

Pantheon Report

Generated at 2017-11-22 07:31:39 (UTC).

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

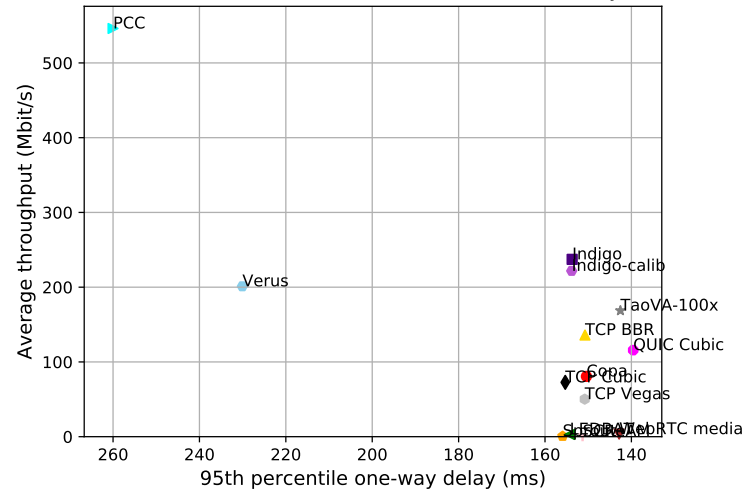
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

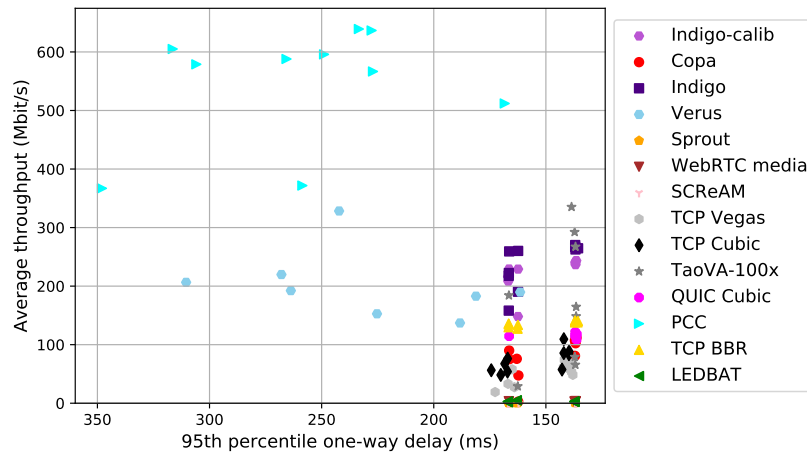
Git summary:

```
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 @ 03455460fd1a8ffbdad86fabb936fdca204b80db
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 @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	70.21	69.03	61.74	150.73	150.76	147.54	1.02	1.62	3.45
TCP Cubic	10	40.82	35.64	25.45	154.24	154.49	153.30	1.58	2.48	5.57
LEDBAT	10	1.52	1.76	0.85	154.21	154.25	154.22	1.92	2.66	5.56
PCC	10	367.30	224.16	94.73	249.74	241.82	228.02	4.05	4.10	5.40
QUIC Cubic	10	61.83	61.57	41.04	136.38	139.29	139.29	0.88	0.12	3.78
SCReAM	10	0.21	0.21	0.22	142.67	144.99	142.41	0.88	1.46	2.63
WebRTC media	10	1.92	1.19	0.36	139.66	142.12	147.93	1.22	1.98	5.97
Sprout	9	0.35	0.34	0.37	155.92	155.93	152.57	0.82	1.10	2.57
TaoVA-100x	10	89.57	95.28	79.73	147.75	149.07	151.56	0.58	1.30	3.97
TCP Vegas	10	25.96	24.00	25.75	149.81	150.48	146.01	1.02	1.51	3.30
Verus	8	117.25	85.80	75.91	212.35	221.39	200.86	2.07	4.22	5.11
Copa	10	49.96	39.23	23.41	148.22	141.79	147.75	0.62	1.04	5.69
Indigo	10	120.23	124.81	107.46	153.68	150.75	148.67	0.74	1.35	3.80
Indigo-calib	10	115.61	115.48	92.92	153.78	153.83	150.80	1.00	1.49	3.61

Run 1: Statistics of TCP BBR

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

End at: 2017-11-22 02:12:16

Below is generated by plot.py at 2017-11-22 06:50:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.56 Mbit/s

95th percentile per-packet one-way delay: 136.983 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 72.86 Mbit/s

95th percentile per-packet one-way delay: 136.975 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 70.75 Mbit/s

95th percentile per-packet one-way delay: 136.988 ms

Loss rate: 1.52%

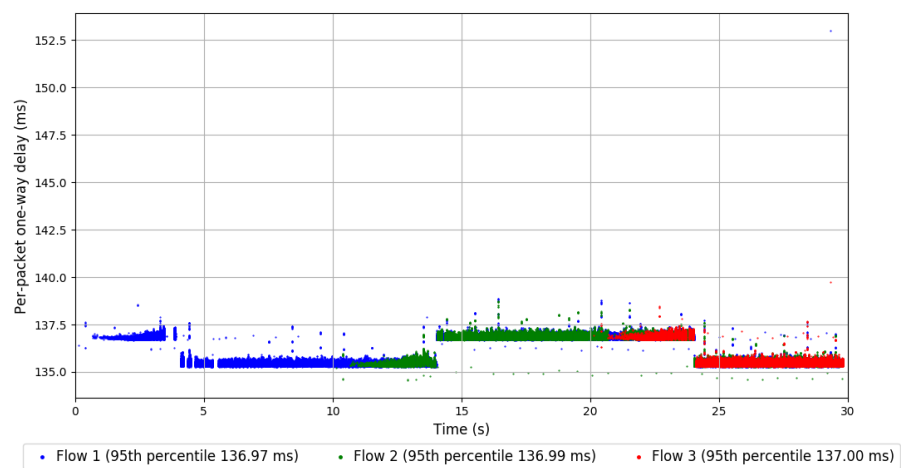
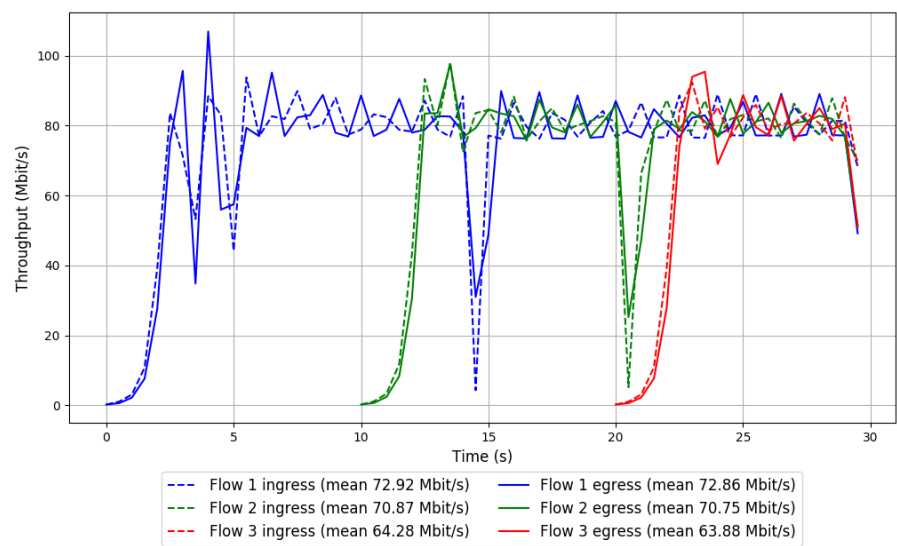
-- Flow 3:

Average throughput: 63.88 Mbit/s

95th percentile per-packet one-way delay: 137.001 ms

Loss rate: 3.34%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-11-22 02:25:42

End at: 2017-11-22 02:26:12

Below is generated by plot.py at 2017-11-22 06:50:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.05 Mbit/s

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

Loss rate: 1.55%

-- Flow 1:

Average throughput: 71.37 Mbit/s

95th percentile per-packet one-way delay: 136.964 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 70.34 Mbit/s

95th percentile per-packet one-way delay: 136.990 ms

Loss rate: 1.53%

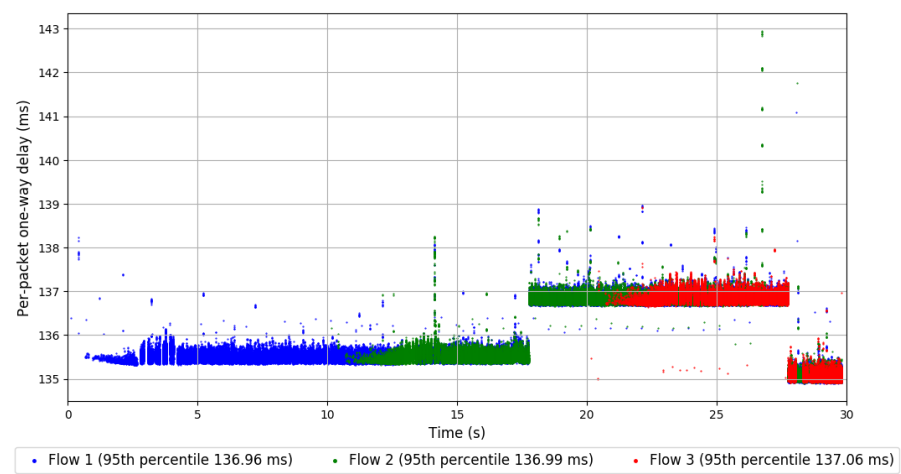
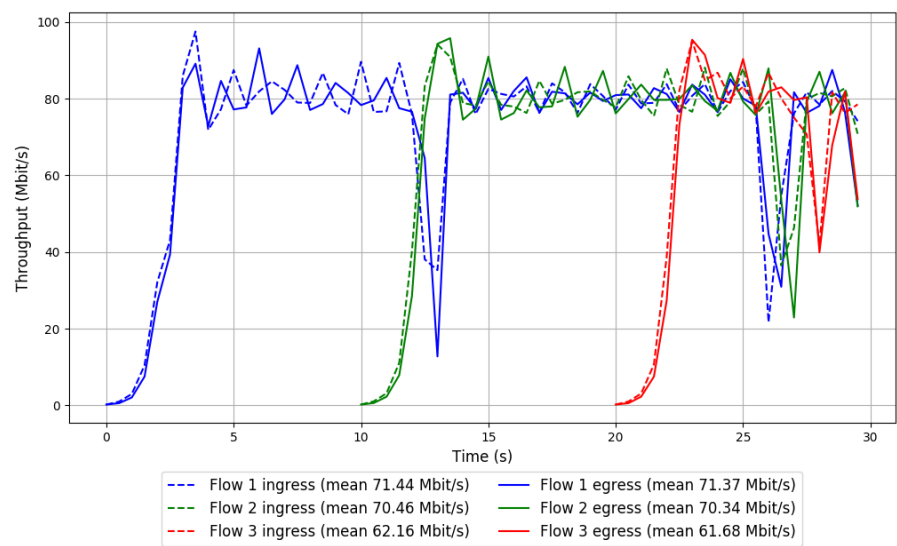
-- Flow 3:

Average throughput: 61.68 Mbit/s

95th percentile per-packet one-way delay: 137.061 ms

Loss rate: 3.46%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-11-22 02:39:49

End at: 2017-11-22 02:40:19

Below is generated by plot.py at 2017-11-22 06:50:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.43 Mbit/s

95th percentile per-packet one-way delay: 135.713 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 73.53 Mbit/s

95th percentile per-packet one-way delay: 135.705 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 70.02 Mbit/s

95th percentile per-packet one-way delay: 135.709 ms

Loss rate: 1.71%

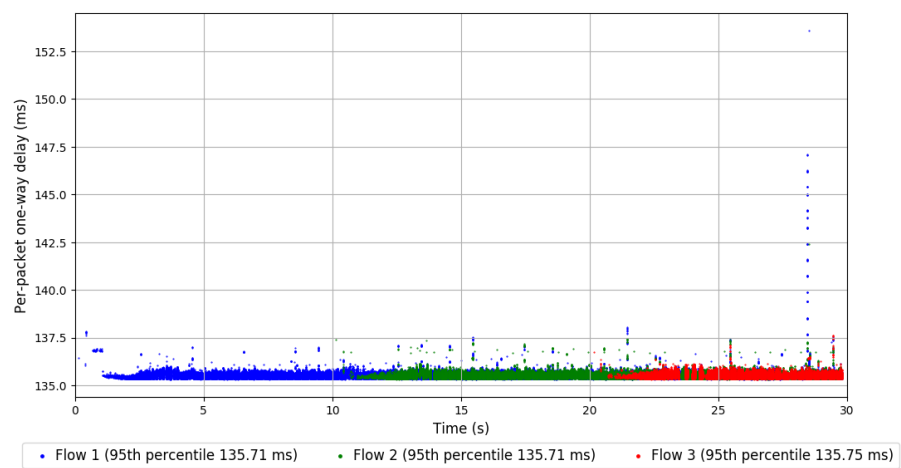
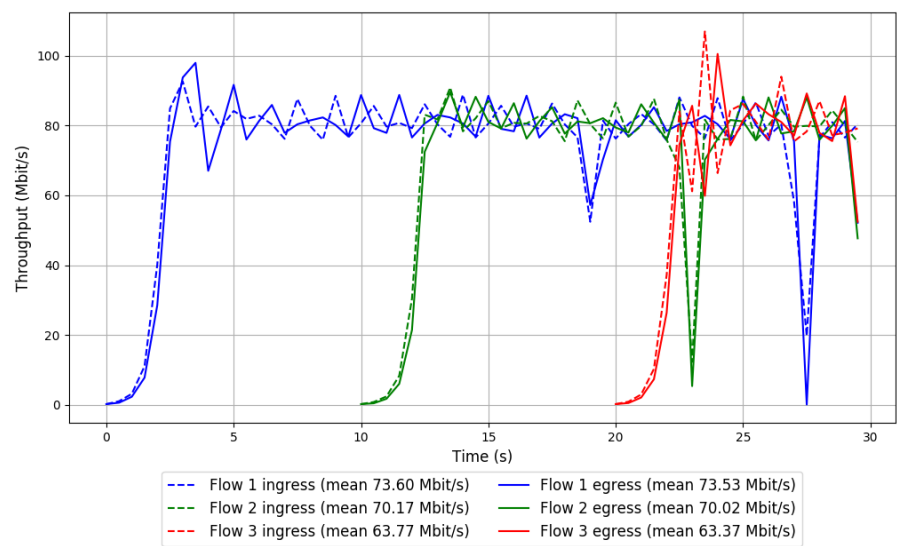
-- Flow 3:

Average throughput: 63.37 Mbit/s

95th percentile per-packet one-way delay: 135.748 ms

Loss rate: 3.38%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

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

End at: 2017-11-22 02:54:32

Below is generated by plot.py at 2017-11-22 06:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.27 Mbit/s

95th percentile per-packet one-way delay: 136.966 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 73.73 Mbit/s

95th percentile per-packet one-way delay: 136.990 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 70.35 Mbit/s

95th percentile per-packet one-way delay: 136.955 ms

Loss rate: 1.52%

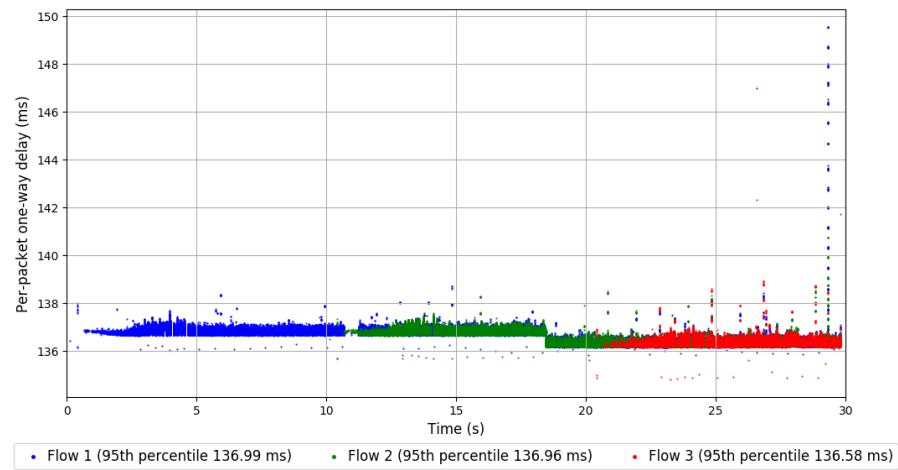
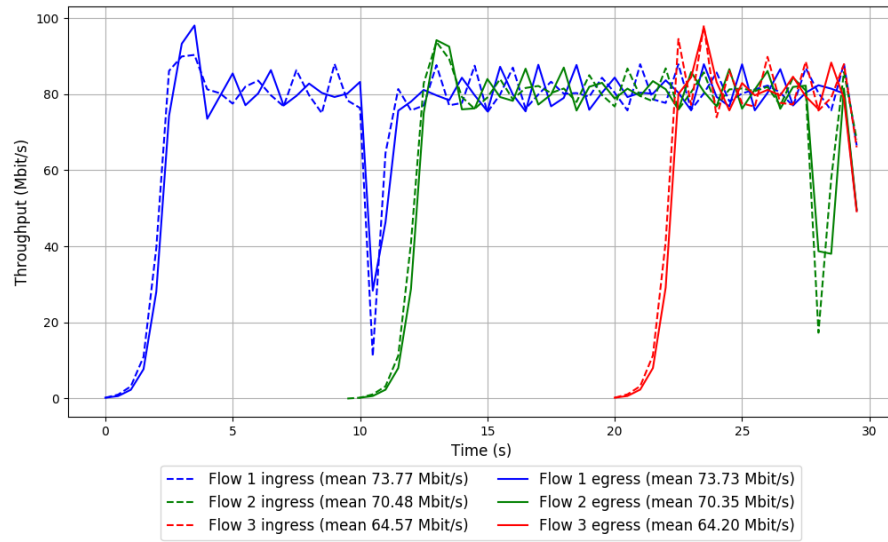
-- Flow 3:

Average throughput: 64.20 Mbit/s

95th percentile per-packet one-way delay: 136.584 ms

Loss rate: 3.29%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-11-22 03:07:32

End at: 2017-11-22 03:08:02

Below is generated by plot.py at 2017-11-22 06:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.14 Mbit/s

95th percentile per-packet one-way delay: 166.595 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 70.50 Mbit/s

95th percentile per-packet one-way delay: 166.583 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 68.86 Mbit/s

95th percentile per-packet one-way delay: 166.640 ms

Loss rate: 1.74%

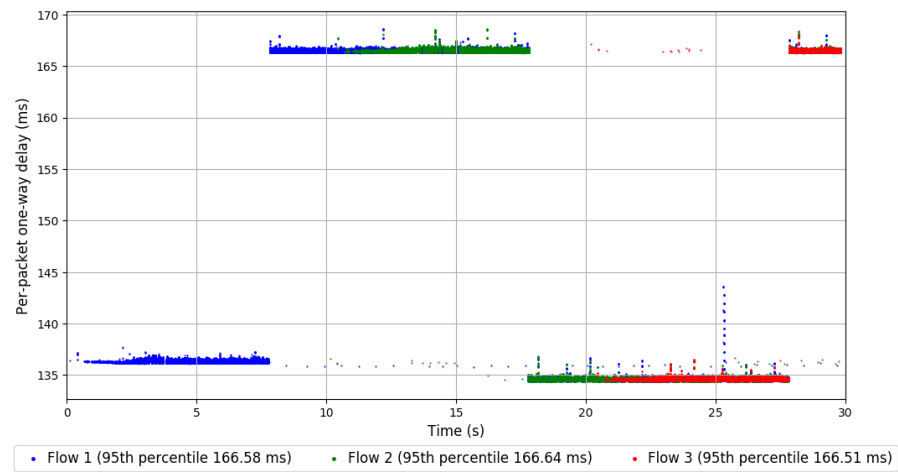
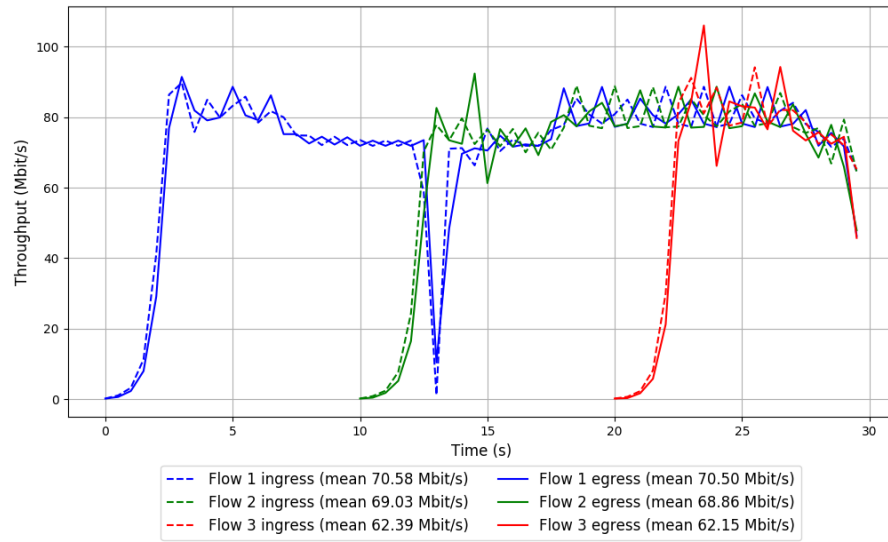
-- Flow 3:

Average throughput: 62.15 Mbit/s

95th percentile per-packet one-way delay: 166.514 ms

Loss rate: 3.44%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-11-22 03:21:20

End at: 2017-11-22 03:21:50

Below is generated by plot.py at 2017-11-22 06:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 129.78 Mbit/s

95th percentile per-packet one-way delay: 166.645 ms

Loss rate: 1.69%

-- Flow 1:

Average throughput: 66.23 Mbit/s

95th percentile per-packet one-way delay: 166.624 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 68.89 Mbit/s

95th percentile per-packet one-way delay: 166.630 ms

Loss rate: 1.56%

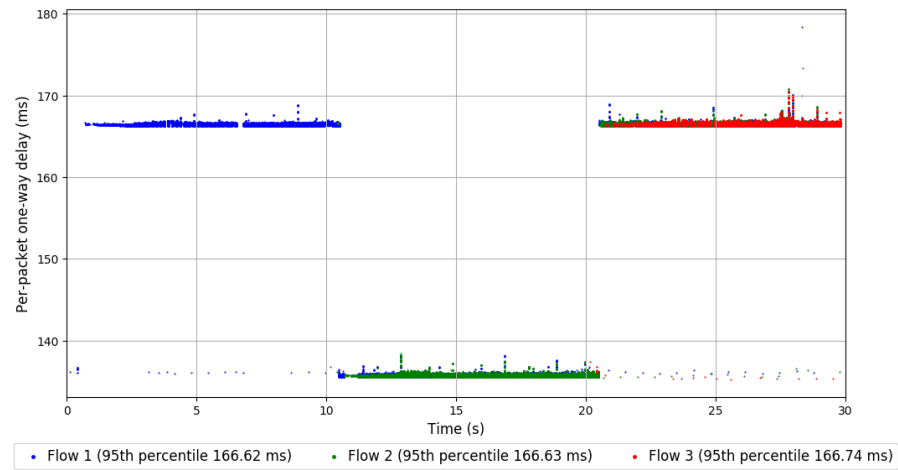
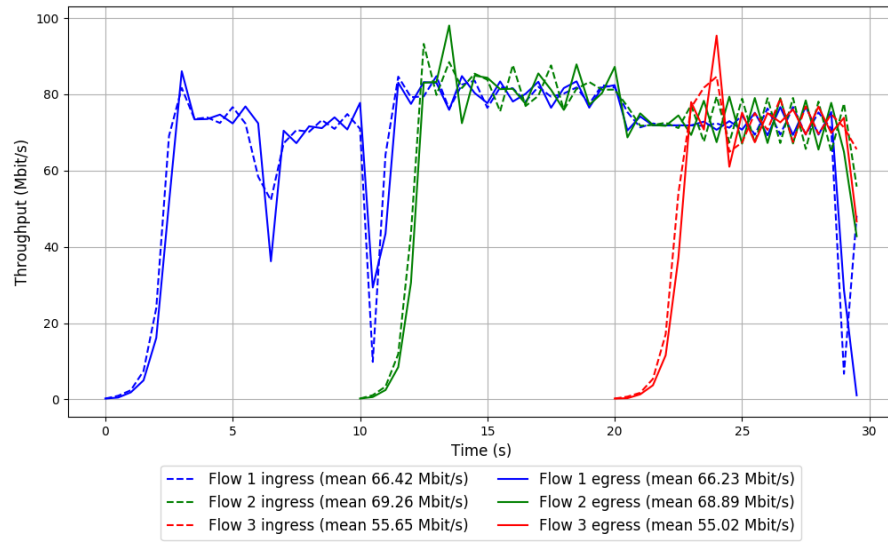
-- Flow 3:

Average throughput: 55.02 Mbit/s

95th percentile per-packet one-way delay: 166.736 ms

Loss rate: 3.84%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-11-22 03:35:05

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

Below is generated by plot.py at 2017-11-22 06:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.09 Mbit/s

95th percentile per-packet one-way delay: 135.894 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 71.16 Mbit/s

95th percentile per-packet one-way delay: 135.866 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 70.11 Mbit/s

95th percentile per-packet one-way delay: 135.900 ms

Loss rate: 1.55%

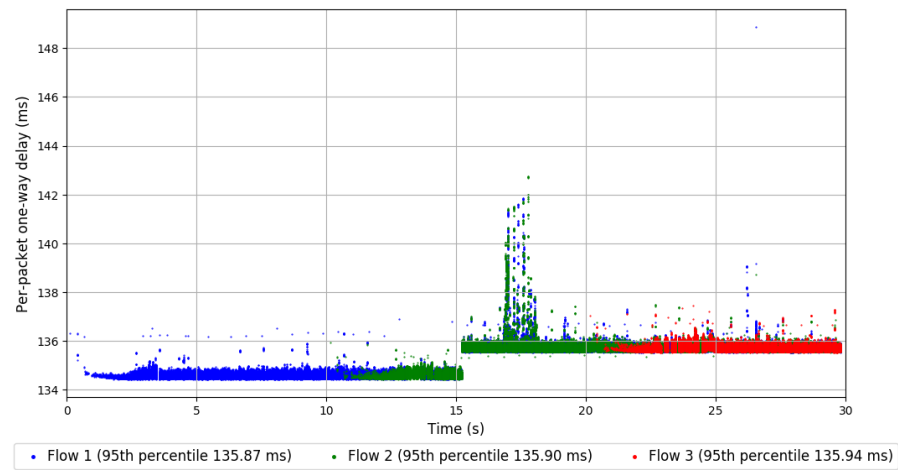
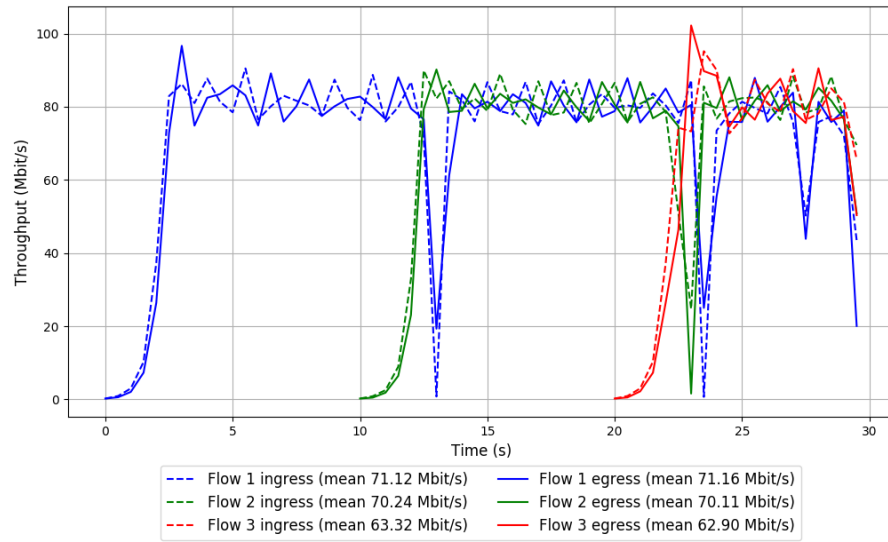
-- Flow 3:

Average throughput: 62.90 Mbit/s

95th percentile per-packet one-way delay: 135.943 ms

Loss rate: 3.42%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

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

End at: 2017-11-22 03:49:19

Below is generated by plot.py at 2017-11-22 06:50:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 134.78 Mbit/s

95th percentile per-packet one-way delay: 166.585 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 68.61 Mbit/s

95th percentile per-packet one-way delay: 166.560 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 68.04 Mbit/s

95th percentile per-packet one-way delay: 166.657 ms

Loss rate: 1.68%

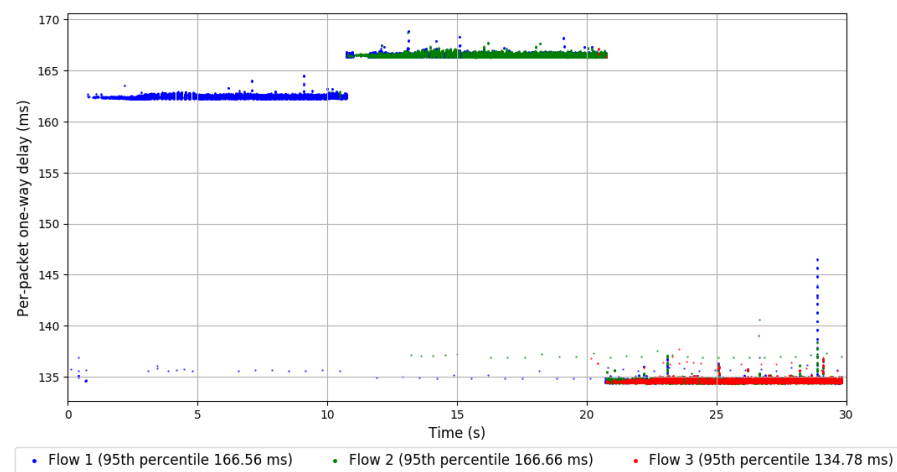
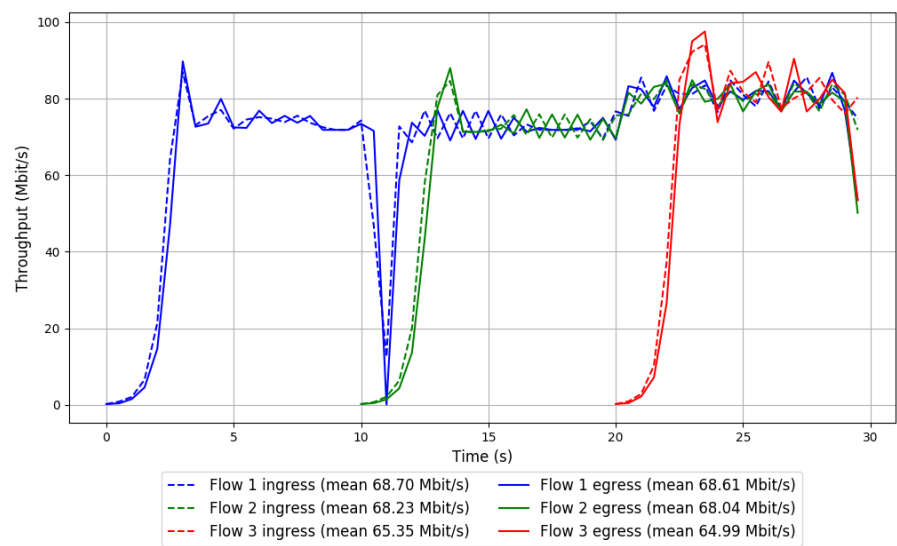
-- Flow 3:

Average throughput: 64.99 Mbit/s

95th percentile per-packet one-way delay: 134.785 ms

Loss rate: 3.30%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-11-22 04:02:00

End at: 2017-11-22 04:02:30

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 127.28 Mbit/s

95th percentile per-packet one-way delay: 162.599 ms

Loss rate: 1.69%

-- Flow 1:

Average throughput: 65.09 Mbit/s

95th percentile per-packet one-way delay: 162.586 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 65.59 Mbit/s

95th percentile per-packet one-way delay: 162.595 ms

Loss rate: 1.76%

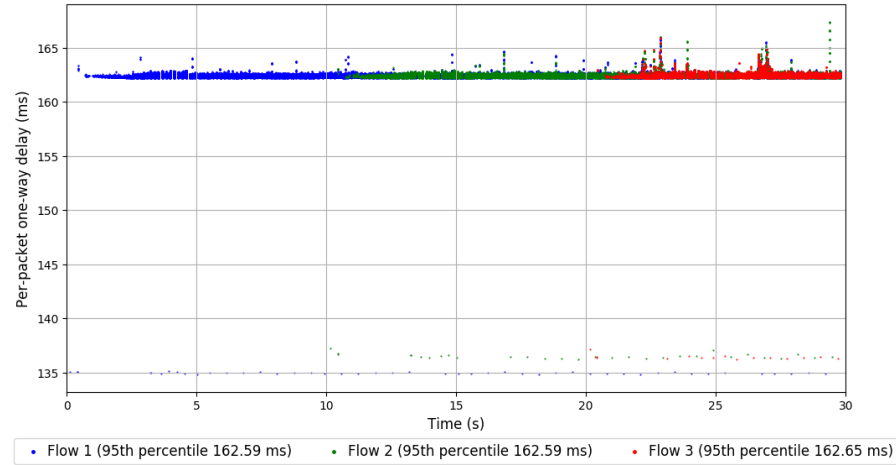
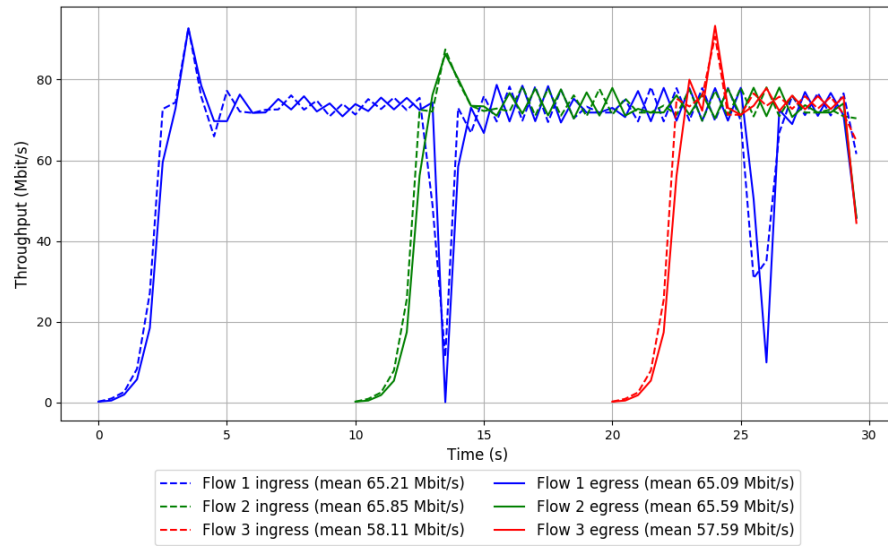
-- Flow 3:

Average throughput: 57.59 Mbit/s

95th percentile per-packet one-way delay: 162.653 ms

Loss rate: 3.60%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-11-22 04:15:22

End at: 2017-11-22 04:15:52

Below is generated by plot.py at 2017-11-22 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 133.74 Mbit/s

95th percentile per-packet one-way delay: 162.472 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 69.02 Mbit/s

95th percentile per-packet one-way delay: 162.465 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 67.39 Mbit/s

95th percentile per-packet one-way delay: 162.500 ms

Loss rate: 1.65%

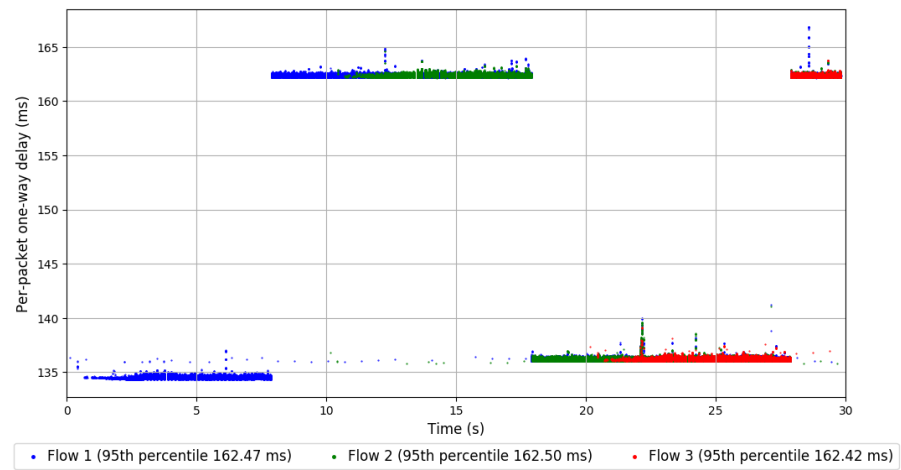
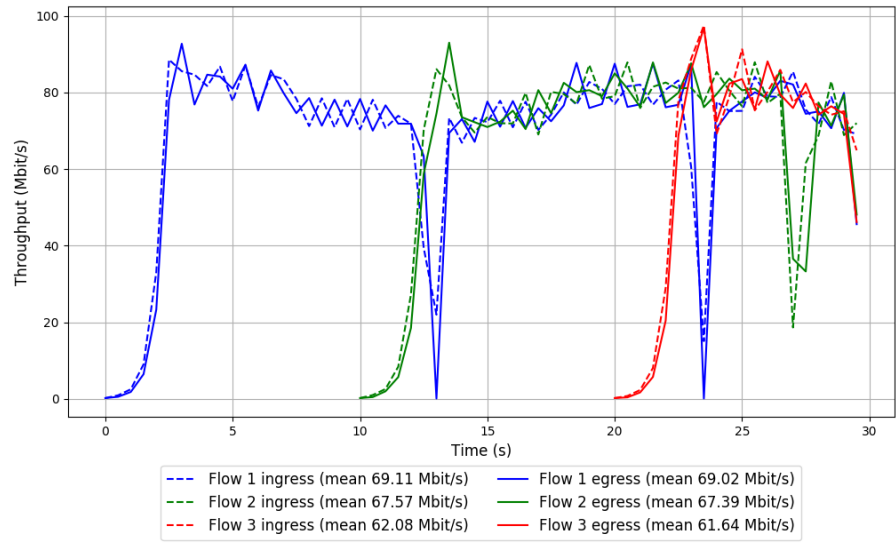
-- Flow 3:

Average throughput: 61.64 Mbit/s

95th percentile per-packet one-way delay: 162.416 ms

Loss rate: 3.46%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-11-22 02:12:45

End at: 2017-11-22 02:13:15

Below is generated by plot.py at 2017-11-22 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.34 Mbit/s

95th percentile per-packet one-way delay: 139.622 ms

Loss rate: 1.85%

-- Flow 1:

Average throughput: 49.70 Mbit/s

95th percentile per-packet one-way delay: 137.361 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 41.58 Mbit/s

95th percentile per-packet one-way delay: 142.316 ms

Loss rate: 2.31%

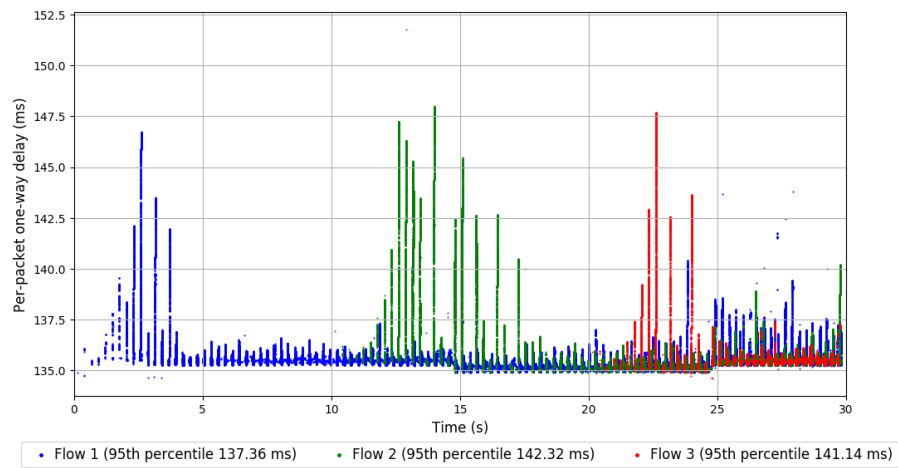
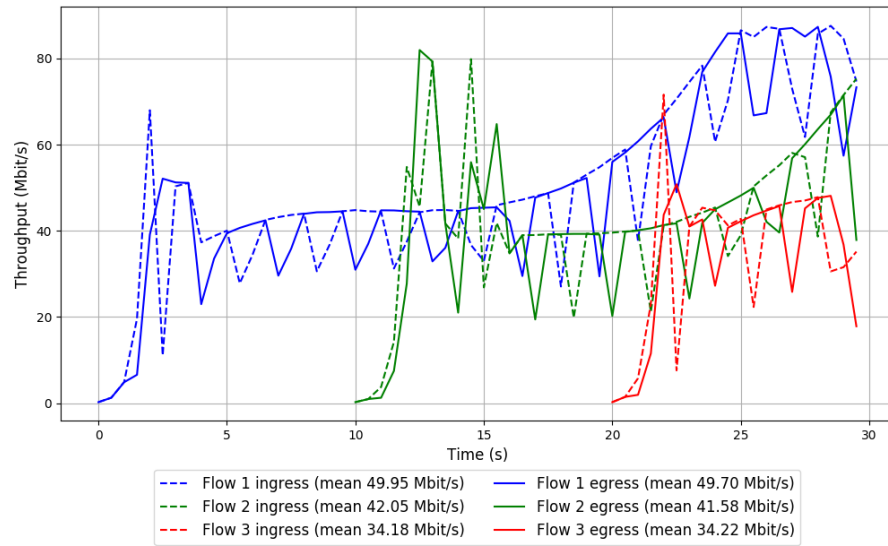
-- Flow 3:

Average throughput: 34.22 Mbit/s

95th percentile per-packet one-way delay: 141.138 ms

Loss rate: 2.65%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-11-22 02:26:40

End at: 2017-11-22 02:27:10

Below is generated by plot.py at 2017-11-22 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.36 Mbit/s

95th percentile per-packet one-way delay: 141.995 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 60.27 Mbit/s

95th percentile per-packet one-way delay: 141.337 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 54.75 Mbit/s

95th percentile per-packet one-way delay: 140.552 ms

Loss rate: 1.00%

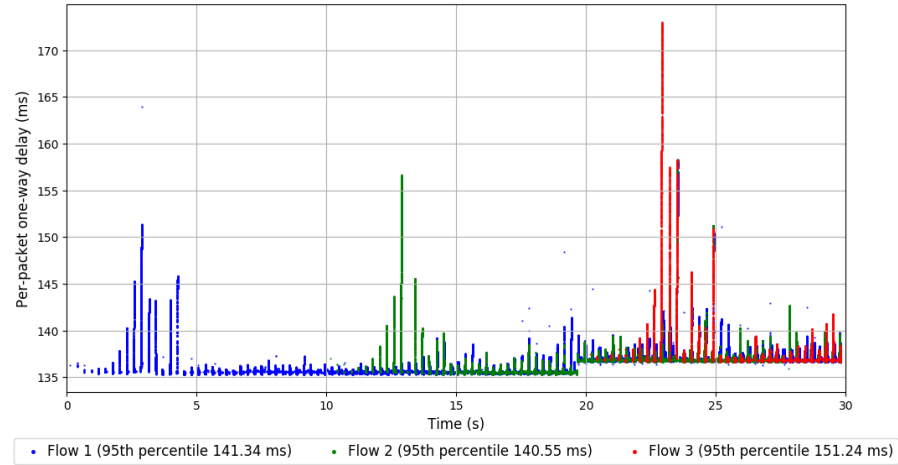
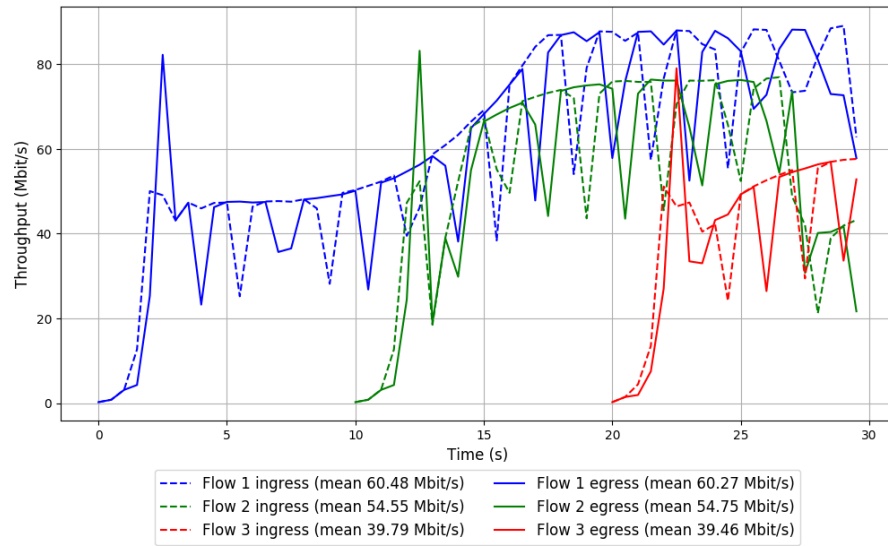
-- Flow 3:

Average throughput: 39.46 Mbit/s

95th percentile per-packet one-way delay: 151.236 ms

Loss rate: 3.68%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-11-22 02:40:48

End at: 2017-11-22 02:41:18

Below is generated by plot.py at 2017-11-22 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.71 Mbit/s

95th percentile per-packet one-way delay: 139.720 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 44.16 Mbit/s

95th percentile per-packet one-way delay: 138.849 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 41.26 Mbit/s

95th percentile per-packet one-way delay: 141.713 ms

Loss rate: 1.66%

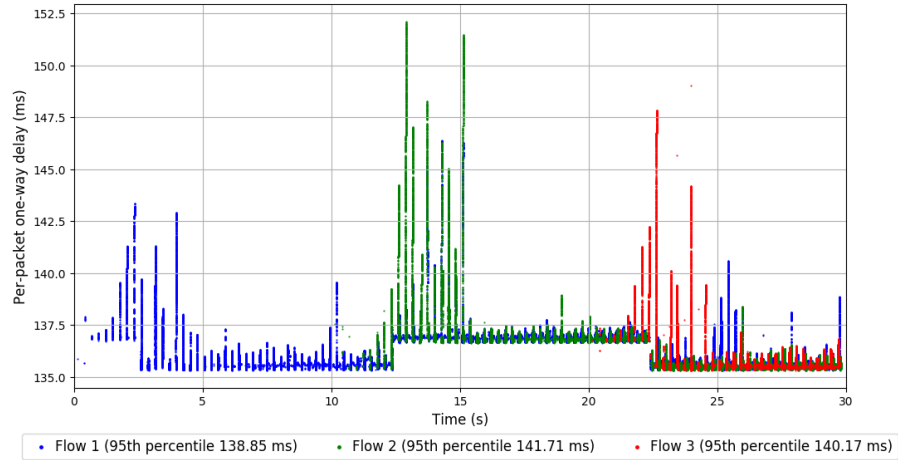
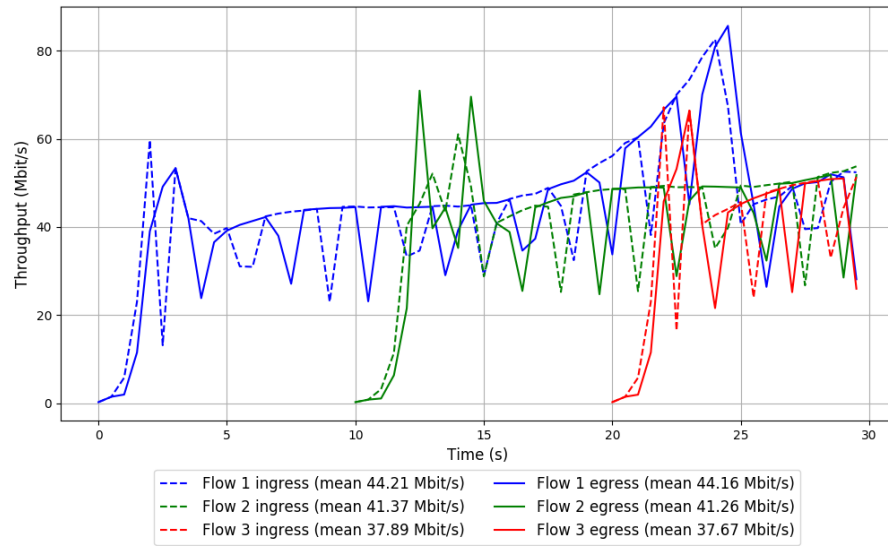
-- Flow 3:

Average throughput: 37.67 Mbit/s

95th percentile per-packet one-way delay: 140.167 ms

Loss rate: 3.42%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-11-22 02:55:00

End at: 2017-11-22 02:55:30

Below is generated by plot.py at 2017-11-22 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 56.31 Mbit/s

95th percentile per-packet one-way delay: 174.344 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 25.08 Mbit/s

95th percentile per-packet one-way delay: 172.589 ms

Loss rate: 1.54%

-- Flow 2:

Average throughput: 45.50 Mbit/s

95th percentile per-packet one-way delay: 174.907 ms

Loss rate: 1.16%

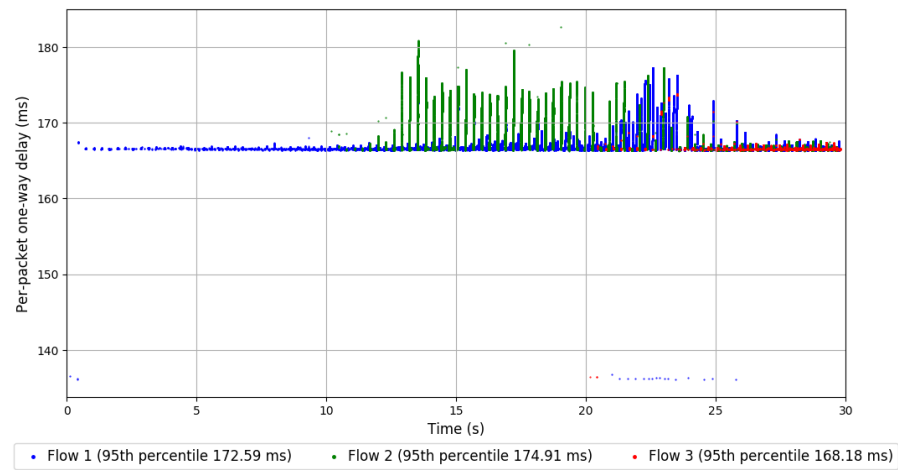
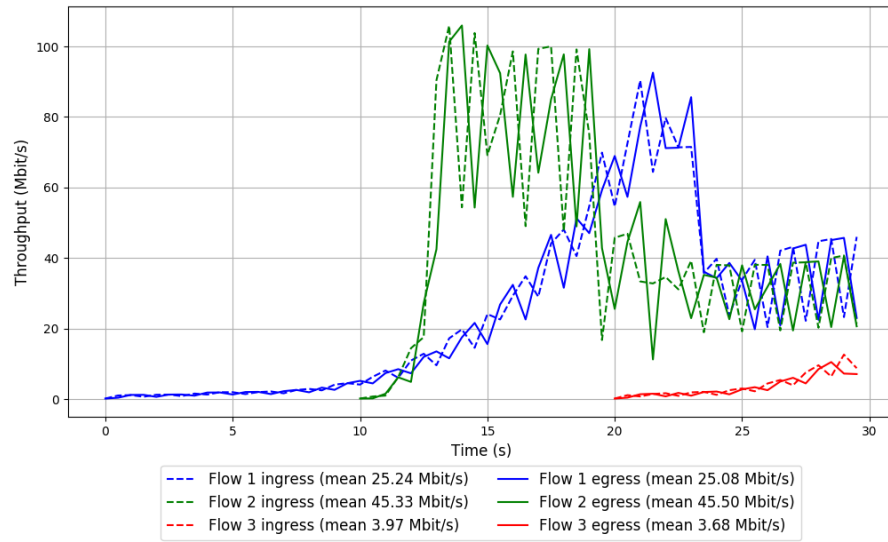
-- Flow 3:

Average throughput: 3.68 Mbit/s

95th percentile per-packet one-way delay: 168.182 ms

Loss rate: 9.80%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-11-22 03:08:30

End at: 2017-11-22 03:09:00

Below is generated by plot.py at 2017-11-22 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.18 Mbit/s

95th percentile per-packet one-way delay: 167.040 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 51.22 Mbit/s

95th percentile per-packet one-way delay: 167.191 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 11.69 Mbit/s

95th percentile per-packet one-way delay: 166.785 ms

Loss rate: 3.62%

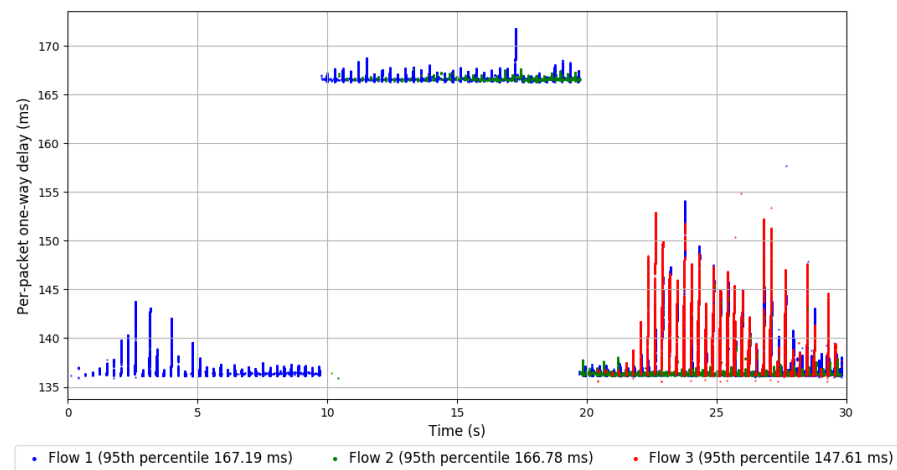
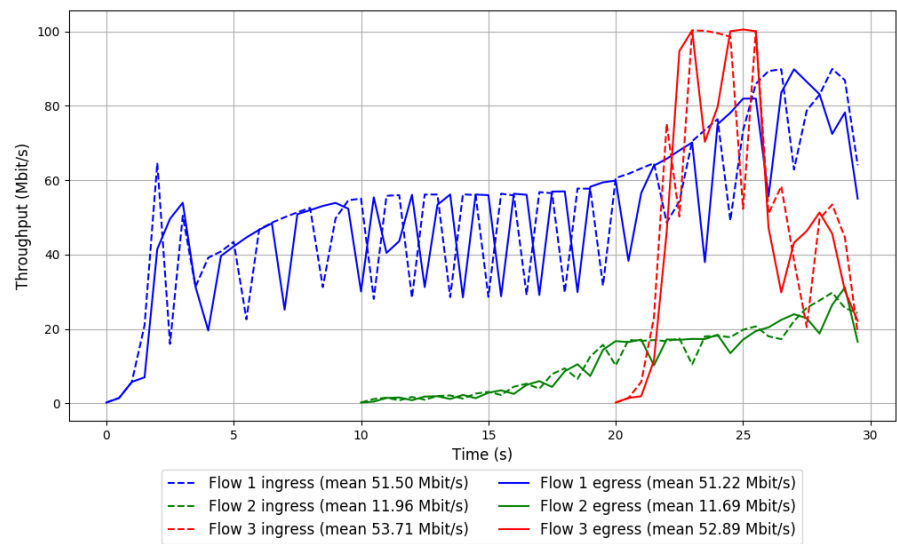
-- Flow 3:

Average throughput: 52.89 Mbit/s

95th percentile per-packet one-way delay: 147.607 ms

Loss rate: 1.81%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

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

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

Below is generated by plot.py at 2017-11-22 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.49 Mbit/s

95th percentile per-packet one-way delay: 142.796 ms

Loss rate: 2.18%

-- Flow 1:

Average throughput: 18.26 Mbit/s

95th percentile per-packet one-way delay: 138.989 ms

Loss rate: 2.65%

-- Flow 2:

Average throughput: 41.50 Mbit/s

95th percentile per-packet one-way delay: 142.169 ms

Loss rate: 1.65%

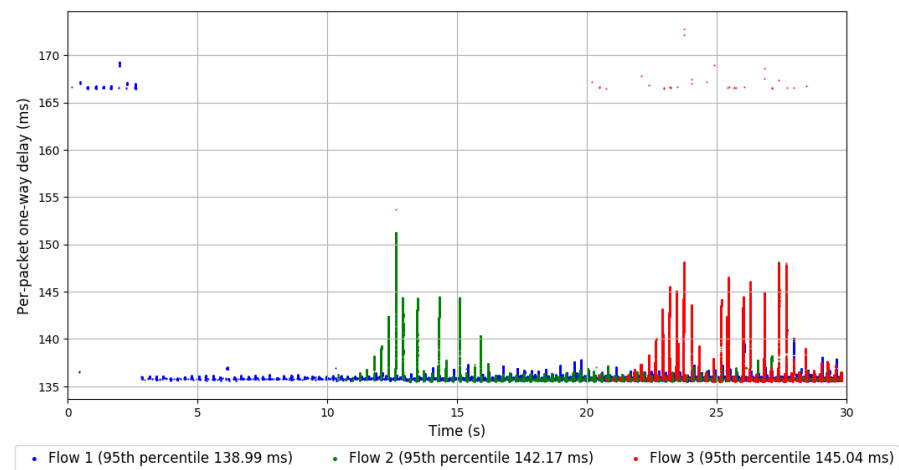
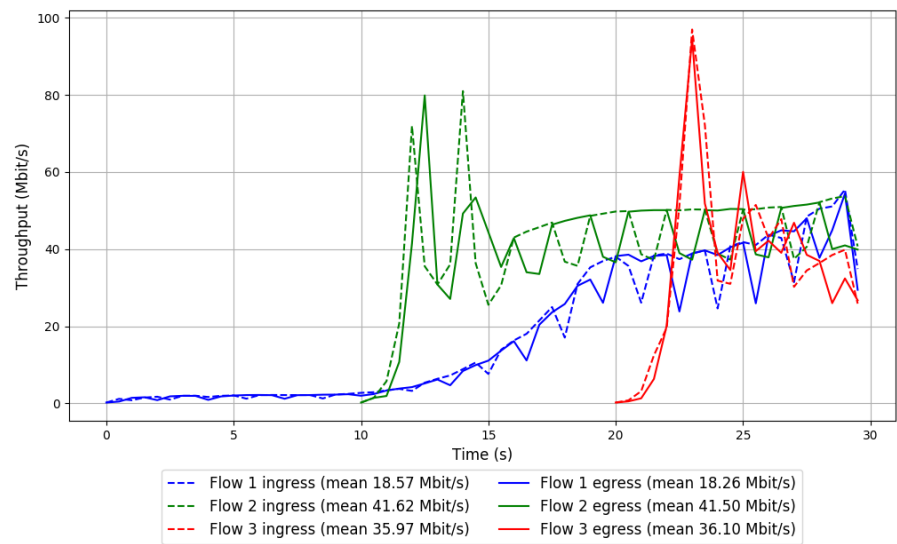
-- Flow 3:

Average throughput: 36.10 Mbit/s

95th percentile per-packet one-way delay: 145.039 ms

Loss rate: 2.69%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

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

End at: 2017-11-22 03:36:33

Below is generated by plot.py at 2017-11-22 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 54.00 Mbit/s

95th percentile per-packet one-way delay: 167.105 ms

Loss rate: 2.14%

-- Flow 1:

Average throughput: 20.72 Mbit/s

95th percentile per-packet one-way delay: 167.410 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 48.24 Mbit/s

95th percentile per-packet one-way delay: 166.916 ms

Loss rate: 1.87%

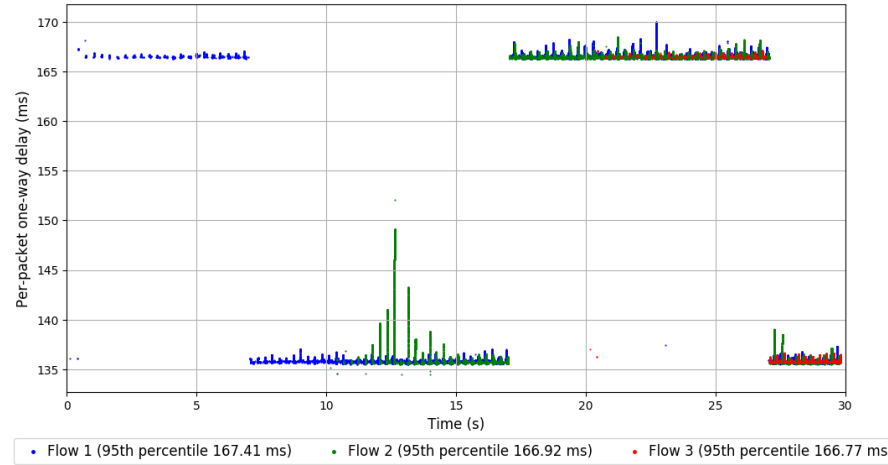
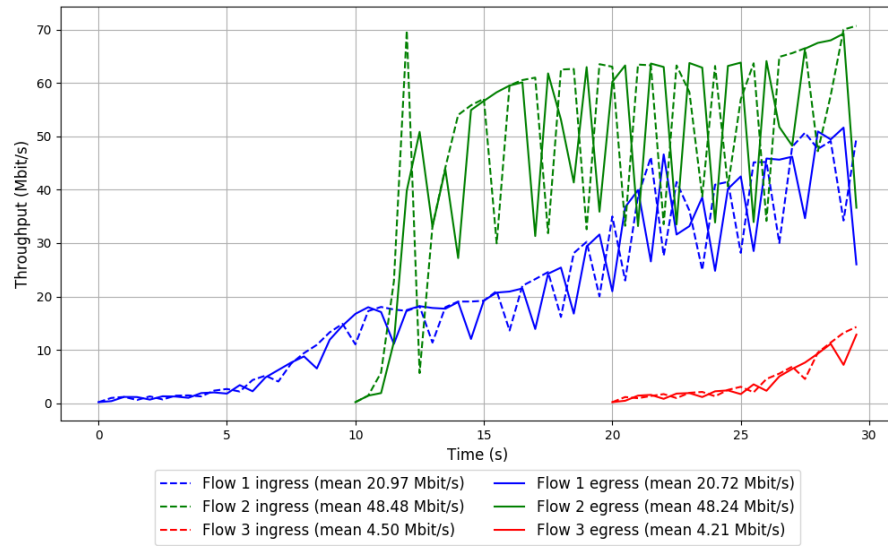
-- Flow 3:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 166.772 ms

Loss rate: 9.01%

Run 7: Report of TCP Cubic — Data Link



Run 8: 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 06:53:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.28 Mbit/s

95th percentile per-packet one-way delay: 170.110 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 41.16 Mbit/s

95th percentile per-packet one-way delay: 170.757 ms

Loss rate: 2.04%

-- Flow 2:

Average throughput: 8.93 Mbit/s

95th percentile per-packet one-way delay: 163.425 ms

Loss rate: 2.51%

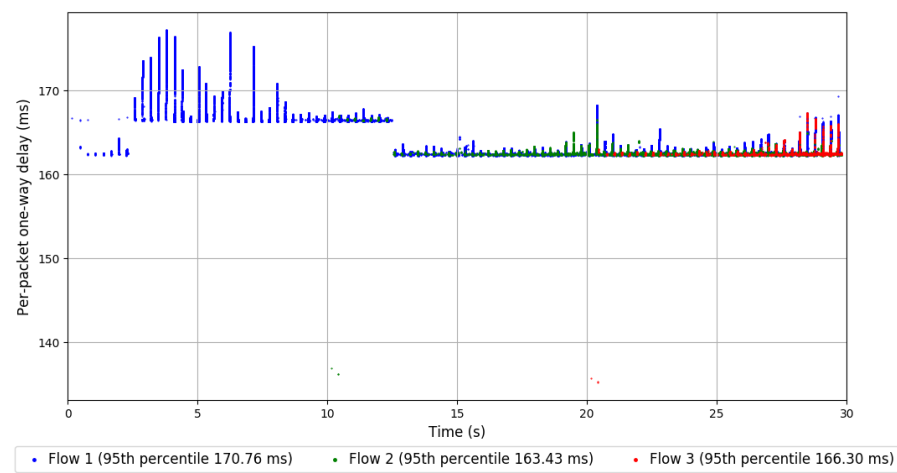
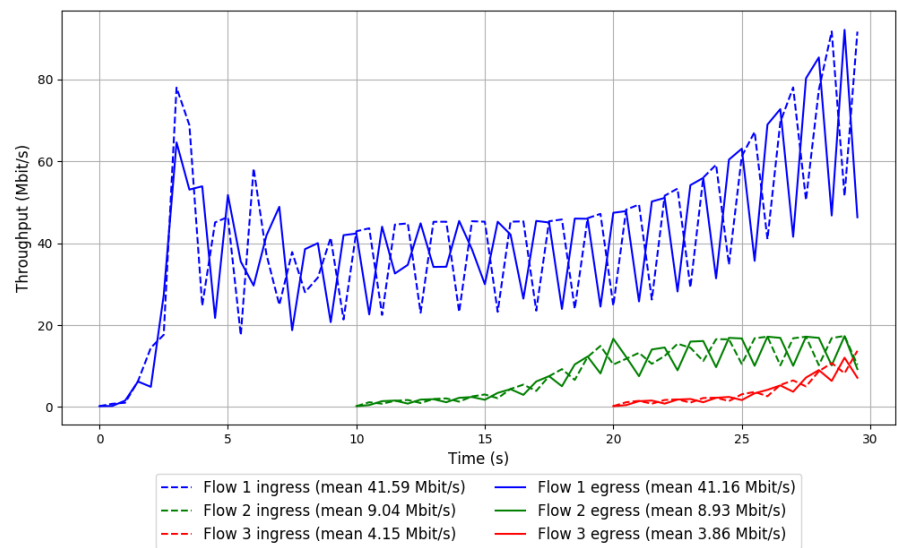
-- Flow 3:

Average throughput: 3.86 Mbit/s

95th percentile per-packet one-way delay: 166.298 ms

Loss rate: 9.57%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-11-22 04:02:57

End at: 2017-11-22 04:03:27

Below is generated by plot.py at 2017-11-22 06:53:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.50 Mbit/s

95th percentile per-packet one-way delay: 168.385 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 55.75 Mbit/s

95th percentile per-packet one-way delay: 168.692 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 15.84 Mbit/s

95th percentile per-packet one-way delay: 163.908 ms

Loss rate: 6.73%

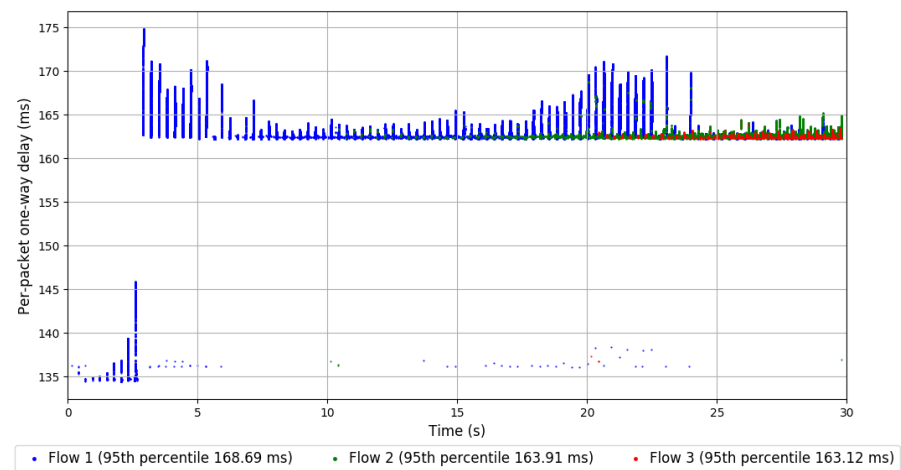
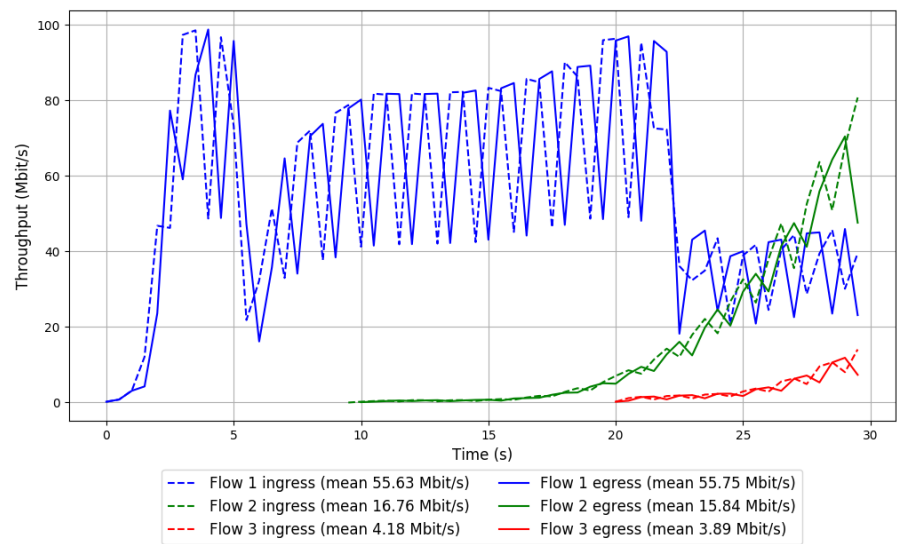
-- Flow 3:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 163.117 ms

Loss rate: 9.56%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-11-22 04:16:20

End at: 2017-11-22 04:16:50

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.62 Mbit/s

95th percentile per-packet one-way delay: 142.009 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 41.92 Mbit/s

95th percentile per-packet one-way delay: 139.249 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 47.10 Mbit/s

95th percentile per-packet one-way delay: 142.241 ms

Loss rate: 2.32%

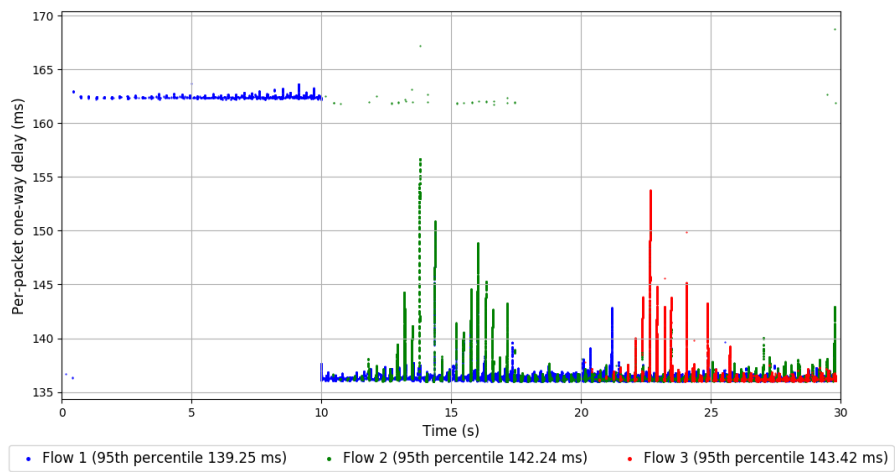
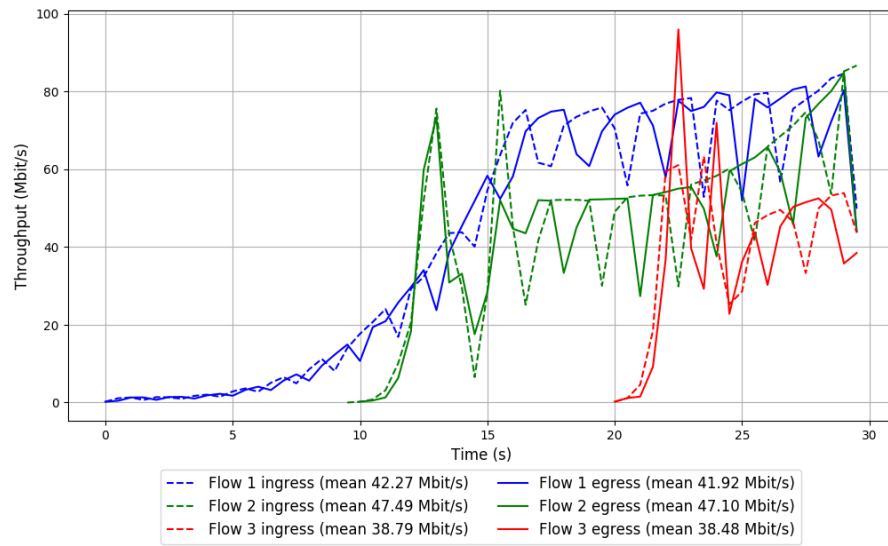
-- Flow 3:

Average throughput: 38.48 Mbit/s

95th percentile per-packet one-way delay: 143.422 ms

Loss rate: 3.54%

Run 10: Report of TCP Cubic — Data Link

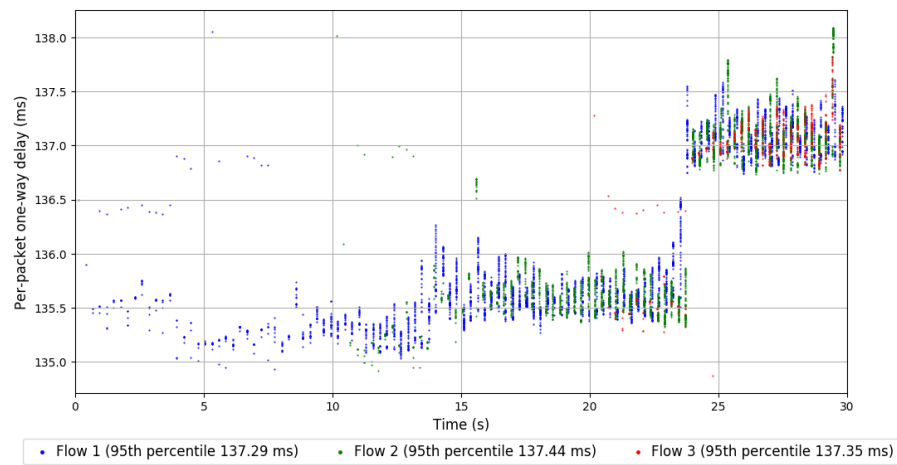
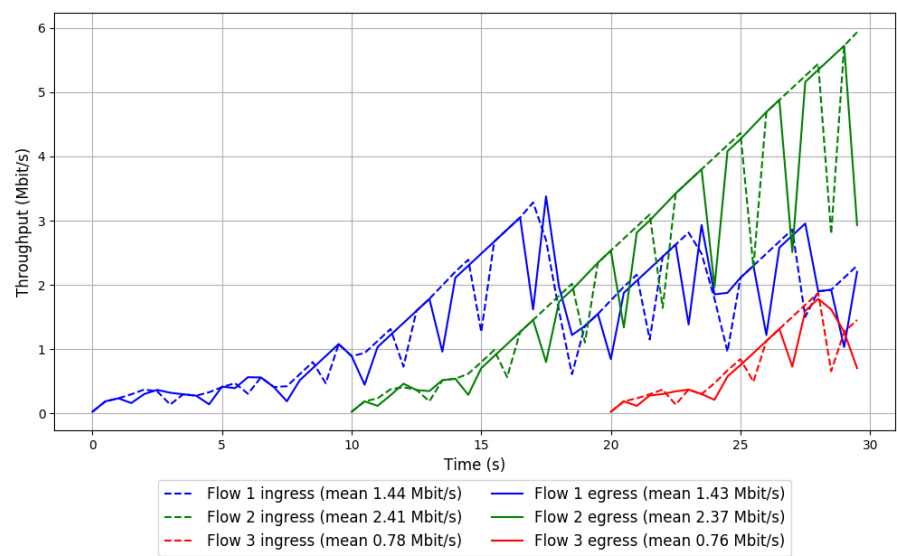


```
Run 1: Statistics of LEDBAT

Start at: 2017-11-22 02:09:46
End at: 2017-11-22 02:10:16

# Below is generated by plot.py at 2017-11-22 06:53:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 137.337 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 137.288 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 137.437 ms
Loss rate: 3.13%
-- Flow 3:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 137.348 ms
Loss rate: 4.91%
```


Run 1: Report of LEDBAT — Data Link

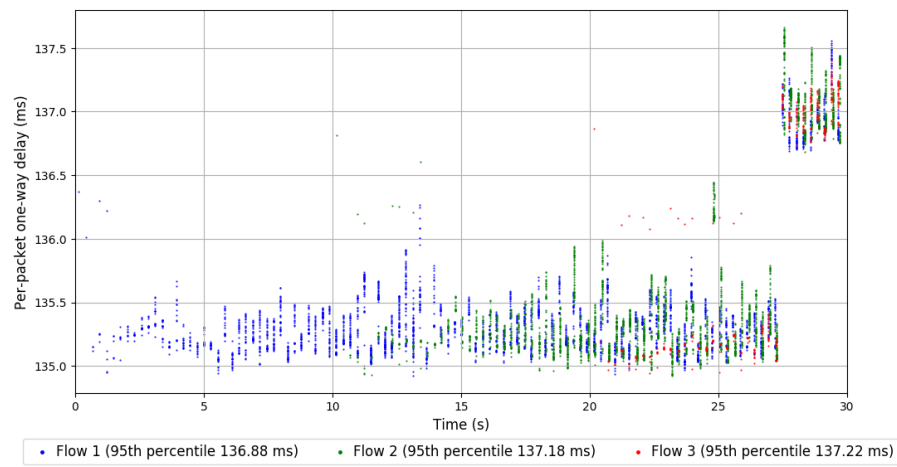
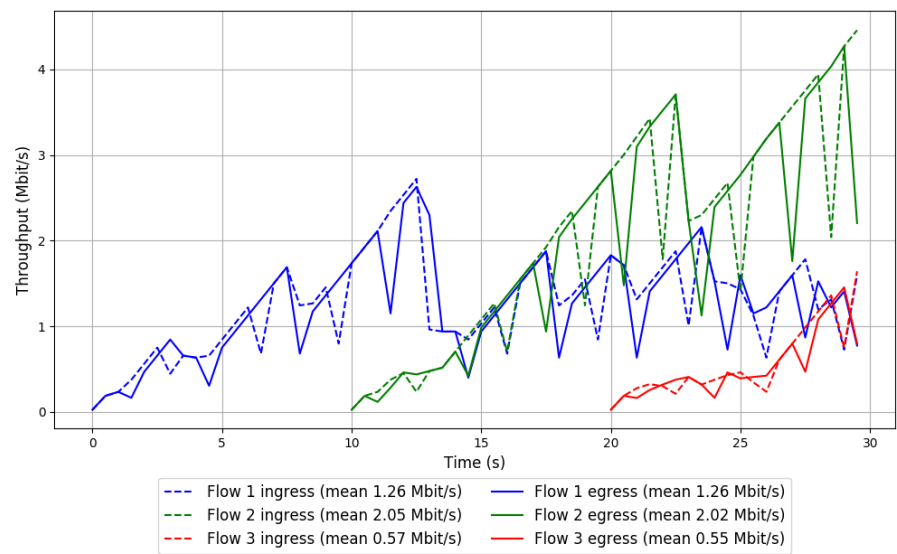


```
Run 2: Statistics of LEDBAT

Start at: 2017-11-22 02:23:43
End at: 2017-11-22 02:24:13

# Below is generated by plot.py at 2017-11-22 06:53:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 137.128 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 136.883 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 137.177 ms
Loss rate: 2.77%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 137.215 ms
Loss rate: 7.53%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-11-22 02:37:49

End at: 2017-11-22 02:38:19

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 137.369 ms

Loss rate: 2.83%

-- Flow 1:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 137.497 ms

Loss rate: 2.29%

-- Flow 2:

Average throughput: 1.78 Mbit/s

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

Loss rate: 2.99%

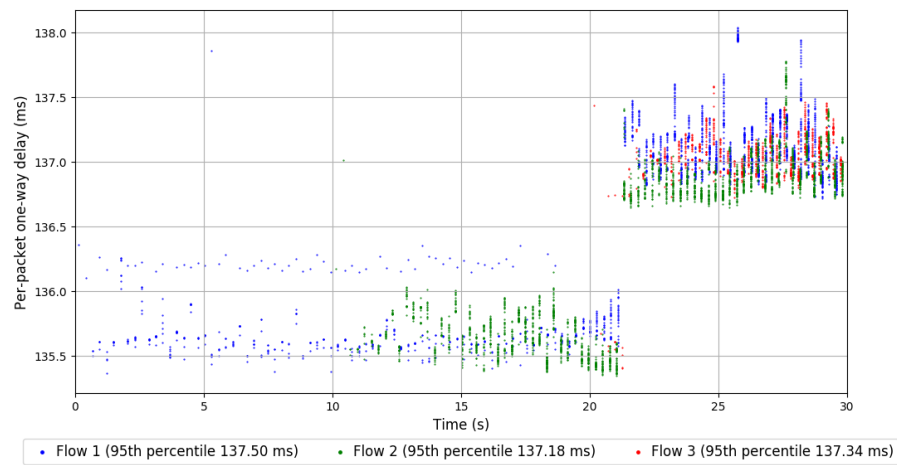
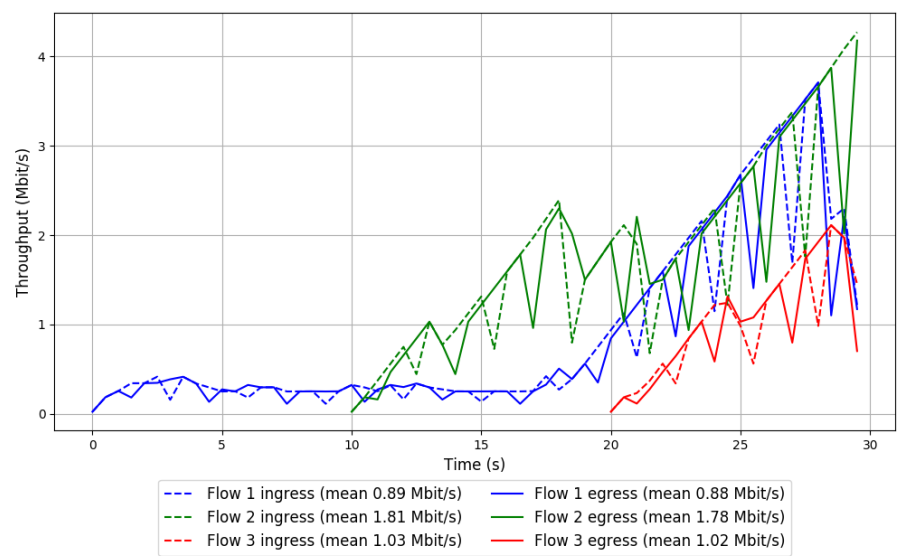
-- Flow 3:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 137.342 ms

Loss rate: 3.69%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

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

End at: 2017-11-22 02:52:32

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 137.201 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 137.219 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 136.841 ms

Loss rate: 1.47%

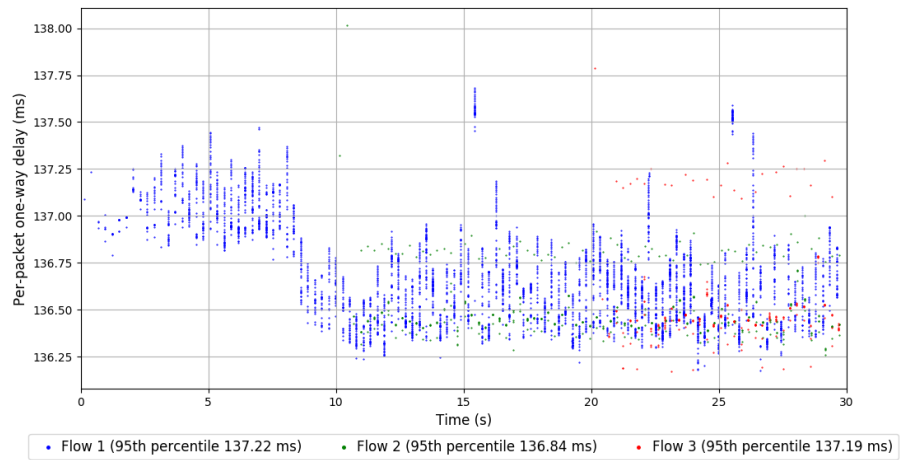
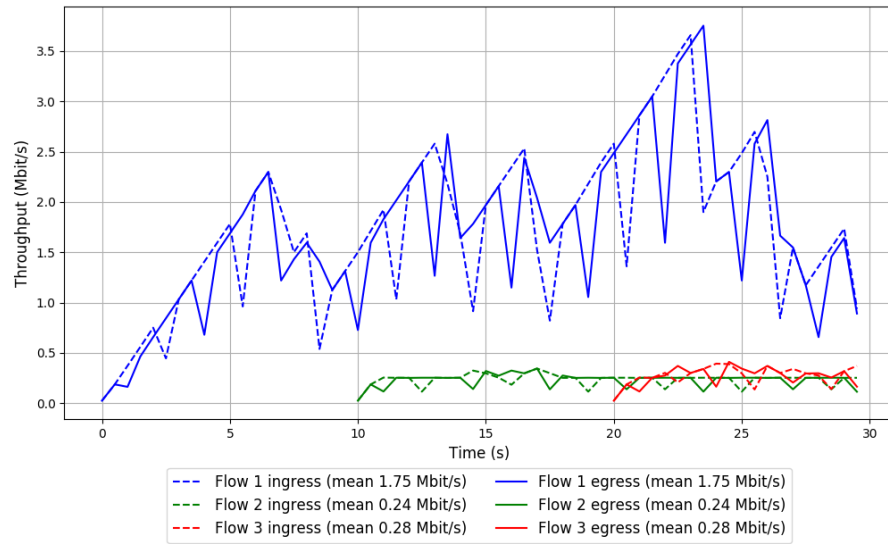
-- Flow 3:

Average throughput: 0.28 Mbit/s

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

Loss rate: 3.75%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-11-22 03:05:33

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

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.72 Mbit/s

95th percentile per-packet one-way delay: 166.999 ms

Loss rate: 2.37%

-- Flow 1:

Average throughput: 1.67 Mbit/s

95th percentile per-packet one-way delay: 166.996 ms

Loss rate: 1.55%

-- Flow 2:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 167.067 ms

Loss rate: 2.40%

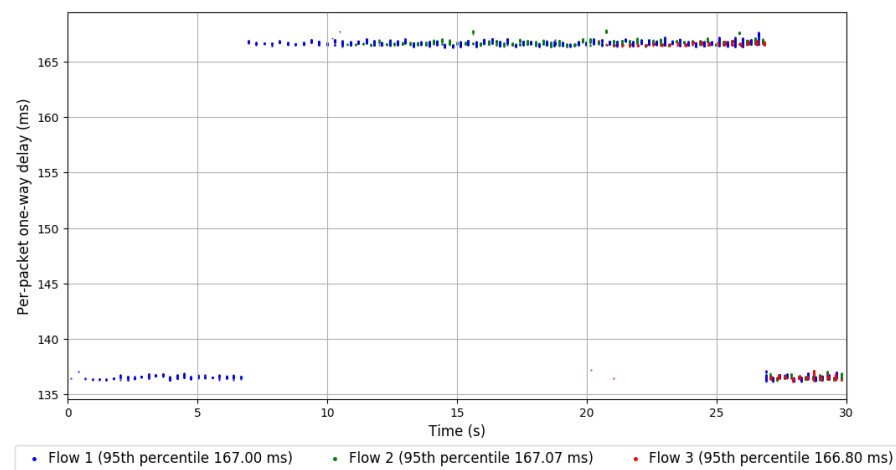
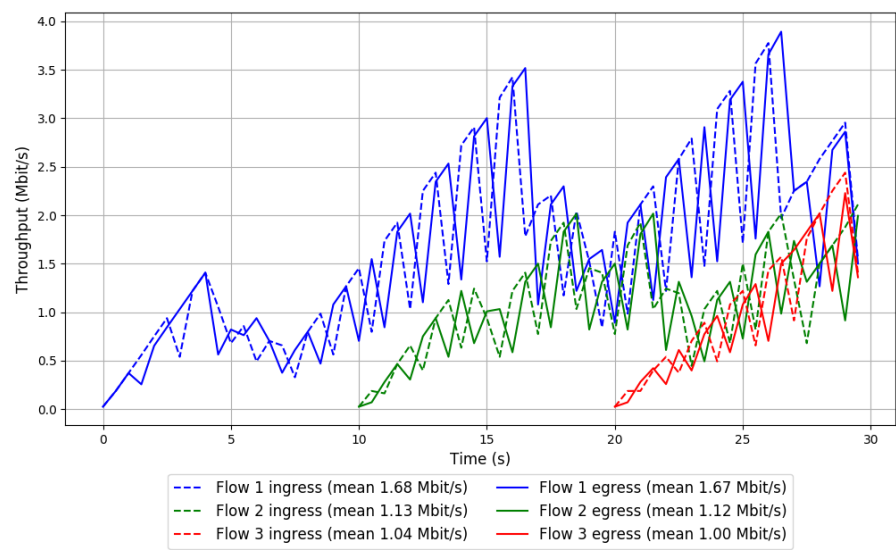
-- Flow 3:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 166.802 ms

Loss rate: 6.28%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

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

End at: 2017-11-22 03:19:52

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.66 Mbit/s

95th percentile per-packet one-way delay: 166.979 ms

Loss rate: 3.18%

-- Flow 1:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 166.568 ms

Loss rate: 2.31%

-- Flow 2:

Average throughput: 2.93 Mbit/s

95th percentile per-packet one-way delay: 167.012 ms

Loss rate: 2.77%

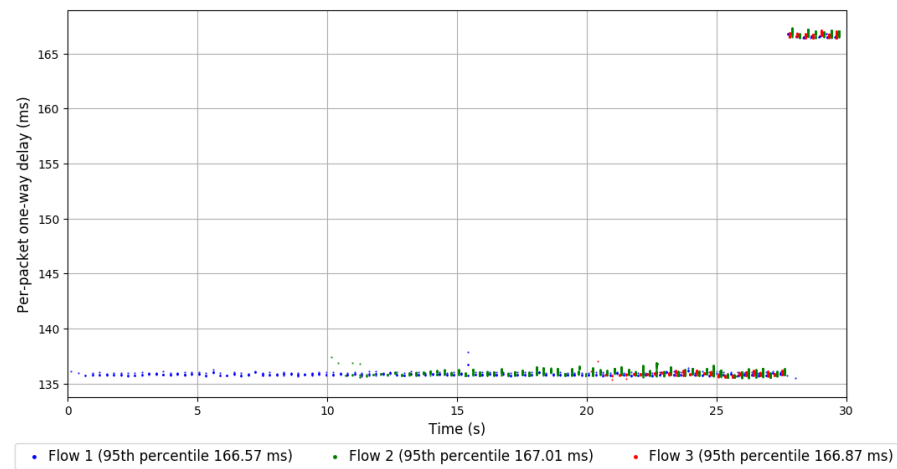
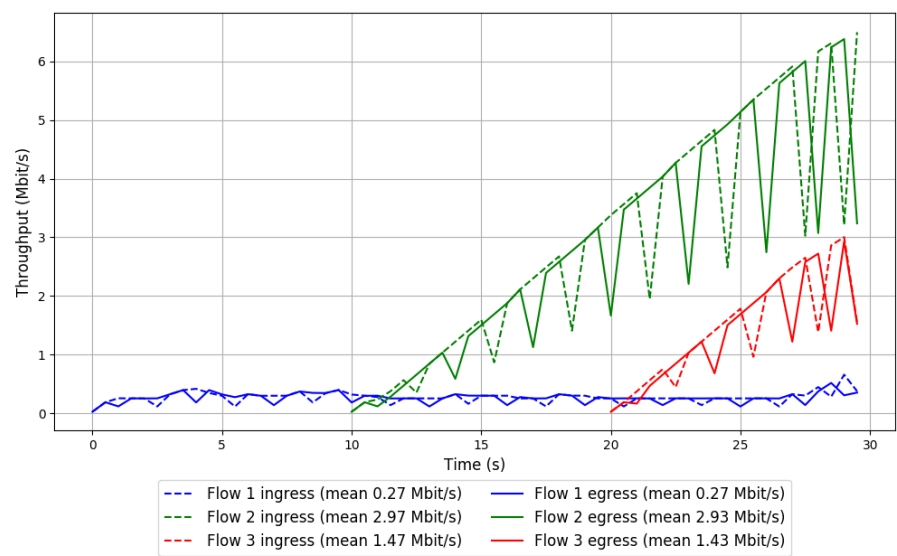
-- Flow 3:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 166.867 ms

Loss rate: 5.41%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

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

End at: 2017-11-22 03:33:36

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 166.915 ms

Loss rate: 3.95%

-- Flow 1:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 166.695 ms

Loss rate: 3.86%

-- Flow 2:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 166.972 ms

Loss rate: 3.29%

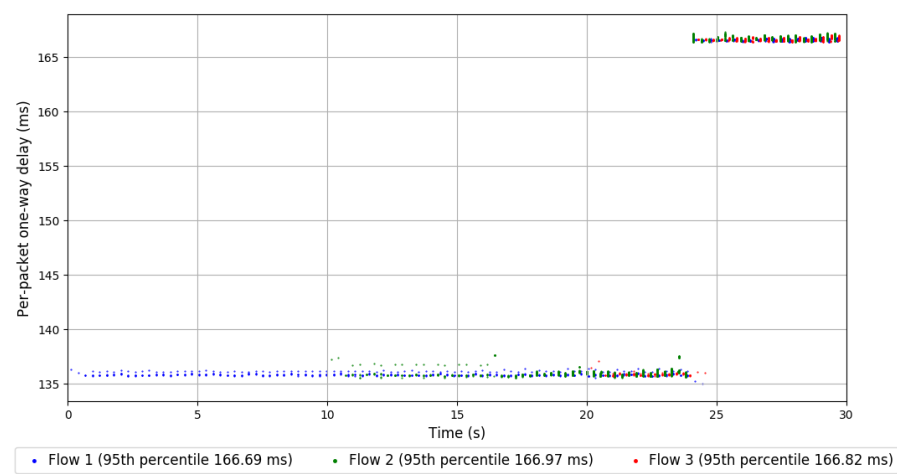
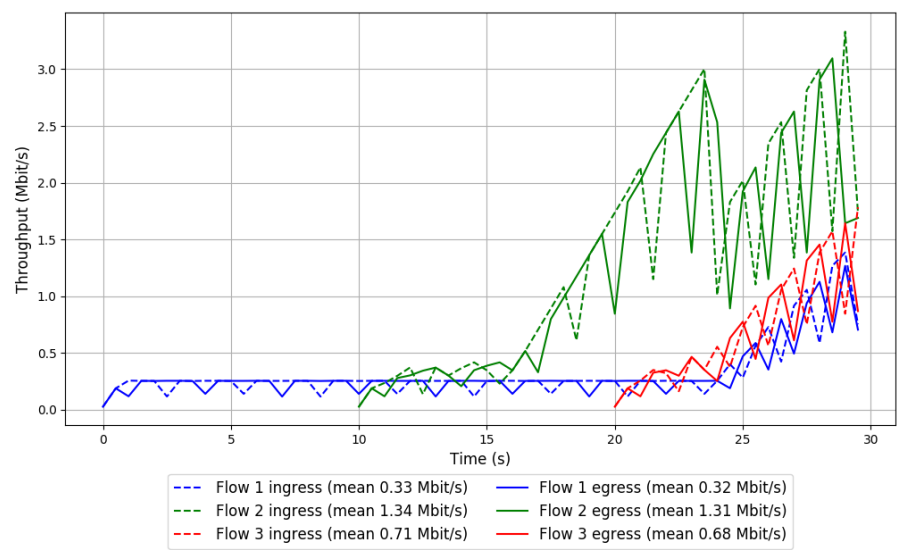
-- Flow 3:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 166.825 ms

Loss rate: 6.59%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-11-22 03:46:52

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

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.59 Mbit/s

95th percentile per-packet one-way delay: 166.963 ms

Loss rate: 2.22%

-- Flow 1:

Average throughput: 1.15 Mbit/s

95th percentile per-packet one-way delay: 167.013 ms

Loss rate: 1.70%

-- Flow 2:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 166.973 ms

Loss rate: 1.92%

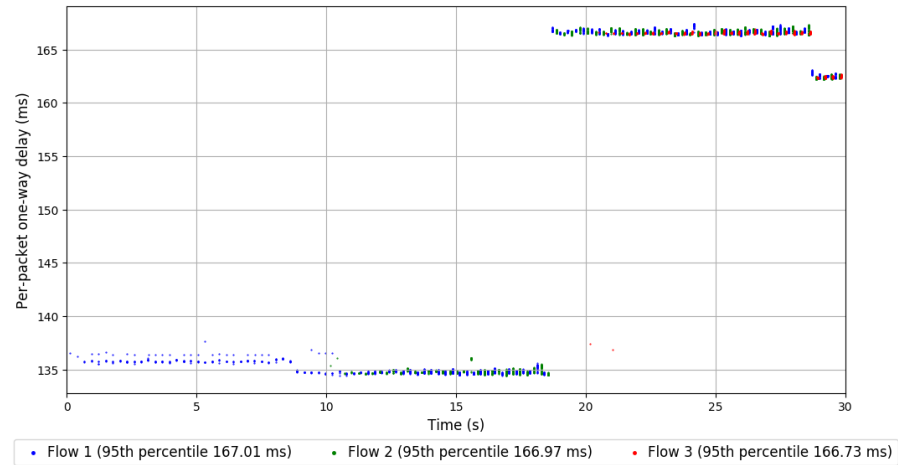
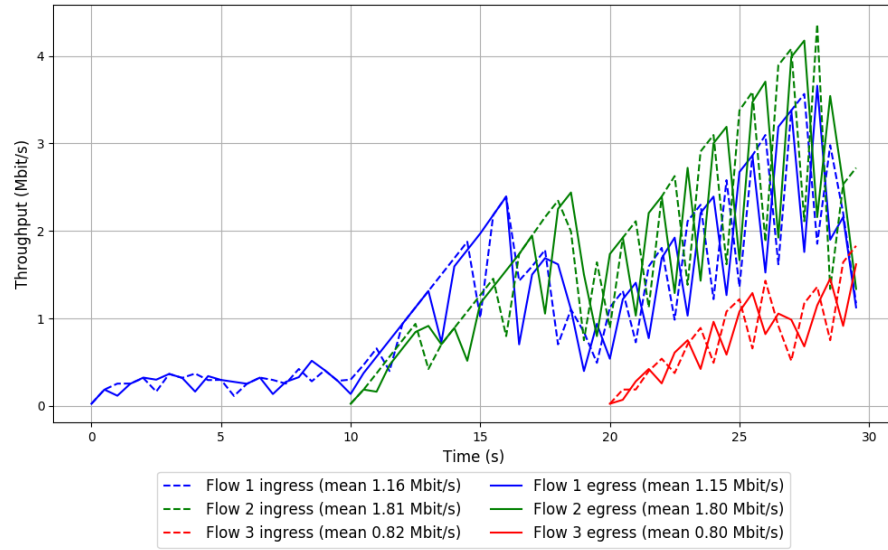
-- Flow 3:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 166.732 ms

Loss rate: 5.73%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-11-22 04:00:07

End at: 2017-11-22 04:00:37

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.13 Mbit/s

95th percentile per-packet one-way delay: 163.000 ms

Loss rate: 2.57%

-- Flow 1:

Average throughput: 3.49 Mbit/s

95th percentile per-packet one-way delay: 163.022 ms

Loss rate: 2.09%

-- Flow 2:

Average throughput: 2.02 Mbit/s

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

Loss rate: 2.98%

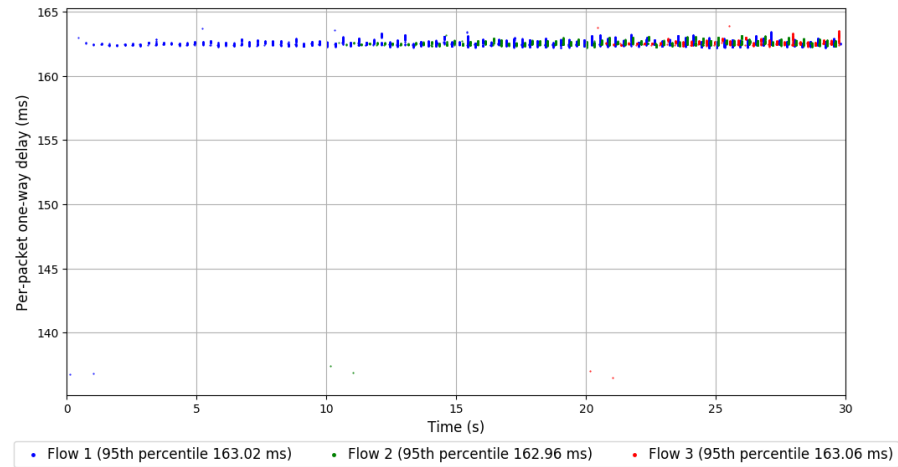
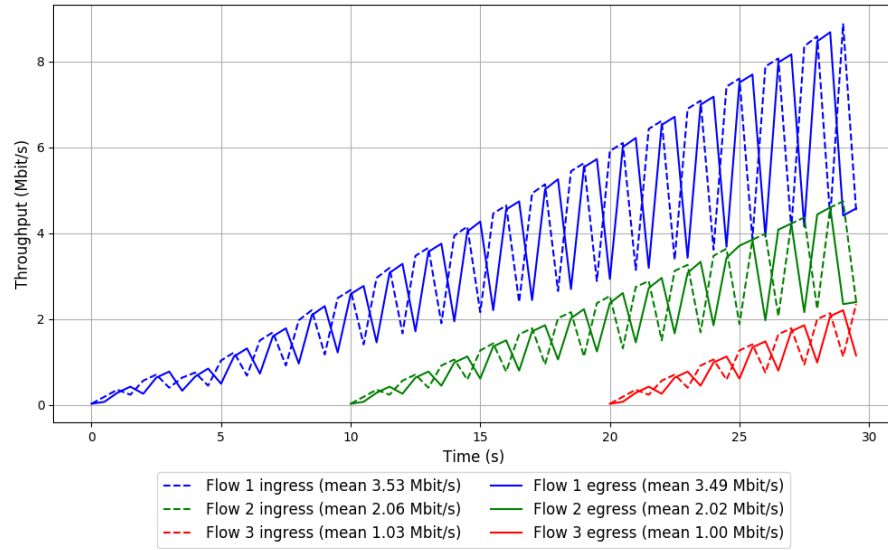
-- Flow 3:

Average throughput: 1.00 Mbit/s

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

Loss rate: 5.86%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

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

End at: 2017-11-22 04:13:52

Below is generated by plot.py at 2017-11-22 06:53:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.69 Mbit/s

95th percentile per-packet one-way delay: 162.937 ms

Loss rate: 2.50%

-- Flow 1:

Average throughput: 3.03 Mbit/s

95th percentile per-packet one-way delay: 162.945 ms

Loss rate: 1.98%

-- Flow 2:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 162.923 ms

Loss rate: 2.84%

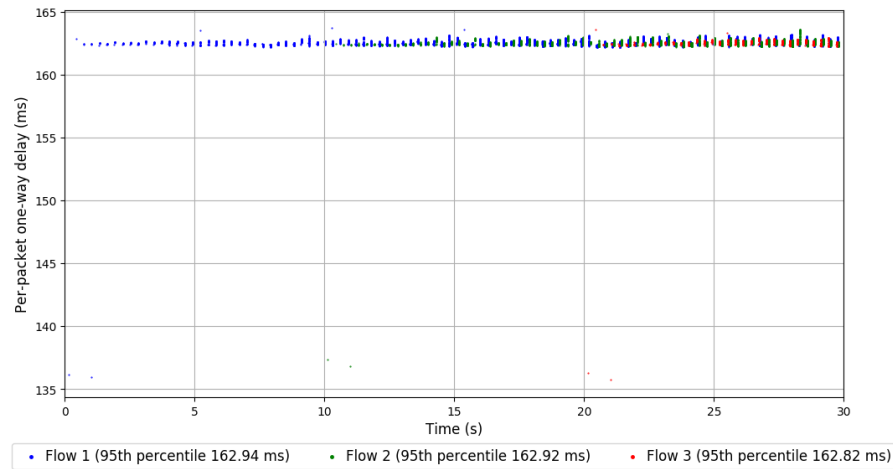
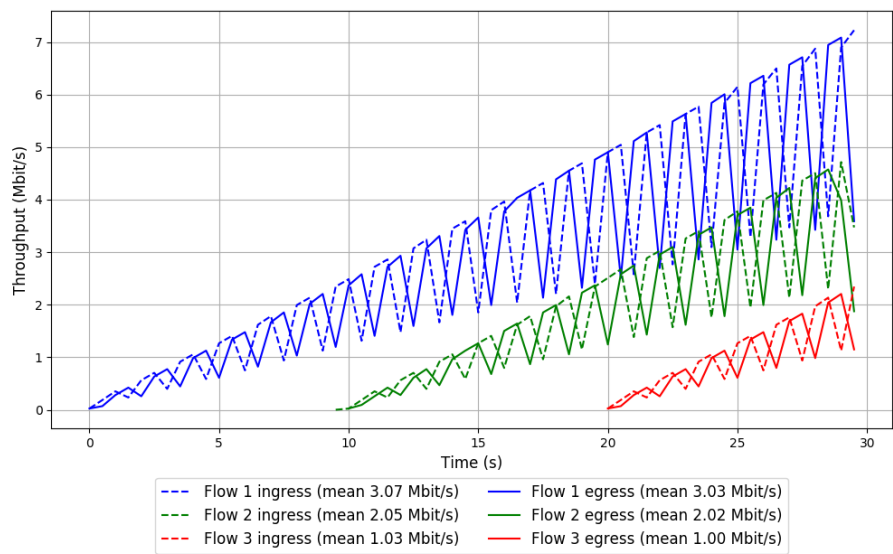
-- Flow 3:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 162.816 ms

Loss rate: 5.88%

Run 10: Report of LEDBAT — Data Link

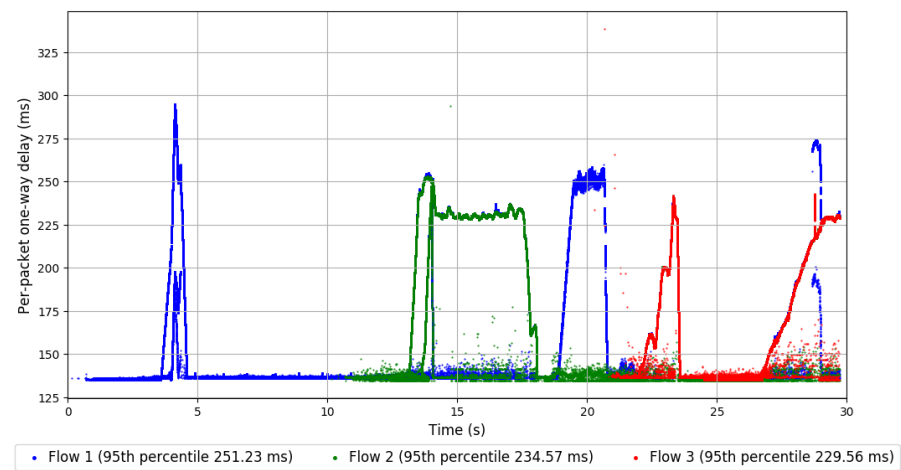
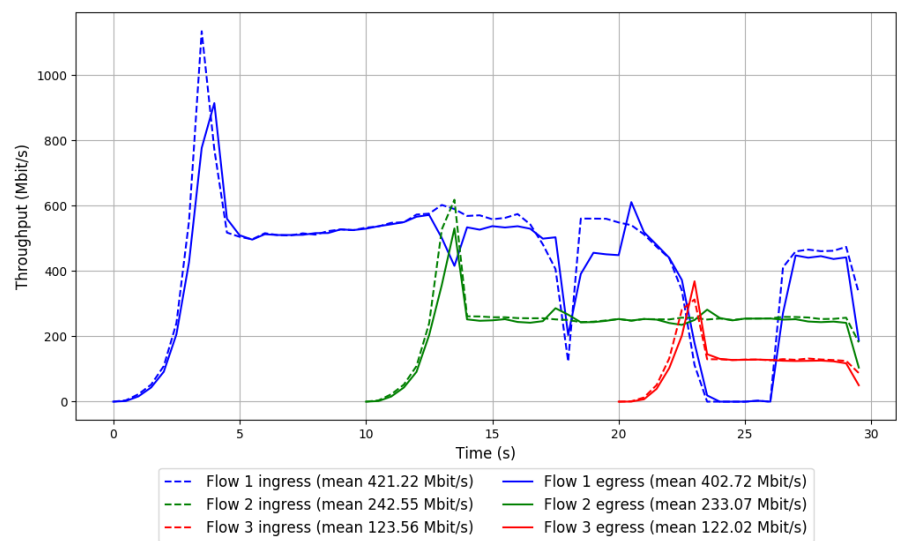


```
Run 1: Statistics of PCC

Start at: 2017-11-22 02:04:36
End at: 2017-11-22 02:05:06

# Below is generated by plot.py at 2017-11-22 07:02:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 595.81 Mbit/s
95th percentile per-packet one-way delay: 248.916 ms
Loss rate: 5.24%
-- Flow 1:
Average throughput: 402.72 Mbit/s
95th percentile per-packet one-way delay: 251.231 ms
Loss rate: 5.26%
-- Flow 2:
Average throughput: 233.07 Mbit/s
95th percentile per-packet one-way delay: 234.575 ms
Loss rate: 5.22%
-- Flow 3:
Average throughput: 122.02 Mbit/s
95th percentile per-packet one-way delay: 229.555 ms
Loss rate: 5.04%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-11-22 02:18:51

End at: 2017-11-22 02:19:21

Below is generated by plot.py at 2017-11-22 07:02:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 587.97 Mbit/s

95th percentile per-packet one-way delay: 265.653 ms

Loss rate: 4.47%

-- Flow 1:

Average throughput: 479.30 Mbit/s

95th percentile per-packet one-way delay: 273.197 ms

Loss rate: 4.82%

-- Flow 2:

Average throughput: 132.36 Mbit/s

95th percentile per-packet one-way delay: 228.585 ms

Loss rate: 2.80%

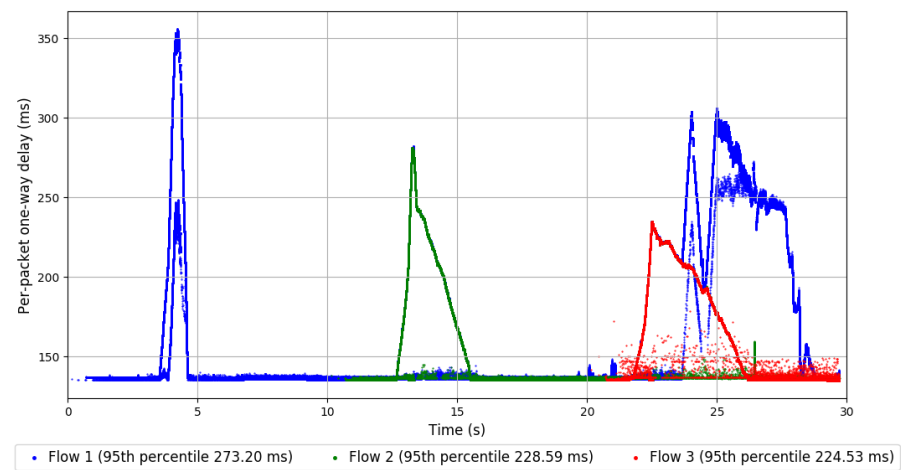
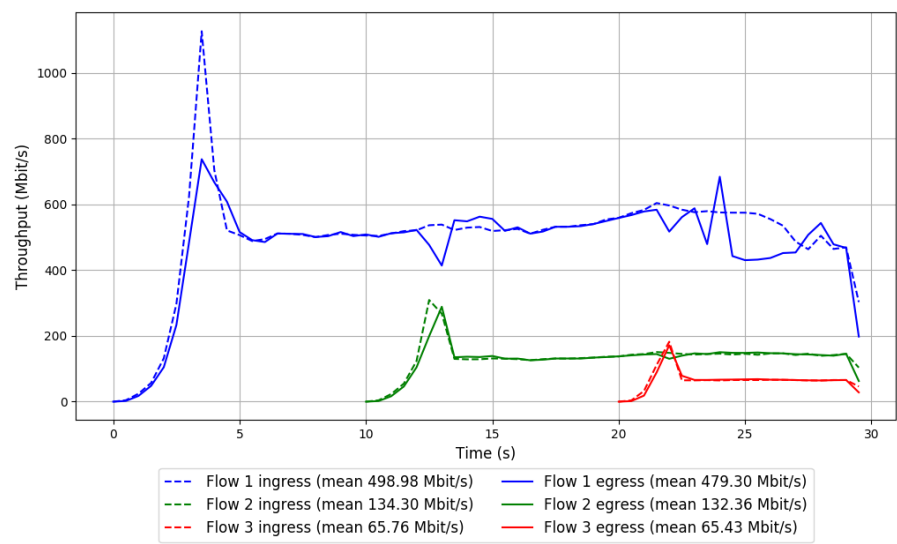
-- Flow 3:

Average throughput: 65.43 Mbit/s

95th percentile per-packet one-way delay: 224.528 ms

Loss rate: 3.32%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

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

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

Below is generated by plot.py at 2017-11-22 07:02:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 578.85 Mbit/s

95th percentile per-packet one-way delay: 305.867 ms

Loss rate: 7.38%

-- Flow 1:

Average throughput: 421.45 Mbit/s

95th percentile per-packet one-way delay: 311.618 ms

Loss rate: 8.34%

-- Flow 2:

Average throughput: 235.59 Mbit/s

95th percentile per-packet one-way delay: 233.477 ms

Loss rate: 4.74%

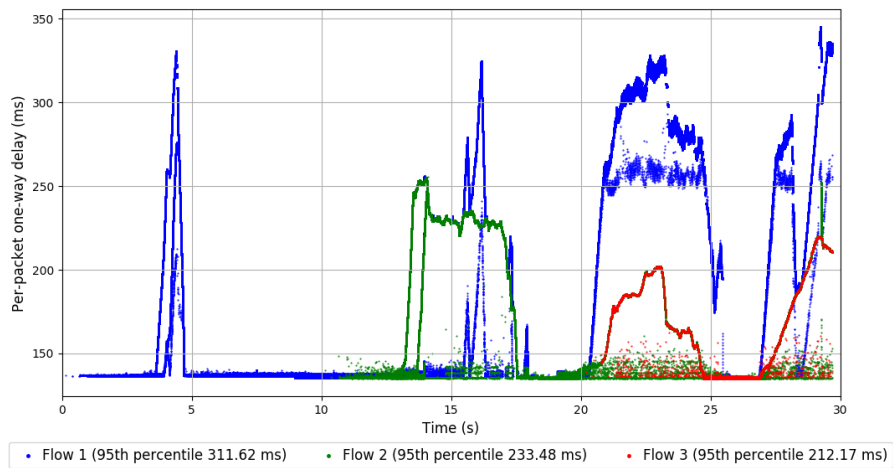
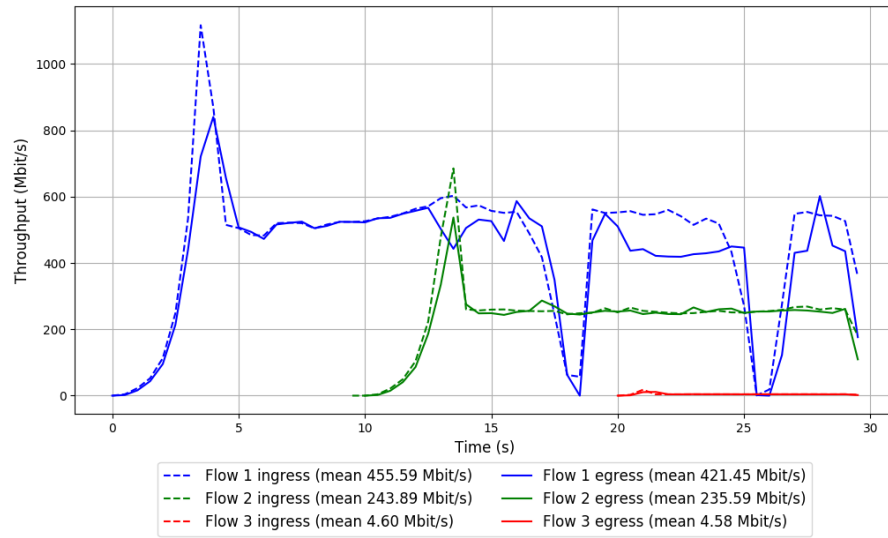
-- Flow 3:

Average throughput: 4.58 Mbit/s

95th percentile per-packet one-way delay: 212.168 ms

Loss rate: 3.21%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

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

End at: 2017-11-22 02:47:16

Below is generated by plot.py at 2017-11-22 07:03:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 636.66 Mbit/s

95th percentile per-packet one-way delay: 227.700 ms

Loss rate: 3.25%

-- Flow 1:

Average throughput: 478.07 Mbit/s

95th percentile per-packet one-way delay: 227.552 ms

Loss rate: 3.08%

-- Flow 2:

Average throughput: 237.51 Mbit/s

95th percentile per-packet one-way delay: 228.416 ms

Loss rate: 3.77%

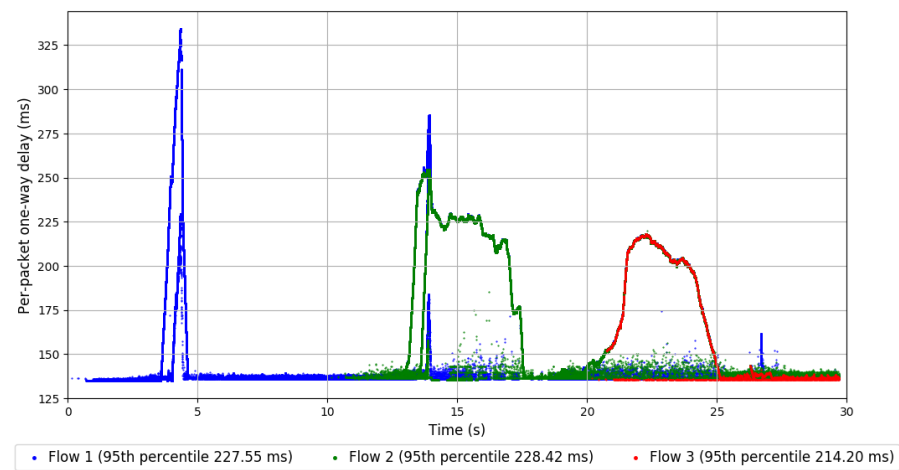
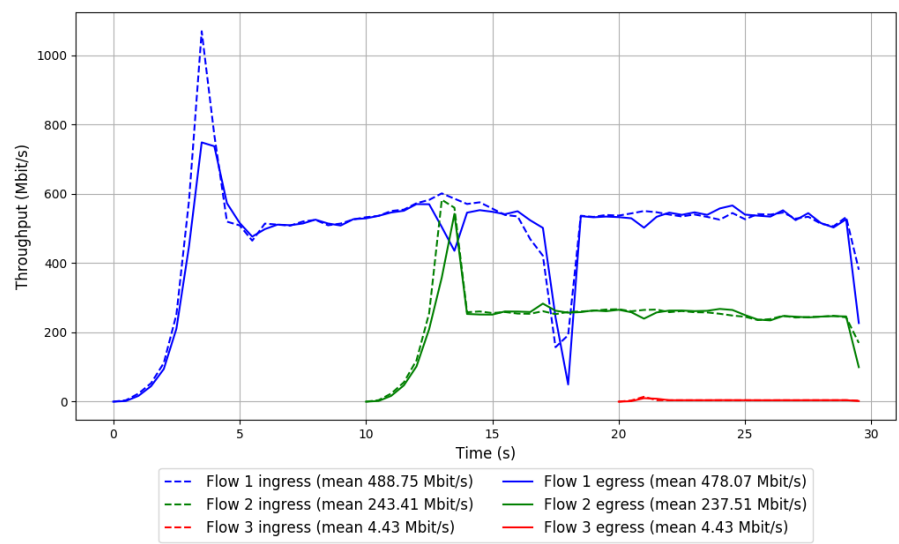
-- Flow 3:

Average throughput: 4.43 Mbit/s

95th percentile per-packet one-way delay: 214.199 ms

Loss rate: 2.69%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-11-22 03:00:51

End at: 2017-11-22 03:01:21

Below is generated by plot.py at 2017-11-22 07:03:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 511.99 Mbit/s

95th percentile per-packet one-way delay: 168.343 ms

Loss rate: 2.35%

-- Flow 1:

Average throughput: 479.24 Mbit/s

95th percentile per-packet one-way delay: 168.986 ms

Loss rate: 2.39%

-- Flow 2:

Average throughput: 33.22 Mbit/s

95th percentile per-packet one-way delay: 166.618 ms

Loss rate: 1.34%

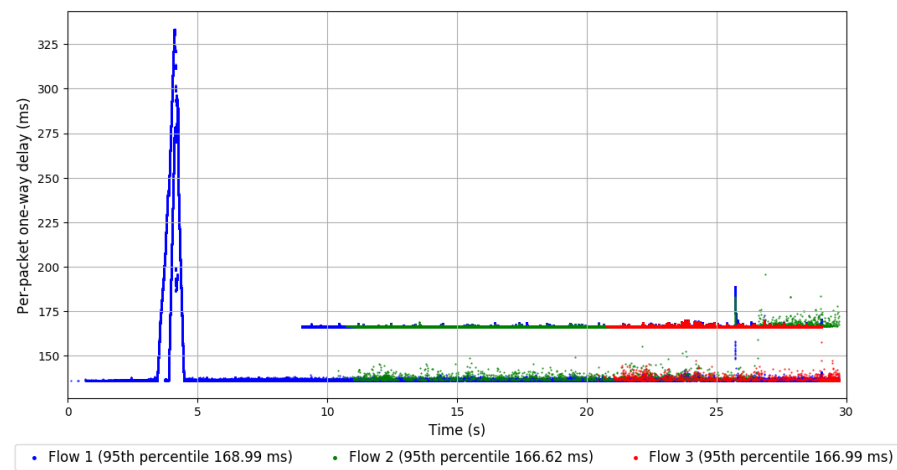
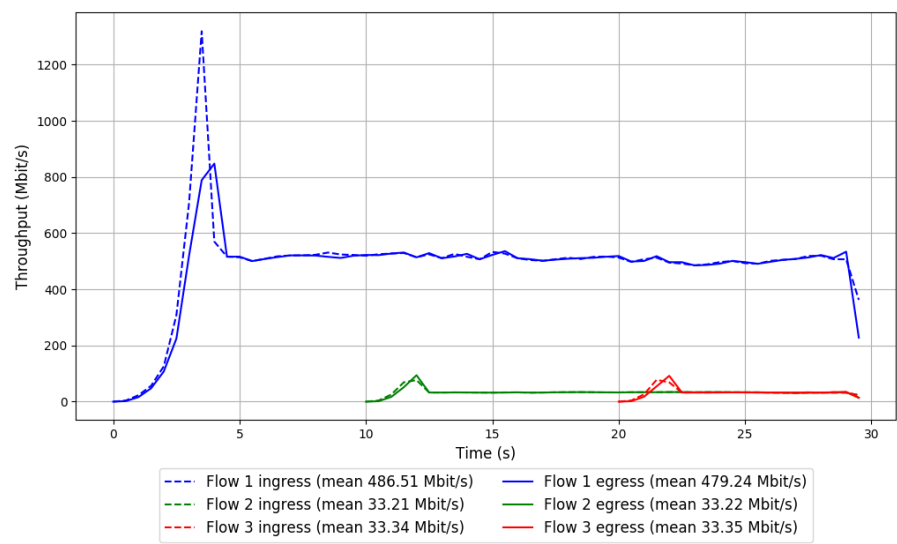
-- Flow 3:

Average throughput: 33.35 Mbit/s

95th percentile per-packet one-way delay: 166.987 ms

Loss rate: 2.73%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-11-22 03:14:24

End at: 2017-11-22 03:14:54

Below is generated by plot.py at 2017-11-22 07:03:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 605.05 Mbit/s

95th percentile per-packet one-way delay: 316.406 ms

Loss rate: 6.59%

-- Flow 1:

Average throughput: 429.88 Mbit/s

95th percentile per-packet one-way delay: 341.799 ms

Loss rate: 6.58%

-- Flow 2:

Average throughput: 236.45 Mbit/s

95th percentile per-packet one-way delay: 261.251 ms

Loss rate: 6.04%

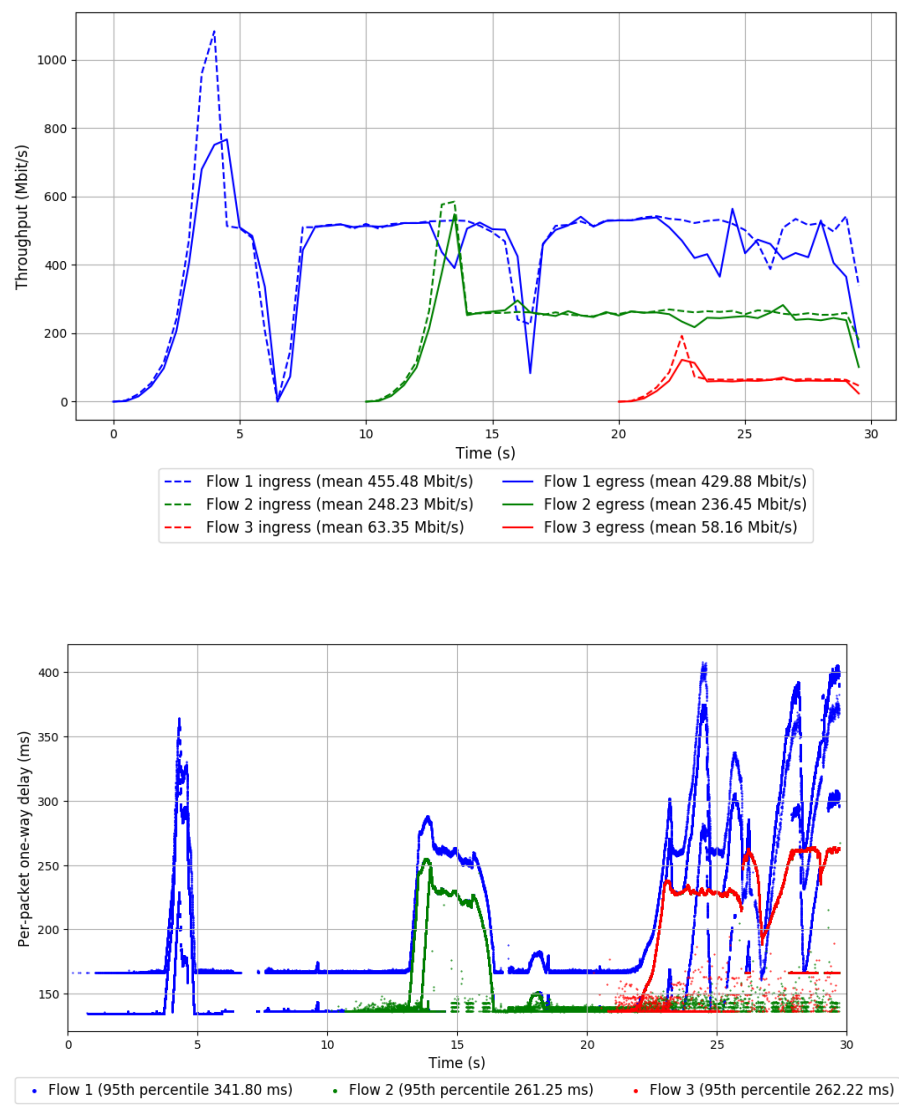
-- Flow 3:

Average throughput: 58.16 Mbit/s

95th percentile per-packet one-way delay: 262.221 ms

Loss rate: 11.04%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-11-22 03:28:09

End at: 2017-11-22 03:28:39

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 639.16 Mbit/s

95th percentile per-packet one-way delay: 233.394 ms

Loss rate: 3.05%

-- Flow 1:

Average throughput: 480.02 Mbit/s

95th percentile per-packet one-way delay: 232.696 ms

Loss rate: 2.90%

-- Flow 2:

Average throughput: 239.38 Mbit/s

95th percentile per-packet one-way delay: 237.000 ms

Loss rate: 3.48%

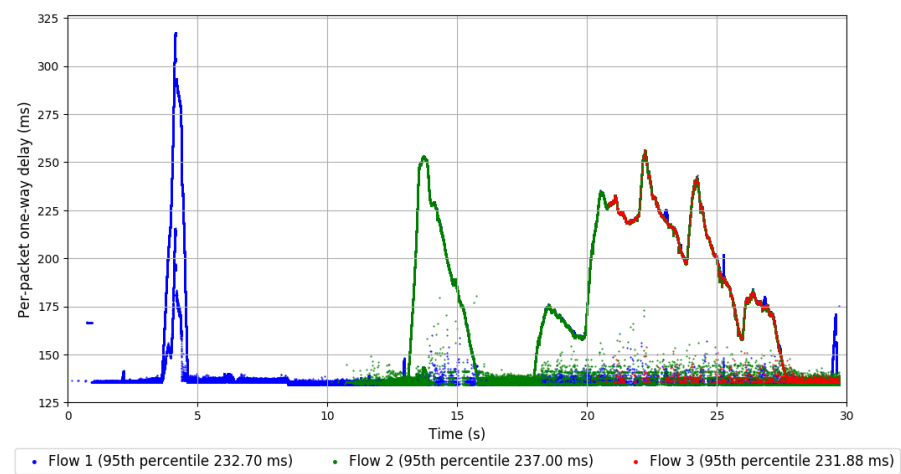
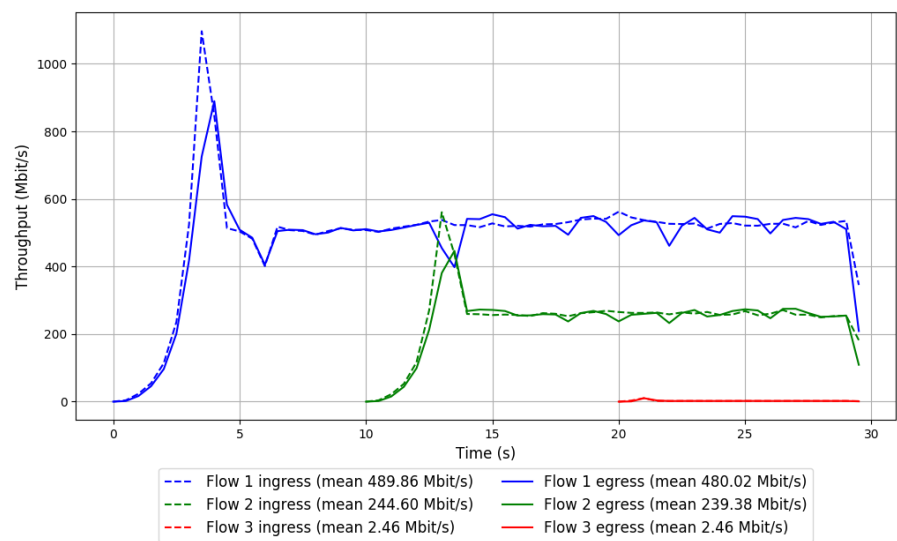
-- Flow 3:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 231.881 ms

Loss rate: 3.00%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

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

End at: 2017-11-22 03:42:39

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 367.00 Mbit/s

95th percentile per-packet one-way delay: 347.978 ms

Loss rate: 7.61%

-- Flow 1:

Average throughput: 5.89 Mbit/s

95th percentile per-packet one-way delay: 226.611 ms

Loss rate: 2.02%

-- Flow 2:

Average throughput: 438.67 Mbit/s

95th percentile per-packet one-way delay: 349.352 ms

Loss rate: 7.66%

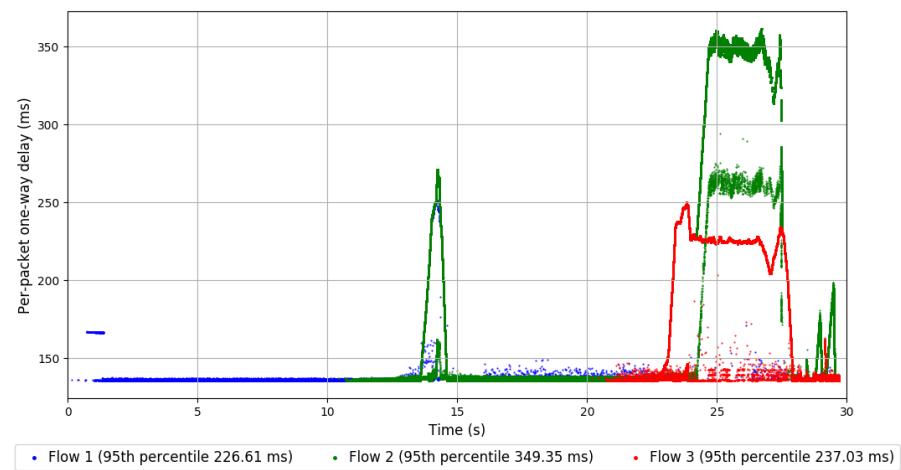
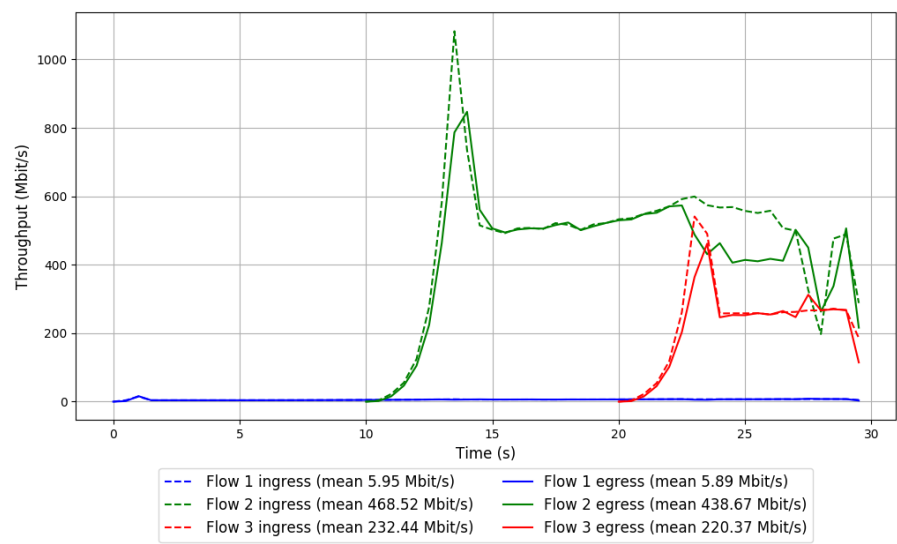
-- Flow 3:

Average throughput: 220.37 Mbit/s

95th percentile per-packet one-way delay: 237.034 ms

Loss rate: 7.86%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-11-22 03:55:36

End at: 2017-11-22 03:56:06

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 371.75 Mbit/s

95th percentile per-packet one-way delay: 258.585 ms

Loss rate: 4.50%

-- Flow 1:

Average throughput: 6.04 Mbit/s

95th percentile per-packet one-way delay: 236.930 ms

Loss rate: 2.34%

-- Flow 2:

Average throughput: 445.84 Mbit/s

95th percentile per-packet one-way delay: 252.939 ms

Loss rate: 3.80%

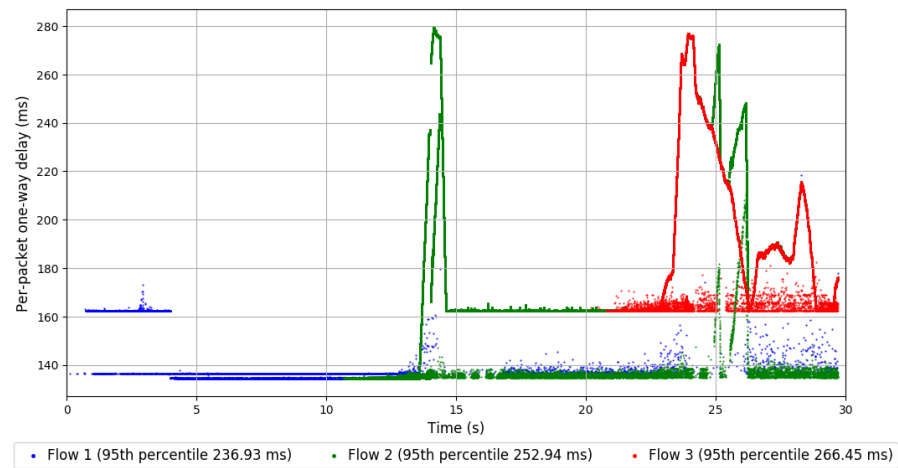
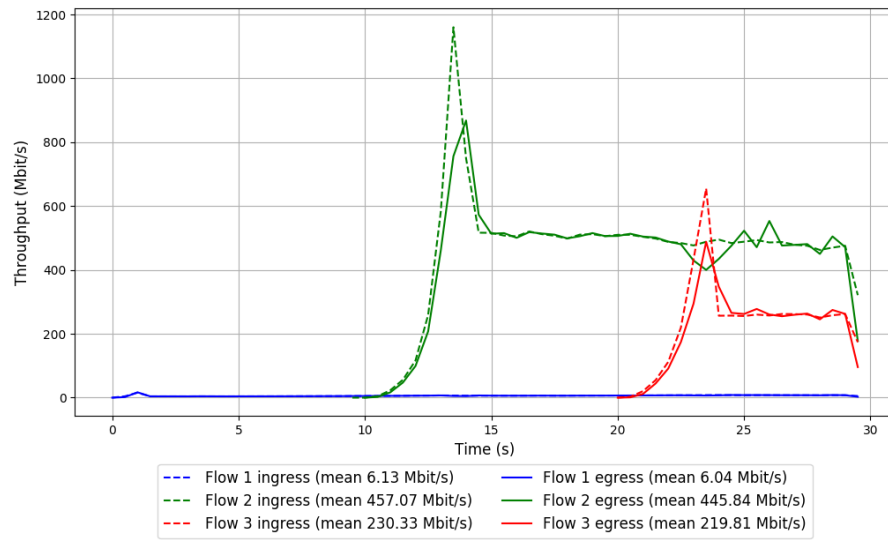
-- Flow 3:

Average throughput: 219.81 Mbit/s

95th percentile per-packet one-way delay: 266.450 ms

Loss rate: 7.49%

Run 9: Report of PCC — Data Link

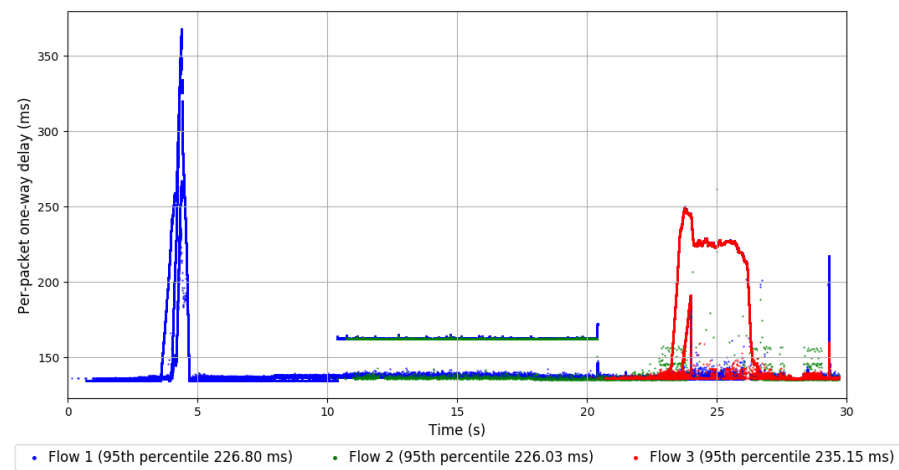
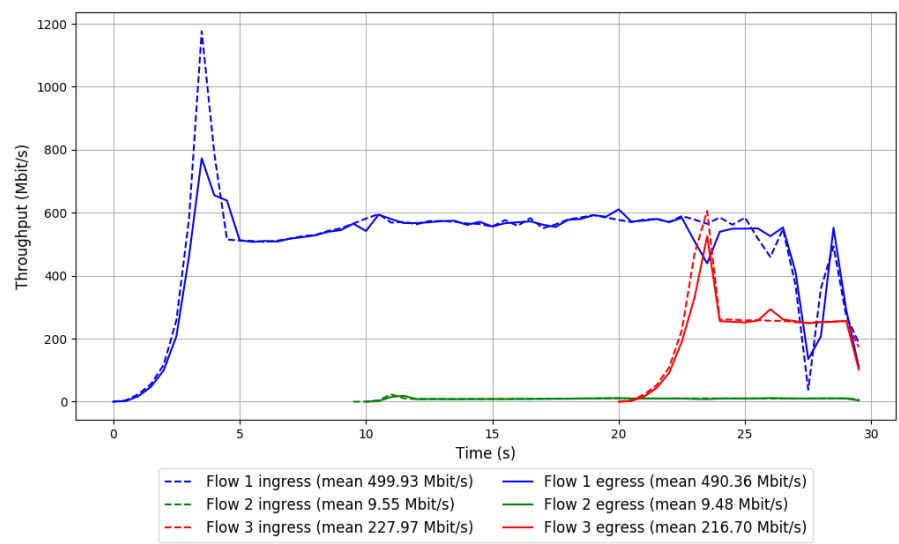


```
Run 10: Statistics of PCC

Start at: 2017-11-22 04:08:40
End at: 2017-11-22 04:09:10

# Below is generated by plot.py at 2017-11-22 07:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 566.64 Mbit/s
95th percentile per-packet one-way delay: 227.096 ms
Loss rate: 3.42%
-- Flow 1:
Average throughput: 490.36 Mbit/s
95th percentile per-packet one-way delay: 226.796 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 9.48 Mbit/s
95th percentile per-packet one-way delay: 226.031 ms
Loss rate: 2.13%
-- Flow 3:
Average throughput: 216.70 Mbit/s
95th percentile per-packet one-way delay: 235.148 ms
Loss rate: 7.59%
```

Run 10: Report of PCC — Data Link

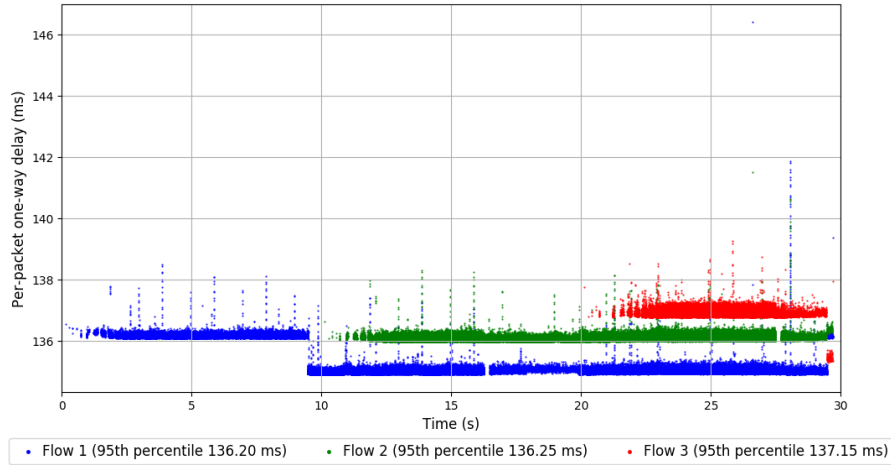
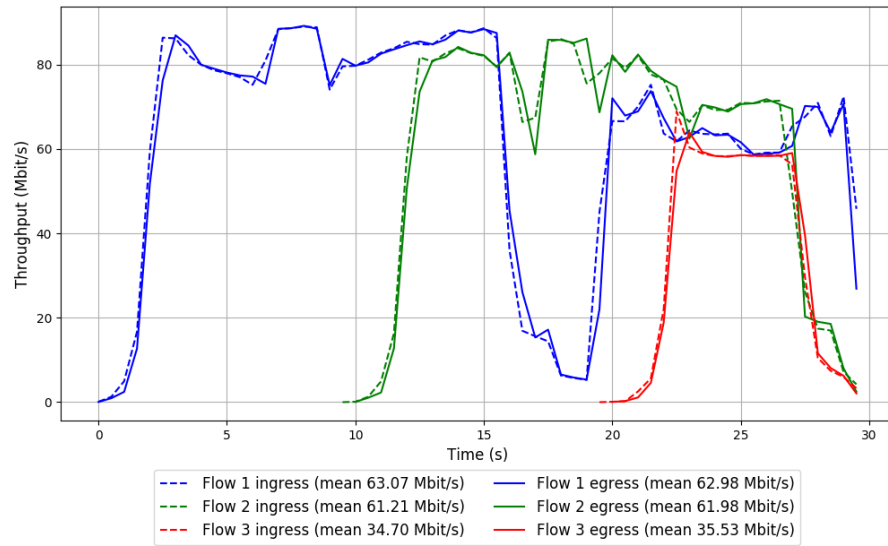


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-11-22 02:16:40
End at: 2017-11-22 02:17:10

# Below is generated by plot.py at 2017-11-22 07:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.49 Mbit/s
95th percentile per-packet one-way delay: 136.877 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 62.98 Mbit/s
95th percentile per-packet one-way delay: 136.196 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 61.98 Mbit/s
95th percentile per-packet one-way delay: 136.248 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 35.53 Mbit/s
95th percentile per-packet one-way delay: 137.149 ms
Loss rate: 0.40%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

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

End at: 2017-11-22 02:31:00

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.47 Mbit/s

95th percentile per-packet one-way delay: 136.704 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 51.57 Mbit/s

95th percentile per-packet one-way delay: 136.560 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 61.77 Mbit/s

95th percentile per-packet one-way delay: 136.779 ms

Loss rate: 0.13%

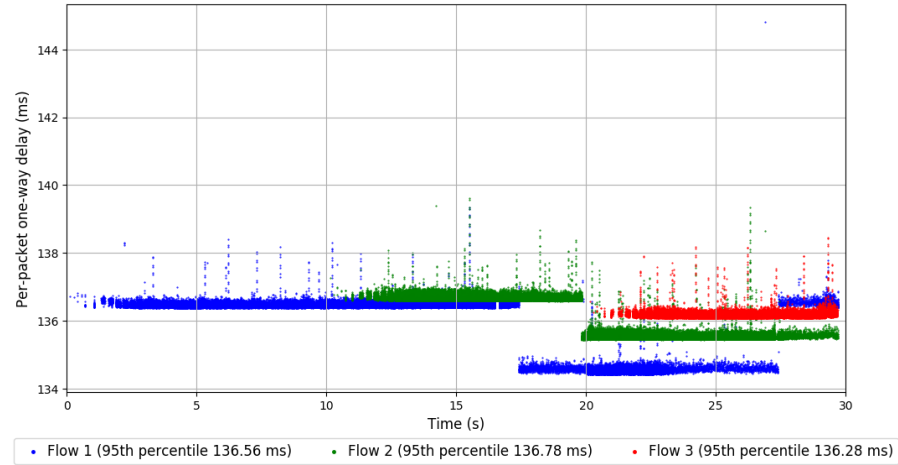
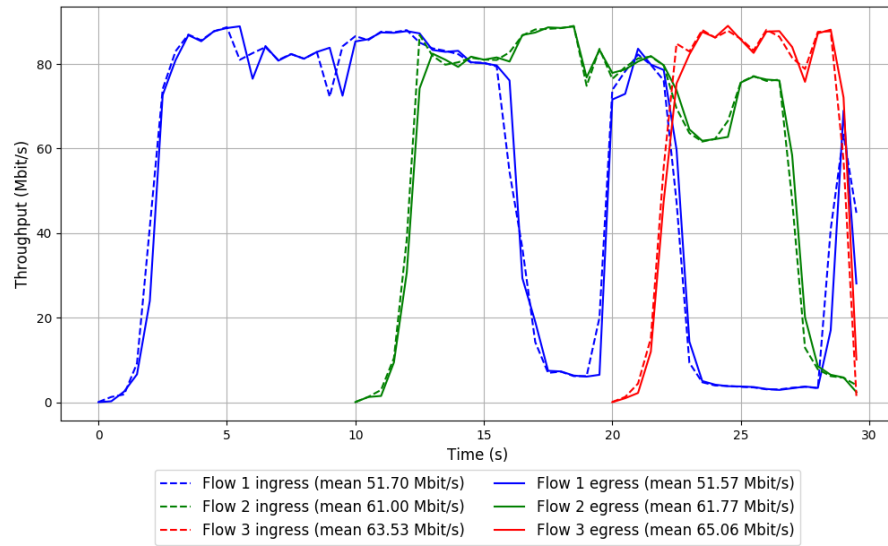
-- Flow 3:

Average throughput: 65.06 Mbit/s

95th percentile per-packet one-way delay: 136.279 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-11-22 02:44:36

End at: 2017-11-22 02:45:06

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.88 Mbit/s

95th percentile per-packet one-way delay: 136.884 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 65.85 Mbit/s

95th percentile per-packet one-way delay: 136.919 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 61.63 Mbit/s

95th percentile per-packet one-way delay: 135.077 ms

Loss rate: 0.12%

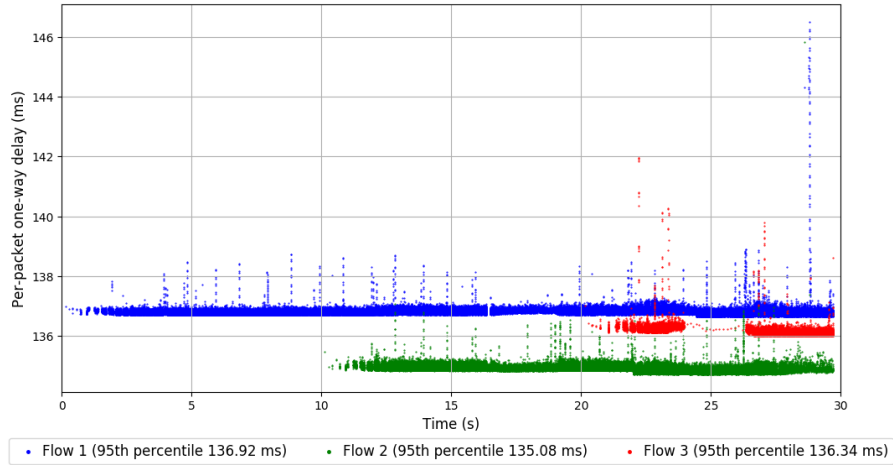
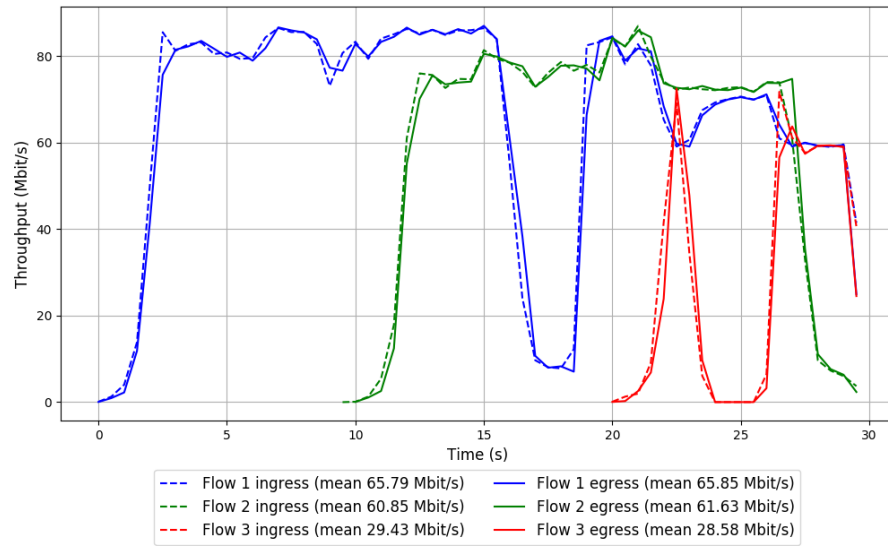
-- Flow 3:

Average throughput: 28.58 Mbit/s

95th percentile per-packet one-way delay: 136.343 ms

Loss rate: 5.54%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-11-22 02:58:50

End at: 2017-11-22 02:59:20

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.20 Mbit/s

95th percentile per-packet one-way delay: 136.256 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 60.73 Mbit/s

95th percentile per-packet one-way delay: 134.628 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.80 Mbit/s

95th percentile per-packet one-way delay: 136.336 ms

Loss rate: 0.19%

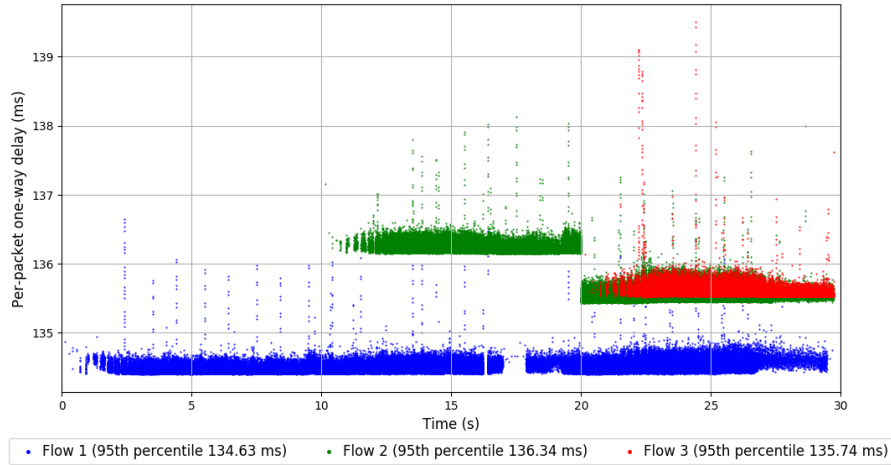
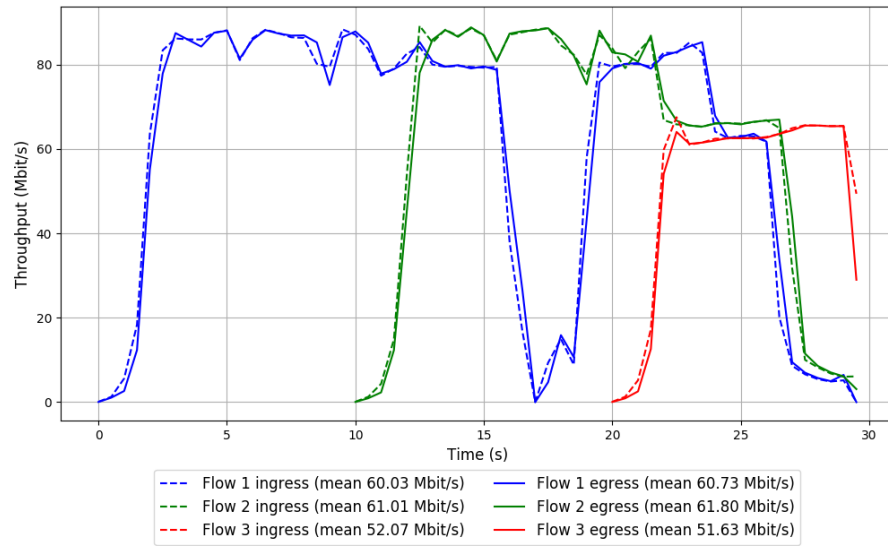
-- Flow 3:

Average throughput: 51.63 Mbit/s

95th percentile per-packet one-way delay: 135.742 ms

Loss rate: 3.72%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-11-22 03:12:14

End at: 2017-11-22 03:12:44

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.05 Mbit/s

95th percentile per-packet one-way delay: 136.415 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 64.91 Mbit/s

95th percentile per-packet one-way delay: 136.438 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 61.26 Mbit/s

95th percentile per-packet one-way delay: 136.311 ms

Loss rate: 0.13%

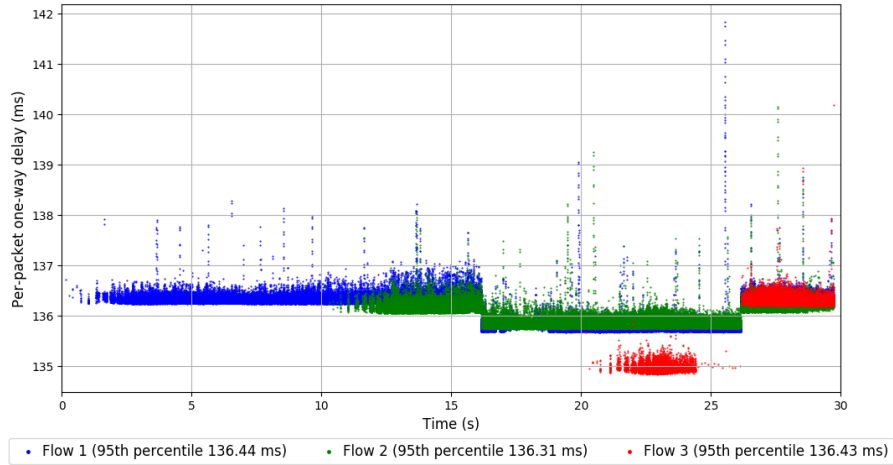
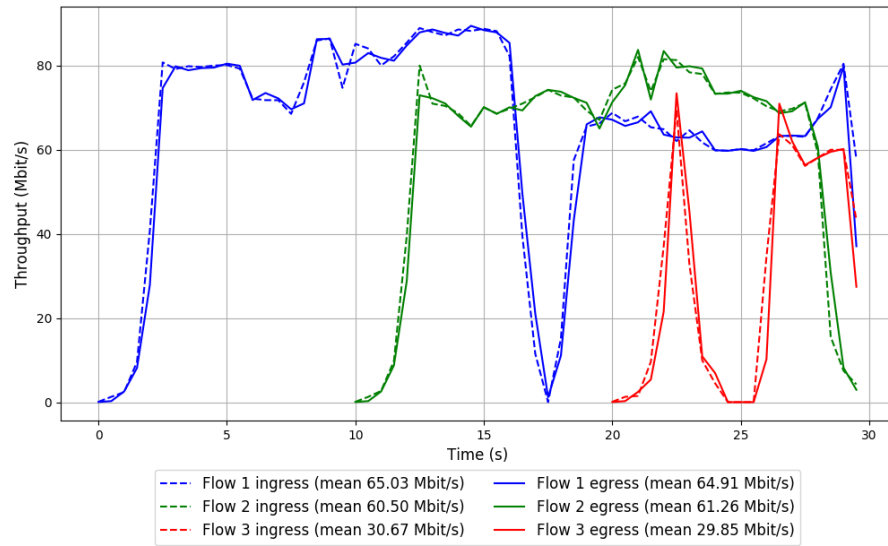
-- Flow 3:

Average throughput: 29.85 Mbit/s

95th percentile per-packet one-way delay: 136.426 ms

Loss rate: 5.33%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-11-22 03:26:02

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

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.01 Mbit/s

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

Loss rate: 0.99%

-- Flow 1:

Average throughput: 63.19 Mbit/s

95th percentile per-packet one-way delay: 136.769 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 61.03 Mbit/s

95th percentile per-packet one-way delay: 136.182 ms

Loss rate: 0.22%

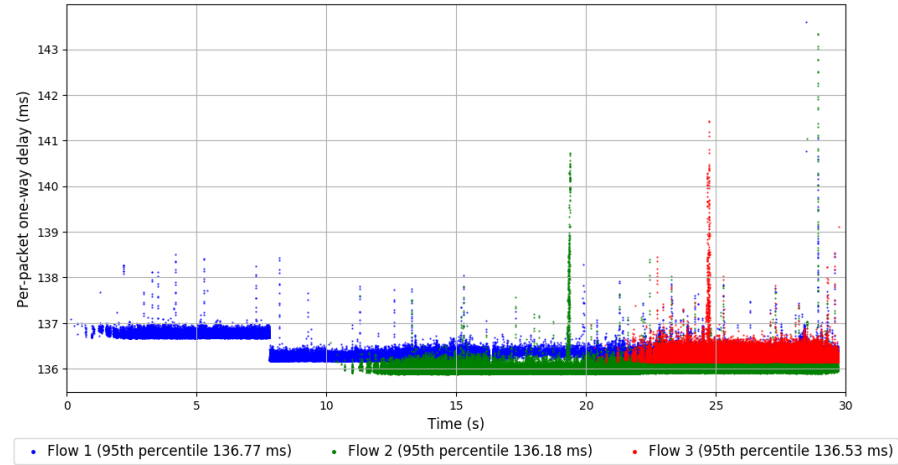
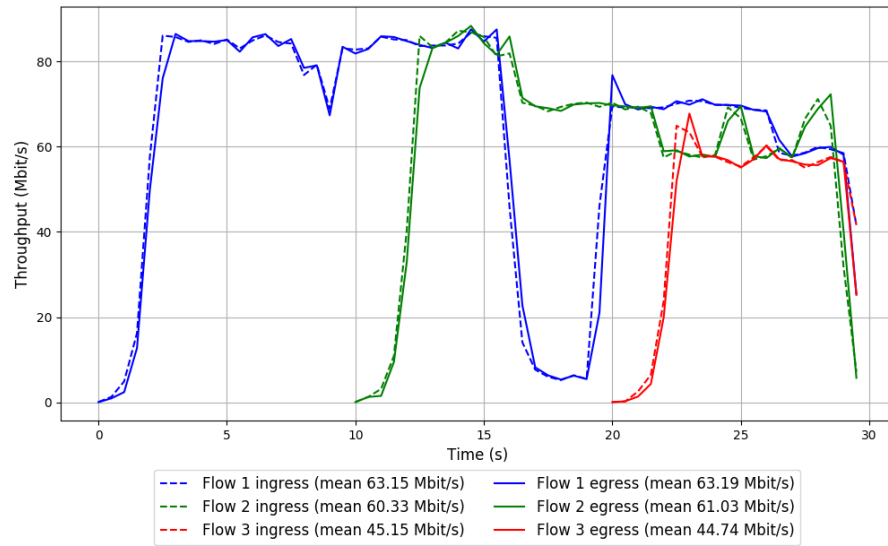
-- Flow 3:

Average throughput: 44.74 Mbit/s

95th percentile per-packet one-way delay: 136.531 ms

Loss rate: 3.64%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-11-22 03:40:02

End at: 2017-11-22 03:40:32

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 114.56 Mbit/s

95th percentile per-packet one-way delay: 166.396 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 58.09 Mbit/s

95th percentile per-packet one-way delay: 136.789 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 61.96 Mbit/s

95th percentile per-packet one-way delay: 166.434 ms

Loss rate: 0.16%

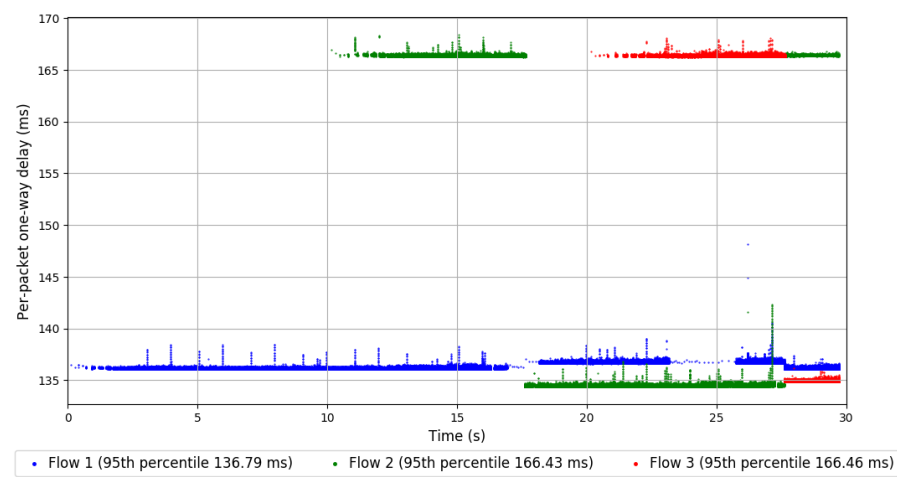
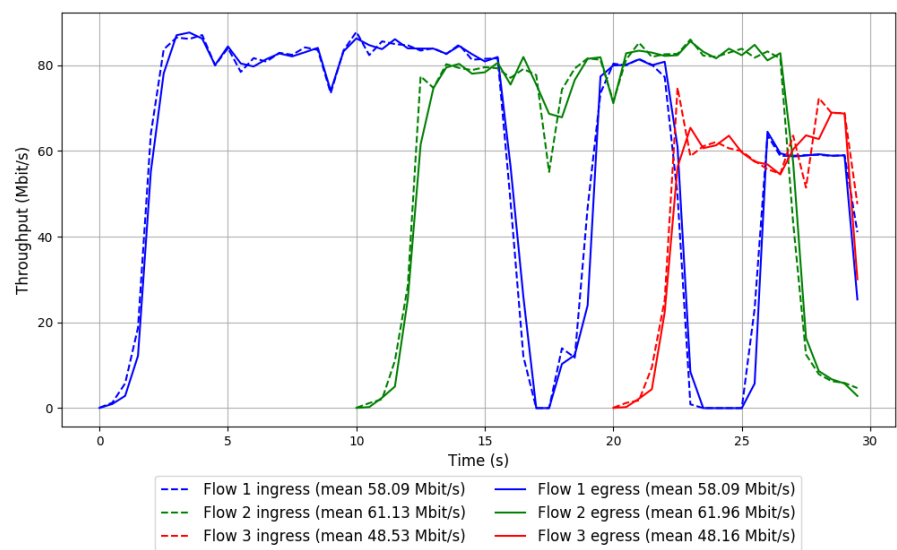
-- Flow 3:

Average throughput: 48.16 Mbit/s

95th percentile per-packet one-way delay: 166.458 ms

Loss rate: 3.80%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-11-22 03:53:25

End at: 2017-11-22 03:53:55

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.81 Mbit/s

95th percentile per-packet one-way delay: 136.895 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 65.74 Mbit/s

95th percentile per-packet one-way delay: 136.817 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 61.34 Mbit/s

95th percentile per-packet one-way delay: 136.923 ms

Loss rate: 0.00%

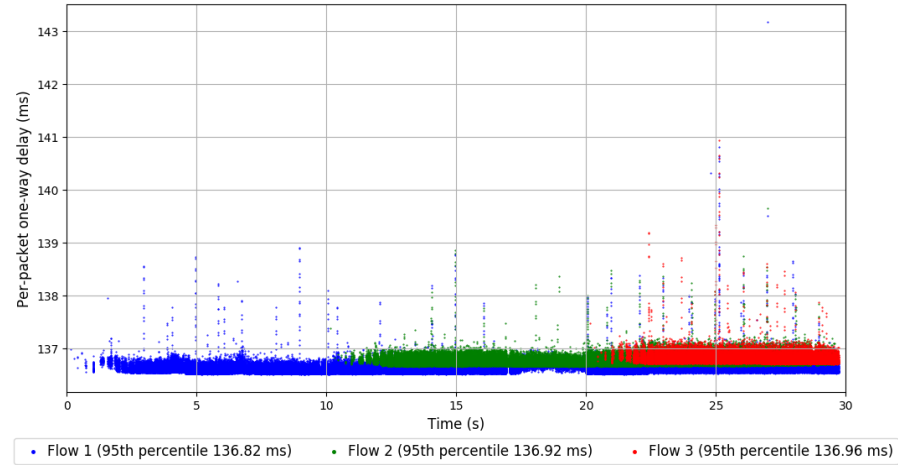
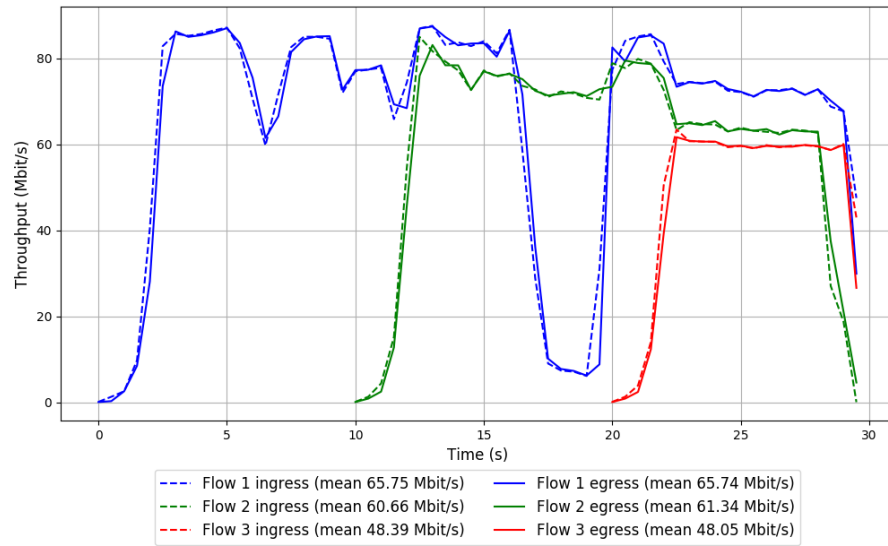
-- Flow 3:

Average throughput: 48.05 Mbit/s

95th percentile per-packet one-way delay: 136.961 ms

Loss rate: 3.45%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-11-22 04:06:36

End at: 2017-11-22 04:07:06

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.13 Mbit/s

95th percentile per-packet one-way delay: 136.344 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 65.97 Mbit/s

95th percentile per-packet one-way delay: 136.364 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 61.50 Mbit/s

95th percentile per-packet one-way delay: 136.322 ms

Loss rate: 0.12%

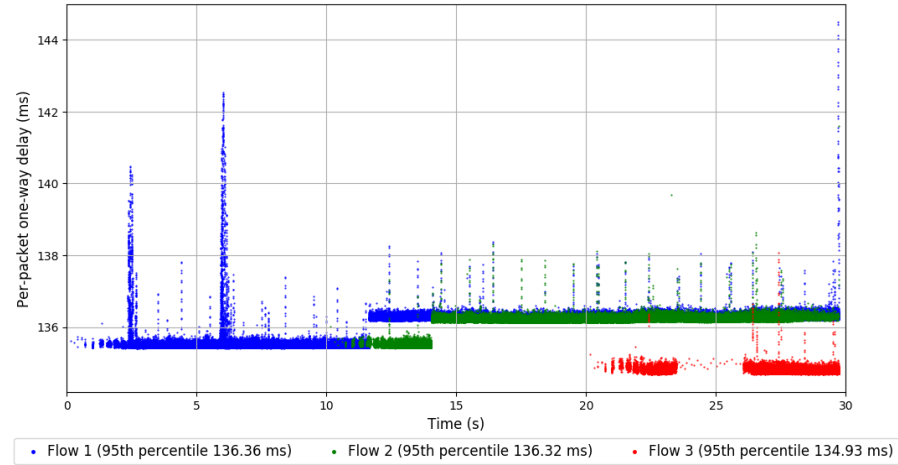
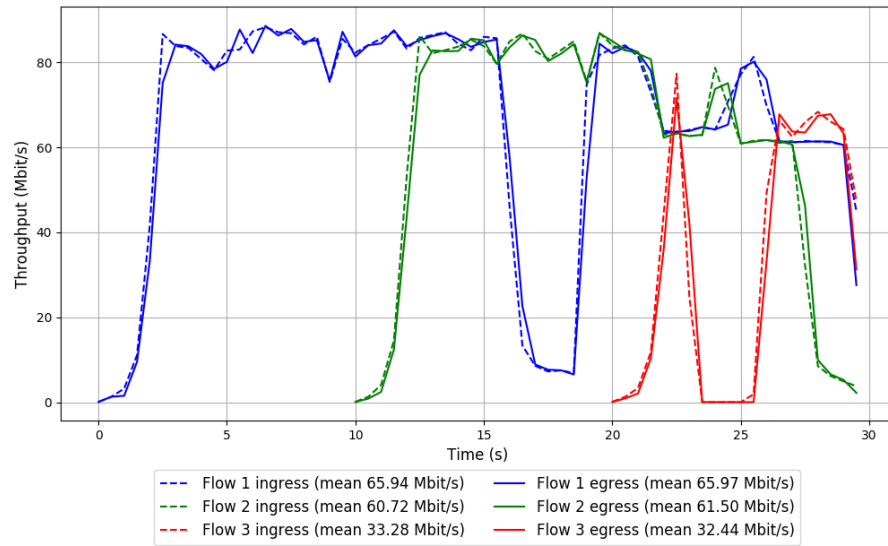
-- Flow 3:

Average throughput: 32.44 Mbit/s

95th percentile per-packet one-way delay: 134.930 ms

Loss rate: 5.21%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-11-22 04:20:11

End at: 2017-11-22 04:20:41

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.37 Mbit/s

95th percentile per-packet one-way delay: 136.345 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 59.28 Mbit/s

95th percentile per-packet one-way delay: 136.364 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 61.41 Mbit/s

95th percentile per-packet one-way delay: 136.324 ms

Loss rate: 0.00%

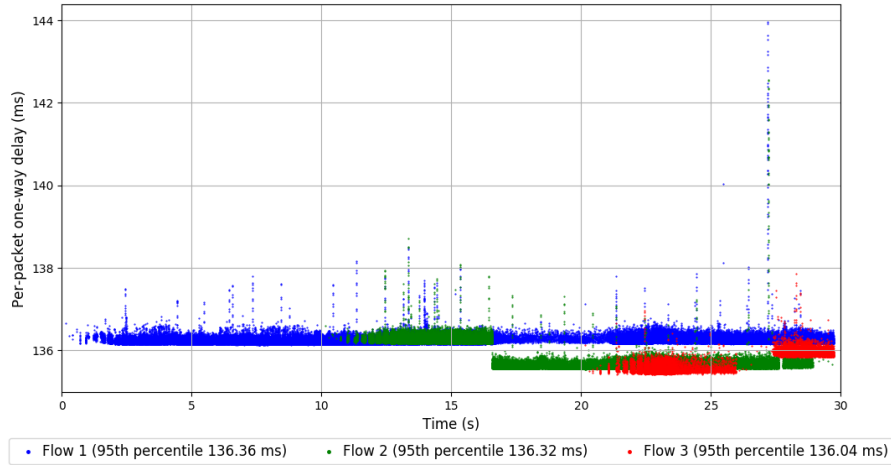
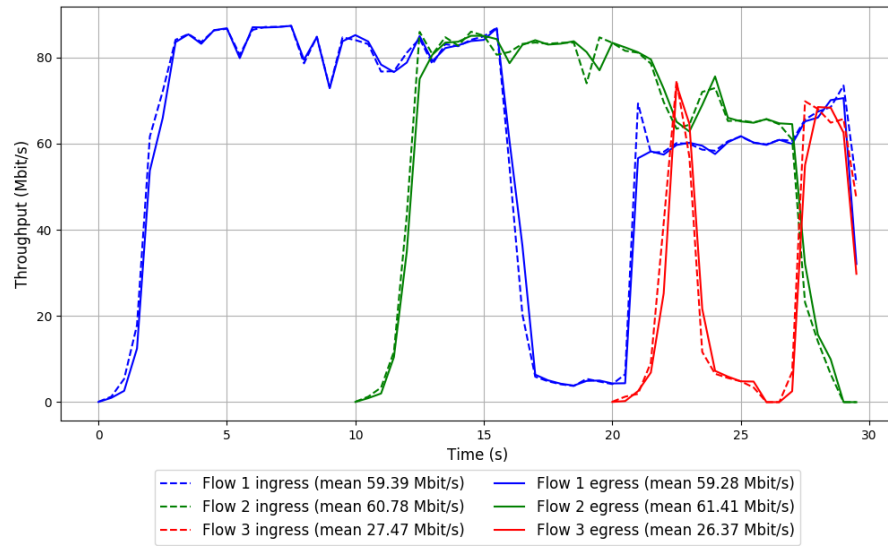
-- Flow 3:

Average throughput: 26.37 Mbit/s

95th percentile per-packet one-way delay: 136.036 ms

Loss rate: 6.67%

Run 10: Report of QUIC Cubic — Data Link

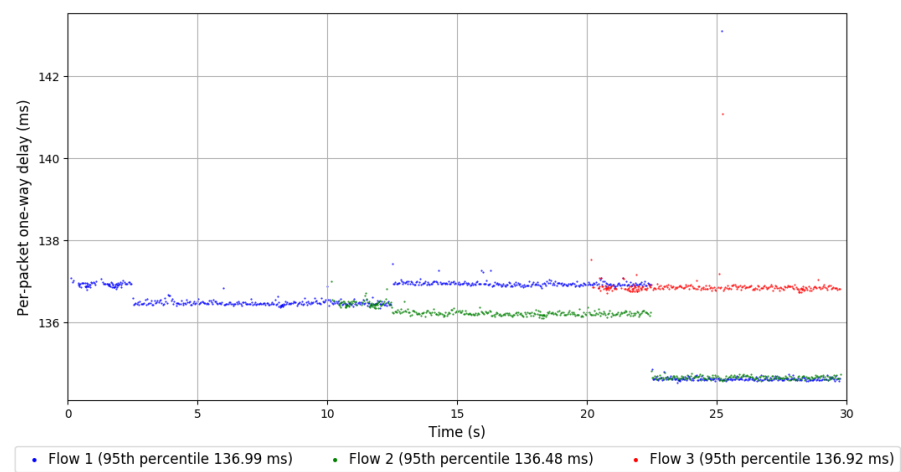
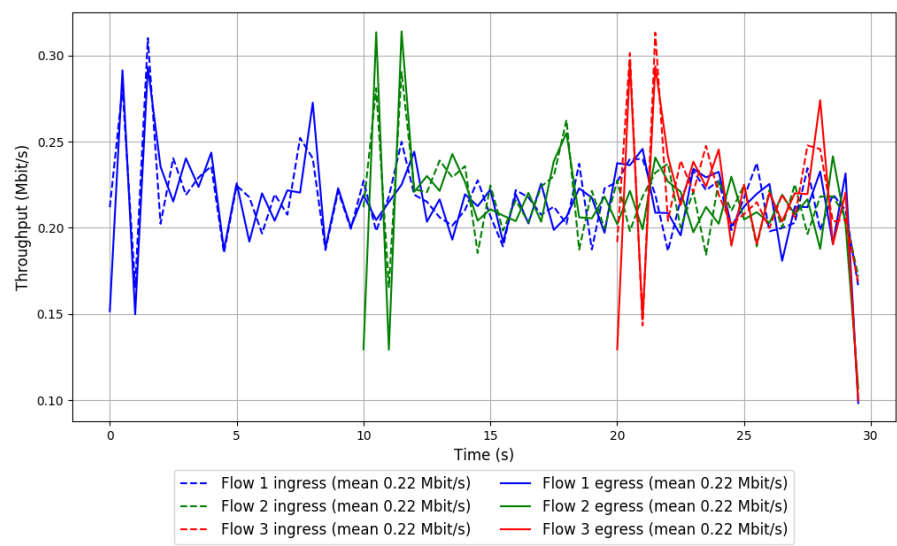


```
Run 1: Statistics of SCReAM

Start at: 2017-11-22 02:08:58
End at: 2017-11-22 02:09:28

# Below is generated by plot.py at 2017-11-22 07:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.967 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.987 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.478 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.916 ms
Loss rate: 2.68%
```

Run 1: Report of SCSReAM — Data Link

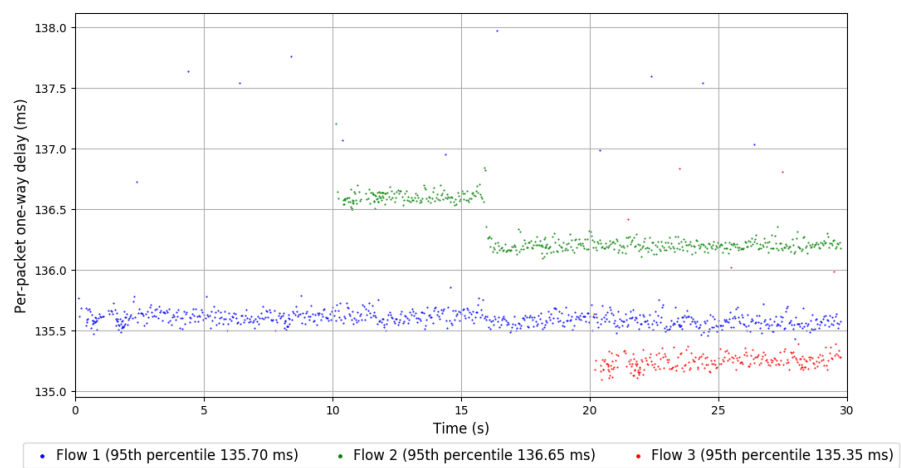
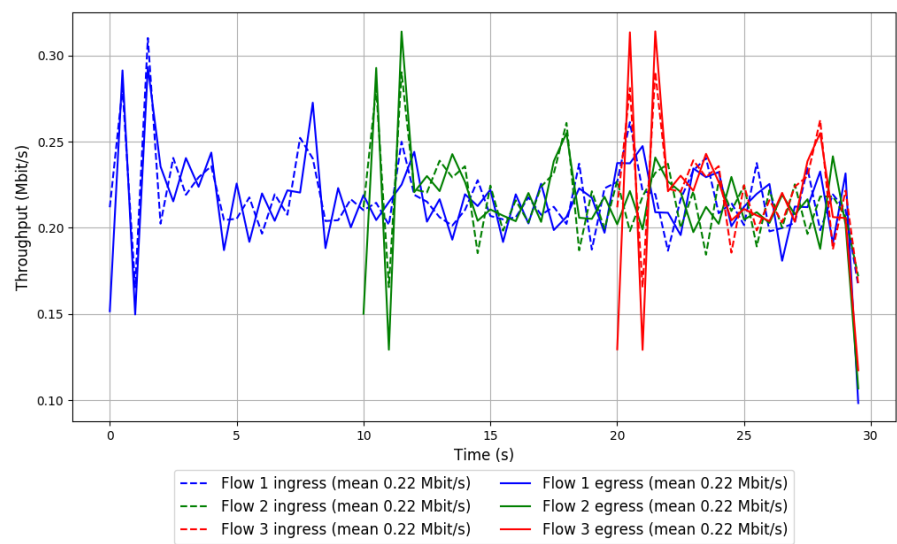


```
Run 2: Statistics of SCReAM

Start at: 2017-11-22 02:22:54
End at: 2017-11-22 02:23:24

# Below is generated by plot.py at 2017-11-22 07:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.610 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.701 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.647 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.355 ms
Loss rate: 2.63%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2017-11-22 02:37:00

End at: 2017-11-22 02:37:30

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 1.37%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.940 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 136.277 ms

Loss rate: 1.42%

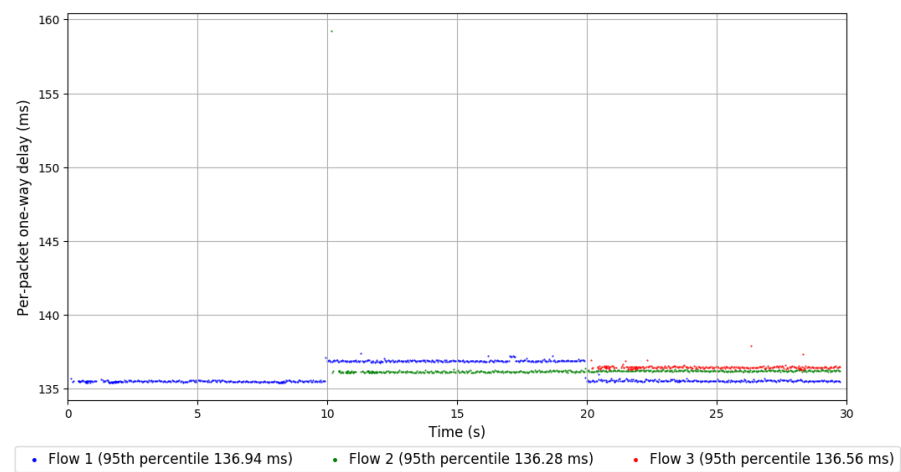
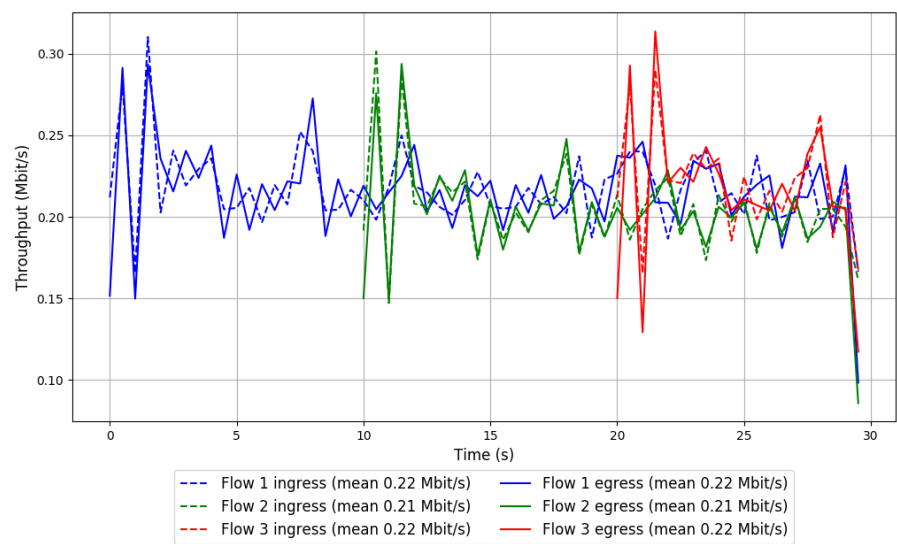
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.559 ms

Loss rate: 2.63%

Run 3: Report of SCRaM — Data Link

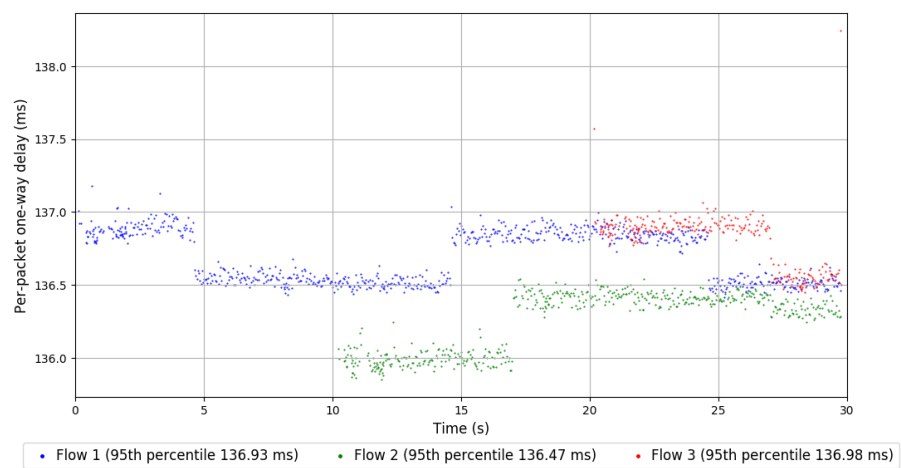
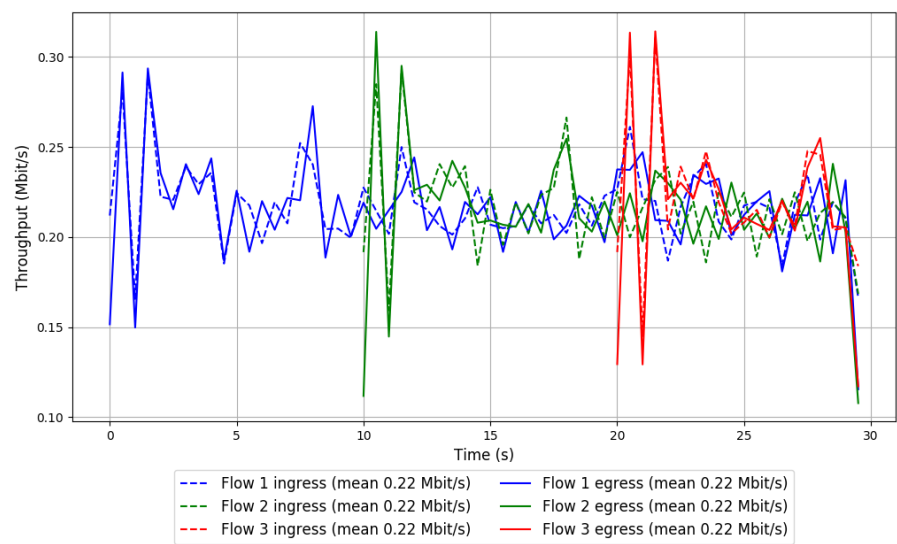


```
Run 4: Statistics of SCReAM

Start at: 2017-11-22 02:51:13
End at: 2017-11-22 02:51:43

# Below is generated by plot.py at 2017-11-22 07:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.937 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.932 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.473 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.980 ms
Loss rate: 2.63%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-11-22 03:04:45

End at: 2017-11-22 03:05:15

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 166.661 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 166.678 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.745 ms

Loss rate: 1.42%

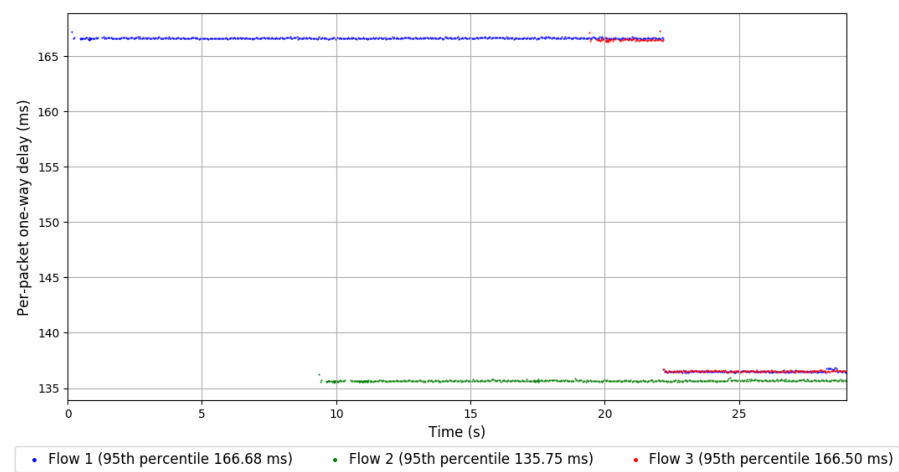
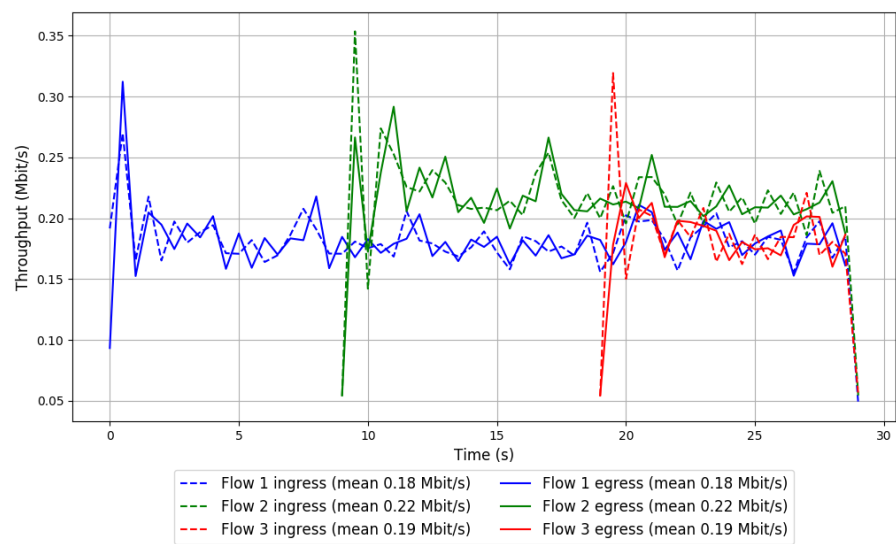
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 166.497 ms

Loss rate: 2.63%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-11-22 03:18:34

End at: 2017-11-22 03:19:04

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 166.706 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 166.732 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 166.600 ms

Loss rate: 1.43%

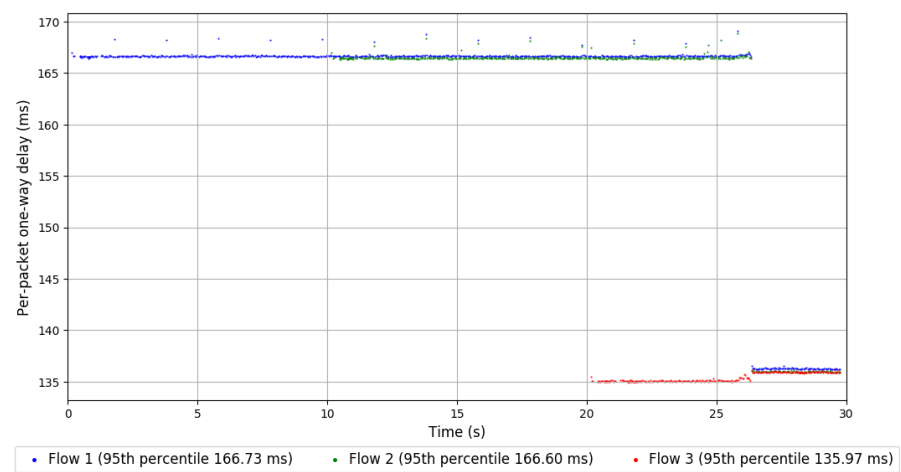
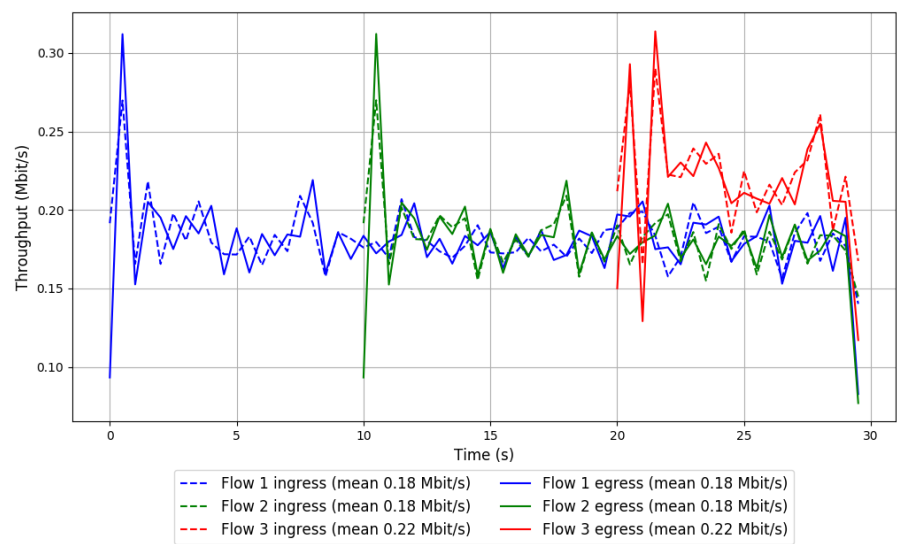
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.968 ms

Loss rate: 2.63%

Run 6: Report of SReAM — Data Link

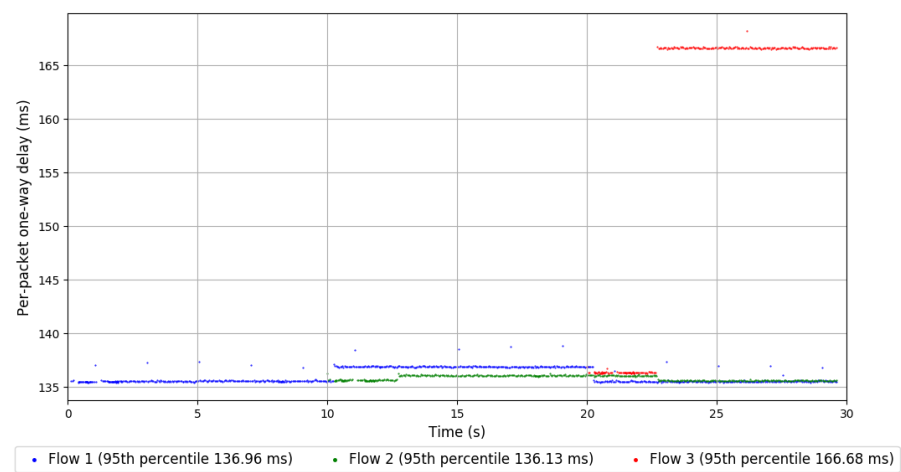
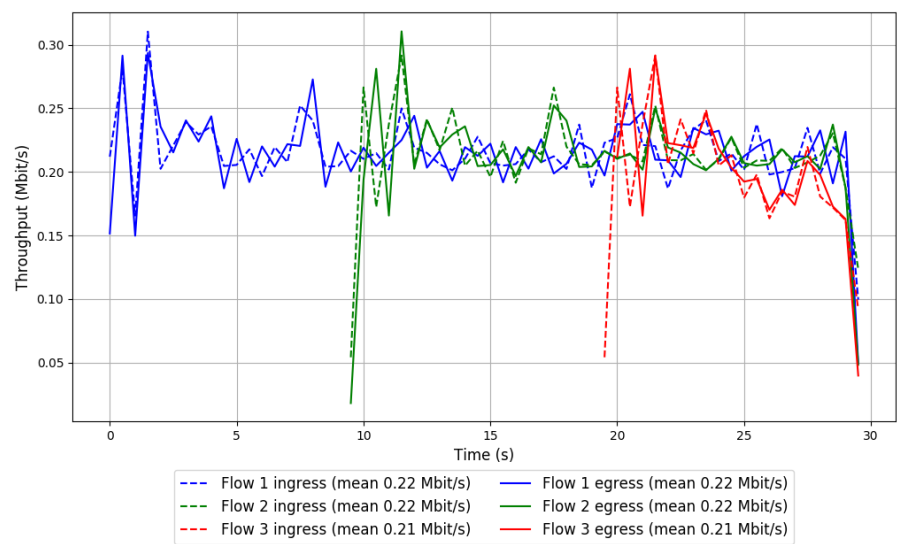


```
Run 7: Statistics of SReAM

Start at: 2017-11-22 03:32:17
End at: 2017-11-22 03:32:47

# Below is generated by plot.py at 2017-11-22 07:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 166.594 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.959 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.133 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 166.677 ms
Loss rate: 2.59%
```


Run 7: Report of SCReAM — Data Link



Run 8: Statistics of SCReAM

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

End at: 2017-11-22 03:46:33

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 166.460 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.024 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 166.507 ms

Loss rate: 1.61%

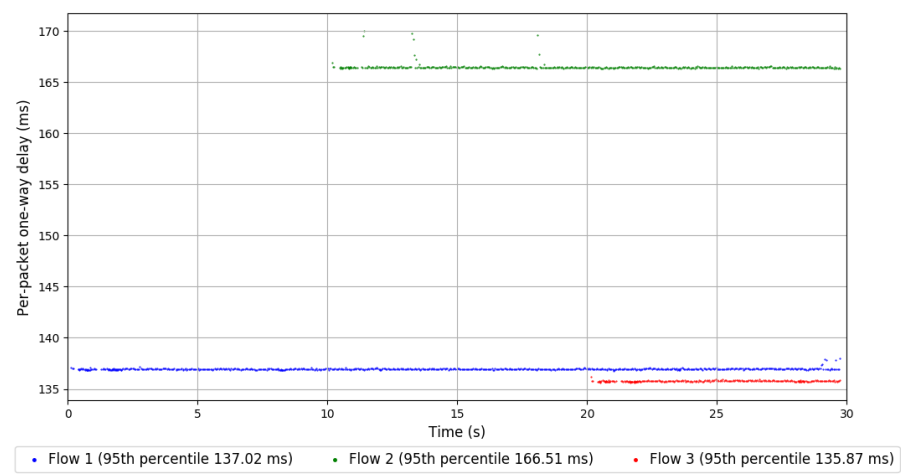
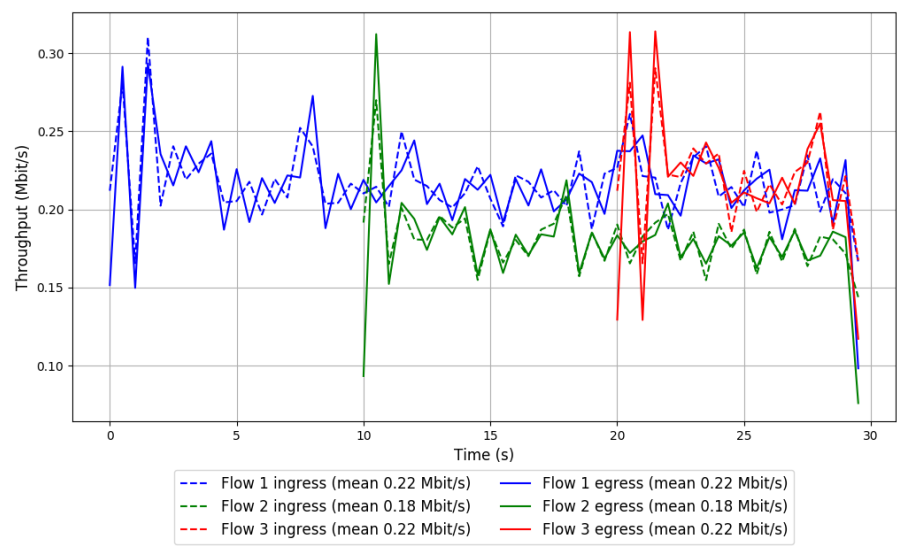
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.866 ms

Loss rate: 2.63%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-11-22 03:59:19

End at: 2017-11-22 03:59:49

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.974 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.991 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.676 ms

Loss rate: 1.42%

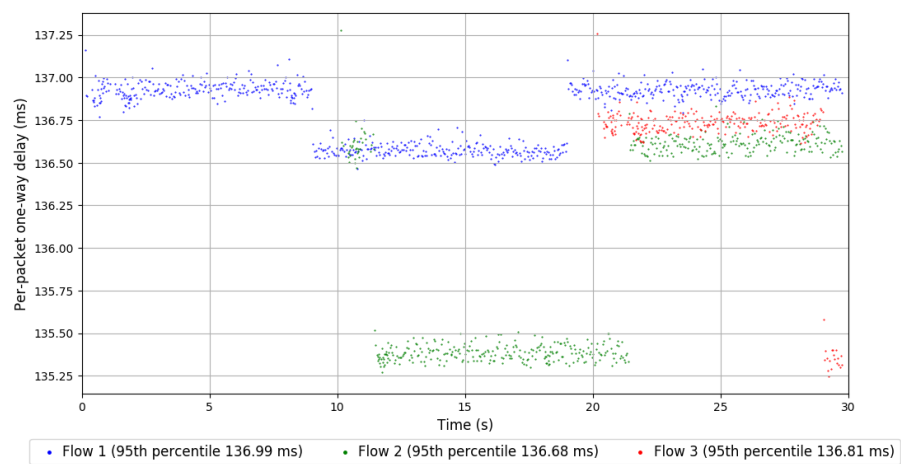
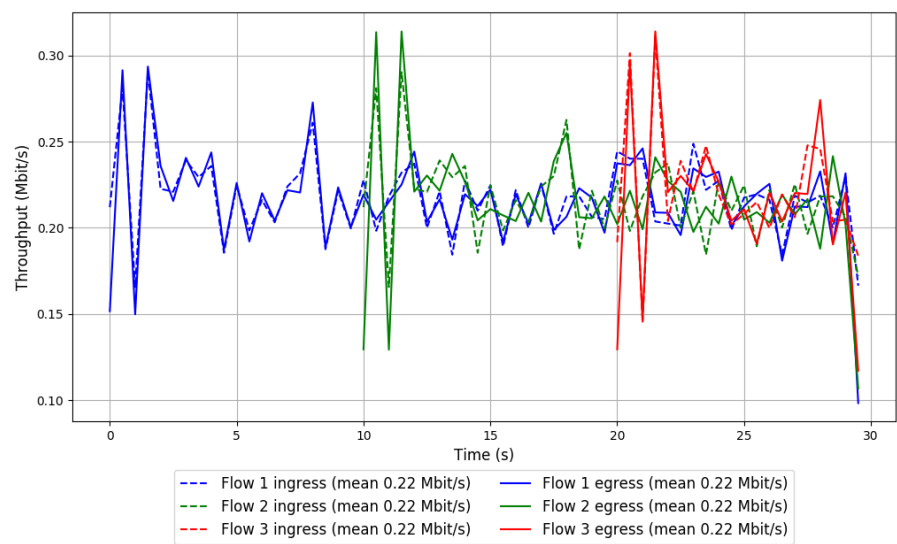
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.806 ms

Loss rate: 2.63%

Run 9: Report of SReAM — Data Link

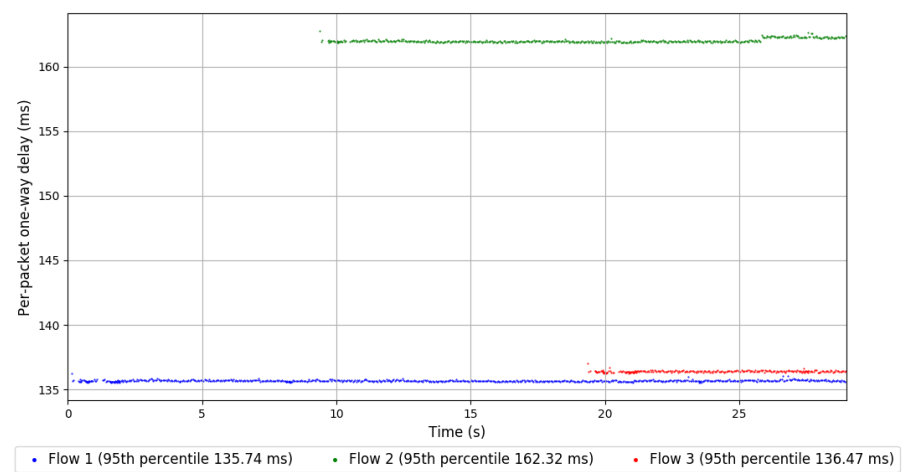
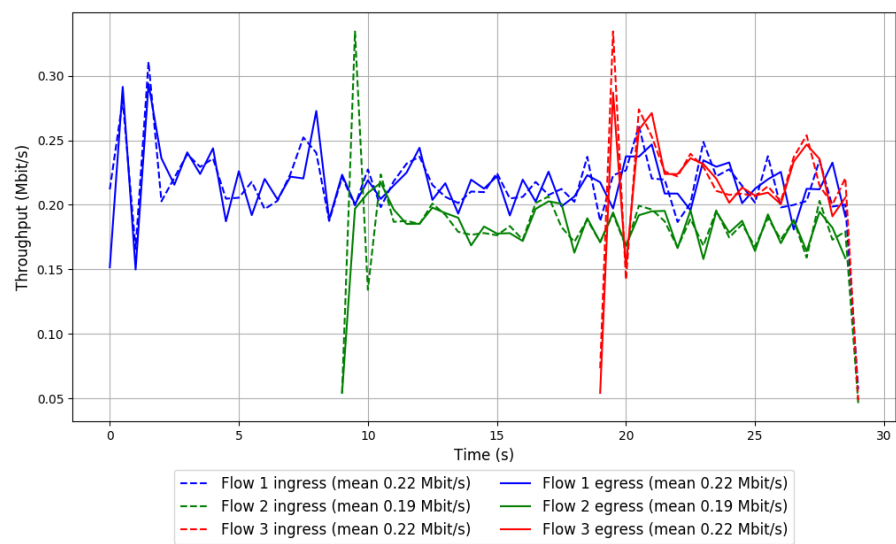


```
Run 10: Statistics of SReAM

Start at: 2017-11-22 04:12:34
End at: 2017-11-22 04:13:04

# Below is generated by plot.py at 2017-11-22 07:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 162.180 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.743 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 162.317 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.465 ms
Loss rate: 2.63%
```

Run 10: Report of SCReAM — Data Link

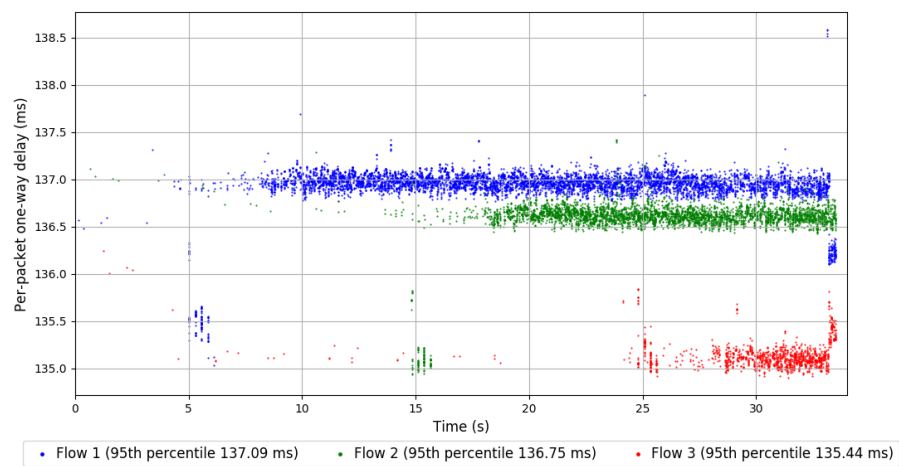
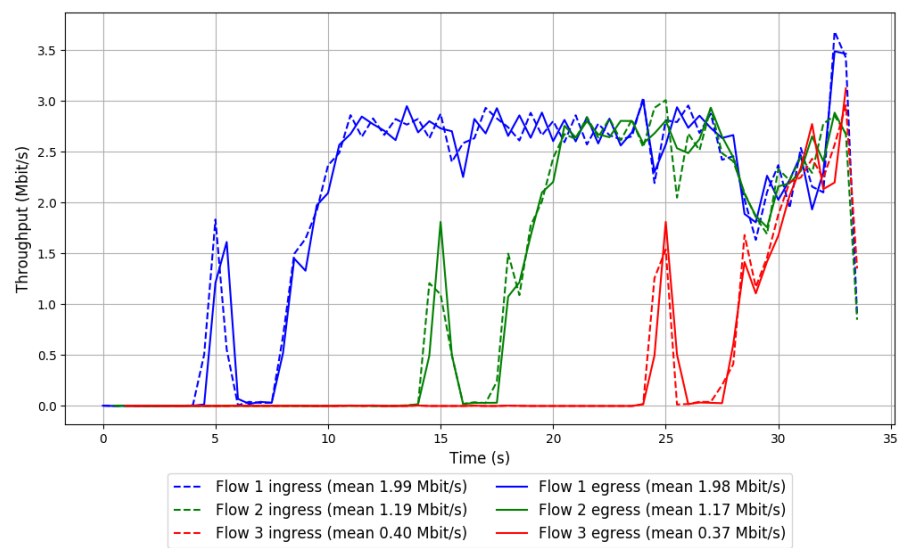


```
Run 1: Statistics of WebRTC media

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

# Below is generated by plot.py at 2017-11-22 07:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.49 Mbit/s
95th percentile per-packet one-way delay: 137.067 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 137.091 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 136.750 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 135.440 ms
Loss rate: 7.50%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

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

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

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.48 Mbit/s

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

Loss rate: 1.70%

-- Flow 1:

Average throughput: 1.99 Mbit/s

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

Loss rate: 0.95%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 136.225 ms

Loss rate: 1.86%

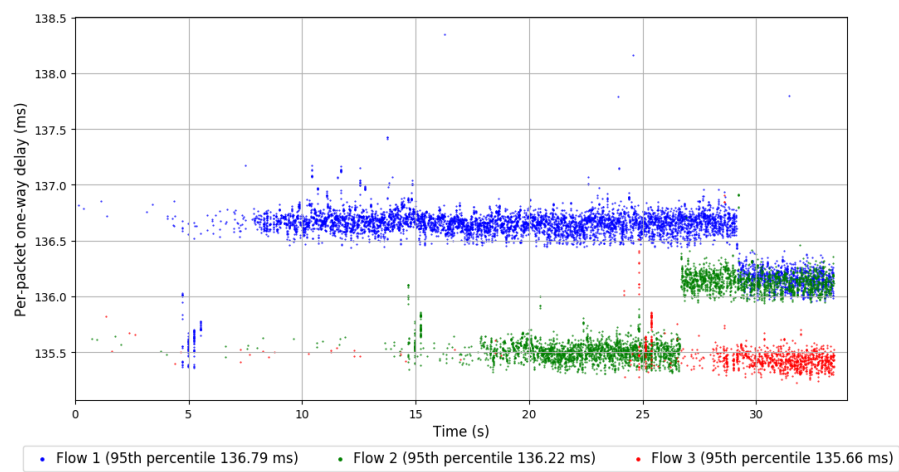
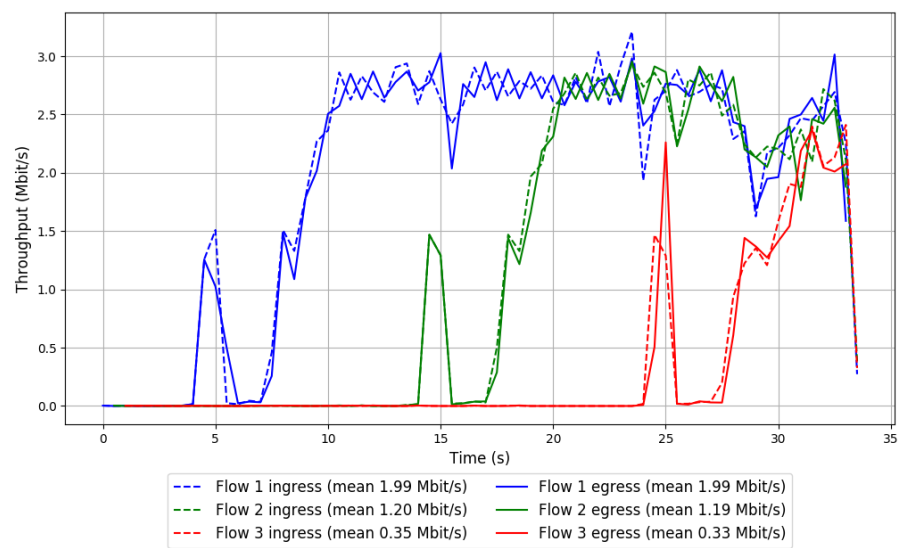
-- Flow 3:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 135.657 ms

Loss rate: 5.59%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

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

End at: 2017-11-22 02:36:41

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.54 Mbit/s

95th percentile per-packet one-way delay: 136.997 ms

Loss rate: 2.03%

-- Flow 1:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 136.536 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 137.057 ms

Loss rate: 2.26%

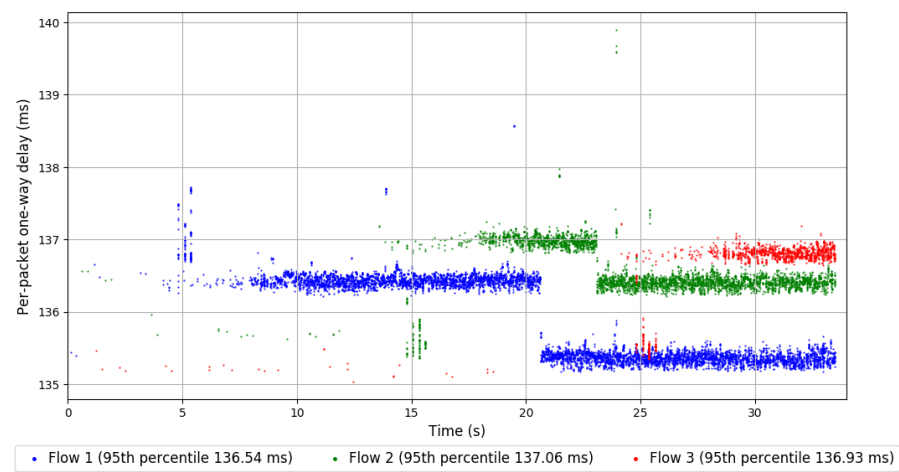
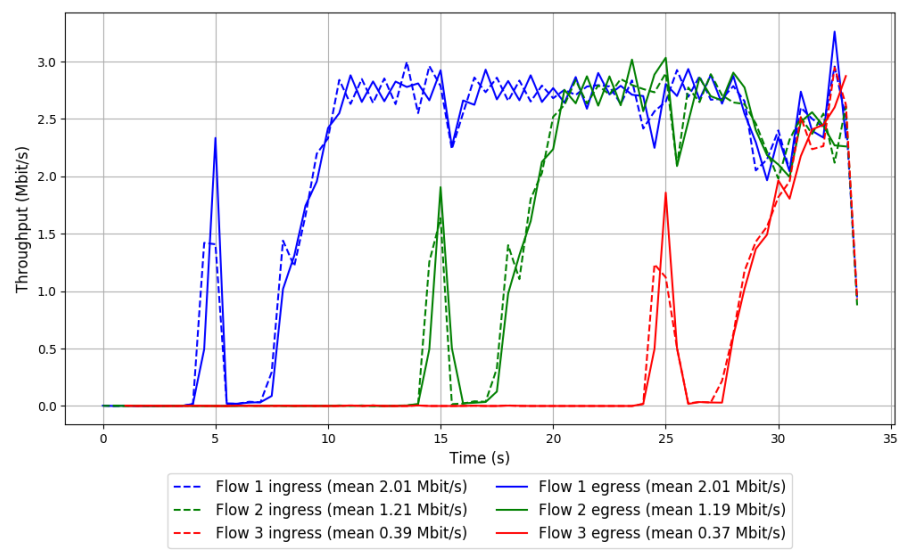
-- Flow 3:

Average throughput: 0.37 Mbit/s

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

Loss rate: 6.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-11-22 02:50:24

End at: 2017-11-22 02:50:54

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 137.238 ms

Loss rate: 2.42%

-- Flow 1:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 136.884 ms

Loss rate: 1.78%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 137.273 ms

Loss rate: 1.94%

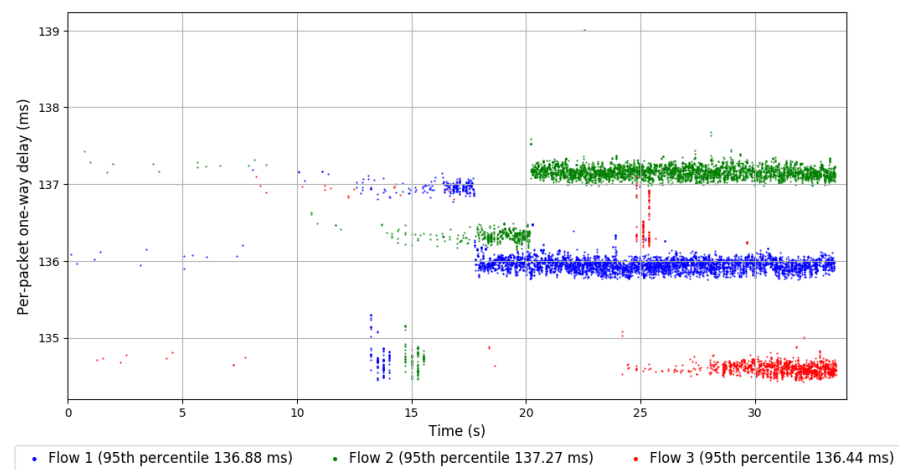
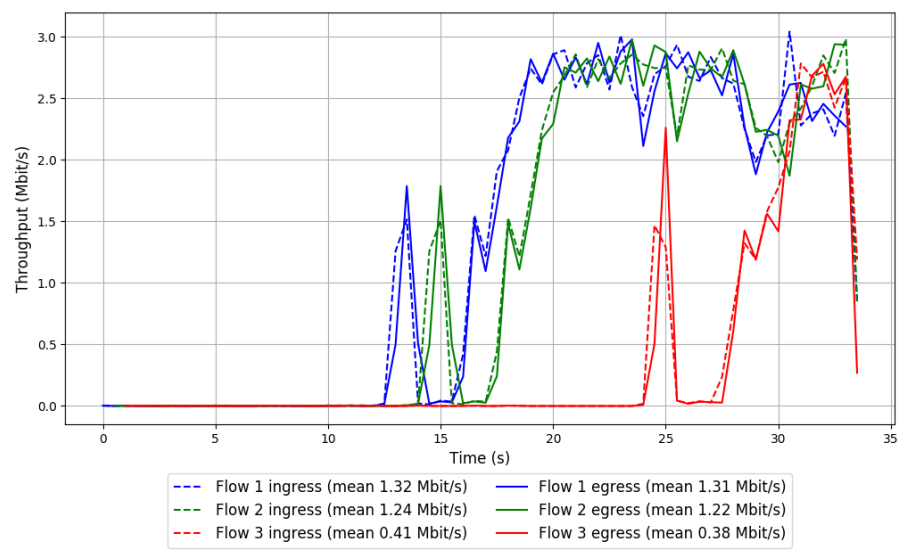
-- Flow 3:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.443 ms

Loss rate: 6.02%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

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

End at: 2017-11-22 03:04:25

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.50 Mbit/s

95th percentile per-packet one-way delay: 136.911 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 136.930 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 136.536 ms

Loss rate: 1.80%

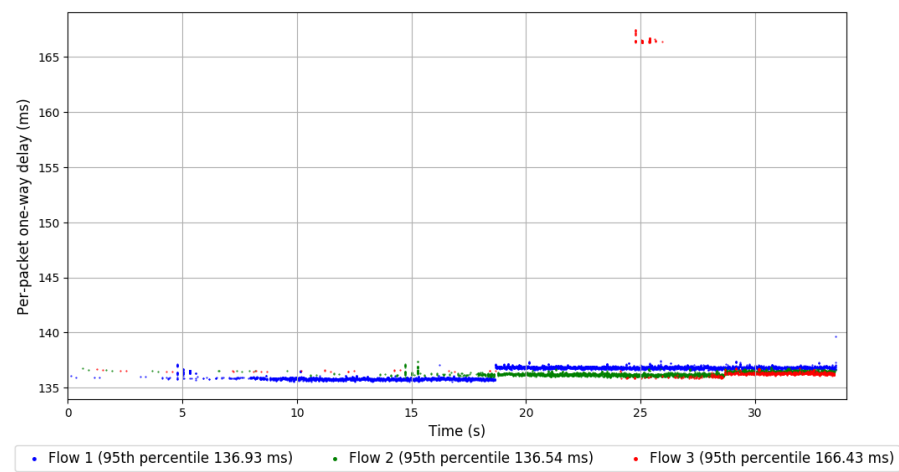
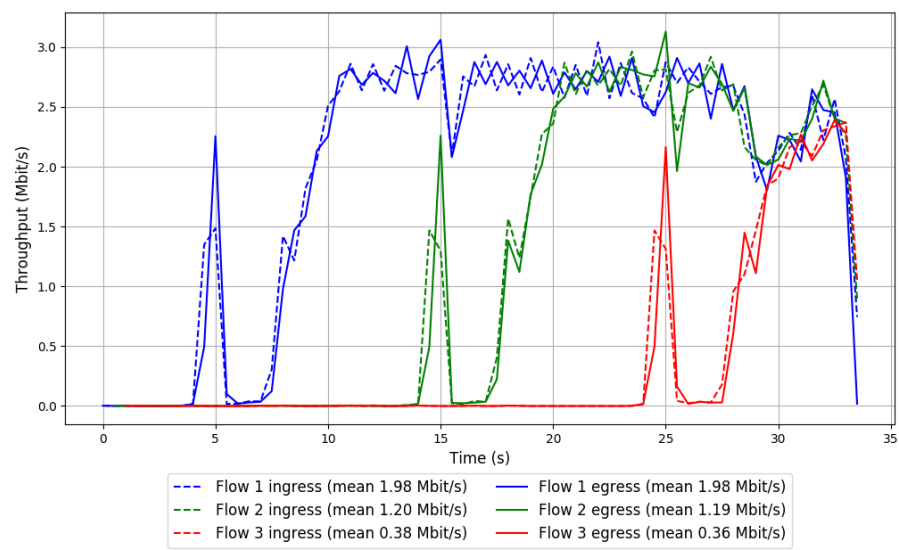
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 166.430 ms

Loss rate: 7.10%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-11-22 03:17:44

End at: 2017-11-22 03:18:14

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 166.456 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 1.96 Mbit/s

95th percentile per-packet one-way delay: 136.248 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 166.530 ms

Loss rate: 1.73%

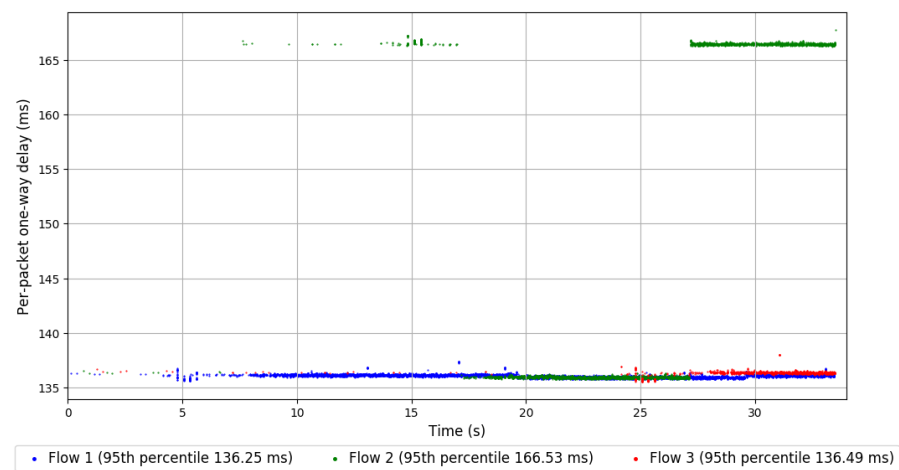
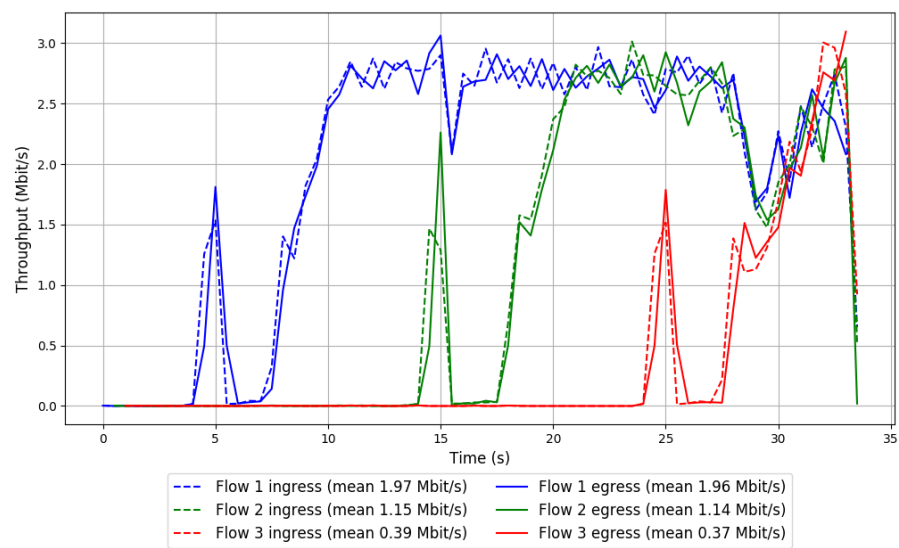
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 136.489 ms

Loss rate: 6.10%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-11-22 03:31:28

End at: 2017-11-22 03:31:58

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 166.517 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 1.96 Mbit/s

95th percentile per-packet one-way delay: 166.540 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 135.038 ms

Loss rate: 1.66%

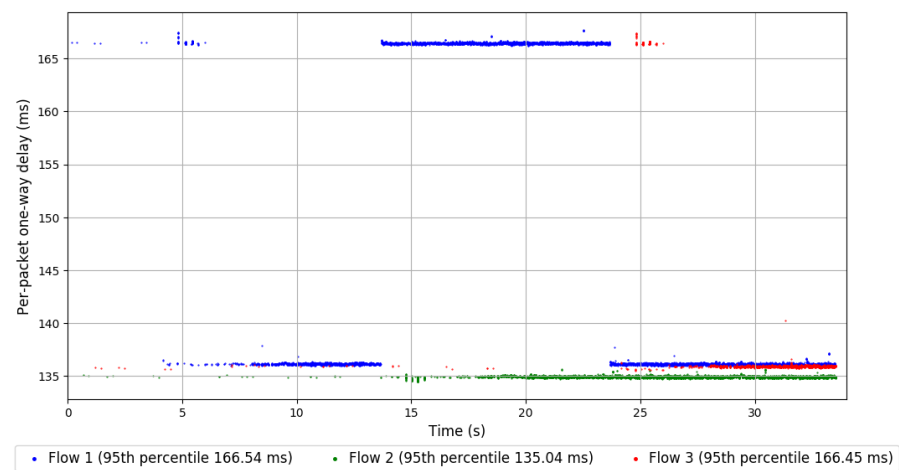
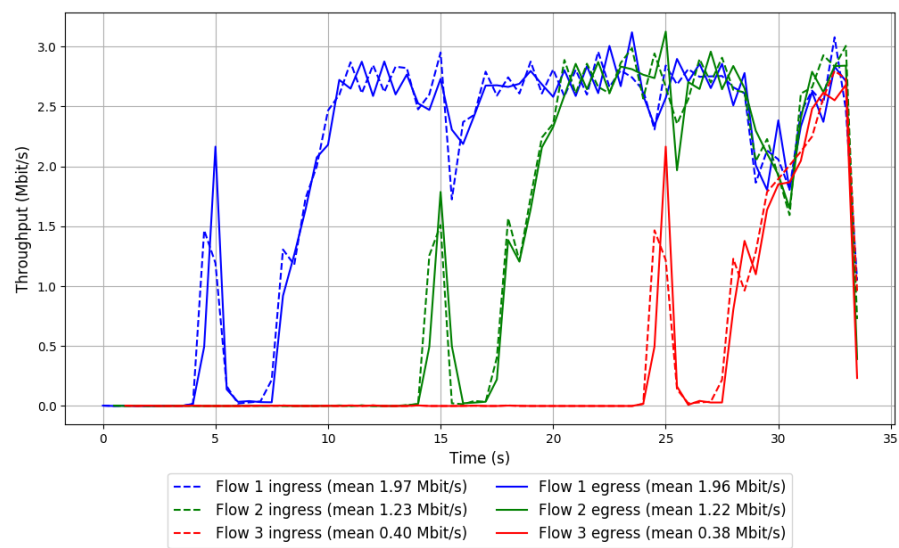
-- Flow 3:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 166.454 ms

Loss rate: 6.03%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-11-22 03:45:13

End at: 2017-11-22 03:45:43

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.51 Mbit/s

95th percentile per-packet one-way delay: 136.938 ms

Loss rate: 2.00%

-- Flow 1:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 136.724 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 136.941 ms

Loss rate: 2.49%

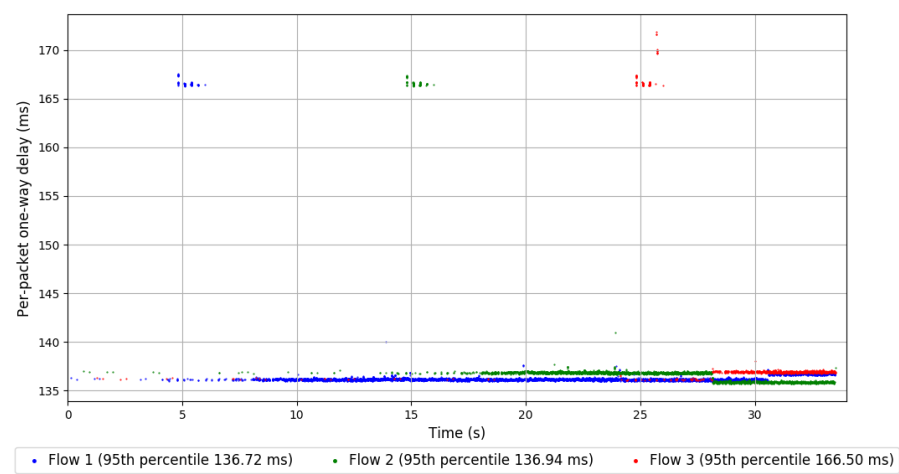
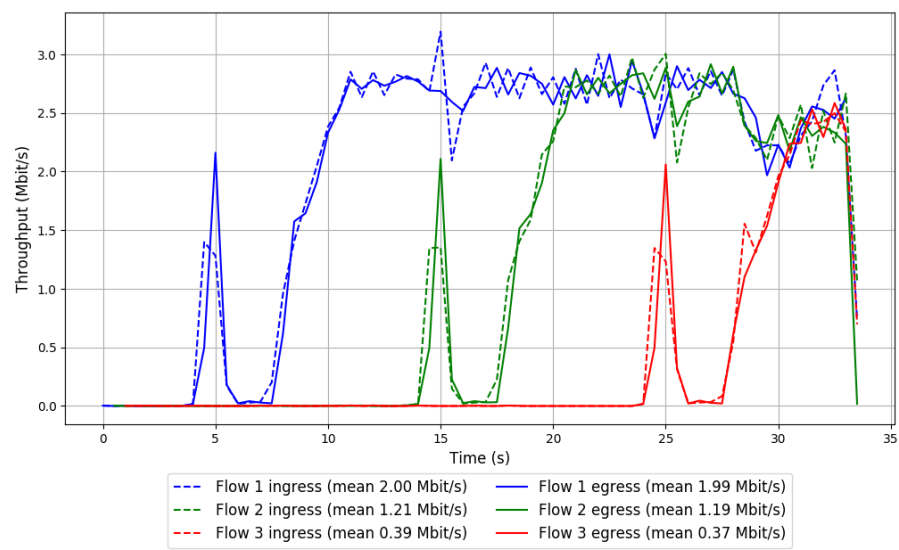
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 166.501 ms

Loss rate: 5.08%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-11-22 03:58:29

End at: 2017-11-22 03:58:59

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 136.604 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 136.426 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 136.691 ms

Loss rate: 2.05%

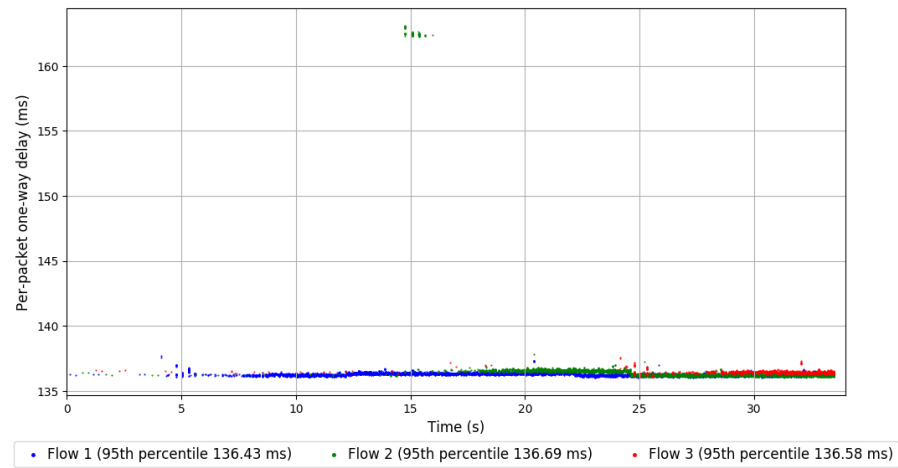
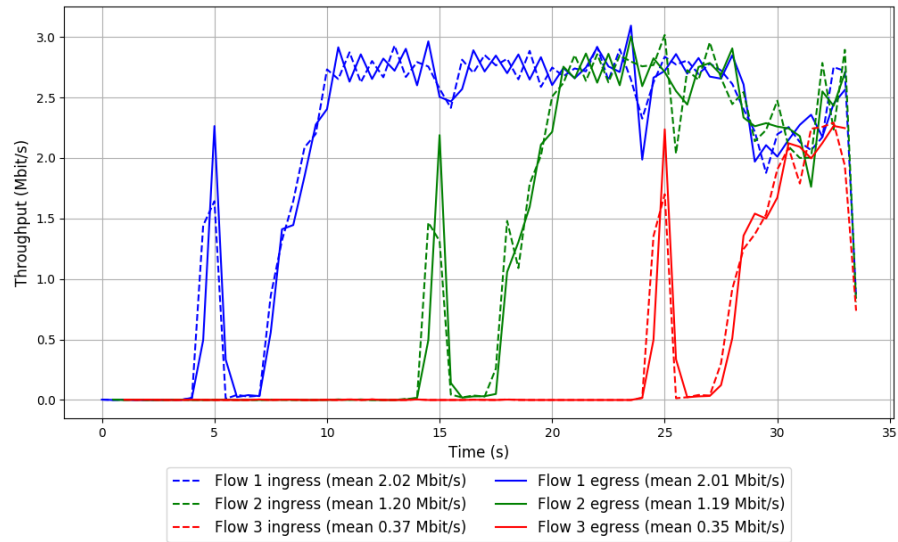
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 136.582 ms

Loss rate: 4.53%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-11-22 04:11:44

End at: 2017-11-22 04:12:14

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.46 Mbit/s

95th percentile per-packet one-way delay: 136.880 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 136.429 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 162.176 ms

Loss rate: 1.97%

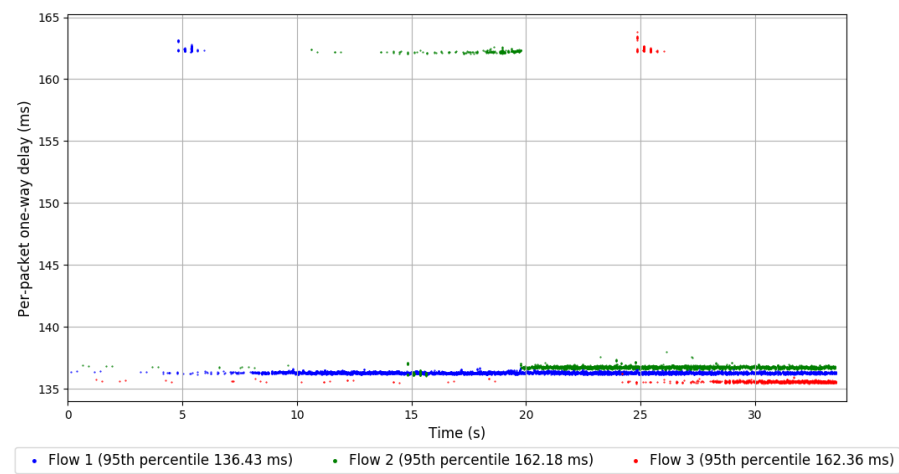
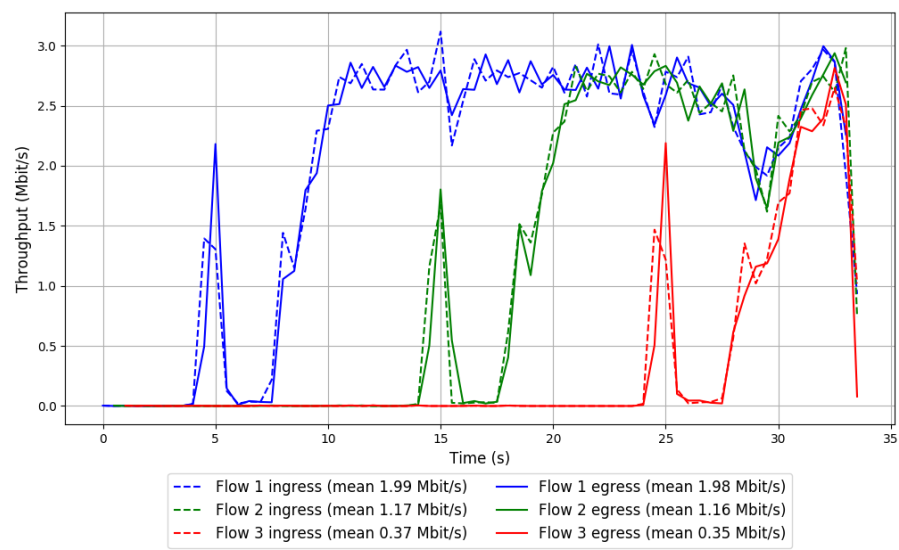
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 162.363 ms

Loss rate: 5.76%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-11-22 02:14:43

End at: 2017-11-22 02:15:13

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.77 Mbit/s

95th percentile per-packet one-way delay: 136.930 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 0.42 Mbit/s

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

Loss rate: 0.74%

-- Flow 2:

Average throughput: 0.36 Mbit/s

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

Loss rate: 1.45%

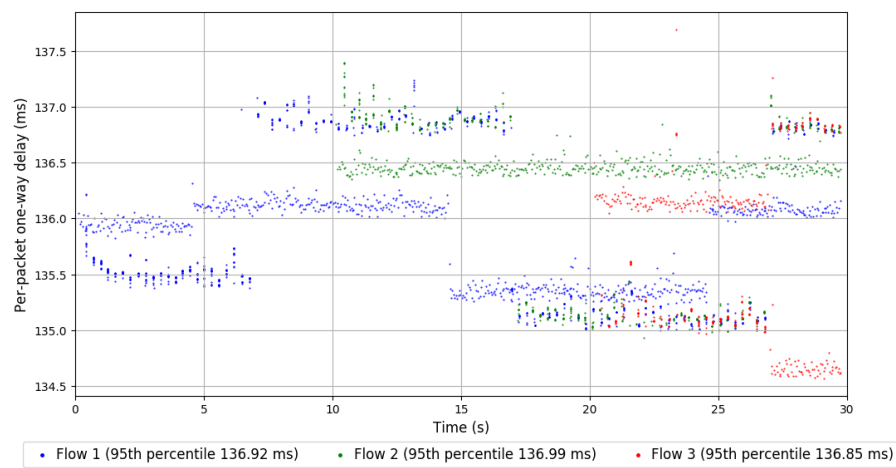
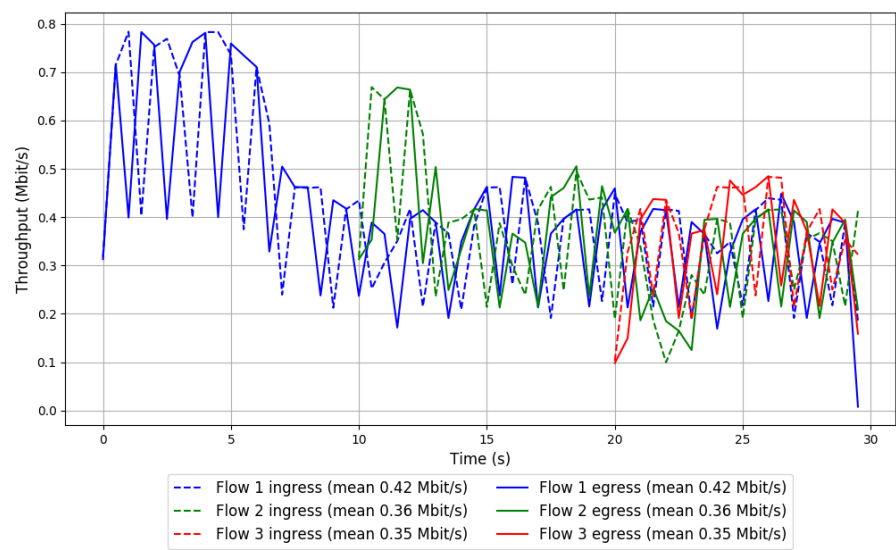
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 136.851 ms

Loss rate: 2.40%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-11-22 02:28:39

End at: 2017-11-22 02:29:09

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 136.907 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 136.924 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 136.904 ms

Loss rate: 1.58%

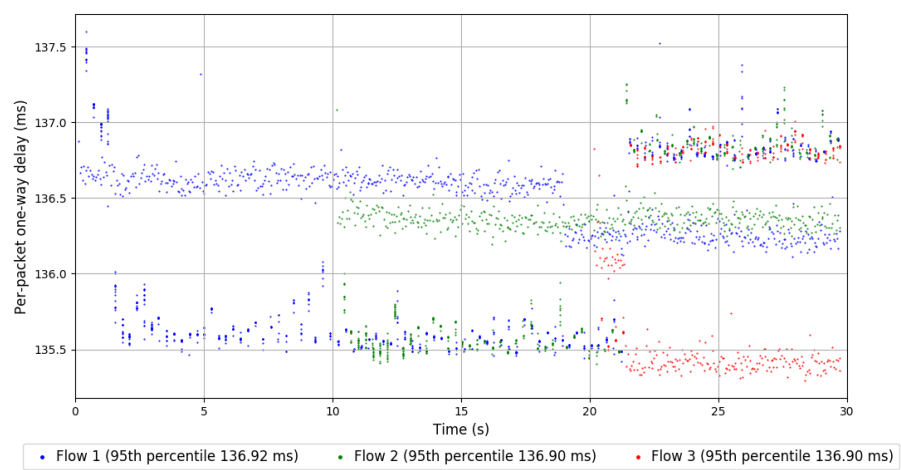
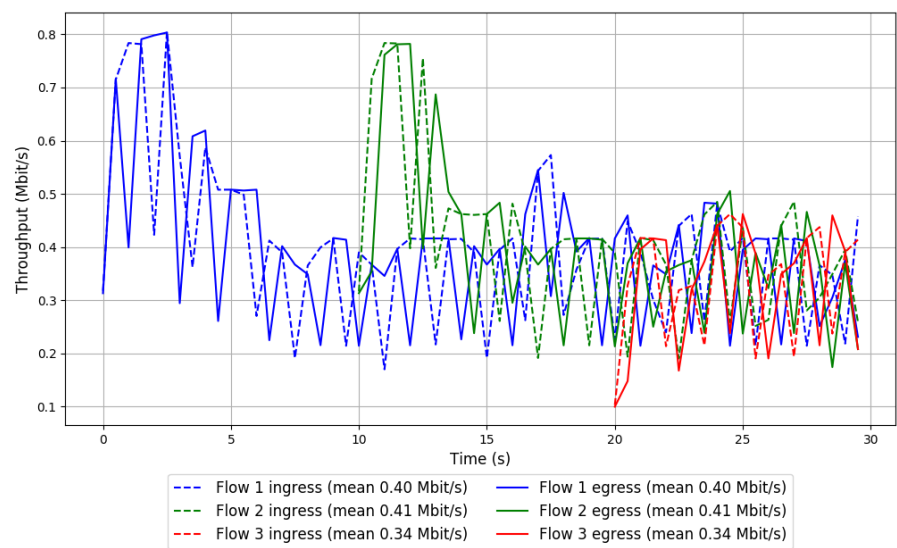
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 136.899 ms

Loss rate: 3.13%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-11-22 02:42:44

End at: 2017-11-22 02:43:14

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 137.073 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 137.061 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 137.070 ms

Loss rate: 1.15%

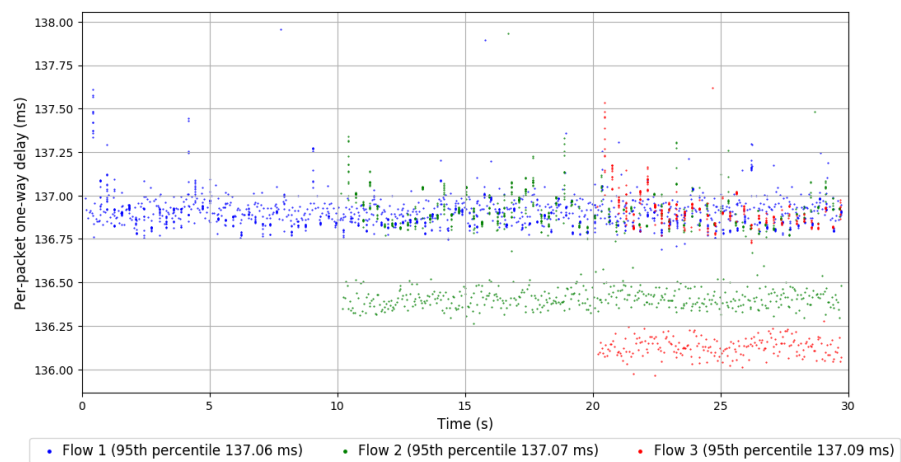
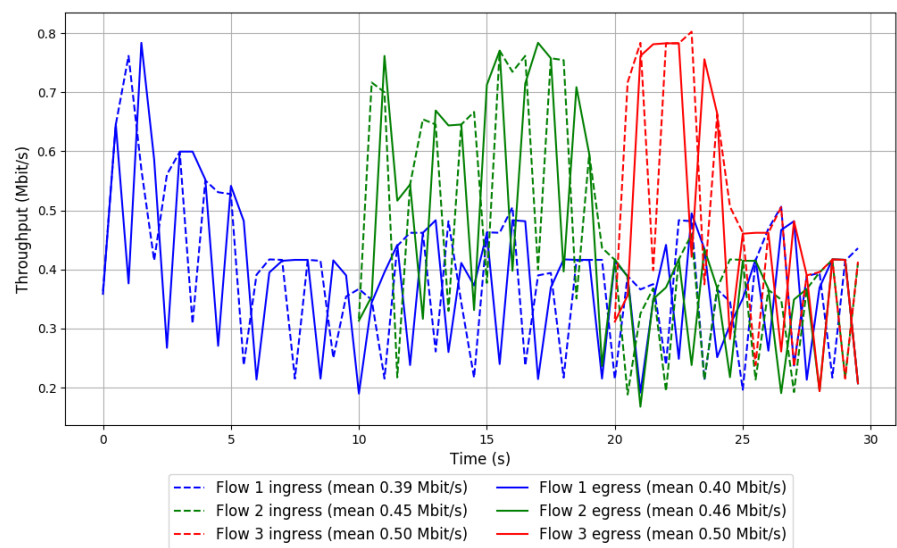
-- Flow 3:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 137.093 ms

Loss rate: 2.12%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-11-22 02:56:55

End at: 2017-11-22 02:57:25

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 166.609 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 166.641 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 166.630 ms

Loss rate: 0.05%

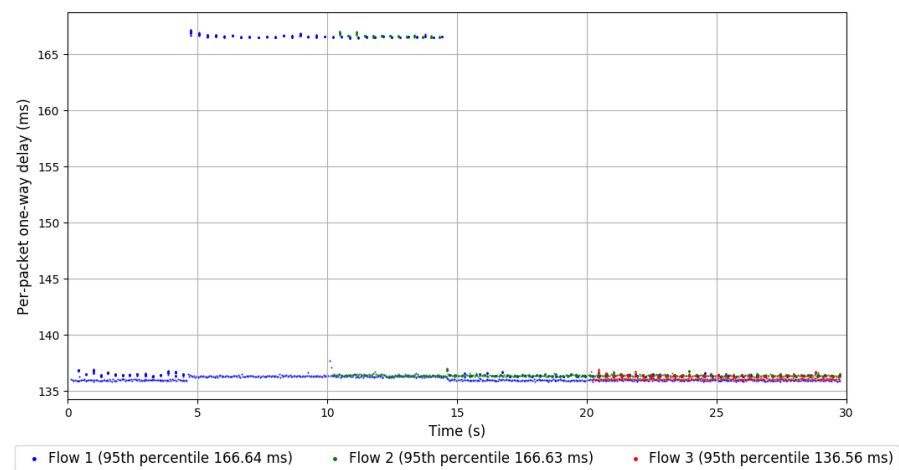
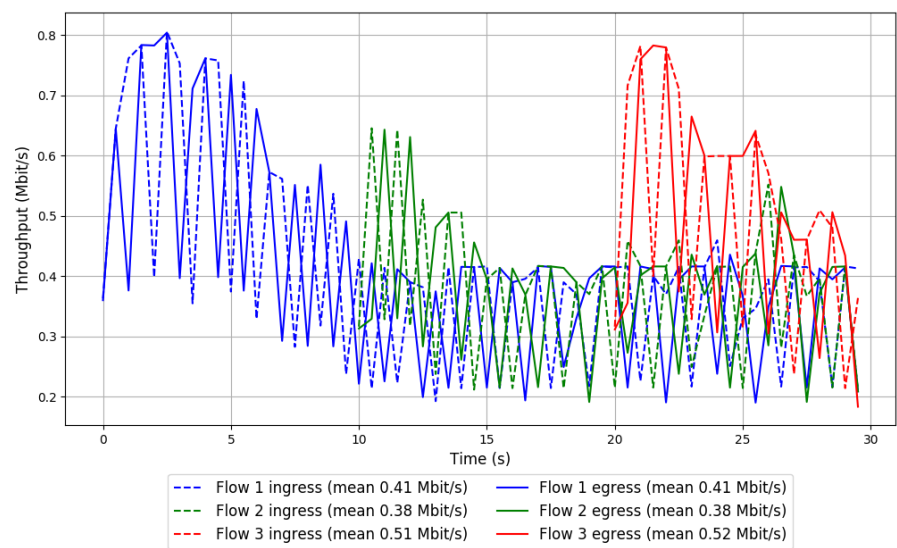
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 136.562 ms

Loss rate: 1.84%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-11-22 03:10:24

End at: 2017-11-22 03:10:54

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 166.668 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 166.680 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 166.669 ms

Loss rate: 2.03%

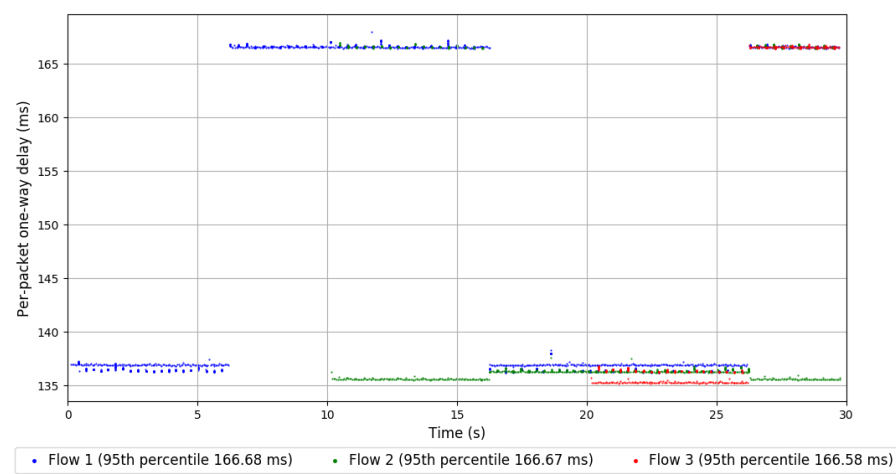
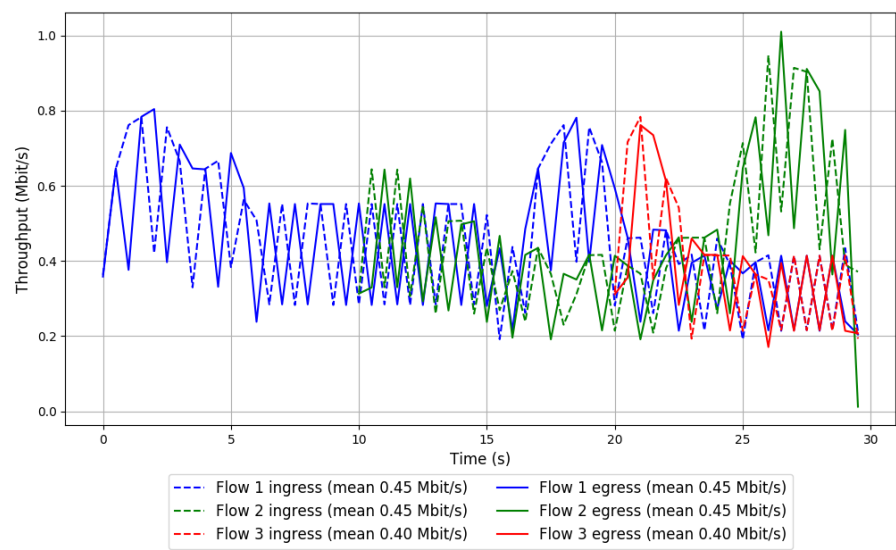
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 166.576 ms

Loss rate: 2.46%

Run 5: Report of Sprout — Data Link

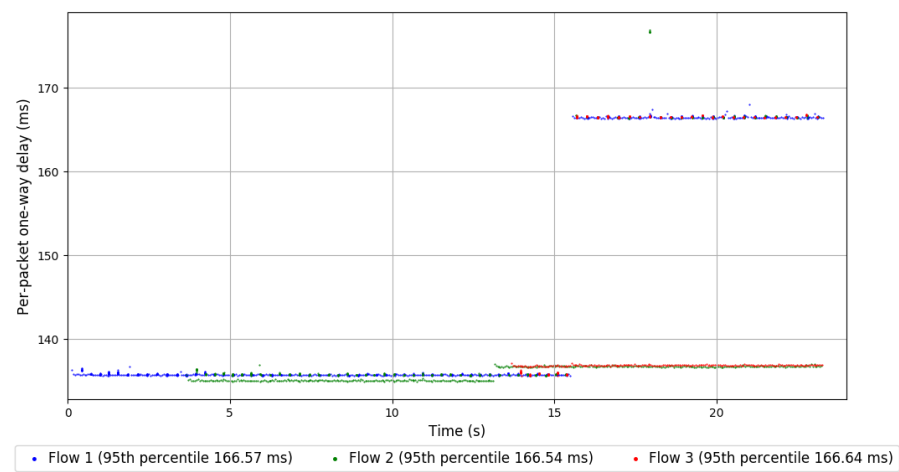
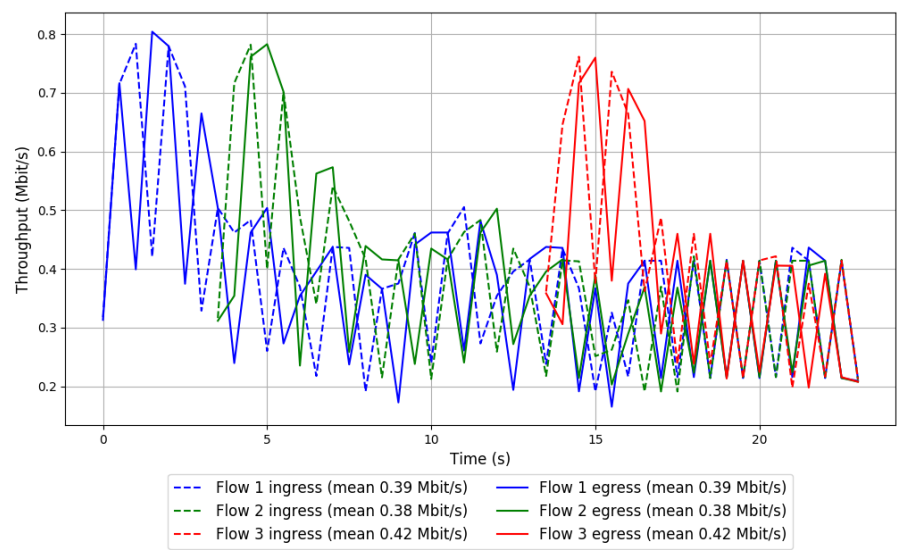


Run 6: Statistics of Sprout

Start at: 2017-11-22 03:24:08

End at: 2017-11-22 03:24:38

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

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 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 166.603 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 166.634 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 166.577 ms

Loss rate: 0.37%

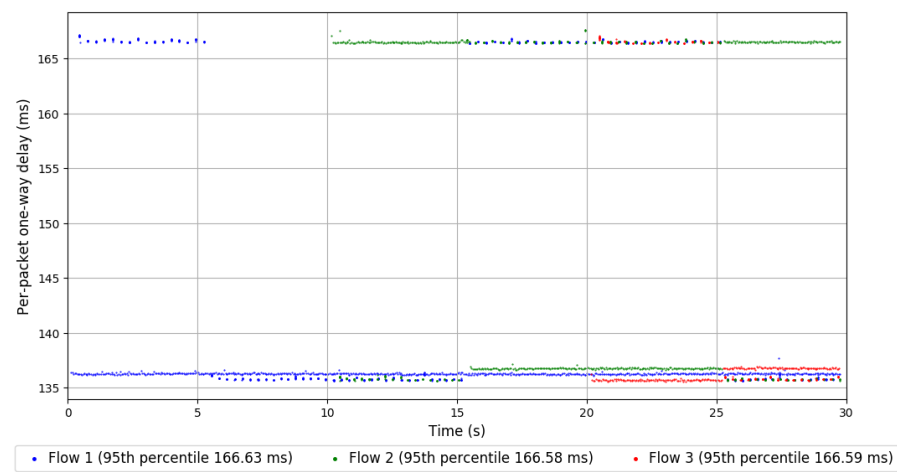
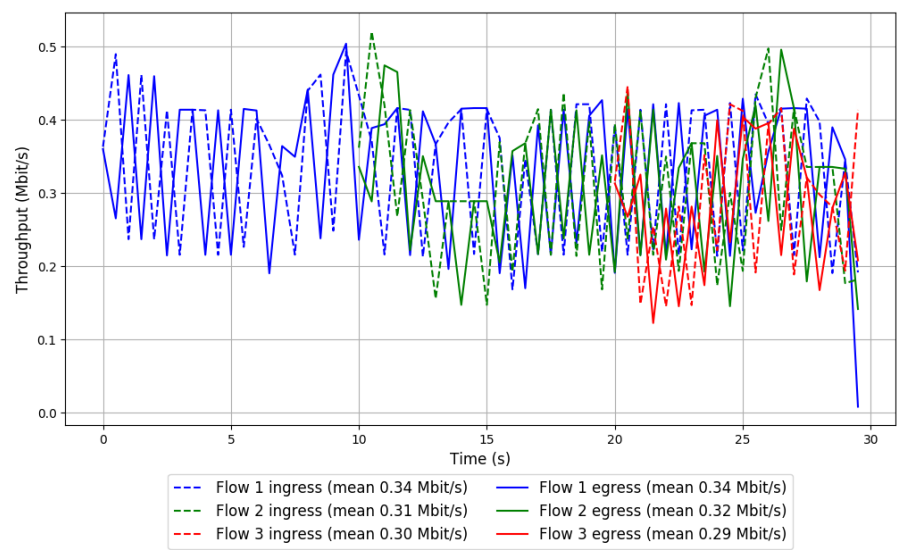
-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 166.593 ms

Loss rate: 3.57%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-11-22 03:51:30

End at: 2017-11-22 03:52:00

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.66 Mbit/s

95th percentile per-packet one-way delay: 166.647 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 166.628 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 166.627 ms

Loss rate: 1.49%

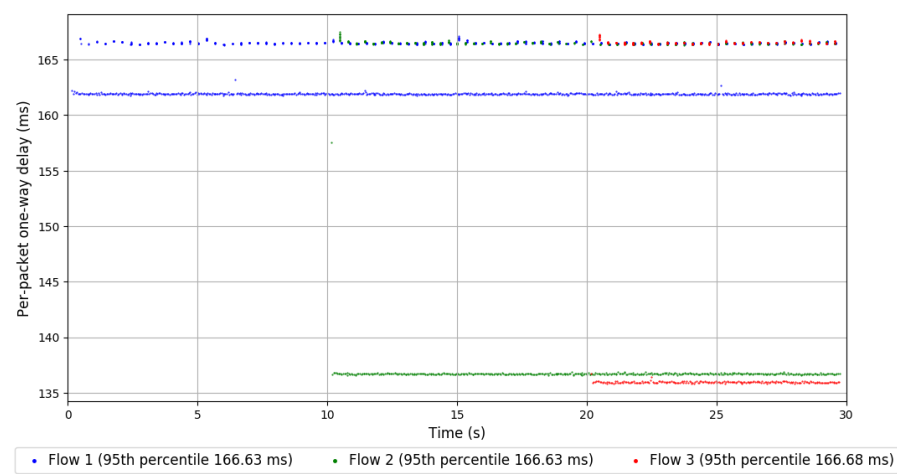
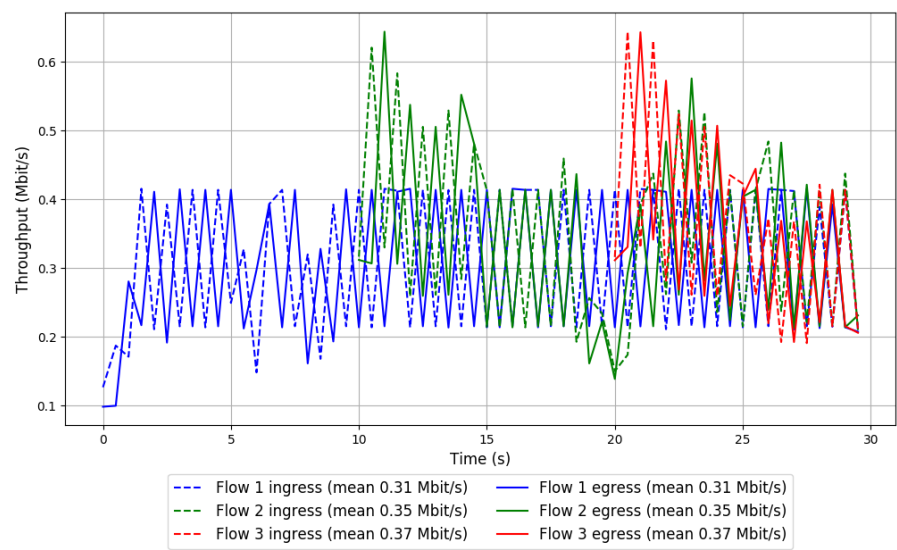
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 166.683 ms

Loss rate: 2.86%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-11-22 04:04:46

End at: 2017-11-22 04:05:16

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 162.548 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 162.557 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 162.553 ms

Loss rate: 0.83%

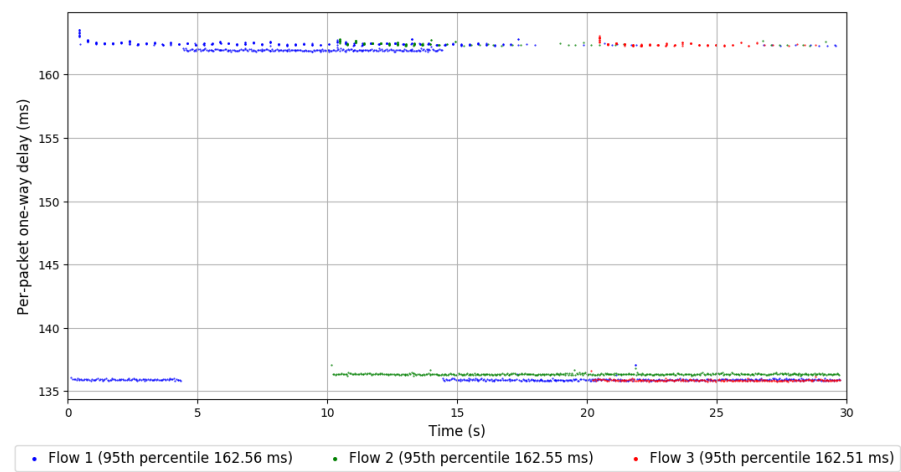
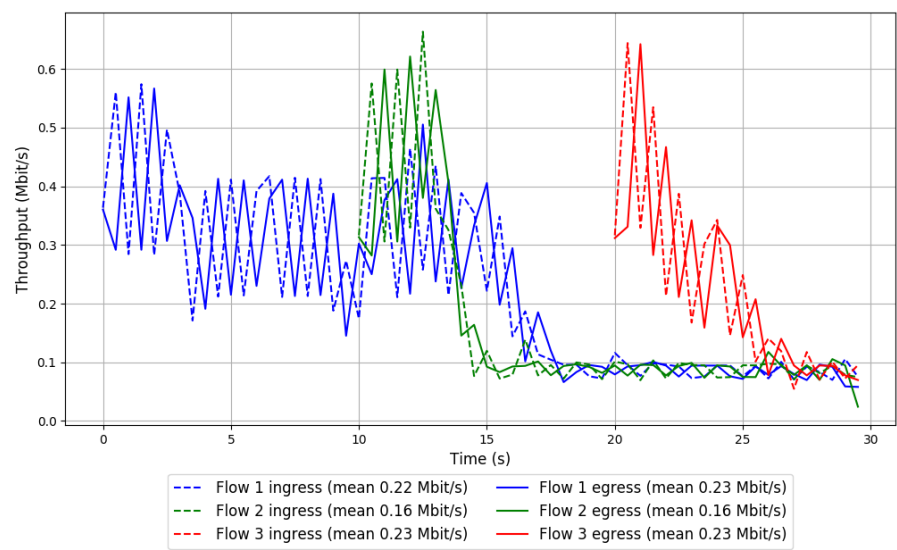
-- Flow 3:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 162.509 ms

Loss rate: 1.07%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-11-22 04:18:13

End at: 2017-11-22 04:18:43

Below is generated by plot.py at 2017-11-22 07:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 163.303 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 163.243 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 163.323 ms

Loss rate: 0.92%

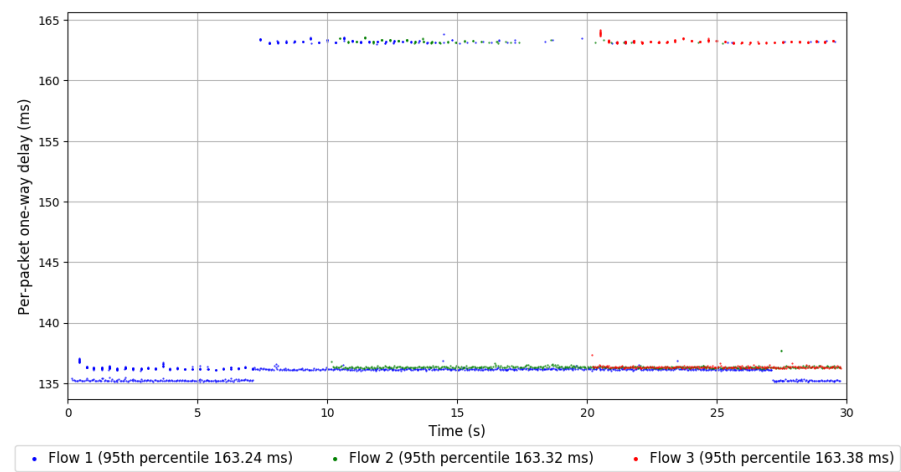
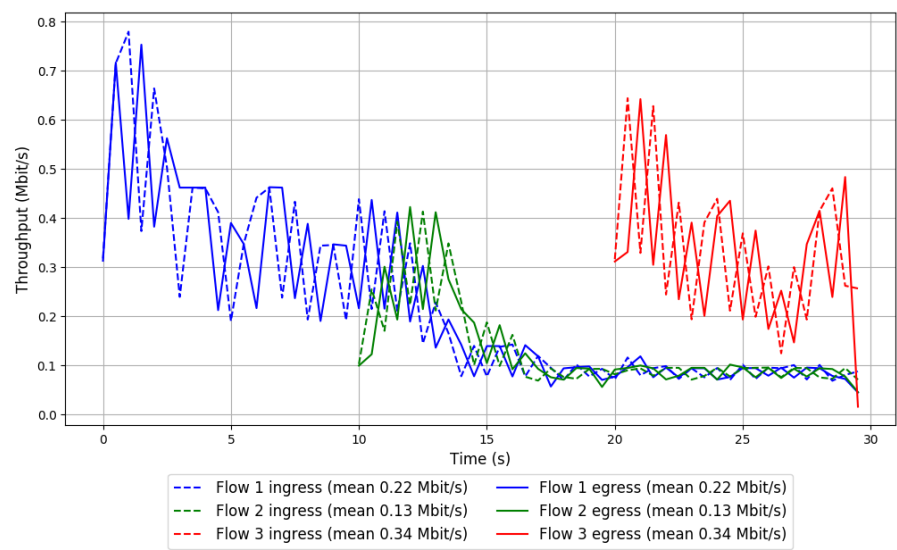
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 163.381 ms

Loss rate: 3.65%

Run 10: Report of Sprout — Data Link

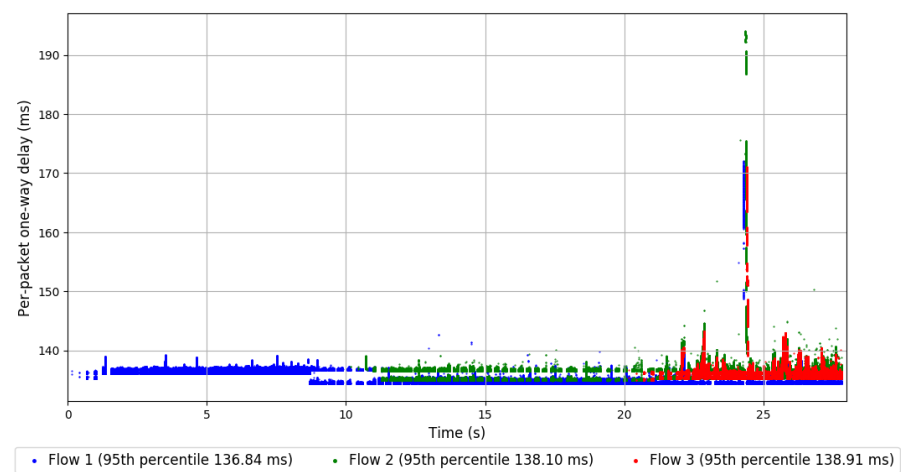
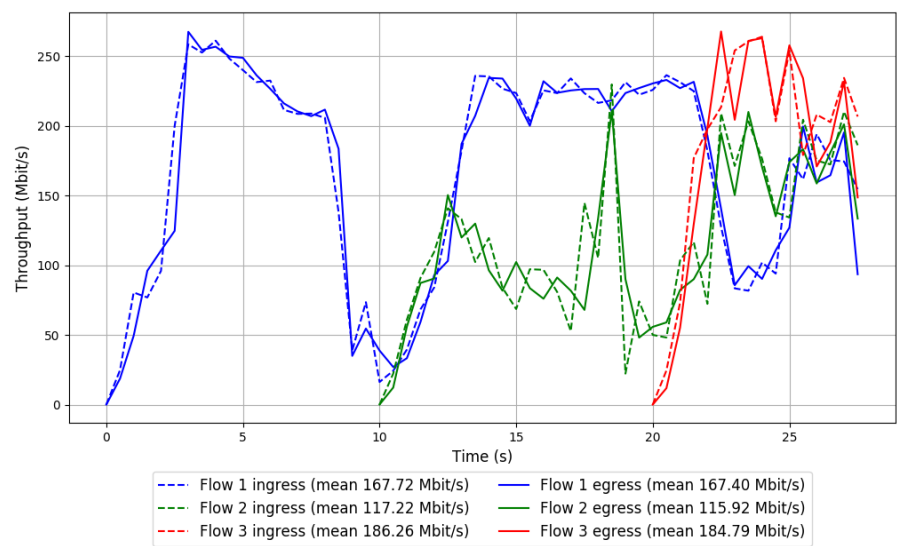


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-11-22 02:06:47
End at: 2017-11-22 02:07:17

# Below is generated by plot.py at 2017-11-22 07:15:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 292.45 Mbit/s
95th percentile per-packet one-way delay: 137.181 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 167.40 Mbit/s
95th percentile per-packet one-way delay: 136.837 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 115.92 Mbit/s
95th percentile per-packet one-way delay: 138.105 ms
Loss rate: 2.62%
-- Flow 3:
Average throughput: 184.79 Mbit/s
95th percentile per-packet one-way delay: 138.910 ms
Loss rate: 4.18%
```


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

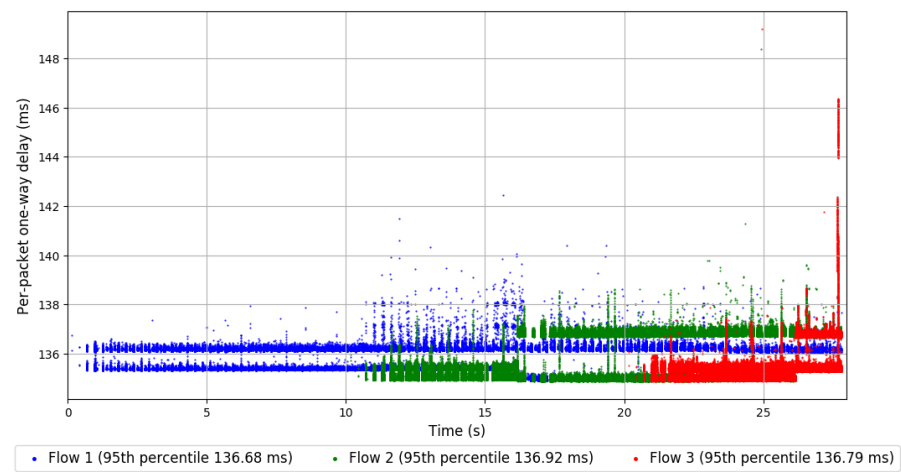
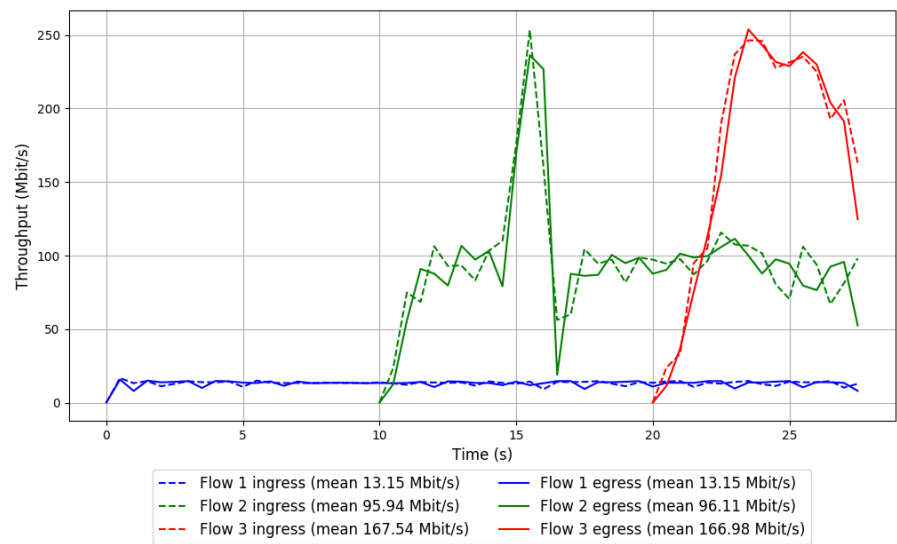


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-11-22 02:21:02
End at: 2017-11-22 02:21:32

# Below is generated by plot.py at 2017-11-22 07:15:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.59 Mbit/s
95th percentile per-packet one-way delay: 136.881 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 13.15 Mbit/s
95th percentile per-packet one-way delay: 136.683 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 136.921 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 166.98 Mbit/s
95th percentile per-packet one-way delay: 136.789 ms
Loss rate: 3.73%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-11-22 02:34:52

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

Below is generated by plot.py at 2017-11-22 07:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 267.32 Mbit/s

95th percentile per-packet one-way delay: 136.792 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 149.40 Mbit/s

95th percentile per-packet one-way delay: 136.753 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 179.45 Mbit/s

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

Loss rate: 1.91%

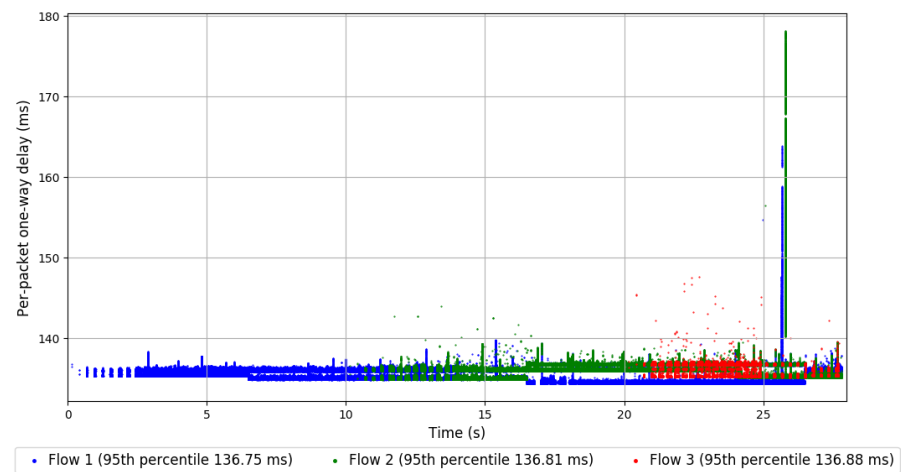
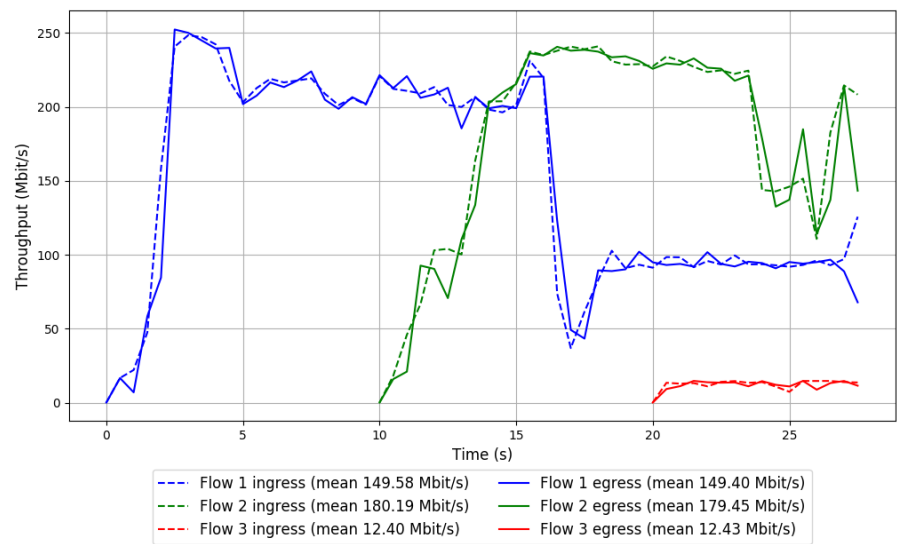
-- Flow 3:

Average throughput: 12.43 Mbit/s

95th percentile per-packet one-way delay: 136.875 ms

Loss rate: 4.45%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-11-22 02:48:58

End at: 2017-11-22 02:49:28

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 335.31 Mbit/s

95th percentile per-packet one-way delay: 138.559 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 167.80 Mbit/s

95th percentile per-packet one-way delay: 136.992 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 194.48 Mbit/s

95th percentile per-packet one-way delay: 143.885 ms

Loss rate: 1.06%

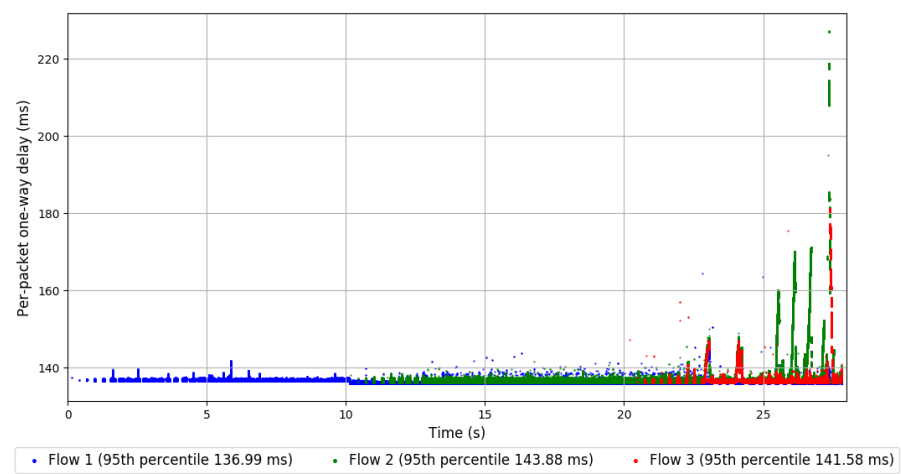
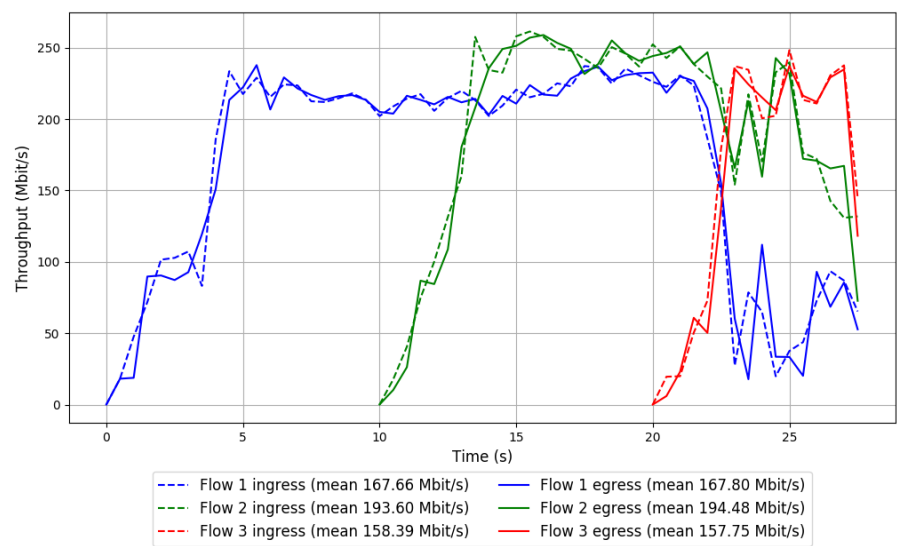
-- Flow 3:

Average throughput: 157.75 Mbit/s

95th percentile per-packet one-way delay: 141.582 ms

Loss rate: 3.82%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-11-22 03:02:59

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

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 65.66 Mbit/s

95th percentile per-packet one-way delay: 136.869 ms

Loss rate: 3.52%

-- Flow 1:

Average throughput: 13.45 Mbit/s

95th percentile per-packet one-way delay: 136.289 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 8.21 Mbit/s

95th percentile per-packet one-way delay: 166.556 ms

Loss rate: 0.00%

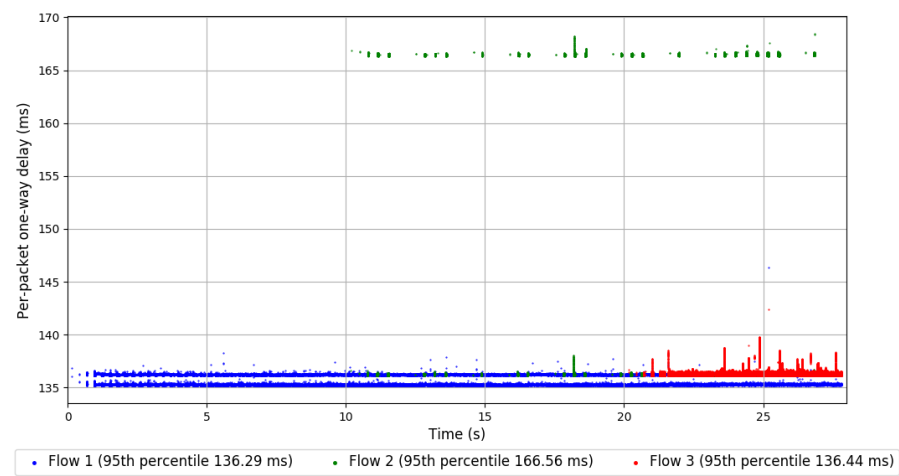
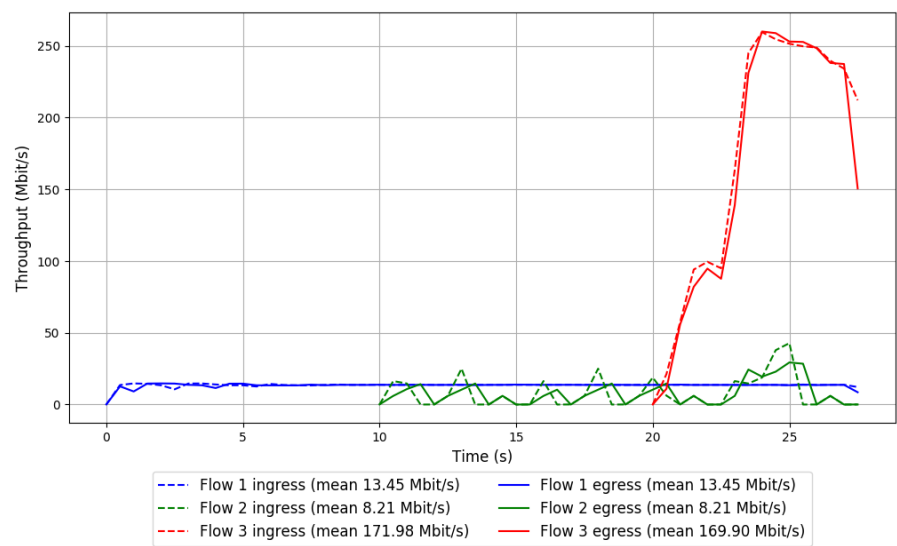
-- Flow 3:

Average throughput: 169.90 Mbit/s

95th percentile per-packet one-way delay: 136.435 ms

Loss rate: 4.59%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-11-22 03:16:37

End at: 2017-11-22 03:17:07

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 164.67 Mbit/s

95th percentile per-packet one-way delay: 136.508 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 155.36 Mbit/s

95th percentile per-packet one-way delay: 136.333 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 9.78 Mbit/s

95th percentile per-packet one-way delay: 166.356 ms

Loss rate: 0.80%

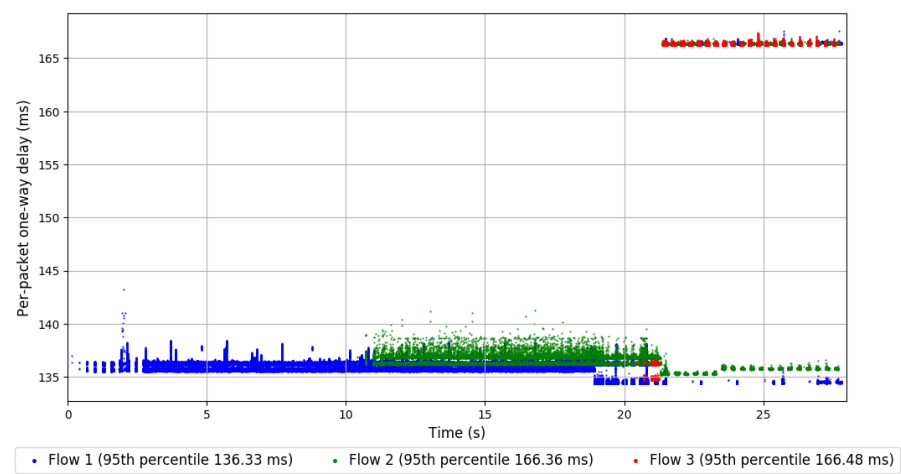
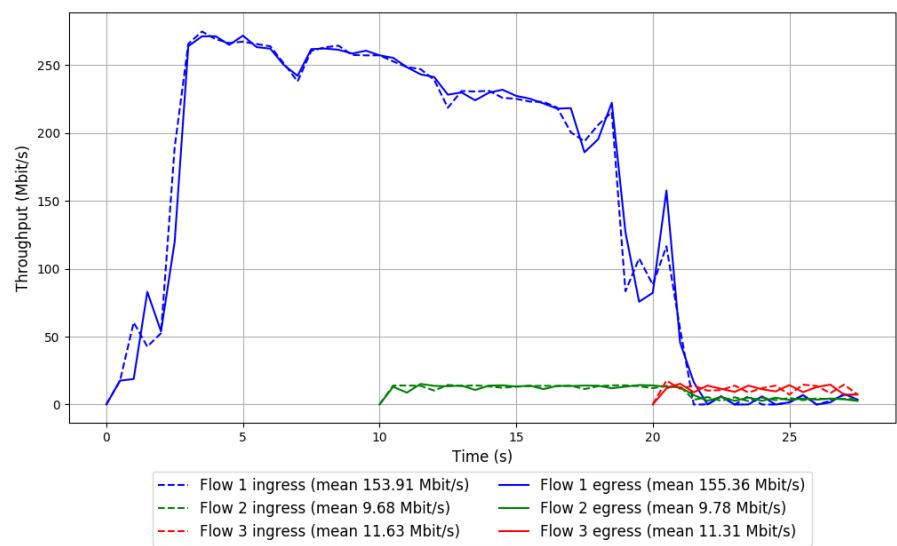
-- Flow 3:

Average throughput: 11.31 Mbit/s

95th percentile per-packet one-way delay: 166.479 ms

Loss rate: 4.08%

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

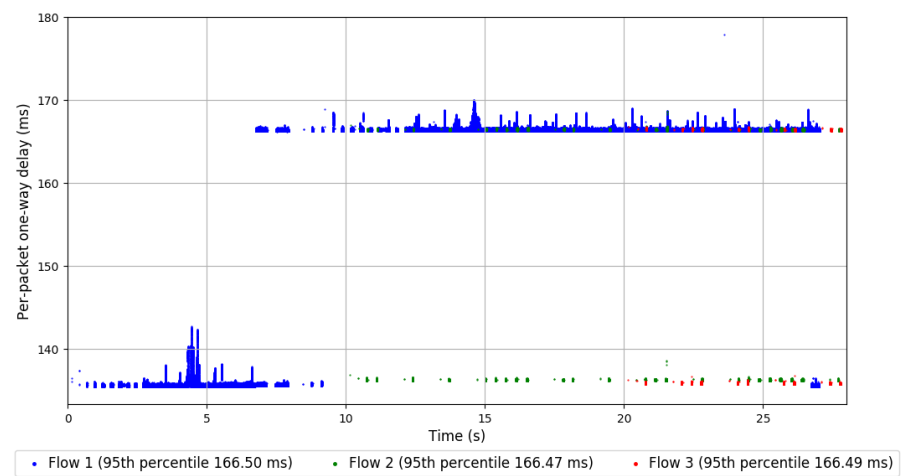
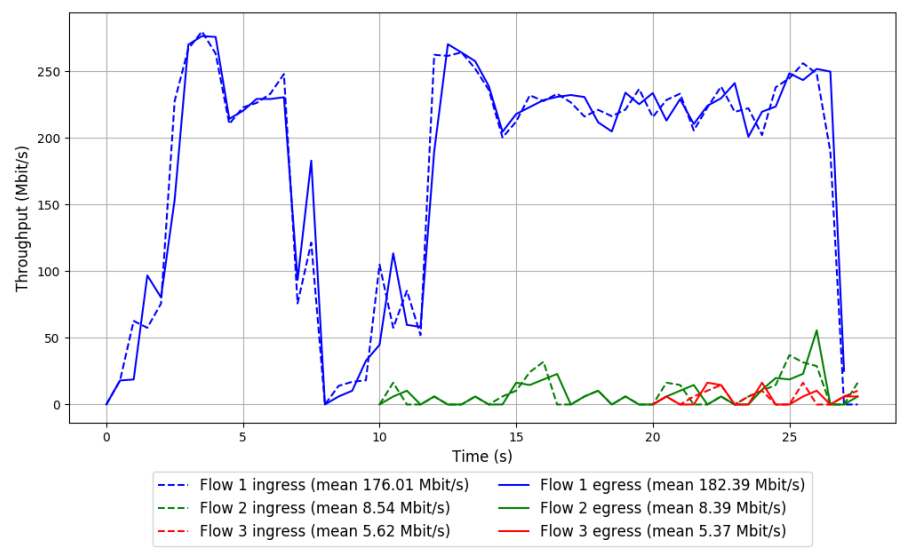


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-11-22 03:30:19
End at: 2017-11-22 03:30:49

# Below is generated by plot.py at 2017-11-22 07:17:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.20 Mbit/s
95th percentile per-packet one-way delay: 166.499 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 182.39 Mbit/s
95th percentile per-packet one-way delay: 166.500 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.39 Mbit/s
95th percentile per-packet one-way delay: 166.474 ms
Loss rate: 3.38%
-- Flow 3:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 166.488 ms
Loss rate: 4.98%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-11-22 03:44:08

End at: 2017-11-22 03:44:38

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 148.49 Mbit/s

95th percentile per-packet one-way delay: 136.524 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 6.14 Mbit/s

95th percentile per-packet one-way delay: 166.426 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 218.16 Mbit/s

95th percentile per-packet one-way delay: 135.756 ms

Loss rate: 1.75%

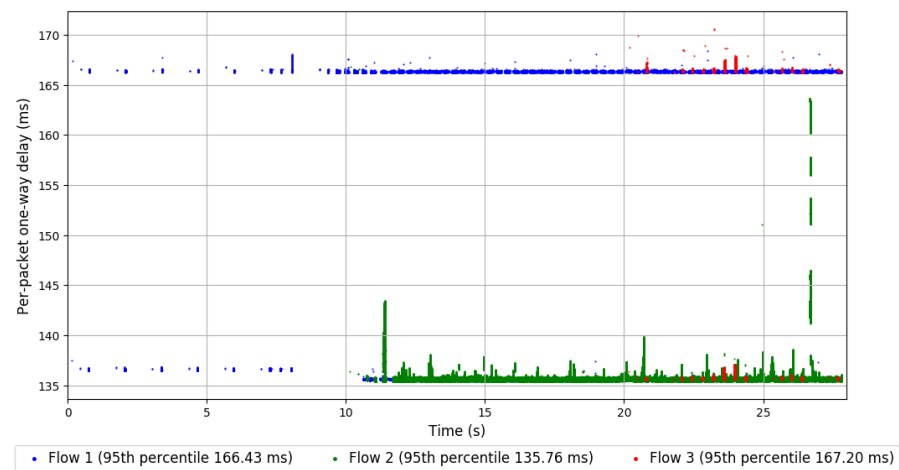
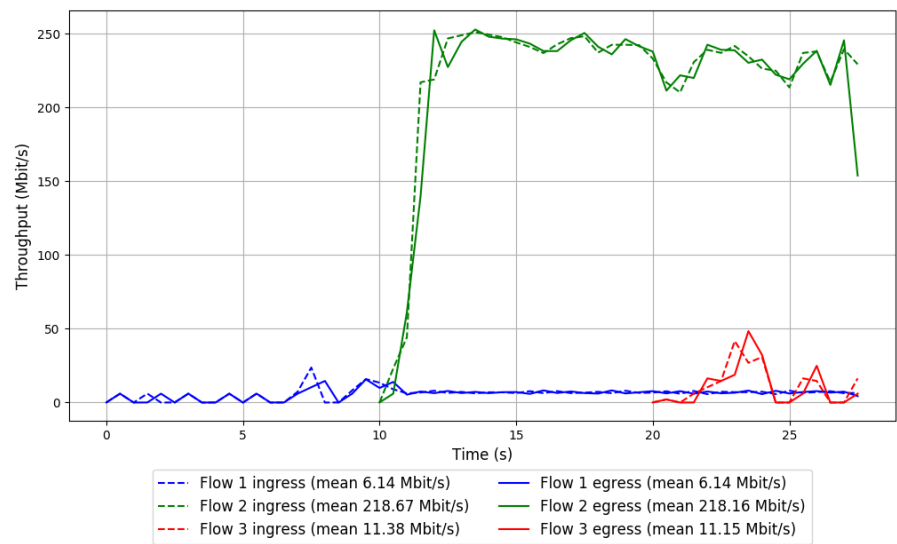
-- Flow 3:

Average throughput: 11.15 Mbit/s

95th percentile per-packet one-way delay: 167.201 ms

Loss rate: 5.75%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-11-22 03:57:37

End at: 2017-11-22 03:58:07

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.90 Mbit/s

95th percentile per-packet one-way delay: 162.533 ms

Loss rate: 2.85%

-- Flow 1:

Average throughput: 20.44 Mbit/s

95th percentile per-packet one-way delay: 162.376 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.78 Mbit/s

95th percentile per-packet one-way delay: 162.933 ms

Loss rate: 0.00%

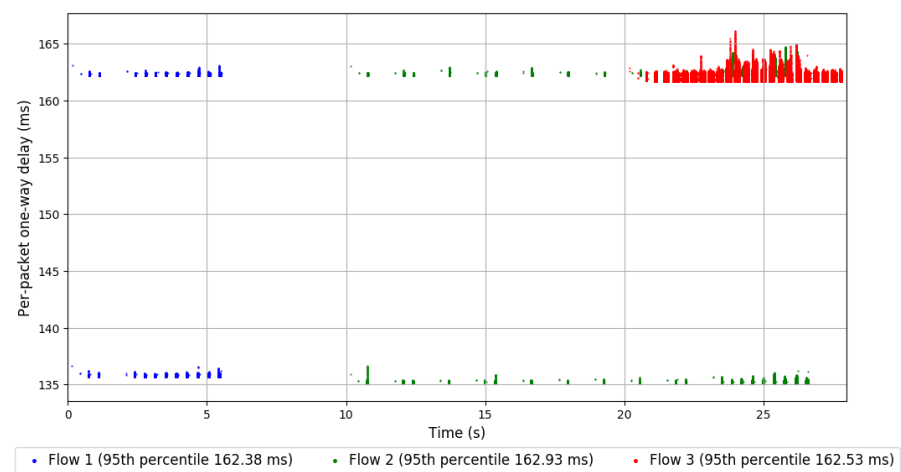
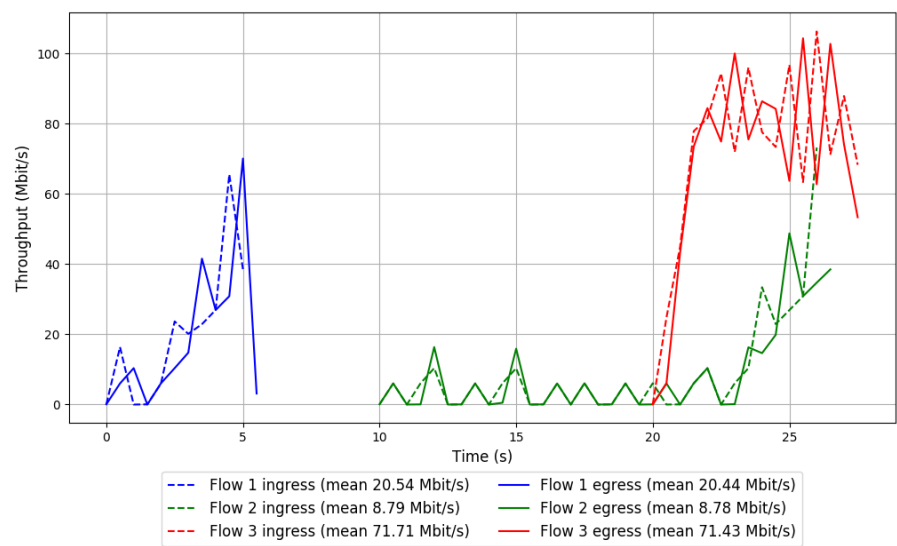
-- Flow 3:

Average throughput: 71.43 Mbit/s

95th percentile per-packet one-way delay: 162.532 ms

Loss rate: 4.13%

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

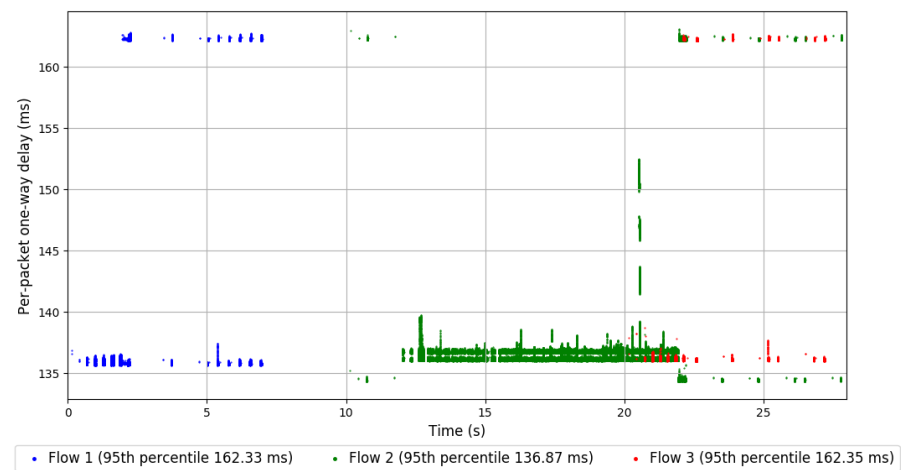
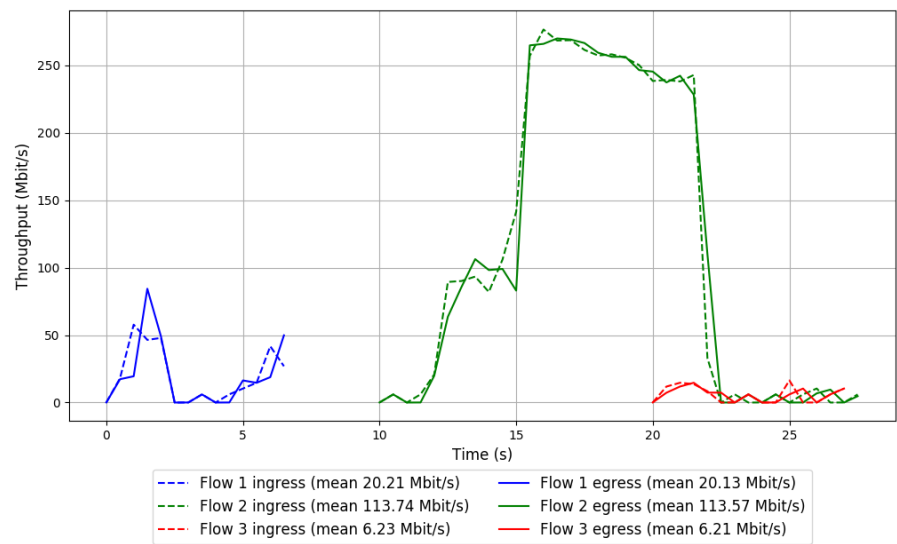


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-11-22 04:10:46
End at: 2017-11-22 04:11:16

# Below is generated by plot.py at 2017-11-22 07:17:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.08 Mbit/s
95th percentile per-packet one-way delay: 137.082 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 20.13 Mbit/s
95th percentile per-packet one-way delay: 162.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 113.57 Mbit/s
95th percentile per-packet one-way delay: 136.867 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 162.349 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-11-22 02:05:54

End at: 2017-11-22 02:06:24

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.39 Mbit/s

95th percentile per-packet one-way delay: 138.527 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 25.97 Mbit/s

95th percentile per-packet one-way delay: 136.755 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 27.98 Mbit/s

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

Loss rate: 1.49%

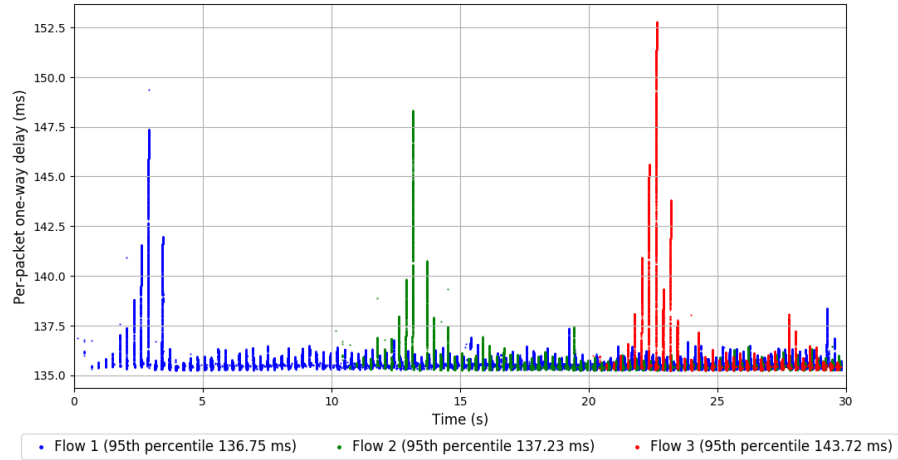
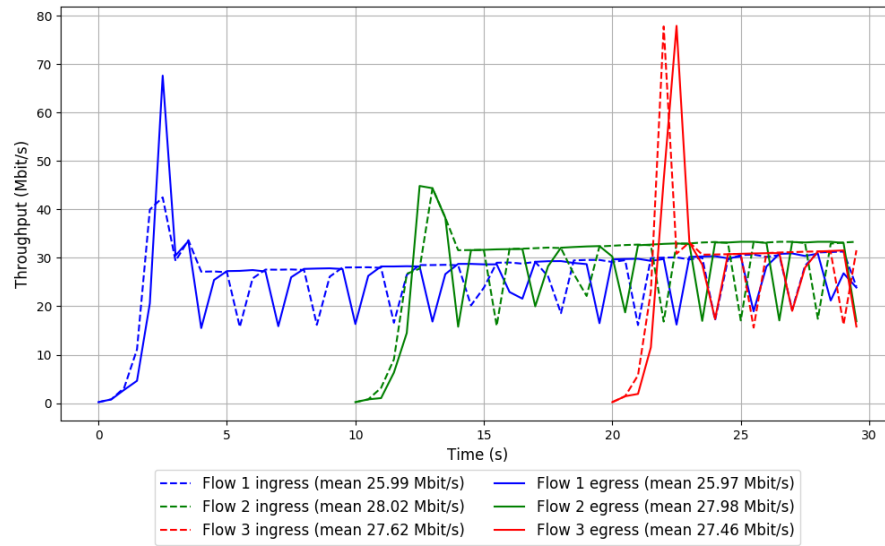
-- Flow 3:

Average throughput: 27.46 Mbit/s

95th percentile per-packet one-way delay: 143.724 ms

Loss rate: 2.90%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-11-22 02:20:09

End at: 2017-11-22 02:20:39

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.93 Mbit/s

95th percentile per-packet one-way delay: 142.186 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 34.95 Mbit/s

95th percentile per-packet one-way delay: 142.894 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 25.04 Mbit/s

95th percentile per-packet one-way delay: 141.313 ms

Loss rate: 1.44%

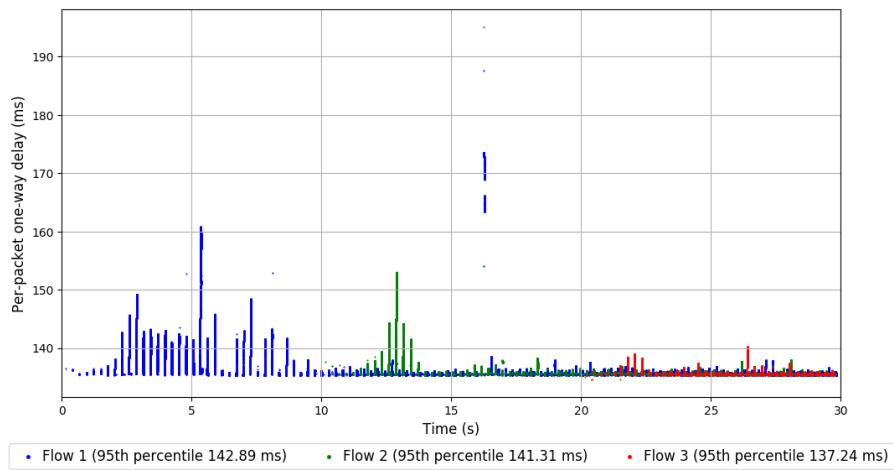
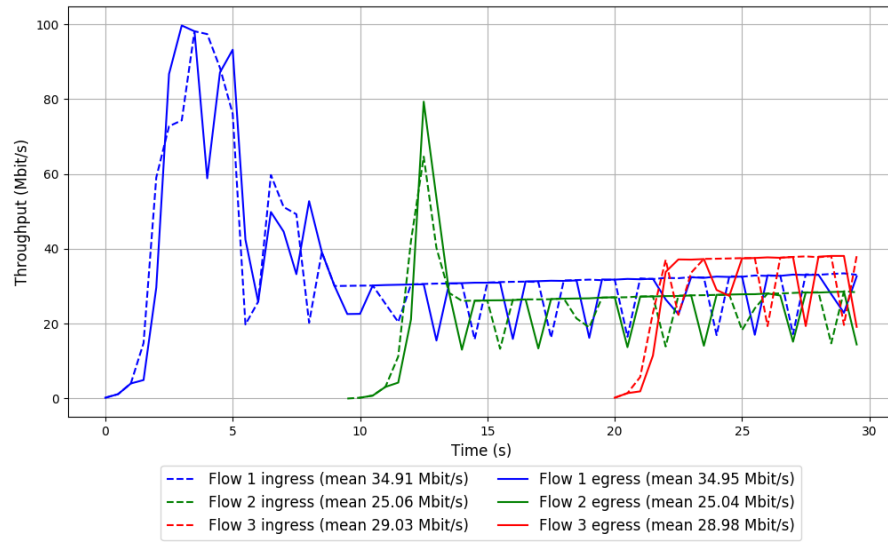
-- Flow 3:

Average throughput: 28.98 Mbit/s

95th percentile per-packet one-way delay: 137.241 ms

Loss rate: 3.32%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-11-22 02:33:58

End at: 2017-11-22 02:34:28

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.10 Mbit/s

95th percentile per-packet one-way delay: 140.347 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 22.48 Mbit/s

95th percentile per-packet one-way delay: 139.986 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 31.98 Mbit/s

95th percentile per-packet one-way delay: 142.263 ms

Loss rate: 1.41%

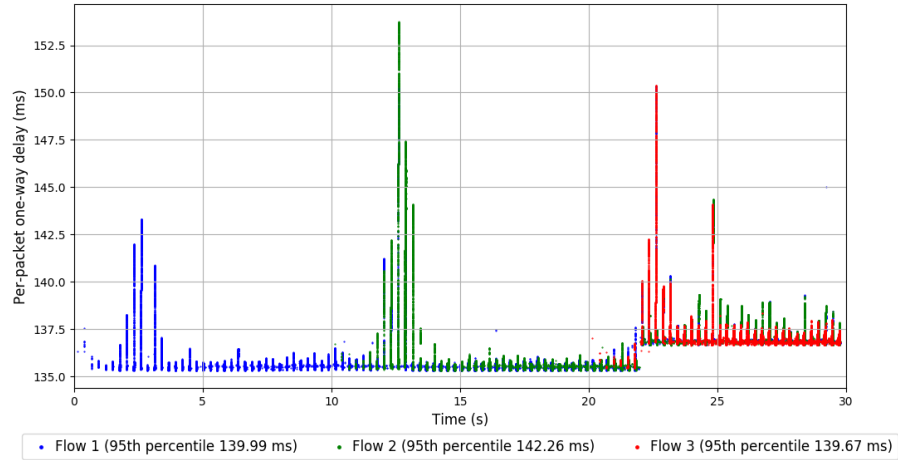
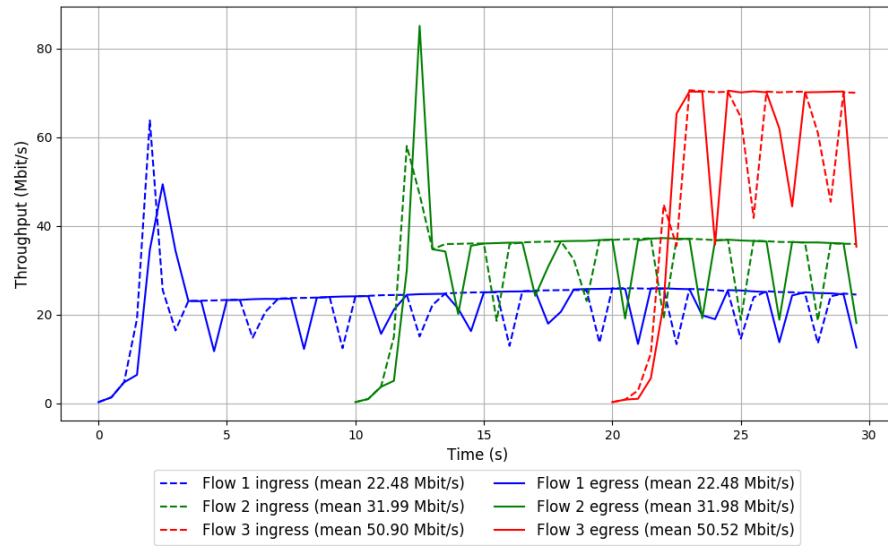
-- Flow 3:

Average throughput: 50.52 Mbit/s

95th percentile per-packet one-way delay: 139.671 ms

Loss rate: 3.49%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-11-22 02:48:05

End at: 2017-11-22 02:48:35

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.41 Mbit/s

95th percentile per-packet one-way delay: 137.972 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 21.70 Mbit/s

95th percentile per-packet one-way delay: 137.642 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 34.28 Mbit/s

95th percentile per-packet one-way delay: 138.802 ms

Loss rate: 0.93%

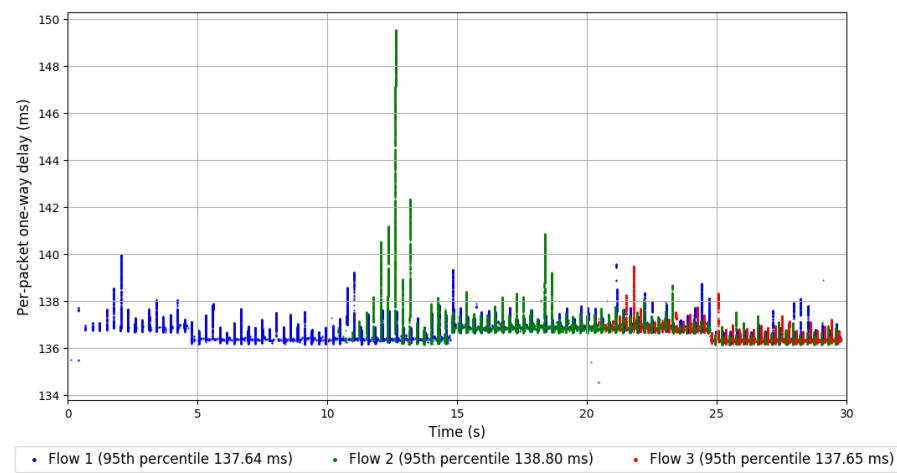
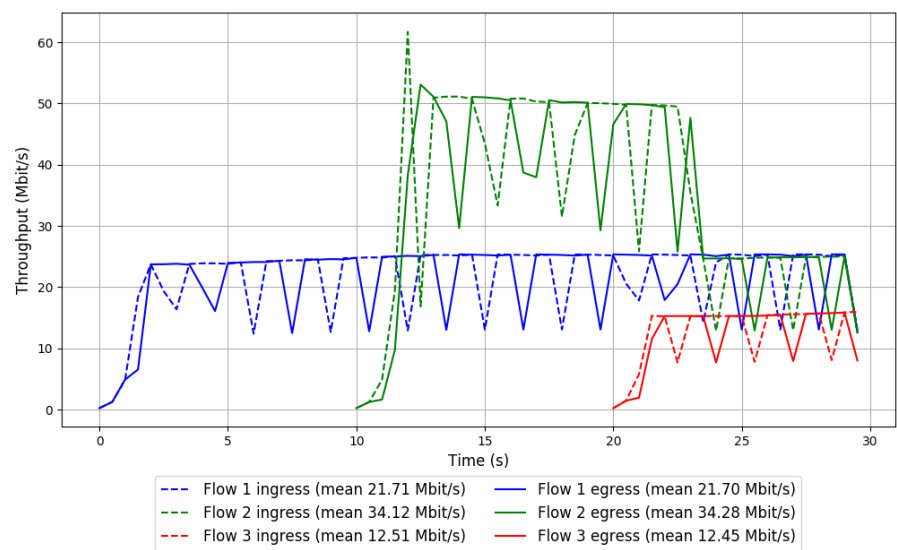
-- Flow 3:

Average throughput: 12.45 Mbit/s

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

Loss rate: 3.24%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-11-22 03:02:04

End at: 2017-11-22 03:02:34

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.08 Mbit/s

95th percentile per-packet one-way delay: 141.798 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 38.25 Mbit/s

95th percentile per-packet one-way delay: 141.823 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 30.53 Mbit/s

95th percentile per-packet one-way delay: 137.707 ms

Loss rate: 1.20%

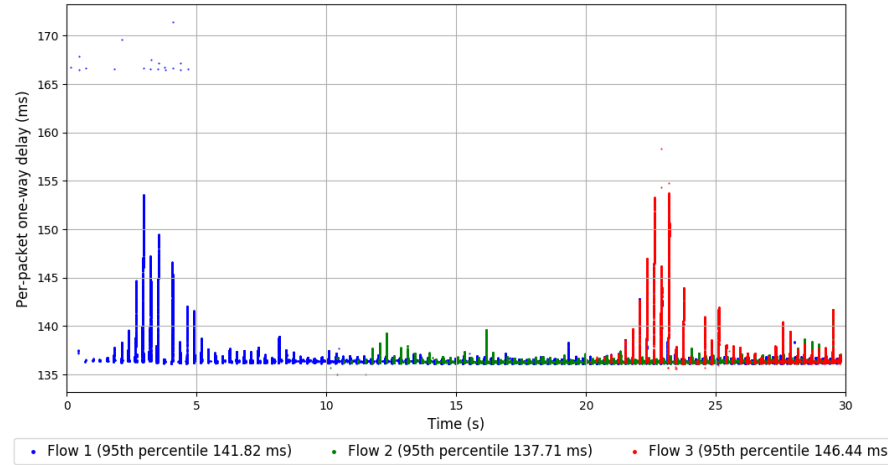
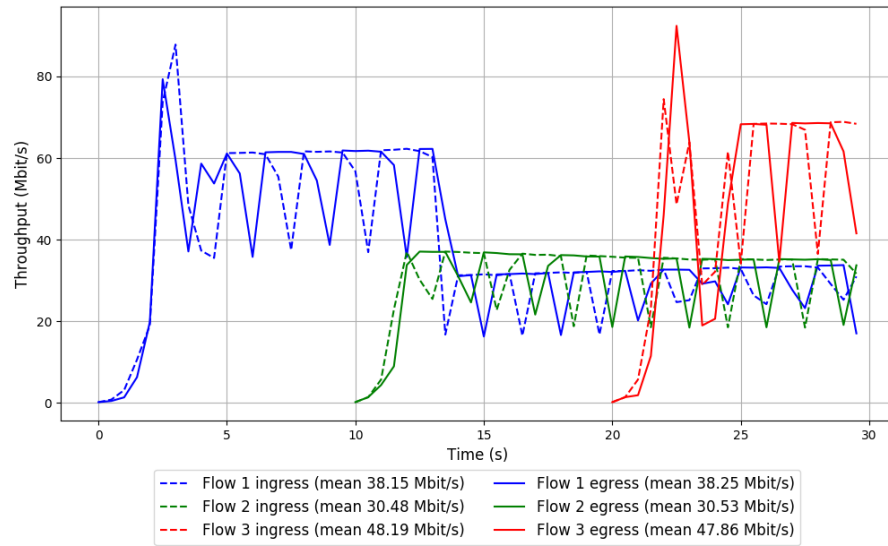
-- Flow 3:

Average throughput: 47.86 Mbit/s

95th percentile per-packet one-way delay: 146.437 ms

Loss rate: 3.61%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-11-22 03:15:43

End at: 2017-11-22 03:16:13

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.78 Mbit/s

95th percentile per-packet one-way delay: 138.665 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 34.50 Mbit/s

95th percentile per-packet one-way delay: 137.550 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 33.03 Mbit/s

95th percentile per-packet one-way delay: 139.507 ms

Loss rate: 1.51%

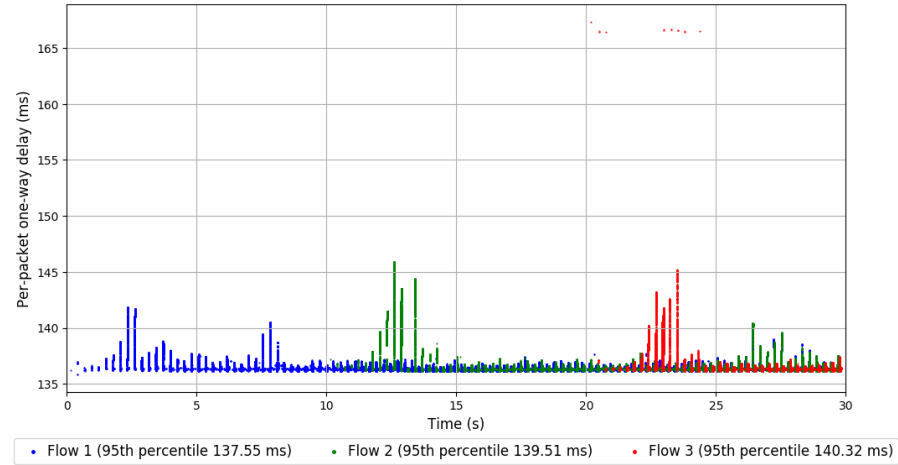
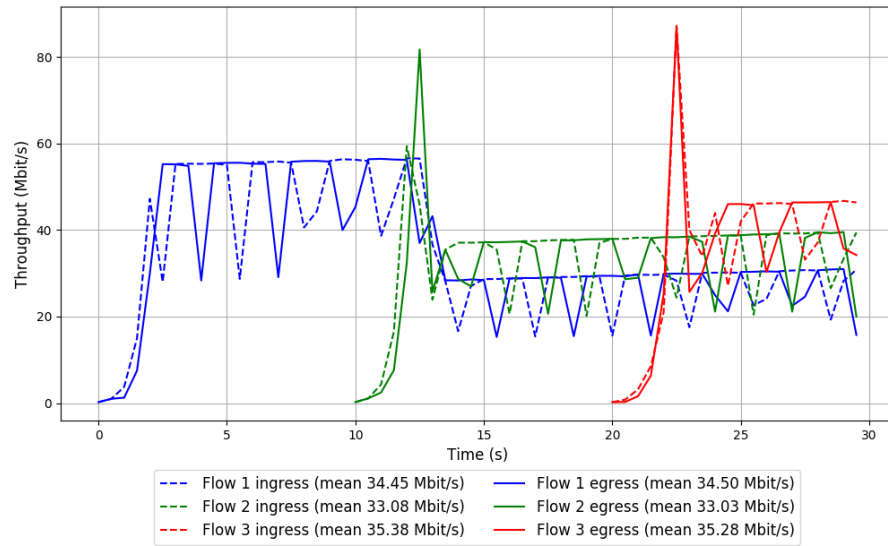
-- Flow 3:

Average throughput: 35.28 Mbit/s

95th percentile per-packet one-way delay: 140.316 ms

Loss rate: 3.33%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-11-22 03:29:28

End at: 2017-11-22 03:29:58

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.06 Mbit/s

95th percentile per-packet one-way delay: 172.626 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 166.733 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 27.09 Mbit/s

95th percentile per-packet one-way delay: 172.863 ms

Loss rate: 1.16%

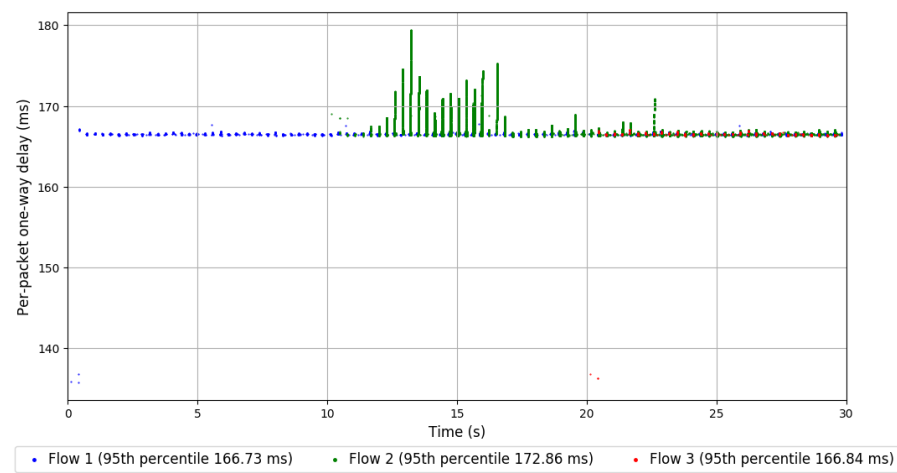
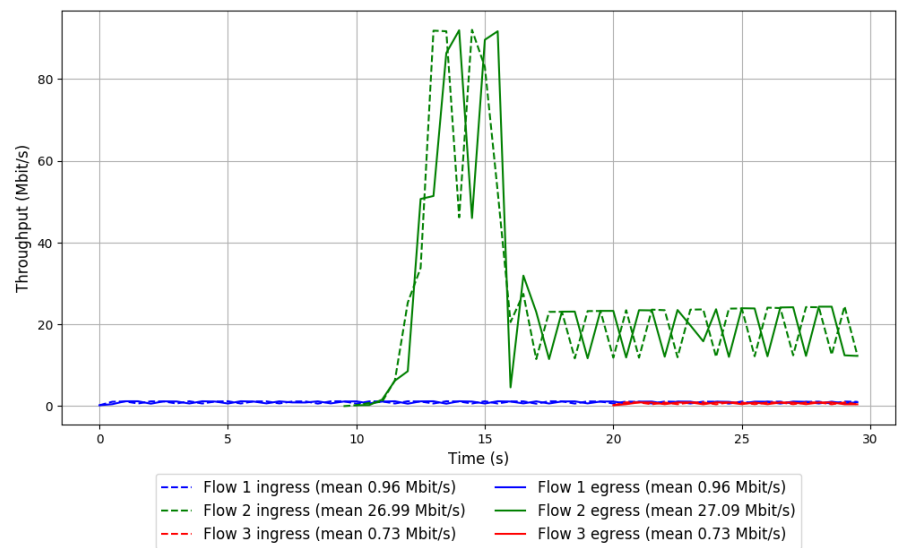
-- Flow 3:

Average throughput: 0.73 Mbit/s

95th percentile per-packet one-way delay: 166.844 ms

Loss rate: 3.19%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-11-22 03:43:16

End at: 2017-11-22 03:43:46

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.07 Mbit/s

95th percentile per-packet one-way delay: 166.870 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 22.91 Mbit/s

95th percentile per-packet one-way delay: 167.003 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 166.483 ms

Loss rate: 2.54%

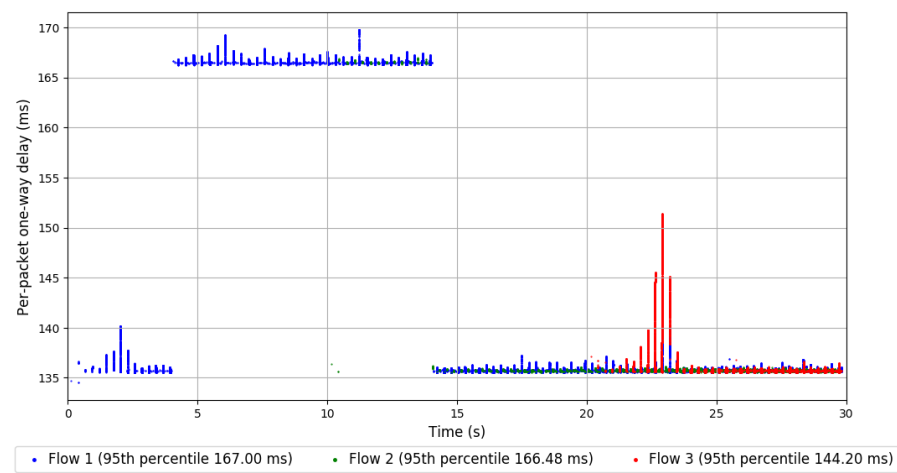
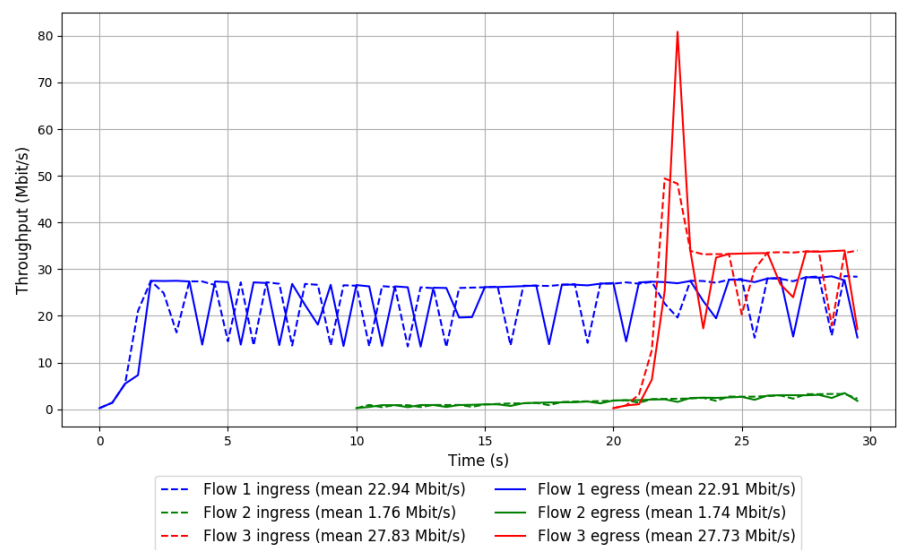
-- Flow 3:

Average throughput: 27.73 Mbit/s

95th percentile per-packet one-way delay: 144.204 ms

Loss rate: 3.10%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-11-22 03:56:44

End at: 2017-11-22 03:57:14

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.89 Mbit/s

95th percentile per-packet one-way delay: 165.061 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 56.41 Mbit/s

95th percentile per-packet one-way delay: 165.192 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 1.48 Mbit/s

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

Loss rate: 1.90%

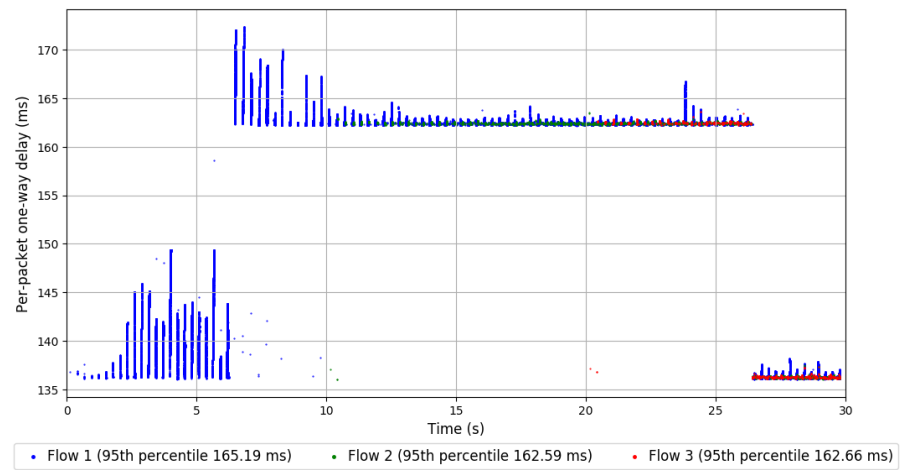
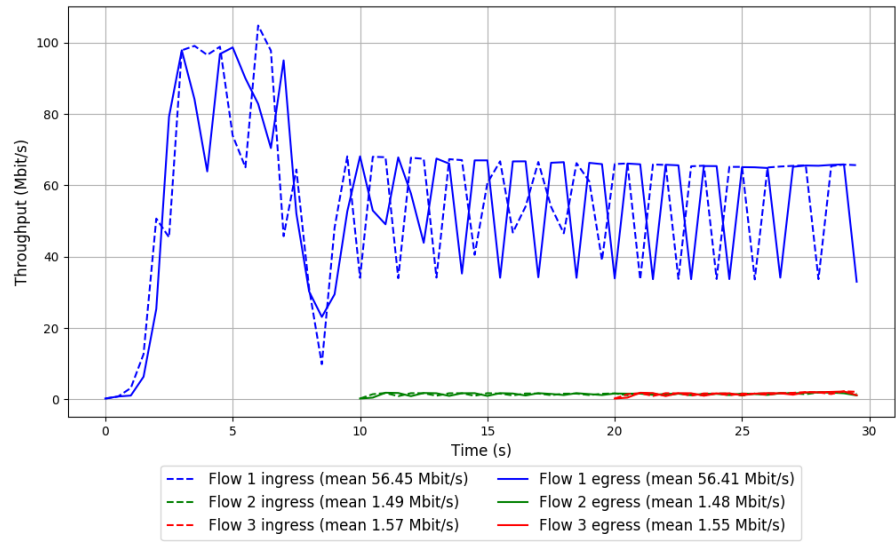
-- Flow 3:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 162.660 ms

Loss rate: 3.87%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-11-22 04:09:55

End at: 2017-11-22 04:10:25

Below is generated by plot.py at 2017-11-22 07:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.31 Mbit/s

95th percentile per-packet one-way delay: 164.034 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 162.531 ms

Loss rate: 2.01%

-- Flow 2:

Average throughput: 26.84 Mbit/s

95th percentile per-packet one-way delay: 166.038 ms

Loss rate: 1.50%

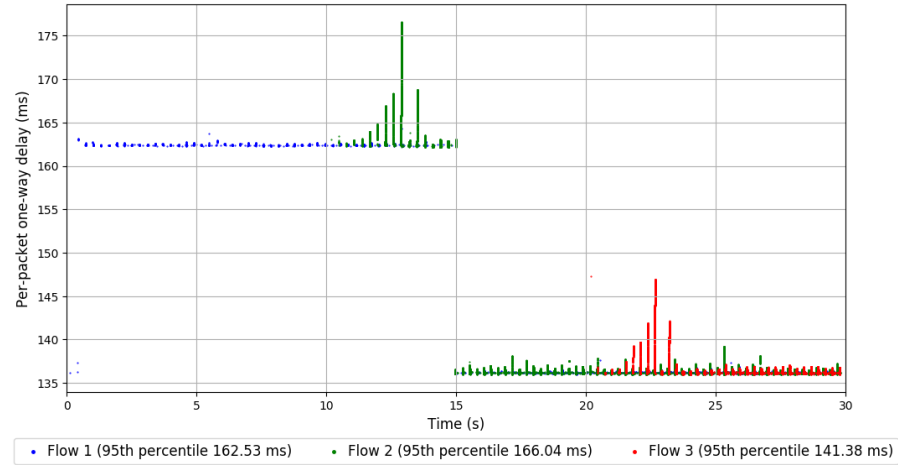
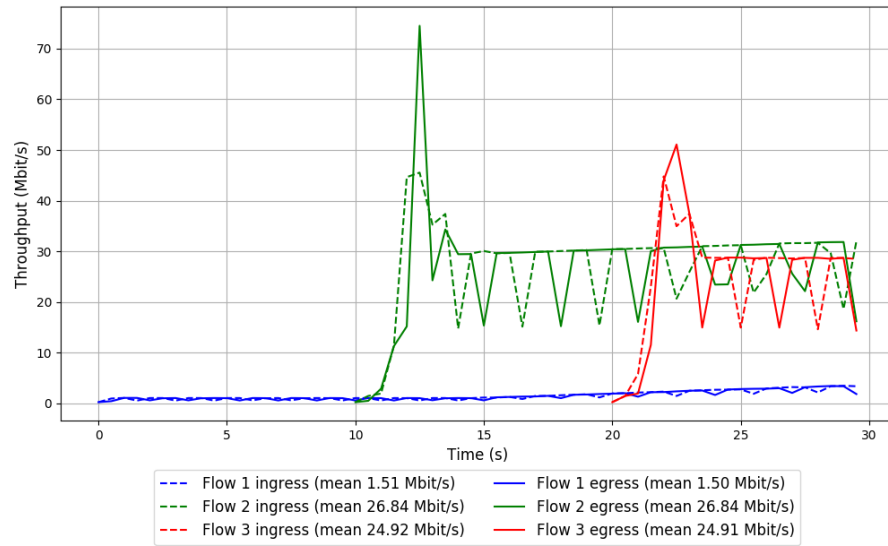
-- Flow 3:

Average throughput: 24.91 Mbit/s

95th percentile per-packet one-way delay: 141.382 ms

Loss rate: 2.92%

Run 10: Report of TCP Vegas — Data Link

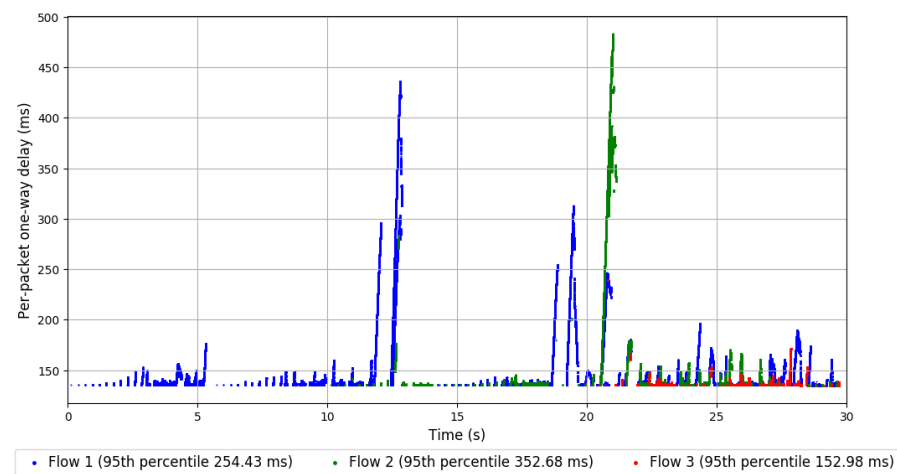
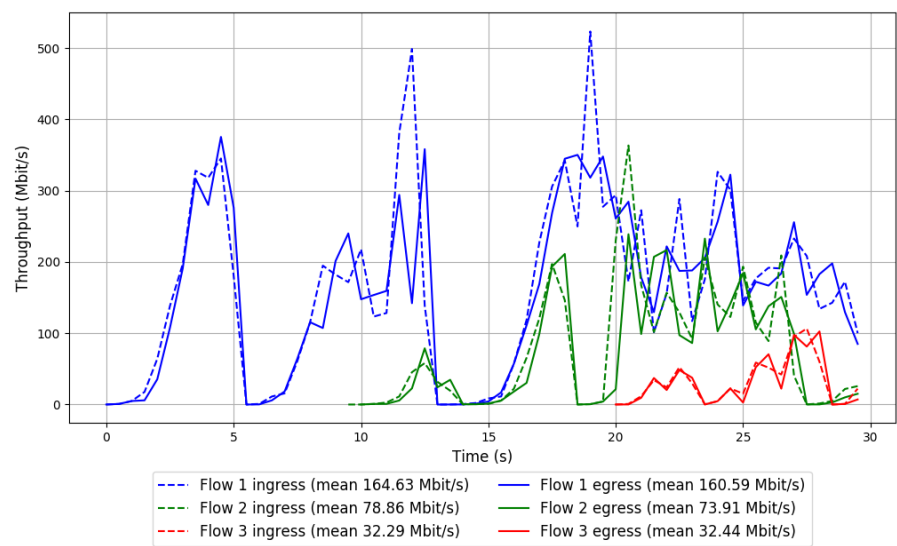


```
Run 1: Statistics of Verus

Start at: 2017-11-22 02:15:32
End at: 2017-11-22 02:16:02

# Below is generated by plot.py at 2017-11-22 07:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 219.80 Mbit/s
95th percentile per-packet one-way delay: 267.929 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 160.59 Mbit/s
95th percentile per-packet one-way delay: 254.430 ms
Loss rate: 3.71%
-- Flow 2:
Average throughput: 73.91 Mbit/s
95th percentile per-packet one-way delay: 352.675 ms
Loss rate: 8.39%
-- Flow 3:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 152.977 ms
Loss rate: 2.38%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-11-22 02:29:27

End at: 2017-11-22 02:29:57

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.71 Mbit/s

95th percentile per-packet one-way delay: 225.311 ms

Loss rate: 2.09%

-- Flow 1:

Average throughput: 91.36 Mbit/s

95th percentile per-packet one-way delay: 251.969 ms

Loss rate: 3.02%

-- Flow 2:

Average throughput: 35.94 Mbit/s

95th percentile per-packet one-way delay: 146.399 ms

Loss rate: 0.27%

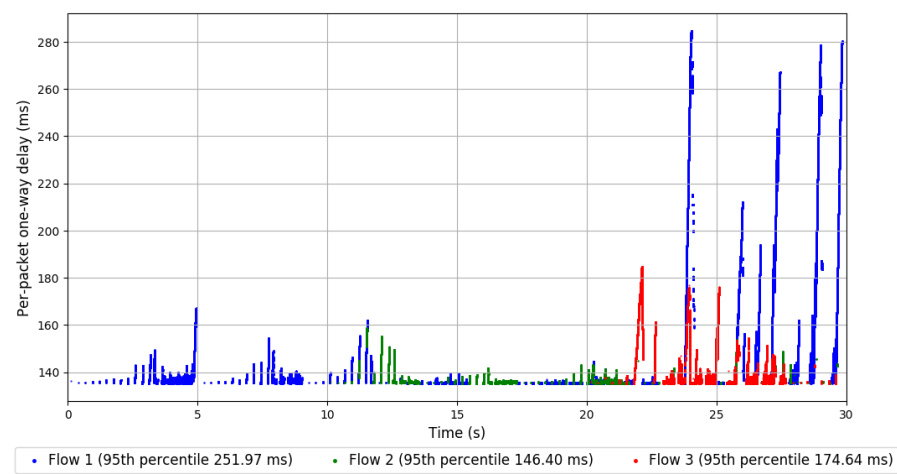
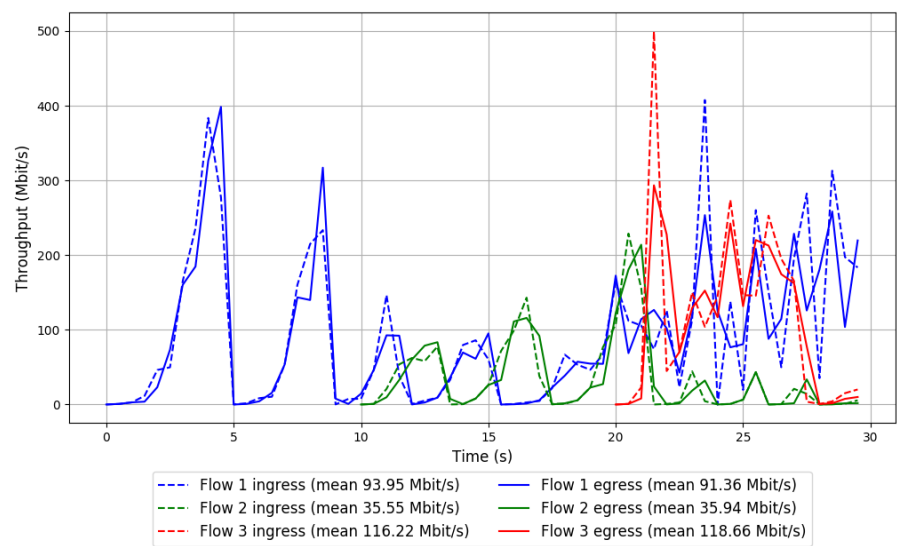
-- Flow 3:

Average throughput: 118.66 Mbit/s

95th percentile per-packet one-way delay: 174.642 ms

Loss rate: 0.89%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-11-22 02:43:33

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

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 189.74 Mbit/s

95th percentile per-packet one-way delay: 161.474 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 140.54 Mbit/s

95th percentile per-packet one-way delay: 163.105 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 37.31 Mbit/s

95th percentile per-packet one-way delay: 157.411 ms

Loss rate: 0.80%

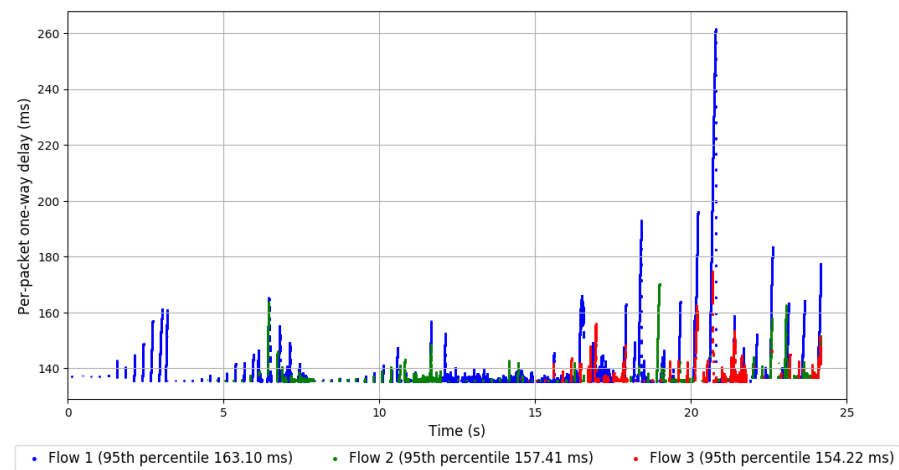
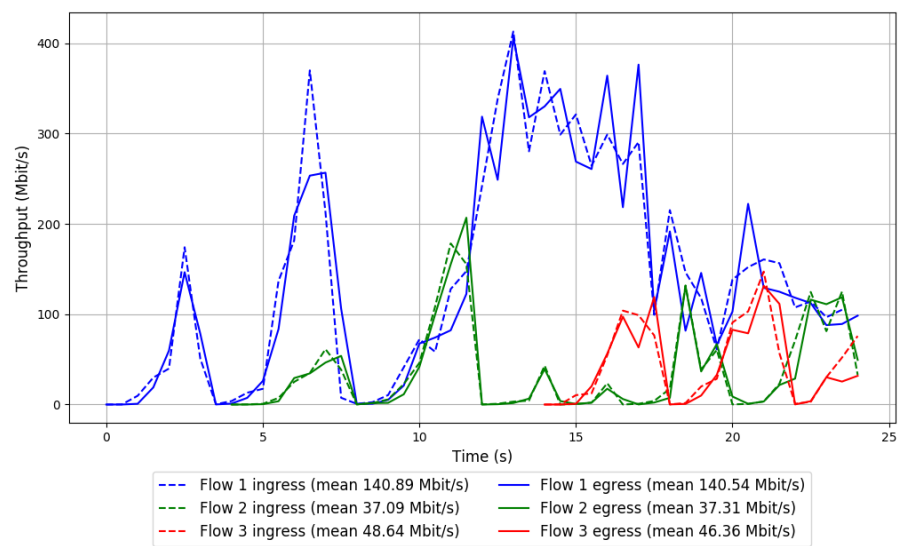
-- Flow 3:

Average throughput: 46.36 Mbit/s

95th percentile per-packet one-way delay: 154.219 ms

Loss rate: 7.31%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-11-22 02:57:44

End at: 2017-11-22 02:58:14

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 182.83 Mbit/s

95th percentile per-packet one-way delay: 181.180 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 64.19 Mbit/s

95th percentile per-packet one-way delay: 176.463 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 104.96 Mbit/s

95th percentile per-packet one-way delay: 178.083 ms

Loss rate: 1.51%

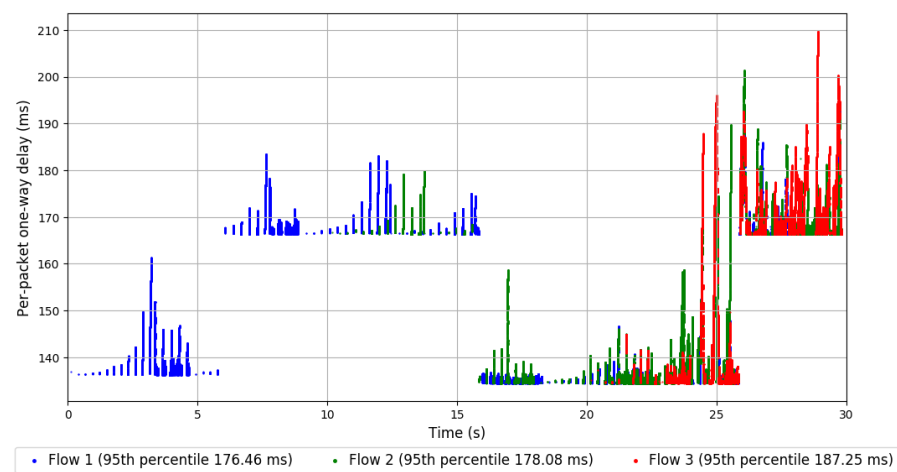
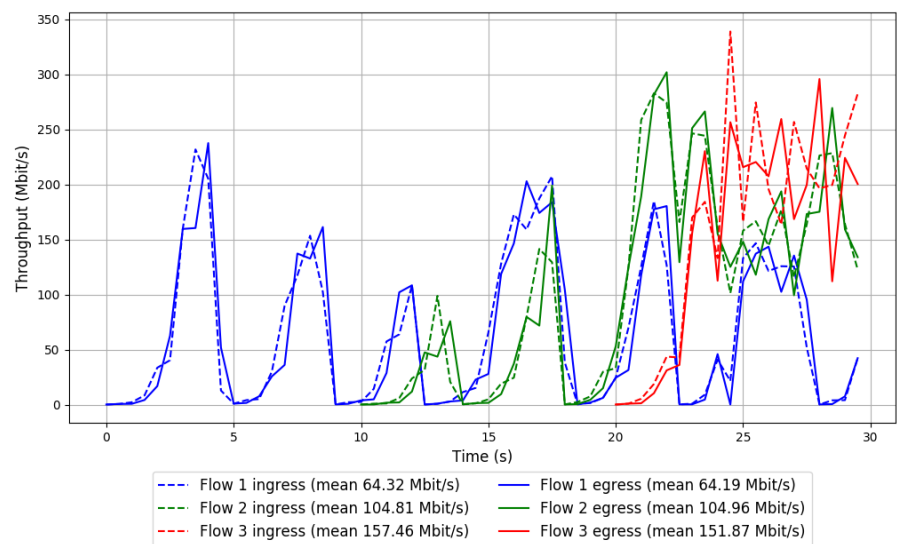
-- Flow 3:

Average throughput: 151.87 Mbit/s

95th percentile per-packet one-way delay: 187.247 ms

Loss rate: 6.18%

Run 4: Report of Verus — Data Link

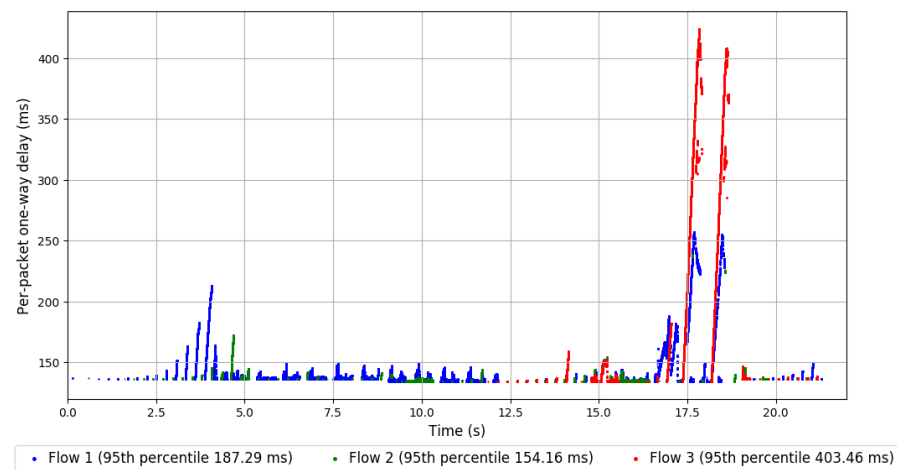
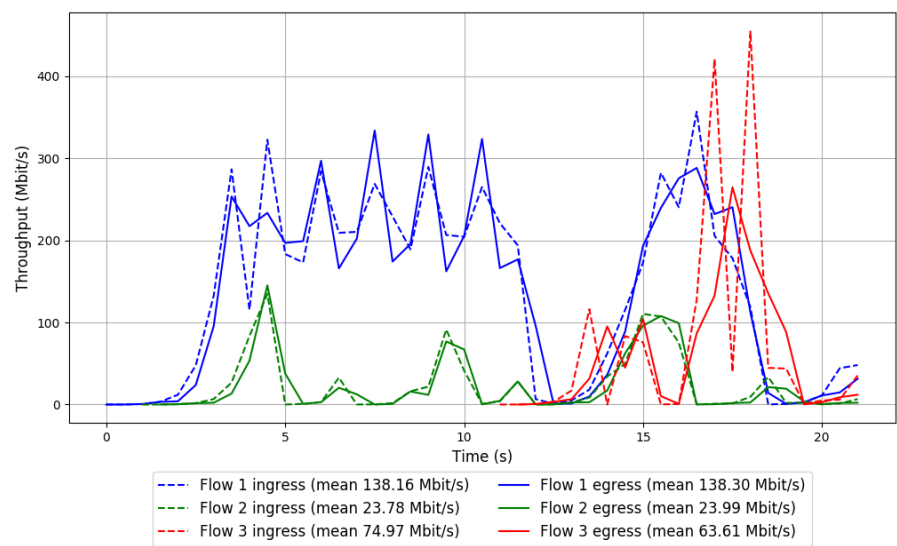


Run 5: Statistics of Verus

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

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

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-11-22 03:24:57

End at: 2017-11-22 03:25:27

Below is generated by plot.py at 2017-11-22 07:18:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 192.33 Mbit/s

95th percentile per-packet one-way delay: 263.731 ms

Loss rate: 3.42%

-- Flow 1:

Average throughput: 149.15 Mbit/s

95th percentile per-packet one-way delay: 269.286 ms

Loss rate: 2.93%

-- Flow 2:

Average throughput: 43.73 Mbit/s

95th percentile per-packet one-way delay: 173.033 ms

Loss rate: 4.20%

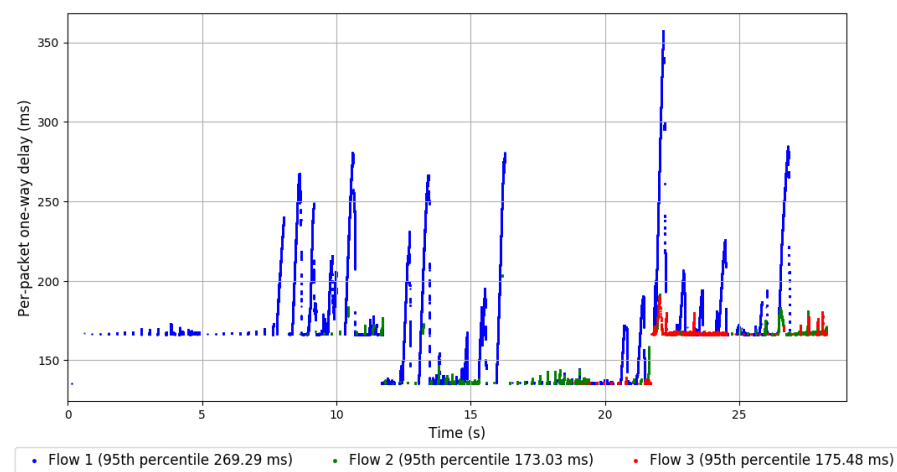
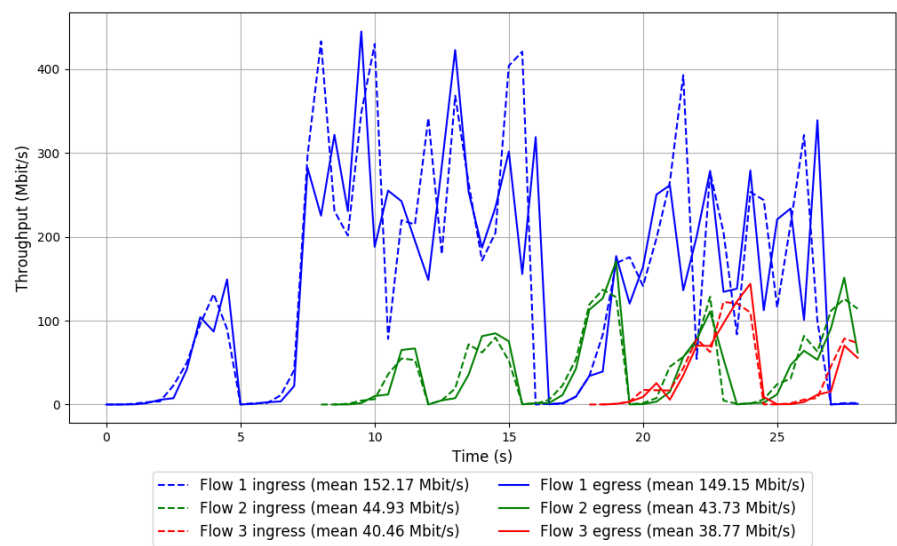
-- Flow 3:

Average throughput: 38.77 Mbit/s

95th percentile per-packet one-way delay: 175.477 ms

Loss rate: 6.93%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-11-22 03:38:44

End at: 2017-11-22 03:39:14

Below is generated by plot.py at 2017-11-22 07:21:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.35 Mbit/s

95th percentile per-packet one-way delay: 242.210 ms

Loss rate: 1.96%

-- Flow 1:

Average throughput: 202.04 Mbit/s

95th percentile per-packet one-way delay: 206.345 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 178.17 Mbit/s

95th percentile per-packet one-way delay: 272.314 ms

Loss rate: 4.33%

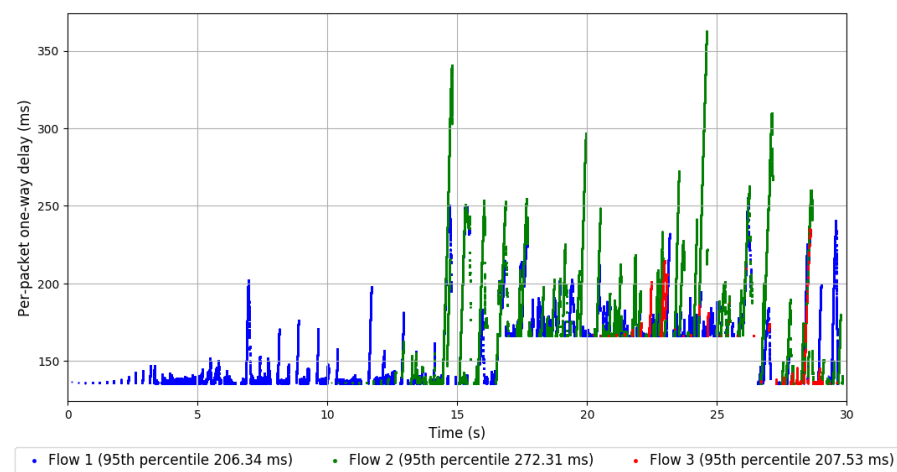
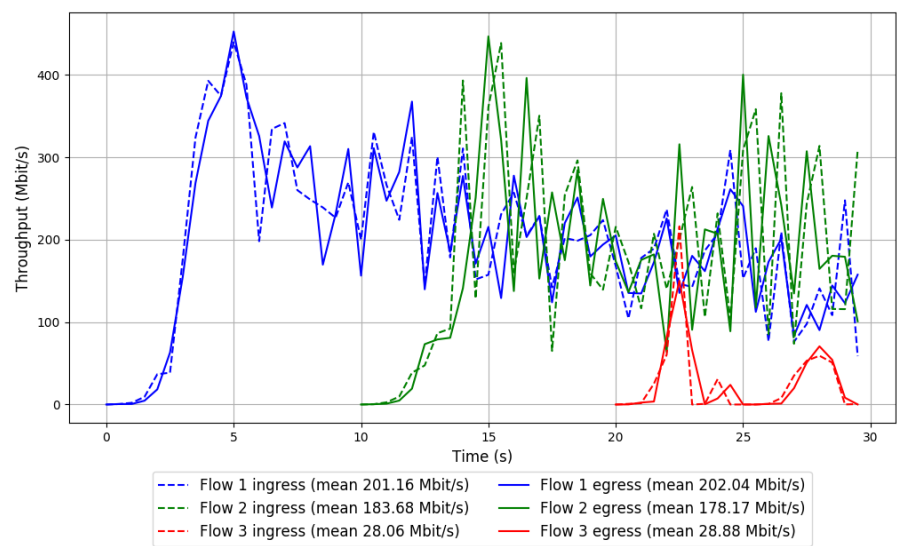
-- Flow 3:

Average throughput: 28.88 Mbit/s

95th percentile per-packet one-way delay: 207.533 ms

Loss rate: 0.30%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-11-22 03:52:19

End at: 2017-11-22 03:52:49

Below is generated by plot.py at 2017-11-22 07:21:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.50 Mbit/s

95th percentile per-packet one-way delay: 310.434 ms

Loss rate: 8.00%

-- Flow 1:

Average throughput: 52.89 Mbit/s

95th percentile per-packet one-way delay: 193.456 ms

Loss rate: 2.72%

-- Flow 2:

Average throughput: 158.52 Mbit/s

95th percentile per-packet one-way delay: 302.435 ms

Loss rate: 8.74%

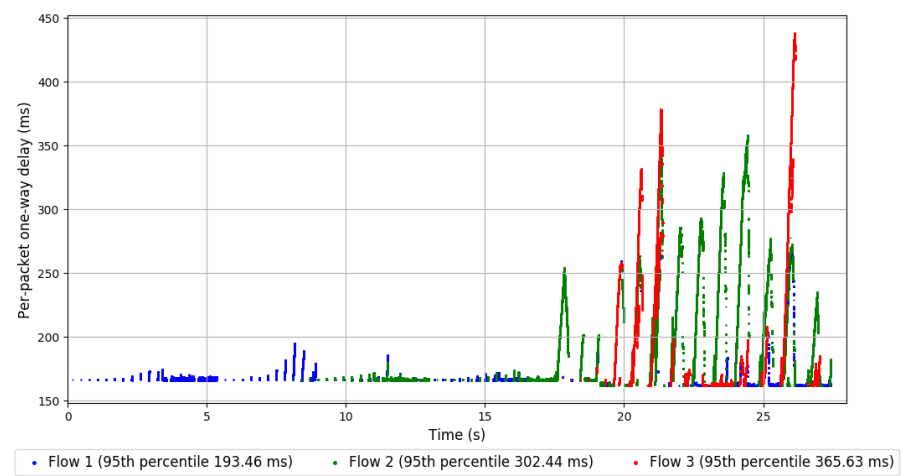
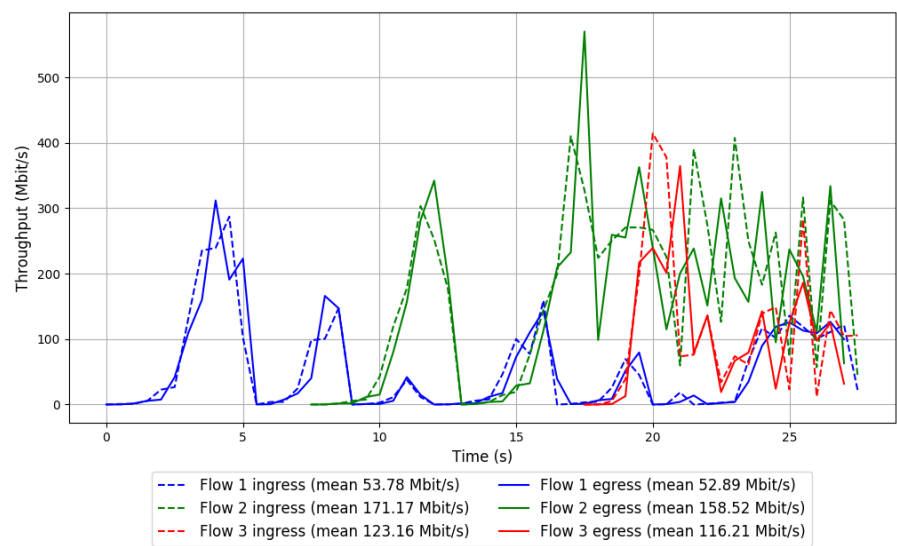
-- Flow 3:

Average throughput: 116.21 Mbit/s

95th percentile per-packet one-way delay: 365.631 ms

Loss rate: 12.32%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-11-22 04:05:35

End at: 2017-11-22 04:06:05

Below is generated by plot.py at 2017-11-22 07:21:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.07 Mbit/s

95th percentile per-packet one-way delay: 188.297 ms

Loss rate: 4.22%

-- Flow 1:

Average throughput: 77.23 Mbit/s

95th percentile per-packet one-way delay: 183.727 ms

Loss rate: 3.48%

-- Flow 2:

Average throughput: 53.82 Mbit/s

95th percentile per-packet one-way delay: 188.796 ms

Loss rate: 5.54%

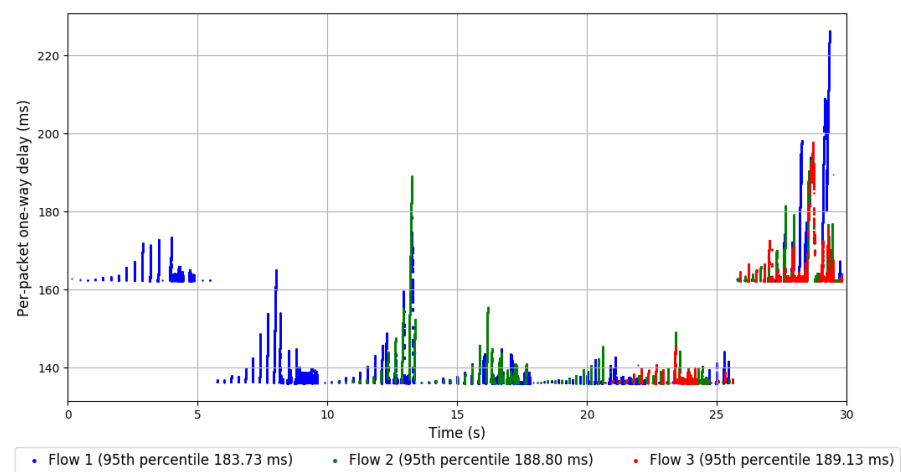
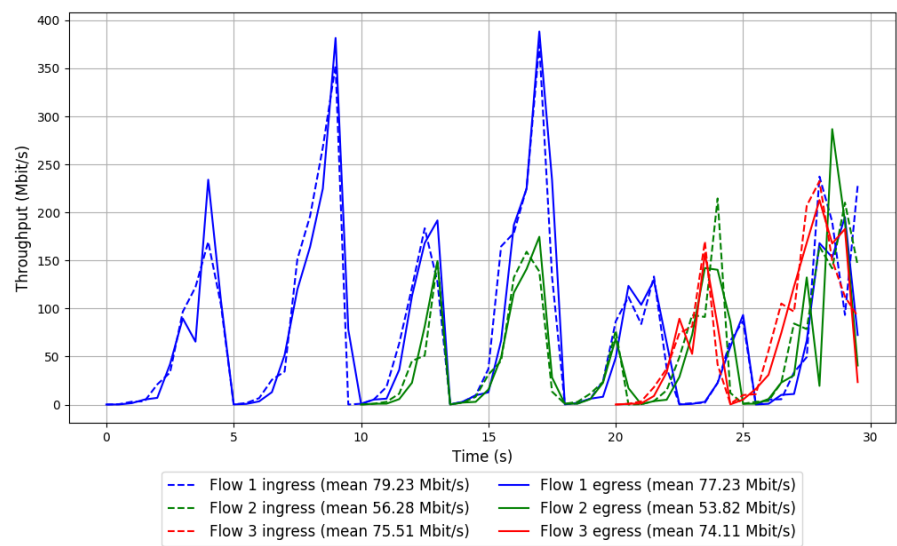
-- Flow 3:

Average throughput: 74.11 Mbit/s

95th percentile per-packet one-way delay: 189.135 ms

Loss rate: 4.56%

Run 9: Report of Verus — Data Link

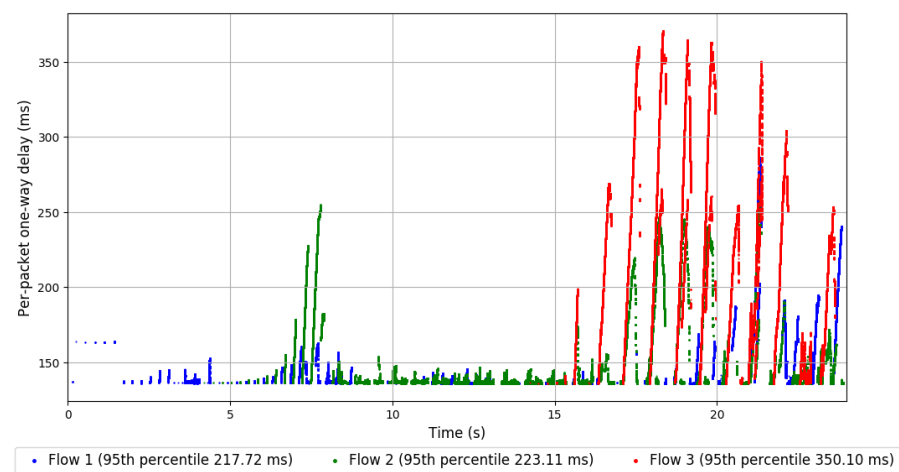
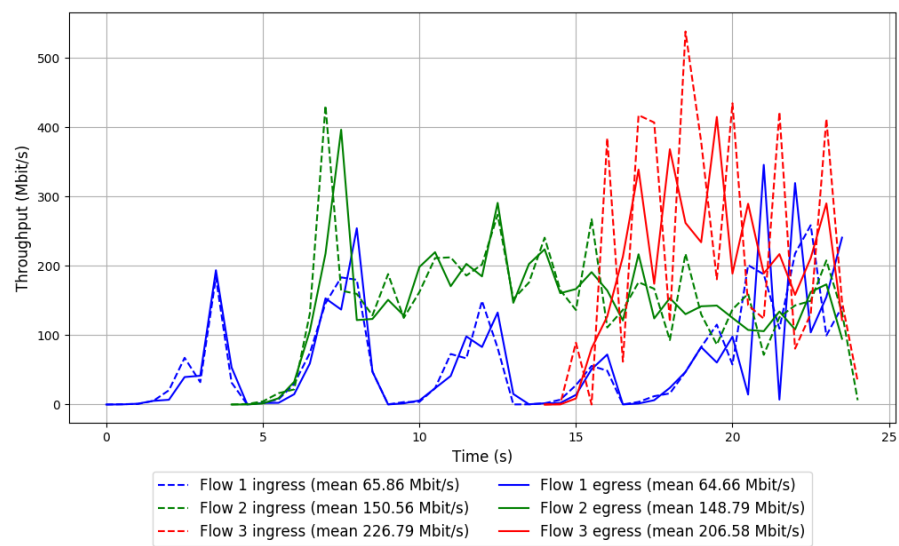


Run 10: Statistics of Verus

Start at: 2017-11-22 04:19:03

End at: 2017-11-22 04:19:33

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-11-22 02:13:41

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

Below is generated by plot.py at 2017-11-22 07:21:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.16 Mbit/s

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

Loss rate: 1.74%

-- Flow 1:

Average throughput: 69.16 Mbit/s

95th percentile per-packet one-way delay: 136.708 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 51.47 Mbit/s

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

Loss rate: 0.99%

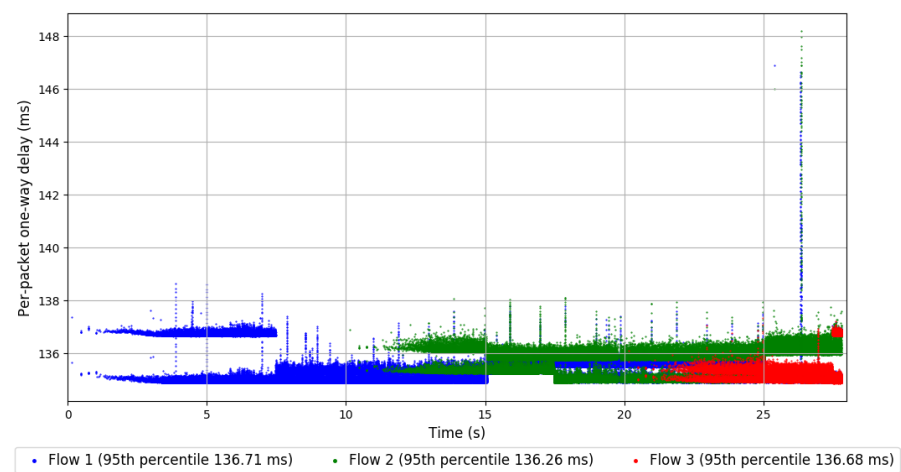
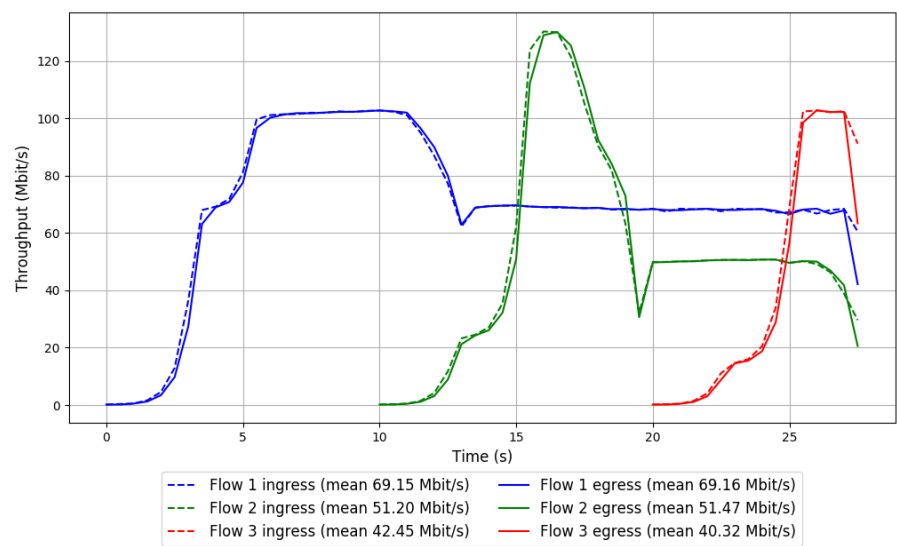
-- Flow 3:

Average throughput: 40.32 Mbit/s

95th percentile per-packet one-way delay: 136.682 ms

Loss rate: 8.29%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-11-22 02:27:37

End at: 2017-11-22 02:28:07

Below is generated by plot.py at 2017-11-22 07:21:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.03 Mbit/s

95th percentile per-packet one-way delay: 137.051 ms

Loss rate: 2.06%

-- Flow 1:

Average throughput: 61.13 Mbit/s

95th percentile per-packet one-way delay: 136.902 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 52.30 Mbit/s

95th percentile per-packet one-way delay: 137.171 ms

Loss rate: 0.66%

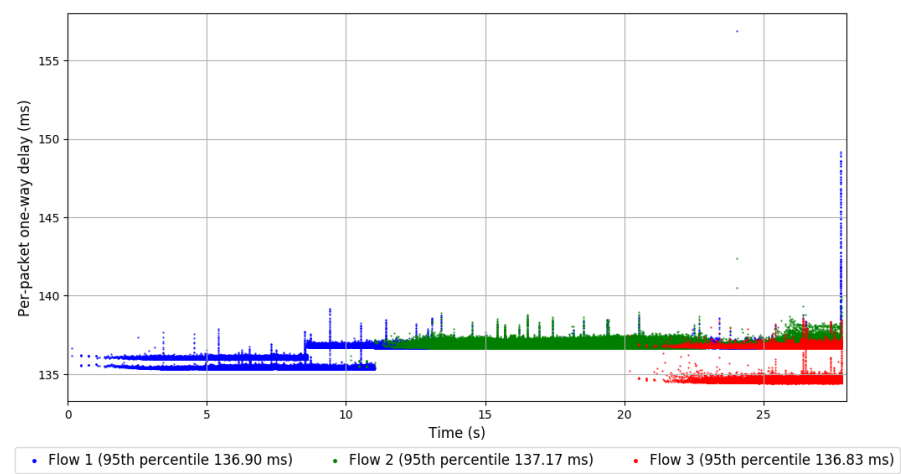
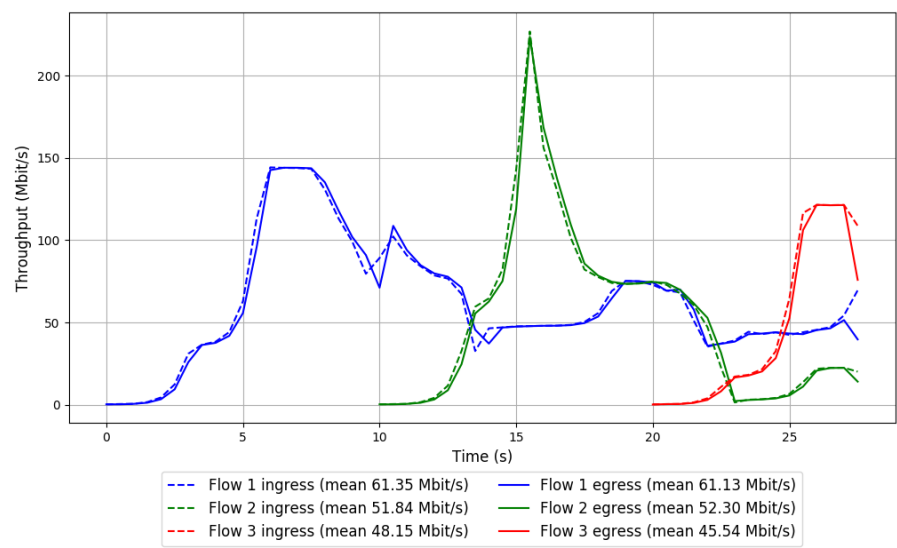
-- Flow 3:

Average throughput: 45.54 Mbit/s

95th percentile per-packet one-way delay: 136.833 ms

Loss rate: 8.70%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-11-22 02:41:43

End at: 2017-11-22 02:42:13

Below is generated by plot.py at 2017-11-22 07:21:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.44 Mbit/s

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

Loss rate: 1.83%

-- Flow 1:

Average throughput: 60.26 Mbit/s

95th percentile per-packet one-way delay: 136.714 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 49.90 Mbit/s

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

Loss rate: 2.02%

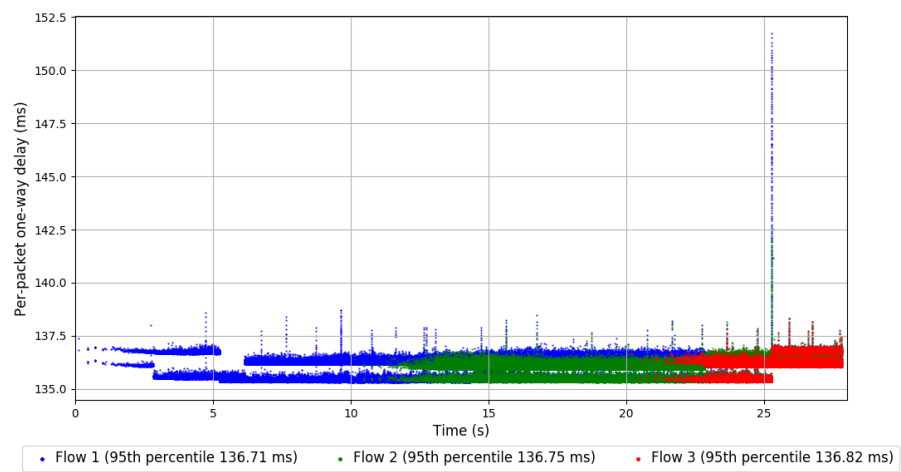
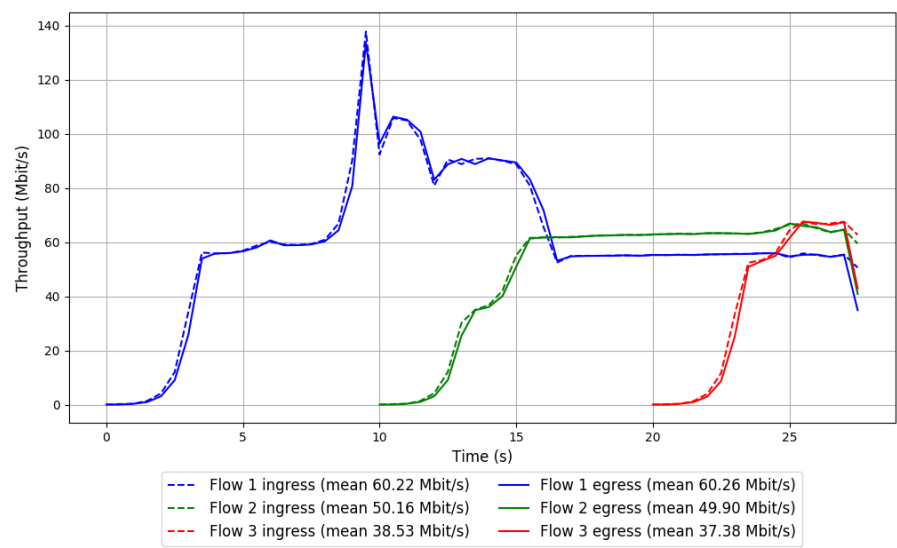
-- Flow 3:

Average throughput: 37.38 Mbit/s

95th percentile per-packet one-way delay: 136.816 ms

Loss rate: 6.31%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-11-22 02:55:53

End at: 2017-11-22 02:56:23

Below is generated by plot.py at 2017-11-22 07:21:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.87 Mbit/s

95th percentile per-packet one-way delay: 136.338 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 62.72 Mbit/s

95th percentile per-packet one-way delay: 136.334 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 62.66 Mbit/s

95th percentile per-packet one-way delay: 136.339 ms

Loss rate: 1.96%

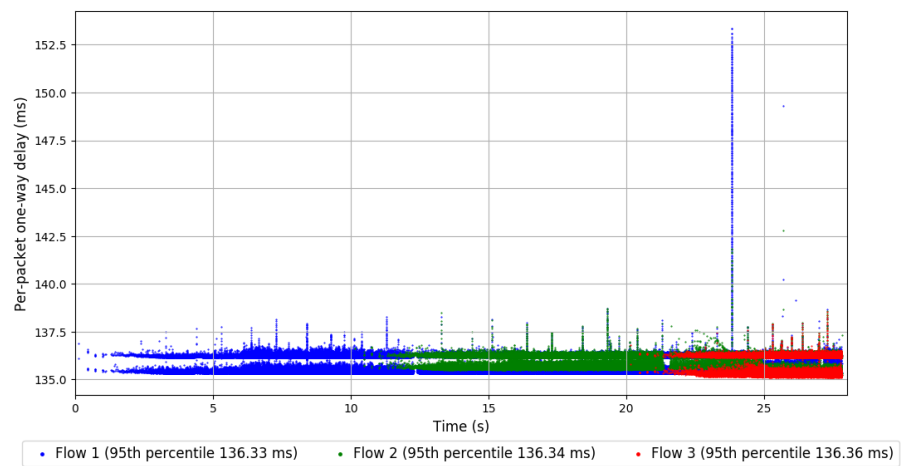
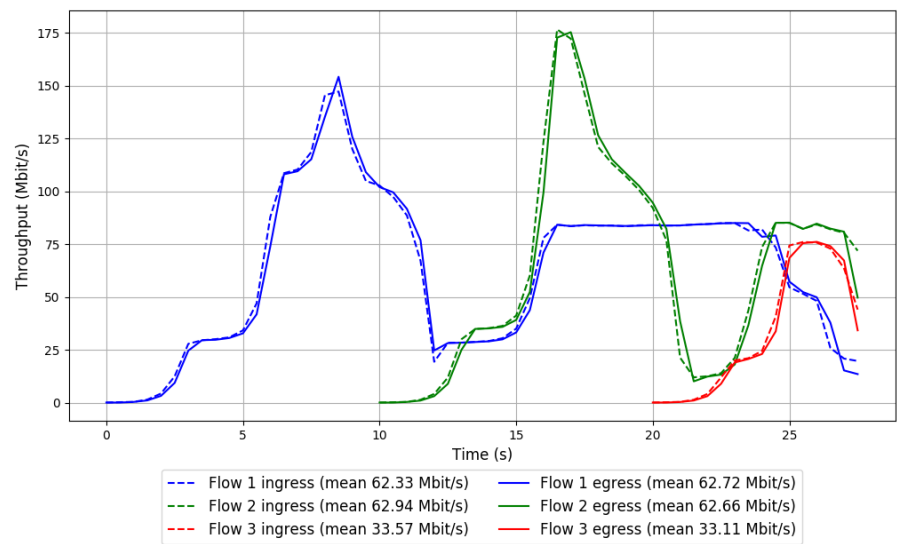
-- Flow 3:

Average throughput: 33.11 Mbit/s

95th percentile per-packet one-way delay: 136.357 ms

Loss rate: 4.77%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-11-22 03:09:25

End at: 2017-11-22 03:09:55

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.05 Mbit/s

95th percentile per-packet one-way delay: 166.382 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 54.82 Mbit/s

95th percentile per-packet one-way delay: 166.425 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 62.01 Mbit/s

95th percentile per-packet one-way delay: 136.385 ms

Loss rate: 0.00%

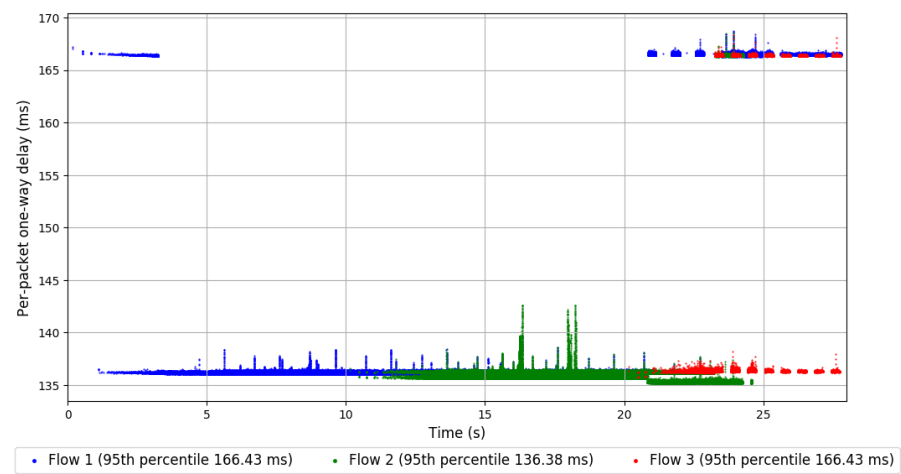
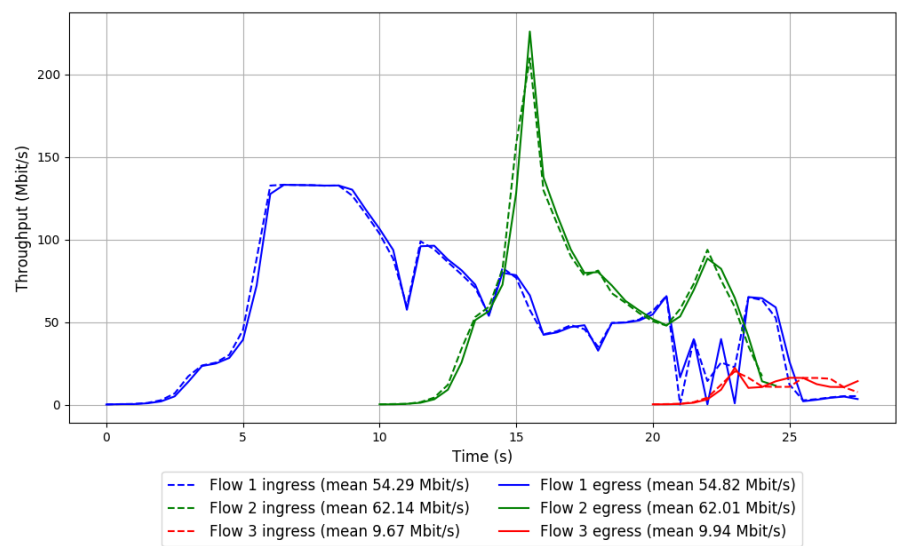
-- Flow 3:

Average throughput: 9.94 Mbit/s

95th percentile per-packet one-way delay: 166.433 ms

Loss rate: 1.25%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-11-22 03:23:11

End at: 2017-11-22 03:23:41

Below is generated by plot.py at 2017-11-22 07:22:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.16 Mbit/s

95th percentile per-packet one-way delay: 166.307 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 37.20 Mbit/s

95th percentile per-packet one-way delay: 166.326 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.52 Mbit/s

95th percentile per-packet one-way delay: 135.780 ms

Loss rate: 0.00%

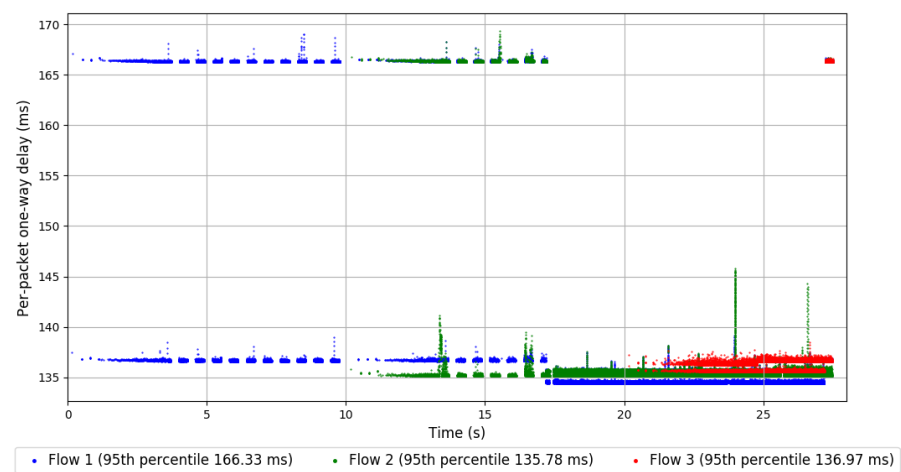
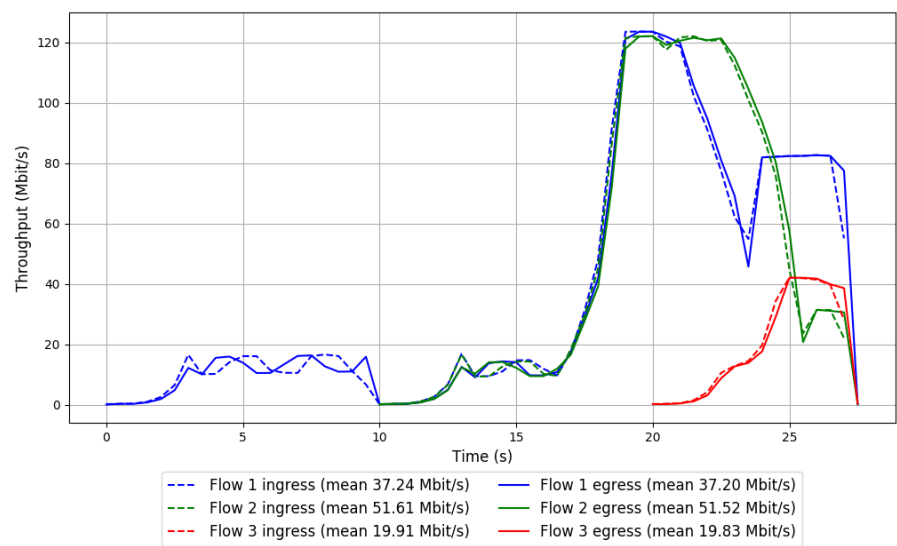
-- Flow 3:

Average throughput: 19.83 Mbit/s

95th percentile per-packet one-way delay: 136.967 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-11-22 03:36:56

End at: 2017-11-22 03:37:26

Below is generated by plot.py at 2017-11-22 07:22:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.85 Mbit/s

95th percentile per-packet one-way delay: 137.022 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 61.05 Mbit/s

95th percentile per-packet one-way delay: 136.959 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 29.98 Mbit/s

95th percentile per-packet one-way delay: 137.150 ms

Loss rate: 0.94%

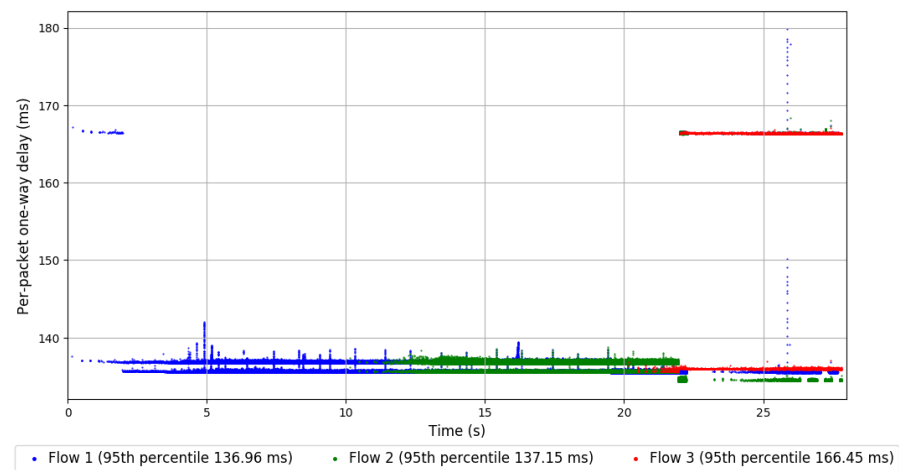
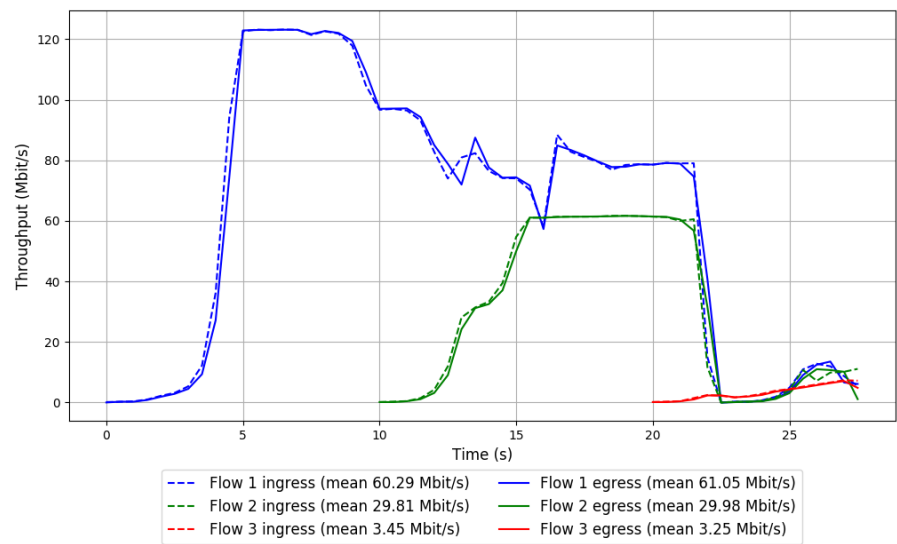
-- Flow 3:

Average throughput: 3.25 Mbit/s

95th percentile per-packet one-way delay: 166.446 ms

Loss rate: 8.95%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-11-22 03:50:40

End at: 2017-11-22 03:51:10

Below is generated by plot.py at 2017-11-22 07:22:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 162.333 ms

Loss rate: 6.18%

-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 166.792 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 162.465 ms

Loss rate: 0.00%

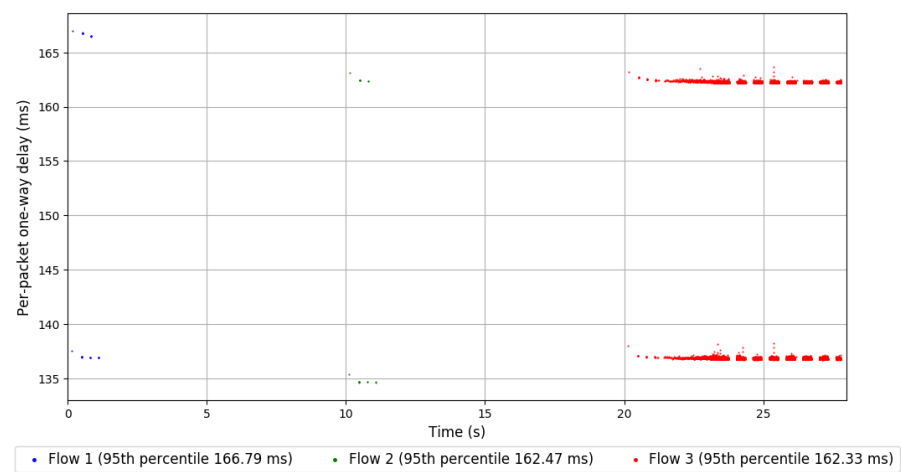
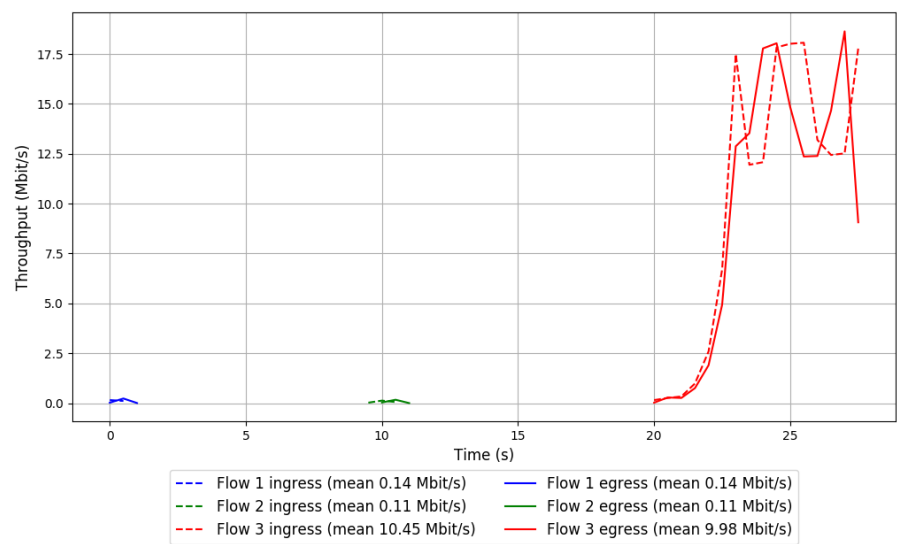
-- Flow 3:

Average throughput: 9.98 Mbit/s

95th percentile per-packet one-way delay: 162.332 ms

Loss rate: 6.20%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-11-22 04:03:51

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

Below is generated by plot.py at 2017-11-22 07:22:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.46 Mbit/s

95th percentile per-packet one-way delay: 162.249 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 44.99 Mbit/s

95th percentile per-packet one-way delay: 162.218 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 0.12 Mbit/s

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

Loss rate: 0.00%

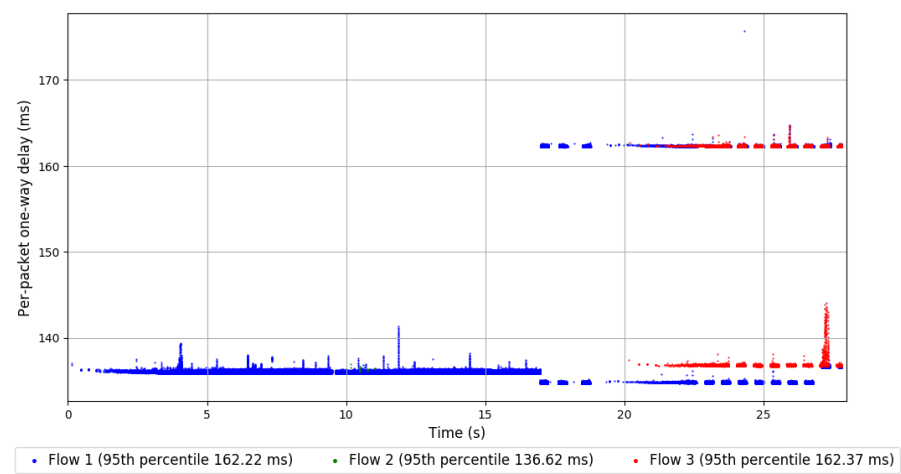
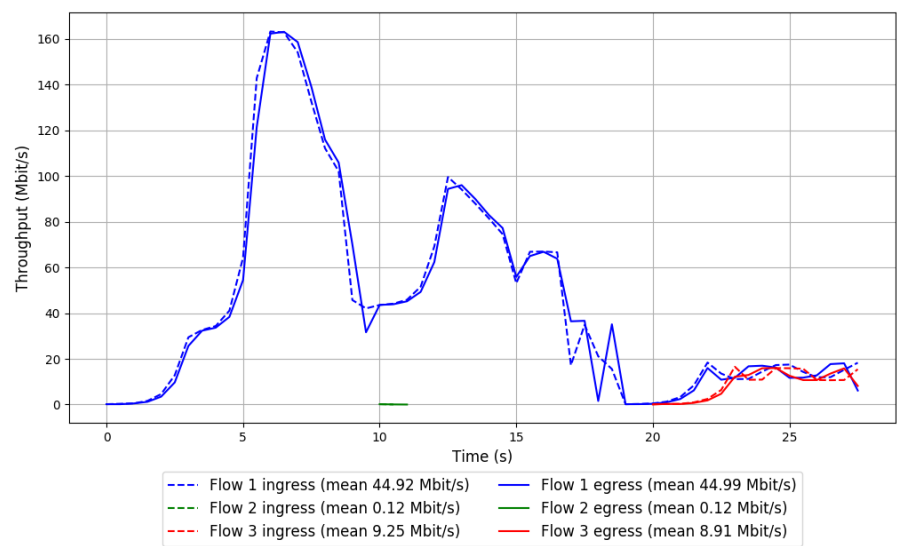
-- Flow 3:

Average throughput: 8.91 Mbit/s

95th percentile per-packet one-way delay: 162.370 ms

Loss rate: 5.26%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-11-22 04:17:15

End at: 2017-11-22 04:17:45

Below is generated by plot.py at 2017-11-22 07:23:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.85 Mbit/s

95th percentile per-packet one-way delay: 162.984 ms

Loss rate: 2.97%

-- Flow 1:

Average throughput: 48.14 Mbit/s

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

Loss rate: 1.91%

-- Flow 2:

Average throughput: 32.25 Mbit/s

95th percentile per-packet one-way delay: 163.026 ms

Loss rate: 3.88%

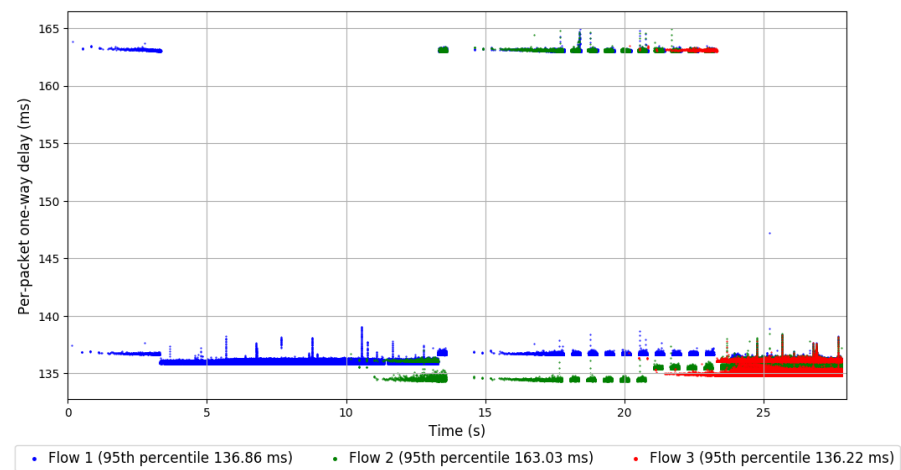
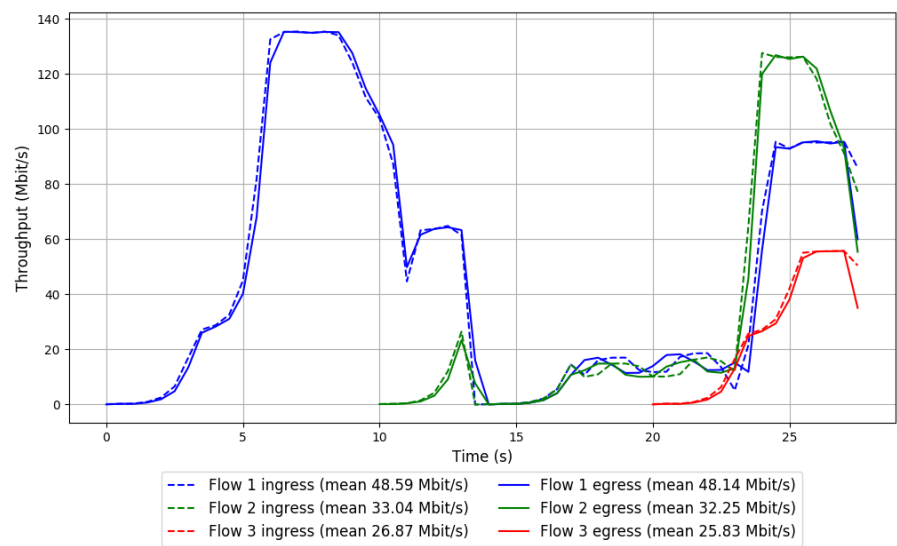
-- Flow 3:

Average throughput: 25.83 Mbit/s

95th percentile per-packet one-way delay: 136.225 ms

Loss rate: 7.17%

Run 10: Report of Copa — Data Link

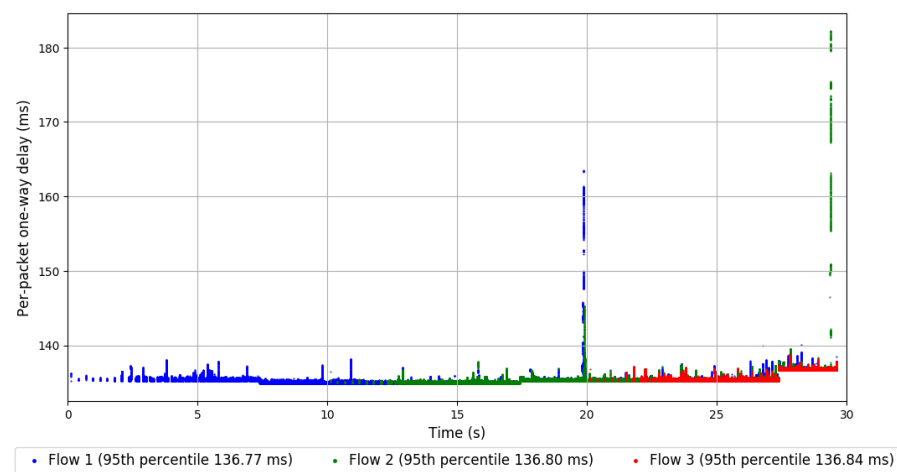
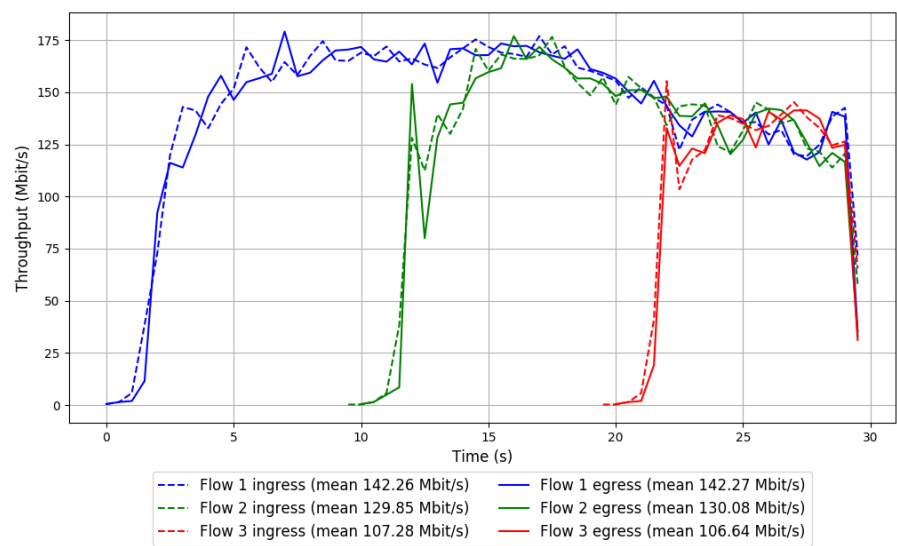


```
Run 1: Statistics of Indigo

Start at: 2017-11-22 02:03:23
End at: 2017-11-22 02:03:53

# Below is generated by plot.py at 2017-11-22 07:25:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 262.66 Mbit/s
95th percentile per-packet one-way delay: 136.796 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 142.27 Mbit/s
95th percentile per-packet one-way delay: 136.767 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 130.08 Mbit/s
95th percentile per-packet one-way delay: 136.797 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 106.64 Mbit/s
95th percentile per-packet one-way delay: 136.838 ms
Loss rate: 3.37%
```


Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-11-22 02:17:39

End at: 2017-11-22 02:18:09

Below is generated by plot.py at 2017-11-22 07:25:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 266.83 Mbit/s

95th percentile per-packet one-way delay: 136.934 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 146.32 Mbit/s

95th percentile per-packet one-way delay: 136.855 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 132.28 Mbit/s

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

Loss rate: 1.55%

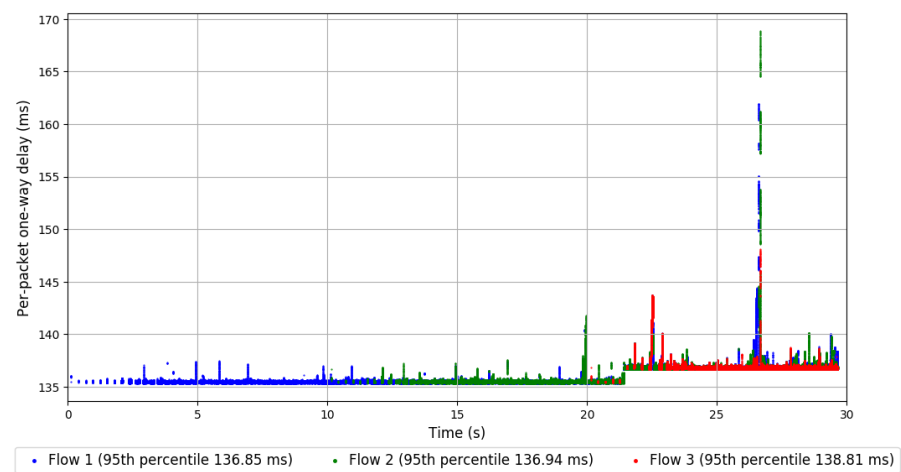
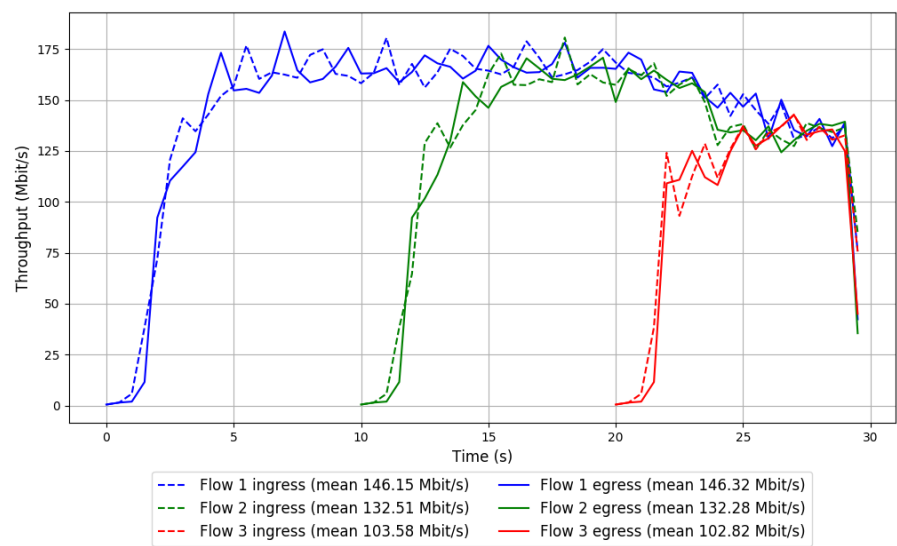
-- Flow 3:

Average throughput: 102.82 Mbit/s

95th percentile per-packet one-way delay: 138.813 ms

Loss rate: 3.49%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-11-22 02:31:28

End at: 2017-11-22 02:31:58

Below is generated by plot.py at 2017-11-22 07:26:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 270.15 Mbit/s

95th percentile per-packet one-way delay: 136.928 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 146.18 Mbit/s

95th percentile per-packet one-way delay: 136.867 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 135.07 Mbit/s

95th percentile per-packet one-way delay: 136.976 ms

Loss rate: 1.44%

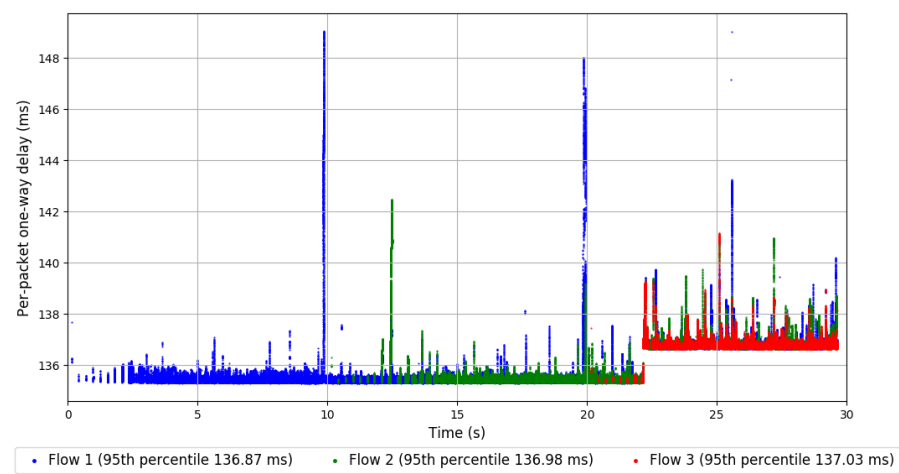
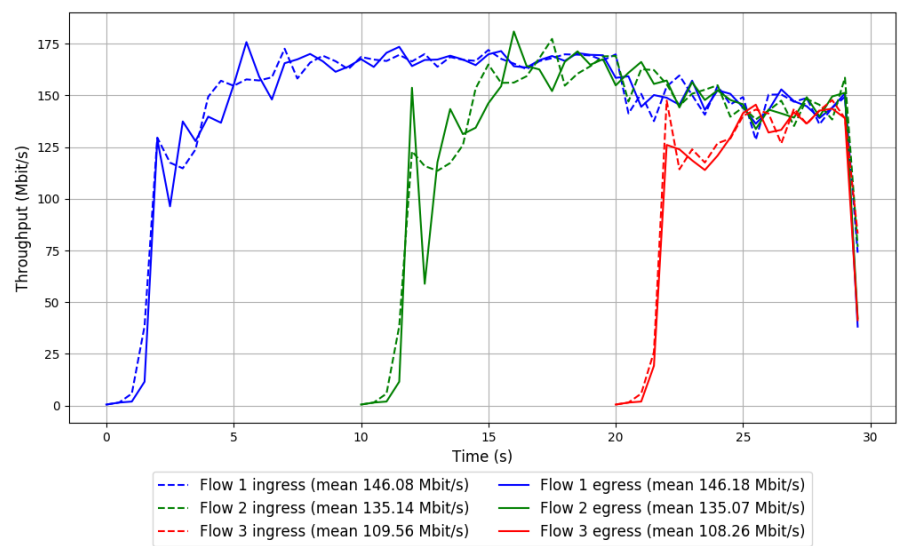
-- Flow 3:

Average throughput: 108.26 Mbit/s

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

Loss rate: 3.89%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-11-22 02:45:33

End at: 2017-11-22 02:46:03

Below is generated by plot.py at 2017-11-22 07:26:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 264.64 Mbit/s

95th percentile per-packet one-way delay: 135.647 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 142.39 Mbit/s

95th percentile per-packet one-way delay: 135.585 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 132.34 Mbit/s

95th percentile per-packet one-way delay: 135.856 ms

Loss rate: 1.45%

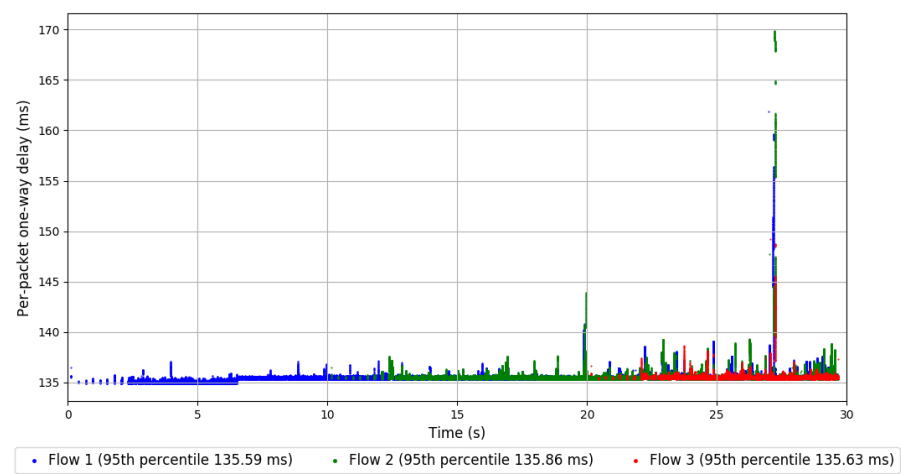
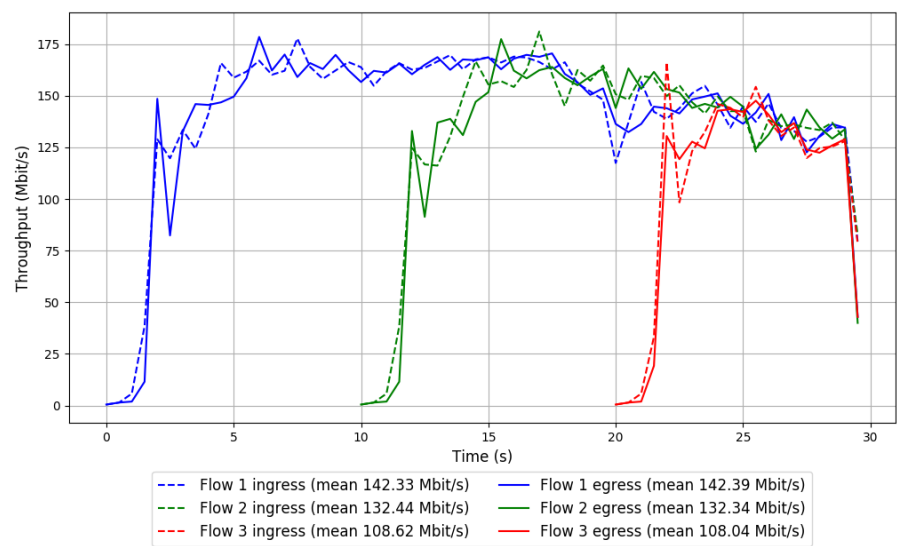
-- Flow 3:

Average throughput: 108.04 Mbit/s

95th percentile per-packet one-way delay: 135.627 ms

Loss rate: 3.27%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-11-22 02:59:48

End at: 2017-11-22 03:00:18

Below is generated by plot.py at 2017-11-22 07:26:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 158.15 Mbit/s

95th percentile per-packet one-way delay: 166.559 ms

Loss rate: 2.09%

-- Flow 1:

Average throughput: 35.40 Mbit/s

95th percentile per-packet one-way delay: 166.563 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 132.54 Mbit/s

95th percentile per-packet one-way delay: 166.532 ms

Loss rate: 1.76%

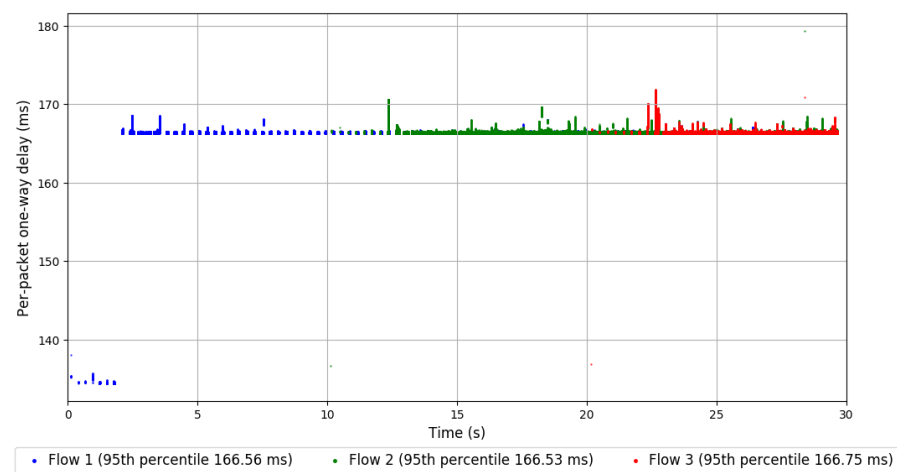
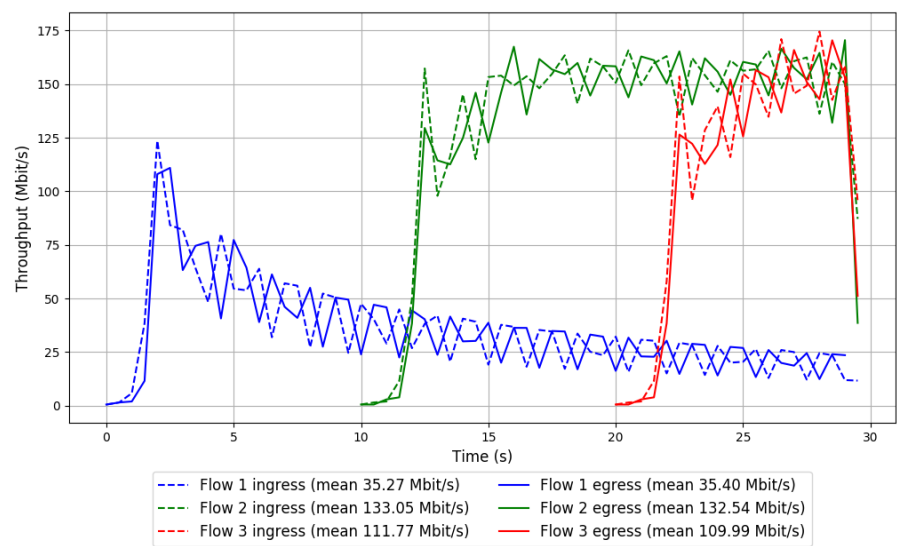
-- Flow 3:

Average throughput: 109.99 Mbit/s

95th percentile per-packet one-way delay: 166.753 ms

Loss rate: 4.37%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-11-22 03:13:12

End at: 2017-11-22 03:13:42

Below is generated by plot.py at 2017-11-22 07:26:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 259.32 Mbit/s

95th percentile per-packet one-way delay: 166.371 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 142.55 Mbit/s

95th percentile per-packet one-way delay: 166.401 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 123.45 Mbit/s

95th percentile per-packet one-way delay: 136.584 ms

Loss rate: 1.33%

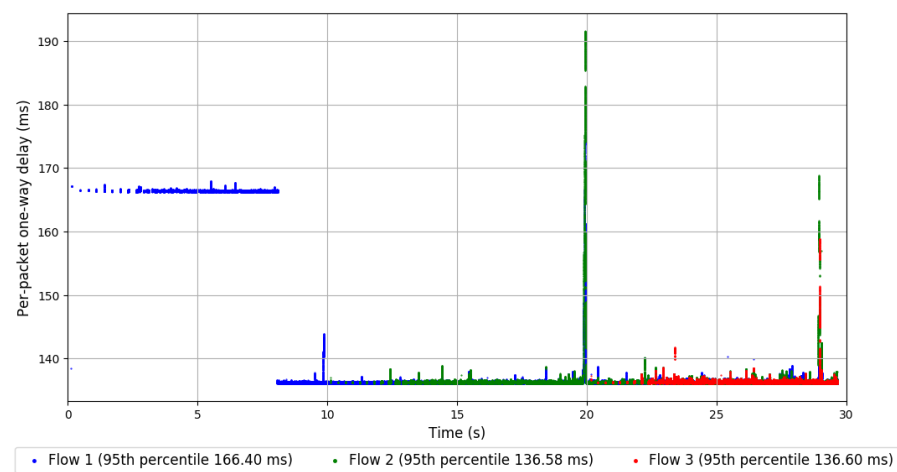
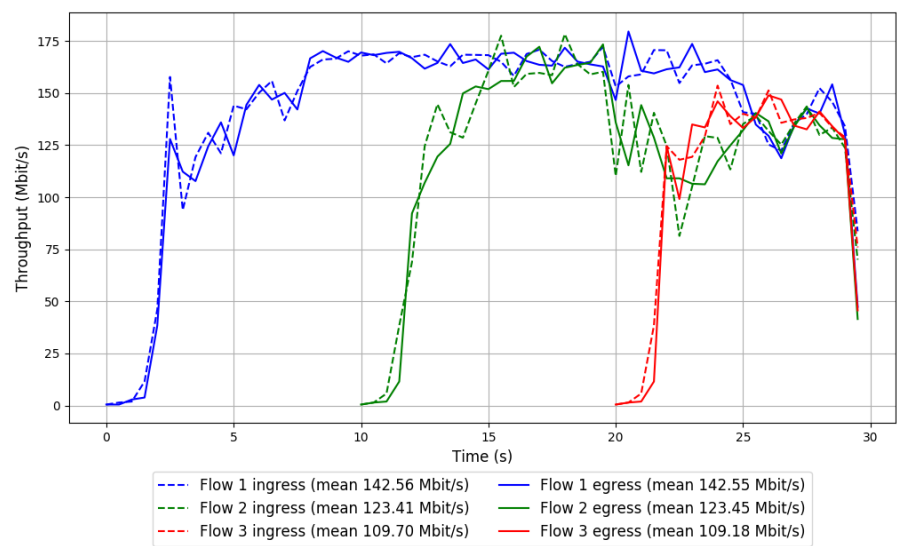
-- Flow 3:

Average throughput: 109.18 Mbit/s

95th percentile per-packet one-way delay: 136.604 ms

Loss rate: 3.25%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-11-22 03:27:00

End at: 2017-11-22 03:27:30

Below is generated by plot.py at 2017-11-22 07:26:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 222.32 Mbit/s

95th percentile per-packet one-way delay: 166.518 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 121.21 Mbit/s

95th percentile per-packet one-way delay: 166.459 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 101.30 Mbit/s

95th percentile per-packet one-way delay: 166.528 ms

Loss rate: 0.81%

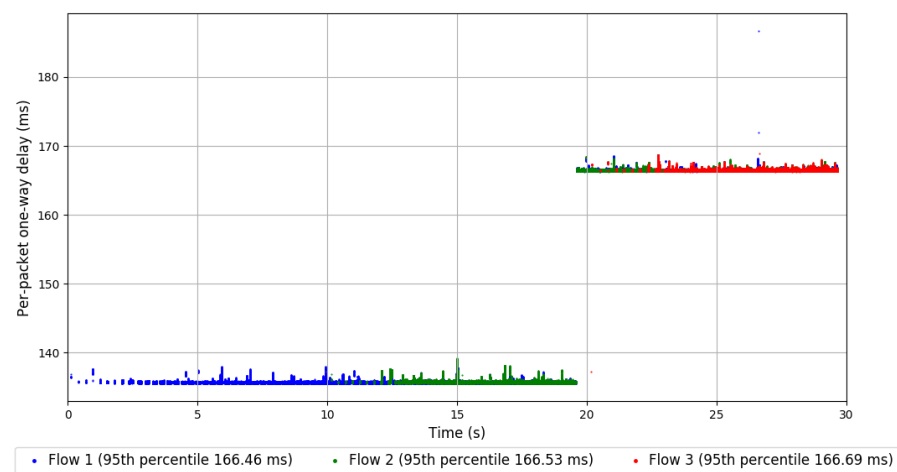
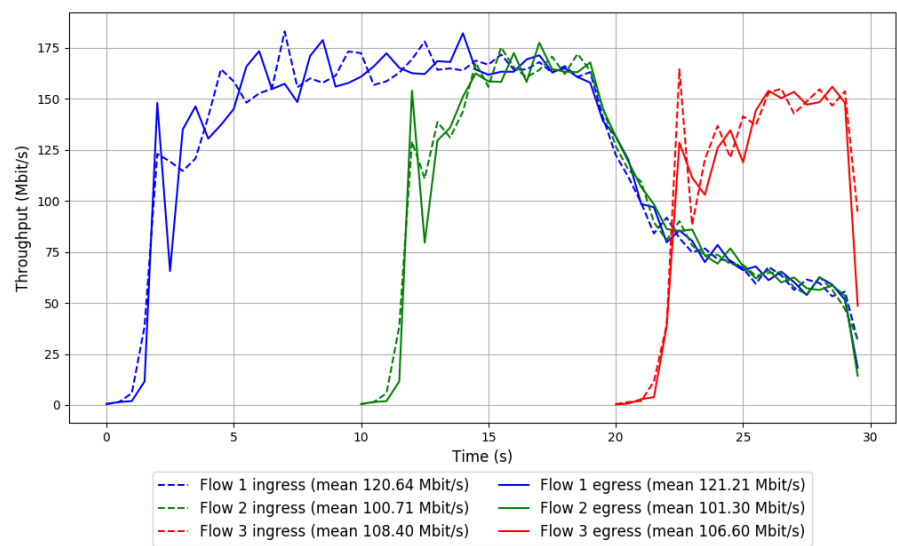
-- Flow 3:

Average throughput: 106.60 Mbit/s

95th percentile per-packet one-way delay: 166.693 ms

Loss rate: 4.46%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-11-22 03:41:00

End at: 2017-11-22 03:41:30

Below is generated by plot.py at 2017-11-22 07:26:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 217.66 Mbit/s

95th percentile per-packet one-way delay: 166.557 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 118.50 Mbit/s

95th percentile per-packet one-way delay: 166.526 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 100.65 Mbit/s

95th percentile per-packet one-way delay: 166.527 ms

Loss rate: 0.87%

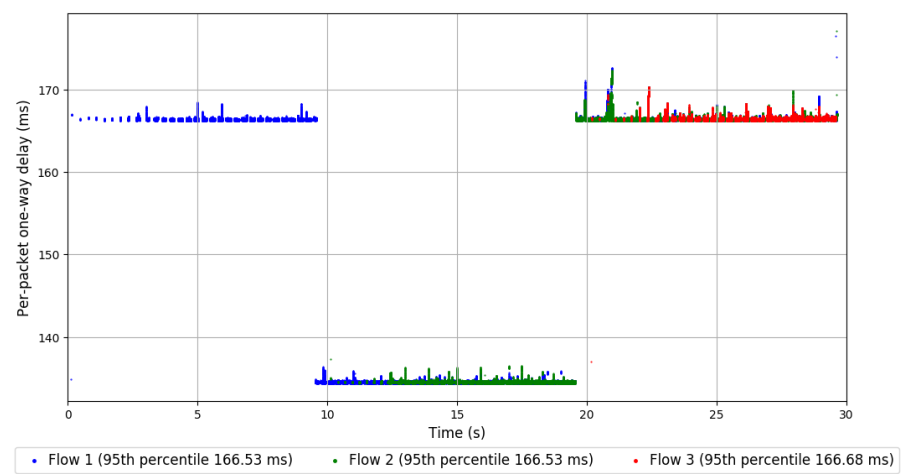
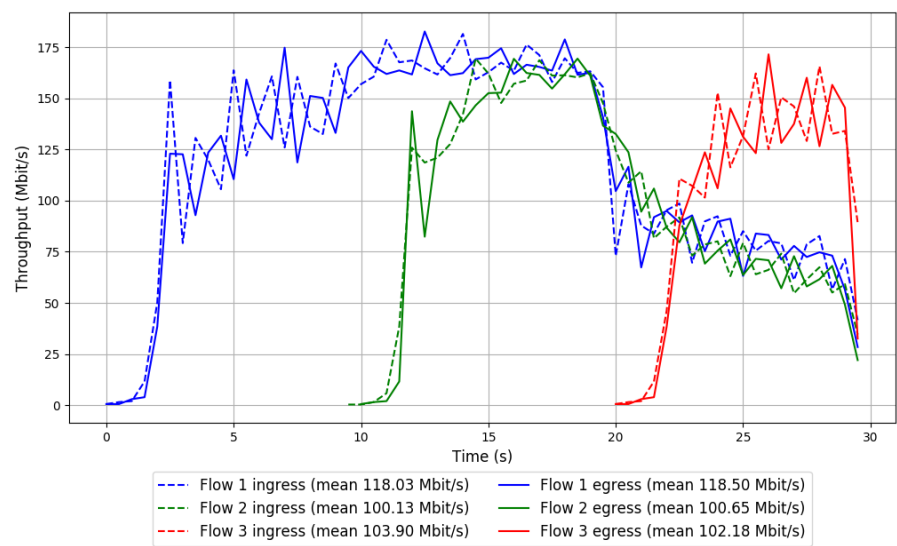
-- Flow 3:

Average throughput: 102.18 Mbit/s

95th percentile per-packet one-way delay: 166.679 ms

Loss rate: 4.43%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-11-22 03:54:24

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

Below is generated by plot.py at 2017-11-22 07:29:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 260.15 Mbit/s

95th percentile per-packet one-way delay: 162.383 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 137.74 Mbit/s

95th percentile per-packet one-way delay: 162.409 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 130.38 Mbit/s

95th percentile per-packet one-way delay: 162.360 ms

Loss rate: 1.55%

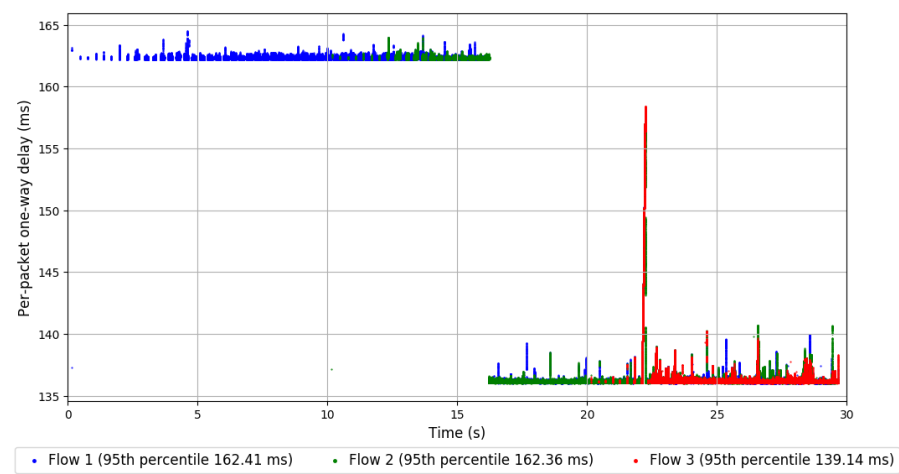
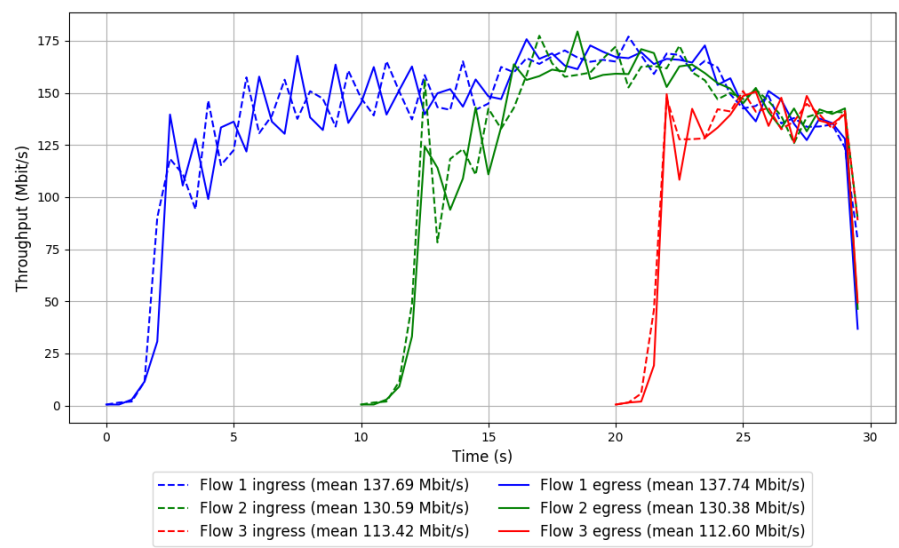
-- Flow 3:

Average throughput: 112.60 Mbit/s

95th percentile per-packet one-way delay: 139.143 ms

Loss rate: 3.51%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-11-22 04:07:34

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

Below is generated by plot.py at 2017-11-22 07:29:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 190.45 Mbit/s

95th percentile per-packet one-way delay: 162.433 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 69.72 Mbit/s

95th percentile per-packet one-way delay: 162.408 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 130.04 Mbit/s

95th percentile per-packet one-way delay: 162.426 ms

Loss rate: 1.54%

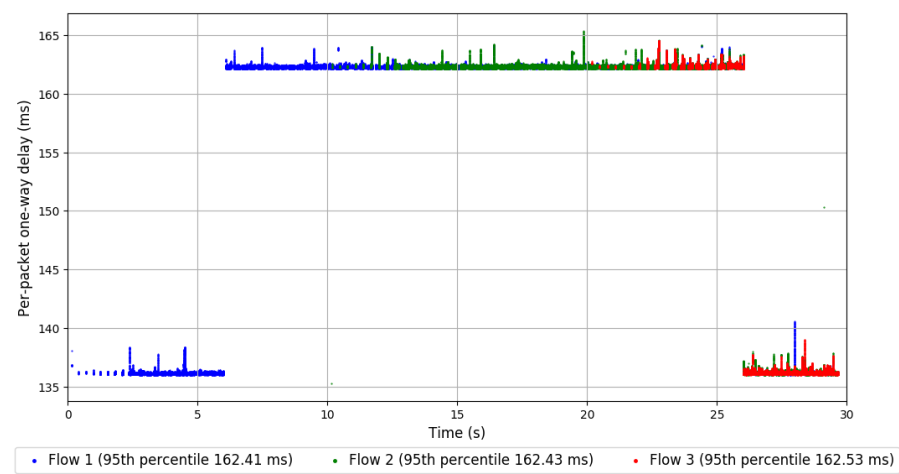
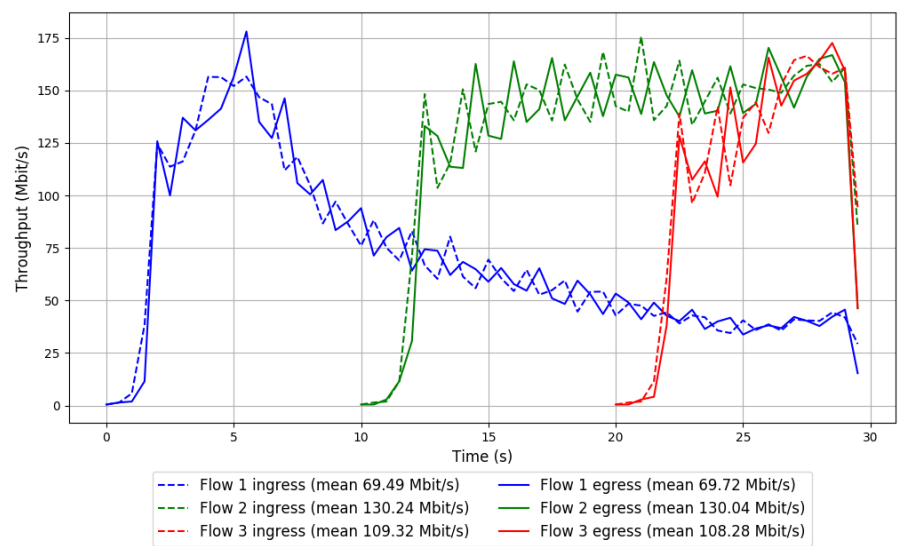
-- Flow 3:

Average throughput: 108.28 Mbit/s

95th percentile per-packet one-way delay: 162.525 ms

Loss rate: 3.98%

Run 10: Report of Indigo — Data Link

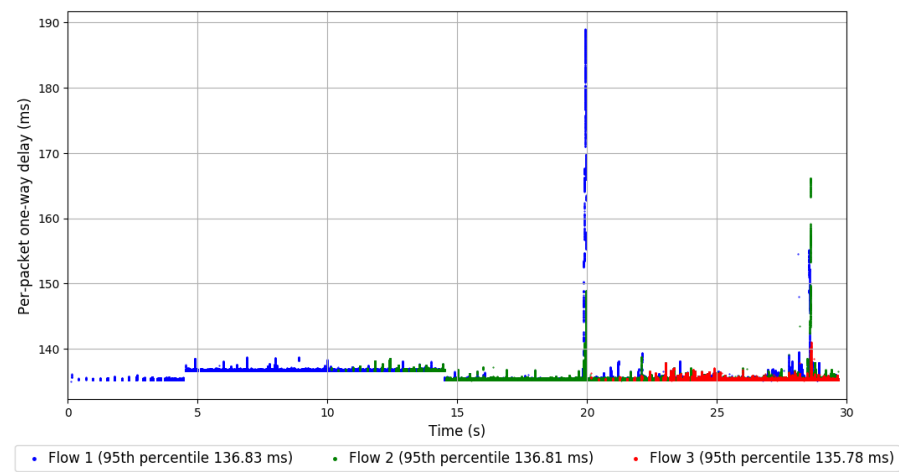
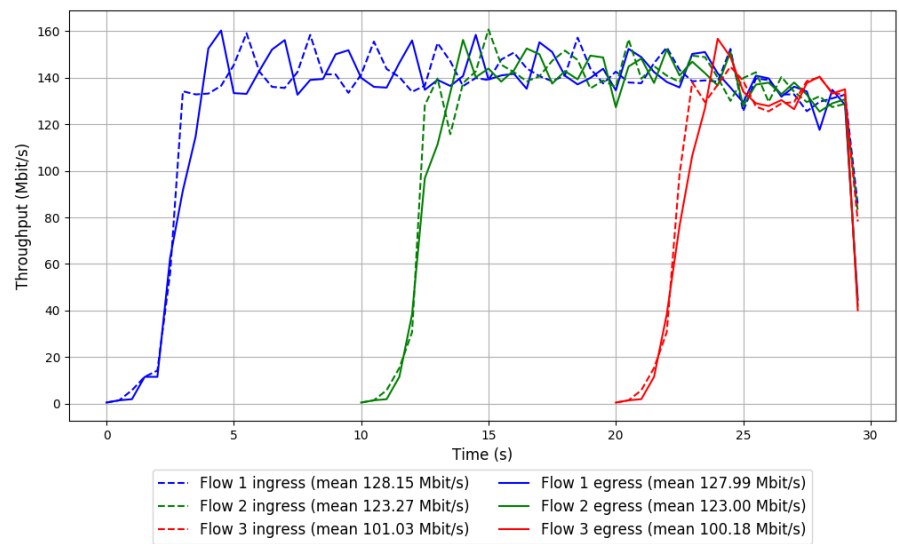


```
Run 1: Statistics of Indigo-calib

Start at: 2017-11-22 02:10:35
End at: 2017-11-22 02:11:05

# Below is generated by plot.py at 2017-11-22 07:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.50 Mbit/s
95th percentile per-packet one-way delay: 136.816 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 127.99 Mbit/s
95th percentile per-packet one-way delay: 136.829 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 123.00 Mbit/s
95th percentile per-packet one-way delay: 136.809 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 100.18 Mbit/s
95th percentile per-packet one-way delay: 135.781 ms
Loss rate: 3.62%
```

Run 1: Report of Indigo-calib — Data Link

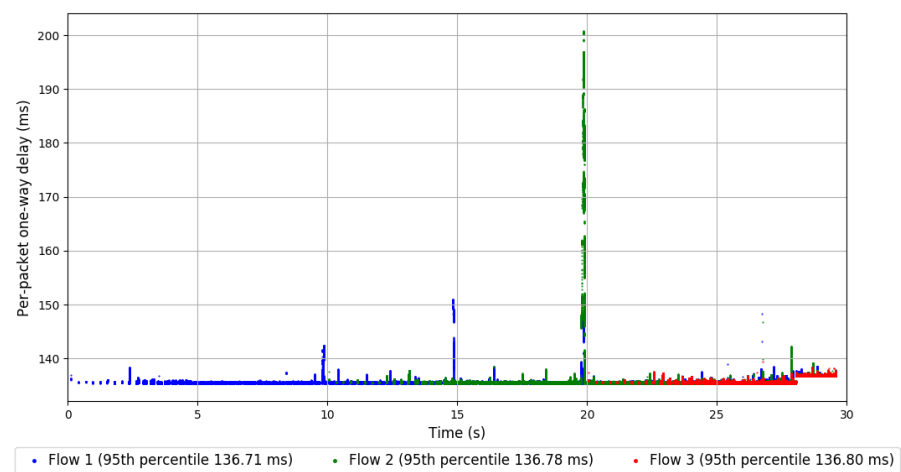
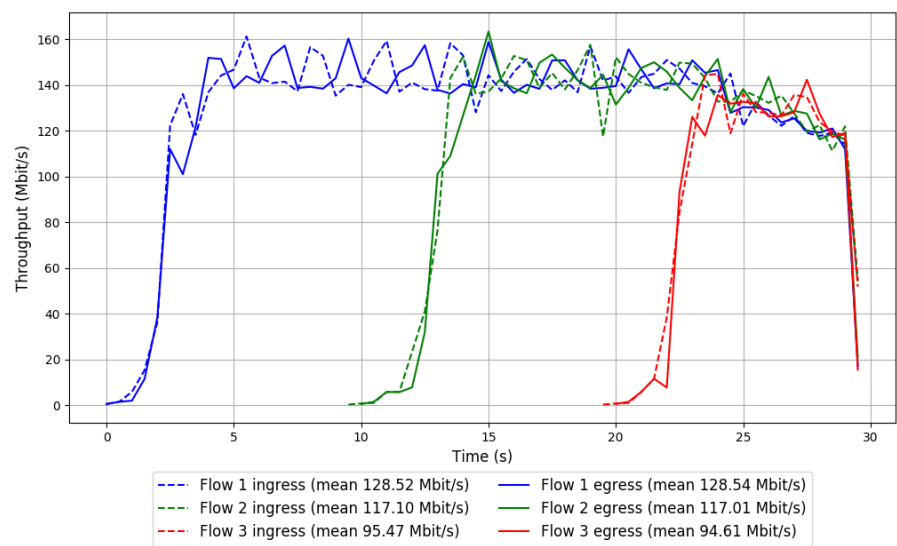


```
Run 2: Statistics of Indigo-calib

Start at: 2017-11-22 02:24:32
End at: 2017-11-22 02:25:02

# Below is generated by plot.py at 2017-11-22 07:30:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.66 Mbit/s
95th percentile per-packet one-way delay: 136.761 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 128.54 Mbit/s
95th percentile per-packet one-way delay: 136.711 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 117.01 Mbit/s
95th percentile per-packet one-way delay: 136.775 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 94.61 Mbit/s
95th percentile per-packet one-way delay: 136.796 ms
Loss rate: 3.64%
```

Run 2: Report of Indigo-calib — Data Link



Run 3: Statistics of Indigo-calib

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

End at: 2017-11-22 02:39:08

Below is generated by plot.py at 2017-11-22 07:30:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 239.61 Mbit/s

95th percentile per-packet one-way delay: 136.820 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 128.73 Mbit/s

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

Loss rate: 1.02%

-- Flow 2:

Average throughput: 117.54 Mbit/s

95th percentile per-packet one-way delay: 136.842 ms

Loss rate: 1.54%

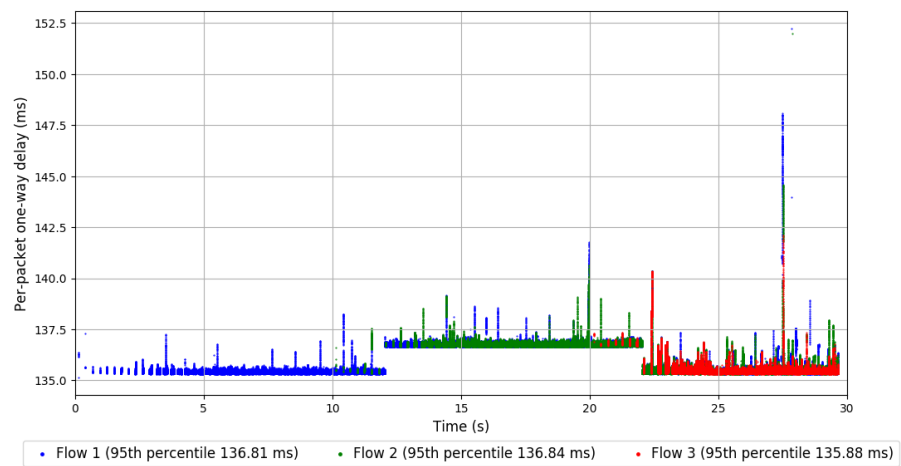
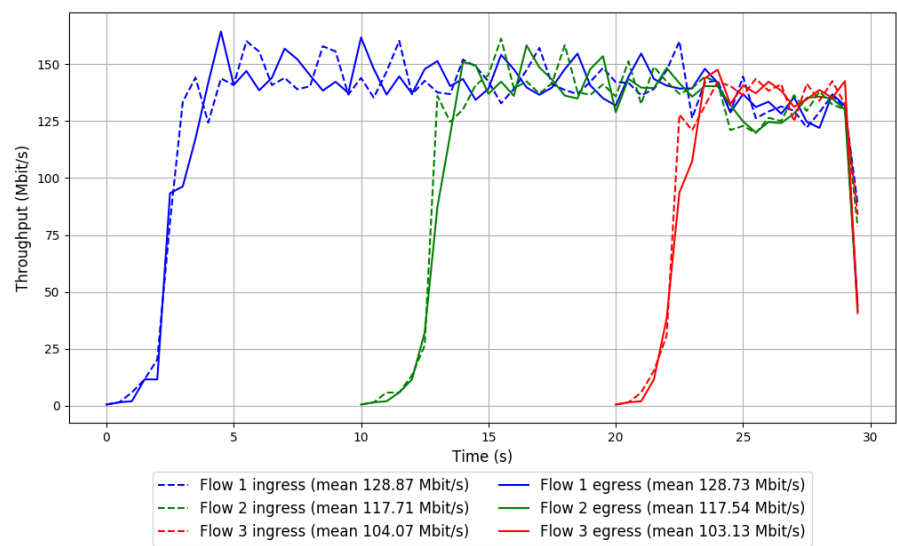
-- Flow 3:

Average throughput: 103.13 Mbit/s

95th percentile per-packet one-way delay: 135.877 ms

Loss rate: 3.70%

Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-11-22 02:52:51

End at: 2017-11-22 02:53:21

Below is generated by plot.py at 2017-11-22 07:30:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 243.69 Mbit/s

95th percentile per-packet one-way delay: 136.447 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 128.99 Mbit/s

95th percentile per-packet one-way delay: 136.410 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 123.76 Mbit/s

95th percentile per-packet one-way delay: 136.455 ms

Loss rate: 1.53%

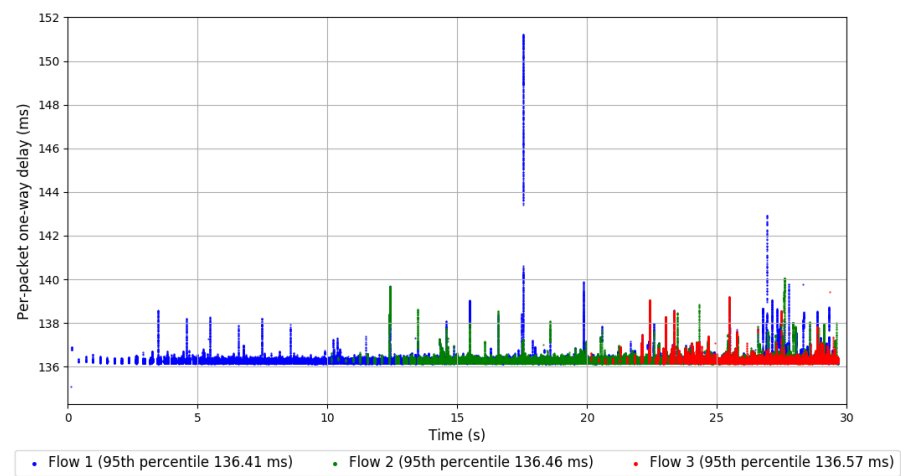
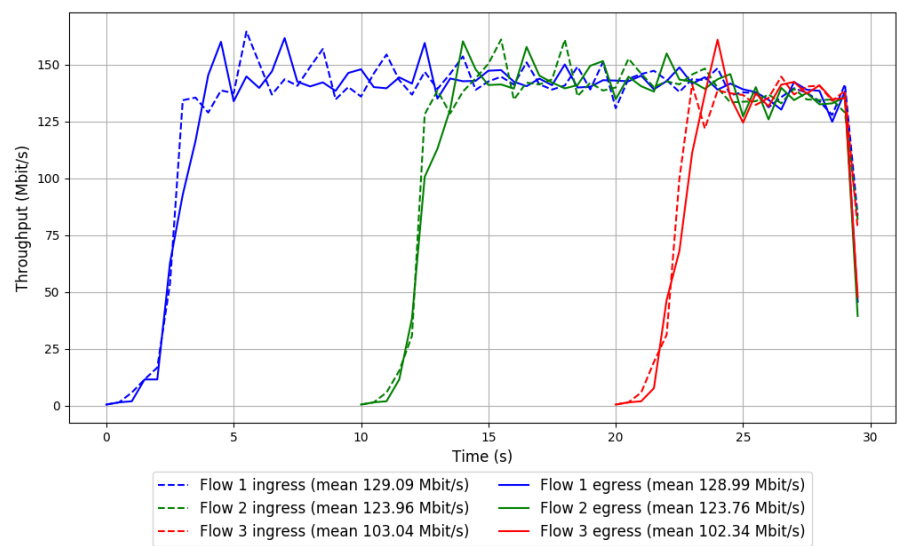
-- Flow 3:

Average throughput: 102.34 Mbit/s

95th percentile per-packet one-way delay: 136.569 ms

Loss rate: 3.50%

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

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

End at: 2017-11-22 03:06:52

Below is generated by plot.py at 2017-11-22 07:30:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 229.27 Mbit/s

95th percentile per-packet one-way delay: 166.440 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 119.29 Mbit/s

95th percentile per-packet one-way delay: 166.453 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 118.47 Mbit/s

95th percentile per-packet one-way delay: 166.447 ms

Loss rate: 1.62%

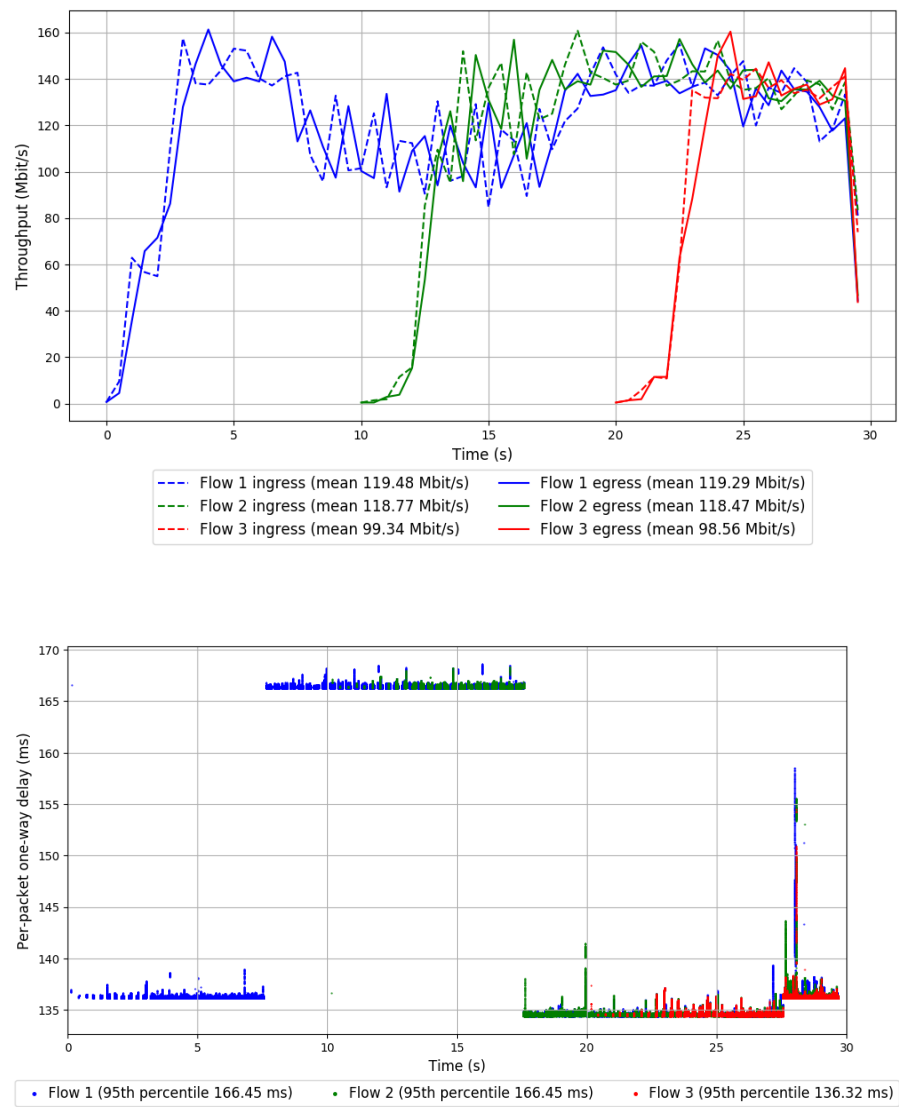
-- Flow 3:

Average throughput: 98.56 Mbit/s

95th percentile per-packet one-way delay: 136.318 ms

Loss rate: 3.54%

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-11-22 03:20:12

End at: 2017-11-22 03:20:42

Below is generated by plot.py at 2017-11-22 07:30:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 208.29 Mbit/s

95th percentile per-packet one-way delay: 166.765 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 113.58 Mbit/s

95th percentile per-packet one-way delay: 166.600 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 101.15 Mbit/s

95th percentile per-packet one-way delay: 166.775 ms

Loss rate: 1.20%

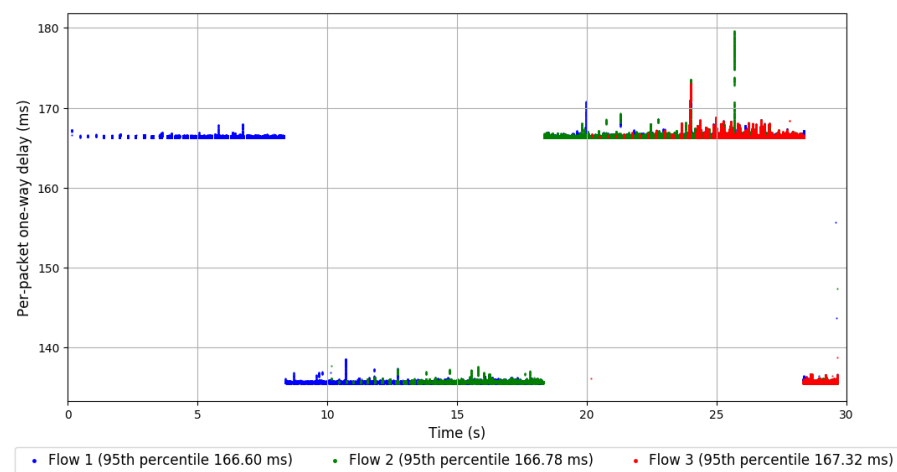
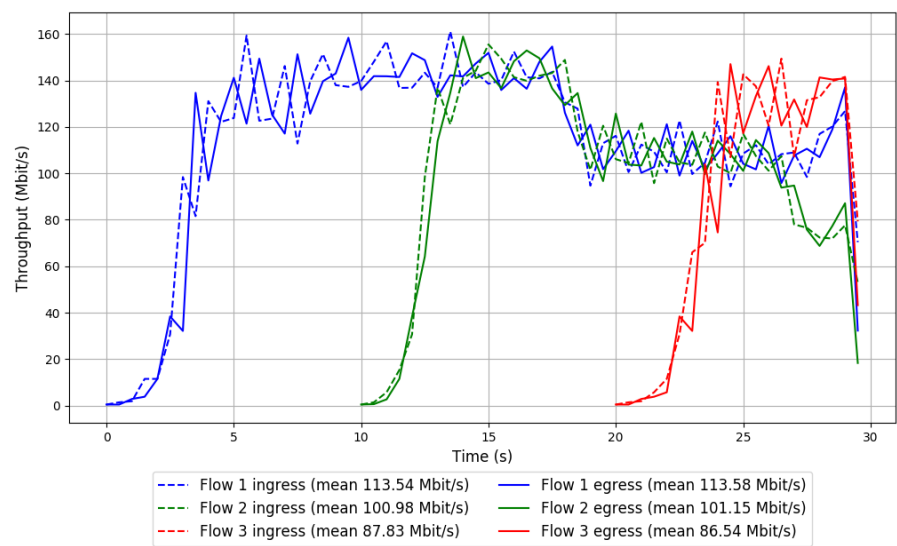
-- Flow 3:

Average throughput: 86.54 Mbit/s

95th percentile per-packet one-way delay: 167.319 ms

Loss rate: 4.19%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-11-22 03:33:55

End at: 2017-11-22 03:34:25

Below is generated by plot.py at 2017-11-22 07:31:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 225.77 Mbit/s

95th percentile per-packet one-way delay: 166.509 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 119.93 Mbit/s

95th percentile per-packet one-way delay: 166.502 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 113.89 Mbit/s

95th percentile per-packet one-way delay: 166.514 ms

Loss rate: 1.36%

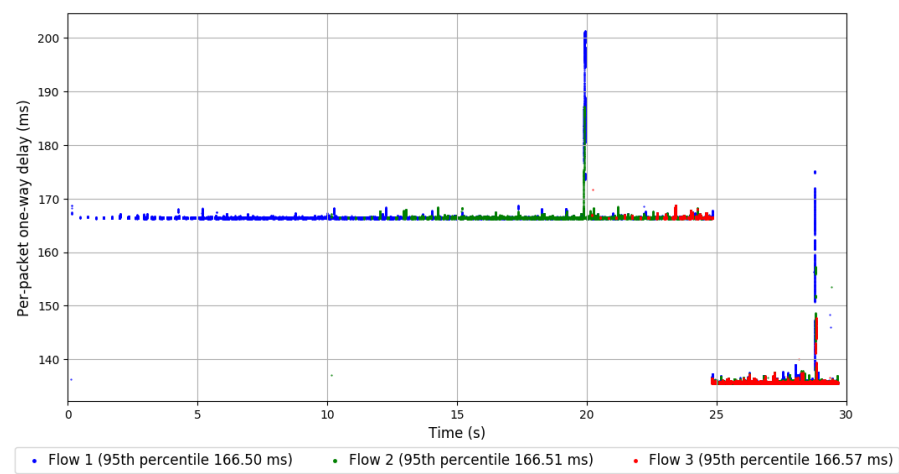
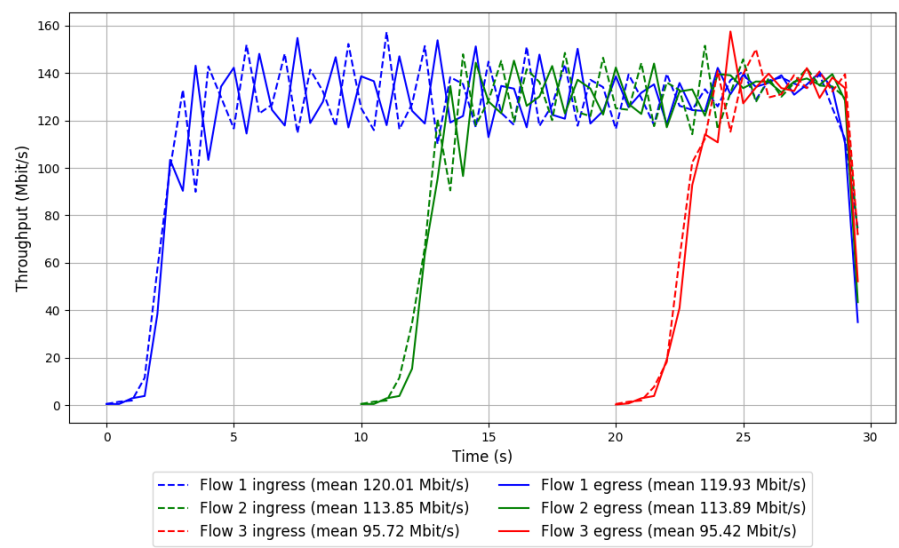
-- Flow 3:

Average throughput: 95.42 Mbit/s

95th percentile per-packet one-way delay: 166.567 ms

Loss rate: 3.41%

Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-11-22 03:47:41

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

Below is generated by plot.py at 2017-11-22 07:31:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 216.16 Mbit/s

95th percentile per-packet one-way delay: 166.885 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 116.23 Mbit/s

95th percentile per-packet one-way delay: 166.635 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 110.68 Mbit/s

95th percentile per-packet one-way delay: 166.836 ms

Loss rate: 1.77%

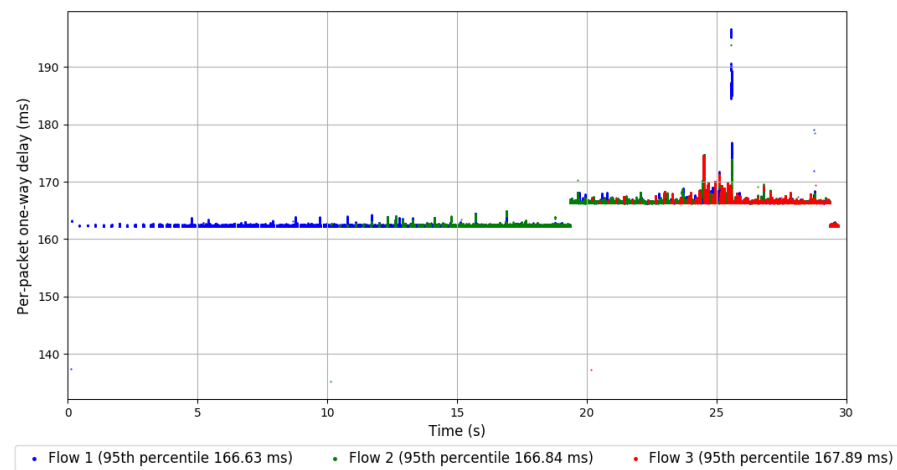
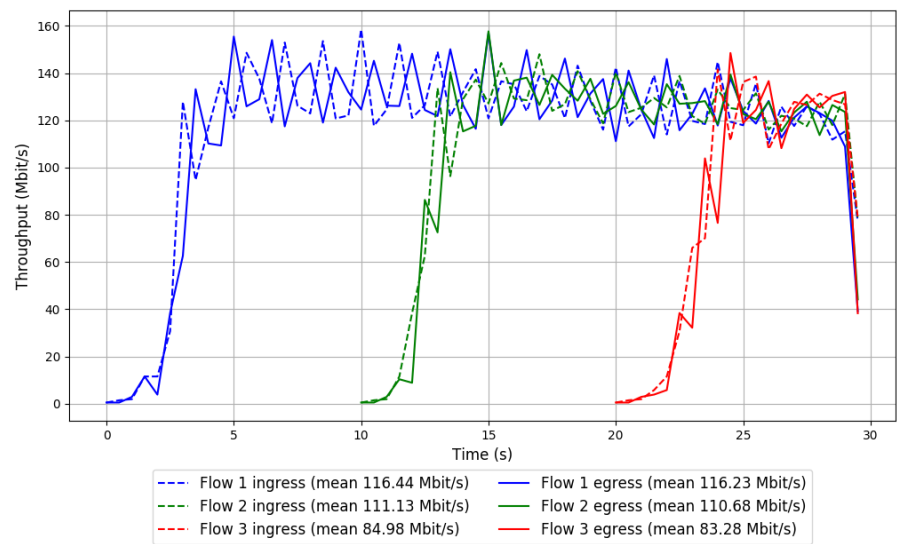
-- Flow 3:

Average throughput: 83.28 Mbit/s

95th percentile per-packet one-way delay: 167.887 ms

Loss rate: 4.74%

Run 8: Report of Indigo-calib — Data Link

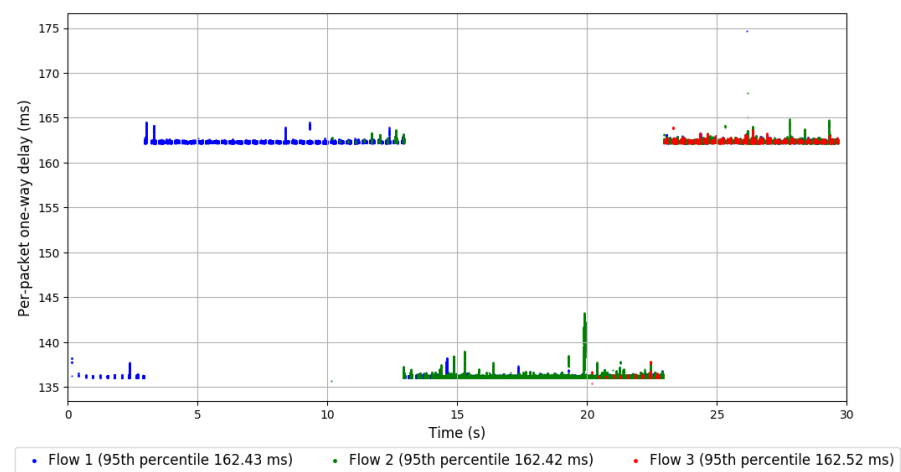
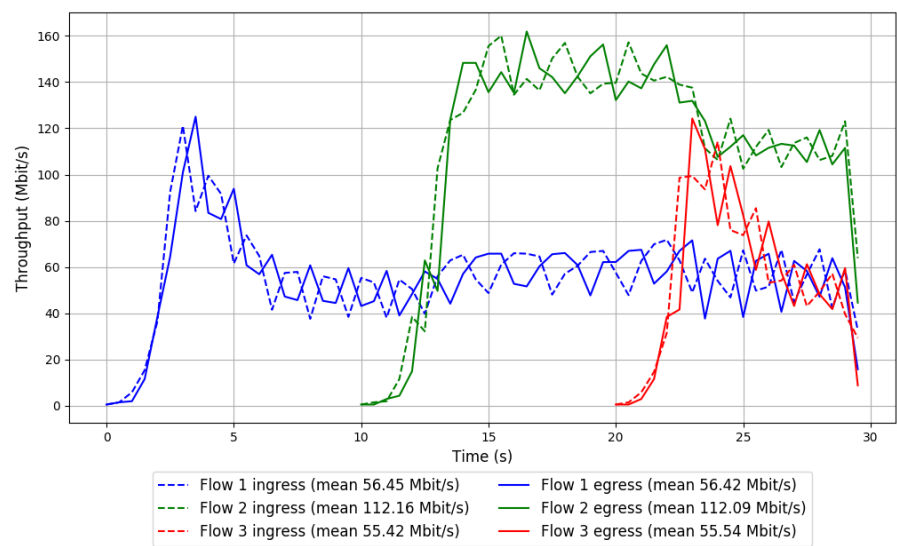


```
Run 9: Statistics of Indigo-calib

Start at: 2017-11-22 04:00:57
End at: 2017-11-22 04:01:27

# Below is generated by plot.py at 2017-11-22 07:31:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.09 Mbit/s
95th percentile per-packet one-way delay: 162.439 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 162.430 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 112.09 Mbit/s
95th percentile per-packet one-way delay: 162.418 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 55.54 Mbit/s
95th percentile per-packet one-way delay: 162.519 ms
Loss rate: 2.59%
```

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-11-22 04:14:12

End at: 2017-11-22 04:14:42

Below is generated by plot.py at 2017-11-22 07:31:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 229.07 Mbit/s

95th percentile per-packet one-way delay: 162.394 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 116.37 Mbit/s

95th percentile per-packet one-way delay: 162.401 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 117.24 Mbit/s

95th percentile per-packet one-way delay: 162.424 ms

Loss rate: 1.38%

-- Flow 3:

Average throughput: 109.57 Mbit/s

95th percentile per-packet one-way delay: 162.317 ms

Loss rate: 3.12%

Run 10: Report of Indigo-calib — Data Link

