

## Pantheon Report

Generated at 2018-06-19 12:41:21 (UTC).

Data path: Colombia Ethernet (*remote*) → AWS Brazil 2 Ethernet (*local*).

Repeated the test of 16 congestion control schemes 10 times.

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

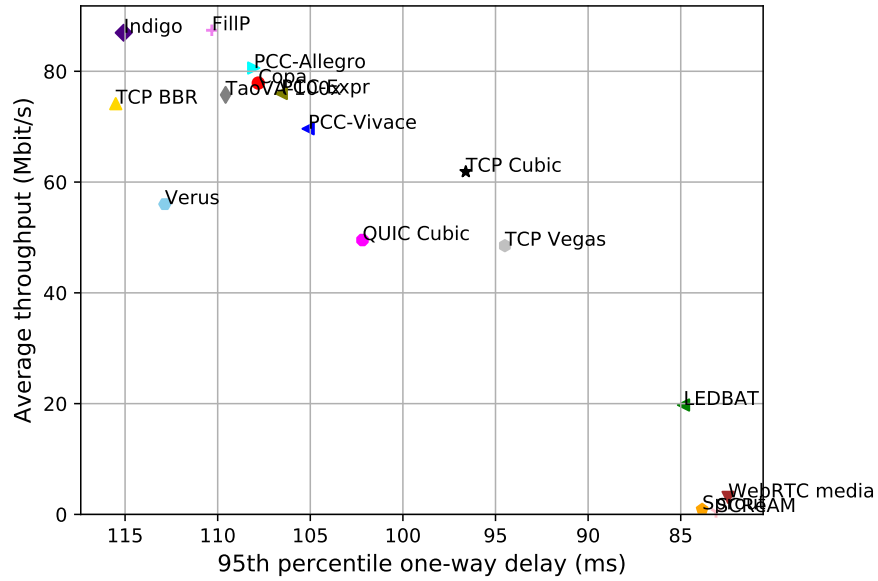
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

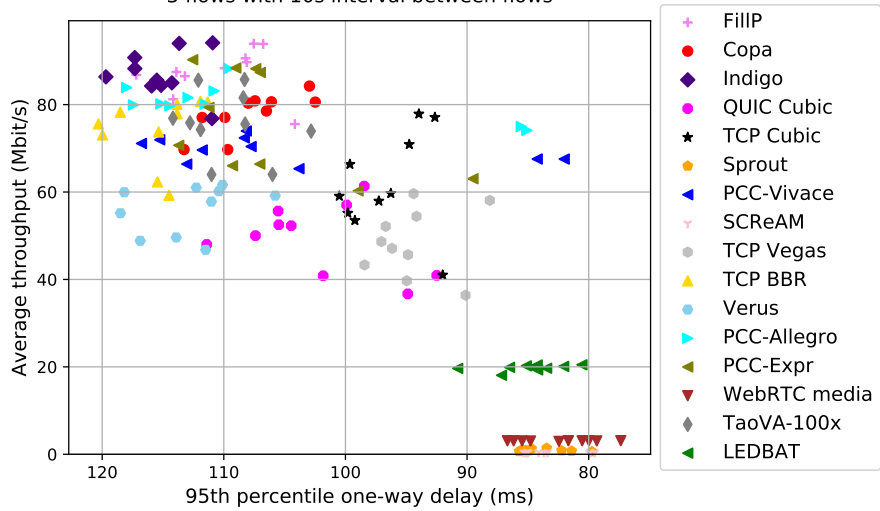
Git summary:

```
branch: master @ 9141c5f9450c85ea5ea2ea755a8e946998d3abf3
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from Colombia to AWS Brazil 2, 10 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from Colombia to AWS Brazil 2, 10 runs of 30s each per scheme  
 3 flows with 10s interval between flows



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	43.92	32.84	25.63	113.06	116.60	119.56	3.54	4.79	6.55
Copa	10	49.10	30.62	25.63	100.63	107.51	111.93	1.94	2.33	3.32
TCP Cubic	10	37.06	26.60	21.70	93.99	99.31	107.17	0.52	0.78	1.93
FillP	10	54.09	36.69	27.45	107.72	111.53	117.29	3.40	5.79	7.49
Indigo	10	54.60	35.91	26.51	113.34	116.45	115.37	4.53	2.90	4.19
LEDBAT	10	12.75	8.54	4.10	84.64	84.53	83.89	1.07	1.66	3.43
PCC-Allegro	10	56.26	26.79	20.11	104.67	109.75	113.73	6.03	3.51	5.13
PCC-Expr	10	49.29	30.35	20.12	106.46	105.45	104.80	1.91	2.41	4.33
QUIC Cubic	10	28.08	22.50	19.96	99.41	101.36	103.50	1.03	1.39	2.30
SCReAM	10	0.22	0.22	0.22	81.94	82.57	82.66	0.52	0.82	1.72
Sprout	10	0.43	0.42	0.64	83.13	82.62	83.07	0.42	0.42	0.83
TaoVA-100x	10	45.32	33.88	24.19	107.72	109.65	113.30	3.80	4.79	6.45
TCP Vegas	10	26.95	22.09	20.96	92.21	96.14	102.39	0.53	0.89	1.84
Verus	10	32.73	25.75	19.08	110.15	113.18	118.71	3.94	4.50	6.62
PCC-Vivace	10	48.72	24.41	14.42	104.67	106.44	100.58	2.76	2.22	3.05
WebRTC media	10	1.74	0.97	0.37	81.80	81.95	82.05	0.32	0.74	1.94

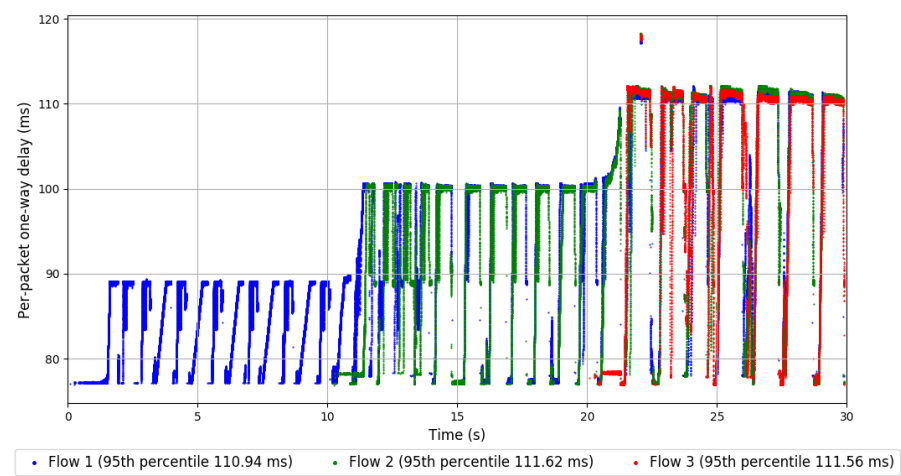
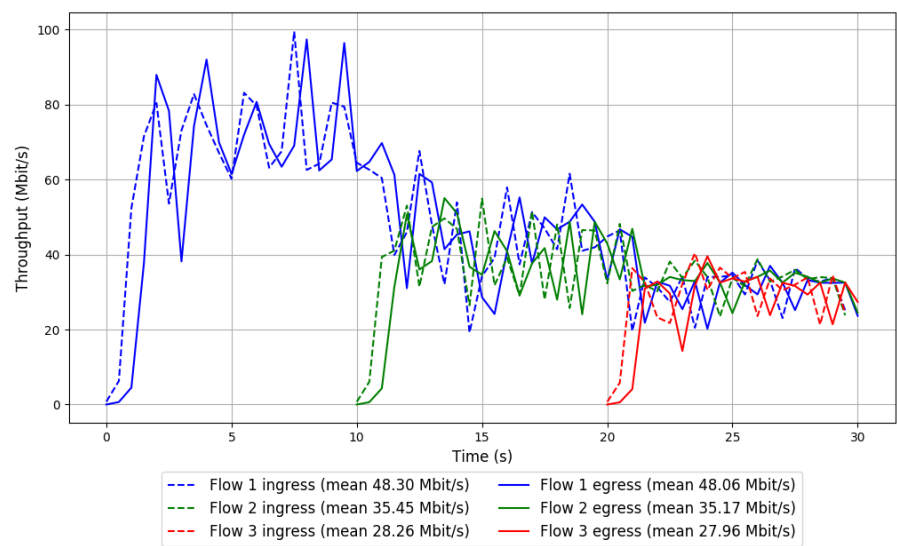
Run 1: Statistics of TCP BBR

Start at: 2018-06-19 09:06:25  
End at: 2018-06-19 09:06:55  
Local clock offset: -2.932 ms  
Remote clock offset: 10.956 ms

# Below is generated by plot.py at 2018-06-19 12:25:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.59 Mbit/s  
95th percentile per-packet one-way delay: 111.325 ms  
Loss rate: 1.41%  
-- Flow 1:  
Average throughput: 48.06 Mbit/s  
95th percentile per-packet one-way delay: 110.935 ms  
Loss rate: 1.04%  
-- Flow 2:  
Average throughput: 35.17 Mbit/s  
95th percentile per-packet one-way delay: 111.622 ms  
Loss rate: 1.62%  
-- Flow 3:  
Average throughput: 27.96 Mbit/s  
95th percentile per-packet one-way delay: 111.556 ms  
Loss rate: 2.75%



Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-06-19 09:26:13

End at: 2018-06-19 09:26:43

Local clock offset: -3.545 ms

Remote clock offset: 6.198 ms

# Below is generated by plot.py at 2018-06-19 12:25:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 62.32 Mbit/s

95th percentile per-packet one-way delay: 115.454 ms

Loss rate: 13.14%

-- Flow 1:

Average throughput: 38.14 Mbit/s

95th percentile per-packet one-way delay: 110.632 ms

Loss rate: 12.17%

-- Flow 2:

Average throughput: 25.11 Mbit/s

95th percentile per-packet one-way delay: 115.600 ms

Loss rate: 13.93%

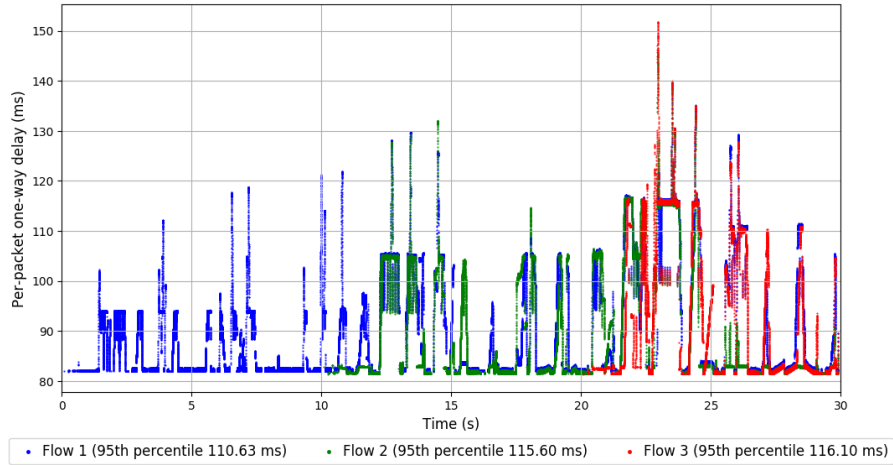
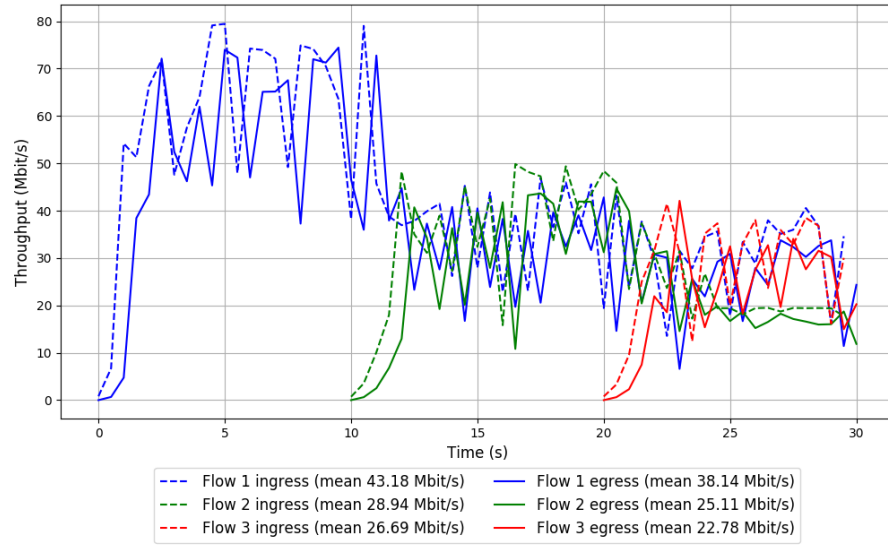
-- Flow 3:

Average throughput: 22.78 Mbit/s

95th percentile per-packet one-way delay: 116.101 ms

Loss rate: 16.15%

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



Run 3: Statistics of TCP BBR

Start at: 2018-06-19 09:46:00

End at: 2018-06-19 09:46:30

Local clock offset: -2.187 ms

Remote clock offset: 8.03 ms

# Below is generated by plot.py at 2018-06-19 12:25:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 73.07 Mbit/s

95th percentile per-packet one-way delay: 119.974 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 43.44 Mbit/s

95th percentile per-packet one-way delay: 113.228 ms

Loss rate: 1.47%

-- Flow 2:

Average throughput: 31.49 Mbit/s

95th percentile per-packet one-way delay: 124.694 ms

Loss rate: 2.86%

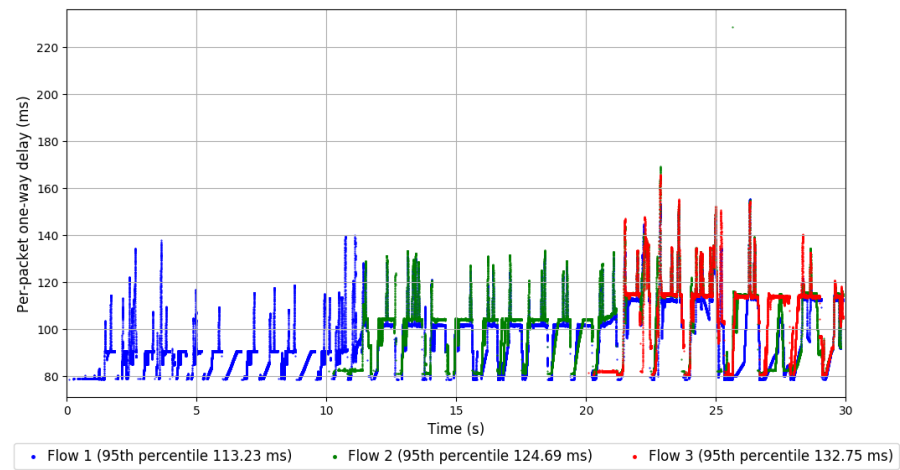
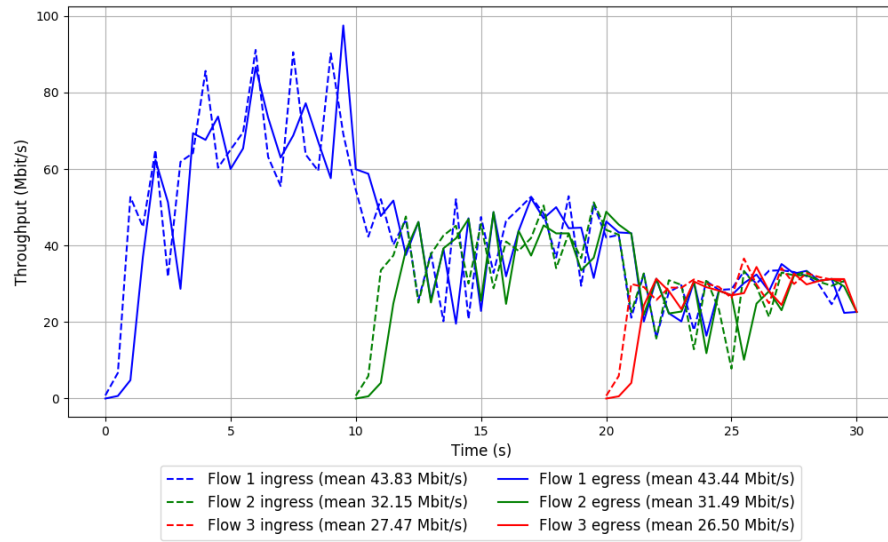
-- Flow 3:

Average throughput: 26.50 Mbit/s

95th percentile per-packet one-way delay: 132.753 ms

Loss rate: 5.13%

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



Run 4: Statistics of TCP BBR

Start at: 2018-06-19 10:05:59

End at: 2018-06-19 10:06:29

Local clock offset: -1.697 ms

Remote clock offset: 7.6 ms

# Below is generated by plot.py at 2018-06-19 12:25:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 59.26 Mbit/s

95th percentile per-packet one-way delay: 114.504 ms

Loss rate: 13.68%

-- Flow 1:

Average throughput: 36.00 Mbit/s

95th percentile per-packet one-way delay: 113.216 ms

Loss rate: 12.66%

-- Flow 2:

Average throughput: 26.08 Mbit/s

95th percentile per-packet one-way delay: 116.531 ms

Loss rate: 15.28%

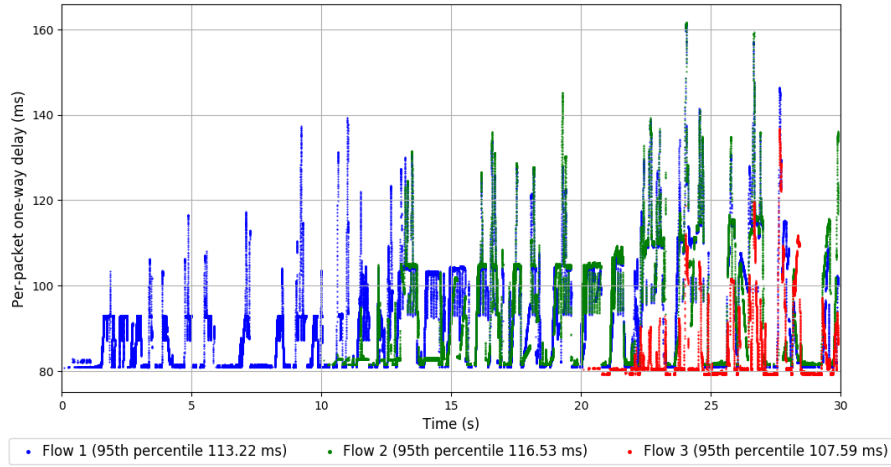
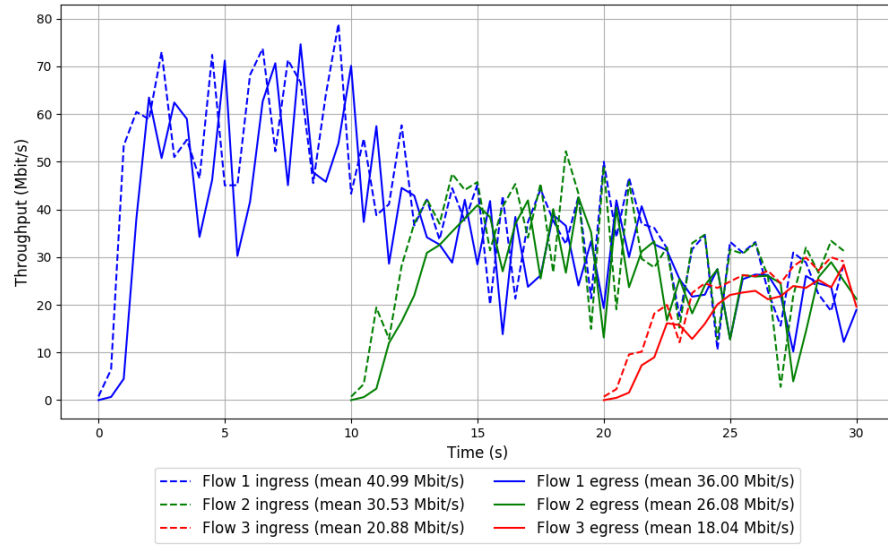
-- Flow 3:

Average throughput: 18.04 Mbit/s

95th percentile per-packet one-way delay: 107.593 ms

Loss rate: 15.00%

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



Run 5: Statistics of TCP BBR

Start at: 2018-06-19 10:25:49

End at: 2018-06-19 10:26:19

Local clock offset: -1.785 ms

Remote clock offset: 8.571 ms

# Below is generated by plot.py at 2018-06-19 12:25:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 75.59 Mbit/s

95th percentile per-packet one-way delay: 120.304 ms

Loss rate: 2.18%

-- Flow 1:

Average throughput: 44.64 Mbit/s

95th percentile per-packet one-way delay: 115.024 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 34.17 Mbit/s

95th percentile per-packet one-way delay: 122.793 ms

Loss rate: 3.03%

-- Flow 3:

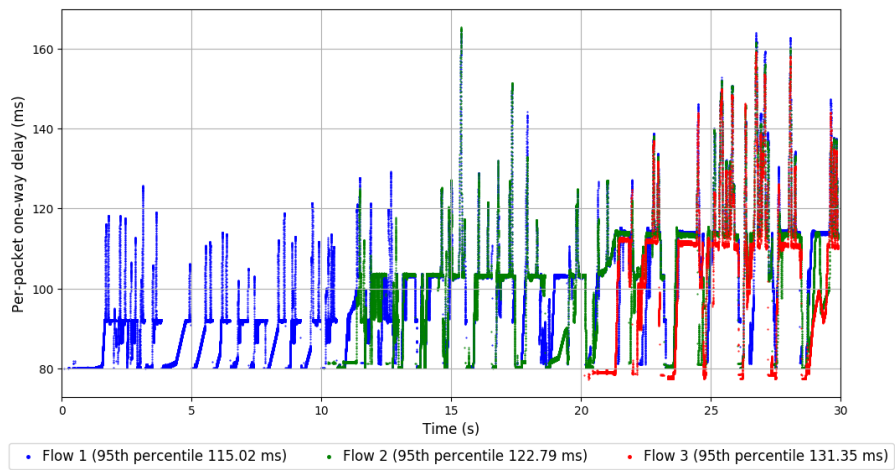
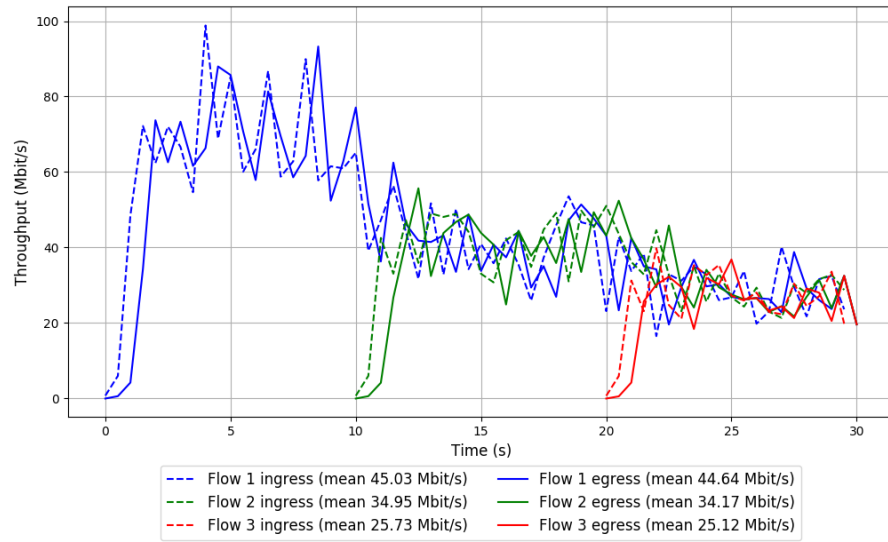
Average throughput: 25.12 Mbit/s

95th percentile per-packet one-way delay: 131.351 ms

Loss rate: 3.98%



# Run 5: Report of TCP BBR — Data Link

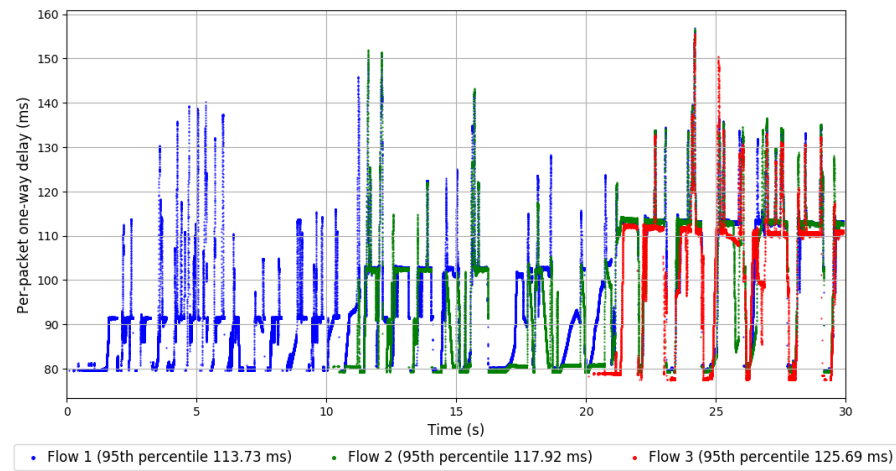
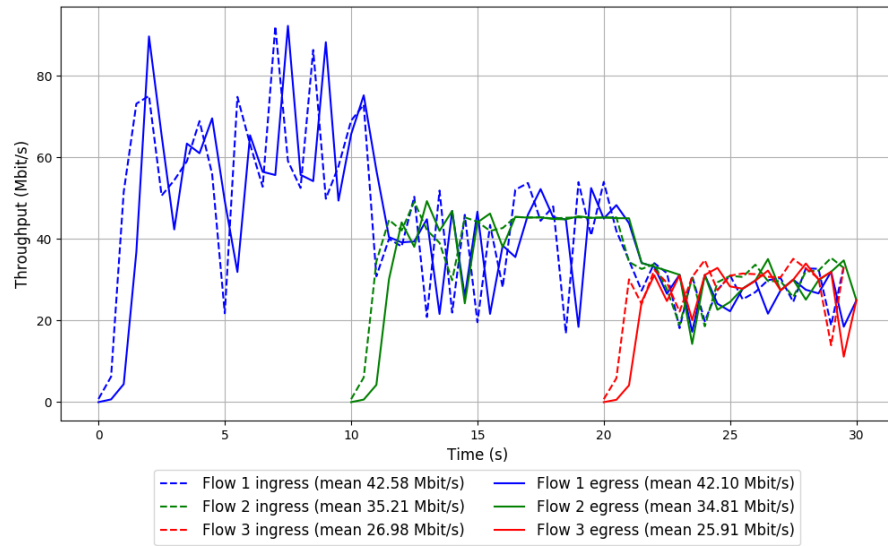


Run 6: Statistics of TCP BBR

Start at: 2018-06-19 10:45:40  
End at: 2018-06-19 10:46:10  
Local clock offset: -1.682 ms  
Remote clock offset: 12.641 ms

# Below is generated by plot.py at 2018-06-19 12:25:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.74 Mbit/s  
95th percentile per-packet one-way delay: 115.360 ms  
Loss rate: 2.23%  
-- Flow 1:  
Average throughput: 42.10 Mbit/s  
95th percentile per-packet one-way delay: 113.727 ms  
Loss rate: 1.65%  
-- Flow 2:  
Average throughput: 34.81 Mbit/s  
95th percentile per-packet one-way delay: 117.924 ms  
Loss rate: 2.03%  
-- Flow 3:  
Average throughput: 25.91 Mbit/s  
95th percentile per-packet one-way delay: 125.688 ms  
Loss rate: 5.55%

# Run 6: Report of TCP BBR — Data Link

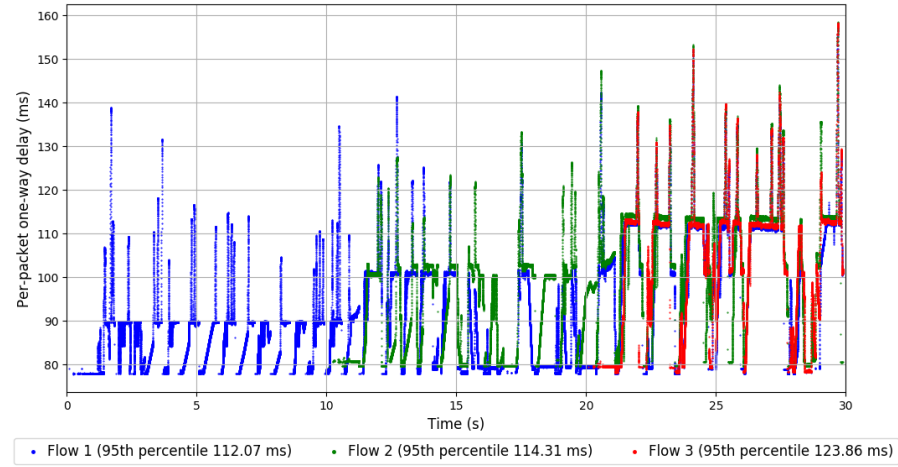
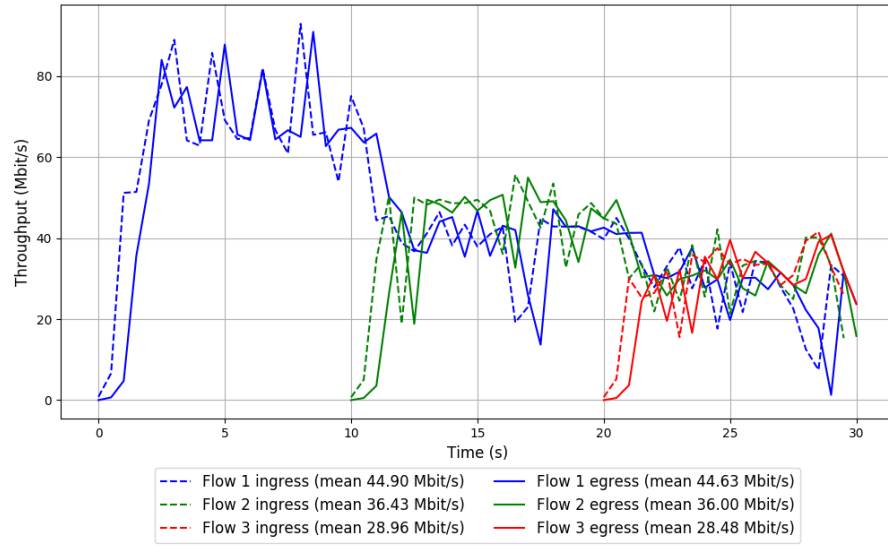


Run 7: Statistics of TCP BBR

Start at: 2018-06-19 11:05:38  
End at: 2018-06-19 11:06:08  
Local clock offset: -1.575 ms  
Remote clock offset: 15.691 ms

# Below is generated by plot.py at 2018-06-19 12:25:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.89 Mbit/s  
95th percentile per-packet one-way delay: 113.843 ms  
Loss rate: 1.73%  
-- Flow 1:  
Average throughput: 44.63 Mbit/s  
95th percentile per-packet one-way delay: 112.070 ms  
Loss rate: 1.20%  
-- Flow 2:  
Average throughput: 36.00 Mbit/s  
95th percentile per-packet one-way delay: 114.306 ms  
Loss rate: 2.10%  
-- Flow 3:  
Average throughput: 28.48 Mbit/s  
95th percentile per-packet one-way delay: 123.865 ms  
Loss rate: 3.28%

# Run 7: Report of TCP BBR — Data Link

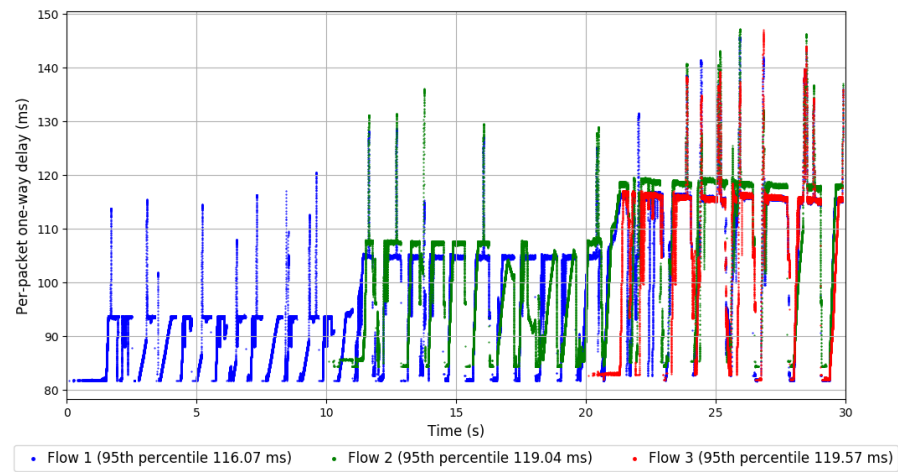
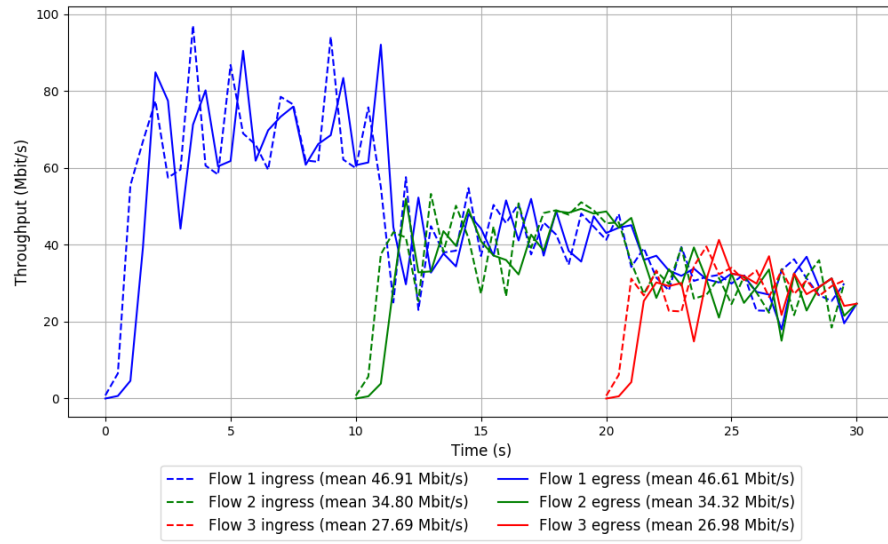


Run 8: Statistics of TCP BBR

Start at: 2018-06-19 11:25:26  
End at: 2018-06-19 11:25:56  
Local clock offset: -2.35 ms  
Remote clock offset: 13.176 ms

# Below is generated by plot.py at 2018-06-19 12:25:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.27 Mbit/s  
95th percentile per-packet one-way delay: 118.511 ms  
Loss rate: 1.85%  
-- Flow 1:  
Average throughput: 46.61 Mbit/s  
95th percentile per-packet one-way delay: 116.070 ms  
Loss rate: 1.19%  
-- Flow 2:  
Average throughput: 34.32 Mbit/s  
95th percentile per-packet one-way delay: 119.038 ms  
Loss rate: 2.18%  
-- Flow 3:  
Average throughput: 26.98 Mbit/s  
95th percentile per-packet one-way delay: 119.570 ms  
Loss rate: 4.32%

# Run 8: Report of TCP BBR — Data Link



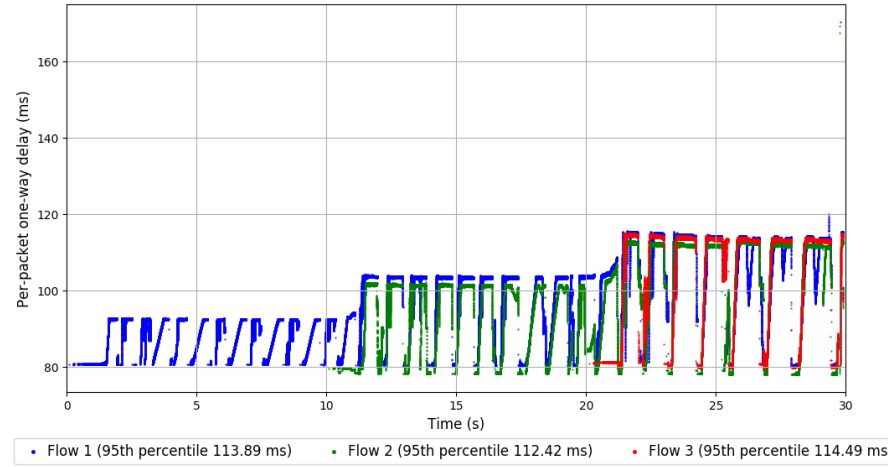
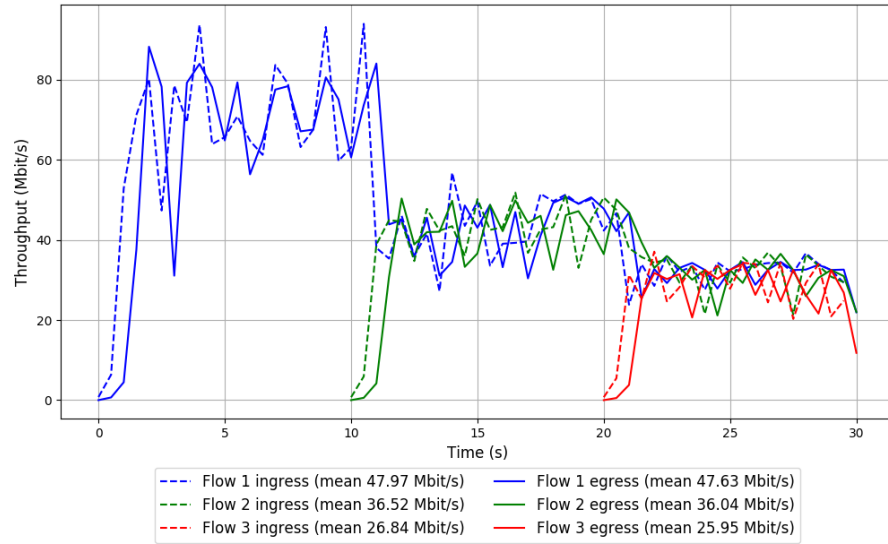
Run 9: Statistics of TCP BBR

Start at: 2018-06-19 11:45:41  
End at: 2018-06-19 11:46:11  
Local clock offset: -2.98 ms  
Remote clock offset: 16.696 ms

# Below is generated by plot.py at 2018-06-19 12:25:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.08 Mbit/s  
95th percentile per-packet one-way delay: 113.843 ms  
Loss rate: 1.96%  
-- Flow 1:  
Average throughput: 47.63 Mbit/s  
95th percentile per-packet one-way delay: 113.886 ms  
Loss rate: 1.32%  
-- Flow 2:  
Average throughput: 36.04 Mbit/s  
95th percentile per-packet one-way delay: 112.423 ms  
Loss rate: 2.14%  
-- Flow 3:  
Average throughput: 25.95 Mbit/s  
95th percentile per-packet one-way delay: 114.490 ms  
Loss rate: 4.93%



# Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-06-19 12:05:43

End at: 2018-06-19 12:06:13

Local clock offset: -3.113 ms

Remote clock offset: 8.855 ms

# Below is generated by plot.py at 2018-06-19 12:25:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.72 Mbit/s

95th percentile per-packet one-way delay: 111.921 ms

Loss rate: 2.06%

-- Flow 1:

Average throughput: 47.91 Mbit/s

95th percentile per-packet one-way delay: 111.786 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 35.25 Mbit/s

95th percentile per-packet one-way delay: 111.089 ms

Loss rate: 2.75%

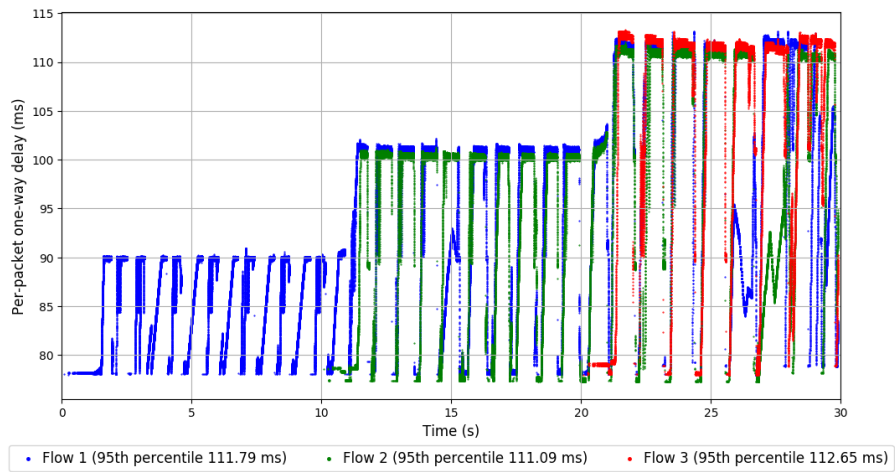
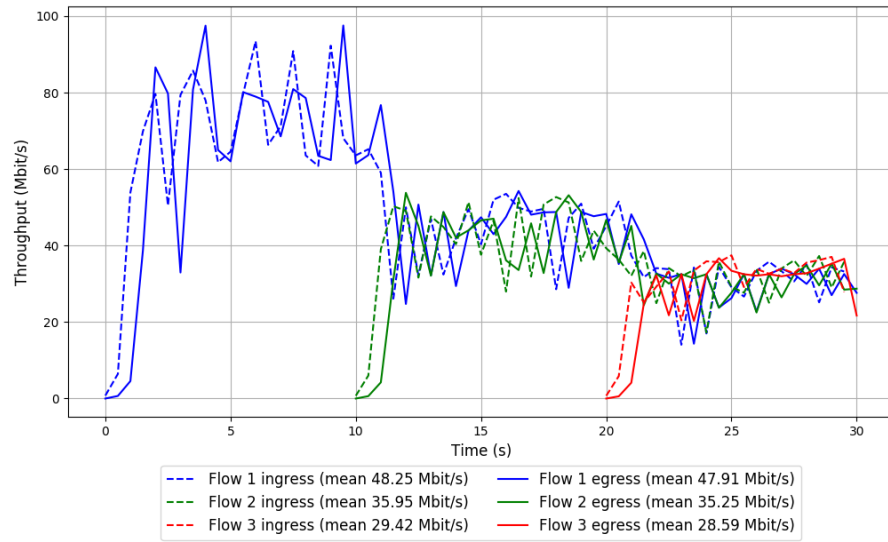
-- Flow 3:

Average throughput: 28.59 Mbit/s

95th percentile per-packet one-way delay: 112.654 ms

Loss rate: 4.40%

# Run 10: Report of TCP BBR — Data Link

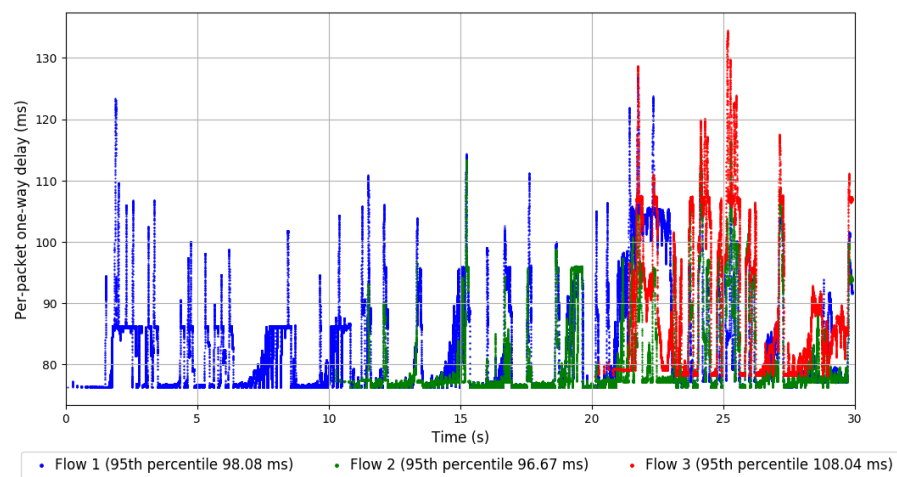
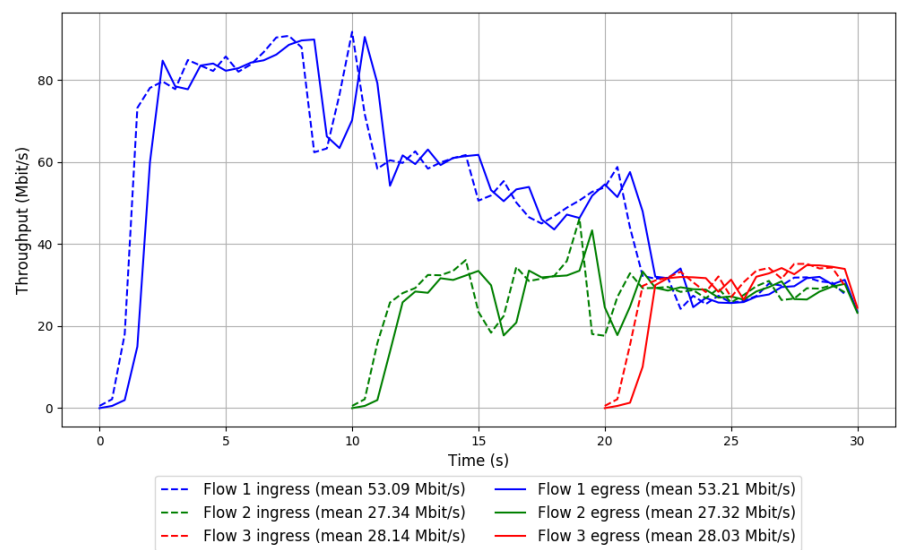


Run 1: Statistics of Copa

Start at: 2018-06-19 09:20:03  
End at: 2018-06-19 09:20:33  
Local clock offset: -3.425 ms  
Remote clock offset: 11.285 ms

# Below is generated by plot.py at 2018-06-19 12:26:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.58 Mbit/s  
95th percentile per-packet one-way delay: 102.481 ms  
Loss rate: 0.65%  
-- Flow 1:  
Average throughput: 53.21 Mbit/s  
95th percentile per-packet one-way delay: 98.085 ms  
Loss rate: 0.32%  
-- Flow 2:  
Average throughput: 27.32 Mbit/s  
95th percentile per-packet one-way delay: 96.674 ms  
Loss rate: 0.90%  
-- Flow 3:  
Average throughput: 28.03 Mbit/s  
95th percentile per-packet one-way delay: 108.043 ms  
Loss rate: 2.01%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-06-19 09:39:51

End at: 2018-06-19 09:40:21

Local clock offset: -2.695 ms

Remote clock offset: 9.307 ms

# Below is generated by plot.py at 2018-06-19 12:26:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.64 Mbit/s

95th percentile per-packet one-way delay: 106.084 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 53.87 Mbit/s

95th percentile per-packet one-way delay: 101.701 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 29.61 Mbit/s

95th percentile per-packet one-way delay: 108.038 ms

Loss rate: 0.98%

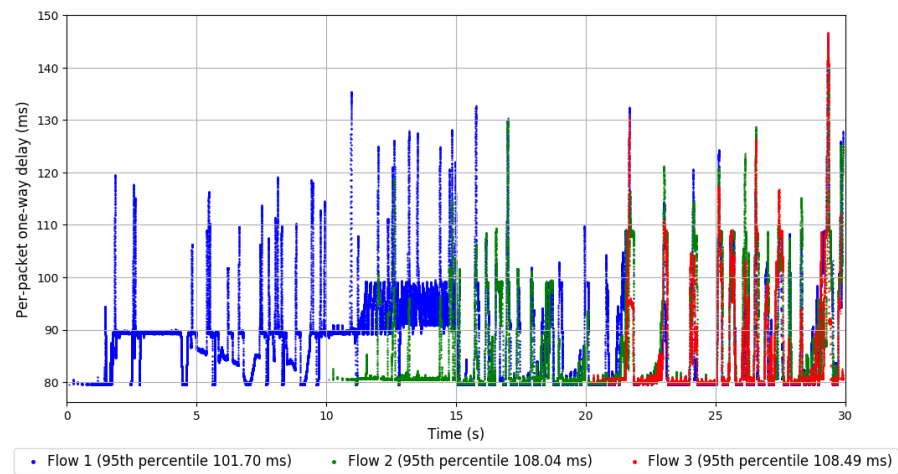
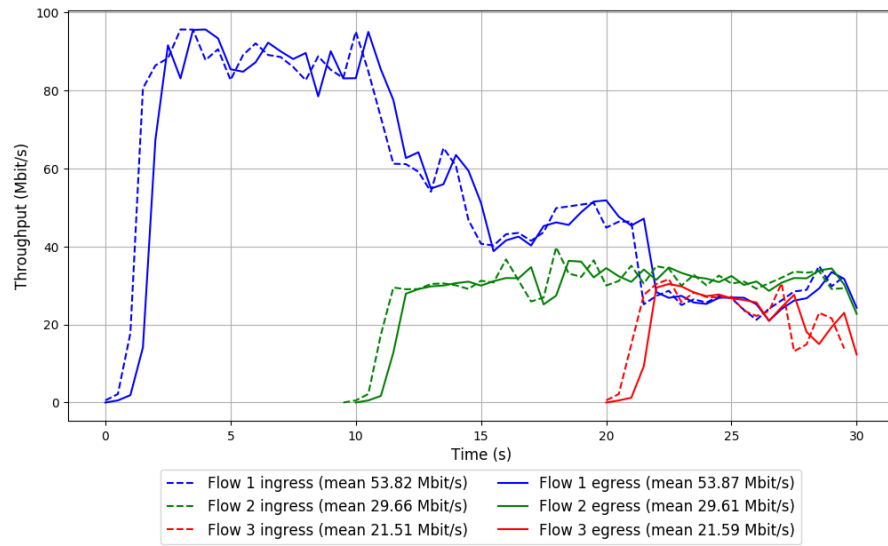
-- Flow 3:

Average throughput: 21.59 Mbit/s

95th percentile per-packet one-way delay: 108.490 ms

Loss rate: 1.27%

## Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-06-19 09:59:49

End at: 2018-06-19 10:00:19

Local clock offset: -1.654 ms

Remote clock offset: 5.237 ms

# Below is generated by plot.py at 2018-06-19 12:26:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.05 Mbit/s

95th percentile per-packet one-way delay: 111.778 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 50.30 Mbit/s

95th percentile per-packet one-way delay: 109.810 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 27.31 Mbit/s

95th percentile per-packet one-way delay: 110.123 ms

Loss rate: 0.90%

-- Flow 3:

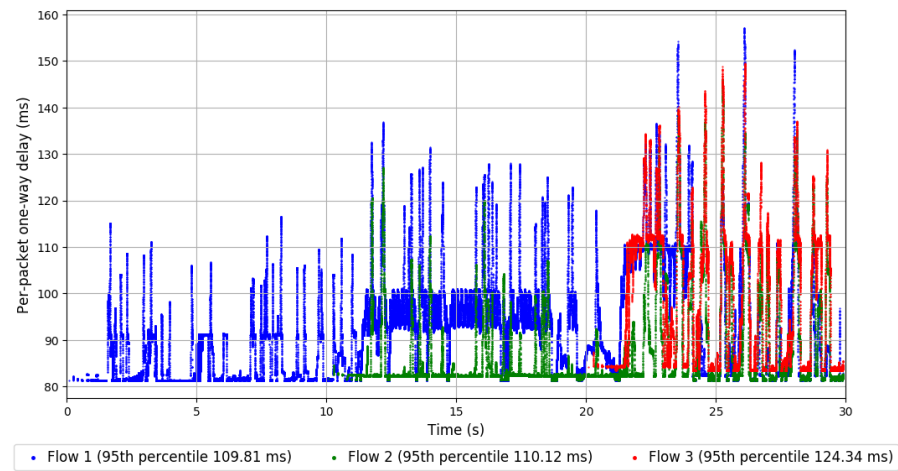
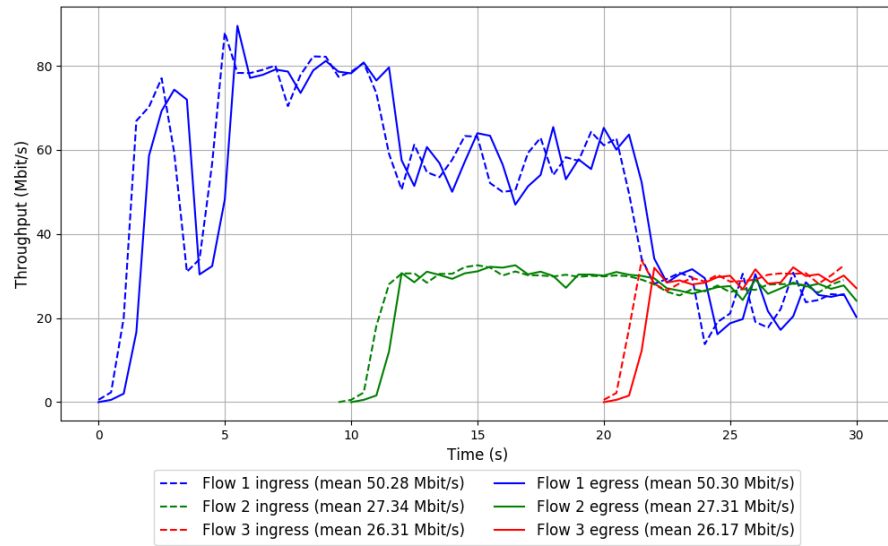
Average throughput: 26.17 Mbit/s

95th percentile per-packet one-way delay: 124.343 ms

Loss rate: 2.20%



### Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-06-19 10:19:37

End at: 2018-06-19 10:20:07

Local clock offset: -1.812 ms

Remote clock offset: 4.831 ms

# Below is generated by plot.py at 2018-06-19 12:26:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.71 Mbit/s

95th percentile per-packet one-way delay: 109.678 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 45.04 Mbit/s

95th percentile per-packet one-way delay: 105.598 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 25.16 Mbit/s

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

Loss rate: 1.72%

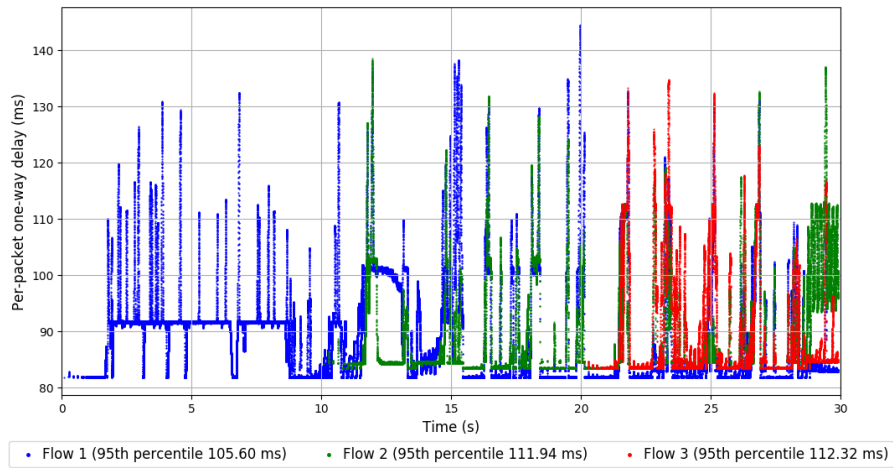
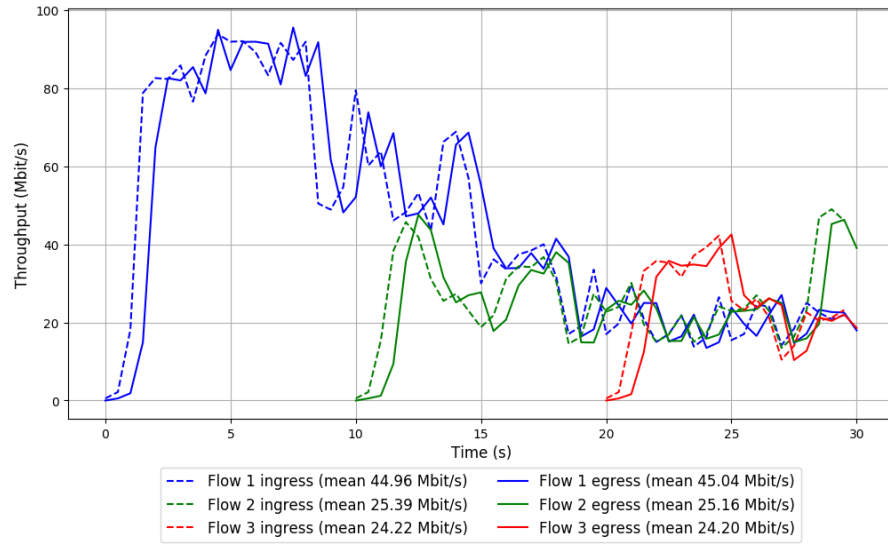
-- Flow 3:

Average throughput: 24.20 Mbit/s

95th percentile per-packet one-way delay: 112.324 ms

Loss rate: 1.75%

# Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-06-19 10:39:31

End at: 2018-06-19 10:40:01

Local clock offset: -1.67 ms

Remote clock offset: 5.216 ms

# Below is generated by plot.py at 2018-06-19 12:26:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.71 Mbit/s

95th percentile per-packet one-way delay: 113.268 ms

Loss rate: 15.47%

-- Flow 1:

Average throughput: 42.61 Mbit/s

95th percentile per-packet one-way delay: 105.632 ms

Loss rate: 15.87%

-- Flow 2:

Average throughput: 31.76 Mbit/s

95th percentile per-packet one-way delay: 114.145 ms

Loss rate: 14.63%

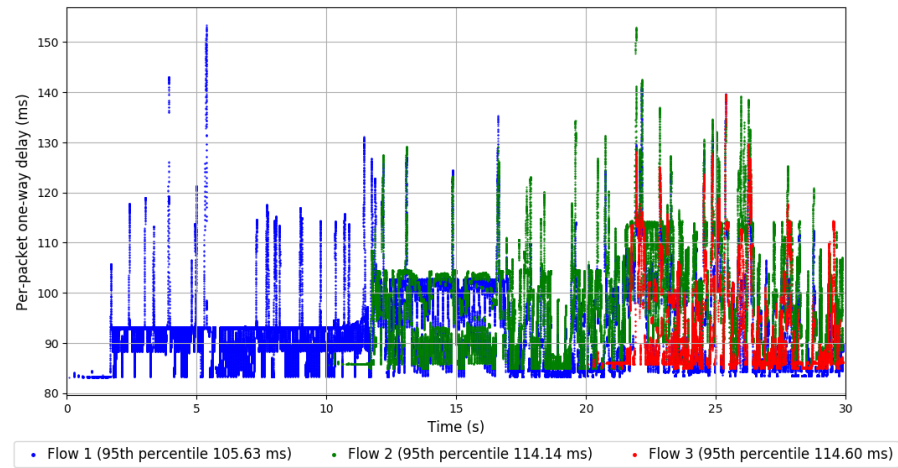
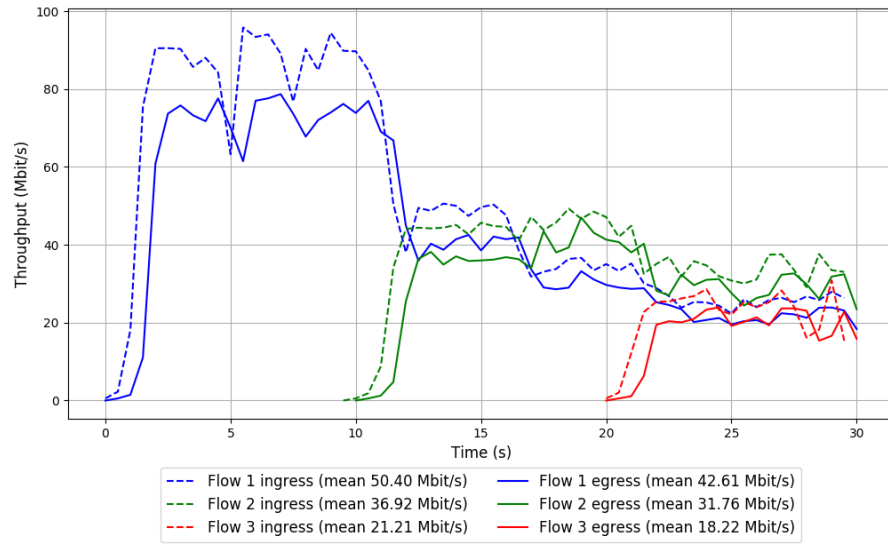
-- Flow 3:

Average throughput: 18.22 Mbit/s

95th percentile per-packet one-way delay: 114.604 ms

Loss rate: 15.51%

## Run 5: Report of Copa — Data Link

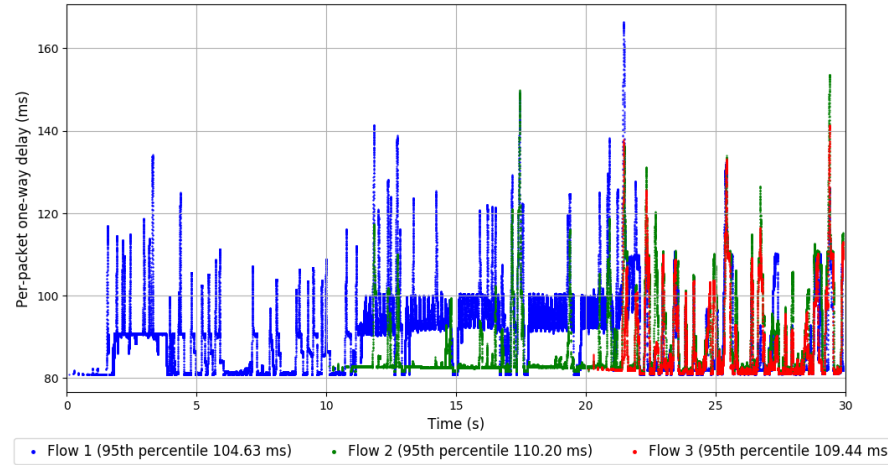
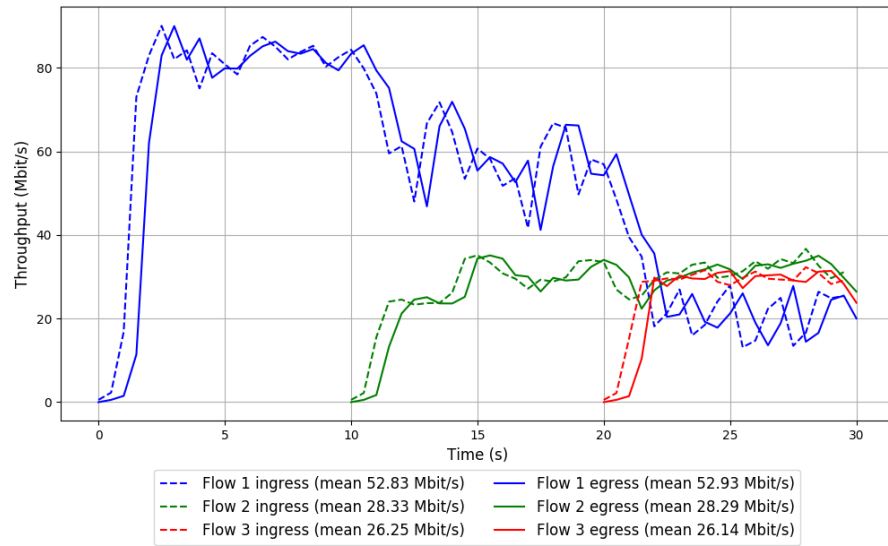


Run 6: Statistics of Copa

Start at: 2018-06-19 10:59:29  
End at: 2018-06-19 10:59:59  
Local clock offset: -1.449 ms  
Remote clock offset: 13.878 ms

# Below is generated by plot.py at 2018-06-19 12:26:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.33 Mbit/s  
95th percentile per-packet one-way delay: 107.997 ms  
Loss rate: 0.70%  
-- Flow 1:  
Average throughput: 52.93 Mbit/s  
95th percentile per-packet one-way delay: 104.632 ms  
Loss rate: 0.36%  
-- Flow 2:  
Average throughput: 28.29 Mbit/s  
95th percentile per-packet one-way delay: 110.203 ms  
Loss rate: 1.01%  
-- Flow 3:  
Average throughput: 26.14 Mbit/s  
95th percentile per-packet one-way delay: 109.439 ms  
Loss rate: 2.04%

## Run 6: Report of Copa — Data Link



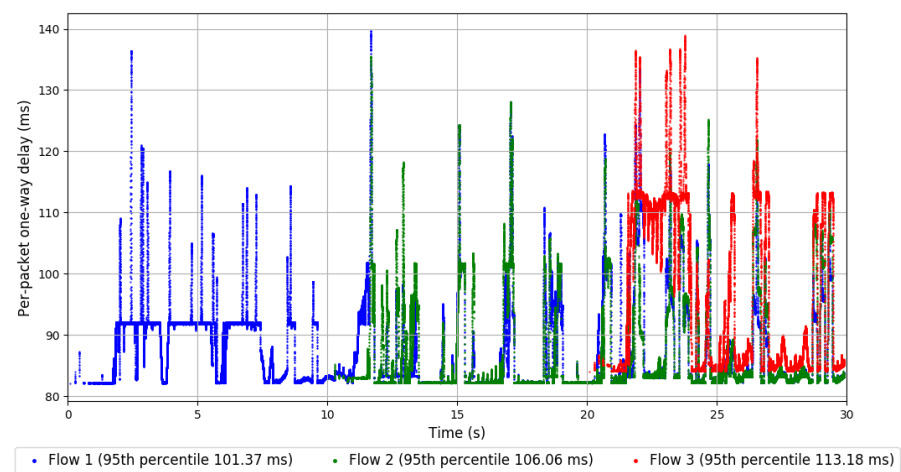
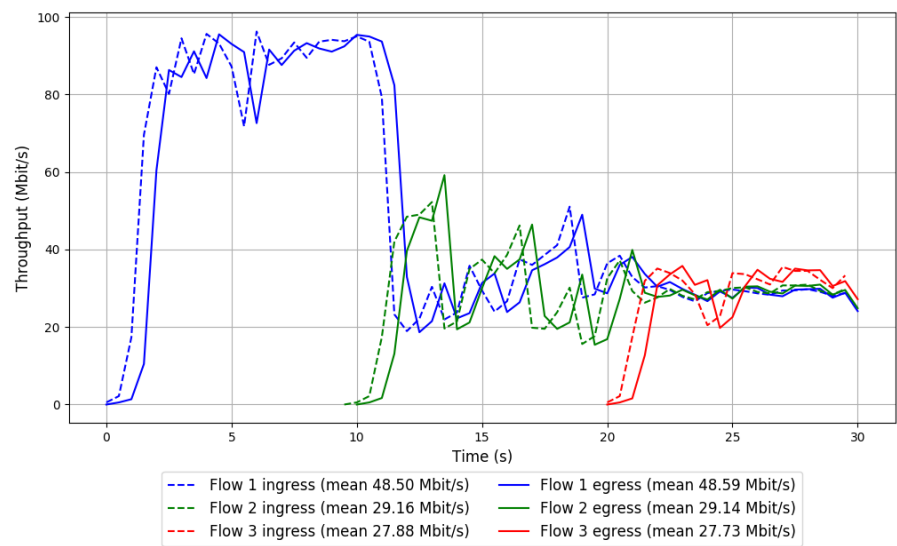
Run 7: Statistics of Copa

Start at: 2018-06-19 11:19:17  
End at: 2018-06-19 11:19:47  
Local clock offset: -2.252 ms  
Remote clock offset: 12.767 ms

# Below is generated by plot.py at 2018-06-19 12:27:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.07 Mbit/s  
95th percentile per-packet one-way delay: 109.912 ms  
Loss rate: 0.72%  
-- Flow 1:  
Average throughput: 48.59 Mbit/s  
95th percentile per-packet one-way delay: 101.366 ms  
Loss rate: 0.36%  
-- Flow 2:  
Average throughput: 29.14 Mbit/s  
95th percentile per-packet one-way delay: 106.060 ms  
Loss rate: 0.90%  
-- Flow 3:  
Average throughput: 27.73 Mbit/s  
95th percentile per-packet one-way delay: 113.178 ms  
Loss rate: 2.18%



Run 7: Report of Copa — Data Link

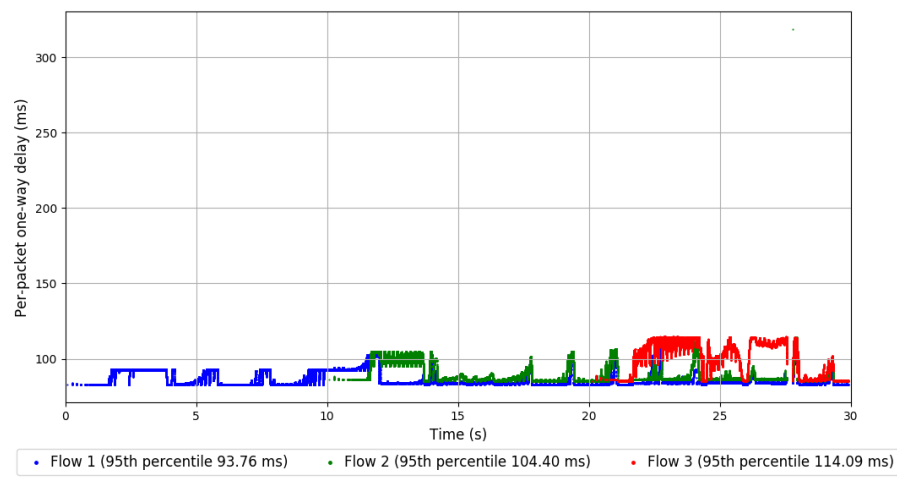
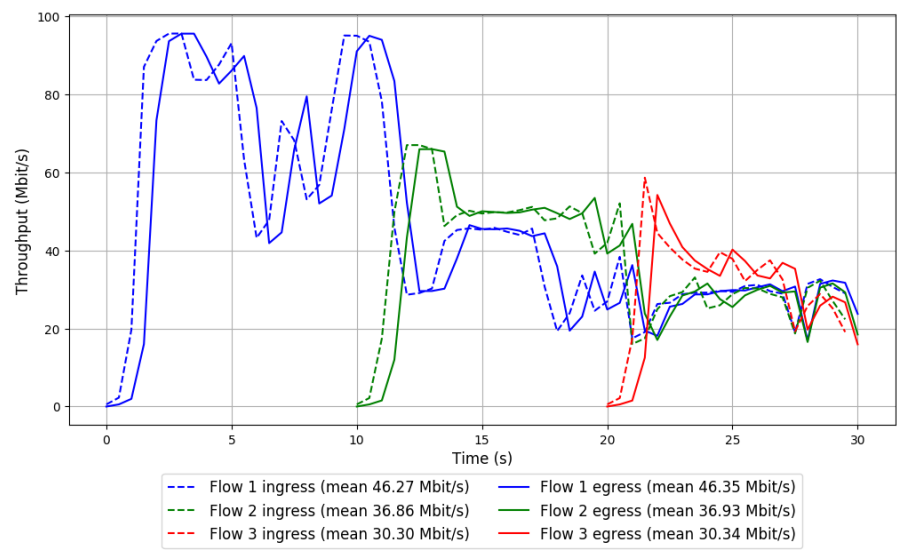


Run 8: Statistics of Copa

Start at: 2018-06-19 11:39:29  
End at: 2018-06-19 11:39:59  
Local clock offset: -2.732 ms  
Remote clock offset: 13.228 ms

# Below is generated by plot.py at 2018-06-19 12:27:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.87 Mbit/s  
95th percentile per-packet one-way delay: 107.432 ms  
Loss rate: 0.60%  
-- Flow 1:  
Average throughput: 46.35 Mbit/s  
95th percentile per-packet one-way delay: 93.761 ms  
Loss rate: 0.37%  
-- Flow 2:  
Average throughput: 36.93 Mbit/s  
95th percentile per-packet one-way delay: 104.402 ms  
Loss rate: 0.64%  
-- Flow 3:  
Average throughput: 30.34 Mbit/s  
95th percentile per-packet one-way delay: 114.091 ms  
Loss rate: 1.52%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-06-19 11:59:33

End at: 2018-06-19 12:00:03

Local clock offset: -3.161 ms

Remote clock offset: 9.228 ms

# Below is generated by plot.py at 2018-06-19 12:28:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.54 Mbit/s

95th percentile per-packet one-way delay: 106.496 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 48.37 Mbit/s

95th percentile per-packet one-way delay: 93.836 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 33.64 Mbit/s

95th percentile per-packet one-way delay: 108.470 ms

Loss rate: 0.75%

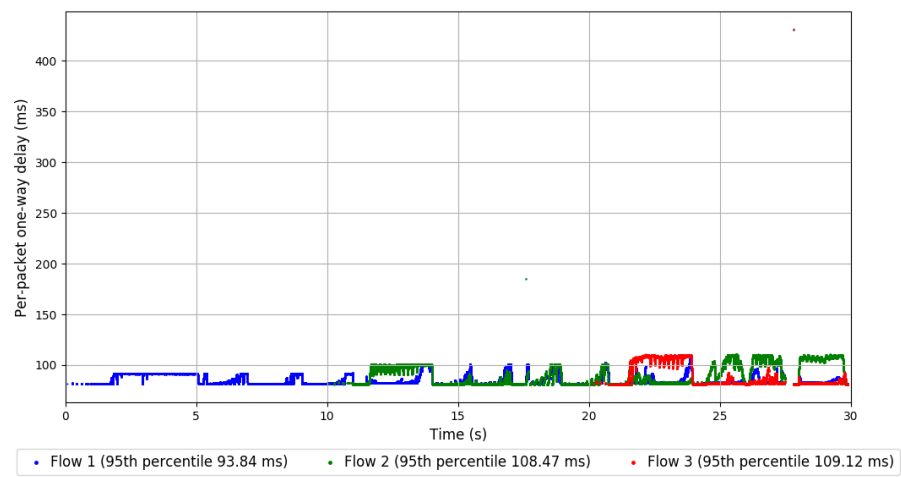
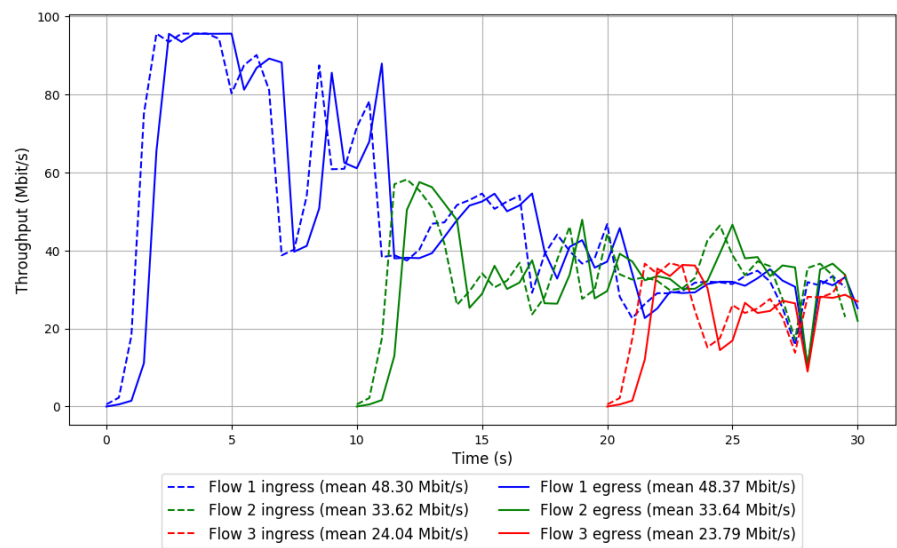
-- Flow 3:

Average throughput: 23.79 Mbit/s

95th percentile per-packet one-way delay: 109.121 ms

Loss rate: 2.67%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-06-19 12:19:27

End at: 2018-06-19 12:19:57

Local clock offset: -2.758 ms

Remote clock offset: 8.297 ms

# Below is generated by plot.py at 2018-06-19 12:28:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.24 Mbit/s

95th percentile per-packet one-way delay: 102.957 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 49.74 Mbit/s

95th percentile per-packet one-way delay: 91.866 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 37.00 Mbit/s

95th percentile per-packet one-way delay: 105.086 ms

Loss rate: 0.83%

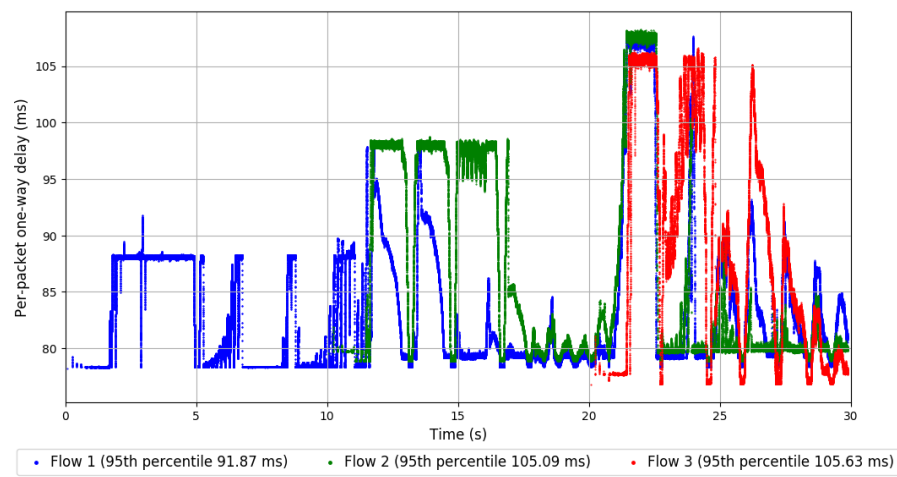
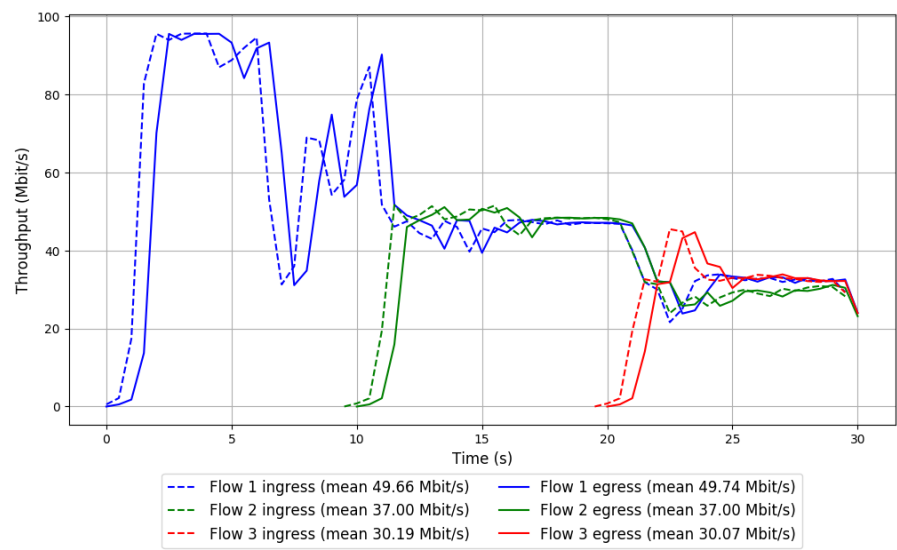
-- Flow 3:

Average throughput: 30.07 Mbit/s

95th percentile per-packet one-way delay: 105.631 ms

Loss rate: 2.01%

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-06-19 09:21:21

End at: 2018-06-19 09:21:51

Local clock offset: -3.44 ms

Remote clock offset: 6.294 ms

# Below is generated by plot.py at 2018-06-19 12:28:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 66.35 Mbit/s

95th percentile per-packet one-way delay: 99.636 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 40.65 Mbit/s

95th percentile per-packet one-way delay: 96.284 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 27.48 Mbit/s

95th percentile per-packet one-way delay: 100.747 ms

Loss rate: 0.69%

-- Flow 3:

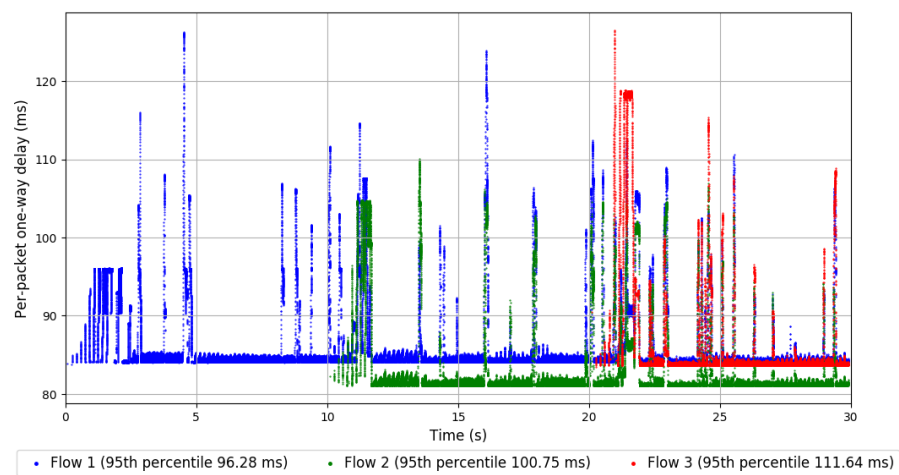
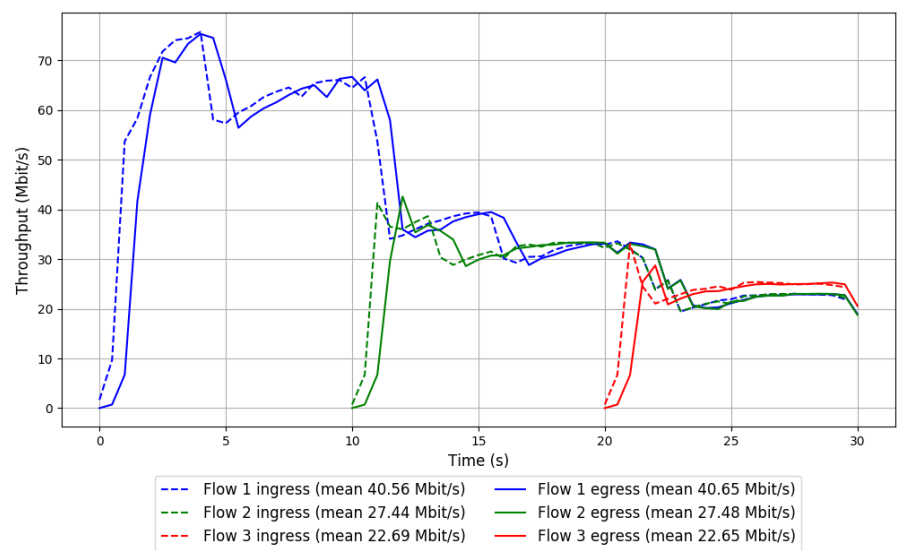
Average throughput: 22.65 Mbit/s

95th percentile per-packet one-way delay: 111.637 ms

Loss rate: 1.89%



Run 1: Report of TCP Cubic — Data Link

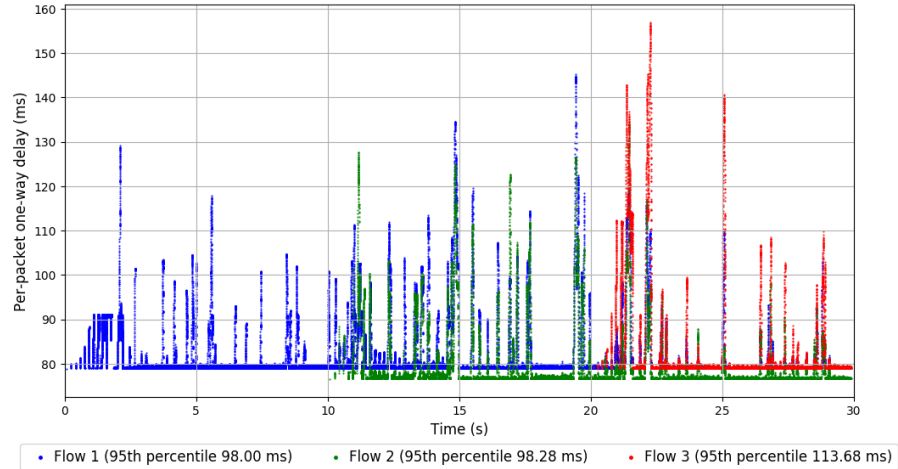
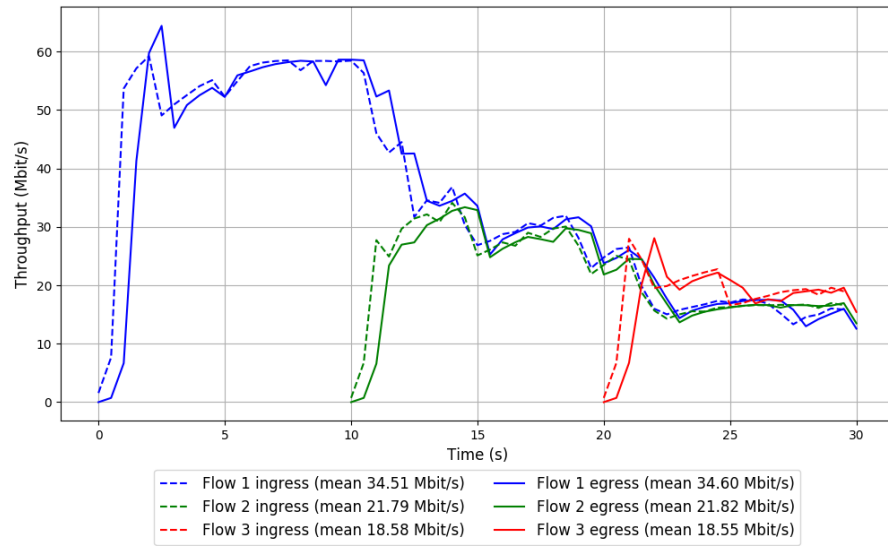


Run 2: Statistics of TCP Cubic

Start at: 2018-06-19 09:41:09  
End at: 2018-06-19 09:41:39  
Local clock offset: -2.542 ms  
Remote clock offset: 10.359 ms

# Below is generated by plot.py at 2018-06-19 12:28:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 55.19 Mbit/s  
95th percentile per-packet one-way delay: 99.806 ms  
Loss rate: 0.55%  
-- Flow 1:  
Average throughput: 34.60 Mbit/s  
95th percentile per-packet one-way delay: 97.998 ms  
Loss rate: 0.28%  
-- Flow 2:  
Average throughput: 21.82 Mbit/s  
95th percentile per-packet one-way delay: 98.284 ms  
Loss rate: 0.66%  
-- Flow 3:  
Average throughput: 18.55 Mbit/s  
95th percentile per-packet one-way delay: 113.681 ms  
Loss rate: 1.81%

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



Run 3: Statistics of TCP Cubic

Start at: 2018-06-19 10:01:08

End at: 2018-06-19 10:01:38

Local clock offset: -1.627 ms

Remote clock offset: 8.971 ms

# Below is generated by plot.py at 2018-06-19 12:28:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 53.50 Mbit/s

95th percentile per-packet one-way delay: 99.223 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 31.07 Mbit/s

95th percentile per-packet one-way delay: 94.876 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 22.99 Mbit/s

95th percentile per-packet one-way delay: 99.377 ms

Loss rate: 0.79%

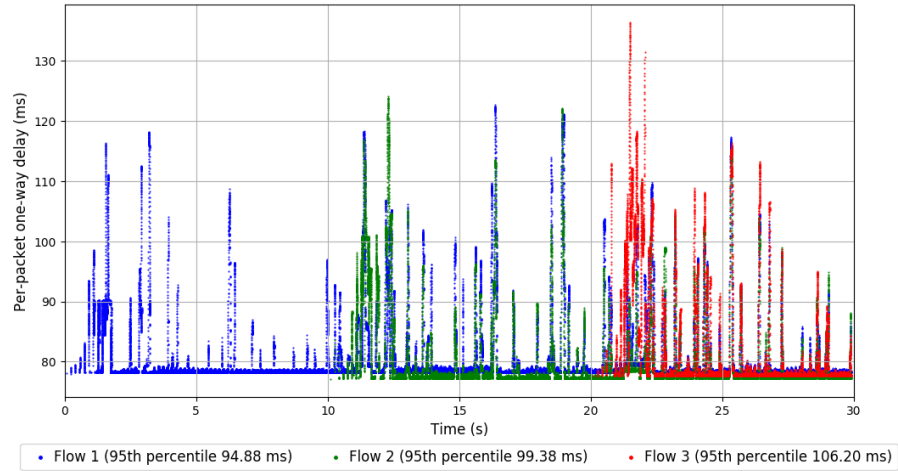
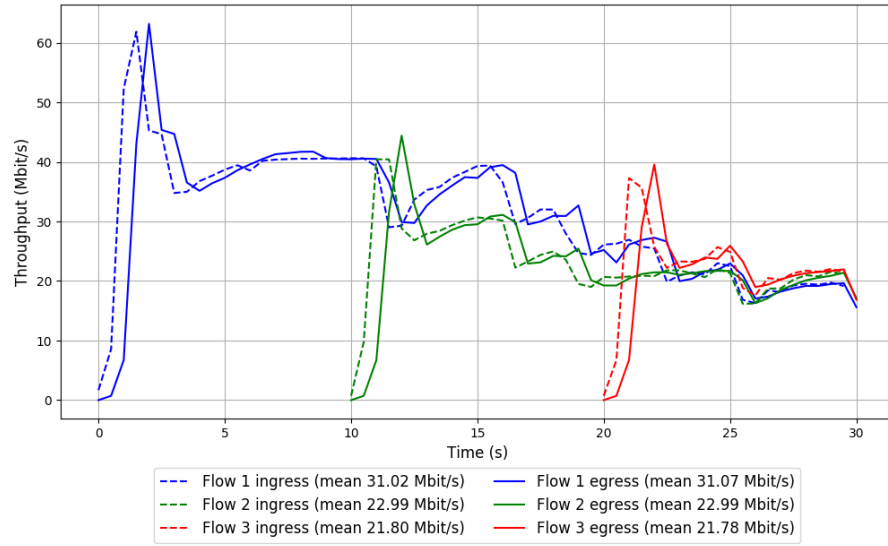
-- Flow 3:

Average throughput: 21.78 Mbit/s

95th percentile per-packet one-way delay: 106.196 ms

Loss rate: 1.71%

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



Run 4: Statistics of TCP Cubic

Start at: 2018-06-19 10:20:54

End at: 2018-06-19 10:21:24

Local clock offset: -1.879 ms

Remote clock offset: 8.69 ms

# Below is generated by plot.py at 2018-06-19 12:28:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 59.07 Mbit/s

95th percentile per-packet one-way delay: 100.504 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 33.61 Mbit/s

95th percentile per-packet one-way delay: 94.945 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 25.19 Mbit/s

95th percentile per-packet one-way delay: 100.979 ms

Loss rate: 0.63%

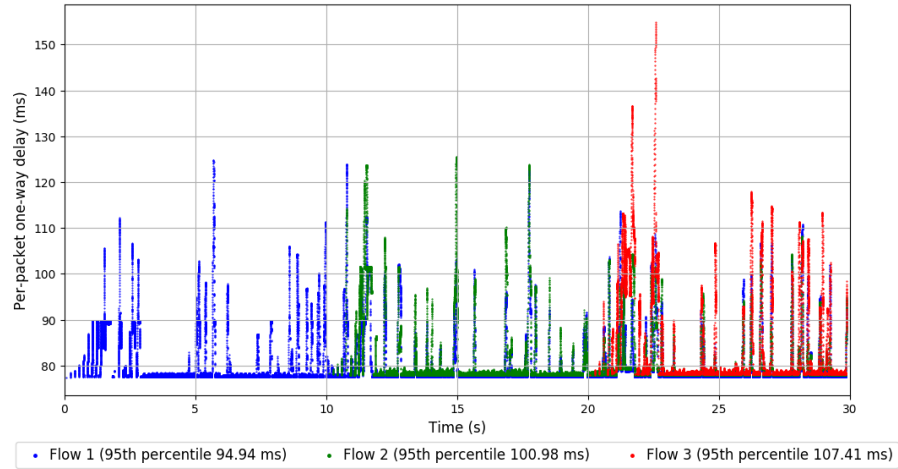
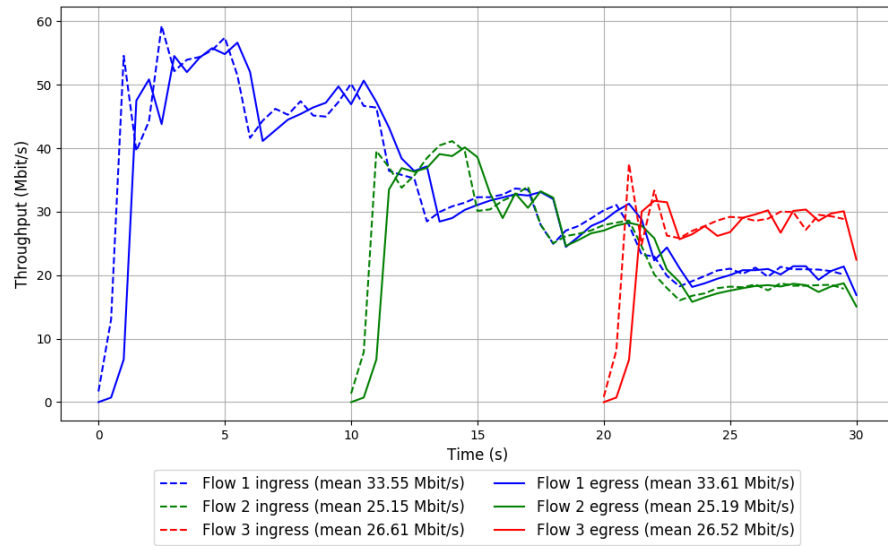
-- Flow 3:

Average throughput: 26.52 Mbit/s

95th percentile per-packet one-way delay: 107.414 ms

Loss rate: 1.95%

# Run 4: Report of TCP Cubic — Data Link



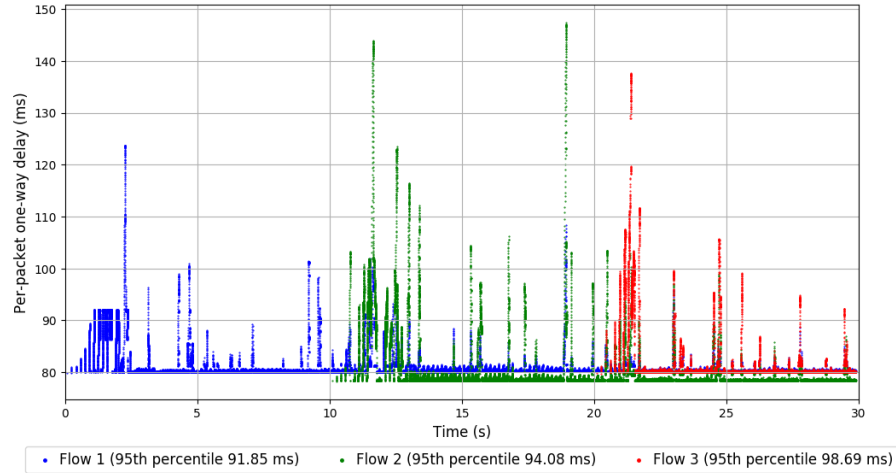
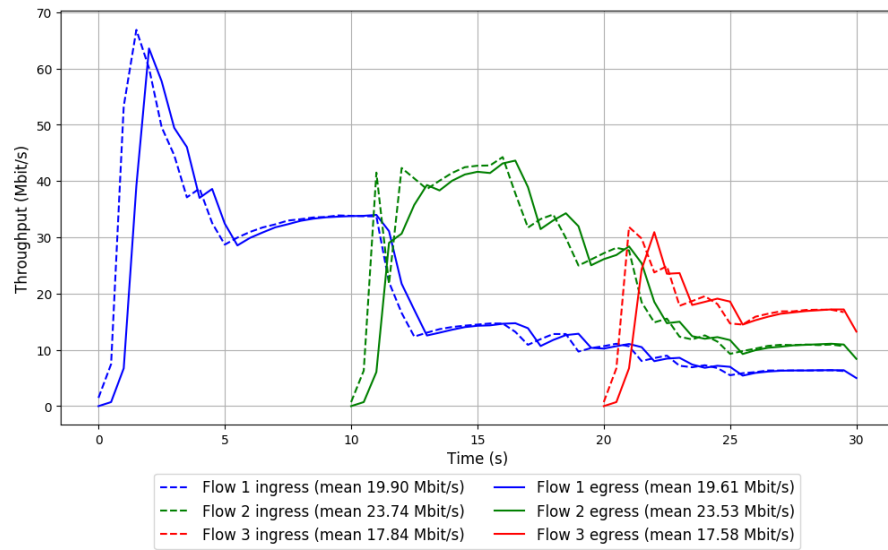
Run 5: Statistics of TCP Cubic

Start at: 2018-06-19 10:40:49  
End at: 2018-06-19 10:41:19  
Local clock offset: -1.655 ms  
Remote clock offset: 10.829 ms

# Below is generated by plot.py at 2018-06-19 12:28:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 41.02 Mbit/s  
95th percentile per-packet one-way delay: 92.004 ms  
Loss rate: 2.02%  
-- Flow 1:  
Average throughput: 19.61 Mbit/s  
95th percentile per-packet one-way delay: 91.849 ms  
Loss rate: 1.98%  
-- Flow 2:  
Average throughput: 23.53 Mbit/s  
95th percentile per-packet one-way delay: 94.080 ms  
Loss rate: 1.70%  
-- Flow 3:  
Average throughput: 17.58 Mbit/s  
95th percentile per-packet one-way delay: 98.691 ms  
Loss rate: 3.04%



# Run 5: Report of TCP Cubic — Data Link

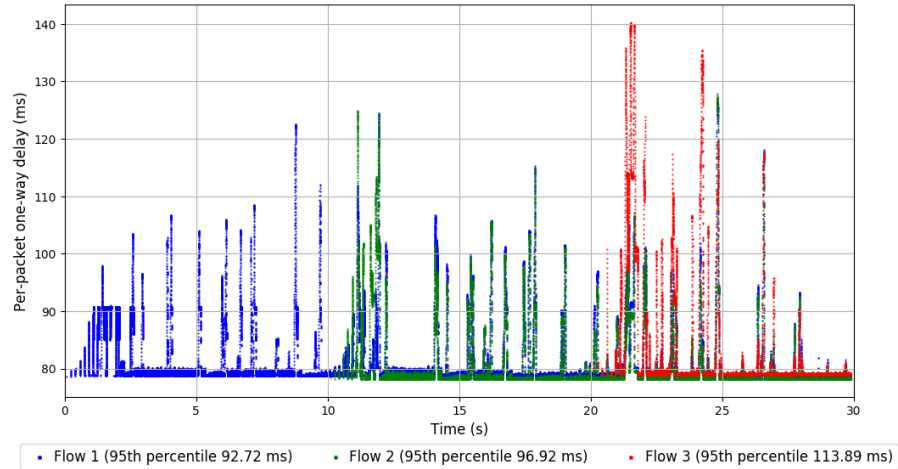
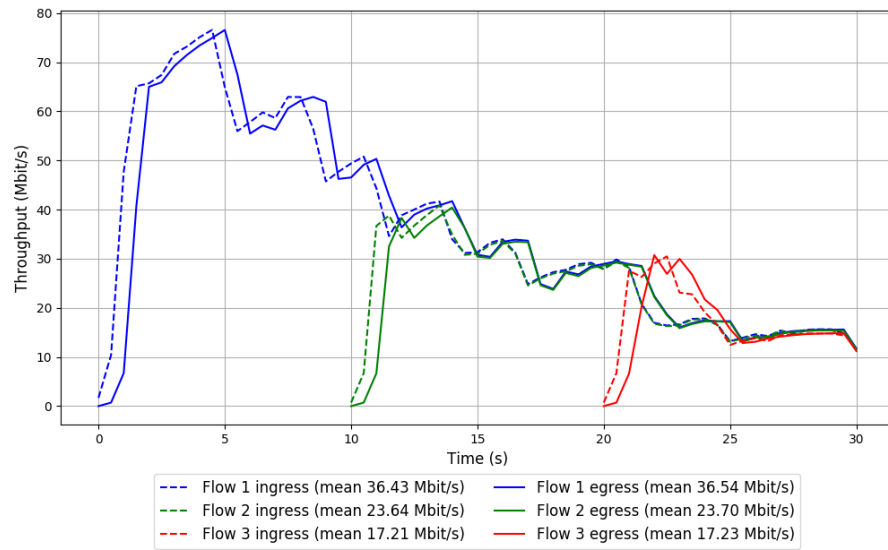


Run 6: Statistics of TCP Cubic

Start at: 2018-06-19 11:00:47  
End at: 2018-06-19 11:01:17  
Local clock offset: -1.506 ms  
Remote clock offset: 16.224 ms

# Below is generated by plot.py at 2018-06-19 12:28:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 57.95 Mbit/s  
95th percentile per-packet one-way delay: 97.254 ms  
Loss rate: 0.46%  
-- Flow 1:  
Average throughput: 36.54 Mbit/s  
95th percentile per-packet one-way delay: 92.716 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 23.70 Mbit/s  
95th percentile per-packet one-way delay: 96.919 ms  
Loss rate: 0.56%  
-- Flow 3:  
Average throughput: 17.23 Mbit/s  
95th percentile per-packet one-way delay: 113.890 ms  
Loss rate: 1.51%

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

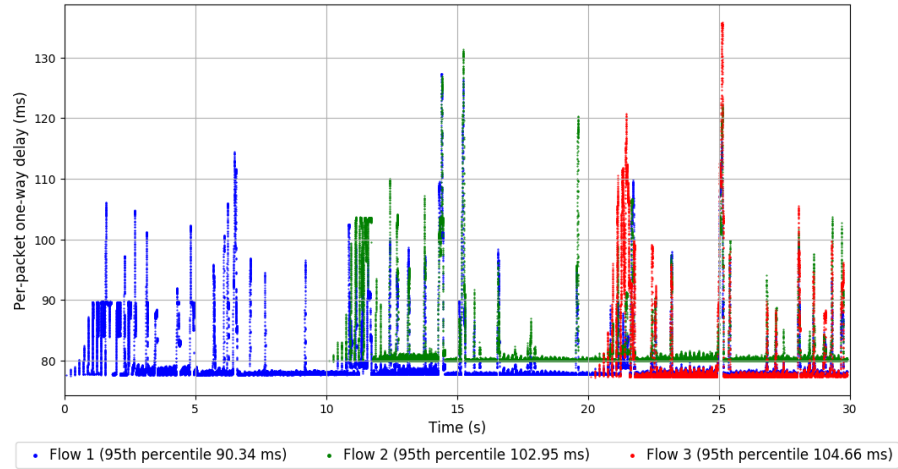
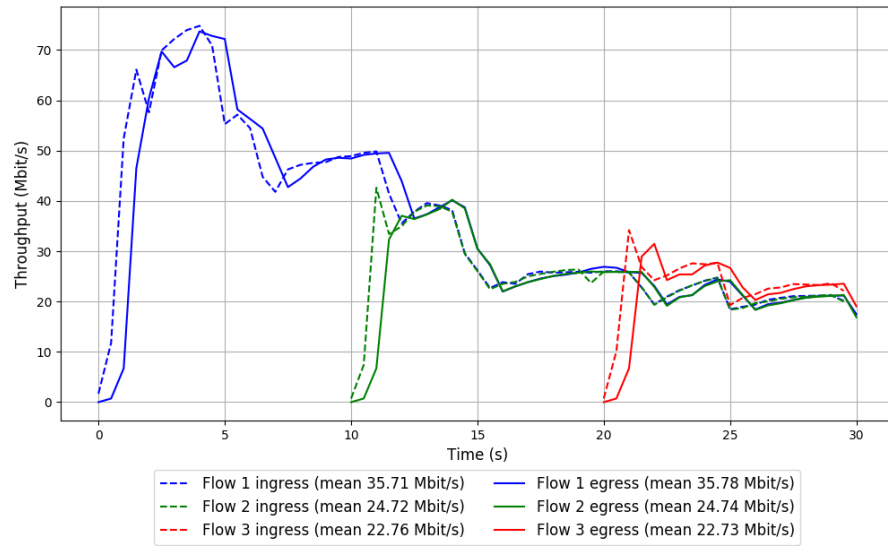


Run 7: Statistics of TCP Cubic

Start at: 2018-06-19 11:20:35  
End at: 2018-06-19 11:21:05  
Local clock offset: -2.273 ms  
Remote clock offset: 16.913 ms

# Below is generated by plot.py at 2018-06-19 12:28:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 59.68 Mbit/s  
95th percentile per-packet one-way delay: 96.269 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 35.78 Mbit/s  
95th percentile per-packet one-way delay: 90.342 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 24.74 Mbit/s  
95th percentile per-packet one-way delay: 102.946 ms  
Loss rate: 0.75%  
-- Flow 3:  
Average throughput: 22.73 Mbit/s  
95th percentile per-packet one-way delay: 104.658 ms  
Loss rate: 1.75%

# Run 7: Report of TCP Cubic — Data Link

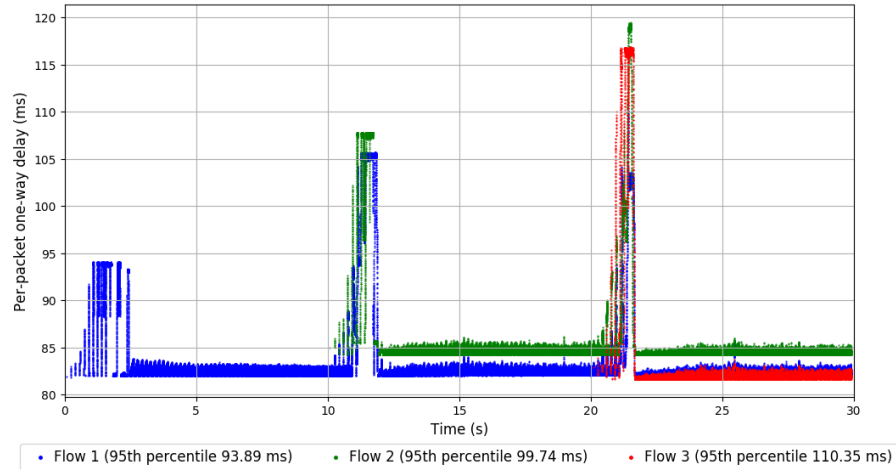
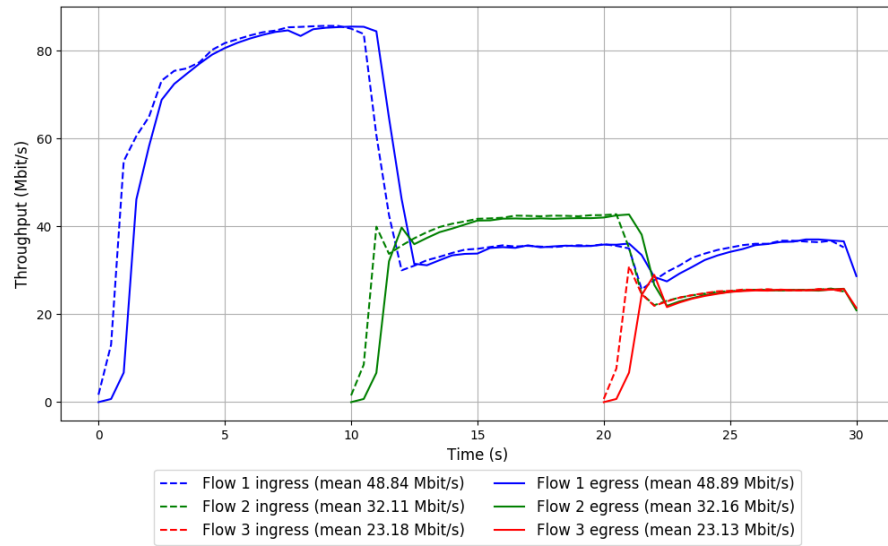


Run 8: Statistics of TCP Cubic

Start at: 2018-06-19 11:40:48  
End at: 2018-06-19 11:41:18  
Local clock offset: -2.844 ms  
Remote clock offset: 14.394 ms

# Below is generated by plot.py at 2018-06-19 12:28:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.87 Mbit/s  
95th percentile per-packet one-way delay: 93.962 ms  
Loss rate: 0.64%  
-- Flow 1:  
Average throughput: 48.89 Mbit/s  
95th percentile per-packet one-way delay: 93.886 ms  
Loss rate: 0.42%  
-- Flow 2:  
Average throughput: 32.16 Mbit/s  
95th percentile per-packet one-way delay: 99.736 ms  
Loss rate: 0.69%  
-- Flow 3:  
Average throughput: 23.13 Mbit/s  
95th percentile per-packet one-way delay: 110.353 ms  
Loss rate: 1.86%

# Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-06-19 12:00:51

End at: 2018-06-19 12:01:21

Local clock offset: -3.17 ms

Remote clock offset: 8.889 ms

# Below is generated by plot.py at 2018-06-19 12:28:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.10 Mbit/s

95th percentile per-packet one-way delay: 92.647 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 48.48 Mbit/s

95th percentile per-packet one-way delay: 92.440 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 97.095 ms

Loss rate: 0.75%

-- Flow 3:

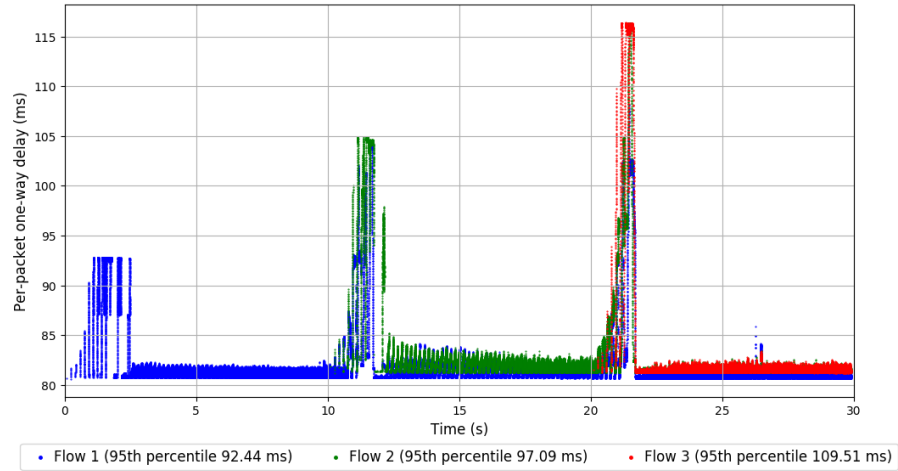
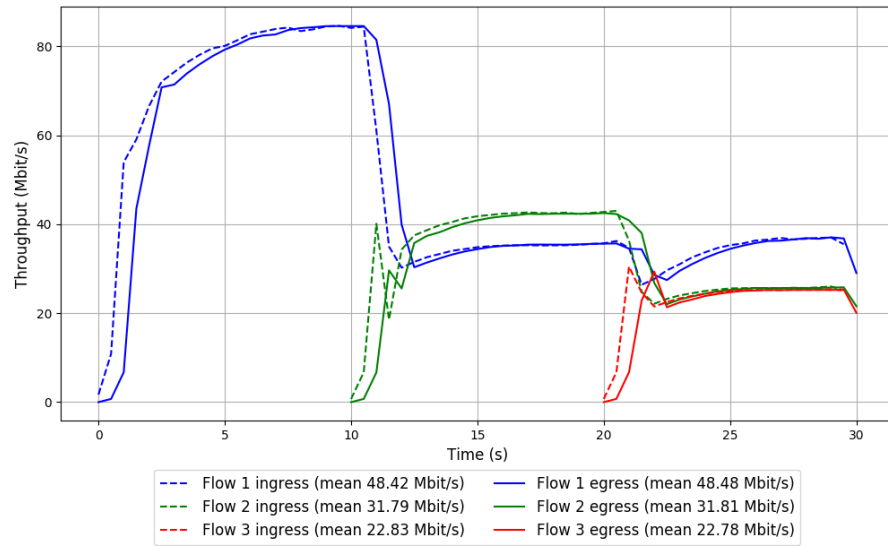
Average throughput: 22.78 Mbit/s

95th percentile per-packet one-way delay: 109.508 ms

Loss rate: 1.90%



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



Run 10: Statistics of TCP Cubic

Start at: 2018-06-19 12:20:46

End at: 2018-06-19 12:21:16

Local clock offset: -2.801 ms

Remote clock offset: 2.399 ms

# Below is generated by plot.py at 2018-06-19 12:28:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 70.90 Mbit/s

95th percentile per-packet one-way delay: 94.752 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 41.36 Mbit/s

95th percentile per-packet one-way delay: 94.524 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 32.56 Mbit/s

95th percentile per-packet one-way delay: 102.964 ms

Loss rate: 0.61%

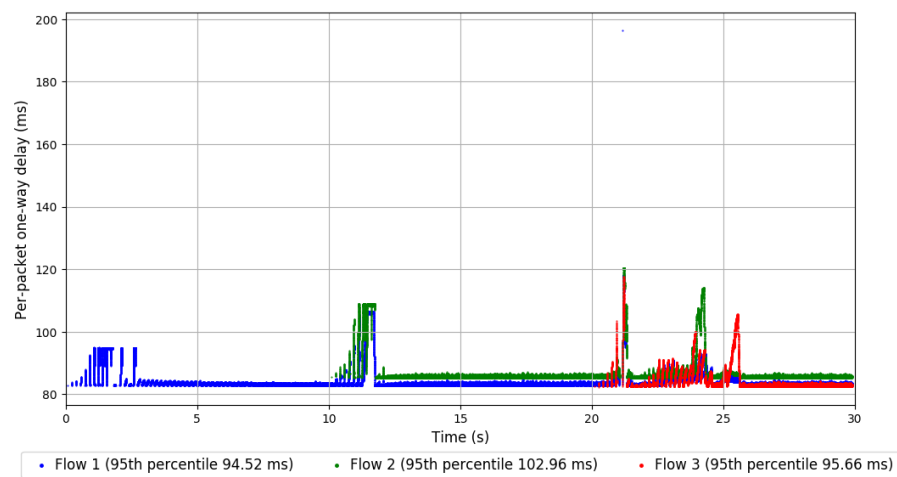
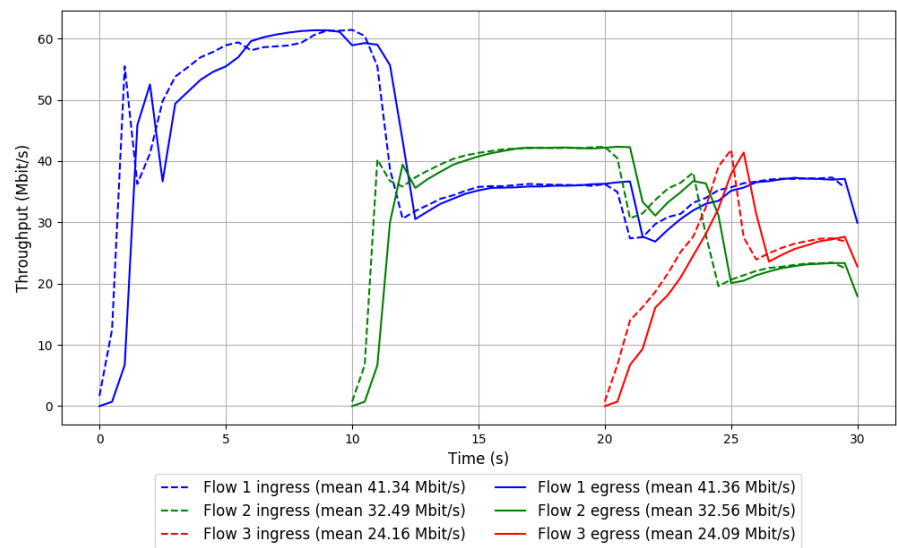
-- Flow 3:

Average throughput: 24.09 Mbit/s

95th percentile per-packet one-way delay: 95.657 ms

Loss rate: 1.90%

Run 10: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-06-19 09:18:49

End at: 2018-06-19 09:19:19

Local clock offset: -3.348 ms

Remote clock offset: 9.0 ms

# Below is generated by plot.py at 2018-06-19 12:29:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.60 Mbit/s

95th percentile per-packet one-way delay: 108.217 ms

Loss rate: 2.67%

-- Flow 1:

Average throughput: 56.07 Mbit/s

95th percentile per-packet one-way delay: 106.684 ms

Loss rate: 1.86%

-- Flow 2:

Average throughput: 37.78 Mbit/s

95th percentile per-packet one-way delay: 108.043 ms

Loss rate: 3.48%

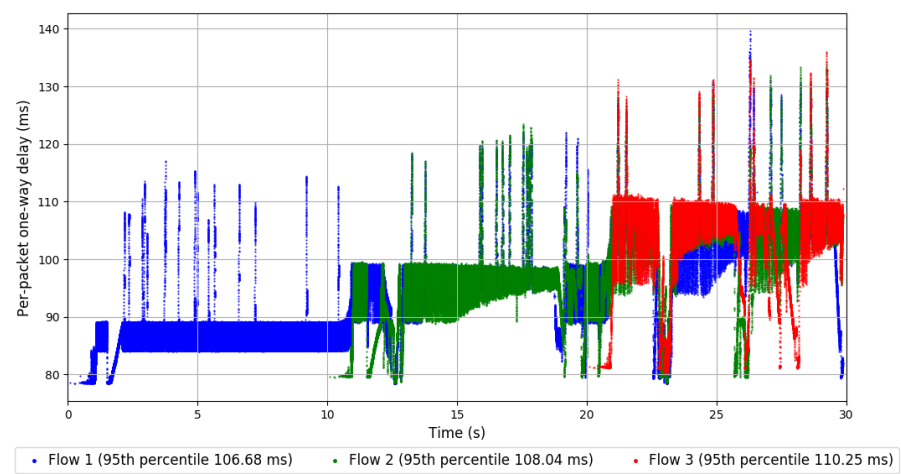
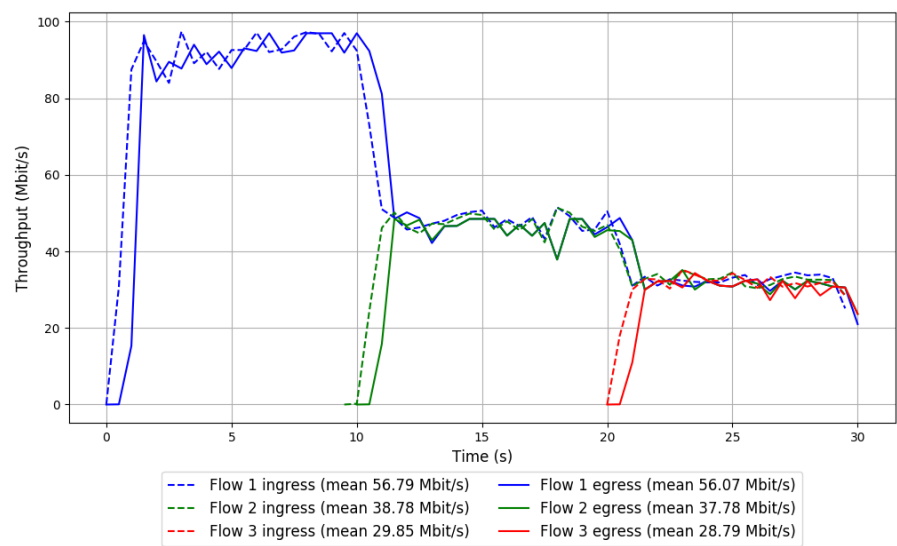
-- Flow 3:

Average throughput: 28.79 Mbit/s

95th percentile per-packet one-way delay: 110.247 ms

Loss rate: 5.28%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-06-19 09:38:36

End at: 2018-06-19 09:39:06

Local clock offset: -2.83 ms

Remote clock offset: 9.352 ms

# Below is generated by plot.py at 2018-06-19 12:29:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.25 Mbit/s

95th percentile per-packet one-way delay: 114.157 ms

Loss rate: 4.58%

-- Flow 1:

Average throughput: 48.63 Mbit/s

95th percentile per-packet one-way delay: 107.461 ms

Loss rate: 3.21%

-- Flow 2:

Average throughput: 35.99 Mbit/s

95th percentile per-packet one-way delay: 116.192 ms

Loss rate: 5.91%

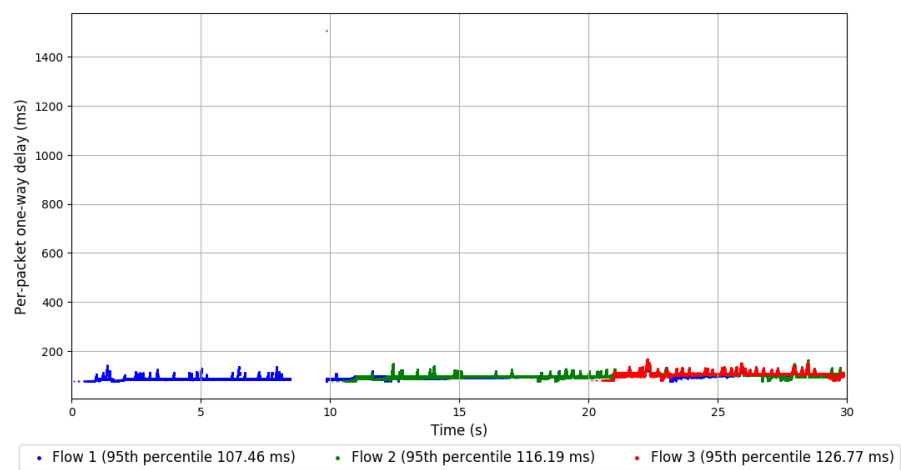
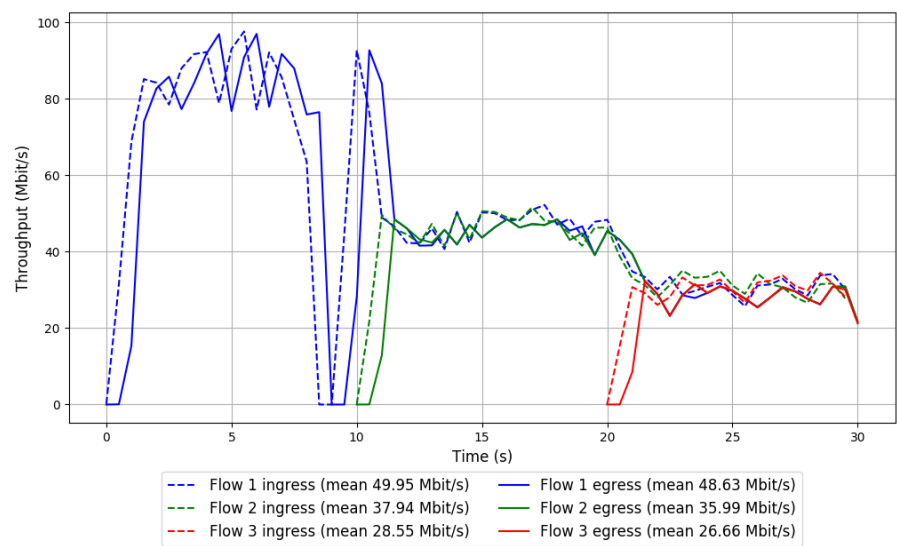
-- Flow 3:

Average throughput: 26.66 Mbit/s

95th percentile per-packet one-way delay: 126.772 ms

Loss rate: 8.28%

Run 2: Report of FillP — Data Link



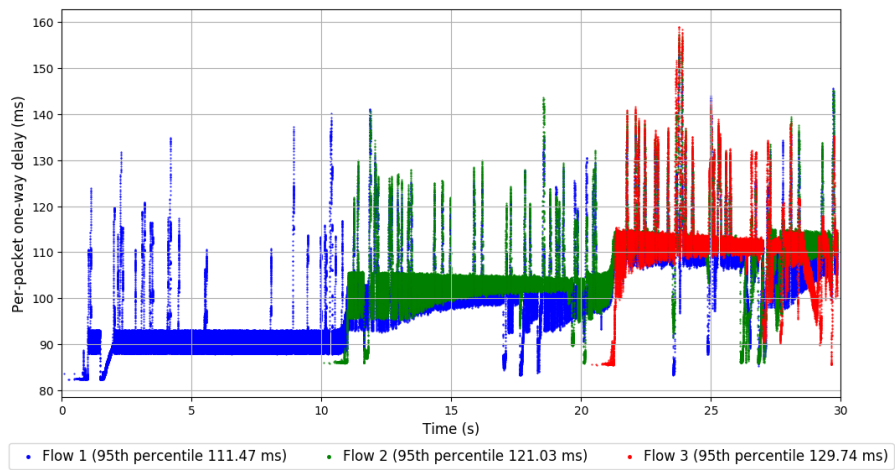
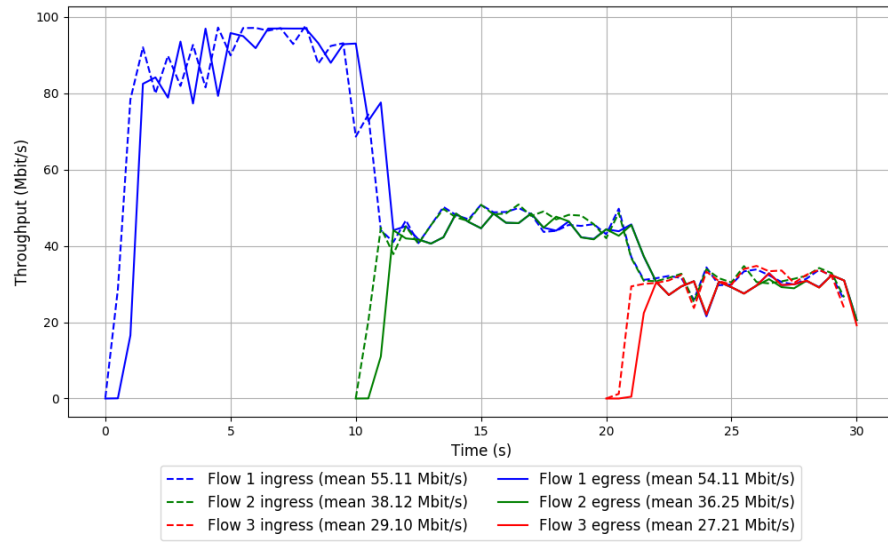
Run 3: Statistics of FillP

Start at: 2018-06-19 09:58:34  
End at: 2018-06-19 09:59:04  
Local clock offset: -1.691 ms  
Remote clock offset: 4.094 ms

# Below is generated by plot.py at 2018-06-19 12:29:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.81 Mbit/s  
95th percentile per-packet one-way delay: 117.199 ms  
Loss rate: 3.92%  
-- Flow 1:  
Average throughput: 54.11 Mbit/s  
95th percentile per-packet one-way delay: 111.471 ms  
Loss rate: 2.36%  
-- Flow 2:  
Average throughput: 36.25 Mbit/s  
95th percentile per-packet one-way delay: 121.026 ms  
Loss rate: 5.74%  
-- Flow 3:  
Average throughput: 27.21 Mbit/s  
95th percentile per-packet one-way delay: 129.742 ms  
Loss rate: 8.11%



### Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-06-19 10:18:22

End at: 2018-06-19 10:18:52

Local clock offset: -1.798 ms

Remote clock offset: 7.523 ms

# Below is generated by plot.py at 2018-06-19 12:29:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.51 Mbit/s

95th percentile per-packet one-way delay: 113.198 ms

Loss rate: 3.47%

-- Flow 1:

Average throughput: 53.38 Mbit/s

95th percentile per-packet one-way delay: 110.779 ms

Loss rate: 2.01%

-- Flow 2:

Average throughput: 36.27 Mbit/s

95th percentile per-packet one-way delay: 114.231 ms

Loss rate: 5.51%

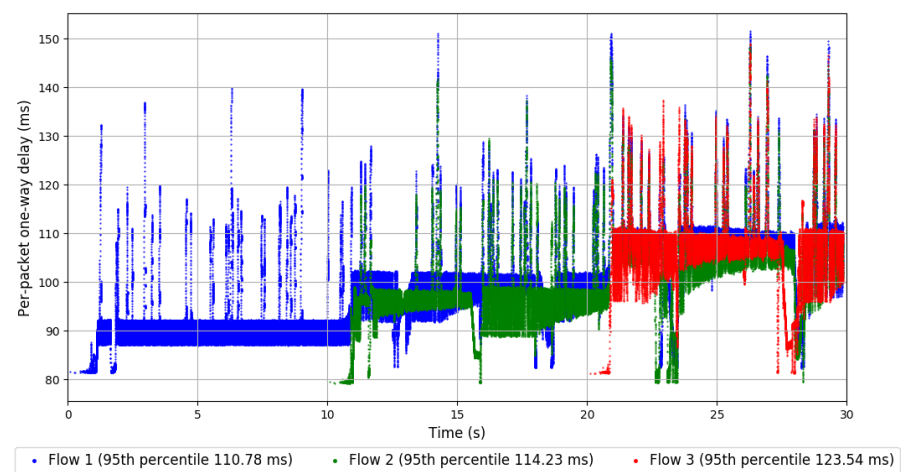
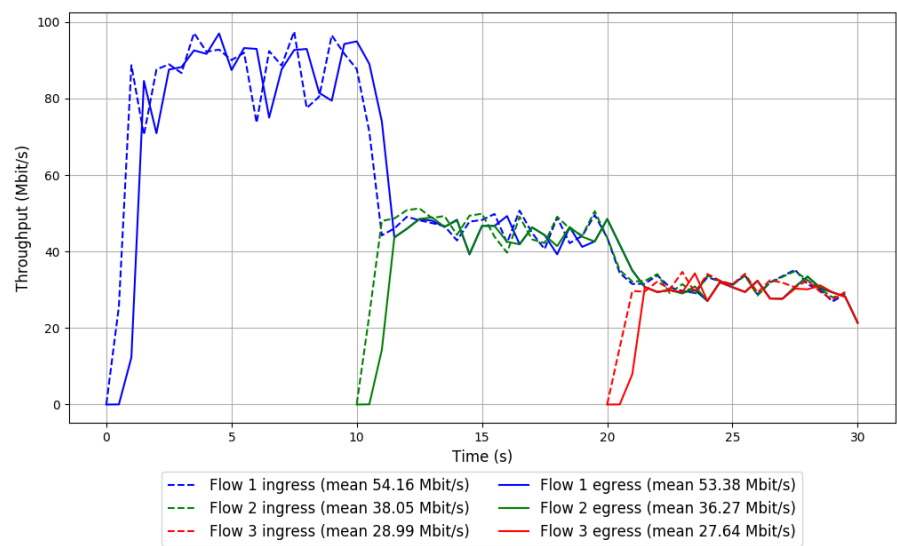
-- Flow 3:

Average throughput: 27.64 Mbit/s

95th percentile per-packet one-way delay: 123.539 ms

Loss rate: 6.36%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-06-19 10:38:15

End at: 2018-06-19 10:38:45

Local clock offset: -1.735 ms

Remote clock offset: 9.508 ms

# Below is generated by plot.py at 2018-06-19 12:29:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.34 Mbit/s

95th percentile per-packet one-way delay: 109.926 ms

Loss rate: 3.41%

-- Flow 1:

Average throughput: 54.60 Mbit/s

95th percentile per-packet one-way delay: 108.666 ms

Loss rate: 2.19%

-- Flow 2:

Average throughput: 36.96 Mbit/s

95th percentile per-packet one-way delay: 112.614 ms

Loss rate: 4.64%

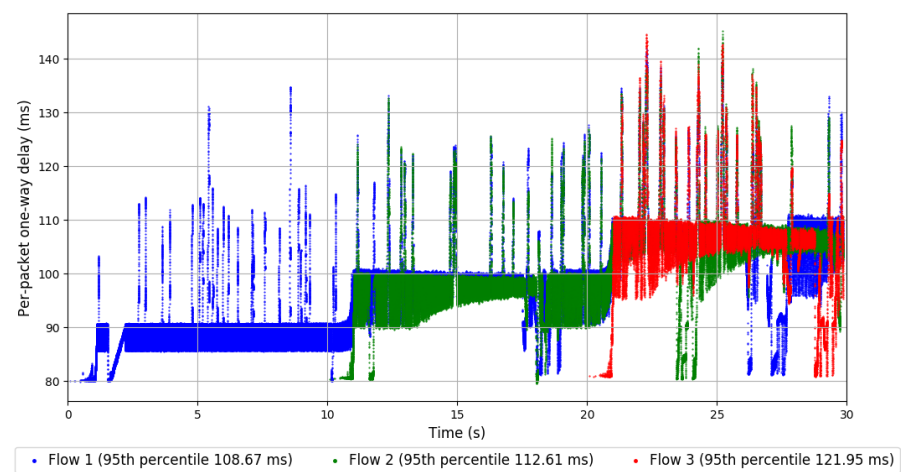
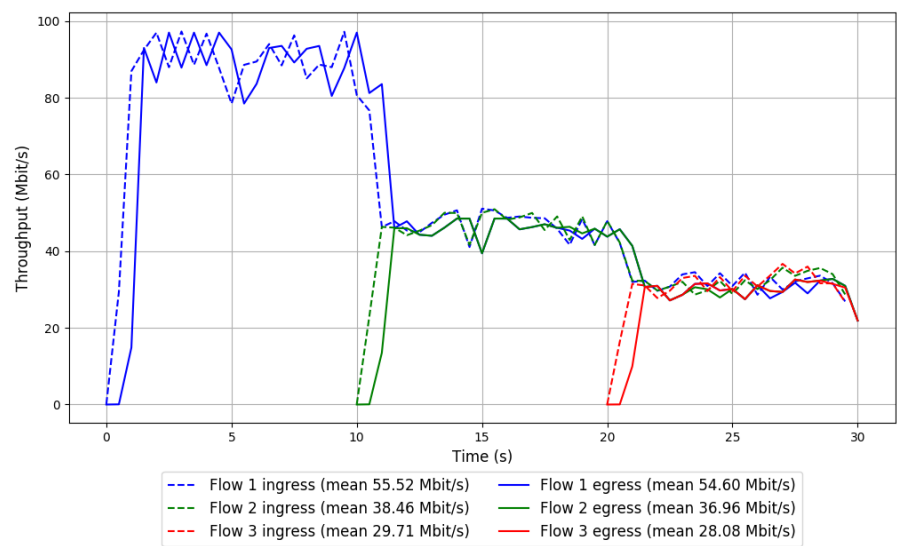
-- Flow 3:

Average throughput: 28.08 Mbit/s

95th percentile per-packet one-way delay: 121.950 ms

Loss rate: 7.05%

Run 5: Report of FillP — Data Link

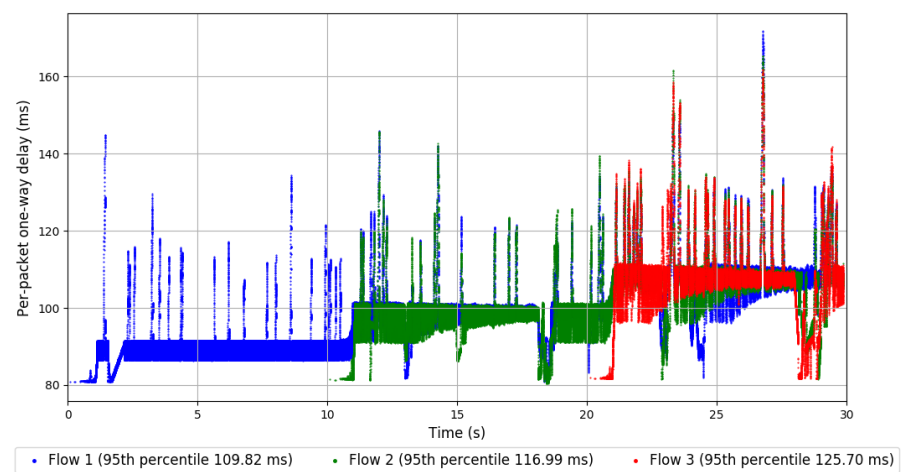
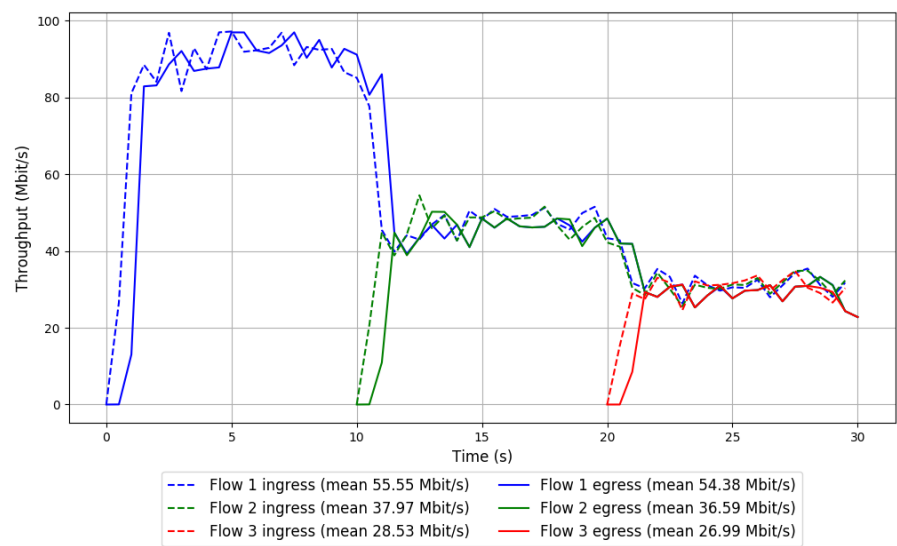


Run 6: Statistics of FillP

Start at: 2018-06-19 10:58:14  
End at: 2018-06-19 10:58:44  
Local clock offset: -1.477 ms  
Remote clock offset: 13.802 ms

# Below is generated by plot.py at 2018-06-19 12:29:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.48 Mbit/s  
95th percentile per-packet one-way delay: 113.901 ms  
Loss rate: 3.61%  
-- Flow 1:  
Average throughput: 54.38 Mbit/s  
95th percentile per-packet one-way delay: 109.817 ms  
Loss rate: 2.65%  
-- Flow 2:  
Average throughput: 36.59 Mbit/s  
95th percentile per-packet one-way delay: 116.991 ms  
Loss rate: 4.42%  
-- Flow 3:  
Average throughput: 26.99 Mbit/s  
95th percentile per-packet one-way delay: 125.696 ms  
Loss rate: 7.09%

Run 6: Report of FillP — Data Link



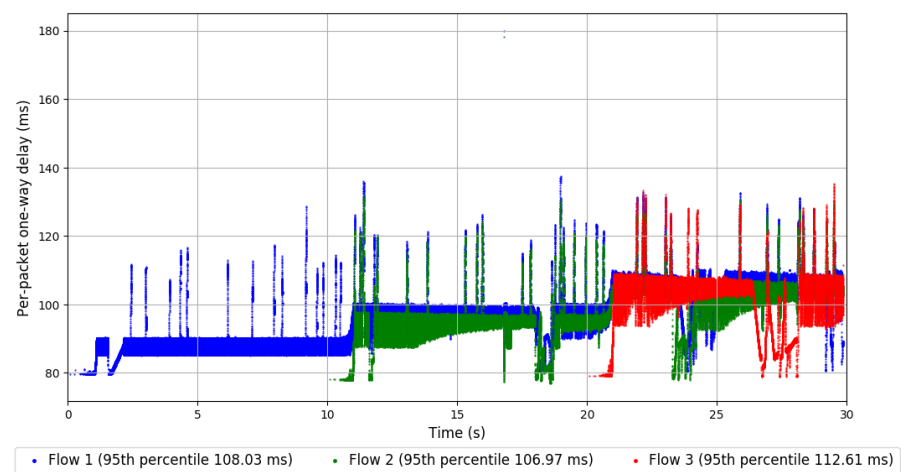
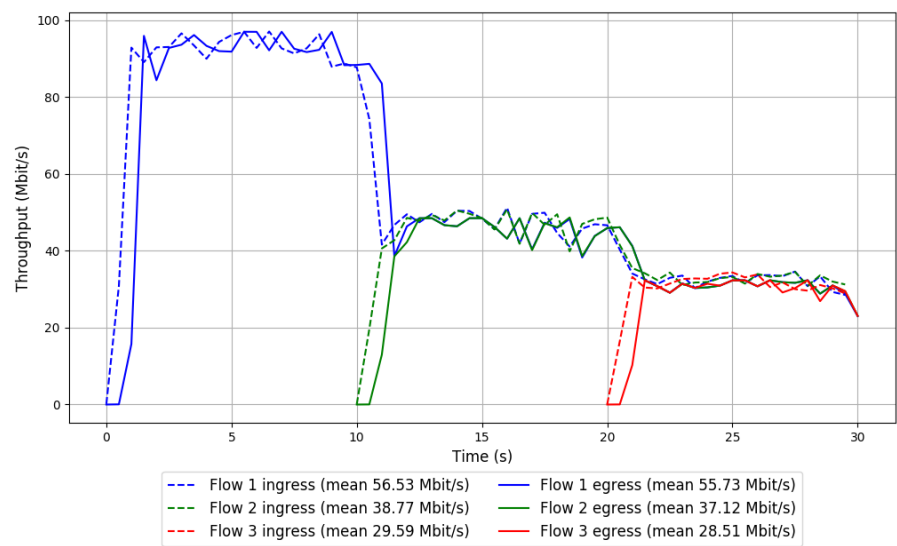
Run 7: Statistics of FillP

Start at: 2018-06-19 11:18:03  
End at: 2018-06-19 11:18:33  
Local clock offset: -2.224 ms  
Remote clock offset: 16.672 ms

# Below is generated by plot.py at 2018-06-19 12:29:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.71 Mbit/s  
95th percentile per-packet one-way delay: 108.113 ms  
Loss rate: 3.19%  
-- Flow 1:  
Average throughput: 55.73 Mbit/s  
95th percentile per-packet one-way delay: 108.025 ms  
Loss rate: 1.95%  
-- Flow 2:  
Average throughput: 37.12 Mbit/s  
95th percentile per-packet one-way delay: 106.970 ms  
Loss rate: 5.09%  
-- Flow 3:  
Average throughput: 28.51 Mbit/s  
95th percentile per-packet one-way delay: 112.615 ms  
Loss rate: 5.29%



Run 7: Report of FillP — Data Link

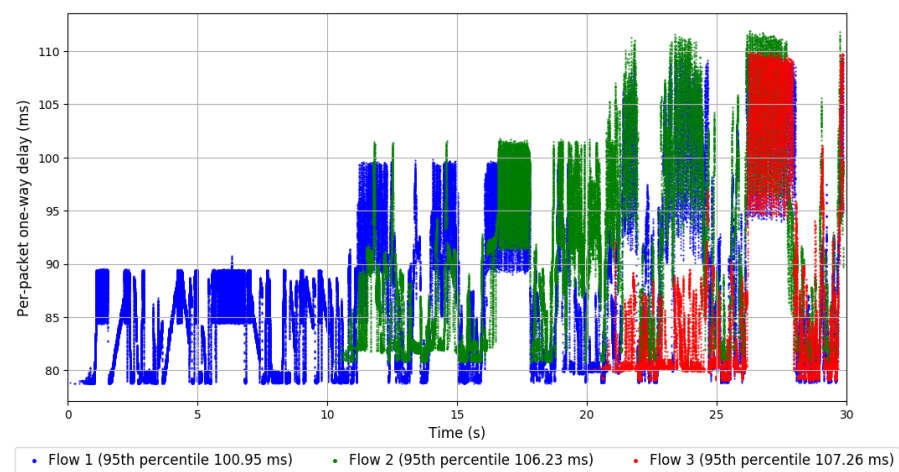
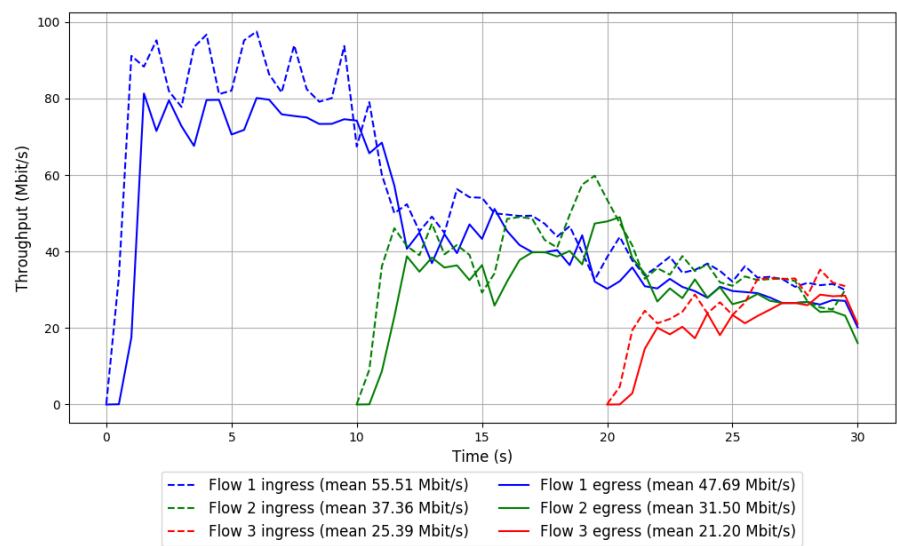


Run 8: Statistics of FillP

Start at: 2018-06-19 11:38:05  
End at: 2018-06-19 11:38:35  
Local clock offset: -2.664 ms  
Remote clock offset: 17.125 ms

# Below is generated by plot.py at 2018-06-19 12:29:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.55 Mbit/s  
95th percentile per-packet one-way delay: 104.156 ms  
Loss rate: 15.37%  
-- Flow 1:  
Average throughput: 47.69 Mbit/s  
95th percentile per-packet one-way delay: 100.954 ms  
Loss rate: 14.55%  
-- Flow 2:  
Average throughput: 31.50 Mbit/s  
95th percentile per-packet one-way delay: 106.232 ms  
Loss rate: 16.34%  
-- Flow 3:  
Average throughput: 21.20 Mbit/s  
95th percentile per-packet one-way delay: 107.257 ms  
Loss rate: 17.93%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-06-19 11:58:18

End at: 2018-06-19 11:58:48

Local clock offset: -3.129 ms

Remote clock offset: 11.91 ms

# Below is generated by plot.py at 2018-06-19 12:30:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.88 Mbit/s

95th percentile per-packet one-way delay: 106.765 ms

Loss rate: 2.50%

-- Flow 1:

Average throughput: 58.13 Mbit/s

95th percentile per-packet one-way delay: 106.371 ms

Loss rate: 1.65%

-- Flow 2:

Average throughput: 39.24 Mbit/s

95th percentile per-packet one-way delay: 107.380 ms

Loss rate: 3.59%

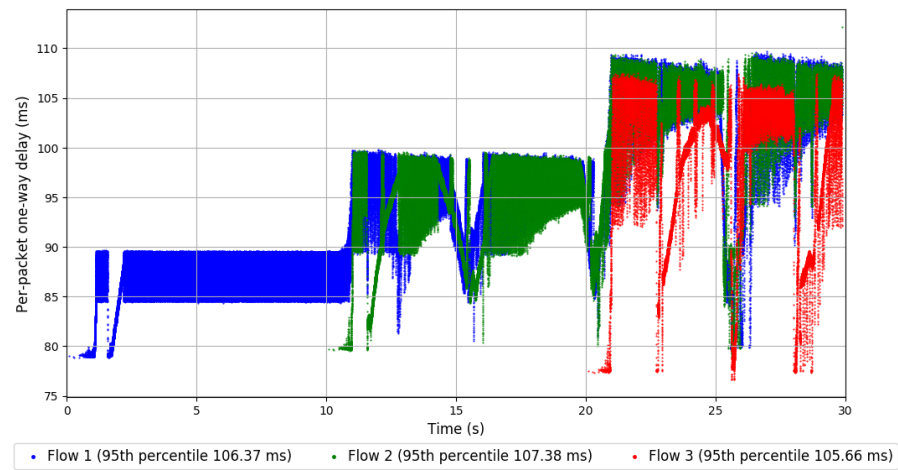
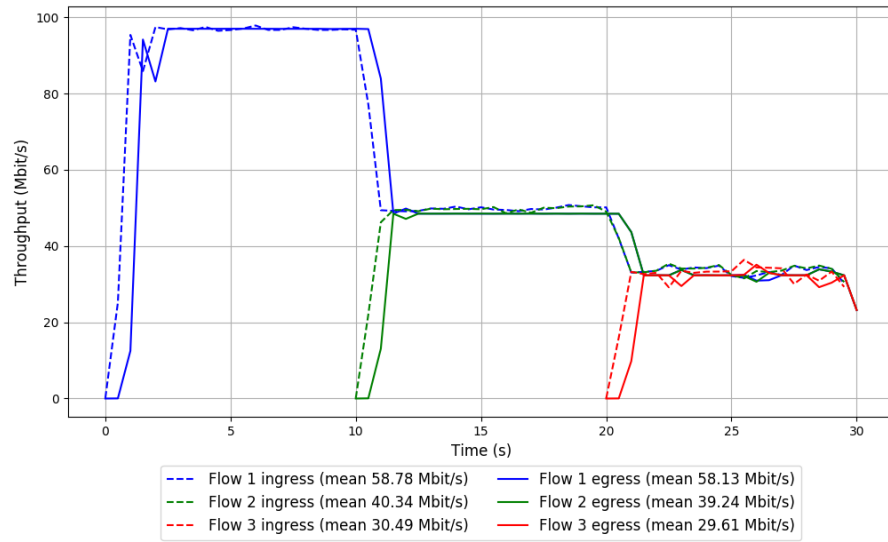
-- Flow 3:

Average throughput: 29.61 Mbit/s

95th percentile per-packet one-way delay: 105.664 ms

Loss rate: 4.57%

# Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-06-19 12:18:12

End at: 2018-06-19 12:18:42

Local clock offset: -2.808 ms

Remote clock offset: 7.31 ms

# Below is generated by plot.py at 2018-06-19 12:30:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.94 Mbit/s

95th percentile per-packet one-way delay: 107.536 ms

Loss rate: 2.39%

-- Flow 1:

Average throughput: 58.21 Mbit/s

95th percentile per-packet one-way delay: 106.963 ms

Loss rate: 1.56%

-- Flow 2:

Average throughput: 39.15 Mbit/s

95th percentile per-packet one-way delay: 105.647 ms

Loss rate: 3.21%

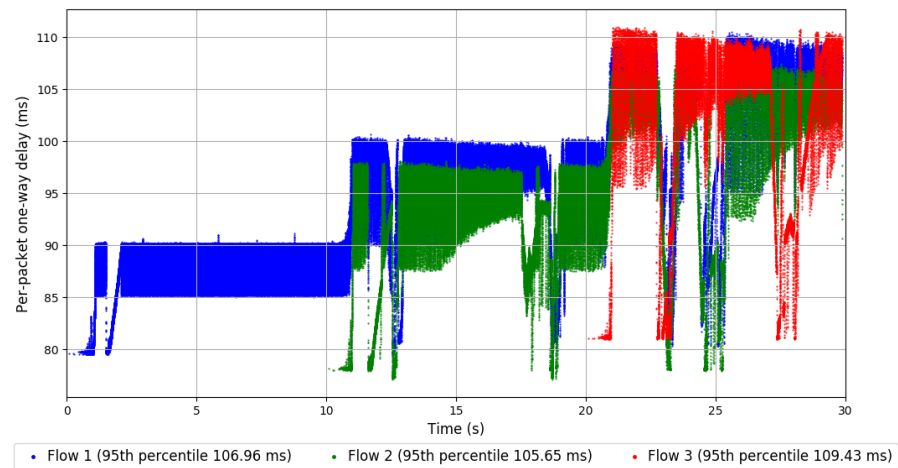
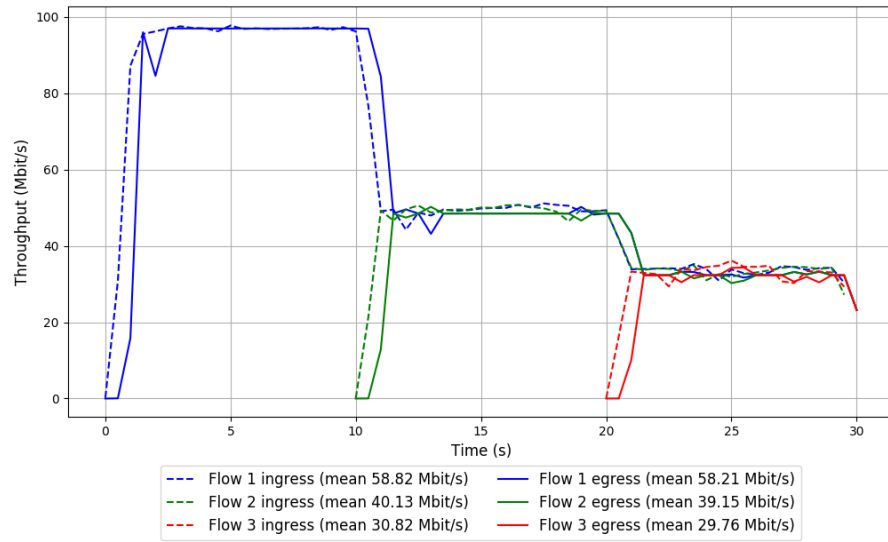
-- Flow 3:

Average throughput: 29.76 Mbit/s

95th percentile per-packet one-way delay: 109.430 ms

Loss rate: 4.98%

# Run 10: Report of FillP — Data Link



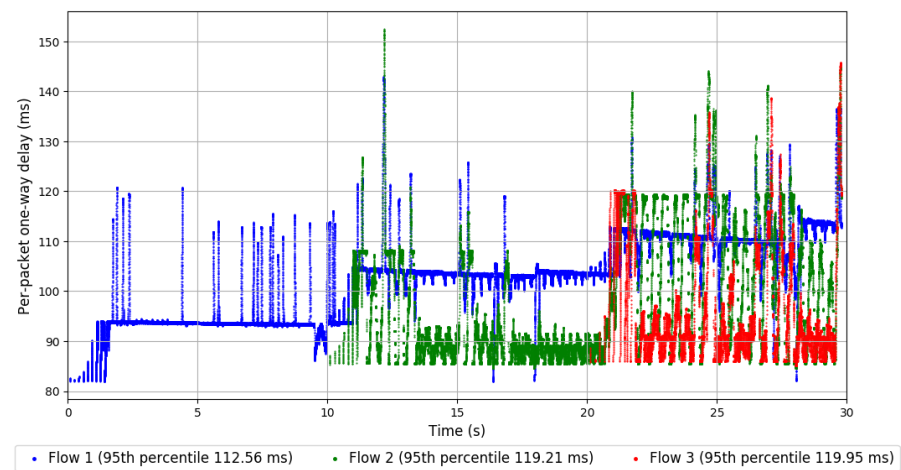
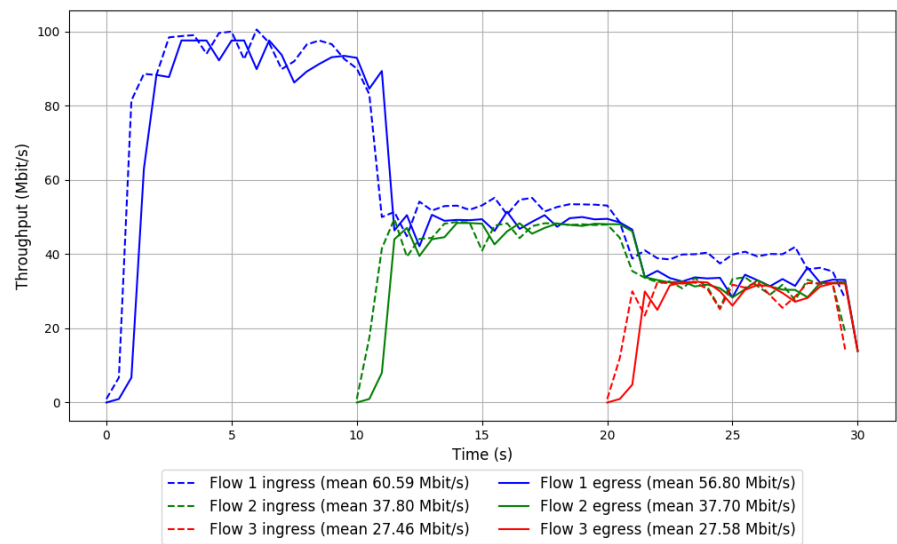
```
Run 1: Statistics of Indigo

Start at: 2018-06-19 09:15:03
End at: 2018-06-19 09:15:33
Local clock offset: -3.311 ms
Remote clock offset: 5.178 ms

# Below is generated by plot.py at 2018-06-19 12:30:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 117.321 ms
Loss rate: 4.74%
-- Flow 1:
Average throughput: 56.80 Mbit/s
95th percentile per-packet one-way delay: 112.557 ms
Loss rate: 6.77%
-- Flow 2:
Average throughput: 37.70 Mbit/s
95th percentile per-packet one-way delay: 119.213 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 27.58 Mbit/s
95th percentile per-packet one-way delay: 119.949 ms
Loss rate: 1.27%
```



Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-06-19 09:34:52

End at: 2018-06-19 09:35:22

Local clock offset: -3.415 ms

Remote clock offset: 8.486 ms

# Below is generated by plot.py at 2018-06-19 12:30:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.59 Mbit/s

95th percentile per-packet one-way delay: 115.509 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 53.77 Mbit/s

95th percentile per-packet one-way delay: 112.627 ms

Loss rate: 1.60%

-- Flow 2:

Average throughput: 36.12 Mbit/s

95th percentile per-packet one-way delay: 117.625 ms

Loss rate: 1.39%

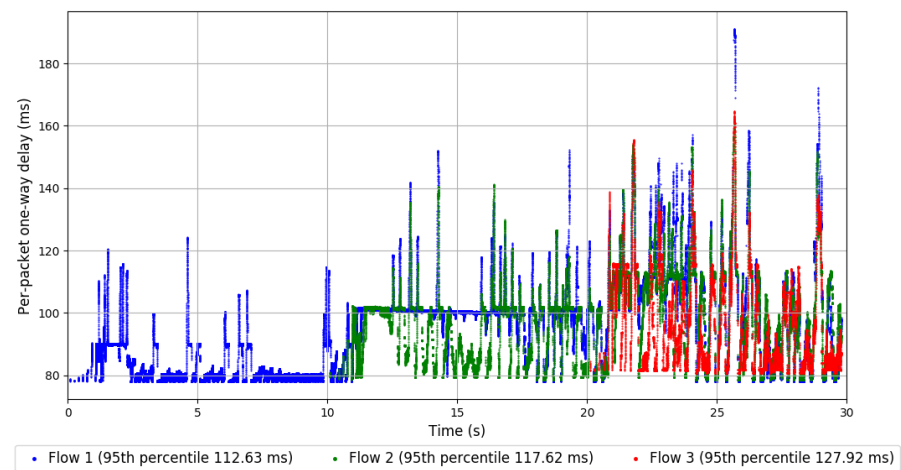
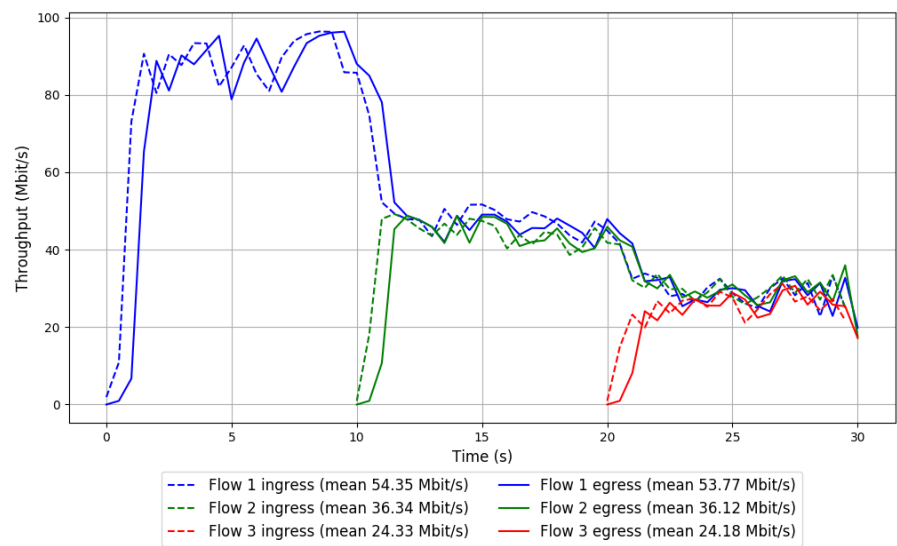
-- Flow 3:

Average throughput: 24.18 Mbit/s

95th percentile per-packet one-way delay: 127.922 ms

Loss rate: 2.27%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-06-19 09:54:48

End at: 2018-06-19 09:55:18

Local clock offset: -1.794 ms

Remote clock offset: 9.041 ms

# Below is generated by plot.py at 2018-06-19 12:30:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.98 Mbit/s

95th percentile per-packet one-way delay: 114.270 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 52.92 Mbit/s

95th percentile per-packet one-way delay: 112.148 ms

Loss rate: 1.59%

-- Flow 2:

Average throughput: 35.53 Mbit/s

95th percentile per-packet one-way delay: 117.618 ms

Loss rate: 1.51%

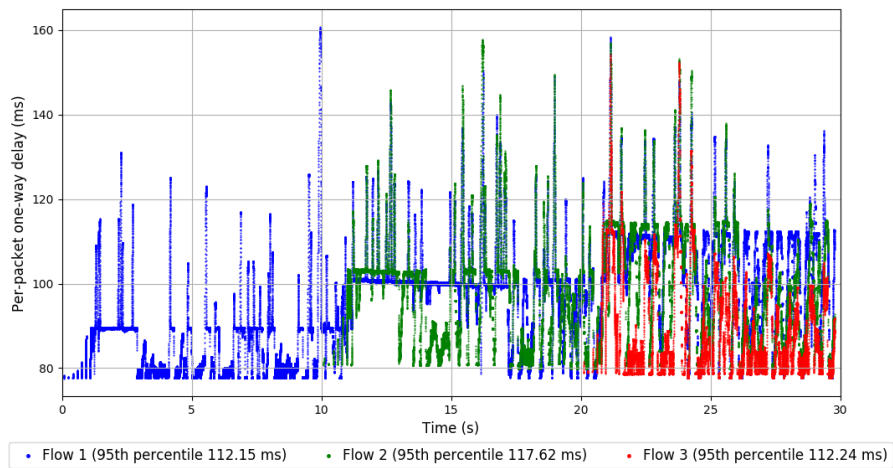
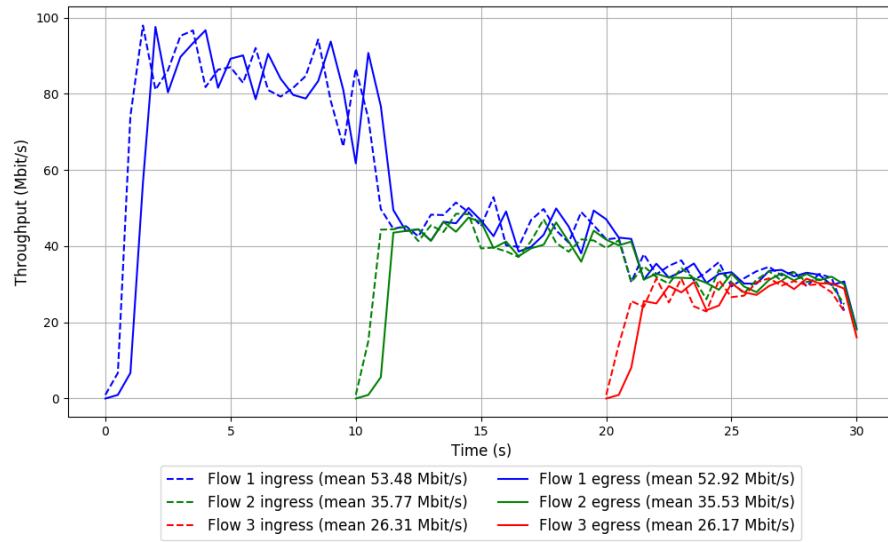
-- Flow 3:

Average throughput: 26.17 Mbit/s

95th percentile per-packet one-way delay: 112.237 ms

Loss rate: 2.16%

### Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-06-19 10:14:37

End at: 2018-06-19 10:15:07

Local clock offset: -1.865 ms

Remote clock offset: 7.628 ms

# Below is generated by plot.py at 2018-06-19 12:30:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.27 Mbit/s

95th percentile per-packet one-way delay: 115.935 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 52.78 Mbit/s

95th percentile per-packet one-way delay: 115.062 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 34.58 Mbit/s

95th percentile per-packet one-way delay: 117.215 ms

Loss rate: 1.11%

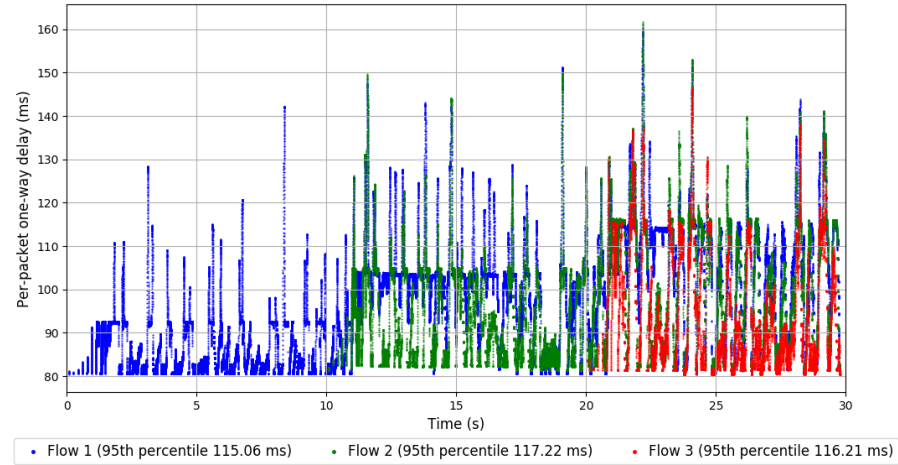
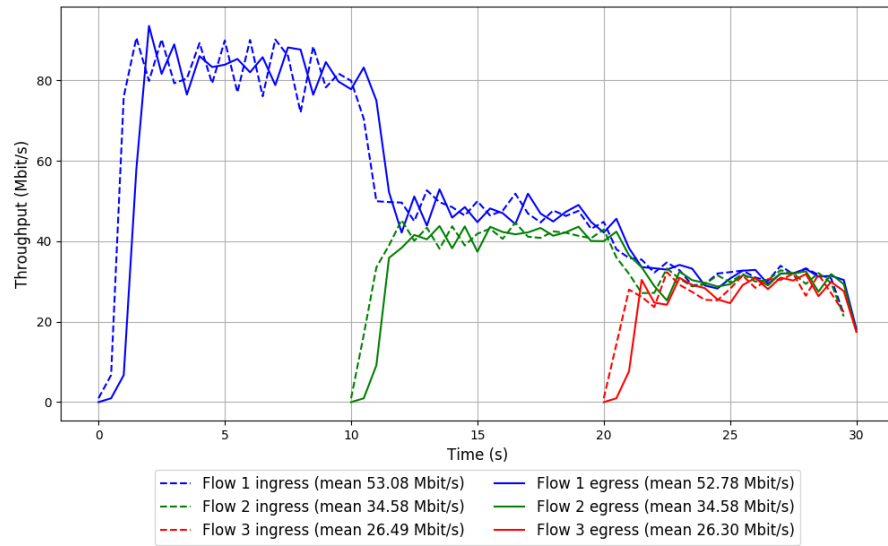
-- Flow 3:

Average throughput: 26.30 Mbit/s

95th percentile per-packet one-way delay: 116.209 ms

Loss rate: 2.39%

#### Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-06-19 10:34:30

End at: 2018-06-19 10:35:00

Local clock offset: -1.713 ms

Remote clock offset: 7.565 ms

# Below is generated by plot.py at 2018-06-19 12:30:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.41 Mbit/s

95th percentile per-packet one-way delay: 115.160 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 51.82 Mbit/s

95th percentile per-packet one-way delay: 115.190 ms

Loss rate: 1.38%

-- Flow 2:

Average throughput: 36.23 Mbit/s

95th percentile per-packet one-way delay: 115.011 ms

Loss rate: 0.93%

-- Flow 3:

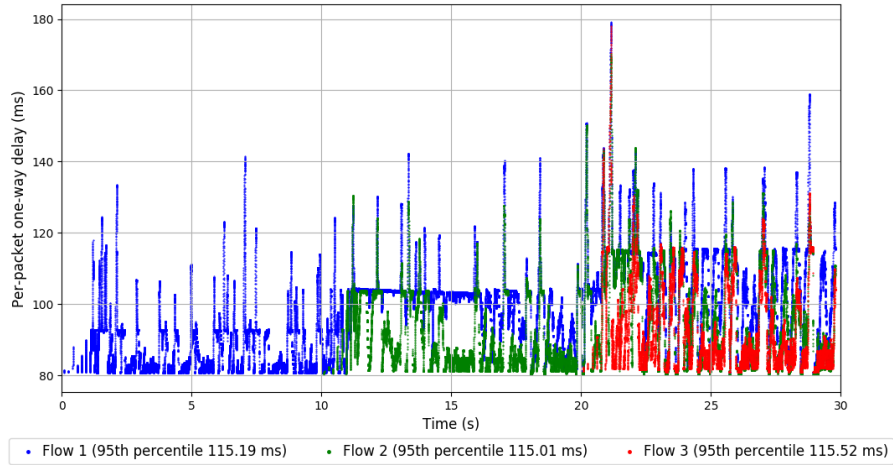
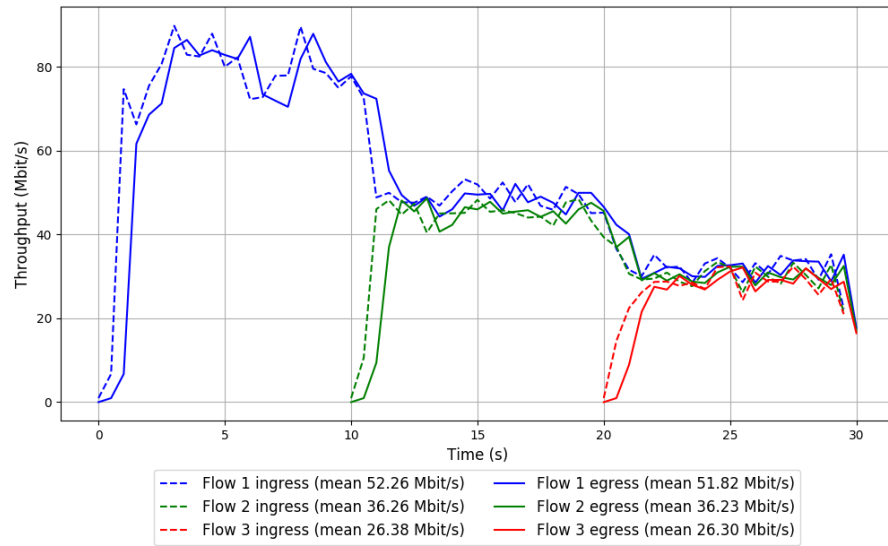
Average throughput: 26.30 Mbit/s

95th percentile per-packet one-way delay: 115.519 ms

Loss rate: 1.93%



## Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2018-06-19 10:54:29

End at: 2018-06-19 10:54:59

Local clock offset: -1.512 ms

Remote clock offset: 9.365 ms

# Below is generated by plot.py at 2018-06-19 12:30:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.35 Mbit/s

95th percentile per-packet one-way delay: 119.692 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 57.78 Mbit/s

95th percentile per-packet one-way delay: 117.011 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 30.03 Mbit/s

95th percentile per-packet one-way delay: 118.112 ms

Loss rate: 1.01%

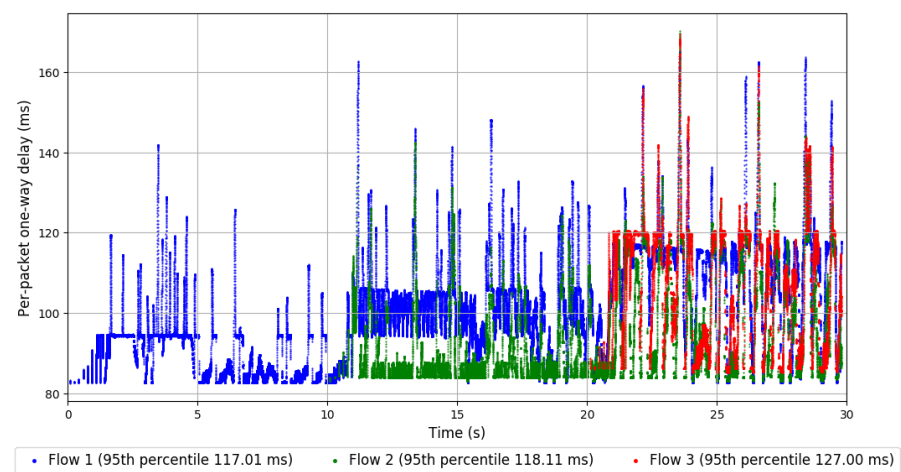
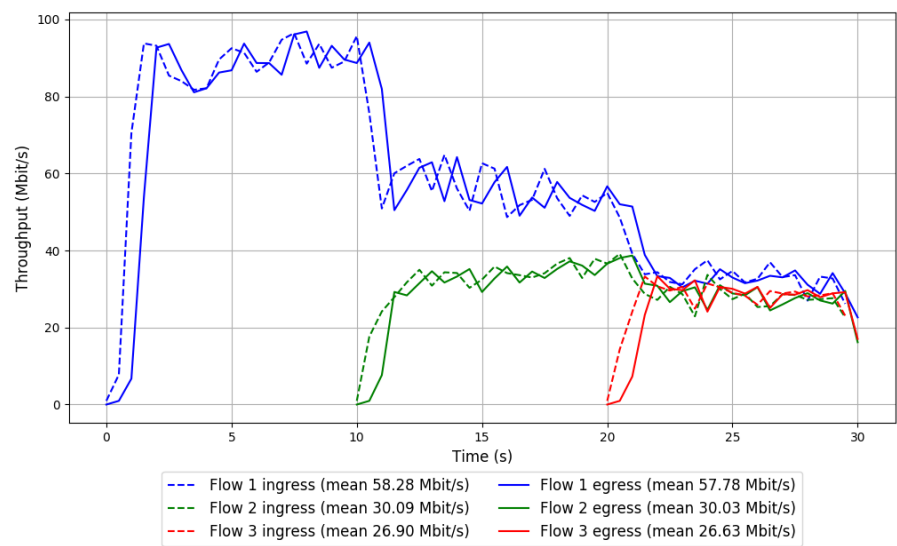
-- Flow 3:

Average throughput: 26.63 Mbit/s

95th percentile per-packet one-way delay: 127.001 ms

Loss rate: 2.59%

Run 6: Report of Indigo — Data Link

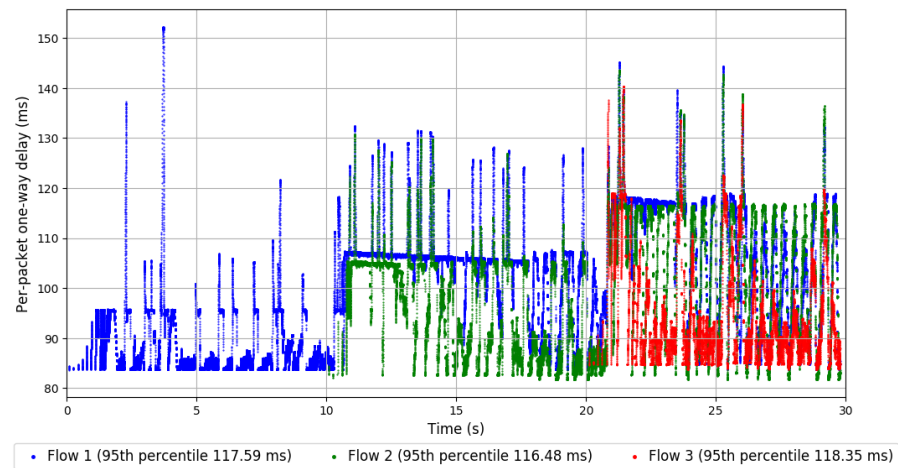
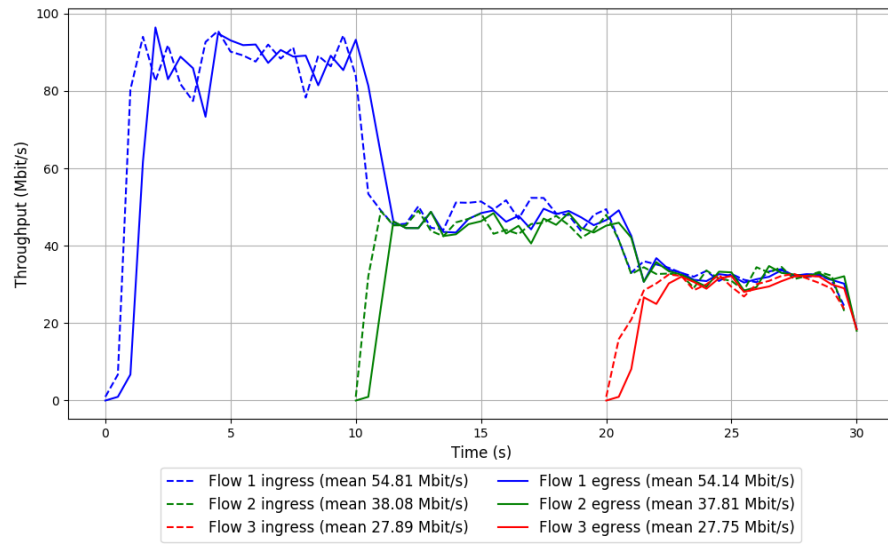


Run 7: Statistics of Indigo

Start at: 2018-06-19 11:14:17  
End at: 2018-06-19 11:14:47  
Local clock offset: -2.104 ms  
Remote clock offset: 12.526 ms

# Below is generated by plot.py at 2018-06-19 12:31:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.24 Mbit/s  
95th percentile per-packet one-way delay: 117.315 ms  
Loss rate: 1.73%  
-- Flow 1:  
Average throughput: 54.14 Mbit/s  
95th percentile per-packet one-way delay: 117.594 ms  
Loss rate: 1.76%  
-- Flow 2:  
Average throughput: 37.81 Mbit/s  
95th percentile per-packet one-way delay: 116.483 ms  
Loss rate: 1.51%  
-- Flow 3:  
Average throughput: 27.75 Mbit/s  
95th percentile per-packet one-way delay: 118.354 ms  
Loss rate: 2.14%

## Run 7: Report of Indigo — Data Link

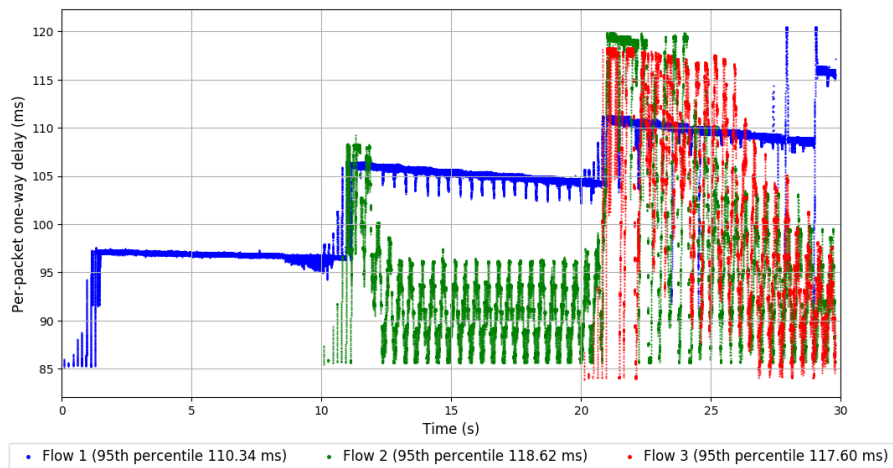
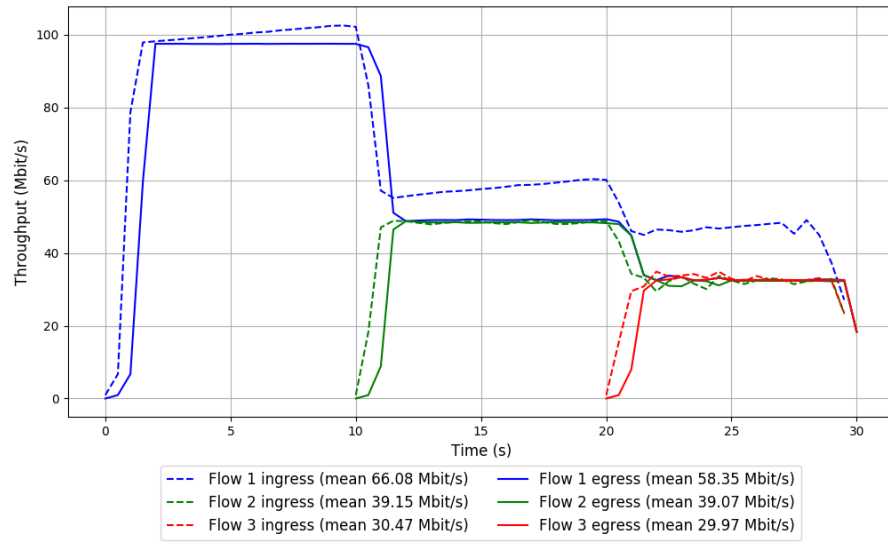


Run 8: Statistics of Indigo

Start at: 2018-06-19 11:34:17  
End at: 2018-06-19 11:34:47  
Local clock offset: -2.493 ms  
Remote clock offset: 12.932 ms

# Below is generated by plot.py at 2018-06-19 12:31:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.01 Mbit/s  
95th percentile per-packet one-way delay: 113.667 ms  
Loss rate: 8.46%  
-- Flow 1:  
Average throughput: 58.35 Mbit/s  
95th percentile per-packet one-way delay: 110.343 ms  
Loss rate: 12.18%  
-- Flow 2:  
Average throughput: 39.07 Mbit/s  
95th percentile per-packet one-way delay: 118.622 ms  
Loss rate: 1.02%  
-- Flow 3:  
Average throughput: 29.97 Mbit/s  
95th percentile per-packet one-way delay: 117.599 ms  
Loss rate: 3.25%

## Run 8: Report of Indigo — Data Link



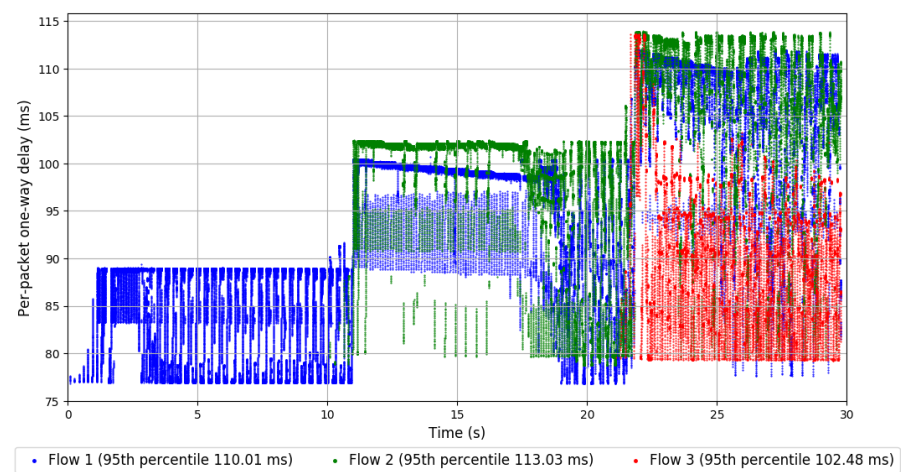
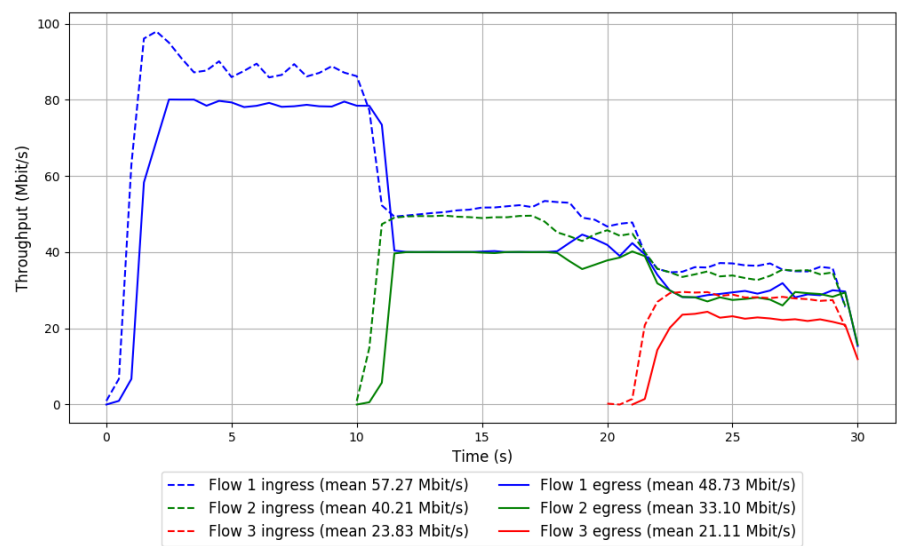
Run 9: Statistics of Indigo

Start at: 2018-06-19 11:54:22  
End at: 2018-06-19 11:54:52  
Local clock offset: -3.075 ms  
Remote clock offset: 13.129 ms

# Below is generated by plot.py at 2018-06-19 12:31:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.81 Mbit/s  
95th percentile per-packet one-way delay: 110.974 ms  
Loss rate: 16.81%  
-- Flow 1:  
Average throughput: 48.73 Mbit/s  
95th percentile per-packet one-way delay: 110.006 ms  
Loss rate: 15.38%  
-- Flow 2:  
Average throughput: 33.10 Mbit/s  
95th percentile per-packet one-way delay: 113.035 ms  
Loss rate: 18.37%  
-- Flow 3:  
Average throughput: 21.11 Mbit/s  
95th percentile per-packet one-way delay: 102.478 ms  
Loss rate: 21.93%



Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2018-06-19 12:14:25

End at: 2018-06-19 12:14:55

Local clock offset: -2.894 ms

Remote clock offset: 7.707 ms

# Below is generated by plot.py at 2018-06-19 12:31:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.14 Mbit/s

95th percentile per-packet one-way delay: 110.915 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 58.86 Mbit/s

95th percentile per-packet one-way delay: 110.871 ms

Loss rate: 2.12%

-- Flow 2:

Average throughput: 38.90 Mbit/s

95th percentile per-packet one-way delay: 111.549 ms

Loss rate: 1.02%

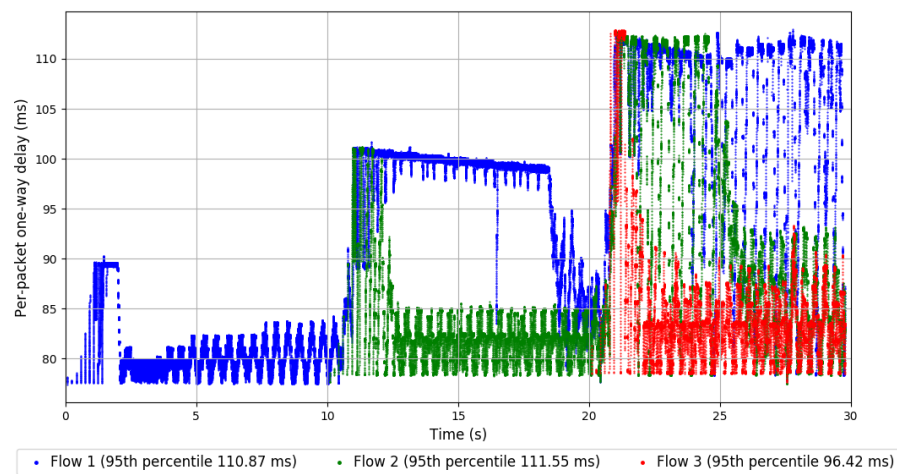
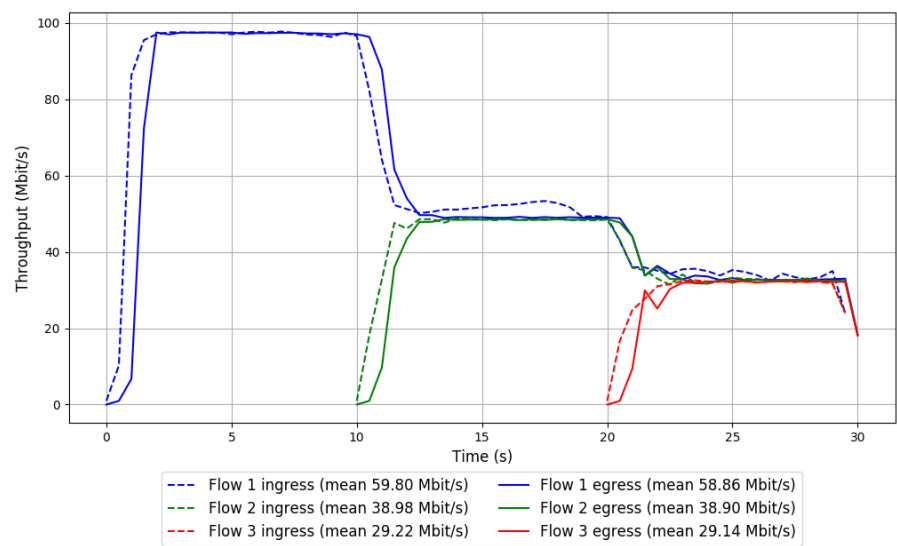
-- Flow 3:

Average throughput: 29.14 Mbit/s

95th percentile per-packet one-way delay: 96.417 ms

Loss rate: 1.95%

Run 10: Report of Indigo — Data Link

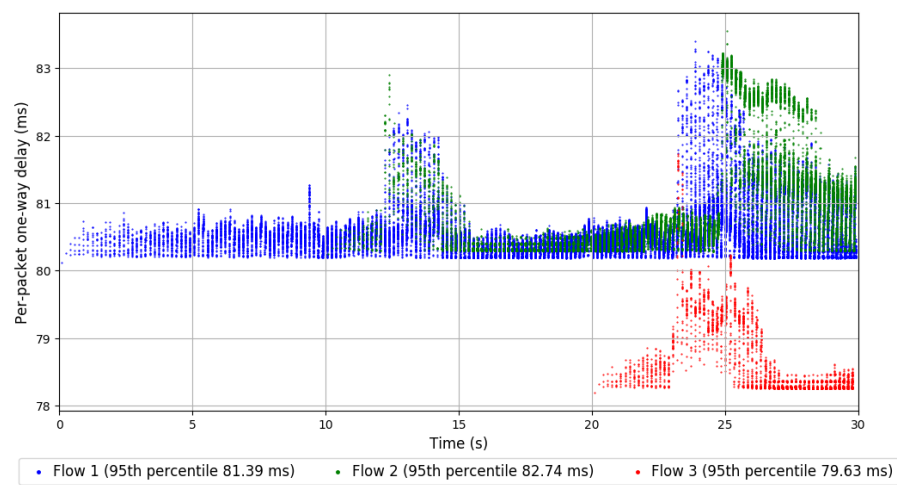
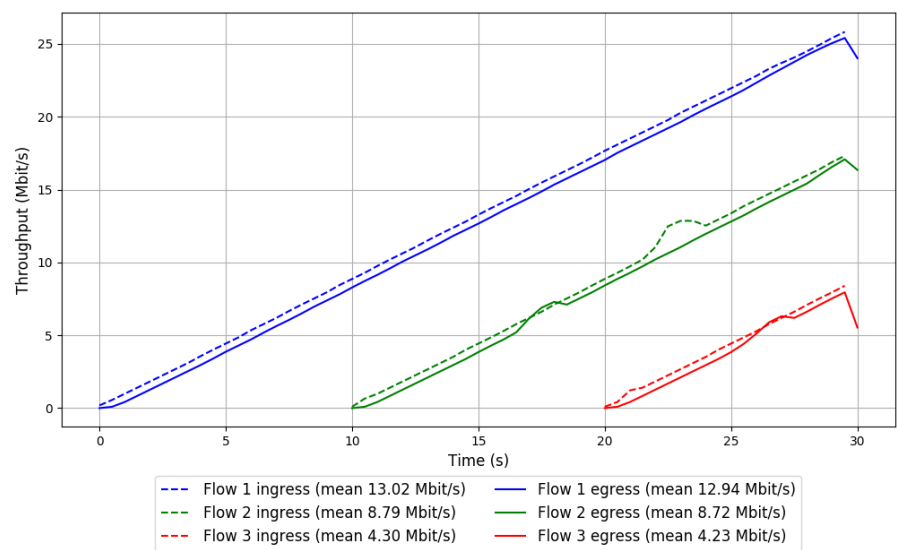


```
Run 1: Statistics of LEDBAT

Start at: 2018-06-19 09:02:48
End at: 2018-06-19 09:03:18
Local clock offset: -2.774 ms
Remote clock offset: 9.984 ms

# Below is generated by plot.py at 2018-06-19 12:31:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.10 Mbit/s
95th percentile per-packet one-way delay: 82.057 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 12.94 Mbit/s
95th percentile per-packet one-way delay: 81.395 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 8.72 Mbit/s
95th percentile per-packet one-way delay: 82.738 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 79.634 ms
Loss rate: 3.38%
```

Run 1: Report of LEDBAT — Data Link

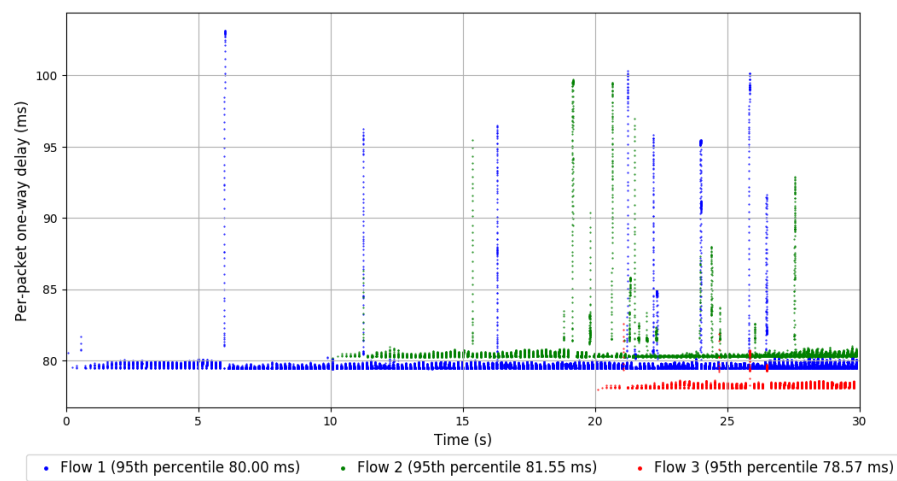
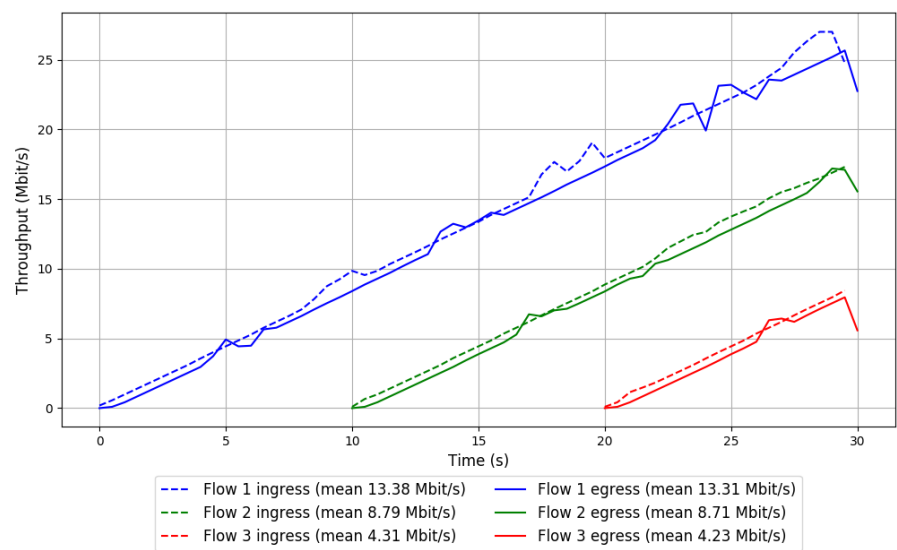


Run 2: Statistics of LEDBAT

Start at: 2018-06-19 09:22:35  
End at: 2018-06-19 09:23:05  
Local clock offset: -3.414 ms  
Remote clock offset: 10.134 ms

# Below is generated by plot.py at 2018-06-19 12:31:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 20.47 Mbit/s  
95th percentile per-packet one-way delay: 80.560 ms  
Loss rate: 1.41%  
-- Flow 1:  
Average throughput: 13.31 Mbit/s  
95th percentile per-packet one-way delay: 79.996 ms  
Loss rate: 1.09%  
-- Flow 2:  
Average throughput: 8.71 Mbit/s  
95th percentile per-packet one-way delay: 81.547 ms  
Loss rate: 1.66%  
-- Flow 3:  
Average throughput: 4.23 Mbit/s  
95th percentile per-packet one-way delay: 78.572 ms  
Loss rate: 3.37%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-06-19 09:42:23

End at: 2018-06-19 09:42:53

Local clock offset: -2.488 ms

Remote clock offset: 9.166 ms

# Below is generated by plot.py at 2018-06-19 12:31:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 19.30 Mbit/s

95th percentile per-packet one-way delay: 84.195 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 12.27 Mbit/s

95th percentile per-packet one-way delay: 82.645 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 8.45 Mbit/s

95th percentile per-packet one-way delay: 86.248 ms

Loss rate: 1.67%

-- Flow 3:

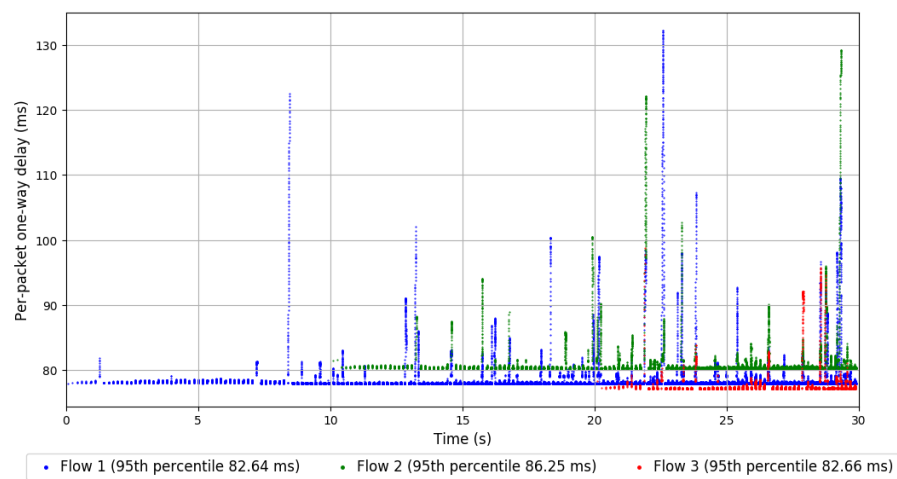
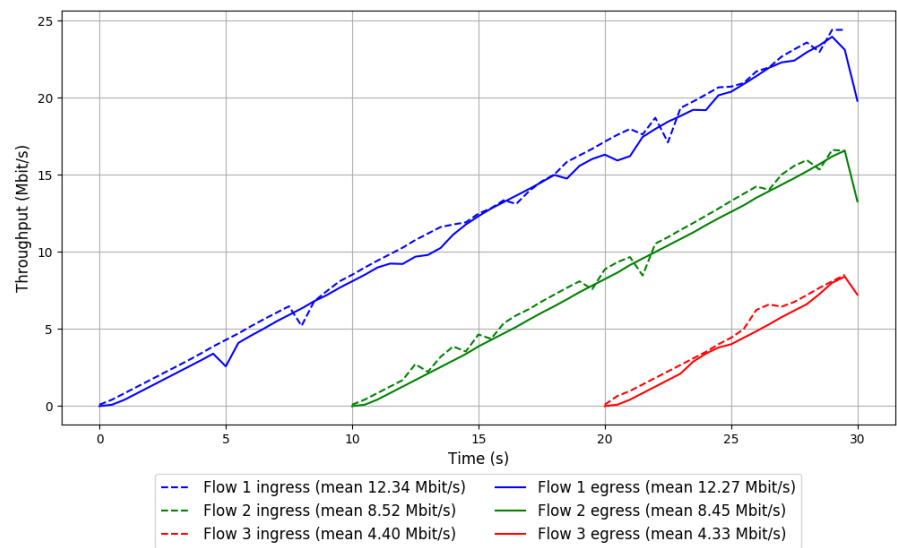
Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 82.661 ms

Loss rate: 3.30%



Run 3: Report of LEDBAT — Data Link

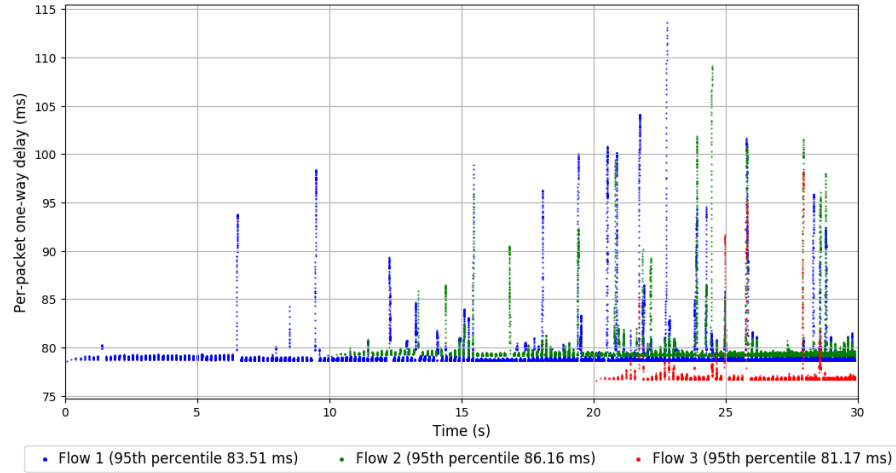
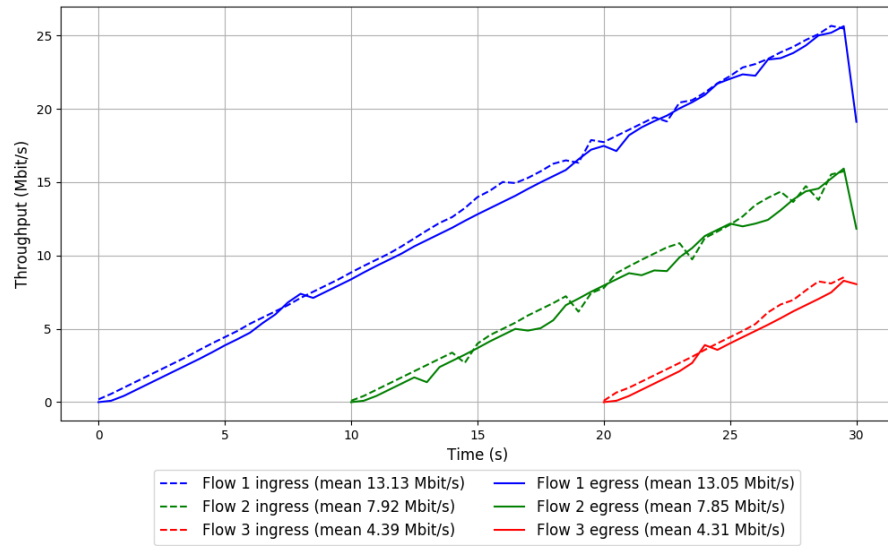


Run 4: Statistics of LEDBAT

Start at: 2018-06-19 10:02:21  
End at: 2018-06-19 10:02:51  
Local clock offset: -1.651 ms  
Remote clock offset: 10.076 ms

# Below is generated by plot.py at 2018-06-19 12:31:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.69 Mbit/s  
95th percentile per-packet one-way delay: 84.414 ms  
Loss rate: 1.42%  
-- Flow 1:  
Average throughput: 13.05 Mbit/s  
95th percentile per-packet one-way delay: 83.512 ms  
Loss rate: 1.10%  
-- Flow 2:  
Average throughput: 7.85 Mbit/s  
95th percentile per-packet one-way delay: 86.156 ms  
Loss rate: 1.69%  
-- Flow 3:  
Average throughput: 4.31 Mbit/s  
95th percentile per-packet one-way delay: 81.172 ms  
Loss rate: 3.30%

# Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-06-19 10:22:08

End at: 2018-06-19 10:22:38

Local clock offset: -1.787 ms

Remote clock offset: 3.745 ms

# Below is generated by plot.py at 2018-06-19 12:31:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 18.08 Mbit/s

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

Loss rate: 1.27%

-- Flow 1:

Average throughput: 11.25 Mbit/s

95th percentile per-packet one-way delay: 88.350 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 8.73 Mbit/s

95th percentile per-packet one-way delay: 84.122 ms

Loss rate: 1.66%

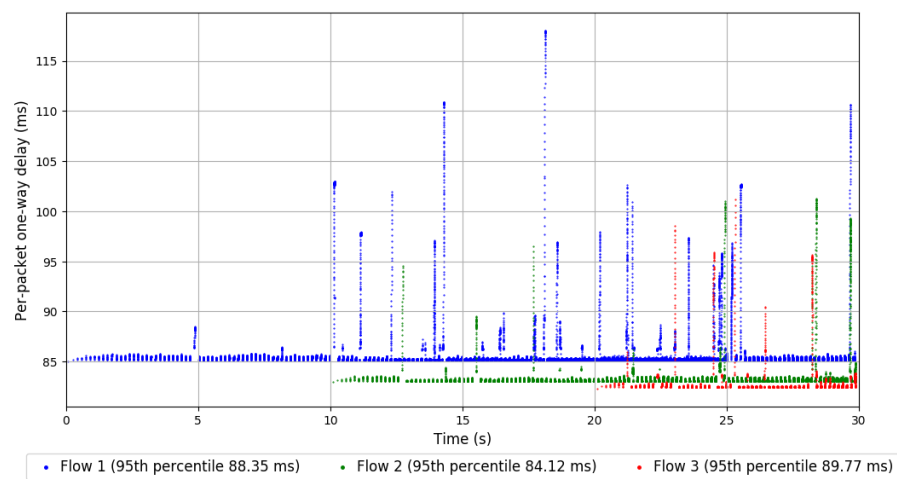
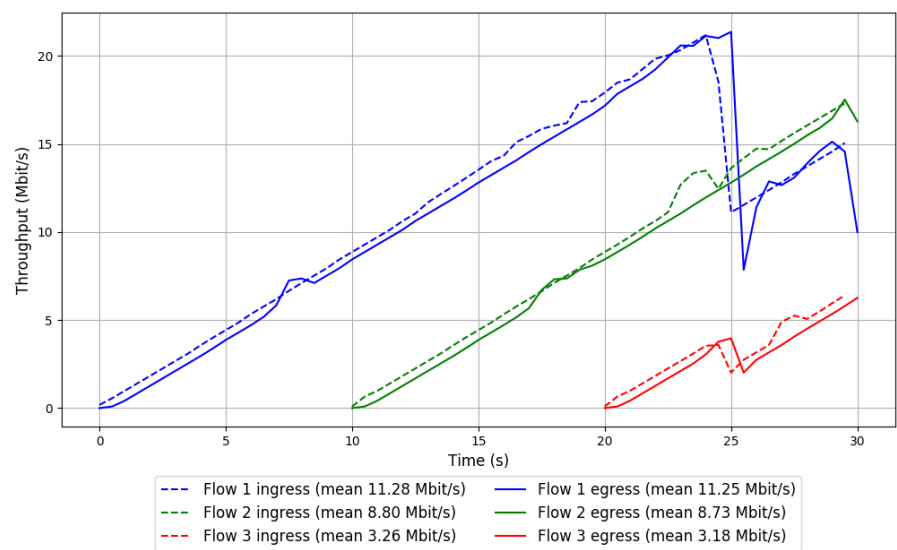
-- Flow 3:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 89.768 ms

Loss rate: 3.95%

Run 5: Report of LEDBAT — Data Link

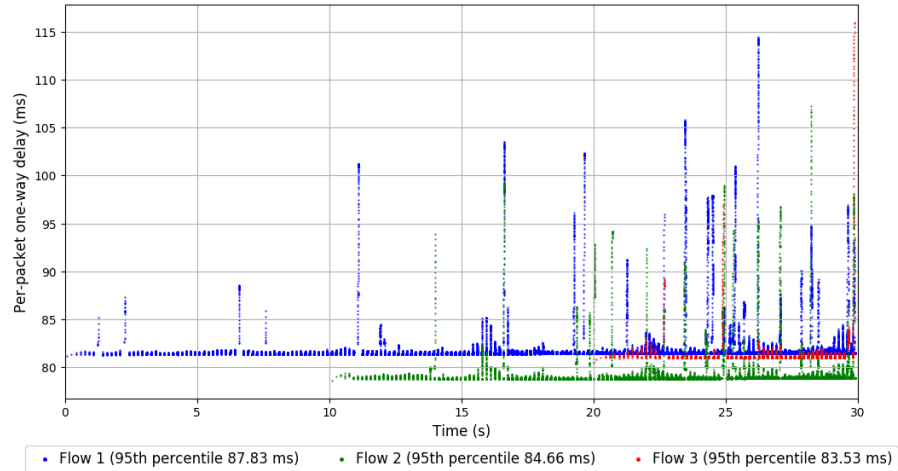
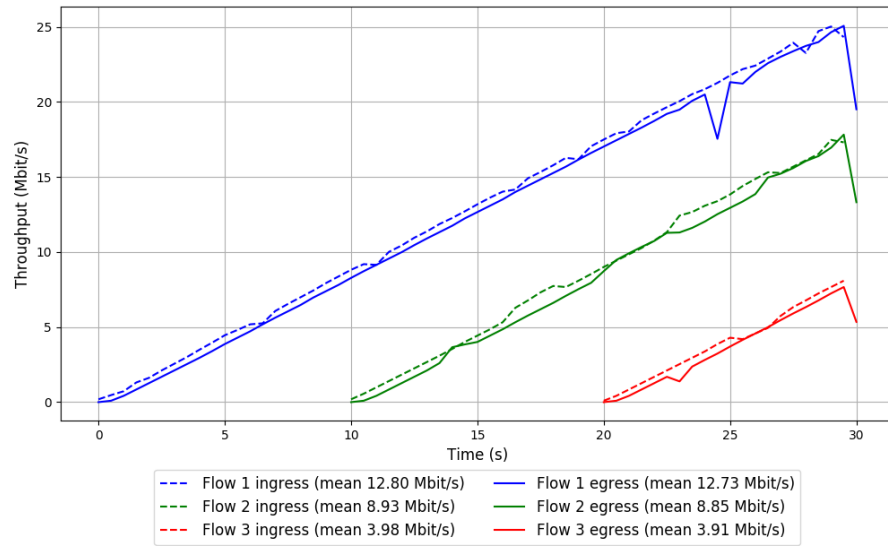


Run 6: Statistics of LEDBAT

Start at: 2018-06-19 10:42:02  
End at: 2018-06-19 10:42:32  
Local clock offset: -1.722 ms  
Remote clock offset: 10.321 ms

# Below is generated by plot.py at 2018-06-19 12:31:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.89 Mbit/s  
95th percentile per-packet one-way delay: 86.507 ms  
Loss rate: 1.42%  
-- Flow 1:  
Average throughput: 12.73 Mbit/s  
95th percentile per-packet one-way delay: 87.827 ms  
Loss rate: 1.11%  
-- Flow 2:  
Average throughput: 8.85 Mbit/s  
95th percentile per-packet one-way delay: 84.661 ms  
Loss rate: 1.64%  
-- Flow 3:  
Average throughput: 3.91 Mbit/s  
95th percentile per-packet one-way delay: 83.532 ms  
Loss rate: 3.47%

## Run 6: Report of LEDBAT — Data Link



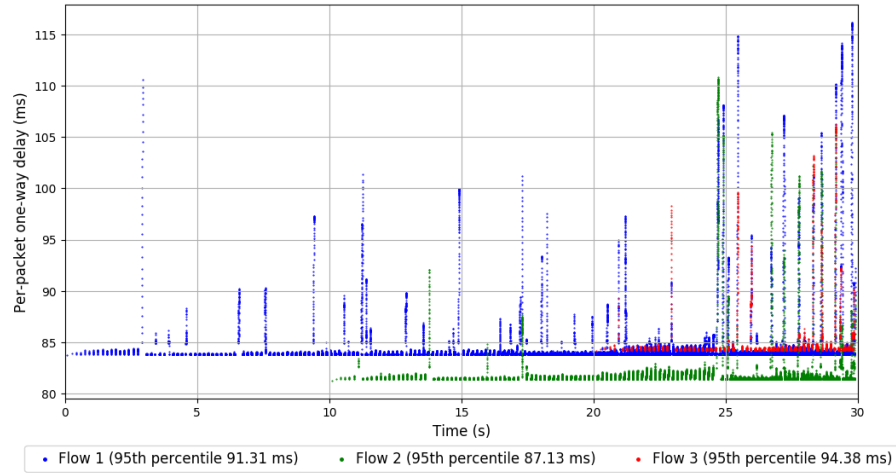
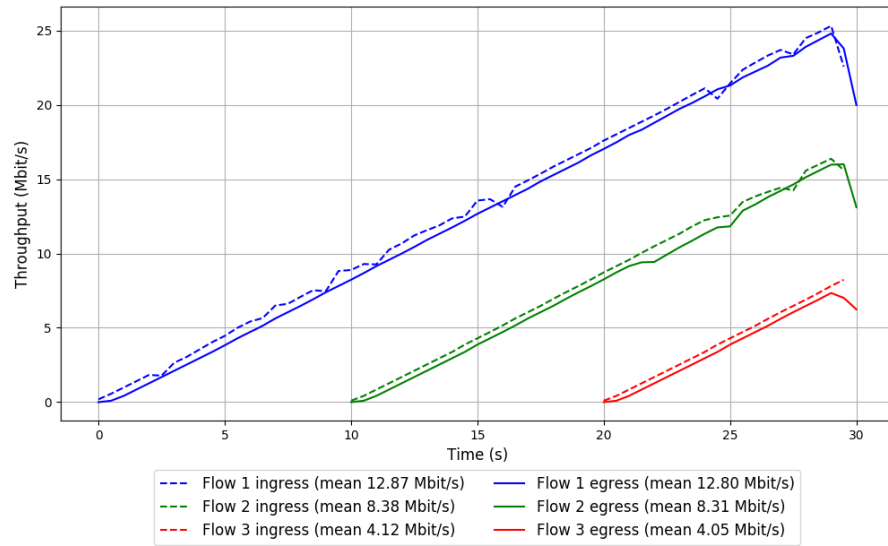
Run 7: Statistics of LEDBAT

Start at: 2018-06-19 11:02:01  
End at: 2018-06-19 11:02:31  
Local clock offset: -1.517 ms  
Remote clock offset: 11.246 ms

# Below is generated by plot.py at 2018-06-19 12:31:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.65 Mbit/s  
95th percentile per-packet one-way delay: 90.773 ms  
Loss rate: 1.41%  
-- Flow 1:  
Average throughput: 12.80 Mbit/s  
95th percentile per-packet one-way delay: 91.310 ms  
Loss rate: 1.10%  
-- Flow 2:  
Average throughput: 8.31 Mbit/s  
95th percentile per-packet one-way delay: 87.132 ms  
Loss rate: 1.64%  
-- Flow 3:  
Average throughput: 4.05 Mbit/s  
95th percentile per-packet one-way delay: 94.375 ms  
Loss rate: 3.42%



# Run 7: Report of LEDBAT — Data Link

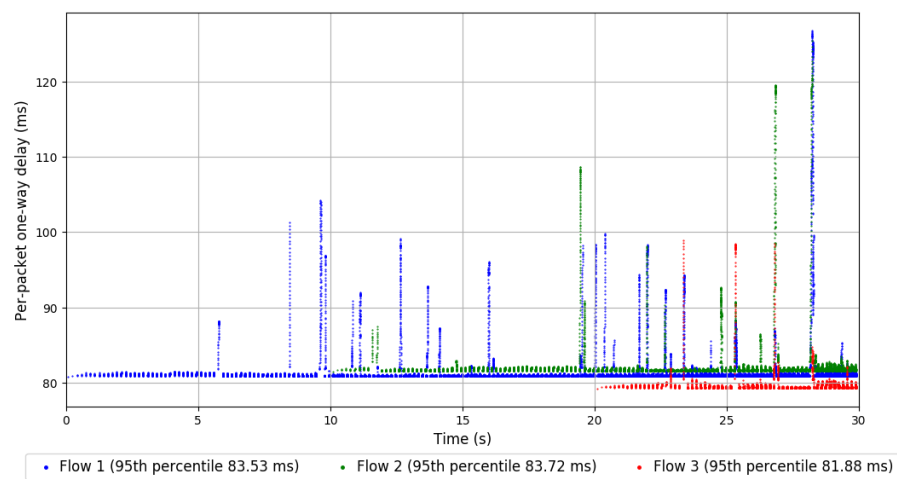
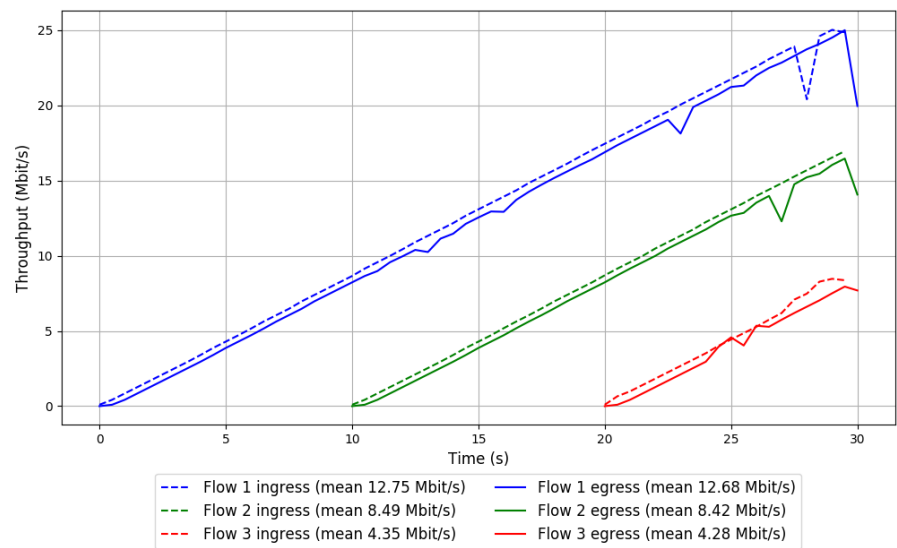


Run 8: Statistics of LEDBAT

Start at: 2018-06-19 11:21:48  
End at: 2018-06-19 11:22:18  
Local clock offset: -2.345 ms  
Remote clock offset: 15.737 ms

# Below is generated by plot.py at 2018-06-19 12:31:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.68 Mbit/s  
95th percentile per-packet one-way delay: 83.460 ms  
Loss rate: 1.43%  
-- Flow 1:  
Average throughput: 12.68 Mbit/s  
95th percentile per-packet one-way delay: 83.525 ms  
Loss rate: 1.11%  
-- Flow 2:  
Average throughput: 8.42 Mbit/s  
95th percentile per-packet one-way delay: 83.718 ms  
Loss rate: 1.68%  
-- Flow 3:  
Average throughput: 4.28 Mbit/s  
95th percentile per-packet one-way delay: 81.878 ms  
Loss rate: 3.33%

Run 8: Report of LEDBAT — Data Link

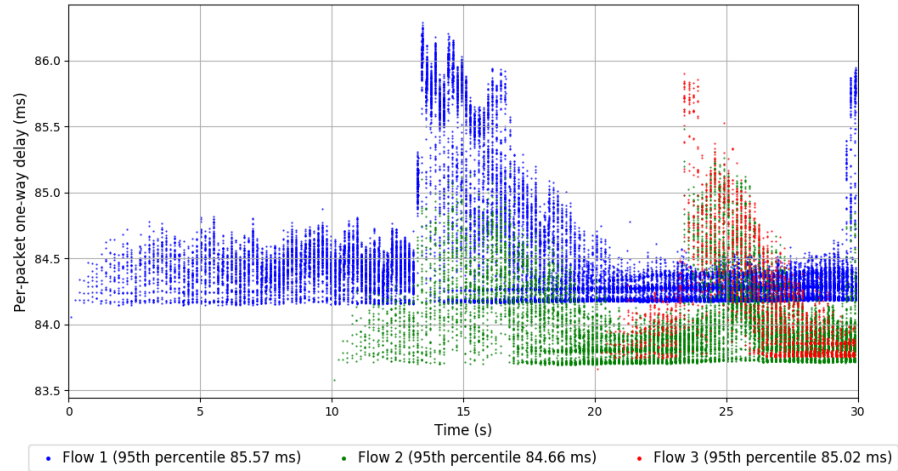
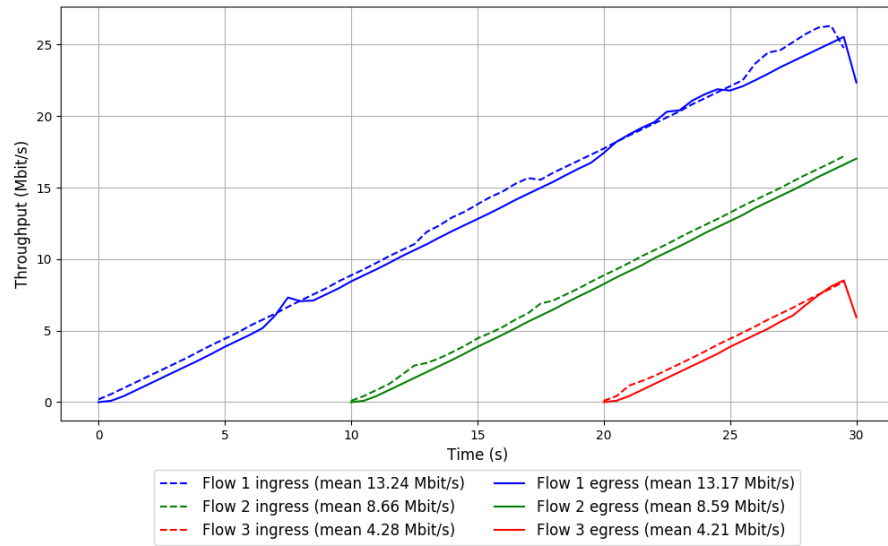


Run 9: Statistics of LEDBAT

Start at: 2018-06-19 11:42:03  
End at: 2018-06-19 11:42:33  
Local clock offset: -2.823 ms  
Remote clock offset: 14.583 ms

# Below is generated by plot.py at 2018-06-19 12:31:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 20.24 Mbit/s  
95th percentile per-packet one-way delay: 85.132 ms  
Loss rate: 1.42%  
-- Flow 1:  
Average throughput: 13.17 Mbit/s  
95th percentile per-packet one-way delay: 85.574 ms  
Loss rate: 1.10%  
-- Flow 2:  
Average throughput: 8.59 Mbit/s  
95th percentile per-packet one-way delay: 84.657 ms  
Loss rate: 1.68%  
-- Flow 3:  
Average throughput: 4.21 Mbit/s  
95th percentile per-packet one-way delay: 85.019 ms  
Loss rate: 3.38%

## Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-06-19 12:02:06

End at: 2018-06-19 12:02:36

Local clock offset: -3.206 ms

Remote clock offset: 5.709 ms

# Below is generated by plot.py at 2018-06-19 12:31:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 20.43 Mbit/s

95th percentile per-packet one-way delay: 84.237 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 13.26 Mbit/s

95th percentile per-packet one-way delay: 82.294 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 8.75 Mbit/s

95th percentile per-packet one-way delay: 84.345 ms

Loss rate: 1.66%

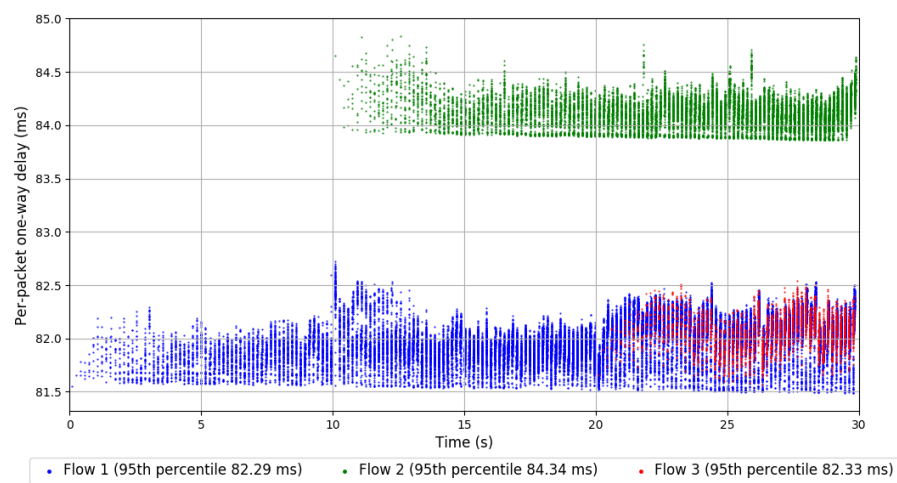
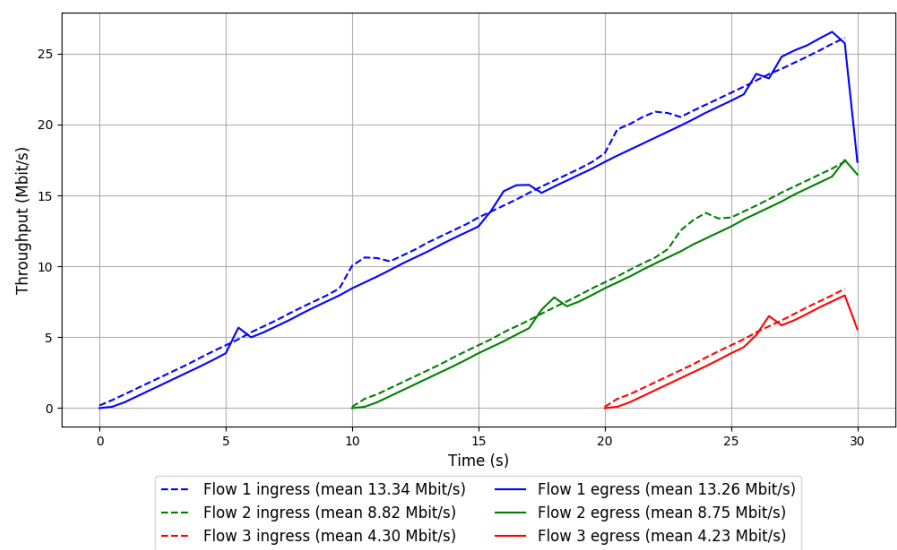
-- Flow 3:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 82.333 ms

Loss rate: 3.37%

Run 10: Report of LEDBAT — Data Link



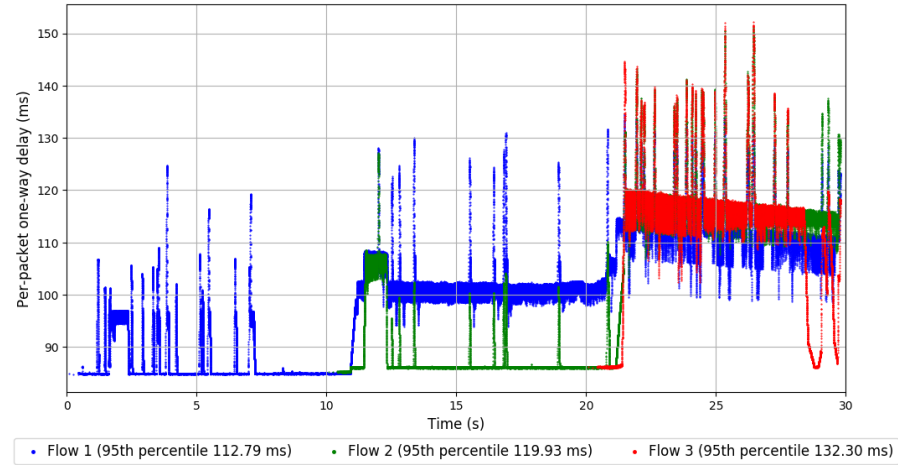
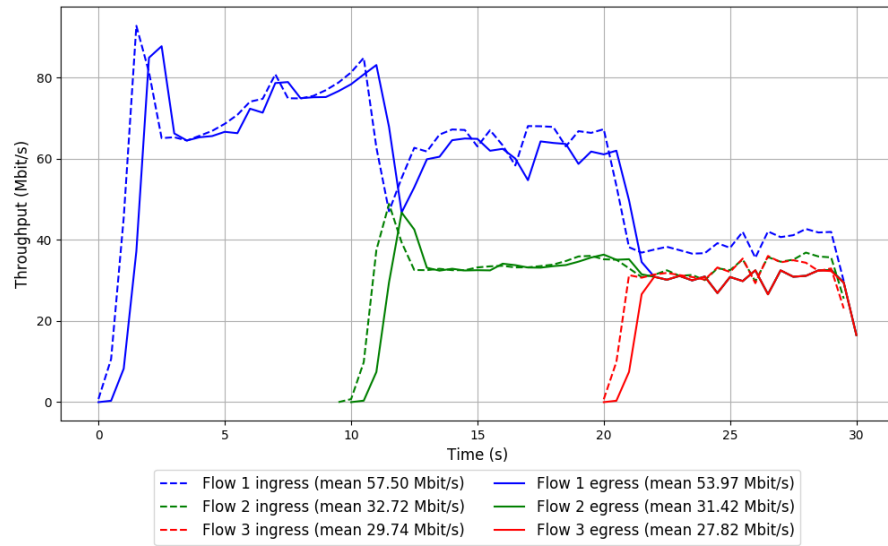
```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-19 09:13:50
End at: 2018-06-19 09:14:20
Local clock offset: -3.215 ms
Remote clock offset: 5.067 ms

# Below is generated by plot.py at 2018-06-19 12:32:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.90 Mbit/s
95th percentile per-packet one-way delay: 117.986 ms
Loss rate: 6.36%
-- Flow 1:
Average throughput: 53.97 Mbit/s
95th percentile per-packet one-way delay: 112.790 ms
Loss rate: 6.65%
-- Flow 2:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 119.934 ms
Loss rate: 4.83%
-- Flow 3:
Average throughput: 27.82 Mbit/s
95th percentile per-packet one-way delay: 132.296 ms
Loss rate: 8.01%
```



# Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-06-19 09:33:38

End at: 2018-06-19 09:34:08

Local clock offset: -3.58 ms

Remote clock offset: 9.583 ms

# Below is generated by plot.py at 2018-06-19 12:32:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.61 Mbit/s

95th percentile per-packet one-way delay: 112.937 ms

Loss rate: 6.59%

-- Flow 1:

Average throughput: 51.22 Mbit/s

95th percentile per-packet one-way delay: 106.058 ms

Loss rate: 6.97%

-- Flow 2:

Average throughput: 32.23 Mbit/s

95th percentile per-packet one-way delay: 119.785 ms

Loss rate: 4.81%

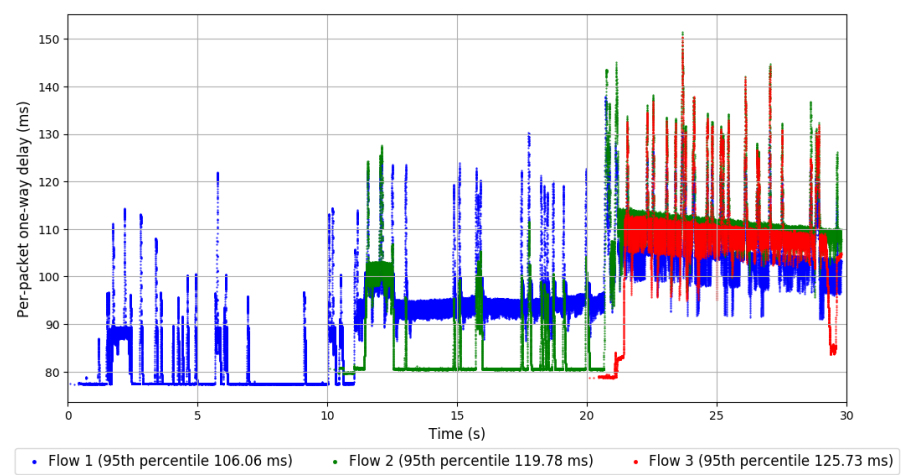
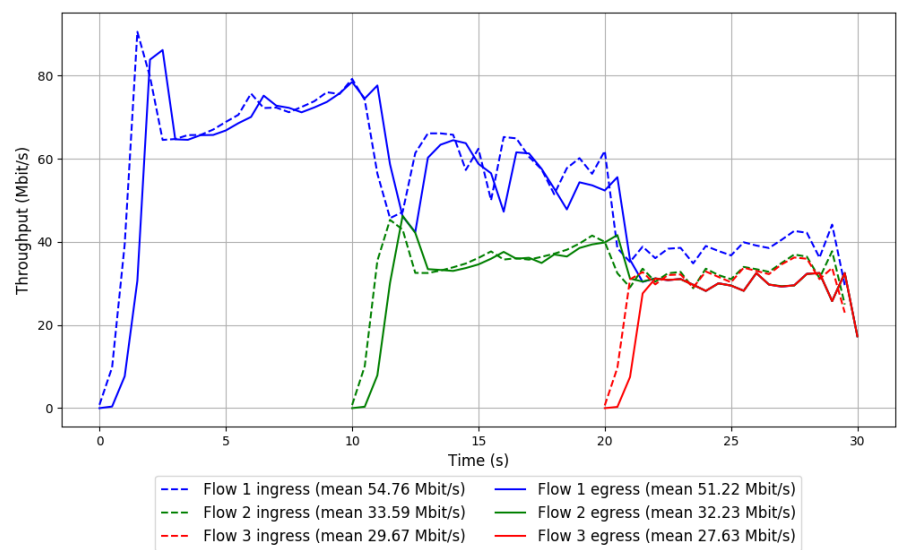
-- Flow 3:

Average throughput: 27.63 Mbit/s

95th percentile per-packet one-way delay: 125.731 ms

Loss rate: 8.52%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-06-19 09:53:34

End at: 2018-06-19 09:54:04

Local clock offset: -1.899 ms

Remote clock offset: 4.254 ms

# Below is generated by plot.py at 2018-06-19 12:32:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.09 Mbit/s

95th percentile per-packet one-way delay: 111.530 ms

Loss rate: 4.90%

-- Flow 1:

Average throughput: 52.79 Mbit/s

95th percentile per-packet one-way delay: 111.156 ms

Loss rate: 6.69%

-- Flow 2:

Average throughput: 32.81 Mbit/s

95th percentile per-packet one-way delay: 111.803 ms

Loss rate: 1.08%

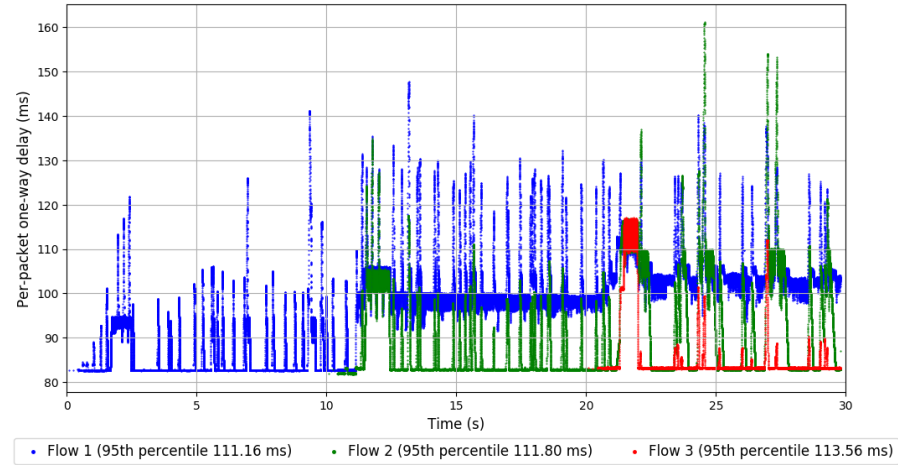
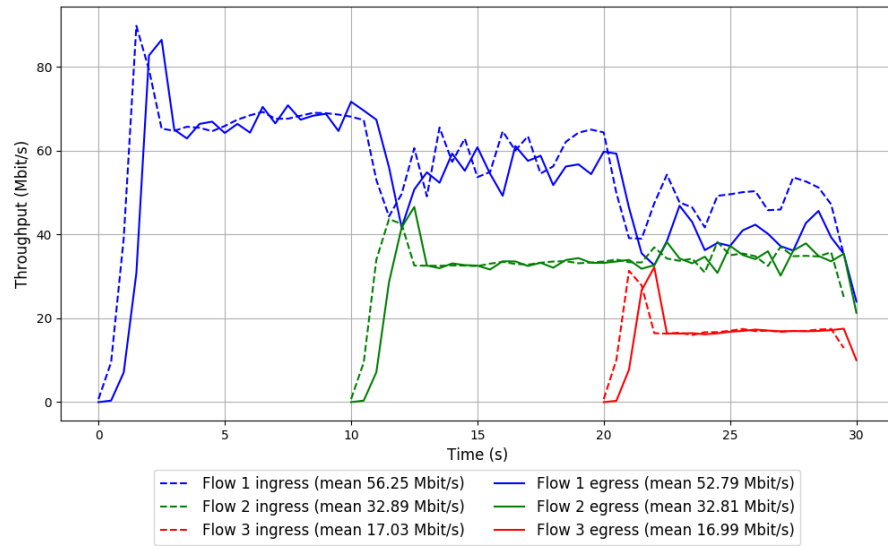
-- Flow 3:

Average throughput: 16.99 Mbit/s

95th percentile per-packet one-way delay: 113.562 ms

Loss rate: 1.85%

### Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-06-19 10:13:23

End at: 2018-06-19 10:13:53

Local clock offset: -1.791 ms

Remote clock offset: 3.731 ms

# Below is generated by plot.py at 2018-06-19 12:32:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.18 Mbit/s

95th percentile per-packet one-way delay: 115.175 ms

Loss rate: 5.62%

-- Flow 1:

Average throughput: 51.96 Mbit/s

95th percentile per-packet one-way delay: 111.249 ms

Loss rate: 7.01%

-- Flow 2:

Average throughput: 34.42 Mbit/s

95th percentile per-packet one-way delay: 118.804 ms

Loss rate: 3.17%

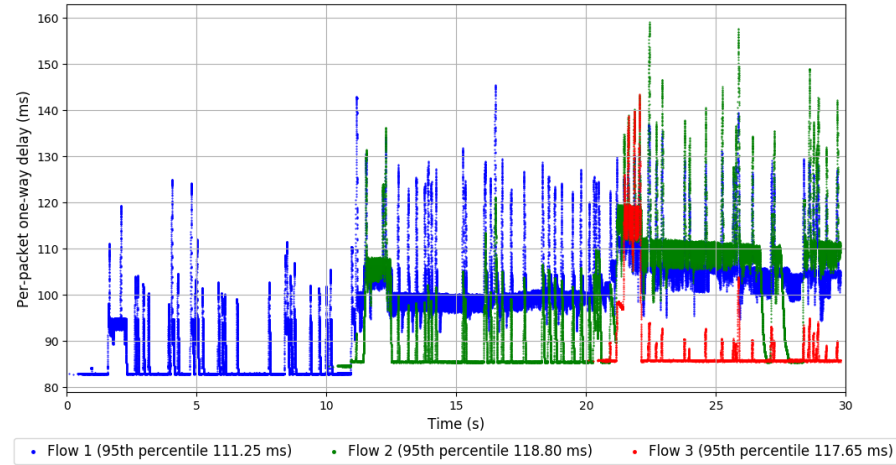
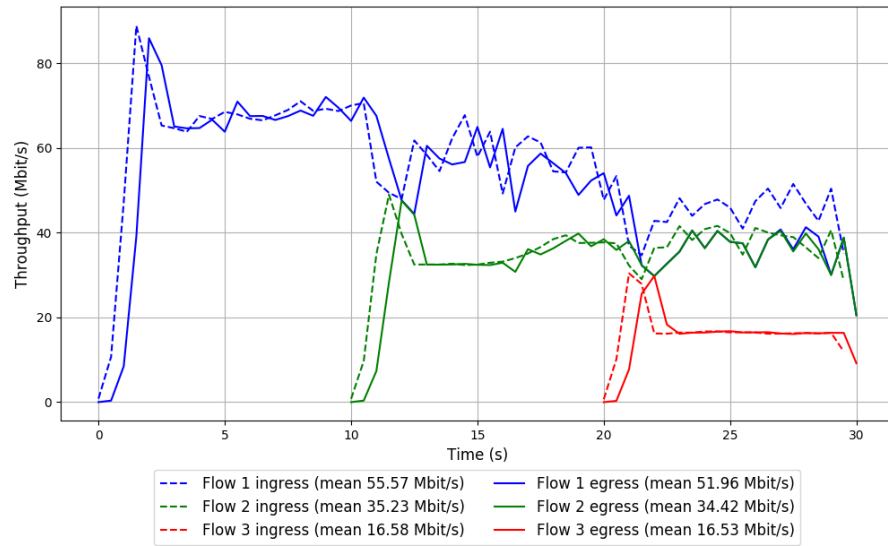
-- Flow 3:

Average throughput: 16.53 Mbit/s

95th percentile per-packet one-way delay: 117.652 ms

Loss rate: 1.95%

# Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-06-19 10:33:17

End at: 2018-06-19 10:33:47

Local clock offset: -1.745 ms

Remote clock offset: 3.636 ms

# Below is generated by plot.py at 2018-06-19 12:32:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.72 Mbit/s

95th percentile per-packet one-way delay: 114.436 ms

Loss rate: 5.13%

-- Flow 1:

Average throughput: 52.83 Mbit/s

95th percentile per-packet one-way delay: 113.427 ms

Loss rate: 6.92%

-- Flow 2:

Average throughput: 31.67 Mbit/s

95th percentile per-packet one-way delay: 115.680 ms

Loss rate: 1.05%

-- Flow 3:

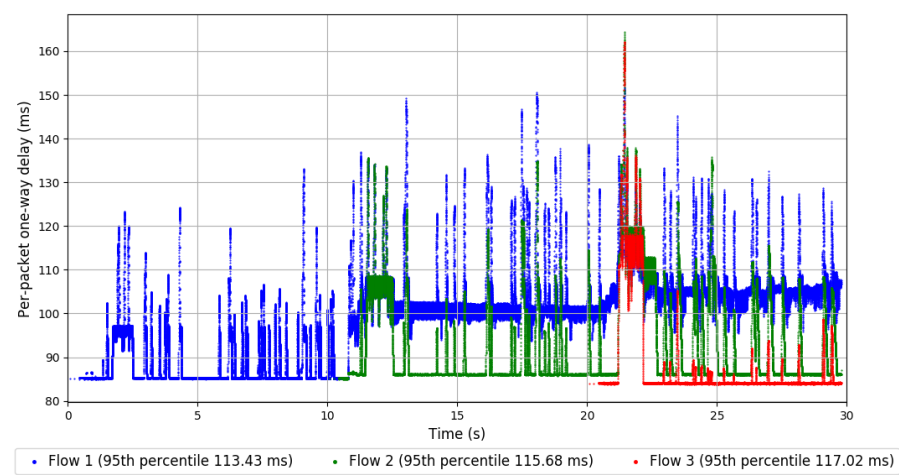
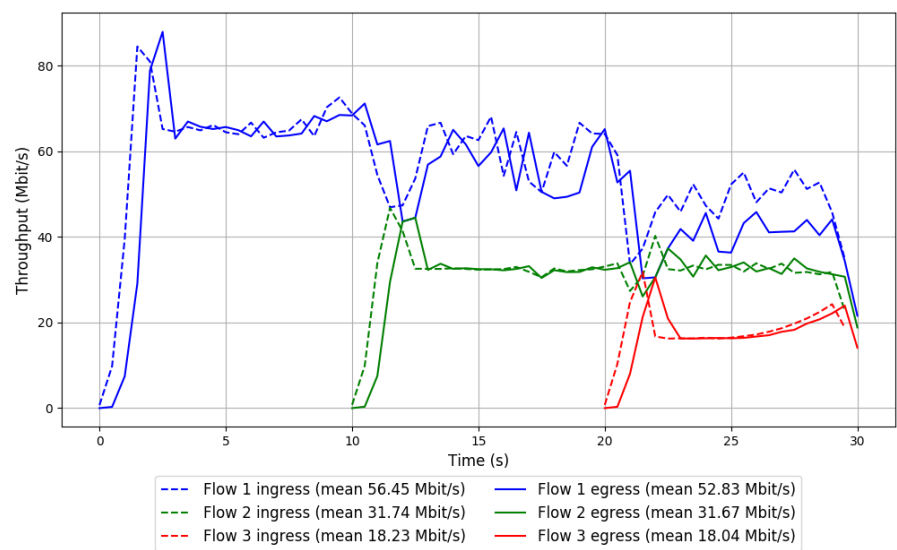
Average throughput: 18.04 Mbit/s

95th percentile per-packet one-way delay: 117.019 ms

Loss rate: 2.66%



Run 5: Report of PCC-Allegro — Data Link



Run 6: Statistics of PCC-Allegro

Start at: 2018-06-19 10:53:15

End at: 2018-06-19 10:53:45

Local clock offset: -1.515 ms

Remote clock offset: 10.21 ms

# Below is generated by plot.py at 2018-06-19 12:32:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.93 Mbit/s

95th percentile per-packet one-way delay: 117.426 ms

Loss rate: 6.63%

-- Flow 1:

Average throughput: 49.79 Mbit/s

95th percentile per-packet one-way delay: 110.807 ms

Loss rate: 7.04%

-- Flow 2:

Average throughput: 31.95 Mbit/s

95th percentile per-packet one-way delay: 120.865 ms

Loss rate: 4.44%

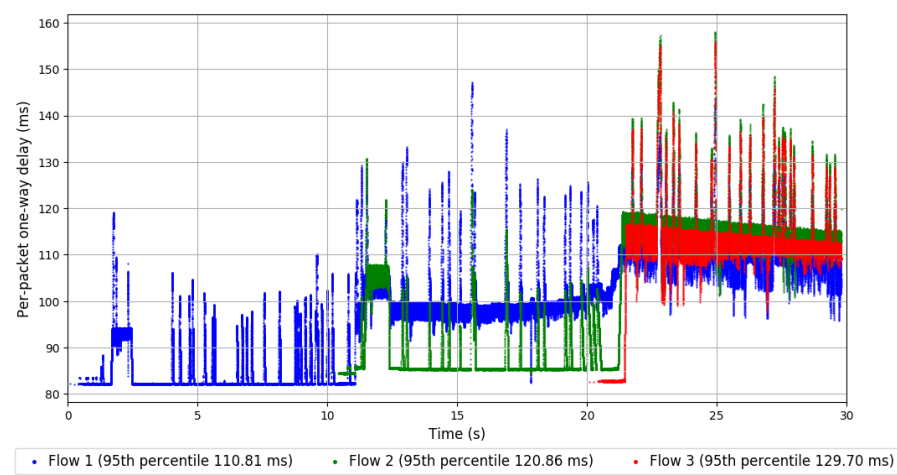
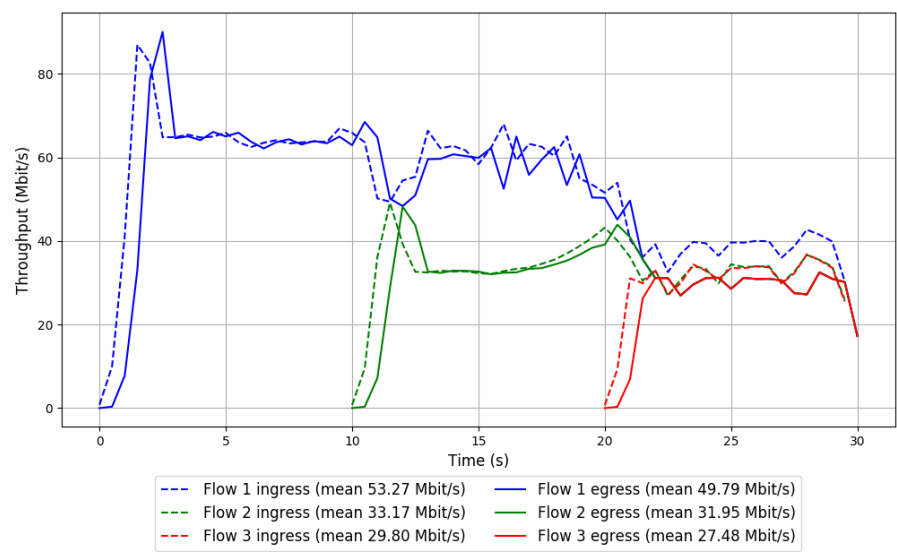
-- Flow 3:

Average throughput: 27.48 Mbit/s

95th percentile per-packet one-way delay: 129.697 ms

Loss rate: 9.30%

Run 6: Report of PCC-Allegro — Data Link

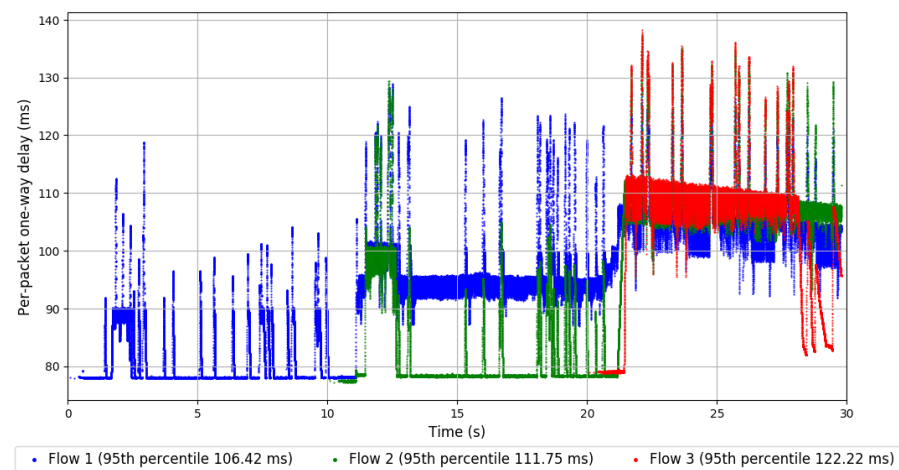
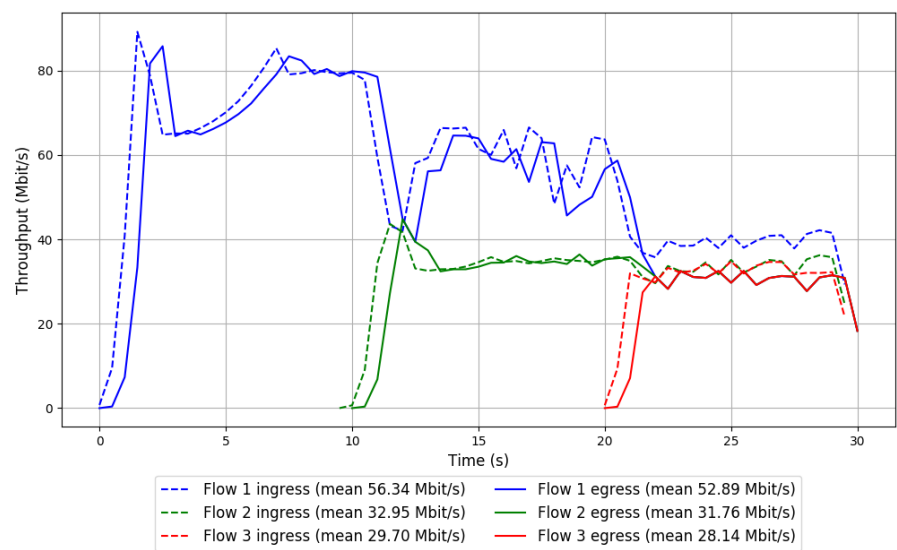


Run 7: Statistics of PCC-Allegro

Start at: 2018-06-19 11:13:03  
End at: 2018-06-19 11:13:33  
Local clock offset: -2.111 ms  
Remote clock offset: 16.278 ms

# Below is generated by plot.py at 2018-06-19 12:32:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 83.13 Mbit/s  
95th percentile per-packet one-way delay: 110.800 ms  
Loss rate: 6.11%  
-- Flow 1:  
Average throughput: 52.89 Mbit/s  
95th percentile per-packet one-way delay: 106.419 ms  
Loss rate: 6.64%  
-- Flow 2:  
Average throughput: 31.76 Mbit/s  
95th percentile per-packet one-way delay: 111.753 ms  
Loss rate: 4.38%  
-- Flow 3:  
Average throughput: 28.14 Mbit/s  
95th percentile per-packet one-way delay: 122.223 ms  
Loss rate: 6.92%

Run 7: Report of PCC-Allegro — Data Link

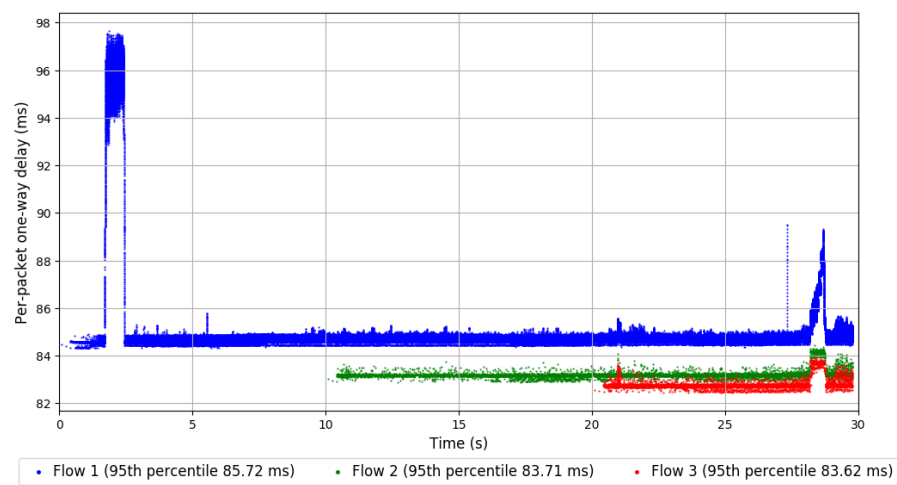
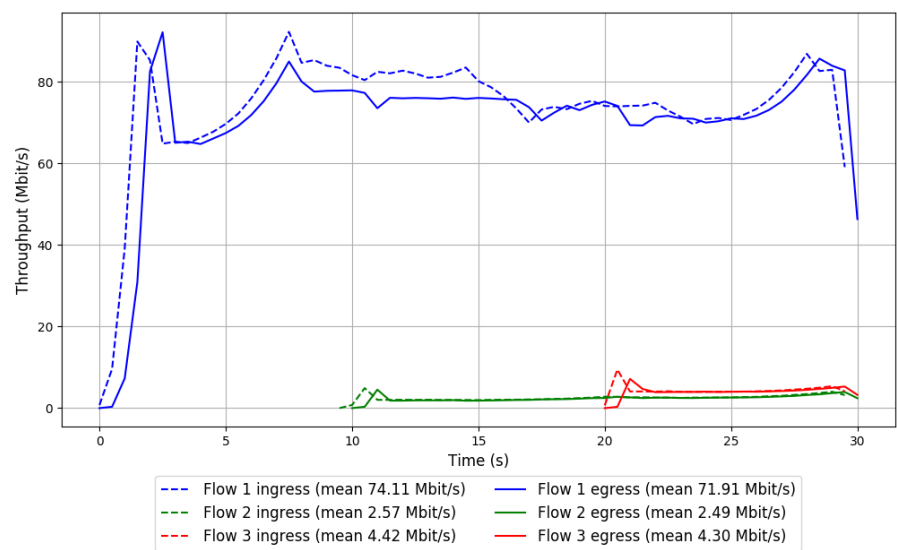


Run 8: Statistics of PCC-Allegro

Start at: 2018-06-19 11:32:55  
End at: 2018-06-19 11:33:25  
Local clock offset: -2.462 ms  
Remote clock offset: 12.799 ms

```
# Below is generated by plot.py at 2018-06-19 12:32:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.96 Mbit/s
95th percentile per-packet one-way delay: 85.541 ms
Loss rate: 3.53%
-- Flow 1:
Average throughput: 71.91 Mbit/s
95th percentile per-packet one-way delay: 85.722 ms
Loss rate: 3.51%
-- Flow 2:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 83.710 ms
Loss rate: 3.98%
-- Flow 3:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 83.619 ms
Loss rate: 4.24%
```

Run 8: Report of PCC-Allegro — Data Link



Run 9: Statistics of PCC-Allegro

Start at: 2018-06-19 11:53:08

End at: 2018-06-19 11:53:38

Local clock offset: -3.044 ms

Remote clock offset: 7.64 ms

# Below is generated by plot.py at 2018-06-19 12:33:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.12 Mbit/s

95th percentile per-packet one-way delay: 85.086 ms

Loss rate: 2.46%

-- Flow 1:

Average throughput: 69.96 Mbit/s

95th percentile per-packet one-way delay: 84.955 ms

Loss rate: 2.42%

-- Flow 2:

Average throughput: 3.95 Mbit/s

95th percentile per-packet one-way delay: 85.214 ms

Loss rate: 2.83%

-- Flow 3:

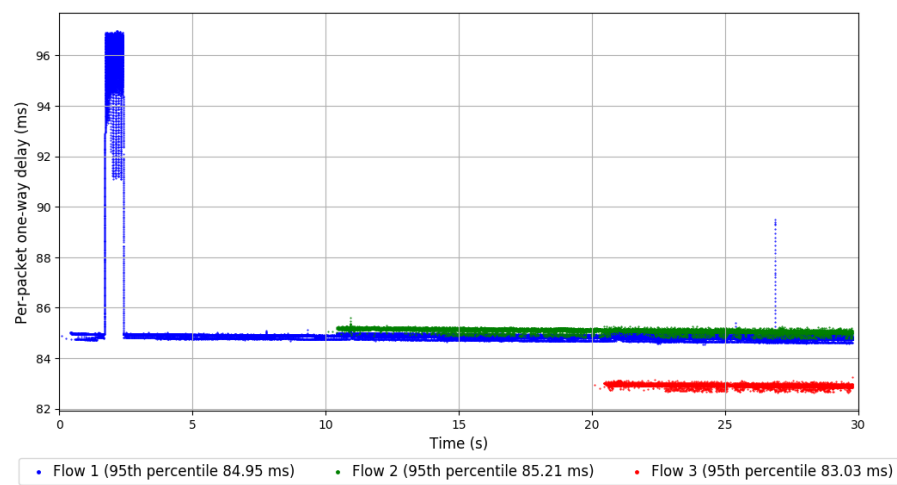
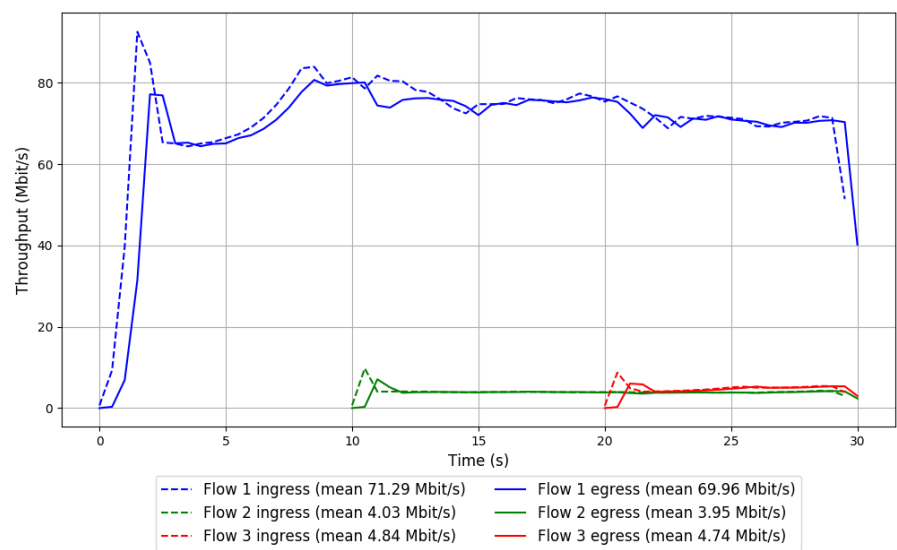
Average throughput: 4.74 Mbit/s

95th percentile per-packet one-way delay: 83.028 ms

Loss rate: 3.73%



Run 9: Report of PCC-Allegro — Data Link



Run 10: Statistics of PCC-Allegro

Start at: 2018-06-19 12:13:11

End at: 2018-06-19 12:13:41

Local clock offset: -2.846 ms

Remote clock offset: 7.828 ms

# Below is generated by plot.py at 2018-06-19 12:33:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.22 Mbit/s

95th percentile per-packet one-way delay: 109.609 ms

Loss rate: 5.71%

-- Flow 1:

Average throughput: 55.25 Mbit/s

95th percentile per-packet one-way delay: 104.070 ms

Loss rate: 6.46%

-- Flow 2:

Average throughput: 35.24 Mbit/s

95th percentile per-packet one-way delay: 109.930 ms

Loss rate: 4.57%

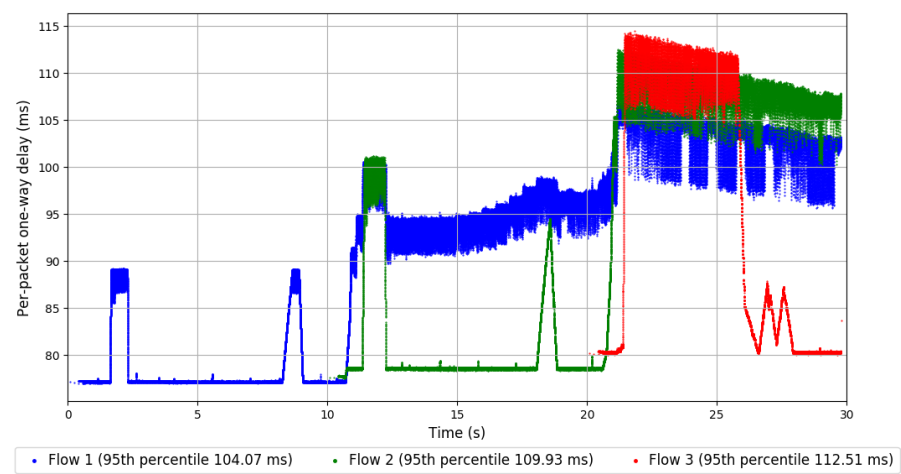
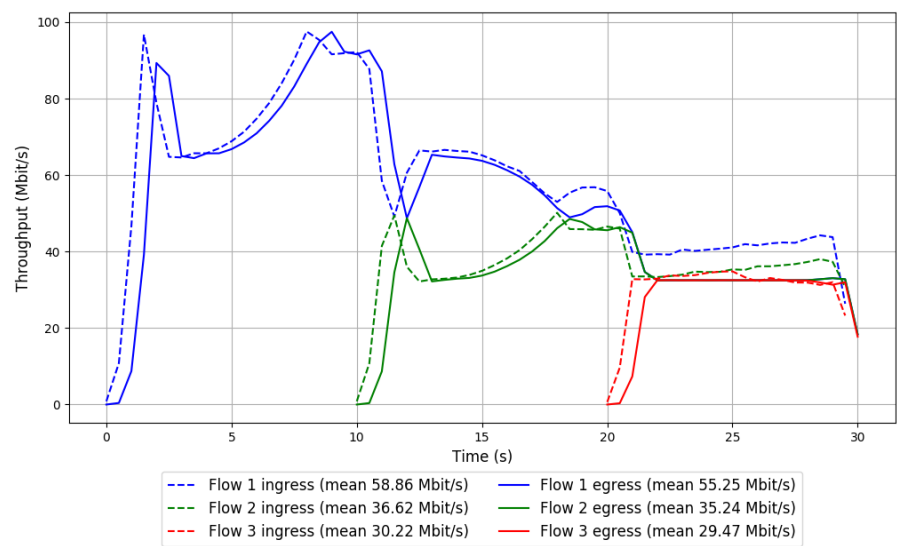
-- Flow 3:

Average throughput: 29.47 Mbit/s

95th percentile per-packet one-way delay: 112.514 ms

Loss rate: 4.09%

Run 10: Report of PCC-Allegro — Data Link

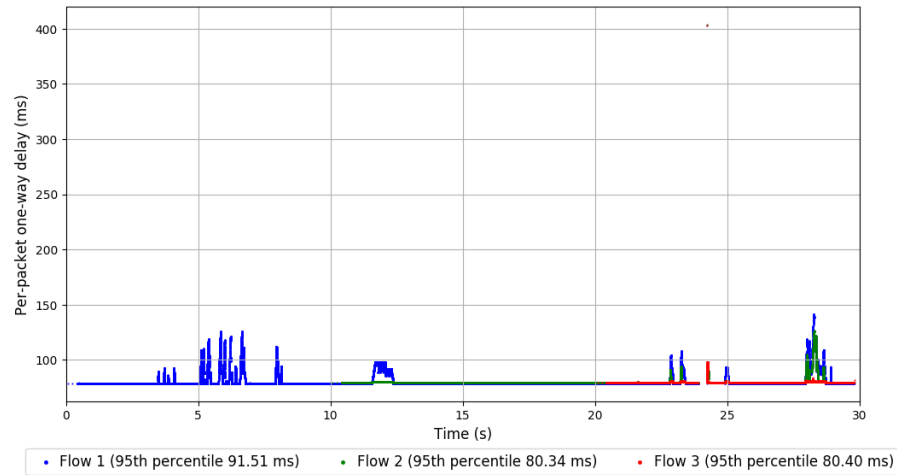
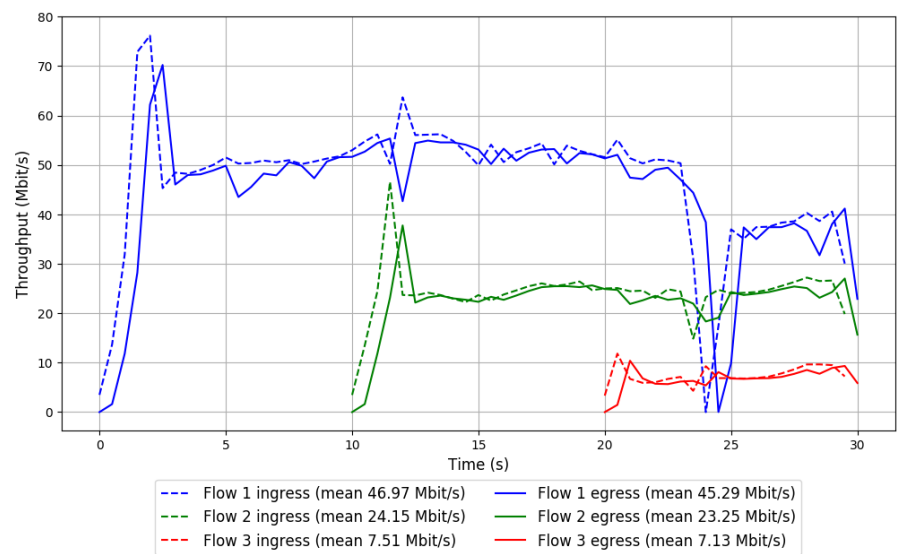


```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-19 09:07:41
End at: 2018-06-19 09:08:11
Local clock offset: -3.036 ms
Remote clock offset: 8.903 ms

# Below is generated by plot.py at 2018-06-19 12:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.04 Mbit/s
95th percentile per-packet one-way delay: 89.517 ms
Loss rate: 4.31%
-- Flow 1:
Average throughput: 45.29 Mbit/s
95th percentile per-packet one-way delay: 91.506 ms
Loss rate: 4.11%
-- Flow 2:
Average throughput: 23.25 Mbit/s
95th percentile per-packet one-way delay: 80.345 ms
Loss rate: 4.53%
-- Flow 3:
Average throughput: 7.13 Mbit/s
95th percentile per-packet one-way delay: 80.400 ms
Loss rate: 6.63%
```

Run 1: Report of PCC-Expr — Data Link

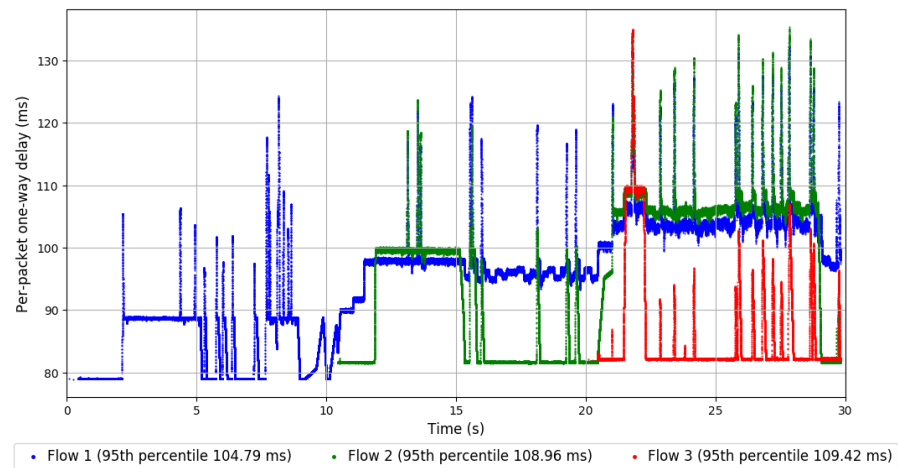
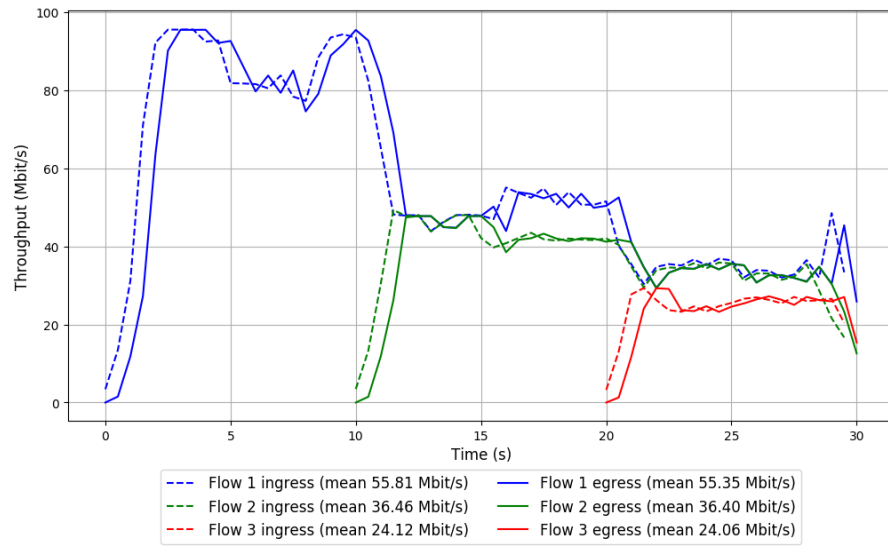


```
Run 2: Statistics of PCC-Expr

Start at: 2018-06-19 09:27:28
End at: 2018-06-19 09:27:58
Local clock offset: -3.502 ms
Remote clock offset: 9.23 ms

# Below is generated by plot.py at 2018-06-19 12:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.35 Mbit/s
95th percentile per-packet one-way delay: 107.001 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 55.35 Mbit/s
95th percentile per-packet one-way delay: 104.794 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 36.40 Mbit/s
95th percentile per-packet one-way delay: 108.961 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 109.419 ms
Loss rate: 1.93%
```

## Run 2: Report of PCC-Expr — Data Link



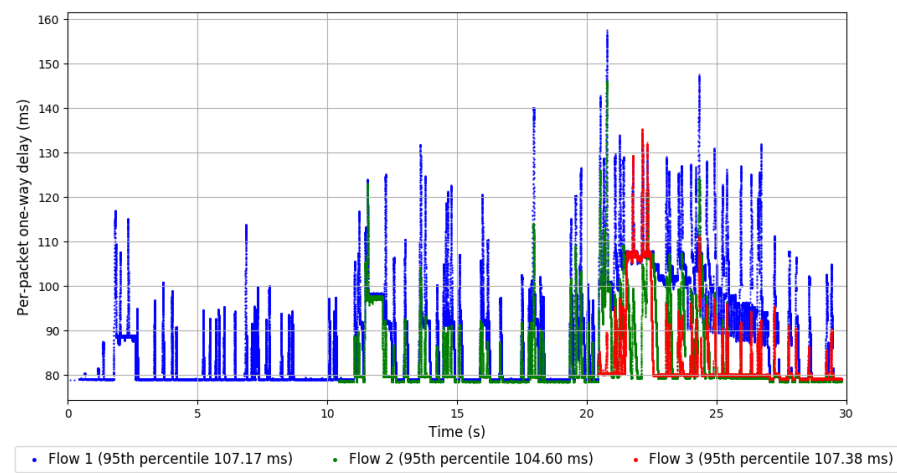
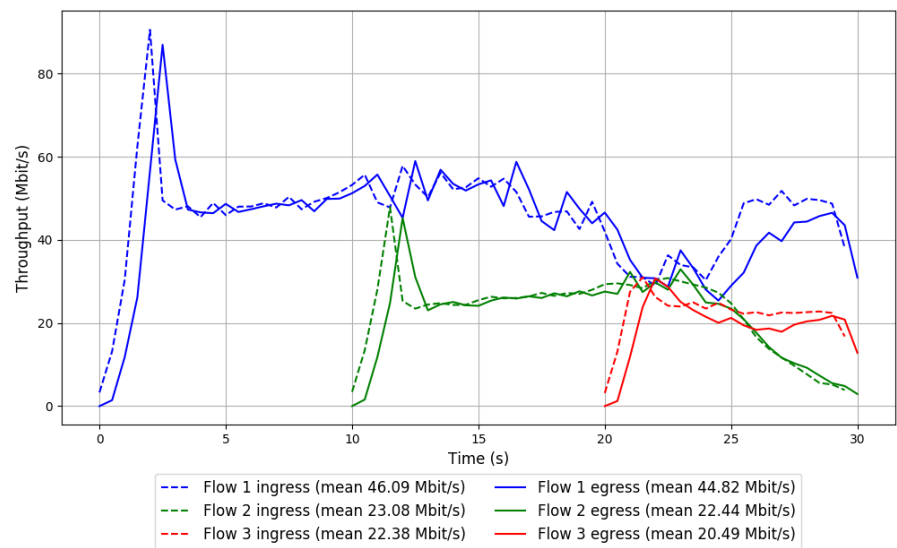
Run 3: Statistics of PCC-Expr

Start at: 2018-06-19 09:47:15  
End at: 2018-06-19 09:47:45  
Local clock offset: -2.1 ms  
Remote clock offset: 10.201 ms

# Below is generated by plot.py at 2018-06-19 12:34:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 66.40 Mbit/s  
95th percentile per-packet one-way delay: 107.041 ms  
Loss rate: 4.07%  
-- Flow 1:  
Average throughput: 44.82 Mbit/s  
95th percentile per-packet one-way delay: 107.175 ms  
Loss rate: 3.29%  
-- Flow 2:  
Average throughput: 22.44 Mbit/s  
95th percentile per-packet one-way delay: 104.604 ms  
Loss rate: 3.57%  
-- Flow 3:  
Average throughput: 20.49 Mbit/s  
95th percentile per-packet one-way delay: 107.380 ms  
Loss rate: 9.97%



Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-06-19 10:07:14

End at: 2018-06-19 10:07:44

Local clock offset: -1.742 ms

Remote clock offset: 4.988 ms

# Below is generated by plot.py at 2018-06-19 12:34:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 60.25 Mbit/s

95th percentile per-packet one-way delay: 98.959 ms

Loss rate: 6.31%

-- Flow 1:

Average throughput: 44.20 Mbit/s

95th percentile per-packet one-way delay: 100.027 ms

Loss rate: 5.25%

-- Flow 2:

Average throughput: 18.61 Mbit/s

95th percentile per-packet one-way delay: 96.207 ms

Loss rate: 8.38%

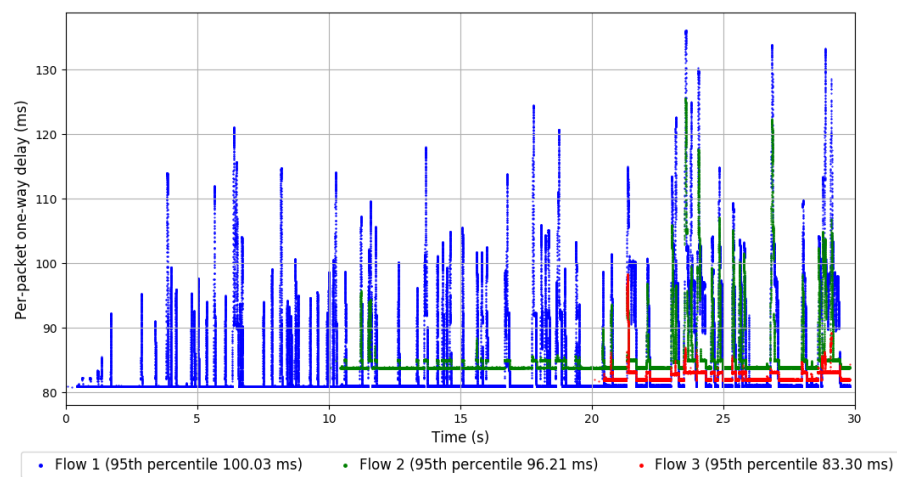
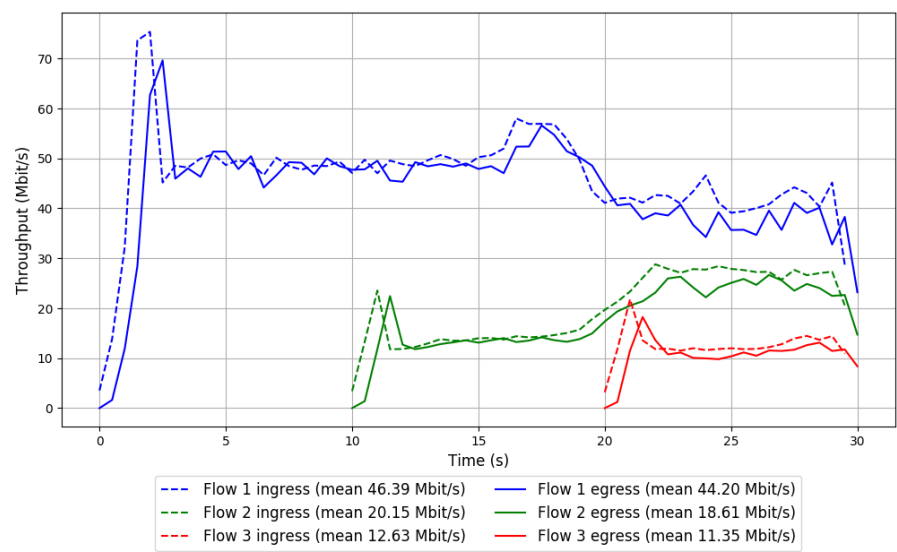
-- Flow 3:

Average throughput: 11.35 Mbit/s

95th percentile per-packet one-way delay: 83.302 ms

Loss rate: 11.53%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-06-19 10:27:06

End at: 2018-06-19 10:27:36

Local clock offset: -1.763 ms

Remote clock offset: 3.534 ms

# Below is generated by plot.py at 2018-06-19 12:34:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 70.68 Mbit/s

95th percentile per-packet one-way delay: 113.705 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 45.26 Mbit/s

95th percentile per-packet one-way delay: 113.499 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 26.64 Mbit/s

95th percentile per-packet one-way delay: 113.866 ms

Loss rate: 0.89%

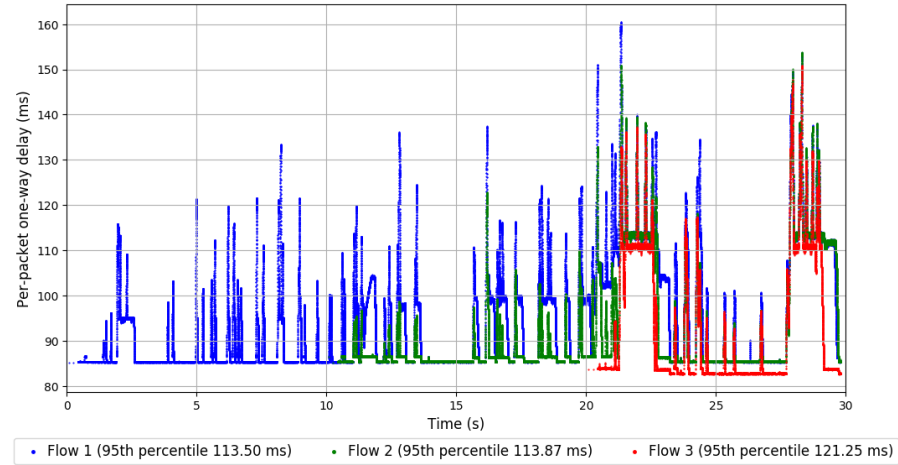
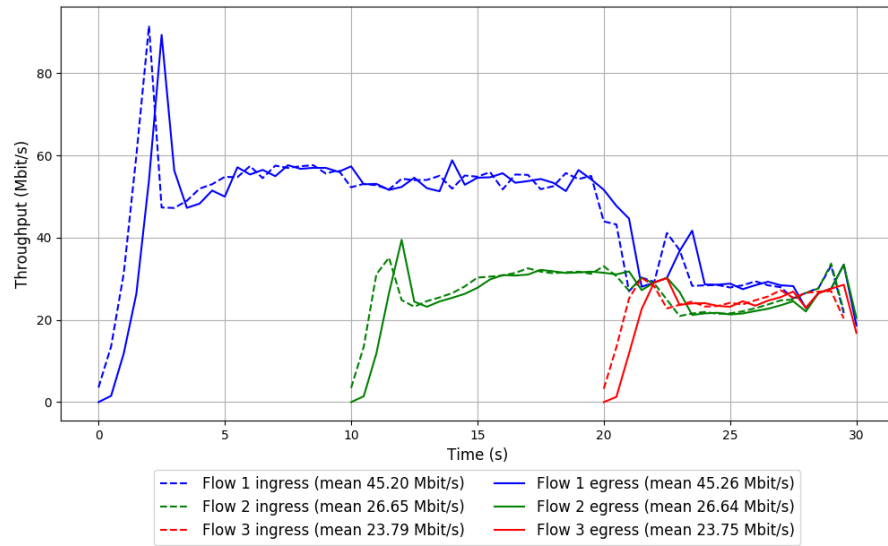
-- Flow 3:

Average throughput: 23.75 Mbit/s

95th percentile per-packet one-way delay: 121.253 ms

Loss rate: 1.82%

# Run 5: Report of PCC-Expr — Data Link



Run 6: Statistics of PCC-Expr

Start at: 2018-06-19 10:46:56

End at: 2018-06-19 10:47:26

Local clock offset: -1.606 ms

Remote clock offset: 7.914 ms

# Below is generated by plot.py at 2018-06-19 12:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.35 Mbit/s

95th percentile per-packet one-way delay: 111.221 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 53.63 Mbit/s

95th percentile per-packet one-way delay: 111.203 ms

Loss rate: 1.18%

-- Flow 2:

Average throughput: 31.72 Mbit/s

95th percentile per-packet one-way delay: 113.750 ms

Loss rate: 0.78%

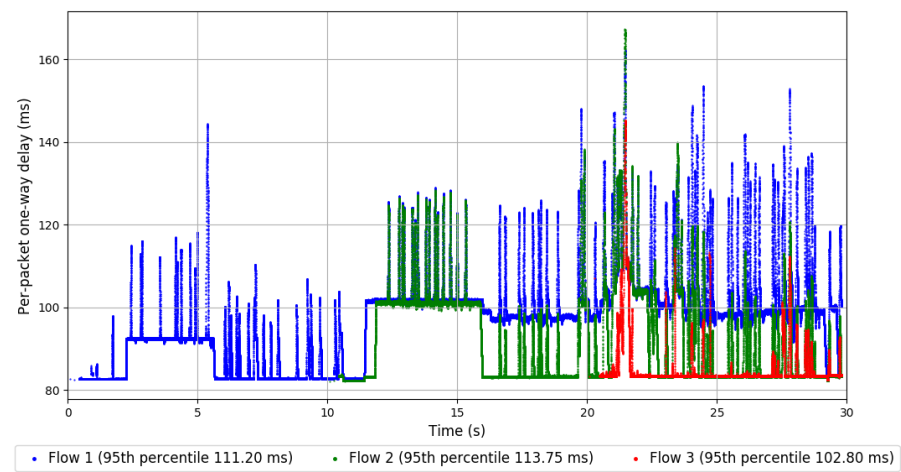
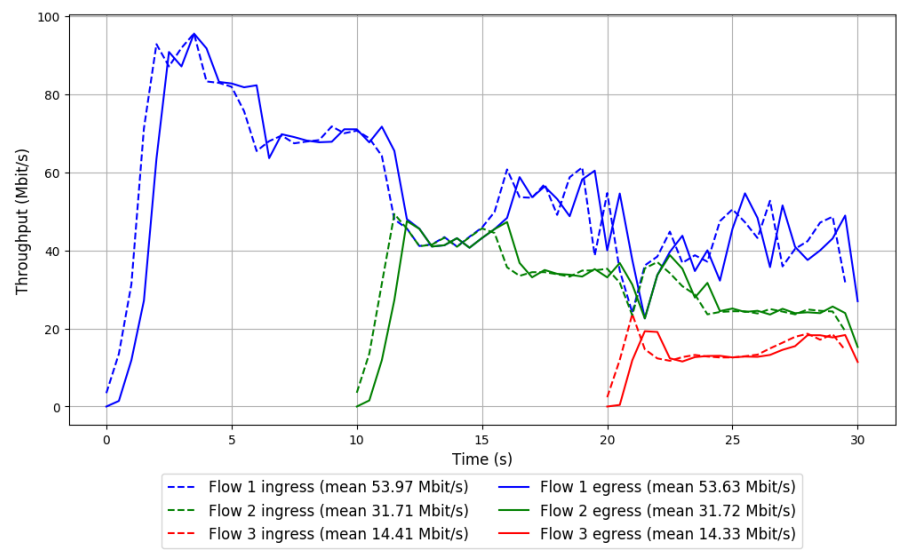
-- Flow 3:

Average throughput: 14.33 Mbit/s

95th percentile per-packet one-way delay: 102.801 ms

Loss rate: 2.16%

Run 6: Report of PCC-Expr — Data Link



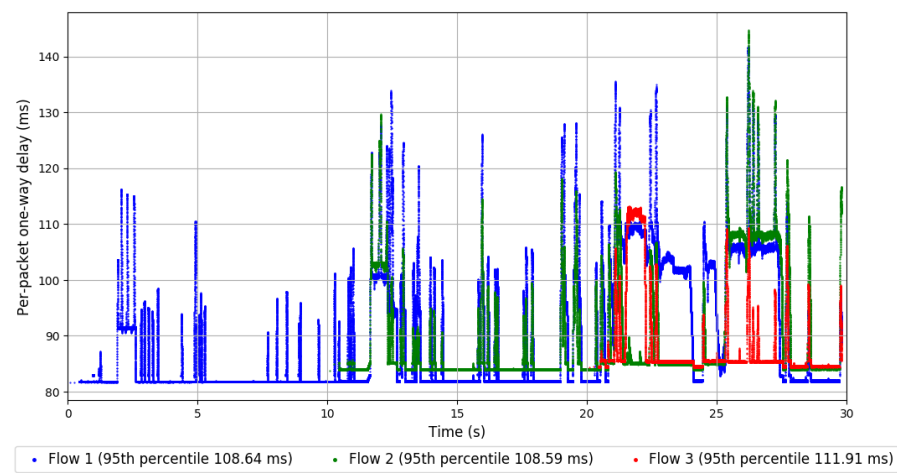
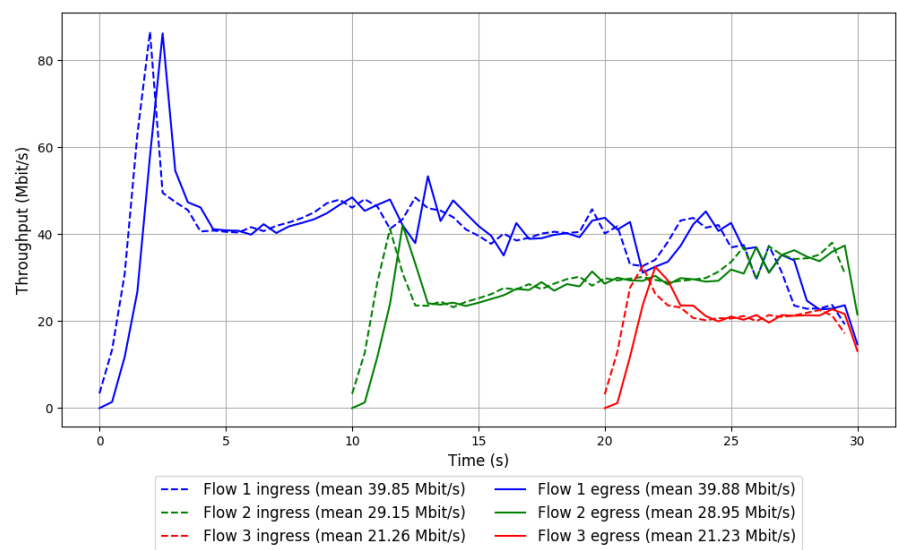
Run 7: Statistics of PCC-Expr

Start at: 2018-06-19 11:06:54  
End at: 2018-06-19 11:07:24  
Local clock offset: -1.707 ms  
Remote clock offset: 11.731 ms

# Below is generated by plot.py at 2018-06-19 12:34:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 66.01 Mbit/s  
95th percentile per-packet one-way delay: 109.288 ms  
Loss rate: 0.91%  
-- Flow 1:  
Average throughput: 39.88 Mbit/s  
95th percentile per-packet one-way delay: 108.637 ms  
Loss rate: 0.47%  
-- Flow 2:  
Average throughput: 28.95 Mbit/s  
95th percentile per-packet one-way delay: 108.591 ms  
Loss rate: 1.49%  
-- Flow 3:  
Average throughput: 21.23 Mbit/s  
95th percentile per-packet one-way delay: 111.908 ms  
Loss rate: 1.82%



Run 7: Report of PCC-Expr — Data Link

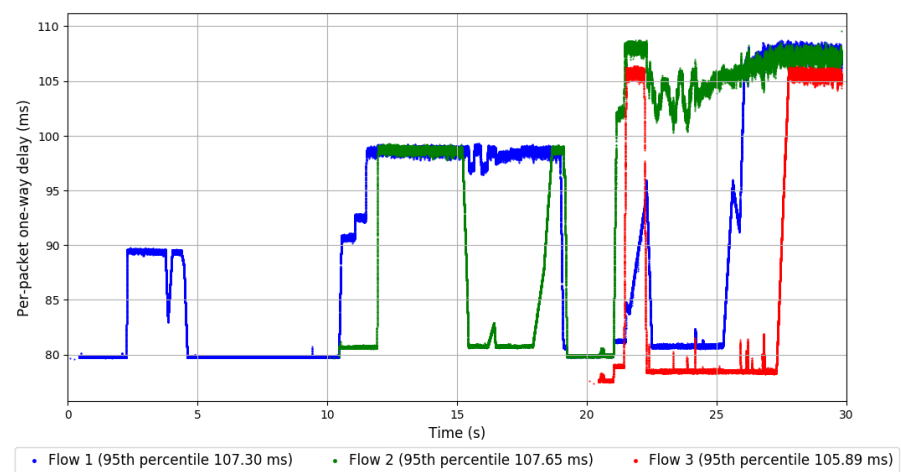
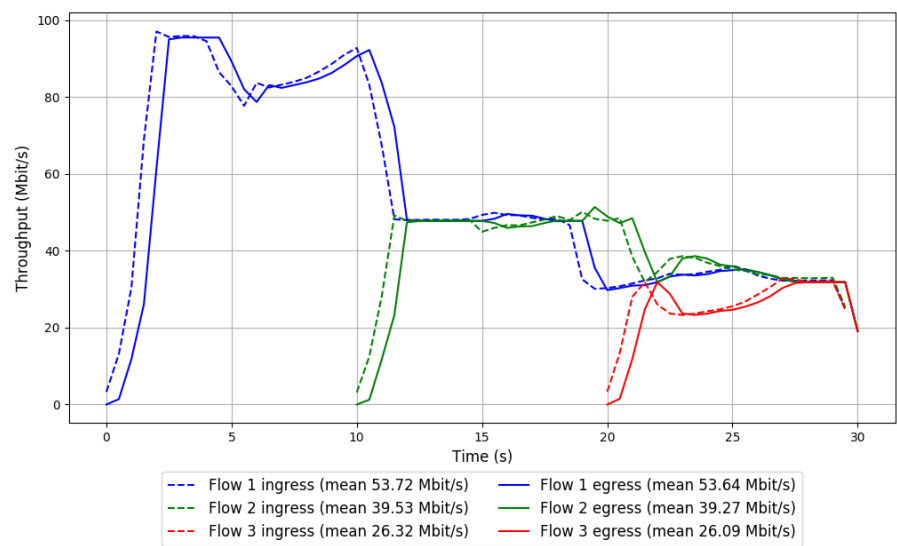


Run 8: Statistics of PCC-Expr

Start at: 2018-06-19 11:26:42  
End at: 2018-06-19 11:27:12  
Local clock offset: -2.392 ms  
Remote clock offset: 17.368 ms

# Below is generated by plot.py at 2018-06-19 12:35:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.22 Mbit/s  
95th percentile per-packet one-way delay: 107.378 ms  
Loss rate: 1.10%  
-- Flow 1:  
Average throughput: 53.64 Mbit/s  
95th percentile per-packet one-way delay: 107.304 ms  
Loss rate: 0.70%  
-- Flow 2:  
Average throughput: 39.27 Mbit/s  
95th percentile per-packet one-way delay: 107.646 ms  
Loss rate: 1.46%  
-- Flow 3:  
Average throughput: 26.09 Mbit/s  
95th percentile per-packet one-way delay: 105.890 ms  
Loss rate: 2.52%

Run 8: Report of PCC-Expr — Data Link



Run 9: Statistics of PCC-Expr

Start at: 2018-06-19 11:46:57

End at: 2018-06-19 11:47:27

Local clock offset: -2.94 ms

Remote clock offset: 11.76 ms

# Below is generated by plot.py at 2018-06-19 12:36:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.38 Mbit/s

95th percentile per-packet one-way delay: 109.014 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 55.35 Mbit/s

95th percentile per-packet one-way delay: 108.641 ms

Loss rate: 1.39%

-- Flow 2:

Average throughput: 36.66 Mbit/s

95th percentile per-packet one-way delay: 107.820 ms

Loss rate: 0.98%

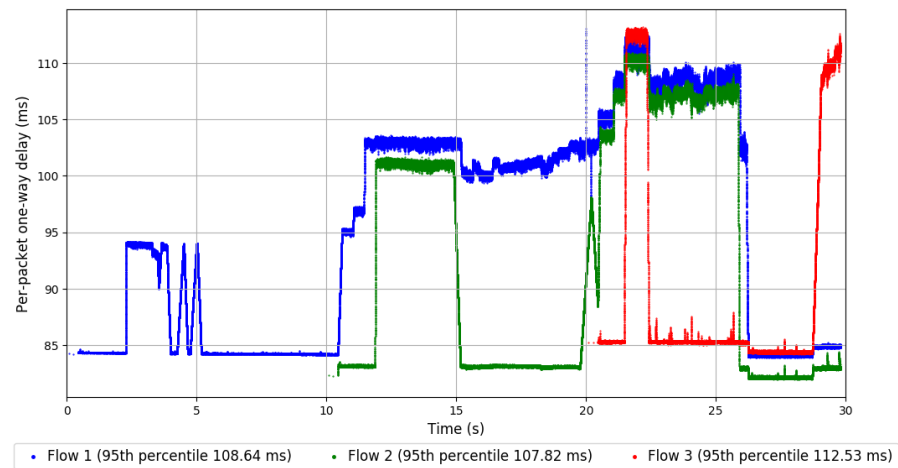
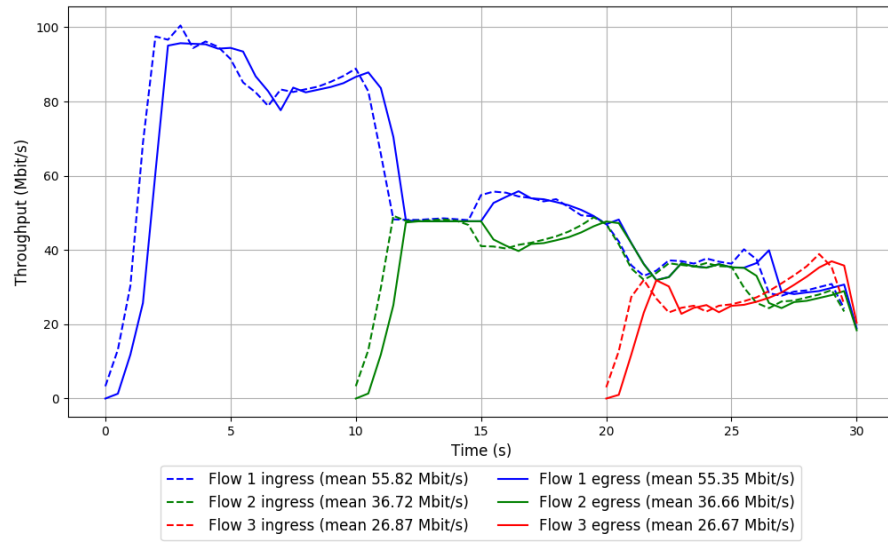
-- Flow 3:

Average throughput: 26.67 Mbit/s

95th percentile per-packet one-way delay: 112.528 ms

Loss rate: 2.41%

# Run 9: Report of PCC-Expr — Data Link



Run 10: Statistics of PCC-Expr

Start at: 2018-06-19 12:06:59

End at: 2018-06-19 12:07:29

Local clock offset: -3.128 ms

Remote clock offset: 3.588 ms

# Below is generated by plot.py at 2018-06-19 12:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.26 Mbit/s

95th percentile per-packet one-way delay: 112.558 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 55.47 Mbit/s

95th percentile per-packet one-way delay: 111.767 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 39.60 Mbit/s

95th percentile per-packet one-way delay: 112.759 ms

Loss rate: 1.06%

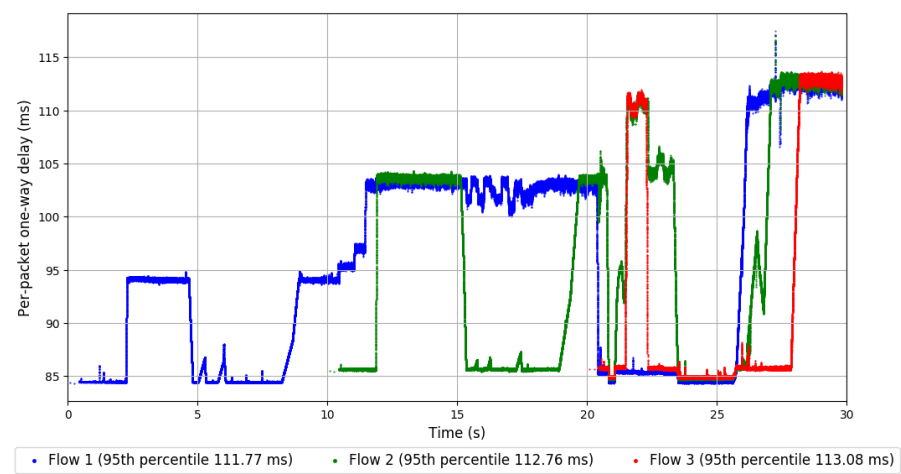
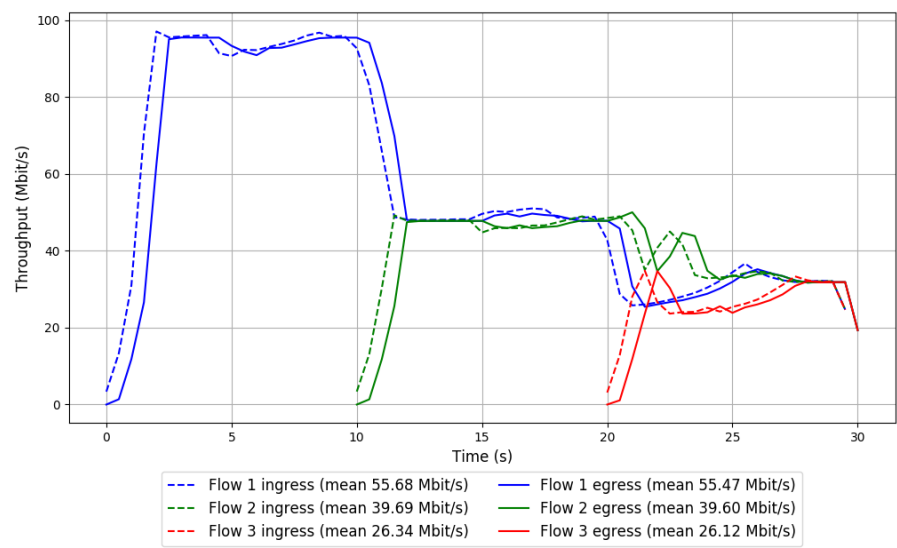
-- Flow 3:

Average throughput: 26.12 Mbit/s

95th percentile per-packet one-way delay: 113.084 ms

Loss rate: 2.47%

Run 10: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-06-19 09:11:25

End at: 2018-06-19 09:11:55

Local clock offset: -3.132 ms

Remote clock offset: 9.927 ms

# Below is generated by plot.py at 2018-06-19 12:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 57.03 Mbit/s

95th percentile per-packet one-way delay: 99.905 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 32.12 Mbit/s

95th percentile per-packet one-way delay: 99.578 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 23.99 Mbit/s

95th percentile per-packet one-way delay: 100.572 ms

Loss rate: 1.08%

-- Flow 3:

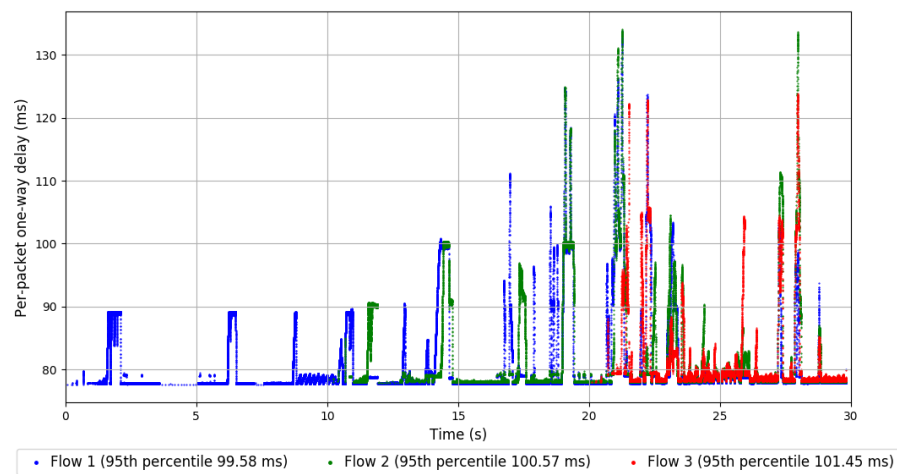
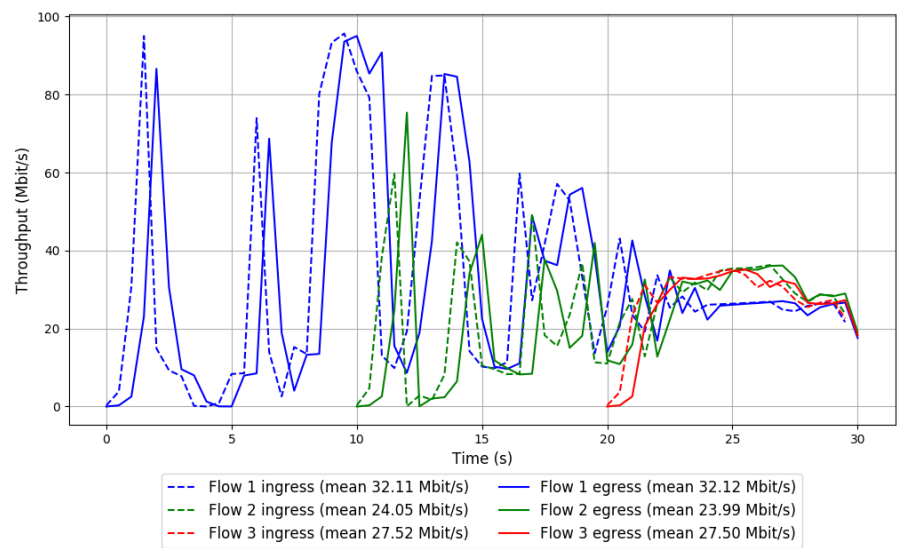
Average throughput: 27.50 Mbit/s

95th percentile per-packet one-way delay: 101.452 ms

Loss rate: 1.70%



Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-06-19 09:31:14

End at: 2018-06-19 09:31:44

Local clock offset: -3.623 ms

Remote clock offset: 9.873 ms

# Below is generated by plot.py at 2018-06-19 12:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 40.85 Mbit/s

95th percentile per-packet one-way delay: 101.830 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 25.25 Mbit/s

95th percentile per-packet one-way delay: 101.775 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 19.62 Mbit/s

95th percentile per-packet one-way delay: 102.133 ms

Loss rate: 1.09%

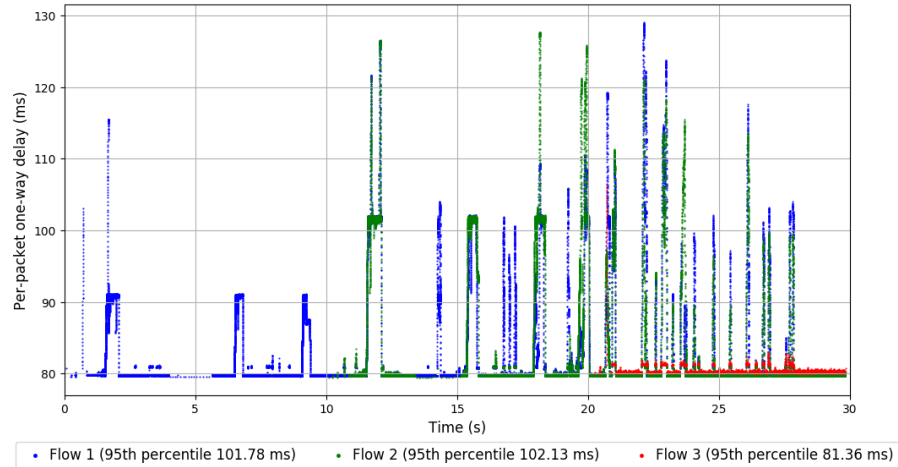
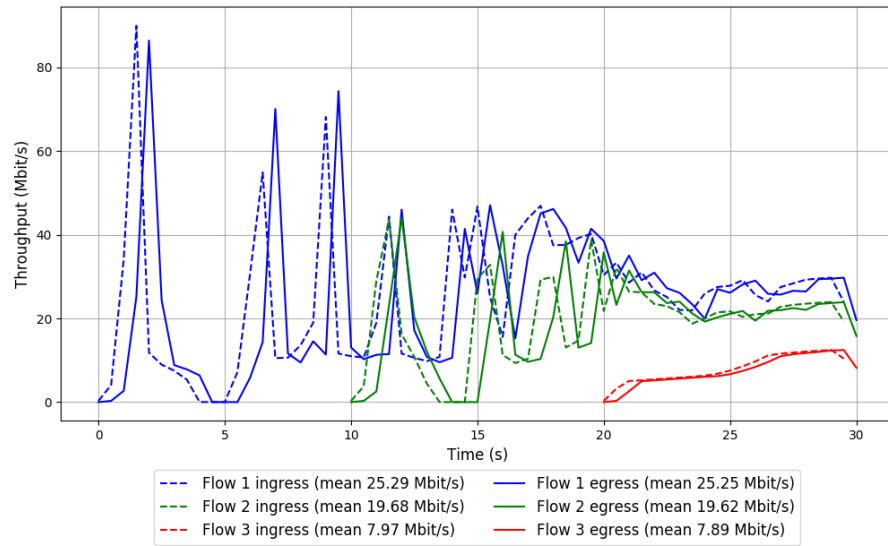
-- Flow 3:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 81.356 ms

Loss rate: 2.64%

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

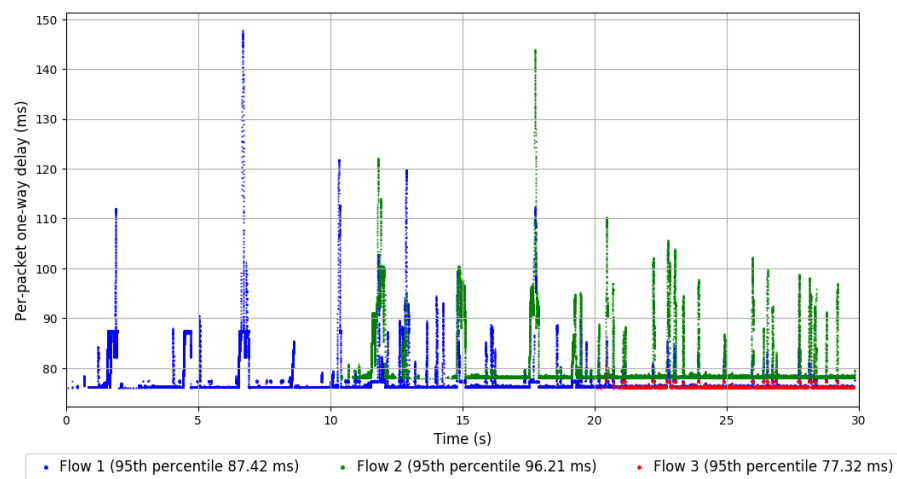
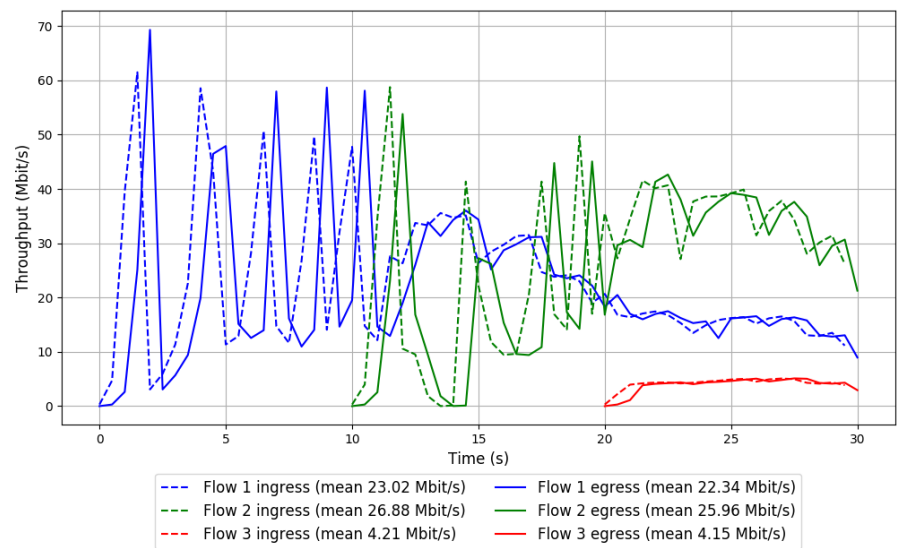


Run 3: Statistics of QUIC Cubic

Start at: 2018-06-19 09:51:10  
End at: 2018-06-19 09:51:40  
Local clock offset: -1.931 ms  
Remote clock offset: 10.142 ms

# Below is generated by plot.py at 2018-06-19 12:36:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 40.92 Mbit/s  
95th percentile per-packet one-way delay: 92.494 ms  
Loss rate: 3.76%  
-- Flow 1:  
Average throughput: 22.34 Mbit/s  
95th percentile per-packet one-way delay: 87.417 ms  
Loss rate: 3.47%  
-- Flow 2:  
Average throughput: 25.96 Mbit/s  
95th percentile per-packet one-way delay: 96.206 ms  
Loss rate: 4.18%  
-- Flow 3:  
Average throughput: 4.15 Mbit/s  
95th percentile per-packet one-way delay: 77.324 ms  
Loss rate: 3.10%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-06-19 10:10:59

End at: 2018-06-19 10:11:29

Local clock offset: -1.746 ms

Remote clock offset: 3.79 ms

# Below is generated by plot.py at 2018-06-19 12:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 48.02 Mbit/s

95th percentile per-packet one-way delay: 111.403 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 21.81 Mbit/s

95th percentile per-packet one-way delay: 105.144 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 28.08 Mbit/s

95th percentile per-packet one-way delay: 108.675 ms

Loss rate: 0.68%

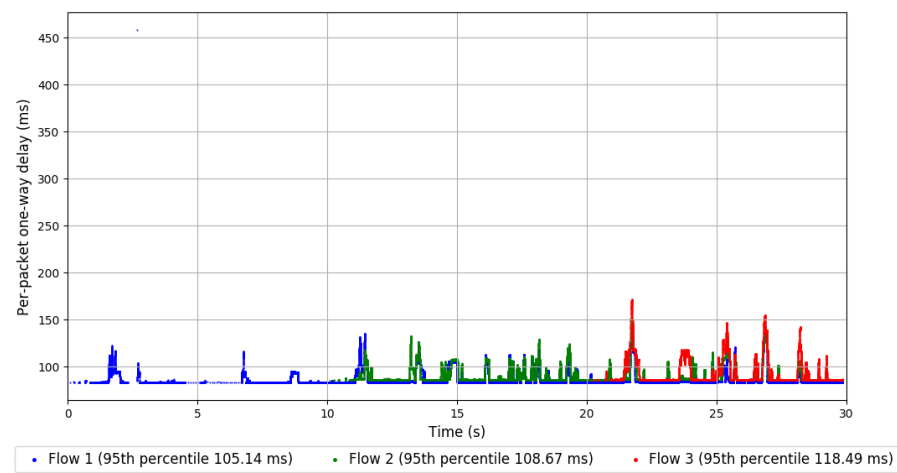
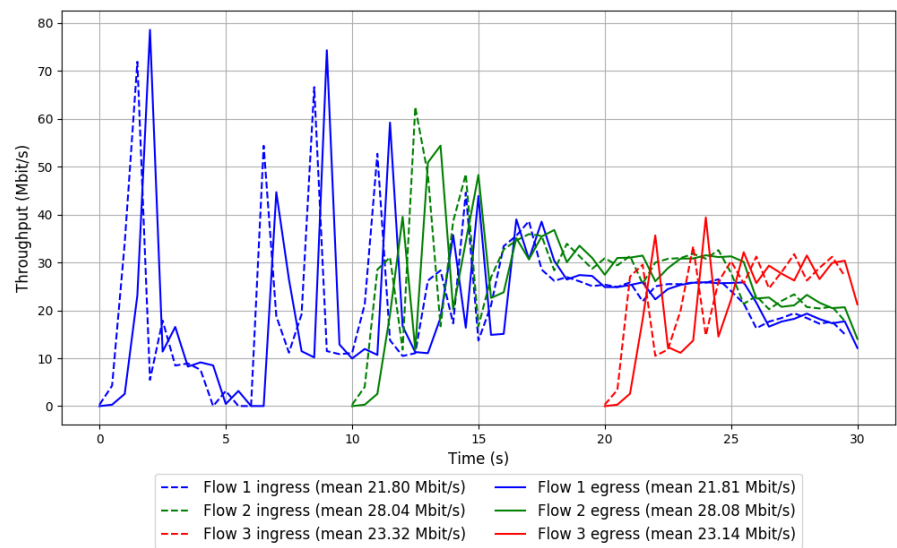
-- Flow 3:

Average throughput: 23.14 Mbit/s

95th percentile per-packet one-way delay: 118.490 ms

Loss rate: 2.40%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-06-19 10:30:53

End at: 2018-06-19 10:31:23

Local clock offset: -1.817 ms

Remote clock offset: 8.717 ms

# Below is generated by plot.py at 2018-06-19 12:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 50.02 Mbit/s

95th percentile per-packet one-way delay: 107.398 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 26.76 Mbit/s

95th percentile per-packet one-way delay: 100.029 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 23.61 Mbit/s

95th percentile per-packet one-way delay: 106.549 ms

Loss rate: 0.81%

-- Flow 3:

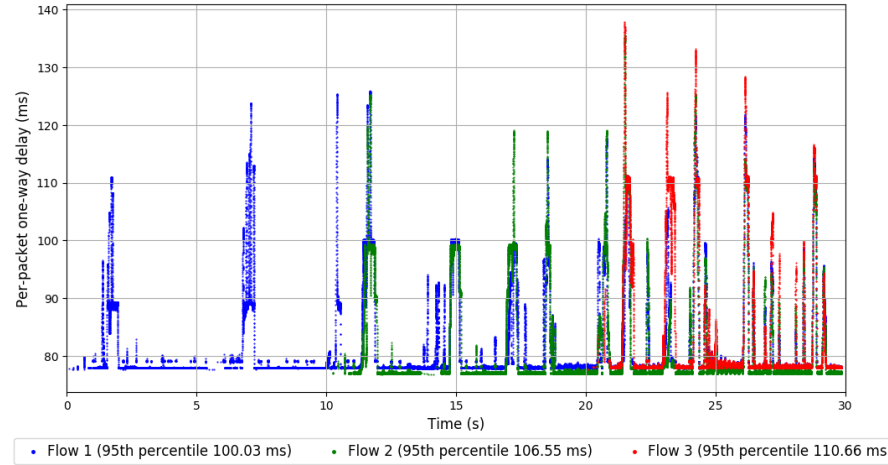
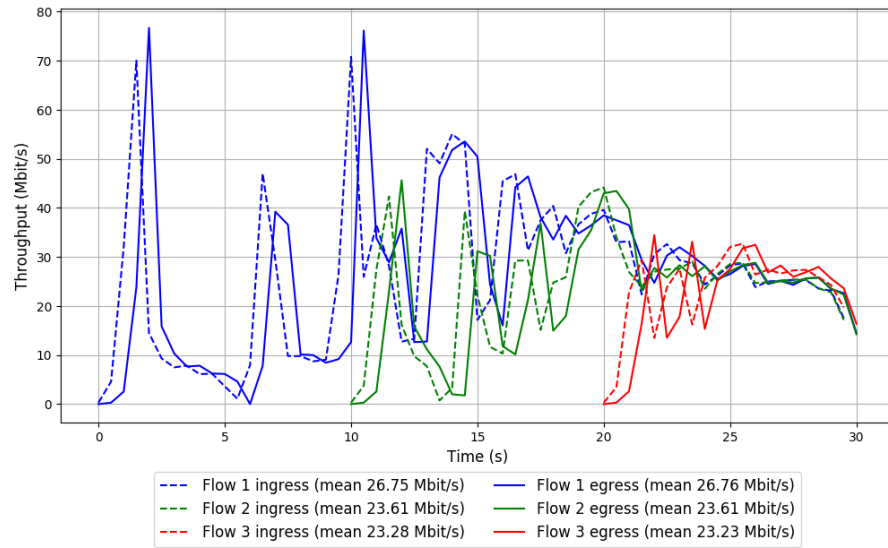
Average throughput: 23.23 Mbit/s

95th percentile per-packet one-way delay: 110.664 ms

Loss rate: 1.86%



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



Run 6: Statistics of QUIC Cubic

Start at: 2018-06-19 10:50:52

End at: 2018-06-19 10:51:22

Local clock offset: -1.61 ms

Remote clock offset: 9.949 ms

# Below is generated by plot.py at 2018-06-19 12:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.70 Mbit/s

95th percentile per-packet one-way delay: 94.876 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 25.45 Mbit/s

95th percentile per-packet one-way delay: 94.931 ms

Loss rate: 2.34%

-- Flow 2:

Average throughput: 6.60 Mbit/s

95th percentile per-packet one-way delay: 85.452 ms

Loss rate: 1.44%

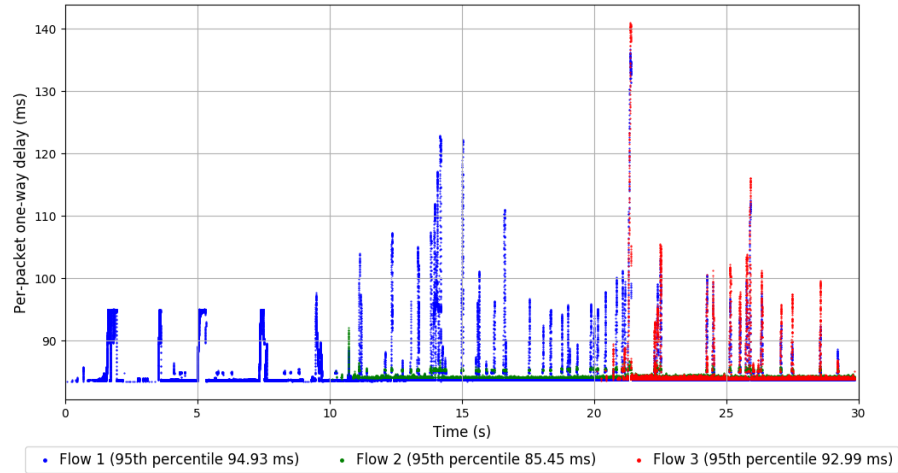
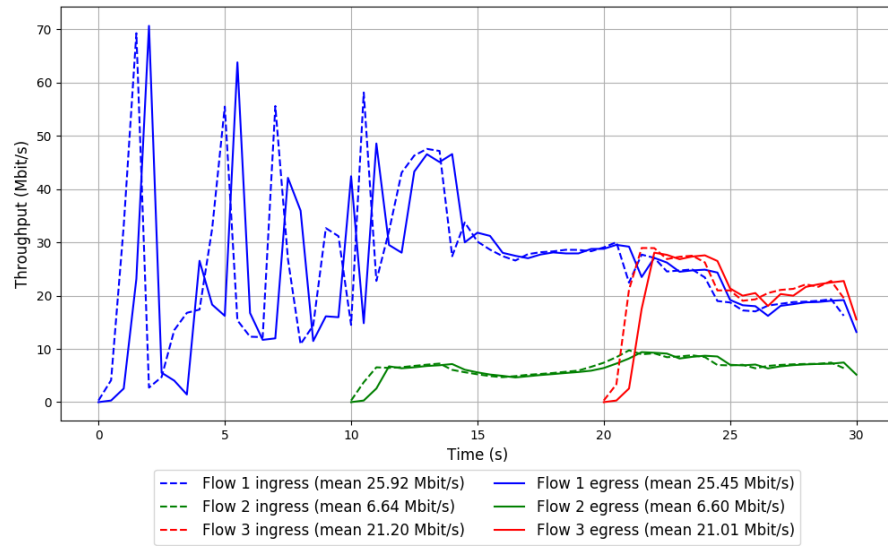
-- Flow 3:

Average throughput: 21.01 Mbit/s

95th percentile per-packet one-way delay: 92.988 ms

Loss rate: 2.56%

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

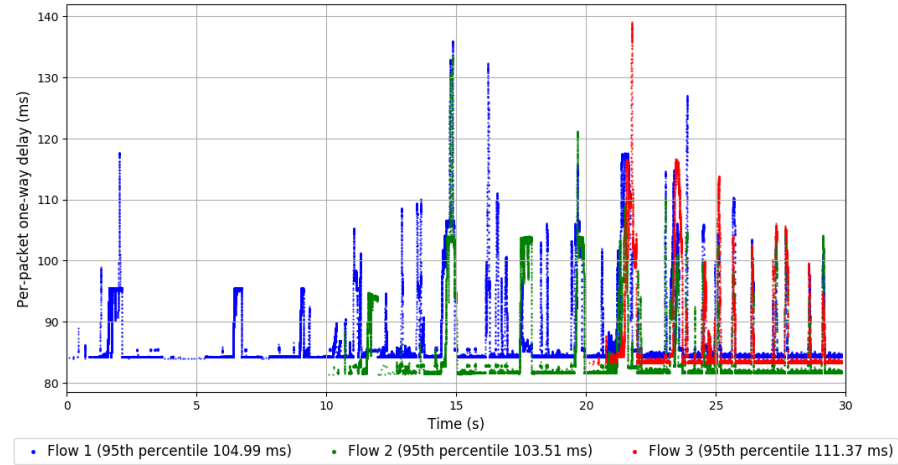
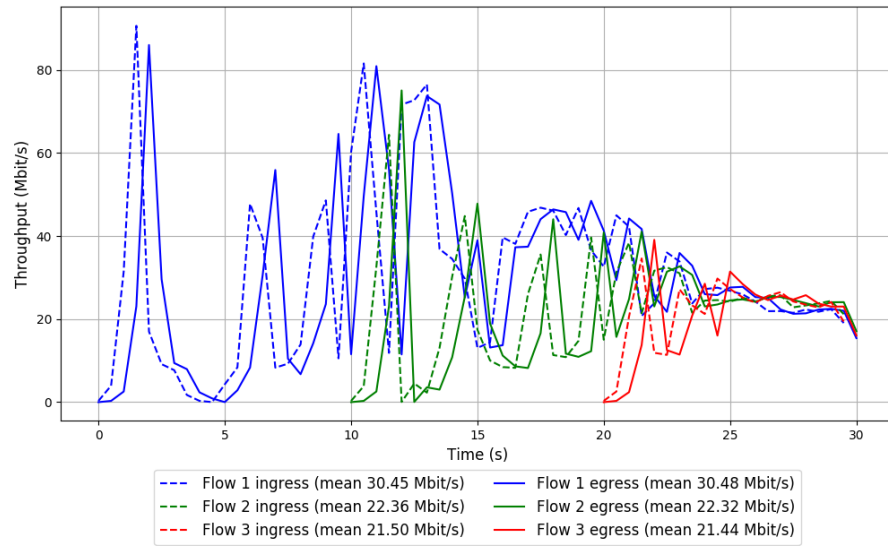


Run 7: Statistics of QUIC Cubic

Start at: 2018-06-19 11:10:39  
End at: 2018-06-19 11:11:09  
Local clock offset: -1.949 ms  
Remote clock offset: 12.229 ms

# Below is generated by plot.py at 2018-06-19 12:36:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 52.29 Mbit/s  
95th percentile per-packet one-way delay: 104.456 ms  
Loss rate: 0.80%  
-- Flow 1:  
Average throughput: 30.48 Mbit/s  
95th percentile per-packet one-way delay: 104.989 ms  
Loss rate: 0.45%  
-- Flow 2:  
Average throughput: 22.32 Mbit/s  
95th percentile per-packet one-way delay: 103.509 ms  
Loss rate: 1.00%  
-- Flow 3:  
Average throughput: 21.44 Mbit/s  
95th percentile per-packet one-way delay: 111.370 ms  
Loss rate: 1.93%

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

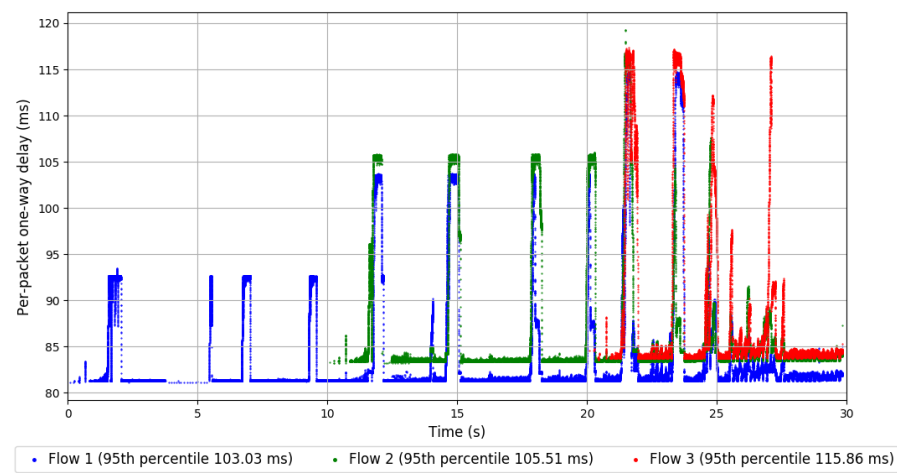
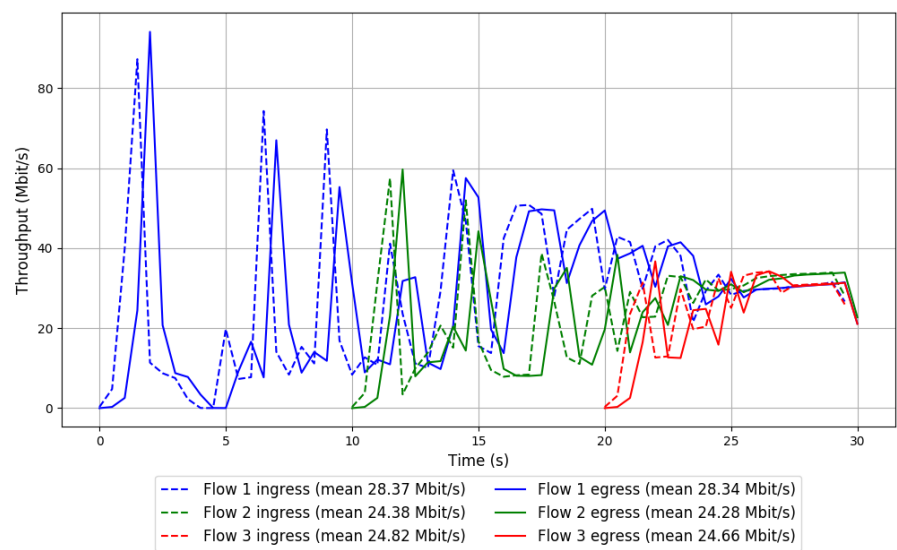


Run 8: Statistics of QUIC Cubic

Start at: 2018-06-19 11:30:31  
End at: 2018-06-19 11:31:01  
Local clock offset: -2.497 ms  
Remote clock offset: 13.742 ms

# Below is generated by plot.py at 2018-06-19 12:36:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 52.52 Mbit/s  
95th percentile per-packet one-way delay: 105.479 ms  
Loss rate: 1.08%  
-- Flow 1:  
Average throughput: 28.34 Mbit/s  
95th percentile per-packet one-way delay: 103.034 ms  
Loss rate: 0.65%  
-- Flow 2:  
Average throughput: 24.28 Mbit/s  
95th percentile per-packet one-way delay: 105.510 ms  
Loss rate: 1.24%  
-- Flow 3:  
Average throughput: 24.66 Mbit/s  
95th percentile per-packet one-way delay: 115.855 ms  
Loss rate: 2.27%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-06-19 11:50:44

End at: 2018-06-19 11:51:14

Local clock offset: -3.0 ms

Remote clock offset: 9.86 ms

# Below is generated by plot.py at 2018-06-19 12:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 55.65 Mbit/s

95th percentile per-packet one-way delay: 105.533 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 31.20 Mbit/s

95th percentile per-packet one-way delay: 102.976 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 25.21 Mbit/s

95th percentile per-packet one-way delay: 106.362 ms

Loss rate: 1.22%

-- Flow 3:

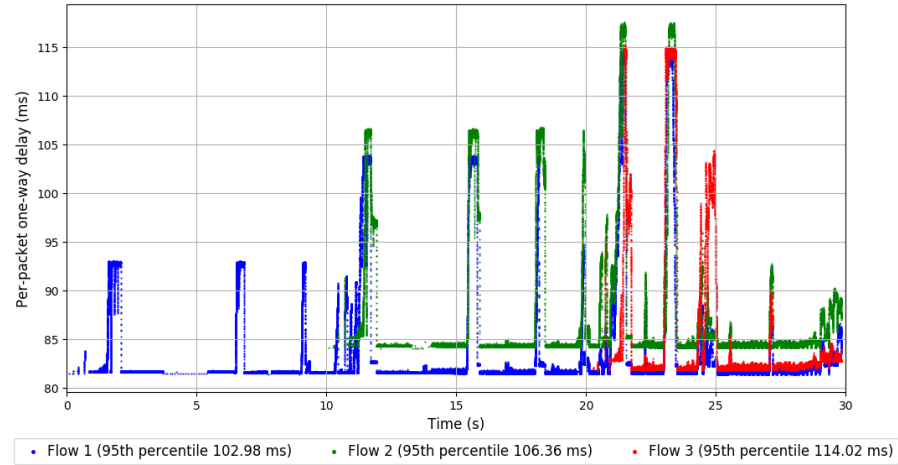
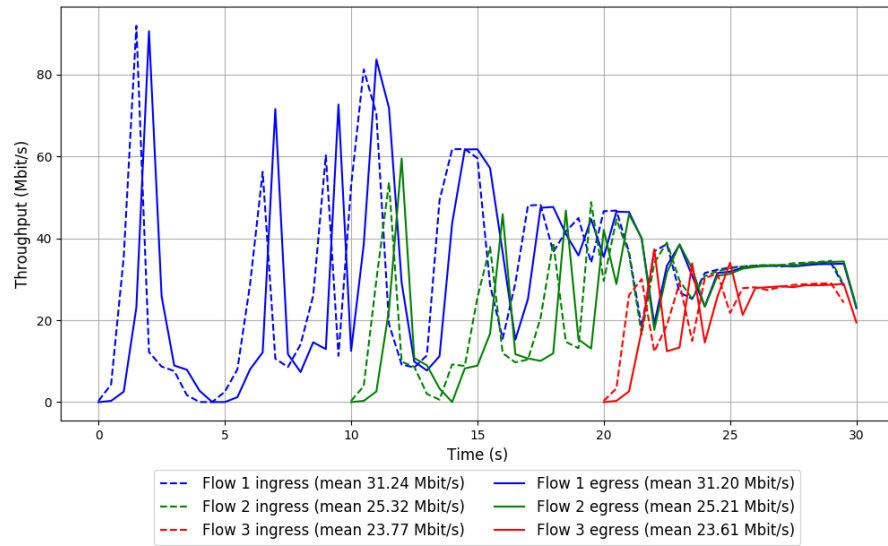
Average throughput: 23.61 Mbit/s

95th percentile per-packet one-way delay: 114.024 ms

Loss rate: 2.17%



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



Run 10: Statistics of QUIC Cubic

Start at: 2018-06-19 12:10:46

End at: 2018-06-19 12:11:16

Local clock offset: -2.974 ms

Remote clock offset: 9.247 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 61.36 Mbit/s

95th percentile per-packet one-way delay: 98.453 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 37.07 Mbit/s

95th percentile per-packet one-way delay: 94.275 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 25.29 Mbit/s

95th percentile per-packet one-way delay: 98.665 ms

Loss rate: 1.12%

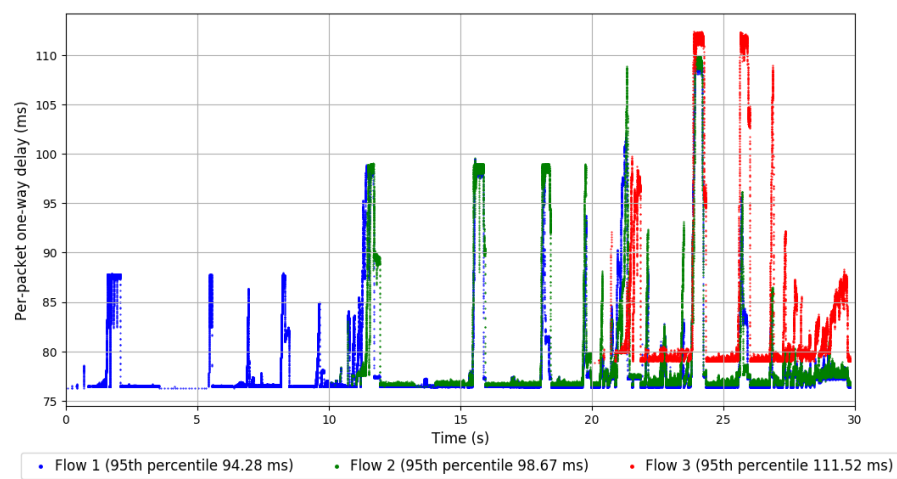
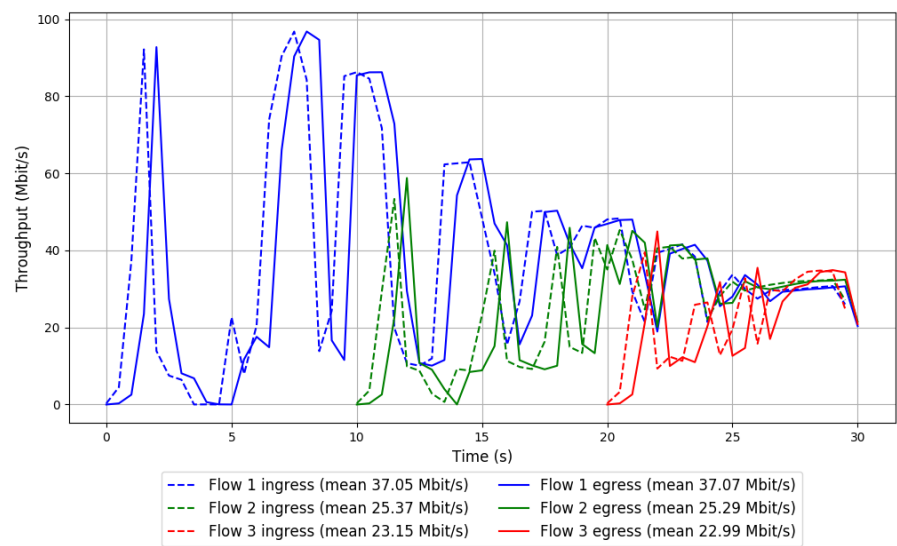
-- Flow 3:

Average throughput: 22.99 Mbit/s

95th percentile per-packet one-way delay: 111.523 ms

Loss rate: 2.33%

Run 10: Report of QUIC Cubic — Data Link

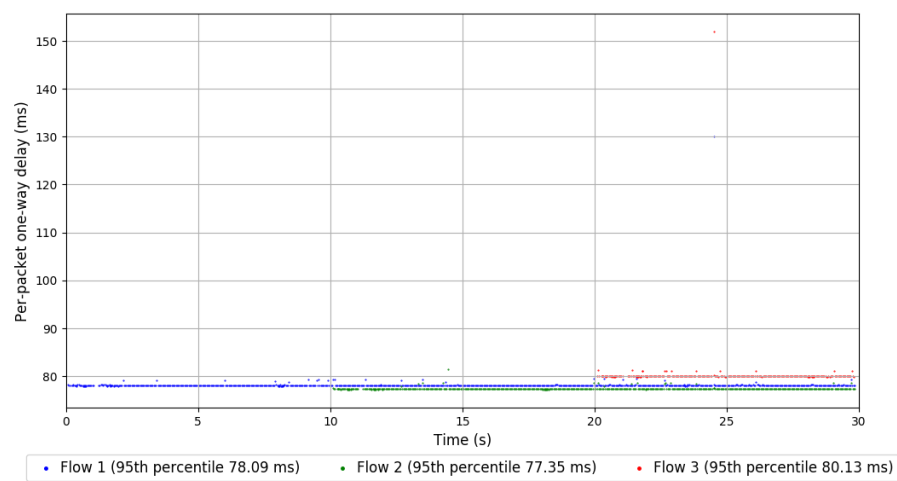
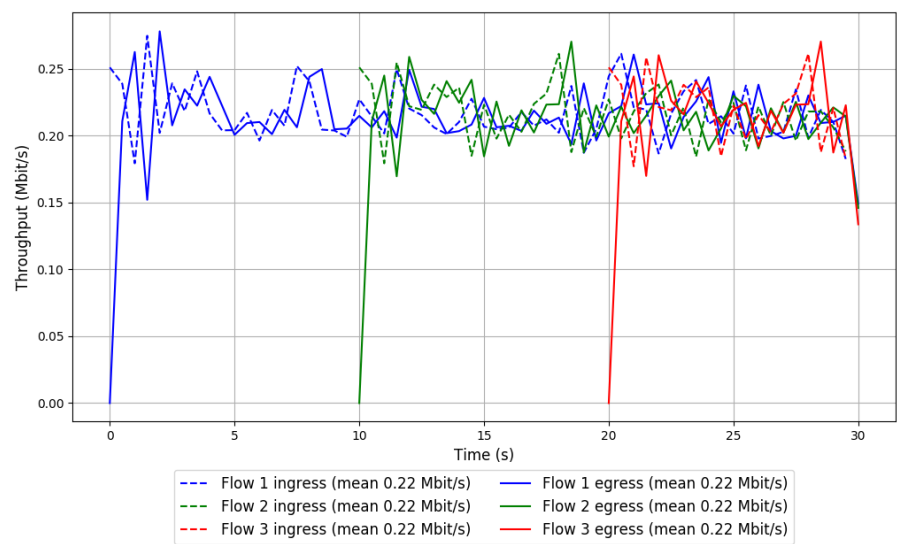


```
Run 1: Statistics of SReAM

Start at: 2018-06-19 09:12:39
End at: 2018-06-19 09:13:09
Local clock offset: -3.183 ms
Remote clock offset: 9.954 ms

# Below is generated by plot.py at 2018-06-19 12:36:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 79.927 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 78.093 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 77.350 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.131 ms
Loss rate: 1.84%
```

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SReAM

Start at: 2018-06-19 09:32:27

End at: 2018-06-19 09:32:57

Local clock offset: -3.57 ms

Remote clock offset: 9.651 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 79.500 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 79.044 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 78.810 ms

Loss rate: 0.82%

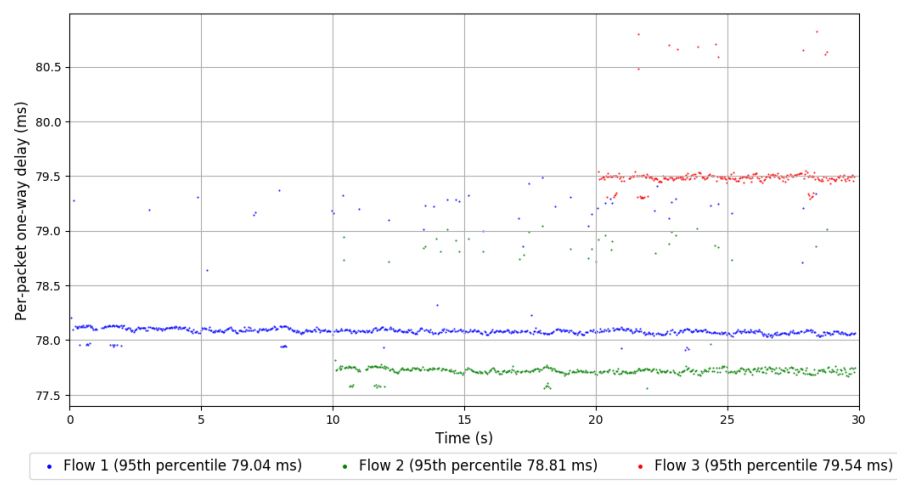
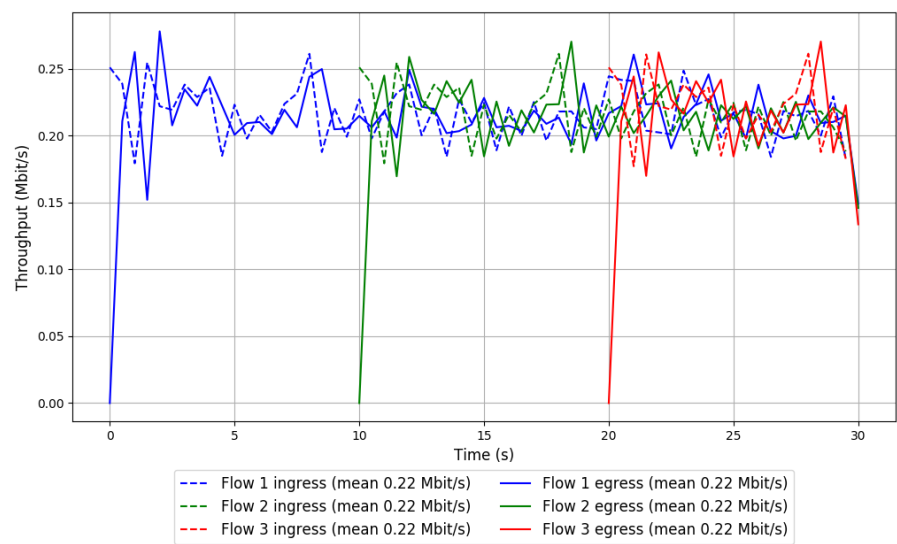
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 79.541 ms

Loss rate: 1.84%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2018-06-19 09:52:23

End at: 2018-06-19 09:52:53

Local clock offset: -1.937 ms

Remote clock offset: 4.171 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 85.007 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 83.651 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 83.318 ms

Loss rate: 0.82%

-- Flow 3:

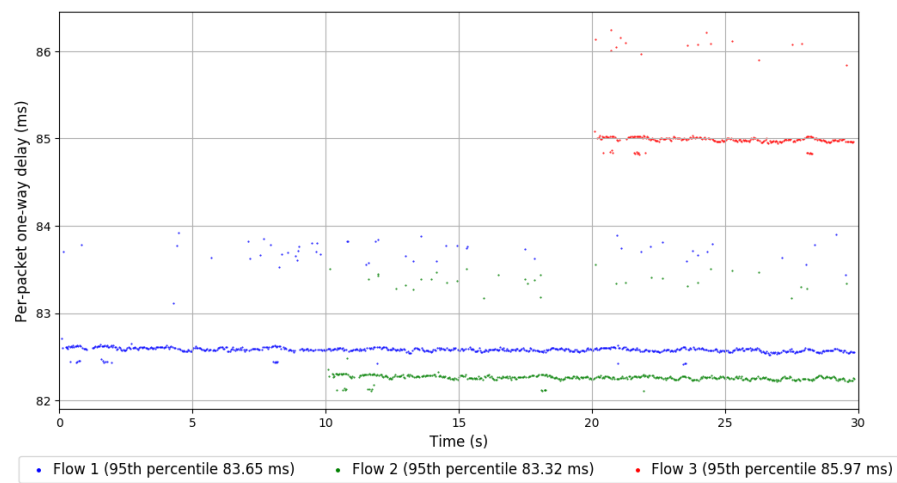
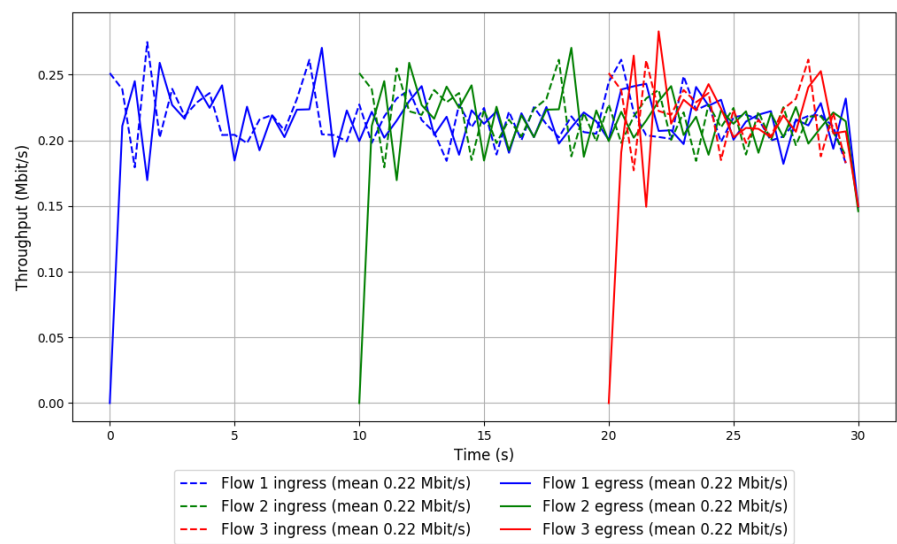
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 85.968 ms

Loss rate: 1.84%



Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2018-06-19 10:12:13

End at: 2018-06-19 10:12:43

Local clock offset: -1.829 ms

Remote clock offset: 3.848 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 85.130 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 83.775 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 85.676 ms

Loss rate: 0.82%

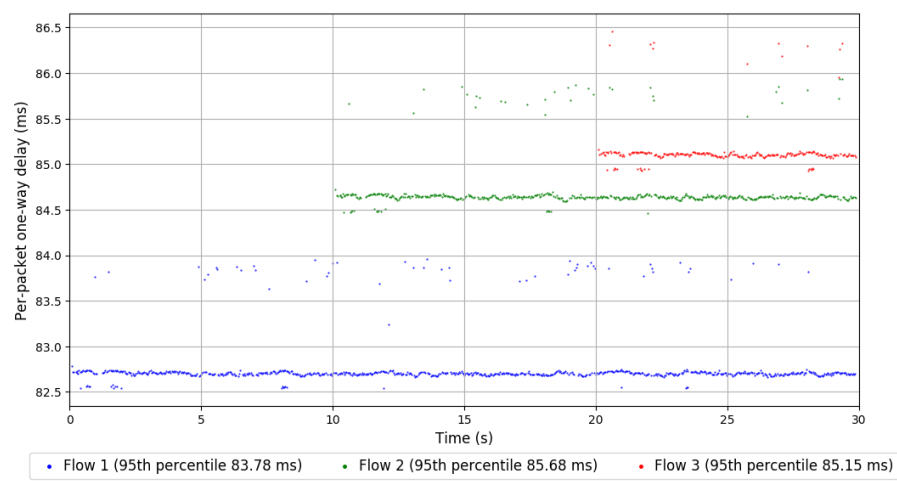
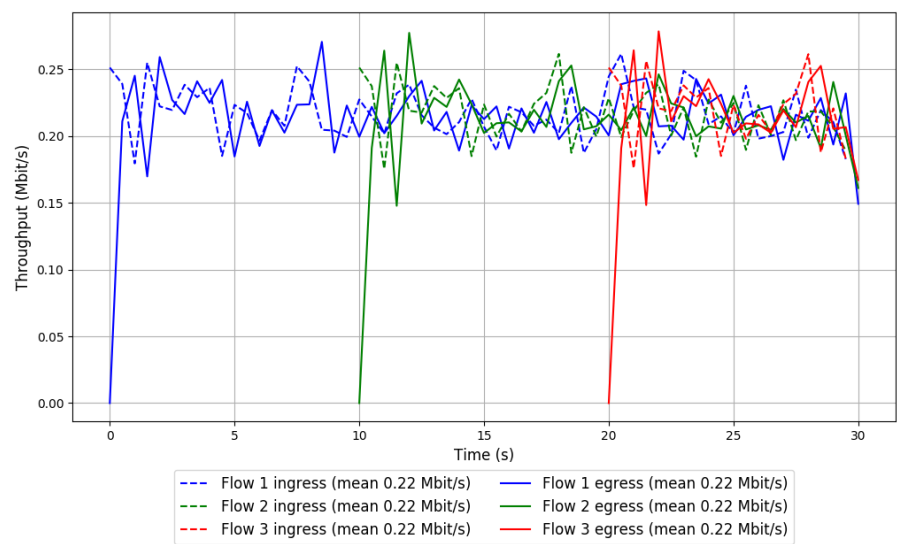
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 85.146 ms

Loss rate: 1.45%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2018-06-19 10:32:06

End at: 2018-06-19 10:32:36

Local clock offset: -1.734 ms

Remote clock offset: 4.71 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 84.128 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 83.075 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 83.067 ms

Loss rate: 0.82%

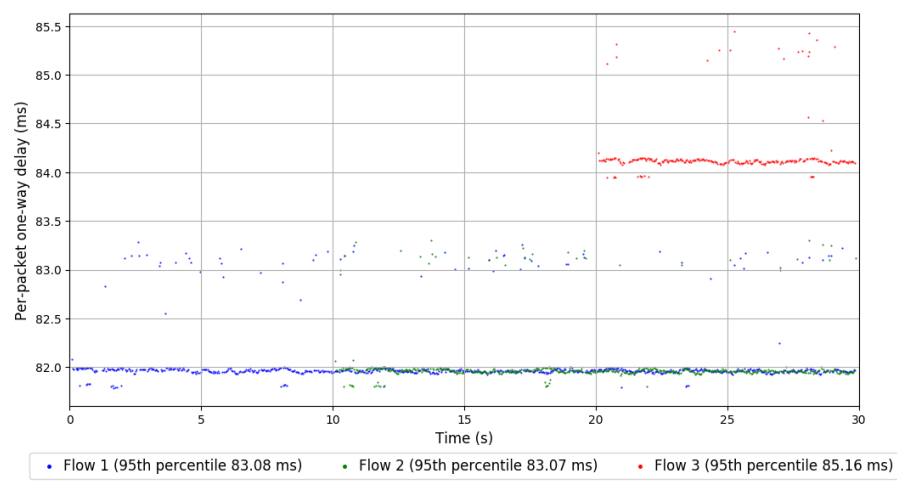
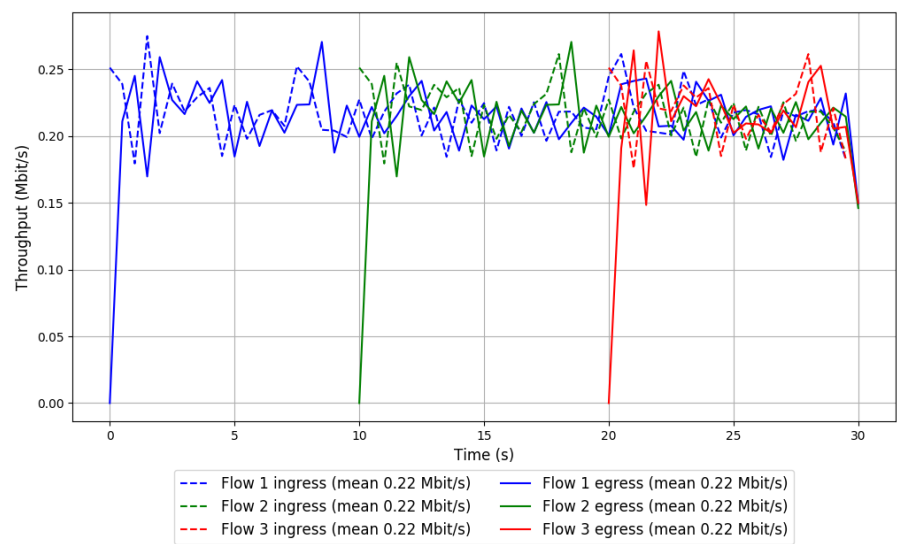
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 85.164 ms

Loss rate: 1.84%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-06-19 10:52:05

End at: 2018-06-19 10:52:35

Local clock offset: -1.609 ms

Remote clock offset: 8.904 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 84.995 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 85.576 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 85.985 ms

Loss rate: 0.82%

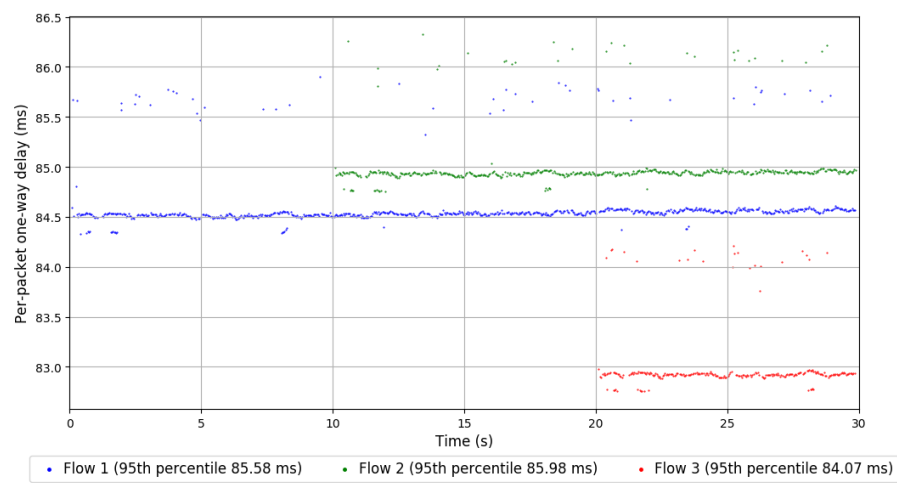
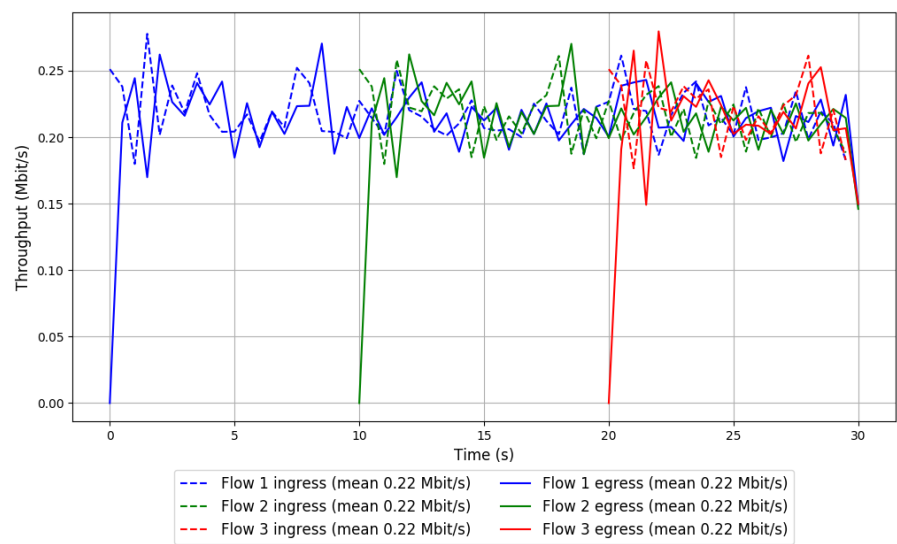
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 84.066 ms

Loss rate: 1.84%

Run 6: Report of SReAM — Data Link



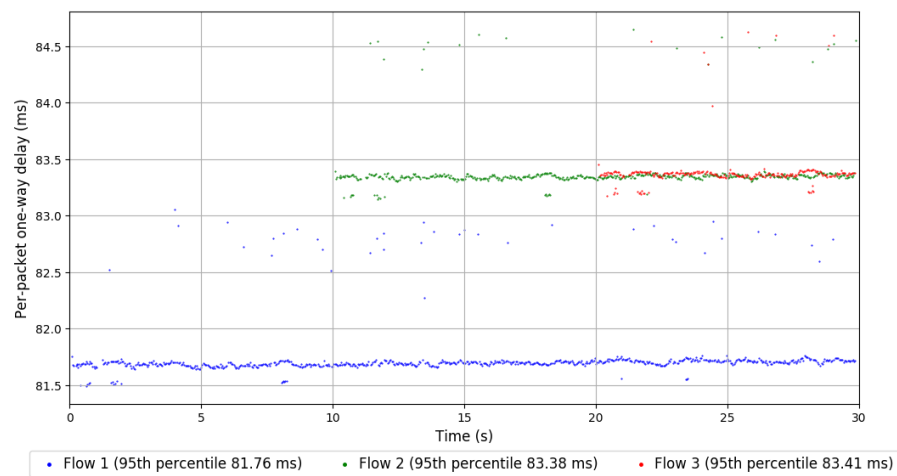
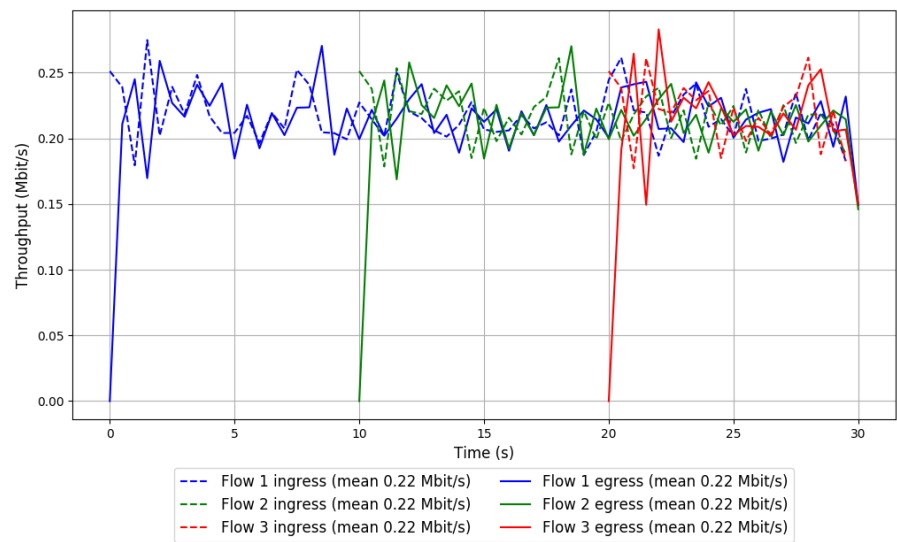
Run 7: Statistics of SReAM

Start at: 2018-06-19 11:11:53  
End at: 2018-06-19 11:12:23  
Local clock offset: -2.014 ms  
Remote clock offset: 12.169 ms

# Below is generated by plot.py at 2018-06-19 12:36:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 83.385 ms  
Loss rate: 0.84%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 81.760 ms  
Loss rate: 0.51%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 83.382 ms  
Loss rate: 0.82%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 83.405 ms  
Loss rate: 1.84%



Run 7: Report of SReAM — Data Link

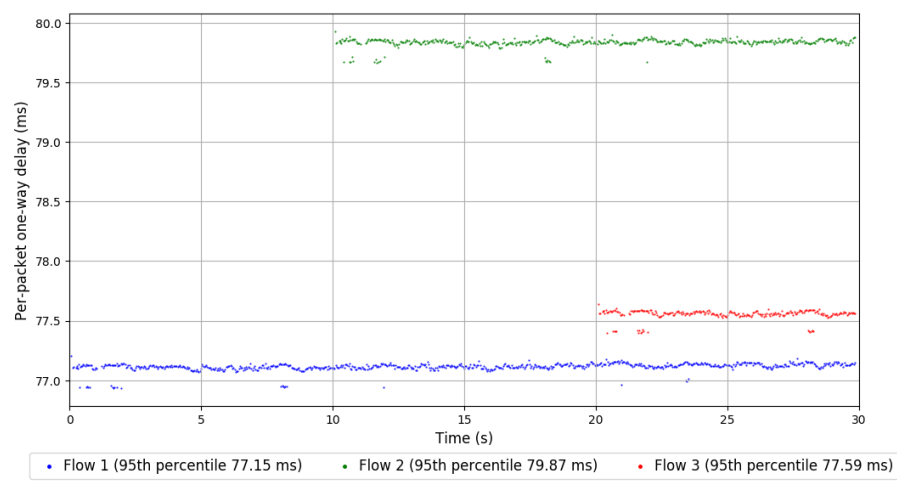
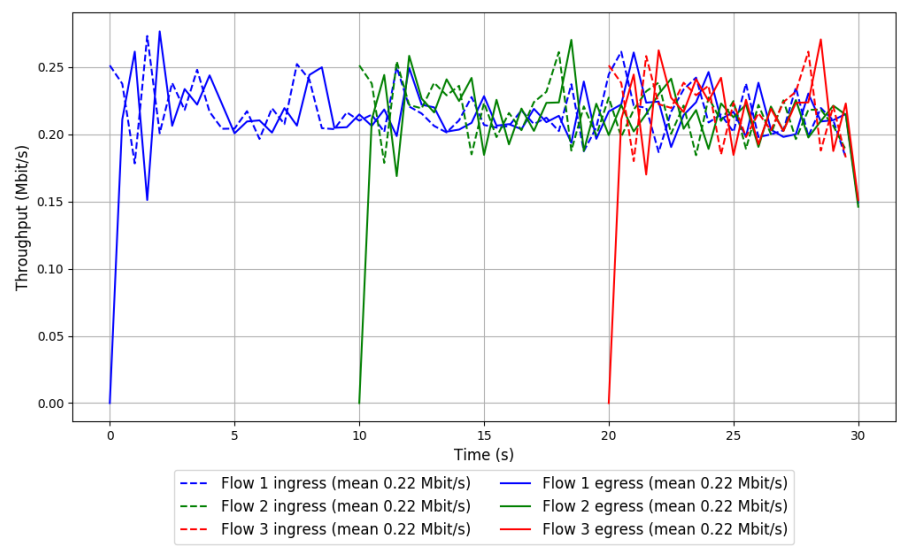


Run 8: Statistics of SCReAM

Start at: 2018-06-19 11:31:44  
End at: 2018-06-19 11:32:14  
Local clock offset: -2.51 ms  
Remote clock offset: 17.649 ms

# Below is generated by plot.py at 2018-06-19 12:36:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 79.858 ms  
Loss rate: 0.77%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 77.151 ms  
Loss rate: 0.51%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 79.869 ms  
Loss rate: 0.82%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 77.589 ms  
Loss rate: 1.45%

Run 8: Report of SCReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-06-19 11:51:58

End at: 2018-06-19 11:52:28

Local clock offset: -3.034 ms

Remote clock offset: 9.373 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 83.673 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 81.886 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 83.702 ms

Loss rate: 0.82%

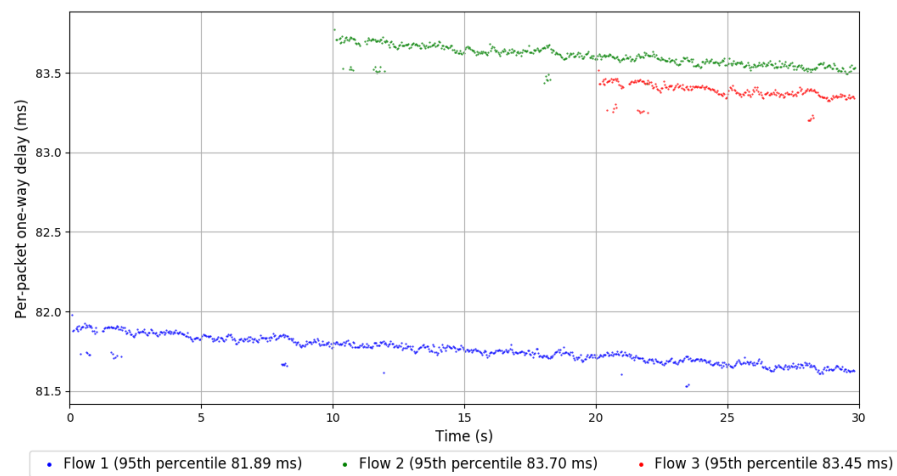
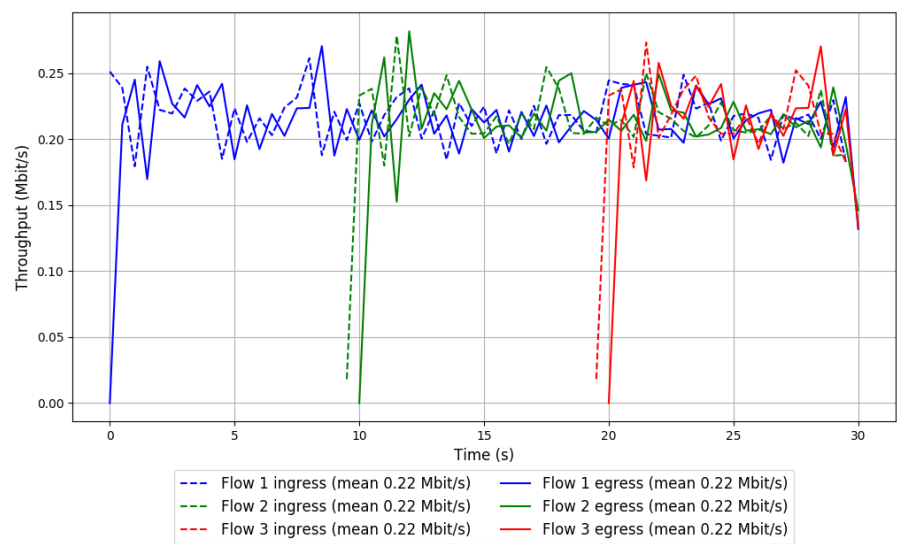
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 83.450 ms

Loss rate: 1.84%

Run 9: Report of SCReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2018-06-19 12:12:00

End at: 2018-06-19 12:12:30

Local clock offset: -2.898 ms

Remote clock offset: 2.857 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 85.351 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 85.365 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 84.517 ms

Loss rate: 0.82%

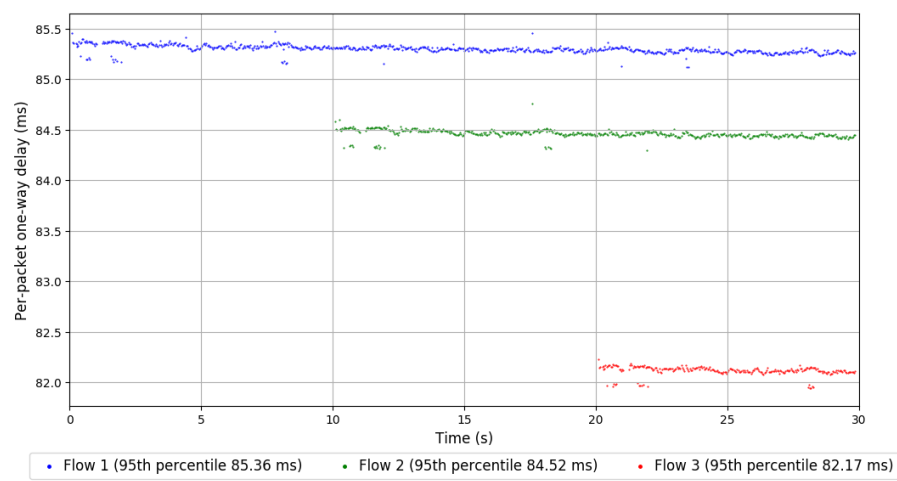
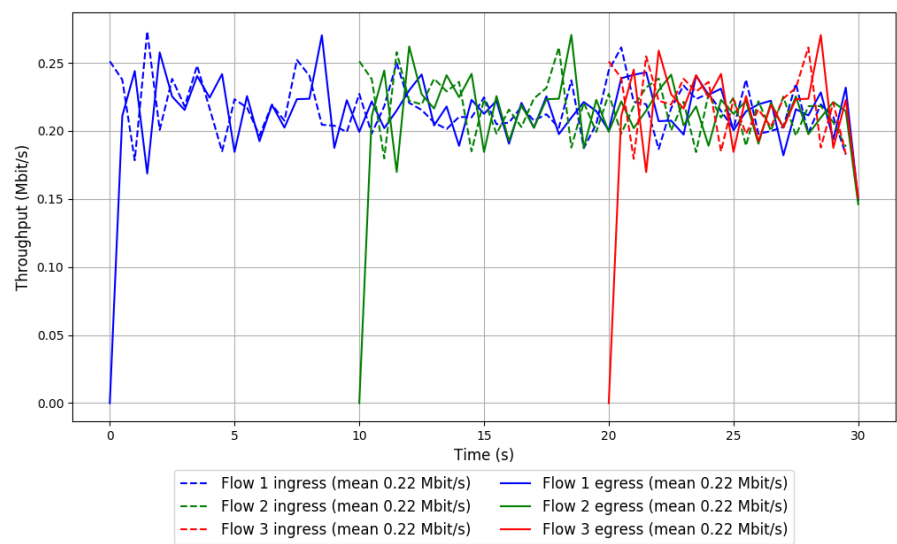
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 82.167 ms

Loss rate: 1.45%

Run 10: Report of SCRaM — Data Link



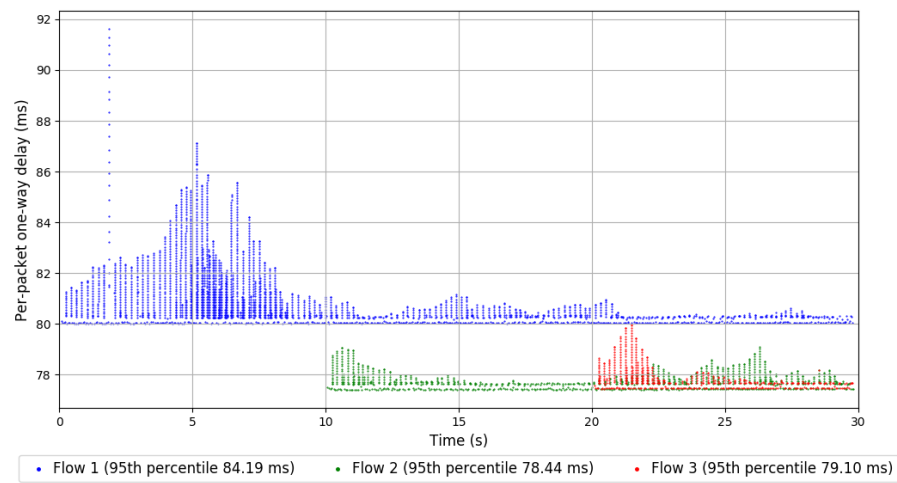
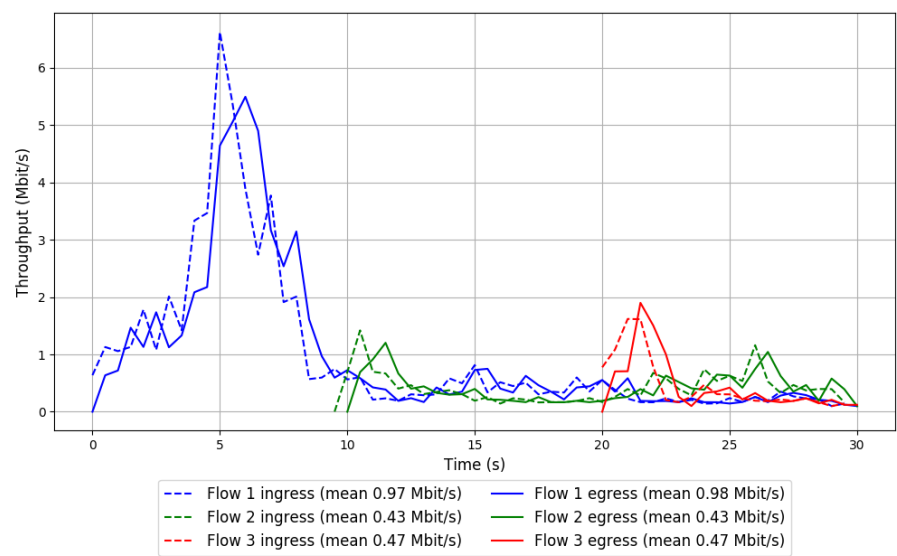
Run 1: Statistics of Sprout

Start at: 2018-06-19 09:08:57  
End at: 2018-06-19 09:09:27  
Local clock offset: -3.034 ms  
Remote clock offset: 10.038 ms

# Below is generated by plot.py at 2018-06-19 12:36:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1.42 Mbit/s  
95th percentile per-packet one-way delay: 83.456 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 0.98 Mbit/s  
95th percentile per-packet one-way delay: 84.187 ms  
Loss rate: 0.12%  
-- Flow 2:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 78.436 ms  
Loss rate: 0.41%  
-- Flow 3:  
Average throughput: 0.47 Mbit/s  
95th percentile per-packet one-way delay: 79.097 ms  
Loss rate: 0.51%



Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-06-19 09:28:47

End at: 2018-06-19 09:29:17

Local clock offset: -3.525 ms

Remote clock offset: 6.414 ms

# Below is generated by plot.py at 2018-06-19 12:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 84.693 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 84.898 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 83.389 ms

Loss rate: 0.43%

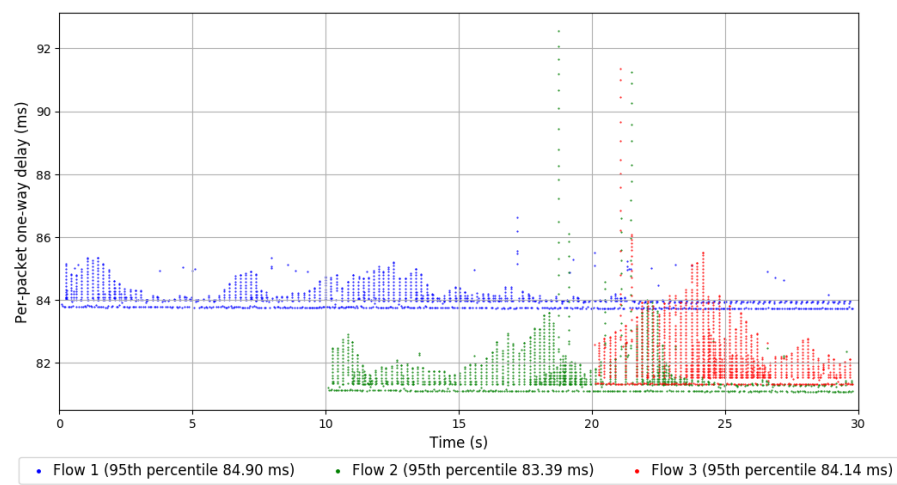
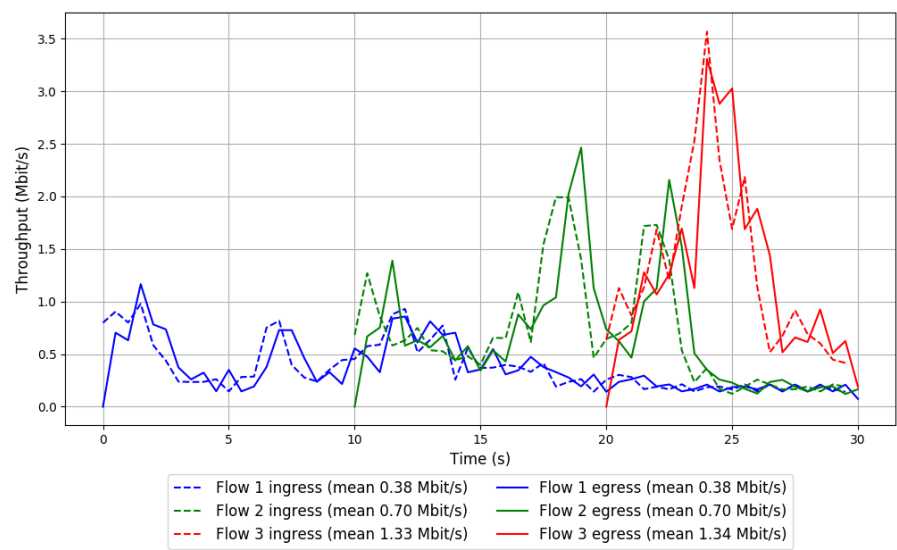
-- Flow 3:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 84.141 ms

Loss rate: 0.88%

Run 2: Report of Sprout — Data Link

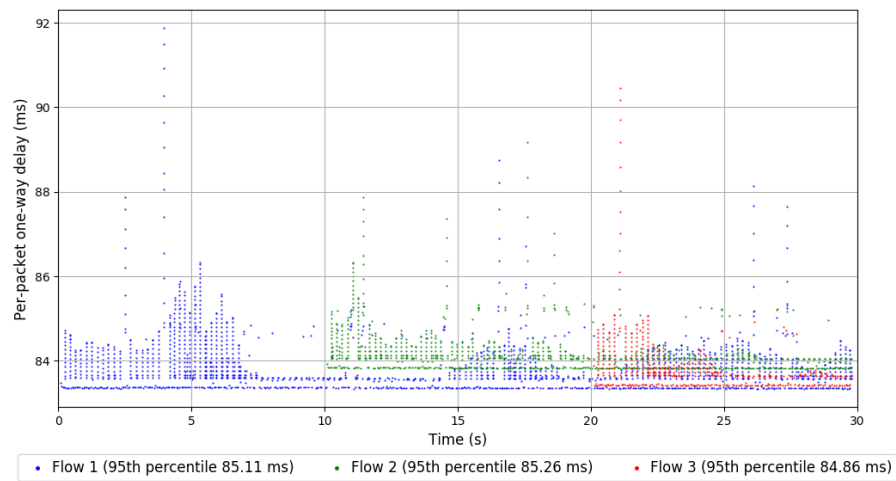
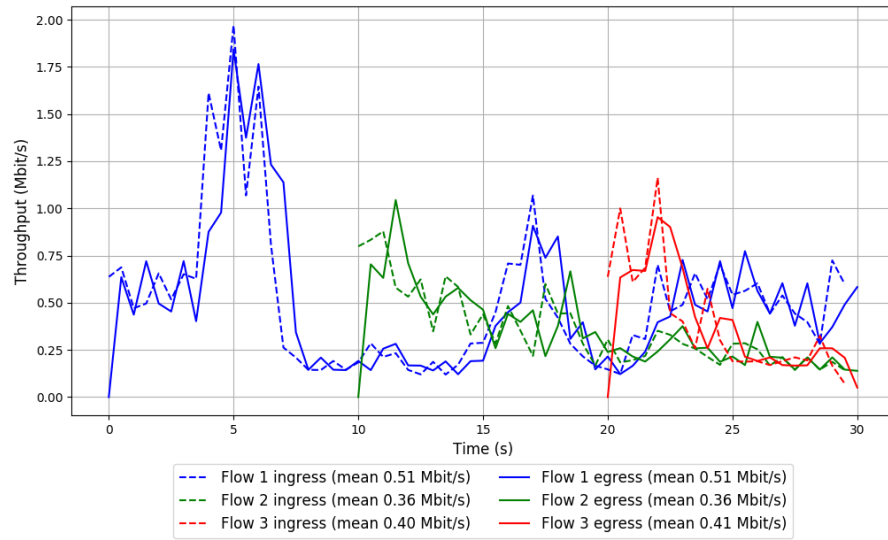


### Run 3: Statistics of Sprout

Start at: 2018-06-19 09:48:42  
End at: 2018-06-19 09:49:12  
Local clock offset: -2.019 ms  
Remote clock offset: 5.283 ms

```
# Below is generated by plot.py at 2018-06-19 12:36:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 85.204 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 85.113 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 85.263 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 84.857 ms
Loss rate: 0.59%
```

### Run 3: Report of Sprout — Data Link

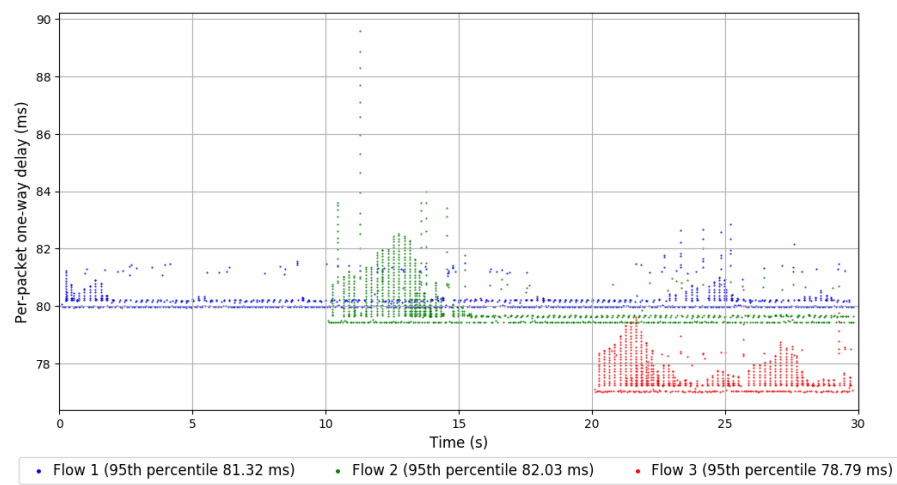
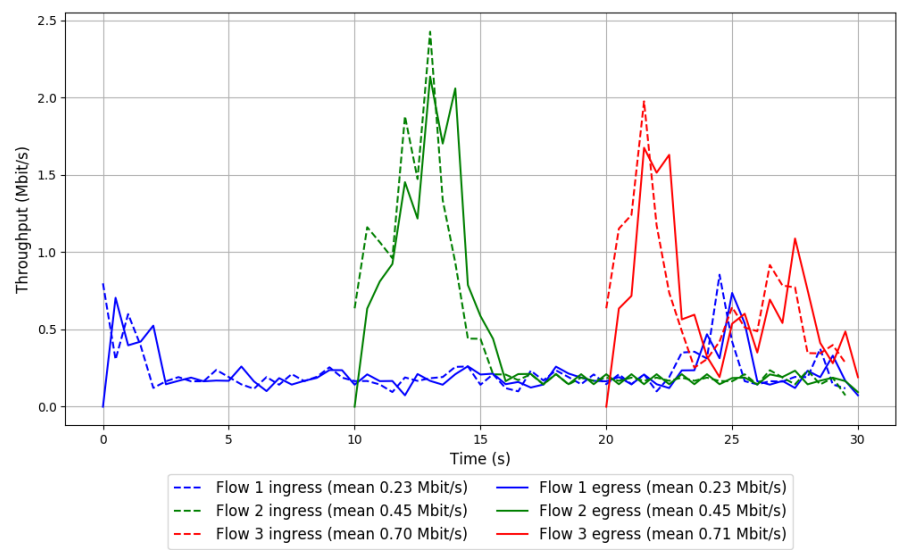


#### Run 4: Statistics of Sprout

Start at: 2018-06-19 10:08:31  
End at: 2018-06-19 10:09:01  
Local clock offset: -1.767 ms  
Remote clock offset: 8.863 ms

```
# Below is generated by plot.py at 2018-06-19 12:36:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 81.404 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 81.322 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 82.032 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 78.793 ms
Loss rate: 0.68%
```

Run 4: Report of Sprout — Data Link



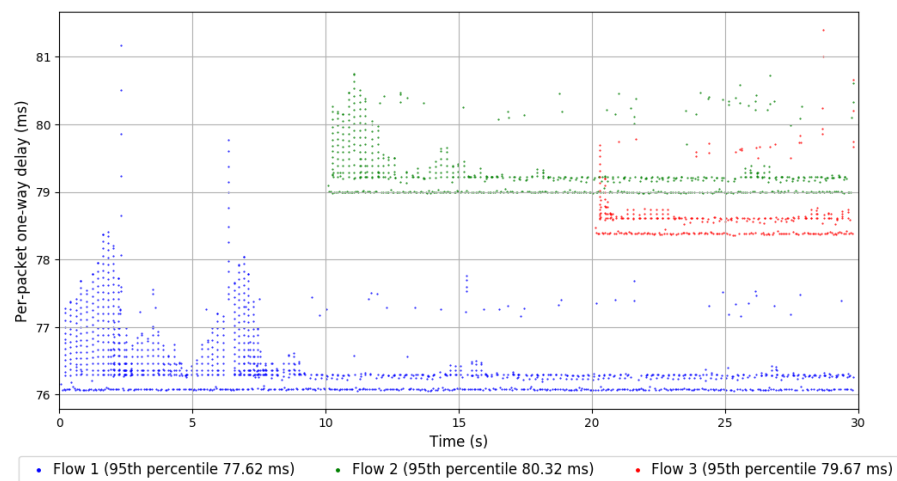
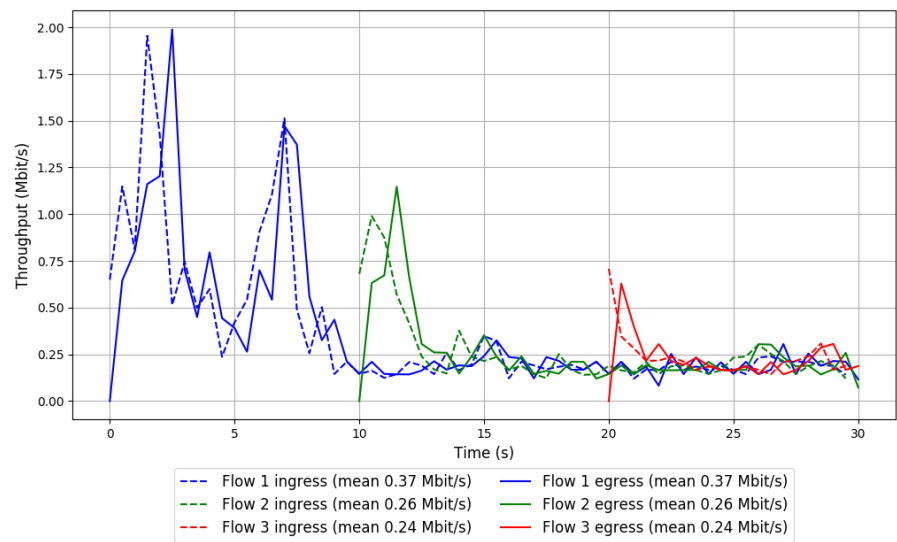
Run 5: Statistics of Sprout

Start at: 2018-06-19 10:28:25  
End at: 2018-06-19 10:28:55  
Local clock offset: -1.753 ms  
Remote clock offset: 9.757 ms

```
# Below is generated by plot.py at 2018-06-19 12:36:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 79.739 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 77.619 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 80.320 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 79.669 ms
Loss rate: 0.10%
```



Run 5: Report of Sprout — Data Link

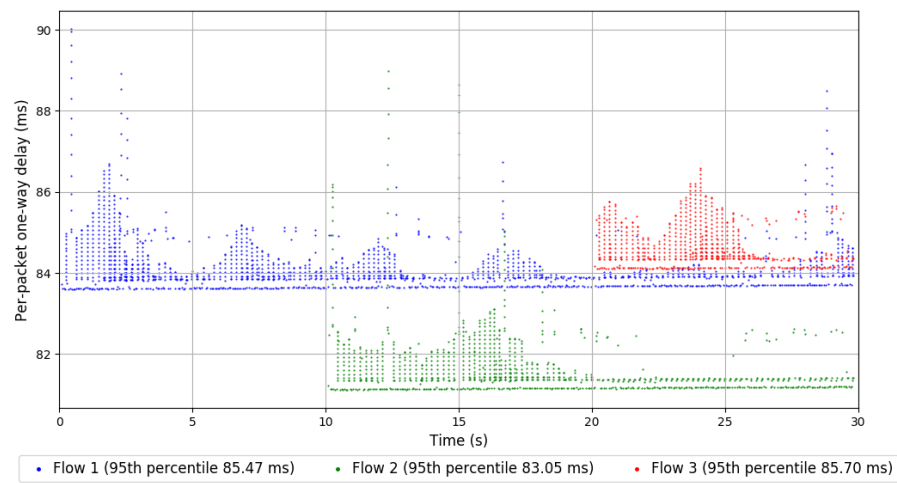
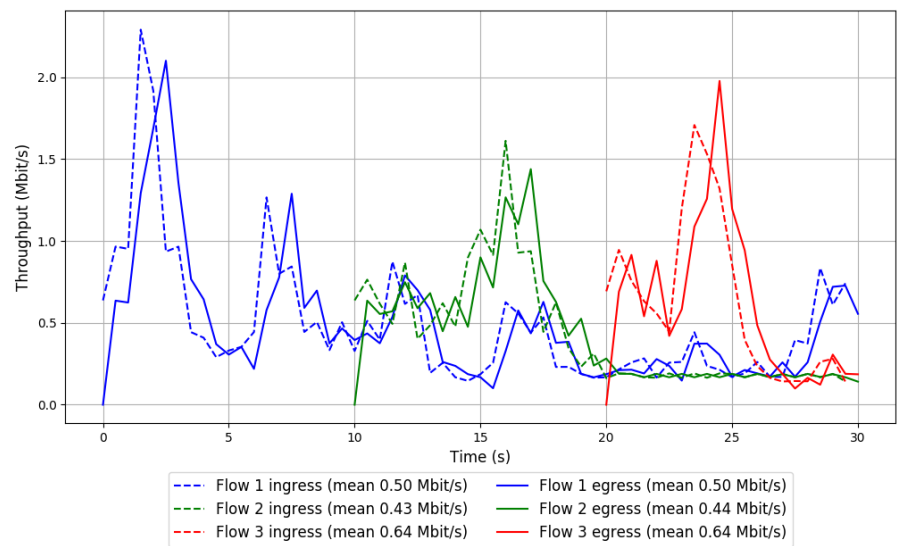


Run 6: Statistics of Sprout

Start at: 2018-06-19 10:48:14  
End at: 2018-06-19 10:48:44  
Local clock offset: -1.585 ms  
Remote clock offset: 9.291 ms

```
# Below is generated by plot.py at 2018-06-19 12:36:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 85.479 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 85.475 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 83.046 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 85.701 ms
Loss rate: 0.39%
```

Run 6: Report of Sprout — Data Link

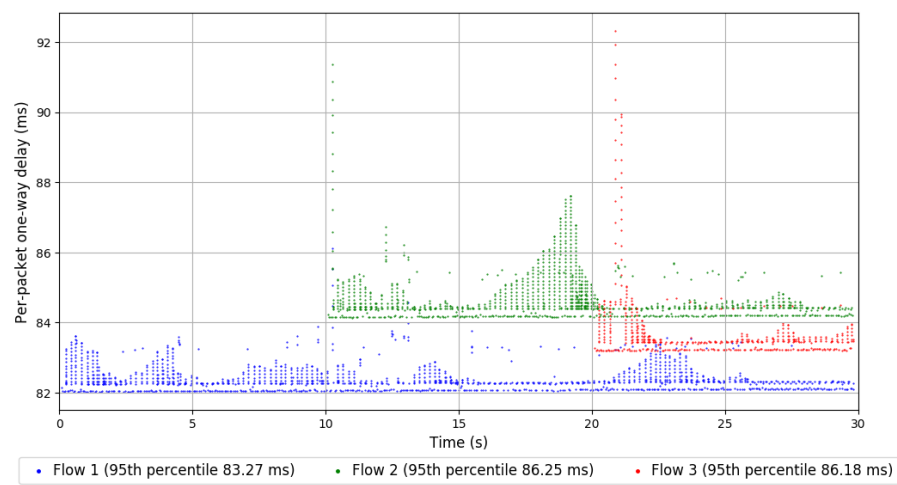
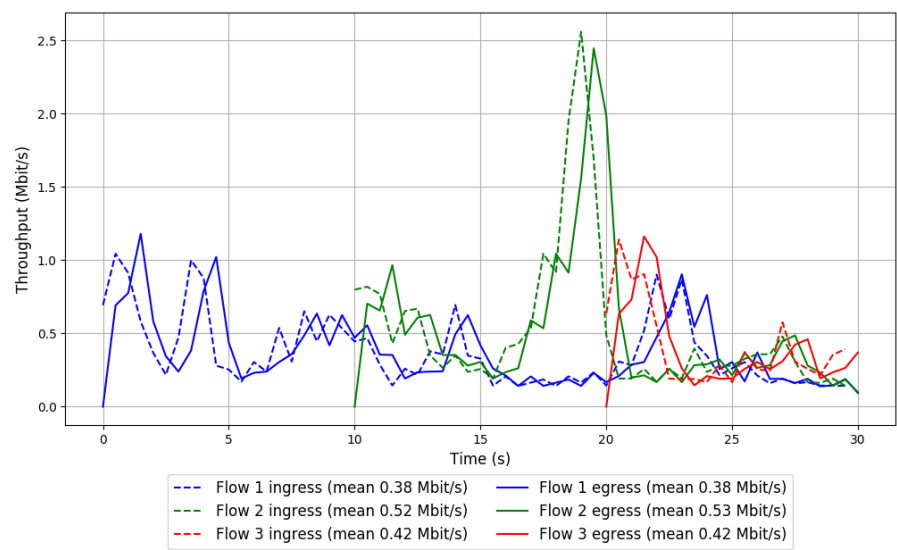


Run 7: Statistics of Sprout

Start at: 2018-06-19 11:08:11  
End at: 2018-06-19 11:08:41  
Local clock offset: -1.795 ms  
Remote clock offset: 11.866 ms

# Below is generated by plot.py at 2018-06-19 12:36:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.86 Mbit/s  
95th percentile per-packet one-way delay: 85.557 ms  
Loss rate: 0.55%  
-- Flow 1:  
Average throughput: 0.38 Mbit/s  
95th percentile per-packet one-way delay: 83.266 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 0.53 Mbit/s  
95th percentile per-packet one-way delay: 86.252 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 0.42 Mbit/s  
95th percentile per-packet one-way delay: 86.180 ms  
Loss rate: 1.94%

Run 7: Report of Sprout — Data Link

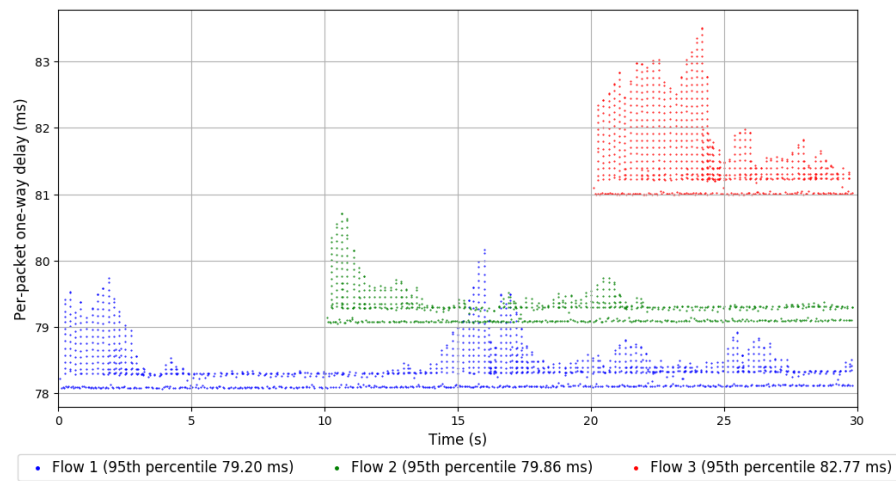
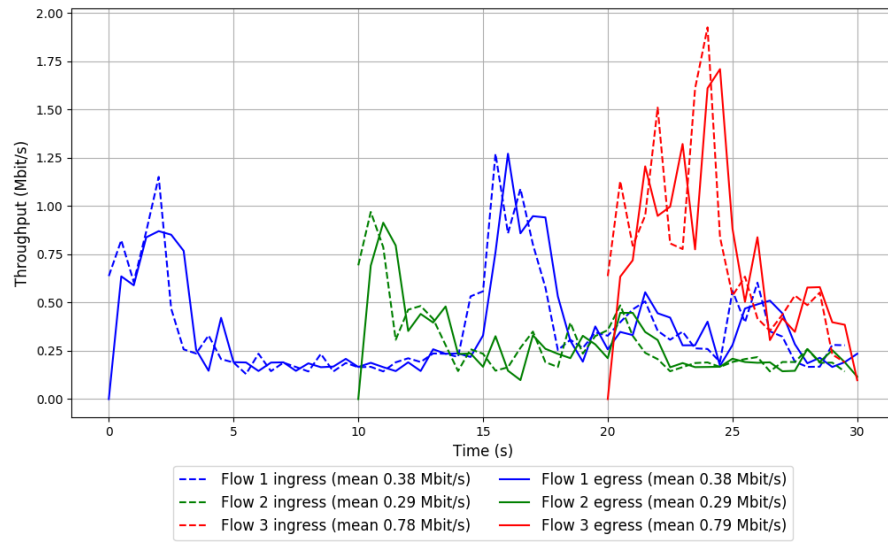


Run 8: Statistics of Sprout

Start at: 2018-06-19 11:28:01  
End at: 2018-06-19 11:28:31  
Local clock offset: -2.394 ms  
Remote clock offset: 16.289 ms

# Below is generated by plot.py at 2018-06-19 12:36:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.83 Mbit/s  
95th percentile per-packet one-way delay: 82.229 ms  
Loss rate: 0.57%  
-- Flow 1:  
Average throughput: 0.38 Mbit/s  
95th percentile per-packet one-way delay: 79.200 ms  
Loss rate: 0.60%  
-- Flow 2:  
Average throughput: 0.29 Mbit/s  
95th percentile per-packet one-way delay: 79.864 ms  
Loss rate: 0.43%  
-- Flow 3:  
Average throughput: 0.79 Mbit/s  
95th percentile per-packet one-way delay: 82.766 ms  
Loss rate: 0.62%

## Run 8: Report of Sprout — Data Link



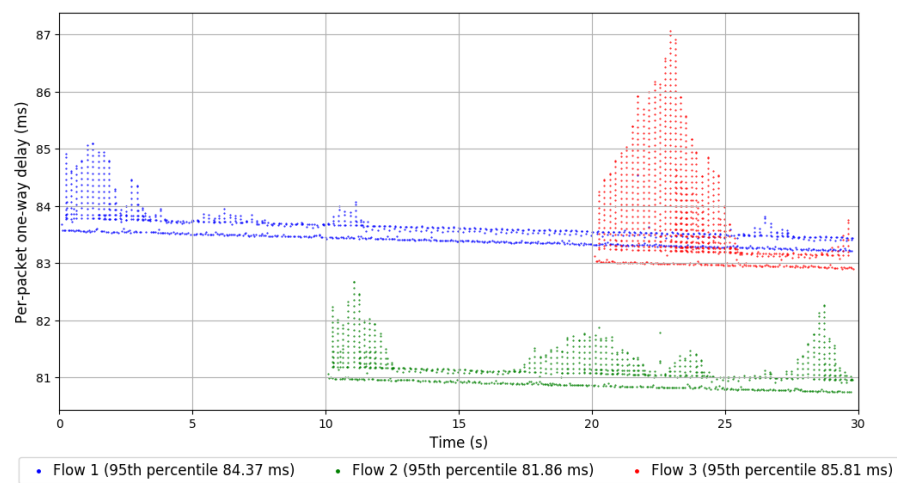
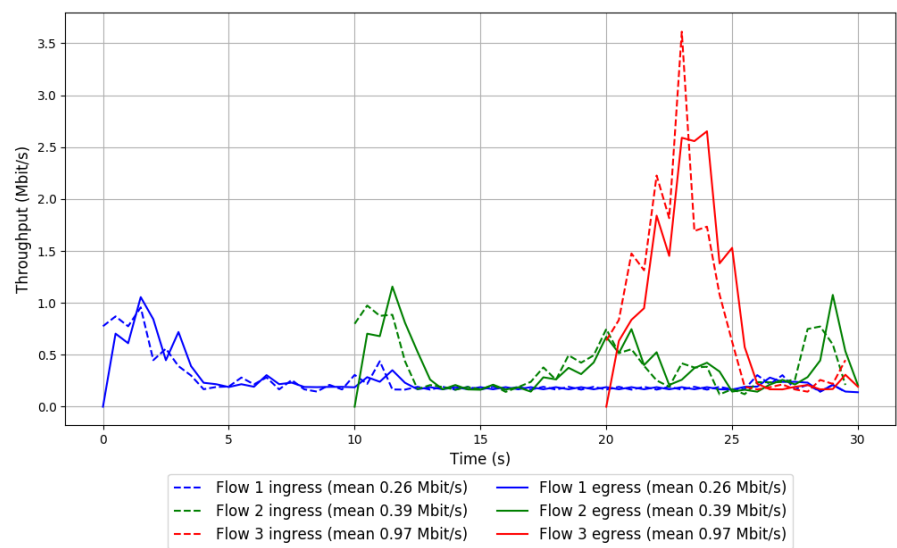
Run 9: Statistics of Sprout

Start at: 2018-06-19 11:48:15  
End at: 2018-06-19 11:48:45  
Local clock offset: -2.979 ms  
Remote clock offset: 11.72 ms

# Below is generated by plot.py at 2018-06-19 12:36:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.83 Mbit/s  
95th percentile per-packet one-way delay: 84.948 ms  
Loss rate: 0.81%  
-- Flow 1:  
Average throughput: 0.26 Mbit/s  
95th percentile per-packet one-way delay: 84.371 ms  
Loss rate: 0.46%  
-- Flow 2:  
Average throughput: 0.39 Mbit/s  
95th percentile per-packet one-way delay: 81.855 ms  
Loss rate: 0.46%  
-- Flow 3:  
Average throughput: 0.97 Mbit/s  
95th percentile per-packet one-way delay: 85.806 ms  
Loss rate: 1.36%



Run 9: Report of Sprout — Data Link

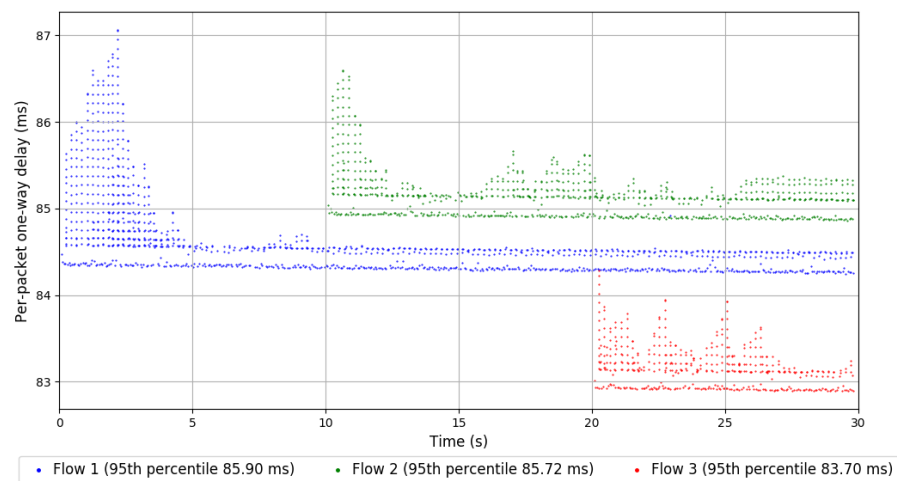
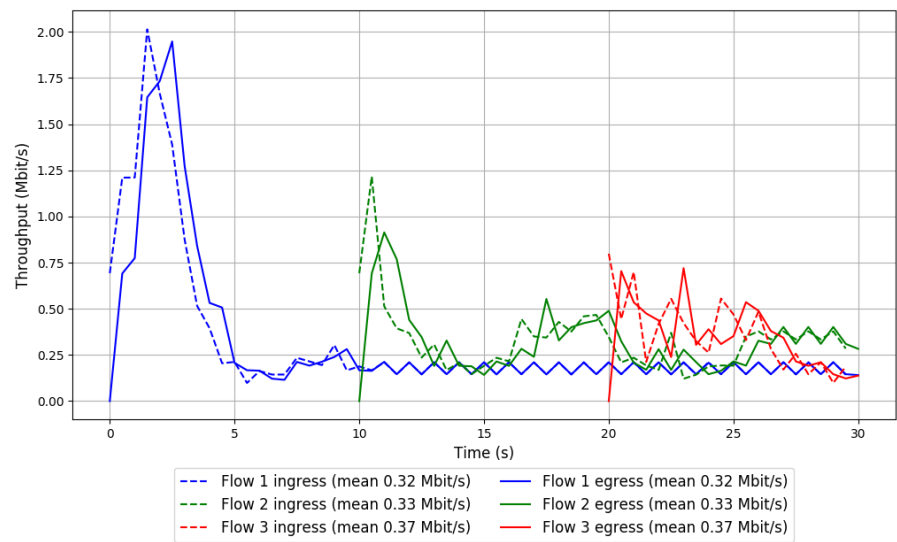


Run 10: Statistics of Sprout

Start at: 2018-06-19 12:08:18  
End at: 2018-06-19 12:08:48  
Local clock offset: -2.988 ms  
Remote clock offset: 3.361 ms

# Below is generated by plot.py at 2018-06-19 12:36:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.66 Mbit/s  
95th percentile per-packet one-way delay: 85.715 ms  
Loss rate: 0.65%  
-- Flow 1:  
Average throughput: 0.32 Mbit/s  
95th percentile per-packet one-way delay: 85.896 ms  
Loss rate: 0.36%  
-- Flow 2:  
Average throughput: 0.33 Mbit/s  
95th percentile per-packet one-way delay: 85.715 ms  
Loss rate: 0.71%  
-- Flow 3:  
Average throughput: 0.37 Mbit/s  
95th percentile per-packet one-way delay: 83.703 ms  
Loss rate: 1.27%

Run 10: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-06-19 09:10:08

End at: 2018-06-19 09:10:38

Local clock offset: -3.086 ms

Remote clock offset: 10.07 ms

# Below is generated by plot.py at 2018-06-19 12:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.56 Mbit/s

95th percentile per-packet one-way delay: 108.394 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 48.18 Mbit/s

95th percentile per-packet one-way delay: 108.506 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 35.74 Mbit/s

95th percentile per-packet one-way delay: 106.531 ms

Loss rate: 0.97%

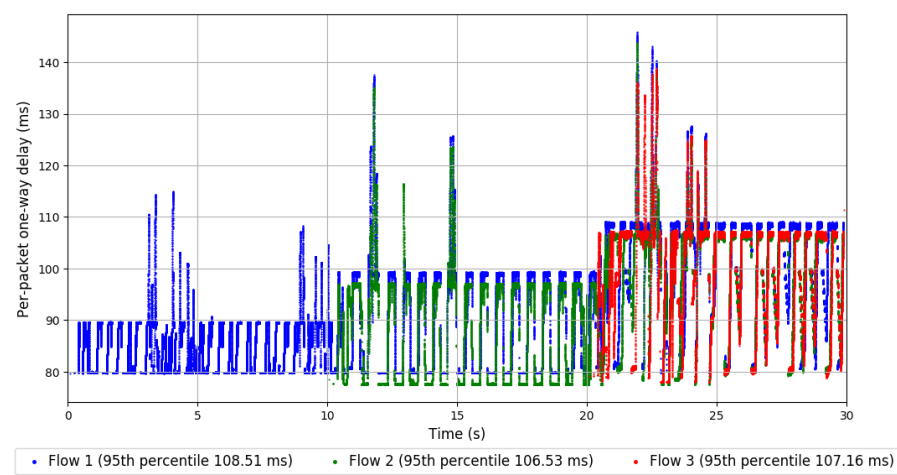
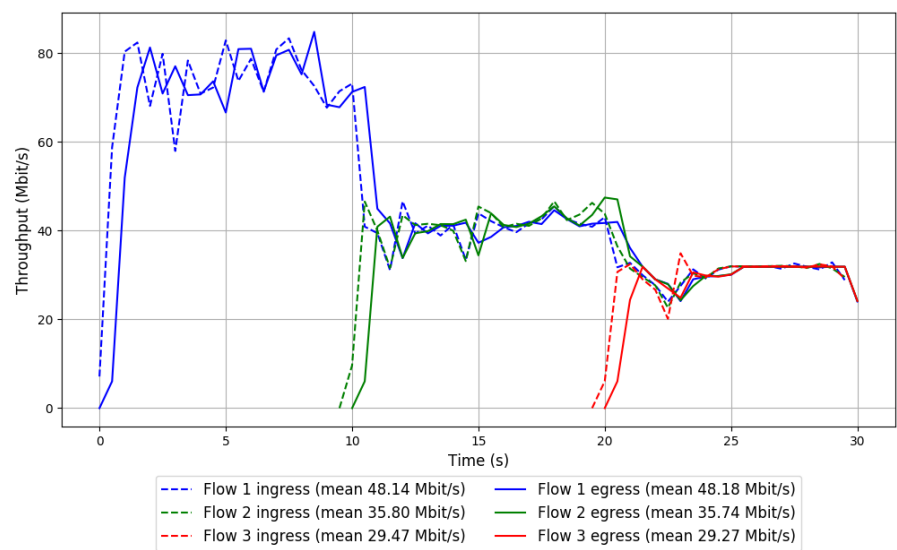
-- Flow 3:

Average throughput: 29.27 Mbit/s

95th percentile per-packet one-way delay: 107.157 ms

Loss rate: 2.23%

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

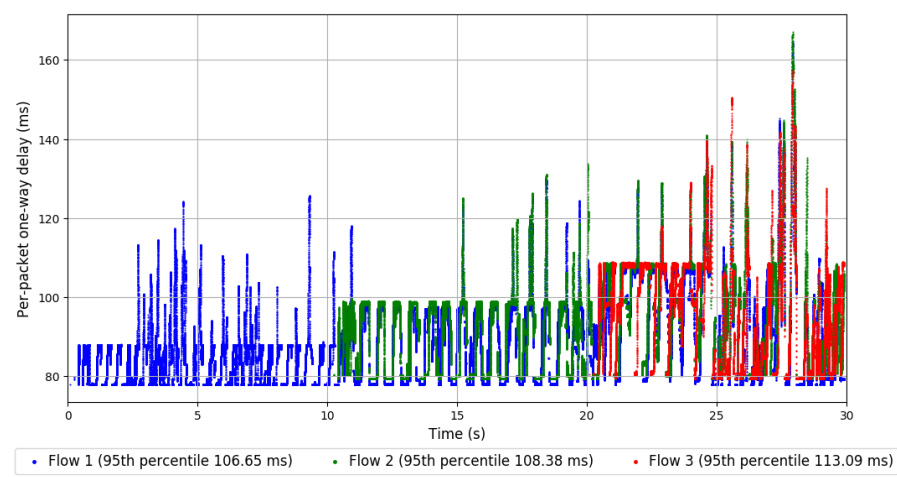
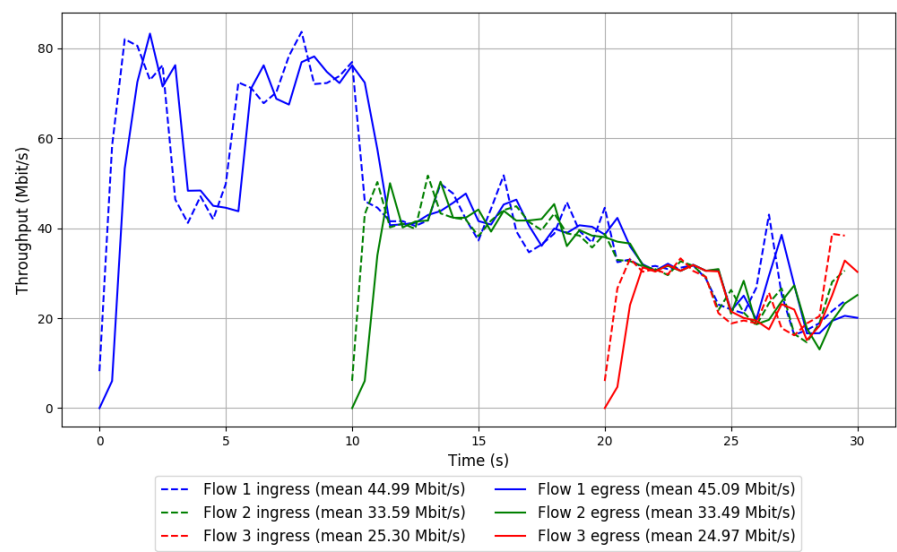


Run 2: Statistics of TaoVA-100x

Start at: 2018-06-19 09:29:57  
End at: 2018-06-19 09:30:27  
Local clock offset: -3.554 ms  
Remote clock offset: 10.029 ms

# Below is generated by plot.py at 2018-06-19 12:37:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.55 Mbit/s  
95th percentile per-packet one-way delay: 108.248 ms  
Loss rate: 0.87%  
-- Flow 1:  
Average throughput: 45.09 Mbit/s  
95th percentile per-packet one-way delay: 106.652 ms  
Loss rate: 0.37%  
-- Flow 2:  
Average throughput: 33.49 Mbit/s  
95th percentile per-packet one-way delay: 108.380 ms  
Loss rate: 1.11%  
-- Flow 3:  
Average throughput: 24.97 Mbit/s  
95th percentile per-packet one-way delay: 113.089 ms  
Loss rate: 2.90%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-06-19 09:49:52

End at: 2018-06-19 09:50:22

Local clock offset: -2.039 ms

Remote clock offset: 8.985 ms

# Below is generated by plot.py at 2018-06-19 12:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 64.03 Mbit/s

95th percentile per-packet one-way delay: 105.998 ms

Loss rate: 11.07%

-- Flow 1:

Average throughput: 38.14 Mbit/s

95th percentile per-packet one-way delay: 101.928 ms

Loss rate: 9.74%

-- Flow 2:

Average throughput: 27.82 Mbit/s

95th percentile per-packet one-way delay: 107.315 ms

Loss rate: 12.28%

-- Flow 3:

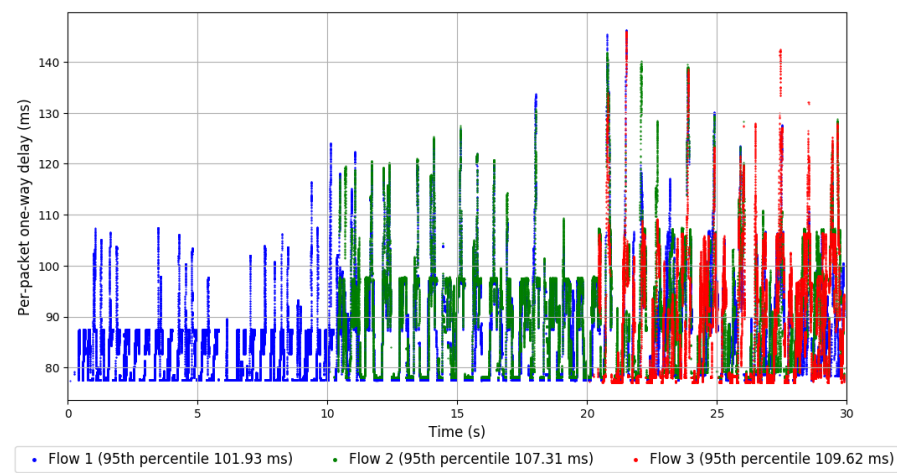
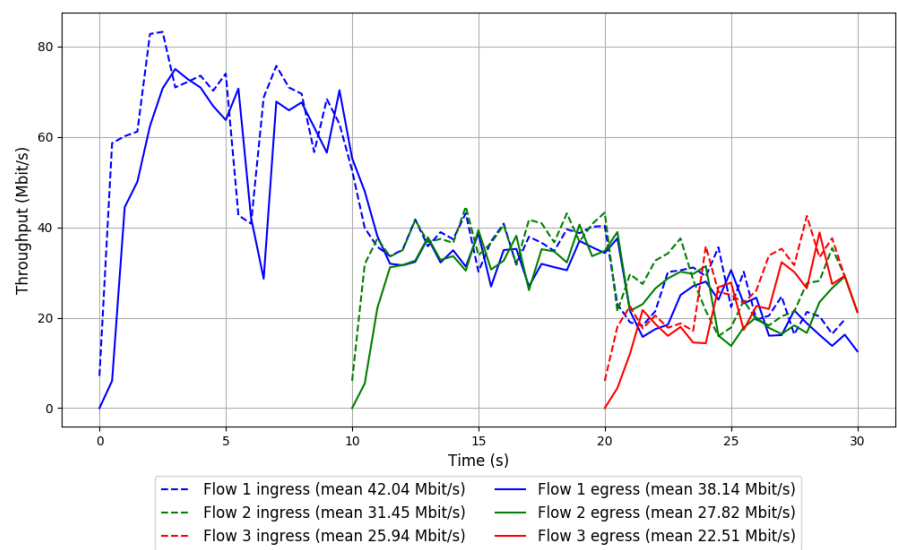
Average throughput: 22.51 Mbit/s

95th percentile per-packet one-way delay: 109.624 ms

Loss rate: 14.63%



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



Run 4: Statistics of TaoVA-100x

Start at: 2018-06-19 10:09:41

End at: 2018-06-19 10:10:11

Local clock offset: -1.716 ms

Remote clock offset: 4.892 ms

# Below is generated by plot.py at 2018-06-19 12:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.28 Mbit/s

95th percentile per-packet one-way delay: 111.908 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 45.01 Mbit/s

95th percentile per-packet one-way delay: 109.791 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 34.39 Mbit/s

95th percentile per-packet one-way delay: 114.766 ms

Loss rate: 0.92%

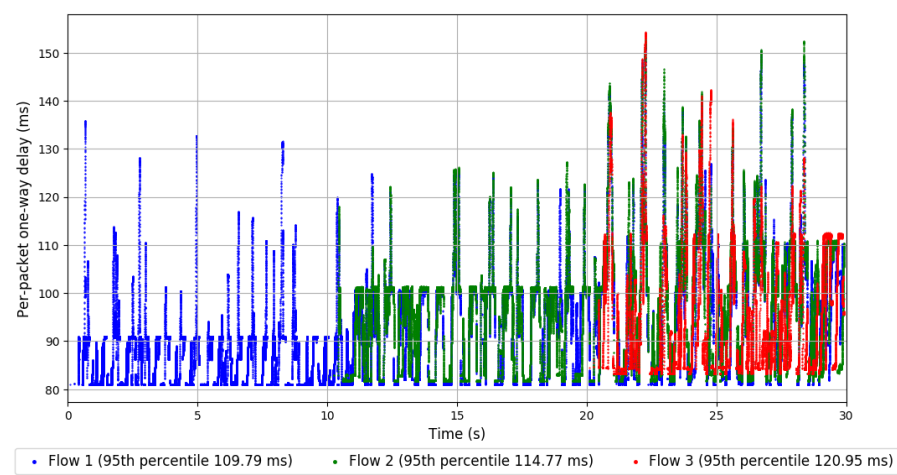
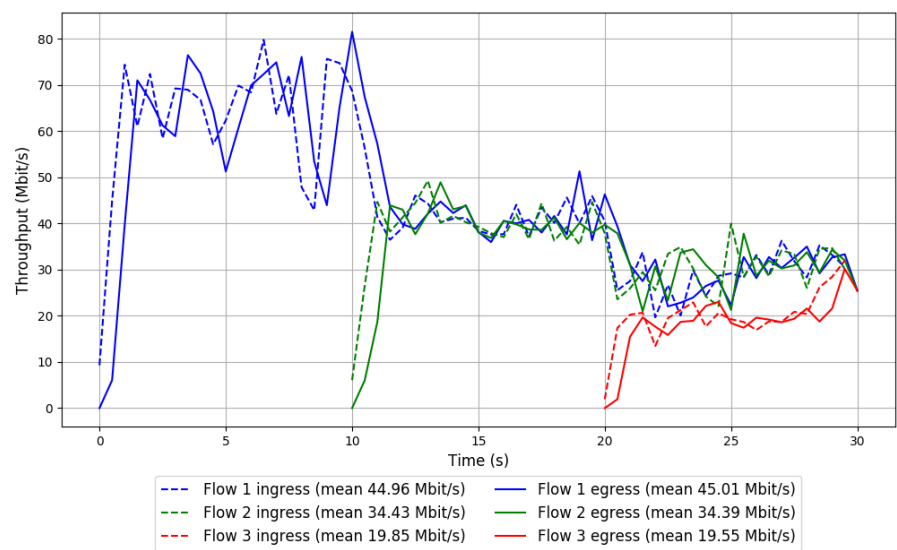
-- Flow 3:

Average throughput: 19.55 Mbit/s

95th percentile per-packet one-way delay: 120.954 ms

Loss rate: 3.13%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-06-19 10:29:35

End at: 2018-06-19 10:30:05

Local clock offset: -1.822 ms

Remote clock offset: 4.693 ms

# Below is generated by plot.py at 2018-06-19 12:37:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 75.84 Mbit/s

95th percentile per-packet one-way delay: 112.781 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 45.26 Mbit/s

95th percentile per-packet one-way delay: 112.700 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 33.77 Mbit/s

95th percentile per-packet one-way delay: 112.364 ms

Loss rate: 0.83%

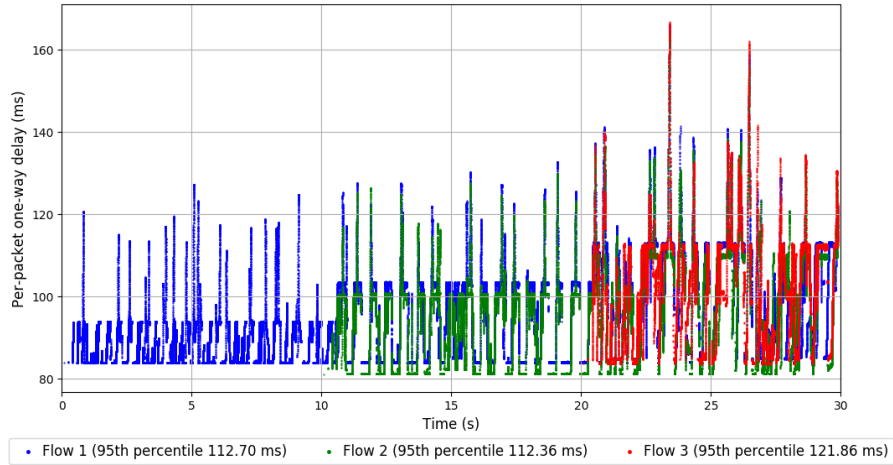
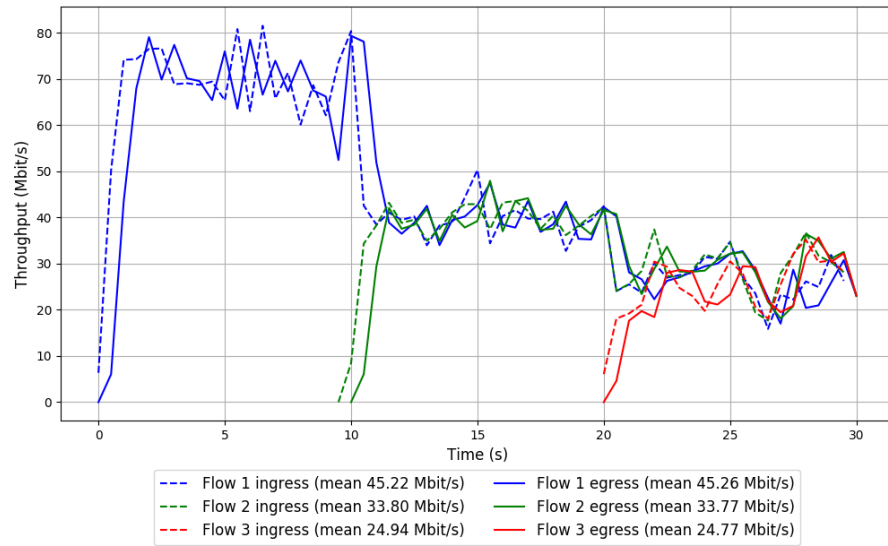
-- Flow 3:

Average throughput: 24.77 Mbit/s

95th percentile per-packet one-way delay: 121.862 ms

Loss rate: 2.23%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-06-19 10:49:25

End at: 2018-06-19 10:49:55

Local clock offset: -1.579 ms

Remote clock offset: 9.616 ms

# Below is generated by plot.py at 2018-06-19 12:37:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 64.01 Mbit/s

95th percentile per-packet one-way delay: 111.005 ms

Loss rate: 10.89%

-- Flow 1:

Average throughput: 37.97 Mbit/s

95th percentile per-packet one-way delay: 107.082 ms

Loss rate: 9.43%

-- Flow 2:

Average throughput: 29.95 Mbit/s

95th percentile per-packet one-way delay: 111.588 ms

Loss rate: 12.56%

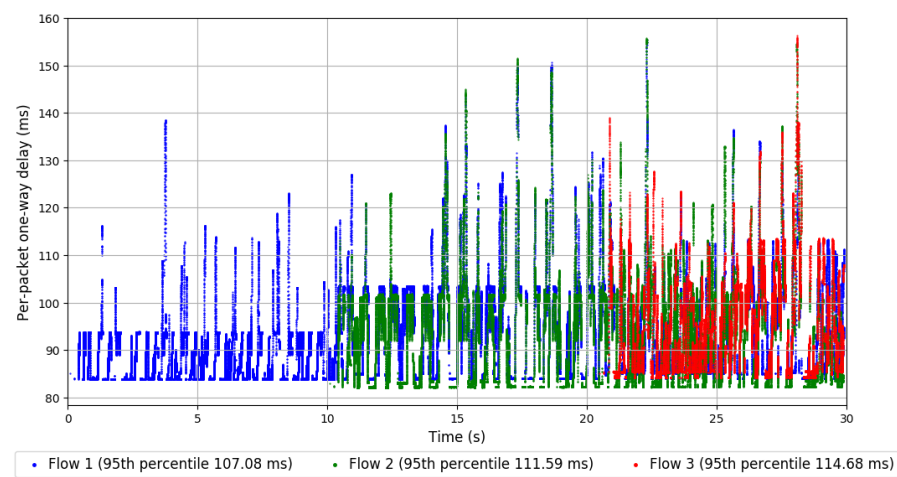
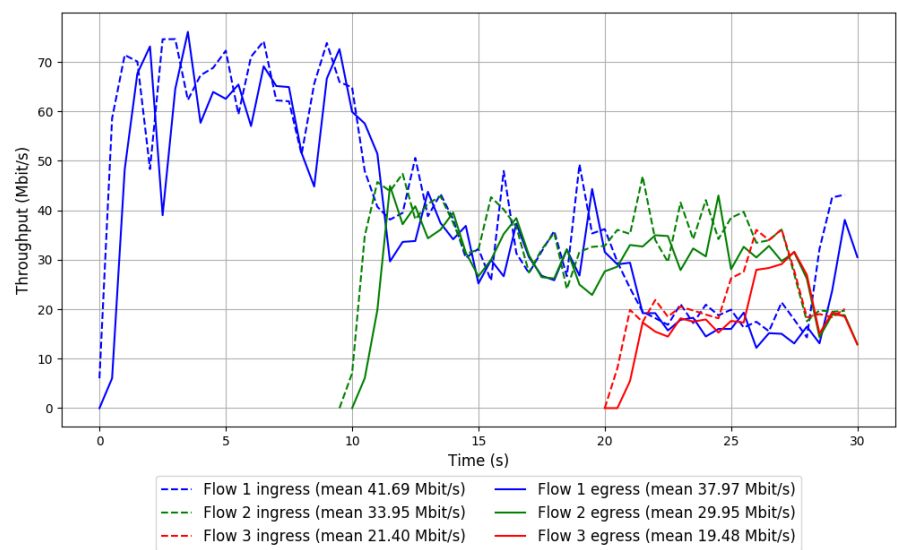
-- Flow 3:

Average throughput: 19.48 Mbit/s

95th percentile per-packet one-way delay: 114.681 ms

Loss rate: 14.15%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-06-19 11:09:22

End at: 2018-06-19 11:09:52

Local clock offset: -1.866 ms

Remote clock offset: 10.94 ms

# Below is generated by plot.py at 2018-06-19 12:38:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 76.88 Mbit/s

95th percentile per-packet one-way delay: 114.183 ms

Loss rate: 4.15%

-- Flow 1:

Average throughput: 45.09 Mbit/s

95th percentile per-packet one-way delay: 114.195 ms

Loss rate: 5.14%

-- Flow 2:

Average throughput: 35.18 Mbit/s

95th percentile per-packet one-way delay: 112.128 ms

Loss rate: 2.71%

-- Flow 3:

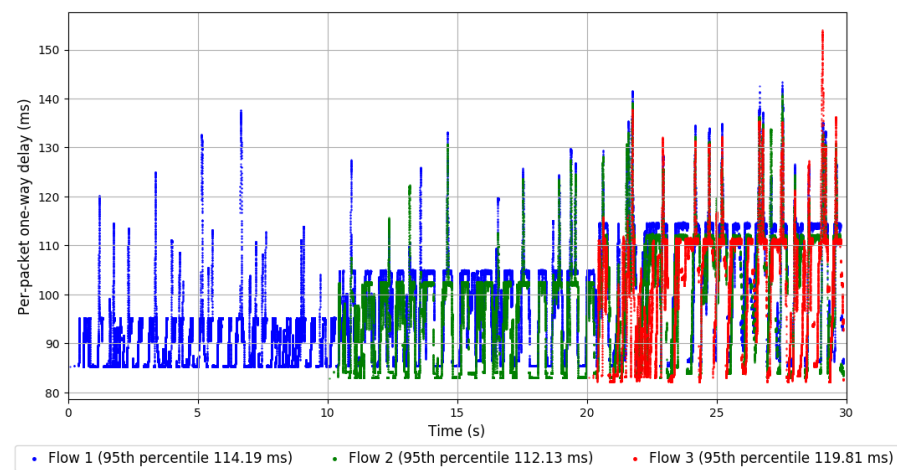
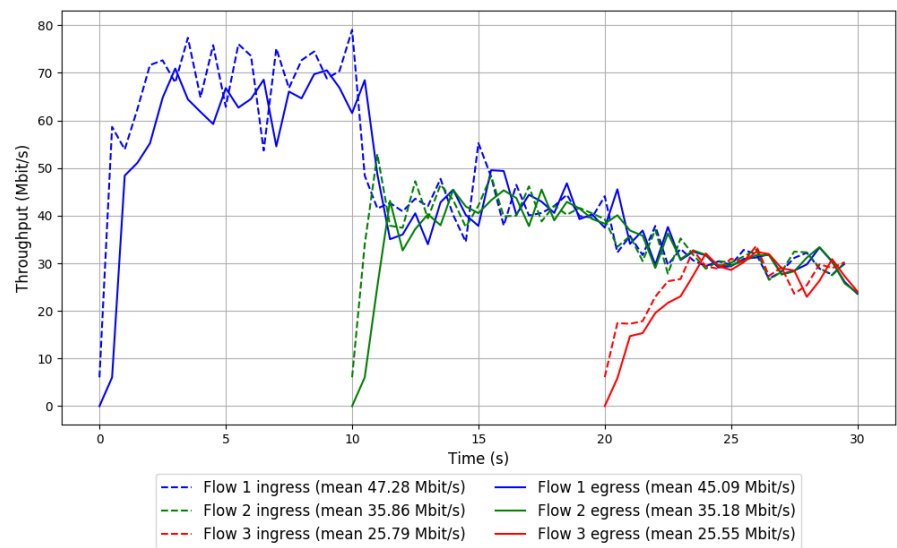
Average throughput: 25.55 Mbit/s

95th percentile per-packet one-way delay: 119.805 ms

Loss rate: 2.68%



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

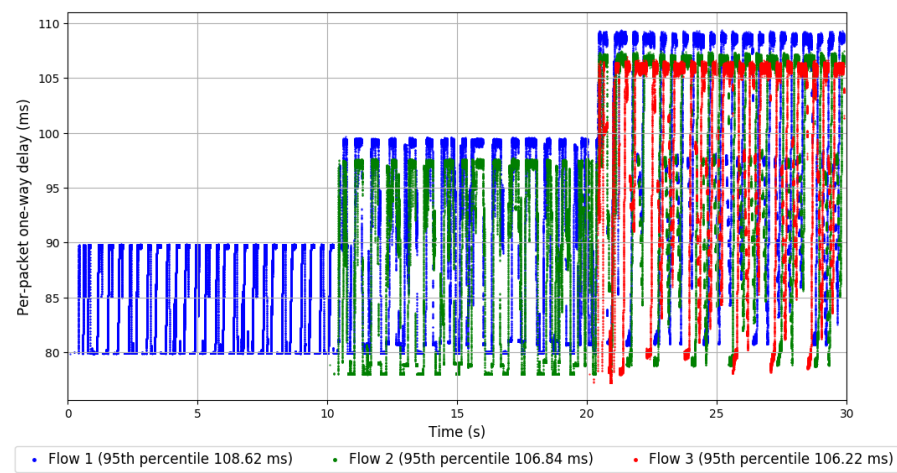
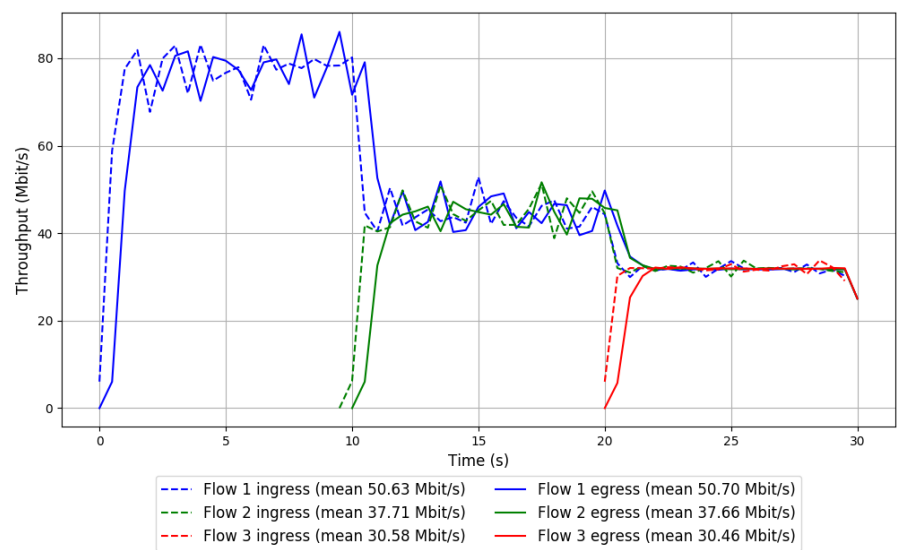


Run 8: Statistics of TaoVA-100x

Start at: 2018-06-19 11:29:12  
End at: 2018-06-19 11:29:42  
Local clock offset: -2.474 ms  
Remote clock offset: 17.576 ms

# Below is generated by plot.py at 2018-06-19 12:38:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.75 Mbit/s  
95th percentile per-packet one-way delay: 108.295 ms  
Loss rate: 0.76%  
-- Flow 1:  
Average throughput: 50.70 Mbit/s  
95th percentile per-packet one-way delay: 108.619 ms  
Loss rate: 0.42%  
-- Flow 2:  
Average throughput: 37.66 Mbit/s  
95th percentile per-packet one-way delay: 106.844 ms  
Loss rate: 0.95%  
-- Flow 3:  
Average throughput: 30.46 Mbit/s  
95th percentile per-packet one-way delay: 106.223 ms  
Loss rate: 2.03%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-06-19 11:49:26

End at: 2018-06-19 11:49:56

Local clock offset: -2.987 ms

Remote clock offset: 10.76 ms

# Below is generated by plot.py at 2018-06-19 12:39:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.59 Mbit/s

95th percentile per-packet one-way delay: 112.094 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 50.98 Mbit/s

95th percentile per-packet one-way delay: 109.926 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 37.13 Mbit/s

95th percentile per-packet one-way delay: 109.513 ms

Loss rate: 0.99%

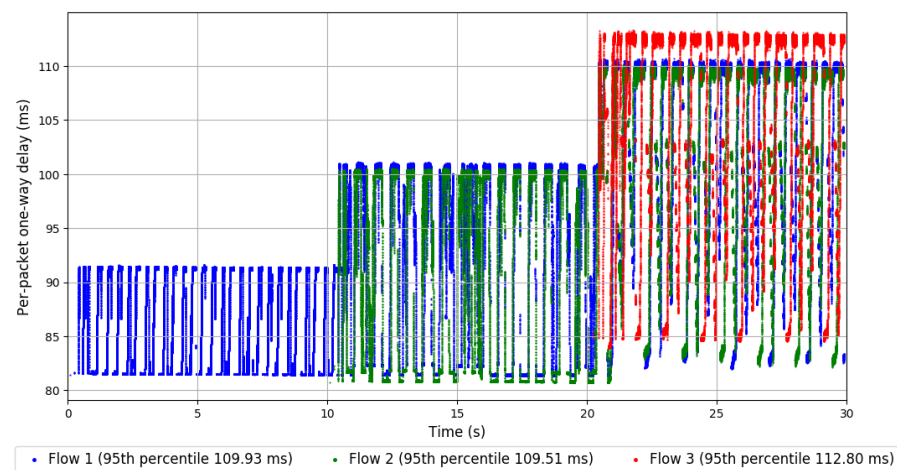
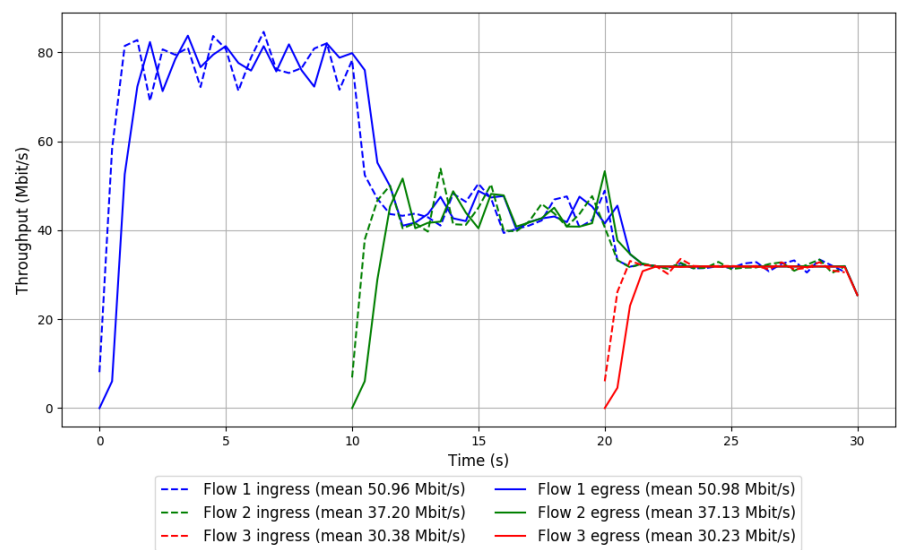
-- Flow 3:

Average throughput: 30.23 Mbit/s

95th percentile per-packet one-way delay: 112.801 ms

Loss rate: 2.14%

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



Run 10: Statistics of TaoVA-100x

Start at: 2018-06-19 12:09:28

End at: 2018-06-19 12:09:58

Local clock offset: -2.961 ms

Remote clock offset: 9.396 ms

# Below is generated by plot.py at 2018-06-19 12:39:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 73.93 Mbit/s

95th percentile per-packet one-way delay: 102.822 ms

Loss rate: 12.67%

-- Flow 1:

Average throughput: 46.81 Mbit/s

95th percentile per-packet one-way delay: 97.766 ms

Loss rate: 11.06%

-- Flow 2:

Average throughput: 33.68 Mbit/s

95th percentile per-packet one-way delay: 107.052 ms

Loss rate: 14.62%

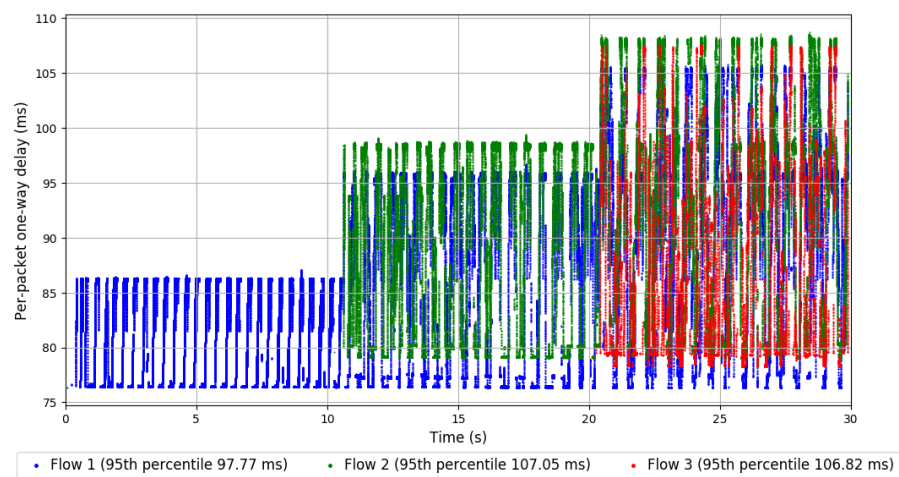
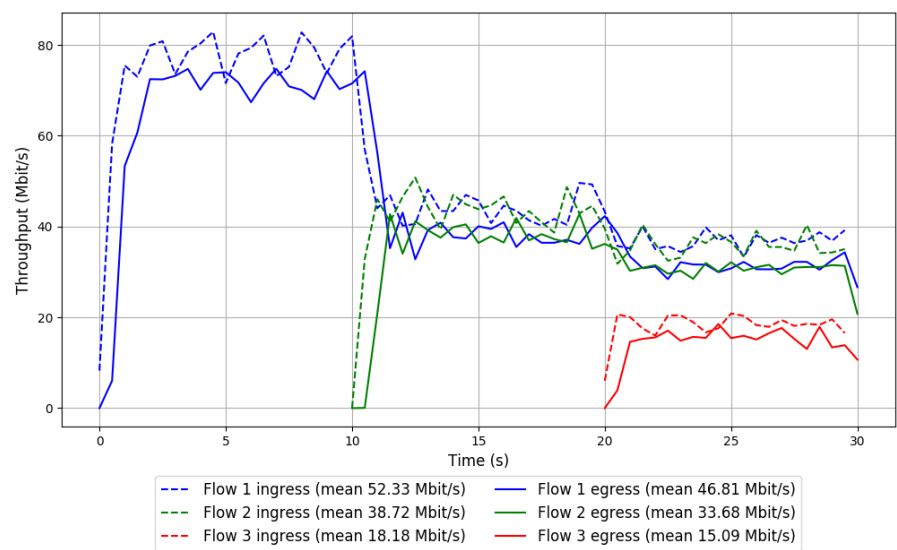
-- Flow 3:

Average throughput: 15.09 Mbit/s

95th percentile per-packet one-way delay: 106.824 ms

Loss rate: 18.37%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-06-19 09:17:36

End at: 2018-06-19 09:18:06

Local clock offset: -3.372 ms

Remote clock offset: 5.169 ms

# Below is generated by plot.py at 2018-06-19 12:39:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 52.15 Mbit/s

95th percentile per-packet one-way delay: 96.689 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 27.17 Mbit/s

95th percentile per-packet one-way delay: 96.600 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 26.54 Mbit/s

95th percentile per-packet one-way delay: 97.221 ms

Loss rate: 0.68%

-- Flow 3:

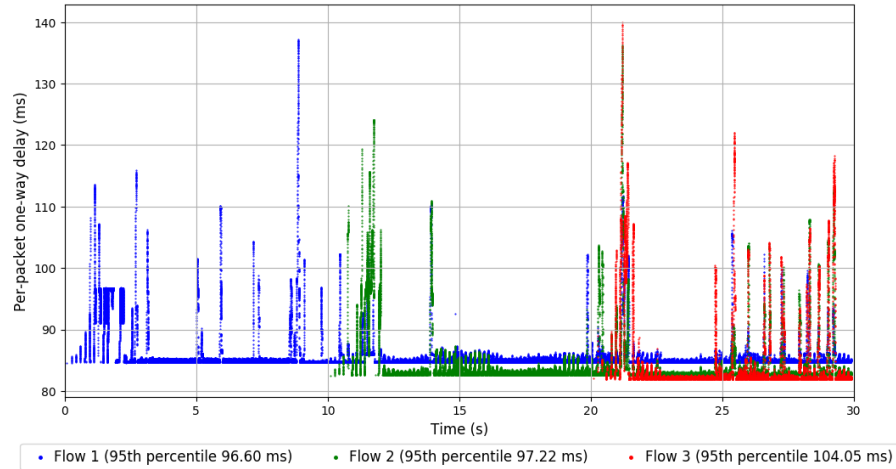
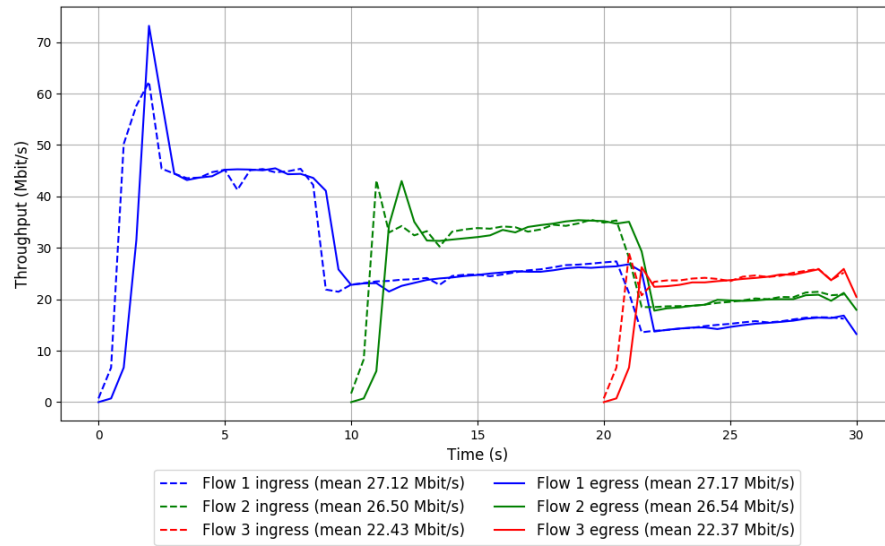
Average throughput: 22.37 Mbit/s

95th percentile per-packet one-way delay: 104.053 ms

Loss rate: 1.90%



# Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-06-19 09:37:23

End at: 2018-06-19 09:37:53

Local clock offset: -2.986 ms

Remote clock offset: 9.432 ms

# Below is generated by plot.py at 2018-06-19 12:39:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 45.66 Mbit/s

95th percentile per-packet one-way delay: 94.854 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 27.26 Mbit/s

95th percentile per-packet one-way delay: 92.055 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 19.05 Mbit/s

95th percentile per-packet one-way delay: 99.286 ms

Loss rate: 0.73%

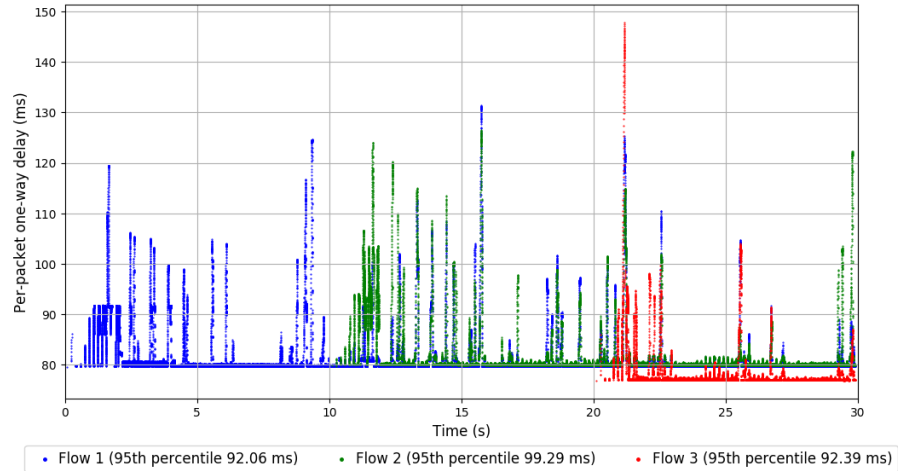
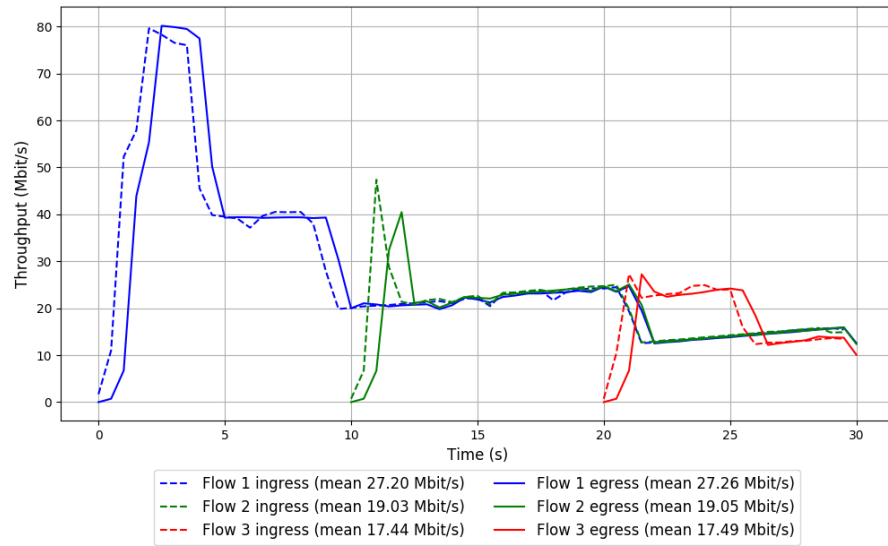
-- Flow 3:

Average throughput: 17.49 Mbit/s

95th percentile per-packet one-way delay: 92.386 ms

Loss rate: 1.31%

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

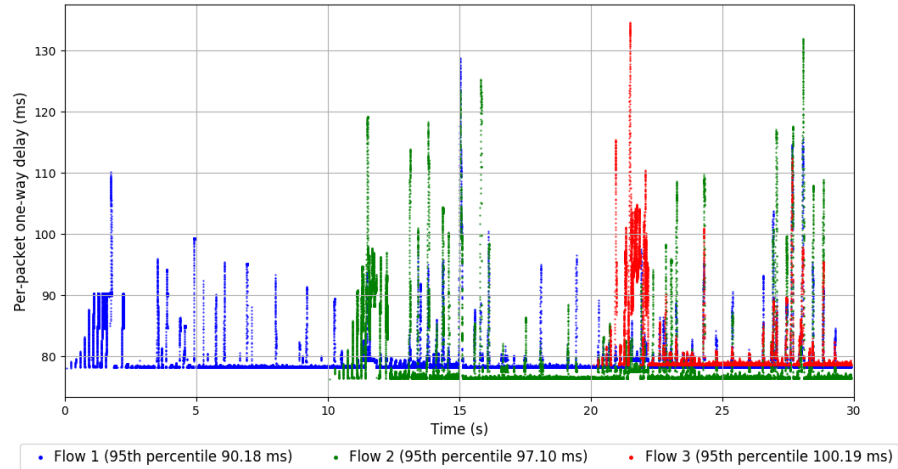
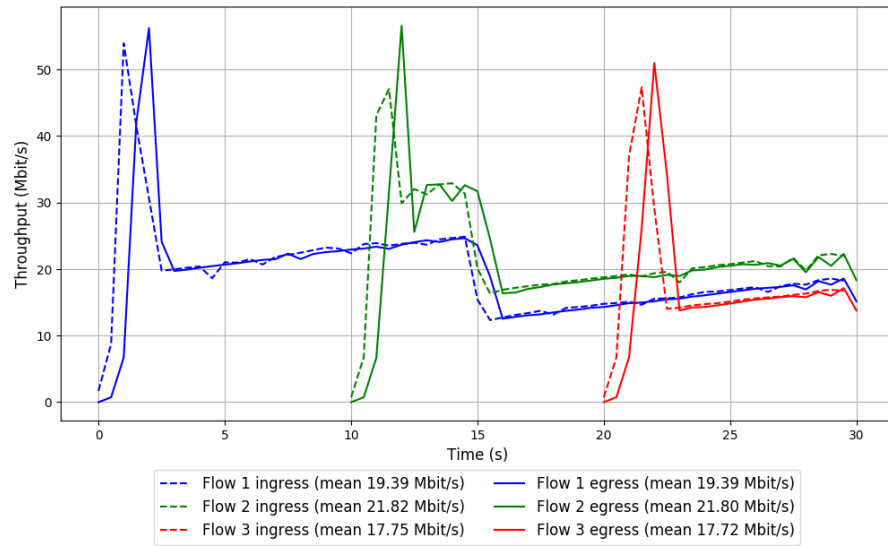


Run 3: Statistics of TCP Vegas

Start at: 2018-06-19 09:57:21  
End at: 2018-06-19 09:57:51  
Local clock offset: -1.79 ms  
Remote clock offset: 10.147 ms

# Below is generated by plot.py at 2018-06-19 12:39:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 39.70 Mbit/s  
95th percentile per-packet one-way delay: 94.952 ms  
Loss rate: 0.85%  
-- Flow 1:  
Average throughput: 19.39 Mbit/s  
95th percentile per-packet one-way delay: 90.180 ms  
Loss rate: 0.54%  
-- Flow 2:  
Average throughput: 21.80 Mbit/s  
95th percentile per-packet one-way delay: 97.098 ms  
Loss rate: 0.87%  
-- Flow 3:  
Average throughput: 17.72 Mbit/s  
95th percentile per-packet one-way delay: 100.188 ms  
Loss rate: 1.80%

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



Run 4: Statistics of TCP Vegas

Start at: 2018-06-19 10:17:09

End at: 2018-06-19 10:17:39

Local clock offset: -1.798 ms

Remote clock offset: 7.601 ms

# Below is generated by plot.py at 2018-06-19 12:39:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 48.65 Mbit/s

95th percentile per-packet one-way delay: 97.042 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 30.75 Mbit/s

95th percentile per-packet one-way delay: 94.451 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 20.63 Mbit/s

95th percentile per-packet one-way delay: 99.863 ms

Loss rate: 0.58%

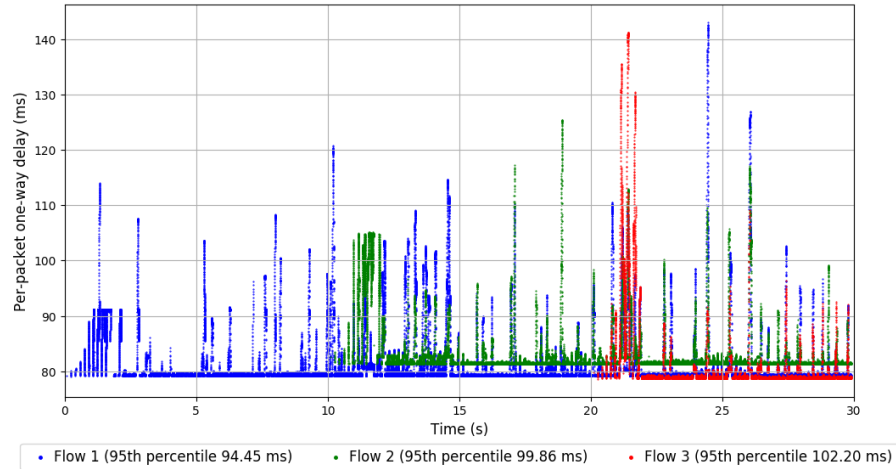
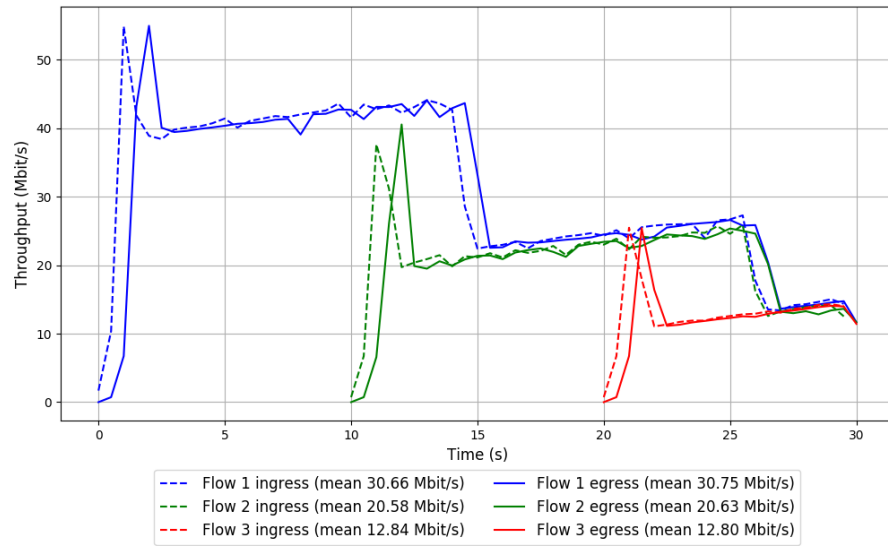
-- Flow 3:

Average throughput: 12.80 Mbit/s

95th percentile per-packet one-way delay: 102.199 ms

Loss rate: 1.87%

# Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-06-19 10:37:02

End at: 2018-06-19 10:37:32

Local clock offset: -1.712 ms

Remote clock offset: 7.621 ms

# Below is generated by plot.py at 2018-06-19 12:39:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 47.11 Mbit/s

95th percentile per-packet one-way delay: 96.168 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 27.07 Mbit/s

95th percentile per-packet one-way delay: 90.766 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 19.78 Mbit/s

95th percentile per-packet one-way delay: 99.680 ms

Loss rate: 0.66%

-- Flow 3:

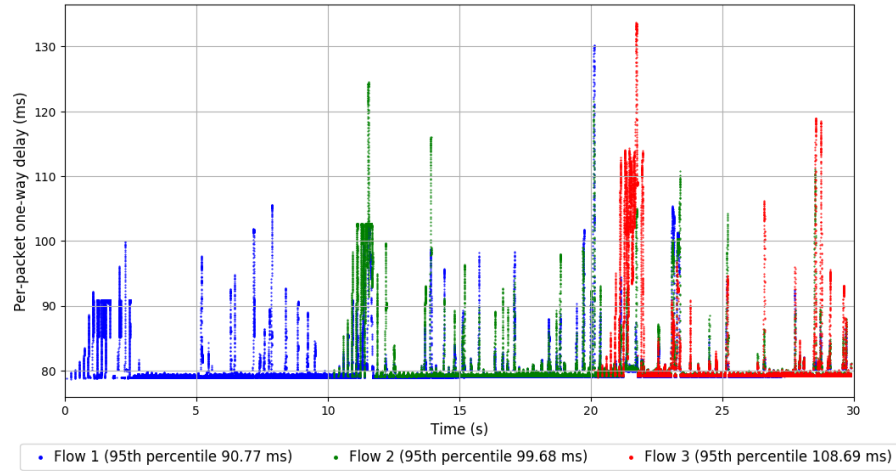
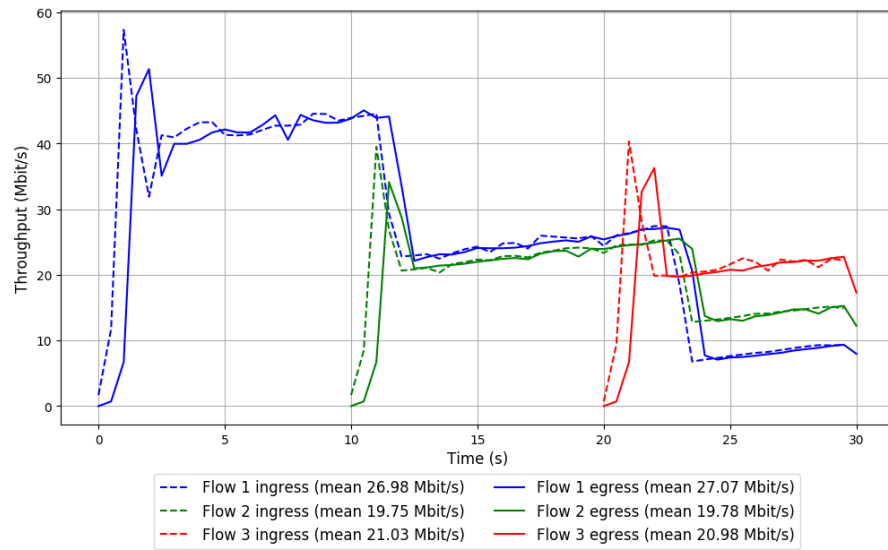
Average throughput: 20.98 Mbit/s

95th percentile per-packet one-way delay: 108.695 ms

Loss rate: 1.83%



# Run 5: Report of TCP Vegas — Data Link

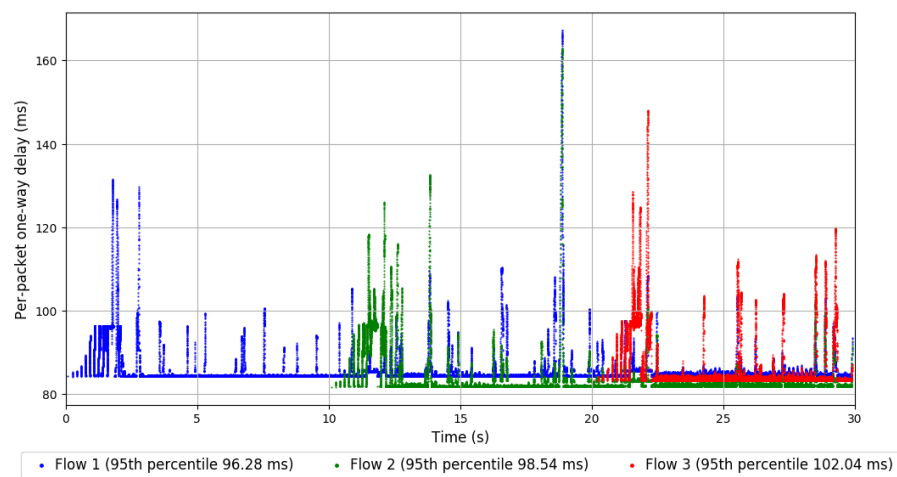
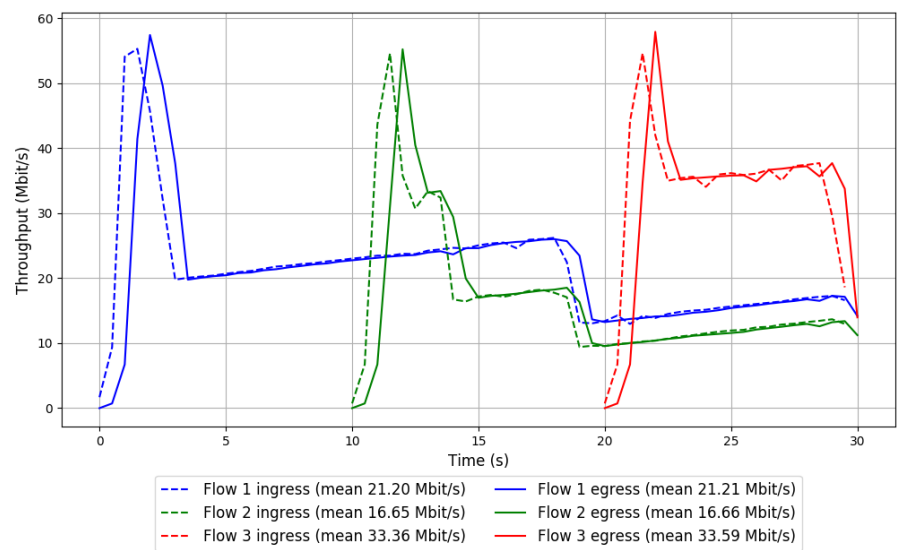


Run 6: Statistics of TCP Vegas

Start at: 2018-06-19 10:57:01  
End at: 2018-06-19 10:57:31  
Local clock offset: -1.487 ms  
Remote clock offset: 10.671 ms

# Below is generated by plot.py at 2018-06-19 12:39:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 43.32 Mbit/s  
95th percentile per-packet one-way delay: 98.431 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 21.21 Mbit/s  
95th percentile per-packet one-way delay: 96.276 ms  
Loss rate: 0.48%  
-- Flow 2:  
Average throughput: 16.66 Mbit/s  
95th percentile per-packet one-way delay: 98.540 ms  
Loss rate: 0.70%  
-- Flow 3:  
Average throughput: 33.59 Mbit/s  
95th percentile per-packet one-way delay: 102.043 ms  
Loss rate: 0.98%

Run 6: Report of TCP Vegas — Data Link

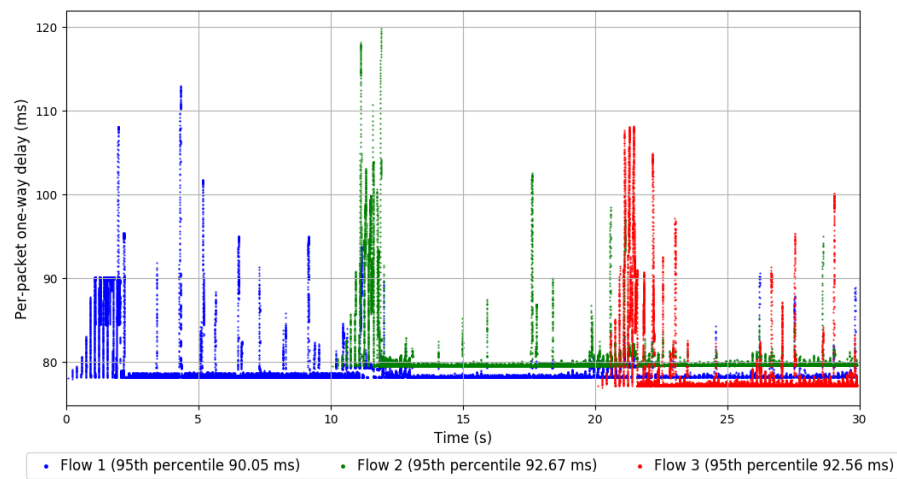
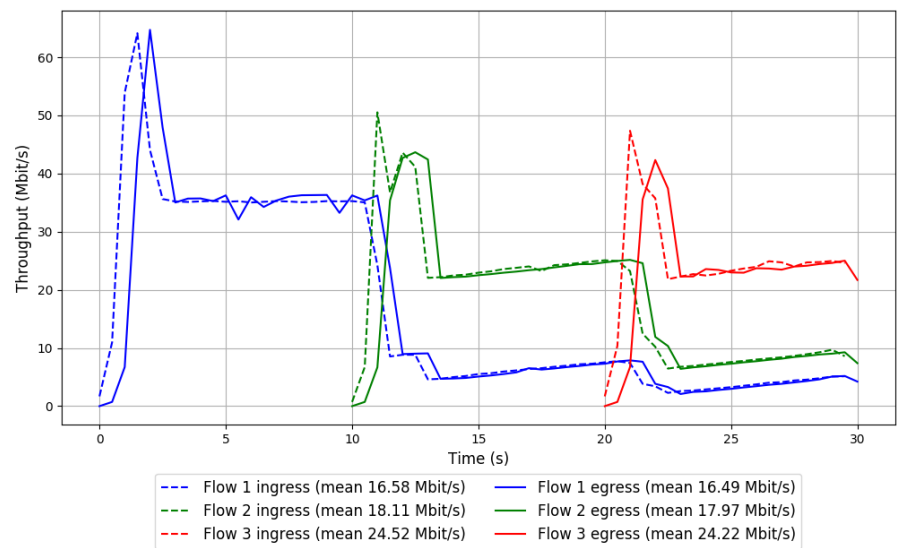


Run 7: Statistics of TCP Vegas

Start at: 2018-06-19 11:16:50  
End at: 2018-06-19 11:17:20  
Local clock offset: -2.186 ms  
Remote clock offset: 16.596 ms

```
# Below is generated by plot.py at 2018-06-19 12:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.39 Mbit/s
95th percentile per-packet one-way delay: 90.125 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 16.49 Mbit/s
95th percentile per-packet one-way delay: 90.047 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 17.97 Mbit/s
95th percentile per-packet one-way delay: 92.670 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 92.565 ms
Loss rate: 2.85%
```

Run 7: Report of TCP Vegas — Data Link

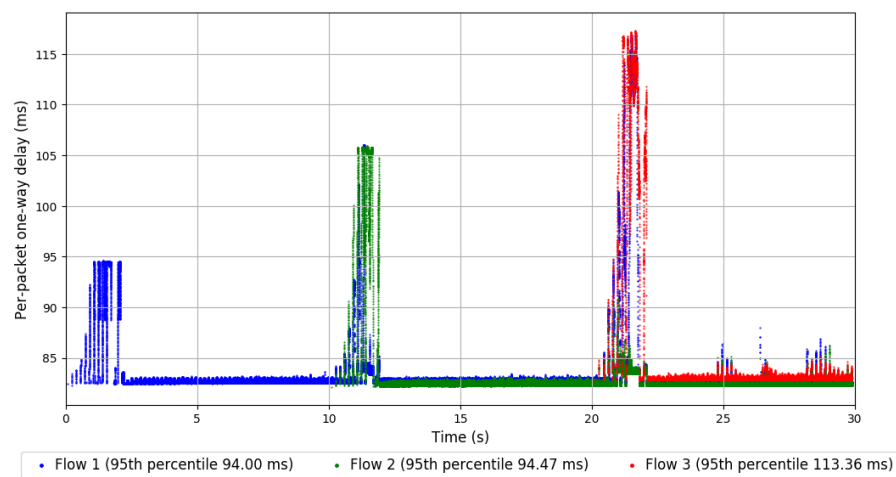
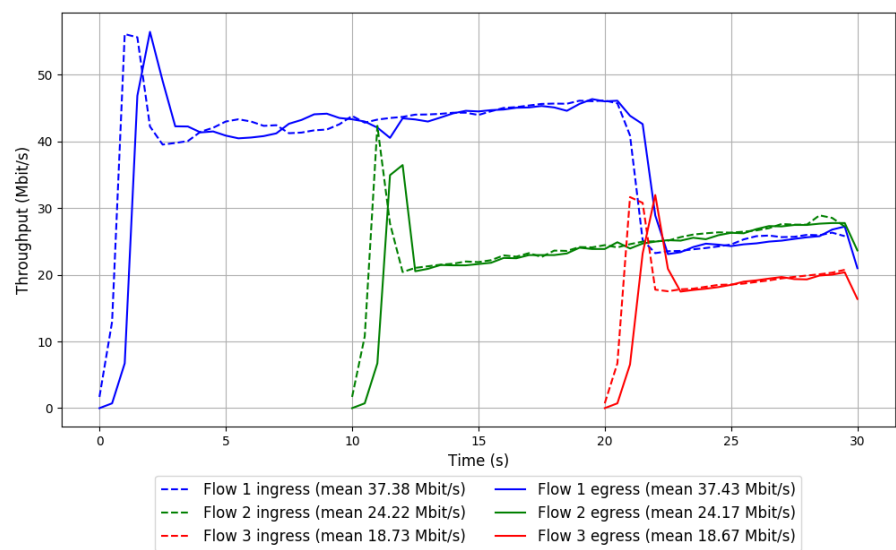


Run 8: Statistics of TCP Vegas

Start at: 2018-06-19 11:36:51  
End at: 2018-06-19 11:37:21  
Local clock offset: -2.702 ms  
Remote clock offset: 13.115 ms

# Below is generated by plot.py at 2018-06-19 12:39:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 59.62 Mbit/s  
95th percentile per-packet one-way delay: 94.395 ms  
Loss rate: 0.72%  
-- Flow 1:  
Average throughput: 37.43 Mbit/s  
95th percentile per-packet one-way delay: 93.996 ms  
Loss rate: 0.40%  
-- Flow 2:  
Average throughput: 24.17 Mbit/s  
95th percentile per-packet one-way delay: 94.471 ms  
Loss rate: 0.99%  
-- Flow 3:  
Average throughput: 18.67 Mbit/s  
95th percentile per-packet one-way delay: 113.355 ms  
Loss rate: 2.00%

Run 8: Report of TCP Vegas — Data Link



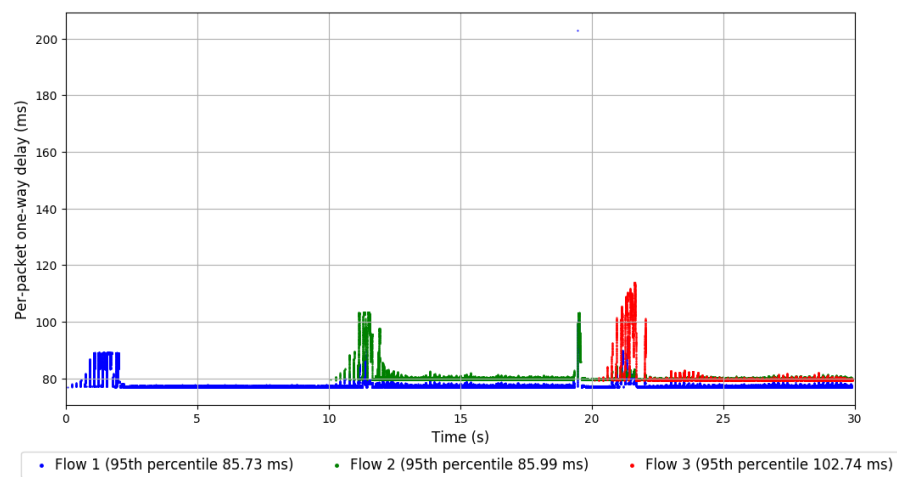
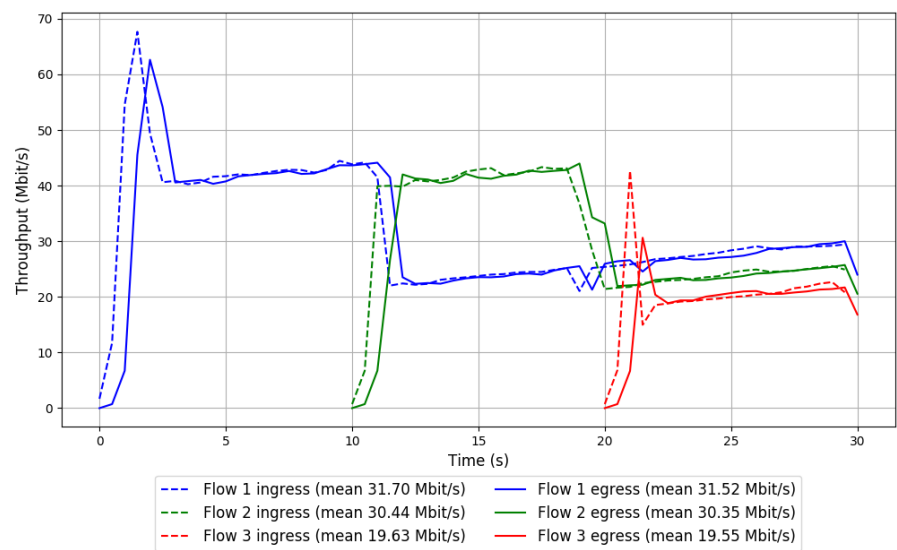
Run 9: Statistics of TCP Vegas

Start at: 2018-06-19 11:57:04  
End at: 2018-06-19 11:57:34  
Local clock offset: -3.197 ms  
Remote clock offset: 11.051 ms

# Below is generated by plot.py at 2018-06-19 12:39:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 58.09 Mbit/s  
95th percentile per-packet one-way delay: 88.129 ms  
Loss rate: 1.22%  
-- Flow 1:  
Average throughput: 31.52 Mbit/s  
95th percentile per-packet one-way delay: 85.730 ms  
Loss rate: 1.12%  
-- Flow 2:  
Average throughput: 30.35 Mbit/s  
95th percentile per-packet one-way delay: 85.988 ms  
Loss rate: 1.12%  
-- Flow 3:  
Average throughput: 19.55 Mbit/s  
95th percentile per-packet one-way delay: 102.740 ms  
Loss rate: 2.06%



Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-06-19 12:16:58

End at: 2018-06-19 12:17:28

Local clock offset: -2.772 ms

Remote clock offset: 2.244 ms

# Below is generated by plot.py at 2018-06-19 12:39:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 54.43 Mbit/s

95th percentile per-packet one-way delay: 94.158 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 31.25 Mbit/s

95th percentile per-packet one-way delay: 92.009 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 23.93 Mbit/s

95th percentile per-packet one-way delay: 96.563 ms

Loss rate: 0.98%

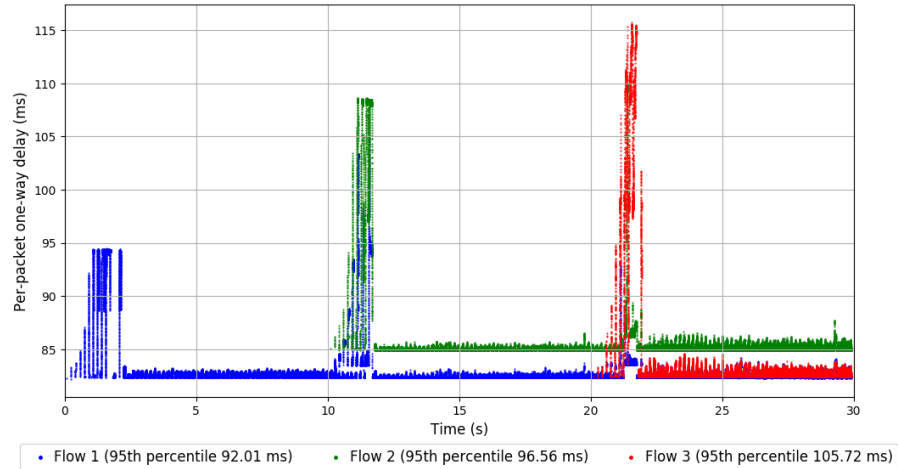
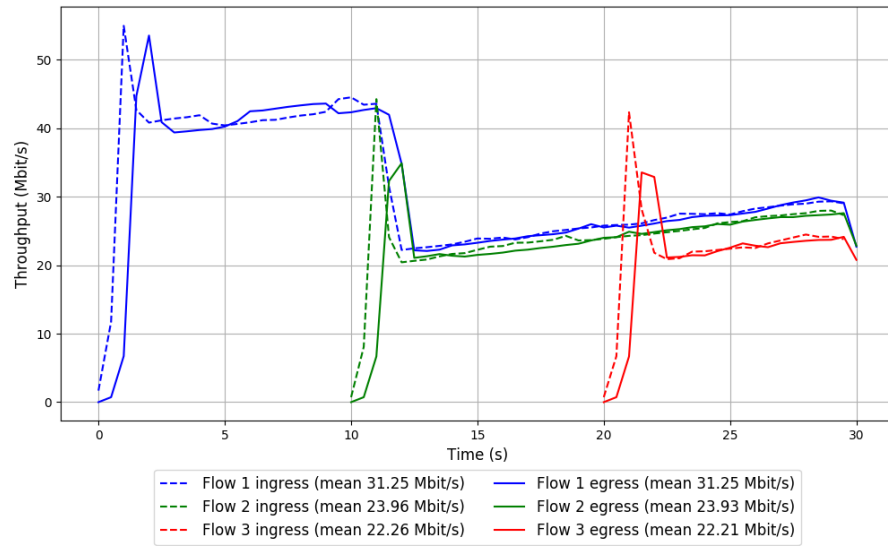
-- Flow 3:

Average throughput: 22.21 Mbit/s

95th percentile per-packet one-way delay: 105.719 ms

Loss rate: 1.83%

# Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-06-19 09:04:00

End at: 2018-06-19 09:04:30

Local clock offset: -2.772 ms

Remote clock offset: 11.05 ms

# Below is generated by plot.py at 2018-06-19 12:39:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 60.19 Mbit/s

95th percentile per-packet one-way delay: 110.407 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 35.05 Mbit/s

95th percentile per-packet one-way delay: 106.952 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 29.16 Mbit/s

95th percentile per-packet one-way delay: 110.811 ms

Loss rate: 1.48%

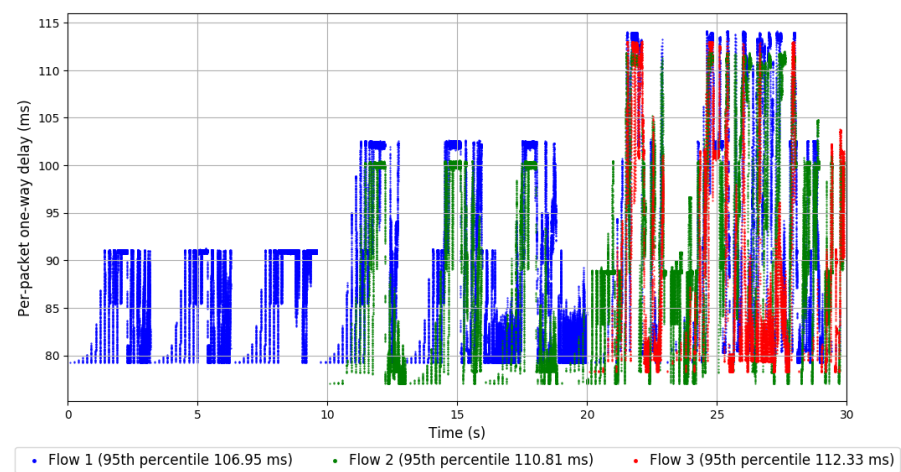
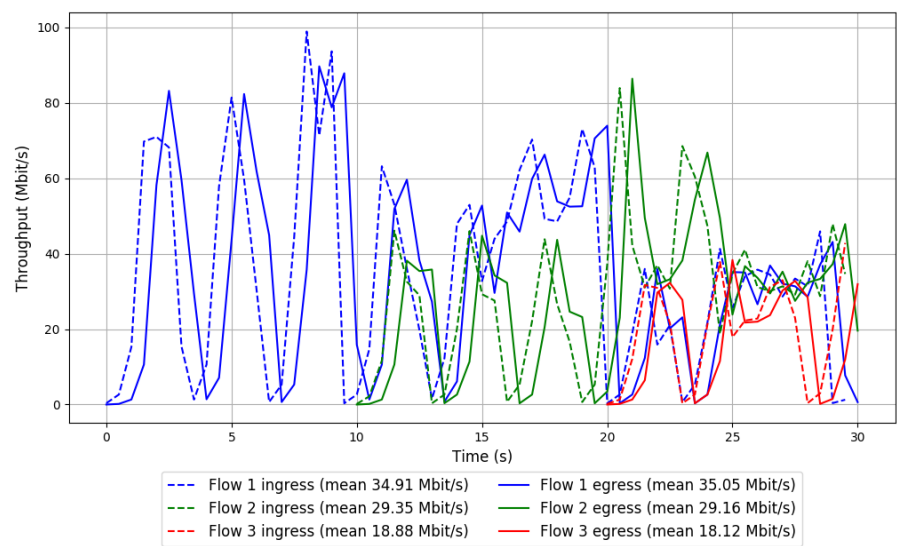
-- Flow 3:

Average throughput: 18.12 Mbit/s

95th percentile per-packet one-way delay: 112.327 ms

Loss rate: 5.61%

Run 1: Report of Verus — Data Link

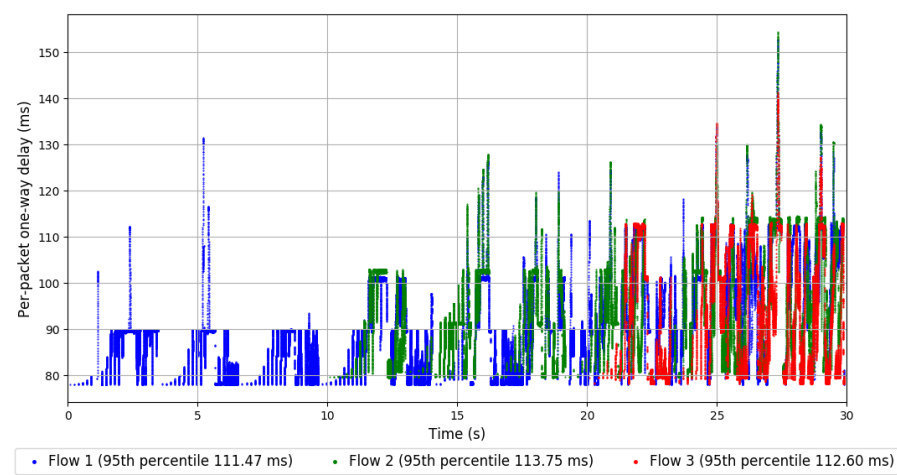
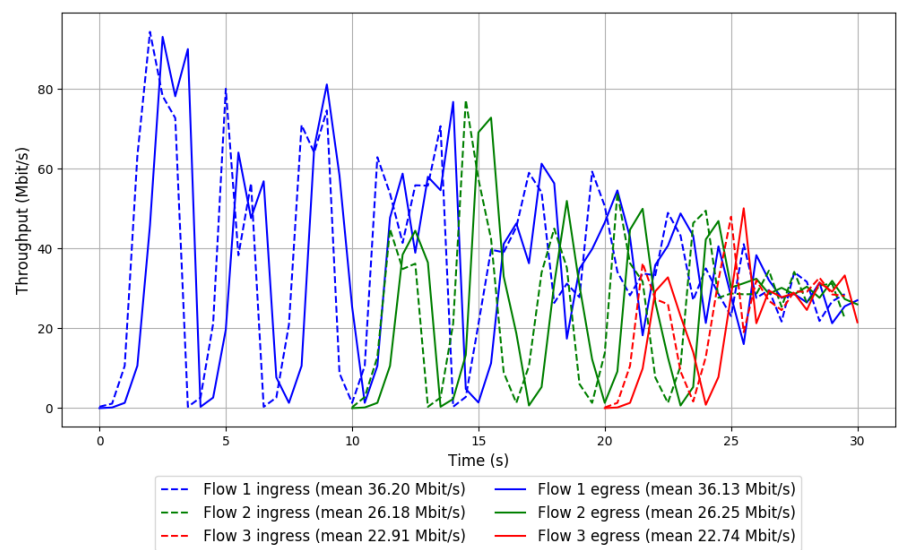


Run 2: Statistics of Verus

Start at: 2018-06-19 09:23:48  
End at: 2018-06-19 09:24:18  
Local clock offset: -3.485 ms  
Remote clock offset: 10.172 ms

# Below is generated by plot.py at 2018-06-19 12:39:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.00 Mbit/s  
95th percentile per-packet one-way delay: 112.266 ms  
Loss rate: 0.94%  
-- Flow 1:  
Average throughput: 36.13 Mbit/s  
95th percentile per-packet one-way delay: 111.471 ms  
Loss rate: 0.74%  
-- Flow 2:  
Average throughput: 26.25 Mbit/s  
95th percentile per-packet one-way delay: 113.755 ms  
Loss rate: 0.72%  
-- Flow 3:  
Average throughput: 22.74 Mbit/s  
95th percentile per-packet one-way delay: 112.598 ms  
Loss rate: 2.36%

Run 2: Report of Verus — Data Link



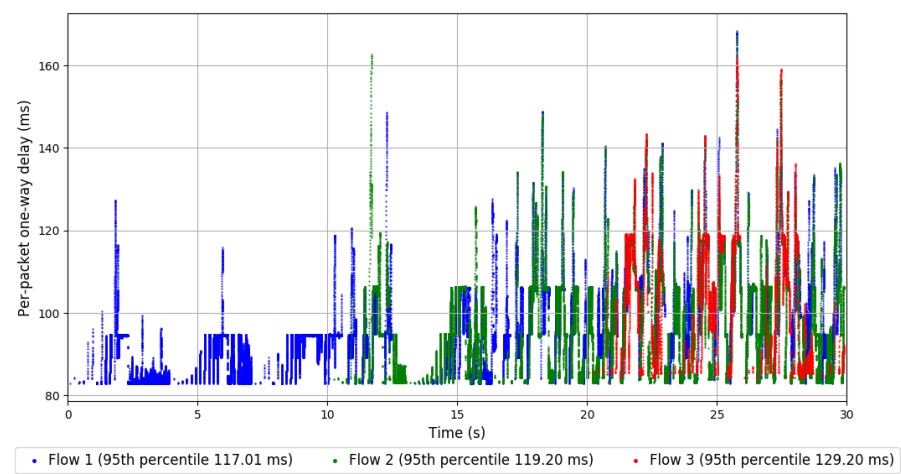
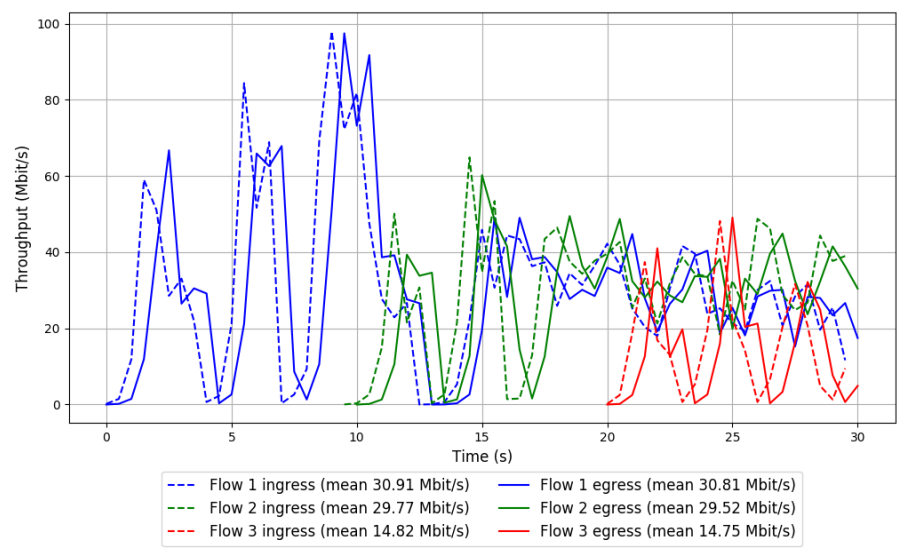
Run 3: Statistics of Verus

Start at: 2018-06-19 09:43:35  
End at: 2018-06-19 09:44:05  
Local clock offset: -2.332 ms  
Remote clock offset: 4.247 ms

# Below is generated by plot.py at 2018-06-19 12:39:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 55.15 Mbit/s  
95th percentile per-packet one-way delay: 118.499 ms  
Loss rate: 0.83%  
-- Flow 1:  
Average throughput: 30.81 Mbit/s  
95th percentile per-packet one-way delay: 117.006 ms  
Loss rate: 0.22%  
-- Flow 2:  
Average throughput: 29.52 Mbit/s  
95th percentile per-packet one-way delay: 119.205 ms  
Loss rate: 1.46%  
-- Flow 3:  
Average throughput: 14.75 Mbit/s  
95th percentile per-packet one-way delay: 129.204 ms  
Loss rate: 2.13%



Run 3: Report of Verus — Data Link

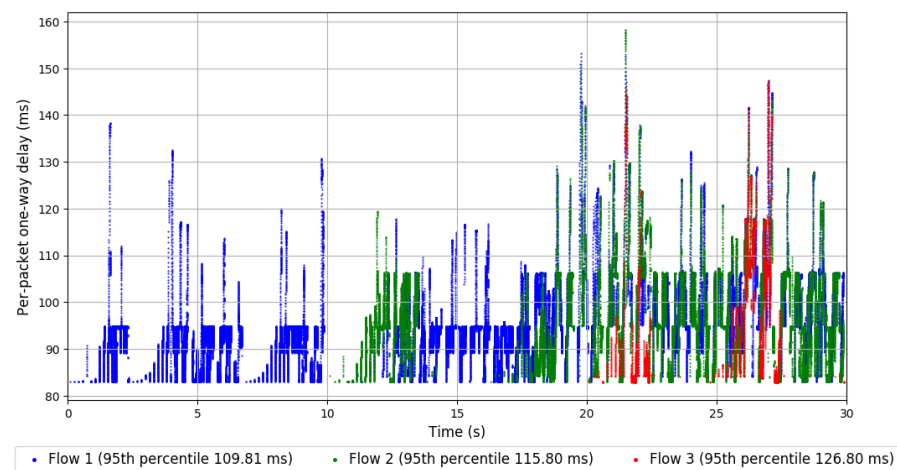
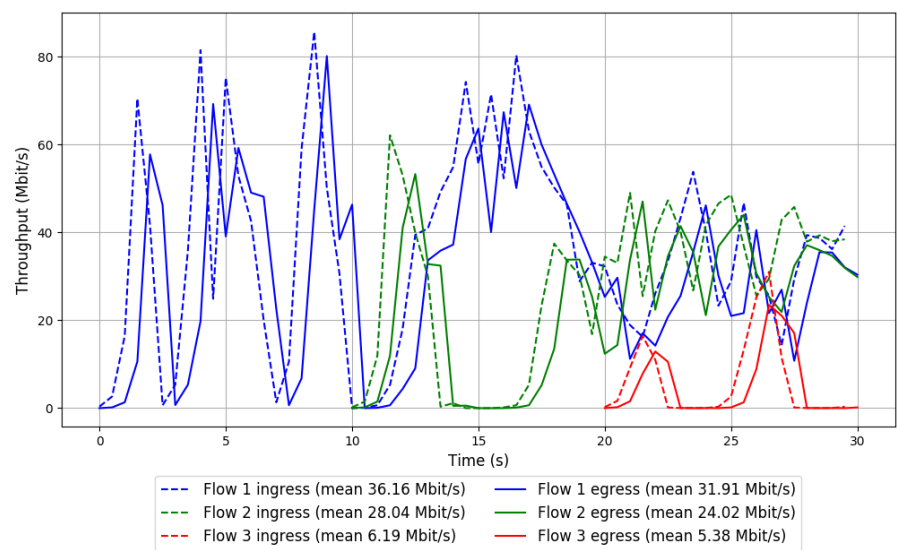


Run 4: Statistics of Verus

Start at: 2018-06-19 10:03:33  
End at: 2018-06-19 10:04:03  
Local clock offset: -1.569 ms  
Remote clock offset: 4.06 ms

# Below is generated by plot.py at 2018-06-19 12:39:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 49.61 Mbit/s  
95th percentile per-packet one-way delay: 113.914 ms  
Loss rate: 13.16%  
-- Flow 1:  
Average throughput: 31.91 Mbit/s  
95th percentile per-packet one-way delay: 109.807 ms  
Loss rate: 12.24%  
-- Flow 2:  
Average throughput: 24.02 Mbit/s  
95th percentile per-packet one-way delay: 115.799 ms  
Loss rate: 14.80%  
-- Flow 3:  
Average throughput: 5.38 Mbit/s  
95th percentile per-packet one-way delay: 126.802 ms  
Loss rate: 14.50%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-06-19 10:23:21

End at: 2018-06-19 10:23:51

Local clock offset: -1.84 ms

Remote clock offset: 8.651 ms

# Below is generated by plot.py at 2018-06-19 12:39:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 46.78 Mbit/s

95th percentile per-packet one-way delay: 111.493 ms

Loss rate: 11.75%

-- Flow 1:

Average throughput: 35.04 Mbit/s

95th percentile per-packet one-way delay: 108.475 ms

Loss rate: 11.12%

-- Flow 2:

Average throughput: 9.79 Mbit/s

95th percentile per-packet one-way delay: 111.596 ms

Loss rate: 12.41%

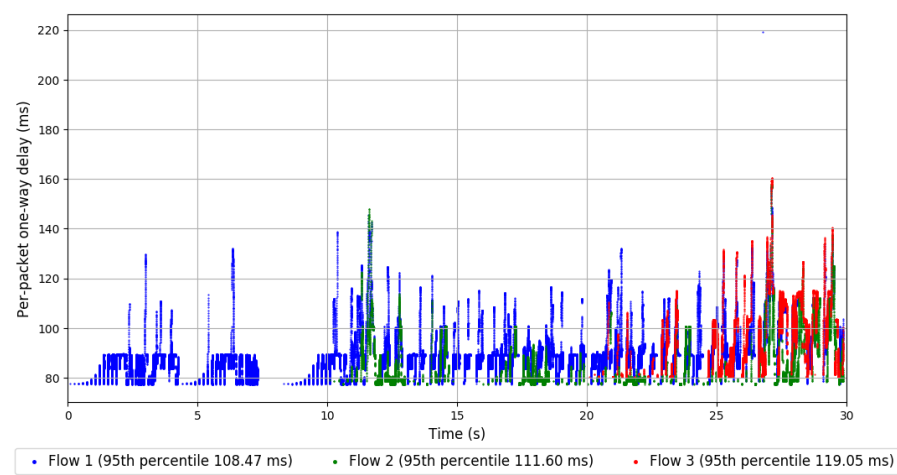
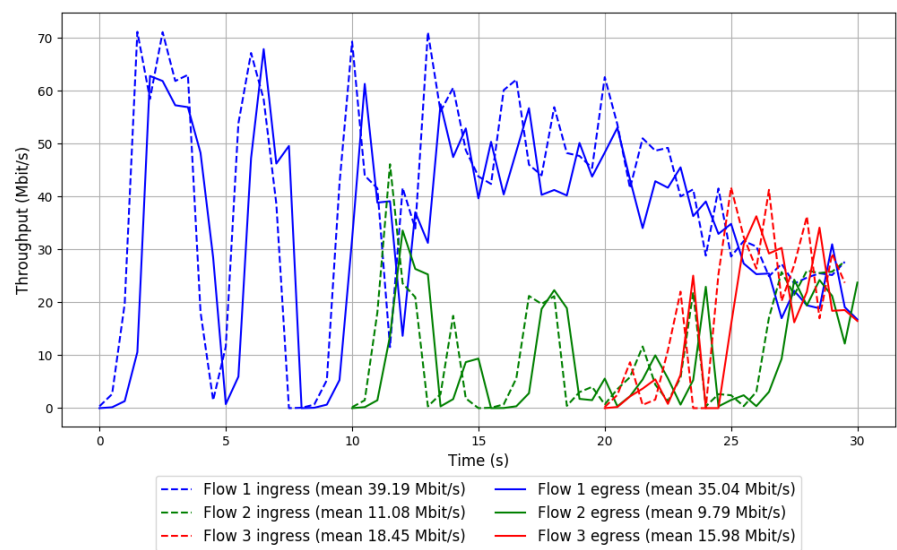
-- Flow 3:

Average throughput: 15.98 Mbit/s

95th percentile per-packet one-way delay: 119.047 ms

Loss rate: 14.99%

Run 5: Report of Verus — Data Link

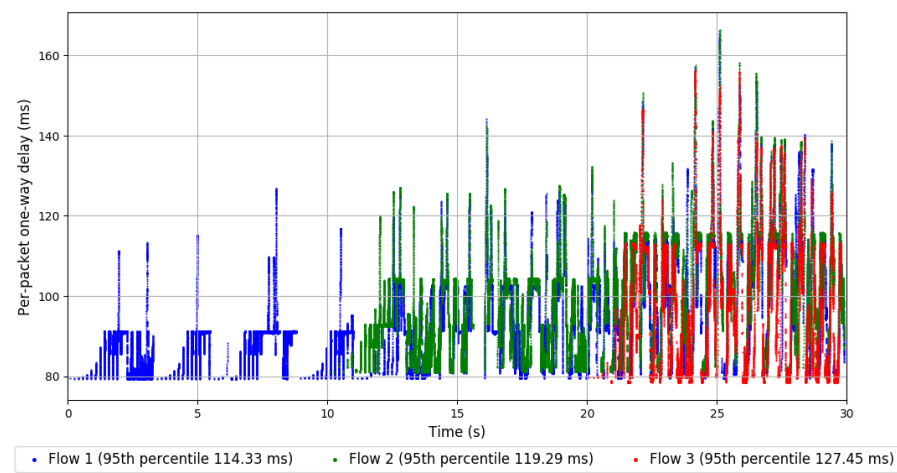
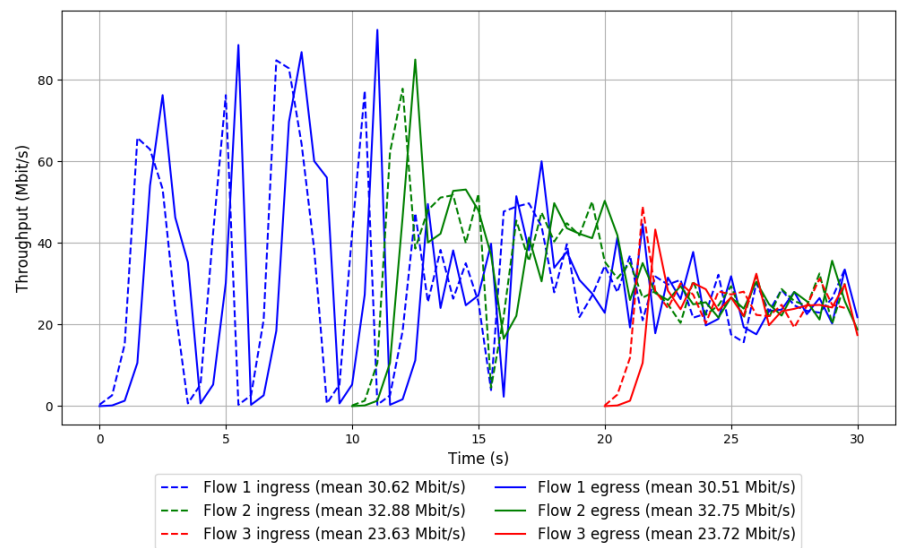


Run 6: Statistics of Verus

Start at: 2018-06-19 10:43:14  
End at: 2018-06-19 10:43:44  
Local clock offset: -1.638 ms  
Remote clock offset: 10.778 ms

# Below is generated by plot.py at 2018-06-19 12:39:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 59.96 Mbit/s  
95th percentile per-packet one-way delay: 118.180 ms  
Loss rate: 1.23%  
-- Flow 1:  
Average throughput: 30.51 Mbit/s  
95th percentile per-packet one-way delay: 114.332 ms  
Loss rate: 0.89%  
-- Flow 2:  
Average throughput: 32.75 Mbit/s  
95th percentile per-packet one-way delay: 119.292 ms  
Loss rate: 1.23%  
-- Flow 3:  
Average throughput: 23.72 Mbit/s  
95th percentile per-packet one-way delay: 127.452 ms  
Loss rate: 2.52%

Run 6: Report of Verus — Data Link



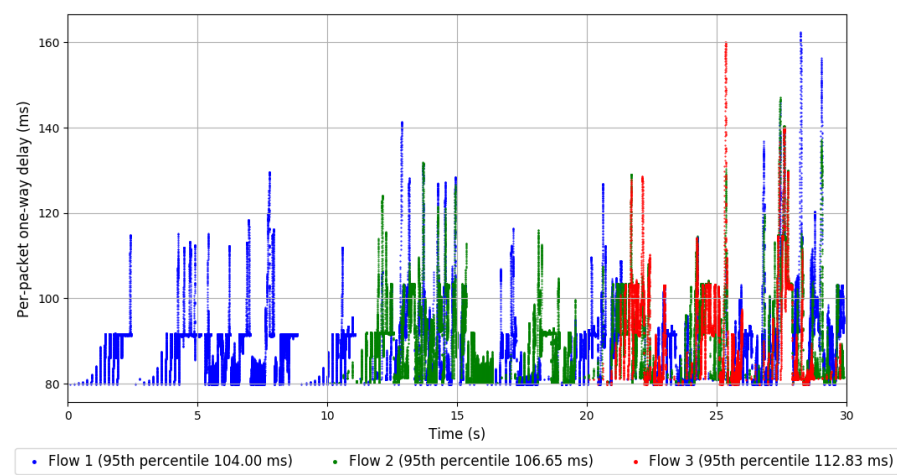
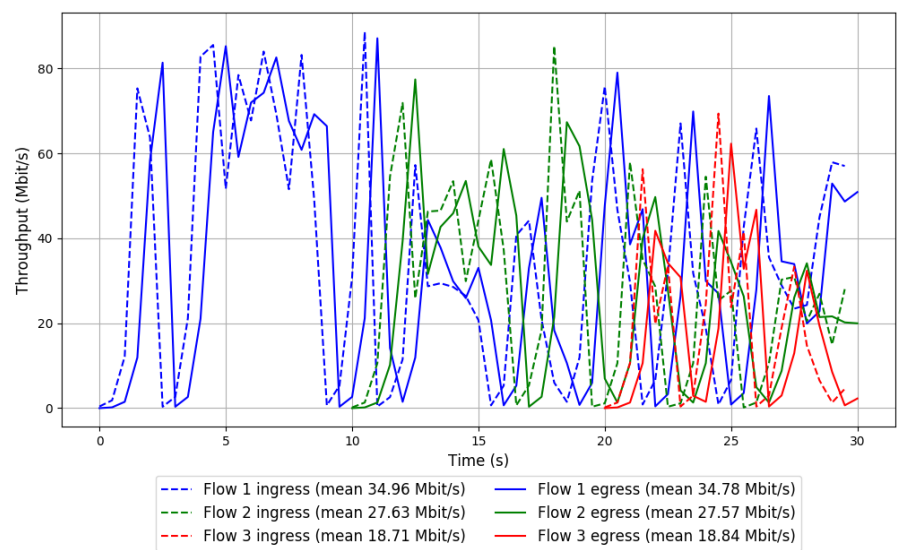
Run 7: Statistics of Verus

Start at: 2018-06-19 11:03:13  
End at: 2018-06-19 11:03:43  
Local clock offset: -1.435 ms  
Remote clock offset: 15.374 ms

# Below is generated by plot.py at 2018-06-19 12:40:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 59.18 Mbit/s  
95th percentile per-packet one-way delay: 105.775 ms  
Loss rate: 0.99%  
-- Flow 1:  
Average throughput: 34.78 Mbit/s  
95th percentile per-packet one-way delay: 103.995 ms  
Loss rate: 0.98%  
-- Flow 2:  
Average throughput: 27.57 Mbit/s  
95th percentile per-packet one-way delay: 106.647 ms  
Loss rate: 1.00%  
-- Flow 3:  
Average throughput: 18.84 Mbit/s  
95th percentile per-packet one-way delay: 112.830 ms  
Loss rate: 0.99%



Run 7: Report of Verus — Data Link

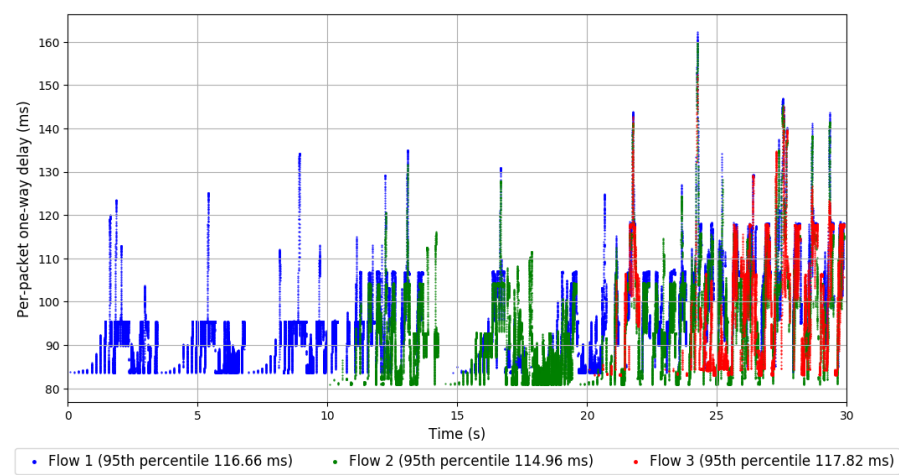
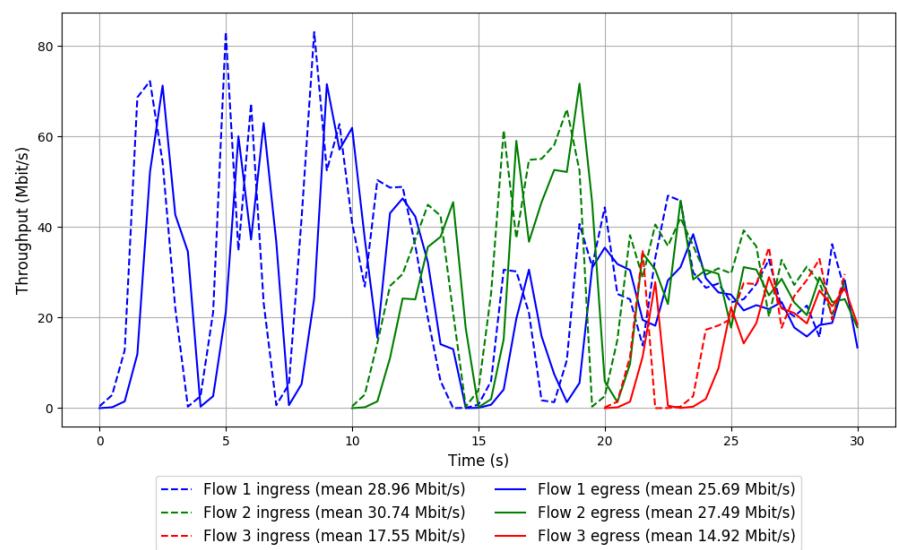


Run 8: Statistics of Verus

Start at: 2018-06-19 11:23:01  
End at: 2018-06-19 11:23:31  
Local clock offset: -2.395 ms  
Remote clock offset: 13.153 ms

# Below is generated by plot.py at 2018-06-19 12:40:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 48.85 Mbit/s  
95th percentile per-packet one-way delay: 116.874 ms  
Loss rate: 12.00%  
-- Flow 1:  
Average throughput: 25.69 Mbit/s  
95th percentile per-packet one-way delay: 116.657 ms  
Loss rate: 11.59%  
-- Flow 2:  
Average throughput: 27.49 Mbit/s  
95th percentile per-packet one-way delay: 114.957 ms  
Loss rate: 11.31%  
-- Flow 3:  
Average throughput: 14.92 Mbit/s  
95th percentile per-packet one-way delay: 117.824 ms  
Loss rate: 16.44%

Run 8: Report of Verus — Data Link

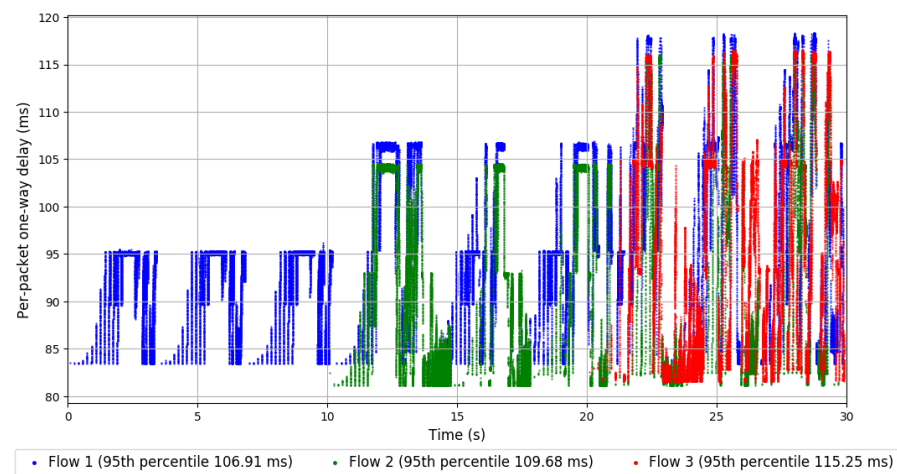
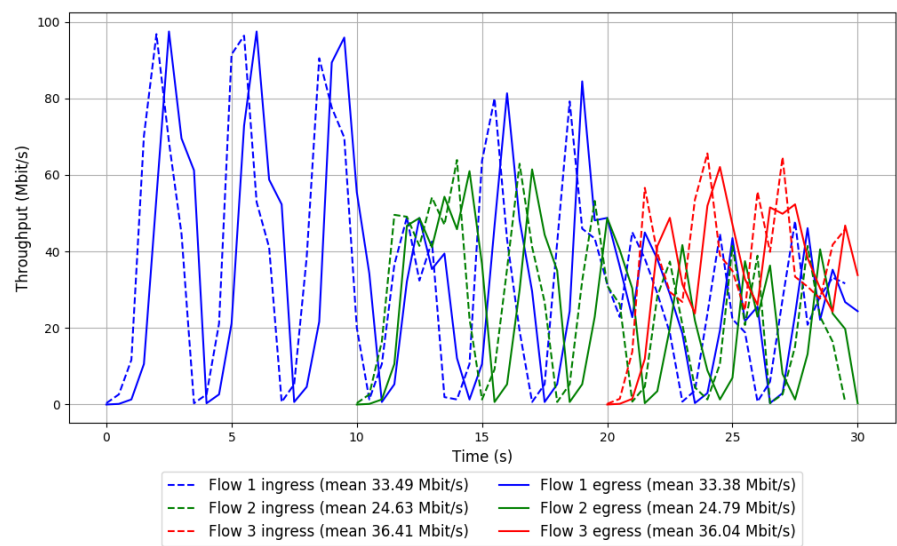


Run 9: Statistics of Verus

Start at: 2018-06-19 11:43:15  
End at: 2018-06-19 11:43:45  
Local clock offset: -2.852 ms  
Remote clock offset: 14.531 ms

# Below is generated by plot.py at 2018-06-19 12:40:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.65 Mbit/s  
95th percentile per-packet one-way delay: 110.102 ms  
Loss rate: 1.06%  
-- Flow 1:  
Average throughput: 33.38 Mbit/s  
95th percentile per-packet one-way delay: 106.914 ms  
Loss rate: 0.90%  
-- Flow 2:  
Average throughput: 24.79 Mbit/s  
95th percentile per-packet one-way delay: 109.676 ms  
Loss rate: 0.20%  
-- Flow 3:  
Average throughput: 36.04 Mbit/s  
95th percentile per-packet one-way delay: 115.249 ms  
Loss rate: 2.64%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-06-19 12:03:18

End at: 2018-06-19 12:03:48

Local clock offset: -3.21 ms

Remote clock offset: 9.498 ms

# Below is generated by plot.py at 2018-06-19 12:40:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 57.81 Mbit/s

95th percentile per-packet one-way delay: 111.025 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 33.96 Mbit/s

95th percentile per-packet one-way delay: 105.866 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 26.14 Mbit/s

95th percentile per-packet one-way delay: 110.071 ms

Loss rate: 0.43%

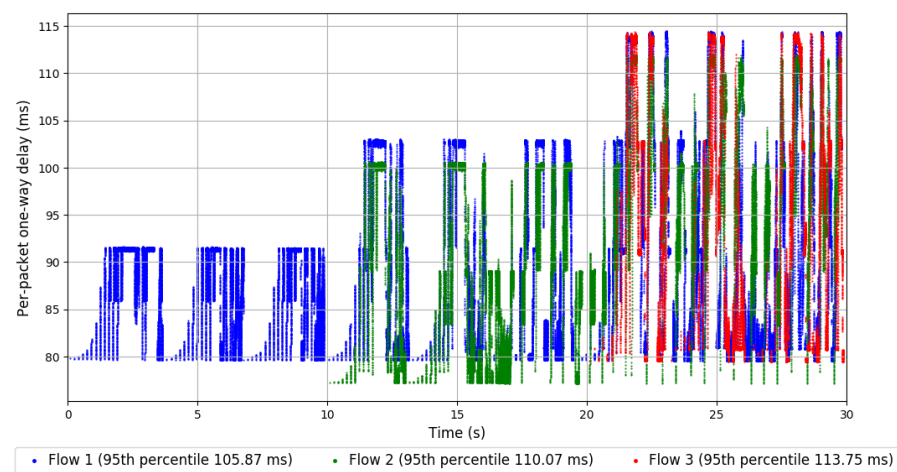
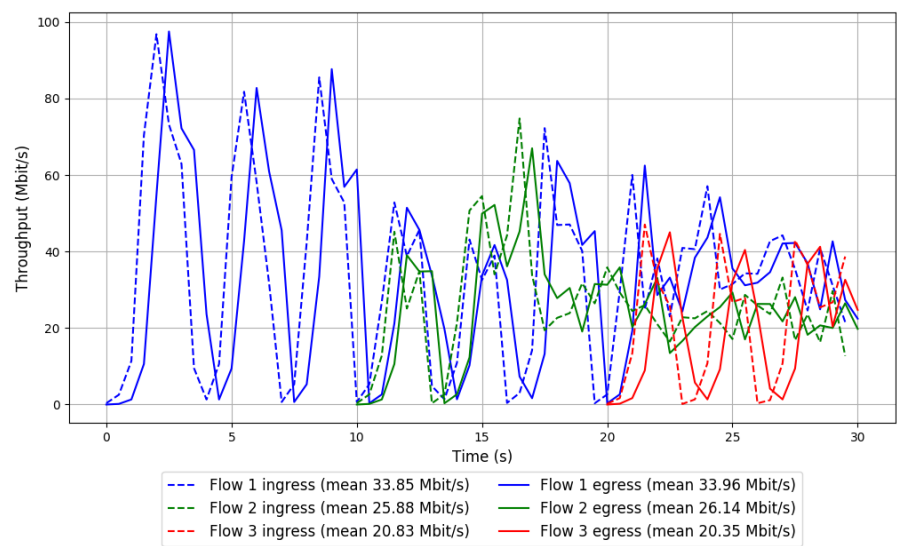
-- Flow 3:

Average throughput: 20.35 Mbit/s

95th percentile per-packet one-way delay: 113.750 ms

Loss rate: 3.98%

Run 10: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-06-19 09:16:20

End at: 2018-06-19 09:16:50

Local clock offset: -3.289 ms

Remote clock offset: 5.104 ms

# Below is generated by plot.py at 2018-06-19 12:40:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 71.95 Mbit/s

95th percentile per-packet one-way delay: 115.270 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 46.99 Mbit/s

95th percentile per-packet one-way delay: 113.835 ms

Loss rate: 2.11%

-- Flow 2:

Average throughput: 26.90 Mbit/s

95th percentile per-packet one-way delay: 115.426 ms

Loss rate: 1.68%

-- Flow 3:

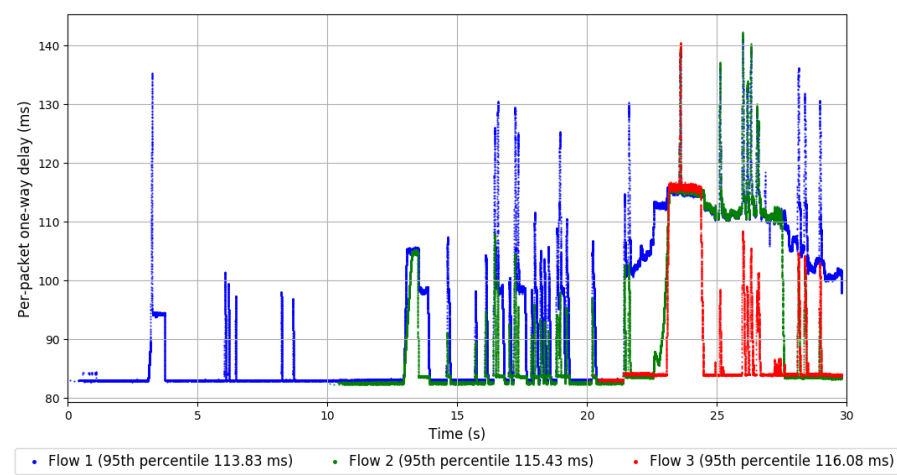
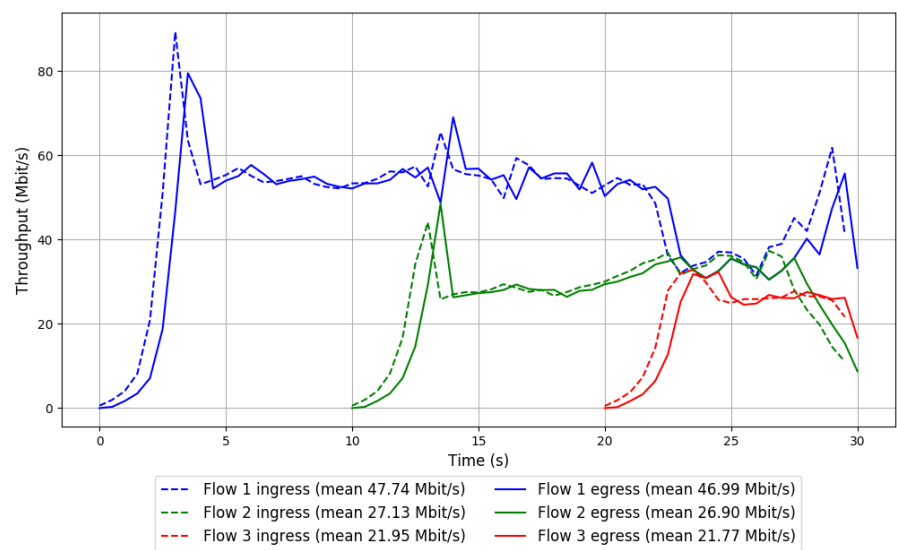
Average throughput: 21.77 Mbit/s

95th percentile per-packet one-way delay: 116.076 ms

Loss rate: 2.45%



Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-06-19 09:36:08

End at: 2018-06-19 09:36:38

Local clock offset: -3.263 ms

Remote clock offset: 4.688 ms

# Below is generated by plot.py at 2018-06-19 12:40:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 66.39 Mbit/s

95th percentile per-packet one-way delay: 113.051 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 46.85 Mbit/s

95th percentile per-packet one-way delay: 112.035 ms

Loss rate: 1.57%

-- Flow 2:

Average throughput: 18.85 Mbit/s

95th percentile per-packet one-way delay: 115.007 ms

Loss rate: 1.59%

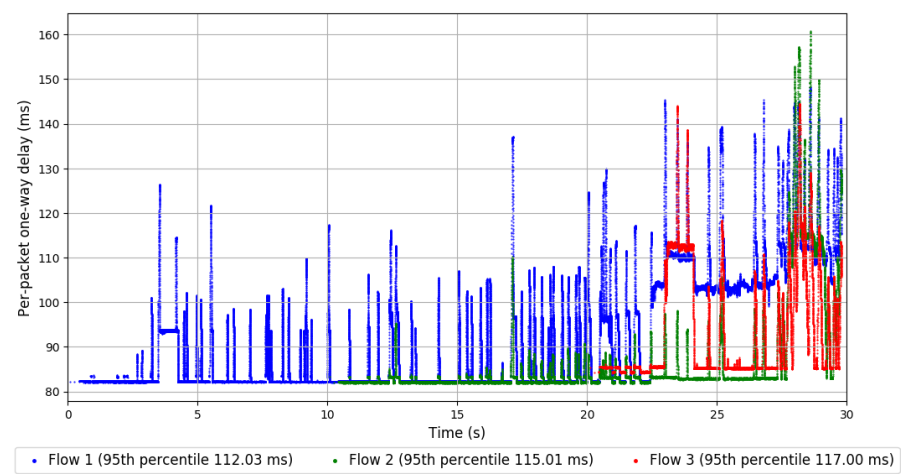
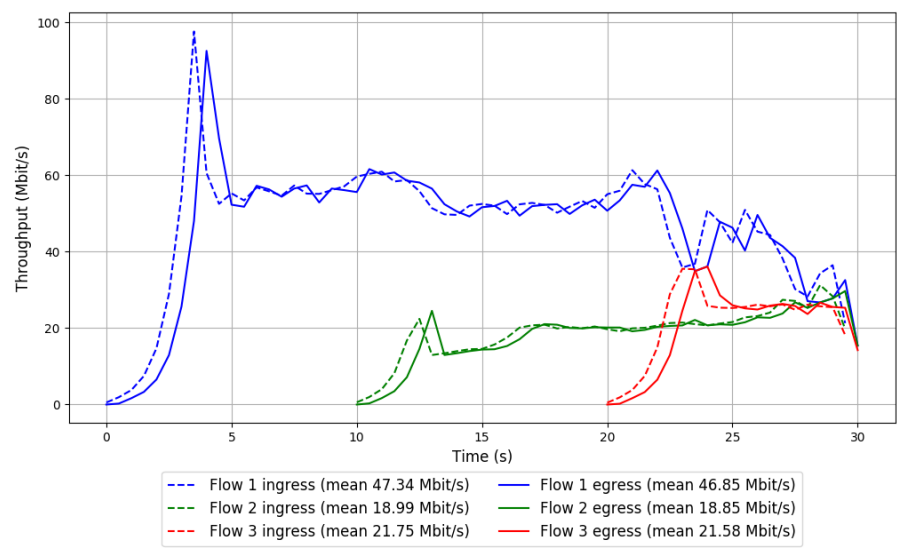
-- Flow 3:

Average throughput: 21.58 Mbit/s

95th percentile per-packet one-way delay: 117.005 ms

Loss rate: 2.47%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-06-19 09:56:05

End at: 2018-06-19 09:56:35

Local clock offset: -1.755 ms

Remote clock offset: 5.231 ms

# Below is generated by plot.py at 2018-06-19 12:40:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 65.34 Mbit/s

95th percentile per-packet one-way delay: 103.823 ms

Loss rate: 5.06%

-- Flow 1:

Average throughput: 48.11 Mbit/s

95th percentile per-packet one-way delay: 105.671 ms

Loss rate: 6.45%

-- Flow 2:

Average throughput: 24.57 Mbit/s

95th percentile per-packet one-way delay: 103.505 ms

Loss rate: 0.84%

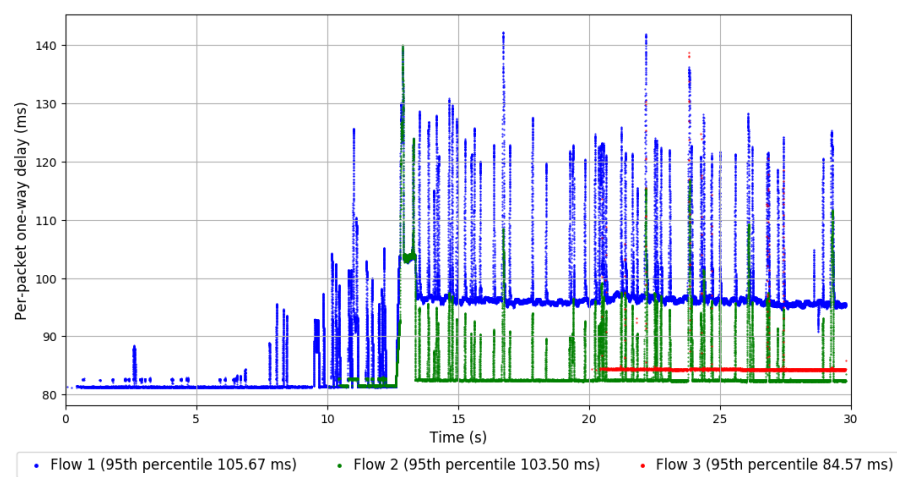
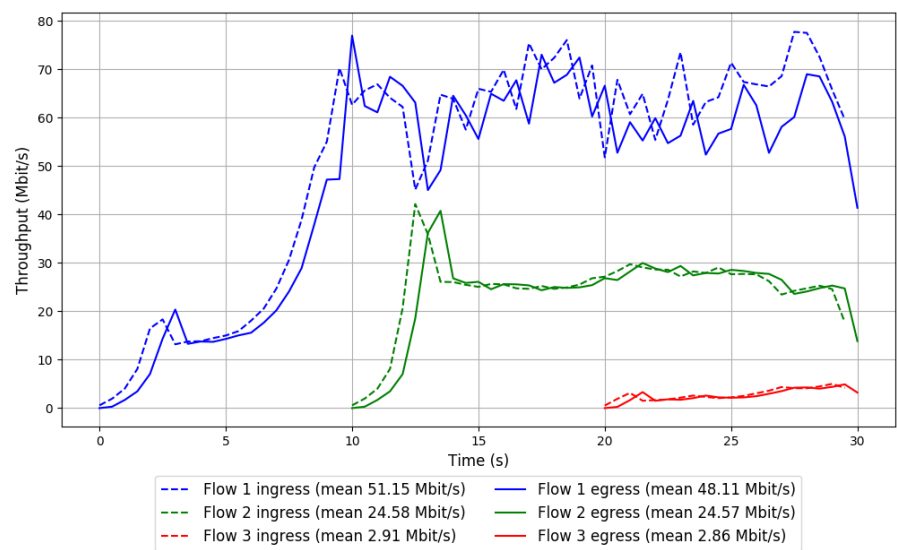
-- Flow 3:

Average throughput: 2.86 Mbit/s

95th percentile per-packet one-way delay: 84.566 ms

Loss rate: 3.23%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-06-19 10:15:54

End at: 2018-06-19 10:16:24

Local clock offset: -1.801 ms

Remote clock offset: 7.625 ms

# Below is generated by plot.py at 2018-06-19 12:40:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.61 Mbit/s

95th percentile per-packet one-way delay: 111.776 ms

Loss rate: 1.90%

-- Flow 1:

Average throughput: 46.47 Mbit/s

95th percentile per-packet one-way delay: 113.089 ms

Loss rate: 2.03%

-- Flow 2:

Average throughput: 27.60 Mbit/s

95th percentile per-packet one-way delay: 111.996 ms

Loss rate: 1.42%

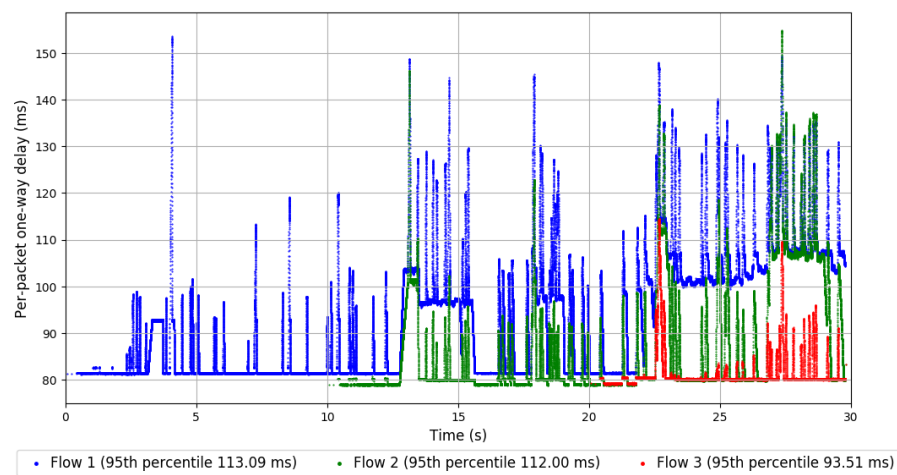
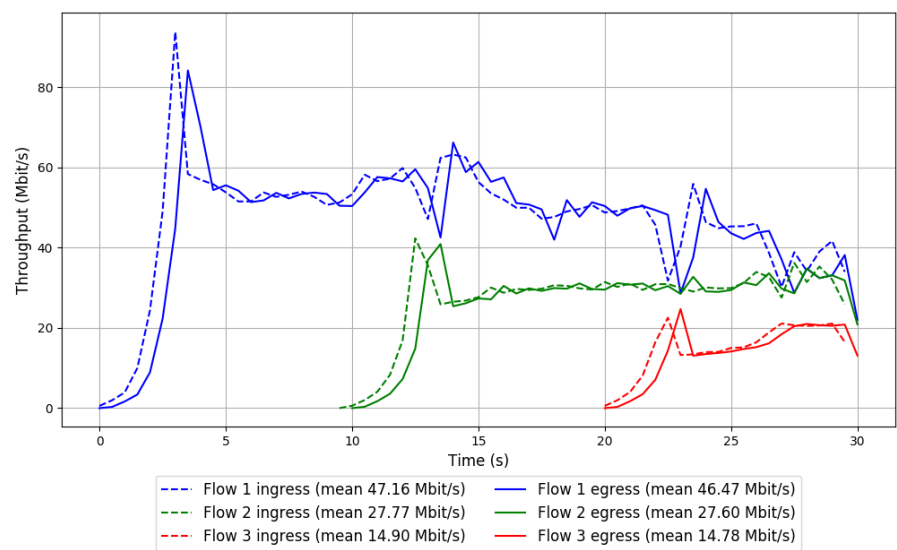
-- Flow 3:

Average throughput: 14.78 Mbit/s

95th percentile per-packet one-way delay: 93.508 ms

Loss rate: 2.40%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-06-19 10:35:47

End at: 2018-06-19 10:36:17

Local clock offset: -1.787 ms

Remote clock offset: 4.817 ms

# Below is generated by plot.py at 2018-06-19 12:41:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 71.12 Mbit/s

95th percentile per-packet one-way delay: 116.772 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 46.44 Mbit/s

95th percentile per-packet one-way delay: 115.031 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 27.17 Mbit/s

95th percentile per-packet one-way delay: 122.023 ms

Loss rate: 2.19%

-- Flow 3:

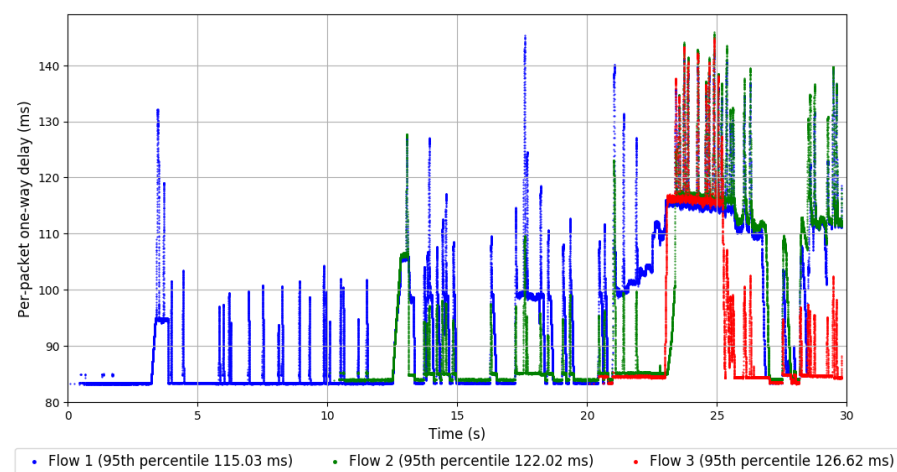
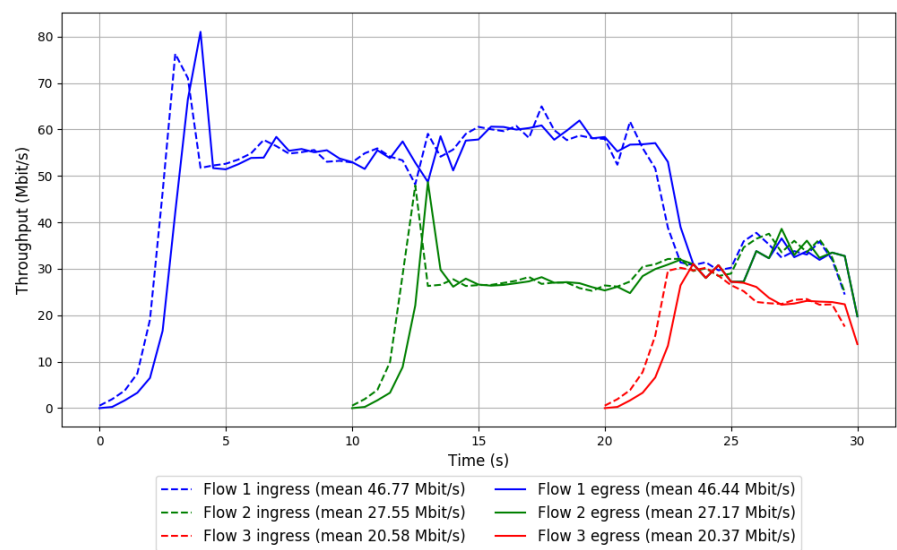
Average throughput: 20.37 Mbit/s

95th percentile per-packet one-way delay: 126.622 ms

Loss rate: 2.69%



Run 5: Report of PCC-Vivace — Data Link

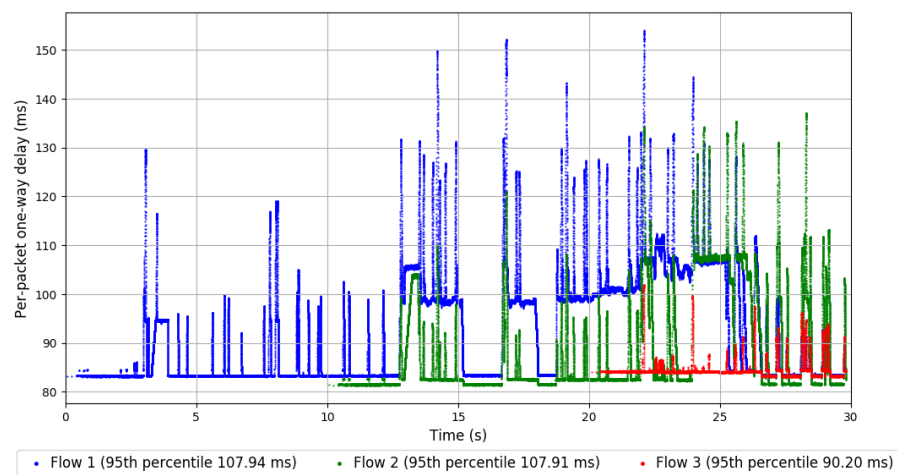
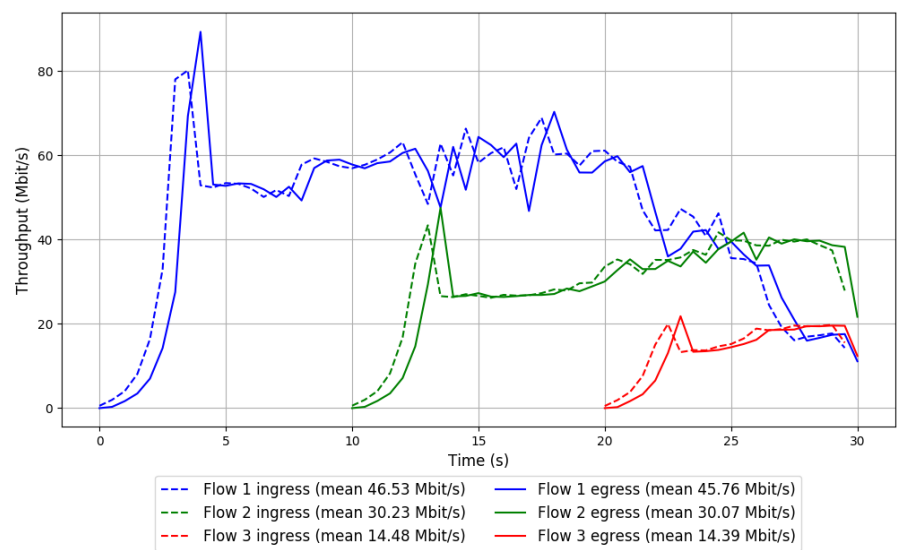


Run 6: Statistics of PCC-Vivace

Start at: 2018-06-19 10:55:46  
End at: 2018-06-19 10:56:16  
Local clock offset: -1.564 ms  
Remote clock offset: 10.627 ms

# Below is generated by plot.py at 2018-06-19 12:41:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 70.41 Mbit/s  
95th percentile per-packet one-way delay: 107.758 ms  
Loss rate: 1.96%  
-- Flow 1:  
Average throughput: 45.76 Mbit/s  
95th percentile per-packet one-way delay: 107.942 ms  
Loss rate: 2.19%  
-- Flow 2:  
Average throughput: 30.07 Mbit/s  
95th percentile per-packet one-way delay: 107.906 ms  
Loss rate: 1.34%  
-- Flow 3:  
Average throughput: 14.39 Mbit/s  
95th percentile per-packet one-way delay: 90.196 ms  
Loss rate: 2.28%

Run 6: Report of PCC-Vivace — Data Link

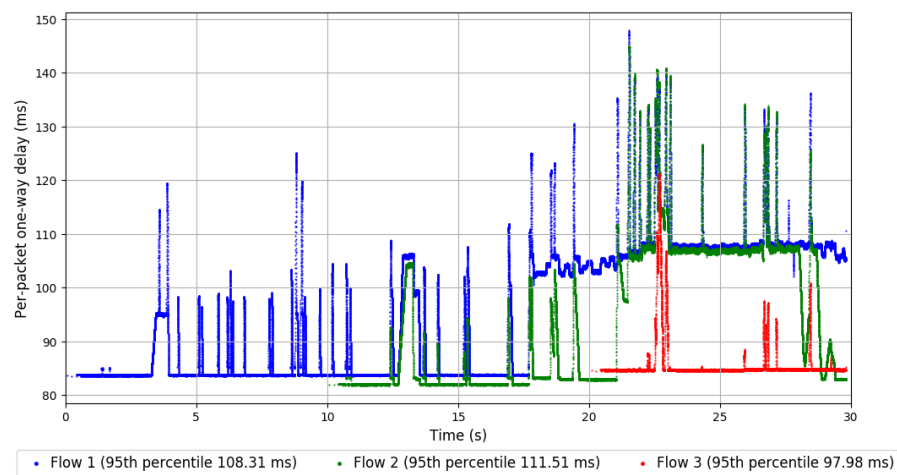
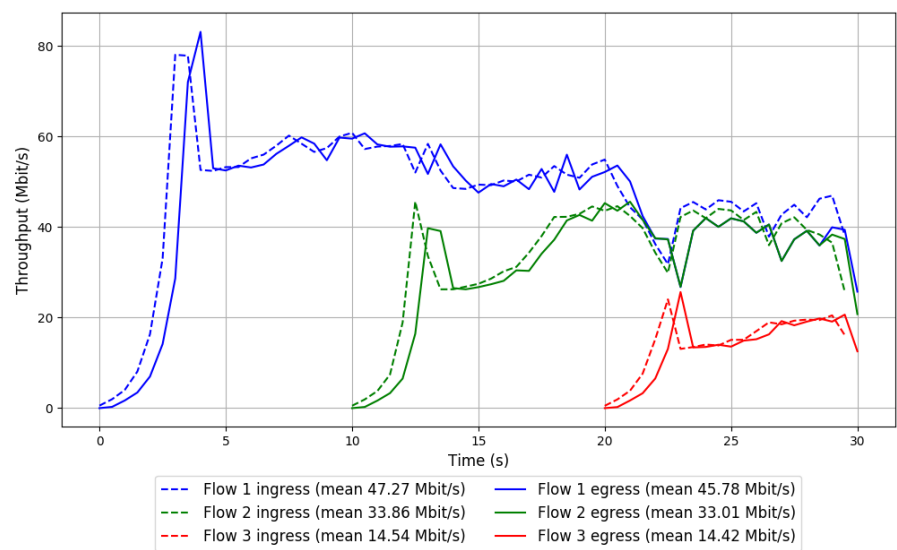


Run 7: Statistics of PCC-Vivace

Start at: 2018-06-19 11:15:34  
End at: 2018-06-19 11:16:04  
Local clock offset: -2.224 ms  
Remote clock offset: 12.526 ms

# Below is generated by plot.py at 2018-06-19 12:41:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 72.38 Mbit/s  
95th percentile per-packet one-way delay: 108.320 ms  
Loss rate: 3.50%  
-- Flow 1:  
Average throughput: 45.78 Mbit/s  
95th percentile per-packet one-way delay: 108.312 ms  
Loss rate: 3.69%  
-- Flow 2:  
Average throughput: 33.01 Mbit/s  
95th percentile per-packet one-way delay: 111.506 ms  
Loss rate: 3.31%  
-- Flow 3:  
Average throughput: 14.42 Mbit/s  
95th percentile per-packet one-way delay: 97.985 ms  
Loss rate: 2.45%

Run 7: Report of PCC-Vivace — Data Link

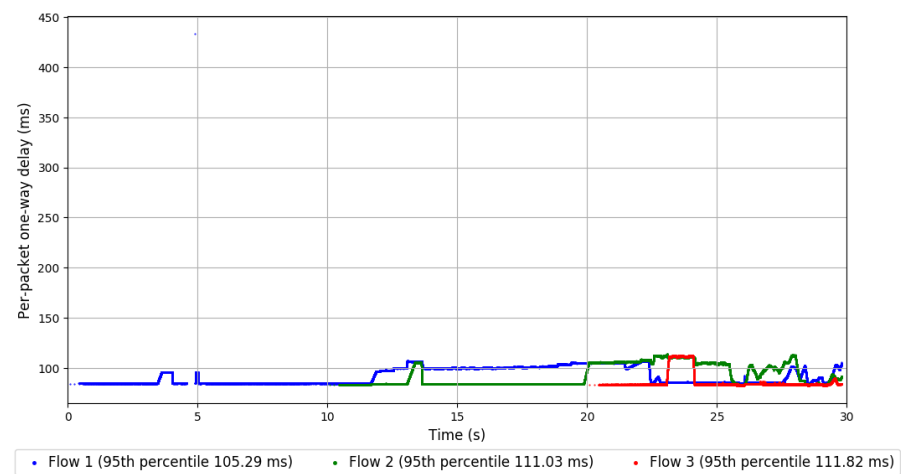
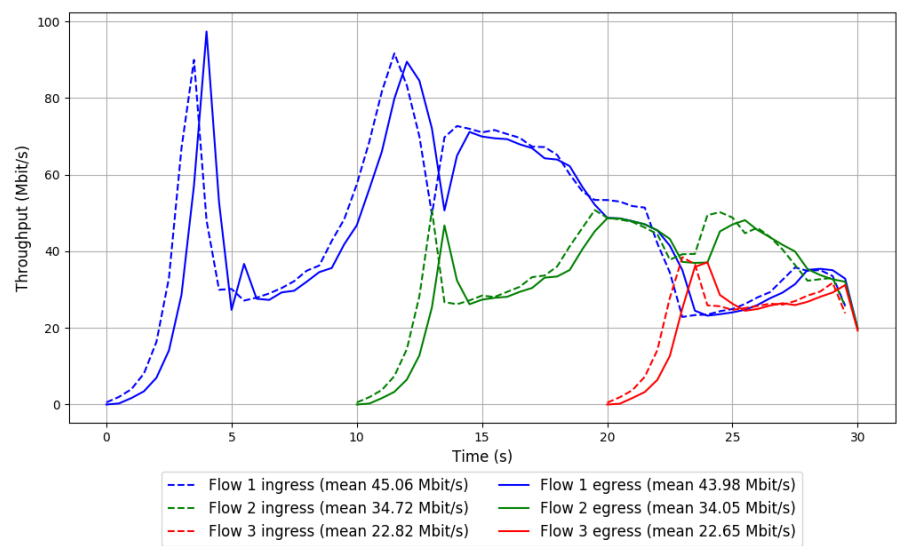


Run 8: Statistics of PCC-Vivace

Start at: 2018-06-19 11:35:35  
End at: 2018-06-19 11:36:05  
Local clock offset: -2.57 ms  
Remote clock offset: 12.969 ms

# Below is generated by plot.py at 2018-06-19 12:41:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.97 Mbit/s  
95th percentile per-packet one-way delay: 108.152 ms  
Loss rate: 2.81%  
-- Flow 1:  
Average throughput: 43.98 Mbit/s  
95th percentile per-packet one-way delay: 105.291 ms  
Loss rate: 2.93%  
-- Flow 2:  
Average throughput: 34.05 Mbit/s  
95th percentile per-packet one-way delay: 111.026 ms  
Loss rate: 2.71%  
-- Flow 3:  
Average throughput: 22.65 Mbit/s  
95th percentile per-packet one-way delay: 111.824 ms  
Loss rate: 2.41%

Run 8: Report of PCC-Vivace — Data Link



Run 9: Statistics of PCC-Vivace

Start at: 2018-06-19 11:55:47

End at: 2018-06-19 11:56:17

Local clock offset: -3.103 ms

Remote clock offset: 7.5 ms

# Below is generated by plot.py at 2018-06-19 12:41:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.54 Mbit/s

95th percentile per-packet one-way delay: 82.015 ms

Loss rate: 2.91%

-- Flow 1:

Average throughput: 56.95 Mbit/s

95th percentile per-packet one-way delay: 81.574 ms

Loss rate: 2.81%

-- Flow 2:

Average throughput: 14.60 Mbit/s

95th percentile per-packet one-way delay: 82.027 ms

Loss rate: 3.37%

-- Flow 3:

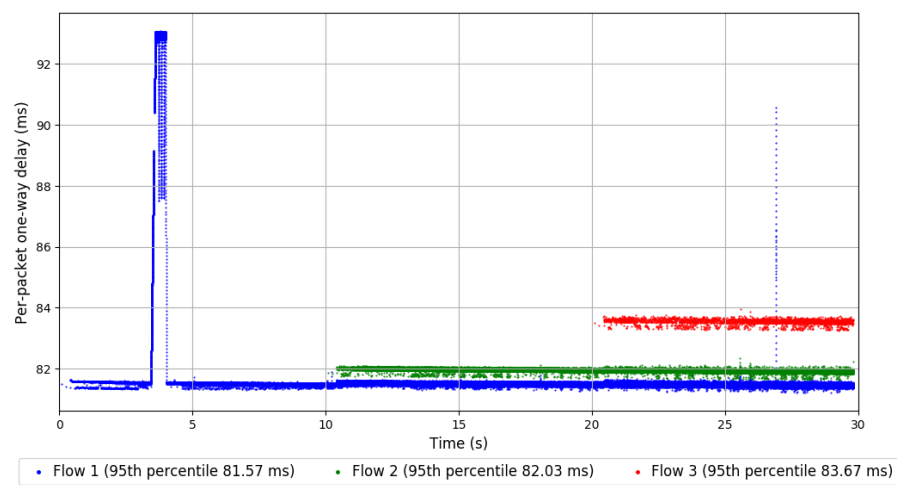
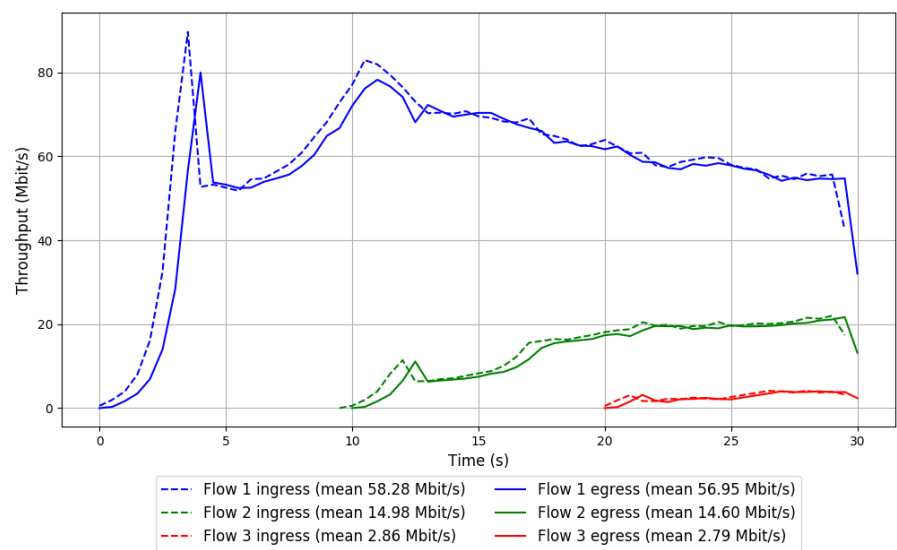
Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 83.667 ms

Loss rate: 4.23%



Run 9: Report of PCC-Vivace — Data Link



Run 10: Statistics of PCC-Vivace

Start at: 2018-06-19 12:15:42

End at: 2018-06-19 12:16:12

Local clock offset: -2.806 ms

Remote clock offset: 3.526 ms

# Below is generated by plot.py at 2018-06-19 12:41:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.56 Mbit/s

95th percentile per-packet one-way delay: 84.235 ms

Loss rate: 2.75%

-- Flow 1:

Average throughput: 59.89 Mbit/s

95th percentile per-packet one-way delay: 83.890 ms

Loss rate: 2.52%

-- Flow 2:

Average throughput: 7.31 Mbit/s

95th percentile per-packet one-way delay: 83.949 ms

Loss rate: 3.74%

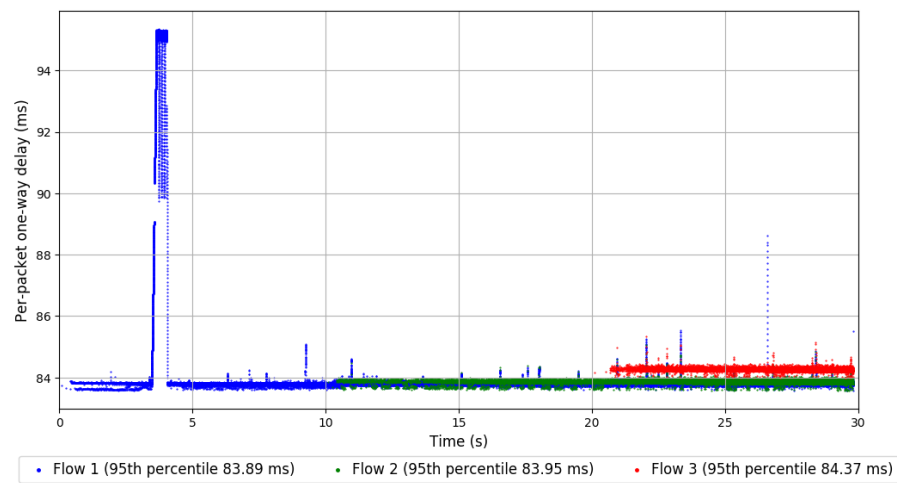
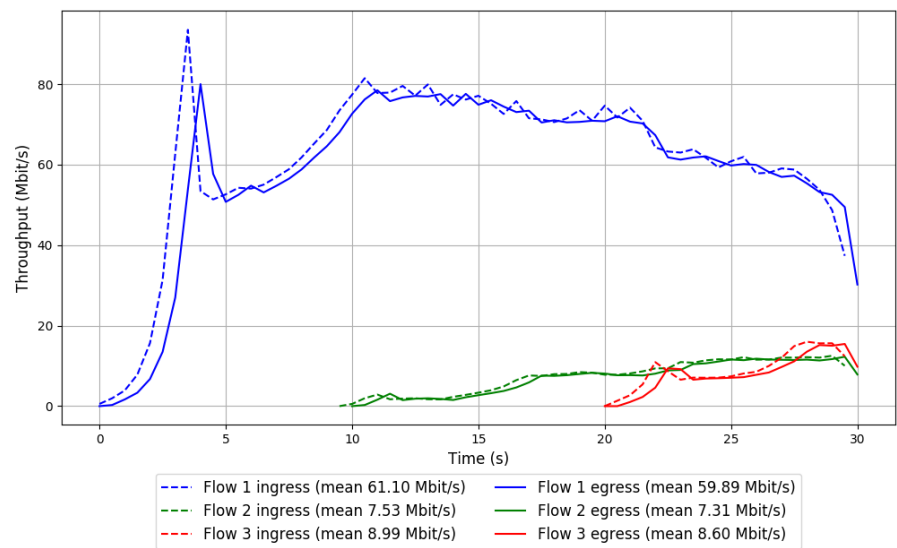
-- Flow 3:

Average throughput: 8.60 Mbit/s

95th percentile per-packet one-way delay: 84.366 ms

Loss rate: 5.86%

Run 10: Report of PCC-Vivace — Data Link

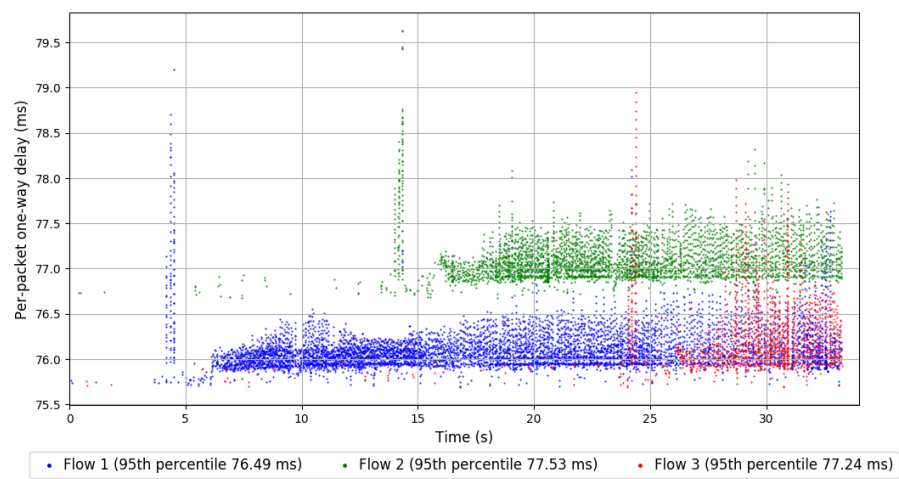
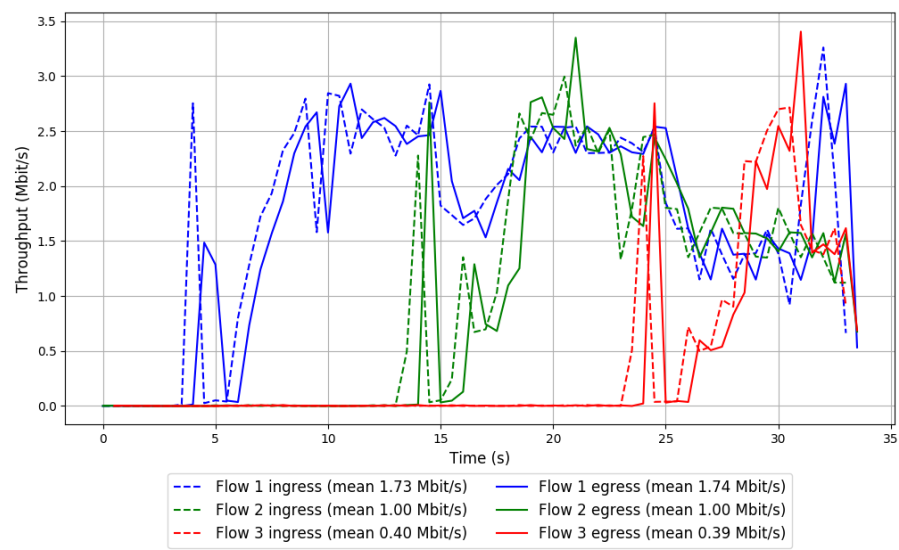


Run 1: Statistics of WebRTC media

Start at: 2018-06-19 09:05:14  
End at: 2018-06-19 09:05:44  
Local clock offset: -2.917 ms  
Remote clock offset: 11.113 ms

# Below is generated by plot.py at 2018-06-19 12:41:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.11 Mbit/s  
95th percentile per-packet one-way delay: 77.361 ms  
Loss rate: 0.56%  
-- Flow 1:  
Average throughput: 1.74 Mbit/s  
95th percentile per-packet one-way delay: 76.489 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 1.00 Mbit/s  
95th percentile per-packet one-way delay: 77.530 ms  
Loss rate: 0.68%  
-- Flow 3:  
Average throughput: 0.39 Mbit/s  
95th percentile per-packet one-way delay: 77.243 ms  
Loss rate: 1.75%

Run 1: Report of WebRTC media — Data Link

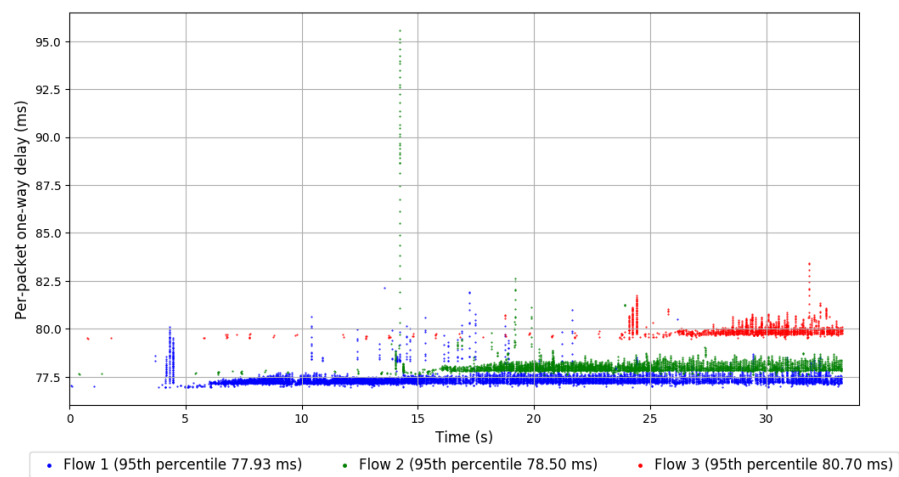
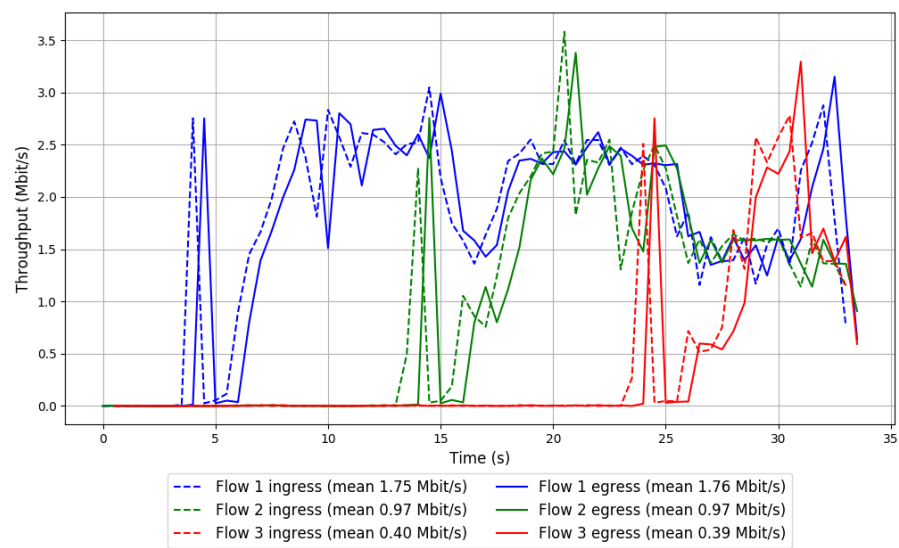


Run 2: Statistics of WebRTC media

Start at: 2018-06-19 09:25:02  
End at: 2018-06-19 09:25:32  
Local clock offset: -3.481 ms  
Remote clock offset: 10.134 ms

# Below is generated by plot.py at 2018-06-19 12:41:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.10 Mbit/s  
95th percentile per-packet one-way delay: 79.985 ms  
Loss rate: 0.61%  
-- Flow 1:  
Average throughput: 1.76 Mbit/s  
95th percentile per-packet one-way delay: 77.934 ms  
Loss rate: 0.22%  
-- Flow 2:  
Average throughput: 0.97 Mbit/s  
95th percentile per-packet one-way delay: 78.501 ms  
Loss rate: 0.72%  
-- Flow 3:  
Average throughput: 0.39 Mbit/s  
95th percentile per-packet one-way delay: 80.698 ms  
Loss rate: 2.15%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-06-19 09:44:49

End at: 2018-06-19 09:45:19

Local clock offset: -2.292 ms

Remote clock offset: 5.397 ms

# Below is generated by plot.py at 2018-06-19 12:41:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.04 Mbit/s

95th percentile per-packet one-way delay: 84.782 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 82.885 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 86.147 ms

Loss rate: 0.71%

-- Flow 3:

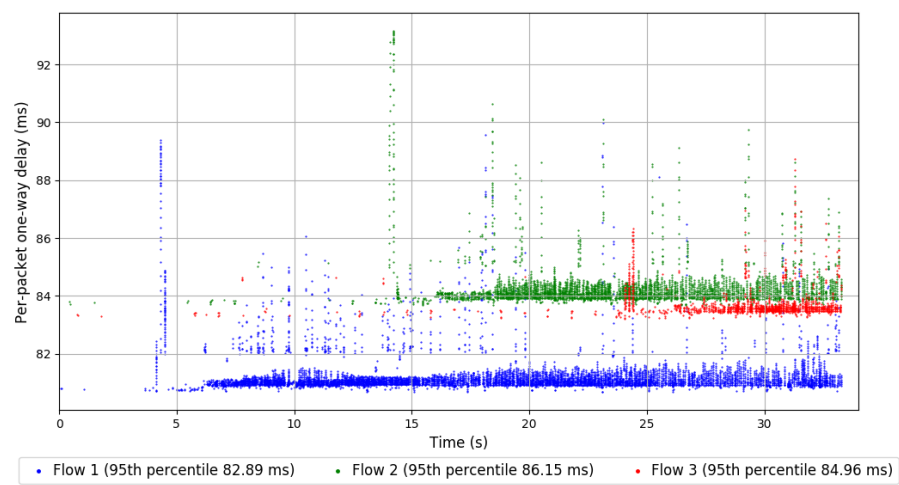
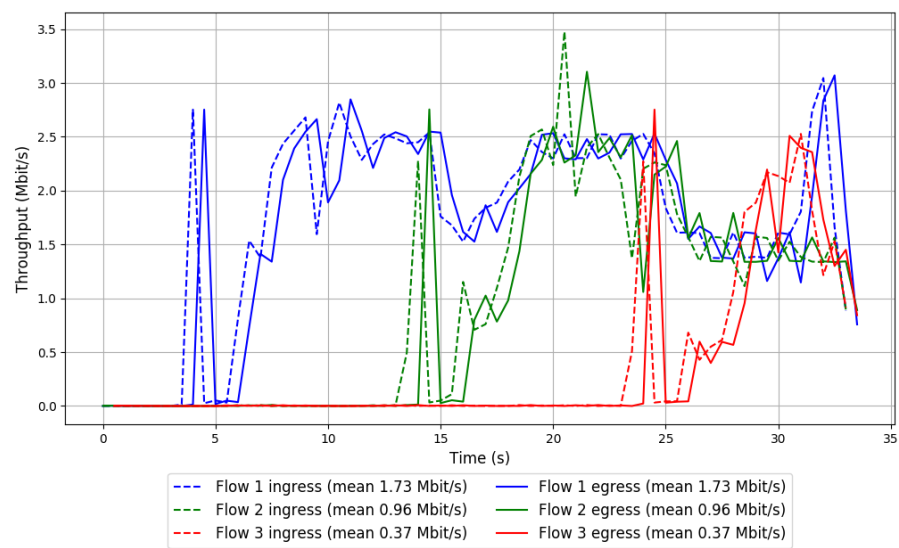
Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 84.961 ms

Loss rate: 1.87%



Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-06-19 10:04:48

End at: 2018-06-19 10:05:18

Local clock offset: -1.589 ms

Remote clock offset: 7.891 ms

# Below is generated by plot.py at 2018-06-19 12:41:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 82.439 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 82.326 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 0.97 Mbit/s

95th percentile per-packet one-way delay: 83.439 ms

Loss rate: 0.71%

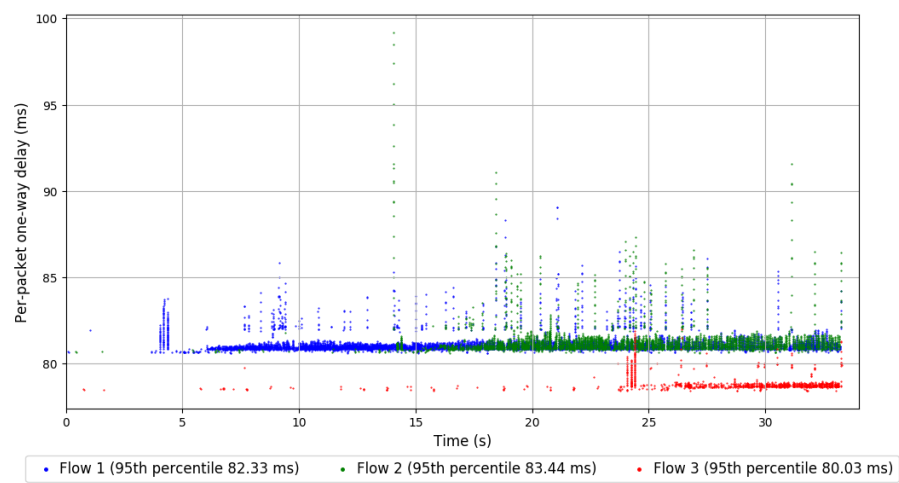
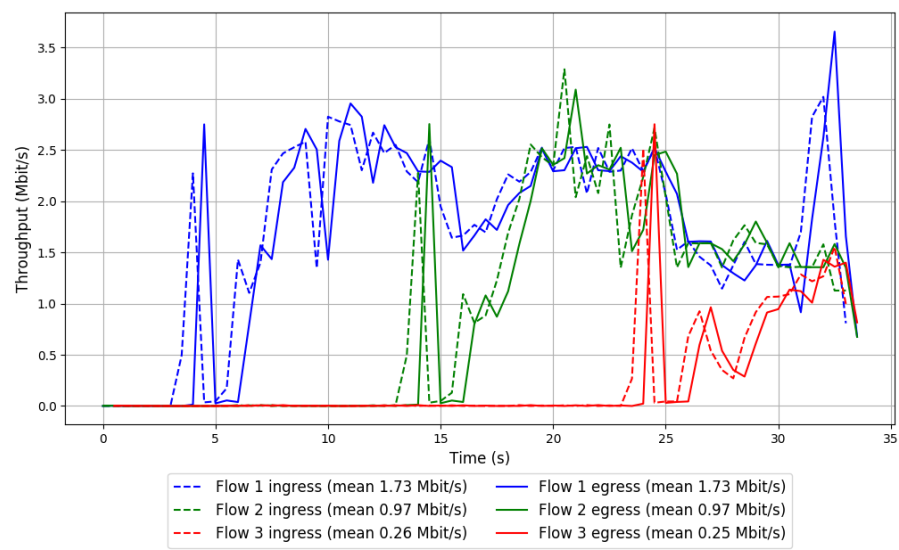
-- Flow 3:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 80.029 ms

Loss rate: 2.52%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-06-19 10:24:38

End at: 2018-06-19 10:25:08

Local clock offset: -1.784 ms

Remote clock offset: 3.58 ms

# Below is generated by plot.py at 2018-06-19 12:41:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.09 Mbit/s

95th percentile per-packet one-way delay: 86.682 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 87.021 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 0.97 Mbit/s

95th percentile per-packet one-way delay: 84.428 ms

Loss rate: 0.72%

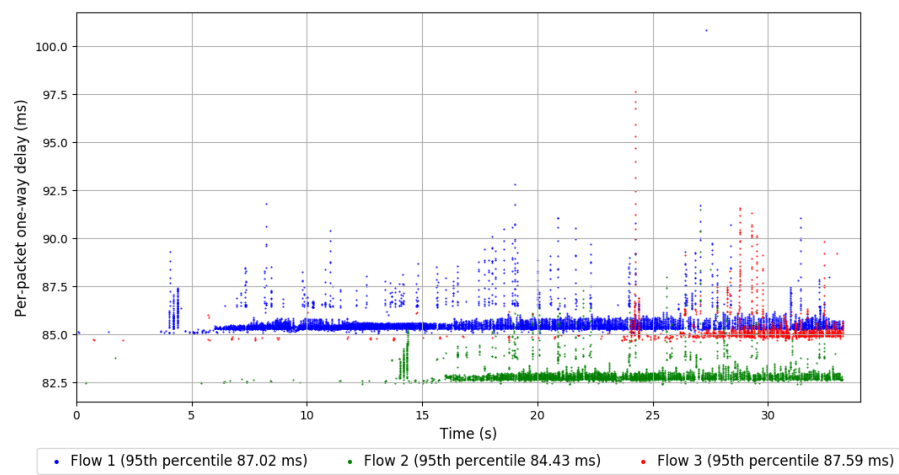
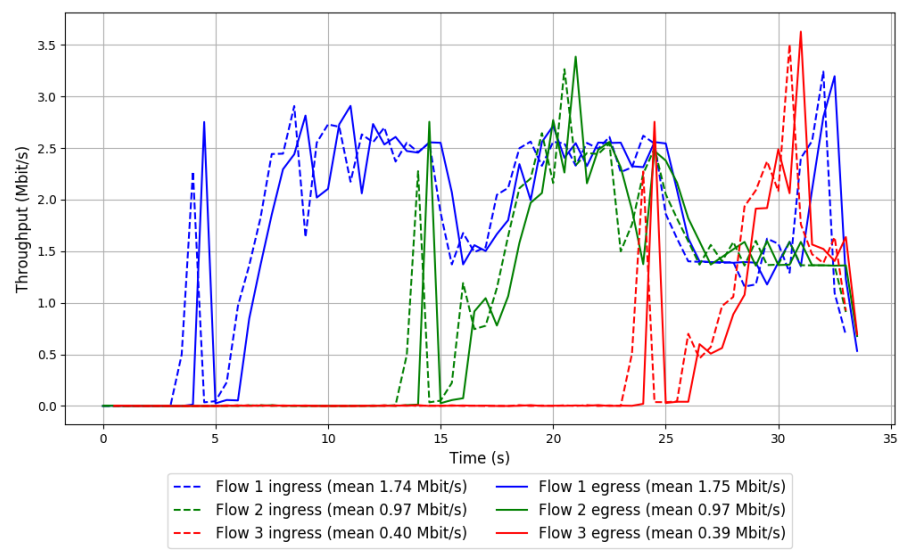
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 87.587 ms

Loss rate: 1.78%

Run 5: Report of WebRTC media — Data Link

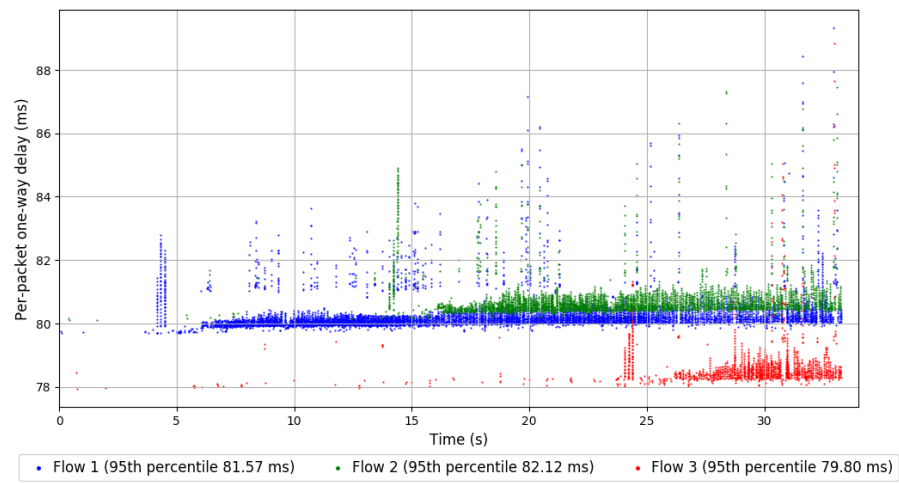
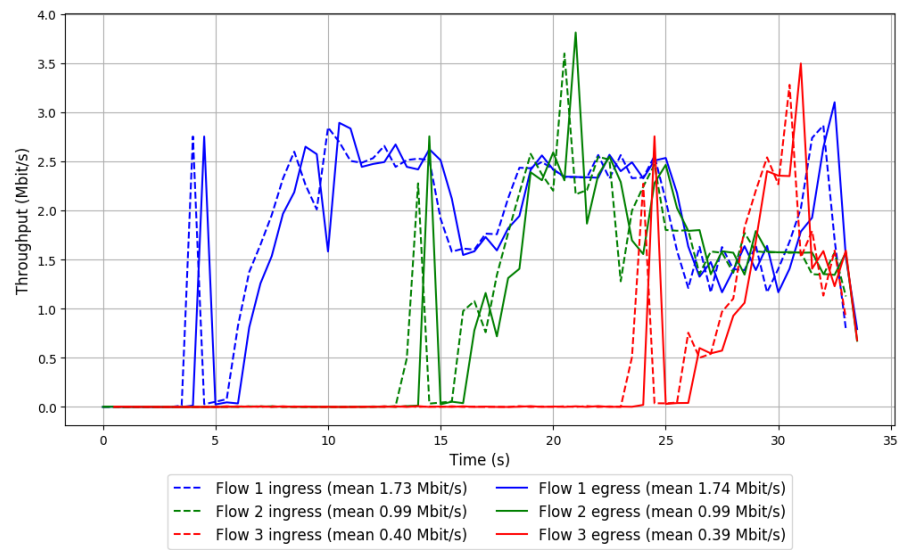


Run 6: Statistics of WebRTC media

Start at: 2018-06-19 10:44:29  
End at: 2018-06-19 10:44:59  
Local clock offset: -1.622 ms  
Remote clock offset: 12.231 ms

# Below is generated by plot.py at 2018-06-19 12:41:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.10 Mbit/s  
95th percentile per-packet one-way delay: 81.670 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 1.74 Mbit/s  
95th percentile per-packet one-way delay: 81.569 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 0.99 Mbit/s  
95th percentile per-packet one-way delay: 82.122 ms  
Loss rate: 1.03%  
-- Flow 3:  
Average throughput: 0.39 Mbit/s  
95th percentile per-packet one-way delay: 79.801 ms  
Loss rate: 1.74%

Run 6: Report of WebRTC media — Data Link



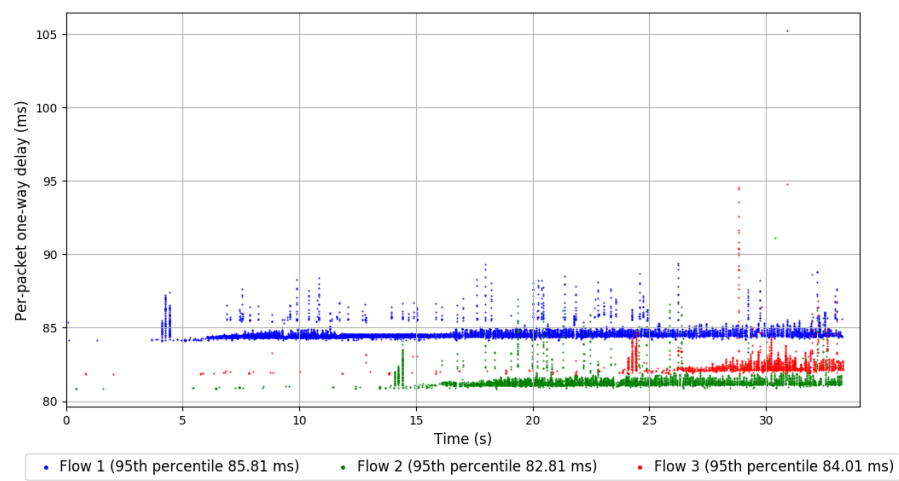
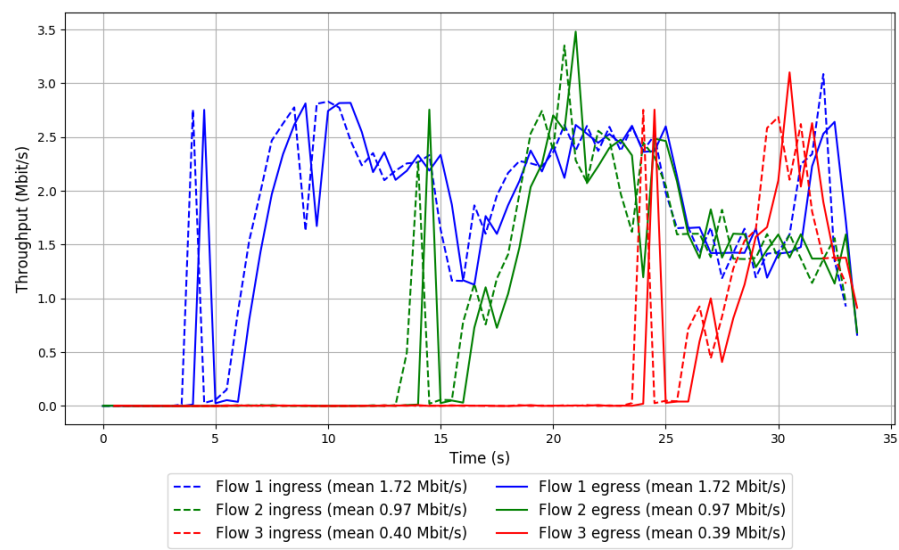
Run 7: Statistics of WebRTC media

Start at: 2018-06-19 11:04:28  
End at: 2018-06-19 11:04:58  
Local clock offset: -1.465 ms  
Remote clock offset: 11.665 ms

# Below is generated by plot.py at 2018-06-19 12:41:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.07 Mbit/s  
95th percentile per-packet one-way delay: 85.470 ms  
Loss rate: 0.70%  
-- Flow 1:  
Average throughput: 1.72 Mbit/s  
95th percentile per-packet one-way delay: 85.814 ms  
Loss rate: 0.46%  
-- Flow 2:  
Average throughput: 0.97 Mbit/s  
95th percentile per-packet one-way delay: 82.813 ms  
Loss rate: 0.72%  
-- Flow 3:  
Average throughput: 0.39 Mbit/s  
95th percentile per-packet one-way delay: 84.008 ms  
Loss rate: 1.75%



Run 7: Report of WebRTC media — Data Link

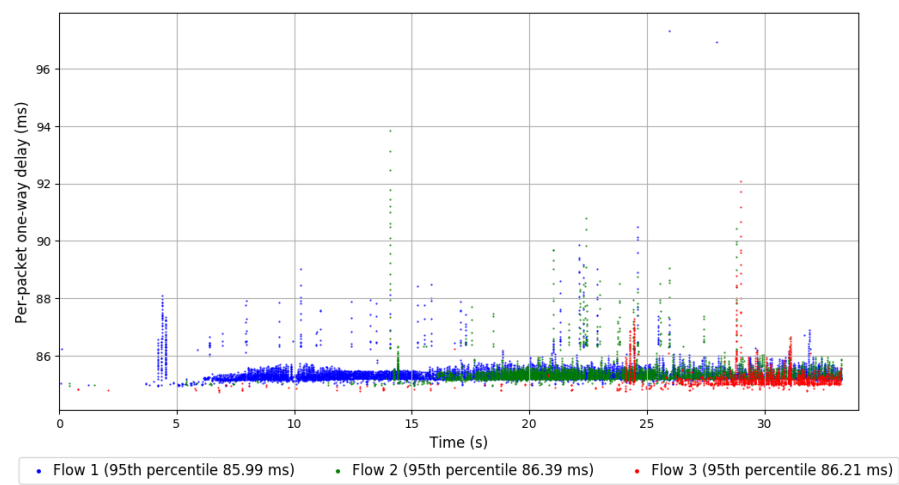
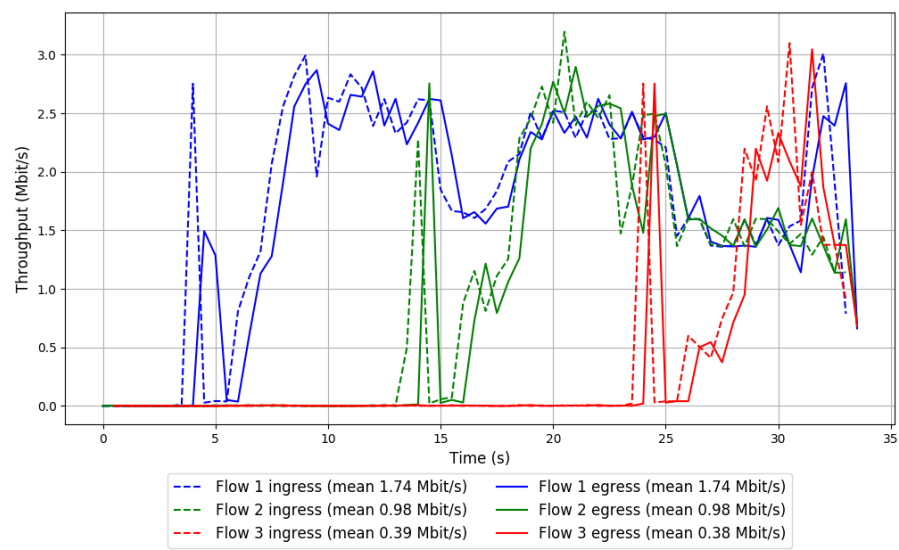


Run 8: Statistics of WebRTC media

Start at: 2018-06-19 11:24:15  
End at: 2018-06-19 11:24:45  
Local clock offset: -2.403 ms  
Remote clock offset: 12.153 ms

# Below is generated by plot.py at 2018-06-19 12:41:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.08 Mbit/s  
95th percentile per-packet one-way delay: 86.171 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 1.74 Mbit/s  
95th percentile per-packet one-way delay: 85.992 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 0.98 Mbit/s  
95th percentile per-packet one-way delay: 86.392 ms  
Loss rate: 0.71%  
-- Flow 3:  
Average throughput: 0.38 Mbit/s  
95th percentile per-packet one-way delay: 86.209 ms  
Loss rate: 1.80%

Run 8: Report of WebRTC media — Data Link

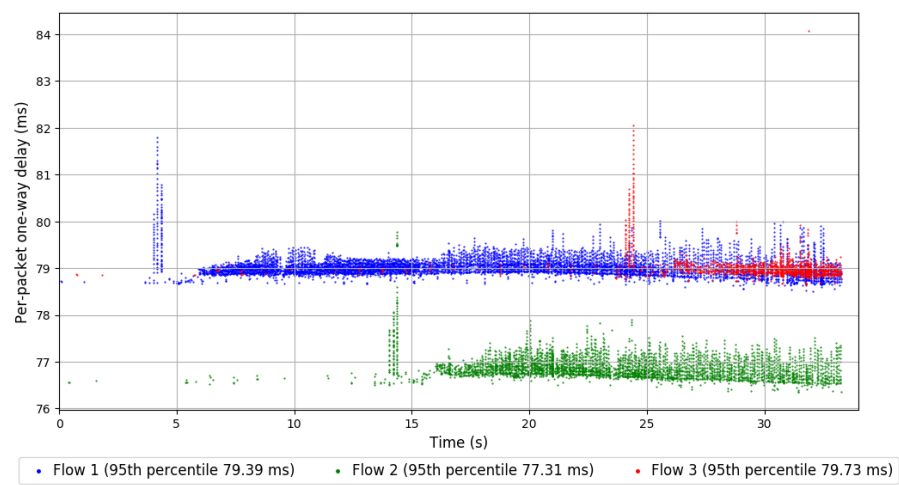
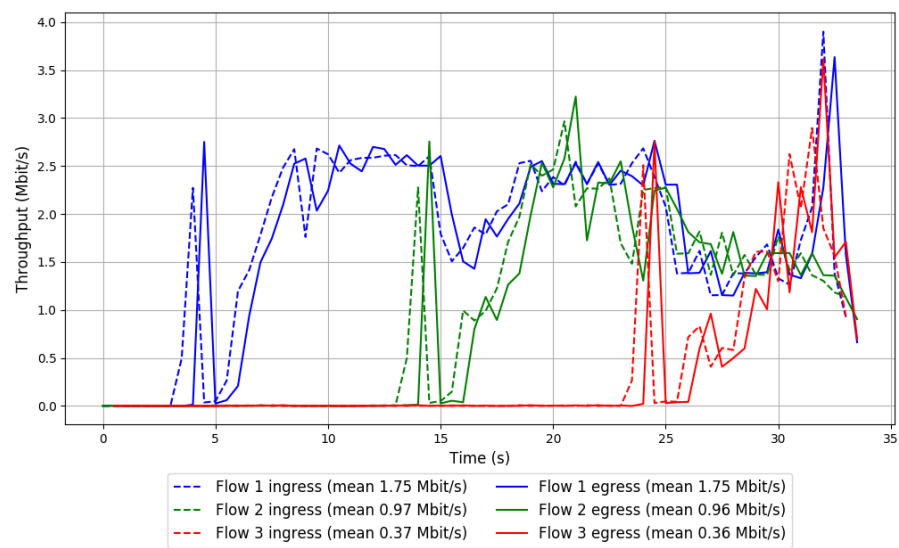


Run 9: Statistics of WebRTC media

Start at: 2018-06-19 11:44:30  
End at: 2018-06-19 11:45:00  
Local clock offset: -2.892 ms  
Remote clock offset: 19.622 ms

# Below is generated by plot.py at 2018-06-19 12:41:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.06 Mbit/s  
95th percentile per-packet one-way delay: 79.335 ms  
Loss rate: 0.64%  
-- Flow 1:  
Average throughput: 1.75 Mbit/s  
95th percentile per-packet one-way delay: 79.386 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 0.96 Mbit/s  
95th percentile per-packet one-way delay: 77.307 ms  
Loss rate: 0.72%  
-- Flow 3:  
Average throughput: 0.36 Mbit/s  
95th percentile per-packet one-way delay: 79.735 ms  
Loss rate: 1.95%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-06-19 12:04:32

End at: 2018-06-19 12:05:02

Local clock offset: -3.188 ms

Remote clock offset: 9.079 ms

# Below is generated by plot.py at 2018-06-19 12:41:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.09 Mbit/s

95th percentile per-packet one-way delay: 80.534 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 78.612 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 80.809 ms

Loss rate: 0.71%

-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 80.258 ms

Loss rate: 2.11%

Run 10: Report of WebRTC media — Data Link

