

Pantheon Report

Generated at 2017-11-22 07:33:40 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

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

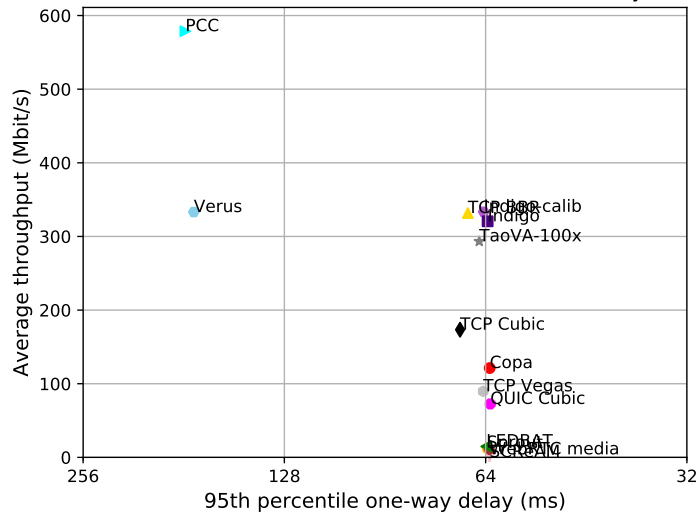
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

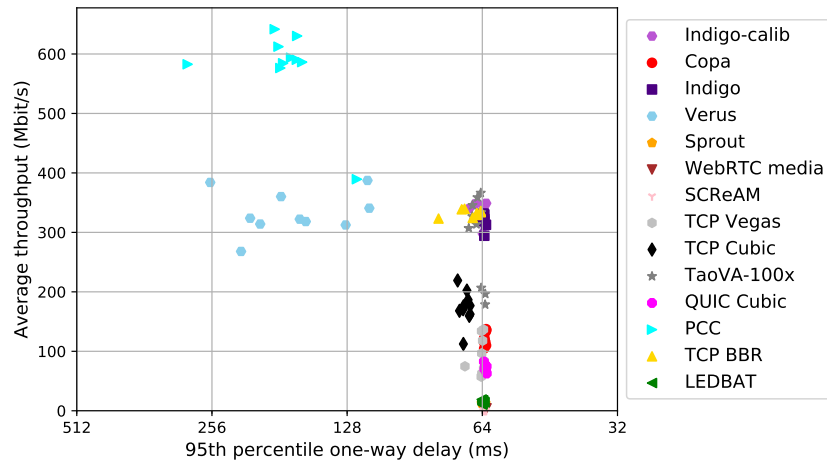
Git summary:

```
branch: indigos @ e3a57ad5ac5cfcaca0e3f983c8dd4cc3509e0262
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/genericCC @ b5b7c38e8391001927dc41c6cfa2627d03dde737
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fab936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eae30b267cde681
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 Tokyo Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	169.29	167.52	155.92	65.79	68.63	69.05	0.39	0.69	1.40
TCP Cubic	10	81.98	86.14	104.02	68.86	70.40	69.11	0.56	0.69	1.09
LEDBAT	10	8.41	7.23	5.10	63.95	63.81	63.67	0.85	1.22	2.94
PCC	10	490.00	119.41	29.46	181.75	162.47	156.42	2.44	2.26	3.63
QUIC Cubic	10	43.73	34.22	18.76	62.71	62.66	62.55	0.58	0.81	1.70
SCReAM	10	28.43	0.21	0.22	823.85	63.11	62.26	0.30	0.61	1.10
WebRTC media	10	2.21	1.38	0.55	62.70	62.49	62.94	0.52	0.65	2.00
Sprout	10	6.52	6.50	6.16	63.73	63.74	63.47	0.55	0.69	1.66
TaoVA-100x	10	154.68	146.01	162.21	64.92	64.57	68.45	0.63	0.53	1.37
TCP Vegas	10	34.55	50.95	63.46	63.82	64.09	65.38	0.30	0.62	1.39
Verus	10	191.25	159.99	110.58	159.79	165.91	180.45	1.70	2.16	2.97
Copa	10	70.91	57.91	47.50	63.10	63.03	63.11	0.34	0.88	2.56
Indigo	10	170.53	161.67	132.85	63.37	63.93	63.64	0.40	0.63	1.43
Indigo-calib	10	182.71	163.81	130.53	63.75	64.85	66.29	0.30	0.52	1.34

Run 1: Statistics of TCP BBR

Start at: 2017-11-22 02:11:26

End at: 2017-11-22 02:11:56

Below is generated by plot.py at 2017-11-22 06:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 339.72 Mbit/s

95th percentile per-packet one-way delay: 70.102 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 170.33 Mbit/s

95th percentile per-packet one-way delay: 67.146 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 173.84 Mbit/s

95th percentile per-packet one-way delay: 73.437 ms

Loss rate: 0.66%

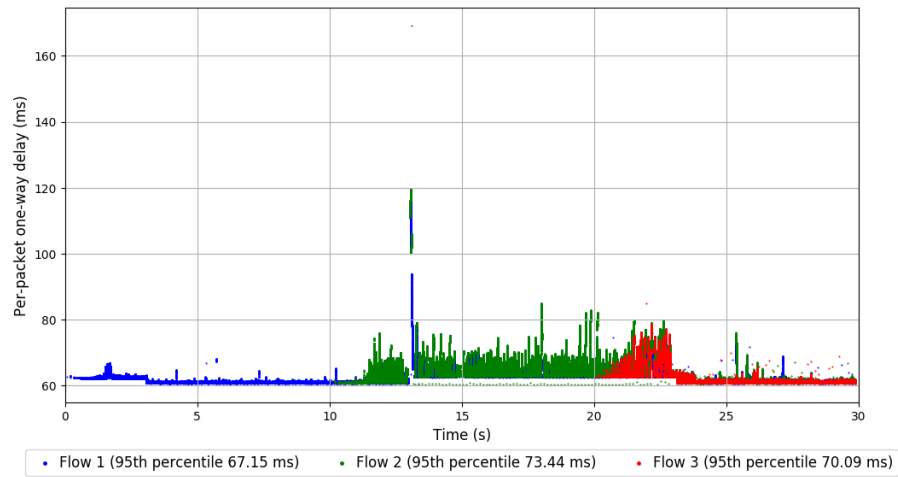
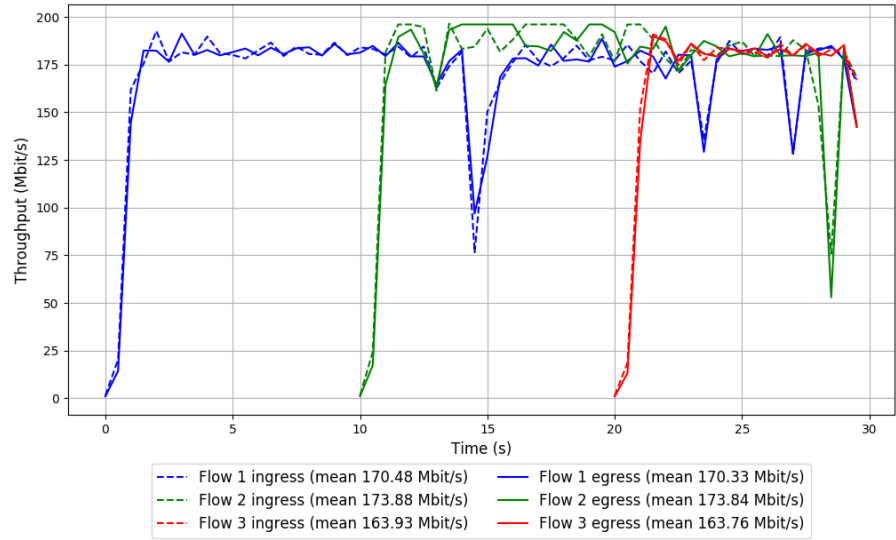
-- Flow 3:

Average throughput: 163.76 Mbit/s

95th percentile per-packet one-way delay: 70.090 ms

Loss rate: 1.39%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-11-22 02:24:05

End at: 2017-11-22 02:24:35

Below is generated by plot.py at 2017-11-22 06:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 333.87 Mbit/s

95th percentile per-packet one-way delay: 64.504 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 170.24 Mbit/s

95th percentile per-packet one-way delay: 63.710 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 169.76 Mbit/s

95th percentile per-packet one-way delay: 65.884 ms

Loss rate: 0.69%

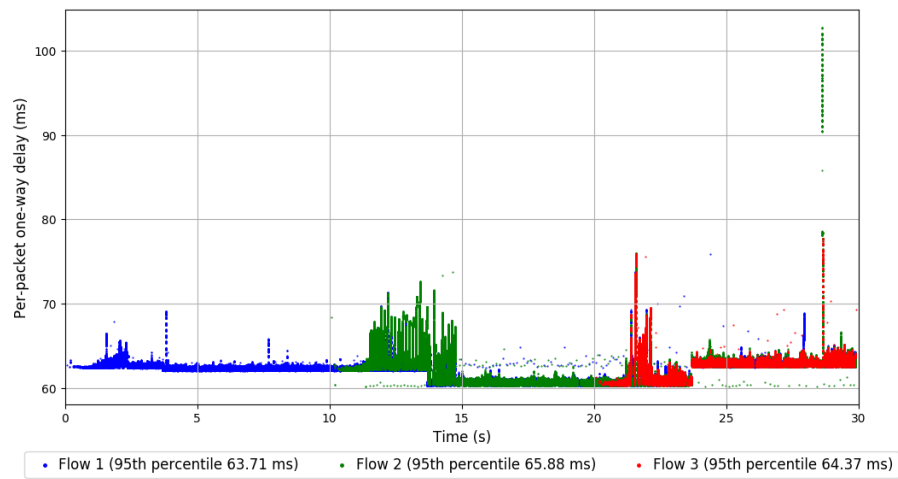
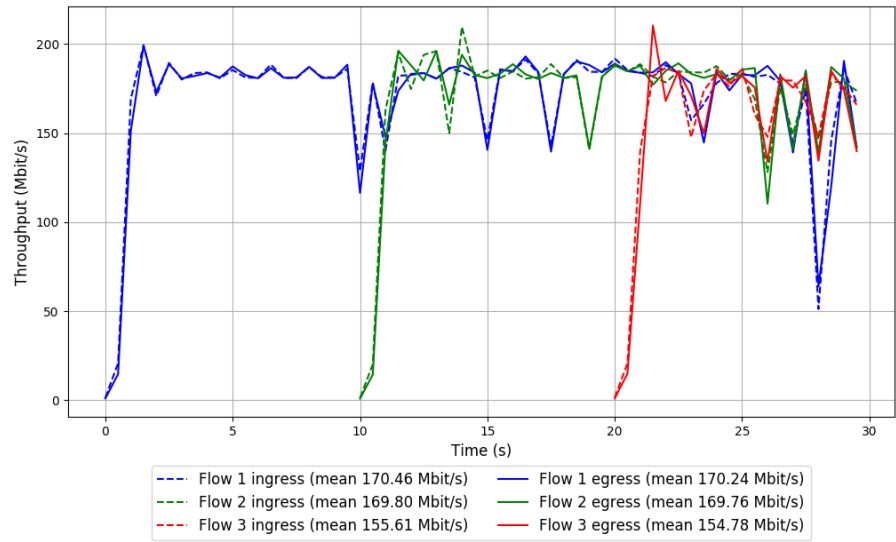
-- Flow 3:

Average throughput: 154.78 Mbit/s

95th percentile per-packet one-way delay: 64.367 ms

Loss rate: 1.61%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-11-22 02:36:26

End at: 2017-11-22 02:36:56

Below is generated by plot.py at 2017-11-22 06:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 330.35 Mbit/s

95th percentile per-packet one-way delay: 65.699 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 168.01 Mbit/s

95th percentile per-packet one-way delay: 65.167 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 167.04 Mbit/s

95th percentile per-packet one-way delay: 65.966 ms

Loss rate: 0.69%

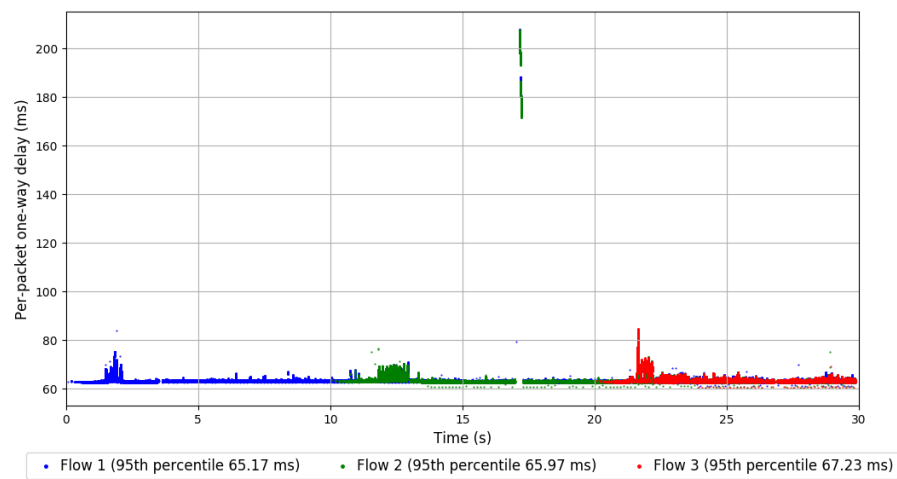
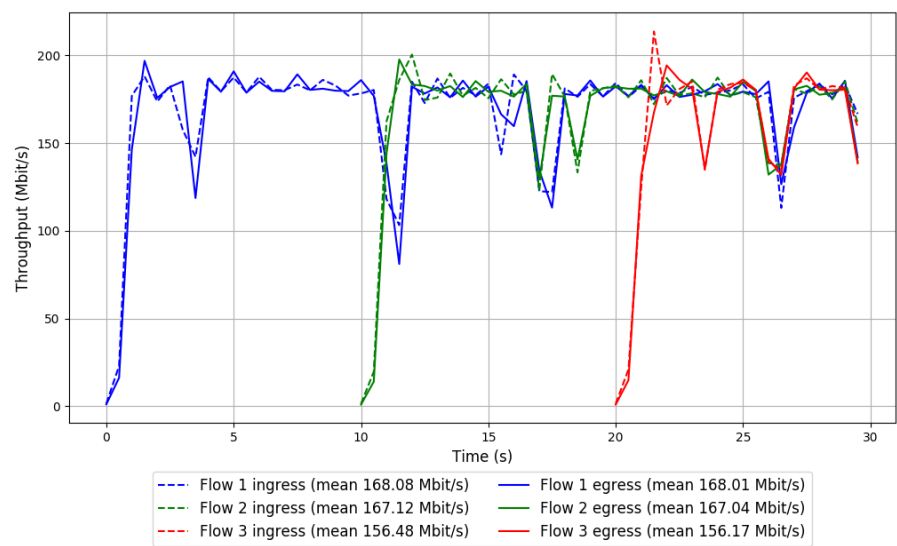
-- Flow 3:

Average throughput: 156.17 Mbit/s

95th percentile per-packet one-way delay: 67.232 ms

Loss rate: 1.49%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-11-22 02:49:03

End at: 2017-11-22 02:49:33

Below is generated by plot.py at 2017-11-22 06:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 329.91 Mbit/s

95th percentile per-packet one-way delay: 65.466 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 169.04 Mbit/s

95th percentile per-packet one-way delay: 64.701 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 161.93 Mbit/s

95th percentile per-packet one-way delay: 65.557 ms

Loss rate: 0.70%

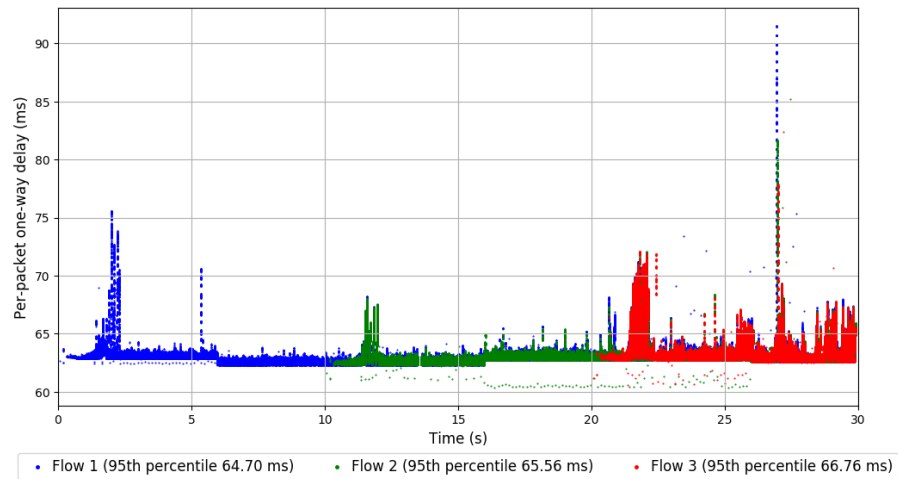
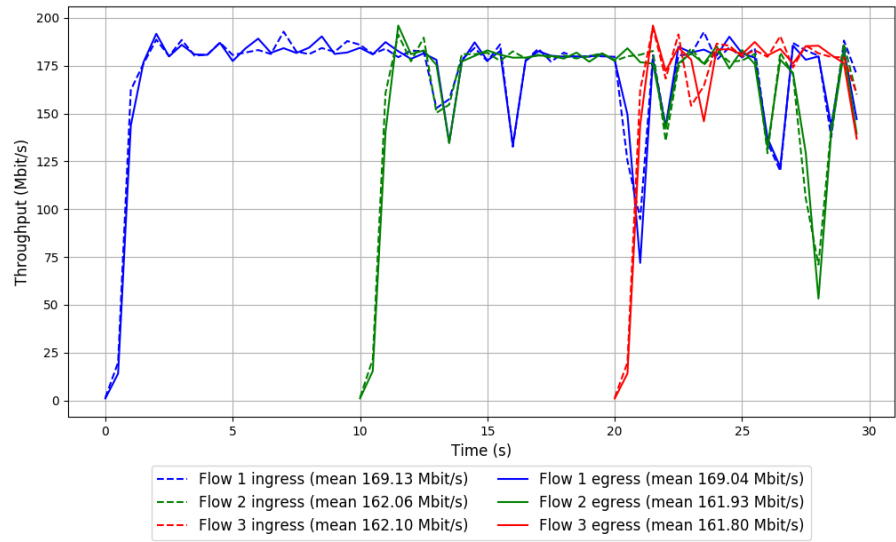
-- Flow 3:

Average throughput: 161.80 Mbit/s

95th percentile per-packet one-way delay: 66.757 ms

Loss rate: 1.43%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-11-22 03:01:52

End at: 2017-11-22 03:02:22

Below is generated by plot.py at 2017-11-22 06:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 329.26 Mbit/s

95th percentile per-packet one-way delay: 65.838 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 169.25 Mbit/s

95th percentile per-packet one-way delay: 65.267 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 163.17 Mbit/s

95th percentile per-packet one-way delay: 65.963 ms

Loss rate: 0.64%

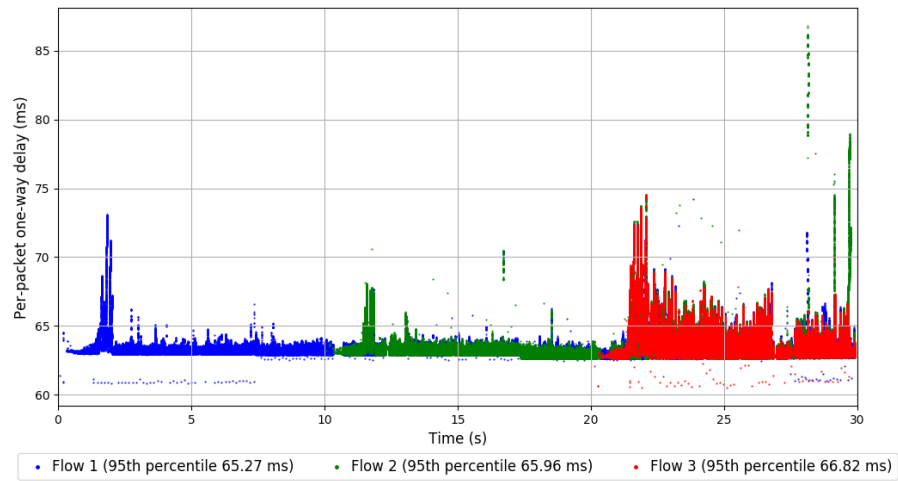
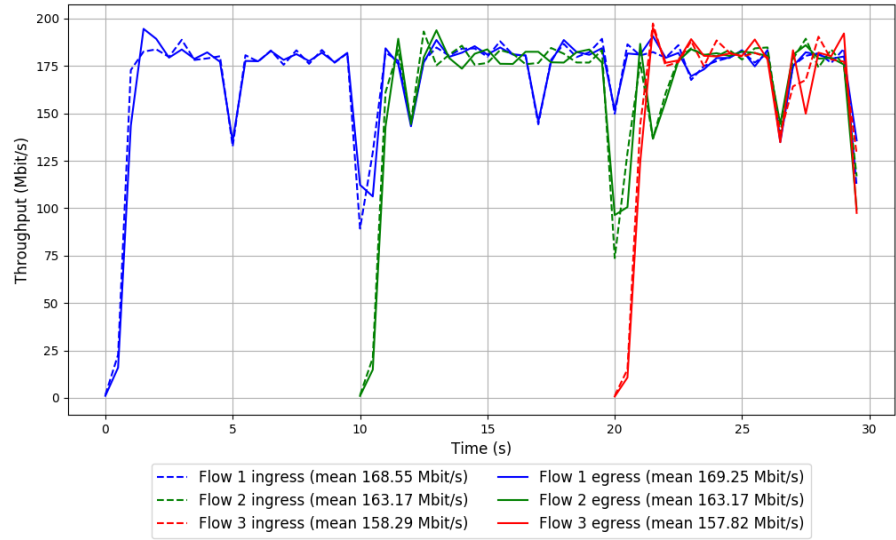
-- Flow 3:

Average throughput: 157.82 Mbit/s

95th percentile per-packet one-way delay: 66.820 ms

Loss rate: 1.48%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-11-22 03:14:38

End at: 2017-11-22 03:15:08

Below is generated by plot.py at 2017-11-22 06:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.27 Mbit/s

95th percentile per-packet one-way delay: 80.104 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 163.91 Mbit/s

95th percentile per-packet one-way delay: 68.095 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 164.74 Mbit/s

95th percentile per-packet one-way delay: 79.801 ms

Loss rate: 0.74%

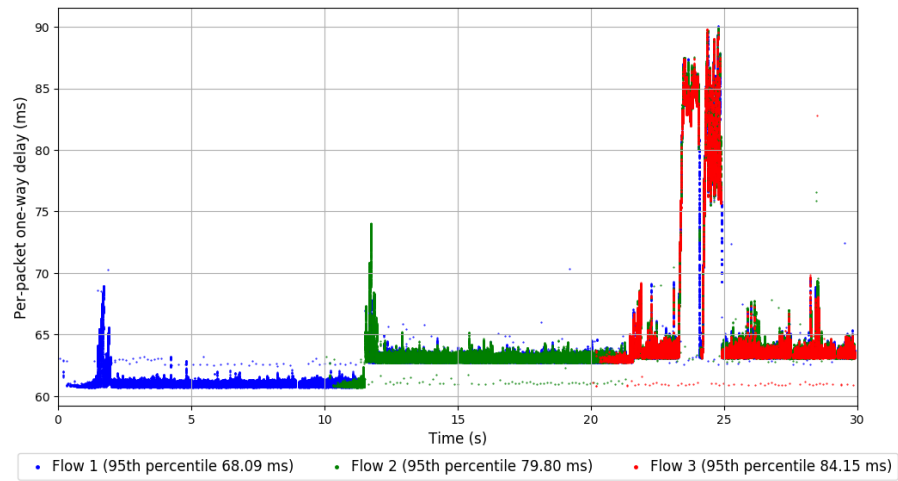
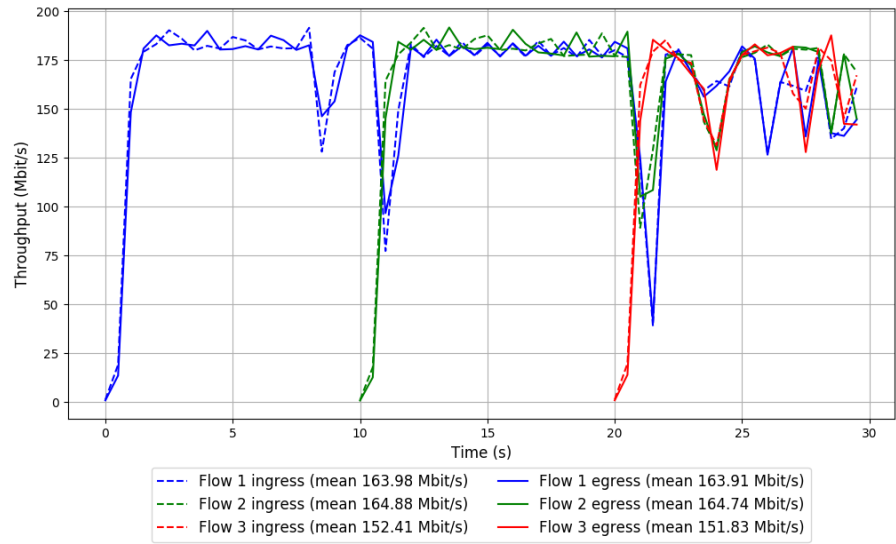
-- Flow 3:

Average throughput: 151.83 Mbit/s

95th percentile per-packet one-way delay: 84.146 ms

Loss rate: 1.63%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-11-22 03:27:14

End at: 2017-11-22 03:27:44

Below is generated by plot.py at 2017-11-22 06:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 338.83 Mbit/s

95th percentile per-packet one-way delay: 71.127 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 173.20 Mbit/s

95th percentile per-packet one-way delay: 68.396 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 169.34 Mbit/s

95th percentile per-packet one-way delay: 71.342 ms

Loss rate: 0.70%

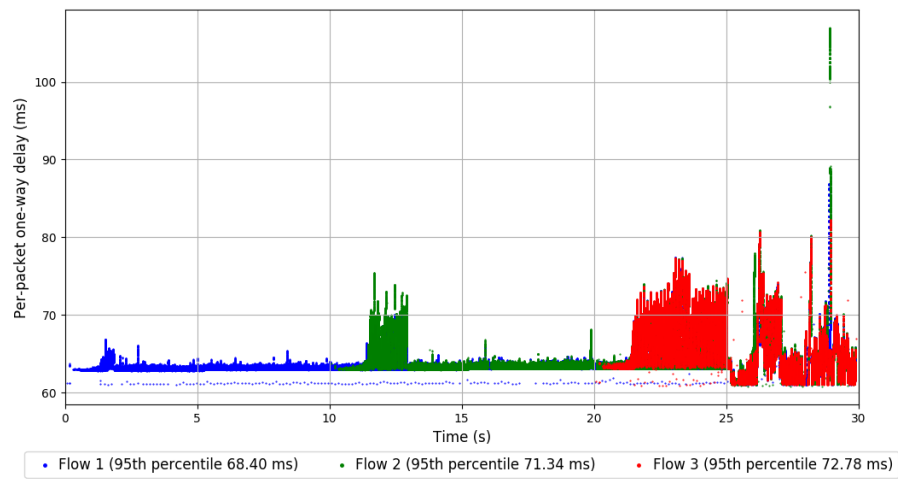
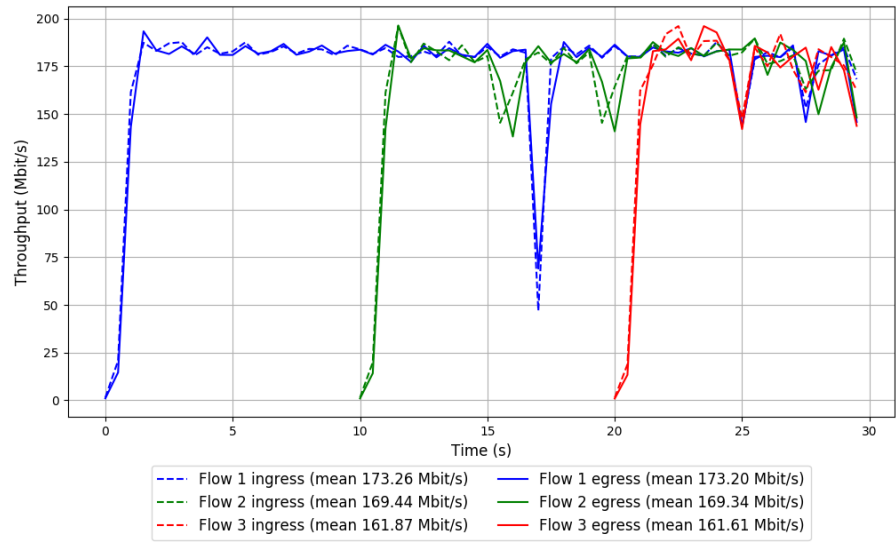
-- Flow 3:

Average throughput: 161.61 Mbit/s

95th percentile per-packet one-way delay: 72.778 ms

Loss rate: 1.30%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-11-22 03:39:46

End at: 2017-11-22 03:40:16

Below is generated by plot.py at 2017-11-22 06:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 332.40 Mbit/s

95th percentile per-packet one-way delay: 65.821 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 168.74 Mbit/s

95th percentile per-packet one-way delay: 65.219 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 168.77 Mbit/s

95th percentile per-packet one-way delay: 65.840 ms

Loss rate: 0.69%

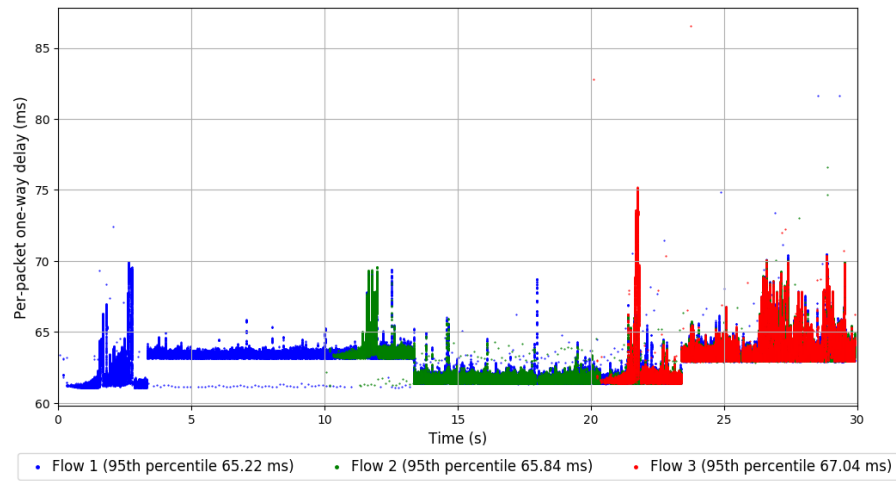
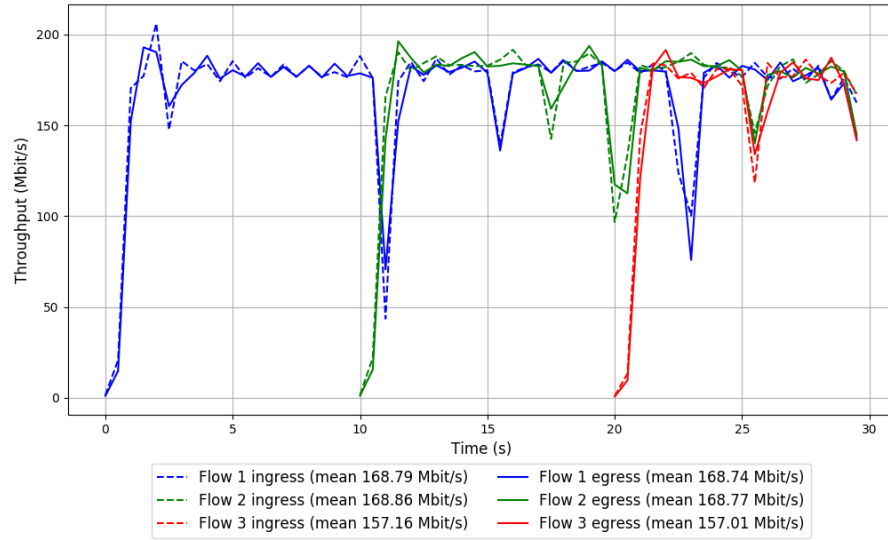
-- Flow 3:

Average throughput: 157.01 Mbit/s

95th percentile per-packet one-way delay: 67.039 ms

Loss rate: 1.52%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-11-22 03:52:29

End at: 2017-11-22 03:52:59

Below is generated by plot.py at 2017-11-22 06:32:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.10 Mbit/s

95th percentile per-packet one-way delay: 64.500 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 171.90 Mbit/s

95th percentile per-packet one-way delay: 63.967 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 167.11 Mbit/s

95th percentile per-packet one-way delay: 64.432 ms

Loss rate: 0.62%

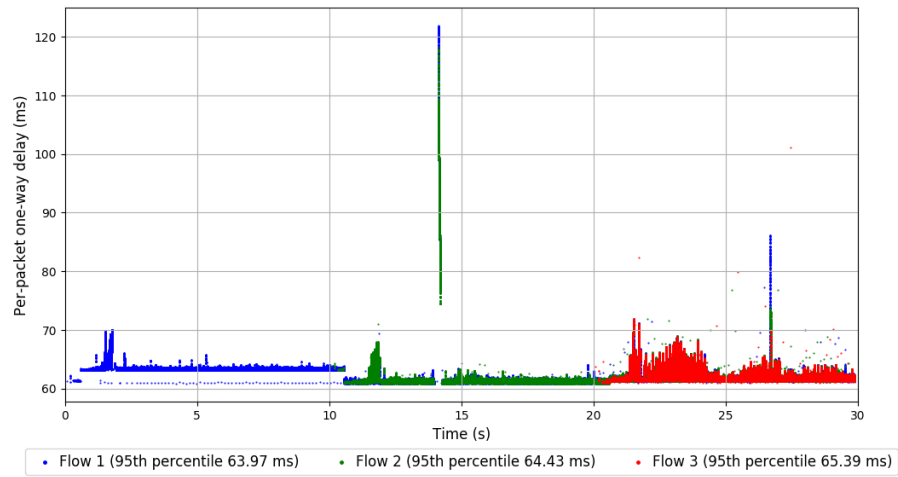
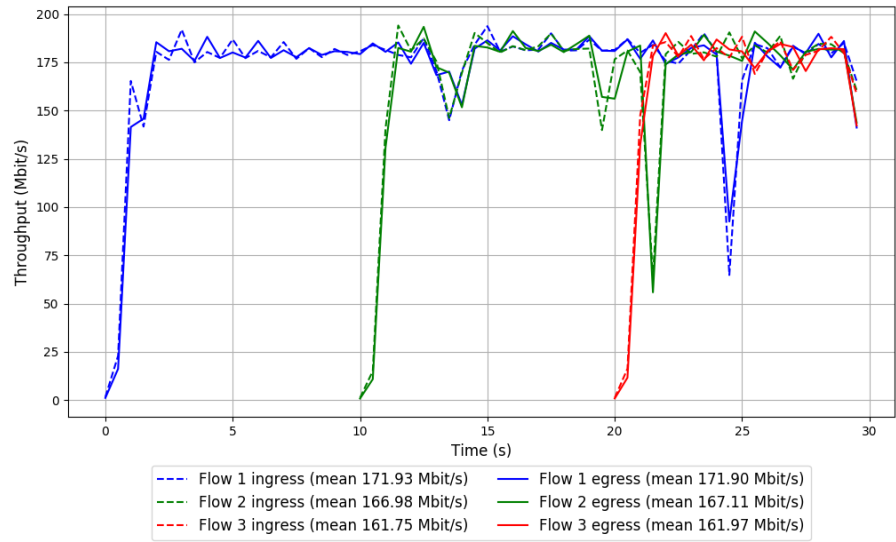
-- Flow 3:

Average throughput: 161.97 Mbit/s

95th percentile per-packet one-way delay: 65.395 ms

Loss rate: 1.21%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-11-22 04:05:13

End at: 2017-11-22 04:05:43

Below is generated by plot.py at 2017-11-22 06:32:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.39 Mbit/s

95th percentile per-packet one-way delay: 67.232 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 168.24 Mbit/s

95th percentile per-packet one-way delay: 66.271 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 169.46 Mbit/s

95th percentile per-packet one-way delay: 68.093 ms

Loss rate: 0.76%

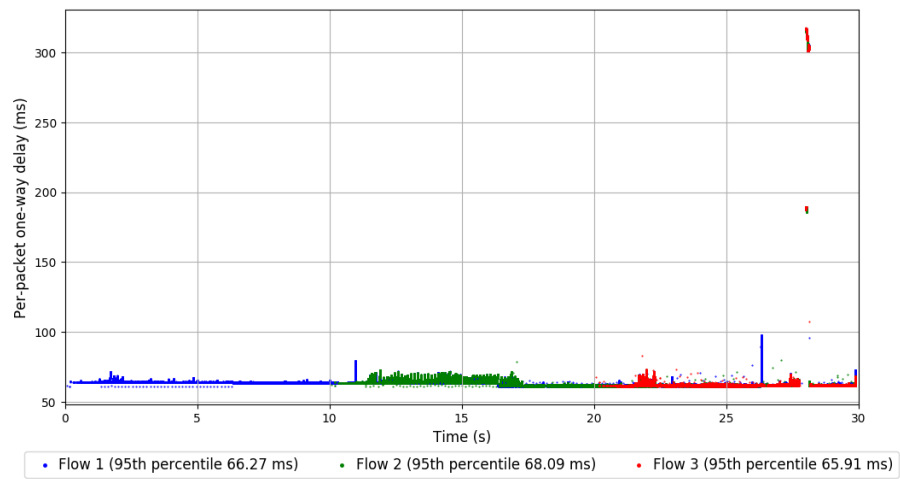
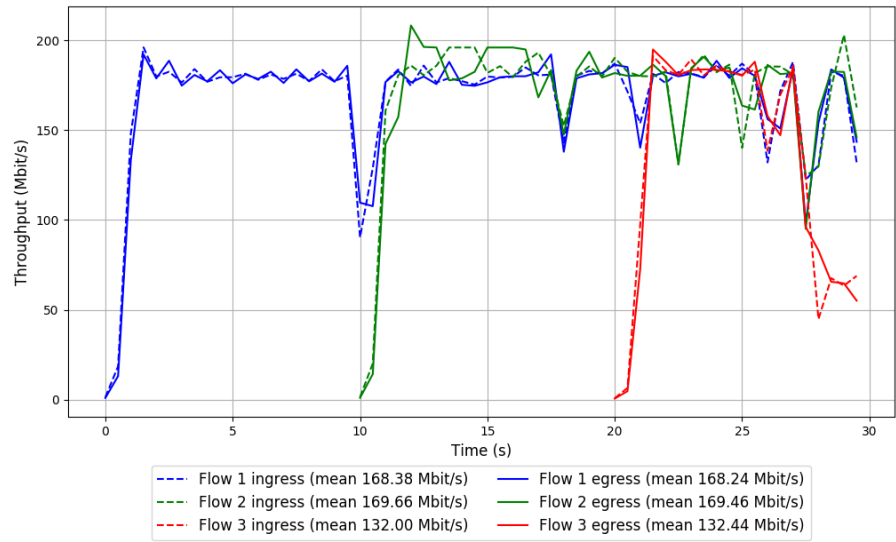
-- Flow 3:

Average throughput: 132.44 Mbit/s

95th percentile per-packet one-way delay: 65.913 ms

Loss rate: 0.98%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-11-22 02:08:46

End at: 2017-11-22 02:09:16

Below is generated by plot.py at 2017-11-22 06:32:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 186.65 Mbit/s

95th percentile per-packet one-way delay: 68.837 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 112.00 Mbit/s

95th percentile per-packet one-way delay: 69.118 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 64.18 Mbit/s

95th percentile per-packet one-way delay: 68.317 ms

Loss rate: 0.58%

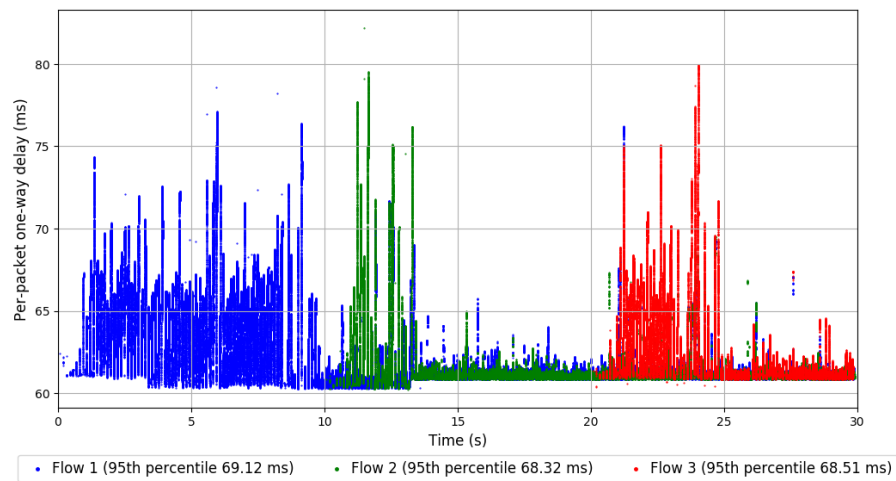
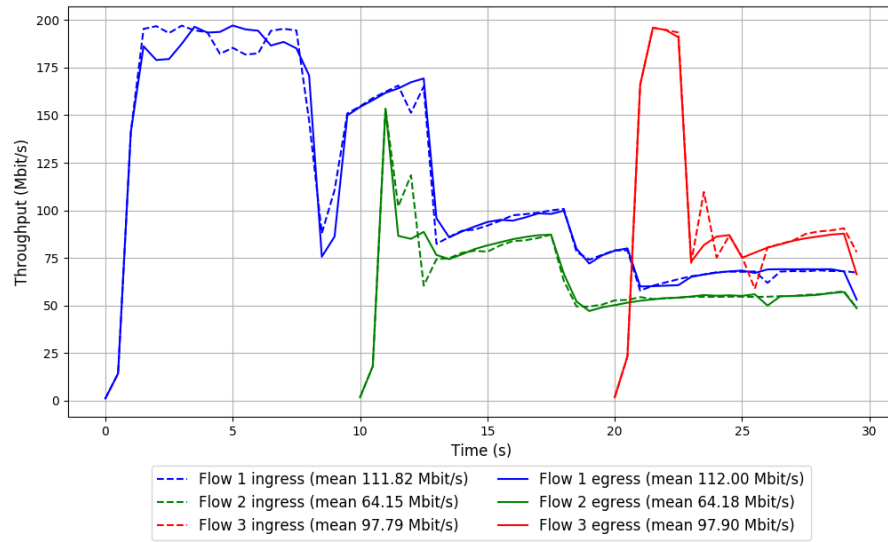
-- Flow 3:

Average throughput: 97.90 Mbit/s

95th percentile per-packet one-way delay: 68.509 ms

Loss rate: 1.15%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-11-22 02:21:27

End at: 2017-11-22 02:21:57

Below is generated by plot.py at 2017-11-22 06:32:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.37 Mbit/s

95th percentile per-packet one-way delay: 68.127 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 75.94 Mbit/s

95th percentile per-packet one-way delay: 69.228 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 79.32 Mbit/s

95th percentile per-packet one-way delay: 68.111 ms

Loss rate: 0.61%

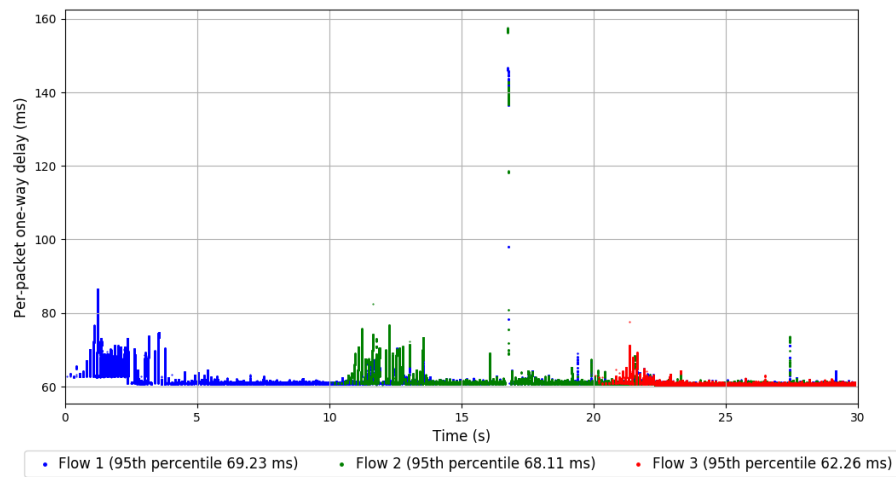
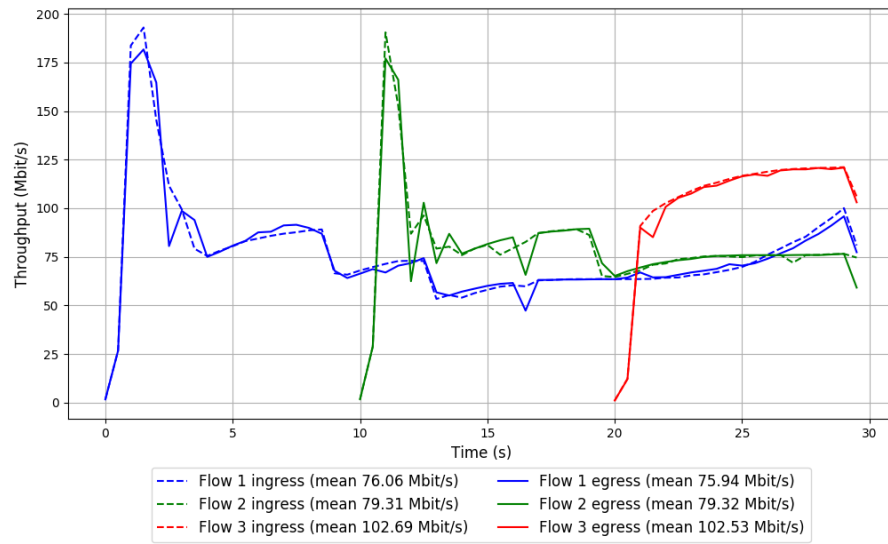
-- Flow 3:

Average throughput: 102.53 Mbit/s

95th percentile per-packet one-way delay: 62.255 ms

Loss rate: 1.42%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-11-22 02:33:51

End at: 2017-11-22 02:34:21

Below is generated by plot.py at 2017-11-22 06:32:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 159.58 Mbit/s

95th percentile per-packet one-way delay: 68.419 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 83.77 Mbit/s

95th percentile per-packet one-way delay: 69.079 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 89.17 Mbit/s

95th percentile per-packet one-way delay: 68.443 ms

Loss rate: 0.84%

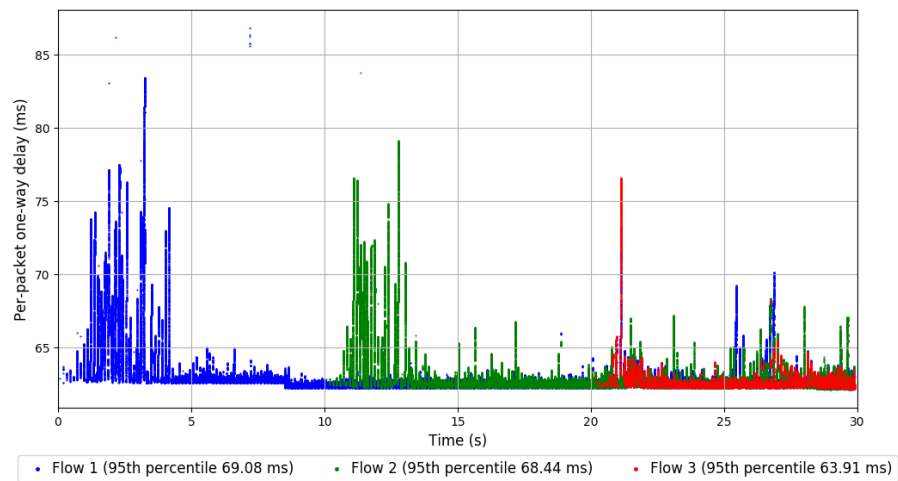
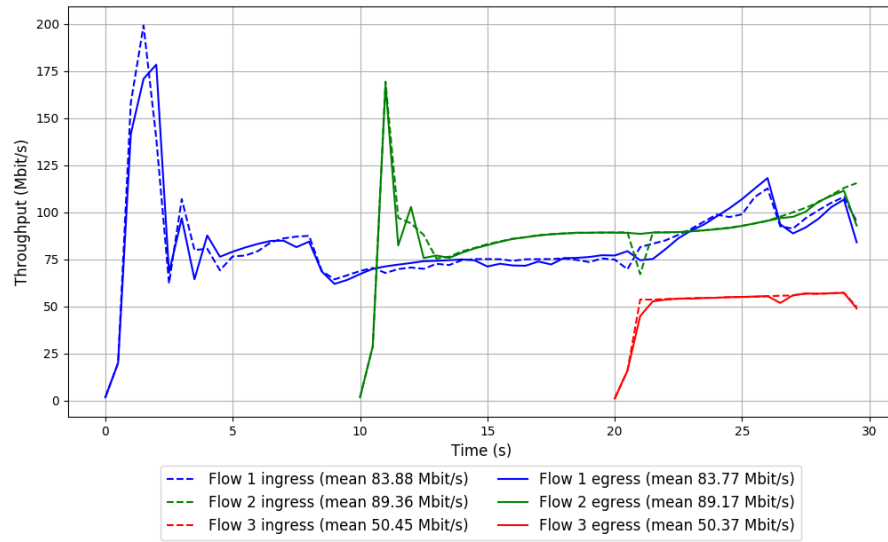
-- Flow 3:

Average throughput: 50.37 Mbit/s

95th percentile per-packet one-way delay: 63.910 ms

Loss rate: 1.42%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-11-22 02:46:17

End at: 2017-11-22 02:46:47

Below is generated by plot.py at 2017-11-22 06:32:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 176.81 Mbit/s

95th percentile per-packet one-way delay: 68.121 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 84.01 Mbit/s

95th percentile per-packet one-way delay: 67.329 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 88.71 Mbit/s

95th percentile per-packet one-way delay: 69.908 ms

Loss rate: 0.60%

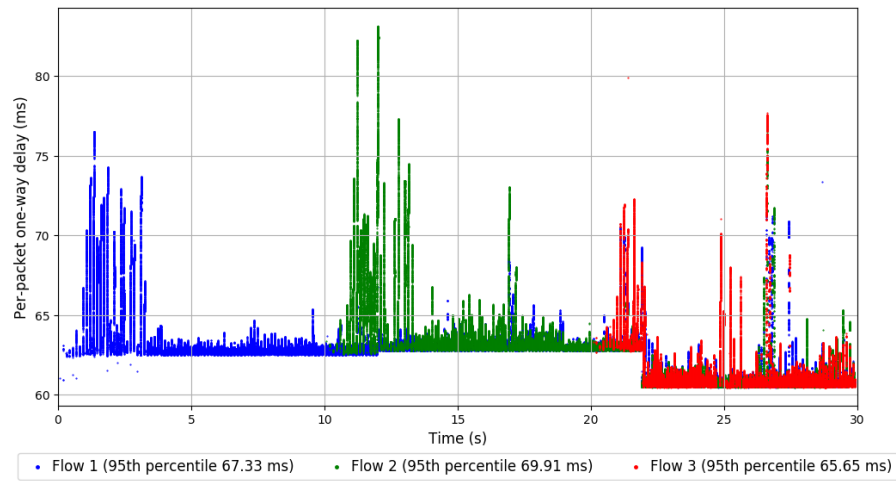
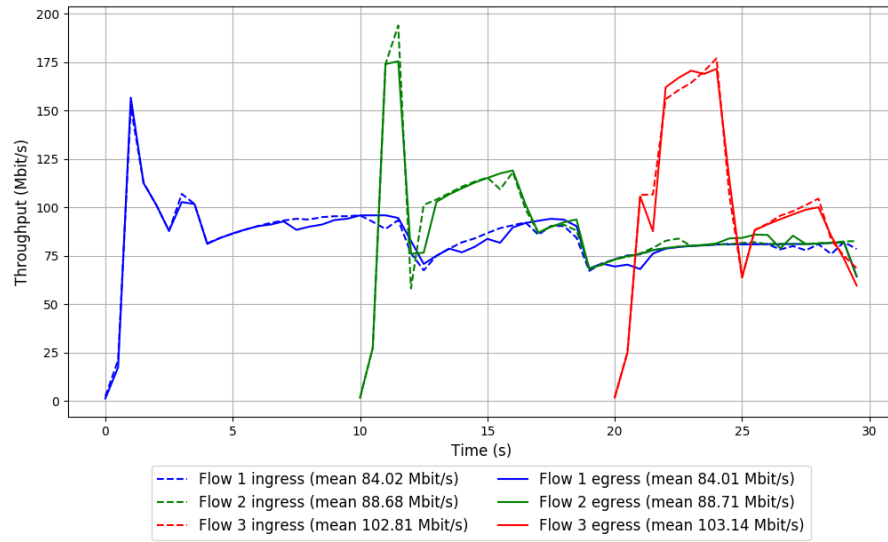
-- Flow 3:

Average throughput: 103.14 Mbit/s

95th percentile per-packet one-way delay: 65.647 ms

Loss rate: 0.94%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-11-22 02:59:10

End at: 2017-11-22 02:59:40

Below is generated by plot.py at 2017-11-22 06:32:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 219.11 Mbit/s

95th percentile per-packet one-way delay: 72.626 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 117.99 Mbit/s

95th percentile per-packet one-way delay: 71.196 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 88.10 Mbit/s

95th percentile per-packet one-way delay: 75.345 ms

Loss rate: 0.62%

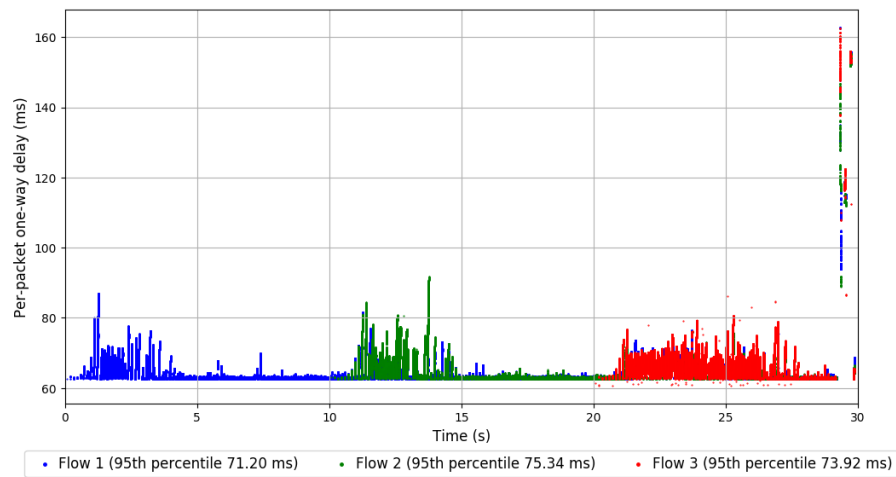
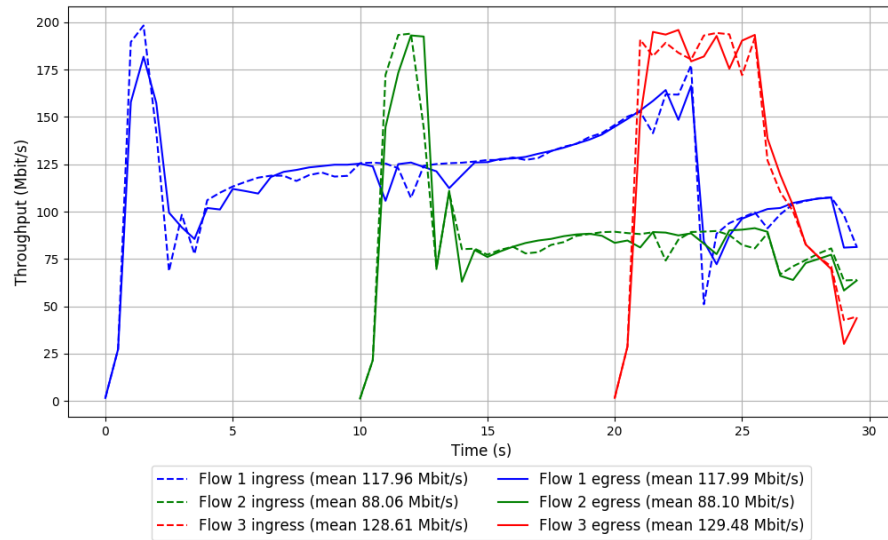
-- Flow 3:

Average throughput: 129.48 Mbit/s

95th percentile per-packet one-way delay: 73.919 ms

Loss rate: 0.59%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-11-22 03:11:49

End at: 2017-11-22 03:12:19

Below is generated by plot.py at 2017-11-22 06:32:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 168.09 Mbit/s

95th percentile per-packet one-way delay: 71.947 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 87.83 Mbit/s

95th percentile per-packet one-way delay: 71.590 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 78.68 Mbit/s

95th percentile per-packet one-way delay: 73.146 ms

Loss rate: 0.64%

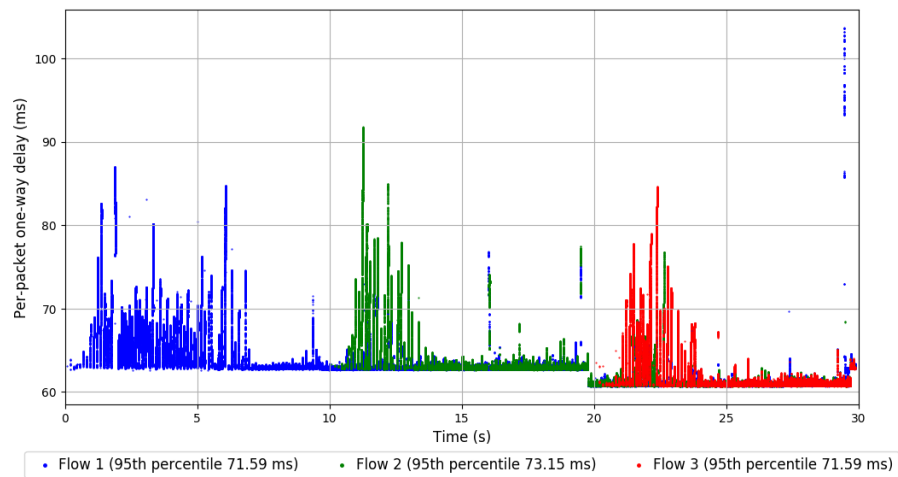
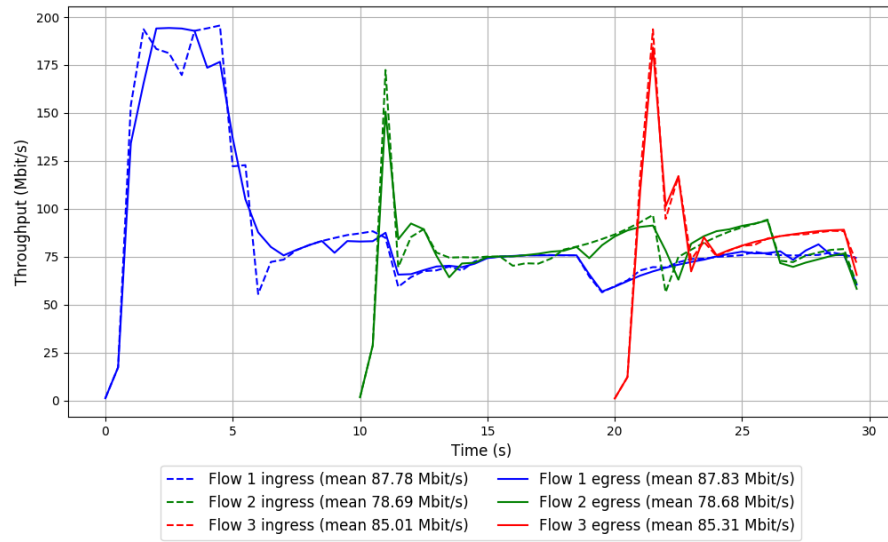
-- Flow 3:

Average throughput: 85.31 Mbit/s

95th percentile per-packet one-way delay: 71.594 ms

Loss rate: 0.94%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-11-22 03:24:33

End at: 2017-11-22 03:25:03

Below is generated by plot.py at 2017-11-22 06:32:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.61 Mbit/s

95th percentile per-packet one-way delay: 70.476 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 85.47 Mbit/s

95th percentile per-packet one-way delay: 68.900 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 84.33 Mbit/s

95th percentile per-packet one-way delay: 71.964 ms

Loss rate: 0.67%

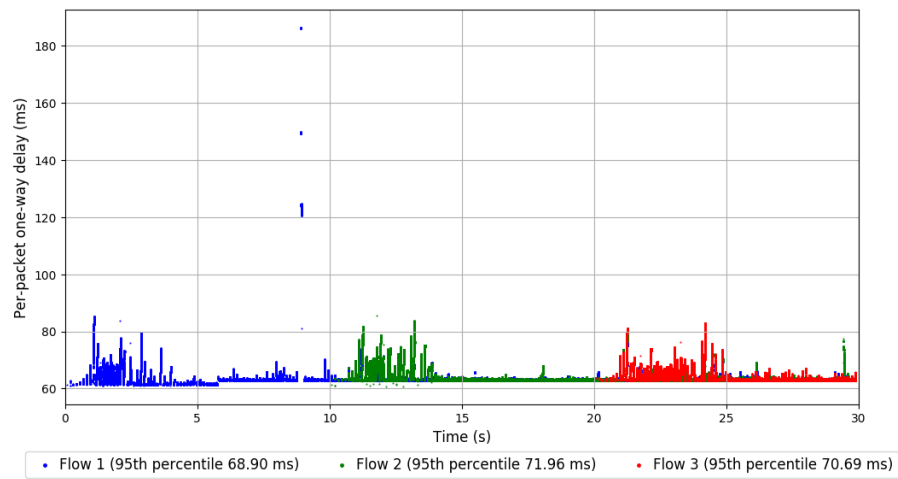
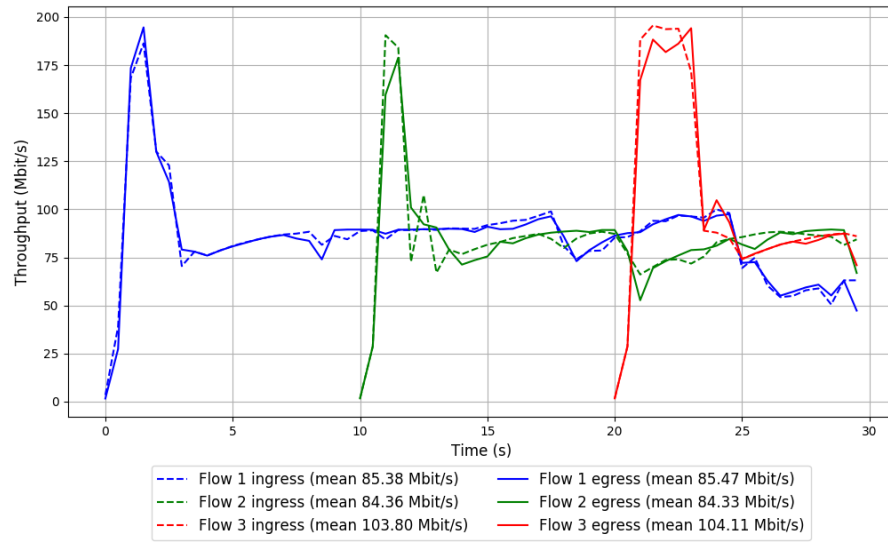
-- Flow 3:

Average throughput: 104.11 Mbit/s

95th percentile per-packet one-way delay: 70.685 ms

Loss rate: 0.98%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-11-22 03:37:07

End at: 2017-11-22 03:37:37

Below is generated by plot.py at 2017-11-22 06:32:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.34 Mbit/s

95th percentile per-packet one-way delay: 70.523 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 28.30 Mbit/s

95th percentile per-packet one-way delay: 66.127 ms

Loss rate: 1.52%

-- Flow 2:

Average throughput: 78.33 Mbit/s

95th percentile per-packet one-way delay: 70.098 ms

Loss rate: 0.64%

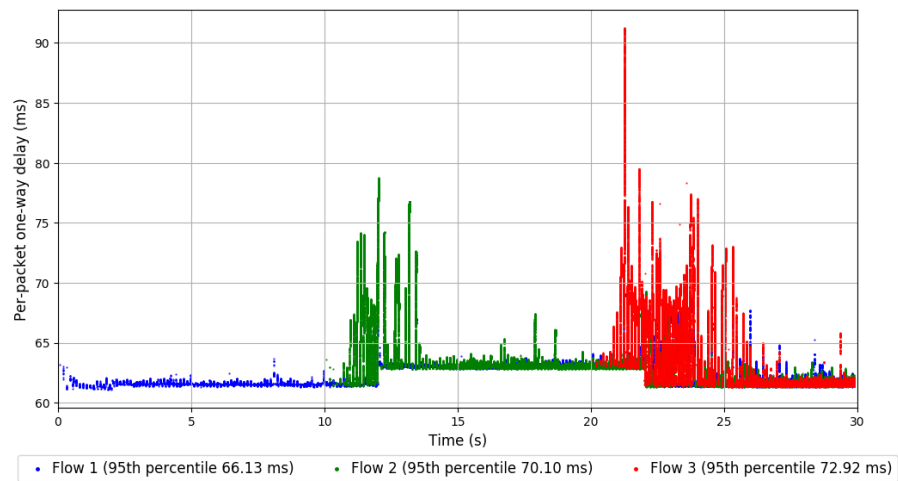
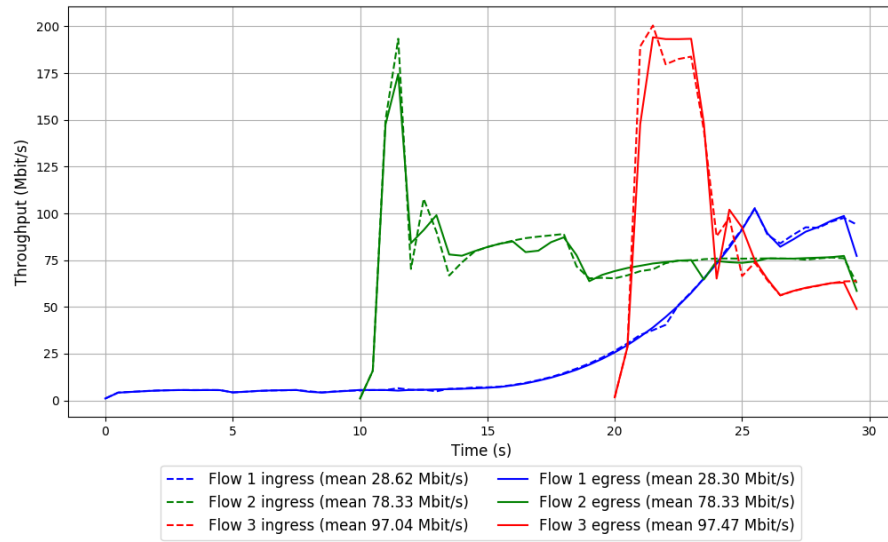
-- Flow 3:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 72.921 ms

Loss rate: 0.85%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-11-22 03:49:48

End at: 2017-11-22 03:50:18

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 202.13 Mbit/s

95th percentile per-packet one-way delay: 69.261 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 94.15 Mbit/s

95th percentile per-packet one-way delay: 69.085 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 112.43 Mbit/s

95th percentile per-packet one-way delay: 69.654 ms

Loss rate: 0.82%

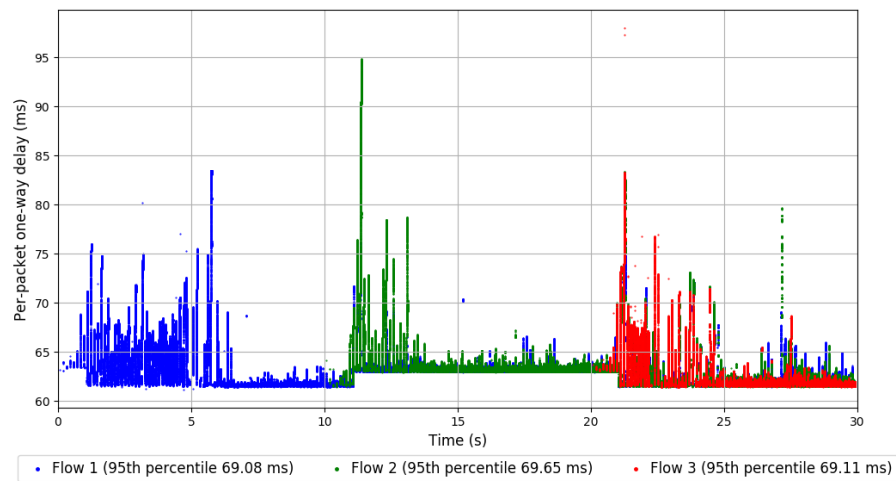
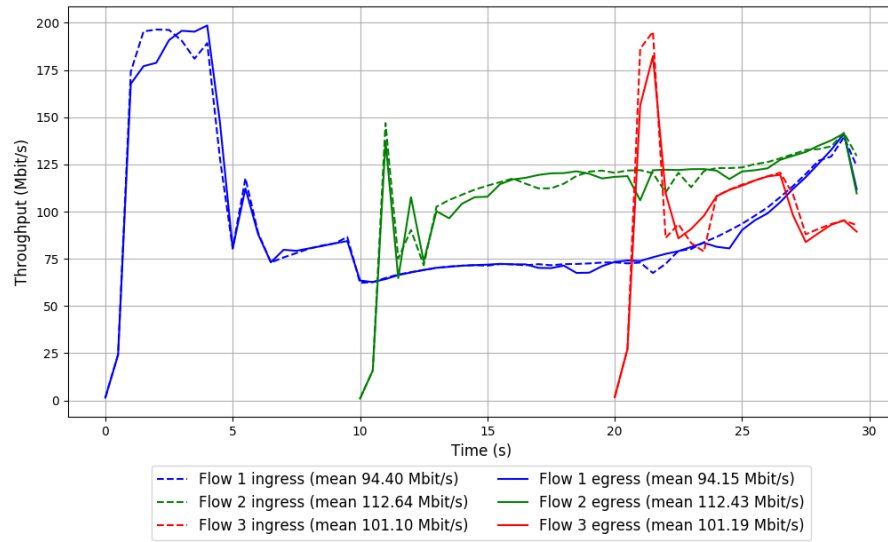
-- Flow 3:

Average throughput: 101.19 Mbit/s

95th percentile per-packet one-way delay: 69.114 ms

Loss rate: 1.18%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-11-22 04:02:33

End at: 2017-11-22 04:03:03

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 170.83 Mbit/s

95th percentile per-packet one-way delay: 70.596 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 50.30 Mbit/s

95th percentile per-packet one-way delay: 66.960 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 98.10 Mbit/s

95th percentile per-packet one-way delay: 69.010 ms

Loss rate: 0.84%

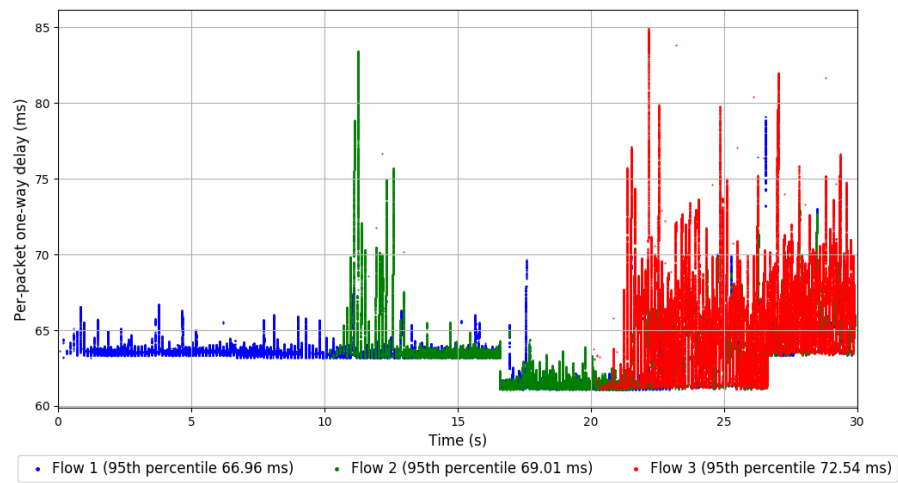
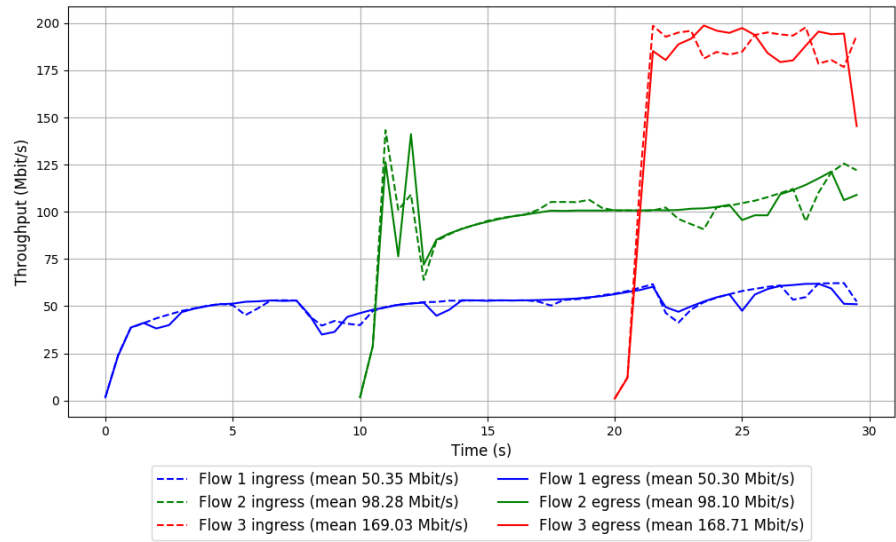
-- Flow 3:

Average throughput: 168.71 Mbit/s

95th percentile per-packet one-way delay: 72.541 ms

Loss rate: 1.44%

Run 10: Report of TCP Cubic — Data Link

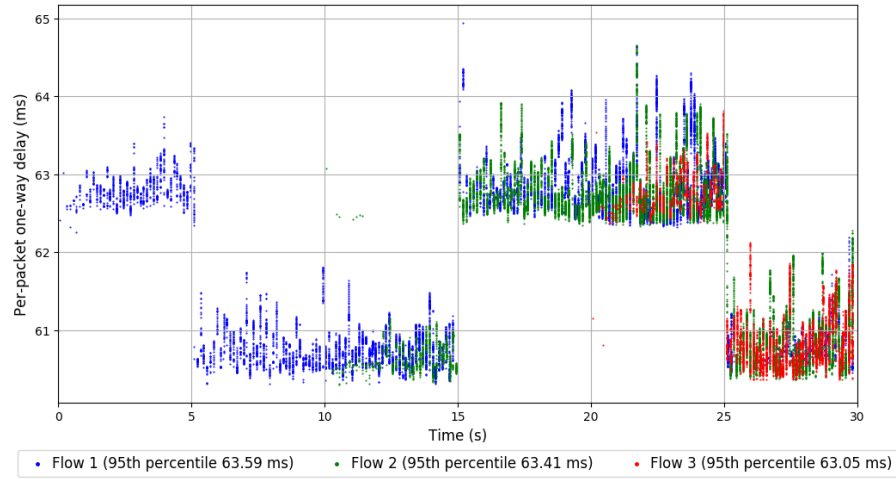
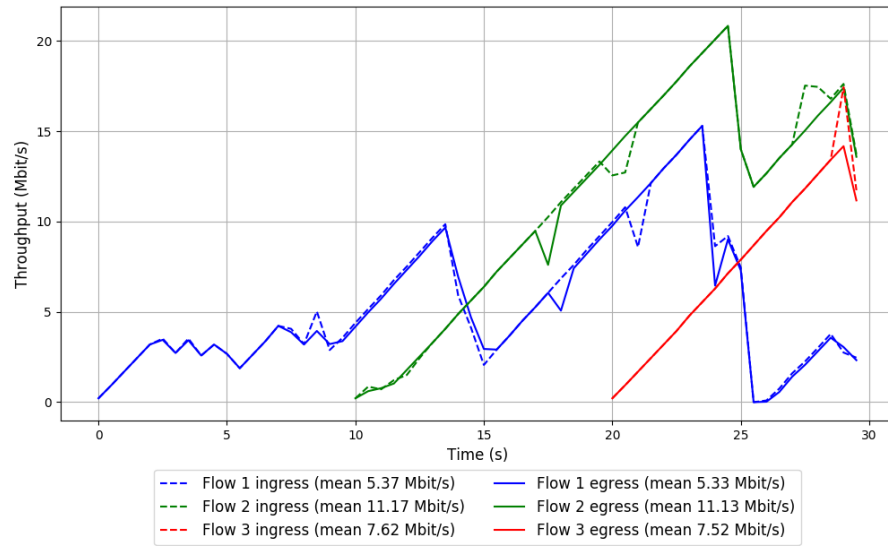


```
Run 1: Statistics of LEDBAT

Start at: 2017-11-22 02:03:14
End at: 2017-11-22 02:03:44

# Below is generated by plot.py at 2017-11-22 06:33:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.17 Mbit/s
95th percentile per-packet one-way delay: 63.414 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 63.586 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 63.406 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 63.052 ms
Loss rate: 2.54%
```


Run 1: Report of LEDBAT — Data Link

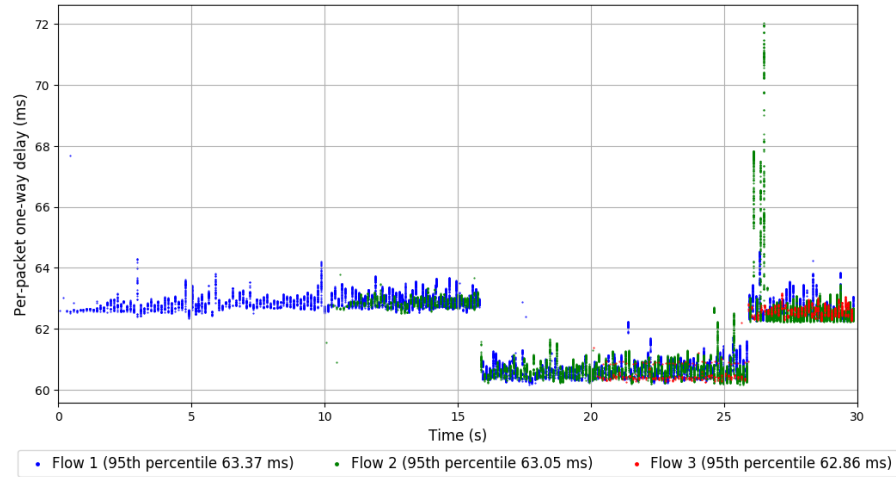
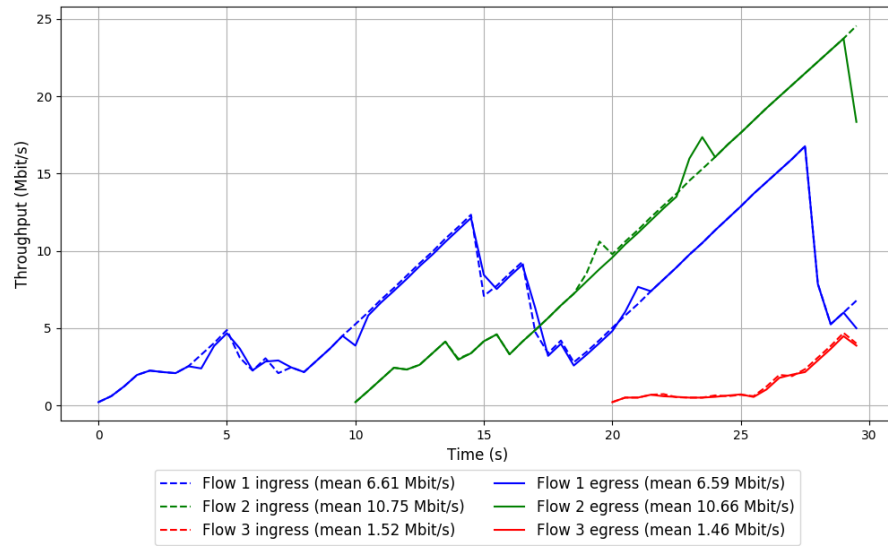


```
Run 2: Statistics of LEDBAT

Start at: 2017-11-22 02:16:03
End at: 2017-11-22 02:16:33

# Below is generated by plot.py at 2017-11-22 06:33:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.15 Mbit/s
95th percentile per-packet one-way delay: 63.293 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 63.373 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 10.66 Mbit/s
95th percentile per-packet one-way delay: 63.053 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 62.856 ms
Loss rate: 4.64%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-11-22 02:28:41

End at: 2017-11-22 02:29:11

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.76 Mbit/s

95th percentile per-packet one-way delay: 63.740 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 10.54 Mbit/s

95th percentile per-packet one-way delay: 63.780 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 8.07 Mbit/s

95th percentile per-packet one-way delay: 63.668 ms

Loss rate: 1.16%

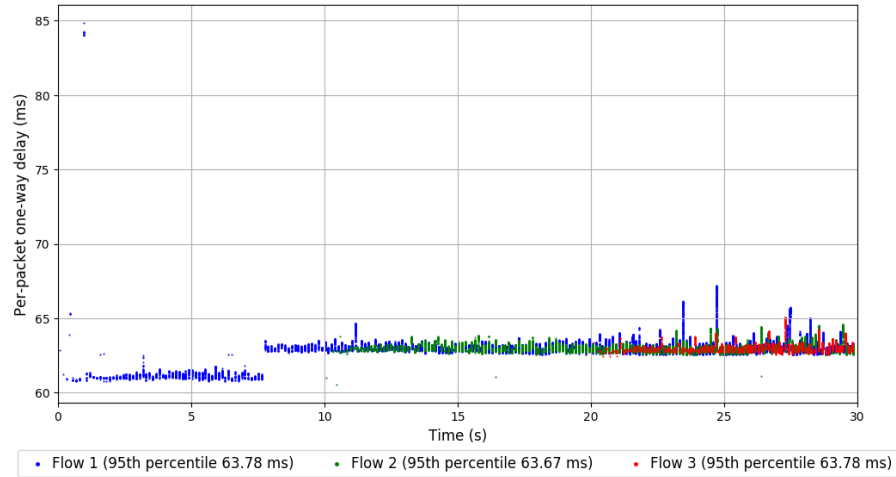
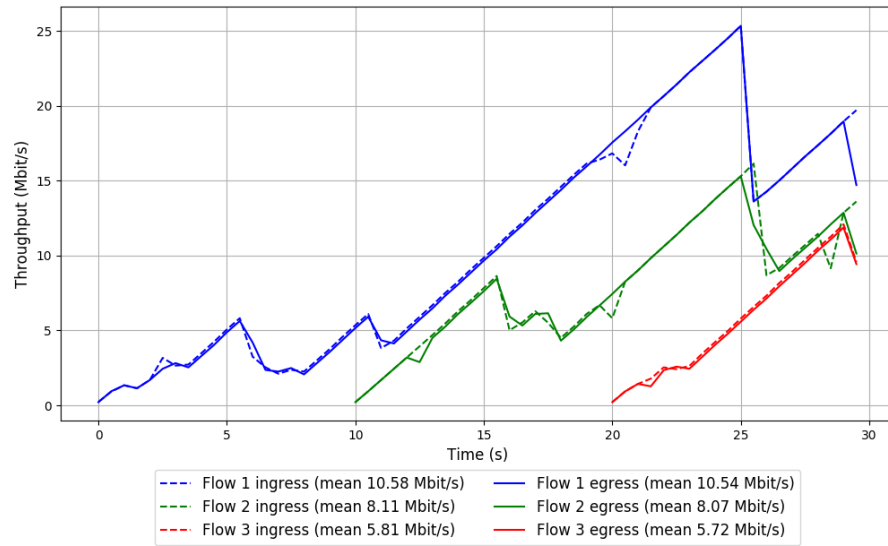
-- Flow 3:

Average throughput: 5.72 Mbit/s

95th percentile per-packet one-way delay: 63.785 ms

Loss rate: 2.83%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-11-22 02:41:02

End at: 2017-11-22 02:41:32

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.97 Mbit/s

95th percentile per-packet one-way delay: 64.045 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 9.89 Mbit/s

95th percentile per-packet one-way delay: 64.318 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 6.14 Mbit/s

95th percentile per-packet one-way delay: 63.747 ms

Loss rate: 1.55%

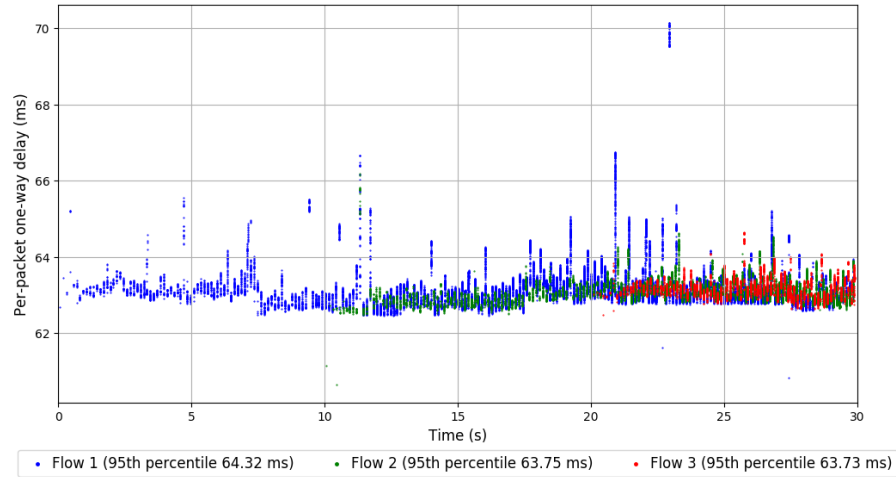
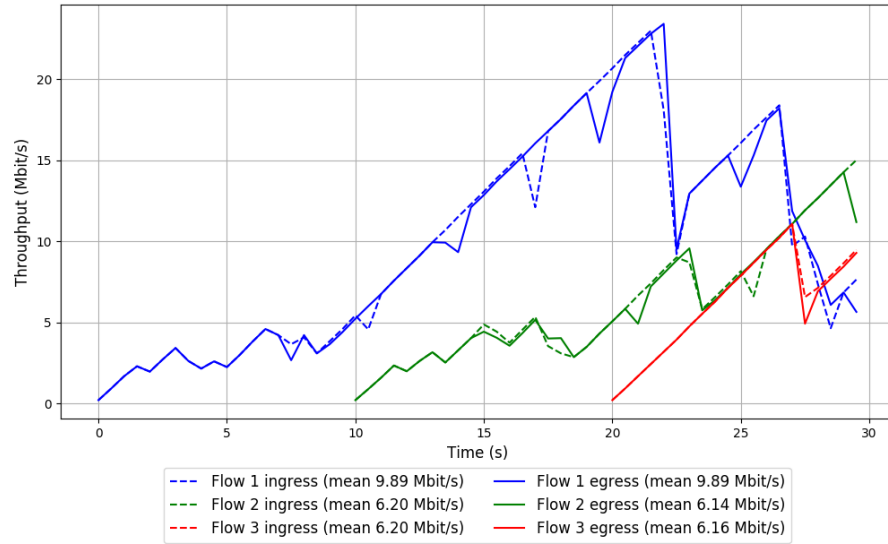
-- Flow 3:

Average throughput: 6.16 Mbit/s

95th percentile per-packet one-way delay: 63.726 ms

Loss rate: 1.98%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-11-22 02:53:41

End at: 2017-11-22 02:54:11

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.29 Mbit/s

95th percentile per-packet one-way delay: 64.020 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 8.07 Mbit/s

95th percentile per-packet one-way delay: 64.155 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 7.48 Mbit/s

95th percentile per-packet one-way delay: 63.850 ms

Loss rate: 1.13%

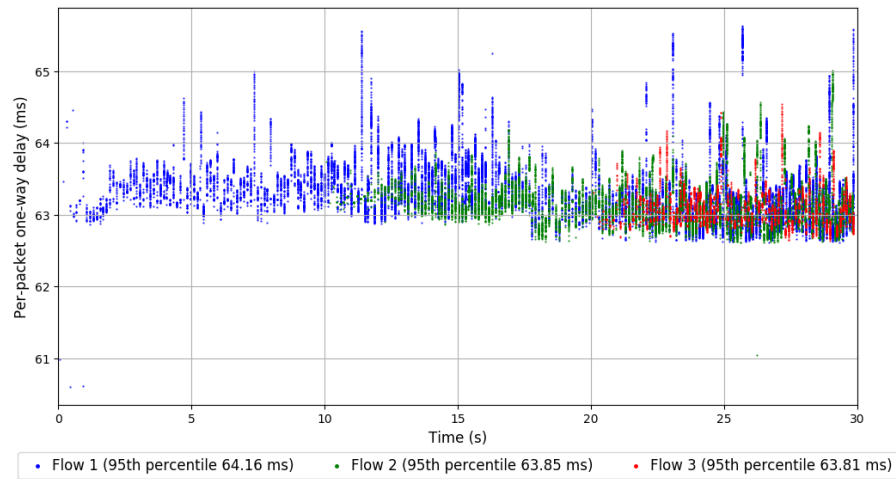
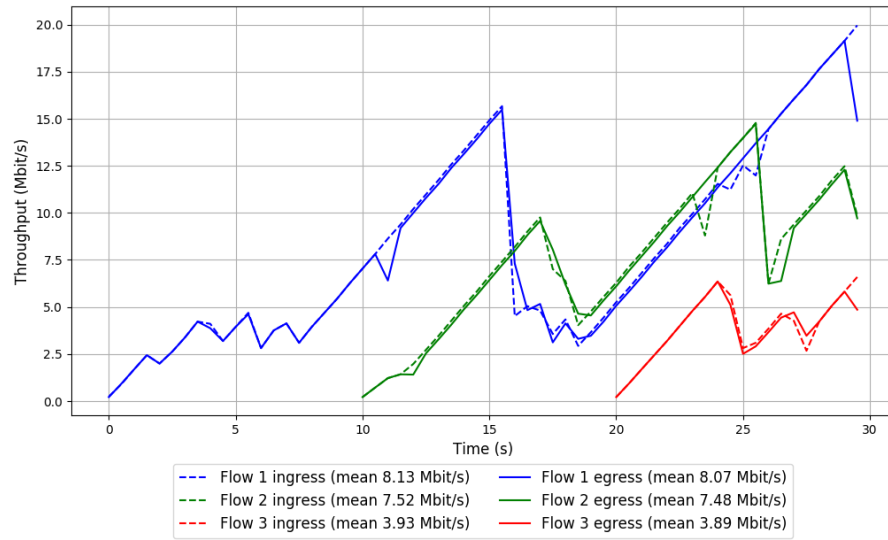
-- Flow 3:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 63.814 ms

Loss rate: 2.44%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-11-22 03:06:20

End at: 2017-11-22 03:06:50

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.65 Mbit/s

95th percentile per-packet one-way delay: 64.060 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 7.17 Mbit/s

95th percentile per-packet one-way delay: 64.005 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 4.89 Mbit/s

95th percentile per-packet one-way delay: 64.026 ms

Loss rate: 1.21%

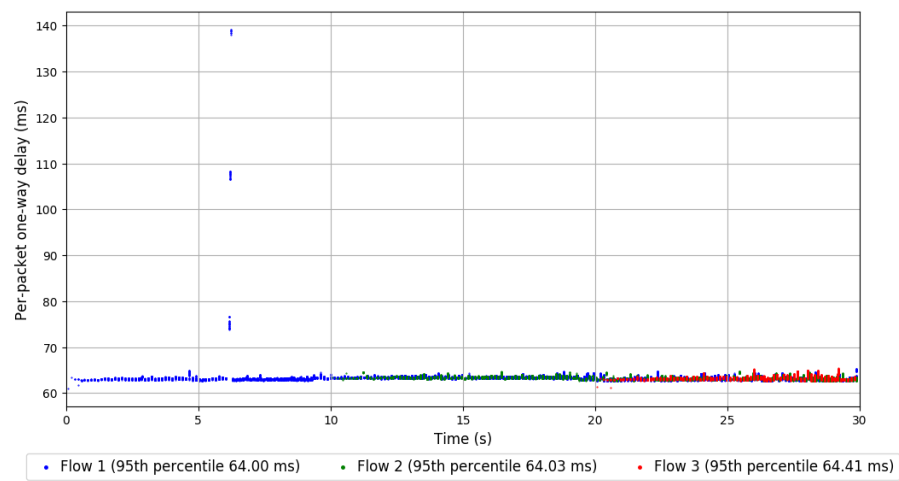
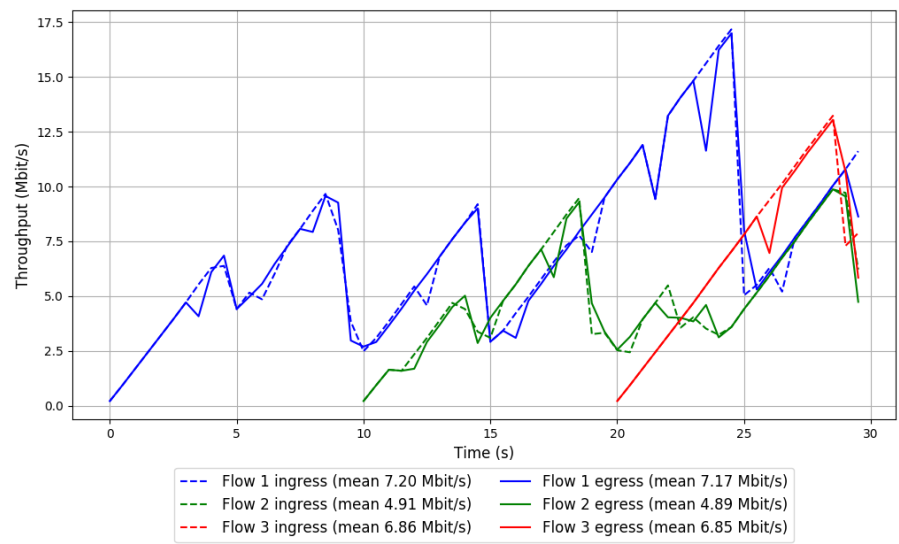
-- Flow 3:

Average throughput: 6.85 Mbit/s

95th percentile per-packet one-way delay: 64.409 ms

Loss rate: 1.51%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-11-22 03:19:13

End at: 2017-11-22 03:19:43

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.27 Mbit/s

95th percentile per-packet one-way delay: 63.988 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 7.15 Mbit/s

95th percentile per-packet one-way delay: 64.102 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 4.16 Mbit/s

95th percentile per-packet one-way delay: 63.861 ms

Loss rate: 1.83%

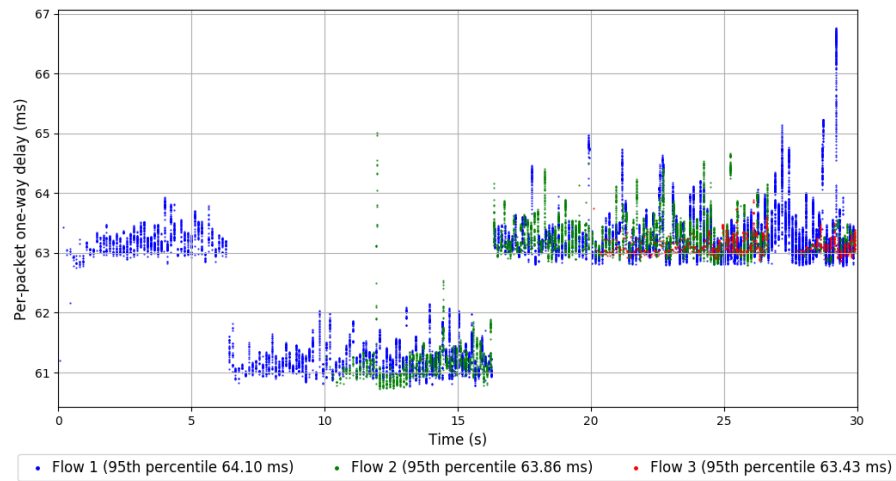
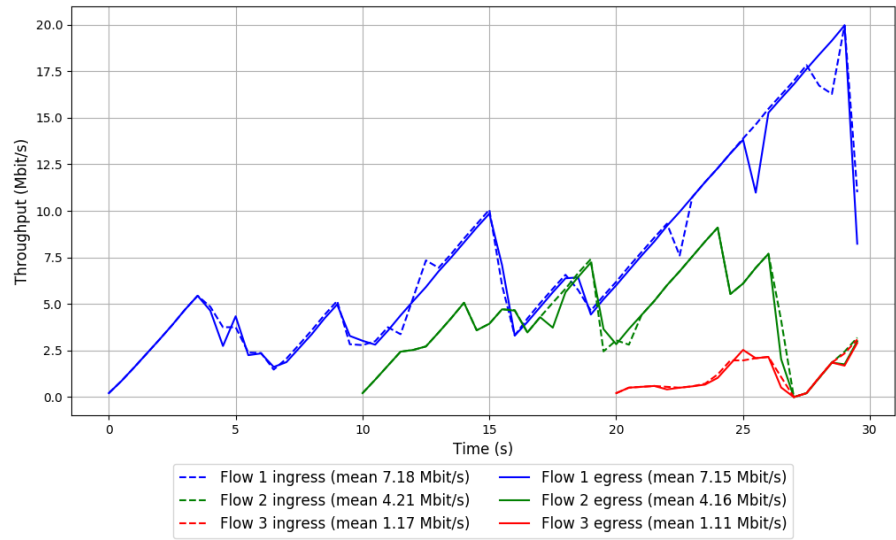
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 63.428 ms

Loss rate: 6.05%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-11-22 03:31:54

End at: 2017-11-22 03:32:24

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.80 Mbit/s

95th percentile per-packet one-way delay: 64.045 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 10.56 Mbit/s

95th percentile per-packet one-way delay: 64.167 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 7.29 Mbit/s

95th percentile per-packet one-way delay: 64.105 ms

Loss rate: 0.64%

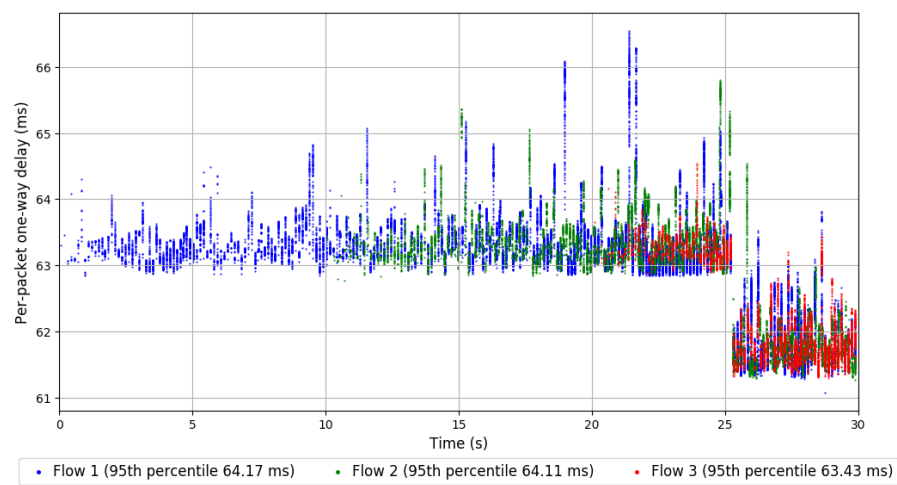
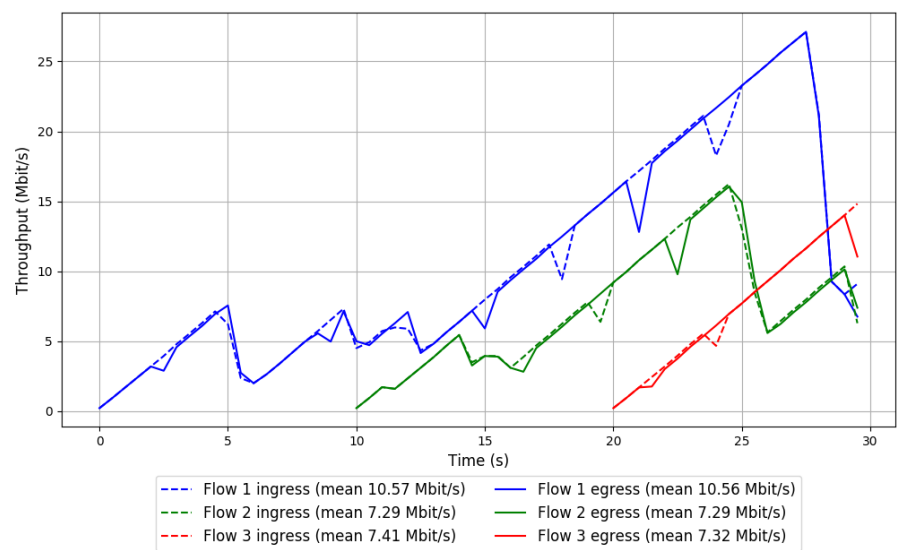
-- Flow 3:

Average throughput: 7.32 Mbit/s

95th percentile per-packet one-way delay: 63.434 ms

Loss rate: 2.57%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-11-22 03:44:21

End at: 2017-11-22 03:44:51

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.62 Mbit/s

95th percentile per-packet one-way delay: 63.945 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 5.53 Mbit/s

95th percentile per-packet one-way delay: 63.793 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 5.81 Mbit/s

95th percentile per-packet one-way delay: 64.117 ms

Loss rate: 1.09%

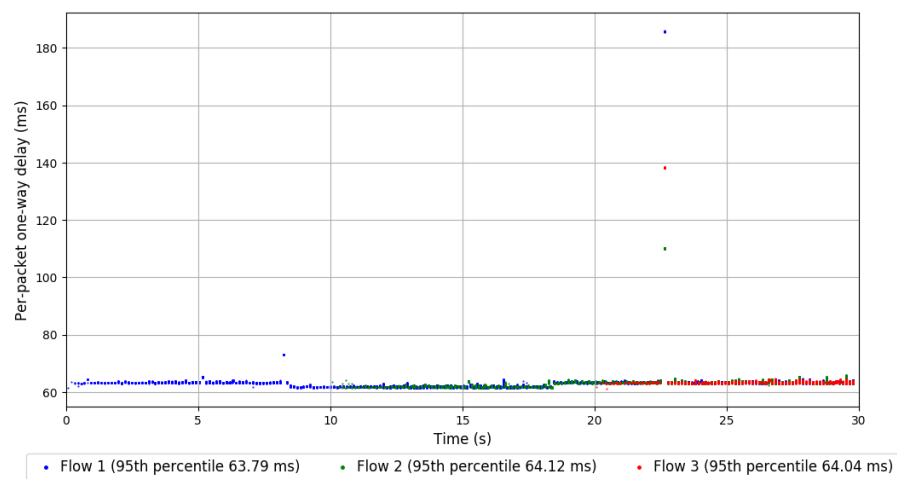
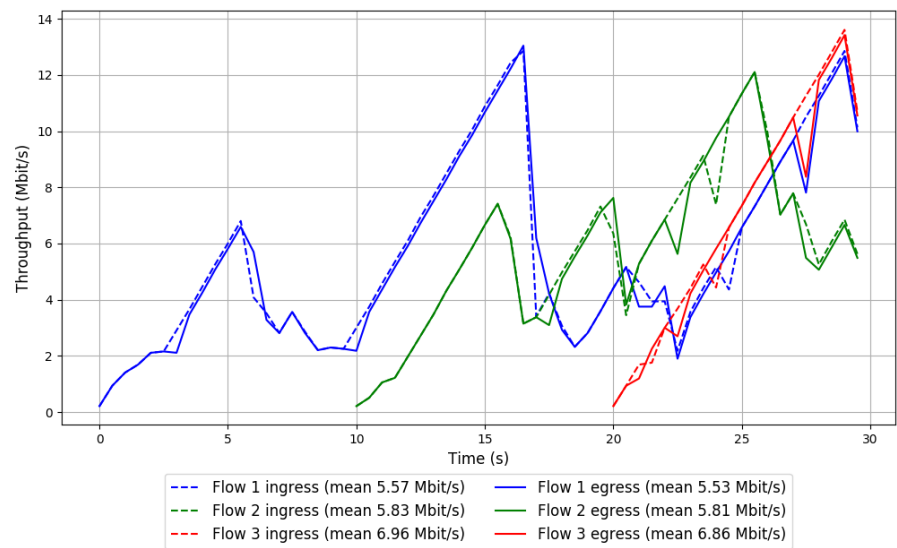
-- Flow 3:

Average throughput: 6.86 Mbit/s

95th percentile per-packet one-way delay: 64.039 ms

Loss rate: 2.64%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-11-22 03:57:04

End at: 2017-11-22 03:57:34

Below is generated by plot.py at 2017-11-22 06:33:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.03 Mbit/s

95th percentile per-packet one-way delay: 64.224 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 13.25 Mbit/s

95th percentile per-packet one-way delay: 64.217 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 6.66 Mbit/s

95th percentile per-packet one-way delay: 64.243 ms

Loss rate: 1.05%

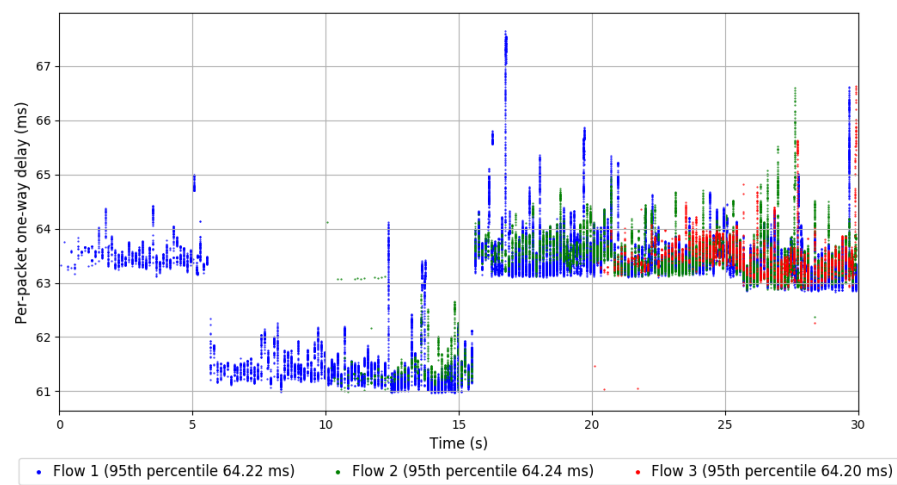
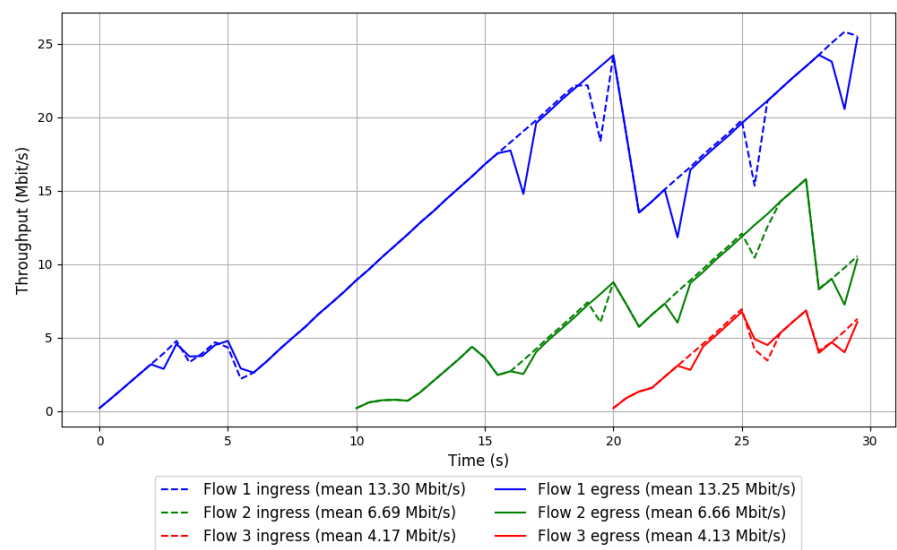
-- Flow 3:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 64.198 ms

Loss rate: 2.21%

Run 10: Report of LEDBAT — Data Link

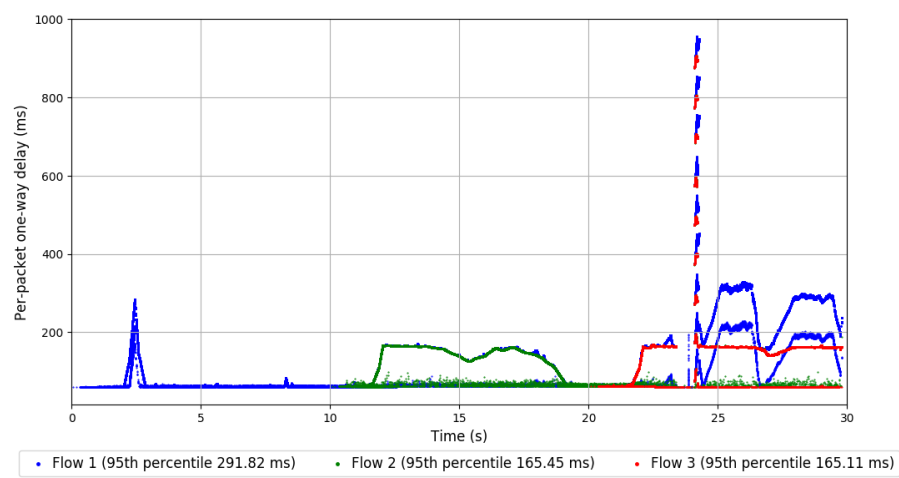
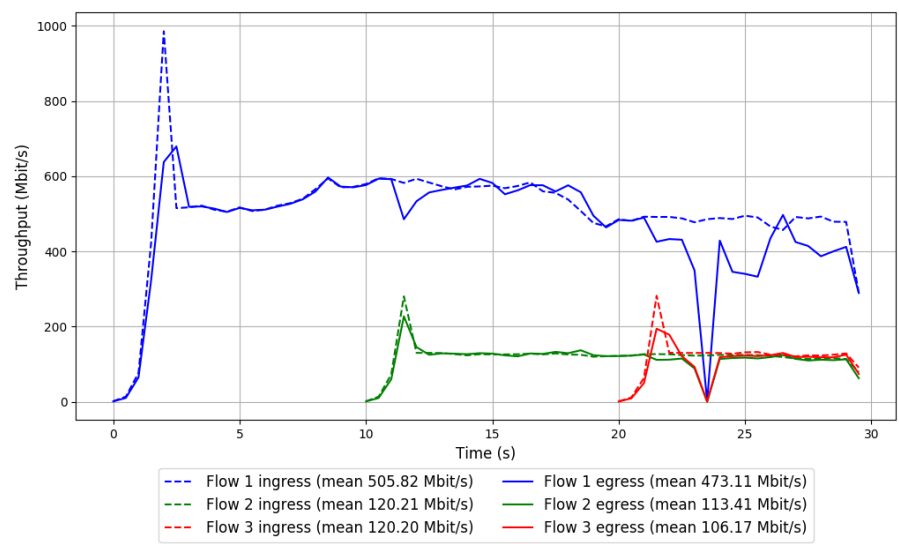


```
Run 1: Statistics of PCC

Start at: 2017-11-22 02:14:16
End at: 2017-11-22 02:14:46

# Below is generated by plot.py at 2017-11-22 06:43:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 582.69 Mbit/s
95th percentile per-packet one-way delay: 289.959 ms
Loss rate: 7.14%
-- Flow 1:
Average throughput: 473.11 Mbit/s
95th percentile per-packet one-way delay: 291.821 ms
Loss rate: 6.85%
-- Flow 2:
Average throughput: 113.41 Mbit/s
95th percentile per-packet one-way delay: 165.452 ms
Loss rate: 6.17%
-- Flow 3:
Average throughput: 106.17 Mbit/s
95th percentile per-packet one-way delay: 165.114 ms
Loss rate: 12.80%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-11-22 02:26:54

End at: 2017-11-22 02:27:24

Below is generated by plot.py at 2017-11-22 06:43:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 576.42 Mbit/s

95th percentile per-packet one-way delay: 180.280 ms

Loss rate: 1.73%

-- Flow 1:

Average throughput: 481.86 Mbit/s

95th percentile per-packet one-way delay: 184.727 ms

Loss rate: 1.74%

-- Flow 2:

Average throughput: 127.78 Mbit/s

95th percentile per-packet one-way delay: 174.647 ms

Loss rate: 1.52%

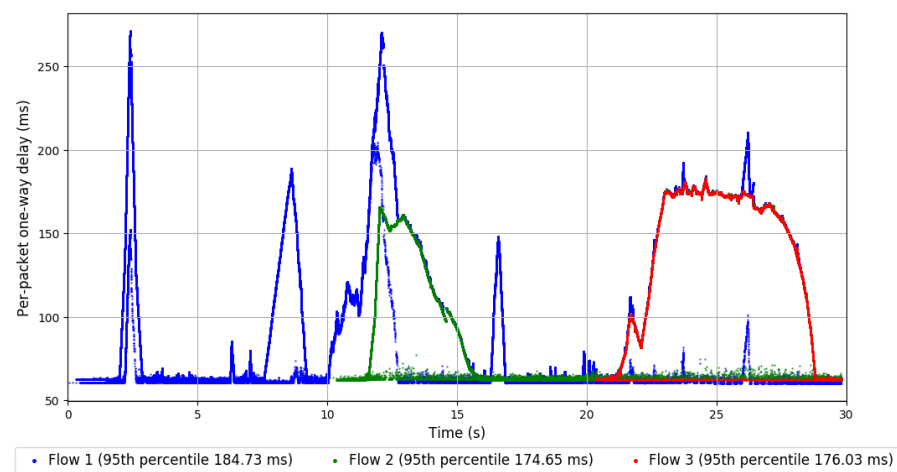
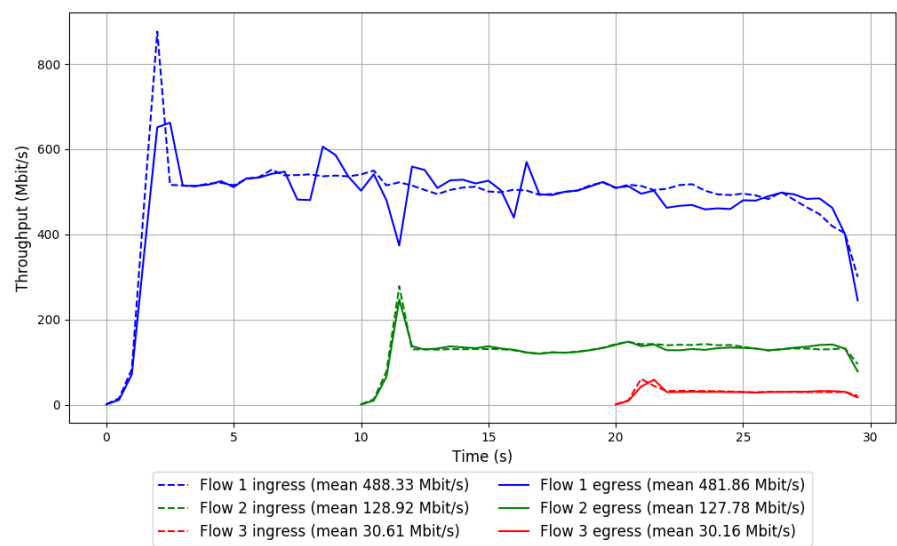
-- Flow 3:

Average throughput: 30.16 Mbit/s

95th percentile per-packet one-way delay: 176.030 ms

Loss rate: 2.78%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-11-22 02:39:15

End at: 2017-11-22 02:39:45

Below is generated by plot.py at 2017-11-22 06:43:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 590.27 Mbit/s

95th percentile per-packet one-way delay: 165.653 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 544.94 Mbit/s

95th percentile per-packet one-way delay: 166.179 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 66.37 Mbit/s

95th percentile per-packet one-way delay: 161.261 ms

Loss rate: 0.82%

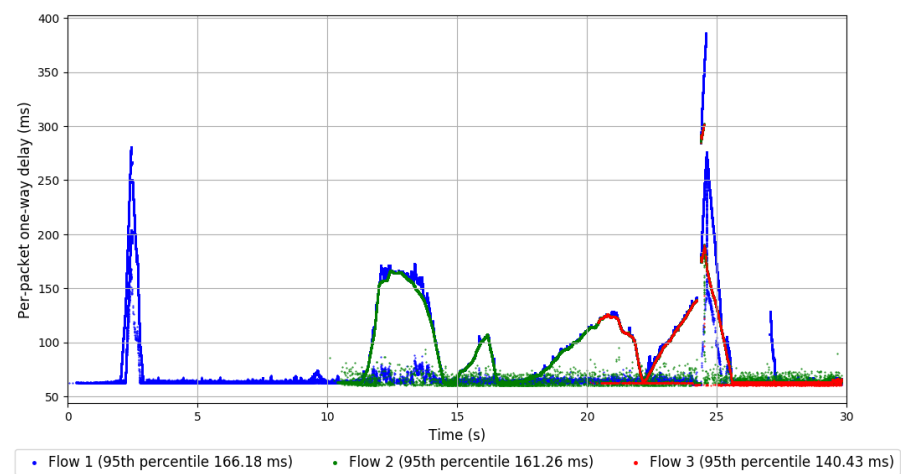
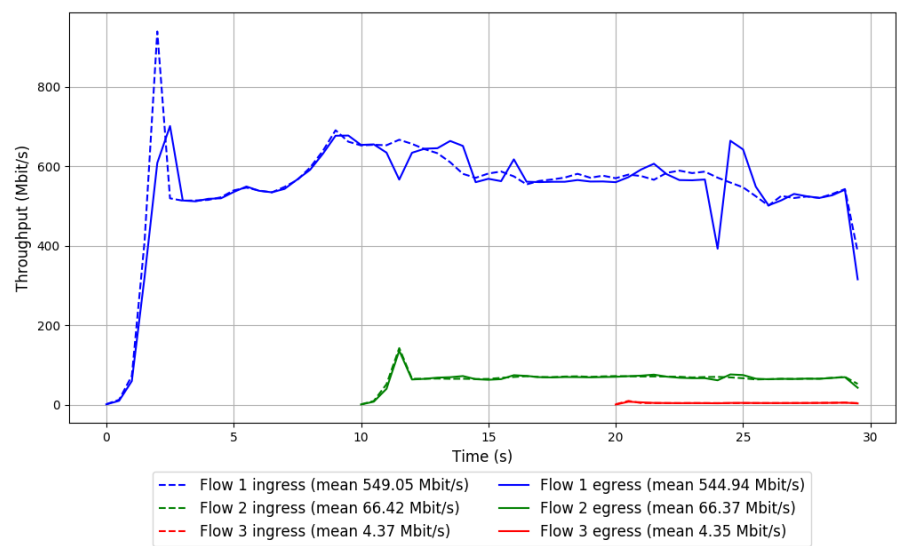
-- Flow 3:

Average throughput: 4.35 Mbit/s

95th percentile per-packet one-way delay: 140.428 ms

Loss rate: 1.82%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-11-22 02:51:53

End at: 2017-11-22 02:52:23

Below is generated by plot.py at 2017-11-22 06:44:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 630.28 Mbit/s

95th percentile per-packet one-way delay: 165.369 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 544.13 Mbit/s

95th percentile per-packet one-way delay: 165.401 ms

Loss rate: 1.89%

-- Flow 2:

Average throughput: 127.76 Mbit/s

95th percentile per-packet one-way delay: 165.259 ms

Loss rate: 2.13%

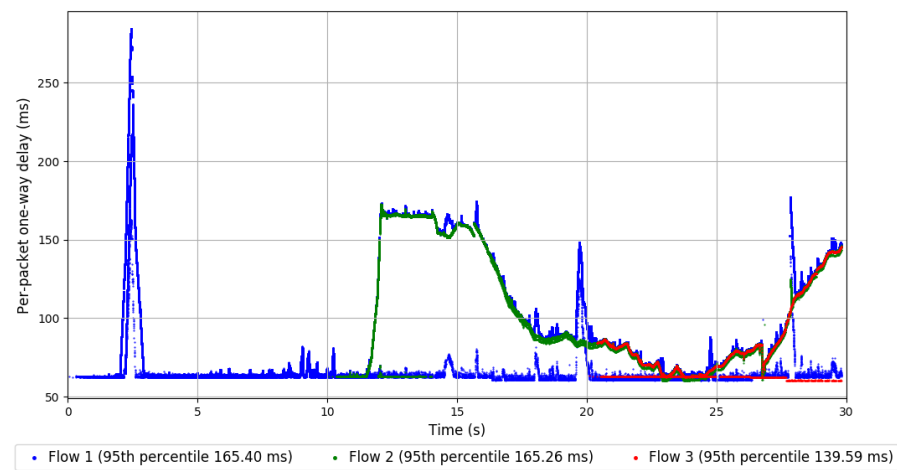
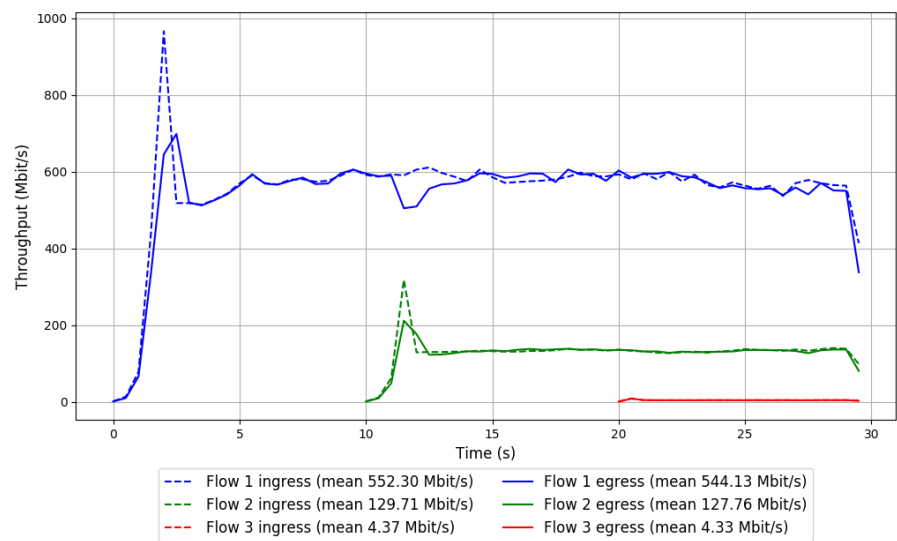
-- Flow 3:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 139.593 ms

Loss rate: 2.25%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-11-22 03:04:40

End at: 2017-11-22 03:05:10

Below is generated by plot.py at 2017-11-22 06:44:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 389.39 Mbit/s

95th percentile per-packet one-way delay: 121.751 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 187.38 Mbit/s

95th percentile per-packet one-way delay: 121.386 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 288.78 Mbit/s

95th percentile per-packet one-way delay: 122.287 ms

Loss rate: 0.96%

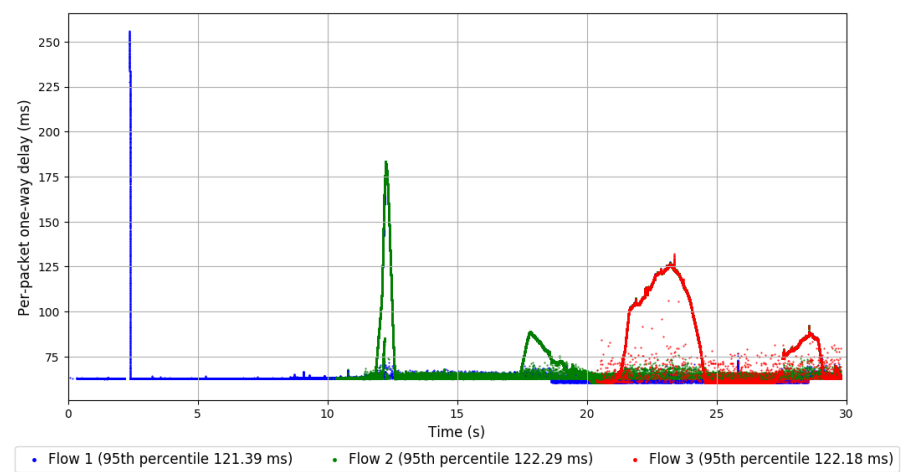
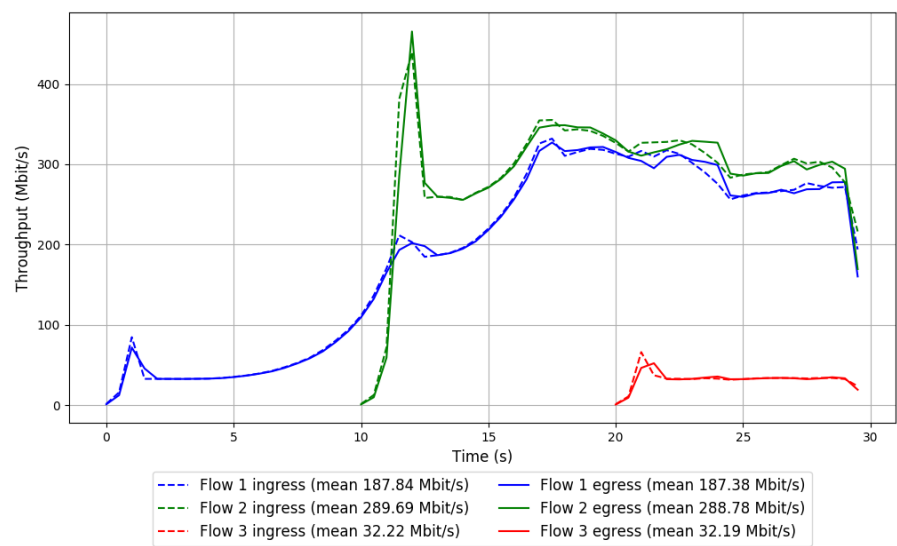
-- Flow 3:

Average throughput: 32.19 Mbit/s

95th percentile per-packet one-way delay: 122.178 ms

Loss rate: 1.34%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-11-22 03:17:25

End at: 2017-11-22 03:17:55

Below is generated by plot.py at 2017-11-22 06:44:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 612.34 Mbit/s

95th percentile per-packet one-way delay: 181.974 ms

Loss rate: 3.59%

-- Flow 1:

Average throughput: 527.38 Mbit/s

95th percentile per-packet one-way delay: 182.272 ms

Loss rate: 3.58%

-- Flow 2:

Average throughput: 112.97 Mbit/s

95th percentile per-packet one-way delay: 171.533 ms

Loss rate: 3.76%

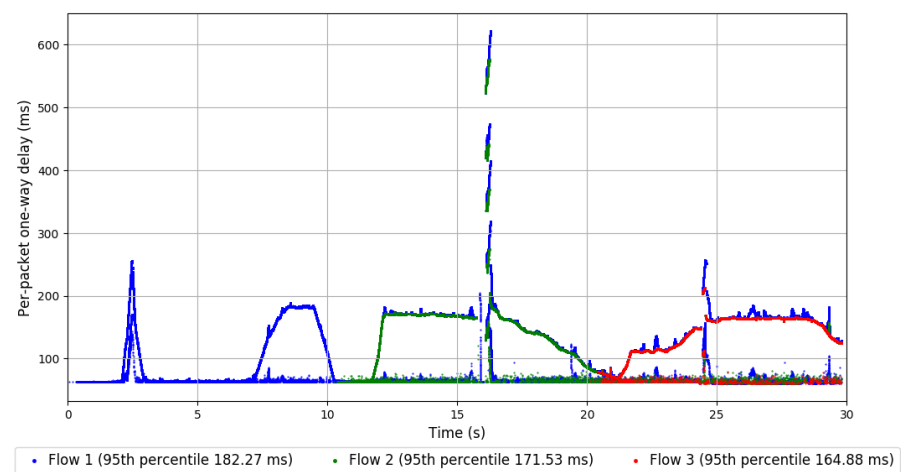
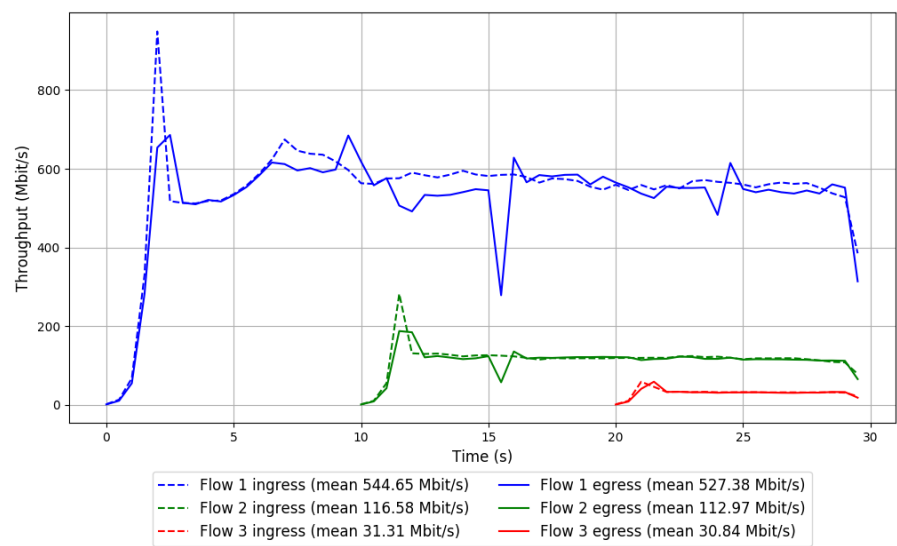
-- Flow 3:

Average throughput: 30.84 Mbit/s

95th percentile per-packet one-way delay: 164.877 ms

Loss rate: 2.79%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-11-22 03:30:03

End at: 2017-11-22 03:30:33

Below is generated by plot.py at 2017-11-22 06:45:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 641.65 Mbit/s

95th percentile per-packet one-way delay: 185.545 ms

Loss rate: 2.98%

-- Flow 1:

Average throughput: 545.32 Mbit/s

95th percentile per-packet one-way delay: 193.825 ms

Loss rate: 2.98%

-- Flow 2:

Average throughput: 114.69 Mbit/s

95th percentile per-packet one-way delay: 162.958 ms

Loss rate: 2.69%

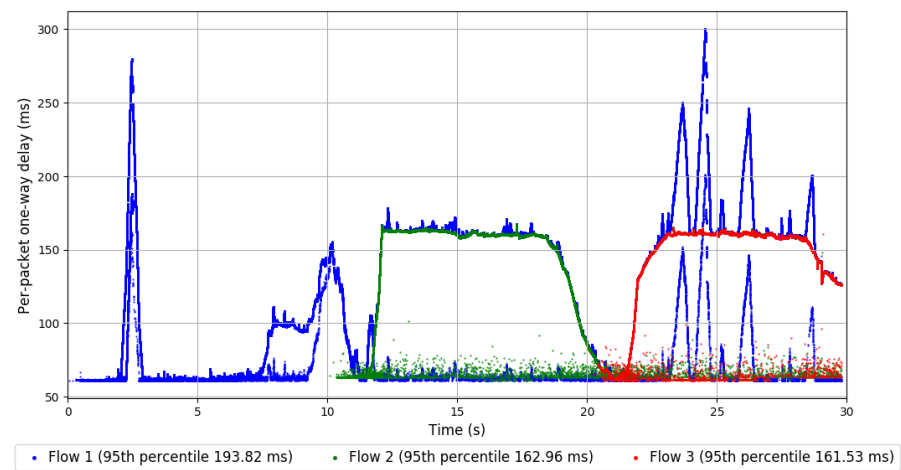
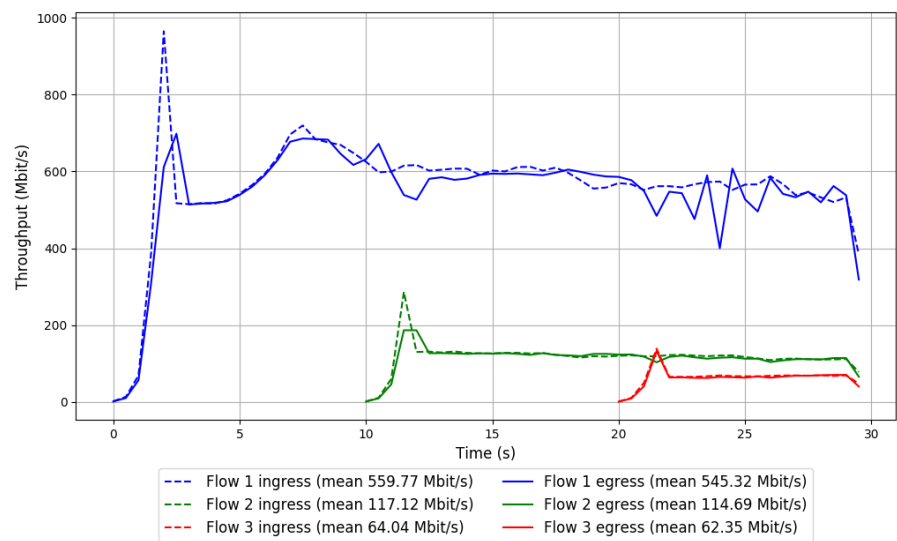
-- Flow 3:

Average throughput: 62.35 Mbit/s

95th percentile per-packet one-way delay: 161.526 ms

Loss rate: 4.06%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-11-22 03:42:34

End at: 2017-11-22 03:43:04

Below is generated by plot.py at 2017-11-22 06:45:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 586.30 Mbit/s

95th percentile per-packet one-way delay: 161.185 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 523.87 Mbit/s

95th percentile per-packet one-way delay: 161.205 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 92.02 Mbit/s

95th percentile per-packet one-way delay: 159.891 ms

Loss rate: 0.90%

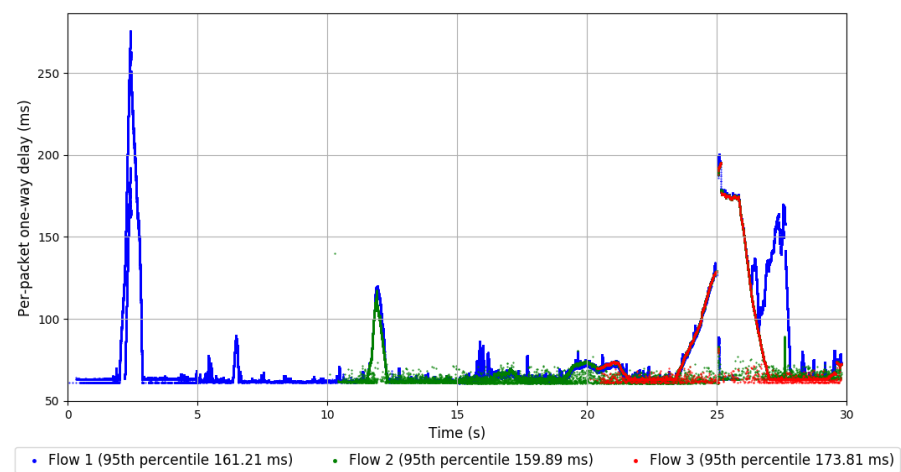
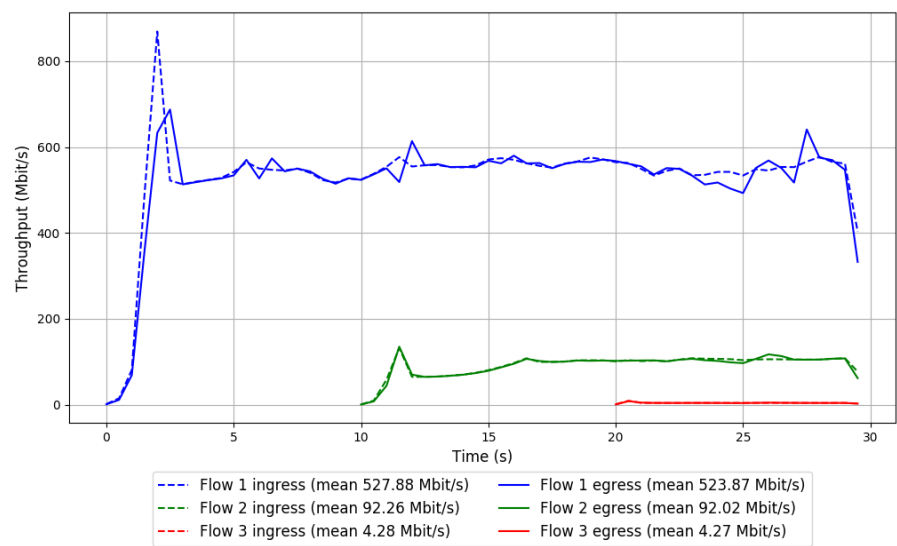
-- Flow 3:

Average throughput: 4.27 Mbit/s

95th percentile per-packet one-way delay: 173.807 ms

Loss rate: 1.46%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-11-22 03:55:16

End at: 2017-11-22 03:55:46

Below is generated by plot.py at 2017-11-22 06:52:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 593.66 Mbit/s

95th percentile per-packet one-way delay: 170.618 ms

Loss rate: 1.85%

-- Flow 1:

Average throughput: 544.61 Mbit/s

95th percentile per-packet one-way delay: 172.743 ms

Loss rate: 1.89%

-- Flow 2:

Average throughput: 71.91 Mbit/s

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

Loss rate: 1.42%

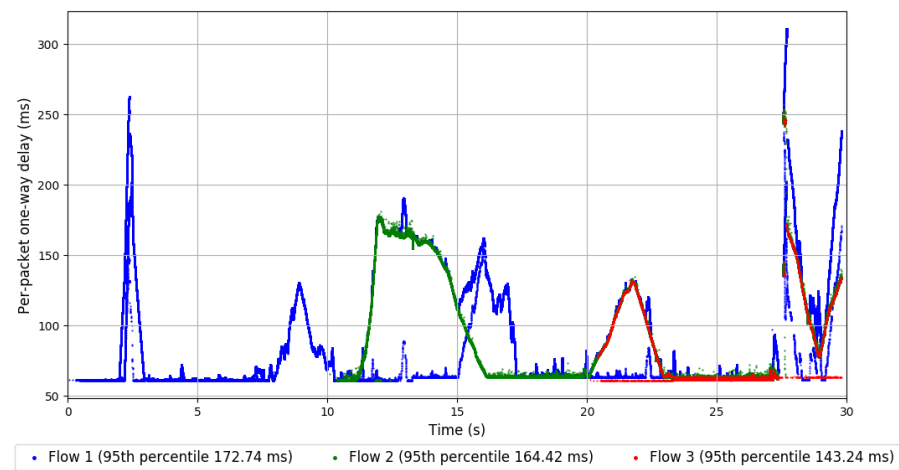
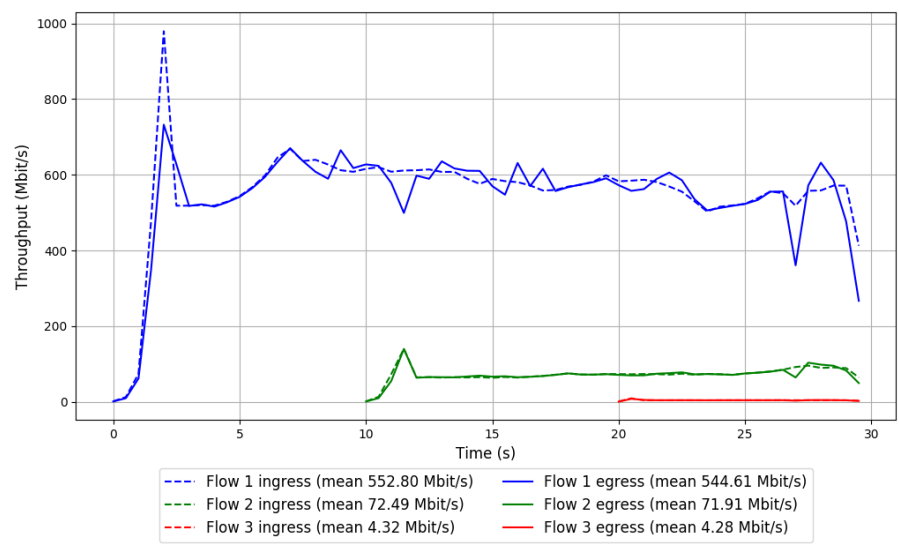
-- Flow 3:

Average throughput: 4.28 Mbit/s

95th percentile per-packet one-way delay: 143.240 ms

Loss rate: 2.19%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-11-22 04:08:02

End at: 2017-11-22 04:08:32

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 584.42 Mbit/s

95th percentile per-packet one-way delay: 177.718 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 527.35 Mbit/s

95th percentile per-packet one-way delay: 177.983 ms

Loss rate: 2.42%

-- Flow 2:

Average throughput: 78.39 Mbit/s

95th percentile per-packet one-way delay: 176.941 ms

Loss rate: 2.28%

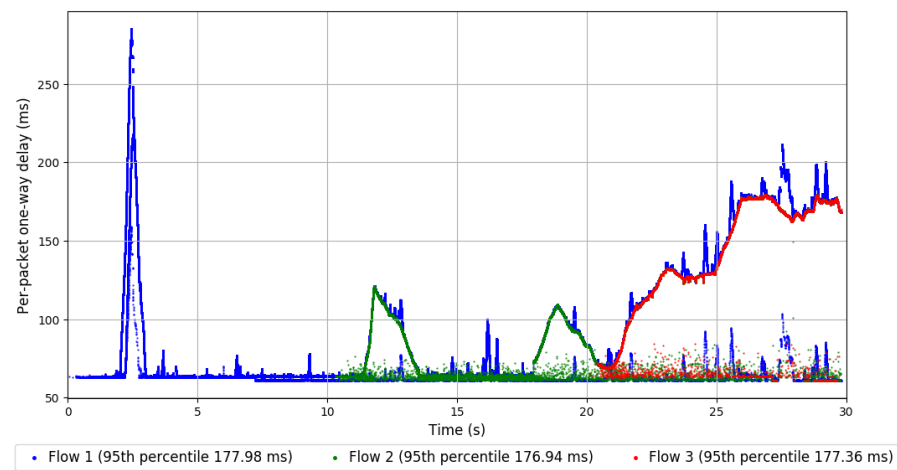
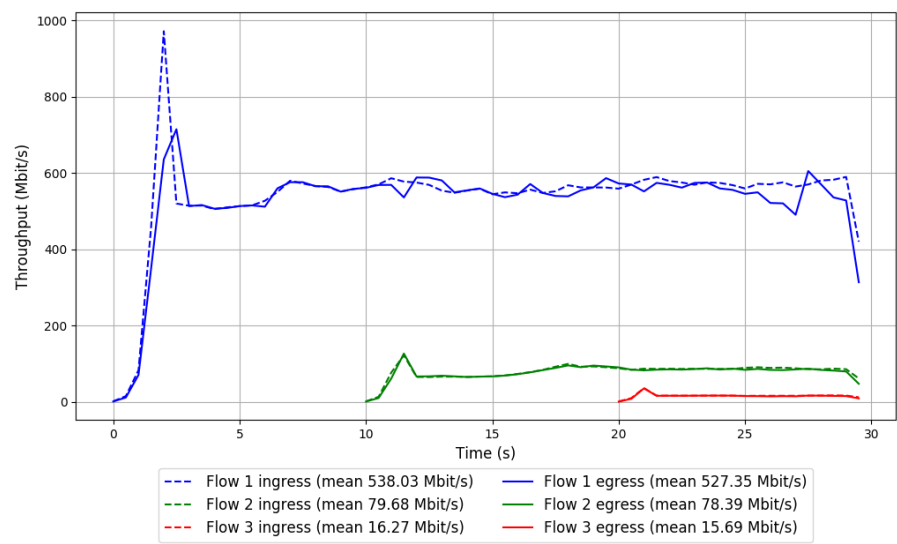
-- Flow 3:

Average throughput: 15.69 Mbit/s

95th percentile per-packet one-way delay: 177.364 ms

Loss rate: 4.84%

Run 10: Report of PCC — Data Link

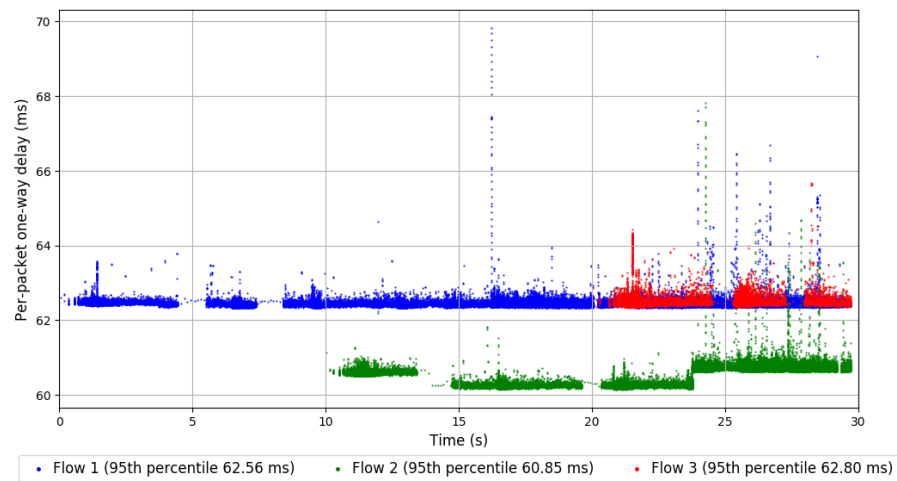
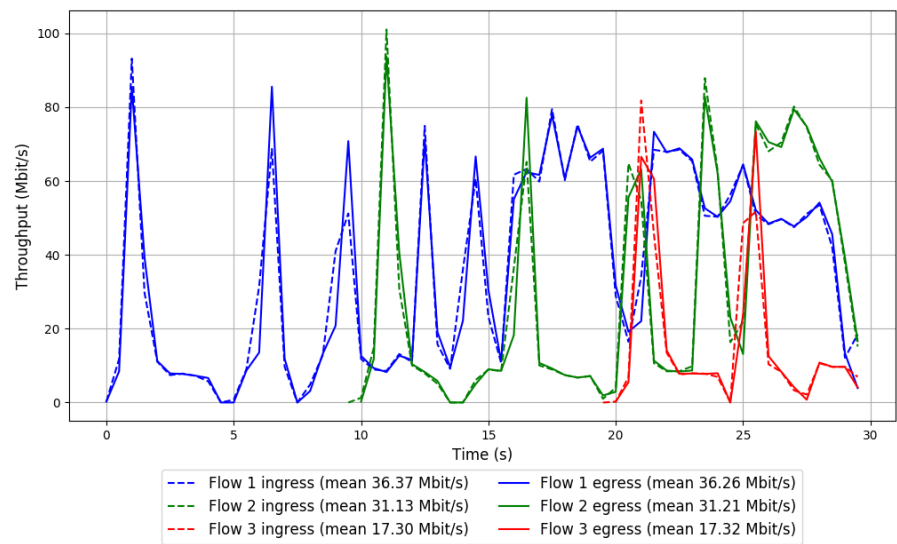


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-11-22 02:06:55
End at: 2017-11-22 02:07:25

# Below is generated by plot.py at 2017-11-22 06:54:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.65 Mbit/s
95th percentile per-packet one-way delay: 62.560 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 36.26 Mbit/s
95th percentile per-packet one-way delay: 62.559 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 60.848 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 17.32 Mbit/s
95th percentile per-packet one-way delay: 62.804 ms
Loss rate: 1.21%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-11-22 02:19:36

End at: 2017-11-22 02:20:06

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.75 Mbit/s

95th percentile per-packet one-way delay: 62.601 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 47.47 Mbit/s

95th percentile per-packet one-way delay: 62.416 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 31.60 Mbit/s

95th percentile per-packet one-way delay: 62.687 ms

Loss rate: 0.21%

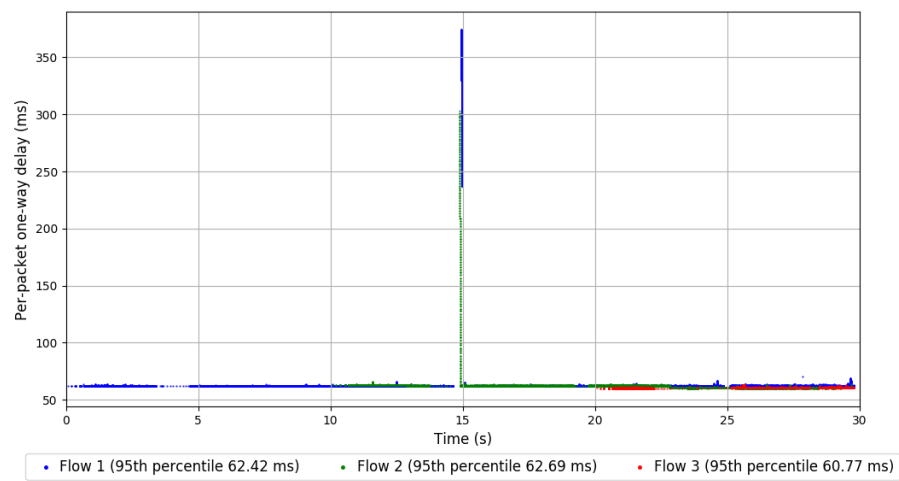
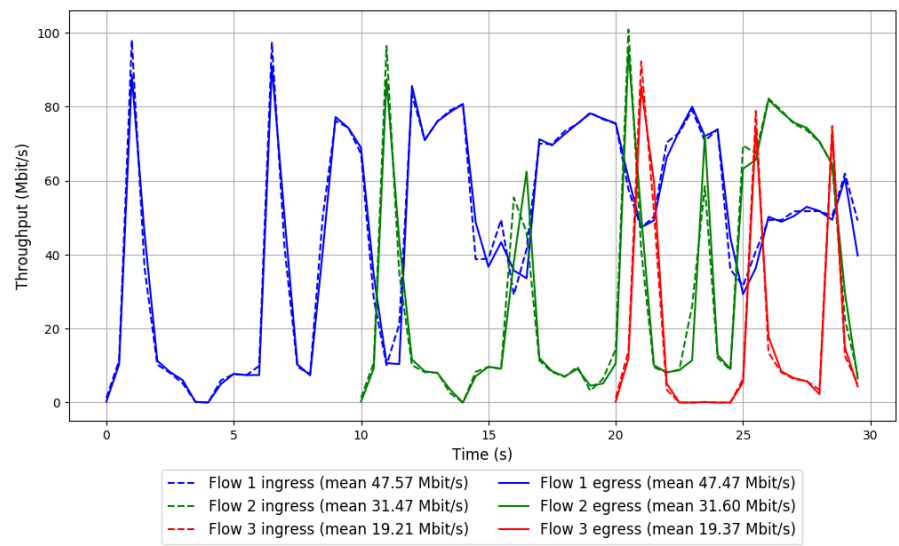
-- Flow 3:

Average throughput: 19.37 Mbit/s

95th percentile per-packet one-way delay: 60.771 ms

Loss rate: 0.47%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-11-22 02:31:59

End at: 2017-11-22 02:32:29

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.63 Mbit/s

95th percentile per-packet one-way delay: 62.848 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 43.70 Mbit/s

95th percentile per-packet one-way delay: 62.735 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 32.29 Mbit/s

95th percentile per-packet one-way delay: 62.947 ms

Loss rate: 0.21%

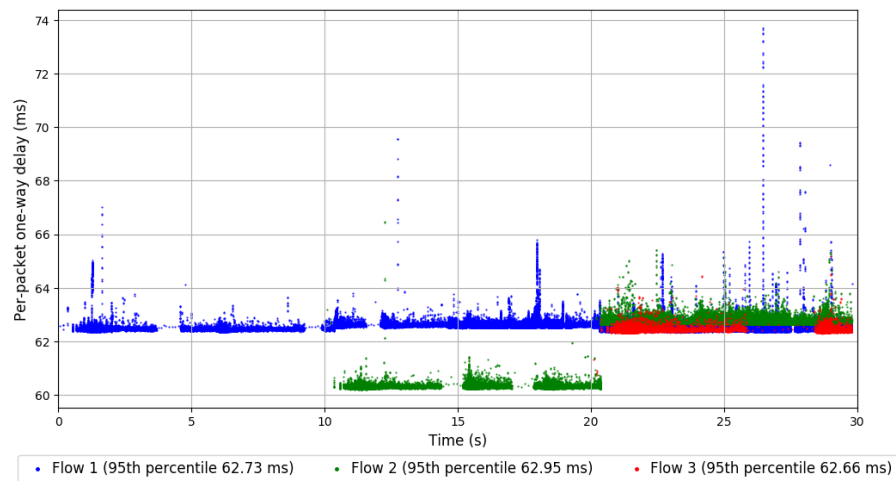
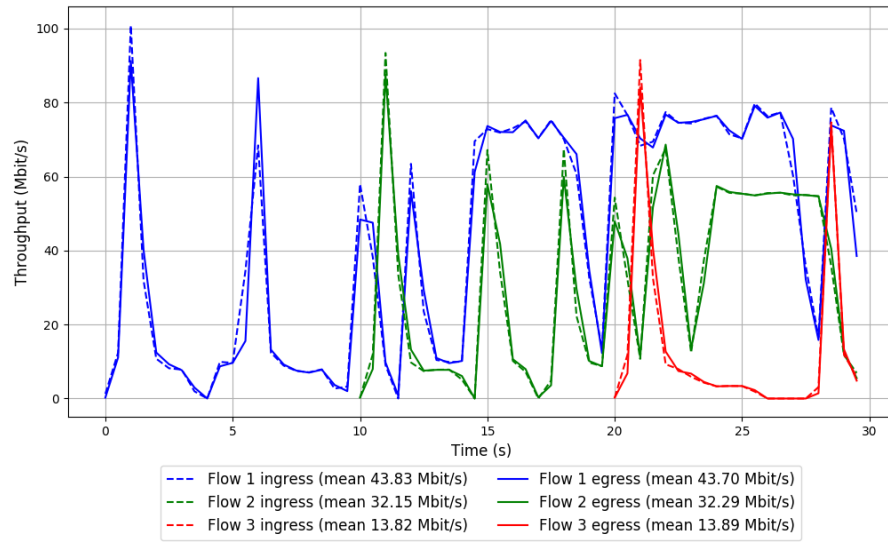
-- Flow 3:

Average throughput: 13.89 Mbit/s

95th percentile per-packet one-way delay: 62.655 ms

Loss rate: 0.80%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-11-22 02:44:26

End at: 2017-11-22 02:44:56

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.40 Mbit/s

95th percentile per-packet one-way delay: 62.757 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 40.51 Mbit/s

95th percentile per-packet one-way delay: 62.723 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 28.12 Mbit/s

95th percentile per-packet one-way delay: 62.812 ms

Loss rate: 1.60%

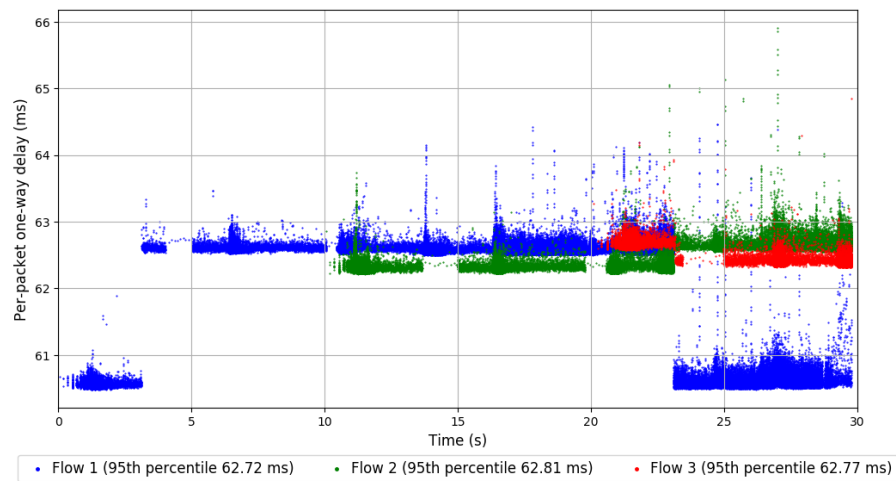
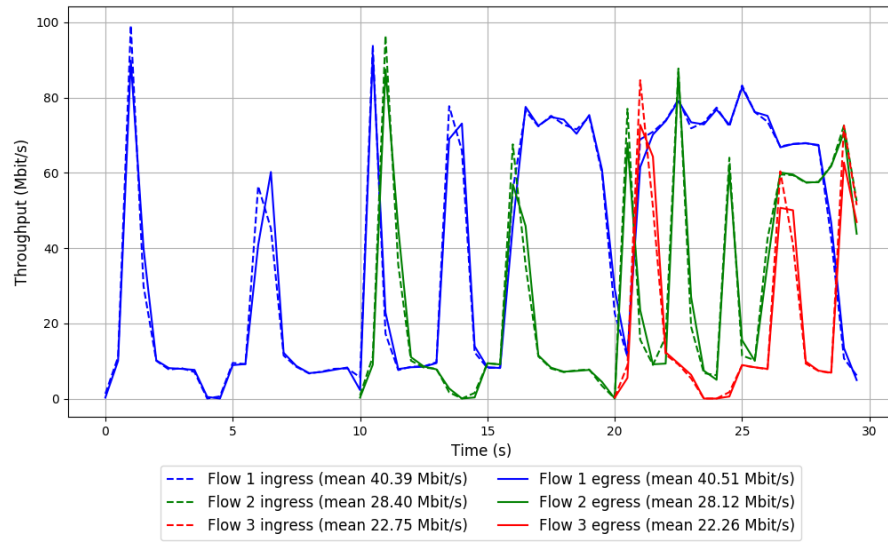
-- Flow 3:

Average throughput: 22.26 Mbit/s

95th percentile per-packet one-way delay: 62.770 ms

Loss rate: 3.39%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-11-22 02:57:17

End at: 2017-11-22 02:57:47

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.74 Mbit/s

95th percentile per-packet one-way delay: 63.112 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 46.05 Mbit/s

95th percentile per-packet one-way delay: 63.168 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 35.71 Mbit/s

95th percentile per-packet one-way delay: 61.135 ms

Loss rate: 1.09%

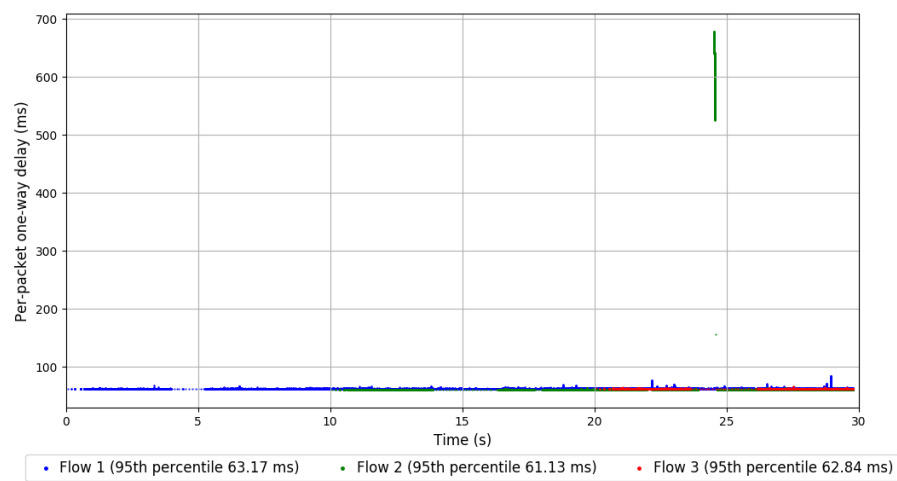
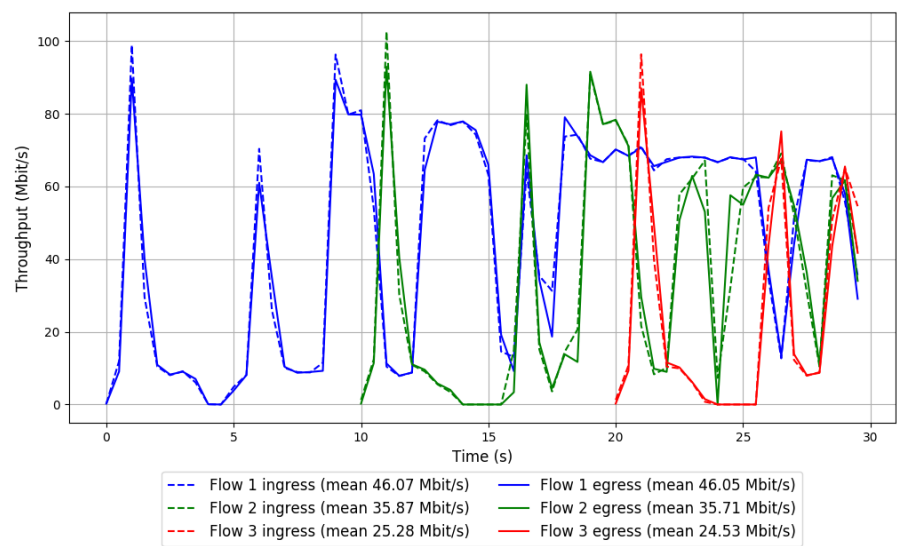
-- Flow 3:

Average throughput: 24.53 Mbit/s

95th percentile per-packet one-way delay: 62.835 ms

Loss rate: 4.20%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-11-22 03:09:57

End at: 2017-11-22 03:10:27

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.63 Mbit/s

95th percentile per-packet one-way delay: 62.912 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 37.74 Mbit/s

95th percentile per-packet one-way delay: 62.785 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 41.78 Mbit/s

95th percentile per-packet one-way delay: 62.954 ms

Loss rate: 0.97%

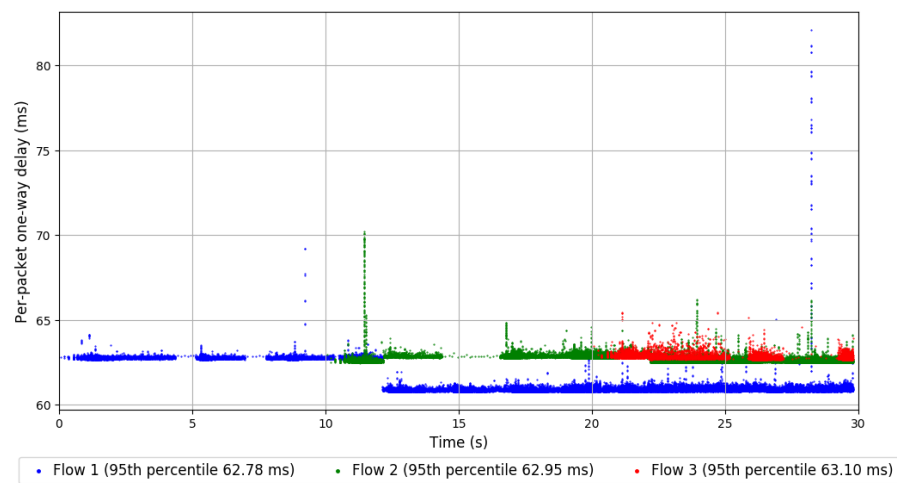
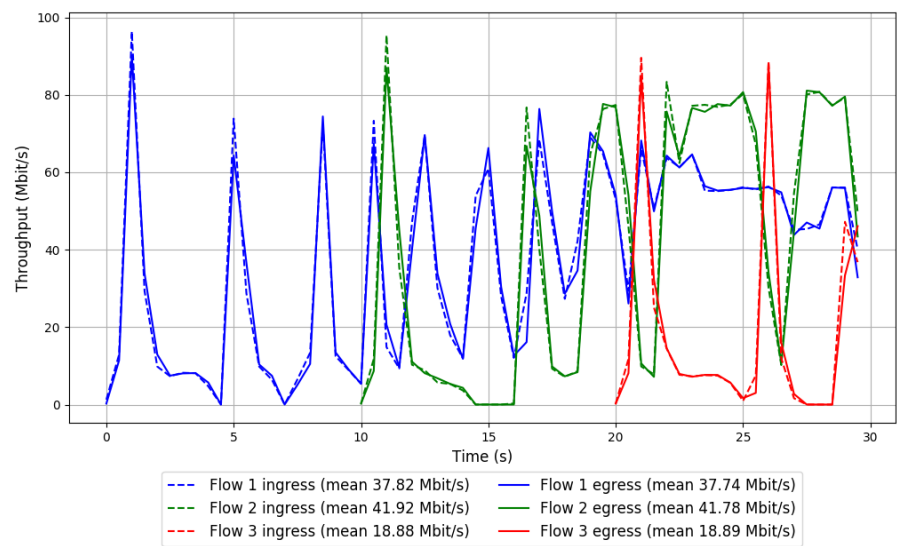
-- Flow 3:

Average throughput: 18.89 Mbit/s

95th percentile per-packet one-way delay: 63.100 ms

Loss rate: 1.22%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-11-22 03:22:44

End at: 2017-11-22 03:23:14

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.26 Mbit/s

95th percentile per-packet one-way delay: 63.143 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 42.31 Mbit/s

95th percentile per-packet one-way delay: 63.121 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 38.75 Mbit/s

95th percentile per-packet one-way delay: 63.189 ms

Loss rate: 1.03%

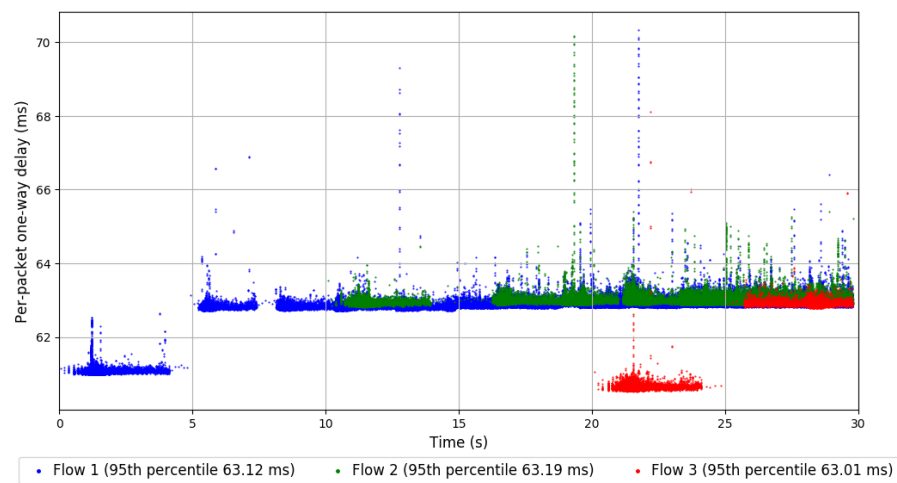
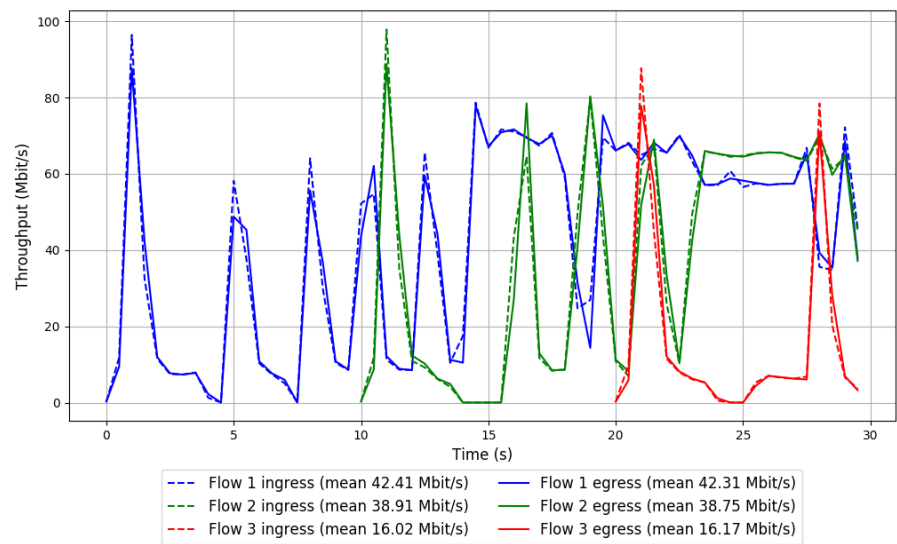
-- Flow 3:

Average throughput: 16.17 Mbit/s

95th percentile per-packet one-way delay: 63.009 ms

Loss rate: 0.37%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-11-22 03:35:15

End at: 2017-11-22 03:35:45

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.80 Mbit/s

95th percentile per-packet one-way delay: 63.110 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 46.39 Mbit/s

95th percentile per-packet one-way delay: 63.009 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 37.92 Mbit/s

95th percentile per-packet one-way delay: 63.203 ms

Loss rate: 1.20%

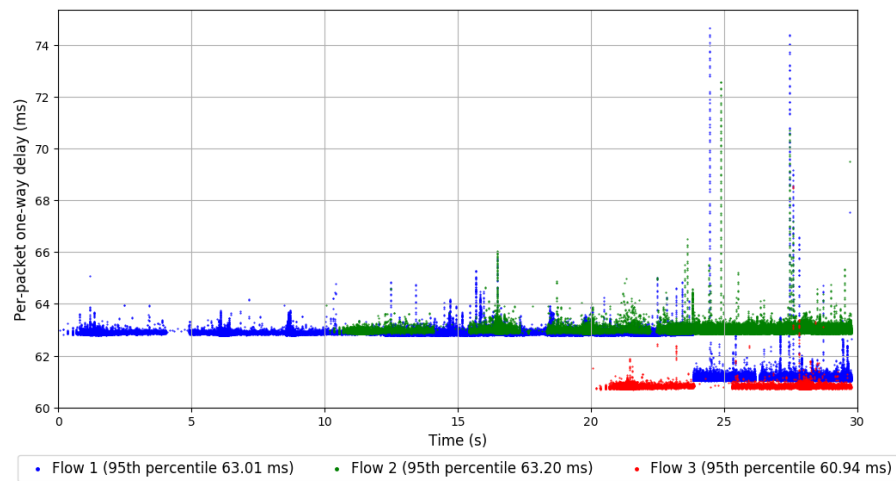
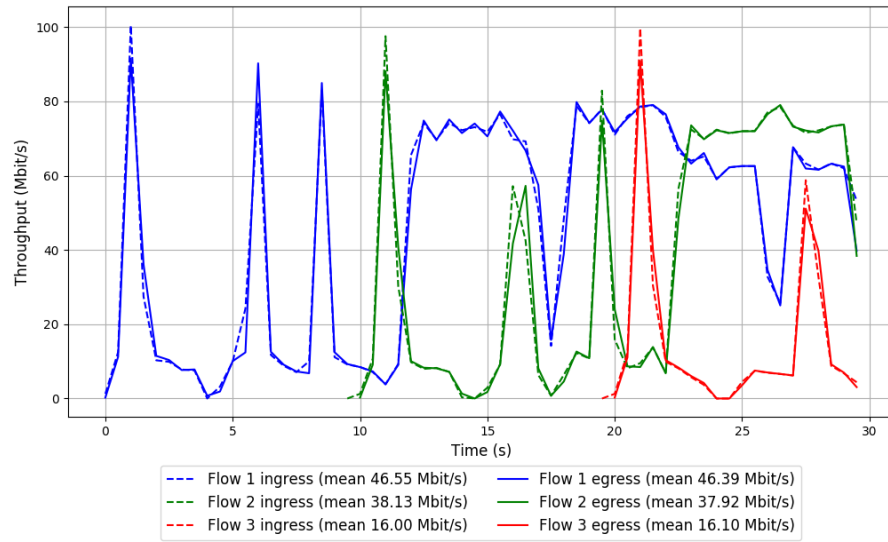
-- Flow 3:

Average throughput: 16.10 Mbit/s

95th percentile per-packet one-way delay: 60.941 ms

Loss rate: 0.65%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-11-22 03:47:56

End at: 2017-11-22 03:48:26

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.81 Mbit/s

95th percentile per-packet one-way delay: 63.282 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 44.04 Mbit/s

95th percentile per-packet one-way delay: 63.246 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 31.15 Mbit/s

95th percentile per-packet one-way delay: 63.166 ms

Loss rate: 0.35%

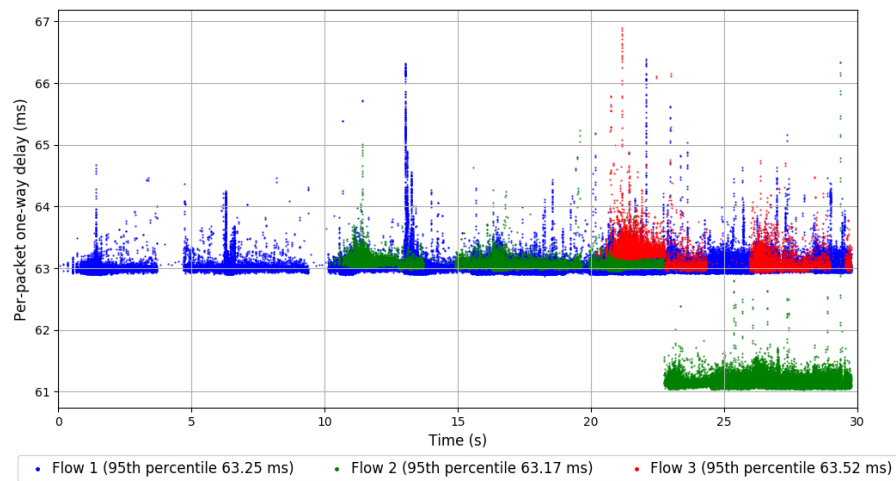
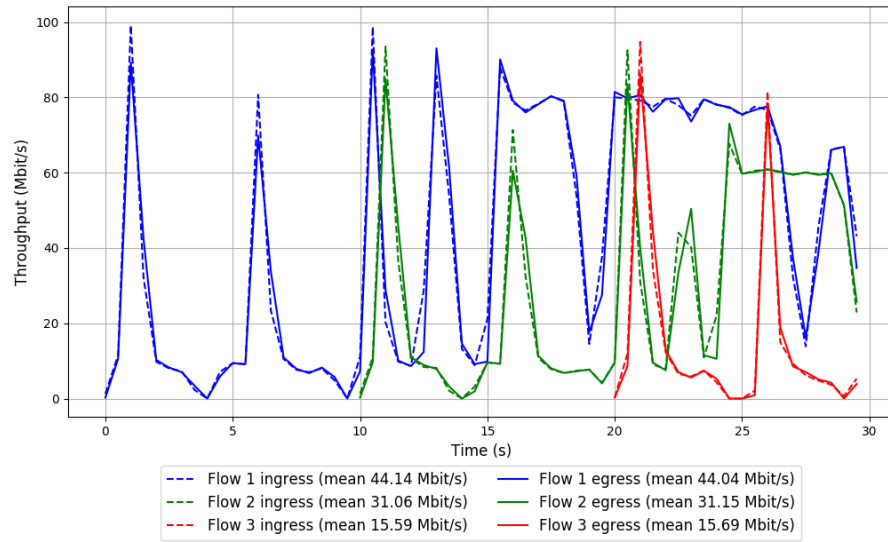
-- Flow 3:

Average throughput: 15.69 Mbit/s

95th percentile per-packet one-way delay: 63.515 ms

Loss rate: 0.66%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-11-22 04:00:40

End at: 2017-11-22 04:01:10

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.80 Mbit/s

95th percentile per-packet one-way delay: 63.488 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 52.83 Mbit/s

95th percentile per-packet one-way delay: 61.302 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 33.68 Mbit/s

95th percentile per-packet one-way delay: 63.630 ms

Loss rate: 1.10%

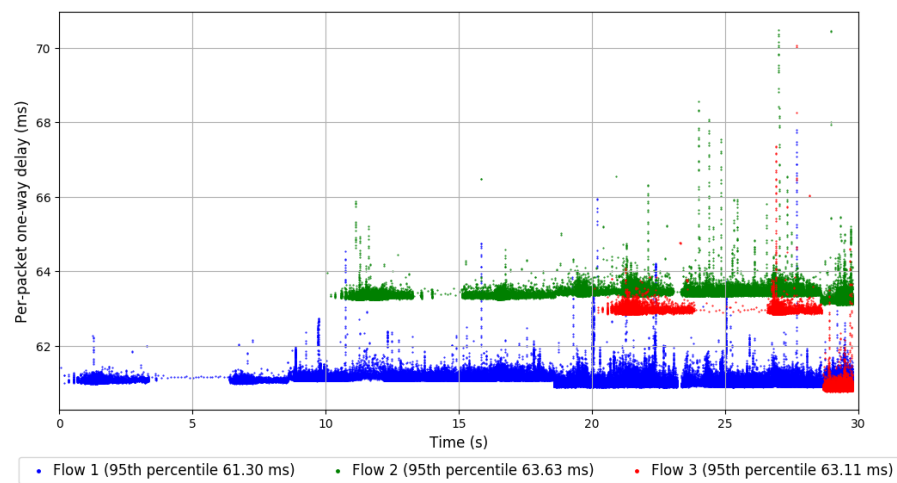
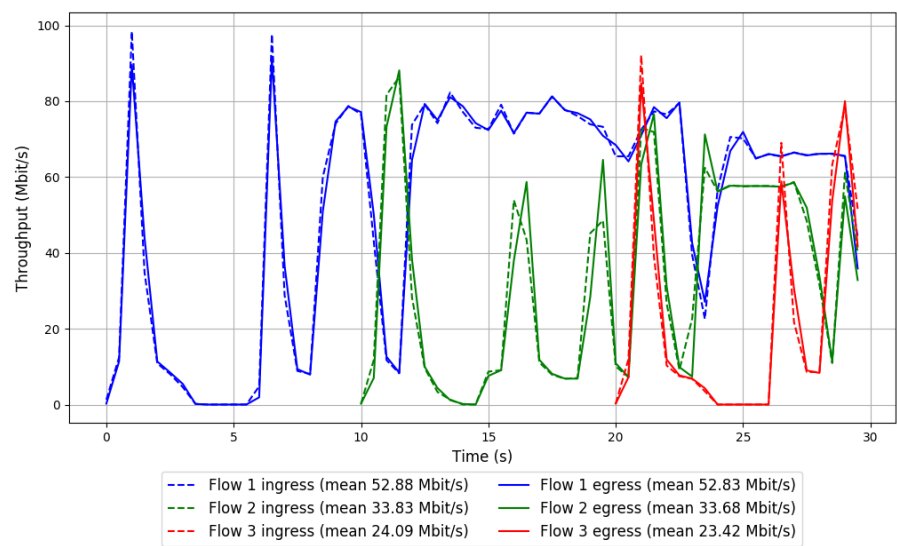
-- Flow 3:

Average throughput: 23.42 Mbit/s

95th percentile per-packet one-way delay: 63.108 ms

Loss rate: 4.03%

Run 10: Report of QUIC Cubic — Data Link

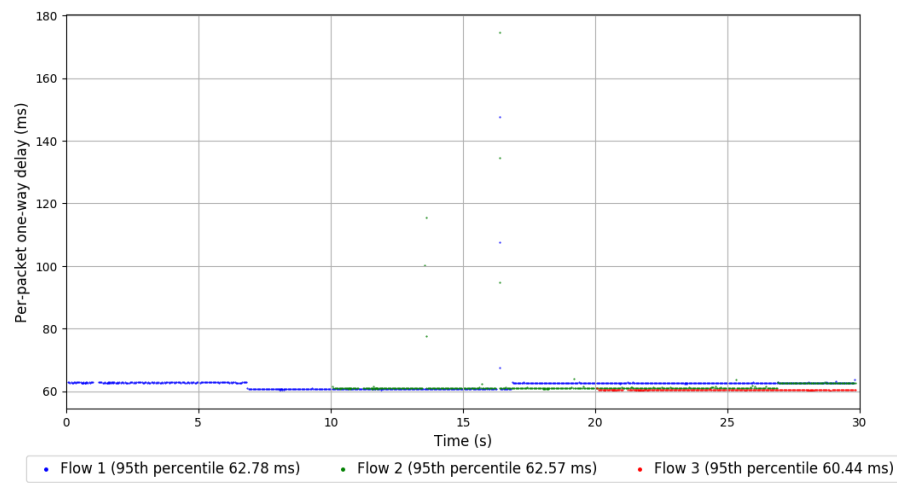
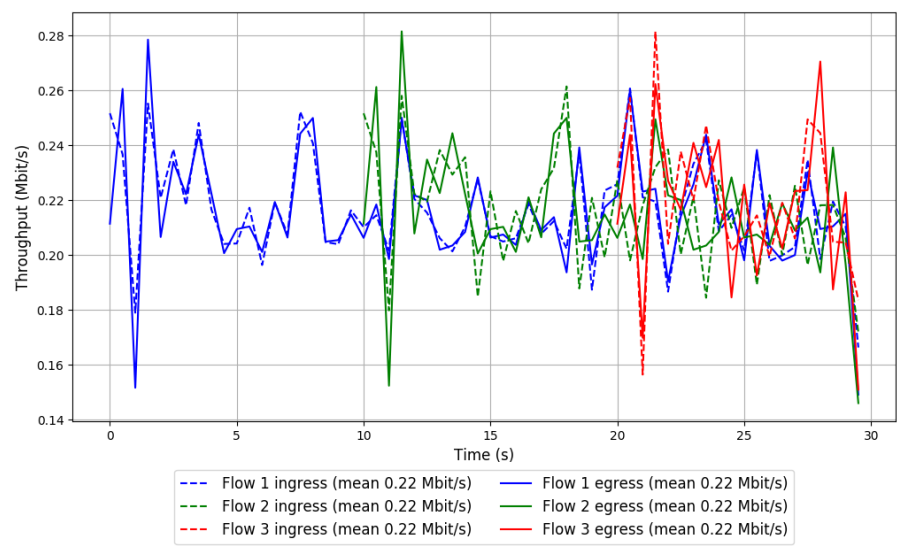


```
Run 1: Statistics of SCReAM

Start at: 2017-11-22 02:15:22
End at: 2017-11-22 02:15:52

# Below is generated by plot.py at 2017-11-22 06:54:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 62.763 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.780 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.572 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.438 ms
Loss rate: 1.10%
```

Run 1: Report of SReAM — Data Link

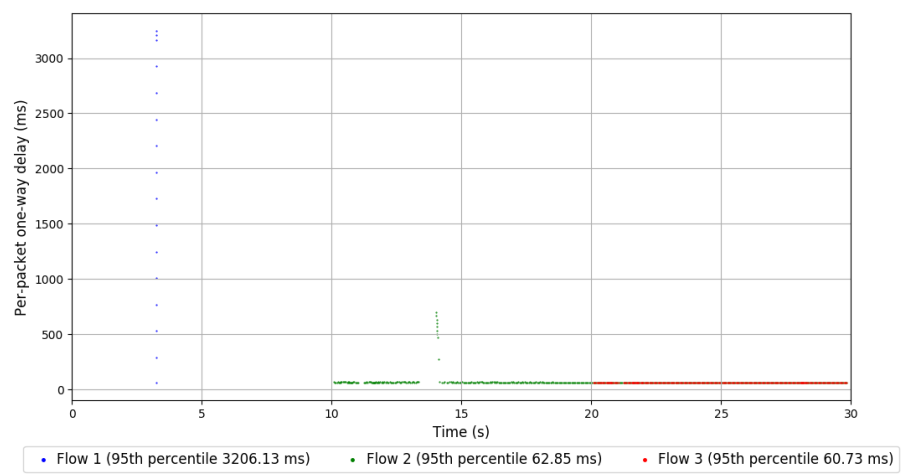
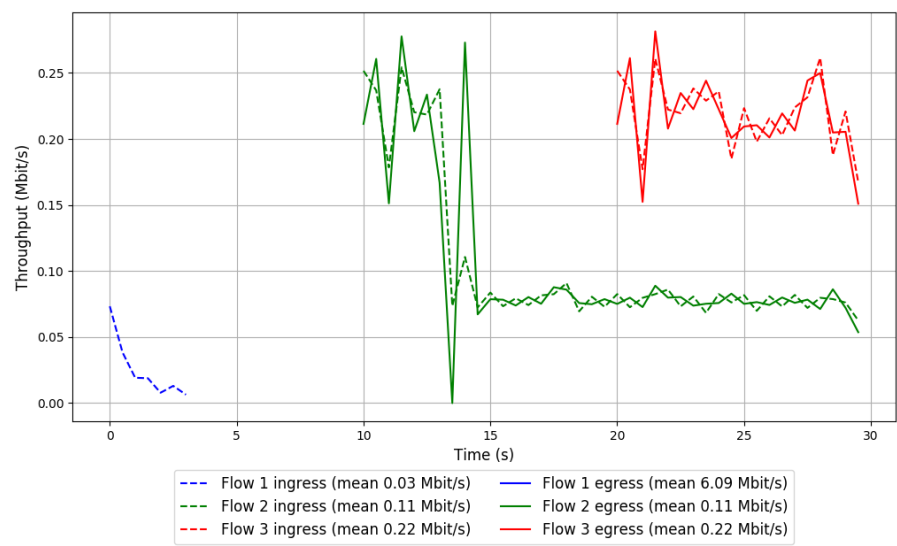


```
Run 2: Statistics of SCReAM

Start at: 2017-11-22 02:28:00
End at: 2017-11-22 02:28:30

# Below is generated by plot.py at 2017-11-22 06:54:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 62.854 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 3206.127 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 62.850 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.731 ms
Loss rate: 1.10%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-11-22 02:40:20

End at: 2017-11-22 02:40:50

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 62.835 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 60.931 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.877 ms

Loss rate: 0.63%

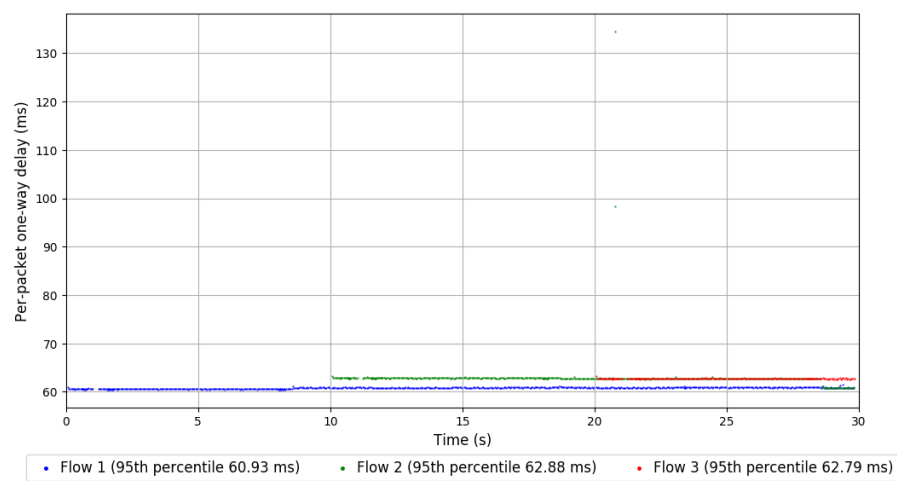
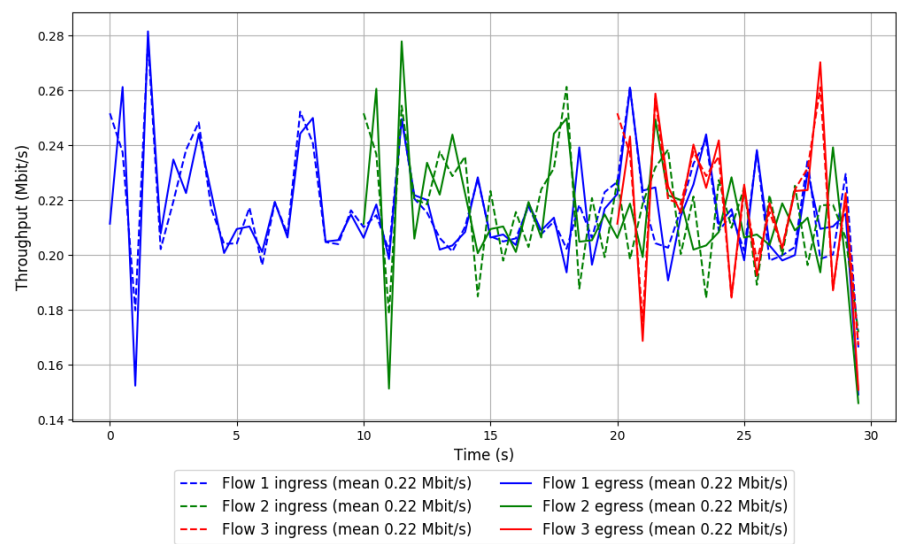
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.786 ms

Loss rate: 1.10%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-11-22 02:53:01

End at: 2017-11-22 02:53:31

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 62.984 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 276.25 Mbit/s

95th percentile per-packet one-way delay: 4516.687 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.953 ms

Loss rate: 0.63%

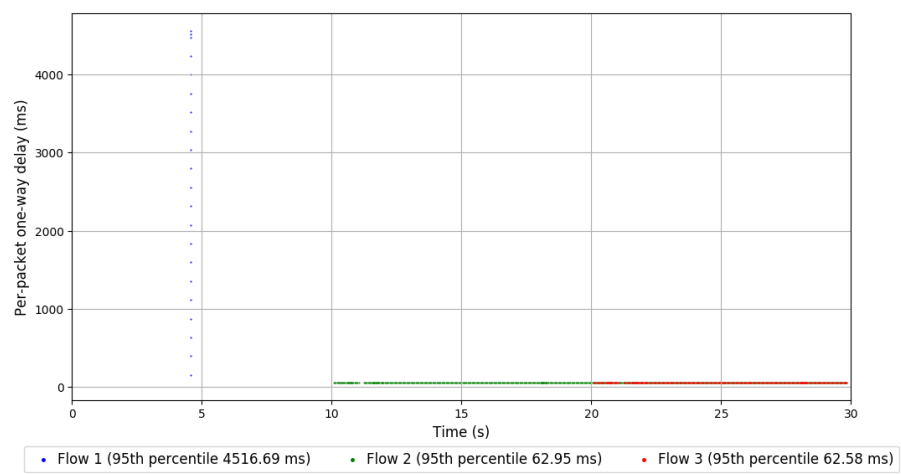
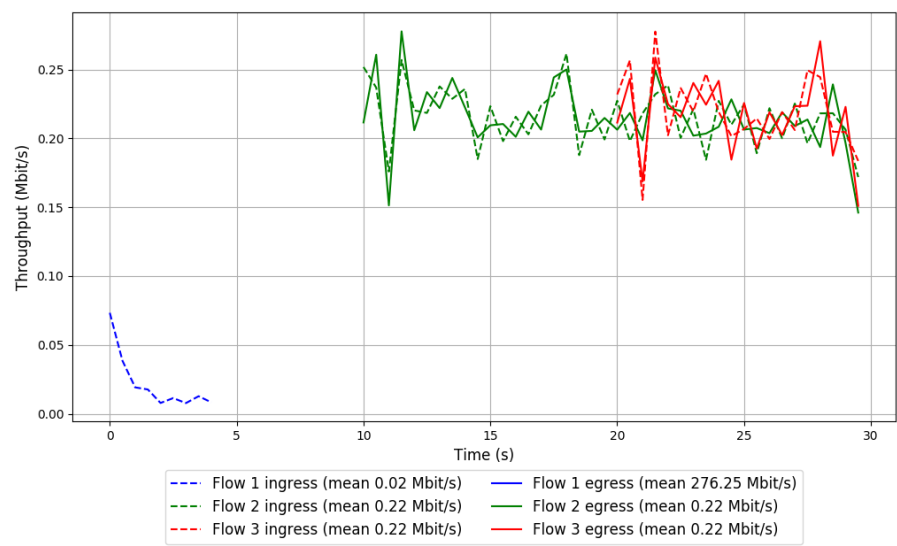
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.578 ms

Loss rate: 1.10%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-11-22 03:05:39

End at: 2017-11-22 03:06:09

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 62.962 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.985 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.936 ms

Loss rate: 0.63%

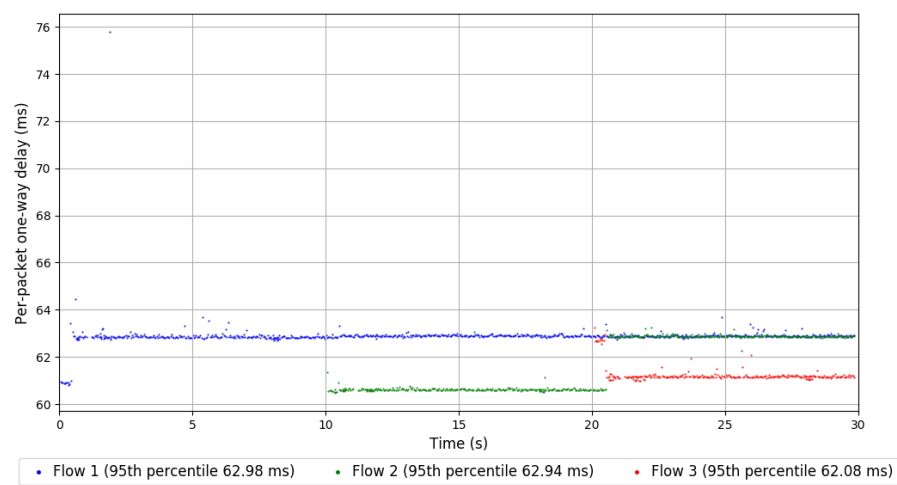
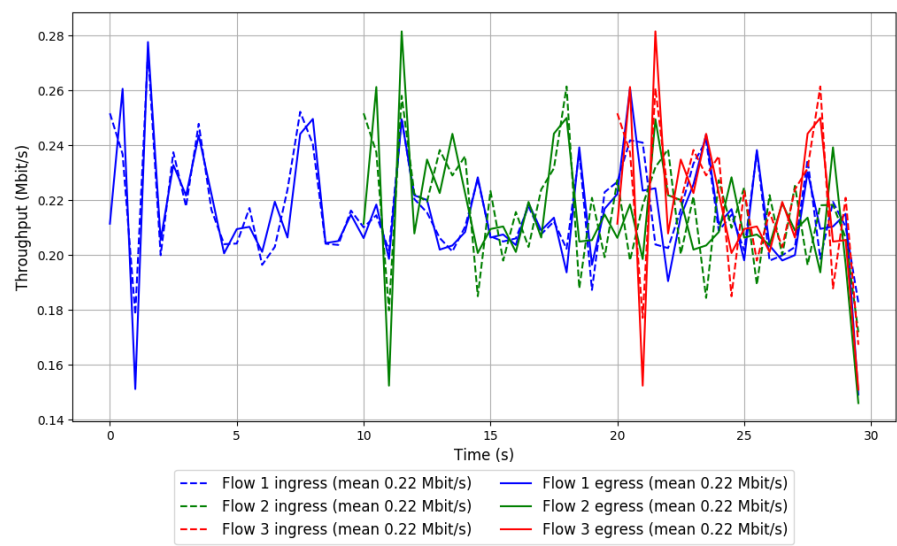
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.075 ms

Loss rate: 1.10%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-11-22 03:18:32

End at: 2017-11-22 03:19:02

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.249 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.266 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.197 ms

Loss rate: 0.63%

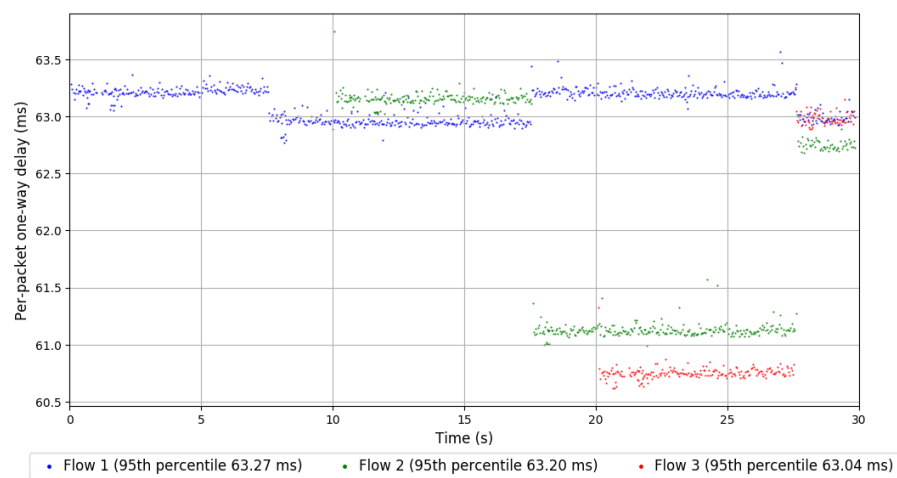
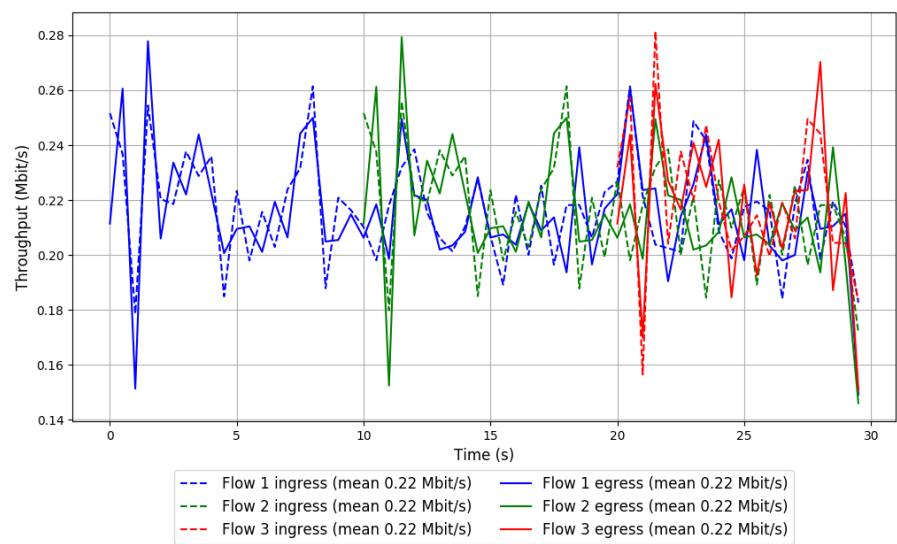
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.036 ms

Loss rate: 1.10%

Run 6: Report of SReAM — Data Link

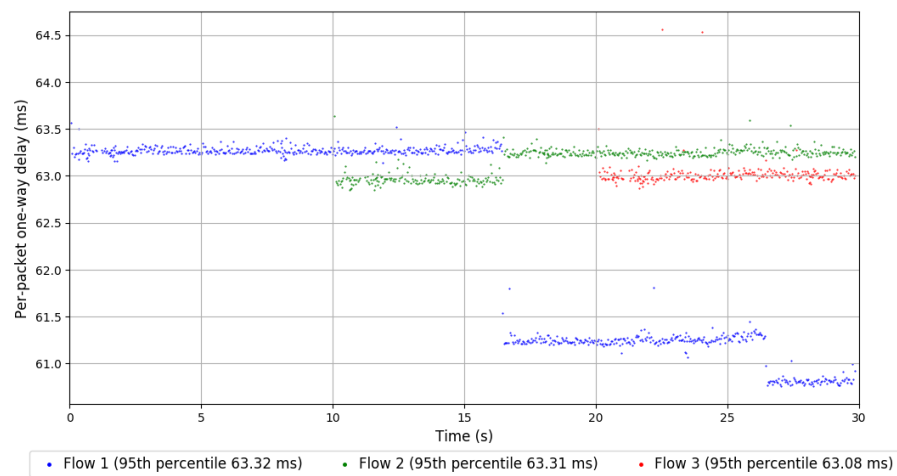
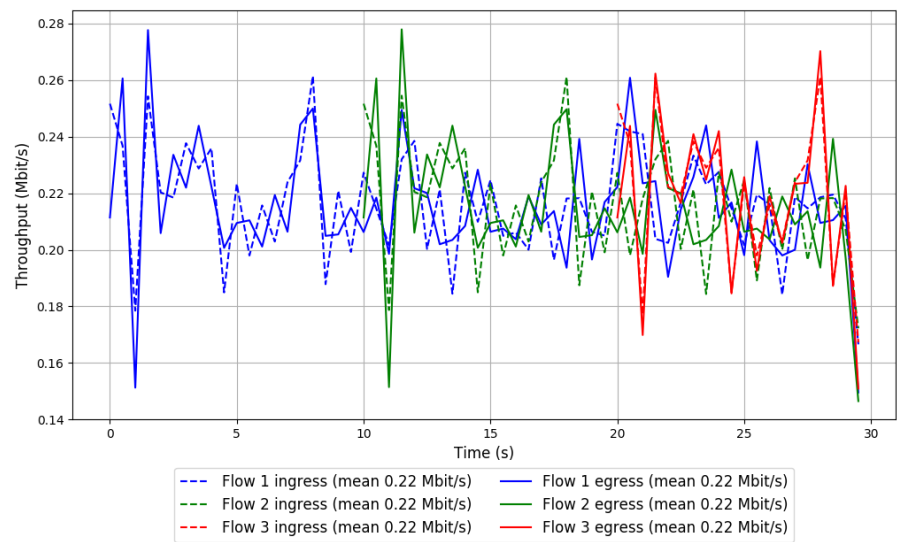


```
Run 7: Statistics of SReAM

Start at: 2017-11-22 03:31:13
End at: 2017-11-22 03:31:43

# Below is generated by plot.py at 2017-11-22 06:54:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.312 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.323 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.306 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.078 ms
Loss rate: 1.10%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-11-22 03:43:40

End at: 2017-11-22 03:44:10

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.401 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.170 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.429 ms

Loss rate: 0.63%

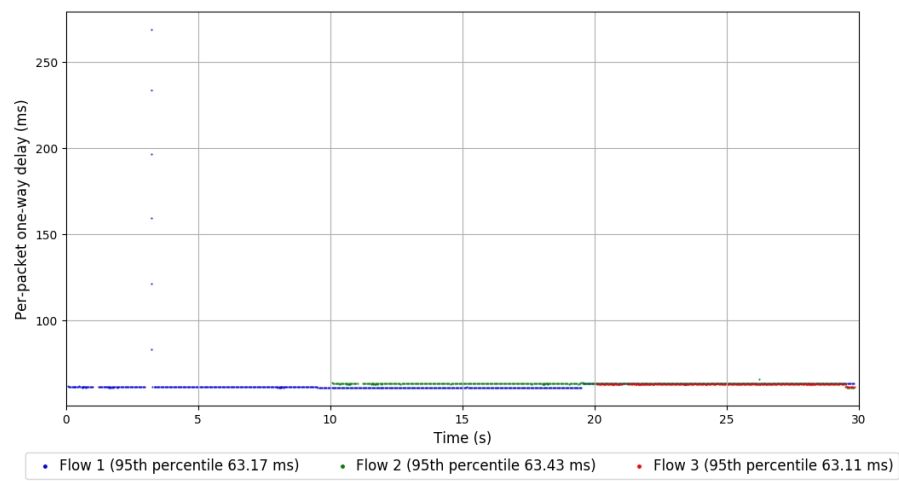
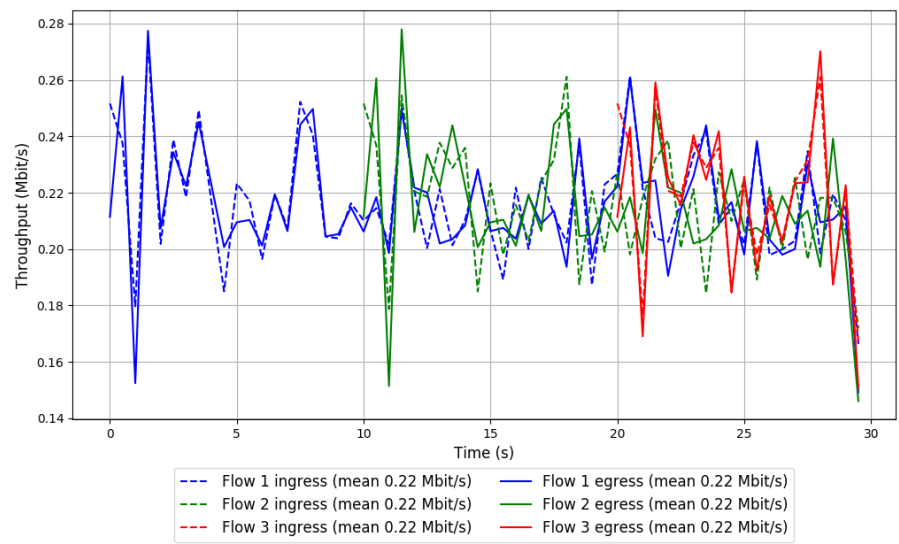
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.110 ms

Loss rate: 1.10%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-11-22 03:56:22

End at: 2017-11-22 03:56:52

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 63.680 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.708 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.348 ms

Loss rate: 0.63%

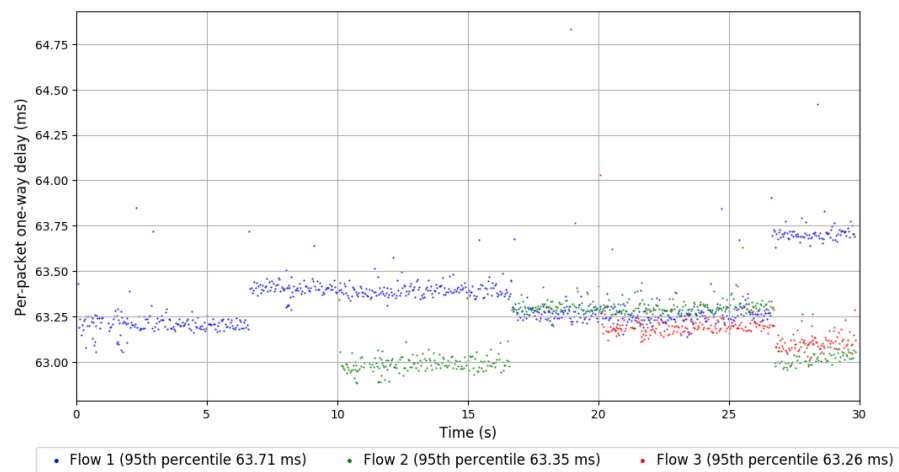
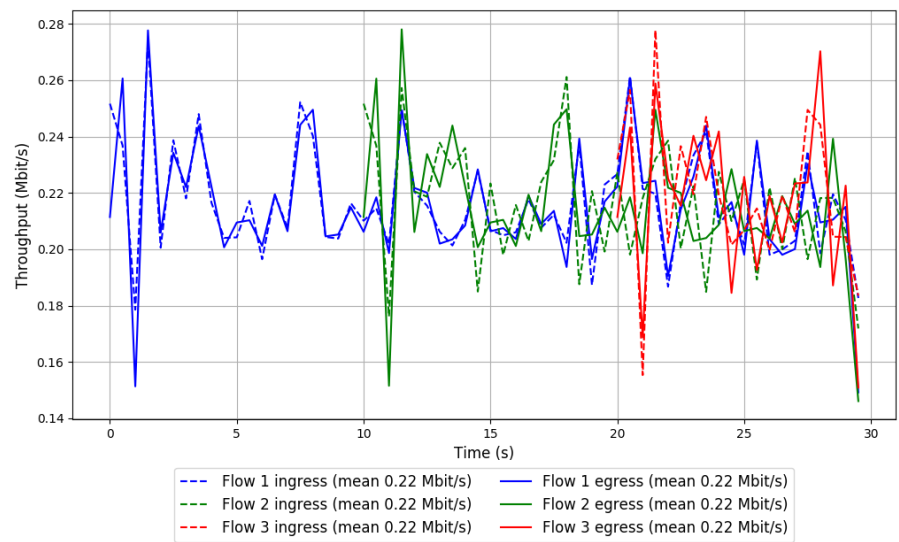
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.263 ms

Loss rate: 1.10%

Run 9: Report of SCRaM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-11-22 04:09:08

End at: 2017-11-22 04:09:38

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.651 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 75.520 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.659 ms

Loss rate: 0.63%

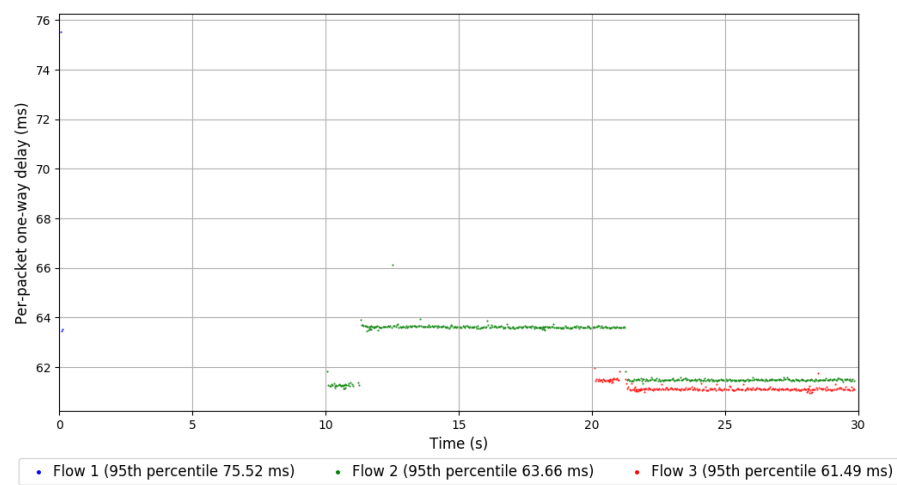
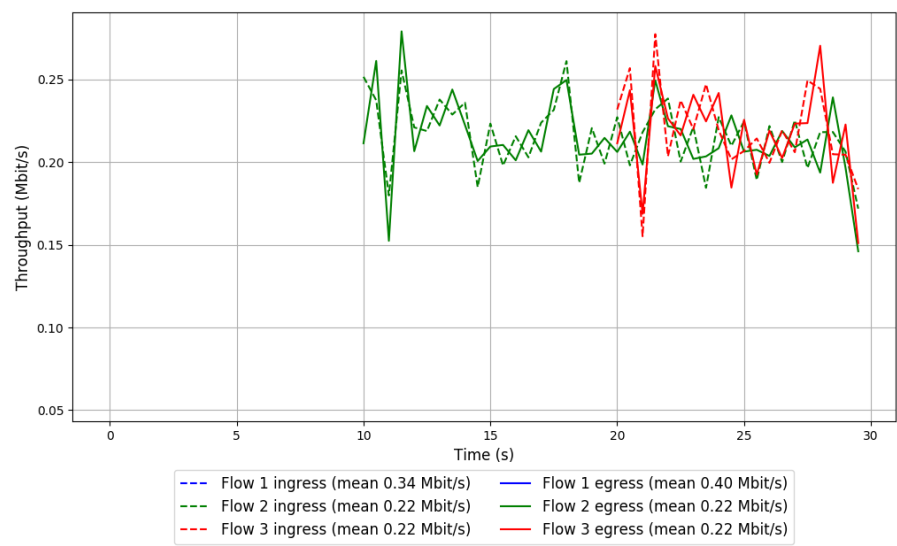
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.491 ms

Loss rate: 1.10%

Run 10: Report of SReAM — Data Link

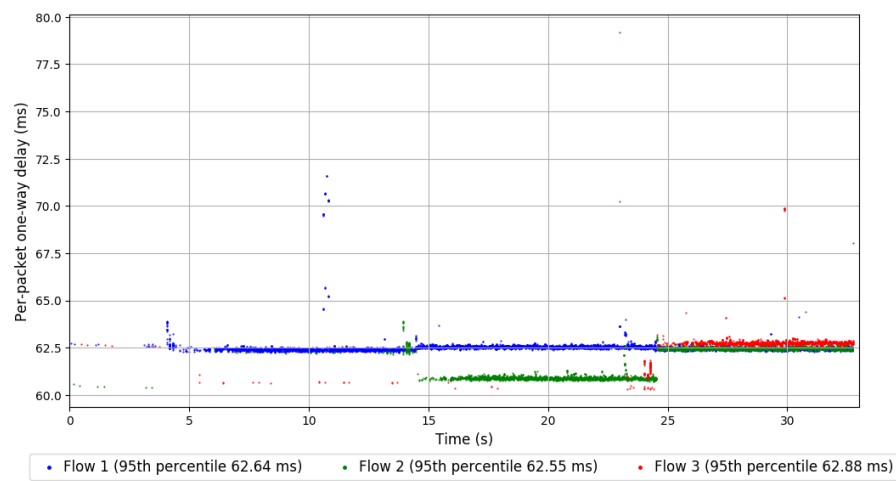
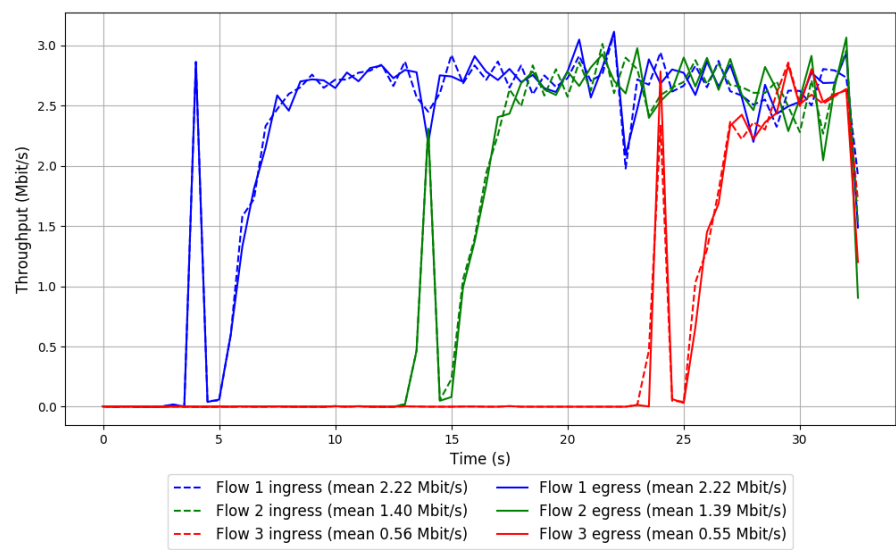


```
Run 1: Statistics of WebRTC media

Start at: 2017-11-22 02:12:27
End at: 2017-11-22 02:12:57

# Below is generated by plot.py at 2017-11-22 06:54:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 62.776 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 62.637 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 62.548 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 62.878 ms
Loss rate: 2.04%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-11-22 02:25:06

End at: 2017-11-22 02:25:36

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 62.656 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 62.645 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 62.674 ms

Loss rate: 0.67%

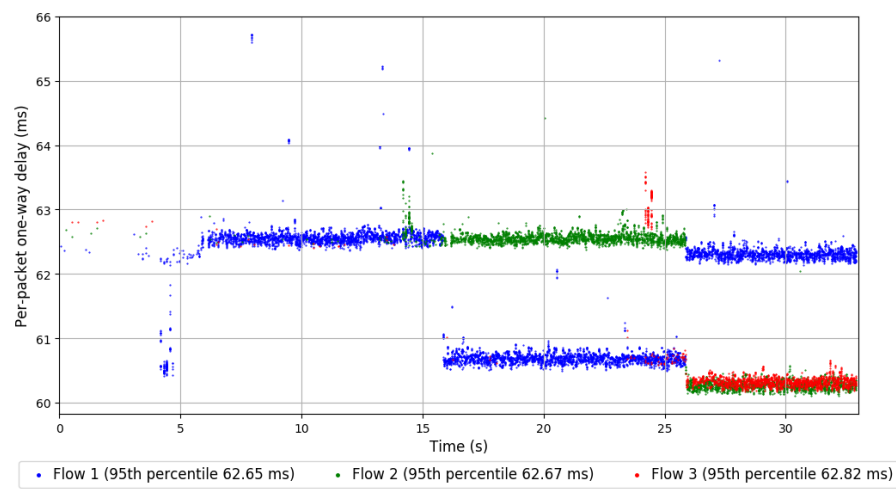
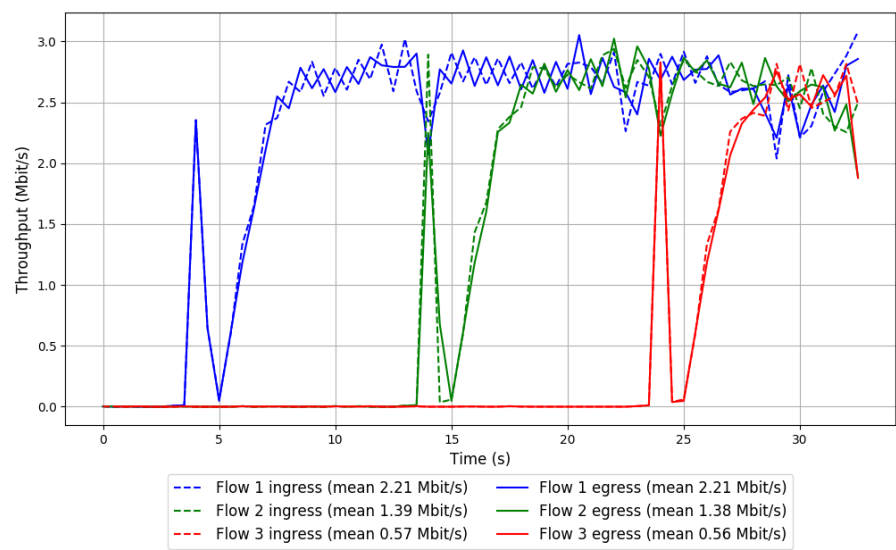
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 62.824 ms

Loss rate: 2.43%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-11-22 02:37:26

End at: 2017-11-22 02:37:56

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 63.009 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 62.765 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 63.071 ms

Loss rate: 0.62%

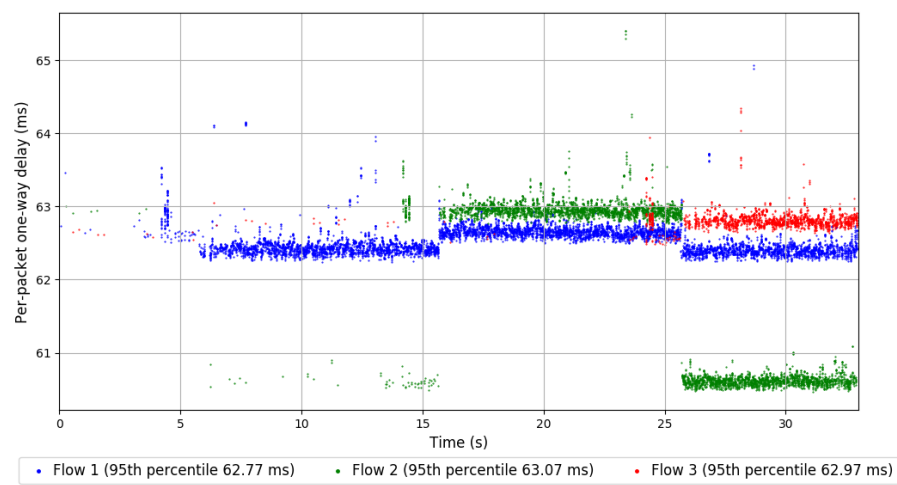
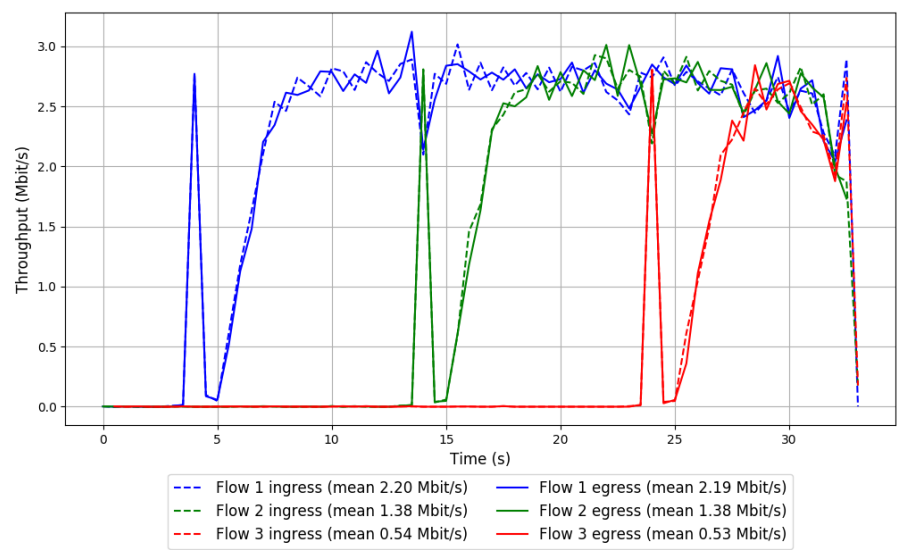
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 62.974 ms

Loss rate: 1.86%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-11-22 02:50:04

End at: 2017-11-22 02:50:34

Below is generated by plot.py at 2017-11-22 06:54:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 62.838 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 62.857 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 60.719 ms

Loss rate: 0.59%

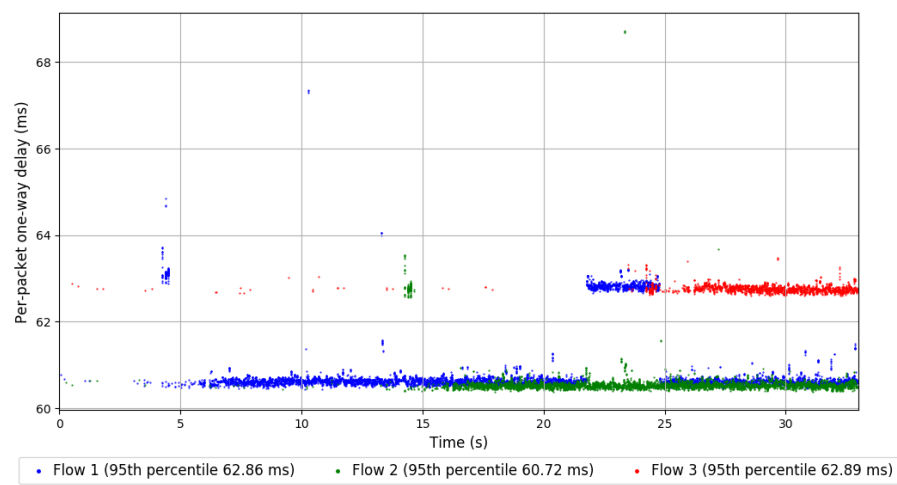
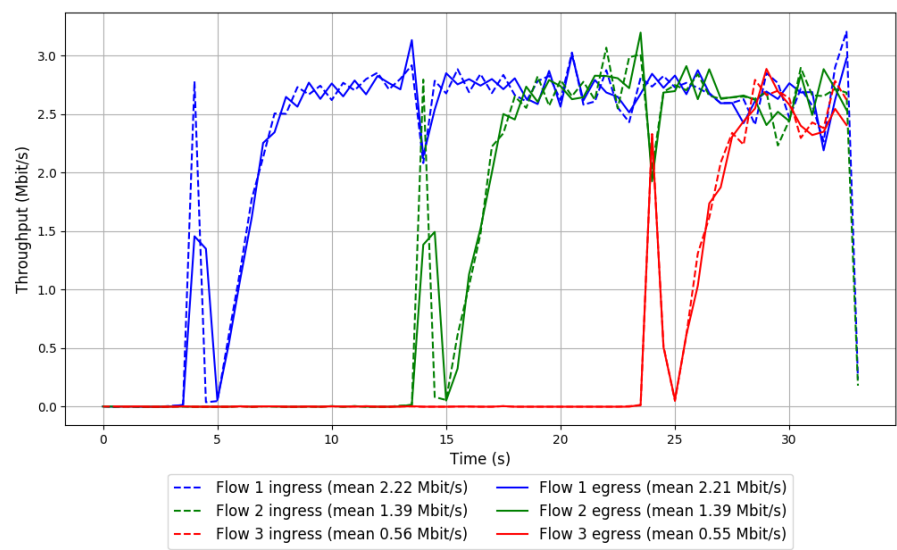
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 62.886 ms

Loss rate: 2.11%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-11-22 03:02:52

End at: 2017-11-22 03:03:22

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 63.102 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 63.047 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 63.136 ms

Loss rate: 0.76%

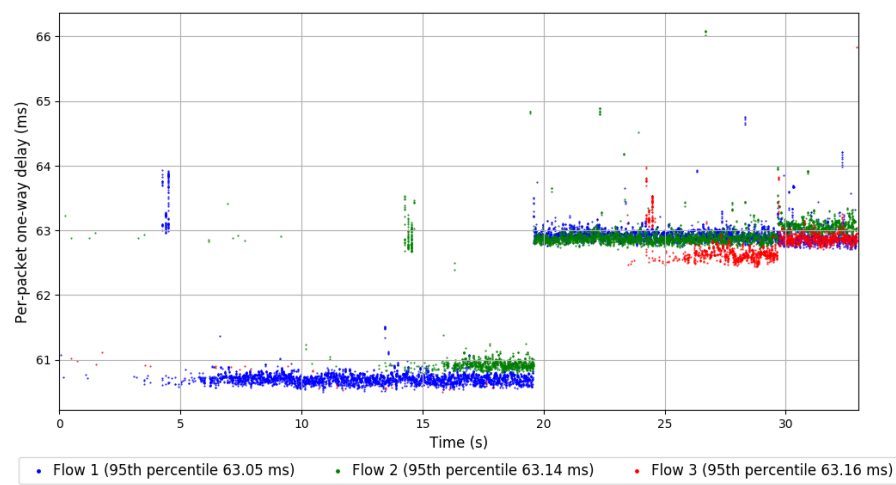
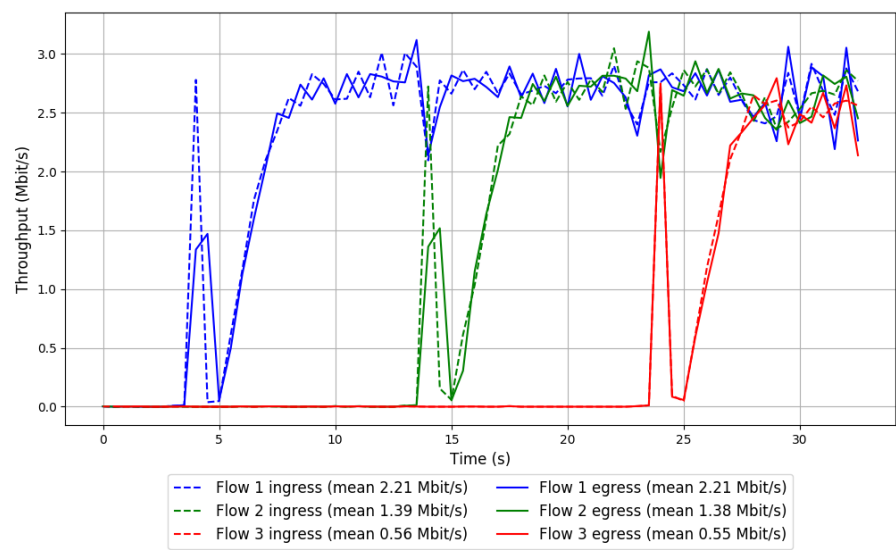
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 63.162 ms

Loss rate: 2.01%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-11-22 03:15:39

End at: 2017-11-22 03:16:09

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 63.204 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 63.234 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 61.418 ms

Loss rate: 0.63%

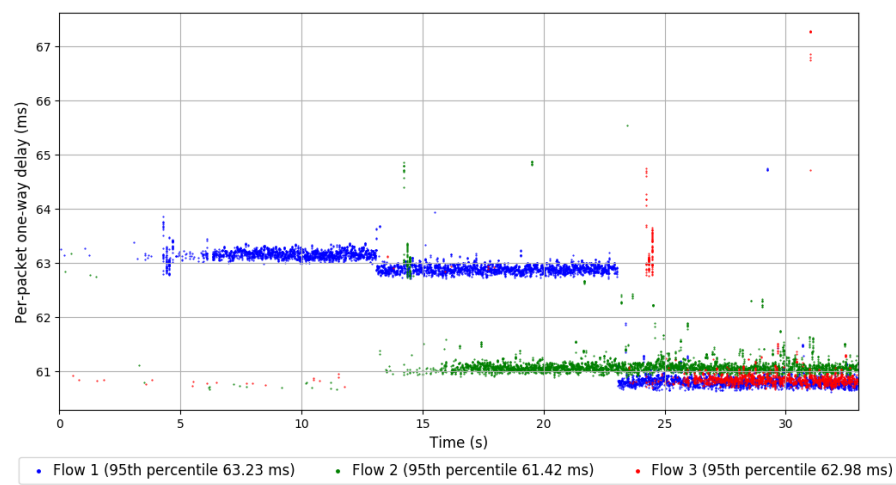
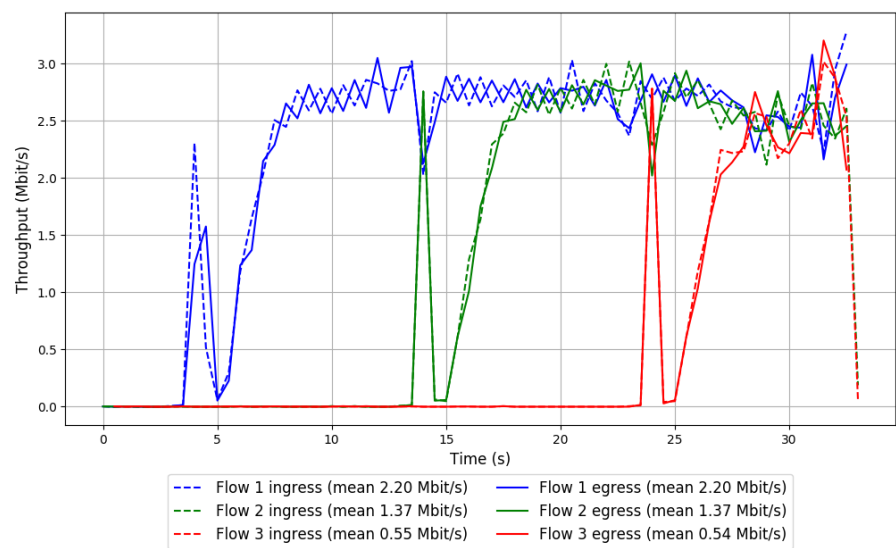
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 62.976 ms

Loss rate: 2.15%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-11-22 03:28:15

End at: 2017-11-22 03:28:45

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.15 Mbit/s

95th percentile per-packet one-way delay: 63.090 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.034 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 63.170 ms

Loss rate: 0.63%

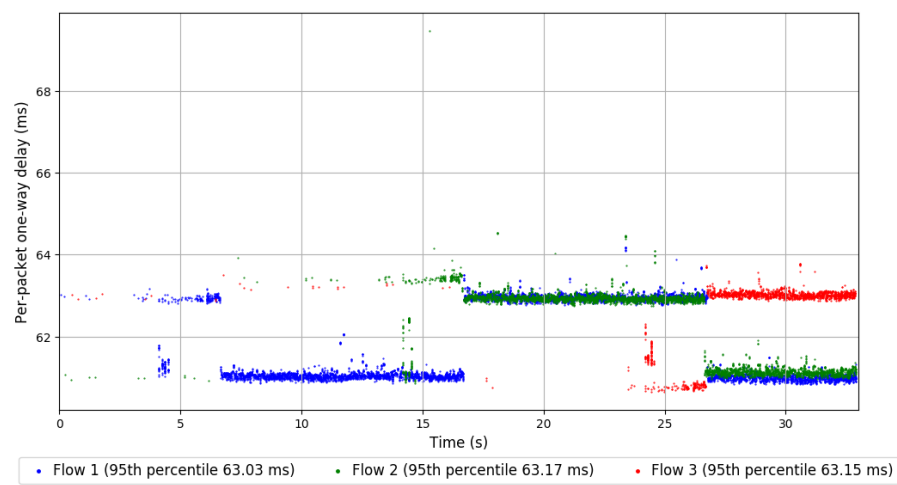
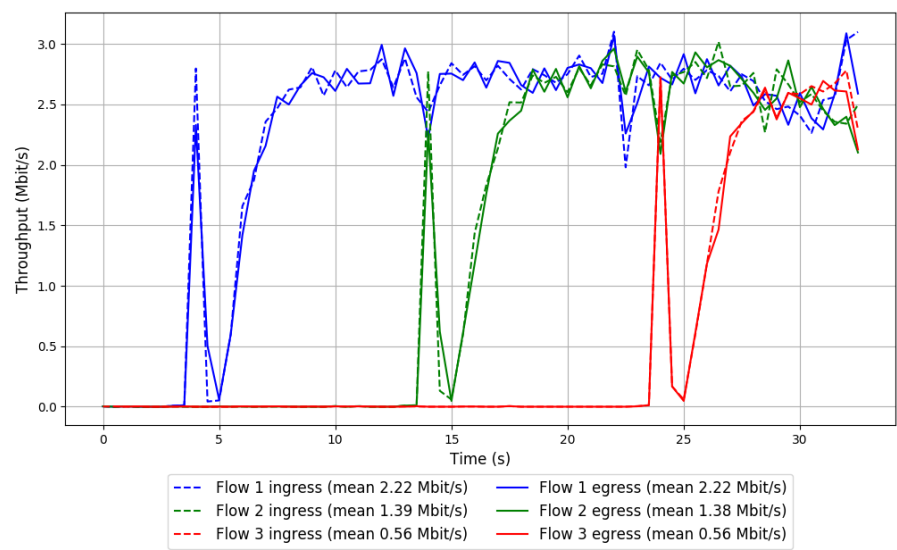
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.145 ms

Loss rate: 1.87%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-11-22 03:40:46

End at: 2017-11-22 03:41:16

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 63.312 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 61.449 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 61.120 ms

Loss rate: 0.60%

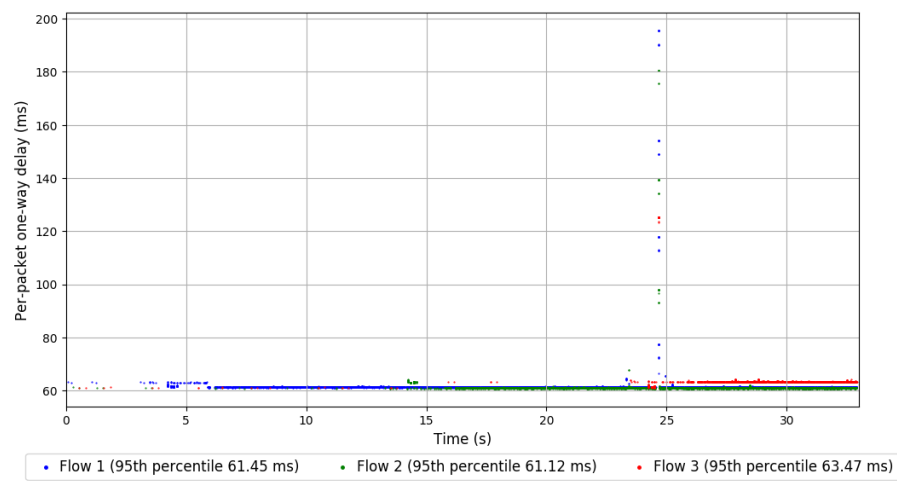
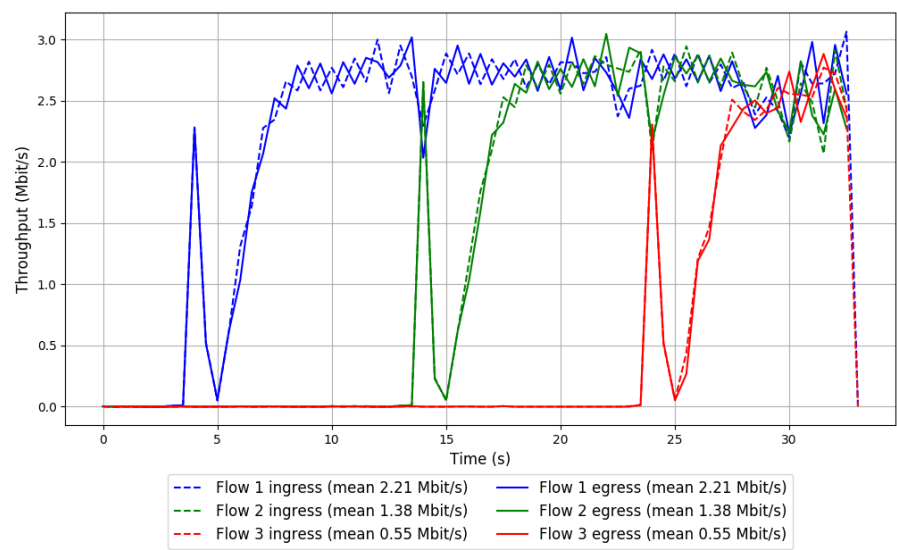
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 63.469 ms

Loss rate: 1.31%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-11-22 03:53:29

End at: 2017-11-22 03:53:59

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.14 Mbit/s

95th percentile per-packet one-way delay: 63.617 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 63.583 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 63.678 ms

Loss rate: 0.60%

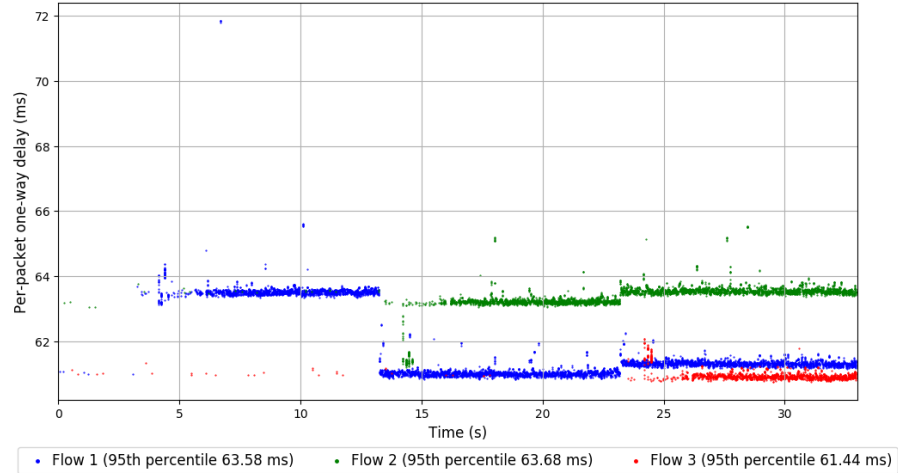
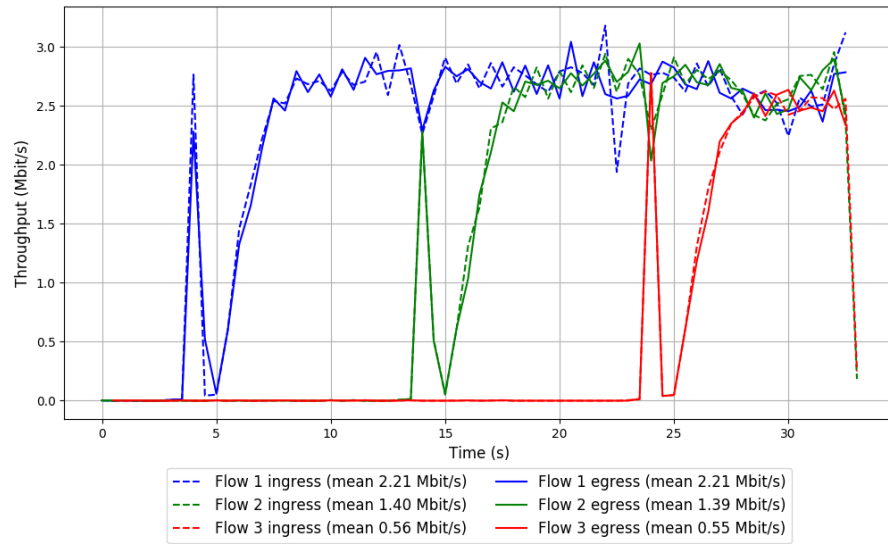
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 61.438 ms

Loss rate: 1.96%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-11-22 04:06:13

End at: 2017-11-22 04:06:43

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 63.489 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 61.746 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 63.399 ms

Loss rate: 0.60%

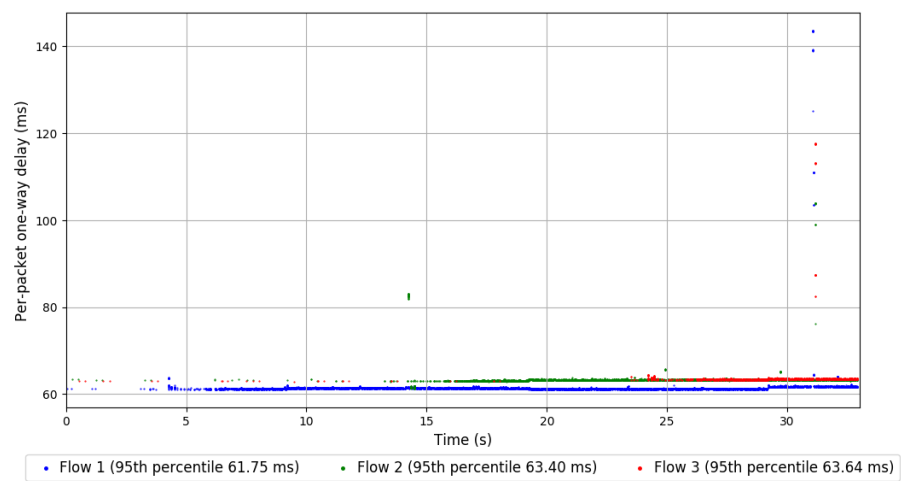
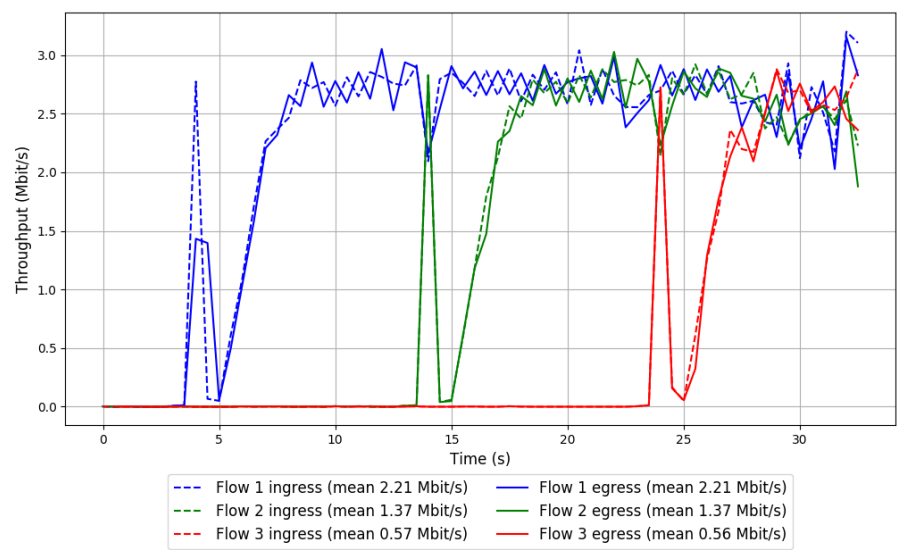
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.644 ms

Loss rate: 2.30%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-11-22 02:10:44

End at: 2017-11-22 02:11:14

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.85 Mbit/s

95th percentile per-packet one-way delay: 63.257 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 6.48 Mbit/s

95th percentile per-packet one-way delay: 63.228 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 6.55 Mbit/s

95th percentile per-packet one-way delay: 63.328 ms

Loss rate: 0.72%

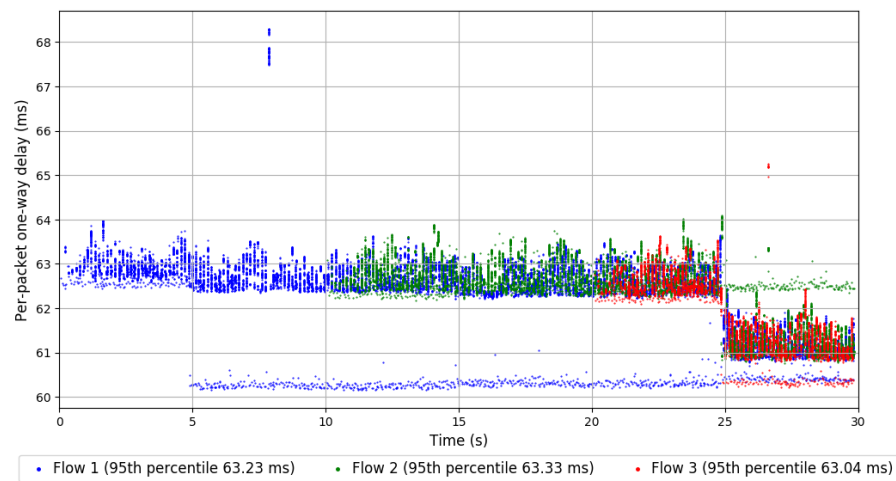
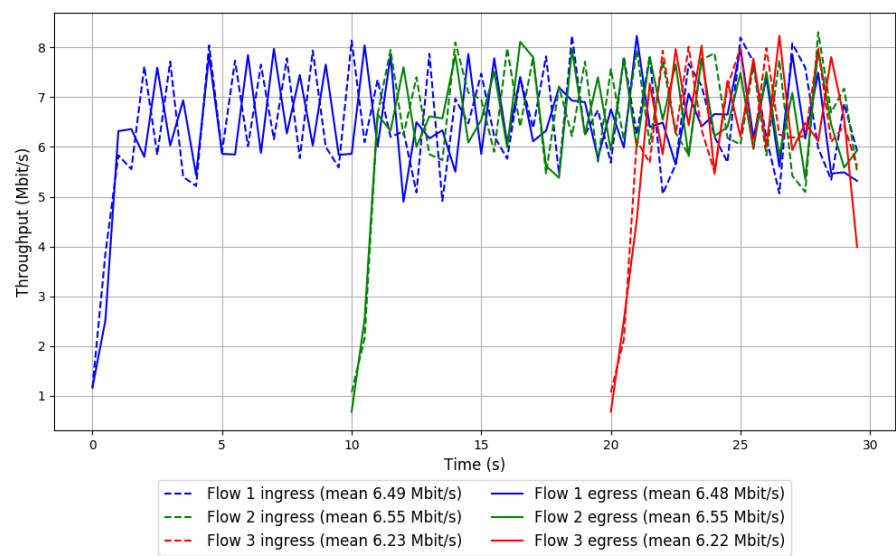
-- Flow 3:

Average throughput: 6.22 Mbit/s

95th percentile per-packet one-way delay: 63.038 ms

Loss rate: 1.47%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-11-22 02:23:24

End at: 2017-11-22 02:23:54

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.90 Mbit/s

95th percentile per-packet one-way delay: 62.944 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 6.52 Mbit/s

95th percentile per-packet one-way delay: 62.884 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 63.034 ms

Loss rate: 0.69%

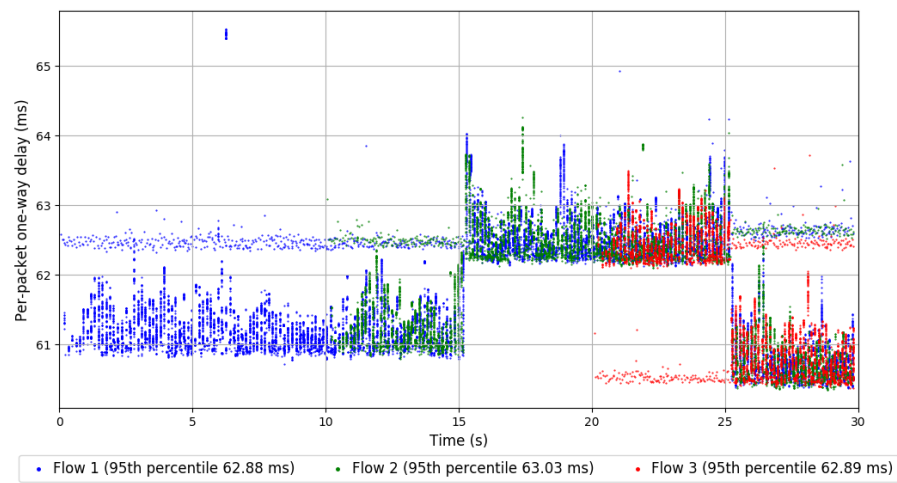
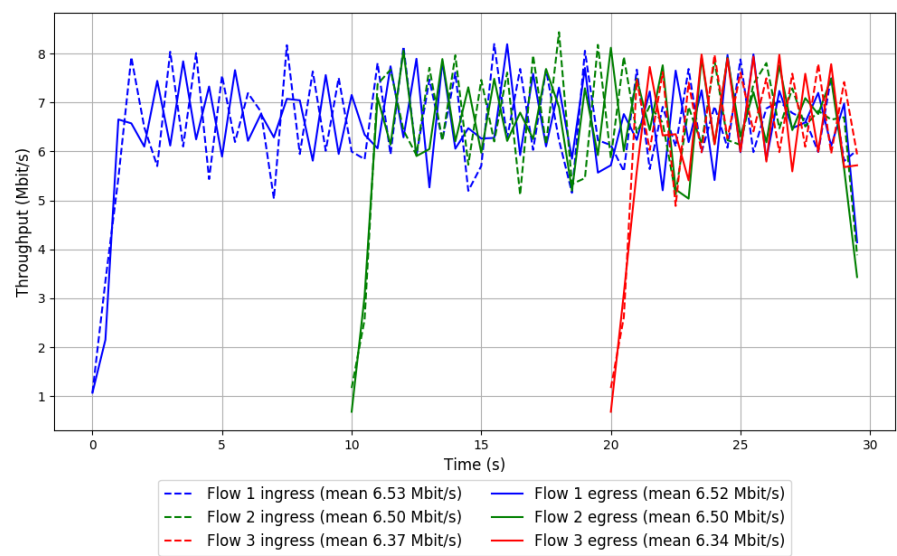
-- Flow 3:

Average throughput: 6.34 Mbit/s

95th percentile per-packet one-way delay: 62.888 ms

Loss rate: 1.94%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-11-22 02:35:44

End at: 2017-11-22 02:36:14

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.07 Mbit/s

95th percentile per-packet one-way delay: 63.411 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 6.57 Mbit/s

95th percentile per-packet one-way delay: 63.483 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 63.358 ms

Loss rate: 0.65%

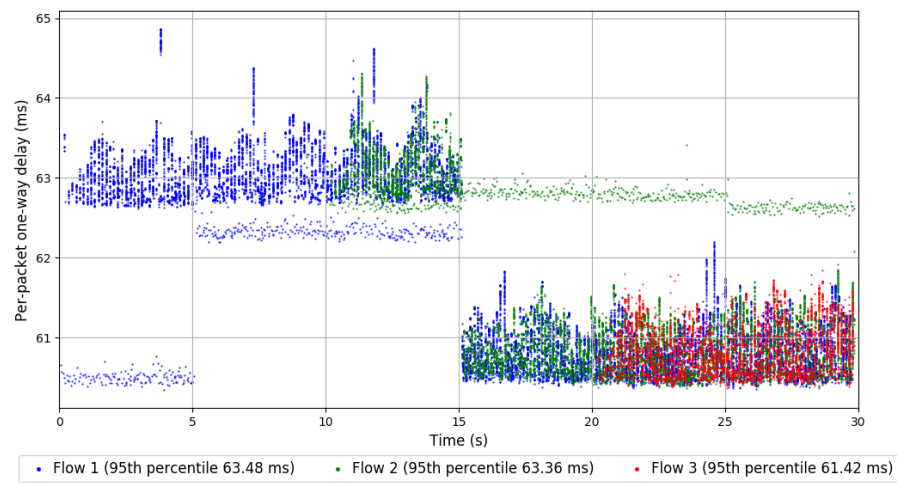
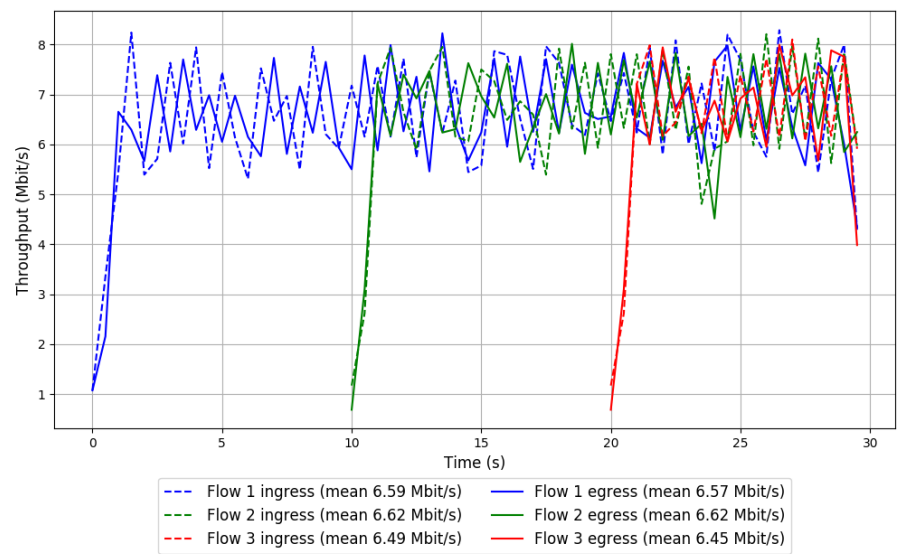
-- Flow 3:

Average throughput: 6.45 Mbit/s

95th percentile per-packet one-way delay: 61.417 ms

Loss rate: 1.88%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-11-22 02:48:21

End at: 2017-11-22 02:48:51

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.81 Mbit/s

95th percentile per-packet one-way delay: 63.659 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 6.46 Mbit/s

95th percentile per-packet one-way delay: 63.712 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 6.64 Mbit/s

95th percentile per-packet one-way delay: 63.594 ms

Loss rate: 0.72%

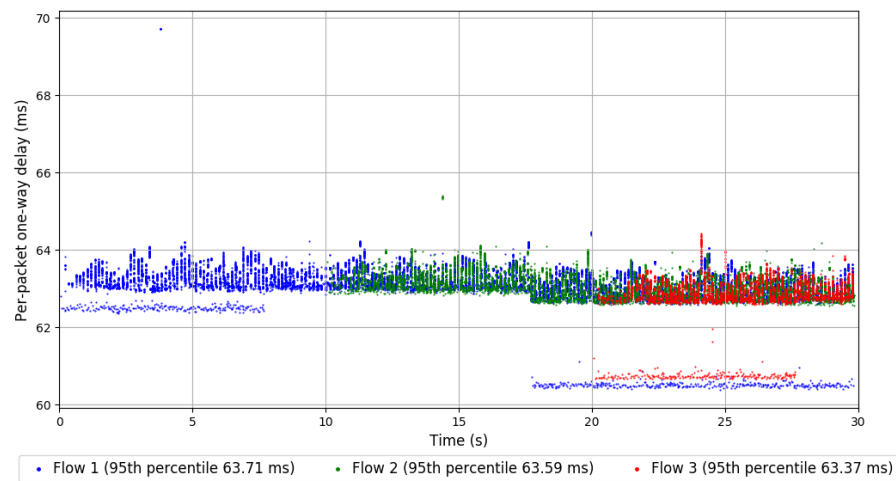
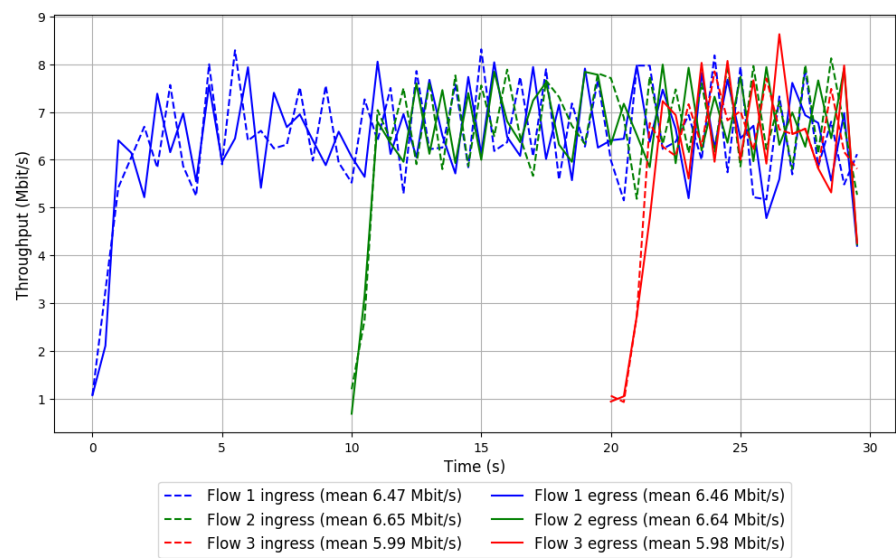
-- Flow 3:

Average throughput: 5.98 Mbit/s

95th percentile per-packet one-way delay: 63.374 ms

Loss rate: 1.63%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-11-22 03:01:10

End at: 2017-11-22 03:01:40

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 64.035 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 6.55 Mbit/s

95th percentile per-packet one-way delay: 64.046 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 6.39 Mbit/s

95th percentile per-packet one-way delay: 64.044 ms

Loss rate: 0.60%

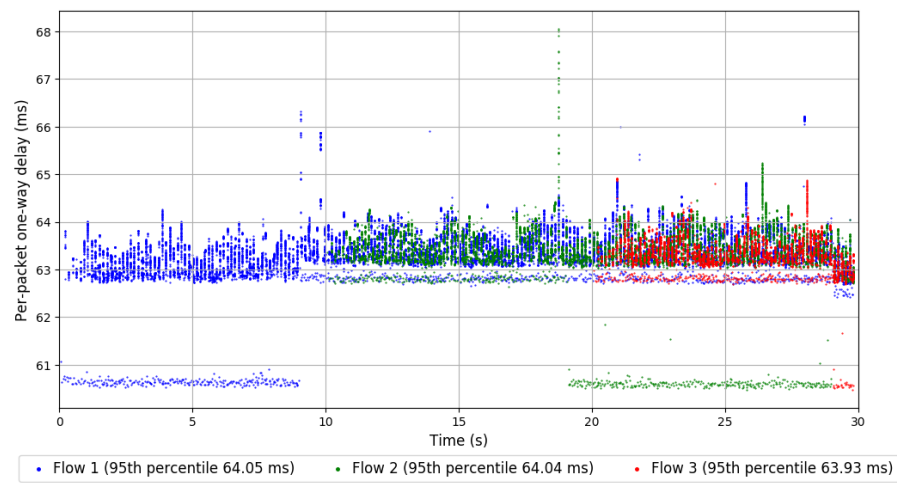
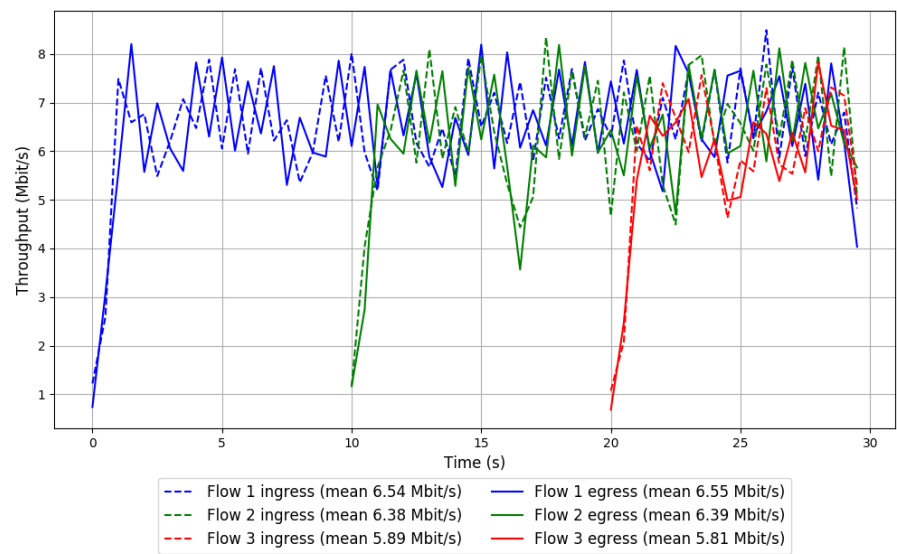
-- Flow 3:

Average throughput: 5.81 Mbit/s

95th percentile per-packet one-way delay: 63.934 ms

Loss rate: 2.76%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-11-22 03:13:56

End at: 2017-11-22 03:14:26

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.81 Mbit/s

95th percentile per-packet one-way delay: 63.927 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 6.52 Mbit/s

95th percentile per-packet one-way delay: 63.942 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 6.54 Mbit/s

95th percentile per-packet one-way delay: 63.959 ms

Loss rate: 0.77%

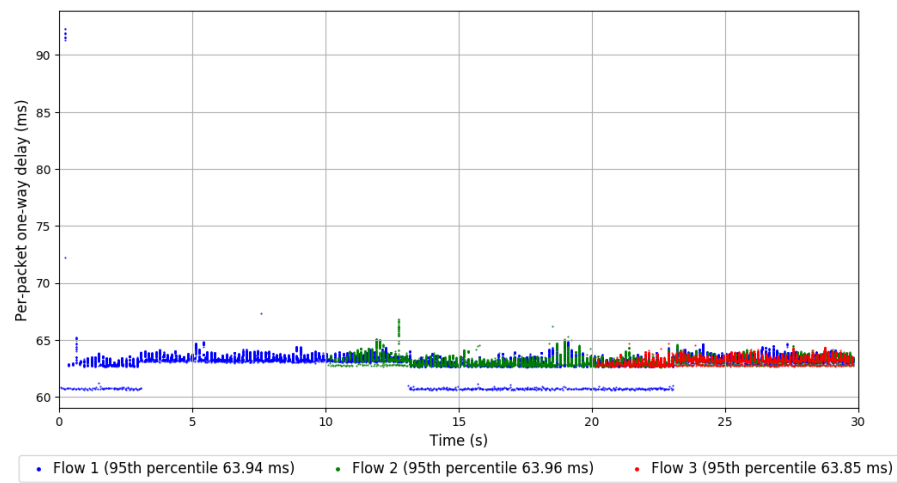
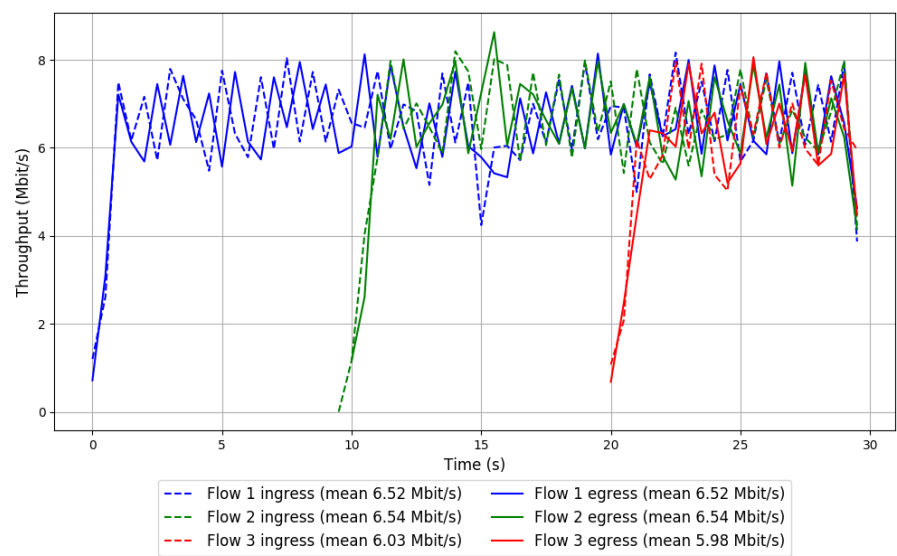
-- Flow 3:

Average throughput: 5.98 Mbit/s

95th percentile per-packet one-way delay: 63.846 ms

Loss rate: 1.73%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-11-22 03:26:32

End at: 2017-11-22 03:27:02

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.79 Mbit/s

95th percentile per-packet one-way delay: 63.932 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 63.893 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 6.40 Mbit/s

95th percentile per-packet one-way delay: 63.970 ms

Loss rate: 0.87%

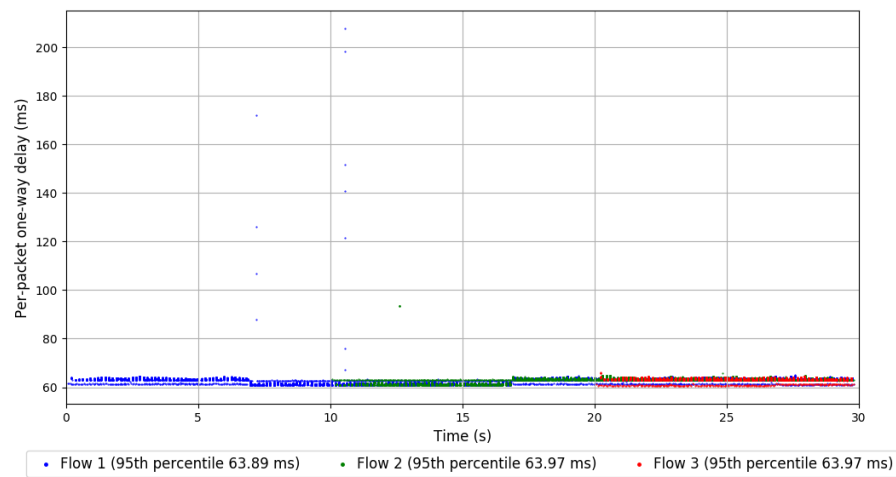
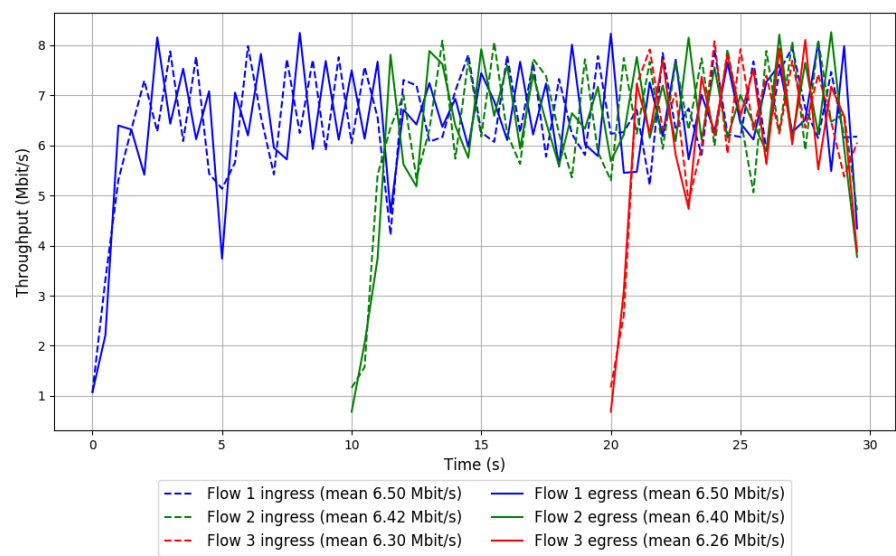
-- Flow 3:

Average throughput: 6.26 Mbit/s

95th percentile per-packet one-way delay: 63.965 ms

Loss rate: 1.96%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-11-22 03:39:04

End at: 2017-11-22 03:39:34

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.86 Mbit/s

95th percentile per-packet one-way delay: 63.807 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 6.48 Mbit/s

95th percentile per-packet one-way delay: 63.808 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 63.758 ms

Loss rate: 0.76%

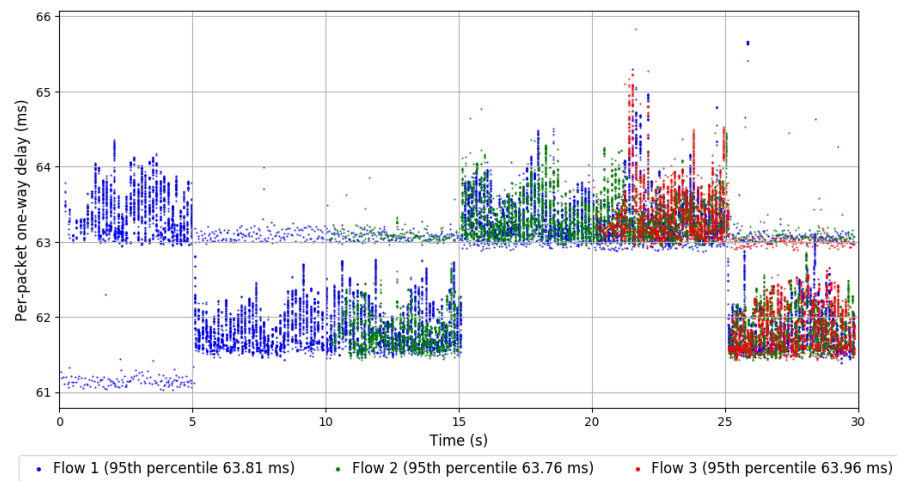
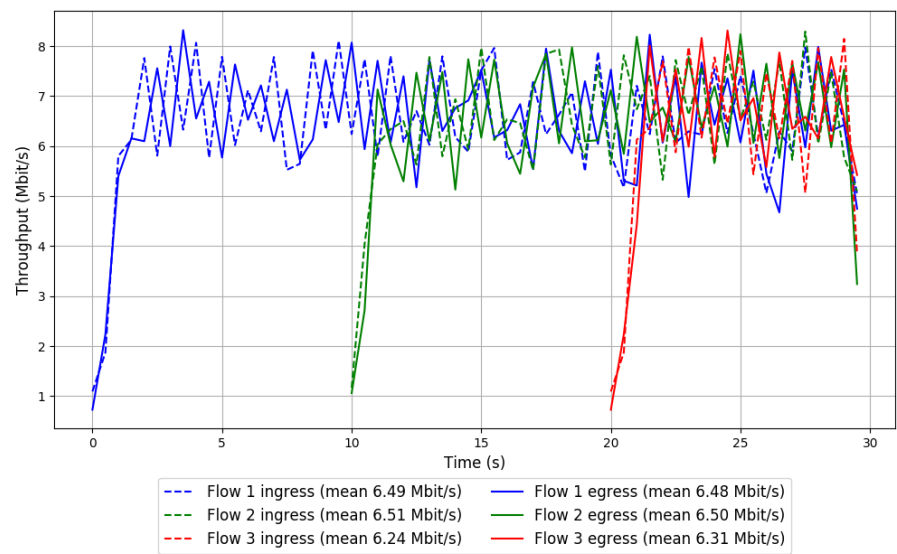
-- Flow 3:

Average throughput: 6.31 Mbit/s

95th percentile per-packet one-way delay: 63.961 ms

Loss rate: 0.07%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-11-22 03:51:47

End at: 2017-11-22 03:52:17

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.88 Mbit/s

95th percentile per-packet one-way delay: 64.119 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 6.58 Mbit/s

95th percentile per-packet one-way delay: 64.166 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 6.45 Mbit/s

95th percentile per-packet one-way delay: 64.008 ms

Loss rate: 0.32%

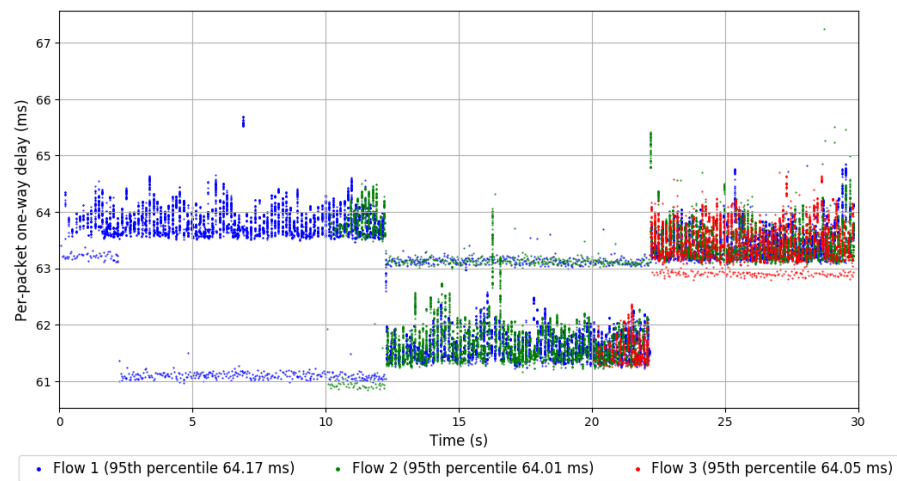
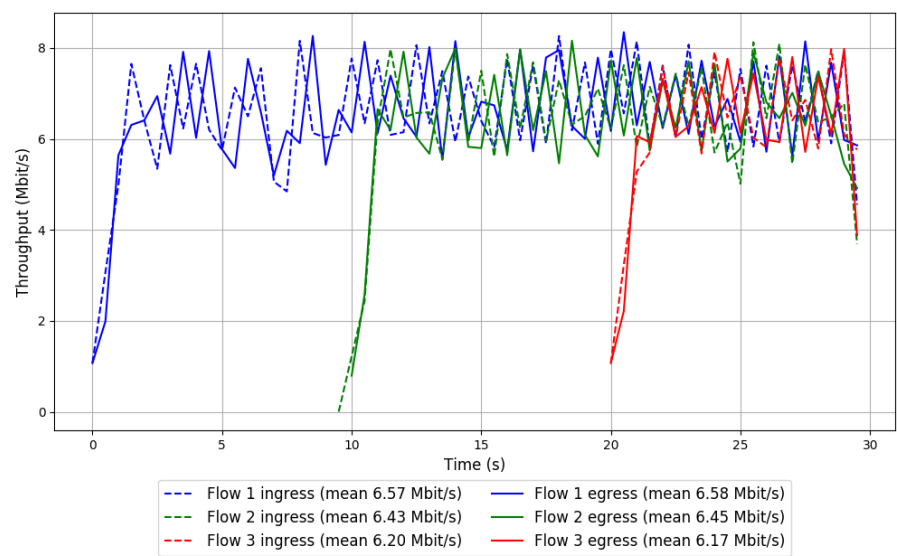
-- Flow 3:

Average throughput: 6.17 Mbit/s

95th percentile per-packet one-way delay: 64.047 ms

Loss rate: 1.67%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-11-22 04:04:31

End at: 2017-11-22 04:05:01

Below is generated by plot.py at 2017-11-22 06:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.76 Mbit/s

95th percentile per-packet one-way delay: 64.230 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 64.163 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 6.44 Mbit/s

95th percentile per-packet one-way delay: 64.330 ms

Loss rate: 0.82%

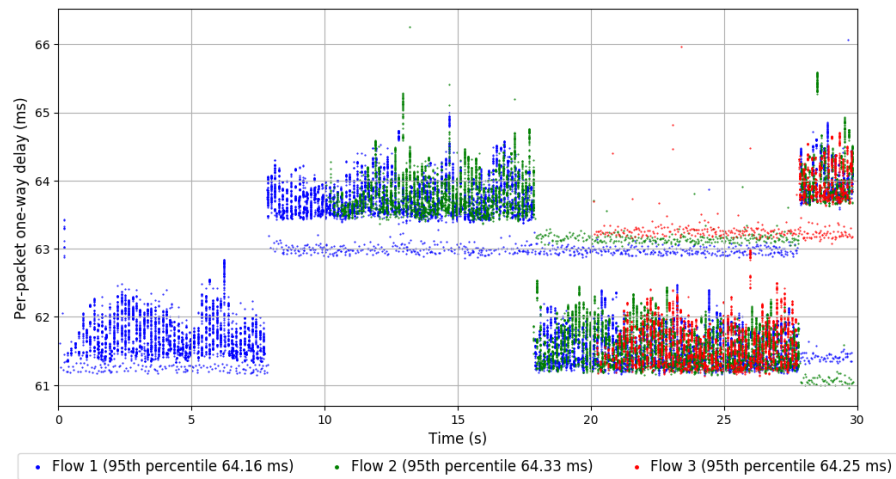
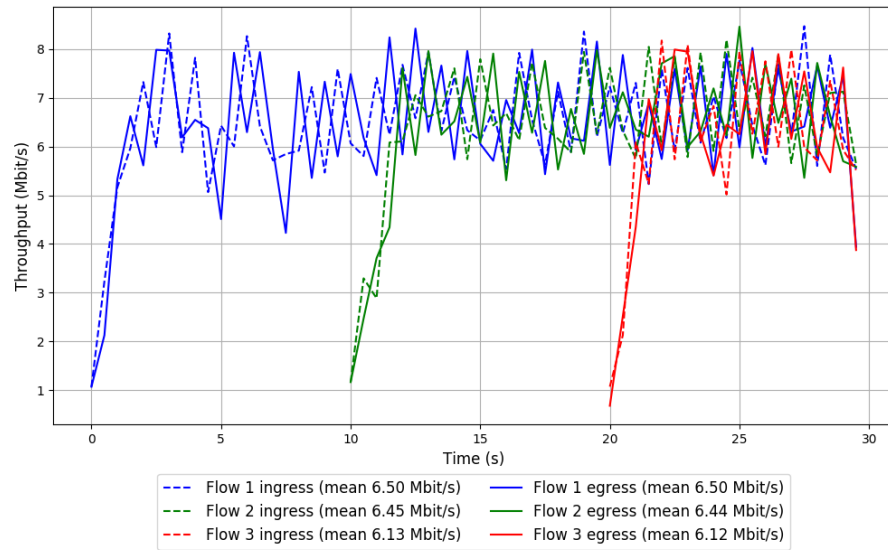
-- Flow 3:

Average throughput: 6.12 Mbit/s

95th percentile per-packet one-way delay: 64.250 ms

Loss rate: 1.51%

Run 10: Report of Sprout — Data Link

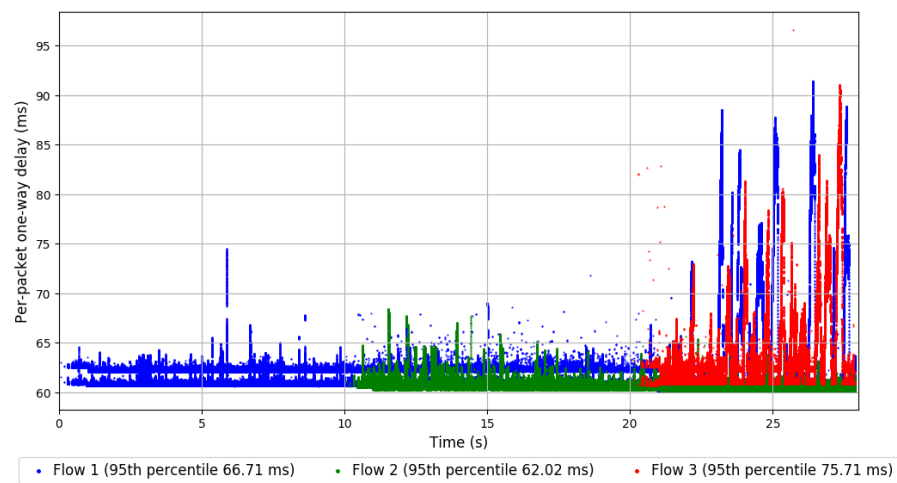
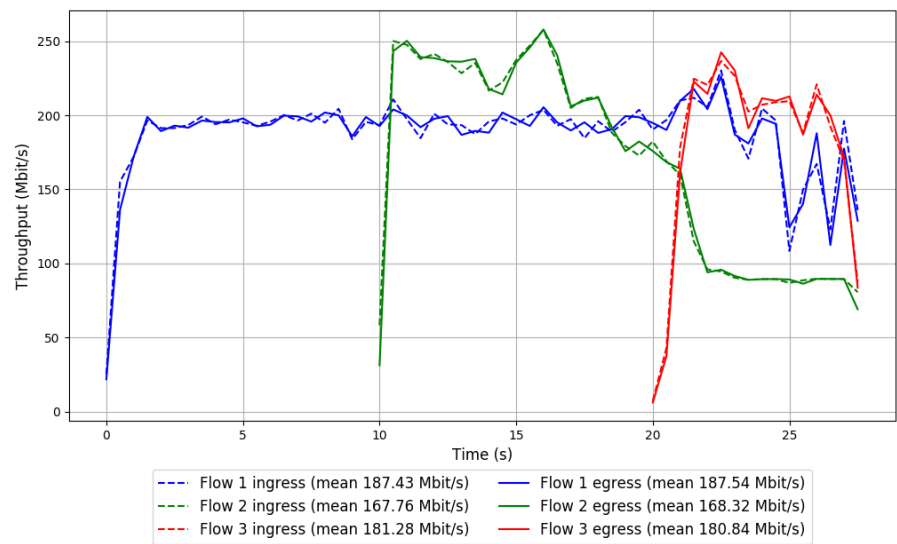


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-11-22 02:03:56
End at: 2017-11-22 02:04:26

# Below is generated by plot.py at 2017-11-22 06:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.57 Mbit/s
95th percentile per-packet one-way delay: 67.296 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 187.54 Mbit/s
95th percentile per-packet one-way delay: 66.714 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 168.32 Mbit/s
95th percentile per-packet one-way delay: 62.021 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 180.84 Mbit/s
95th percentile per-packet one-way delay: 75.708 ms
Loss rate: 0.94%
```


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

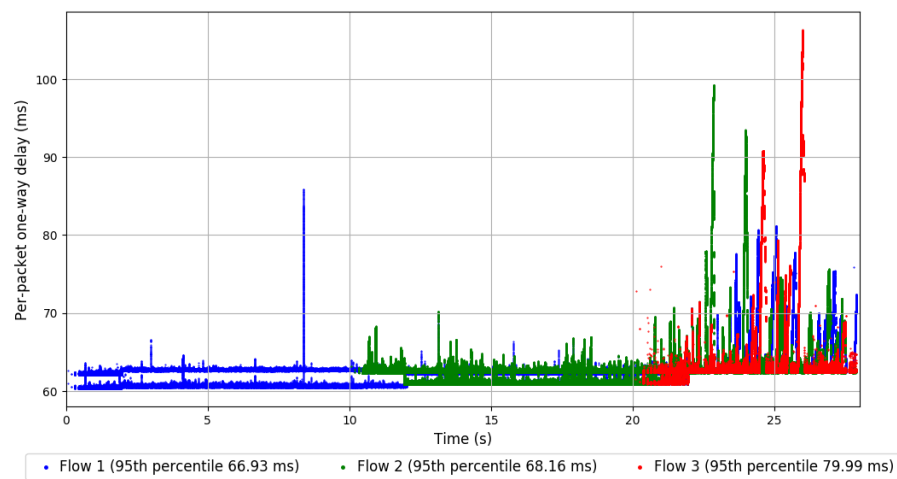
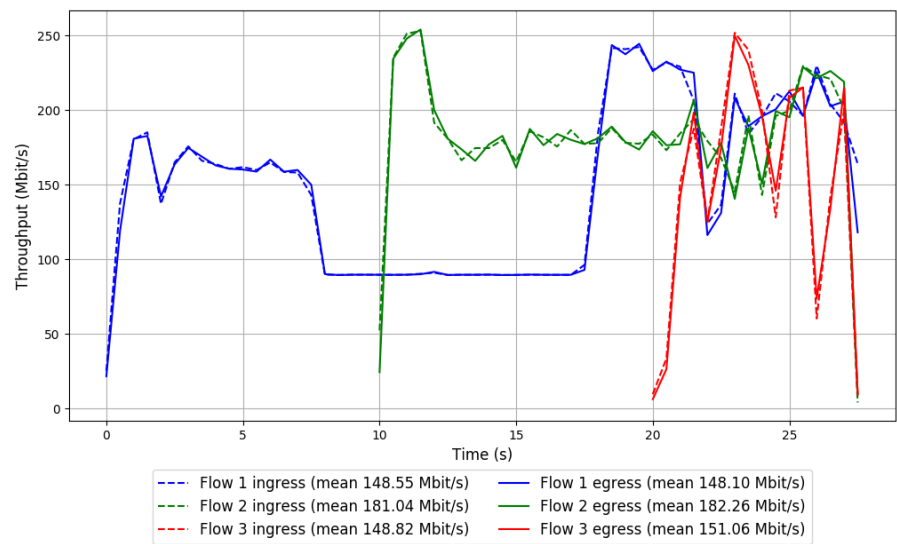


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-11-22 02:16:45
End at: 2017-11-22 02:17:15

# Below is generated by plot.py at 2017-11-22 06:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 307.04 Mbit/s
95th percentile per-packet one-way delay: 68.603 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 148.10 Mbit/s
95th percentile per-packet one-way delay: 66.934 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 182.26 Mbit/s
95th percentile per-packet one-way delay: 68.159 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 151.06 Mbit/s
95th percentile per-packet one-way delay: 79.986 ms
Loss rate: 0.11%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-11-22 02:29:24

End at: 2017-11-22 02:29:54

Below is generated by plot.py at 2017-11-22 06:59:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.65 Mbit/s

95th percentile per-packet one-way delay: 63.089 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 44.58 Mbit/s

95th percentile per-packet one-way delay: 63.937 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 144.03 Mbit/s

95th percentile per-packet one-way delay: 62.991 ms

Loss rate: 0.44%

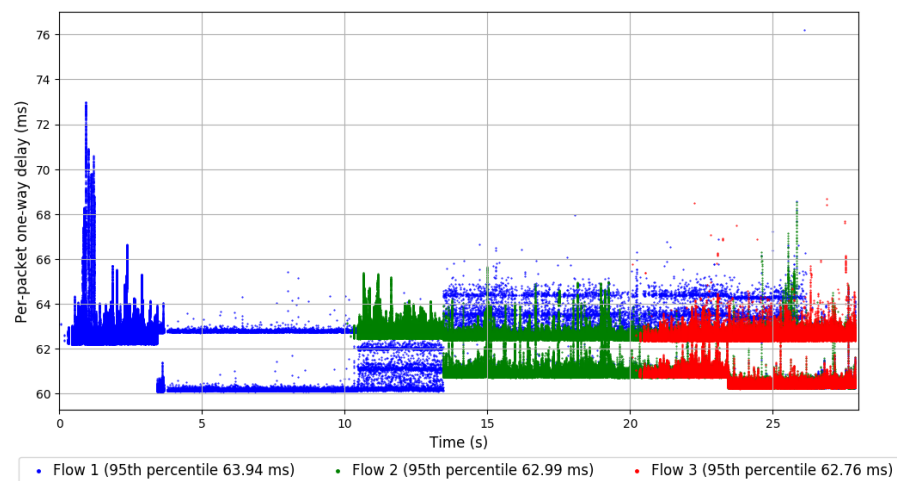
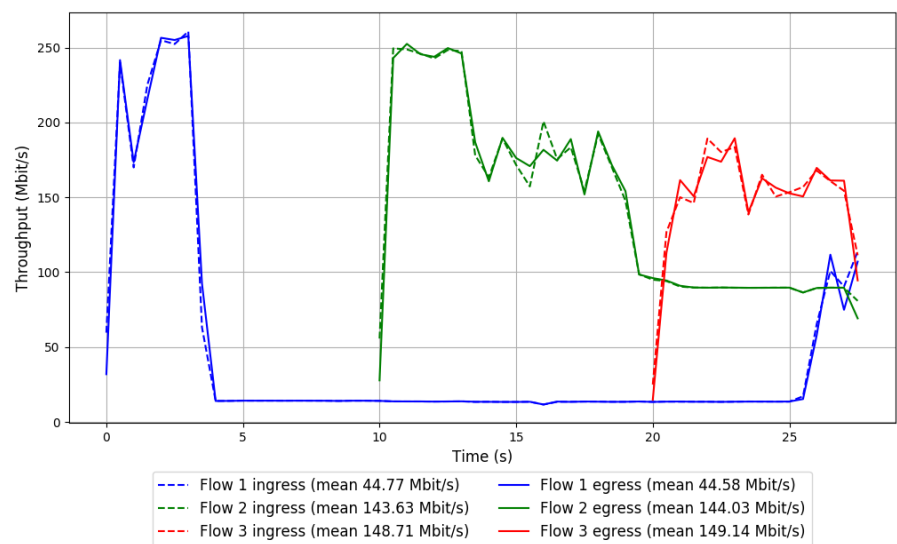
-- Flow 3:

Average throughput: 149.14 Mbit/s

95th percentile per-packet one-way delay: 62.755 ms

Loss rate: 1.30%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-11-22 02:41:44

End at: 2017-11-22 02:42:14

Below is generated by plot.py at 2017-11-22 06:59:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 196.54 Mbit/s

95th percentile per-packet one-way delay: 63.044 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 17.97 Mbit/s

95th percentile per-packet one-way delay: 62.847 ms

Loss rate: 2.22%

-- Flow 2:

Average throughput: 188.51 Mbit/s

95th percentile per-packet one-way delay: 62.898 ms

Loss rate: 0.80%

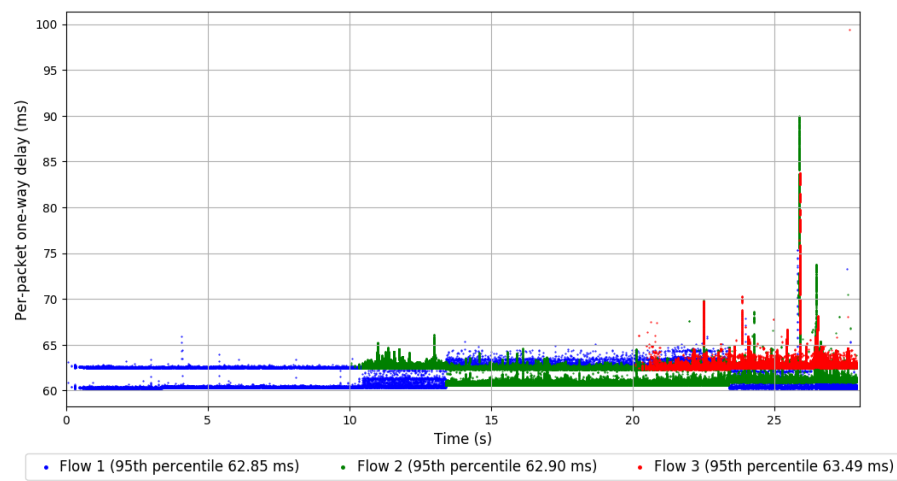
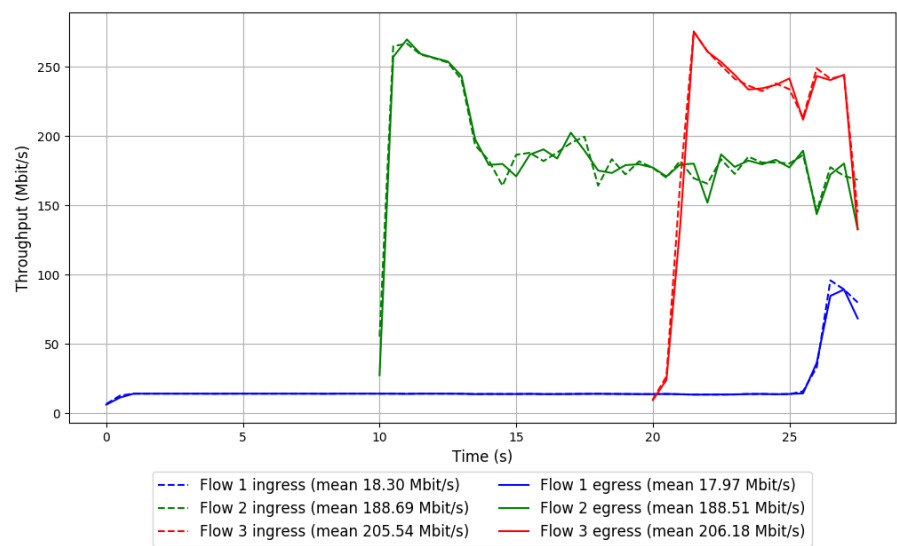
-- Flow 3:

Average throughput: 206.18 Mbit/s

95th percentile per-packet one-way delay: 63.488 ms

Loss rate: 1.30%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-11-22 02:54:23

End at: 2017-11-22 02:54:53

Below is generated by plot.py at 2017-11-22 07:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 358.77 Mbit/s

95th percentile per-packet one-way delay: 65.610 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 228.54 Mbit/s

95th percentile per-packet one-way delay: 65.224 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 128.69 Mbit/s

95th percentile per-packet one-way delay: 65.450 ms

Loss rate: 0.00%

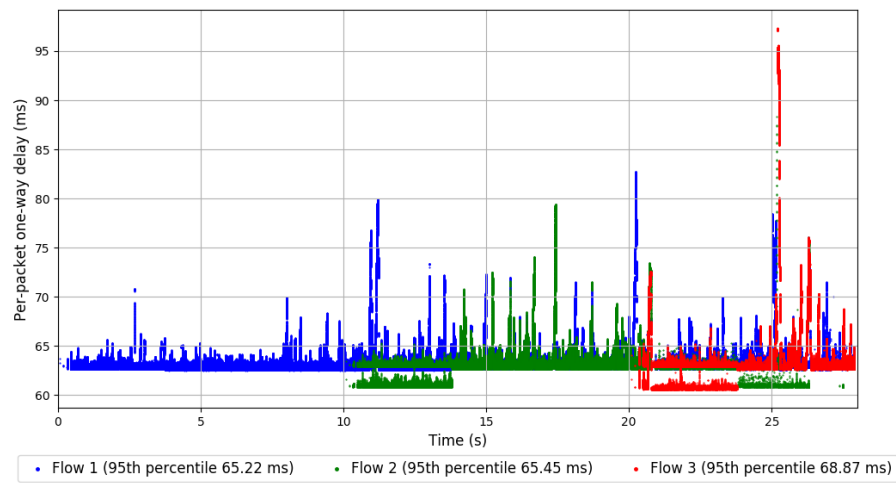
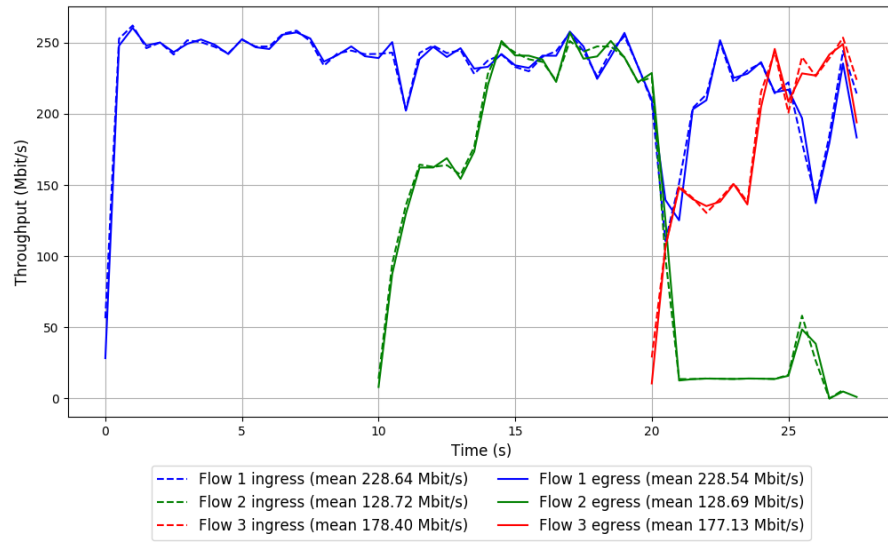
-- Flow 3:

Average throughput: 177.13 Mbit/s

95th percentile per-packet one-way delay: 68.867 ms

Loss rate: 2.25%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-11-22 03:07:01

End at: 2017-11-22 03:07:31

Below is generated by plot.py at 2017-11-22 07:00:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 366.42 Mbit/s

95th percentile per-packet one-way delay: 64.509 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 212.53 Mbit/s

95th percentile per-packet one-way delay: 64.622 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 173.50 Mbit/s

95th percentile per-packet one-way delay: 64.801 ms

Loss rate: 0.87%

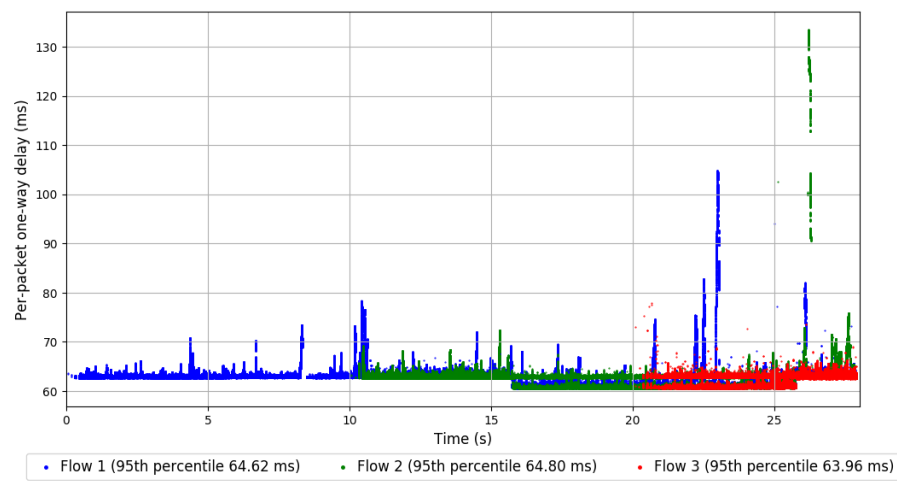
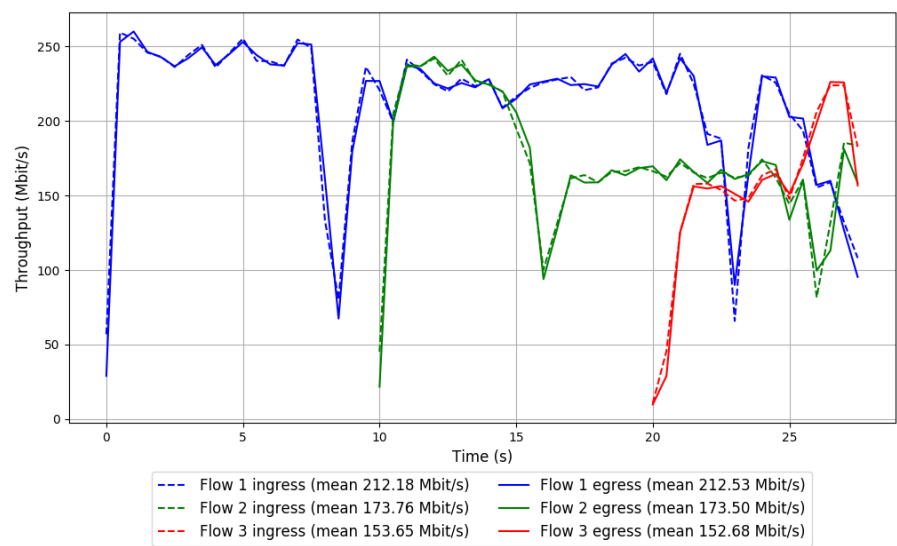
-- Flow 3:

Average throughput: 152.68 Mbit/s

95th percentile per-packet one-way delay: 63.959 ms

Loss rate: 2.20%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-11-22 03:19:54

End at: 2017-11-22 03:20:24

Below is generated by plot.py at 2017-11-22 07:04:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.86 Mbit/s

95th percentile per-packet one-way delay: 67.375 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 156.37 Mbit/s

95th percentile per-packet one-way delay: 64.452 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 183.80 Mbit/s

95th percentile per-packet one-way delay: 67.516 ms

Loss rate: 0.35%

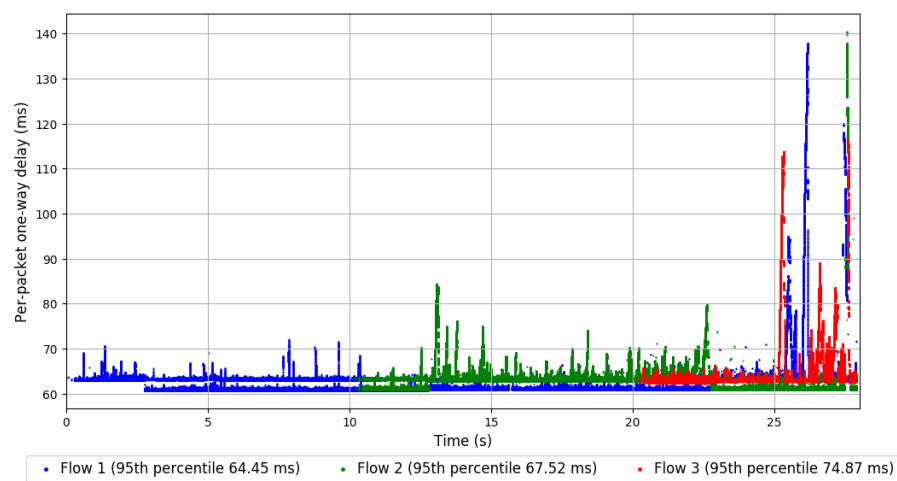
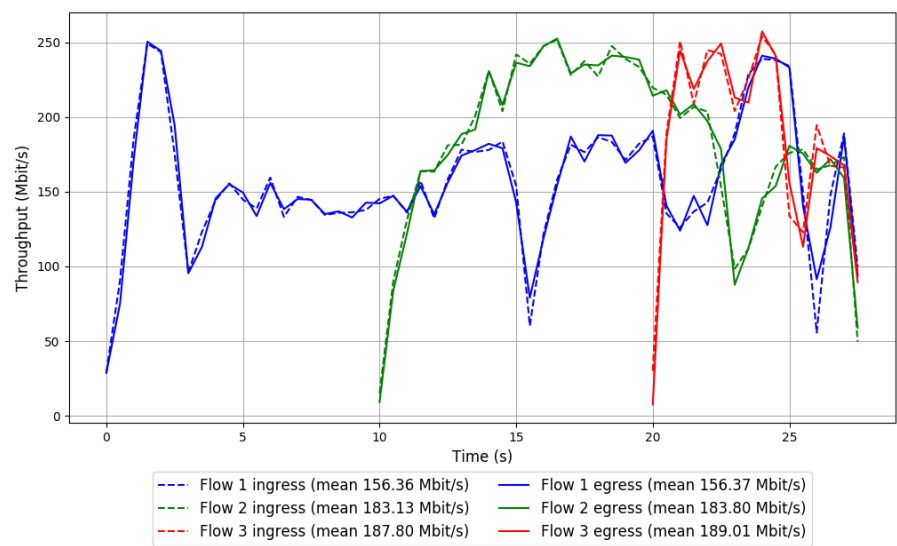
-- Flow 3:

Average throughput: 189.01 Mbit/s

95th percentile per-packet one-way delay: 74.872 ms

Loss rate: 0.98%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-11-22 03:32:36

End at: 2017-11-22 03:33:06

Below is generated by plot.py at 2017-11-22 07:04:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.78 Mbit/s

95th percentile per-packet one-way delay: 64.366 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 143.67 Mbit/s

95th percentile per-packet one-way delay: 63.721 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 11.40 Mbit/s

95th percentile per-packet one-way delay: 63.324 ms

Loss rate: 0.72%

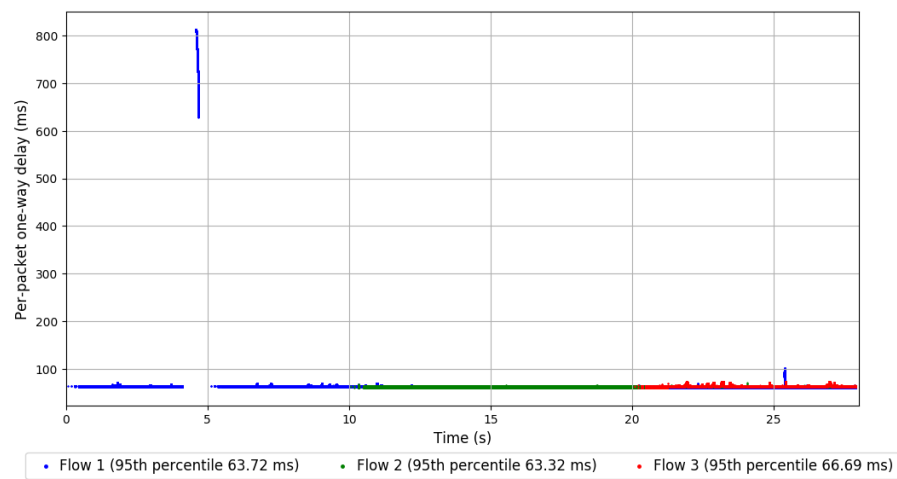
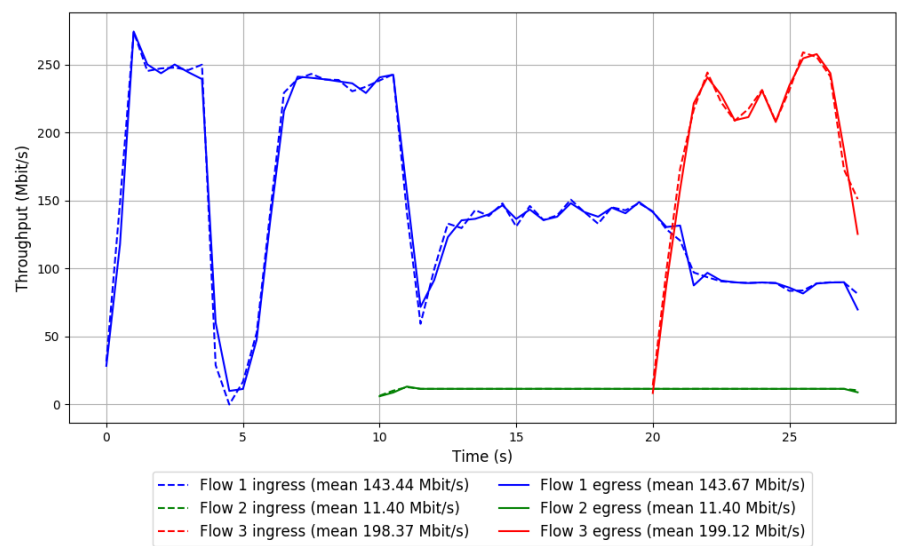
-- Flow 3:

Average throughput: 199.12 Mbit/s

95th percentile per-packet one-way delay: 66.689 ms

Loss rate: 1.23%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-11-22 03:45:02

End at: 2017-11-22 03:45:32

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 333.73 Mbit/s

95th percentile per-packet one-way delay: 64.400 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 188.86 Mbit/s

95th percentile per-packet one-way delay: 63.965 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 220.55 Mbit/s

95th percentile per-packet one-way delay: 65.010 ms

Loss rate: 0.70%

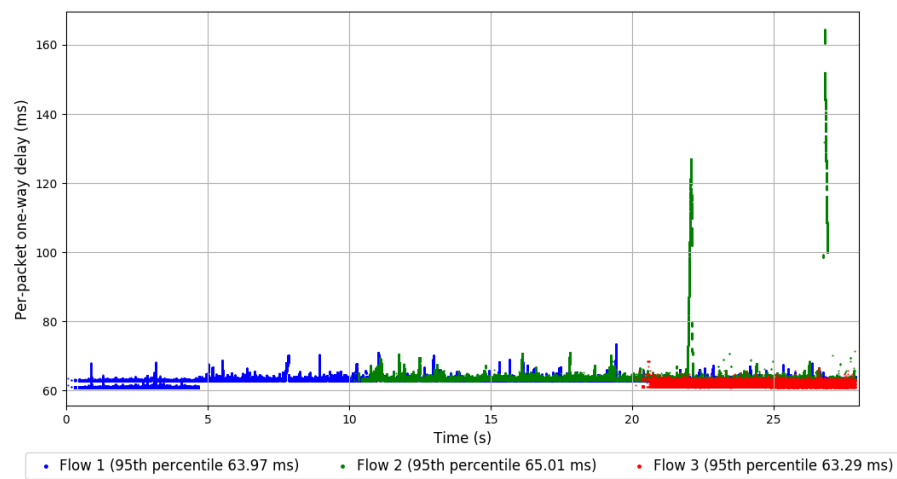
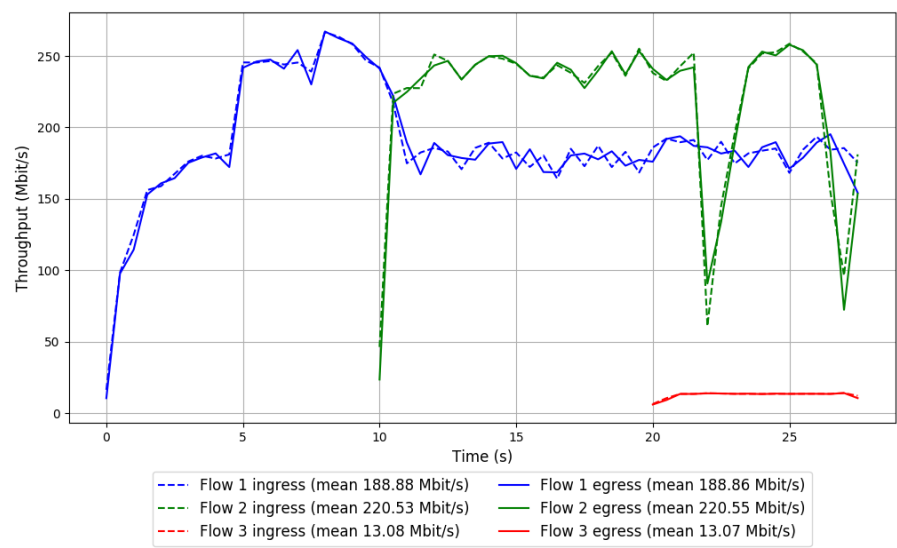
-- Flow 3:

Average throughput: 13.07 Mbit/s

95th percentile per-packet one-way delay: 63.288 ms

Loss rate: 1.64%

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

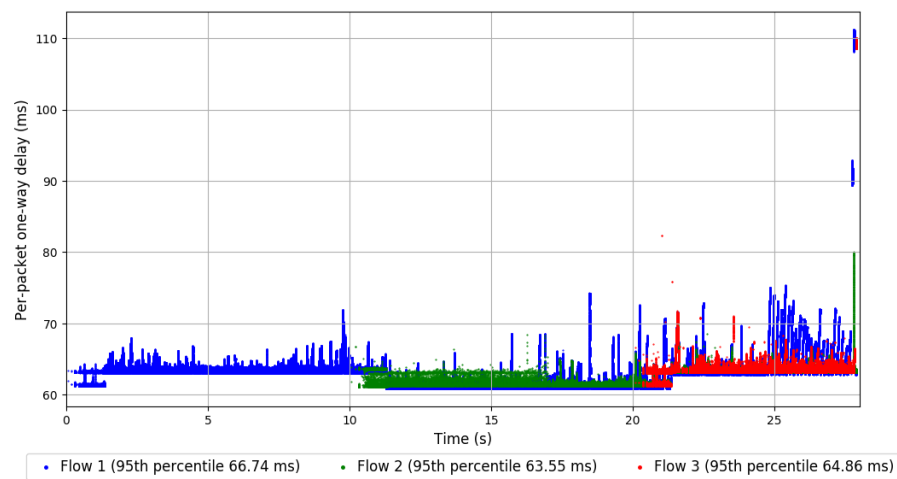
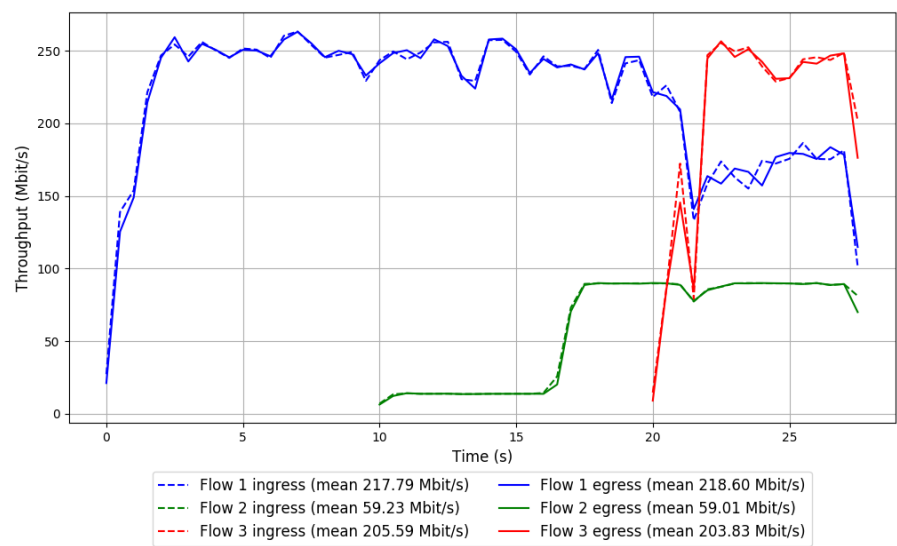


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-11-22 03:57:46
End at: 2017-11-22 03:58:16

# Below is generated by plot.py at 2017-11-22 07:06:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.56 Mbit/s
95th percentile per-packet one-way delay: 65.970 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 218.60 Mbit/s
95th percentile per-packet one-way delay: 66.738 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 59.01 Mbit/s
95th percentile per-packet one-way delay: 63.550 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 203.83 Mbit/s
95th percentile per-packet one-way delay: 64.862 ms
Loss rate: 1.77%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-11-22 02:06:06

End at: 2017-11-22 02:06:36

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 134.01 Mbit/s

95th percentile per-packet one-way delay: 64.257 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 43.40 Mbit/s

95th percentile per-packet one-way delay: 63.172 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 112.29 Mbit/s

95th percentile per-packet one-way delay: 63.913 ms

Loss rate: 0.62%

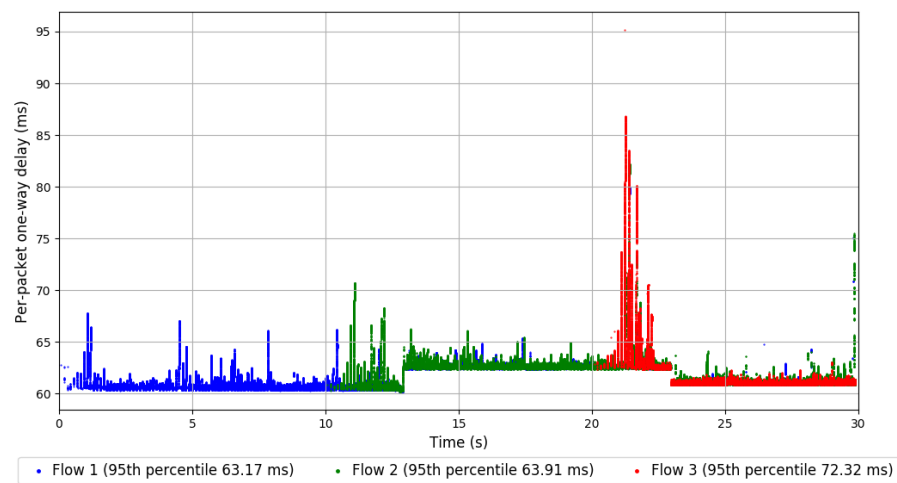
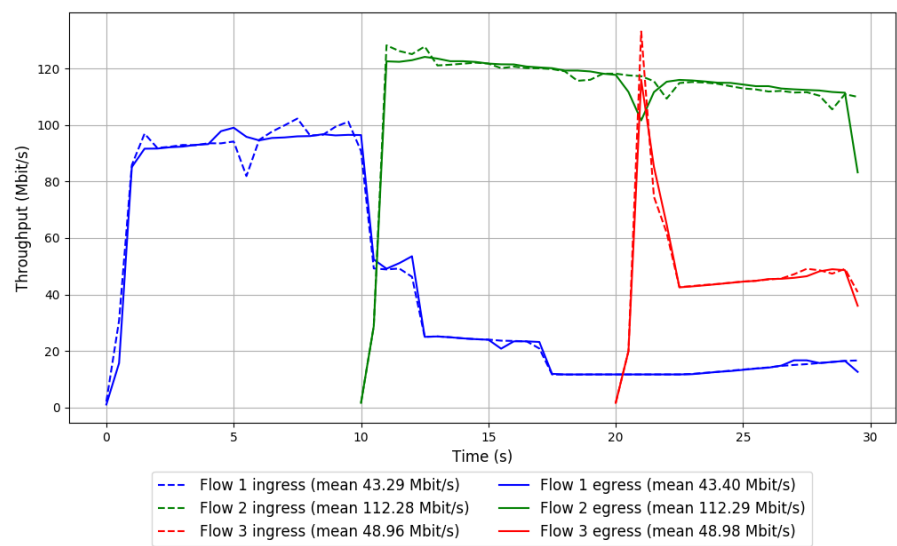
-- Flow 3:

Average throughput: 48.98 Mbit/s

95th percentile per-packet one-way delay: 72.323 ms

Loss rate: 1.24%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-11-22 02:18:50

End at: 2017-11-22 02:19:20

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.63 Mbit/s

95th percentile per-packet one-way delay: 63.400 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 48.46 Mbit/s

95th percentile per-packet one-way delay: 63.726 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 11.63 Mbit/s

95th percentile per-packet one-way delay: 63.078 ms

Loss rate: 0.88%

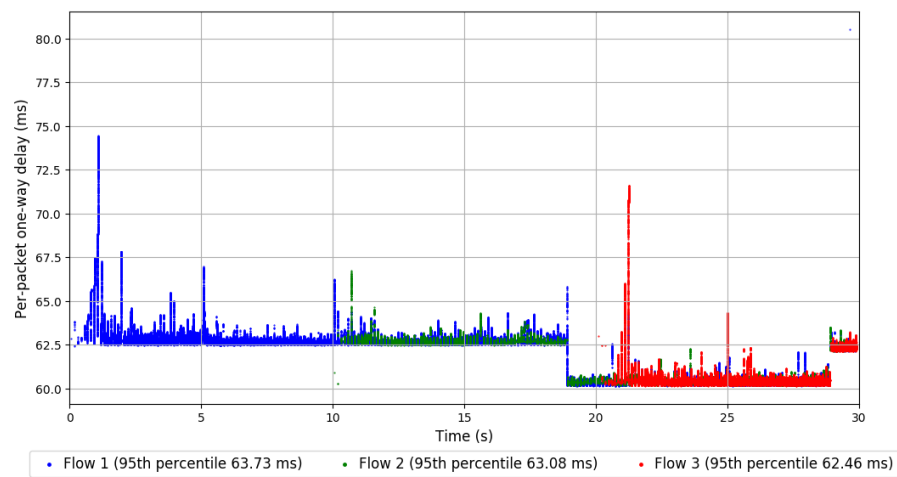
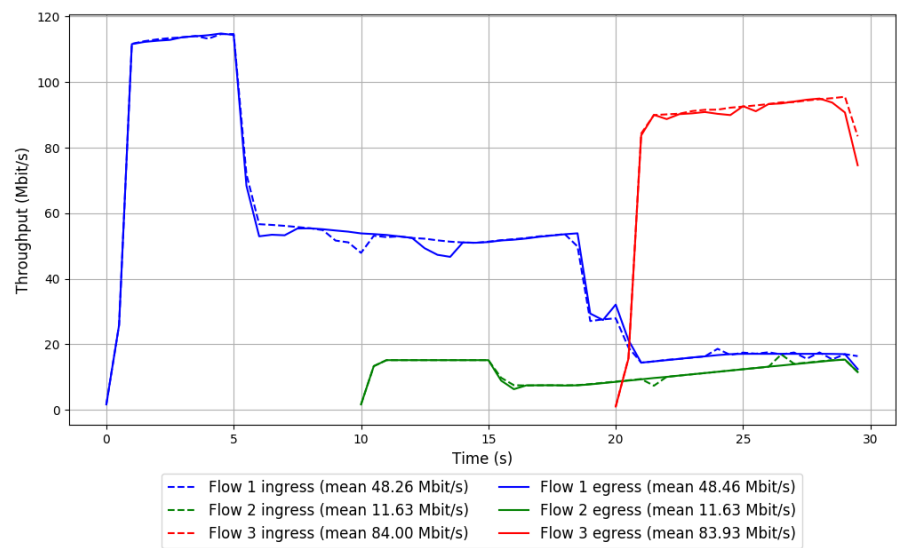
-- Flow 3:

Average throughput: 83.93 Mbit/s

95th percentile per-packet one-way delay: 62.458 ms

Loss rate: 1.41%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-11-22 02:31:14

End at: 2017-11-22 02:31:44

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.08 Mbit/s

95th percentile per-packet one-way delay: 63.590 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 21.28 Mbit/s

95th percentile per-packet one-way delay: 63.796 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 60.39 Mbit/s

95th percentile per-packet one-way delay: 63.556 ms

Loss rate: 0.70%

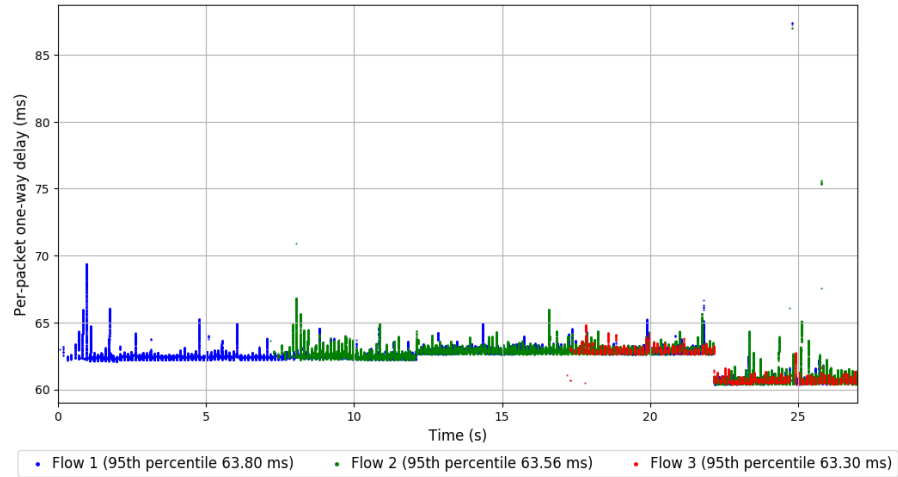
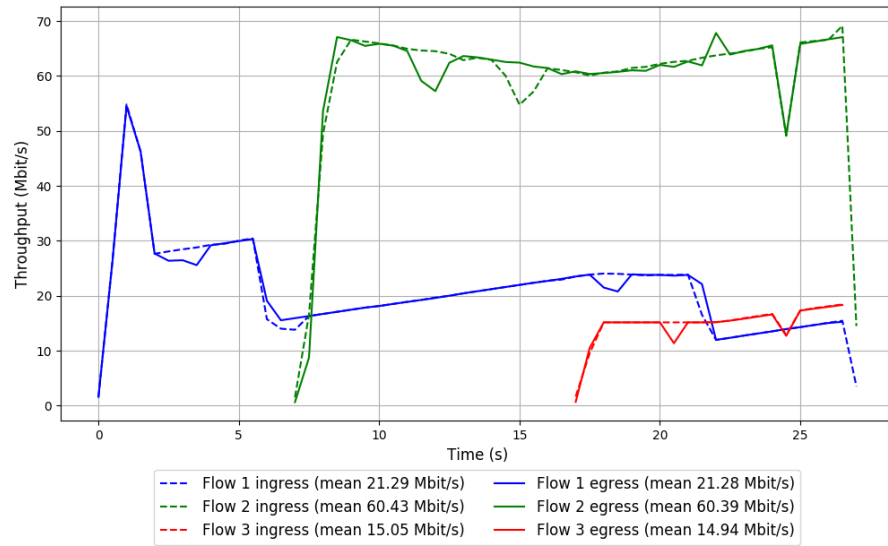
-- Flow 3:

Average throughput: 14.94 Mbit/s

95th percentile per-packet one-way delay: 63.300 ms

Loss rate: 1.56%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-11-22 02:43:38

End at: 2017-11-22 02:44:08

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.89 Mbit/s

95th percentile per-packet one-way delay: 63.906 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 39.35 Mbit/s

95th percentile per-packet one-way delay: 63.566 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 61.90 Mbit/s

95th percentile per-packet one-way delay: 63.752 ms

Loss rate: 0.44%

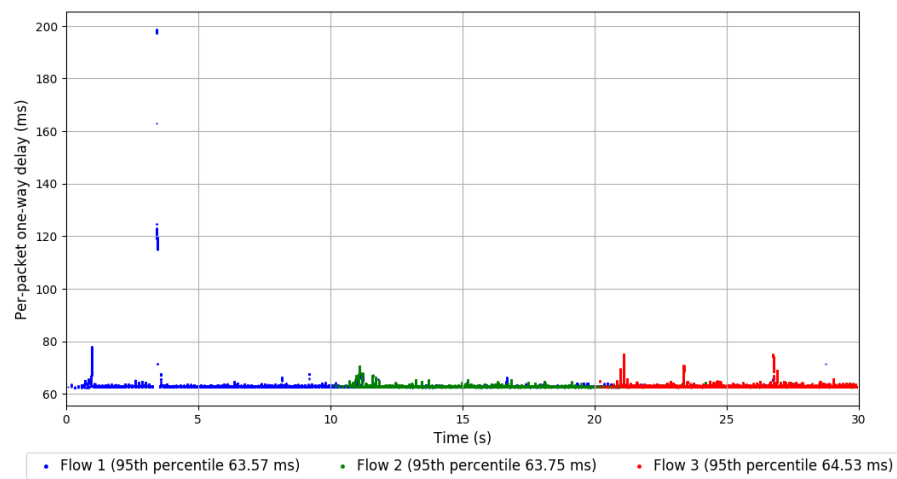
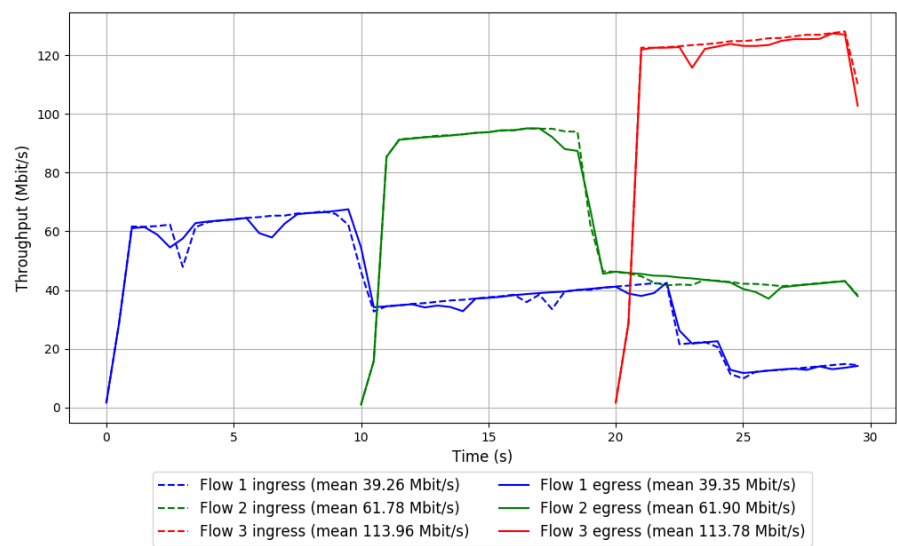
-- Flow 3:

Average throughput: 113.78 Mbit/s

95th percentile per-packet one-way delay: 64.526 ms

Loss rate: 1.41%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-11-22 02:56:32

End at: 2017-11-22 02:57:02

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.77 Mbit/s

95th percentile per-packet one-way delay: 69.961 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 25.66 Mbit/s

95th percentile per-packet one-way delay: 64.281 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 14.57 Mbit/s

95th percentile per-packet one-way delay: 65.222 ms

Loss rate: 0.64%

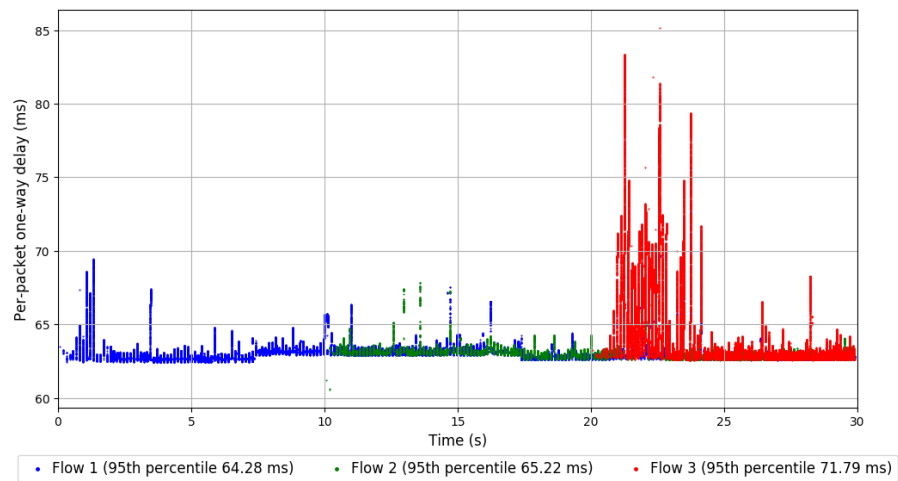
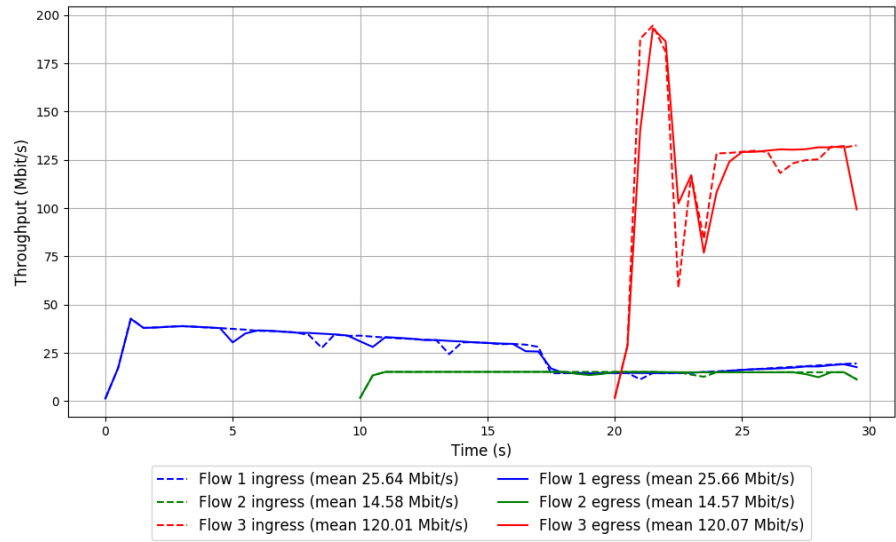
-- Flow 3:

Average throughput: 120.07 Mbit/s

95th percentile per-packet one-way delay: 71.788 ms

Loss rate: 1.39%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-11-22 03:09:12

End at: 2017-11-22 03:09:42

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.98 Mbit/s

95th percentile per-packet one-way delay: 64.034 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 45.56 Mbit/s

95th percentile per-packet one-way delay: 64.118 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 17.76 Mbit/s

95th percentile per-packet one-way delay: 63.830 ms

Loss rate: 0.81%

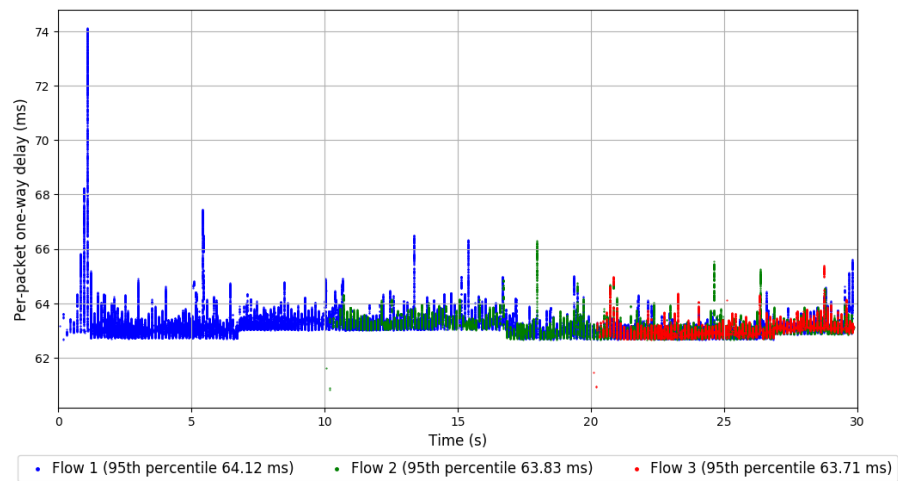
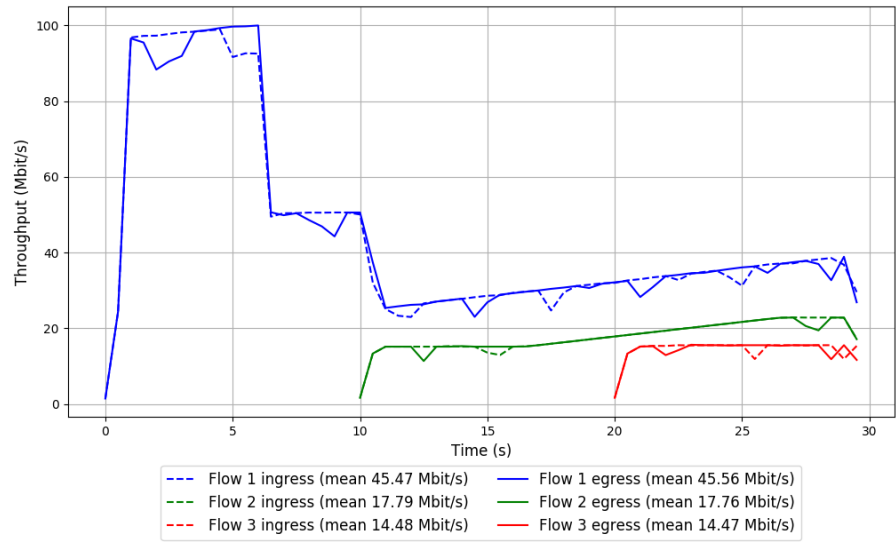
-- Flow 3:

Average throughput: 14.47 Mbit/s

95th percentile per-packet one-way delay: 63.713 ms

Loss rate: 1.36%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-11-22 03:21:59

End at: 2017-11-22 03:22:29

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.70 Mbit/s

95th percentile per-packet one-way delay: 64.131 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 21.16 Mbit/s

95th percentile per-packet one-way delay: 63.913 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 28.20 Mbit/s

95th percentile per-packet one-way delay: 63.825 ms

Loss rate: 0.49%

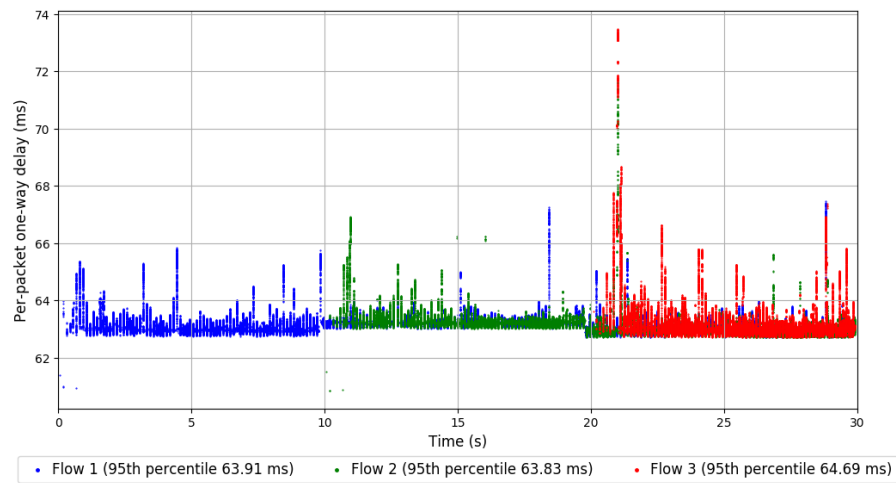
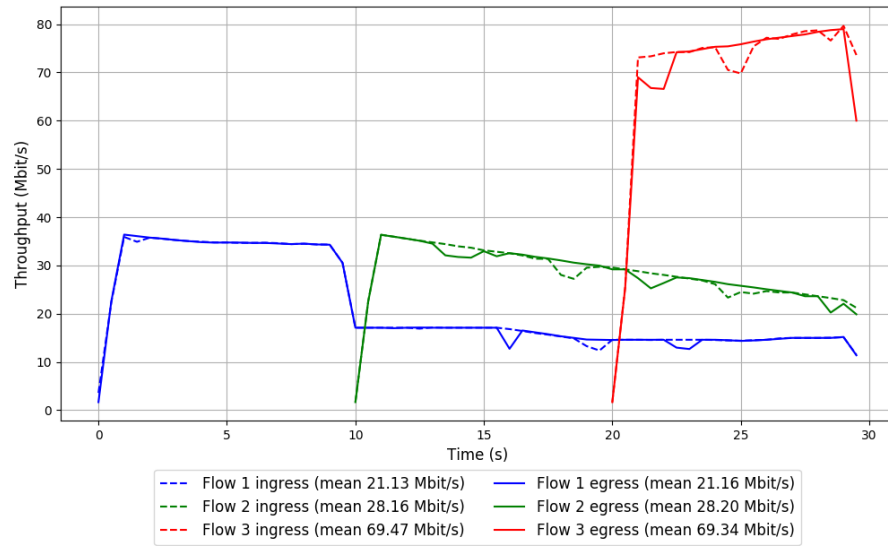
-- Flow 3:

Average throughput: 69.34 Mbit/s

95th percentile per-packet one-way delay: 64.693 ms

Loss rate: 1.44%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-11-22 03:34:31

End at: 2017-11-22 03:35:01

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.34 Mbit/s

95th percentile per-packet one-way delay: 64.371 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 7.47 Mbit/s

95th percentile per-packet one-way delay: 63.847 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 40.90 Mbit/s

95th percentile per-packet one-way delay: 64.099 ms

Loss rate: 0.46%

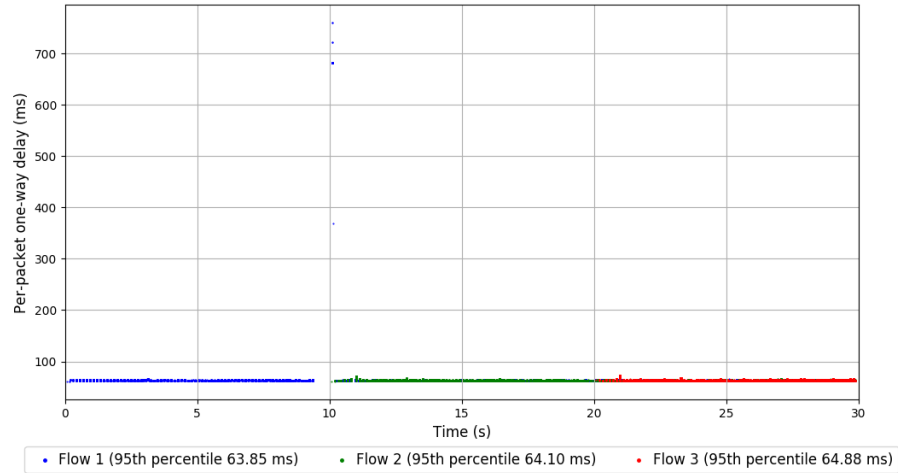
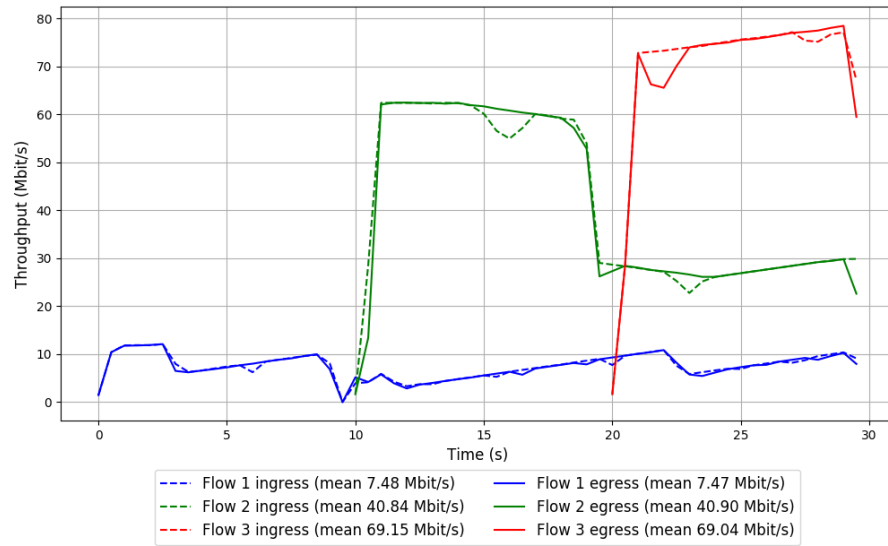
-- Flow 3:

Average throughput: 69.04 Mbit/s

95th percentile per-packet one-way delay: 64.880 ms

Loss rate: 1.43%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-11-22 03:47:10

End at: 2017-11-22 03:47:40

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.71 Mbit/s

95th percentile per-packet one-way delay: 64.202 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 41.42 Mbit/s

95th percentile per-packet one-way delay: 65.076 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 76.35 Mbit/s

95th percentile per-packet one-way delay: 63.628 ms

Loss rate: 0.54%

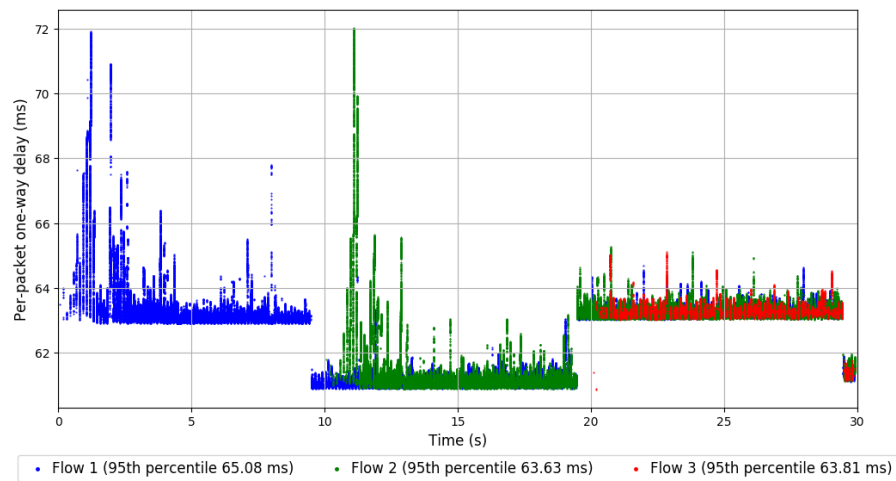
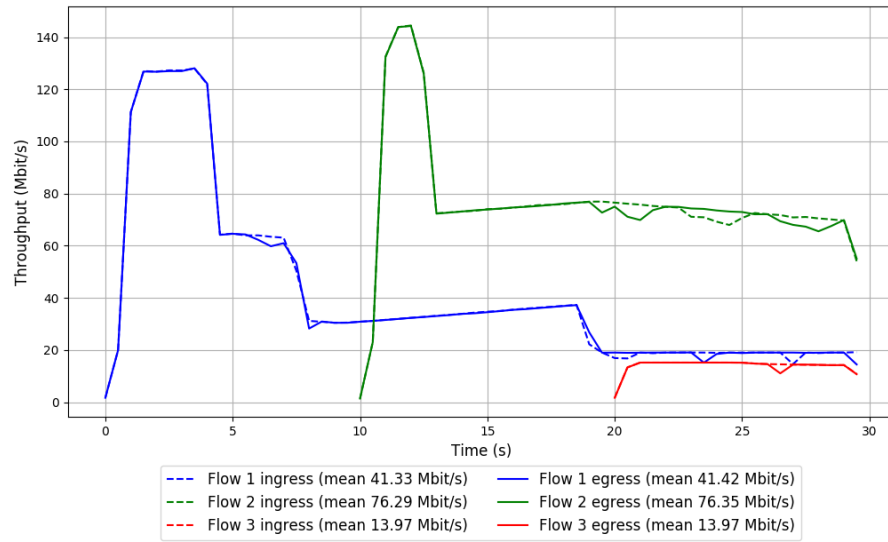
-- Flow 3:

Average throughput: 13.97 Mbit/s

95th percentile per-packet one-way delay: 63.813 ms

Loss rate: 1.28%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-11-22 03:59:51

End at: 2017-11-22 04:00:21

Below is generated by plot.py at 2017-11-22 07:06:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.70 Mbit/s

95th percentile per-packet one-way delay: 63.615 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 51.73 Mbit/s

95th percentile per-packet one-way delay: 62.686 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 85.52 Mbit/s

95th percentile per-packet one-way delay: 66.000 ms

Loss rate: 0.58%

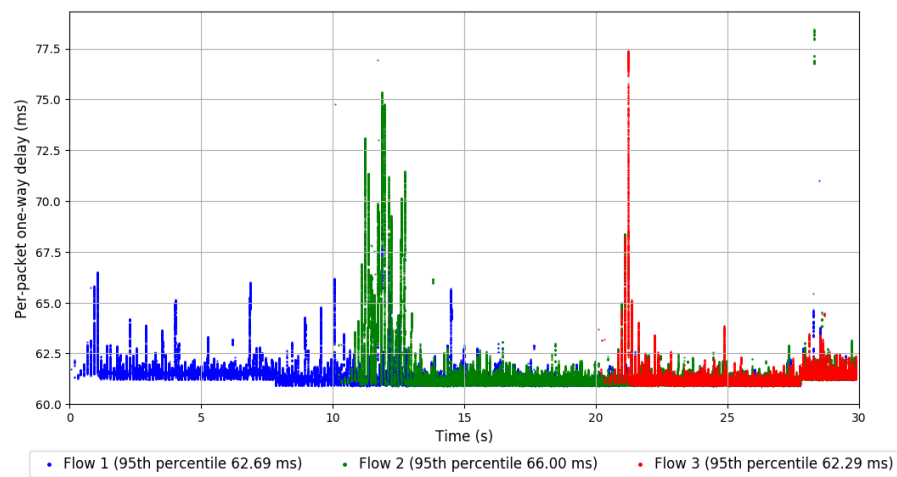
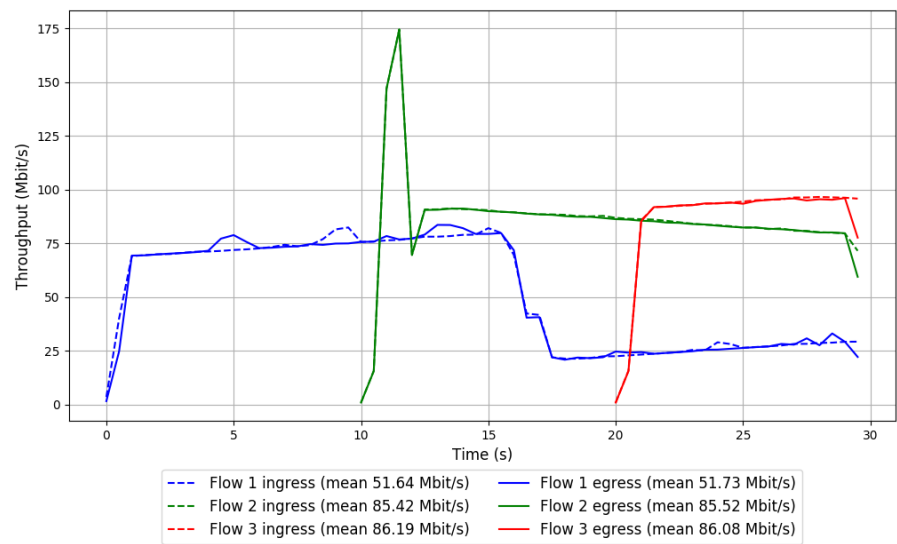
-- Flow 3:

Average throughput: 86.08 Mbit/s

95th percentile per-packet one-way delay: 62.289 ms

Loss rate: 1.41%

Run 10: Report of TCP Vegas — Data Link

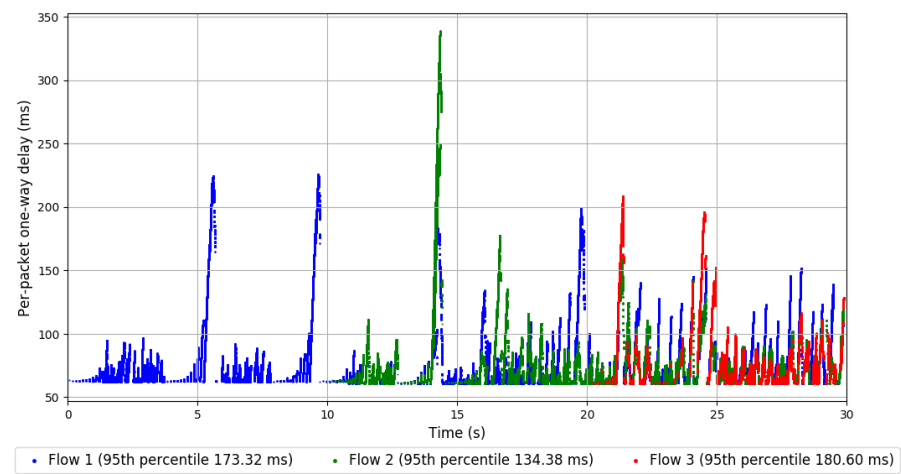
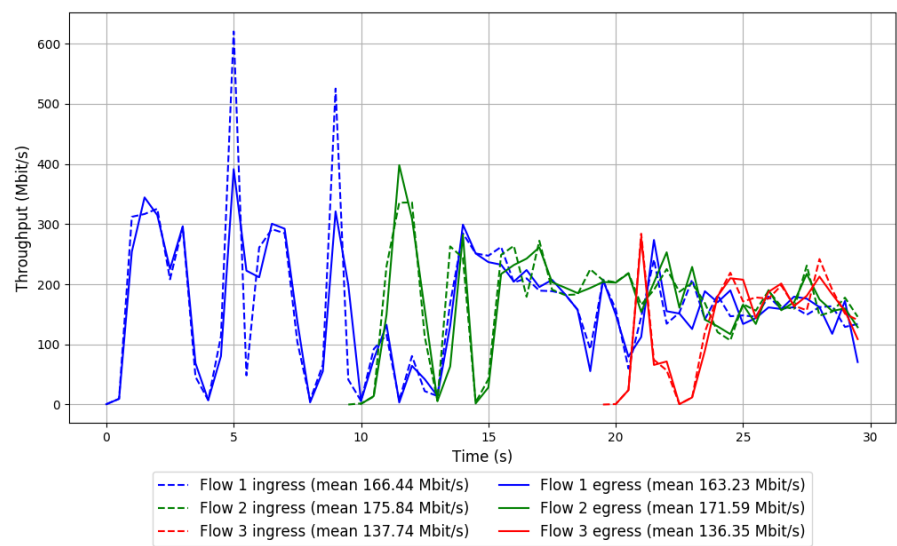


```
Run 1: Statistics of Verus

Start at: 2017-11-22 02:09:38
End at: 2017-11-22 02:10:08

# Below is generated by plot.py at 2017-11-22 07:09:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 322.19 Mbit/s
95th percentile per-packet one-way delay: 163.195 ms
Loss rate: 2.61%
-- Flow 1:
Average throughput: 163.23 Mbit/s
95th percentile per-packet one-way delay: 173.318 ms
Loss rate: 2.38%
-- Flow 2:
Average throughput: 171.59 Mbit/s
95th percentile per-packet one-way delay: 134.385 ms
Loss rate: 3.05%
-- Flow 3:
Average throughput: 136.35 Mbit/s
95th percentile per-packet one-way delay: 180.602 ms
Loss rate: 2.32%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-11-22 02:22:18

End at: 2017-11-22 02:22:48

Below is generated by plot.py at 2017-11-22 07:09:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 318.24 Mbit/s

95th percentile per-packet one-way delay: 158.223 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 187.86 Mbit/s

95th percentile per-packet one-way delay: 133.594 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 109.55 Mbit/s

95th percentile per-packet one-way delay: 119.221 ms

Loss rate: 0.16%

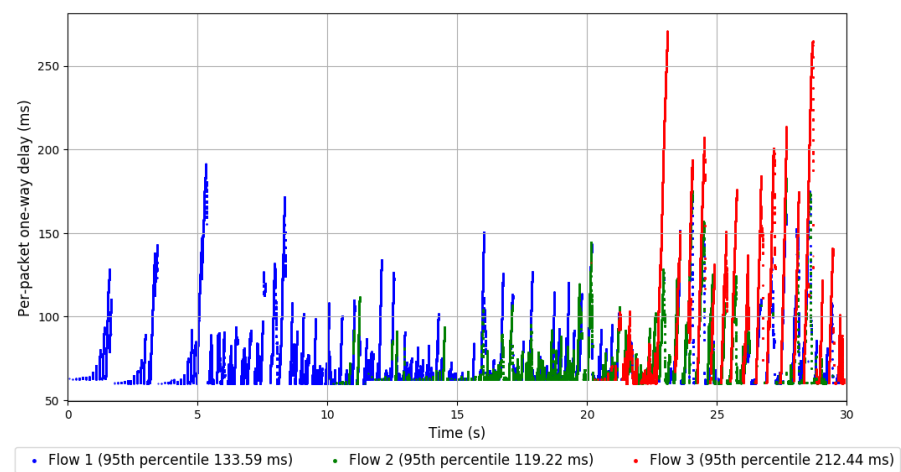
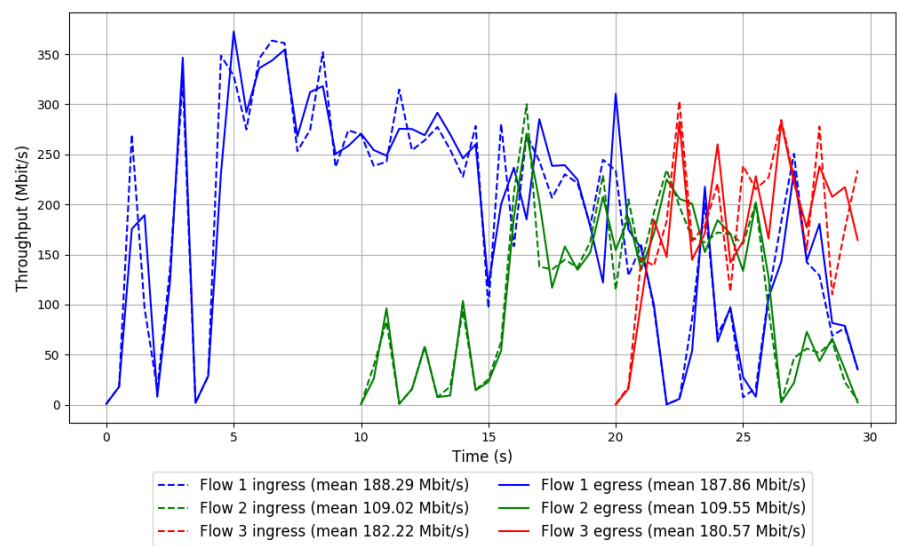
-- Flow 3:

Average throughput: 180.57 Mbit/s

95th percentile per-packet one-way delay: 212.436 ms

Loss rate: 2.60%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-11-22 02:34:41

End at: 2017-11-22 02:35:11

Below is generated by plot.py at 2017-11-22 07:09:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 267.96 Mbit/s

95th percentile per-packet one-way delay: 220.502 ms

Loss rate: 3.01%

-- Flow 1:

Average throughput: 144.74 Mbit/s

95th percentile per-packet one-way delay: 207.941 ms

Loss rate: 3.04%

-- Flow 2:

Average throughput: 152.99 Mbit/s

95th percentile per-packet one-way delay: 244.364 ms

Loss rate: 2.93%

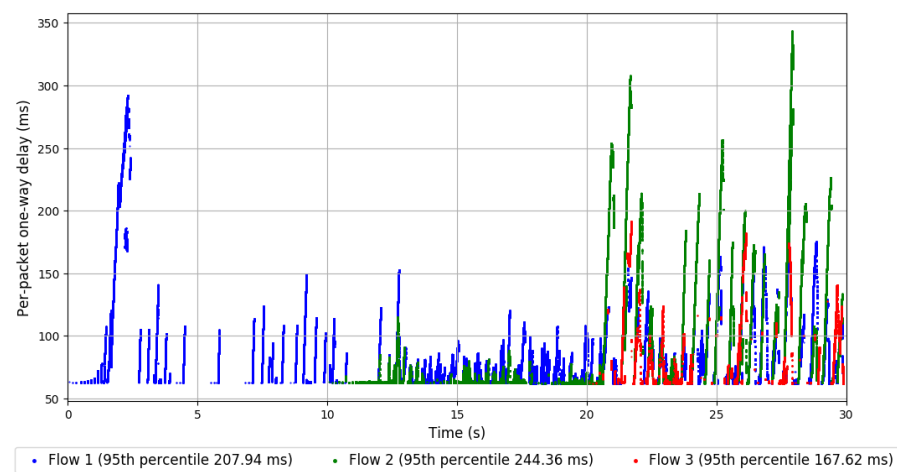
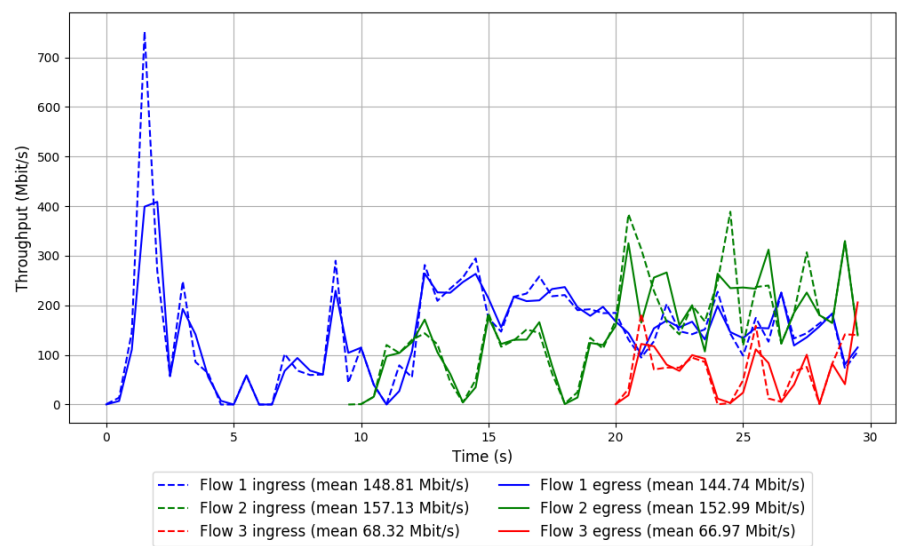
-- Flow 3:

Average throughput: 66.97 Mbit/s

95th percentile per-packet one-way delay: 167.625 ms

Loss rate: 3.13%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-11-22 02:47:10

End at: 2017-11-22 02:47:40

Below is generated by plot.py at 2017-11-22 07:11:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 384.01 Mbit/s

95th percentile per-packet one-way delay: 258.294 ms

Loss rate: 5.24%

-- Flow 1:

Average throughput: 218.18 Mbit/s

95th percentile per-packet one-way delay: 166.729 ms

Loss rate: 2.30%

-- Flow 2:

Average throughput: 227.79 Mbit/s

95th percentile per-packet one-way delay: 282.479 ms

Loss rate: 8.61%

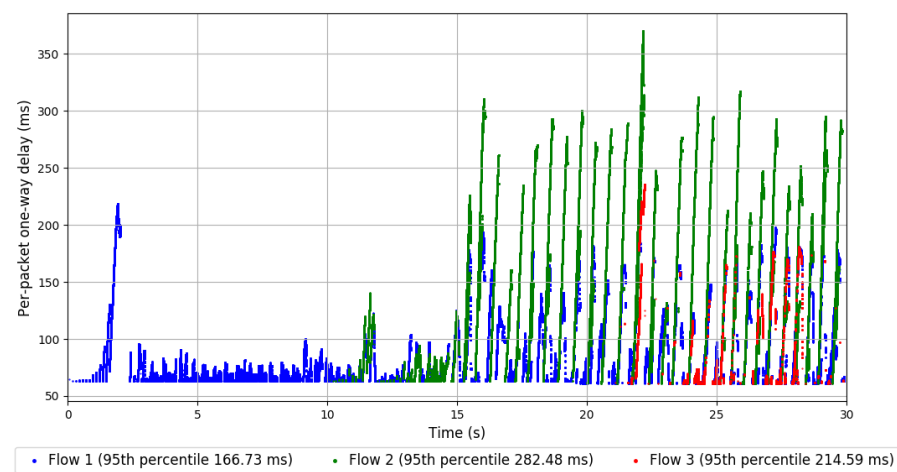
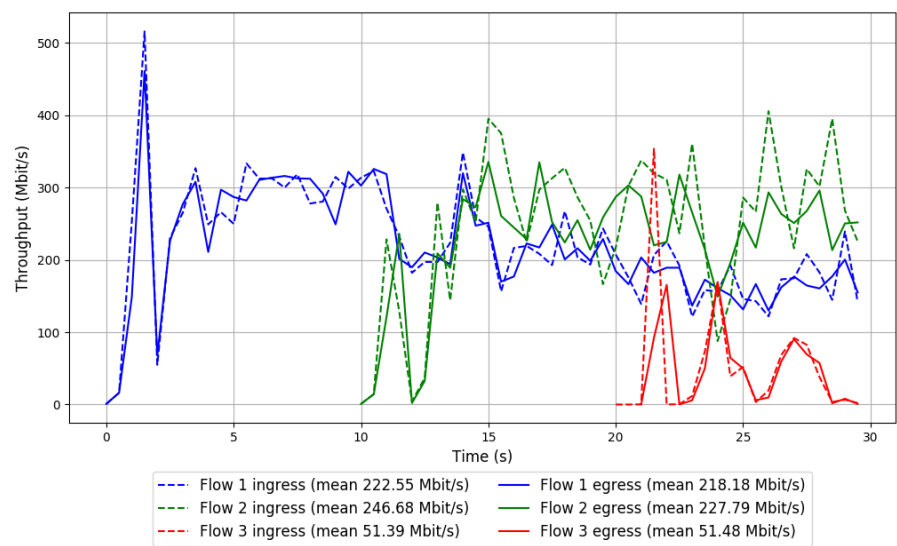
-- Flow 3:

Average throughput: 51.48 Mbit/s

95th percentile per-packet one-way delay: 214.594 ms

Loss rate: 11.19%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-11-22 03:00:04

End at: 2017-11-22 03:00:34

Below is generated by plot.py at 2017-11-22 07:11:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 314.02 Mbit/s

95th percentile per-packet one-way delay: 199.905 ms

Loss rate: 1.71%

-- Flow 1:

Average throughput: 202.16 Mbit/s

95th percentile per-packet one-way delay: 218.465 ms

Loss rate: 2.42%

-- Flow 2:

Average throughput: 119.14 Mbit/s

95th percentile per-packet one-way delay: 128.037 ms

Loss rate: 0.43%

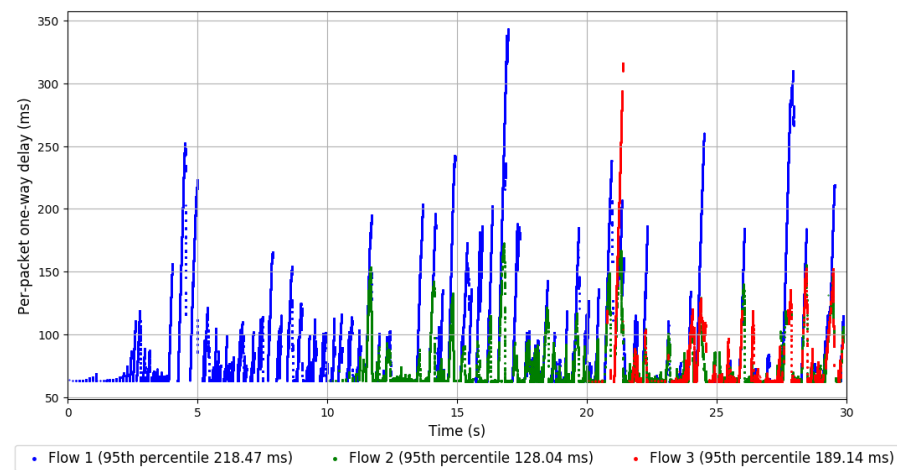
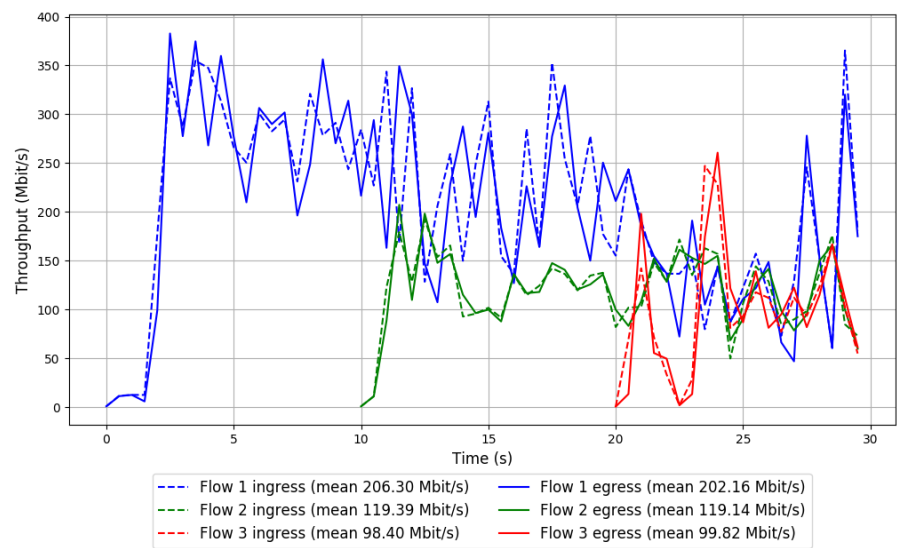
-- Flow 3:

Average throughput: 99.82 Mbit/s

95th percentile per-packet one-way delay: 189.136 ms

Loss rate: 0.38%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-11-22 03:12:41

End at: 2017-11-22 03:13:11

Below is generated by plot.py at 2017-11-22 07:13:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 387.34 Mbit/s

95th percentile per-packet one-way delay: 115.311 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 228.88 Mbit/s

95th percentile per-packet one-way delay: 113.021 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 157.53 Mbit/s

95th percentile per-packet one-way delay: 124.564 ms

Loss rate: 2.89%

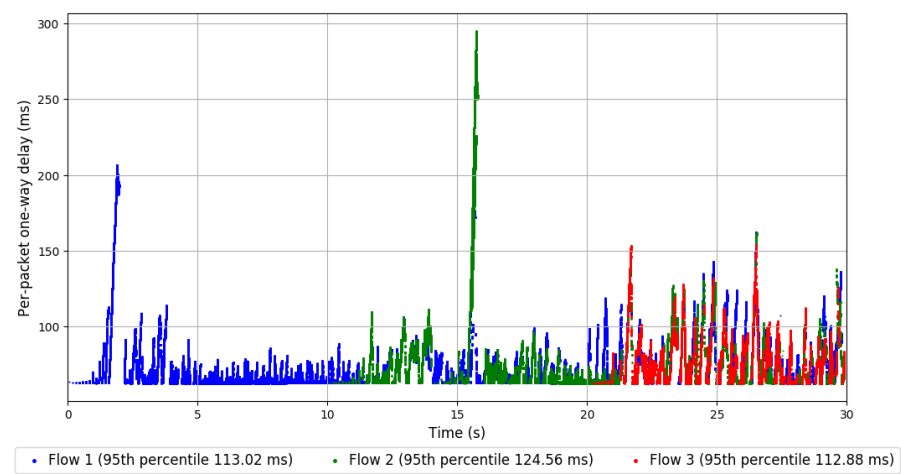
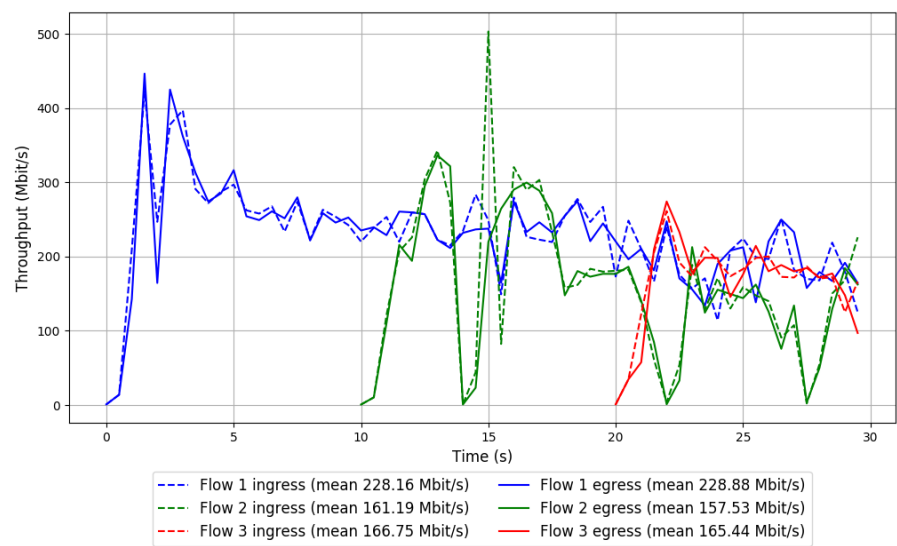
-- Flow 3:

Average throughput: 165.44 Mbit/s

95th percentile per-packet one-way delay: 112.876 ms

Loss rate: 2.09%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-11-22 03:25:25

End at: 2017-11-22 03:25:55

Below is generated by plot.py at 2017-11-22 07:13:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.83 Mbit/s

95th percentile per-packet one-way delay: 210.488 ms

Loss rate: 2.46%

-- Flow 1:

Average throughput: 172.44 Mbit/s

95th percentile per-packet one-way delay: 176.737 ms

Loss rate: 4.00%

-- Flow 2:

Average throughput: 198.51 Mbit/s

95th percentile per-packet one-way delay: 231.445 ms

Loss rate: 0.73%

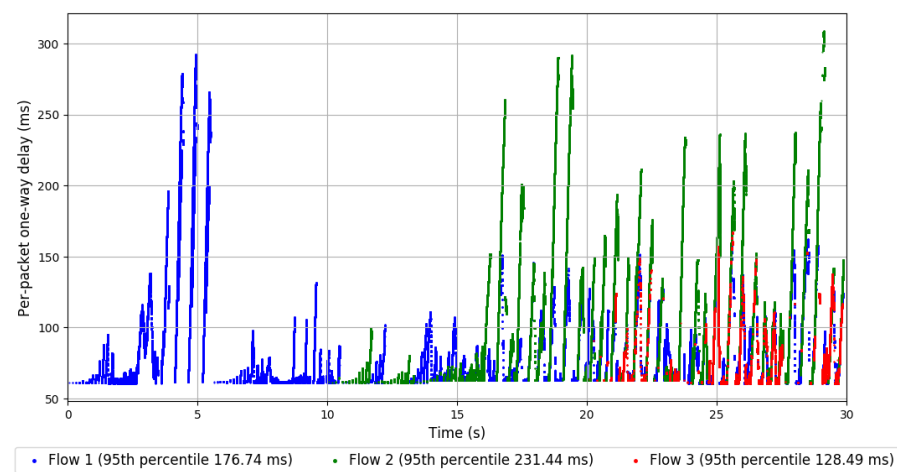
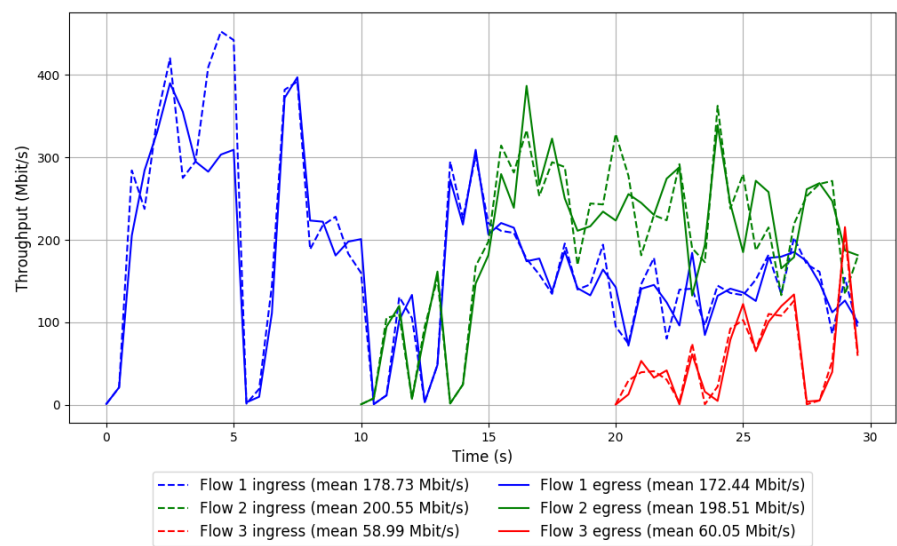
-- Flow 3:

Average throughput: 60.05 Mbit/s

95th percentile per-packet one-way delay: 128.490 ms

Loss rate: 0.05%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-11-22 03:37:55

End at: 2017-11-22 03:38:25

Below is generated by plot.py at 2017-11-22 07:13:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 360.18 Mbit/s

95th percentile per-packet one-way delay: 179.632 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 206.70 Mbit/s

95th percentile per-packet one-way delay: 185.163 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 198.66 Mbit/s

95th percentile per-packet one-way delay: 169.279 ms

Loss rate: 2.41%

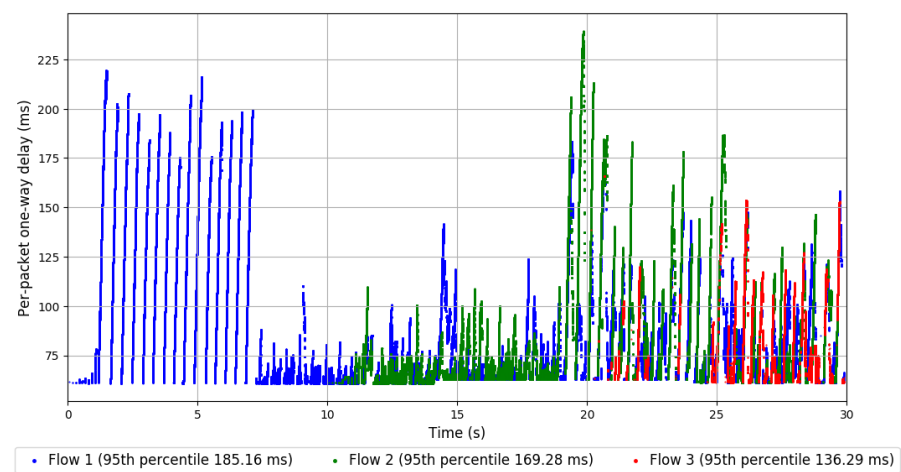
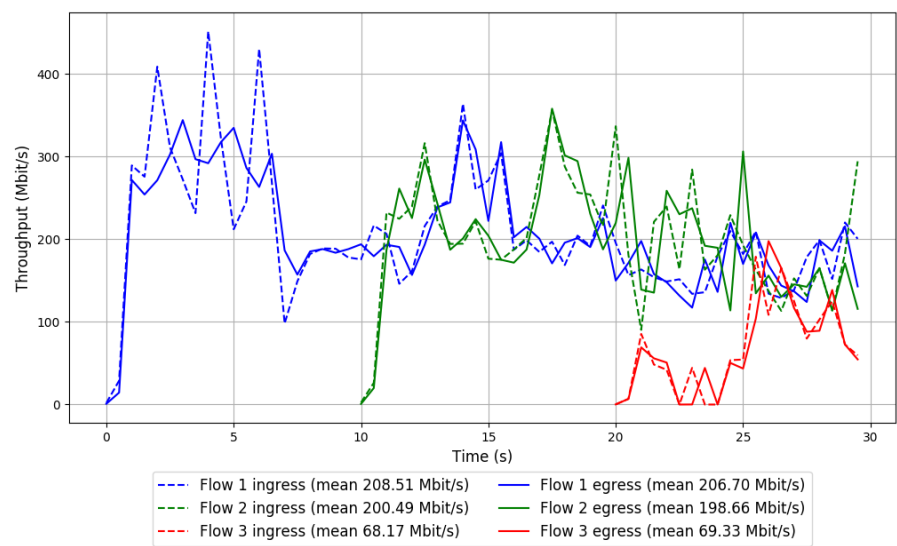
-- Flow 3:

Average throughput: 69.33 Mbit/s

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

Loss rate: 0.37%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-11-22 03:50:41

End at: 2017-11-22 03:51:11

Below is generated by plot.py at 2017-11-22 07:14:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.46 Mbit/s

95th percentile per-packet one-way delay: 128.956 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 197.73 Mbit/s

95th percentile per-packet one-way delay: 119.028 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 88.05 Mbit/s

95th percentile per-packet one-way delay: 106.639 ms

Loss rate: 0.16%

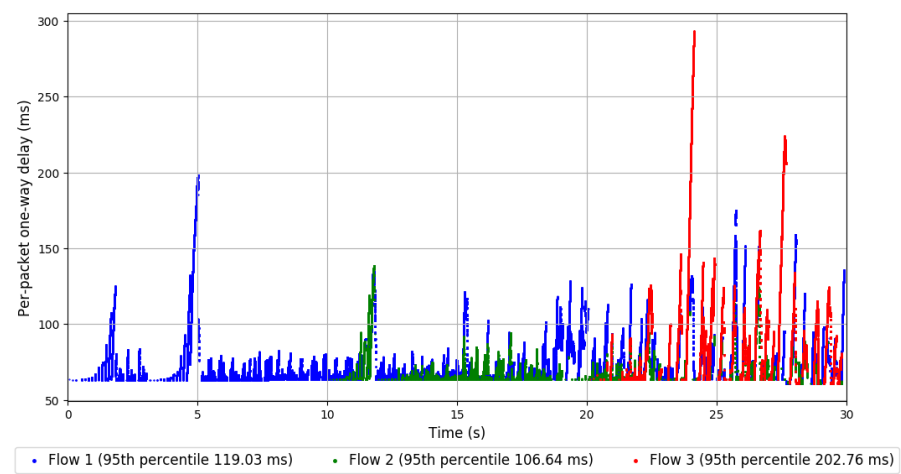
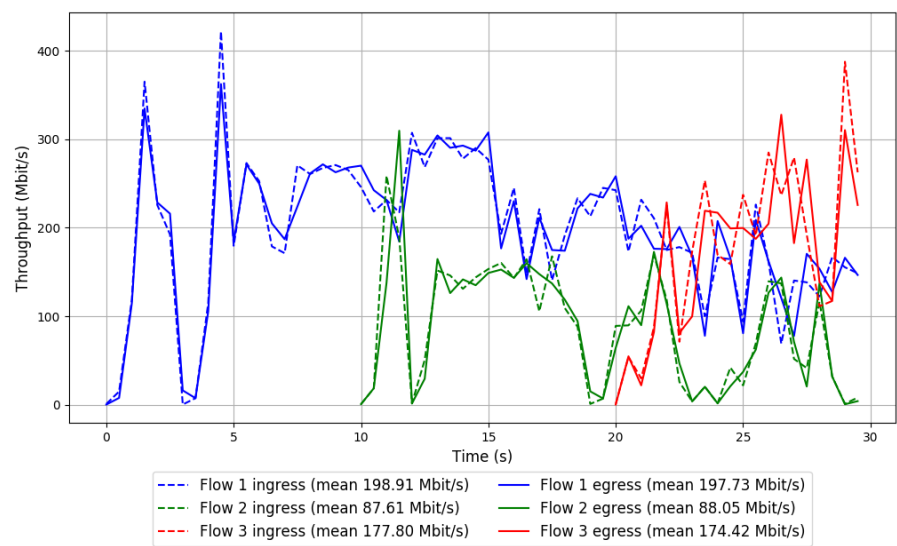
-- Flow 3:

Average throughput: 174.42 Mbit/s

95th percentile per-packet one-way delay: 202.757 ms

Loss rate: 4.23%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-11-22 04:03:24

End at: 2017-11-22 04:03:54

Below is generated by plot.py at 2017-11-22 07:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 340.70 Mbit/s

95th percentile per-packet one-way delay: 114.233 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 190.54 Mbit/s

95th percentile per-packet one-way delay: 103.926 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 176.13 Mbit/s

95th percentile per-packet one-way delay: 118.730 ms

Loss rate: 0.23%

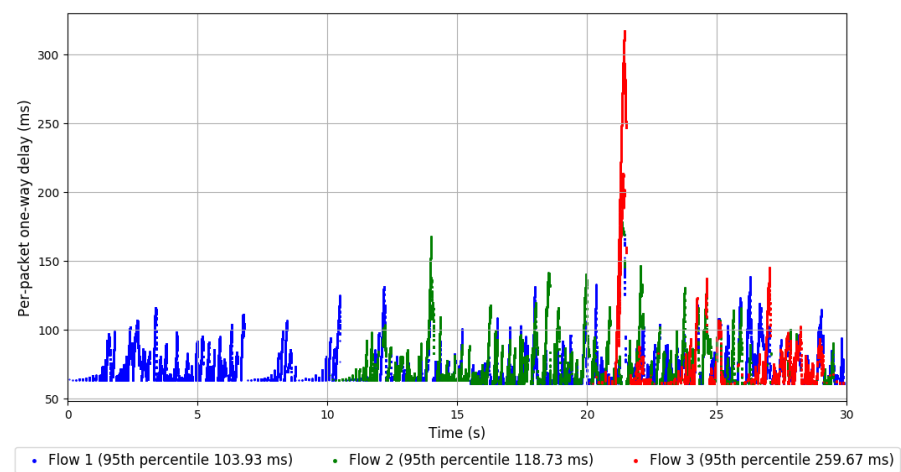
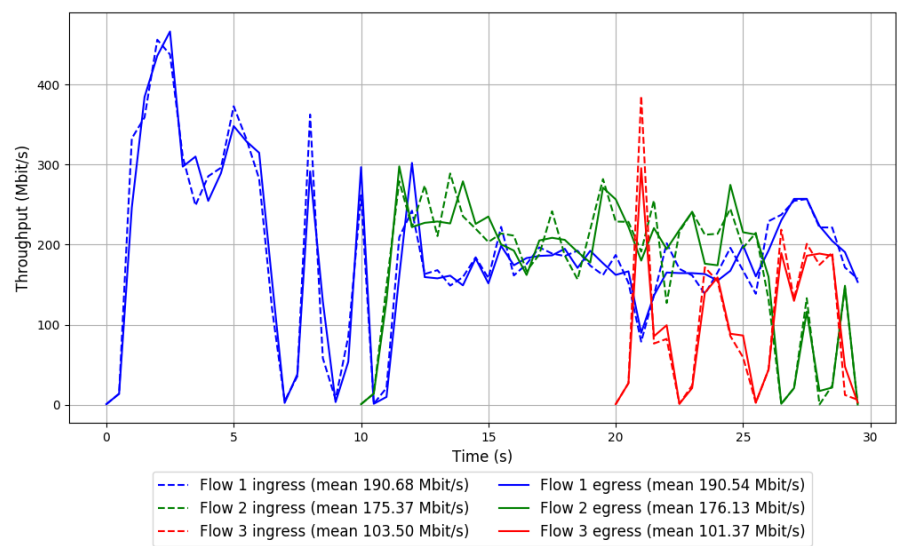
-- Flow 3:

Average throughput: 101.37 Mbit/s

95th percentile per-packet one-way delay: 259.671 ms

Loss rate: 3.31%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-11-22 02:05:11

End at: 2017-11-22 02:05:41

Below is generated by plot.py at 2017-11-22 07:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.31 Mbit/s

95th percentile per-packet one-way delay: 62.694 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 73.87 Mbit/s

95th percentile per-packet one-way delay: 62.614 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 73.90 Mbit/s

95th percentile per-packet one-way delay: 62.497 ms

Loss rate: 0.73%

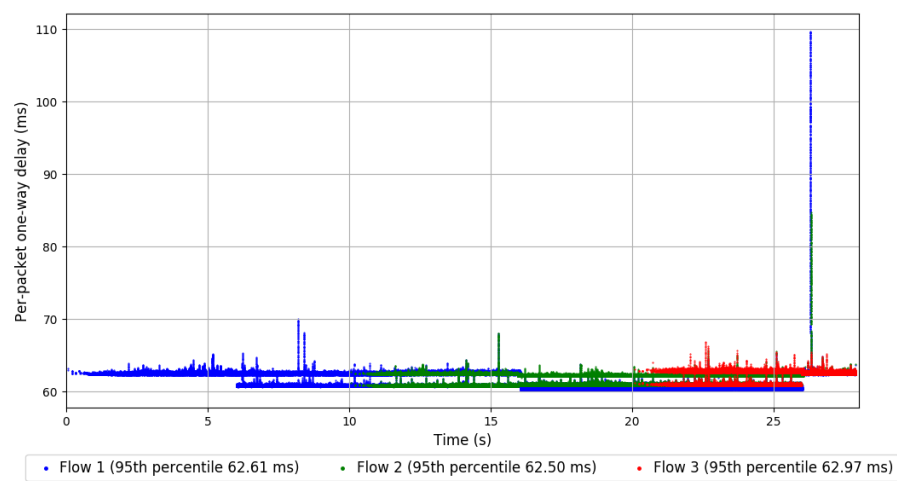
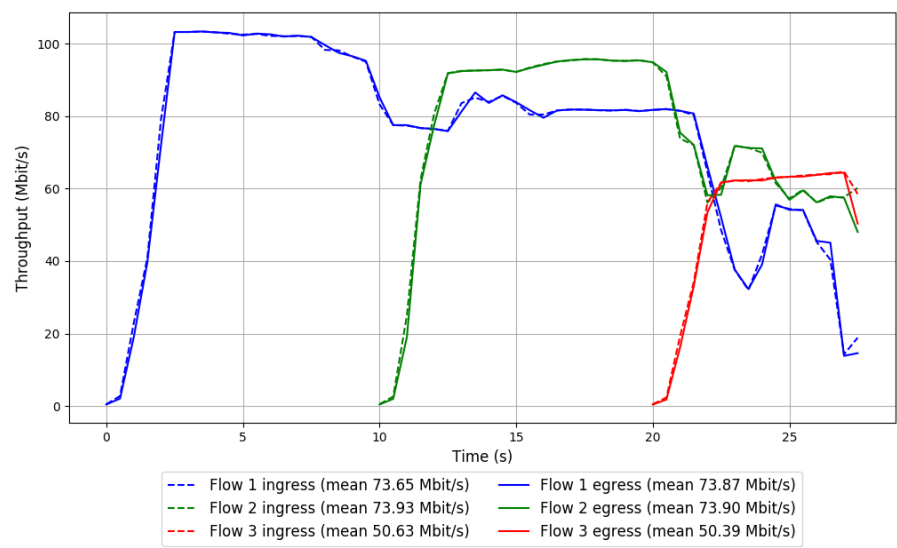
-- Flow 3:

Average throughput: 50.39 Mbit/s

95th percentile per-packet one-way delay: 62.966 ms

Loss rate: 2.03%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-11-22 02:17:55

End at: 2017-11-22 02:18:25

Below is generated by plot.py at 2017-11-22 07:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.23 Mbit/s

95th percentile per-packet one-way delay: 62.770 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 76.96 Mbit/s

95th percentile per-packet one-way delay: 62.816 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 64.11 Mbit/s

95th percentile per-packet one-way delay: 62.712 ms

Loss rate: 0.84%

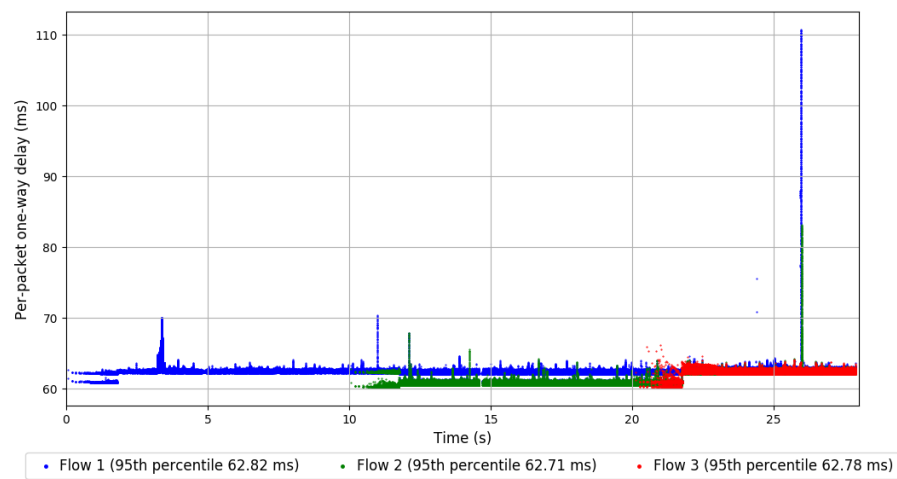
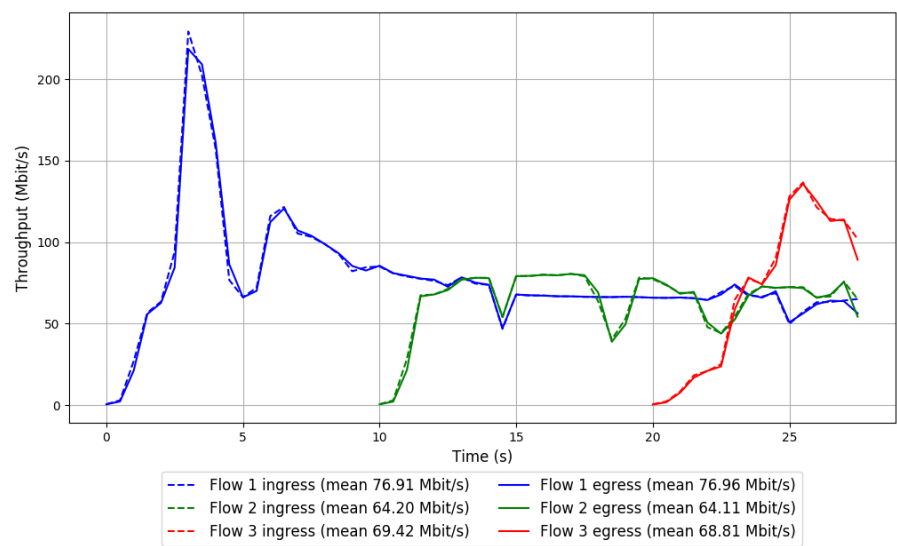
-- Flow 3:

Average throughput: 68.81 Mbit/s

95th percentile per-packet one-way delay: 62.777 ms

Loss rate: 2.44%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-11-22 02:30:22

End at: 2017-11-22 02:30:52

Below is generated by plot.py at 2017-11-22 07:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.91 Mbit/s

95th percentile per-packet one-way delay: 62.787 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 78.67 Mbit/s

95th percentile per-packet one-way delay: 62.652 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 40.25 Mbit/s

95th percentile per-packet one-way delay: 62.952 ms

Loss rate: 0.95%

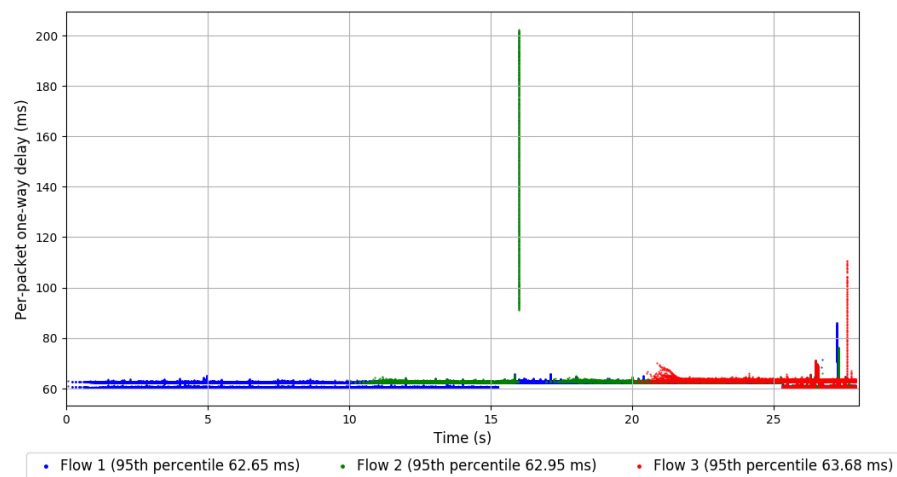
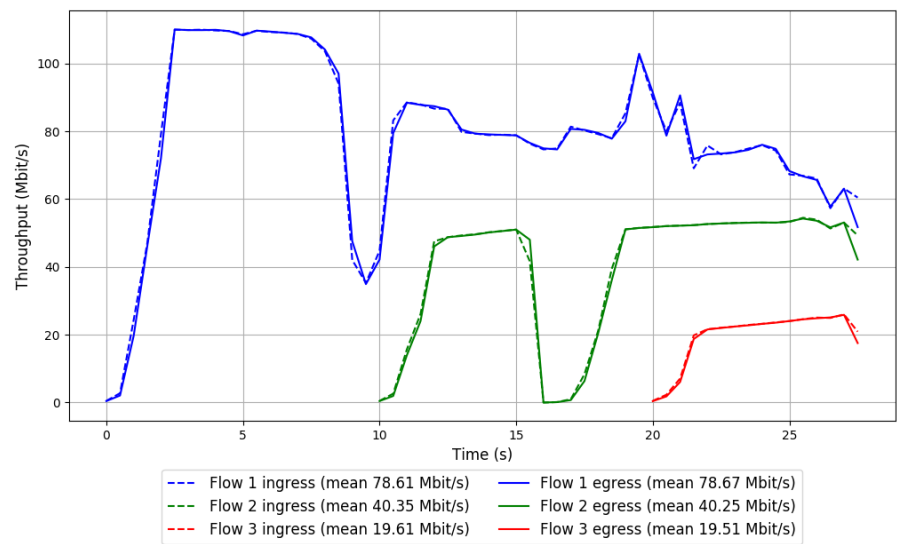
-- Flow 3:

Average throughput: 19.51 Mbit/s

95th percentile per-packet one-way delay: 63.679 ms

Loss rate: 2.12%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-11-22 02:42:43

End at: 2017-11-22 02:43:13

Below is generated by plot.py at 2017-11-22 07:17:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.51 Mbit/s

95th percentile per-packet one-way delay: 62.943 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 70.96 Mbit/s

95th percentile per-packet one-way delay: 62.982 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 63.81 Mbit/s

95th percentile per-packet one-way delay: 62.874 ms

Loss rate: 0.84%

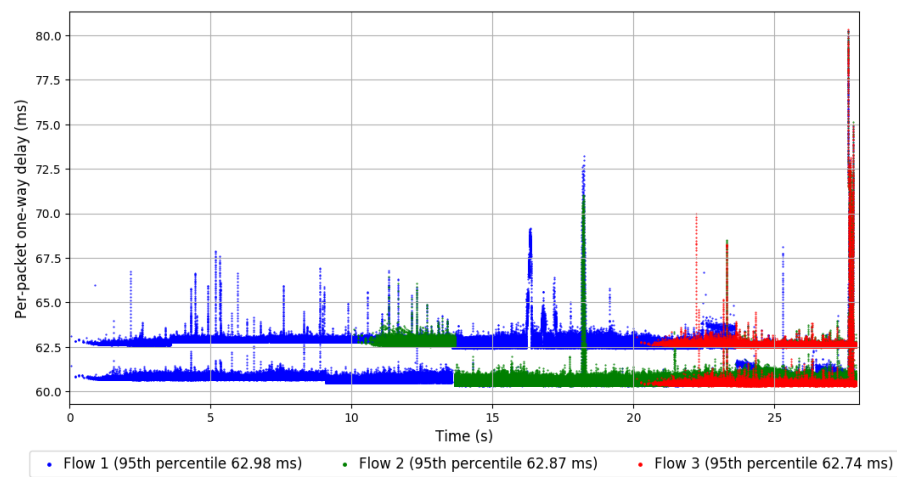
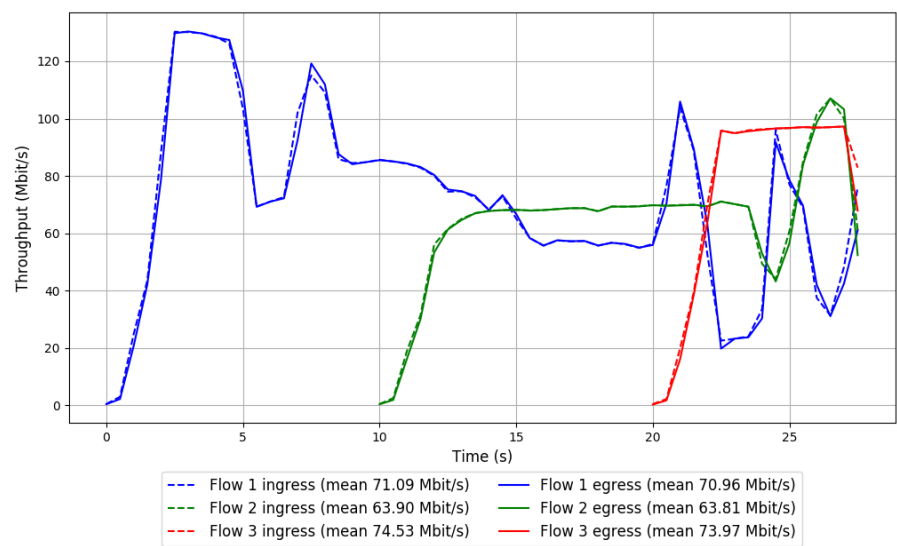
-- Flow 3:

Average throughput: 73.97 Mbit/s

95th percentile per-packet one-way delay: 62.742 ms

Loss rate: 2.30%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-11-22 02:55:39

End at: 2017-11-22 02:56:09

Below is generated by plot.py at 2017-11-22 07:17:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.92 Mbit/s

95th percentile per-packet one-way delay: 63.036 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 70.51 Mbit/s

95th percentile per-packet one-way delay: 62.892 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 54.81 Mbit/s

95th percentile per-packet one-way delay: 63.071 ms

Loss rate: 0.44%

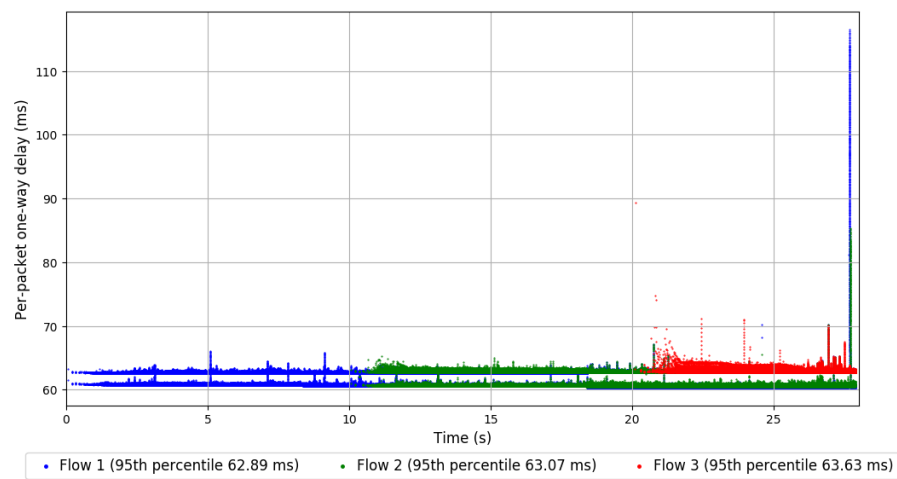
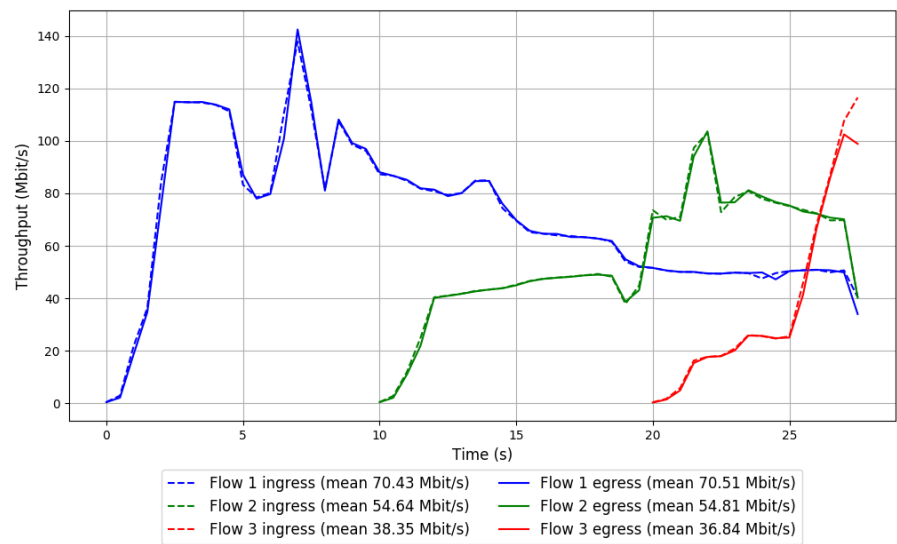
-- Flow 3:

Average throughput: 36.84 Mbit/s

95th percentile per-packet one-way delay: 63.635 ms

Loss rate: 5.48%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-11-22 03:08:19

End at: 2017-11-22 03:08:49

Below is generated by plot.py at 2017-11-22 07:17:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.33 Mbit/s

95th percentile per-packet one-way delay: 63.443 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 67.85 Mbit/s

95th percentile per-packet one-way delay: 63.470 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 45.14 Mbit/s

95th percentile per-packet one-way delay: 63.470 ms

Loss rate: 0.66%

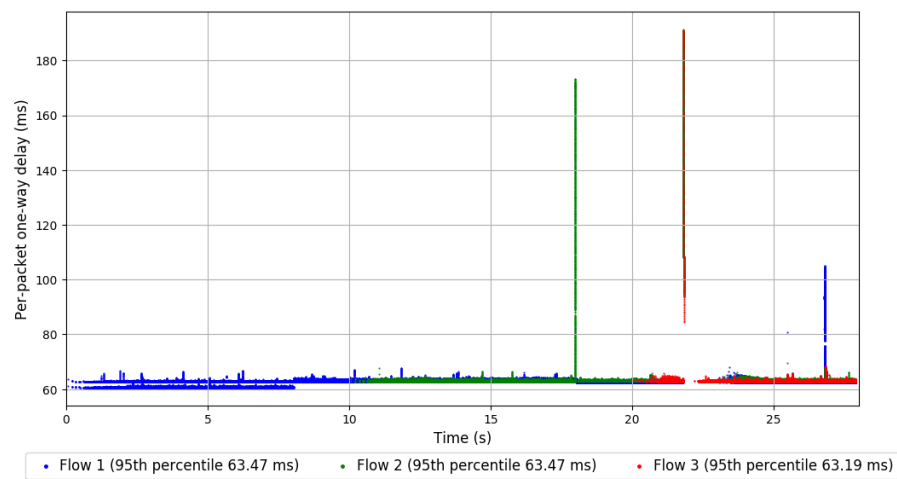
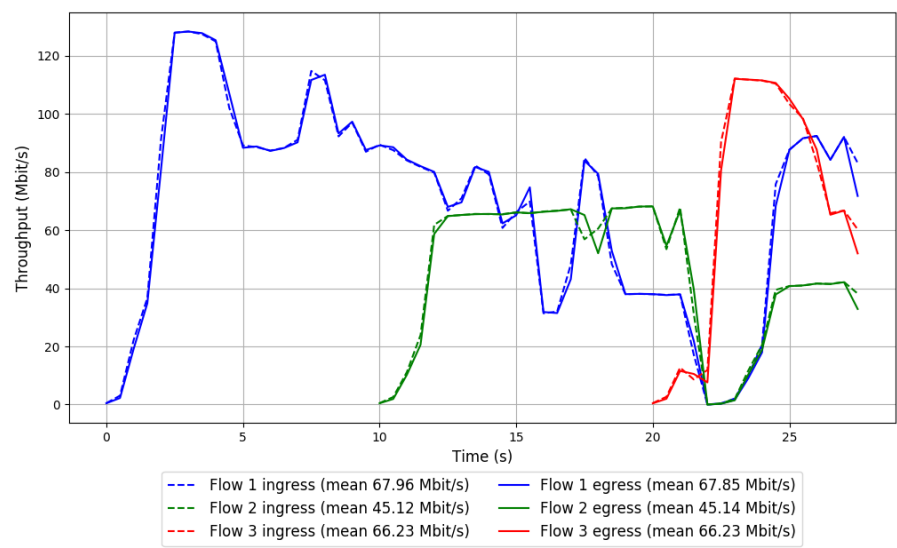
-- Flow 3:

Average throughput: 66.23 Mbit/s

95th percentile per-packet one-way delay: 63.190 ms

Loss rate: 1.59%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-11-22 03:21:07

End at: 2017-11-22 03:21:37

Below is generated by plot.py at 2017-11-22 07:17:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.72 Mbit/s

95th percentile per-packet one-way delay: 63.394 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 73.92 Mbit/s

95th percentile per-packet one-way delay: 63.425 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 30.77 Mbit/s

95th percentile per-packet one-way delay: 63.028 ms

Loss rate: 1.72%

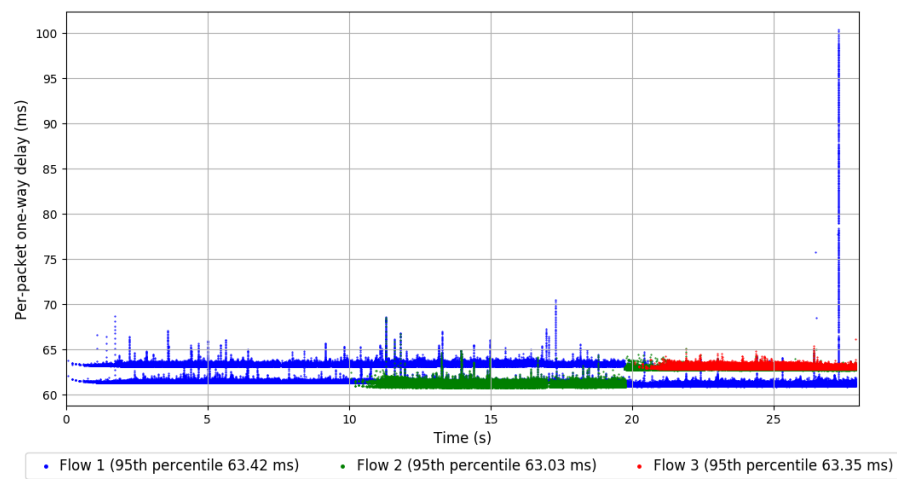
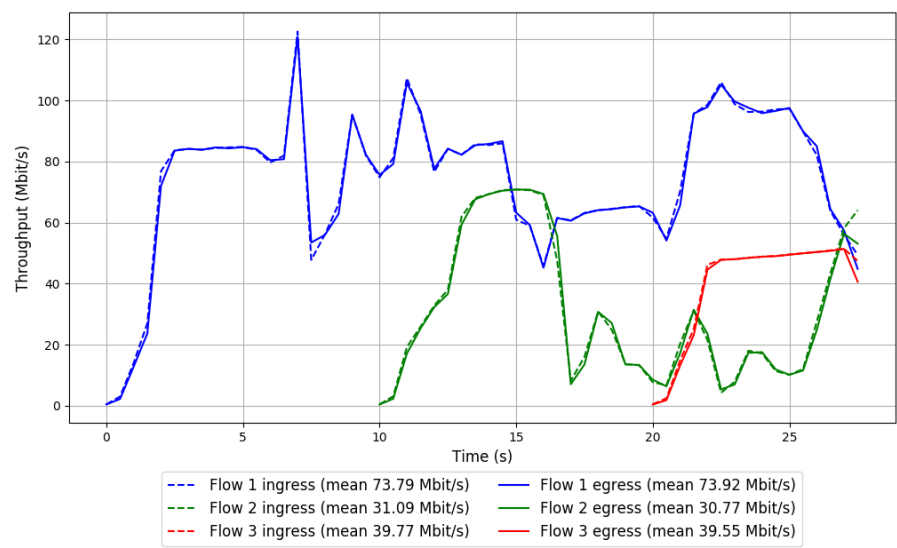
-- Flow 3:

Average throughput: 39.55 Mbit/s

95th percentile per-packet one-way delay: 63.346 ms

Loss rate: 2.11%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-11-22 03:33:37

End at: 2017-11-22 03:34:07

Below is generated by plot.py at 2017-11-22 07:18:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.22 Mbit/s

95th percentile per-packet one-way delay: 63.315 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 67.40 Mbit/s

95th percentile per-packet one-way delay: 63.361 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 65.97 Mbit/s

95th percentile per-packet one-way delay: 63.090 ms

Loss rate: 0.69%

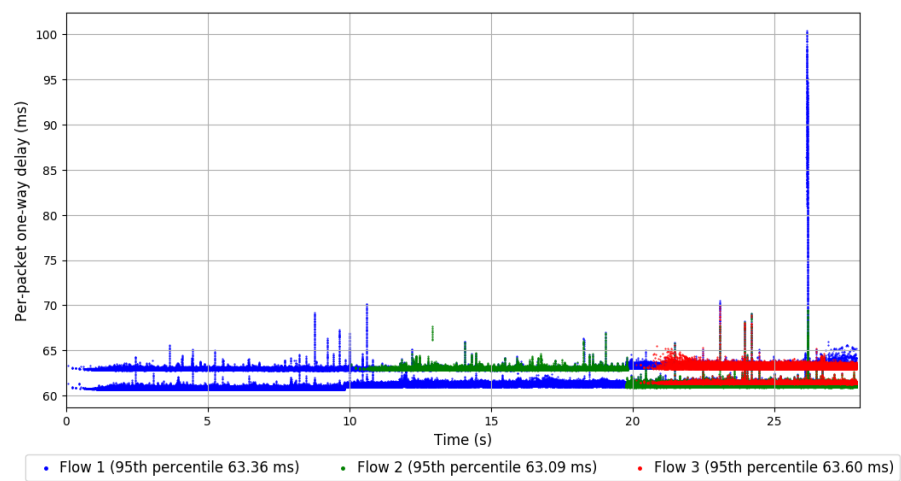
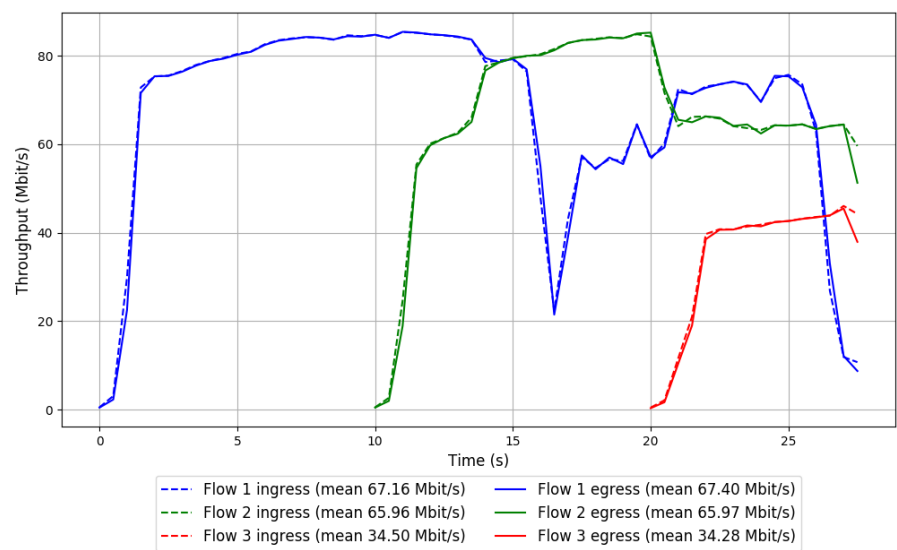
-- Flow 3:

Average throughput: 34.28 Mbit/s

95th percentile per-packet one-way delay: 63.601 ms

Loss rate: 2.24%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-11-22 03:46:16

End at: 2017-11-22 03:46:46

Below is generated by plot.py at 2017-11-22 07:19:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.25 Mbit/s

95th percentile per-packet one-way delay: 63.431 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 72.36 Mbit/s

95th percentile per-packet one-way delay: 63.412 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 64.46 Mbit/s

95th percentile per-packet one-way delay: 63.346 ms

Loss rate: 1.03%

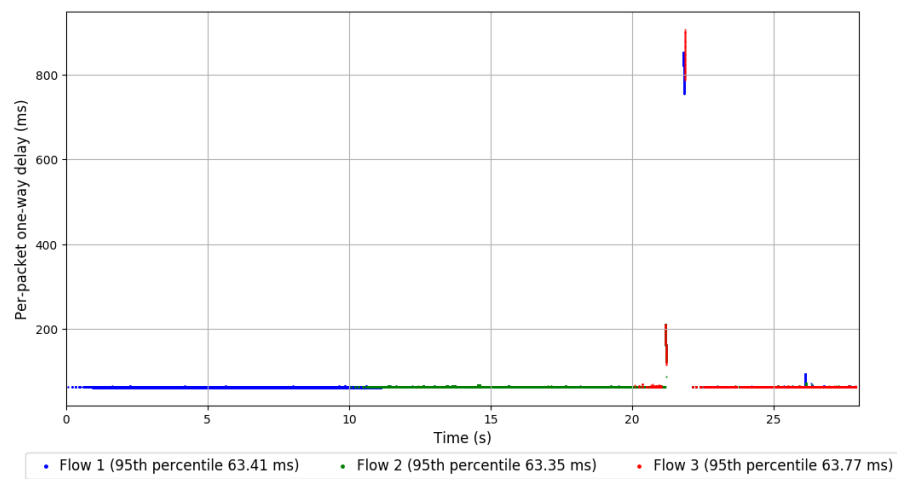
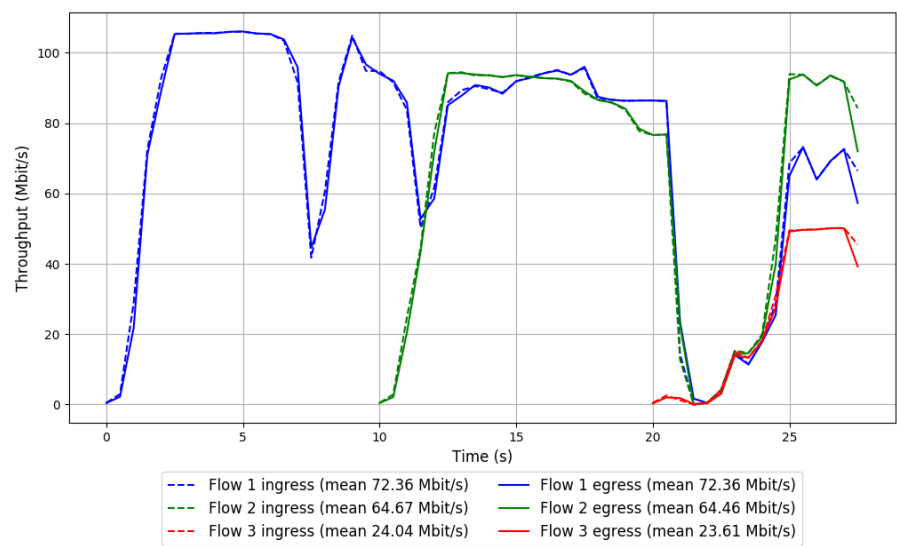
-- Flow 3:

Average throughput: 23.61 Mbit/s

95th percentile per-packet one-way delay: 63.771 ms

Loss rate: 3.31%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-11-22 03:58:57

End at: 2017-11-22 03:59:27

Below is generated by plot.py at 2017-11-22 07:19:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.54 Mbit/s

95th percentile per-packet one-way delay: 63.313 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 56.63 Mbit/s

95th percentile per-packet one-way delay: 63.416 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 75.84 Mbit/s

95th percentile per-packet one-way delay: 63.253 ms

Loss rate: 0.87%

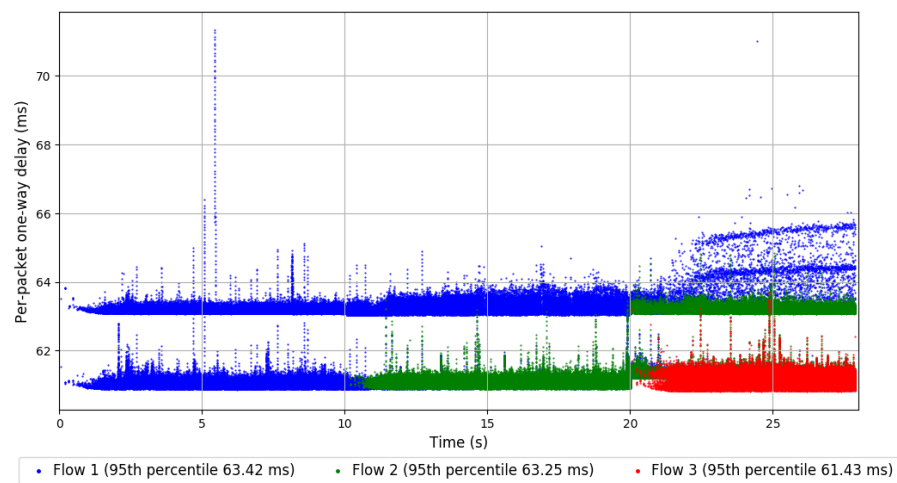
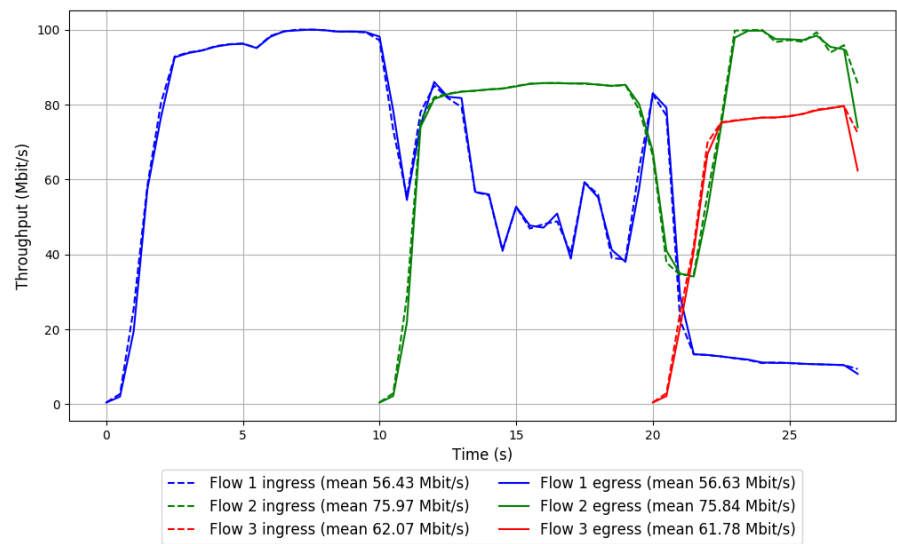
-- Flow 3:

Average throughput: 61.78 Mbit/s

95th percentile per-packet one-way delay: 61.431 ms

Loss rate: 2.01%

Run 10: Report of Copa — Data Link

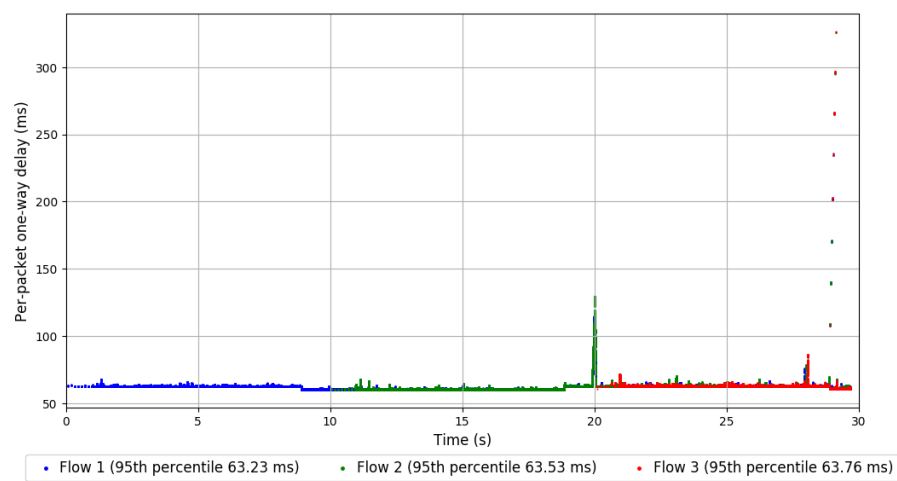
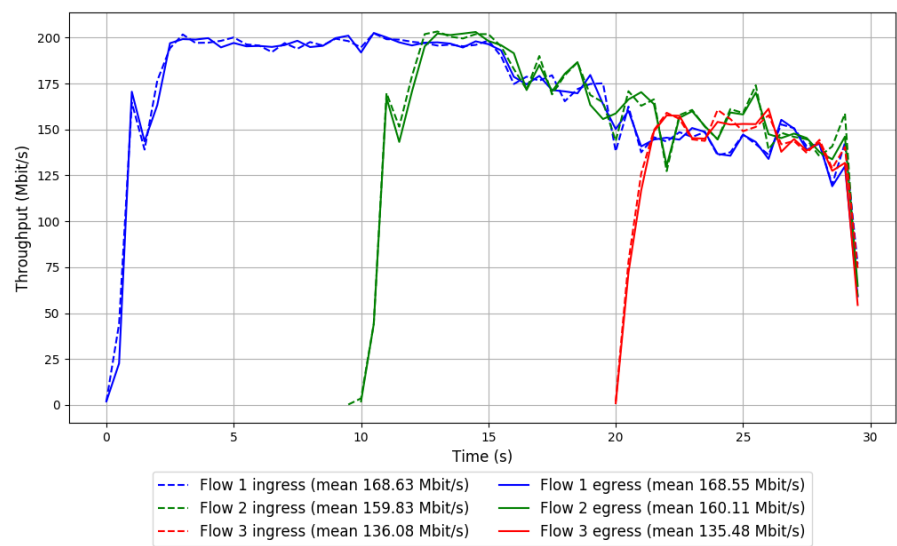


```
Run 1: Statistics of Indigo

Start at: 2017-11-22 02:07:40
End at: 2017-11-22 02:08:10

# Below is generated by plot.py at 2017-11-22 07:22:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 318.49 Mbit/s
95th percentile per-packet one-way delay: 63.388 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 168.55 Mbit/s
95th percentile per-packet one-way delay: 63.232 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 160.11 Mbit/s
95th percentile per-packet one-way delay: 63.534 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 135.48 Mbit/s
95th percentile per-packet one-way delay: 63.759 ms
Loss rate: 1.84%
```


Run 1: Report of Indigo — Data Link

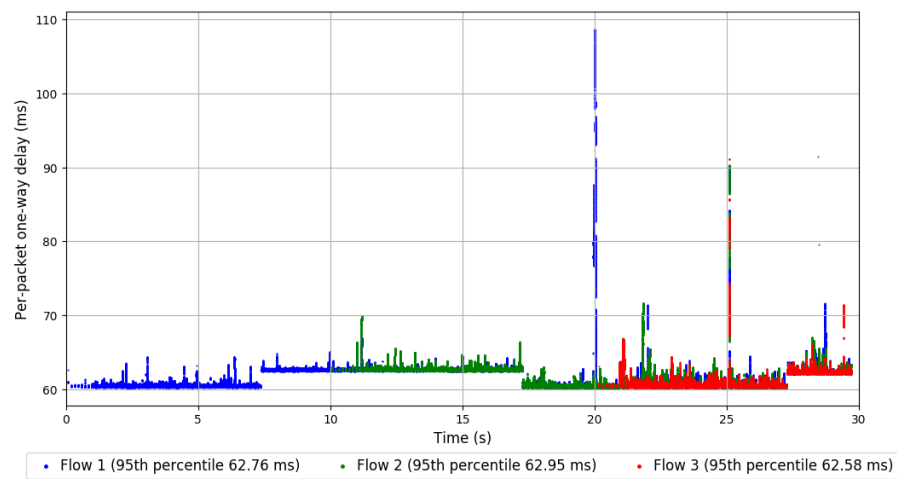
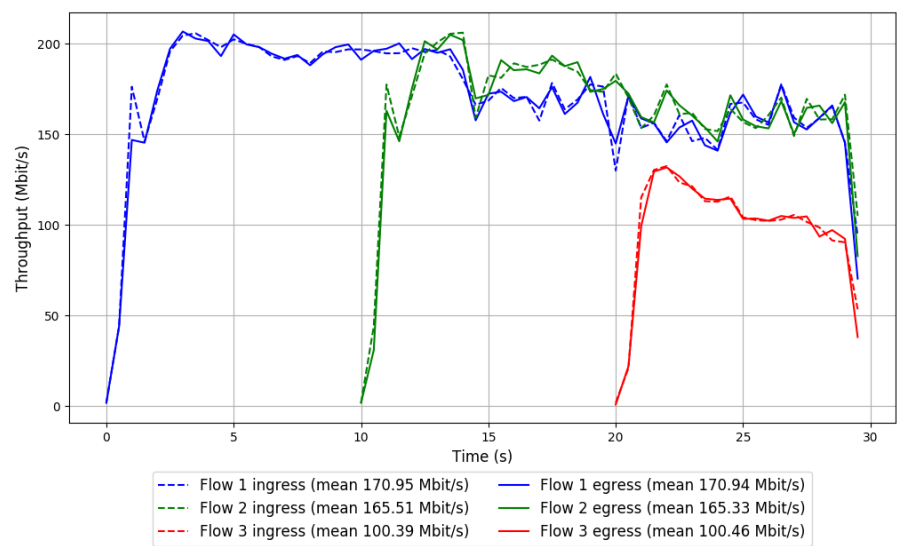


```
Run 2: Statistics of Indigo

Start at: 2017-11-22 02:20:22
End at: 2017-11-22 02:20:52

# Below is generated by plot.py at 2017-11-22 07:23:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.78 Mbit/s
95th percentile per-packet one-way delay: 62.807 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 170.94 Mbit/s
95th percentile per-packet one-way delay: 62.755 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 165.33 Mbit/s
95th percentile per-packet one-way delay: 62.947 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 100.46 Mbit/s
95th percentile per-packet one-way delay: 62.582 ms
Loss rate: 1.20%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-11-22 02:32:44

End at: 2017-11-22 02:33:14

Below is generated by plot.py at 2017-11-22 07:23:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.53 Mbit/s

95th percentile per-packet one-way delay: 63.668 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 173.78 Mbit/s

95th percentile per-packet one-way delay: 63.532 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 160.42 Mbit/s

95th percentile per-packet one-way delay: 63.949 ms

Loss rate: 0.29%

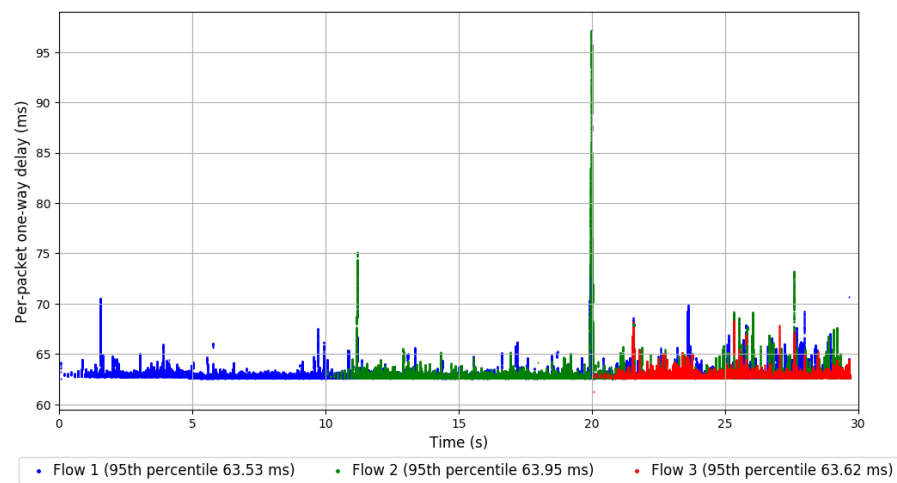
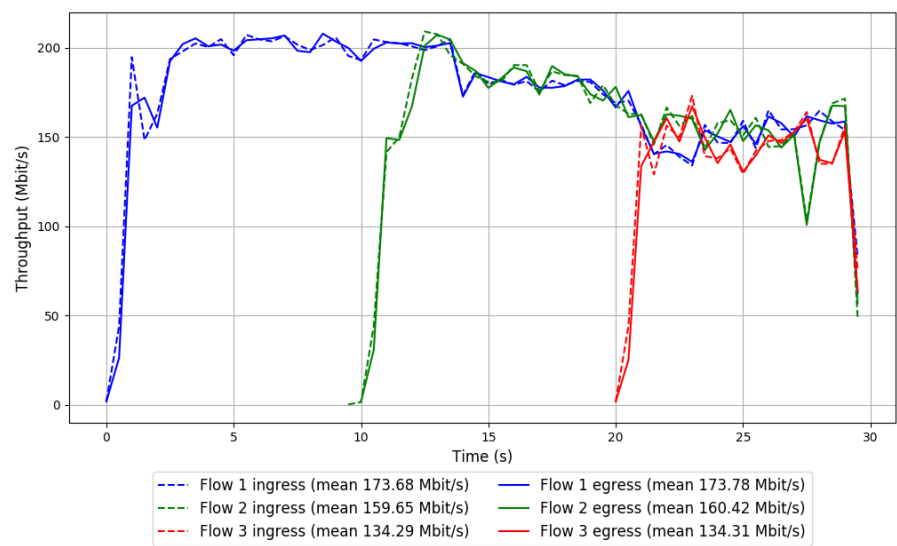
-- Flow 3:

Average throughput: 134.31 Mbit/s

95th percentile per-packet one-way delay: 63.621 ms

Loss rate: 1.26%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-11-22 02:45:11

End at: 2017-11-22 02:45:41

Below is generated by plot.py at 2017-11-22 07:23:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 322.36 Mbit/s

95th percentile per-packet one-way delay: 63.334 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 169.75 Mbit/s

95th percentile per-packet one-way delay: 63.153 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 161.98 Mbit/s

95th percentile per-packet one-way delay: 63.506 ms

Loss rate: 0.74%

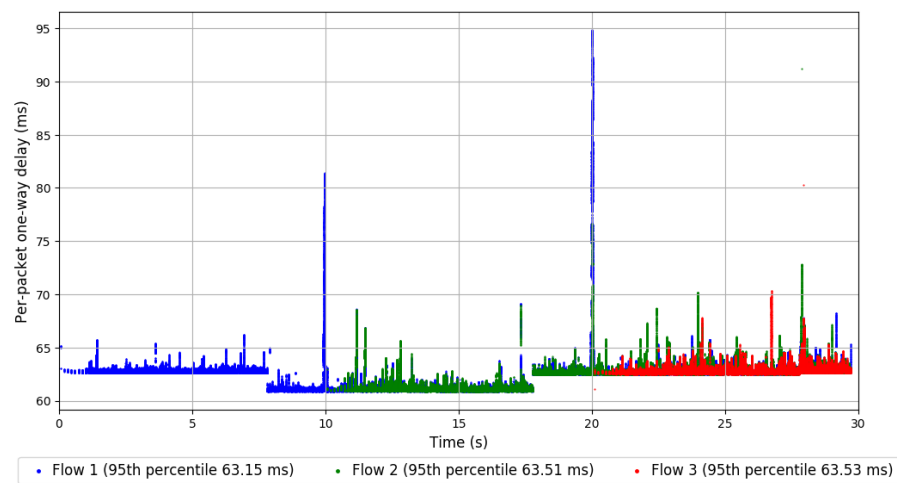
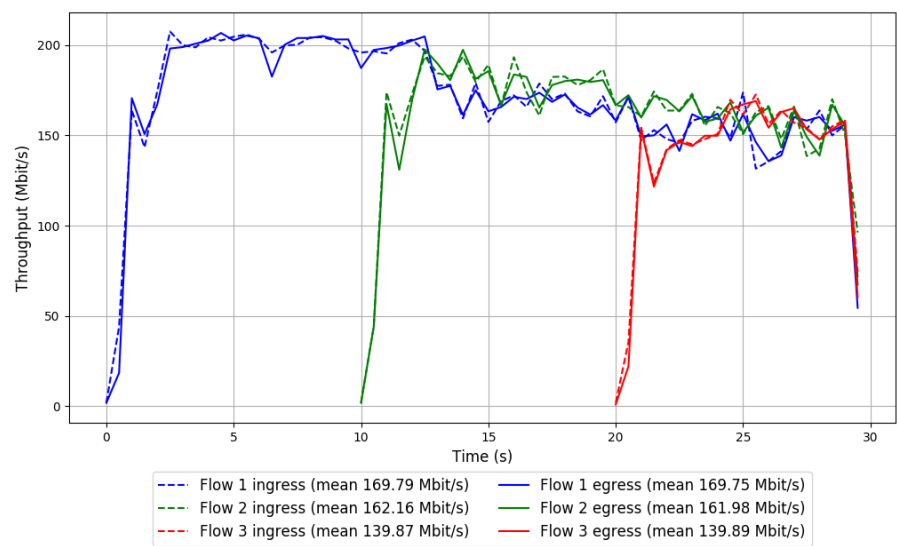
-- Flow 3:

Average throughput: 139.89 Mbit/s

95th percentile per-packet one-way delay: 63.531 ms

Loss rate: 1.27%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-11-22 02:58:03

End at: 2017-11-22 02:58:33

Below is generated by plot.py at 2017-11-22 07:24:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.61 Mbit/s

95th percentile per-packet one-way delay: 63.520 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 177.15 Mbit/s

95th percentile per-packet one-way delay: 63.248 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 164.11 Mbit/s

95th percentile per-packet one-way delay: 63.953 ms

Loss rate: 0.81%

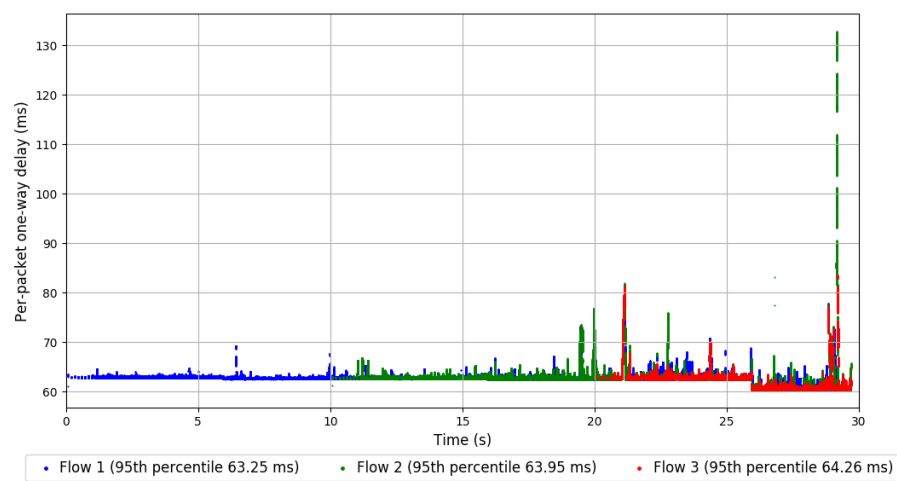
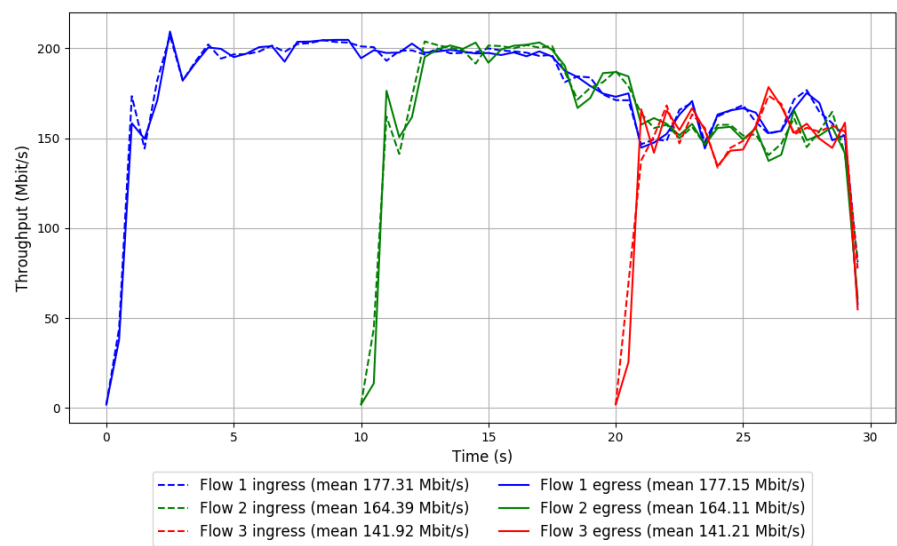
-- Flow 3:

Average throughput: 141.21 Mbit/s

95th percentile per-packet one-way delay: 64.261 ms

Loss rate: 1.78%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-11-22 03:10:42

End at: 2017-11-22 03:11:12

Below is generated by plot.py at 2017-11-22 07:25:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 330.91 Mbit/s

95th percentile per-packet one-way delay: 64.095 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 175.98 Mbit/s

95th percentile per-packet one-way delay: 63.573 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 163.94 Mbit/s

95th percentile per-packet one-way delay: 64.837 ms

Loss rate: 0.55%

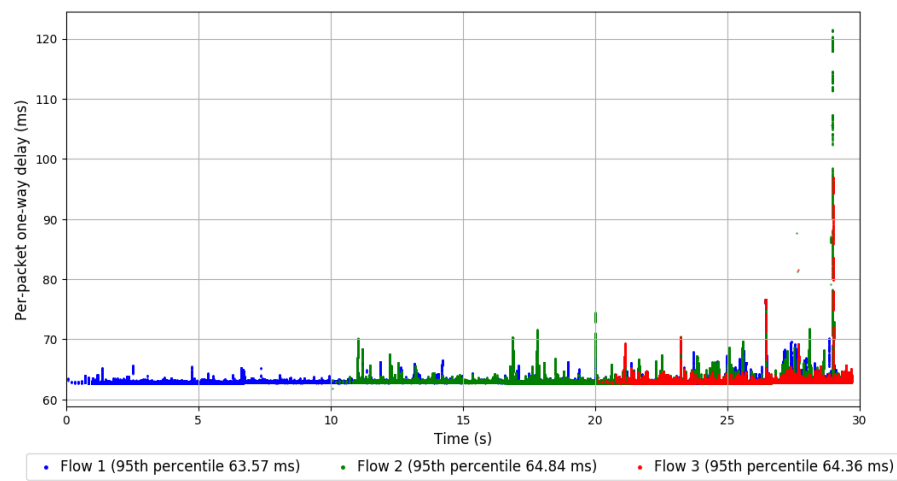
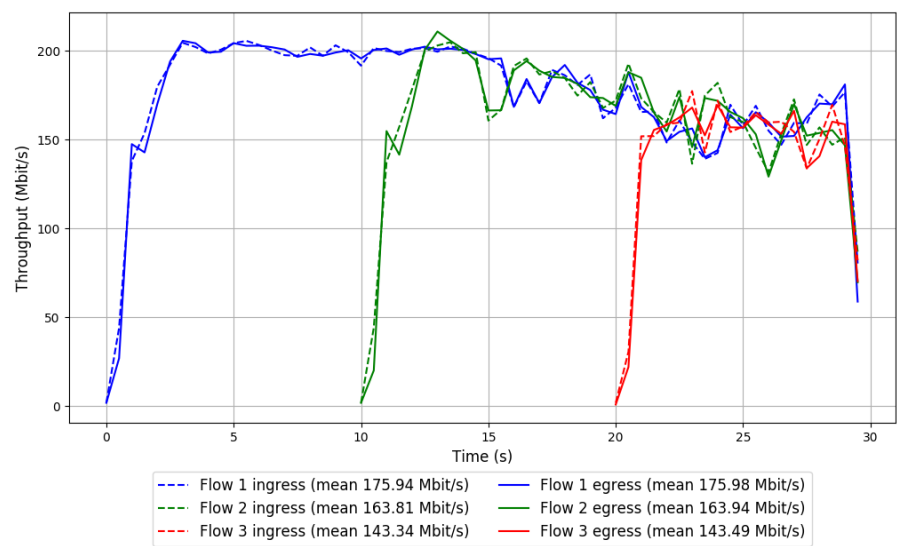
-- Flow 3:

Average throughput: 143.49 Mbit/s

95th percentile per-packet one-way delay: 64.358 ms

Loss rate: 1.22%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-11-22 03:23:30

End at: 2017-11-22 03:24:00

Below is generated by plot.py at 2017-11-22 07:25:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 294.35 Mbit/s

95th percentile per-packet one-way delay: 63.351 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 156.78 Mbit/s

95th percentile per-packet one-way delay: 63.188 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 153.81 Mbit/s

95th percentile per-packet one-way delay: 63.674 ms

Loss rate: 0.67%

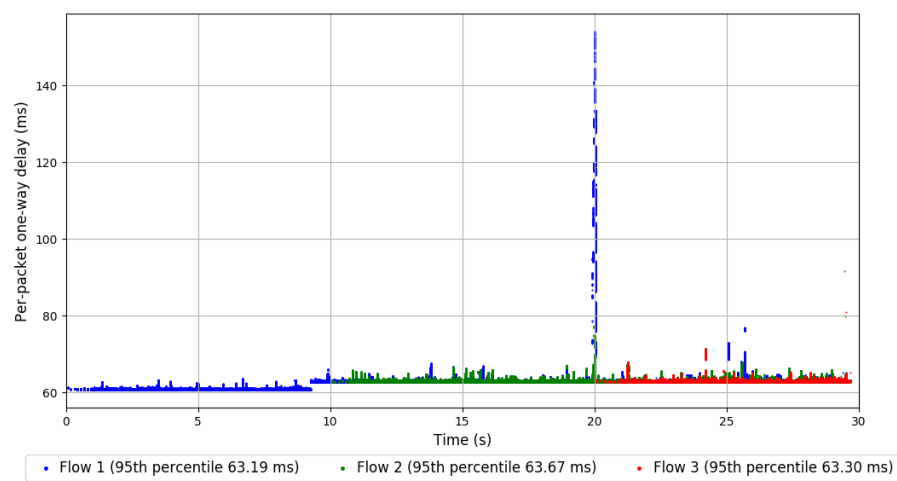
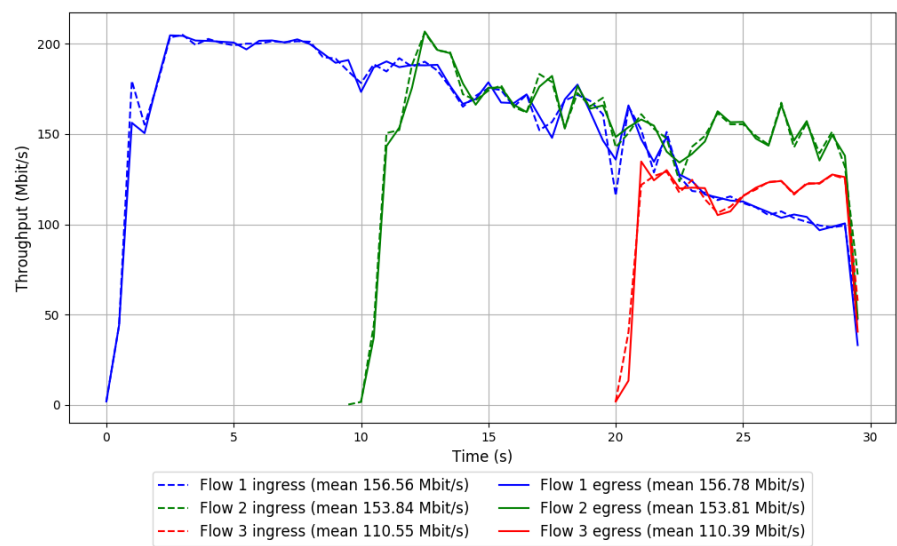
-- Flow 3:

Average throughput: 110.39 Mbit/s

95th percentile per-packet one-way delay: 63.303 ms

Loss rate: 1.42%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-11-22 03:36:01

End at: 2017-11-22 03:36:31

Below is generated by plot.py at 2017-11-22 07:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 320.43 Mbit/s

95th percentile per-packet one-way delay: 64.174 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 171.27 Mbit/s

95th percentile per-packet one-way delay: 64.073 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 158.47 Mbit/s

95th percentile per-packet one-way delay: 64.255 ms

Loss rate: 0.73%

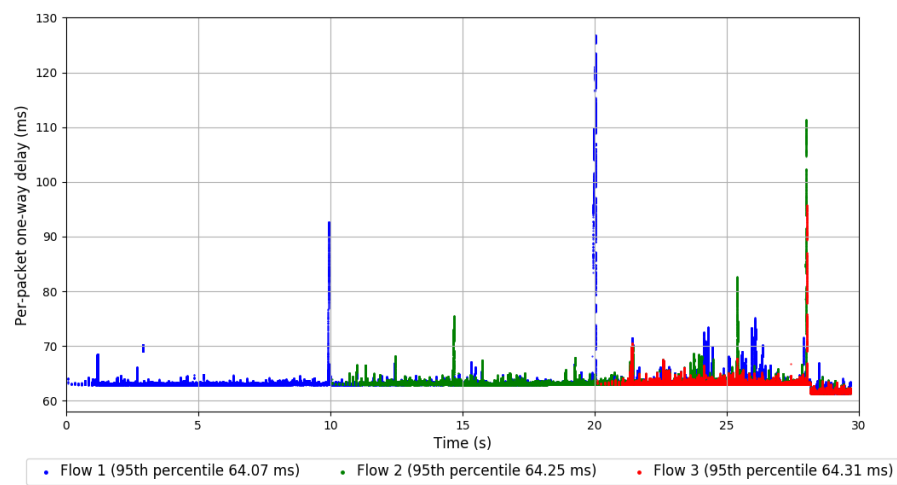
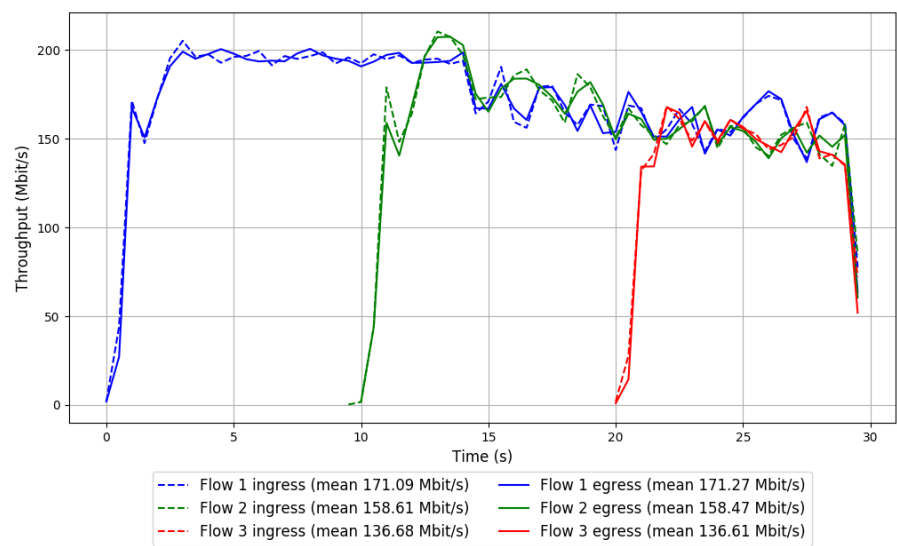
-- Flow 3:

Average throughput: 136.61 Mbit/s

95th percentile per-packet one-way delay: 64.315 ms

Loss rate: 1.35%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-11-22 03:48:42

End at: 2017-11-22 03:49:12

Below is generated by plot.py at 2017-11-22 07:28:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 329.98 Mbit/s

95th percentile per-packet one-way delay: 63.347 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 173.61 Mbit/s

95th percentile per-packet one-way delay: 63.170 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 167.06 Mbit/s

95th percentile per-packet one-way delay: 64.092 ms

Loss rate: 0.62%

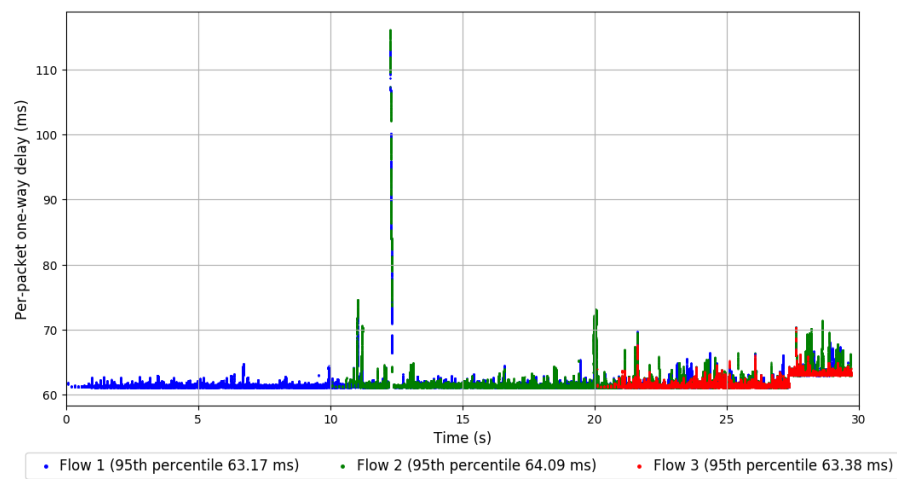
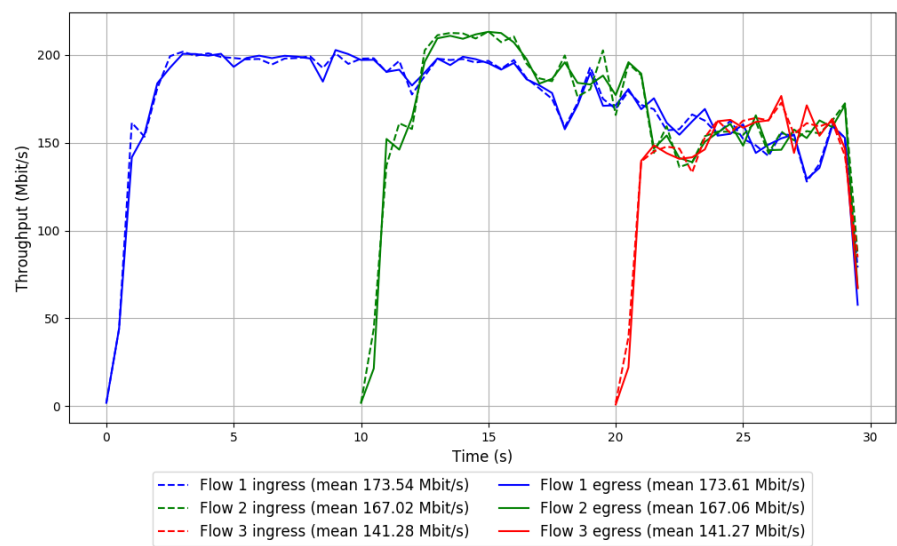
-- Flow 3:

Average throughput: 141.27 Mbit/s

95th percentile per-packet one-way delay: 63.377 ms

Loss rate: 1.29%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-11-22 04:01:27

End at: 2017-11-22 04:01:57

Below is generated by plot.py at 2017-11-22 07:29:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 321.33 Mbit/s

95th percentile per-packet one-way delay: 63.908 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 167.44 Mbit/s

95th percentile per-packet one-way delay: 63.734 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 161.50 Mbit/s

95th percentile per-packet one-way delay: 64.537 ms

Loss rate: 0.71%

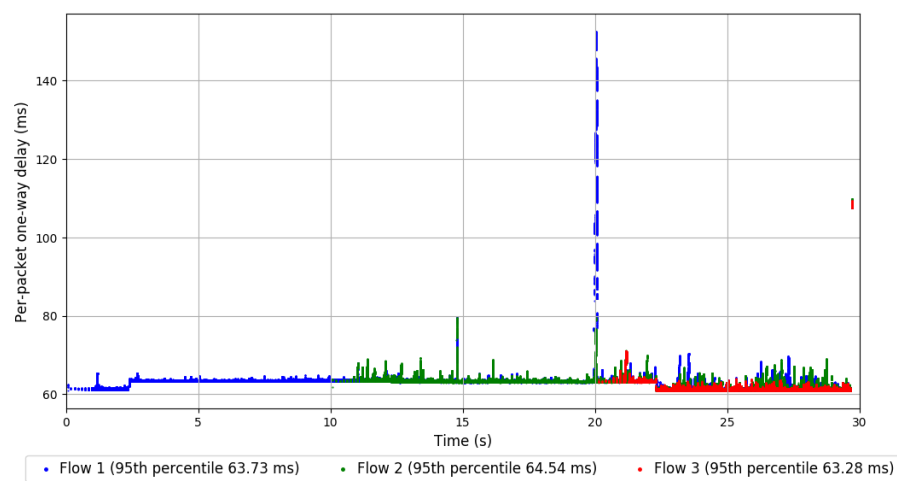
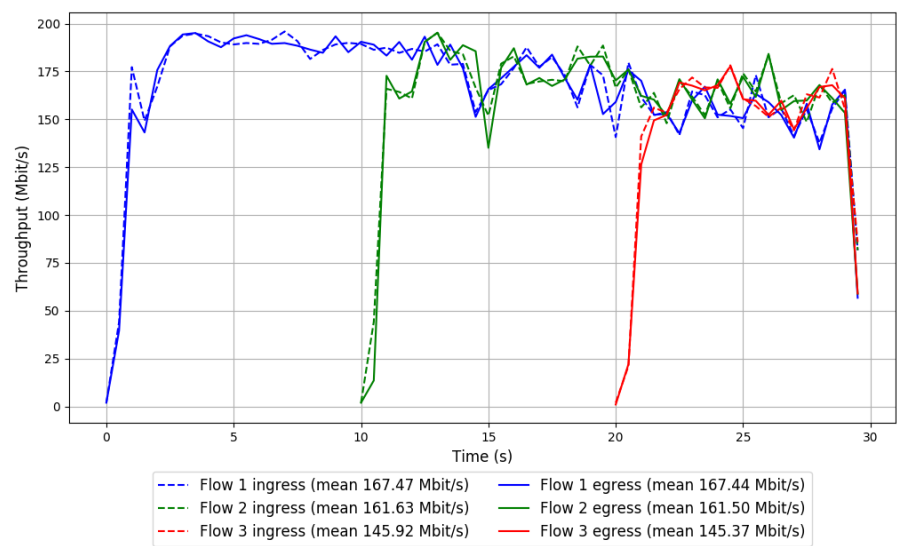
-- Flow 3:

Average throughput: 145.37 Mbit/s

95th percentile per-packet one-way delay: 63.283 ms

Loss rate: 1.68%

Run 10: Report of Indigo — Data Link

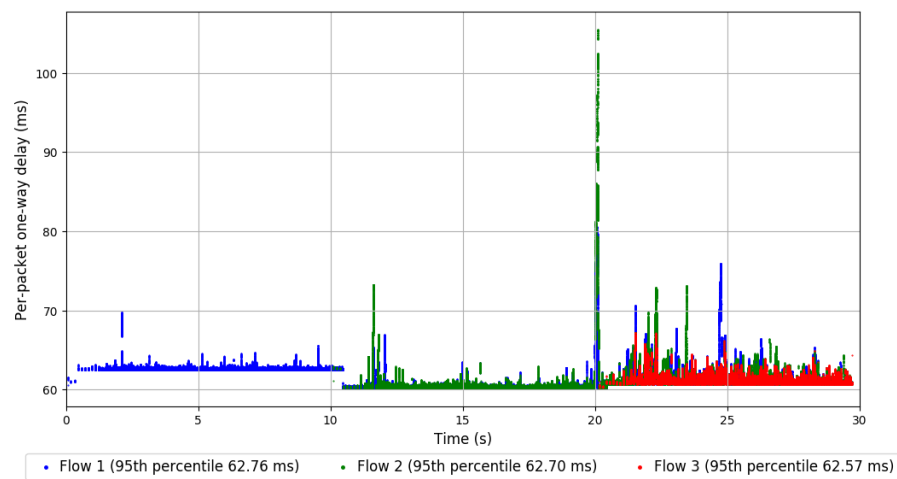
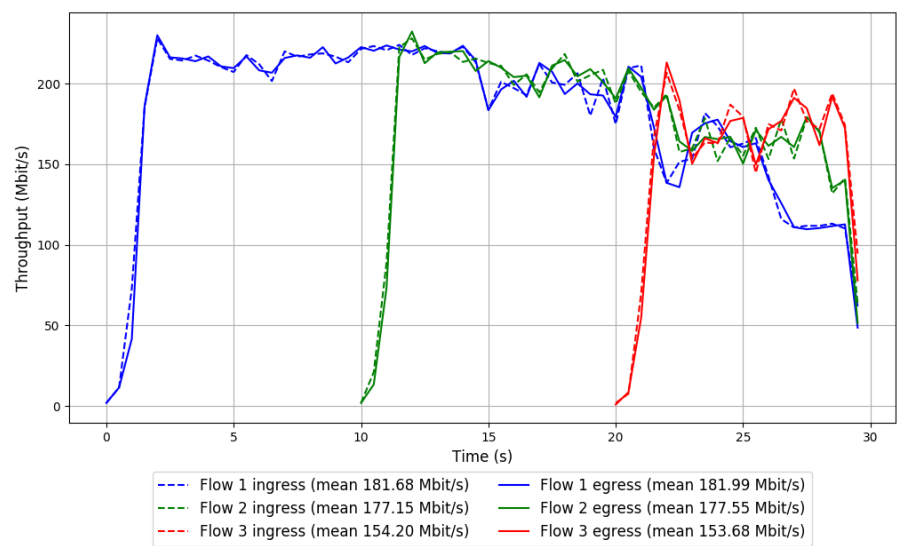


```
Run 1: Statistics of Indigo-calib

Start at: 2017-11-22 02:13:08
End at: 2017-11-22 02:13:38

# Below is generated by plot.py at 2017-11-22 07:30:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 348.92 Mbit/s
95th percentile per-packet one-way delay: 62.747 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 181.99 Mbit/s
95th percentile per-packet one-way delay: 62.758 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 177.55 Mbit/s
95th percentile per-packet one-way delay: 62.705 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 153.68 Mbit/s
95th percentile per-packet one-way delay: 62.571 ms
Loss rate: 1.58%
```

Run 1: Report of Indigo-calib — Data Link

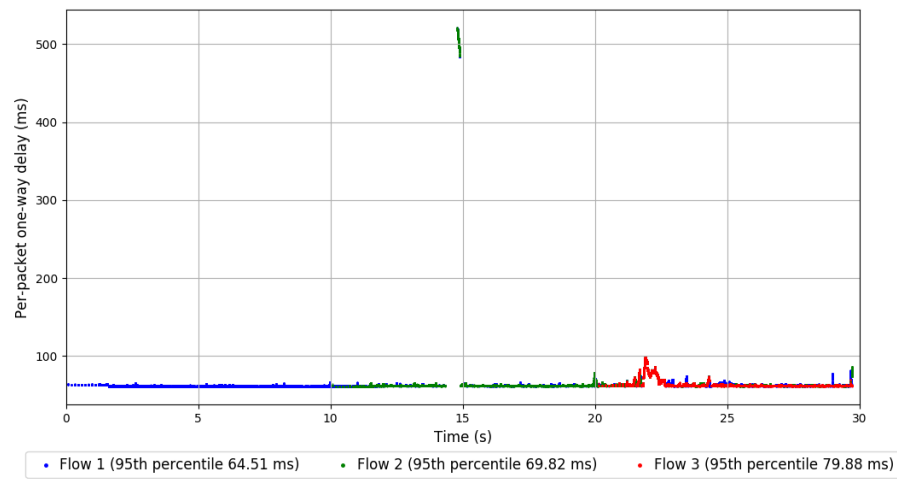
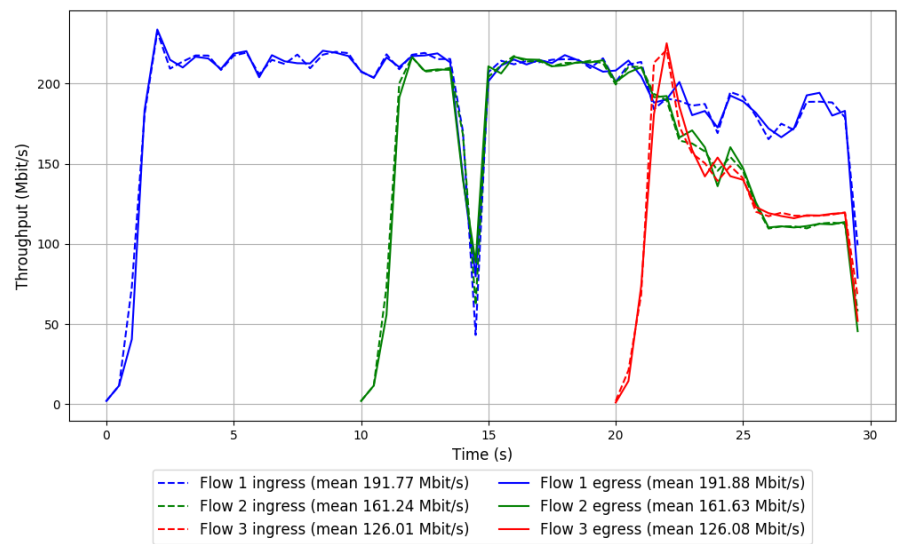


```
Run 2: Statistics of Indigo-calib

Start at: 2017-11-22 02:25:47
End at: 2017-11-22 02:26:17

# Below is generated by plot.py at 2017-11-22 07:30:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 339.72 Mbit/s
95th percentile per-packet one-way delay: 68.484 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 191.88 Mbit/s
95th percentile per-packet one-way delay: 64.509 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 161.63 Mbit/s
95th percentile per-packet one-way delay: 69.817 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 126.08 Mbit/s
95th percentile per-packet one-way delay: 79.878 ms
Loss rate: 1.25%
```

Run 2: Report of Indigo-calib — Data Link

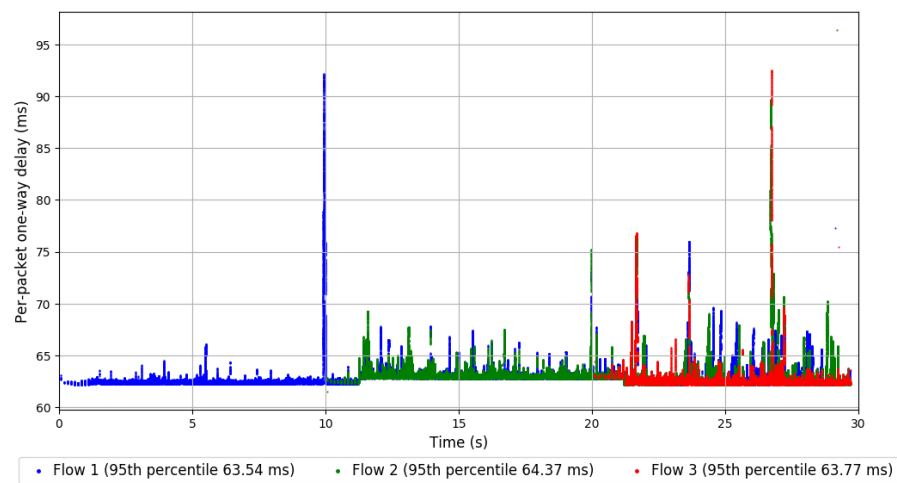
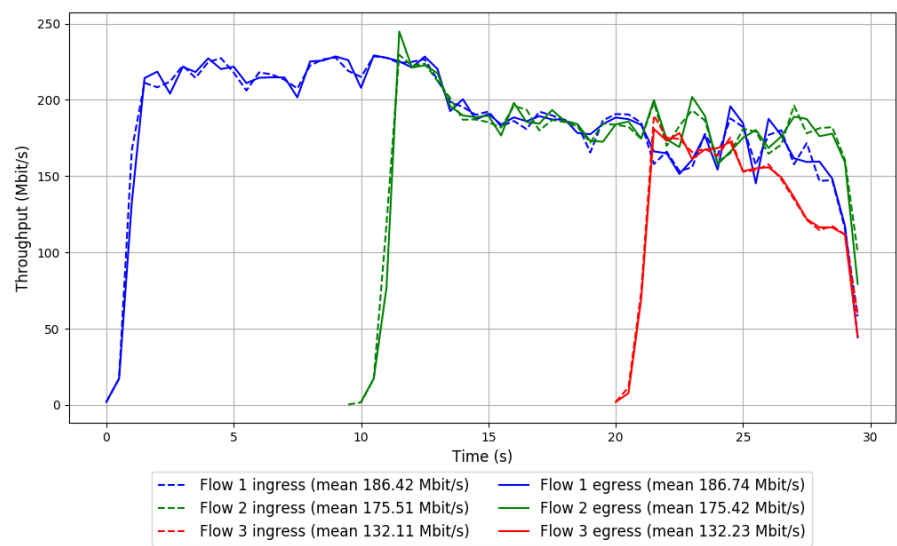


```
Run 3: Statistics of Indigo-calib

Start at: 2017-11-22 02:38:08
End at: 2017-11-22 02:38:38

# Below is generated by plot.py at 2017-11-22 07:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.88 Mbit/s
95th percentile per-packet one-way delay: 63.860 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 186.74 Mbit/s
95th percentile per-packet one-way delay: 63.538 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 175.42 Mbit/s
95th percentile per-packet one-way delay: 64.374 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 132.23 Mbit/s
95th percentile per-packet one-way delay: 63.775 ms
Loss rate: 1.14%
```


Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-11-22 02:50:45

End at: 2017-11-22 02:51:15

Below is generated by plot.py at 2017-11-22 07:31:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 338.58 Mbit/s

95th percentile per-packet one-way delay: 63.588 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 187.28 Mbit/s

95th percentile per-packet one-way delay: 63.519 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 171.35 Mbit/s

95th percentile per-packet one-way delay: 63.789 ms

Loss rate: 0.60%

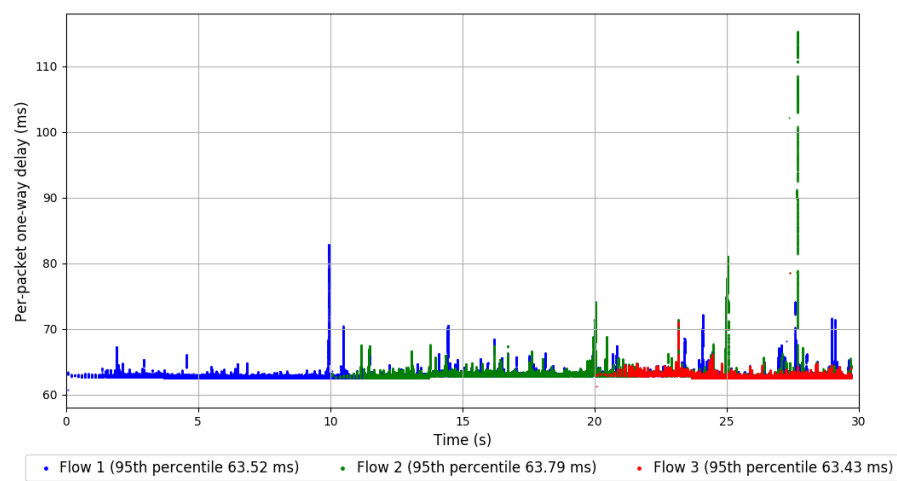
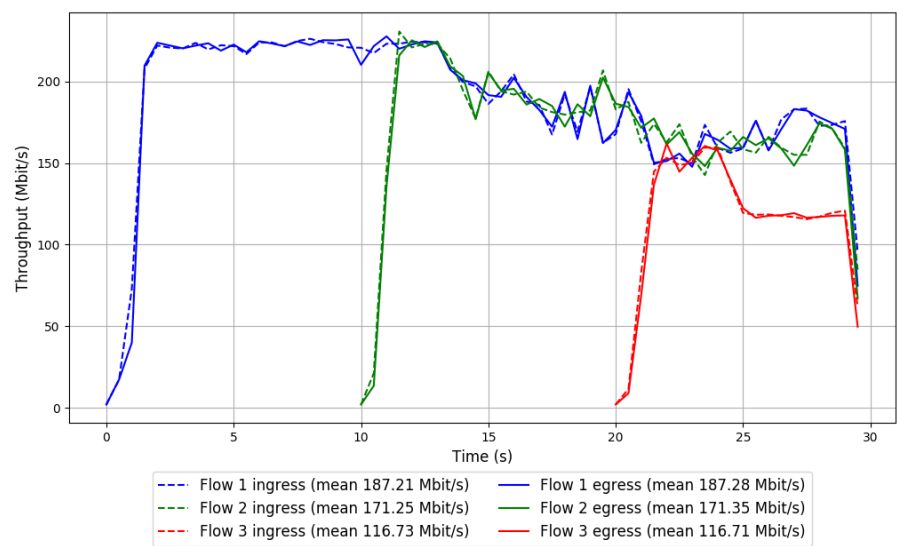
-- Flow 3:

Average throughput: 116.71 Mbit/s

95th percentile per-packet one-way delay: 63.428 ms

Loss rate: 1.31%

Run 4: Report of Indigo-calib — Data Link

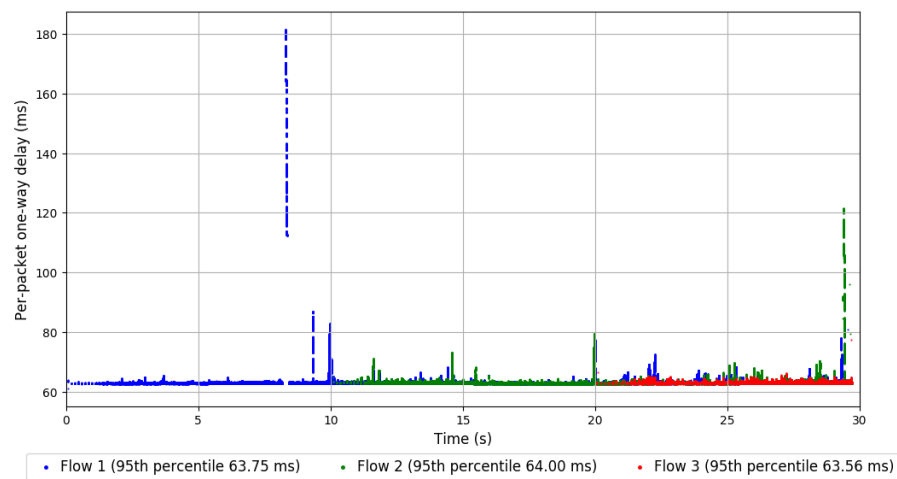
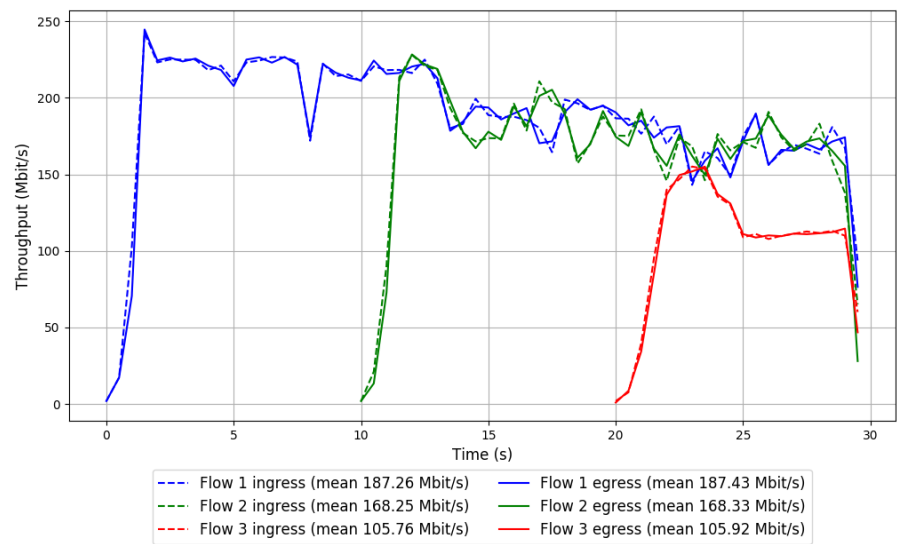


```
Run 5: Statistics of Indigo-calib

Start at: 2017-11-22 03:03:34
End at: 2017-11-22 03:04:04

# Below is generated by plot.py at 2017-11-22 07:31:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.15 Mbit/s
95th percentile per-packet one-way delay: 63.803 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 187.43 Mbit/s
95th percentile per-packet one-way delay: 63.754 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 168.33 Mbit/s
95th percentile per-packet one-way delay: 64.001 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 105.92 Mbit/s
95th percentile per-packet one-way delay: 63.564 ms
Loss rate: 1.19%
```

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-11-22 03:16:20

End at: 2017-11-22 03:16:50

Below is generated by plot.py at 2017-11-22 07:31:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 297.81 Mbit/s

95th percentile per-packet one-way delay: 63.833 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 173.54 Mbit/s

95th percentile per-packet one-way delay: 63.669 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 136.49 Mbit/s

95th percentile per-packet one-way delay: 63.947 ms

Loss rate: 0.55%

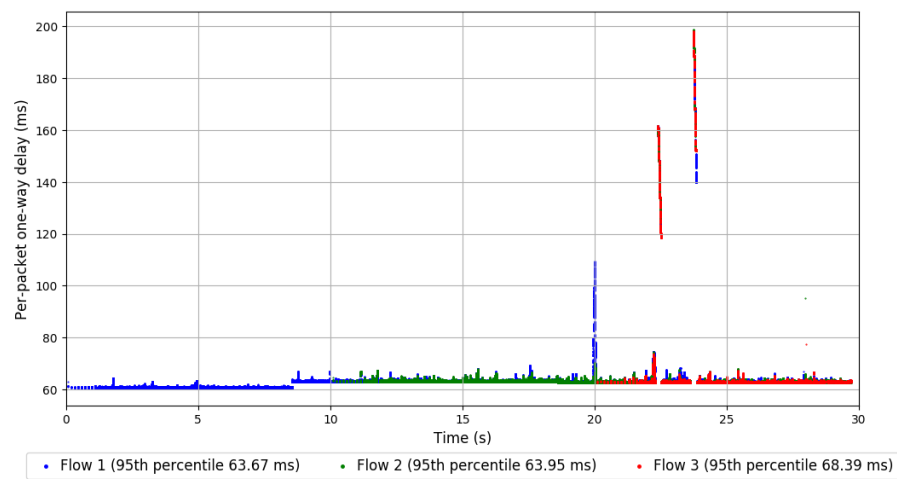
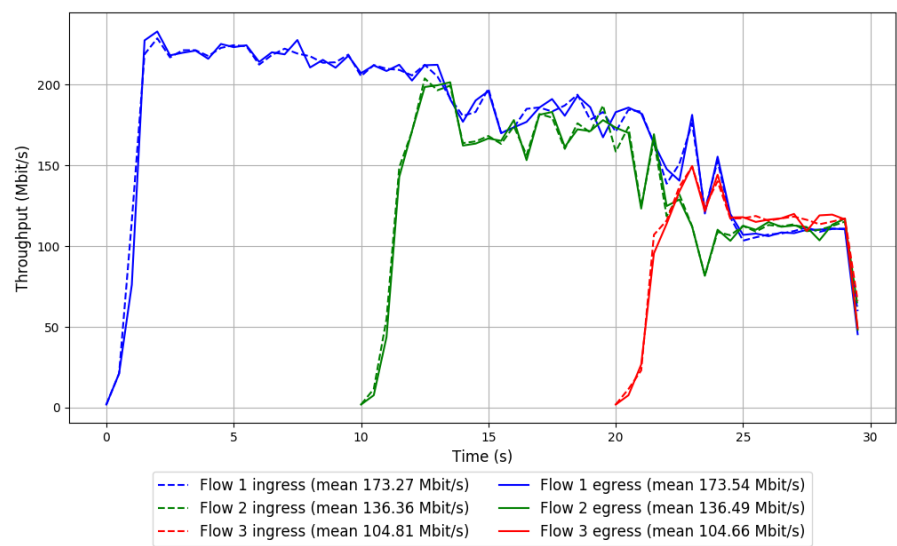
-- Flow 3:

Average throughput: 104.66 Mbit/s

95th percentile per-packet one-way delay: 68.394 ms

Loss rate: 1.44%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-11-22 03:28:56

End at: 2017-11-22 03:29:26

Below is generated by plot.py at 2017-11-22 07:33:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 332.92 Mbit/s

95th percentile per-packet one-way delay: 63.674 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 181.06 Mbit/s

95th percentile per-packet one-way delay: 63.430 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 171.25 Mbit/s

95th percentile per-packet one-way delay: 64.344 ms

Loss rate: 0.64%

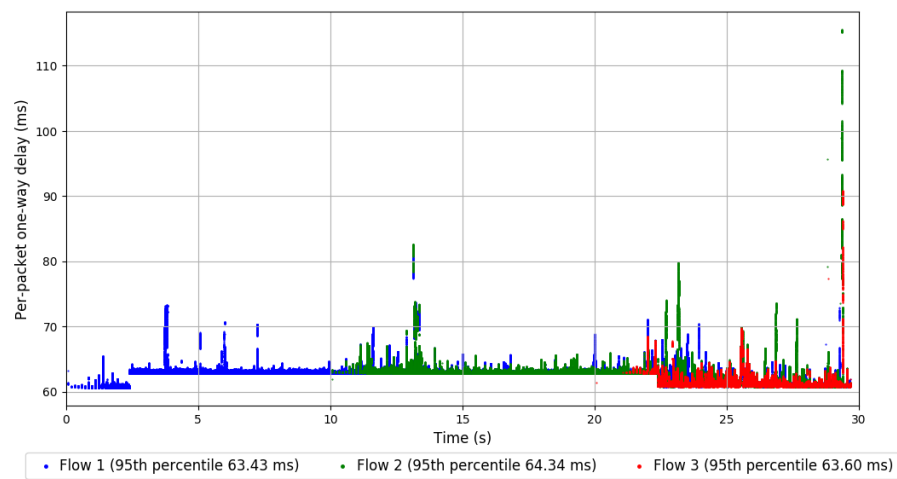
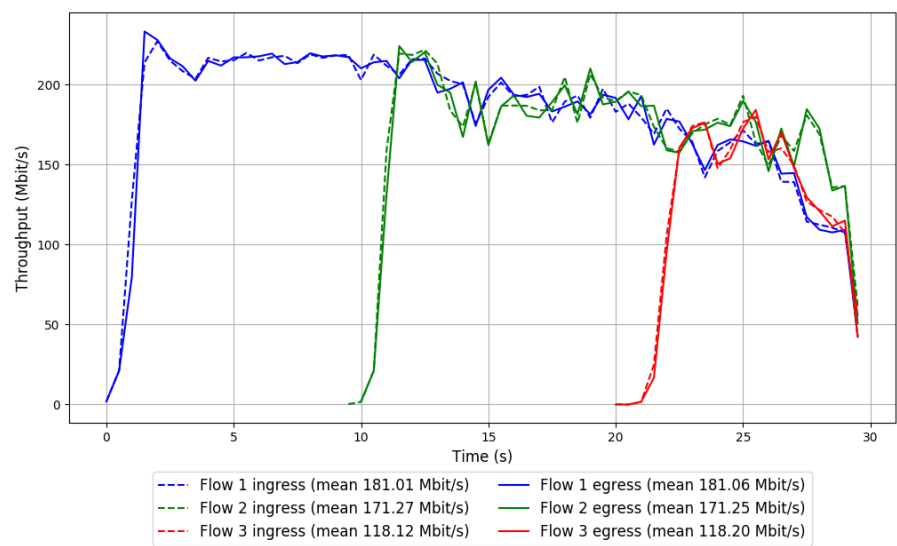
-- Flow 3:

Average throughput: 118.20 Mbit/s

95th percentile per-packet one-way delay: 63.600 ms

Loss rate: 1.21%

Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-11-22 03:41:27

End at: 2017-11-22 03:41:57

Below is generated by plot.py at 2017-11-22 07:33:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 330.30 Mbit/s

95th percentile per-packet one-way delay: 64.122 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 183.32 Mbit/s

95th percentile per-packet one-way delay: 63.901 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 144.70 Mbit/s

95th percentile per-packet one-way delay: 64.317 ms

Loss rate: 0.44%

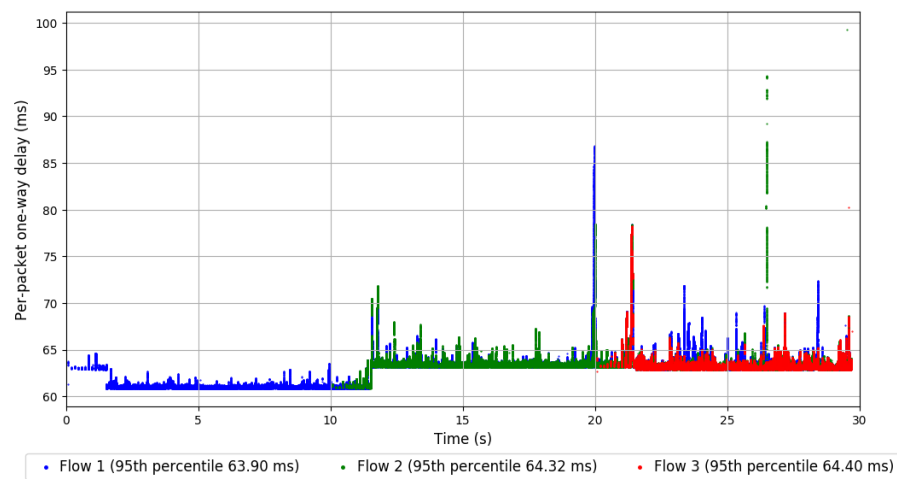
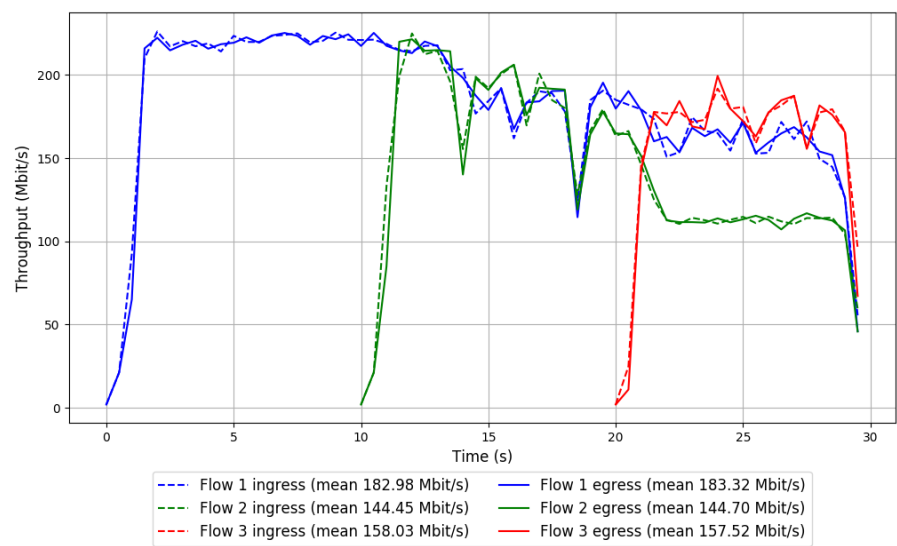
-- Flow 3:

Average throughput: 157.52 Mbit/s

95th percentile per-packet one-way delay: 64.399 ms

Loss rate: 1.56%

Run 8: Report of Indigo-calib — Data Link



Run 9: Statistics of Indigo-calib

Start at: 2017-11-22 03:54:10

End at: 2017-11-22 03:54:40

Below is generated by plot.py at 2017-11-22 07:33:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 319.65 Mbit/s

95th percentile per-packet one-way delay: 63.788 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 169.19 Mbit/s

95th percentile per-packet one-way delay: 63.559 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 155.88 Mbit/s

95th percentile per-packet one-way delay: 64.163 ms

Loss rate: 0.46%

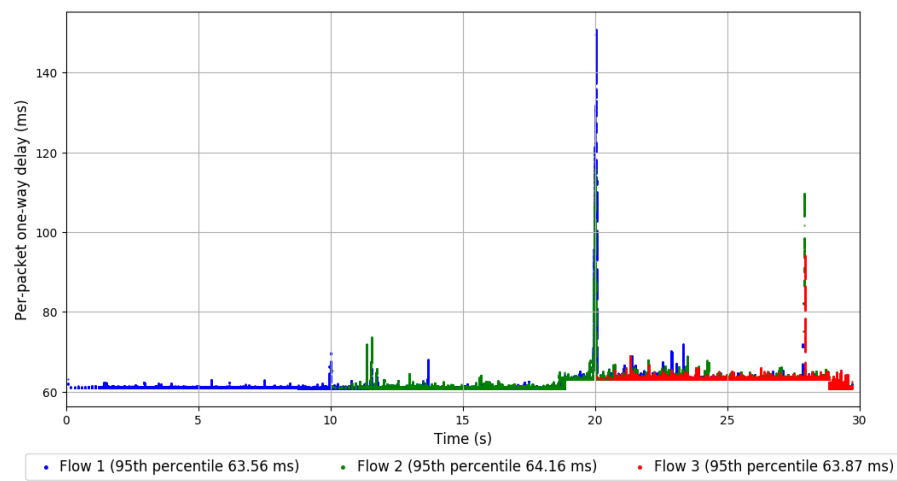
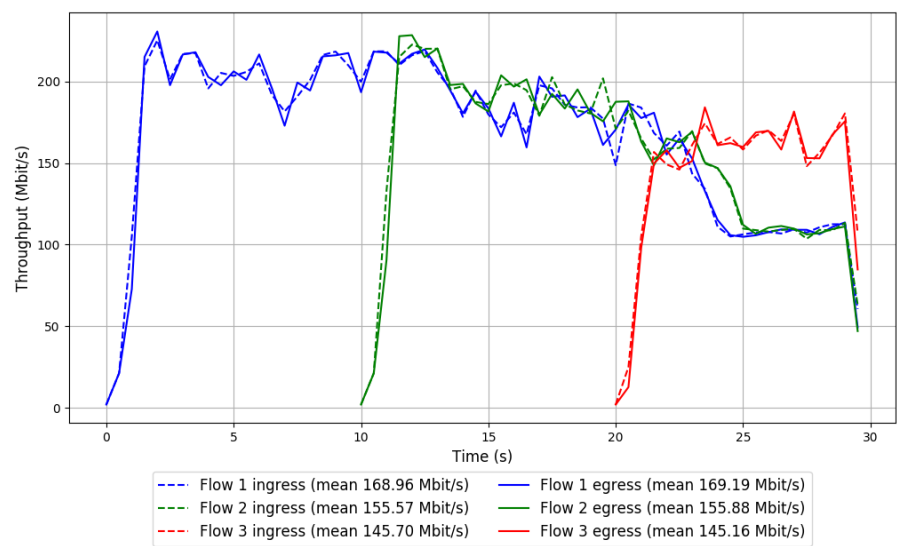
-- Flow 3:

Average throughput: 145.16 Mbit/s

95th percentile per-packet one-way delay: 63.870 ms

Loss rate: 1.64%

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-11-22 04:06:54

End at: 2017-11-22 04:07:24

Below is generated by plot.py at 2017-11-22 07:33:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 347.97 Mbit/s

95th percentile per-packet one-way delay: 66.369 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 184.65 Mbit/s

95th percentile per-packet one-way delay: 64.831 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 175.46 Mbit/s

95th percentile per-packet one-way delay: 67.005 ms

Loss rate: 0.40%

-- Flow 3:

Average throughput: 145.17 Mbit/s

95th percentile per-packet one-way delay: 69.406 ms

Loss rate: 1.07%

Run 10: Report of Indigo-calib — Data Link

