

Pantheon Report

Generated at 2019-02-20 02:46:21 (UTC).

Data path: AWS Brazil 2 on **ens5** (*local*) → Colombia on **p4p1** (*remote*).

Repeated the test of 21 congestion control schemes 5 times.

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

NTP offsets were measured against **gps.ntp.br** and have been applied to correct the timestamps in logs.

System info:

```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
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/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

Scatter plot showing Average throughput (Mbps) on the Y-axis (0 to 100) versus 95th percentile one-way delay (ms) on the X-axis (130 to 80). The plot displays various congestion control algorithms, showing a general trend where lower delay correlates with higher throughput.

Algorithm	95th percentile one-way delay (ms)	Average throughput (Mbps)
Verus	~135	~45
Indigo	~115	~95
Muses	~110	~95
CC-BIBP	~105	~95
TaoVegas	~118	~90
PCC-Allegro	~115	~85
FillIP-Sheep	~110	~80
PCC-Vivace	~105	~75
TCP Vegas	~95	~75
QUIC Cubic	~110	~65
LEDBAT	~85	~15
PCC-Expr	~85	~10
TaoVegas	~90	~5
GetBox	~85	~5
Sprout	~90	~5
WSRR	~85	~2
ECN	~85	~2
SRM	~85	~2
EM	~85	~2
Media	~85	~2



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	5	54.41	39.95	32.02	115.60	115.10	115.42	12.72	20.76	30.32
Copa	5	0.00	10.67	3.30	84.88	85.69	84.57	97.78	73.60	78.68
TCP Cubic	5	69.72	20.49	19.97	109.79	110.33	106.08	0.84	0.24	0.23
FillP	5	53.69	41.85	29.30	110.44	111.13	111.45	16.73	27.43	25.73
FillP-Sheep	5	23.88	73.44	23.59	108.25	111.84	111.74	8.57	5.45	14.36
Indigo	5	62.33	27.03	34.92	115.21	114.89	116.20	13.51	32.13	67.72
Indigo-MusesC3	5	49.55	49.62	44.13	112.68	112.51	112.56	1.50	2.36	5.30
Indigo-MusesC5	5	58.25	49.14	11.35	110.49	112.71	112.60	1.48	3.27	6.94
Indigo-MusesD	5	61.11	38.59	26.13	105.60	107.06	108.71	0.54	0.52	1.08
Indigo-MusesT	5	54.27	47.51	31.50	112.51	112.89	112.61	5.58	5.73	9.74
LEDBAT	5	11.52	7.94	3.87	85.39	85.84	85.85	0.01	0.01	0.00
PCC-Allegro	5	78.67	8.82	7.15	113.17	113.20	113.59	2.72	3.75	6.01
PCC-Expr	5	8.91	4.54	2.89	83.09	83.07	83.04	47.00	39.21	37.77
QUIC Cubic	5	47.10	20.11	11.67	109.59	108.82	104.63	0.81	0.35	0.34
SCReAM	5	0.22	0.22	0.22	83.20	83.13	83.23	0.00	0.04	0.00
Sprout	5	3.10	2.41	2.66	90.02	88.70	89.16	0.00	0.00	0.00
TaoVA-100x	5	0.00	10.07	5.33	84.89	93.01	84.28	95.92	35.31	33.65
TCP Vegas	5	52.82	25.20	28.44	93.07	94.80	93.79	0.89	0.57	0.89
Verus	5	26.96	17.27	19.99	127.24	132.54	127.01	48.75	31.51	29.06
PCC-Vivace	5	64.72	15.41	7.30	104.42	103.93	104.57	0.27	0.46	0.43
WebRTC media	5	0.05	0.04	0.04	85.31	85.69	84.83	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-02-20 00:42:39

End at: 2019-02-20 00:43:09

Local clock offset: -8.978 ms

Remote clock offset: -1.39 ms

Below is generated by plot.py at 2019-02-20 02:37:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.28 Mbit/s

95th percentile per-packet one-way delay: 114.603 ms

Loss rate: 16.10%

-- Flow 1:

Average throughput: 56.54 Mbit/s

95th percentile per-packet one-way delay: 114.371 ms

Loss rate: 12.83%

-- Flow 2:

Average throughput: 38.99 Mbit/s

95th percentile per-packet one-way delay: 114.785 ms

Loss rate: 16.45%

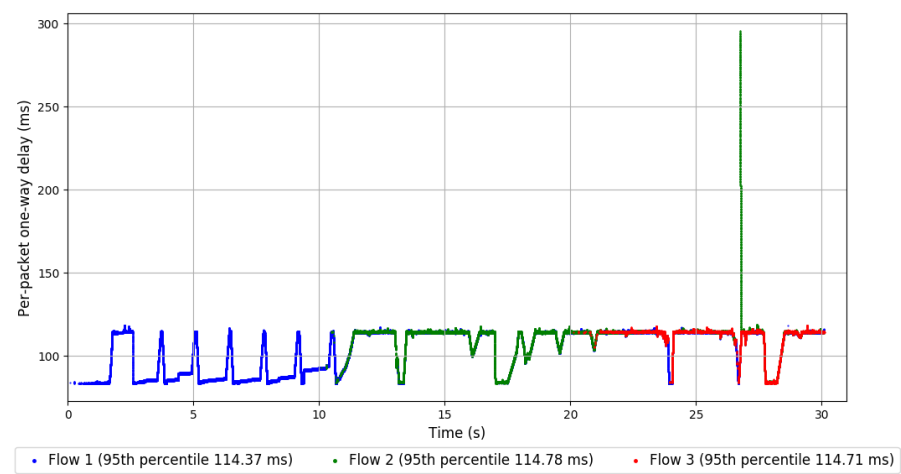
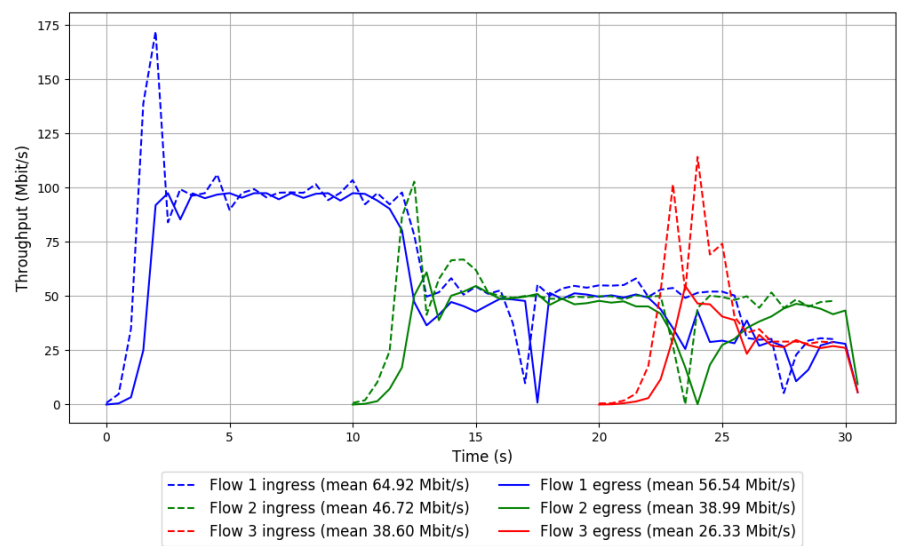
-- Flow 3:

Average throughput: 26.33 Mbit/s

95th percentile per-packet one-way delay: 114.714 ms

Loss rate: 31.79%

Run 1: Report of TCP BBR — Data Link

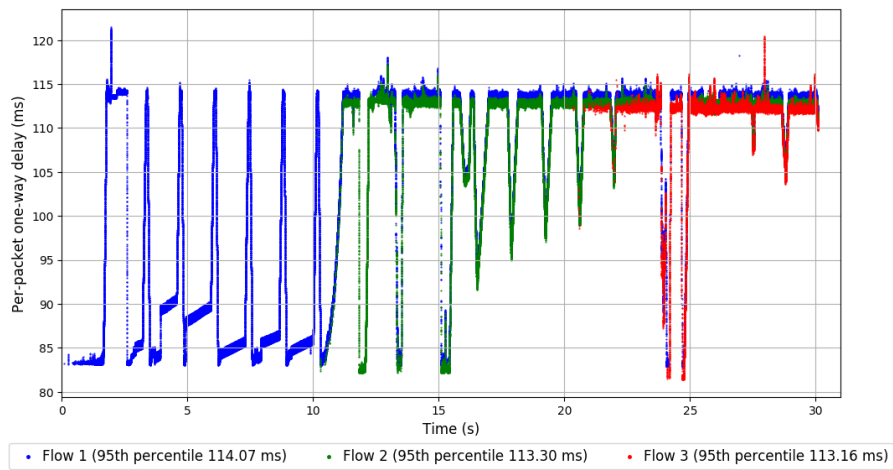
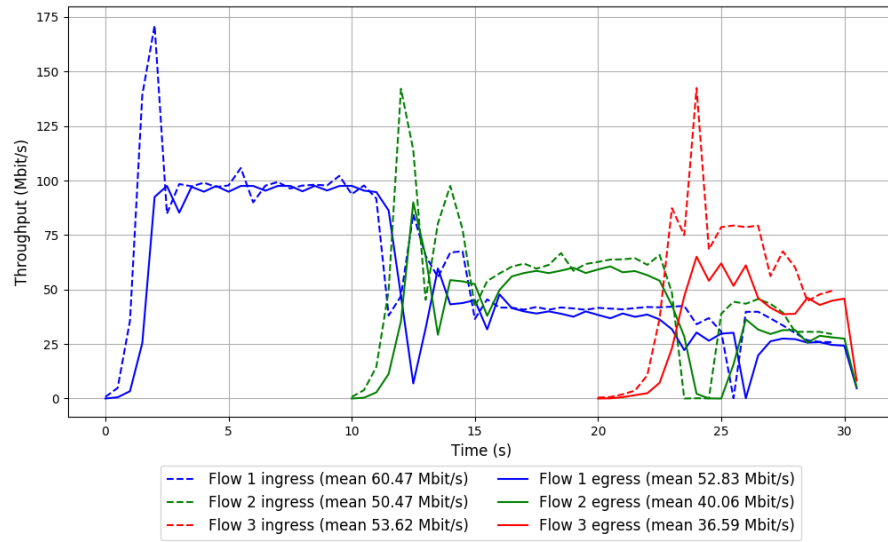


Run 2: Statistics of TCP BBR

Start at: 2019-02-20 01:09:23
End at: 2019-02-20 01:09:53
Local clock offset: -11.27 ms
Remote clock offset: -2.464 ms

Below is generated by plot.py at 2019-02-20 02:37:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.63 Mbit/s
95th percentile per-packet one-way delay: 114.009 ms
Loss rate: 18.04%
-- Flow 1:
Average throughput: 52.83 Mbit/s
95th percentile per-packet one-way delay: 114.072 ms
Loss rate: 12.54%
-- Flow 2:
Average throughput: 40.06 Mbit/s
95th percentile per-packet one-way delay: 113.300 ms
Loss rate: 20.63%
-- Flow 3:
Average throughput: 36.59 Mbit/s
95th percentile per-packet one-way delay: 113.155 ms
Loss rate: 31.78%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-02-20 01:36:13

End at: 2019-02-20 01:36:43

Local clock offset: -9.363 ms

Remote clock offset: 3.16 ms

Below is generated by plot.py at 2019-02-20 02:37:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.95 Mbit/s

95th percentile per-packet one-way delay: 118.793 ms

Loss rate: 16.60%

-- Flow 1:

Average throughput: 53.61 Mbit/s

95th percentile per-packet one-way delay: 118.862 ms

Loss rate: 11.97%

-- Flow 2:

Average throughput: 42.98 Mbit/s

95th percentile per-packet one-way delay: 116.791 ms

Loss rate: 20.39%

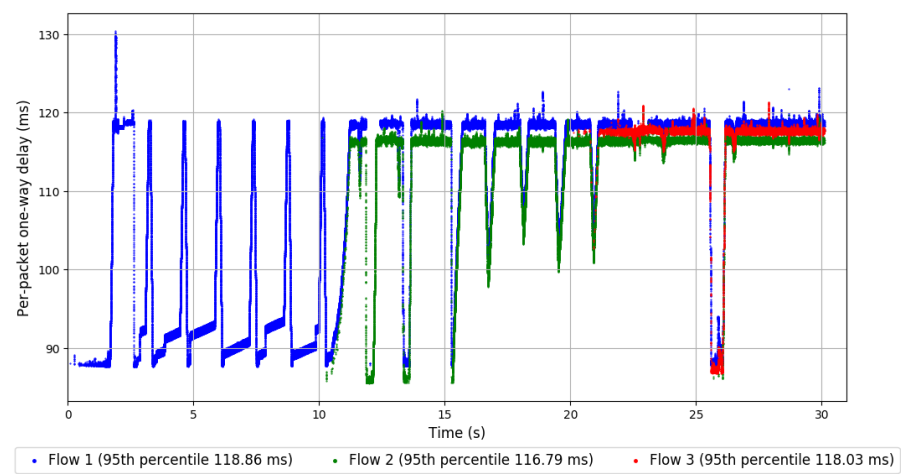
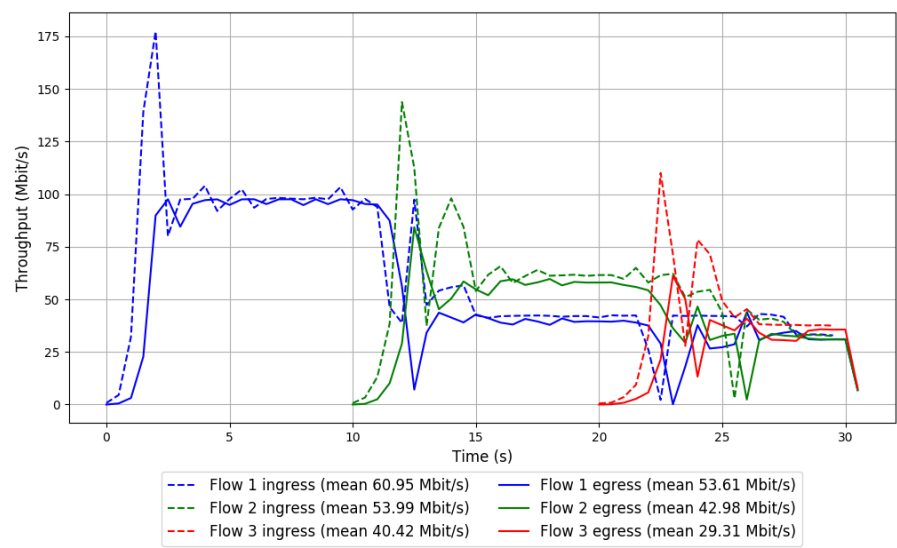
-- Flow 3:

Average throughput: 29.31 Mbit/s

95th percentile per-packet one-way delay: 118.035 ms

Loss rate: 27.50%

Run 3: Report of TCP BBR — Data Link

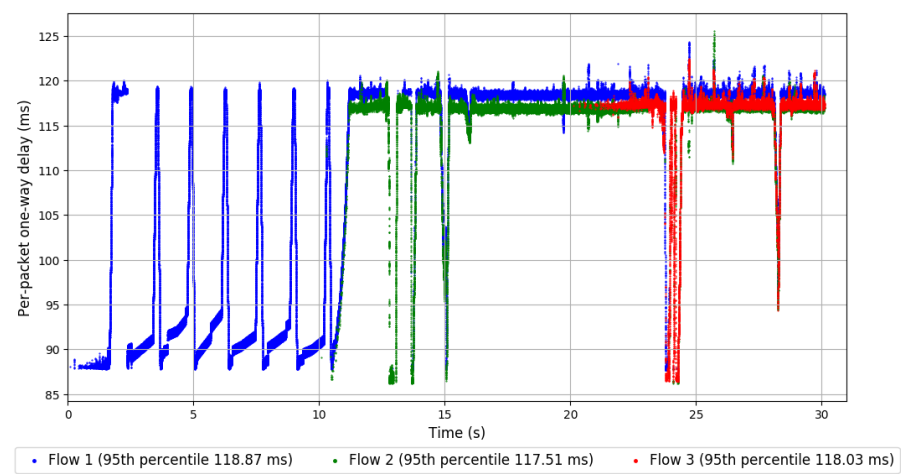
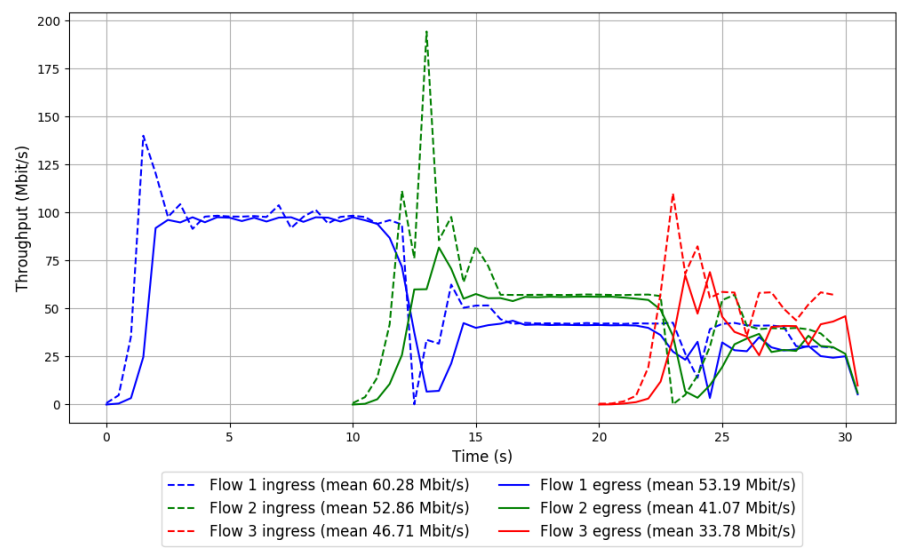


Run 4: Statistics of TCP BBR

Start at: 2019-02-20 02:03:06
End at: 2019-02-20 02:03:36
Local clock offset: -4.826 ms
Remote clock offset: 11.552 ms

Below is generated by plot.py at 2019-02-20 02:37:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.78 Mbit/s
95th percentile per-packet one-way delay: 118.799 ms
Loss rate: 17.25%
-- Flow 1:
Average throughput: 53.19 Mbit/s
95th percentile per-packet one-way delay: 118.867 ms
Loss rate: 11.68%
-- Flow 2:
Average throughput: 41.07 Mbit/s
95th percentile per-packet one-way delay: 117.507 ms
Loss rate: 22.19%
-- Flow 3:
Average throughput: 33.78 Mbit/s
95th percentile per-packet one-way delay: 118.026 ms
Loss rate: 27.69%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-02-20 02:29:47

End at: 2019-02-20 02:30:17

Local clock offset: -5.276 ms

Remote clock offset: 5.483 ms

Below is generated by plot.py at 2019-02-20 02:37:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.62 Mbit/s

95th percentile per-packet one-way delay: 113.060 ms

Loss rate: 19.97%

-- Flow 1:

Average throughput: 55.87 Mbit/s

95th percentile per-packet one-way delay: 111.822 ms

Loss rate: 14.59%

-- Flow 2:

Average throughput: 36.63 Mbit/s

95th percentile per-packet one-way delay: 113.141 ms

Loss rate: 24.15%

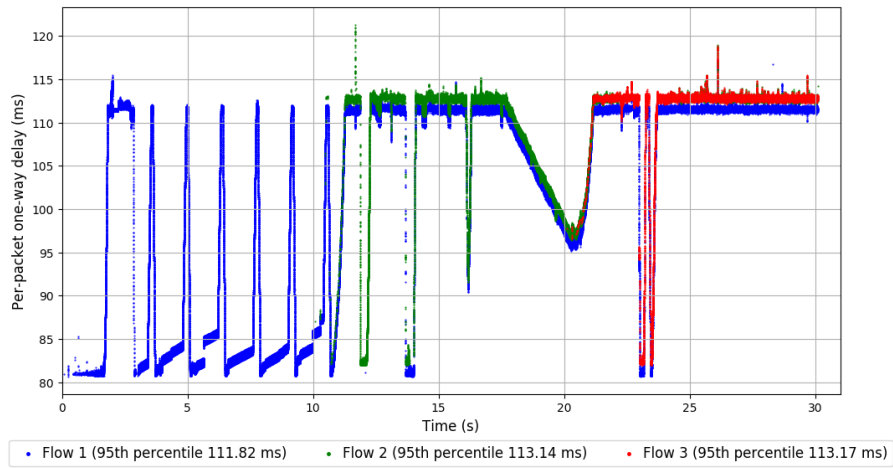
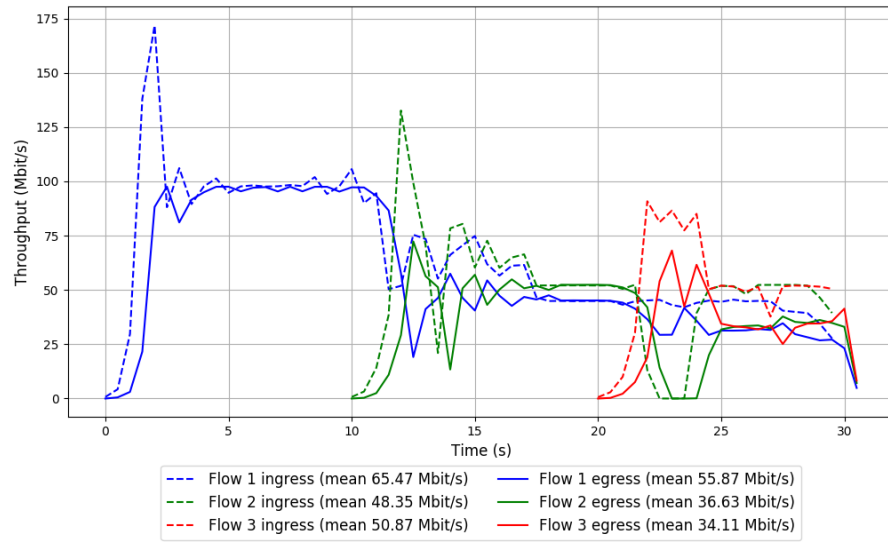
-- Flow 3:

Average throughput: 34.11 Mbit/s

95th percentile per-packet one-way delay: 113.167 ms

Loss rate: 32.84%

Run 5: Report of TCP BBR — Data Link

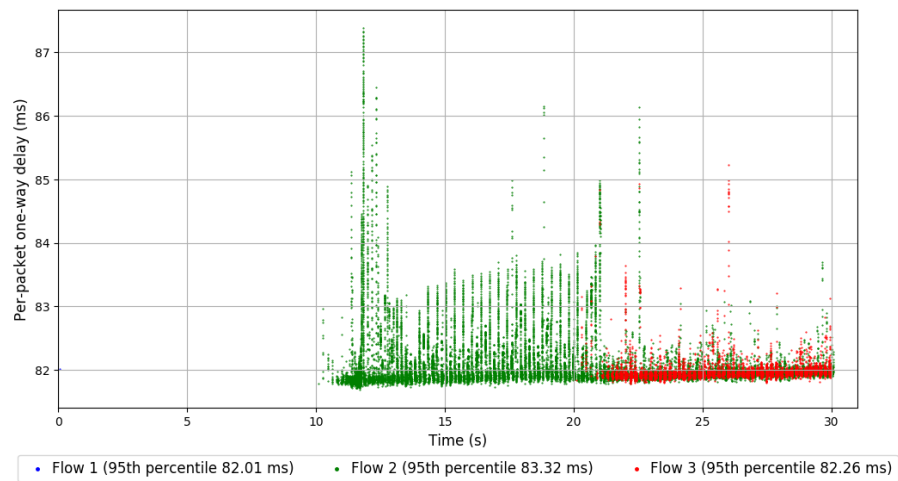
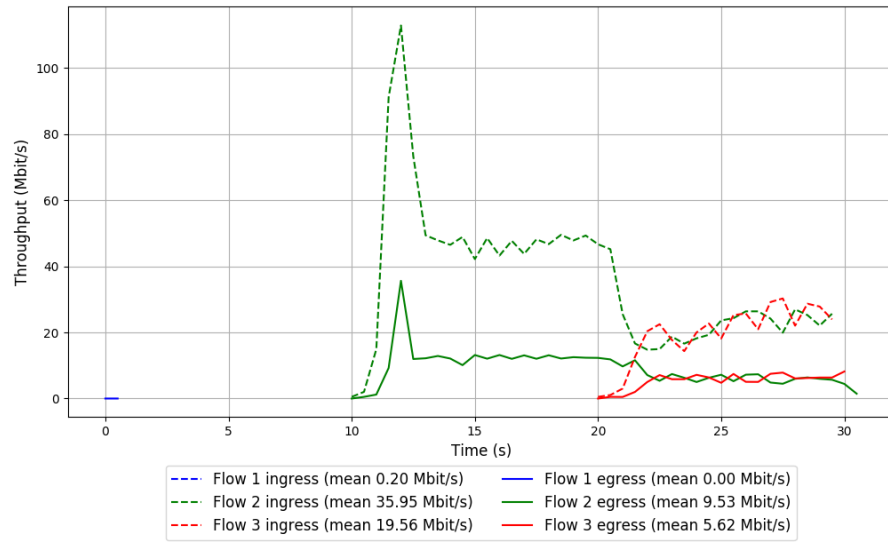


Run 1: Statistics of Copa

Start at: 2019-02-20 00:32:35
End at: 2019-02-20 00:33:05
Local clock offset: -12.108 ms
Remote clock offset: -3.677 ms

Below is generated by plot.py at 2019-02-20 02:37:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 83.189 ms
Loss rate: 73.03%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 82.014 ms
Loss rate: 97.24%
-- Flow 2:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 83.318 ms
Loss rate: 73.50%
-- Flow 3:
Average throughput: 5.62 Mbit/s
95th percentile per-packet one-way delay: 82.257 ms
Loss rate: 71.27%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-02-20 00:59:17

End at: 2019-02-20 00:59:47

Local clock offset: -7.126 ms

Remote clock offset: 0.039 ms

Below is generated by plot.py at 2019-02-20 02:37:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.20 Mbit/s

95th percentile per-packet one-way delay: 85.976 ms

Loss rate: 72.56%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 85.421 ms

Loss rate: 97.24%

-- Flow 2:

Average throughput: 11.22 Mbit/s

95th percentile per-packet one-way delay: 86.013 ms

Loss rate: 72.24%

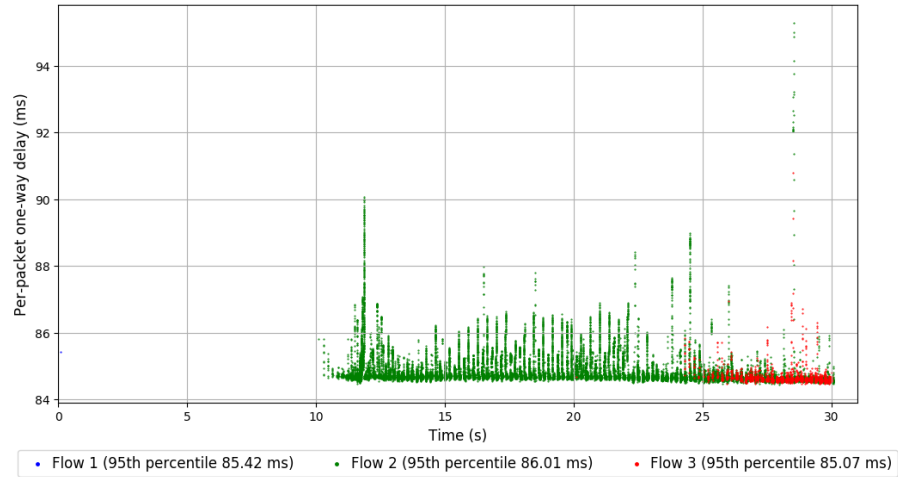
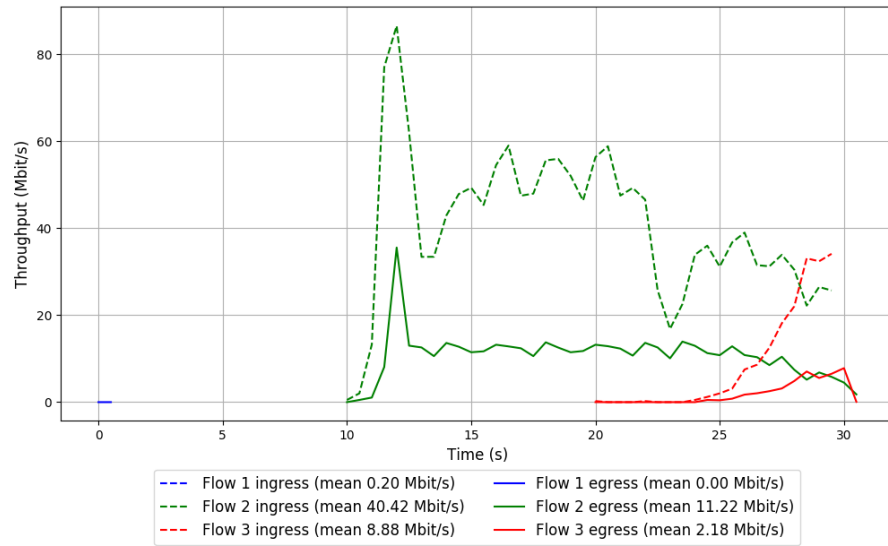
-- Flow 3:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 85.068 ms

Loss rate: 75.50%

Run 2: Report of Copa — Data Link

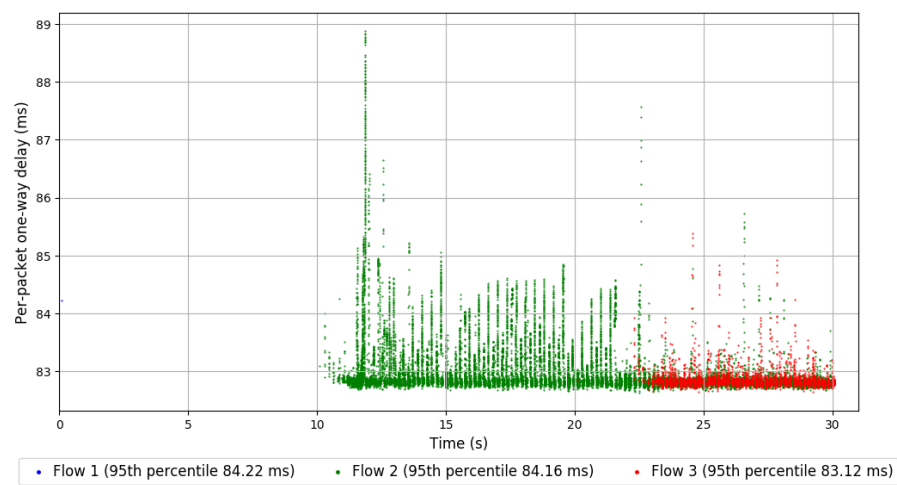
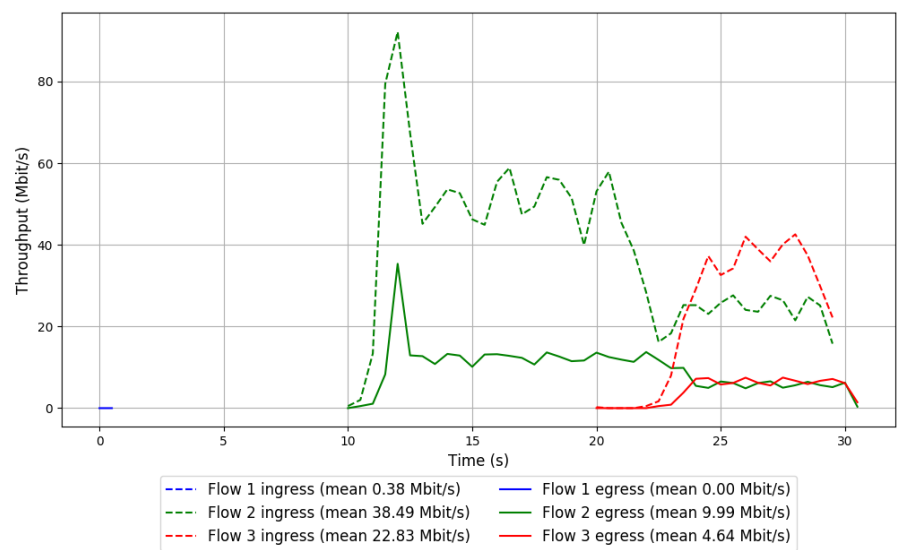


Run 3: Statistics of Copa

Start at: 2019-02-20 01:26:03
End at: 2019-02-20 01:26:33
Local clock offset: -13.346 ms
Remote clock offset: 0.141 ms

Below is generated by plot.py at 2019-02-20 02:37:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 84.048 ms
Loss rate: 75.33%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 84.221 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 9.99 Mbit/s
95th percentile per-packet one-way delay: 84.162 ms
Loss rate: 74.04%
-- Flow 3:
Average throughput: 4.64 Mbit/s
95th percentile per-packet one-way delay: 83.125 ms
Loss rate: 79.68%

Run 3: Report of Copa — Data Link

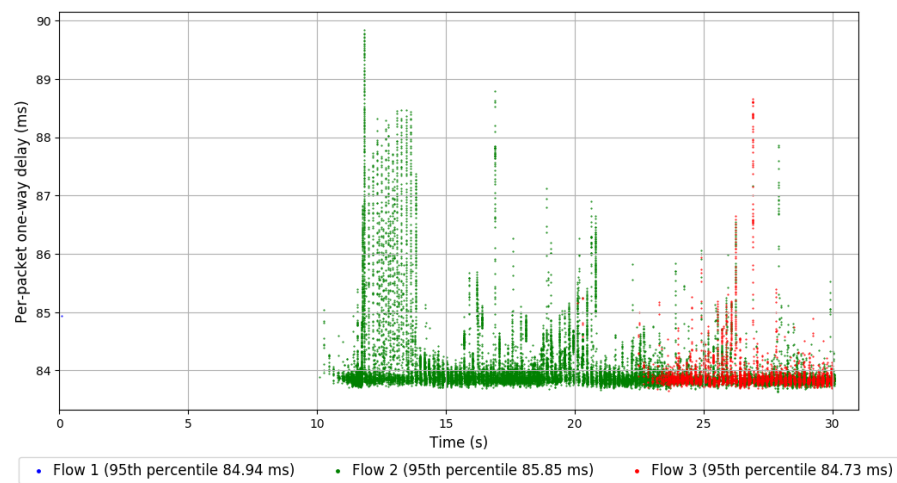
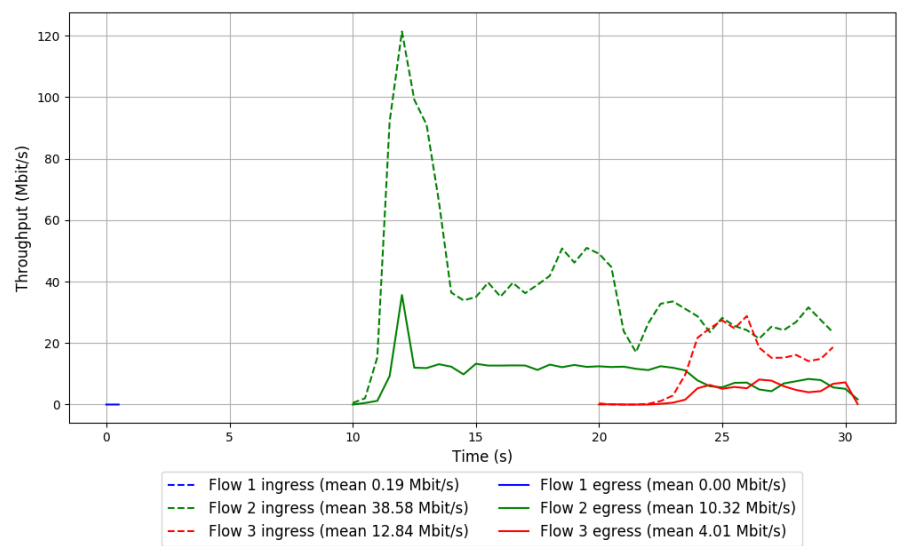


Run 4: Statistics of Copa

Start at: 2019-02-20 01:52:57
End at: 2019-02-20 01:53:27
Local clock offset: -5.047 ms
Remote clock offset: 6.72 ms

Below is generated by plot.py at 2019-02-20 02:37:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 85.671 ms
Loss rate: 72.61%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 84.938 ms
Loss rate: 97.24%
-- Flow 2:
Average throughput: 10.32 Mbit/s
95th percentile per-packet one-way delay: 85.850 ms
Loss rate: 73.24%
-- Flow 3:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 84.726 ms
Loss rate: 68.80%

Run 4: Report of Copa — Data Link

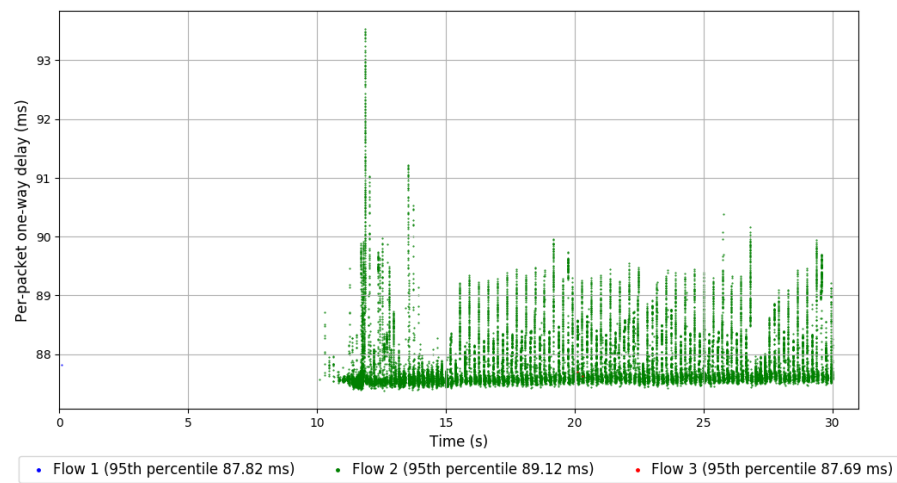
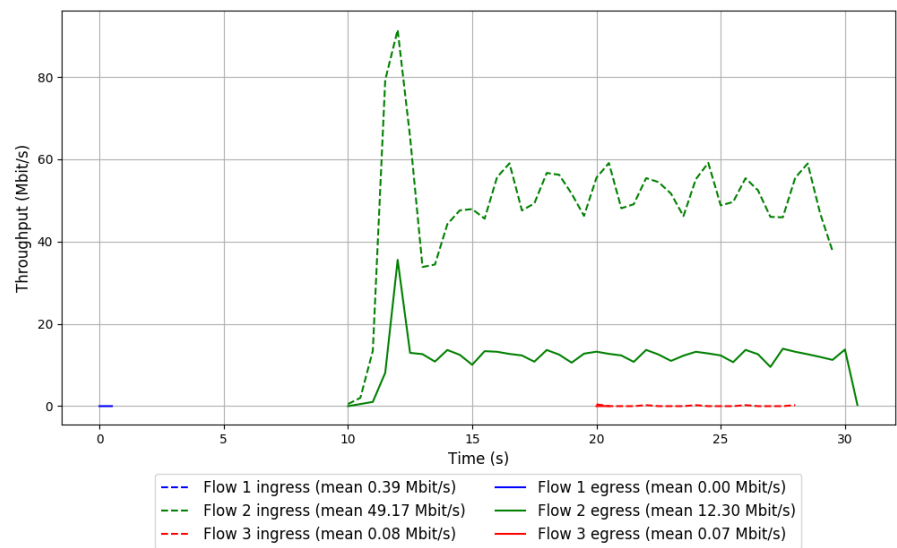


Run 5: Statistics of Copa

Start at: 2019-02-20 02:19:42
End at: 2019-02-20 02:20:12
Local clock offset: -5.589 ms
Remote clock offset: 13.108 ms

Below is generated by plot.py at 2019-02-20 02:37:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.19 Mbit/s
95th percentile per-packet one-way delay: 89.118 ms
Loss rate: 75.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 87.822 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 12.30 Mbit/s
95th percentile per-packet one-way delay: 89.118 ms
Loss rate: 74.98%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 87.695 ms
Loss rate: 98.13%

Run 5: Report of Copa — Data Link

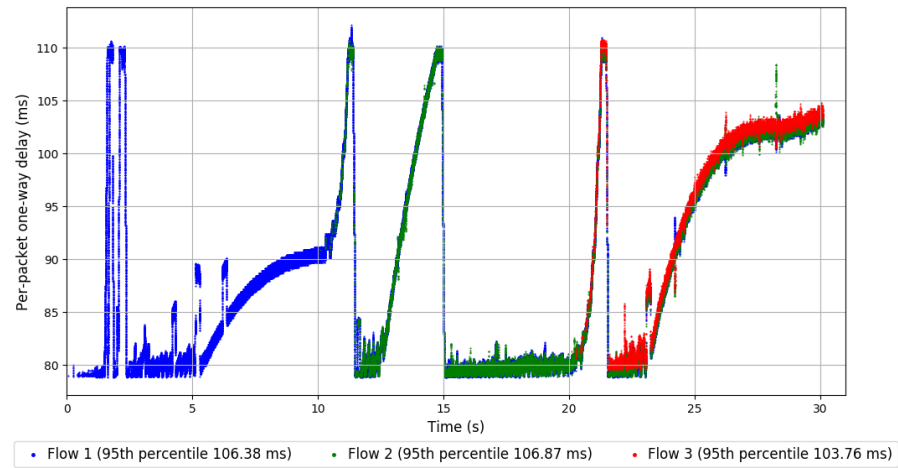
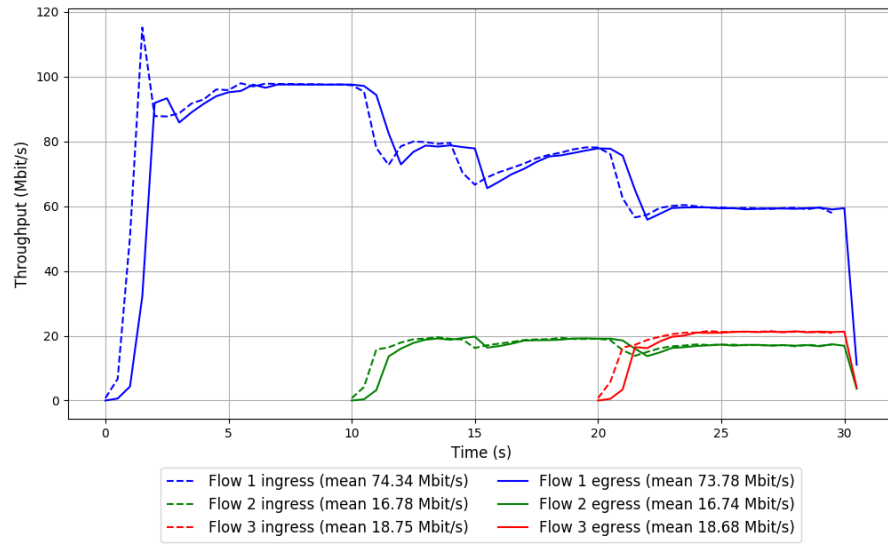


Run 1: Statistics of TCP Cubic

Start at: 2019-02-20 00:26:09
End at: 2019-02-20 00:26:39
Local clock offset: -13.475 ms
Remote clock offset: -6.039 ms

Below is generated by plot.py at 2019-02-20 02:37:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.15 Mbit/s
95th percentile per-packet one-way delay: 106.140 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 73.78 Mbit/s
95th percentile per-packet one-way delay: 106.380 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 16.74 Mbit/s
95th percentile per-packet one-way delay: 106.866 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 18.68 Mbit/s
95th percentile per-packet one-way delay: 103.764 ms
Loss rate: 0.17%

Run 1: Report of TCP Cubic — Data Link

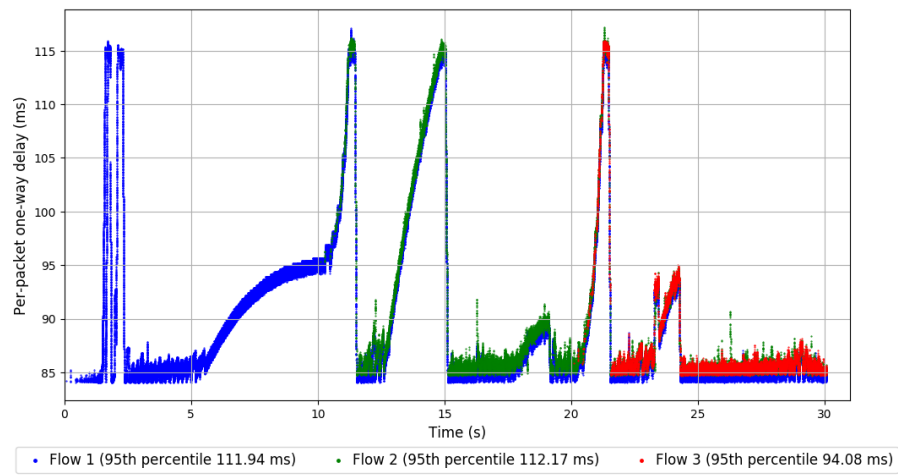
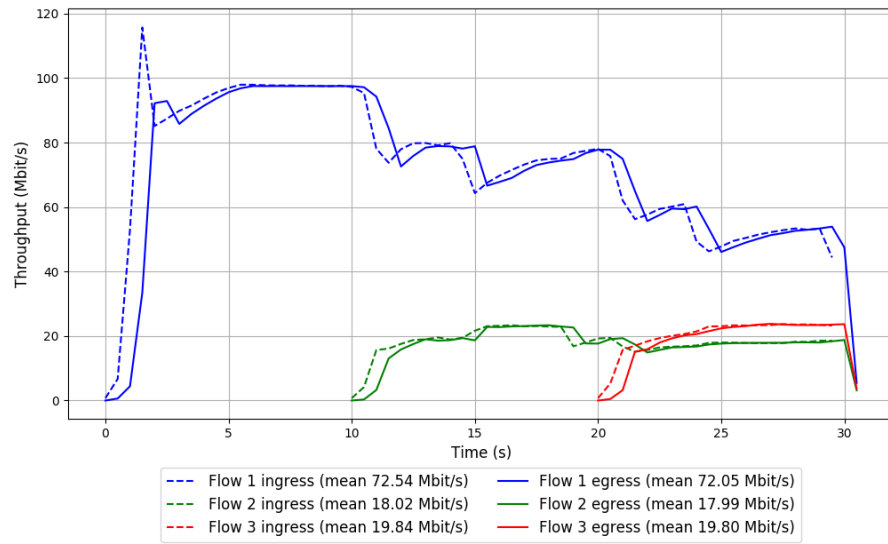


Run 2: Statistics of TCP Cubic

Start at: 2019-02-20 00:52:56
End at: 2019-02-20 00:53:26
Local clock offset: -7.631 ms
Remote clock offset: -0.597 ms

Below is generated by plot.py at 2019-02-20 02:37:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.61 Mbit/s
95th percentile per-packet one-way delay: 111.607 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 72.05 Mbit/s
95th percentile per-packet one-way delay: 111.937 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 17.99 Mbit/s
95th percentile per-packet one-way delay: 112.165 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 19.80 Mbit/s
95th percentile per-packet one-way delay: 94.085 ms
Loss rate: 0.22%

Run 2: Report of TCP Cubic — Data Link

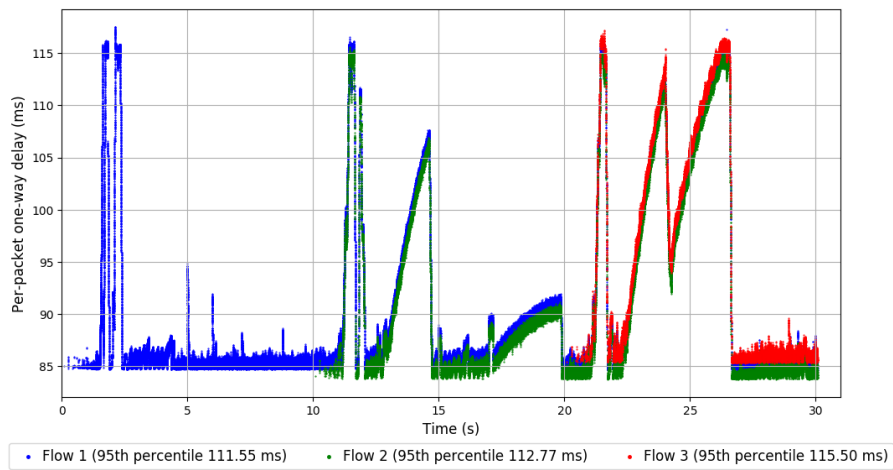
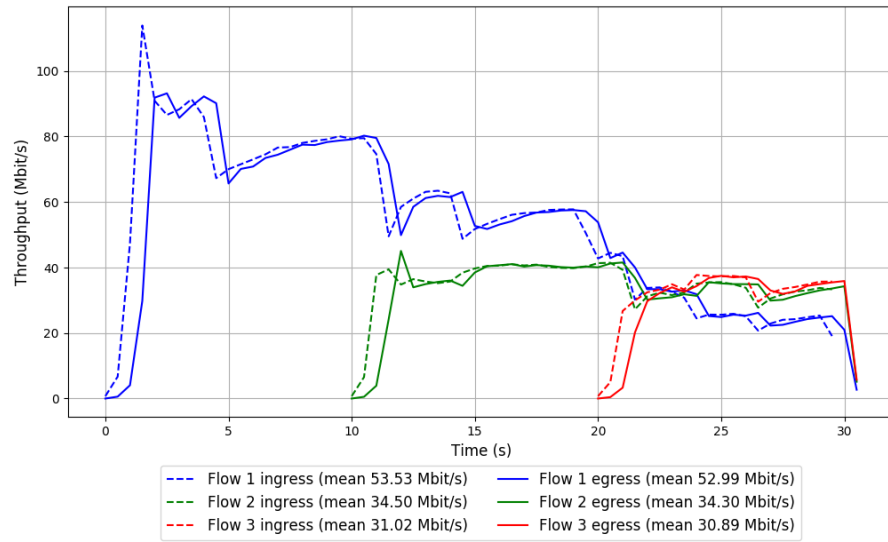


Run 3: Statistics of TCP Cubic

Start at: 2019-02-20 01:19:39
End at: 2019-02-20 01:20:09
Local clock offset: -12.865 ms
Remote clock offset: 0.982 ms

Below is generated by plot.py at 2019-02-20 02:37:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 86.11 Mbit/s
95th percentile per-packet one-way delay: 113.203 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 52.99 Mbit/s
95th percentile per-packet one-way delay: 111.554 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 34.30 Mbit/s
95th percentile per-packet one-way delay: 112.769 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 30.89 Mbit/s
95th percentile per-packet one-way delay: 115.495 ms
Loss rate: 0.44%

Run 3: Report of TCP Cubic — Data Link

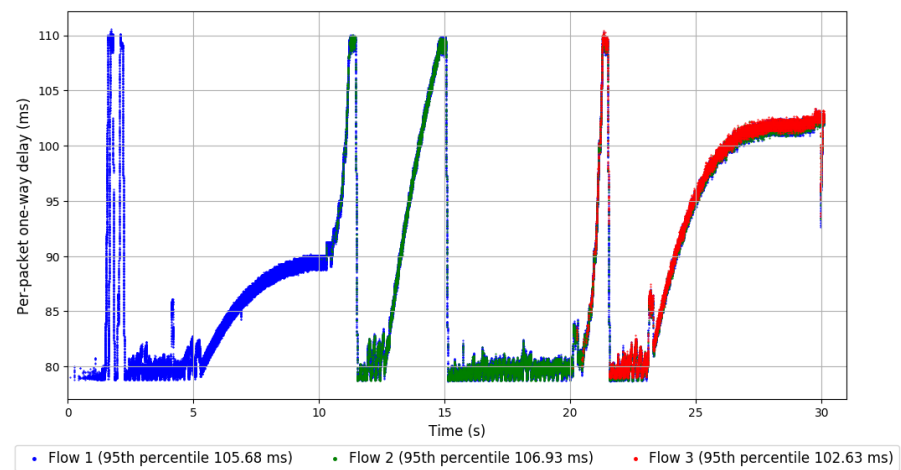
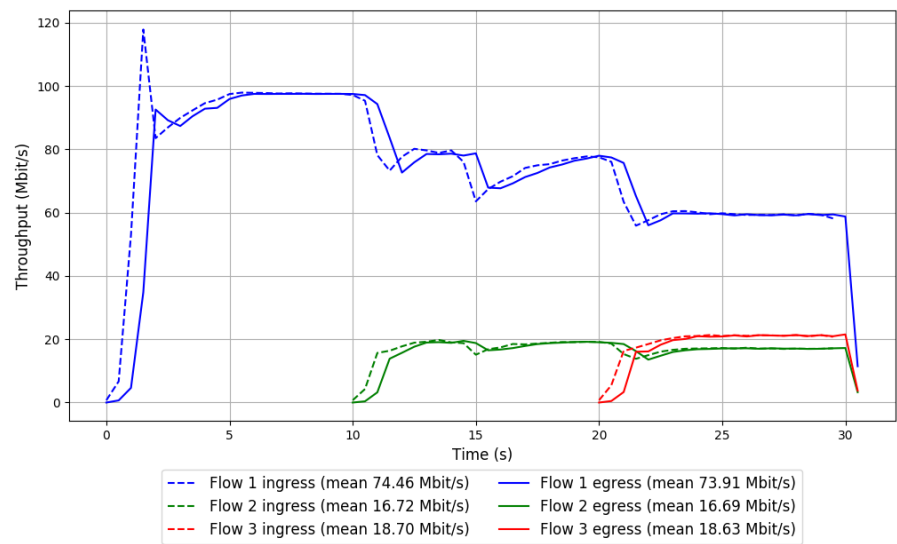


Run 4: Statistics of TCP Cubic

Start at: 2019-02-20 01:46:32
End at: 2019-02-20 01:47:02
Local clock offset: -6.091 ms
Remote clock offset: -0.563 ms

Below is generated by plot.py at 2019-02-20 02:38:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.23 Mbit/s
95th percentile per-packet one-way delay: 105.513 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 73.91 Mbit/s
95th percentile per-packet one-way delay: 105.681 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 16.69 Mbit/s
95th percentile per-packet one-way delay: 106.928 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 18.63 Mbit/s
95th percentile per-packet one-way delay: 102.631 ms
Loss rate: 0.19%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-02-20 02:13:22

End at: 2019-02-20 02:13:52

Local clock offset: -5.545 ms

Remote clock offset: 9.775 ms

Below is generated by plot.py at 2019-02-20 02:38:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.93 Mbit/s

95th percentile per-packet one-way delay: 113.421 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 75.86 Mbit/s

95th percentile per-packet one-way delay: 113.387 ms

Loss rate: 1.18%

-- Flow 2:

Average throughput: 16.72 Mbit/s

95th percentile per-packet one-way delay: 112.923 ms

Loss rate: 0.13%

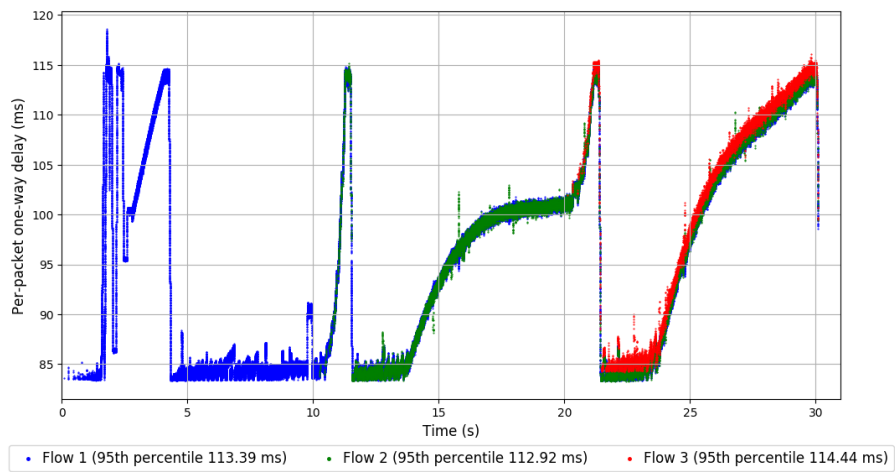
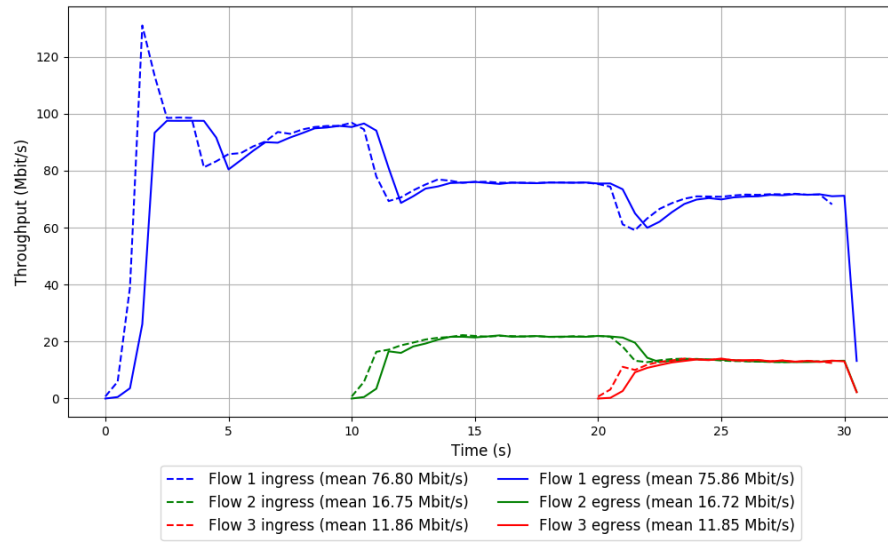
-- Flow 3:

Average throughput: 11.85 Mbit/s

95th percentile per-packet one-way delay: 114.440 ms

Loss rate: 0.13%

Run 5: Report of TCP Cubic — Data Link

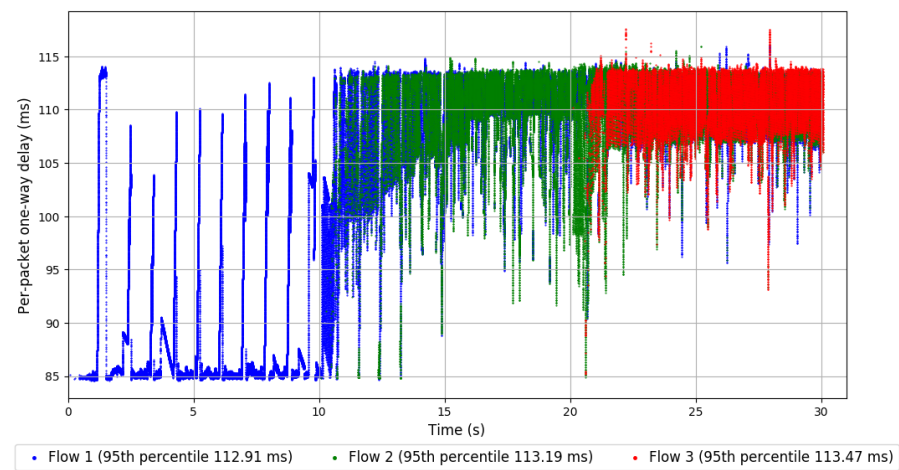
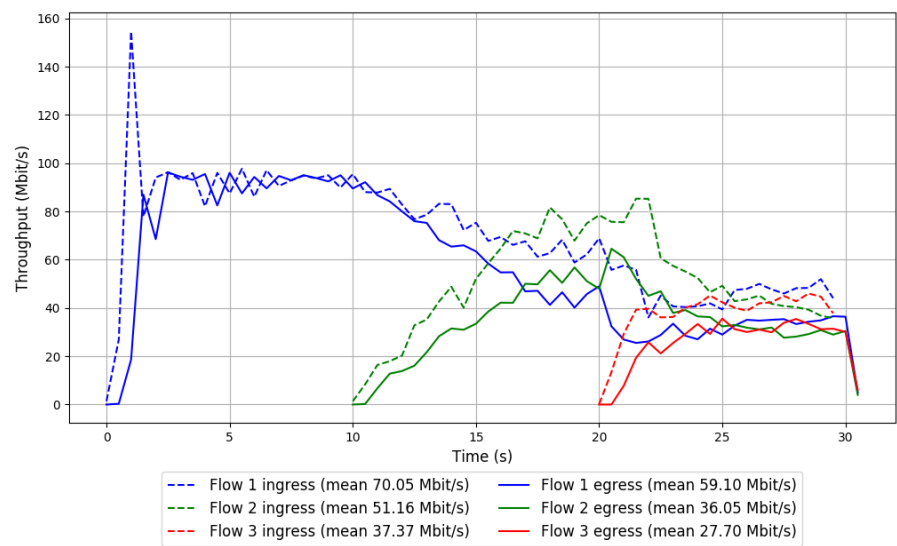


Run 1: Statistics of FillP

Start at: 2019-02-20 00:35:05
End at: 2019-02-20 00:35:35
Local clock offset: -10.992 ms
Remote clock offset: -0.27 ms

Below is generated by plot.py at 2019-02-20 02:38:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 113.062 ms
Loss rate: 20.73%
-- Flow 1:
Average throughput: 59.10 Mbit/s
95th percentile per-packet one-way delay: 112.912 ms
Loss rate: 15.57%
-- Flow 2:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 113.190 ms
Loss rate: 29.45%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 113.471 ms
Loss rate: 25.88%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-02-20 01:01:49

End at: 2019-02-20 01:02:19

Local clock offset: -8.11 ms

Remote clock offset: -1.8 ms

Below is generated by plot.py at 2019-02-20 02:38:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.45 Mbit/s

95th percentile per-packet one-way delay: 110.655 ms

Loss rate: 19.99%

-- Flow 1:

Average throughput: 61.75 Mbit/s

95th percentile per-packet one-way delay: 110.607 ms

Loss rate: 15.08%

-- Flow 2:

Average throughput: 33.23 Mbit/s

95th percentile per-packet one-way delay: 110.754 ms

Loss rate: 27.52%

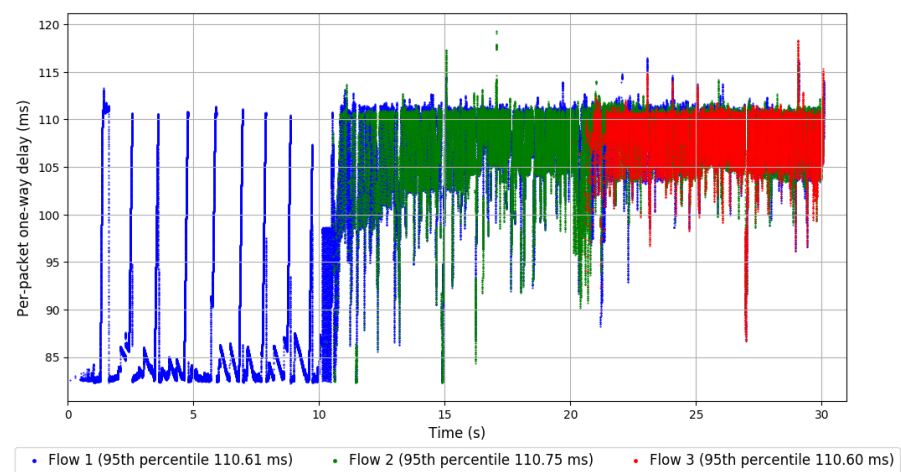
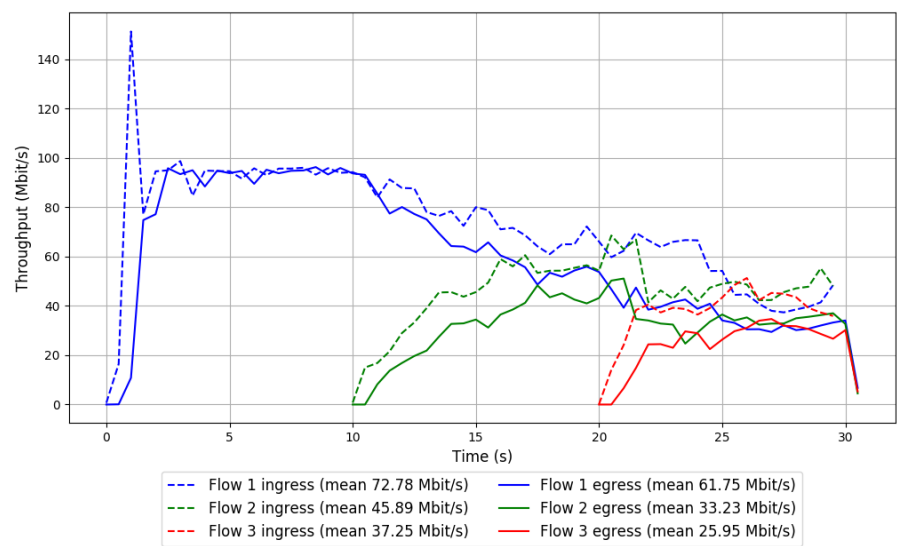
-- Flow 3:

Average throughput: 25.95 Mbit/s

95th percentile per-packet one-way delay: 110.600 ms

Loss rate: 30.32%

Run 2: Report of FillP — Data Link

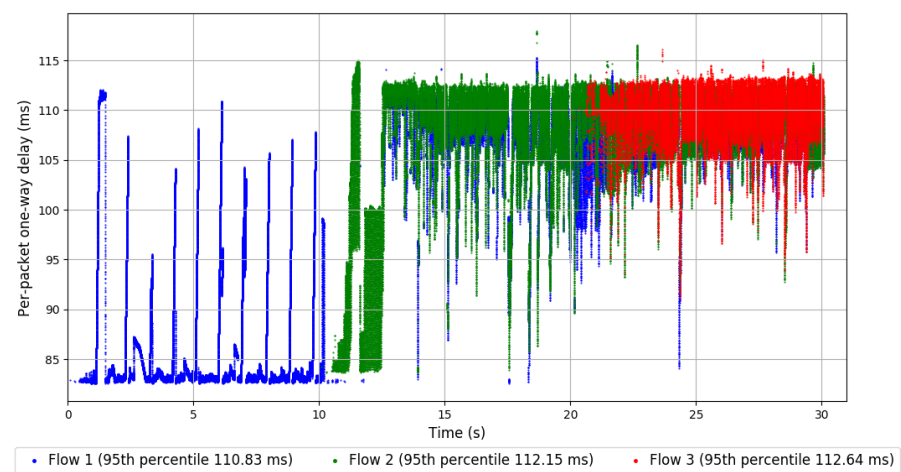
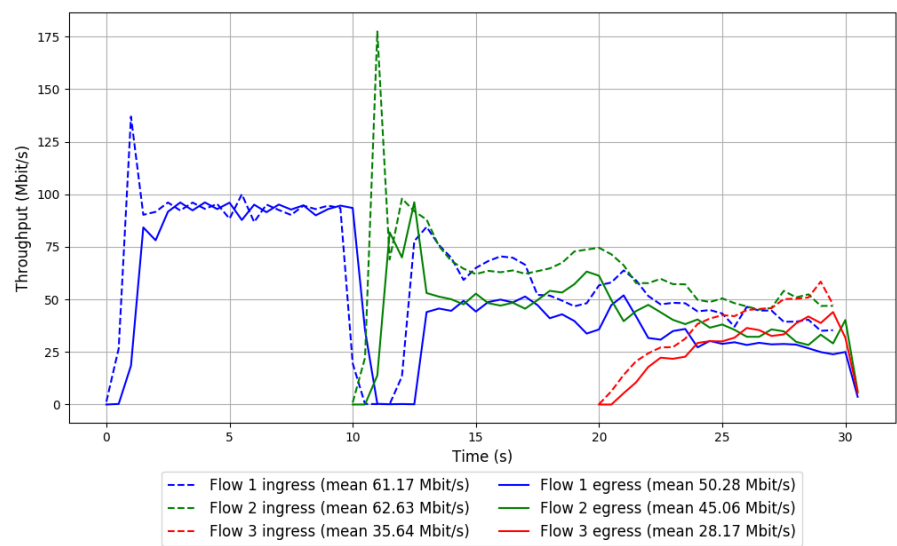


Run 3: Statistics of FillP

Start at: 2019-02-20 01:28:34
End at: 2019-02-20 01:29:04
Local clock offset: -13.512 ms
Remote clock offset: 0.048 ms

Below is generated by plot.py at 2019-02-20 02:38:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.63 Mbit/s
95th percentile per-packet one-way delay: 111.821 ms
Loss rate: 21.79%
-- Flow 1:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 110.833 ms
Loss rate: 17.73%
-- Flow 2:
Average throughput: 45.06 Mbit/s
95th percentile per-packet one-way delay: 112.150 ms
Loss rate: 27.98%
-- Flow 3:
Average throughput: 28.17 Mbit/s
95th percentile per-packet one-way delay: 112.637 ms
Loss rate: 20.93%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-02-20 01:55:27

End at: 2019-02-20 01:55:57

Local clock offset: -4.741 ms

Remote clock offset: 5.422 ms

Below is generated by plot.py at 2019-02-20 02:38:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.45 Mbit/s

95th percentile per-packet one-way delay: 110.696 ms

Loss rate: 20.78%

-- Flow 1:

Average throughput: 51.99 Mbit/s

95th percentile per-packet one-way delay: 109.911 ms

Loss rate: 17.03%

-- Flow 2:

Average throughput: 47.54 Mbit/s

95th percentile per-packet one-way delay: 111.169 ms

Loss rate: 24.39%

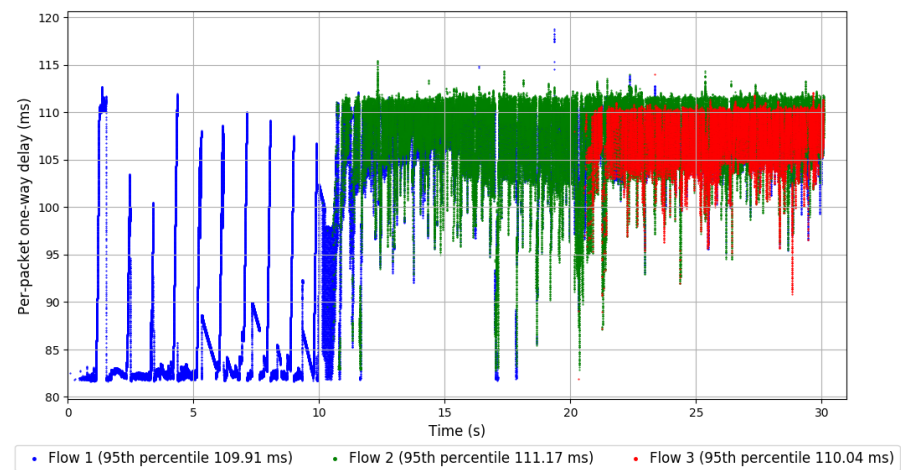
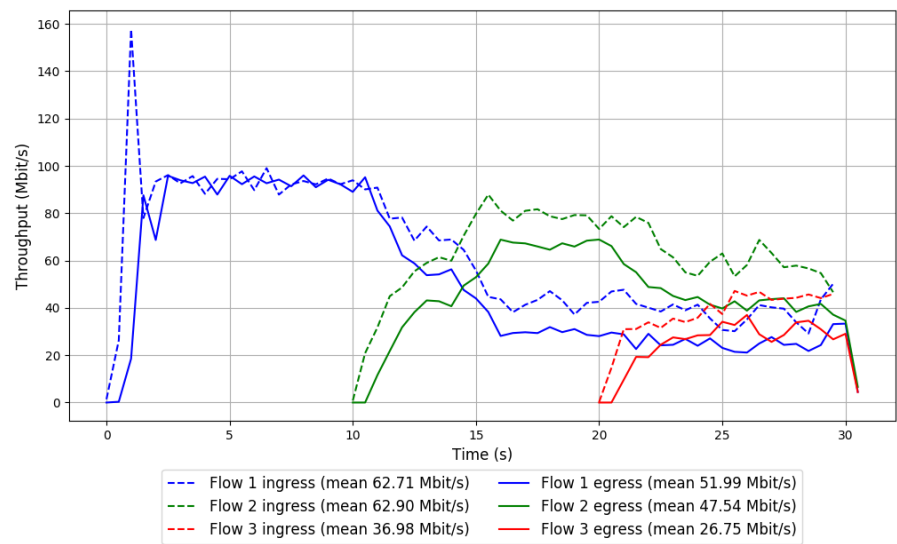
-- Flow 3:

Average throughput: 26.75 Mbit/s

95th percentile per-packet one-way delay: 110.037 ms

Loss rate: 27.67%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-02-20 02:22:13

End at: 2019-02-20 02:22:43

Local clock offset: -5.474 ms

Remote clock offset: 5.175 ms

Below is generated by plot.py at 2019-02-20 02:38:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.41 Mbit/s

95th percentile per-packet one-way delay: 108.806 ms

Loss rate: 22.67%

-- Flow 1:

Average throughput: 45.34 Mbit/s

95th percentile per-packet one-way delay: 107.939 ms

Loss rate: 18.25%

-- Flow 2:

Average throughput: 47.37 Mbit/s

95th percentile per-packet one-way delay: 108.370 ms

Loss rate: 27.82%

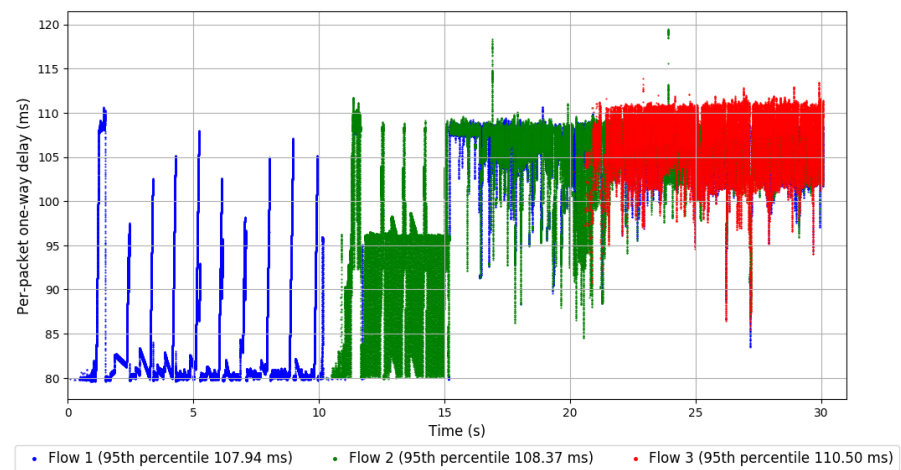
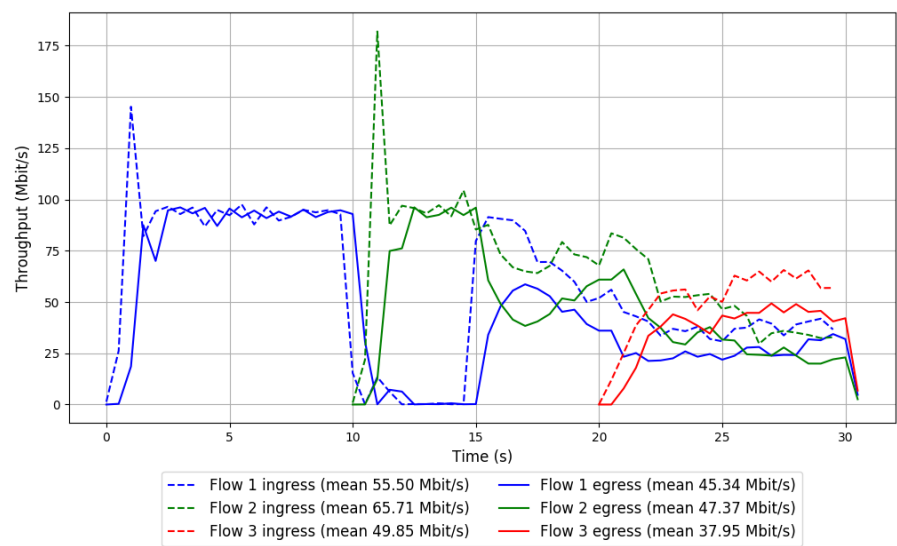
-- Flow 3:

Average throughput: 37.95 Mbit/s

95th percentile per-packet one-way delay: 110.505 ms

Loss rate: 23.85%

Run 5: Report of FillP — Data Link

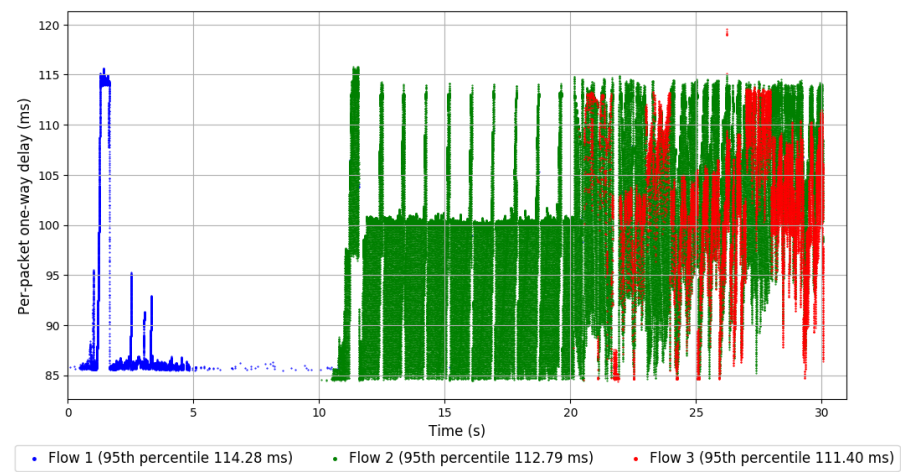
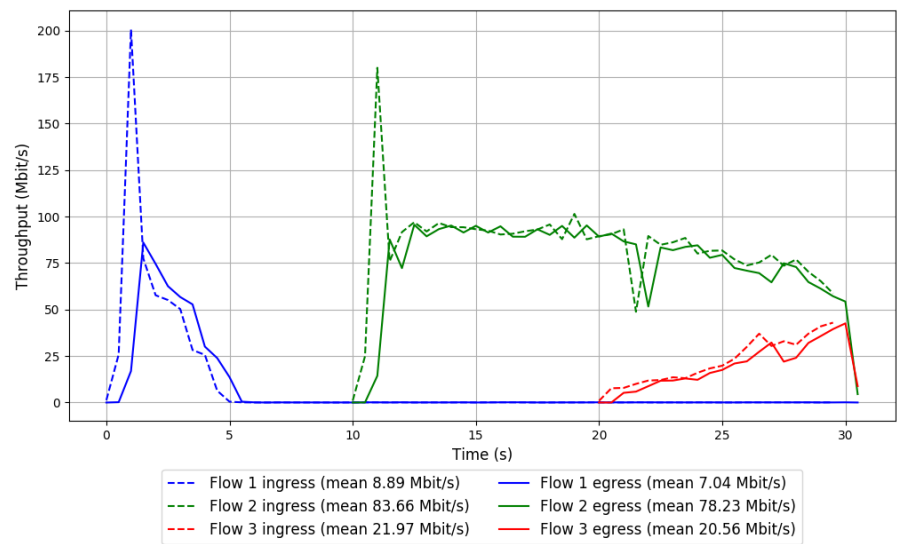


Run 1: Statistics of FillP-Sheep

Start at: 2019-02-20 00:38:56
End at: 2019-02-20 00:39:26
Local clock offset: -9.825 ms
Remote clock offset: -0.238 ms

Below is generated by plot.py at 2019-02-20 02:38:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 65.94 Mbit/s
95th percentile per-packet one-way delay: 112.863 ms
Loss rate: 8.20%
-- Flow 1:
Average throughput: 7.04 Mbit/s
95th percentile per-packet one-way delay: 114.284 ms
Loss rate: 20.84%
-- Flow 2:
Average throughput: 78.23 Mbit/s
95th percentile per-packet one-way delay: 112.789 ms
Loss rate: 6.42%
-- Flow 3:
Average throughput: 20.56 Mbit/s
95th percentile per-packet one-way delay: 111.402 ms
Loss rate: 6.33%

Run 1: Report of FillP-Sheep — Data Link

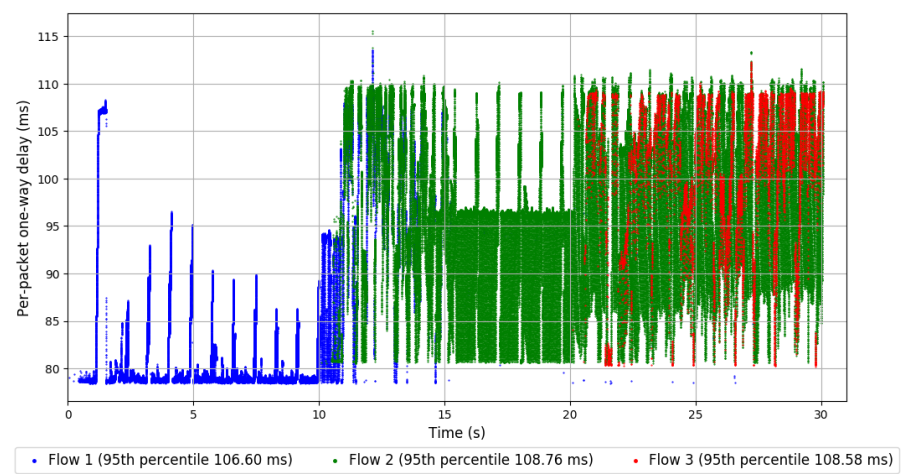
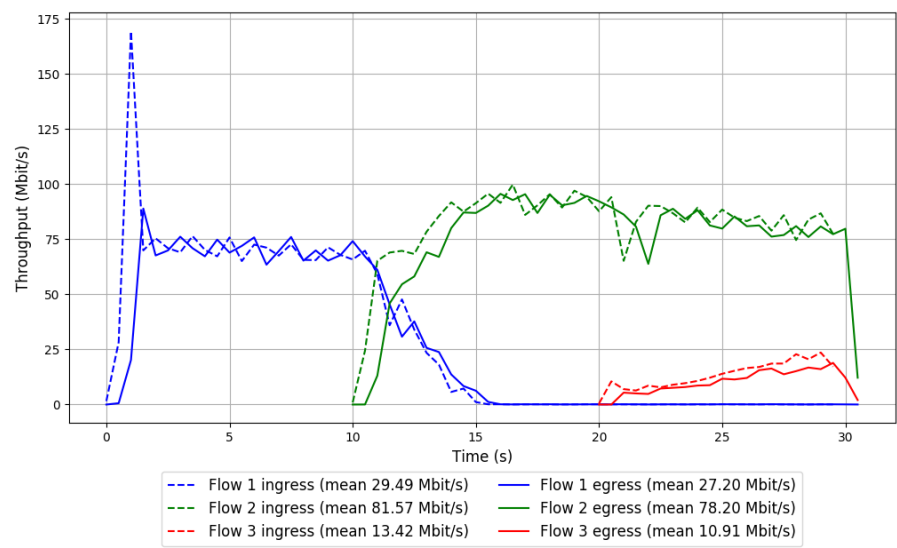


Run 2: Statistics of FillP-Sheep

Start at: 2019-02-20 01:05:39
End at: 2019-02-20 01:06:09
Local clock offset: -9.989 ms
Remote clock offset: -5.574 ms

Below is generated by plot.py at 2019-02-20 02:39:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 82.88 Mbit/s
95th percentile per-packet one-way delay: 108.466 ms
Loss rate: 5.96%
-- Flow 1:
Average throughput: 27.20 Mbit/s
95th percentile per-packet one-way delay: 106.599 ms
Loss rate: 7.70%
-- Flow 2:
Average throughput: 78.20 Mbit/s
95th percentile per-packet one-way delay: 108.761 ms
Loss rate: 4.00%
-- Flow 3:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 108.582 ms
Loss rate: 18.45%

Run 2: Report of FillP-Sheep — Data Link

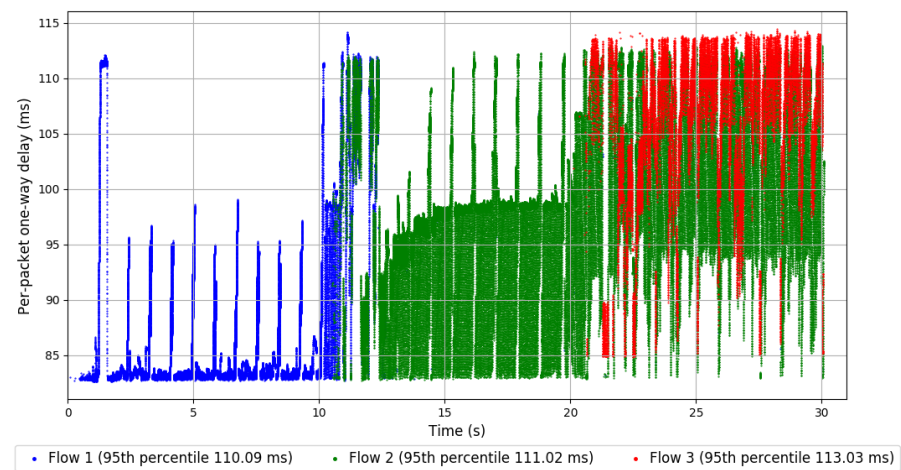
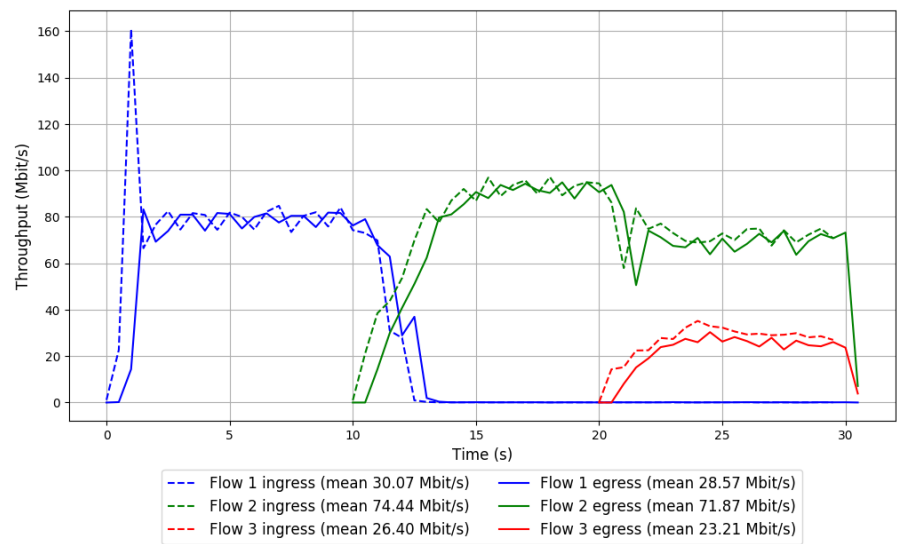


Run 3: Statistics of FillP-Sheep

Start at: 2019-02-20 01:32:25
End at: 2019-02-20 01:32:55
Local clock offset: -11.649 ms
Remote clock offset: -0.069 ms

Below is generated by plot.py at 2019-02-20 02:39:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 84.08 Mbit/s
95th percentile per-packet one-way delay: 111.173 ms
Loss rate: 4.81%
-- Flow 1:
Average throughput: 28.57 Mbit/s
95th percentile per-packet one-way delay: 110.094 ms
Loss rate: 4.99%
-- Flow 2:
Average throughput: 71.87 Mbit/s
95th percentile per-packet one-way delay: 111.022 ms
Loss rate: 3.39%
-- Flow 3:
Average throughput: 23.21 Mbit/s
95th percentile per-packet one-way delay: 113.025 ms
Loss rate: 12.23%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-02-20 01:59:23

End at: 2019-02-20 01:59:53

Local clock offset: -4.271 ms

Remote clock offset: 8.111 ms

Below is generated by plot.py at 2019-02-20 02:39:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.28 Mbit/s

95th percentile per-packet one-way delay: 111.605 ms

Loss rate: 5.15%

-- Flow 1:

Average throughput: 28.54 Mbit/s

95th percentile per-packet one-way delay: 110.239 ms

Loss rate: 4.98%

-- Flow 2:

Average throughput: 76.05 Mbit/s

95th percentile per-packet one-way delay: 111.619 ms

Loss rate: 3.84%

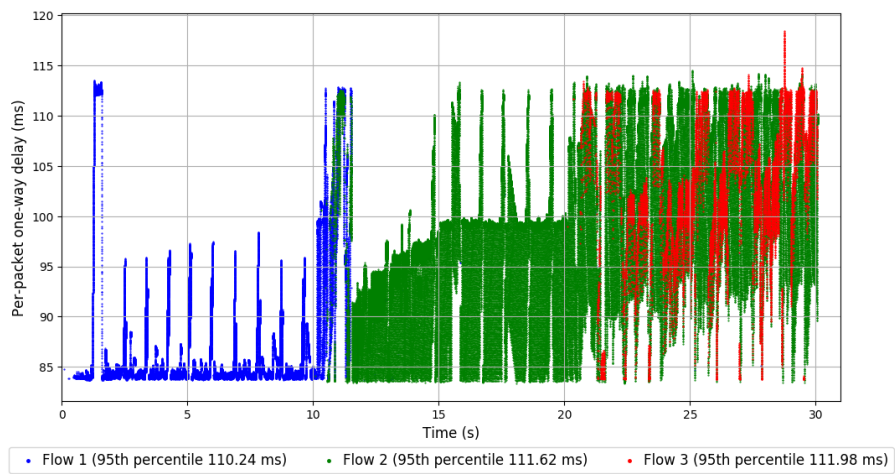
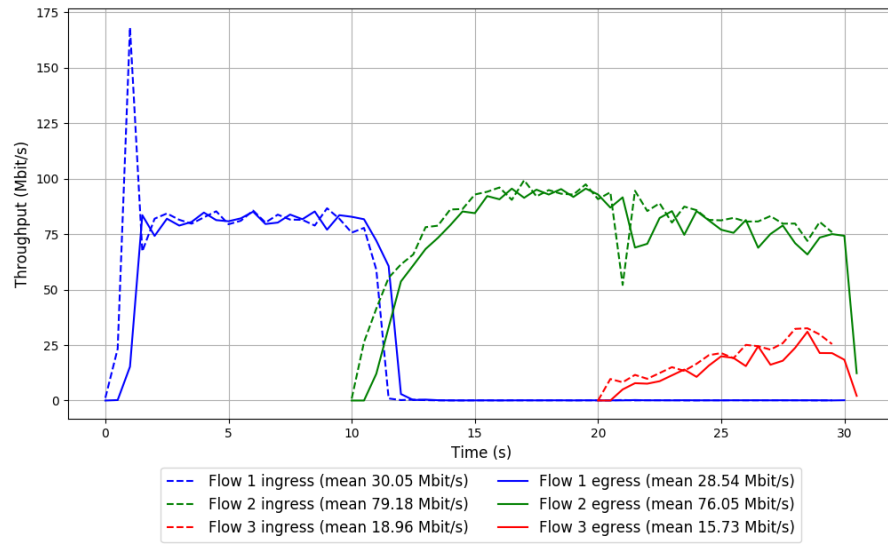
-- Flow 3:

Average throughput: 15.73 Mbit/s

95th percentile per-packet one-way delay: 111.979 ms

Loss rate: 17.01%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-02-20 02:26:03

End at: 2019-02-20 02:26:33

Local clock offset: -5.384 ms

Remote clock offset: 9.445 ms

Below is generated by plot.py at 2019-02-20 02:39:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.63 Mbit/s

95th percentile per-packet one-way delay: 114.515 ms

Loss rate: 9.61%

-- Flow 1:

Average throughput: 28.05 Mbit/s

95th percentile per-packet one-way delay: 100.053 ms

Loss rate: 4.35%

-- Flow 2:

Average throughput: 62.84 Mbit/s

95th percentile per-packet one-way delay: 114.992 ms

Loss rate: 9.58%

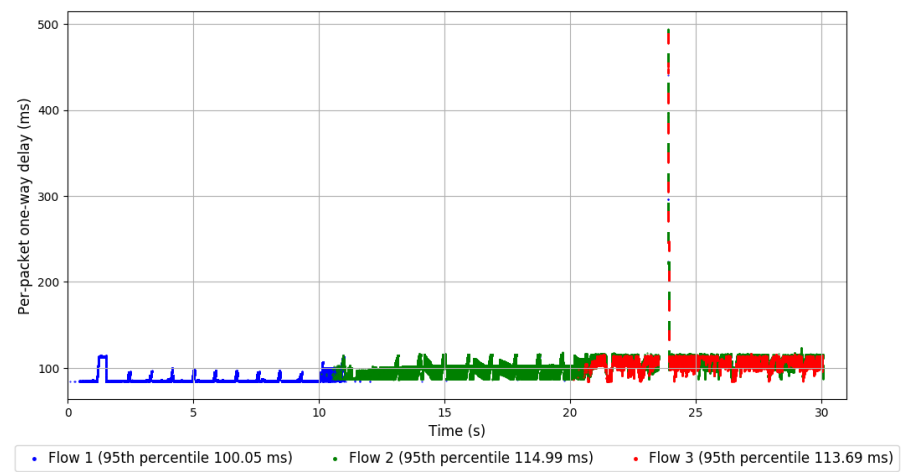
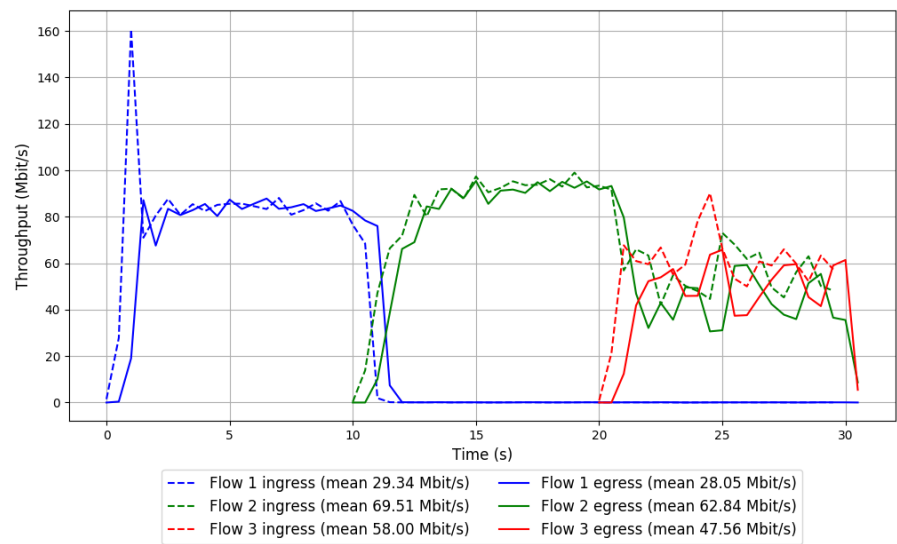
-- Flow 3:

Average throughput: 47.56 Mbit/s

95th percentile per-packet one-way delay: 113.694 ms

Loss rate: 17.78%

Run 5: Report of FillP-Sheep — Data Link

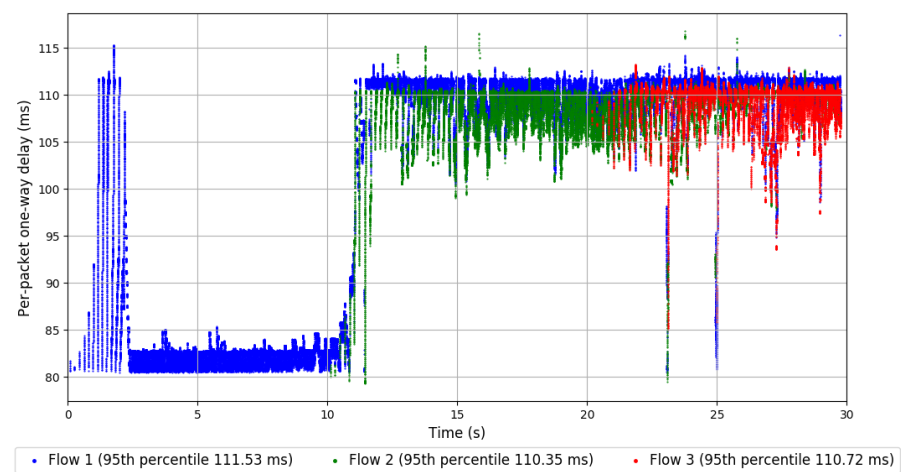
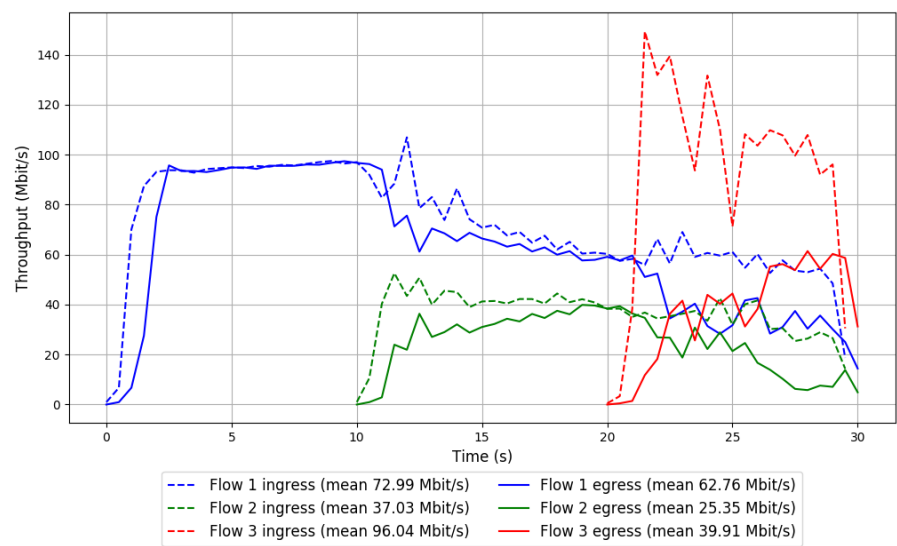


Run 1: Statistics of Indigo

Start at: 2019-02-20 00:45:17
End at: 2019-02-20 00:45:47
Local clock offset: -8.627 ms
Remote clock offset: -5.621 ms

Below is generated by plot.py at 2019-02-20 02:39:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.38 Mbit/s
95th percentile per-packet one-way delay: 111.504 ms
Loss rate: 28.01%
-- Flow 1:
Average throughput: 62.76 Mbit/s
95th percentile per-packet one-way delay: 111.529 ms
Loss rate: 13.92%
-- Flow 2:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 110.347 ms
Loss rate: 31.43%
-- Flow 3:
Average throughput: 39.91 Mbit/s
95th percentile per-packet one-way delay: 110.723 ms
Loss rate: 58.45%

Run 1: Report of Indigo — Data Link

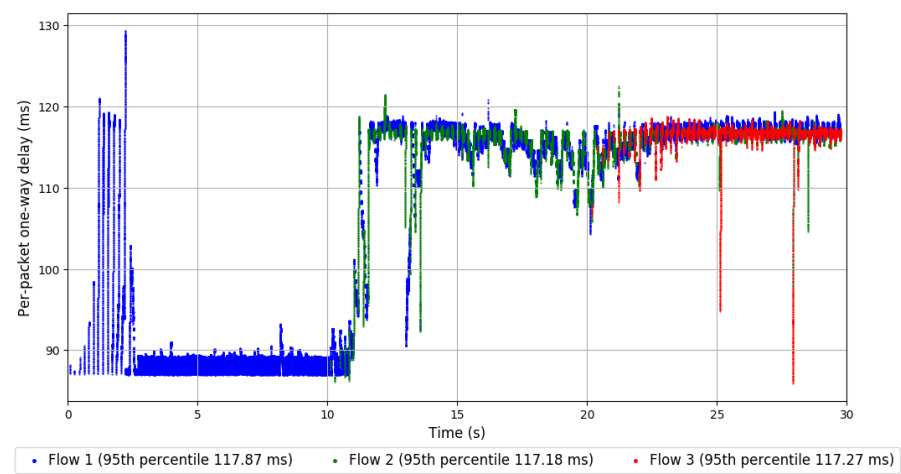
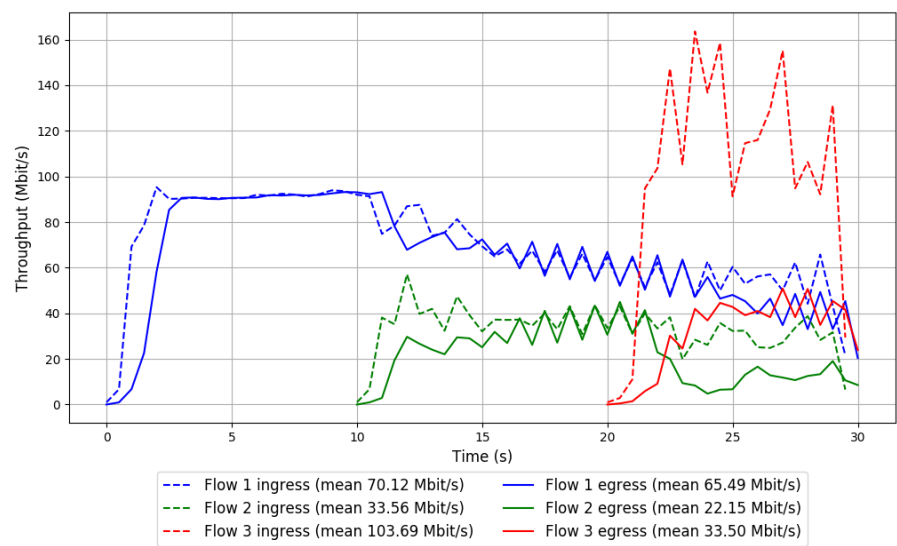


Run 2: Statistics of Indigo

Start at: 2019-02-20 01:12:00
End at: 2019-02-20 01:12:30
Local clock offset: -11.779 ms
Remote clock offset: 2.187 ms

Below is generated by plot.py at 2019-02-20 02:39:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.87 Mbit/s
95th percentile per-packet one-way delay: 117.846 ms
Loss rate: 27.63%
-- Flow 1:
Average throughput: 65.49 Mbit/s
95th percentile per-packet one-way delay: 117.870 ms
Loss rate: 6.50%
-- Flow 2:
Average throughput: 22.15 Mbit/s
95th percentile per-packet one-way delay: 117.183 ms
Loss rate: 33.91%
-- Flow 3:
Average throughput: 33.50 Mbit/s
95th percentile per-packet one-way delay: 117.269 ms
Loss rate: 67.66%

Run 2: Report of Indigo — Data Link

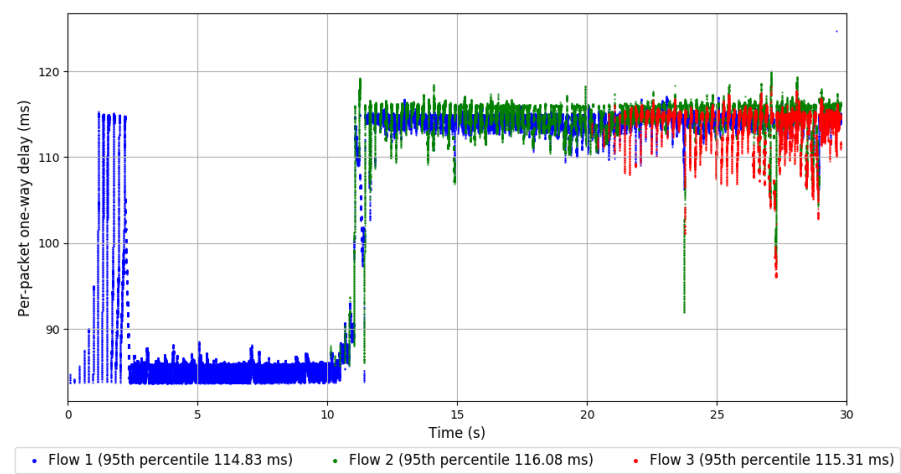
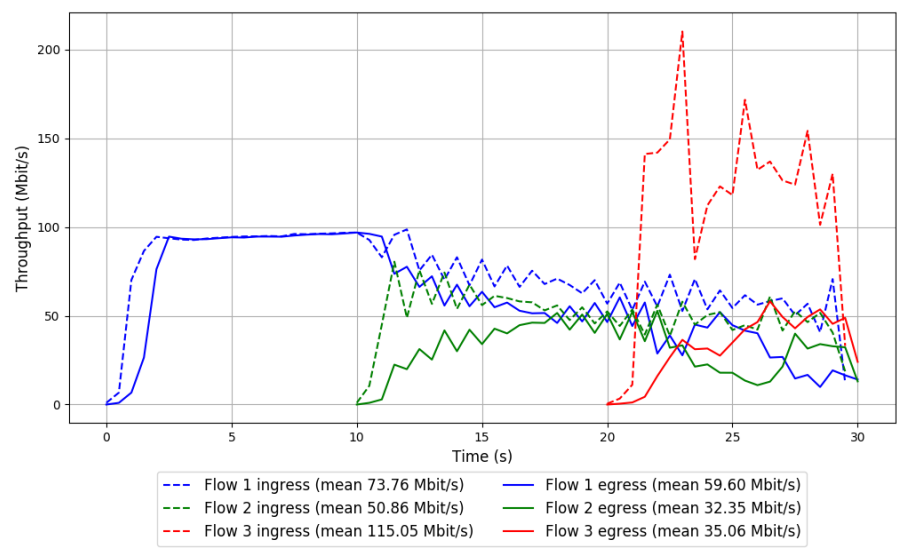


Run 3: Statistics of Indigo

Start at: 2019-02-20 01:38:50
End at: 2019-02-20 01:39:20
Local clock offset: -8.253 ms
Remote clock offset: 1.401 ms

Below is generated by plot.py at 2019-02-20 02:39:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 115.791 ms
Loss rate: 36.07%
-- Flow 1:
Average throughput: 59.60 Mbit/s
95th percentile per-packet one-way delay: 114.832 ms
Loss rate: 19.12%
-- Flow 2:
Average throughput: 32.35 Mbit/s
95th percentile per-packet one-way delay: 116.082 ms
Loss rate: 36.30%
-- Flow 3:
Average throughput: 35.06 Mbit/s
95th percentile per-packet one-way delay: 115.308 ms
Loss rate: 69.53%

Run 3: Report of Indigo — Data Link

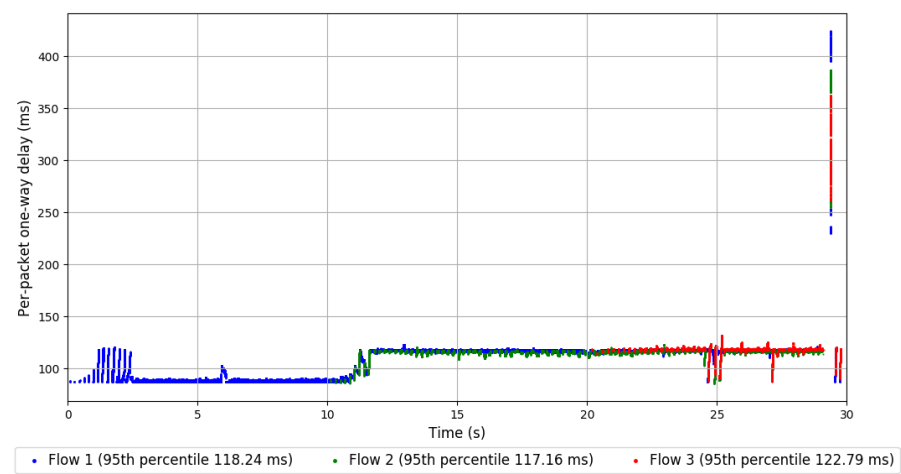
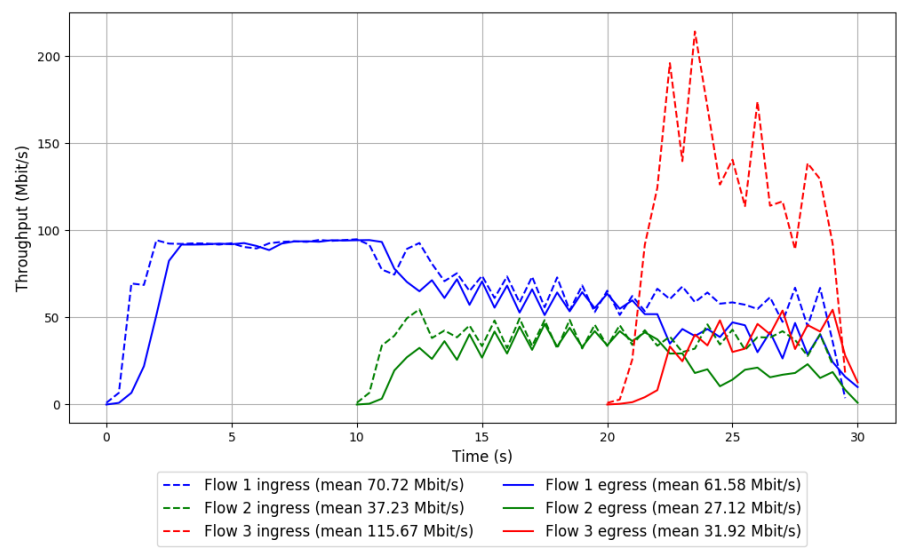


Run 4: Statistics of Indigo

Start at: 2019-02-20 02:05:43
End at: 2019-02-20 02:06:13
Local clock offset: -5.127 ms
Remote clock offset: 11.614 ms

Below is generated by plot.py at 2019-02-20 02:39:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.68 Mbit/s
95th percentile per-packet one-way delay: 118.874 ms
Loss rate: 32.27%
-- Flow 1:
Average throughput: 61.58 Mbit/s
95th percentile per-packet one-way delay: 118.240 ms
Loss rate: 12.83%
-- Flow 2:
Average throughput: 27.12 Mbit/s
95th percentile per-packet one-way delay: 117.159 ms
Loss rate: 27.04%
-- Flow 3:
Average throughput: 31.92 Mbit/s
95th percentile per-packet one-way delay: 122.788 ms
Loss rate: 72.40%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-02-20 02:32:24

End at: 2019-02-20 02:32:54

Local clock offset: -5.464 ms

Remote clock offset: 7.039 ms

Below is generated by plot.py at 2019-02-20 02:40:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.85 Mbit/s

95th percentile per-packet one-way delay: 113.810 ms

Loss rate: 33.52%

-- Flow 1:

Average throughput: 62.21 Mbit/s

95th percentile per-packet one-way delay: 113.588 ms

Loss rate: 15.16%

-- Flow 2:

Average throughput: 28.18 Mbit/s

95th percentile per-packet one-way delay: 113.666 ms

Loss rate: 31.99%

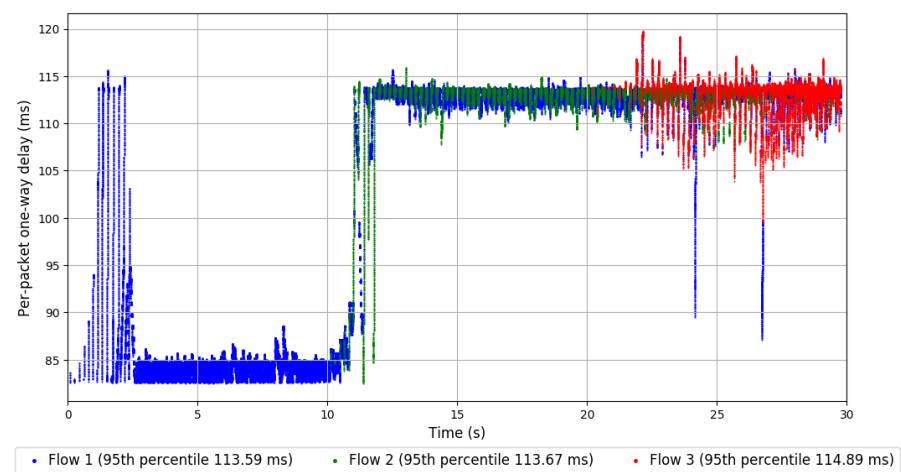
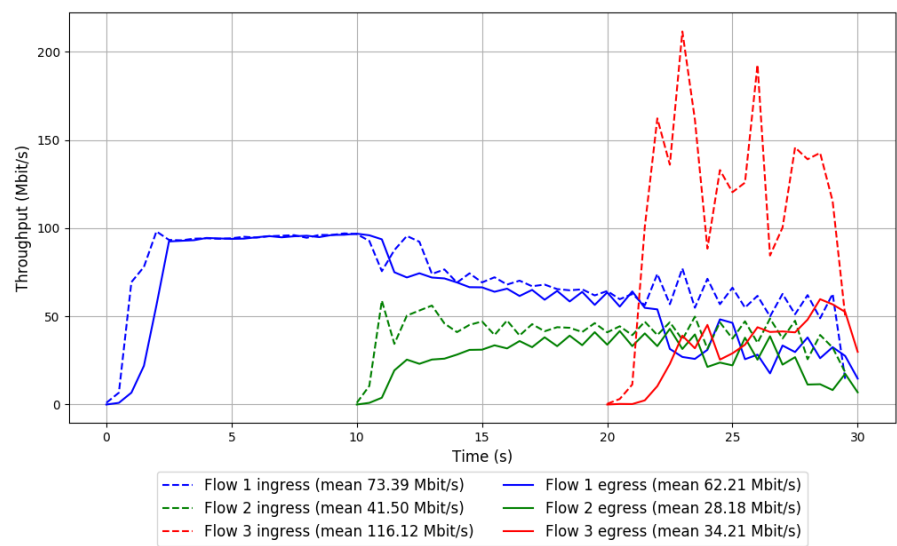
-- Flow 3:

Average throughput: 34.21 Mbit/s

95th percentile per-packet one-way delay: 114.888 ms

Loss rate: 70.55%

Run 5: Report of Indigo — Data Link

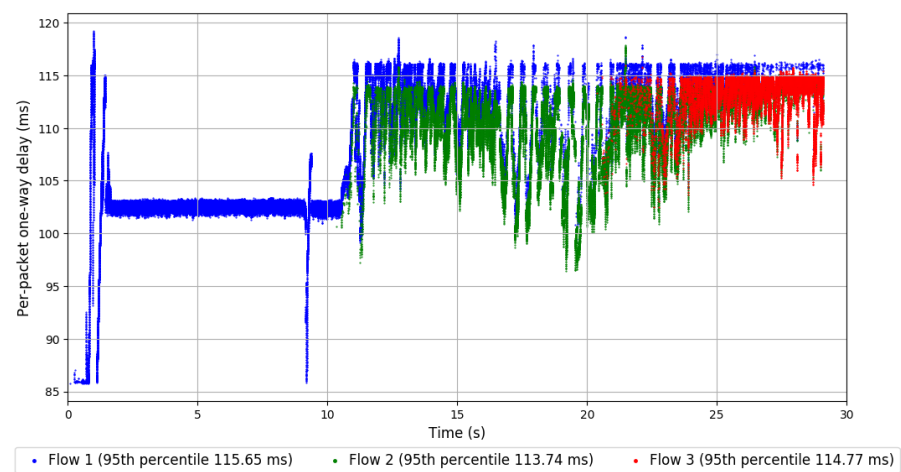
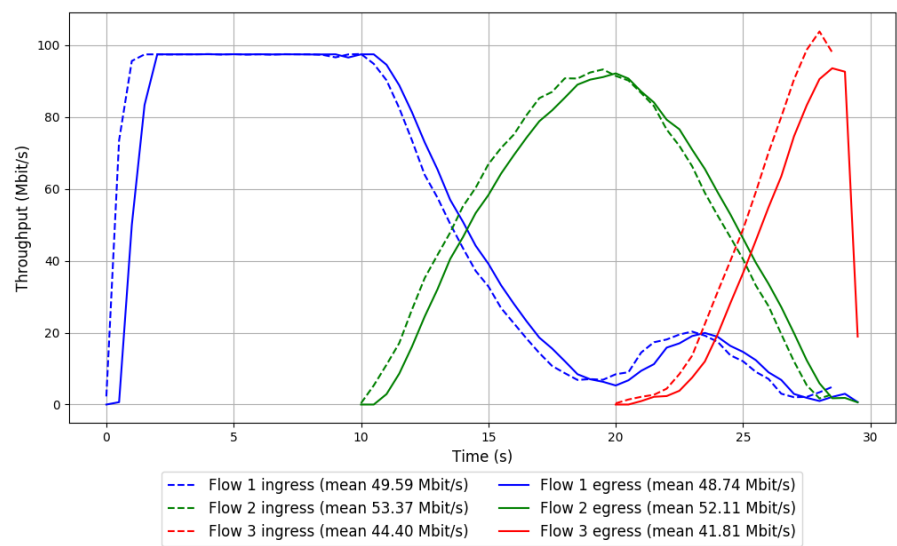


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-02-20 00:22:22
End at: 2019-02-20 00:22:52
Local clock offset: -13.353 ms
Remote clock offset: -1.103 ms

Below is generated by plot.py at 2019-02-20 02:40:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 114.835 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 48.74 Mbit/s
95th percentile per-packet one-way delay: 115.646 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 52.11 Mbit/s
95th percentile per-packet one-way delay: 113.736 ms
Loss rate: 2.30%
-- Flow 3:
Average throughput: 41.81 Mbit/s
95th percentile per-packet one-way delay: 114.769 ms
Loss rate: 5.82%

Run 1: Report of Indigo-MusesC3 — Data Link

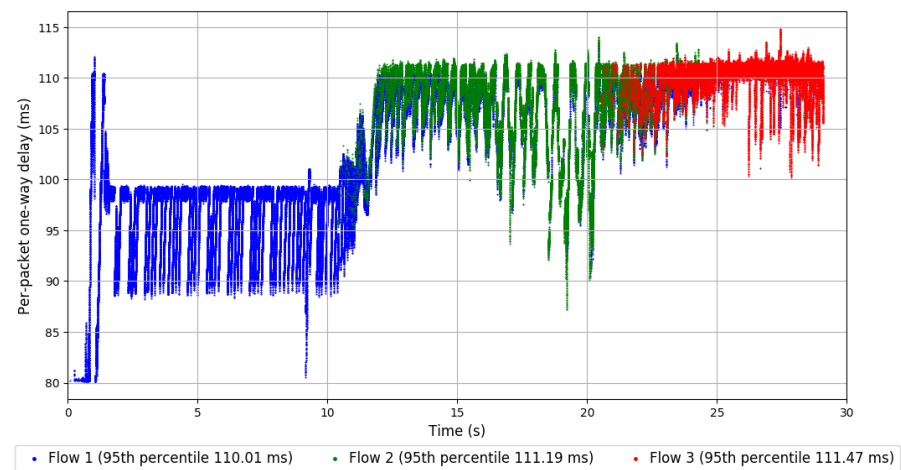
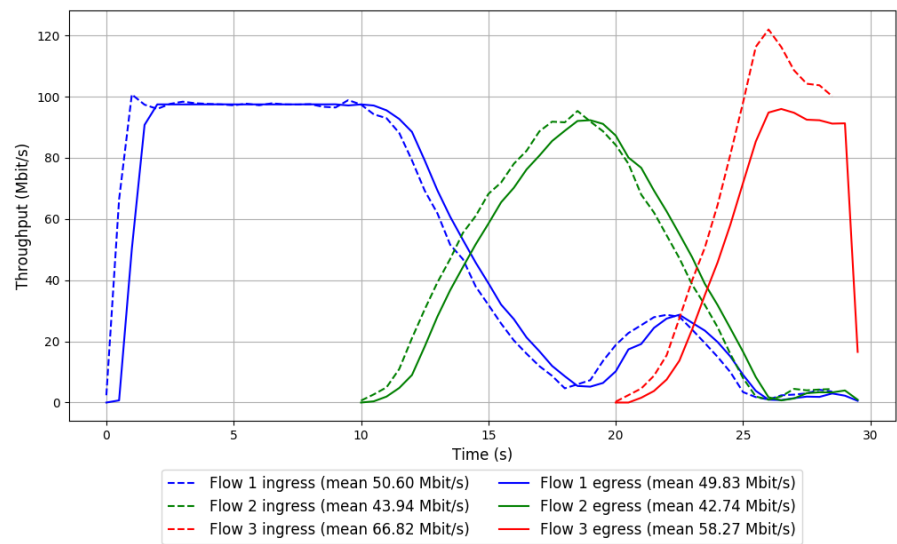


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-20 00:49:07
End at: 2019-02-20 00:49:37
Local clock offset: -8.03 ms
Remote clock offset: -4.542 ms

Below is generated by plot.py at 2019-02-20 02:40:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 111.223 ms
Loss rate: 4.08%
-- Flow 1:
Average throughput: 49.83 Mbit/s
95th percentile per-packet one-way delay: 110.006 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 42.74 Mbit/s
95th percentile per-packet one-way delay: 111.189 ms
Loss rate: 2.67%
-- Flow 3:
Average throughput: 58.27 Mbit/s
95th percentile per-packet one-way delay: 111.474 ms
Loss rate: 12.76%

Run 2: Report of Indigo-MusesC3 — Data Link

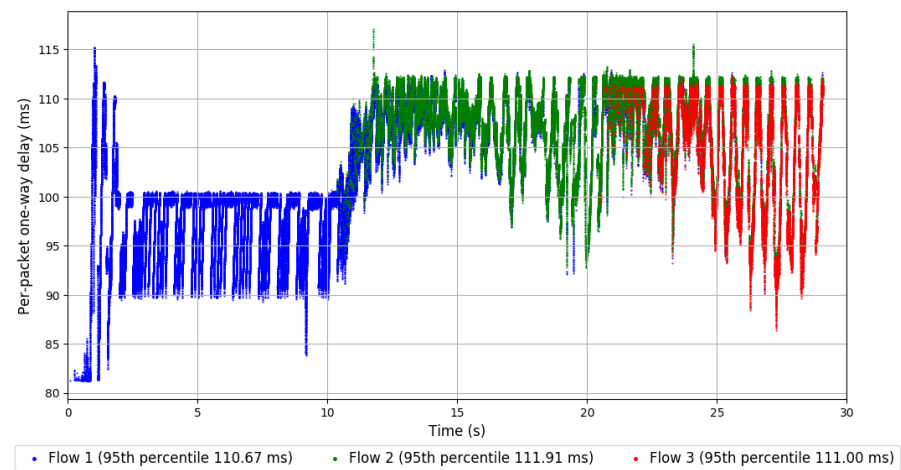
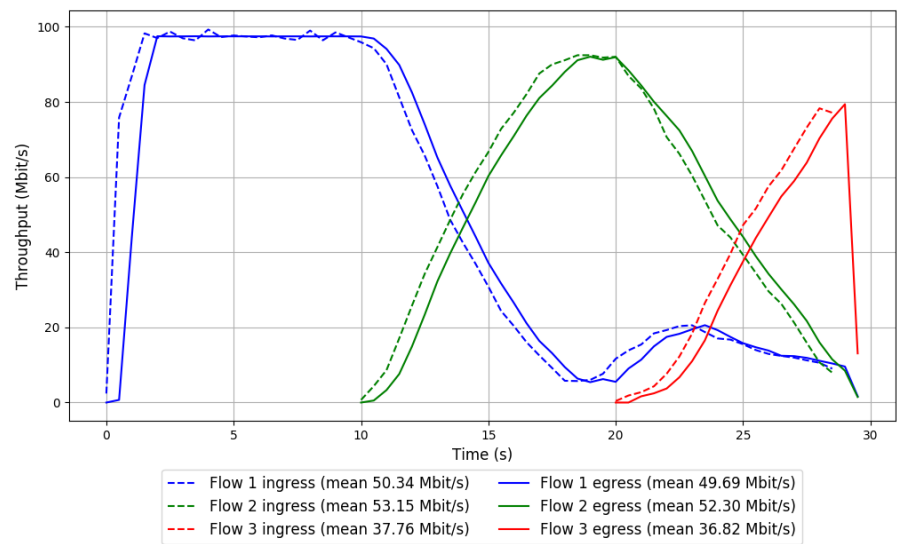


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-20 01:15:51
End at: 2019-02-20 01:16:21
Local clock offset: -12.517 ms
Remote clock offset: -2.263 ms

Below is generated by plot.py at 2019-02-20 02:40:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.91 Mbit/s
95th percentile per-packet one-way delay: 111.555 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 49.69 Mbit/s
95th percentile per-packet one-way delay: 110.666 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 52.30 Mbit/s
95th percentile per-packet one-way delay: 111.908 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 36.82 Mbit/s
95th percentile per-packet one-way delay: 110.995 ms
Loss rate: 2.48%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-20 01:42:41

End at: 2019-02-20 01:43:11

Local clock offset: -7.12 ms

Remote clock offset: 1.954 ms

Below is generated by plot.py at 2019-02-20 02:40:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.07 Mbit/s

95th percentile per-packet one-way delay: 114.014 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 49.27 Mbit/s

95th percentile per-packet one-way delay: 115.138 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 51.39 Mbit/s

95th percentile per-packet one-way delay: 113.860 ms

Loss rate: 2.28%

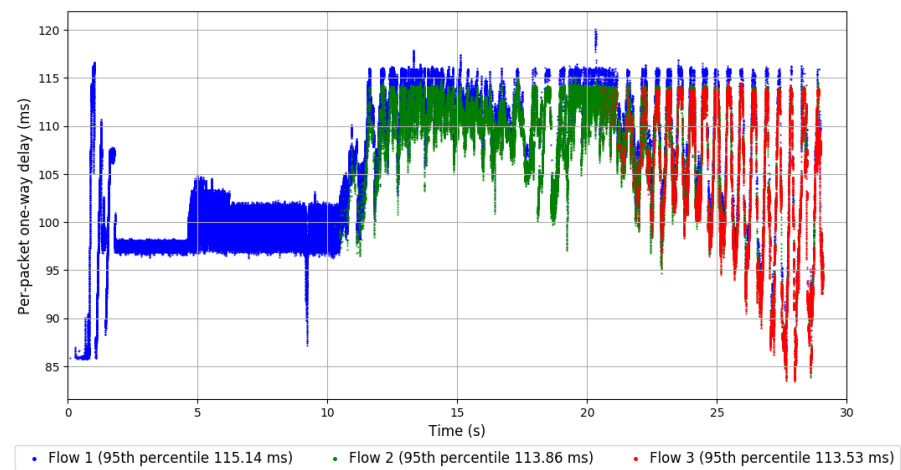
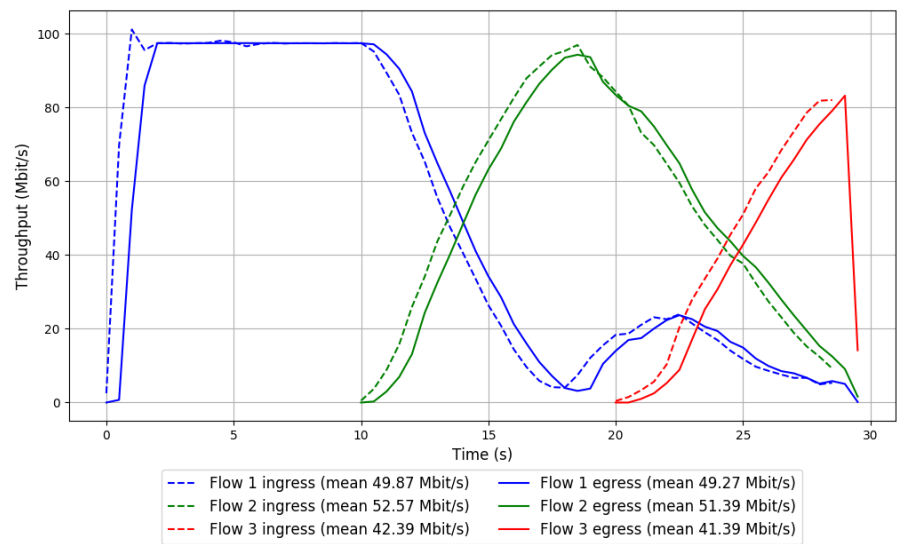
-- Flow 3:

Average throughput: 41.39 Mbit/s

95th percentile per-packet one-way delay: 113.535 ms

Loss rate: 2.53%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-20 02:09:34

End at: 2019-02-20 02:10:04

Local clock offset: -5.414 ms

Remote clock offset: 7.918 ms

Below is generated by plot.py at 2019-02-20 02:40:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.94 Mbit/s

95th percentile per-packet one-way delay: 111.936 ms

Loss rate: 2.51%

-- Flow 1:

Average throughput: 50.20 Mbit/s

95th percentile per-packet one-way delay: 111.968 ms

Loss rate: 2.10%

-- Flow 2:

Average throughput: 49.54 Mbit/s

95th percentile per-packet one-way delay: 111.879 ms

Loss rate: 3.01%

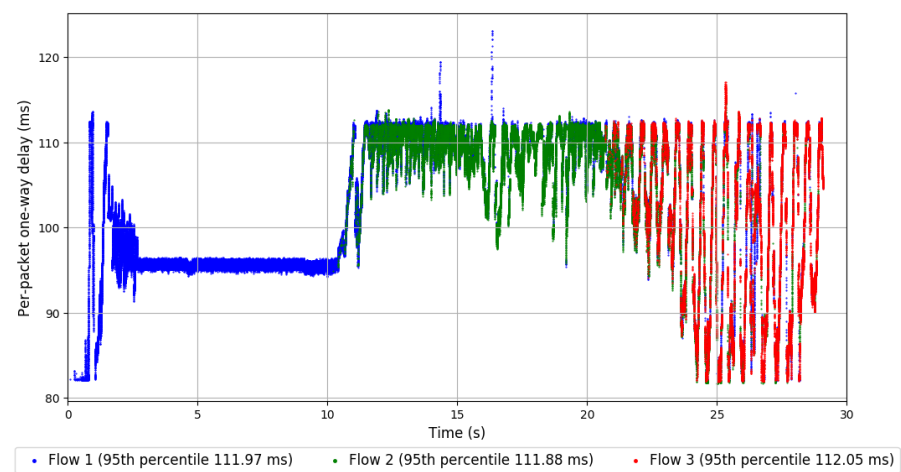
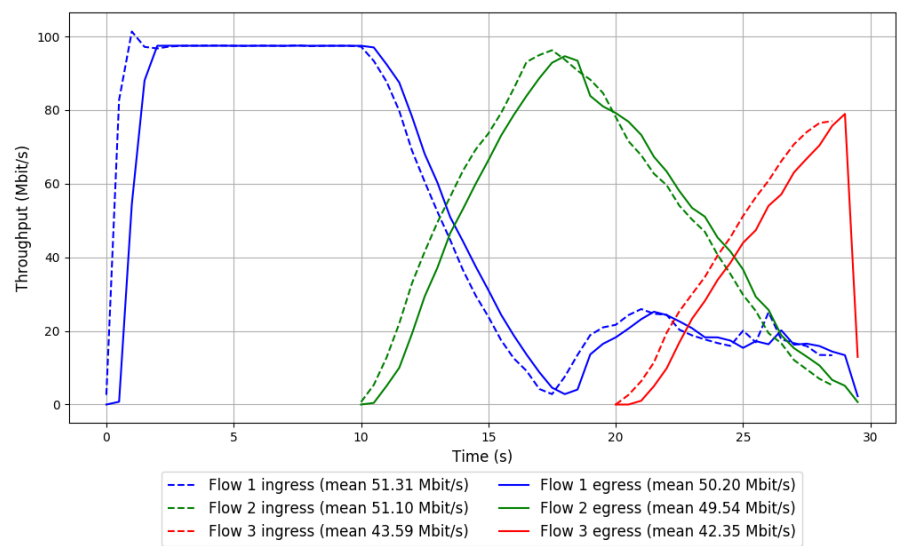
-- Flow 3:

Average throughput: 42.35 Mbit/s

95th percentile per-packet one-way delay: 112.047 ms

Loss rate: 2.89%

Run 5: Report of Indigo-MusesC3 — Data Link

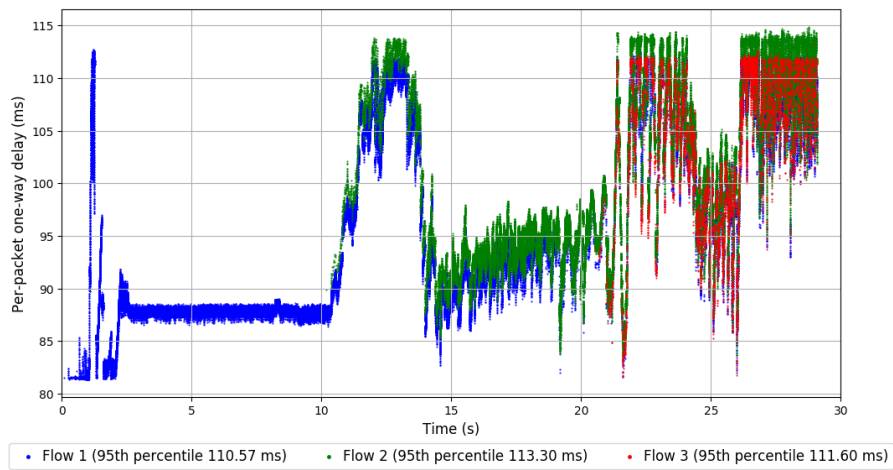
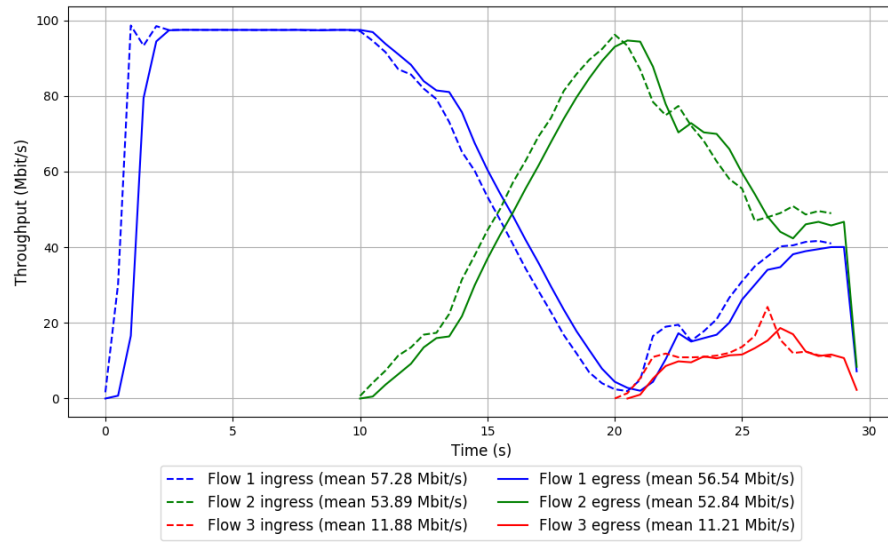


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-20 00:31:12
End at: 2019-02-20 00:31:42
Local clock offset: -12.8 ms
Remote clock offset: -4.119 ms

Below is generated by plot.py at 2019-02-20 02:41:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.29 Mbit/s
95th percentile per-packet one-way delay: 111.669 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 56.54 Mbit/s
95th percentile per-packet one-way delay: 110.570 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 52.84 Mbit/s
95th percentile per-packet one-way delay: 113.302 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 111.598 ms
Loss rate: 5.47%

Run 1: Report of Indigo-MusesC5 — Data Link

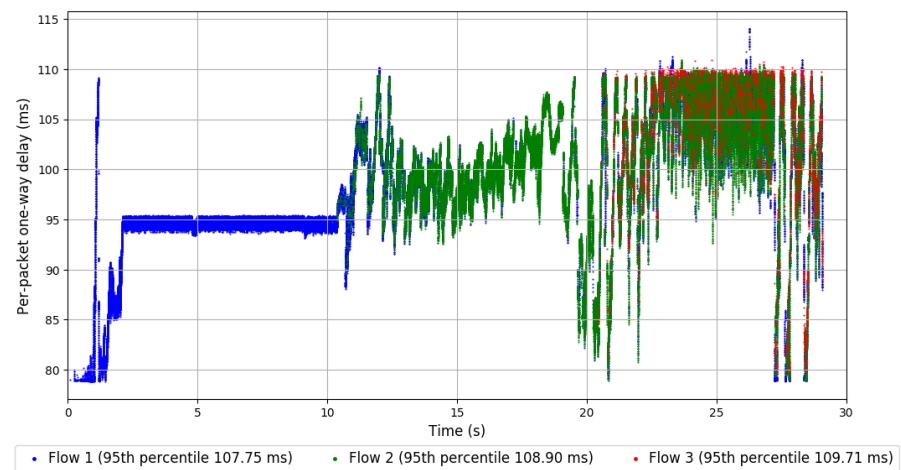
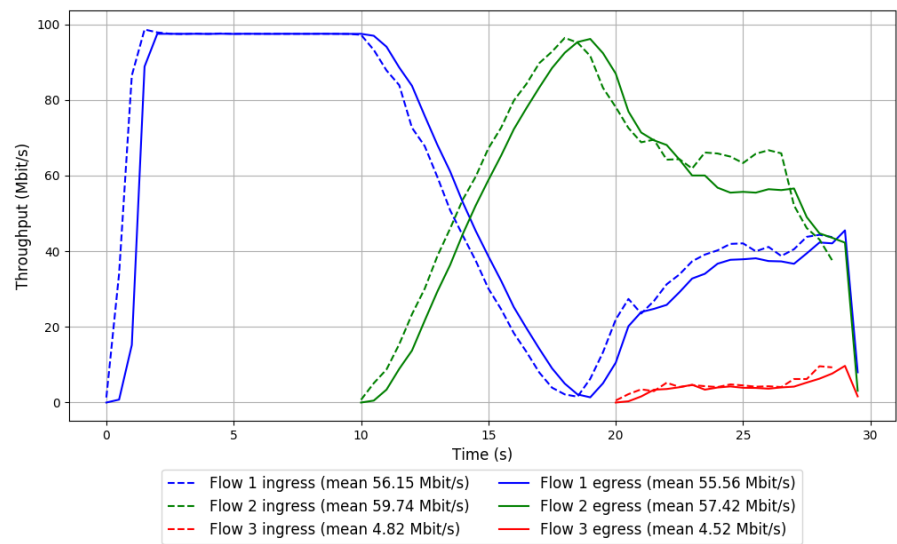


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-20 00:57:59
End at: 2019-02-20 00:58:29
Local clock offset: -7.199 ms
Remote clock offset: -5.566 ms

Below is generated by plot.py at 2019-02-20 02:41:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.27 Mbit/s
95th percentile per-packet one-way delay: 108.584 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 107.754 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 57.42 Mbit/s
95th percentile per-packet one-way delay: 108.896 ms
Loss rate: 3.83%
-- Flow 3:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 109.709 ms
Loss rate: 6.33%

Run 2: Report of Indigo-MusesC5 — Data Link

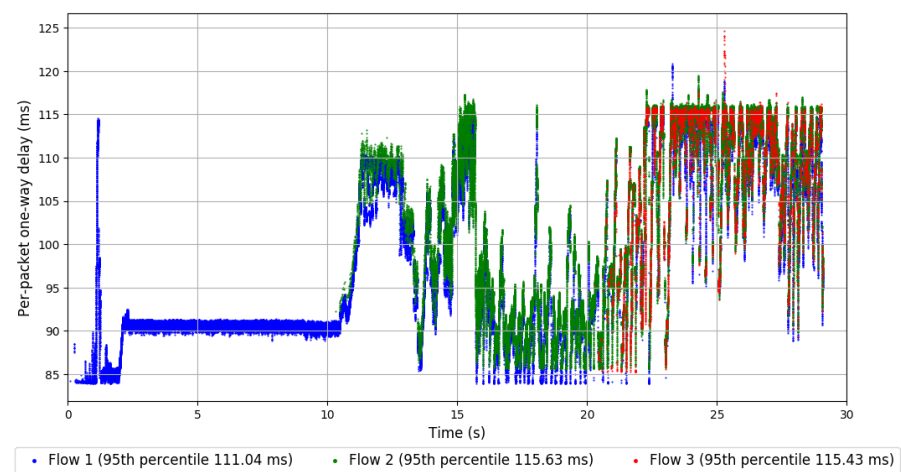
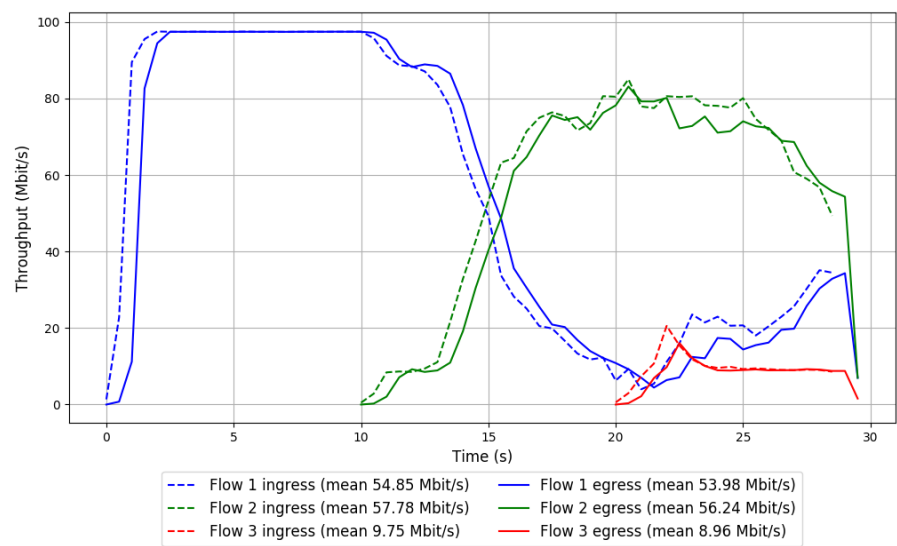


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-20 01:24:45
End at: 2019-02-20 01:25:15
Local clock offset: -13.365 ms
Remote clock offset: 1.036 ms

Below is generated by plot.py at 2019-02-20 02:41:39
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.13 Mbit/s
95th percentile per-packet one-way delay: 115.086 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 53.98 Mbit/s
95th percentile per-packet one-way delay: 111.041 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 56.24 Mbit/s
95th percentile per-packet one-way delay: 115.631 ms
Loss rate: 2.65%
-- Flow 3:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 115.426 ms
Loss rate: 8.05%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-20 01:51:39

End at: 2019-02-20 01:52:09

Local clock offset: -5.306 ms

Remote clock offset: 2.715 ms

Below is generated by plot.py at 2019-02-20 02:41:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.21 Mbit/s

95th percentile per-packet one-way delay: 110.358 ms

Loss rate: 4.16%

-- Flow 1:

Average throughput: 72.67 Mbit/s

95th percentile per-packet one-way delay: 110.305 ms

Loss rate: 3.16%

-- Flow 2:

Average throughput: 19.23 Mbit/s

95th percentile per-packet one-way delay: 110.232 ms

Loss rate: 5.53%

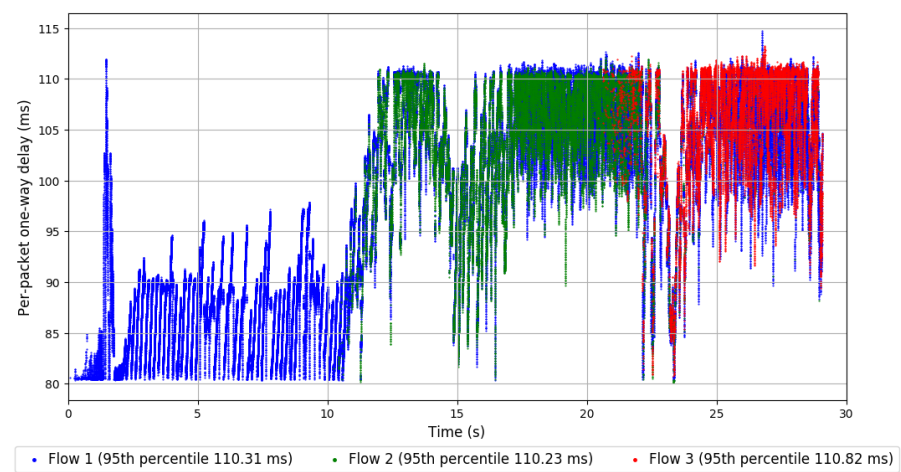
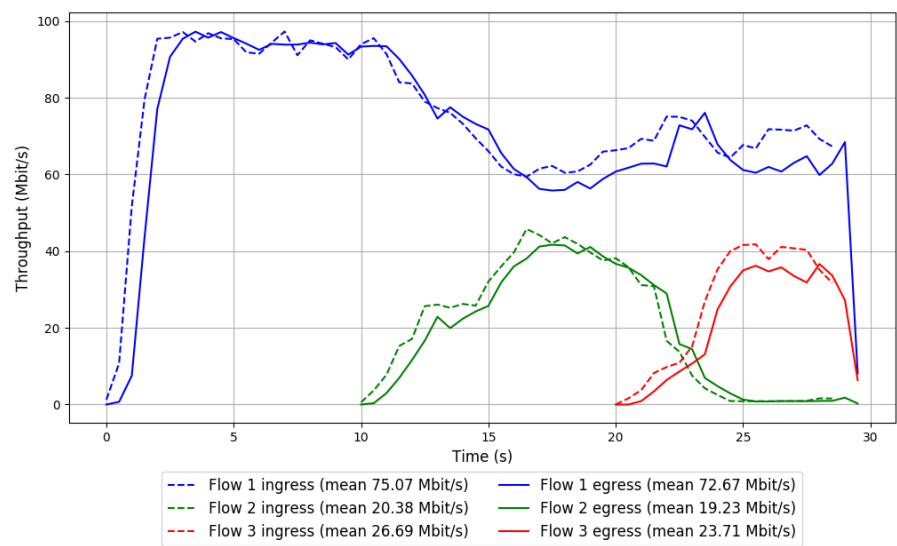
-- Flow 3:

Average throughput: 23.71 Mbit/s

95th percentile per-packet one-way delay: 110.819 ms

Loss rate: 11.32%

Run 4: Report of Indigo-MusesC5 — Data Link

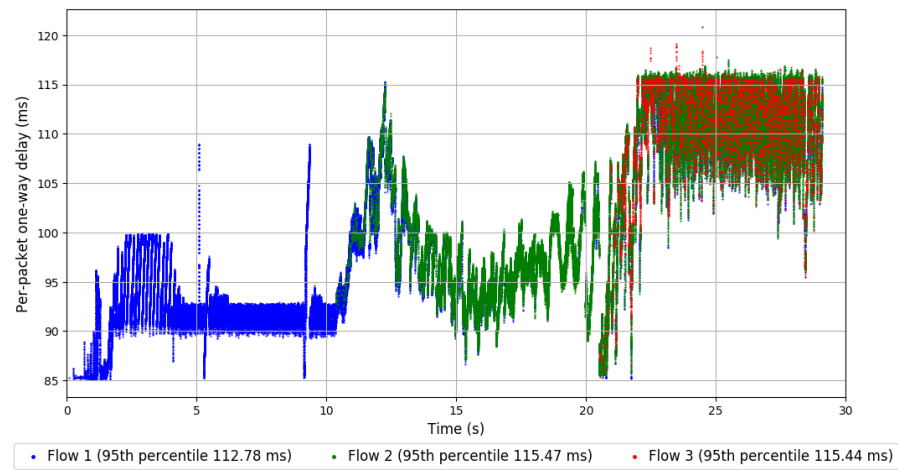
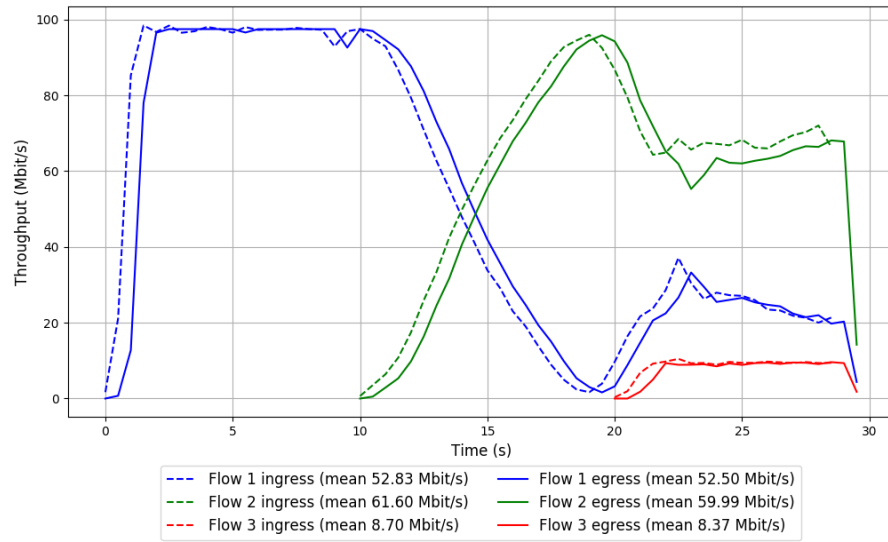


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-20 02:18:24
End at: 2019-02-20 02:18:54
Local clock offset: -5.614 ms
Remote clock offset: 11.252 ms

Below is generated by plot.py at 2019-02-20 02:41:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.12 Mbit/s
95th percentile per-packet one-way delay: 114.994 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 52.50 Mbit/s
95th percentile per-packet one-way delay: 112.784 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 59.99 Mbit/s
95th percentile per-packet one-way delay: 115.469 ms
Loss rate: 2.48%
-- Flow 3:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 115.435 ms
Loss rate: 3.54%

Run 5: Report of Indigo-MusesC5 — Data Link

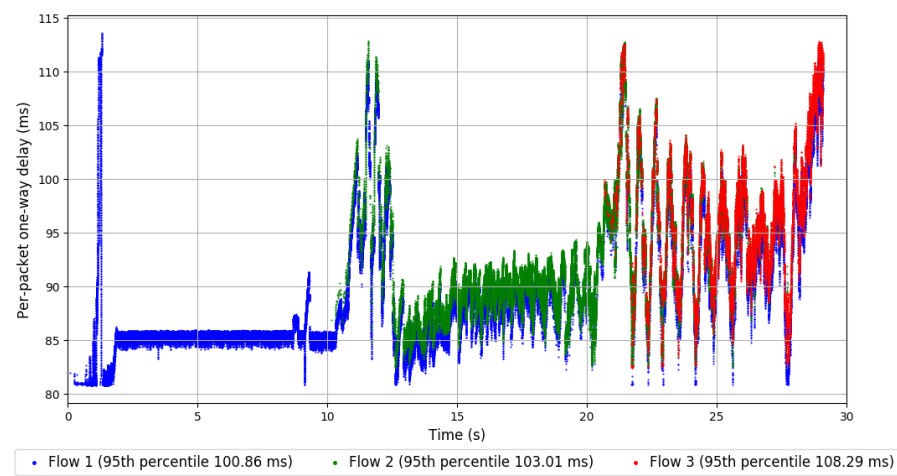
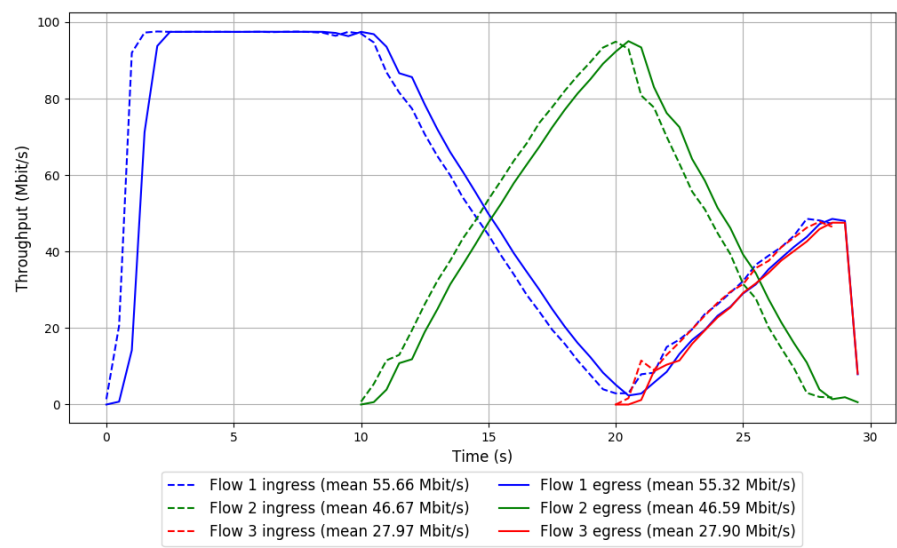


Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-20 00:46:36
End at: 2019-02-20 00:47:06
Local clock offset: -8.349 ms
Remote clock offset: -3.968 ms

Below is generated by plot.py at 2019-02-20 02:41:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.01 Mbit/s
95th percentile per-packet one-way delay: 102.997 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 100.860 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 46.59 Mbit/s
95th percentile per-packet one-way delay: 103.011 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 27.90 Mbit/s
95th percentile per-packet one-way delay: 108.291 ms
Loss rate: 0.09%

Run 1: Report of Indigo-MusesD — Data Link

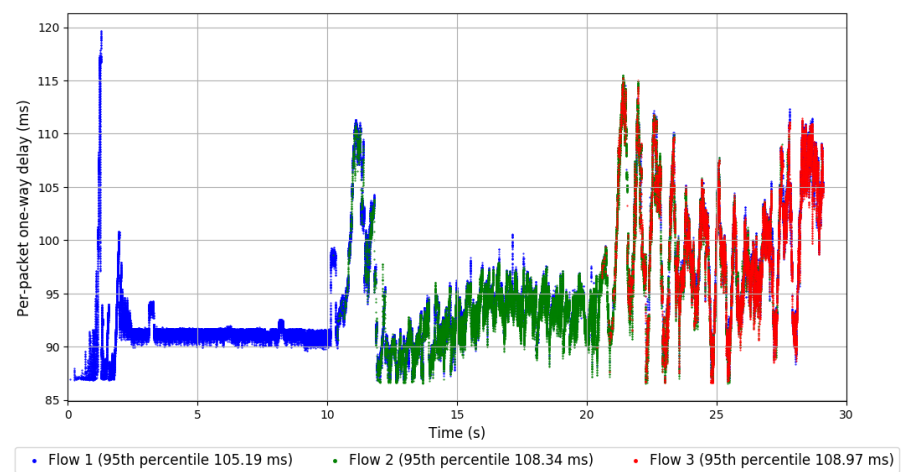
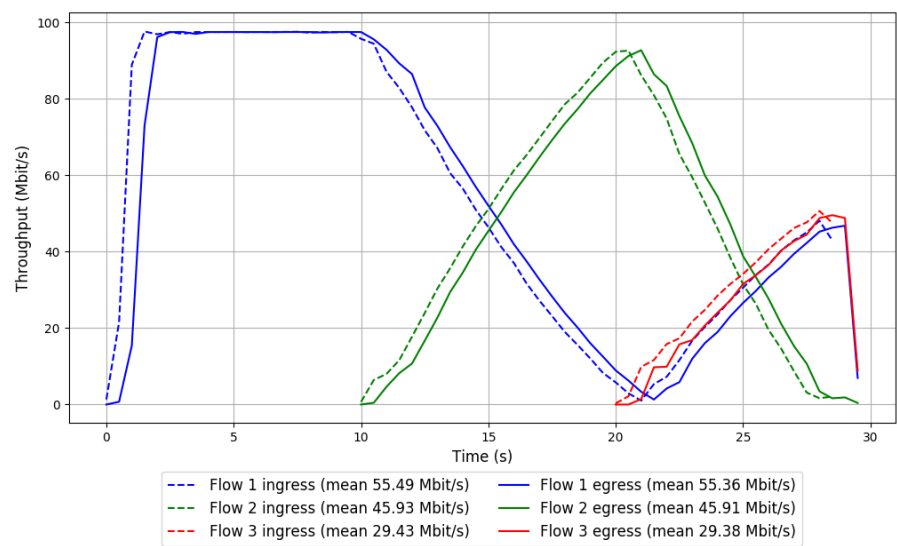


Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-20 01:13:20
End at: 2019-02-20 01:13:50
Local clock offset: -12.132 ms
Remote clock offset: 2.915 ms

Below is generated by plot.py at 2019-02-20 02:41:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.03 Mbit/s
95th percentile per-packet one-way delay: 107.368 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 105.191 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 45.91 Mbit/s
95th percentile per-packet one-way delay: 108.345 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.38 Mbit/s
95th percentile per-packet one-way delay: 108.965 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link

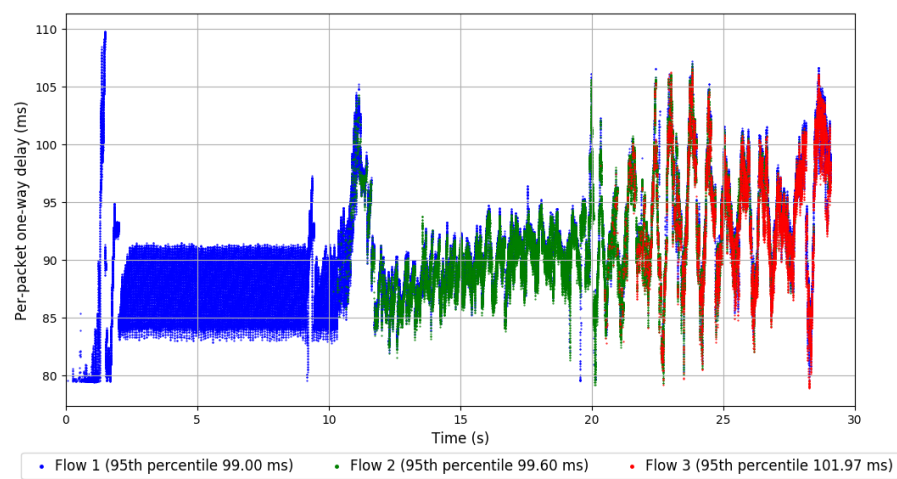
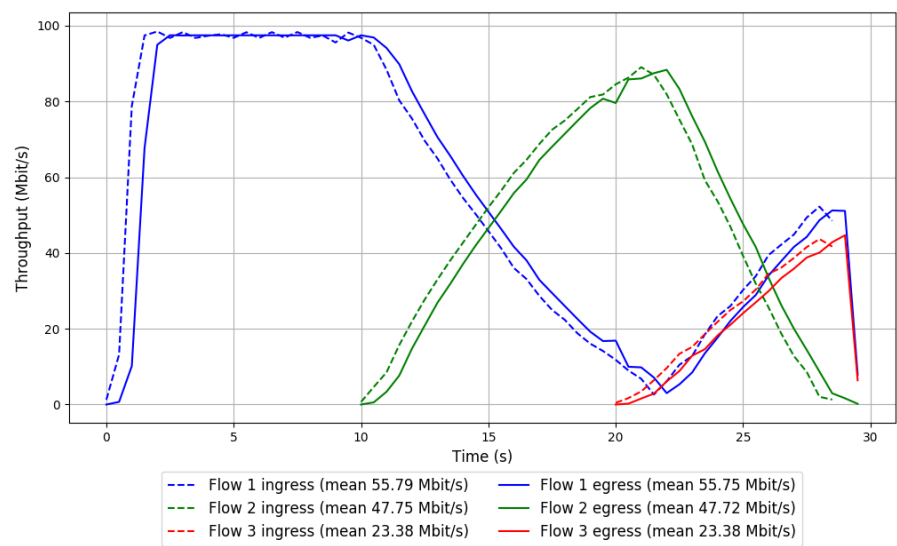


Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-20 01:40:10
End at: 2019-02-20 01:40:40
Local clock offset: -7.799 ms
Remote clock offset: -3.455 ms

Below is generated by plot.py at 2019-02-20 02:42:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.92 Mbit/s
95th percentile per-packet one-way delay: 99.776 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 55.75 Mbit/s
95th percentile per-packet one-way delay: 98.995 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 47.72 Mbit/s
95th percentile per-packet one-way delay: 99.603 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 101.965 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link

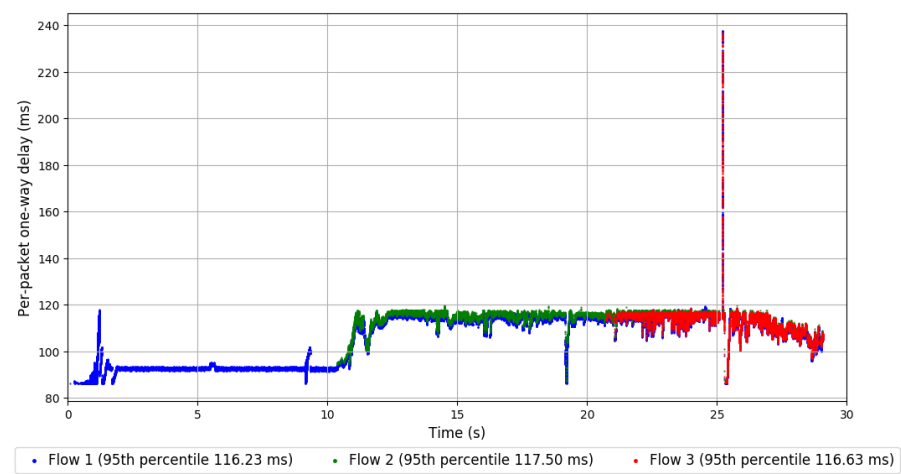
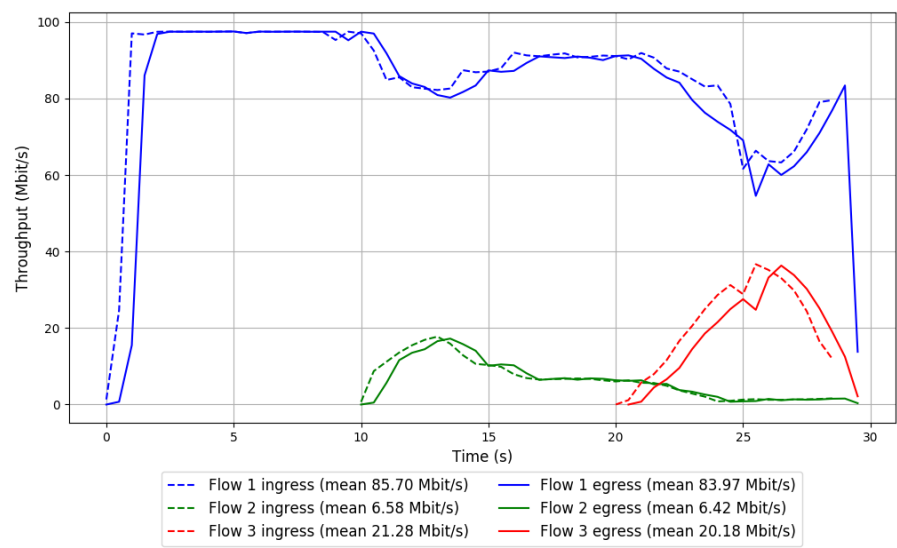


Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-20 02:07:03
End at: 2019-02-20 02:07:33
Local clock offset: -5.254 ms
Remote clock offset: 12.036 ms

Below is generated by plot.py at 2019-02-20 02:42:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.11 Mbit/s
95th percentile per-packet one-way delay: 116.337 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 83.97 Mbit/s
95th percentile per-packet one-way delay: 116.231 ms
Loss rate: 1.95%
-- Flow 2:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 117.500 ms
Loss rate: 2.47%
-- Flow 3:
Average throughput: 20.18 Mbit/s
95th percentile per-packet one-way delay: 116.633 ms
Loss rate: 5.29%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-20 02:33:44

End at: 2019-02-20 02:34:14

Local clock offset: -5.537 ms

Remote clock offset: 9.081 ms

Below is generated by plot.py at 2019-02-20 02:42:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.24 Mbit/s

95th percentile per-packet one-way delay: 106.892 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 55.14 Mbit/s

95th percentile per-packet one-way delay: 106.743 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 46.30 Mbit/s

95th percentile per-packet one-way delay: 106.847 ms

Loss rate: 0.11%

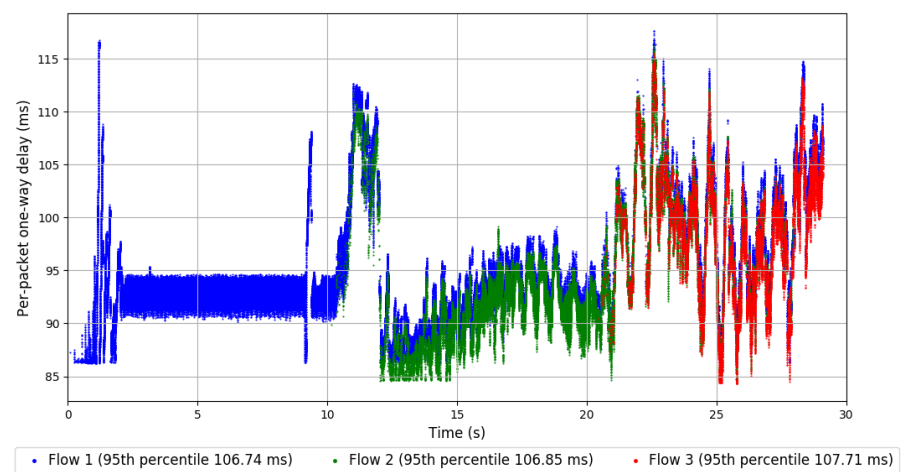
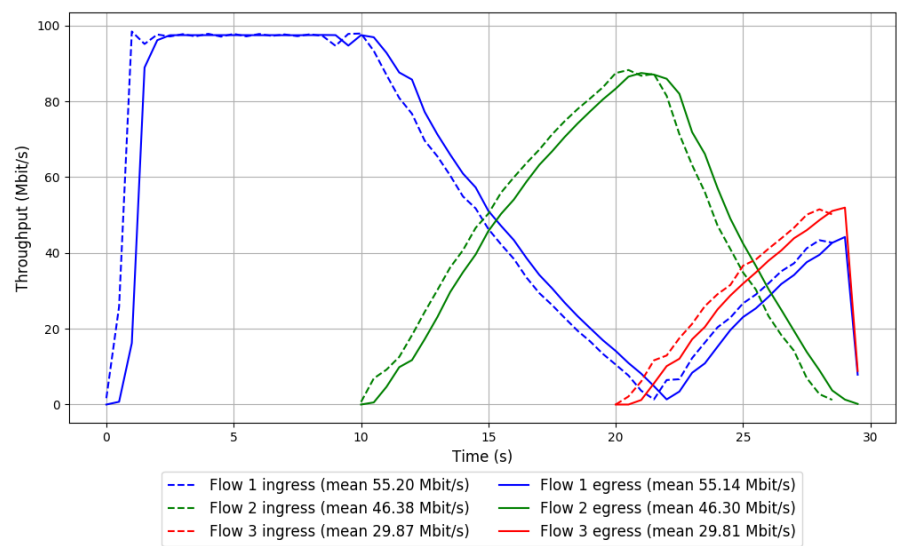
-- Flow 3:

Average throughput: 29.81 Mbit/s

95th percentile per-packet one-way delay: 107.709 ms

Loss rate: 0.03%

Run 5: Report of Indigo-MusesD — Data Link

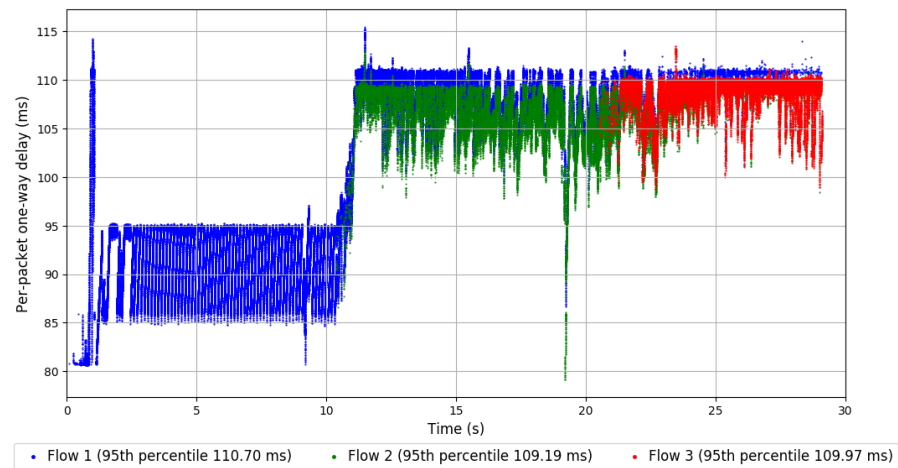
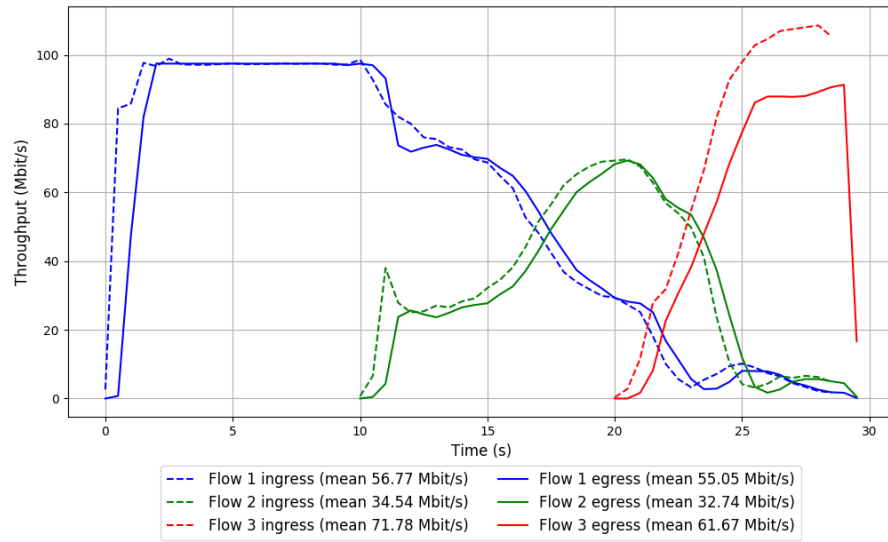


Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-20 00:27:27
End at: 2019-02-20 00:27:57
Local clock offset: -13.478 ms
Remote clock offset: -6.177 ms

Below is generated by plot.py at 2019-02-20 02:42:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.92 Mbit/s
95th percentile per-packet one-way delay: 110.463 ms
Loss rate: 5.82%
-- Flow 1:
Average throughput: 55.05 Mbit/s
95th percentile per-packet one-way delay: 110.701 ms
Loss rate: 2.94%
-- Flow 2:
Average throughput: 32.74 Mbit/s
95th percentile per-packet one-way delay: 109.192 ms
Loss rate: 5.13%
-- Flow 3:
Average throughput: 61.67 Mbit/s
95th percentile per-packet one-way delay: 109.974 ms
Loss rate: 14.09%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-20 00:54:14

End at: 2019-02-20 00:54:44

Local clock offset: -7.49 ms

Remote clock offset: -5.0 ms

Below is generated by plot.py at 2019-02-20 02:42:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.82 Mbit/s

95th percentile per-packet one-way delay: 110.943 ms

Loss rate: 7.14%

-- Flow 1:

Average throughput: 55.41 Mbit/s

95th percentile per-packet one-way delay: 109.795 ms

Loss rate: 7.19%

-- Flow 2:

Average throughput: 43.47 Mbit/s

95th percentile per-packet one-way delay: 110.569 ms

Loss rate: 5.08%

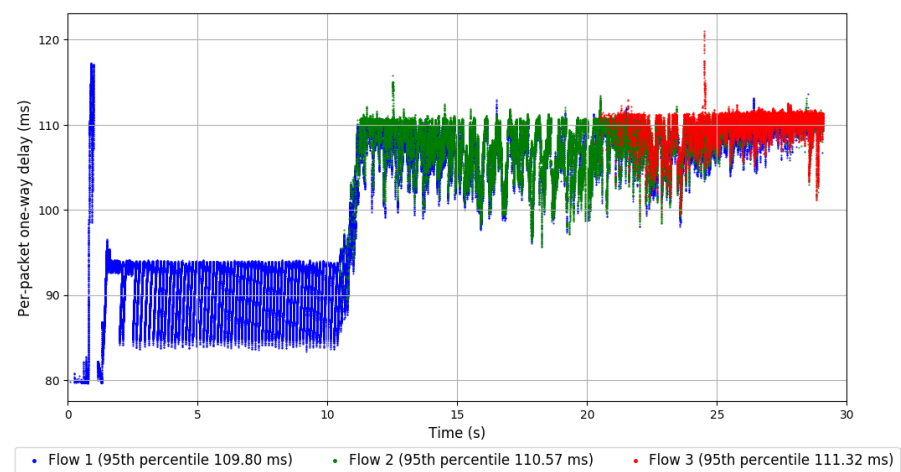
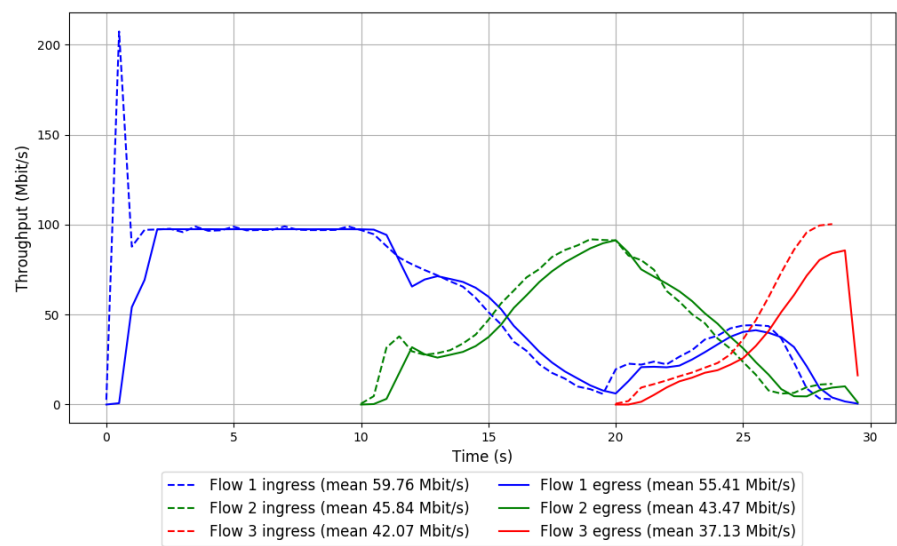
-- Flow 3:

Average throughput: 37.13 Mbit/s

95th percentile per-packet one-way delay: 111.321 ms

Loss rate: 11.73%

Run 2: Report of Indigo-MusesT — Data Link

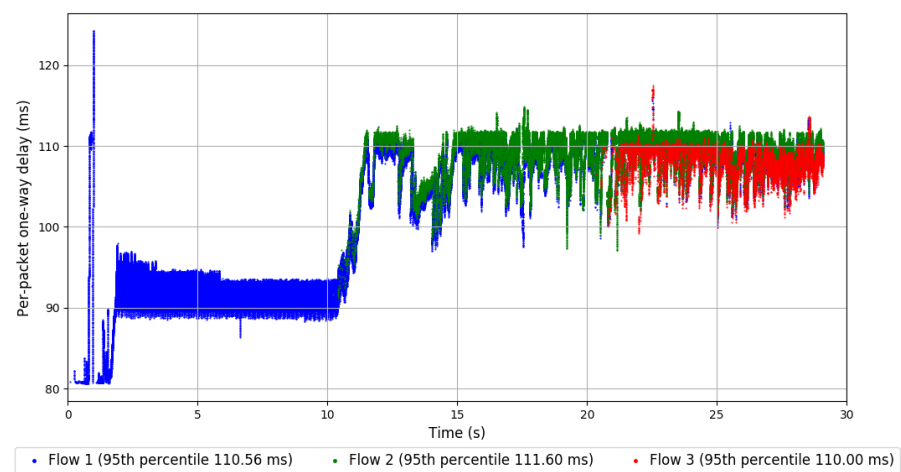
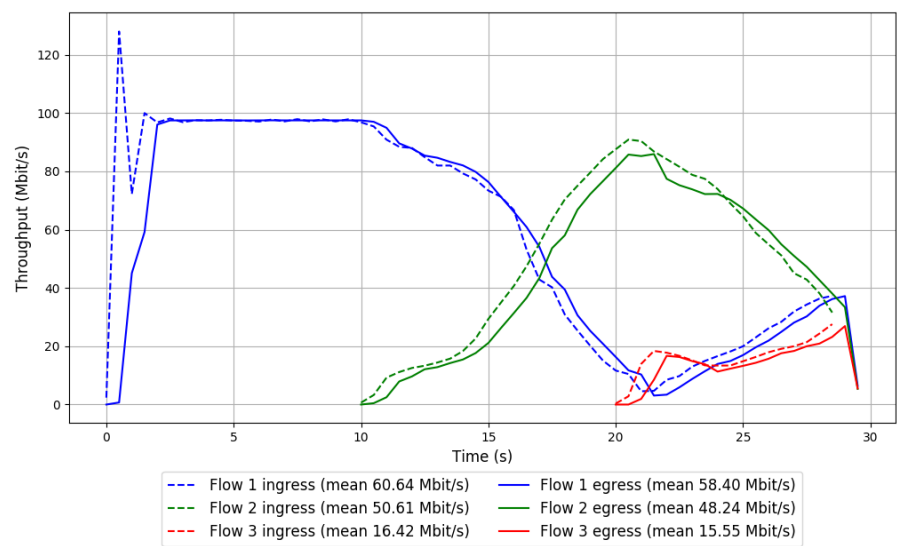


Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-20 01:20:56
End at: 2019-02-20 01:21:26
Local clock offset: -13.057 ms
Remote clock offset: -3.0 ms

Below is generated by plot.py at 2019-02-20 02:43:02
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.47 Mbit/s
95th percentile per-packet one-way delay: 111.411 ms
Loss rate: 4.02%
-- Flow 1:
Average throughput: 58.40 Mbit/s
95th percentile per-packet one-way delay: 110.561 ms
Loss rate: 3.59%
-- Flow 2:
Average throughput: 48.24 Mbit/s
95th percentile per-packet one-way delay: 111.600 ms
Loss rate: 4.60%
-- Flow 3:
Average throughput: 15.55 Mbit/s
95th percentile per-packet one-way delay: 110.004 ms
Loss rate: 5.32%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-20 01:47:49

End at: 2019-02-20 01:48:19

Local clock offset: -5.858 ms

Remote clock offset: 6.379 ms

Below is generated by plot.py at 2019-02-20 02:43:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.85 Mbit/s

95th percentile per-packet one-way delay: 116.558 ms

Loss rate: 6.82%

-- Flow 1:

Average throughput: 50.01 Mbit/s

95th percentile per-packet one-way delay: 115.192 ms

Loss rate: 6.60%

-- Flow 2:

Average throughput: 63.33 Mbit/s

95th percentile per-packet one-way delay: 116.689 ms

Loss rate: 7.15%

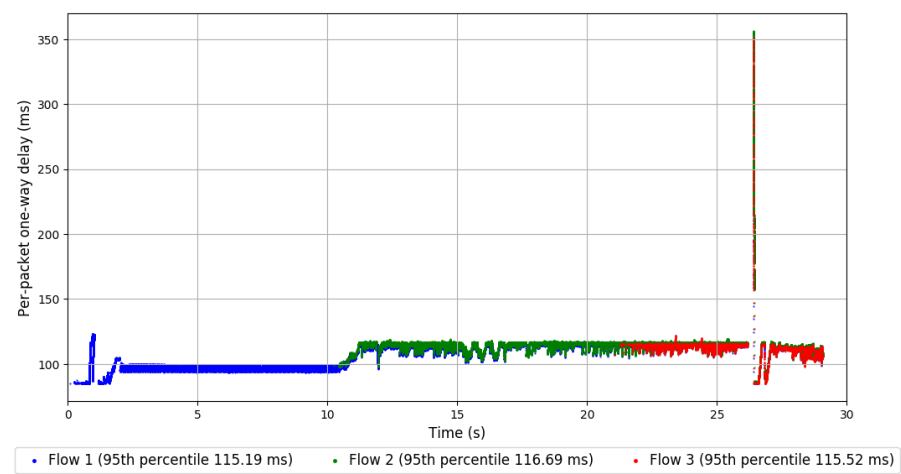
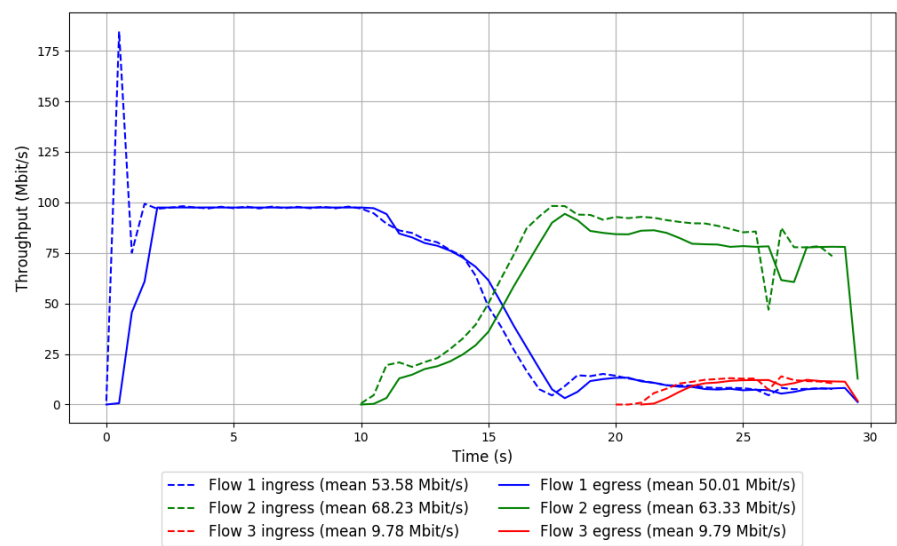
-- Flow 3:

Average throughput: 9.79 Mbit/s

95th percentile per-packet one-way delay: 115.520 ms

Loss rate: 5.75%

Run 4: Report of Indigo-MusesT — Data Link

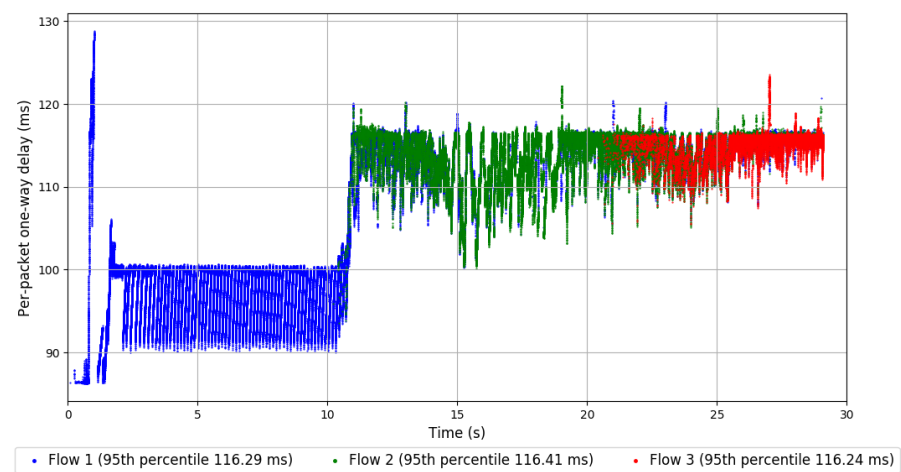
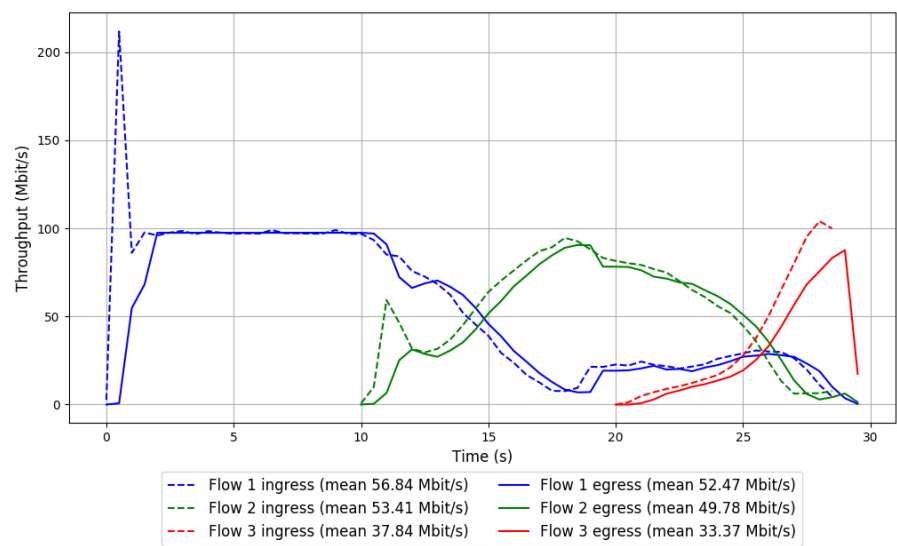


Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-20 02:14:40
End at: 2019-02-20 02:15:10
Local clock offset: -5.54 ms
Remote clock offset: 12.711 ms

Below is generated by plot.py at 2019-02-20 02:43:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.84 Mbit/s
95th percentile per-packet one-way delay: 116.347 ms
Loss rate: 7.76%
-- Flow 1:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 116.294 ms
Loss rate: 7.60%
-- Flow 2:
Average throughput: 49.78 Mbit/s
95th percentile per-packet one-way delay: 116.407 ms
Loss rate: 6.70%
-- Flow 3:
Average throughput: 33.37 Mbit/s
95th percentile per-packet one-way delay: 116.238 ms
Loss rate: 11.81%

Run 5: Report of Indigo-MusesT — Data Link

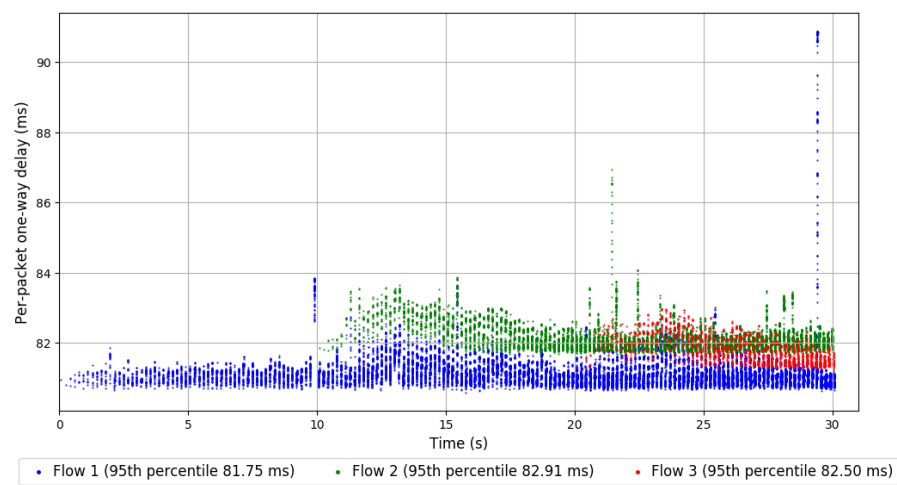
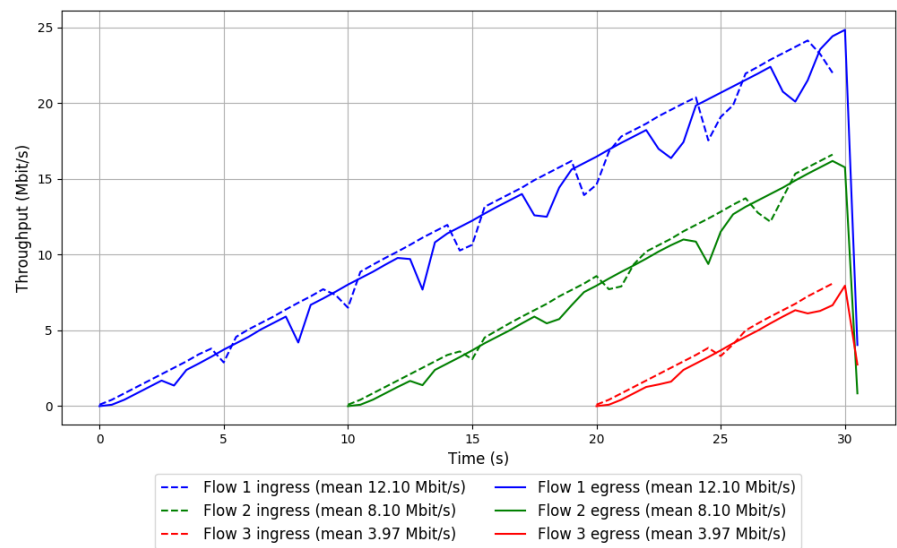


Run 1: Statistics of LEDBAT

Start at: 2019-02-20 00:28:45
End at: 2019-02-20 00:29:15
Local clock offset: -13.422 ms
Remote clock offset: -4.501 ms

Below is generated by plot.py at 2019-02-20 02:43:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 18.80 Mbit/s
95th percentile per-packet one-way delay: 82.495 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.10 Mbit/s
95th percentile per-packet one-way delay: 81.753 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 8.10 Mbit/s
95th percentile per-packet one-way delay: 82.914 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.97 Mbit/s
95th percentile per-packet one-way delay: 82.497 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-02-20 00:55:33

End at: 2019-02-20 00:56:03

Local clock offset: -7.359 ms

Remote clock offset: 0.629 ms

Below is generated by plot.py at 2019-02-20 02:43:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.95 Mbit/s

95th percentile per-packet one-way delay: 88.119 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.34 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 87.957 ms

Loss rate: 0.00%

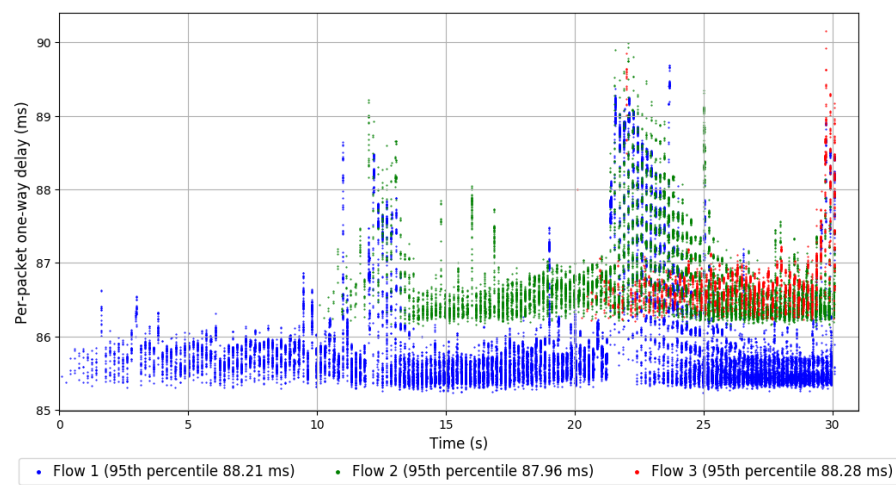
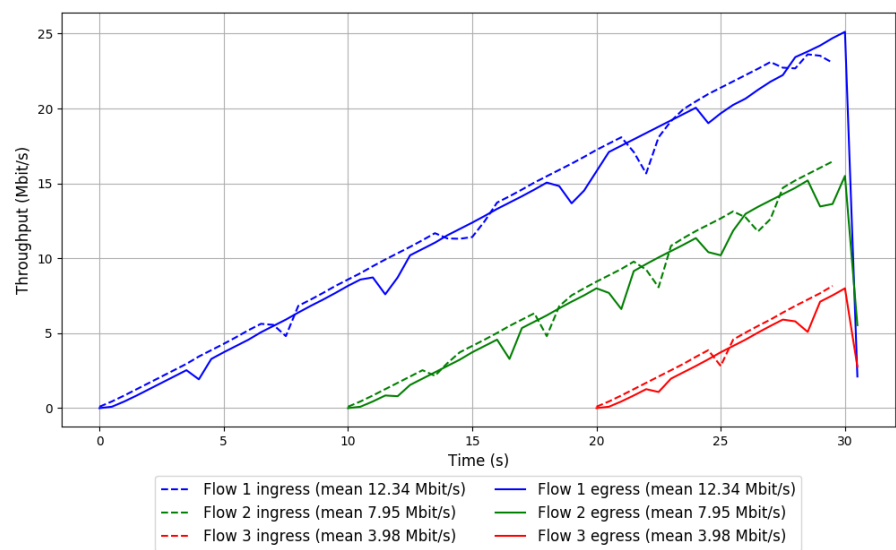
-- Flow 3:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 88.284 ms

Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

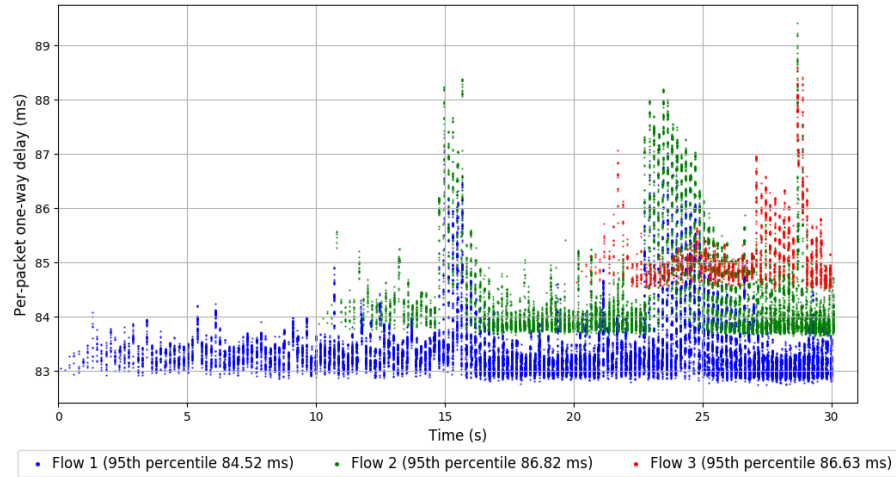
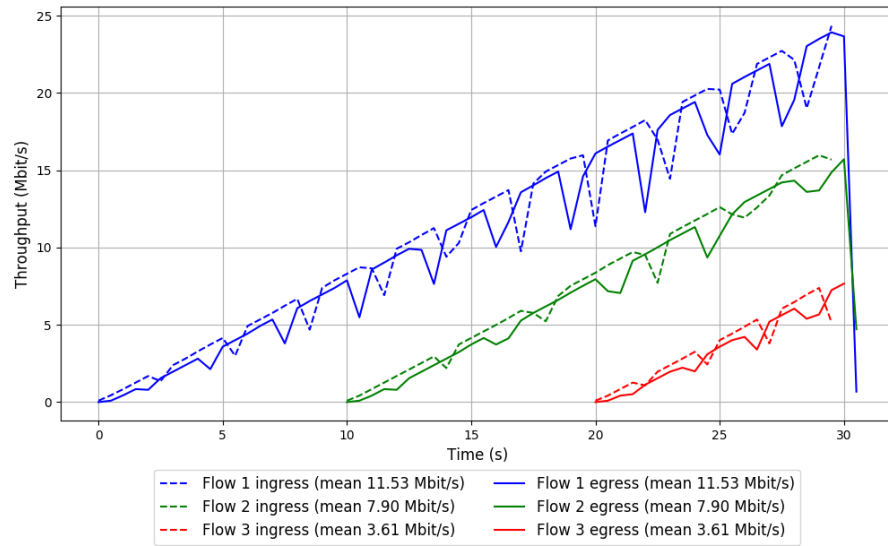


Run 3: Statistics of LEDBAT

Start at: 2019-02-20 01:22:14
End at: 2019-02-20 01:22:44
Local clock offset: -13.089 ms
Remote clock offset: -0.091 ms

Below is generated by plot.py at 2019-02-20 02:43:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 17.95 Mbit/s
95th percentile per-packet one-way delay: 85.825 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 84.515 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 86.824 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 86.629 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-02-20 01:49:12

End at: 2019-02-20 01:49:42

Local clock offset: -5.614 ms

Remote clock offset: 7.073 ms

Below is generated by plot.py at 2019-02-20 02:43:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.30 Mbit/s

95th percentile per-packet one-way delay: 88.777 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 11.94 Mbit/s

95th percentile per-packet one-way delay: 89.268 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 7.62 Mbit/s

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

Loss rate: 0.00%

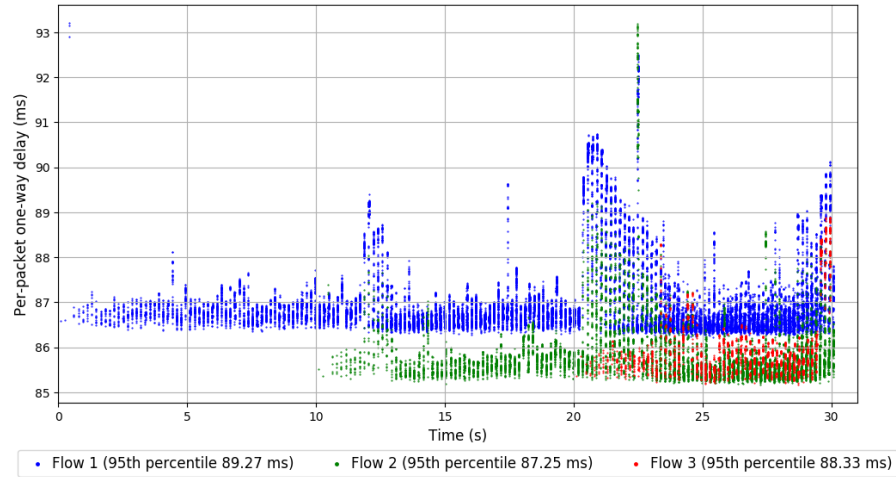
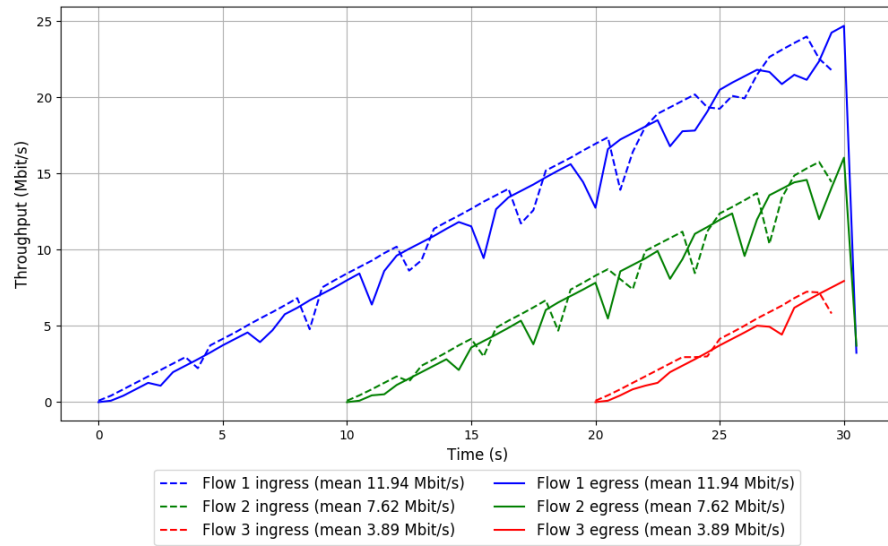
-- Flow 3:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 88.332 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-02-20 02:15:58

End at: 2019-02-20 02:16:28

Local clock offset: -5.573 ms

Remote clock offset: 8.178 ms

Below is generated by plot.py at 2019-02-20 02:43:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.40 Mbit/s

95th percentile per-packet one-way delay: 83.854 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 9.70 Mbit/s

95th percentile per-packet one-way delay: 83.221 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 8.13 Mbit/s

95th percentile per-packet one-way delay: 84.275 ms

Loss rate: 0.01%

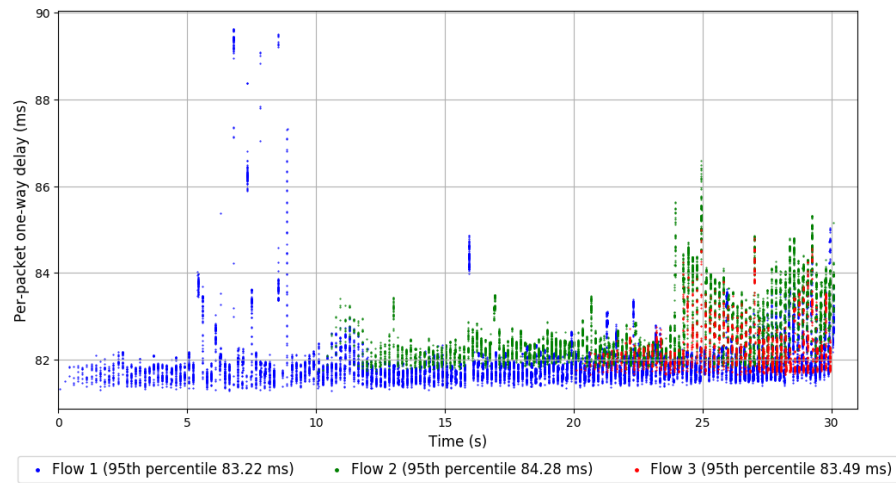
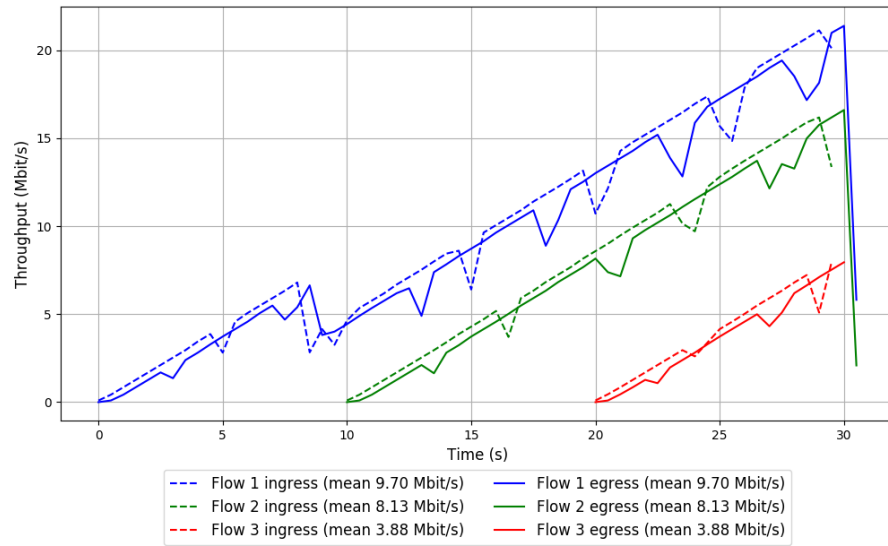
-- Flow 3:

Average throughput: 3.88 Mbit/s

95th percentile per-packet one-way delay: 83.487 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

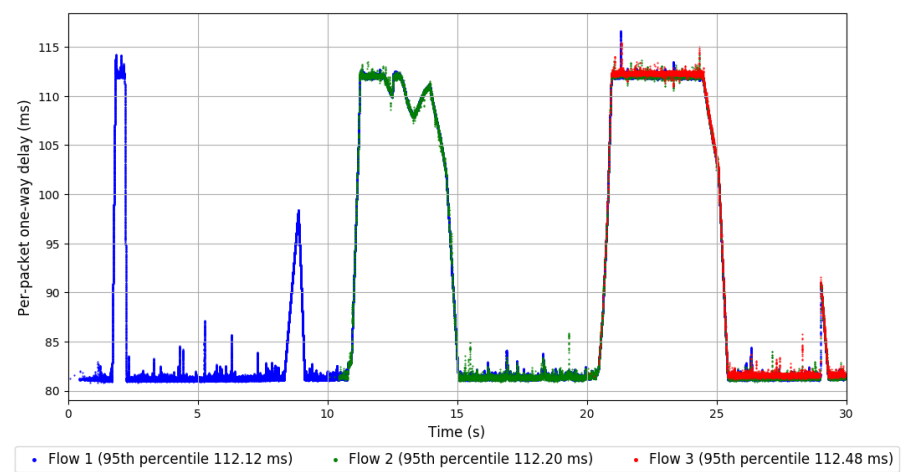
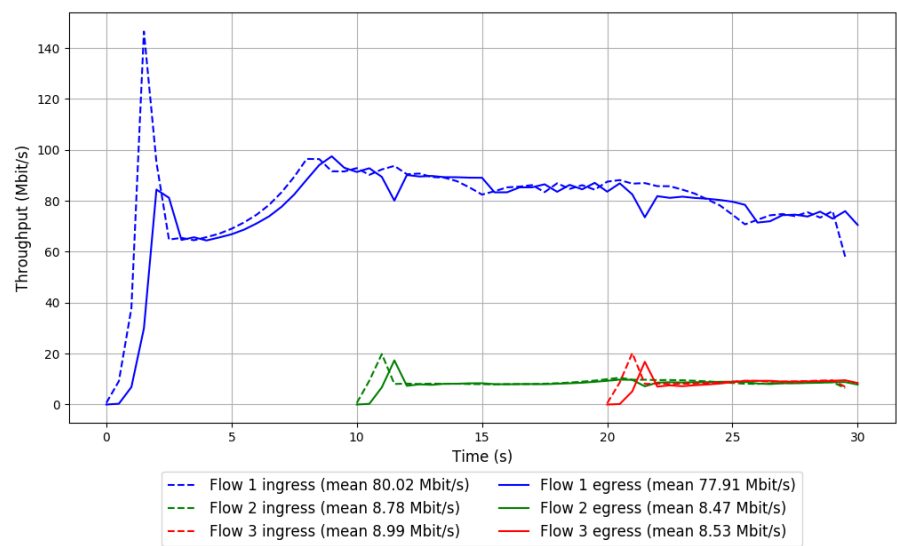


Run 1: Statistics of PCC-Allegro

Start at: 2019-02-20 00:37:40
End at: 2019-02-20 00:38:10
Local clock offset: -10.202 ms
Remote clock offset: -4.133 ms

Below is generated by plot.py at 2019-02-20 02:43:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 86.36 Mbit/s
95th percentile per-packet one-way delay: 112.144 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 77.91 Mbit/s
95th percentile per-packet one-way delay: 112.117 ms
Loss rate: 2.63%
-- Flow 2:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 112.197 ms
Loss rate: 3.65%
-- Flow 3:
Average throughput: 8.53 Mbit/s
95th percentile per-packet one-way delay: 112.478 ms
Loss rate: 5.14%

Run 1: Report of PCC-Allegro — Data Link

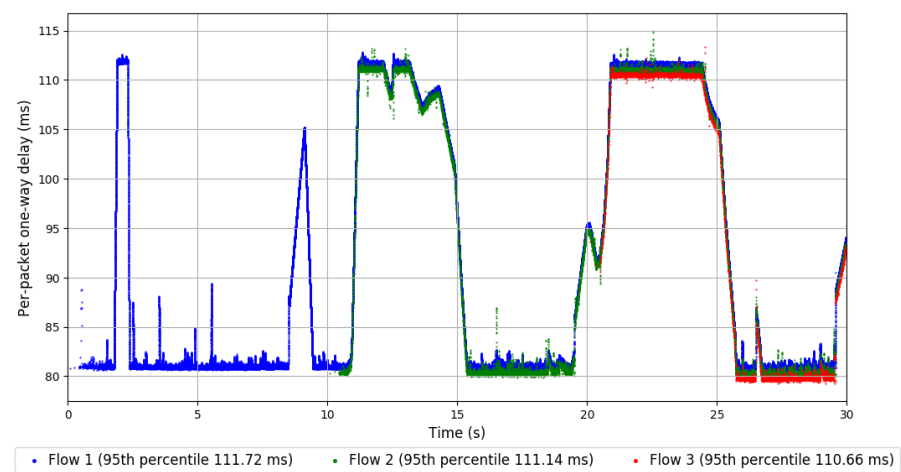
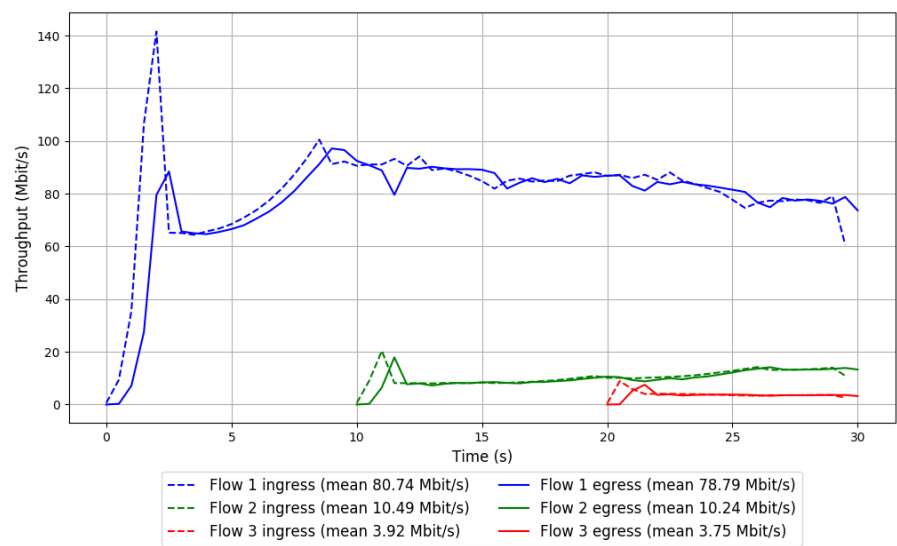


Run 2: Statistics of PCC-Allegro

Start at: 2019-02-20 01:04:23
End at: 2019-02-20 01:04:53
Local clock offset: -9.497 ms
Remote clock offset: -4.739 ms

Below is generated by plot.py at 2019-02-20 02:43:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 86.84 Mbit/s
95th percentile per-packet one-way delay: 111.713 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 78.79 Mbit/s
95th percentile per-packet one-way delay: 111.724 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 10.24 Mbit/s
95th percentile per-packet one-way delay: 111.144 ms
Loss rate: 2.32%
-- Flow 3:
Average throughput: 3.75 Mbit/s
95th percentile per-packet one-way delay: 110.660 ms
Loss rate: 4.27%

Run 2: Report of PCC-Allegro — Data Link

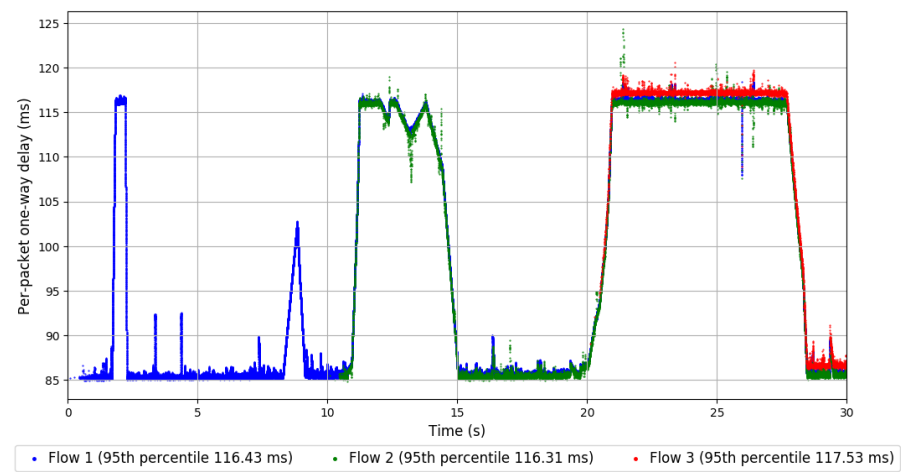
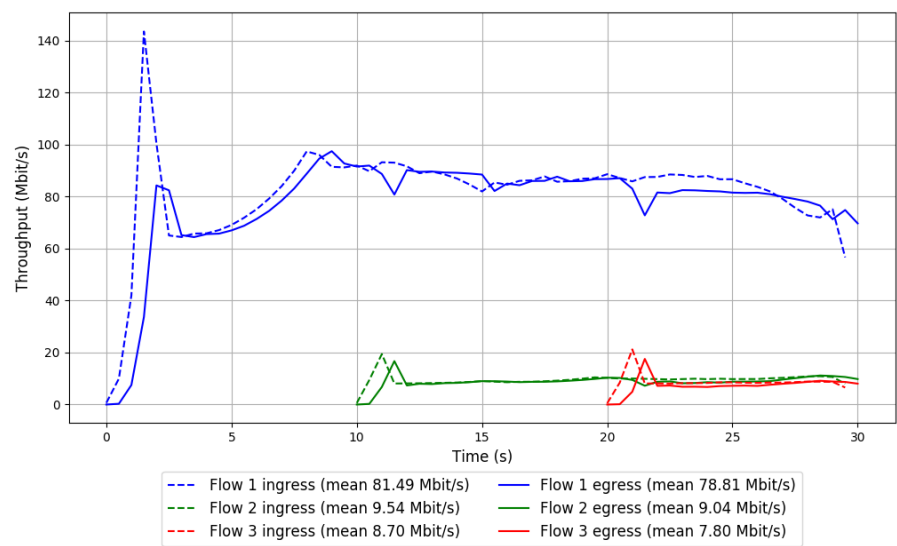


Run 3: Statistics of PCC-Allegro

Start at: 2019-02-20 01:31:08
End at: 2019-02-20 01:31:38
Local clock offset: -12.556 ms
Remote clock offset: 2.177 ms

Below is generated by plot.py at 2019-02-20 02:43:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 87.39 Mbit/s
95th percentile per-packet one-way delay: 116.481 ms
Loss rate: 3.65%
-- Flow 1:
Average throughput: 78.81 Mbit/s
95th percentile per-packet one-way delay: 116.427 ms
Loss rate: 3.29%
-- Flow 2:
Average throughput: 9.04 Mbit/s
95th percentile per-packet one-way delay: 116.309 ms
Loss rate: 5.28%
-- Flow 3:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 117.529 ms
Loss rate: 10.36%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-02-20 01:58:07

End at: 2019-02-20 01:58:37

Local clock offset: -4.428 ms

Remote clock offset: 5.602 ms

Below is generated by plot.py at 2019-02-20 02:44:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.76 Mbit/s

95th percentile per-packet one-way delay: 113.316 ms

Loss rate: 2.54%

-- Flow 1:

Average throughput: 79.13 Mbit/s

95th percentile per-packet one-way delay: 113.294 ms

Loss rate: 2.43%

-- Flow 2:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 112.662 ms

Loss rate: 3.17%

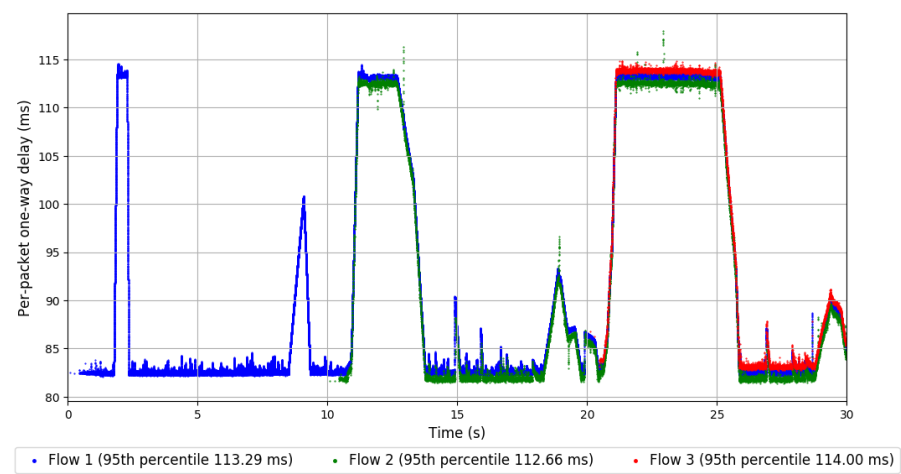
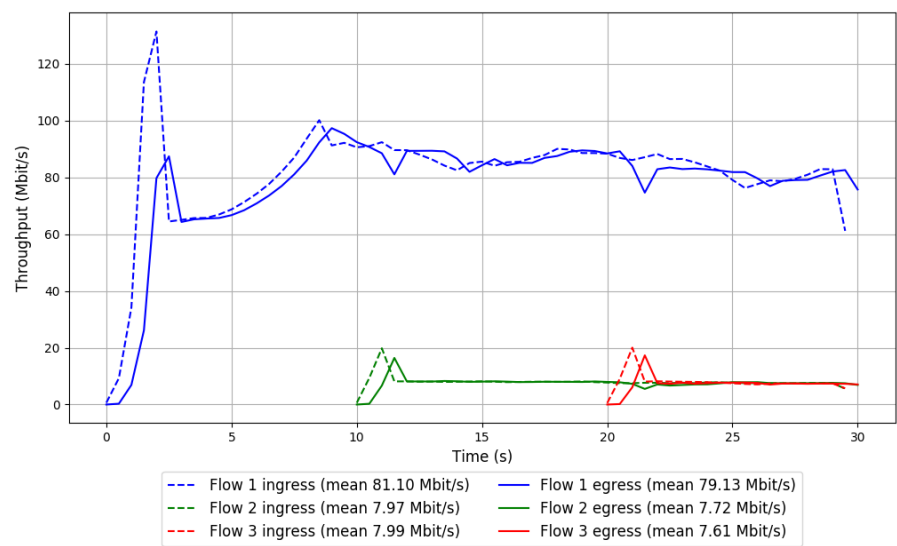
-- Flow 3:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 114.004 ms

Loss rate: 4.75%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-02-20 02:24:47

End at: 2019-02-20 02:25:17

Local clock offset: -5.426 ms

Remote clock offset: 6.245 ms

Below is generated by plot.py at 2019-02-20 02:44:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.11 Mbit/s

95th percentile per-packet one-way delay: 112.375 ms

Loss rate: 3.06%

-- Flow 1:

Average throughput: 78.71 Mbit/s

95th percentile per-packet one-way delay: 112.291 ms

Loss rate: 2.88%

-- Flow 2:

Average throughput: 8.64 Mbit/s

95th percentile per-packet one-way delay: 113.668 ms

Loss rate: 4.32%

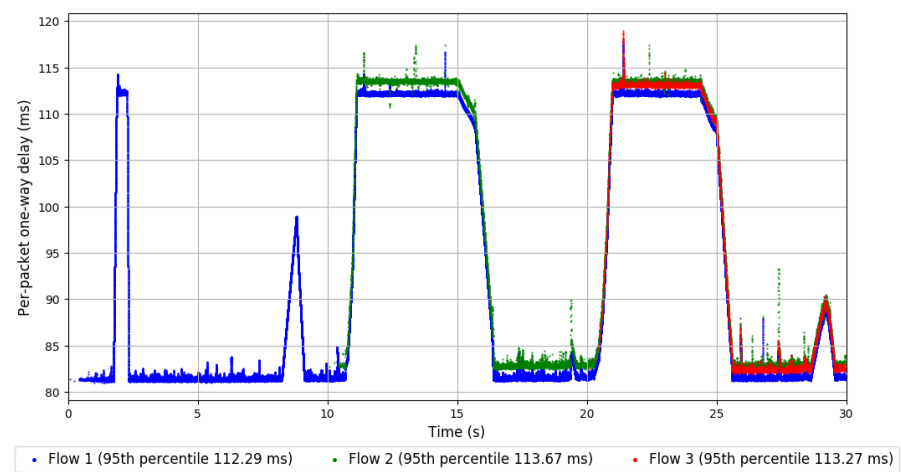
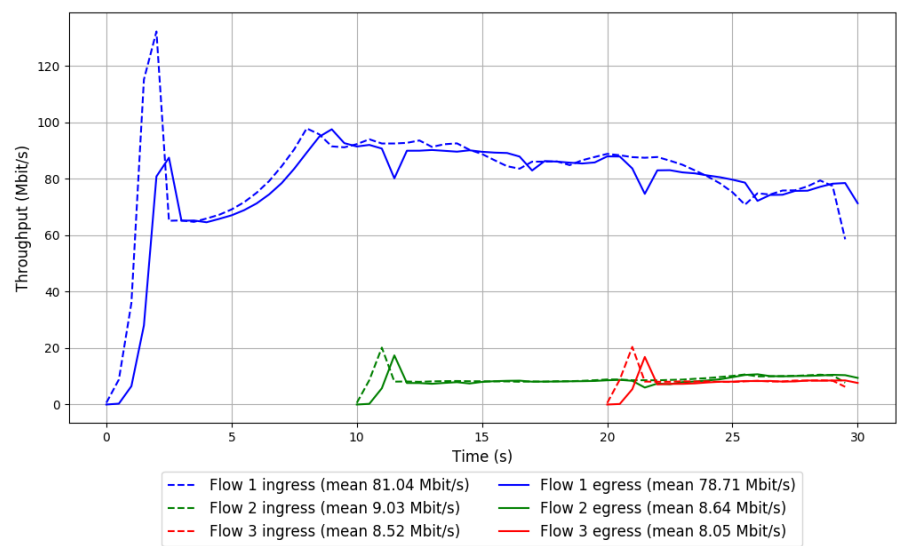
-- Flow 3:

Average throughput: 8.05 Mbit/s

95th percentile per-packet one-way delay: 113.270 ms

Loss rate: 5.51%

Run 5: Report of PCC-Allegro — Data Link

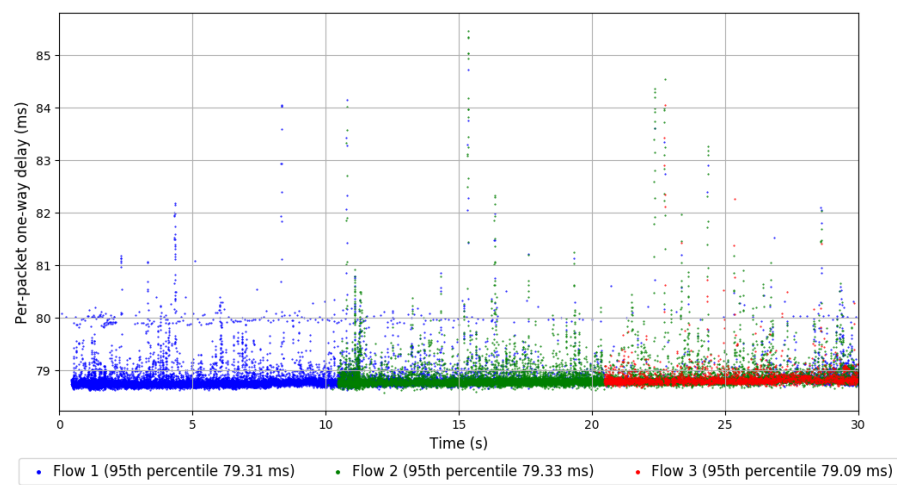
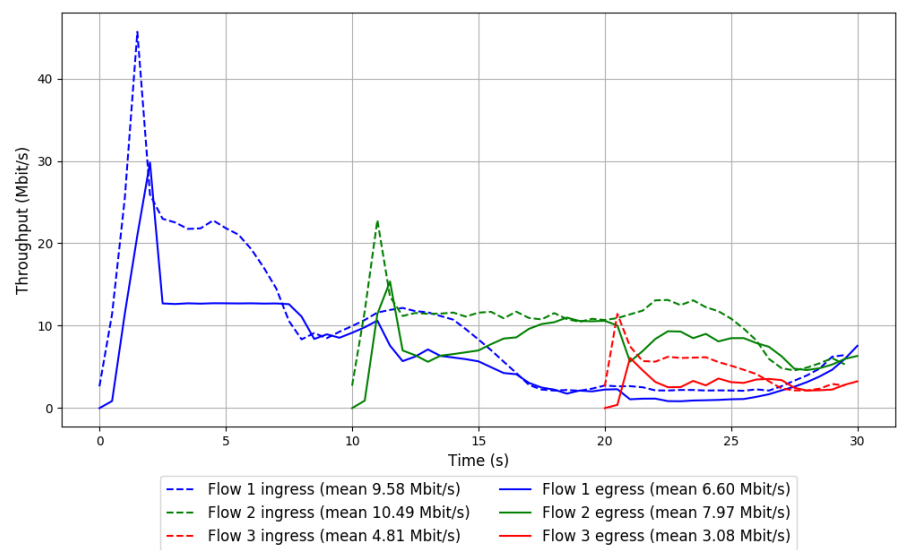



```
Run 1: Statistics of PCC-Expr

Start at: 2019-02-20 00:41:25
End at: 2019-02-20 00:41:55
Local clock offset: -9.272 ms
Remote clock offset: -6.089 ms

# Below is generated by plot.py at 2019-02-20 02:44:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.92 Mbit/s
95th percentile per-packet one-way delay: 79.302 ms
Loss rate: 28.77%
-- Flow 1:
Average throughput: 6.60 Mbit/s
95th percentile per-packet one-way delay: 79.314 ms
Loss rate: 31.05%
-- Flow 2:
Average throughput: 7.97 Mbit/s
95th percentile per-packet one-way delay: 79.330 ms
Loss rate: 24.00%
-- Flow 3:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 79.086 ms
Loss rate: 36.03%
```

Run 1: Report of PCC-Expr — Data Link

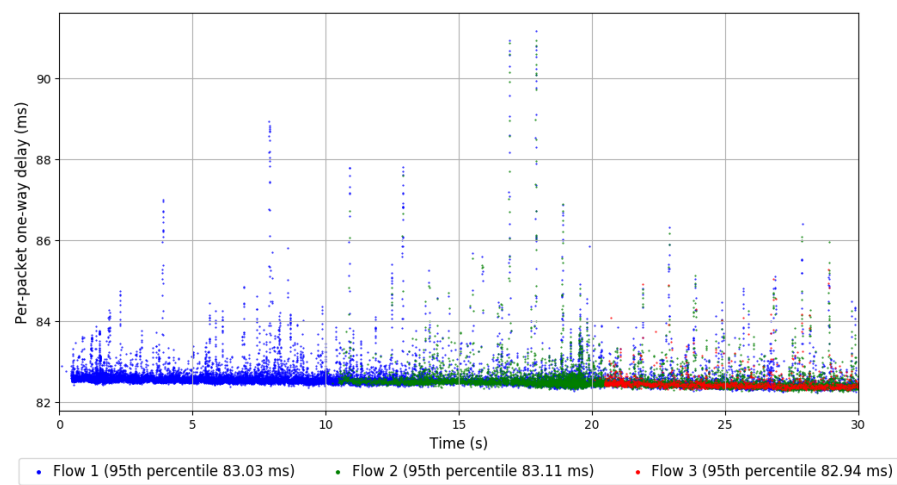
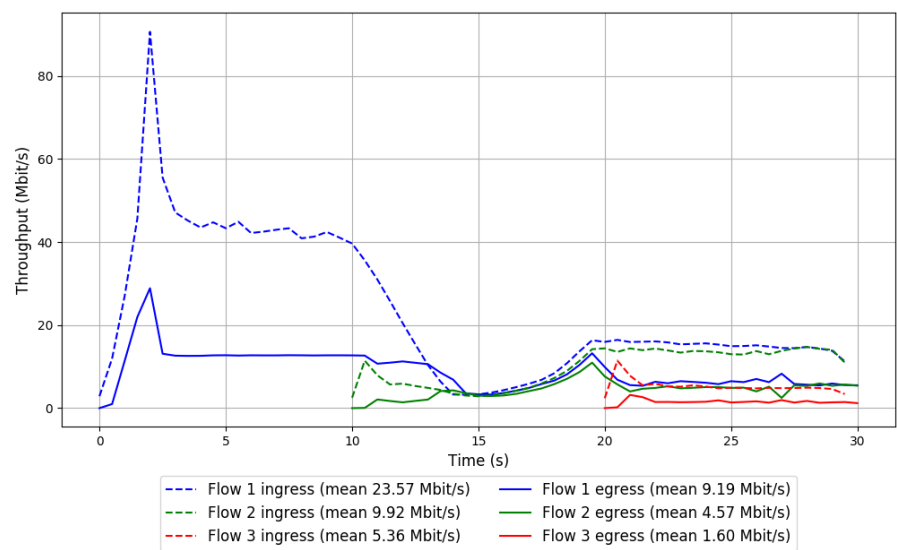


Run 2: Statistics of PCC-Expr

Start at: 2019-02-20 01:08:09
End at: 2019-02-20 01:08:39
Local clock offset: -10.887 ms
Remote clock offset: -1.75 ms

Below is generated by plot.py at 2019-02-20 02:44:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.75 Mbit/s
95th percentile per-packet one-way delay: 83.048 ms
Loss rate: 60.08%
-- Flow 1:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 83.033 ms
Loss rate: 61.03%
-- Flow 2:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 83.111 ms
Loss rate: 53.99%
-- Flow 3:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 82.937 ms
Loss rate: 70.19%

Run 2: Report of PCC-Expr — Data Link

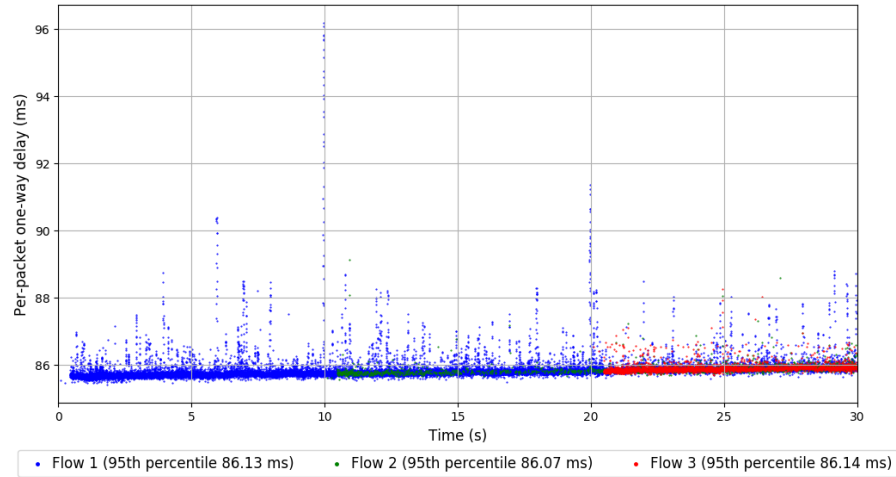
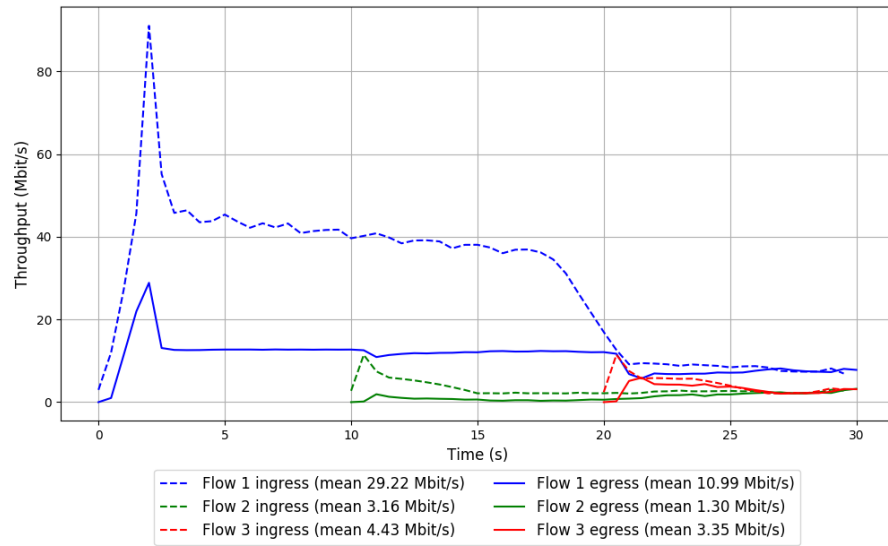


Run 3: Statistics of PCC-Expr

Start at: 2019-02-20 01:34:59
End at: 2019-02-20 01:35:29
Local clock offset: -10.024 ms
Remote clock offset: 3.061 ms

Below is generated by plot.py at 2019-02-20 02:44:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 86.125 ms
Loss rate: 60.48%
-- Flow 1:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 86.134 ms
Loss rate: 62.41%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 86.067 ms
Loss rate: 58.87%
-- Flow 3:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 86.142 ms
Loss rate: 24.37%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-02-20 02:01:52

End at: 2019-02-20 02:02:22

Local clock offset: -4.667 ms

Remote clock offset: 9.538 ms

Below is generated by plot.py at 2019-02-20 02:44:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.96 Mbit/s

95th percentile per-packet one-way delay: 85.107 ms

Loss rate: 48.82%

-- Flow 1:

Average throughput: 8.37 Mbit/s

95th percentile per-packet one-way delay: 85.118 ms

Loss rate: 55.43%

-- Flow 2:

Average throughput: 5.55 Mbit/s

95th percentile per-packet one-way delay: 85.082 ms

Loss rate: 27.65%

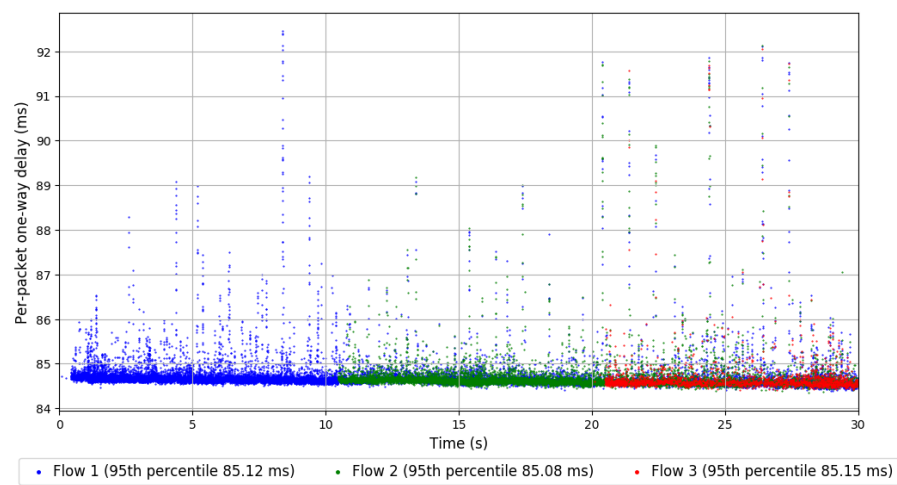
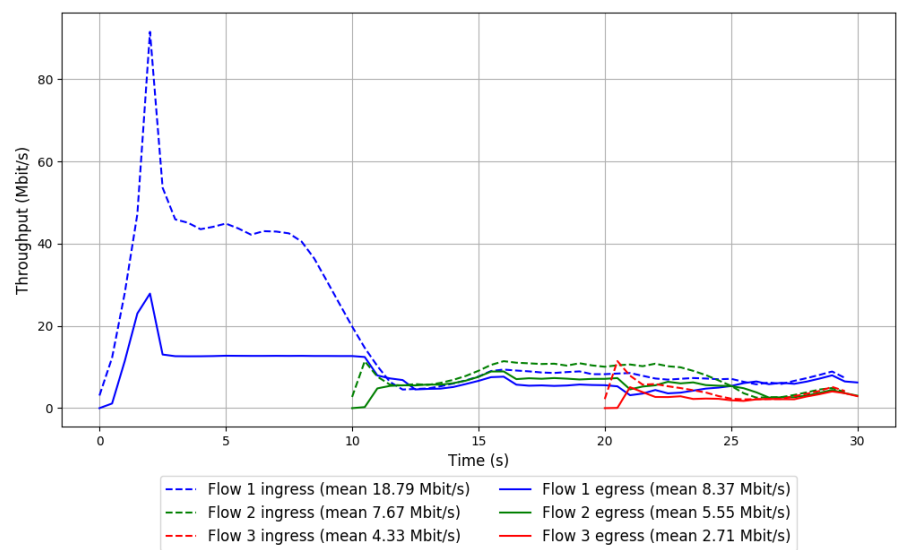
-- Flow 3:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 85.149 ms

Loss rate: 37.53%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-02-20 02:28:33

End at: 2019-02-20 02:29:03

Local clock offset: -5.313 ms

Remote clock offset: 6.141 ms

Below is generated by plot.py at 2019-02-20 02:44:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.83 Mbit/s

95th percentile per-packet one-way delay: 81.817 ms

Loss rate: 25.90%

-- Flow 1:

Average throughput: 9.41 Mbit/s

95th percentile per-packet one-way delay: 81.831 ms

Loss rate: 25.10%

-- Flow 2:

Average throughput: 3.29 Mbit/s

95th percentile per-packet one-way delay: 81.755 ms

Loss rate: 31.53%

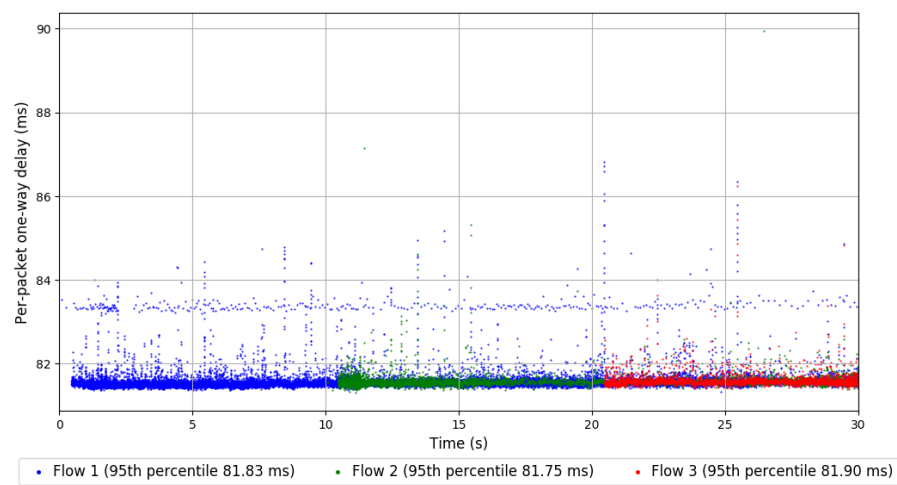
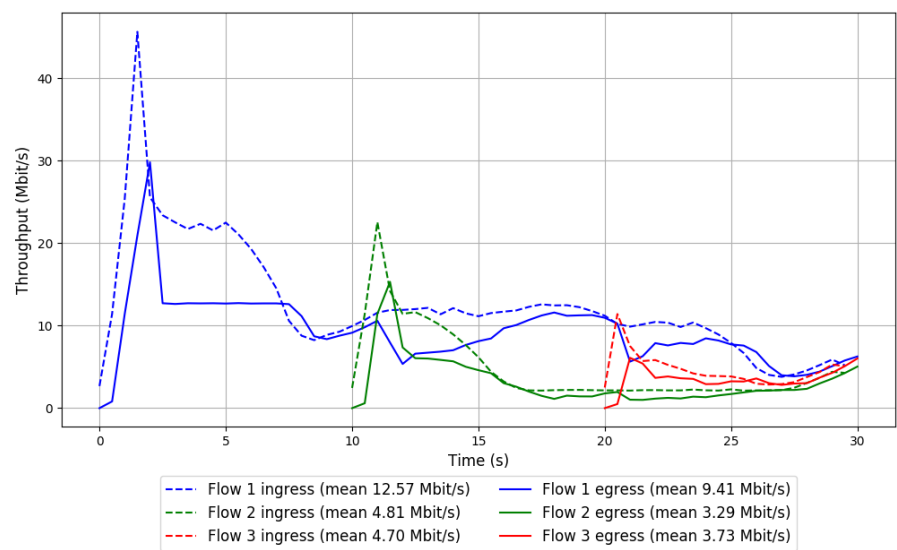
-- Flow 3:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 81.901 ms

Loss rate: 20.75%

Run 5: Report of PCC-Expr — Data Link

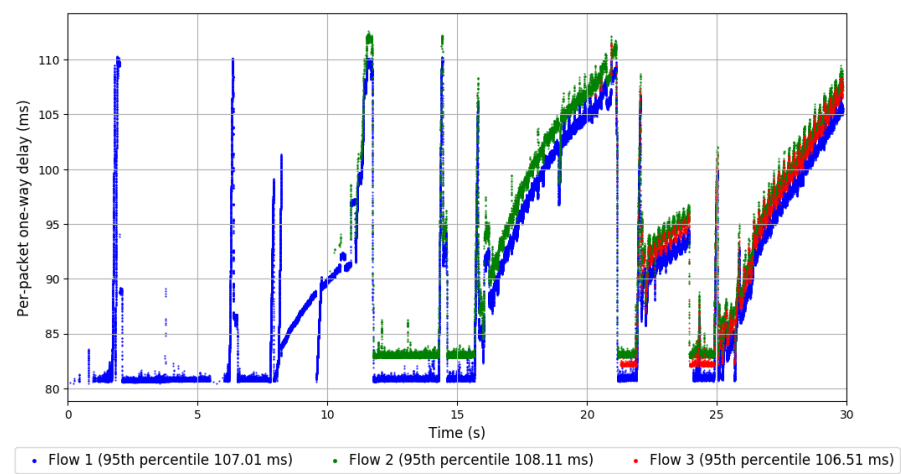
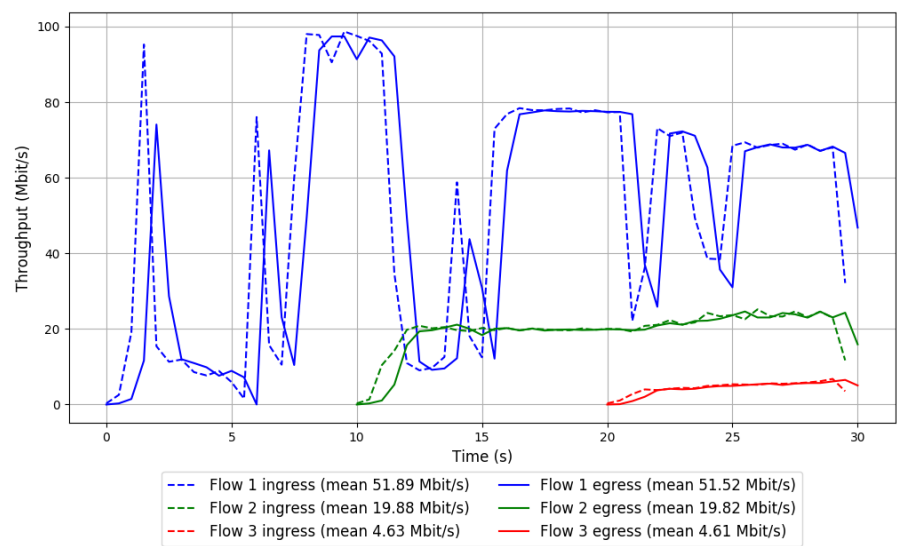


Run 1: Statistics of QUIC Cubic

Start at: 2019-02-20 00:36:23
End at: 2019-02-20 00:36:53
Local clock offset: -10.541 ms
Remote clock offset: -4.327 ms

Below is generated by plot.py at 2019-02-20 02:44:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 66.17 Mbit/s
95th percentile per-packet one-way delay: 107.279 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 51.52 Mbit/s
95th percentile per-packet one-way delay: 107.010 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 19.82 Mbit/s
95th percentile per-packet one-way delay: 108.115 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 106.508 ms
Loss rate: 0.43%

Run 1: Report of QUIC Cubic — Data Link

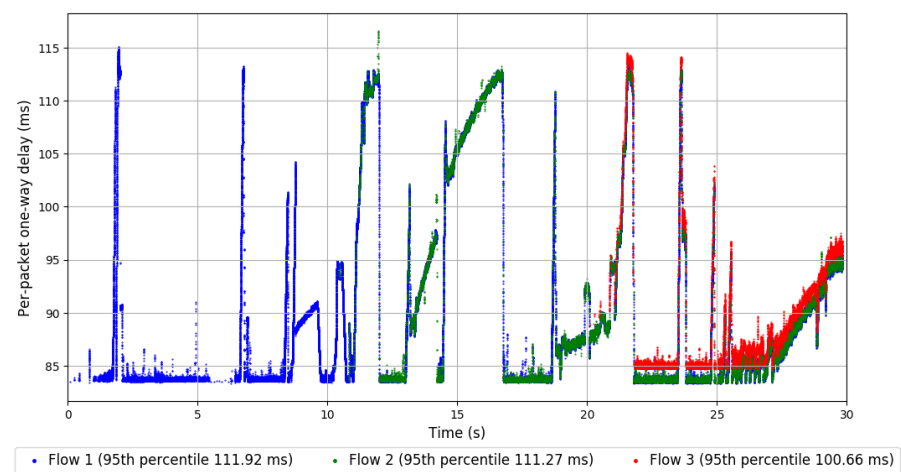
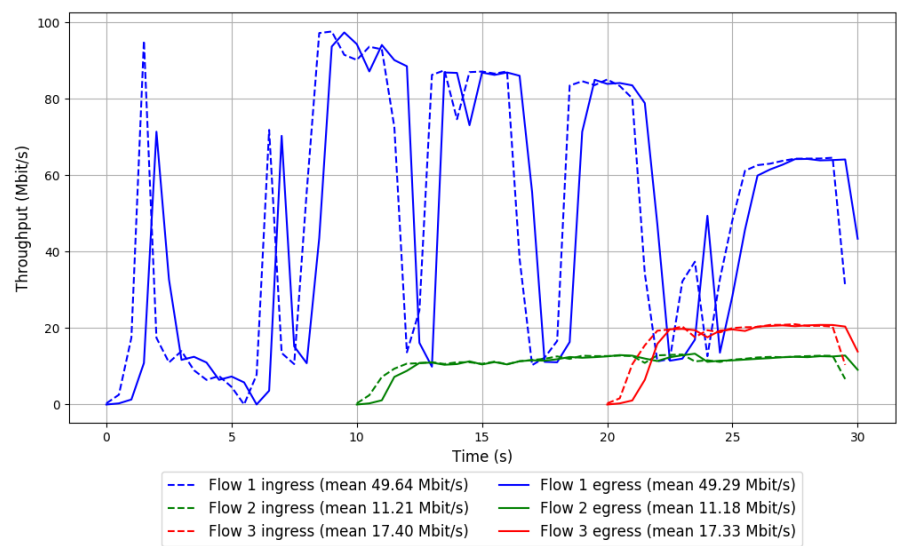


Run 2: Statistics of QUIC Cubic

Start at: 2019-02-20 01:03:06
End at: 2019-02-20 01:03:36
Local clock offset: -8.825 ms
Remote clock offset: -0.499 ms

Below is generated by plot.py at 2019-02-20 02:44:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 62.38 Mbit/s
95th percentile per-packet one-way delay: 111.825 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 49.29 Mbit/s
95th percentile per-packet one-way delay: 111.918 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 11.18 Mbit/s
95th percentile per-packet one-way delay: 111.272 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 17.33 Mbit/s
95th percentile per-packet one-way delay: 100.662 ms
Loss rate: 0.35%

Run 2: Report of QUIC Cubic — Data Link

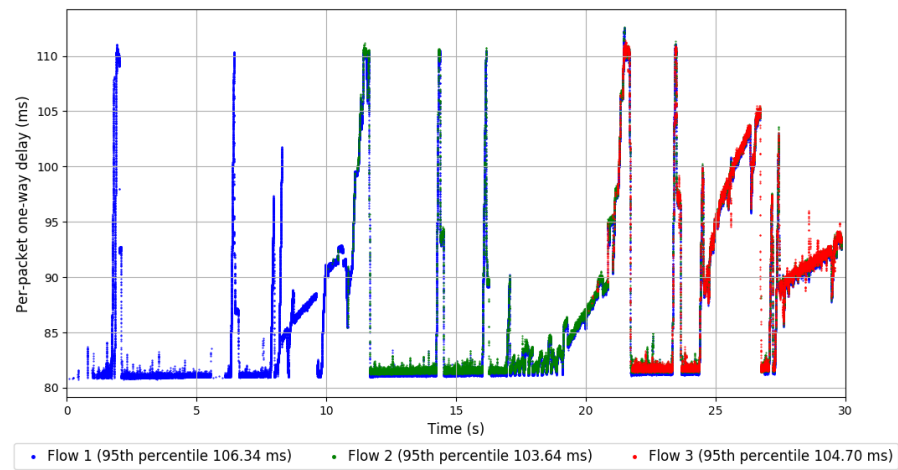
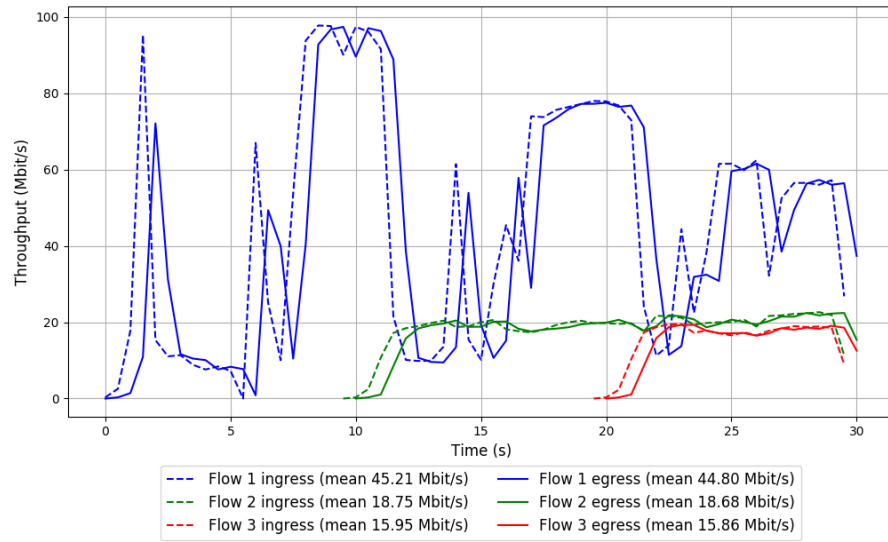


Run 3: Statistics of QUIC Cubic

Start at: 2019-02-20 01:29:52
End at: 2019-02-20 01:30:22
Local clock offset: -13.562 ms
Remote clock offset: -1.775 ms

Below is generated by plot.py at 2019-02-20 02:44:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 62.40 Mbit/s
95th percentile per-packet one-way delay: 105.538 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 44.80 Mbit/s
95th percentile per-packet one-way delay: 106.339 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 18.68 Mbit/s
95th percentile per-packet one-way delay: 103.641 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 15.86 Mbit/s
95th percentile per-packet one-way delay: 104.703 ms
Loss rate: 0.47%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-02-20 01:56:50

End at: 2019-02-20 01:57:20

Local clock offset: -4.57 ms

Remote clock offset: 5.235 ms

Below is generated by plot.py at 2019-02-20 02:44:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.37 Mbit/s

95th percentile per-packet one-way delay: 107.355 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 48.75 Mbit/s

95th percentile per-packet one-way delay: 108.033 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 19.34 Mbit/s

95th percentile per-packet one-way delay: 106.333 ms

Loss rate: 0.28%

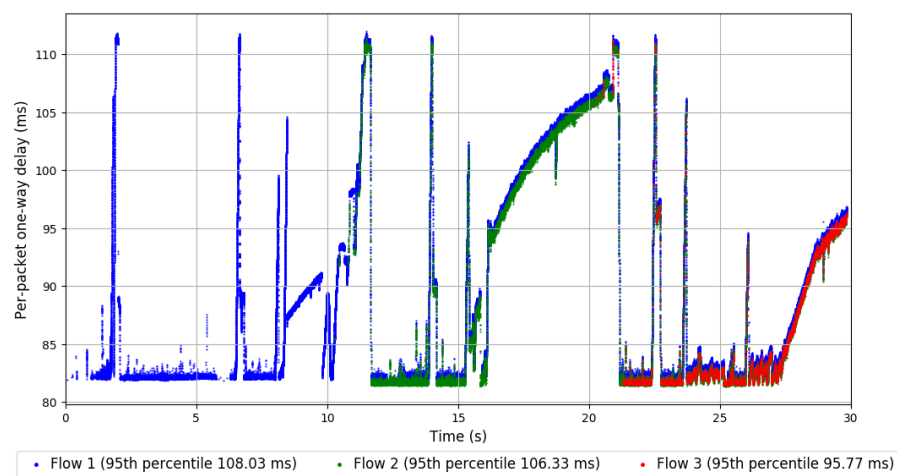
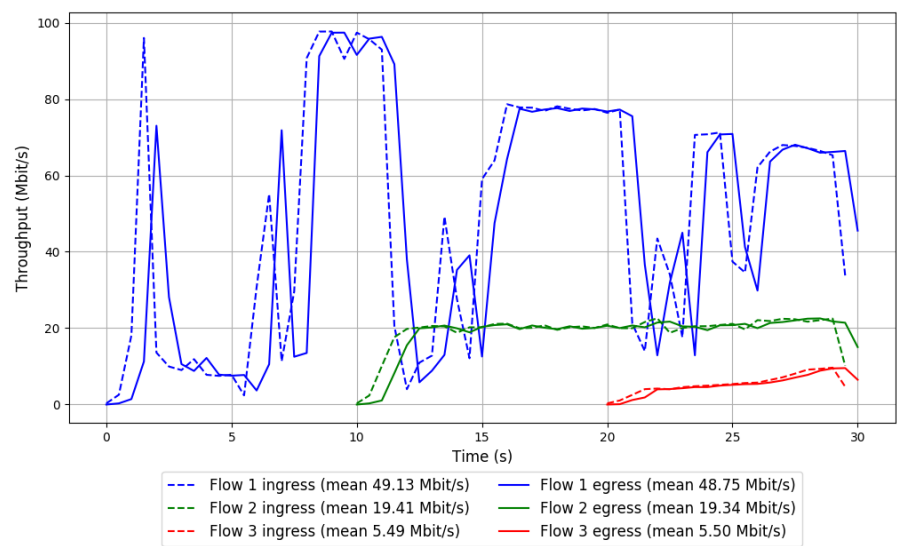
-- Flow 3:

Average throughput: 5.50 Mbit/s

95th percentile per-packet one-way delay: 95.765 ms

Loss rate: 0.08%

Run 4: Report of QUIC Cubic — Data Link

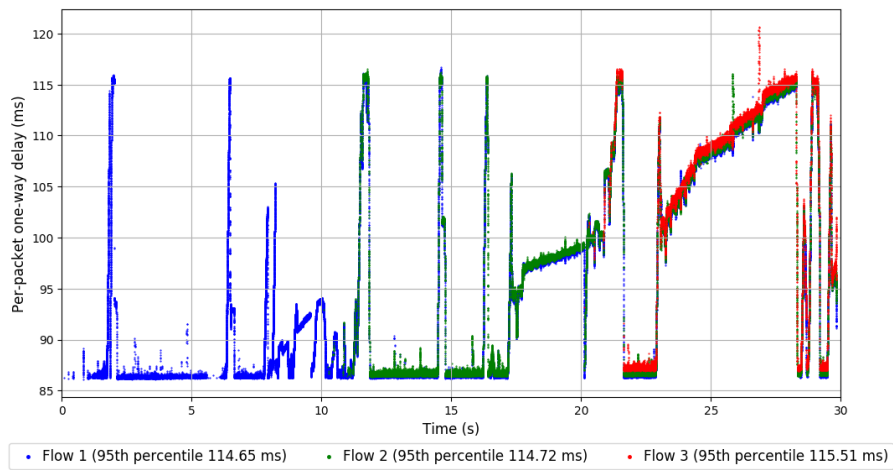
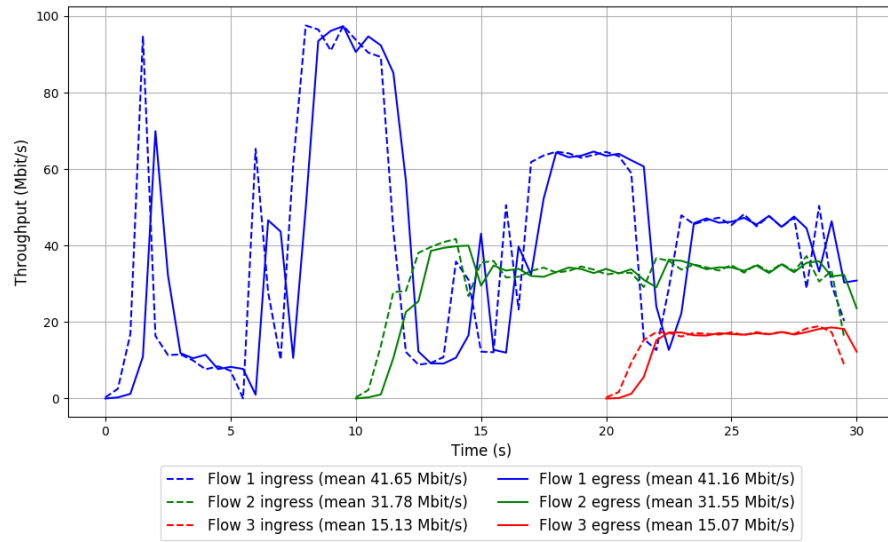


Run 5: Statistics of QUIC Cubic

Start at: 2019-02-20 02:23:31
End at: 2019-02-20 02:24:01
Local clock offset: -5.532 ms
Remote clock offset: 11.295 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 67.02 Mbit/s
95th percentile per-packet one-way delay: 114.800 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 41.16 Mbit/s
95th percentile per-packet one-way delay: 114.646 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 31.55 Mbit/s
95th percentile per-packet one-way delay: 114.719 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 15.07 Mbit/s
95th percentile per-packet one-way delay: 115.513 ms
Loss rate: 0.37%

Run 5: Report of QUIC Cubic — Data Link

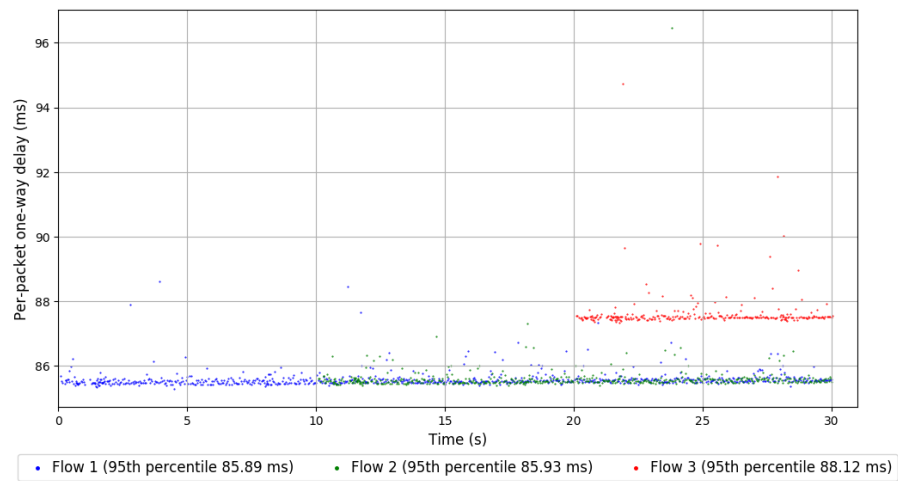
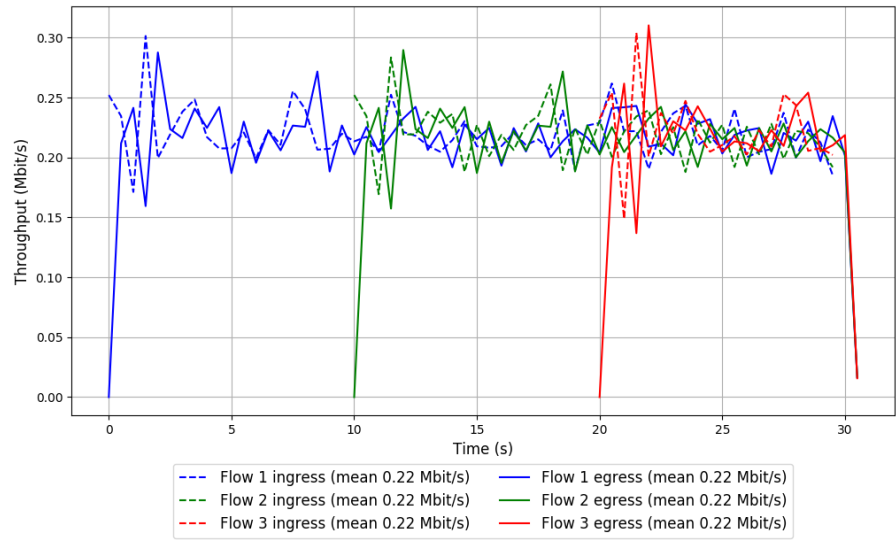


```
Run 1: Statistics of SReAM

Start at: 2019-02-20 00:40:13
End at: 2019-02-20 00:40:43
Local clock offset: -9.539 ms
Remote clock offset: 0.392 ms

# Below is generated by plot.py at 2019-02-20 02:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.544 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.890 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.930 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.124 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

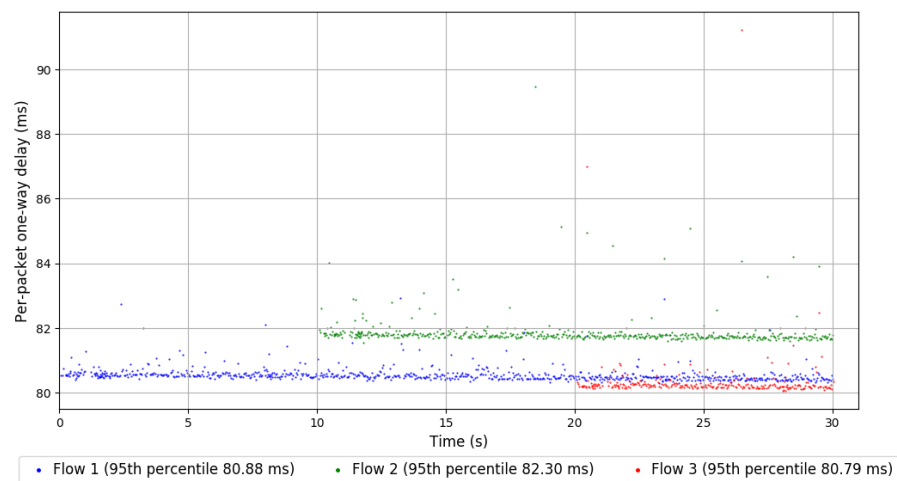
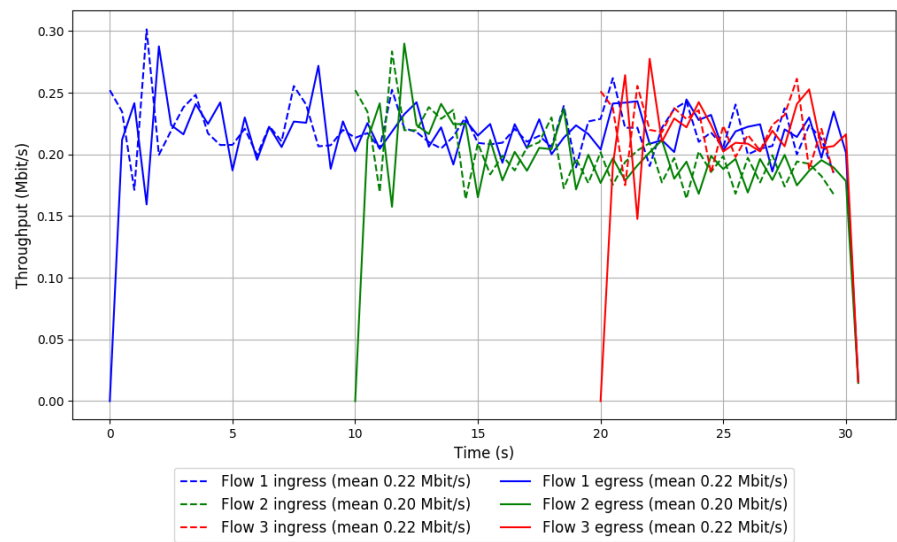


Run 2: Statistics of SReAM

Start at: 2019-02-20 01:06:56
End at: 2019-02-20 01:07:26
Local clock offset: -10.447 ms
Remote clock offset: -3.97 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 81.892 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.883 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 82.301 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.787 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

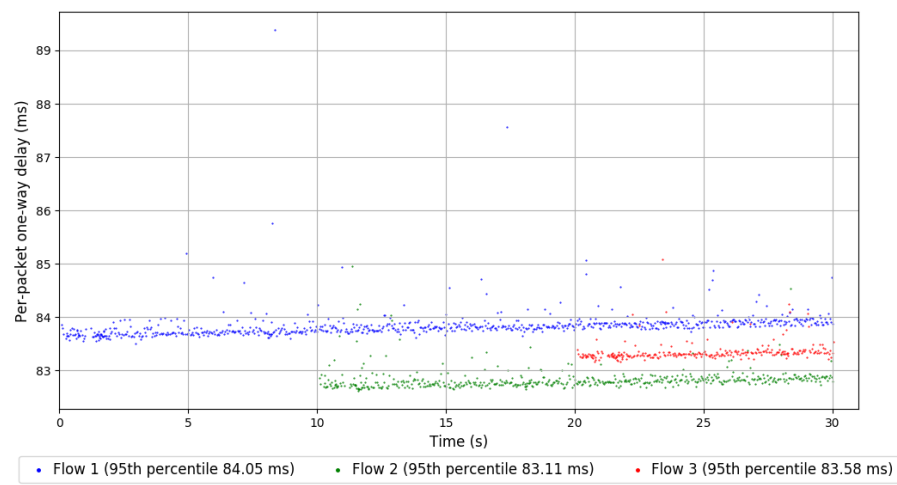
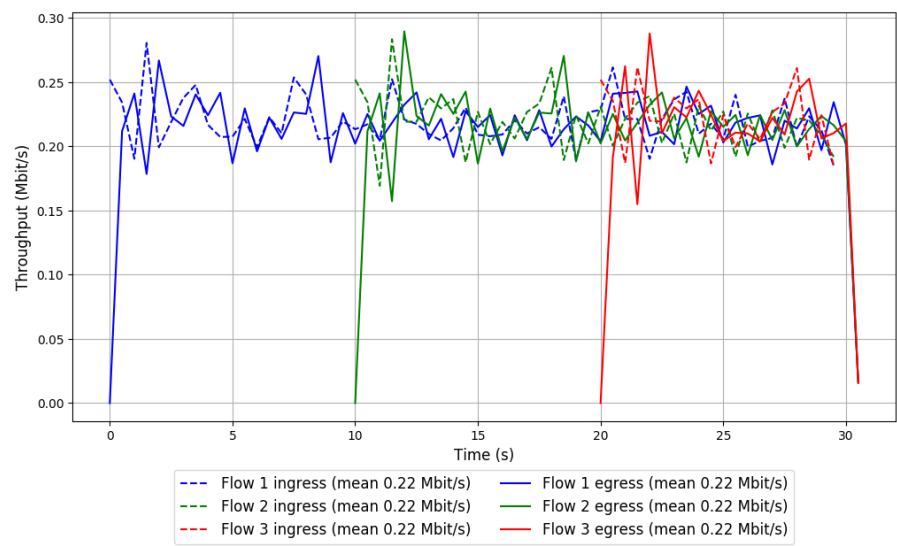


Run 3: Statistics of SReAM

Start at: 2019-02-20 01:33:41
End at: 2019-02-20 01:34:11
Local clock offset: -10.839 ms
Remote clock offset: -0.359 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 83.964 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.051 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.110 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.585 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

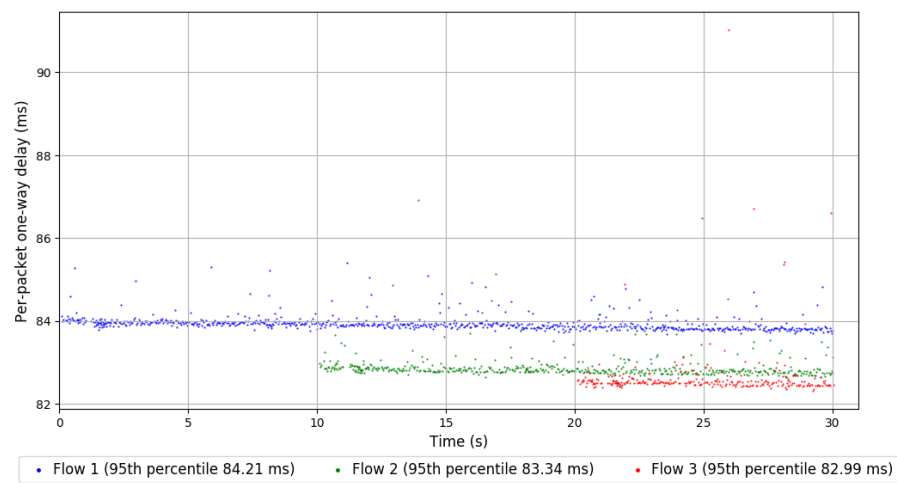
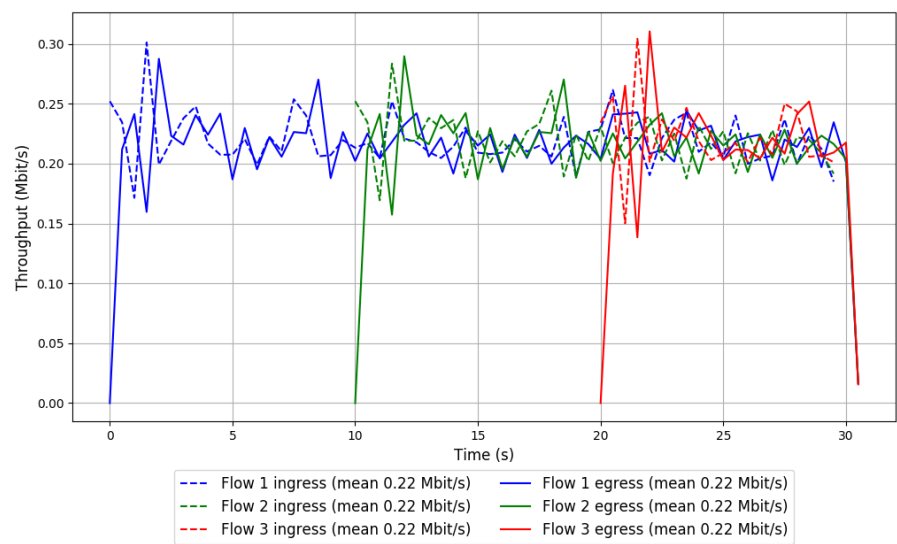


Run 4: Statistics of SReAM

Start at: 2019-02-20 02:00:40
End at: 2019-02-20 02:01:10
Local clock offset: -4.372 ms
Remote clock offset: 7.416 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 84.084 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.208 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.343 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.987 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2019-02-20 02:27:21

End at: 2019-02-20 02:27:51

Local clock offset: -5.341 ms

Remote clock offset: 5.186 ms

Below is generated by plot.py at 2019-02-20 02:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 80.954 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 80.973 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 80.951 ms

Loss rate: 0.00%

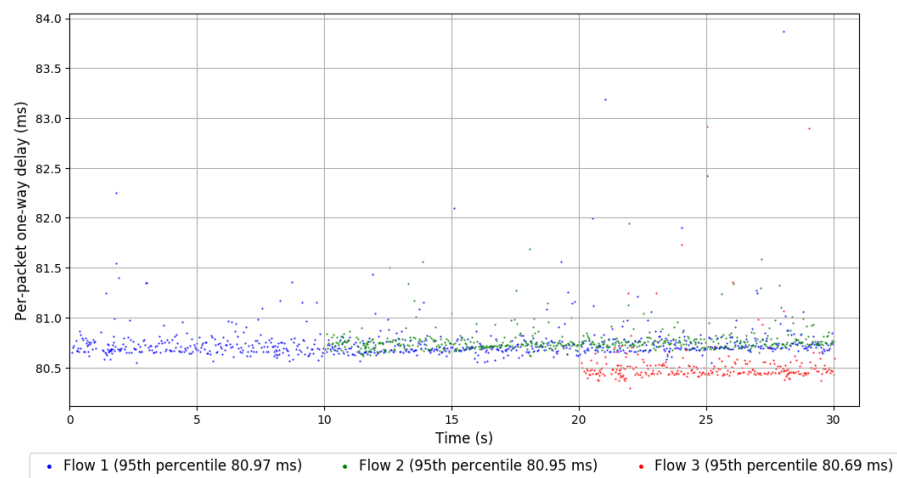
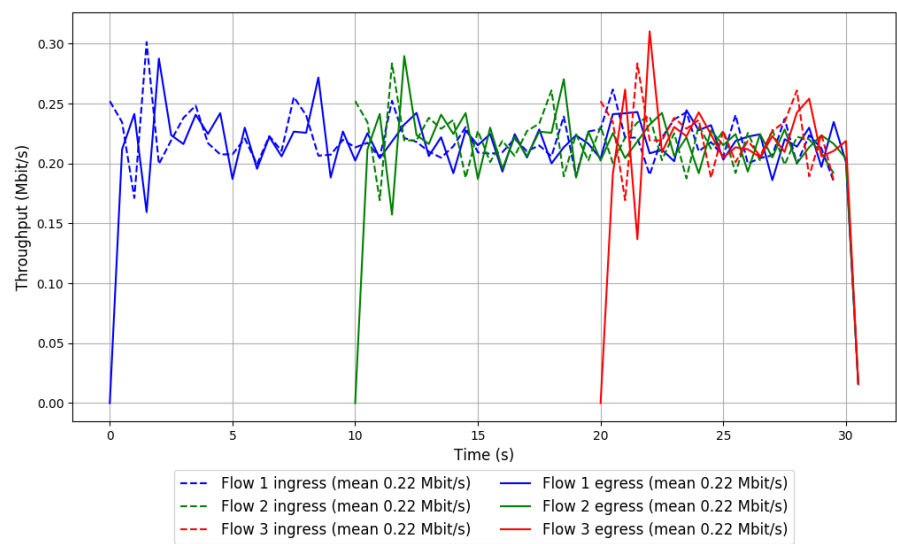
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 80.689 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

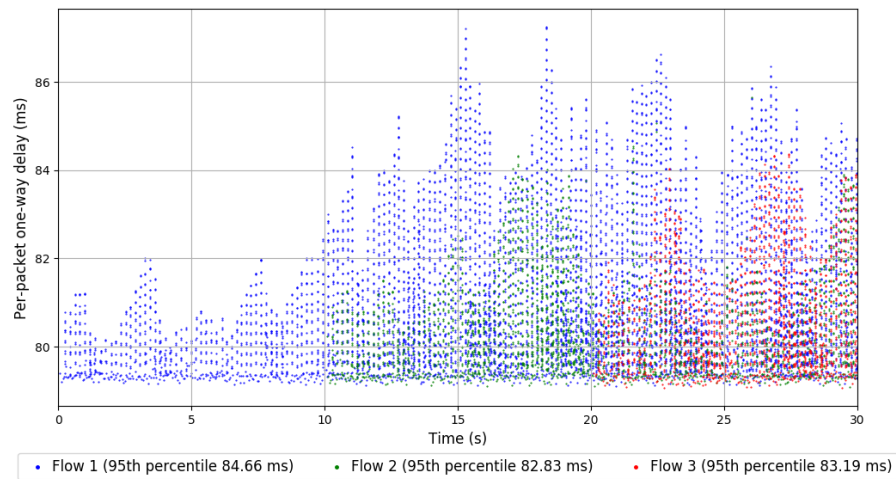
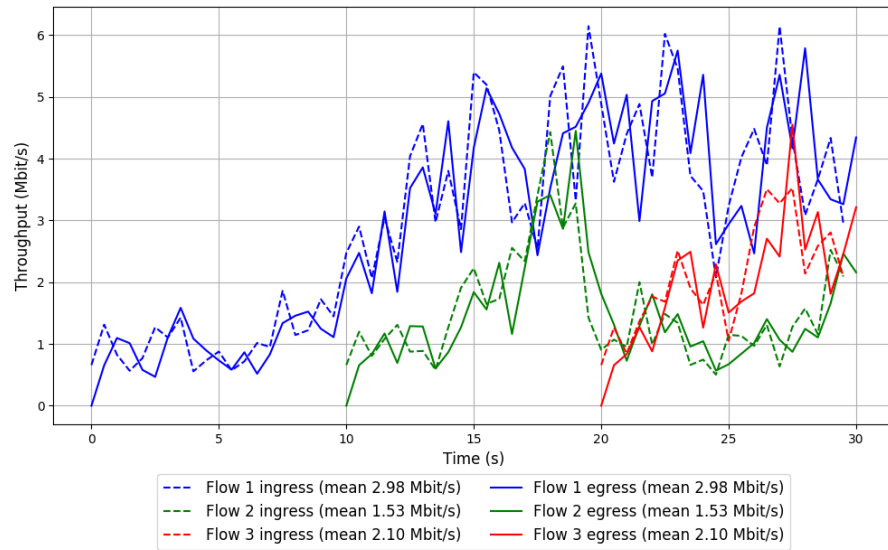


Run 1: Statistics of Sprout

Start at: 2019-02-20 00:24:56
End at: 2019-02-20 00:25:26
Local clock offset: -13.395 ms
Remote clock offset: -5.55 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.69 Mbit/s
95th percentile per-packet one-way delay: 84.191 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 84.662 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 82.833 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 83.194 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

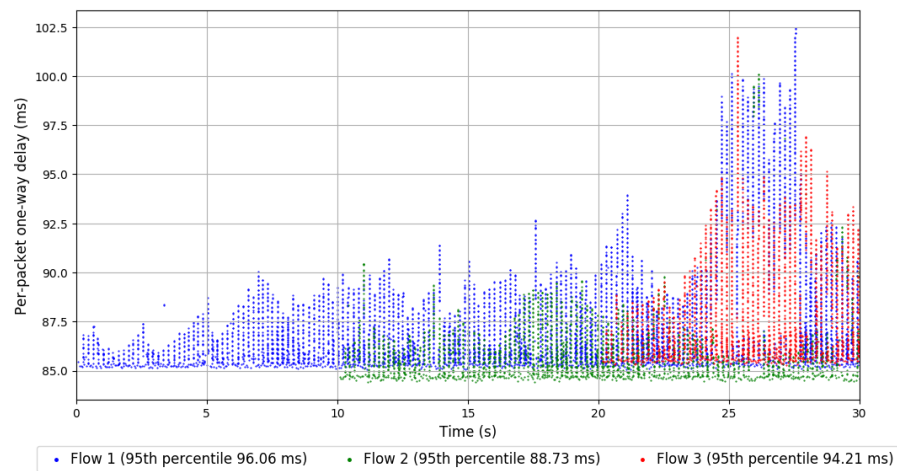
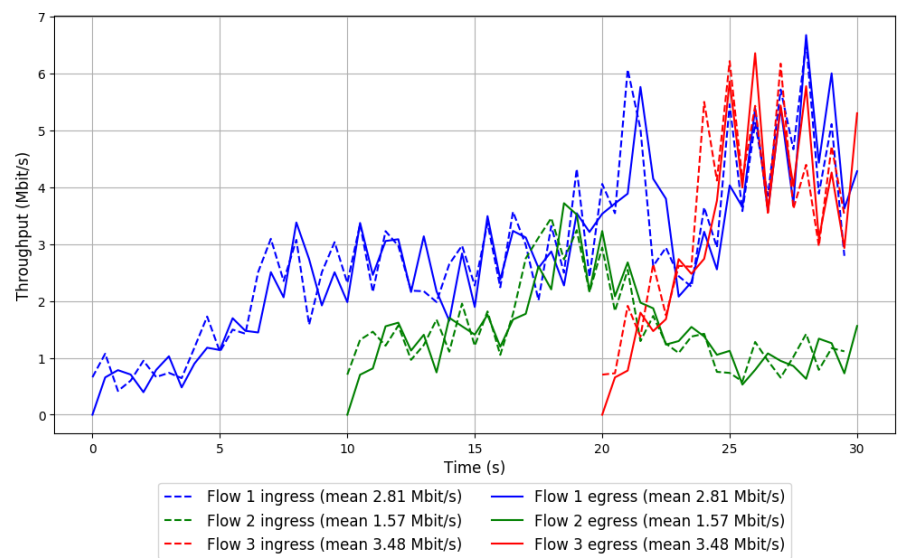


Run 2: Statistics of Sprout

Start at: 2019-02-20 00:51:43
End at: 2019-02-20 00:52:13
Local clock offset: -7.744 ms
Remote clock offset: -0.041 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.00 Mbit/s
95th percentile per-packet one-way delay: 94.764 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 96.056 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 88.733 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 94.210 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

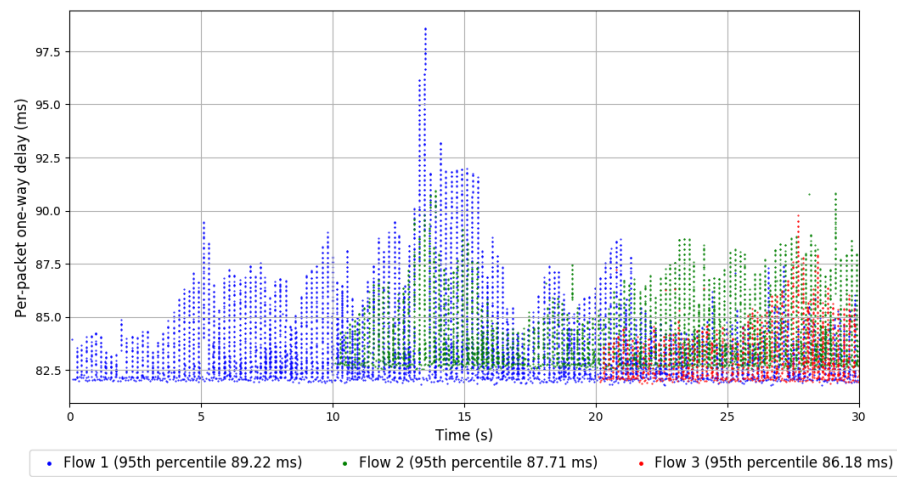
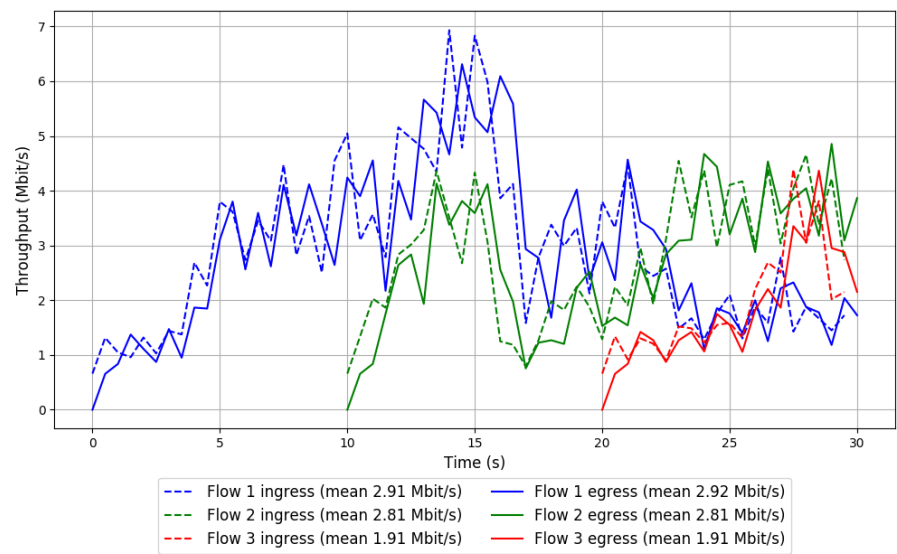


Run 3: Statistics of Sprout

Start at: 2019-02-20 01:18:25
End at: 2019-02-20 01:18:55
Local clock offset: -12.74 ms
Remote clock offset: -2.147 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.42 Mbit/s
95th percentile per-packet one-way delay: 88.163 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 89.216 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 87.710 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 86.176 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

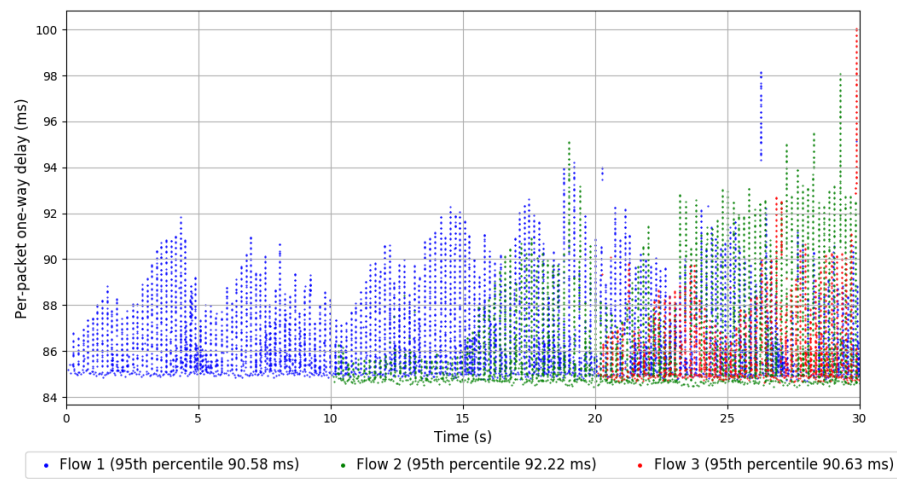
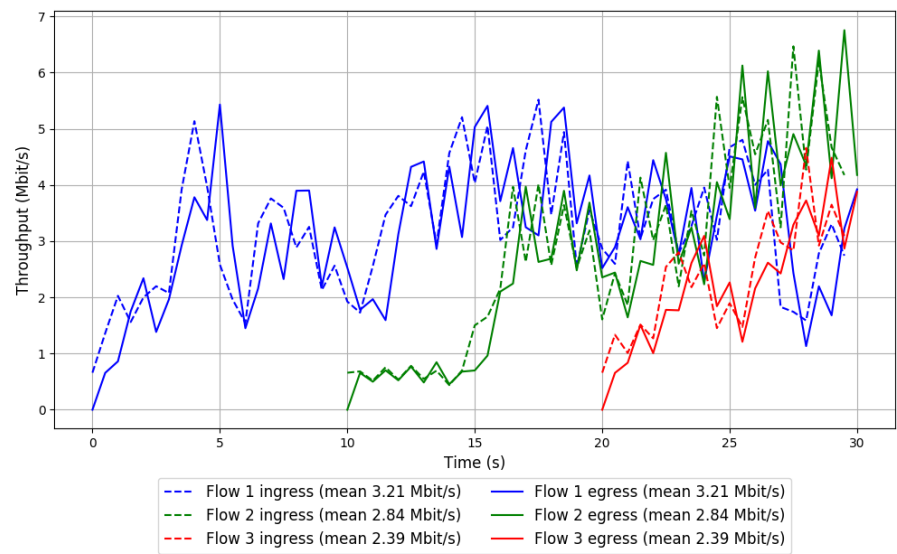


Run 4: Statistics of Sprout

Start at: 2019-02-20 01:45:18
End at: 2019-02-20 01:45:48
Local clock offset: -6.421 ms
Remote clock offset: 4.747 ms

```
# Below is generated by plot.py at 2019-02-20 02:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.89 Mbit/s
95th percentile per-packet one-way delay: 91.307 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 90.585 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 92.223 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 90.628 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

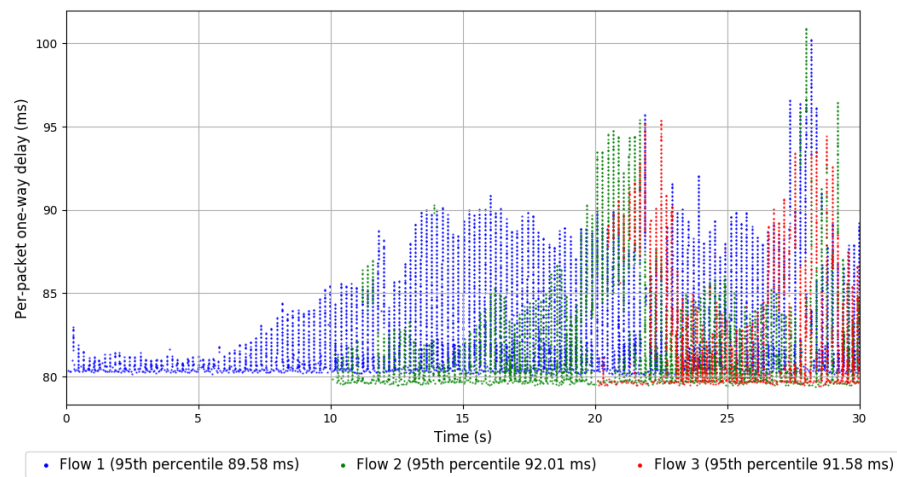
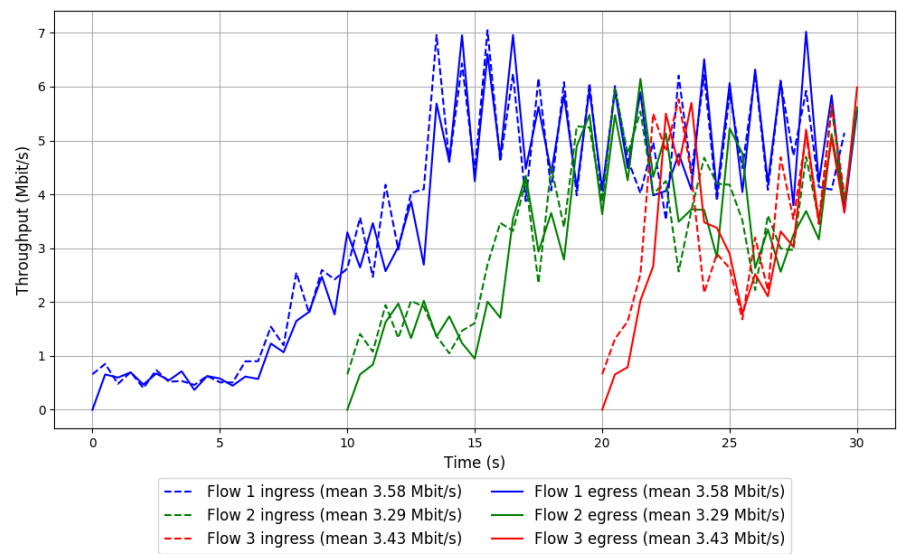


Run 5: Statistics of Sprout

Start at: 2019-02-20 02:12:09
End at: 2019-02-20 02:12:39
Local clock offset: -5.571 ms
Remote clock offset: 6.067 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.90 Mbit/s
95th percentile per-packet one-way delay: 90.860 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 89.577 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.29 Mbit/s
95th percentile per-packet one-way delay: 92.007 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 91.583 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

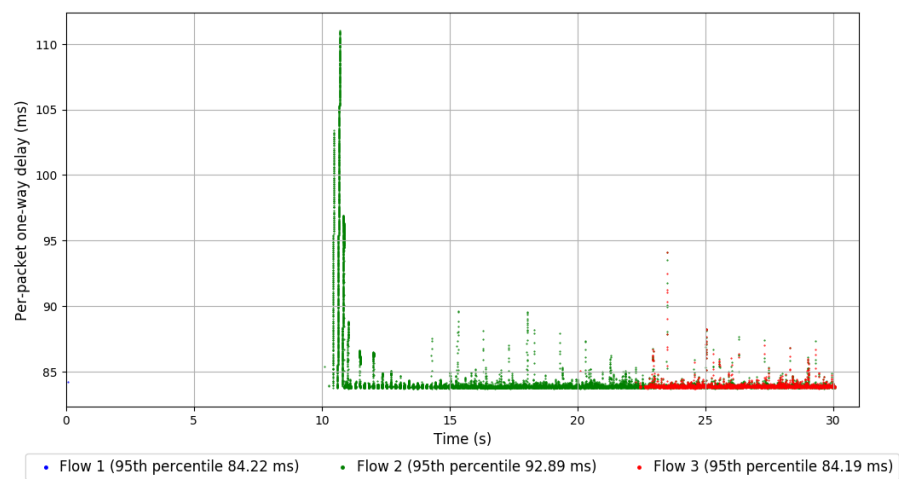
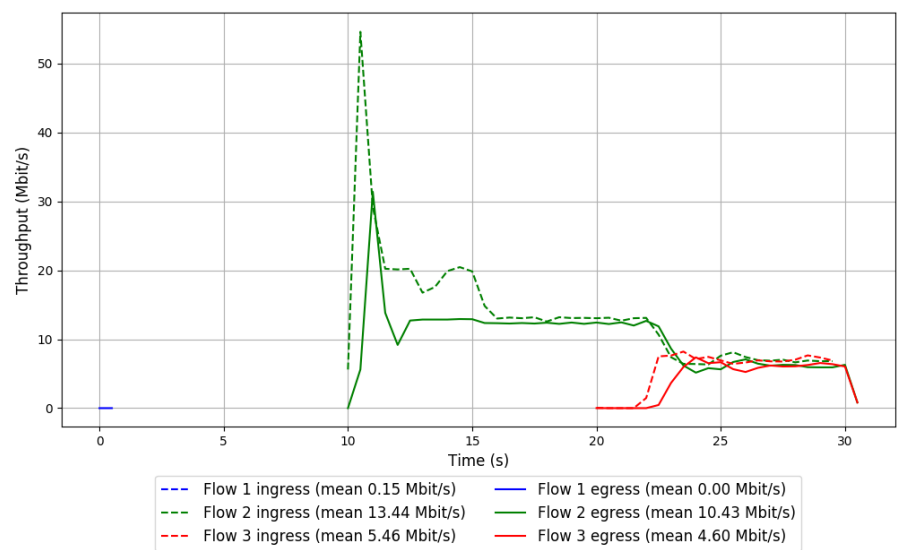


Run 1: Statistics of TaoVA-100x

Start at: 2019-02-20 00:21:09
End at: 2019-02-20 00:21:39
Local clock offset: -13.341 ms
Remote clock offset: -0.993 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 90.062 ms
Loss rate: 21.27%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 84.215 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 10.43 Mbit/s
95th percentile per-packet one-way delay: 92.893 ms
Loss rate: 22.39%
-- Flow 3:
Average throughput: 4.60 Mbit/s
95th percentile per-packet one-way delay: 84.188 ms
Loss rate: 15.70%

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

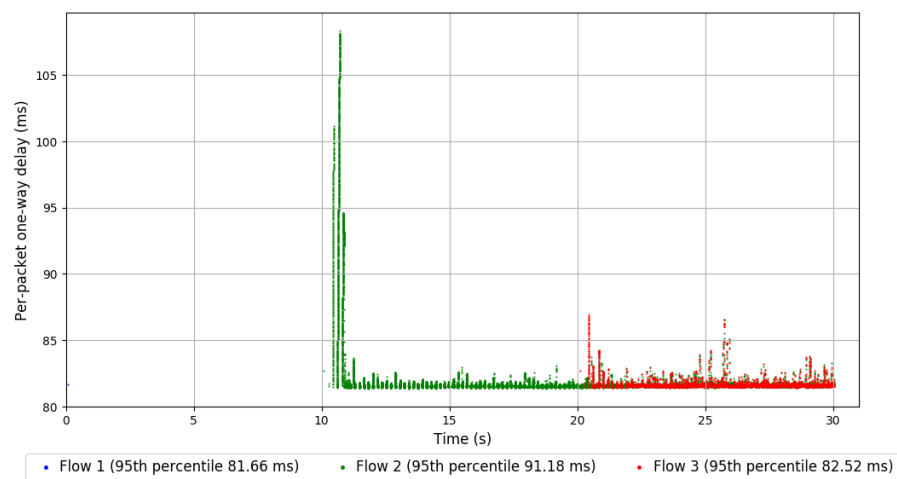
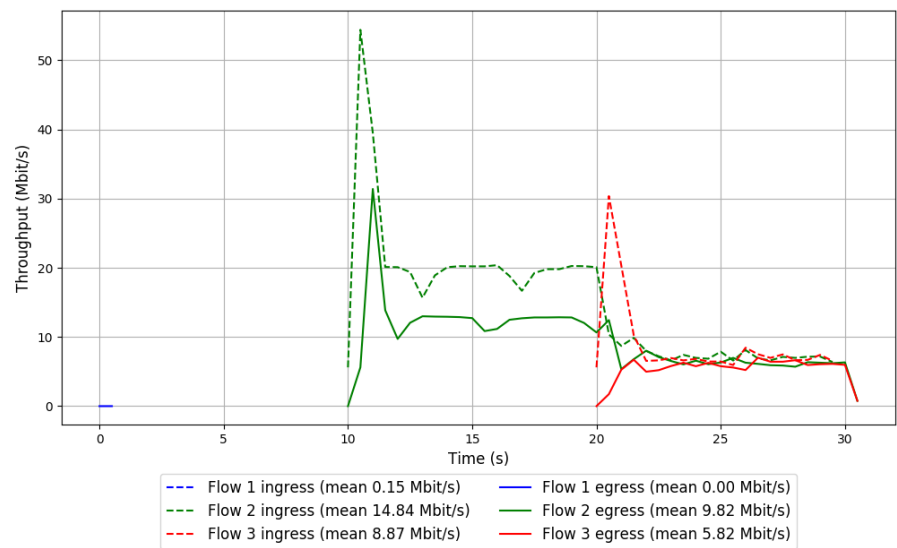


Run 2: Statistics of TaoVA-100x

Start at: 2019-02-20 00:47:54
End at: 2019-02-20 00:48:24
Local clock offset: -8.171 ms
Remote clock offset: -3.111 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 87.468 ms
Loss rate: 33.94%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 81.660 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.82 Mbit/s
95th percentile per-packet one-way delay: 91.178 ms
Loss rate: 33.81%
-- Flow 3:
Average throughput: 5.82 Mbit/s
95th percentile per-packet one-way delay: 82.523 ms
Loss rate: 34.37%

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

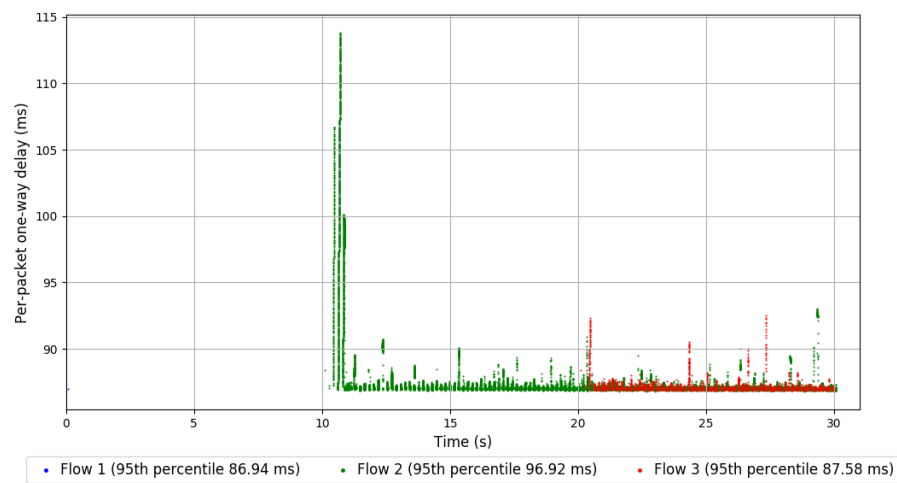
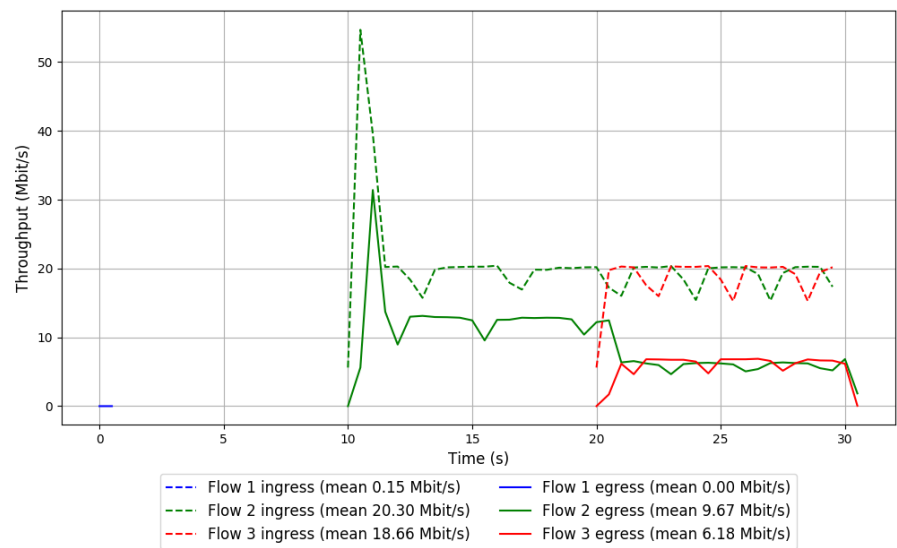


Run 3: Statistics of TaoVA-100x

Start at: 2019-02-20 01:14:37
End at: 2019-02-20 01:15:07
Local clock offset: -12.338 ms
Remote clock offset: 3.543 ms

Below is generated by plot.py at 2019-02-20 02:44:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 92.997 ms
Loss rate: 56.91%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 86.944 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 96.919 ms
Loss rate: 52.38%
-- Flow 3:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 87.578 ms
Loss rate: 66.87%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-02-20 01:41:28

End at: 2019-02-20 01:41:58

Local clock offset: -7.388 ms

Remote clock offset: 4.214 ms

Below is generated by plot.py at 2019-02-20 02:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.48 Mbit/s

95th percentile per-packet one-way delay: 92.686 ms

Loss rate: 31.96%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 88.640 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 9.91 Mbit/s

95th percentile per-packet one-way delay: 96.126 ms

Loss rate: 33.15%

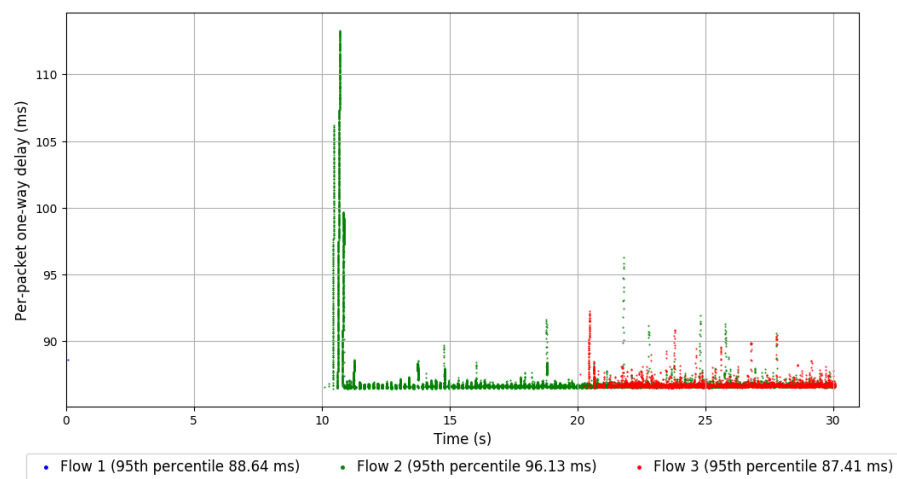
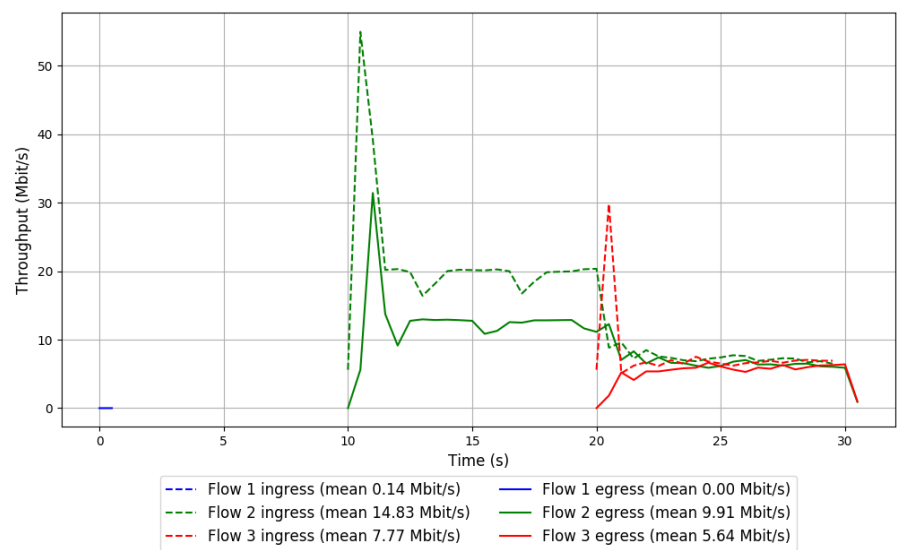
-- Flow 3:

Average throughput: 5.64 Mbit/s

95th percentile per-packet one-way delay: 87.405 ms

Loss rate: 27.40%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-02-20 02:08:21

End at: 2019-02-20 02:08:51

Local clock offset: -5.353 ms

Remote clock offset: 5.055 ms

Below is generated by plot.py at 2019-02-20 02:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.48 Mbit/s

95th percentile per-packet one-way delay: 85.226 ms

Loss rate: 33.14%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 82.975 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 10.52 Mbit/s

95th percentile per-packet one-way delay: 87.952 ms

Loss rate: 34.80%

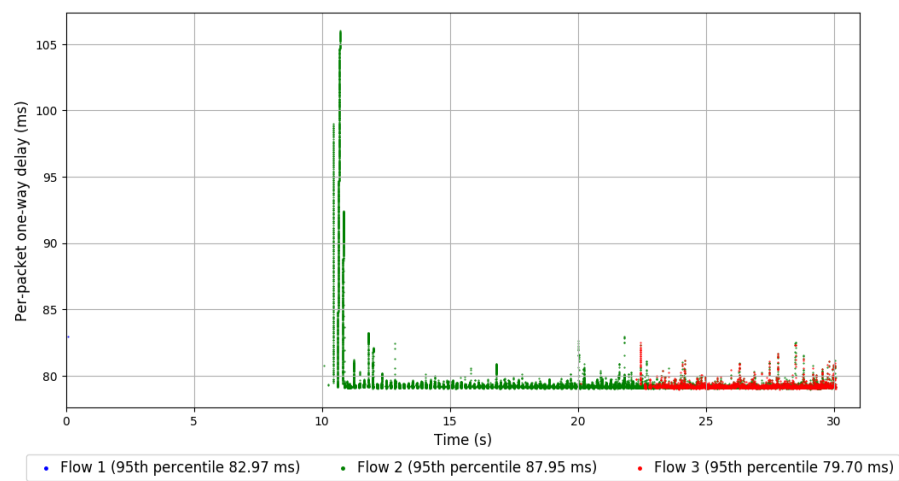
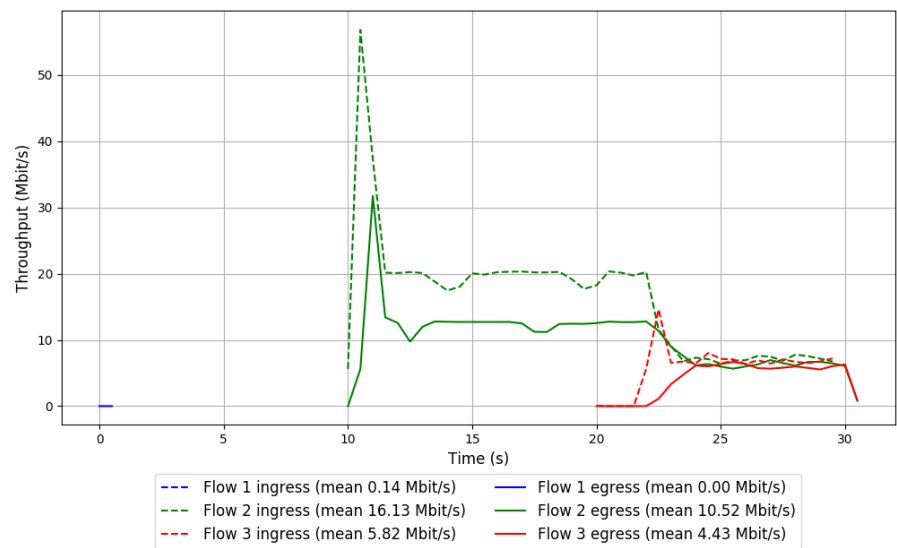
-- Flow 3:

Average throughput: 4.43 Mbit/s

95th percentile per-packet one-way delay: 79.697 ms

Loss rate: 23.89%

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

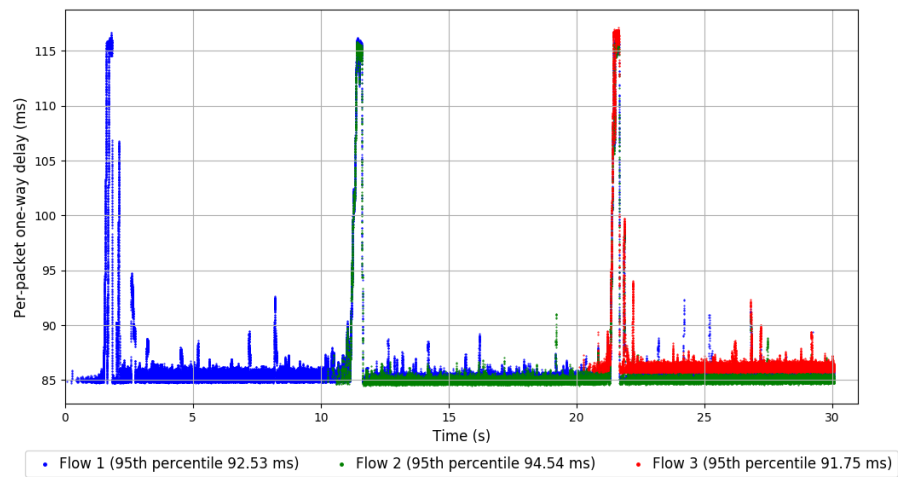
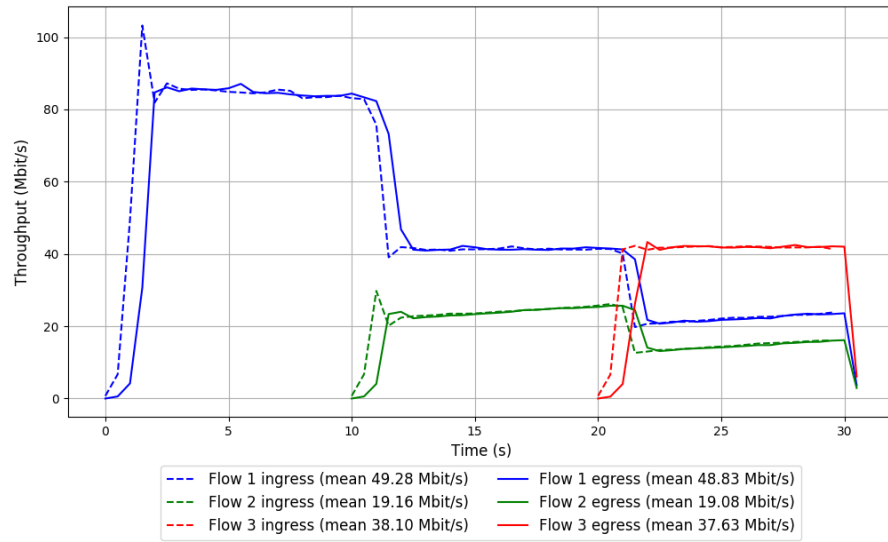


Run 1: Statistics of TCP Vegas

Start at: 2019-02-20 00:33:48
End at: 2019-02-20 00:34:18
Local clock offset: -11.609 ms
Remote clock offset: -0.842 ms

Below is generated by plot.py at 2019-02-20 02:45:18
Datalink statistics
-- Total of 3 flows:
Average throughput: 74.06 Mbit/s
95th percentile per-packet one-way delay: 92.651 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 92.533 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 19.08 Mbit/s
95th percentile per-packet one-way delay: 94.541 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 37.63 Mbit/s
95th percentile per-packet one-way delay: 91.749 ms
Loss rate: 1.23%

Run 1: Report of TCP Vegas — Data Link

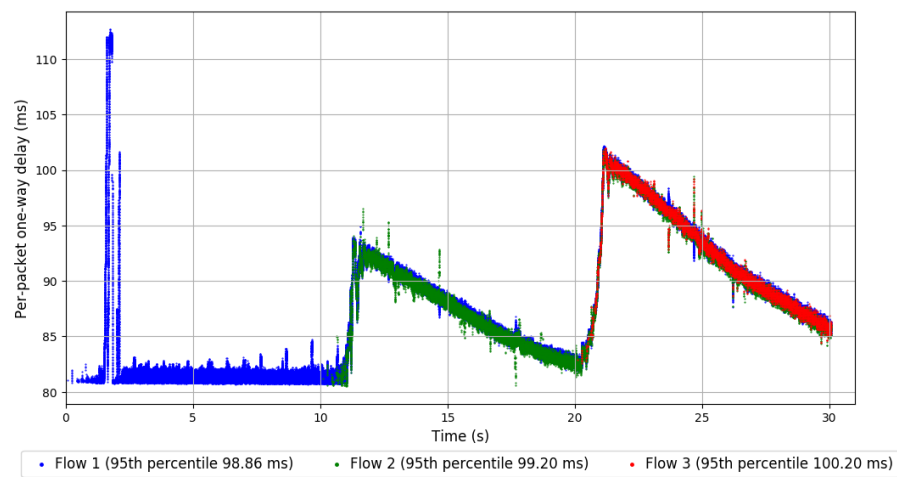
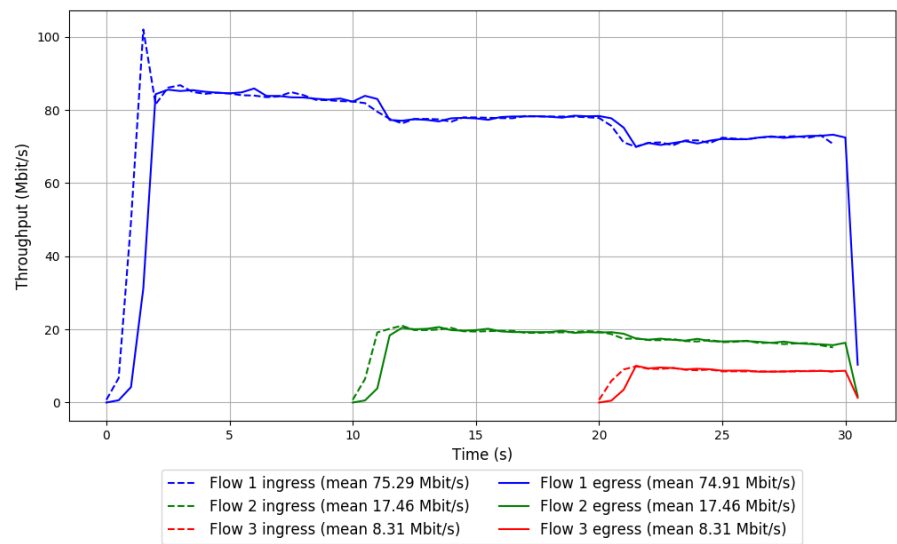


Run 2: Statistics of TCP Vegas

Start at: 2019-02-20 01:00:31
End at: 2019-02-20 01:01:01
Local clock offset: -7.27 ms
Remote clock offset: -3.443 ms

Below is generated by plot.py at 2019-02-20 02:45:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.31 Mbit/s
95th percentile per-packet one-way delay: 99.038 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 74.91 Mbit/s
95th percentile per-packet one-way delay: 98.855 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 17.46 Mbit/s
95th percentile per-packet one-way delay: 99.203 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.31 Mbit/s
95th percentile per-packet one-way delay: 100.201 ms
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link

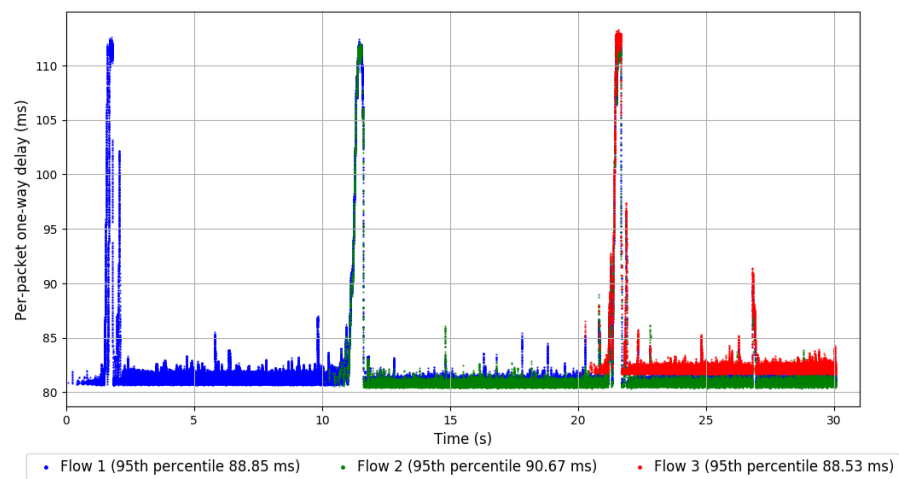
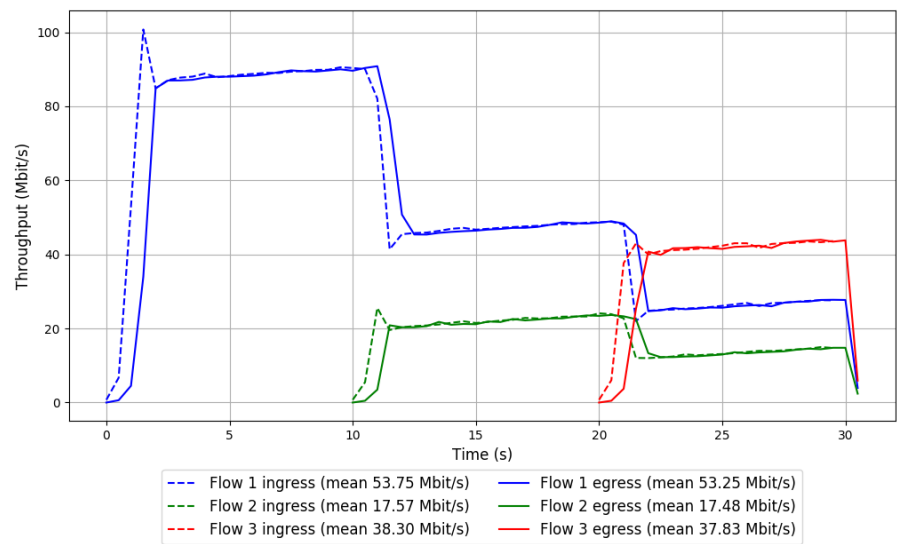


Run 3: Statistics of TCP Vegas

Start at: 2019-02-20 01:27:17
End at: 2019-02-20 01:27:47
Local clock offset: -13.487 ms
Remote clock offset: -2.376 ms

Below is generated by plot.py at 2019-02-20 02:45:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.47 Mbit/s
95th percentile per-packet one-way delay: 89.063 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 53.25 Mbit/s
95th percentile per-packet one-way delay: 88.851 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 17.48 Mbit/s
95th percentile per-packet one-way delay: 90.665 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 37.83 Mbit/s
95th percentile per-packet one-way delay: 88.534 ms
Loss rate: 1.22%

Run 3: Report of TCP Vegas — Data Link

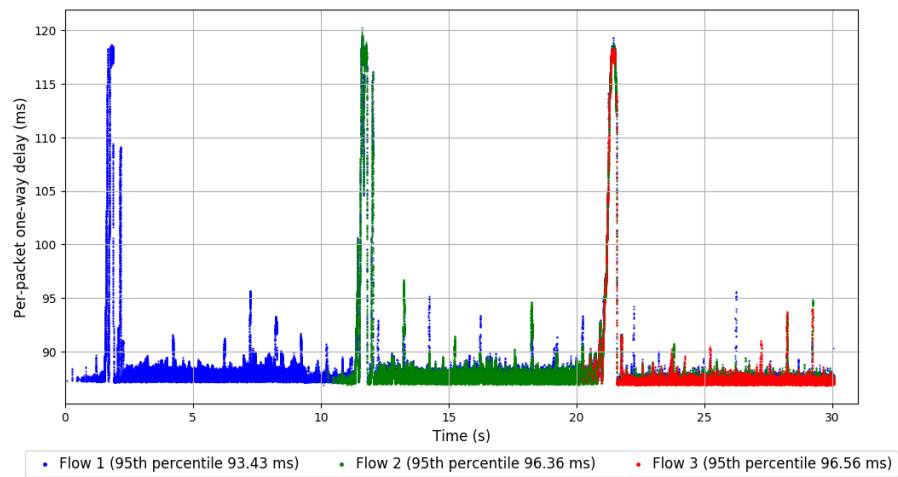
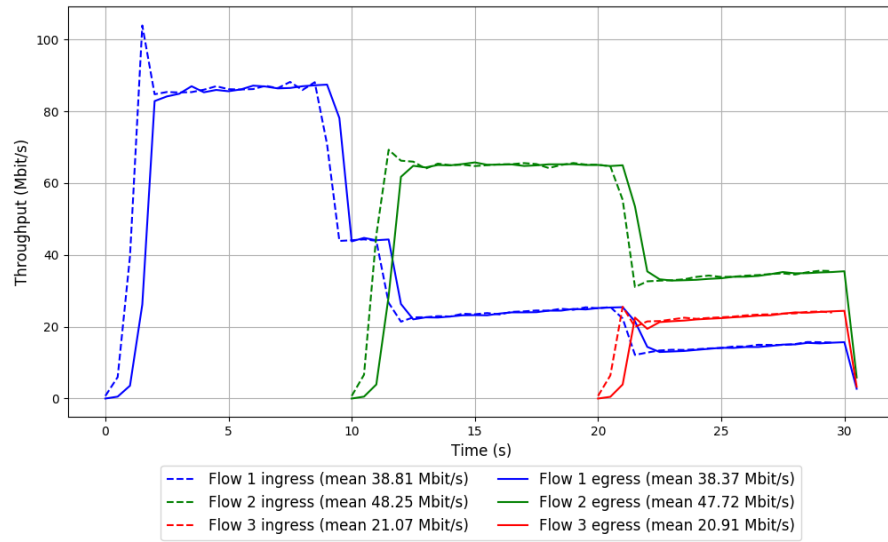


Run 4: Statistics of TCP Vegas

Start at: 2019-02-20 01:54:10
End at: 2019-02-20 01:54:40
Local clock offset: -4.977 ms
Remote clock offset: 10.204 ms

Below is generated by plot.py at 2019-02-20 02:45:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.11 Mbit/s
95th percentile per-packet one-way delay: 95.323 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 38.37 Mbit/s
95th percentile per-packet one-way delay: 93.430 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 47.72 Mbit/s
95th percentile per-packet one-way delay: 96.358 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 20.91 Mbit/s
95th percentile per-packet one-way delay: 96.555 ms
Loss rate: 0.77%

Run 4: Report of TCP Vegas — Data Link

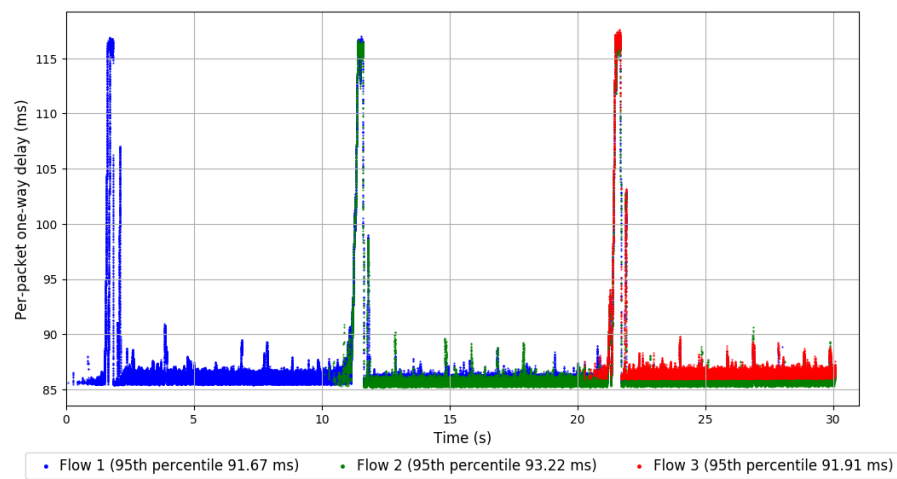
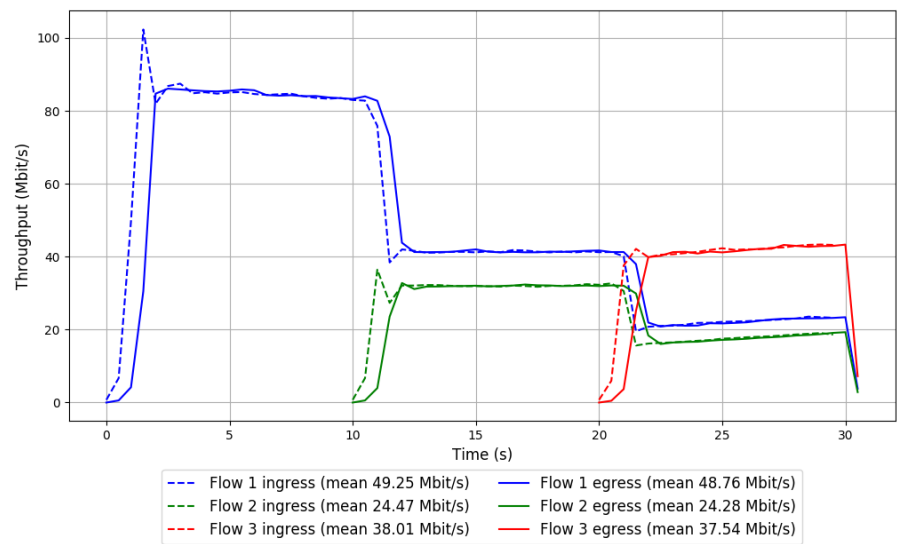


Run 5: Statistics of TCP Vegas

Start at: 2019-02-20 02:20:56
End at: 2019-02-20 02:21:26
Local clock offset: -5.609 ms
Remote clock offset: 10.656 ms

Below is generated by plot.py at 2019-02-20 02:45:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.41 Mbit/s
95th percentile per-packet one-way delay: 92.013 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 48.76 Mbit/s
95th percentile per-packet one-way delay: 91.669 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 24.28 Mbit/s
95th percentile per-packet one-way delay: 93.217 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 37.54 Mbit/s
95th percentile per-packet one-way delay: 91.910 ms
Loss rate: 1.22%

Run 5: Report of TCP Vegas — Data Link

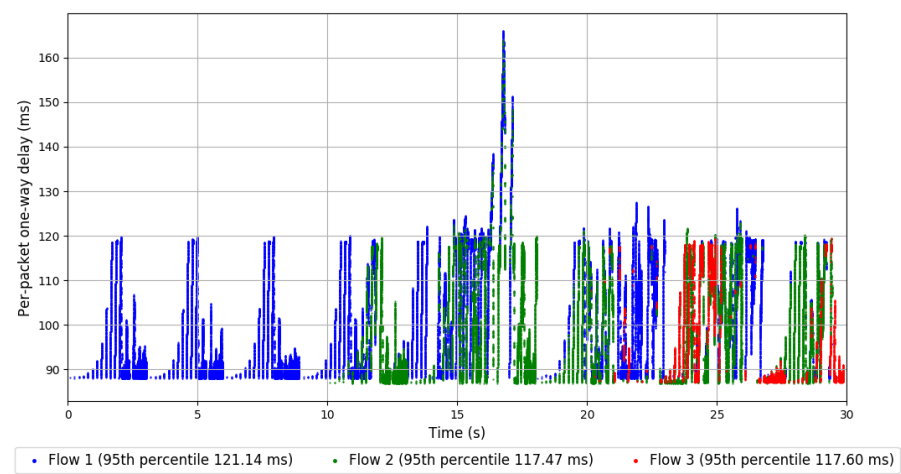
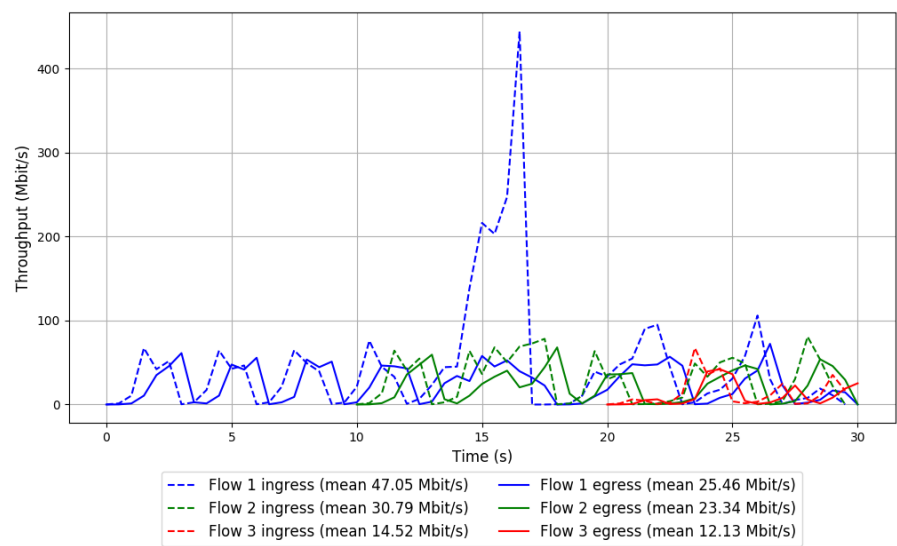


Run 1: Statistics of Verus

Start at: 2019-02-20 00:23:40
End at: 2019-02-20 00:24:10
Local clock offset: -13.379 ms
Remote clock offset: 1.81 ms

Below is generated by plot.py at 2019-02-20 02:45:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 44.75 Mbit/s
95th percentile per-packet one-way delay: 119.172 ms
Loss rate: 37.83%
-- Flow 1:
Average throughput: 25.46 Mbit/s
95th percentile per-packet one-way delay: 121.137 ms
Loss rate: 45.89%
-- Flow 2:
Average throughput: 23.34 Mbit/s
95th percentile per-packet one-way delay: 117.466 ms
Loss rate: 24.20%
-- Flow 3:
Average throughput: 12.13 Mbit/s
95th percentile per-packet one-way delay: 117.600 ms
Loss rate: 16.59%

Run 1: Report of Verus — Data Link

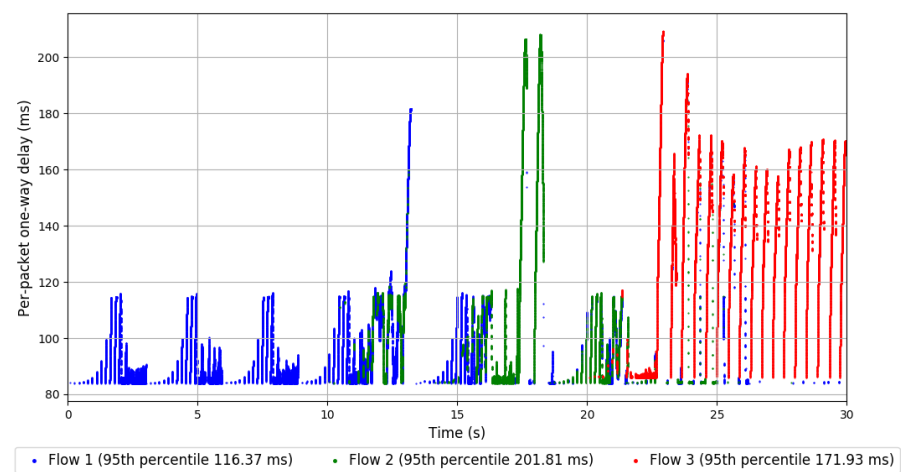
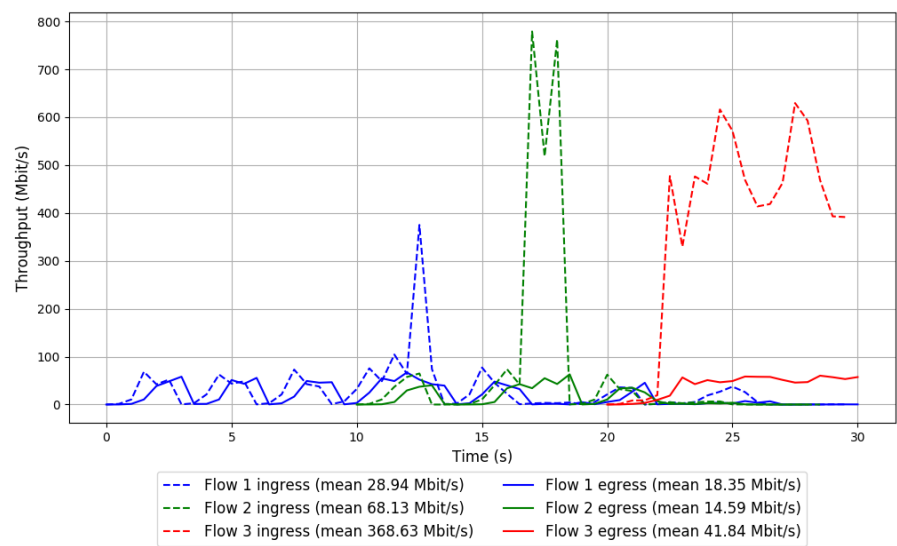


Run 2: Statistics of Verus

Start at: 2019-02-20 00:50:25
End at: 2019-02-20 00:50:55
Local clock offset: -7.862 ms
Remote clock offset: -0.576 ms

Below is generated by plot.py at 2019-02-20 02:45:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 40.68 Mbit/s
95th percentile per-packet one-way delay: 171.333 ms
Loss rate: 78.86%
-- Flow 1:
Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 116.370 ms
Loss rate: 36.94%
-- Flow 2:
Average throughput: 14.59 Mbit/s
95th percentile per-packet one-way delay: 201.808 ms
Loss rate: 79.76%
-- Flow 3:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 171.926 ms
Loss rate: 88.56%

Run 2: Report of Verus — Data Link

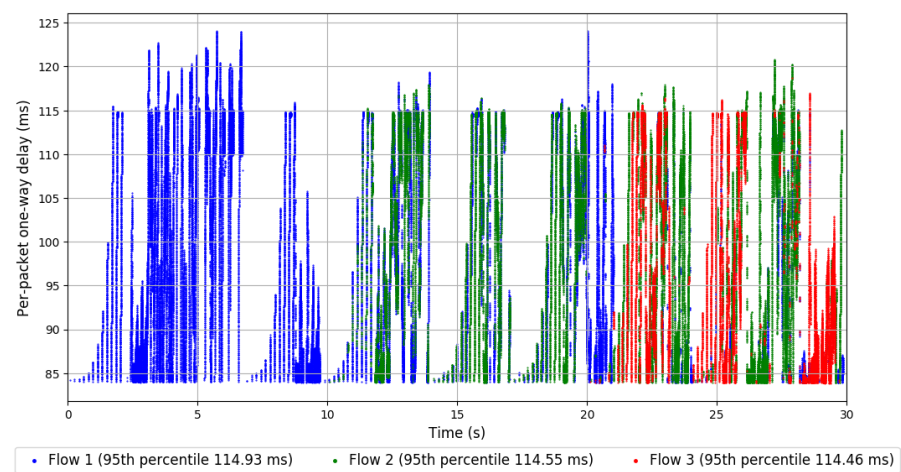
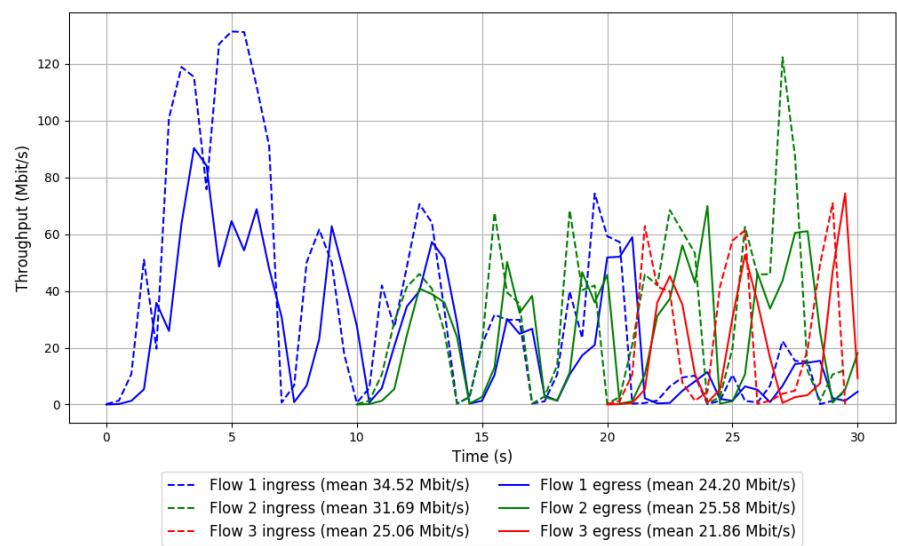


Run 3: Statistics of Verus

Start at: 2019-02-20 01:17:09
End at: 2019-02-20 01:17:39
Local clock offset: -12.576 ms
Remote clock offset: 0.994 ms

Below is generated by plot.py at 2019-02-20 02:45:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 48.17 Mbit/s
95th percentile per-packet one-way delay: 114.611 ms
Loss rate: 24.19%
-- Flow 1:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 114.927 ms
Loss rate: 29.90%
-- Flow 2:
Average throughput: 25.58 Mbit/s
95th percentile per-packet one-way delay: 114.550 ms
Loss rate: 19.19%
-- Flow 3:
Average throughput: 21.86 Mbit/s
95th percentile per-packet one-way delay: 114.462 ms
Loss rate: 12.75%

Run 3: Report of Verus — Data Link

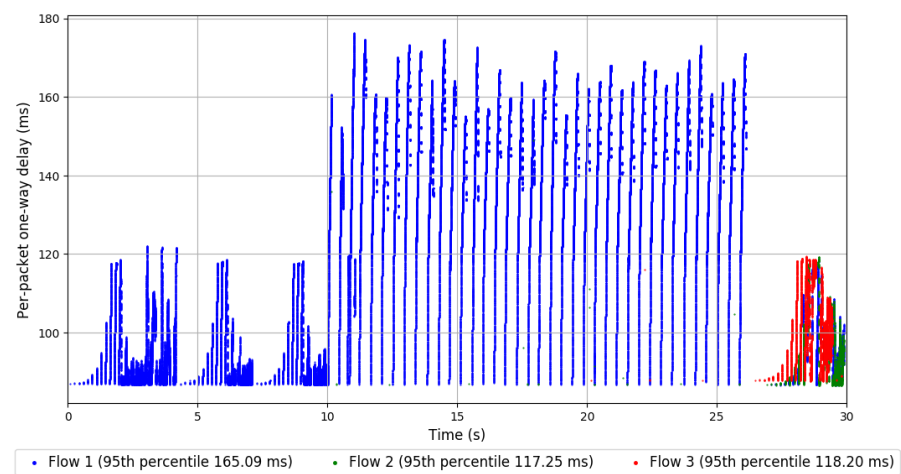
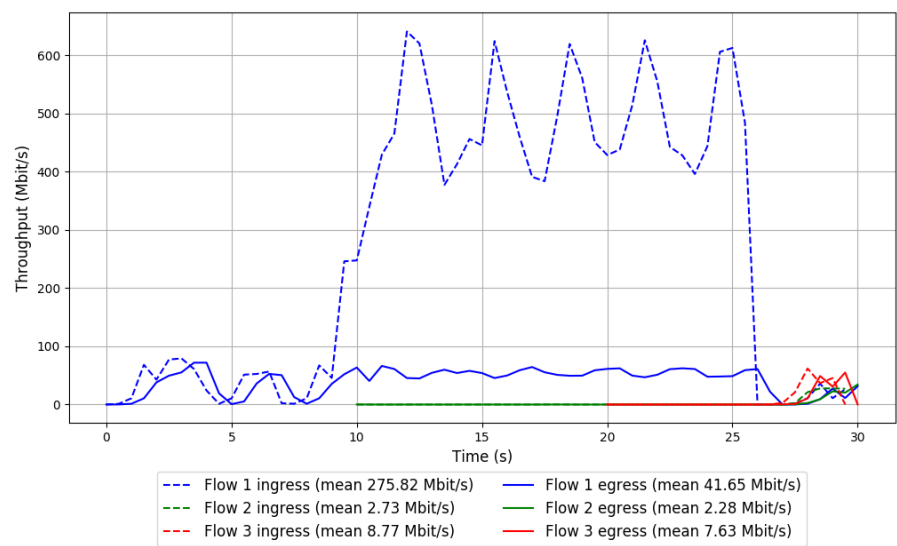


Run 4: Statistics of Verus

Start at: 2019-02-20 01:43:59
End at: 2019-02-20 01:44:29
Local clock offset: -6.737 ms
Remote clock offset: 5.804 ms

Below is generated by plot.py at 2019-02-20 02:46:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 45.63 Mbit/s
95th percentile per-packet one-way delay: 164.455 ms
Loss rate: 83.73%
-- Flow 1:
Average throughput: 41.65 Mbit/s
95th percentile per-packet one-way delay: 165.091 ms
Loss rate: 84.90%
-- Flow 2:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 117.248 ms
Loss rate: 16.60%
-- Flow 3:
Average throughput: 7.63 Mbit/s
95th percentile per-packet one-way delay: 118.201 ms
Loss rate: 12.94%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-02-20 02:10:52

End at: 2019-02-20 02:11:22

Local clock offset: -5.541 ms

Remote clock offset: 7.336 ms

Below is generated by plot.py at 2019-02-20 02:46:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 44.06 Mbit/s

95th percentile per-packet one-way delay: 112.953 ms

Loss rate: 36.55%

-- Flow 1:

Average throughput: 25.16 Mbit/s

95th percentile per-packet one-way delay: 118.695 ms

Loss rate: 46.13%

-- Flow 2:

Average throughput: 20.55 Mbit/s

95th percentile per-packet one-way delay: 111.632 ms

Loss rate: 17.82%

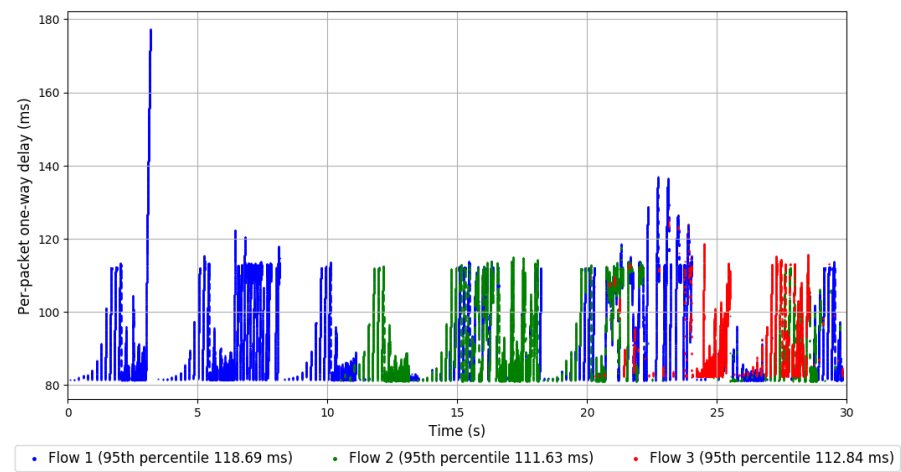
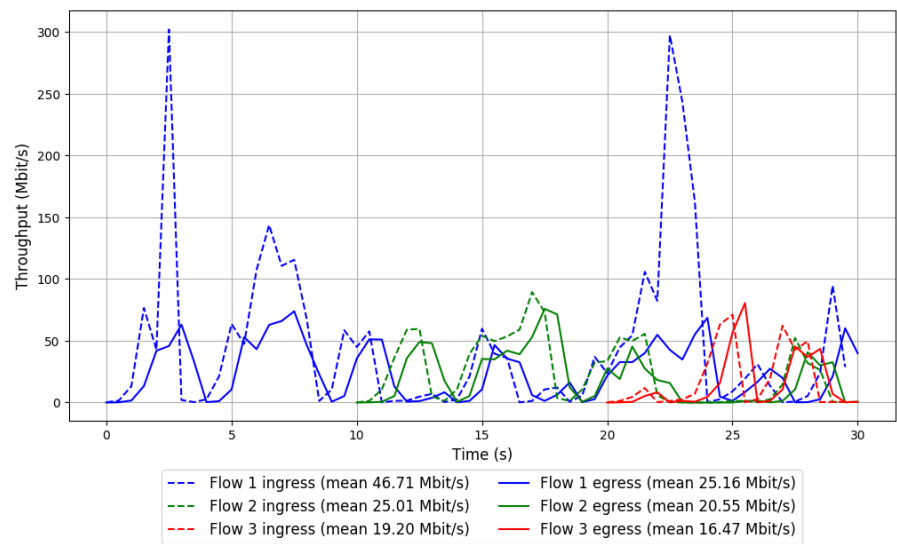
-- Flow 3:

Average throughput: 16.47 Mbit/s

95th percentile per-packet one-way delay: 112.837 ms

Loss rate: 14.44%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-02-20 00:43:58

End at: 2019-02-20 00:44:28

Local clock offset: -8.763 ms

Remote clock offset: -4.54 ms

Below is generated by plot.py at 2019-02-20 02:46:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.89 Mbit/s

95th percentile per-packet one-way delay: 91.162 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 67.94 Mbit/s

95th percentile per-packet one-way delay: 91.566 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 11.17 Mbit/s

95th percentile per-packet one-way delay: 89.338 ms

Loss rate: 0.01%

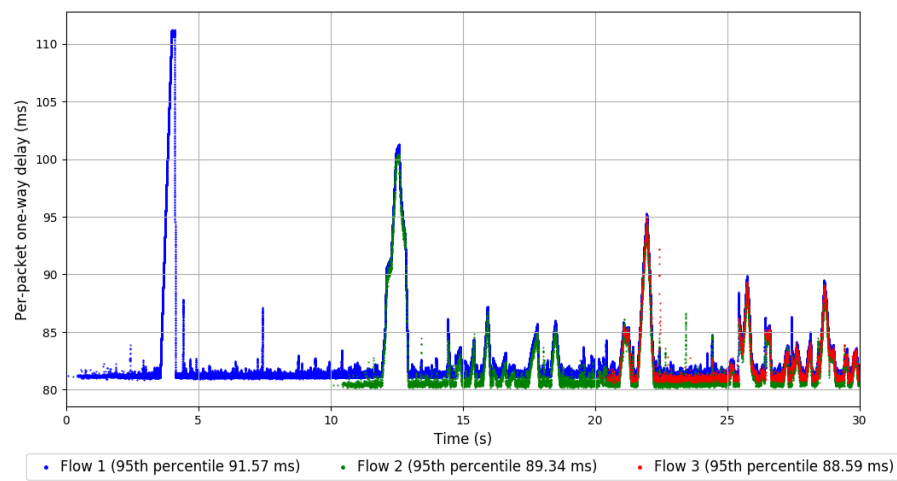
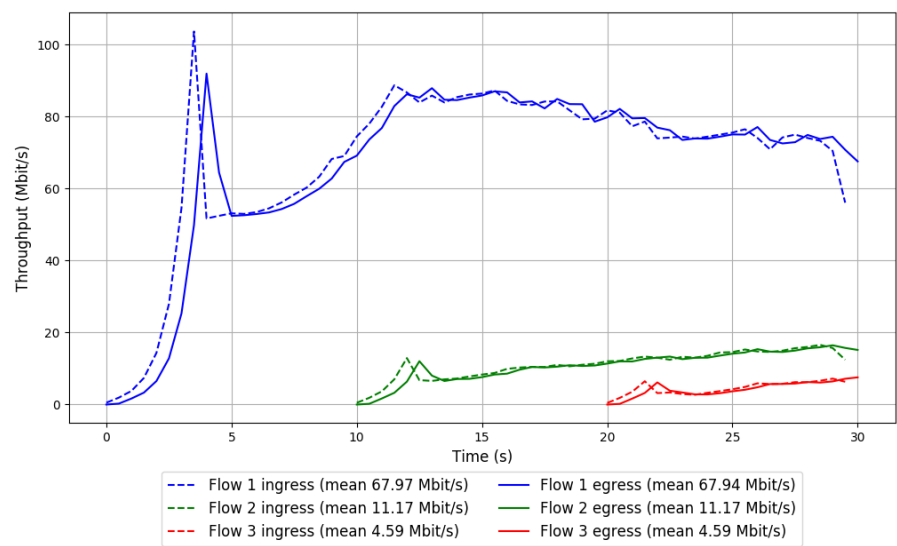
-- Flow 3:

Average throughput: 4.59 Mbit/s

95th percentile per-packet one-way delay: 88.593 ms

Loss rate: 0.03%

Run 1: Report of PCC-Vivace — Data Link

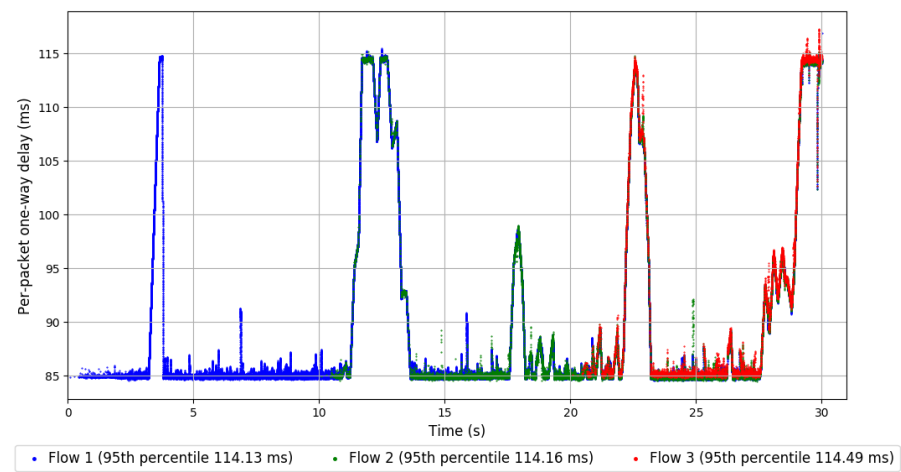
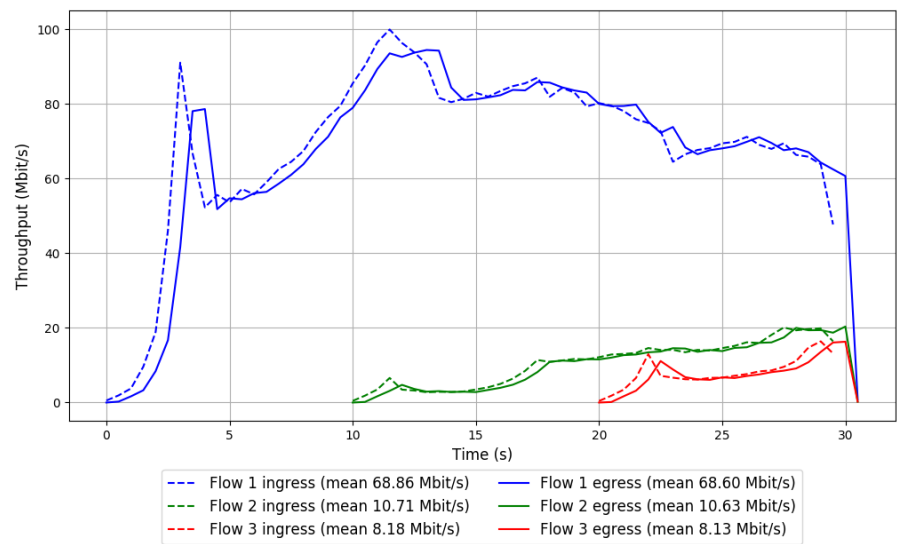


Run 2: Statistics of PCC-Vivace

Start at: 2019-02-20 01:10:42
End at: 2019-02-20 01:11:12
Local clock offset: -11.489 ms
Remote clock offset: 1.077 ms

Below is generated by plot.py at 2019-02-20 02:46:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 78.36 Mbit/s
95th percentile per-packet one-way delay: 114.172 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 68.60 Mbit/s
95th percentile per-packet one-way delay: 114.126 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 10.63 Mbit/s
95th percentile per-packet one-way delay: 114.155 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 114.491 ms
Loss rate: 0.27%

Run 2: Report of PCC-Vivace — Data Link

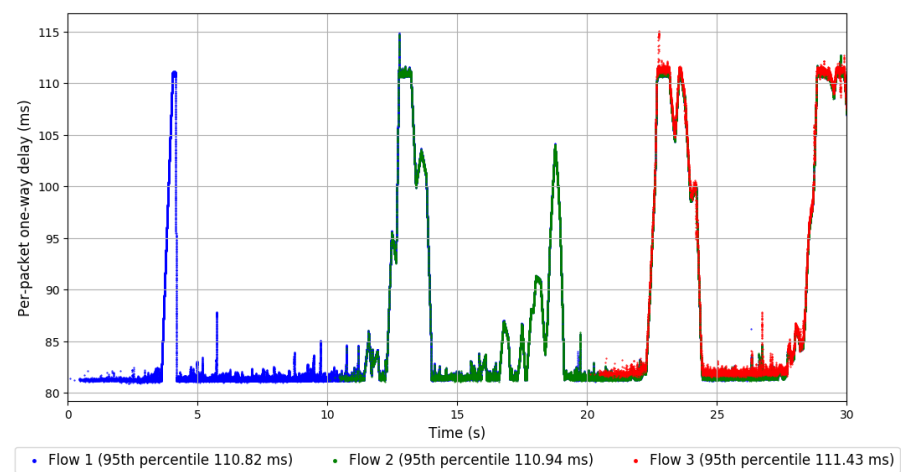
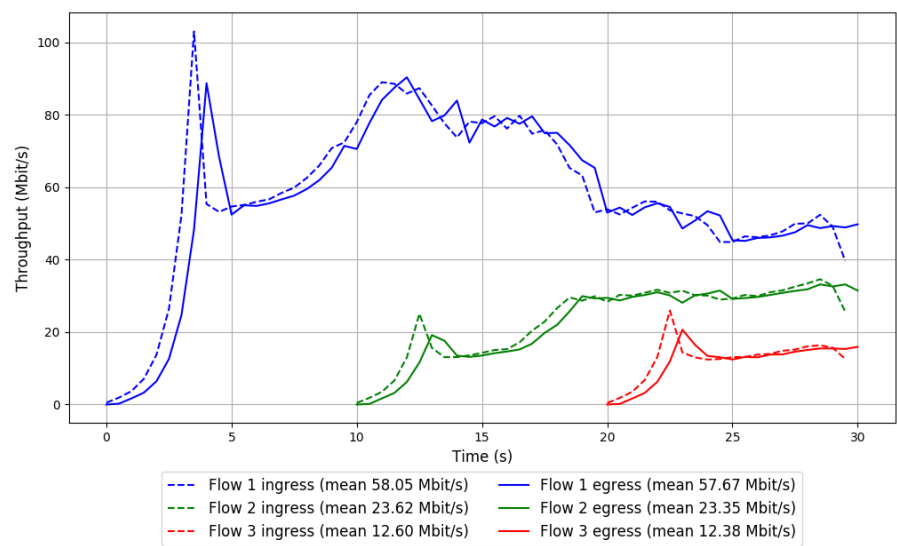


Run 3: Statistics of PCC-Vivace

Start at: 2019-02-20 01:37:32
End at: 2019-02-20 01:38:02
Local clock offset: -8.796 ms
Remote clock offset: -2.236 ms

Below is generated by plot.py at 2019-02-20 02:46:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 110.895 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 57.67 Mbit/s
95th percentile per-packet one-way delay: 110.824 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 23.35 Mbit/s
95th percentile per-packet one-way delay: 110.935 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 111.427 ms
Loss rate: 1.50%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-02-20 02:04:25

End at: 2019-02-20 02:04:55

Local clock offset: -5.04 ms

Remote clock offset: 6.328 ms

Below is generated by plot.py at 2019-02-20 02:46:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.78 Mbit/s

95th percentile per-packet one-way delay: 95.279 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 69.45 Mbit/s

95th percentile per-packet one-way delay: 94.986 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 9.31 Mbit/s

95th percentile per-packet one-way delay: 95.800 ms

Loss rate: 0.01%

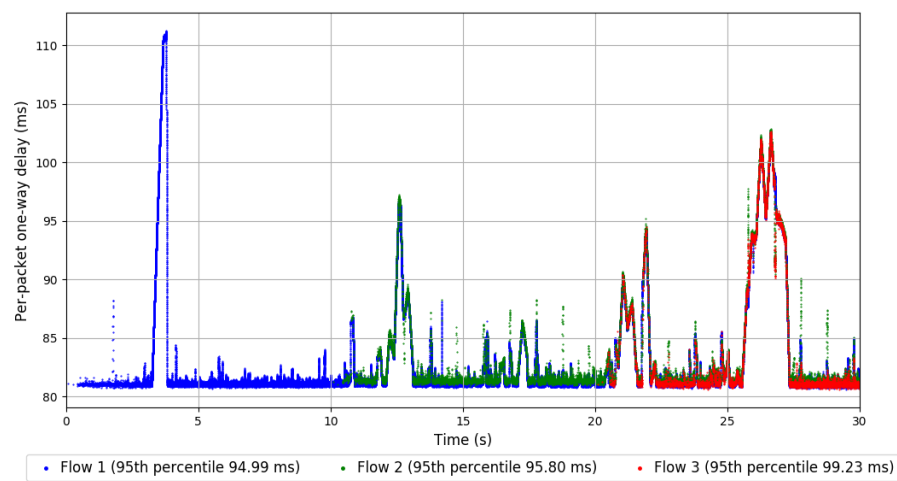
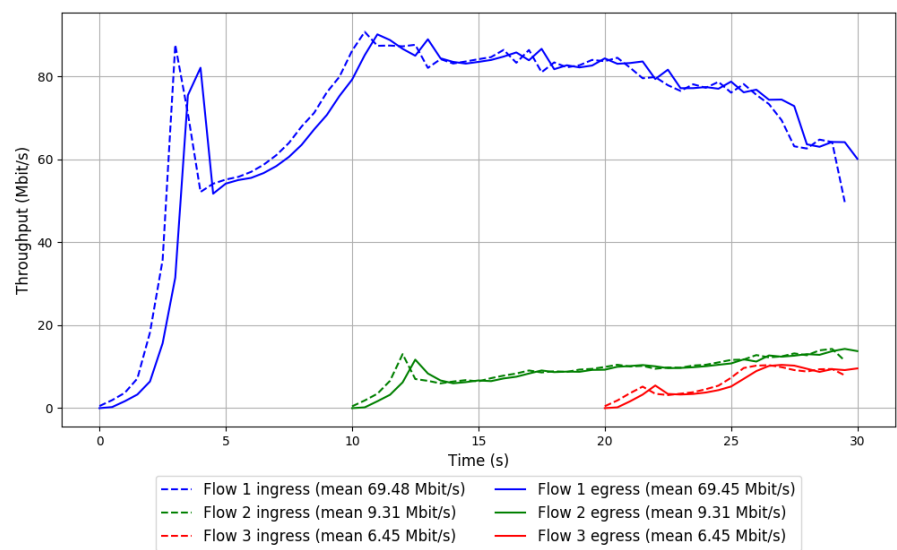
-- Flow 3:

Average throughput: 6.45 Mbit/s

95th percentile per-packet one-way delay: 99.232 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-02-20 02:31:06

End at: 2019-02-20 02:31:36

Local clock offset: -5.348 ms

Remote clock offset: 4.538 ms

Below is generated by plot.py at 2019-02-20 02:46:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.56 Mbit/s

95th percentile per-packet one-way delay: 109.832 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 59.92 Mbit/s

95th percentile per-packet one-way delay: 110.588 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 22.57 Mbit/s

95th percentile per-packet one-way delay: 109.400 ms

Loss rate: 0.57%

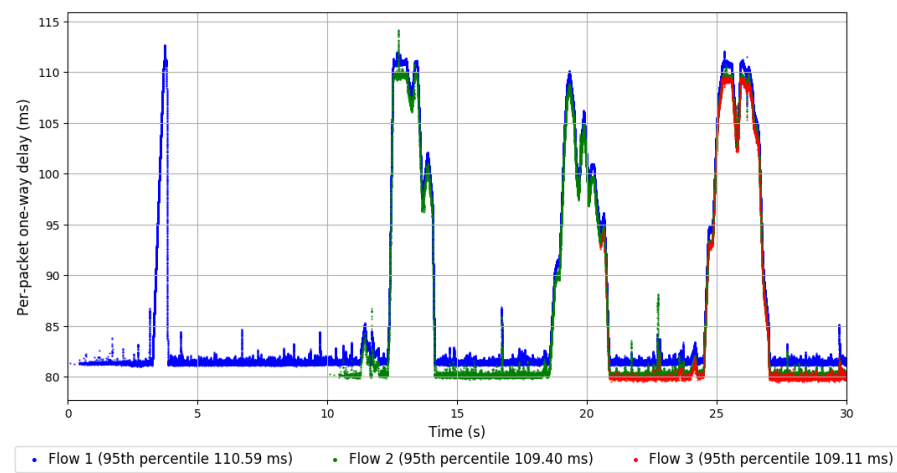
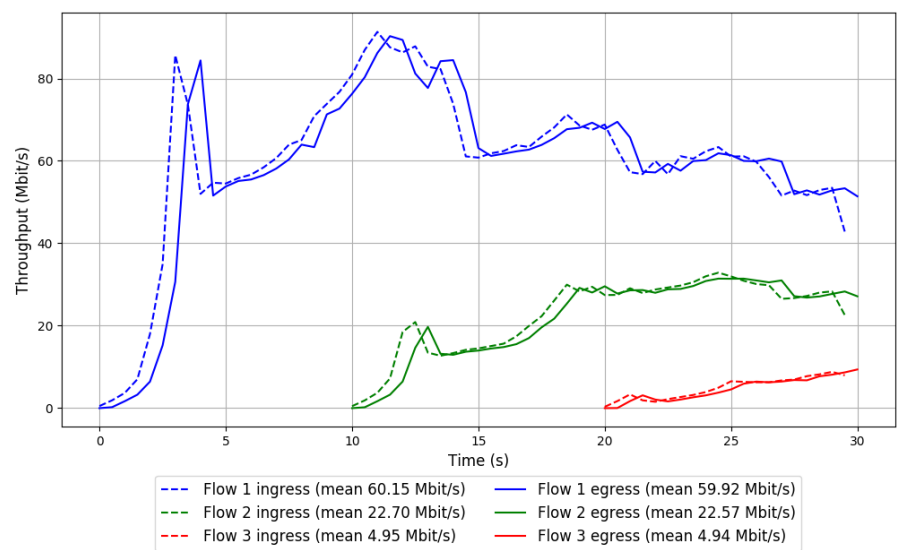
-- Flow 3:

Average throughput: 4.94 Mbit/s

95th percentile per-packet one-way delay: 109.113 ms

Loss rate: 0.34%

Run 5: Report of PCC-Vivace — Data Link

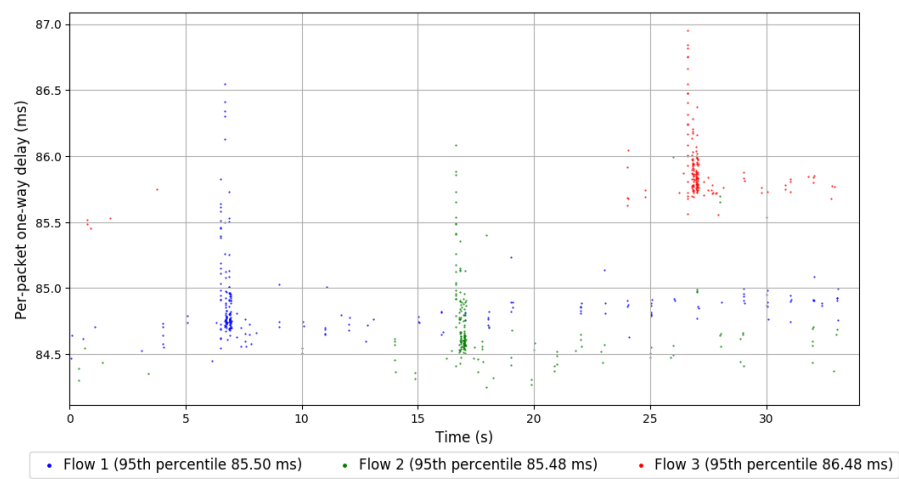
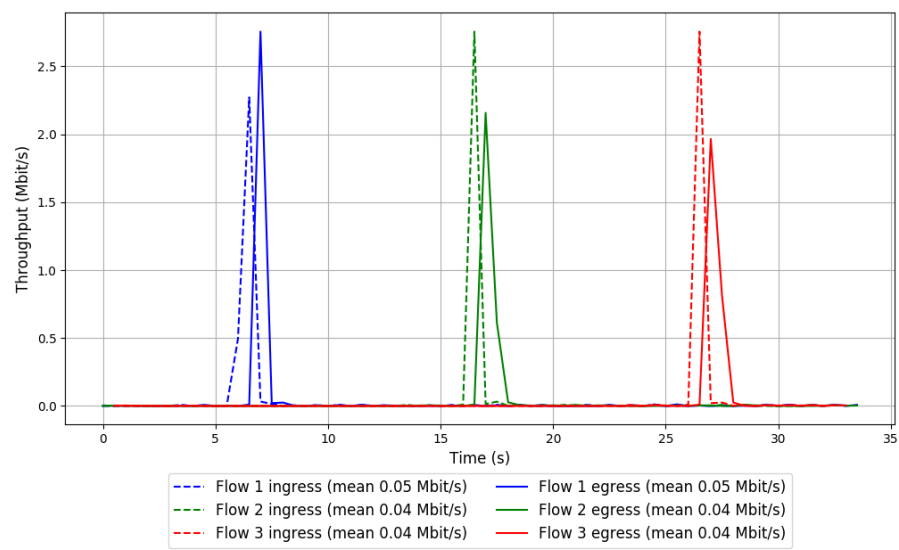


Run 1: Statistics of WebRTC media

Start at: 2019-02-20 00:30:00
End at: 2019-02-20 00:30:30
Local clock offset: -13.427 ms
Remote clock offset: -1.099 ms

Below is generated by plot.py at 2019-02-20 02:46:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 86.036 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.502 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.485 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 86.476 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-02-20 00:56:47

End at: 2019-02-20 00:57:17

Local clock offset: -7.283 ms

Remote clock offset: 0.683 ms

Below is generated by plot.py at 2019-02-20 02:46:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 87.061 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.374 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 89.672 ms

Loss rate: 0.00%

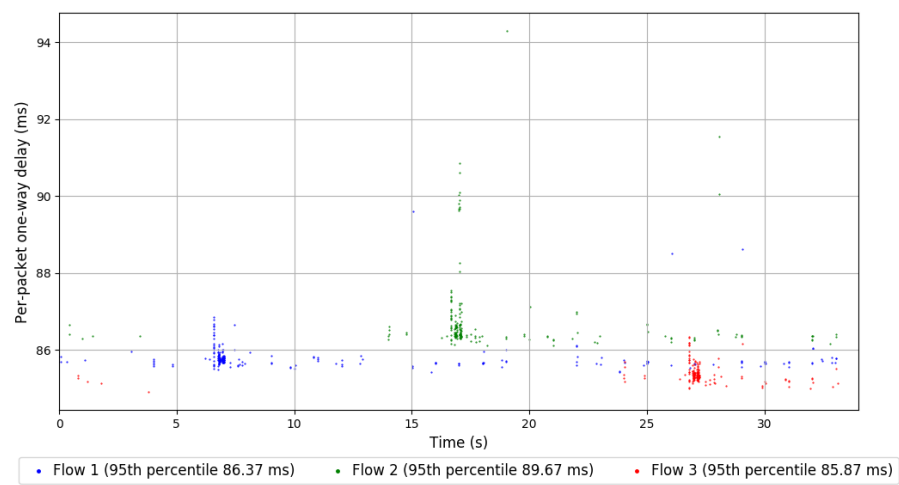
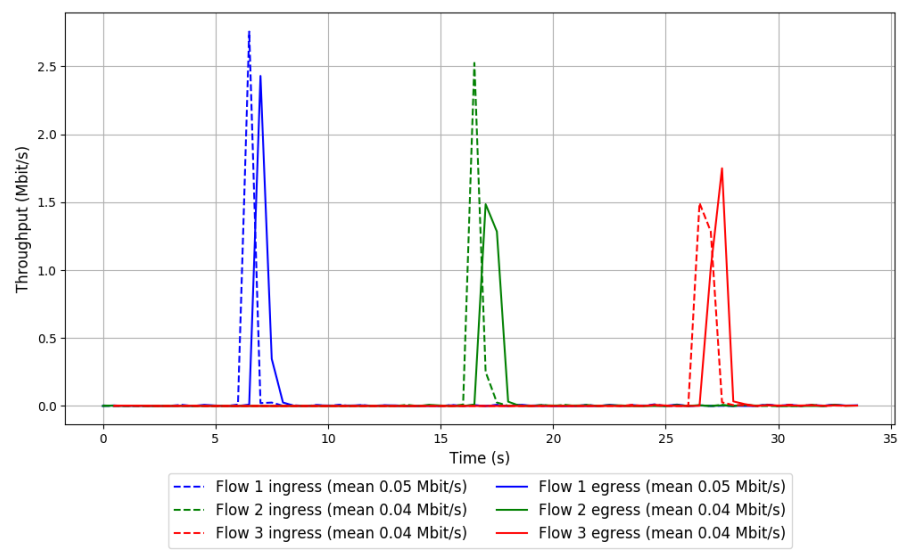
-- Flow 3:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 85.874 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

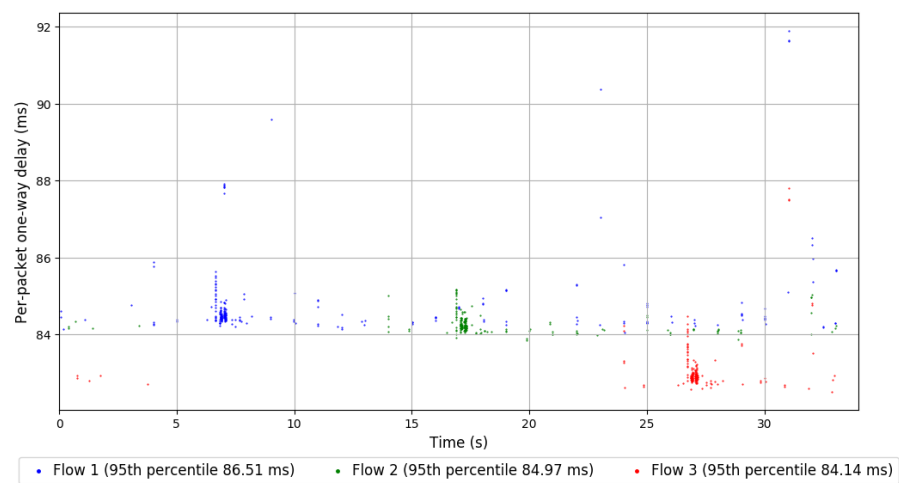
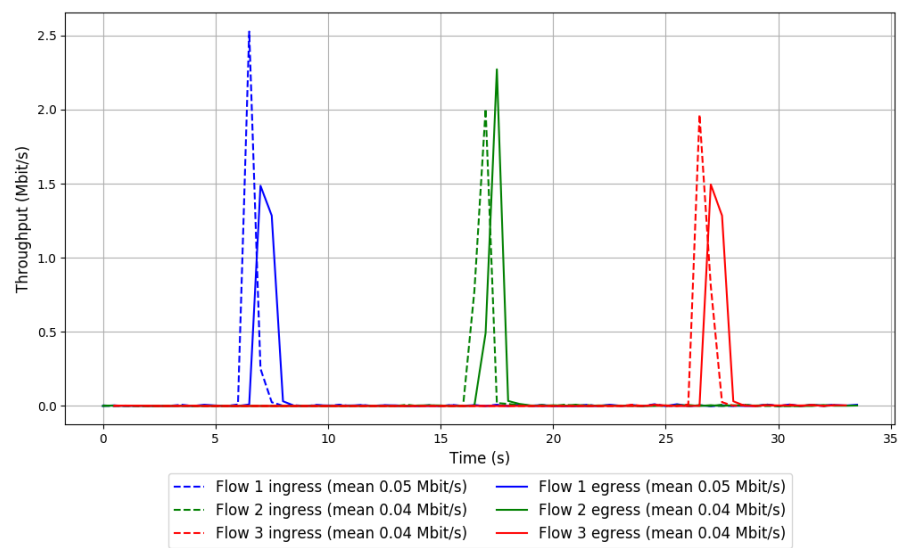


Run 3: Statistics of WebRTC media

Start at: 2019-02-20 01:23:33
End at: 2019-02-20 01:24:03
Local clock offset: -13.181 ms
Remote clock offset: 0.094 ms

Below is generated by plot.py at 2019-02-20 02:46:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 85.303 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.507 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 84.968 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 84.138 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-02-20 01:50:27

End at: 2019-02-20 01:50:57

Local clock offset: -5.416 ms

Remote clock offset: 8.344 ms

Below is generated by plot.py at 2019-02-20 02:46:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 87.583 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.04 Mbit/s

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

Loss rate: 0.00%

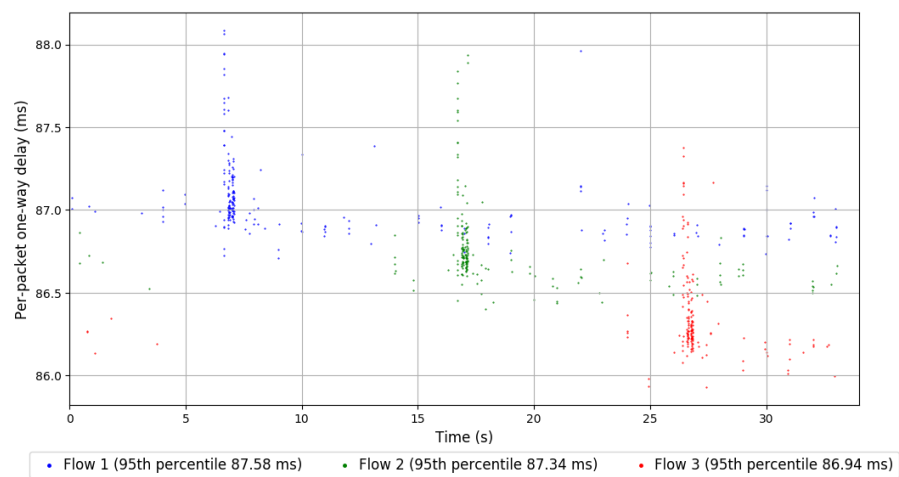
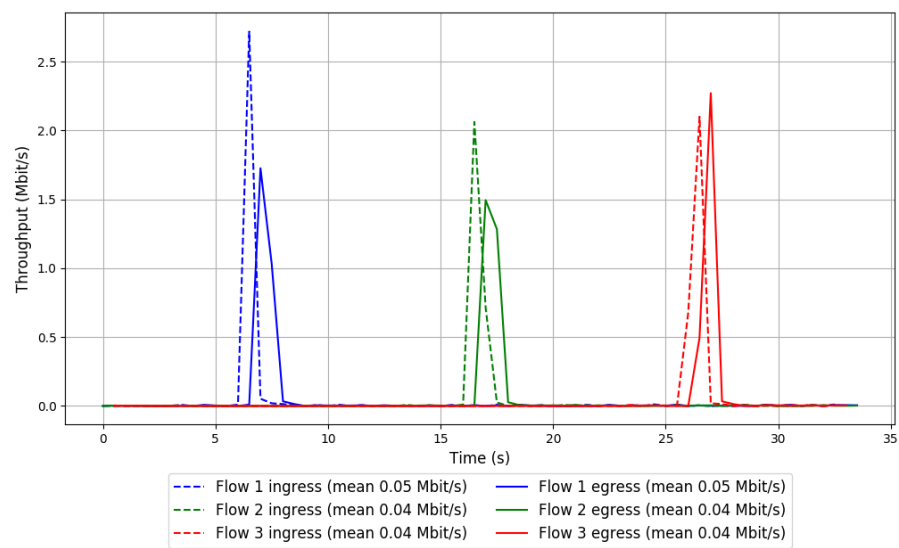
-- Flow 3:

Average throughput: 0.04 Mbit/s

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

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-02-20 02:17:12

End at: 2019-02-20 02:17:42

Local clock offset: -5.642 ms

Remote clock offset: 6.288 ms

Below is generated by plot.py at 2019-02-20 02:46:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 80.841 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 80.596 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 80.969 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 80.704 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

