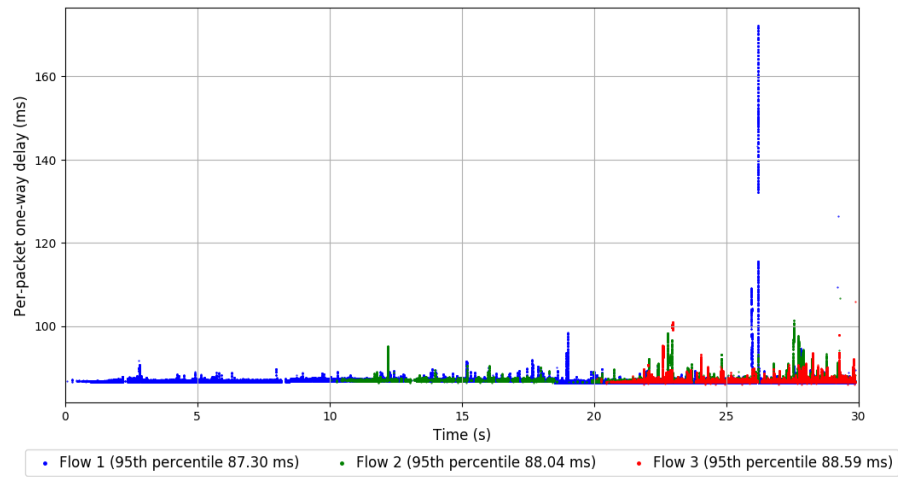
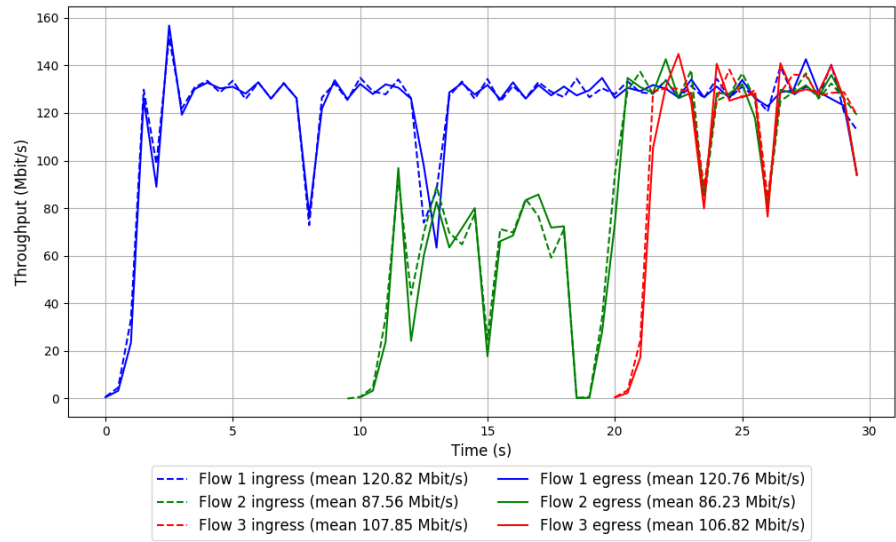
Average throughput: 106.82 Mbit/s

95th percentile per-packet one-way delay: 88.588 ms

Loss rate: 2.46%



## Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-12 02:39:13

End at: 2017-08-12 02:39:43

# Below is generated by plot.py at 2017-08-12 06:00:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 232.06 Mbit/s

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

Loss rate: 0.98%

-- Flow 1:

Average throughput: 118.29 Mbit/s

95th percentile per-packet one-way delay: 87.163 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 117.58 Mbit/s

95th percentile per-packet one-way delay: 87.584 ms

Loss rate: 0.96%

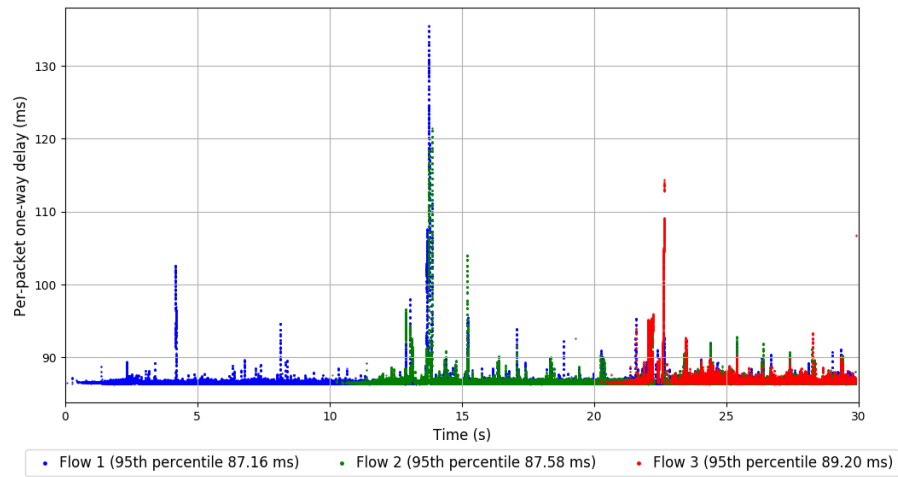
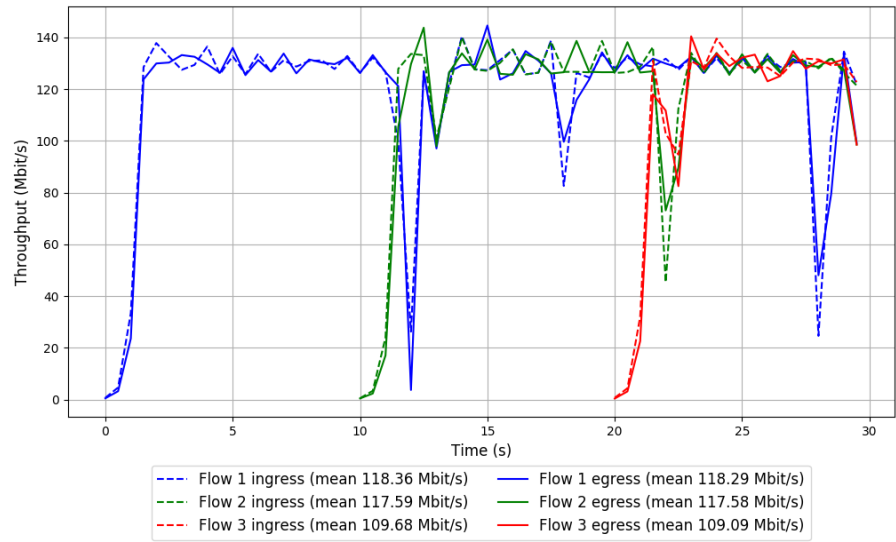
-- Flow 3:

Average throughput: 109.09 Mbit/s

95th percentile per-packet one-way delay: 89.199 ms

Loss rate: 2.12%

### Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-08-12 02:53:50

End at: 2017-08-12 02:54:20

# Below is generated by plot.py at 2017-08-12 06:00:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 231.11 Mbit/s

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

Loss rate: 0.98%

-- Flow 1:

Average throughput: 117.64 Mbit/s

95th percentile per-packet one-way delay: 87.034 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 118.05 Mbit/s

95th percentile per-packet one-way delay: 87.142 ms

Loss rate: 0.96%

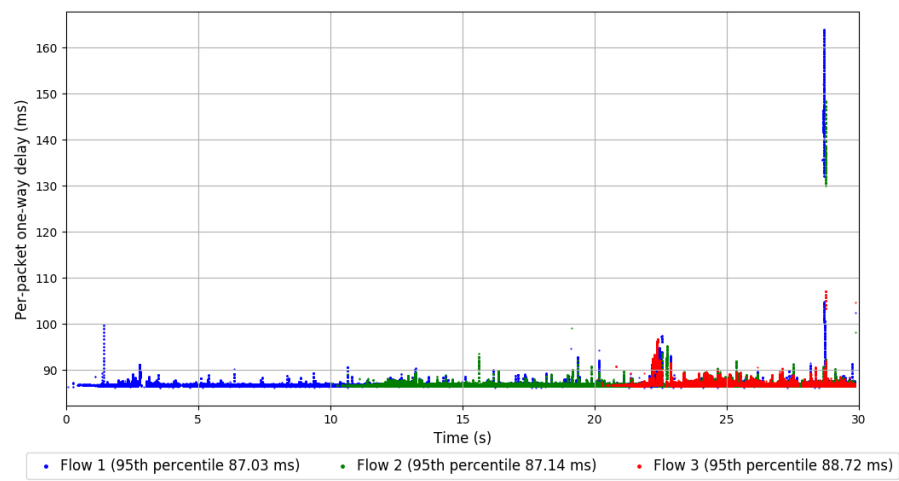
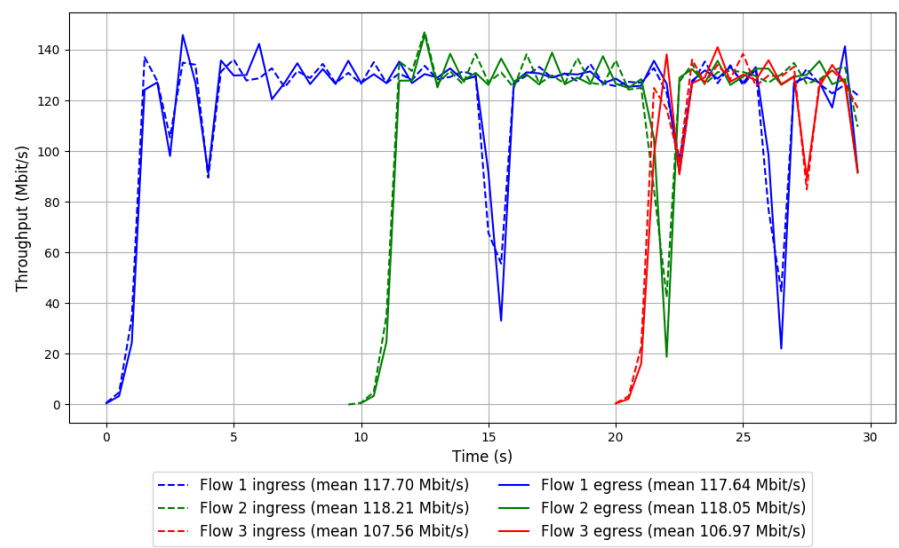
-- Flow 3:

Average throughput: 106.97 Mbit/s

95th percentile per-packet one-way delay: 88.725 ms

Loss rate: 2.16%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-12 00:44:15

End at: 2017-08-12 00:44:45

# Below is generated by plot.py at 2017-08-12 06:01:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 307.56 Mbit/s

95th percentile per-packet one-way delay: 114.246 ms

Loss rate: 2.67%

-- Flow 1:

Average throughput: 204.91 Mbit/s

95th percentile per-packet one-way delay: 117.484 ms

Loss rate: 3.05%

-- Flow 2:

Average throughput: 126.58 Mbit/s

95th percentile per-packet one-way delay: 104.123 ms

Loss rate: 1.35%

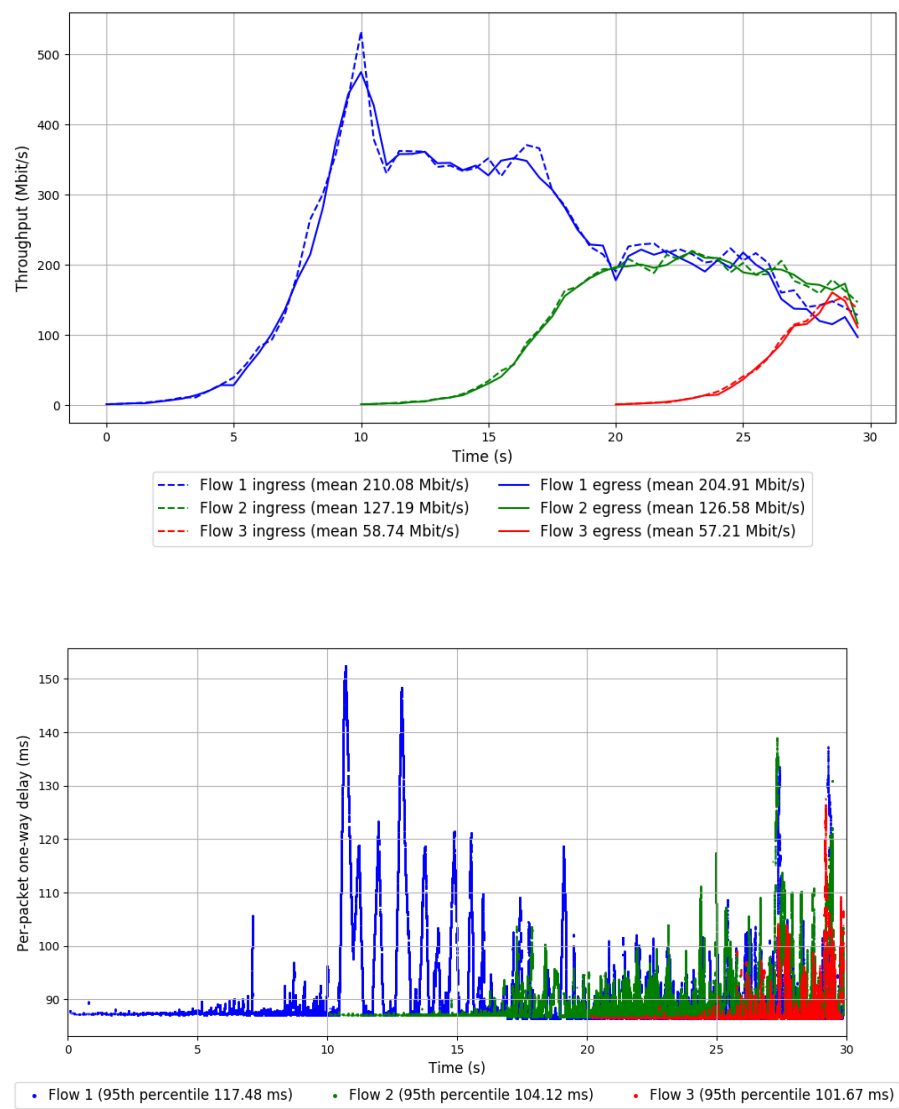
-- Flow 3:

Average throughput: 57.21 Mbit/s

95th percentile per-packet one-way delay: 101.675 ms

Loss rate: 4.41%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-12 00:57:40

End at: 2017-08-12 00:58:10



## Run 2: Report of CalibratedKoho — Data Link

Figure is missing

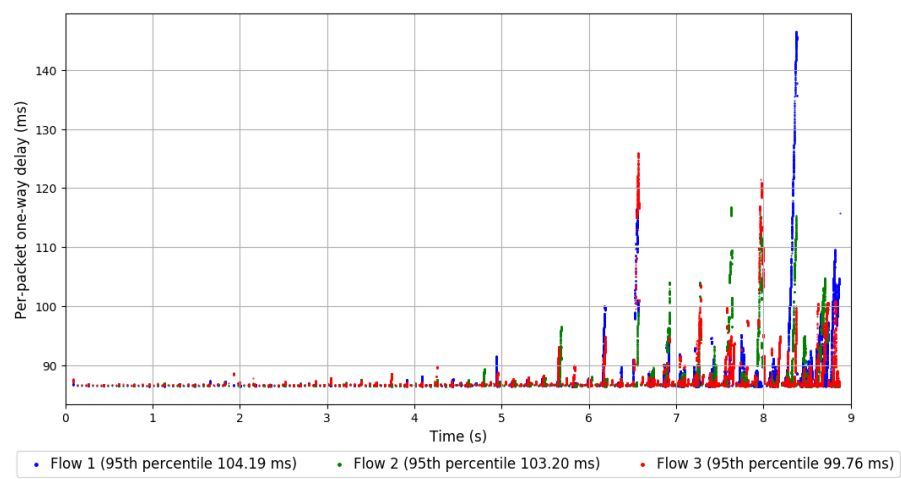
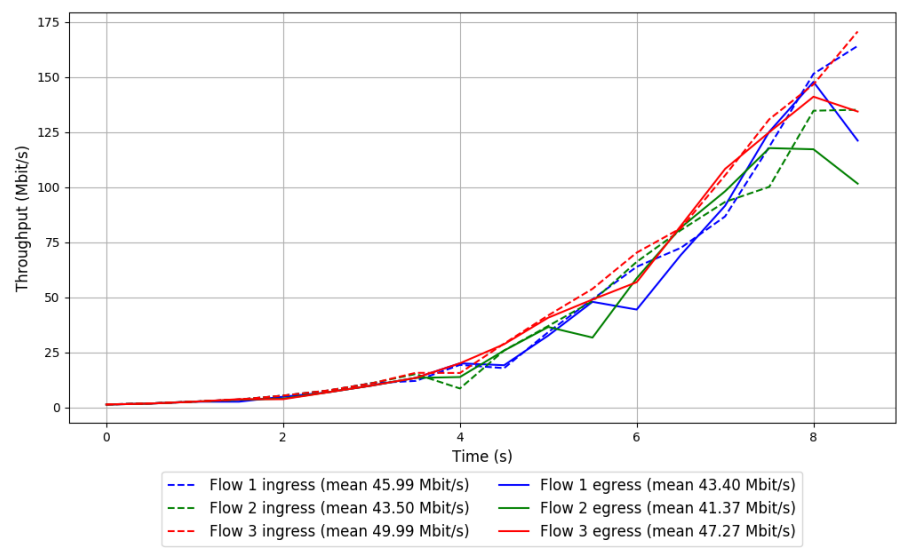
Figure is missing

Run 3: Statistics of CalibratedKoho

Start at: 2017-08-12 01:11:29

End at: 2017-08-12 01:11:59

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-12 01:24:45

End at: 2017-08-12 01:25:15

# Below is generated by plot.py at 2017-08-12 06:01:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 306.24 Mbit/s

95th percentile per-packet one-way delay: 112.994 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 196.65 Mbit/s

95th percentile per-packet one-way delay: 115.061 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 133.21 Mbit/s

95th percentile per-packet one-way delay: 110.290 ms

Loss rate: 1.23%

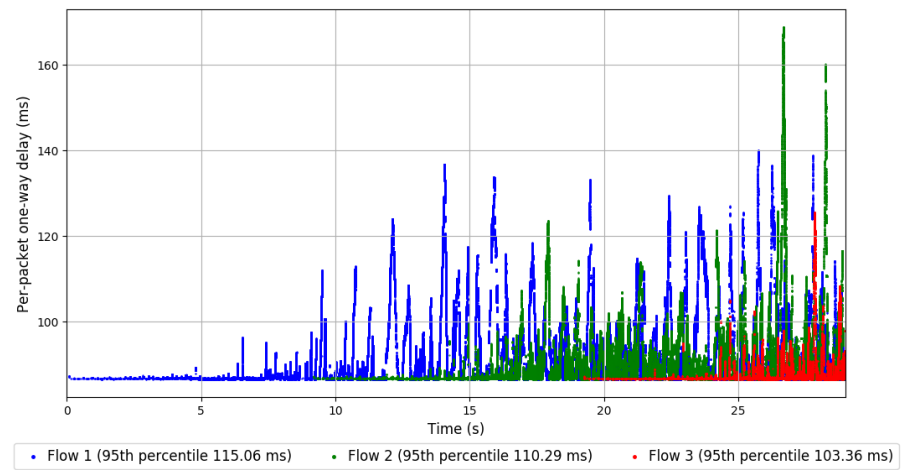
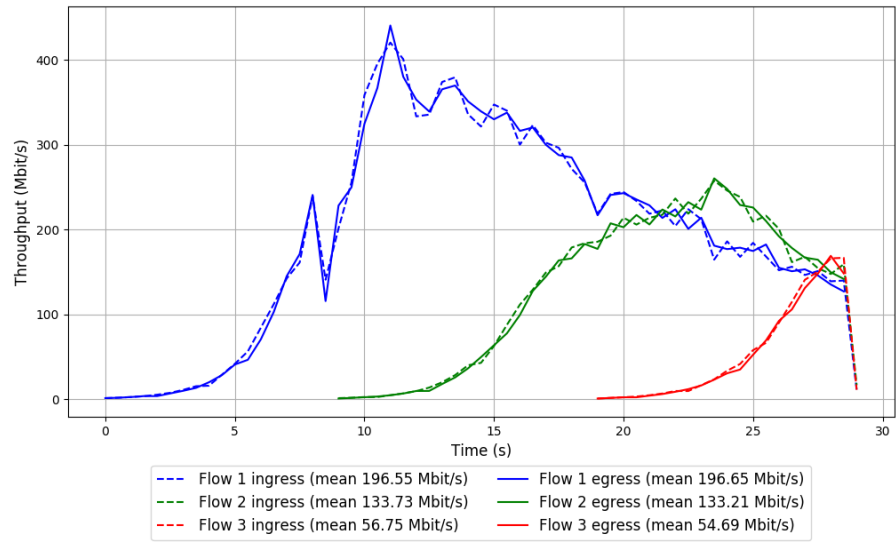
-- Flow 3:

Average throughput: 54.69 Mbit/s

95th percentile per-packet one-way delay: 103.355 ms

Loss rate: 5.27%

# Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-12 01:39:03

End at: 2017-08-12 01:39:33

# Below is generated by plot.py at 2017-08-12 06:02:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 303.65 Mbit/s

95th percentile per-packet one-way delay: 119.559 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 207.20 Mbit/s

95th percentile per-packet one-way delay: 120.233 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 117.79 Mbit/s

95th percentile per-packet one-way delay: 118.297 ms

Loss rate: 0.93%

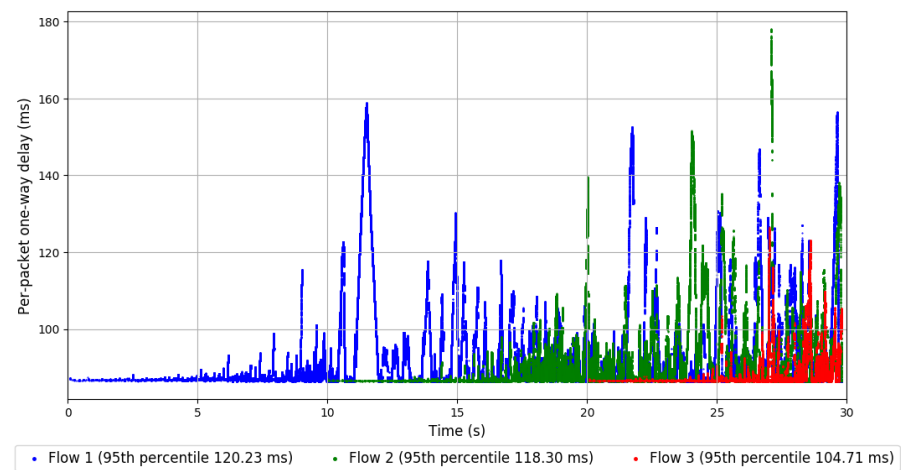
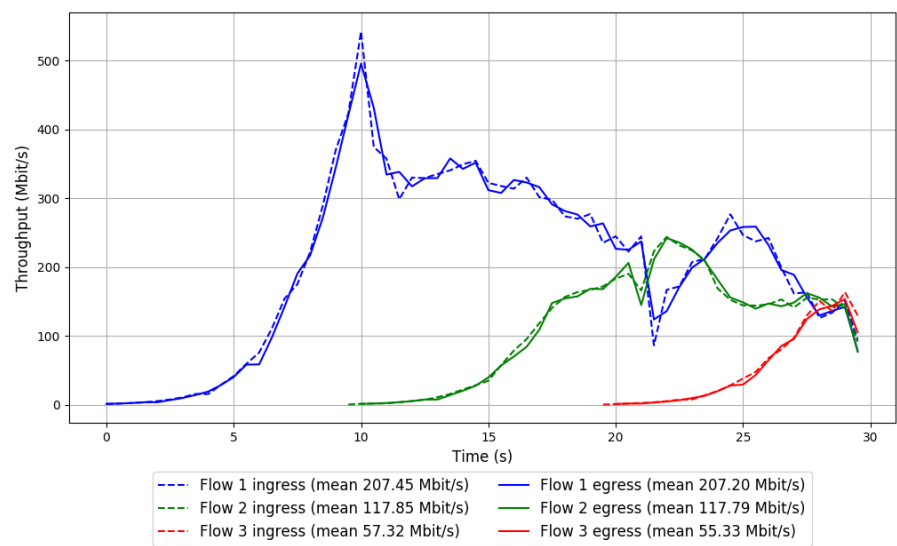
-- Flow 3:

Average throughput: 55.33 Mbit/s

95th percentile per-packet one-way delay: 104.711 ms

Loss rate: 5.17%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-12 01:52:52

End at: 2017-08-12 01:53:22



## Run 6: Report of CalibratedKoho — Data Link

Figure is missing

Figure is missing

Run 7: Statistics of CalibratedKoho

Start at: 2017-08-12 02:05:53

End at: 2017-08-12 02:06:23

# Below is generated by plot.py at 2017-08-12 06:02:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 309.94 Mbit/s

95th percentile per-packet one-way delay: 122.603 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 199.48 Mbit/s

95th percentile per-packet one-way delay: 124.218 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 140.38 Mbit/s

95th percentile per-packet one-way delay: 123.003 ms

Loss rate: 0.99%

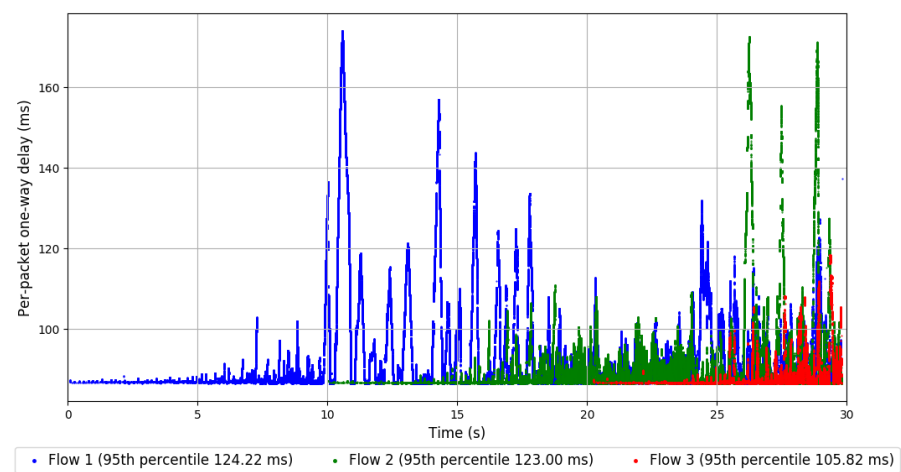
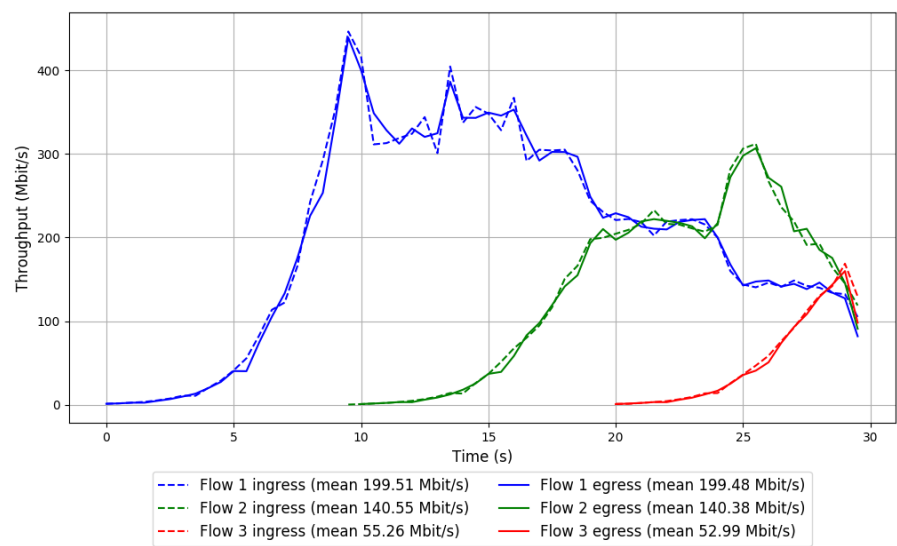
-- Flow 3:

Average throughput: 52.99 Mbit/s

95th percentile per-packet one-way delay: 105.823 ms

Loss rate: 5.70%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-12 02:19:55

End at: 2017-08-12 02:20:25

# Below is generated by plot.py at 2017-08-12 06:03:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 309.68 Mbit/s

95th percentile per-packet one-way delay: 119.157 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 221.72 Mbit/s

95th percentile per-packet one-way delay: 121.694 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 113.11 Mbit/s

95th percentile per-packet one-way delay: 114.320 ms

Loss rate: 1.16%

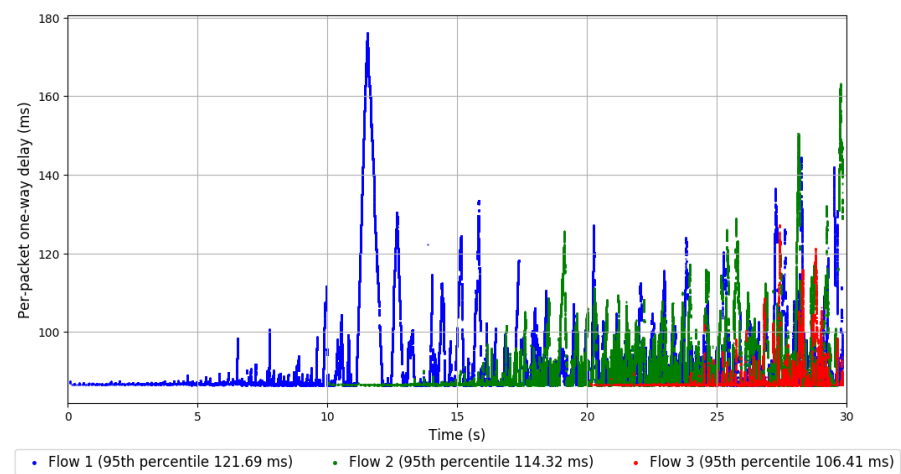
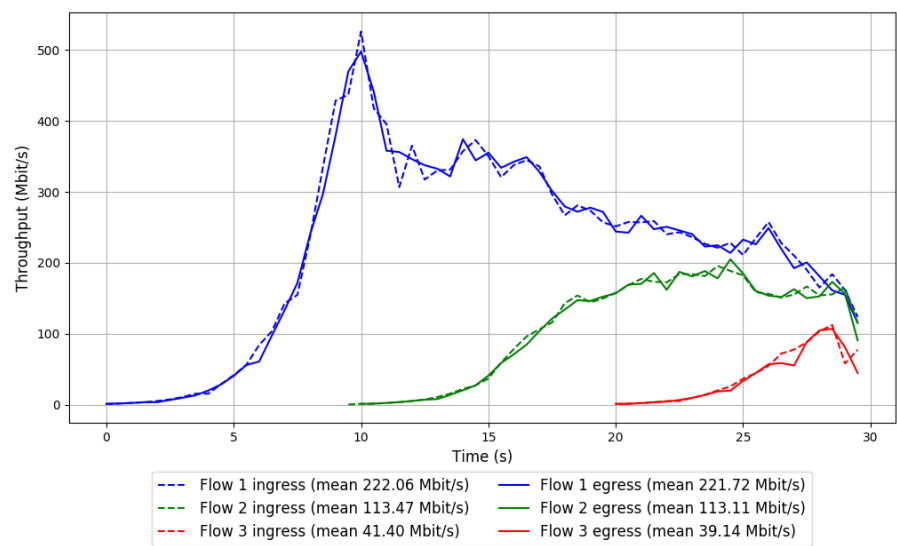
-- Flow 3:

Average throughput: 39.14 Mbit/s

95th percentile per-packet one-way delay: 106.411 ms

Loss rate: 7.09%

Run 8: Report of CalibratedKoho — Data Link

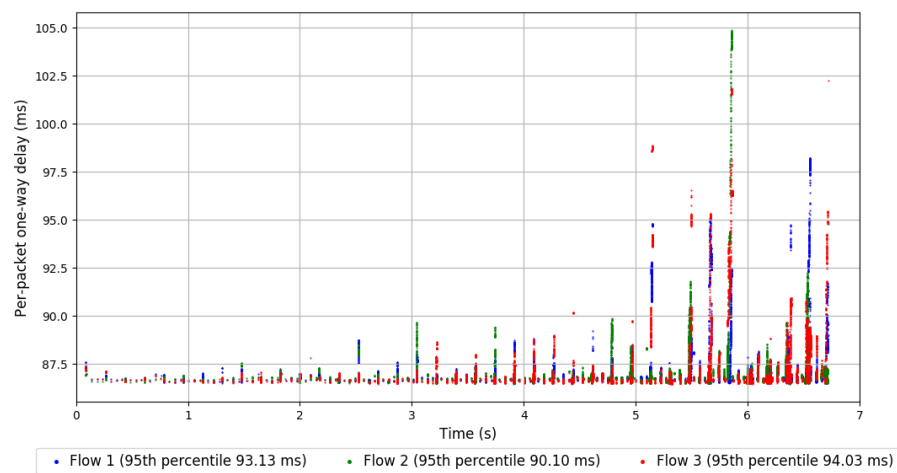
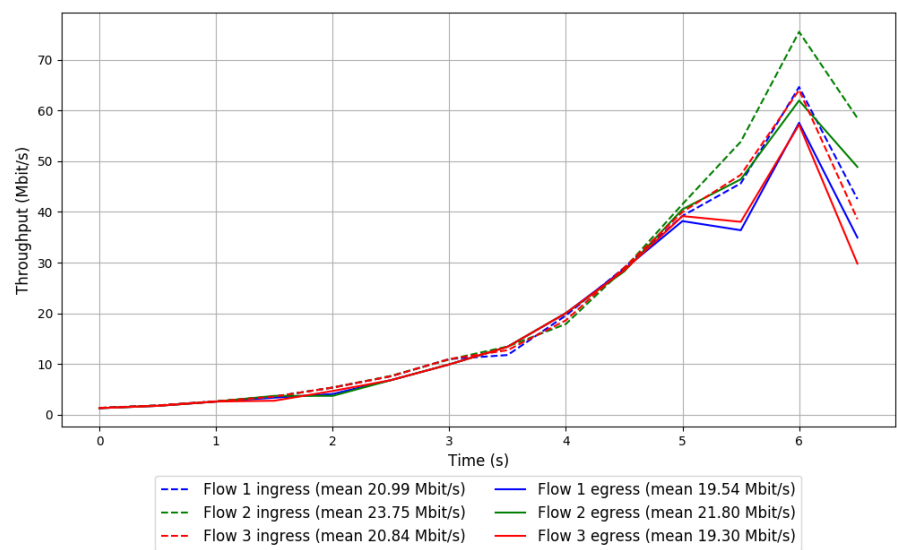


Run 9: Statistics of CalibratedKoho

Start at: 2017-08-12 02:34:13

End at: 2017-08-12 02:34:43

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-12 02:47:54

End at: 2017-08-12 02:48:24

# Below is generated by plot.py at 2017-08-12 06:03:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 294.63 Mbit/s

95th percentile per-packet one-way delay: 114.980 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 197.07 Mbit/s

95th percentile per-packet one-way delay: 116.924 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 120.13 Mbit/s

95th percentile per-packet one-way delay: 113.150 ms

Loss rate: 1.10%

-- Flow 3:

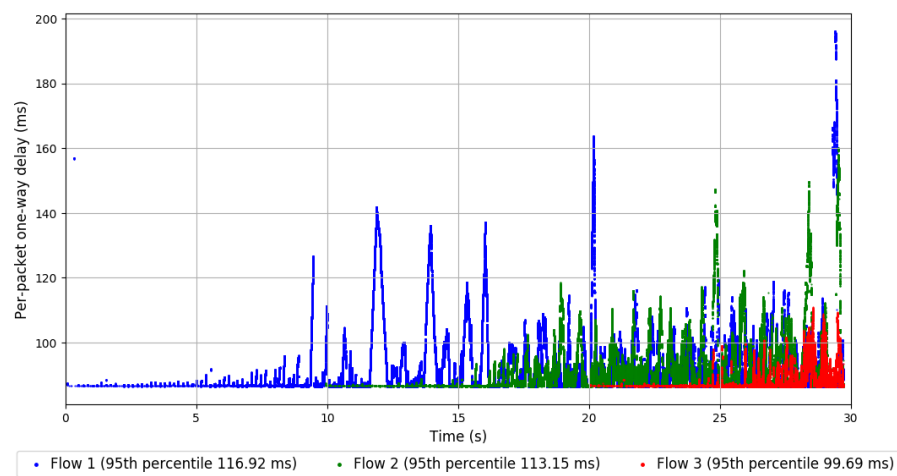
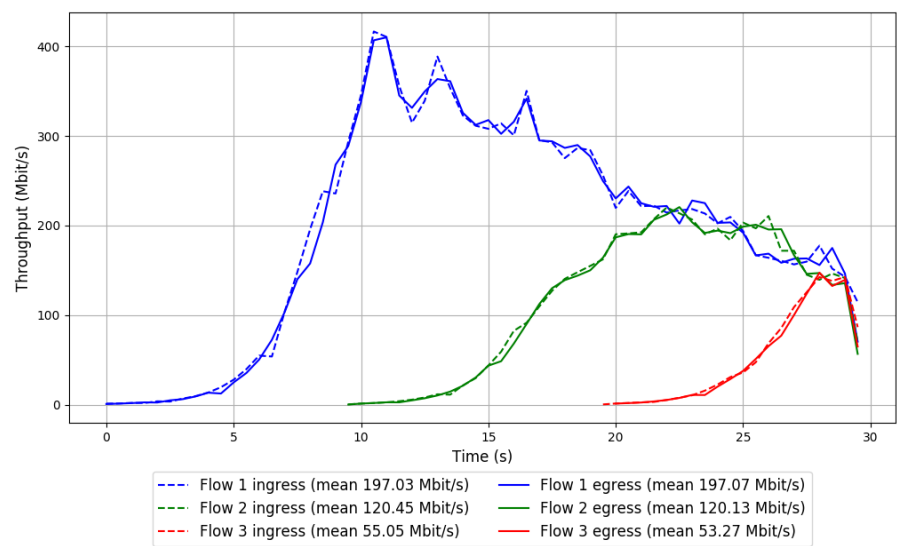
Average throughput: 53.27 Mbit/s

95th percentile per-packet one-way delay: 99.687 ms

Loss rate: 4.80%



Run 10: Report of CalibratedKoho — Data Link

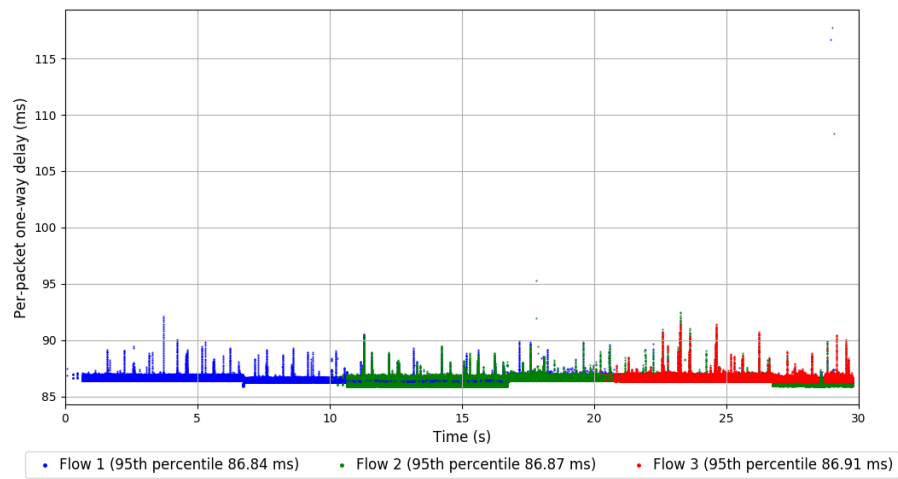
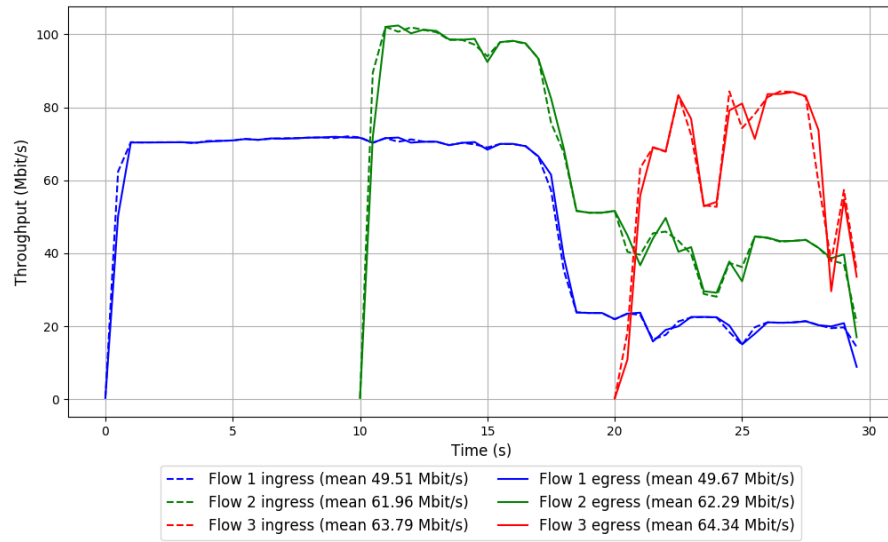


```
Run 1: Statistics of Copa

Start at: 2017-08-12 00:42:25
End at: 2017-08-12 00:42:55

# Below is generated by plot.py at 2017-08-12 06:04:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.66 Mbit/s
95th percentile per-packet one-way delay: 86.869 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 49.67 Mbit/s
95th percentile per-packet one-way delay: 86.842 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 62.29 Mbit/s
95th percentile per-packet one-way delay: 86.869 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 64.34 Mbit/s
95th percentile per-packet one-way delay: 86.912 ms
Loss rate: 1.01%
```

# Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-12 00:55:19

End at: 2017-08-12 00:55:49

# Below is generated by plot.py at 2017-08-12 06:04:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 117.77 Mbit/s

95th percentile per-packet one-way delay: 87.638 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 68.83 Mbit/s

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

Loss rate: 0.35%

-- Flow 2:

Average throughput: 40.69 Mbit/s

95th percentile per-packet one-way delay: 89.782 ms

Loss rate: 0.57%

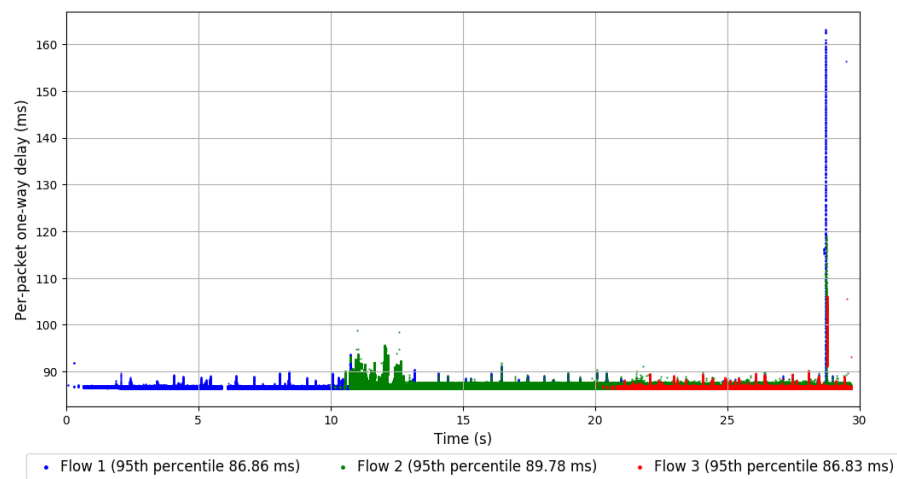
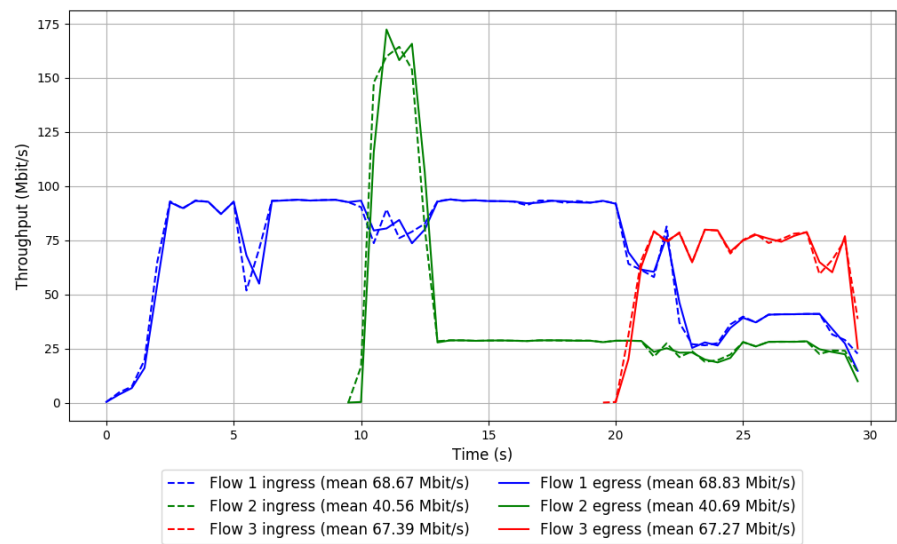
-- Flow 3:

Average throughput: 67.27 Mbit/s

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

Loss rate: 1.93%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-12 01:08:55

End at: 2017-08-12 01:09:25

# Below is generated by plot.py at 2017-08-12 06:04:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 114.21 Mbit/s

95th percentile per-packet one-way delay: 86.866 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 68.94 Mbit/s

95th percentile per-packet one-way delay: 86.807 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 59.33 Mbit/s

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

Loss rate: 1.03%

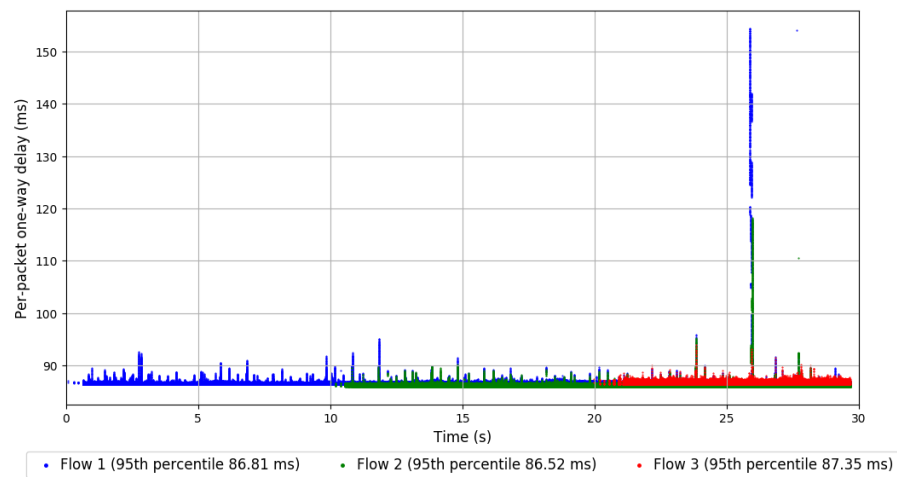
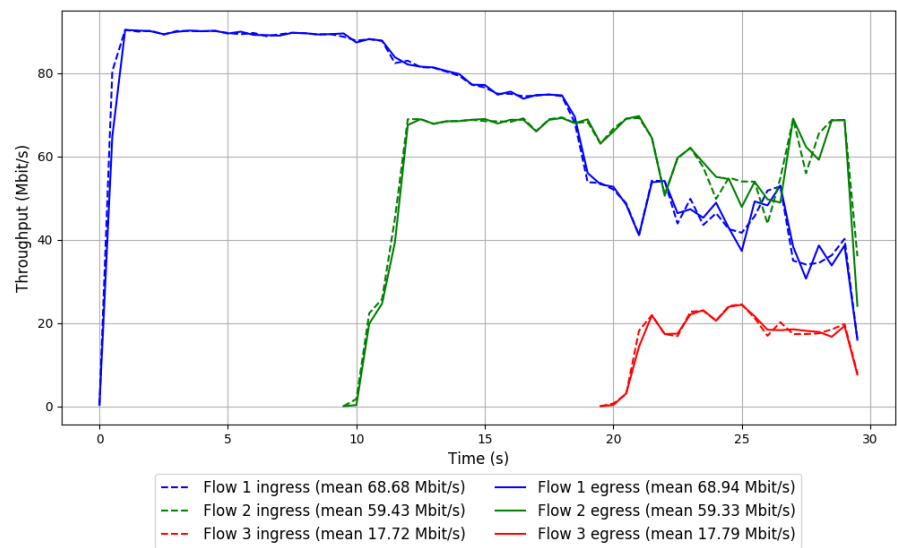
-- Flow 3:

Average throughput: 17.79 Mbit/s

95th percentile per-packet one-way delay: 87.348 ms

Loss rate: 1.32%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-12 01:22:30

End at: 2017-08-12 01:23:00

# Below is generated by plot.py at 2017-08-12 06:05:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 125.81 Mbit/s

95th percentile per-packet one-way delay: 86.596 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 82.43 Mbit/s

95th percentile per-packet one-way delay: 86.524 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 54.04 Mbit/s

95th percentile per-packet one-way delay: 86.648 ms

Loss rate: 1.04%

-- Flow 3:

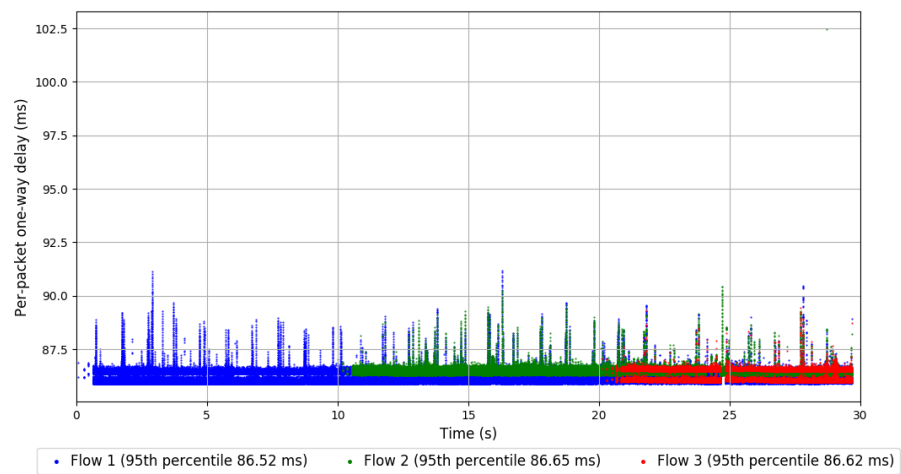
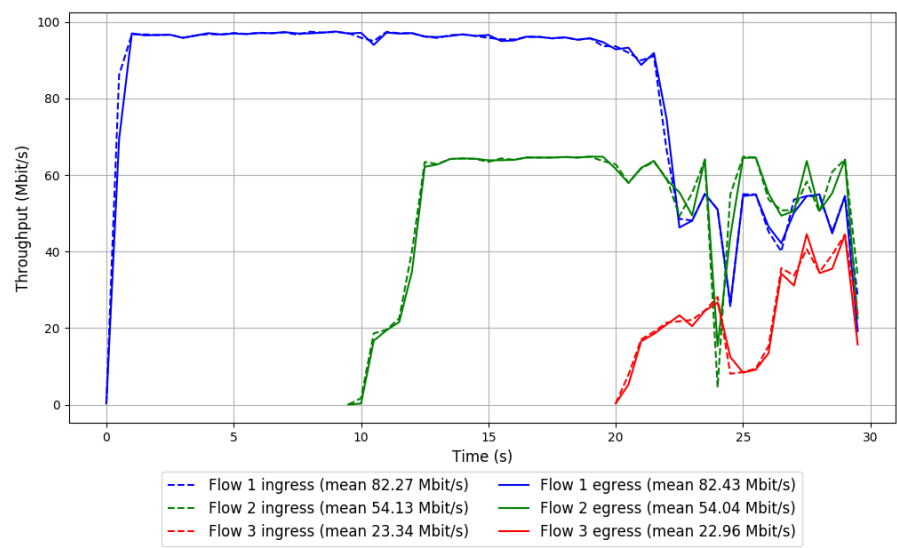
Average throughput: 22.96 Mbit/s

95th percentile per-packet one-way delay: 86.618 ms

Loss rate: 3.41%



Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-12 01:36:45

End at: 2017-08-12 01:37:15

# Below is generated by plot.py at 2017-08-12 06:05:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 111.22 Mbit/s

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

Loss rate: 0.66%

-- Flow 1:

Average throughput: 68.97 Mbit/s

95th percentile per-packet one-way delay: 86.521 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 53.33 Mbit/s

95th percentile per-packet one-way delay: 86.537 ms

Loss rate: 1.01%

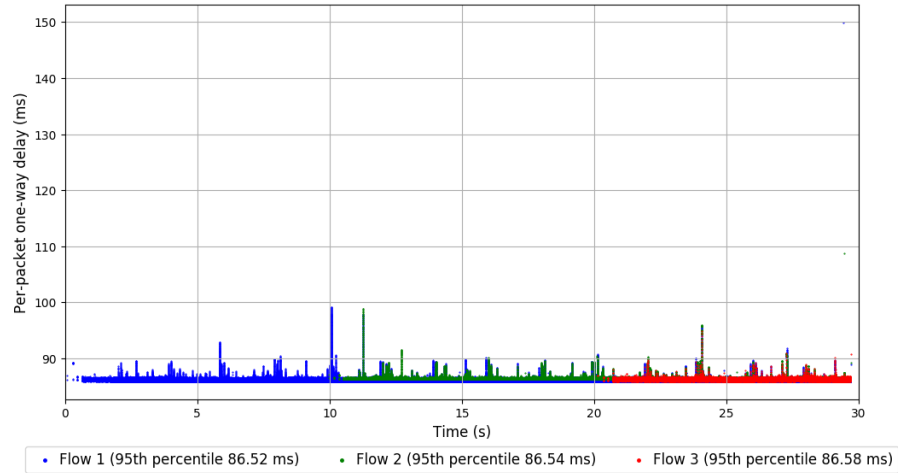
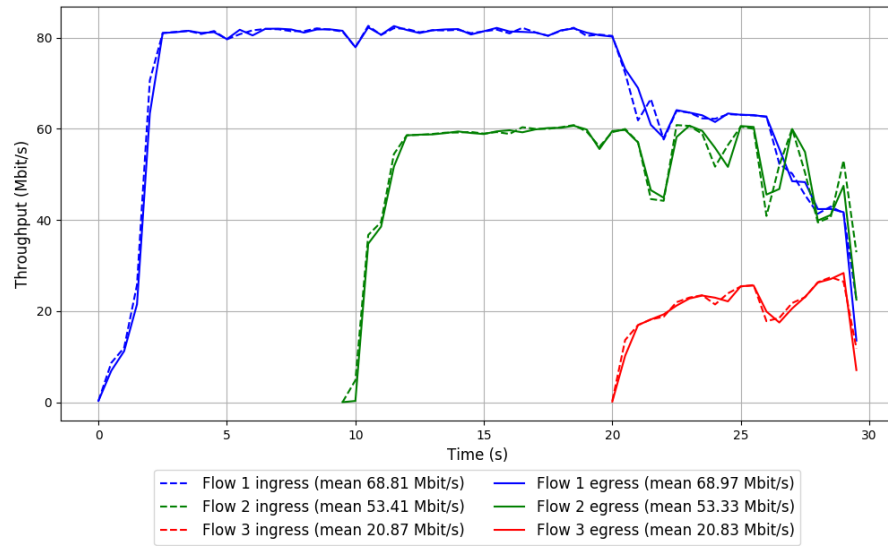
-- Flow 3:

Average throughput: 20.83 Mbit/s

95th percentile per-packet one-way delay: 86.578 ms

Loss rate: 1.93%

## Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-12 01:50:31

End at: 2017-08-12 01:51:01

# Below is generated by plot.py at 2017-08-12 06:05:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.96 Mbit/s

95th percentile per-packet one-way delay: 86.673 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 73.70 Mbit/s

95th percentile per-packet one-way delay: 86.655 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 57.80 Mbit/s

95th percentile per-packet one-way delay: 86.615 ms

Loss rate: 0.93%

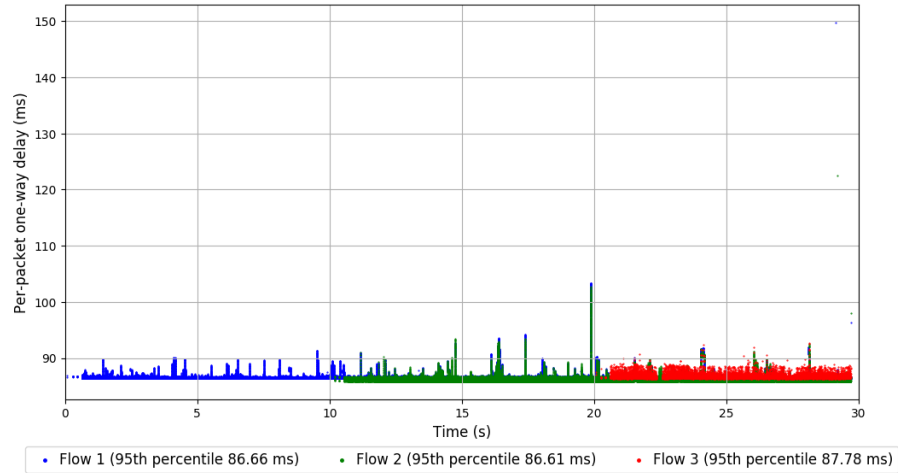
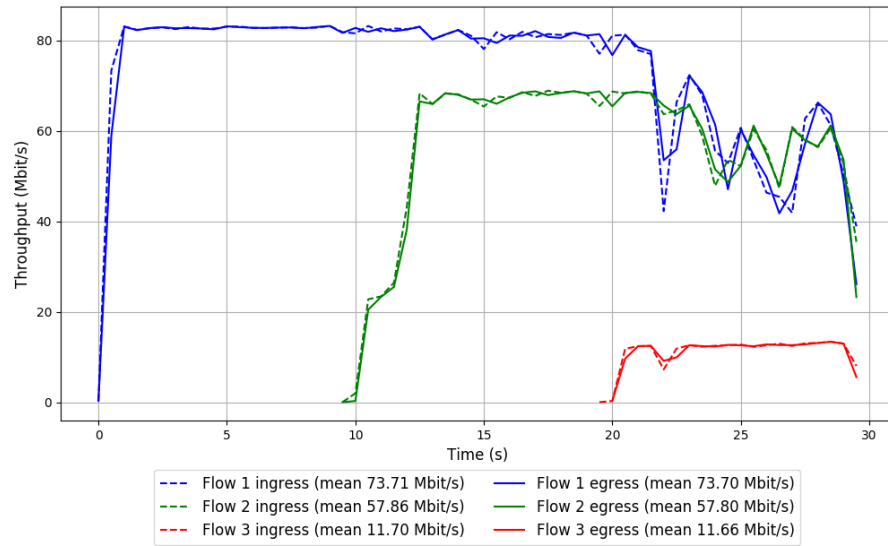
-- Flow 3:

Average throughput: 11.66 Mbit/s

95th percentile per-packet one-way delay: 87.780 ms

Loss rate: 2.10%

## Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-12 02:03:46

End at: 2017-08-12 02:04:16

# Below is generated by plot.py at 2017-08-12 06:06:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.20 Mbit/s

95th percentile per-packet one-way delay: 86.939 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 87.44 Mbit/s

95th percentile per-packet one-way delay: 86.955 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 47.07 Mbit/s

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

Loss rate: 1.72%

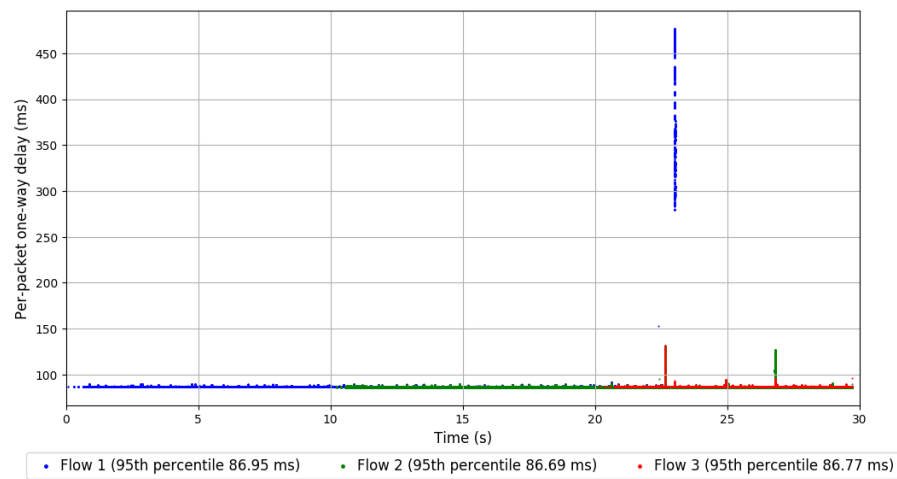
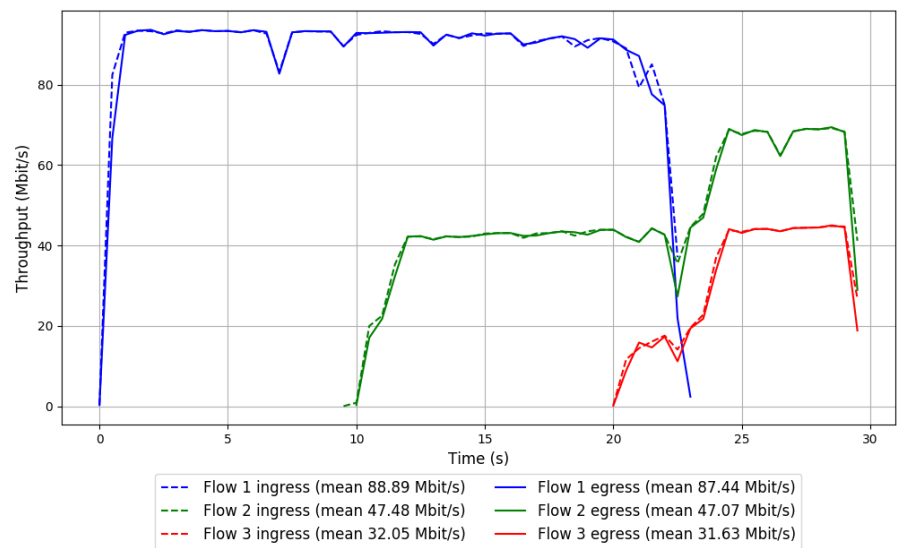
-- Flow 3:

Average throughput: 31.63 Mbit/s

95th percentile per-packet one-way delay: 86.771 ms

Loss rate: 2.98%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-12 02:17:19

End at: 2017-08-12 02:17:49

# Below is generated by plot.py at 2017-08-12 06:06:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 126.66 Mbit/s

95th percentile per-packet one-way delay: 86.669 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 90.07 Mbit/s

95th percentile per-packet one-way delay: 86.615 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 19.71 Mbit/s

95th percentile per-packet one-way delay: 87.251 ms

Loss rate: 1.43%

-- Flow 3:

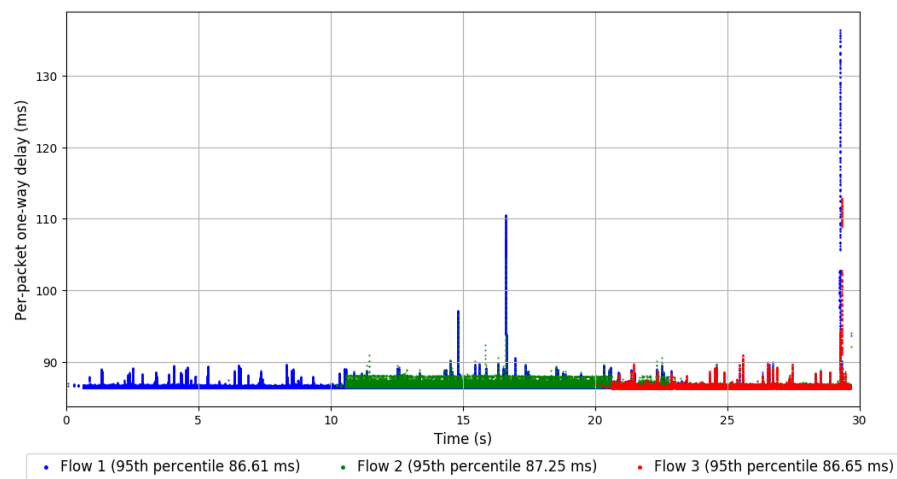
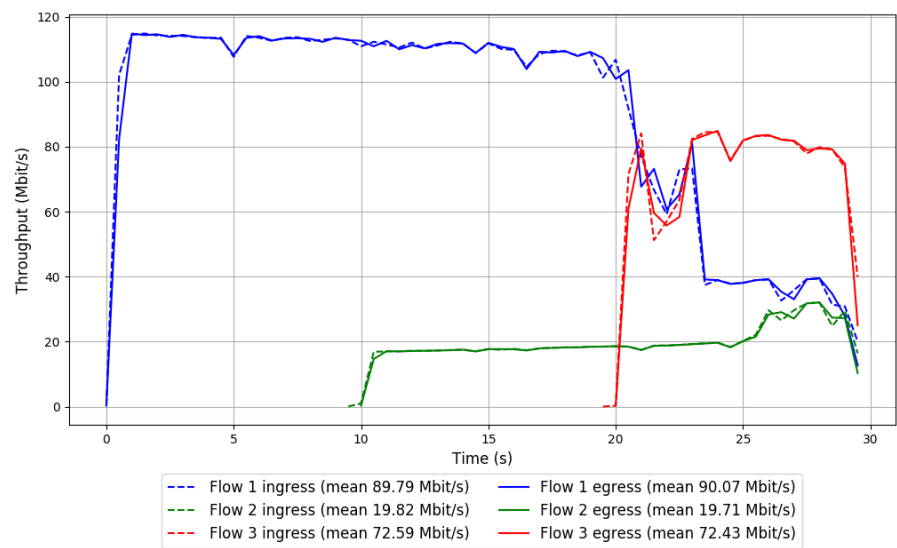
Average throughput: 72.43 Mbit/s

95th percentile per-packet one-way delay: 86.648 ms

Loss rate: 1.92%



Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-12 02:31:43

End at: 2017-08-12 02:32:13

# Below is generated by plot.py at 2017-08-12 06:07:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 153.18 Mbit/s

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

Loss rate: 0.58%

-- Flow 1:

Average throughput: 98.51 Mbit/s

95th percentile per-packet one-way delay: 88.748 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 67.80 Mbit/s

95th percentile per-packet one-way delay: 86.635 ms

Loss rate: 0.70%

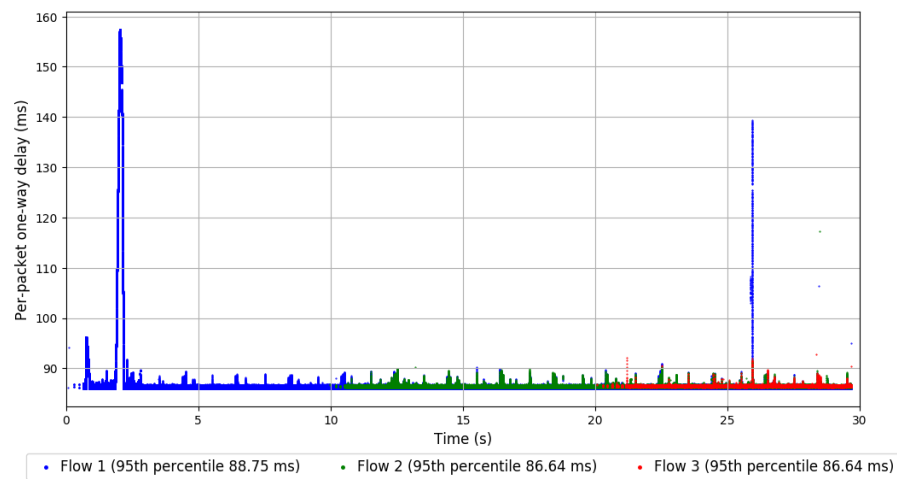
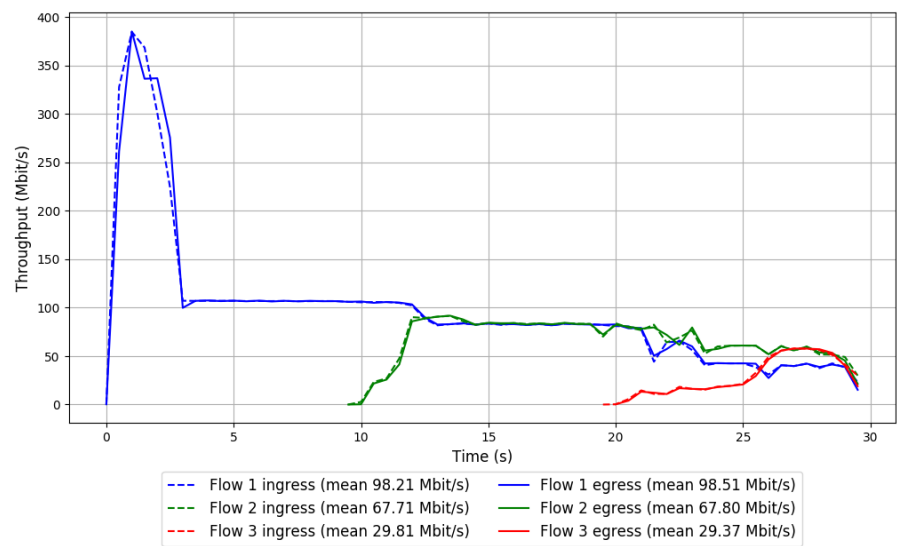
-- Flow 3:

Average throughput: 29.37 Mbit/s

95th percentile per-packet one-way delay: 86.638 ms

Loss rate: 3.28%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-08-12 02:45:23

End at: 2017-08-12 02:45:53

# Below is generated by plot.py at 2017-08-12 06:07:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 160.75 Mbit/s

95th percentile per-packet one-way delay: 102.775 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 99.43 Mbit/s

95th percentile per-packet one-way delay: 107.339 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 54.17 Mbit/s

95th percentile per-packet one-way delay: 86.529 ms

Loss rate: 0.96%

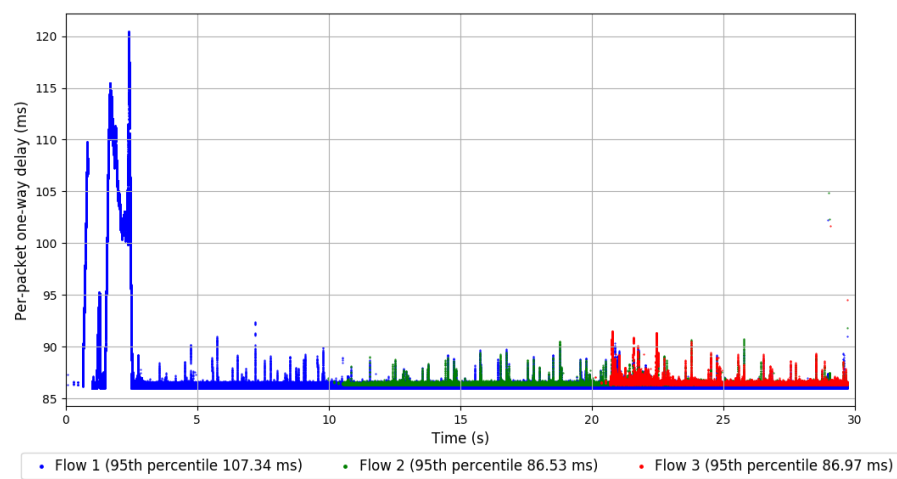
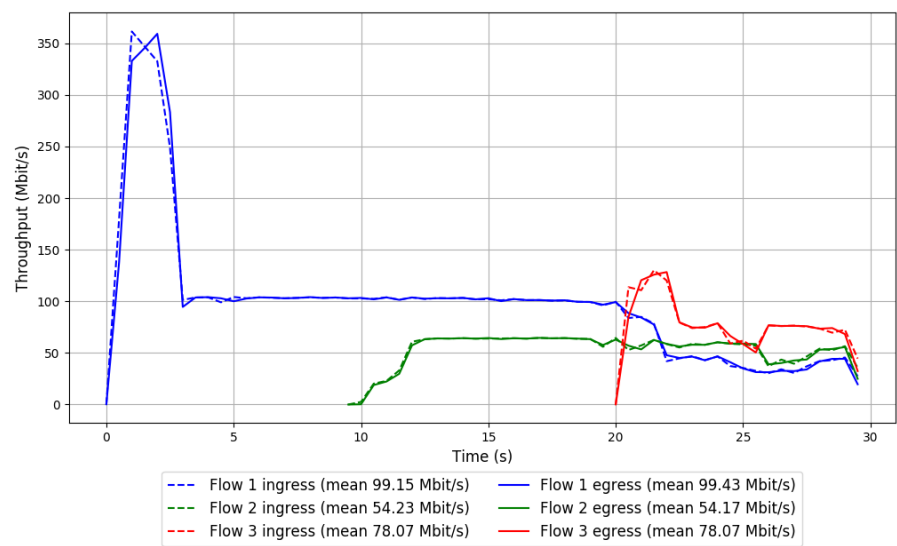
-- Flow 3:

Average throughput: 78.07 Mbit/s

95th percentile per-packet one-way delay: 86.972 ms

Loss rate: 1.74%

Run 10: Report of Copa — Data Link

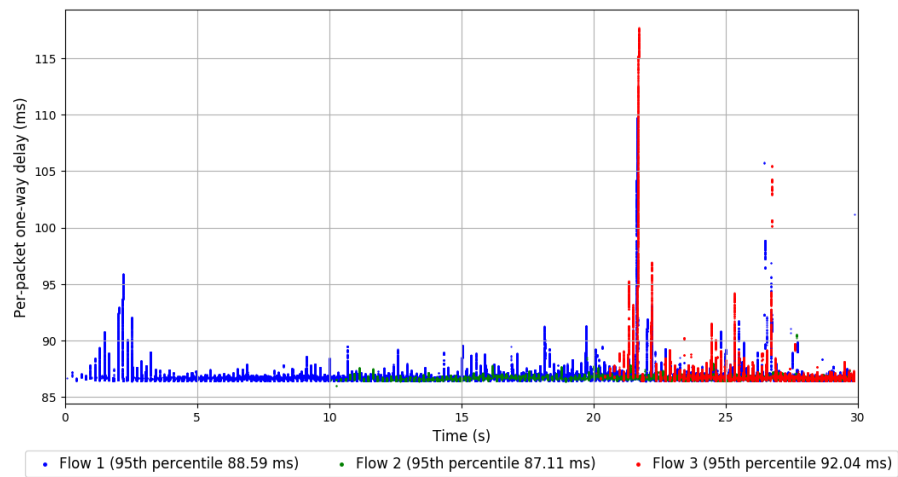
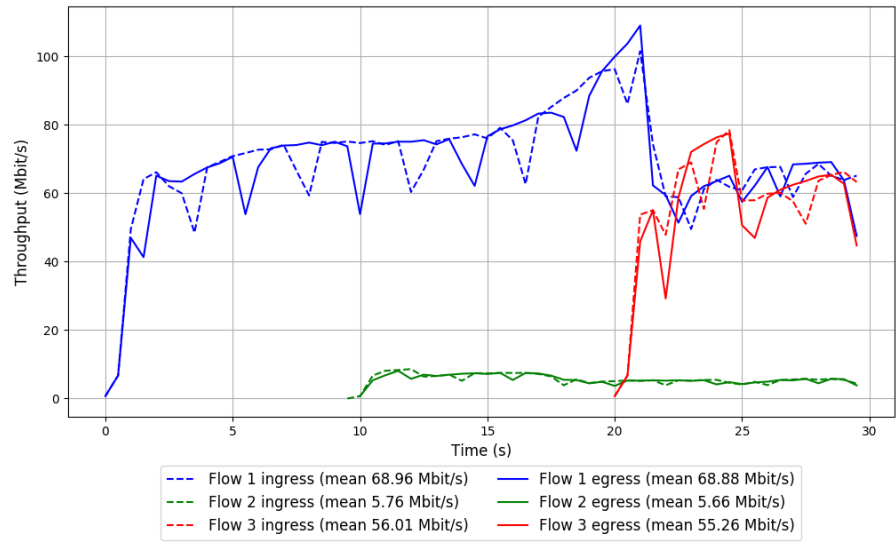


```
Run 1: Statistics of TCP Cubic

Start at: 2017-08-12 00:47:55
End at: 2017-08-12 00:48:25

# Below is generated by plot.py at 2017-08-12 06:07:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.73 Mbit/s
95th percentile per-packet one-way delay: 89.012 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 68.88 Mbit/s
95th percentile per-packet one-way delay: 88.590 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 5.66 Mbit/s
95th percentile per-packet one-way delay: 87.108 ms
Loss rate: 2.48%
-- Flow 3:
Average throughput: 55.26 Mbit/s
95th percentile per-packet one-way delay: 92.039 ms
Loss rate: 3.05%
```

# Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-12 01:01:06

End at: 2017-08-12 01:01:36

# Below is generated by plot.py at 2017-08-12 06:07:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 121.90 Mbit/s

95th percentile per-packet one-way delay: 88.988 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 44.91 Mbit/s

95th percentile per-packet one-way delay: 88.473 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 98.11 Mbit/s

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

Loss rate: 1.29%

-- Flow 3:

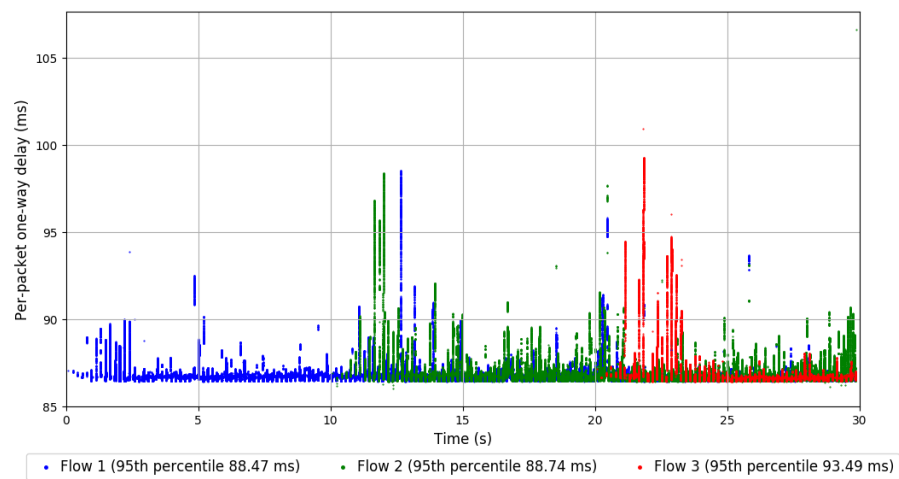
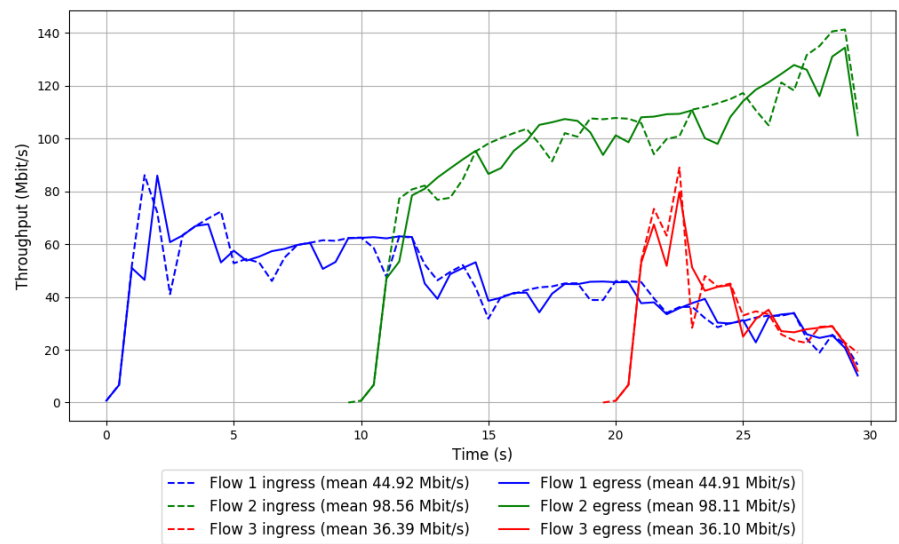
Average throughput: 36.10 Mbit/s

95th percentile per-packet one-way delay: 93.493 ms

Loss rate: 2.53%



Run 2: Report of TCP Cubic — Data Link

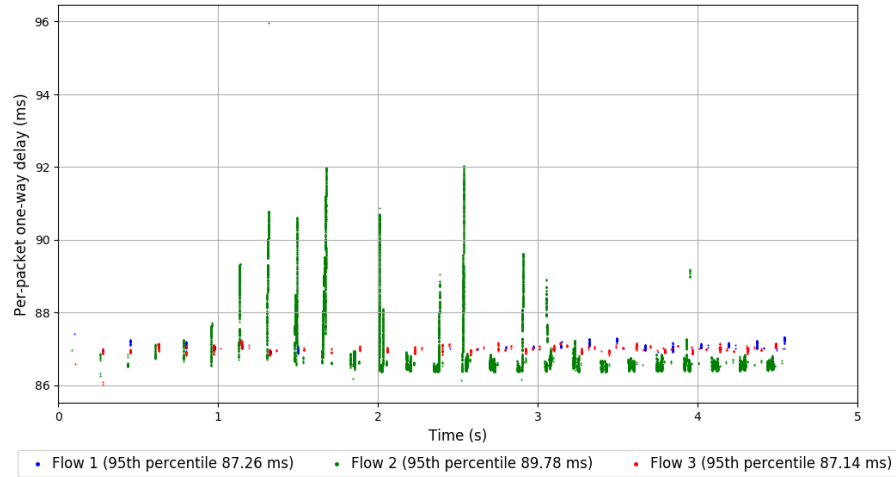
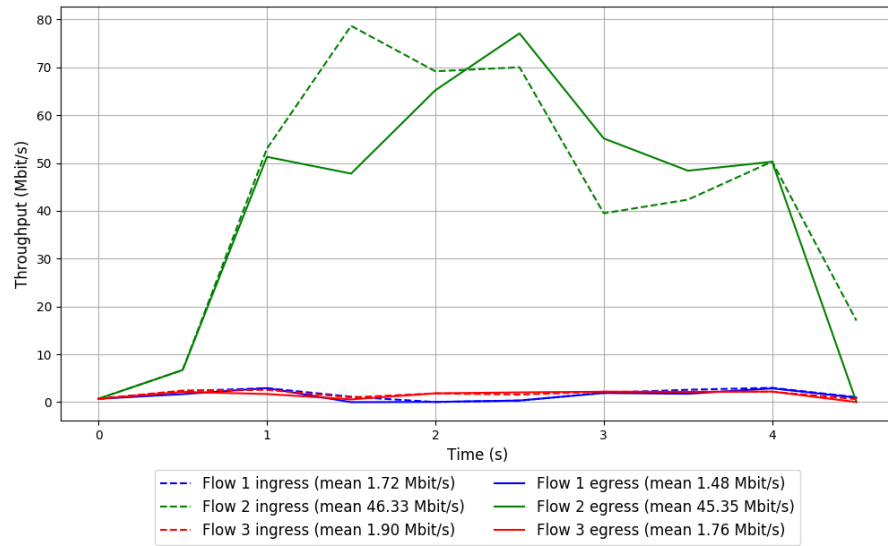


Run 3: Statistics of TCP Cubic

Start at: 2017-08-12 01:14:57

End at: 2017-08-12 01:15:27

### Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-12 01:29:11

End at: 2017-08-12 01:29:41

# Below is generated by plot.py at 2017-08-12 06:07:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 45.16 Mbit/s

95th percentile per-packet one-way delay: 89.127 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 4.79 Mbit/s

95th percentile per-packet one-way delay: 87.105 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 31.41 Mbit/s

95th percentile per-packet one-way delay: 88.787 ms

Loss rate: 1.38%

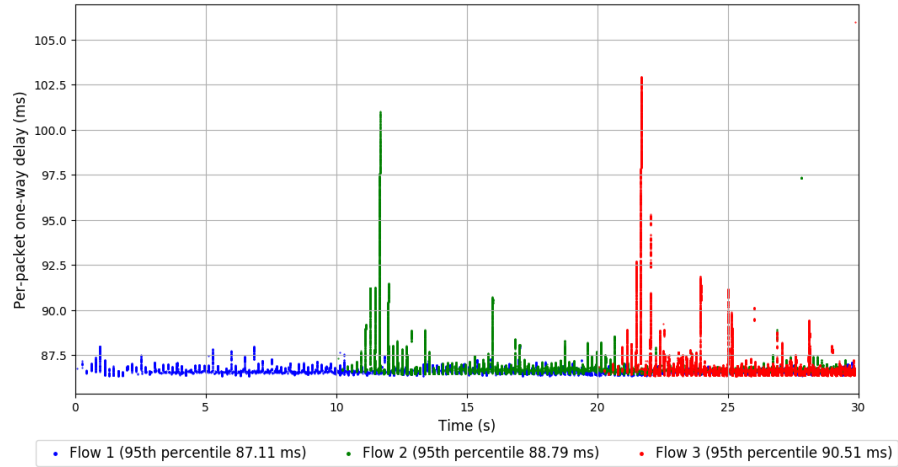
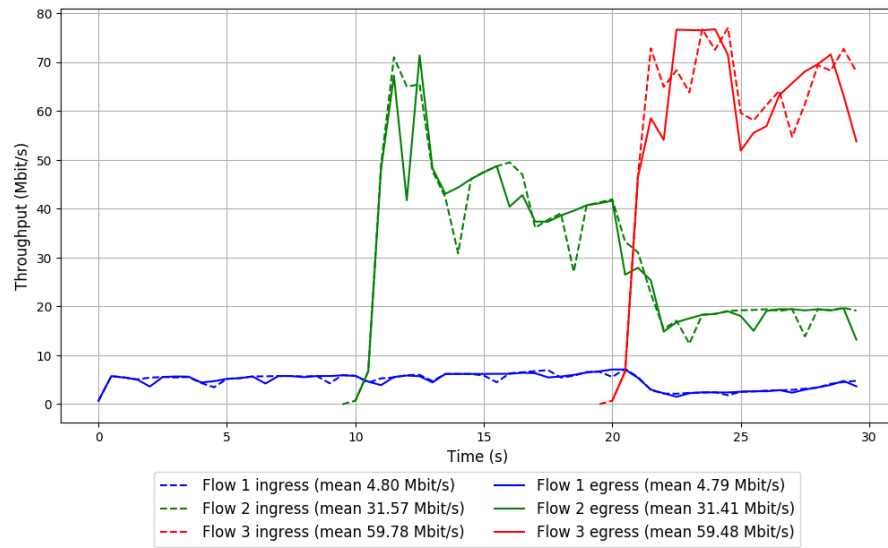
-- Flow 3:

Average throughput: 59.48 Mbit/s

95th percentile per-packet one-way delay: 90.514 ms

Loss rate: 2.04%

# Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-12 01:43:02

End at: 2017-08-12 01:43:32

# Below is generated by plot.py at 2017-08-12 06:08:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.20 Mbit/s

95th percentile per-packet one-way delay: 91.060 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 55.11 Mbit/s

95th percentile per-packet one-way delay: 90.152 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 59.84 Mbit/s

95th percentile per-packet one-way delay: 92.202 ms

Loss rate: 1.07%

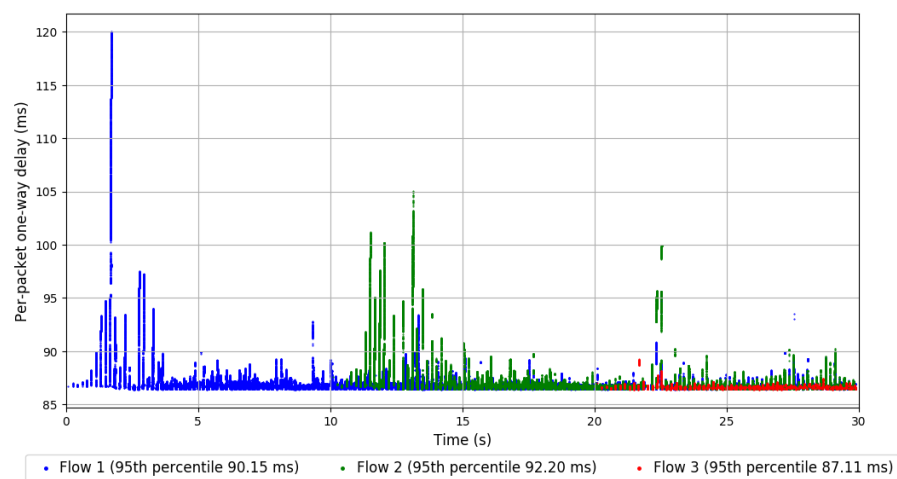
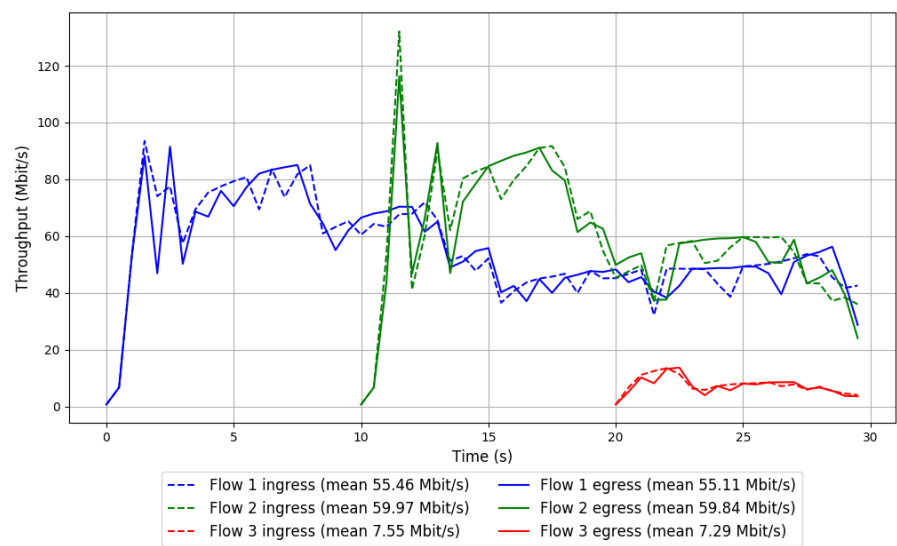
-- Flow 3:

Average throughput: 7.29 Mbit/s

95th percentile per-packet one-way delay: 87.112 ms

Loss rate: 5.05%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-12 01:56:01

End at: 2017-08-12 01:56:31

# Below is generated by plot.py at 2017-08-12 06:08:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.10 Mbit/s

95th percentile per-packet one-way delay: 94.112 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 47.68 Mbit/s

95th percentile per-packet one-way delay: 91.791 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 45.27 Mbit/s

95th percentile per-packet one-way delay: 88.141 ms

Loss rate: 1.25%

-- Flow 3:

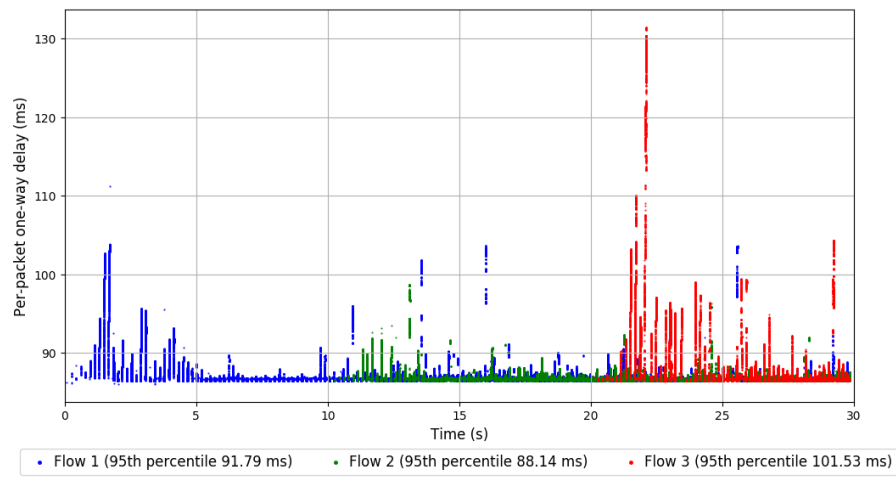
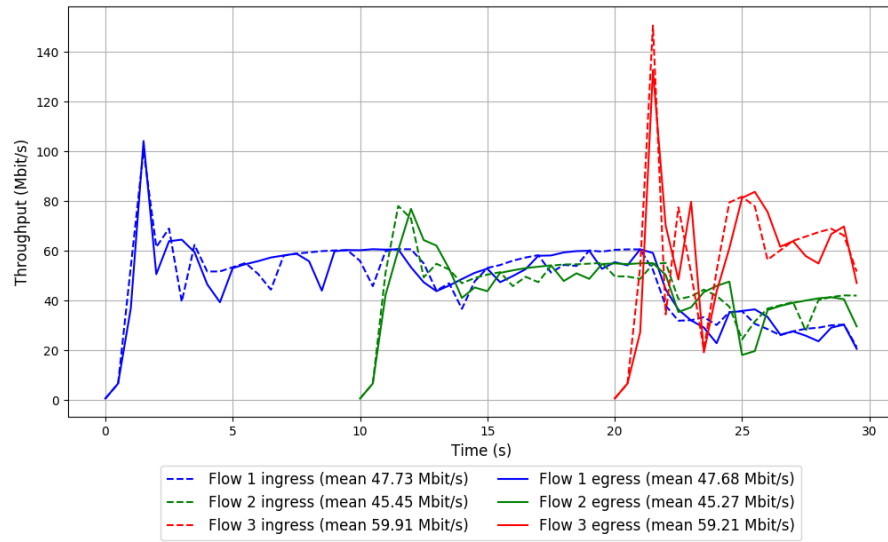
Average throughput: 59.21 Mbit/s

95th percentile per-packet one-way delay: 101.526 ms

Loss rate: 2.90%



## Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-08-12 02:09:58

End at: 2017-08-12 02:10:28

# Below is generated by plot.py at 2017-08-12 06:08:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.69 Mbit/s

95th percentile per-packet one-way delay: 90.586 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 42.28 Mbit/s

95th percentile per-packet one-way delay: 92.240 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 52.31 Mbit/s

95th percentile per-packet one-way delay: 89.645 ms

Loss rate: 1.40%

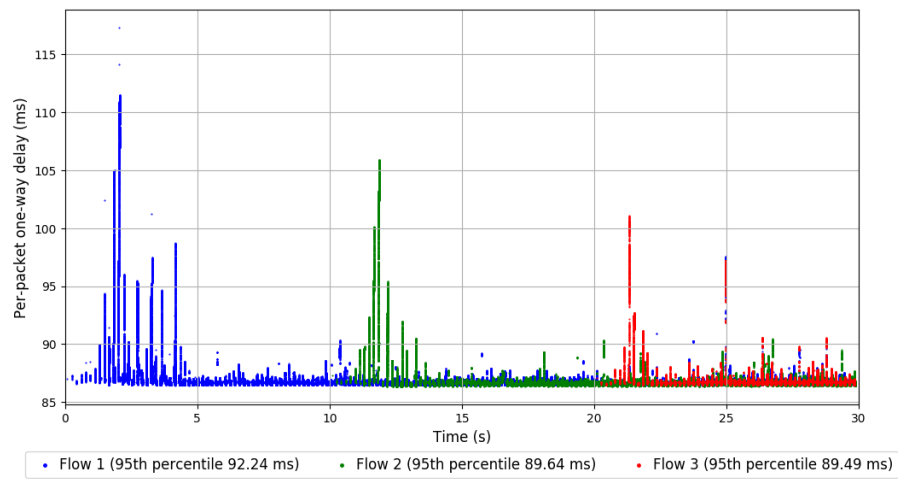
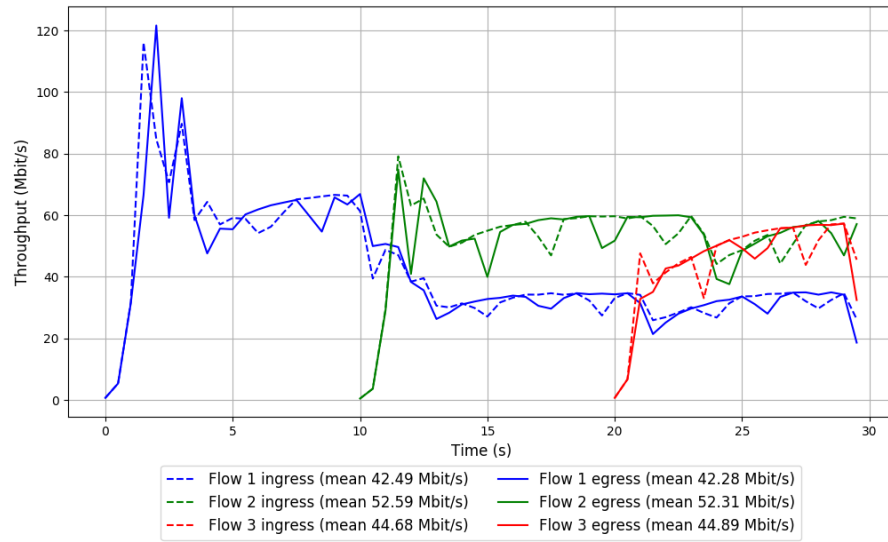
-- Flow 3:

Average throughput: 44.89 Mbit/s

95th percentile per-packet one-way delay: 89.487 ms

Loss rate: 1.78%

## Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-12 02:24:07

End at: 2017-08-12 02:24:37

# Below is generated by plot.py at 2017-08-12 06:08:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 102.28 Mbit/s

95th percentile per-packet one-way delay: 89.798 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 48.86 Mbit/s

95th percentile per-packet one-way delay: 89.004 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 54.52 Mbit/s

95th percentile per-packet one-way delay: 90.836 ms

Loss rate: 0.85%

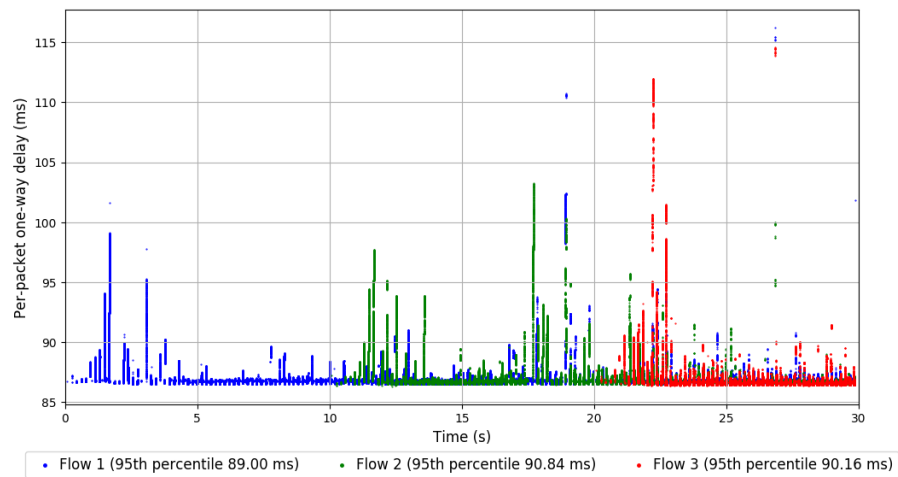
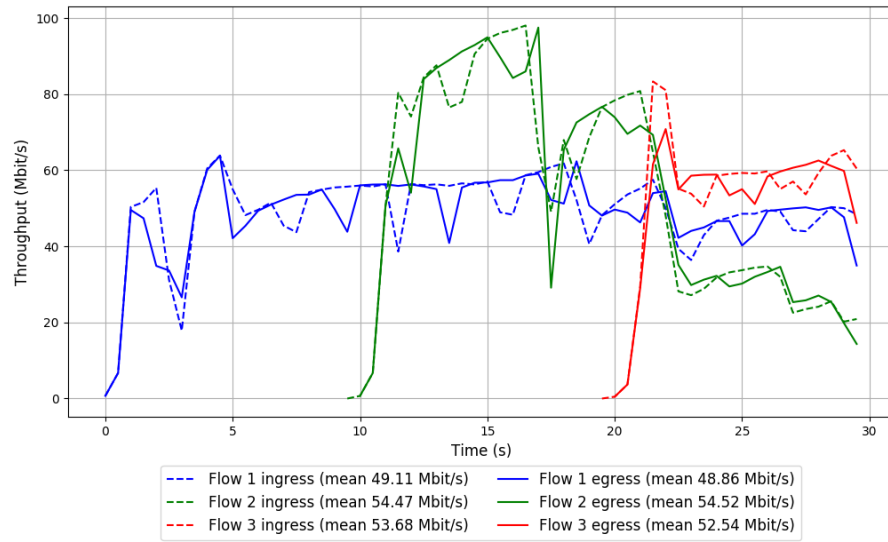
-- Flow 3:

Average throughput: 52.54 Mbit/s

95th percentile per-packet one-way delay: 90.164 ms

Loss rate: 3.91%

## Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-12 02:37:41

End at: 2017-08-12 02:38:11

# Below is generated by plot.py at 2017-08-12 06:08:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 40.98 Mbit/s

95th percentile per-packet one-way delay: 87.685 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 29.04 Mbit/s

95th percentile per-packet one-way delay: 87.756 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 11.02 Mbit/s

95th percentile per-packet one-way delay: 87.678 ms

Loss rate: 3.50%

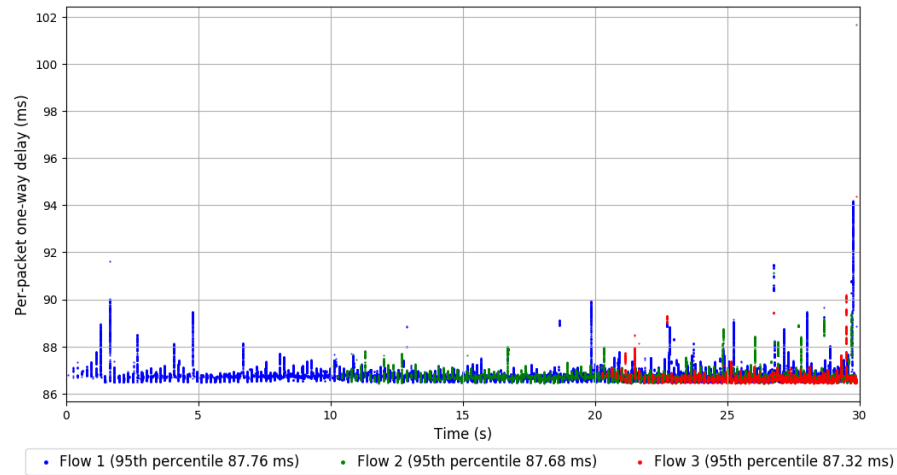
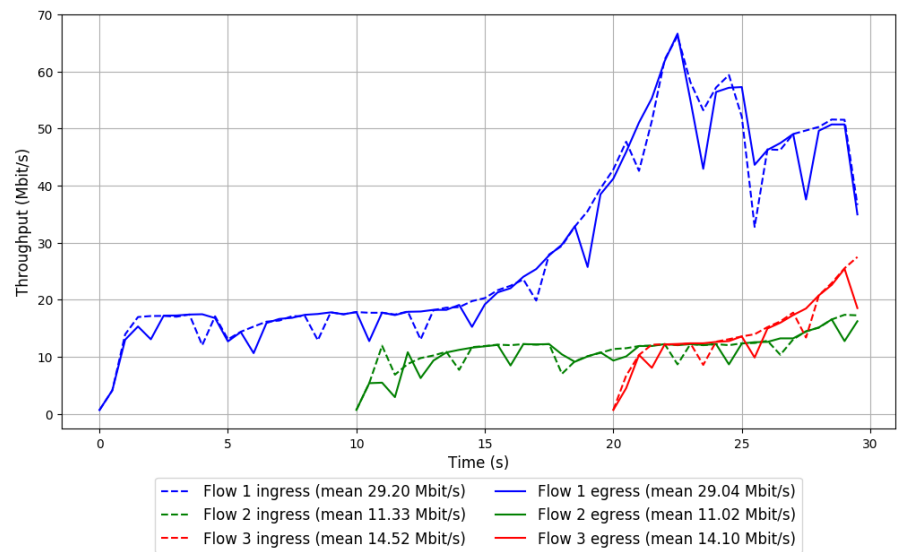
-- Flow 3:

Average throughput: 14.10 Mbit/s

95th percentile per-packet one-way delay: 87.319 ms

Loss rate: 4.16%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-12 02:52:06

End at: 2017-08-12 02:52:36

# Below is generated by plot.py at 2017-08-12 06:08:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 108.10 Mbit/s

95th percentile per-packet one-way delay: 90.312 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 27.85 Mbit/s

95th percentile per-packet one-way delay: 87.725 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 86.57 Mbit/s

95th percentile per-packet one-way delay: 89.564 ms

Loss rate: 0.95%

-- Flow 3:

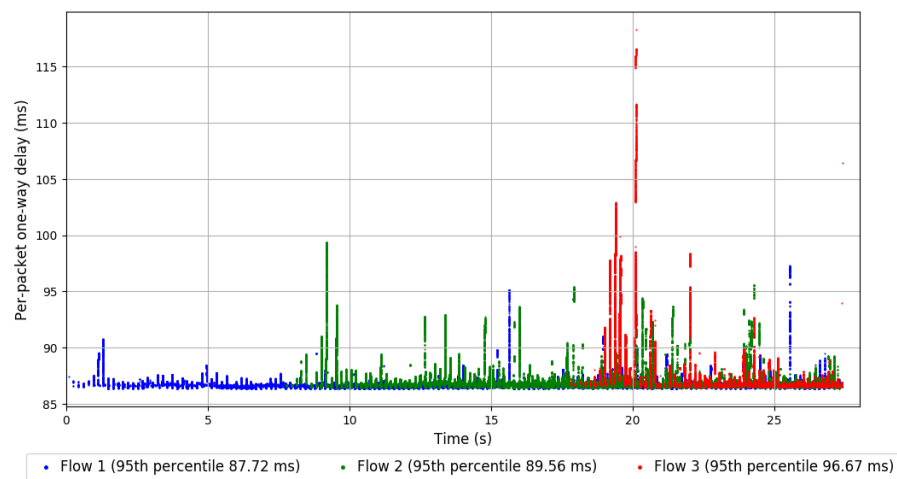
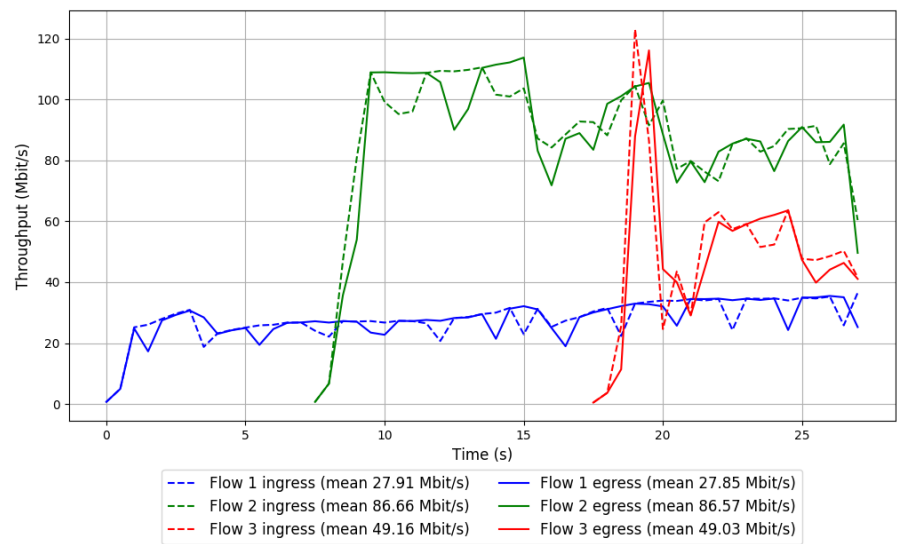
Average throughput: 49.03 Mbit/s

95th percentile per-packet one-way delay: 96.666 ms

Loss rate: 2.10%



Run 10: Report of TCP Cubic — Data Link

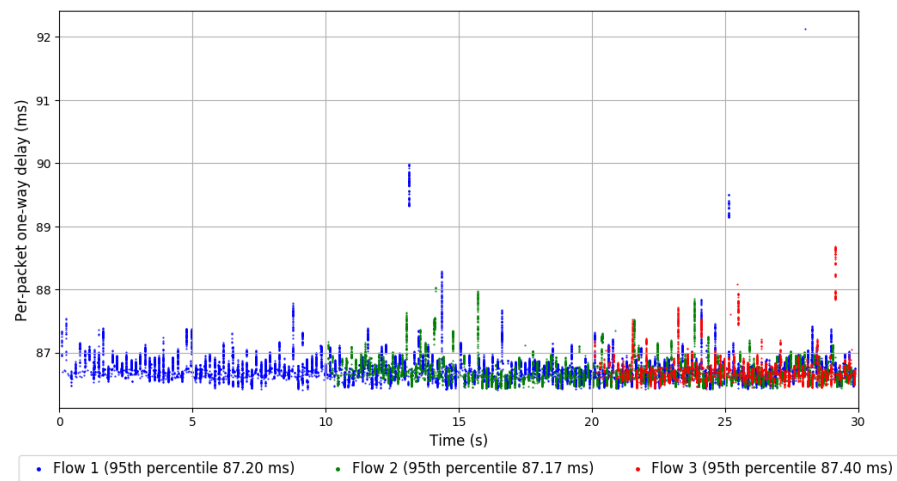
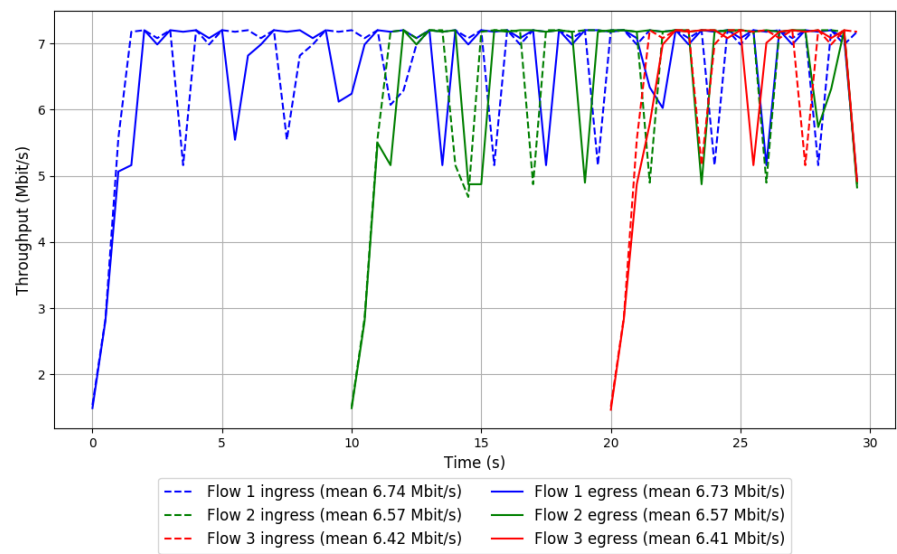


```
Run 1: Statistics of KohoCC

Start at: 2017-08-12 00:47:10
End at: 2017-08-12 00:47:40

# Below is generated by plot.py at 2017-08-12 06:08:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.19 Mbit/s
95th percentile per-packet one-way delay: 87.210 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 87.200 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 87.173 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 87.397 ms
Loss rate: 1.88%
```

Run 1: Report of KohoCC — Data Link

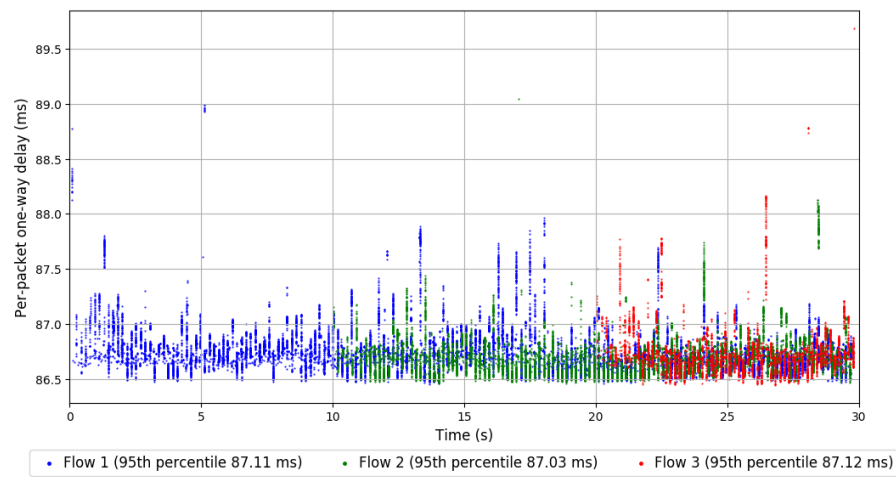
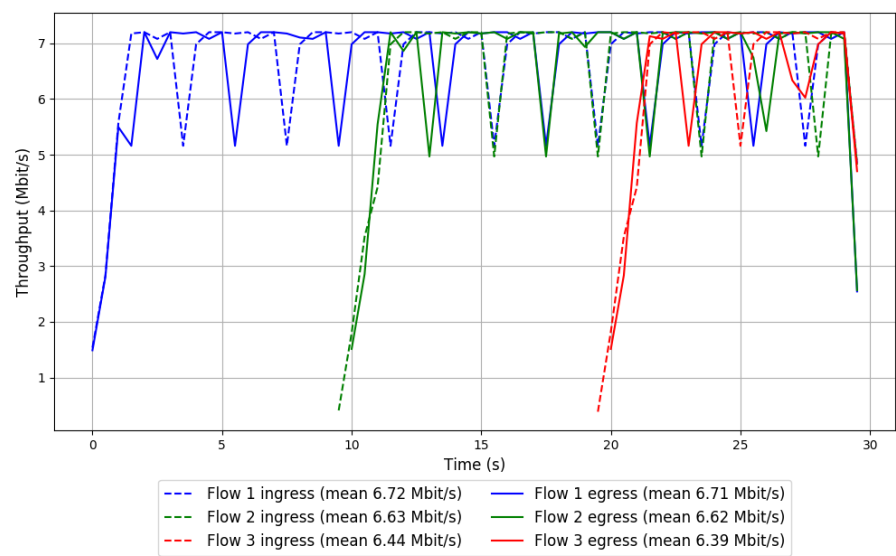


```
Run 2: Statistics of KohoCC

Start at: 2017-08-12 01:00:21
End at: 2017-08-12 01:00:51

# Below is generated by plot.py at 2017-08-12 06:08:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.20 Mbit/s
95th percentile per-packet one-way delay: 87.093 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 87.108 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 87.025 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 87.119 ms
Loss rate: 1.92%
```

Run 2: Report of KohoCC — Data Link

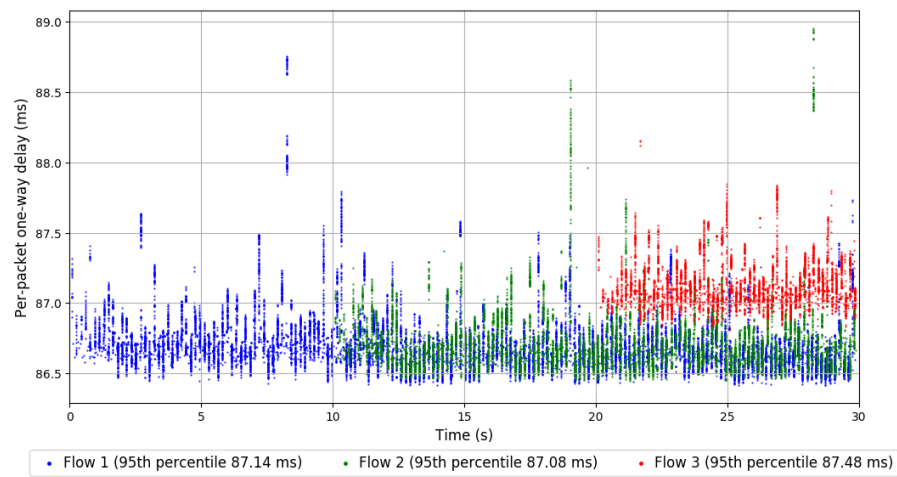
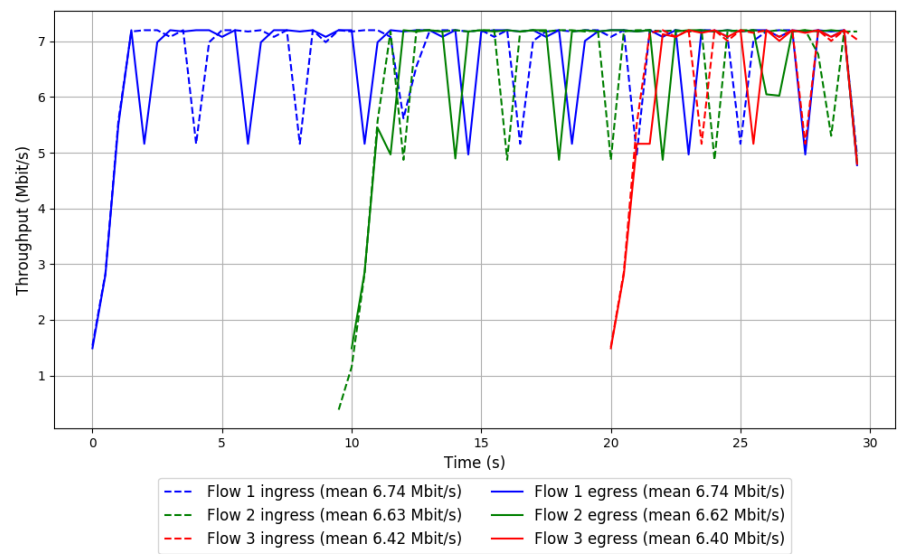


```
Run 3: Statistics of KohoCC

Start at: 2017-08-12 01:14:12
End at: 2017-08-12 01:14:42

# Below is generated by plot.py at 2017-08-12 06:08:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 87.266 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 87.135 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 87.083 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 87.476 ms
Loss rate: 2.09%
```

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-12 01:28:26

End at: 2017-08-12 01:28:56

# Below is generated by plot.py at 2017-08-12 06:08:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.11 Mbit/s

95th percentile per-packet one-way delay: 87.158 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 6.70 Mbit/s

95th percentile per-packet one-way delay: 87.096 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 87.275 ms

Loss rate: 1.04%

-- Flow 3:

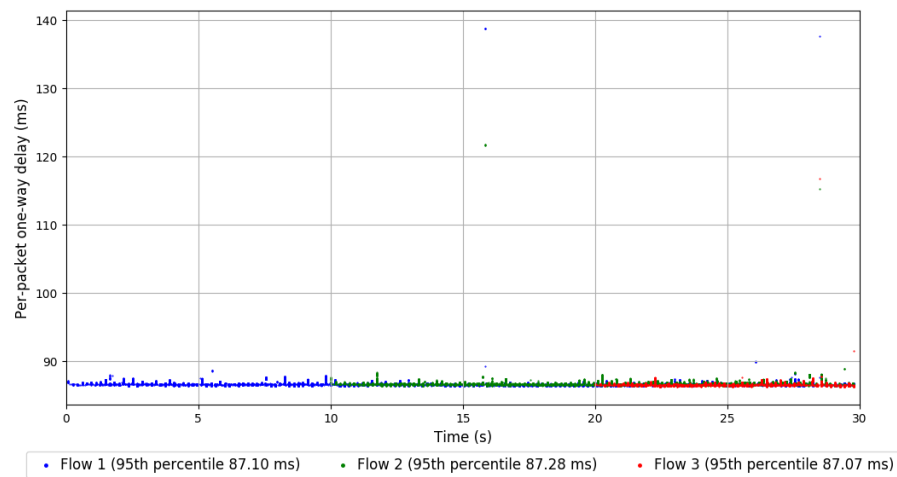
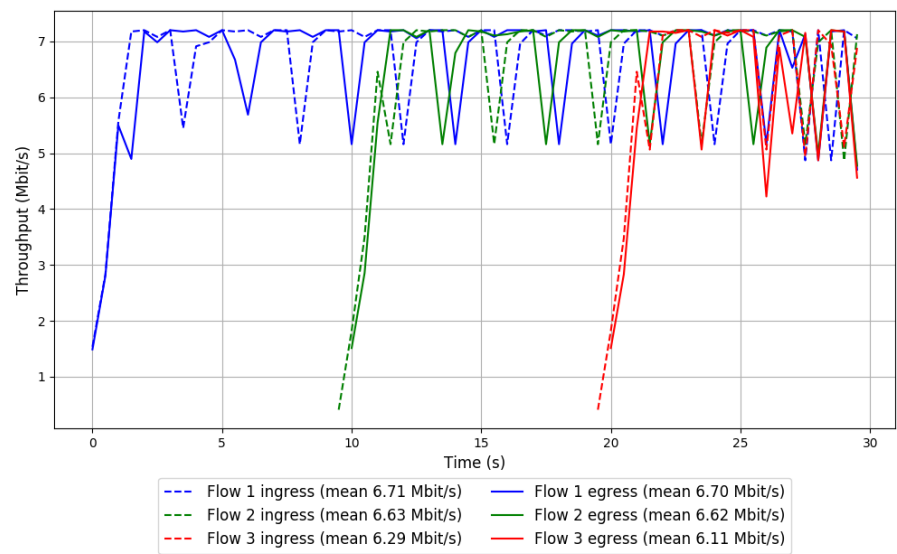
Average throughput: 6.11 Mbit/s

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

Loss rate: 4.36%



Run 4: Report of KohoCC — Data Link

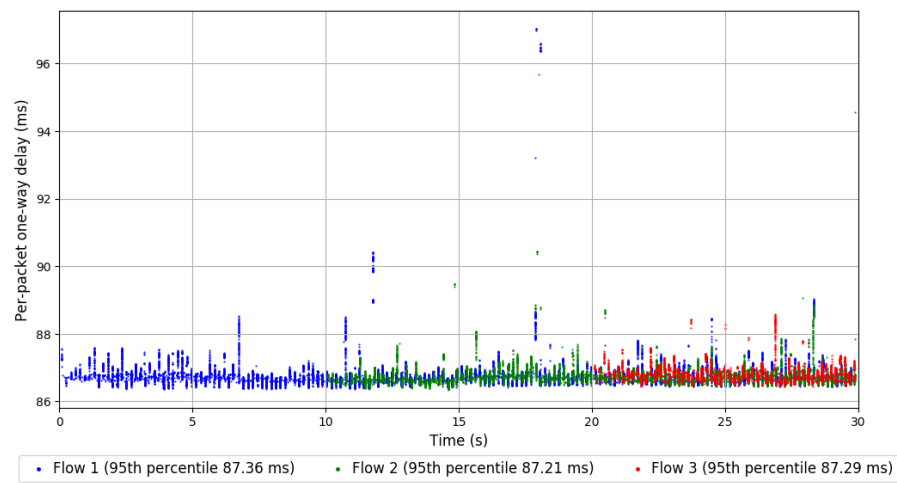
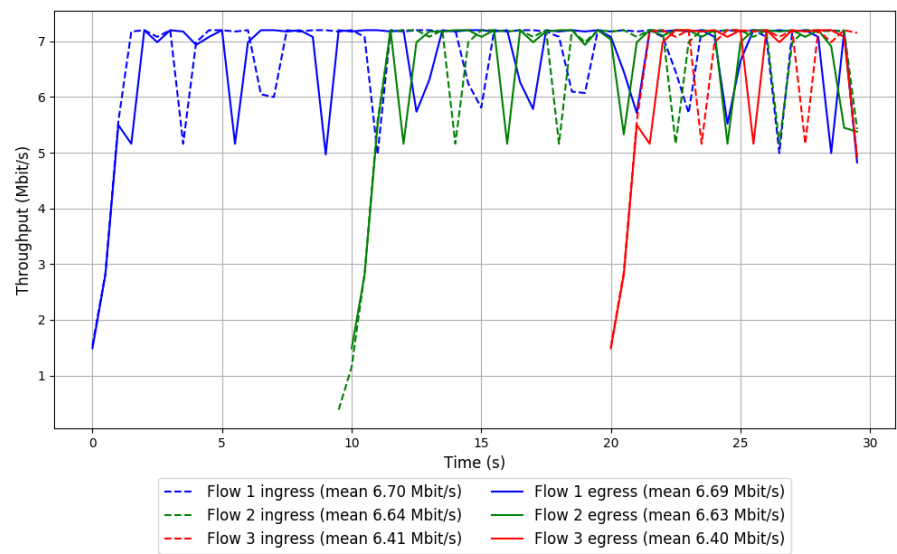


```
Run 5: Statistics of KohoCC

Start at: 2017-08-12 01:42:17
End at: 2017-08-12 01:42:47

# Below is generated by plot.py at 2017-08-12 06:08:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.20 Mbit/s
95th percentile per-packet one-way delay: 87.297 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 87.356 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 87.214 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 87.288 ms
Loss rate: 1.86%
```

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-12 01:55:15

End at: 2017-08-12 01:55:45

# Below is generated by plot.py at 2017-08-12 06:08:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.19 Mbit/s

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

Loss rate: 1.17%

-- Flow 1:

Average throughput: 6.68 Mbit/s

95th percentile per-packet one-way delay: 87.387 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 6.63 Mbit/s

95th percentile per-packet one-way delay: 87.329 ms

Loss rate: 0.91%

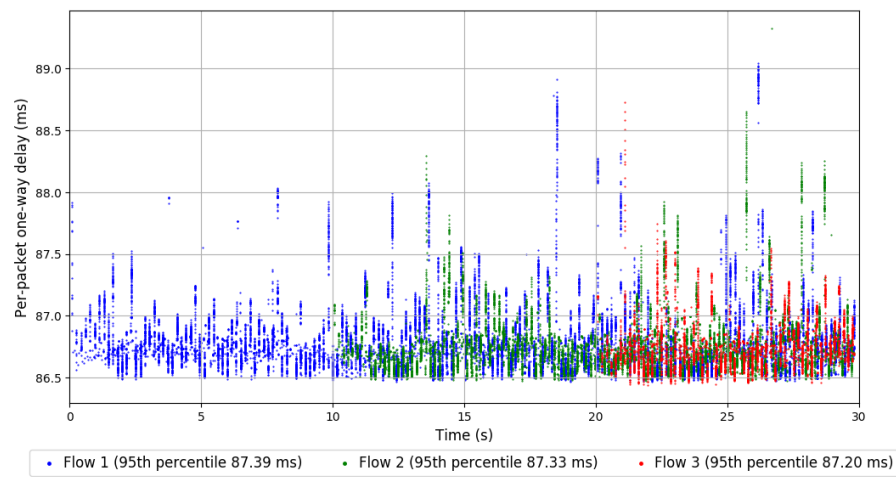
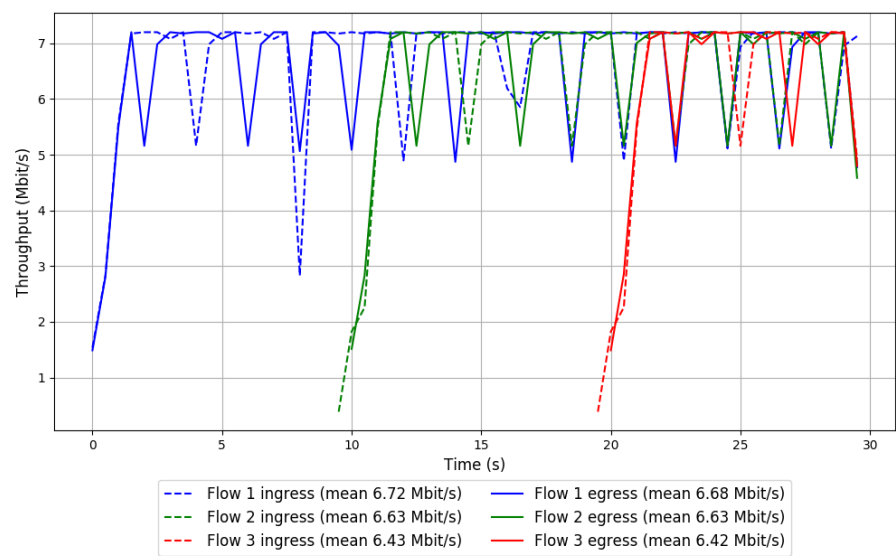
-- Flow 3:

Average throughput: 6.42 Mbit/s

95th percentile per-packet one-way delay: 87.197 ms

Loss rate: 1.88%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-08-12 02:09:13

End at: 2017-08-12 02:09:43

# Below is generated by plot.py at 2017-08-12 06:08:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.28 Mbit/s

95th percentile per-packet one-way delay: 87.281 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 6.74 Mbit/s

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

Loss rate: 0.59%

-- Flow 2:

Average throughput: 6.68 Mbit/s

95th percentile per-packet one-way delay: 87.151 ms

Loss rate: 0.90%

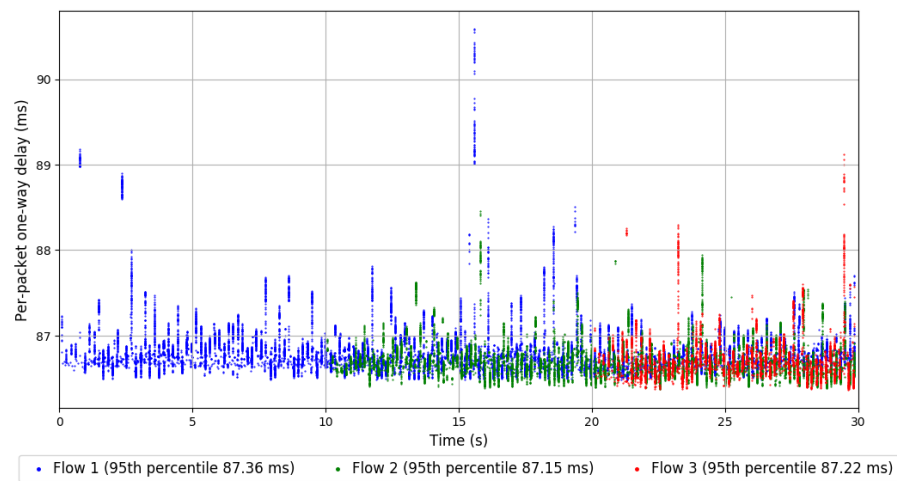
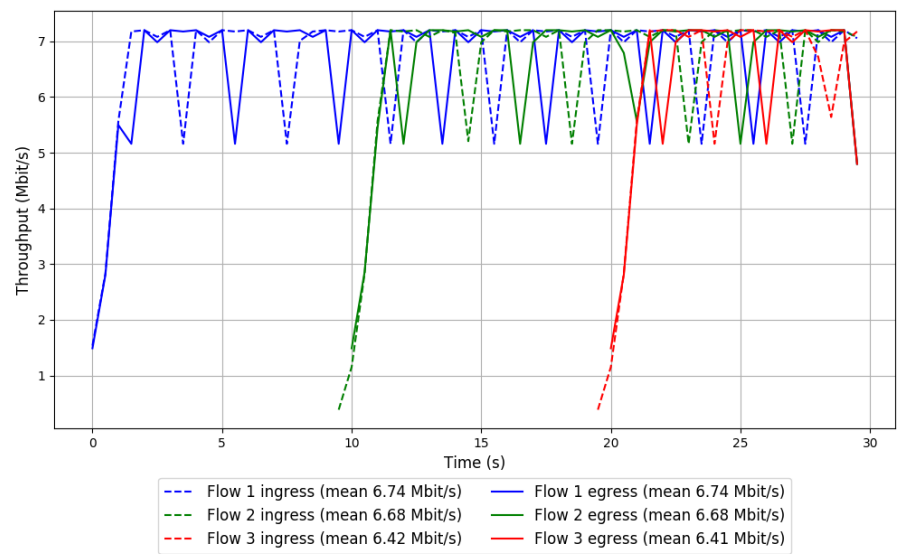
-- Flow 3:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 87.222 ms

Loss rate: 1.88%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-12 02:23:22

End at: 2017-08-12 02:23:52

# Below is generated by plot.py at 2017-08-12 06:08:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.21 Mbit/s

95th percentile per-packet one-way delay: 87.274 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 6.70 Mbit/s

95th percentile per-packet one-way delay: 87.282 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 87.306 ms

Loss rate: 0.99%

-- Flow 3:

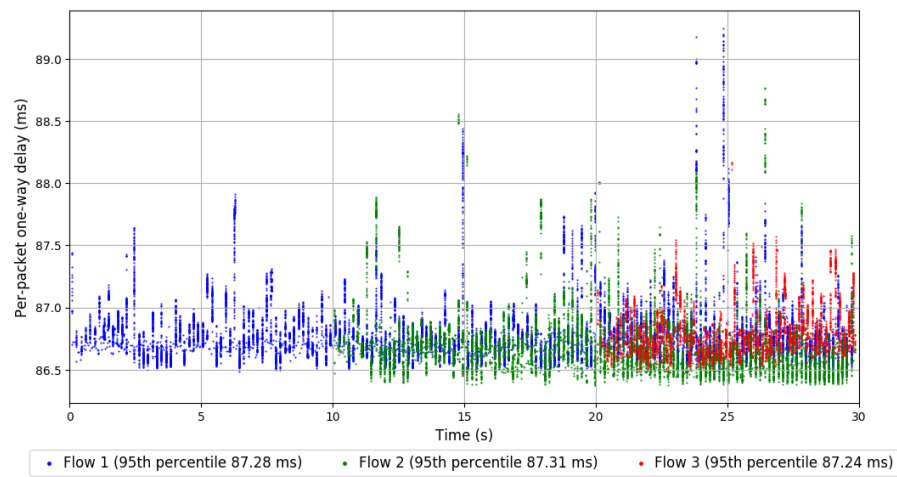
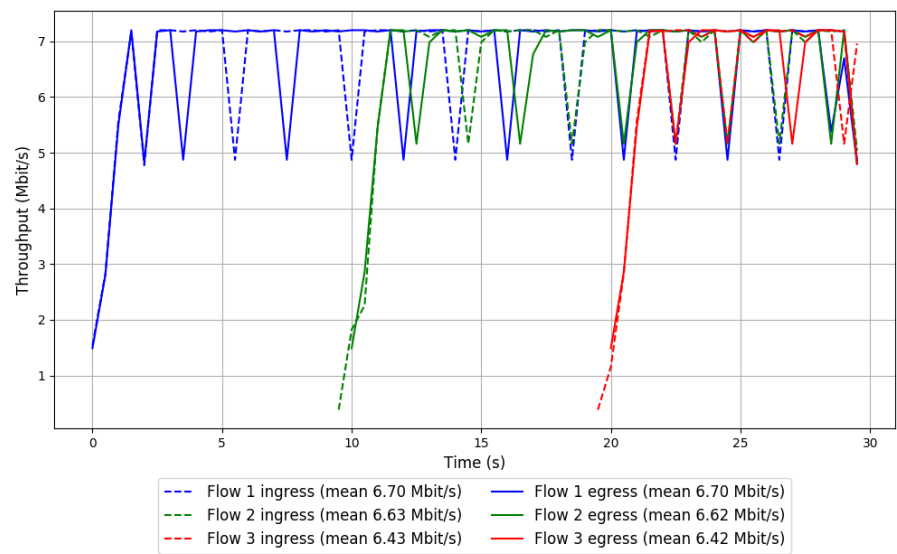
Average throughput: 6.42 Mbit/s

95th percentile per-packet one-way delay: 87.239 ms

Loss rate: 1.90%



Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-12 02:36:56

End at: 2017-08-12 02:37:26

# Below is generated by plot.py at 2017-08-12 06:08:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.19 Mbit/s

95th percentile per-packet one-way delay: 87.082 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 6.67 Mbit/s

95th percentile per-packet one-way delay: 87.096 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 6.67 Mbit/s

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

Loss rate: 0.97%

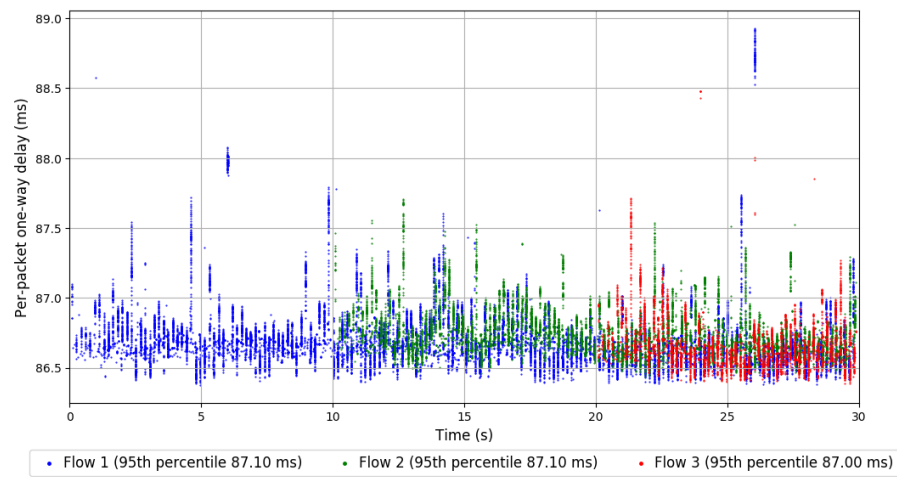
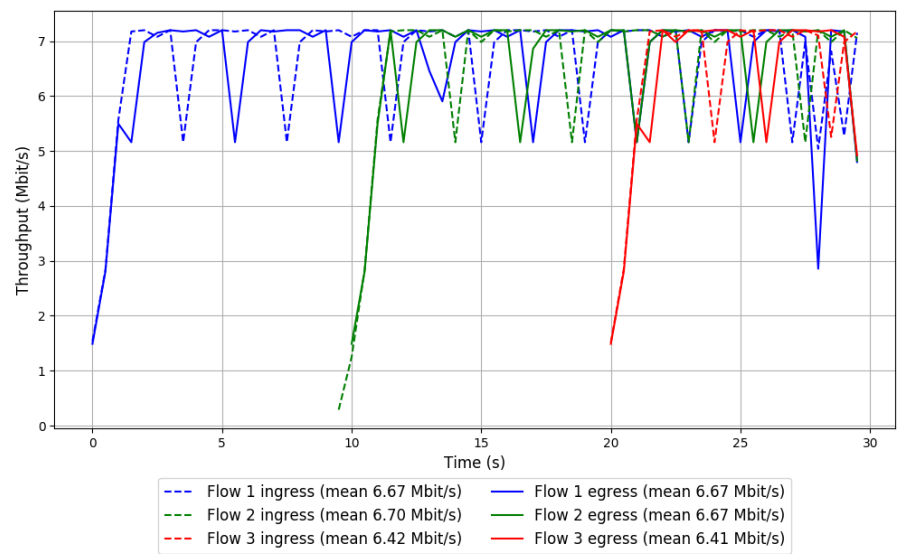
-- Flow 3:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 86.996 ms

Loss rate: 1.88%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-08-12 02:51:20

End at: 2017-08-12 02:51:50

# Below is generated by plot.py at 2017-08-12 06:09:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.22 Mbit/s

95th percentile per-packet one-way delay: 87.155 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 6.71 Mbit/s

95th percentile per-packet one-way delay: 87.124 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 6.63 Mbit/s

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

Loss rate: 0.91%

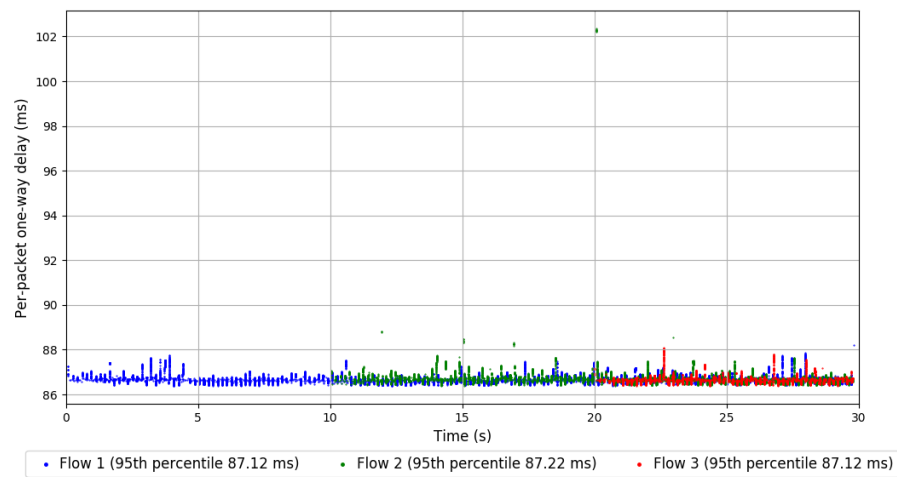
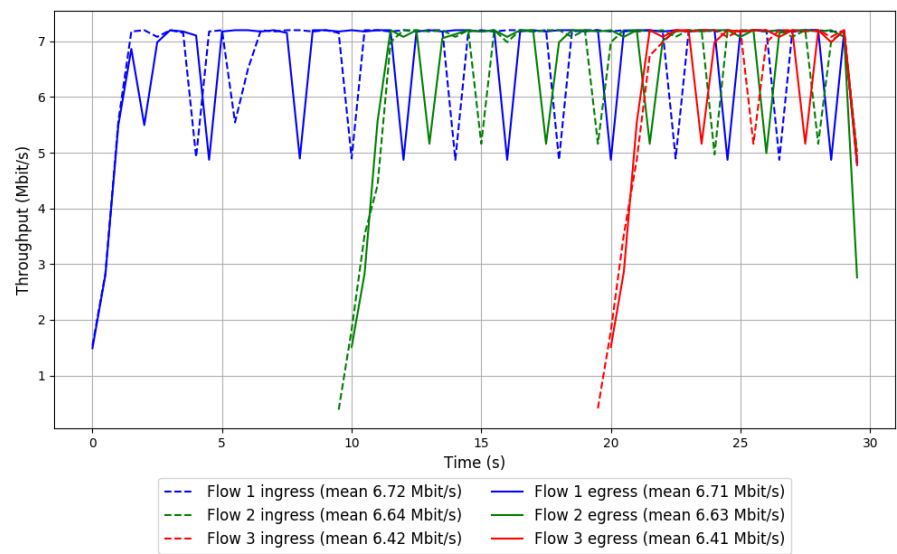
-- Flow 3:

Average throughput: 6.41 Mbit/s

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

Loss rate: 1.88%

Run 10: Report of KohoCC — Data Link

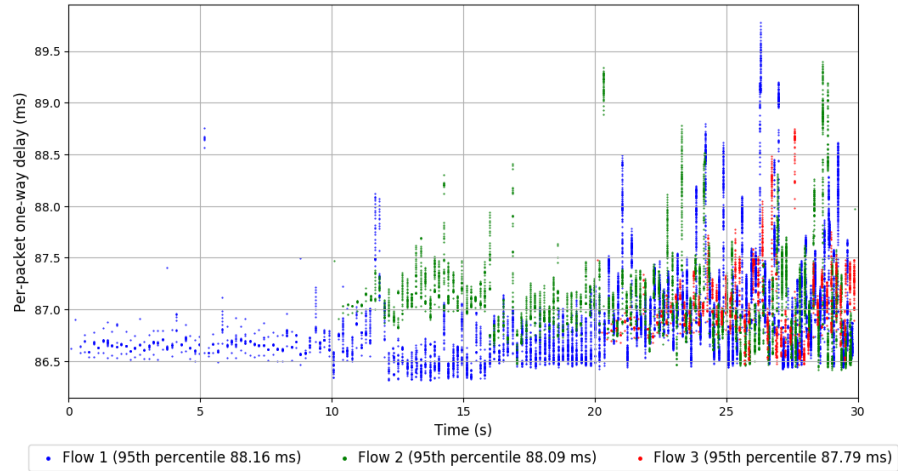
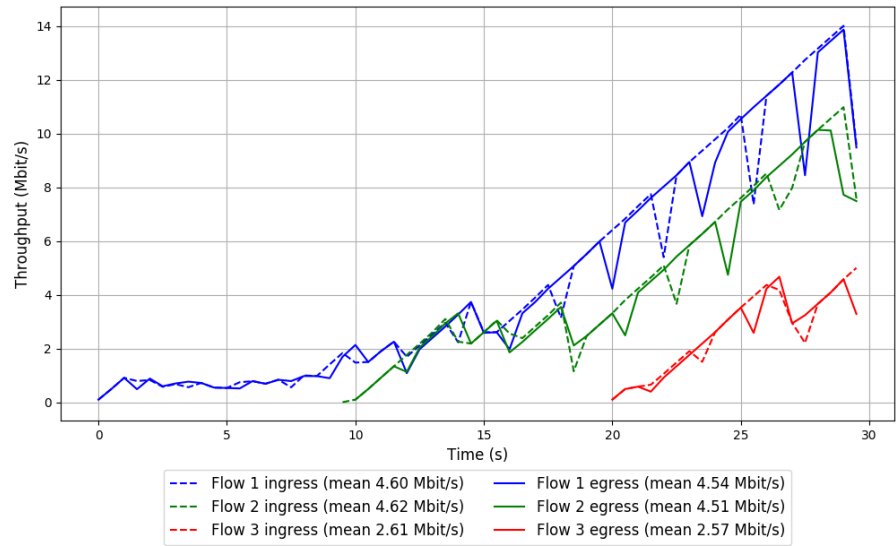


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-12 00:52:16
End at: 2017-08-12 00:52:46

# Below is generated by plot.py at 2017-08-12 06:09:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 88.114 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 4.54 Mbit/s
95th percentile per-packet one-way delay: 88.155 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 88.095 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 87.786 ms
Loss rate: 3.30%
```

# Run 1: Report of LEDBAT — Data Link



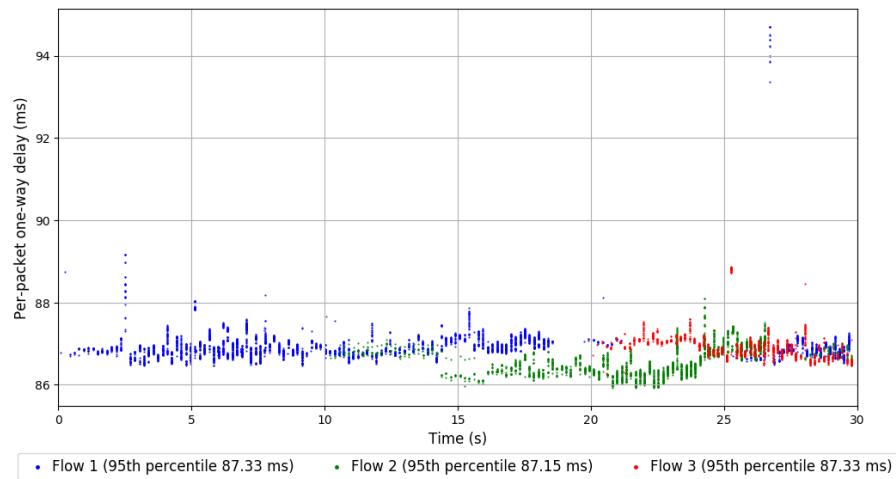
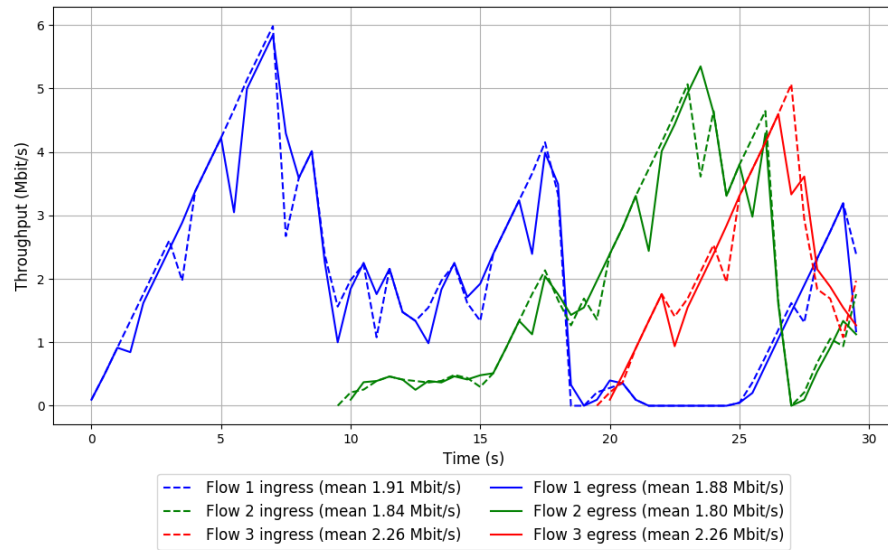
```
Run 2: Statistics of LEDBAT

Start at: 2017-08-12 01:05:48
End at: 2017-08-12 01:06:18

# Below is generated by plot.py at 2017-08-12 06:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 87.291 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 87.330 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 87.153 ms
Loss rate: 3.14%
-- Flow 3:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 87.333 ms
Loss rate: 1.79%
```



## Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-12 01:19:24

End at: 2017-08-12 01:19:54

# Below is generated by plot.py at 2017-08-12 06:09:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 87.477 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 3.45 Mbit/s

95th percentile per-packet one-way delay: 87.310 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 6.39 Mbit/s

95th percentile per-packet one-way delay: 87.559 ms

Loss rate: 1.92%

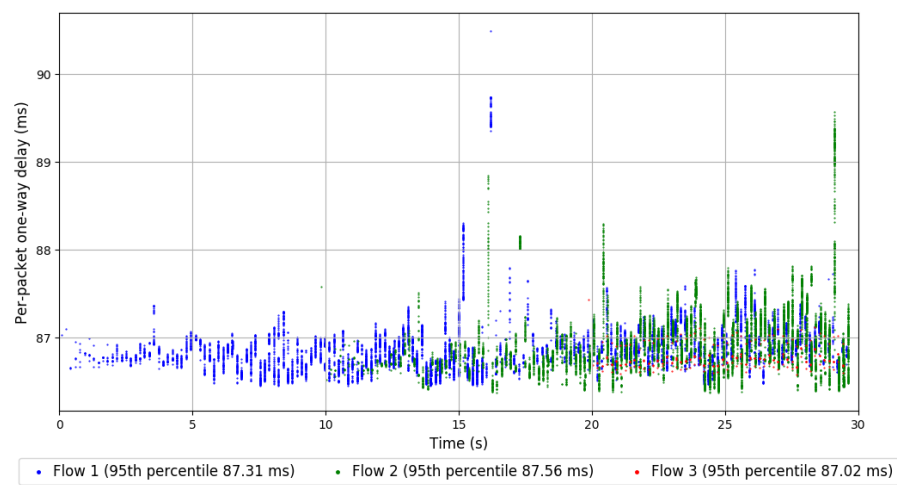
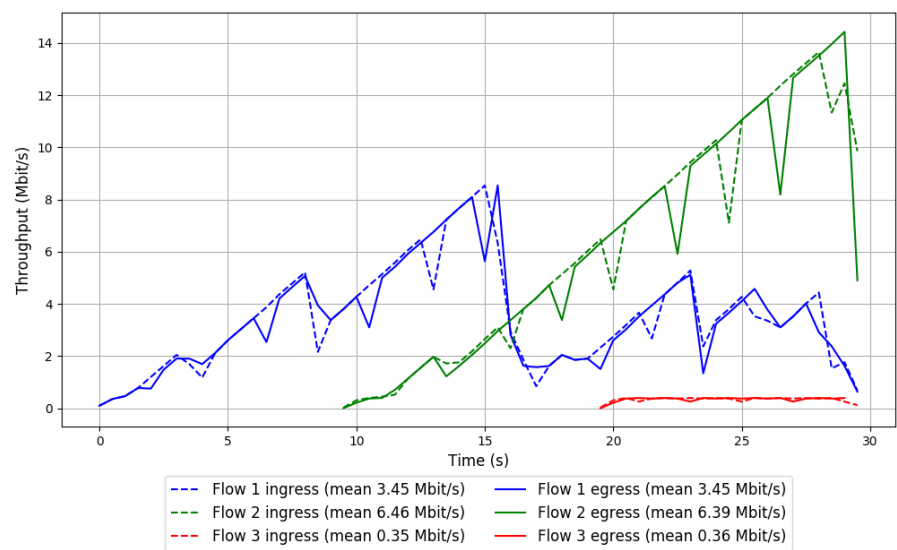
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 87.023 ms

Loss rate: 1.65%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-12 01:33:43

End at: 2017-08-12 01:34:13

# Below is generated by plot.py at 2017-08-12 06:09:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.88 Mbit/s

95th percentile per-packet one-way delay: 87.500 ms

Loss rate: 2.19%

-- Flow 1:

Average throughput: 5.56 Mbit/s

95th percentile per-packet one-way delay: 87.532 ms

Loss rate: 1.81%

-- Flow 2:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 87.337 ms

Loss rate: 3.95%

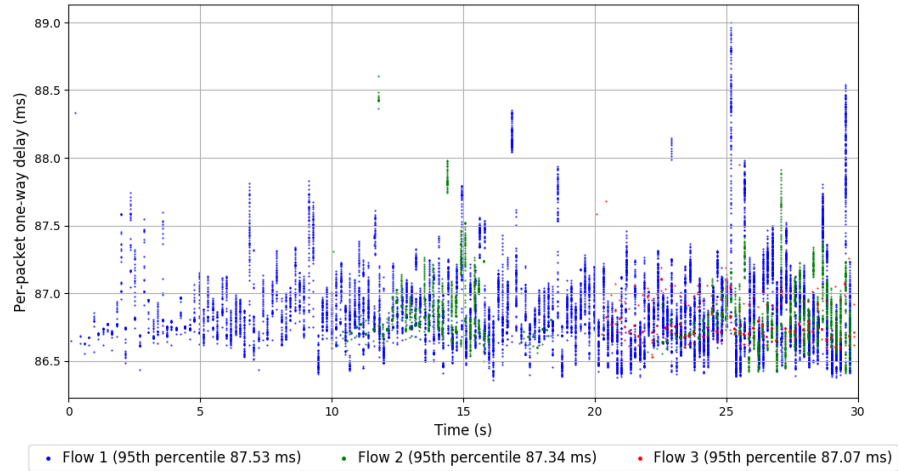
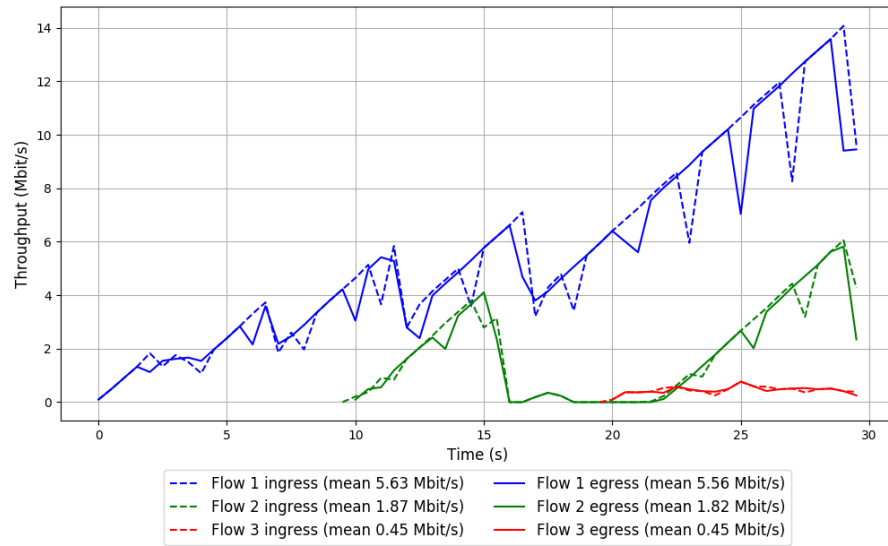
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 87.072 ms

Loss rate: 1.54%

# Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-12 01:47:23

End at: 2017-08-12 01:47:53

# Below is generated by plot.py at 2017-08-12 06:09:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.56 Mbit/s

95th percentile per-packet one-way delay: 87.443 ms

Loss rate: 2.52%

-- Flow 1:

Average throughput: 3.57 Mbit/s

95th percentile per-packet one-way delay: 87.532 ms

Loss rate: 2.23%

-- Flow 2:

Average throughput: 2.63 Mbit/s

95th percentile per-packet one-way delay: 87.514 ms

Loss rate: 2.40%

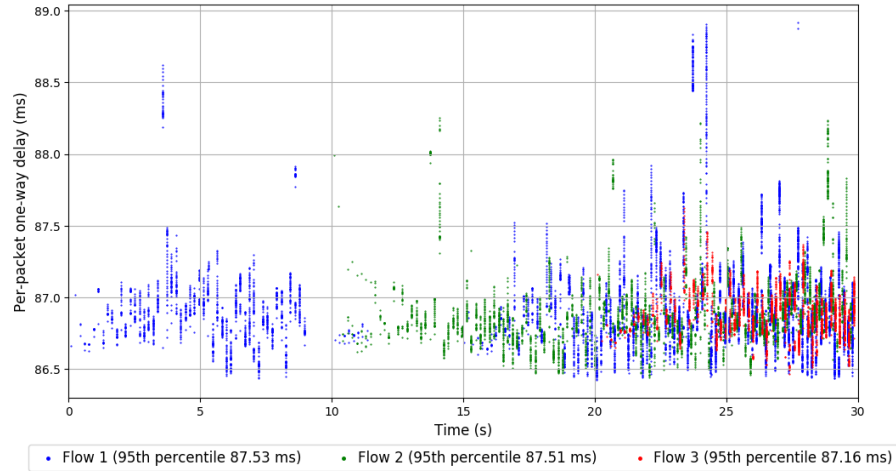
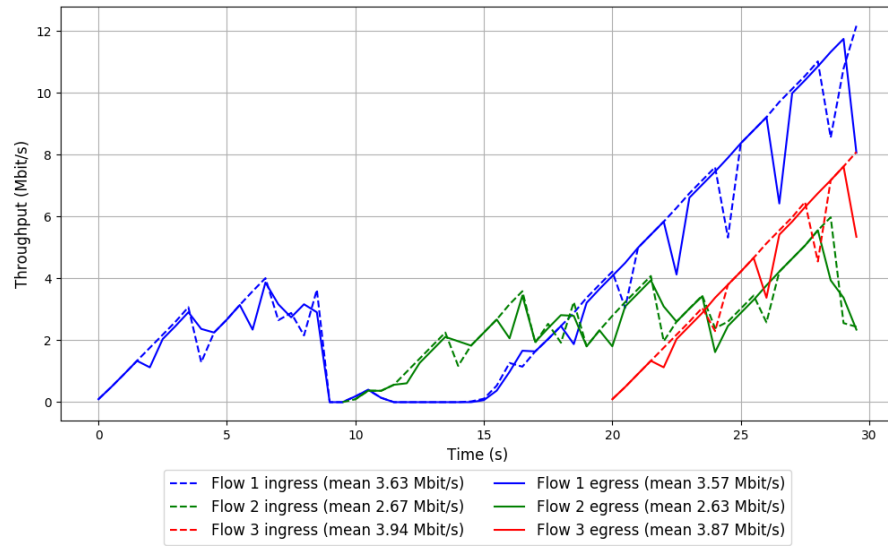
-- Flow 3:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 87.164 ms

Loss rate: 3.52%

## Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-12 02:00:40

End at: 2017-08-12 02:01:10

# Below is generated by plot.py at 2017-08-12 06:09:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.40 Mbit/s

95th percentile per-packet one-way delay: 87.362 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 87.286 ms

Loss rate: 2.24%

-- Flow 2:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 87.476 ms

Loss rate: 1.80%

-- Flow 3:

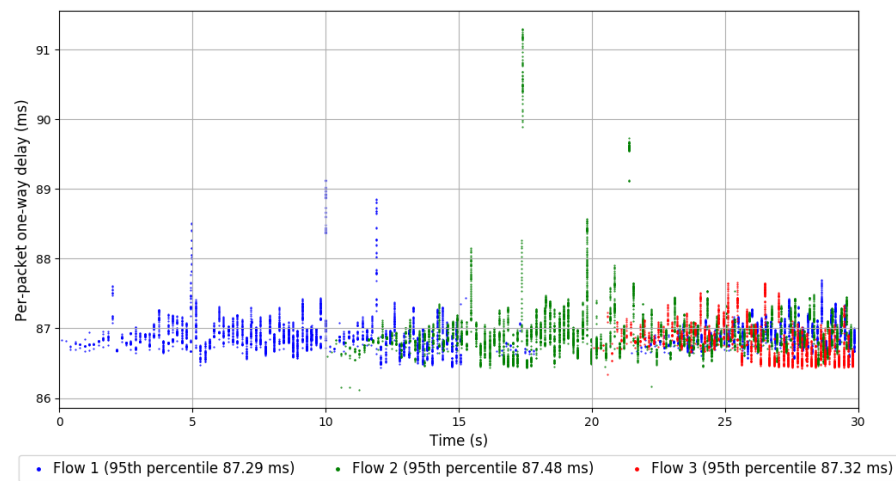
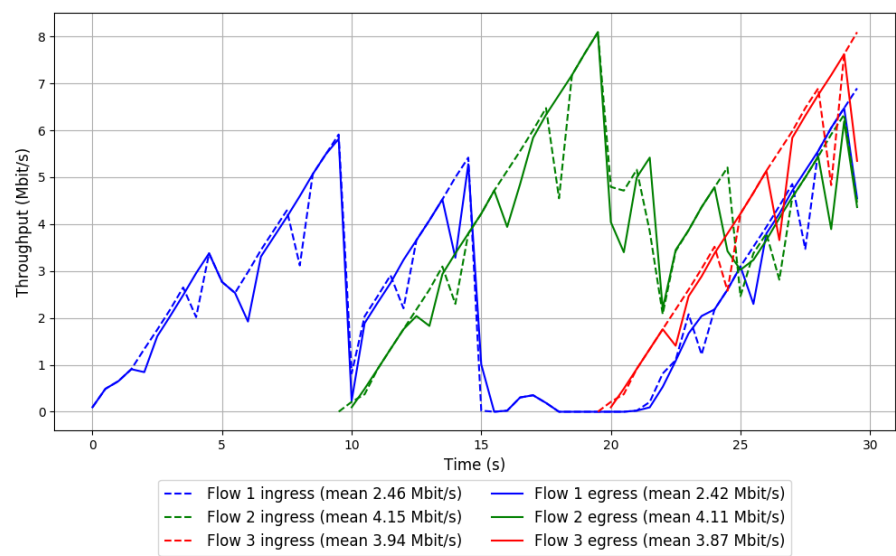
Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 87.322 ms

Loss rate: 3.52%



Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-12 02:14:16

End at: 2017-08-12 02:14:46

# Below is generated by plot.py at 2017-08-12 06:09:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.68 Mbit/s

95th percentile per-packet one-way delay: 87.837 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 9.47 Mbit/s

95th percentile per-packet one-way delay: 87.939 ms

Loss rate: 1.30%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 87.456 ms

Loss rate: 3.11%

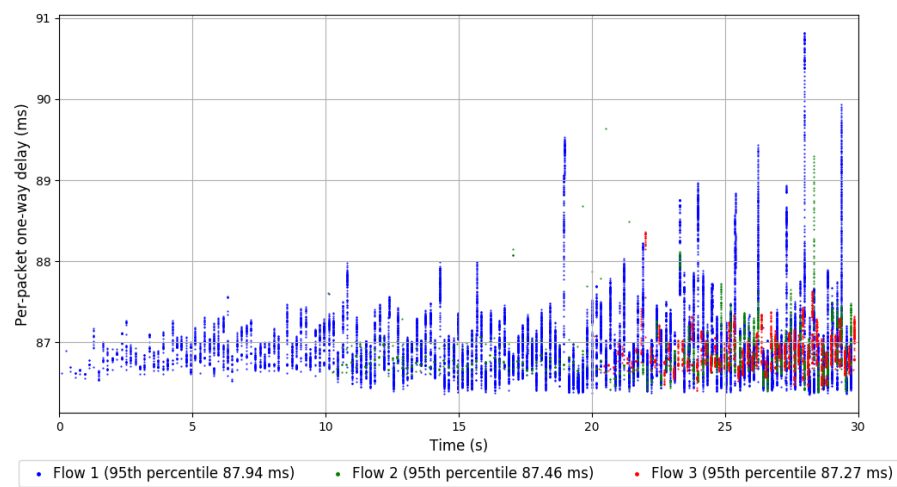
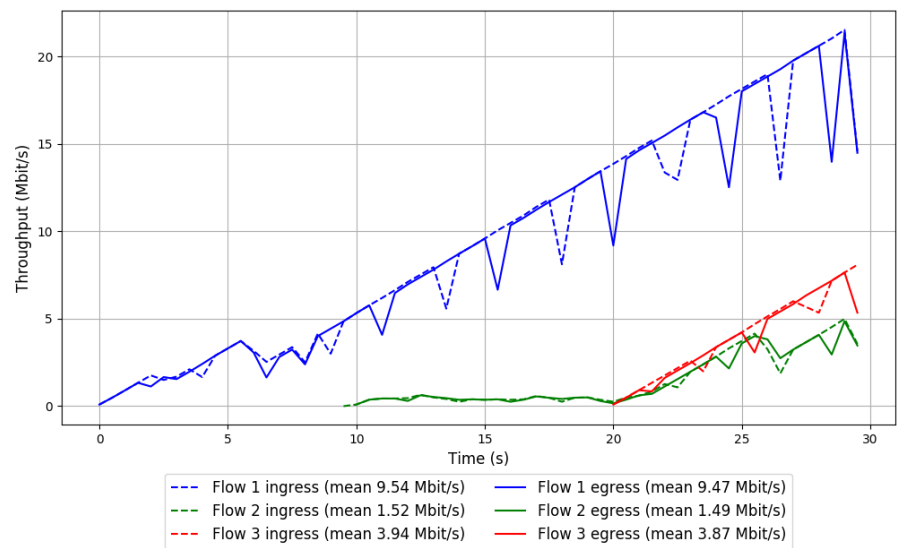
-- Flow 3:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 87.267 ms

Loss rate: 3.51%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-12 02:28:35

End at: 2017-08-12 02:29:05

# Below is generated by plot.py at 2017-08-12 06:09:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.02 Mbit/s

95th percentile per-packet one-way delay: 87.548 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 2.48 Mbit/s

95th percentile per-packet one-way delay: 87.480 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 87.619 ms

Loss rate: 1.74%

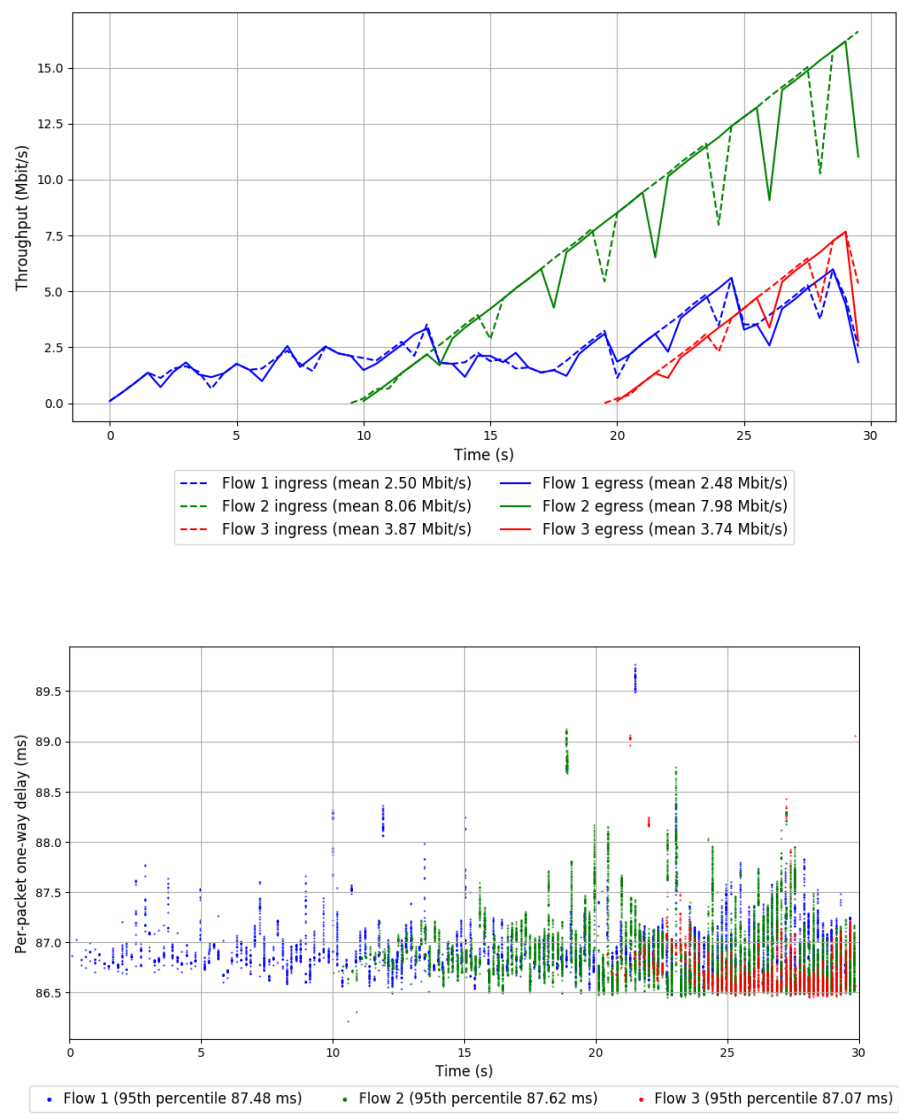
-- Flow 3:

Average throughput: 3.74 Mbit/s

95th percentile per-packet one-way delay: 87.070 ms

Loss rate: 3.44%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-12 02:42:16

End at: 2017-08-12 02:42:46

# Below is generated by plot.py at 2017-08-12 06:09:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 17.47 Mbit/s

95th percentile per-packet one-way delay: 87.945 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 11.23 Mbit/s

95th percentile per-packet one-way delay: 88.359 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 87.529 ms

Loss rate: 1.75%

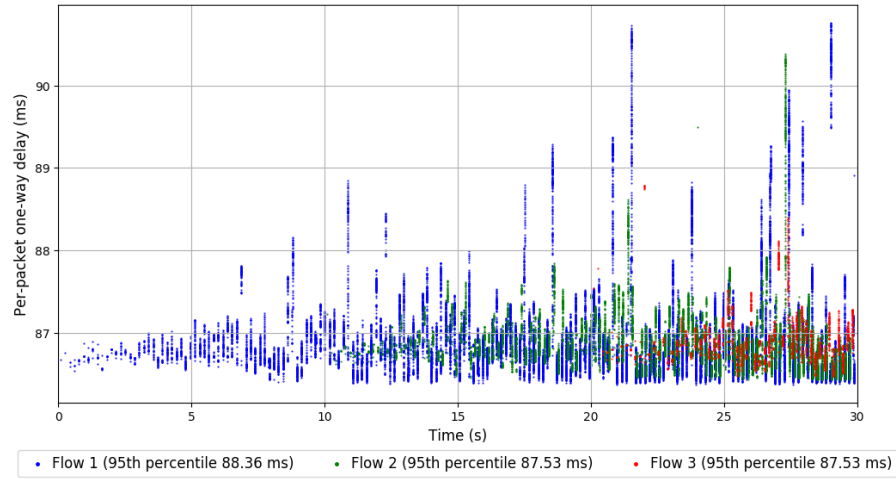
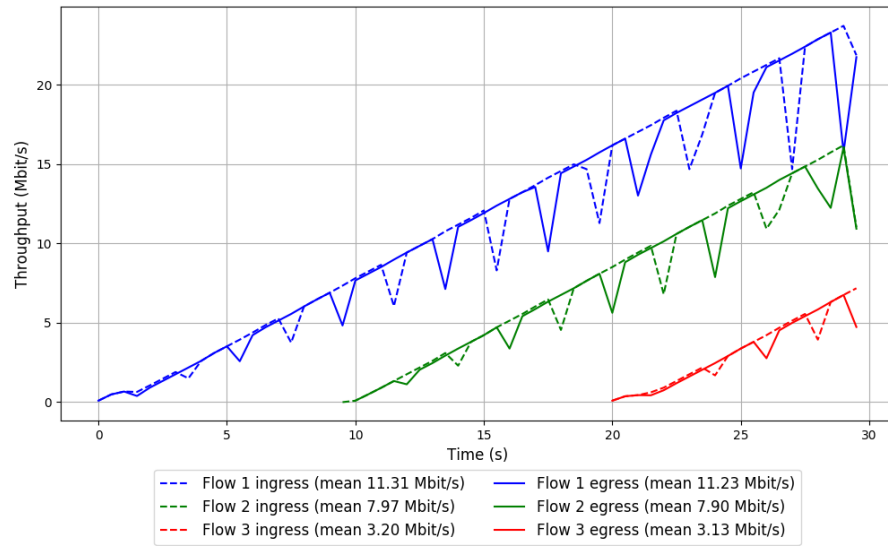
-- Flow 3:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 87.526 ms

Loss rate: 3.85%

# Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-08-12 02:56:34

End at: 2017-08-12 02:57:04

# Below is generated by plot.py at 2017-08-12 06:09:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.01 Mbit/s

95th percentile per-packet one-way delay: 87.170 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 87.177 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 87.216 ms

Loss rate: 4.19%

-- Flow 3:

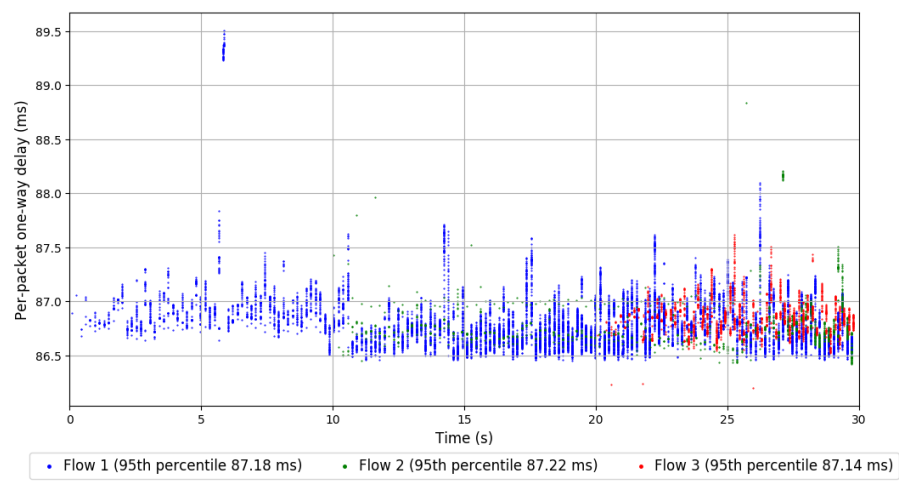
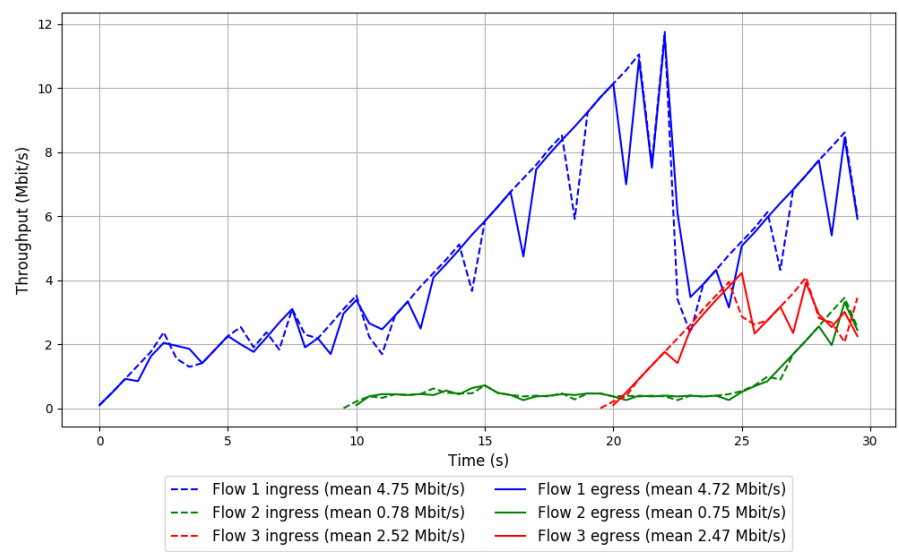
Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 87.136 ms

Loss rate: 3.94%



Run 10: Report of LEDBAT — Data Link

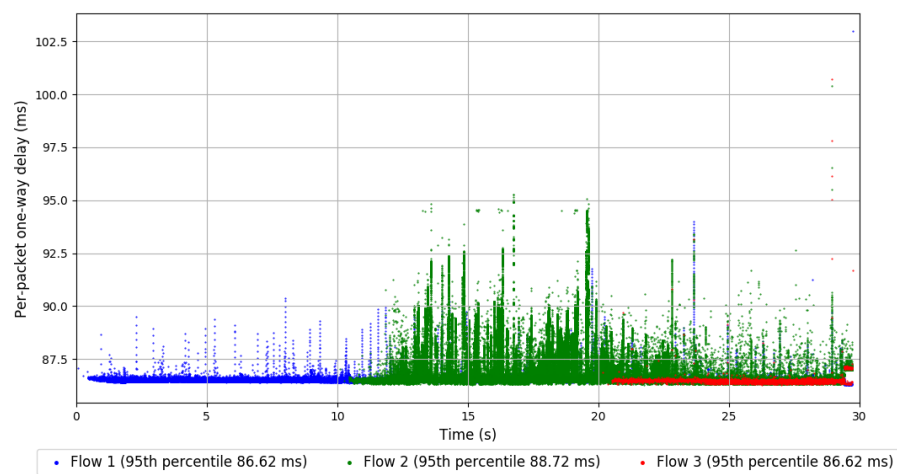
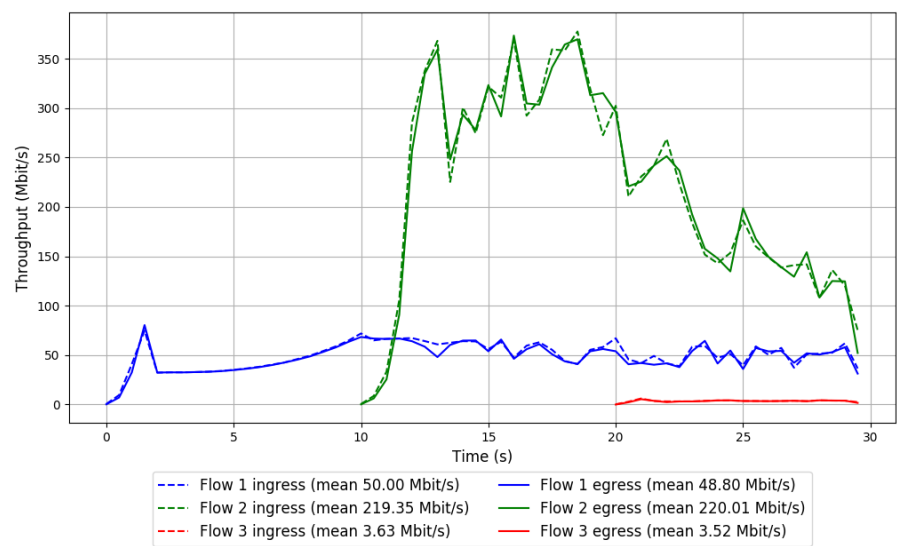


```
Run 1: Statistics of PCC

Start at: 2017-08-12 00:43:22
End at: 2017-08-12 00:43:52

# Below is generated by plot.py at 2017-08-12 06:09:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 195.66 Mbit/s
95th percentile per-packet one-way delay: 88.300 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 48.80 Mbit/s
95th percentile per-packet one-way delay: 86.616 ms
Loss rate: 2.96%
-- Flow 2:
Average throughput: 220.01 Mbit/s
95th percentile per-packet one-way delay: 88.724 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 3.52 Mbit/s
95th percentile per-packet one-way delay: 86.625 ms
Loss rate: 4.60%
```

Run 1: Report of PCC — Data Link

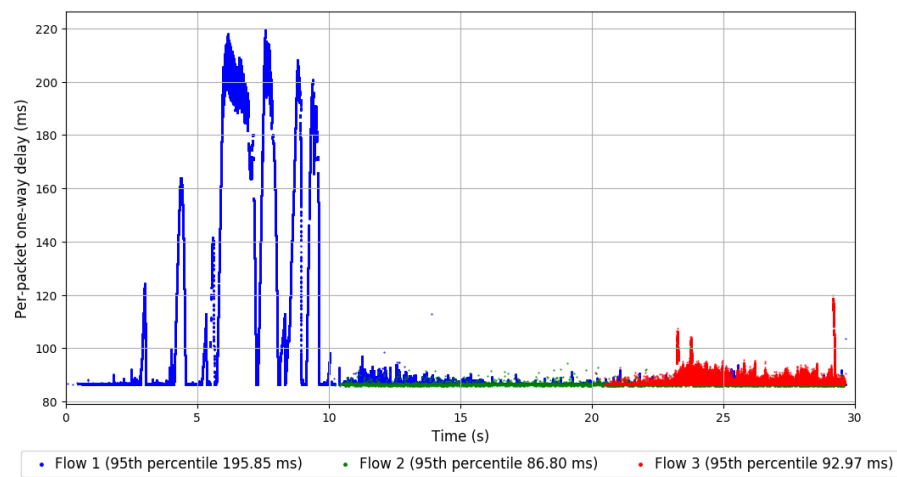
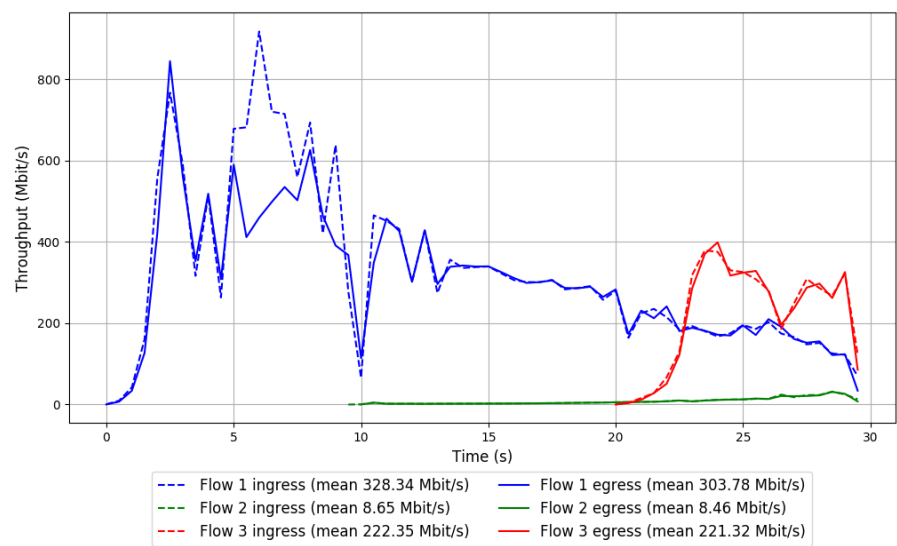


```
Run 2: Statistics of PCC

Start at: 2017-08-12 00:56:21
End at: 2017-08-12 00:56:51

# Below is generated by plot.py at 2017-08-12 06:10:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 380.56 Mbit/s
95th percentile per-packet one-way delay: 192.972 ms
Loss rate: 6.87%
-- Flow 1:
Average throughput: 303.78 Mbit/s
95th percentile per-packet one-way delay: 195.846 ms
Loss rate: 7.96%
-- Flow 2:
Average throughput: 8.46 Mbit/s
95th percentile per-packet one-way delay: 86.802 ms
Loss rate: 3.07%
-- Flow 3:
Average throughput: 221.32 Mbit/s
95th percentile per-packet one-way delay: 92.975 ms
Loss rate: 2.25%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-12 01:10:00

End at: 2017-08-12 01:10:30

# Below is generated by plot.py at 2017-08-12 06:11:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 459.34 Mbit/s

95th percentile per-packet one-way delay: 93.802 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 300.16 Mbit/s

95th percentile per-packet one-way delay: 95.801 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 161.35 Mbit/s

95th percentile per-packet one-way delay: 89.290 ms

Loss rate: 0.81%

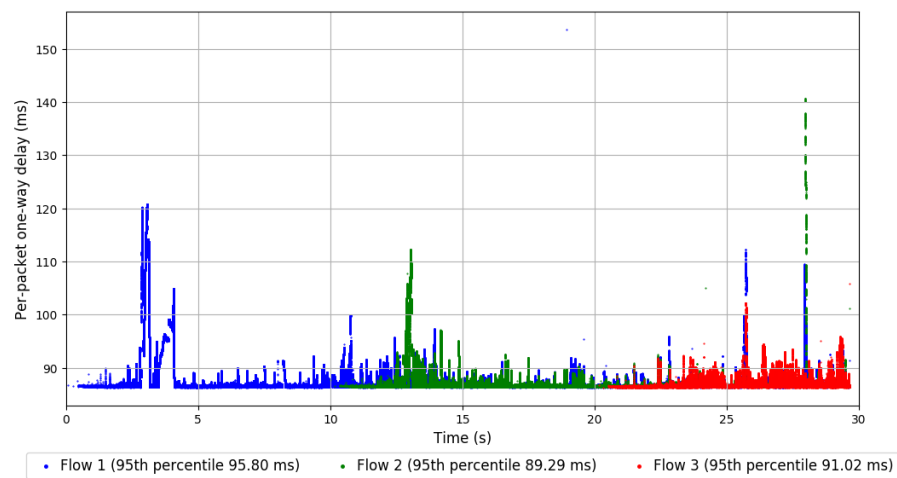
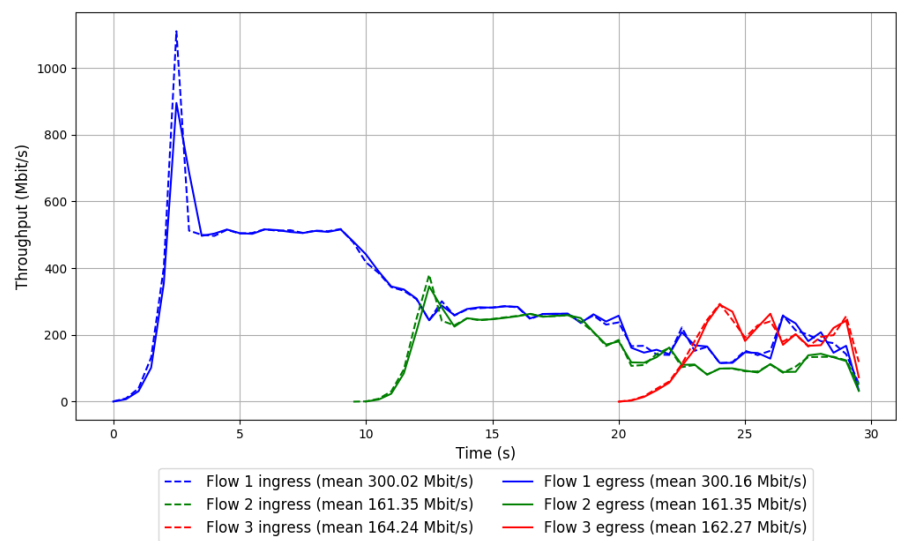
-- Flow 3:

Average throughput: 162.27 Mbit/s

95th percentile per-packet one-way delay: 91.021 ms

Loss rate: 2.83%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-12 01:23:33

End at: 2017-08-12 01:24:03

# Below is generated by plot.py at 2017-08-12 06:12:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 432.33 Mbit/s

95th percentile per-packet one-way delay: 95.521 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 326.55 Mbit/s

95th percentile per-packet one-way delay: 110.330 ms

Loss rate: 1.46%

-- Flow 2:

Average throughput: 81.67 Mbit/s

95th percentile per-packet one-way delay: 87.456 ms

Loss rate: 4.47%

-- Flow 3:

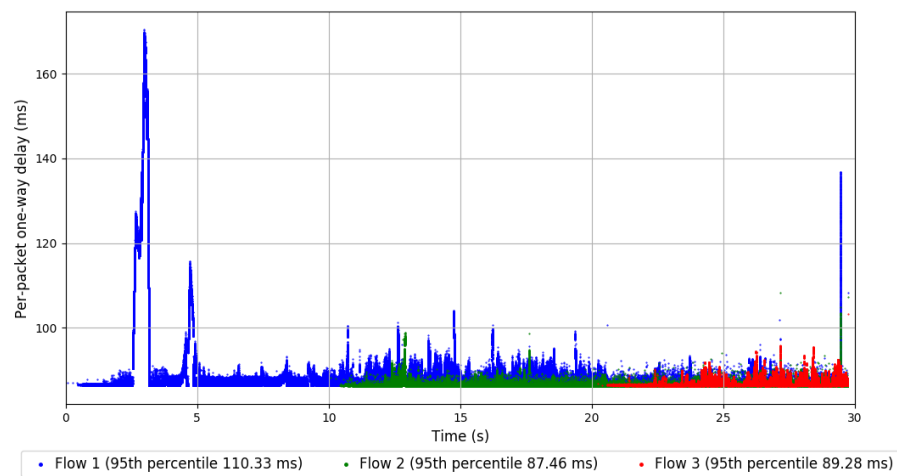
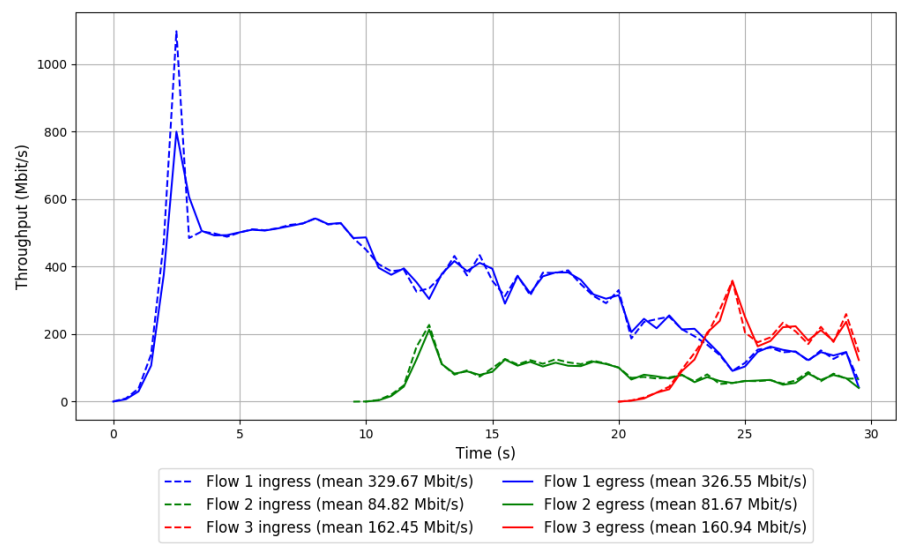
Average throughput: 160.94 Mbit/s

95th percentile per-packet one-way delay: 89.277 ms

Loss rate: 2.57%



Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-12 01:37:49

End at: 2017-08-12 01:38:19

# Below is generated by plot.py at 2017-08-12 06:12:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 366.71 Mbit/s

95th percentile per-packet one-way delay: 103.233 ms

Loss rate: 4.16%

-- Flow 1:

Average throughput: 174.46 Mbit/s

95th percentile per-packet one-way delay: 137.100 ms

Loss rate: 5.71%

-- Flow 2:

Average throughput: 193.85 Mbit/s

95th percentile per-packet one-way delay: 88.973 ms

Loss rate: 3.13%

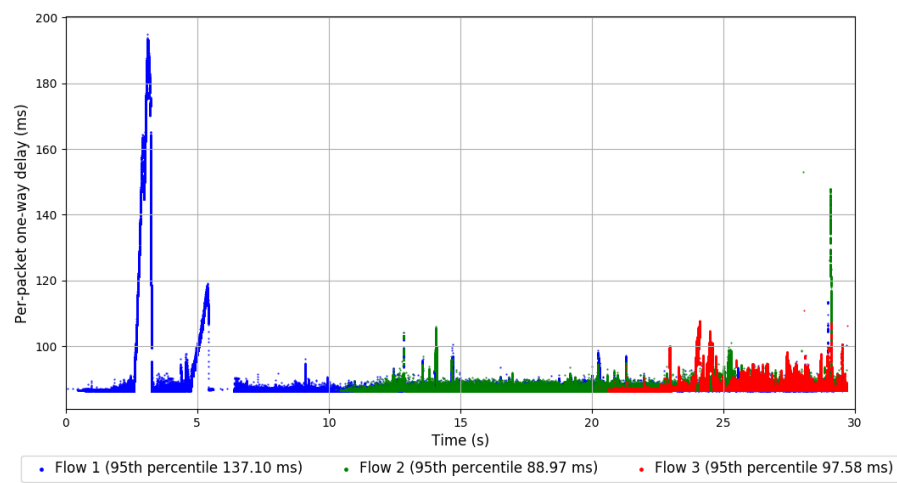
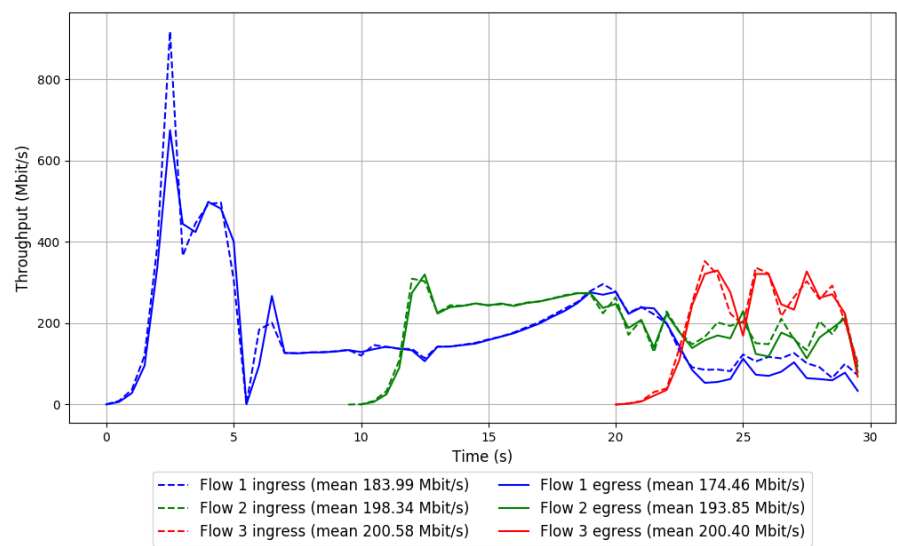
-- Flow 3:

Average throughput: 200.40 Mbit/s

95th percentile per-packet one-way delay: 97.581 ms

Loss rate: 1.84%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-12 01:51:36

End at: 2017-08-12 01:52:06

# Below is generated by plot.py at 2017-08-12 06:13:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 397.31 Mbit/s

95th percentile per-packet one-way delay: 97.351 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 296.89 Mbit/s

95th percentile per-packet one-way delay: 99.117 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 150.63 Mbit/s

95th percentile per-packet one-way delay: 89.214 ms

Loss rate: 1.45%

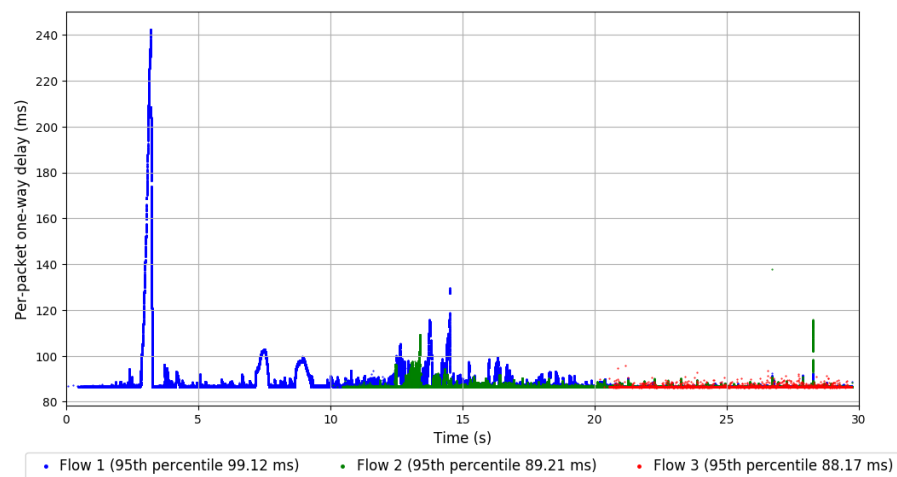
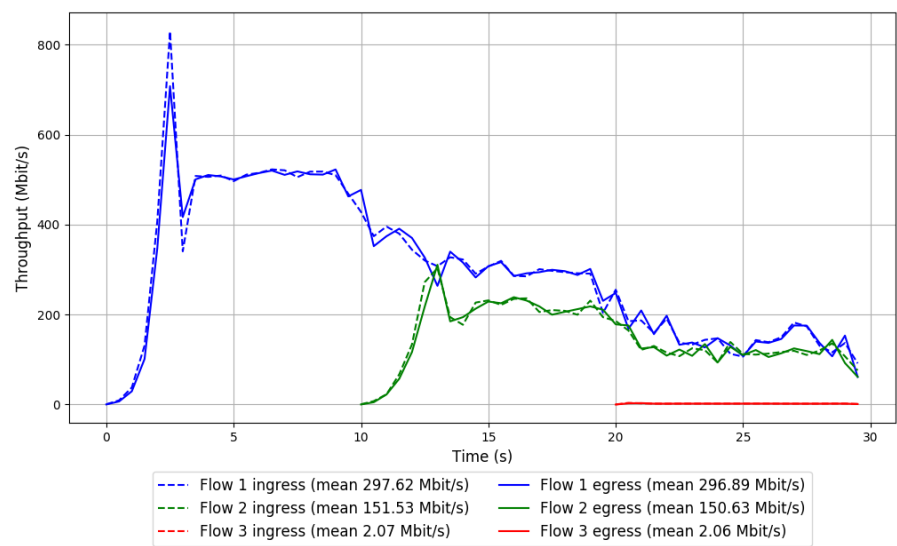
-- Flow 3:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 88.173 ms

Loss rate: 2.51%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-12 02:04:49

End at: 2017-08-12 02:05:19

# Below is generated by plot.py at 2017-08-12 06:13:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 381.96 Mbit/s

95th percentile per-packet one-way delay: 91.359 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 336.94 Mbit/s

95th percentile per-packet one-way delay: 91.621 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 3.38 Mbit/s

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

Loss rate: 7.72%

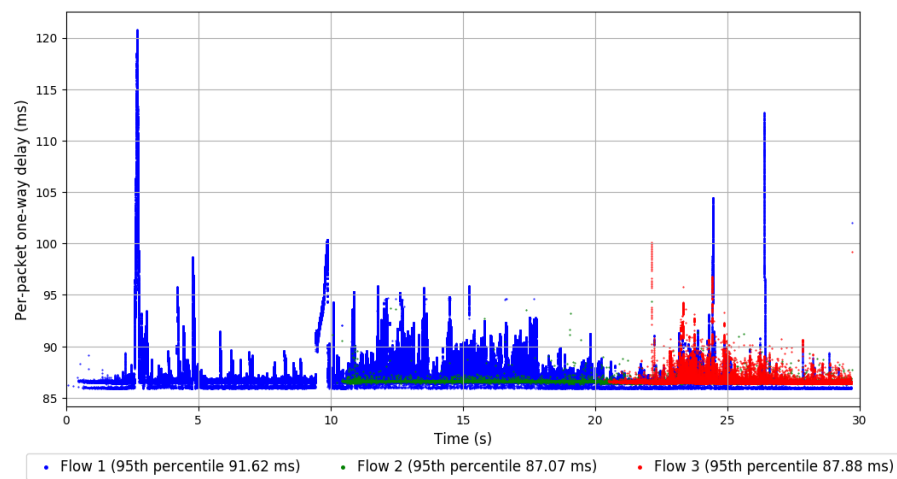
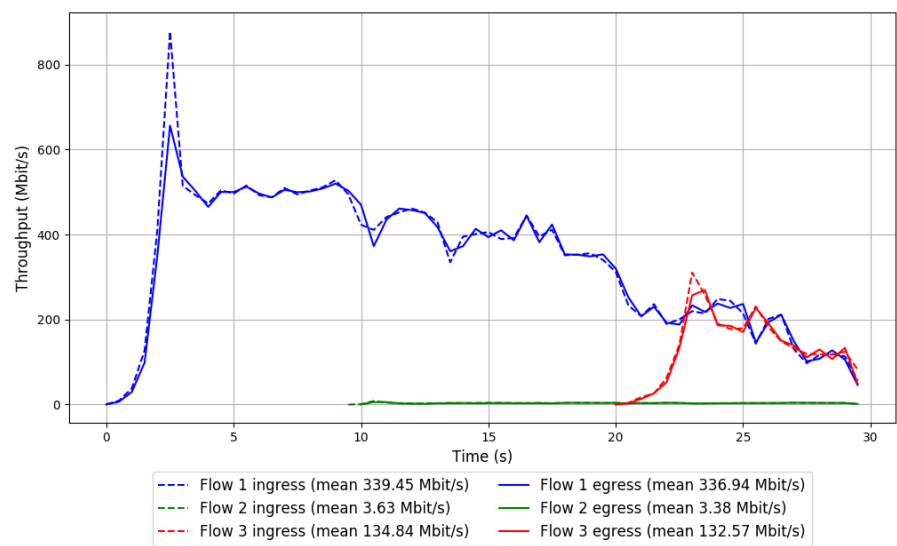
-- Flow 3:

Average throughput: 132.57 Mbit/s

95th percentile per-packet one-way delay: 87.879 ms

Loss rate: 3.33%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-12 02:18:21

End at: 2017-08-12 02:18:51

# Below is generated by plot.py at 2017-08-12 06:15:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 503.45 Mbit/s

95th percentile per-packet one-way delay: 175.516 ms

Loss rate: 3.10%

-- Flow 1:

Average throughput: 315.99 Mbit/s

95th percentile per-packet one-way delay: 187.465 ms

Loss rate: 3.14%

-- Flow 2:

Average throughput: 228.04 Mbit/s

95th percentile per-packet one-way delay: 106.450 ms

Loss rate: 2.92%

-- Flow 3:

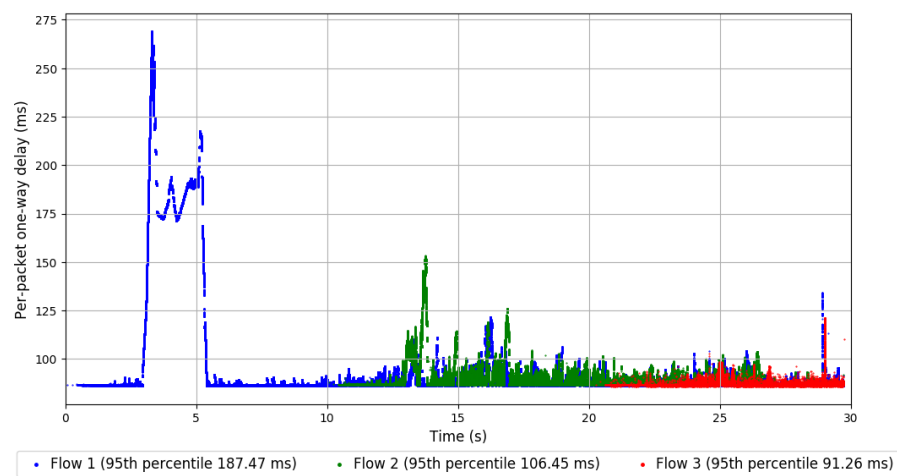
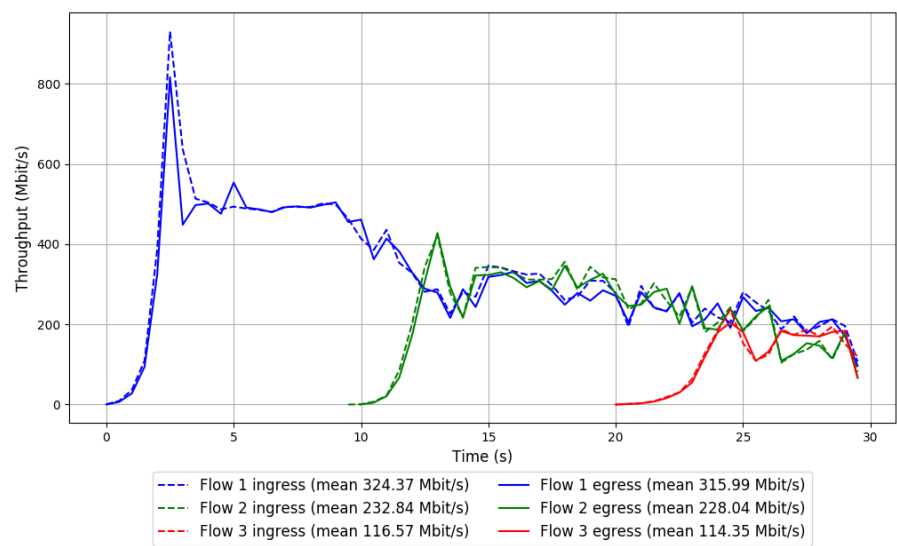
Average throughput: 114.35 Mbit/s

95th percentile per-packet one-way delay: 91.262 ms

Loss rate: 3.47%



Run 8: Report of PCC — Data Link

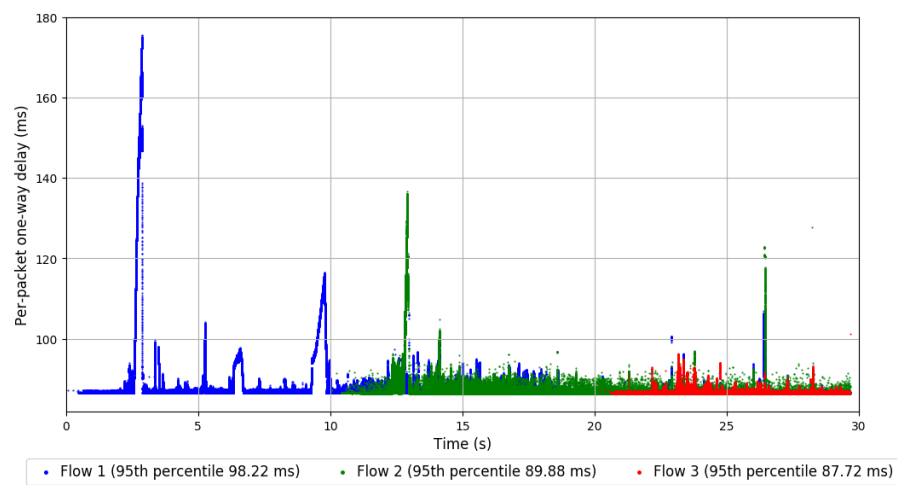
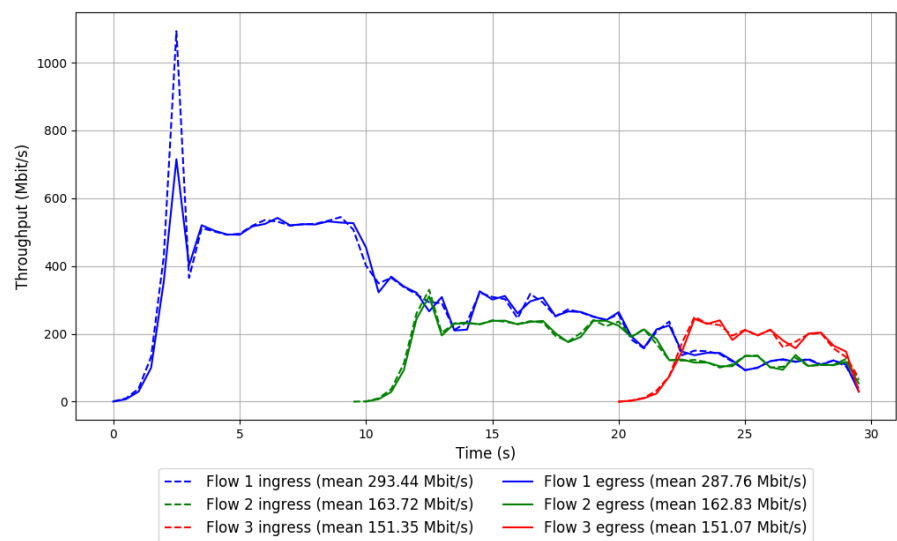


```
Run 9: Statistics of PCC

Start at: 2017-08-12 02:32:55
End at: 2017-08-12 02:33:25

# Below is generated by plot.py at 2017-08-12 06:15:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 443.83 Mbit/s
95th percentile per-packet one-way delay: 95.336 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 287.76 Mbit/s
95th percentile per-packet one-way delay: 98.222 ms
Loss rate: 2.49%
-- Flow 2:
Average throughput: 162.83 Mbit/s
95th percentile per-packet one-way delay: 89.882 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 151.07 Mbit/s
95th percentile per-packet one-way delay: 87.719 ms
Loss rate: 1.91%
```

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-08-12 02:46:46

End at: 2017-08-12 02:47:16

# Below is generated by plot.py at 2017-08-12 06:16:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 366.06 Mbit/s

95th percentile per-packet one-way delay: 100.537 ms

Loss rate: 2.76%

-- Flow 1:

Average throughput: 52.74 Mbit/s

95th percentile per-packet one-way delay: 3188.329 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 362.58 Mbit/s

95th percentile per-packet one-way delay: 97.665 ms

Loss rate: 2.51%

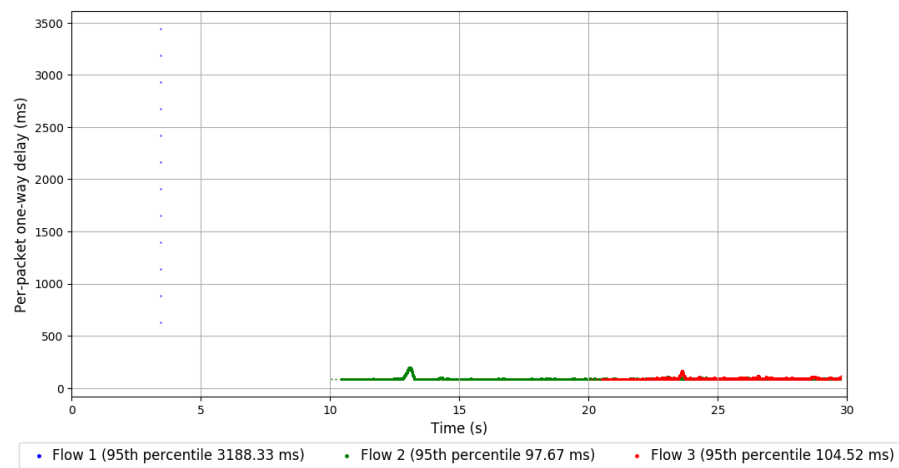
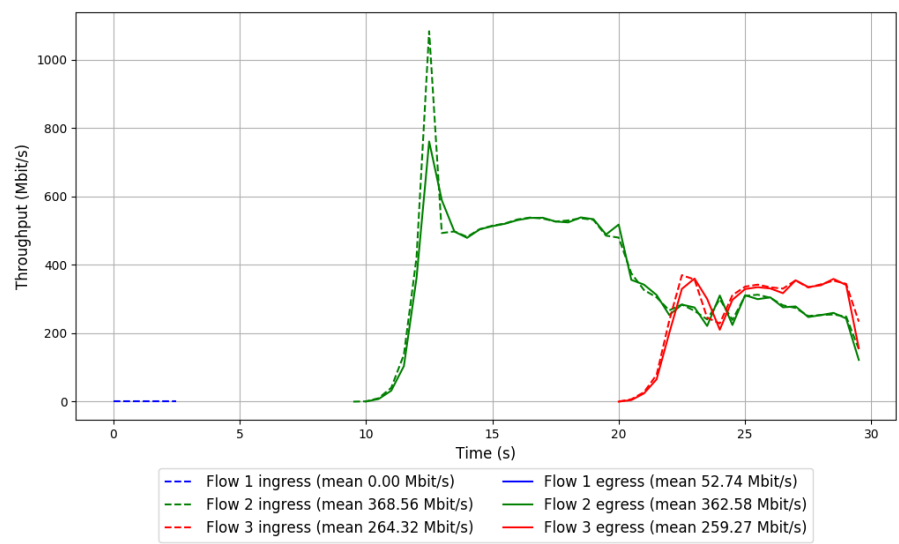
-- Flow 3:

Average throughput: 259.27 Mbit/s

95th percentile per-packet one-way delay: 104.517 ms

Loss rate: 3.45%

Run 10: Report of PCC — Data Link

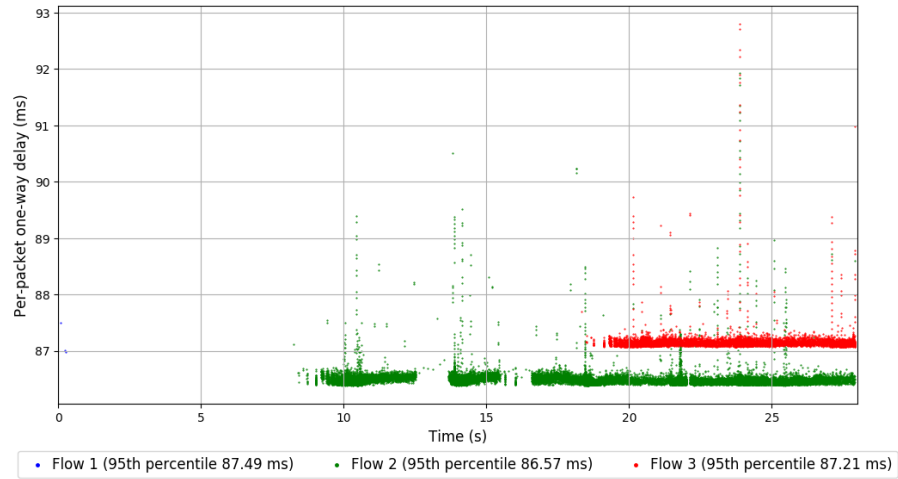
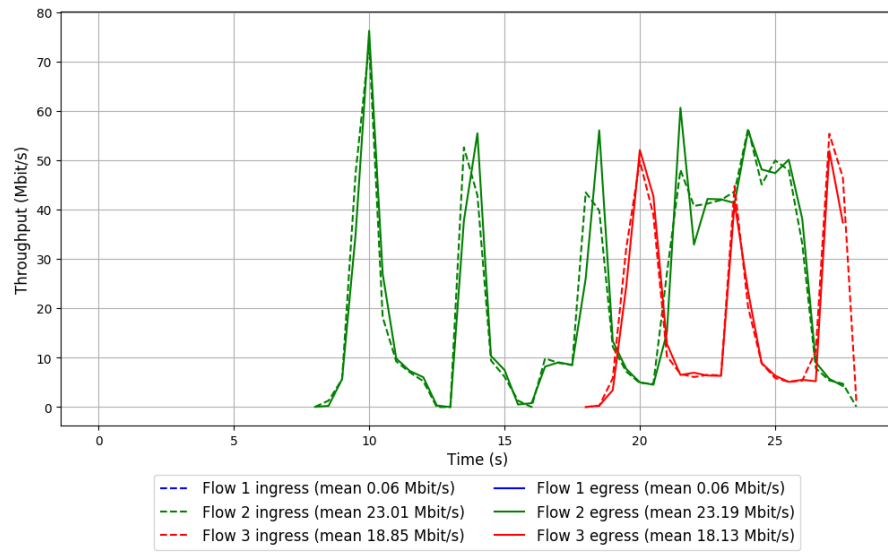


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-12 00:53:00
End at: 2017-08-12 00:53:30

# Below is generated by plot.py at 2017-08-12 06:16:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.64 Mbit/s
95th percentile per-packet one-way delay: 87.159 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 87.491 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.19 Mbit/s
95th percentile per-packet one-way delay: 86.567 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 18.13 Mbit/s
95th percentile per-packet one-way delay: 87.208 ms
Loss rate: 5.56%
```

## Run 1: Report of QUIC Cubic — Data Link



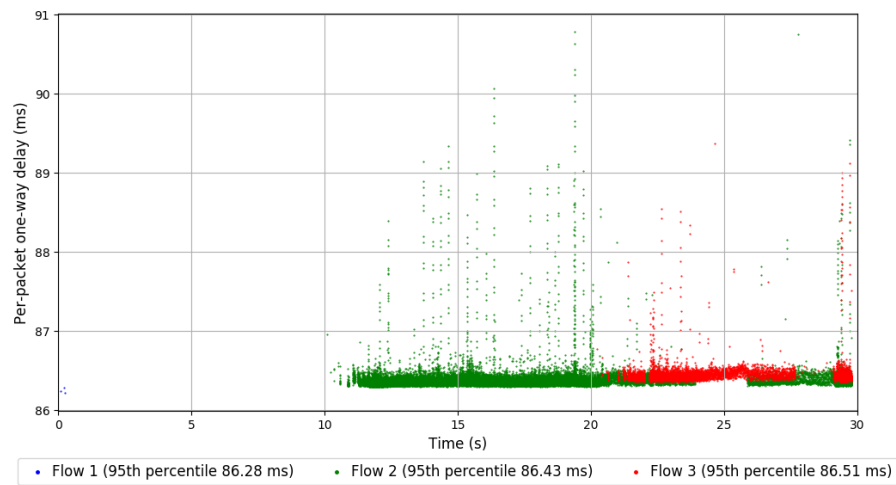
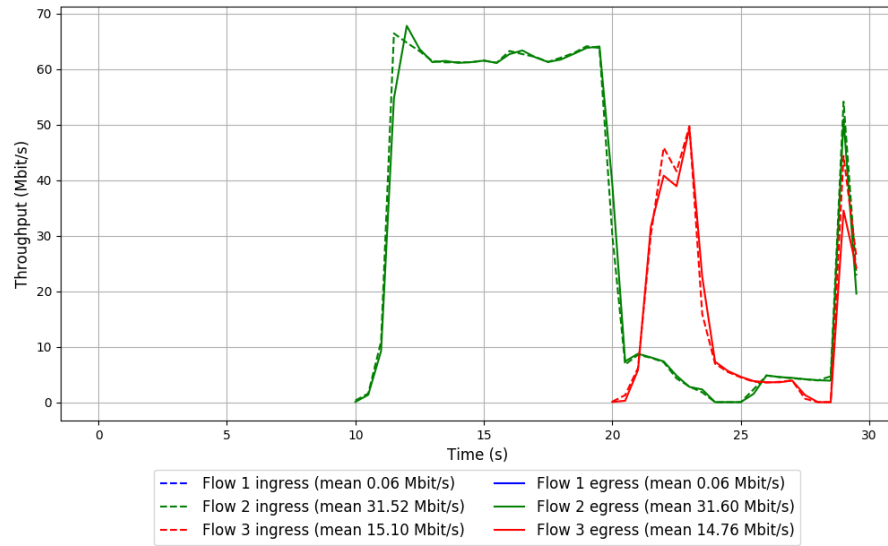
```
Run 2: Statistics of QUIC Cubic

Start at: 2017-08-12 01:06:32
End at: 2017-08-12 01:07:02

# Below is generated by plot.py at 2017-08-12 06:16:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.69 Mbit/s
95th percentile per-packet one-way delay: 86.461 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 86.280 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.60 Mbit/s
95th percentile per-packet one-way delay: 86.433 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 14.76 Mbit/s
95th percentile per-packet one-way delay: 86.507 ms
Loss rate: 4.01%
```



## Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-12 01:20:08

End at: 2017-08-12 01:20:38

# Below is generated by plot.py at 2017-08-12 06:16:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 19.48 Mbit/s

95th percentile per-packet one-way delay: 86.457 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.67 Mbit/s

95th percentile per-packet one-way delay: 86.461 ms

Loss rate: 1.09%

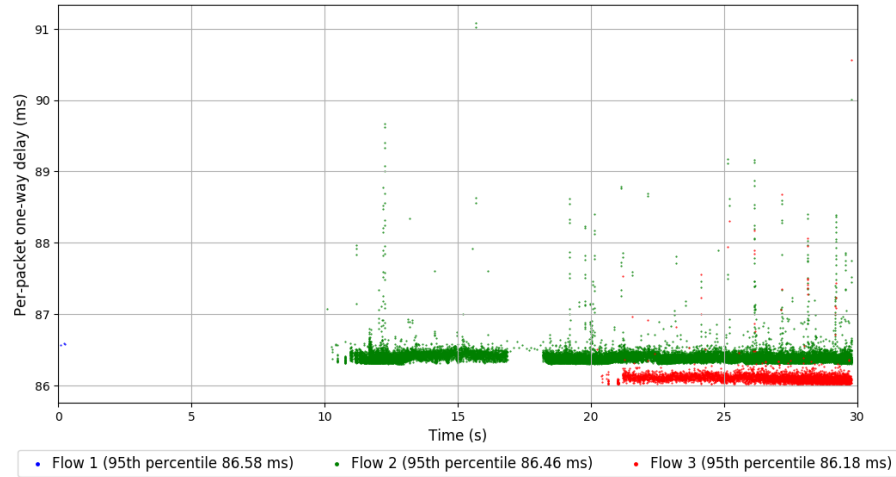
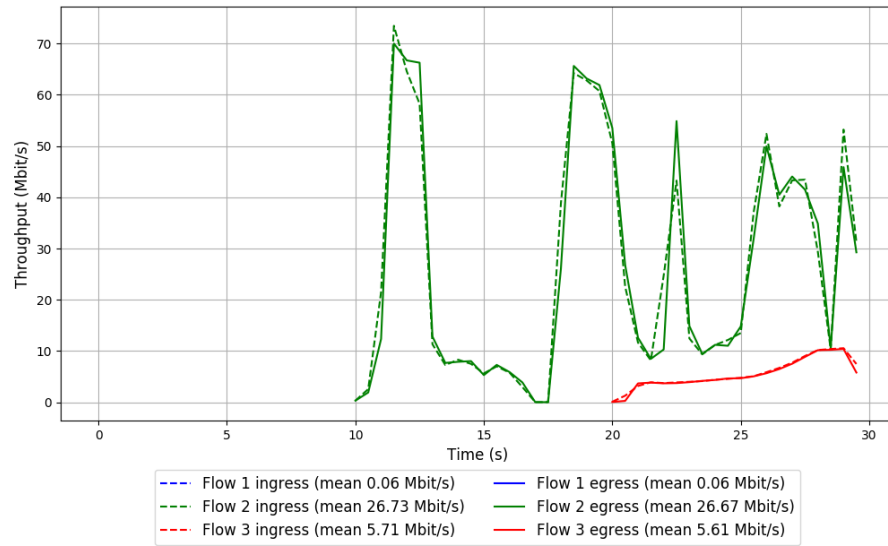
-- Flow 3:

Average throughput: 5.61 Mbit/s

95th percentile per-packet one-way delay: 86.184 ms

Loss rate: 3.37%

### Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-08-12 01:34:27

End at: 2017-08-12 01:34:57

# Below is generated by plot.py at 2017-08-12 06:16:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 24.06 Mbit/s

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

Loss rate: 1.90%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.252 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 23.92 Mbit/s

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

Loss rate: 1.46%

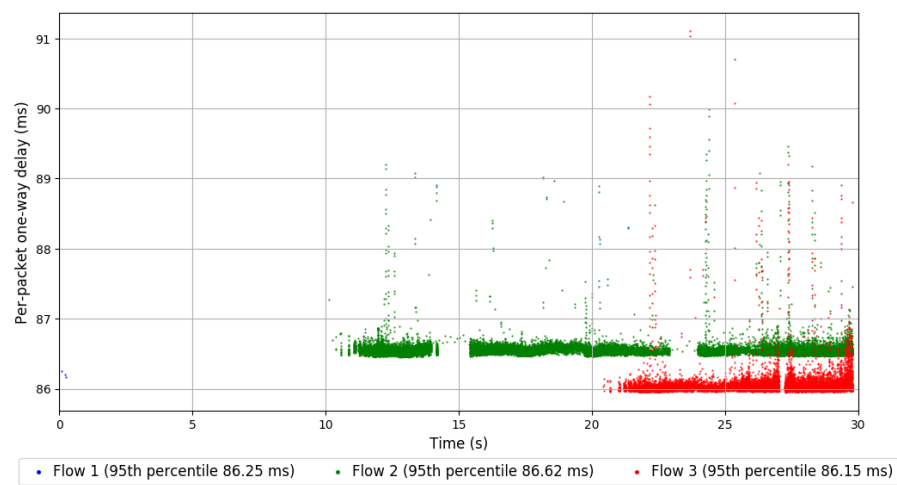
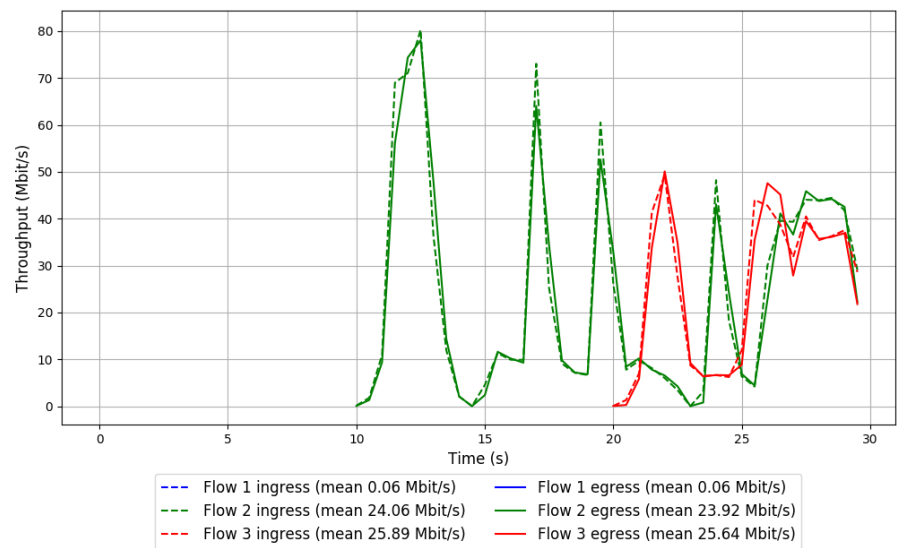
-- Flow 3:

Average throughput: 25.64 Mbit/s

95th percentile per-packet one-way delay: 86.154 ms

Loss rate: 2.73%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-12 01:48:08

End at: 2017-08-12 01:48:38

# Below is generated by plot.py at 2017-08-12 06:16:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.29 Mbit/s

95th percentile per-packet one-way delay: 86.510 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.043 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.16 Mbit/s

95th percentile per-packet one-way delay: 86.482 ms

Loss rate: 1.34%

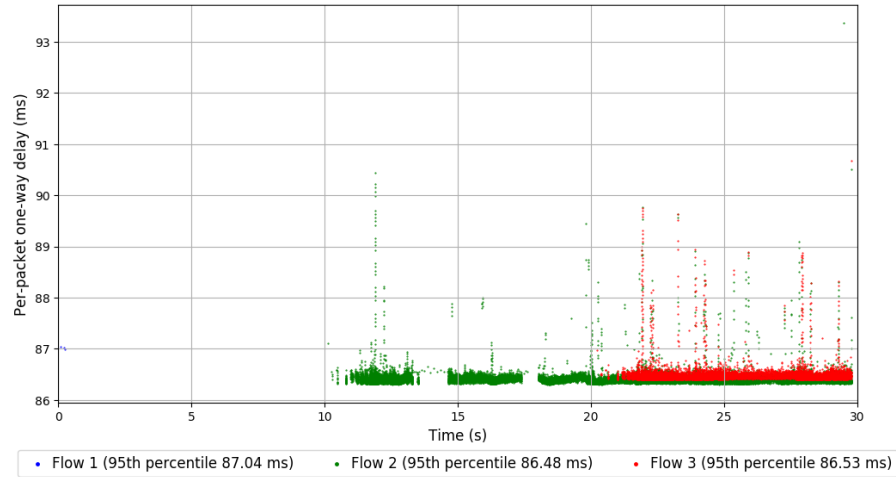
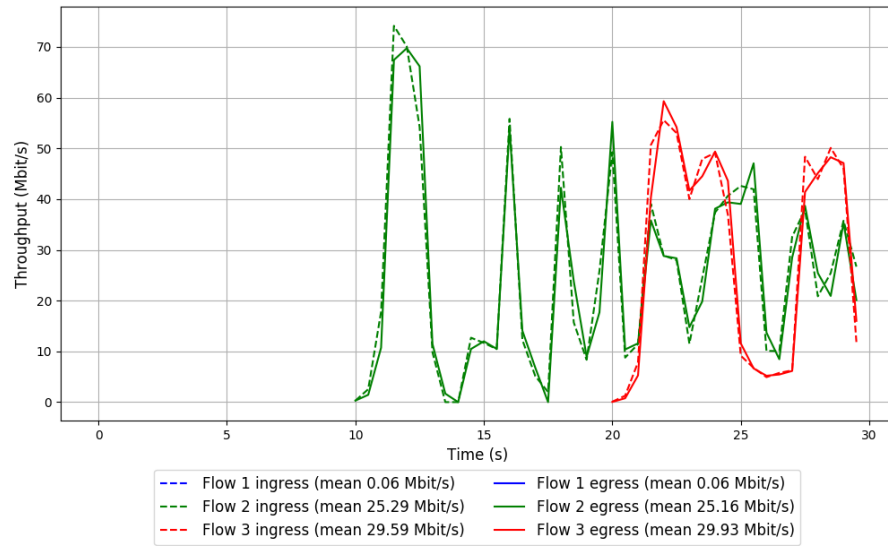
-- Flow 3:

Average throughput: 29.93 Mbit/s

95th percentile per-packet one-way delay: 86.533 ms

Loss rate: 0.61%

## Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-08-12 02:01:24

End at: 2017-08-12 02:01:54

# Below is generated by plot.py at 2017-08-12 06:16:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.61 Mbit/s

95th percentile per-packet one-way delay: 86.863 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.733 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.78 Mbit/s

95th percentile per-packet one-way delay: 86.565 ms

Loss rate: 1.56%

-- Flow 3:

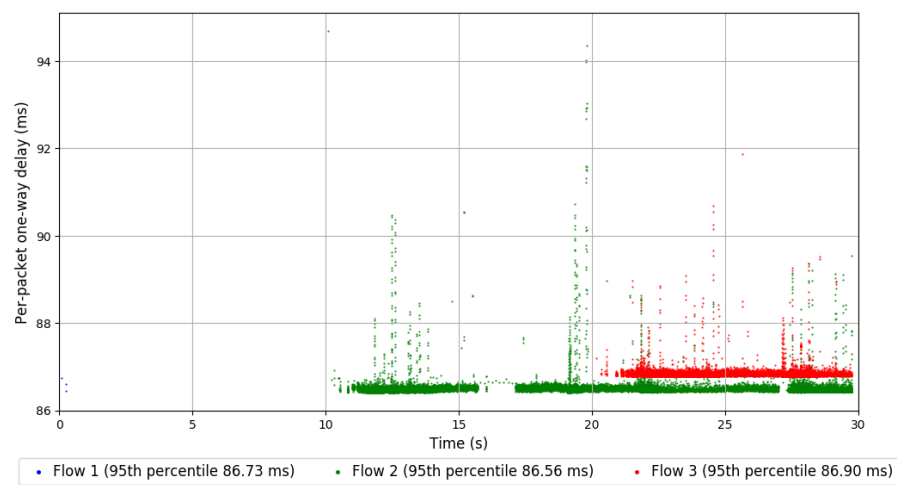
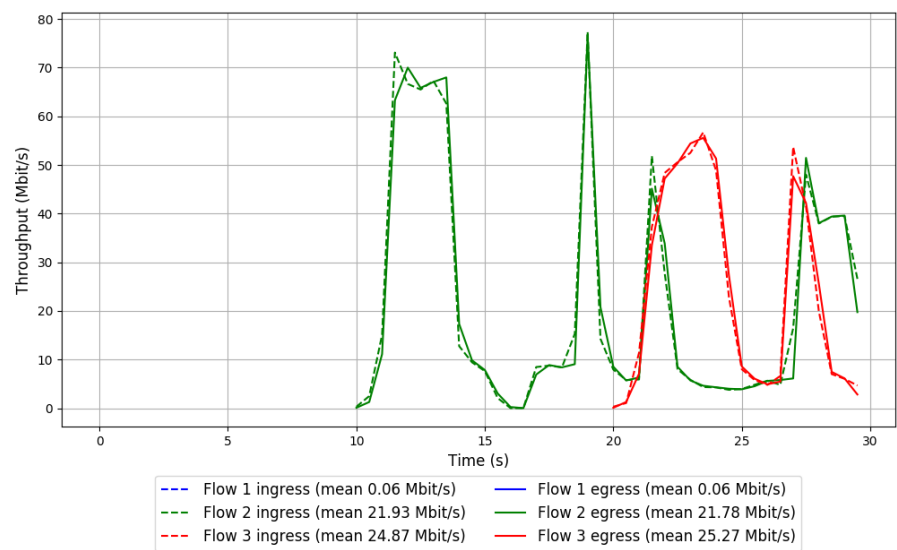
Average throughput: 25.27 Mbit/s

95th percentile per-packet one-way delay: 86.902 ms

Loss rate: 0.58%



Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-12 02:15:01

End at: 2017-08-12 02:15:31

# Below is generated by plot.py at 2017-08-12 06:16:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 19.78 Mbit/s

95th percentile per-packet one-way delay: 86.715 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.610 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 19.95 Mbit/s

95th percentile per-packet one-way delay: 86.079 ms

Loss rate: 1.71%

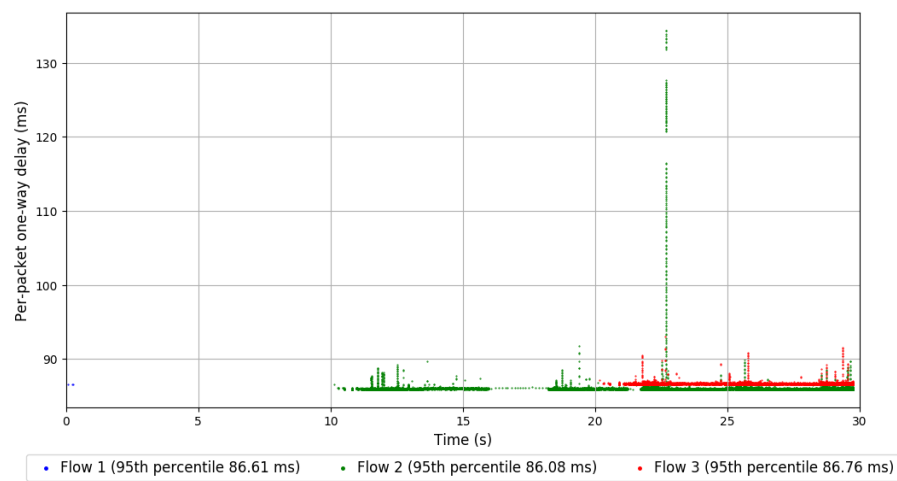
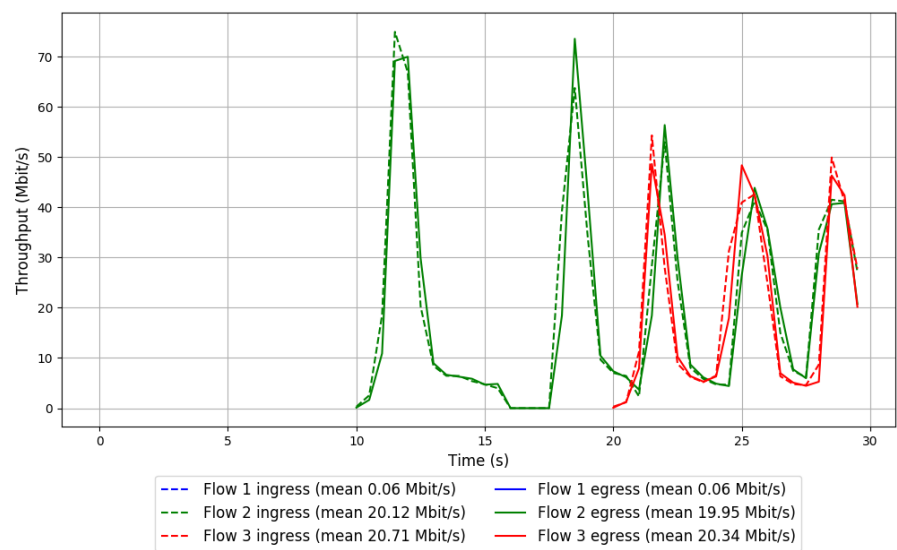
-- Flow 3:

Average throughput: 20.34 Mbit/s

95th percentile per-packet one-way delay: 86.763 ms

Loss rate: 3.50%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-12 02:29:19

End at: 2017-08-12 02:29:49

# Below is generated by plot.py at 2017-08-12 06:16:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 14.26 Mbit/s

95th percentile per-packet one-way delay: 86.452 ms

Loss rate: 3.28%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.737 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 12.50 Mbit/s

95th percentile per-packet one-way delay: 86.472 ms

Loss rate: 1.10%

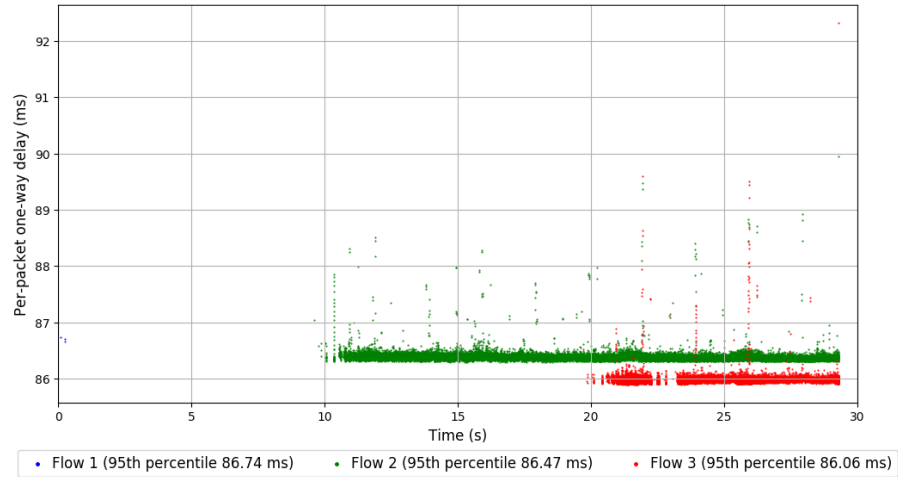
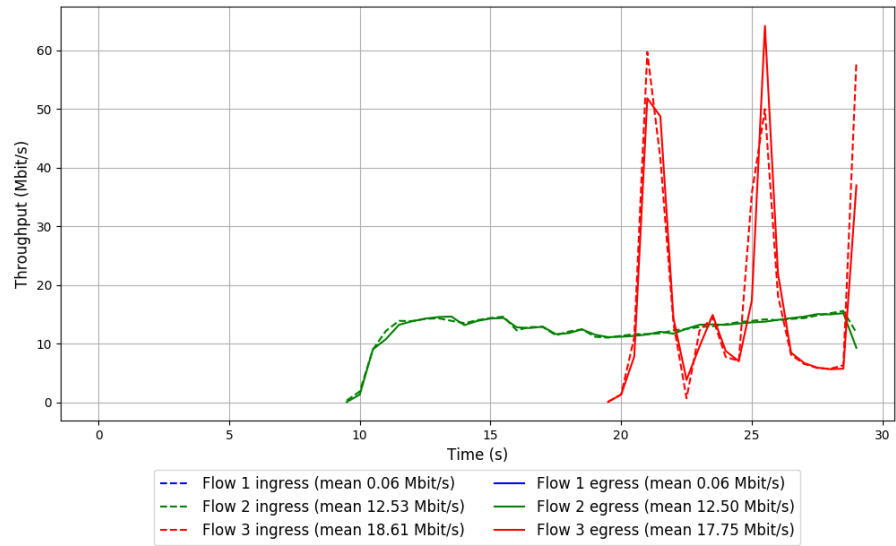
-- Flow 3:

Average throughput: 17.75 Mbit/s

95th percentile per-packet one-way delay: 86.056 ms

Loss rate: 6.25%

## Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-12 02:43:01

End at: 2017-08-12 02:43:31

# Below is generated by plot.py at 2017-08-12 06:16:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 18.30 Mbit/s

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

Loss rate: 2.48%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.668 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 15.28 Mbit/s

95th percentile per-packet one-way delay: 87.052 ms

Loss rate: 2.34%

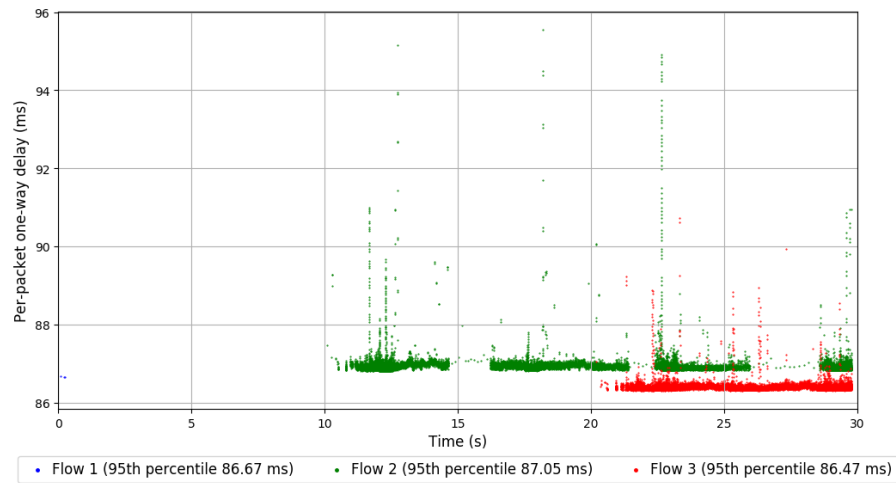
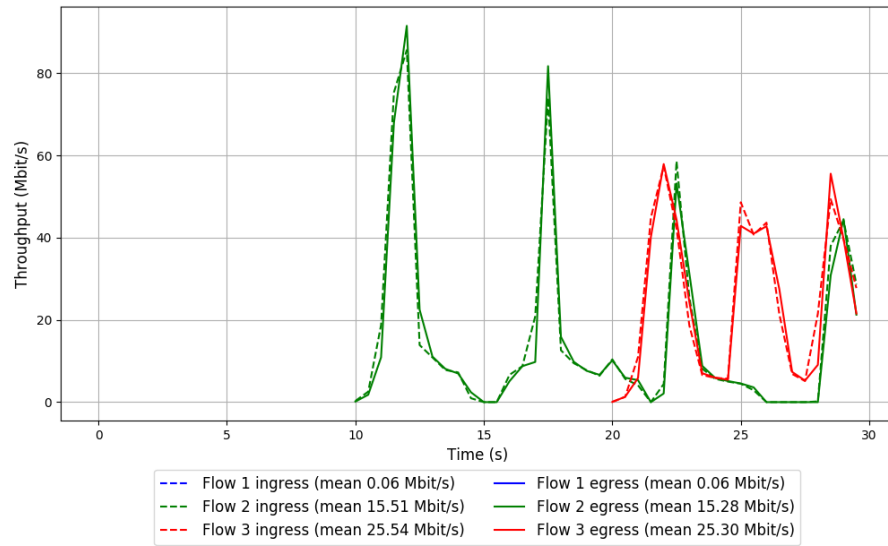
-- Flow 3:

Average throughput: 25.30 Mbit/s

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

Loss rate: 2.66%

## Run 9: Report of QUIC Cubic — Data Link



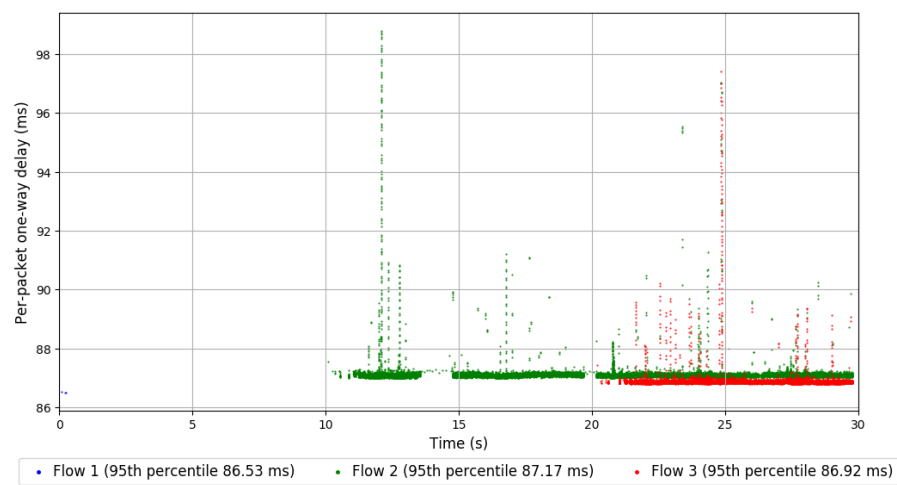
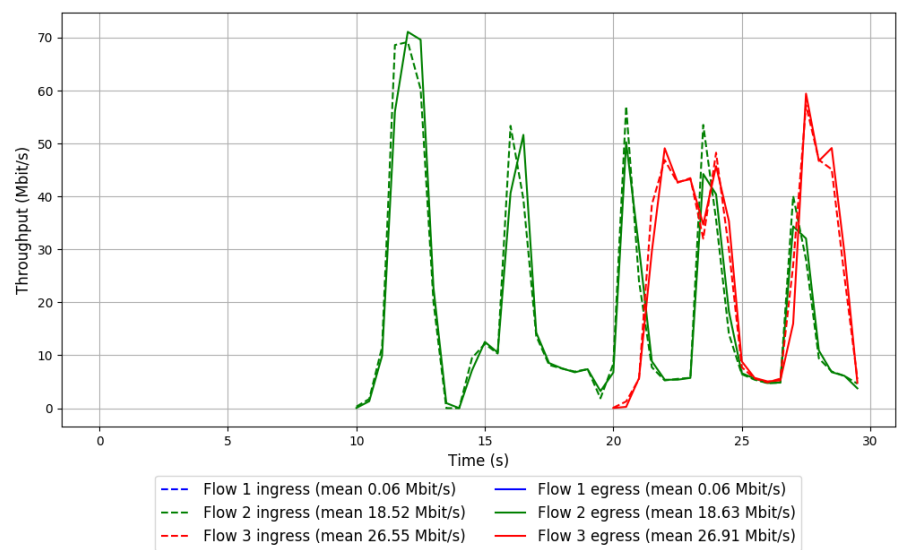
```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-12 02:57:18
End at: 2017-08-12 02:57:48

# Below is generated by plot.py at 2017-08-12 06:16:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.04 Mbit/s
95th percentile per-packet one-way delay: 87.147 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 86.530 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.63 Mbit/s
95th percentile per-packet one-way delay: 87.168 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 26.91 Mbit/s
95th percentile per-packet one-way delay: 86.915 ms
Loss rate: 0.46%
```



Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-12 00:54:33

End at: 2017-08-12 00:55:03

# Below is generated by plot.py at 2017-08-12 06:16:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.73 Mbit/s

95th percentile per-packet one-way delay: 87.659 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 13.39 Mbit/s

95th percentile per-packet one-way delay: 87.335 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 13.49 Mbit/s

95th percentile per-packet one-way delay: 87.524 ms

Loss rate: 1.08%

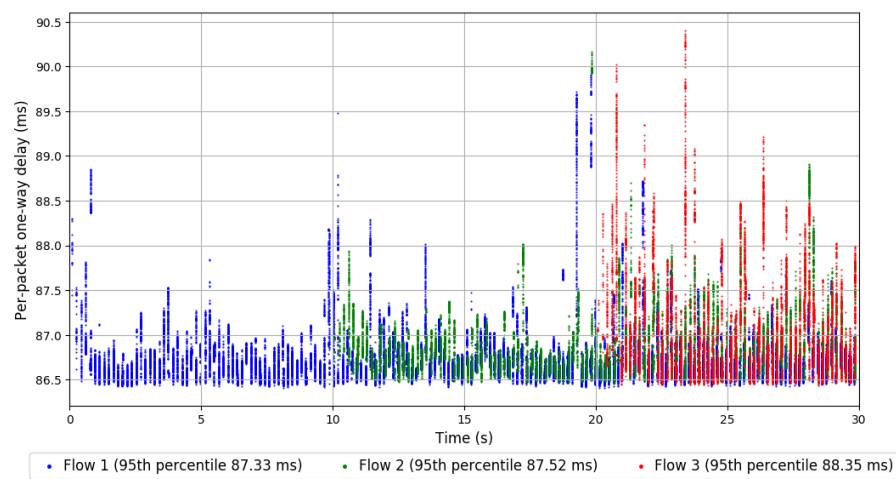
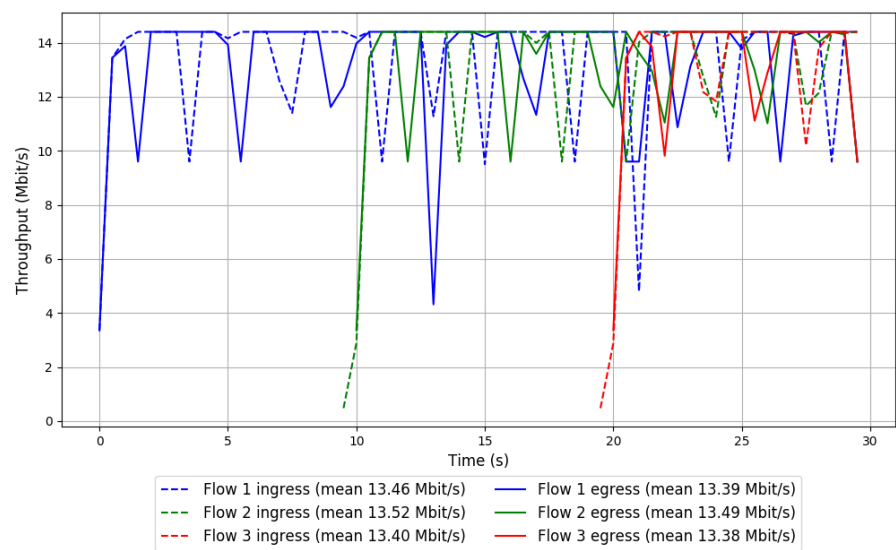
-- Flow 3:

Average throughput: 13.38 Mbit/s

95th percentile per-packet one-way delay: 88.348 ms

Loss rate: 1.87%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: 2017-08-12 01:08:08

End at: 2017-08-12 01:08:38

# Below is generated by plot.py at 2017-08-12 06:16:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.92 Mbit/s

95th percentile per-packet one-way delay: 88.508 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 13.58 Mbit/s

95th percentile per-packet one-way delay: 88.452 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 13.53 Mbit/s

95th percentile per-packet one-way delay: 88.553 ms

Loss rate: 1.02%

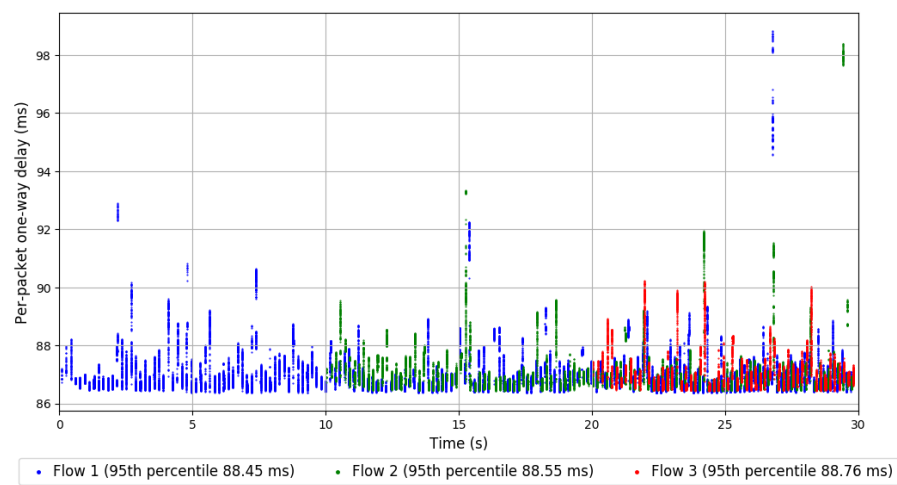
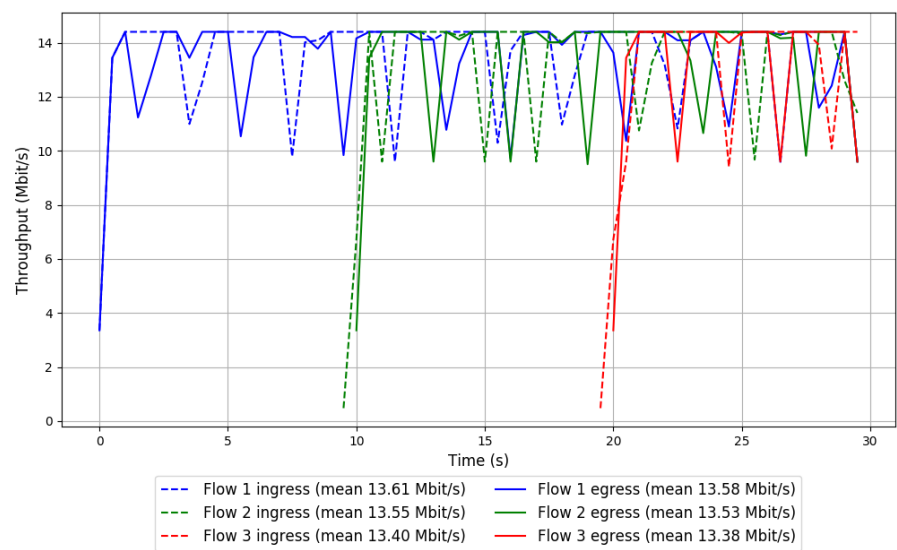
-- Flow 3:

Average throughput: 13.38 Mbit/s

95th percentile per-packet one-way delay: 88.756 ms

Loss rate: 1.88%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-12 01:21:43

End at: 2017-08-12 01:22:13

# Below is generated by plot.py at 2017-08-12 06:16:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.86 Mbit/s

95th percentile per-packet one-way delay: 87.741 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 13.63 Mbit/s

95th percentile per-packet one-way delay: 87.853 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 13.54 Mbit/s

95th percentile per-packet one-way delay: 87.570 ms

Loss rate: 1.17%

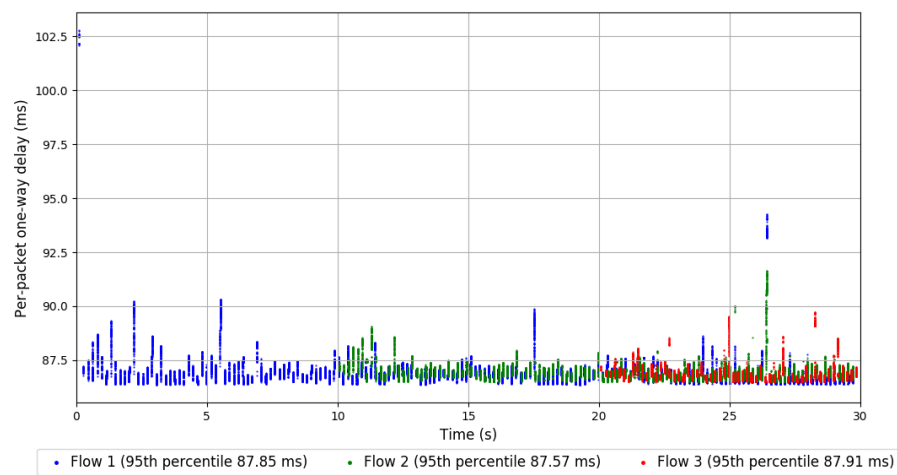
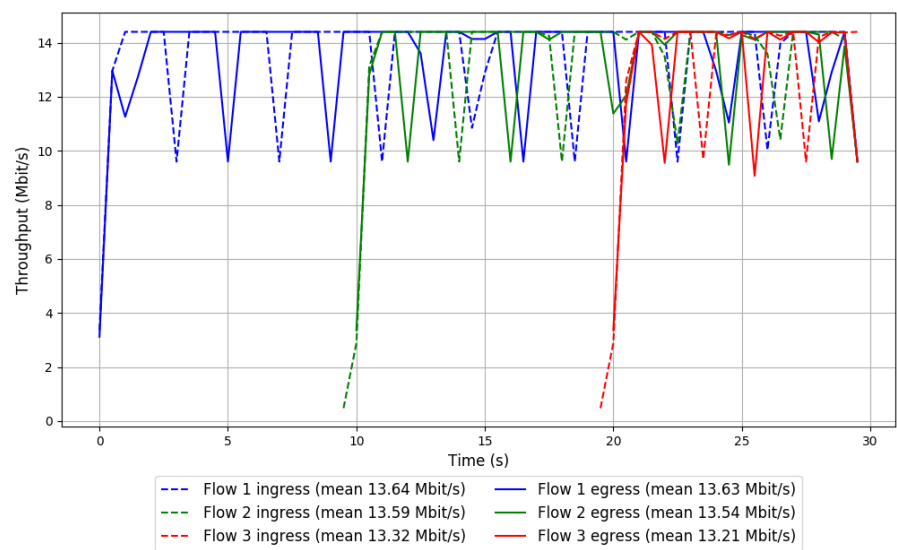
-- Flow 3:

Average throughput: 13.21 Mbit/s

95th percentile per-packet one-way delay: 87.911 ms

Loss rate: 2.51%

Run 3: Report of Saturator — Data Link



Run 4: Statistics of Saturator

Start at: 2017-08-12 01:35:59

End at: 2017-08-12 01:36:29

# Below is generated by plot.py at 2017-08-12 06:16:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.81 Mbit/s

95th percentile per-packet one-way delay: 87.827 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 13.57 Mbit/s

95th percentile per-packet one-way delay: 87.865 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 13.49 Mbit/s

95th percentile per-packet one-way delay: 87.768 ms

Loss rate: 1.03%

-- Flow 3:

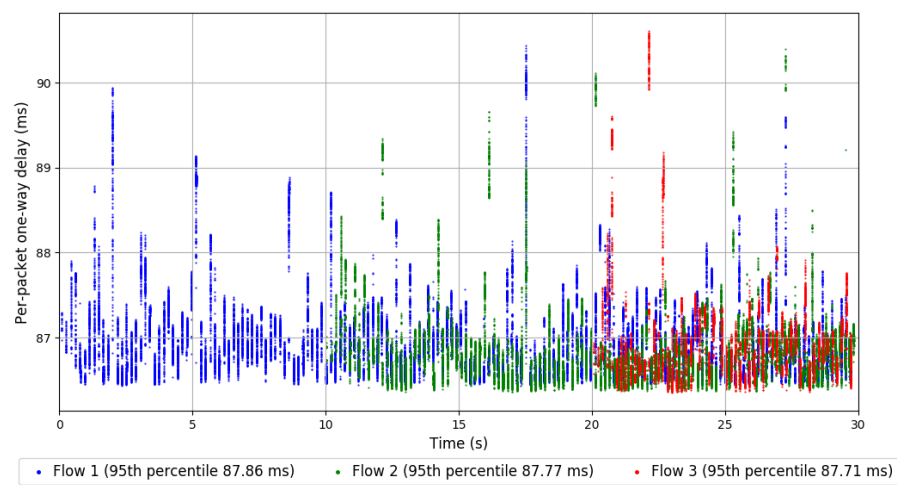
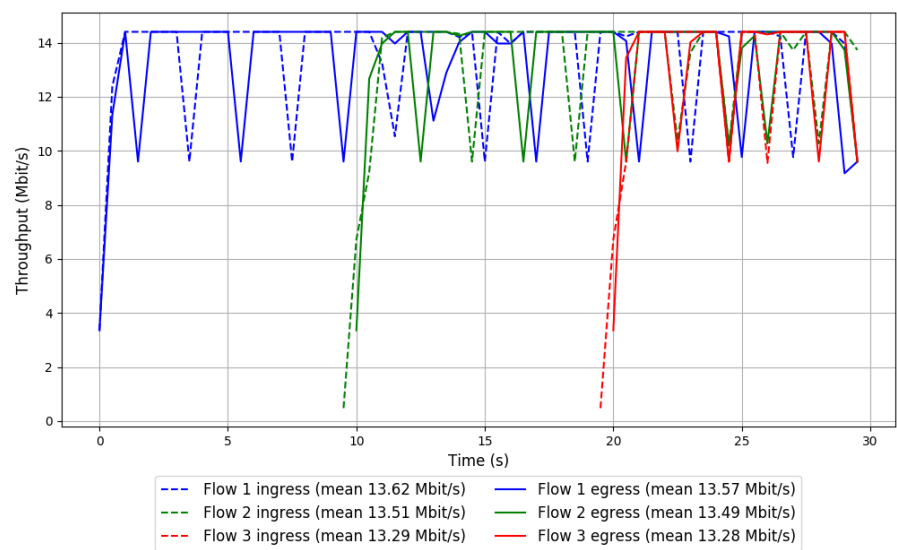
Average throughput: 13.28 Mbit/s

95th percentile per-packet one-way delay: 87.709 ms

Loss rate: 1.85%



Run 4: Report of Saturator — Data Link



Run 5: Statistics of Saturator

Start at: 2017-08-12 01:49:44

End at: 2017-08-12 01:50:14

# Below is generated by plot.py at 2017-08-12 06:16:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 27.10 Mbit/s

95th percentile per-packet one-way delay: 87.837 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 13.65 Mbit/s

95th percentile per-packet one-way delay: 87.705 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 13.66 Mbit/s

95th percentile per-packet one-way delay: 87.797 ms

Loss rate: 0.89%

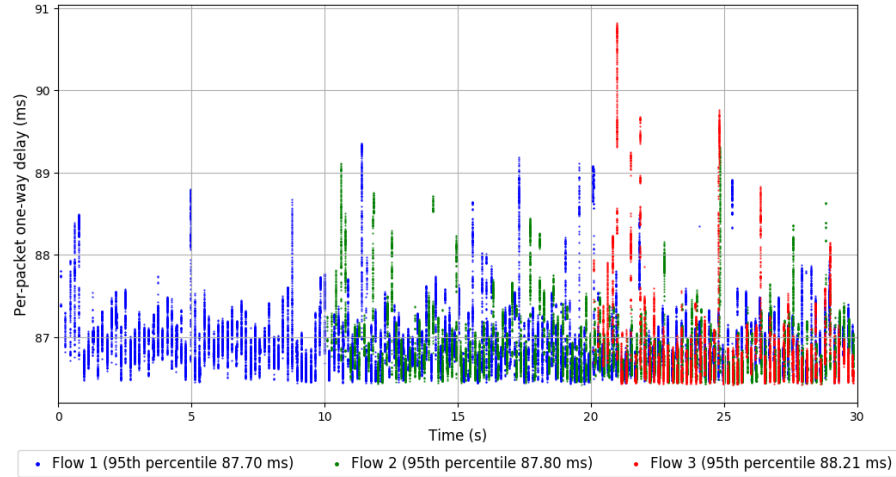
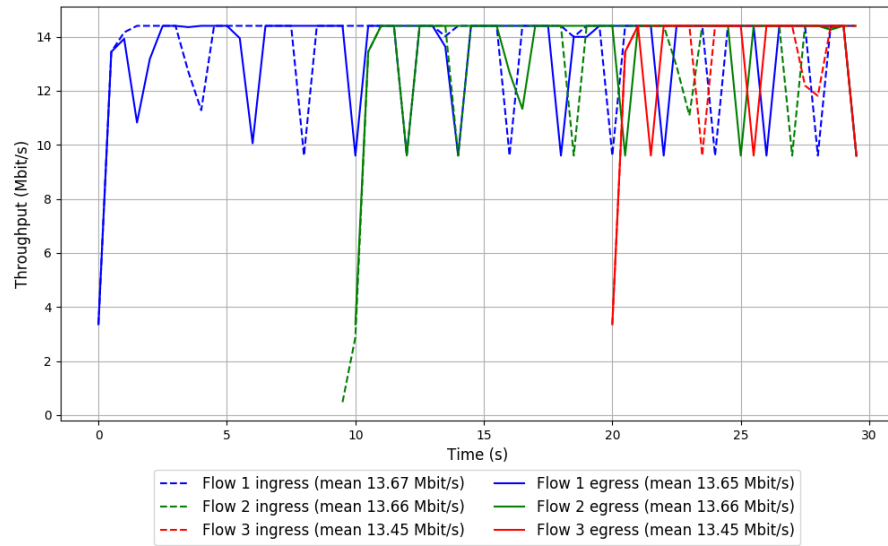
-- Flow 3:

Average throughput: 13.45 Mbit/s

95th percentile per-packet one-way delay: 88.209 ms

Loss rate: 1.80%

# Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-12 02:02:58

End at: 2017-08-12 02:03:28

# Below is generated by plot.py at 2017-08-12 06:16:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.94 Mbit/s

95th percentile per-packet one-way delay: 88.365 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 13.60 Mbit/s

95th percentile per-packet one-way delay: 88.800 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 13.54 Mbit/s

95th percentile per-packet one-way delay: 88.047 ms

Loss rate: 0.98%

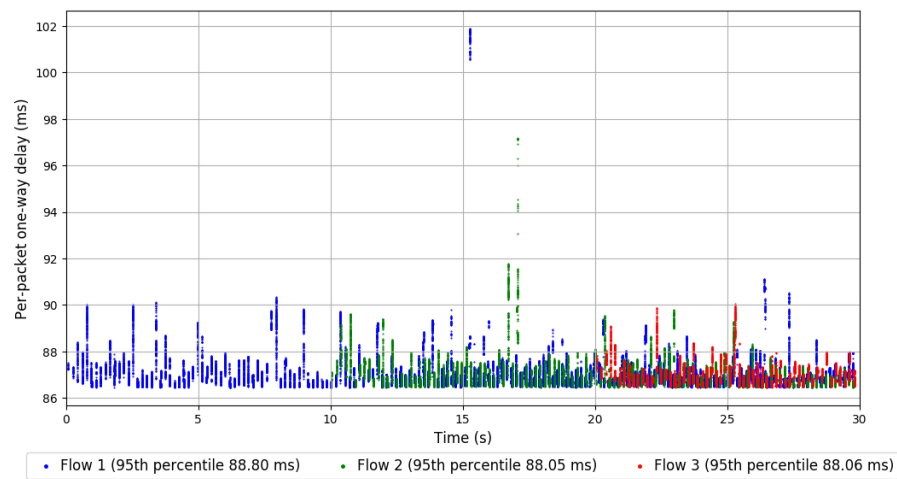
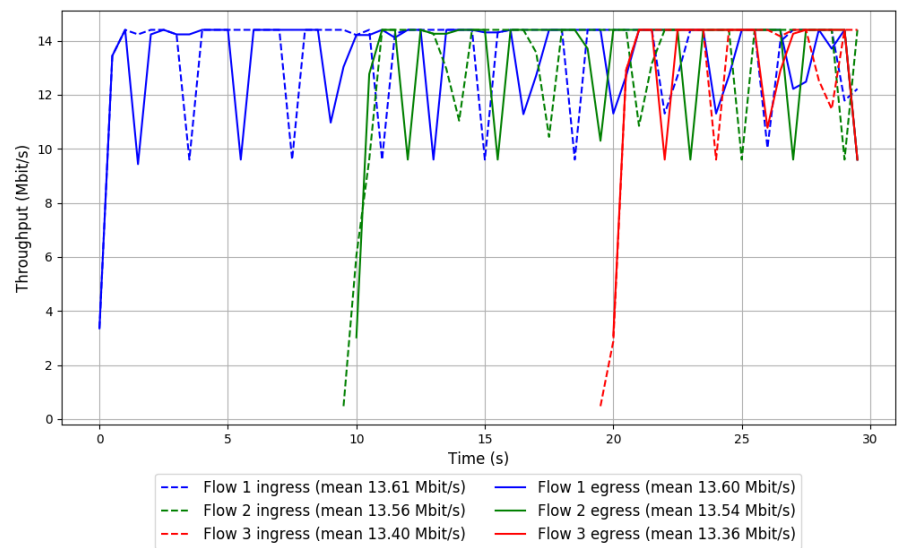
-- Flow 3:

Average throughput: 13.36 Mbit/s

95th percentile per-packet one-way delay: 88.059 ms

Loss rate: 2.00%

Run 6: Report of Saturator — Data Link



Run 7: Statistics of Saturator

Start at: 2017-08-12 02:16:33

End at: 2017-08-12 02:17:03

# Below is generated by plot.py at 2017-08-12 06:16:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.82 Mbit/s

95th percentile per-packet one-way delay: 88.003 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 13.60 Mbit/s

95th percentile per-packet one-way delay: 87.861 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 13.43 Mbit/s

95th percentile per-packet one-way delay: 87.951 ms

Loss rate: 1.04%

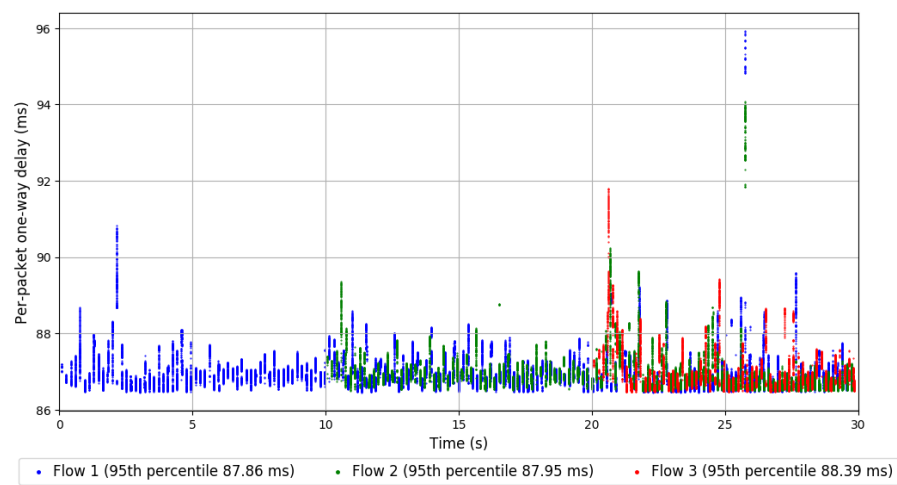
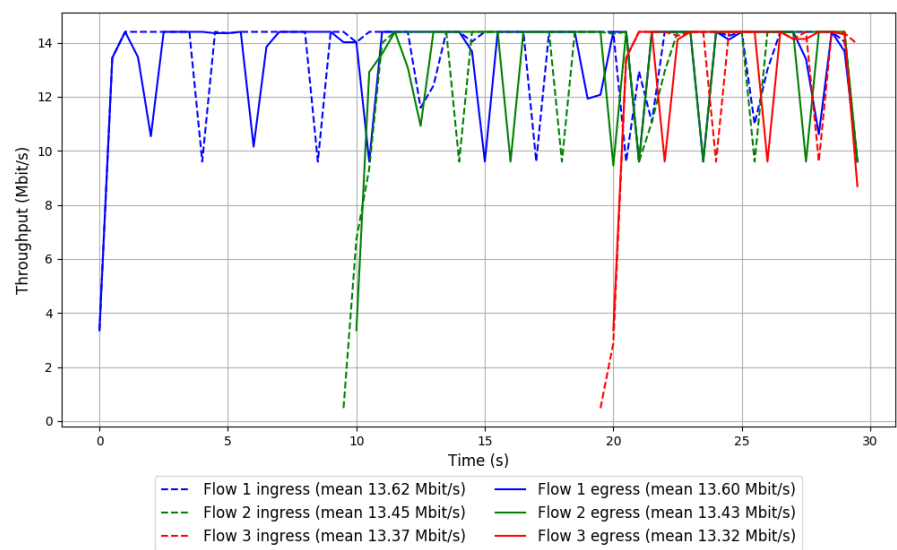
-- Flow 3:

Average throughput: 13.32 Mbit/s

95th percentile per-packet one-way delay: 88.394 ms

Loss rate: 2.15%

Run 7: Report of Saturator — Data Link



Run 8: Statistics of Saturator

Start at: 2017-08-12 02:30:56

End at: 2017-08-12 02:31:26

# Below is generated by plot.py at 2017-08-12 06:16:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.86 Mbit/s

95th percentile per-packet one-way delay: 87.519 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 13.57 Mbit/s

95th percentile per-packet one-way delay: 87.697 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 13.59 Mbit/s

95th percentile per-packet one-way delay: 87.513 ms

Loss rate: 1.04%

-- Flow 3:

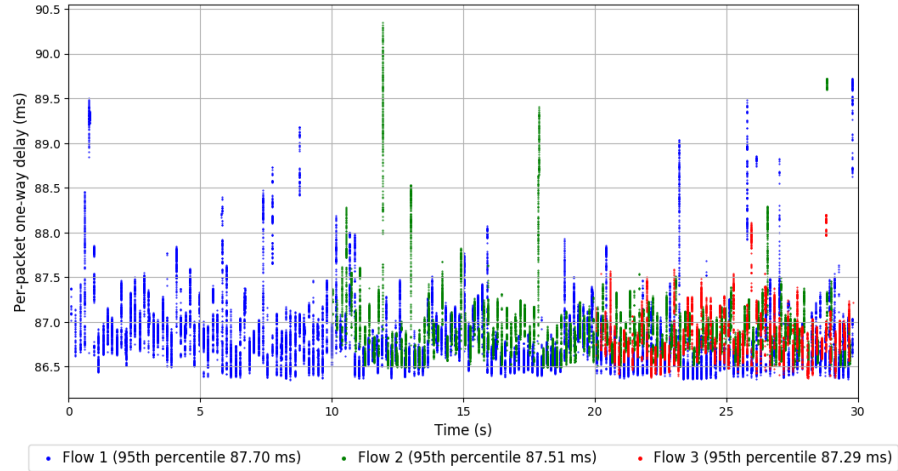
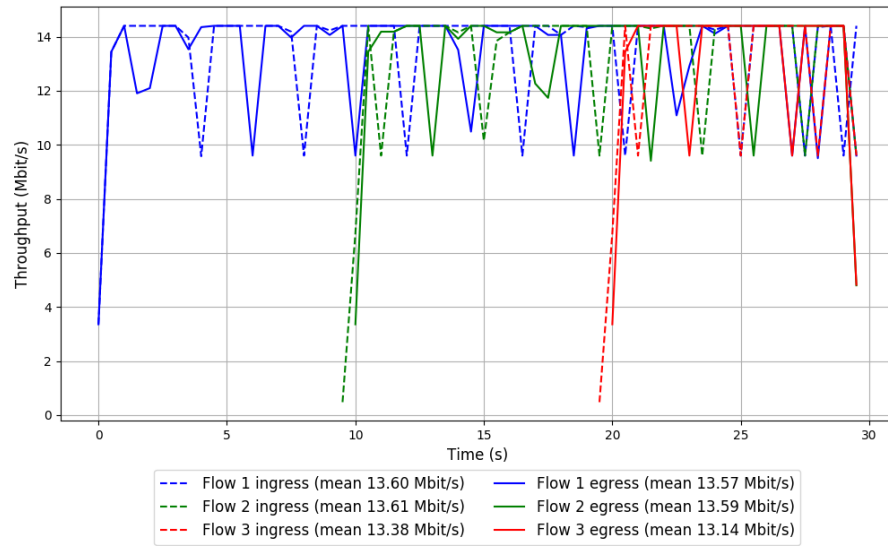
Average throughput: 13.14 Mbit/s

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

Loss rate: 1.83%



# Run 8: Report of Saturator — Data Link



Run 9: Statistics of Saturator

Start at: 2017-08-12 02:44:35

End at: 2017-08-12 02:45:05

# Below is generated by plot.py at 2017-08-12 06:16:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 21.96 Mbit/s

95th percentile per-packet one-way delay: 88.234 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 13.58 Mbit/s

95th percentile per-packet one-way delay: 88.328 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 13.39 Mbit/s

95th percentile per-packet one-way delay: 87.827 ms

Loss rate: 0.06%

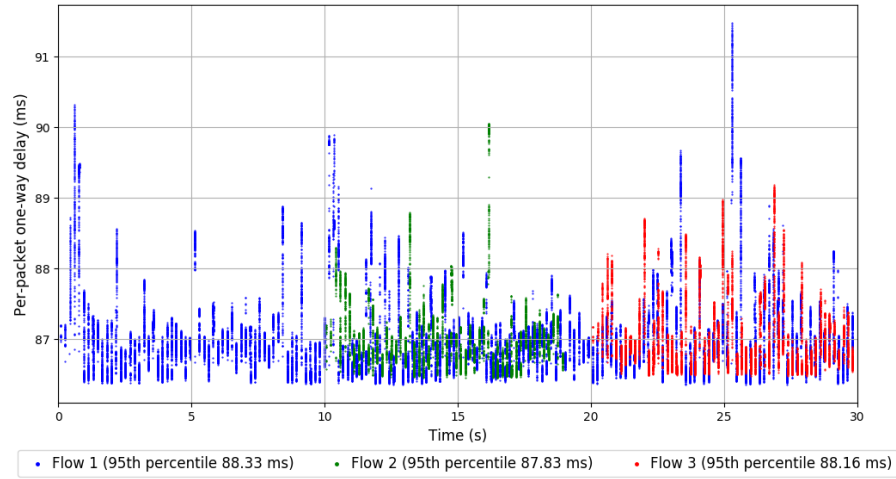
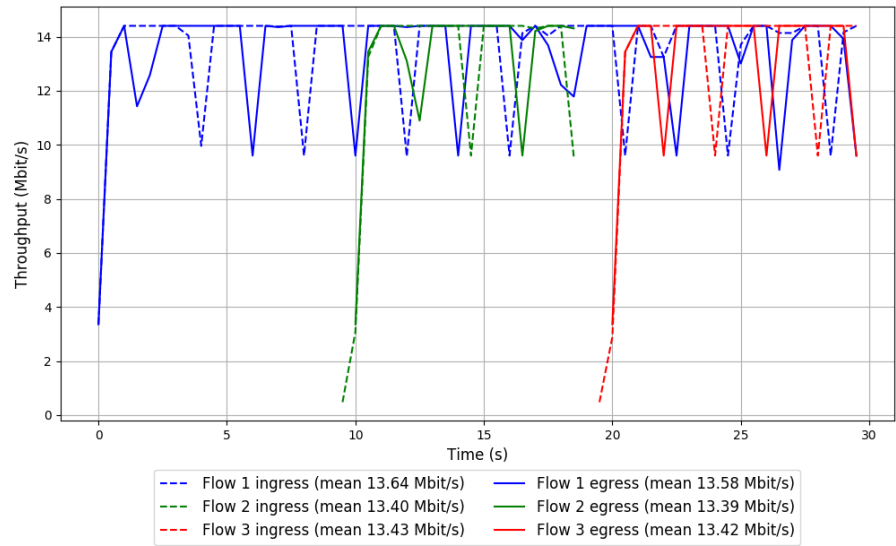
-- Flow 3:

Average throughput: 13.42 Mbit/s

95th percentile per-packet one-way delay: 88.163 ms

Loss rate: 1.80%

# Run 9: Report of Saturator — Data Link



Run 10: Statistics of Saturator

Start at: 2017-08-12 02:58:55

End at: 2017-08-12 02:59:25

# Below is generated by plot.py at 2017-08-12 06:16:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.94 Mbit/s

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

Loss rate: 1.16%

-- Flow 1:

Average throughput: 13.67 Mbit/s

95th percentile per-packet one-way delay: 88.421 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 13.51 Mbit/s

95th percentile per-packet one-way delay: 87.980 ms

Loss rate: 1.10%

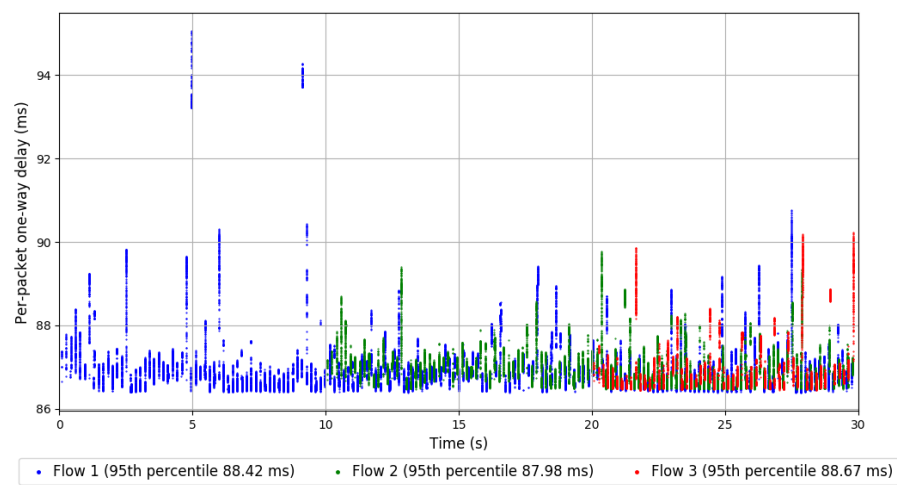
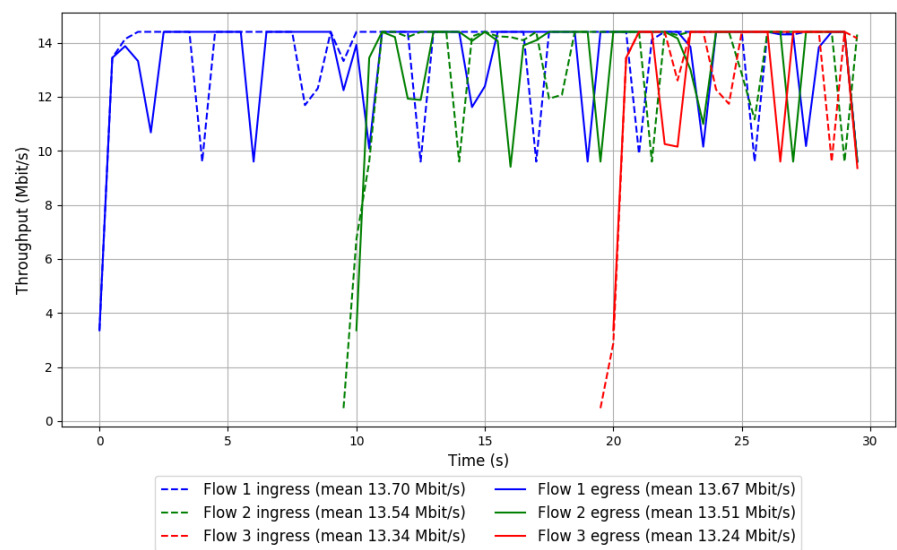
-- Flow 3:

Average throughput: 13.24 Mbit/s

95th percentile per-packet one-way delay: 88.668 ms

Loss rate: 2.50%

Run 10: Report of Saturator — Data Link

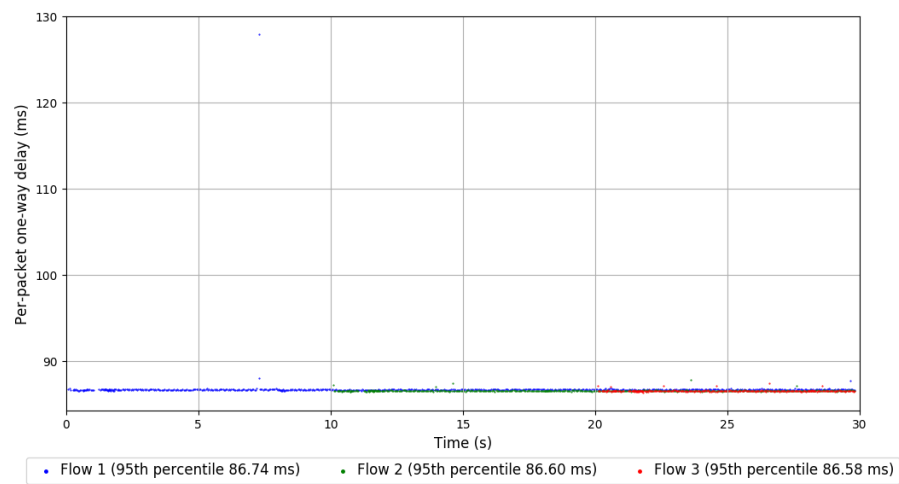
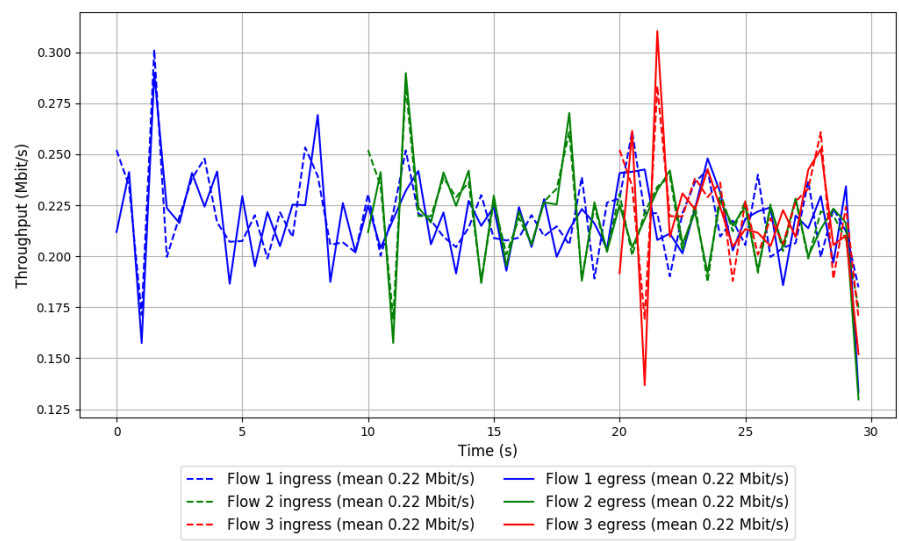


```
Run 1: Statistics of SCReAM

Start at: 2017-08-12 00:48:47
End at: 2017-08-12 00:49:17

# Below is generated by plot.py at 2017-08-12 06:16:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.728 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.741 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.604 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.585 ms
Loss rate: 1.50%
```

Run 1: Report of SReAM — Data Link



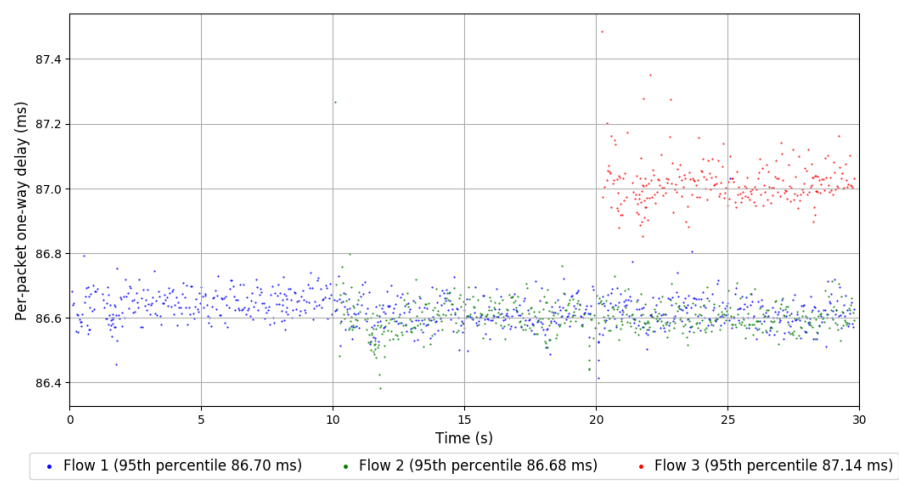
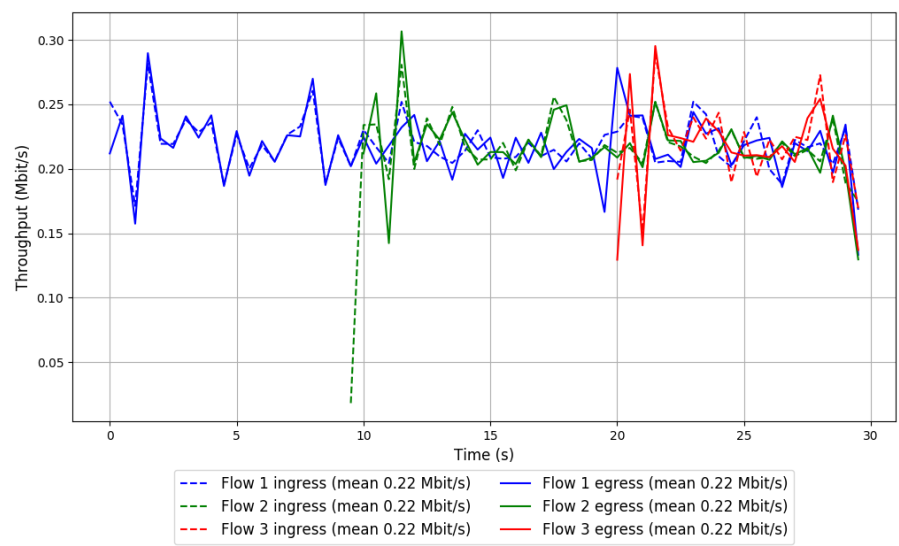
```
Run 2: Statistics of SReAM

Start at: 2017-08-12 01:02:04
End at: 2017-08-12 01:02:34

# Below is generated by plot.py at 2017-08-12 06:16:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.033 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.699 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.679 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.137 ms
Loss rate: 1.97%
```



Run 2: Report of SReAM — Data Link

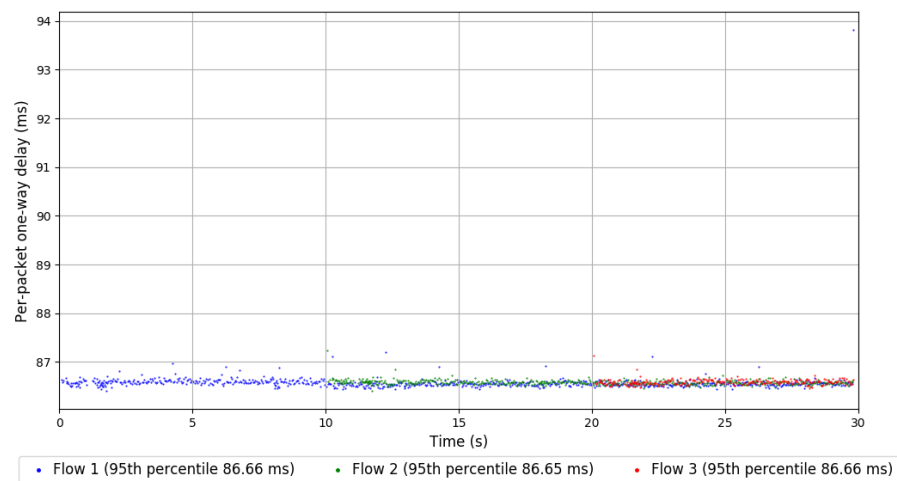
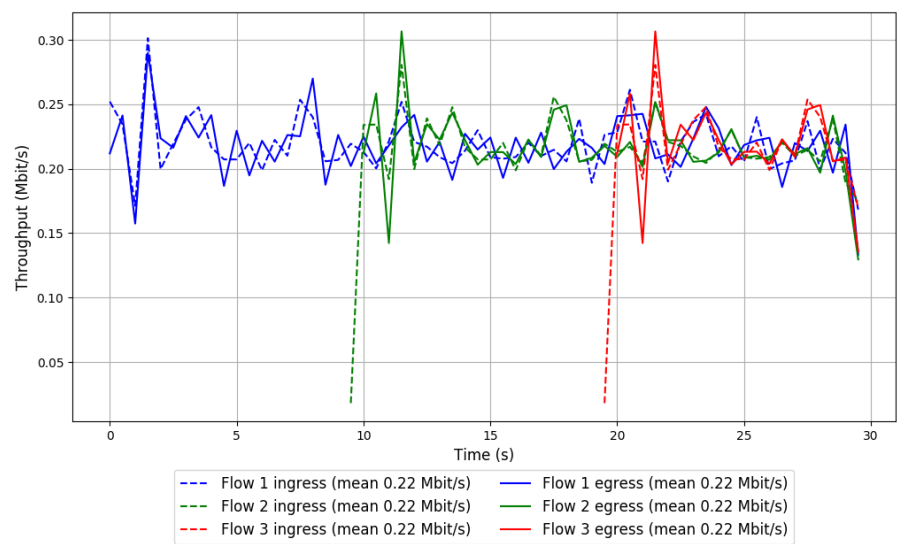


```
Run 3: Statistics of SReAM

Start at: 2017-08-12 01:15:41
End at: 2017-08-12 01:16:11

# Below is generated by plot.py at 2017-08-12 06:16:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.658 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.659 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.652 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.661 ms
Loss rate: 1.50%
```

Run 3: Report of SReAM — Data Link

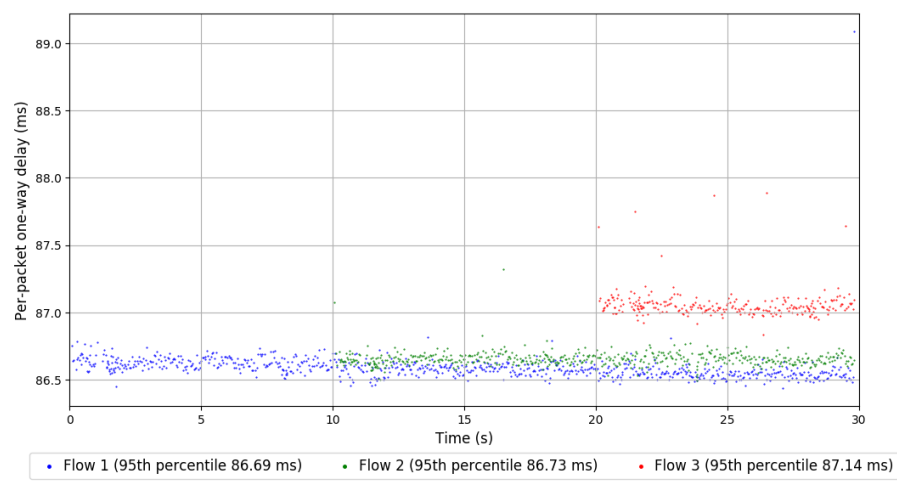
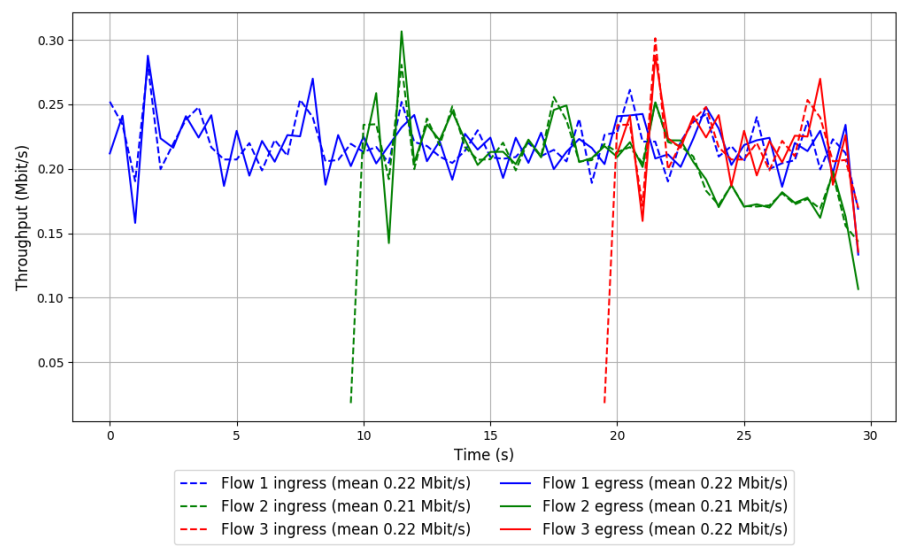


```
Run 4: Statistics of SReAM

Start at: 2017-08-12 01:30:00
End at: 2017-08-12 01:30:30

# Below is generated by plot.py at 2017-08-12 06:16:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 87.071 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.687 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 86.726 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.142 ms
Loss rate: 1.50%
```

Run 4: Report of SReAM — Data Link

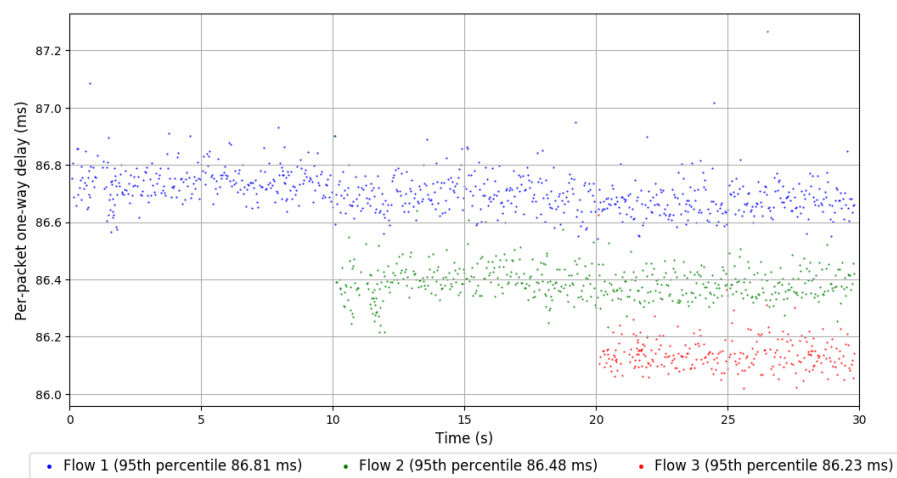
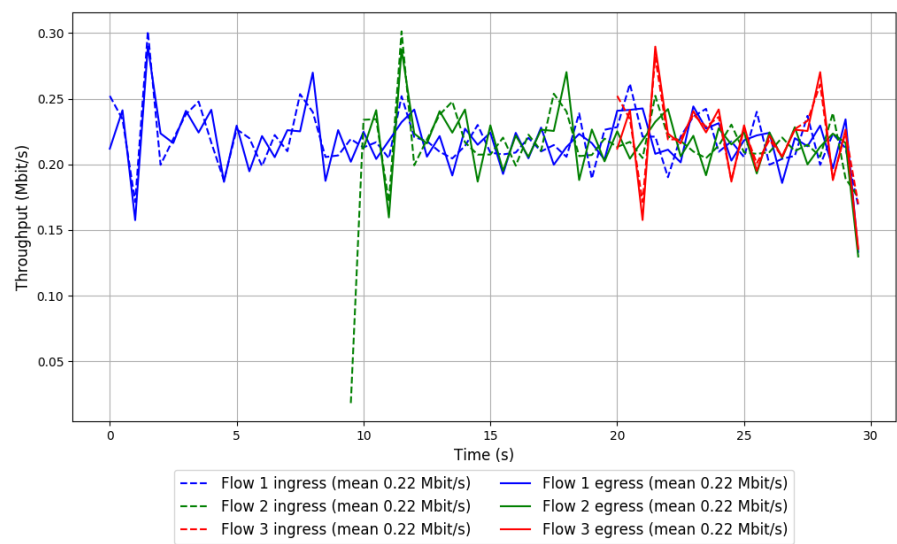


```
Run 5: Statistics of SReAM

Start at: 2017-08-12 01:43:53
End at: 2017-08-12 01:44:23

# Below is generated by plot.py at 2017-08-12 06:16:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.787 ms
Loss rate: 0.79%
-- 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: 86.482 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.227 ms
Loss rate: 1.50%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-12 01:56:56

End at: 2017-08-12 01:57:26

# Below is generated by plot.py at 2017-08-12 06:16:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 86.741 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.511 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.794 ms

Loss rate: 0.85%

-- Flow 3:

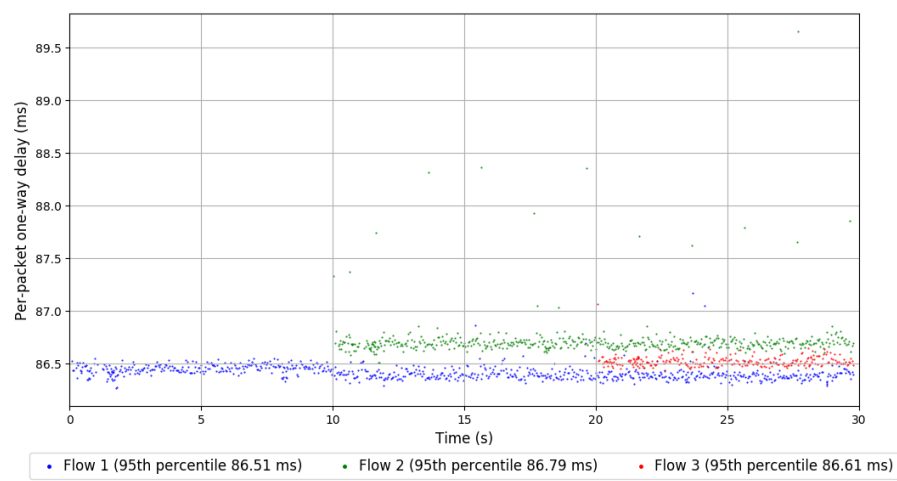
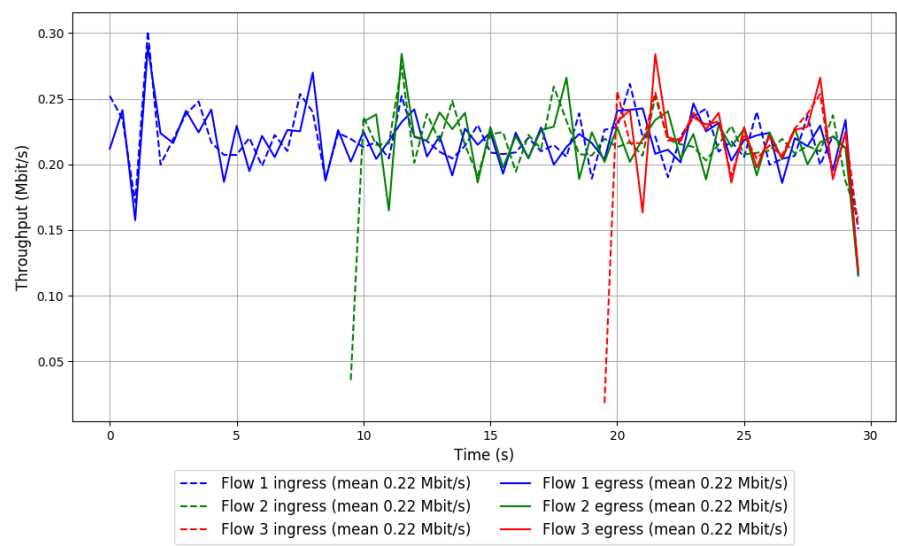
Average throughput: 0.22 Mbit/s

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

Loss rate: 1.50%



Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2017-08-12 02:10:50

End at: 2017-08-12 02:11:20

# Below is generated by plot.py at 2017-08-12 06:16:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 86.780 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.713 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.340 ms

Loss rate: 0.85%

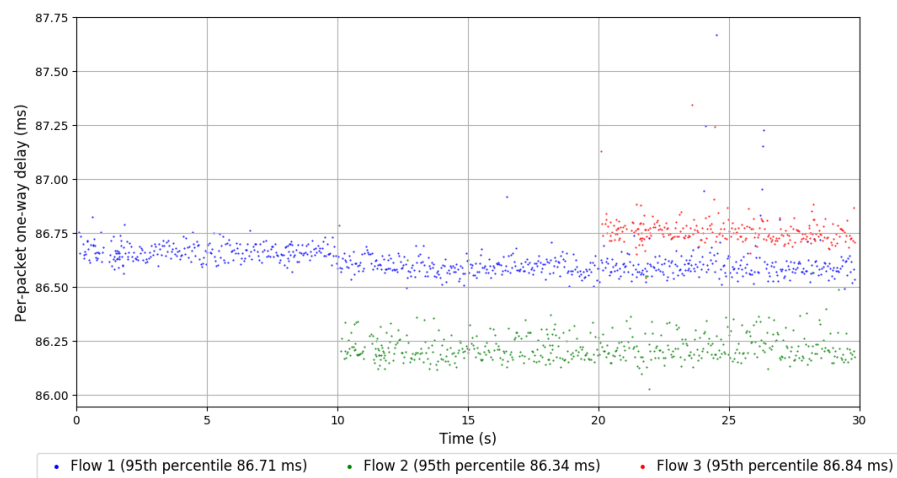
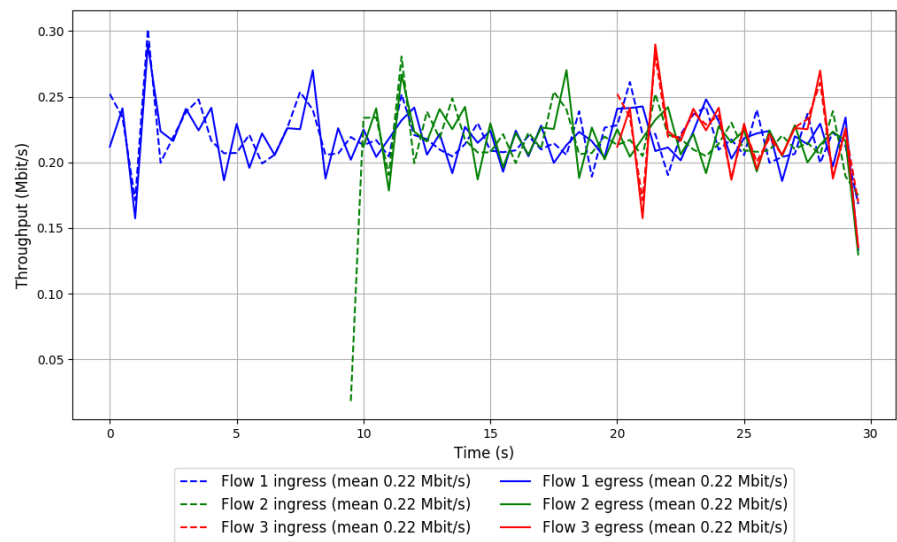
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.842 ms

Loss rate: 1.50%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-12 02:25:00

End at: 2017-08-12 02:25:30

# Below is generated by plot.py at 2017-08-12 06:16:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 86.958 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.994 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.714 ms

Loss rate: 0.85%

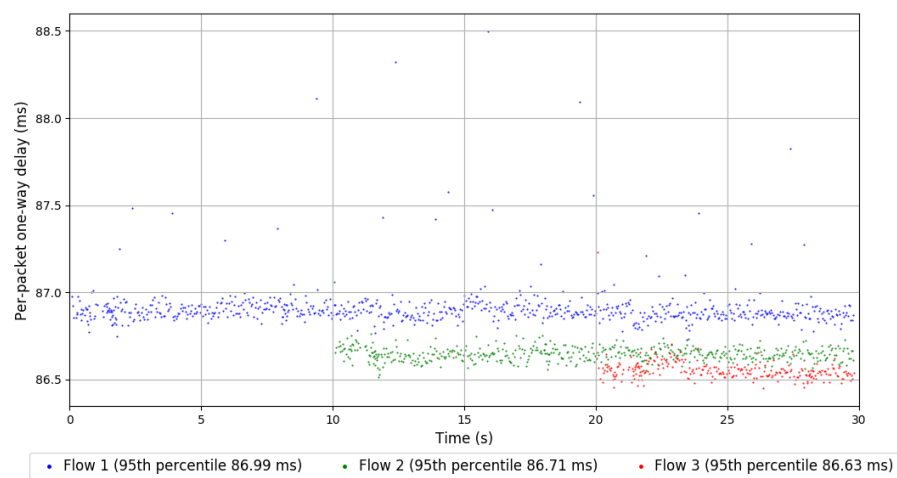
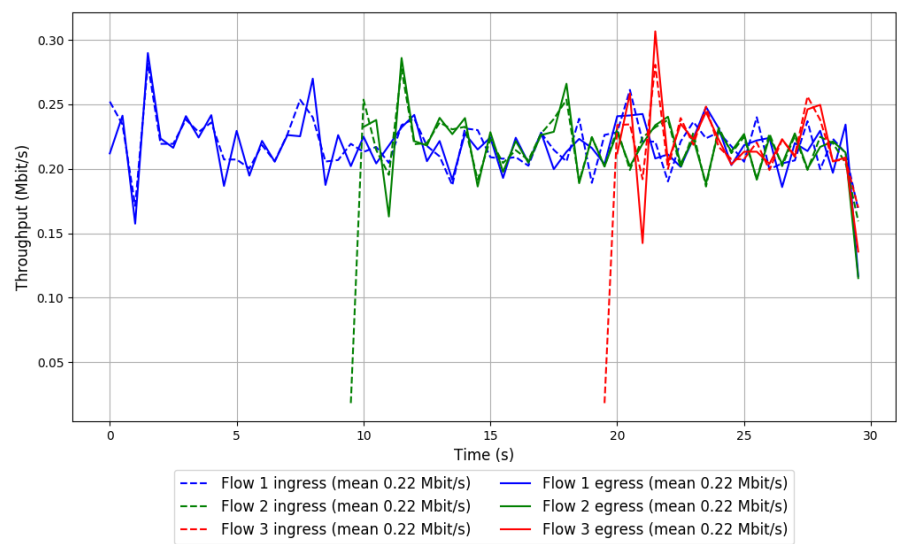
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.631 ms

Loss rate: 1.50%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-08-12 02:38:30

End at: 2017-08-12 02:39:00

# Below is generated by plot.py at 2017-08-12 06:16:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

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

Loss rate: 0.79%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.129 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.036 ms

Loss rate: 0.85%

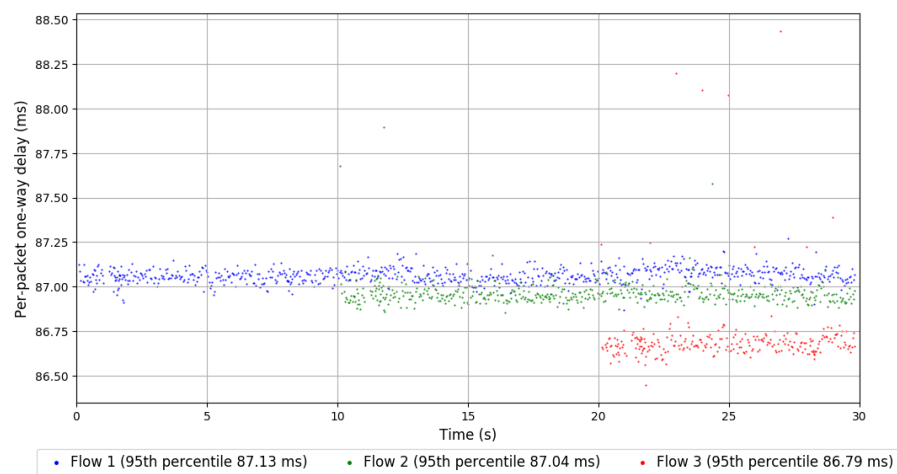
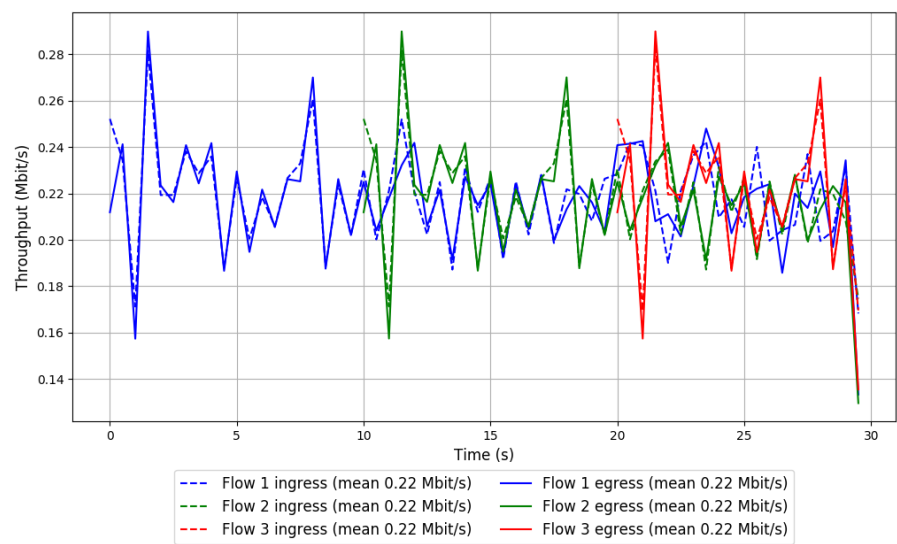
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 1.50%

Run 9: Report of SReAM — Data Link



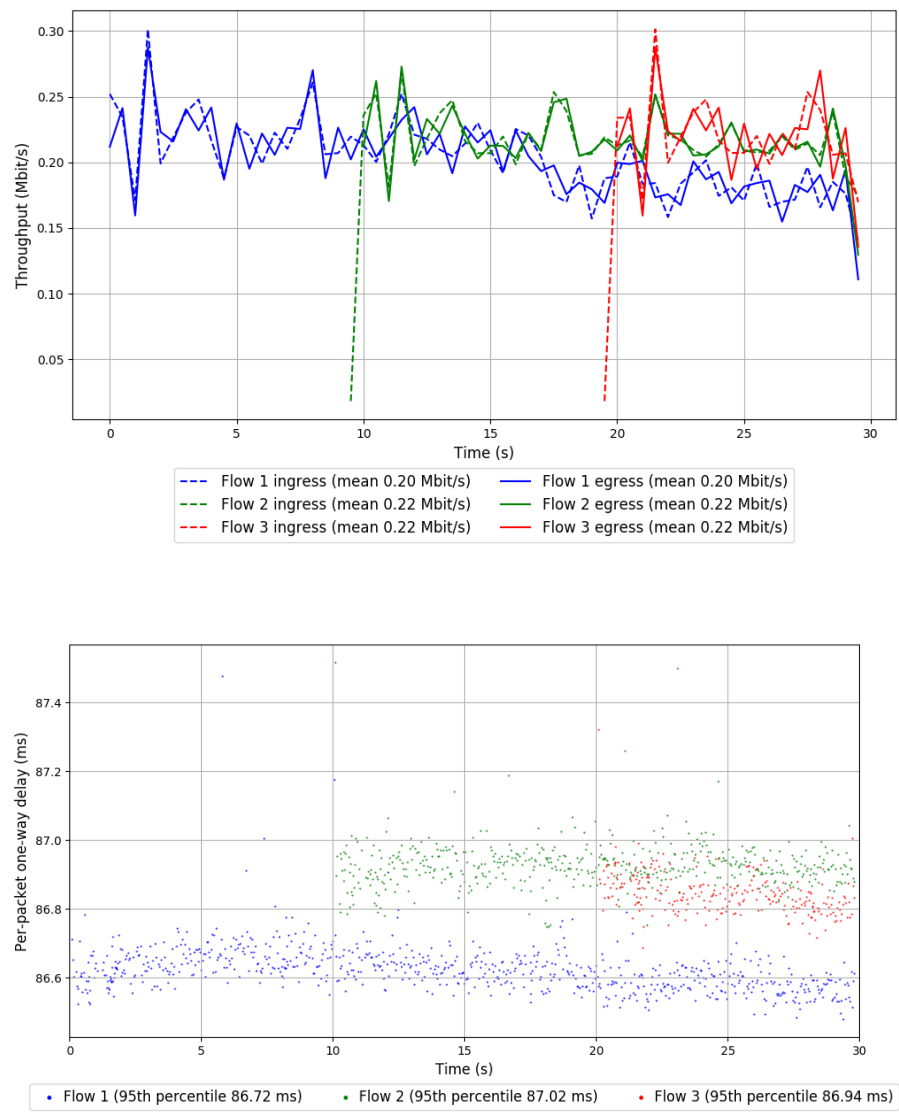
```
Run 10: Statistics of SCReAM

Start at: 2017-08-12 02:53:07
End at: 2017-08-12 02:53:37

# Below is generated by plot.py at 2017-08-12 06:16:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 86.973 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 86.715 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.015 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.935 ms
Loss rate: 1.50%
```



Run 10: Report of SCReAM — Data Link

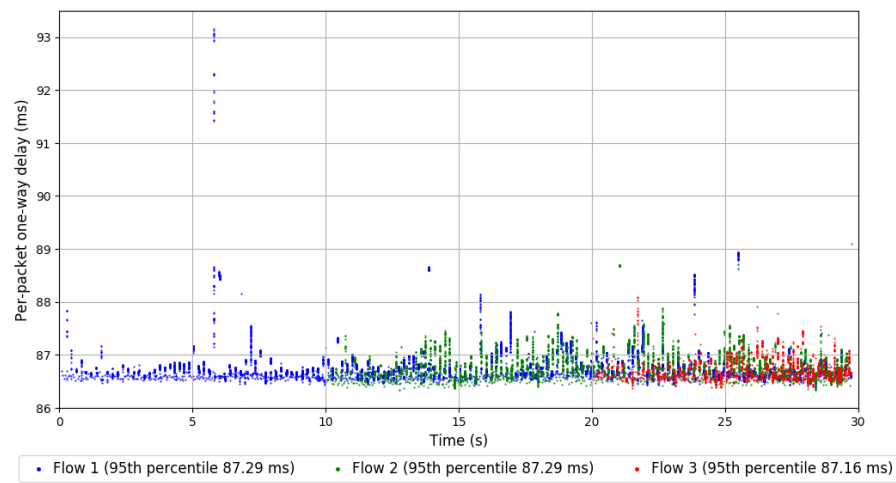
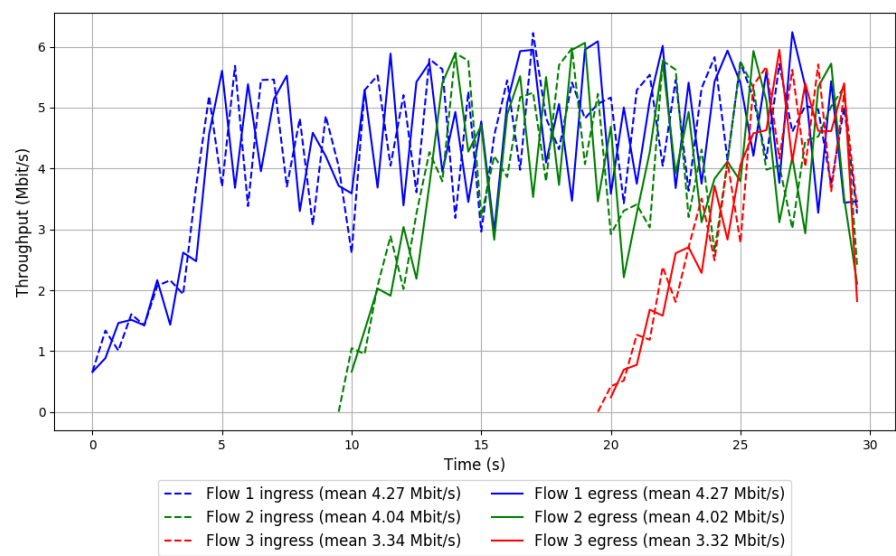


```
Run 1: Statistics of Sprout

Start at: 2017-08-12 00:51:32
End at: 2017-08-12 00:52:02

# Below is generated by plot.py at 2017-08-12 06:16:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 87.272 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 87.290 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 87.294 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 87.161 ms
Loss rate: 2.49%
```

Run 1: Report of Sprout — Data Link

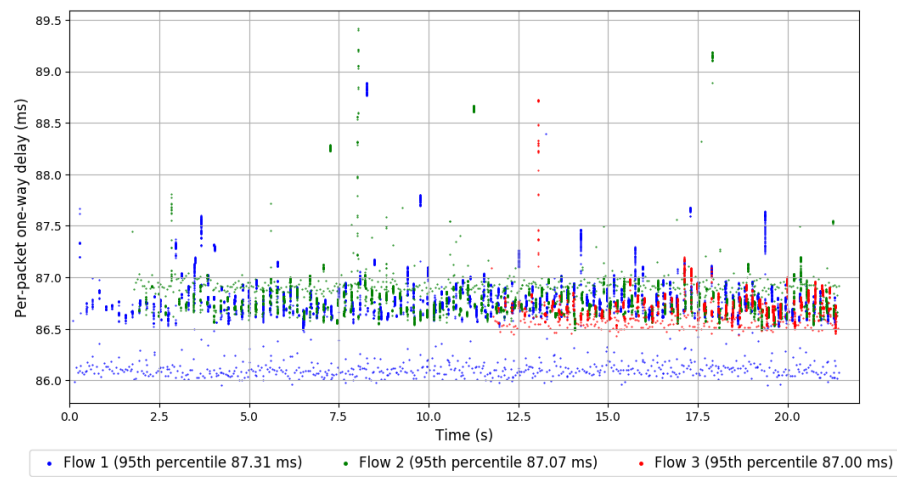
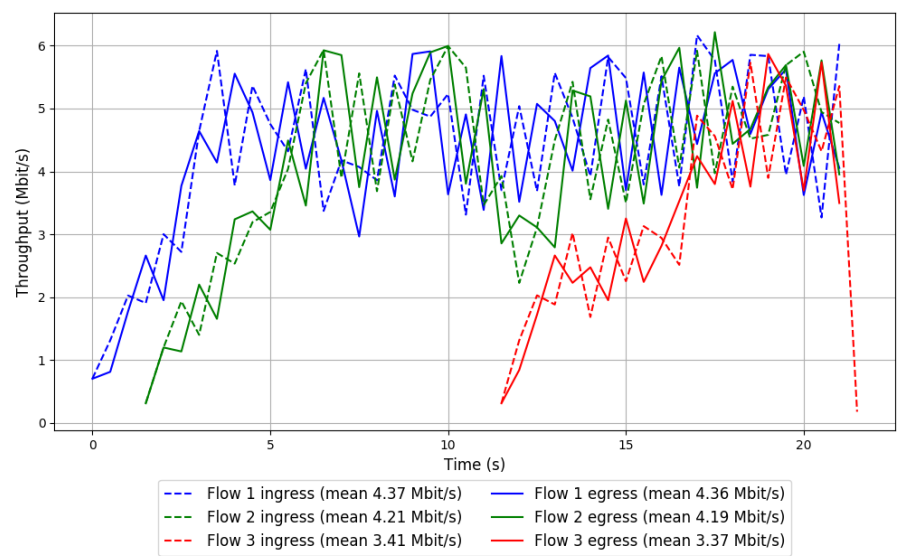


Run 2: Statistics of Sprout

Start at: 2017-08-12 01:05:04

End at: 2017-08-12 01:05:34

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-12 01:18:40

End at: 2017-08-12 01:19:10

# Below is generated by plot.py at 2017-08-12 06:16:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.91 Mbit/s

95th percentile per-packet one-way delay: 87.086 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 3.85 Mbit/s

95th percentile per-packet one-way delay: 87.082 ms

Loss rate: 2.27%

-- Flow 2:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 87.081 ms

Loss rate: 0.94%

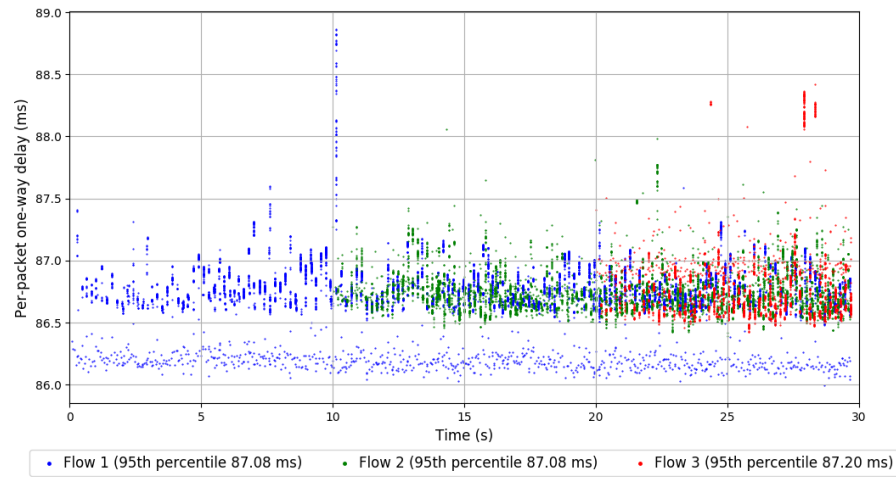
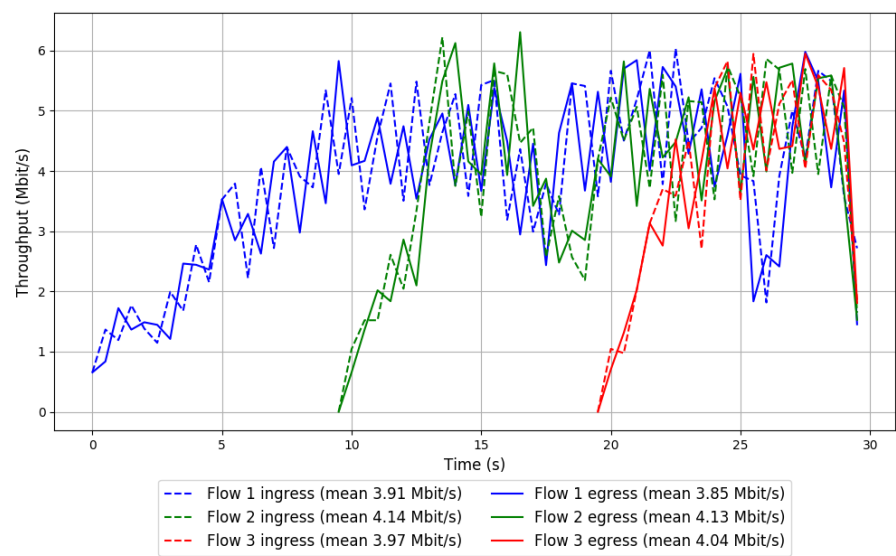
-- Flow 3:

Average throughput: 4.04 Mbit/s

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

Loss rate: 0.07%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-12 01:32:59

End at: 2017-08-12 01:33:29

# Below is generated by plot.py at 2017-08-12 06:16:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 87.138 ms

Loss rate: 3.16%

-- Flow 1:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 87.105 ms

Loss rate: 2.20%

-- Flow 2:

Average throughput: 2.33 Mbit/s

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

Loss rate: 5.42%

-- Flow 3:

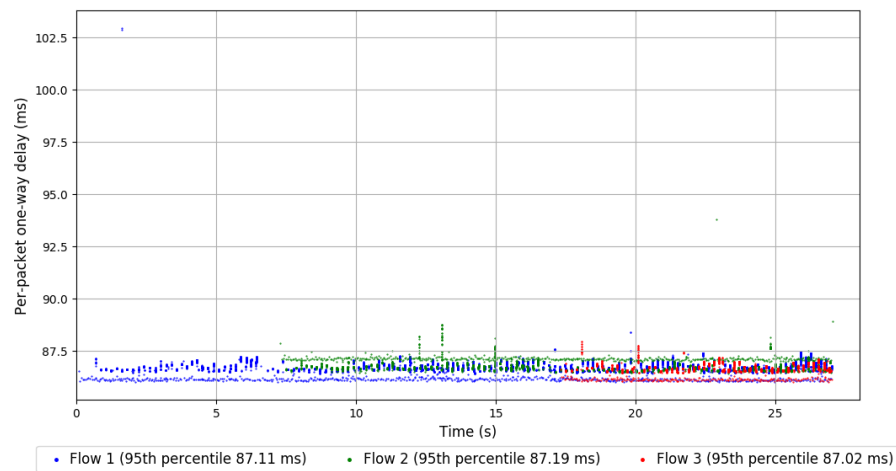
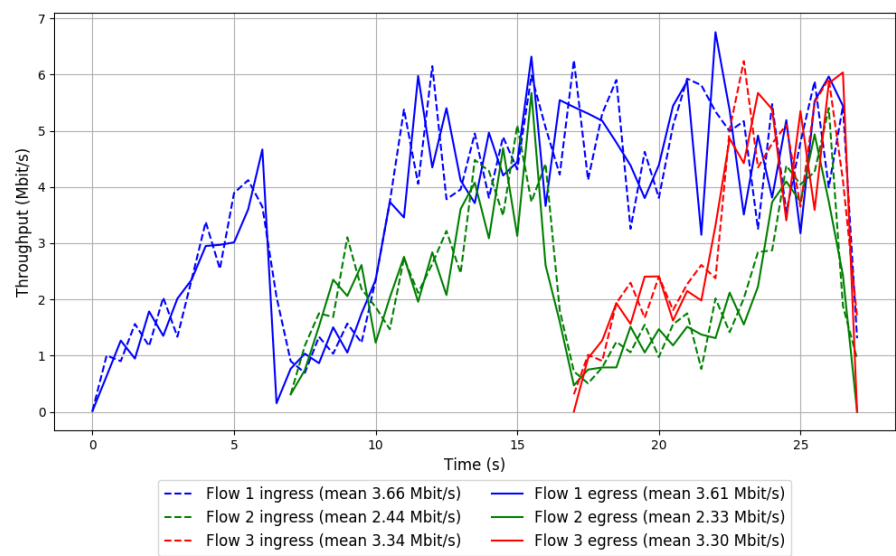
Average throughput: 3.30 Mbit/s

95th percentile per-packet one-way delay: 87.015 ms

Loss rate: 2.74%



Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-12 01:46:39

End at: 2017-08-12 01:47:09

# Below is generated by plot.py at 2017-08-12 06:16:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 87.090 ms

Loss rate: 3.01%

-- Flow 1:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 87.086 ms

Loss rate: 4.70%

-- Flow 2:

Average throughput: 3.84 Mbit/s

95th percentile per-packet one-way delay: 87.088 ms

Loss rate: 1.53%

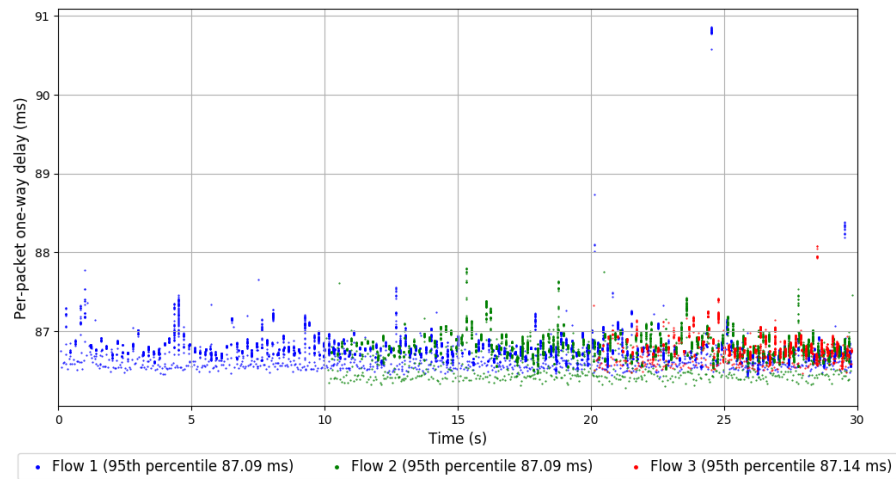
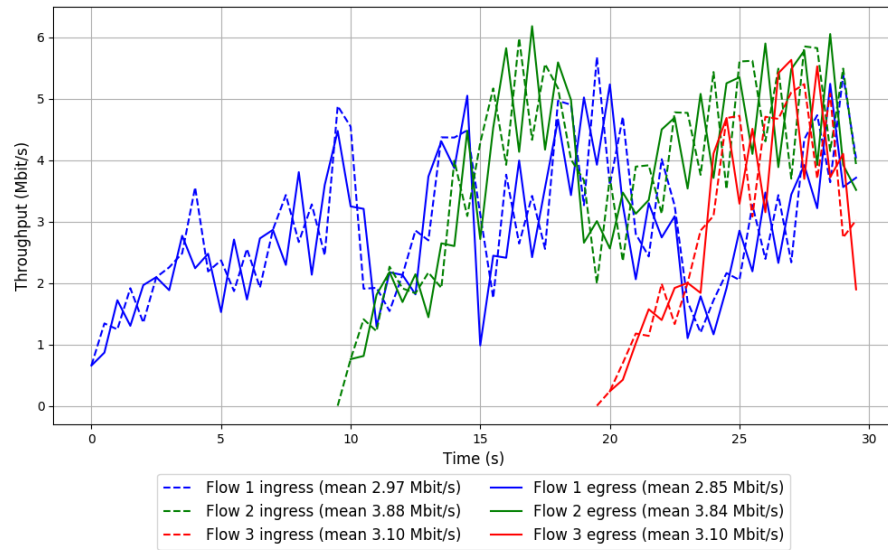
-- Flow 3:

Average throughput: 3.10 Mbit/s

95th percentile per-packet one-way delay: 87.139 ms

Loss rate: 1.84%

## Run 5: Report of Sprout — Data Link

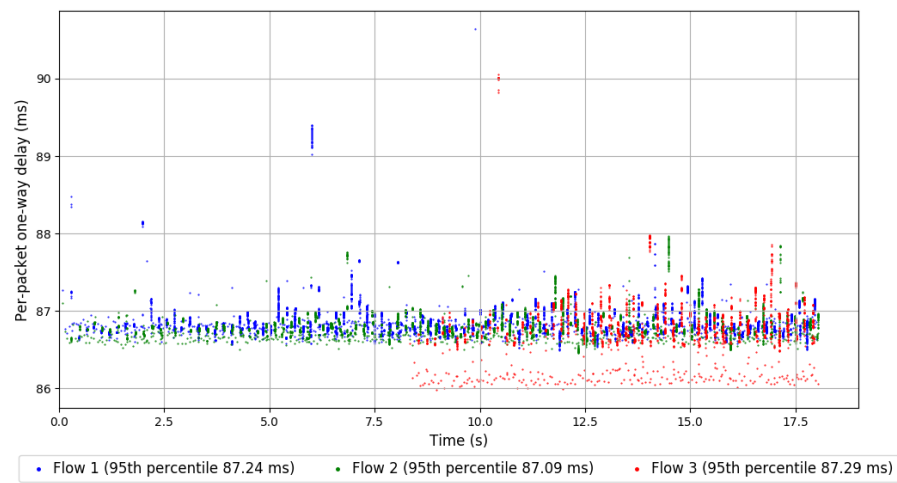
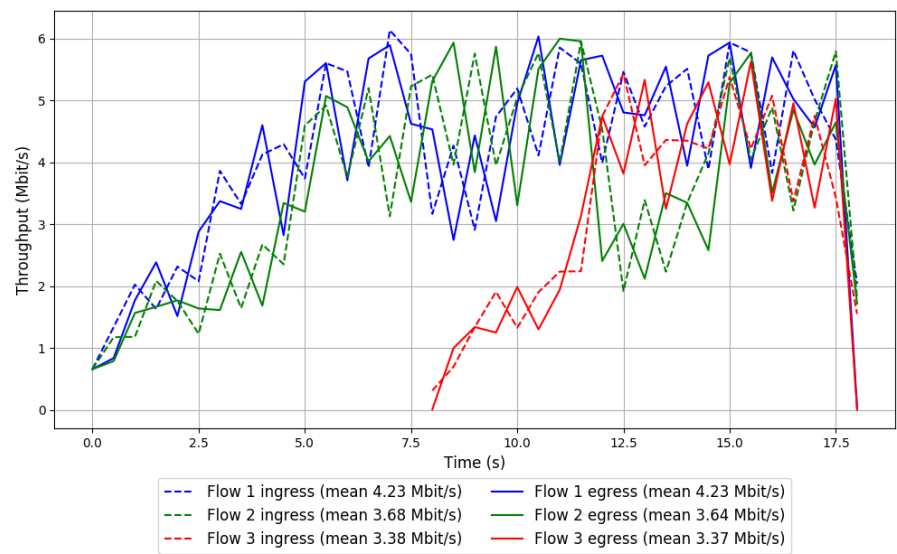


Run 6: Statistics of Sprout

Start at: 2017-08-12 01:59:56

End at: 2017-08-12 02:00:26

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-12 02:13:32

End at: 2017-08-12 02:14:02

# Below is generated by plot.py at 2017-08-12 06:16:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 87.168 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 4.39 Mbit/s

95th percentile per-packet one-way delay: 87.125 ms

Loss rate: 1.29%

-- Flow 2:

Average throughput: 3.89 Mbit/s

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

Loss rate: 1.07%

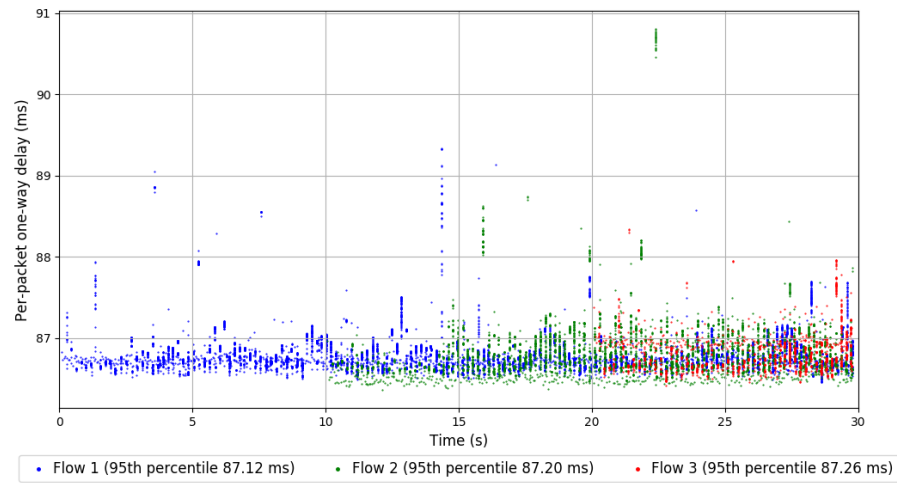
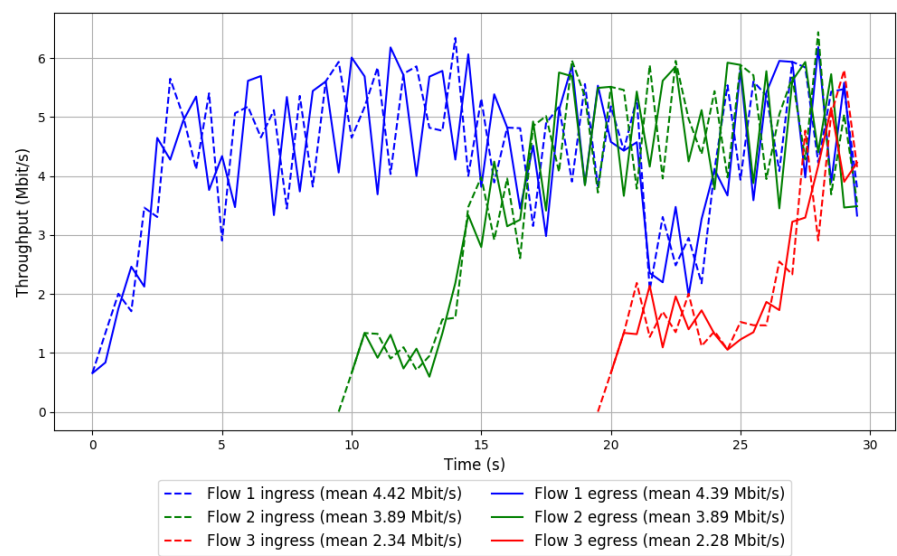
-- Flow 3:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 87.261 ms

Loss rate: 4.17%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-12 02:27:50

End at: 2017-08-12 02:28:20

# Below is generated by plot.py at 2017-08-12 06:17:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 87.128 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 87.160 ms

Loss rate: 1.77%

-- Flow 2:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 87.013 ms

Loss rate: 0.62%

-- Flow 3:

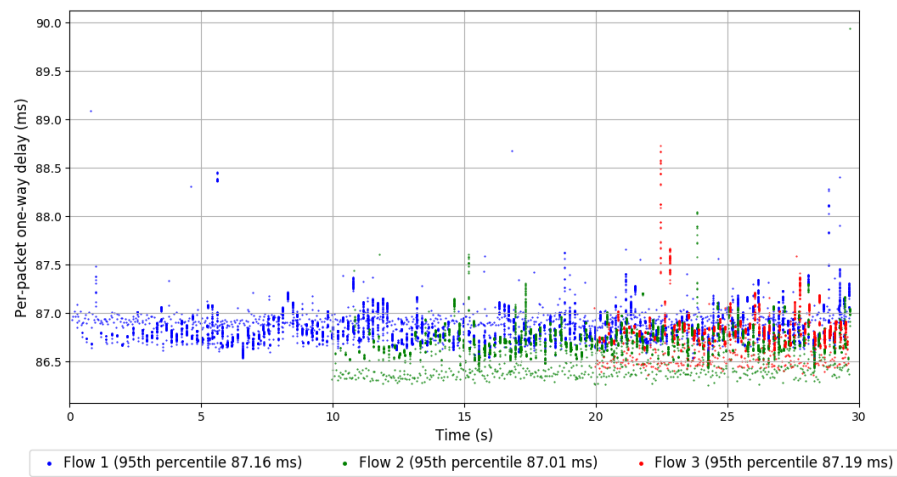
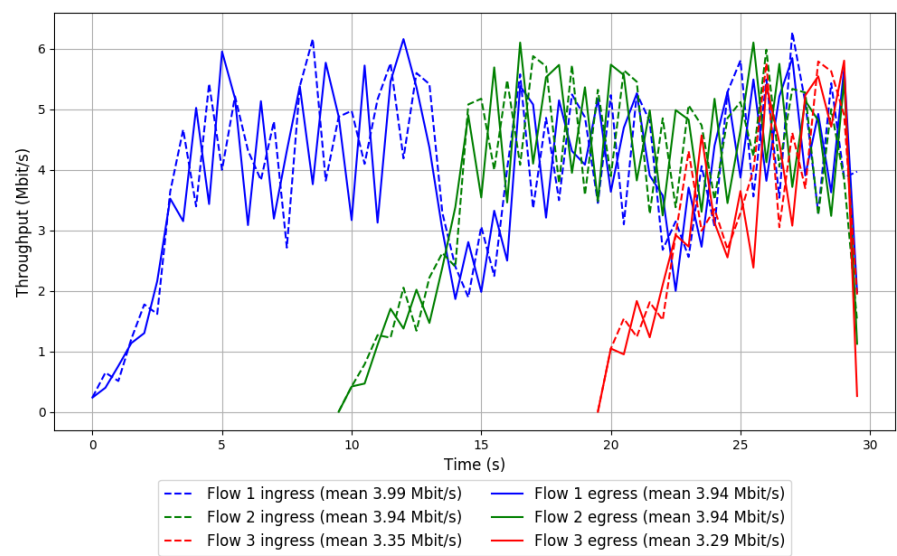
Average throughput: 3.29 Mbit/s

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

Loss rate: 3.77%



Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-12 02:41:32

End at: 2017-08-12 02:42:02

# Below is generated by plot.py at 2017-08-12 06:17:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.08 Mbit/s

95th percentile per-packet one-way delay: 87.227 ms

Loss rate: 2.33%

-- Flow 1:

Average throughput: 3.76 Mbit/s

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

Loss rate: 1.40%

-- Flow 2:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 87.133 ms

Loss rate: 4.93%

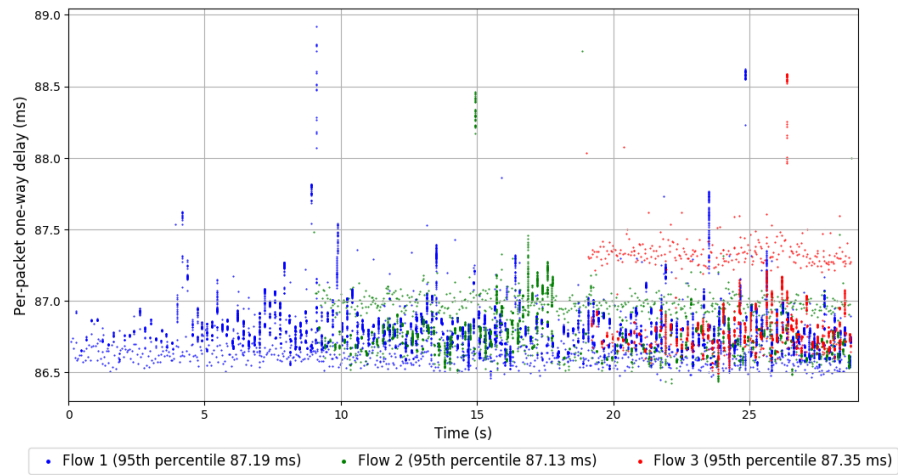
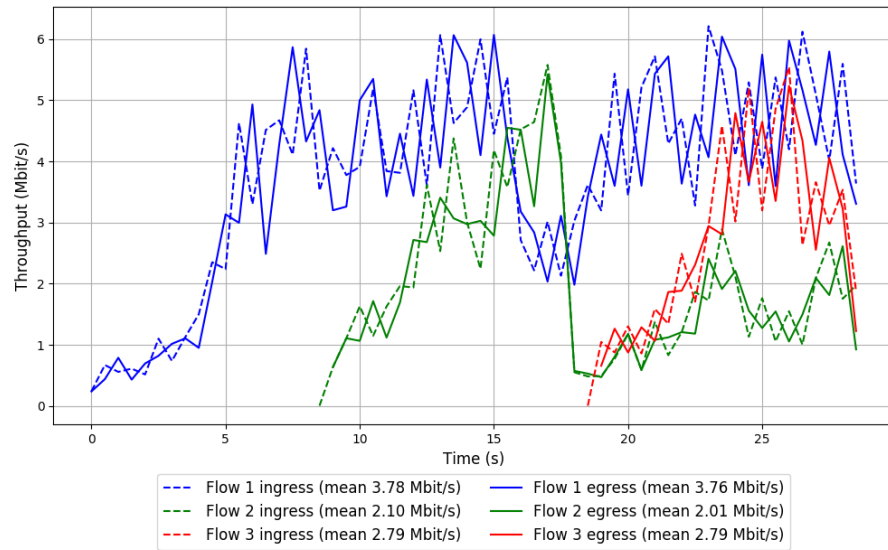
-- Flow 3:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 87.349 ms

Loss rate: 2.08%

## Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-12 02:55:49

End at: 2017-08-12 02:56:20

# Below is generated by plot.py at 2017-08-12 06:17:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.37 Mbit/s

95th percentile per-packet one-way delay: 87.242 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 4.49 Mbit/s

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

Loss rate: 0.66%

-- Flow 2:

Average throughput: 4.05 Mbit/s

95th percentile per-packet one-way delay: 87.317 ms

Loss rate: 1.31%

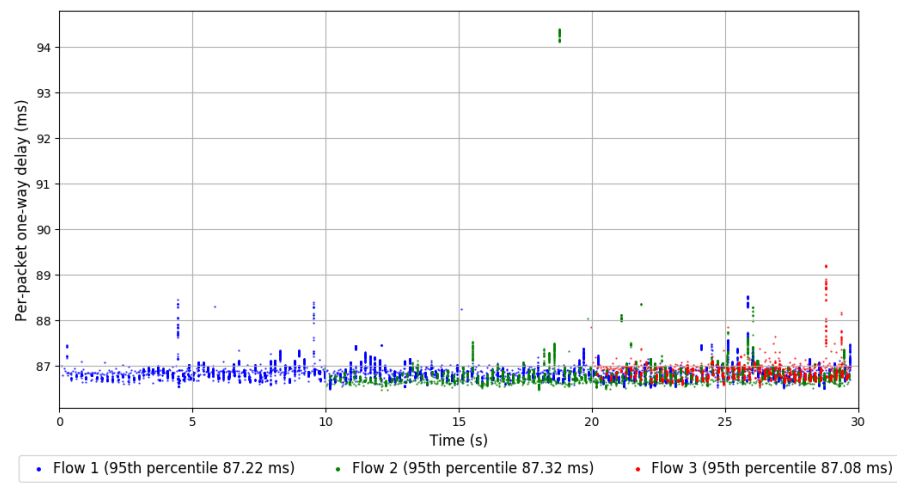
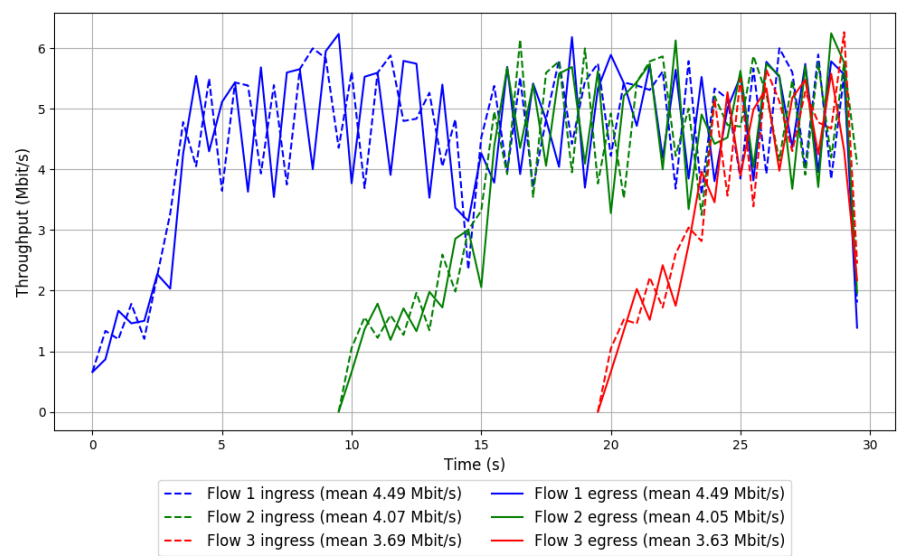
-- Flow 3:

Average throughput: 3.63 Mbit/s

95th percentile per-packet one-way delay: 87.080 ms

Loss rate: 3.07%

Run 10: Report of Sprout — Data Link

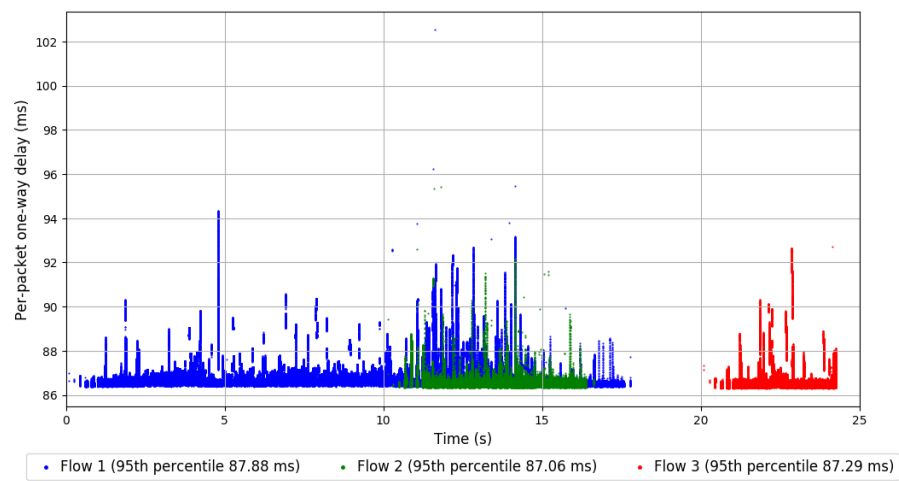
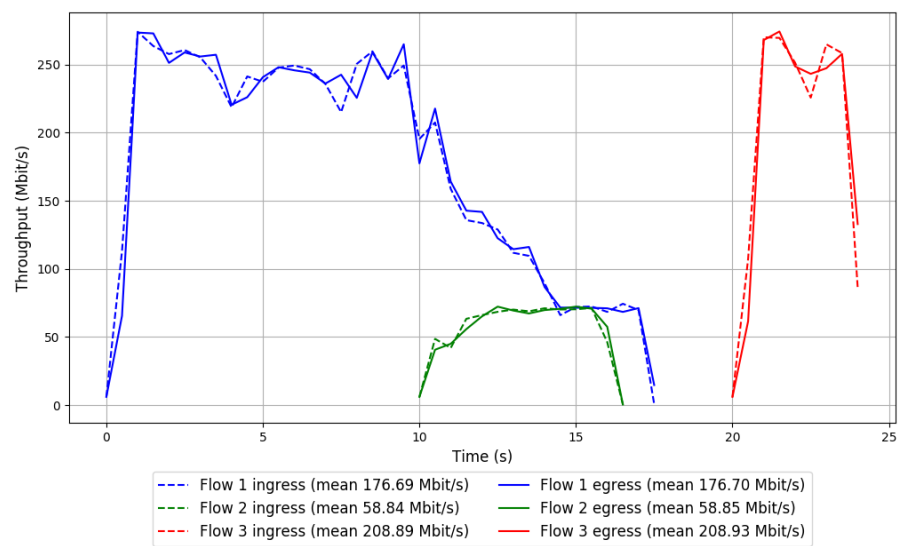


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-12 00:46:08
End at: 2017-08-12 00:46:38

# Below is generated by plot.py at 2017-08-12 06:17:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 181.21 Mbit/s
95th percentile per-packet one-way delay: 87.668 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 176.70 Mbit/s
95th percentile per-packet one-way delay: 87.878 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.85 Mbit/s
95th percentile per-packet one-way delay: 87.056 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 208.93 Mbit/s
95th percentile per-packet one-way delay: 87.291 ms
Loss rate: 0.00%
```

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



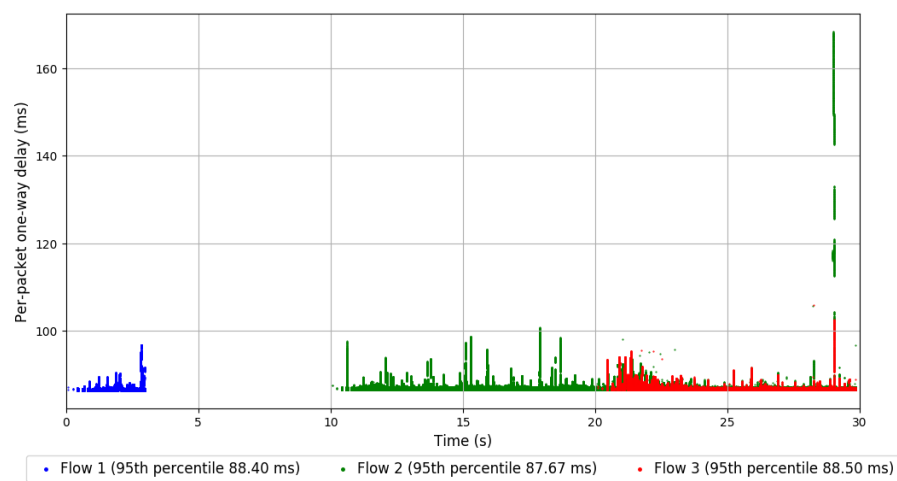
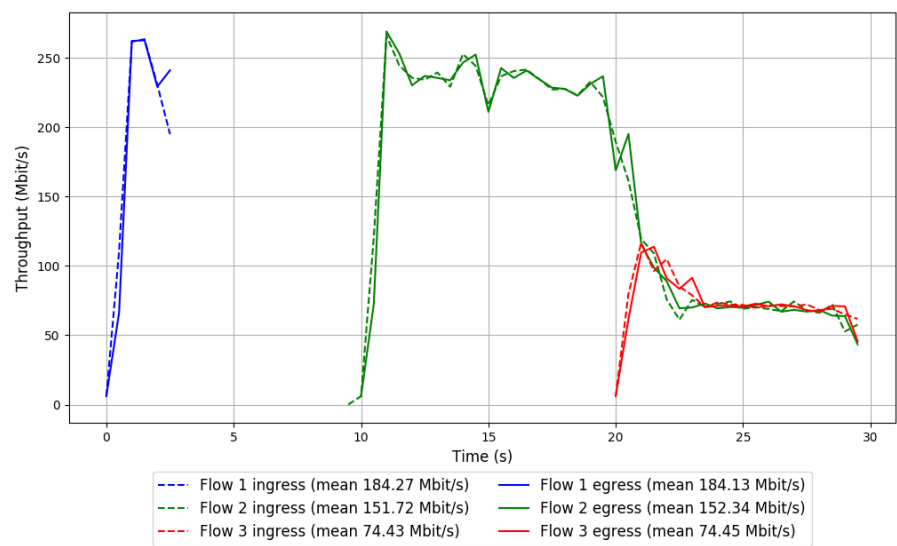
```
Run 2: Statistics of TaoVA-100x

Start at: 2017-08-12 00:59:06
End at: 2017-08-12 00:59:36

# Below is generated by plot.py at 2017-08-12 06:17:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.56 Mbit/s
95th percentile per-packet one-way delay: 87.885 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 184.13 Mbit/s
95th percentile per-packet one-way delay: 88.400 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 152.34 Mbit/s
95th percentile per-packet one-way delay: 87.667 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 74.45 Mbit/s
95th percentile per-packet one-way delay: 88.496 ms
Loss rate: 1.69%
```



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

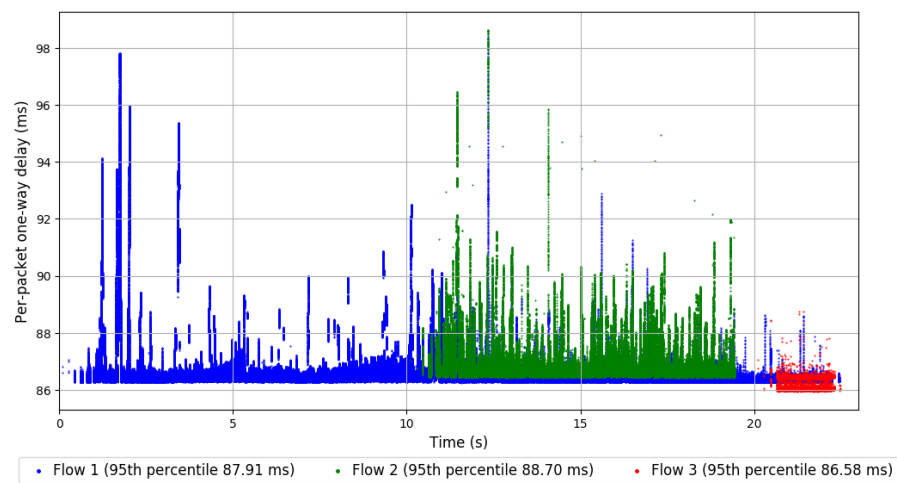
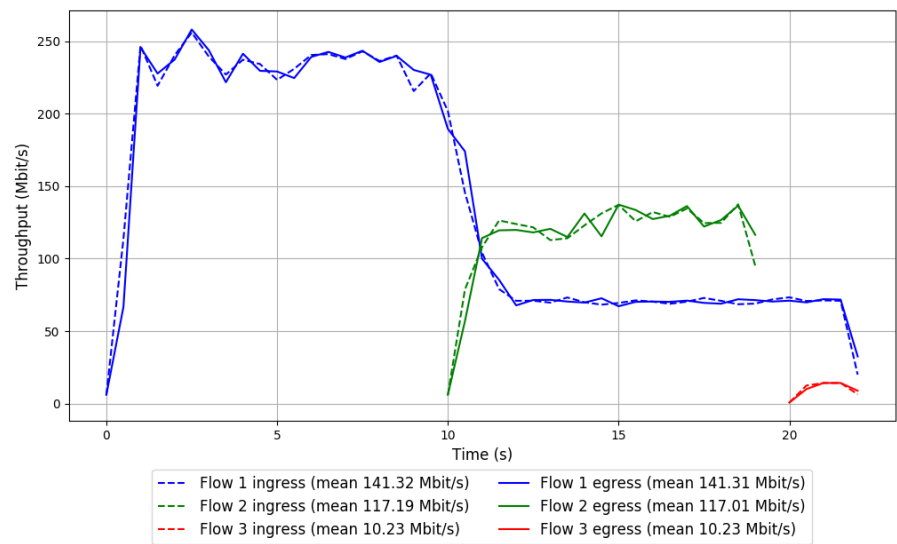


Run 3: Statistics of TaoVA-100x

Start at: 2017-08-12 01:13:02

End at: 2017-08-12 01:13:32

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

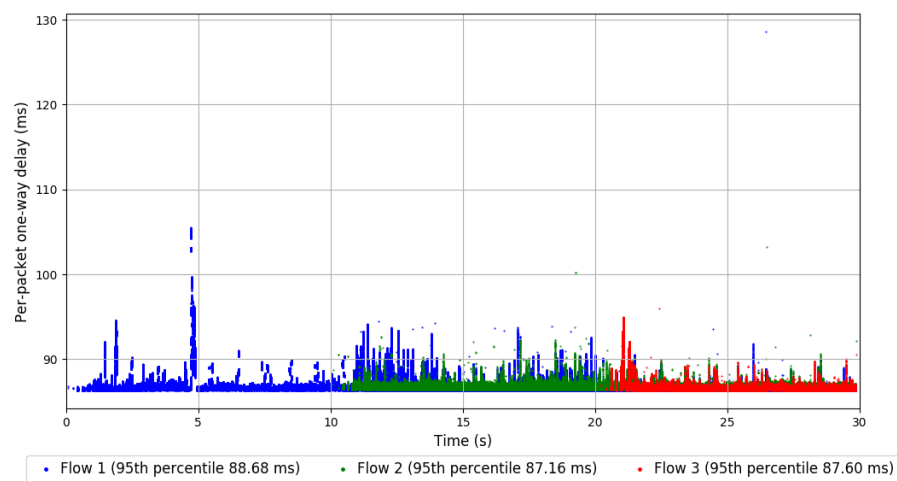
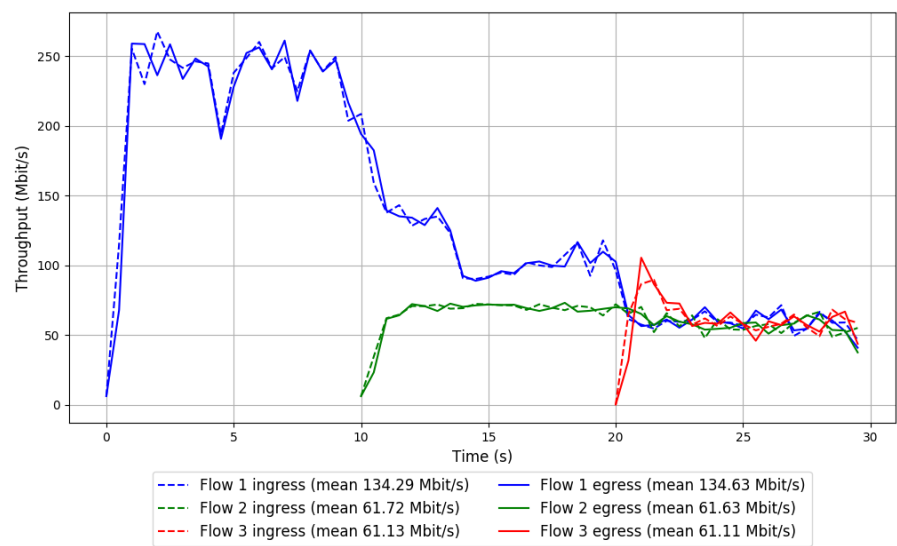


```
Run 4: Statistics of TaoVA-100x

Start at: 2017-08-12 01:27:04
End at: 2017-08-12 01:27:34

# Below is generated by plot.py at 2017-08-12 06:19:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 195.20 Mbit/s
95th percentile per-packet one-way delay: 88.182 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 134.63 Mbit/s
95th percentile per-packet one-way delay: 88.676 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 61.63 Mbit/s
95th percentile per-packet one-way delay: 87.163 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 61.11 Mbit/s
95th percentile per-packet one-way delay: 87.603 ms
Loss rate: 1.98%
```

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

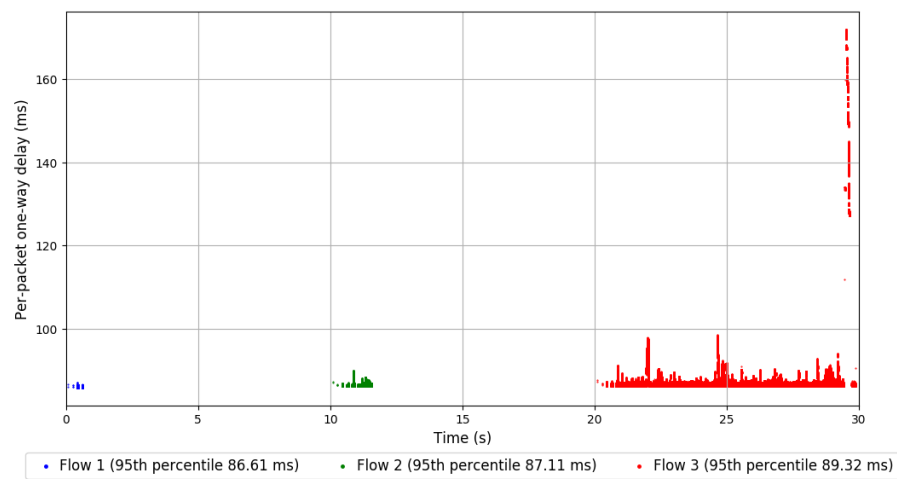
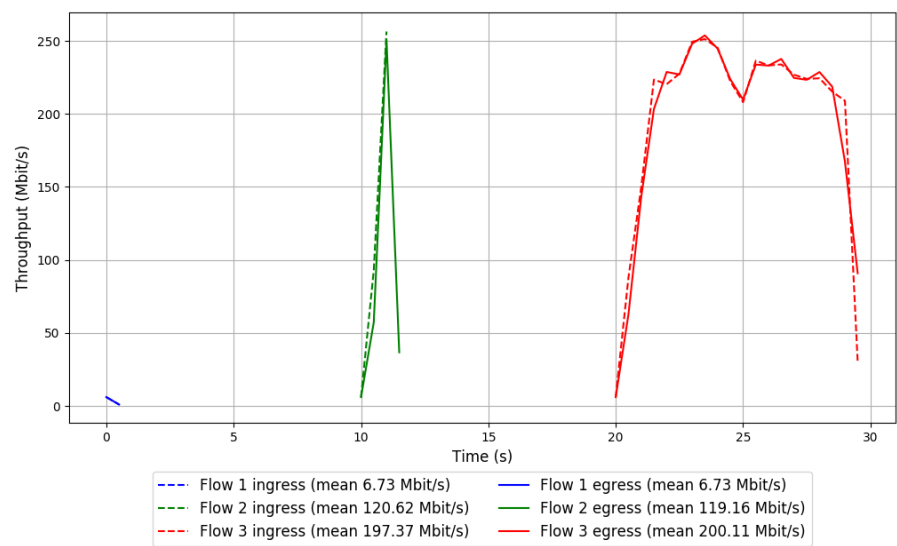


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-08-12 01:41:21
End at: 2017-08-12 01:41:51

# Below is generated by plot.py at 2017-08-12 06:19:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.63 Mbit/s
95th percentile per-packet one-way delay: 88.983 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 86.611 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.16 Mbit/s
95th percentile per-packet one-way delay: 87.113 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 200.11 Mbit/s
95th percentile per-packet one-way delay: 89.319 ms
Loss rate: 0.40%
```

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



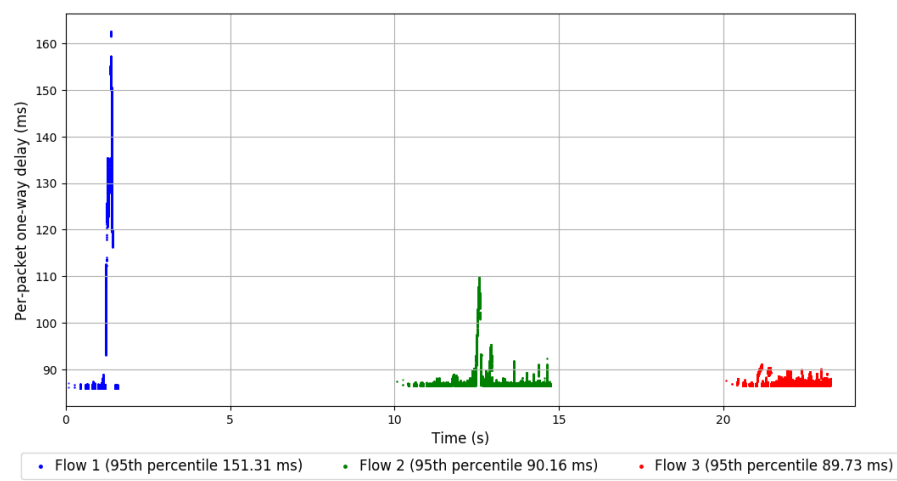
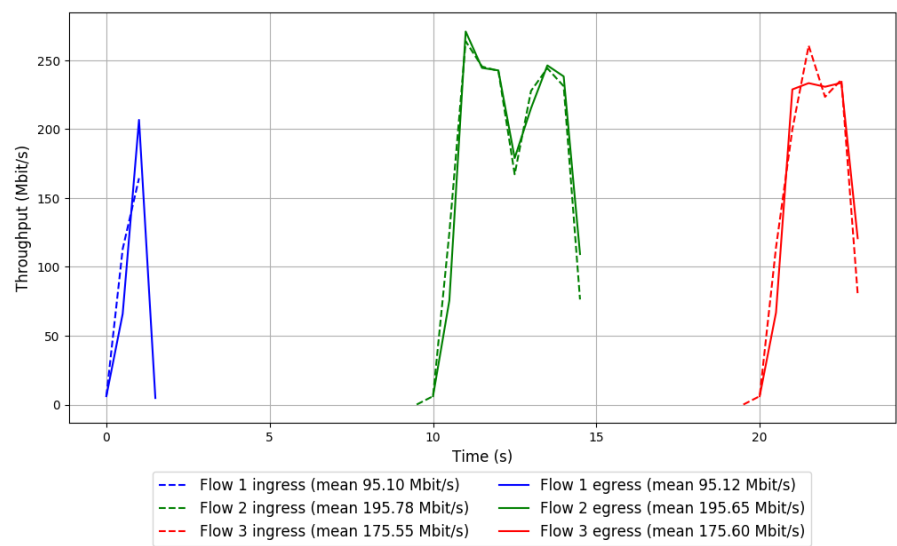
Run 6: Statistics of TaoVA-100x

Start at: 2017-08-12 01:54:19

End at: 2017-08-12 01:54:49



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

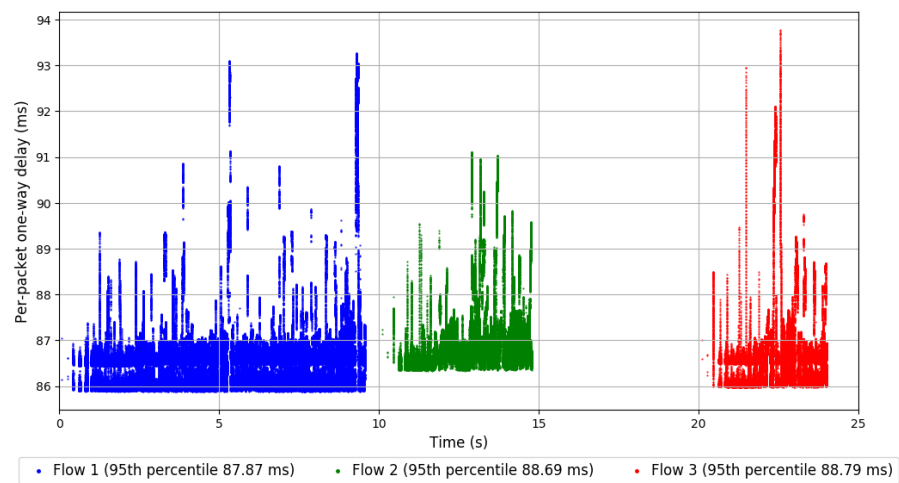
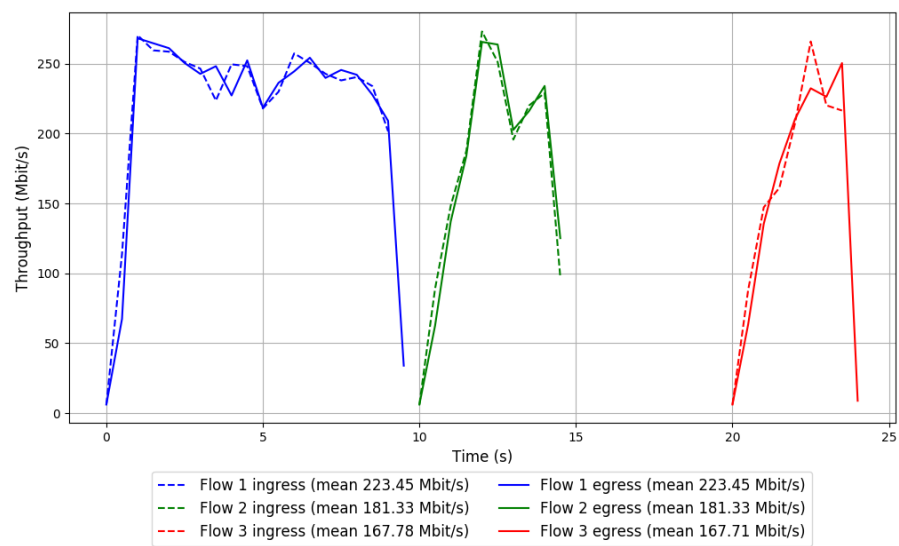


Run 7: Statistics of TaoVA-100x

Start at: 2017-08-12 02:08:02

End at: 2017-08-12 02:08:32

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-08-12 02:22:18

End at: 2017-08-12 02:22:48

# Below is generated by plot.py at 2017-08-12 06:20:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 142.47 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 217.40 Mbit/s

95th percentile per-packet one-way delay: 86.756 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 198.81 Mbit/s

95th percentile per-packet one-way delay: 86.914 ms

Loss rate: 0.00%

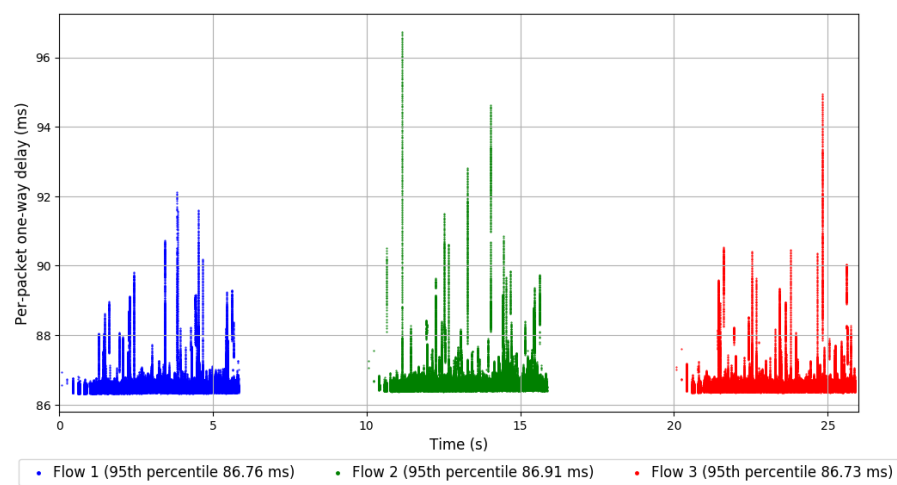
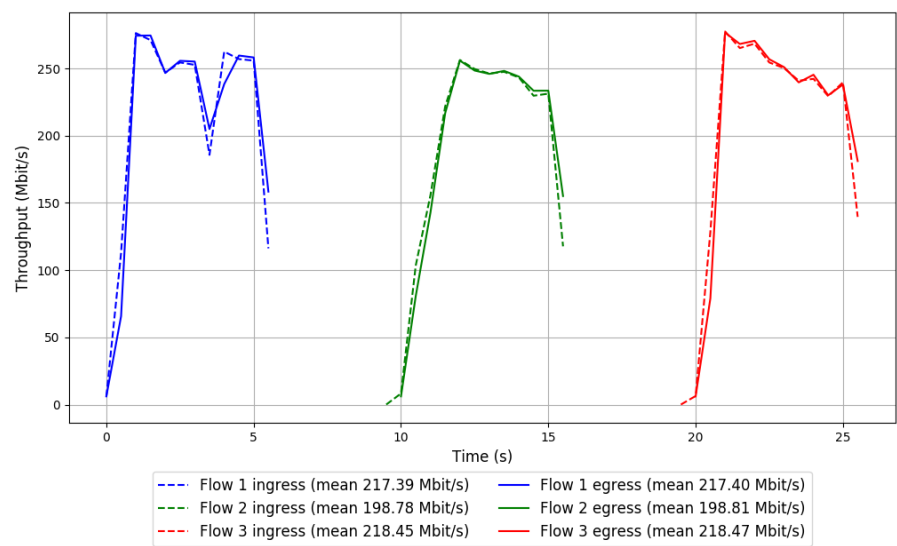
-- Flow 3:

Average throughput: 218.47 Mbit/s

95th percentile per-packet one-way delay: 86.728 ms

Loss rate: 0.00%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-08-12 02:35:42

End at: 2017-08-12 02:36:12

# Below is generated by plot.py at 2017-08-12 06:20:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 174.89 Mbit/s

95th percentile per-packet one-way delay: 87.156 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 197.79 Mbit/s

95th percentile per-packet one-way delay: 87.063 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 224.79 Mbit/s

95th percentile per-packet one-way delay: 86.816 ms

Loss rate: 0.01%

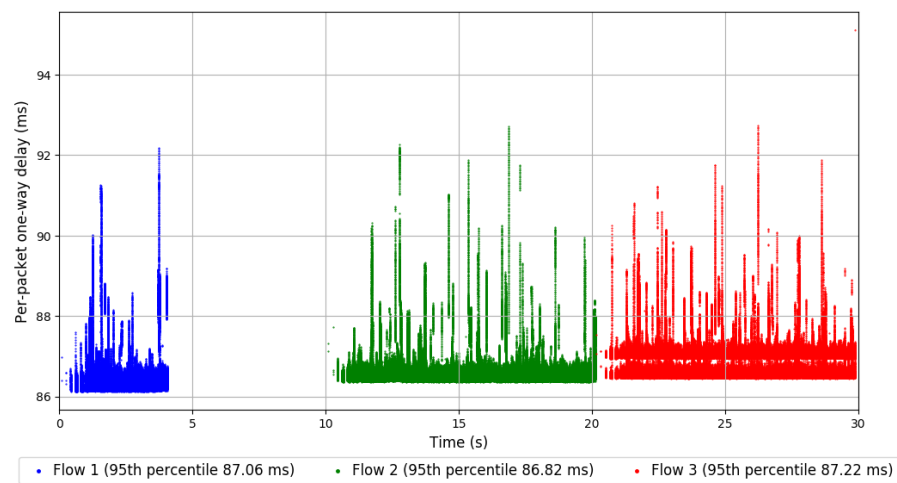
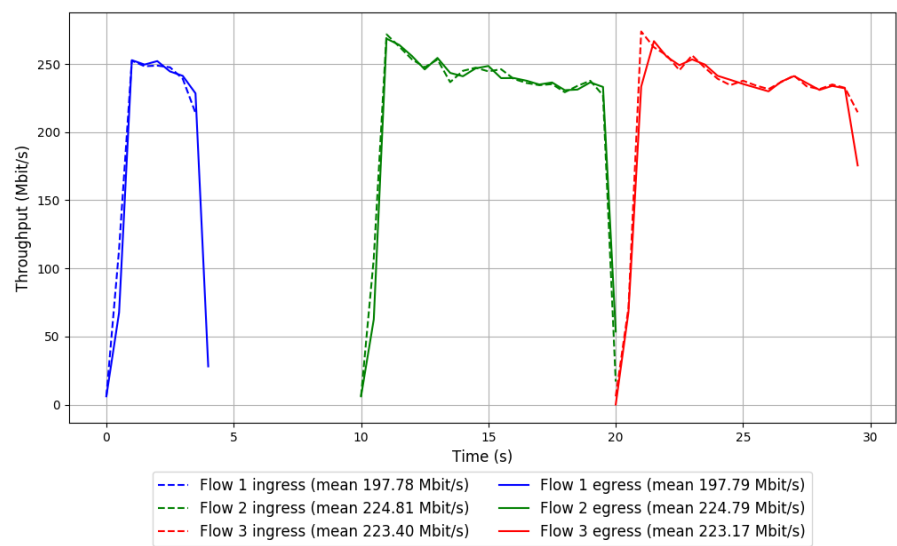
-- Flow 3:

Average throughput: 223.17 Mbit/s

95th percentile per-packet one-way delay: 87.220 ms

Loss rate: 1.84%

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



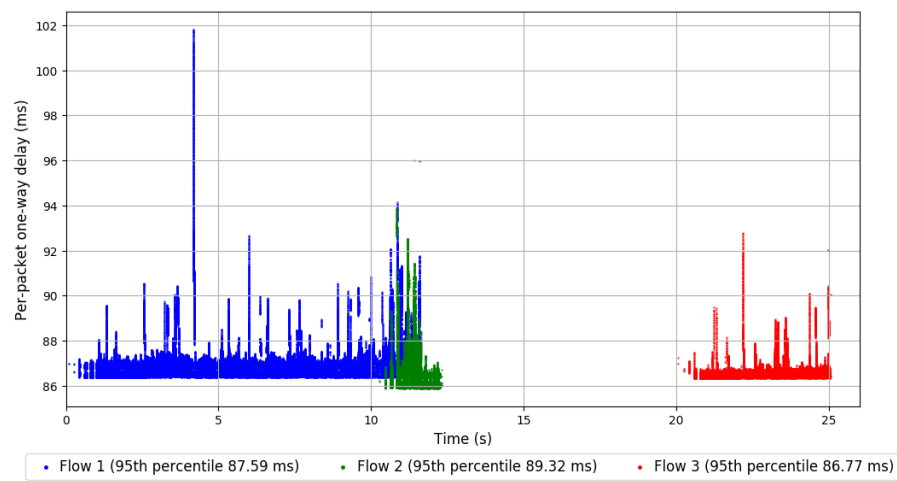
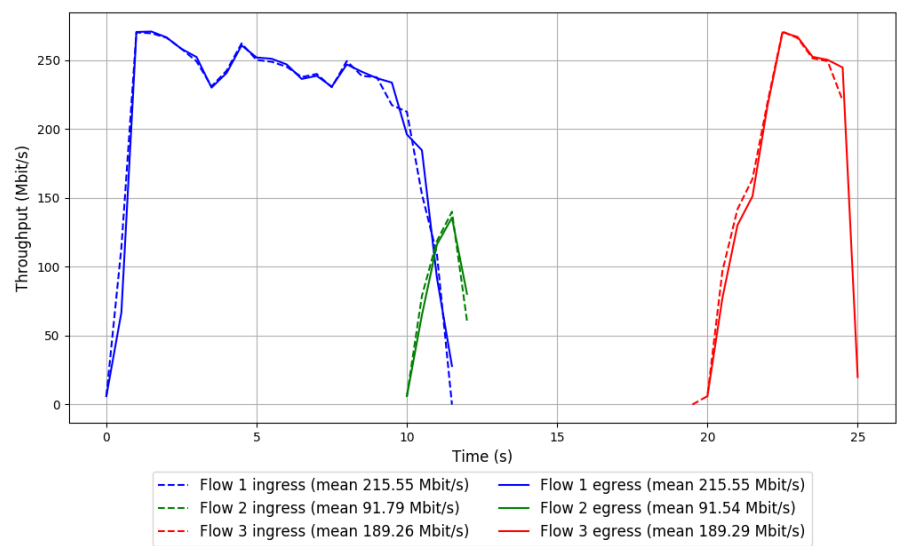
```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-12 02:50:12
End at: 2017-08-12 02:50:42

# Below is generated by plot.py at 2017-08-12 06:20:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.71 Mbit/s
95th percentile per-packet one-way delay: 87.453 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 215.55 Mbit/s
95th percentile per-packet one-way delay: 87.587 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 91.54 Mbit/s
95th percentile per-packet one-way delay: 89.323 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 189.29 Mbit/s
95th percentile per-packet one-way delay: 86.771 ms
Loss rate: 0.00%
```



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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-12 00:53:47

End at: 2017-08-12 00:54:17

# Below is generated by plot.py at 2017-08-12 06:20:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 29.78 Mbit/s

95th percentile per-packet one-way delay: 90.543 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 17.00 Mbit/s

95th percentile per-packet one-way delay: 89.930 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 4.70 Mbit/s

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

Loss rate: 1.07%

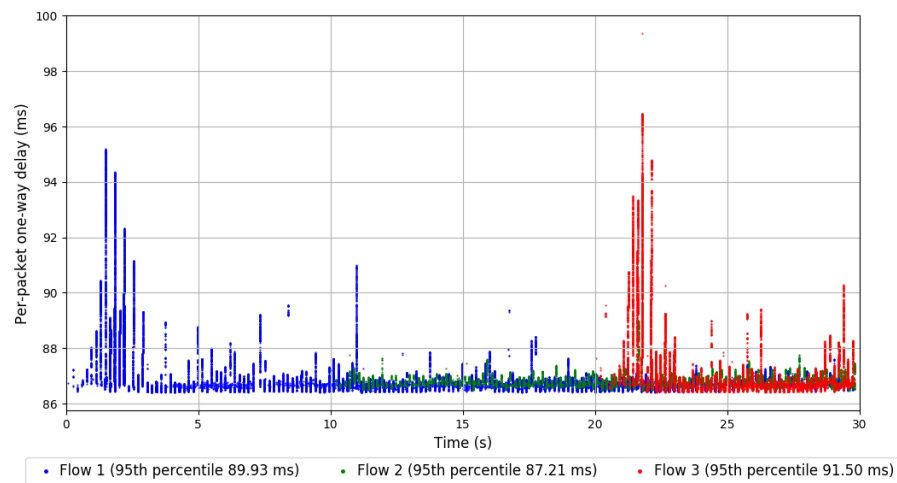
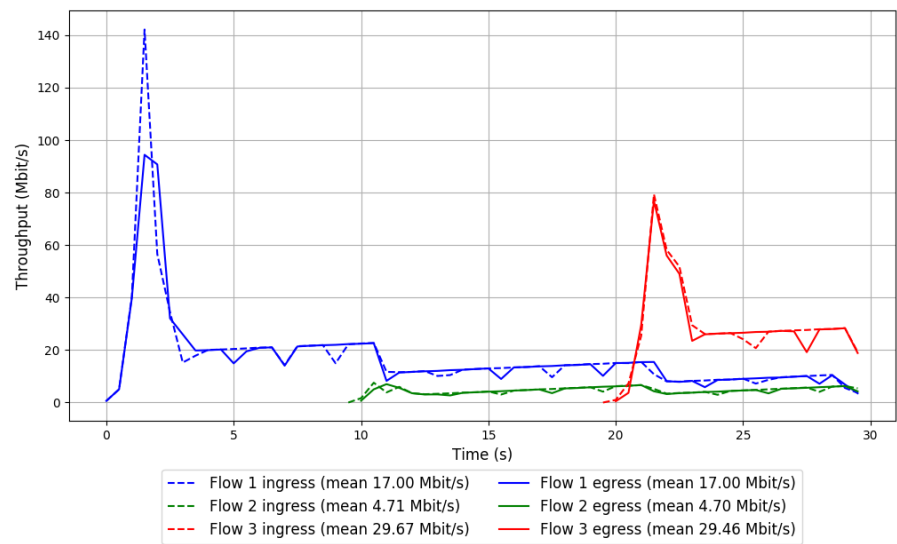
-- Flow 3:

Average throughput: 29.46 Mbit/s

95th percentile per-packet one-way delay: 91.498 ms

Loss rate: 2.43%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-12 01:07:18

End at: 2017-08-12 01:07:48

# Below is generated by plot.py at 2017-08-12 06:21:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.35 Mbit/s

95th percentile per-packet one-way delay: 89.683 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 21.19 Mbit/s

95th percentile per-packet one-way delay: 89.431 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 23.42 Mbit/s

95th percentile per-packet one-way delay: 90.212 ms

Loss rate: 1.63%

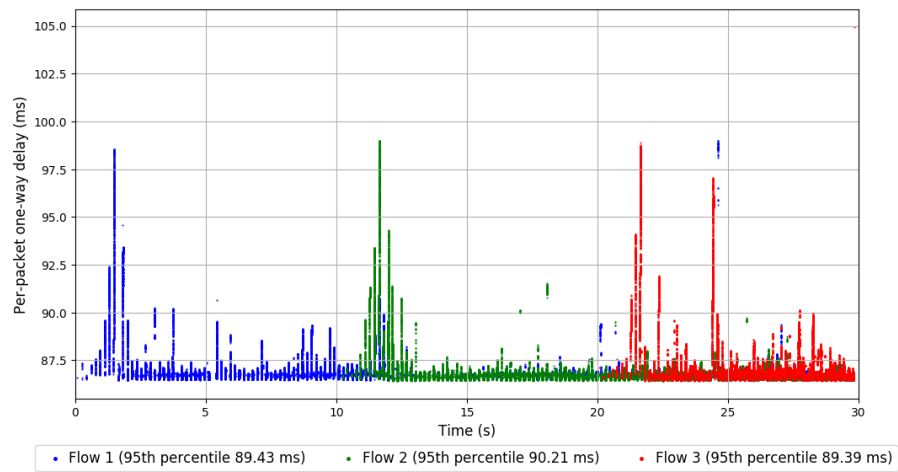
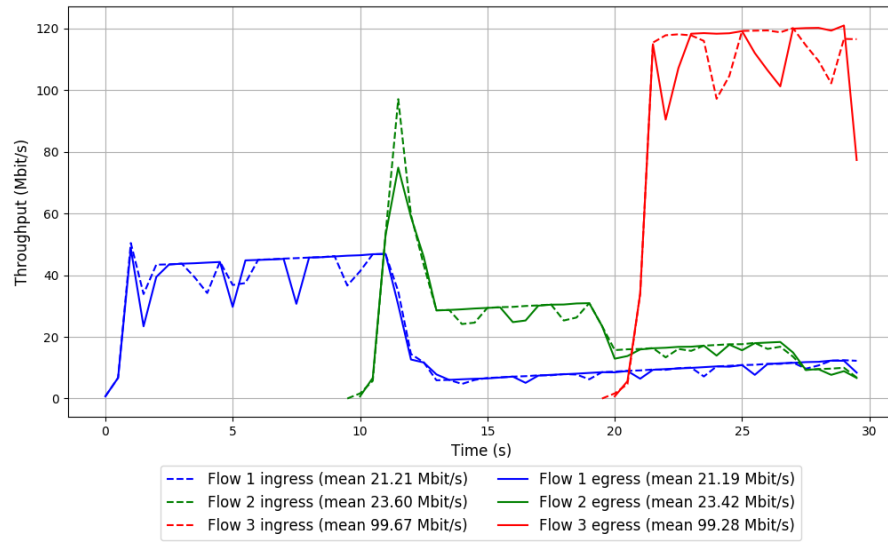
-- Flow 3:

Average throughput: 99.28 Mbit/s

95th percentile per-packet one-way delay: 89.393 ms

Loss rate: 2.03%

## Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-12 01:20:54

End at: 2017-08-12 01:21:24

# Below is generated by plot.py at 2017-08-12 06:21:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 68.50 Mbit/s

95th percentile per-packet one-way delay: 87.850 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 25.10 Mbit/s

95th percentile per-packet one-way delay: 87.818 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 41.69 Mbit/s

95th percentile per-packet one-way delay: 87.107 ms

Loss rate: 0.27%

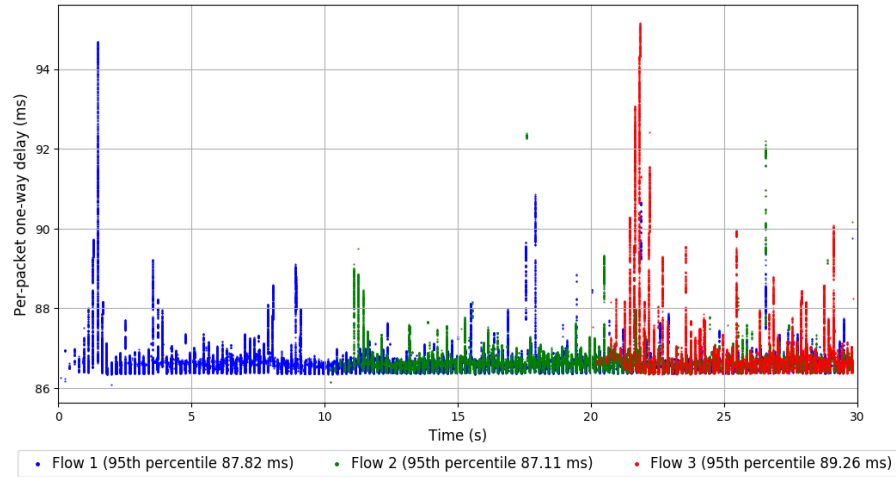
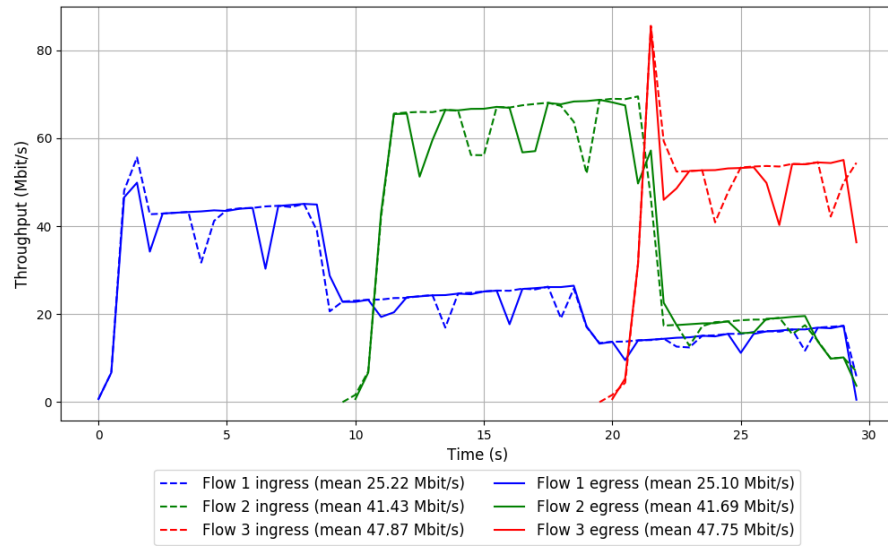
-- Flow 3:

Average throughput: 47.75 Mbit/s

95th percentile per-packet one-way delay: 89.260 ms

Loss rate: 1.93%

### Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-12 01:35:14

End at: 2017-08-12 01:35:44

# Below is generated by plot.py at 2017-08-12 06:21:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.02 Mbit/s

95th percentile per-packet one-way delay: 87.600 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 5.13 Mbit/s

95th percentile per-packet one-way delay: 87.245 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 5.08 Mbit/s

95th percentile per-packet one-way delay: 87.004 ms

Loss rate: 1.29%

-- Flow 3:

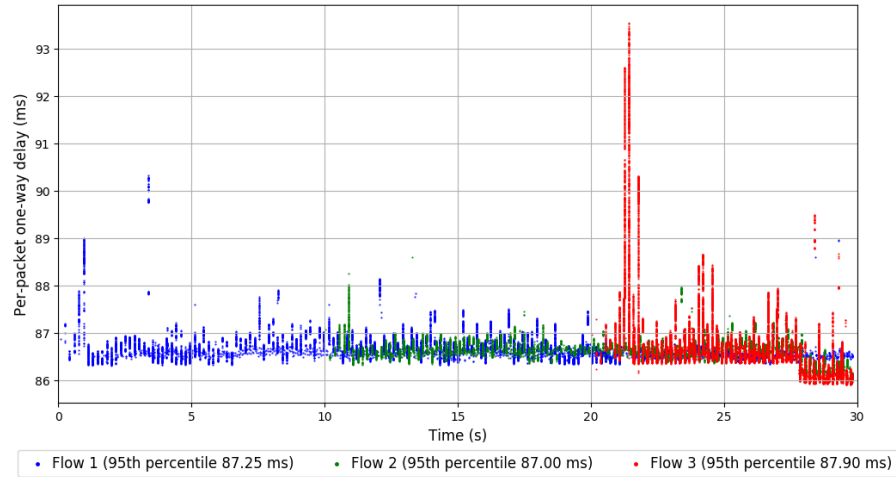
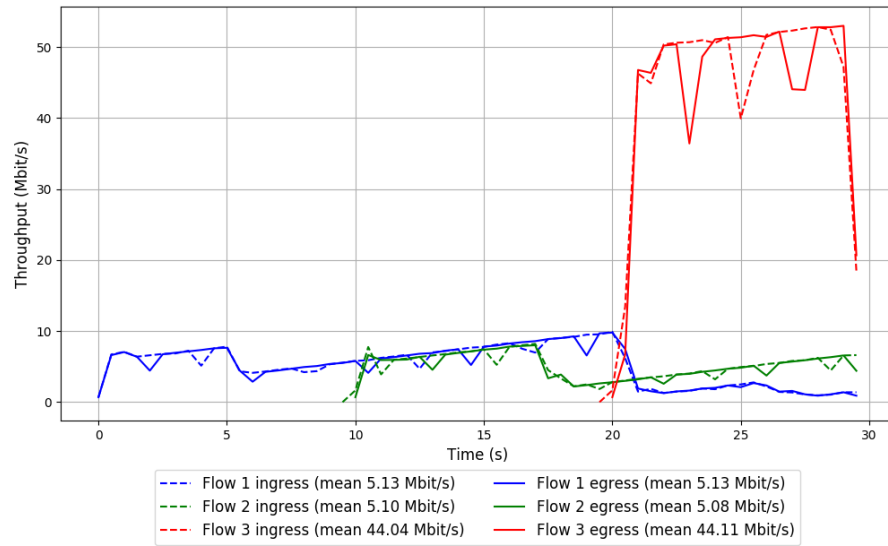
Average throughput: 44.11 Mbit/s

95th percentile per-packet one-way delay: 87.898 ms

Loss rate: 1.68%



#### Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-12 01:48:55

End at: 2017-08-12 01:49:25

# Below is generated by plot.py at 2017-08-12 06:21:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 44.35 Mbit/s

95th percentile per-packet one-way delay: 87.792 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 36.64 Mbit/s

95th percentile per-packet one-way delay: 87.779 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 11.00 Mbit/s

95th percentile per-packet one-way delay: 87.969 ms

Loss rate: 1.16%

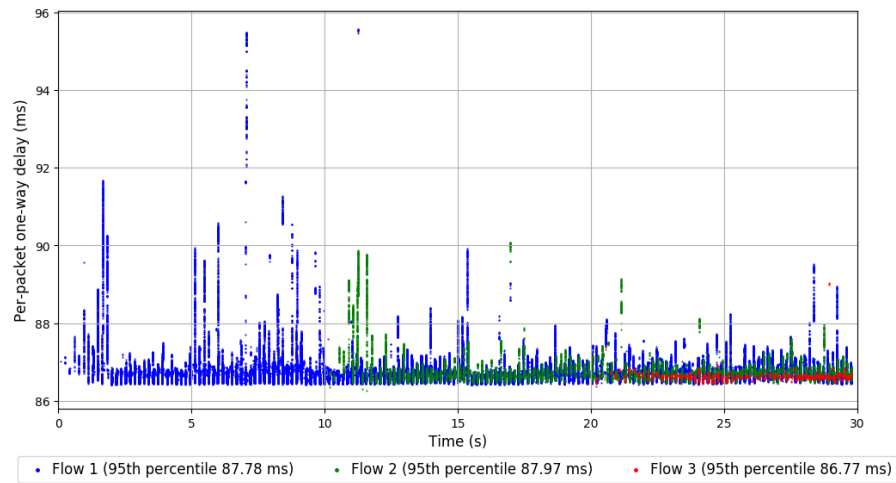
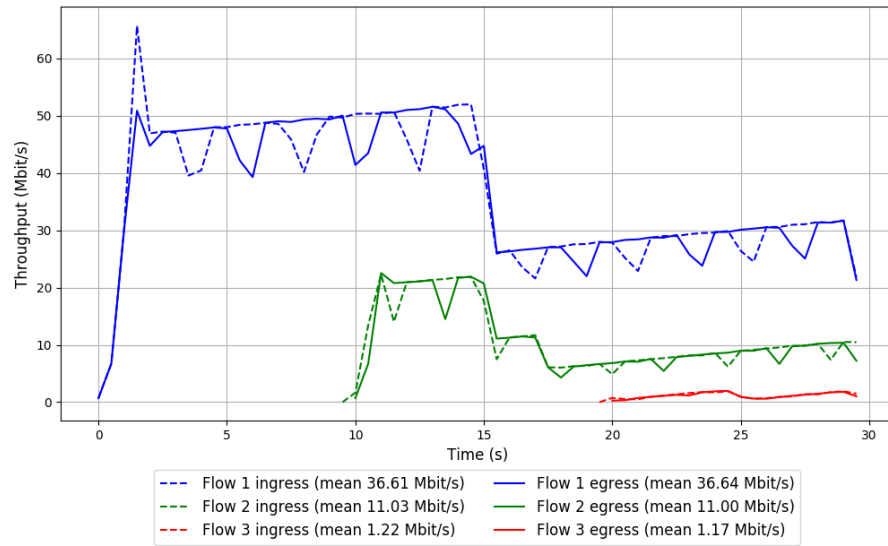
-- Flow 3:

Average throughput: 1.17 Mbit/s

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

Loss rate: 5.65%

# Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-12 02:02:12

End at: 2017-08-12 02:02:42

# Below is generated by plot.py at 2017-08-12 06:21:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.26 Mbit/s

95th percentile per-packet one-way delay: 87.805 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 18.23 Mbit/s

95th percentile per-packet one-way delay: 88.047 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 5.02 Mbit/s

95th percentile per-packet one-way delay: 87.142 ms

Loss rate: 1.94%

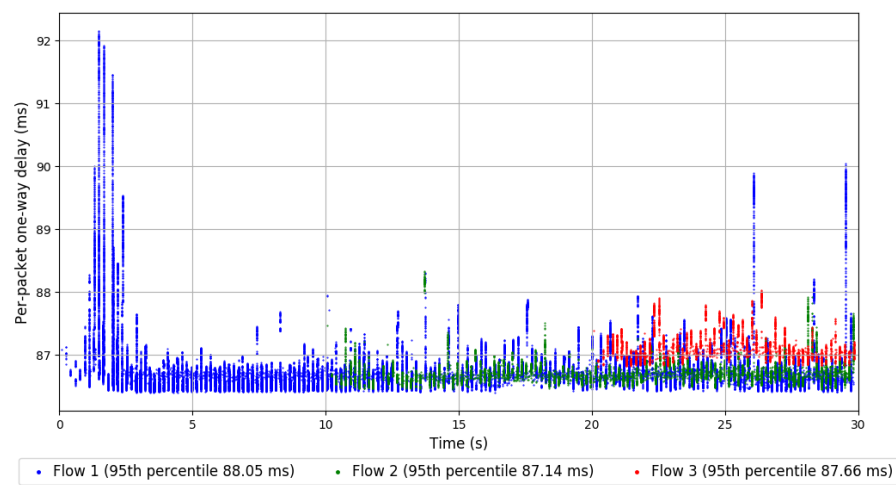
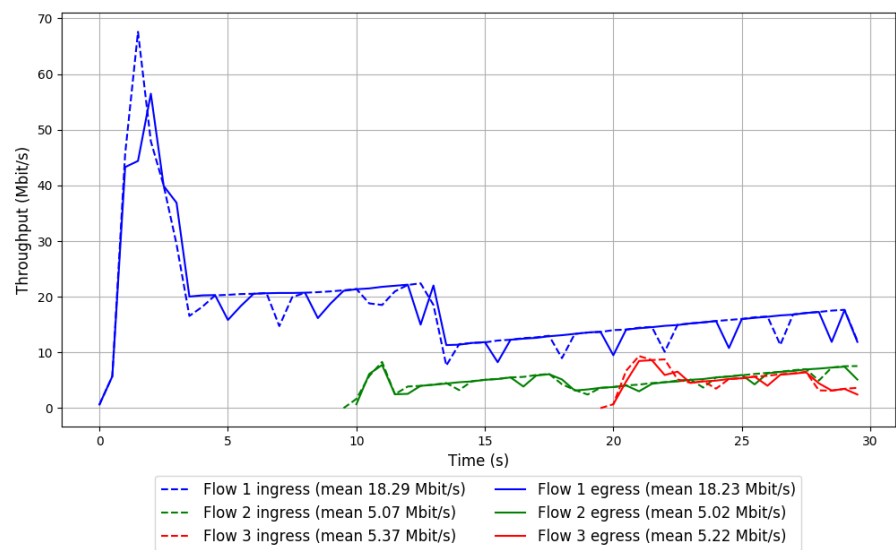
-- Flow 3:

Average throughput: 5.22 Mbit/s

95th percentile per-packet one-way delay: 87.661 ms

Loss rate: 4.52%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-12 02:15:46

End at: 2017-08-12 02:16:16

# Below is generated by plot.py at 2017-08-12 06:21:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.47 Mbit/s

95th percentile per-packet one-way delay: 88.948 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 14.23 Mbit/s

95th percentile per-packet one-way delay: 87.518 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 30.06 Mbit/s

95th percentile per-packet one-way delay: 90.186 ms

Loss rate: 0.72%

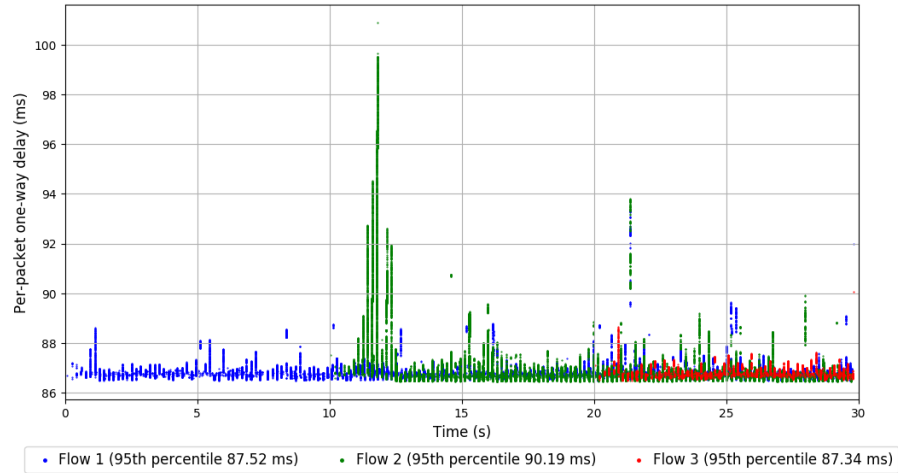
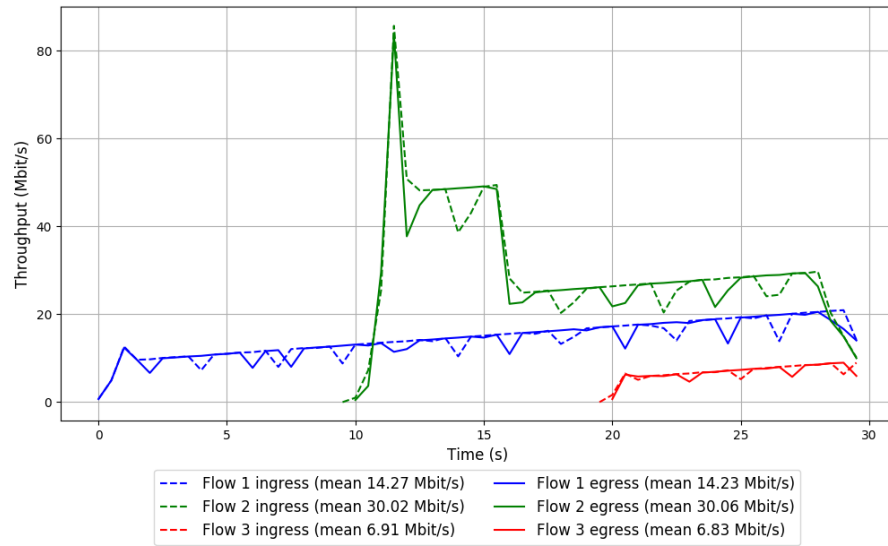
-- Flow 3:

Average throughput: 6.83 Mbit/s

95th percentile per-packet one-way delay: 87.338 ms

Loss rate: 2.59%

## Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-12 02:30:05

End at: 2017-08-12 02:30:35

# Below is generated by plot.py at 2017-08-12 06:21:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 62.51 Mbit/s

95th percentile per-packet one-way delay: 87.889 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 7.38 Mbit/s

95th percentile per-packet one-way delay: 87.499 ms

Loss rate: 1.43%

-- Flow 2:

Average throughput: 64.22 Mbit/s

95th percentile per-packet one-way delay: 87.843 ms

Loss rate: 0.54%

-- Flow 3:

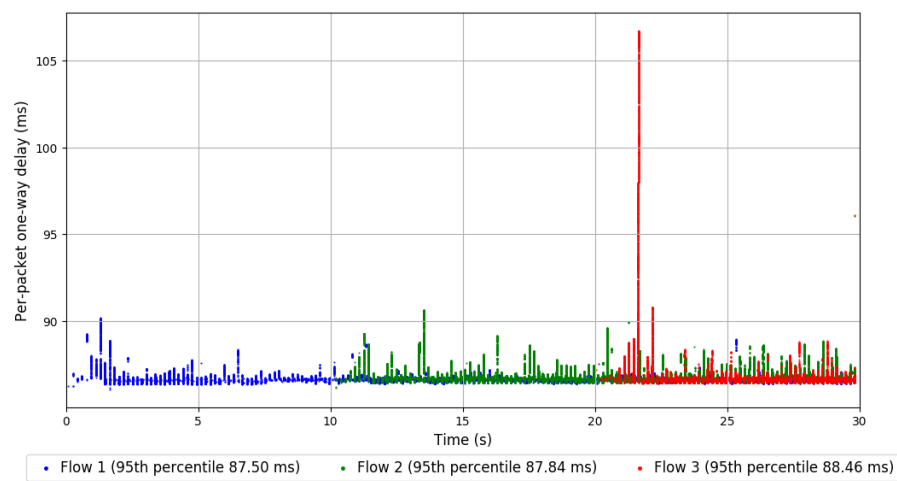
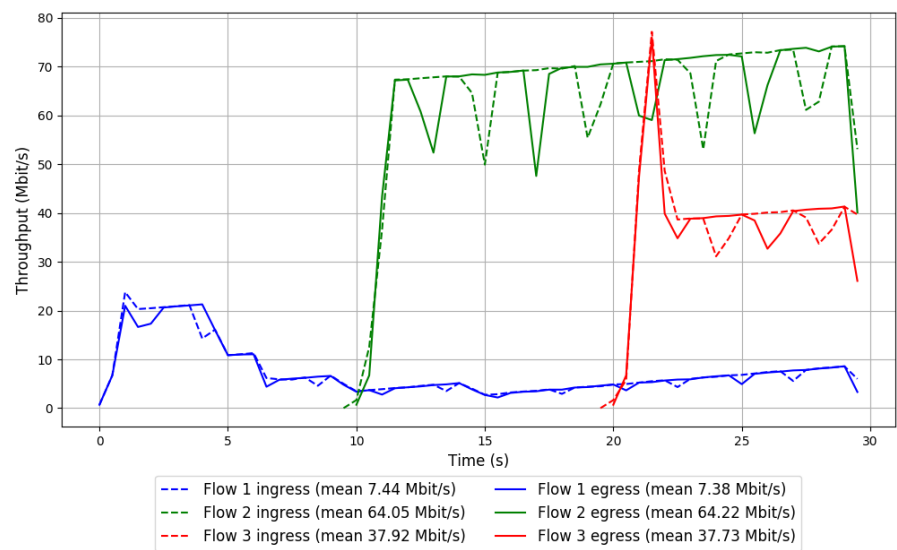
Average throughput: 37.73 Mbit/s

95th percentile per-packet one-way delay: 88.457 ms

Loss rate: 2.13%



Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-12 02:43:47

End at: 2017-08-12 02:44:17

# Below is generated by plot.py at 2017-08-12 06:21:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 46.26 Mbit/s

95th percentile per-packet one-way delay: 90.667 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 17.46 Mbit/s

95th percentile per-packet one-way delay: 93.176 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 36.63 Mbit/s

95th percentile per-packet one-way delay: 89.730 ms

Loss rate: 1.20%

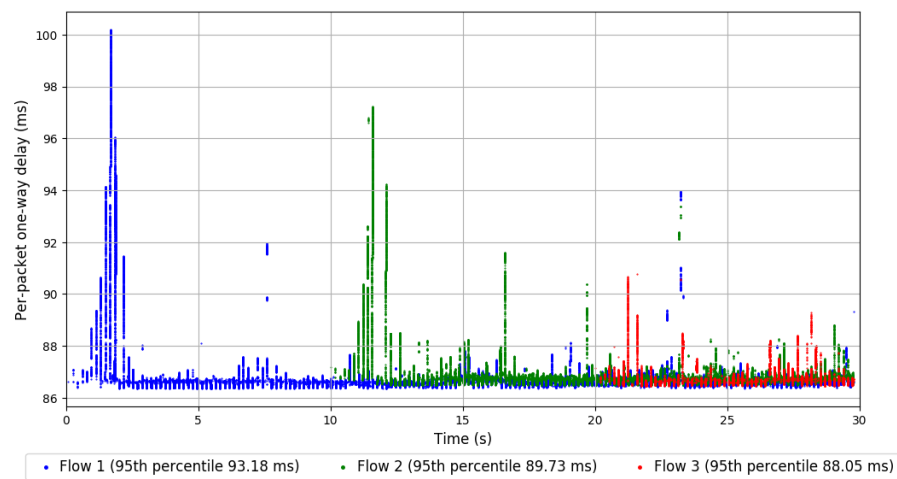
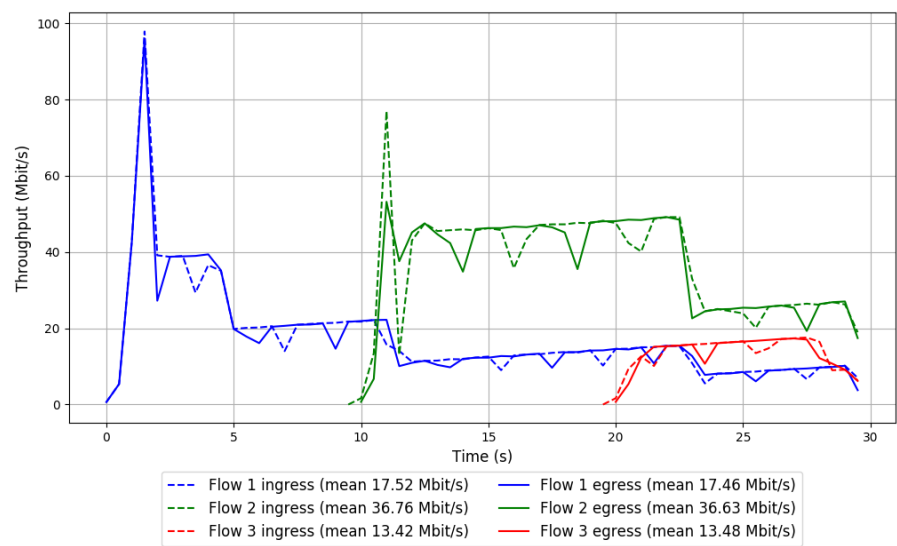
-- Flow 3:

Average throughput: 13.48 Mbit/s

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

Loss rate: 1.33%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-12 02:58:04

End at: 2017-08-12 02:58:34

# Below is generated by plot.py at 2017-08-12 06:21:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 66.43 Mbit/s

95th percentile per-packet one-way delay: 89.765 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 20.36 Mbit/s

95th percentile per-packet one-way delay: 87.826 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 45.68 Mbit/s

95th percentile per-packet one-way delay: 88.471 ms

Loss rate: 1.05%

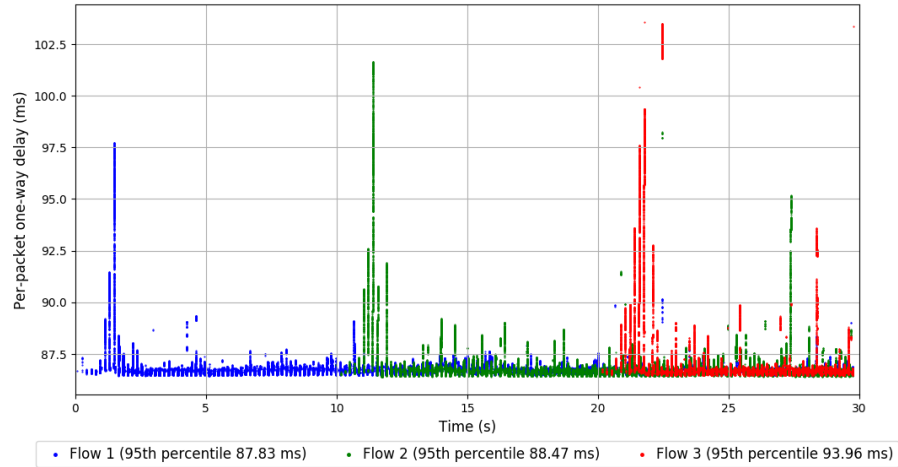
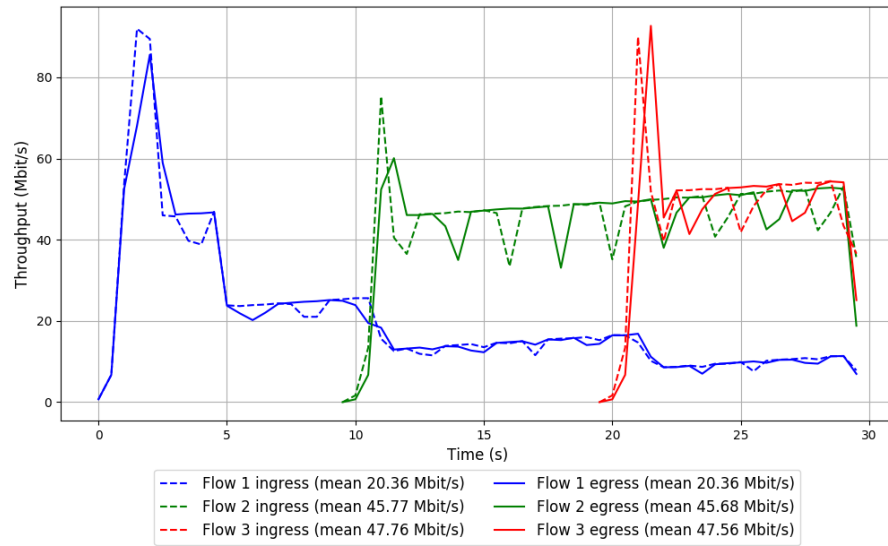
-- Flow 3:

Average throughput: 47.56 Mbit/s

95th percentile per-packet one-way delay: 93.958 ms

Loss rate: 2.13%

# Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-08-12 00:50:36

End at: 2017-08-12 00:51:06

# Below is generated by plot.py at 2017-08-12 06:22:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.87 Mbit/s

95th percentile per-packet one-way delay: 91.513 ms

Loss rate: 14.26%

-- Flow 1:

Average throughput: 75.04 Mbit/s

95th percentile per-packet one-way delay: 89.065 ms

Loss rate: 19.72%

-- Flow 2:

Average throughput: 43.99 Mbit/s

95th percentile per-packet one-way delay: 93.840 ms

Loss rate: 2.01%

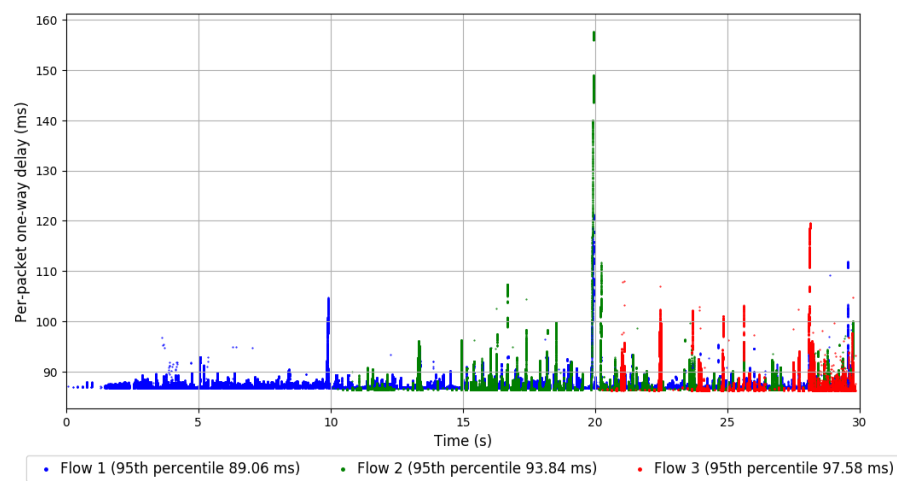
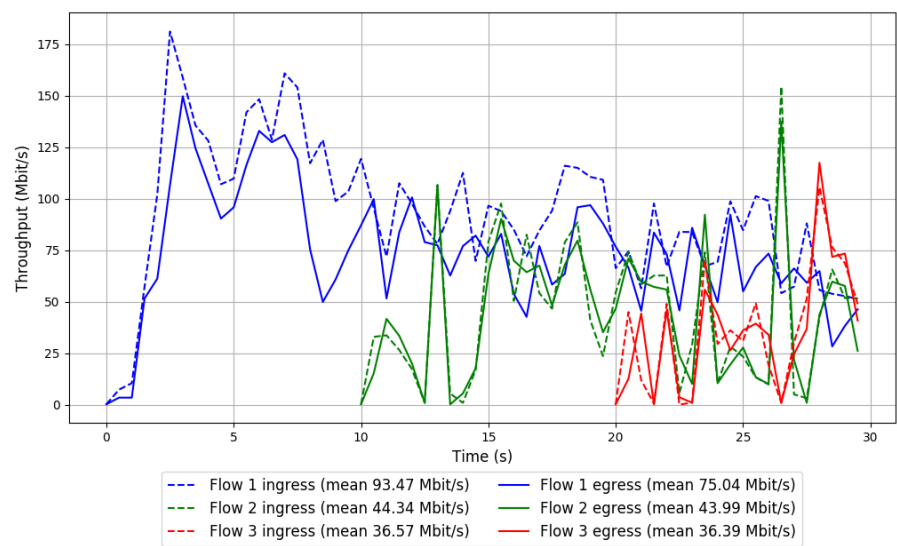
-- Flow 3:

Average throughput: 36.39 Mbit/s

95th percentile per-packet one-way delay: 97.577 ms

Loss rate: 2.24%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-12 01:03:56

End at: 2017-08-12 01:04:26

# Below is generated by plot.py at 2017-08-12 06:22:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 128.63 Mbit/s

95th percentile per-packet one-way delay: 134.494 ms

Loss rate: 8.11%

-- Flow 1:

Average throughput: 88.22 Mbit/s

95th percentile per-packet one-way delay: 162.587 ms

Loss rate: 10.82%

-- Flow 2:

Average throughput: 43.57 Mbit/s

95th percentile per-packet one-way delay: 92.358 ms

Loss rate: 1.05%

-- Flow 3:

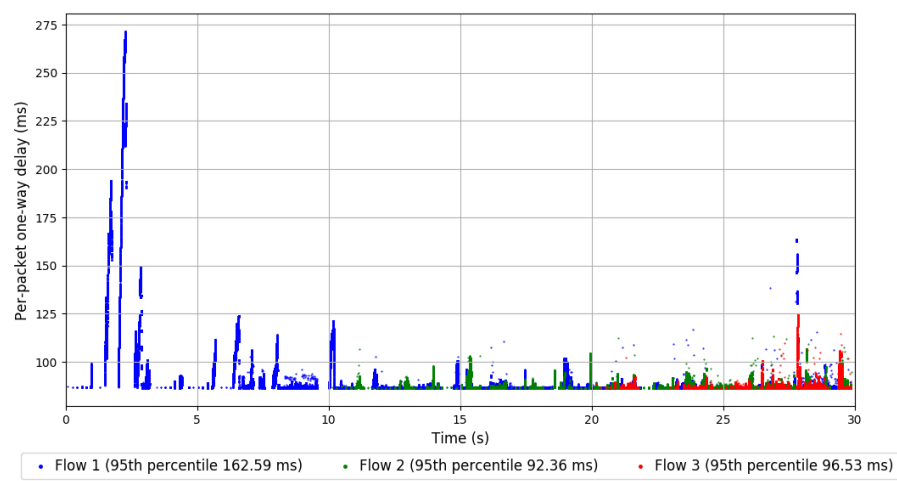
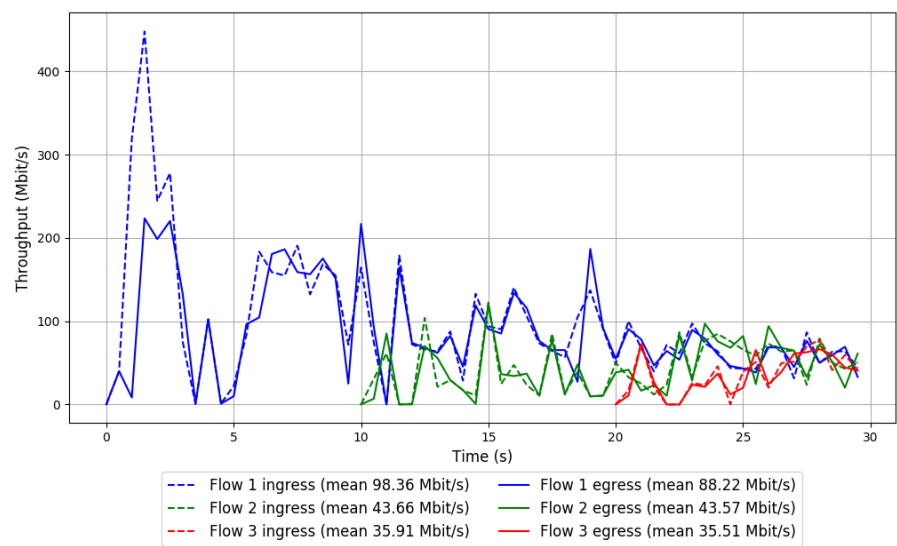
Average throughput: 35.51 Mbit/s

95th percentile per-packet one-way delay: 96.535 ms

Loss rate: 2.84%



Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-12 01:17:33

End at: 2017-08-12 01:18:03

# Below is generated by plot.py at 2017-08-12 06:22:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 141.64 Mbit/s

95th percentile per-packet one-way delay: 127.915 ms

Loss rate: 2.57%

-- Flow 1:

Average throughput: 73.42 Mbit/s

95th percentile per-packet one-way delay: 159.521 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 84.69 Mbit/s

95th percentile per-packet one-way delay: 119.896 ms

Loss rate: 3.88%

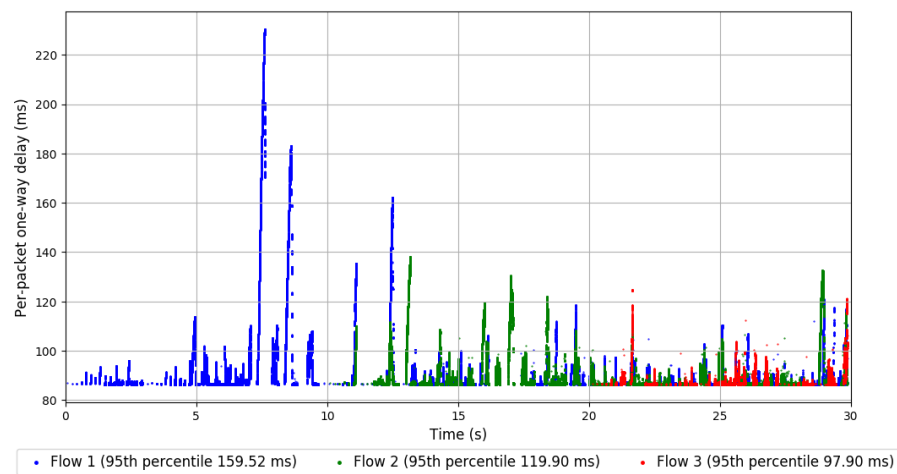
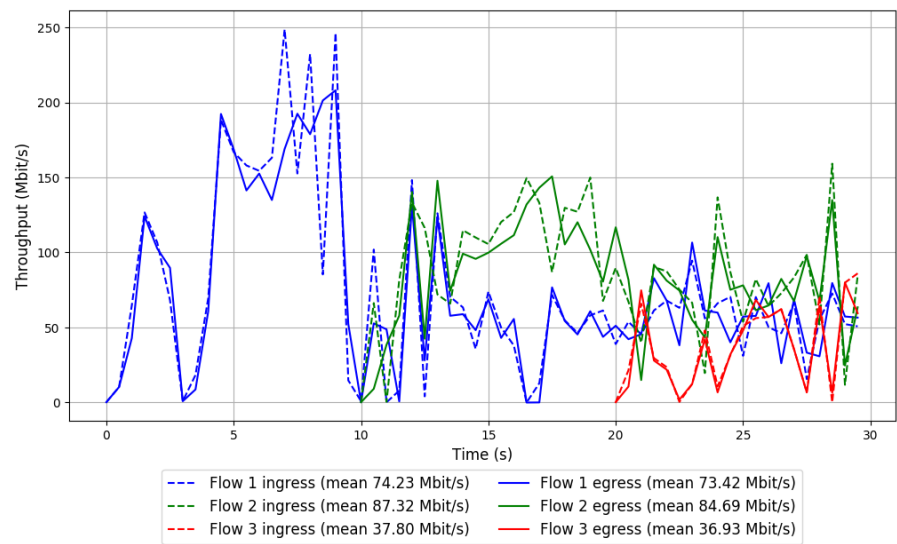
-- Flow 3:

Average throughput: 36.93 Mbit/s

95th percentile per-packet one-way delay: 97.903 ms

Loss rate: 4.05%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-12 01:31:56

End at: 2017-08-12 01:32:26

# Below is generated by plot.py at 2017-08-12 06:22:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 138.16 Mbit/s

95th percentile per-packet one-way delay: 116.231 ms

Loss rate: 8.42%

-- Flow 1:

Average throughput: 106.72 Mbit/s

95th percentile per-packet one-way delay: 119.499 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 38.07 Mbit/s

95th percentile per-packet one-way delay: 89.543 ms

Loss rate: 23.72%

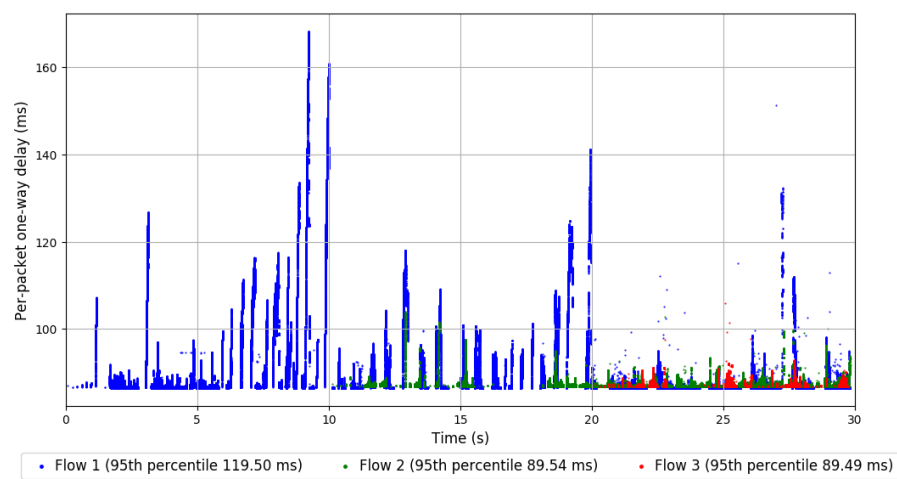
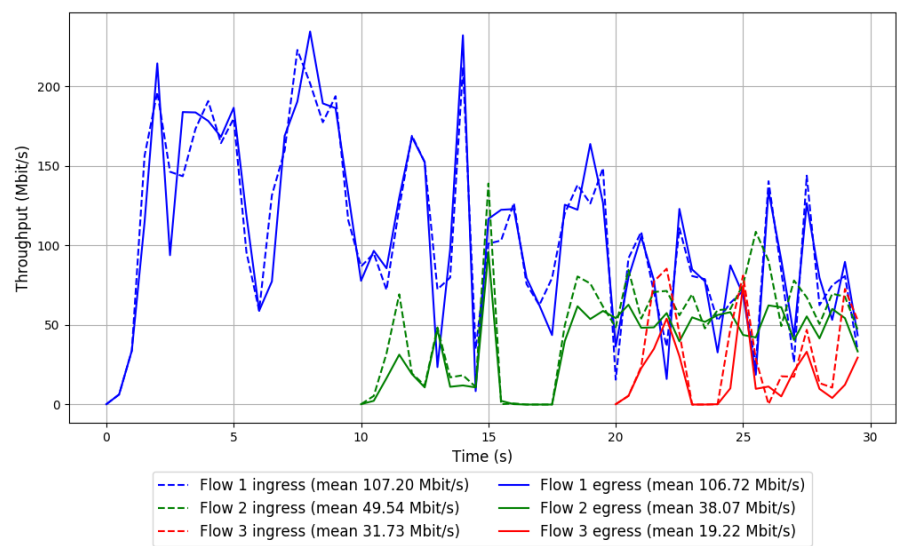
-- Flow 3:

Average throughput: 19.22 Mbit/s

95th percentile per-packet one-way delay: 89.492 ms

Loss rate: 41.03%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-12 01:45:39

End at: 2017-08-12 01:46:09

# Below is generated by plot.py at 2017-08-12 06:23:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 124.38 Mbit/s

95th percentile per-packet one-way delay: 112.188 ms

Loss rate: 3.32%

-- Flow 1:

Average throughput: 80.25 Mbit/s

95th percentile per-packet one-way delay: 119.553 ms

Loss rate: 1.63%

-- Flow 2:

Average throughput: 58.38 Mbit/s

95th percentile per-packet one-way delay: 109.007 ms

Loss rate: 1.25%

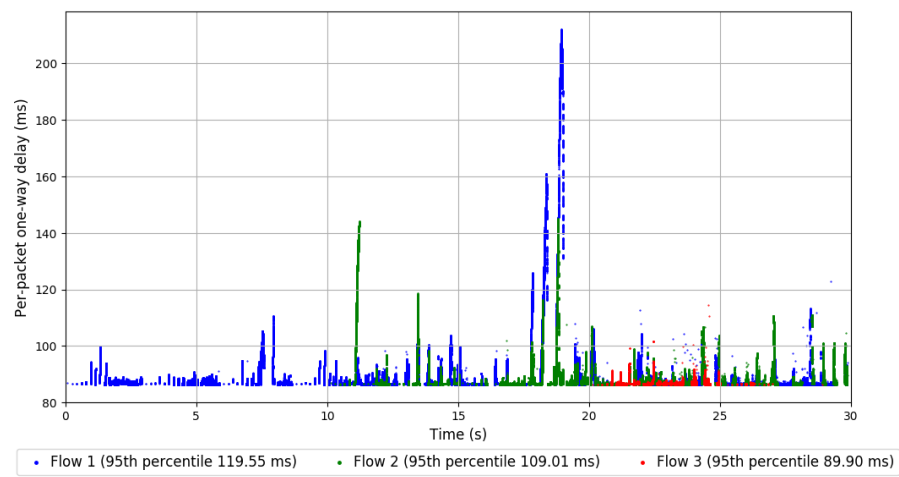
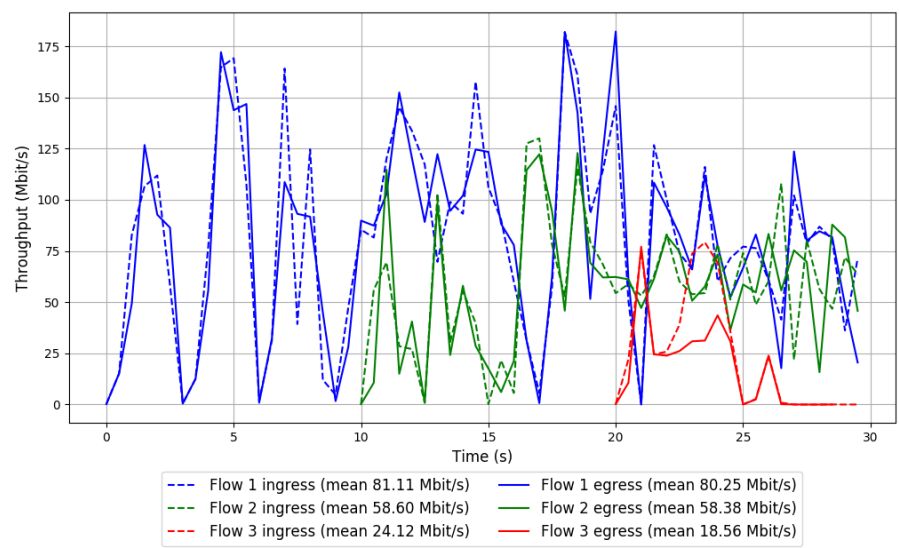
-- Flow 3:

Average throughput: 18.56 Mbit/s

95th percentile per-packet one-way delay: 89.896 ms

Loss rate: 31.02%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-12 01:58:53

End at: 2017-08-12 01:59:23

# Below is generated by plot.py at 2017-08-12 06:23:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 101.75 Mbit/s

95th percentile per-packet one-way delay: 105.972 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 56.62 Mbit/s

95th percentile per-packet one-way delay: 107.110 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 44.03 Mbit/s

95th percentile per-packet one-way delay: 108.645 ms

Loss rate: 2.24%

-- Flow 3:

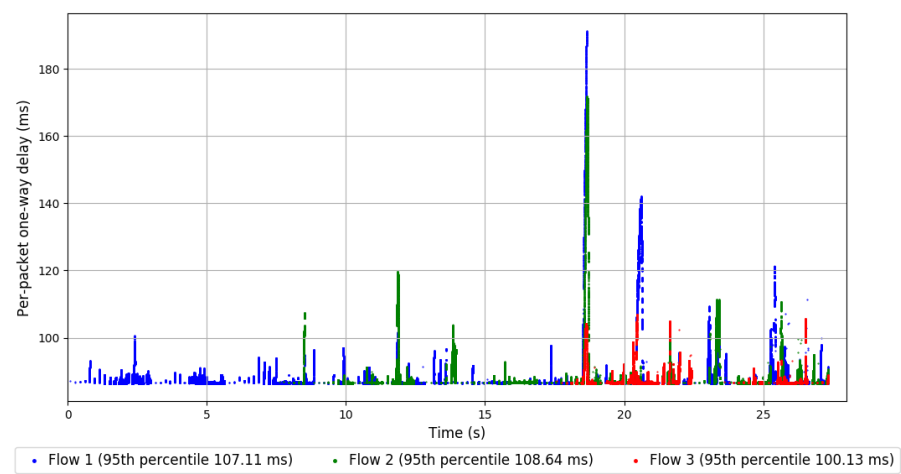
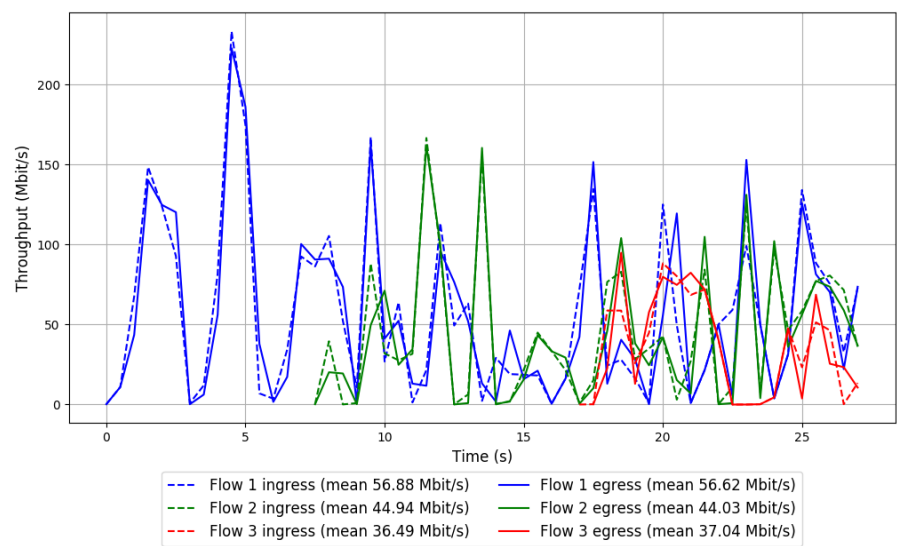
Average throughput: 37.04 Mbit/s

95th percentile per-packet one-way delay: 100.133 ms

Loss rate: 0.39%



Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-12 02:12:35

End at: 2017-08-12 02:13:05

# Below is generated by plot.py at 2017-08-12 06:23:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 135.98 Mbit/s

95th percentile per-packet one-way delay: 106.323 ms

Loss rate: 2.44%

-- Flow 1:

Average throughput: 96.68 Mbit/s

95th percentile per-packet one-way delay: 108.195 ms

Loss rate: 2.68%

-- Flow 2:

Average throughput: 47.89 Mbit/s

95th percentile per-packet one-way delay: 102.768 ms

Loss rate: 1.76%

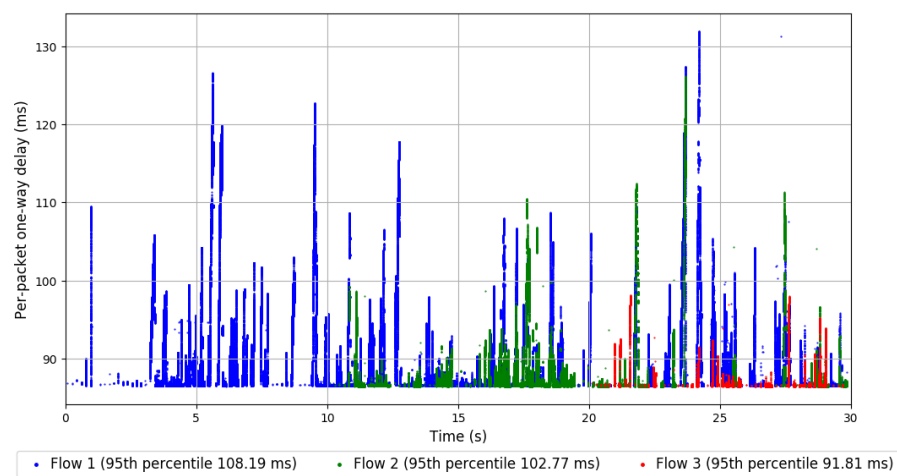
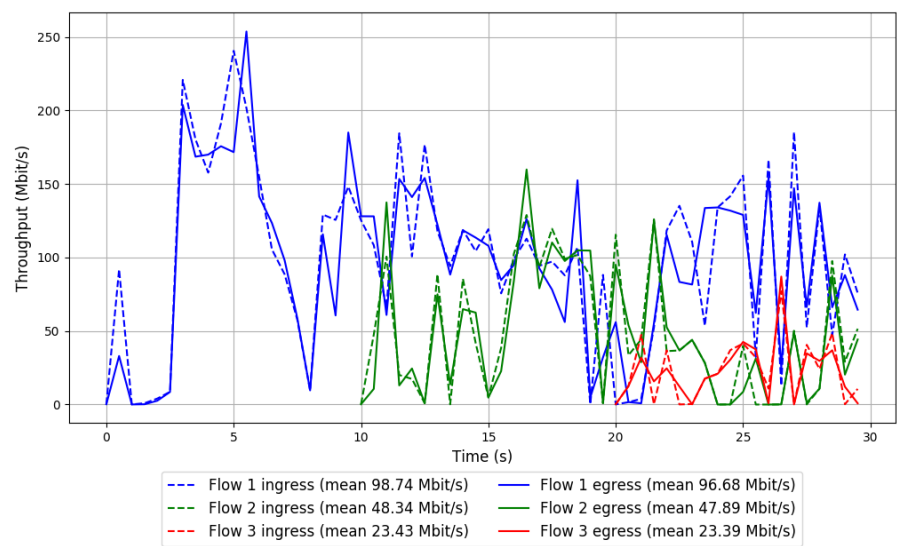
-- Flow 3:

Average throughput: 23.39 Mbit/s

95th percentile per-packet one-way delay: 91.813 ms

Loss rate: 2.16%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-12 02:26:45

End at: 2017-08-12 02:27:15

# Below is generated by plot.py at 2017-08-12 06:23:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.95 Mbit/s

95th percentile per-packet one-way delay: 97.869 ms

Loss rate: 1.75%

-- Flow 1:

Average throughput: 53.29 Mbit/s

95th percentile per-packet one-way delay: 101.729 ms

Loss rate: 1.53%

-- Flow 2:

Average throughput: 53.79 Mbit/s

95th percentile per-packet one-way delay: 94.584 ms

Loss rate: 1.83%

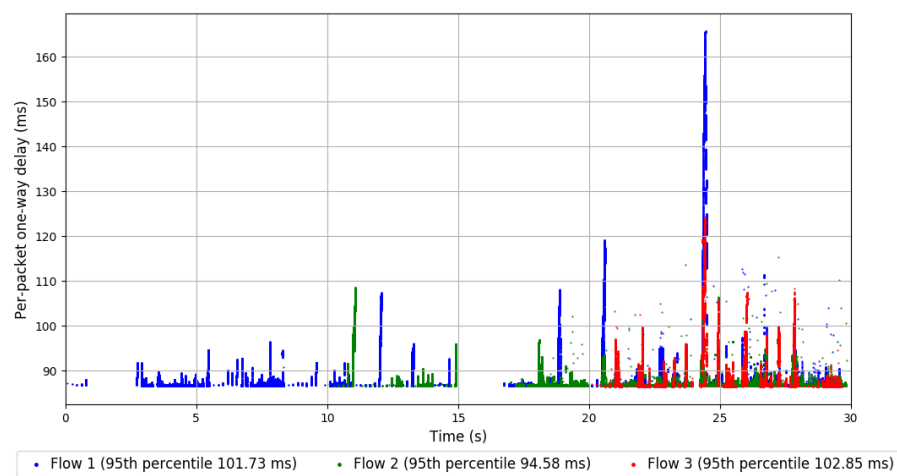
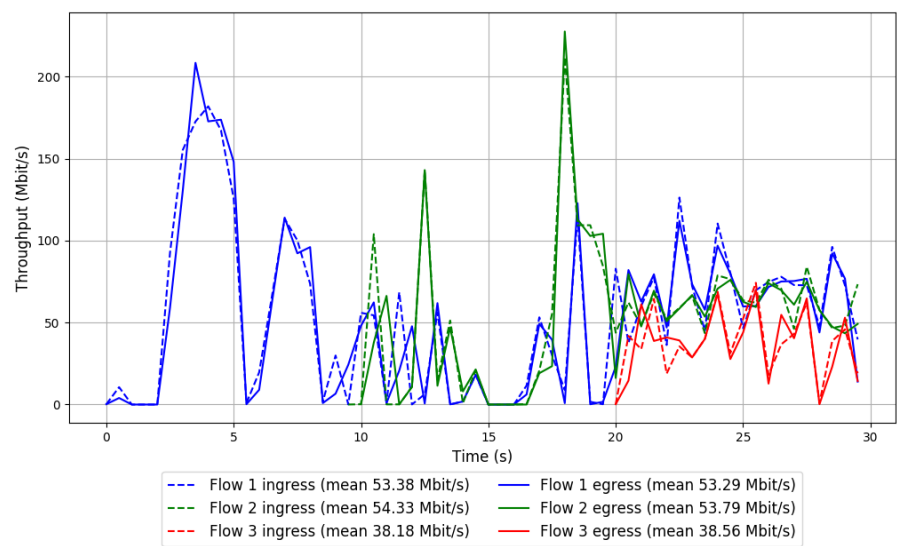
-- Flow 3:

Average throughput: 38.56 Mbit/s

95th percentile per-packet one-way delay: 102.852 ms

Loss rate: 2.50%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-12 02:40:28

End at: 2017-08-12 02:40:58

# Below is generated by plot.py at 2017-08-12 06:23:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 137.97 Mbit/s

95th percentile per-packet one-way delay: 111.783 ms

Loss rate: 3.82%

-- Flow 1:

Average throughput: 84.50 Mbit/s

95th percentile per-packet one-way delay: 99.331 ms

Loss rate: 4.37%

-- Flow 2:

Average throughput: 69.65 Mbit/s

95th percentile per-packet one-way delay: 124.458 ms

Loss rate: 2.59%

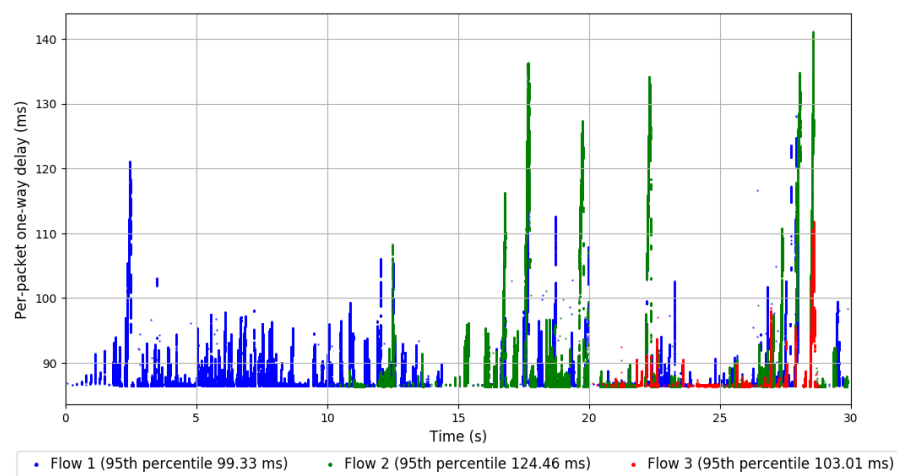
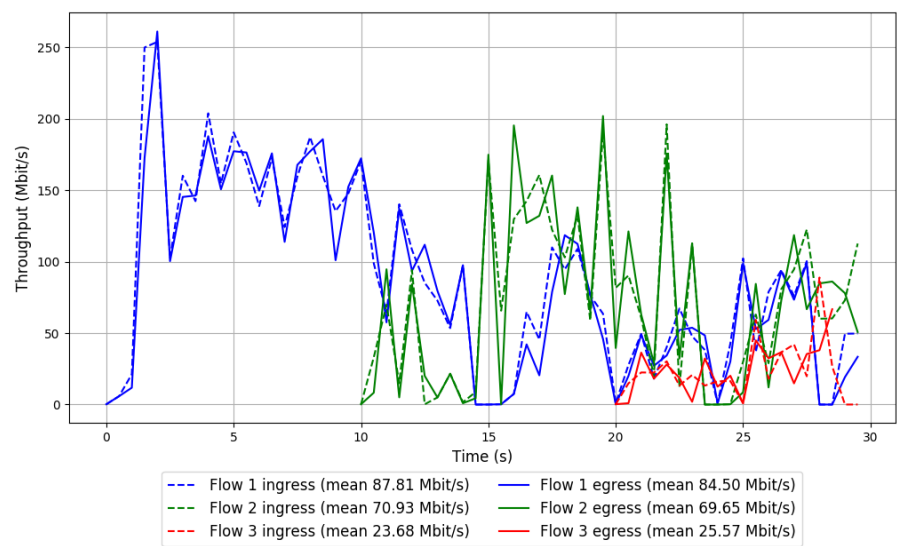
-- Flow 3:

Average throughput: 25.57 Mbit/s

95th percentile per-packet one-way delay: 103.008 ms

Loss rate: 5.09%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-12 02:54:53

End at: 2017-08-12 02:55:23

# Below is generated by plot.py at 2017-08-12 06:23:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.34 Mbit/s

95th percentile per-packet one-way delay: 102.942 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 41.51 Mbit/s

95th percentile per-packet one-way delay: 92.395 ms

Loss rate: 2.84%

-- Flow 2:

Average throughput: 49.55 Mbit/s

95th percentile per-packet one-way delay: 117.876 ms

Loss rate: 0.45%

-- Flow 3:

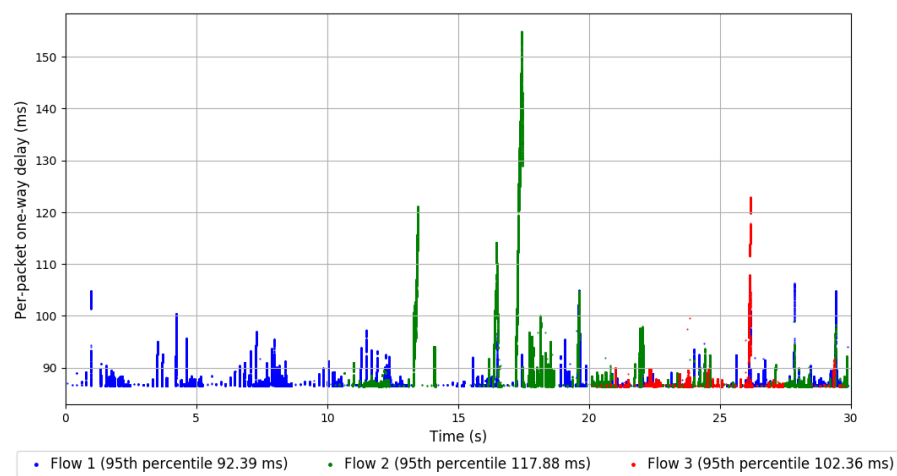
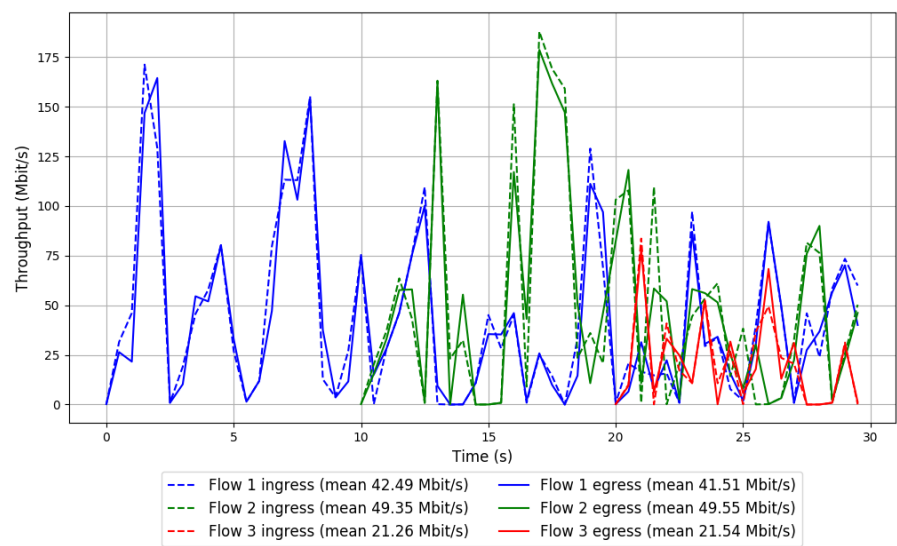
Average throughput: 21.54 Mbit/s

95th percentile per-packet one-way delay: 102.355 ms

Loss rate: 0.01%



Run 10: Report of Verus — Data Link



Run 1: Statistics of WebRTC media

Start at: 2017-08-12 00:45:24

End at: 2017-08-12 00:45:54

# Below is generated by plot.py at 2017-08-12 06:23:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 87.056 ms

Loss rate: 2.99%

-- Flow 1:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 86.944 ms

Loss rate: 1.65%

-- Flow 2:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 87.105 ms

Loss rate: 2.67%

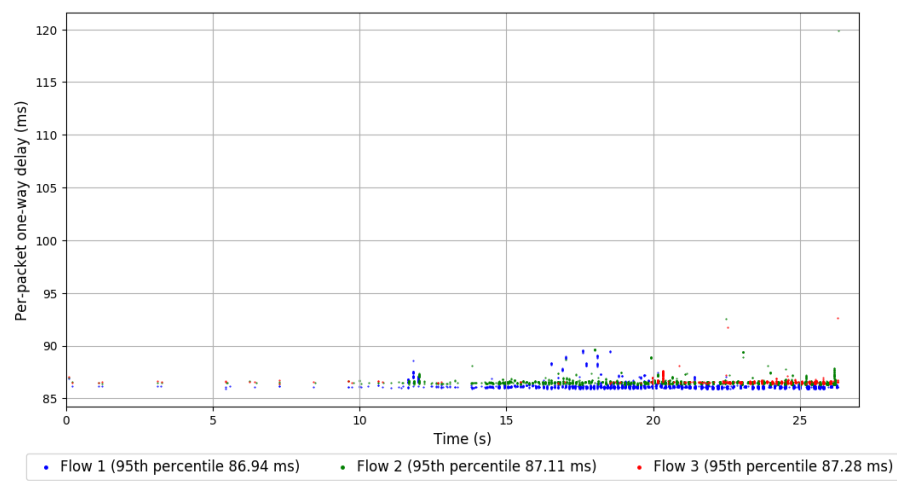
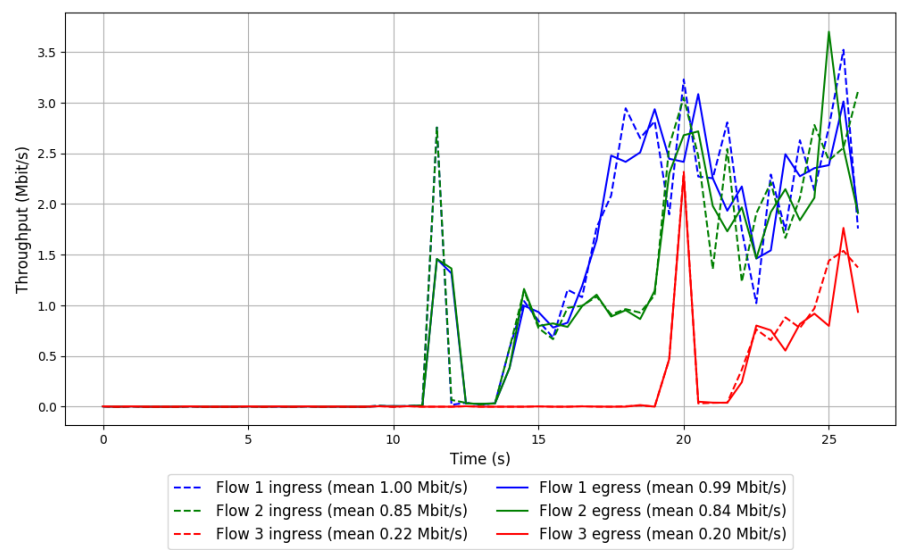
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 87.275 ms

Loss rate: 10.20%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-12 00:58:23

End at: 2017-08-12 00:58:53

# Below is generated by plot.py at 2017-08-12 06:23:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 86.787 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 87.010 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 86.728 ms

Loss rate: 1.10%

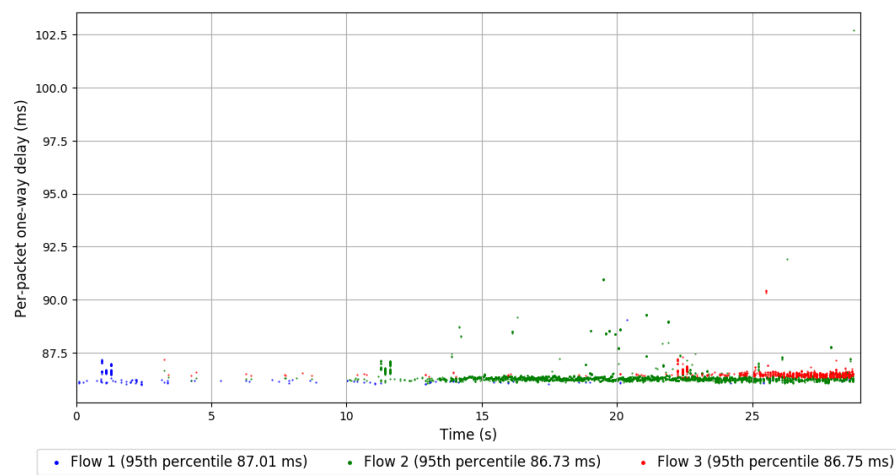
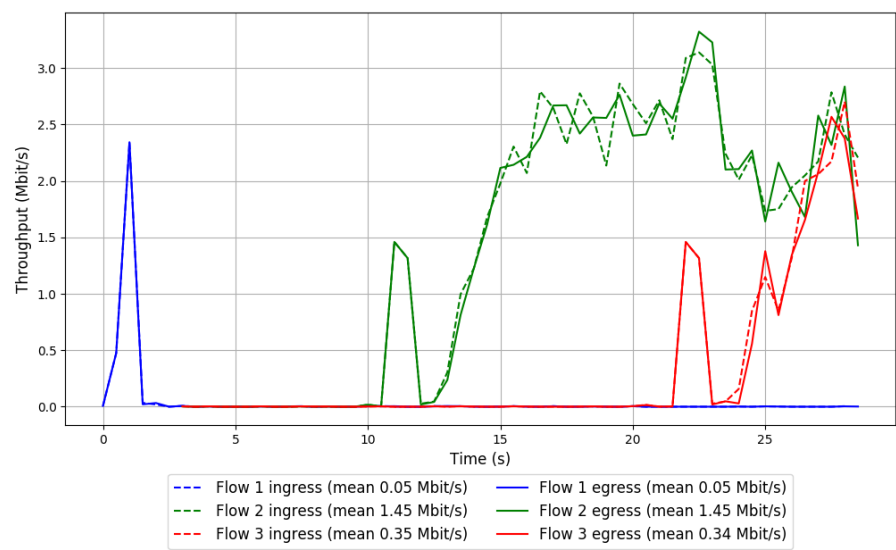
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 86.747 ms

Loss rate: 4.06%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-12 01:12:18

End at: 2017-08-12 01:12:48

# Below is generated by plot.py at 2017-08-12 06:23:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 87.181 ms

Loss rate: 2.78%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 87.096 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.26 Mbit/s

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

Loss rate: 1.97%

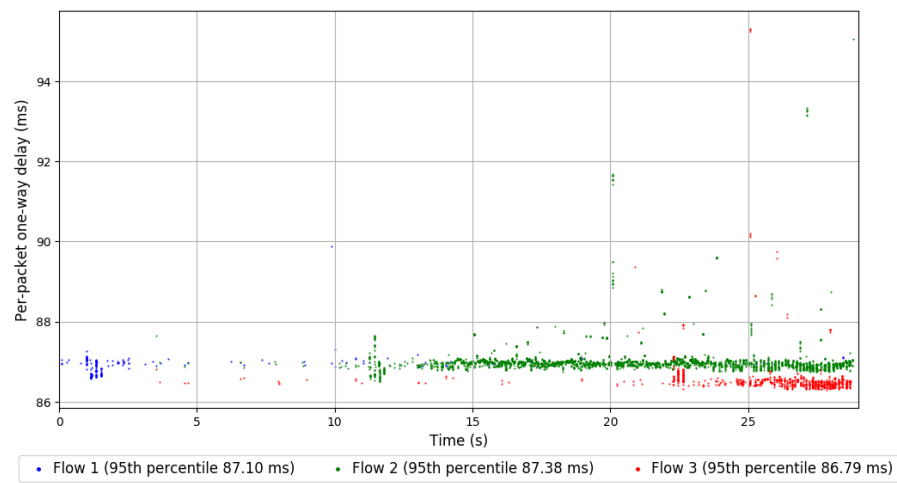
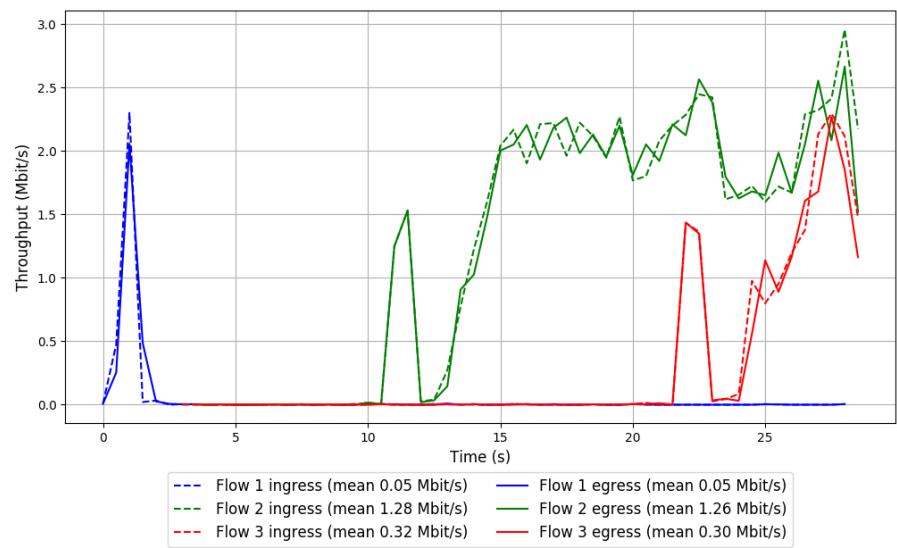
-- Flow 3:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 86.792 ms

Loss rate: 6.47%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-12 01:26:20

End at: 2017-08-12 01:26:50

# Below is generated by plot.py at 2017-08-12 06:23:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.12 Mbit/s

95th percentile per-packet one-way delay: 87.021 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 87.076 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 86.741 ms

Loss rate: 1.42%

-- Flow 3:

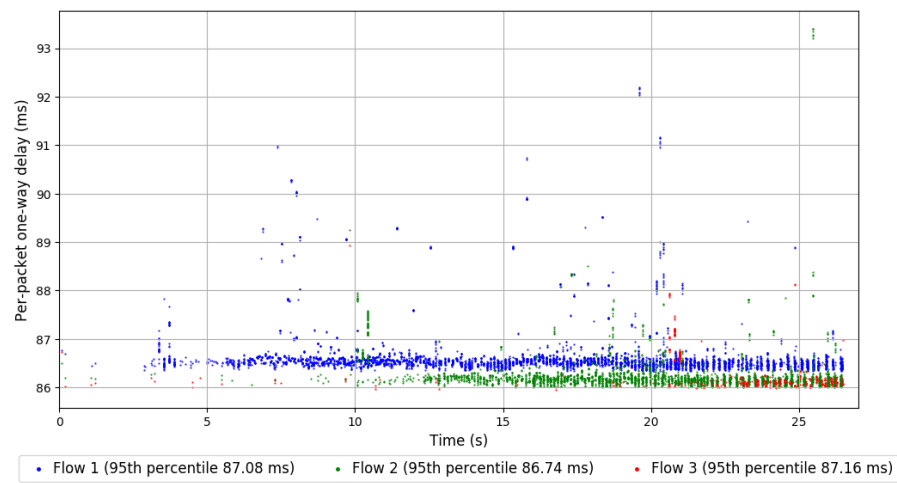
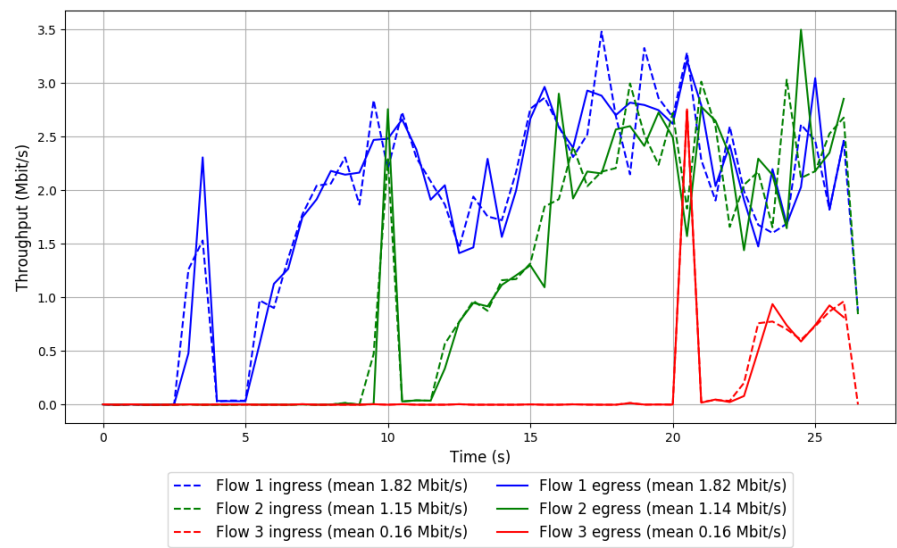
Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 87.164 ms

Loss rate: 3.39%



Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-12 01:40:37

End at: 2017-08-12 01:41:07

# Below is generated by plot.py at 2017-08-12 06:23:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 87.763 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 87.002 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 87.717 ms

Loss rate: 0.95%

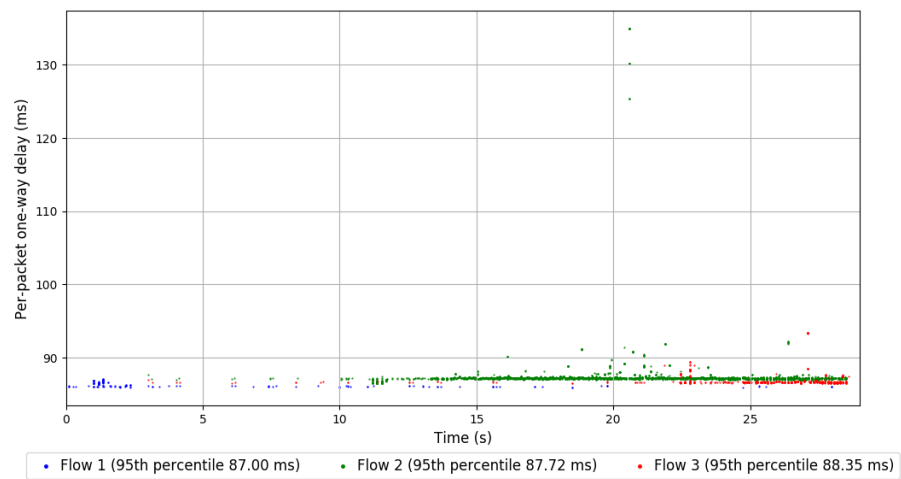
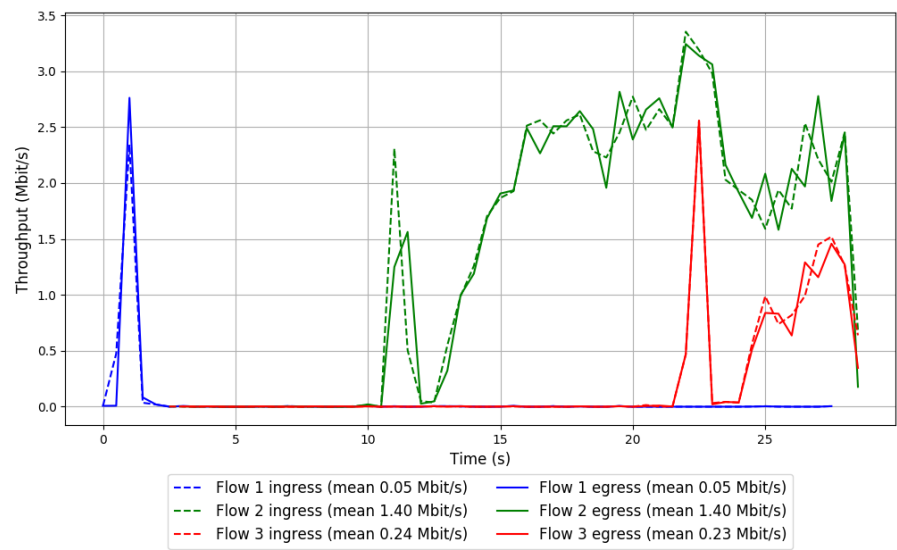
-- Flow 3:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 88.353 ms

Loss rate: 5.23%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-12 01:53:35

End at: 2017-08-12 01:54:05

# Below is generated by plot.py at 2017-08-12 06:23:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 87.348 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 87.602 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 87.376 ms

Loss rate: 1.03%

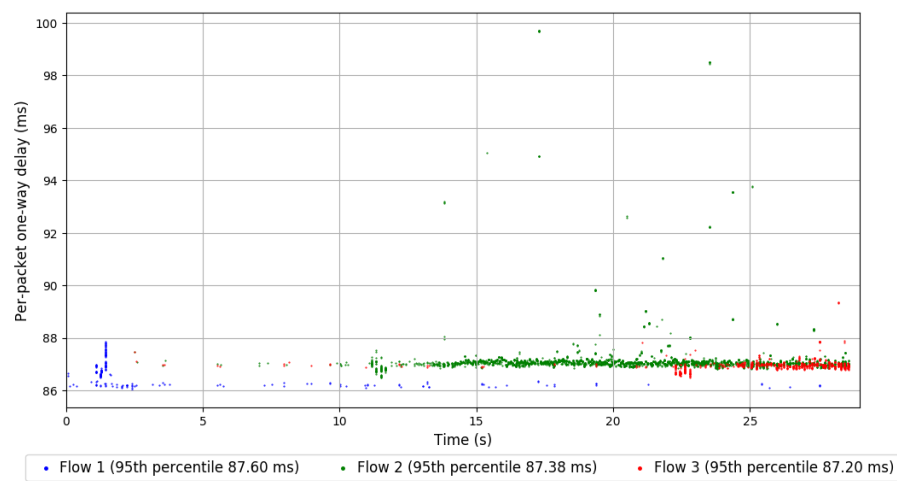
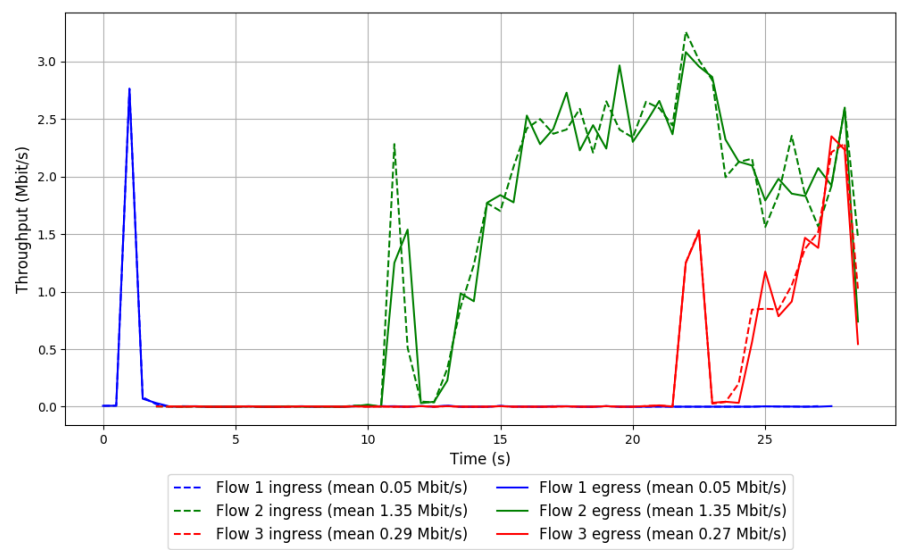
-- Flow 3:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 87.197 ms

Loss rate: 5.07%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-12 02:07:18

End at: 2017-08-12 02:07:48

# Below is generated by plot.py at 2017-08-12 06:23:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.55 Mbit/s

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

Loss rate: 1.86%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 88.650 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 86.773 ms

Loss rate: 1.53%

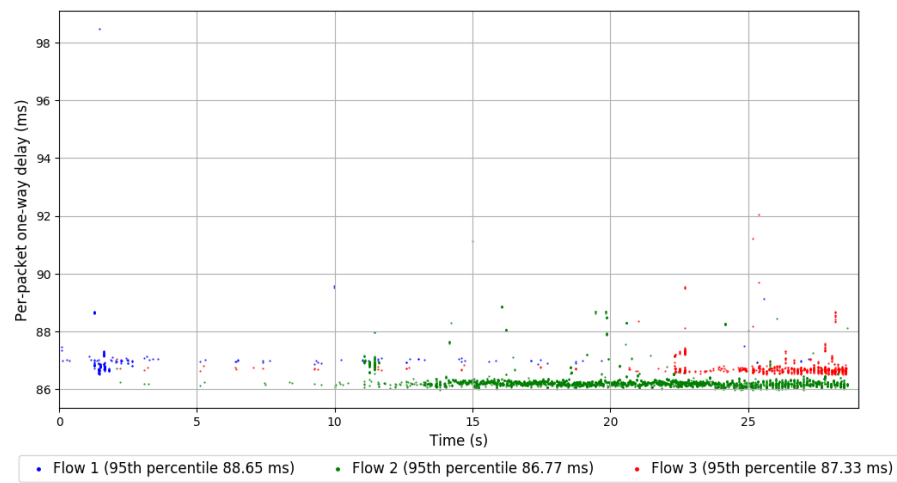
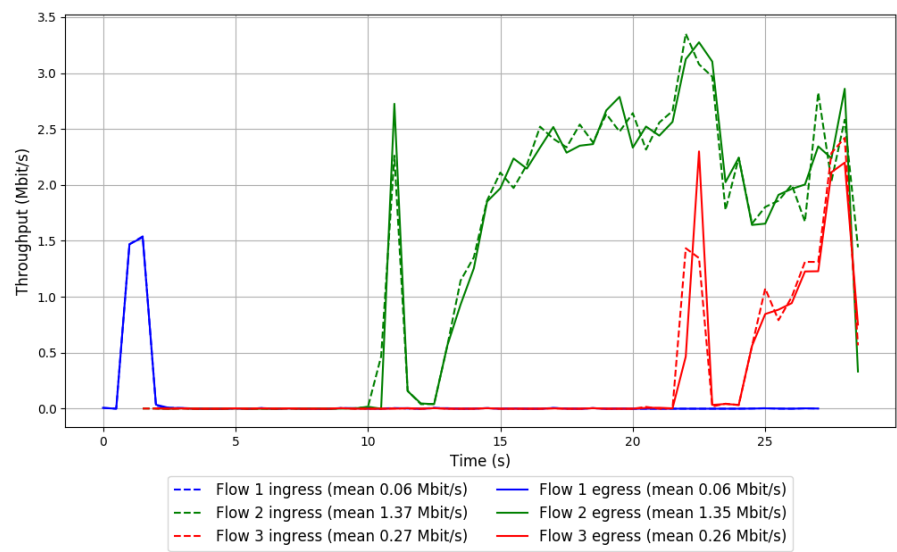
-- Flow 3:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 87.328 ms

Loss rate: 3.97%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-12 02:21:34

End at: 2017-08-12 02:22:04

# Below is generated by plot.py at 2017-08-12 06:23:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.42 Mbit/s

95th percentile per-packet one-way delay: 87.183 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 86.938 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 87.424 ms

Loss rate: 0.01%

-- Flow 3:

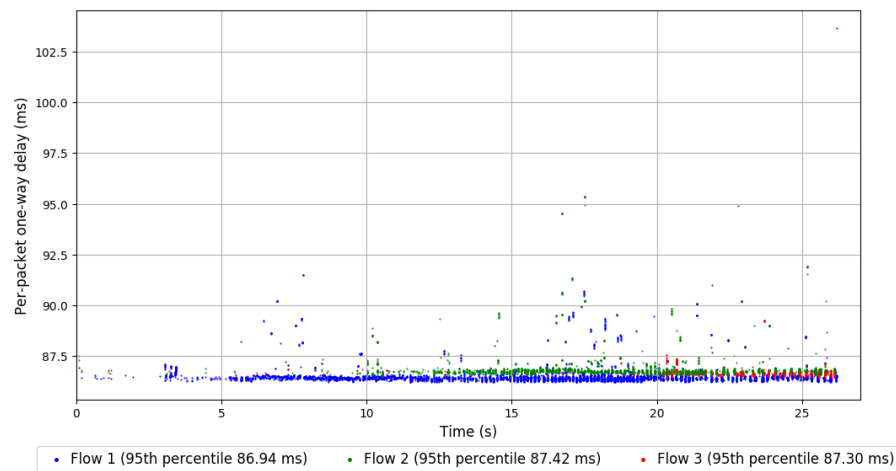
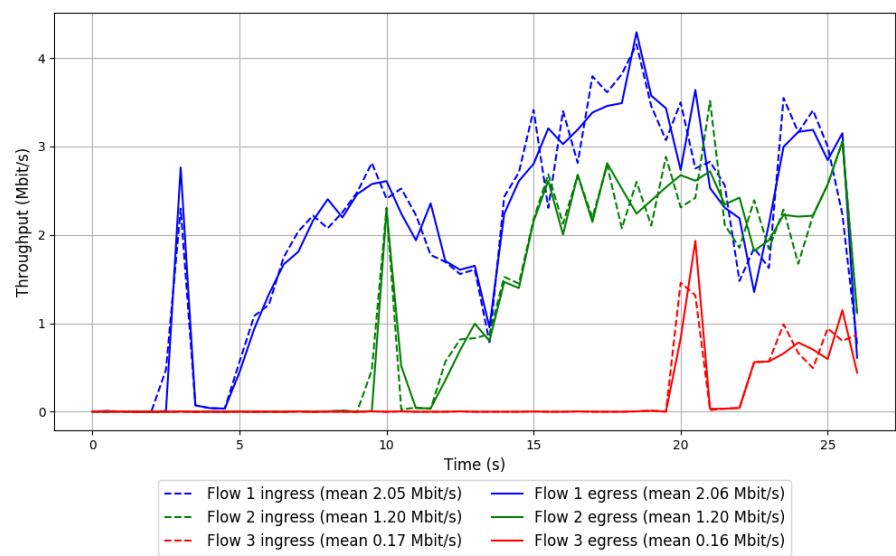
Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 87.299 ms

Loss rate: 4.86%



Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-12 02:34:58

End at: 2017-08-12 02:35:28

# Below is generated by plot.py at 2017-08-12 06:23:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 86.967 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 0.05 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 86.965 ms

Loss rate: 0.96%

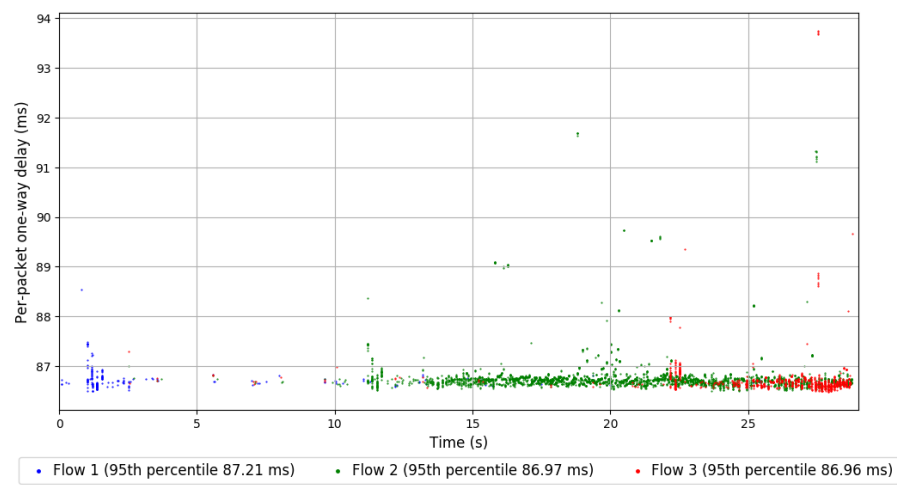
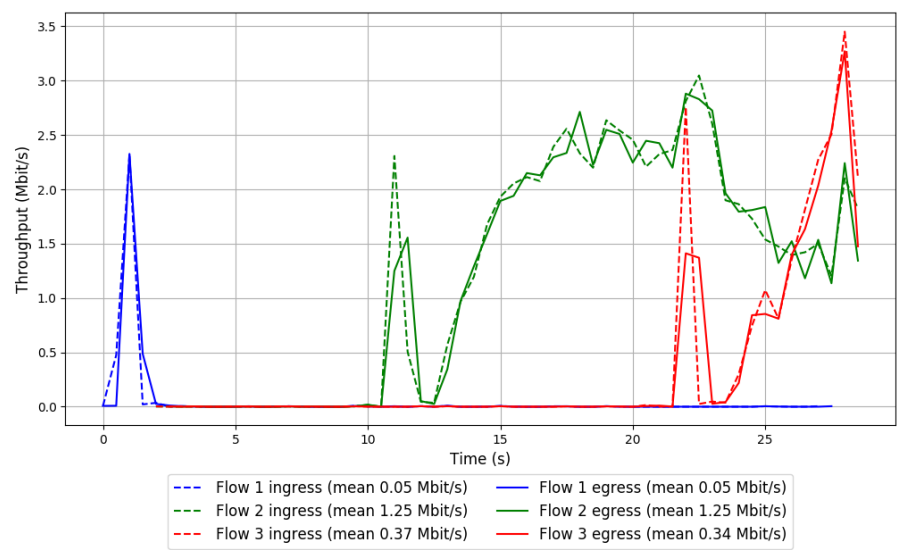
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 86.957 ms

Loss rate: 7.09%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-12 02:49:29

End at: 2017-08-12 02:49:59

# Below is generated by plot.py at 2017-08-12 06:24:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 86.904 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 87.001 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 86.878 ms

Loss rate: 1.34%

-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 86.789 ms

Loss rate: 3.41%

Run 10: Report of WebRTC media — Data Link

