

Pantheon Report

Generated at 2017-08-12 18:08:28 (UTC).

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

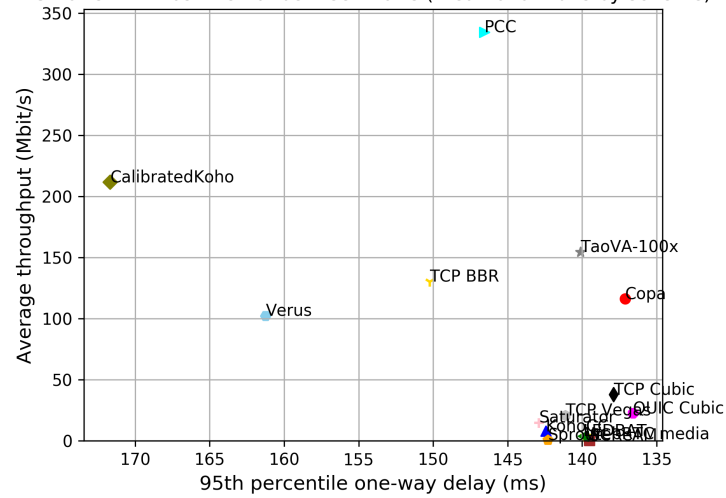
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

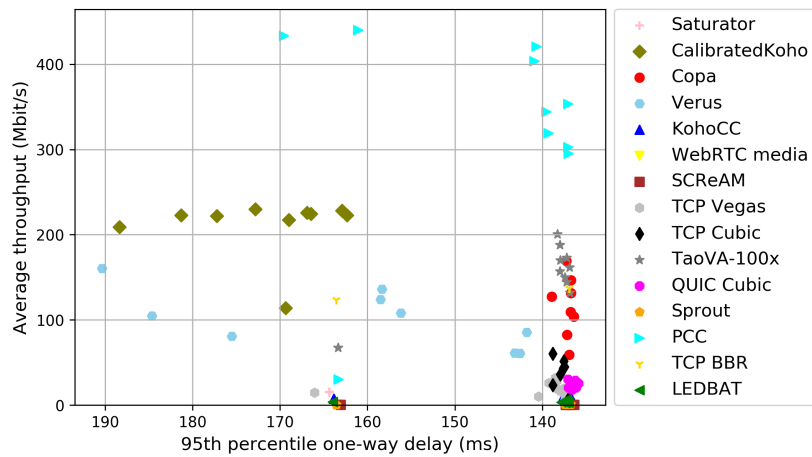
Git summary:

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



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



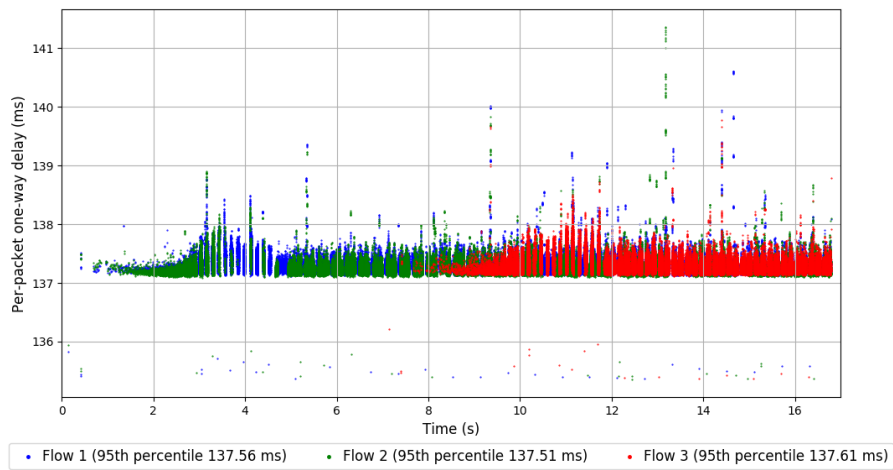
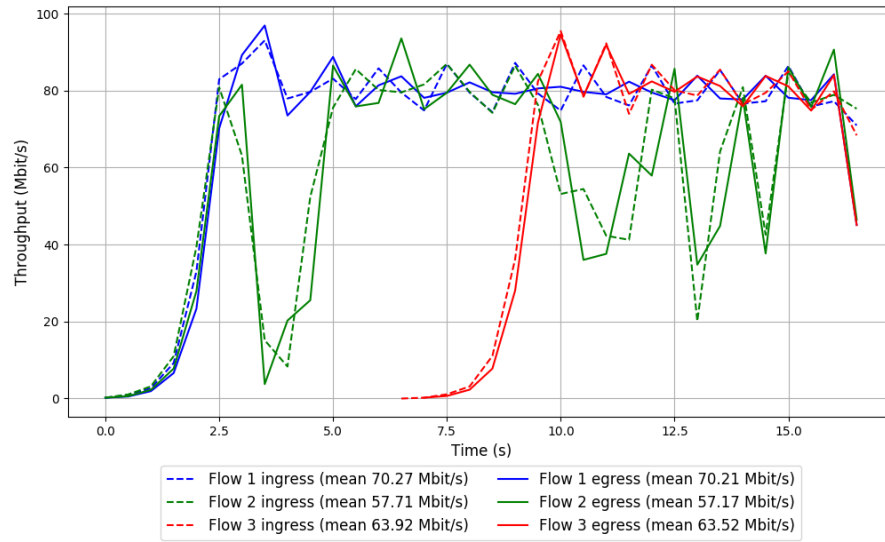
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	2	67.53	65.19	59.69	150.21	150.26	150.06	1.04	1.56	3.80
CalibratedKoho	10	161.84	70.28	9.79	170.71	165.08	144.76	6.34	5.51	10.73
Copa	8	77.35	45.67	26.54	136.71	137.49	137.33	0.61	1.09	2.51
TCP Cubic	7	15.70	24.15	19.04	137.21	137.90	138.41	2.43	2.91	4.44
KohoCC	10	4.12	4.02	3.78	142.38	142.45	142.40	1.59	2.20	3.45
LEDBAT	10	2.20	1.97	1.24	139.94	139.94	139.75	1.88	2.52	5.68
PCC	10	239.23	103.91	82.65	147.58	143.14	154.68	7.82	3.26	4.95
QUIC Cubic	10	3.79	21.51	14.18	136.69	136.27	136.37	0.13	0.27	4.95
Saturator	10	8.21	7.45	6.74	142.81	143.03	142.97	2.31	7.34	13.42
SCReAM	10	0.22	0.22	0.22	136.09	139.00	136.48	0.84	1.28	2.63
Sprout	10	0.40	0.39	0.43	142.26	142.14	142.11	0.84	0.85	1.92
TaoVA-100x	10	147.63	81.24	55.89	139.70	140.02	141.18	0.33	1.16	3.76
TCP Vegas	10	12.99	5.33	13.35	140.32	140.32	141.79	1.70	2.37	3.93
Verus	9	66.18	37.97	33.24	165.98	149.81	147.60	12.28	12.93	13.90
WebRTC media	10	0.19	1.23	0.20	139.83	136.97	140.12	0.13	1.81	9.53

Run 1: Statistics of TCP BBR

Start at: 2017-08-12 12:38:53

End at: 2017-08-12 12:39:23

Run 1: Report of TCP BBR — Data Link

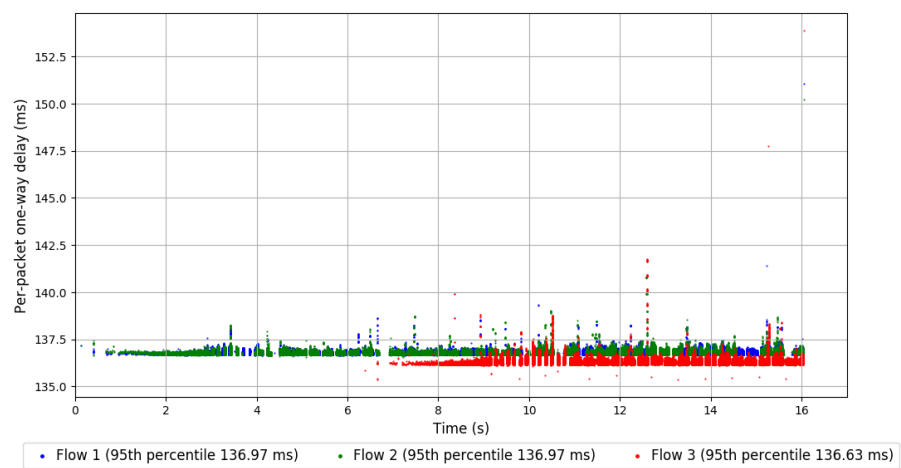
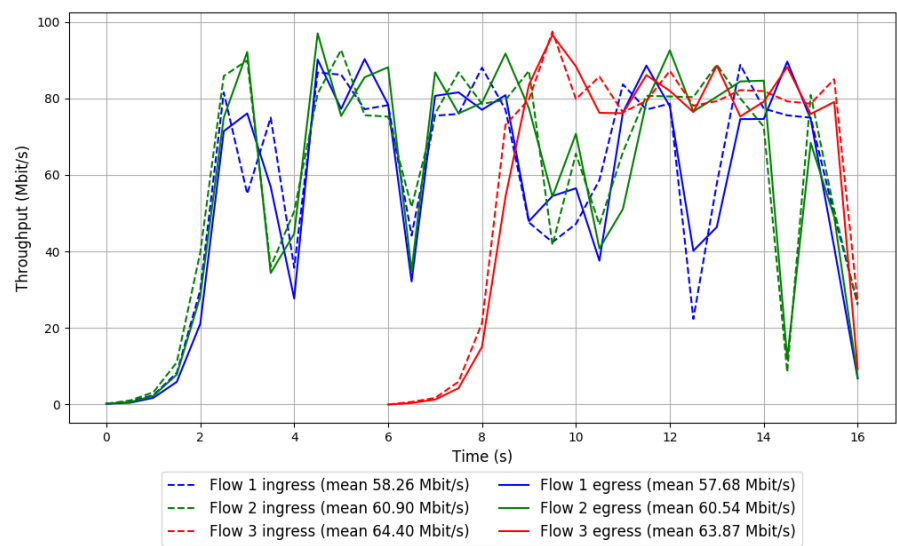


Run 2: Statistics of TCP BBR

Start at: 2017-08-12 12:52:58

End at: 2017-08-12 12:53:28

Run 2: Report of TCP BBR — Data Link

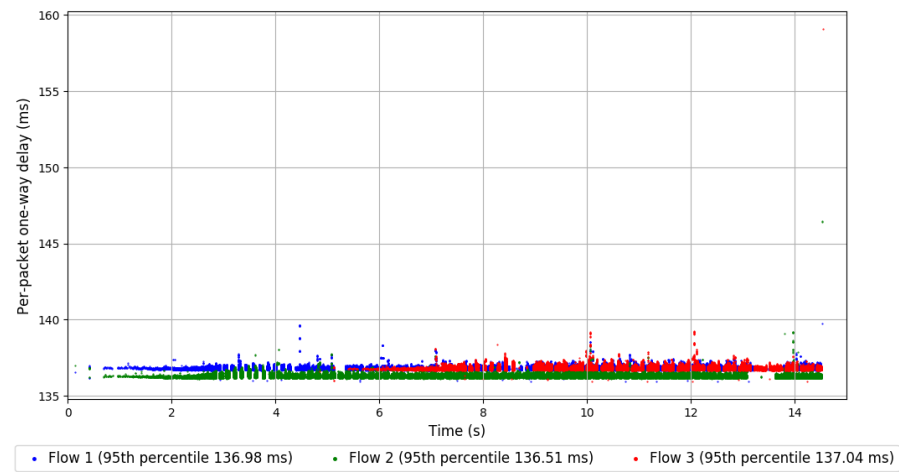
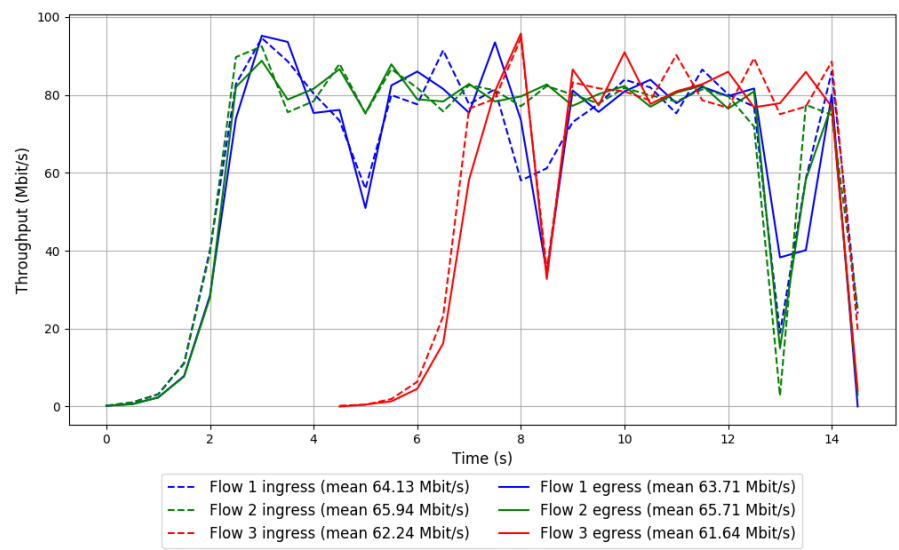


Run 3: Statistics of TCP BBR

Start at: 2017-08-12 13:06:48

End at: 2017-08-12 13:07:18

Run 3: Report of TCP BBR — Data Link

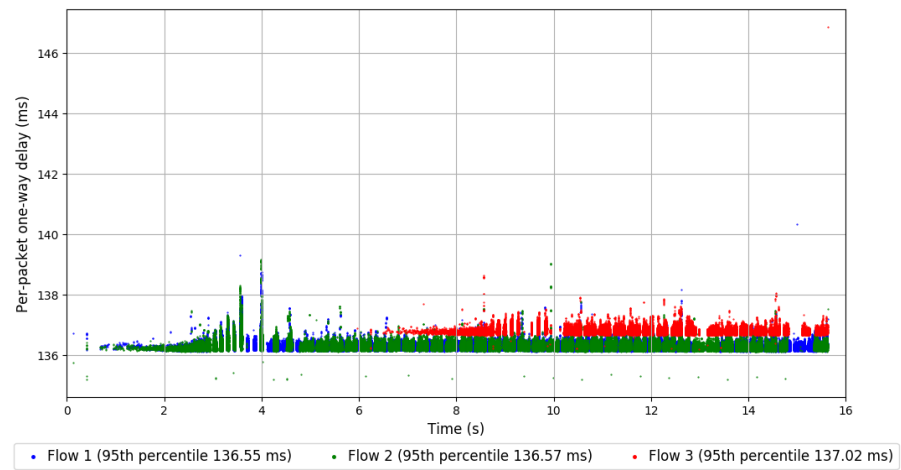
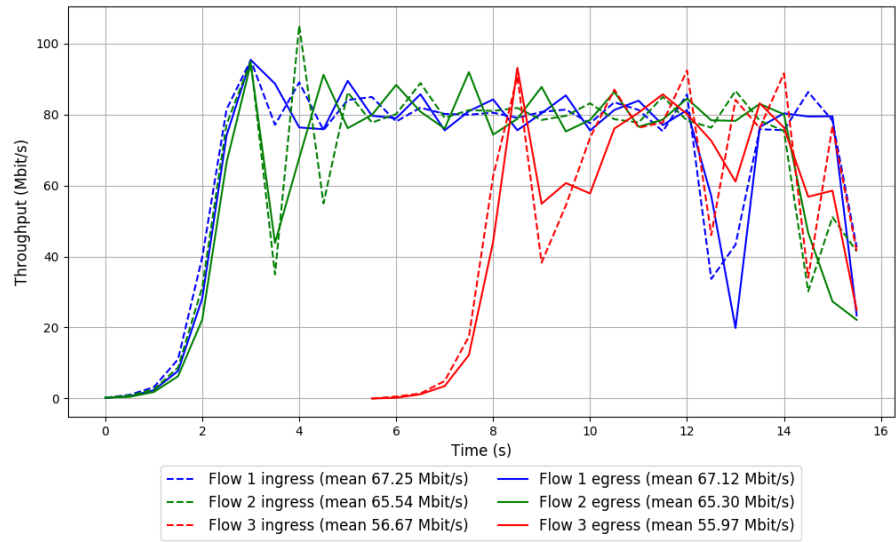


Run 4: Statistics of TCP BBR

Start at: 2017-08-12 13:20:39

End at: 2017-08-12 13:21:09

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-12 13:35:08

End at: 2017-08-12 13:35:38

Below is generated by plot.py at 2017-08-12 17:46:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.77 Mbit/s

95th percentile per-packet one-way delay: 136.917 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 71.00 Mbit/s

95th percentile per-packet one-way delay: 136.916 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 68.26 Mbit/s

95th percentile per-packet one-way delay: 136.944 ms

Loss rate: 1.42%

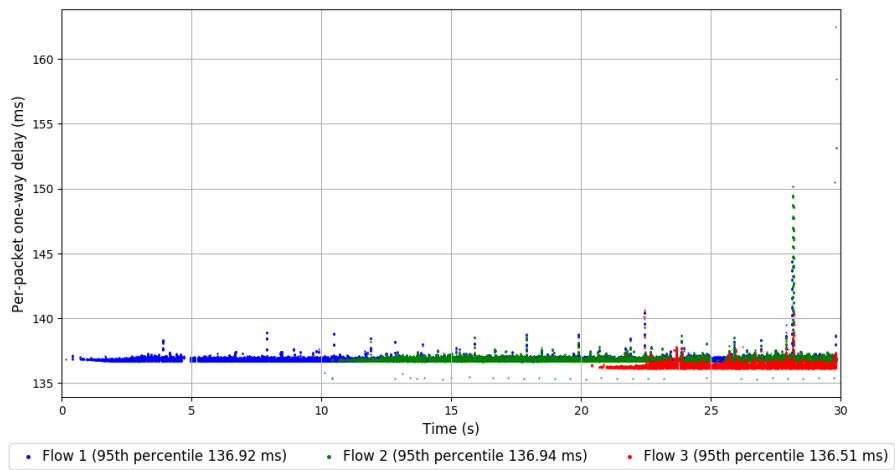
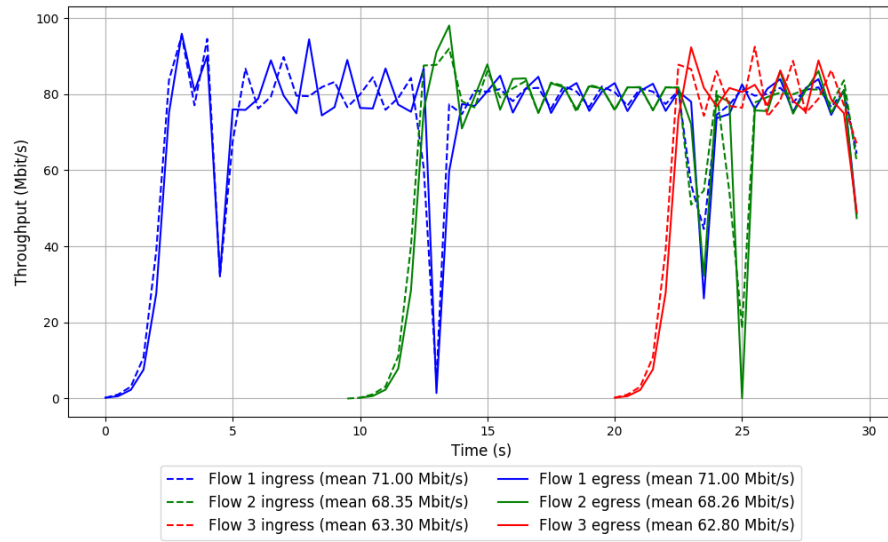
-- Flow 3:

Average throughput: 62.80 Mbit/s

95th percentile per-packet one-way delay: 136.506 ms

Loss rate: 3.50%

Run 5: Report of TCP BBR — Data Link

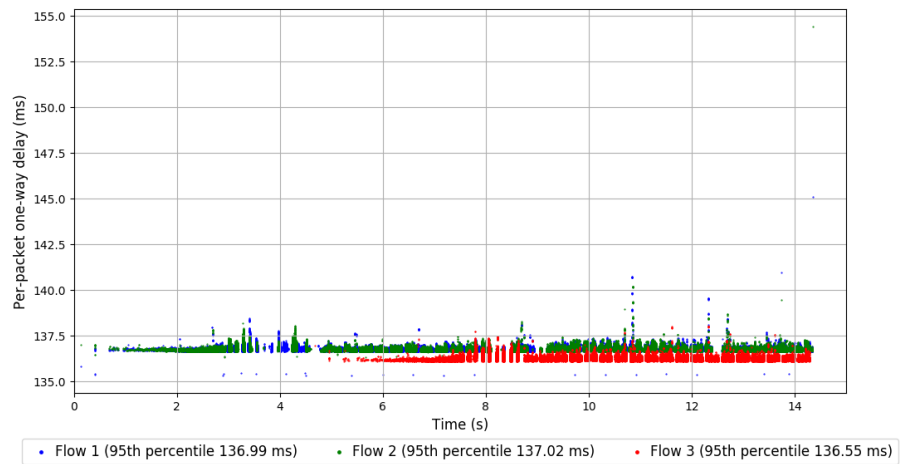
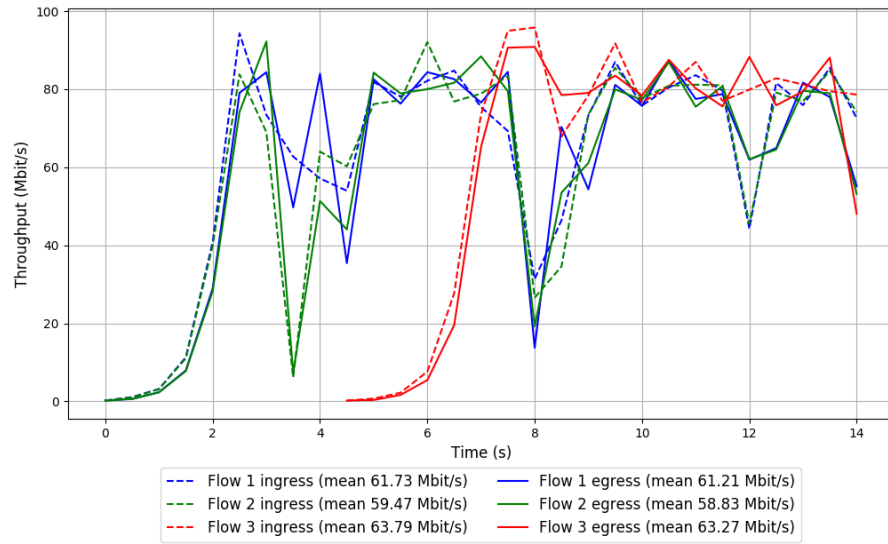


Run 6: Statistics of TCP BBR

Start at: 2017-08-12 13:49:00

End at: 2017-08-12 13:49:30

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-12 14:02:09

End at: 2017-08-12 14:02:39

Below is generated by plot.py at 2017-08-12 17:47:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.60 Mbit/s

95th percentile per-packet one-way delay: 163.552 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 64.07 Mbit/s

95th percentile per-packet one-way delay: 163.505 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 62.11 Mbit/s

95th percentile per-packet one-way delay: 163.584 ms

Loss rate: 1.71%

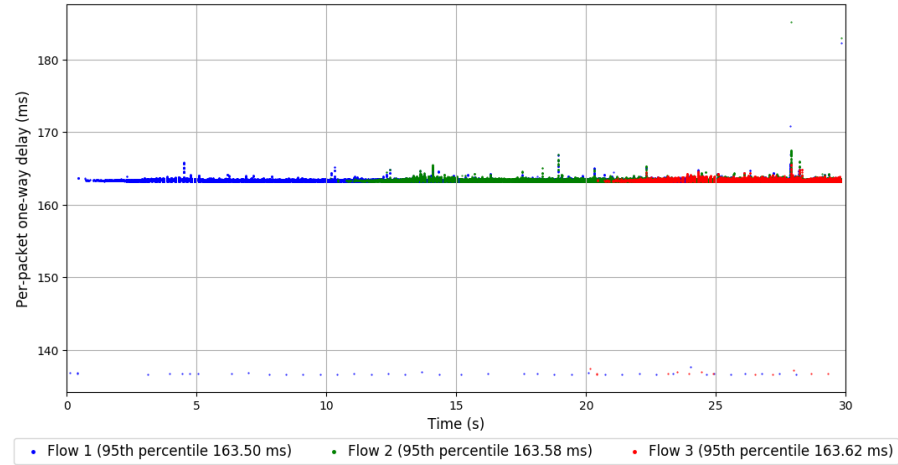
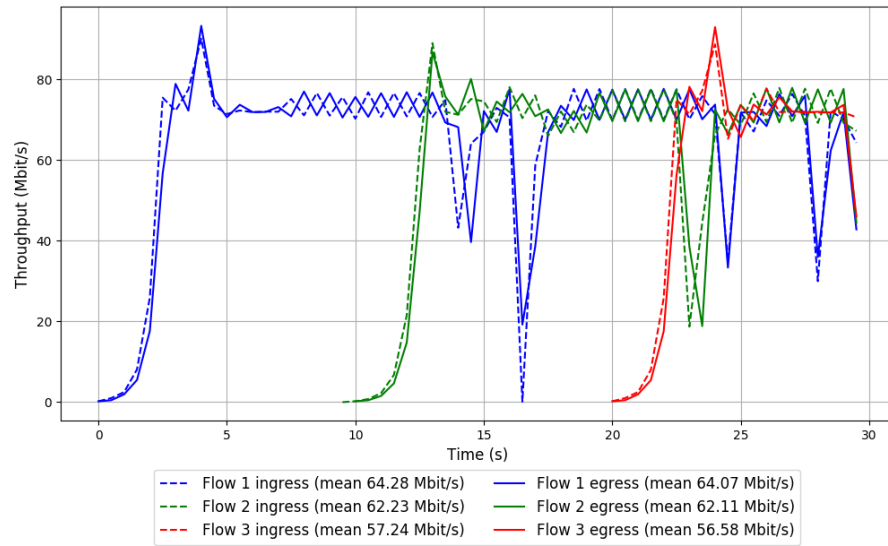
-- Flow 3:

Average throughput: 56.58 Mbit/s

95th percentile per-packet one-way delay: 163.617 ms

Loss rate: 4.10%

Run 7: Report of TCP BBR — Data Link

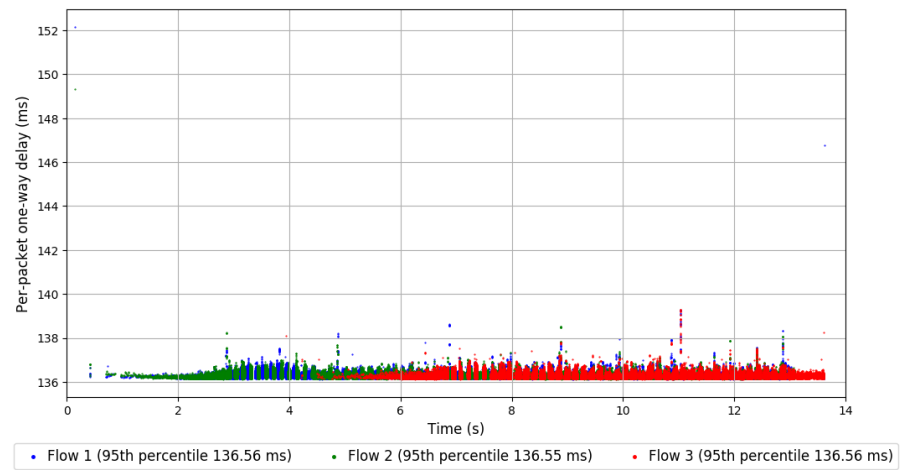
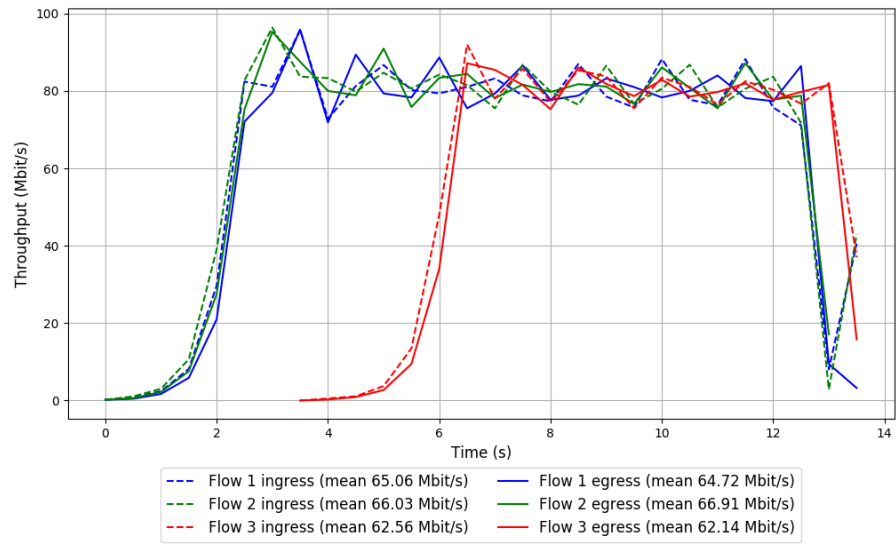


Run 8: Statistics of TCP BBR

Start at: 2017-08-12 14:15:53

End at: 2017-08-12 14:16:23

Run 8: Report of TCP BBR — Data Link

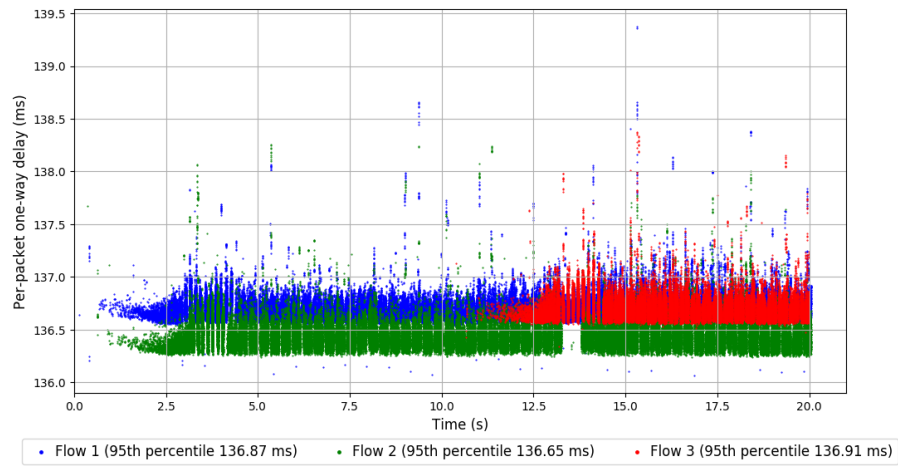
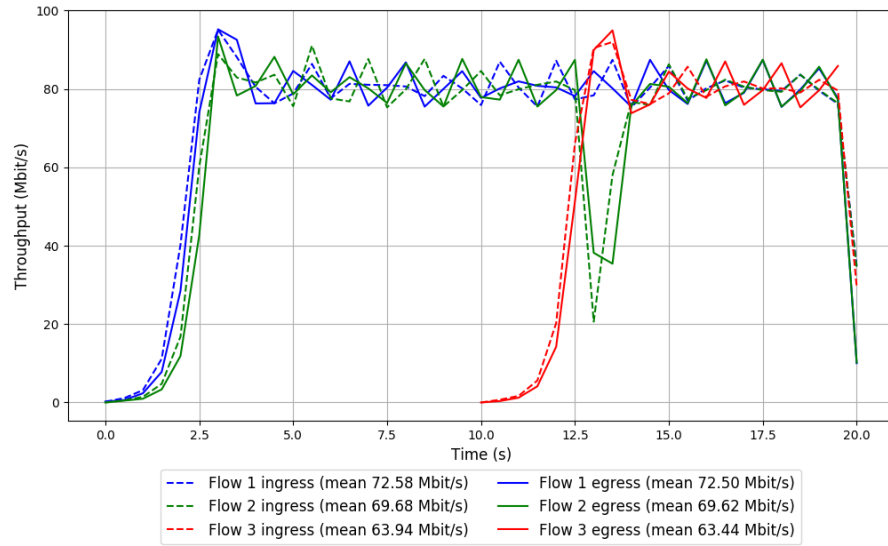


Run 9: Statistics of TCP BBR

Start at: 2017-08-12 14:29:49

End at: 2017-08-12 14:30:19

Run 9: Report of TCP BBR — Data Link

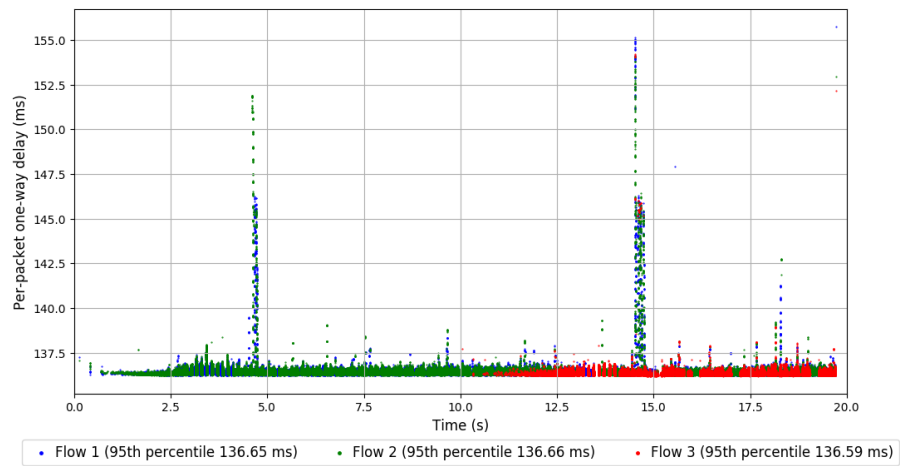
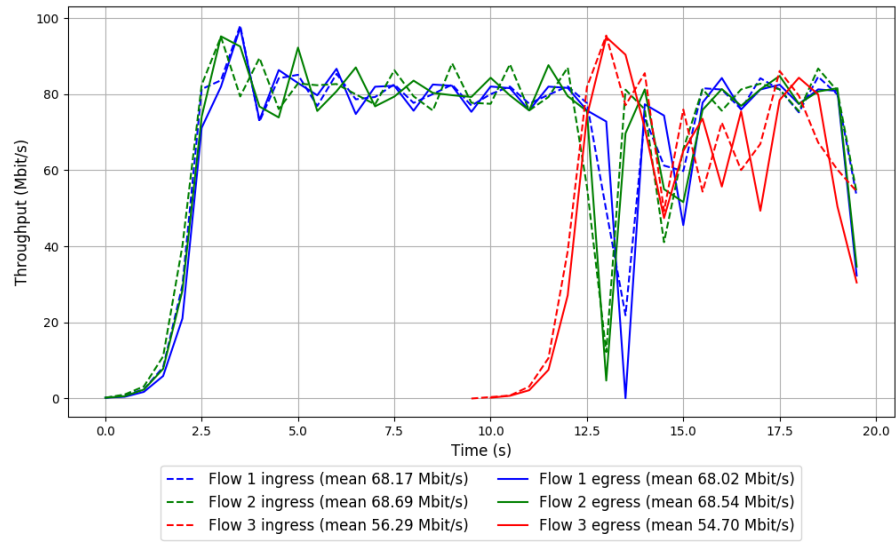


Run 10: Statistics of TCP BBR

Start at: 2017-08-12 14:43:52

End at: 2017-08-12 14:44:22

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-12 12:39:49

End at: 2017-08-12 12:40:19

Below is generated by plot.py at 2017-08-12 17:48:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 222.96 Mbit/s

95th percentile per-packet one-way delay: 181.335 ms

Loss rate: 2.51%

-- Flow 1:

Average throughput: 177.40 Mbit/s

95th percentile per-packet one-way delay: 183.741 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 64.31 Mbit/s

95th percentile per-packet one-way delay: 157.331 ms

Loss rate: 7.33%

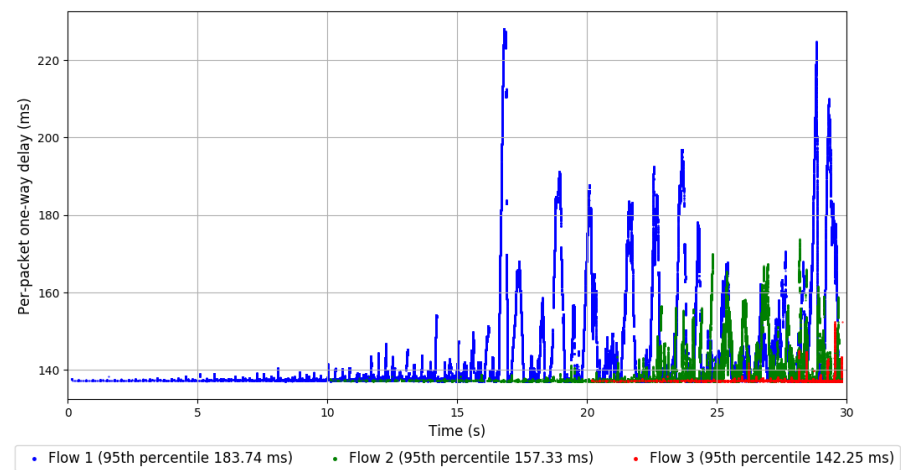
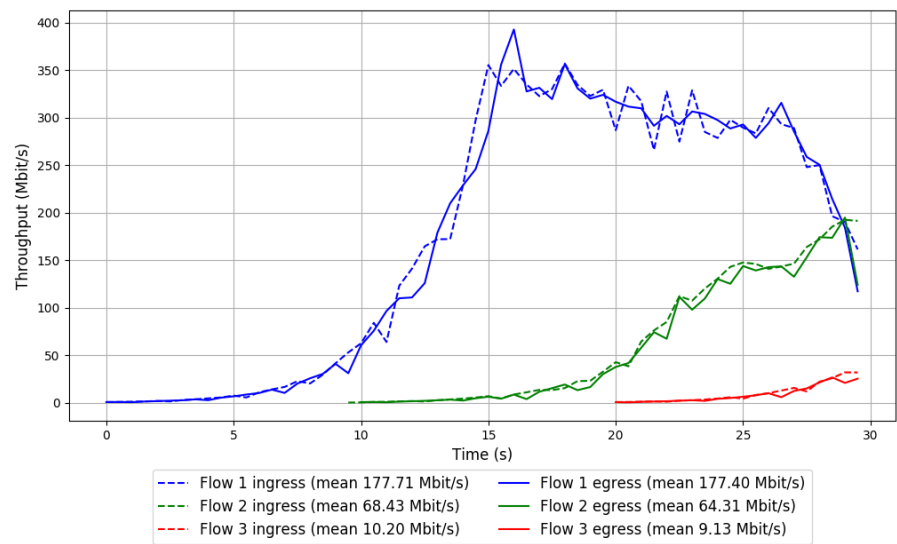
-- Flow 3:

Average throughput: 9.13 Mbit/s

95th percentile per-packet one-way delay: 142.245 ms

Loss rate: 12.85%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-12 12:53:54

End at: 2017-08-12 12:54:24

Below is generated by plot.py at 2017-08-12 17:48:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.77 Mbit/s

95th percentile per-packet one-way delay: 169.382 ms

Loss rate: 25.84%

-- Flow 1:

Average throughput: 35.81 Mbit/s

95th percentile per-packet one-way delay: 143.656 ms

Loss rate: 50.44%

-- Flow 2:

Average throughput: 112.37 Mbit/s

95th percentile per-packet one-way delay: 186.054 ms

Loss rate: 3.67%

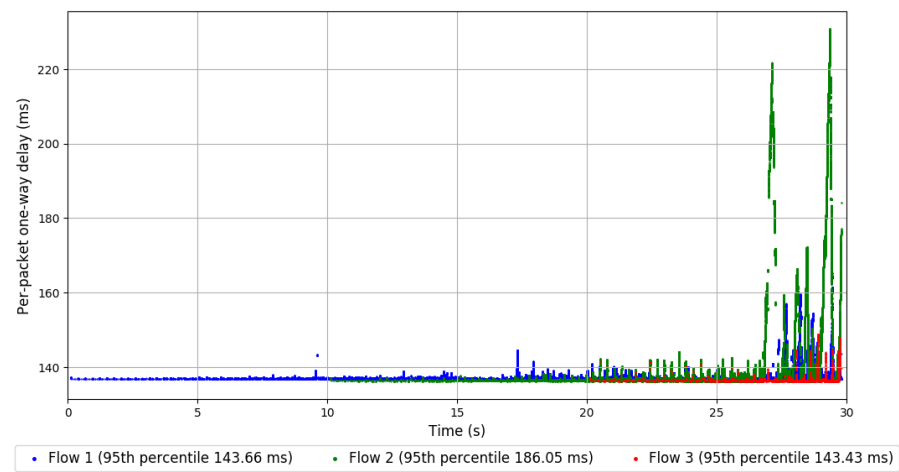
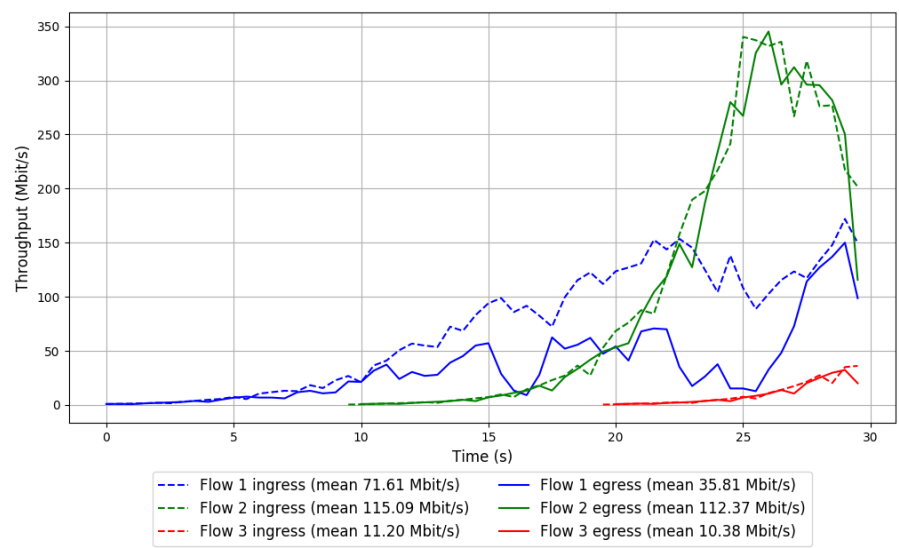
-- Flow 3:

Average throughput: 10.38 Mbit/s

95th percentile per-packet one-way delay: 143.432 ms

Loss rate: 9.51%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-12 13:07:43

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

Below is generated by plot.py at 2017-08-12 17:48:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 228.22 Mbit/s

95th percentile per-packet one-way delay: 162.912 ms

Loss rate: 2.12%

-- Flow 1:

Average throughput: 179.00 Mbit/s

95th percentile per-packet one-way delay: 163.302 ms

Loss rate: 1.49%

-- Flow 2:

Average throughput: 69.43 Mbit/s

95th percentile per-packet one-way delay: 162.438 ms

Loss rate: 3.94%

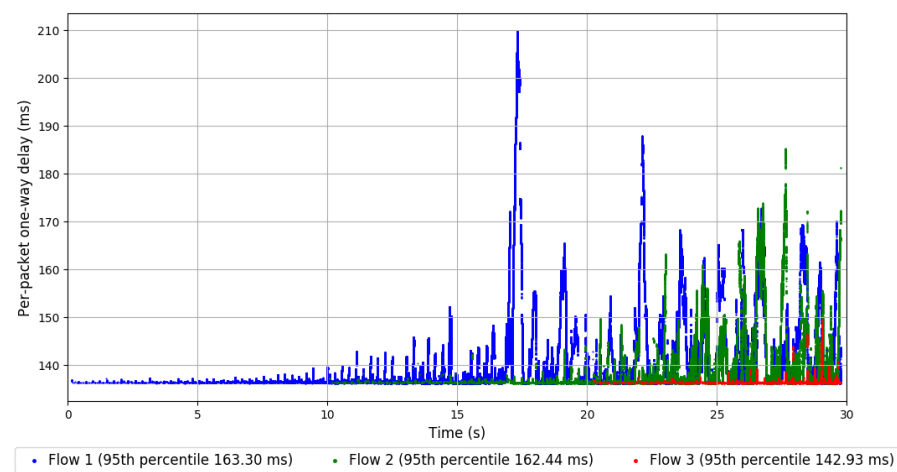
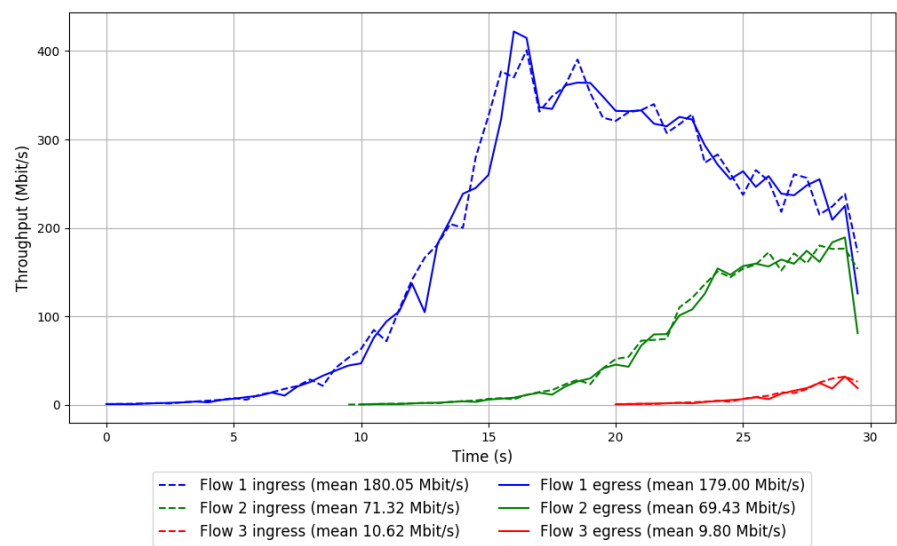
-- Flow 3:

Average throughput: 9.80 Mbit/s

95th percentile per-packet one-way delay: 142.933 ms

Loss rate: 10.28%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-12 13:21:34

End at: 2017-08-12 13:22:04

Below is generated by plot.py at 2017-08-12 17:48:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 222.15 Mbit/s

95th percentile per-packet one-way delay: 177.252 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 171.77 Mbit/s

95th percentile per-packet one-way delay: 179.374 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 70.69 Mbit/s

95th percentile per-packet one-way delay: 167.114 ms

Loss rate: 3.81%

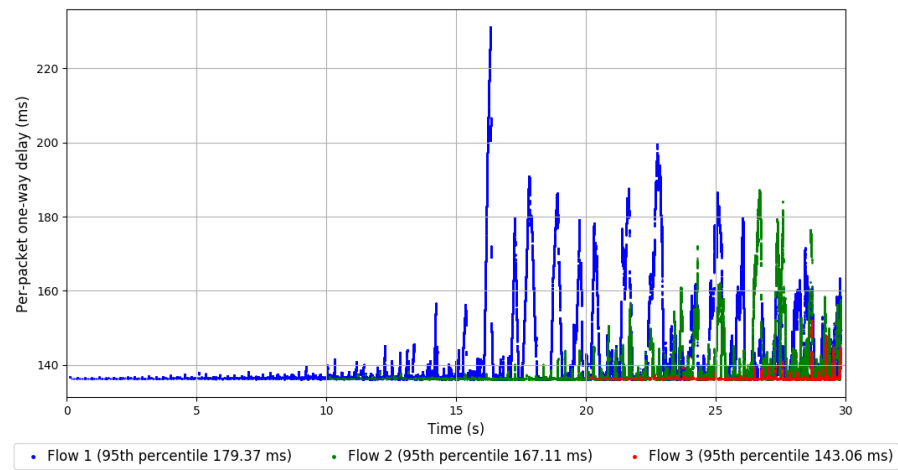
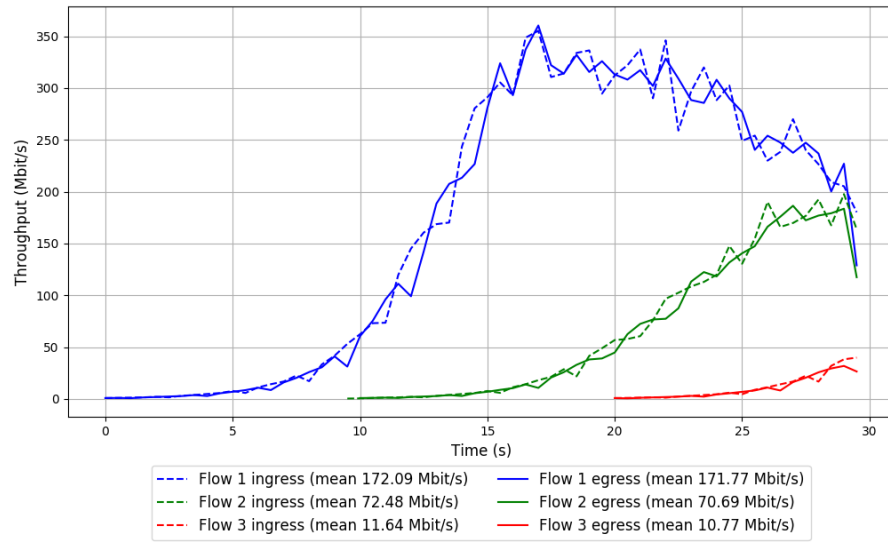
-- Flow 3:

Average throughput: 10.77 Mbit/s

95th percentile per-packet one-way delay: 143.059 ms

Loss rate: 10.01%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-12 13:36:08

End at: 2017-08-12 13:36:38

Below is generated by plot.py at 2017-08-12 17:49:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 225.62 Mbit/s

95th percentile per-packet one-way delay: 166.924 ms

Loss rate: 2.23%

-- Flow 1:

Average throughput: 175.25 Mbit/s

95th percentile per-packet one-way delay: 167.257 ms

Loss rate: 1.67%

-- Flow 2:

Average throughput: 71.06 Mbit/s

95th percentile per-packet one-way delay: 166.506 ms

Loss rate: 3.68%

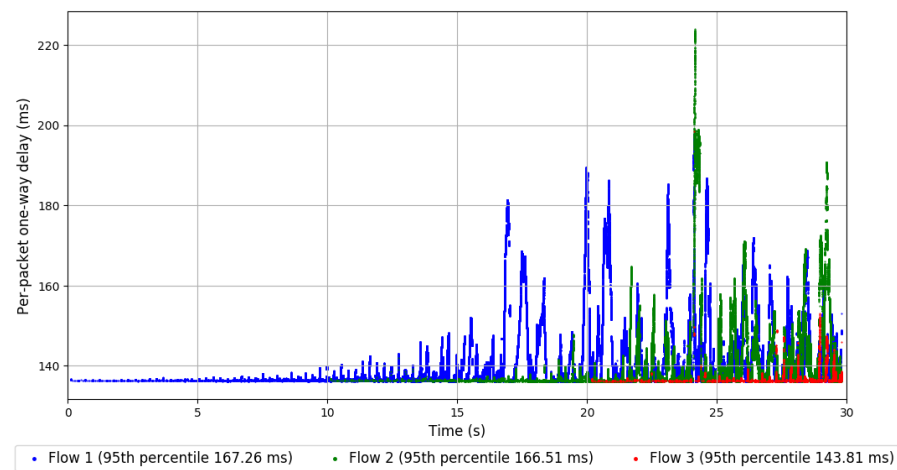
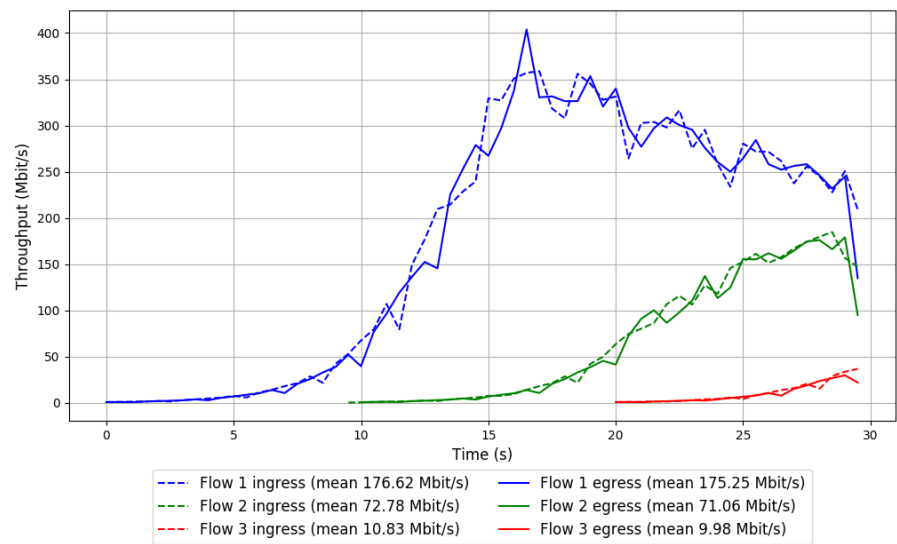
-- Flow 3:

Average throughput: 9.98 Mbit/s

95th percentile per-packet one-way delay: 143.811 ms

Loss rate: 10.31%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-12 13:49:54

End at: 2017-08-12 13:50:24

Below is generated by plot.py at 2017-08-12 17:49:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 229.99 Mbit/s

95th percentile per-packet one-way delay: 172.833 ms

Loss rate: 2.10%

-- Flow 1:

Average throughput: 181.14 Mbit/s

95th percentile per-packet one-way delay: 177.975 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 68.43 Mbit/s

95th percentile per-packet one-way delay: 157.890 ms

Loss rate: 3.94%

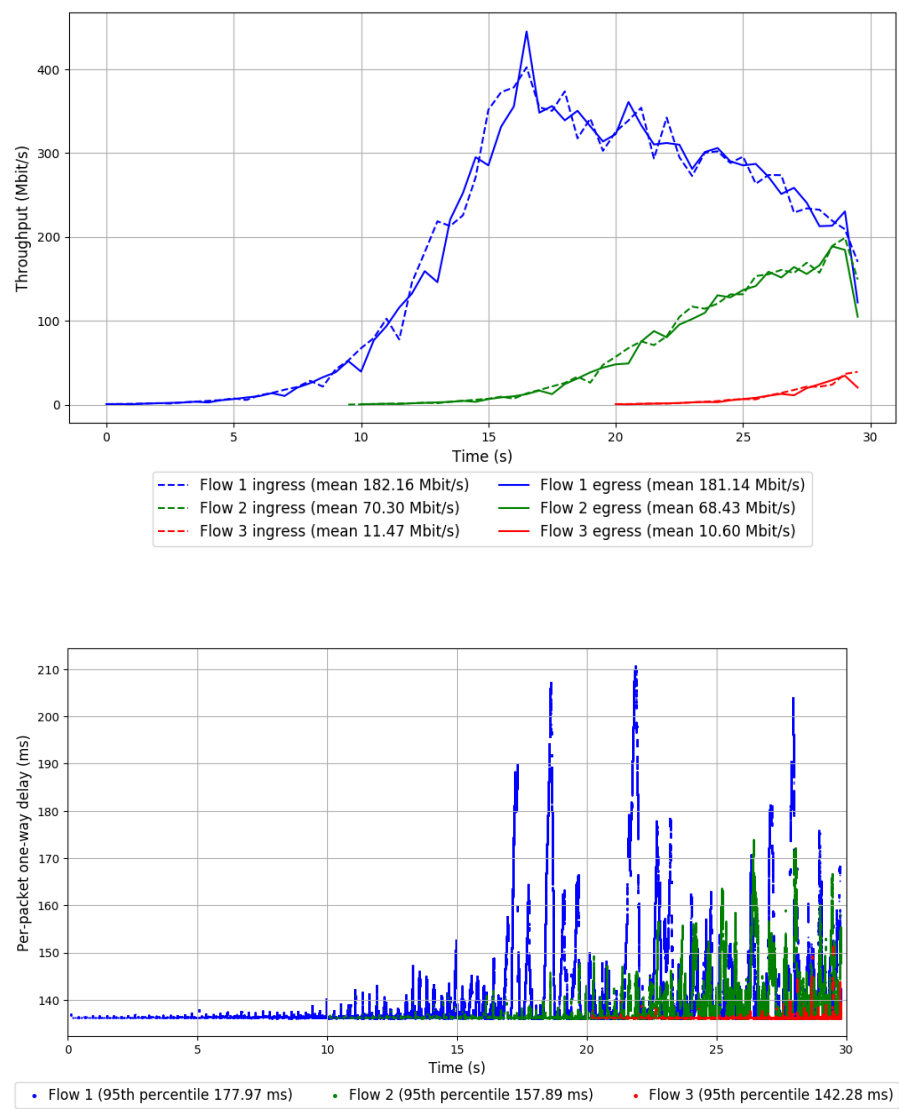
-- Flow 3:

Average throughput: 10.60 Mbit/s

95th percentile per-packet one-way delay: 142.284 ms

Loss rate: 10.23%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-12 14:03:07

End at: 2017-08-12 14:03:37

Below is generated by plot.py at 2017-08-12 17:49:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 209.07 Mbit/s

95th percentile per-packet one-way delay: 188.373 ms

Loss rate: 2.17%

-- Flow 1:

Average throughput: 167.98 Mbit/s

95th percentile per-packet one-way delay: 190.563 ms

Loss rate: 1.57%

-- Flow 2:

Average throughput: 58.45 Mbit/s

95th percentile per-packet one-way delay: 175.061 ms

Loss rate: 4.11%

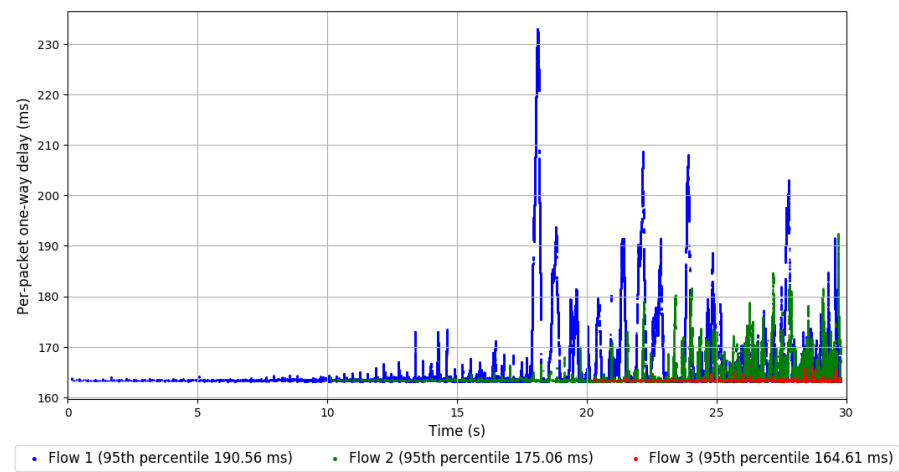
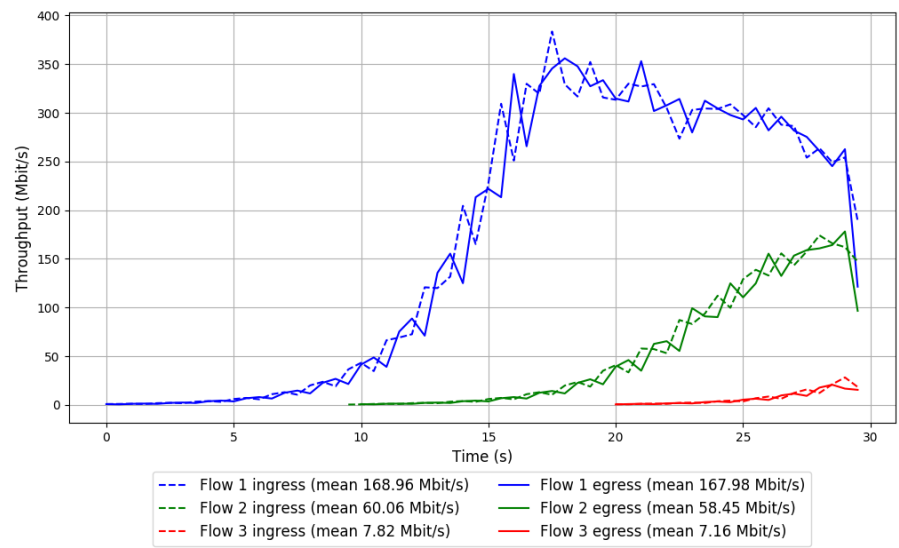
-- Flow 3:

Average throughput: 7.16 Mbit/s

95th percentile per-packet one-way delay: 164.612 ms

Loss rate: 11.34%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-12 14:16:47

End at: 2017-08-12 14:17:17

Below is generated by plot.py at 2017-08-12 17:50:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 224.60 Mbit/s

95th percentile per-packet one-way delay: 166.475 ms

Loss rate: 2.14%

-- Flow 1:

Average throughput: 172.75 Mbit/s

95th percentile per-packet one-way delay: 168.649 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 73.53 Mbit/s

95th percentile per-packet one-way delay: 157.812 ms

Loss rate: 5.19%

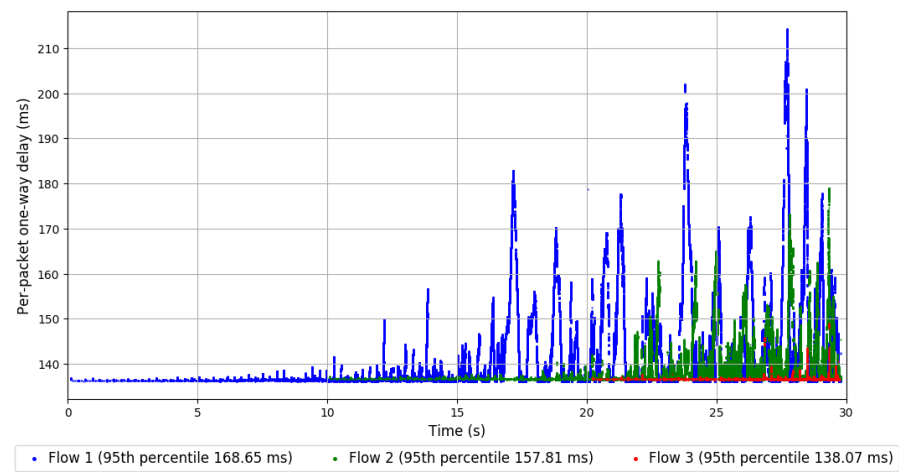
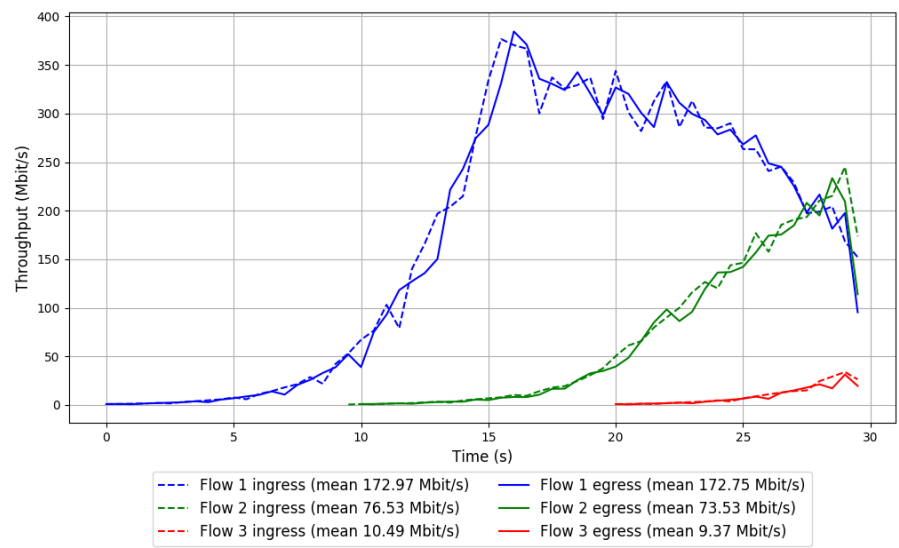
-- Flow 3:

Average throughput: 9.37 Mbit/s

95th percentile per-packet one-way delay: 138.071 ms

Loss rate: 13.16%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-12 14:30:46

End at: 2017-08-12 14:31:16

Below is generated by plot.py at 2017-08-12 17:50:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 217.25 Mbit/s

95th percentile per-packet one-way delay: 169.007 ms

Loss rate: 2.49%

-- Flow 1:

Average throughput: 161.28 Mbit/s

95th percentile per-packet one-way delay: 169.451 ms

Loss rate: 2.04%

-- Flow 2:

Average throughput: 79.25 Mbit/s

95th percentile per-packet one-way delay: 165.509 ms

Loss rate: 3.37%

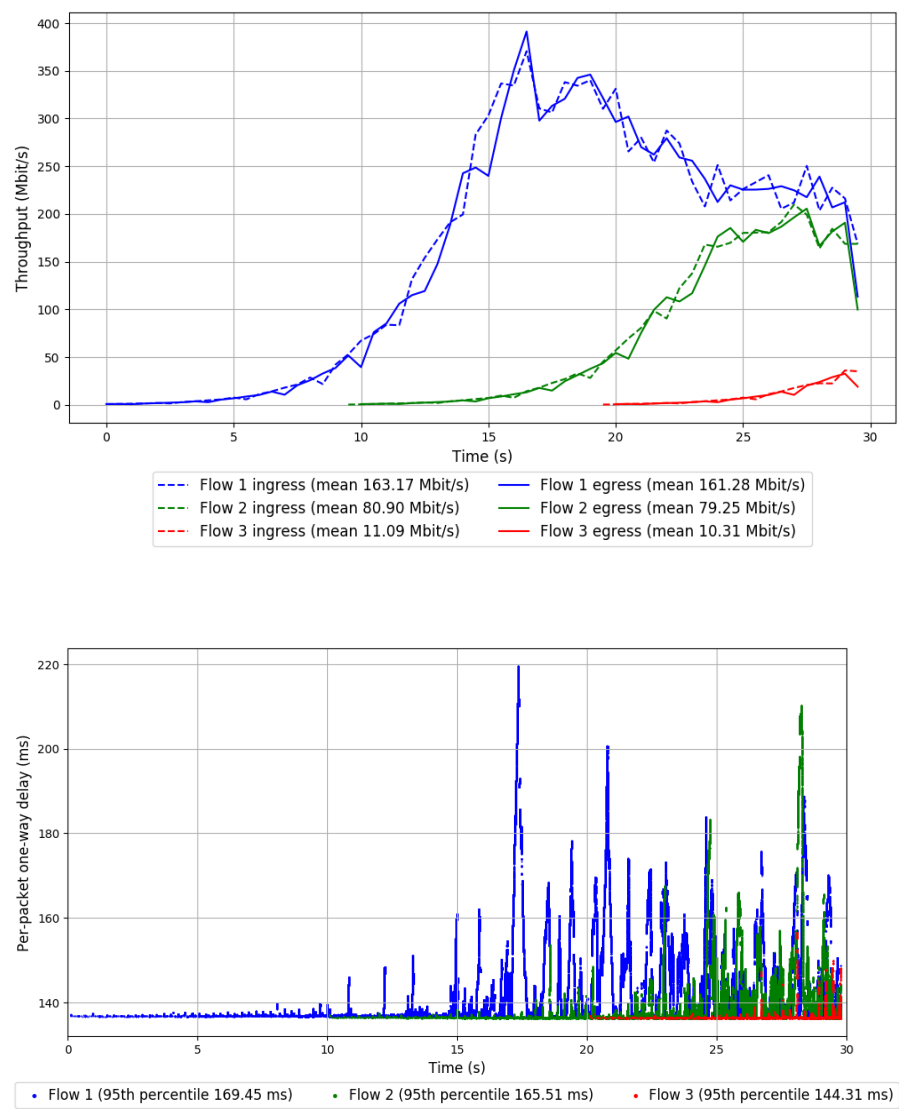
-- Flow 3:

Average throughput: 10.31 Mbit/s

95th percentile per-packet one-way delay: 144.314 ms

Loss rate: 9.57%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-12 14:44:49

End at: 2017-08-12 14:45:19

Below is generated by plot.py at 2017-08-12 17:51:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 222.87 Mbit/s

95th percentile per-packet one-way delay: 162.325 ms

Loss rate: 3.47%

-- Flow 1:

Average throughput: 196.07 Mbit/s

95th percentile per-packet one-way delay: 163.133 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 35.30 Mbit/s

95th percentile per-packet one-way delay: 155.038 ms

Loss rate: 16.06%

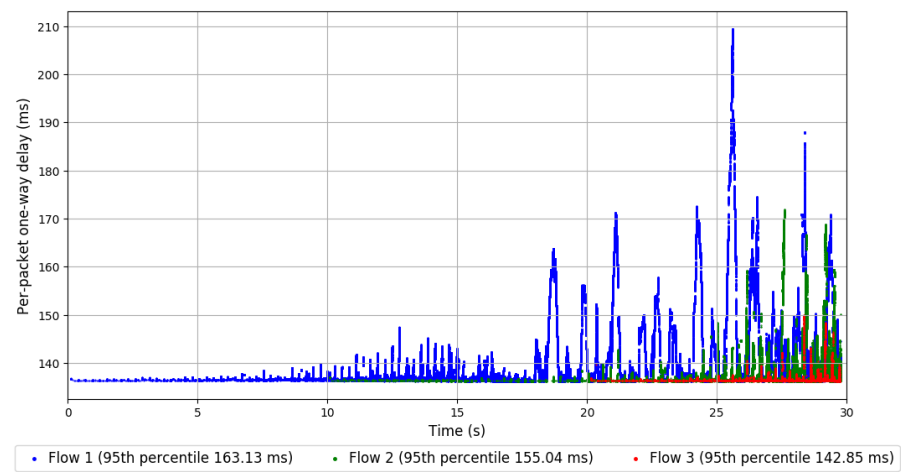
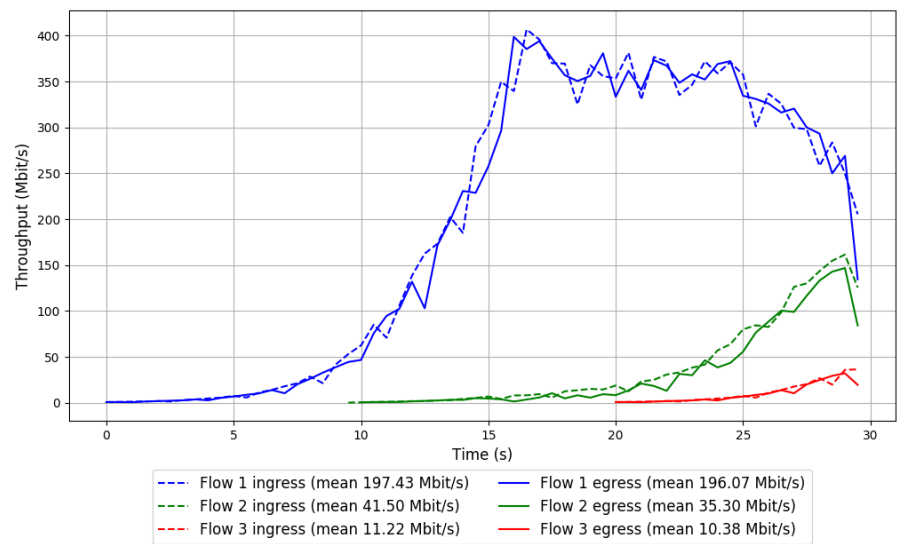
-- Flow 3:

Average throughput: 10.38 Mbit/s

95th percentile per-packet one-way delay: 142.847 ms

Loss rate: 10.05%

Run 10: Report of CalibratedKoho — Data Link

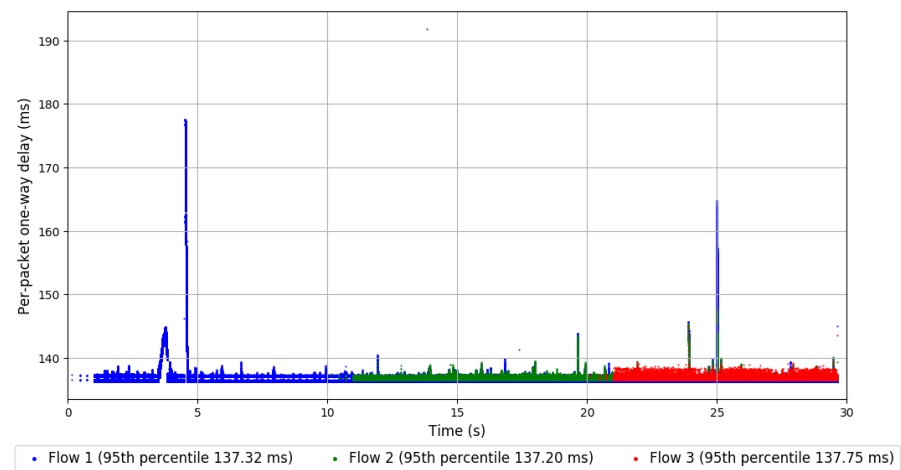
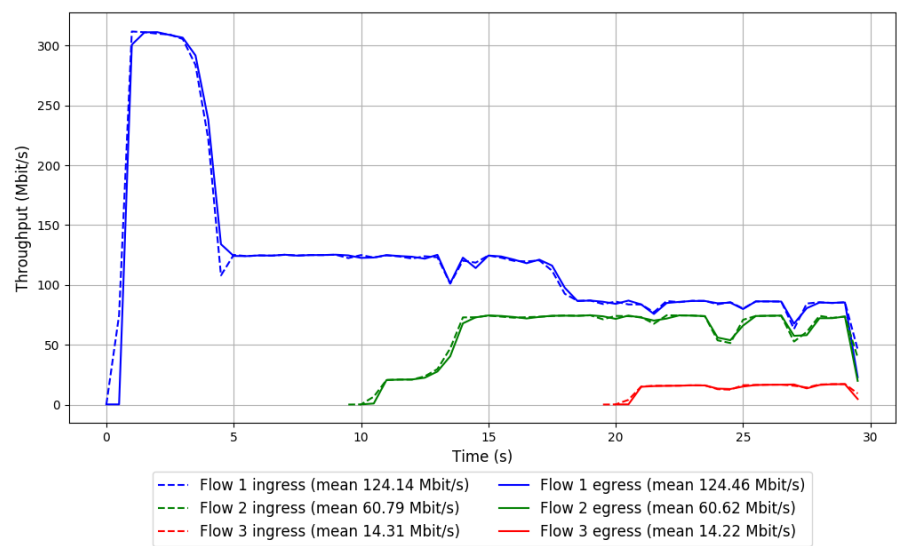


```
Run 1: Statistics of Copa

Start at: 2017-08-12 12:44:24
End at: 2017-08-12 12:44:54

# Below is generated by plot.py at 2017-08-12 17:51:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 169.18 Mbit/s
95th percentile per-packet one-way delay: 137.268 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 124.46 Mbit/s
95th percentile per-packet one-way delay: 137.325 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 60.62 Mbit/s
95th percentile per-packet one-way delay: 137.204 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 14.22 Mbit/s
95th percentile per-packet one-way delay: 137.750 ms
Loss rate: 3.35%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-12 12:58:17

End at: 2017-08-12 12:58:47

Below is generated by plot.py at 2017-08-12 17:51:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.45 Mbit/s

95th percentile per-packet one-way delay: 136.722 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 125.20 Mbit/s

95th percentile per-packet one-way delay: 136.264 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 137.398 ms

Loss rate: 0.00%

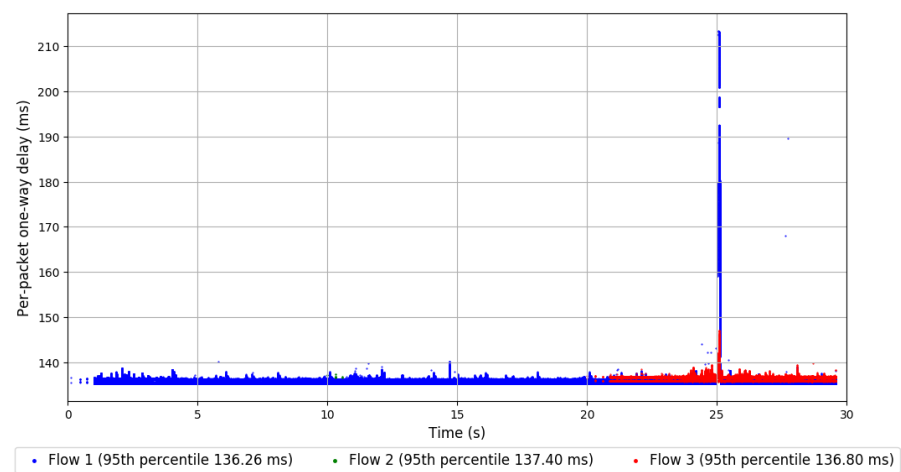
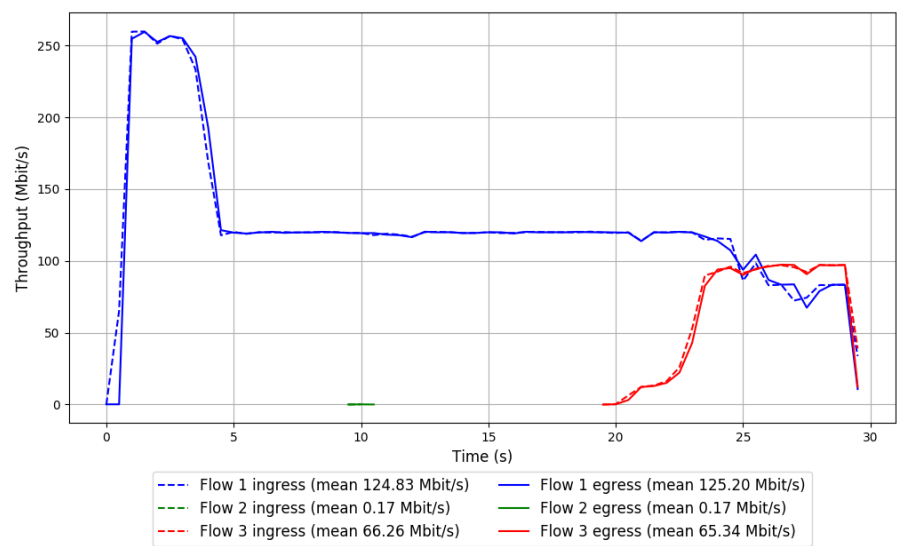
-- Flow 3:

Average throughput: 65.34 Mbit/s

95th percentile per-packet one-way delay: 136.798 ms

Loss rate: 4.08%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-12 13:12:18

End at: 2017-08-12 13:12:48

Below is generated by plot.py at 2017-08-12 17:52:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 127.30 Mbit/s

95th percentile per-packet one-way delay: 138.947 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 73.47 Mbit/s

95th percentile per-packet one-way delay: 136.577 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 81.20 Mbit/s

95th percentile per-packet one-way delay: 140.924 ms

Loss rate: 3.04%

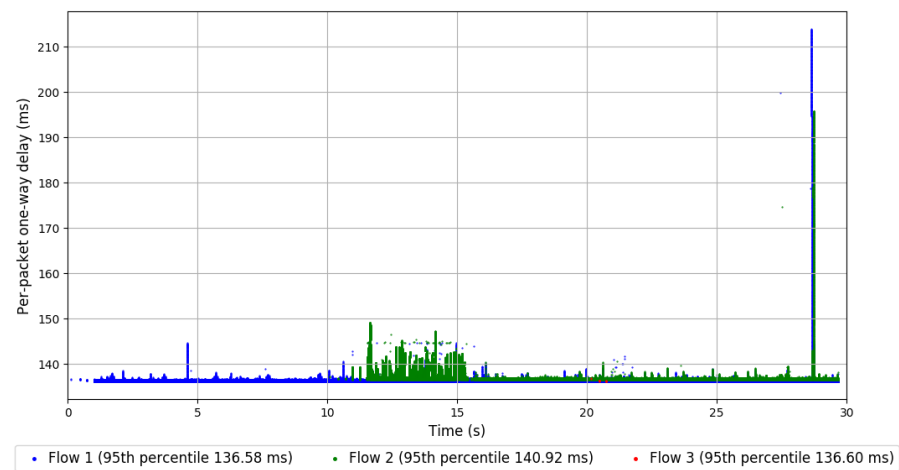
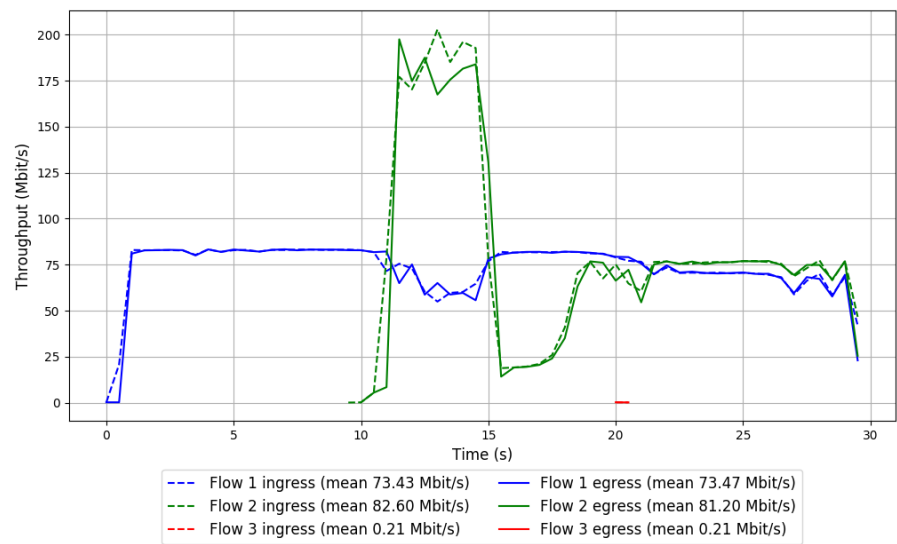
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 136.603 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-12 13:26:09

End at: 2017-08-12 13:26:39

Below is generated by plot.py at 2017-08-12 17:52:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.54 Mbit/s

95th percentile per-packet one-way delay: 136.766 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 105.27 Mbit/s

95th percentile per-packet one-way delay: 136.760 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 136.814 ms

Loss rate: 0.00%

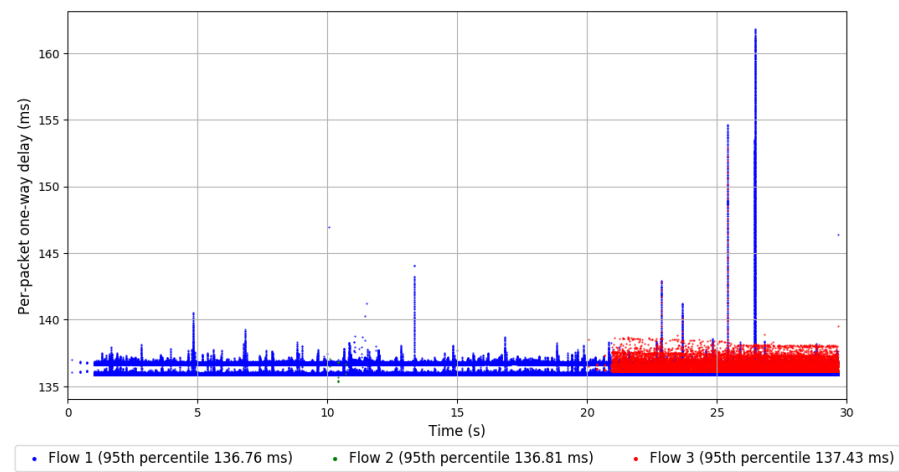
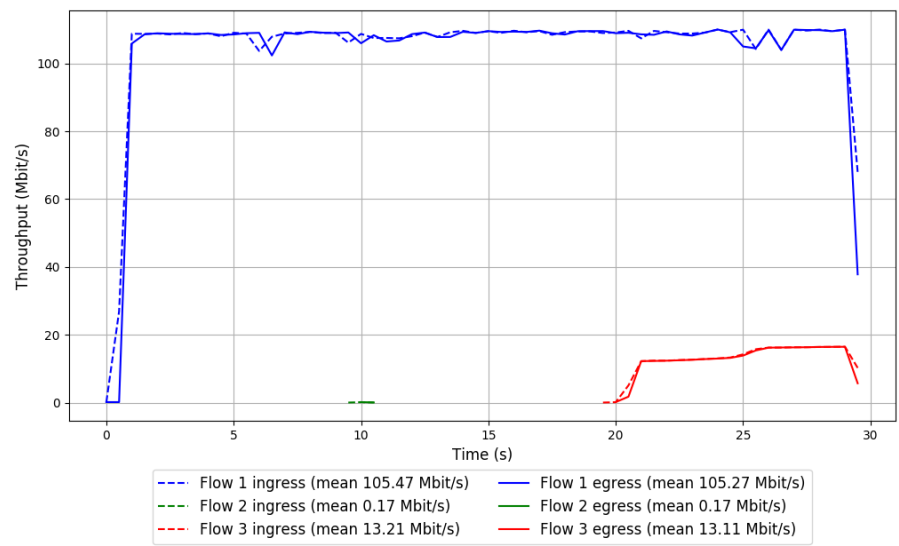
-- Flow 3:

Average throughput: 13.11 Mbit/s

95th percentile per-packet one-way delay: 137.427 ms

Loss rate: 3.45%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-12 13:40:45

End at: 2017-08-12 13:41:15

Below is generated by plot.py at 2017-08-12 17:52:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.97 Mbit/s

95th percentile per-packet one-way delay: 136.917 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 136.350 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 79.41 Mbit/s

95th percentile per-packet one-way delay: 136.749 ms

Loss rate: 1.45%

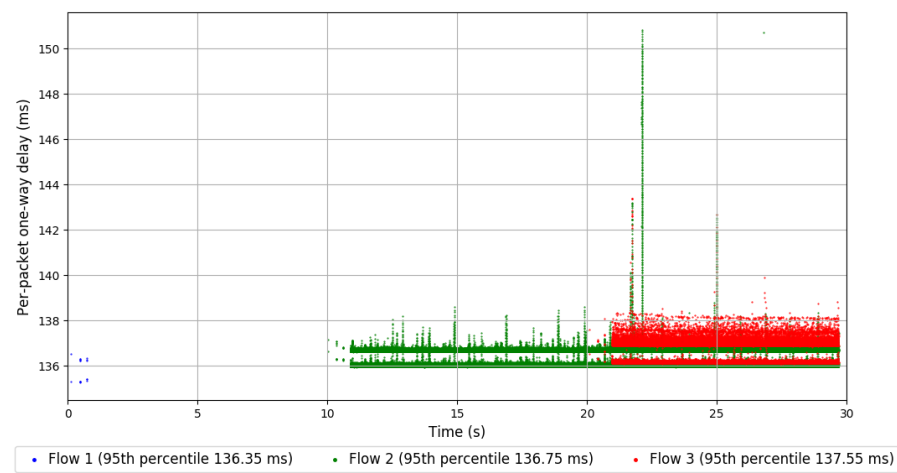
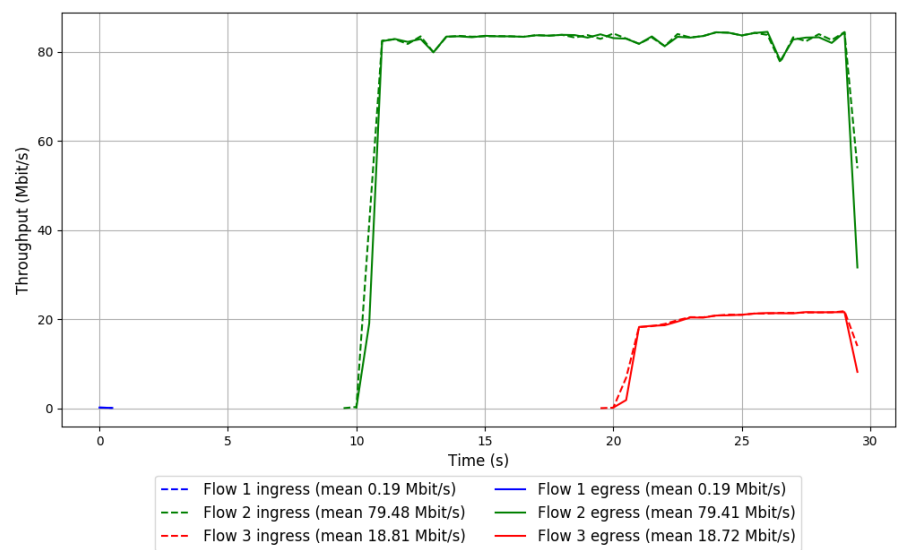
-- Flow 3:

Average throughput: 18.72 Mbit/s

95th percentile per-packet one-way delay: 137.546 ms

Loss rate: 3.16%

Run 5: Report of Copa — Data Link

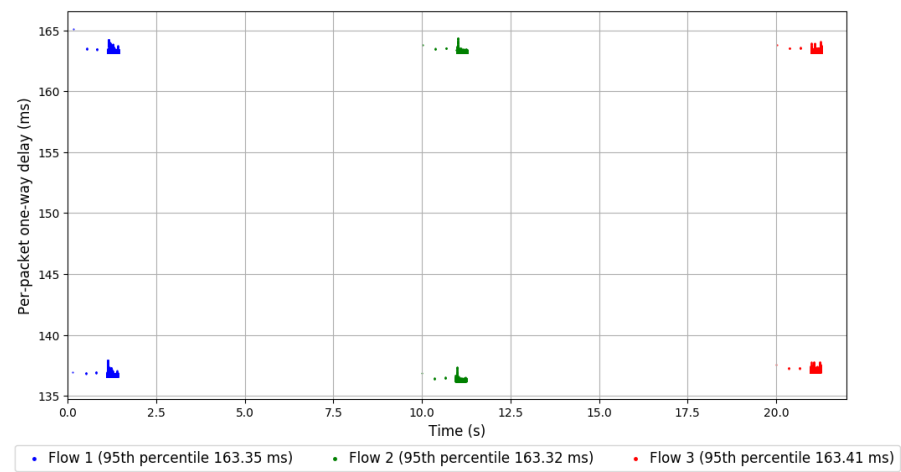
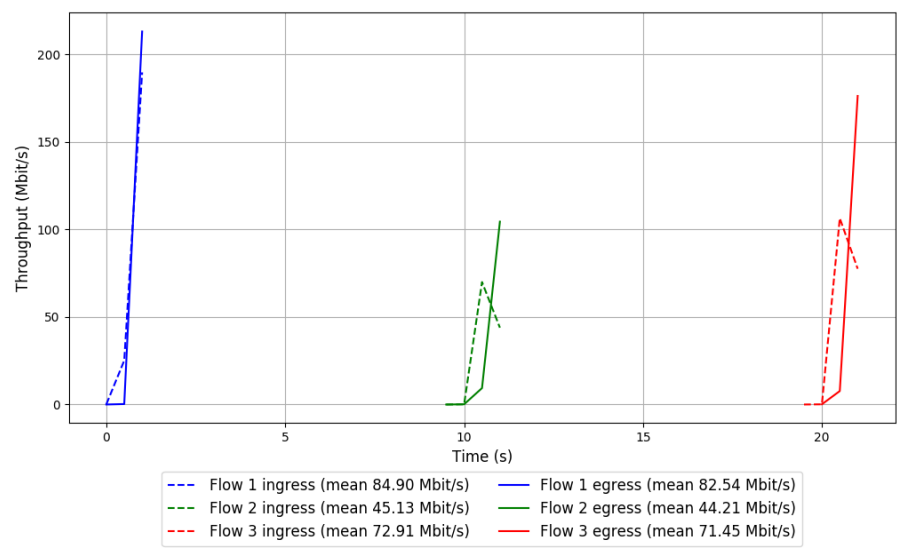


Run 6: Statistics of Copa

Start at: 2017-08-12 13:54:28

End at: 2017-08-12 13:54:58

Run 6: Report of Copa — Data Link

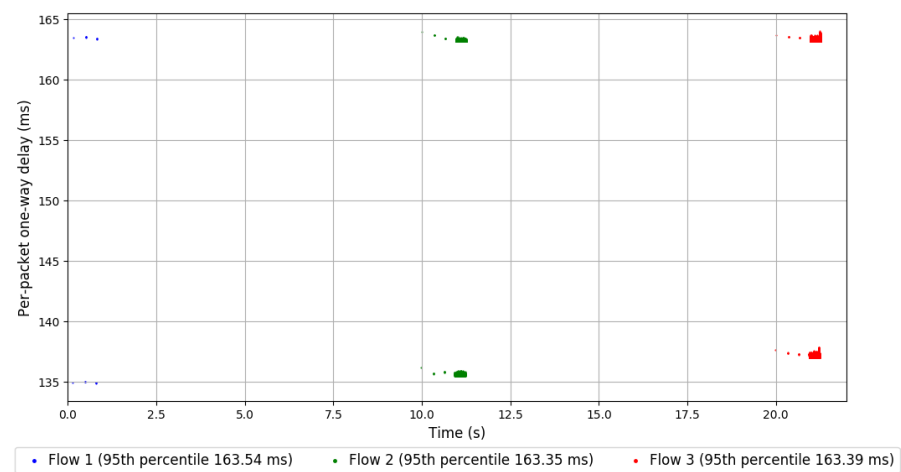
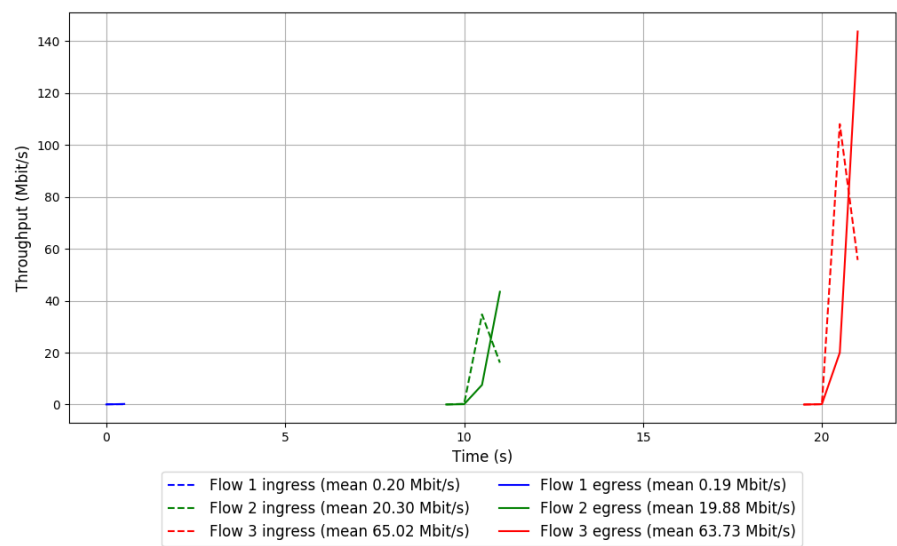


Run 7: Statistics of Copa

Start at: 2017-08-12 14:07:38

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

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-12 14:21:19

End at: 2017-08-12 14:21:49

Below is generated by plot.py at 2017-08-12 17:53:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.81 Mbit/s

95th percentile per-packet one-way delay: 136.381 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 103.80 Mbit/s

95th percentile per-packet one-way delay: 136.381 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 137.792 ms

Loss rate: 0.00%

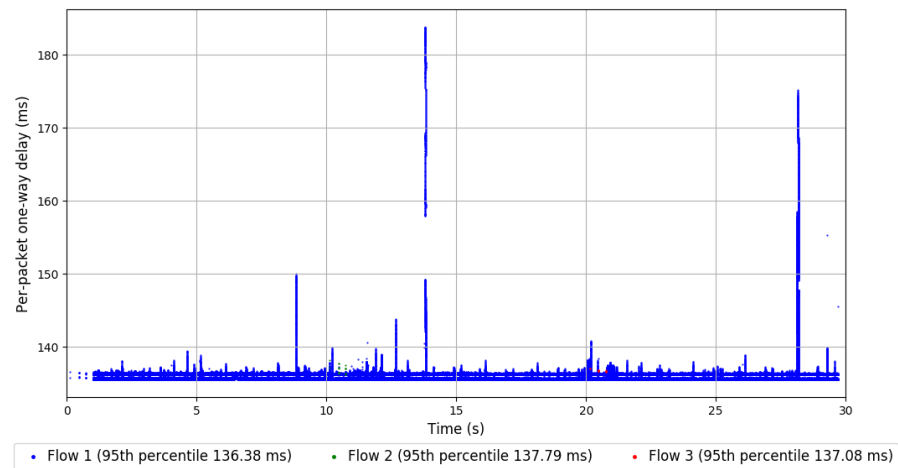
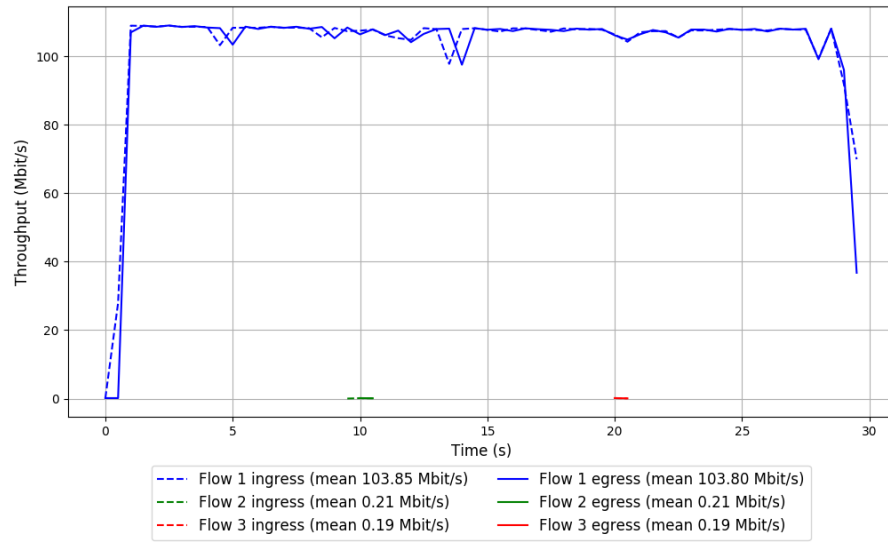
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 137.076 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-12 14:35:20

End at: 2017-08-12 14:35:50

Below is generated by plot.py at 2017-08-12 17:53:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.74 Mbit/s

95th percentile per-packet one-way delay: 137.178 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.234 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 80.60 Mbit/s

95th percentile per-packet one-way delay: 136.687 ms

Loss rate: 1.49%

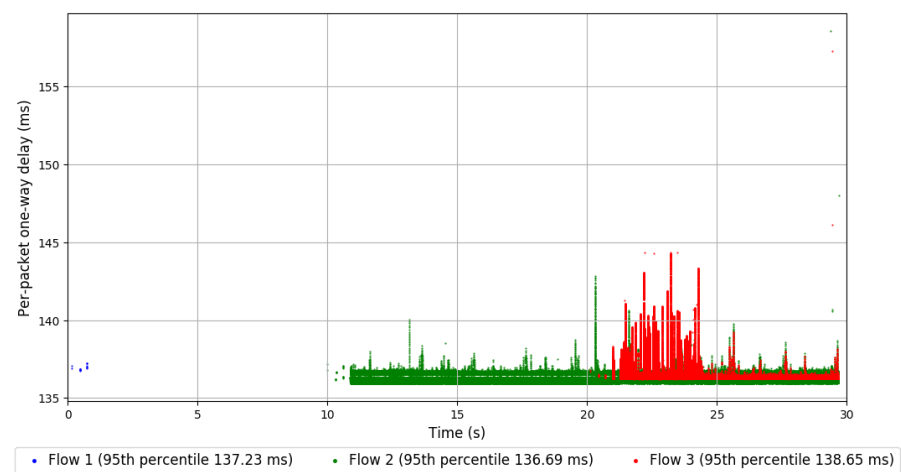
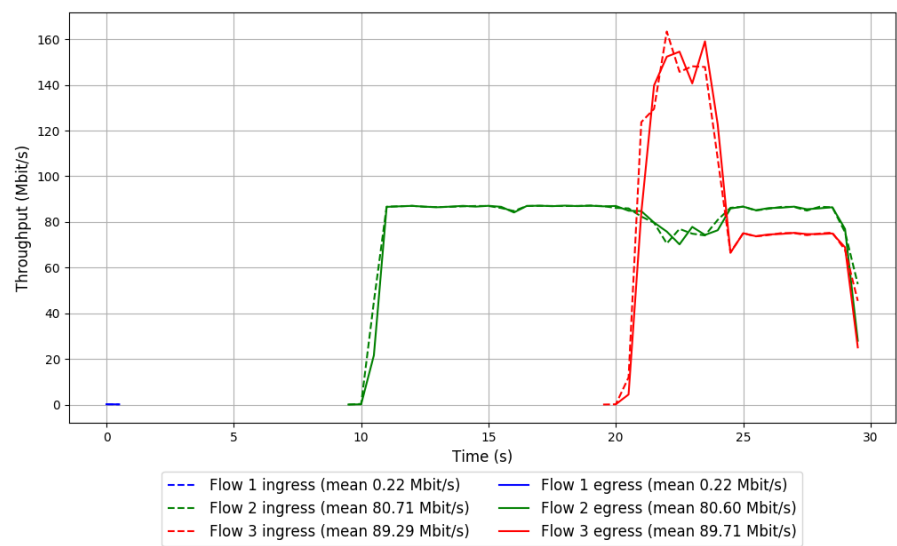
-- Flow 3:

Average throughput: 89.71 Mbit/s

95th percentile per-packet one-way delay: 138.648 ms

Loss rate: 2.26%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-08-12 14:49:23

End at: 2017-08-12 14:49:53

Below is generated by plot.py at 2017-08-12 17:54:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.49 Mbit/s

95th percentile per-packet one-way delay: 136.740 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 86.22 Mbit/s

95th percentile per-packet one-way delay: 136.752 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 62.99 Mbit/s

95th percentile per-packet one-way delay: 136.353 ms

Loss rate: 1.08%

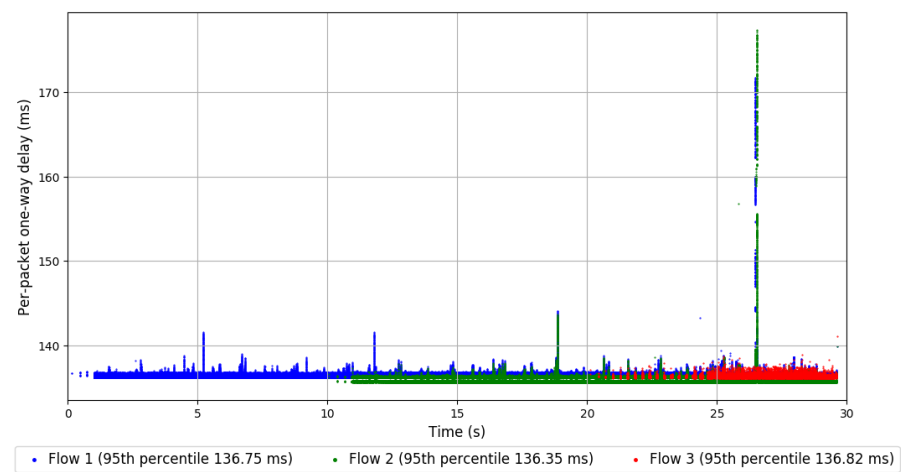
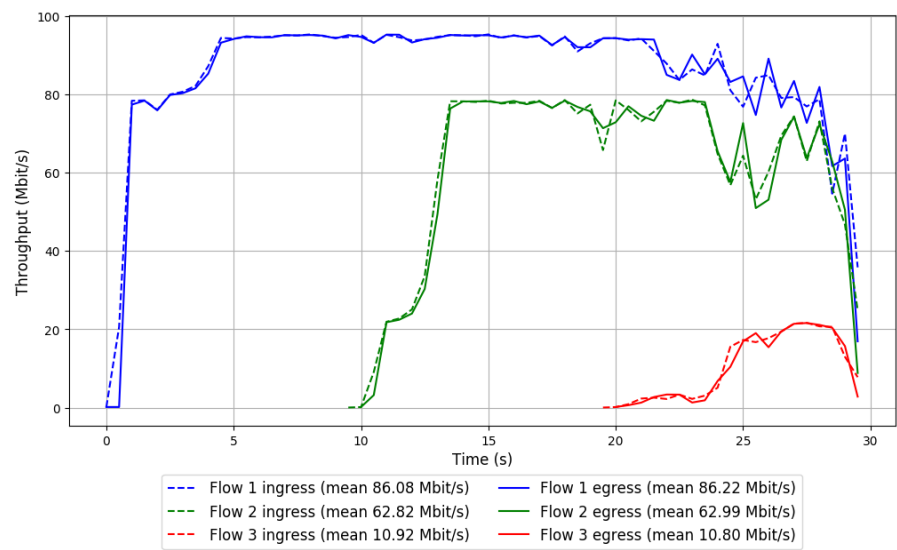
-- Flow 3:

Average throughput: 10.80 Mbit/s

95th percentile per-packet one-way delay: 136.821 ms

Loss rate: 3.77%

Run 10: Report of Copa — Data Link

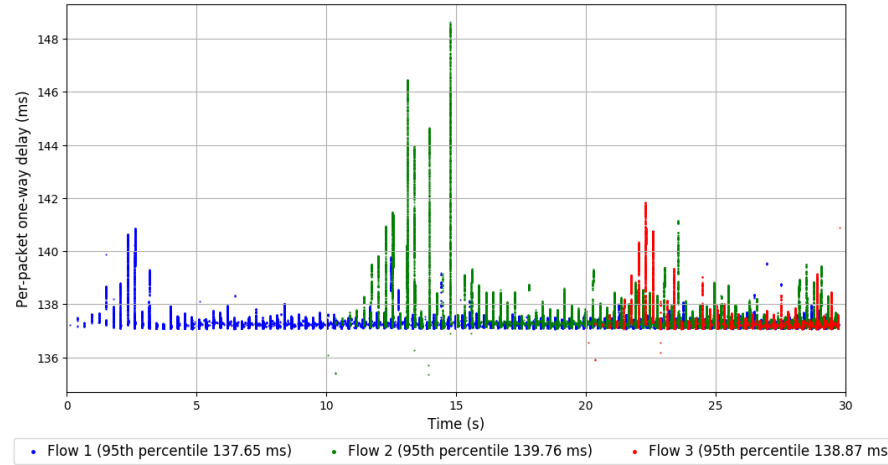
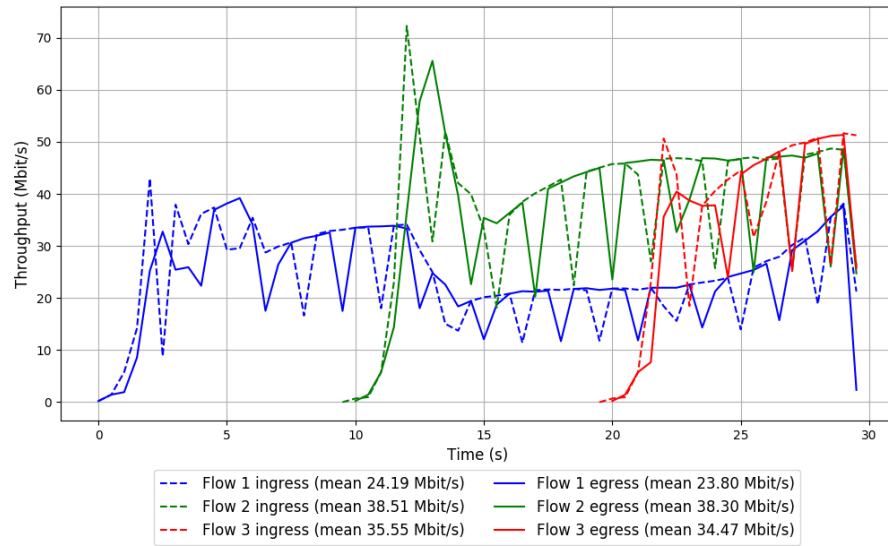


```
Run 1: Statistics of TCP Cubic

Start at: 2017-08-12 12:41:49
End at: 2017-08-12 12:42:19

# Below is generated by plot.py at 2017-08-12 17:54:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.42 Mbit/s
95th percentile per-packet one-way delay: 138.787 ms
Loss rate: 2.89%
-- Flow 1:
Average throughput: 23.80 Mbit/s
95th percentile per-packet one-way delay: 137.647 ms
Loss rate: 2.60%
-- Flow 2:
Average throughput: 38.30 Mbit/s
95th percentile per-packet one-way delay: 139.758 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 34.47 Mbit/s
95th percentile per-packet one-way delay: 138.870 ms
Loss rate: 5.58%
```

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-12 12:55:47

End at: 2017-08-12 12:56:17

Below is generated by plot.py at 2017-08-12 17:54:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.77 Mbit/s

95th percentile per-packet one-way delay: 137.091 ms

Loss rate: 3.69%

-- Flow 1:

Average throughput: 2.99 Mbit/s

95th percentile per-packet one-way delay: 137.116 ms

Loss rate: 3.09%

-- Flow 2:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 137.016 ms

Loss rate: 3.70%

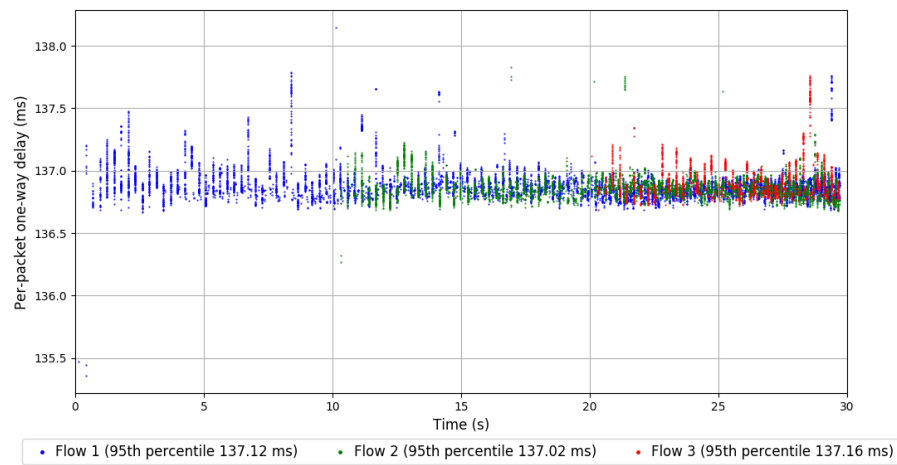
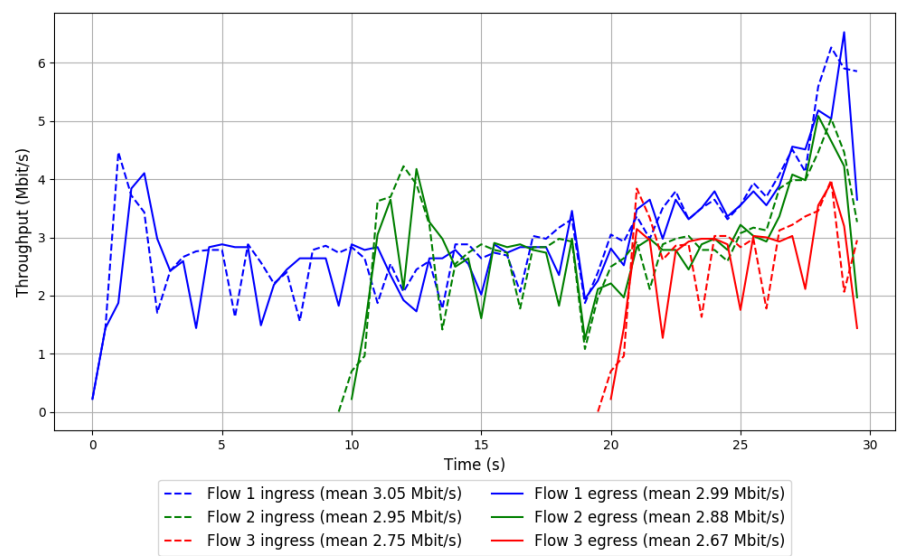
-- Flow 3:

Average throughput: 2.67 Mbit/s

95th percentile per-packet one-way delay: 137.163 ms

Loss rate: 5.67%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-12 13:09:45

End at: 2017-08-12 13:10:15

Below is generated by plot.py at 2017-08-12 17:54:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 43.17 Mbit/s

95th percentile per-packet one-way delay: 137.621 ms

Loss rate: 1.78%

-- Flow 1:

Average throughput: 35.56 Mbit/s

95th percentile per-packet one-way delay: 137.506 ms

Loss rate: 1.35%

-- Flow 2:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 137.090 ms

Loss rate: 4.52%

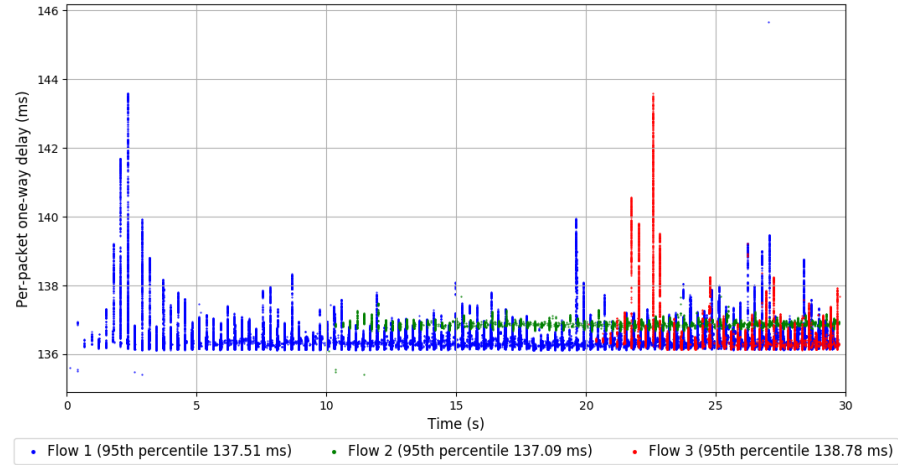
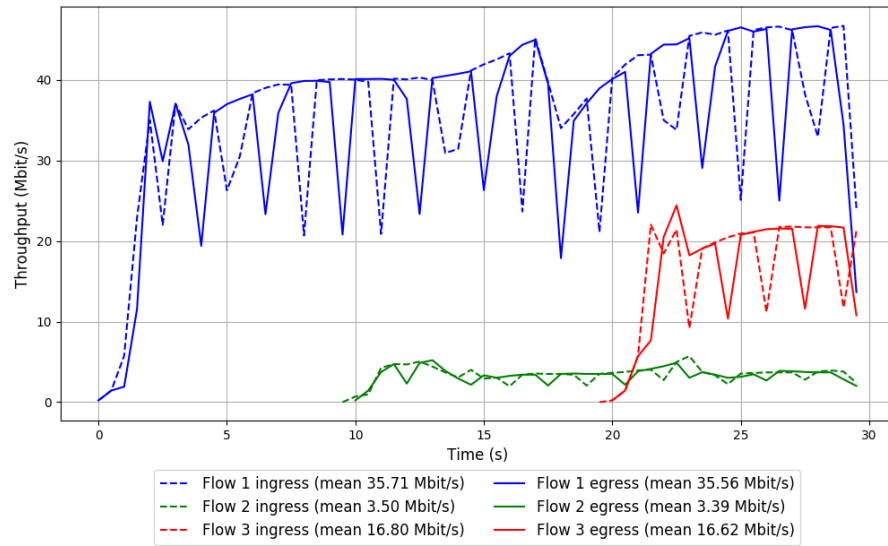
-- Flow 3:

Average throughput: 16.62 Mbit/s

95th percentile per-packet one-way delay: 138.778 ms

Loss rate: 3.38%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-12 13:23:36

End at: 2017-08-12 13:24:06

Below is generated by plot.py at 2017-08-12 17:54:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.05 Mbit/s

95th percentile per-packet one-way delay: 137.452 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 37.30 Mbit/s

95th percentile per-packet one-way delay: 137.421 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 137.030 ms

Loss rate: 4.39%

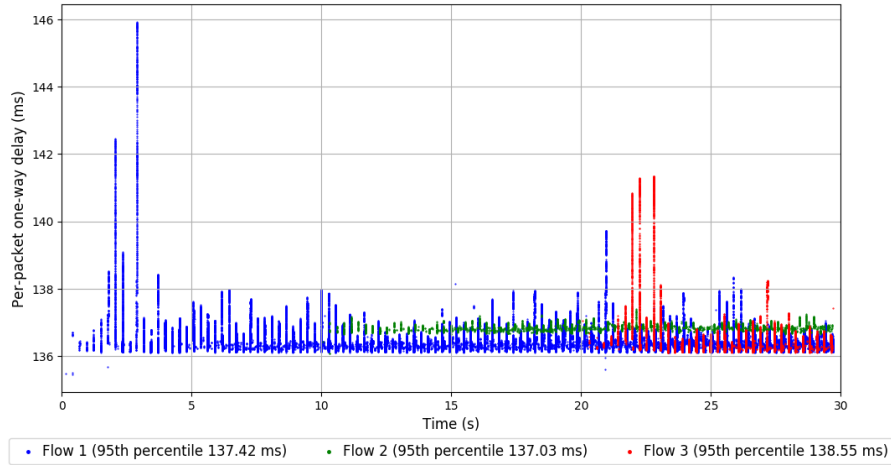
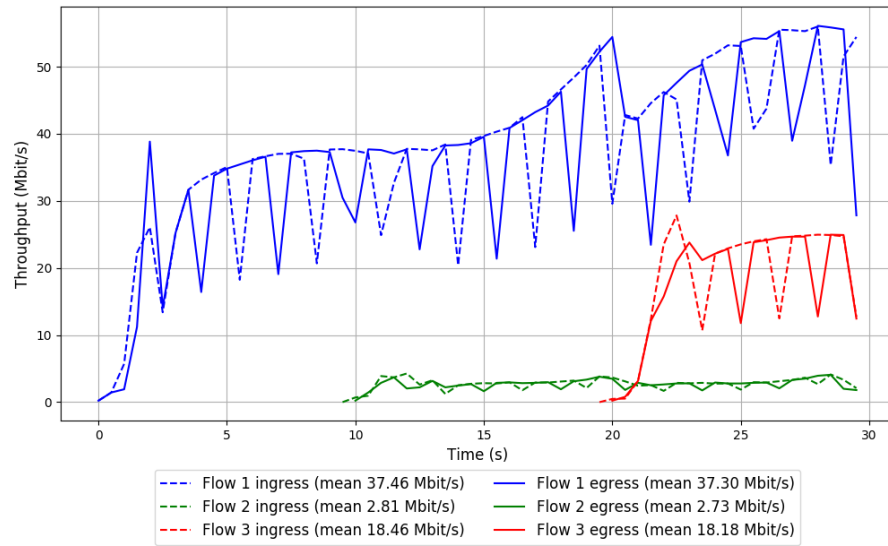
-- Flow 3:

Average throughput: 18.18 Mbit/s

95th percentile per-packet one-way delay: 138.549 ms

Loss rate: 3.78%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-12 13:38:13

End at: 2017-08-12 13:38:43

Below is generated by plot.py at 2017-08-12 17:54:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.58 Mbit/s

95th percentile per-packet one-way delay: 138.800 ms

Loss rate: 2.34%

-- Flow 1:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 137.050 ms

Loss rate: 2.42%

-- Flow 2:

Average throughput: 28.65 Mbit/s

95th percentile per-packet one-way delay: 139.294 ms

Loss rate: 2.21%

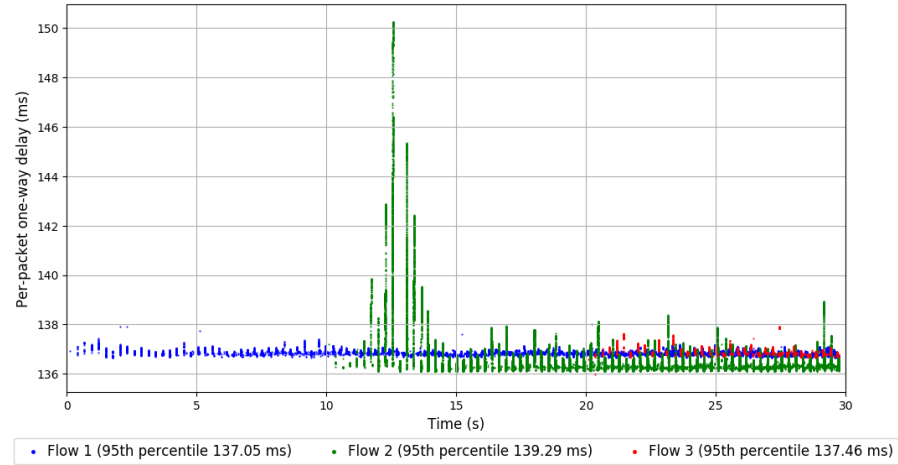
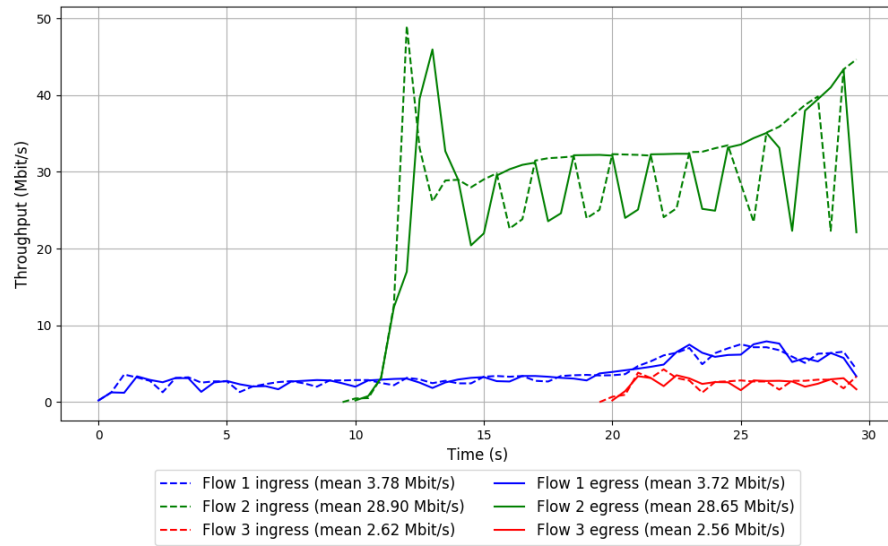
-- Flow 3:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 137.456 ms

Loss rate: 5.00%

Run 5: Report of TCP Cubic — Data Link

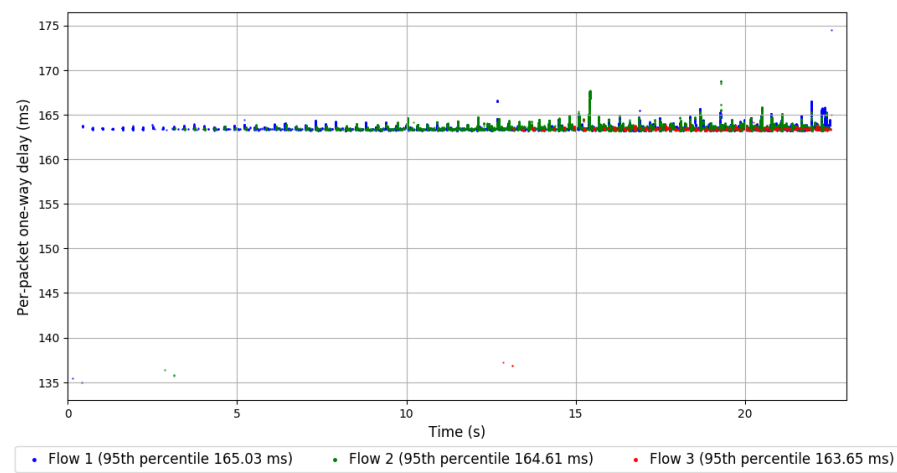
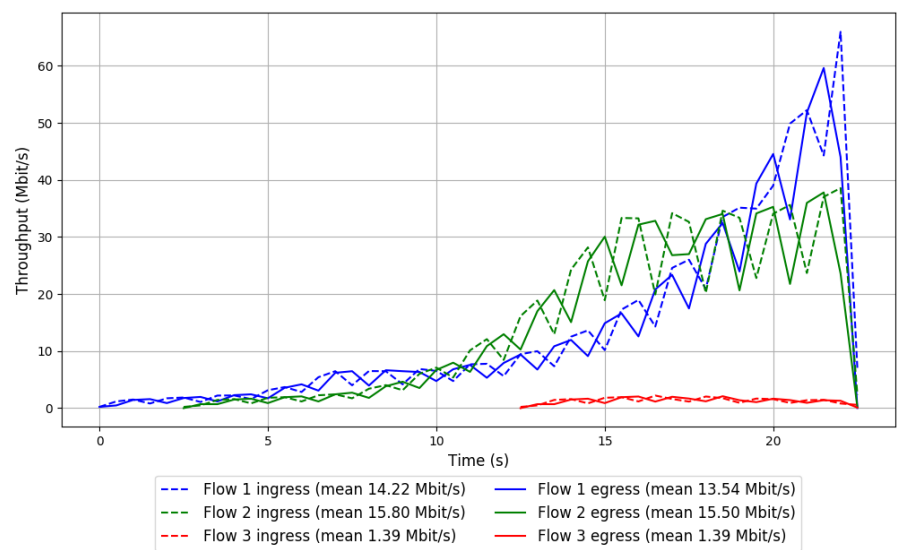


Run 6: Statistics of TCP Cubic

Start at: 2017-08-12 13:51:56

End at: 2017-08-12 13:52:26

Run 6: Report of TCP Cubic — Data Link

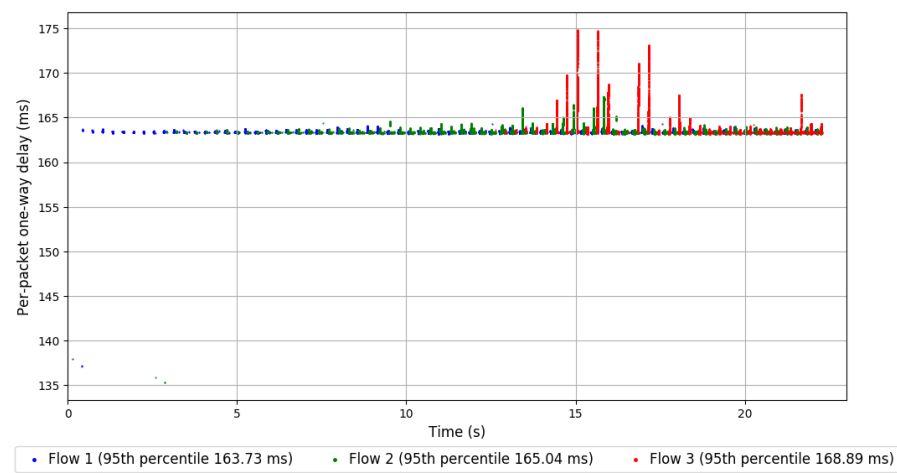
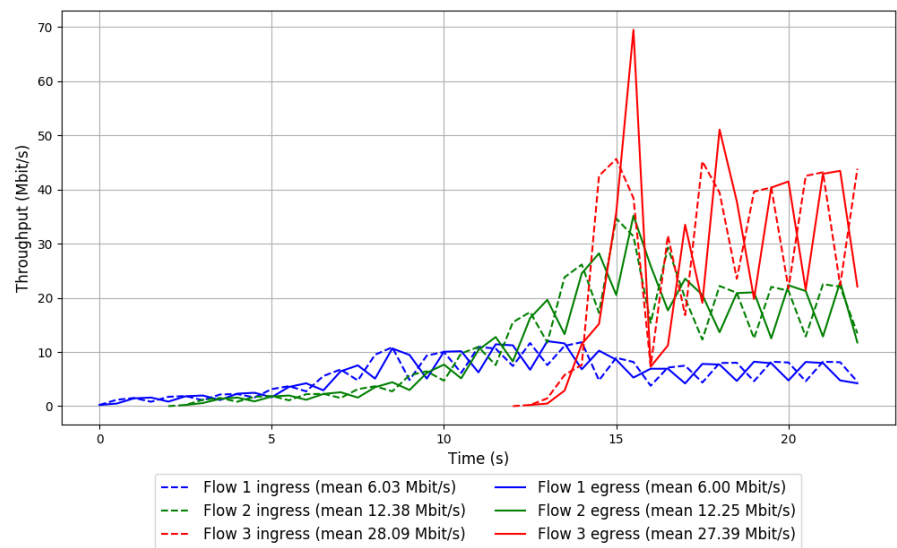


Run 7: Statistics of TCP Cubic

Start at: 2017-08-12 14:05:06

End at: 2017-08-12 14:05:36

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-12 14:18:48

End at: 2017-08-12 14:19:18

Below is generated by plot.py at 2017-08-12 17:54:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 36.12 Mbit/s

95th percentile per-packet one-way delay: 137.957 ms

Loss rate: 2.68%

-- Flow 1:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 137.017 ms

Loss rate: 4.51%

-- Flow 2:

Average throughput: 35.11 Mbit/s

95th percentile per-packet one-way delay: 137.722 ms

Loss rate: 1.87%

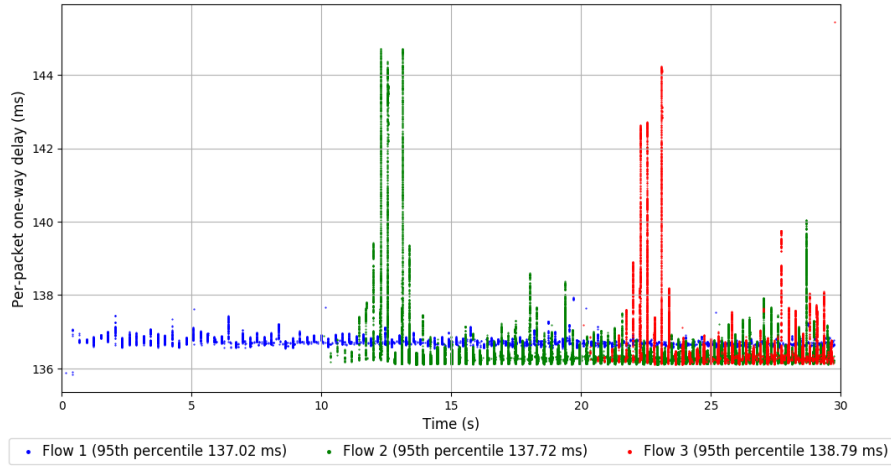
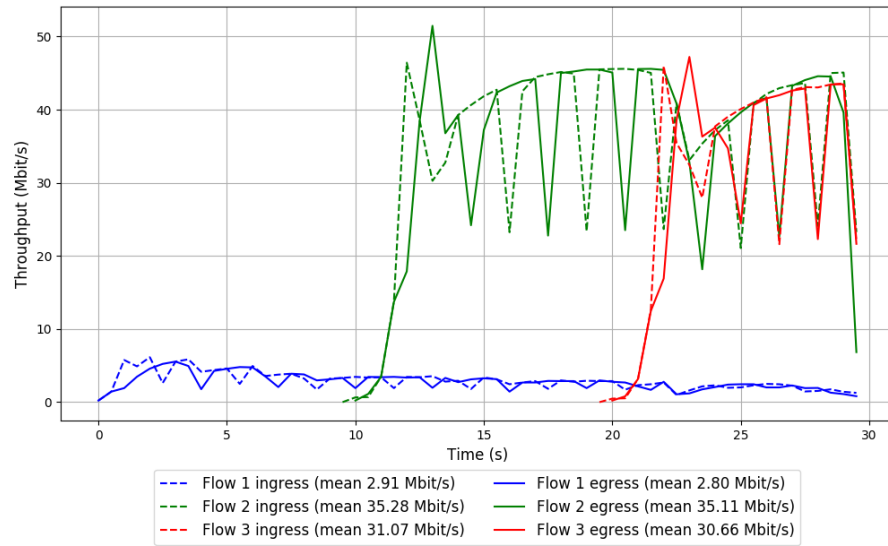
-- Flow 3:

Average throughput: 30.66 Mbit/s

95th percentile per-packet one-way delay: 138.795 ms

Loss rate: 4.02%

Run 8: Report of TCP Cubic — Data Link

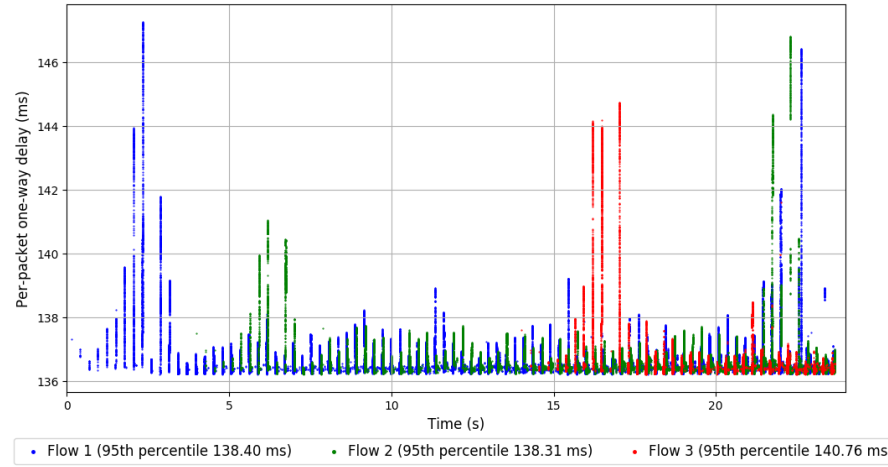
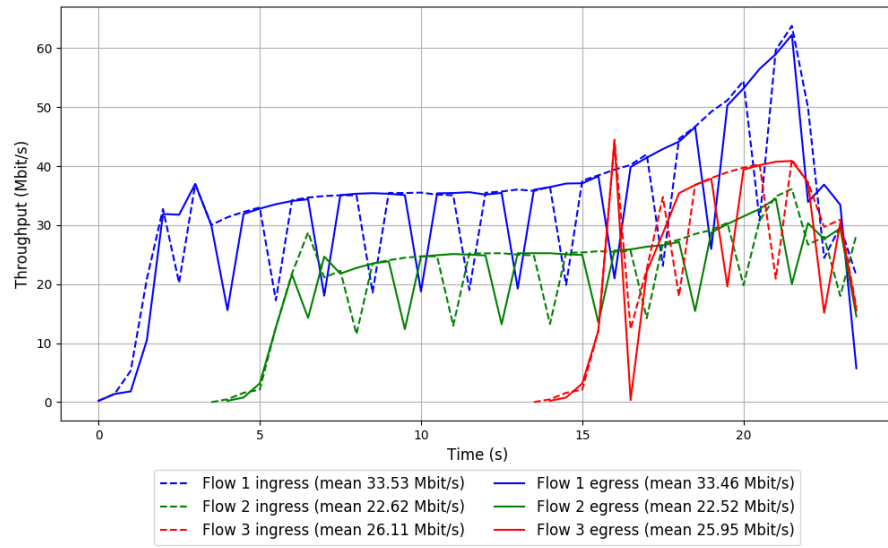


Run 9: Statistics of TCP Cubic

Start at: 2017-08-12 14:32:46

End at: 2017-08-12 14:33:16

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-12 14:46:49

End at: 2017-08-12 14:47:19

Below is generated by plot.py at 2017-08-12 17:54:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 51.43 Mbit/s

95th percentile per-packet one-way delay: 137.546 ms

Loss rate: 2.11%

-- Flow 1:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 136.693 ms

Loss rate: 1.68%

-- Flow 2:

Average throughput: 57.98 Mbit/s

95th percentile per-packet one-way delay: 137.422 ms

Loss rate: 1.77%

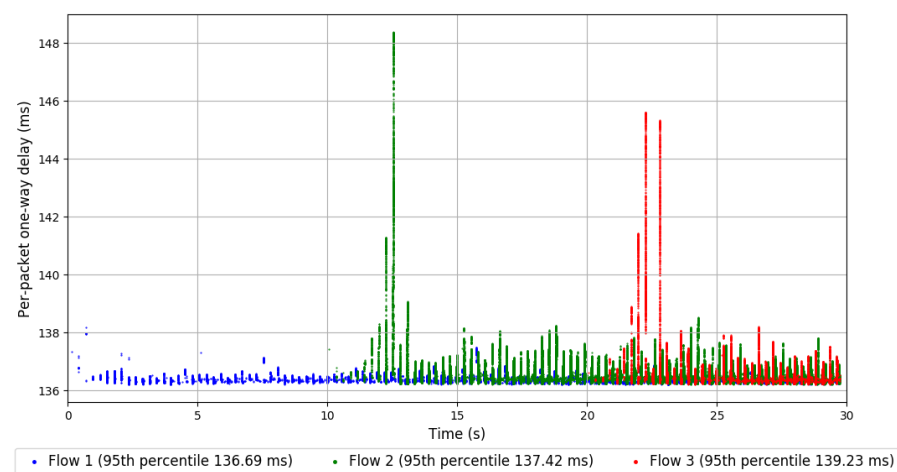
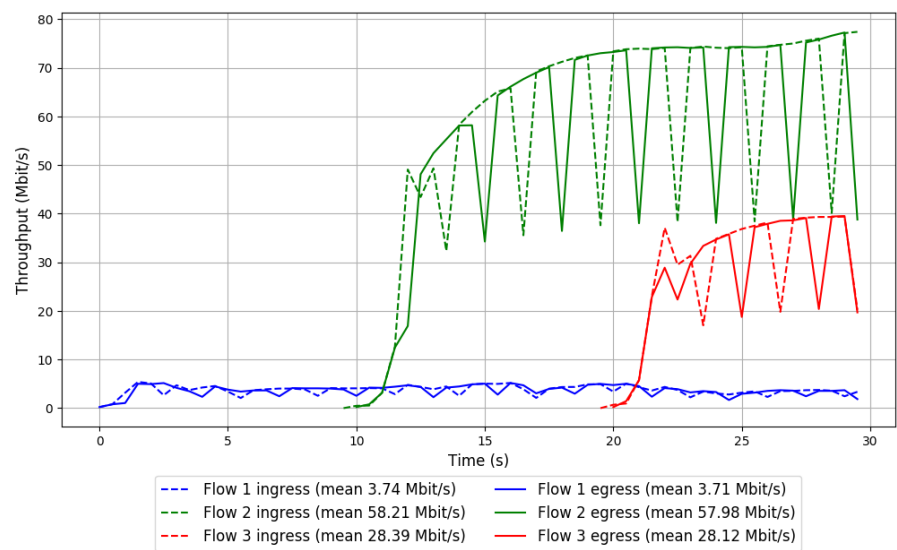
-- Flow 3:

Average throughput: 28.12 Mbit/s

95th percentile per-packet one-way delay: 139.234 ms

Loss rate: 3.65%

Run 10: Report of TCP Cubic — Data Link

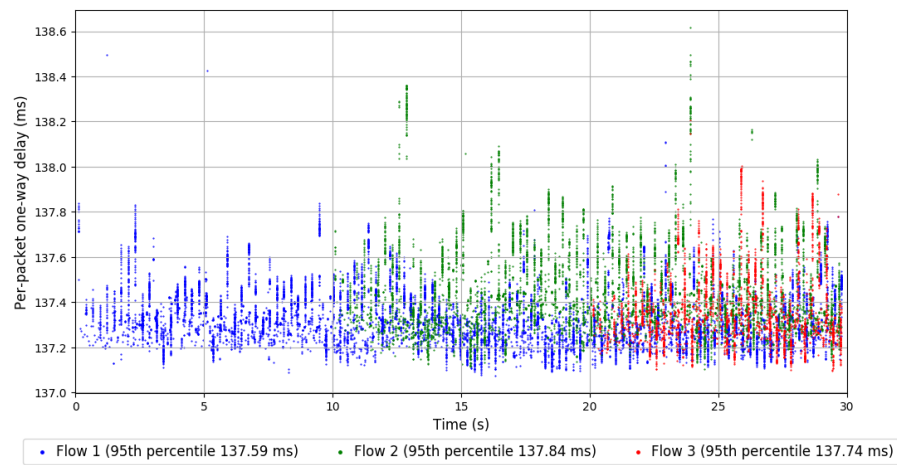
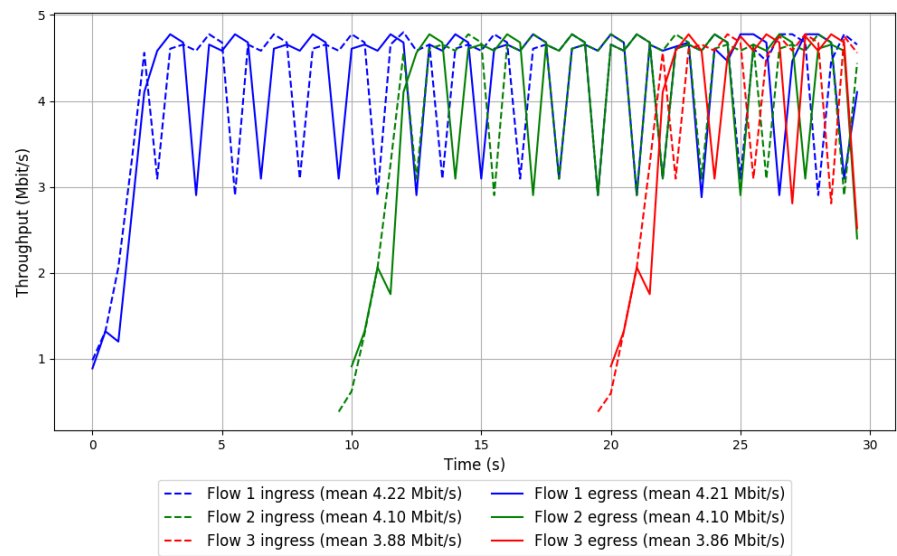


```
Run 1: Statistics of KohoCC

Start at: 2017-08-12 12:43:34
End at: 2017-08-12 12:44:04

# Below is generated by plot.py at 2017-08-12 17:54:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.18 Mbit/s
95th percentile per-packet one-way delay: 137.718 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 137.587 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 137.840 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 137.739 ms
Loss rate: 3.24%
```

Run 1: Report of KohoCC — Data Link

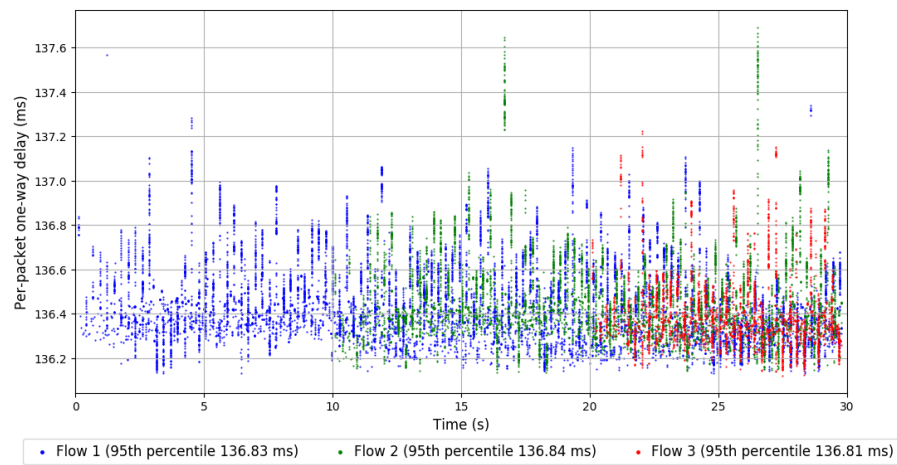
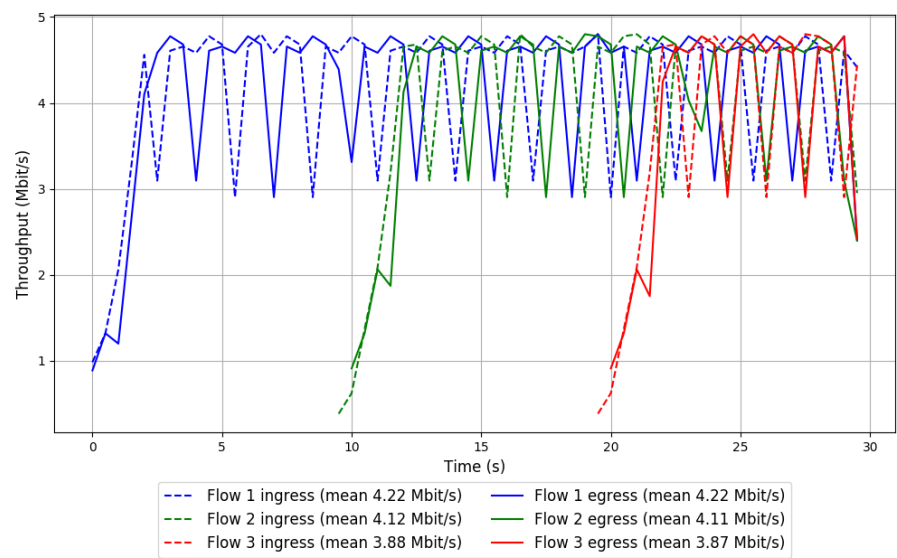


```
Run 2: Statistics of KohoCC

Start at: 2017-08-12 12:57:27
End at: 2017-08-12 12:57:57

# Below is generated by plot.py at 2017-08-12 17:54:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 136.831 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 136.826 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 136.844 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 136.812 ms
Loss rate: 3.11%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-12 13:11:28

End at: 2017-08-12 13:11:58

Below is generated by plot.py at 2017-08-12 17:54:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.97 Mbit/s

95th percentile per-packet one-way delay: 137.046 ms

Loss rate: 4.34%

-- Flow 1:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 137.060 ms

Loss rate: 3.34%

-- Flow 2:

Average throughput: 3.93 Mbit/s

95th percentile per-packet one-way delay: 137.046 ms

Loss rate: 5.83%

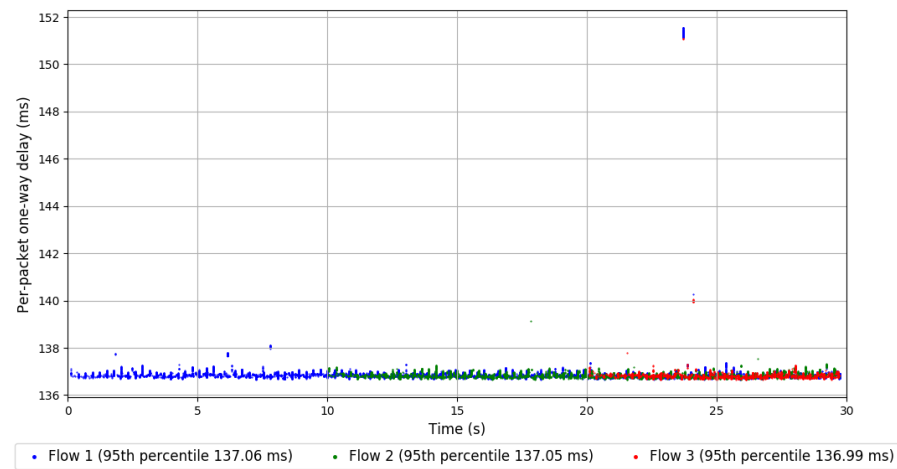
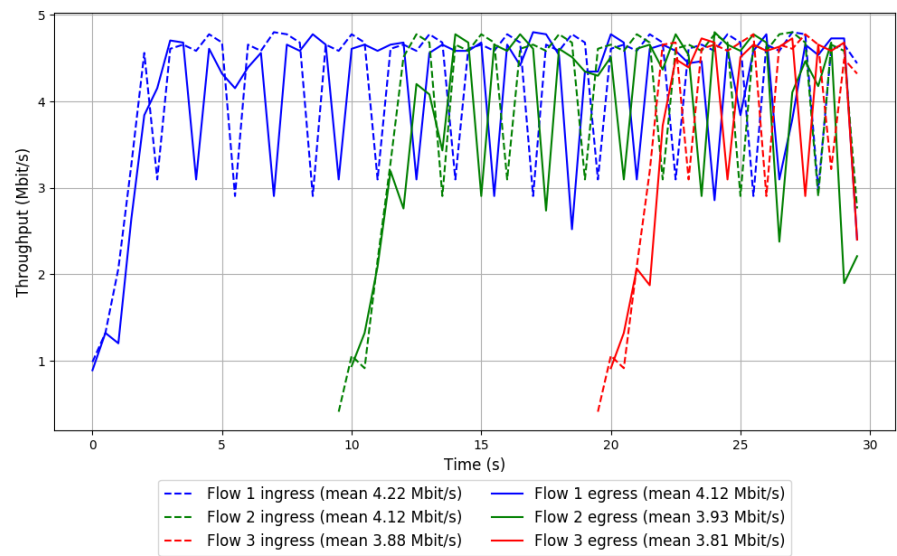
-- Flow 3:

Average throughput: 3.81 Mbit/s

95th percentile per-packet one-way delay: 136.987 ms

Loss rate: 4.43%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-12 13:25:19

End at: 2017-08-12 13:25:49

Below is generated by plot.py at 2017-08-12 17:54:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.02 Mbit/s

95th percentile per-packet one-way delay: 137.026 ms

Loss rate: 3.52%

-- Flow 1:

Average throughput: 4.06 Mbit/s

95th percentile per-packet one-way delay: 137.059 ms

Loss rate: 4.58%

-- Flow 2:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 136.858 ms

Loss rate: 1.46%

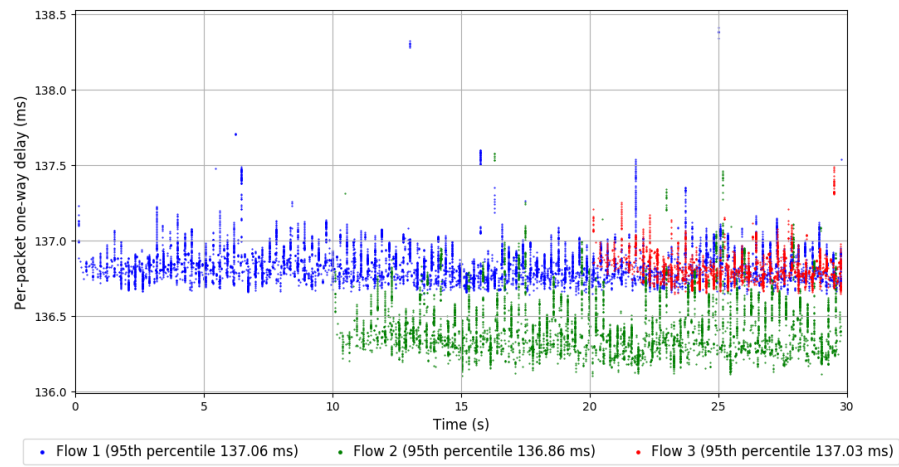
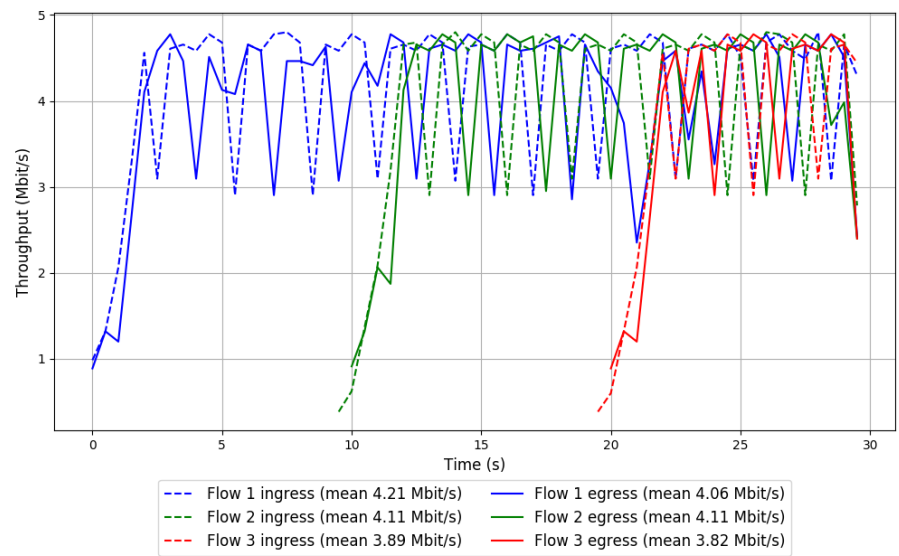
-- Flow 3:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 137.026 ms

Loss rate: 4.43%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-12 13:39:55

End at: 2017-08-12 13:40:25

Below is generated by plot.py at 2017-08-12 17:54:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.19 Mbit/s

95th percentile per-packet one-way delay: 137.180 ms

Loss rate: 1.97%

-- Flow 1:

Average throughput: 4.25 Mbit/s

95th percentile per-packet one-way delay: 136.874 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 137.292 ms

Loss rate: 3.02%

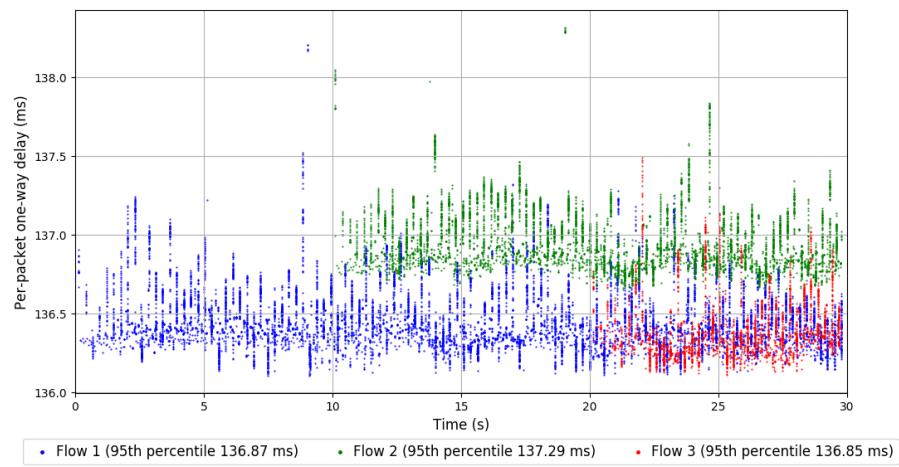
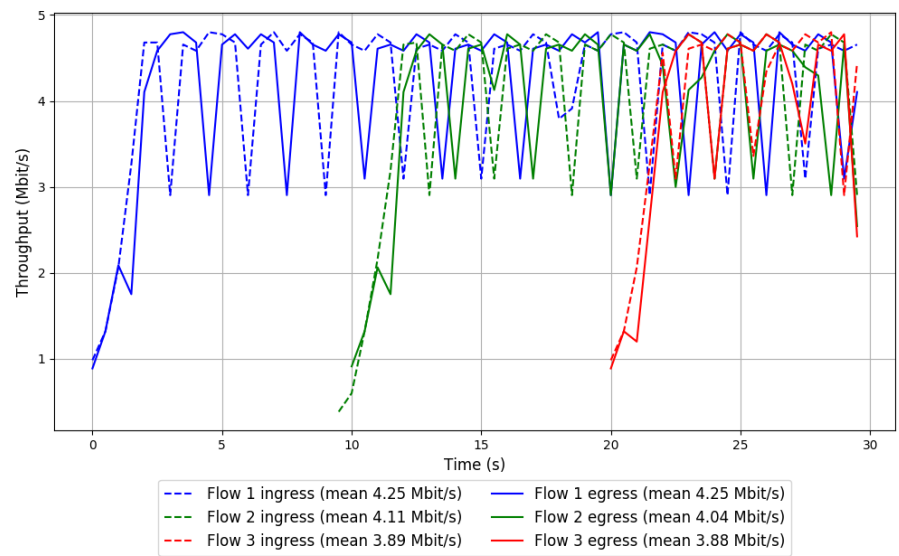
-- Flow 3:

Average throughput: 3.88 Mbit/s

95th percentile per-packet one-way delay: 136.848 ms

Loss rate: 3.11%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-12 13:53:38

End at: 2017-08-12 13:54:08

Below is generated by plot.py at 2017-08-12 17:54:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.41 Mbit/s

95th percentile per-packet one-way delay: 163.842 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 163.965 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 163.738 ms

Loss rate: 2.75%

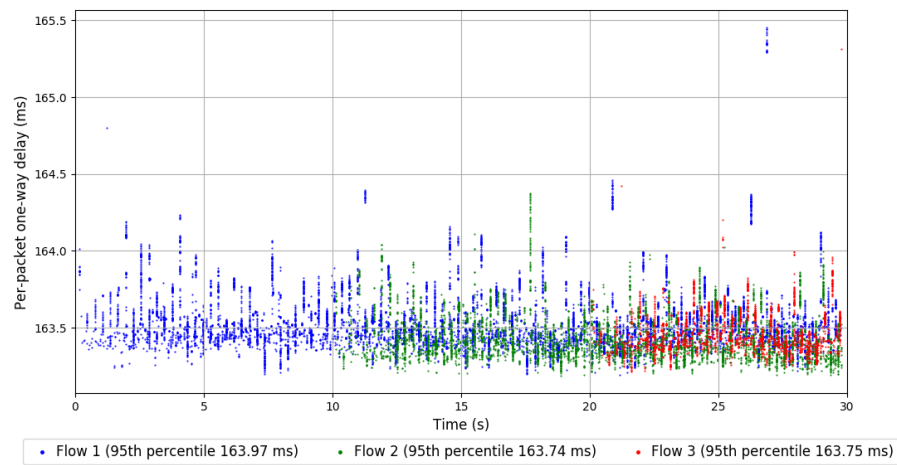
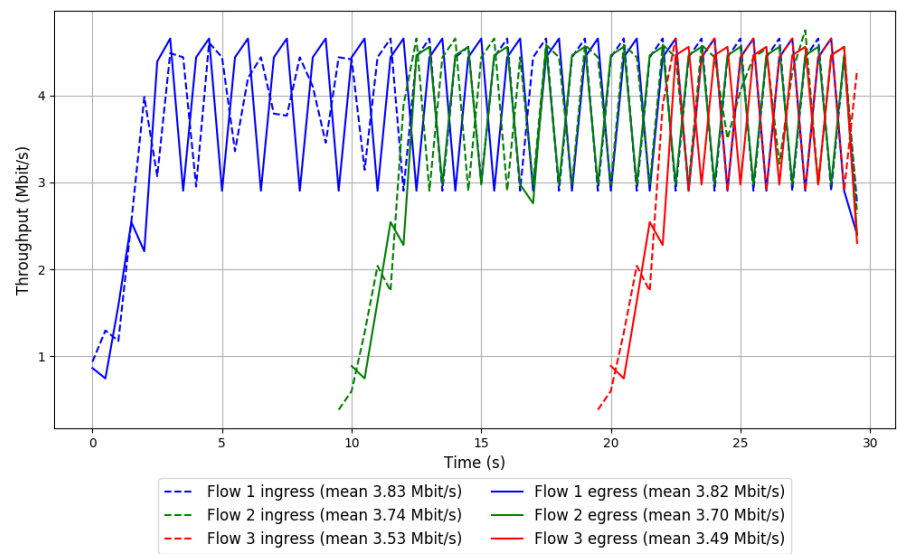
-- Flow 3:

Average throughput: 3.49 Mbit/s

95th percentile per-packet one-way delay: 163.746 ms

Loss rate: 3.40%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-08-12 14:06:48

End at: 2017-08-12 14:07:18

Below is generated by plot.py at 2017-08-12 17:54:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.45 Mbit/s

95th percentile per-packet one-way delay: 163.857 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 163.819 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 3.74 Mbit/s

95th percentile per-packet one-way delay: 163.905 ms

Loss rate: 1.65%

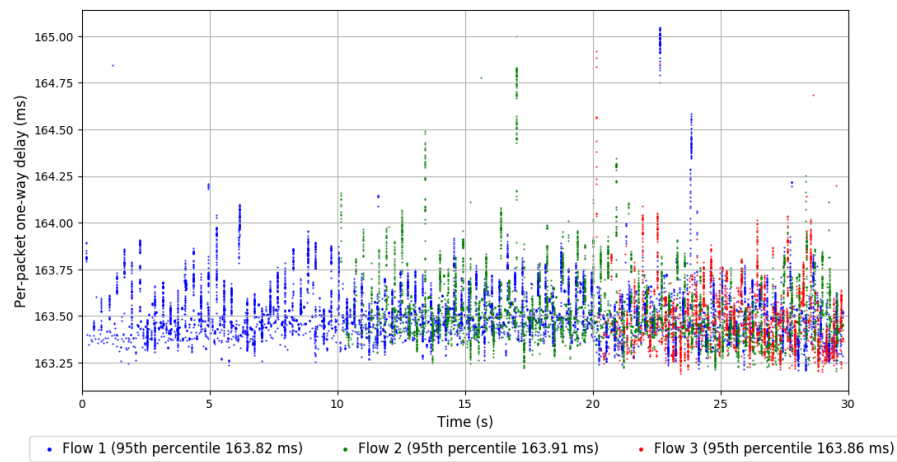
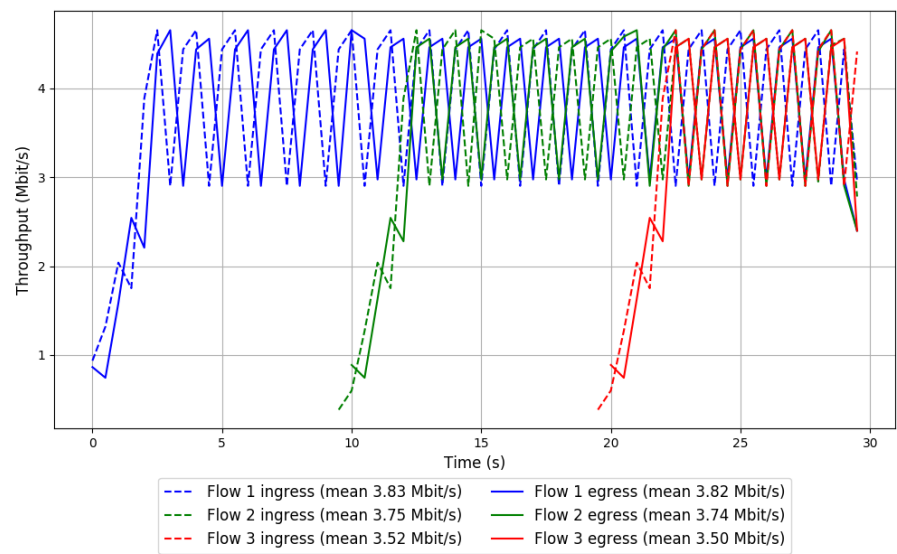
-- Flow 3:

Average throughput: 3.50 Mbit/s

95th percentile per-packet one-way delay: 163.860 ms

Loss rate: 3.43%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-12 14:20:29

End at: 2017-08-12 14:20:59

Below is generated by plot.py at 2017-08-12 17:54:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.24 Mbit/s

95th percentile per-packet one-way delay: 137.160 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.096 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 4.16 Mbit/s

95th percentile per-packet one-way delay: 137.190 ms

Loss rate: 1.45%

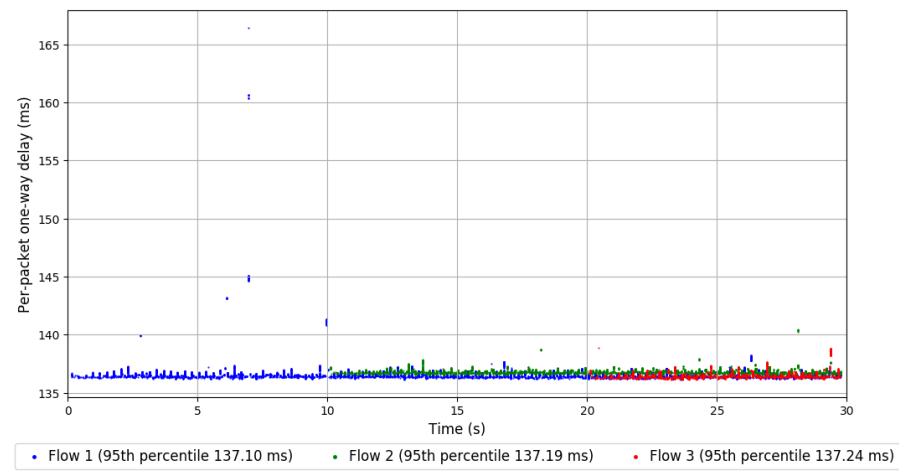
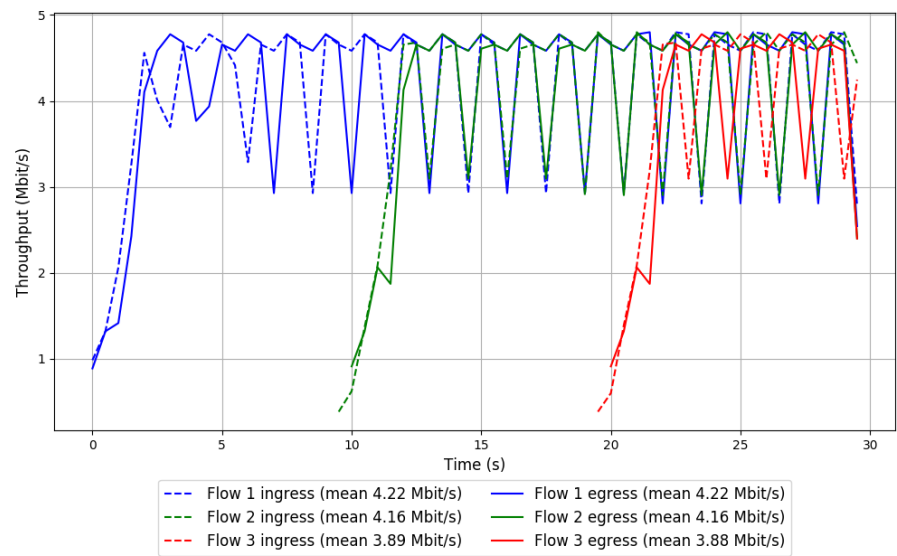
-- Flow 3:

Average throughput: 3.88 Mbit/s

95th percentile per-packet one-way delay: 137.235 ms

Loss rate: 3.11%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-12 14:34:30

End at: 2017-08-12 14:35:00

Below is generated by plot.py at 2017-08-12 17:54:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.23 Mbit/s

95th percentile per-packet one-way delay: 137.008 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 136.905 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 4.16 Mbit/s

95th percentile per-packet one-way delay: 137.007 ms

Loss rate: 1.45%

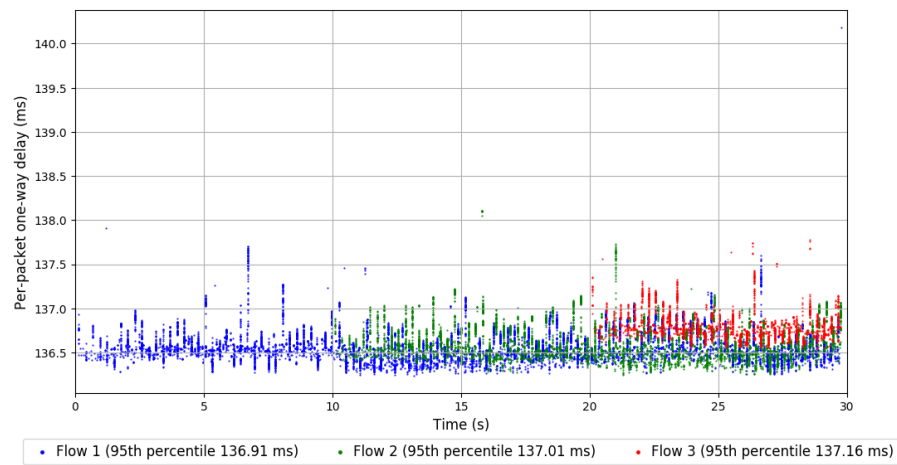
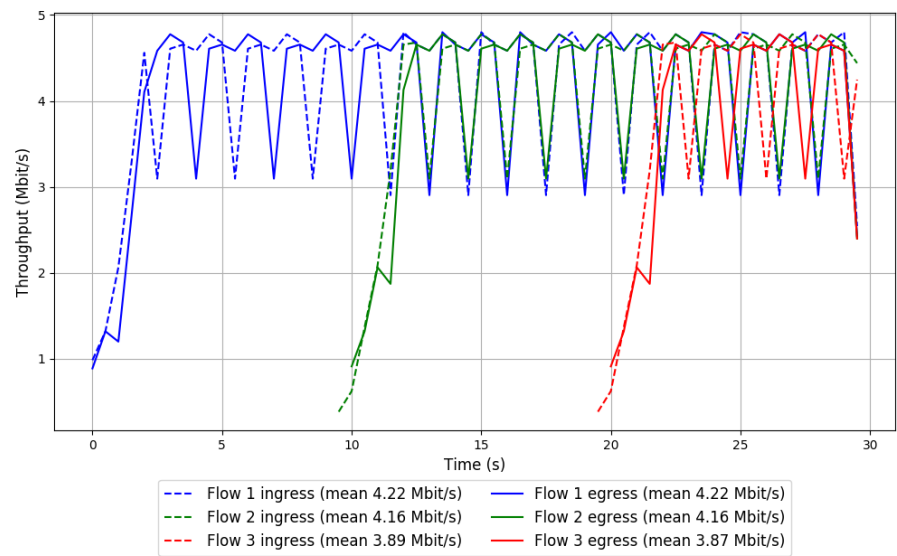
-- Flow 3:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 137.156 ms

Loss rate: 3.11%

Run 9: Report of KohoCC — Data Link

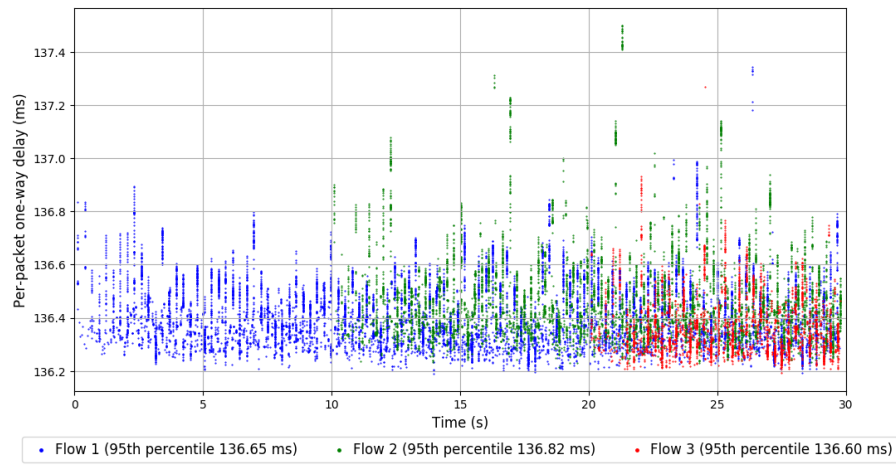
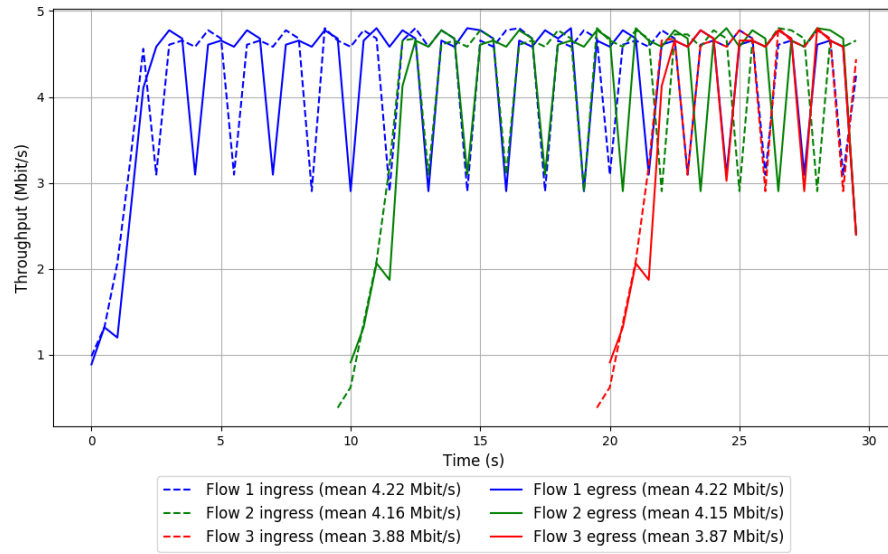


```
Run 10: Statistics of KohoCC

Start at: 2017-08-12 14:48:32
End at: 2017-08-12 14:49:02

# Below is generated by plot.py at 2017-08-12 17:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 136.692 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 136.645 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 136.825 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 136.600 ms
Loss rate: 3.14%
```

Run 10: Report of KohoCC — Data Link

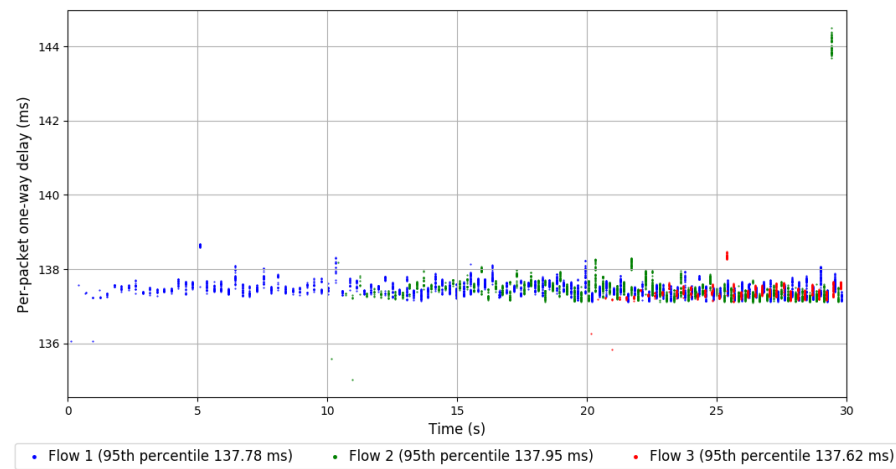
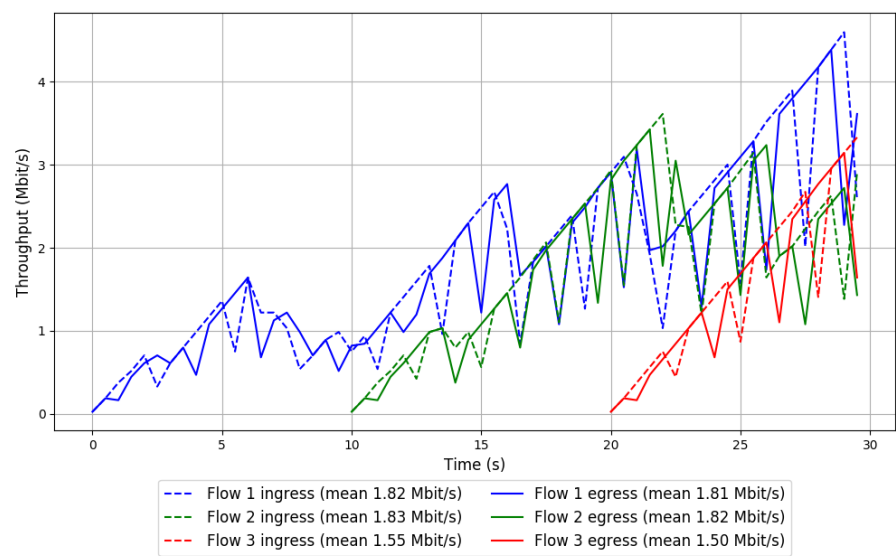


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-12 12:36:55
End at: 2017-08-12 12:37:25

# Below is generated by plot.py at 2017-08-12 17:54:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 137.820 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 137.781 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 137.951 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 137.617 ms
Loss rate: 5.52%
```

Run 1: Report of LEDBAT — Data Link

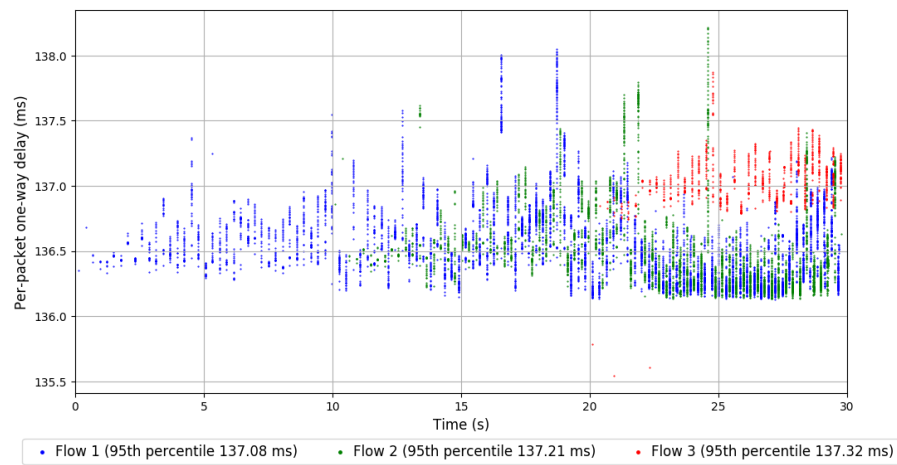
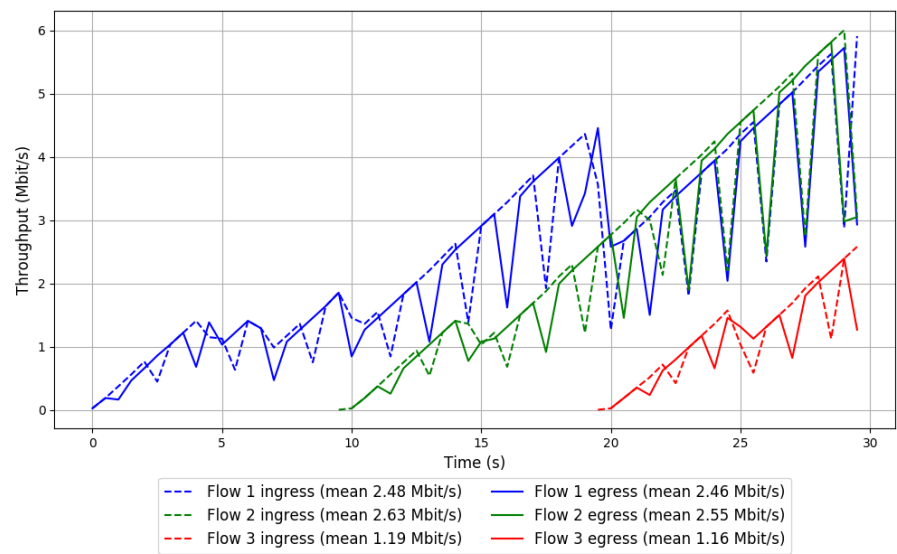


```
Run 2: Statistics of LEDBAT

Start at: 2017-08-12 12:51:03
End at: 2017-08-12 12:51:33

# Below is generated by plot.py at 2017-08-12 17:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 137.216 ms
Loss rate: 2.67%
-- Flow 1:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 137.077 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 137.211 ms
Loss rate: 2.95%
-- Flow 3:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 137.324 ms
Loss rate: 5.57%
```


Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-12 13:04:51

End at: 2017-08-12 13:05:21

Below is generated by plot.py at 2017-08-12 17:54:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.63 Mbit/s

95th percentile per-packet one-way delay: 137.261 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 137.291 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 2.48 Mbit/s

95th percentile per-packet one-way delay: 137.341 ms

Loss rate: 2.31%

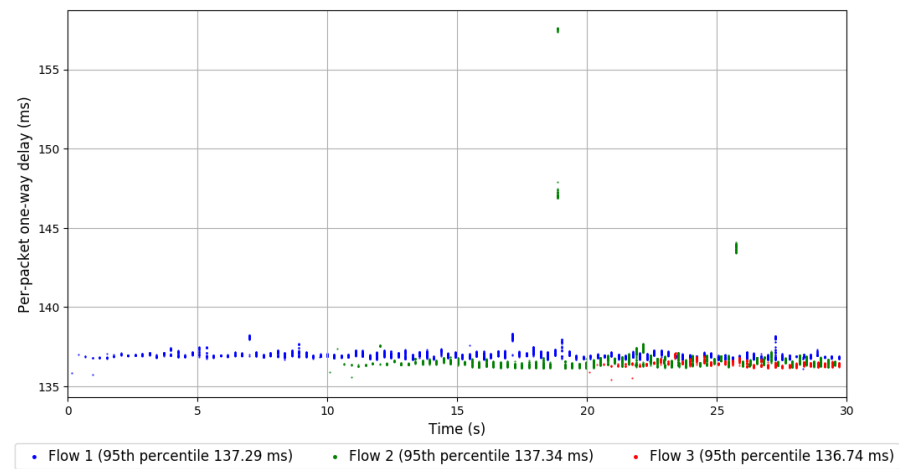
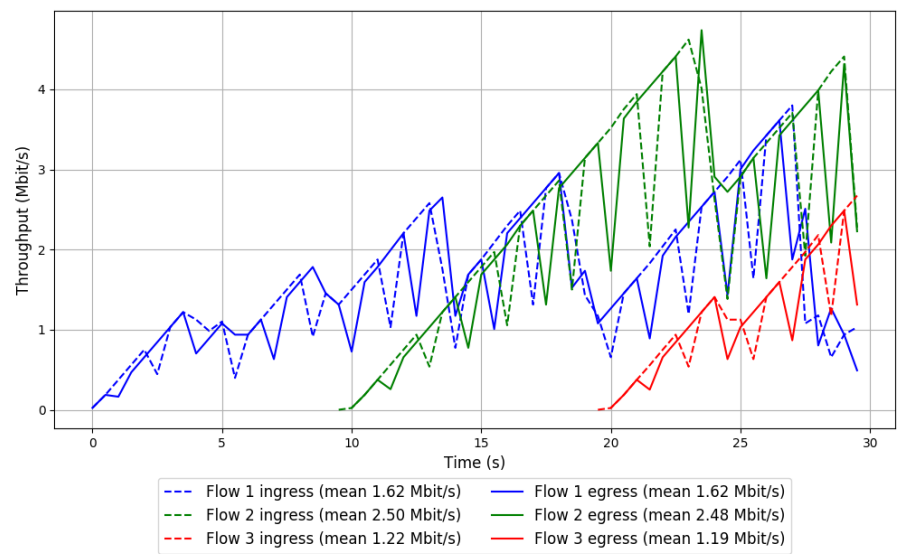
-- Flow 3:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 136.737 ms

Loss rate: 5.63%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-12 13:18:42

End at: 2017-08-12 13:19:12

Below is generated by plot.py at 2017-08-12 17:54:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.21 Mbit/s

95th percentile per-packet one-way delay: 137.226 ms

Loss rate: 2.70%

-- Flow 1:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 137.275 ms

Loss rate: 1.82%

-- Flow 2:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 137.181 ms

Loss rate: 2.72%

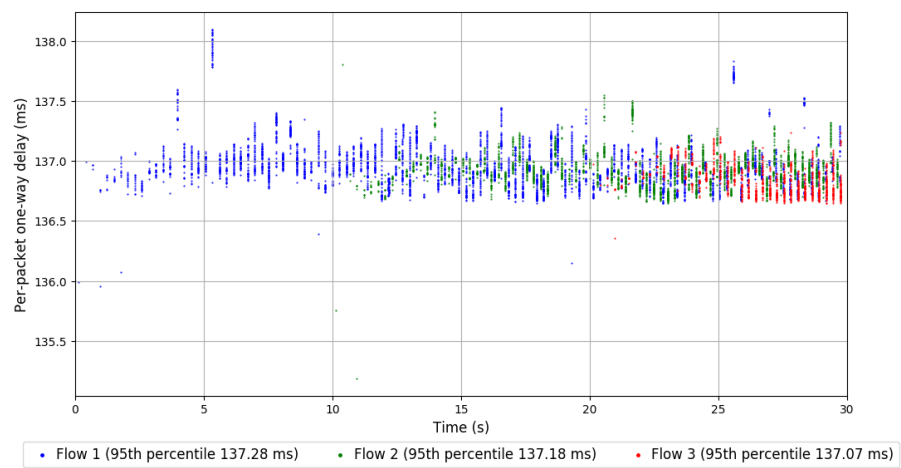
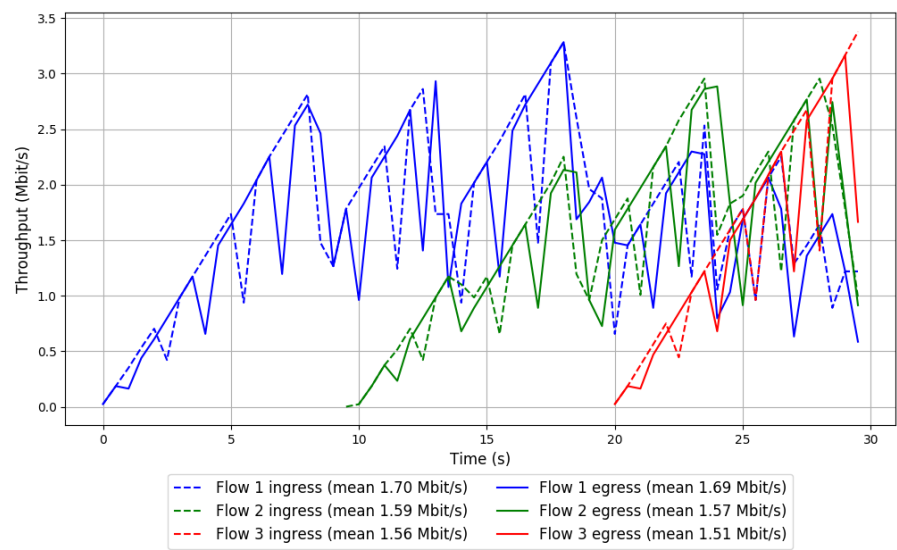
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 137.067 ms

Loss rate: 5.56%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-12 13:32:34

End at: 2017-08-12 13:33:04

Below is generated by plot.py at 2017-08-12 17:54:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 137.393 ms

Loss rate: 2.96%

-- Flow 1:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 137.240 ms

Loss rate: 3.02%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 137.698 ms

Loss rate: 1.83%

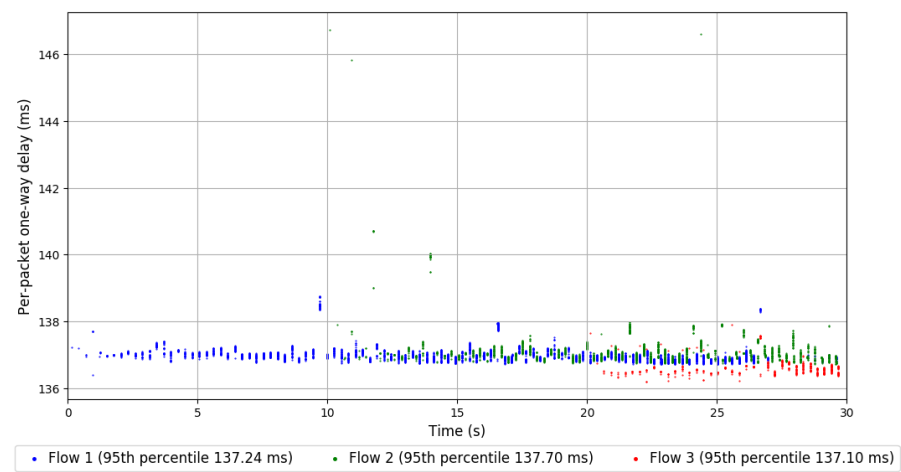
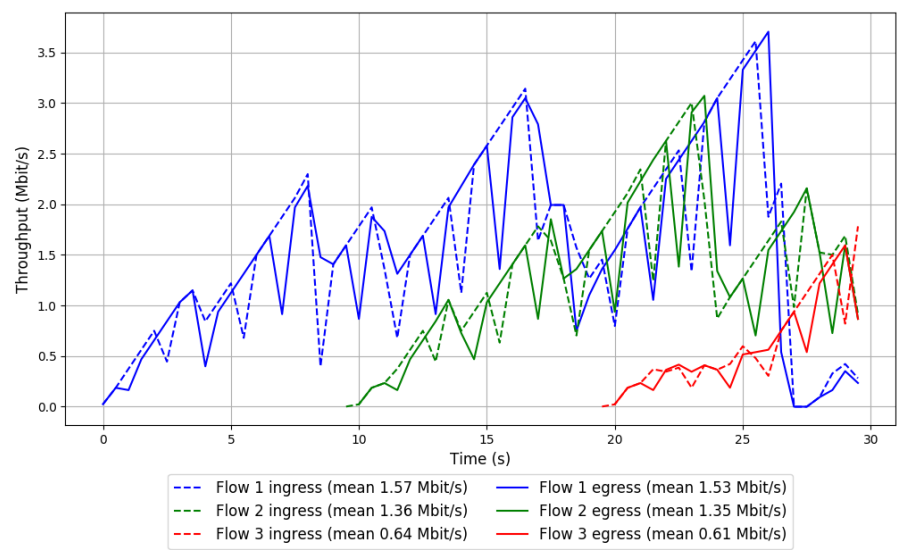
-- Flow 3:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 137.101 ms

Loss rate: 7.29%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-12 13:47:04

End at: 2017-08-12 13:47:34

Below is generated by plot.py at 2017-08-12 17:54:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 137.145 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 137.168 ms

Loss rate: 1.60%

-- Flow 2:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 137.105 ms

Loss rate: 1.76%

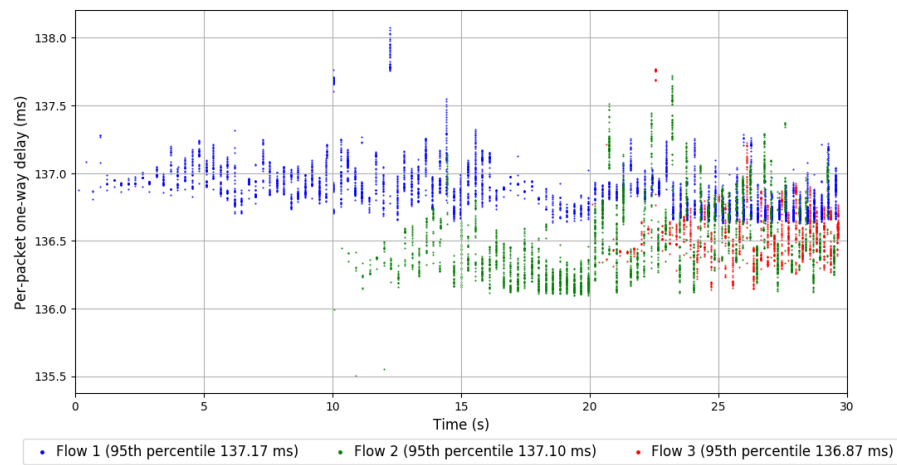
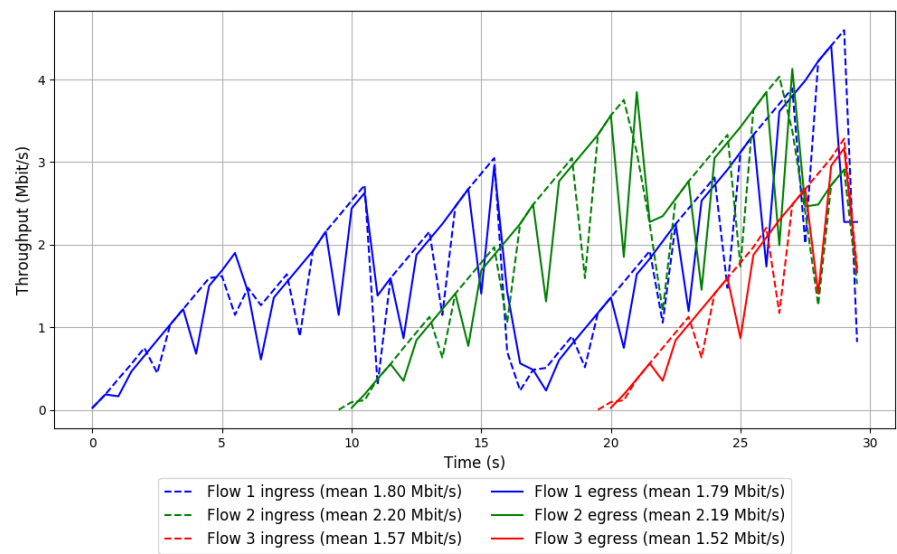
-- Flow 3:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 136.868 ms

Loss rate: 5.56%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-12 14:00:28

End at: 2017-08-12 14:00:58

Below is generated by plot.py at 2017-08-12 17:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.90 Mbit/s

95th percentile per-packet one-way delay: 163.973 ms

Loss rate: 2.56%

-- Flow 1:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 164.012 ms

Loss rate: 2.03%

-- Flow 2:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 163.886 ms

Loss rate: 2.78%

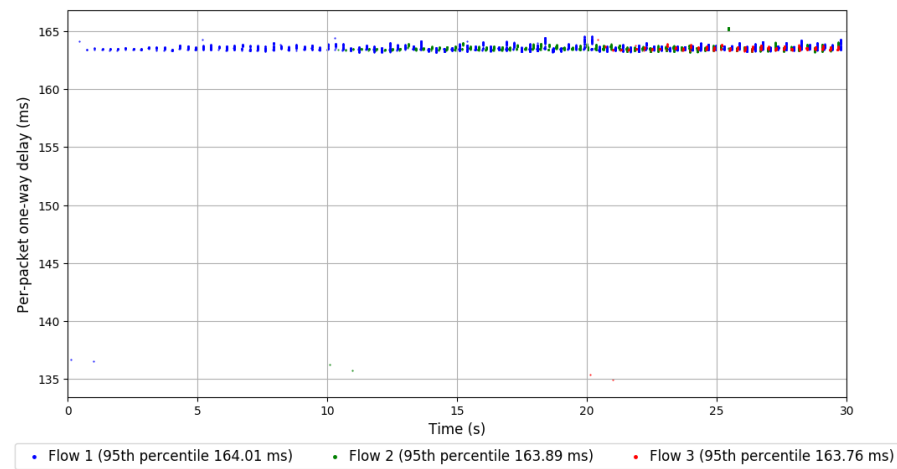
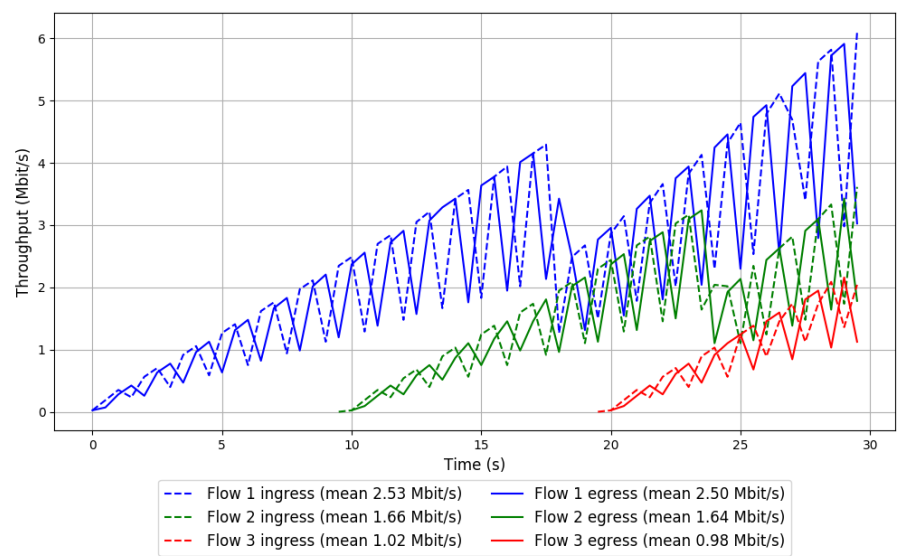
-- Flow 3:

Average throughput: 0.98 Mbit/s

95th percentile per-packet one-way delay: 163.758 ms

Loss rate: 5.86%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-12 14:13:58

End at: 2017-08-12 14:14:28

Below is generated by plot.py at 2017-08-12 17:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 137.028 ms

Loss rate: 3.29%

-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 137.062 ms

Loss rate: 2.49%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 136.793 ms

Loss rate: 4.05%

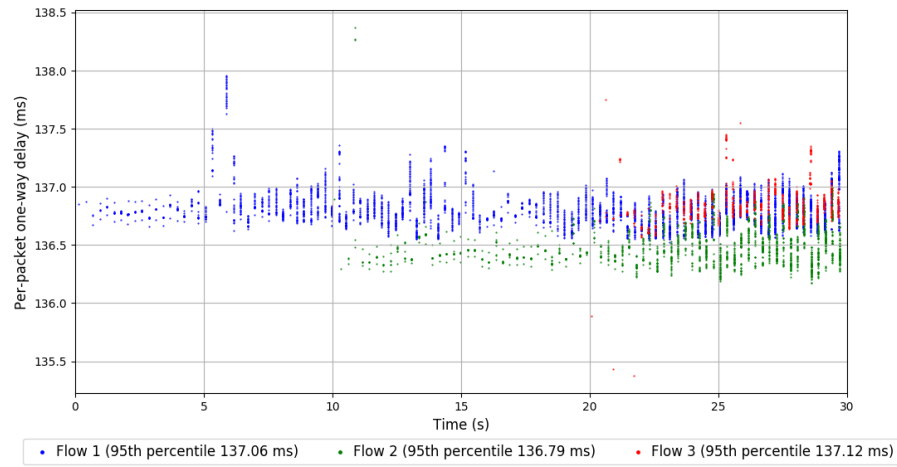
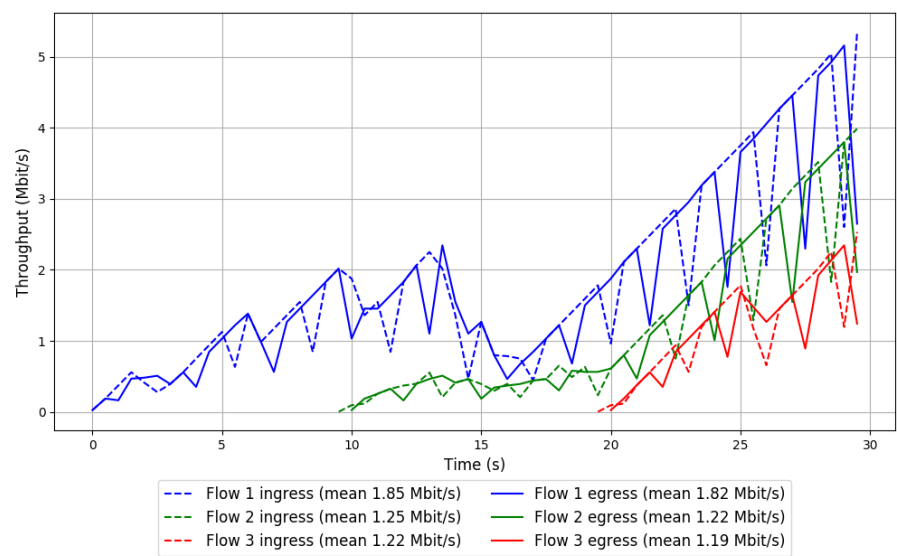
-- Flow 3:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 137.123 ms

Loss rate: 5.35%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-12 14:27:47

End at: 2017-08-12 14:28:17

Below is generated by plot.py at 2017-08-12 17:54:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.64 Mbit/s

95th percentile per-packet one-way delay: 137.234 ms

Loss rate: 2.50%

-- Flow 1:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 137.286 ms

Loss rate: 1.99%

-- Flow 2:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 137.231 ms

Loss rate: 2.74%

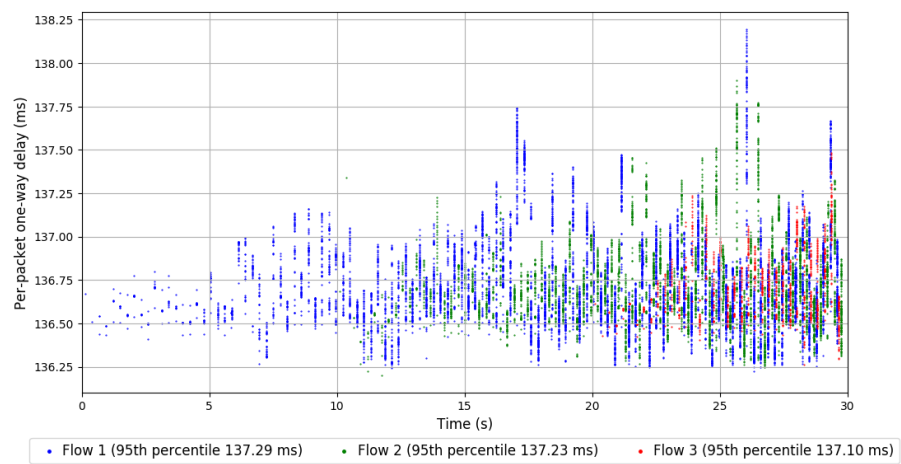
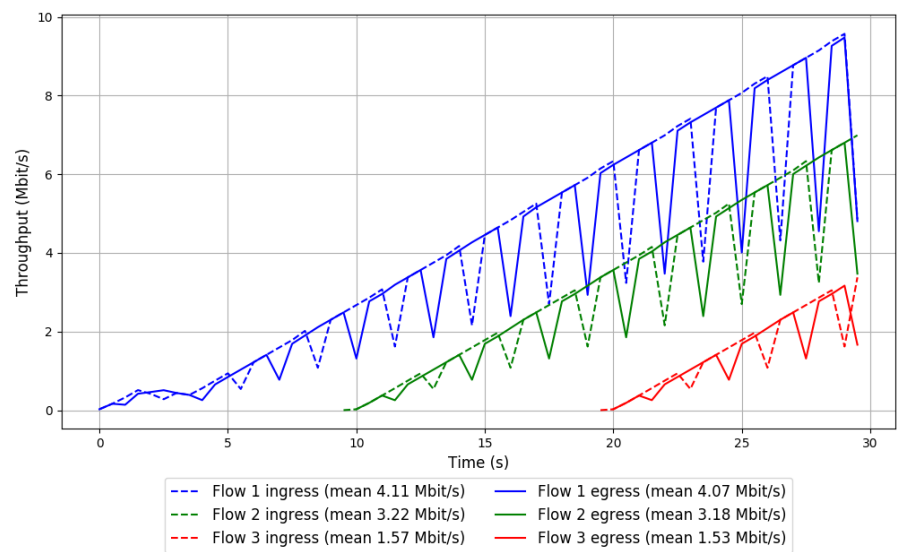
-- Flow 3:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 137.097 ms

Loss rate: 5.56%

Run 9: Report of LEDBAT — Data Link

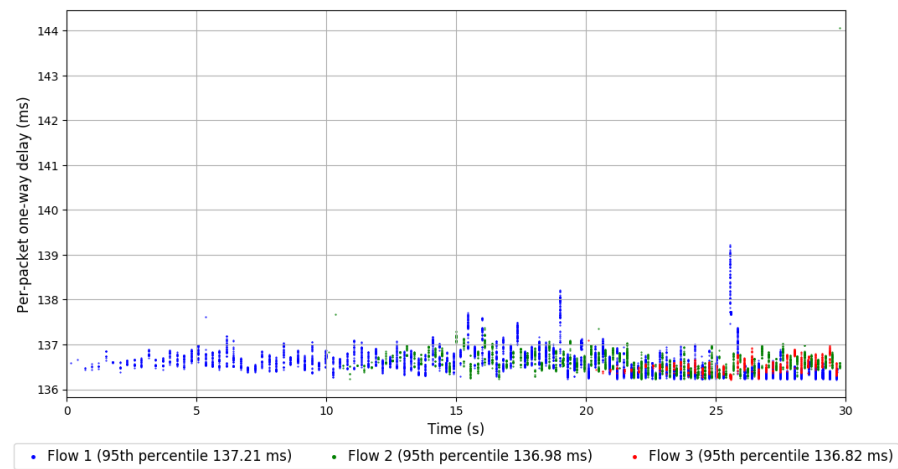
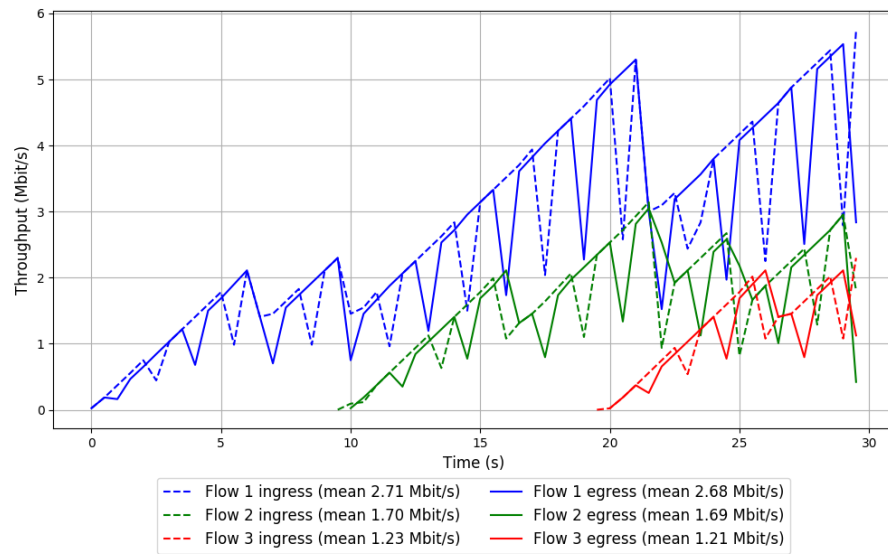


```
Run 10: Statistics of LEDBAT

Start at: 2017-08-12 14:41:50
End at: 2017-08-12 14:42:20

# Below is generated by plot.py at 2017-08-12 17:54:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 137.067 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 137.211 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 136.976 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 136.817 ms
Loss rate: 4.85%
```


Run 10: Report of LEDBAT — Data Link

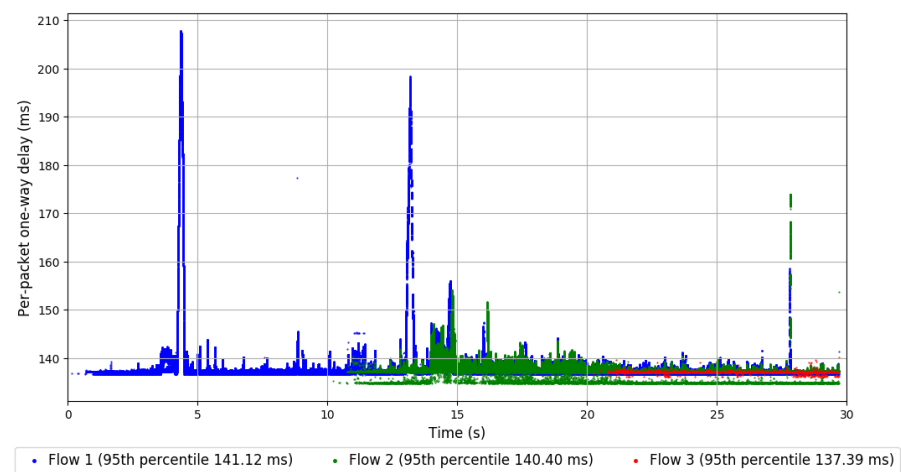
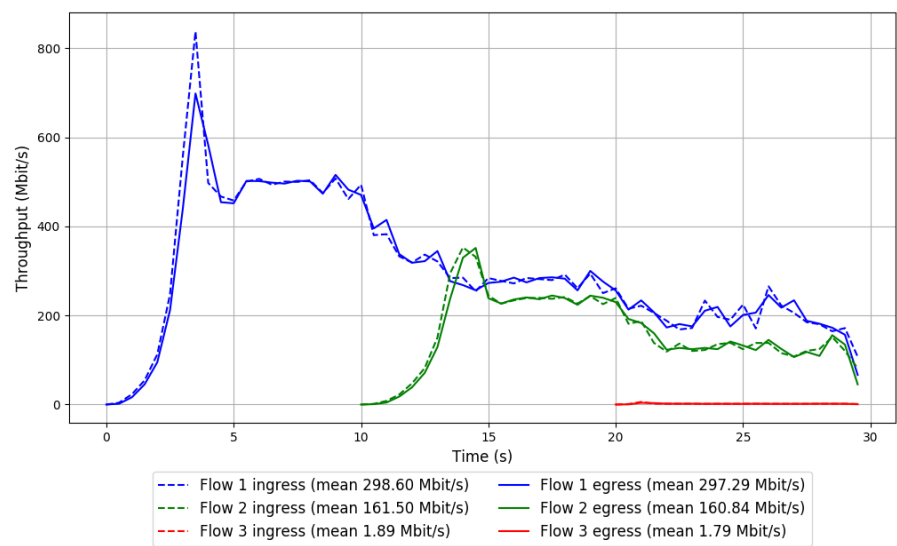


```
Run 1: Statistics of PCC

Start at: 2017-08-12 12:37:44
End at: 2017-08-12 12:38:14

# Below is generated by plot.py at 2017-08-12 17:56:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 403.84 Mbit/s
95th percentile per-packet one-way delay: 140.945 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 297.29 Mbit/s
95th percentile per-packet one-way delay: 141.116 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 160.84 Mbit/s
95th percentile per-packet one-way delay: 140.399 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 137.393 ms
Loss rate: 8.20%
```

Run 1: Report of PCC — Data Link

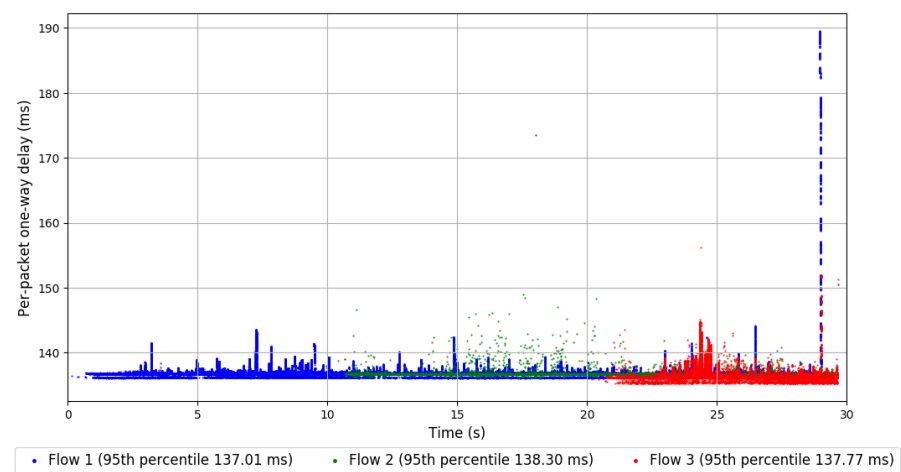
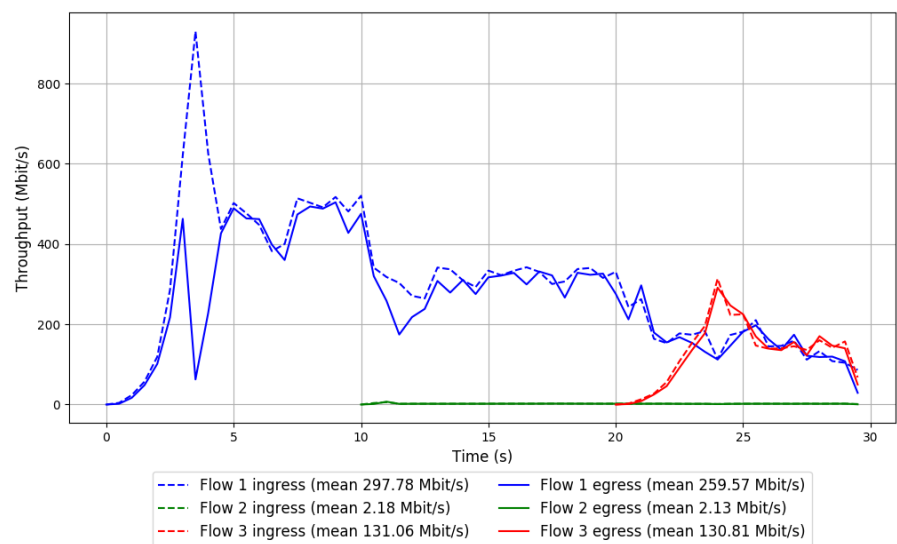


```
Run 2: Statistics of PCC

Start at: 2017-08-12 12:51:53
End at: 2017-08-12 12:52:23

# Below is generated by plot.py at 2017-08-12 17:56:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 302.96 Mbit/s
95th percentile per-packet one-way delay: 137.064 ms
Loss rate: 12.20%
-- Flow 1:
Average throughput: 259.57 Mbit/s
95th percentile per-packet one-way delay: 137.009 ms
Loss rate: 13.59%
-- Flow 2:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 138.299 ms
Loss rate: 3.36%
-- Flow 3:
Average throughput: 130.81 Mbit/s
95th percentile per-packet one-way delay: 137.769 ms
Loss rate: 2.85%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-12 13:05:40

End at: 2017-08-12 13:06:10

Below is generated by plot.py at 2017-08-12 17:57:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 353.40 Mbit/s

95th percentile per-packet one-way delay: 137.068 ms

Loss rate: 11.58%

-- Flow 1:

Average throughput: 245.34 Mbit/s

95th percentile per-packet one-way delay: 137.124 ms

Loss rate: 13.98%

-- Flow 2:

Average throughput: 98.88 Mbit/s

95th percentile per-packet one-way delay: 136.860 ms

Loss rate: 6.56%

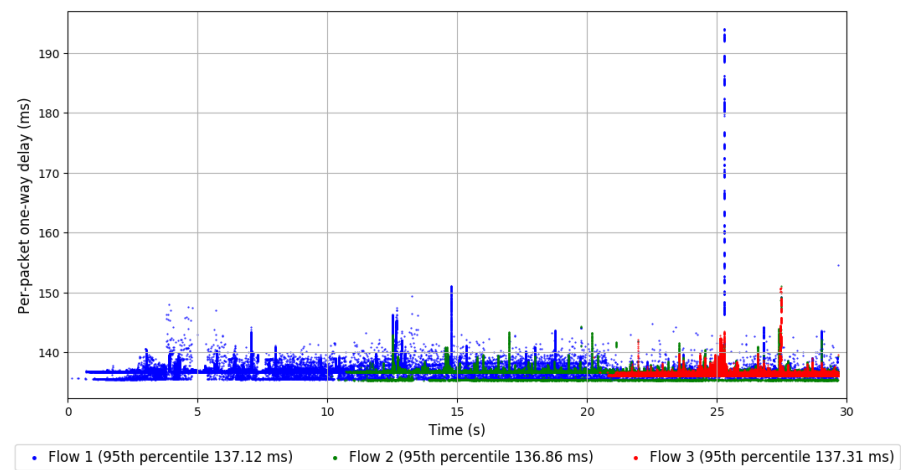
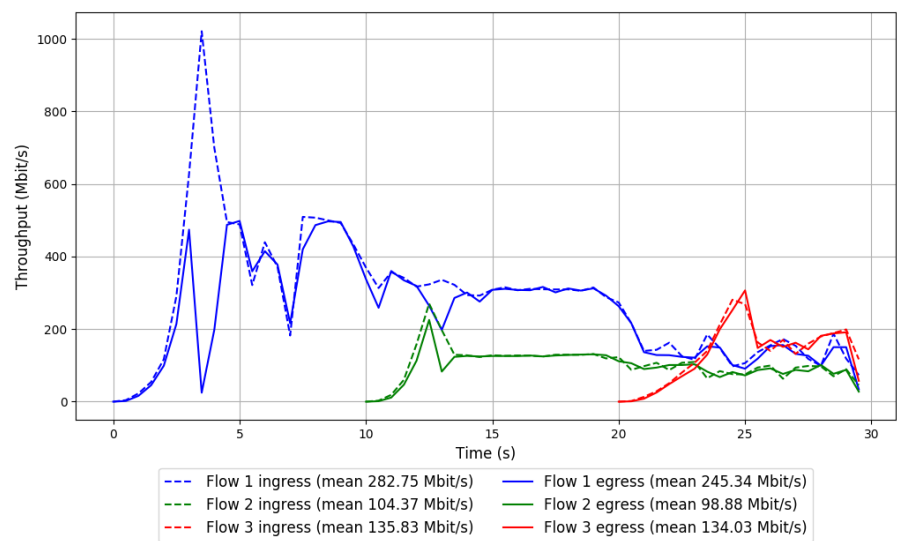
-- Flow 3:

Average throughput: 134.03 Mbit/s

95th percentile per-packet one-way delay: 137.307 ms

Loss rate: 4.12%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-12 13:19:32

End at: 2017-08-12 13:20:02

Below is generated by plot.py at 2017-08-12 17:57:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 319.05 Mbit/s

95th percentile per-packet one-way delay: 139.302 ms

Loss rate: 14.41%

-- Flow 1:

Average throughput: 153.21 Mbit/s

95th percentile per-packet one-way delay: 137.810 ms

Loss rate: 24.76%

-- Flow 2:

Average throughput: 249.93 Mbit/s

95th percentile per-packet one-way delay: 140.274 ms

Loss rate: 1.92%

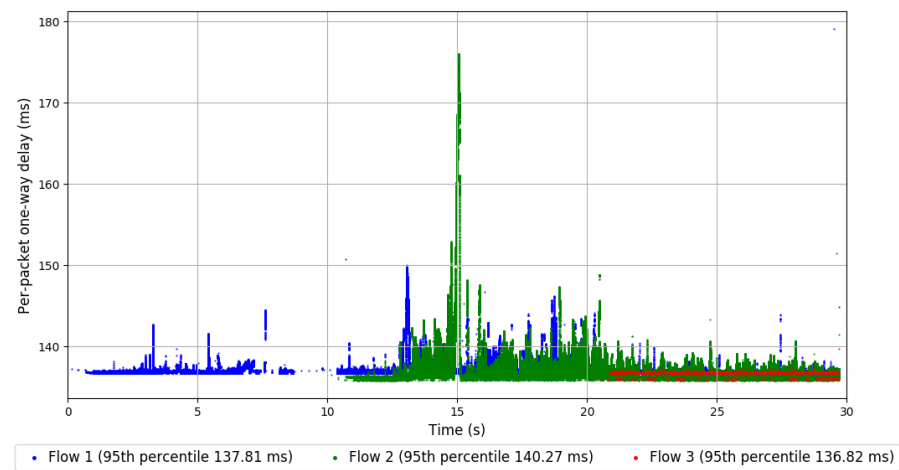
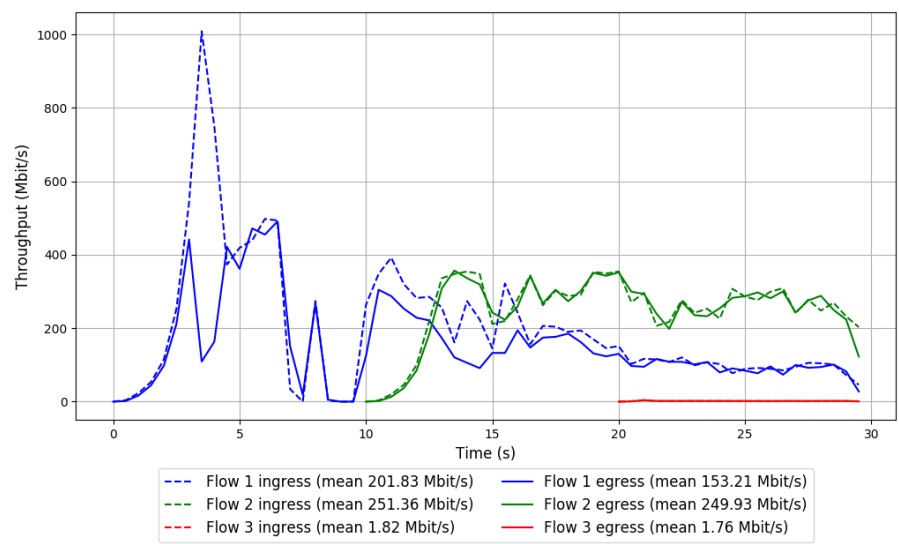
-- Flow 3:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 136.823 ms

Loss rate: 5.95%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-12 13:33:30

End at: 2017-08-12 13:34:00

Below is generated by plot.py at 2017-08-12 17:58:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 420.71 Mbit/s

95th percentile per-packet one-way delay: 140.692 ms

Loss rate: 2.46%

-- Flow 1:

Average throughput: 272.91 Mbit/s

95th percentile per-packet one-way delay: 140.464 ms

Loss rate: 2.03%

-- Flow 2:

Average throughput: 148.03 Mbit/s

95th percentile per-packet one-way delay: 141.497 ms

Loss rate: 1.92%

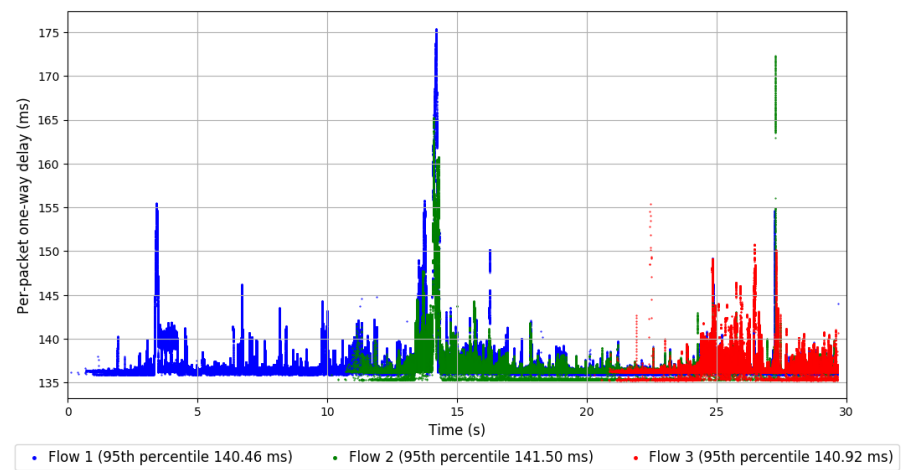
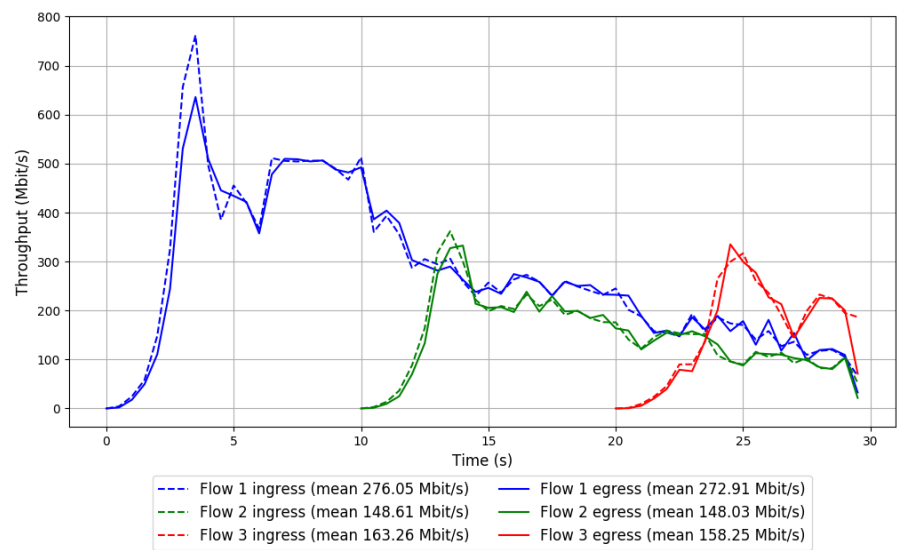
-- Flow 3:

Average throughput: 158.25 Mbit/s

95th percentile per-packet one-way delay: 140.916 ms

Loss rate: 5.78%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-12 13:47:53

End at: 2017-08-12 13:48:23

Below is generated by plot.py at 2017-08-12 17:58:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 344.00 Mbit/s

95th percentile per-packet one-way delay: 139.538 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 341.24 Mbit/s

95th percentile per-packet one-way delay: 139.552 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 3.32 Mbit/s

95th percentile per-packet one-way delay: 136.862 ms

Loss rate: 8.44%

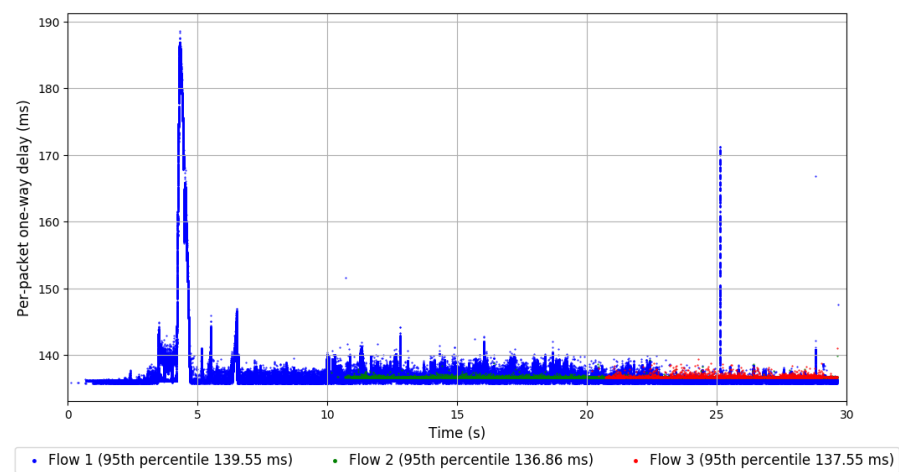
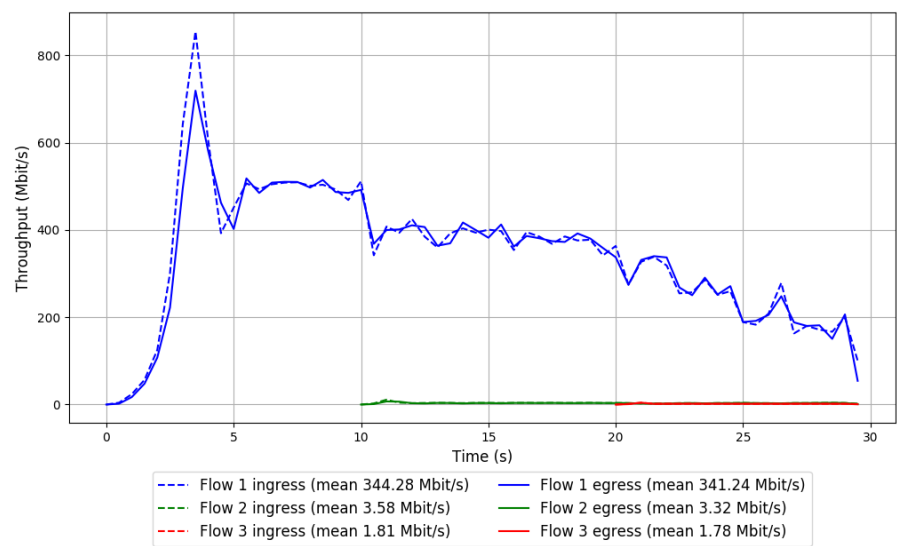
-- Flow 3:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 137.548 ms

Loss rate: 4.53%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-12 14:01:18

End at: 2017-08-12 14:01:48

Below is generated by plot.py at 2017-08-12 17:58:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 30.12 Mbit/s

95th percentile per-packet one-way delay: 163.338 ms

Loss rate: 1.84%

-- Flow 1:

Average throughput: 11.55 Mbit/s

95th percentile per-packet one-way delay: 163.330 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 4.29 Mbit/s

95th percentile per-packet one-way delay: 163.353 ms

Loss rate: 1.59%

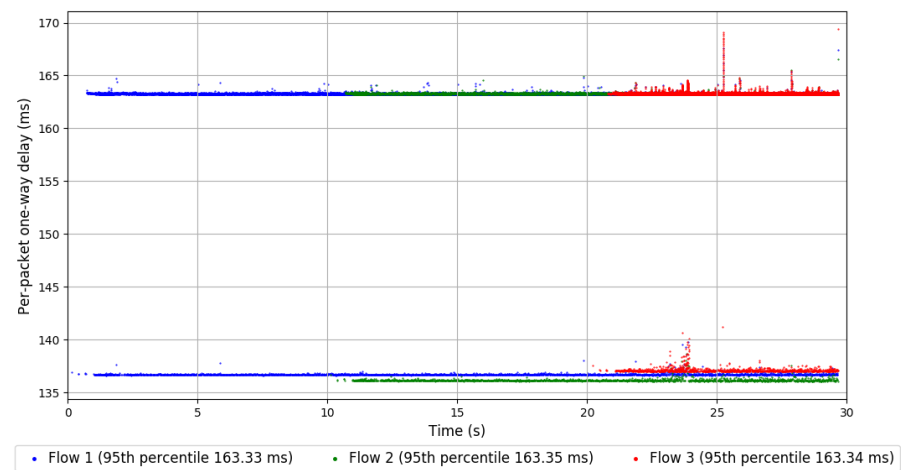
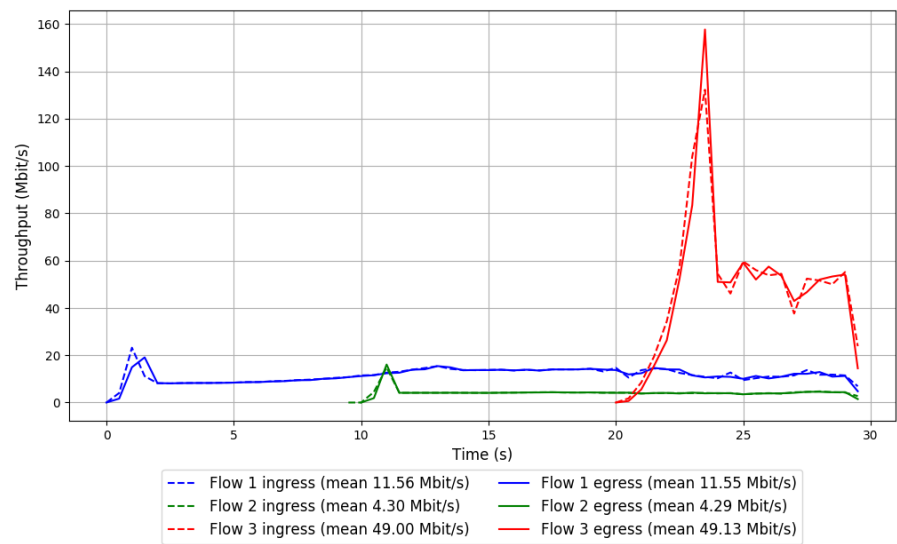
-- Flow 3:

Average throughput: 49.13 Mbit/s

95th percentile per-packet one-way delay: 163.339 ms

Loss rate: 2.50%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-12 14:14:47

End at: 2017-08-12 14:15:17

Below is generated by plot.py at 2017-08-12 17:59:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 295.30 Mbit/s

95th percentile per-packet one-way delay: 136.994 ms

Loss rate: 14.23%

-- Flow 1:

Average throughput: 271.02 Mbit/s

95th percentile per-packet one-way delay: 137.009 ms

Loss rate: 15.00%

-- Flow 2:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 136.916 ms

Loss rate: 4.05%

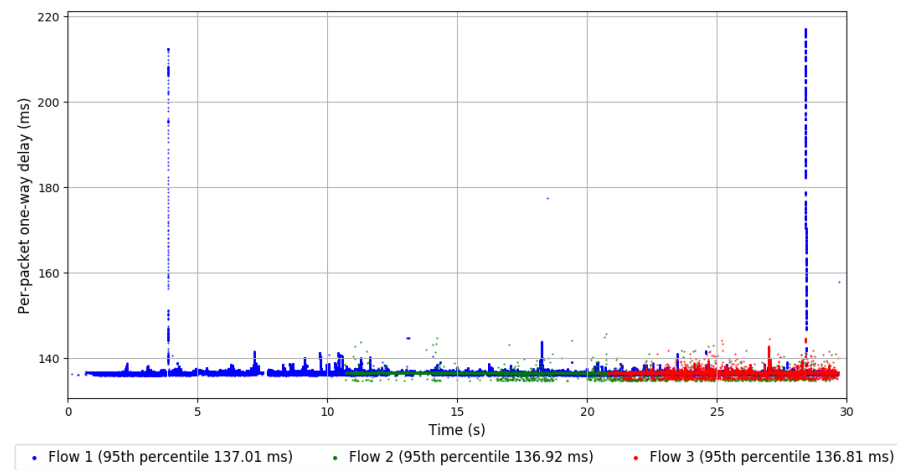
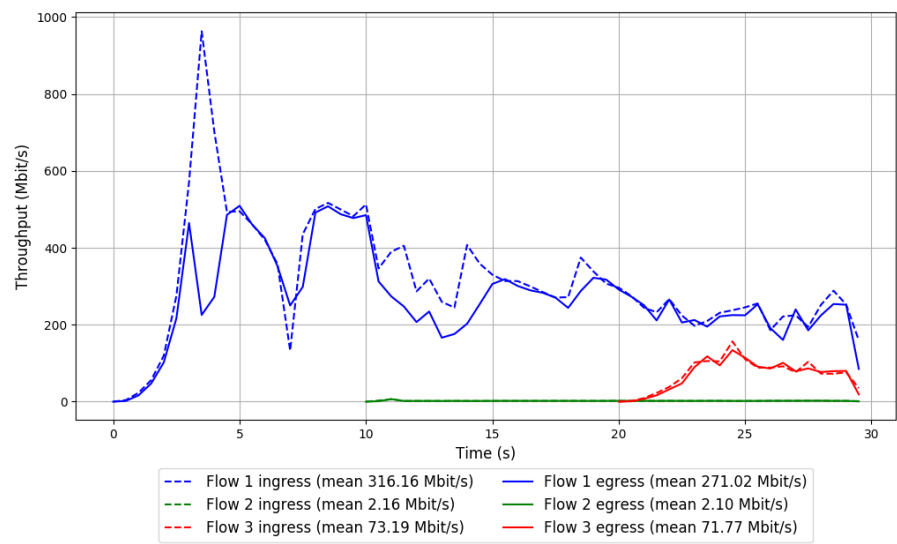
-- Flow 3:

Average throughput: 71.77 Mbit/s

95th percentile per-packet one-way delay: 136.814 ms

Loss rate: 4.67%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-12 14:28:37

End at: 2017-08-12 14:29:07

Below is generated by plot.py at 2017-08-12 17:59:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 433.31 Mbit/s

95th percentile per-packet one-way delay: 169.566 ms

Loss rate: 2.70%

-- Flow 1:

Average throughput: 270.59 Mbit/s

95th percentile per-packet one-way delay: 144.038 ms

Loss rate: 2.03%

-- Flow 2:

Average throughput: 171.02 Mbit/s

95th percentile per-packet one-way delay: 153.628 ms

Loss rate: 1.63%

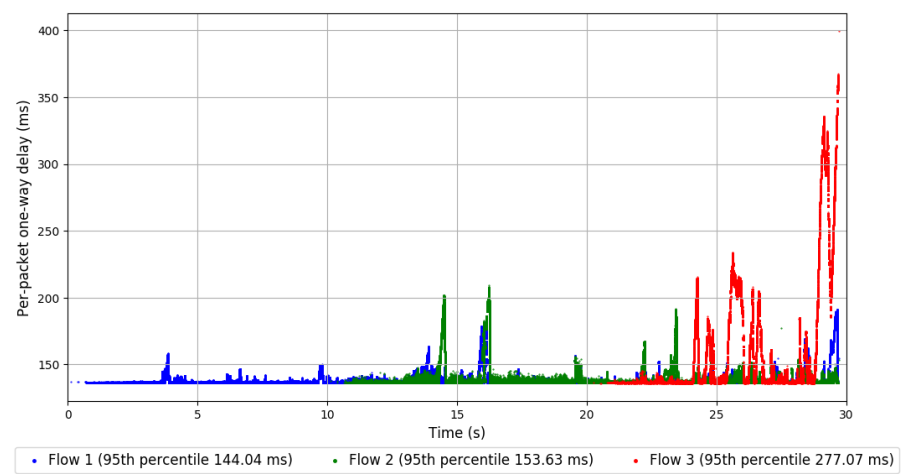
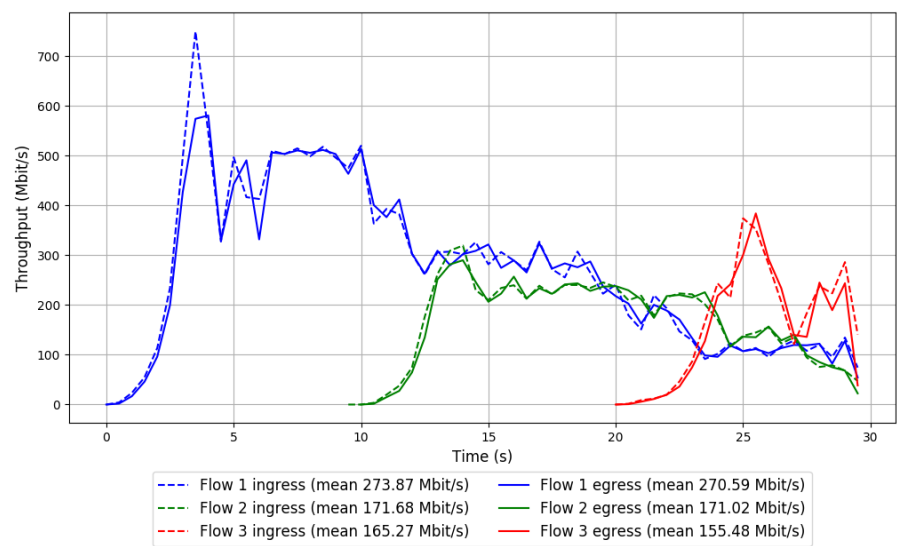
-- Flow 3:

Average throughput: 155.48 Mbit/s

95th percentile per-packet one-way delay: 277.066 ms

Loss rate: 8.38%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-08-12 14:42:40

End at: 2017-08-12 14:43:10

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 439.95 Mbit/s

95th percentile per-packet one-way delay: 161.072 ms

Loss rate: 2.35%

-- Flow 1:

Average throughput: 269.56 Mbit/s

95th percentile per-packet one-way delay: 198.299 ms

Loss rate: 2.77%

-- Flow 2:

Average throughput: 198.55 Mbit/s

95th percentile per-packet one-way delay: 143.284 ms

Loss rate: 1.40%

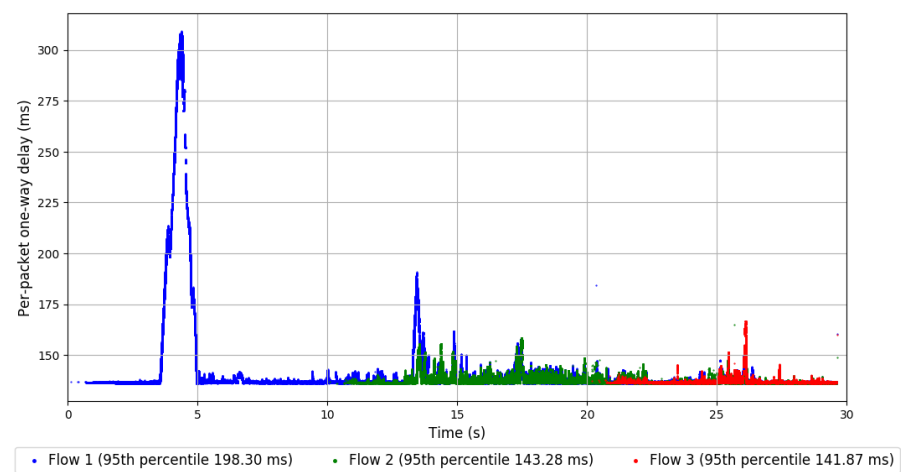
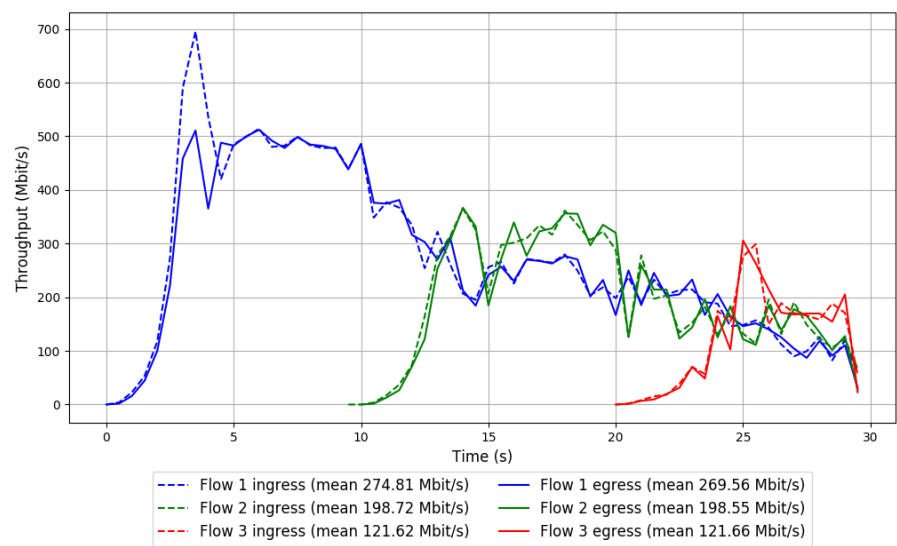
-- Flow 3:

Average throughput: 121.66 Mbit/s

95th percentile per-packet one-way delay: 141.871 ms

Loss rate: 2.55%

Run 10: Report of PCC — Data Link

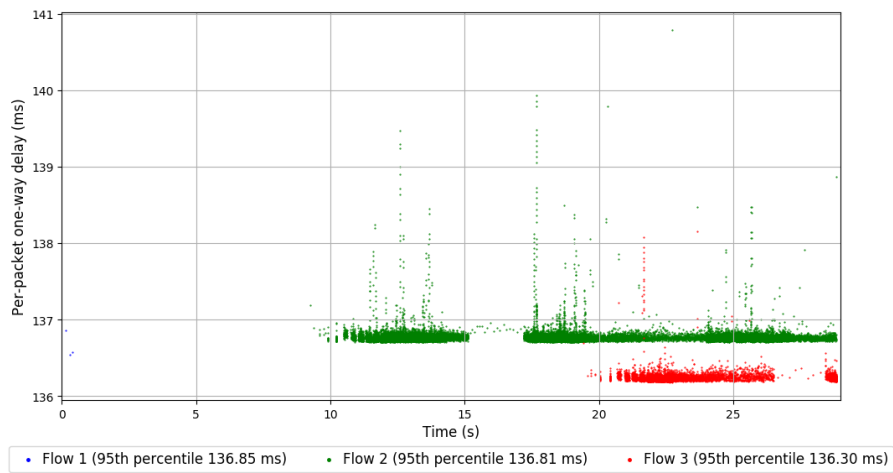
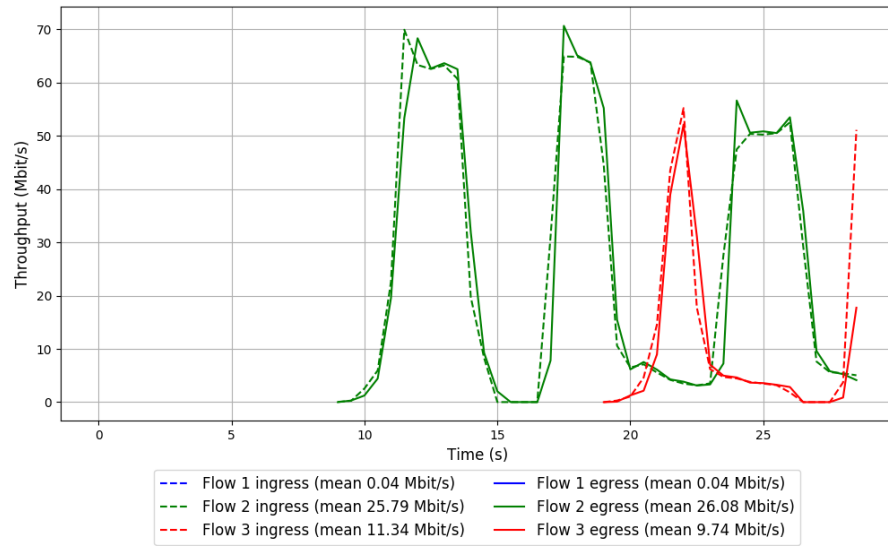


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-12 12:40:57
End at: 2017-08-12 12:41:27

# Below is generated by plot.py at 2017-08-12 18:00:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.00 Mbit/s
95th percentile per-packet one-way delay: 136.809 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 136.854 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.08 Mbit/s
95th percentile per-packet one-way delay: 136.814 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 9.74 Mbit/s
95th percentile per-packet one-way delay: 136.303 ms
Loss rate: 16.50%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

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

End at: 2017-08-12 12:55:24

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.74 Mbit/s

95th percentile per-packet one-way delay: 135.873 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 136.458 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.50 Mbit/s

95th percentile per-packet one-way delay: 135.291 ms

Loss rate: 0.43%

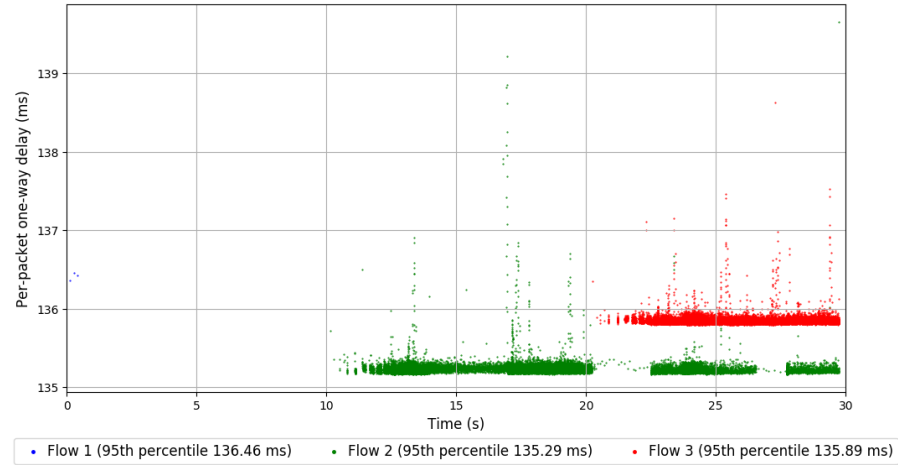
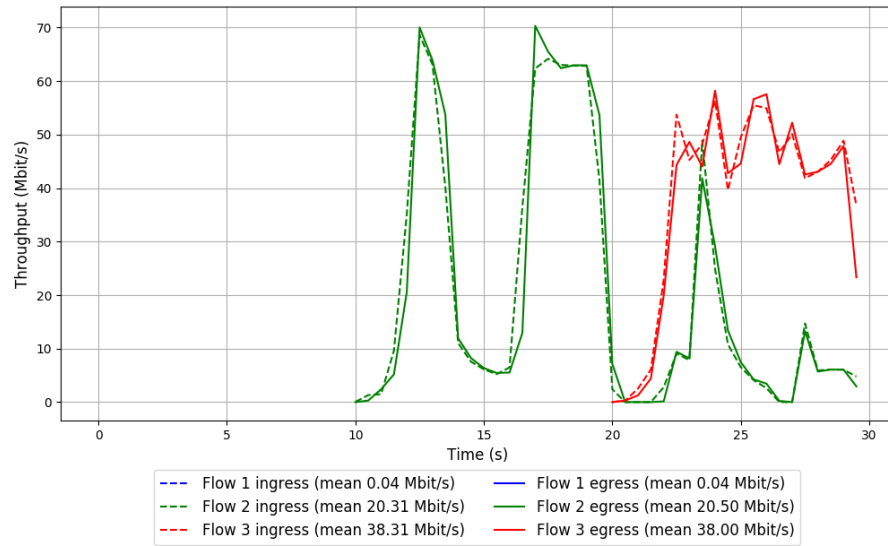
-- Flow 3:

Average throughput: 38.00 Mbit/s

95th percentile per-packet one-way delay: 135.893 ms

Loss rate: 3.58%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-12 13:08:52

End at: 2017-08-12 13:09:22

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.94 Mbit/s

95th percentile per-packet one-way delay: 136.222 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 19.26 Mbit/s

95th percentile per-packet one-way delay: 136.237 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 7.45 Mbit/s

95th percentile per-packet one-way delay: 135.275 ms

Loss rate: 0.00%

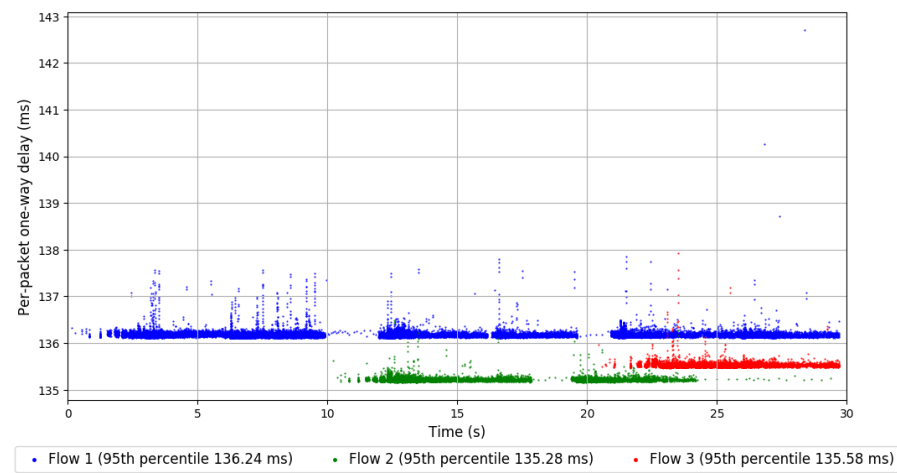
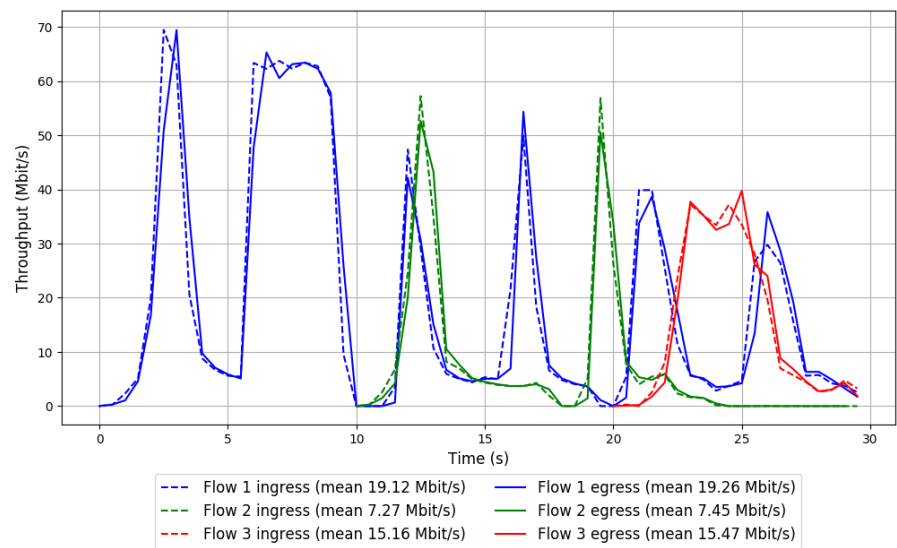
-- Flow 3:

Average throughput: 15.47 Mbit/s

95th percentile per-packet one-way delay: 135.583 ms

Loss rate: 0.86%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-08-12 13:22:43

End at: 2017-08-12 13:23:13

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 30.42 Mbit/s

95th percentile per-packet one-way delay: 137.069 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 18.34 Mbit/s

95th percentile per-packet one-way delay: 135.865 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 11.88 Mbit/s

95th percentile per-packet one-way delay: 136.006 ms

Loss rate: 0.47%

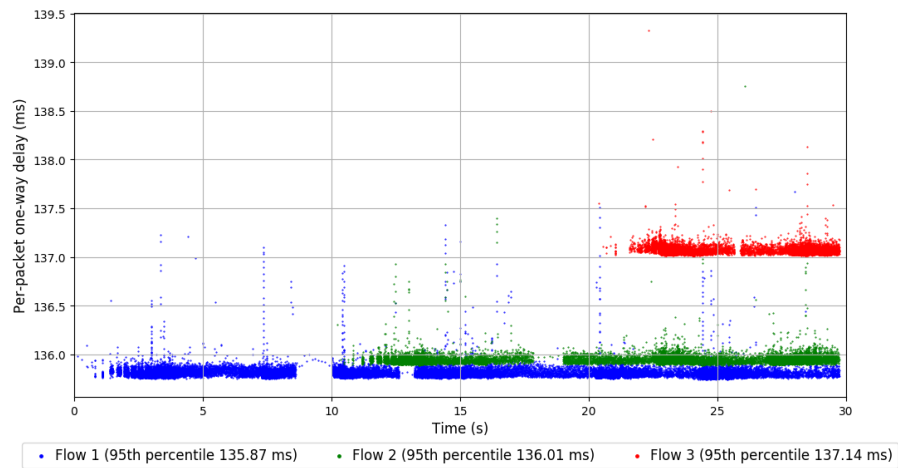
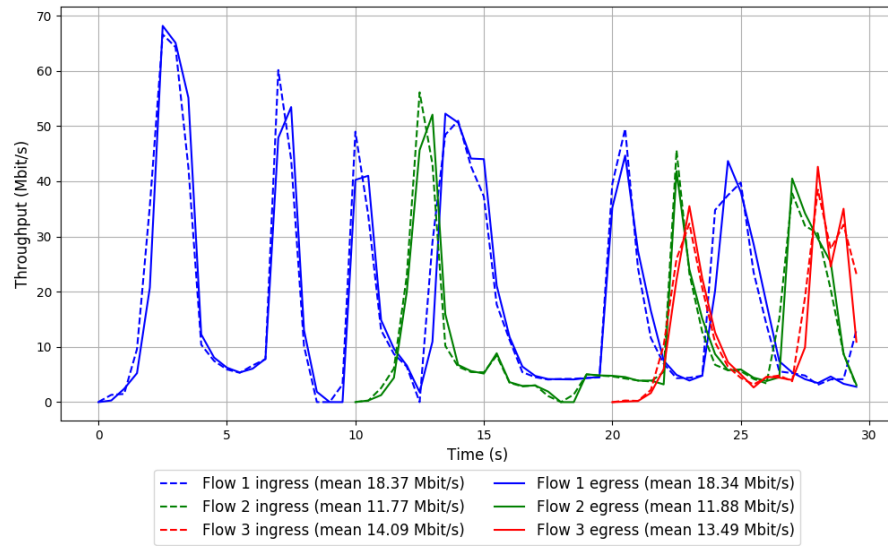
-- Flow 3:

Average throughput: 13.49 Mbit/s

95th percentile per-packet one-way delay: 137.137 ms

Loss rate: 6.97%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-12 13:37:21

End at: 2017-08-12 13:37:51

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.38 Mbit/s

95th percentile per-packet one-way delay: 136.169 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 135.431 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.50 Mbit/s

95th percentile per-packet one-way delay: 136.126 ms

Loss rate: 0.42%

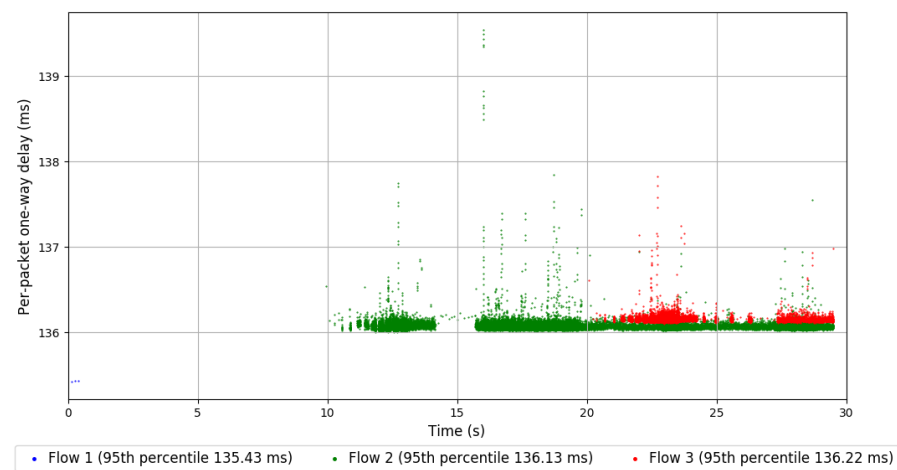
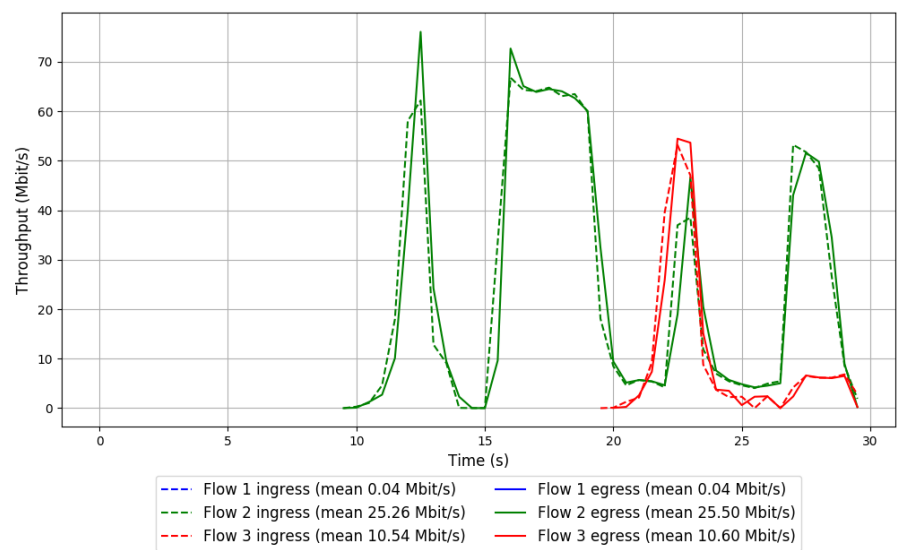
-- Flow 3:

Average throughput: 10.60 Mbit/s

95th percentile per-packet one-way delay: 136.215 ms

Loss rate: 2.27%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-08-12 13:51:04

End at: 2017-08-12 13:51:34

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.40 Mbit/s

95th percentile per-packet one-way delay: 137.017 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 136.822 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.50 Mbit/s

95th percentile per-packet one-way delay: 137.021 ms

Loss rate: 0.00%

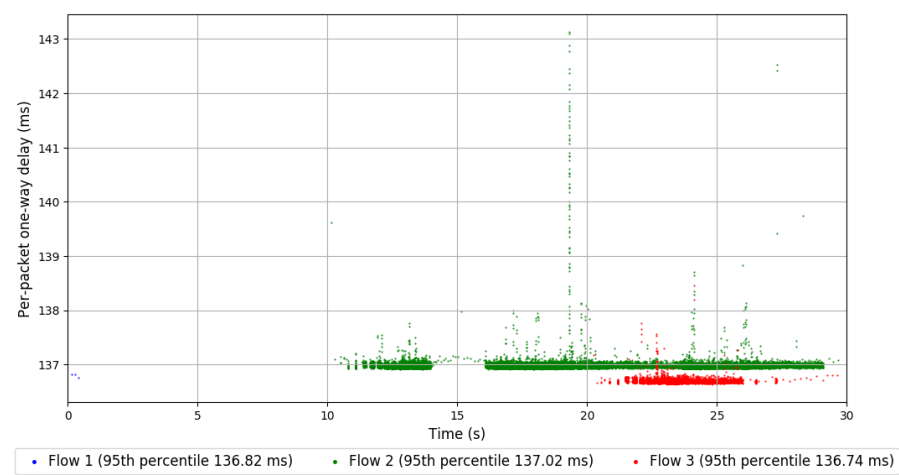
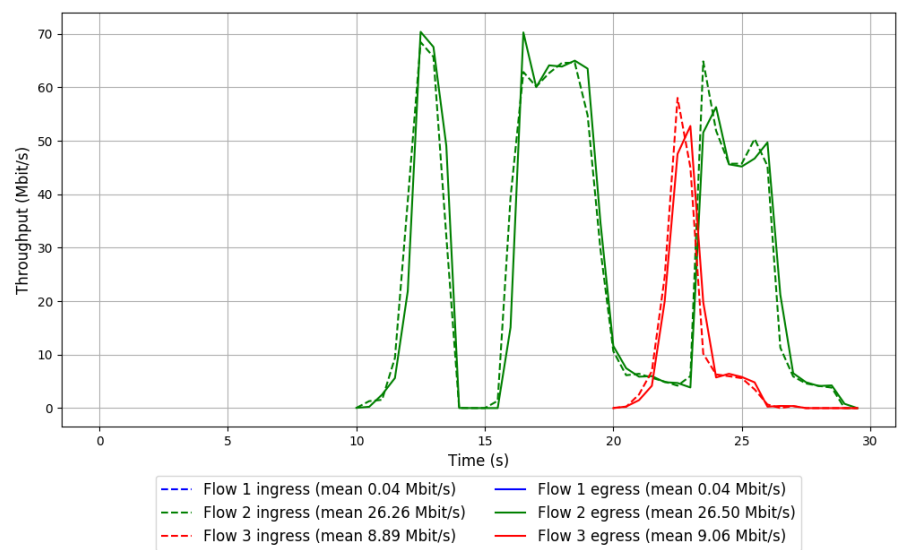
-- Flow 3:

Average throughput: 9.06 Mbit/s

95th percentile per-packet one-way delay: 136.738 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-12 14:04:14

End at: 2017-08-12 14:04:44

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.41 Mbit/s

95th percentile per-packet one-way delay: 136.668 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 138.603 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.18 Mbit/s

95th percentile per-packet one-way delay: 136.126 ms

Loss rate: 0.45%

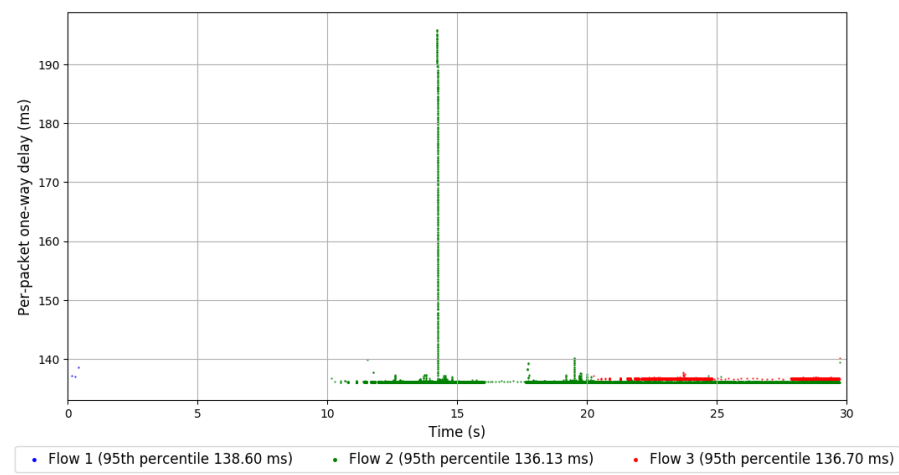
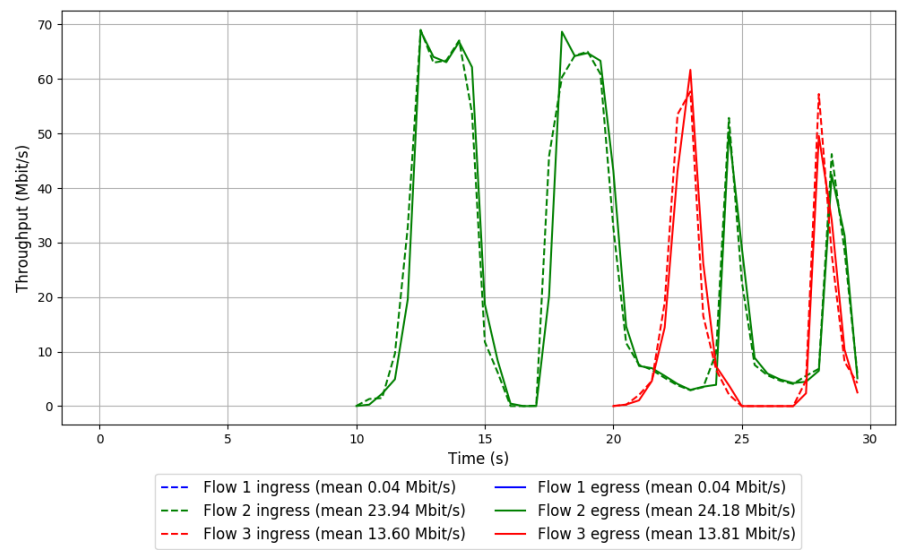
-- Flow 3:

Average throughput: 13.81 Mbit/s

95th percentile per-packet one-way delay: 136.697 ms

Loss rate: 1.24%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-12 14:17:56

End at: 2017-08-12 14:18:26

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.81 Mbit/s

95th percentile per-packet one-way delay: 136.739 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 136.913 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.27 Mbit/s

95th percentile per-packet one-way delay: 136.745 ms

Loss rate: 0.00%

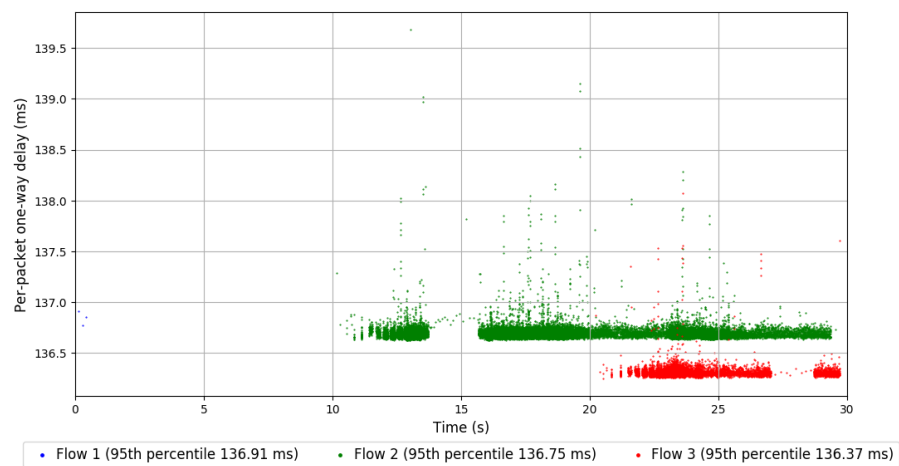
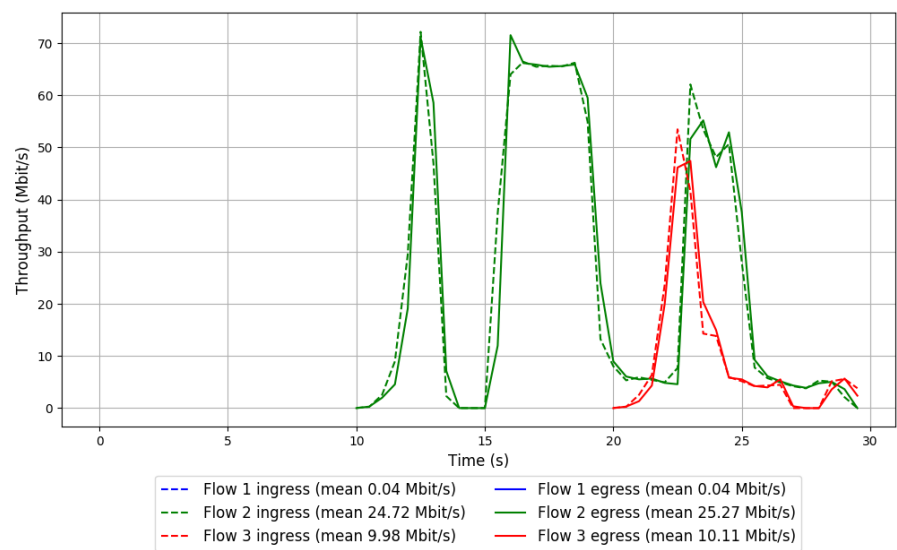
-- Flow 3:

Average throughput: 10.11 Mbit/s

95th percentile per-packet one-way delay: 136.367 ms

Loss rate: 1.50%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-12 14:31:54

End at: 2017-08-12 14:32:24

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.54 Mbit/s

95th percentile per-packet one-way delay: 136.751 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 135.816 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.36 Mbit/s

95th percentile per-packet one-way delay: 136.757 ms

Loss rate: 0.25%

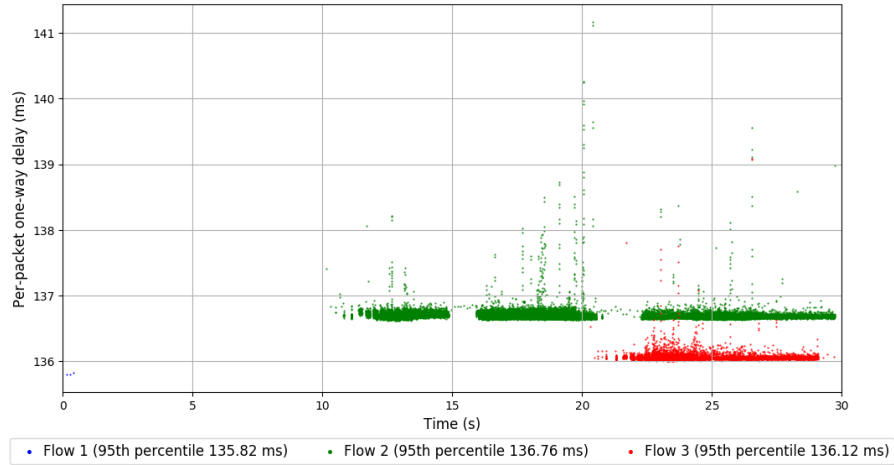
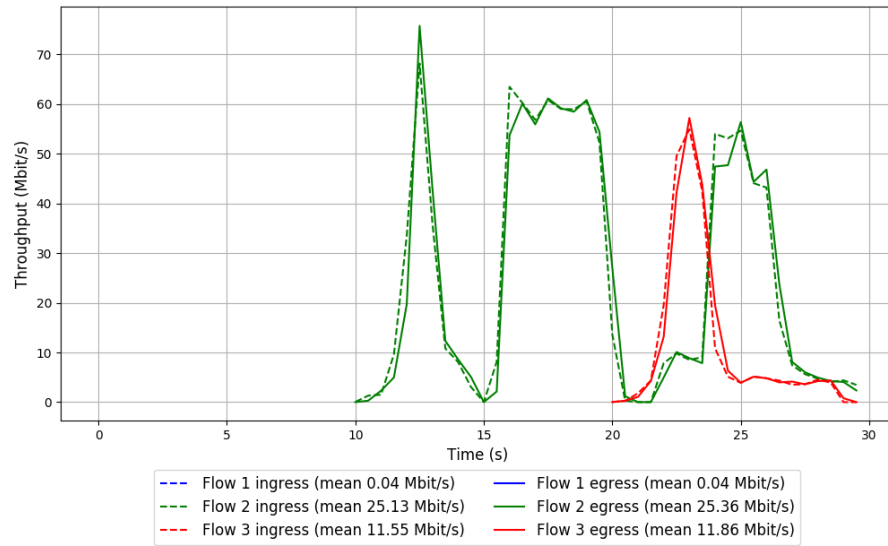
-- Flow 3:

Average throughput: 11.86 Mbit/s

95th percentile per-packet one-way delay: 136.117 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-08-12 14:45:57

End at: 2017-08-12 14:46:27

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.90 Mbit/s

95th percentile per-packet one-way delay: 136.620 ms

Loss rate: 3.63%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 137.900 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.42 Mbit/s

95th percentile per-packet one-way delay: 136.544 ms

Loss rate: 0.42%

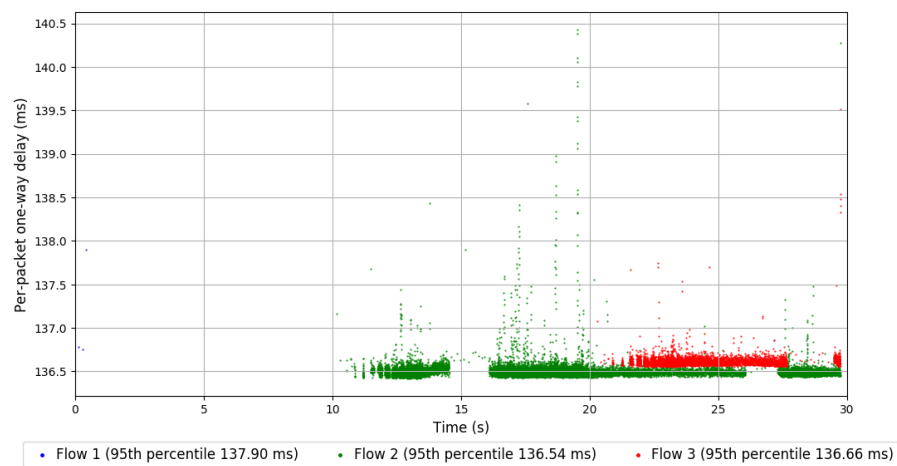
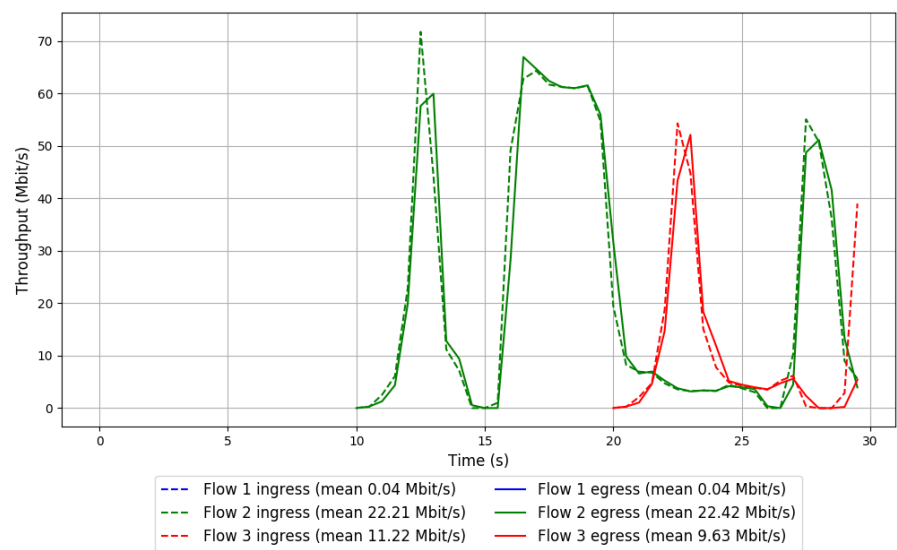
-- Flow 3:

Average throughput: 9.63 Mbit/s

95th percentile per-packet one-way delay: 136.664 ms

Loss rate: 16.59%

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-12 12:42:43

End at: 2017-08-12 12:43:13

Below is generated by plot.py at 2017-08-12 18:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.76 Mbit/s

95th percentile per-packet one-way delay: 138.202 ms

Loss rate: 1.85%

-- Flow 1:

Average throughput: 8.49 Mbit/s

95th percentile per-packet one-way delay: 138.132 ms

Loss rate: 1.63%

-- Flow 2:

Average throughput: 8.51 Mbit/s

95th percentile per-packet one-way delay: 138.332 ms

Loss rate: 1.62%

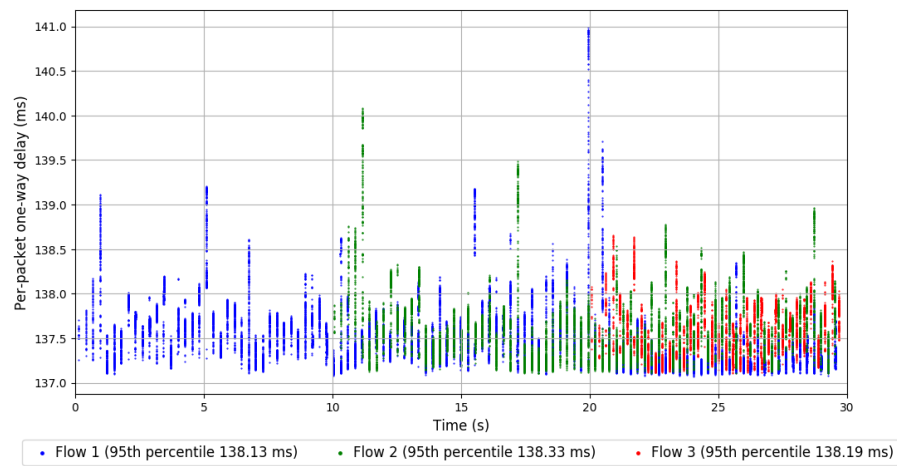
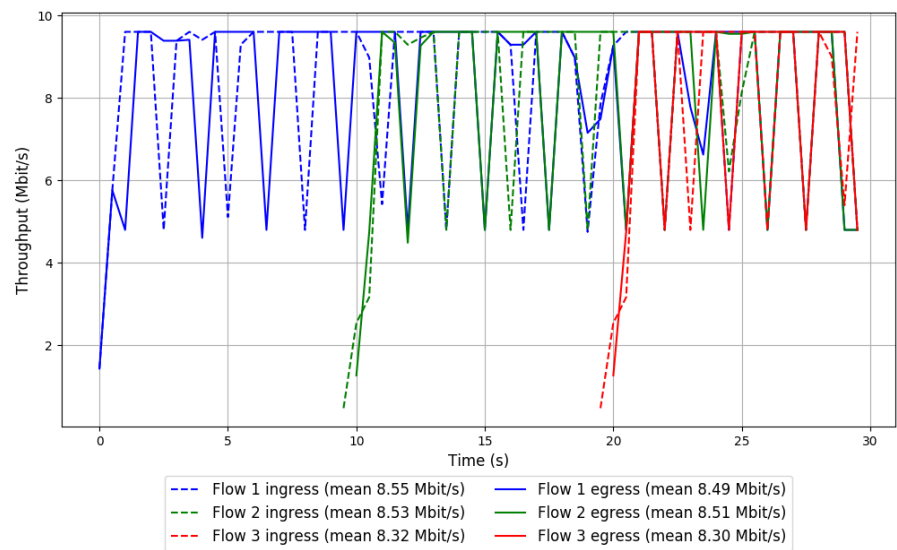
-- Flow 3:

Average throughput: 8.30 Mbit/s

95th percentile per-packet one-way delay: 138.185 ms

Loss rate: 3.02%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

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

End at: 2017-08-12 12:57:06

Below is generated by plot.py at 2017-08-12 18:00:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.56 Mbit/s

95th percentile per-packet one-way delay: 137.452 ms

Loss rate: 8.70%

-- Flow 1:

Average throughput: 8.65 Mbit/s

95th percentile per-packet one-way delay: 137.144 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 137.917 ms

Loss rate: 27.71%

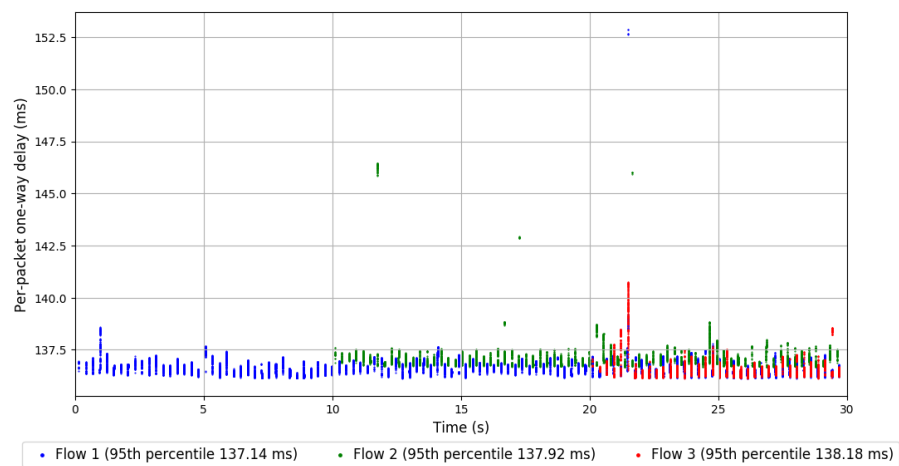
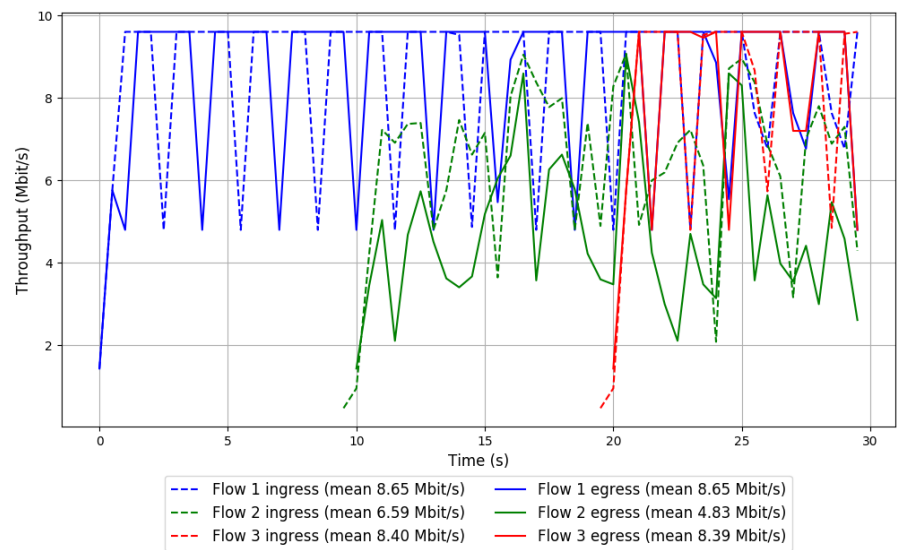
-- Flow 3:

Average throughput: 8.39 Mbit/s

95th percentile per-packet one-way delay: 138.175 ms

Loss rate: 2.94%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-12 13:10:37

End at: 2017-08-12 13:11:07

Below is generated by plot.py at 2017-08-12 18:00:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.24 Mbit/s

95th percentile per-packet one-way delay: 137.471 ms

Loss rate: 5.65%

-- Flow 1:

Average throughput: 8.65 Mbit/s

95th percentile per-packet one-way delay: 137.520 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 137.388 ms

Loss rate: 1.43%

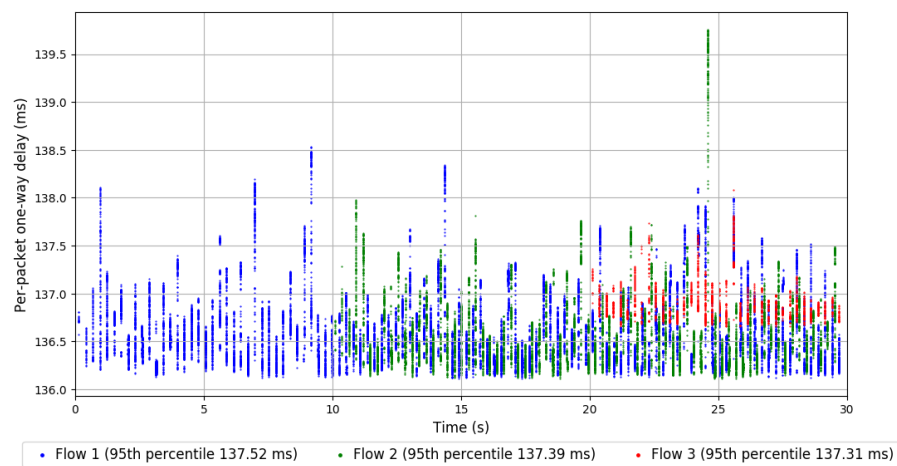
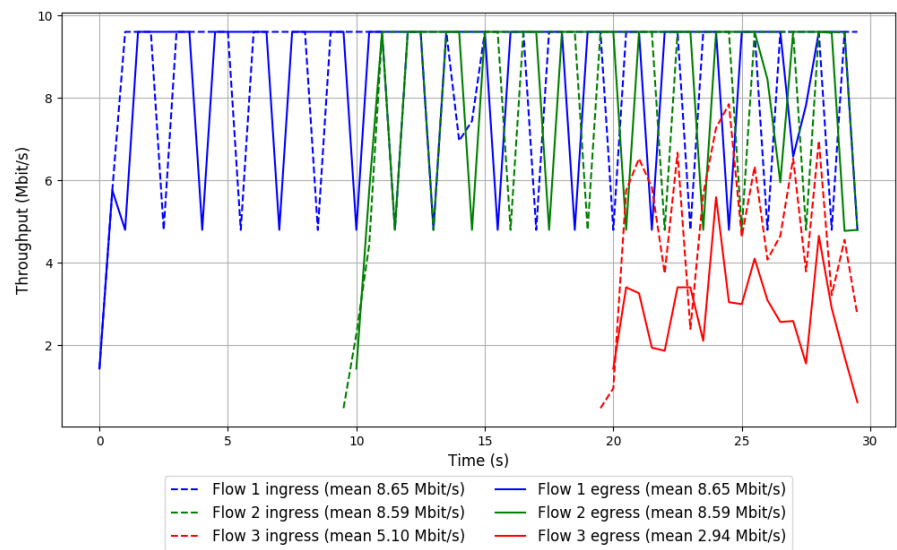
-- Flow 3:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 137.314 ms

Loss rate: 44.04%

Run 3: Report of Saturator — Data Link



Run 4: Statistics of Saturator

Start at: 2017-08-12 13:24:28

End at: 2017-08-12 13:24:58

Below is generated by plot.py at 2017-08-12 18:01:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.80 Mbit/s

95th percentile per-packet one-way delay: 137.310 ms

Loss rate: 9.22%

-- Flow 1:

Average throughput: 8.66 Mbit/s

95th percentile per-packet one-way delay: 137.305 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 6.30 Mbit/s

95th percentile per-packet one-way delay: 137.209 ms

Loss rate: 14.04%

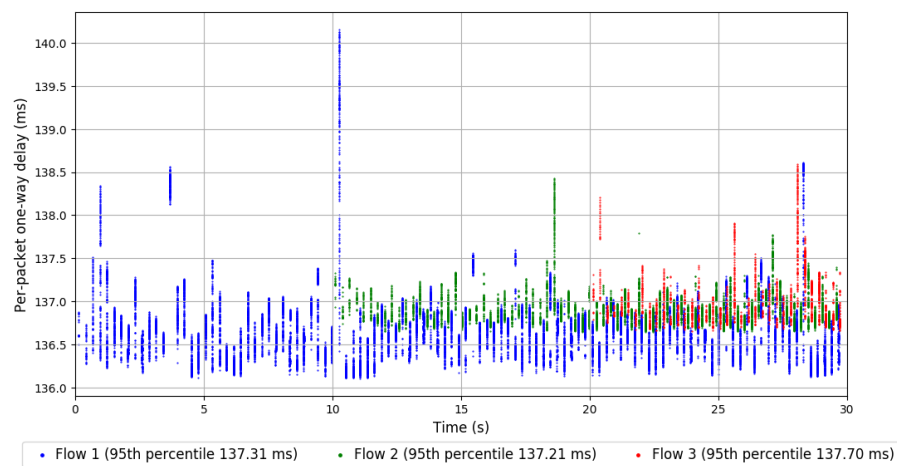
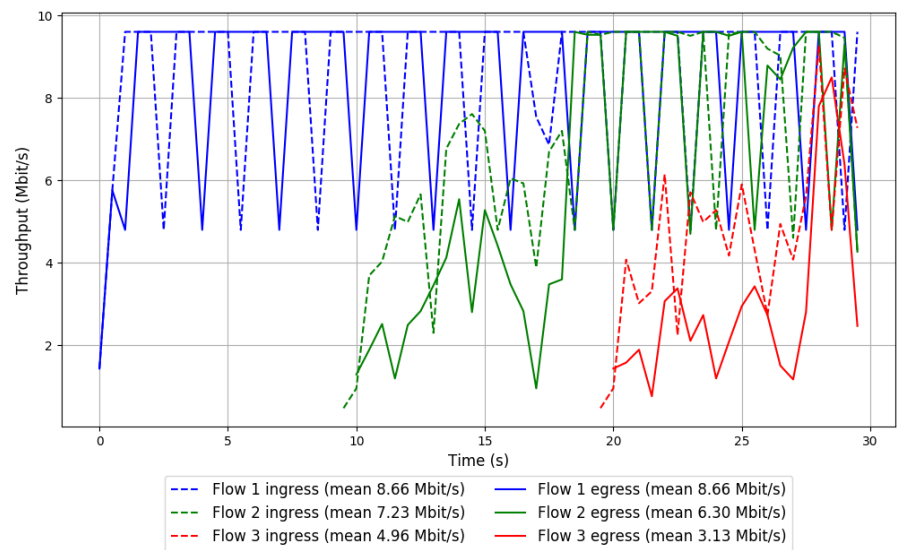
-- Flow 3:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 137.701 ms

Loss rate: 38.77%

Run 4: Report of Saturator — Data Link



Run 5: Statistics of Saturator

Start at: 2017-08-12 13:39:04

End at: 2017-08-12 13:39:34

Below is generated by plot.py at 2017-08-12 18:01:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.50 Mbit/s

95th percentile per-packet one-way delay: 137.833 ms

Loss rate: 13.93%

-- Flow 1:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 137.949 ms

Loss rate: 6.79%

-- Flow 2:

Average throughput: 5.19 Mbit/s

95th percentile per-packet one-way delay: 137.749 ms

Loss rate: 20.78%

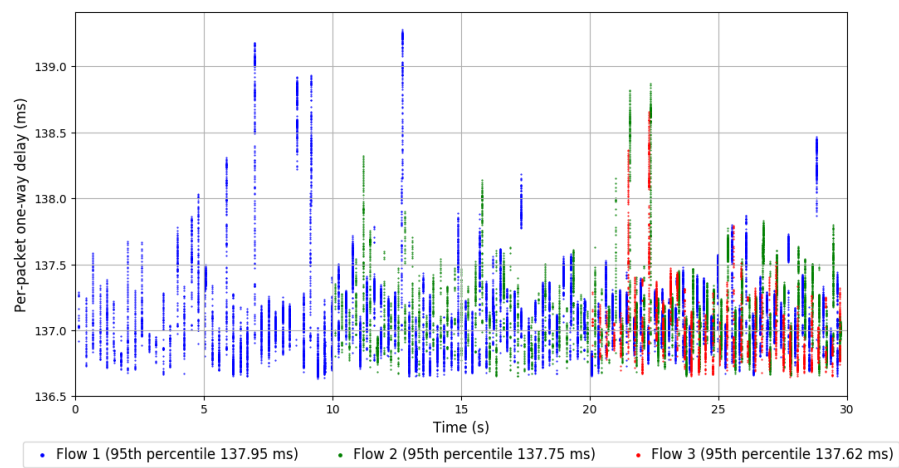
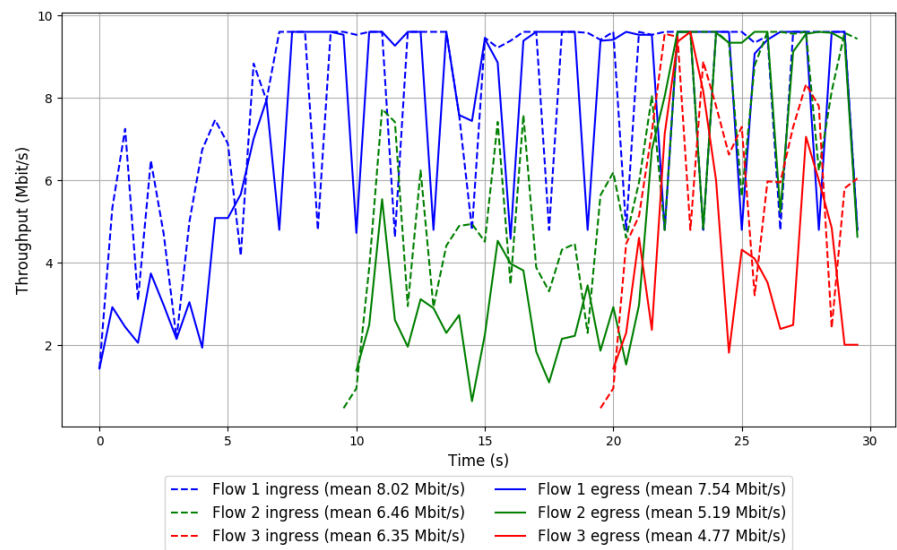
-- Flow 3:

Average throughput: 4.77 Mbit/s

95th percentile per-packet one-way delay: 137.616 ms

Loss rate: 27.02%

Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-12 13:52:47

End at: 2017-08-12 13:53:17

Below is generated by plot.py at 2017-08-12 18:01:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.11 Mbit/s

95th percentile per-packet one-way delay: 164.352 ms

Loss rate: 2.08%

-- Flow 1:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 164.160 ms

Loss rate: 2.02%

-- Flow 2:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 164.483 ms

Loss rate: 1.61%

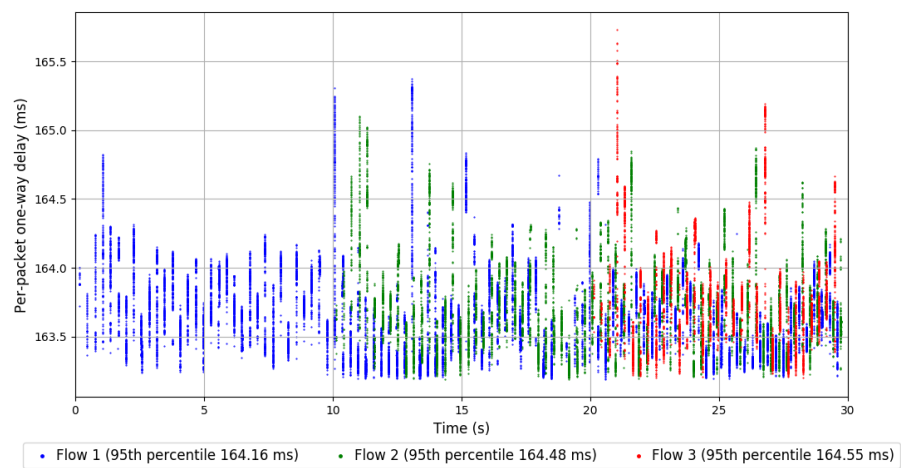
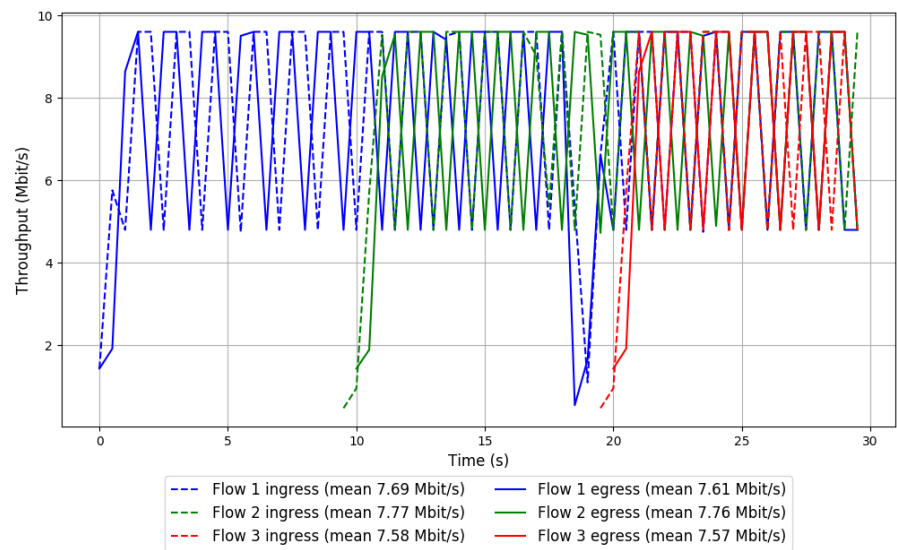
-- Flow 3:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 164.548 ms

Loss rate: 3.28%

Run 6: Report of Saturator — Data Link



Run 7: Statistics of Saturator

Start at: 2017-08-12 14:05:57

End at: 2017-08-12 14:06:27

Below is generated by plot.py at 2017-08-12 18:01:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.46 Mbit/s

95th percentile per-packet one-way delay: 164.374 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 164.421 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 164.408 ms

Loss rate: 1.68%

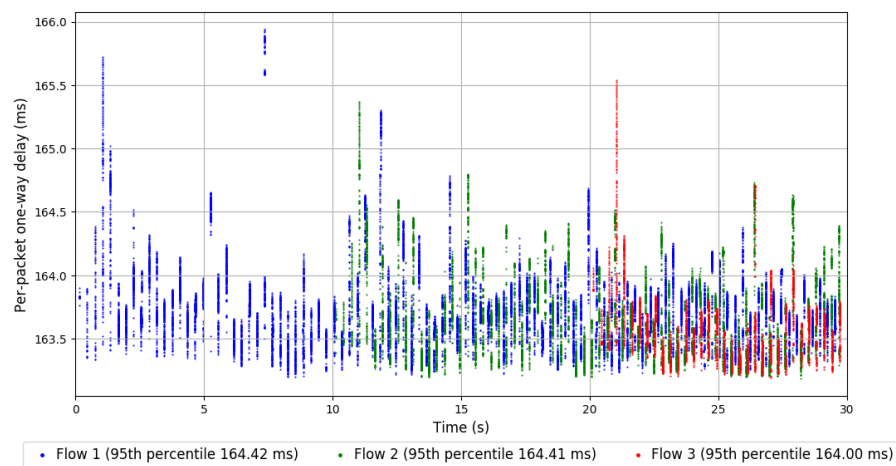
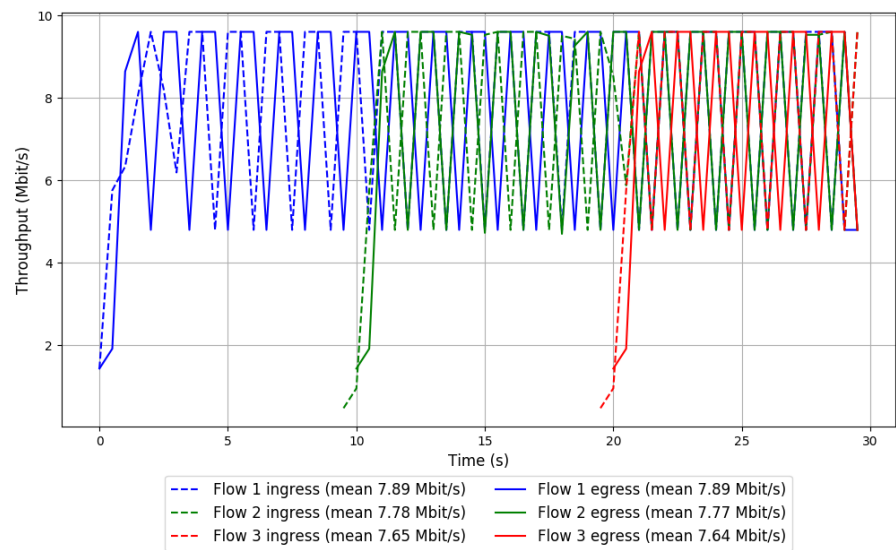
-- Flow 3:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 163.999 ms

Loss rate: 3.17%

Run 7: Report of Saturator — Data Link



Run 8: Statistics of Saturator

Start at: 2017-08-12 14:19:39

End at: 2017-08-12 14:20:09

Below is generated by plot.py at 2017-08-12 18:01:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.36 Mbit/s

95th percentile per-packet one-way delay: 137.522 ms

Loss rate: 3.88%

-- Flow 1:

Average throughput: 7.50 Mbit/s

95th percentile per-packet one-way delay: 137.664 ms

Loss rate: 6.16%

-- Flow 2:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 137.507 ms

Loss rate: 1.45%

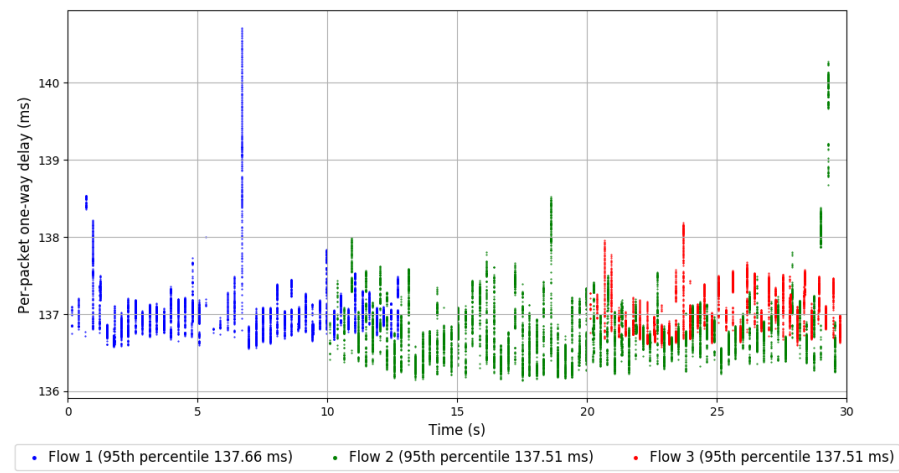
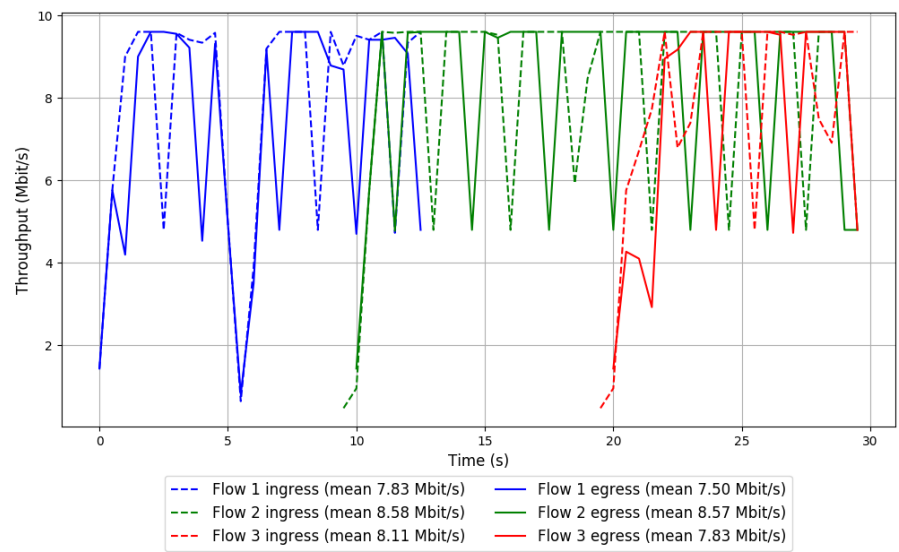
-- Flow 3:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 137.510 ms

Loss rate: 6.13%

Run 8: Report of Saturator — Data Link



Run 9: Statistics of Saturator

Start at: 2017-08-12 14:33:39

End at: 2017-08-12 14:34:09

Below is generated by plot.py at 2017-08-12 18:01:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.93 Mbit/s

95th percentile per-packet one-way delay: 137.446 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 137.367 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 8.52 Mbit/s

95th percentile per-packet one-way delay: 137.587 ms

Loss rate: 1.52%

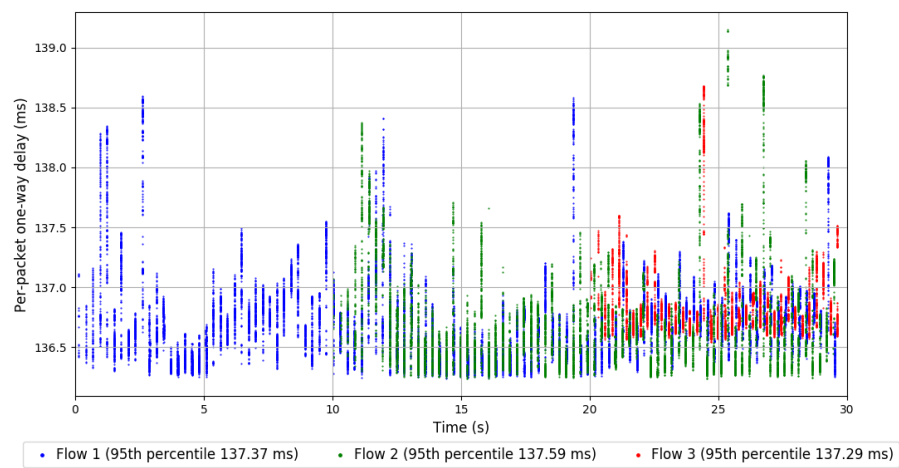
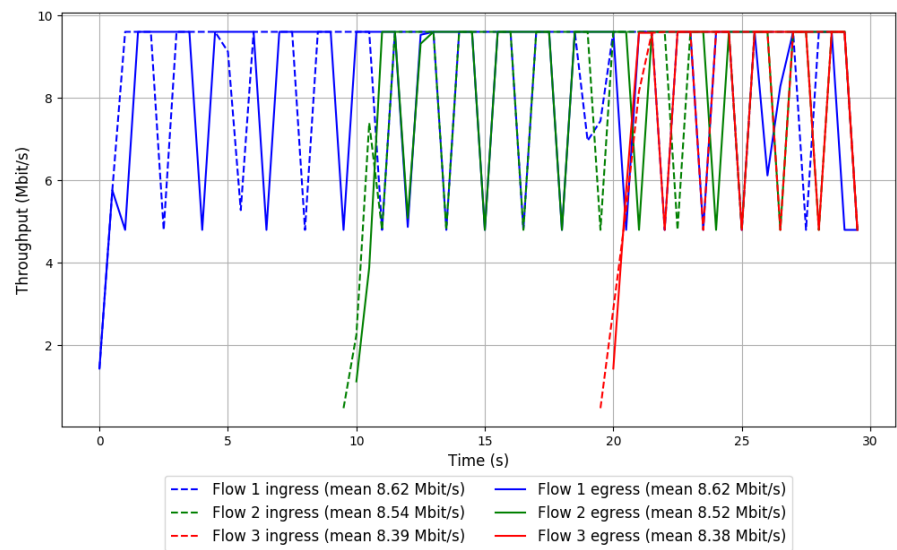
-- Flow 3:

Average throughput: 8.38 Mbit/s

95th percentile per-packet one-way delay: 137.292 ms

Loss rate: 2.91%

Run 9: Report of Saturator — Data Link



Run 10: Statistics of Saturator

Start at: 2017-08-12 14:47:42

End at: 2017-08-12 14:48:12

Below is generated by plot.py at 2017-08-12 18:01:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.81 Mbit/s

95th percentile per-packet one-way delay: 137.113 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 8.53 Mbit/s

95th percentile per-packet one-way delay: 136.472 ms

Loss rate: 1.76%

-- Flow 2:

Average throughput: 8.45 Mbit/s

95th percentile per-packet one-way delay: 137.755 ms

Loss rate: 1.53%

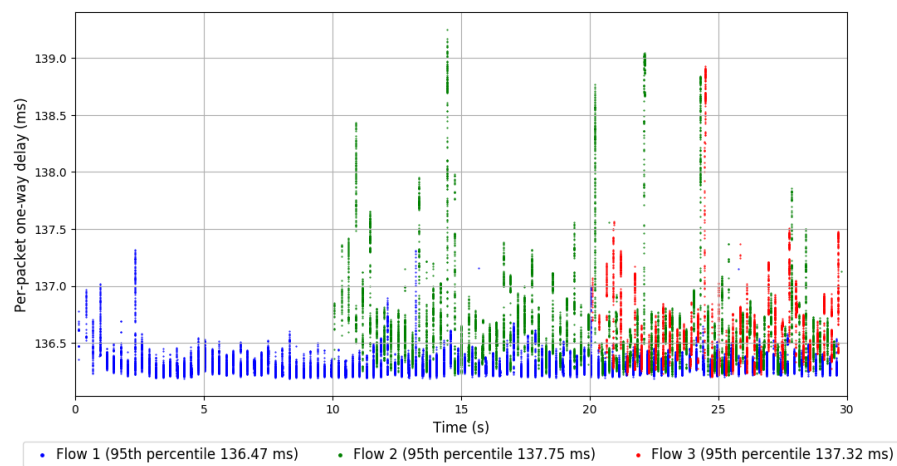
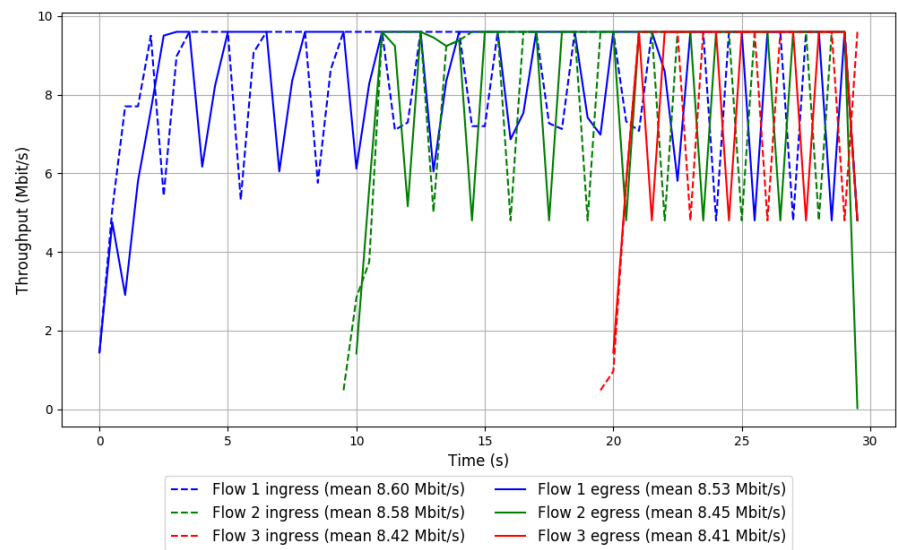
-- Flow 3:

Average throughput: 8.41 Mbit/s

95th percentile per-packet one-way delay: 137.325 ms

Loss rate: 2.90%

Run 10: Report of Saturator — Data Link

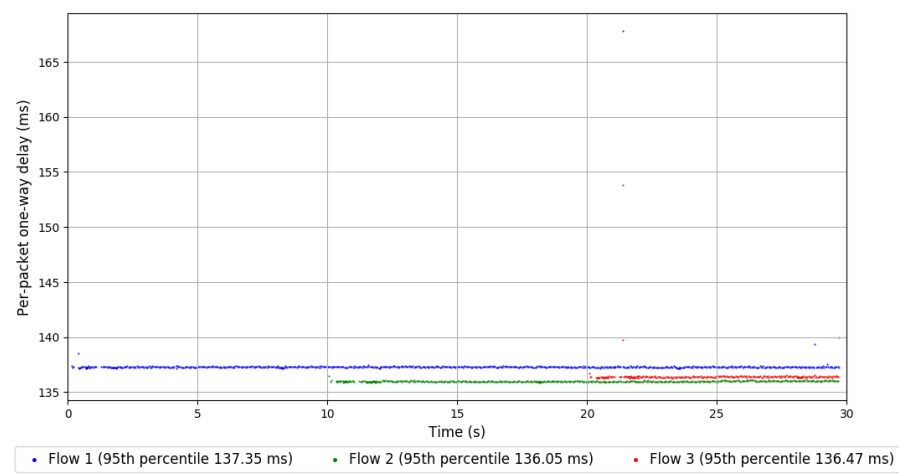
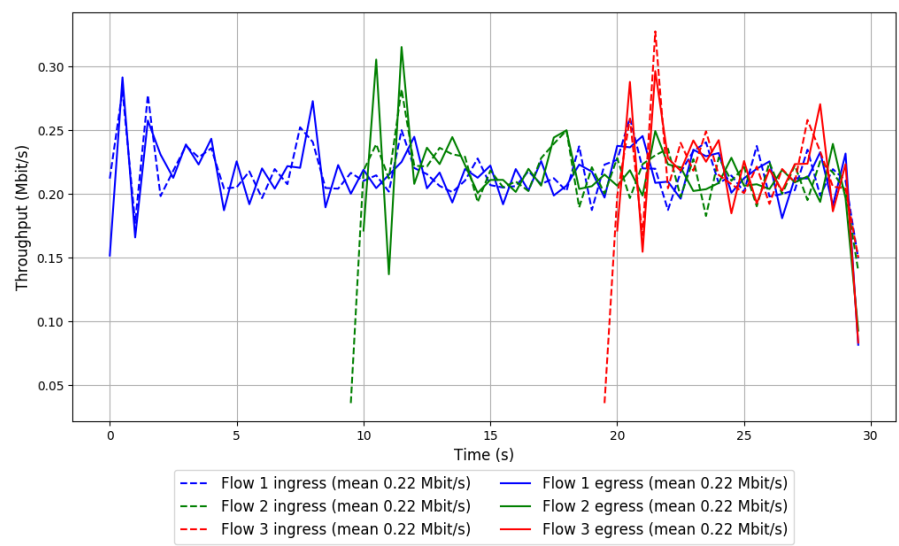


```
Run 1: Statistics of SCReAM

Start at: 2017-08-12 12:47:33
End at: 2017-08-12 12:48:03

# Below is generated by plot.py at 2017-08-12 18:01:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 137.332 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.348 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.053 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.469 ms
Loss rate: 2.63%
```

Run 1: Report of SReAM — Data Link

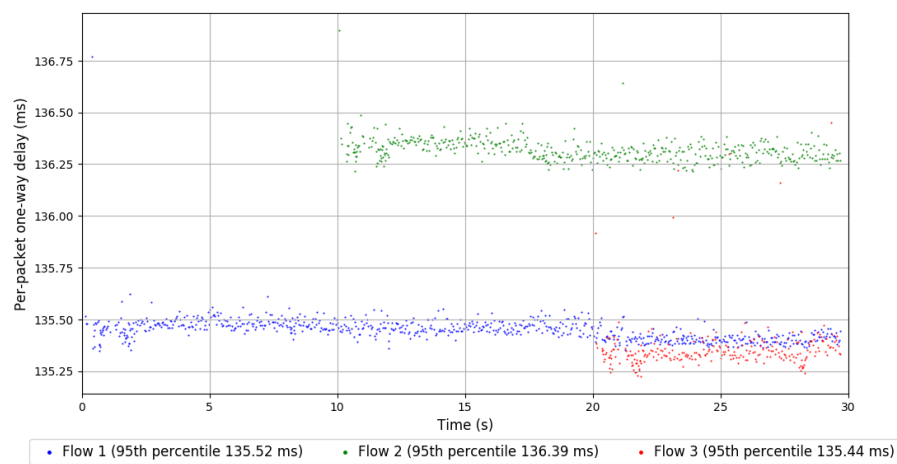
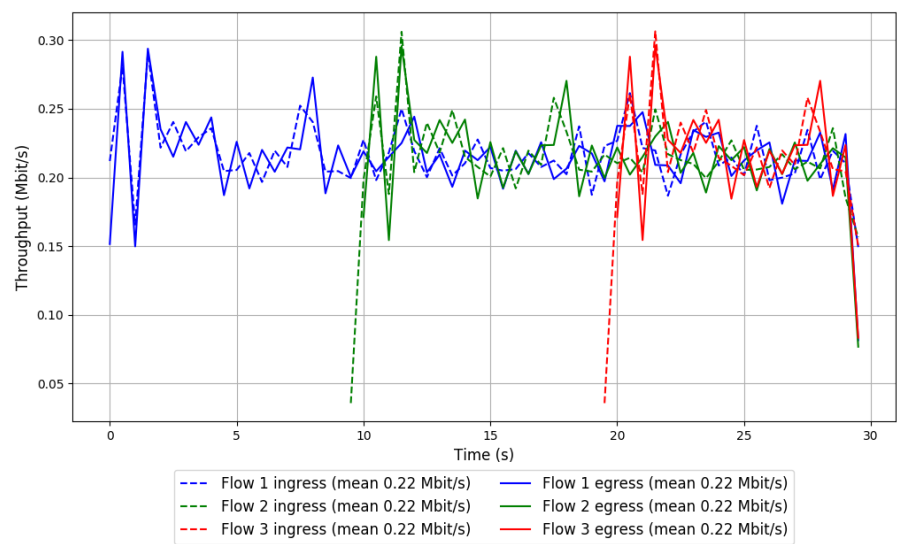


```
Run 2: Statistics of SCReAM

Start at: 2017-08-12 13:01:26
End at: 2017-08-12 13:01:56

# Below is generated by plot.py at 2017-08-12 18:01:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.368 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.519 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.391 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.440 ms
Loss rate: 2.63%
```


Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2017-08-12 13:15:17

End at: 2017-08-12 13:15:47

Below is generated by plot.py at 2017-08-12 18:01:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.060 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.007 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.672 ms

Loss rate: 1.24%

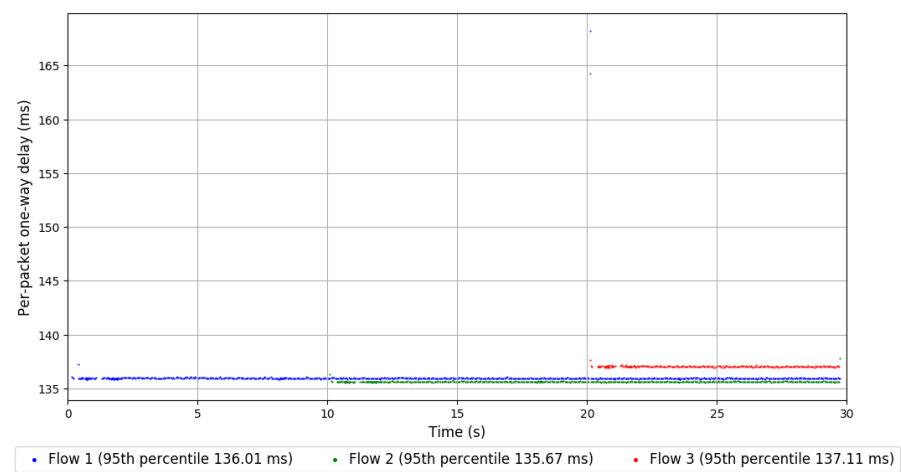
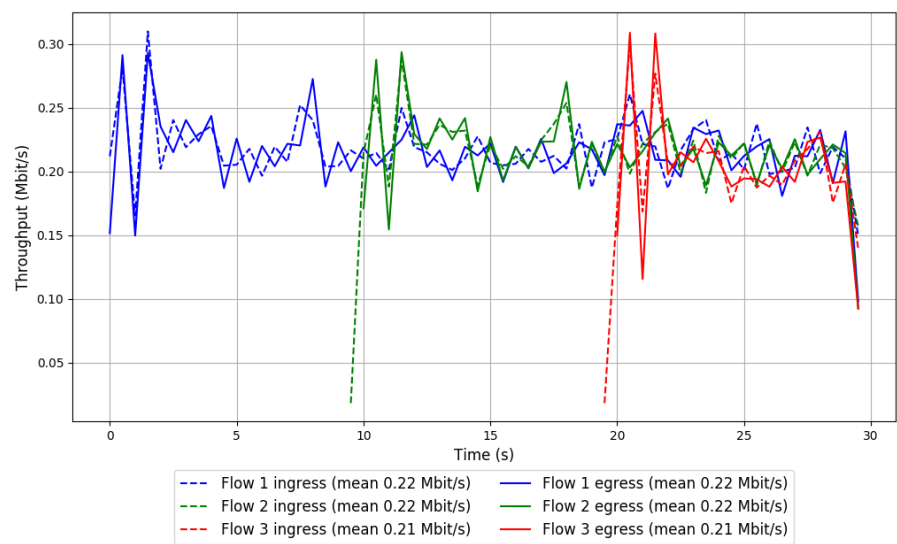
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 2.61%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-08-12 13:29:06

End at: 2017-08-12 13:29:36

Below is generated by plot.py at 2017-08-12 18:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.717 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.617 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.757 ms

Loss rate: 1.25%

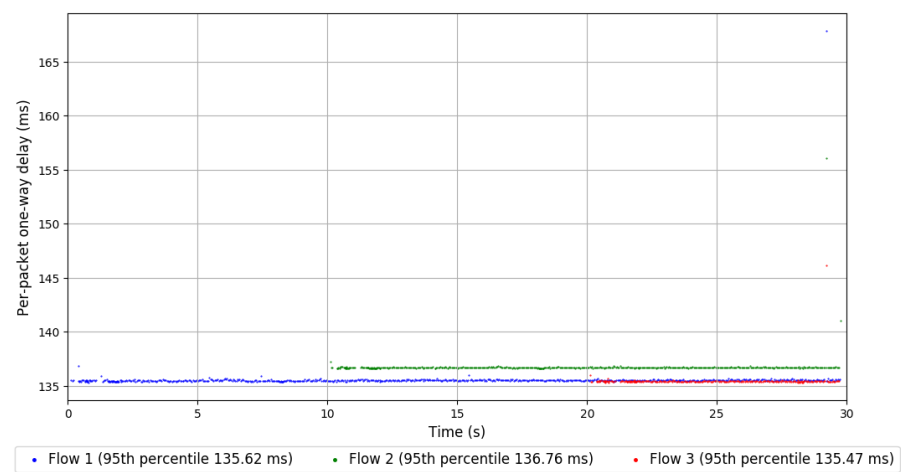
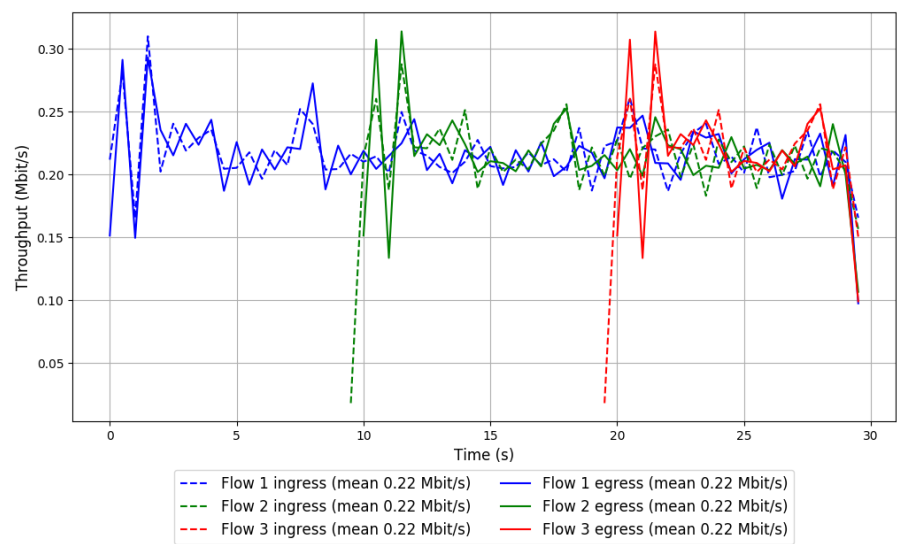
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.468 ms

Loss rate: 2.65%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-12 13:43:40

End at: 2017-08-12 13:44:10

Below is generated by plot.py at 2017-08-12 18:01:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.502 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.286 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.526 ms

Loss rate: 1.24%

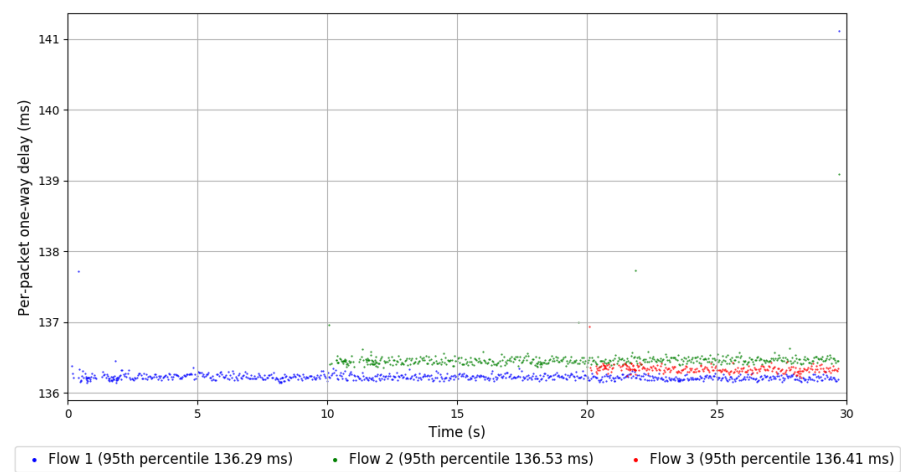
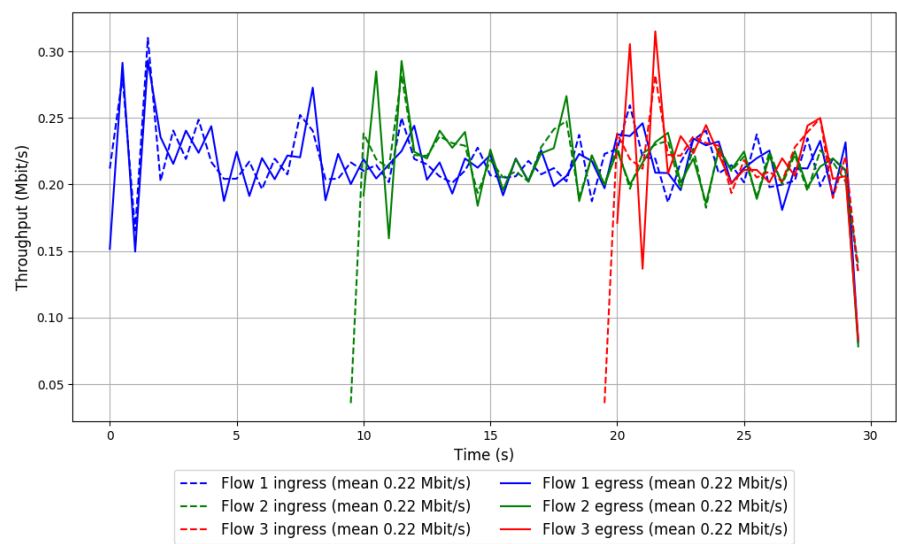
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.405 ms

Loss rate: 2.63%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-12 13:57:03

End at: 2017-08-12 13:57:33

Below is generated by plot.py at 2017-08-12 18:01:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 163.064 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 134.959 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 163.099 ms

Loss rate: 1.43%

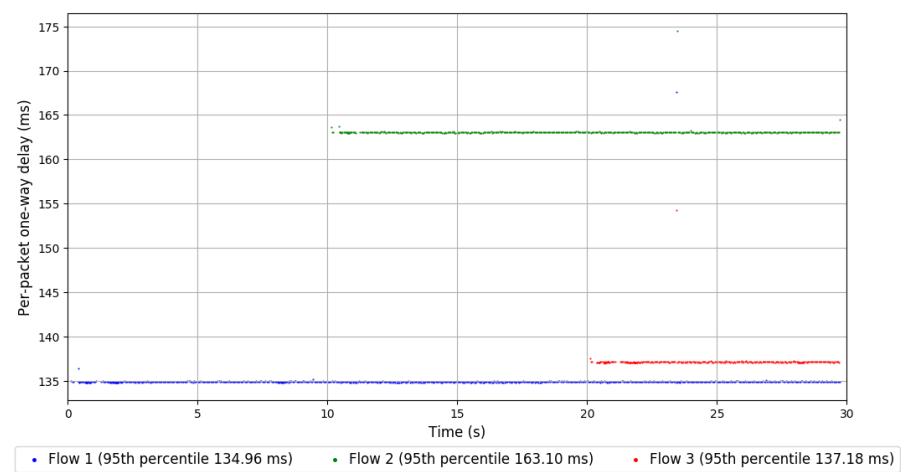
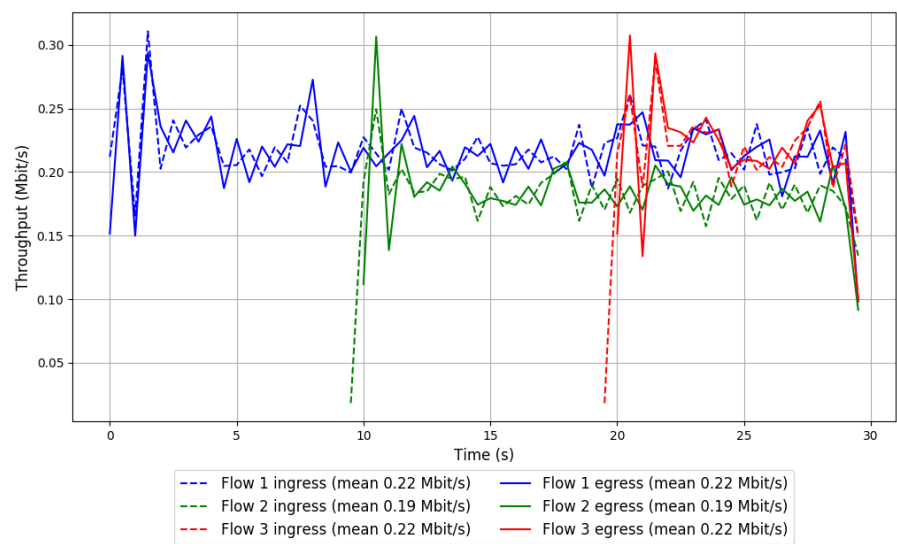
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.183 ms

Loss rate: 2.63%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2017-08-12 14:10:26

End at: 2017-08-12 14:10:56

Below is generated by plot.py at 2017-08-12 18:01:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 137.188 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.378 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.212 ms

Loss rate: 1.24%

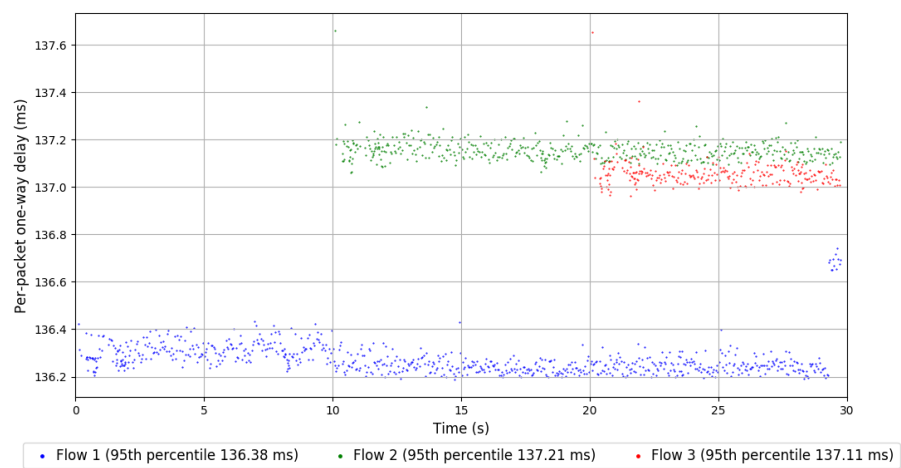
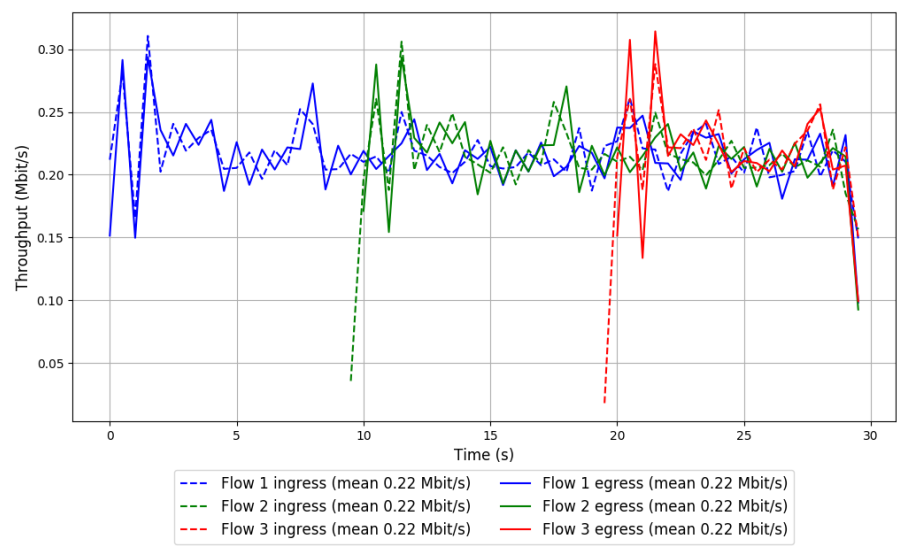
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.112 ms

Loss rate: 2.63%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2017-08-12 14:24:19

End at: 2017-08-12 14:24:49

Below is generated by plot.py at 2017-08-12 18:01:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.096 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.114 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.495 ms

Loss rate: 1.24%

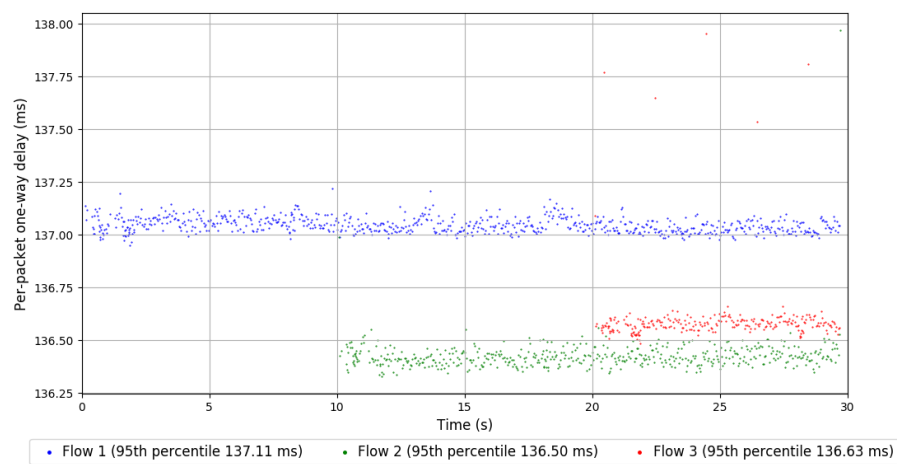
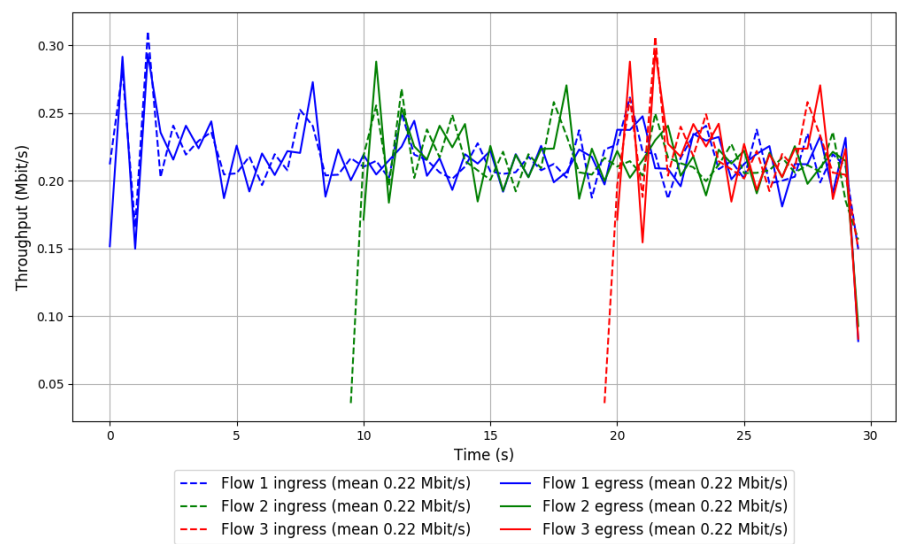
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.627 ms

Loss rate: 2.63%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-08-12 14:38:18

End at: 2017-08-12 14:38:48

Below is generated by plot.py at 2017-08-12 18:01:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 137.027 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 134.999 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.835 ms

Loss rate: 1.24%

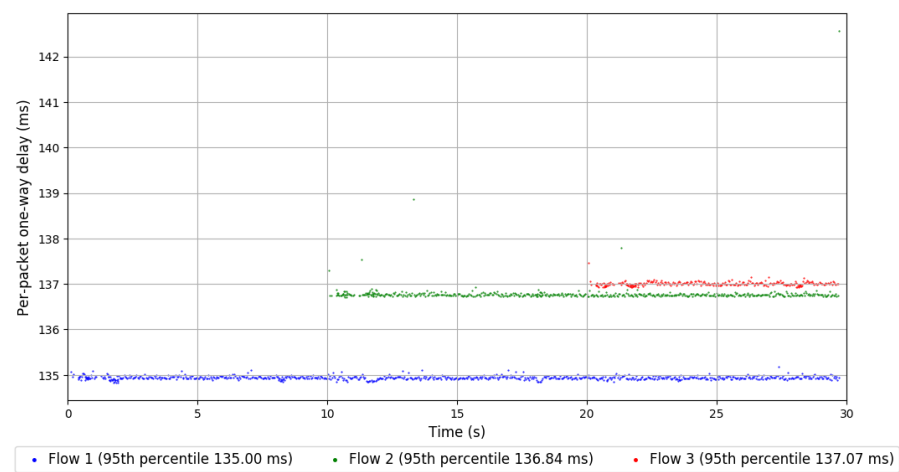
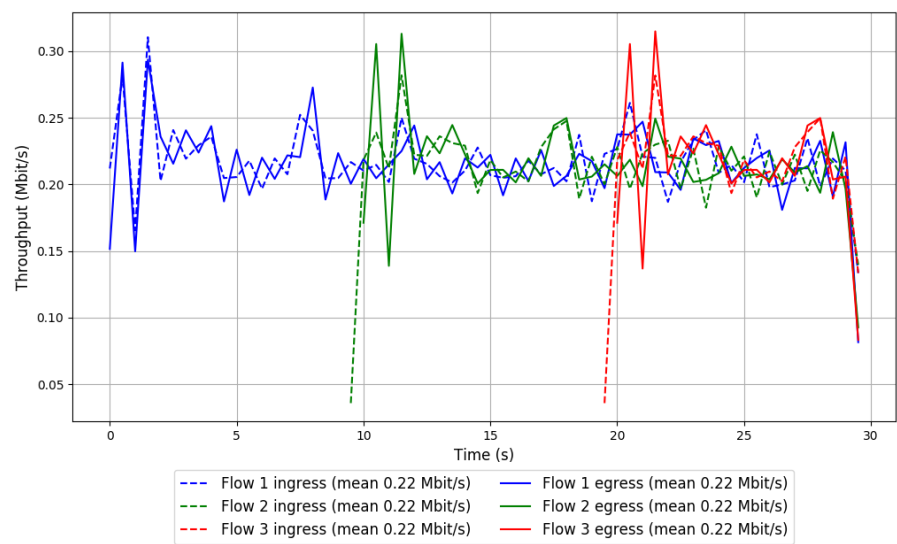
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.072 ms

Loss rate: 2.63%

Run 9: Report of SReAM — Data Link

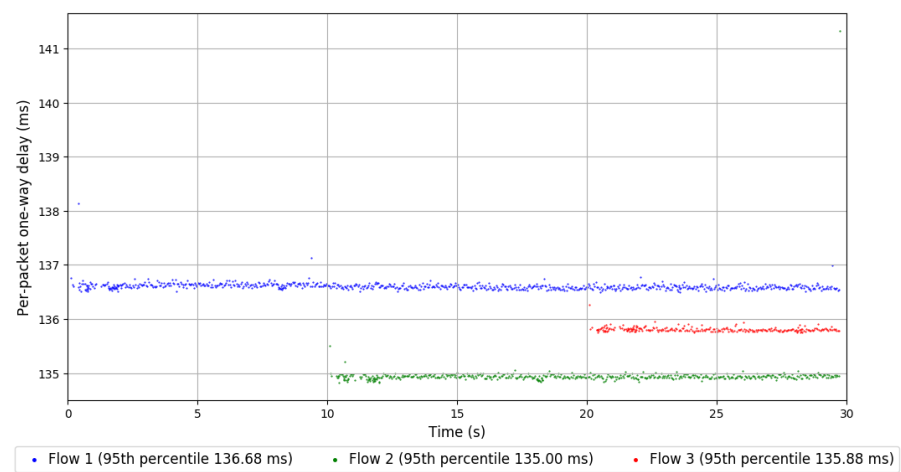
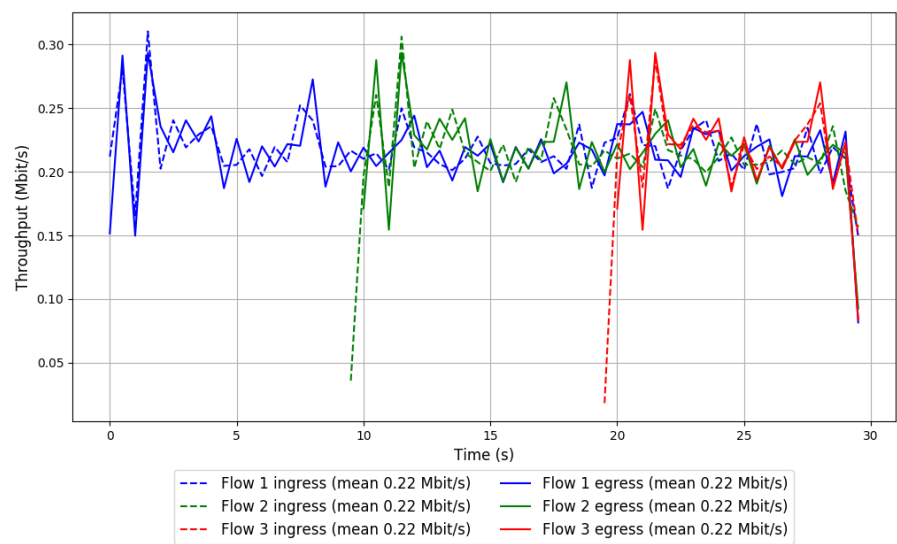


```
Run 10: Statistics of SReAM

Start at: 2017-08-12 14:52:27
End at: 2017-08-12 14:52:57

# Below is generated by plot.py at 2017-08-12 18:01:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.660 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.676 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.997 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.882 ms
Loss rate: 2.63%
```


Run 10: Report of SReAM — Data Link

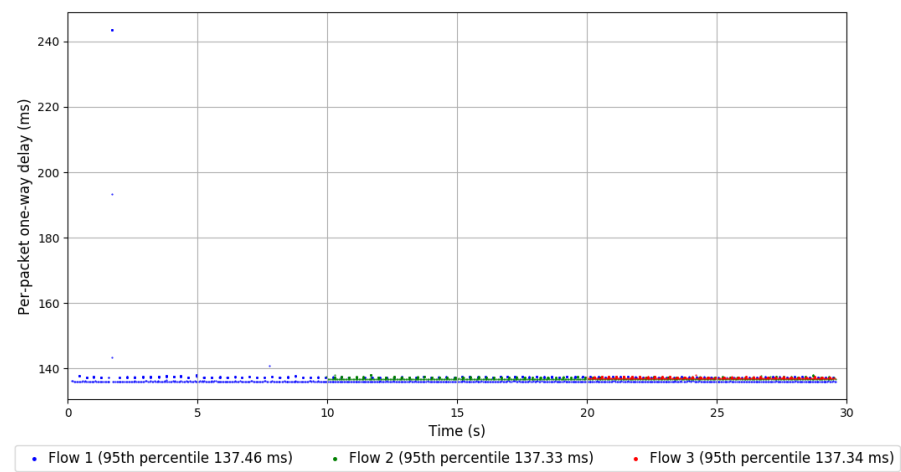
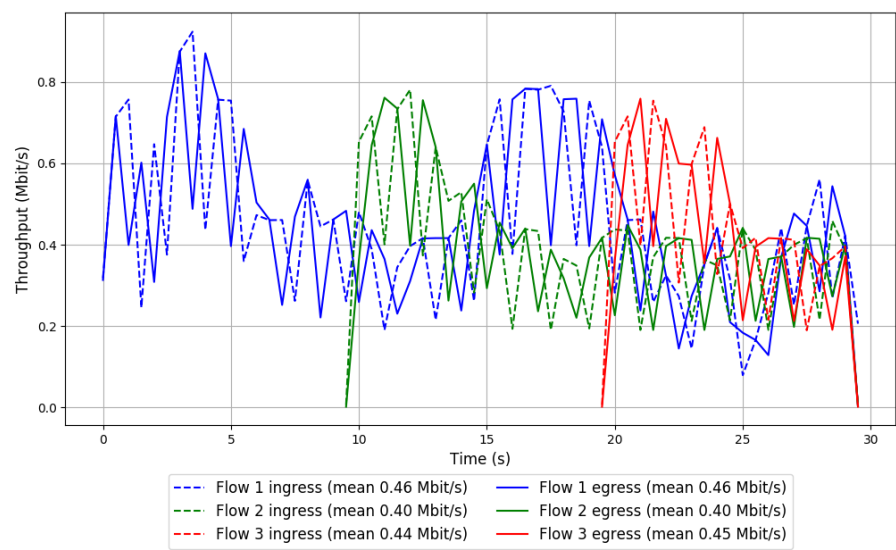


```
Run 1: Statistics of Sprout

Start at: 2017-08-12 12:45:33
End at: 2017-08-12 12:46:03

# Below is generated by plot.py at 2017-08-12 18:01:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 137.399 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 137.460 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 137.330 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 137.340 ms
Loss rate: 2.40%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-12 12:59:24

End at: 2017-08-12 12:59:54

Below is generated by plot.py at 2017-08-12 18:01:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 136.878 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 136.554 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.933 ms

Loss rate: 1.36%

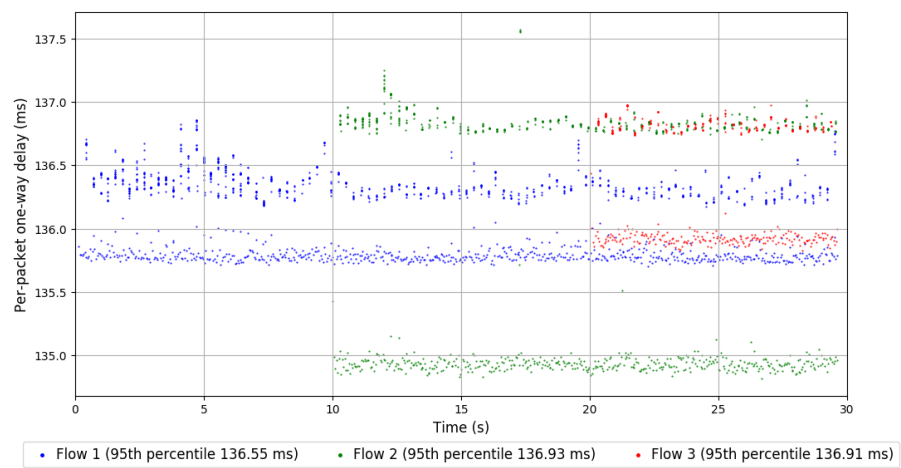
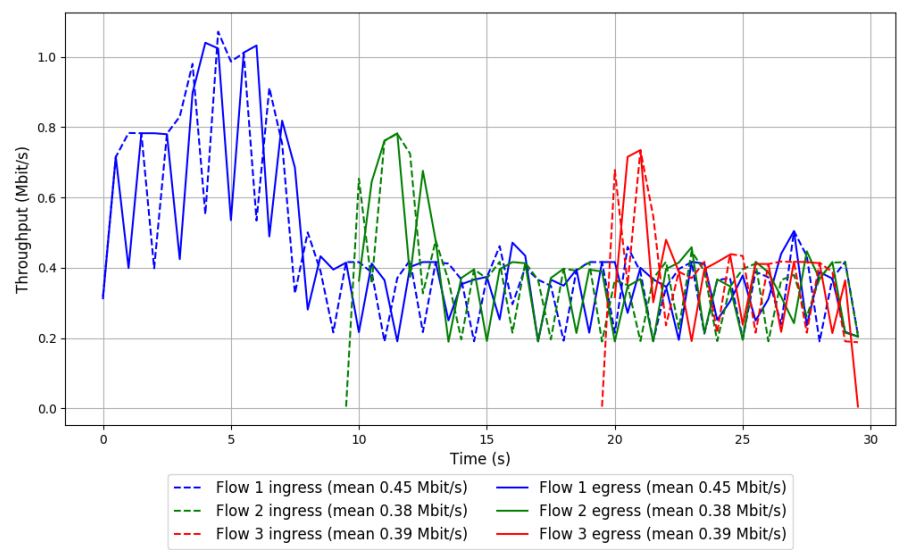
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 136.906 ms

Loss rate: 2.45%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-12 13:13:22

End at: 2017-08-12 13:13:52

Below is generated by plot.py at 2017-08-12 18:01:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 136.893 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.480 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 136.944 ms

Loss rate: 1.29%

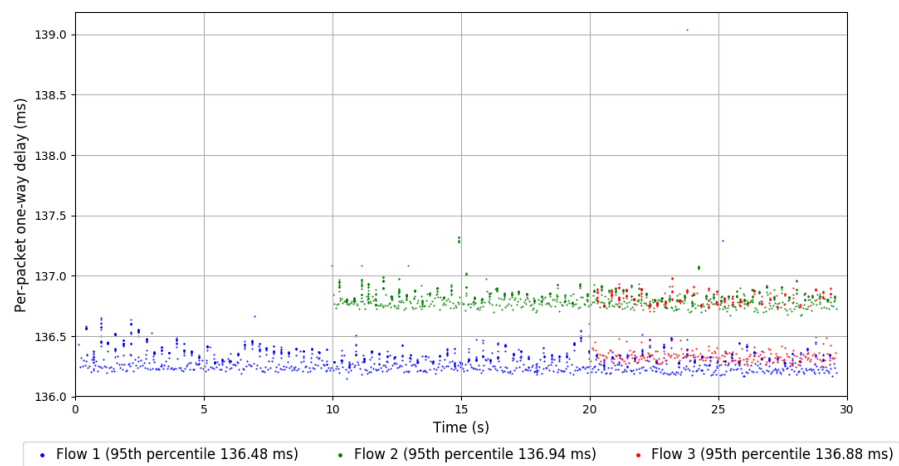
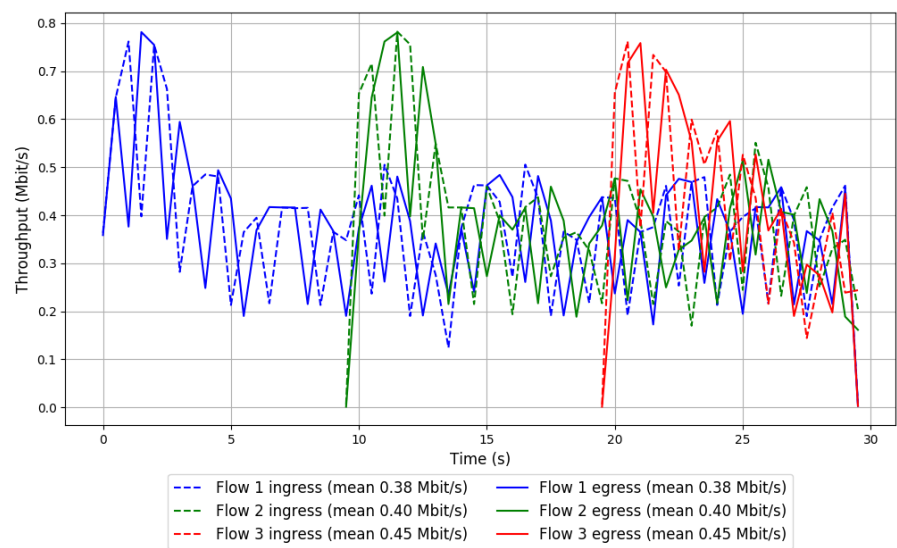
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 136.885 ms

Loss rate: 2.80%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-12 13:27:12

End at: 2017-08-12 13:27:42

Below is generated by plot.py at 2017-08-12 18:01:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.74 Mbit/s

95th percentile per-packet one-way delay: 137.205 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 137.227 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 136.511 ms

Loss rate: 1.36%

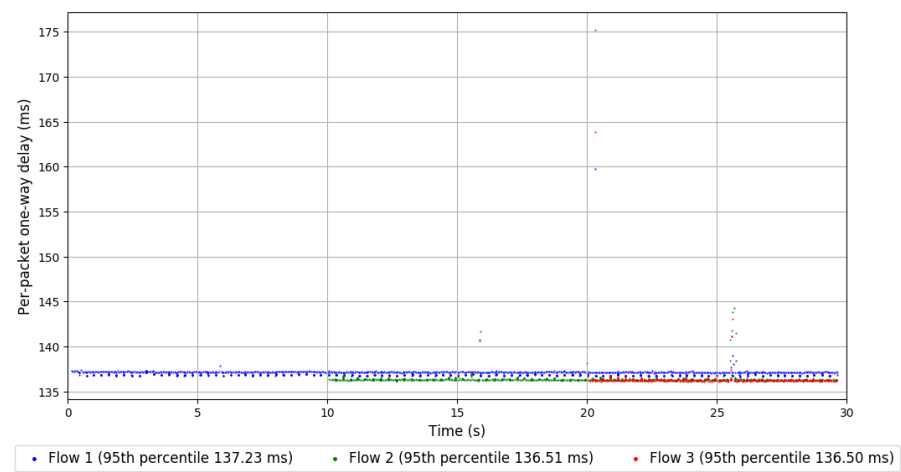
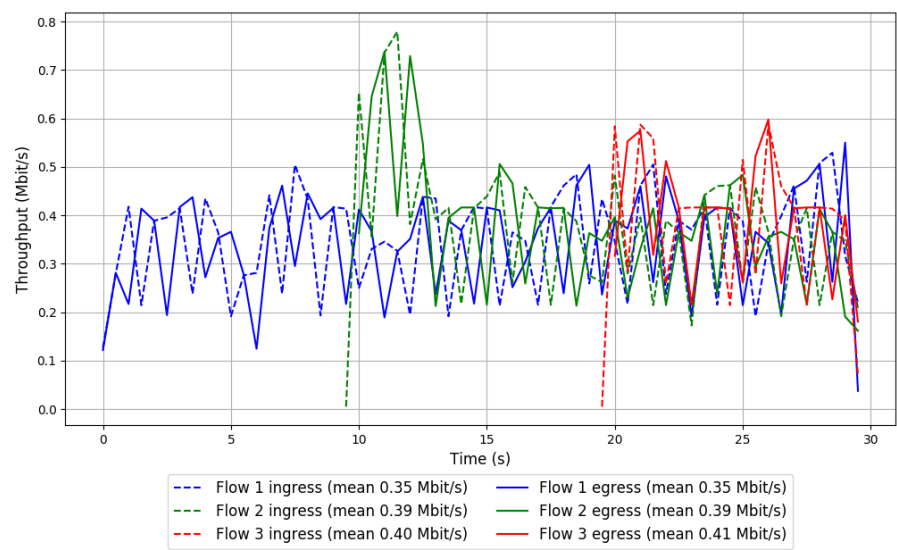
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 136.497 ms

Loss rate: 0.87%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-12 13:41:42

End at: 2017-08-12 13:42:12

Below is generated by plot.py at 2017-08-12 18:01:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.89 Mbit/s

95th percentile per-packet one-way delay: 136.836 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 136.809 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 136.473 ms

Loss rate: 0.04%

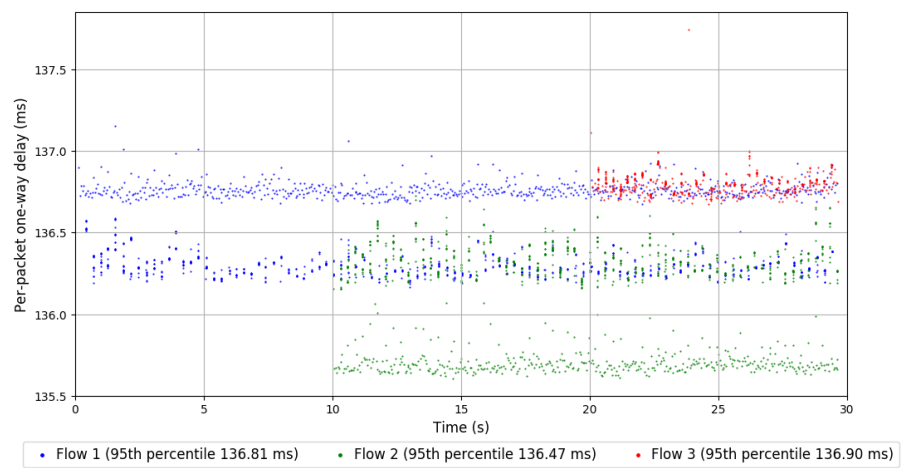
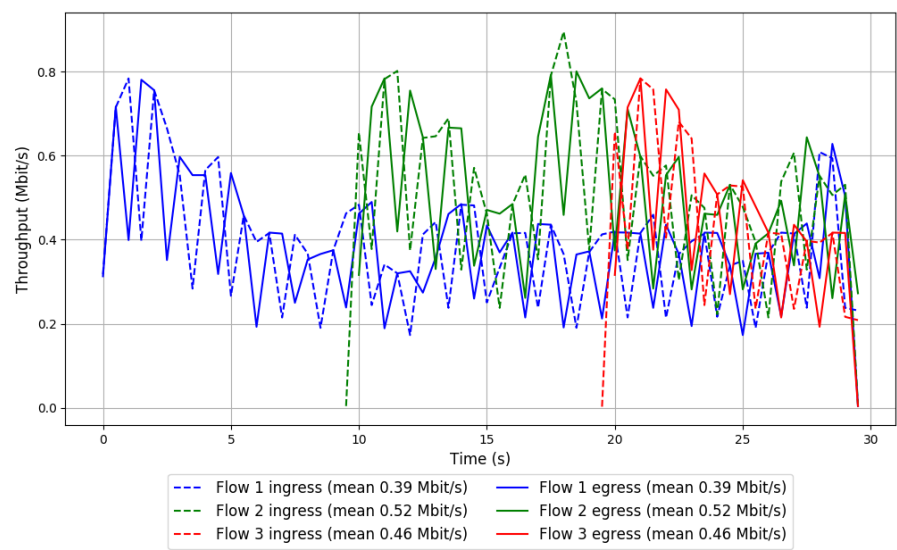
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 136.903 ms

Loss rate: 2.31%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-12 13:55:18

End at: 2017-08-12 13:55:48

Below is generated by plot.py at 2017-08-12 18:01:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 163.568 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 163.617 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 163.508 ms

Loss rate: 0.69%

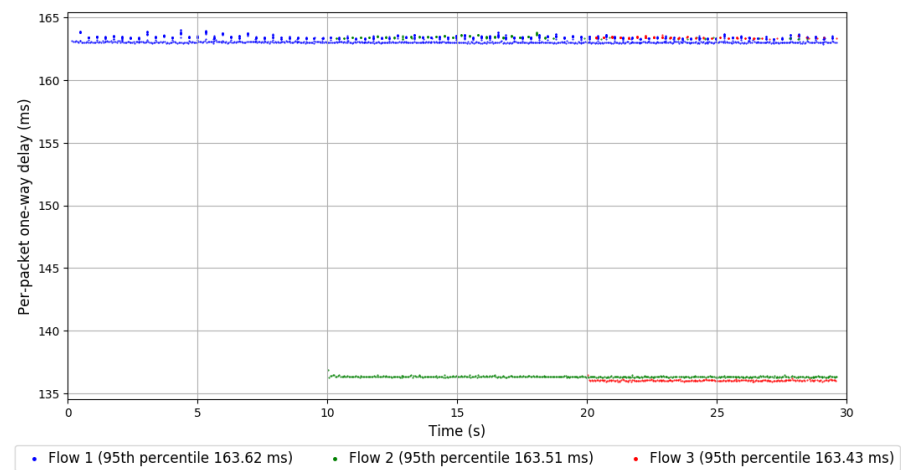
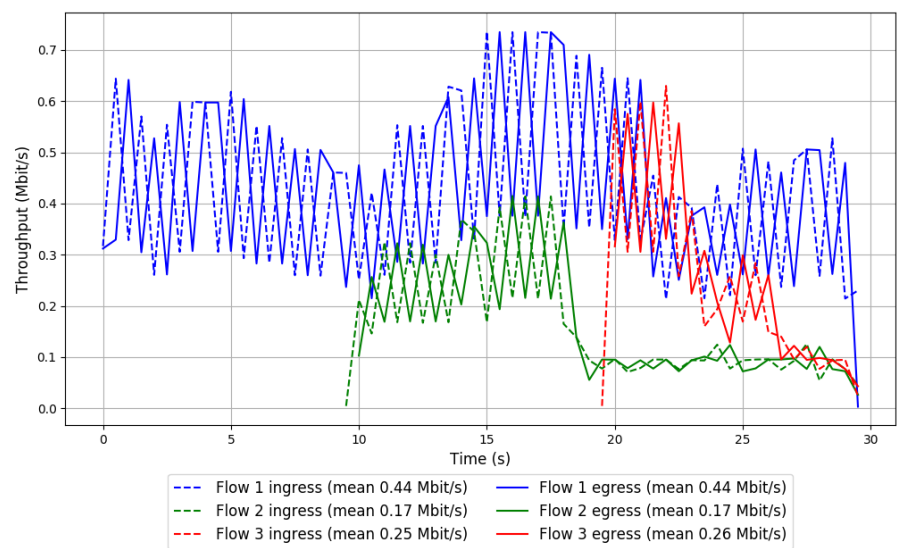
-- Flow 3:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 163.432 ms

Loss rate: 0.52%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-12 14:08:27

End at: 2017-08-12 14:08:57

Below is generated by plot.py at 2017-08-12 18:01:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 163.573 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 163.615 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 163.572 ms

Loss rate: 0.99%

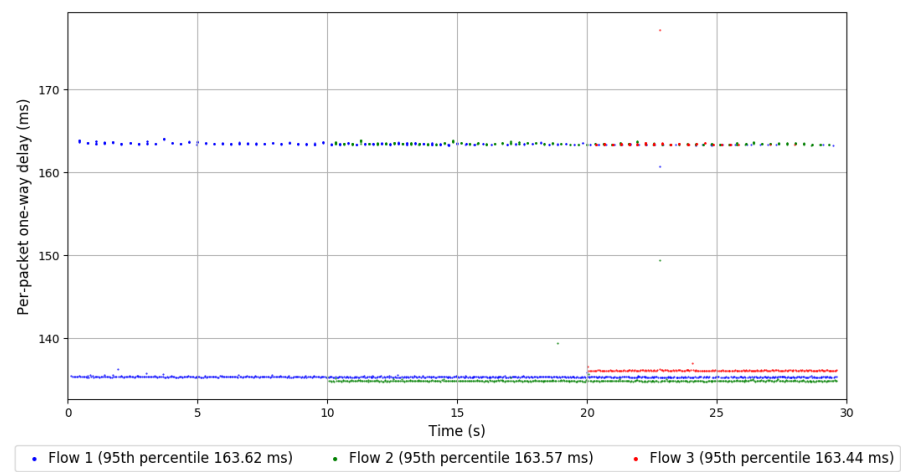
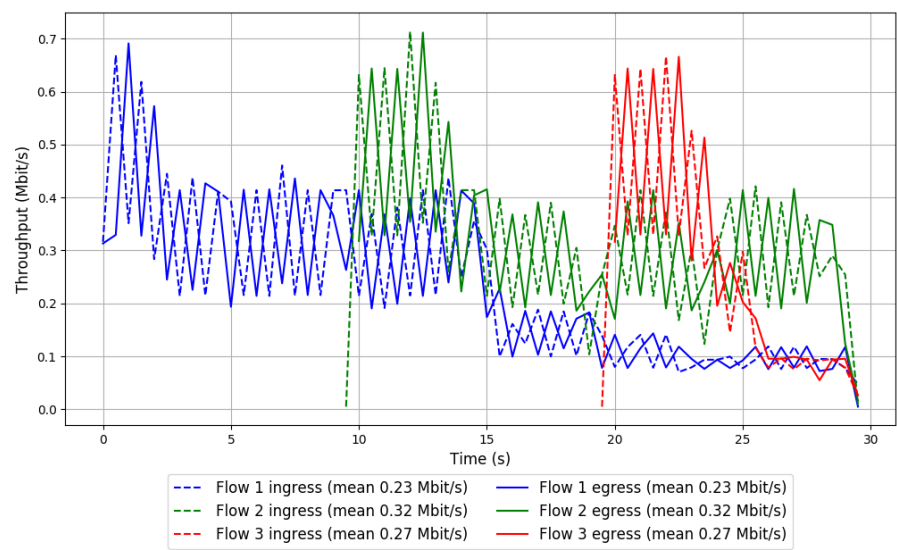
-- Flow 3:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 163.442 ms

Loss rate: 0.49%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-12 14:22:20

End at: 2017-08-12 14:22:50

Below is generated by plot.py at 2017-08-12 18:01:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 136.815 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 136.824 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.826 ms

Loss rate: 0.26%

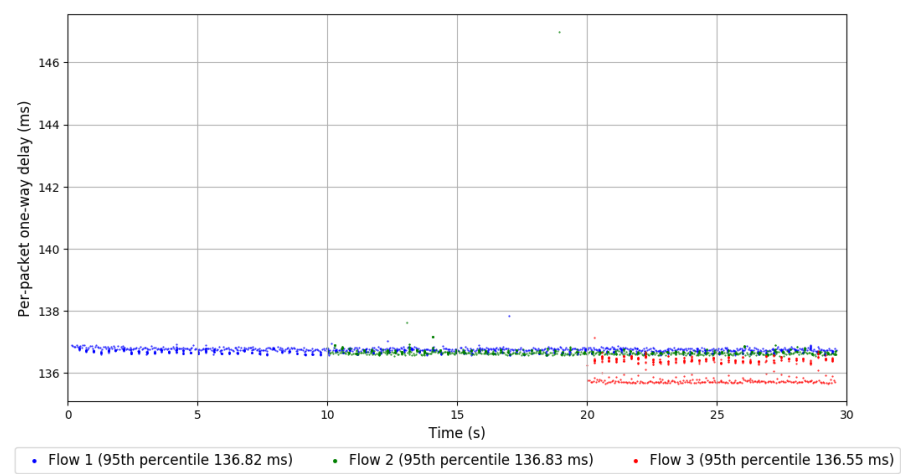
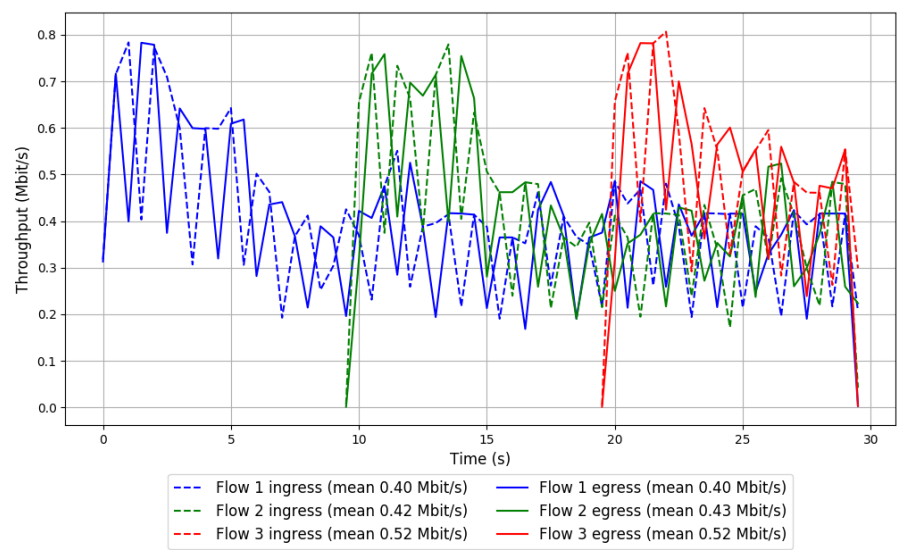
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 136.549 ms

Loss rate: 2.92%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-12 14:36:20

End at: 2017-08-12 14:36:50

Below is generated by plot.py at 2017-08-12 18:01:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.89 Mbit/s

95th percentile per-packet one-way delay: 137.138 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 137.161 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 136.647 ms

Loss rate: 1.17%

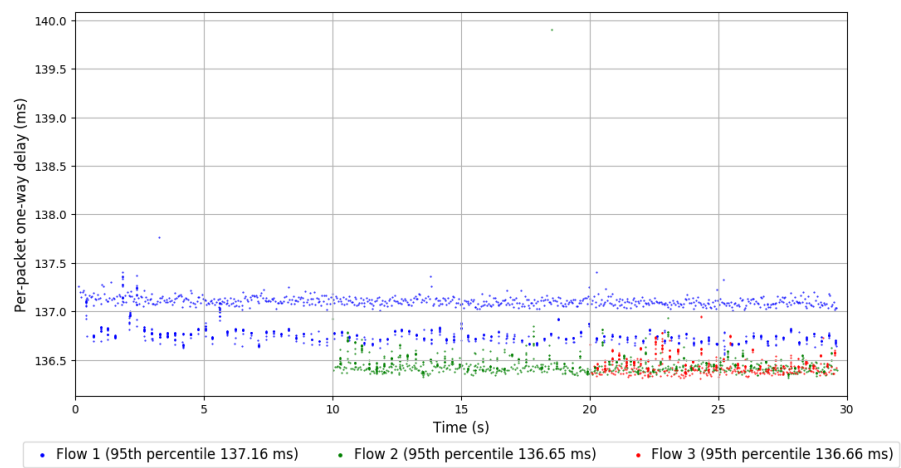
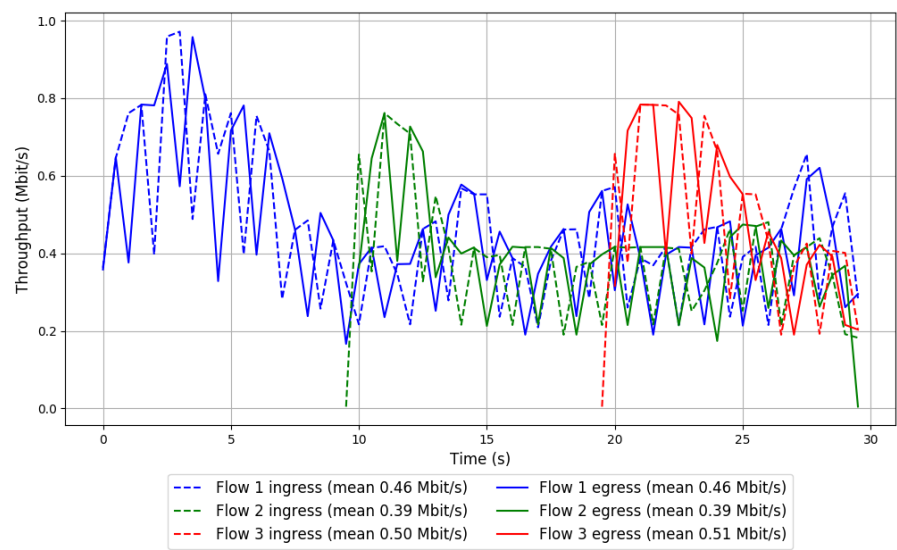
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 136.662 ms

Loss rate: 2.09%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-12 14:50:29

End at: 2017-08-12 14:50:59

Below is generated by plot.py at 2017-08-12 18:01:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.93 Mbit/s

95th percentile per-packet one-way delay: 136.774 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.805 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 136.627 ms

Loss rate: 0.23%

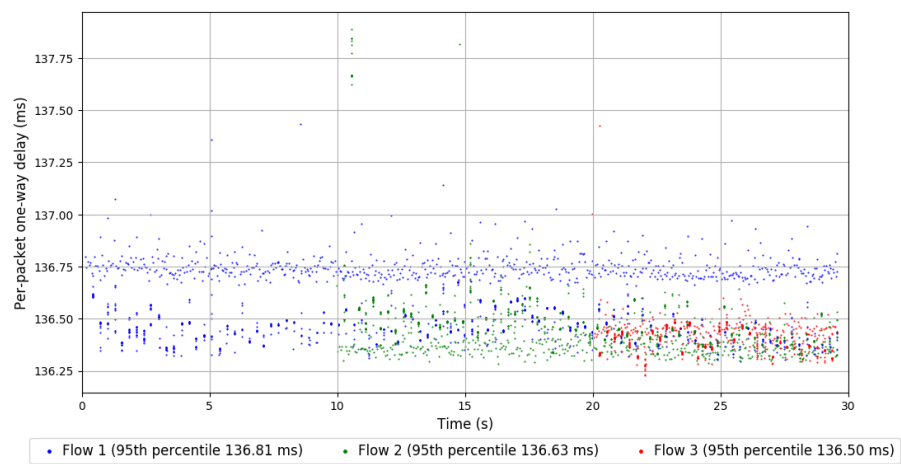
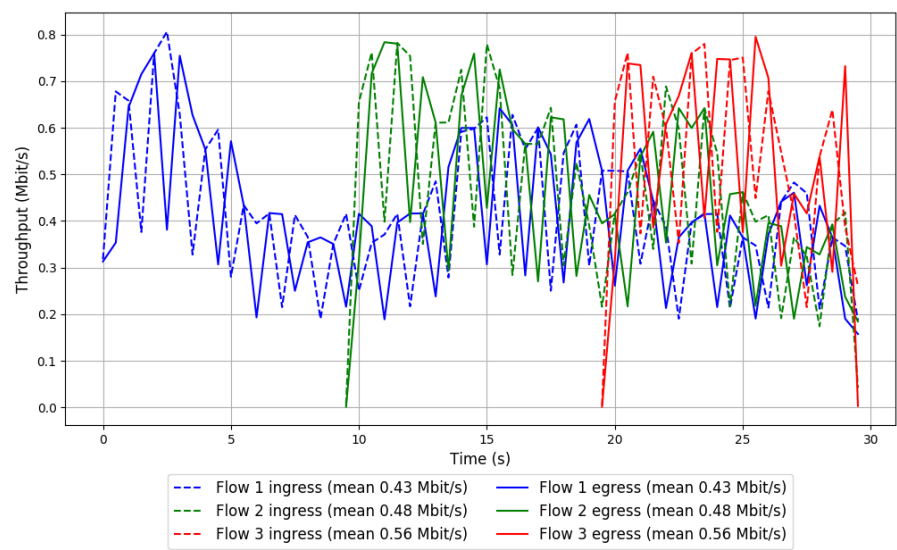
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 136.500 ms

Loss rate: 2.39%

Run 10: Report of Sprout — Data Link

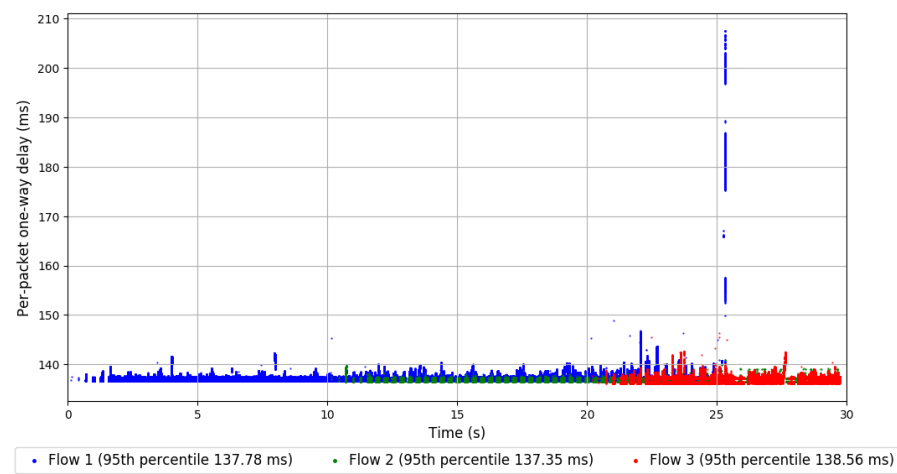
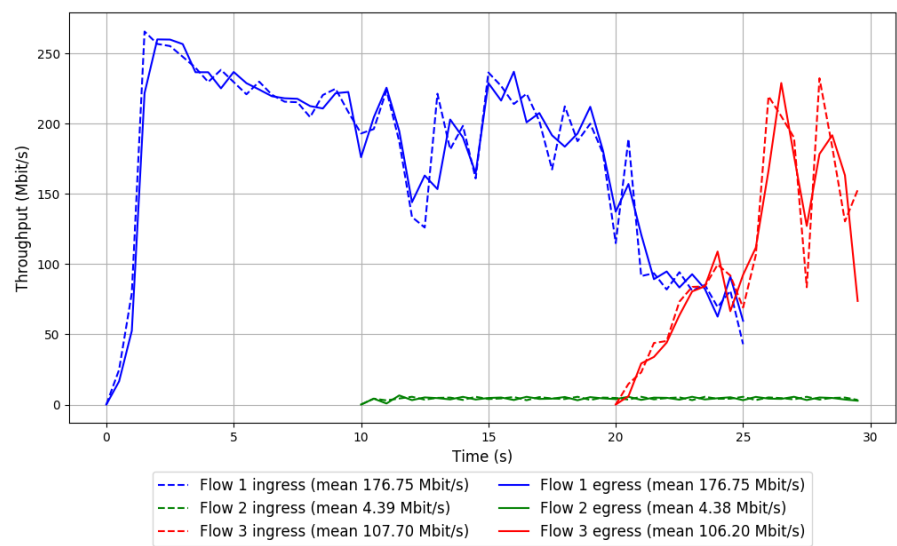


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-12 12:46:22
End at: 2017-08-12 12:46:52

# Below is generated by plot.py at 2017-08-12 18:02:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.88 Mbit/s
95th percentile per-packet one-way delay: 137.979 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 176.75 Mbit/s
95th percentile per-packet one-way delay: 137.776 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 137.353 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 106.20 Mbit/s
95th percentile per-packet one-way delay: 138.562 ms
Loss rate: 4.88%
```

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

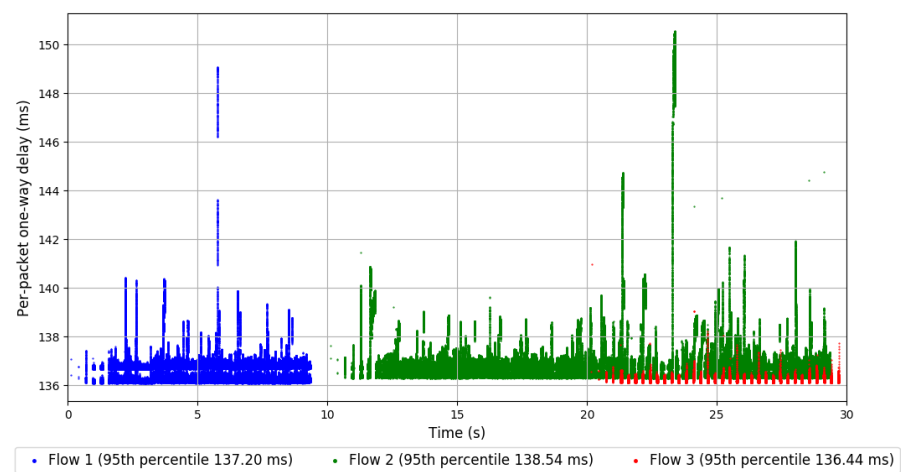
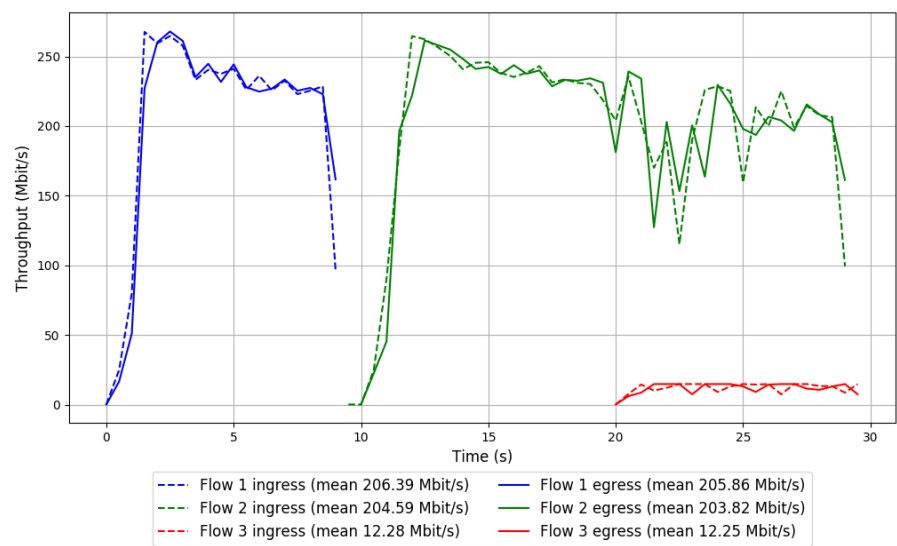


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-08-12 13:00:13
End at: 2017-08-12 13:00:43

# Below is generated by plot.py at 2017-08-12 18:02:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 200.74 Mbit/s
95th percentile per-packet one-way delay: 138.263 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 205.86 Mbit/s
95th percentile per-packet one-way delay: 137.201 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 203.82 Mbit/s
95th percentile per-packet one-way delay: 138.543 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 12.25 Mbit/s
95th percentile per-packet one-way delay: 136.442 ms
Loss rate: 3.06%
```


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



Run 3: Statistics of TaoVA-100x

Start at: 2017-08-12 13:14:11

End at: 2017-08-12 13:14:41

Below is generated by plot.py at 2017-08-12 18:03:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 144.46 Mbit/s

95th percentile per-packet one-way delay: 137.198 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 174.81 Mbit/s

95th percentile per-packet one-way delay: 136.883 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 161.01 Mbit/s

95th percentile per-packet one-way delay: 137.254 ms

Loss rate: 0.69%

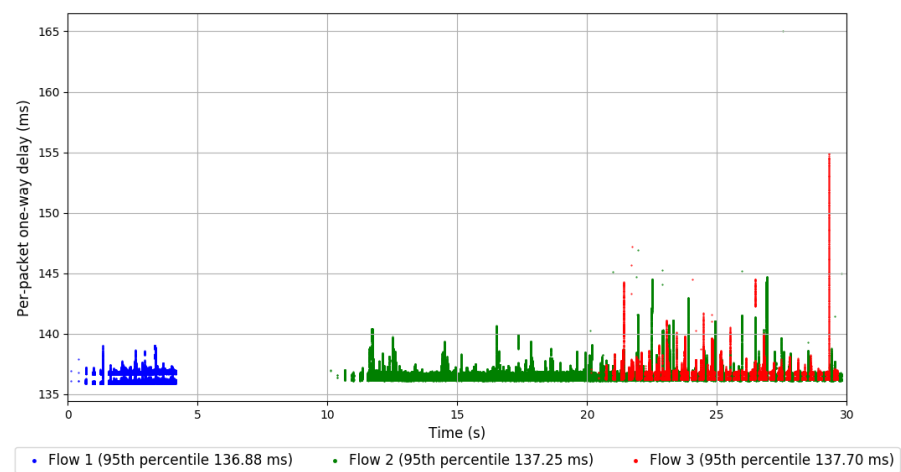
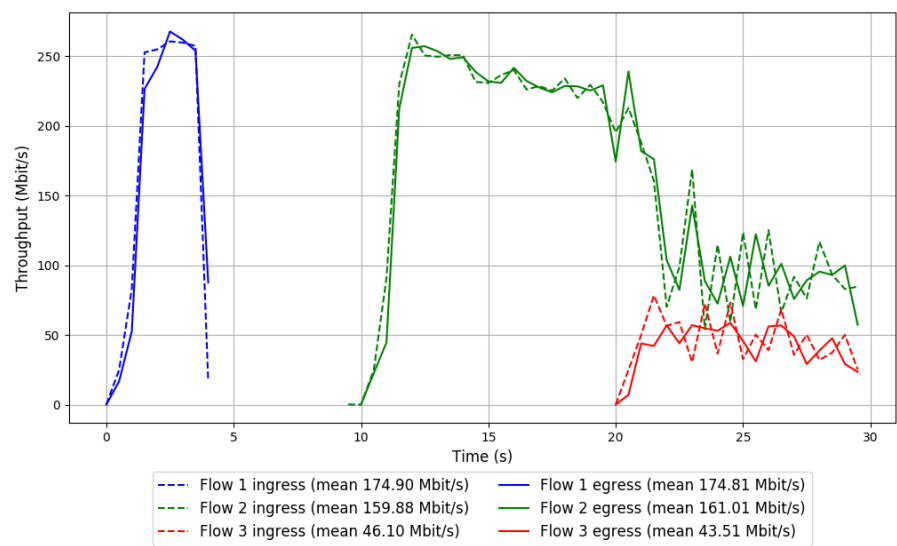
-- Flow 3:

Average throughput: 43.51 Mbit/s

95th percentile per-packet one-way delay: 137.704 ms

Loss rate: 8.66%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-08-12 13:28:01

End at: 2017-08-12 13:28:31

Below is generated by plot.py at 2017-08-12 18:03:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.08 Mbit/s

95th percentile per-packet one-way delay: 136.834 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 101.92 Mbit/s

95th percentile per-packet one-way delay: 136.858 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 39.77 Mbit/s

95th percentile per-packet one-way delay: 136.351 ms

Loss rate: 1.66%

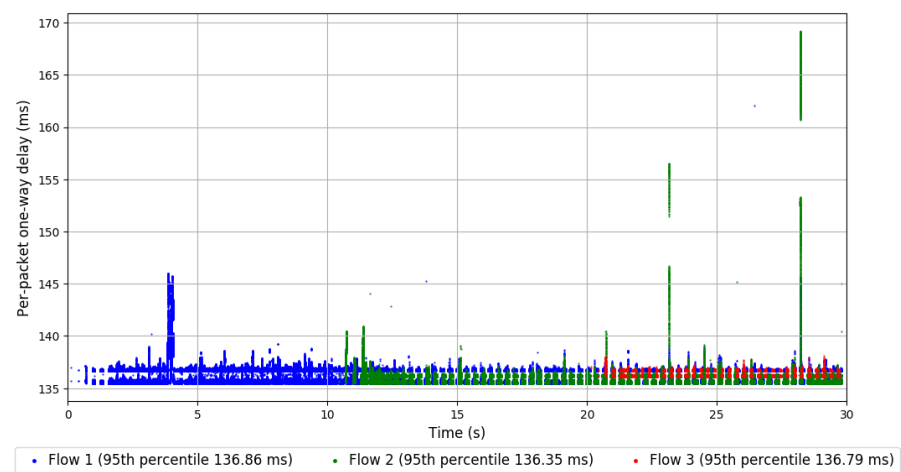
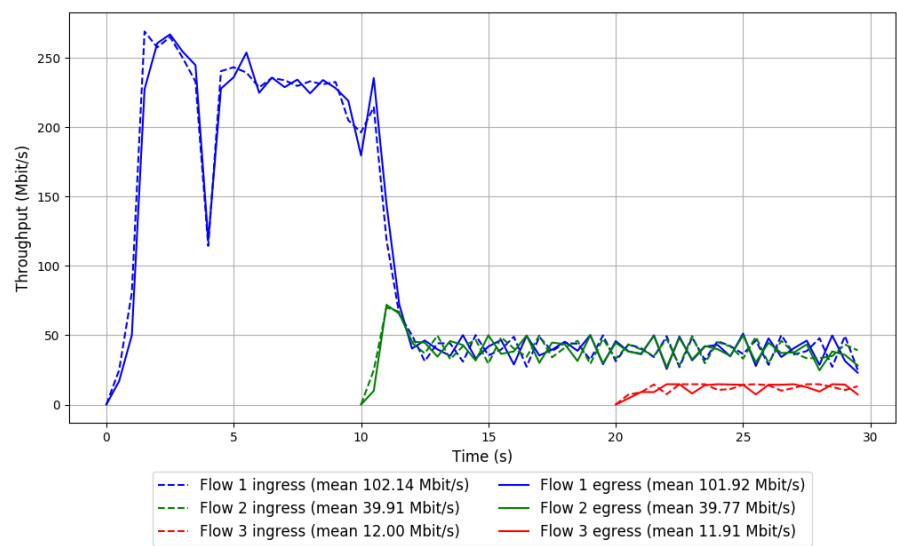
-- Flow 3:

Average throughput: 11.91 Mbit/s

95th percentile per-packet one-way delay: 136.788 ms

Loss rate: 3.51%

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

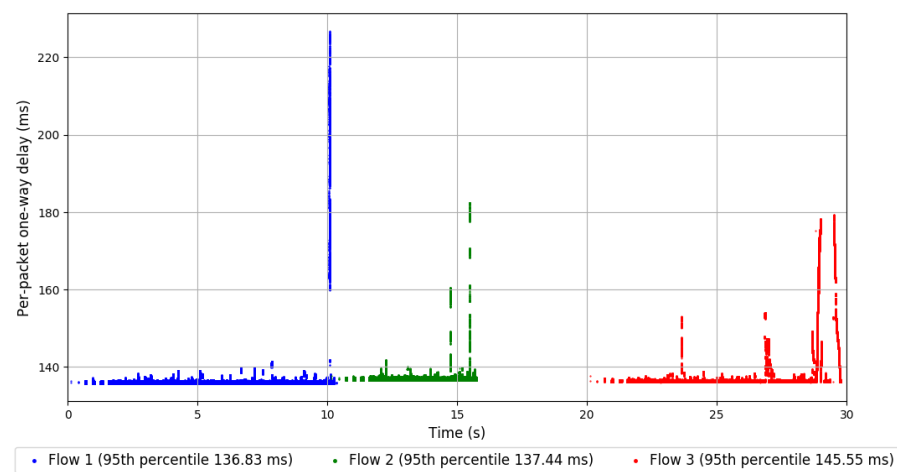
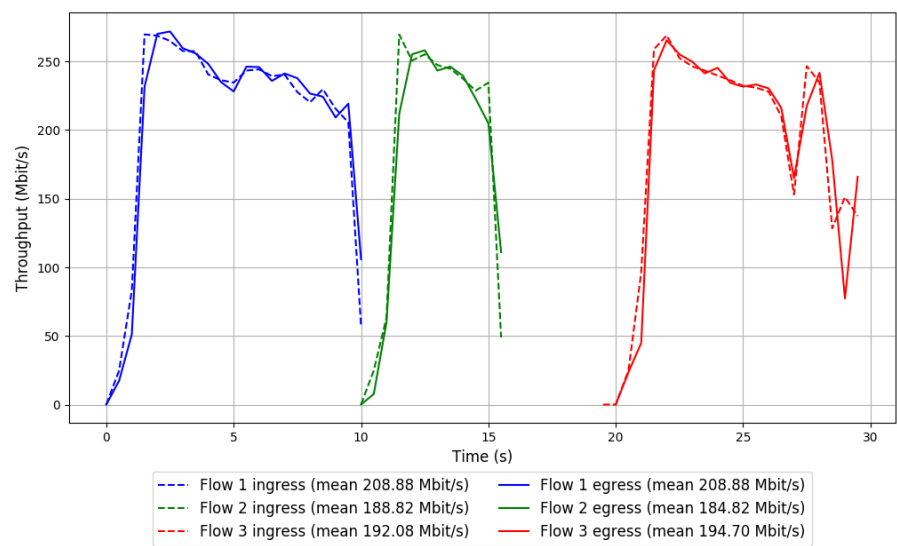


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-08-12 13:42:30
End at: 2017-08-12 13:43:00

# Below is generated by plot.py at 2017-08-12 18:04:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 170.12 Mbit/s
95th percentile per-packet one-way delay: 137.965 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 208.88 Mbit/s
95th percentile per-packet one-way delay: 136.826 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 184.82 Mbit/s
95th percentile per-packet one-way delay: 137.436 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 194.70 Mbit/s
95th percentile per-packet one-way delay: 145.553 ms
Loss rate: 1.55%
```

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-08-12 13:56:06

End at: 2017-08-12 13:56:37

Below is generated by plot.py at 2017-08-12 18:04:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.49 Mbit/s

95th percentile per-packet one-way delay: 163.351 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 67.28 Mbit/s

95th percentile per-packet one-way delay: 163.351 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 4.75 Mbit/s

95th percentile per-packet one-way delay: 163.364 ms

Loss rate: 0.00%

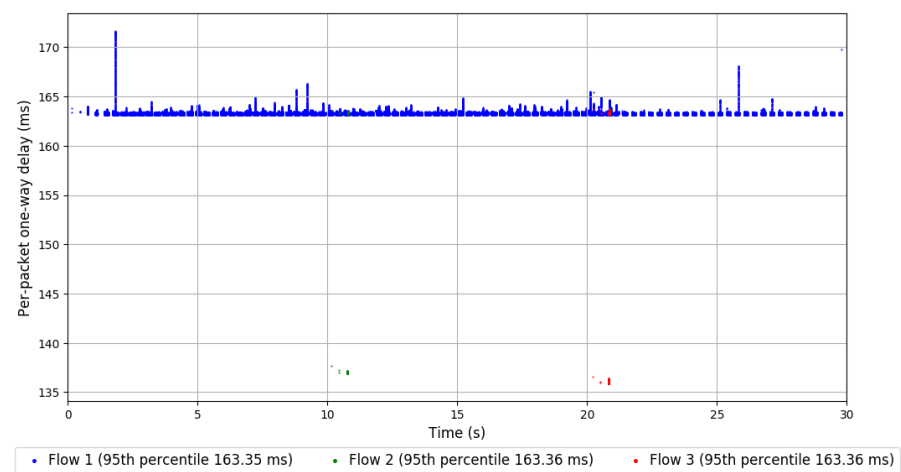
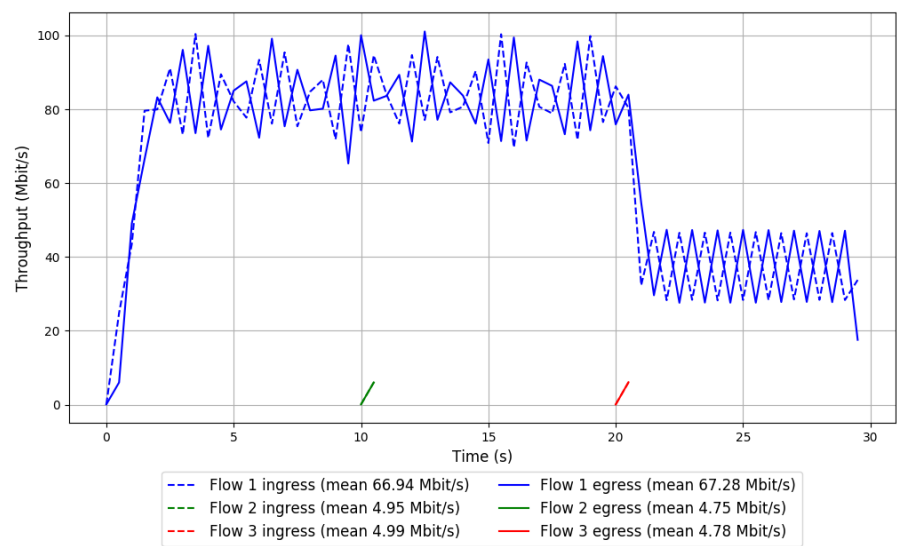
-- Flow 3:

Average throughput: 4.78 Mbit/s

95th percentile per-packet one-way delay: 163.357 ms

Loss rate: 0.00%

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

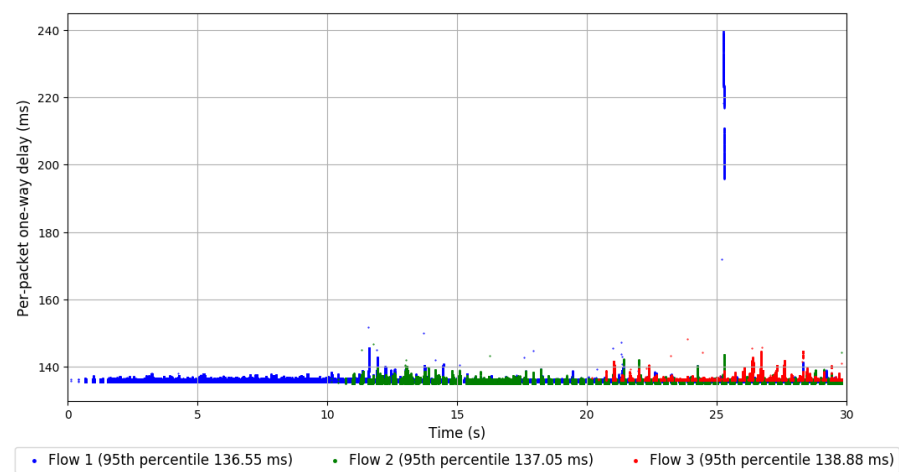
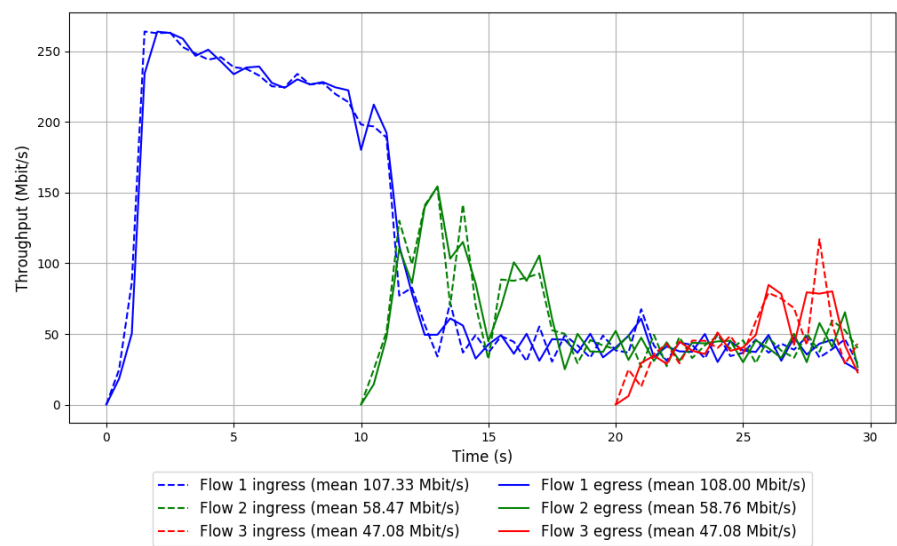


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-08-12 14:09:16
End at: 2017-08-12 14:09:46

# Below is generated by plot.py at 2017-08-12 18:04:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.69 Mbit/s
95th percentile per-packet one-way delay: 136.892 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 108.00 Mbit/s
95th percentile per-packet one-way delay: 136.546 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 58.76 Mbit/s
95th percentile per-packet one-way delay: 137.047 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 47.08 Mbit/s
95th percentile per-packet one-way delay: 138.879 ms
Loss rate: 2.69%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-08-12 14:23:09

End at: 2017-08-12 14:23:39

Below is generated by plot.py at 2017-08-12 18:05:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 173.12 Mbit/s

95th percentile per-packet one-way delay: 137.207 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 158.90 Mbit/s

95th percentile per-packet one-way delay: 137.175 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 5.82 Mbit/s

95th percentile per-packet one-way delay: 137.014 ms

Loss rate: 1.48%

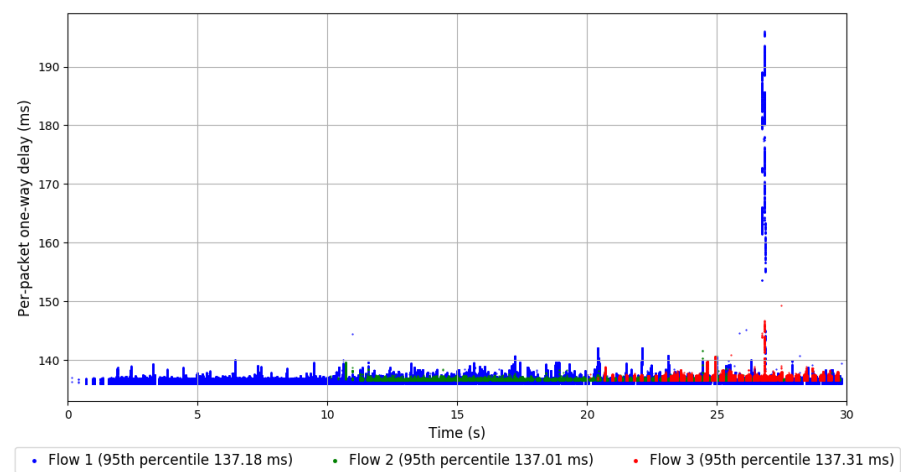
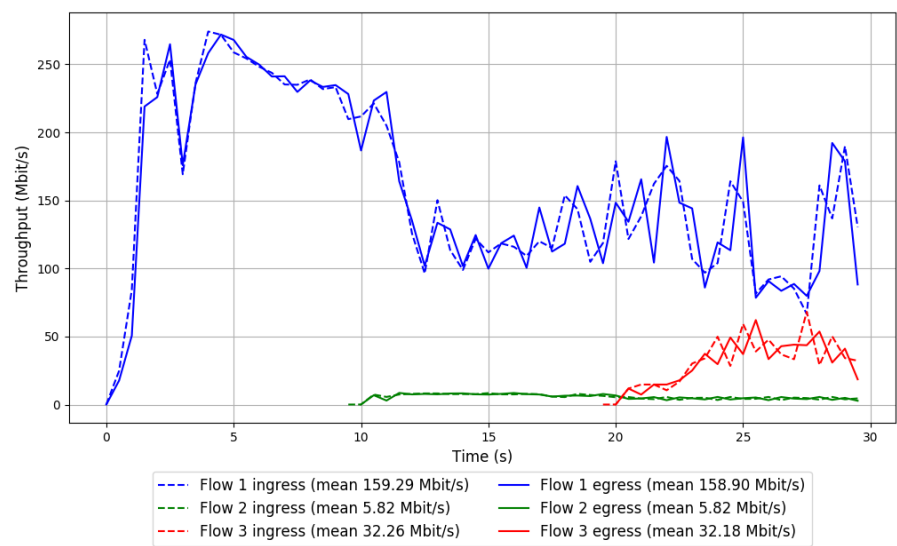
-- Flow 3:

Average throughput: 32.18 Mbit/s

95th percentile per-packet one-way delay: 137.313 ms

Loss rate: 4.05%

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

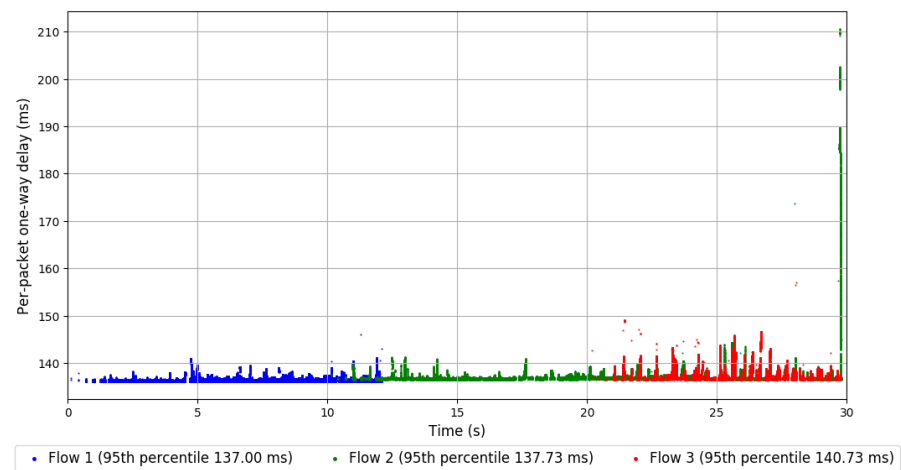
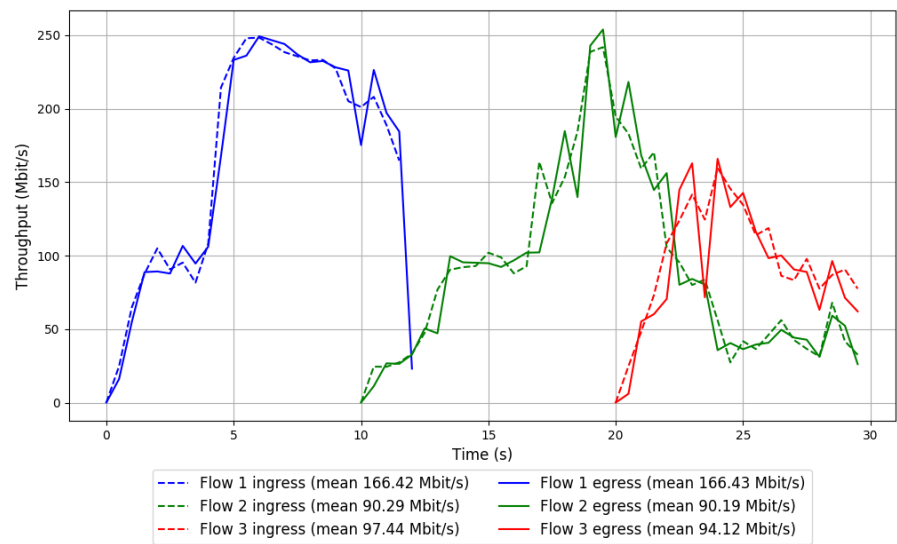


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-08-12 14:37:09
End at: 2017-08-12 14:37:39

# Below is generated by plot.py at 2017-08-12 18:05:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.24 Mbit/s
95th percentile per-packet one-way delay: 137.985 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 166.43 Mbit/s
95th percentile per-packet one-way delay: 136.995 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 90.19 Mbit/s
95th percentile per-packet one-way delay: 137.726 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 94.12 Mbit/s
95th percentile per-packet one-way delay: 140.728 ms
Loss rate: 6.11%
```

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

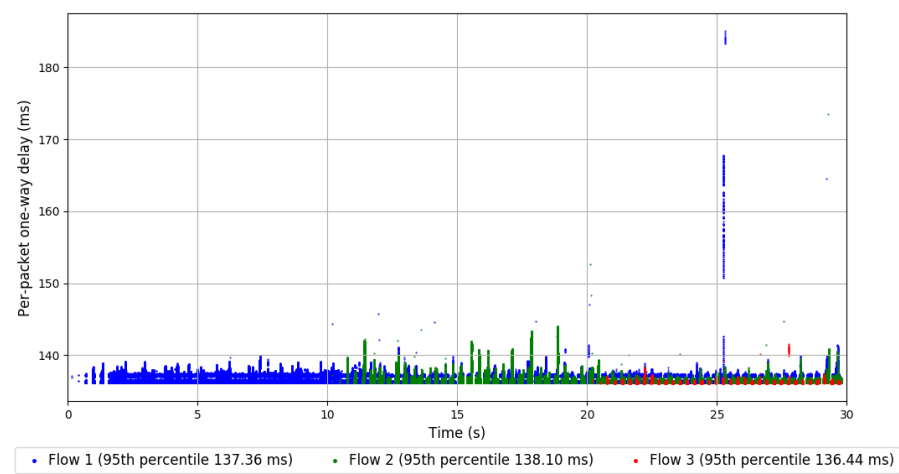
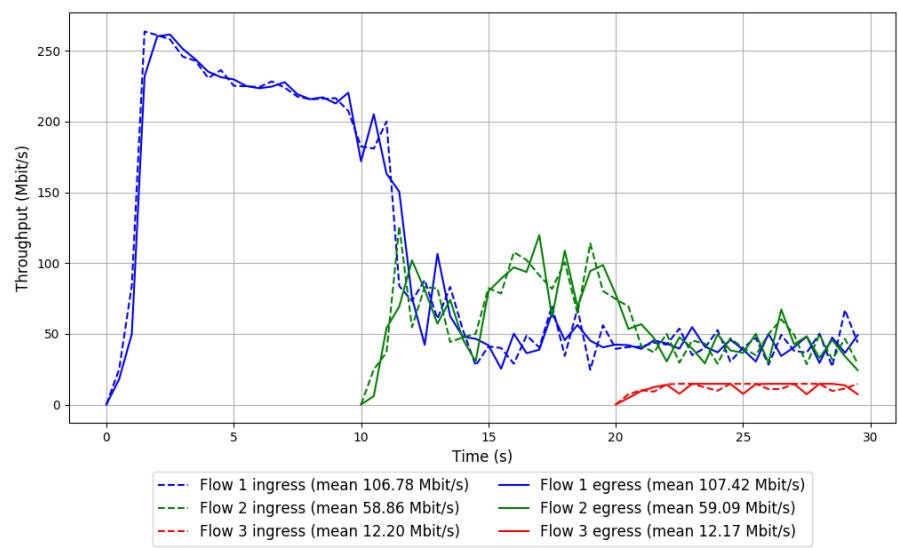


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-12 14:51:17
End at: 2017-08-12 14:51:48

# Below is generated by plot.py at 2017-08-12 18:06:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.08 Mbit/s
95th percentile per-packet one-way delay: 137.410 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 107.42 Mbit/s
95th percentile per-packet one-way delay: 137.364 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 59.09 Mbit/s
95th percentile per-packet one-way delay: 138.103 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 12.17 Mbit/s
95th percentile per-packet one-way delay: 136.435 ms
Loss rate: 3.09%
```


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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-12 12:36:04

End at: 2017-08-12 12:36:34

Below is generated by plot.py at 2017-08-12 18:06:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.66 Mbit/s

95th percentile per-packet one-way delay: 137.711 ms

Loss rate: 2.95%

-- Flow 1:

Average throughput: 6.83 Mbit/s

95th percentile per-packet one-way delay: 137.566 ms

Loss rate: 1.32%

-- Flow 2:

Average throughput: 7.27 Mbit/s

95th percentile per-packet one-way delay: 137.644 ms

Loss rate: 1.57%

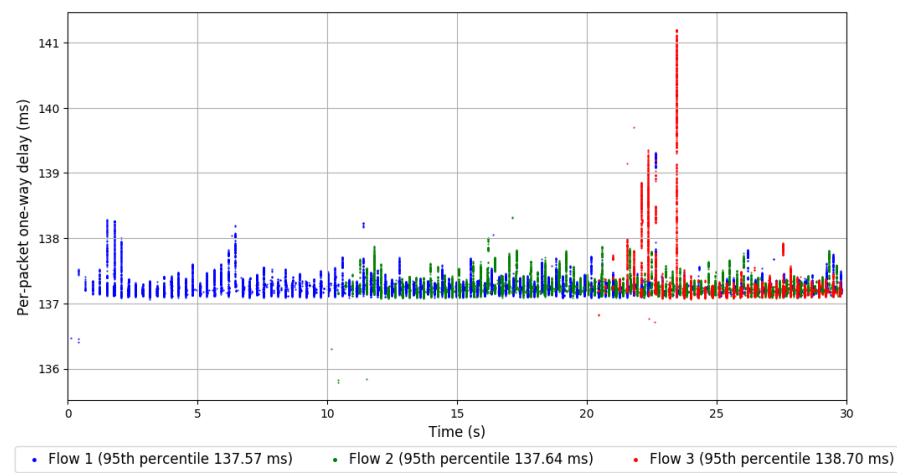
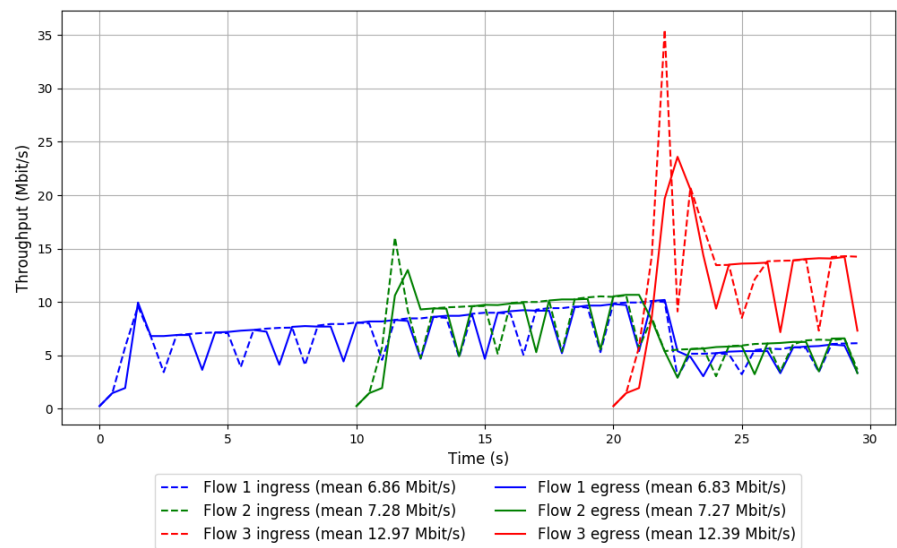
-- Flow 3:

Average throughput: 12.39 Mbit/s

95th percentile per-packet one-way delay: 138.704 ms

Loss rate: 7.10%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

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

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

Below is generated by plot.py at 2017-08-12 18:06:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 138.505 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 25.14 Mbit/s

95th percentile per-packet one-way delay: 138.579 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 4.28 Mbit/s

95th percentile per-packet one-way delay: 137.756 ms

Loss rate: 3.02%

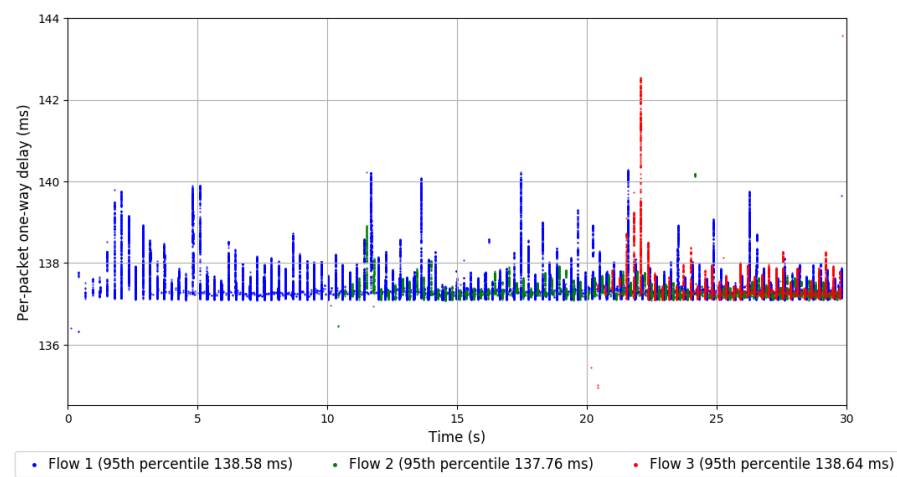
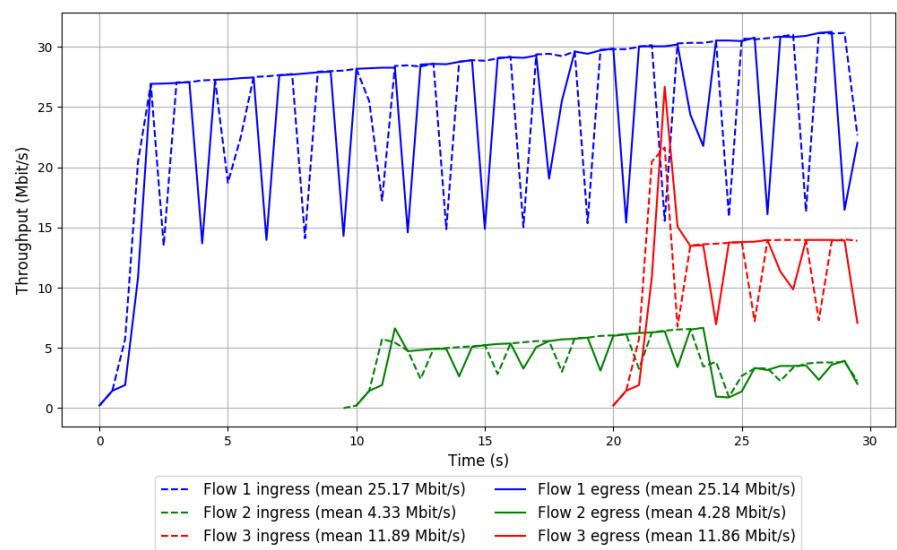
-- Flow 3:

Average throughput: 11.86 Mbit/s

95th percentile per-packet one-way delay: 138.640 ms

Loss rate: 3.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-12 13:04:00

End at: 2017-08-12 13:04:30

Below is generated by plot.py at 2017-08-12 18:06:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.47 Mbit/s

95th percentile per-packet one-way delay: 138.344 ms

Loss rate: 1.90%

-- Flow 1:

Average throughput: 18.96 Mbit/s

95th percentile per-packet one-way delay: 137.742 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 137.078 ms

Loss rate: 1.85%

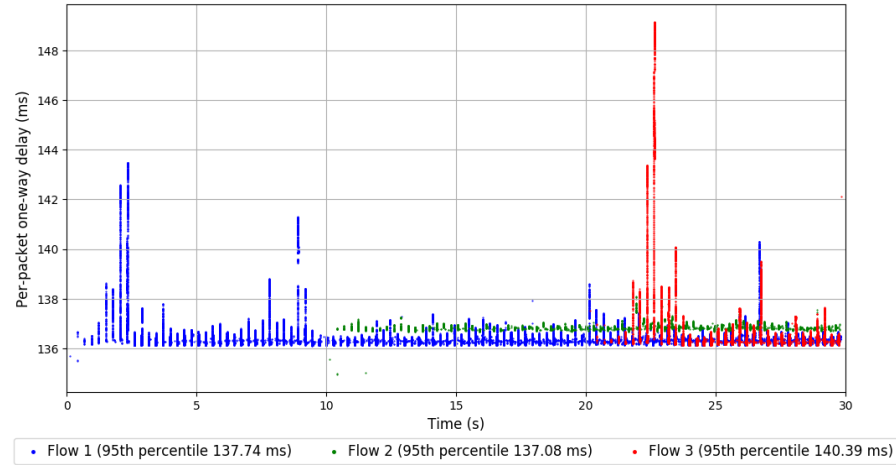
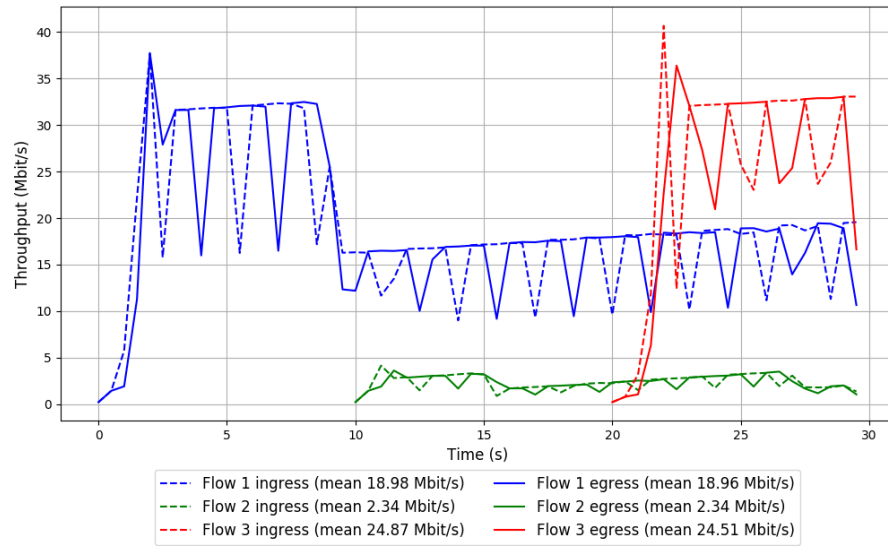
-- Flow 3:

Average throughput: 24.51 Mbit/s

95th percentile per-packet one-way delay: 140.390 ms

Loss rate: 3.71%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-12 13:17:52

End at: 2017-08-12 13:18:22

Below is generated by plot.py at 2017-08-12 18:06:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 137.386 ms

Loss rate: 3.32%

-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 137.109 ms

Loss rate: 4.33%

-- Flow 2:

Average throughput: 2.69 Mbit/s

95th percentile per-packet one-way delay: 137.163 ms

Loss rate: 2.13%

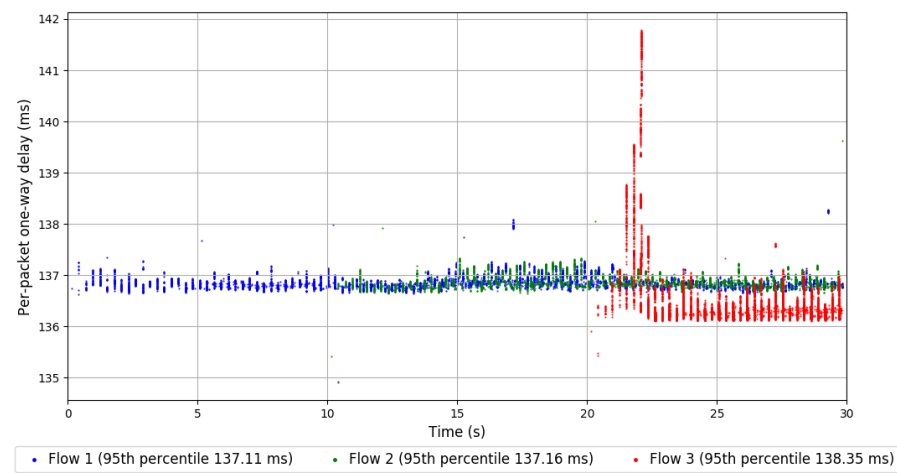
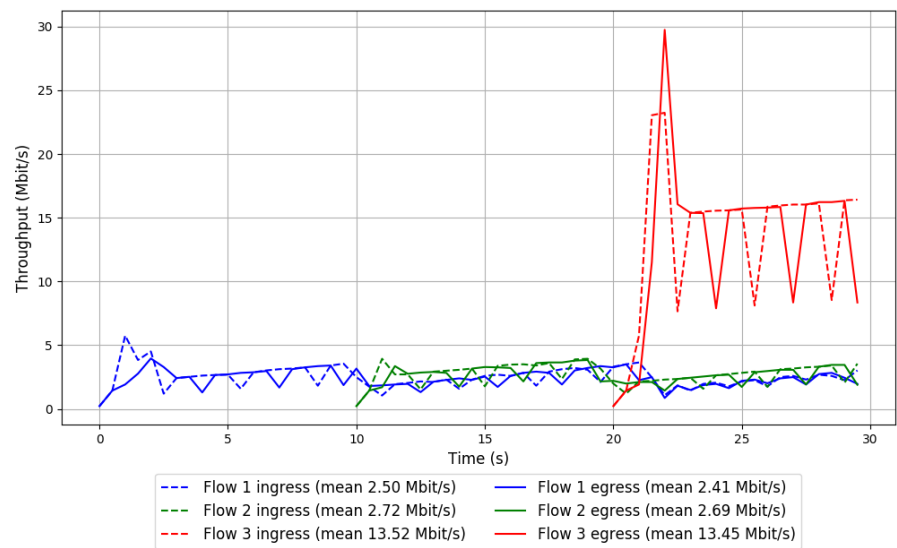
-- Flow 3:

Average throughput: 13.45 Mbit/s

95th percentile per-packet one-way delay: 138.354 ms

Loss rate: 3.25%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-12 13:31:43

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

Below is generated by plot.py at 2017-08-12 18:06:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.01 Mbit/s

95th percentile per-packet one-way delay: 139.264 ms

Loss rate: 2.16%

-- Flow 1:

Average throughput: 16.66 Mbit/s

95th percentile per-packet one-way delay: 138.012 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 138.594 ms

Loss rate: 3.04%

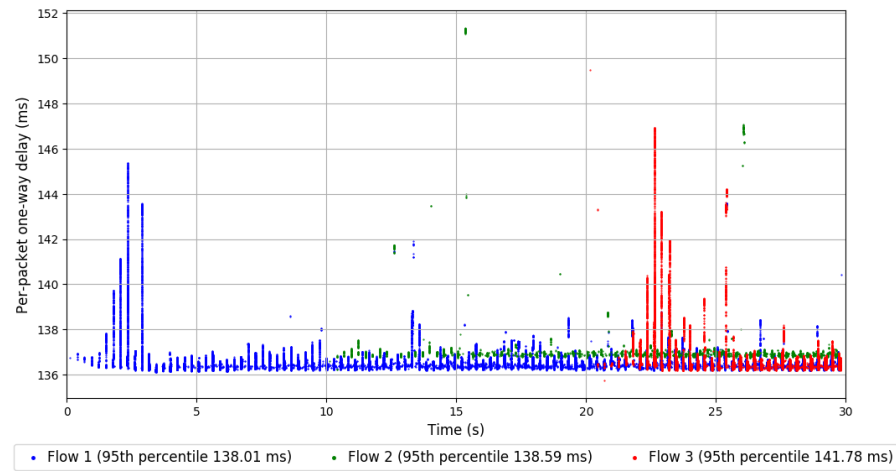
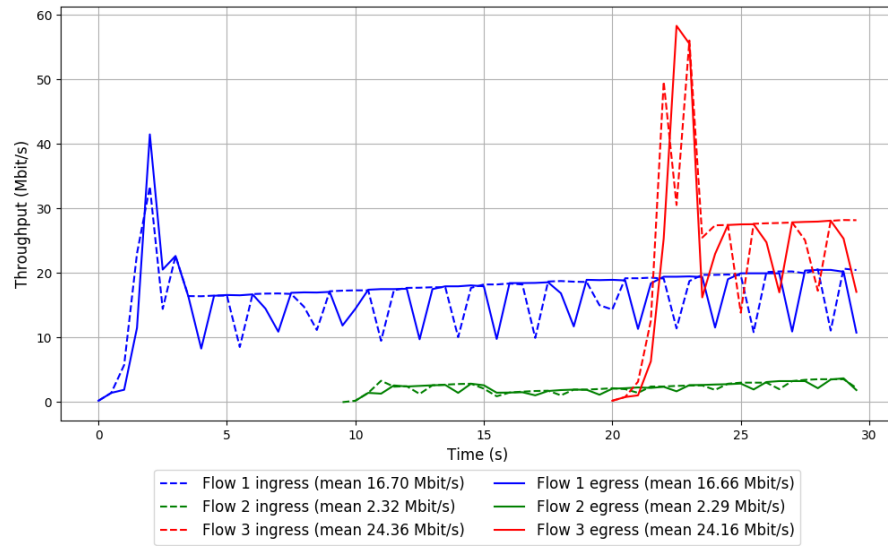
-- Flow 3:

Average throughput: 24.16 Mbit/s

95th percentile per-packet one-way delay: 141.779 ms

Loss rate: 4.05%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-12 13:46:13

End at: 2017-08-12 13:46:43

Below is generated by plot.py at 2017-08-12 18:06:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.42 Mbit/s

95th percentile per-packet one-way delay: 137.586 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 17.26 Mbit/s

95th percentile per-packet one-way delay: 137.715 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 137.078 ms

Loss rate: 2.03%

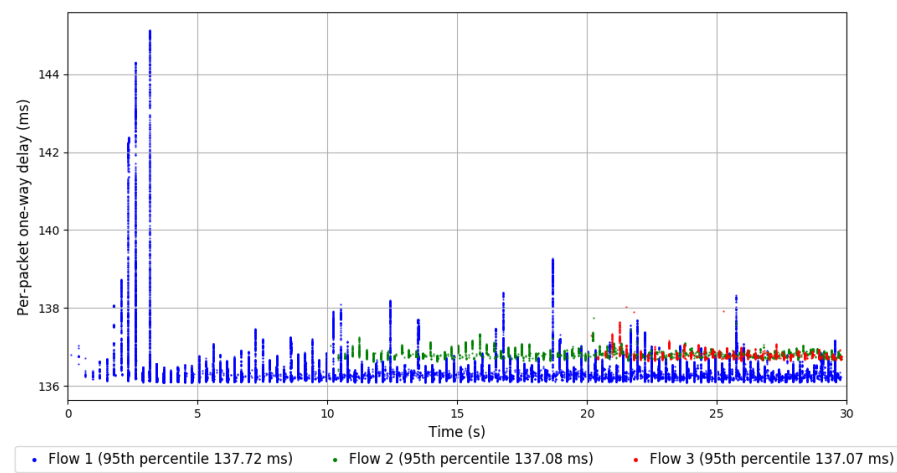
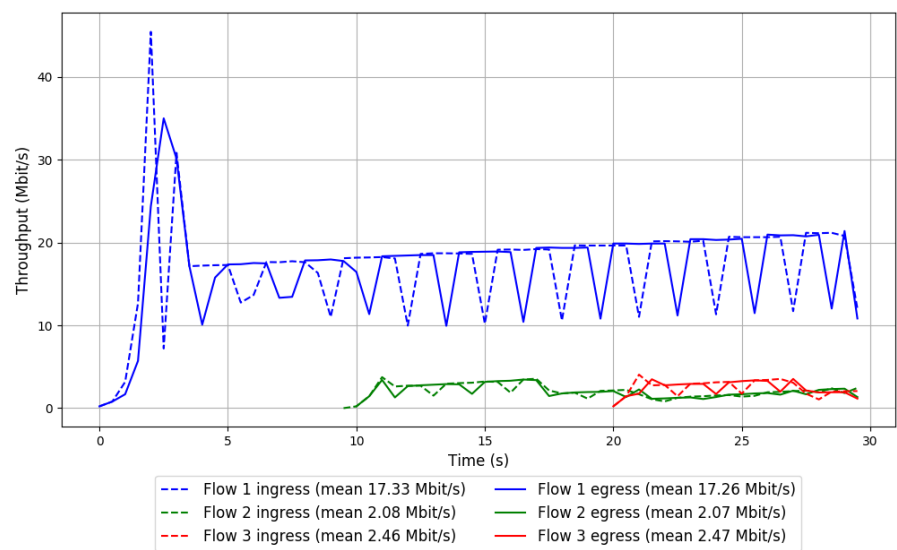
-- Flow 3:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 137.068 ms

Loss rate: 2.70%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-12 13:59:38

End at: 2017-08-12 14:00:08

Below is generated by plot.py at 2017-08-12 18:06:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.55 Mbit/s

95th percentile per-packet one-way delay: 166.050 ms

Loss rate: 2.26%

-- Flow 1:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 163.530 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 20.23 Mbit/s

95th percentile per-packet one-way delay: 166.290 ms

Loss rate: 2.32%

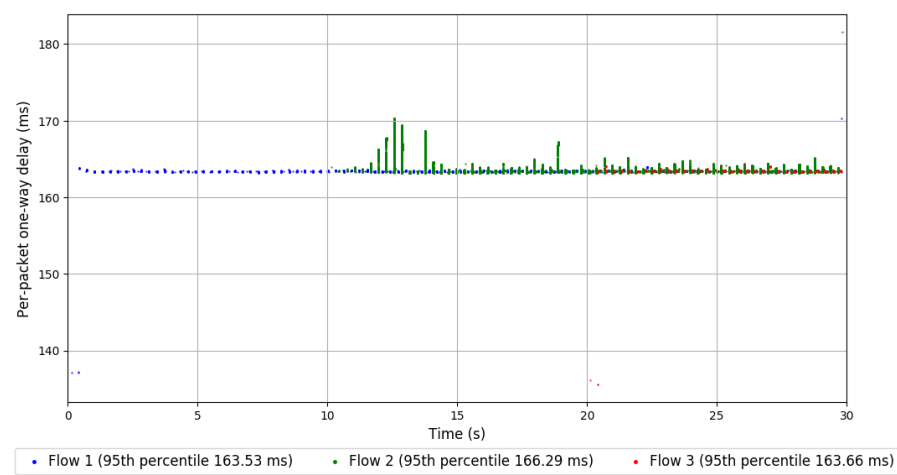
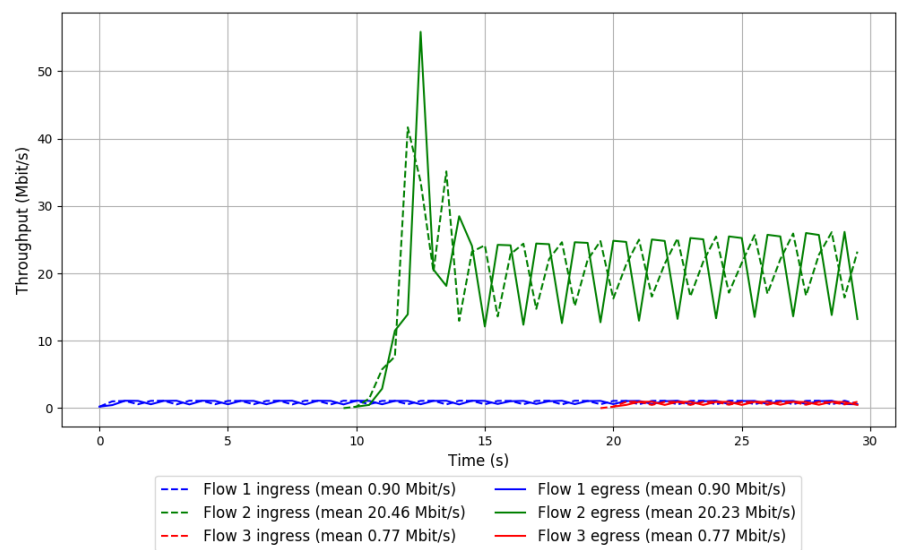
-- Flow 3:

Average throughput: 0.77 Mbit/s

95th percentile per-packet one-way delay: 163.663 ms

Loss rate: 3.13%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-12 14:13:06

End at: 2017-08-12 14:13:36

Below is generated by plot.py at 2017-08-12 18:06:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 35.48 Mbit/s

95th percentile per-packet one-way delay: 137.858 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 26.04 Mbit/s

95th percentile per-packet one-way delay: 137.652 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 136.947 ms

Loss rate: 2.70%

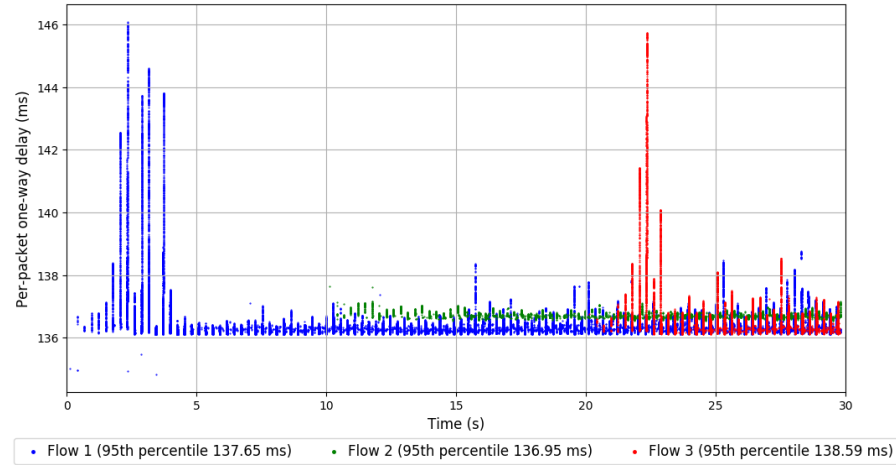
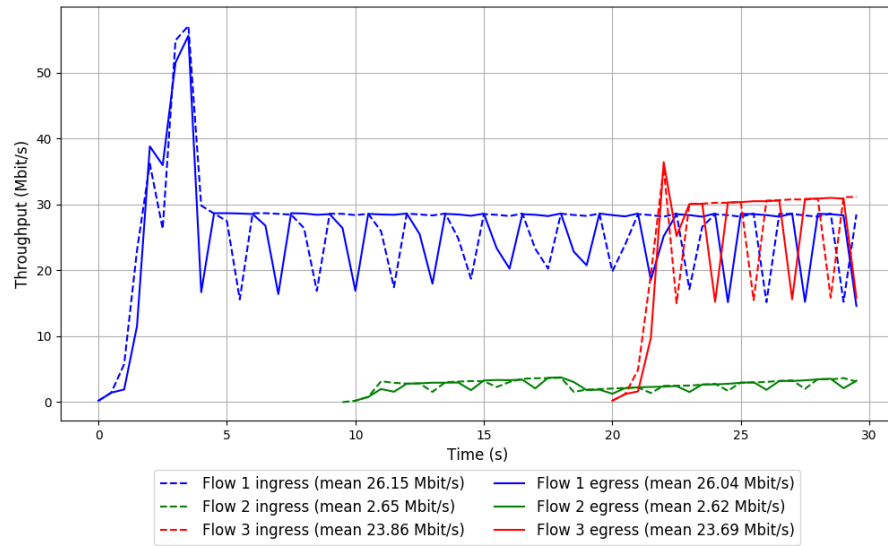
-- Flow 3:

Average throughput: 23.69 Mbit/s

95th percentile per-packet one-way delay: 138.589 ms

Loss rate: 3.71%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-12 14:26:57

End at: 2017-08-12 14:27:27

Below is generated by plot.py at 2017-08-12 18:06:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.23 Mbit/s

95th percentile per-packet one-way delay: 138.146 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 13.37 Mbit/s

95th percentile per-packet one-way delay: 138.592 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 5.70 Mbit/s

95th percentile per-packet one-way delay: 137.656 ms

Loss rate: 1.64%

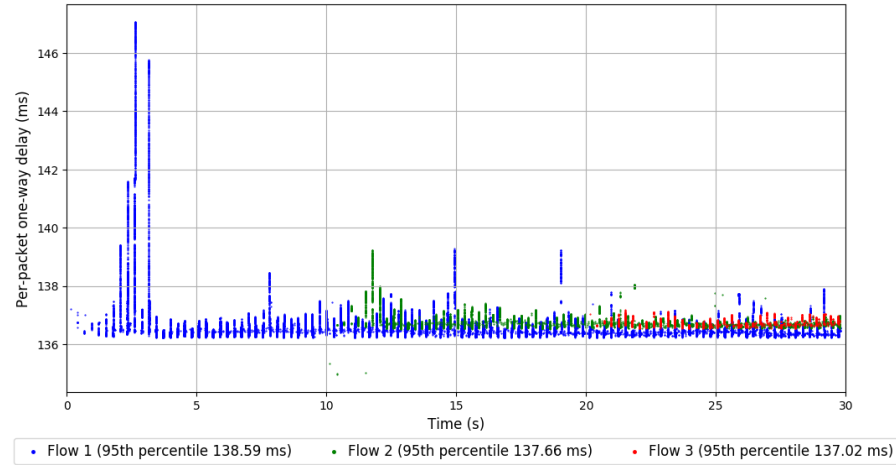
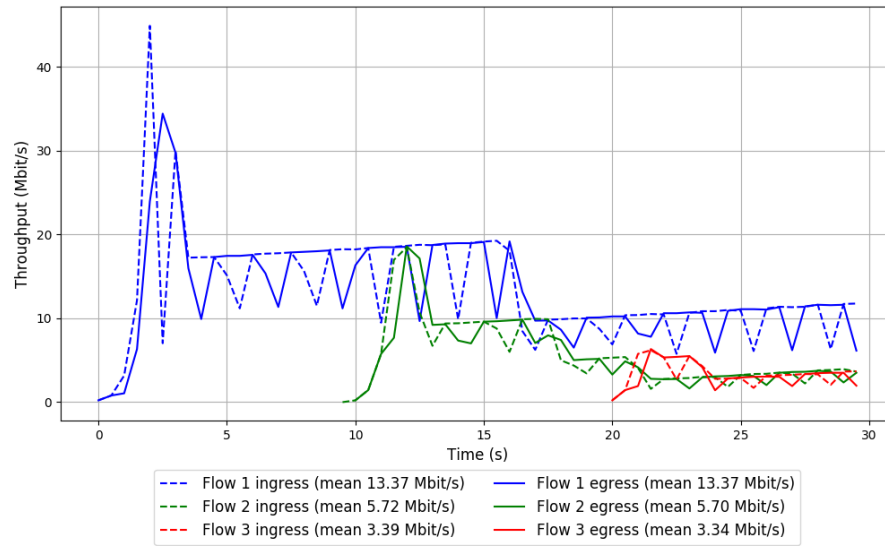
-- Flow 3:

Average throughput: 3.34 Mbit/s

95th percentile per-packet one-way delay: 137.020 ms

Loss rate: 4.49%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-12 14:41:00

End at: 2017-08-12 14:41:30

Below is generated by plot.py at 2017-08-12 18:06:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.27 Mbit/s

95th percentile per-packet one-way delay: 140.419 ms

Loss rate: 3.81%

-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 136.746 ms

Loss rate: 3.43%

-- Flow 2:

Average throughput: 3.78 Mbit/s

95th percentile per-packet one-way delay: 137.013 ms

Loss rate: 3.41%

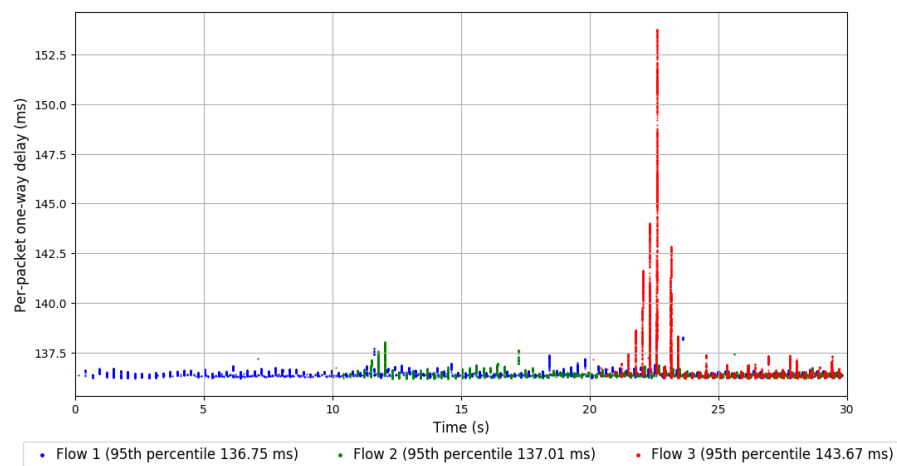
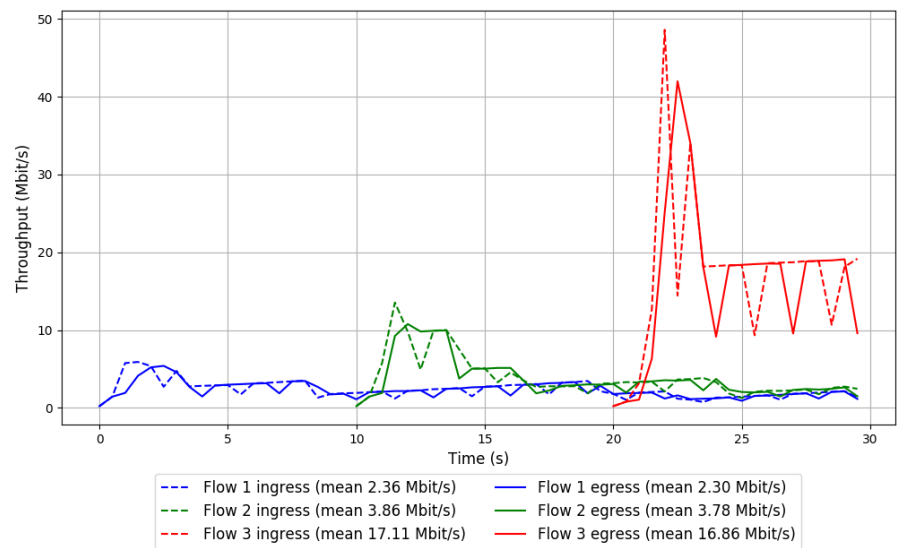
-- Flow 3:

Average throughput: 16.86 Mbit/s

95th percentile per-packet one-way delay: 143.670 ms

Loss rate: 4.15%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-08-12 12:48:22

End at: 2017-08-12 12:48:52

Below is generated by plot.py at 2017-08-12 18:07:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.84 Mbit/s

95th percentile per-packet one-way delay: 158.520 ms

Loss rate: 5.66%

-- Flow 1:

Average throughput: 72.96 Mbit/s

95th percentile per-packet one-way delay: 173.471 ms

Loss rate: 2.44%

-- Flow 2:

Average throughput: 54.20 Mbit/s

95th percentile per-packet one-way delay: 150.887 ms

Loss rate: 1.54%

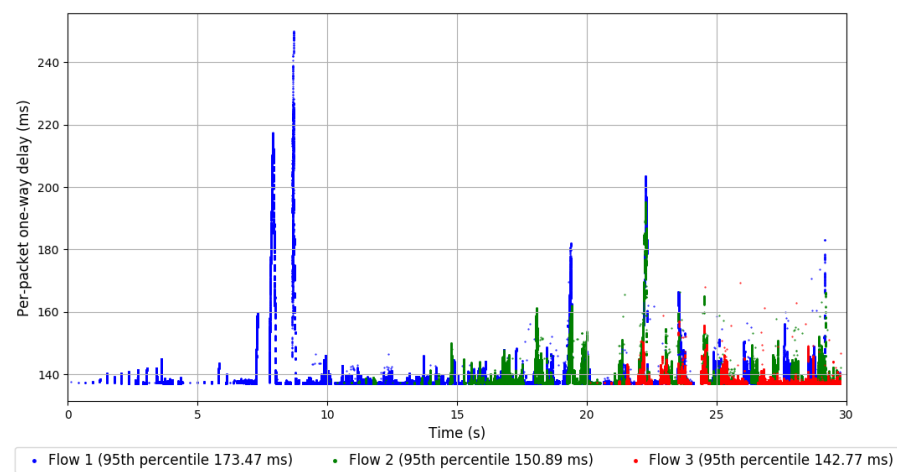
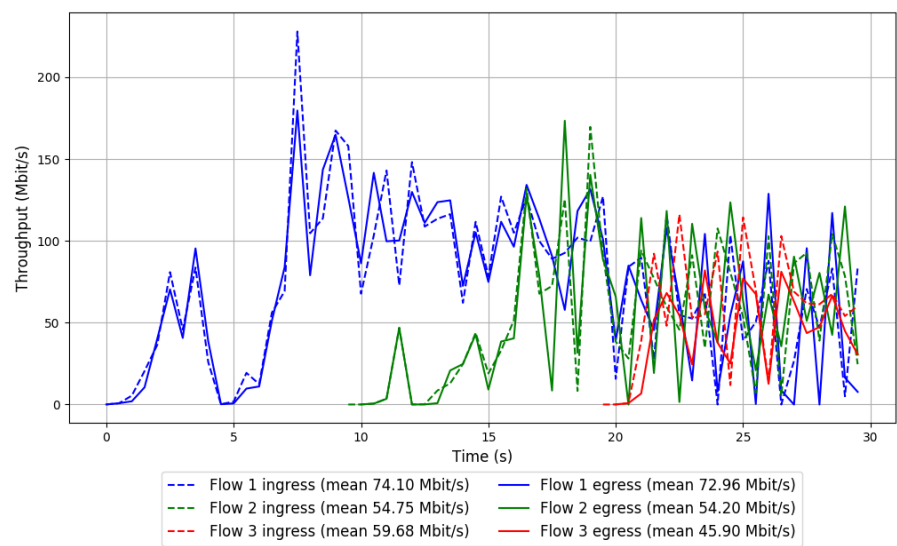
-- Flow 3:

Average throughput: 45.90 Mbit/s

95th percentile per-packet one-way delay: 142.771 ms

Loss rate: 25.22%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-12 13:02:15

End at: 2017-08-12 13:02:45

Below is generated by plot.py at 2017-08-12 18:07:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.81 Mbit/s

95th percentile per-packet one-way delay: 142.576 ms

Loss rate: 29.14%

-- Flow 1:

Average throughput: 42.66 Mbit/s

95th percentile per-packet one-way delay: 144.395 ms

Loss rate: 28.46%

-- Flow 2:

Average throughput: 24.46 Mbit/s

95th percentile per-packet one-way delay: 140.408 ms

Loss rate: 29.96%

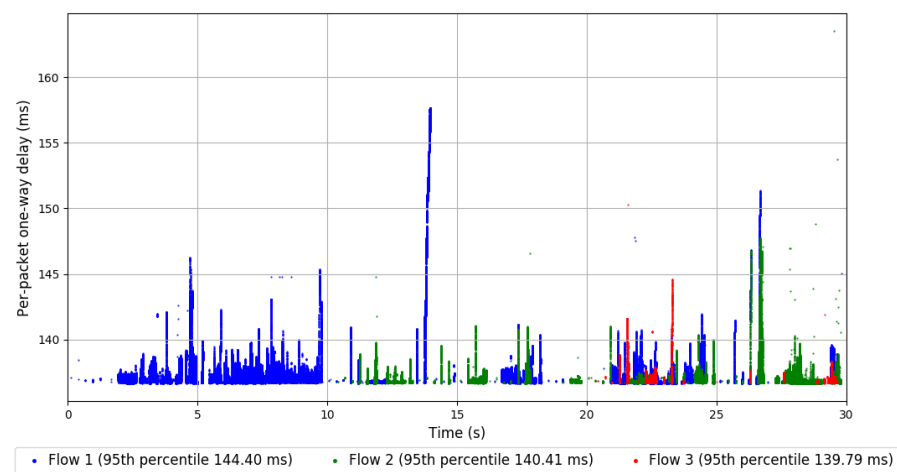
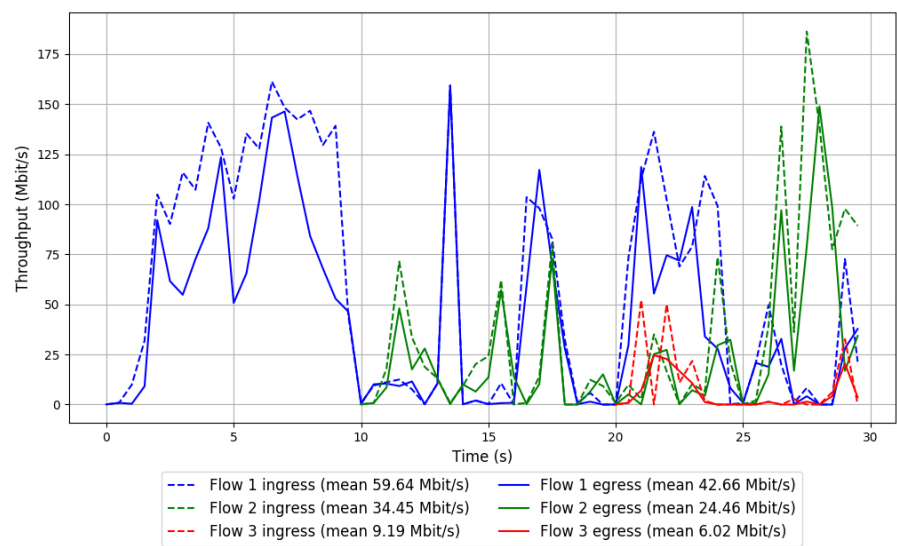
-- Flow 3:

Average throughput: 6.02 Mbit/s

95th percentile per-packet one-way delay: 139.792 ms

Loss rate: 36.31%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-12 13:16:06

End at: 2017-08-12 13:16:36

Below is generated by plot.py at 2017-08-12 18:07:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.36 Mbit/s

95th percentile per-packet one-way delay: 141.787 ms

Loss rate: 24.75%

-- Flow 1:

Average throughput: 44.22 Mbit/s

95th percentile per-packet one-way delay: 139.362 ms

Loss rate: 37.93%

-- Flow 2:

Average throughput: 49.19 Mbit/s

95th percentile per-packet one-way delay: 143.710 ms

Loss rate: 1.58%

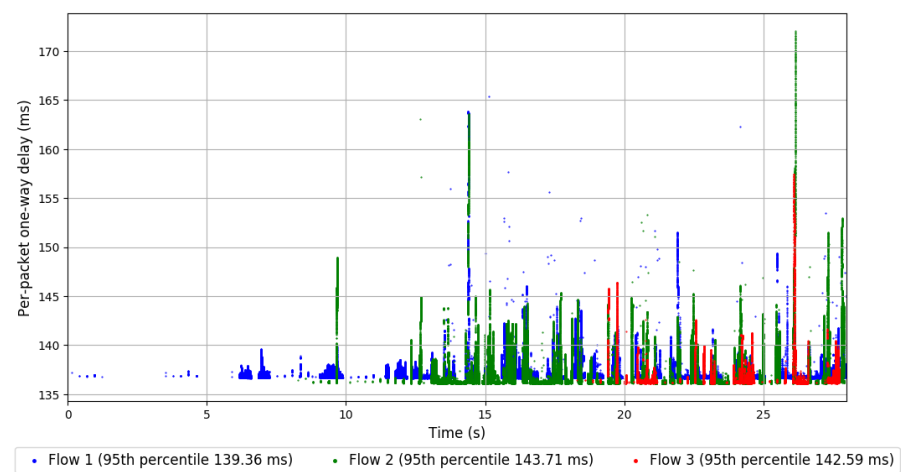
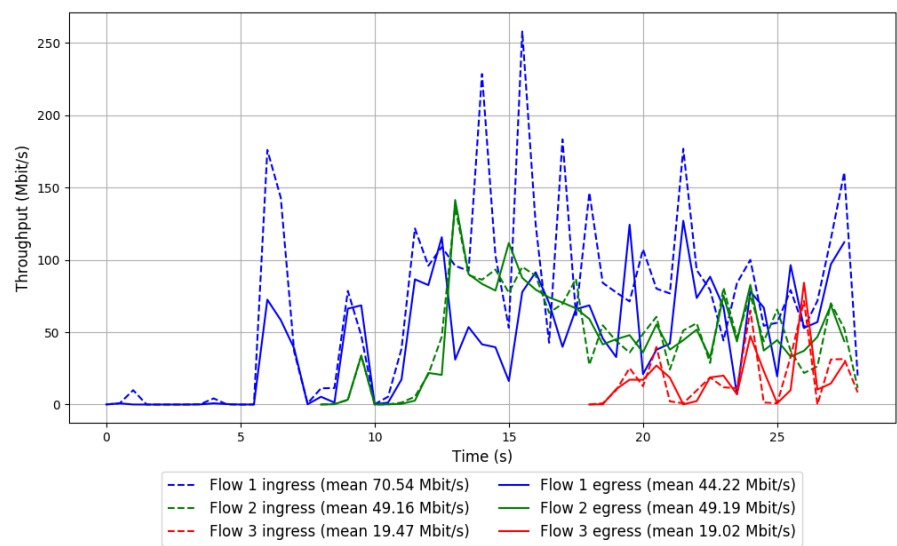
-- Flow 3:

Average throughput: 19.02 Mbit/s

95th percentile per-packet one-way delay: 142.591 ms

Loss rate: 7.17%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-12 13:29:55

End at: 2017-08-12 13:30:25

Below is generated by plot.py at 2017-08-12 18:07:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.93 Mbit/s

95th percentile per-packet one-way delay: 184.678 ms

Loss rate: 7.96%

-- Flow 1:

Average throughput: 79.76 Mbit/s

95th percentile per-packet one-way delay: 194.880 ms

Loss rate: 3.49%

-- Flow 2:

Average throughput: 22.95 Mbit/s

95th percentile per-packet one-way delay: 140.344 ms

Loss rate: 27.97%

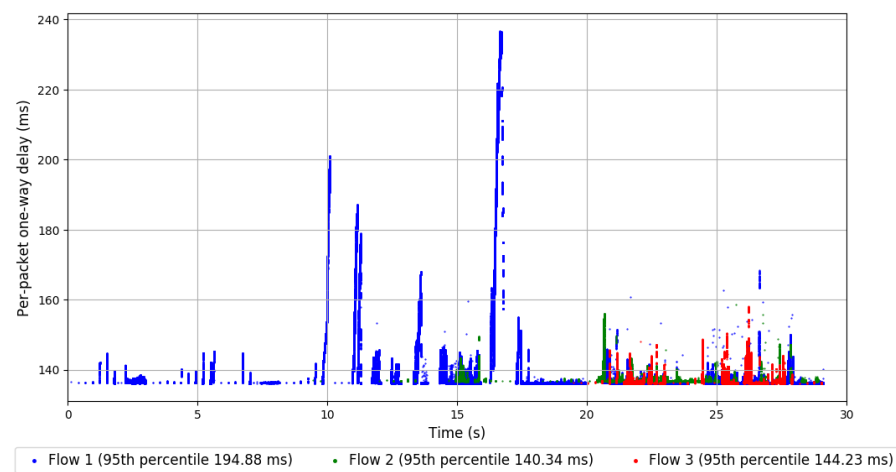
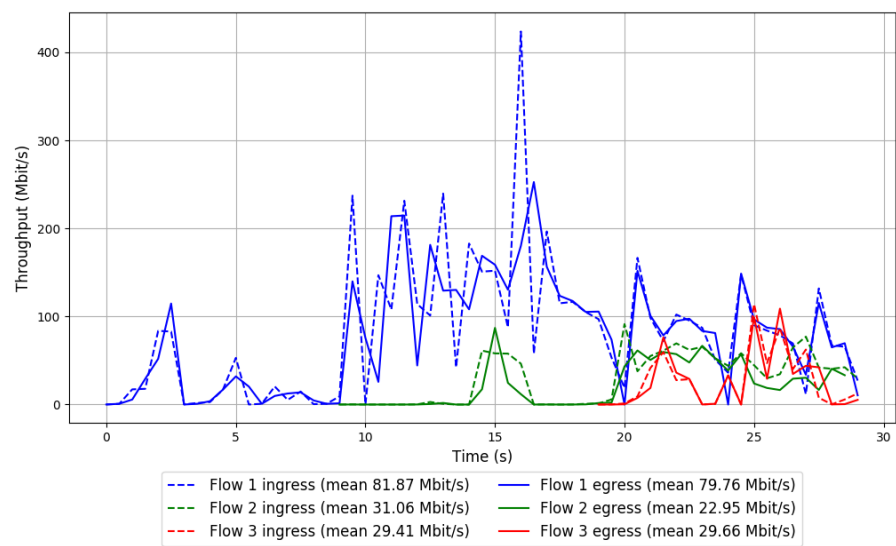
-- Flow 3:

Average throughput: 29.66 Mbit/s

95th percentile per-packet one-way delay: 144.230 ms

Loss rate: 2.18%

Run 4: Report of Verus — Data Link

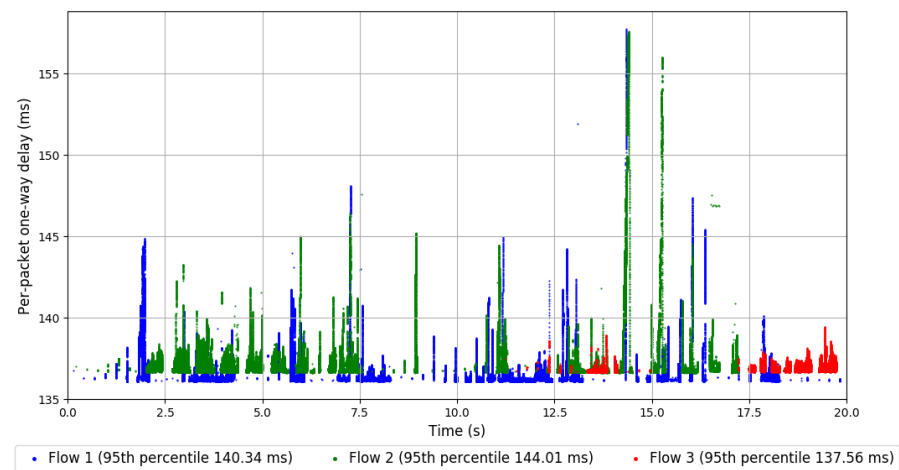
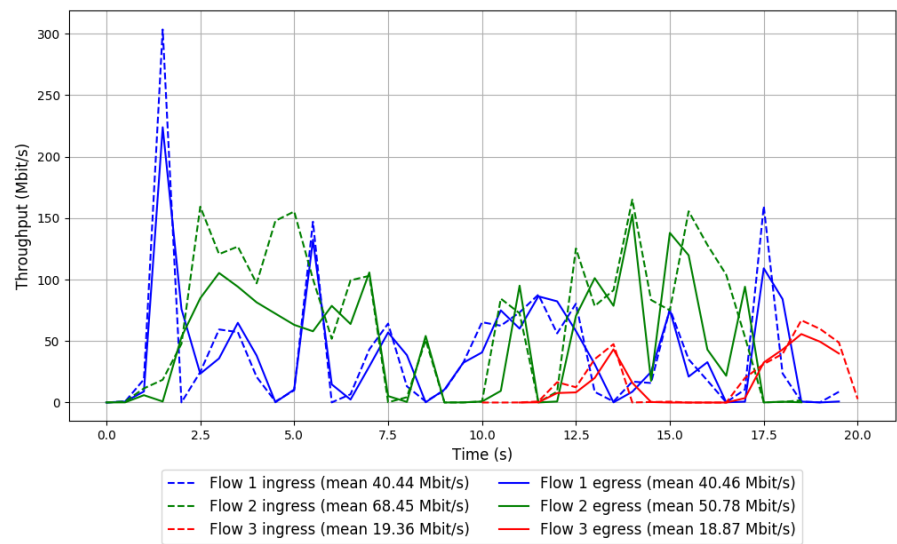


Run 5: Statistics of Verus

Start at: 2017-08-12 13:44:28

End at: 2017-08-12 13:44:58

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-12 13:57:52

End at: 2017-08-12 13:58:22

Below is generated by plot.py at 2017-08-12 18:07:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.84 Mbit/s

95th percentile per-packet one-way delay: 175.518 ms

Loss rate: 3.76%

-- Flow 1:

Average throughput: 50.98 Mbit/s

95th percentile per-packet one-way delay: 177.570 ms

Loss rate: 4.15%

-- Flow 2:

Average throughput: 32.17 Mbit/s

95th percentile per-packet one-way delay: 173.372 ms

Loss rate: 2.94%

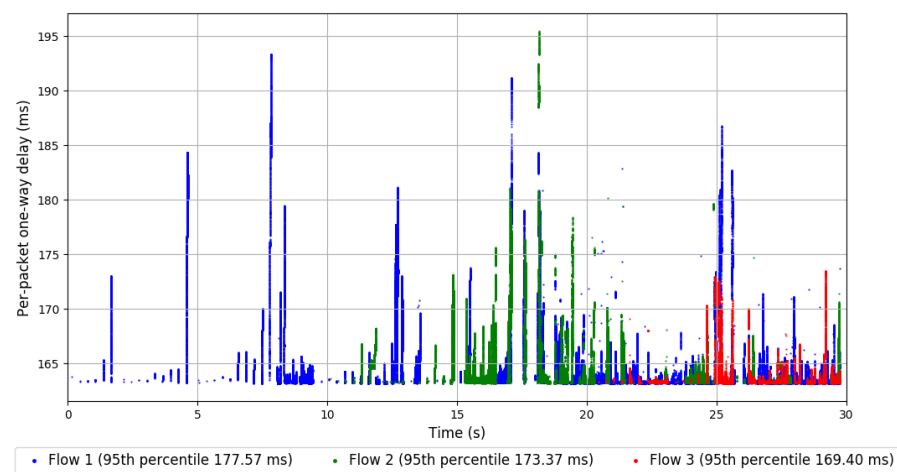
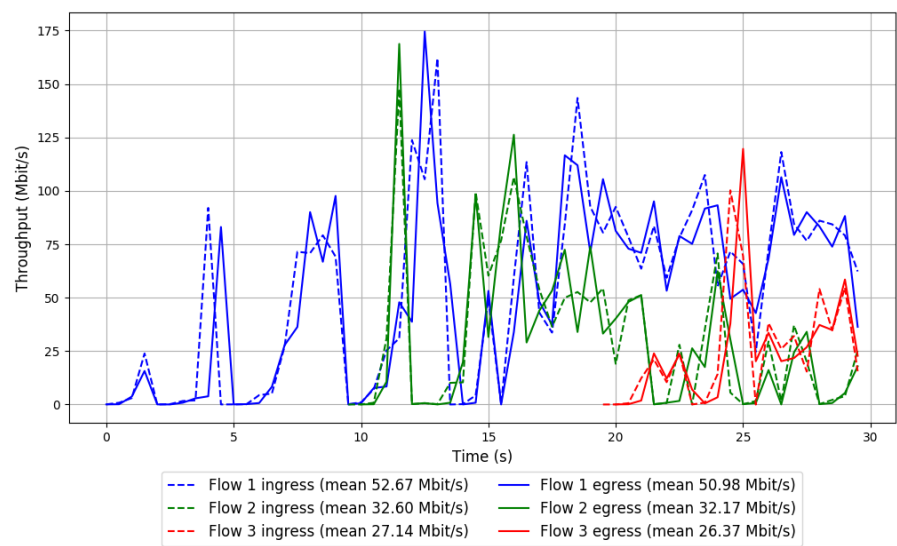
-- Flow 3:

Average throughput: 26.37 Mbit/s

95th percentile per-packet one-way delay: 169.404 ms

Loss rate: 3.45%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-12 14:11:14

End at: 2017-08-12 14:11:44

Below is generated by plot.py at 2017-08-12 18:07:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.18 Mbit/s

95th percentile per-packet one-way delay: 158.356 ms

Loss rate: 12.01%

-- Flow 1:

Average throughput: 102.55 Mbit/s

95th percentile per-packet one-way delay: 160.262 ms

Loss rate: 3.49%

-- Flow 2:

Average throughput: 28.28 Mbit/s

95th percentile per-packet one-way delay: 140.324 ms

Loss rate: 37.47%

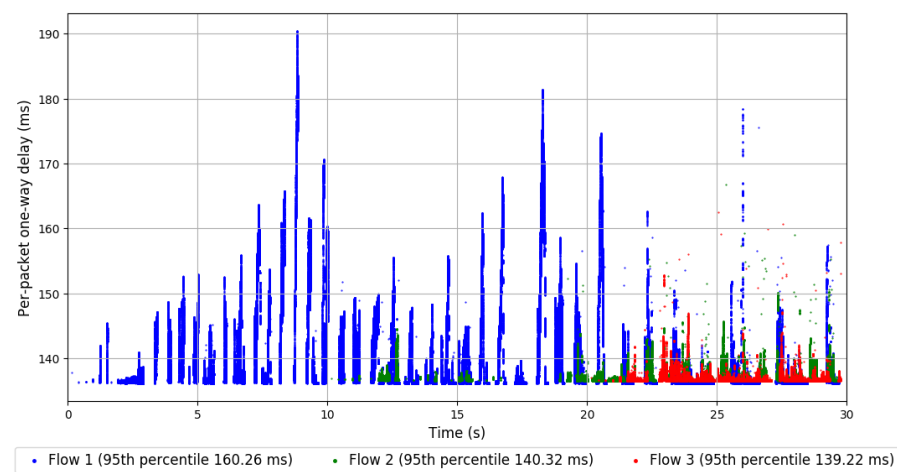
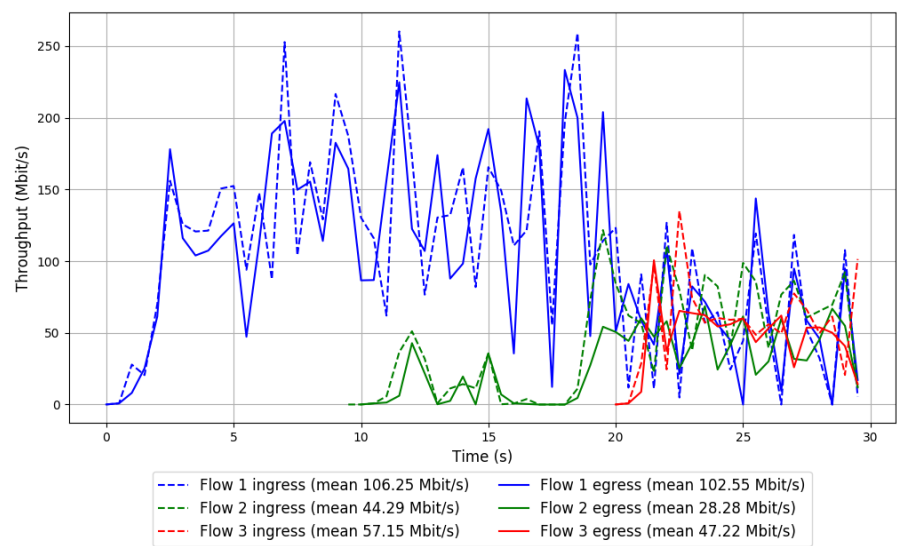
-- Flow 3:

Average throughput: 47.22 Mbit/s

95th percentile per-packet one-way delay: 139.219 ms

Loss rate: 19.63%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-12 14:25:08

End at: 2017-08-12 14:25:38

Below is generated by plot.py at 2017-08-12 18:07:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.96 Mbit/s

95th percentile per-packet one-way delay: 156.176 ms

Loss rate: 11.68%

-- Flow 1:

Average throughput: 71.98 Mbit/s

95th percentile per-packet one-way delay: 156.595 ms

Loss rate: 13.62%

-- Flow 2:

Average throughput: 31.14 Mbit/s

95th percentile per-packet one-way delay: 144.894 ms

Loss rate: 9.47%

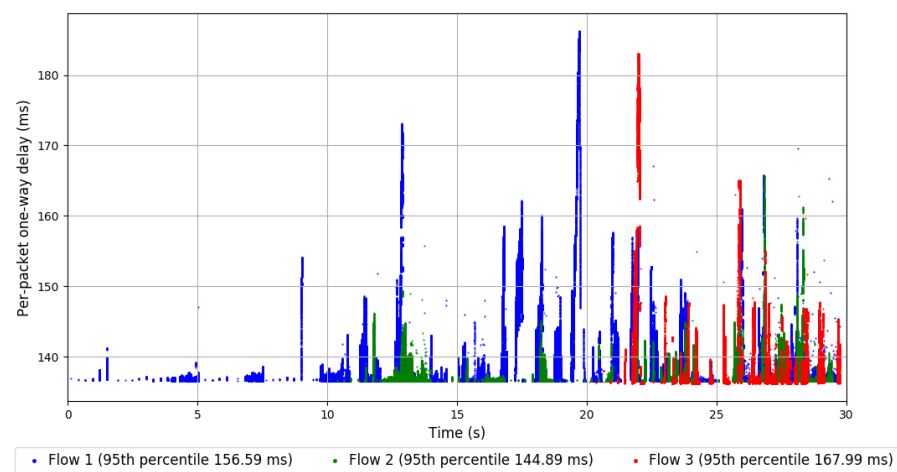
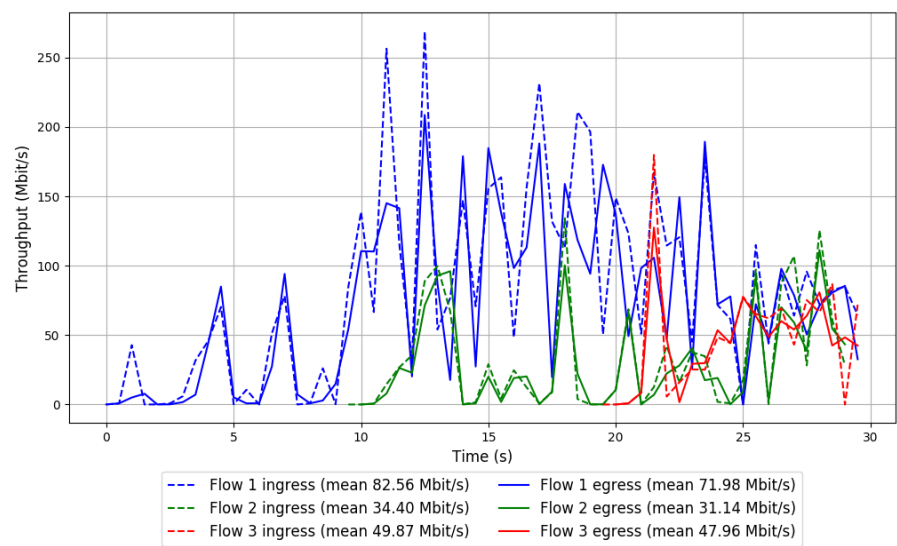
-- Flow 3:

Average throughput: 47.96 Mbit/s

95th percentile per-packet one-way delay: 167.991 ms

Loss rate: 4.84%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-12 14:39:07

End at: 2017-08-12 14:39:37

Below is generated by plot.py at 2017-08-12 18:08:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.32 Mbit/s

95th percentile per-packet one-way delay: 190.375 ms

Loss rate: 5.34%

-- Flow 1:

Average throughput: 107.85 Mbit/s

95th percentile per-packet one-way delay: 198.003 ms

Loss rate: 3.31%

-- Flow 2:

Average throughput: 60.08 Mbit/s

95th percentile per-packet one-way delay: 170.880 ms

Loss rate: 2.72%

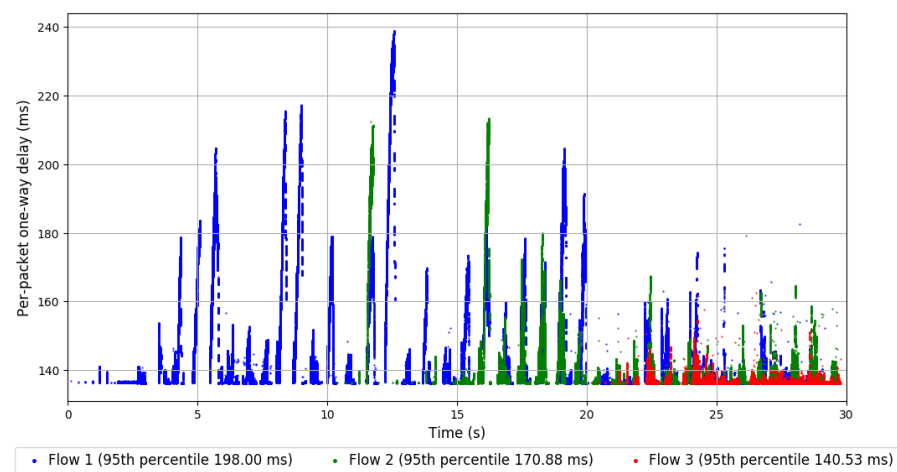
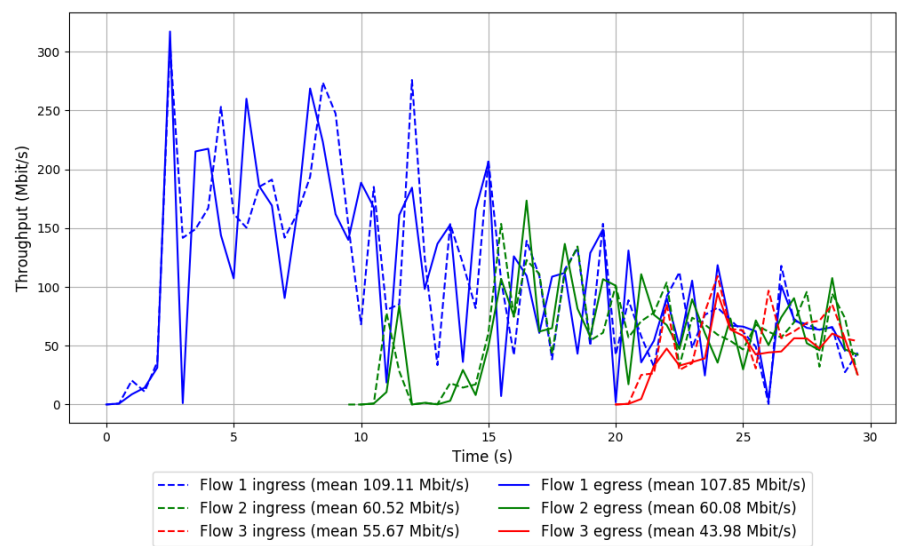
-- Flow 3:

Average throughput: 43.98 Mbit/s

95th percentile per-packet one-way delay: 140.527 ms

Loss rate: 23.18%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-12 14:53:15

End at: 2017-08-12 14:53:45

Below is generated by plot.py at 2017-08-12 18:08:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.24 Mbit/s

95th percentile per-packet one-way delay: 143.179 ms

Loss rate: 7.12%

-- Flow 1:

Average throughput: 22.65 Mbit/s

95th percentile per-packet one-way delay: 149.239 ms

Loss rate: 13.63%

-- Flow 2:

Average throughput: 39.29 Mbit/s

95th percentile per-packet one-way delay: 143.443 ms

Loss rate: 2.70%

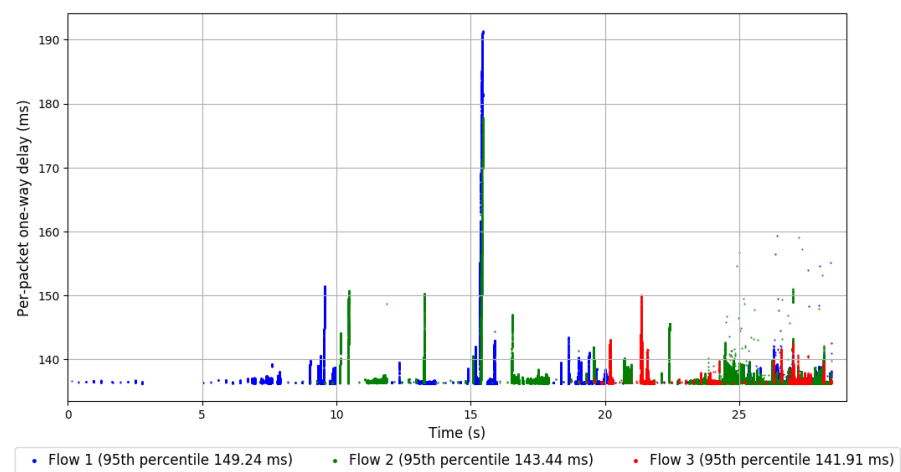
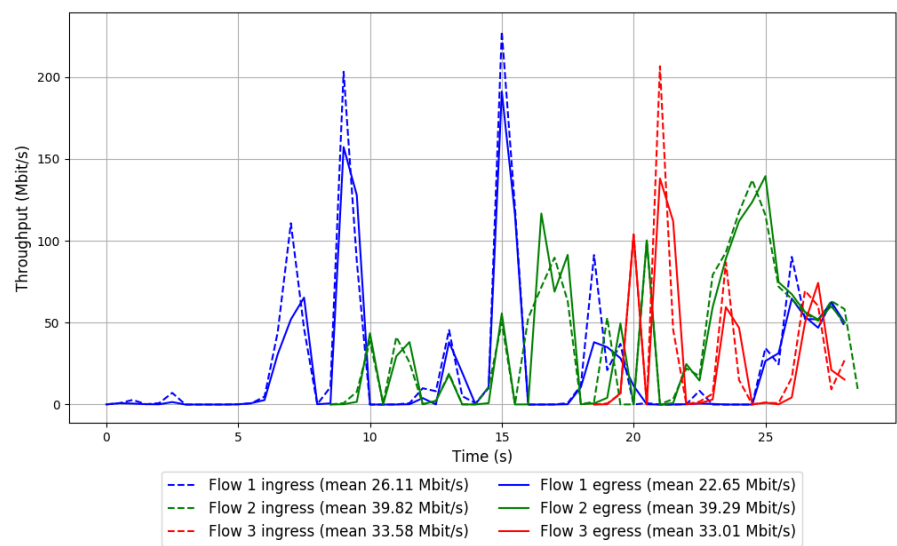
-- Flow 3:

Average throughput: 33.01 Mbit/s

95th percentile per-packet one-way delay: 141.912 ms

Loss rate: 3.11%

Run 10: Report of Verus — Data Link

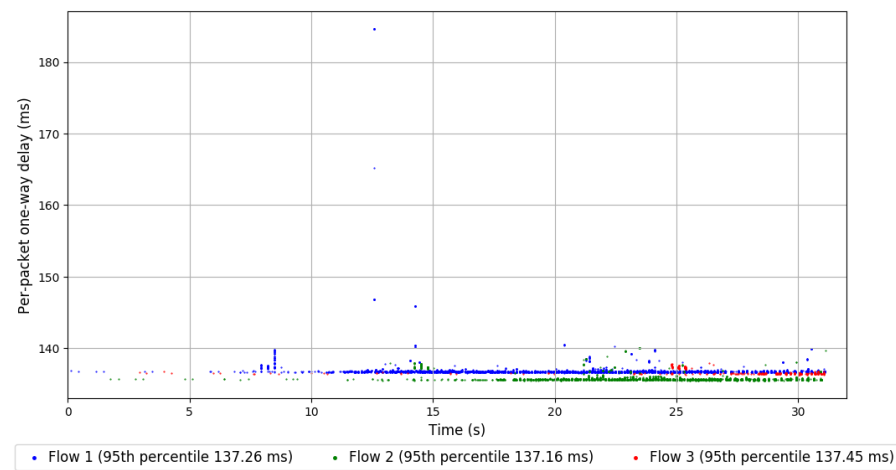
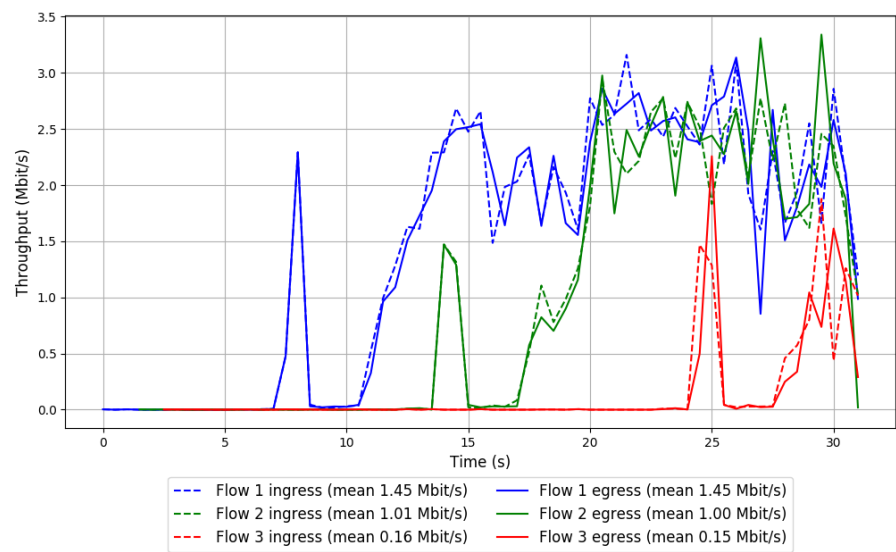


```
Run 1: Statistics of WebRTC media

Start at: 2017-08-12 12:35:15
End at: 2017-08-12 12:35:45

# Below is generated by plot.py at 2017-08-12 18:08:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 137.269 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 137.263 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 137.161 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 137.454 ms
Loss rate: 10.82%
```

Run 1: Report of WebRTC media — Data Link

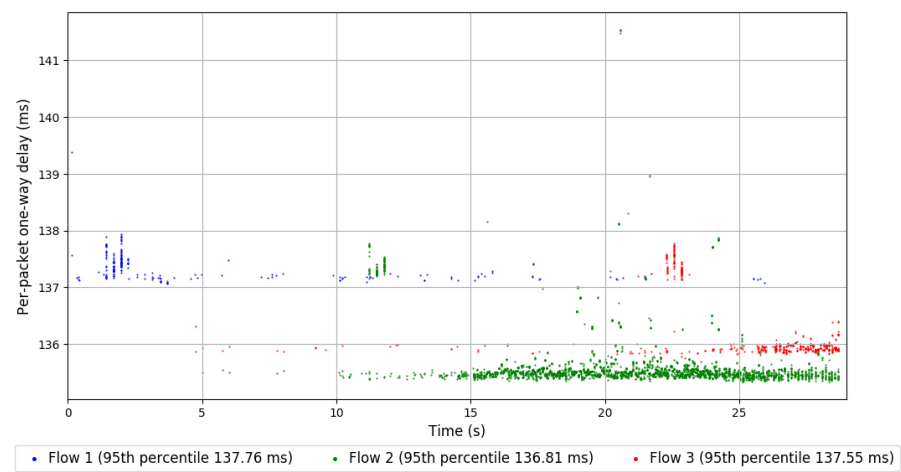
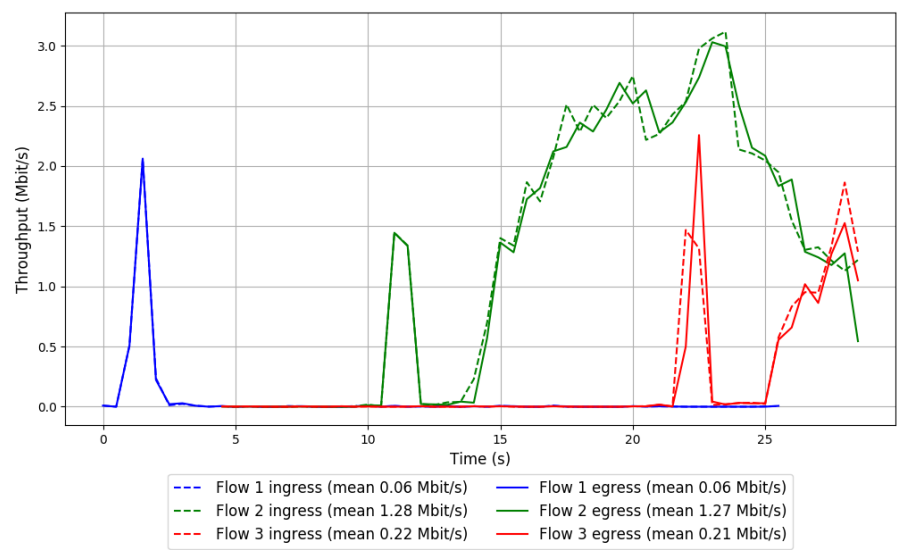


```
Run 2: Statistics of WebRTC media

Start at: 2017-08-12 12:49:22
End at: 2017-08-12 12:49:52

# Below is generated by plot.py at 2017-08-12 18:08:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 137.389 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 137.761 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 136.814 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 137.550 ms
Loss rate: 7.90%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-12 13:03:11

End at: 2017-08-12 13:03:41

Below is generated by plot.py at 2017-08-12 18:08:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 137.053 ms

Loss rate: 2.74%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 137.145 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 137.047 ms

Loss rate: 1.73%

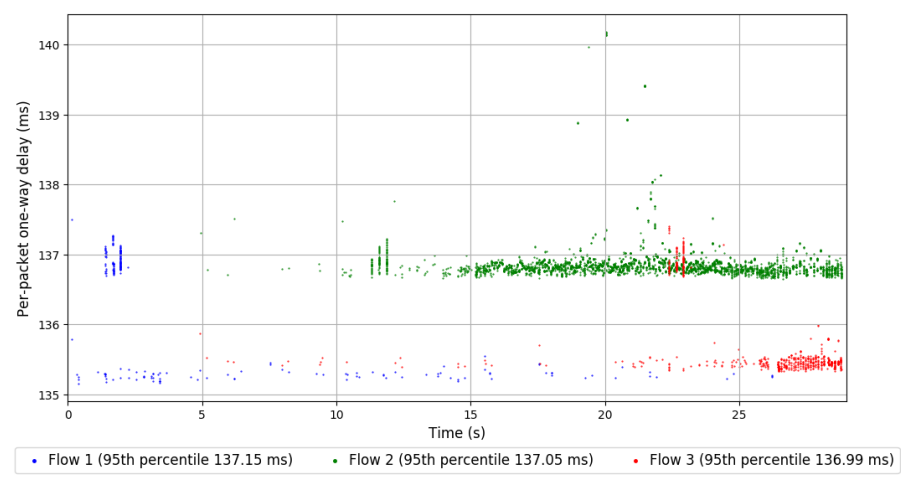
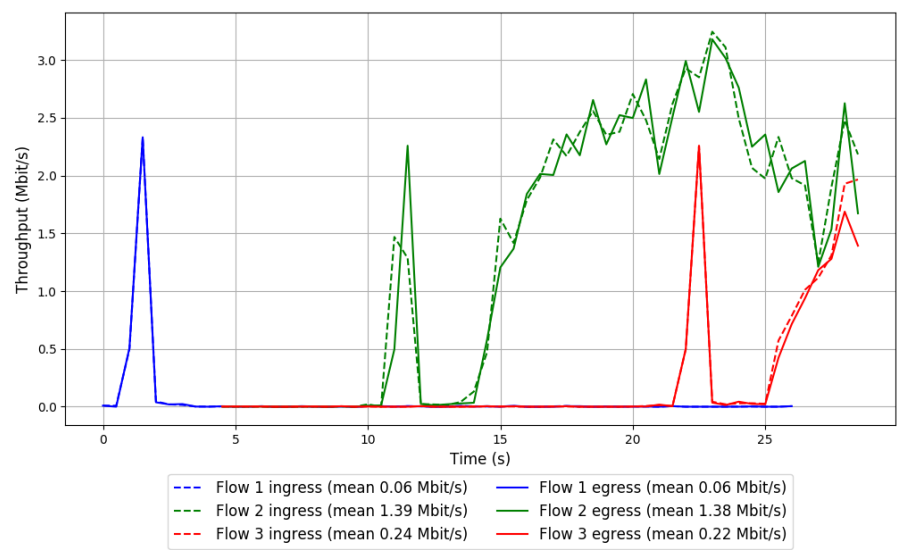
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.993 ms

Loss rate: 9.29%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-12 13:17:03

End at: 2017-08-12 13:17:33

Below is generated by plot.py at 2017-08-12 18:08:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.17 Mbit/s

95th percentile per-packet one-way delay: 136.991 ms

Loss rate: 2.52%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 137.115 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 136.481 ms

Loss rate: 1.46%

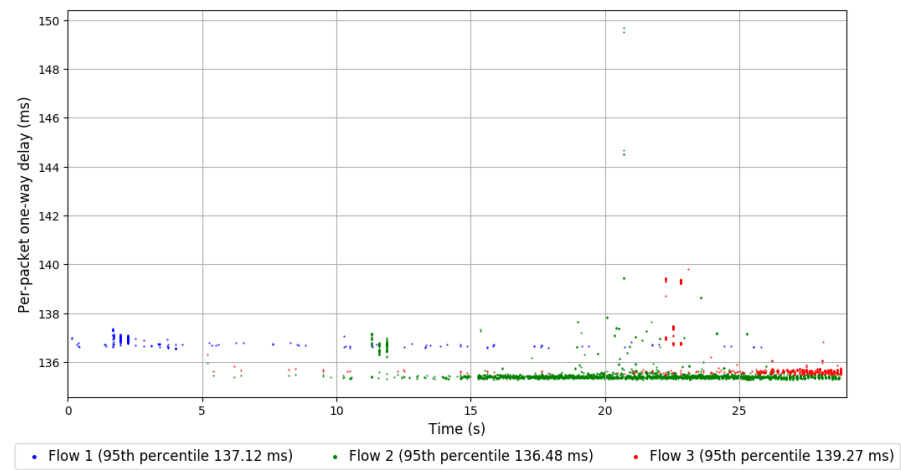
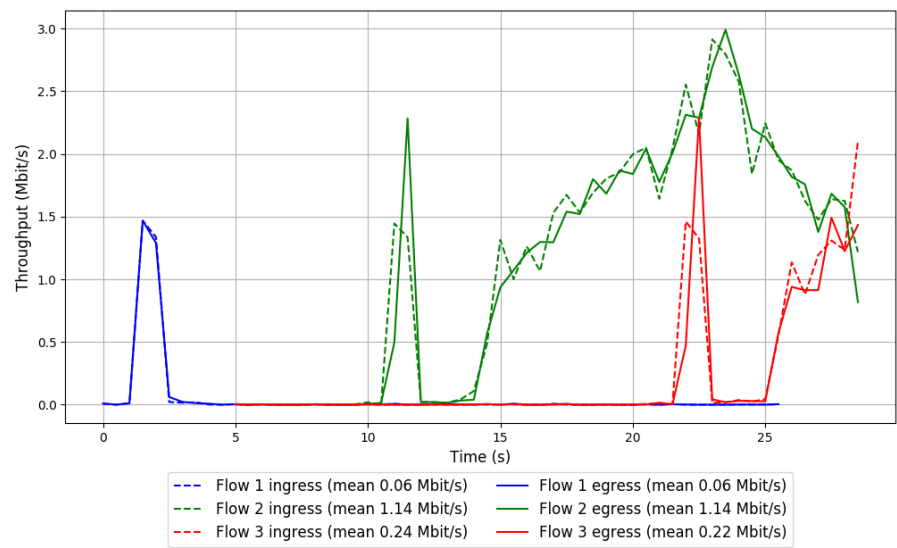
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 139.266 ms

Loss rate: 8.25%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-12 13:30:54

End at: 2017-08-12 13:31:24

Below is generated by plot.py at 2017-08-12 18:08:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 137.247 ms

Loss rate: 4.85%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 137.097 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 137.247 ms

Loss rate: 3.29%

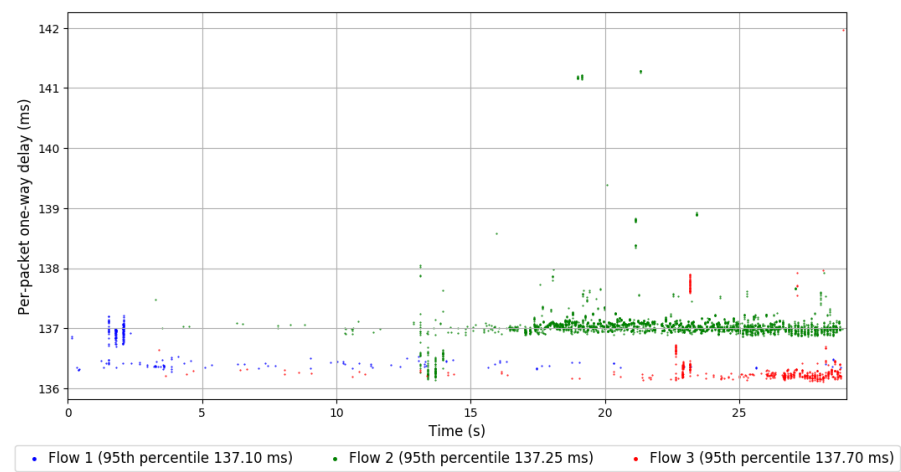
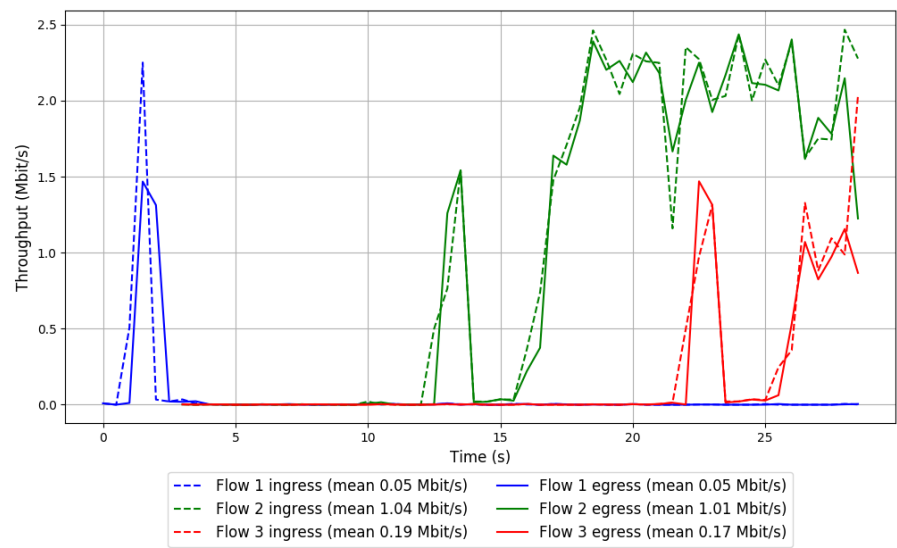
-- Flow 3:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 137.697 ms

Loss rate: 14.74%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-12 13:45:24

End at: 2017-08-12 13:45:54

Below is generated by plot.py at 2017-08-12 18:08:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 136.995 ms

Loss rate: 2.54%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 137.120 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 136.880 ms

Loss rate: 1.71%

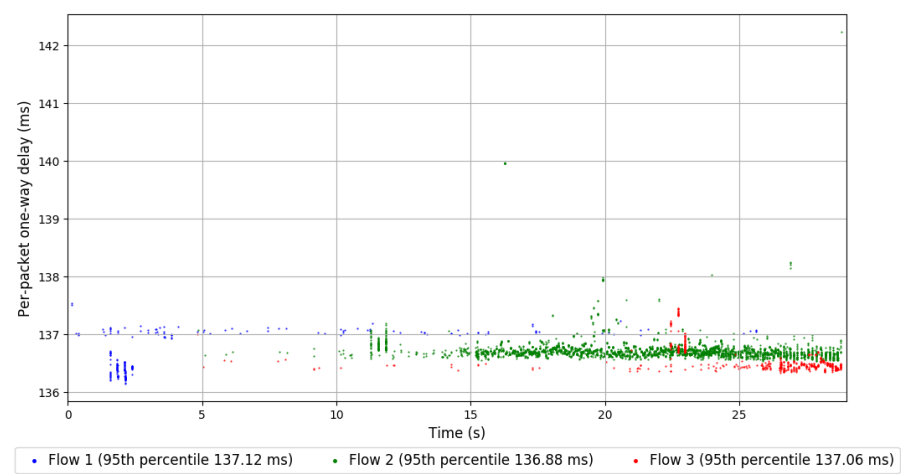
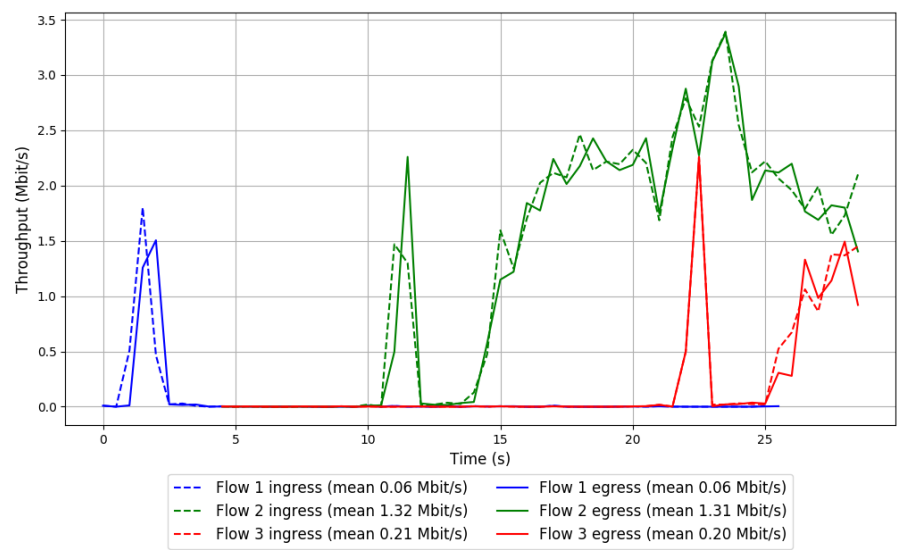
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 137.062 ms

Loss rate: 8.43%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-12 13:58:49

End at: 2017-08-12 13:59:19

Below is generated by plot.py at 2017-08-12 18:08:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 163.444 ms

Loss rate: 2.93%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 163.716 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 137.920 ms

Loss rate: 2.00%

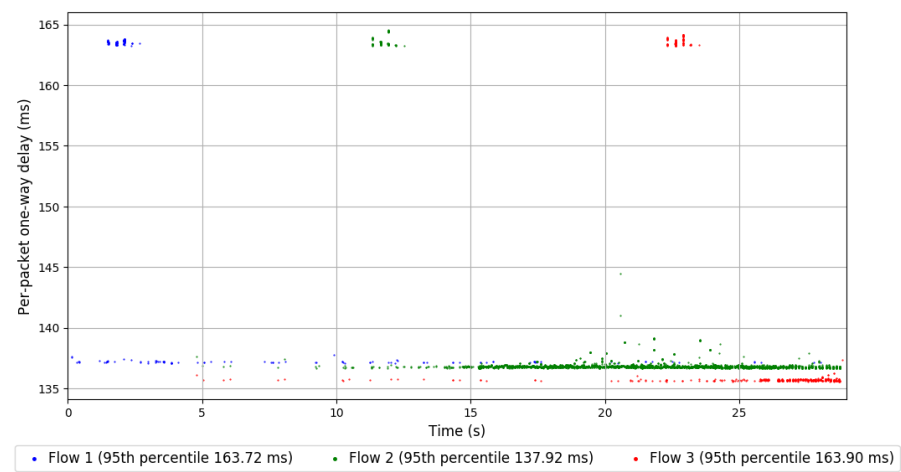
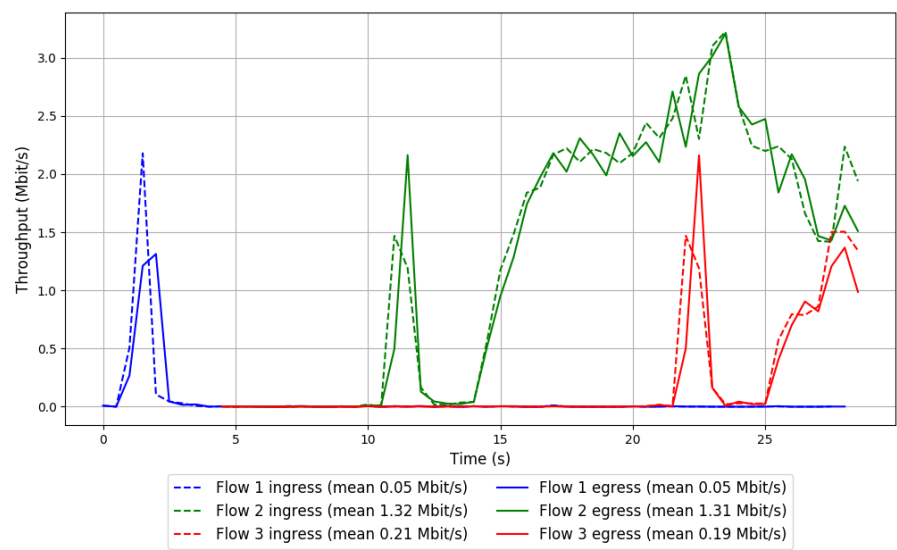
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 163.898 ms

Loss rate: 9.52%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-12 14:12:17

End at: 2017-08-12 14:12:47

Below is generated by plot.py at 2017-08-12 18:08:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 137.244 ms

Loss rate: 2.46%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 136.977 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 136.694 ms

Loss rate: 1.22%

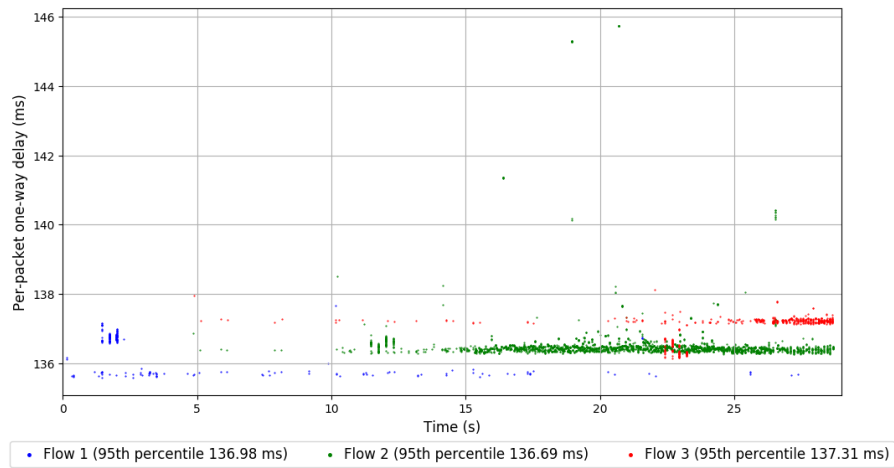
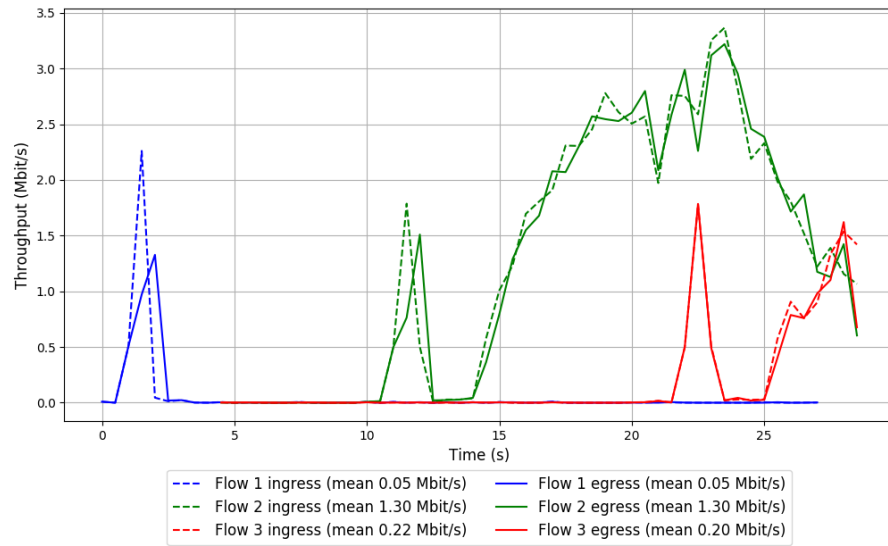
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 137.306 ms

Loss rate: 10.68%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-12 14:26:08

End at: 2017-08-12 14:26:38

Below is generated by plot.py at 2017-08-12 18:08:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 137.061 ms

Loss rate: 2.42%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 137.250 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 136.450 ms

Loss rate: 1.80%

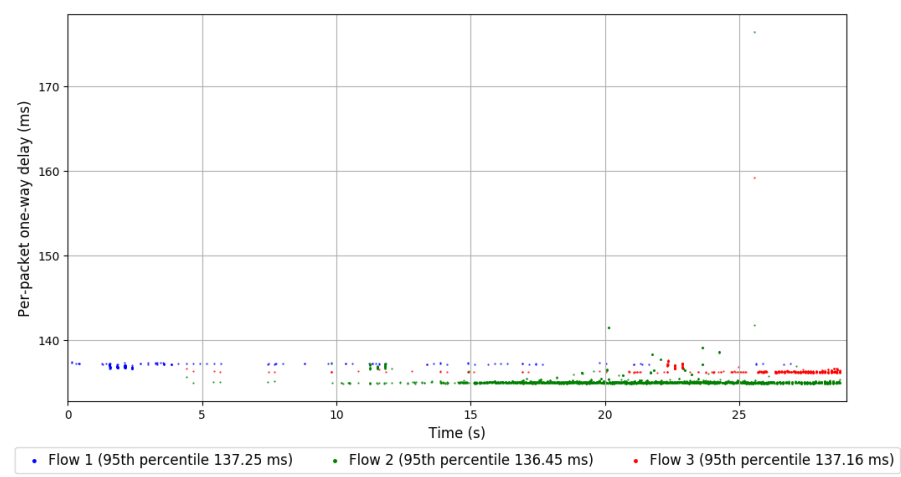
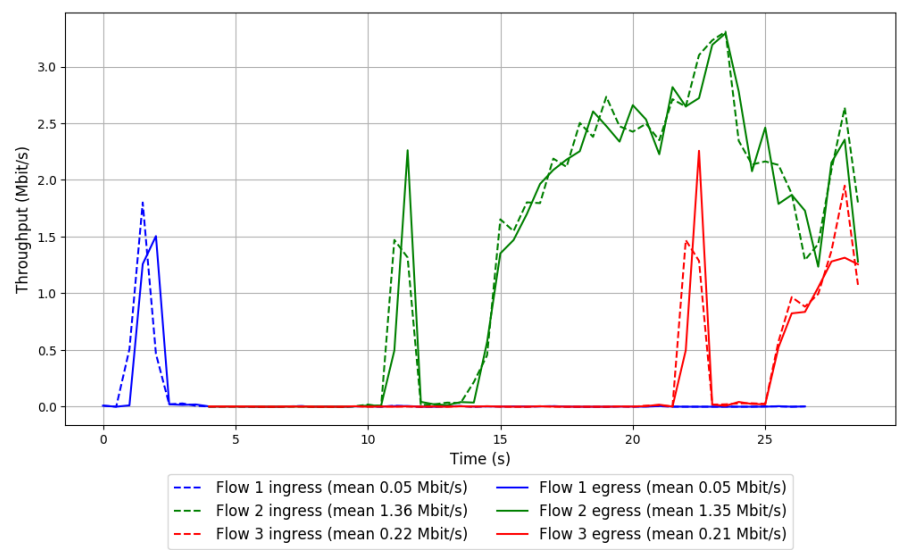
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 137.158 ms

Loss rate: 6.90%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-12 14:40:11

End at: 2017-08-12 14:40:41

Below is generated by plot.py at 2017-08-12 18:08:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 136.992 ms

Loss rate: 2.54%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 136.817 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 137.018 ms

Loss rate: 1.67%

-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 136.805 ms

Loss rate: 8.77%

Run 10: Report of WebRTC media — Data Link

