

## Pantheon Report

Generated at 2018-11-30 17:31:18 (UTC).

Data path: Mexico on **em1** (*remote*) → AWS California 2 on **ens5** (*local*).

Repeated the test of 19 congestion control schemes 5 times.

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

NTP offsets were measured against **time.stanford.edu** and have been applied to correct the timestamps in logs.

### System info:

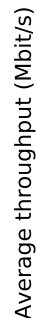
```
Linux 4.15.0-1027-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ 7b6dad87cde3ab65f7c4052140eb54098aa58e9d
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
```

```
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

100	TCR-RRR	EMR-RRR	Indigena-Museo
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100



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	56.19	43.47	30.78	242.58	181.34	495.83	1.16	1.25	6.23
Copa	5	50.56	39.49	28.33	94.65	54.22	43.50	0.18	0.25	0.66
TCP Cubic	5	50.60	39.68	32.86	44.85	41.09	49.11	0.17	0.32	0.75
FillP	5	57.21	40.33	31.68	98.65	128.12	92.87	0.42	2.87	1.90
FillP-Sheep	5	56.18	37.70	38.80	105.79	120.55	84.68	0.30	0.54	1.21
Indigo	5	59.14	38.65	33.10	45.91	51.94	47.12	0.20	0.40	0.74
Indigo-96d2da3	5	55.56	36.26	30.16	659.71	832.75	1010.80	4.20	4.54	7.47
LEDBAT	5	39.53	31.03	21.86	41.16	42.11	40.42	0.19	0.32	1.01
Indigo-Muses	5	58.99	40.38	27.41	45.40	43.85	45.93	0.14	0.30	0.76
PCC-Allegro	5	57.71	38.85	26.98	1861.06	1004.95	291.72	17.11	11.91	3.96
PCC-Expr	5	57.57	35.22	30.82	843.64	1200.36	174.90	32.00	20.81	1.50
QUIC Cubic	5	48.50	33.80	29.01	78.59	108.41	131.87	0.21	0.40	1.02
SCReAM	5	0.21	0.21	0.22	33.34	33.35	33.37	0.23	0.35	0.64
Sprout	5	11.95	11.87	11.67	41.36	41.33	42.12	0.23	0.26	0.77
TaoVA-100x	5	55.70	39.21	31.51	124.22	125.66	125.87	0.90	1.95	3.79
TCP Vegas	5	45.34	34.73	32.08	41.09	41.18	40.13	0.20	0.31	0.74
Verus	5	55.26	36.67	26.23	133.82	163.44	293.01	0.40	0.89	1.25
PCC-Vivace	5	53.34	38.29	26.21	1478.90	421.86	121.40	4.17	1.46	1.21
WebRTC media	5	1.76	1.01	0.40	33.97	34.00	33.96	0.14	0.27	0.48



Run 1: Statistics of TCP BBR

Start at: 2018-11-30 15:42:17

End at: 2018-11-30 15:42:47

Local clock offset: 0.592 ms

Remote clock offset: -3.12 ms

# Below is generated by plot.py at 2018-11-30 17:19:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.08 Mbit/s

95th percentile per-packet one-way delay: 360.093 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 56.36 Mbit/s

95th percentile per-packet one-way delay: 365.300 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 36.23 Mbit/s

95th percentile per-packet one-way delay: 363.053 ms

Loss rate: 1.78%

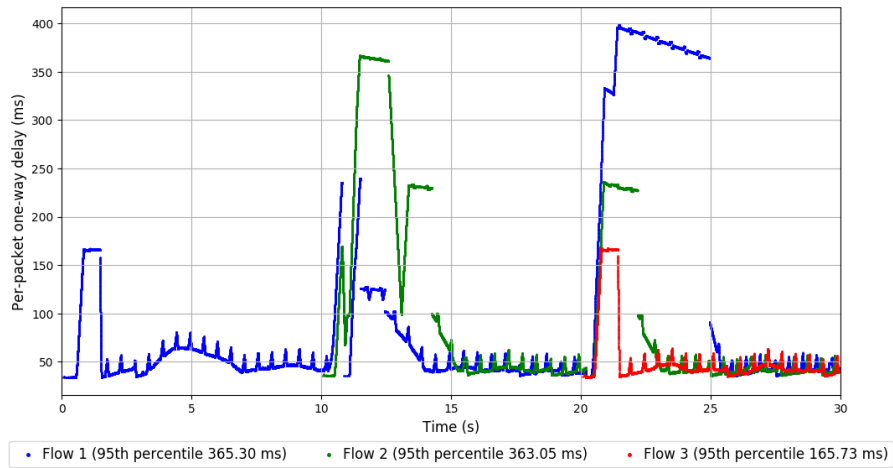
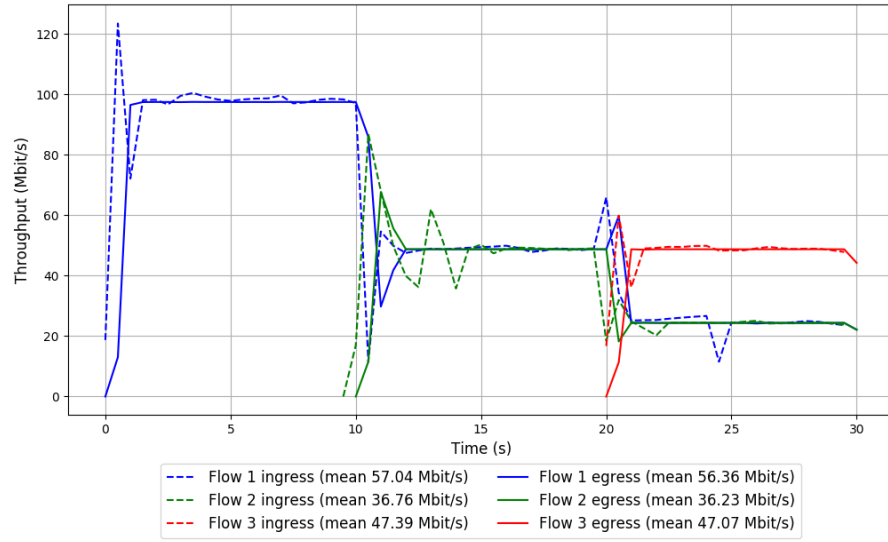
-- Flow 3:

Average throughput: 47.07 Mbit/s

95th percentile per-packet one-way delay: 165.727 ms

Loss rate: 1.34%

# Run 1: Report of TCP BBR — Data Link

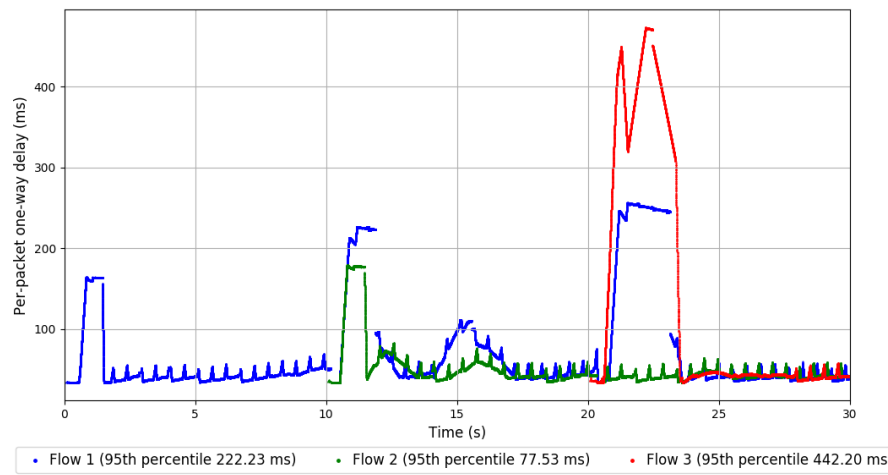
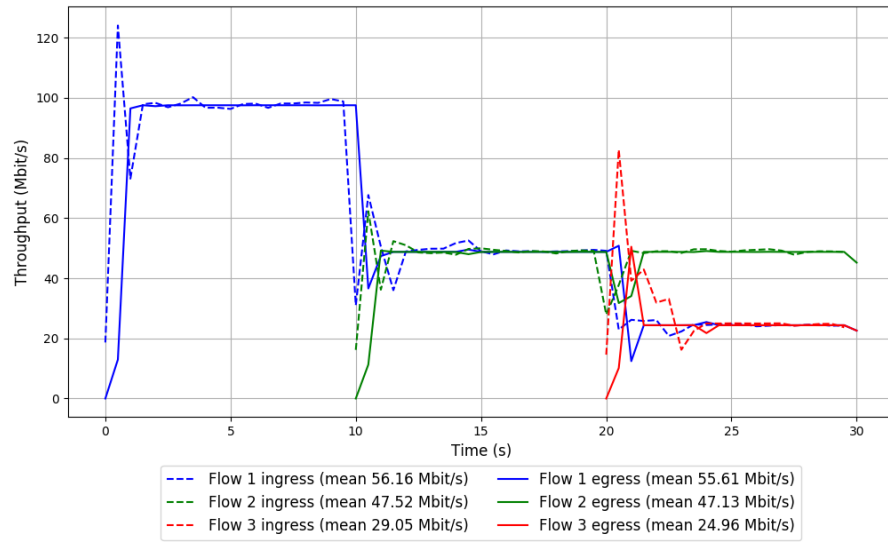


Run 2: Statistics of TCP BBR

Start at: 2018-11-30 16:06:03  
End at: 2018-11-30 16:06:33  
Local clock offset: 3.812 ms  
Remote clock offset: -1.904 ms

# Below is generated by plot.py at 2018-11-30 17:19:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.25 Mbit/s  
95th percentile per-packet one-way delay: 222.761 ms  
Loss rate: 2.51%  
-- Flow 1:  
Average throughput: 55.61 Mbit/s  
95th percentile per-packet one-way delay: 222.226 ms  
Loss rate: 1.20%  
-- Flow 2:  
Average throughput: 47.13 Mbit/s  
95th percentile per-packet one-way delay: 77.526 ms  
Loss rate: 1.14%  
-- Flow 3:  
Average throughput: 24.96 Mbit/s  
95th percentile per-packet one-way delay: 442.204 ms  
Loss rate: 14.65%

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

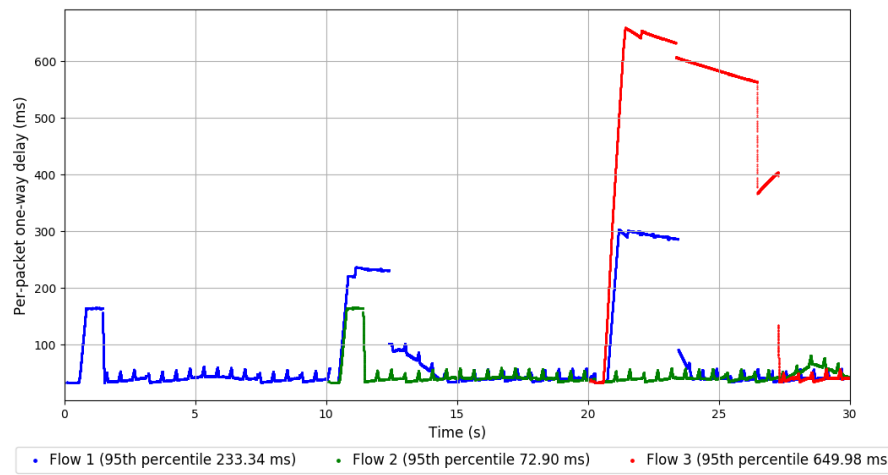
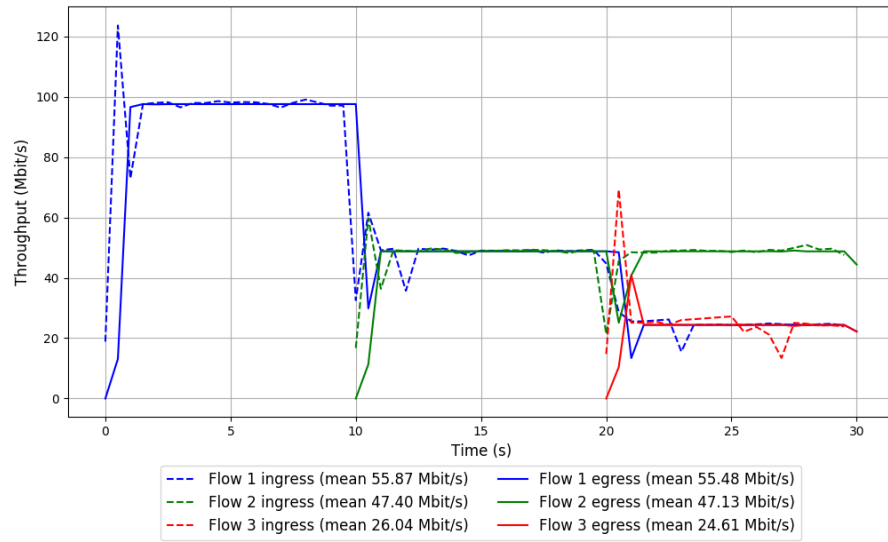


Run 3: Statistics of TCP BBR

Start at: 2018-11-30 16:29:09  
End at: 2018-11-30 16:29:40  
Local clock offset: 4.872 ms  
Remote clock offset: -1.029 ms

# Below is generated by plot.py at 2018-11-30 17:19:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.00 Mbit/s  
95th percentile per-packet one-way delay: 387.496 ms  
Loss rate: 1.37%  
-- Flow 1:  
Average throughput: 55.48 Mbit/s  
95th percentile per-packet one-way delay: 233.344 ms  
Loss rate: 0.90%  
-- Flow 2:  
Average throughput: 47.13 Mbit/s  
95th percentile per-packet one-way delay: 72.898 ms  
Loss rate: 0.88%  
-- Flow 3:  
Average throughput: 24.61 Mbit/s  
95th percentile per-packet one-way delay: 649.979 ms  
Loss rate: 6.13%

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

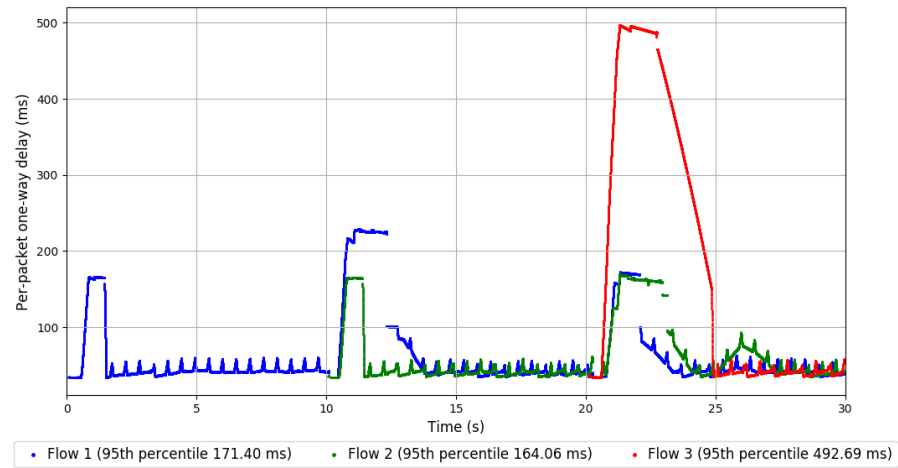
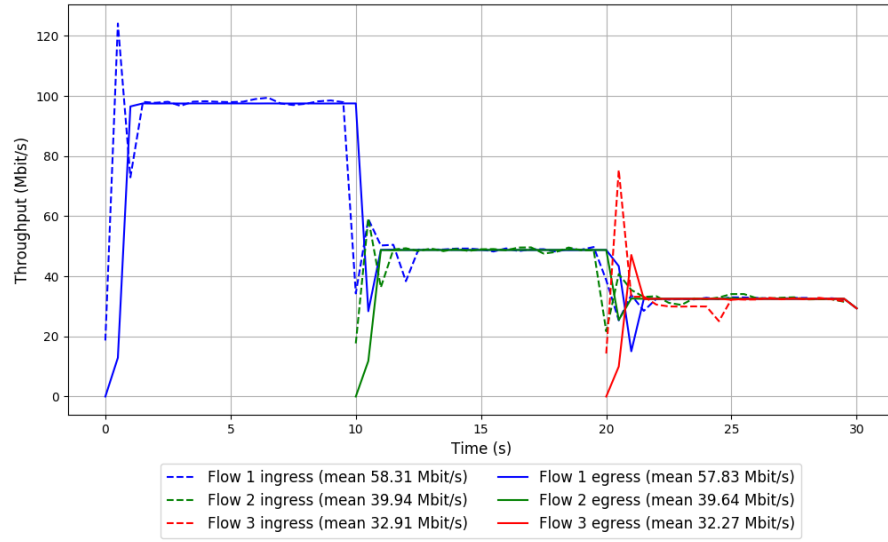


Run 4: Statistics of TCP BBR

Start at: 2018-11-30 16:52:15  
End at: 2018-11-30 16:52:45  
Local clock offset: 4.116 ms  
Remote clock offset: -0.733 ms

# Below is generated by plot.py at 2018-11-30 17:19:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.89 Mbit/s  
95th percentile per-packet one-way delay: 225.544 ms  
Loss rate: 1.22%  
-- Flow 1:  
Average throughput: 57.83 Mbit/s  
95th percentile per-packet one-way delay: 171.398 ms  
Loss rate: 1.04%  
-- Flow 2:  
Average throughput: 39.64 Mbit/s  
95th percentile per-packet one-way delay: 164.061 ms  
Loss rate: 1.08%  
-- Flow 3:  
Average throughput: 32.27 Mbit/s  
95th percentile per-packet one-way delay: 492.686 ms  
Loss rate: 2.57%

# Run 4: Report of TCP BBR — Data Link





Run 5: Statistics of TCP BBR

Start at: 2018-11-30 17:15:24

End at: 2018-11-30 17:15:54

Local clock offset: 2.918 ms

Remote clock offset: 2.246 ms

# Below is generated by plot.py at 2018-11-30 17:19:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.36 Mbit/s

95th percentile per-packet one-way delay: 354.852 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 55.67 Mbit/s

95th percentile per-packet one-way delay: 220.641 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 47.20 Mbit/s

95th percentile per-packet one-way delay: 229.169 ms

Loss rate: 1.35%

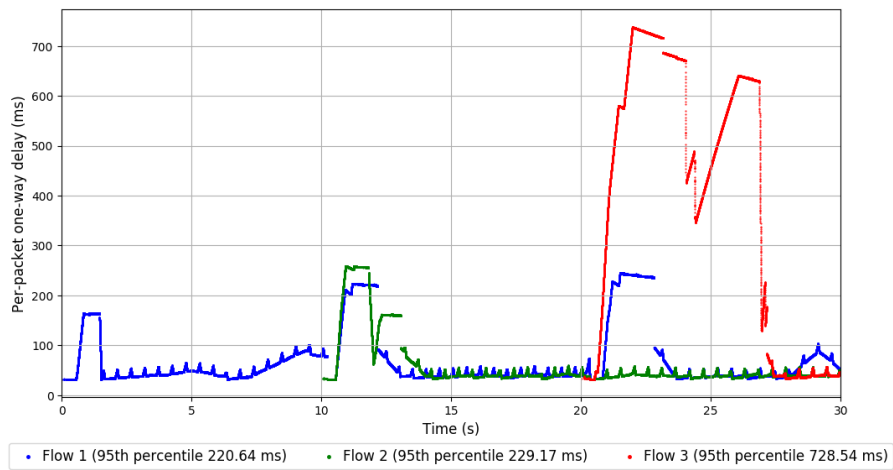
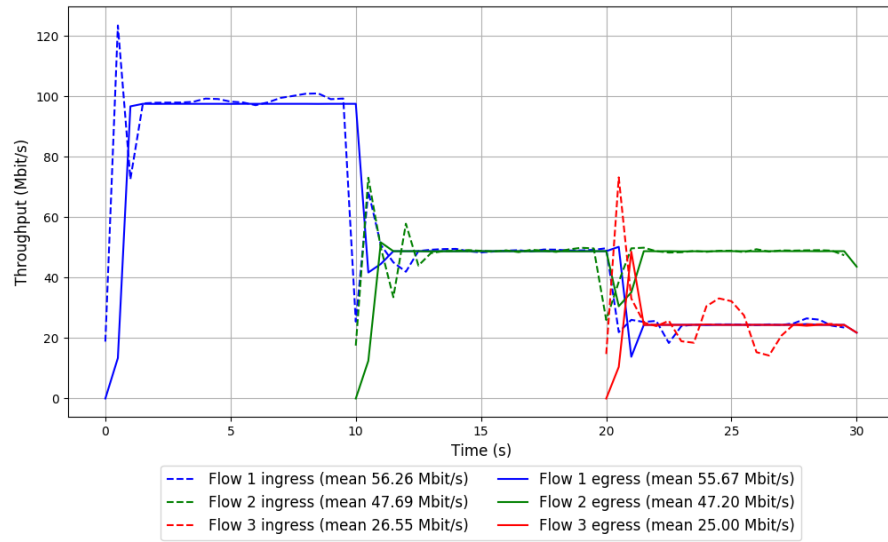
-- Flow 3:

Average throughput: 25.00 Mbit/s

95th percentile per-packet one-way delay: 728.537 ms

Loss rate: 6.47%

# Run 5: Report of TCP BBR — Data Link

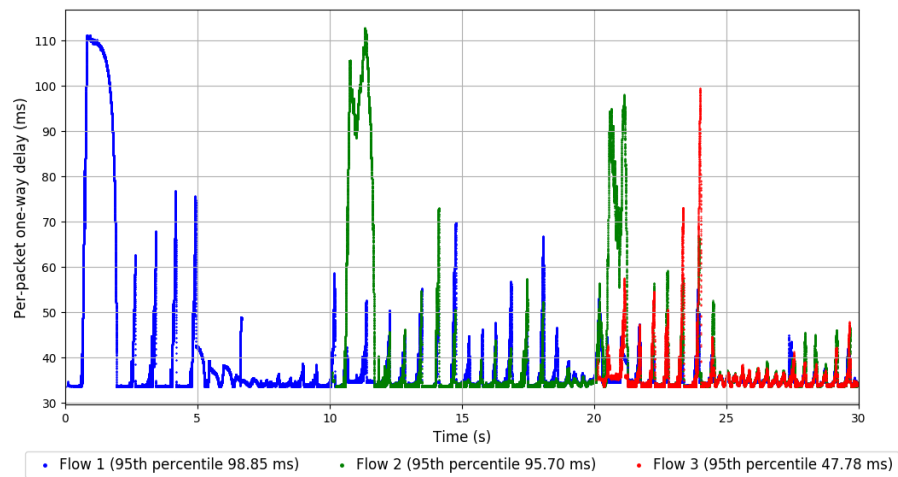
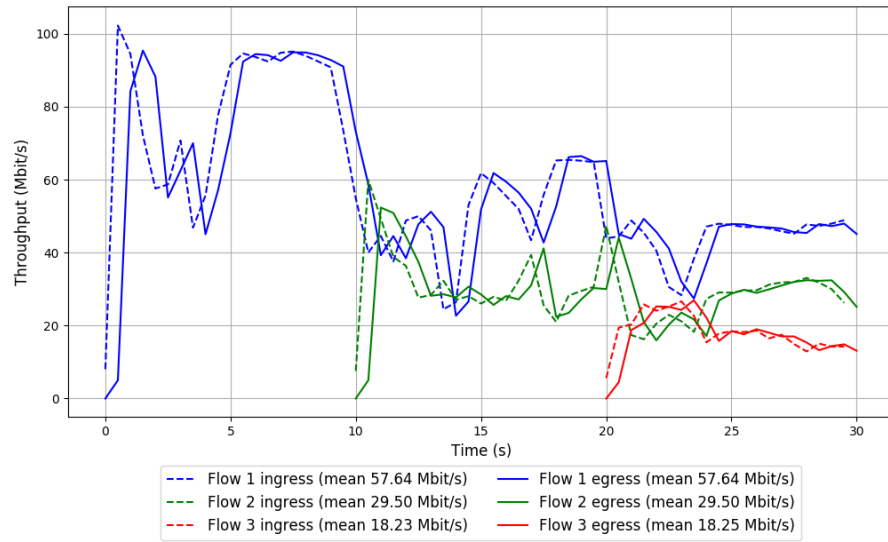


Run 1: Statistics of Copa

Start at: 2018-11-30 15:32:39  
End at: 2018-11-30 15:33:09  
Local clock offset: 0.619 ms  
Remote clock offset: -3.448 ms

# Below is generated by plot.py at 2018-11-30 17:19:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 83.32 Mbit/s  
95th percentile per-packet one-way delay: 94.851 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 57.64 Mbit/s  
95th percentile per-packet one-way delay: 98.846 ms  
Loss rate: 0.22%  
-- Flow 2:  
Average throughput: 29.50 Mbit/s  
95th percentile per-packet one-way delay: 95.701 ms  
Loss rate: 0.33%  
-- Flow 3:  
Average throughput: 18.25 Mbit/s  
95th percentile per-packet one-way delay: 47.776 ms  
Loss rate: 0.52%

## Run 1: Report of Copa — Data Link

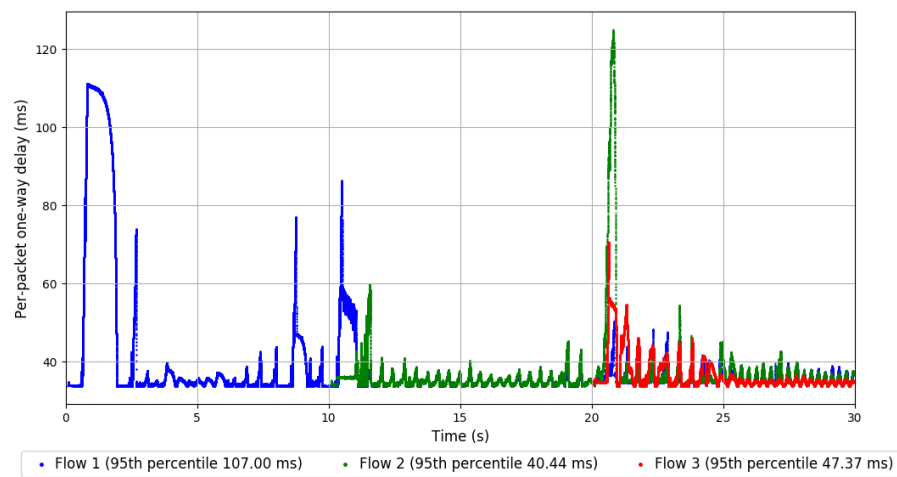
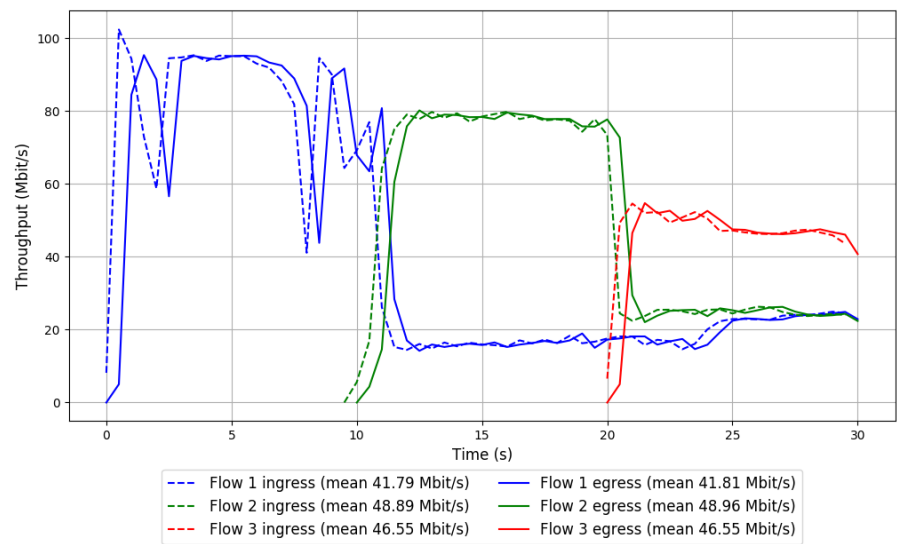


Run 2: Statistics of Copa

Start at: 2018-11-30 15:56:05  
End at: 2018-11-30 15:56:35  
Local clock offset: 2.94 ms  
Remote clock offset: -2.551 ms

# Below is generated by plot.py at 2018-11-30 17:20:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.83 Mbit/s  
95th percentile per-packet one-way delay: 66.403 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 41.81 Mbit/s  
95th percentile per-packet one-way delay: 107.005 ms  
Loss rate: 0.17%  
-- Flow 2:  
Average throughput: 48.96 Mbit/s  
95th percentile per-packet one-way delay: 40.441 ms  
Loss rate: 0.17%  
-- Flow 3:  
Average throughput: 46.55 Mbit/s  
95th percentile per-packet one-way delay: 47.370 ms  
Loss rate: 0.65%

Run 2: Report of Copa — Data Link

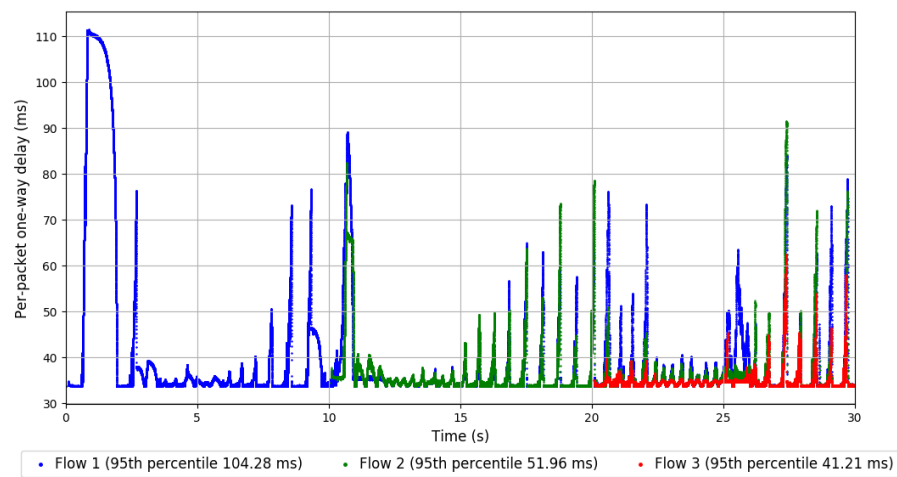
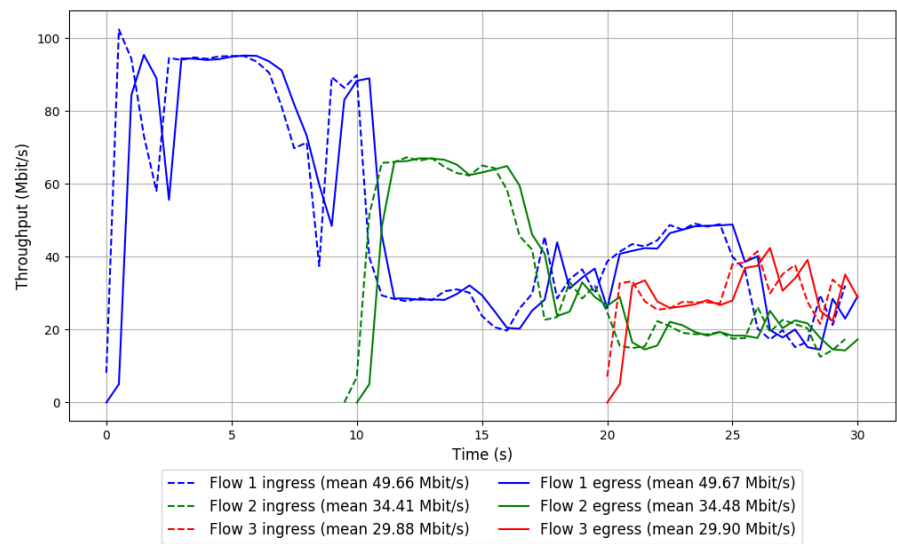


Run 3: Statistics of Copa

Start at: 2018-11-30 16:19:33  
End at: 2018-11-30 16:20:03  
Local clock offset: 4.509 ms  
Remote clock offset: -1.547 ms

# Below is generated by plot.py at 2018-11-30 17:20:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.53 Mbit/s  
95th percentile per-packet one-way delay: 76.191 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 49.67 Mbit/s  
95th percentile per-packet one-way delay: 104.278 ms  
Loss rate: 0.20%  
-- Flow 2:  
Average throughput: 34.48 Mbit/s  
95th percentile per-packet one-way delay: 51.956 ms  
Loss rate: 0.13%  
-- Flow 3:  
Average throughput: 29.90 Mbit/s  
95th percentile per-packet one-way delay: 41.211 ms  
Loss rate: 0.59%

Run 3: Report of Copa — Data Link



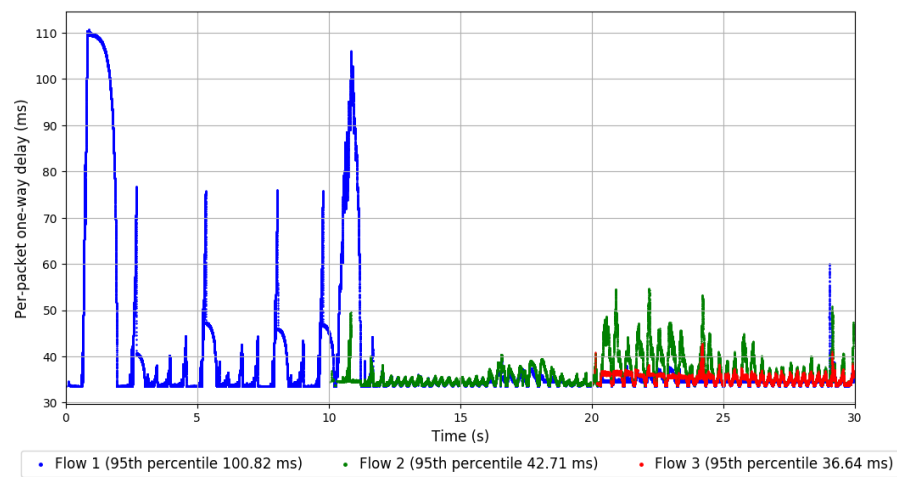
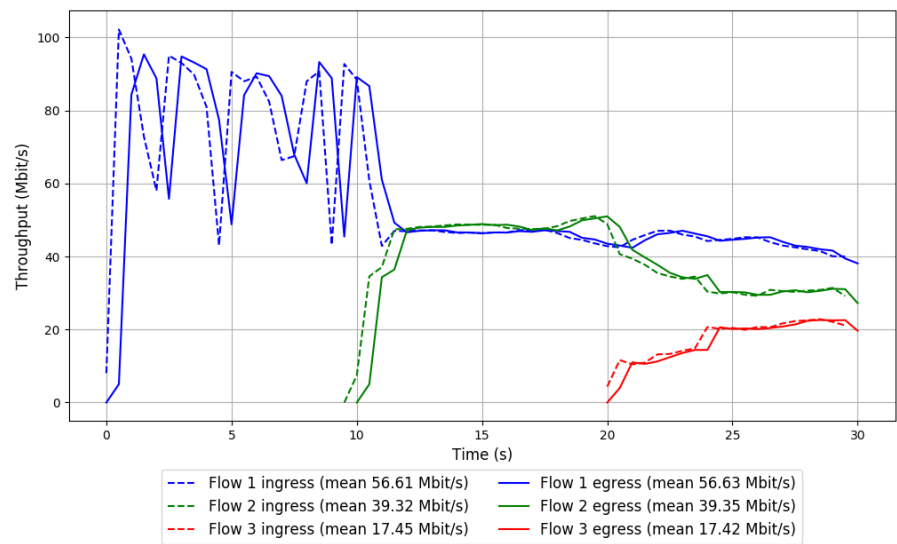


Run 4: Statistics of Copa

Start at: 2018-11-30 16:42:37  
End at: 2018-11-30 16:43:07  
Local clock offset: 5.369 ms  
Remote clock offset: -0.731 ms

# Below is generated by plot.py at 2018-11-30 17:21:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.60 Mbit/s  
95th percentile per-packet one-way delay: 78.200 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 56.63 Mbit/s  
95th percentile per-packet one-way delay: 100.820 ms  
Loss rate: 0.18%  
-- Flow 2:  
Average throughput: 39.35 Mbit/s  
95th percentile per-packet one-way delay: 42.714 ms  
Loss rate: 0.28%  
-- Flow 3:  
Average throughput: 17.42 Mbit/s  
95th percentile per-packet one-way delay: 36.640 ms  
Loss rate: 0.81%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-11-30 17:05:45

End at: 2018-11-30 17:06:15

Local clock offset: 3.28 ms

Remote clock offset: 1.991 ms

# Below is generated by plot.py at 2018-11-30 17:21:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.88 Mbit/s

95th percentile per-packet one-way delay: 50.074 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 47.04 Mbit/s

95th percentile per-packet one-way delay: 62.279 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 45.15 Mbit/s

95th percentile per-packet one-way delay: 40.270 ms

Loss rate: 0.33%

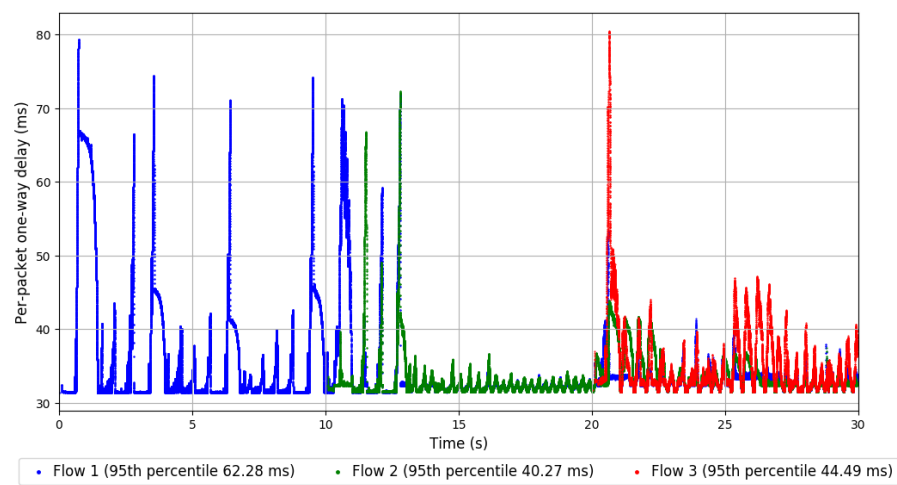
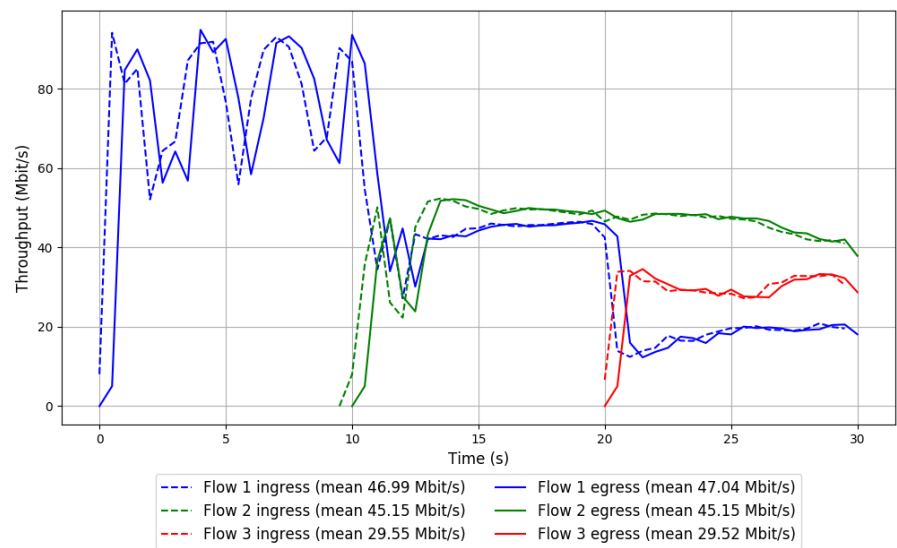
-- Flow 3:

Average throughput: 29.52 Mbit/s

95th percentile per-packet one-way delay: 44.492 ms

Loss rate: 0.75%

Run 5: Report of Copa — Data Link

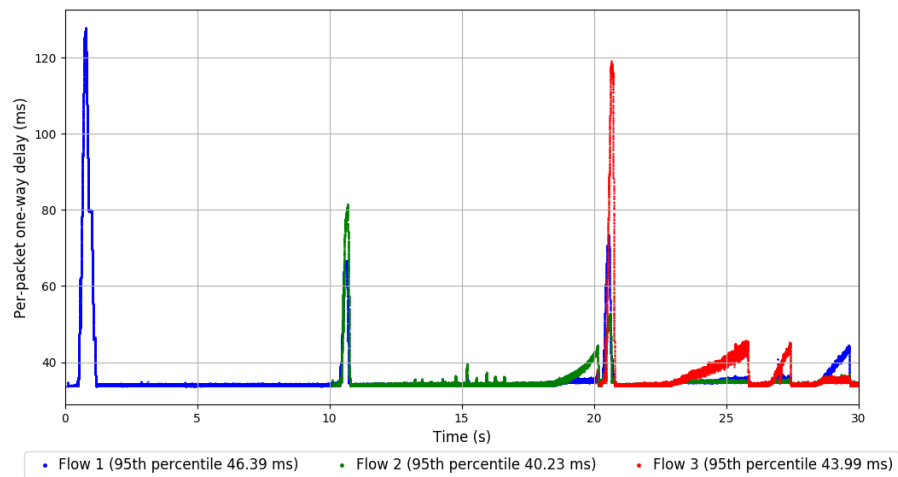
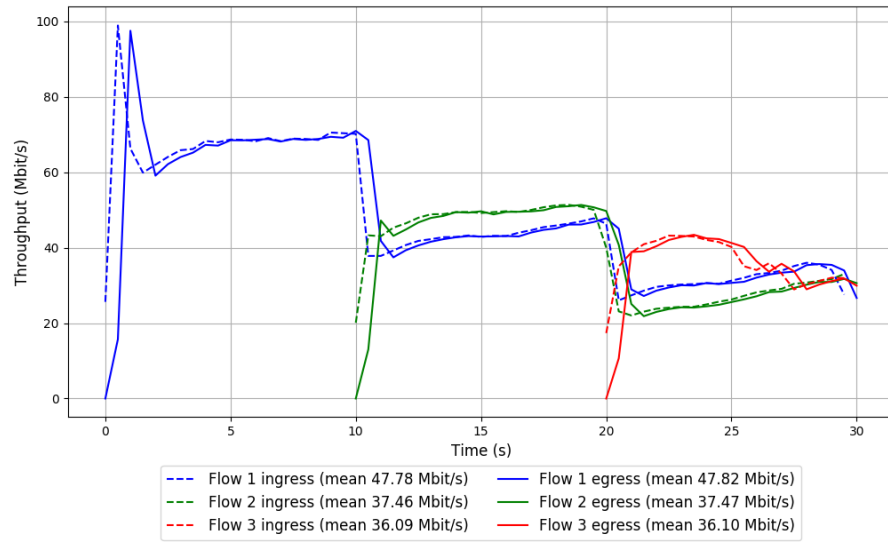


Run 1: Statistics of TCP Cubic

Start at: 2018-11-30 15:23:57  
End at: 2018-11-30 15:24:27  
Local clock offset: 0.654 ms  
Remote clock offset: -3.807 ms

# Below is generated by plot.py at 2018-11-30 17:21:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.70 Mbit/s  
95th percentile per-packet one-way delay: 43.315 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 47.82 Mbit/s  
95th percentile per-packet one-way delay: 46.388 ms  
Loss rate: 0.15%  
-- Flow 2:  
Average throughput: 37.47 Mbit/s  
95th percentile per-packet one-way delay: 40.231 ms  
Loss rate: 0.32%  
-- Flow 3:  
Average throughput: 36.10 Mbit/s  
95th percentile per-packet one-way delay: 43.995 ms  
Loss rate: 0.62%

## Run 1: Report of TCP Cubic — Data Link

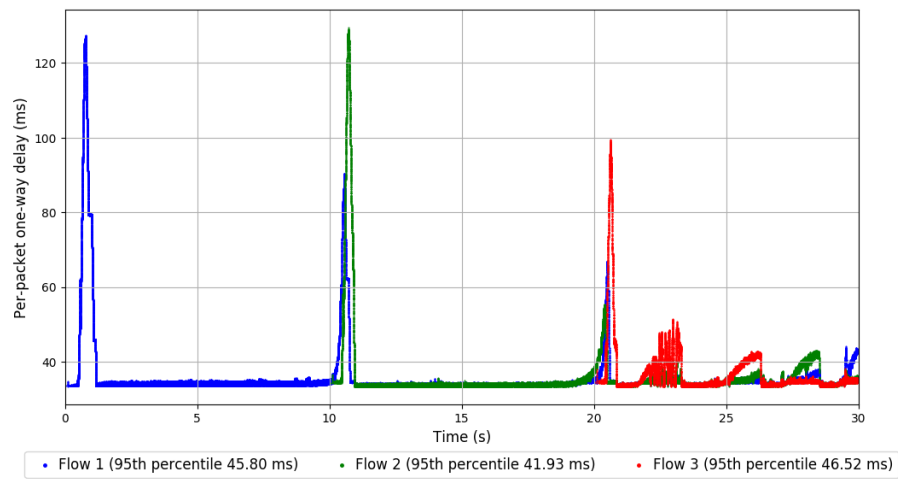
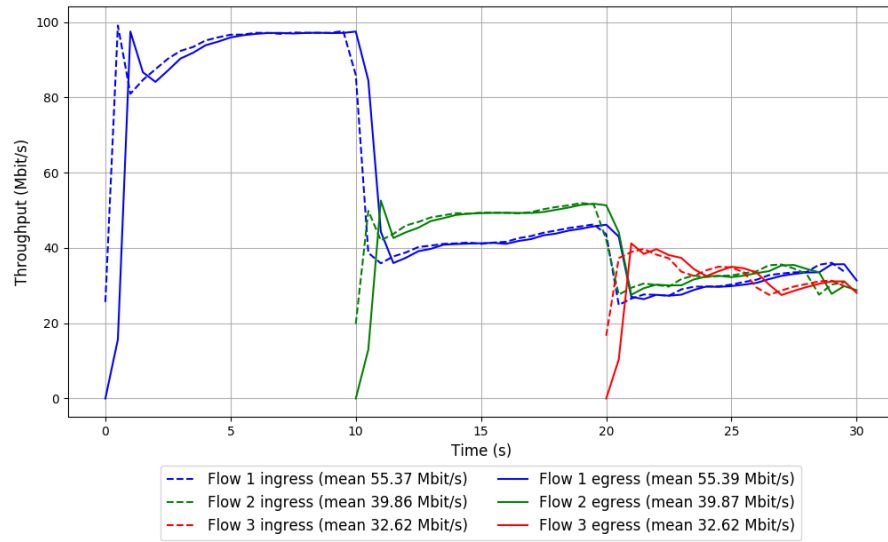


Run 2: Statistics of TCP Cubic

Start at: 2018-11-30 15:47:17  
End at: 2018-11-30 15:47:47  
Local clock offset: 1.288 ms  
Remote clock offset: -2.685 ms

# Below is generated by plot.py at 2018-11-30 17:21:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.72 Mbit/s  
95th percentile per-packet one-way delay: 45.034 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 55.39 Mbit/s  
95th percentile per-packet one-way delay: 45.796 ms  
Loss rate: 0.18%  
-- Flow 2:  
Average throughput: 39.87 Mbit/s  
95th percentile per-packet one-way delay: 41.928 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 32.62 Mbit/s  
95th percentile per-packet one-way delay: 46.524 ms  
Loss rate: 0.66%

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



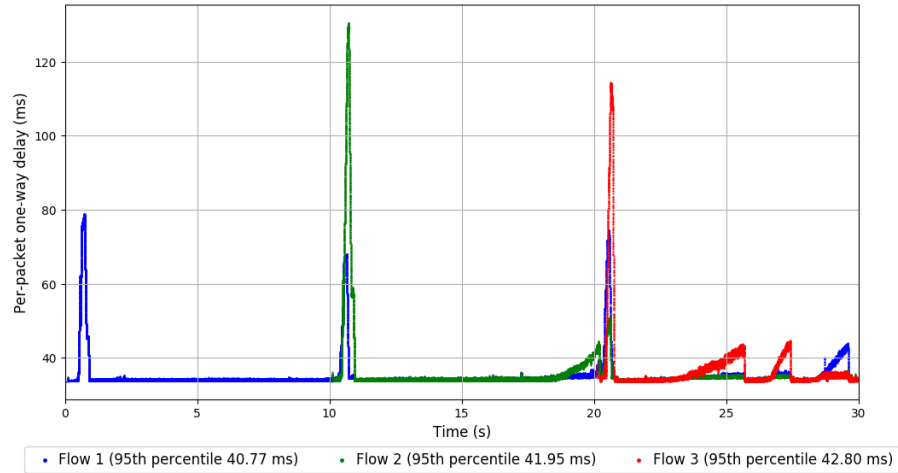
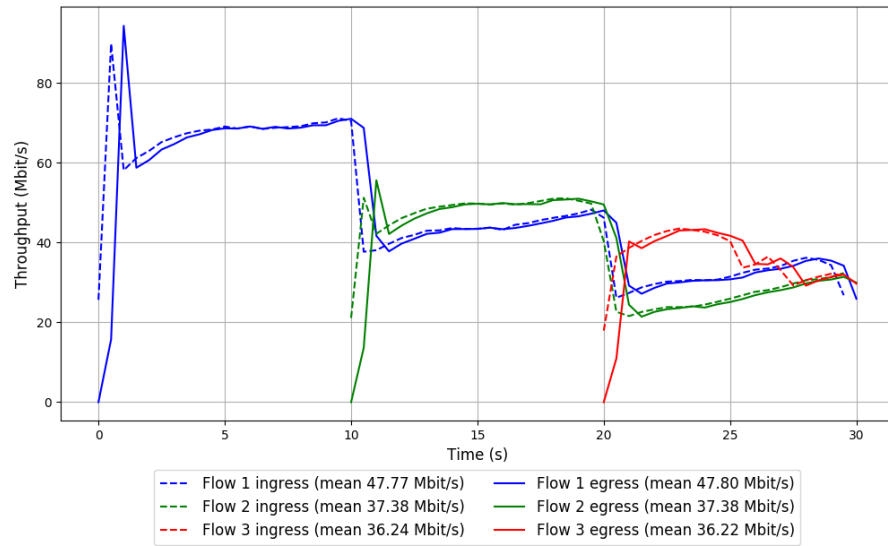


Run 3: Statistics of TCP Cubic

Start at: 2018-11-30 16:11:00  
End at: 2018-11-30 16:11:30  
Local clock offset: 4.09 ms  
Remote clock offset: -1.786 ms

# Below is generated by plot.py at 2018-11-30 17:21:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.66 Mbit/s  
95th percentile per-packet one-way delay: 41.944 ms  
Loss rate: 0.29%  
-- Flow 1:  
Average throughput: 47.80 Mbit/s  
95th percentile per-packet one-way delay: 40.771 ms  
Loss rate: 0.17%  
-- Flow 2:  
Average throughput: 37.38 Mbit/s  
95th percentile per-packet one-way delay: 41.954 ms  
Loss rate: 0.33%  
-- Flow 3:  
Average throughput: 36.22 Mbit/s  
95th percentile per-packet one-way delay: 42.805 ms  
Loss rate: 0.70%

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

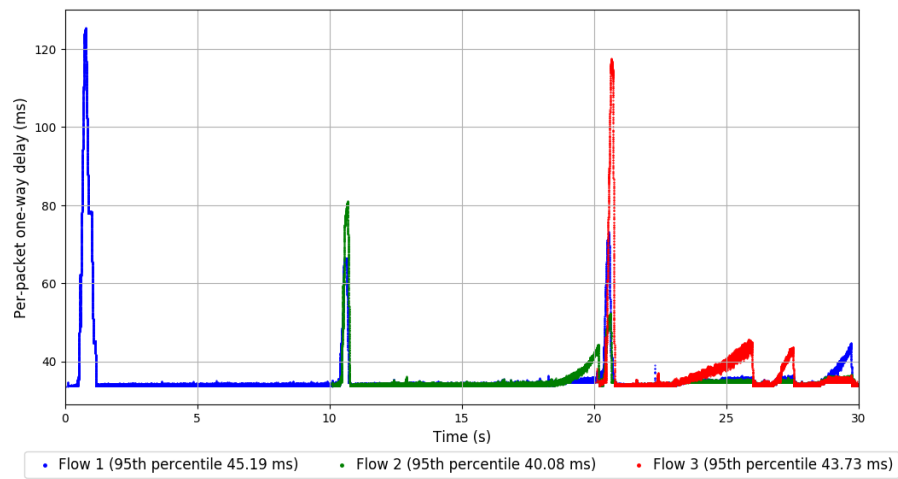
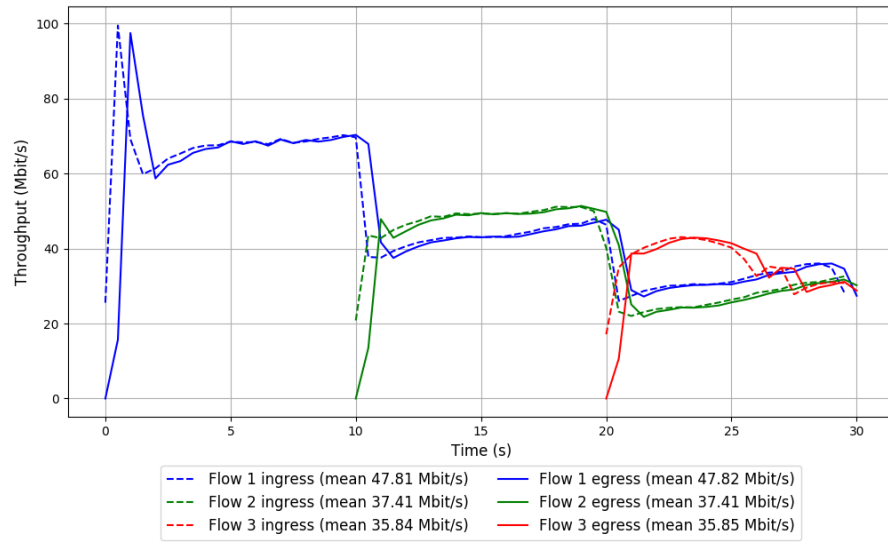


Run 4: Statistics of TCP Cubic

Start at: 2018-11-30 16:34:06  
End at: 2018-11-30 16:34:36  
Local clock offset: 5.065 ms  
Remote clock offset: -0.995 ms

# Below is generated by plot.py at 2018-11-30 17:21:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.59 Mbit/s  
95th percentile per-packet one-way delay: 43.261 ms  
Loss rate: 0.29%  
-- Flow 1:  
Average throughput: 47.82 Mbit/s  
95th percentile per-packet one-way delay: 45.185 ms  
Loss rate: 0.20%  
-- Flow 2:  
Average throughput: 37.41 Mbit/s  
95th percentile per-packet one-way delay: 40.080 ms  
Loss rate: 0.32%  
-- Flow 3:  
Average throughput: 35.85 Mbit/s  
95th percentile per-packet one-way delay: 43.733 ms  
Loss rate: 0.61%

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

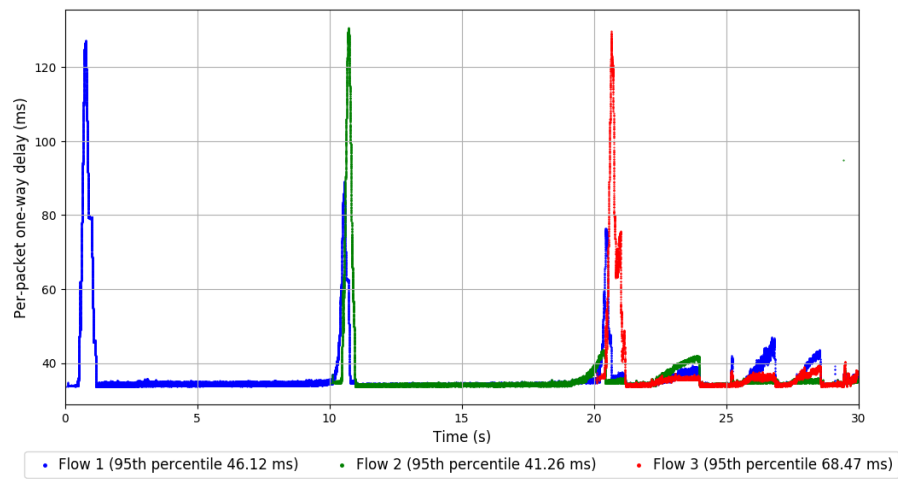
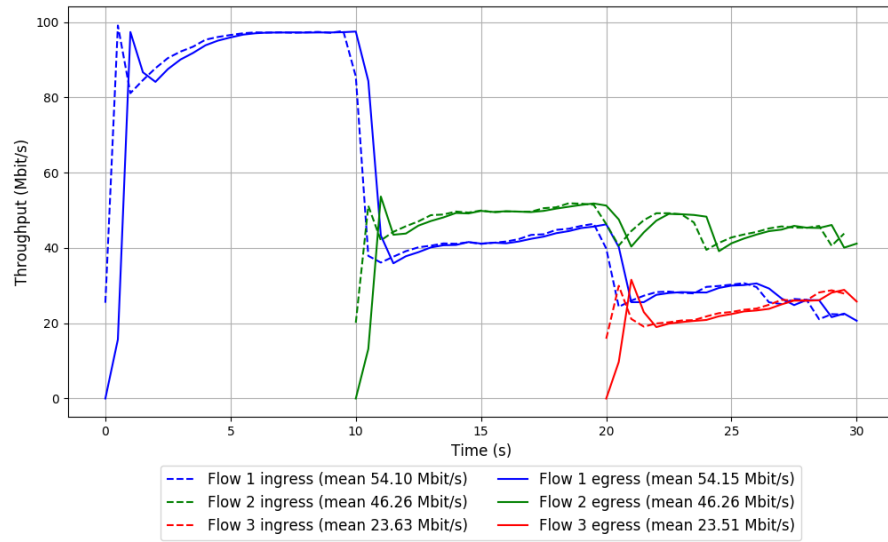


Run 5: Statistics of TCP Cubic

Start at: 2018-11-30 16:57:12  
End at: 2018-11-30 16:57:42  
Local clock offset: 3.658 ms  
Remote clock offset: -0.447 ms

# Below is generated by plot.py at 2018-11-30 17:21:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.71 Mbit/s  
95th percentile per-packet one-way delay: 45.007 ms  
Loss rate: 0.29%  
-- Flow 1:  
Average throughput: 54.15 Mbit/s  
95th percentile per-packet one-way delay: 46.120 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 46.26 Mbit/s  
95th percentile per-packet one-way delay: 41.263 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 23.51 Mbit/s  
95th percentile per-packet one-way delay: 68.470 ms  
Loss rate: 1.16%

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

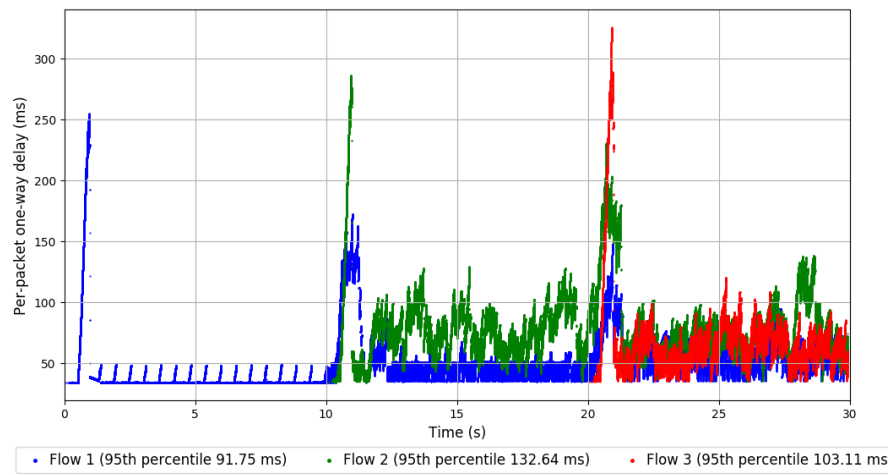
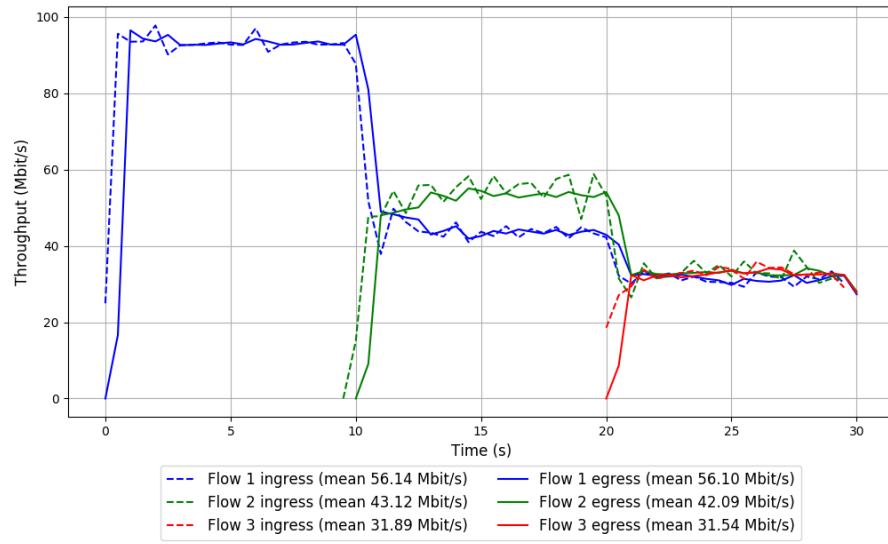


Run 1: Statistics of FillP

Start at: 2018-11-30 15:33:55  
End at: 2018-11-30 15:34:25  
Local clock offset: 0.621 ms  
Remote clock offset: -3.604 ms

# Below is generated by plot.py at 2018-11-30 17:21:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.53 Mbit/s  
95th percentile per-packet one-way delay: 114.188 ms  
Loss rate: 1.16%  
-- Flow 1:  
Average throughput: 56.10 Mbit/s  
95th percentile per-packet one-way delay: 91.750 ms  
Loss rate: 0.30%  
-- Flow 2:  
Average throughput: 42.09 Mbit/s  
95th percentile per-packet one-way delay: 132.637 ms  
Loss rate: 2.63%  
-- Flow 3:  
Average throughput: 31.54 Mbit/s  
95th percentile per-packet one-way delay: 103.111 ms  
Loss rate: 1.77%

# Run 1: Report of FillP — Data Link



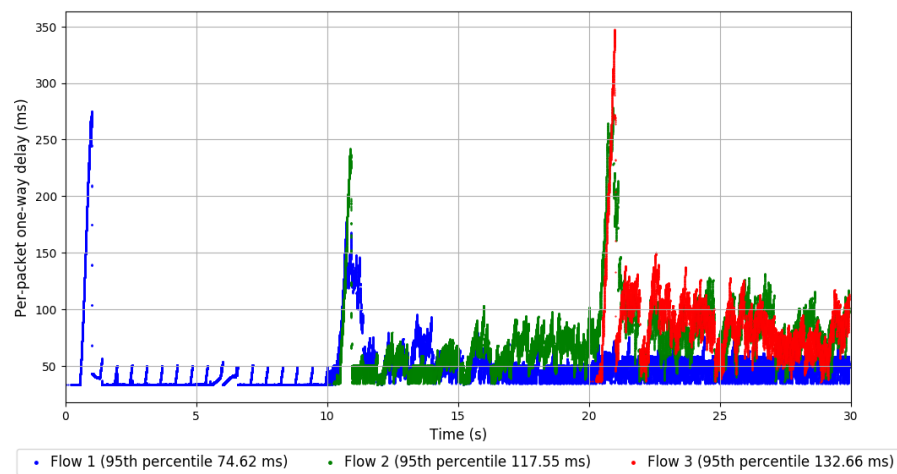
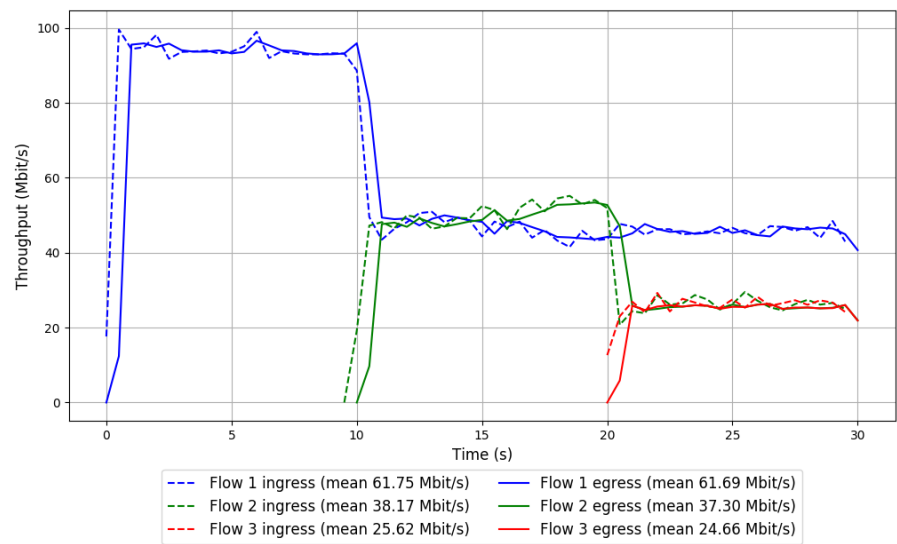


Run 2: Statistics of FillP

Start at: 2018-11-30 15:57:26  
End at: 2018-11-30 15:57:56  
Local clock offset: 3.121 ms  
Remote clock offset: -2.352 ms

# Below is generated by plot.py at 2018-11-30 17:21:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.67 Mbit/s  
95th percentile per-packet one-way delay: 112.214 ms  
Loss rate: 1.27%  
-- Flow 1:  
Average throughput: 61.69 Mbit/s  
95th percentile per-packet one-way delay: 74.622 ms  
Loss rate: 0.31%  
-- Flow 2:  
Average throughput: 37.30 Mbit/s  
95th percentile per-packet one-way delay: 117.551 ms  
Loss rate: 2.55%  
-- Flow 3:  
Average throughput: 24.66 Mbit/s  
95th percentile per-packet one-way delay: 132.664 ms  
Loss rate: 4.41%

Run 2: Report of FillP — Data Link

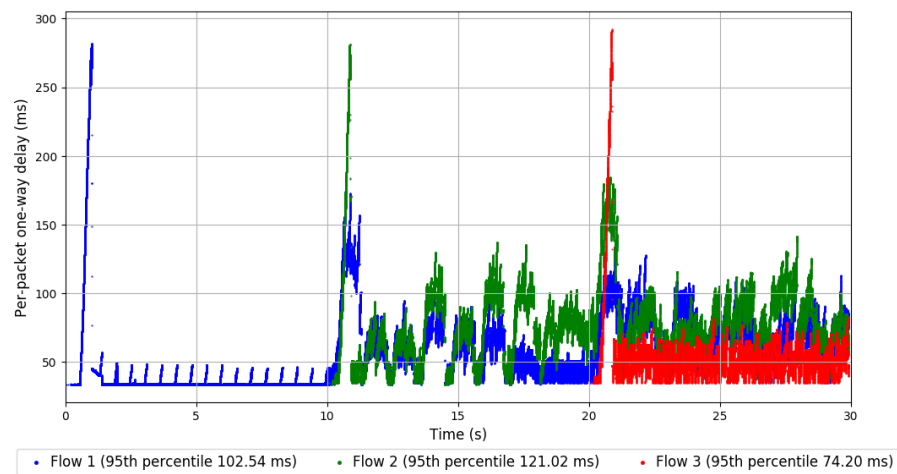
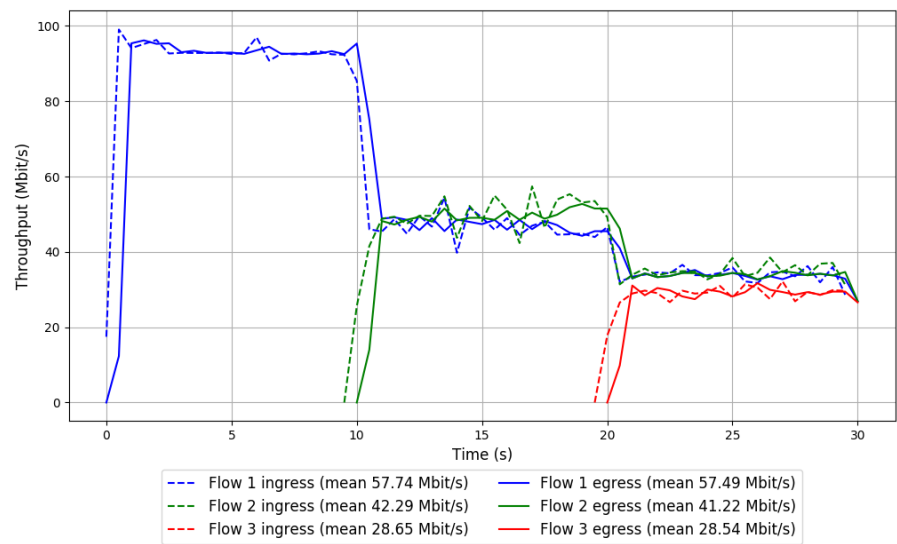


Run 3: Statistics of FillP

Start at: 2018-11-30 16:20:49  
End at: 2018-11-30 16:21:19  
Local clock offset: 4.551 ms  
Remote clock offset: -1.409 ms

# Below is generated by plot.py at 2018-11-30 17:21:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.40 Mbit/s  
95th percentile per-packet one-way delay: 111.199 ms  
Loss rate: 1.31%  
-- Flow 1:  
Average throughput: 57.49 Mbit/s  
95th percentile per-packet one-way delay: 102.540 ms  
Loss rate: 0.62%  
-- Flow 2:  
Average throughput: 41.22 Mbit/s  
95th percentile per-packet one-way delay: 121.015 ms  
Loss rate: 2.80%  
-- Flow 3:  
Average throughput: 28.54 Mbit/s  
95th percentile per-packet one-way delay: 74.197 ms  
Loss rate: 1.06%

Run 3: Report of FillP — Data Link

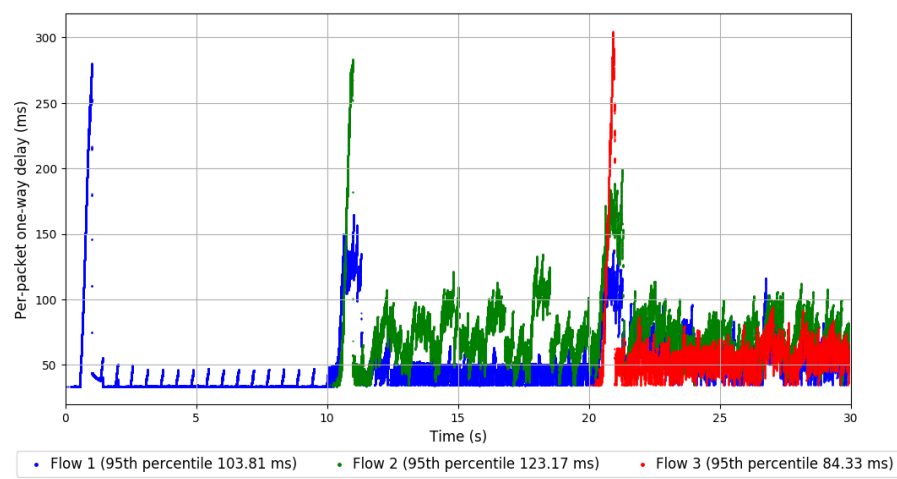
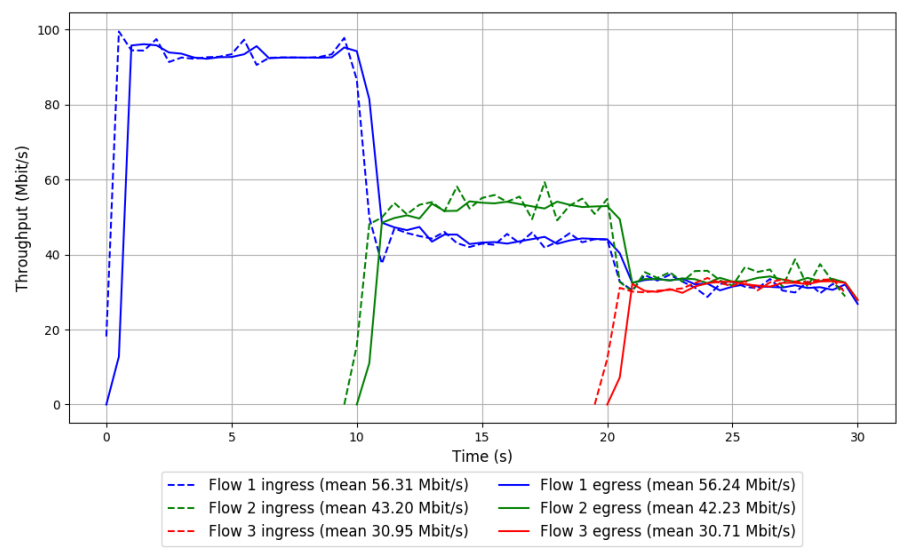


Run 4: Statistics of FillP

Start at: 2018-11-30 16:43:53  
End at: 2018-11-30 16:44:23  
Local clock offset: 5.422 ms  
Remote clock offset: -0.704 ms

# Below is generated by plot.py at 2018-11-30 17:21:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.52 Mbit/s  
95th percentile per-packet one-way delay: 111.438 ms  
Loss rate: 1.10%  
-- Flow 1:  
Average throughput: 56.24 Mbit/s  
95th percentile per-packet one-way delay: 103.808 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 42.23 Mbit/s  
95th percentile per-packet one-way delay: 123.171 ms  
Loss rate: 2.46%  
-- Flow 3:  
Average throughput: 30.71 Mbit/s  
95th percentile per-packet one-way delay: 84.327 ms  
Loss rate: 1.40%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-11-30 17:07:01

End at: 2018-11-30 17:07:31

Local clock offset: 3.25 ms

Remote clock offset: 2.012 ms

# Below is generated by plot.py at 2018-11-30 17:22:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.59 Mbit/s

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

Loss rate: 1.52%

-- Flow 1:

Average throughput: 54.55 Mbit/s

95th percentile per-packet one-way delay: 120.549 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 38.81 Mbit/s

95th percentile per-packet one-way delay: 146.214 ms

Loss rate: 3.89%

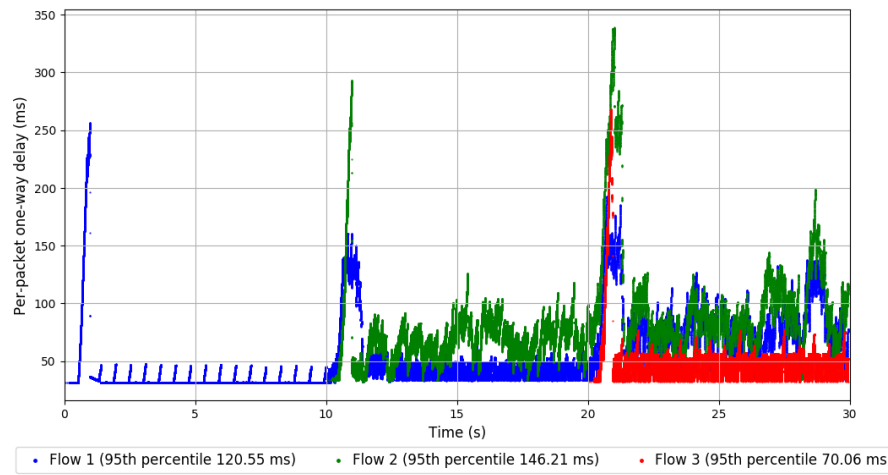
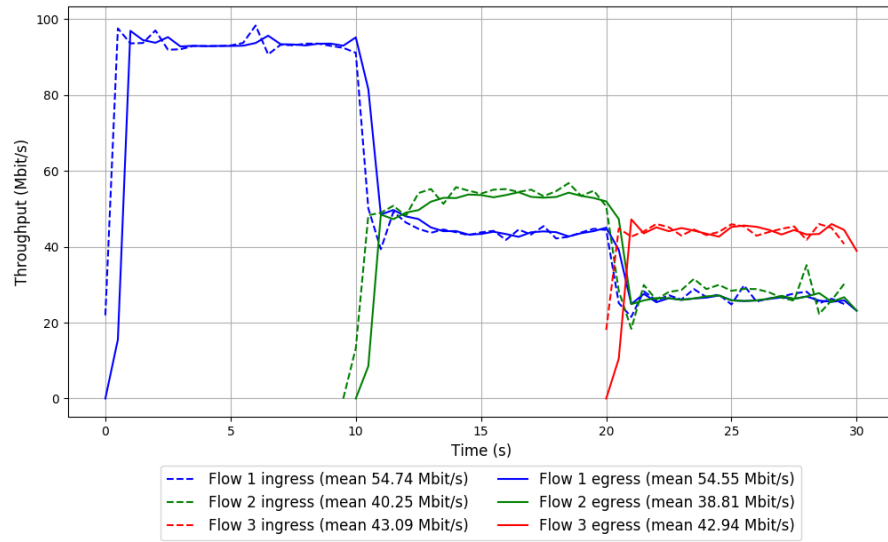
-- Flow 3:

Average throughput: 42.94 Mbit/s

95th percentile per-packet one-way delay: 70.065 ms

Loss rate: 0.84%

## Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2018-11-30 15:25:10

End at: 2018-11-30 15:25:40

Local clock offset: 0.634 ms

Remote clock offset: -3.71 ms

# Below is generated by plot.py at 2018-11-30 17:22:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.01 Mbit/s

95th percentile per-packet one-way delay: 105.932 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 54.05 Mbit/s

95th percentile per-packet one-way delay: 99.789 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 38.51 Mbit/s

95th percentile per-packet one-way delay: 136.389 ms

Loss rate: 0.55%

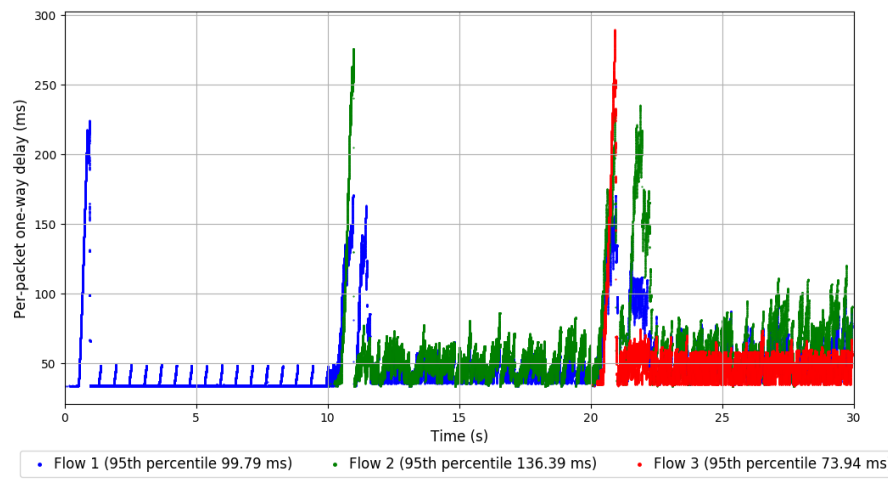
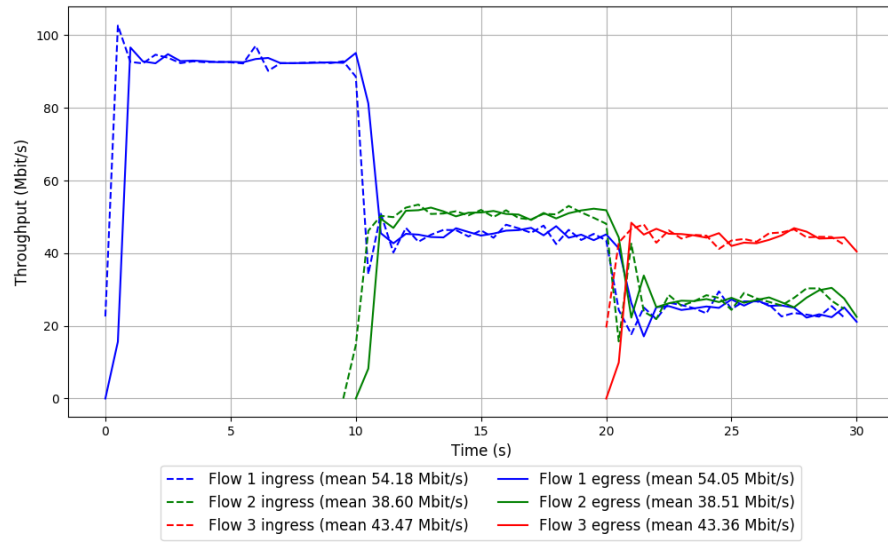
-- Flow 3:

Average throughput: 43.36 Mbit/s

95th percentile per-packet one-way delay: 73.942 ms

Loss rate: 0.90%

## Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2018-11-30 15:48:37

End at: 2018-11-30 15:49:07

Local clock offset: 1.677 ms

Remote clock offset: -2.58 ms

# Below is generated by plot.py at 2018-11-30 17:22:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.17 Mbit/s

95th percentile per-packet one-way delay: 100.413 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 57.93 Mbit/s

95th percentile per-packet one-way delay: 101.365 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 39.01 Mbit/s

95th percentile per-packet one-way delay: 103.814 ms

Loss rate: 0.37%

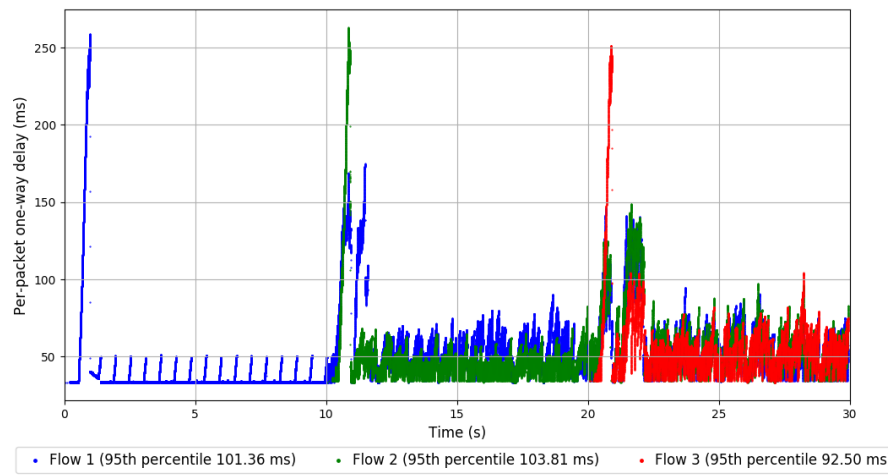
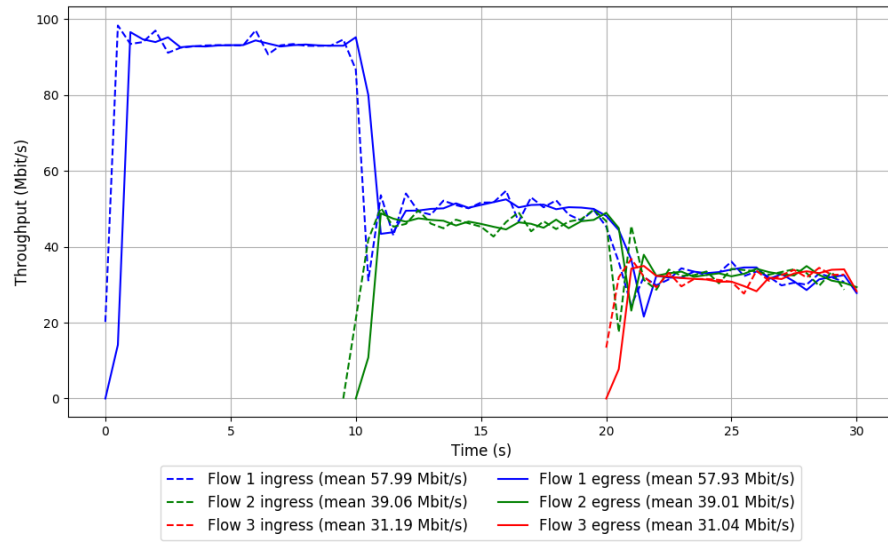
-- Flow 3:

Average throughput: 31.04 Mbit/s

95th percentile per-packet one-way delay: 92.498 ms

Loss rate: 1.14%

## Run 2: Report of FillP-Sheep — Data Link

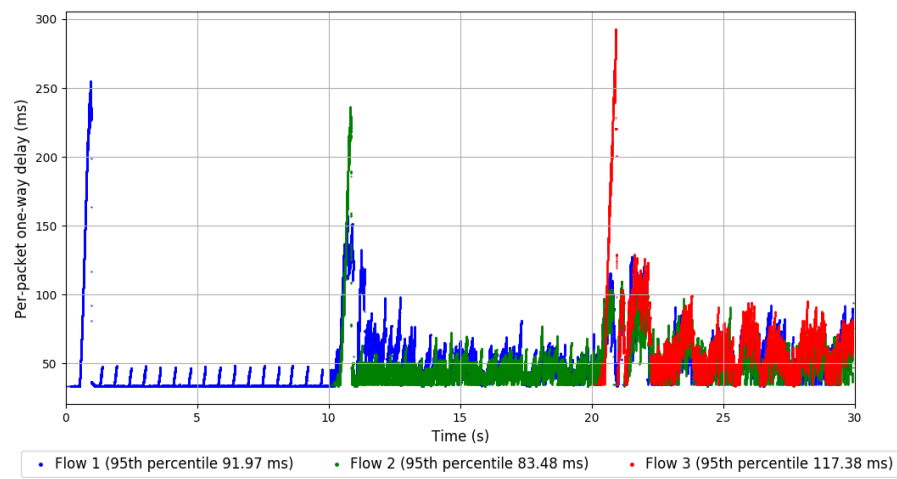
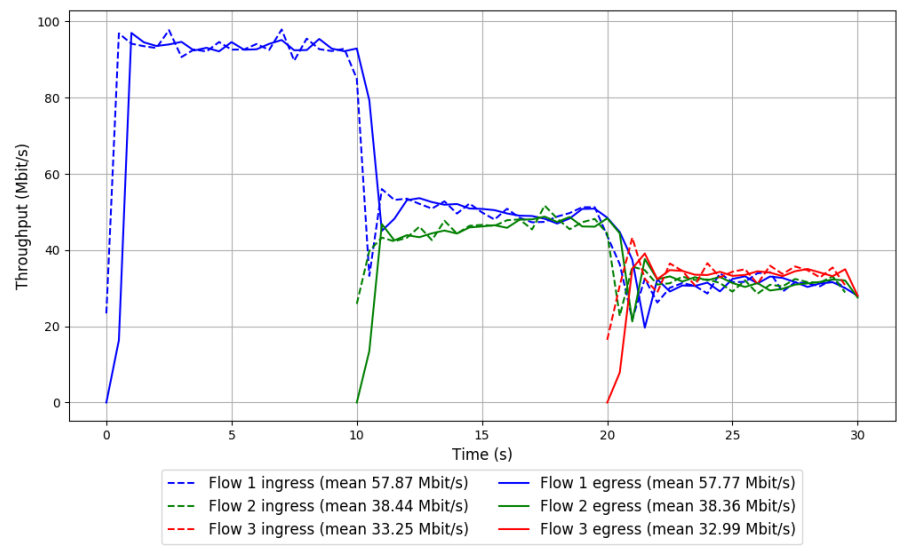


Run 3: Statistics of FillP-Sheep

Start at: 2018-11-30 16:12:13  
End at: 2018-11-30 16:12:43  
Local clock offset: 4.155 ms  
Remote clock offset: -1.766 ms

# Below is generated by plot.py at 2018-11-30 17:22:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.22 Mbit/s  
95th percentile per-packet one-way delay: 94.273 ms  
Loss rate: 0.46%  
-- Flow 1:  
Average throughput: 57.77 Mbit/s  
95th percentile per-packet one-way delay: 91.973 ms  
Loss rate: 0.27%  
-- Flow 2:  
Average throughput: 38.36 Mbit/s  
95th percentile per-packet one-way delay: 83.481 ms  
Loss rate: 0.49%  
-- Flow 3:  
Average throughput: 32.99 Mbit/s  
95th percentile per-packet one-way delay: 117.379 ms  
Loss rate: 1.40%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2018-11-30 16:35:18

End at: 2018-11-30 16:35:48

Local clock offset: 5.125 ms

Remote clock offset: -1.1 ms

# Below is generated by plot.py at 2018-11-30 17:22:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.20 Mbit/s

95th percentile per-packet one-way delay: 113.178 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 55.79 Mbit/s

95th percentile per-packet one-way delay: 117.713 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 36.35 Mbit/s

95th percentile per-packet one-way delay: 123.557 ms

Loss rate: 0.74%

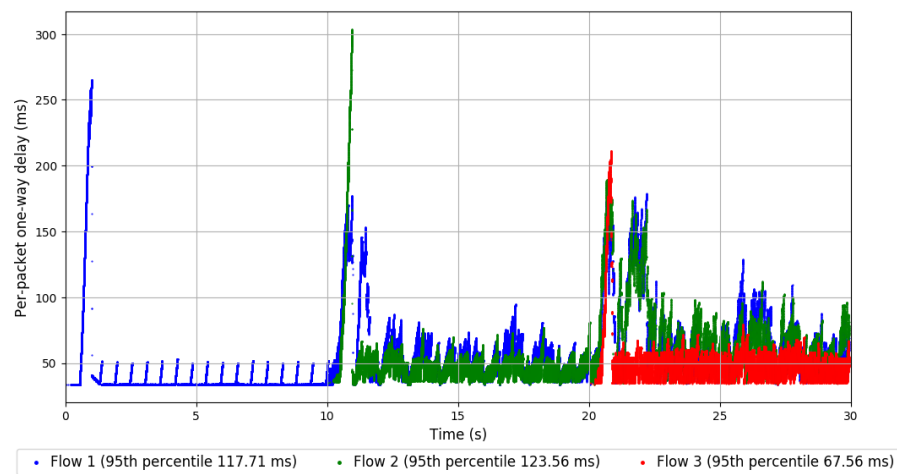
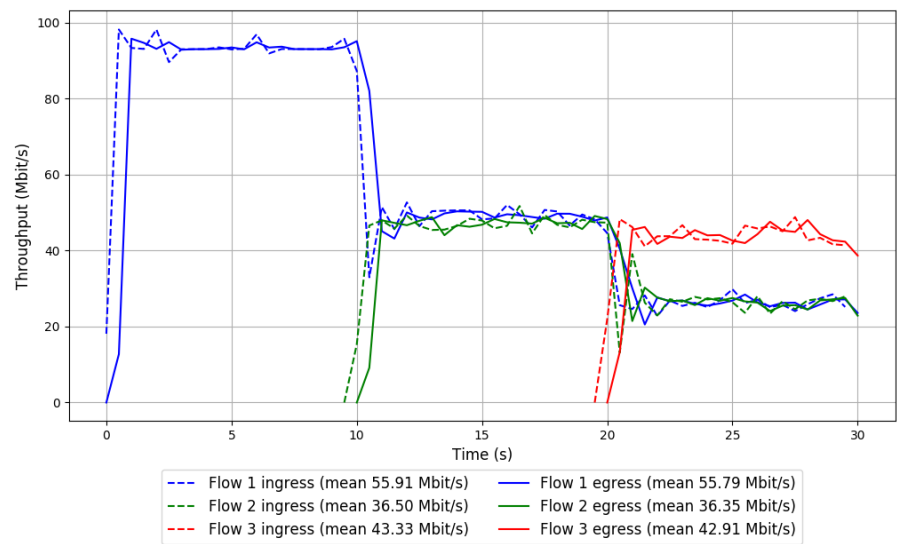
-- Flow 3:

Average throughput: 42.91 Mbit/s

95th percentile per-packet one-way delay: 67.563 ms

Loss rate: 1.61%

Run 4: Report of FillP-Sheep — Data Link





Run 5: Statistics of FillP-Sheep

Start at: 2018-11-30 16:58:25

End at: 2018-11-30 16:58:55

Local clock offset: 3.608 ms

Remote clock offset: 2.014 ms

# Below is generated by plot.py at 2018-11-30 17:22:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.94 Mbit/s

95th percentile per-packet one-way delay: 119.254 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 55.34 Mbit/s

95th percentile per-packet one-way delay: 118.092 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 36.28 Mbit/s

95th percentile per-packet one-way delay: 155.526 ms

Loss rate: 0.57%

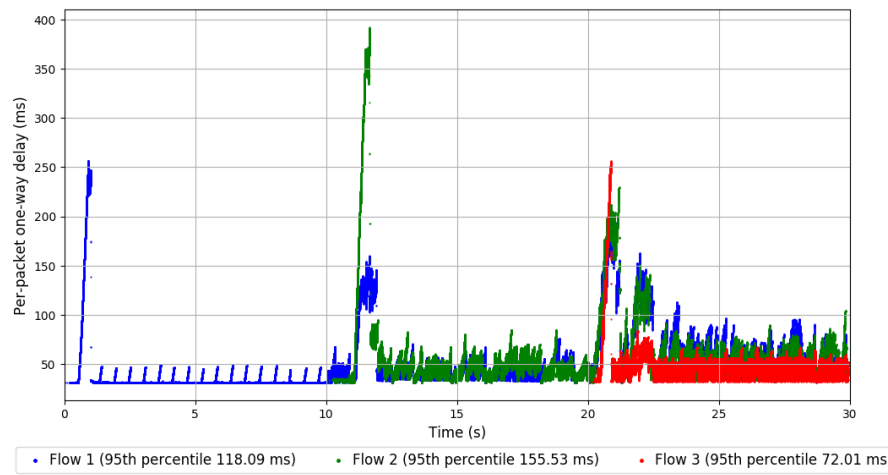
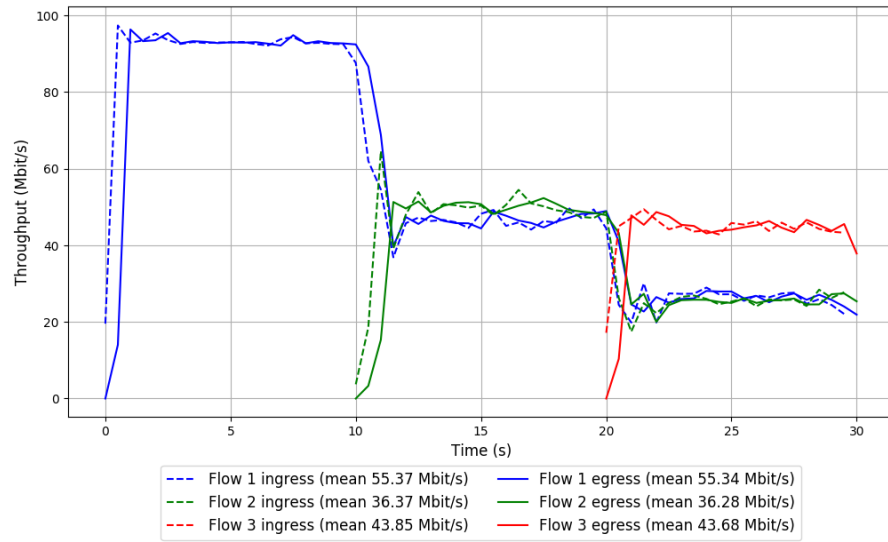
-- Flow 3:

Average throughput: 43.68 Mbit/s

95th percentile per-packet one-way delay: 72.010 ms

Loss rate: 1.00%

## Run 5: Report of FillP-Sheep — Data Link

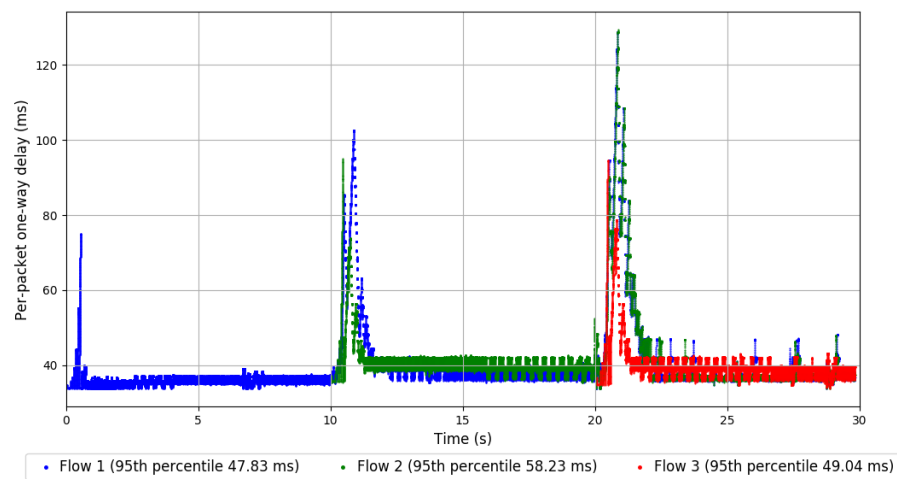
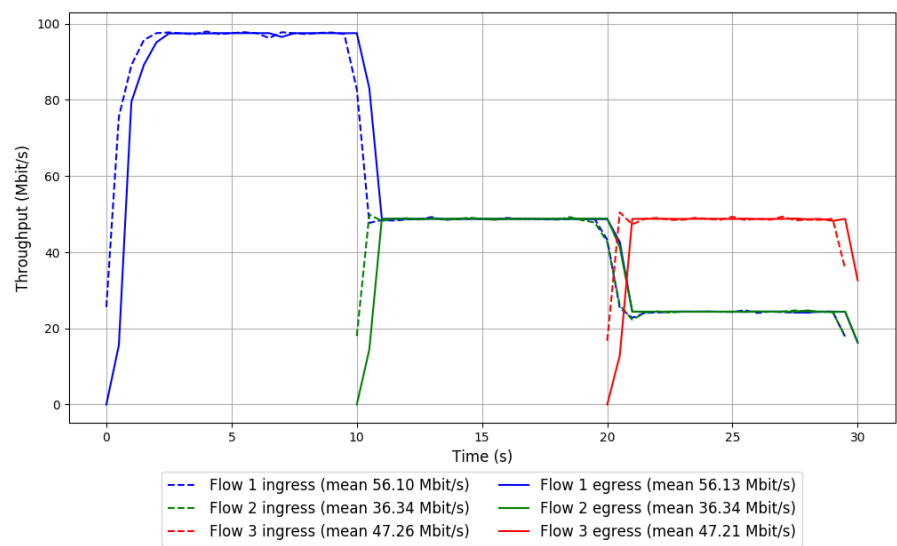


Run 1: Statistics of Indigo

Start at: 2018-11-30 15:35:08  
End at: 2018-11-30 15:35:38  
Local clock offset: 0.614 ms  
Remote clock offset: -3.384 ms

# Below is generated by plot.py at 2018-11-30 17:22:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.74 Mbit/s  
95th percentile per-packet one-way delay: 50.739 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 56.13 Mbit/s  
95th percentile per-packet one-way delay: 47.834 ms  
Loss rate: 0.17%  
-- Flow 2:  
Average throughput: 36.34 Mbit/s  
95th percentile per-packet one-way delay: 58.226 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 47.21 Mbit/s  
95th percentile per-packet one-way delay: 49.044 ms  
Loss rate: 0.77%

Run 1: Report of Indigo — Data Link

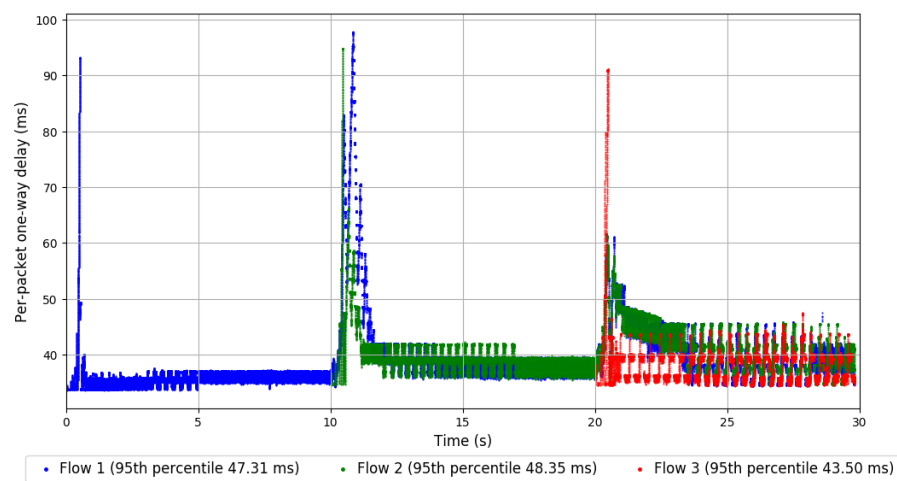
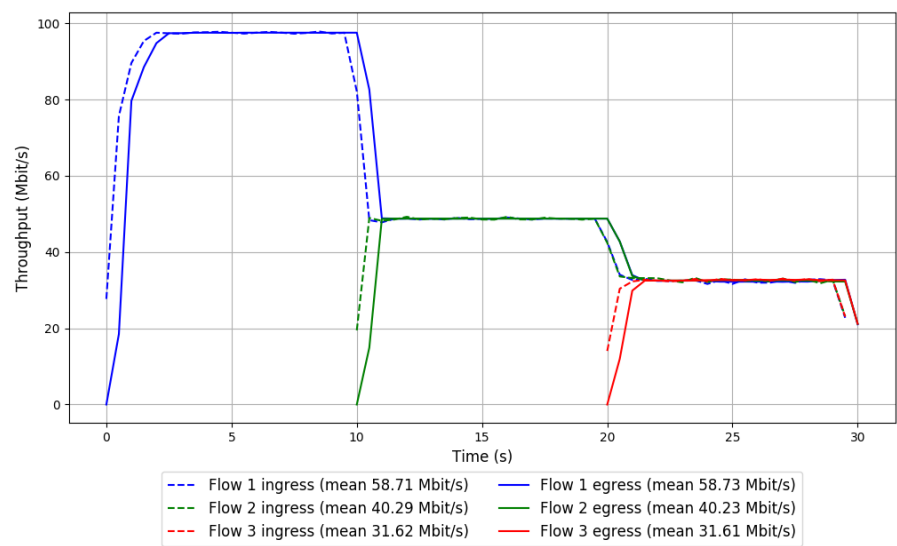


Run 2: Statistics of Indigo

Start at: 2018-11-30 15:58:42  
End at: 2018-11-30 15:59:12  
Local clock offset: 3.232 ms  
Remote clock offset: -2.306 ms

# Below is generated by plot.py at 2018-11-30 17:22:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.81 Mbit/s  
95th percentile per-packet one-way delay: 47.360 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 58.73 Mbit/s  
95th percentile per-packet one-way delay: 47.309 ms  
Loss rate: 0.19%  
-- Flow 2:  
Average throughput: 40.23 Mbit/s  
95th percentile per-packet one-way delay: 48.346 ms  
Loss rate: 0.47%  
-- Flow 3:  
Average throughput: 31.61 Mbit/s  
95th percentile per-packet one-way delay: 43.503 ms  
Loss rate: 0.71%

Run 2: Report of Indigo — Data Link

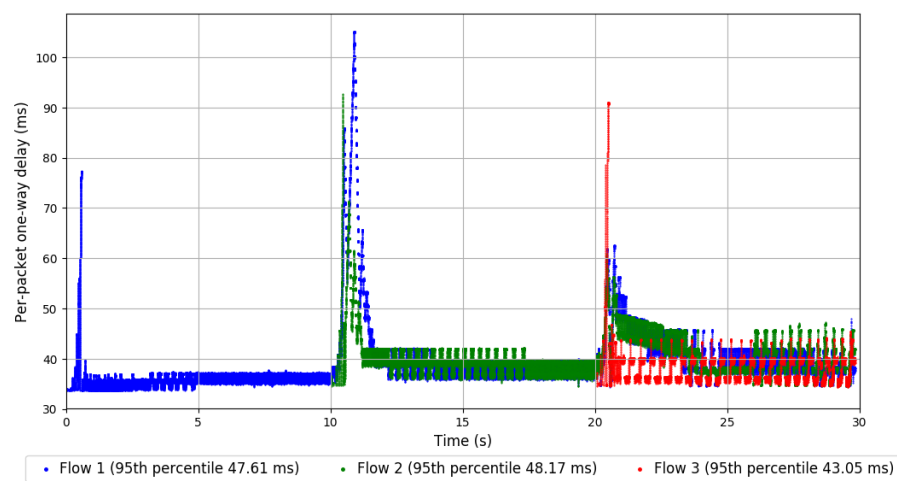
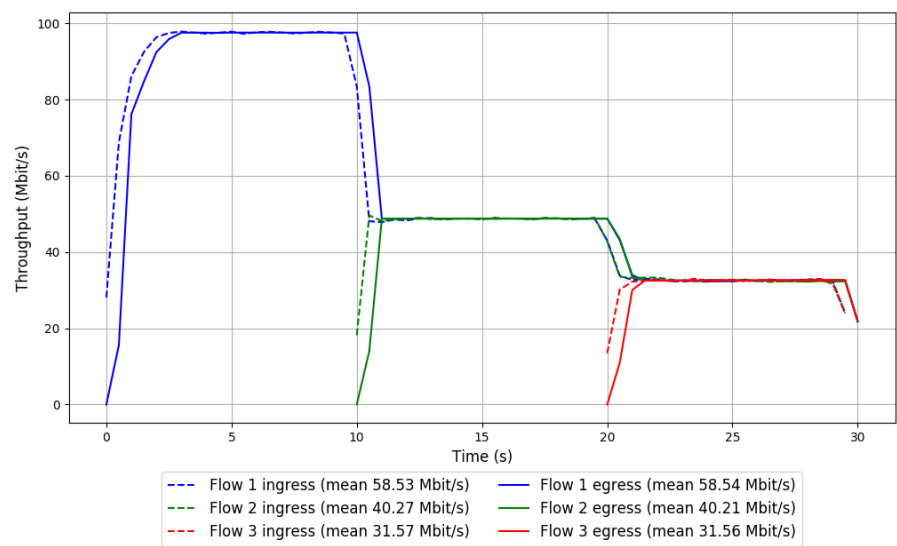


Run 3: Statistics of Indigo

Start at: 2018-11-30 16:22:01  
End at: 2018-11-30 16:22:31  
Local clock offset: 4.605 ms  
Remote clock offset: -1.448 ms

# Below is generated by plot.py at 2018-11-30 17:23:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.58 Mbit/s  
95th percentile per-packet one-way delay: 47.381 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 58.54 Mbit/s  
95th percentile per-packet one-way delay: 47.612 ms  
Loss rate: 0.19%  
-- Flow 2:  
Average throughput: 40.21 Mbit/s  
95th percentile per-packet one-way delay: 48.168 ms  
Loss rate: 0.47%  
-- Flow 3:  
Average throughput: 31.56 Mbit/s  
95th percentile per-packet one-way delay: 43.054 ms  
Loss rate: 0.71%

Run 3: Report of Indigo — Data Link



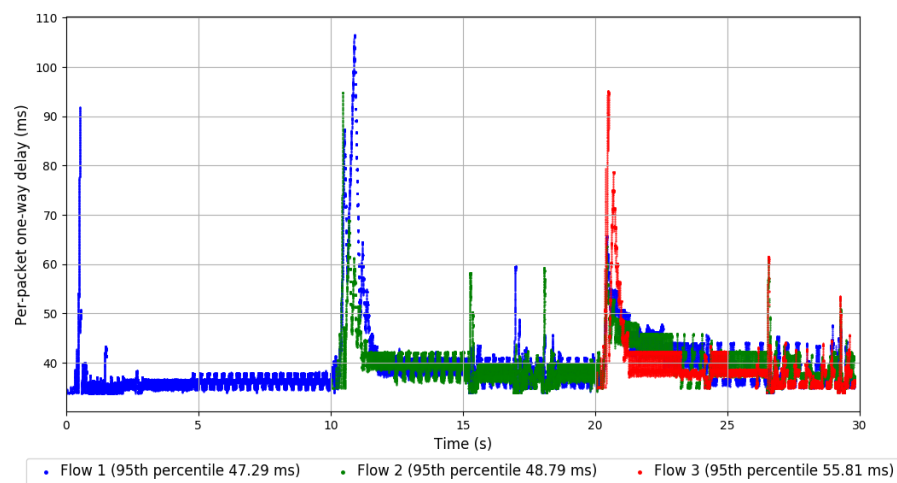
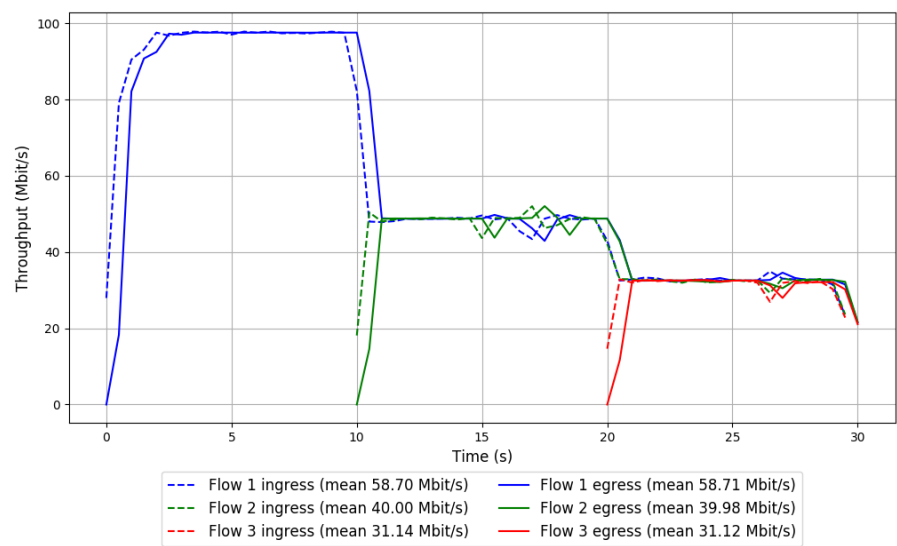


Run 4: Statistics of Indigo

Start at: 2018-11-30 16:45:05  
End at: 2018-11-30 16:45:35  
Local clock offset: 5.416 ms  
Remote clock offset: -0.726 ms

# Below is generated by plot.py at 2018-11-30 17:23:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.45 Mbit/s  
95th percentile per-packet one-way delay: 48.774 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 58.71 Mbit/s  
95th percentile per-packet one-way delay: 47.293 ms  
Loss rate: 0.21%  
-- Flow 2:  
Average throughput: 39.98 Mbit/s  
95th percentile per-packet one-way delay: 48.789 ms  
Loss rate: 0.38%  
-- Flow 3:  
Average throughput: 31.12 Mbit/s  
95th percentile per-packet one-way delay: 55.812 ms  
Loss rate: 0.75%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-11-30 17:08:14

End at: 2018-11-30 17:08:44

Local clock offset: 3.228 ms

Remote clock offset: 2.228 ms

# Below is generated by plot.py at 2018-11-30 17:23:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.67 Mbit/s

95th percentile per-packet one-way delay: 43.800 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 63.57 Mbit/s

95th percentile per-packet one-way delay: 39.517 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 36.49 Mbit/s

95th percentile per-packet one-way delay: 56.188 ms

Loss rate: 0.36%

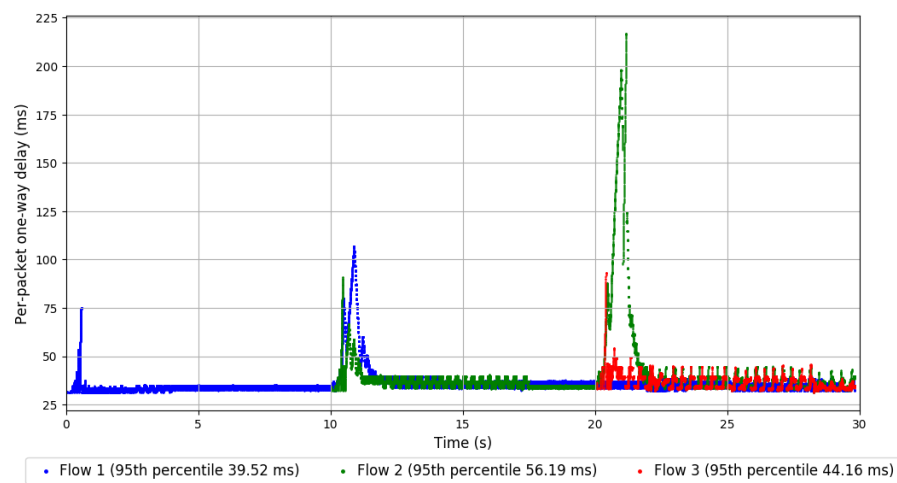
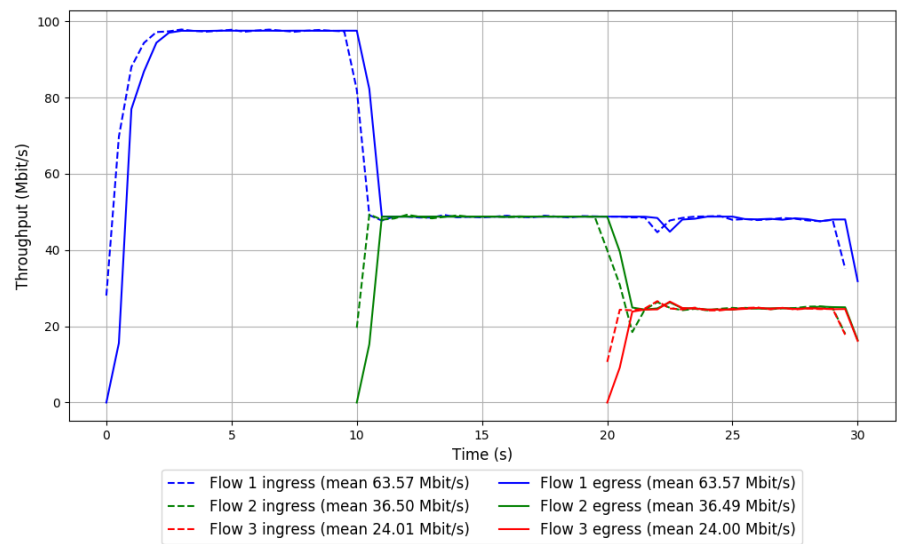
-- Flow 3:

Average throughput: 24.00 Mbit/s

95th percentile per-packet one-way delay: 44.164 ms

Loss rate: 0.75%

Run 5: Report of Indigo — Data Link

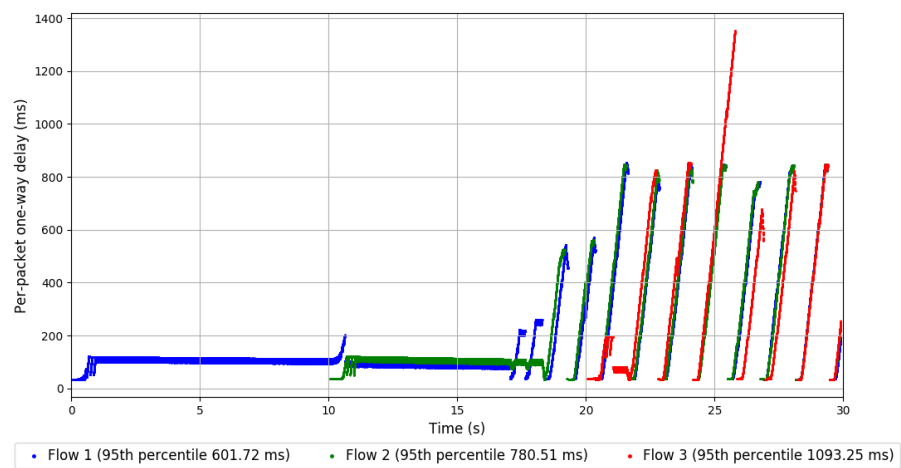
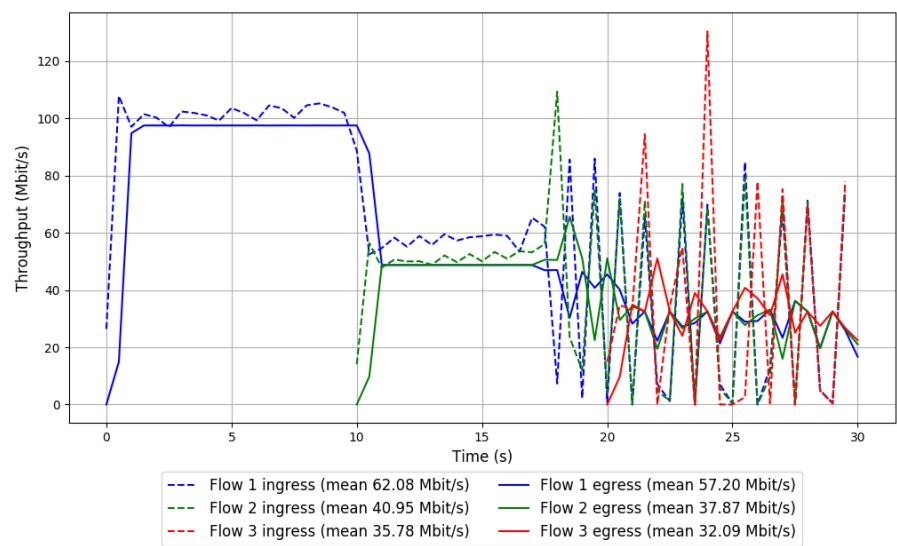


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-30 15:26:23  
End at: 2018-11-30 15:26:53  
Local clock offset: 0.639 ms  
Remote clock offset: -3.583 ms

# Below is generated by plot.py at 2018-11-30 17:23:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.96 Mbit/s  
95th percentile per-packet one-way delay: 766.236 ms  
Loss rate: 8.09%  
-- Flow 1:  
Average throughput: 57.20 Mbit/s  
95th percentile per-packet one-way delay: 601.718 ms  
Loss rate: 7.96%  
-- Flow 2:  
Average throughput: 37.87 Mbit/s  
95th percentile per-packet one-way delay: 780.506 ms  
Loss rate: 7.42%  
-- Flow 3:  
Average throughput: 32.09 Mbit/s  
95th percentile per-packet one-way delay: 1093.252 ms  
Loss rate: 10.33%

Run 1: Report of Indigo-96d2da3 — Data Link

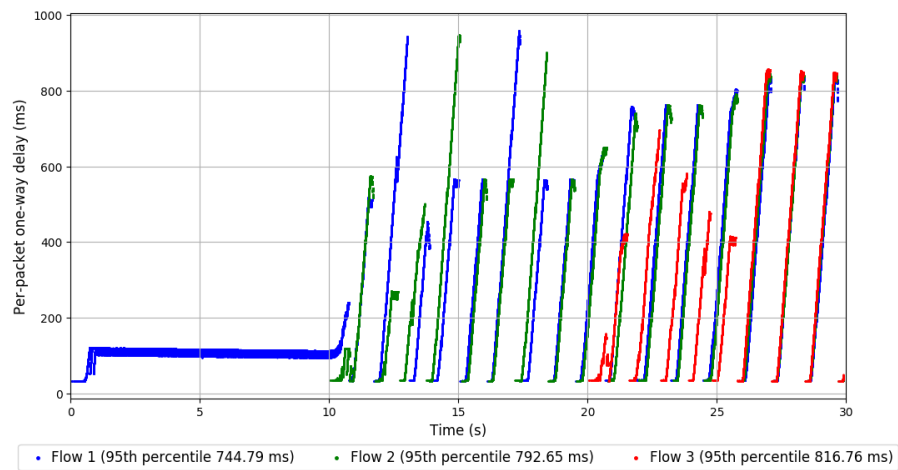
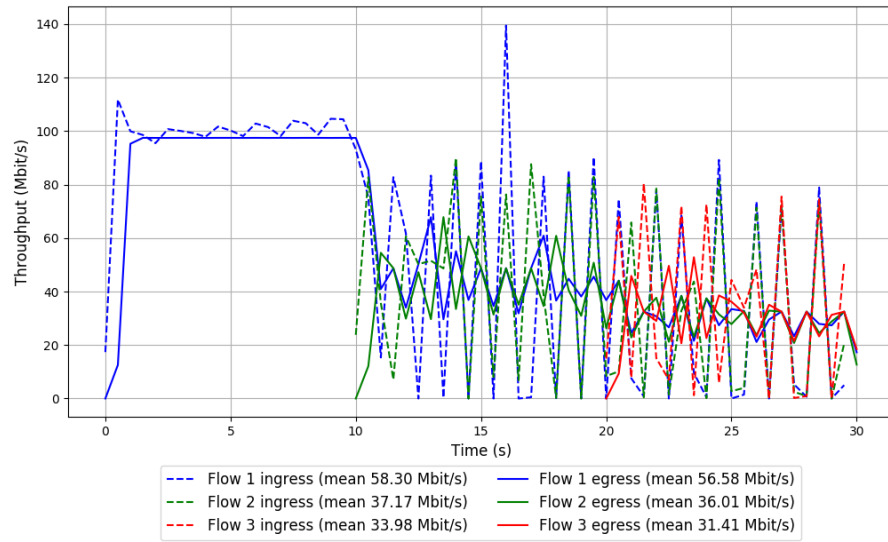


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-11-30 15:49:50  
End at: 2018-11-30 15:50:20  
Local clock offset: 1.957 ms  
Remote clock offset: -2.672 ms

# Below is generated by plot.py at 2018-11-30 17:23:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.89 Mbit/s  
95th percentile per-packet one-way delay: 761.203 ms  
Loss rate: 3.82%  
-- Flow 1:  
Average throughput: 56.58 Mbit/s  
95th percentile per-packet one-way delay: 744.795 ms  
Loss rate: 3.16%  
-- Flow 2:  
Average throughput: 36.01 Mbit/s  
95th percentile per-packet one-way delay: 792.652 ms  
Loss rate: 3.45%  
-- Flow 3:  
Average throughput: 31.41 Mbit/s  
95th percentile per-packet one-way delay: 816.759 ms  
Loss rate: 8.04%

## Run 2: Report of Indigo-96d2da3 — Data Link



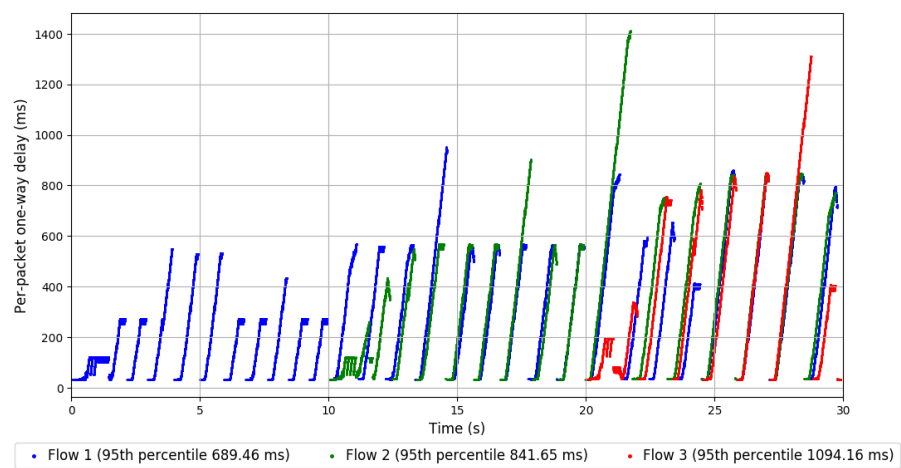
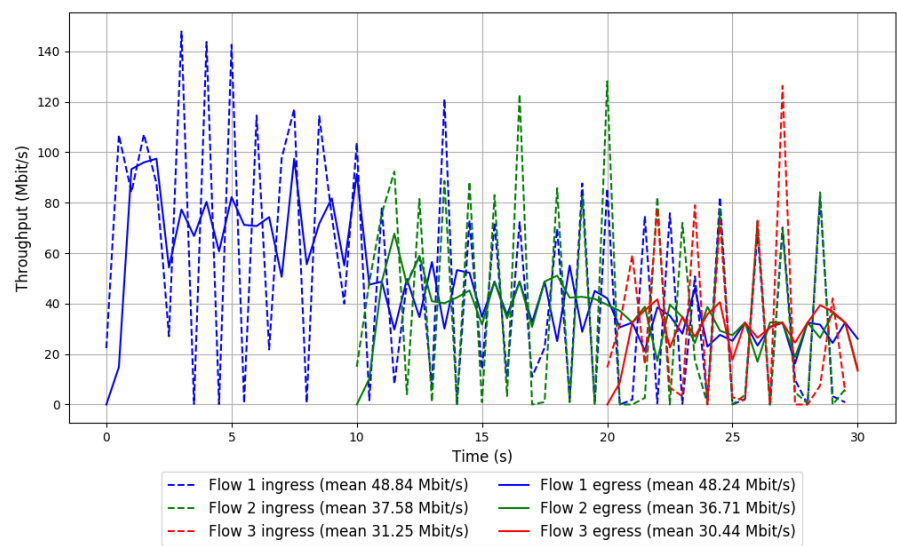


Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-30 16:13:26  
End at: 2018-11-30 16:13:56  
Local clock offset: 4.228 ms  
Remote clock offset: -1.722 ms

# Below is generated by plot.py at 2018-11-30 17:23:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.67 Mbit/s  
95th percentile per-packet one-way delay: 812.249 ms  
Loss rate: 2.02%  
-- Flow 1:  
Average throughput: 48.24 Mbit/s  
95th percentile per-packet one-way delay: 689.458 ms  
Loss rate: 1.44%  
-- Flow 2:  
Average throughput: 36.71 Mbit/s  
95th percentile per-packet one-way delay: 841.652 ms  
Loss rate: 2.66%  
-- Flow 3:  
Average throughput: 30.44 Mbit/s  
95th percentile per-packet one-way delay: 1094.157 ms  
Loss rate: 3.20%

Run 3: Report of Indigo-96d2da3 — Data Link

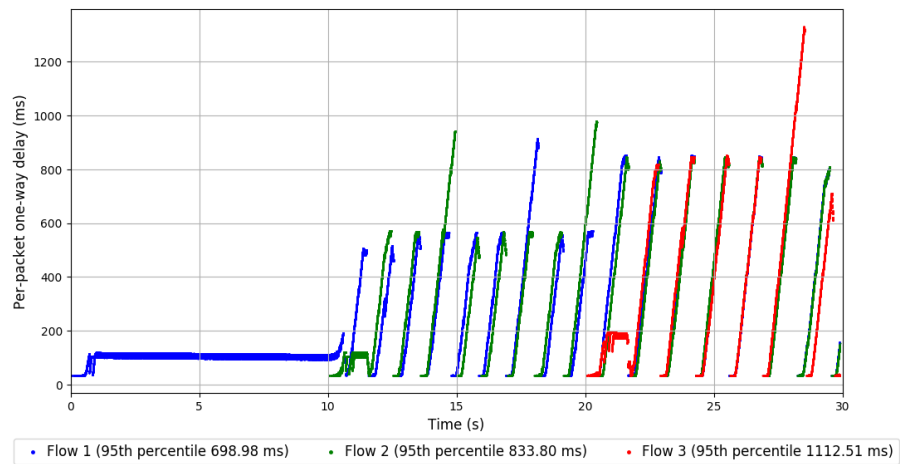
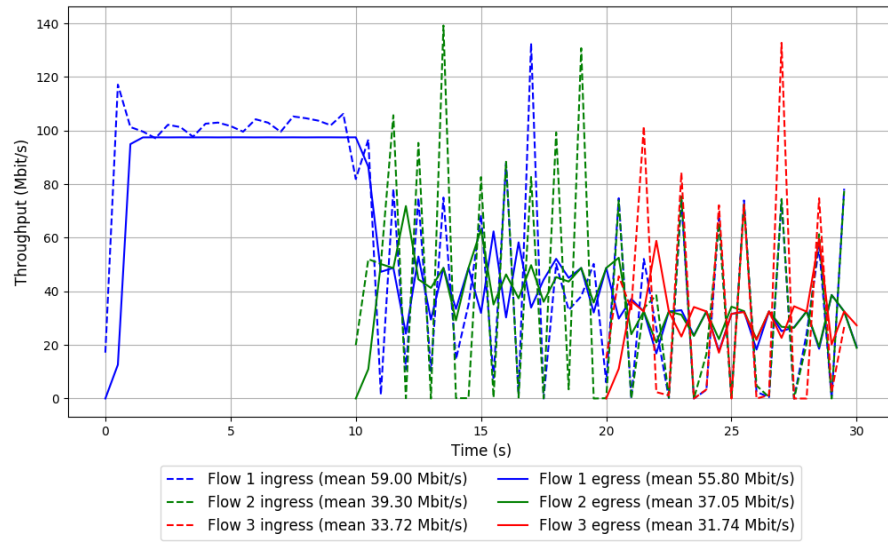


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-11-30 16:36:31  
End at: 2018-11-30 16:37:01  
Local clock offset: 5.151 ms  
Remote clock offset: -1.005 ms

# Below is generated by plot.py at 2018-11-30 17:23:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.90 Mbit/s  
95th percentile per-packet one-way delay: 817.644 ms  
Loss rate: 5.82%  
-- Flow 1:  
Average throughput: 55.80 Mbit/s  
95th percentile per-packet one-way delay: 698.981 ms  
Loss rate: 5.61%  
-- Flow 2:  
Average throughput: 37.05 Mbit/s  
95th percentile per-packet one-way delay: 833.799 ms  
Loss rate: 6.00%  
-- Flow 3:  
Average throughput: 31.74 Mbit/s  
95th percentile per-packet one-way delay: 1112.512 ms  
Loss rate: 6.52%

# Run 4: Report of Indigo-96d2da3 — Data Link



Run 5: Statistics of Indigo-96d2da3

Start at: 2018-11-30 16:59:37

End at: 2018-11-30 17:00:07

Local clock offset: 3.546 ms

Remote clock offset: 2.027 ms

# Below is generated by plot.py at 2018-11-30 17:24:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.65 Mbit/s

95th percentile per-packet one-way delay: 816.440 ms

Loss rate: 3.53%

-- Flow 1:

Average throughput: 59.99 Mbit/s

95th percentile per-packet one-way delay: 563.581 ms

Loss rate: 2.82%

-- Flow 2:

Average throughput: 33.67 Mbit/s

95th percentile per-packet one-way delay: 915.125 ms

Loss rate: 3.16%

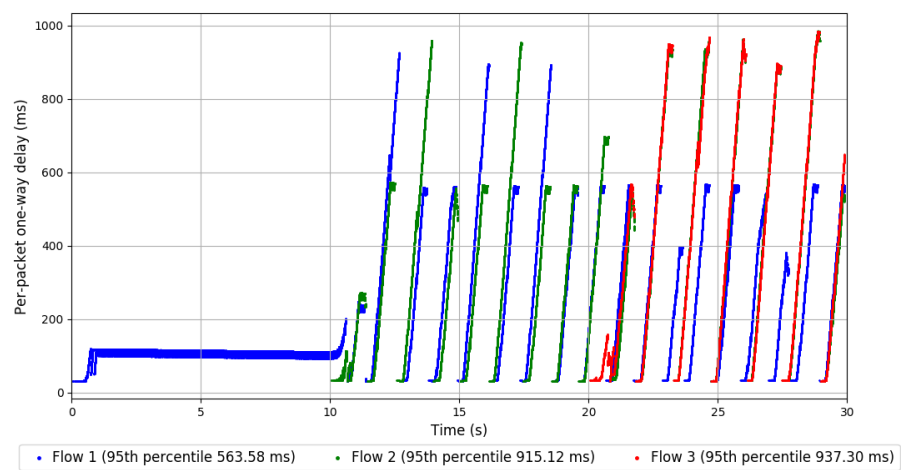
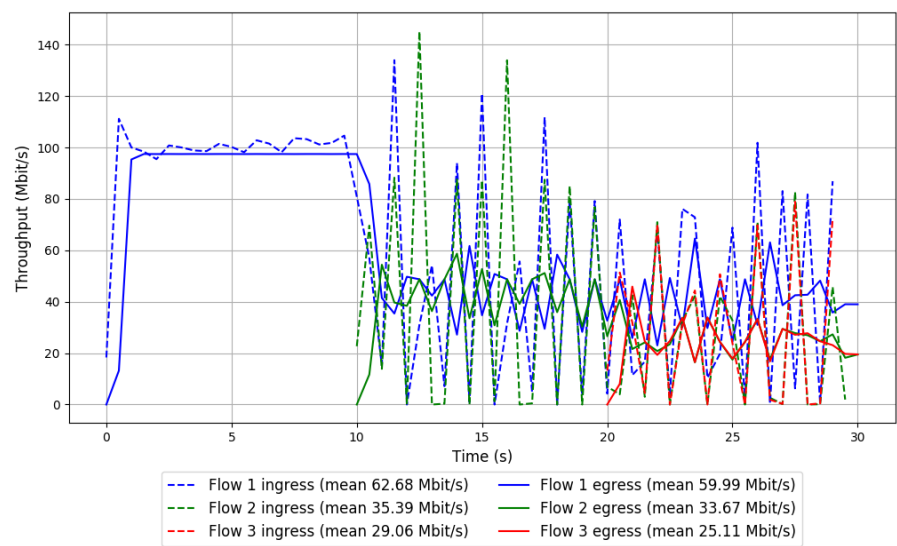
-- Flow 3:

Average throughput: 25.11 Mbit/s

95th percentile per-packet one-way delay: 937.301 ms

Loss rate: 9.27%

Run 5: Report of Indigo-96d2da3 — Data Link

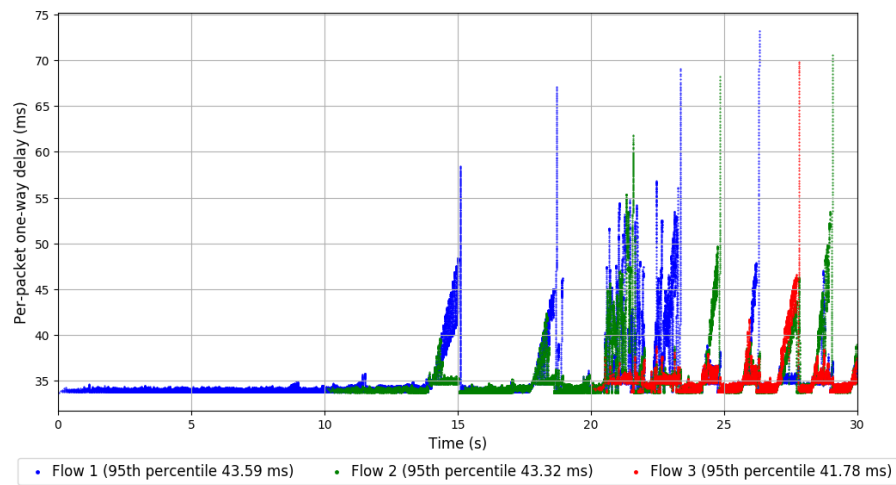
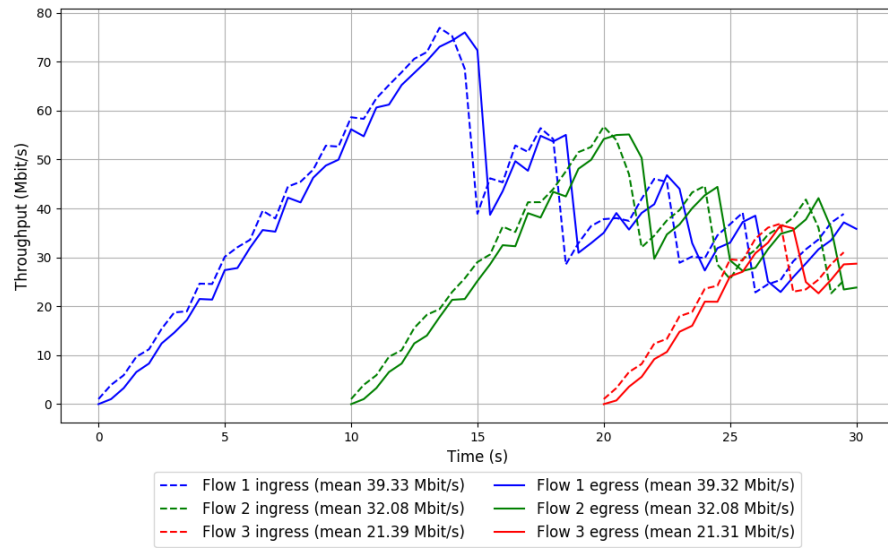


```
Run 1: Statistics of LEDBAT

Start at: 2018-11-30 15:30:09
End at: 2018-11-30 15:30:39
Local clock offset: 0.621 ms
Remote clock offset: -3.594 ms

# Below is generated by plot.py at 2018-11-30 17:24:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.73 Mbit/s
95th percentile per-packet one-way delay: 43.375 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 39.32 Mbit/s
95th percentile per-packet one-way delay: 43.593 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 32.08 Mbit/s
95th percentile per-packet one-way delay: 43.322 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 21.31 Mbit/s
95th percentile per-packet one-way delay: 41.778 ms
Loss rate: 1.02%
```

# Run 1: Report of LEDBAT — Data Link



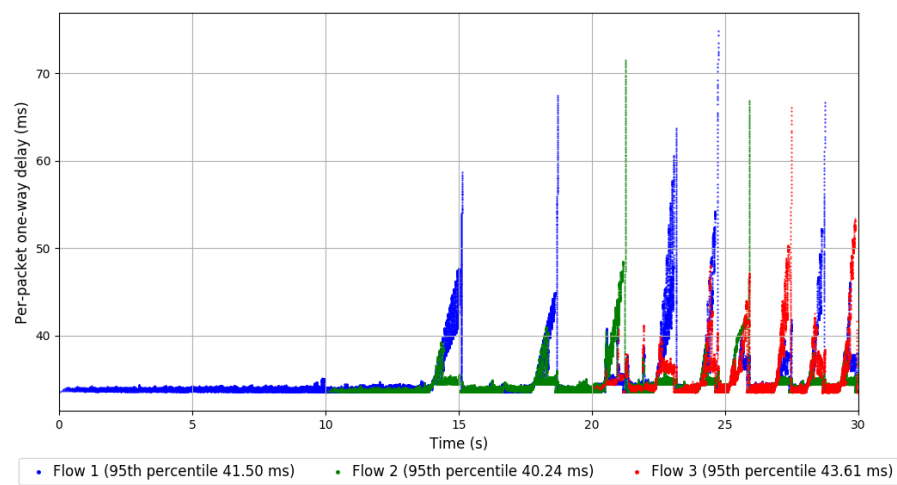
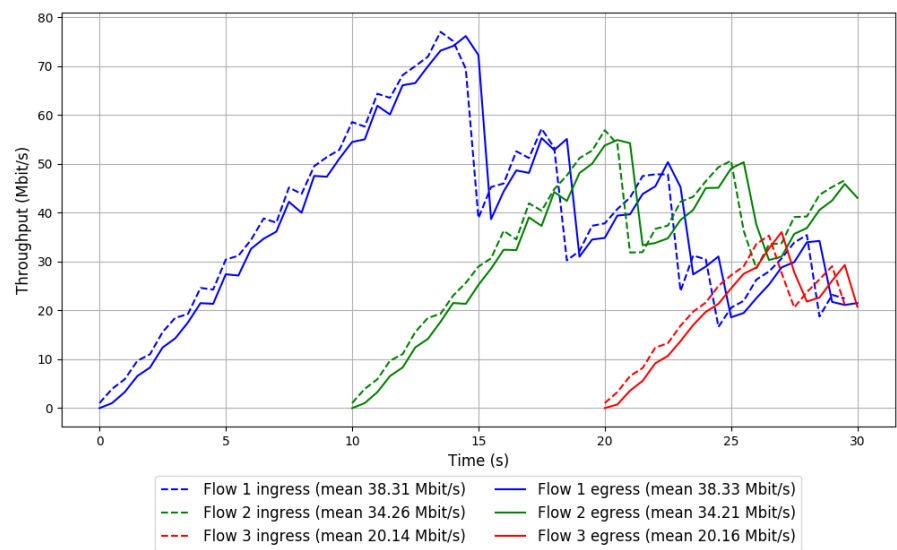


Run 2: Statistics of LEDBAT

Start at: 2018-11-30 15:53:31  
End at: 2018-11-30 15:54:01  
Local clock offset: 2.608 ms  
Remote clock offset: -2.382 ms

# Below is generated by plot.py at 2018-11-30 17:24:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.77 Mbit/s  
95th percentile per-packet one-way delay: 41.218 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 38.33 Mbit/s  
95th percentile per-packet one-way delay: 41.498 ms  
Loss rate: 0.15%  
-- Flow 2:  
Average throughput: 34.21 Mbit/s  
95th percentile per-packet one-way delay: 40.242 ms  
Loss rate: 0.48%  
-- Flow 3:  
Average throughput: 20.16 Mbit/s  
95th percentile per-packet one-way delay: 43.610 ms  
Loss rate: 0.55%

Run 2: Report of LEDBAT — Data Link

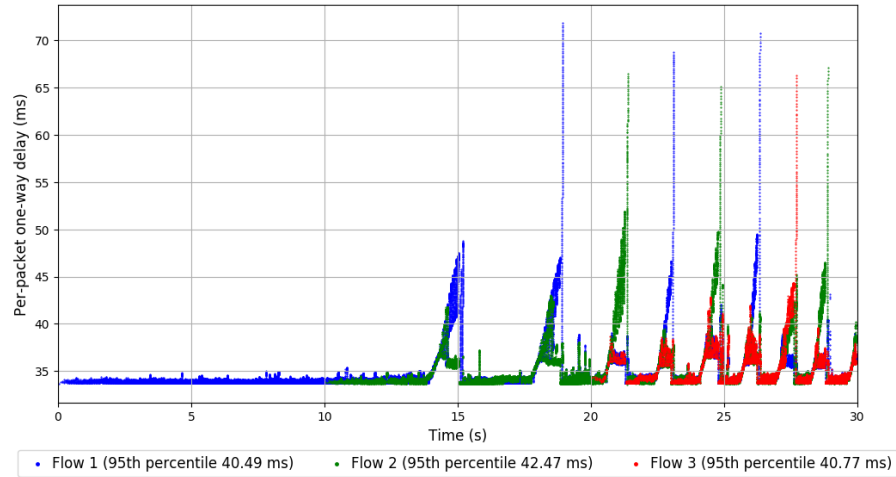
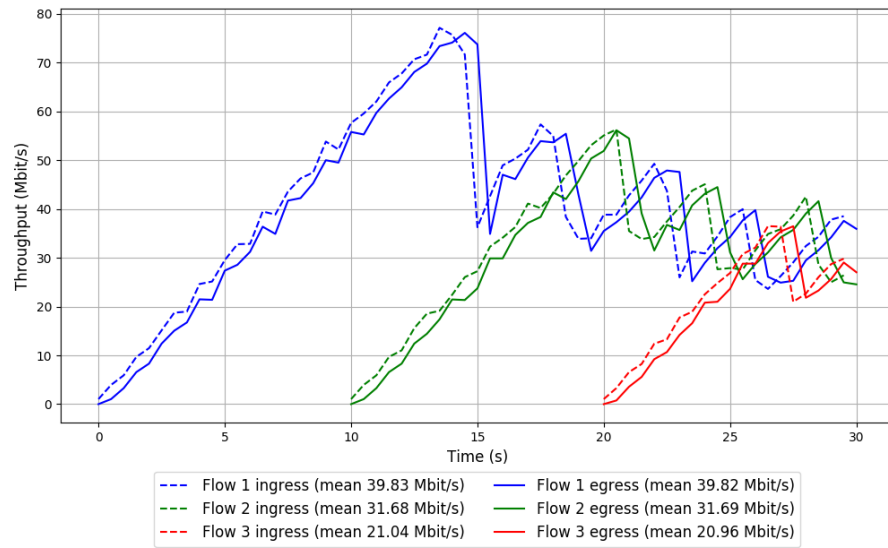


Run 3: Statistics of LEDBAT

Start at: 2018-11-30 16:17:04  
End at: 2018-11-30 16:17:34  
Local clock offset: 4.393 ms  
Remote clock offset: -1.578 ms

# Below is generated by plot.py at 2018-11-30 17:24:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.85 Mbit/s  
95th percentile per-packet one-way delay: 41.238 ms  
Loss rate: 0.34%  
-- Flow 1:  
Average throughput: 39.82 Mbit/s  
95th percentile per-packet one-way delay: 40.495 ms  
Loss rate: 0.24%  
-- Flow 2:  
Average throughput: 31.69 Mbit/s  
95th percentile per-packet one-way delay: 42.467 ms  
Loss rate: 0.31%  
-- Flow 3:  
Average throughput: 20.96 Mbit/s  
95th percentile per-packet one-way delay: 40.766 ms  
Loss rate: 1.03%

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

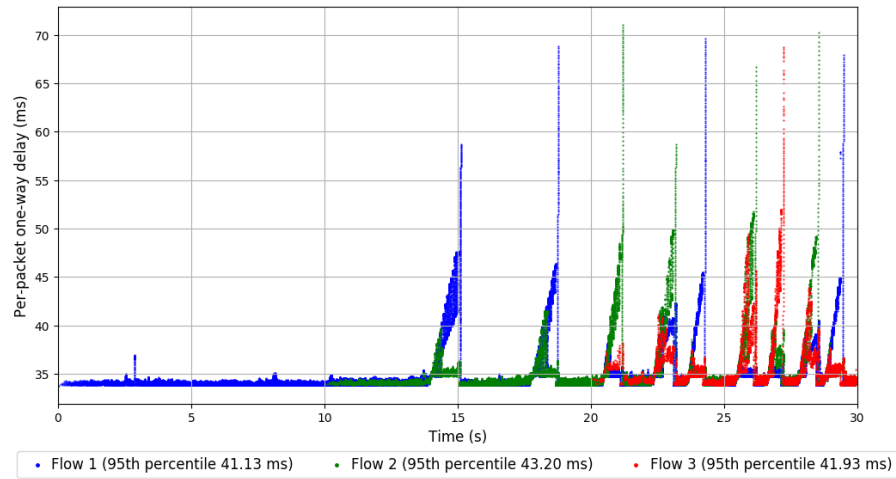
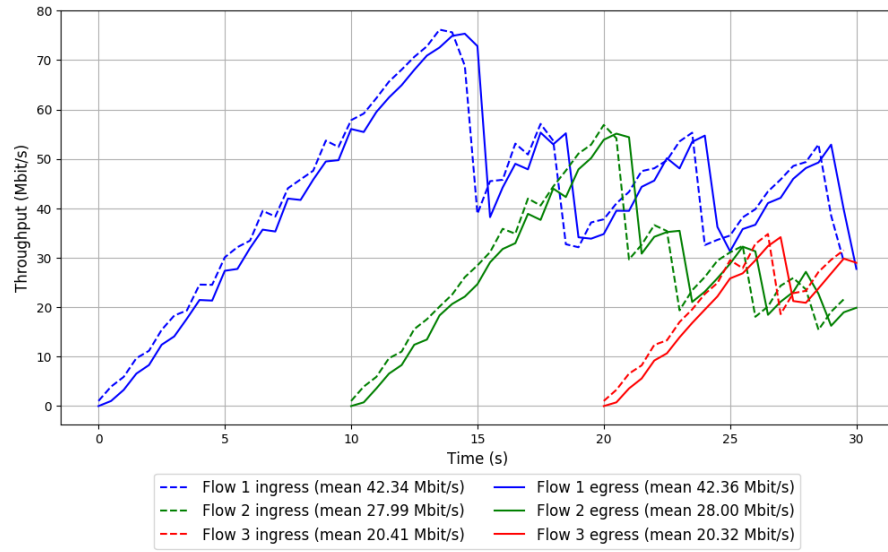


Run 4: Statistics of LEDBAT

Start at: 2018-11-30 16:40:08  
End at: 2018-11-30 16:40:38  
Local clock offset: 5.285 ms  
Remote clock offset: -0.975 ms

# Below is generated by plot.py at 2018-11-30 17:24:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.71 Mbit/s  
95th percentile per-packet one-way delay: 41.713 ms  
Loss rate: 0.29%  
-- Flow 1:  
Average throughput: 42.36 Mbit/s  
95th percentile per-packet one-way delay: 41.130 ms  
Loss rate: 0.17%  
-- Flow 2:  
Average throughput: 28.00 Mbit/s  
95th percentile per-packet one-way delay: 43.201 ms  
Loss rate: 0.28%  
-- Flow 3:  
Average throughput: 20.32 Mbit/s  
95th percentile per-packet one-way delay: 41.933 ms  
Loss rate: 1.11%

# Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-11-30 17:03:15

End at: 2018-11-30 17:03:45

Local clock offset: 3.375 ms

Remote clock offset: 1.998 ms

# Below is generated by plot.py at 2018-11-30 17:24:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 65.98 Mbit/s

95th percentile per-packet one-way delay: 38.956 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 37.81 Mbit/s

95th percentile per-packet one-way delay: 39.102 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 29.16 Mbit/s

95th percentile per-packet one-way delay: 41.309 ms

Loss rate: 0.22%

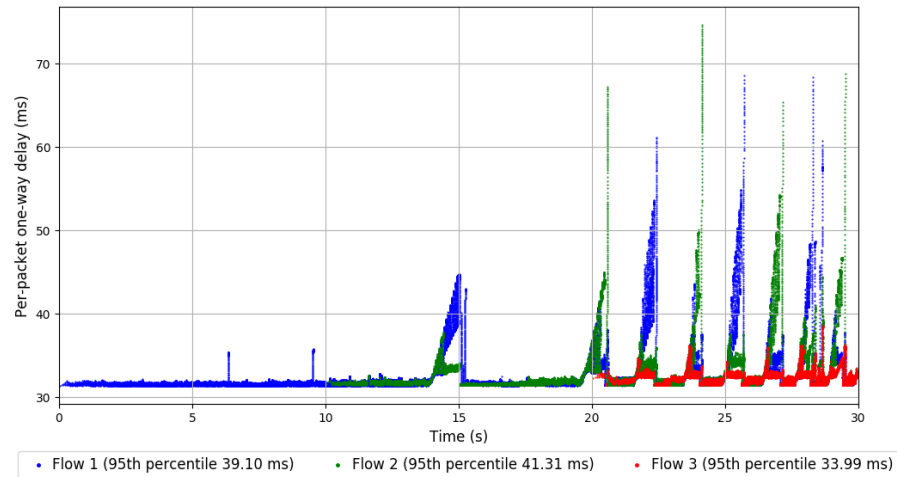
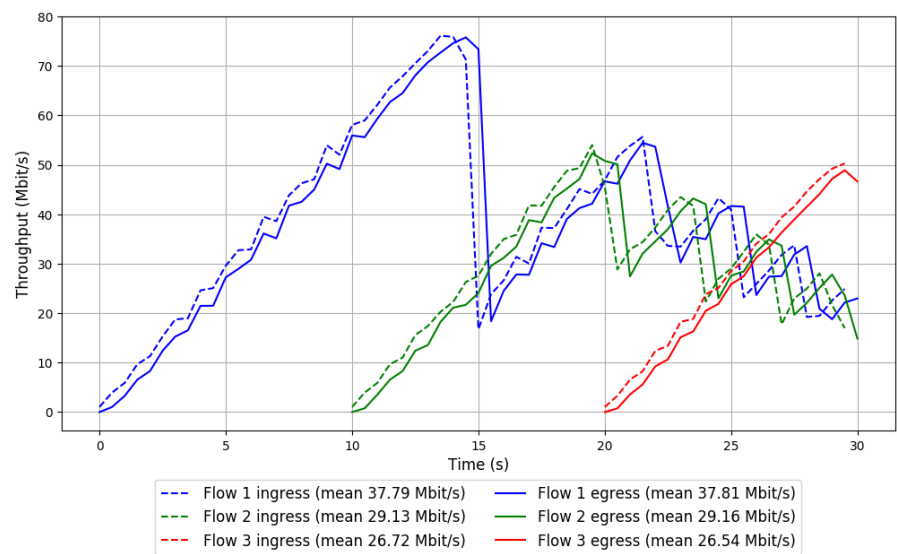
-- Flow 3:

Average throughput: 26.54 Mbit/s

95th percentile per-packet one-way delay: 33.993 ms

Loss rate: 1.34%

Run 5: Report of LEDBAT — Data Link



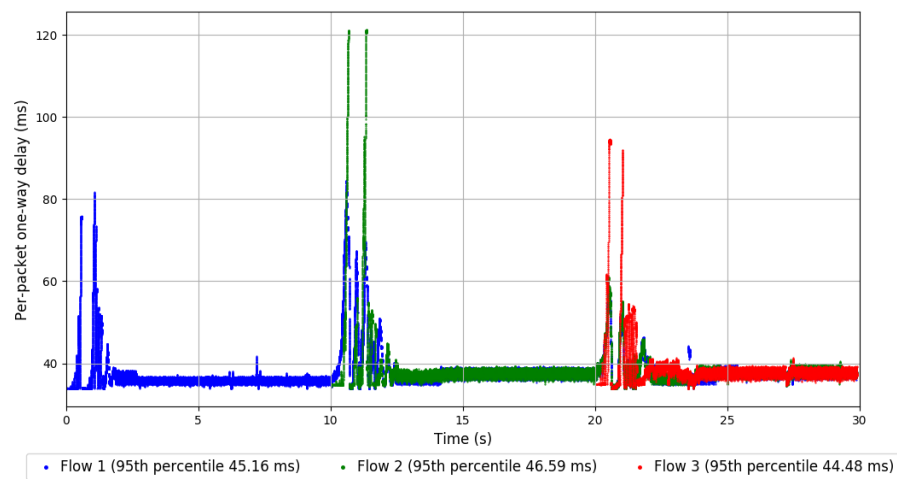
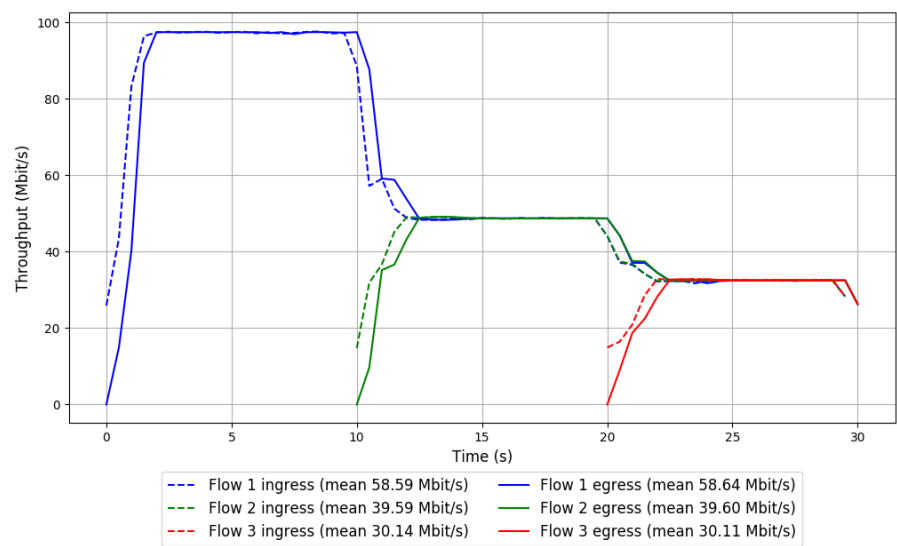


Run 1: Statistics of Indigo-Muses

Start at: 2018-11-30 15:22:42  
End at: 2018-11-30 15:23:12  
Local clock offset: 0.674 ms  
Remote clock offset: -4.025 ms

# Below is generated by plot.py at 2018-11-30 17:24:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.90 Mbit/s  
95th percentile per-packet one-way delay: 45.478 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 58.64 Mbit/s  
95th percentile per-packet one-way delay: 45.165 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 39.60 Mbit/s  
95th percentile per-packet one-way delay: 46.588 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 30.11 Mbit/s  
95th percentile per-packet one-way delay: 44.484 ms  
Loss rate: 0.76%

Run 1: Report of Indigo-Muses — Data Link

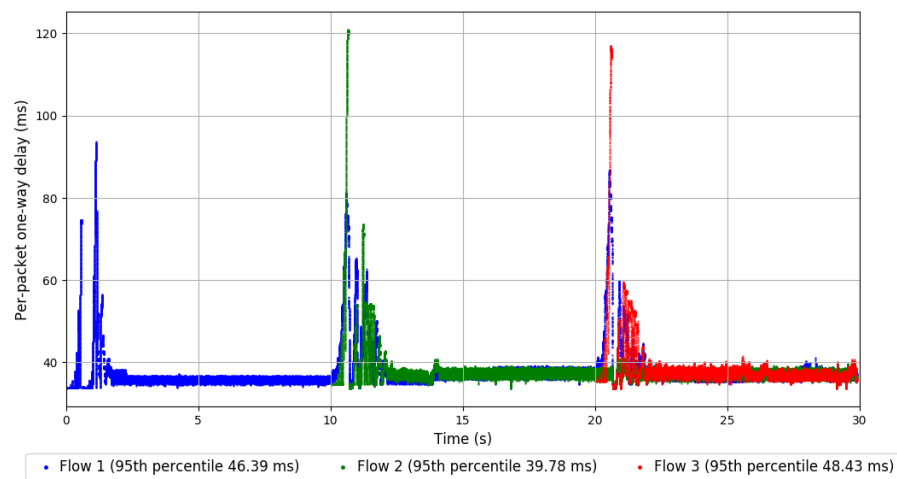
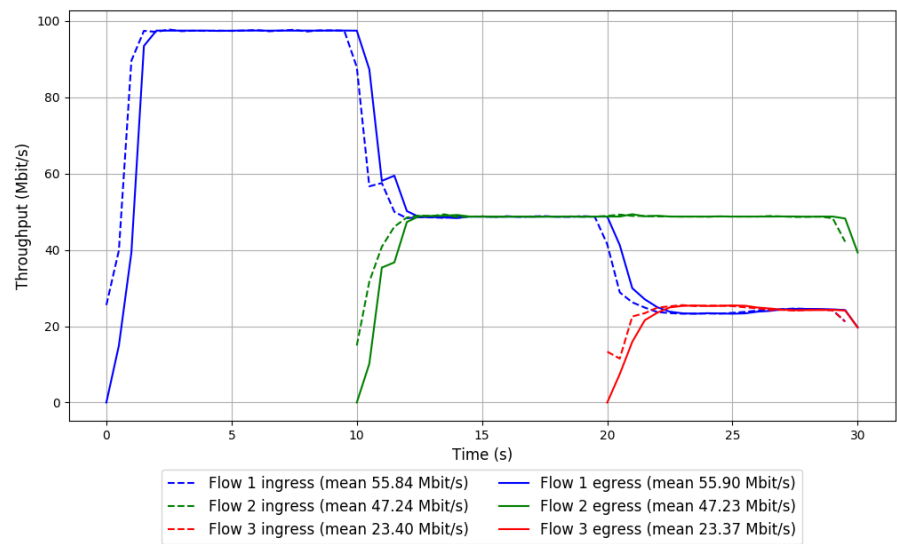


Run 2: Statistics of Indigo-Muses

Start at: 2018-11-30 15:46:03  
End at: 2018-11-30 15:46:33  
Local clock offset: 0.949 ms  
Remote clock offset: -2.986 ms

# Below is generated by plot.py at 2018-11-30 17:25:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.00 Mbit/s  
95th percentile per-packet one-way delay: 44.379 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 55.90 Mbit/s  
95th percentile per-packet one-way delay: 46.391 ms  
Loss rate: 0.11%  
-- Flow 2:  
Average throughput: 47.23 Mbit/s  
95th percentile per-packet one-way delay: 39.782 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 23.37 Mbit/s  
95th percentile per-packet one-way delay: 48.432 ms  
Loss rate: 0.80%

Run 2: Report of Indigo-Muses — Data Link

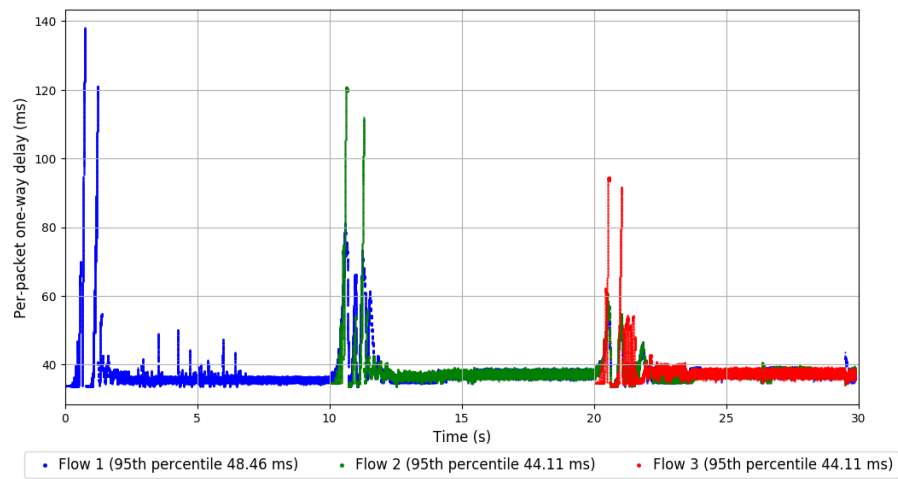
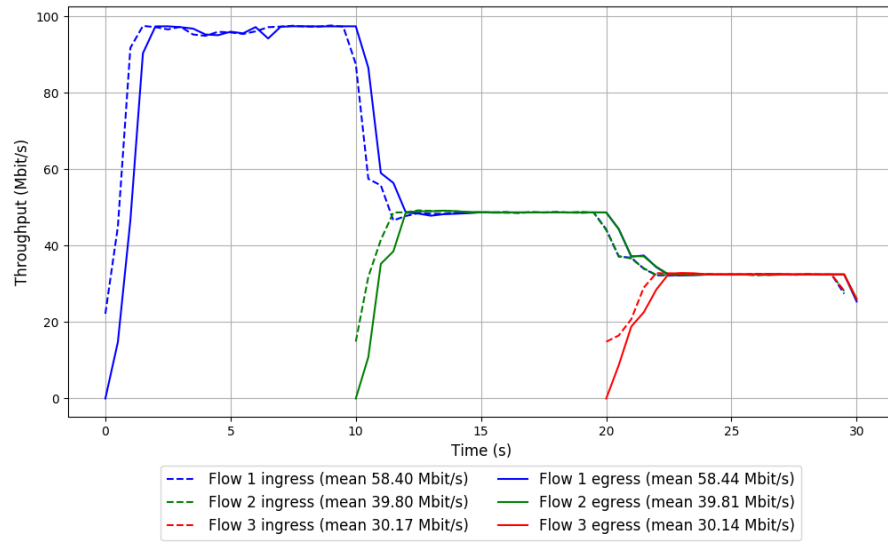


Run 3: Statistics of Indigo-Muses

Start at: 2018-11-30 16:09:47  
End at: 2018-11-30 16:10:17  
Local clock offset: 4.032 ms  
Remote clock offset: -1.835 ms

# Below is generated by plot.py at 2018-11-30 17:25:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.84 Mbit/s  
95th percentile per-packet one-way delay: 46.080 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 58.44 Mbit/s  
95th percentile per-packet one-way delay: 48.461 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 39.81 Mbit/s  
95th percentile per-packet one-way delay: 44.108 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 30.14 Mbit/s  
95th percentile per-packet one-way delay: 44.107 ms  
Loss rate: 0.75%

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

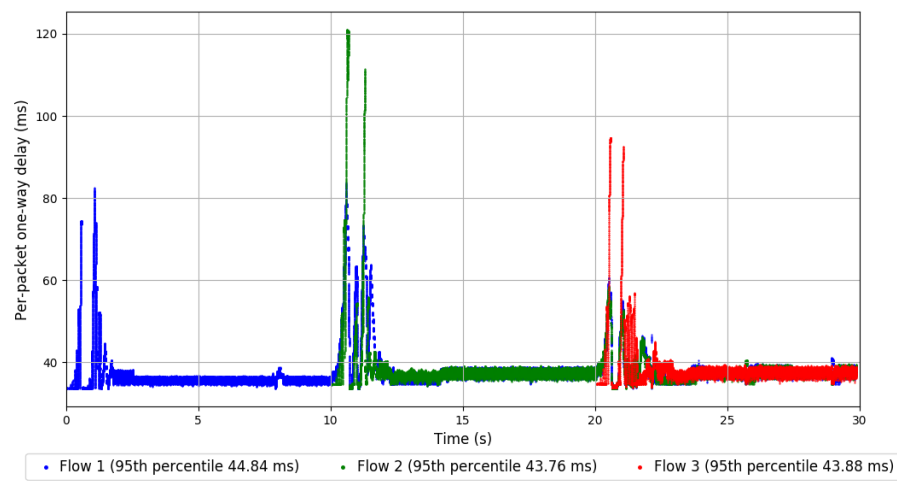
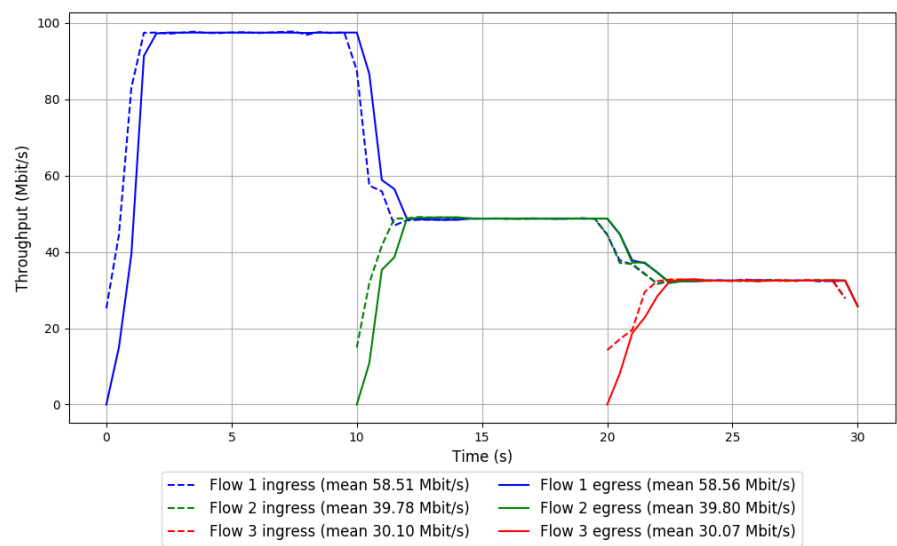


Run 4: Statistics of Indigo-Muses

Start at: 2018-11-30 16:32:53  
End at: 2018-11-30 16:33:23  
Local clock offset: 5.016 ms  
Remote clock offset: -1.045 ms

# Below is generated by plot.py at 2018-11-30 17:25:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.92 Mbit/s  
95th percentile per-packet one-way delay: 44.431 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 58.56 Mbit/s  
95th percentile per-packet one-way delay: 44.838 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 39.80 Mbit/s  
95th percentile per-packet one-way delay: 43.763 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 30.07 Mbit/s  
95th percentile per-packet one-way delay: 43.883 ms  
Loss rate: 0.76%

Run 4: Report of Indigo-Muses — Data Link



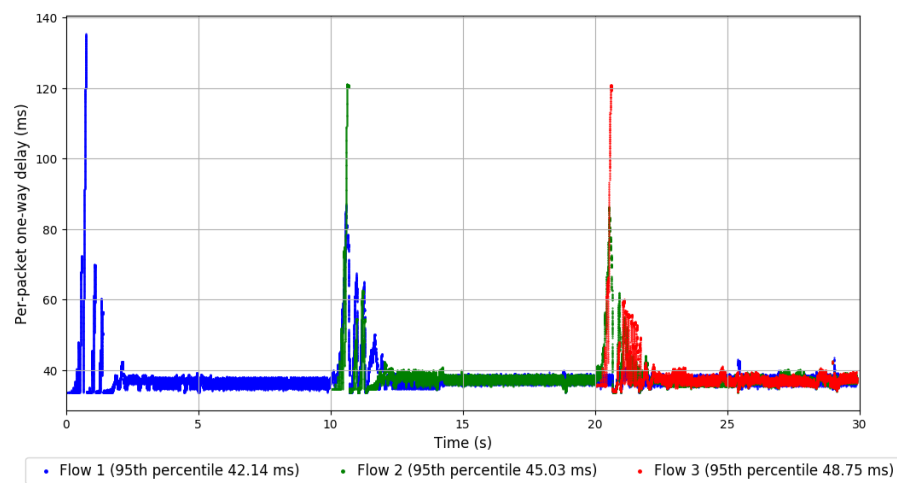
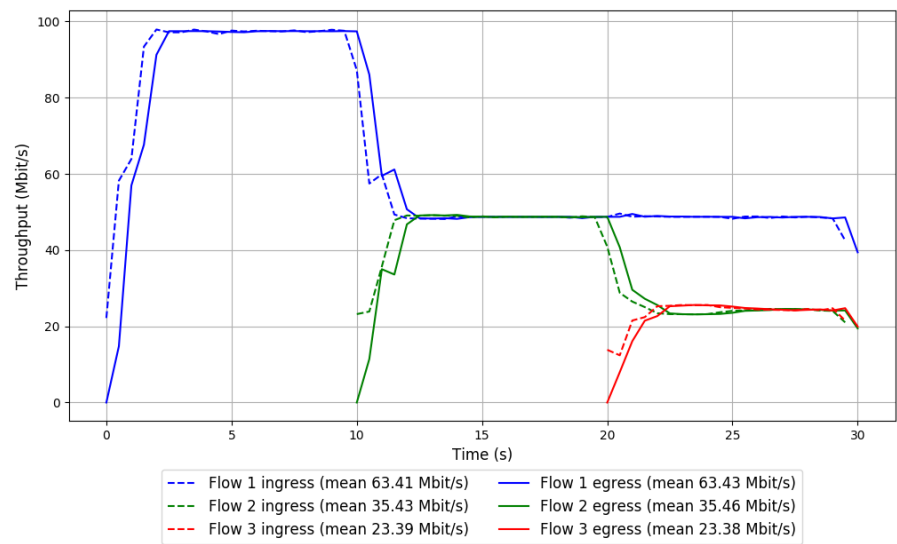


Run 5: Statistics of Indigo-Muses

Start at: 2018-11-30 16:55:59  
End at: 2018-11-30 16:56:29  
Local clock offset: 3.763 ms  
Remote clock offset: -0.428 ms

# Below is generated by plot.py at 2018-11-30 17:25:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.73 Mbit/s  
95th percentile per-packet one-way delay: 43.231 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 63.43 Mbit/s  
95th percentile per-packet one-way delay: 42.142 ms  
Loss rate: 0.19%  
-- Flow 2:  
Average throughput: 35.46 Mbit/s  
95th percentile per-packet one-way delay: 45.027 ms  
Loss rate: 0.25%  
-- Flow 3:  
Average throughput: 23.38 Mbit/s  
95th percentile per-packet one-way delay: 48.746 ms  
Loss rate: 0.75%

Run 5: Report of Indigo-Muses — Data Link

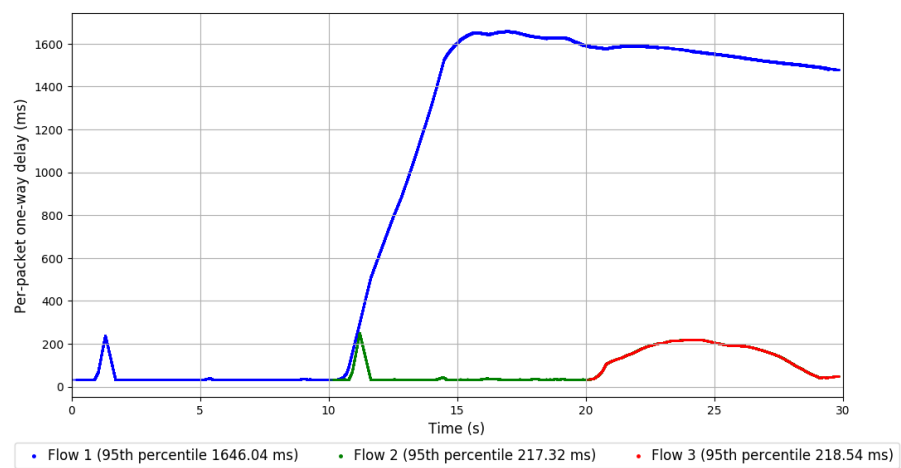
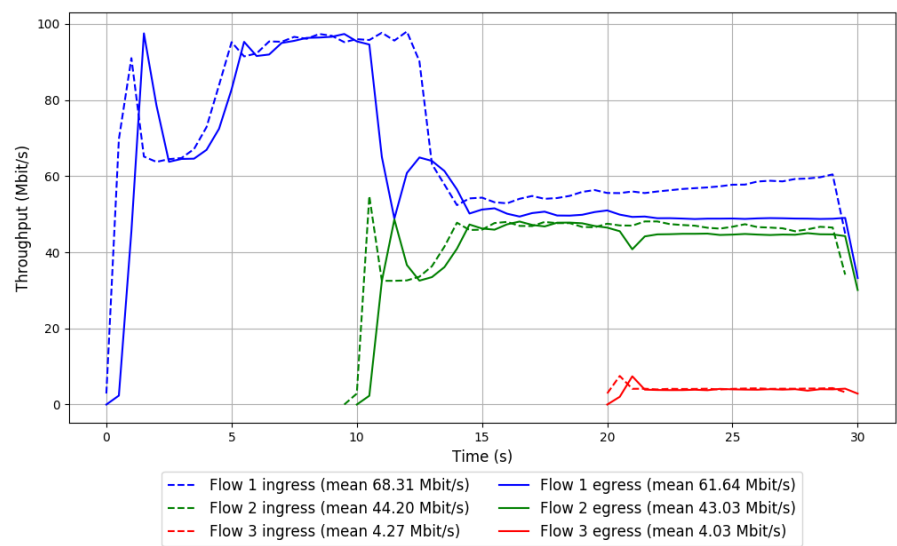


Run 1: Statistics of PCC-Allegro

Start at: 2018-11-30 15:28:57  
End at: 2018-11-30 15:29:27  
Local clock offset: 0.635 ms  
Remote clock offset: -3.664 ms

# Below is generated by plot.py at 2018-11-30 17:25:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.56 Mbit/s  
95th percentile per-packet one-way delay: 1632.591 ms  
Loss rate: 7.83%  
-- Flow 1:  
Average throughput: 61.64 Mbit/s  
95th percentile per-packet one-way delay: 1646.042 ms  
Loss rate: 9.95%  
-- Flow 2:  
Average throughput: 43.03 Mbit/s  
95th percentile per-packet one-way delay: 217.320 ms  
Loss rate: 2.97%  
-- Flow 3:  
Average throughput: 4.03 Mbit/s  
95th percentile per-packet one-way delay: 218.540 ms  
Loss rate: 6.10%

Run 1: Report of PCC-Allegro — Data Link

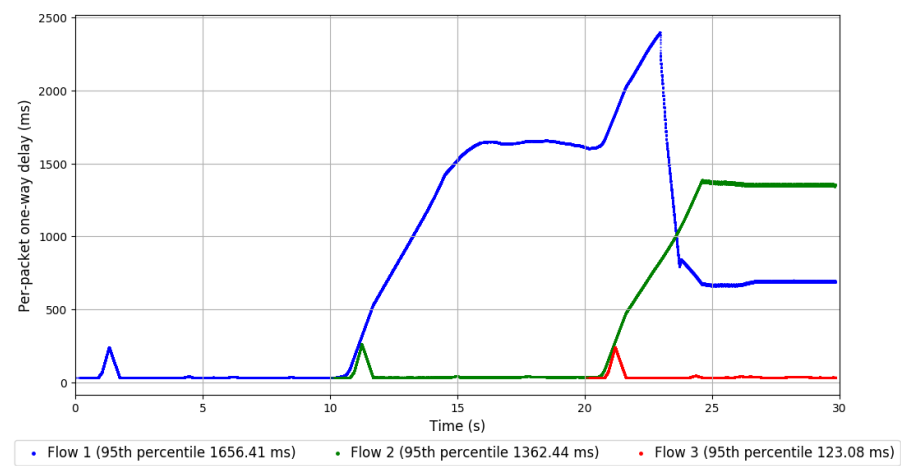
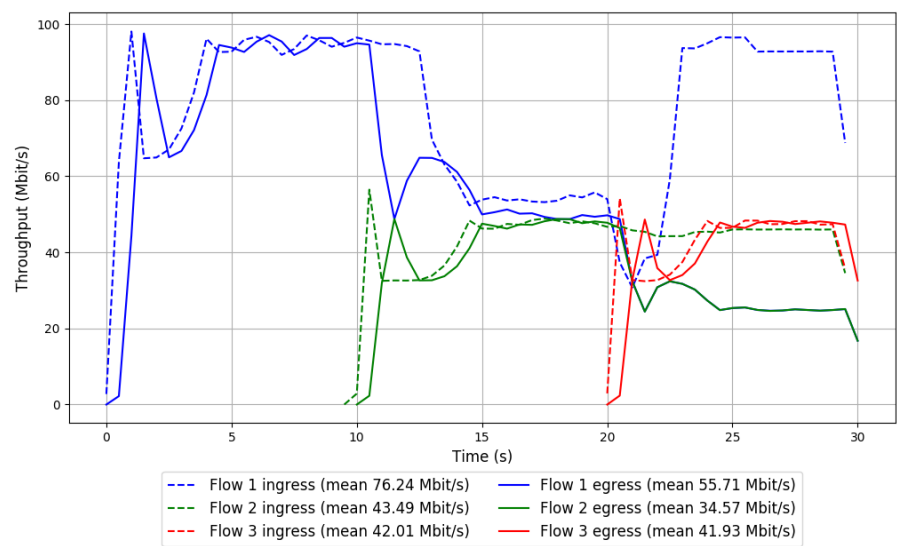


Run 2: Statistics of PCC-Allegro

Start at: 2018-11-30 15:52:17  
End at: 2018-11-30 15:52:47  
Local clock offset: 2.418 ms  
Remote clock offset: -2.571 ms

# Below is generated by plot.py at 2018-11-30 17:25:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.47 Mbit/s  
95th percentile per-packet one-way delay: 1651.357 ms  
Loss rate: 22.49%  
-- Flow 1:  
Average throughput: 55.71 Mbit/s  
95th percentile per-packet one-way delay: 1656.413 ms  
Loss rate: 27.08%  
-- Flow 2:  
Average throughput: 34.57 Mbit/s  
95th percentile per-packet one-way delay: 1362.437 ms  
Loss rate: 20.78%  
-- Flow 3:  
Average throughput: 41.93 Mbit/s  
95th percentile per-packet one-way delay: 123.076 ms  
Loss rate: 0.85%

Run 2: Report of PCC-Allegro — Data Link

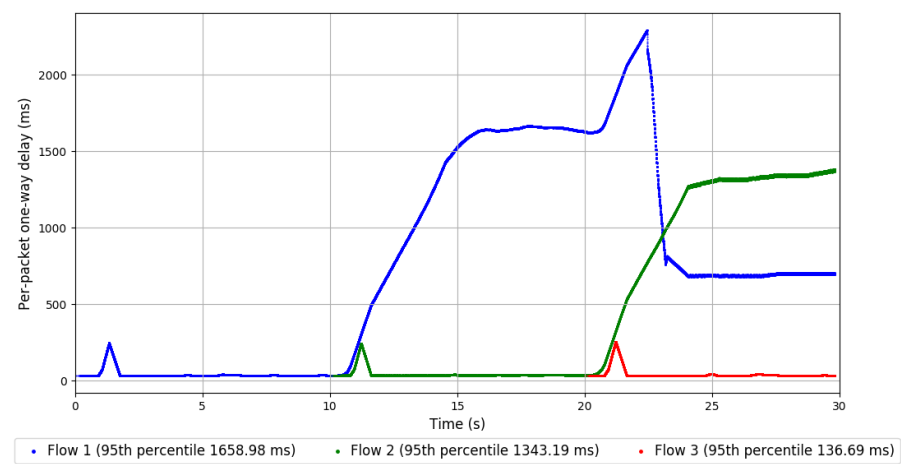
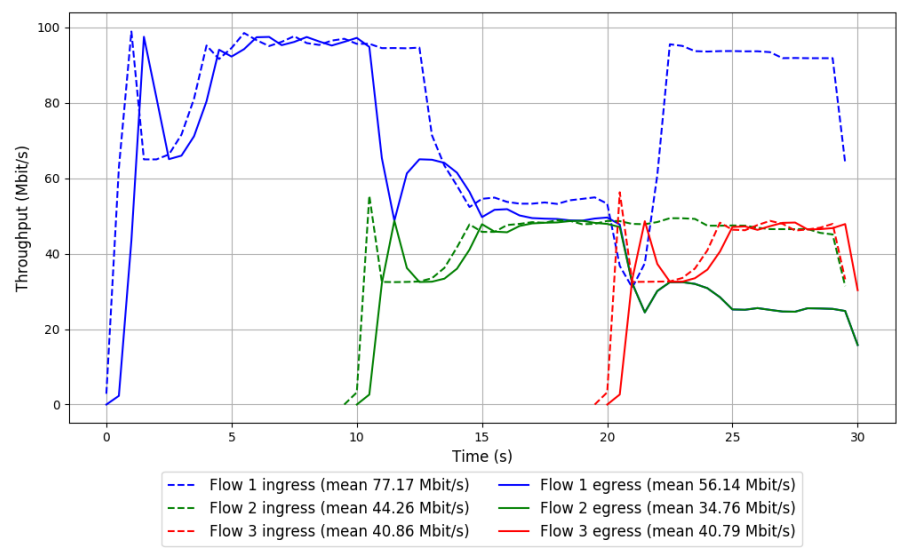


Run 3: Statistics of PCC-Allegro

Start at: 2018-11-30 16:15:52  
End at: 2018-11-30 16:16:22  
Local clock offset: 4.349 ms  
Remote clock offset: -1.663 ms

# Below is generated by plot.py at 2018-11-30 17:25:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.66 Mbit/s  
95th percentile per-packet one-way delay: 1651.195 ms  
Loss rate: 23.03%  
-- Flow 1:  
Average throughput: 56.14 Mbit/s  
95th percentile per-packet one-way delay: 1658.984 ms  
Loss rate: 27.41%  
-- Flow 2:  
Average throughput: 34.76 Mbit/s  
95th percentile per-packet one-way delay: 1343.194 ms  
Loss rate: 21.71%  
-- Flow 3:  
Average throughput: 40.79 Mbit/s  
95th percentile per-packet one-way delay: 136.688 ms  
Loss rate: 0.85%

Run 3: Report of PCC-Allegro — Data Link



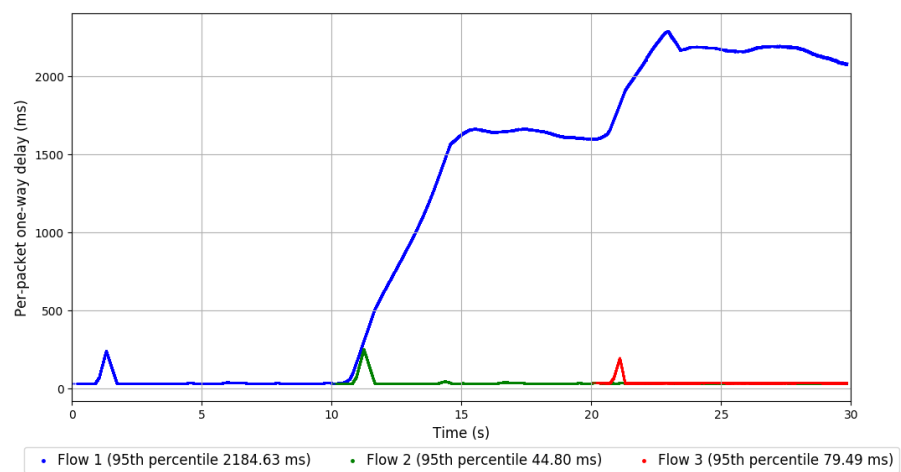
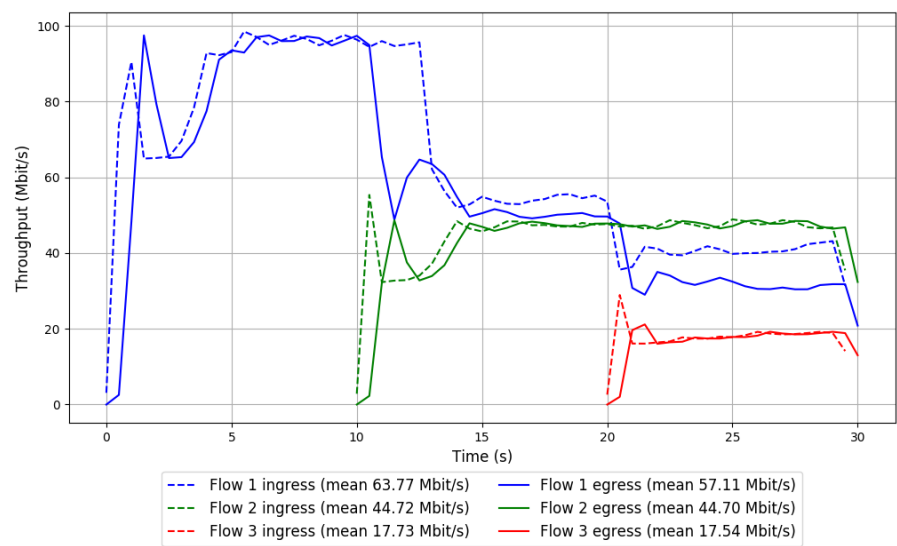


Run 4: Statistics of PCC-Allegro

Start at: 2018-11-30 16:38:56  
End at: 2018-11-30 16:39:26  
Local clock offset: 5.24 ms  
Remote clock offset: -1.006 ms

# Below is generated by plot.py at 2018-11-30 17:26:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.56 Mbit/s  
95th percentile per-packet one-way delay: 2172.106 ms  
Loss rate: 7.04%  
-- Flow 1:  
Average throughput: 57.11 Mbit/s  
95th percentile per-packet one-way delay: 2184.631 ms  
Loss rate: 10.63%  
-- Flow 2:  
Average throughput: 44.70 Mbit/s  
95th percentile per-packet one-way delay: 44.797 ms  
Loss rate: 0.39%  
-- Flow 3:  
Average throughput: 17.54 Mbit/s  
95th percentile per-packet one-way delay: 79.493 ms  
Loss rate: 1.76%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-11-30 17:02:03

End at: 2018-11-30 17:02:33

Local clock offset: 3.425 ms

Remote clock offset: 2.081 ms

# Below is generated by plot.py at 2018-11-30 17:26:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.69 Mbit/s

95th percentile per-packet one-way delay: 2135.877 ms

Loss rate: 11.33%

-- Flow 1:

Average throughput: 57.93 Mbit/s

95th percentile per-packet one-way delay: 2159.210 ms

Loss rate: 10.47%

-- Flow 2:

Average throughput: 37.19 Mbit/s

95th percentile per-packet one-way delay: 2057.024 ms

Loss rate: 13.68%

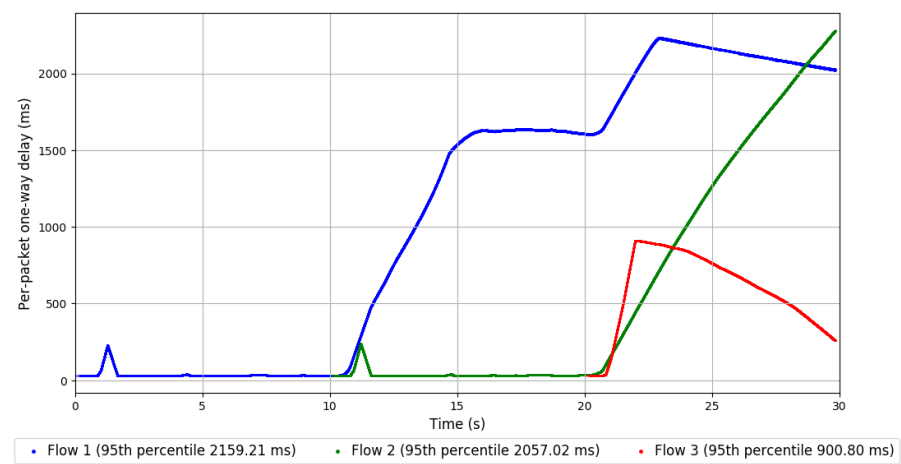
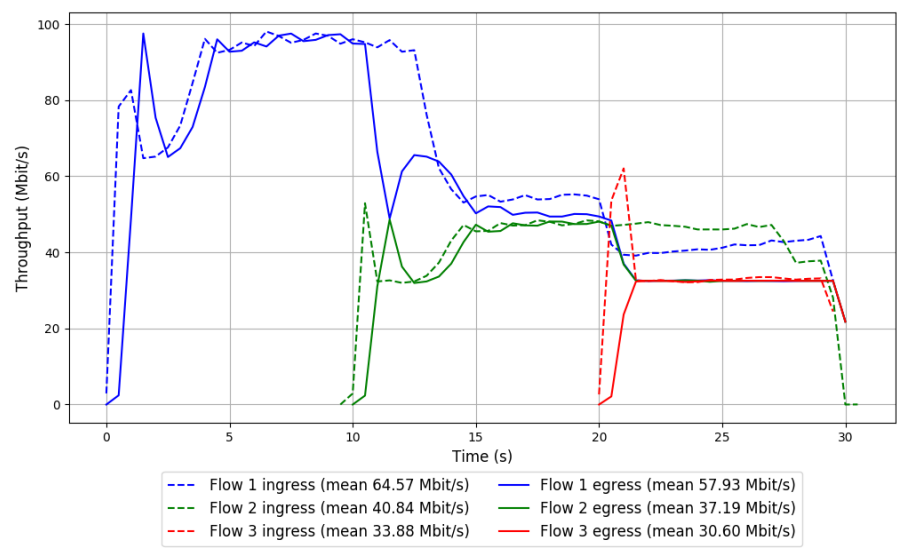
-- Flow 3:

Average throughput: 30.60 Mbit/s

95th percentile per-packet one-way delay: 900.799 ms

Loss rate: 10.25%

Run 5: Report of PCC-Allegro — Data Link

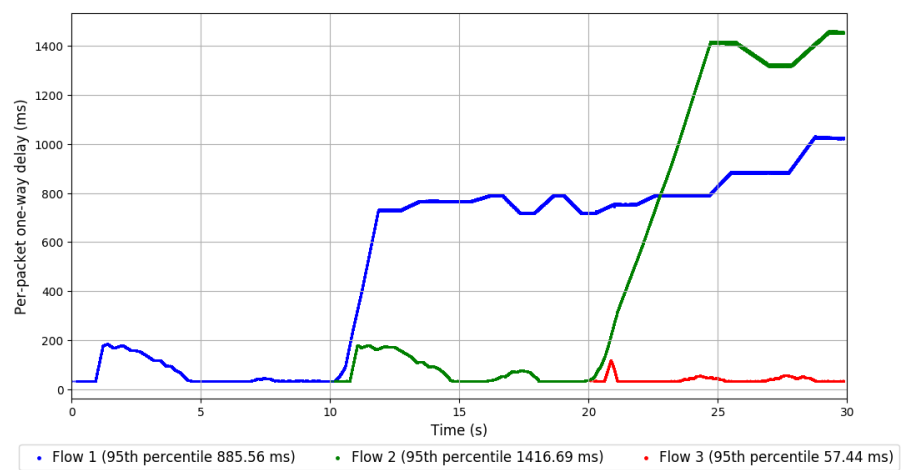
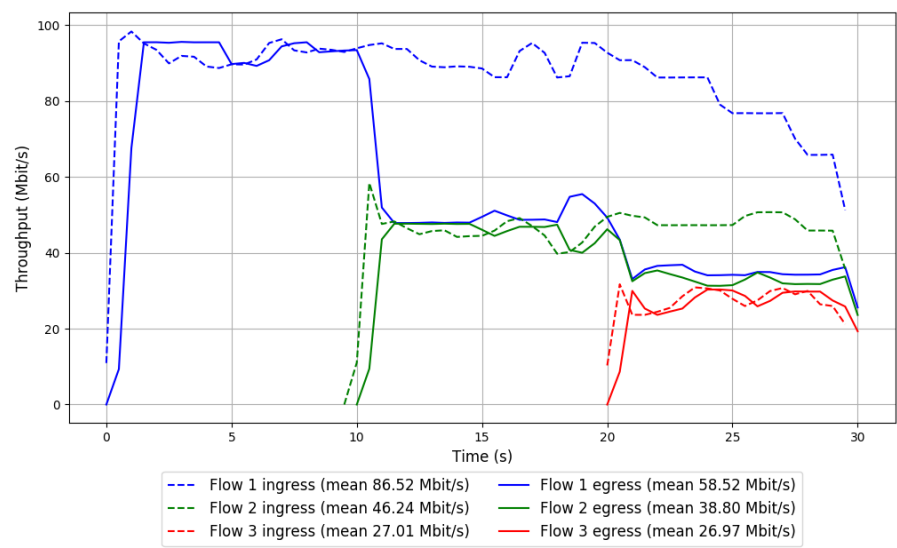


```
Run 1: Statistics of PCC-Expr

Start at: 2018-11-30 15:19:59
End at: 2018-11-30 15:20:29
Local clock offset: 0.703 ms
Remote clock offset: -3.817 ms

# Below is generated by plot.py at 2018-11-30 17:27:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.19 Mbit/s
95th percentile per-packet one-way delay: 1326.861 ms
Loss rate: 26.33%
-- Flow 1:
Average throughput: 58.52 Mbit/s
95th percentile per-packet one-way delay: 885.558 ms
Loss rate: 32.51%
-- Flow 2:
Average throughput: 38.80 Mbit/s
95th percentile per-packet one-way delay: 1416.691 ms
Loss rate: 16.35%
-- Flow 3:
Average throughput: 26.97 Mbit/s
95th percentile per-packet one-way delay: 57.441 ms
Loss rate: 0.80%
```

Run 1: Report of PCC-Expr — Data Link

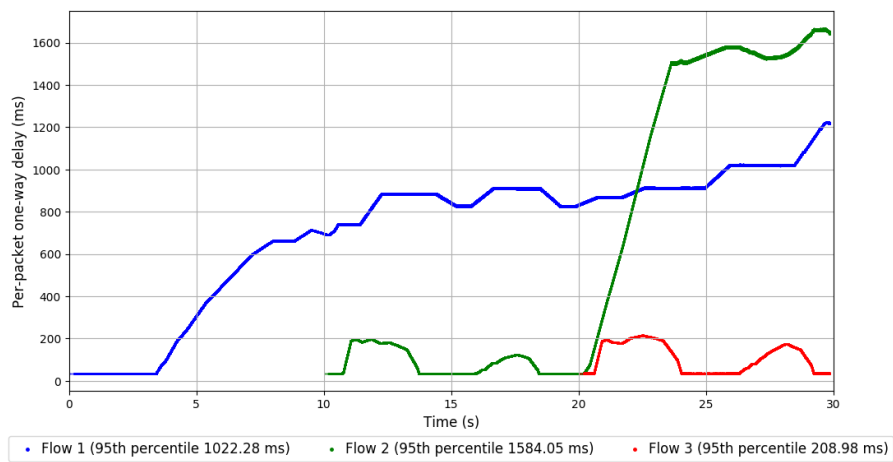
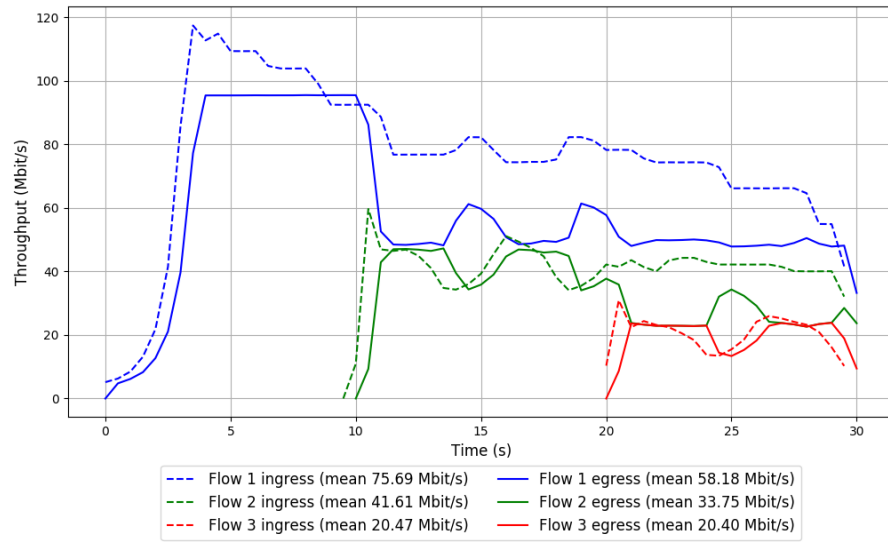


Run 2: Statistics of PCC-Expr

Start at: 2018-11-30 15:43:31  
End at: 2018-11-30 15:44:01  
Local clock offset: 0.607 ms  
Remote clock offset: -3.072 ms

# Below is generated by plot.py at 2018-11-30 17:27:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.31 Mbit/s  
95th percentile per-packet one-way delay: 1528.014 ms  
Loss rate: 20.90%  
-- Flow 1:  
Average throughput: 58.18 Mbit/s  
95th percentile per-packet one-way delay: 1022.285 ms  
Loss rate: 23.31%  
-- Flow 2:  
Average throughput: 33.75 Mbit/s  
95th percentile per-packet one-way delay: 1584.047 ms  
Loss rate: 19.16%  
-- Flow 3:  
Average throughput: 20.40 Mbit/s  
95th percentile per-packet one-way delay: 208.983 ms  
Loss rate: 1.07%

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



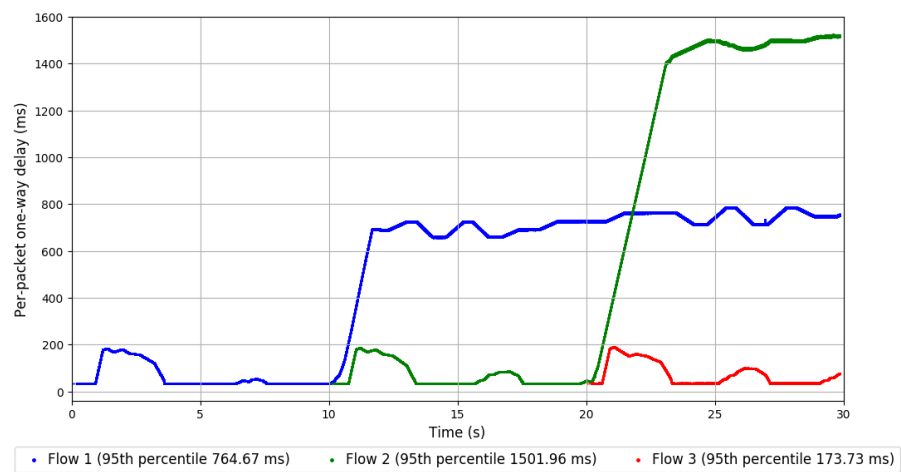
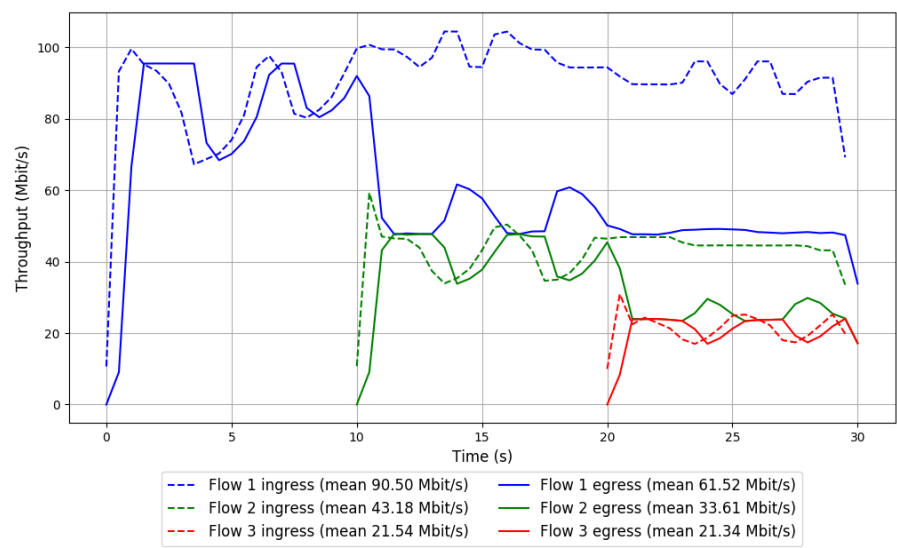


Run 3: Statistics of PCC-Expr

Start at: 2018-11-30 16:07:16  
End at: 2018-11-30 16:07:46  
Local clock offset: 3.883 ms  
Remote clock offset: -1.878 ms

# Below is generated by plot.py at 2018-11-30 17:27:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.87 Mbit/s  
95th percentile per-packet one-way delay: 1466.200 ms  
Loss rate: 28.24%  
-- Flow 1:  
Average throughput: 61.52 Mbit/s  
95th percentile per-packet one-way delay: 764.666 ms  
Loss rate: 32.17%  
-- Flow 2:  
Average throughput: 33.61 Mbit/s  
95th percentile per-packet one-way delay: 1501.964 ms  
Loss rate: 22.43%  
-- Flow 3:  
Average throughput: 21.34 Mbit/s  
95th percentile per-packet one-way delay: 173.729 ms  
Loss rate: 1.63%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-11-30 16:30:23

End at: 2018-11-30 16:30:53

Local clock offset: 4.927 ms

Remote clock offset: -1.34 ms

# Below is generated by plot.py at 2018-11-30 17:27:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.66 Mbit/s

95th percentile per-packet one-way delay: 836.064 ms

Loss rate: 27.69%

-- Flow 1:

Average throughput: 55.53 Mbit/s

95th percentile per-packet one-way delay: 847.414 ms

Loss rate: 33.04%

-- Flow 2:

Average throughput: 34.10 Mbit/s

95th percentile per-packet one-way delay: 724.203 ms

Loss rate: 25.44%

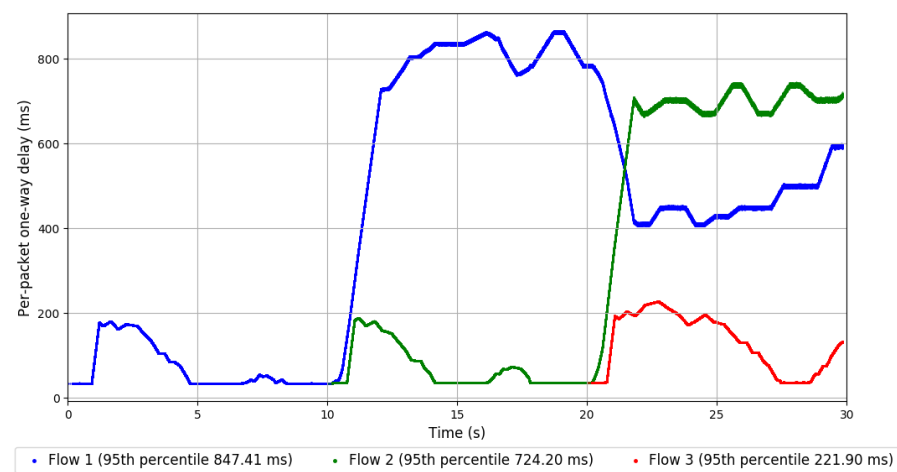
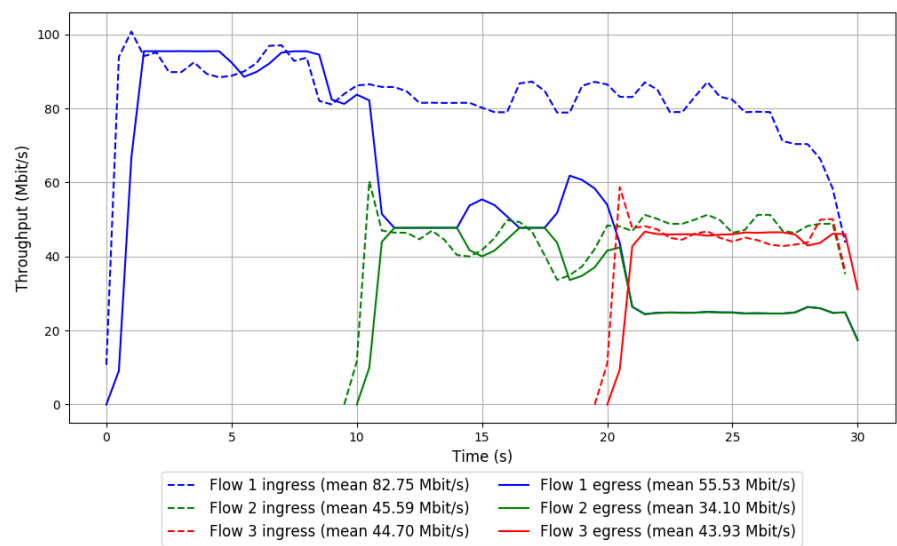
-- Flow 3:

Average throughput: 43.93 Mbit/s

95th percentile per-packet one-way delay: 221.903 ms

Loss rate: 2.37%

Run 4: Report of PCC-Expr — Data Link

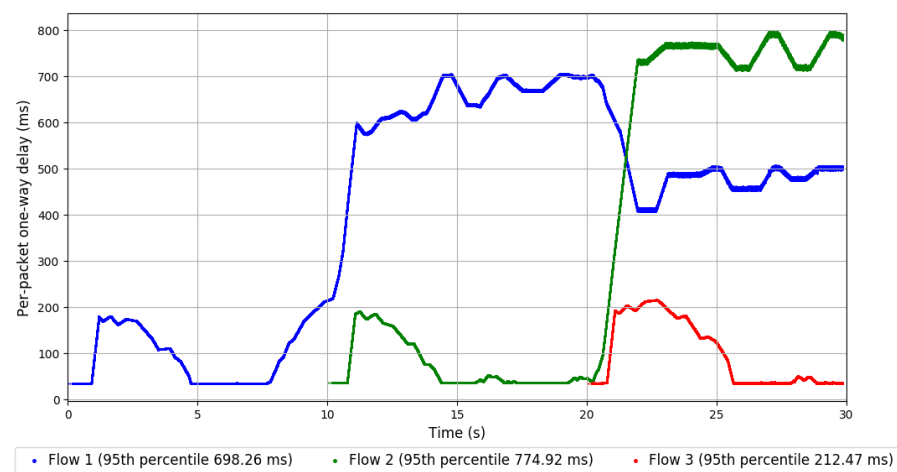
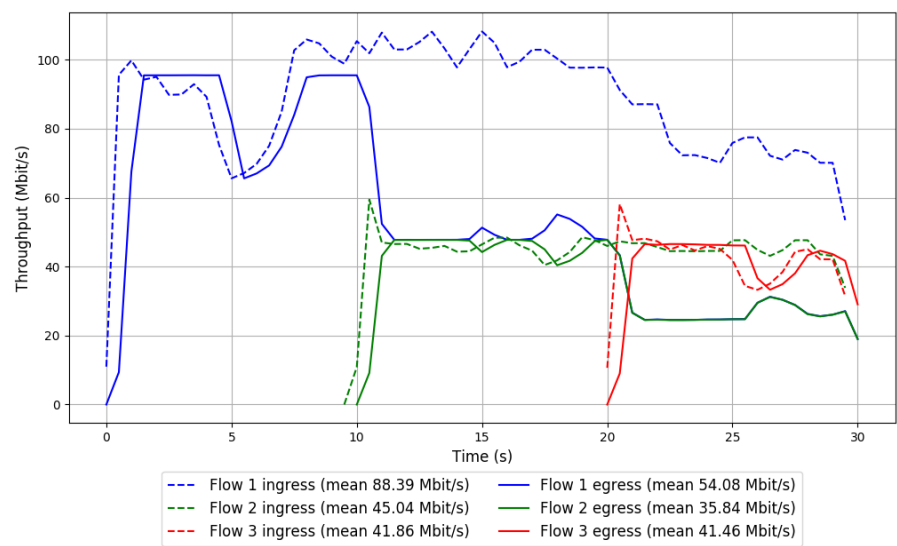


Run 5: Statistics of PCC-Expr

Start at: 2018-11-30 16:53:29  
End at: 2018-11-30 16:53:59  
Local clock offset: 3.969 ms  
Remote clock offset: -0.531 ms

# Below is generated by plot.py at 2018-11-30 17:27:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.54 Mbit/s  
95th percentile per-packet one-way delay: 739.947 ms  
Loss rate: 30.90%  
-- Flow 1:  
Average throughput: 54.08 Mbit/s  
95th percentile per-packet one-way delay: 698.258 ms  
Loss rate: 38.95%  
-- Flow 2:  
Average throughput: 35.84 Mbit/s  
95th percentile per-packet one-way delay: 774.916 ms  
Loss rate: 20.68%  
-- Flow 3:  
Average throughput: 41.46 Mbit/s  
95th percentile per-packet one-way delay: 212.468 ms  
Loss rate: 1.61%

Run 5: Report of PCC-Expr — Data Link

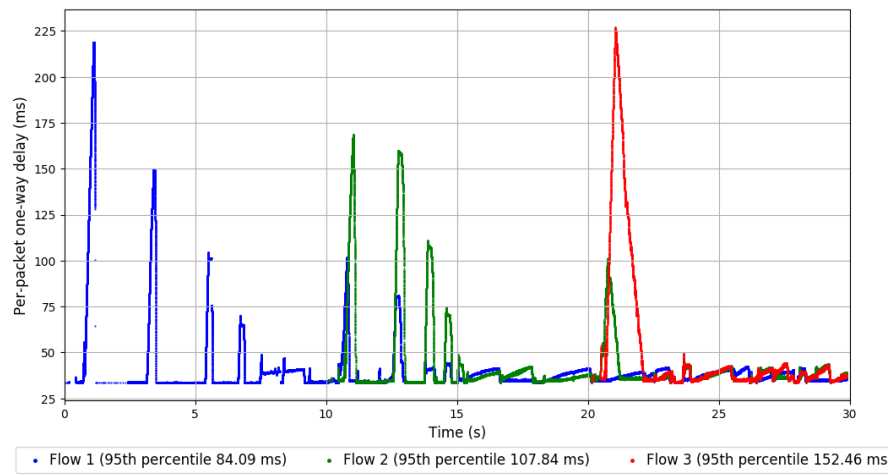
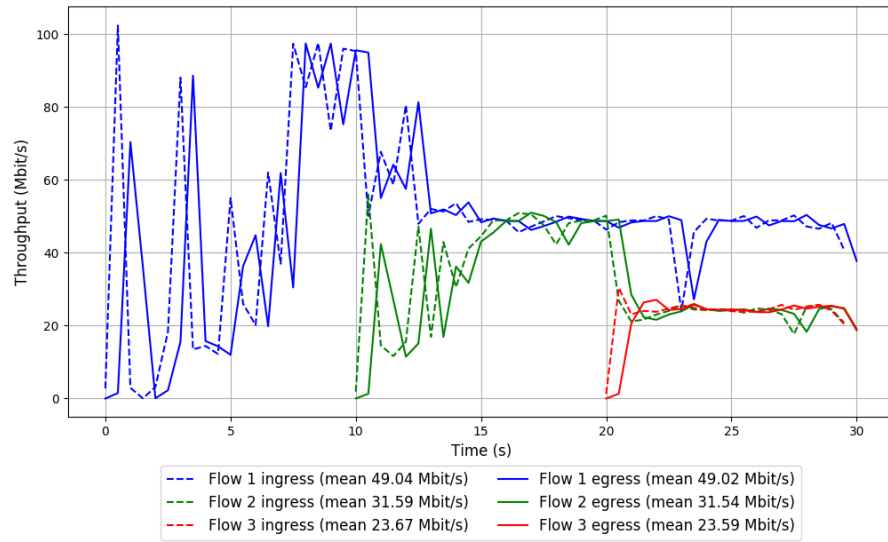


Run 1: Statistics of QUIC Cubic

Start at: 2018-11-30 15:27:42  
End at: 2018-11-30 15:28:12  
Local clock offset: 0.635 ms  
Remote clock offset: -3.696 ms

# Below is generated by plot.py at 2018-11-30 17:27:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.74 Mbit/s  
95th percentile per-packet one-way delay: 101.245 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 49.02 Mbit/s  
95th percentile per-packet one-way delay: 84.090 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 31.54 Mbit/s  
95th percentile per-packet one-way delay: 107.839 ms  
Loss rate: 0.48%  
-- Flow 3:  
Average throughput: 23.59 Mbit/s  
95th percentile per-packet one-way delay: 152.458 ms  
Loss rate: 1.00%

## Run 1: Report of QUIC Cubic — Data Link



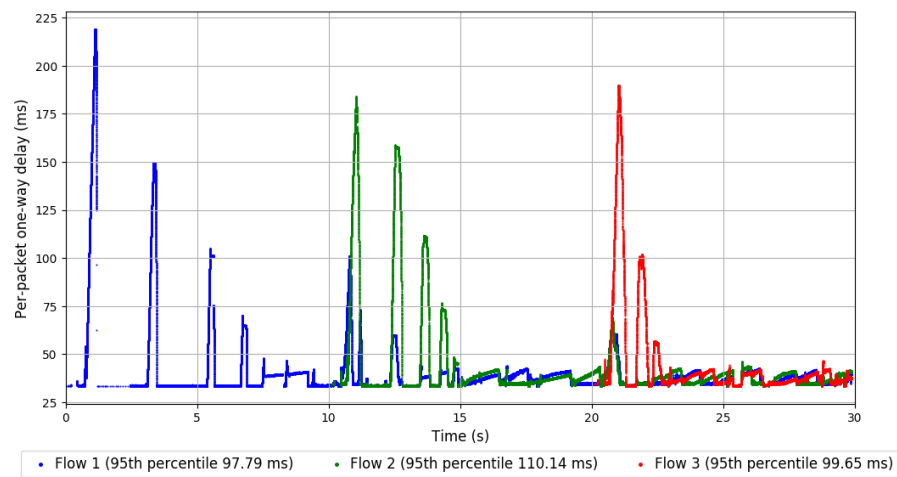
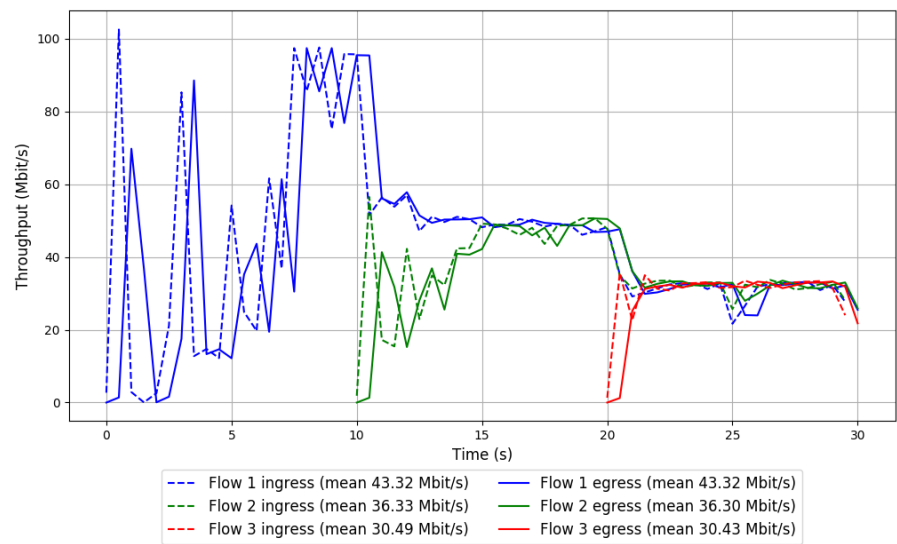


Run 2: Statistics of QUIC Cubic

Start at: 2018-11-30 15:51:03  
End at: 2018-11-30 15:51:33  
Local clock offset: 2.195 ms  
Remote clock offset: -2.523 ms

# Below is generated by plot.py at 2018-11-30 17:27:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.45 Mbit/s  
95th percentile per-packet one-way delay: 101.043 ms  
Loss rate: 0.36%  
-- Flow 1:  
Average throughput: 43.32 Mbit/s  
95th percentile per-packet one-way delay: 97.790 ms  
Loss rate: 0.21%  
-- Flow 2:  
Average throughput: 36.30 Mbit/s  
95th percentile per-packet one-way delay: 110.137 ms  
Loss rate: 0.41%  
-- Flow 3:  
Average throughput: 30.43 Mbit/s  
95th percentile per-packet one-way delay: 99.649 ms  
Loss rate: 0.90%

Run 2: Report of QUIC Cubic — Data Link

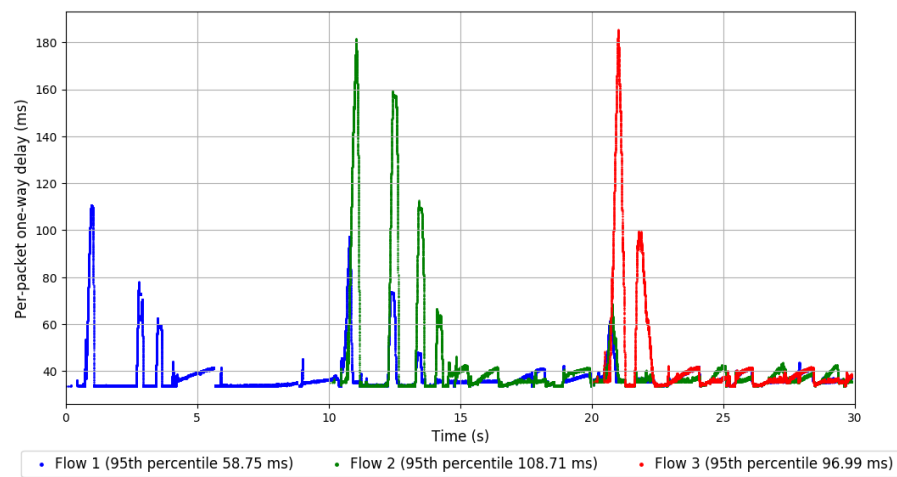
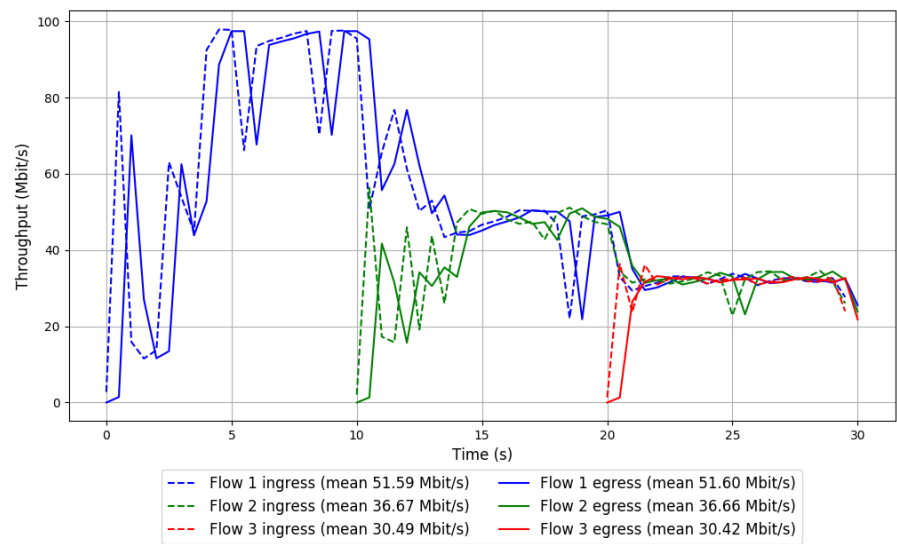


Run 3: Statistics of QUIC Cubic

Start at: 2018-11-30 16:14:39  
End at: 2018-11-30 16:15:09  
Local clock offset: 4.282 ms  
Remote clock offset: -1.638 ms

# Below is generated by plot.py at 2018-11-30 17:27:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.97 Mbit/s  
95th percentile per-packet one-way delay: 69.018 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 51.60 Mbit/s  
95th percentile per-packet one-way delay: 58.746 ms  
Loss rate: 0.19%  
-- Flow 2:  
Average throughput: 36.66 Mbit/s  
95th percentile per-packet one-way delay: 108.714 ms  
Loss rate: 0.36%  
-- Flow 3:  
Average throughput: 30.42 Mbit/s  
95th percentile per-packet one-way delay: 96.994 ms  
Loss rate: 0.90%

Run 3: Report of QUIC Cubic — Data Link

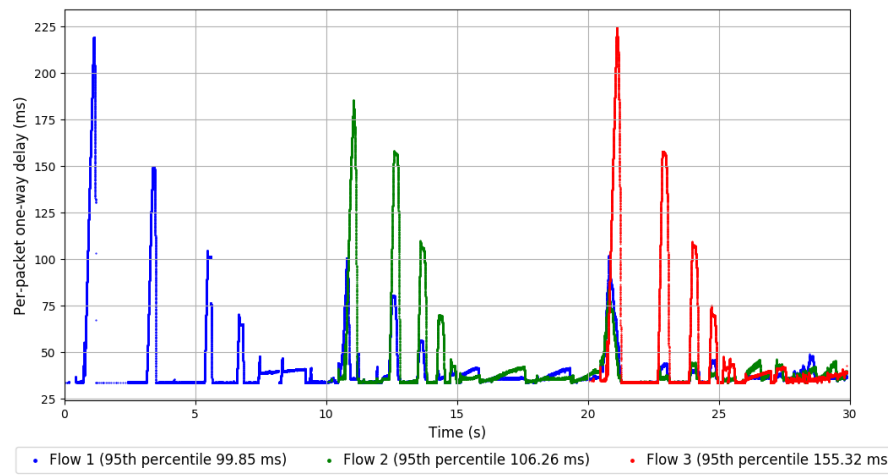
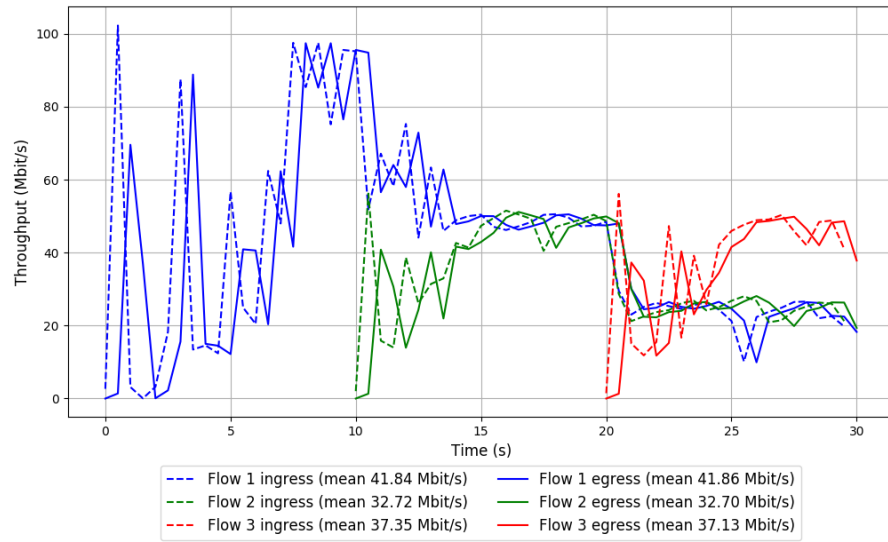


Run 4: Statistics of QUIC Cubic

Start at: 2018-11-30 16:37:44  
End at: 2018-11-30 16:38:14  
Local clock offset: 5.204 ms  
Remote clock offset: -0.898 ms

# Below is generated by plot.py at 2018-11-30 17:27:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.81 Mbit/s  
95th percentile per-packet one-way delay: 107.028 ms  
Loss rate: 0.41%  
-- Flow 1:  
Average throughput: 41.86 Mbit/s  
95th percentile per-packet one-way delay: 99.852 ms  
Loss rate: 0.18%  
-- Flow 2:  
Average throughput: 32.70 Mbit/s  
95th percentile per-packet one-way delay: 106.257 ms  
Loss rate: 0.38%  
-- Flow 3:  
Average throughput: 37.13 Mbit/s  
95th percentile per-packet one-way delay: 155.317 ms  
Loss rate: 1.22%

#### Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-11-30 17:00:50

End at: 2018-11-30 17:01:20

Local clock offset: 3.477 ms

Remote clock offset: 2.064 ms

# Below is generated by plot.py at 2018-11-30 17:28:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.55 Mbit/s

95th percentile per-packet one-way delay: 70.714 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 56.68 Mbit/s

95th percentile per-packet one-way delay: 52.493 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 109.125 ms

Loss rate: 0.37%

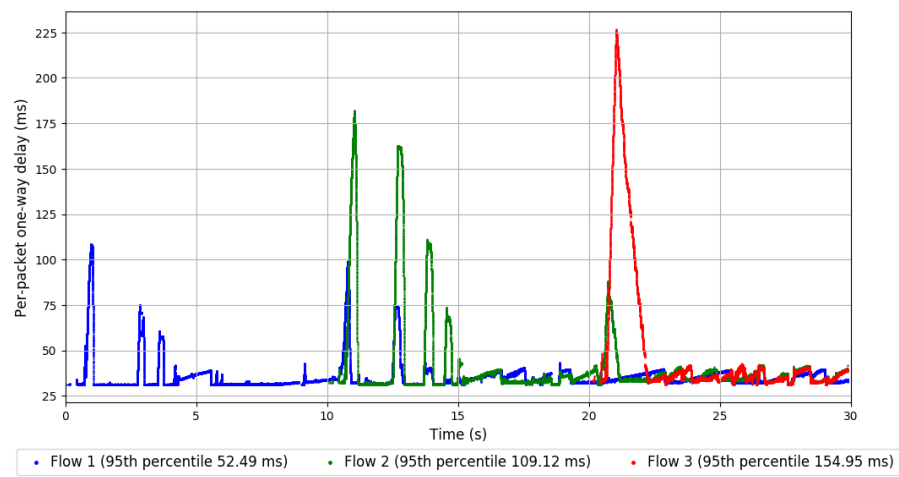
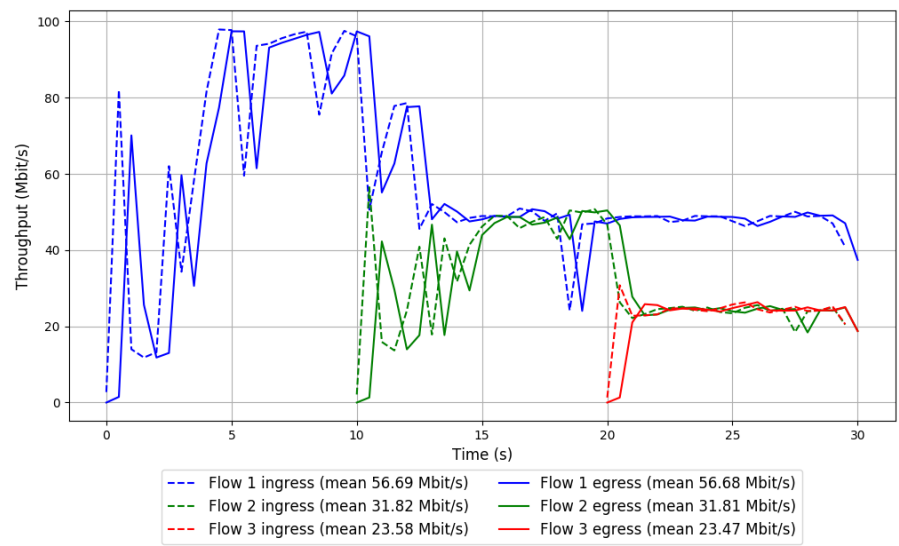
-- Flow 3:

Average throughput: 23.47 Mbit/s

95th percentile per-packet one-way delay: 154.949 ms

Loss rate: 1.09%

Run 5: Report of QUIC Cubic — Data Link



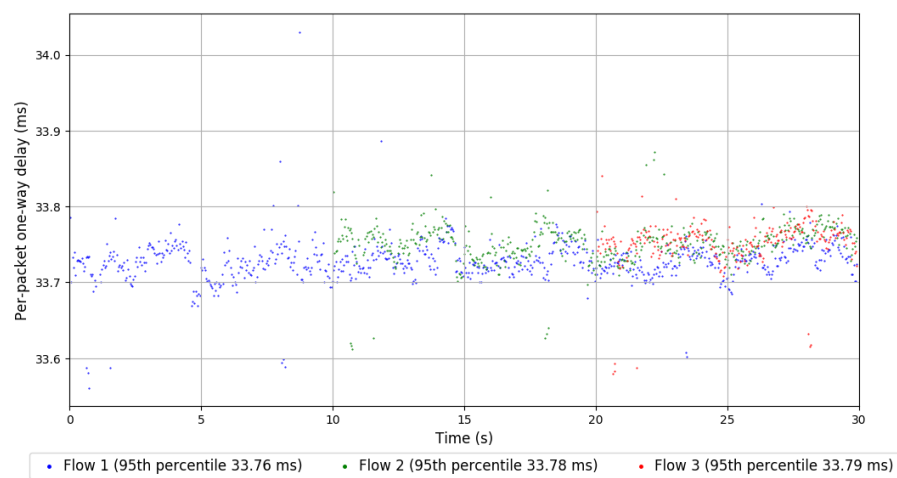
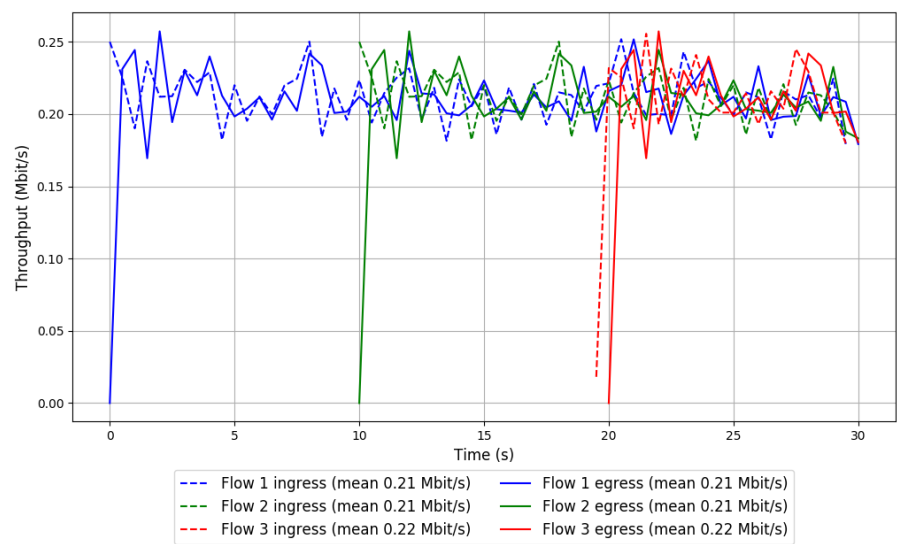


Run 1: Statistics of SReAM

Start at: 2018-11-30 15:38:45  
End at: 2018-11-30 15:39:15  
Local clock offset: 0.611 ms  
Remote clock offset: -3.143 ms

# Below is generated by plot.py at 2018-11-30 17:28:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 33.778 ms  
Loss rate: 0.19%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 33.761 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 33.783 ms  
Loss rate: 0.19%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 33.786 ms  
Loss rate: 0.35%

Run 1: Report of SReAM — Data Link

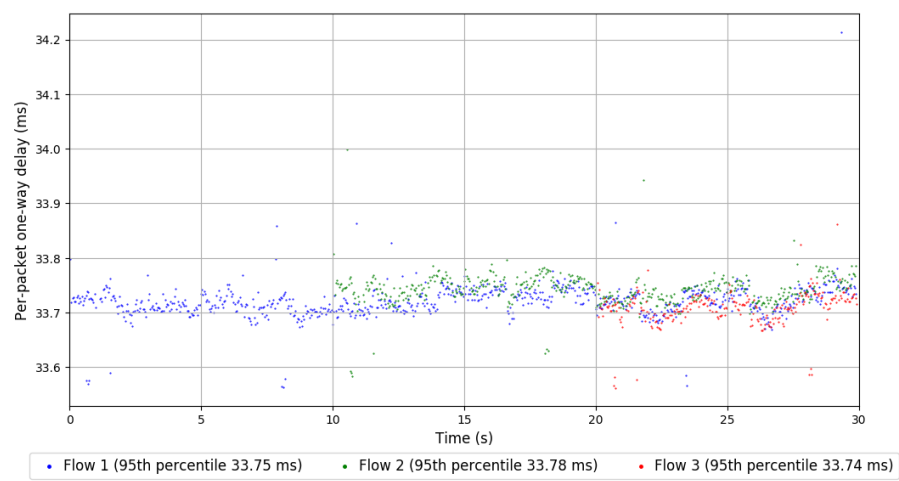
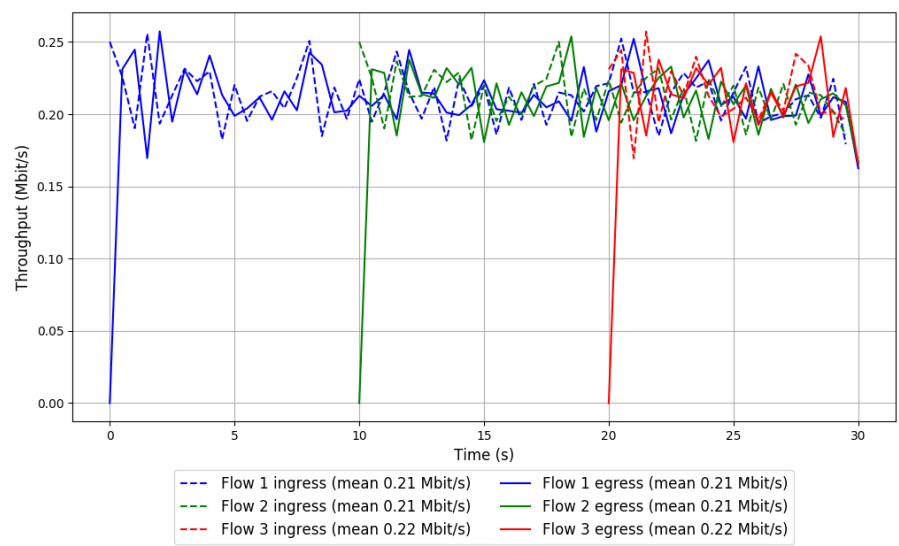


Run 2: Statistics of SReAM

Start at: 2018-11-30 16:02:31  
End at: 2018-11-30 16:03:01  
Local clock offset: 3.557 ms  
Remote clock offset: -2.118 ms

# Below is generated by plot.py at 2018-11-30 17:28:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 33.767 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 33.754 ms  
Loss rate: 0.26%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 33.777 ms  
Loss rate: 0.39%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 33.745 ms  
Loss rate: 0.71%

Run 2: Report of SReAM — Data Link

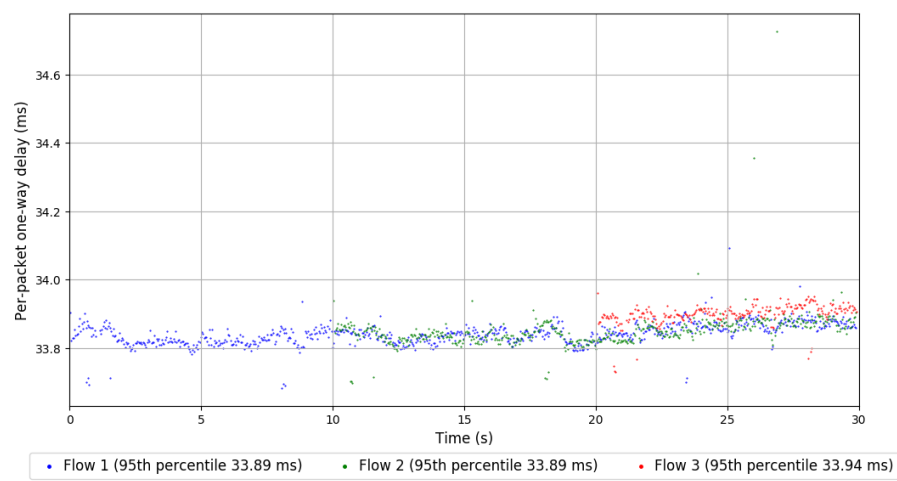
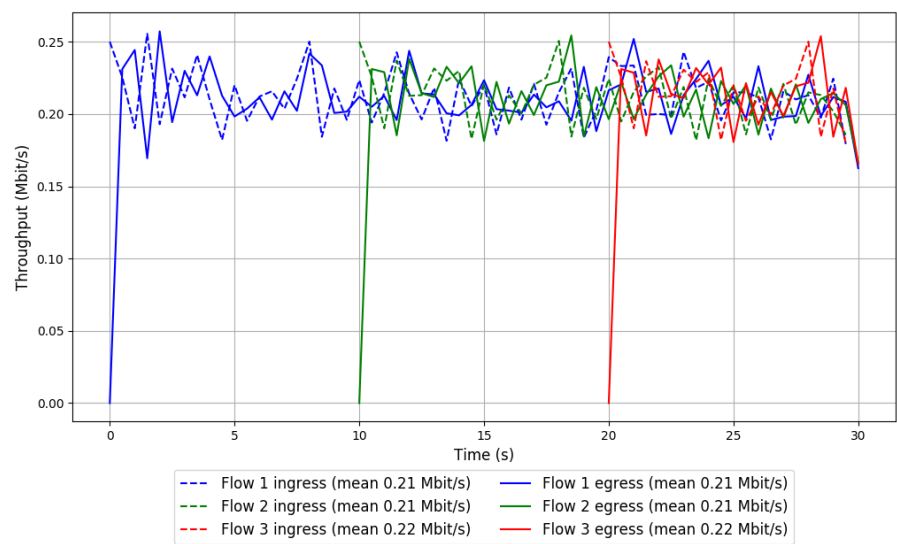


Run 3: Statistics of SCReAM

Start at: 2018-11-30 16:25:38  
End at: 2018-11-30 16:26:08  
Local clock offset: 4.734 ms  
Remote clock offset: -1.423 ms

# Below is generated by plot.py at 2018-11-30 17:28:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 33.917 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 33.887 ms  
Loss rate: 0.26%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 33.891 ms  
Loss rate: 0.39%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 33.940 ms  
Loss rate: 0.71%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2018-11-30 16:48:42

End at: 2018-11-30 16:49:12

Local clock offset: 4.647 ms

Remote clock offset: -0.6 ms

# Below is generated by plot.py at 2018-11-30 17:28:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 33.966 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 33.899 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 33.910 ms

Loss rate: 0.40%

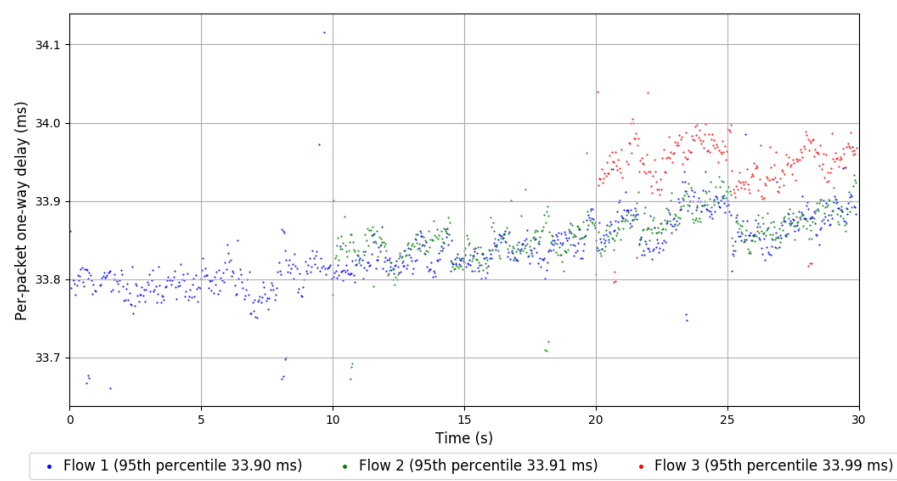
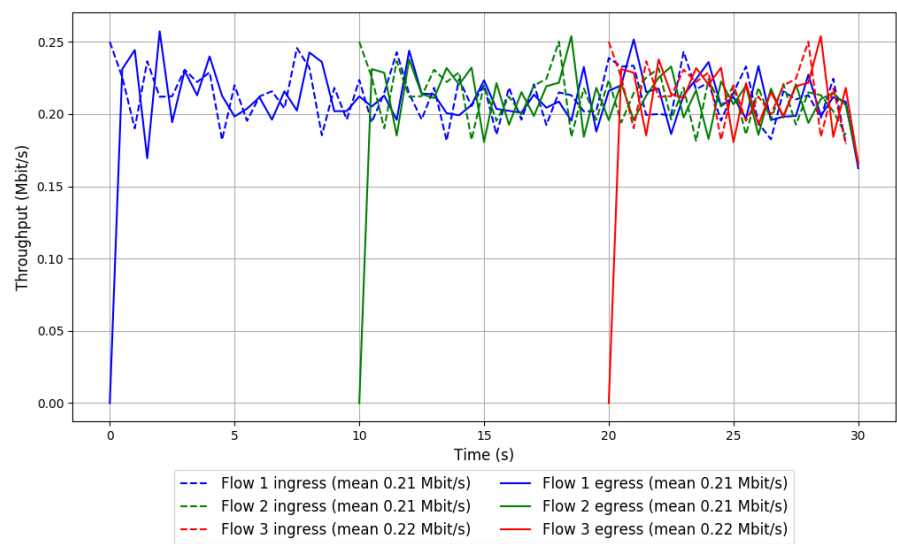
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 33.989 ms

Loss rate: 0.71%

Run 4: Report of SReAM — Data Link





Run 5: Statistics of SReAM

Start at: 2018-11-30 17:11:52

End at: 2018-11-30 17:12:22

Local clock offset: 3.151 ms

Remote clock offset: 2.238 ms

# Below is generated by plot.py at 2018-11-30 17:28:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 31.385 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 31.377 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 31.393 ms

Loss rate: 0.39%

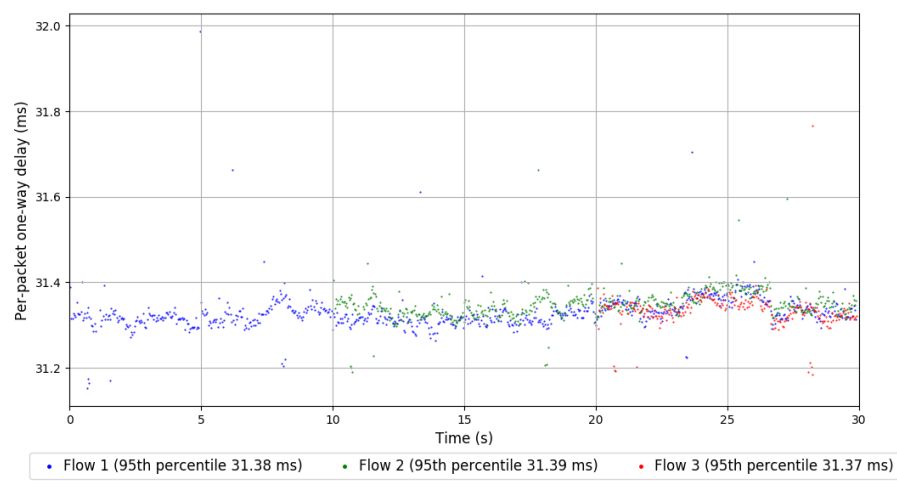
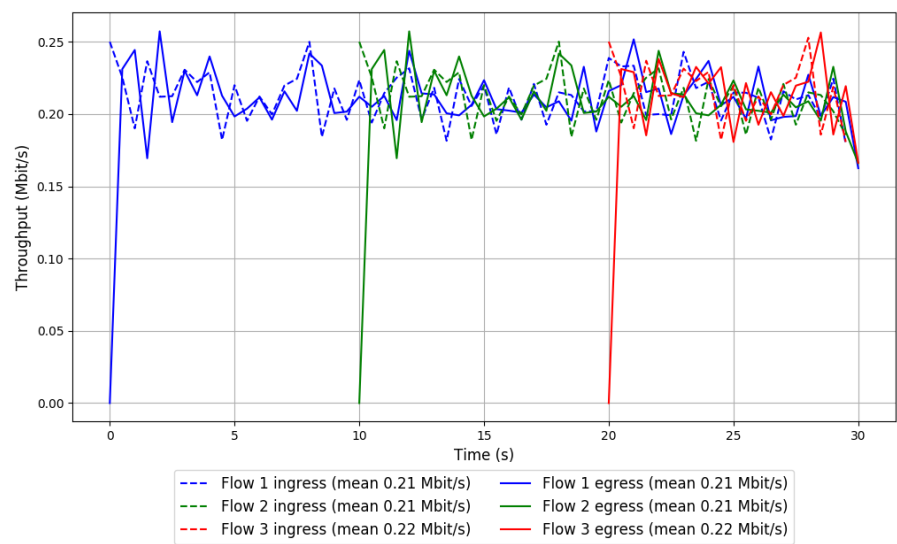
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 31.371 ms

Loss rate: 0.71%

Run 5: Report of SCReAM — Data Link

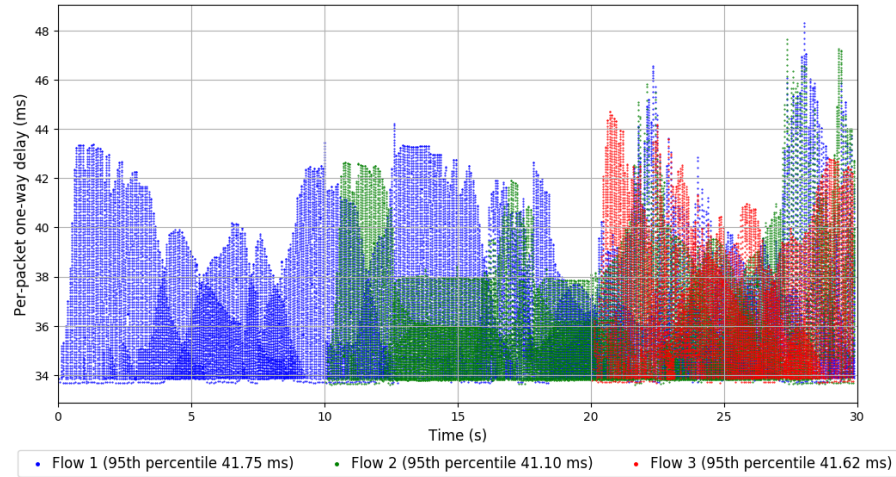
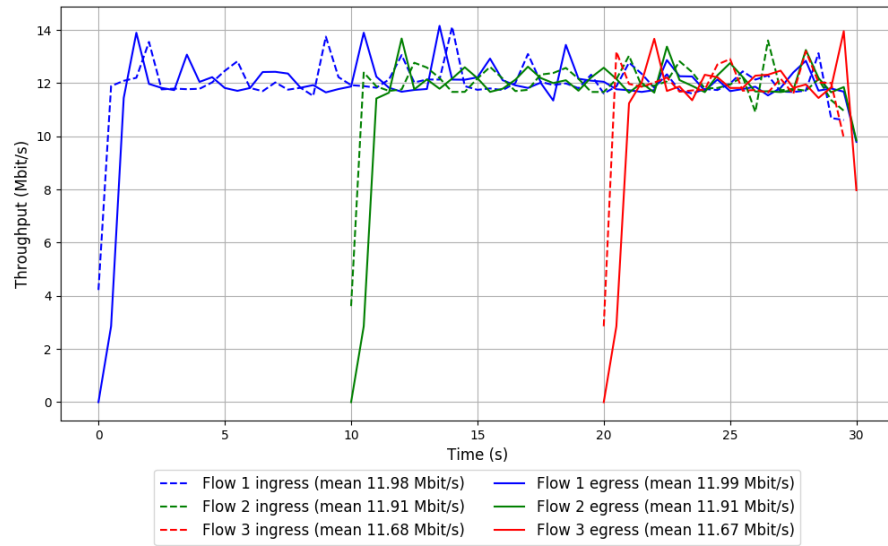


Run 1: Statistics of Sprout

Start at: 2018-11-30 15:39:54  
End at: 2018-11-30 15:40:24  
Local clock offset: 0.599 ms  
Remote clock offset: -3.166 ms

# Below is generated by plot.py at 2018-11-30 17:28:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.74 Mbit/s  
95th percentile per-packet one-way delay: 41.557 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 11.99 Mbit/s  
95th percentile per-packet one-way delay: 41.753 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 11.91 Mbit/s  
95th percentile per-packet one-way delay: 41.102 ms  
Loss rate: 0.24%  
-- Flow 3:  
Average throughput: 11.67 Mbit/s  
95th percentile per-packet one-way delay: 41.624 ms  
Loss rate: 0.86%

# Run 1: Report of Sprout — Data Link

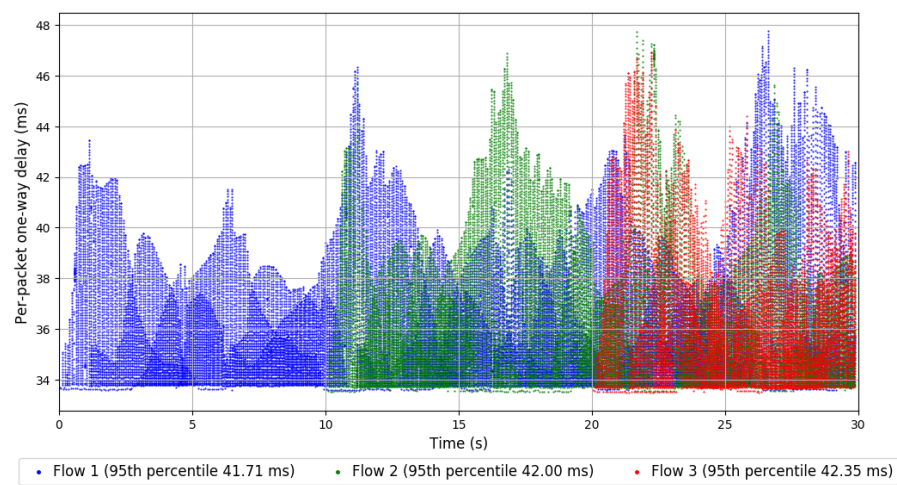
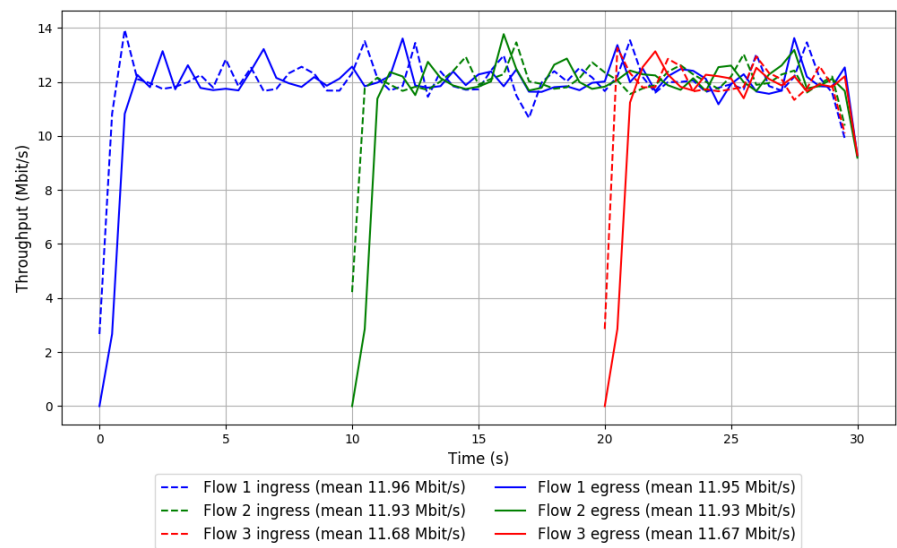


Run 2: Statistics of Sprout

Start at: 2018-11-30 16:03:39  
End at: 2018-11-30 16:04:09  
Local clock offset: 3.659 ms  
Remote clock offset: -2.057 ms

# Below is generated by plot.py at 2018-11-30 17:28:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.72 Mbit/s  
95th percentile per-packet one-way delay: 41.931 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 11.95 Mbit/s  
95th percentile per-packet one-way delay: 41.711 ms  
Loss rate: 0.24%  
-- Flow 2:  
Average throughput: 11.93 Mbit/s  
95th percentile per-packet one-way delay: 42.004 ms  
Loss rate: 0.41%  
-- Flow 3:  
Average throughput: 11.67 Mbit/s  
95th percentile per-packet one-way delay: 42.354 ms  
Loss rate: 0.84%

Run 2: Report of Sprout — Data Link

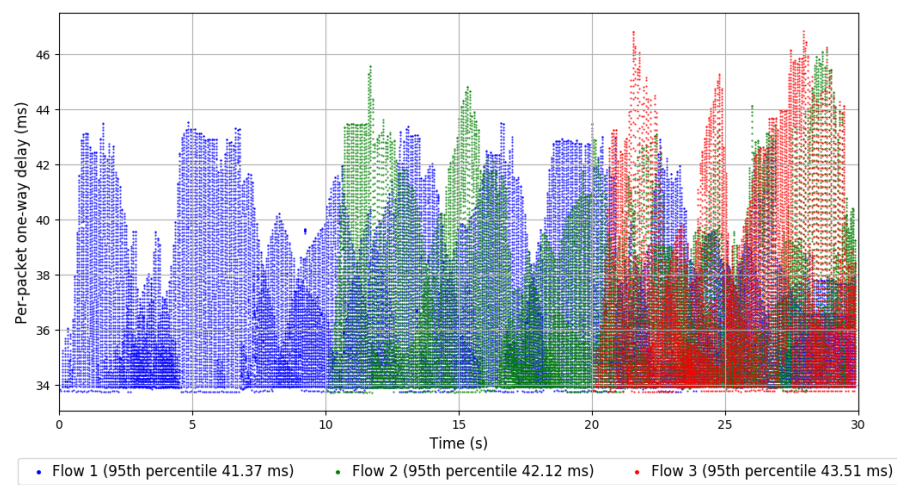
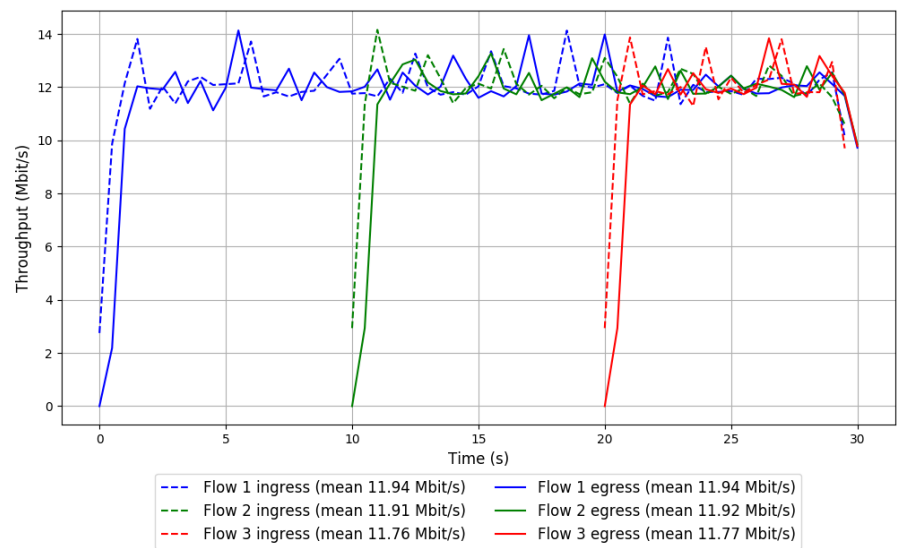


Run 3: Statistics of Sprout

Start at: 2018-11-30 16:26:46  
End at: 2018-11-30 16:27:16  
Local clock offset: 4.789 ms  
Remote clock offset: -1.445 ms

# Below is generated by plot.py at 2018-11-30 17:28:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.72 Mbit/s  
95th percentile per-packet one-way delay: 42.006 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 11.94 Mbit/s  
95th percentile per-packet one-way delay: 41.365 ms  
Loss rate: 0.27%  
-- Flow 2:  
Average throughput: 11.92 Mbit/s  
95th percentile per-packet one-way delay: 42.125 ms  
Loss rate: 0.21%  
-- Flow 3:  
Average throughput: 11.77 Mbit/s  
95th percentile per-packet one-way delay: 43.509 ms  
Loss rate: 0.46%

Run 3: Report of Sprout — Data Link



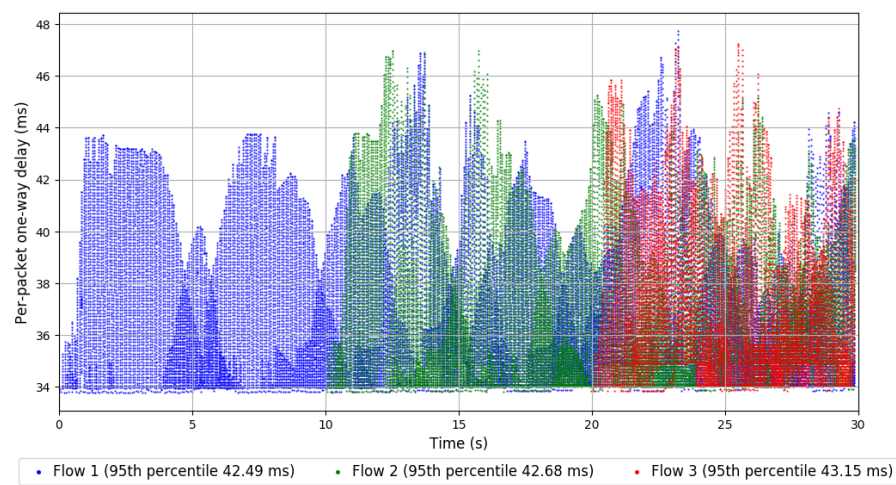
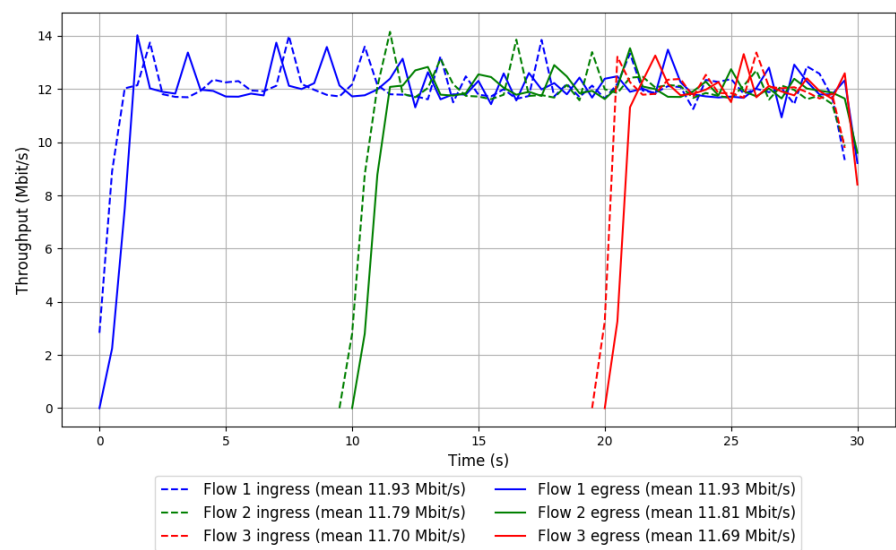


#### Run 4: Statistics of Sprout

Start at: 2018-11-30 16:49:51  
End at: 2018-11-30 16:50:21  
Local clock offset: 4.427 ms  
Remote clock offset: -0.742 ms

```
# Below is generated by plot.py at 2018-11-30 17:28:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.62 Mbit/s
95th percentile per-packet one-way delay: 42.656 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 42.495 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 42.679 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 43.154 ms
Loss rate: 0.84%
```

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-11-30 17:13:00

End at: 2018-11-30 17:13:30

Local clock offset: 3.135 ms

Remote clock offset: 2.037 ms

# Below is generated by plot.py at 2018-11-30 17:28:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.56 Mbit/s

95th percentile per-packet one-way delay: 39.346 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 11.95 Mbit/s

95th percentile per-packet one-way delay: 39.487 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 11.79 Mbit/s

95th percentile per-packet one-way delay: 38.756 ms

Loss rate: 0.38%

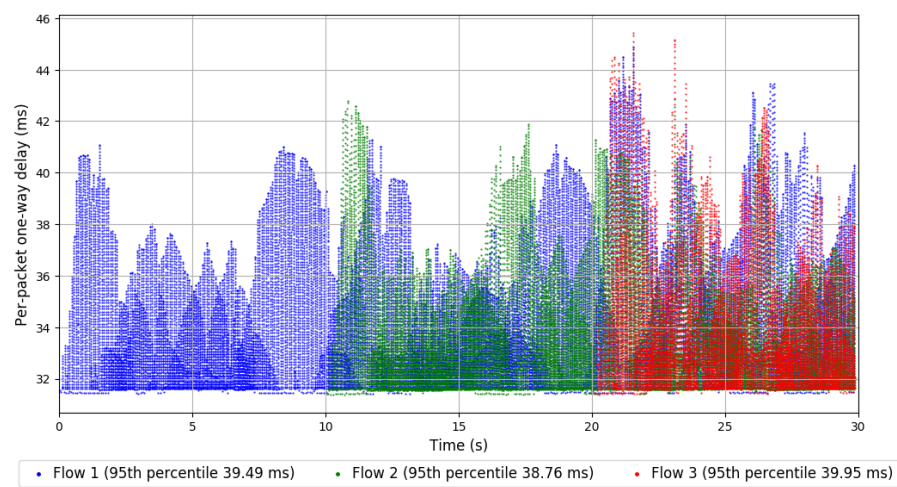
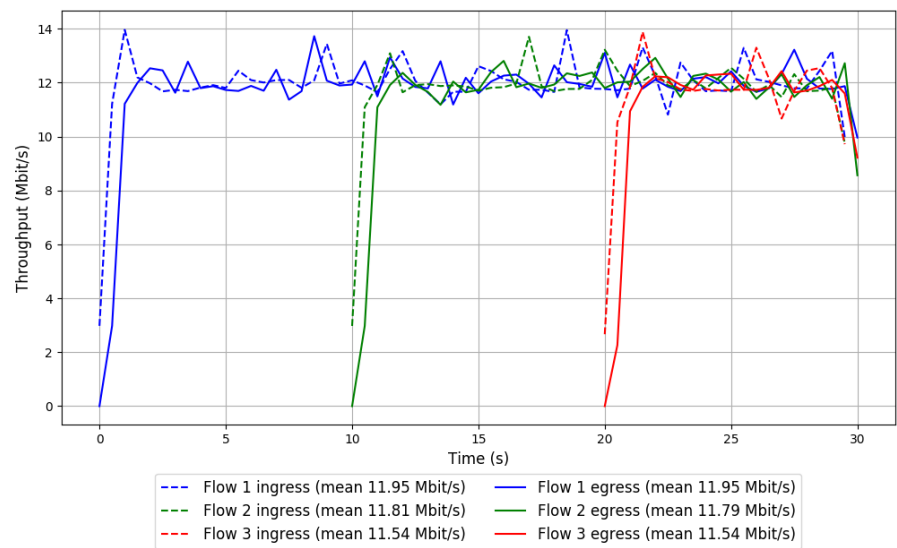
-- Flow 3:

Average throughput: 11.54 Mbit/s

95th percentile per-packet one-way delay: 39.949 ms

Loss rate: 0.85%

Run 5: Report of Sprout — Data Link

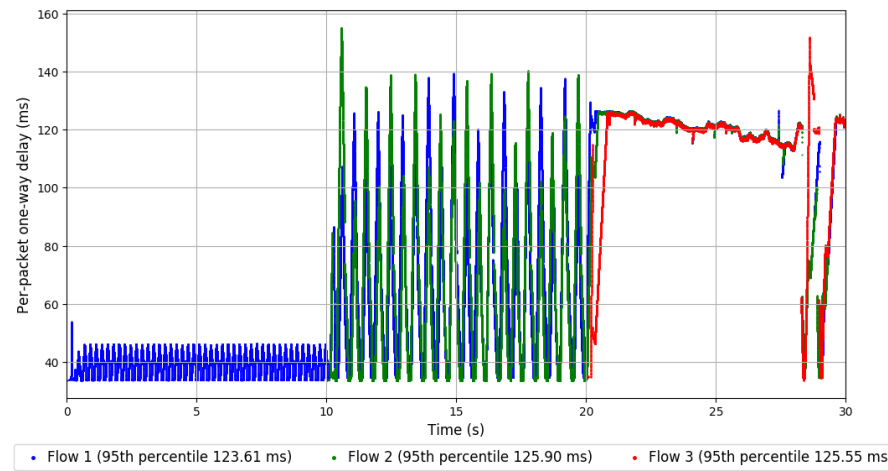
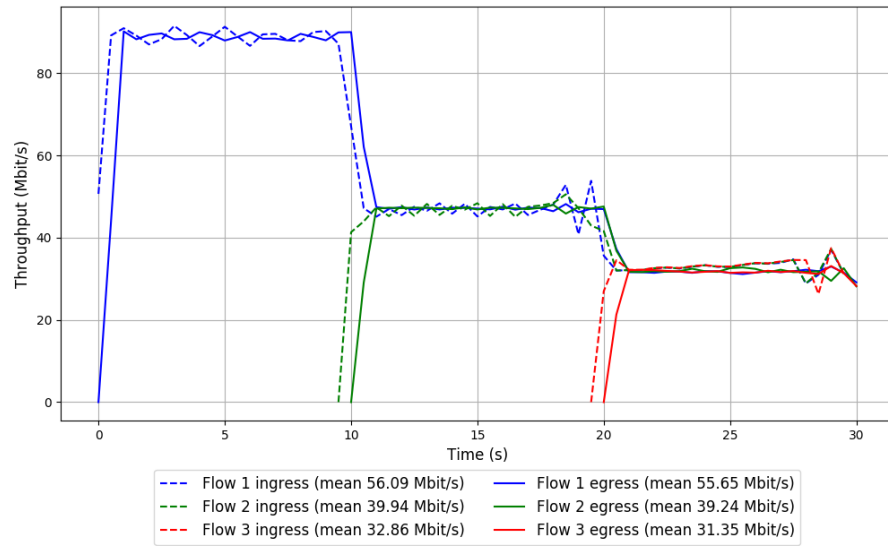


Run 1: Statistics of TaoVA-100x

Start at: 2018-11-30 15:31:22  
End at: 2018-11-30 15:31:52  
Local clock offset: 0.635 ms  
Remote clock offset: -3.552 ms

# Below is generated by plot.py at 2018-11-30 17:29:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.17 Mbit/s  
95th percentile per-packet one-way delay: 125.369 ms  
Loss rate: 1.80%  
-- Flow 1:  
Average throughput: 55.65 Mbit/s  
95th percentile per-packet one-way delay: 123.607 ms  
Loss rate: 1.00%  
-- Flow 2:  
Average throughput: 39.24 Mbit/s  
95th percentile per-packet one-way delay: 125.896 ms  
Loss rate: 2.07%  
-- Flow 3:  
Average throughput: 31.35 Mbit/s  
95th percentile per-packet one-way delay: 125.554 ms  
Loss rate: 5.20%

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

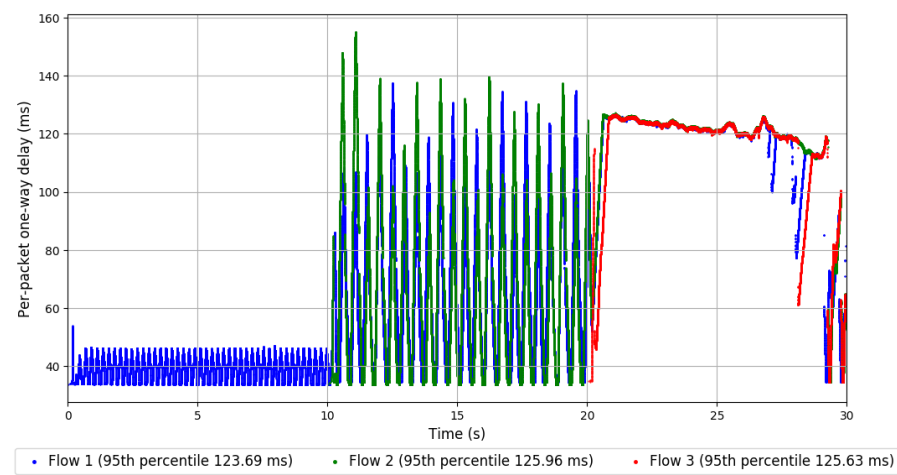
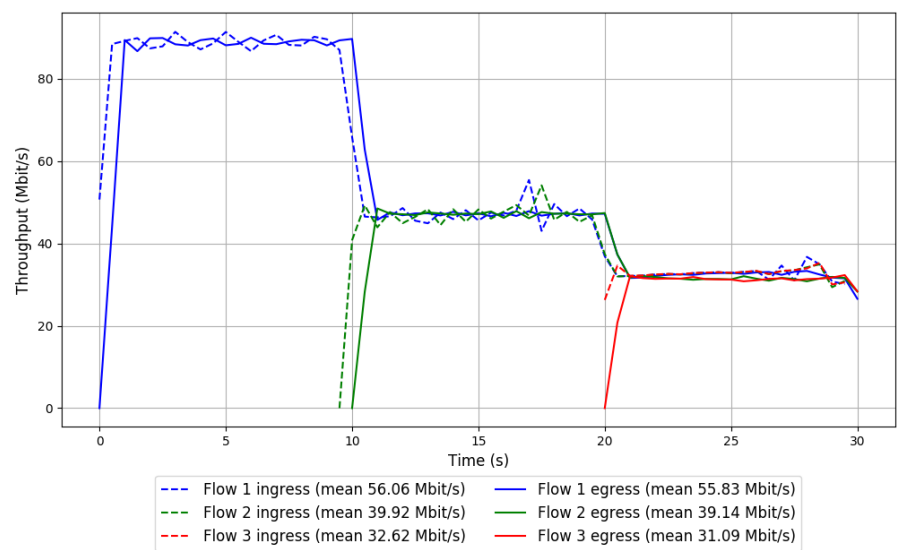


Run 2: Statistics of TaoVA-100x

Start at: 2018-11-30 15:54:45  
End at: 2018-11-30 15:55:15  
Local clock offset: 2.767 ms  
Remote clock offset: -2.654 ms

# Below is generated by plot.py at 2018-11-30 17:29:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.17 Mbit/s  
95th percentile per-packet one-way delay: 125.242 ms  
Loss rate: 1.64%  
-- Flow 1:  
Average throughput: 55.83 Mbit/s  
95th percentile per-packet one-way delay: 123.688 ms  
Loss rate: 0.62%  
-- Flow 2:  
Average throughput: 39.14 Mbit/s  
95th percentile per-packet one-way delay: 125.960 ms  
Loss rate: 2.27%  
-- Flow 3:  
Average throughput: 31.09 Mbit/s  
95th percentile per-packet one-way delay: 125.634 ms  
Loss rate: 5.34%

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



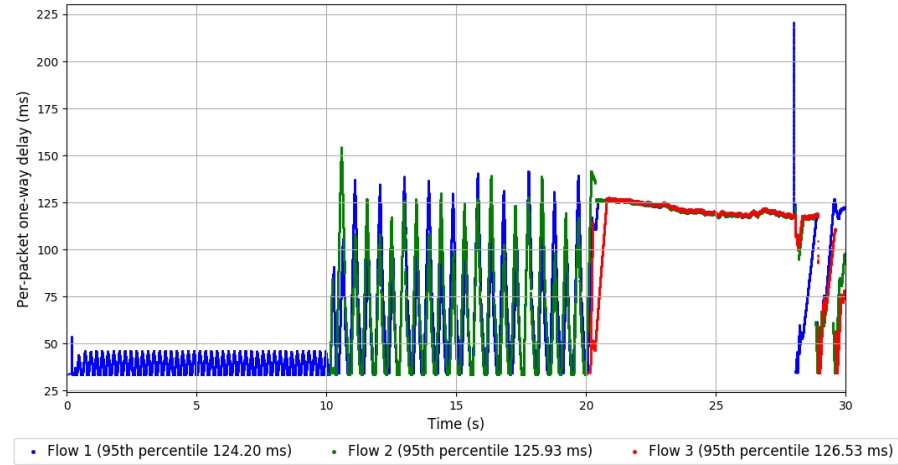
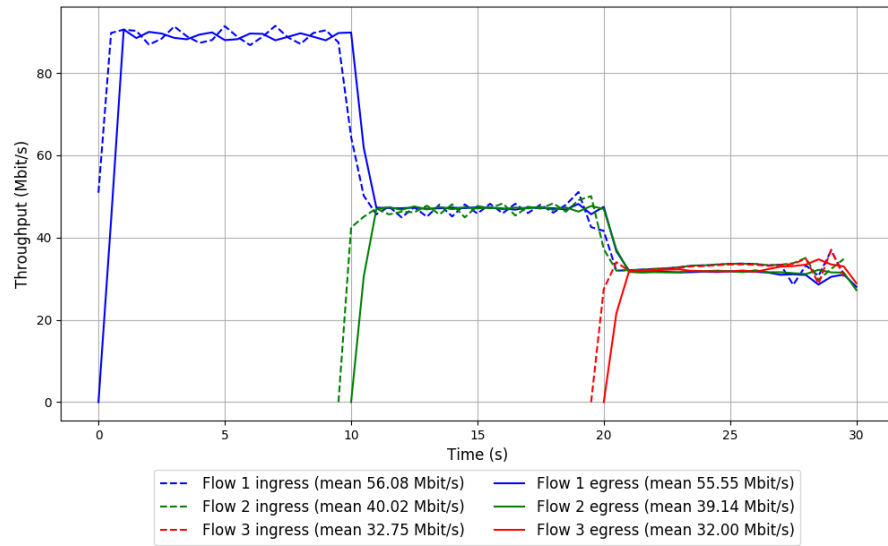


Run 3: Statistics of TaoVA-100x

Start at: 2018-11-30 16:18:17  
End at: 2018-11-30 16:18:47  
Local clock offset: 4.458 ms  
Remote clock offset: -1.502 ms

# Below is generated by plot.py at 2018-11-30 17:29:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.23 Mbit/s  
95th percentile per-packet one-way delay: 125.554 ms  
Loss rate: 1.76%  
-- Flow 1:  
Average throughput: 55.55 Mbit/s  
95th percentile per-packet one-way delay: 124.201 ms  
Loss rate: 1.17%  
-- Flow 2:  
Average throughput: 39.14 Mbit/s  
95th percentile per-packet one-way delay: 125.927 ms  
Loss rate: 2.51%  
-- Flow 3:  
Average throughput: 32.00 Mbit/s  
95th percentile per-packet one-way delay: 126.531 ms  
Loss rate: 2.94%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-11-30 16:41:21

End at: 2018-11-30 16:41:51

Local clock offset: 5.324 ms

Remote clock offset: -0.76 ms

# Below is generated by plot.py at 2018-11-30 17:29:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.31 Mbit/s

95th percentile per-packet one-way delay: 126.161 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 55.80 Mbit/s

95th percentile per-packet one-way delay: 125.567 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 39.24 Mbit/s

95th percentile per-packet one-way delay: 126.336 ms

Loss rate: 1.25%

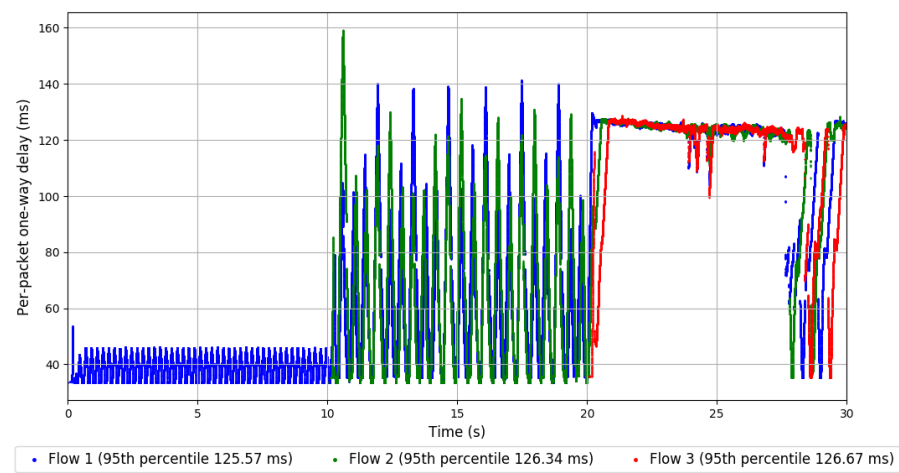
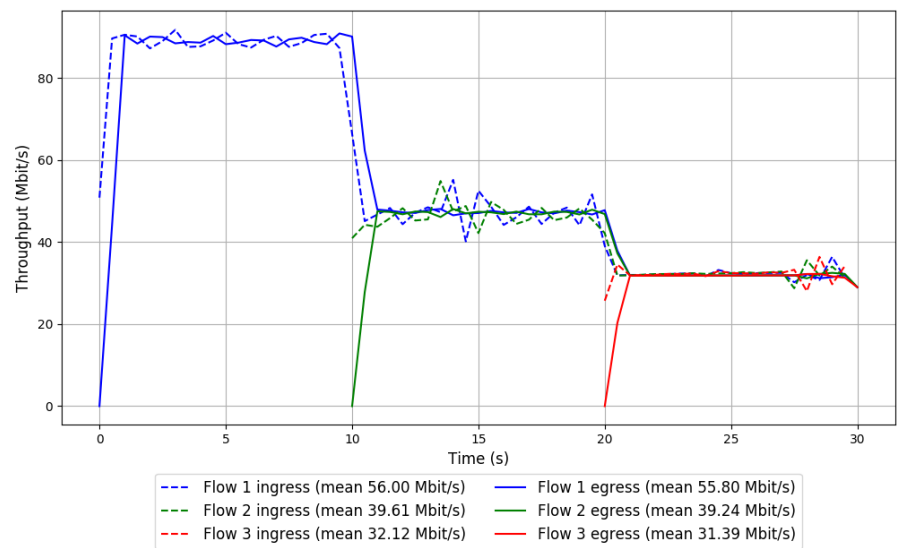
-- Flow 3:

Average throughput: 31.39 Mbit/s

95th percentile per-packet one-way delay: 126.671 ms

Loss rate: 2.93%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-11-30 17:04:28

End at: 2018-11-30 17:04:58

Local clock offset: 3.337 ms

Remote clock offset: 2.115 ms

# Below is generated by plot.py at 2018-11-30 17:30:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.35 Mbit/s

95th percentile per-packet one-way delay: 124.293 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 55.68 Mbit/s

95th percentile per-packet one-way delay: 124.022 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 39.28 Mbit/s

95th percentile per-packet one-way delay: 124.201 ms

Loss rate: 1.65%

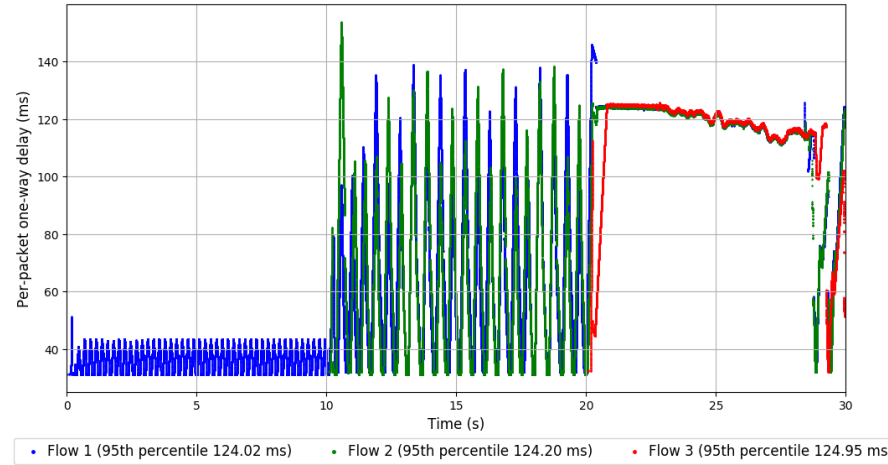
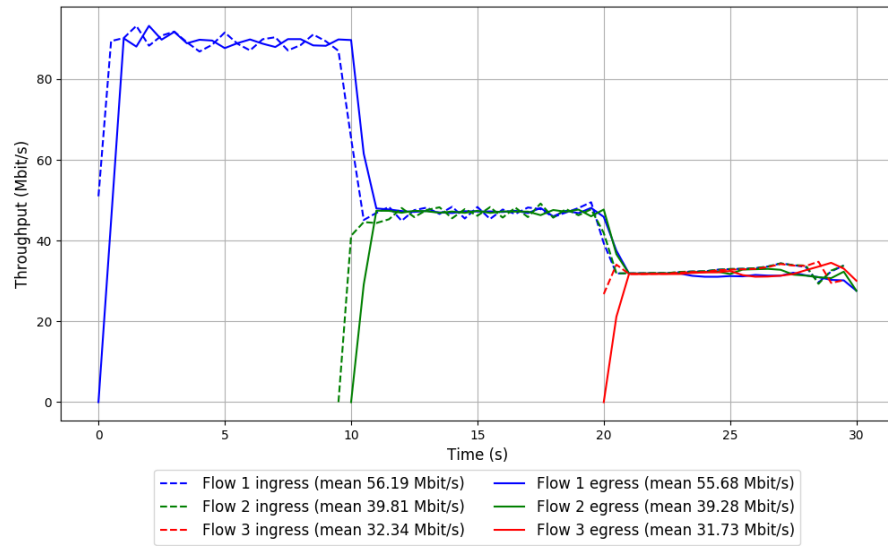
-- Flow 3:

Average throughput: 31.73 Mbit/s

95th percentile per-packet one-way delay: 124.955 ms

Loss rate: 2.54%

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

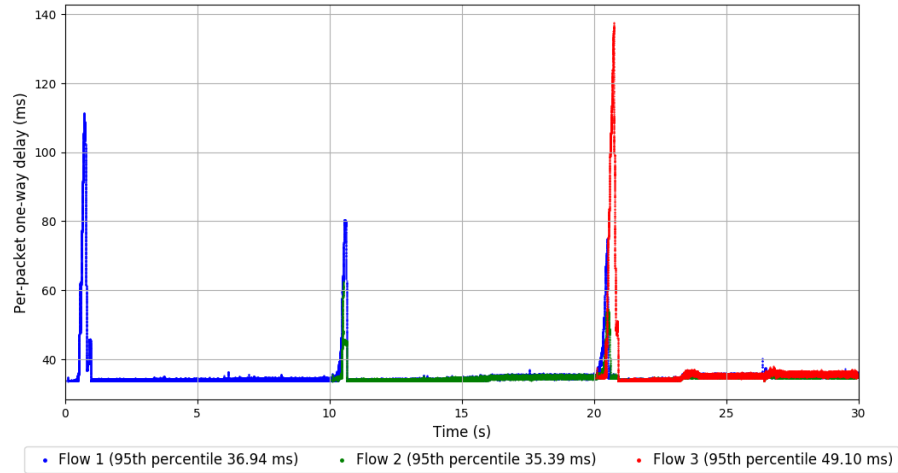
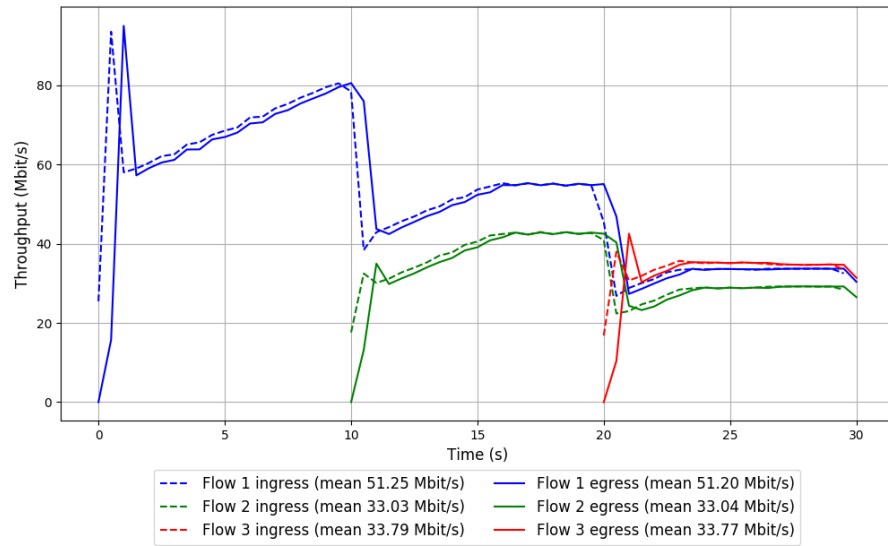


Run 1: Statistics of TCP Vegas

Start at: 2018-11-30 15:21:24  
End at: 2018-11-30 15:21:54  
Local clock offset: 0.691 ms  
Remote clock offset: -3.881 ms

# Below is generated by plot.py at 2018-11-30 17:30:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.36 Mbit/s  
95th percentile per-packet one-way delay: 36.563 ms  
Loss rate: 0.36%  
-- Flow 1:  
Average throughput: 51.20 Mbit/s  
95th percentile per-packet one-way delay: 36.937 ms  
Loss rate: 0.31%  
-- Flow 2:  
Average throughput: 33.04 Mbit/s  
95th percentile per-packet one-way delay: 35.389 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 33.77 Mbit/s  
95th percentile per-packet one-way delay: 49.096 ms  
Loss rate: 0.71%

# Run 1: Report of TCP Vegas — Data Link



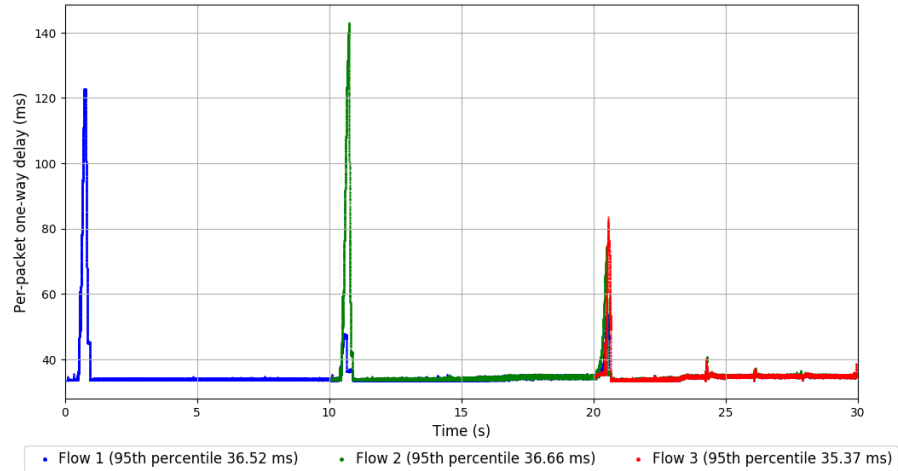
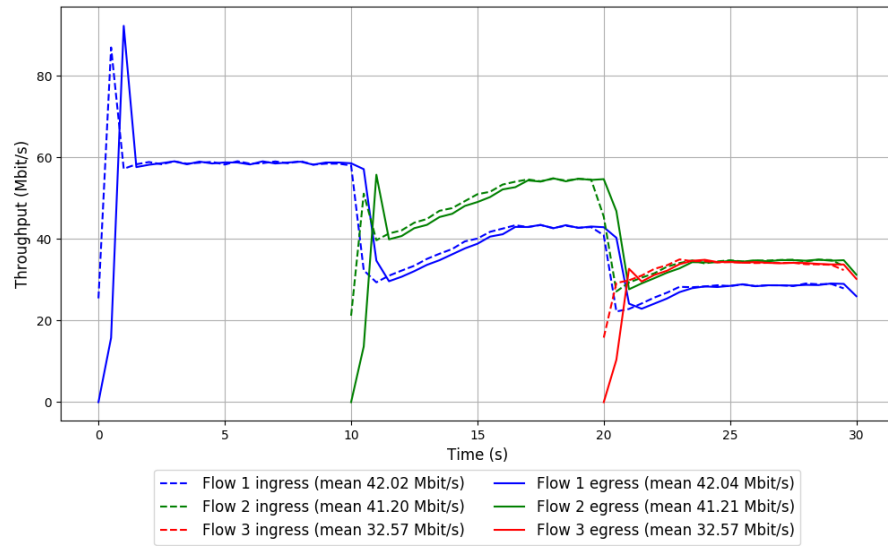


Run 2: Statistics of TCP Vegas

Start at: 2018-11-30 15:44:49  
End at: 2018-11-30 15:45:19  
Local clock offset: 0.6 ms  
Remote clock offset: -2.825 ms

# Below is generated by plot.py at 2018-11-30 17:30:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.25 Mbit/s  
95th percentile per-packet one-way delay: 36.326 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 42.04 Mbit/s  
95th percentile per-packet one-way delay: 36.515 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 41.21 Mbit/s  
95th percentile per-packet one-way delay: 36.655 ms  
Loss rate: 0.29%  
-- Flow 3:  
Average throughput: 32.57 Mbit/s  
95th percentile per-packet one-way delay: 35.374 ms  
Loss rate: 0.70%

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

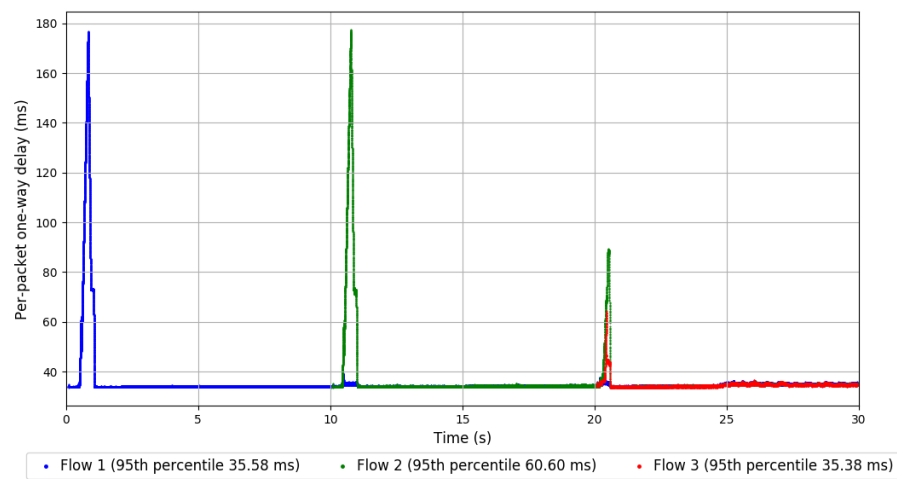
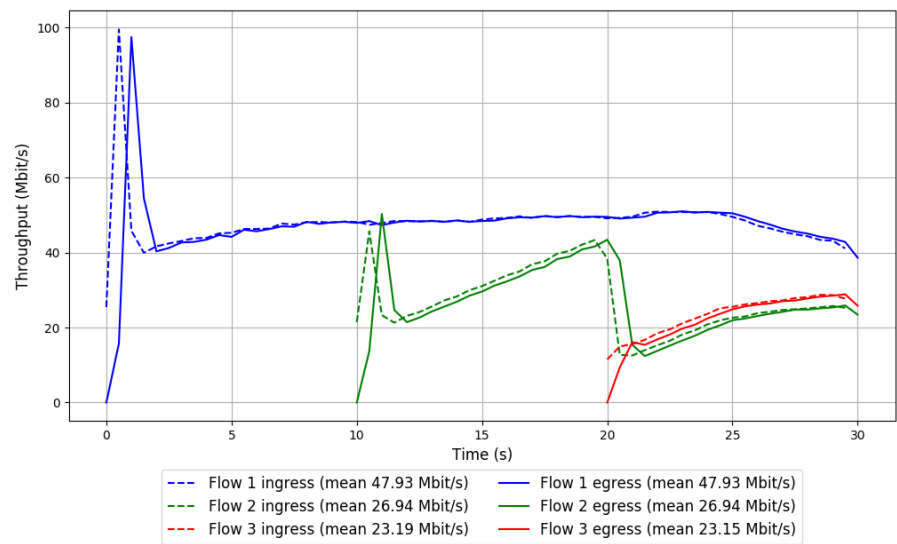


Run 3: Statistics of TCP Vegas

Start at: 2018-11-30 16:08:34  
End at: 2018-11-30 16:09:04  
Local clock offset: 3.955 ms  
Remote clock offset: -1.831 ms

# Below is generated by plot.py at 2018-11-30 17:30:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.52 Mbit/s  
95th percentile per-packet one-way delay: 35.790 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 47.93 Mbit/s  
95th percentile per-packet one-way delay: 35.583 ms  
Loss rate: 0.21%  
-- Flow 2:  
Average throughput: 26.94 Mbit/s  
95th percentile per-packet one-way delay: 60.602 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 23.15 Mbit/s  
95th percentile per-packet one-way delay: 35.376 ms  
Loss rate: 0.83%

Run 3: Report of TCP Vegas — Data Link

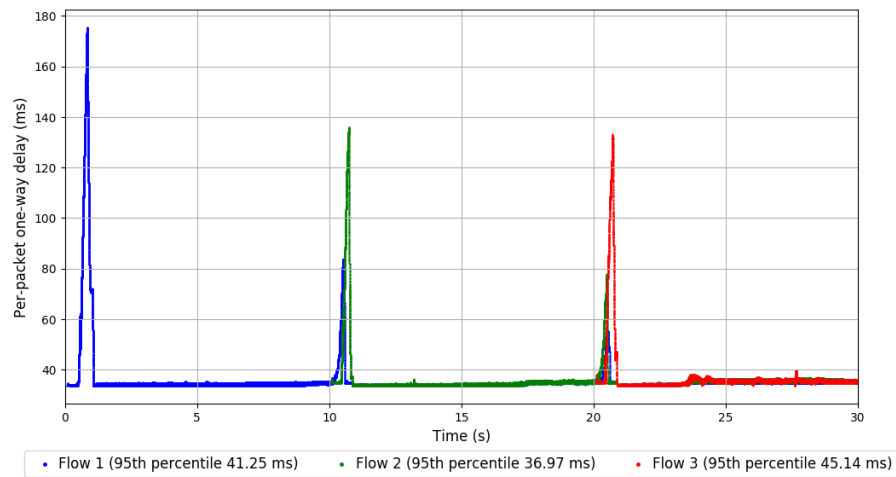
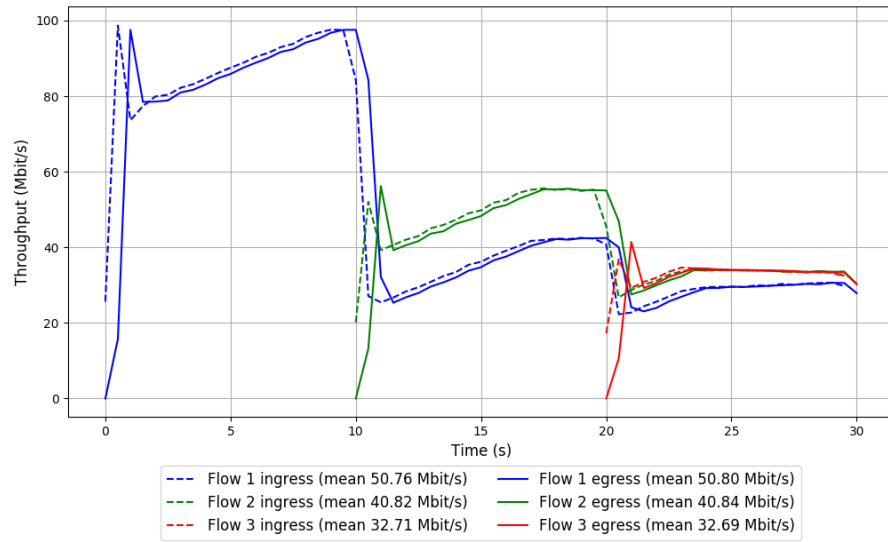


Run 4: Statistics of TCP Vegas

Start at: 2018-11-30 16:31:40  
End at: 2018-11-30 16:32:10  
Local clock offset: 4.968 ms  
Remote clock offset: -1.108 ms

# Below is generated by plot.py at 2018-11-30 17:30:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.80 Mbit/s  
95th percentile per-packet one-way delay: 39.151 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 50.80 Mbit/s  
95th percentile per-packet one-way delay: 41.249 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 40.84 Mbit/s  
95th percentile per-packet one-way delay: 36.970 ms  
Loss rate: 0.28%  
-- Flow 3:  
Average throughput: 32.69 Mbit/s  
95th percentile per-packet one-way delay: 45.141 ms  
Loss rate: 0.70%

# Run 4: Report of TCP Vegas — Data Link

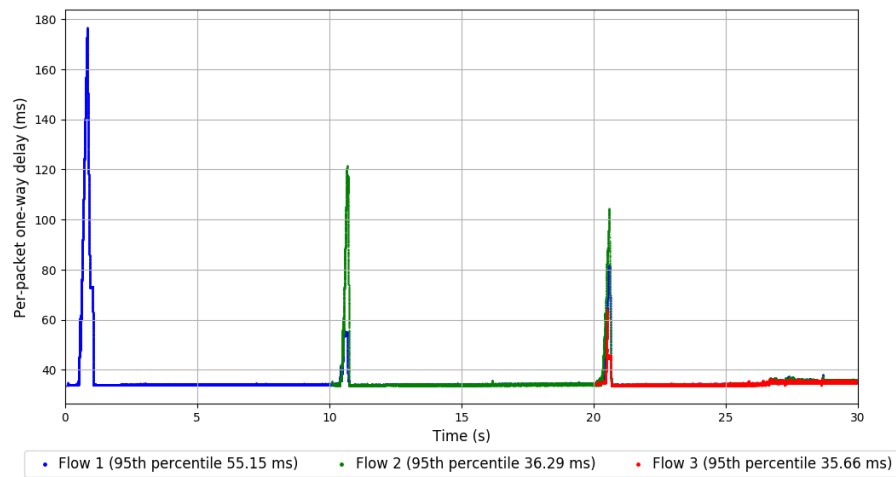
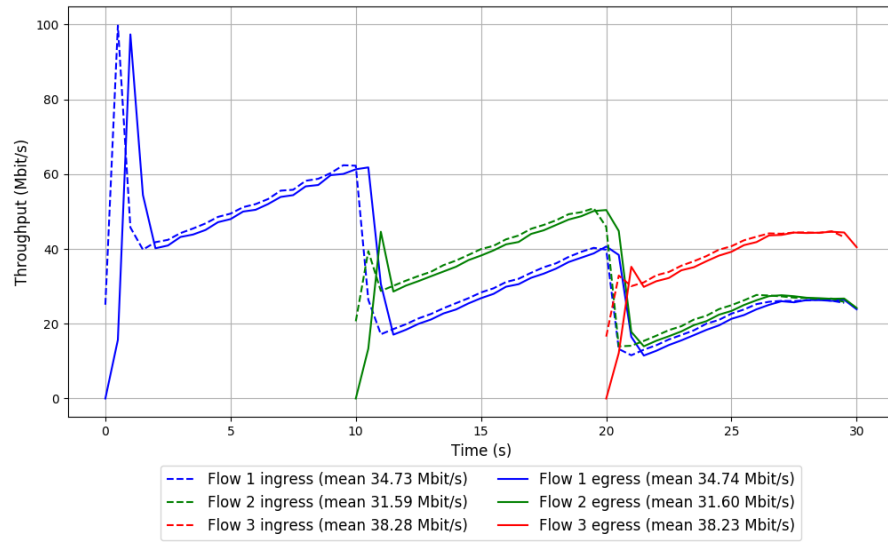


Run 5: Statistics of TCP Vegas

Start at: 2018-11-30 16:54:47  
End at: 2018-11-30 16:55:17  
Local clock offset: 3.851 ms  
Remote clock offset: -0.527 ms

# Below is generated by plot.py at 2018-11-30 17:30:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.42 Mbit/s  
95th percentile per-packet one-way delay: 41.078 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 34.74 Mbit/s  
95th percentile per-packet one-way delay: 55.150 ms  
Loss rate: 0.19%  
-- Flow 2:  
Average throughput: 31.60 Mbit/s  
95th percentile per-packet one-way delay: 36.289 ms  
Loss rate: 0.31%  
-- Flow 3:  
Average throughput: 38.23 Mbit/s  
95th percentile per-packet one-way delay: 35.662 ms  
Loss rate: 0.78%

## Run 5: Report of TCP Vegas — Data Link



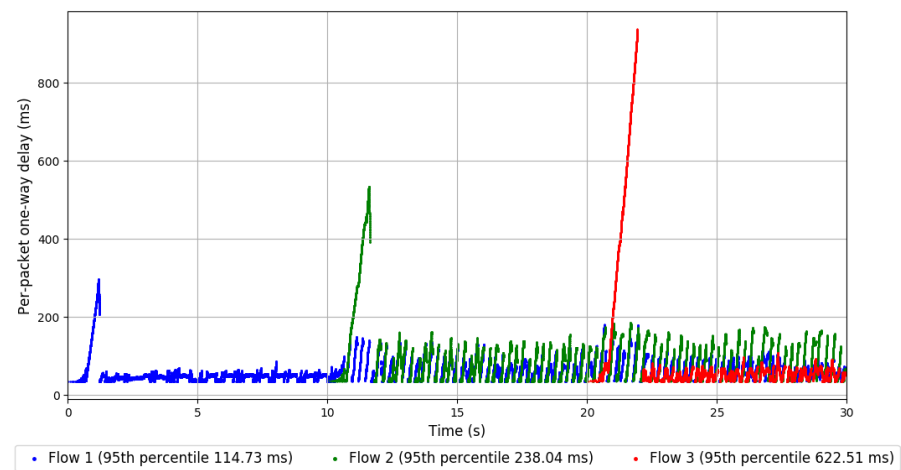
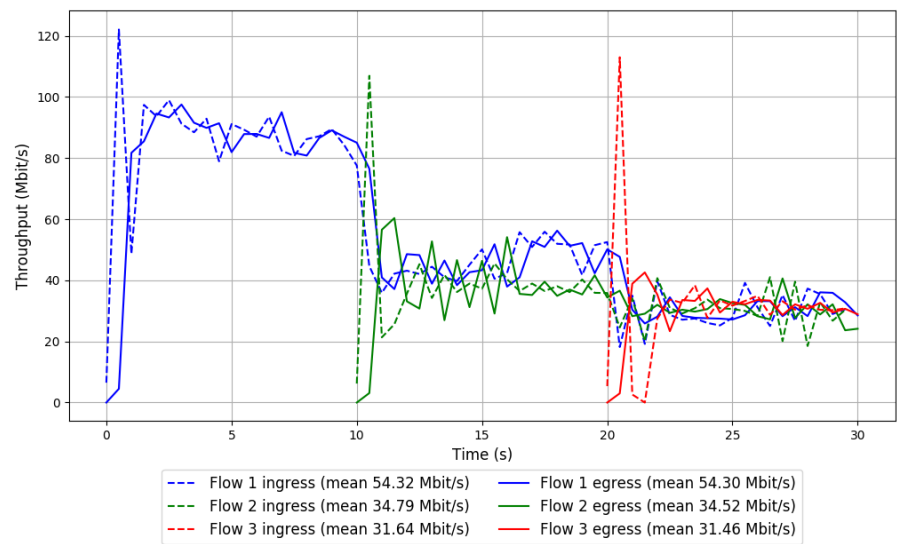


Run 1: Statistics of Verus

Start at: 2018-11-30 15:41:03  
End at: 2018-11-30 15:41:33  
Local clock offset: 0.599 ms  
Remote clock offset: -3.158 ms

# Below is generated by plot.py at 2018-11-30 17:30:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.65 Mbit/s  
95th percentile per-packet one-way delay: 159.464 ms  
Loss rate: 0.51%  
-- Flow 1:  
Average throughput: 54.30 Mbit/s  
95th percentile per-packet one-way delay: 114.729 ms  
Loss rate: 0.20%  
-- Flow 2:  
Average throughput: 34.52 Mbit/s  
95th percentile per-packet one-way delay: 238.043 ms  
Loss rate: 0.92%  
-- Flow 3:  
Average throughput: 31.46 Mbit/s  
95th percentile per-packet one-way delay: 622.512 ms  
Loss rate: 1.20%

Run 1: Report of Verus — Data Link

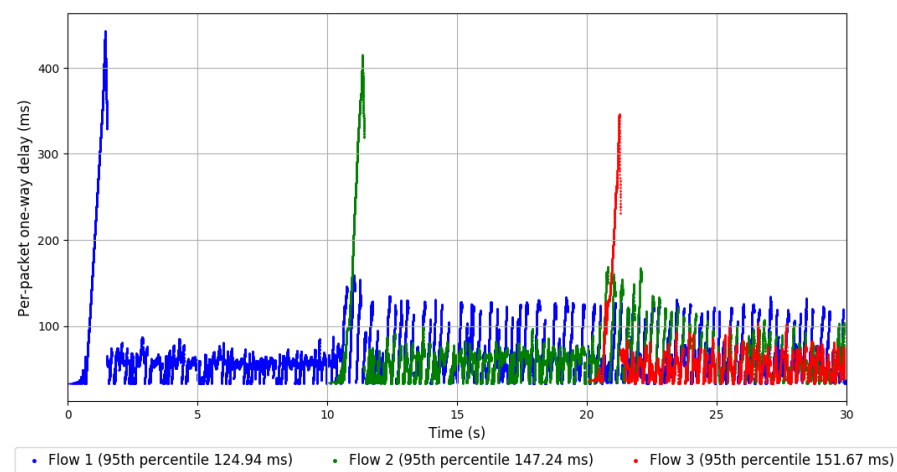
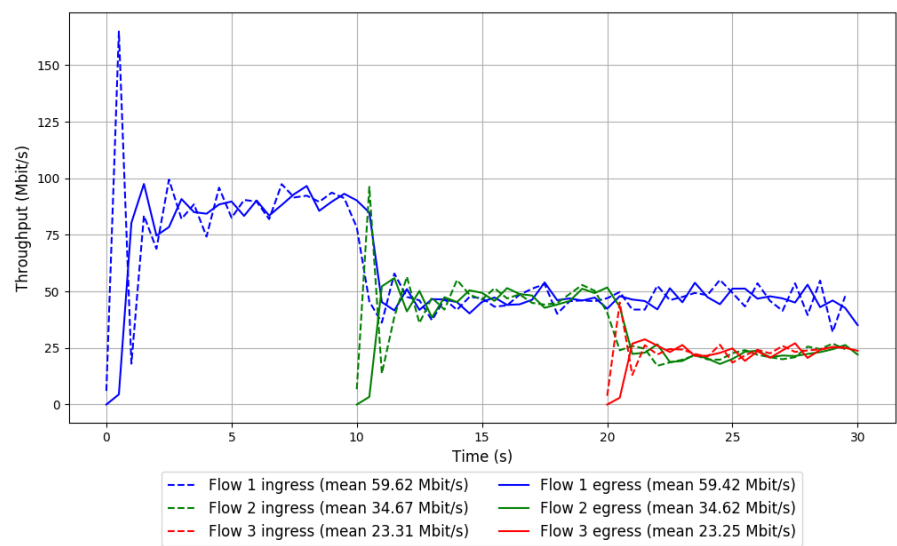


Run 2: Statistics of Verus

Start at: 2018-11-30 16:04:48  
End at: 2018-11-30 16:05:18  
Local clock offset: 3.732 ms  
Remote clock offset: -1.896 ms

# Below is generated by plot.py at 2018-11-30 17:30:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.10 Mbit/s  
95th percentile per-packet one-way delay: 128.278 ms  
Loss rate: 0.60%  
-- Flow 1:  
Average throughput: 59.42 Mbit/s  
95th percentile per-packet one-way delay: 124.944 ms  
Loss rate: 0.52%  
-- Flow 2:  
Average throughput: 34.62 Mbit/s  
95th percentile per-packet one-way delay: 147.240 ms  
Loss rate: 0.59%  
-- Flow 3:  
Average throughput: 23.25 Mbit/s  
95th percentile per-packet one-way delay: 151.670 ms  
Loss rate: 1.20%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-11-30 16:27:56

End at: 2018-11-30 16:28:26

Local clock offset: 4.821 ms

Remote clock offset: -1.23 ms

# Below is generated by plot.py at 2018-11-30 17:30:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.50 Mbit/s

95th percentile per-packet one-way delay: 142.248 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 50.63 Mbit/s

95th percentile per-packet one-way delay: 152.125 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 44.08 Mbit/s

95th percentile per-packet one-way delay: 91.263 ms

Loss rate: 0.71%

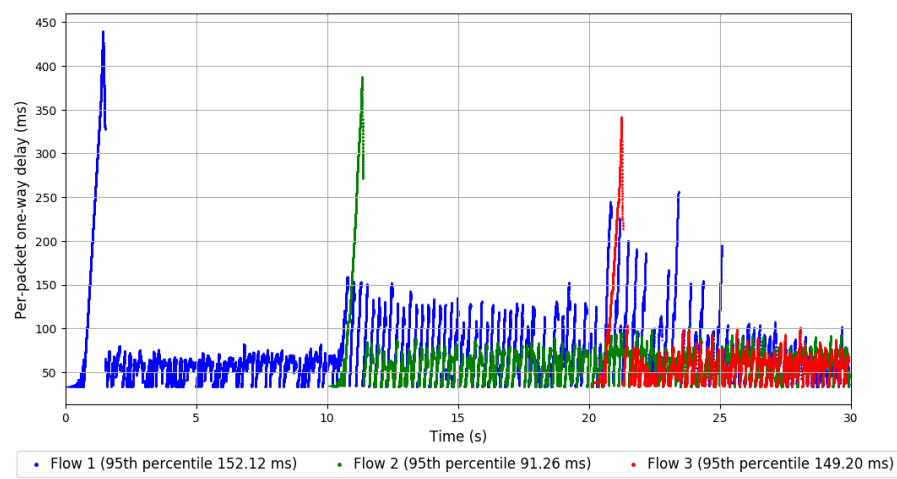
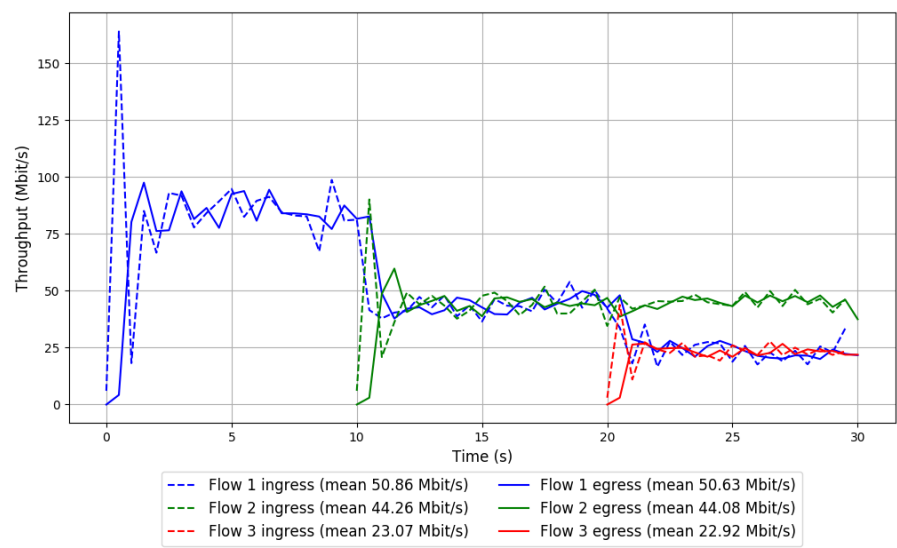
-- Flow 3:

Average throughput: 22.92 Mbit/s

95th percentile per-packet one-way delay: 149.204 ms

Loss rate: 1.50%

Run 3: Report of Verus — Data Link

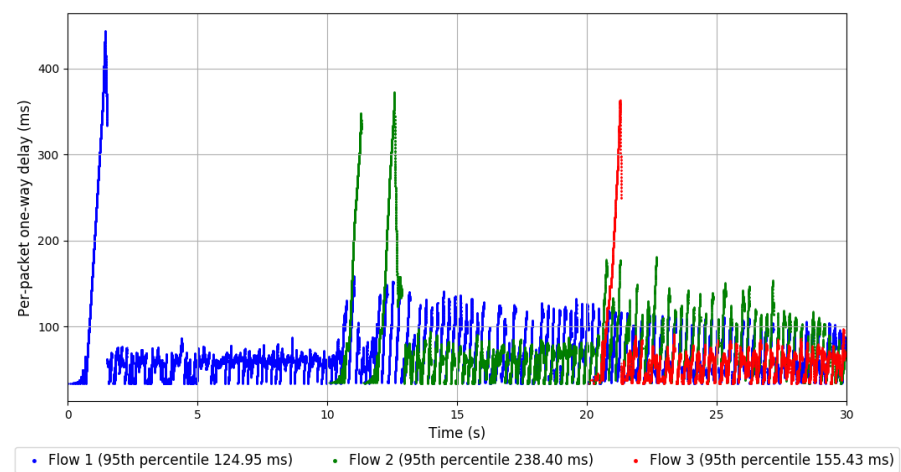
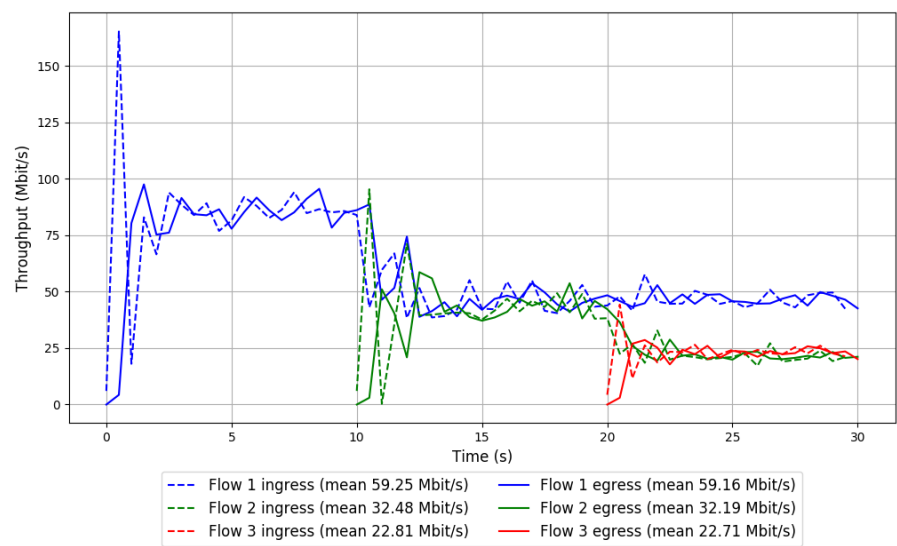


Run 4: Statistics of Verus

Start at: 2018-11-30 16:51:00  
End at: 2018-11-30 16:51:30  
Local clock offset: 4.281 ms  
Remote clock offset: -0.558 ms

# Below is generated by plot.py at 2018-11-30 17:30:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.08 Mbit/s  
95th percentile per-packet one-way delay: 149.142 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 59.16 Mbit/s  
95th percentile per-packet one-way delay: 124.954 ms  
Loss rate: 0.37%  
-- Flow 2:  
Average throughput: 32.19 Mbit/s  
95th percentile per-packet one-way delay: 238.400 ms  
Loss rate: 1.18%  
-- Flow 3:  
Average throughput: 22.71 Mbit/s  
95th percentile per-packet one-way delay: 155.425 ms  
Loss rate: 1.10%

Run 4: Report of Verus — Data Link





Run 5: Statistics of Verus

Start at: 2018-11-30 17:14:10

End at: 2018-11-30 17:14:40

Local clock offset: 3.117 ms

Remote clock offset: 2.28 ms

# Below is generated by plot.py at 2018-11-30 17:30:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.22 Mbit/s

95th percentile per-packet one-way delay: 151.156 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 52.78 Mbit/s

95th percentile per-packet one-way delay: 152.338 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 37.95 Mbit/s

95th percentile per-packet one-way delay: 102.241 ms

Loss rate: 1.07%

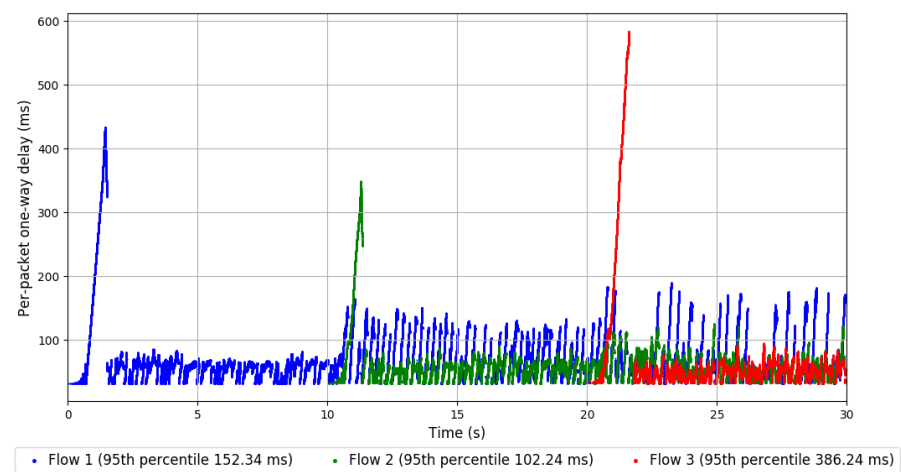
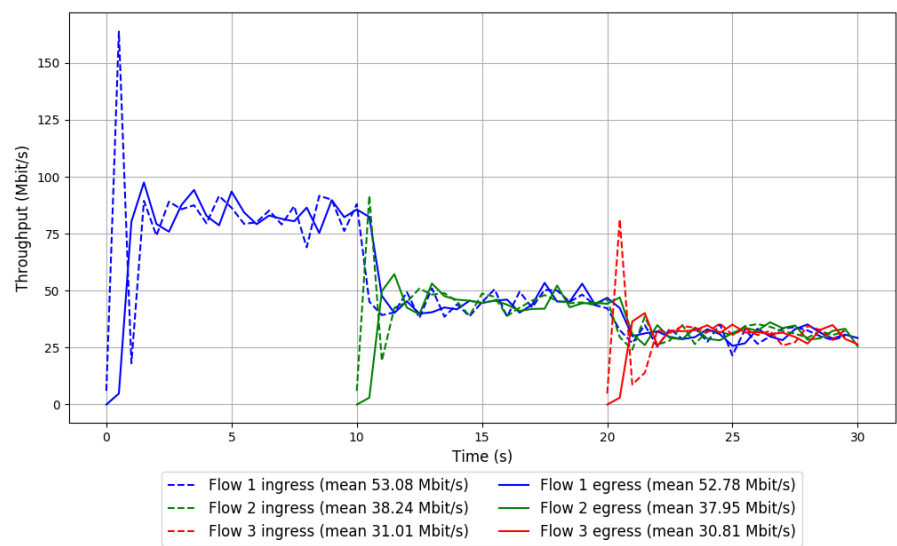
-- Flow 3:

Average throughput: 30.81 Mbit/s

95th percentile per-packet one-way delay: 386.242 ms

Loss rate: 1.26%

Run 5: Report of Verus — Data Link

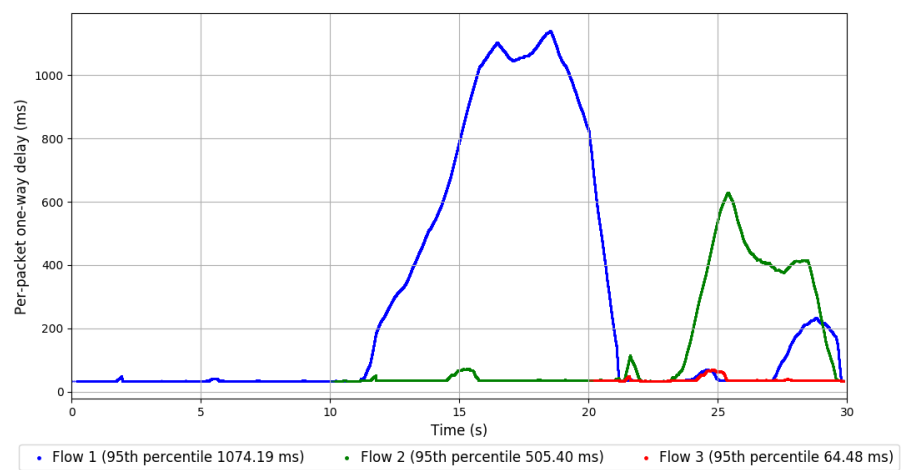
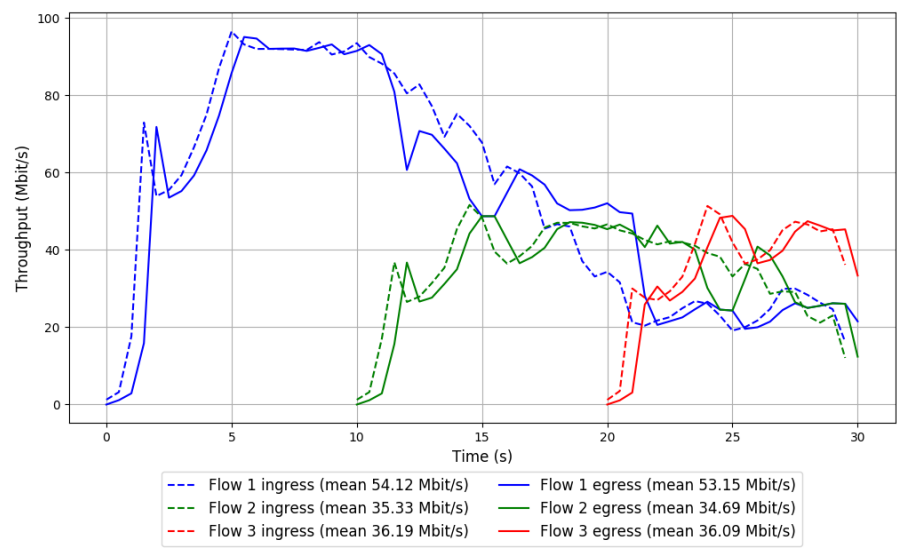


Run 1: Statistics of PCC-Vivace

Start at: 2018-11-30 15:37:31  
End at: 2018-11-30 15:38:01  
Local clock offset: 0.609 ms  
Remote clock offset: -3.196 ms

# Below is generated by plot.py at 2018-11-30 17:31:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.07 Mbit/s  
95th percentile per-packet one-way delay: 1054.070 ms  
Loss rate: 1.89%  
-- Flow 1:  
Average throughput: 53.15 Mbit/s  
95th percentile per-packet one-way delay: 1074.194 ms  
Loss rate: 2.01%  
-- Flow 2:  
Average throughput: 34.69 Mbit/s  
95th percentile per-packet one-way delay: 505.399 ms  
Loss rate: 2.11%  
-- Flow 3:  
Average throughput: 36.09 Mbit/s  
95th percentile per-packet one-way delay: 64.480 ms  
Loss rate: 0.95%

Run 1: Report of PCC-Vivace — Data Link

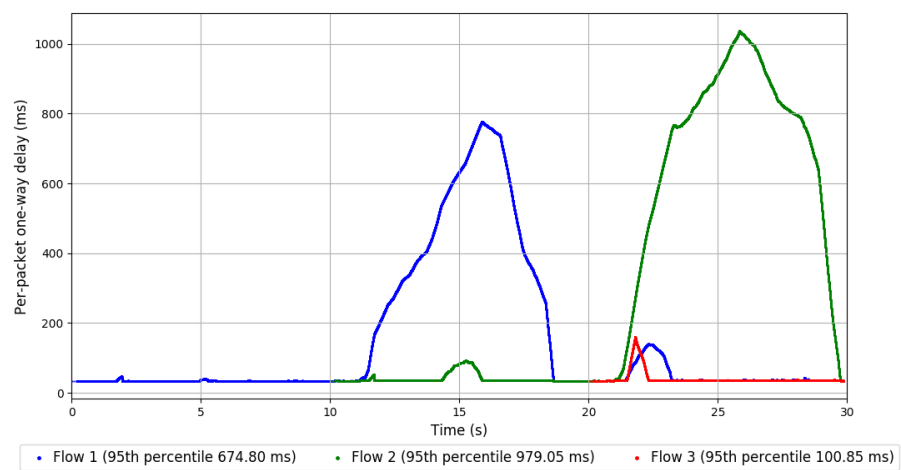
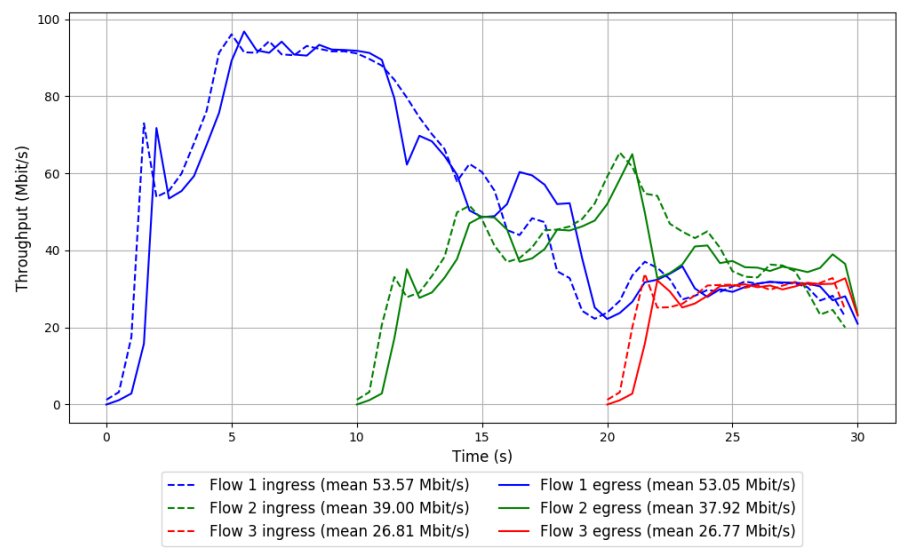


Run 2: Statistics of PCC-Vivace

Start at: 2018-11-30 16:01:10  
End at: 2018-11-30 16:01:40  
Local clock offset: 3.456 ms  
Remote clock offset: -2.391 ms

# Below is generated by plot.py at 2018-11-30 17:31:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.06 Mbit/s  
95th percentile per-packet one-way delay: 811.968 ms  
Loss rate: 1.70%  
-- Flow 1:  
Average throughput: 53.05 Mbit/s  
95th percentile per-packet one-way delay: 674.797 ms  
Loss rate: 1.18%  
-- Flow 2:  
Average throughput: 37.92 Mbit/s  
95th percentile per-packet one-way delay: 979.055 ms  
Loss rate: 3.06%  
-- Flow 3:  
Average throughput: 26.77 Mbit/s  
95th percentile per-packet one-way delay: 100.848 ms  
Loss rate: 0.82%

Run 2: Report of PCC-Vivace — Data Link

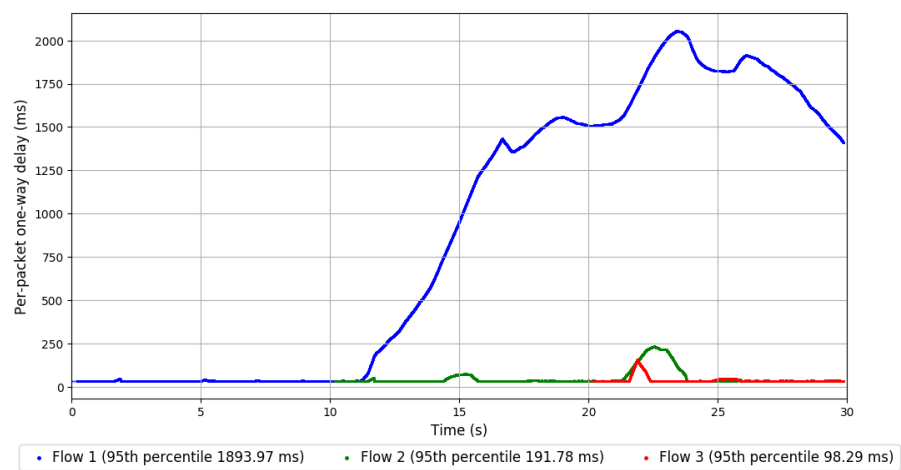
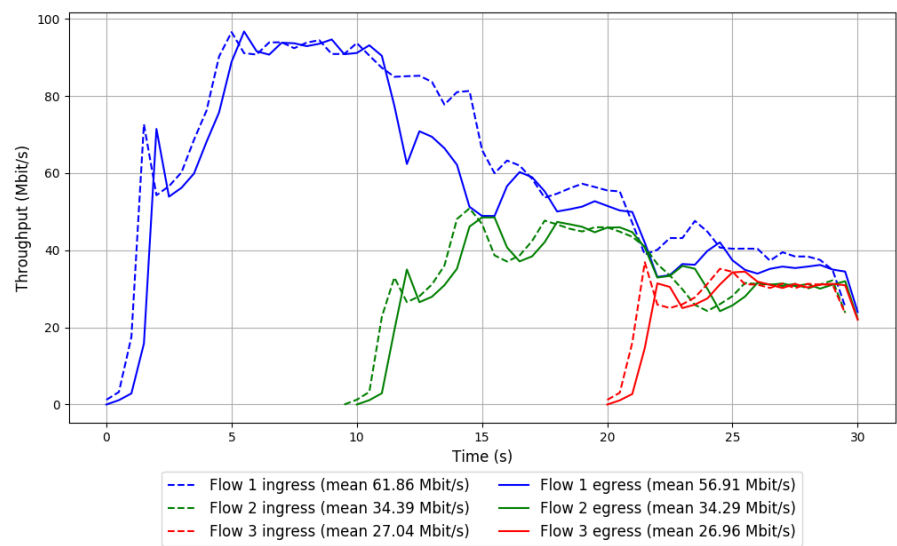


Run 3: Statistics of PCC-Vivace

Start at: 2018-11-30 16:24:24  
End at: 2018-11-30 16:24:54  
Local clock offset: 4.705 ms  
Remote clock offset: -1.287 ms

# Below is generated by plot.py at 2018-11-30 17:31:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.57 Mbit/s  
95th percentile per-packet one-way delay: 1841.027 ms  
Loss rate: 5.66%  
-- Flow 1:  
Average throughput: 56.91 Mbit/s  
95th percentile per-packet one-way delay: 1893.967 ms  
Loss rate: 8.20%  
-- Flow 2:  
Average throughput: 34.29 Mbit/s  
95th percentile per-packet one-way delay: 191.782 ms  
Loss rate: 0.62%  
-- Flow 3:  
Average throughput: 26.96 Mbit/s  
95th percentile per-packet one-way delay: 98.288 ms  
Loss rate: 0.97%

Run 3: Report of PCC-Vivace — Data Link





Run 4: Statistics of PCC-Vivace

Start at: 2018-11-30 16:47:28

End at: 2018-11-30 16:47:58

Local clock offset: 4.883 ms

Remote clock offset: -0.67 ms

# Below is generated by plot.py at 2018-11-30 17:31:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.75 Mbit/s

95th percentile per-packet one-way delay: 2147.511 ms

Loss rate: 3.85%

-- Flow 1:

Average throughput: 50.77 Mbit/s

95th percentile per-packet one-way delay: 2609.797 ms

Loss rate: 5.65%

-- Flow 2:

Average throughput: 43.62 Mbit/s

95th percentile per-packet one-way delay: 356.516 ms

Loss rate: 1.03%

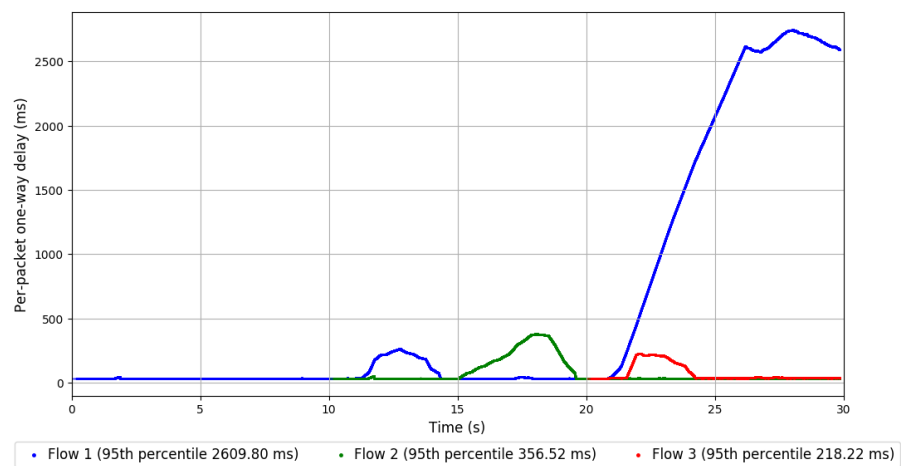
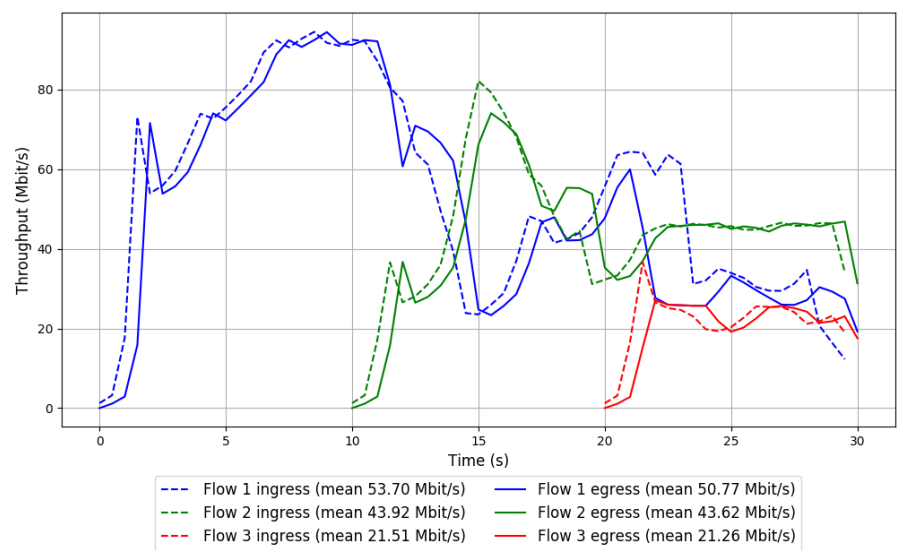
-- Flow 3:

Average throughput: 21.26 Mbit/s

95th percentile per-packet one-way delay: 218.220 ms

Loss rate: 1.78%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-11-30 17:10:37

End at: 2018-11-30 17:11:07

Local clock offset: 3.17 ms

Remote clock offset: 2.212 ms

# Below is generated by plot.py at 2018-11-30 17:31:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.56 Mbit/s

95th percentile per-packet one-way delay: 1109.056 ms

Loss rate: 2.61%

-- Flow 1:

Average throughput: 52.80 Mbit/s

95th percentile per-packet one-way delay: 1141.765 ms

Loss rate: 3.81%

-- Flow 2:

Average throughput: 40.92 Mbit/s

95th percentile per-packet one-way delay: 76.537 ms

Loss rate: 0.46%

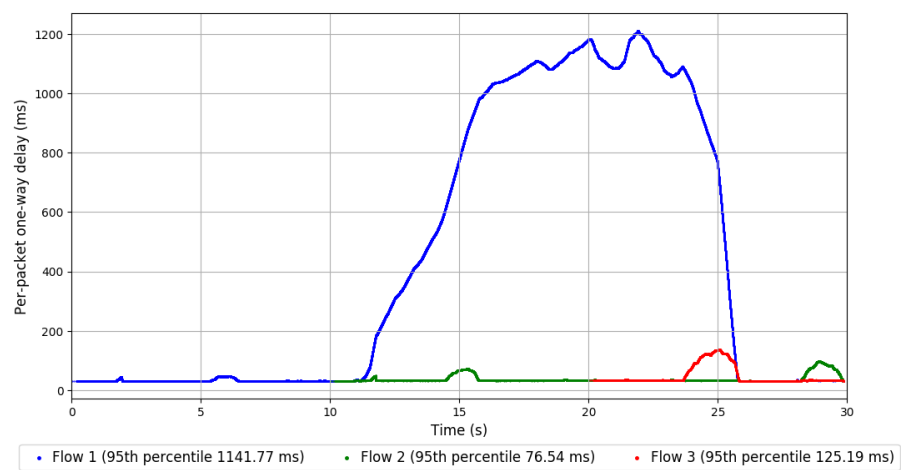
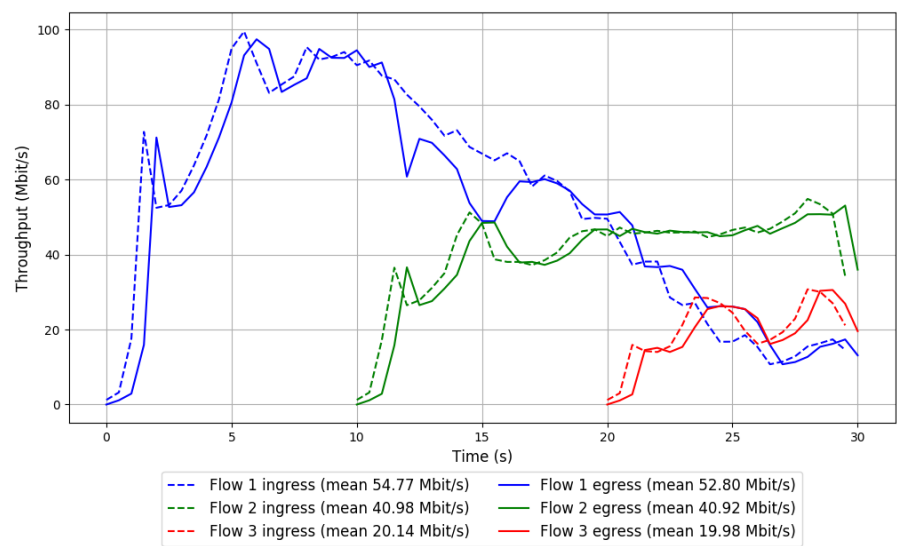
-- Flow 3:

Average throughput: 19.98 Mbit/s

95th percentile per-packet one-way delay: 125.185 ms

Loss rate: 1.52%

Run 5: Report of PCC-Vivace — Data Link

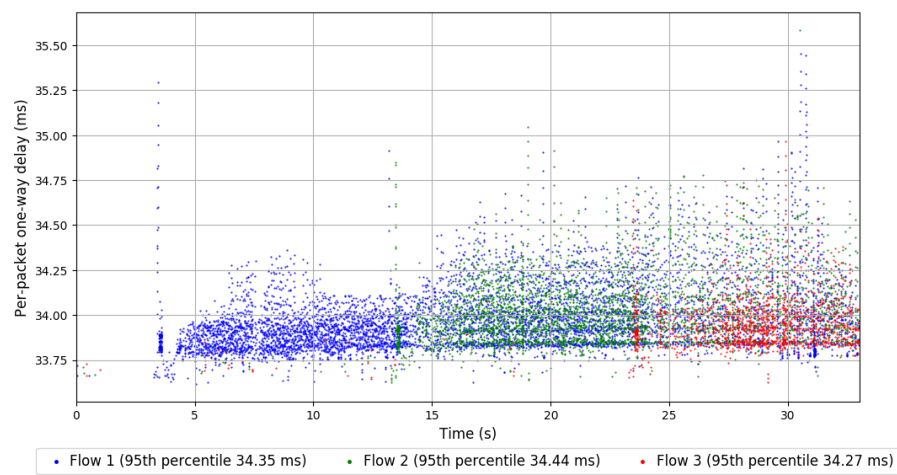
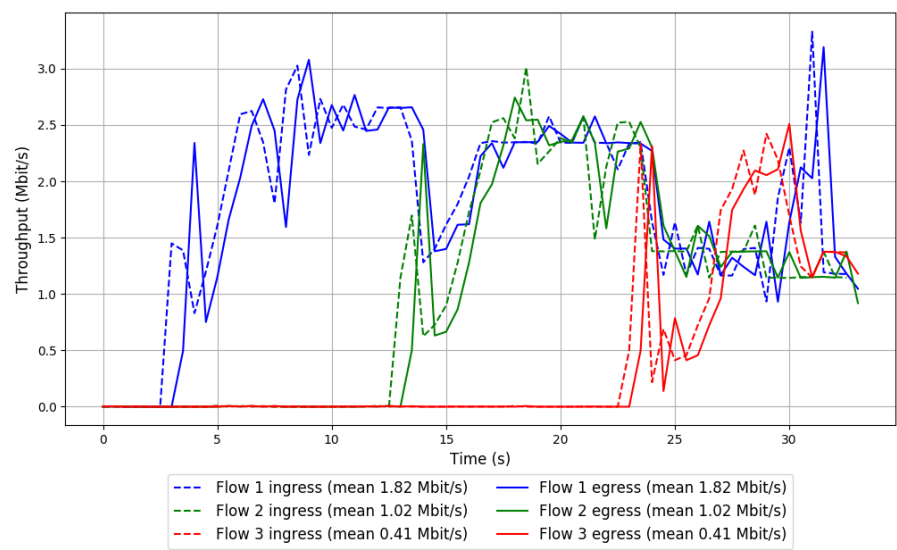


Run 1: Statistics of WebRTC media

Start at: 2018-11-30 15:36:22  
End at: 2018-11-30 15:36:52  
Local clock offset: 0.626 ms  
Remote clock offset: -3.301 ms

# Below is generated by plot.py at 2018-11-30 17:31:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.24 Mbit/s  
95th percentile per-packet one-way delay: 34.369 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 1.82 Mbit/s  
95th percentile per-packet one-way delay: 34.348 ms  
Loss rate: 0.11%  
-- Flow 2:  
Average throughput: 1.02 Mbit/s  
95th percentile per-packet one-way delay: 34.444 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 0.41 Mbit/s  
95th percentile per-packet one-way delay: 34.275 ms  
Loss rate: 0.84%

Run 1: Report of WebRTC media — Data Link

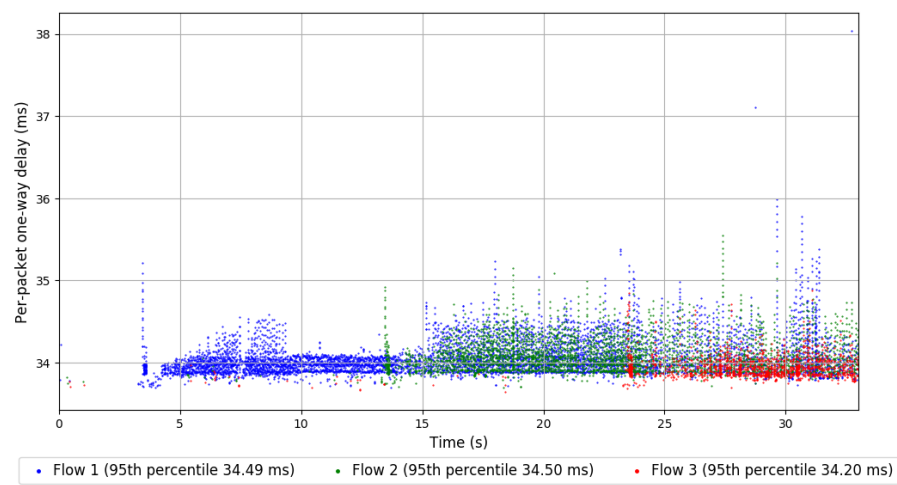
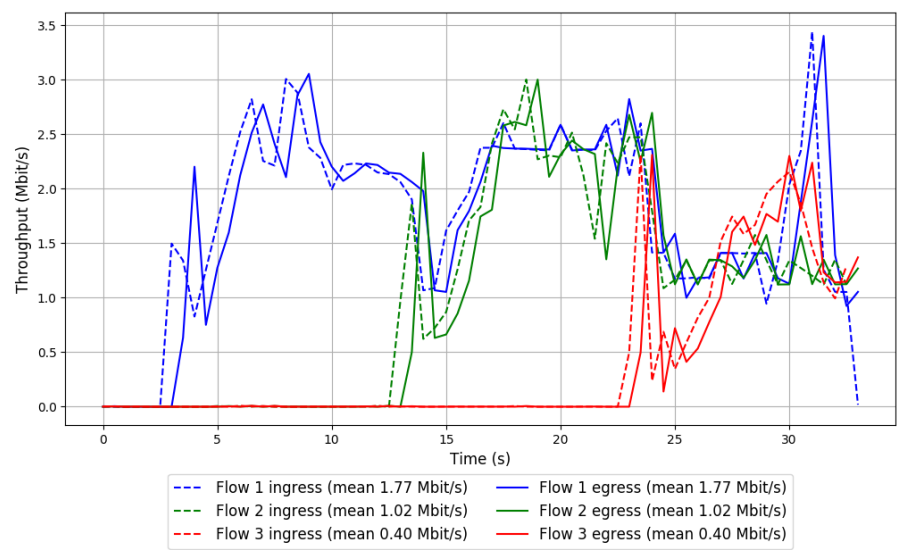


Run 2: Statistics of WebRTC media

Start at: 2018-11-30 16:00:01  
End at: 2018-11-30 16:00:31  
Local clock offset: 3.356 ms  
Remote clock offset: -2.375 ms

# Below is generated by plot.py at 2018-11-30 17:31:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.17 Mbit/s  
95th percentile per-packet one-way delay: 34.479 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 1.77 Mbit/s  
95th percentile per-packet one-way delay: 34.489 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 1.02 Mbit/s  
95th percentile per-packet one-way delay: 34.501 ms  
Loss rate: 0.11%  
-- Flow 3:  
Average throughput: 0.40 Mbit/s  
95th percentile per-packet one-way delay: 34.203 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



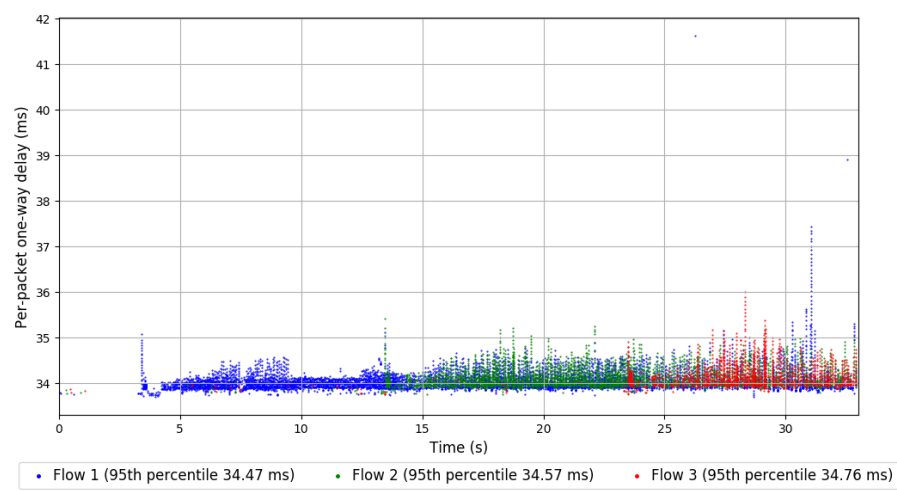
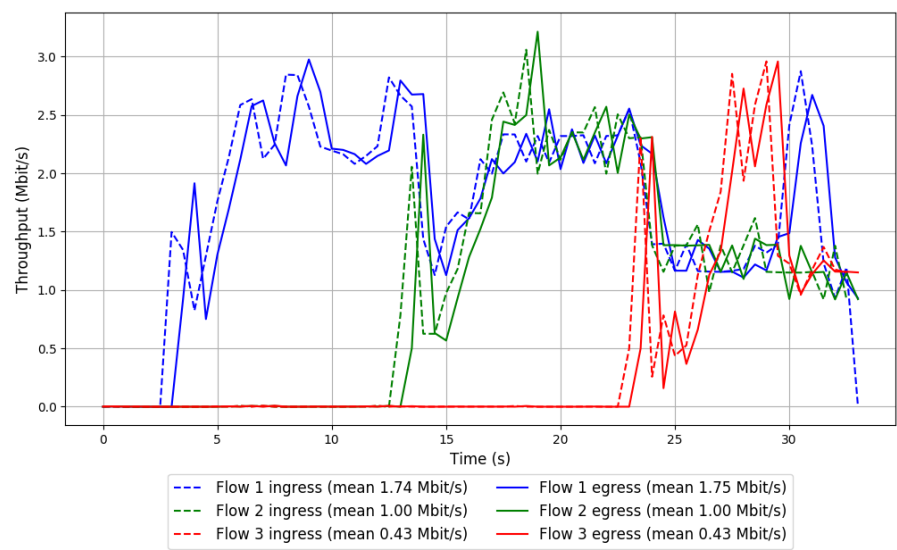


Run 3: Statistics of WebRTC media

Start at: 2018-11-30 16:23:15  
End at: 2018-11-30 16:23:45  
Local clock offset: 4.647 ms  
Remote clock offset: -1.528 ms

# Below is generated by plot.py at 2018-11-30 17:31:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.16 Mbit/s  
95th percentile per-packet one-way delay: 34.551 ms  
Loss rate: 0.35%  
-- Flow 1:  
Average throughput: 1.75 Mbit/s  
95th percentile per-packet one-way delay: 34.466 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 1.00 Mbit/s  
95th percentile per-packet one-way delay: 34.570 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 34.755 ms  
Loss rate: 0.82%

Run 3: Report of WebRTC media — Data Link

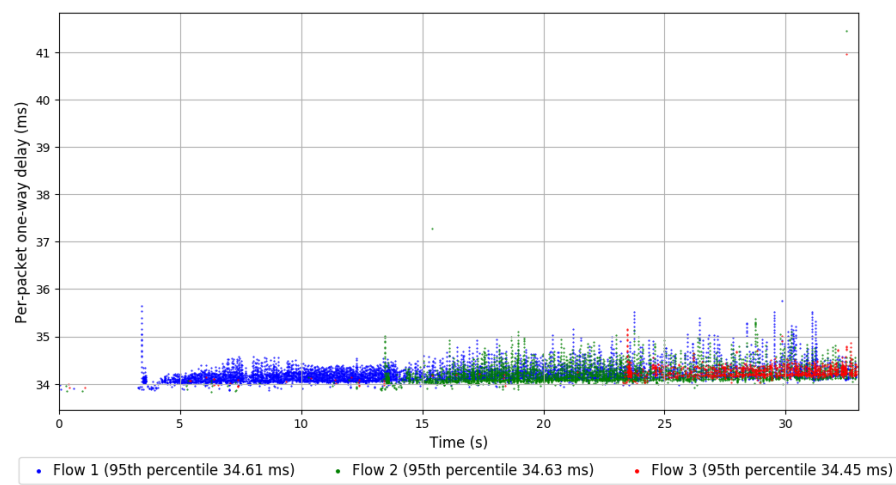
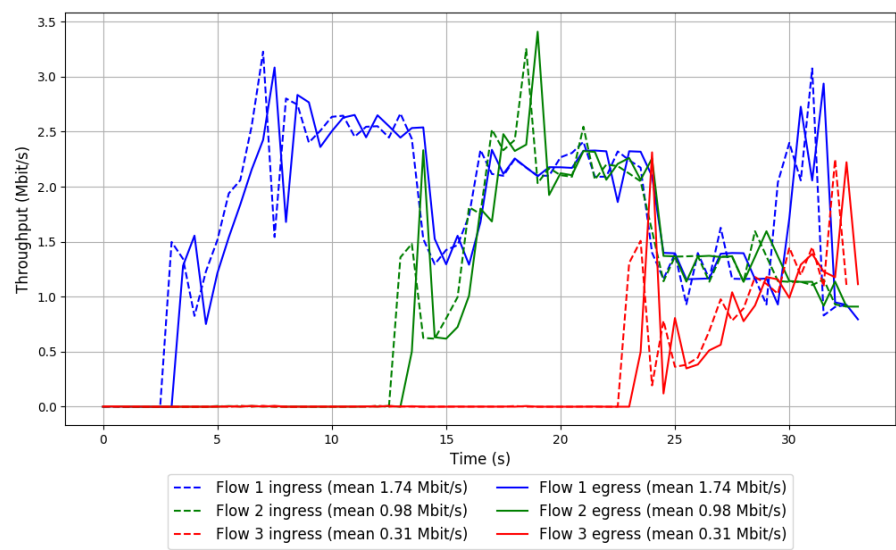


Run 4: Statistics of WebRTC media

Start at: 2018-11-30 16:46:20  
End at: 2018-11-30 16:46:50  
Local clock offset: 5.119 ms  
Remote clock offset: -0.858 ms

# Below is generated by plot.py at 2018-11-30 17:31:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.02 Mbit/s  
95th percentile per-packet one-way delay: 34.609 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 1.74 Mbit/s  
95th percentile per-packet one-way delay: 34.609 ms  
Loss rate: 0.11%  
-- Flow 2:  
Average throughput: 0.98 Mbit/s  
95th percentile per-packet one-way delay: 34.634 ms  
Loss rate: 0.36%  
-- Flow 3:  
Average throughput: 0.31 Mbit/s  
95th percentile per-packet one-way delay: 34.449 ms  
Loss rate: 0.74%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-11-30 17:09:29

End at: 2018-11-30 17:09:59

Local clock offset: 3.198 ms

Remote clock offset: 2.201 ms

# Below is generated by plot.py at 2018-11-30 17:31:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 31.960 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 31.958 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 31.864 ms

Loss rate: 0.17%

-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 32.142 ms

Loss rate: 0.00%

## Run 5: Report of WebRTC media — Data Link

