

## Pantheon Report

Generated at 2018-09-25 21:01:08 (UTC).

Data path: Colombia on **p4p1** (*remote*) → AWS Brazil 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 **gps.ntp.br** and have been applied to correct the timestamps in logs.

### System info:

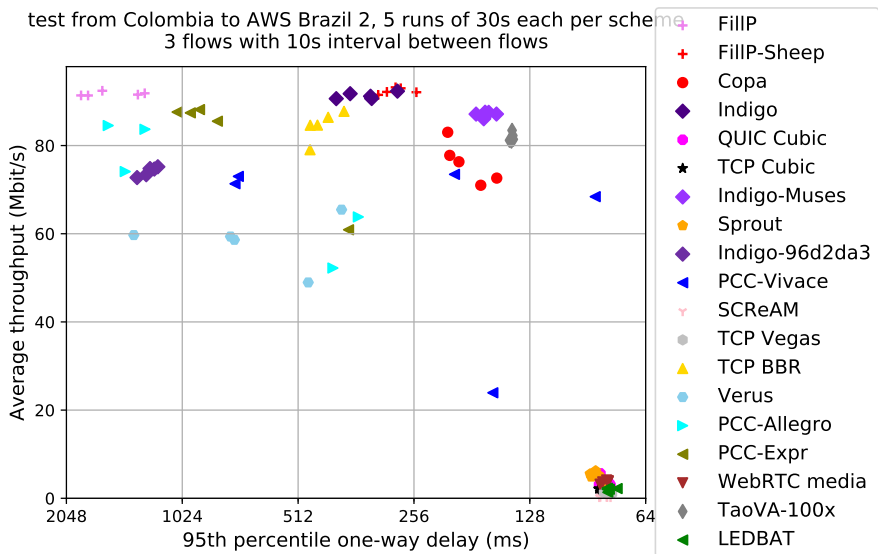
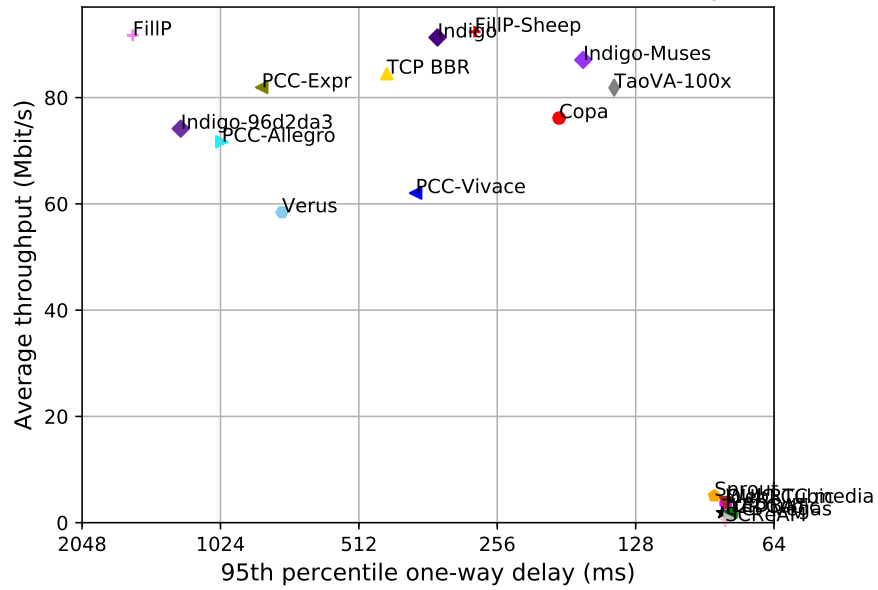
```
Linux 4.15.0-1021-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 184101 245469 368202
```

### Git summary:

```
branch: muses @ 90192f6b64ce1a1191dcca0e9ff9ee24950674d7
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ cbfce6db5ff5740dafe1771f813cd646339e1952
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
```

test from Colombia to AWS Brazil 2, 5 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



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	50.78	36.61	28.58	377.12	445.54	524.21	4.24	7.16	8.25
Copa	5	48.68	27.48	28.01	194.55	102.77	134.72	2.64	2.67	3.79
TCP Cubic	5	0.88	1.03	0.89	82.05	81.52	81.38	1.89	2.20	3.07
FillP	5	56.75	38.13	29.45	850.30	1008.15	1827.86	7.70	27.43	49.99
FillP-Sheep	5	57.04	38.39	30.16	282.46	229.75	460.06	2.86	4.04	5.42
Indigo	5	56.54	38.19	29.06	366.21	139.19	141.92	8.31	3.27	5.05
Indigo-96d2da3	5	43.37	32.45	28.21	1241.47	1296.51	1167.29	24.61	37.91	37.02
LEDBAT	5	1.07	0.98	0.87	78.21	78.31	79.93	2.25	3.11	5.31
Indigo-Muses	5	54.31	36.97	25.16	167.77	148.86	183.27	2.93	3.40	4.81
PCC-Allegro	5	46.36	28.62	19.38	869.23	432.38	808.64	11.85	7.22	12.53
PCC-Expr	5	51.47	34.32	23.58	781.11	647.46	232.49	18.57	9.83	3.99
QUIC Cubic	5	1.82	1.61	2.46	81.14	79.93	80.72	2.36	2.62	2.91
SCReAM	5	0.14	0.15	0.18	80.83	81.27	80.37	1.25	1.67	2.43
Sprout	5	3.09	2.02	1.97	86.12	85.68	83.91	2.71	3.03	3.74
TaoVA-100x	5	48.30	36.05	29.19	138.07	151.53	139.61	2.14	2.68	3.92
TCP Vegas	5	0.70	0.65	0.79	78.79	79.28	78.98	2.55	2.74	3.07
Verus	5	34.15	26.28	21.06	471.70	938.73	1171.29	11.41	12.35	10.08
PCC-Vivace	5	46.47	15.11	16.98	373.73	119.90	122.15	4.07	4.59	4.53
WebRTC media	5	2.23	1.18	0.37	81.17	80.29	80.38	2.03	2.08	4.11



Run 1: Statistics of TCP BBR

Start at: 2018-09-25 17:01:32

End at: 2018-09-25 17:02:02

Local clock offset: -8.415 ms

Remote clock offset: 1.84 ms

# Below is generated by plot.py at 2018-09-25 20:52:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.61 Mbit/s

95th percentile per-packet one-way delay: 476.168 ms

Loss rate: 5.20%

-- Flow 1:

Average throughput: 51.36 Mbit/s

95th percentile per-packet one-way delay: 462.941 ms

Loss rate: 3.62%

-- Flow 2:

Average throughput: 36.35 Mbit/s

95th percentile per-packet one-way delay: 540.661 ms

Loss rate: 7.56%

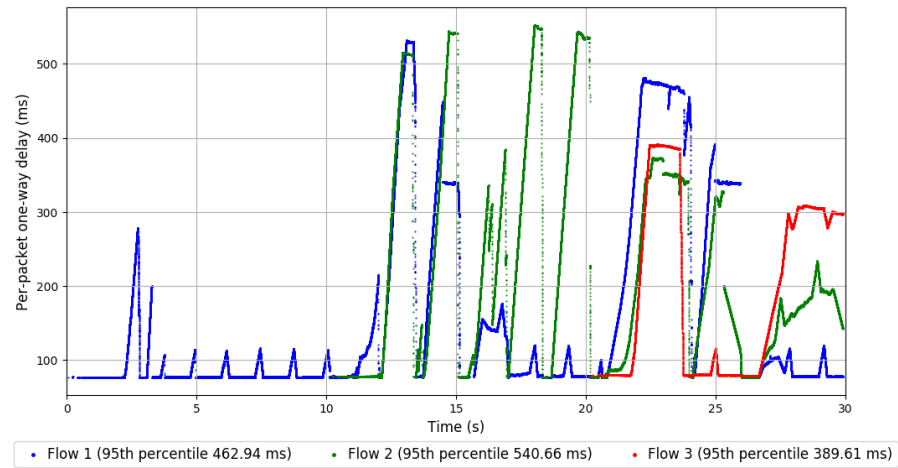
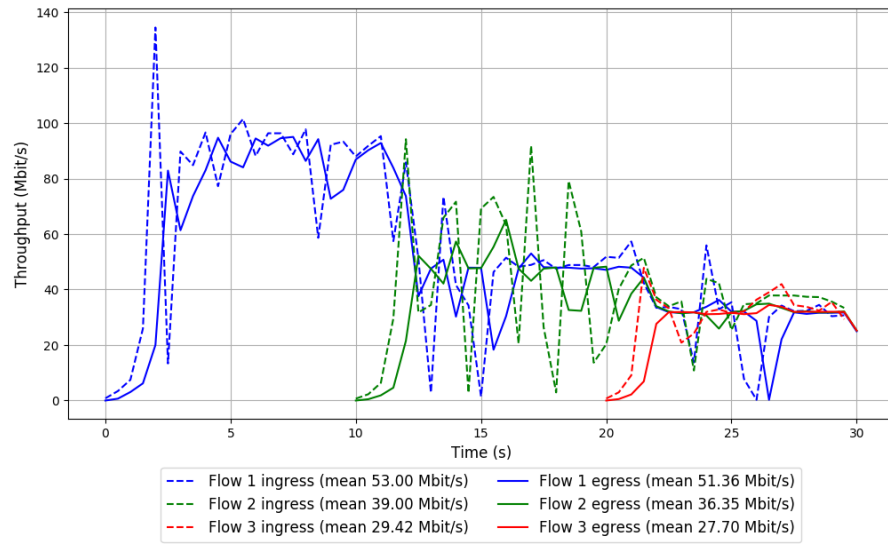
-- Flow 3:

Average throughput: 27.70 Mbit/s

95th percentile per-packet one-way delay: 389.614 ms

Loss rate: 7.42%

# Run 1: Report of TCP BBR — Data Link

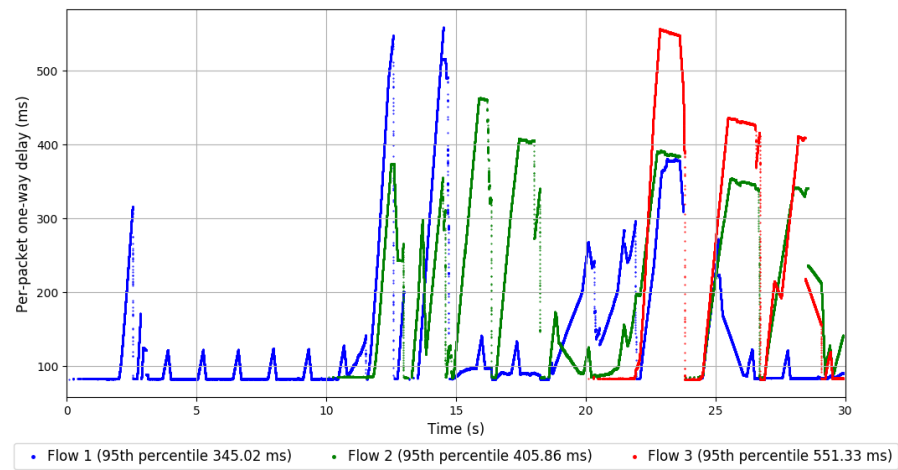
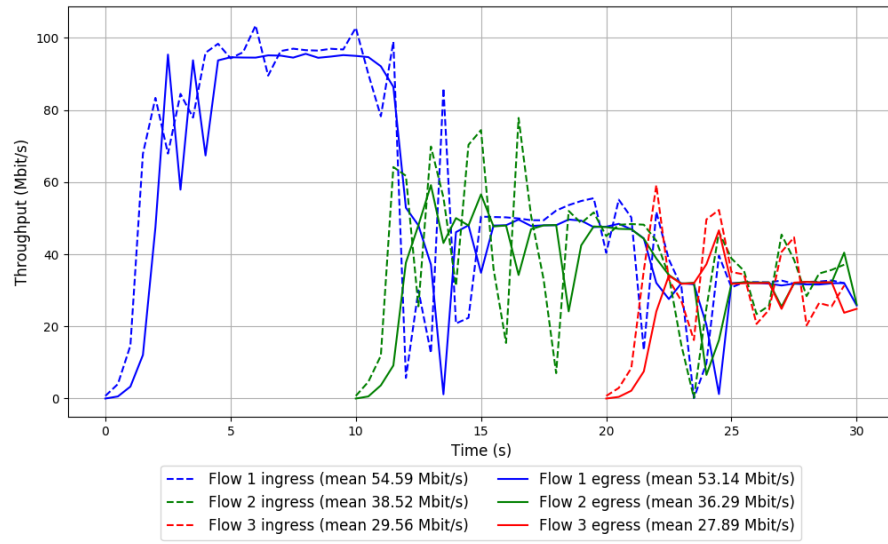


Run 2: Statistics of TCP BBR

Start at: 2018-09-25 17:52:13  
End at: 2018-09-25 17:52:43  
Local clock offset: -2.967 ms  
Remote clock offset: -4.128 ms

# Below is generated by plot.py at 2018-09-25 20:52:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.41 Mbit/s  
95th percentile per-packet one-way delay: 427.690 ms  
Loss rate: 4.59%  
-- Flow 1:  
Average throughput: 53.14 Mbit/s  
95th percentile per-packet one-way delay: 345.016 ms  
Loss rate: 3.18%  
-- Flow 2:  
Average throughput: 36.29 Mbit/s  
95th percentile per-packet one-way delay: 405.856 ms  
Loss rate: 6.58%  
-- Flow 3:  
Average throughput: 27.89 Mbit/s  
95th percentile per-packet one-way delay: 551.334 ms  
Loss rate: 7.20%

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



Run 3: Statistics of TCP BBR

Start at: 2018-09-25 18:41:54

End at: 2018-09-25 18:42:24

Local clock offset: -3.336 ms

Remote clock offset: 0.755 ms

# Below is generated by plot.py at 2018-09-25 20:52:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.05 Mbit/s

95th percentile per-packet one-way delay: 476.755 ms

Loss rate: 7.18%

-- Flow 1:

Average throughput: 44.25 Mbit/s

95th percentile per-packet one-way delay: 295.821 ms

Loss rate: 5.74%

-- Flow 2:

Average throughput: 38.42 Mbit/s

95th percentile per-packet one-way delay: 399.635 ms

Loss rate: 8.31%

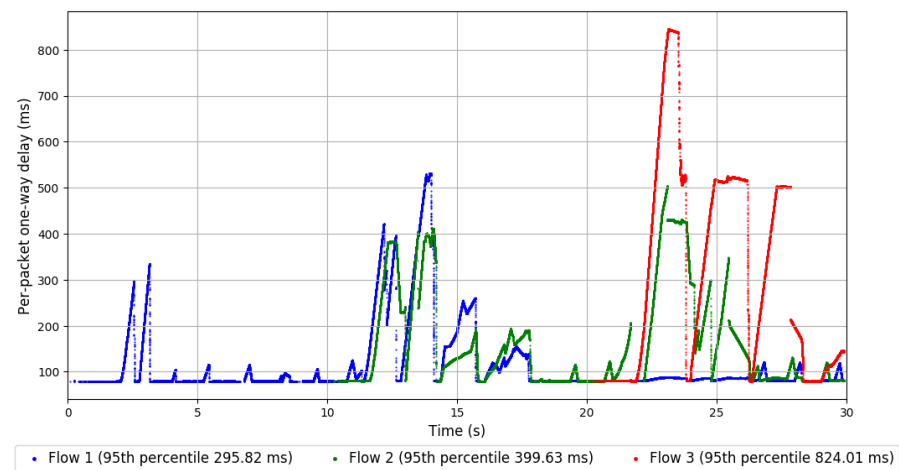
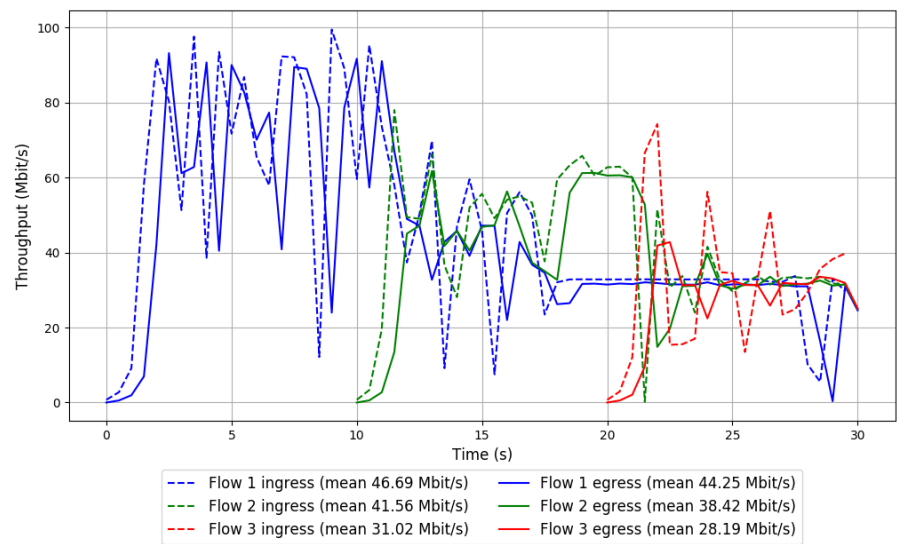
-- Flow 3:

Average throughput: 28.19 Mbit/s

95th percentile per-packet one-way delay: 824.011 ms

Loss rate: 10.64%

Run 3: Report of TCP BBR — Data Link

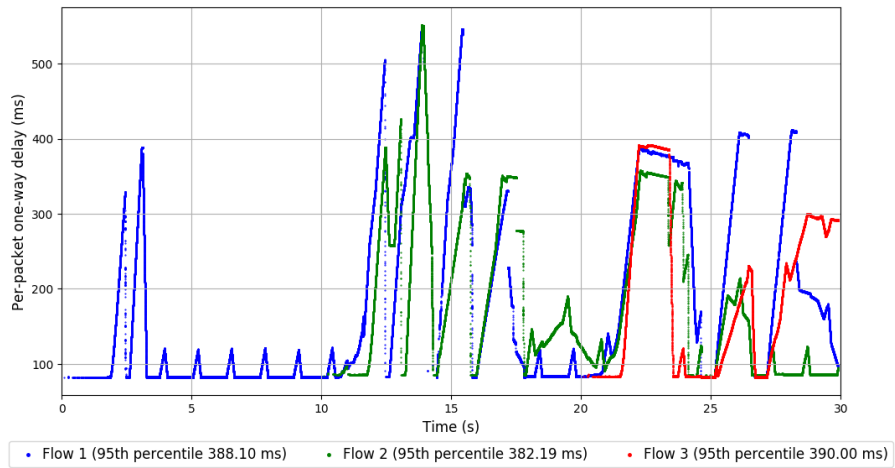
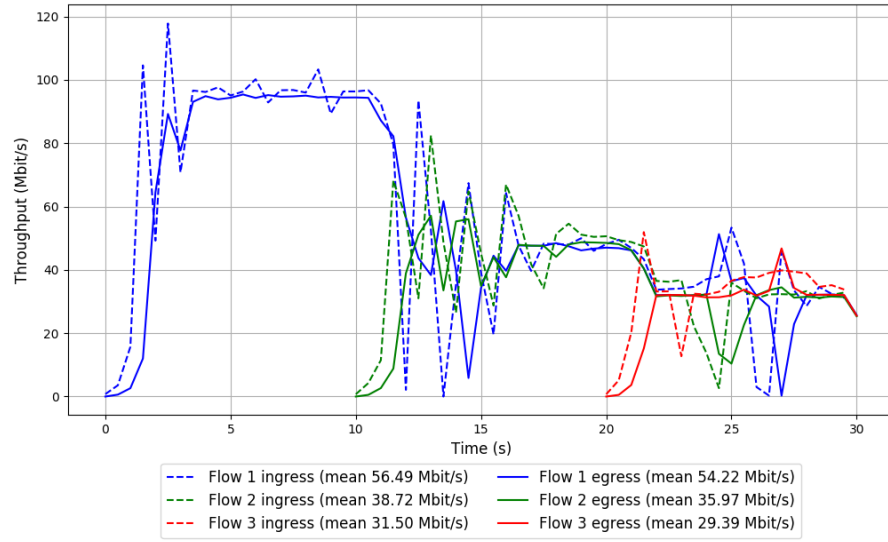


Run 4: Statistics of TCP BBR

Start at: 2018-09-25 19:34:56  
End at: 2018-09-25 19:35:26  
Local clock offset: -2.401 ms  
Remote clock offset: -4.542 ms

# Below is generated by plot.py at 2018-09-25 20:52:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.76 Mbit/s  
95th percentile per-packet one-way delay: 389.053 ms  
Loss rate: 5.89%  
-- Flow 1:  
Average throughput: 54.22 Mbit/s  
95th percentile per-packet one-way delay: 388.104 ms  
Loss rate: 4.55%  
-- Flow 2:  
Average throughput: 35.97 Mbit/s  
95th percentile per-packet one-way delay: 382.187 ms  
Loss rate: 7.87%  
-- Flow 3:  
Average throughput: 29.39 Mbit/s  
95th percentile per-packet one-way delay: 390.001 ms  
Loss rate: 8.23%

# Run 4: Report of TCP BBR — Data Link



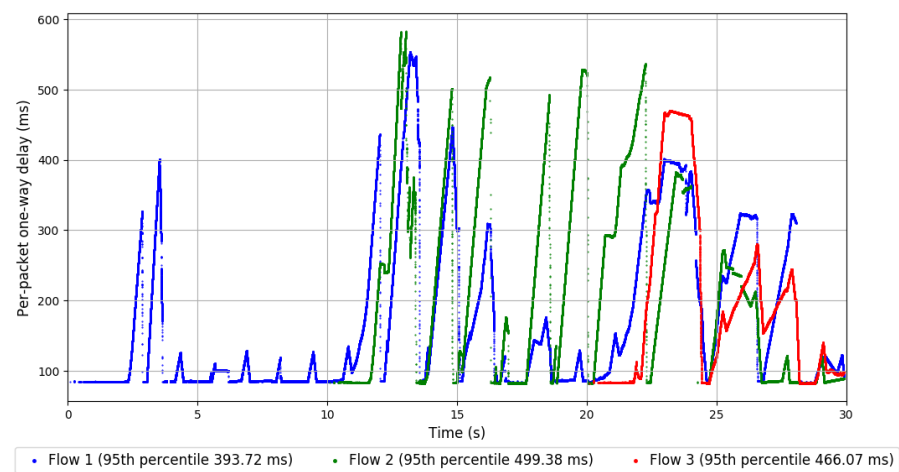
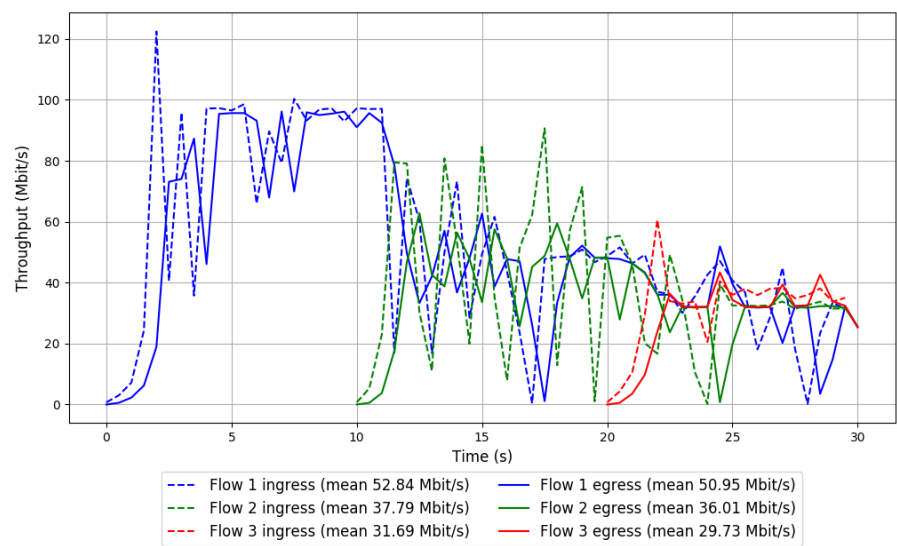


Run 5: Statistics of TCP BBR

Start at: 2018-09-25 20:24:54  
End at: 2018-09-25 20:25:24  
Local clock offset: -11.599 ms  
Remote clock offset: -4.181 ms

# Below is generated by plot.py at 2018-09-25 20:52:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.64 Mbit/s  
95th percentile per-packet one-way delay: 456.015 ms  
Loss rate: 4.95%  
-- Flow 1:  
Average throughput: 50.95 Mbit/s  
95th percentile per-packet one-way delay: 393.721 ms  
Loss rate: 4.13%  
-- Flow 2:  
Average throughput: 36.01 Mbit/s  
95th percentile per-packet one-way delay: 499.383 ms  
Loss rate: 5.50%  
-- Flow 3:  
Average throughput: 29.73 Mbit/s  
95th percentile per-packet one-way delay: 466.070 ms  
Loss rate: 7.77%

Run 5: Report of TCP BBR — Data Link

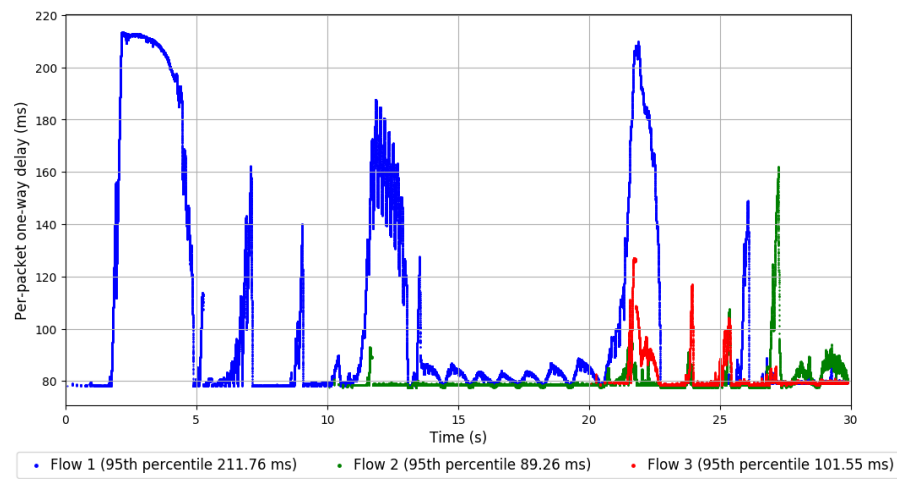
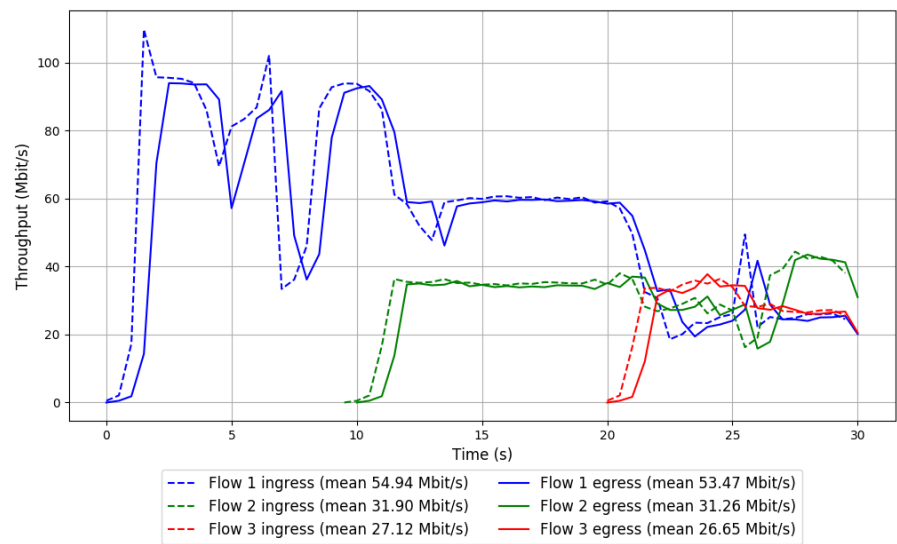


Run 1: Statistics of Copa

Start at: 2018-09-25 16:42:06  
End at: 2018-09-25 16:42:36  
Local clock offset: -7.98 ms  
Remote clock offset: -0.434 ms

# Below is generated by plot.py at 2018-09-25 20:53:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 83.01 Mbit/s  
95th percentile per-packet one-way delay: 209.210 ms  
Loss rate: 3.12%  
-- Flow 1:  
Average throughput: 53.47 Mbit/s  
95th percentile per-packet one-way delay: 211.756 ms  
Loss rate: 3.20%  
-- Flow 2:  
Average throughput: 31.26 Mbit/s  
95th percentile per-packet one-way delay: 89.261 ms  
Loss rate: 2.80%  
-- Flow 3:  
Average throughput: 26.65 Mbit/s  
95th percentile per-packet one-way delay: 101.550 ms  
Loss rate: 3.37%

Run 1: Report of Copa — Data Link

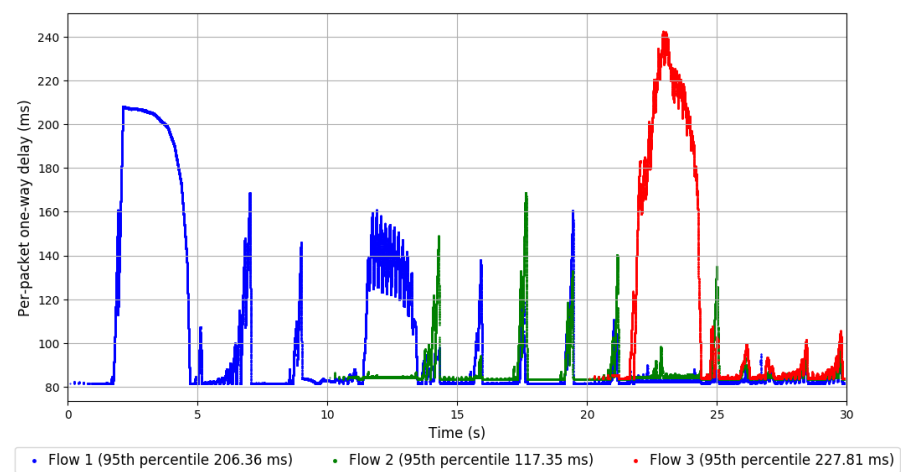
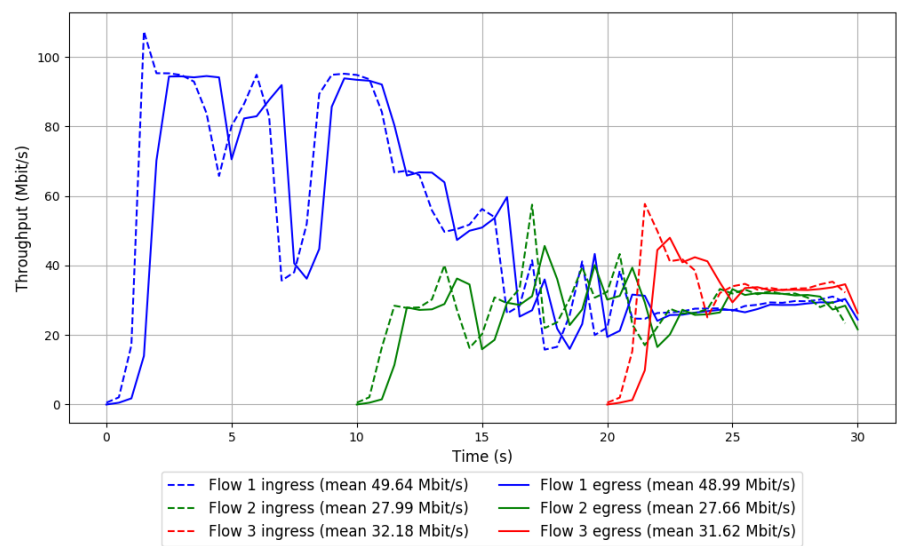


Run 2: Statistics of Copa

Start at: 2018-09-25 17:35:16  
End at: 2018-09-25 17:35:46  
Local clock offset: -3.581 ms  
Remote clock offset: -3.019 ms

# Below is generated by plot.py at 2018-09-25 20:53:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.77 Mbit/s  
95th percentile per-packet one-way delay: 206.653 ms  
Loss rate: 2.08%  
-- Flow 1:  
Average throughput: 48.99 Mbit/s  
95th percentile per-packet one-way delay: 206.359 ms  
Loss rate: 1.84%  
-- Flow 2:  
Average throughput: 27.66 Mbit/s  
95th percentile per-packet one-way delay: 117.352 ms  
Loss rate: 1.98%  
-- Flow 3:  
Average throughput: 31.62 Mbit/s  
95th percentile per-packet one-way delay: 227.811 ms  
Loss rate: 3.35%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-09-25 18:24:06

End at: 2018-09-25 18:24:36

Local clock offset: -3.046 ms

Remote clock offset: -3.25 ms

# Below is generated by plot.py at 2018-09-25 20:53:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 72.62 Mbit/s

95th percentile per-packet one-way delay: 156.011 ms

Loss rate: 2.46%

-- Flow 1:

Average throughput: 45.83 Mbit/s

95th percentile per-packet one-way delay: 170.515 ms

Loss rate: 2.39%

-- Flow 2:

Average throughput: 26.36 Mbit/s

95th percentile per-packet one-way delay: 89.314 ms

Loss rate: 2.28%

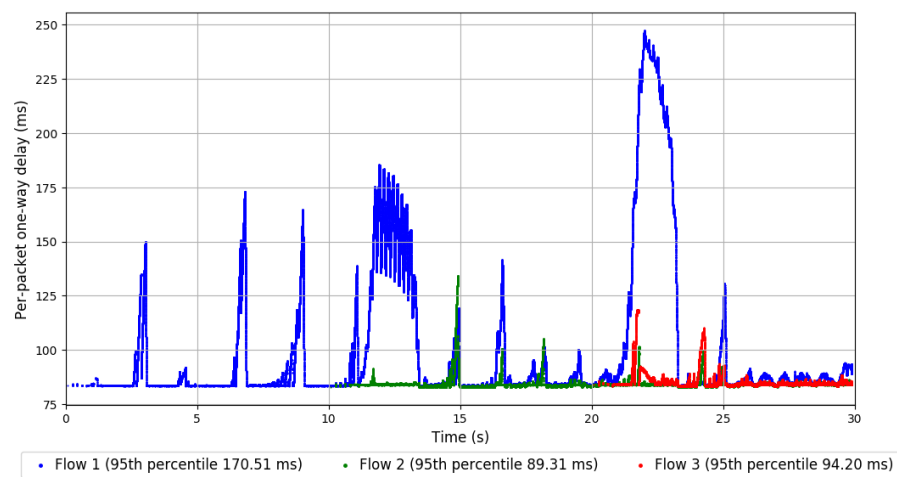
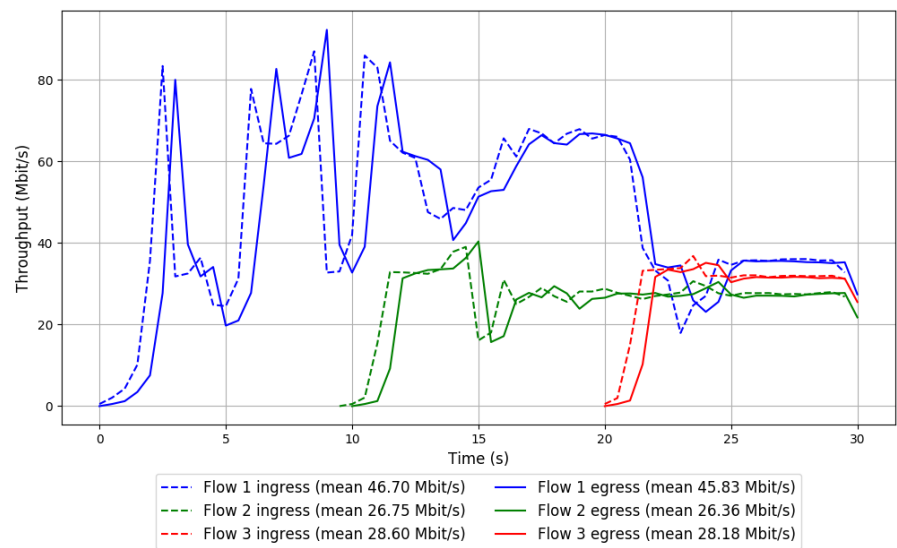
-- Flow 3:

Average throughput: 28.18 Mbit/s

95th percentile per-packet one-way delay: 94.197 ms

Loss rate: 3.10%

Run 3: Report of Copa — Data Link



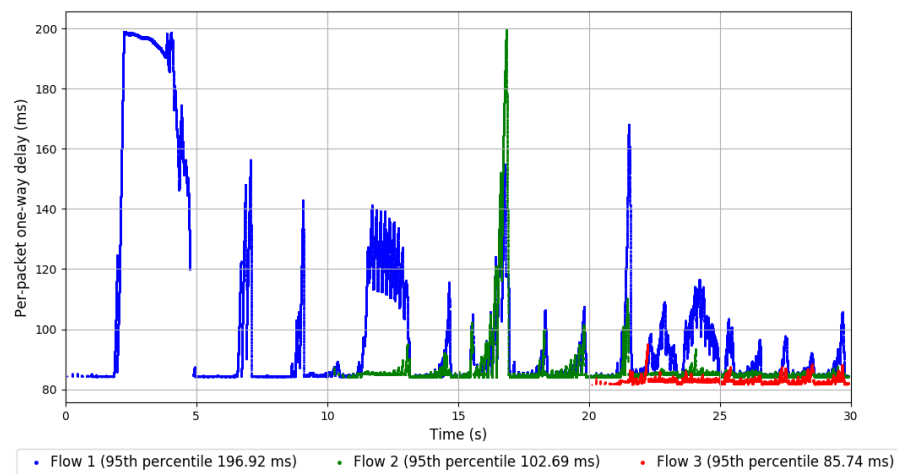
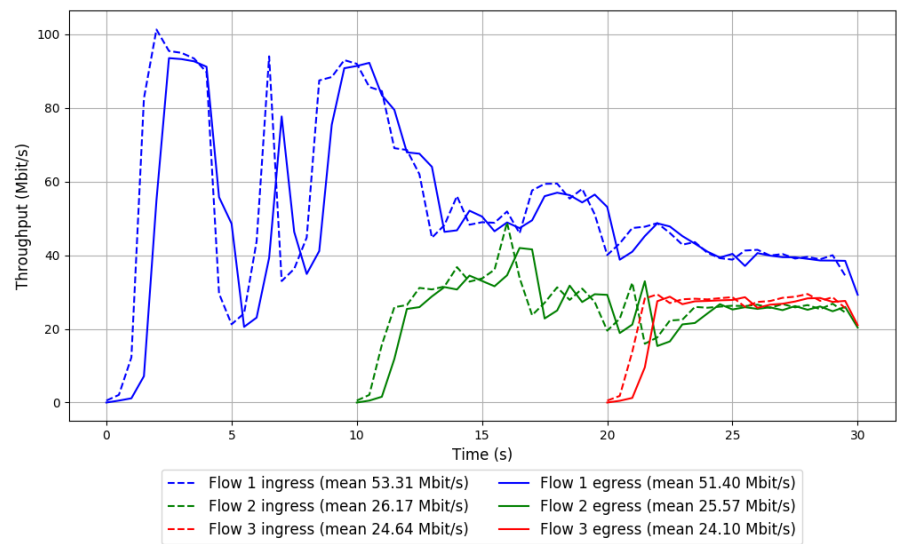


Run 4: Statistics of Copa

Start at: 2018-09-25 19:17:07  
End at: 2018-09-25 19:17:37  
Local clock offset: -2.62 ms  
Remote clock offset: -3.345 ms

# Below is generated by plot.py at 2018-09-25 20:54:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.32 Mbit/s  
95th percentile per-packet one-way delay: 195.623 ms  
Loss rate: 3.84%  
-- Flow 1:  
Average throughput: 51.40 Mbit/s  
95th percentile per-packet one-way delay: 196.921 ms  
Loss rate: 4.10%  
-- Flow 2:  
Average throughput: 25.57 Mbit/s  
95th percentile per-packet one-way delay: 102.691 ms  
Loss rate: 3.09%  
-- Flow 3:  
Average throughput: 24.10 Mbit/s  
95th percentile per-packet one-way delay: 85.740 ms  
Loss rate: 3.79%

Run 4: Report of Copa — Data Link

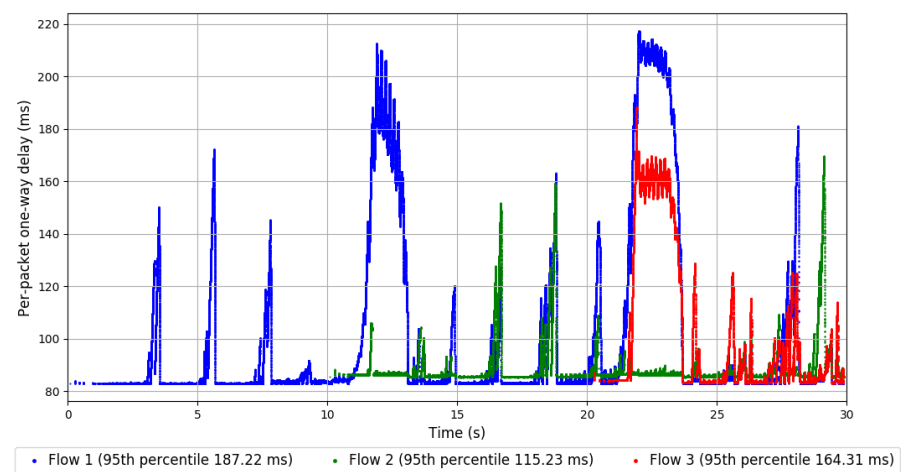
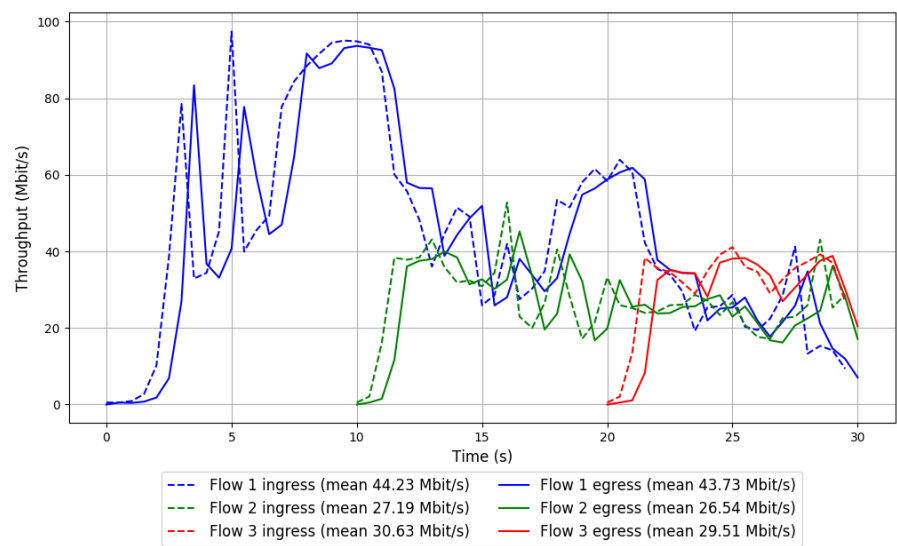


Run 5: Statistics of Copa

Start at: 2018-09-25 20:09:41  
End at: 2018-09-25 20:10:11  
Local clock offset: -9.589 ms  
Remote clock offset: -4.276 ms

# Below is generated by plot.py at 2018-09-25 20:54:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 70.99 Mbit/s  
95th percentile per-packet one-way delay: 171.657 ms  
Loss rate: 2.58%  
-- Flow 1:  
Average throughput: 43.73 Mbit/s  
95th percentile per-packet one-way delay: 187.217 ms  
Loss rate: 1.69%  
-- Flow 2:  
Average throughput: 26.54 Mbit/s  
95th percentile per-packet one-way delay: 115.228 ms  
Loss rate: 3.20%  
-- Flow 3:  
Average throughput: 29.51 Mbit/s  
95th percentile per-packet one-way delay: 164.311 ms  
Loss rate: 5.34%

Run 5: Report of Copa — Data Link

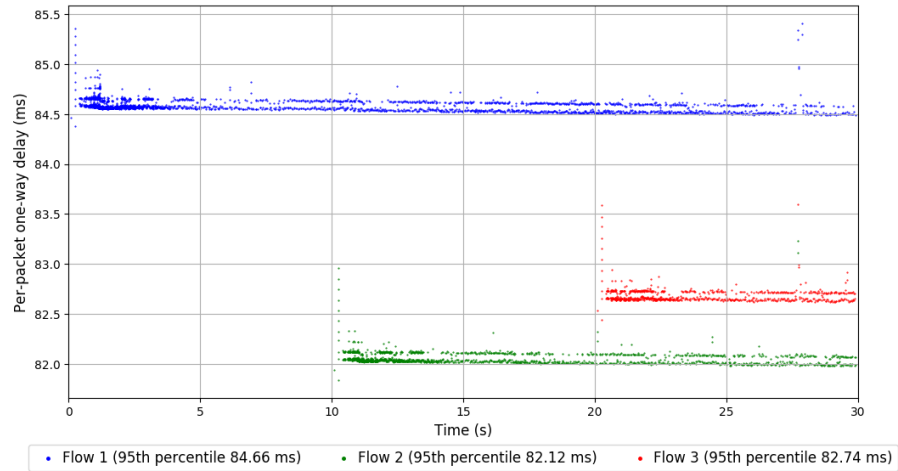
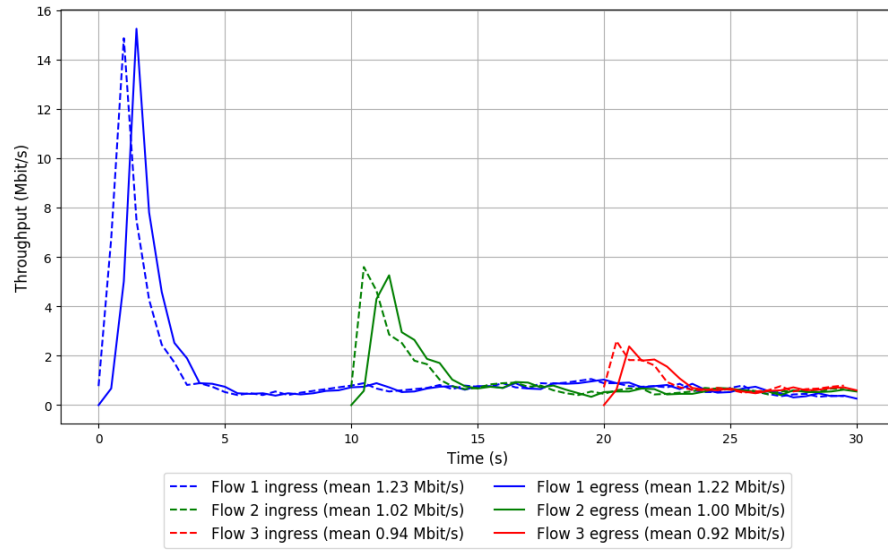


Run 1: Statistics of TCP Cubic

Start at: 2018-09-25 17:20:39  
End at: 2018-09-25 17:21:09  
Local clock offset: -5.291 ms  
Remote clock offset: -4.263 ms

# Below is generated by plot.py at 2018-09-25 20:54:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.19 Mbit/s  
95th percentile per-packet one-way delay: 84.655 ms  
Loss rate: 1.95%  
-- Flow 1:  
Average throughput: 1.22 Mbit/s  
95th percentile per-packet one-way delay: 84.660 ms  
Loss rate: 1.53%  
-- Flow 2:  
Average throughput: 1.00 Mbit/s  
95th percentile per-packet one-way delay: 82.123 ms  
Loss rate: 2.24%  
-- Flow 3:  
Average throughput: 0.92 Mbit/s  
95th percentile per-packet one-way delay: 82.743 ms  
Loss rate: 2.97%

# Run 1: Report of TCP Cubic — Data Link

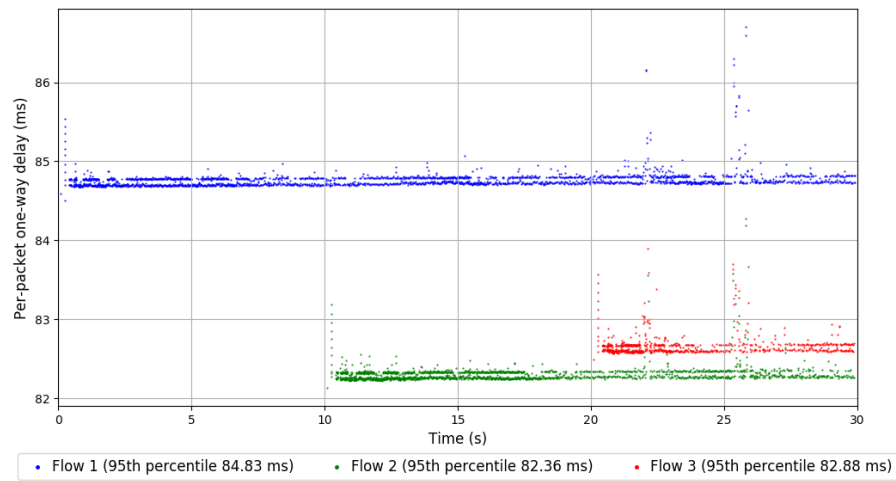
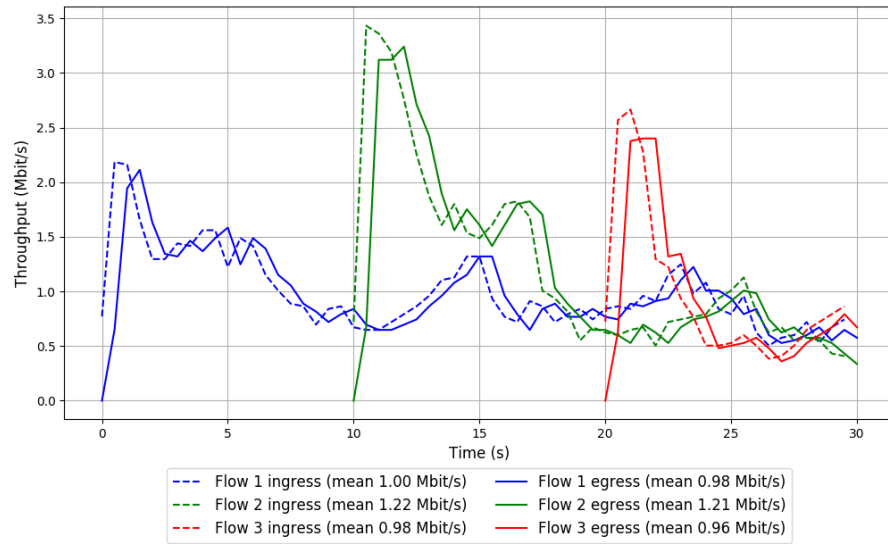


Run 2: Statistics of TCP Cubic

Start at: 2018-09-25 18:09:45  
End at: 2018-09-25 18:10:15  
Local clock offset: -2.527 ms  
Remote clock offset: -4.289 ms

# Below is generated by plot.py at 2018-09-25 20:54:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.10 Mbit/s  
95th percentile per-packet one-way delay: 84.810 ms  
Loss rate: 1.99%  
-- Flow 1:  
Average throughput: 0.98 Mbit/s  
95th percentile per-packet one-way delay: 84.829 ms  
Loss rate: 1.69%  
-- Flow 2:  
Average throughput: 1.21 Mbit/s  
95th percentile per-packet one-way delay: 82.362 ms  
Loss rate: 1.82%  
-- Flow 3:  
Average throughput: 0.96 Mbit/s  
95th percentile per-packet one-way delay: 82.880 ms  
Loss rate: 3.34%

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





Run 3: Statistics of TCP Cubic

Start at: 2018-09-25 19:01:11

End at: 2018-09-25 19:01:41

Local clock offset: -3.755 ms

Remote clock offset: 1.948 ms

# Below is generated by plot.py at 2018-09-25 20:54:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 78.496 ms

Loss rate: 2.64%

-- Flow 1:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 76.784 ms

Loss rate: 2.66%

-- Flow 2:

Average throughput: 0.66 Mbit/s

95th percentile per-packet one-way delay: 78.508 ms

Loss rate: 2.88%

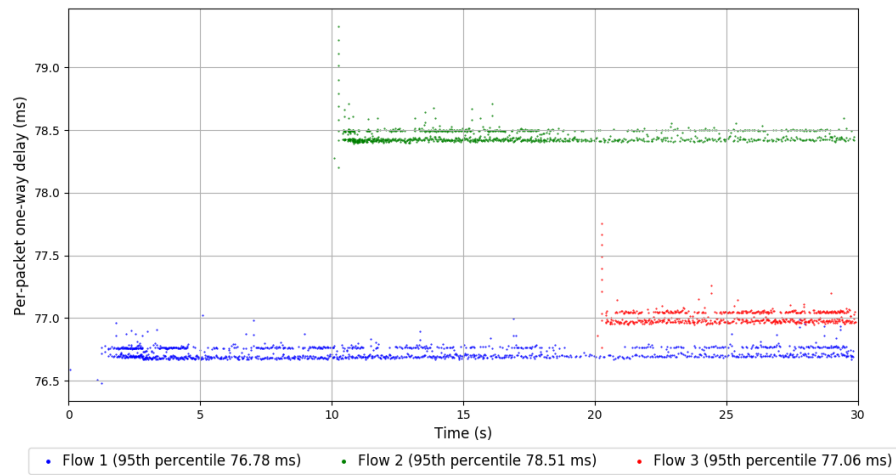
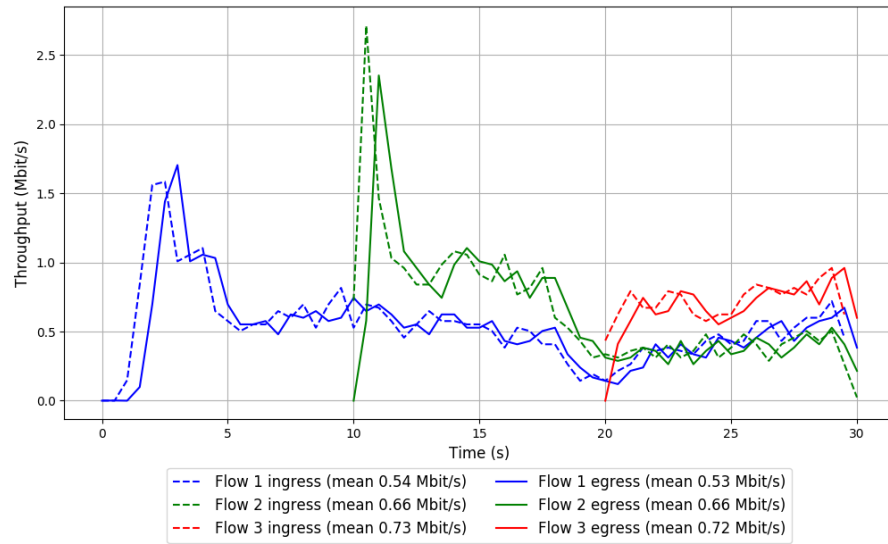
-- Flow 3:

Average throughput: 0.72 Mbit/s

95th percentile per-packet one-way delay: 77.064 ms

Loss rate: 2.16%

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

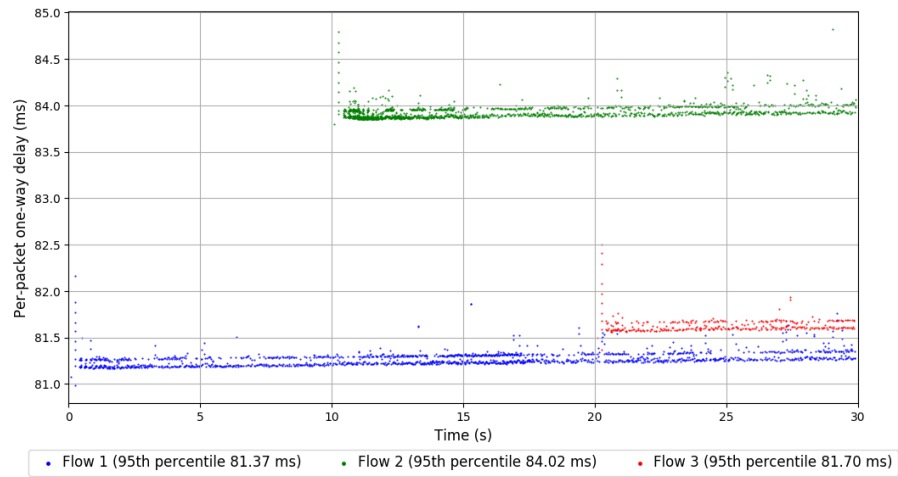
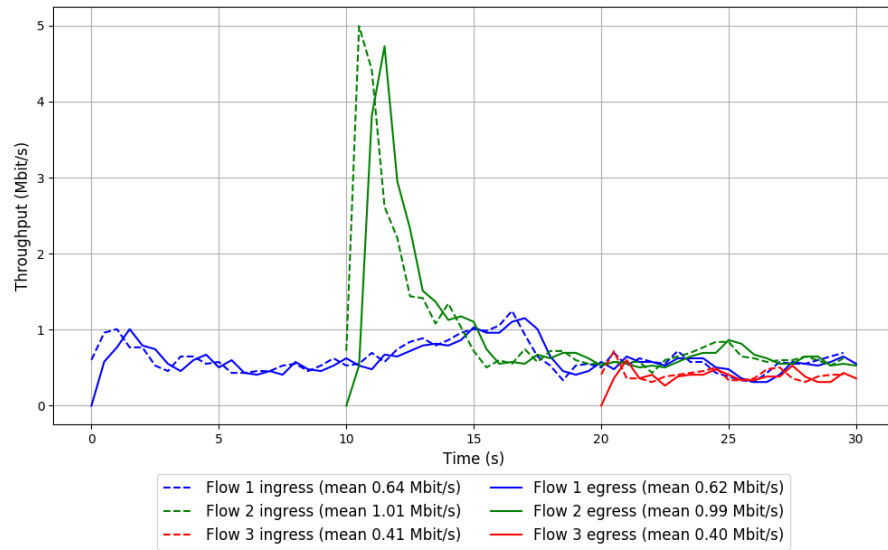


Run 4: Statistics of TCP Cubic

Start at: 2018-09-25 19:54:18  
End at: 2018-09-25 19:54:48  
Local clock offset: -8.504 ms  
Remote clock offset: -3.409 ms

# Below is generated by plot.py at 2018-09-25 20:54:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1.41 Mbit/s  
95th percentile per-packet one-way delay: 83.994 ms  
Loss rate: 2.58%  
-- Flow 1:  
Average throughput: 0.62 Mbit/s  
95th percentile per-packet one-way delay: 81.370 ms  
Loss rate: 2.39%  
-- Flow 2:  
Average throughput: 0.99 Mbit/s  
95th percentile per-packet one-way delay: 84.015 ms  
Loss rate: 2.34%  
-- Flow 3:  
Average throughput: 0.40 Mbit/s  
95th percentile per-packet one-way delay: 81.697 ms  
Loss rate: 4.66%

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

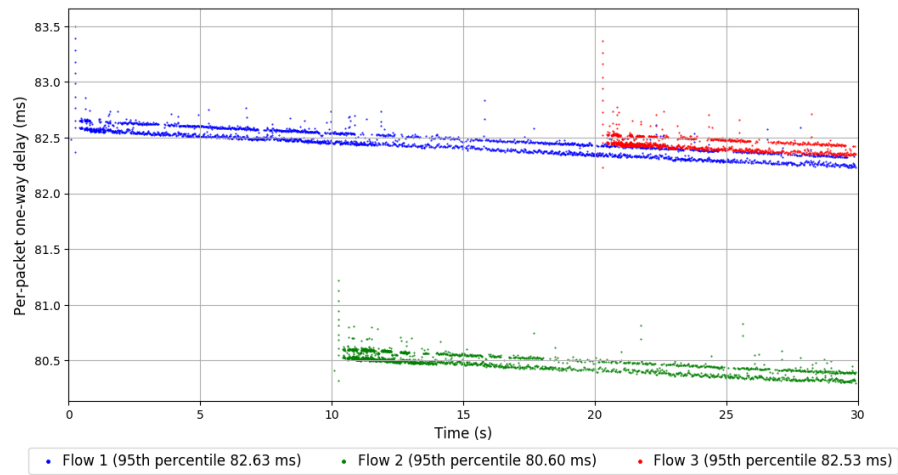
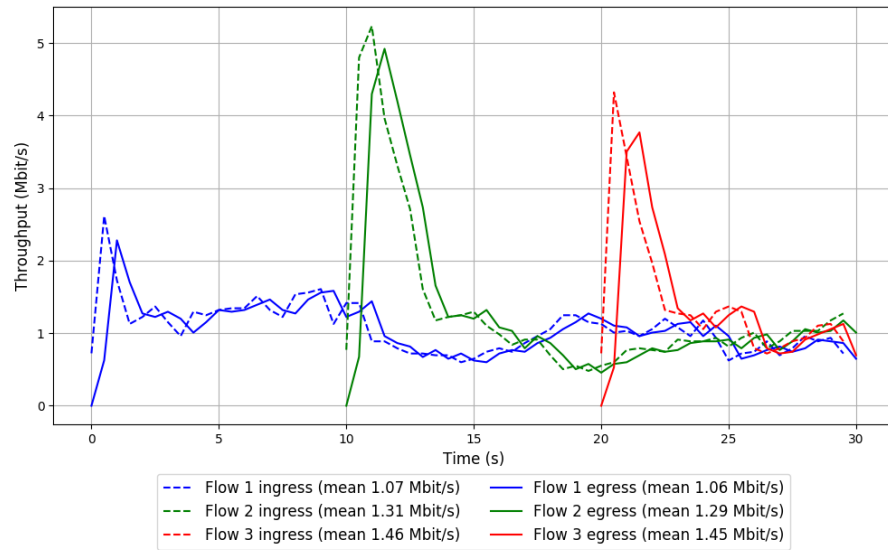


Run 5: Statistics of TCP Cubic

Start at: 2018-09-25 20:42:23  
End at: 2018-09-25 20:42:53  
Local clock offset: -9.968 ms  
Remote clock offset: -2.922 ms

# Below is generated by plot.py at 2018-09-25 20:54:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.40 Mbit/s  
95th percentile per-packet one-way delay: 82.594 ms  
Loss rate: 1.58%  
-- Flow 1:  
Average throughput: 1.06 Mbit/s  
95th percentile per-packet one-way delay: 82.626 ms  
Loss rate: 1.20%  
-- Flow 2:  
Average throughput: 1.29 Mbit/s  
95th percentile per-packet one-way delay: 80.598 ms  
Loss rate: 1.70%  
-- Flow 3:  
Average throughput: 1.45 Mbit/s  
95th percentile per-packet one-way delay: 82.526 ms  
Loss rate: 2.23%

# Run 5: Report of TCP Cubic — Data Link

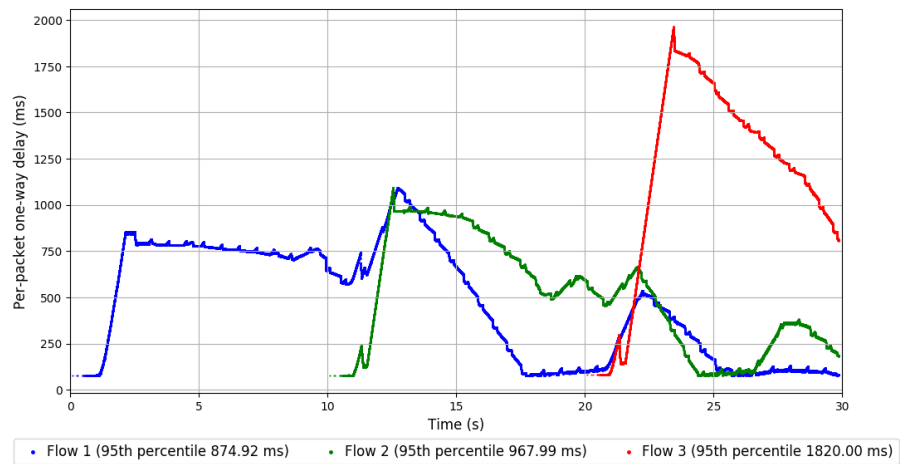
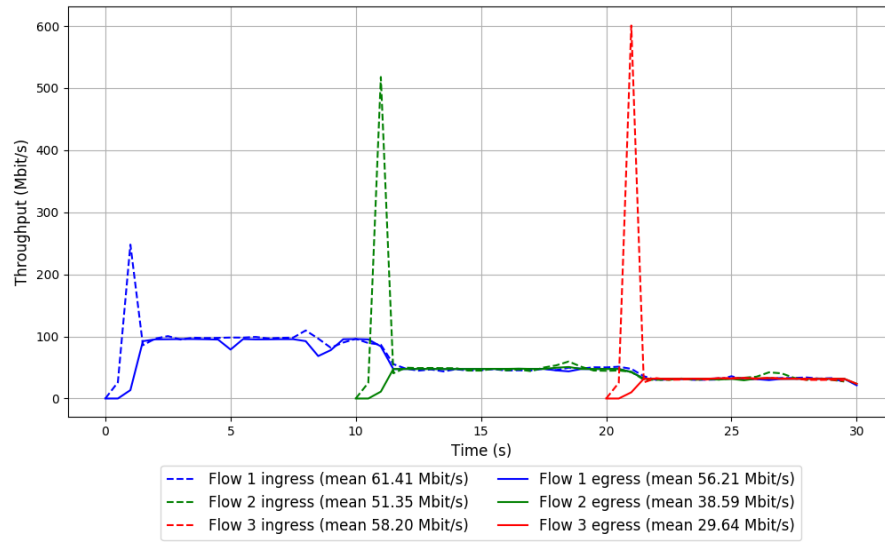


```
Run 1: Statistics of FillP

Start at: 2018-09-25 16:52:03
End at: 2018-09-25 16:52:33
Local clock offset: -8.805 ms
Remote clock offset: 0.661 ms

# Below is generated by plot.py at 2018-09-25 20:54:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.55 Mbit/s
95th percentile per-packet one-way delay: 1335.376 ms
Loss rate: 20.75%
-- Flow 1:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 874.925 ms
Loss rate: 8.97%
-- Flow 2:
Average throughput: 38.59 Mbit/s
95th percentile per-packet one-way delay: 967.985 ms
Loss rate: 25.46%
-- Flow 3:
Average throughput: 29.64 Mbit/s
95th percentile per-packet one-way delay: 1819.998 ms
Loss rate: 49.90%
```

# Run 1: Report of FillP — Data Link



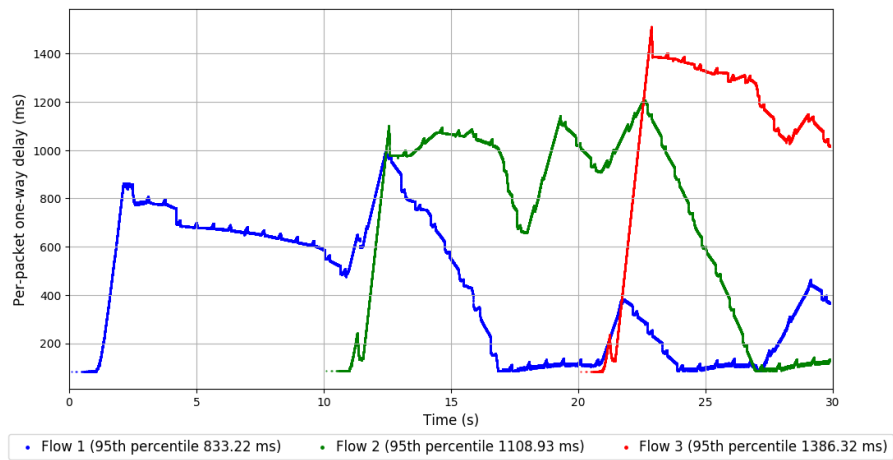
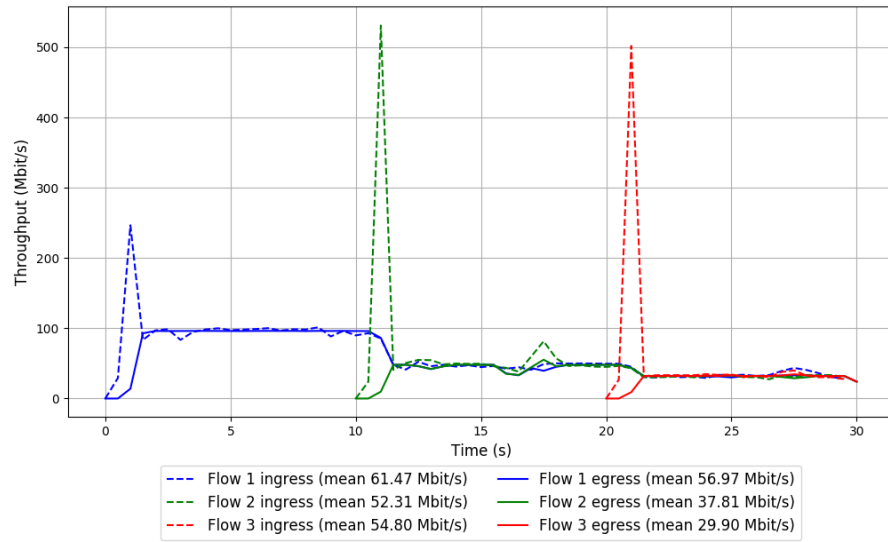


Run 2: Statistics of FillP

Start at: 2018-09-25 17:43:55  
End at: 2018-09-25 17:44:25  
Local clock offset: -3.296 ms  
Remote clock offset: -4.078 ms

# Below is generated by plot.py at 2018-09-25 20:54:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.85 Mbit/s  
95th percentile per-packet one-way delay: 1281.828 ms  
Loss rate: 20.18%  
-- Flow 1:  
Average throughput: 56.97 Mbit/s  
95th percentile per-packet one-way delay: 833.217 ms  
Loss rate: 7.84%  
-- Flow 2:  
Average throughput: 37.81 Mbit/s  
95th percentile per-packet one-way delay: 1108.934 ms  
Loss rate: 28.33%  
-- Flow 3:  
Average throughput: 29.90 Mbit/s  
95th percentile per-packet one-way delay: 1386.318 ms  
Loss rate: 46.35%

## Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-09-25 18:31:55

End at: 2018-09-25 18:32:25

Local clock offset: -2.977 ms

Remote clock offset: 0.656 ms

# Below is generated by plot.py at 2018-09-25 20:54:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.36 Mbit/s

95th percentile per-packet one-way delay: 1799.052 ms

Loss rate: 20.22%

-- Flow 1:

Average throughput: 56.49 Mbit/s

95th percentile per-packet one-way delay: 850.359 ms

Loss rate: 7.53%

-- Flow 2:

Average throughput: 37.88 Mbit/s

95th percentile per-packet one-way delay: 1008.402 ms

Loss rate: 26.19%

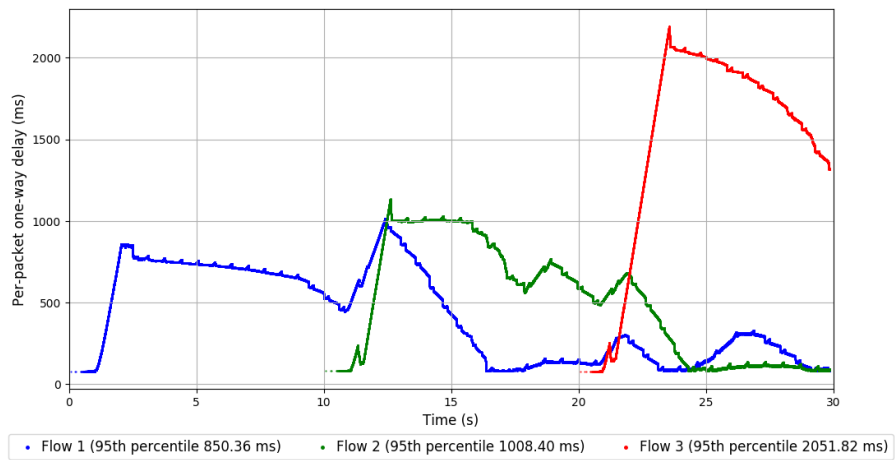
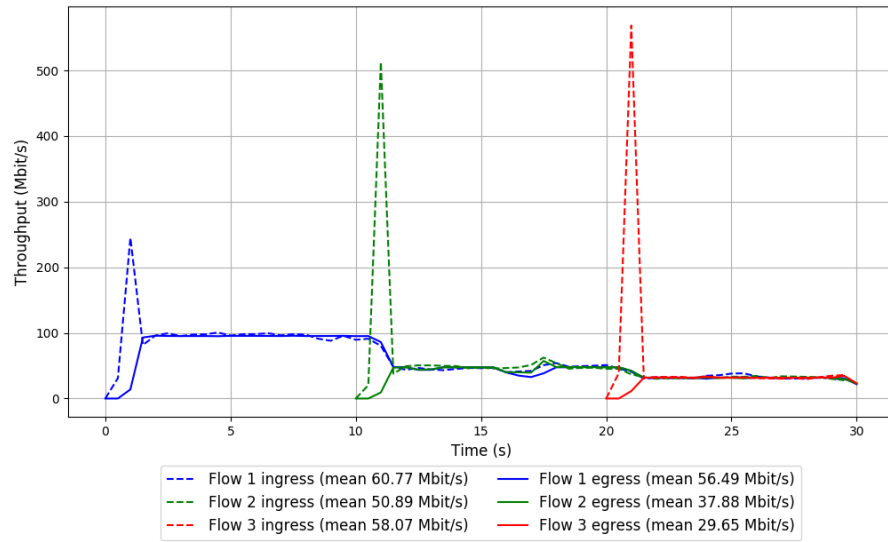
-- Flow 3:

Average throughput: 29.65 Mbit/s

95th percentile per-packet one-way delay: 2051.815 ms

Loss rate: 49.75%

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



Run 4: Statistics of FillP

Start at: 2018-09-25 19:25:42

End at: 2018-09-25 19:26:12

Local clock offset: -2.785 ms

Remote clock offset: 1.853 ms

# Below is generated by plot.py at 2018-09-25 20:54:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.37 Mbit/s

95th percentile per-packet one-way delay: 1876.012 ms

Loss rate: 20.56%

-- Flow 1:

Average throughput: 56.93 Mbit/s

95th percentile per-packet one-way delay: 843.142 ms

Loss rate: 6.75%

-- Flow 2:

Average throughput: 37.89 Mbit/s

95th percentile per-packet one-way delay: 998.049 ms

Loss rate: 26.79%

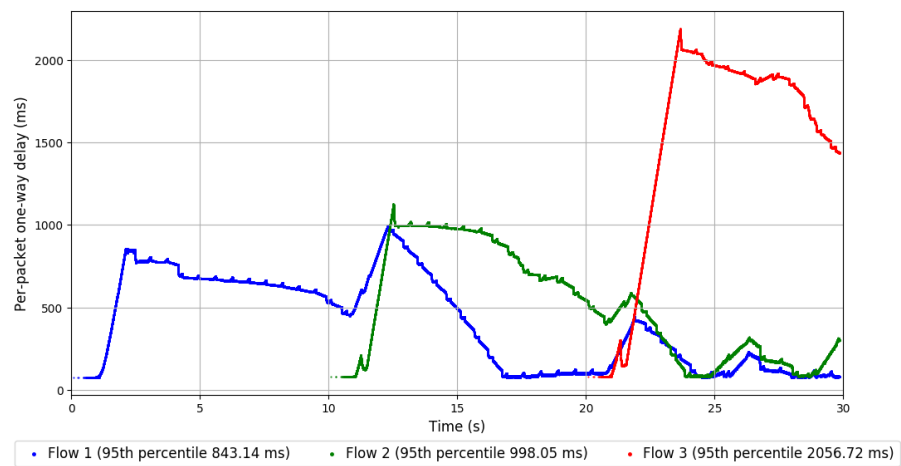
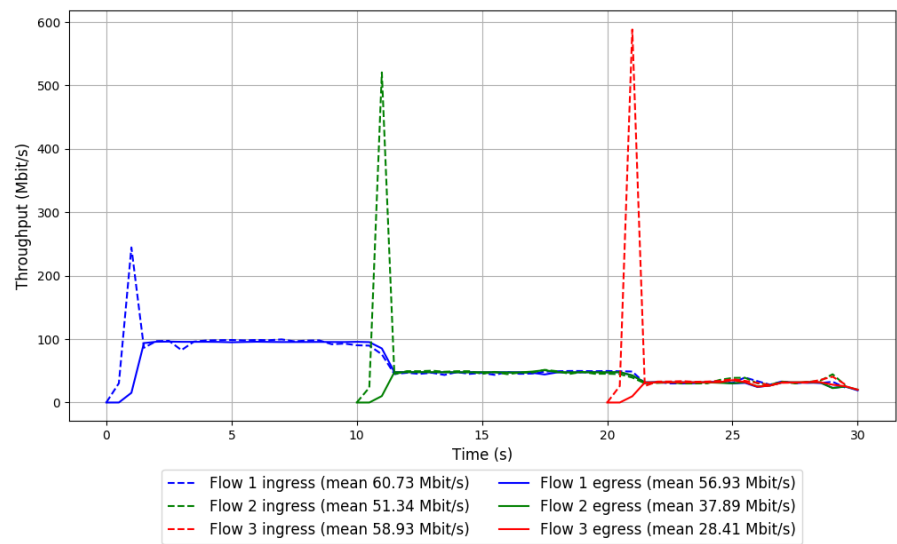
-- Flow 3:

Average throughput: 28.41 Mbit/s

95th percentile per-packet one-way delay: 2056.717 ms

Loss rate: 52.59%

Run 4: Report of FillP — Data Link

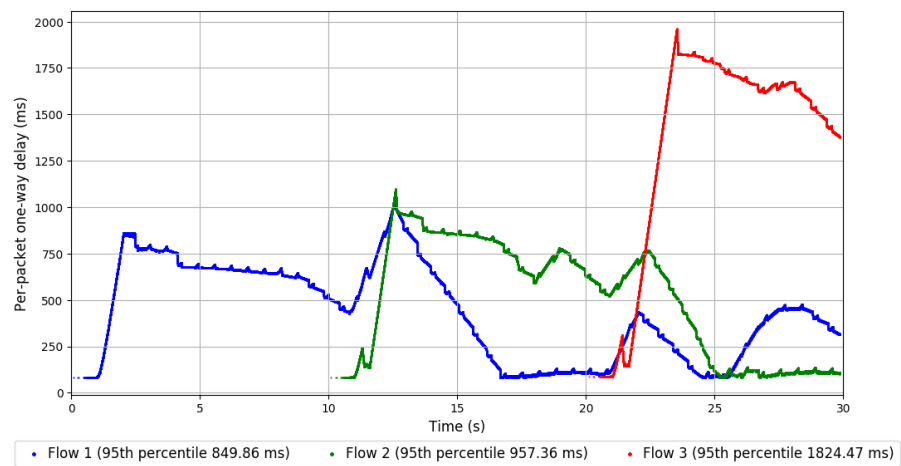
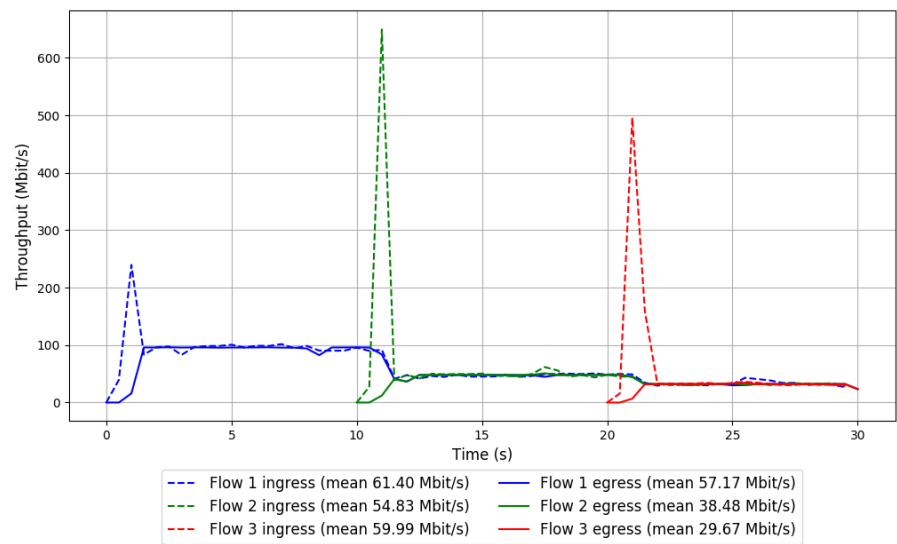


Run 5: Statistics of FillP

Start at: 2018-09-25 20:16:59  
End at: 2018-09-25 20:17:29  
Local clock offset: -10.996 ms  
Remote clock offset: -4.282 ms

# Below is generated by plot.py at 2018-09-25 20:54:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.42 Mbit/s  
95th percentile per-packet one-way delay: 1651.973 ms  
Loss rate: 21.94%  
-- Flow 1:  
Average throughput: 57.17 Mbit/s  
95th percentile per-packet one-way delay: 849.857 ms  
Loss rate: 7.39%  
-- Flow 2:  
Average throughput: 38.48 Mbit/s  
95th percentile per-packet one-way delay: 957.363 ms  
Loss rate: 30.39%  
-- Flow 3:  
Average throughput: 29.67 Mbit/s  
95th percentile per-packet one-way delay: 1824.475 ms  
Loss rate: 51.37%

Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2018-09-25 17:23:15

End at: 2018-09-25 17:23:45

Local clock offset: -4.089 ms

Remote clock offset: 1.056 ms

# Below is generated by plot.py at 2018-09-25 20:54:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.99 Mbit/s

95th percentile per-packet one-way delay: 277.105 ms

Loss rate: 2.54%

-- Flow 1:

Average throughput: 57.26 Mbit/s

95th percentile per-packet one-way delay: 278.057 ms

Loss rate: 2.27%

-- Flow 2:

Average throughput: 38.84 Mbit/s

95th percentile per-packet one-way delay: 223.231 ms

Loss rate: 2.74%

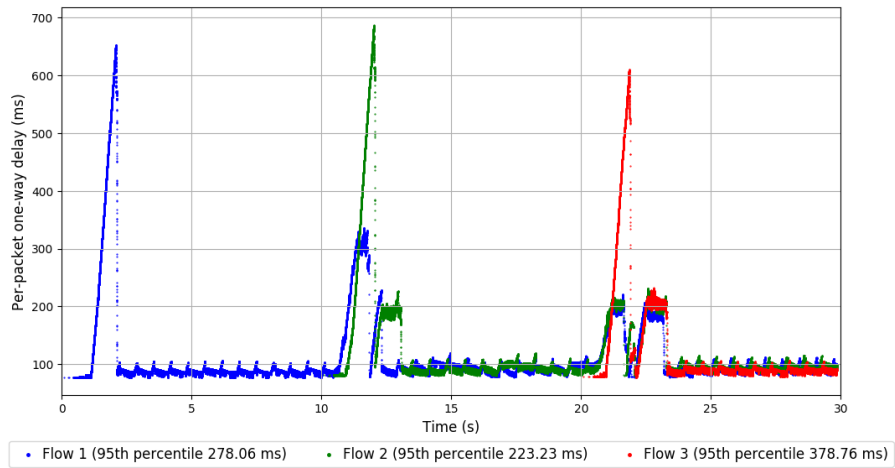
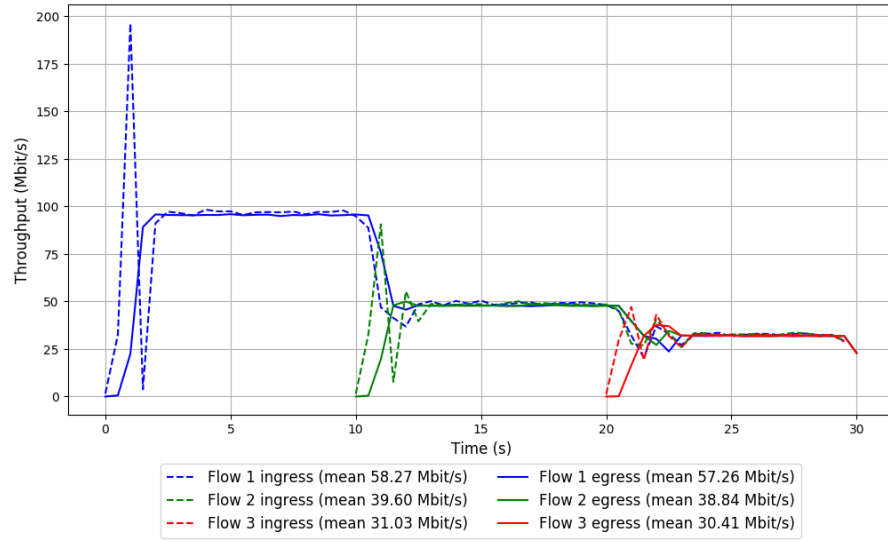
-- Flow 3:

Average throughput: 30.41 Mbit/s

95th percentile per-packet one-way delay: 378.762 ms

Loss rate: 3.57%

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



Run 2: Statistics of FillP-Sheep

Start at: 2018-09-25 18:12:16

End at: 2018-09-25 18:12:46

Local clock offset: -2.7 ms

Remote clock offset: 0.819 ms

# Below is generated by plot.py at 2018-09-25 20:55:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.20 Mbit/s

95th percentile per-packet one-way delay: 285.808 ms

Loss rate: 2.38%

-- Flow 1:

Average throughput: 57.55 Mbit/s

95th percentile per-packet one-way delay: 295.209 ms

Loss rate: 2.09%

-- Flow 2:

Average throughput: 38.77 Mbit/s

95th percentile per-packet one-way delay: 209.241 ms

Loss rate: 2.47%

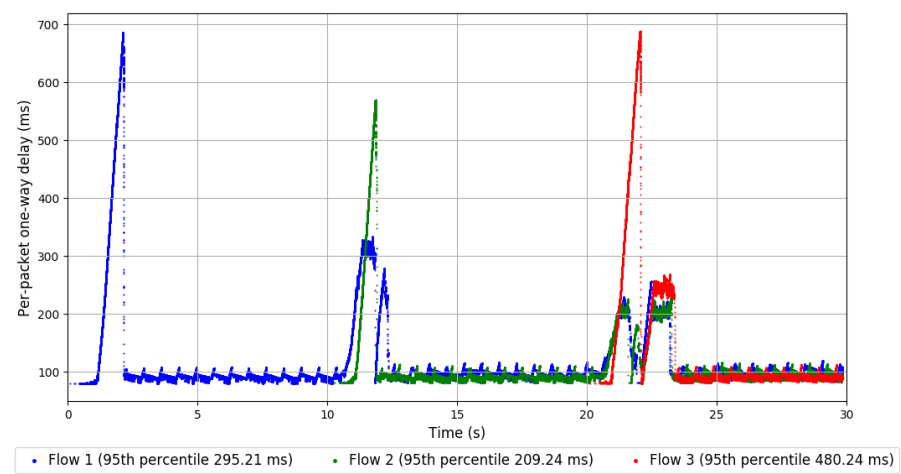
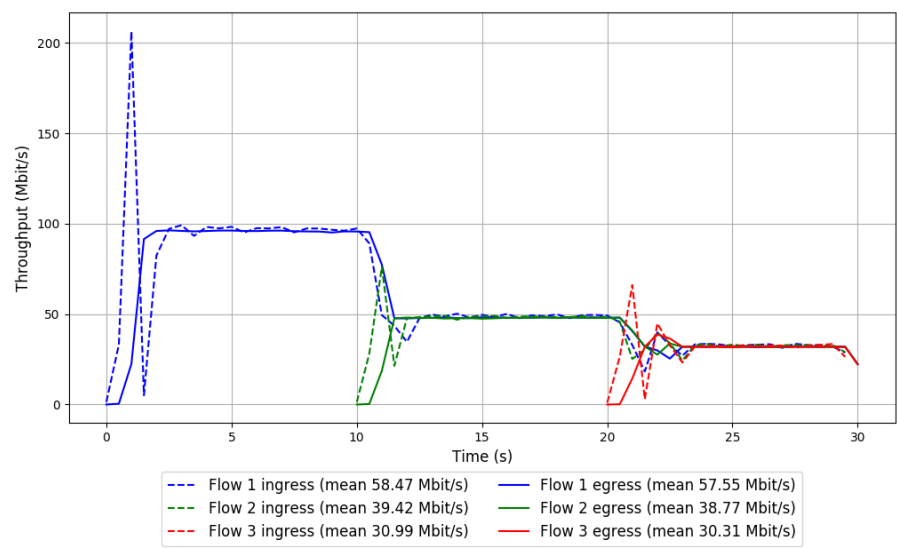
-- Flow 3:

Average throughput: 30.31 Mbit/s

95th percentile per-packet one-way delay: 480.237 ms

Loss rate: 3.76%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2018-09-25 19:03:41

End at: 2018-09-25 19:04:11

Local clock offset: -3.8 ms

Remote clock offset: -3.21 ms

# Below is generated by plot.py at 2018-09-25 20:55:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.16 Mbit/s

95th percentile per-packet one-way delay: 300.999 ms

Loss rate: 4.71%

-- Flow 1:

Average throughput: 56.94 Mbit/s

95th percentile per-packet one-way delay: 295.742 ms

Loss rate: 3.05%

-- Flow 2:

Average throughput: 38.36 Mbit/s

95th percentile per-packet one-way delay: 214.500 ms

Loss rate: 5.54%

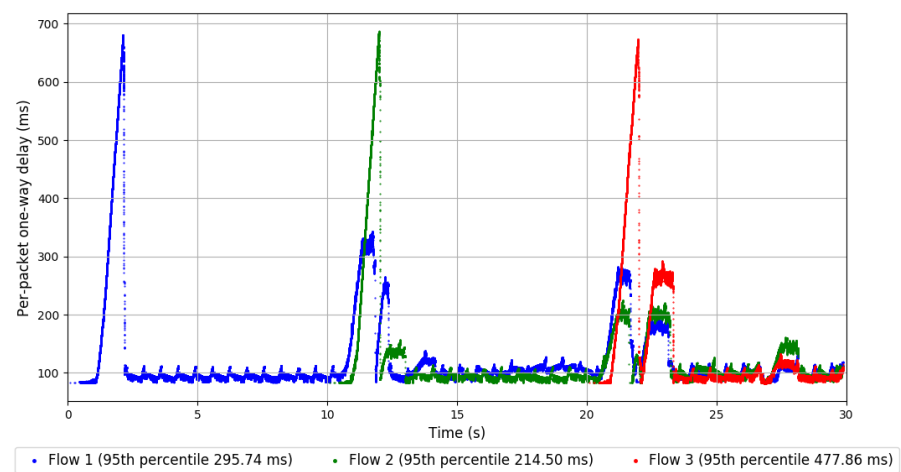
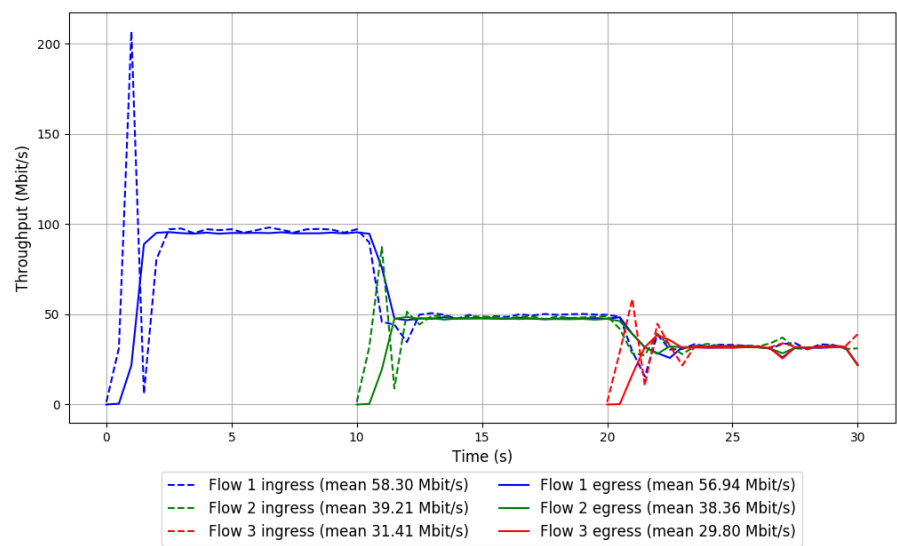
-- Flow 3:

Average throughput: 29.80 Mbit/s

95th percentile per-packet one-way delay: 477.862 ms

Loss rate: 11.51%

Run 3: Report of FillP-Sheep — Data Link

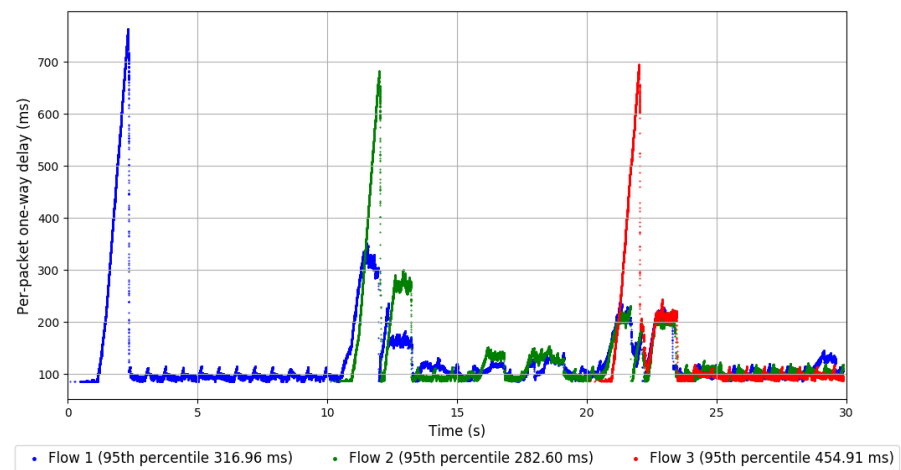
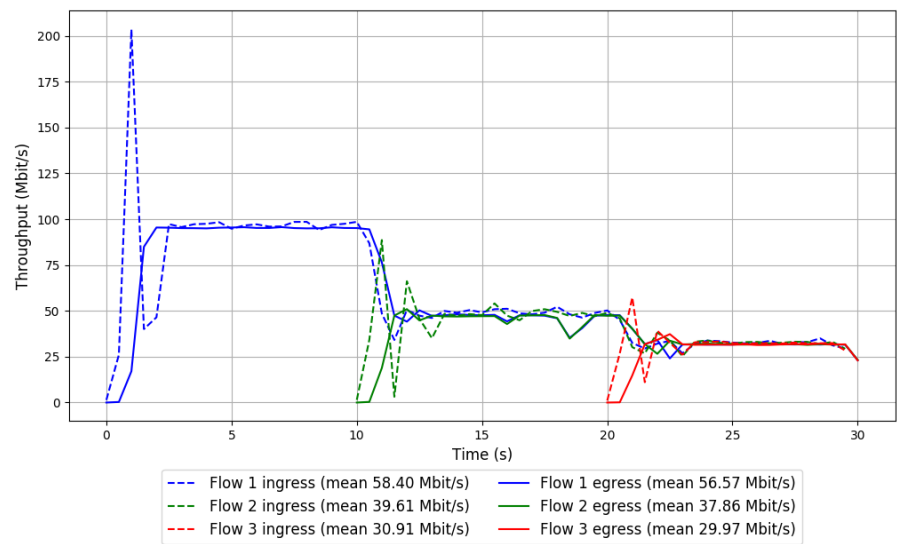


Run 4: Statistics of FillP-Sheep

Start at: 2018-09-25 19:56:53  
End at: 2018-09-25 19:57:23  
Local clock offset: -8.036 ms  
Remote clock offset: -4.426 ms

# Below is generated by plot.py at 2018-09-25 20:55:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.50 Mbit/s  
95th percentile per-packet one-way delay: 317.062 ms  
Loss rate: 4.19%  
-- Flow 1:  
Average throughput: 56.57 Mbit/s  
95th percentile per-packet one-way delay: 316.961 ms  
Loss rate: 3.65%  
-- Flow 2:  
Average throughput: 37.86 Mbit/s  
95th percentile per-packet one-way delay: 282.597 ms  
Loss rate: 5.20%  
-- Flow 3:  
Average throughput: 29.97 Mbit/s  
95th percentile per-packet one-way delay: 454.910 ms  
Loss rate: 4.62%

Run 4: Report of FillP-Sheep — Data Link





Run 5: Statistics of FillP-Sheep

Start at: 2018-09-25 20:44:52

End at: 2018-09-25 20:45:22

Local clock offset: -7.509 ms

Remote clock offset: 2.118 ms

# Below is generated by plot.py at 2018-09-25 20:55:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.10 Mbit/s

95th percentile per-packet one-way delay: 252.297 ms

Loss rate: 3.57%

-- Flow 1:

Average throughput: 56.88 Mbit/s

95th percentile per-packet one-way delay: 226.324 ms

Loss rate: 3.25%

-- Flow 2:

Average throughput: 38.12 Mbit/s

95th percentile per-packet one-way delay: 219.198 ms

Loss rate: 4.27%

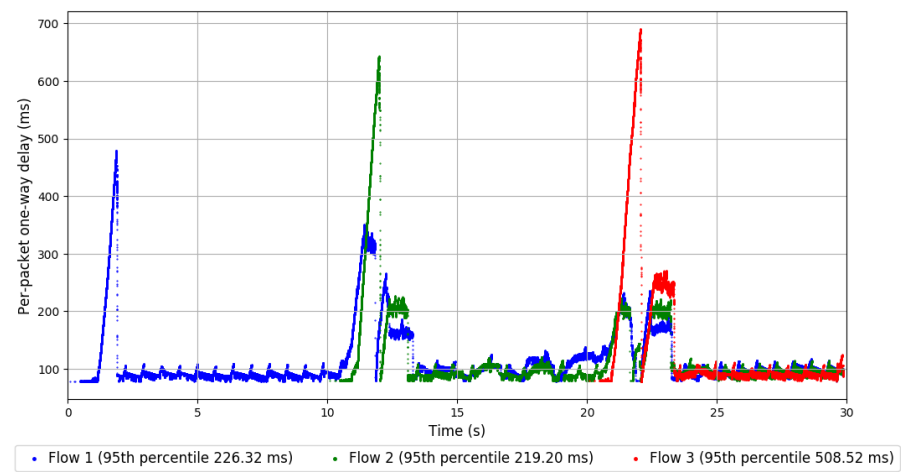
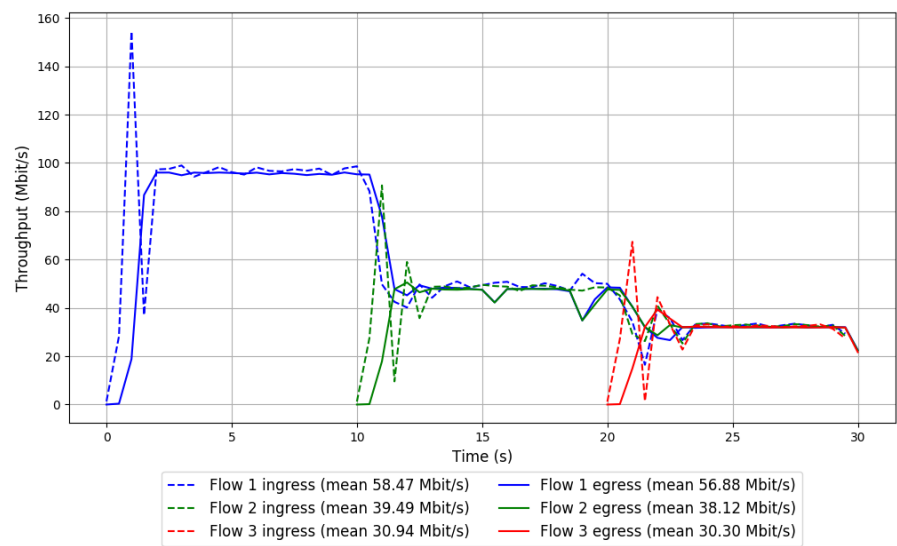
-- Flow 3:

Average throughput: 30.30 Mbit/s

95th percentile per-packet one-way delay: 508.523 ms

Loss rate: 3.63%

Run 5: Report of FillP-Sheep — Data Link

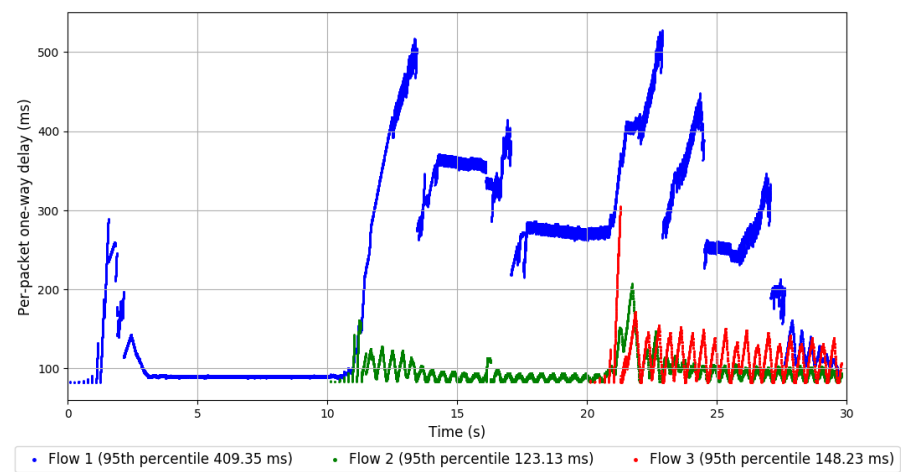
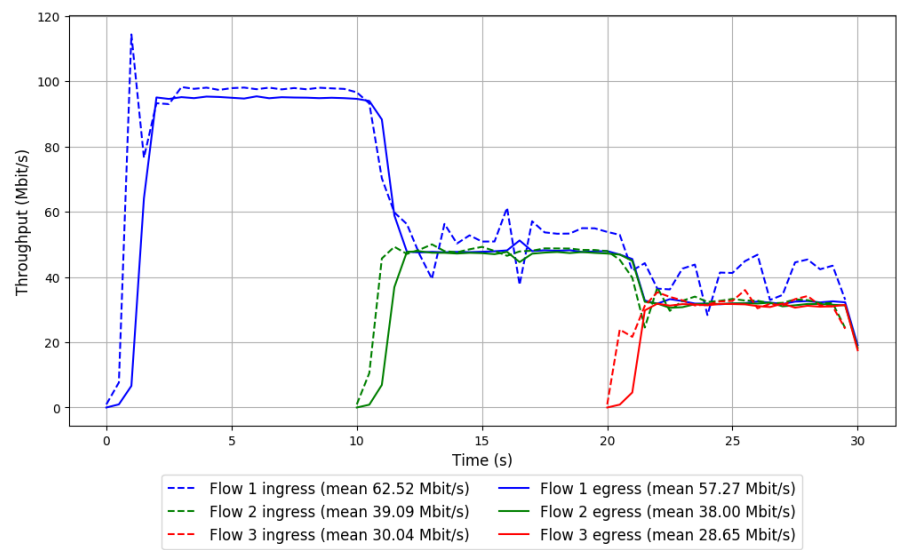


Run 1: Statistics of Indigo

Start at: 2018-09-25 16:35:33  
End at: 2018-09-25 16:36:03  
Local clock offset: -7.587 ms  
Remote clock offset: -4.429 ms

# Below is generated by plot.py at 2018-09-25 20:55:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.76 Mbit/s  
95th percentile per-packet one-way delay: 374.999 ms  
Loss rate: 7.22%  
-- Flow 1:  
Average throughput: 57.27 Mbit/s  
95th percentile per-packet one-way delay: 409.346 ms  
Loss rate: 8.90%  
-- Flow 2:  
Average throughput: 38.00 Mbit/s  
95th percentile per-packet one-way delay: 123.132 ms  
Loss rate: 3.59%  
-- Flow 3:  
Average throughput: 28.65 Mbit/s  
95th percentile per-packet one-way delay: 148.232 ms  
Loss rate: 6.20%

Run 1: Report of Indigo — Data Link

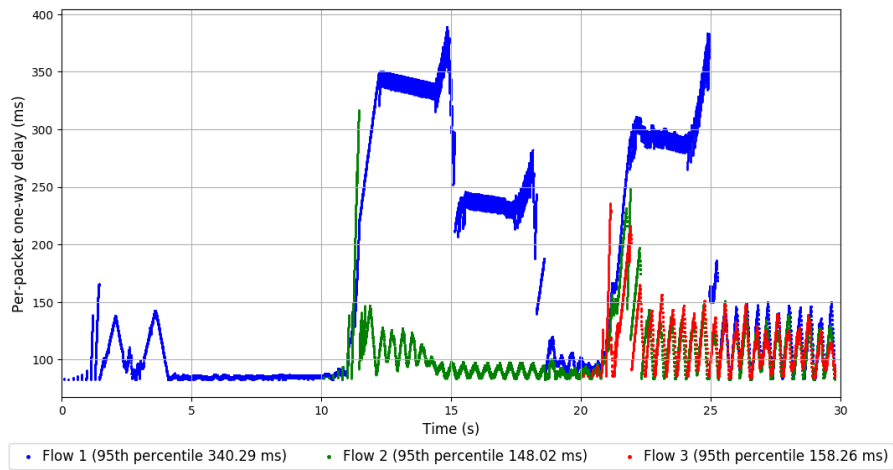
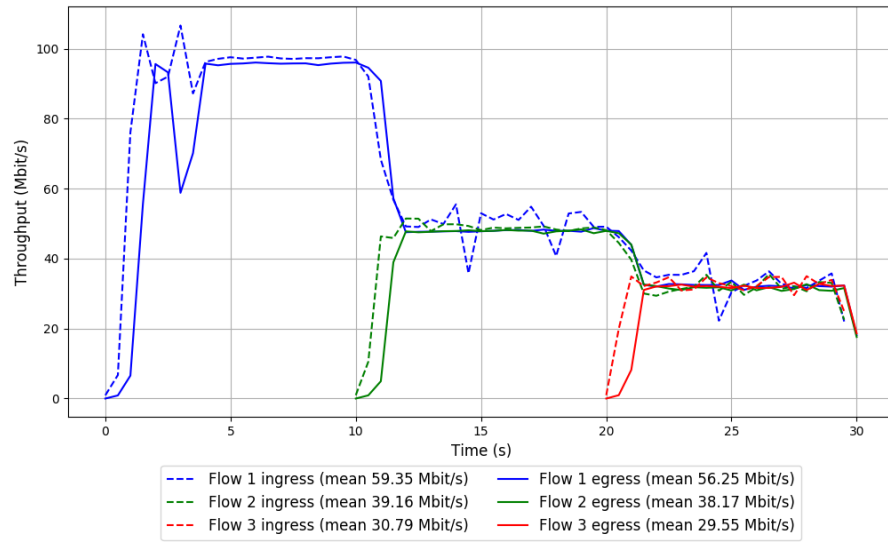


Run 2: Statistics of Indigo

Start at: 2018-09-25 17:29:08  
End at: 2018-09-25 17:29:38  
Local clock offset: -3.415 ms  
Remote clock offset: -3.995 ms

# Below is generated by plot.py at 2018-09-25 20:55:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.18 Mbit/s  
95th percentile per-packet one-way delay: 331.981 ms  
Loss rate: 5.05%  
-- Flow 1:  
Average throughput: 56.25 Mbit/s  
95th percentile per-packet one-way delay: 340.285 ms  
Loss rate: 5.72%  
-- Flow 2:  
Average throughput: 38.17 Mbit/s  
95th percentile per-packet one-way delay: 148.023 ms  
Loss rate: 3.29%  
-- Flow 3:  
Average throughput: 29.55 Mbit/s  
95th percentile per-packet one-way delay: 158.263 ms  
Loss rate: 5.65%

## Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-09-25 18:18:02

End at: 2018-09-25 18:18:32

Local clock offset: -2.086 ms

Remote clock offset: 0.929 ms

# Below is generated by plot.py at 2018-09-25 20:55:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.64 Mbit/s

95th percentile per-packet one-way delay: 407.552 ms

Loss rate: 9.67%

-- Flow 1:

Average throughput: 55.85 Mbit/s

95th percentile per-packet one-way delay: 439.531 ms

Loss rate: 13.00%

-- Flow 2:

Average throughput: 38.17 Mbit/s

95th percentile per-packet one-way delay: 145.677 ms

Loss rate: 3.49%

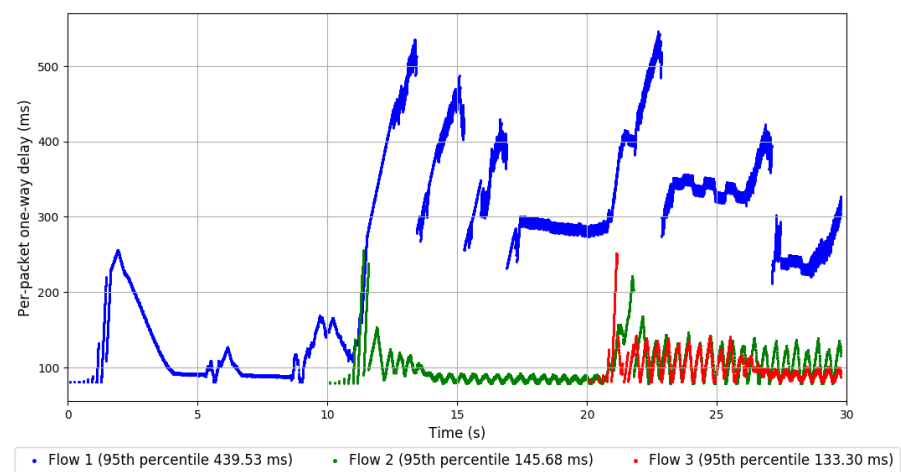
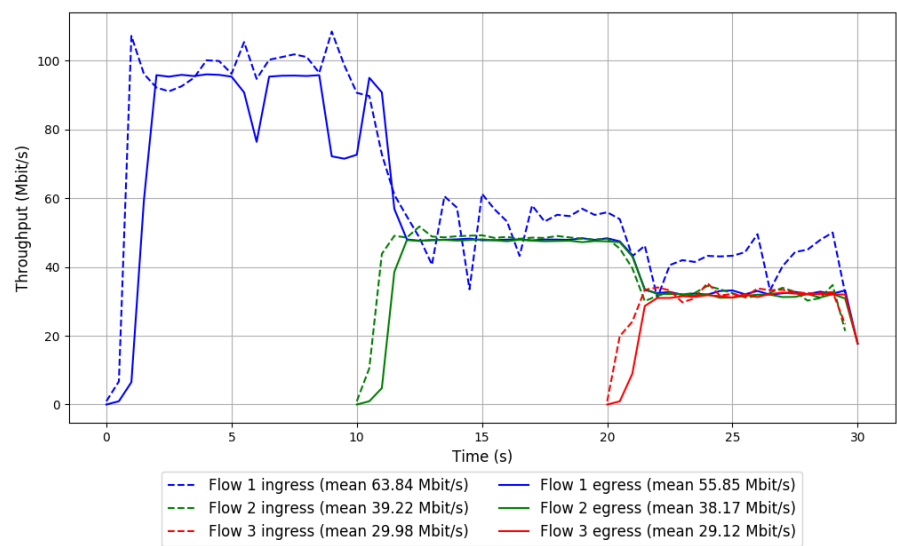
-- Flow 3:

Average throughput: 29.12 Mbit/s

95th percentile per-packet one-way delay: 133.299 ms

Loss rate: 4.48%

Run 3: Report of Indigo — Data Link





Run 4: Statistics of Indigo

Start at: 2018-09-25 19:10:26

End at: 2018-09-25 19:10:56

Local clock offset: -4.485 ms

Remote clock offset: 0.738 ms

# Below is generated by plot.py at 2018-09-25 20:55:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.33 Mbit/s

95th percentile per-packet one-way delay: 282.610 ms

Loss rate: 3.43%

-- Flow 1:

Average throughput: 57.34 Mbit/s

95th percentile per-packet one-way delay: 300.538 ms

Loss rate: 3.51%

-- Flow 2:

Average throughput: 38.39 Mbit/s

95th percentile per-packet one-way delay: 135.740 ms

Loss rate: 2.97%

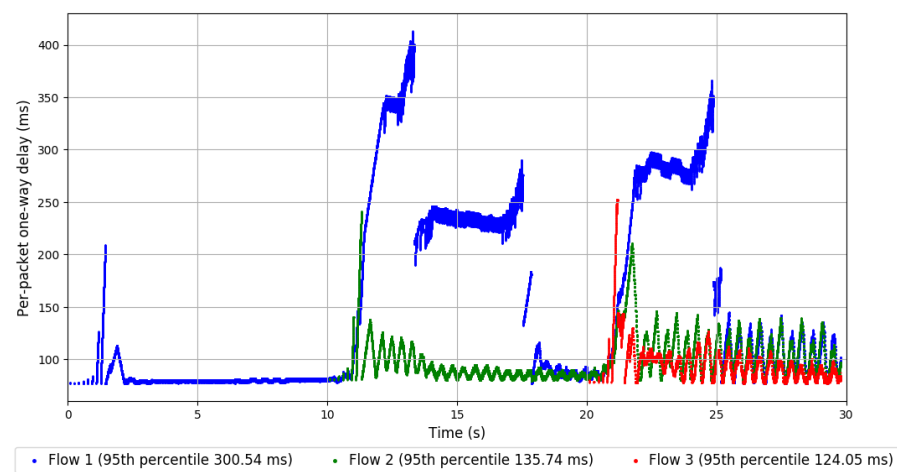
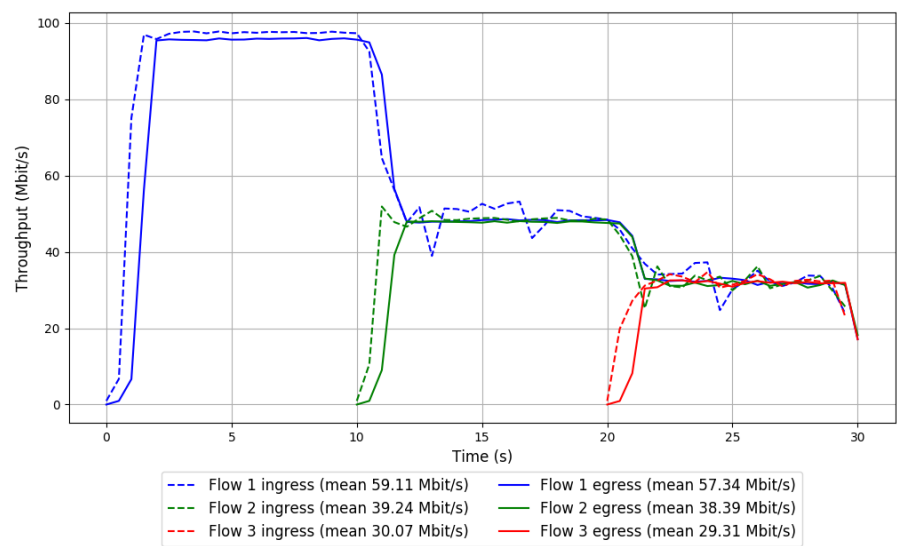
-- Flow 3:

Average throughput: 29.31 Mbit/s

95th percentile per-packet one-way delay: 124.048 ms

Loss rate: 4.13%

Run 4: Report of Indigo — Data Link

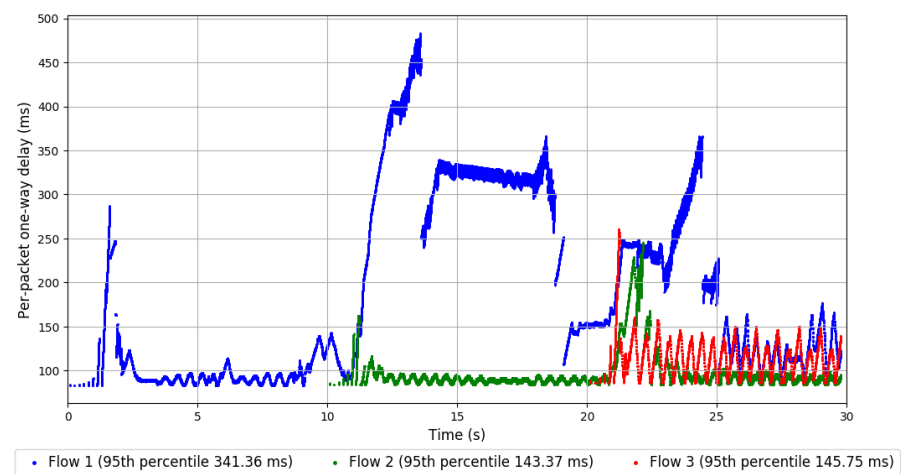
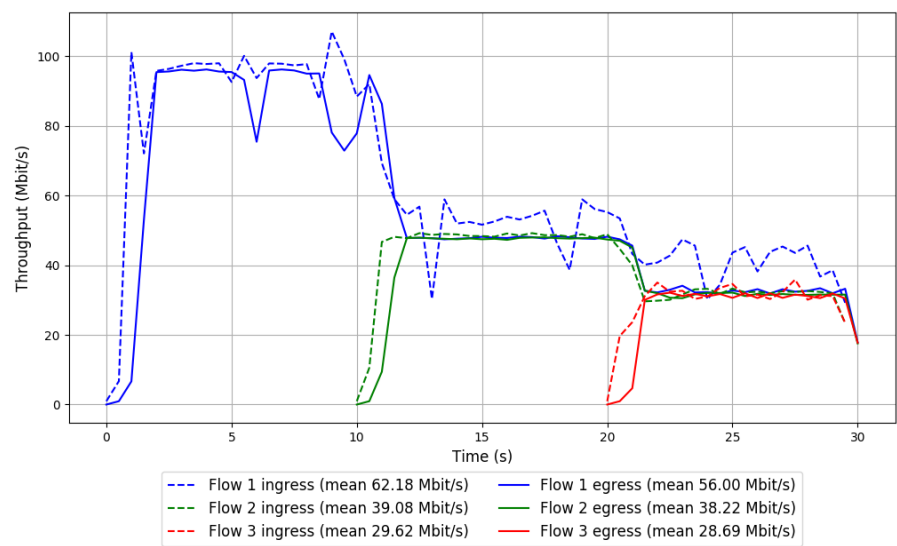


Run 5: Statistics of Indigo

Start at: 2018-09-25 20:03:02  
End at: 2018-09-25 20:03:32  
Local clock offset: -8.912 ms  
Remote clock offset: -4.238 ms

# Below is generated by plot.py at 2018-09-25 20:56:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.67 Mbit/s  
95th percentile per-packet one-way delay: 329.712 ms  
Loss rate: 7.89%  
-- Flow 1:  
Average throughput: 56.00 Mbit/s  
95th percentile per-packet one-way delay: 341.358 ms  
Loss rate: 10.42%  
-- Flow 2:  
Average throughput: 38.22 Mbit/s  
95th percentile per-packet one-way delay: 143.368 ms  
Loss rate: 3.01%  
-- Flow 3:  
Average throughput: 28.69 Mbit/s  
95th percentile per-packet one-way delay: 145.747 ms  
Loss rate: 4.78%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-96d2da3

Start at: 2018-09-25 17:26:04

End at: 2018-09-25 17:26:34

Local clock offset: -3.677 ms

Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-09-25 20:56:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 73.38 Mbit/s

95th percentile per-packet one-way delay: 1270.034 ms

Loss rate: 29.23%

-- Flow 1:

Average throughput: 42.22 Mbit/s

95th percentile per-packet one-way delay: 1266.538 ms

Loss rate: 26.14%

-- Flow 2:

Average throughput: 33.35 Mbit/s

95th percentile per-packet one-way delay: 1277.242 ms

Loss rate: 35.39%

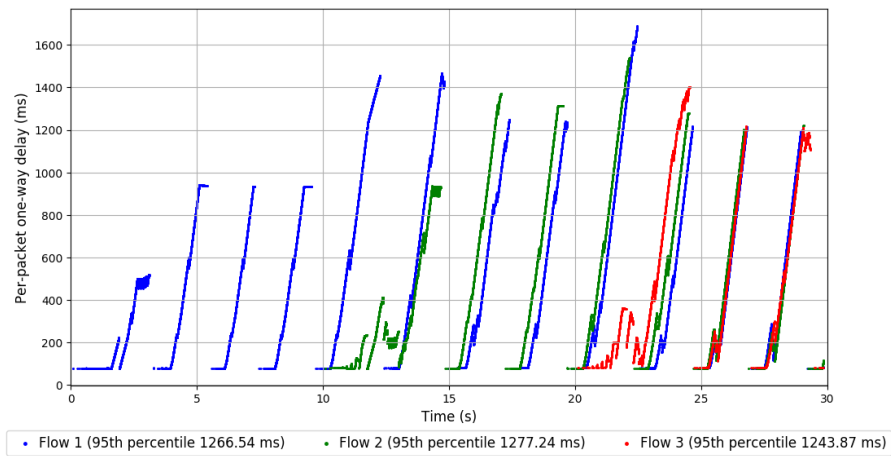
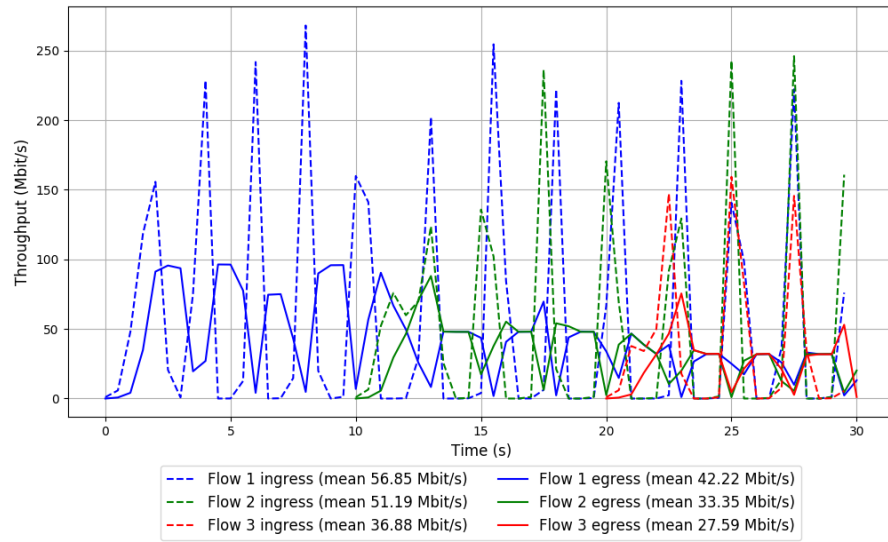
-- Flow 3:

Average throughput: 27.59 Mbit/s

95th percentile per-packet one-way delay: 1243.869 ms

Loss rate: 26.44%

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

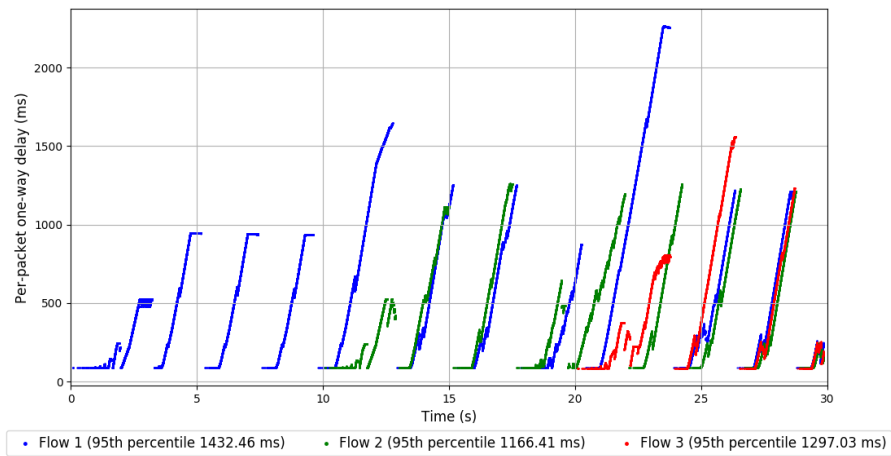
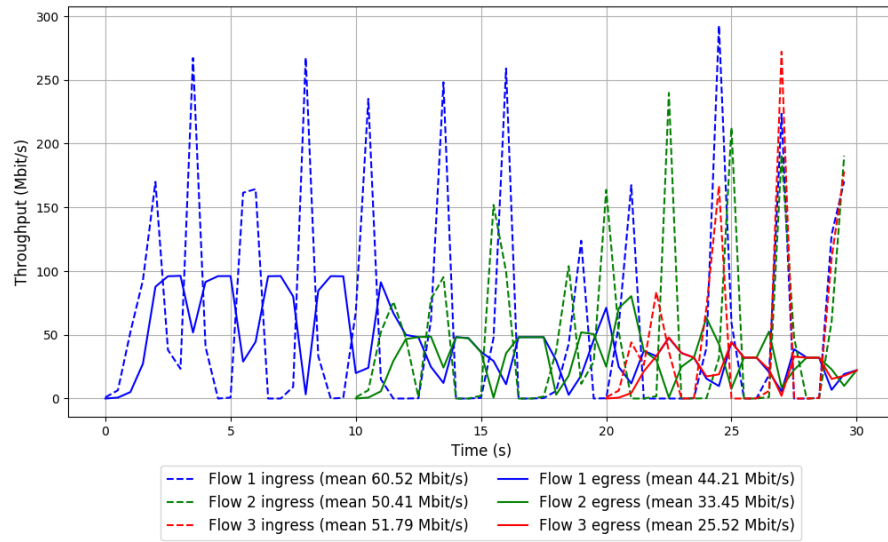


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-09-25 18:14:53  
End at: 2018-09-25 18:15:23  
Local clock offset: -2.036 ms  
Remote clock offset: -3.288 ms

# Below is generated by plot.py at 2018-09-25 20:56:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 74.78 Mbit/s  
95th percentile per-packet one-way delay: 1241.820 ms  
Loss rate: 32.42%  
-- Flow 1:  
Average throughput: 44.21 Mbit/s  
95th percentile per-packet one-way delay: 1432.464 ms  
Loss rate: 26.81%  
-- Flow 2:  
Average throughput: 33.45 Mbit/s  
95th percentile per-packet one-way delay: 1166.413 ms  
Loss rate: 33.49%  
-- Flow 3:  
Average throughput: 25.52 Mbit/s  
95th percentile per-packet one-way delay: 1297.034 ms  
Loss rate: 50.42%

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





Run 3: Statistics of Indigo-96d2da3

Start at: 2018-09-25 19:06:59

End at: 2018-09-25 19:07:29

Local clock offset: -4.779 ms

Remote clock offset: 0.747 ms

# Below is generated by plot.py at 2018-09-25 20:56:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.67 Mbit/s

95th percentile per-packet one-way delay: 1210.196 ms

Loss rate: 28.88%

-- Flow 1:

Average throughput: 44.47 Mbit/s

95th percentile per-packet one-way delay: 1167.020 ms

Loss rate: 24.14%

-- Flow 2:

Average throughput: 30.25 Mbit/s

95th percentile per-packet one-way delay: 1312.977 ms

Loss rate: 34.73%

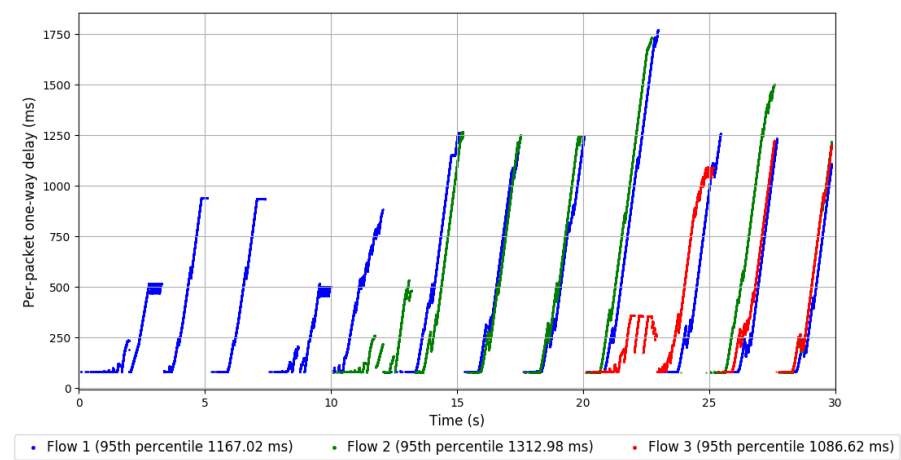
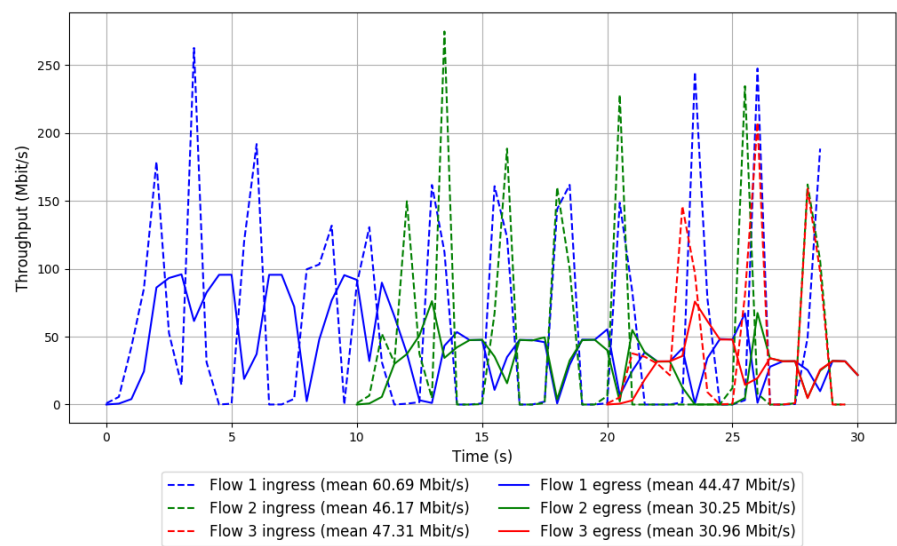
-- Flow 3:

Average throughput: 30.96 Mbit/s

95th percentile per-packet one-way delay: 1086.621 ms

Loss rate: 35.18%

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

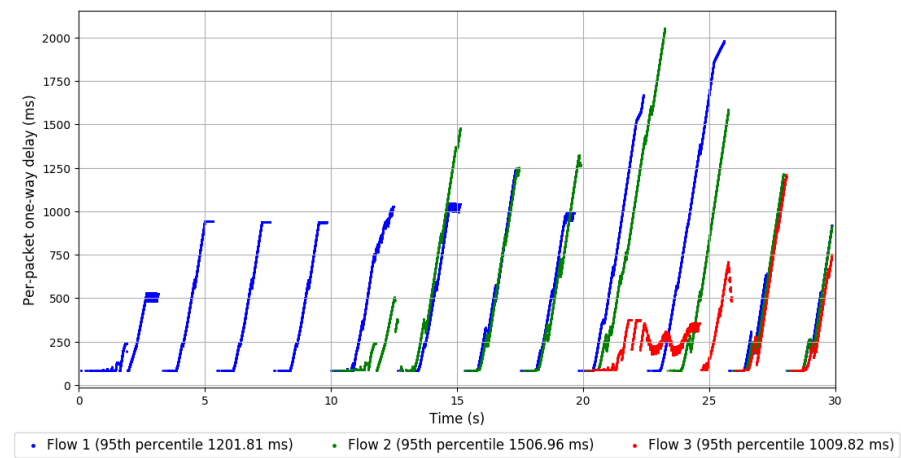
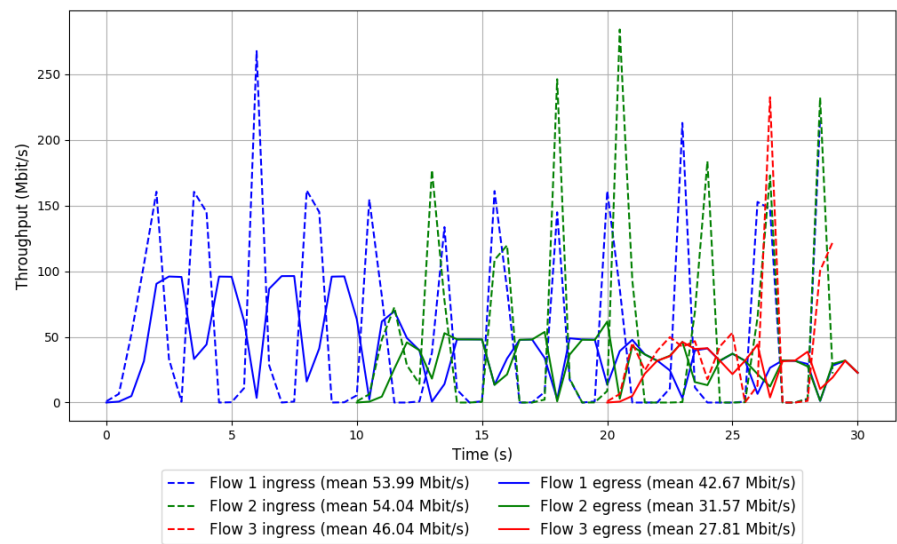


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-09-25 19:59:58  
End at: 2018-09-25 20:00:28  
Local clock offset: -8.565 ms  
Remote clock offset: -4.292 ms

# Below is generated by plot.py at 2018-09-25 20:56:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 72.74 Mbit/s  
95th percentile per-packet one-way delay: 1341.828 ms  
Loss rate: 28.07%  
-- Flow 1:  
Average throughput: 42.67 Mbit/s  
95th percentile per-packet one-way delay: 1201.811 ms  
Loss rate: 18.74%  
-- Flow 2:  
Average throughput: 31.57 Mbit/s  
95th percentile per-packet one-way delay: 1506.964 ms  
Loss rate: 39.29%  
-- Flow 3:  
Average throughput: 27.81 Mbit/s  
95th percentile per-packet one-way delay: 1009.818 ms  
Loss rate: 35.33%

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



Run 5: Statistics of Indigo-96d2da3

Start at: 2018-09-25 20:47:35

End at: 2018-09-25 20:48:05

Local clock offset: -6.086 ms

Remote clock offset: 0.993 ms

# Below is generated by plot.py at 2018-09-25 20:56:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 75.19 Mbit/s

95th percentile per-packet one-way delay: 1185.067 ms

Loss rate: 35.57%

-- Flow 1:

Average throughput: 43.30 Mbit/s

95th percentile per-packet one-way delay: 1139.540 ms

Loss rate: 27.22%

-- Flow 2:

Average throughput: 33.65 Mbit/s

95th percentile per-packet one-way delay: 1218.964 ms

Loss rate: 46.64%

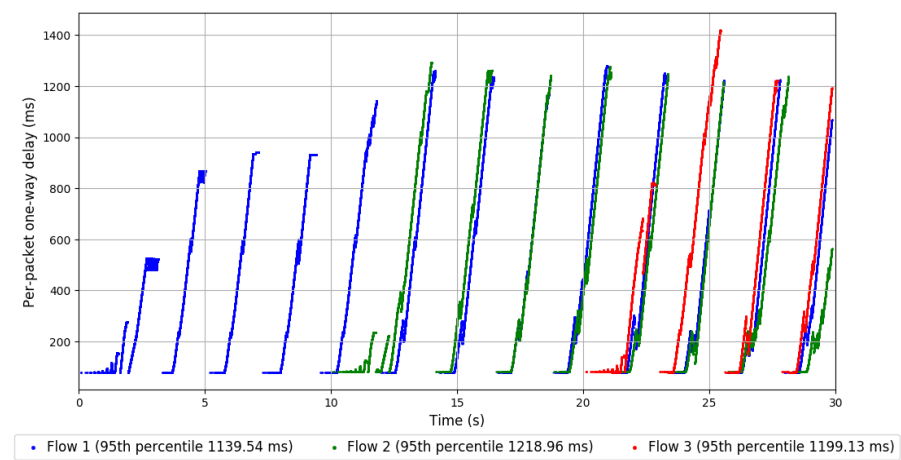
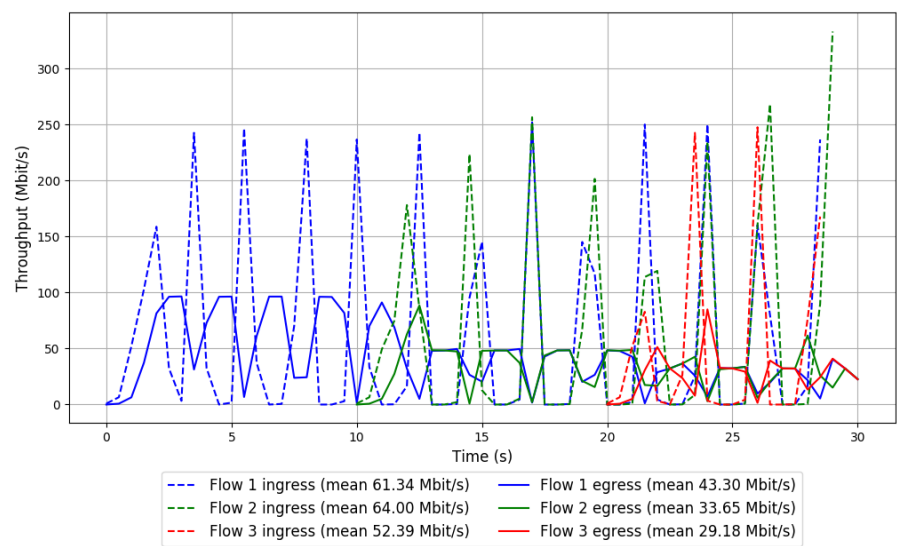
-- Flow 3:

Average throughput: 29.18 Mbit/s

95th percentile per-packet one-way delay: 1199.129 ms

Loss rate: 37.73%

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

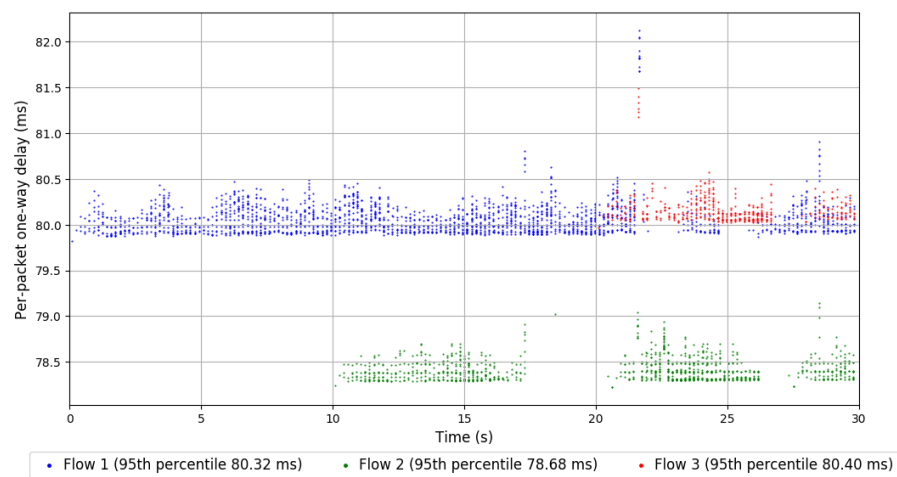
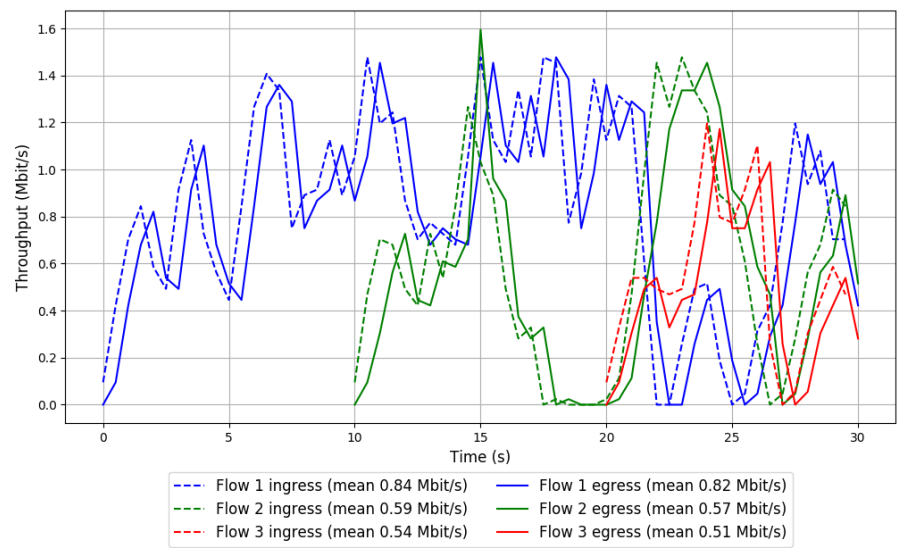


```
Run 1: Statistics of LEDBAT

Start at: 2018-09-25 16:50:49
End at: 2018-09-25 16:51:19
Local clock offset: -7.975 ms
Remote clock offset: 0.649 ms

# Below is generated by plot.py at 2018-09-25 20:56:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 80.304 ms
Loss rate: 3.83%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 80.316 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 78.678 ms
Loss rate: 4.28%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 80.396 ms
Loss rate: 6.62%
```

Run 1: Report of LEDBAT — Data Link





Run 2: Statistics of LEDBAT

Start at: 2018-09-25 17:42:40

End at: 2018-09-25 17:43:10

Local clock offset: -3.247 ms

Remote clock offset: 2.168 ms

# Below is generated by plot.py at 2018-09-25 20:56:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 75.940 ms

Loss rate: 1.91%

-- Flow 1:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 75.897 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 75.813 ms

Loss rate: 2.39%

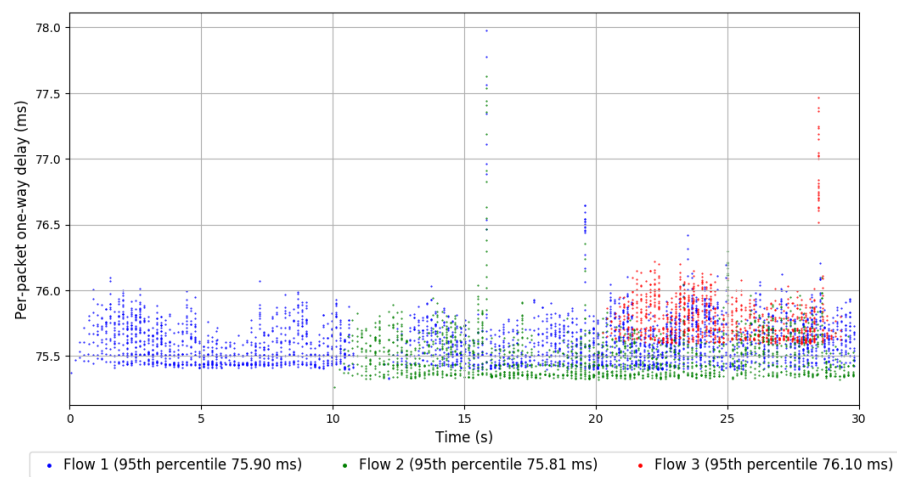
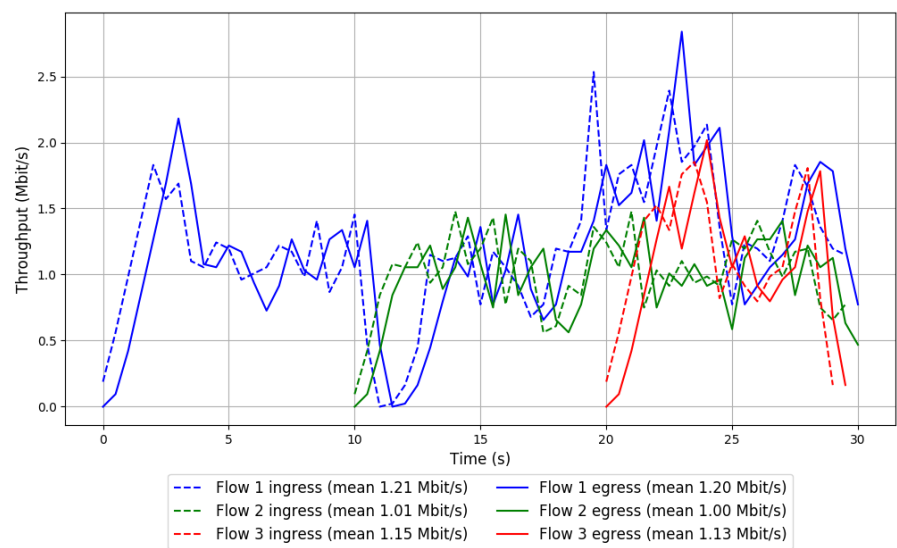
-- Flow 3:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 76.096 ms

Loss rate: 1.67%

Run 2: Report of LEDBAT — Data Link

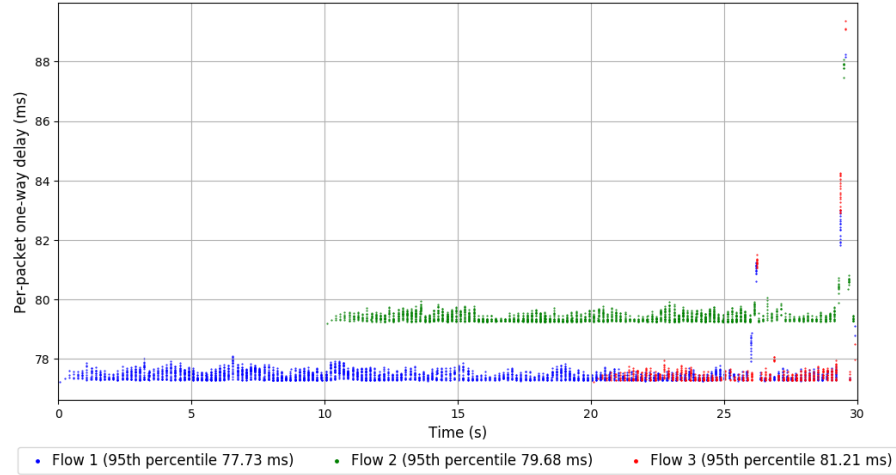
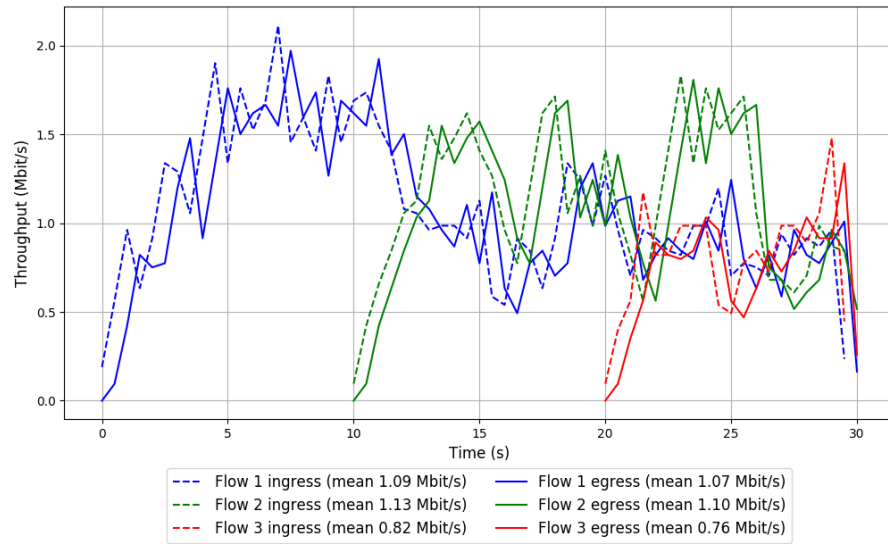


Run 3: Statistics of LEDBAT

Start at: 2018-09-25 18:30:41  
End at: 2018-09-25 18:31:11  
Local clock offset: -2.993 ms  
Remote clock offset: 0.859 ms

# Below is generated by plot.py at 2018-09-25 20:56:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.05 Mbit/s  
95th percentile per-packet one-way delay: 79.599 ms  
Loss rate: 3.08%  
-- Flow 1:  
Average throughput: 1.07 Mbit/s  
95th percentile per-packet one-way delay: 77.728 ms  
Loss rate: 2.19%  
-- Flow 2:  
Average throughput: 1.10 Mbit/s  
95th percentile per-packet one-way delay: 79.681 ms  
Loss rate: 2.93%  
-- Flow 3:  
Average throughput: 0.76 Mbit/s  
95th percentile per-packet one-way delay: 81.209 ms  
Loss rate: 7.16%

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



Run 4: Statistics of LEDBAT

Start at: 2018-09-25 19:24:27

End at: 2018-09-25 19:24:57

Local clock offset: -2.008 ms

Remote clock offset: 0.794 ms

# Below is generated by plot.py at 2018-09-25 20:56:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 80.536 ms

Loss rate: 2.79%

-- Flow 1:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 78.214 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 78.207 ms

Loss rate: 3.02%

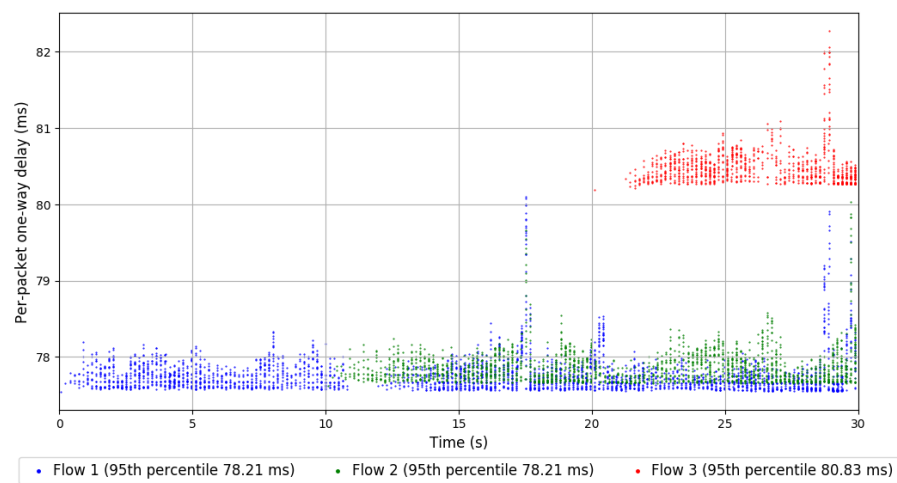
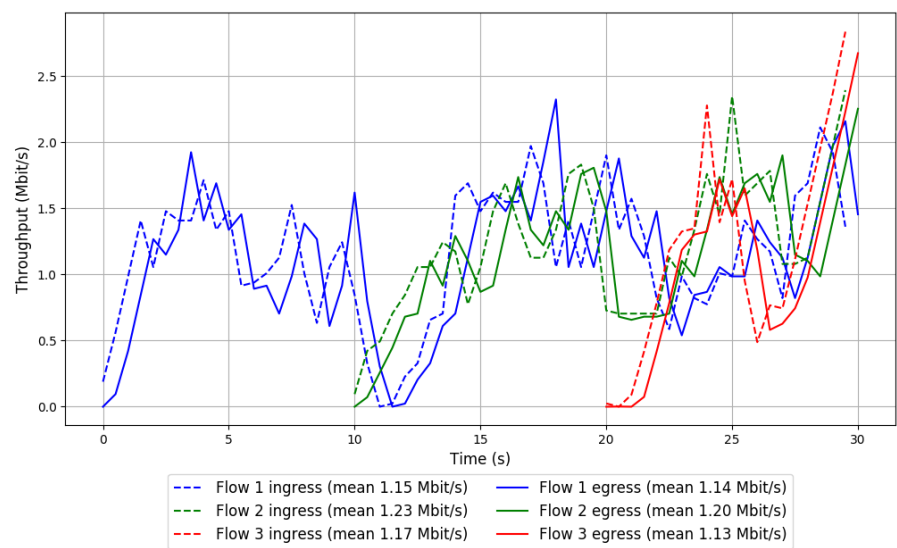
-- Flow 3:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 80.827 ms

Loss rate: 5.15%

Run 4: Report of LEDBAT — Data Link

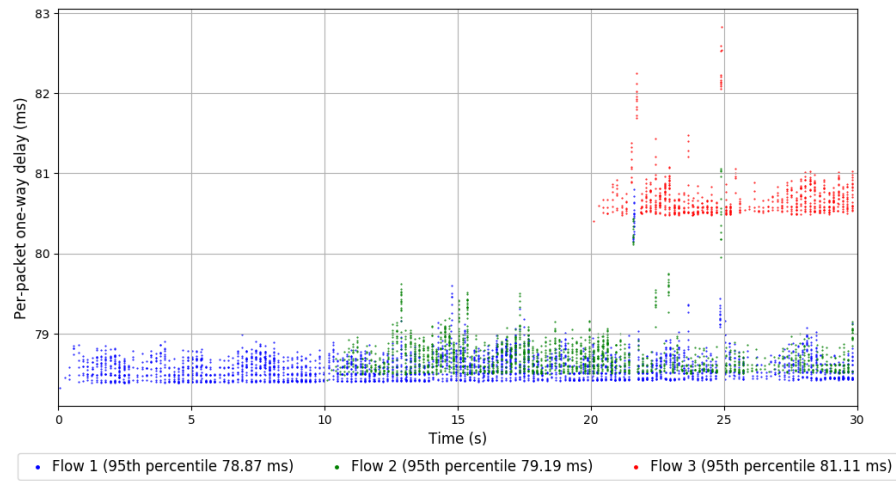
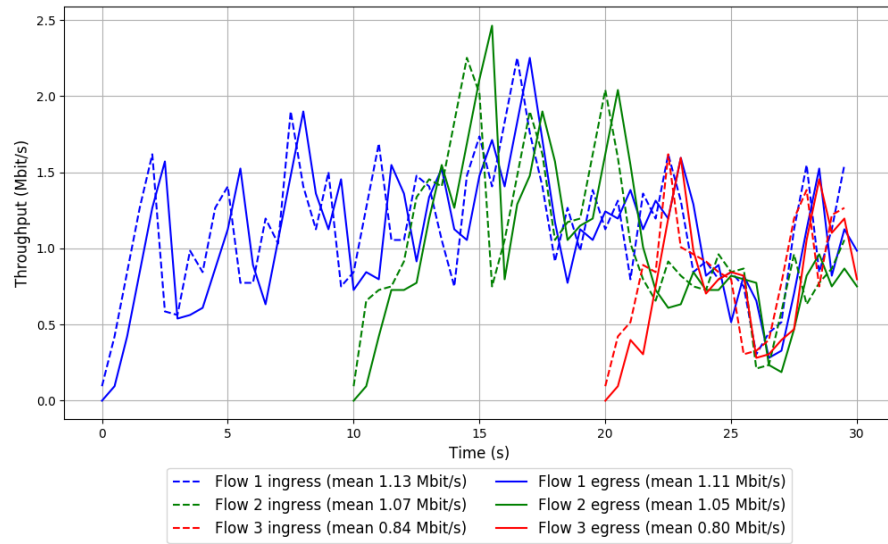


Run 5: Statistics of LEDBAT

Start at: 2018-09-25 20:15:46  
End at: 2018-09-25 20:16:16  
Local clock offset: -10.963 ms  
Remote clock offset: -0.232 ms

# Below is generated by plot.py at 2018-09-25 20:56:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.07 Mbit/s  
95th percentile per-packet one-way delay: 80.682 ms  
Loss rate: 3.09%  
-- Flow 1:  
Average throughput: 1.11 Mbit/s  
95th percentile per-packet one-way delay: 78.870 ms  
Loss rate: 2.49%  
-- Flow 2:  
Average throughput: 1.05 Mbit/s  
95th percentile per-packet one-way delay: 79.192 ms  
Loss rate: 2.92%  
-- Flow 3:  
Average throughput: 0.80 Mbit/s  
95th percentile per-packet one-way delay: 81.110 ms  
Loss rate: 5.96%

## Run 5: Report of LEDBAT — Data Link



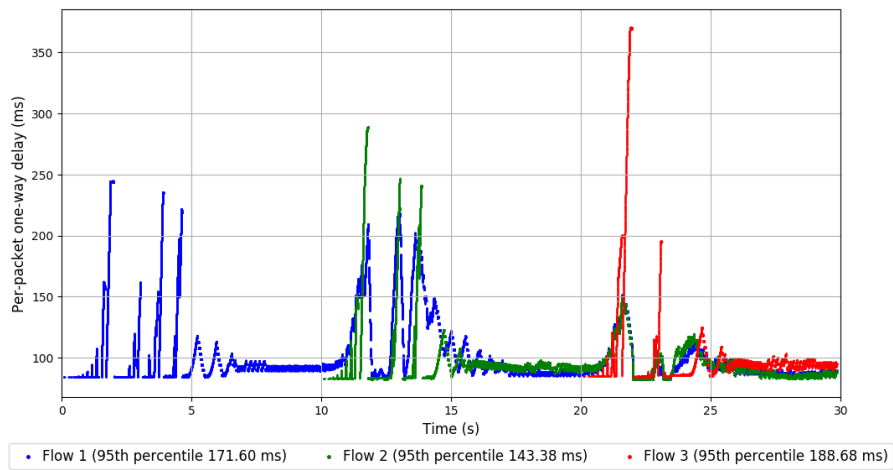
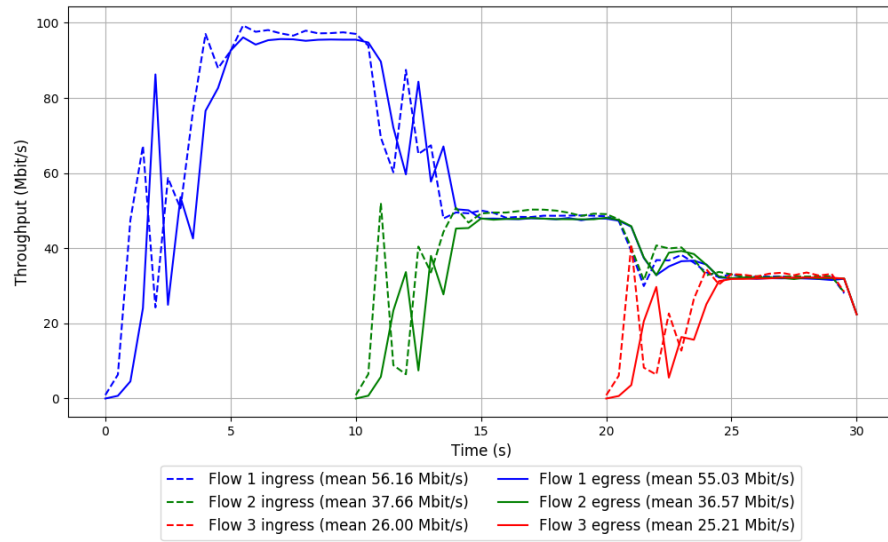


Run 1: Statistics of Indigo-Muses

Start at: 2018-09-25 17:16:27  
End at: 2018-09-25 17:16:58  
Local clock offset: -5.543 ms  
Remote clock offset: -3.183 ms

# Below is generated by plot.py at 2018-09-25 20:56:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.56 Mbit/s  
95th percentile per-packet one-way delay: 167.256 ms  
Loss rate: 3.07%  
-- Flow 1:  
Average throughput: 55.03 Mbit/s  
95th percentile per-packet one-way delay: 171.596 ms  
Loss rate: 2.55%  
-- Flow 2:  
Average throughput: 36.57 Mbit/s  
95th percentile per-packet one-way delay: 143.378 ms  
Loss rate: 3.70%  
-- Flow 3:  
Average throughput: 25.21 Mbit/s  
95th percentile per-packet one-way delay: 188.682 ms  
Loss rate: 4.64%

# Run 1: Report of Indigo-Muses — Data Link

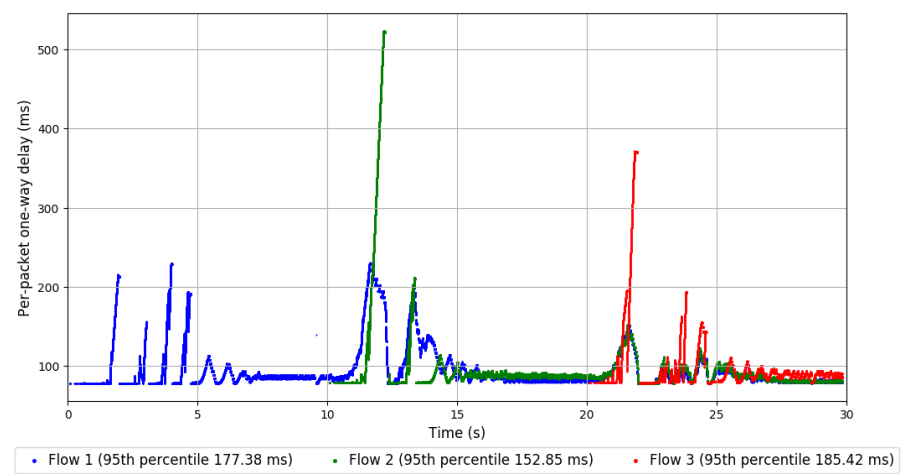
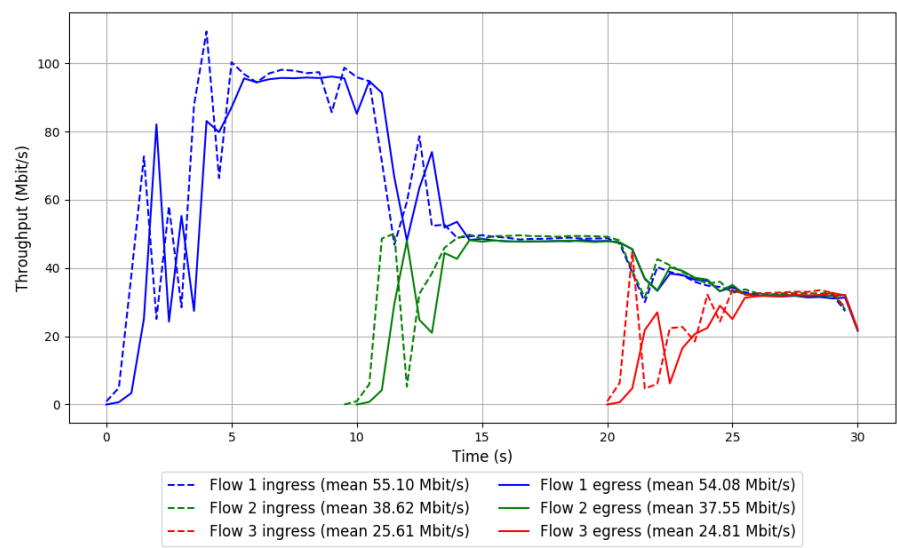


Run 2: Statistics of Indigo-Muses

Start at: 2018-09-25 18:05:26  
End at: 2018-09-25 18:05:56  
Local clock offset: -2.617 ms  
Remote clock offset: -0.289 ms

# Below is generated by plot.py at 2018-09-25 20:56:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.14 Mbit/s  
95th percentile per-packet one-way delay: 176.548 ms  
Loss rate: 2.95%  
-- Flow 1:  
Average throughput: 54.08 Mbit/s  
95th percentile per-packet one-way delay: 177.385 ms  
Loss rate: 2.38%  
-- Flow 2:  
Average throughput: 37.55 Mbit/s  
95th percentile per-packet one-way delay: 152.847 ms  
Loss rate: 3.58%  
-- Flow 3:  
Average throughput: 24.81 Mbit/s  
95th percentile per-packet one-way delay: 185.422 ms  
Loss rate: 4.72%

Run 2: Report of Indigo-Muses — Data Link



Run 3: Statistics of Indigo-Muses

Start at: 2018-09-25 18:56:23

End at: 2018-09-25 18:56:53

Local clock offset: -3.655 ms

Remote clock offset: 0.613 ms

# Below is generated by plot.py at 2018-09-25 20:57:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.53 Mbit/s

95th percentile per-packet one-way delay: 163.682 ms

Loss rate: 3.43%

-- Flow 1:

Average throughput: 54.74 Mbit/s

95th percentile per-packet one-way delay: 160.119 ms

Loss rate: 3.00%

-- Flow 2:

Average throughput: 36.93 Mbit/s

95th percentile per-packet one-way delay: 154.898 ms

Loss rate: 3.75%

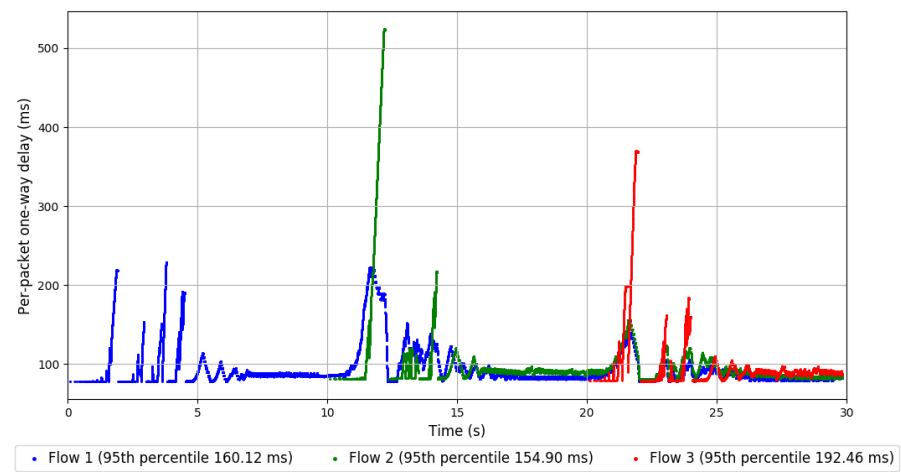
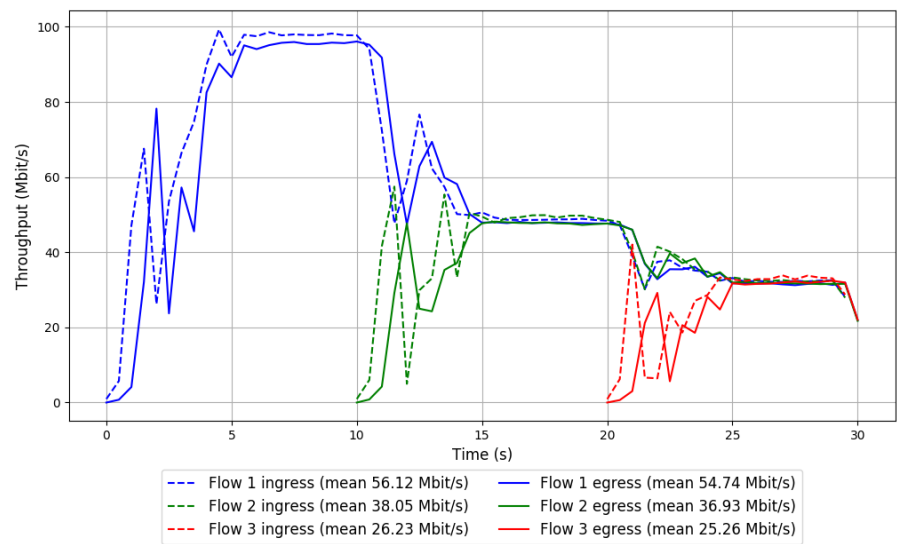
-- Flow 3:

Average throughput: 25.26 Mbit/s

95th percentile per-packet one-way delay: 192.456 ms

Loss rate: 5.27%

Run 3: Report of Indigo-Muses — Data Link



Run 4: Statistics of Indigo-Muses

Start at: 2018-09-25 19:50:03

End at: 2018-09-25 19:50:33

Local clock offset: -7.531 ms

Remote clock offset: 0.894 ms

# Below is generated by plot.py at 2018-09-25 20:57:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 86.08 Mbit/s

95th percentile per-packet one-way delay: 168.653 ms

Loss rate: 4.26%

-- Flow 1:

Average throughput: 53.22 Mbit/s

95th percentile per-packet one-way delay: 174.859 ms

Loss rate: 4.58%

-- Flow 2:

Average throughput: 36.99 Mbit/s

95th percentile per-packet one-way delay: 140.891 ms

Loss rate: 3.31%

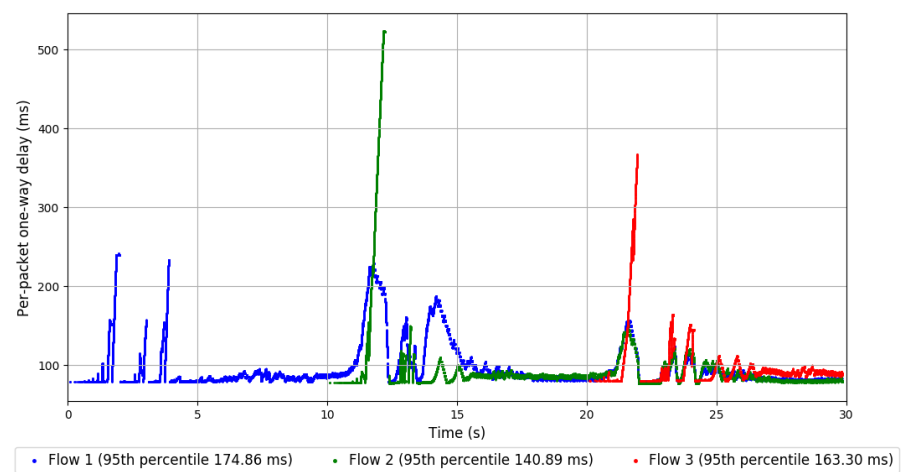
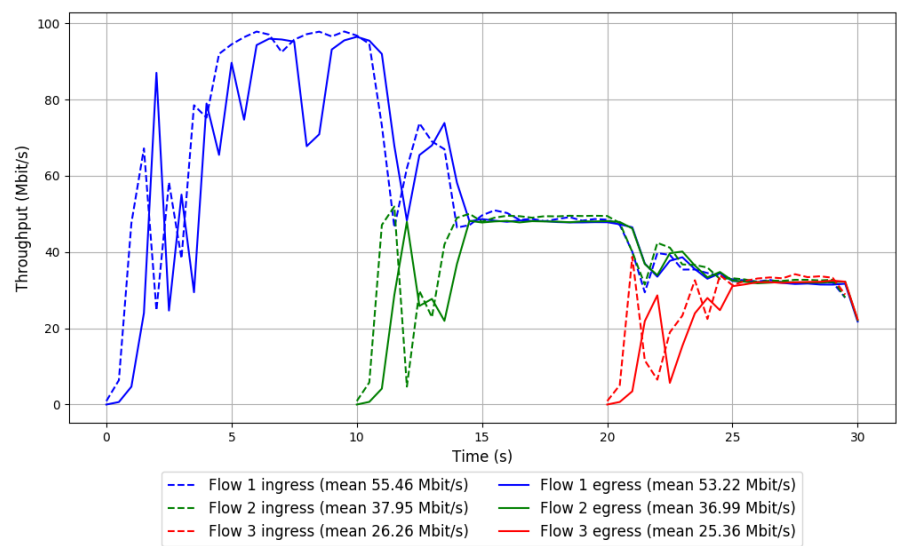
-- Flow 3:

Average throughput: 25.36 Mbit/s

95th percentile per-packet one-way delay: 163.300 ms

Loss rate: 5.03%

Run 4: Report of Indigo-Muses — Data Link



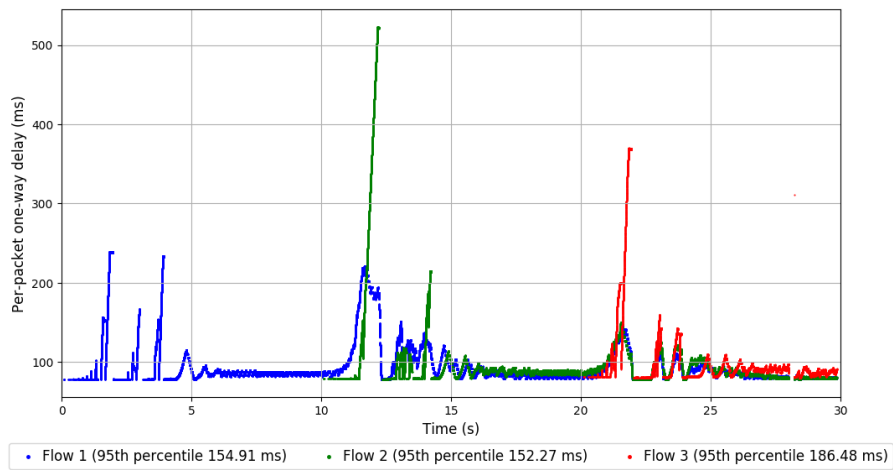
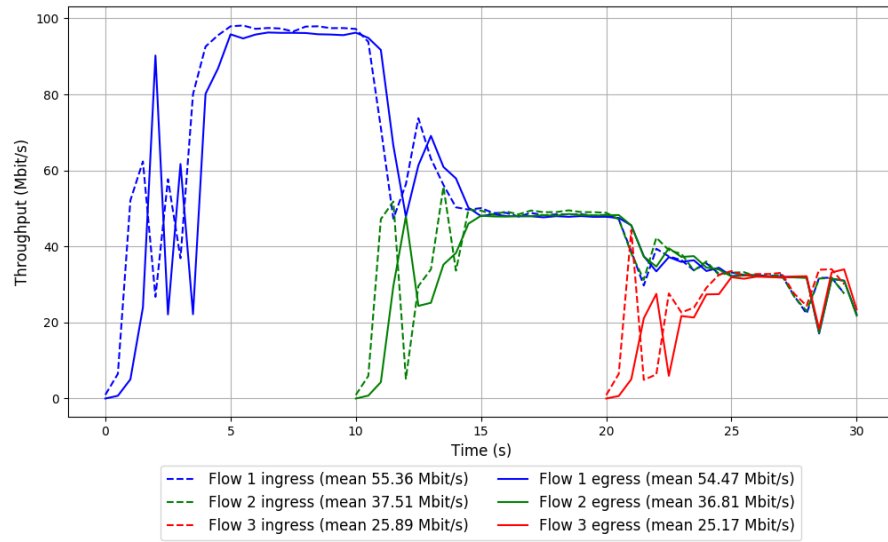


Run 5: Statistics of Indigo-Muses

Start at: 2018-09-25 20:38:14  
End at: 2018-09-25 20:38:44  
Local clock offset: -12.507 ms  
Remote clock offset: -0.247 ms

# Below is generated by plot.py at 2018-09-25 20:57:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.15 Mbit/s  
95th percentile per-packet one-way delay: 156.273 ms  
Loss rate: 2.51%  
-- Flow 1:  
Average throughput: 54.47 Mbit/s  
95th percentile per-packet one-way delay: 154.909 ms  
Loss rate: 2.15%  
-- Flow 2:  
Average throughput: 36.81 Mbit/s  
95th percentile per-packet one-way delay: 152.274 ms  
Loss rate: 2.66%  
-- Flow 3:  
Average throughput: 25.17 Mbit/s  
95th percentile per-packet one-way delay: 186.479 ms  
Loss rate: 4.41%

# Run 5: Report of Indigo-Muses — Data Link

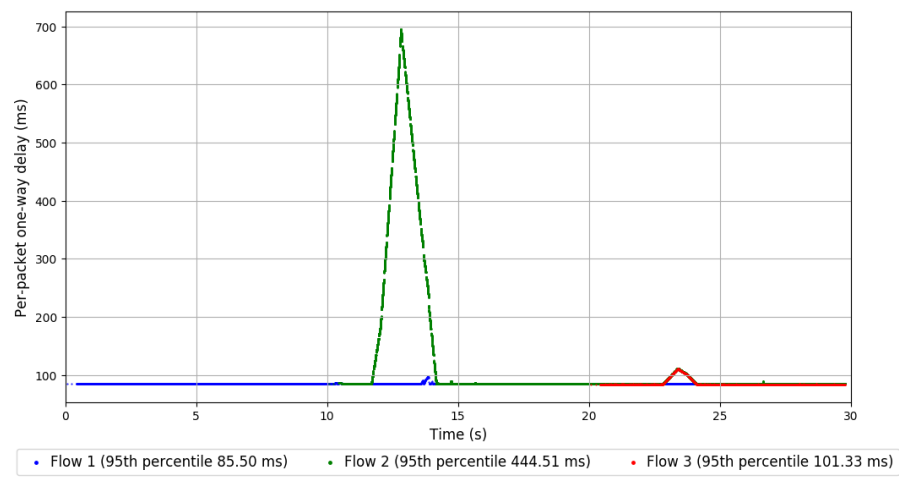
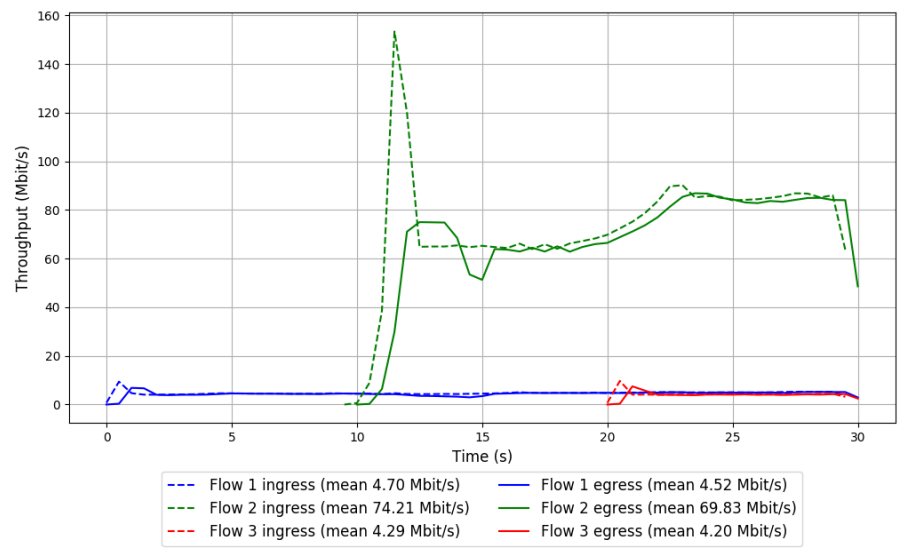


Run 1: Statistics of PCC-Allegro

Start at: 2018-09-25 17:10:57  
End at: 2018-09-25 17:11:27  
Local clock offset: -8.341 ms  
Remote clock offset: -4.334 ms

# Below is generated by plot.py at 2018-09-25 20:57:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 52.22 Mbit/s  
95th percentile per-packet one-way delay: 415.690 ms  
Loss rate: 6.42%  
-- Flow 1:  
Average throughput: 4.52 Mbit/s  
95th percentile per-packet one-way delay: 85.504 ms  
Loss rate: 4.52%  
-- Flow 2:  
Average throughput: 69.83 Mbit/s  
95th percentile per-packet one-way delay: 444.506 ms  
Loss rate: 6.68%  
-- Flow 3:  
Average throughput: 4.20 Mbit/s  
95th percentile per-packet one-way delay: 101.332 ms  
Loss rate: 3.74%

Run 1: Report of PCC-Allegro — Data Link

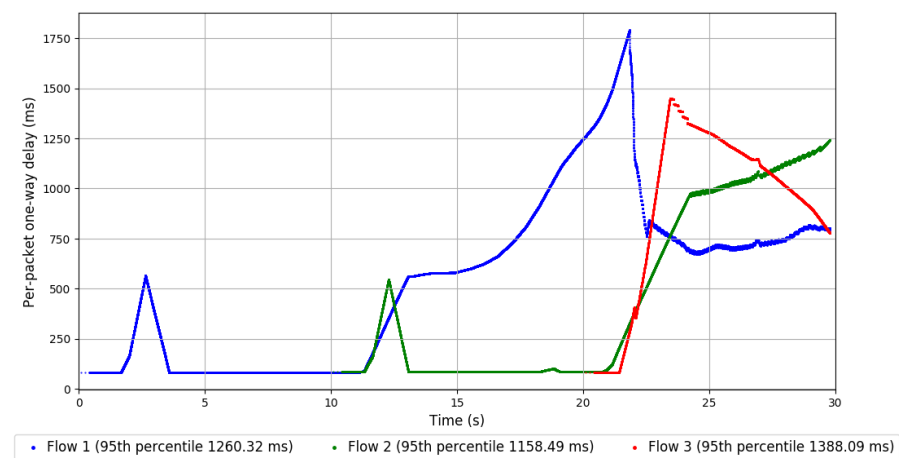
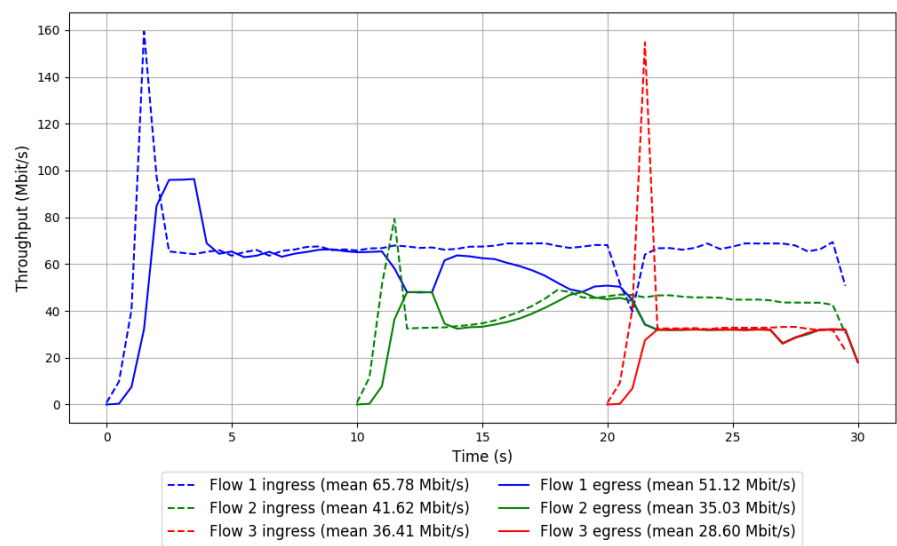


Run 2: Statistics of PCC-Allegro

Start at: 2018-09-25 18:00:40  
End at: 2018-09-25 18:01:10  
Local clock offset: -2.818 ms  
Remote clock offset: -3.101 ms

# Below is generated by plot.py at 2018-09-25 20:57:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 83.69 Mbit/s  
95th percentile per-packet one-way delay: 1279.684 ms  
Loss rate: 21.09%  
-- Flow 1:  
Average throughput: 51.12 Mbit/s  
95th percentile per-packet one-way delay: 1260.323 ms  
Loss rate: 22.71%  
-- Flow 2:  
Average throughput: 35.03 Mbit/s  
95th percentile per-packet one-way delay: 1158.495 ms  
Loss rate: 16.53%  
-- Flow 3:  
Average throughput: 28.60 Mbit/s  
95th percentile per-packet one-way delay: 1388.091 ms  
Loss rate: 22.74%

Run 2: Report of PCC-Allegro — Data Link

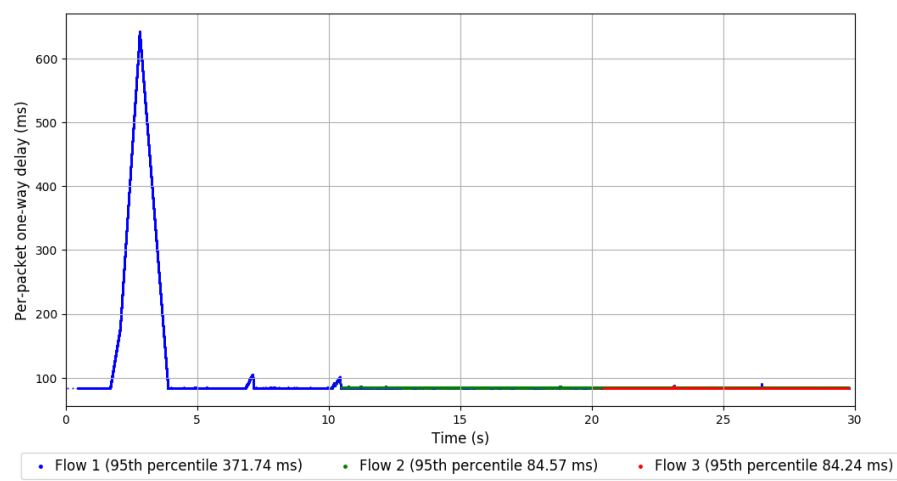
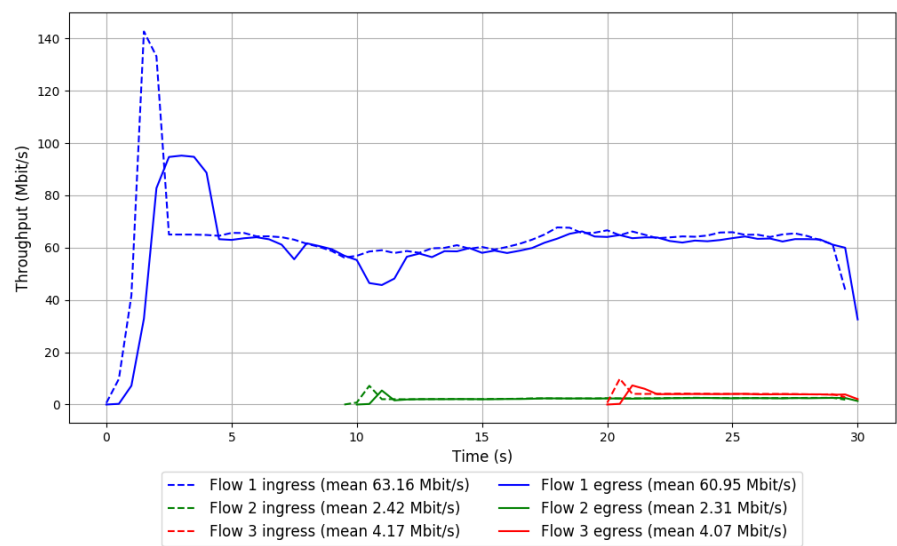


Run 3: Statistics of PCC-Allegro

Start at: 2018-09-25 18:50:00  
End at: 2018-09-25 18:50:30  
Local clock offset: -4.301 ms  
Remote clock offset: -4.414 ms

# Below is generated by plot.py at 2018-09-25 20:57:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 63.81 Mbit/s  
95th percentile per-packet one-way delay: 357.076 ms  
Loss rate: 4.09%  
-- Flow 1:  
Average throughput: 60.95 Mbit/s  
95th percentile per-packet one-way delay: 371.736 ms  
Loss rate: 4.06%  
-- Flow 2:  
Average throughput: 2.31 Mbit/s  
95th percentile per-packet one-way delay: 84.573 ms  
Loss rate: 5.05%  
-- Flow 3:  
Average throughput: 4.07 Mbit/s  
95th percentile per-packet one-way delay: 84.244 ms  
Loss rate: 4.32%

Run 3: Report of PCC-Allegro — Data Link



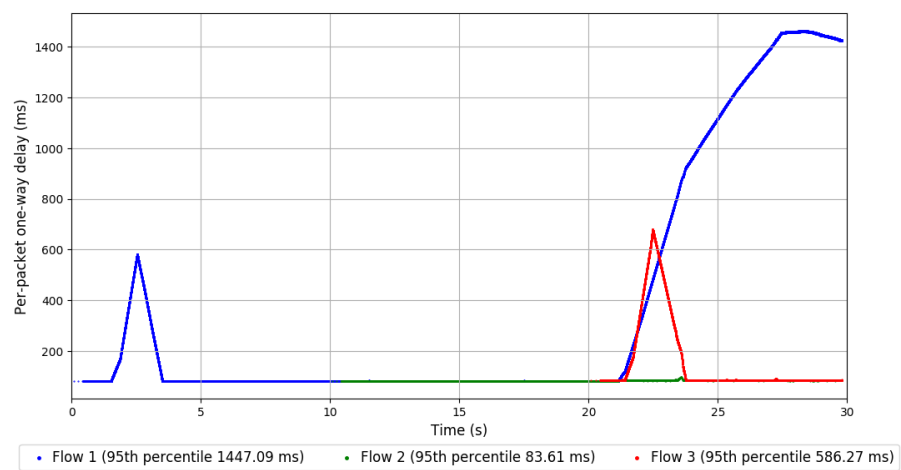
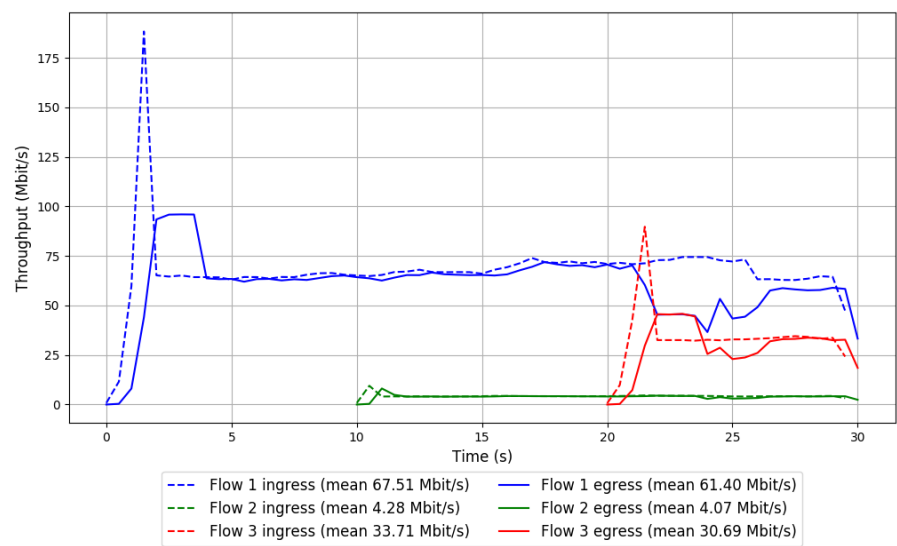


Run 4: Statistics of PCC-Allegro

Start at: 2018-09-25 19:44:20  
End at: 2018-09-25 19:44:50  
Local clock offset: -5.33 ms  
Remote clock offset: -4.415 ms

# Below is generated by plot.py at 2018-09-25 20:57:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 74.10 Mbit/s  
95th percentile per-packet one-way delay: 1440.099 ms  
Loss rate: 9.53%  
-- Flow 1:  
Average throughput: 61.40 Mbit/s  
95th percentile per-packet one-way delay: 1447.094 ms  
Loss rate: 9.54%  
-- Flow 2:  
Average throughput: 4.07 Mbit/s  
95th percentile per-packet one-way delay: 83.613 ms  
Loss rate: 5.64%  
-- Flow 3:  
Average throughput: 30.69 Mbit/s  
95th percentile per-packet one-way delay: 586.271 ms  
Loss rate: 10.48%

Run 4: Report of PCC-Allegro — Data Link

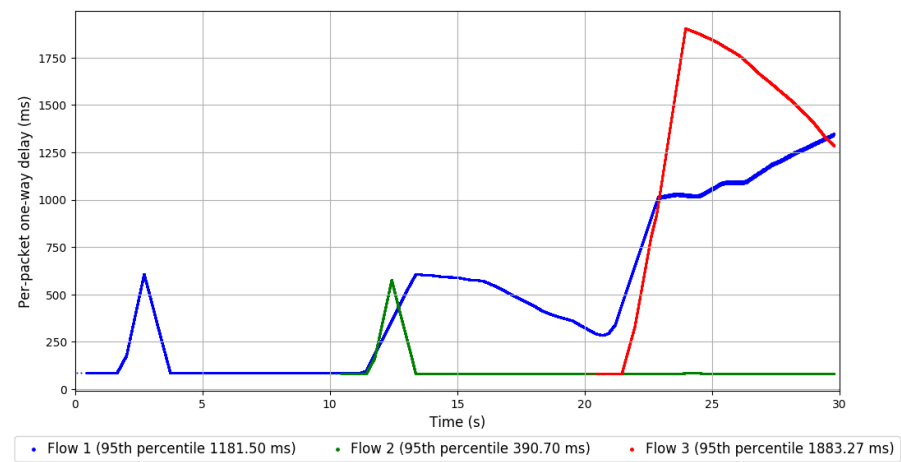
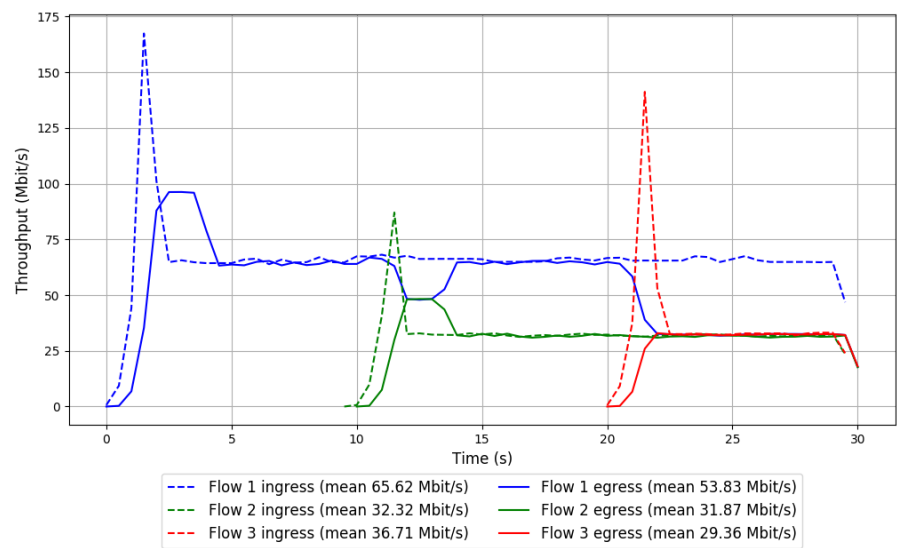


Run 5: Statistics of PCC-Allegro

Start at: 2018-09-25 20:32:25  
End at: 2018-09-25 20:32:56  
Local clock offset: -12.09 ms  
Remote clock offset: -4.151 ms

# Below is generated by plot.py at 2018-09-25 20:58:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.54 Mbit/s  
95th percentile per-packet one-way delay: 1594.327 ms  
Loss rate: 15.26%  
-- Flow 1:  
Average throughput: 53.83 Mbit/s  
95th percentile per-packet one-way delay: 1181.501 ms  
Loss rate: 18.40%  
-- Flow 2:  
Average throughput: 31.87 Mbit/s  
95th percentile per-packet one-way delay: 390.697 ms  
Loss rate: 2.22%  
-- Flow 3:  
Average throughput: 29.36 Mbit/s  
95th percentile per-packet one-way delay: 1883.271 ms  
Loss rate: 21.36%

Run 5: Report of PCC-Allegro — Data Link

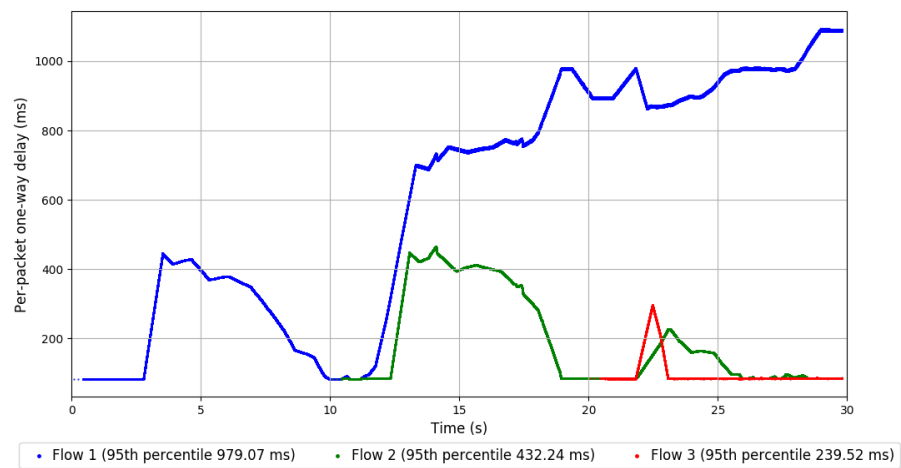
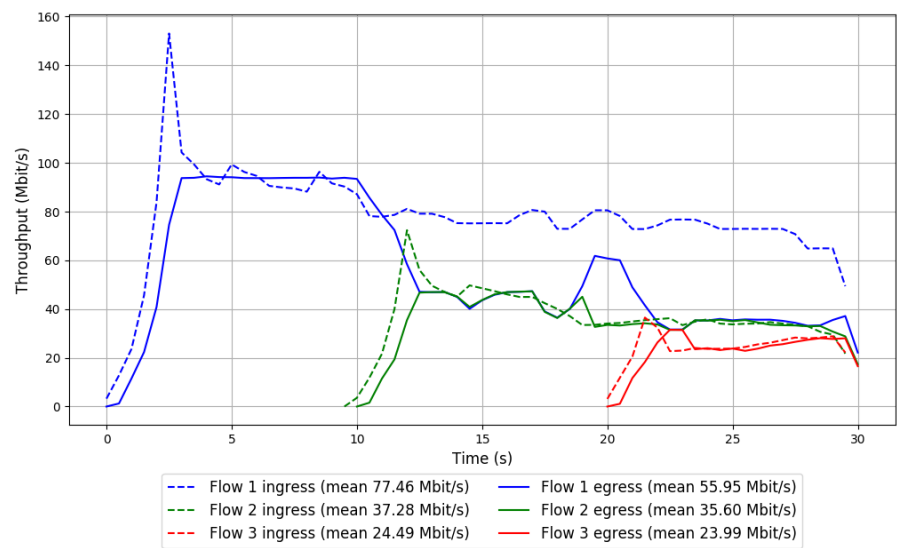


Run 1: Statistics of PCC-Expr

Start at: 2018-09-25 17:05:53  
End at: 2018-09-25 17:06:23  
Local clock offset: -9.232 ms  
Remote clock offset: -3.241 ms

# Below is generated by plot.py at 2018-09-25 20:58:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.42 Mbit/s  
95th percentile per-packet one-way delay: 975.925 ms  
Loss rate: 21.23%  
-- Flow 1:  
Average throughput: 55.95 Mbit/s  
95th percentile per-packet one-way delay: 979.065 ms  
Loss rate: 28.17%  
-- Flow 2:  
Average throughput: 35.60 Mbit/s  
95th percentile per-packet one-way delay: 432.236 ms  
Loss rate: 5.29%  
-- Flow 3:  
Average throughput: 23.99 Mbit/s  
95th percentile per-packet one-way delay: 239.517 ms  
Loss rate: 3.70%

Run 1: Report of PCC-Expr — Data Link

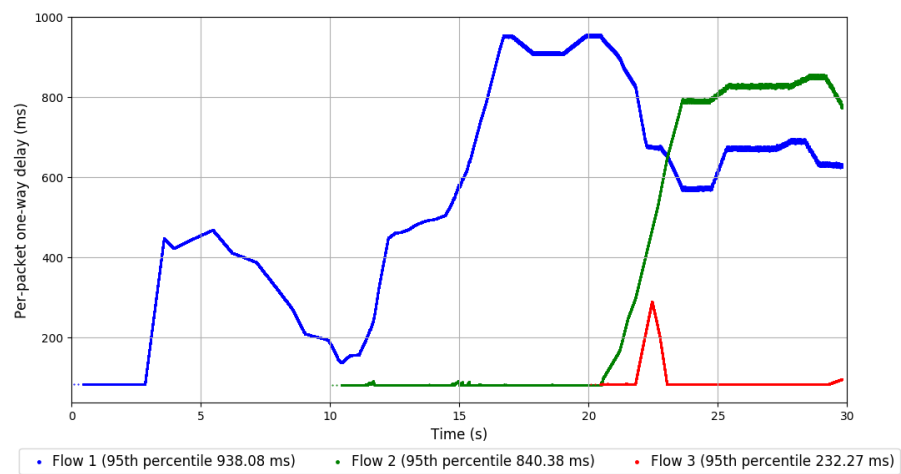
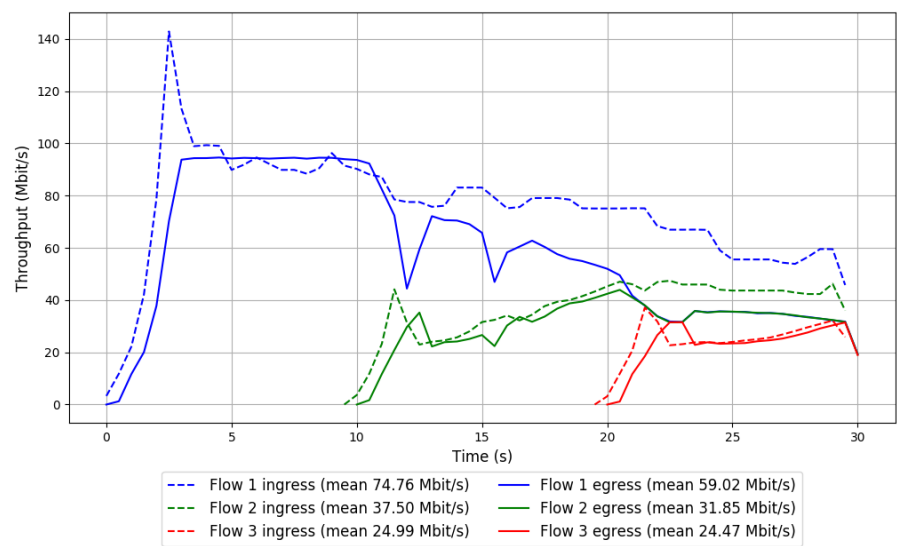


Run 2: Statistics of PCC-Expr

Start at: 2018-09-25 17:55:56  
End at: 2018-09-25 17:56:26  
Local clock offset: -2.841 ms  
Remote clock offset: -3.165 ms

# Below is generated by plot.py at 2018-09-25 20:59:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.16 Mbit/s  
95th percentile per-packet one-way delay: 923.705 ms  
Loss rate: 18.81%  
-- Flow 1:  
Average throughput: 59.02 Mbit/s  
95th percentile per-packet one-way delay: 938.081 ms  
Loss rate: 21.49%  
-- Flow 2:  
Average throughput: 31.85 Mbit/s  
95th percentile per-packet one-way delay: 840.379 ms  
Loss rate: 15.78%  
-- Flow 3:  
Average throughput: 24.47 Mbit/s  
95th percentile per-packet one-way delay: 232.266 ms  
Loss rate: 3.74%

Run 2: Report of PCC-Expr — Data Link



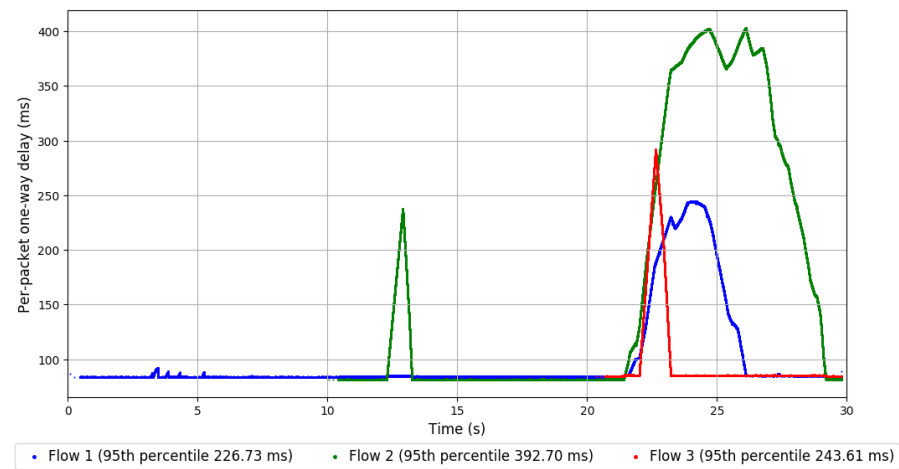
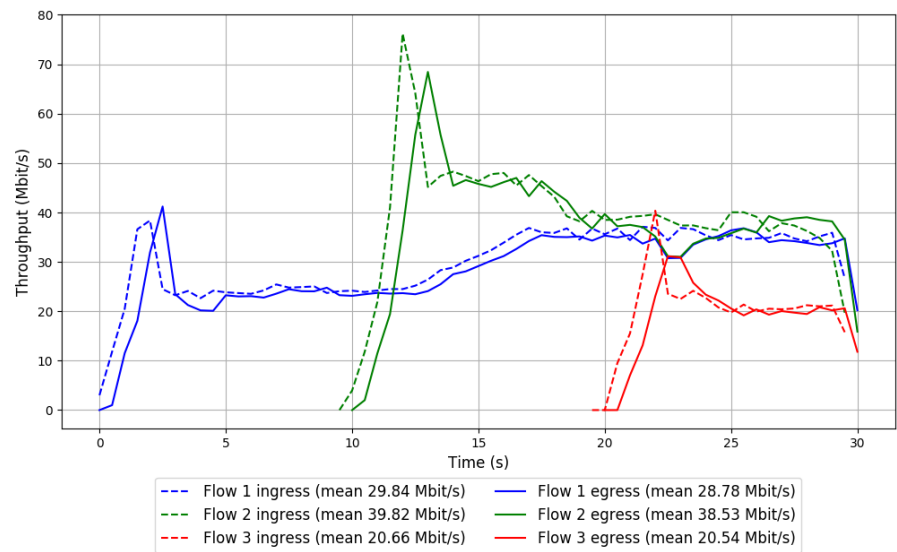


Run 3: Statistics of PCC-Expr

Start at: 2018-09-25 18:46:07  
End at: 2018-09-25 18:46:37  
Local clock offset: -3.021 ms  
Remote clock offset: -3.246 ms

# Below is generated by plot.py at 2018-09-25 20:59:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 60.90 Mbit/s  
95th percentile per-packet one-way delay: 378.749 ms  
Loss rate: 4.13%  
-- Flow 1:  
Average throughput: 28.78 Mbit/s  
95th percentile per-packet one-way delay: 226.733 ms  
Loss rate: 4.07%  
-- Flow 2:  
Average throughput: 38.53 Mbit/s  
95th percentile per-packet one-way delay: 392.703 ms  
Loss rate: 4.03%  
-- Flow 3:  
Average throughput: 20.54 Mbit/s  
95th percentile per-packet one-way delay: 243.606 ms  
Loss rate: 4.80%

Run 3: Report of PCC-Expr — Data Link

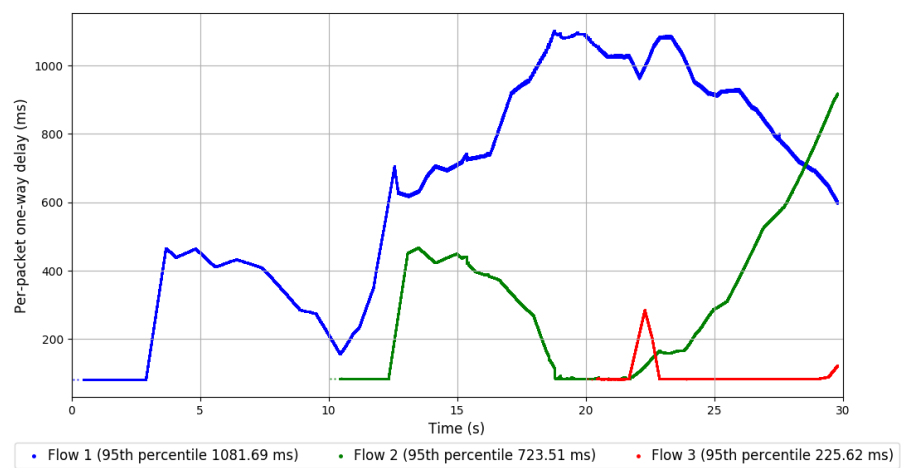
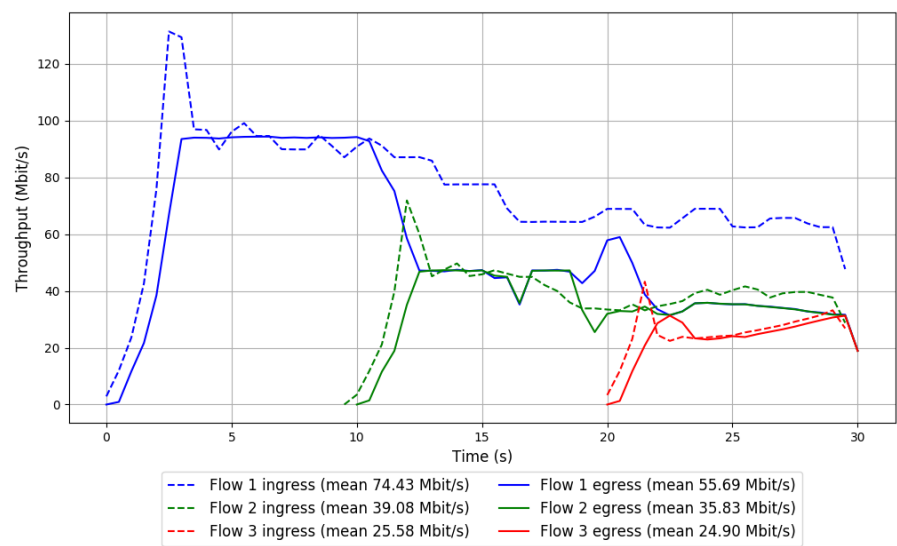


Run 4: Statistics of PCC-Expr

Start at: 2018-09-25 19:38:52  
End at: 2018-09-25 19:39:22  
Local clock offset: -2.263 ms  
Remote clock offset: -3.324 ms

# Below is generated by plot.py at 2018-09-25 20:59:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.59 Mbit/s  
95th percentile per-packet one-way delay: 1056.389 ms  
Loss rate: 19.99%  
-- Flow 1:  
Average throughput: 55.69 Mbit/s  
95th percentile per-packet one-way delay: 1081.689 ms  
Loss rate: 25.58%  
-- Flow 2:  
Average throughput: 35.83 Mbit/s  
95th percentile per-packet one-way delay: 723.506 ms  
Loss rate: 9.08%  
-- Flow 3:  
Average throughput: 24.90 Mbit/s  
95th percentile per-packet one-way delay: 225.621 ms  
Loss rate: 4.28%

Run 4: Report of PCC-Expr — Data Link

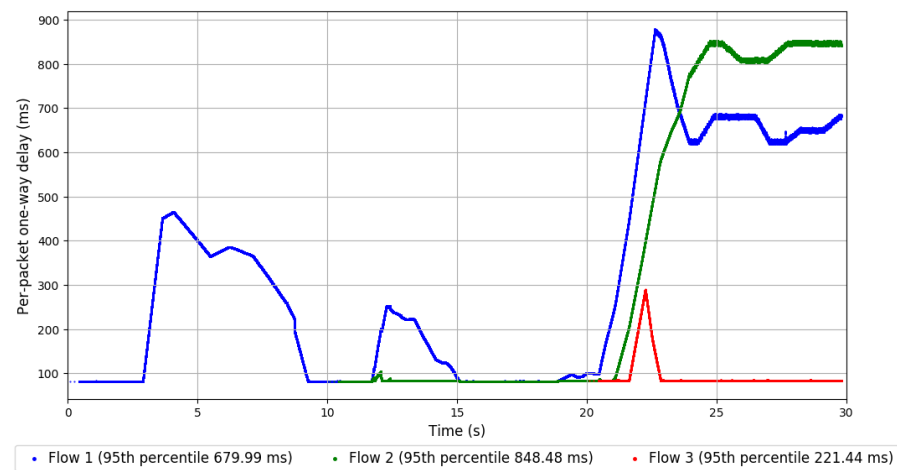
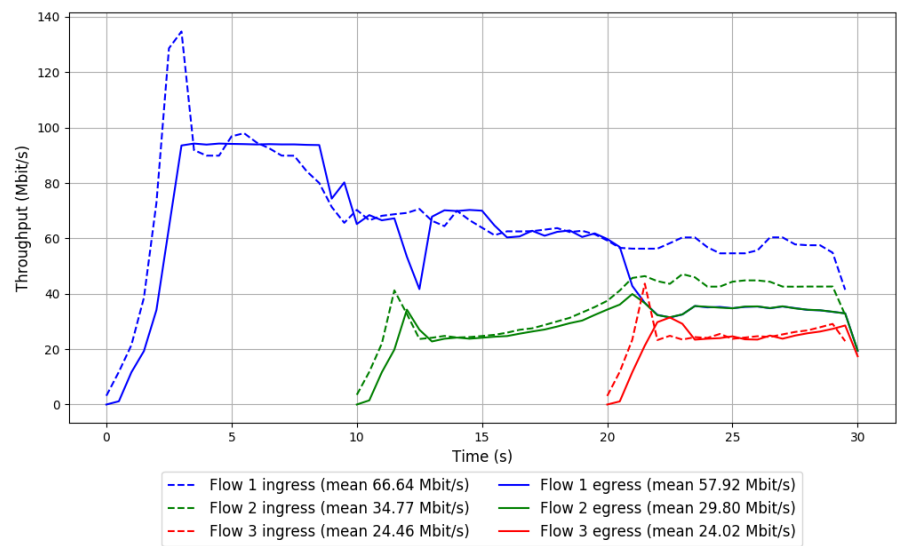


Run 5: Statistics of PCC-Expr

Start at: 2018-09-25 20:27:59  
End at: 2018-09-25 20:28:29  
Local clock offset: -10.921 ms  
Remote clock offset: -3.167 ms

# Below is generated by plot.py at 2018-09-25 20:59:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.52 Mbit/s  
95th percentile per-packet one-way delay: 830.027 ms  
Loss rate: 13.05%  
-- Flow 1:  
Average throughput: 57.92 Mbit/s  
95th percentile per-packet one-way delay: 679.989 ms  
Loss rate: 13.56%  
-- Flow 2:  
Average throughput: 29.80 Mbit/s  
95th percentile per-packet one-way delay: 848.479 ms  
Loss rate: 14.97%  
-- Flow 3:  
Average throughput: 24.02 Mbit/s  
95th percentile per-packet one-way delay: 221.437 ms  
Loss rate: 3.41%

Run 5: Report of PCC-Expr — Data Link

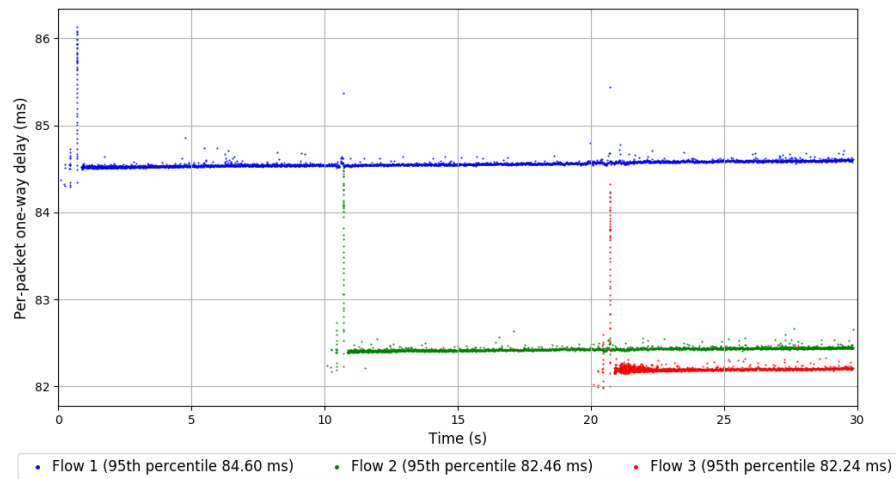
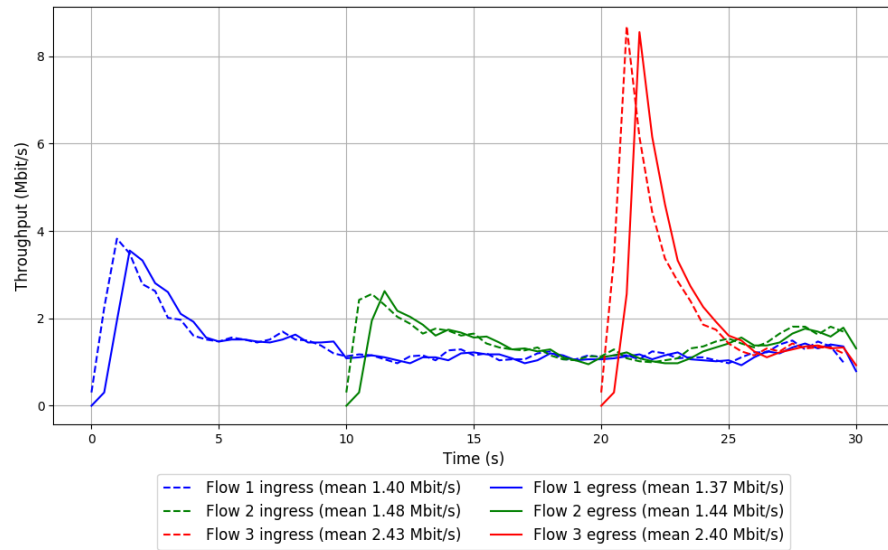


Run 1: Statistics of QUIC Cubic

Start at: 2018-09-25 16:39:34  
End at: 2018-09-25 16:40:04  
Local clock offset: -7.709 ms  
Remote clock offset: -4.507 ms

# Below is generated by plot.py at 2018-09-25 20:59:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.11 Mbit/s  
95th percentile per-packet one-way delay: 84.591 ms  
Loss rate: 2.97%  
-- Flow 1:  
Average throughput: 1.37 Mbit/s  
95th percentile per-packet one-way delay: 84.603 ms  
Loss rate: 2.76%  
-- Flow 2:  
Average throughput: 1.44 Mbit/s  
95th percentile per-packet one-way delay: 82.463 ms  
Loss rate: 3.23%  
-- Flow 3:  
Average throughput: 2.40 Mbit/s  
95th percentile per-packet one-way delay: 82.241 ms  
Loss rate: 3.01%

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



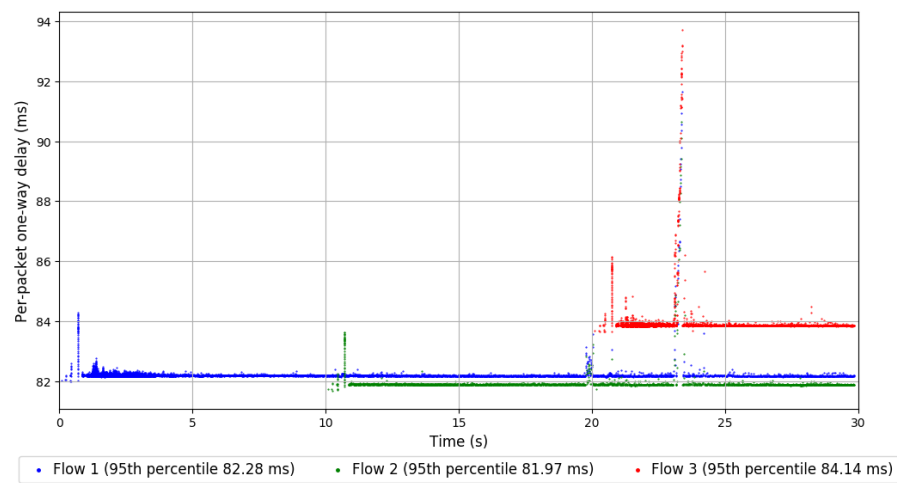
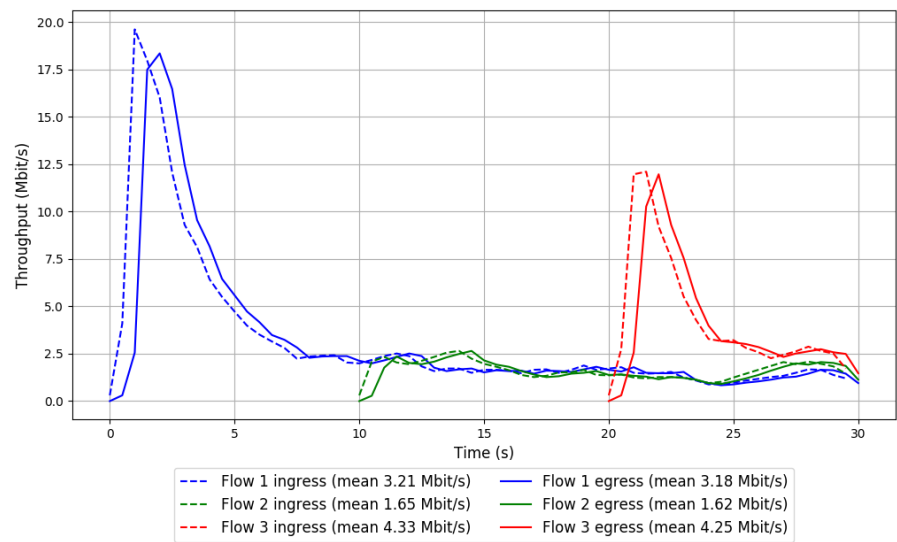


Run 2: Statistics of QUIC Cubic

Start at: 2018-09-25 17:32:47  
End at: 2018-09-25 17:33:17  
Local clock offset: -3.003 ms  
Remote clock offset: -2.822 ms

# Below is generated by plot.py at 2018-09-25 20:59:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 5.64 Mbit/s  
95th percentile per-packet one-way delay: 83.898 ms  
Loss rate: 2.24%  
-- Flow 1:  
Average throughput: 3.18 Mbit/s  
95th percentile per-packet one-way delay: 82.277 ms  
Loss rate: 1.56%  
-- Flow 2:  
Average throughput: 1.62 Mbit/s  
95th percentile per-packet one-way delay: 81.968 ms  
Loss rate: 2.65%  
-- Flow 3:  
Average throughput: 4.25 Mbit/s  
95th percentile per-packet one-way delay: 84.142 ms  
Loss rate: 3.45%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-09-25 18:21:33

End at: 2018-09-25 18:22:03

Local clock offset: -3.033 ms

Remote clock offset: 0.796 ms

# Below is generated by plot.py at 2018-09-25 20:59:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.43 Mbit/s

95th percentile per-packet one-way delay: 79.532 ms

Loss rate: 2.07%

-- Flow 1:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 79.438 ms

Loss rate: 1.92%

-- Flow 2:

Average throughput: 1.60 Mbit/s

95th percentile per-packet one-way delay: 77.390 ms

Loss rate: 2.14%

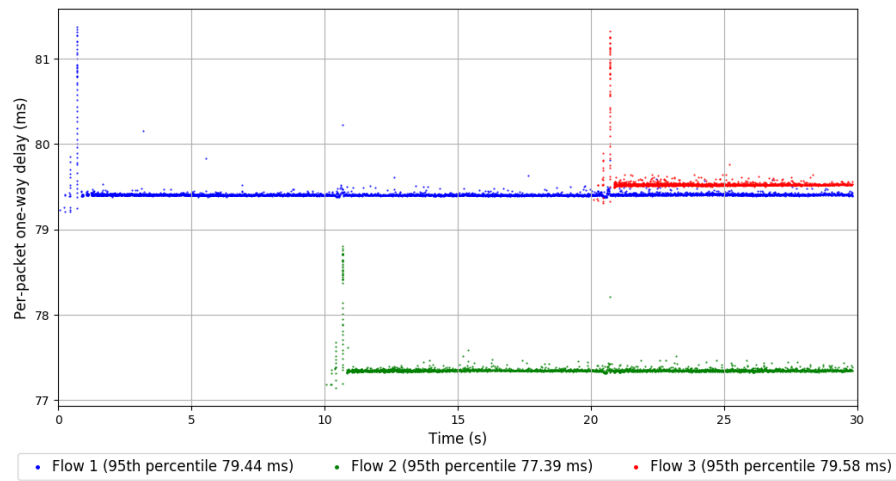
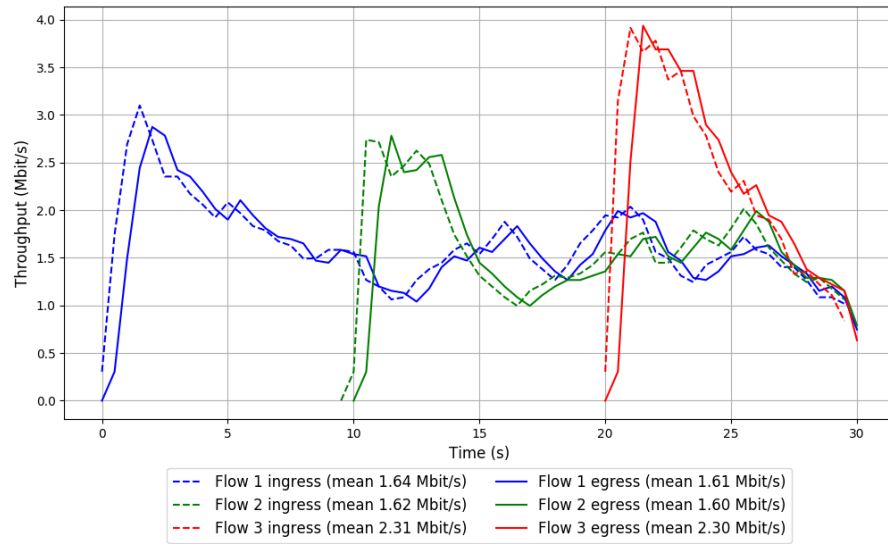
-- Flow 3:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 79.578 ms

Loss rate: 2.28%

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



Run 4: Statistics of QUIC Cubic

Start at: 2018-09-25 19:14:31

End at: 2018-09-25 19:15:01

Local clock offset: -3.852 ms

Remote clock offset: 0.63 ms

# Below is generated by plot.py at 2018-09-25 20:59:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.99 Mbit/s

95th percentile per-packet one-way delay: 78.985 ms

Loss rate: 2.89%

-- Flow 1:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 78.938 ms

Loss rate: 2.64%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 77.118 ms

Loss rate: 3.21%

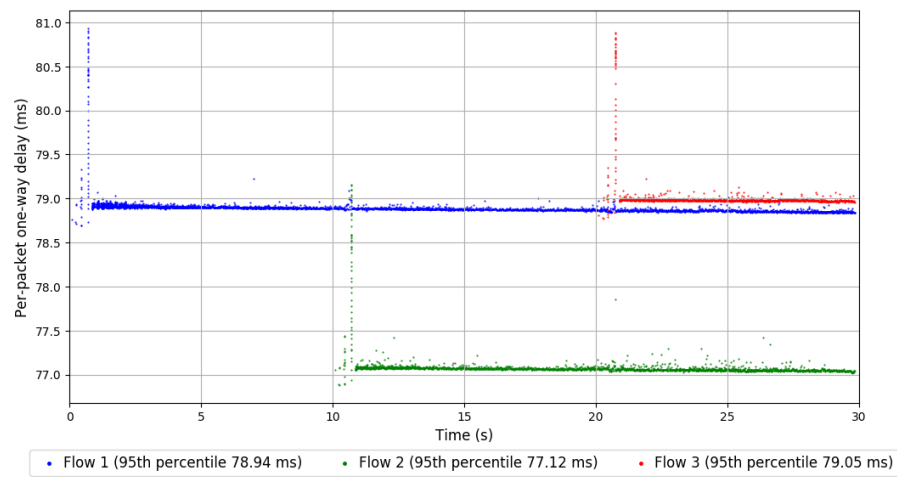
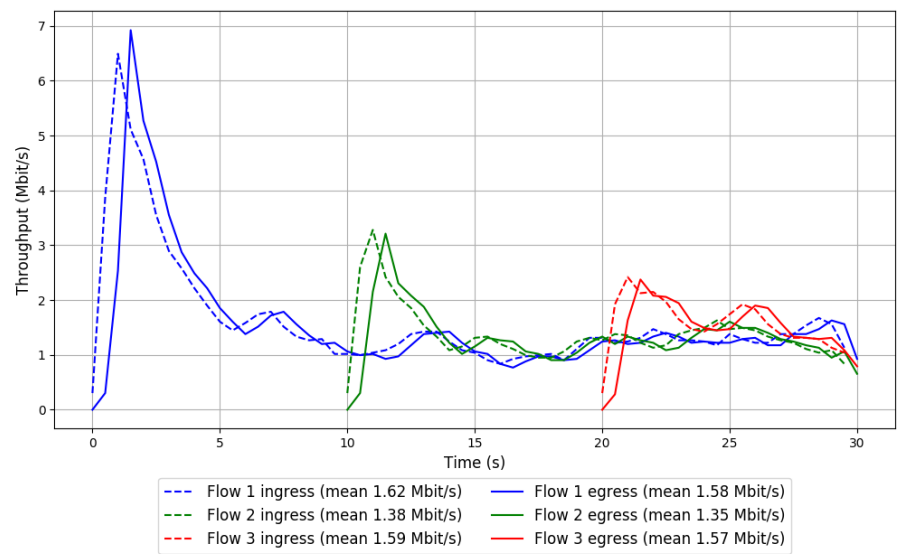
-- Flow 3:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 79.050 ms

Loss rate: 3.09%

Run 4: Report of QUIC Cubic — Data Link

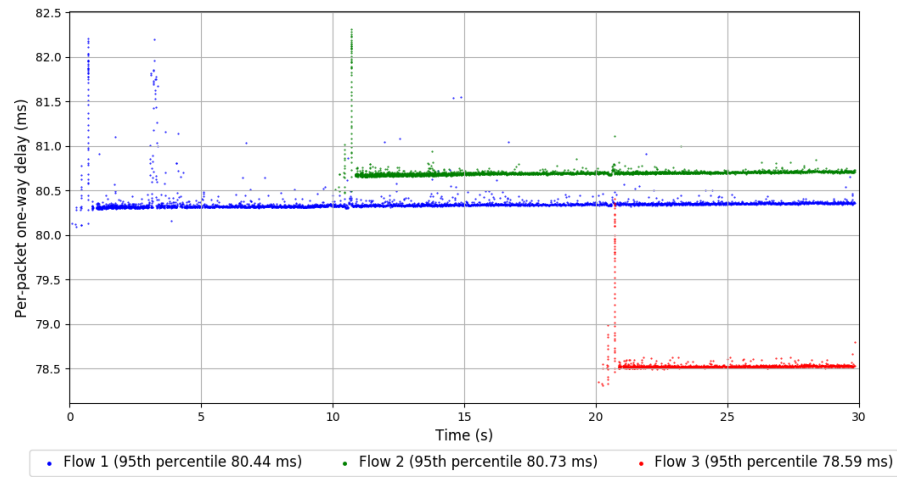
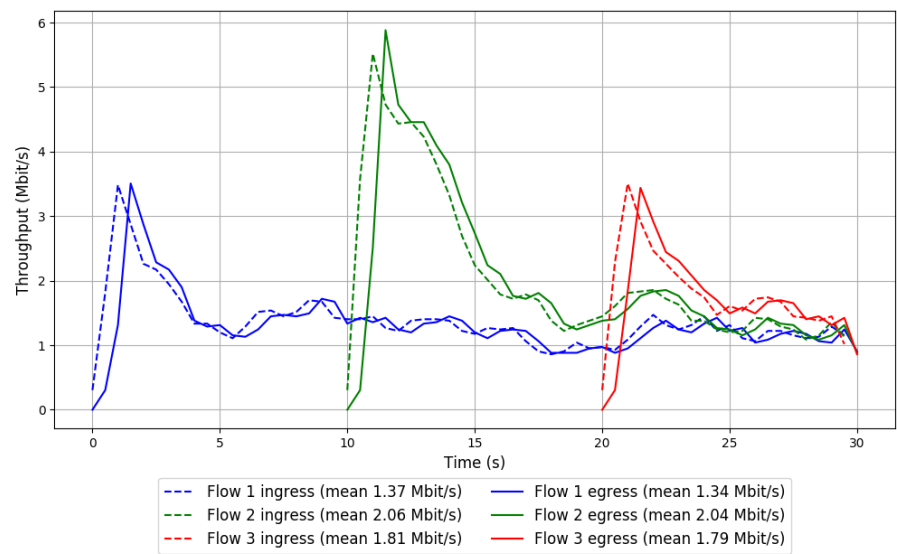


Run 5: Statistics of QUIC Cubic

Start at: 2018-09-25 20:07:07  
End at: 2018-09-25 20:07:37  
Local clock offset: -10.174 ms  
Remote clock offset: -0.198 ms

# Below is generated by plot.py at 2018-09-25 20:59:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.28 Mbit/s  
95th percentile per-packet one-way delay: 80.715 ms  
Loss rate: 2.45%  
-- Flow 1:  
Average throughput: 1.34 Mbit/s  
95th percentile per-packet one-way delay: 80.436 ms  
Loss rate: 2.90%  
-- Flow 2:  
Average throughput: 2.04 Mbit/s  
95th percentile per-packet one-way delay: 80.726 ms  
Loss rate: 1.88%  
-- Flow 3:  
Average throughput: 1.79 Mbit/s  
95th percentile per-packet one-way delay: 78.587 ms  
Loss rate: 2.71%

Run 5: Report of QUIC Cubic — Data Link



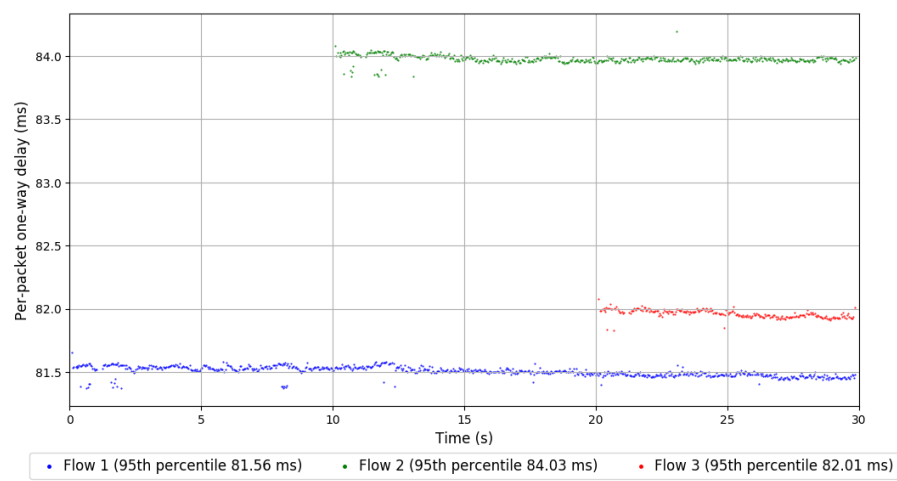
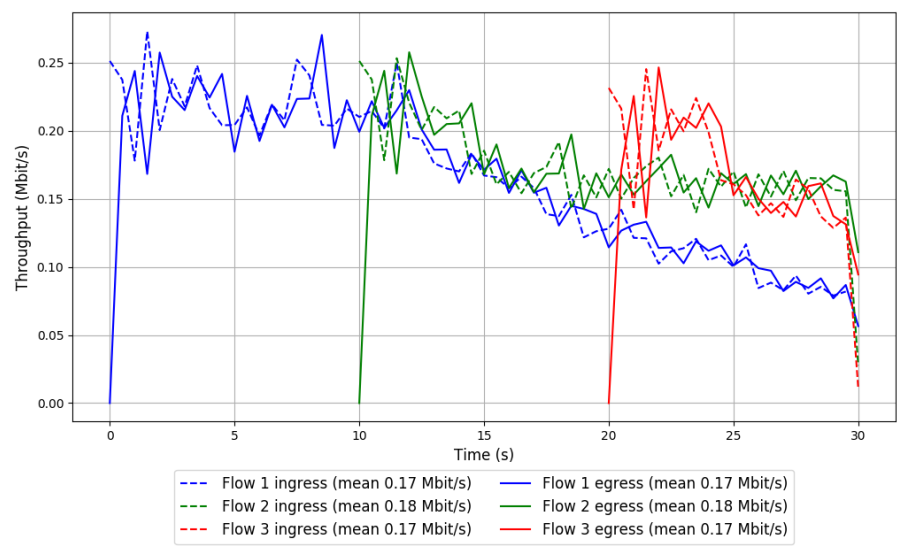


Run 1: Statistics of SCReAM

Start at: 2018-09-25 16:55:37  
End at: 2018-09-25 16:56:07  
Local clock offset: -8.147 ms  
Remote clock offset: -3.321 ms

# Below is generated by plot.py at 2018-09-25 20:59:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.34 Mbit/s  
95th percentile per-packet one-way delay: 84.003 ms  
Loss rate: 1.50%  
-- Flow 1:  
Average throughput: 0.17 Mbit/s  
95th percentile per-packet one-way delay: 81.560 ms  
Loss rate: 0.89%  
-- Flow 2:  
Average throughput: 0.18 Mbit/s  
95th percentile per-packet one-way delay: 84.028 ms  
Loss rate: 1.59%  
-- Flow 3:  
Average throughput: 0.17 Mbit/s  
95th percentile per-packet one-way delay: 82.006 ms  
Loss rate: 3.06%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SReAM

Start at: 2018-09-25 17:47:04

End at: 2018-09-25 17:47:34

Local clock offset: -3.143 ms

Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2018-09-25 20:59:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 80.675 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 80.145 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 80.675 ms

Loss rate: 1.00%

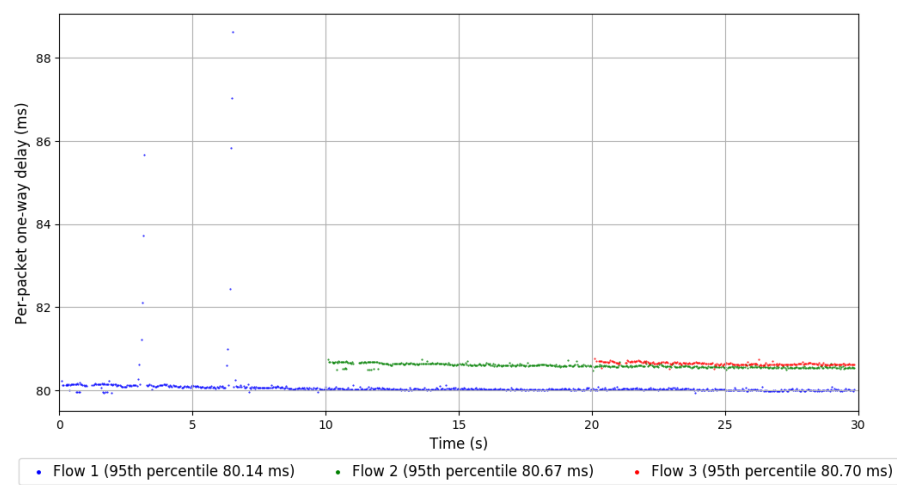
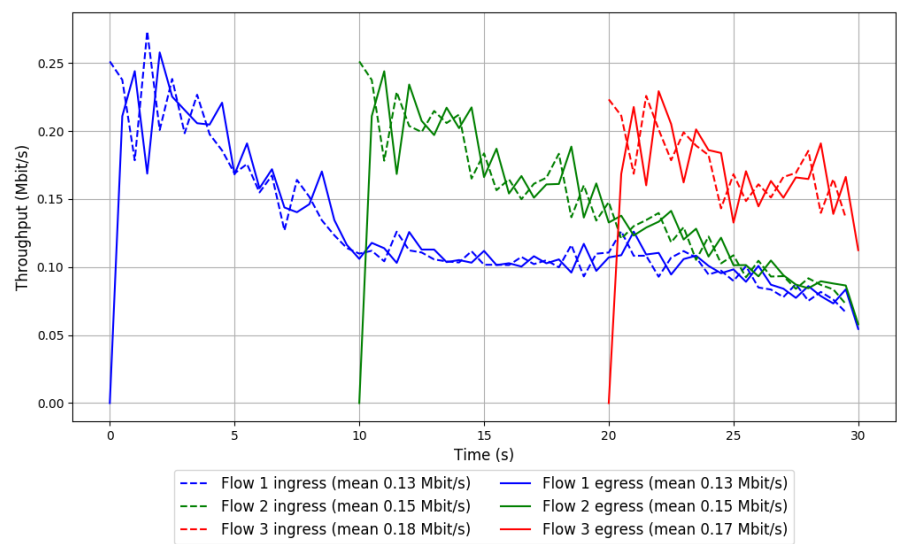
-- Flow 3:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 80.697 ms

Loss rate: 2.77%

Run 2: Report of SReAM — Data Link

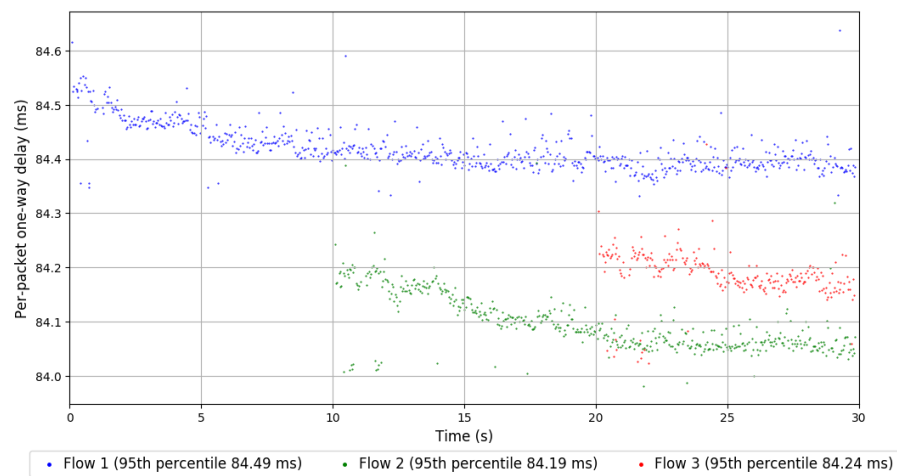
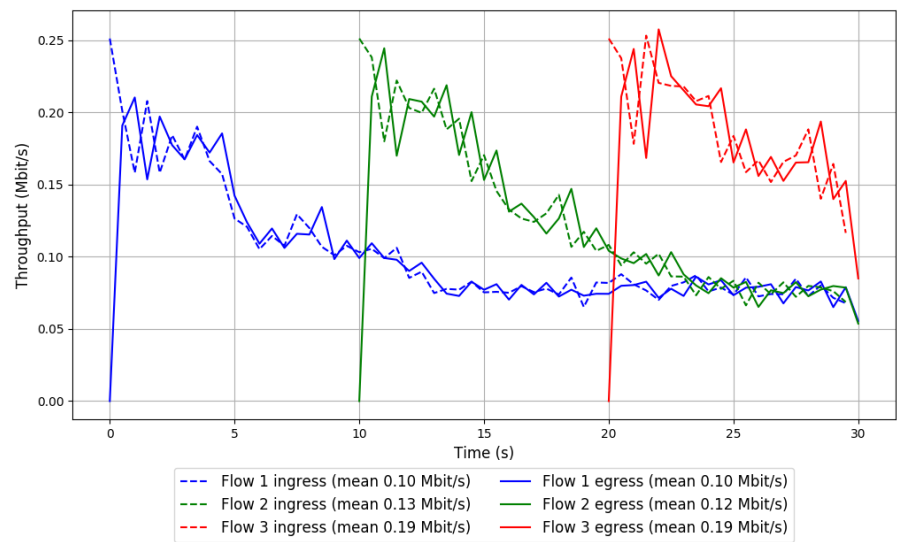


Run 3: Statistics of SCReAM

Start at: 2018-09-25 18:35:26  
End at: 2018-09-25 18:35:56  
Local clock offset: -2.025 ms  
Remote clock offset: -3.316 ms

# Below is generated by plot.py at 2018-09-25 20:59:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.25 Mbit/s  
95th percentile per-packet one-way delay: 84.474 ms  
Loss rate: 2.12%  
-- Flow 1:  
Average throughput: 0.10 Mbit/s  
95th percentile per-packet one-way delay: 84.492 ms  
Loss rate: 1.87%  
-- Flow 2:  
Average throughput: 0.12 Mbit/s  
95th percentile per-packet one-way delay: 84.189 ms  
Loss rate: 2.30%  
-- Flow 3:  
Average throughput: 0.19 Mbit/s  
95th percentile per-packet one-way delay: 84.237 ms  
Loss rate: 2.31%

Run 3: Report of SReAM — Data Link

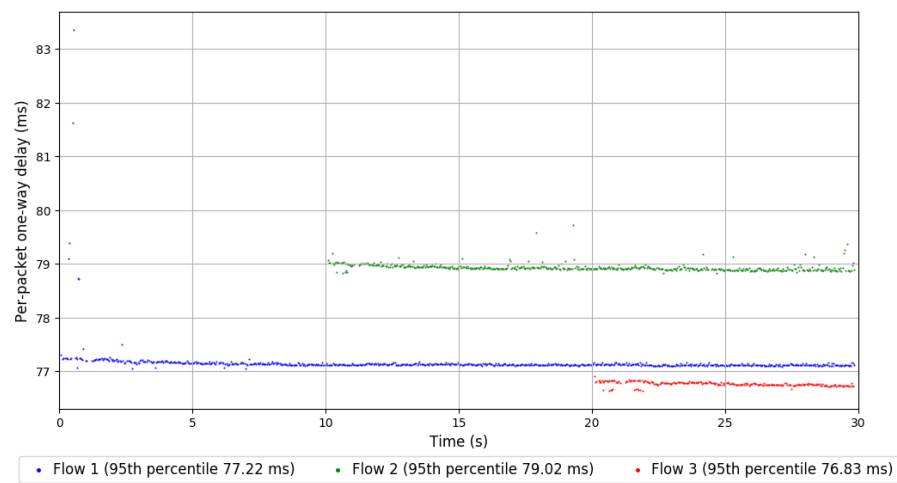
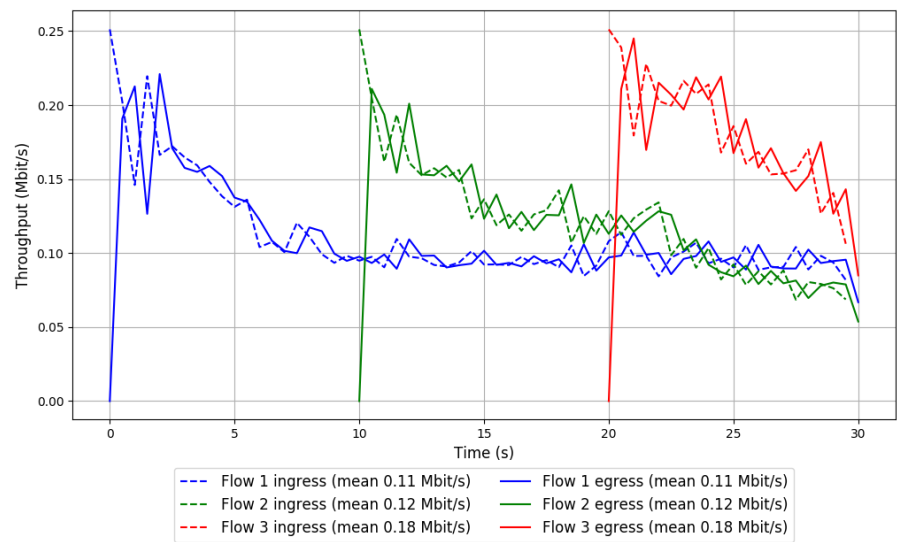


Run 4: Statistics of SCReAM

Start at: 2018-09-25 19:29:10  
End at: 2018-09-25 19:29:40  
Local clock offset: -2.609 ms  
Remote clock offset: 0.833 ms

# Below is generated by plot.py at 2018-09-25 20:59:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.25 Mbit/s  
95th percentile per-packet one-way delay: 78.978 ms  
Loss rate: 1.84%  
-- Flow 1:  
Average throughput: 0.11 Mbit/s  
95th percentile per-packet one-way delay: 77.216 ms  
Loss rate: 1.65%  
-- Flow 2:  
Average throughput: 0.12 Mbit/s  
95th percentile per-packet one-way delay: 79.022 ms  
Loss rate: 1.91%  
-- Flow 3:  
Average throughput: 0.18 Mbit/s  
95th percentile per-packet one-way delay: 76.825 ms  
Loss rate: 2.10%

Run 4: Report of SReAM — Data Link



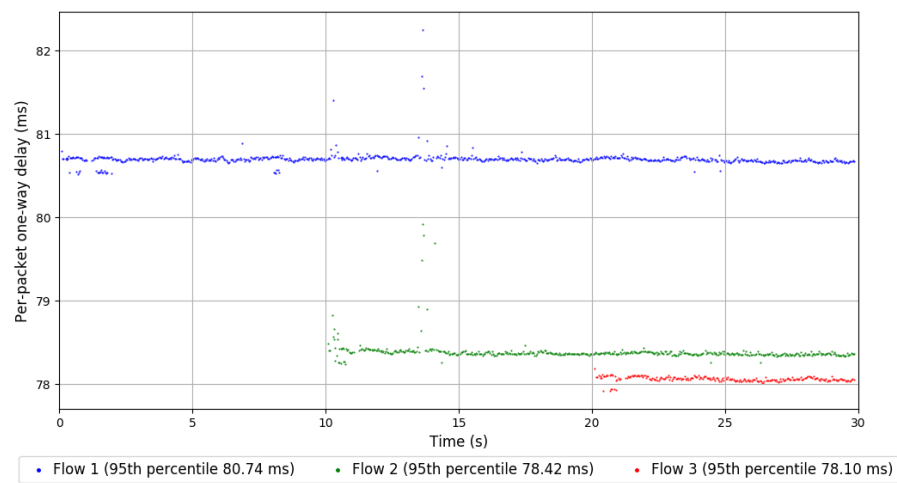
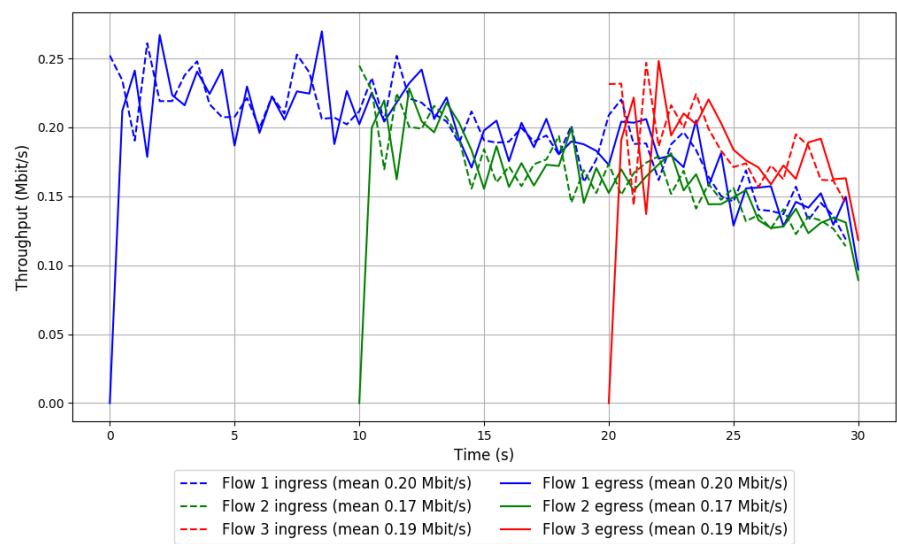


Run 5: Statistics of SCReAM

Start at: 2018-09-25 20:19:57  
End at: 2018-09-25 20:20:27  
Local clock offset: -11.206 ms  
Remote clock offset: -0.156 ms

# Below is generated by plot.py at 2018-09-25 20:59:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.37 Mbit/s  
95th percentile per-packet one-way delay: 80.726 ms  
Loss rate: 1.26%  
-- Flow 1:  
Average throughput: 0.20 Mbit/s  
95th percentile per-packet one-way delay: 80.737 ms  
Loss rate: 0.89%  
-- Flow 2:  
Average throughput: 0.17 Mbit/s  
95th percentile per-packet one-way delay: 78.424 ms  
Loss rate: 1.56%  
-- Flow 3:  
Average throughput: 0.19 Mbit/s  
95th percentile per-packet one-way delay: 78.100 ms  
Loss rate: 1.91%

Run 5: Report of SReAM — Data Link

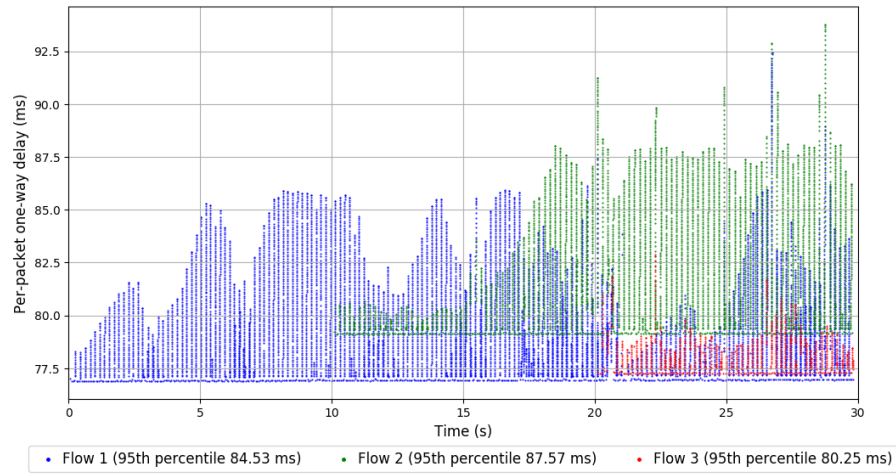
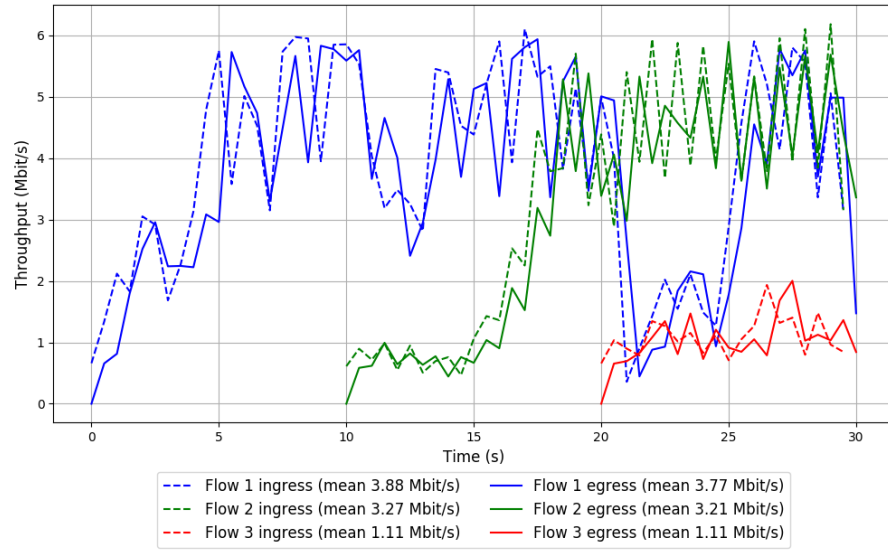


Run 1: Statistics of Sprout

Start at: 2018-09-25 16:40:50  
End at: 2018-09-25 16:41:20  
Local clock offset: -7.904 ms  
Remote clock offset: 0.734 ms

# Below is generated by plot.py at 2018-09-25 20:59:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 6.25 Mbit/s  
95th percentile per-packet one-way delay: 86.354 ms  
Loss rate: 3.01%  
-- Flow 1:  
Average throughput: 3.77 Mbit/s  
95th percentile per-packet one-way delay: 84.525 ms  
Loss rate: 3.22%  
-- Flow 2:  
Average throughput: 3.21 Mbit/s  
95th percentile per-packet one-way delay: 87.570 ms  
Loss rate: 2.85%  
-- Flow 3:  
Average throughput: 1.11 Mbit/s  
95th percentile per-packet one-way delay: 80.255 ms  
Loss rate: 1.75%

# Run 1: Report of Sprout — Data Link

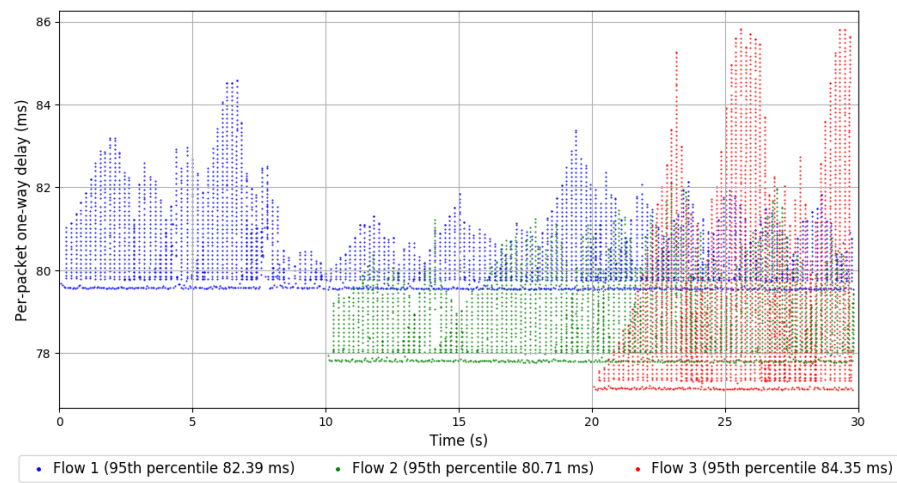
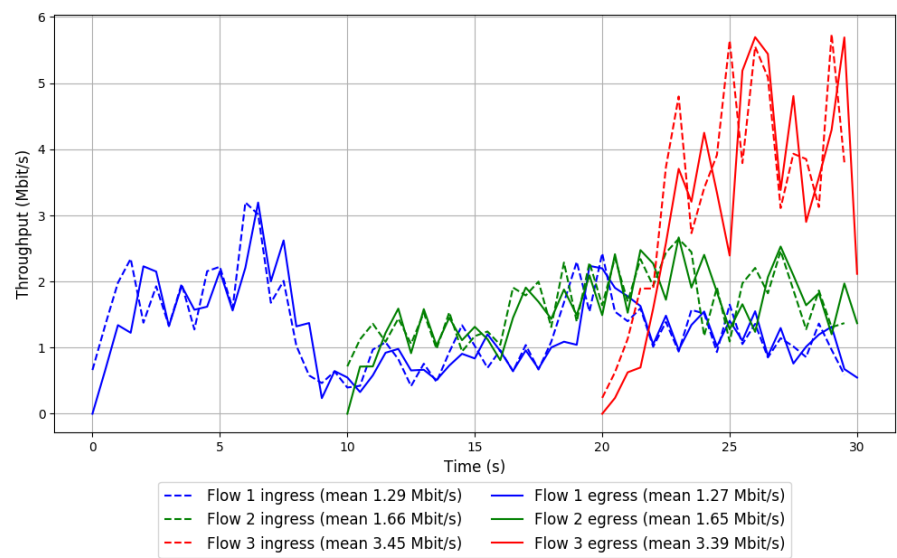


## Run 2: Statistics of Sprout

Start at: 2018-09-25 17:34:03  
End at: 2018-09-25 17:34:33  
Local clock offset: -2.905 ms  
Remote clock offset: 1.068 ms

```
# Below is generated by plot.py at 2018-09-25 20:59:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 82.811 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 82.389 ms
Loss rate: 2.24%
-- Flow 2:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 80.713 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 84.348 ms
Loss rate: 3.36%
```

Run 2: Report of Sprout — Data Link

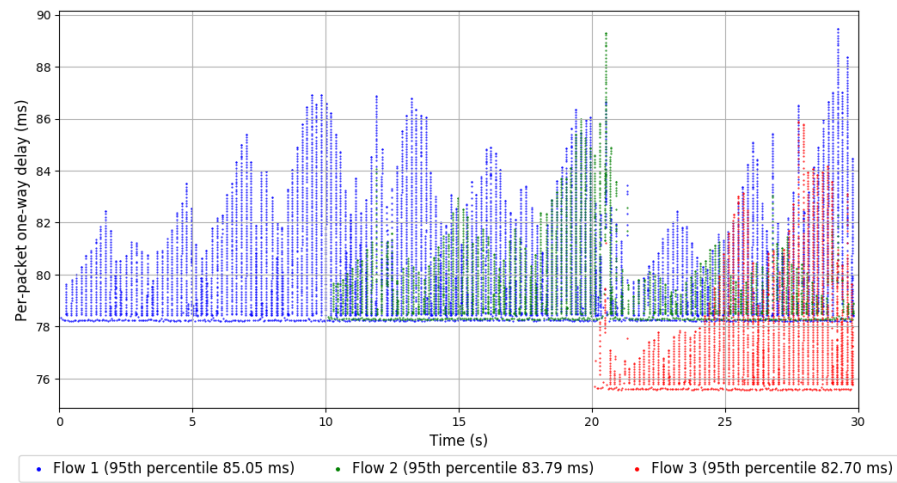
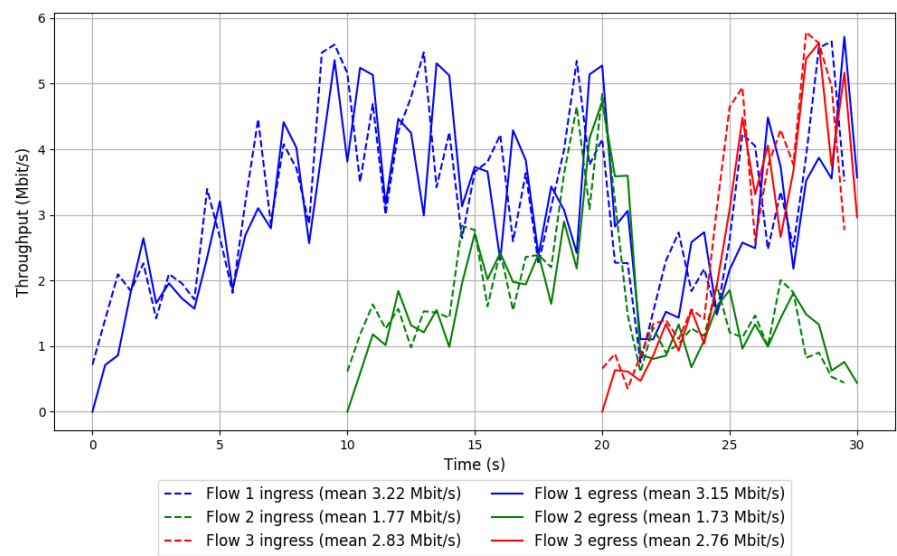


### Run 3: Statistics of Sprout

Start at: 2018-09-25 18:22:50  
End at: 2018-09-25 18:23:20  
Local clock offset: -3.101 ms  
Remote clock offset: 1.84 ms

```
# Below is generated by plot.py at 2018-09-25 20:59:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.19 Mbit/s
95th percentile per-packet one-way delay: 84.559 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 85.045 ms
Loss rate: 2.80%
-- Flow 2:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 83.788 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 2.76 Mbit/s
95th percentile per-packet one-way delay: 82.705 ms
Loss rate: 4.09%
```

Run 3: Report of Sprout — Data Link



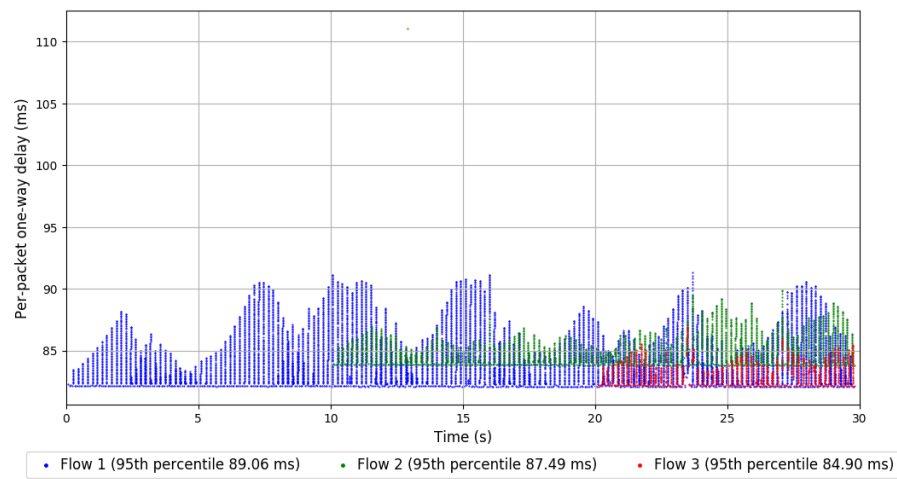
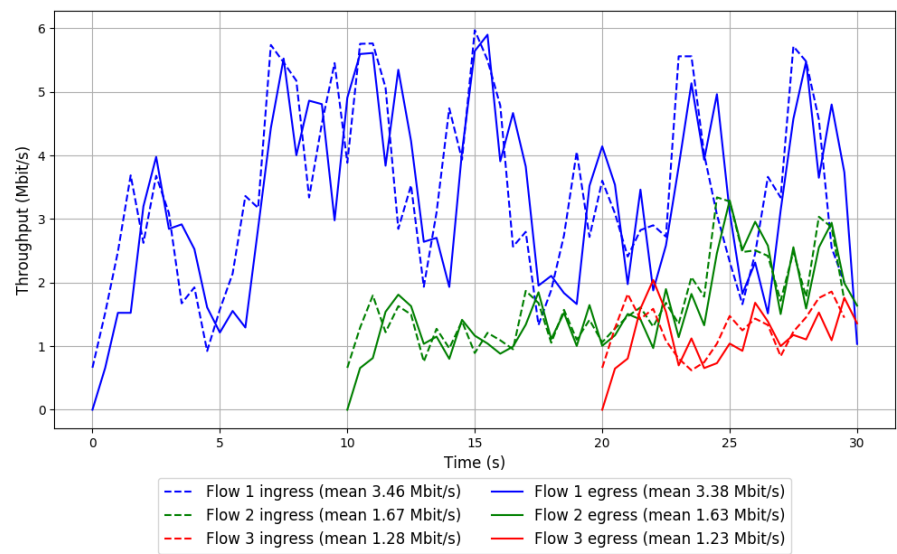


#### Run 4: Statistics of Sprout

Start at: 2018-09-25 19:15:47  
End at: 2018-09-25 19:16:17  
Local clock offset: -3.661 ms  
Remote clock offset: -4.428 ms

```
# Below is generated by plot.py at 2018-09-25 20:59:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 88.566 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 89.064 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 87.487 ms
Loss rate: 3.47%
-- Flow 3:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 84.904 ms
Loss rate: 5.00%
```

Run 4: Report of Sprout — Data Link

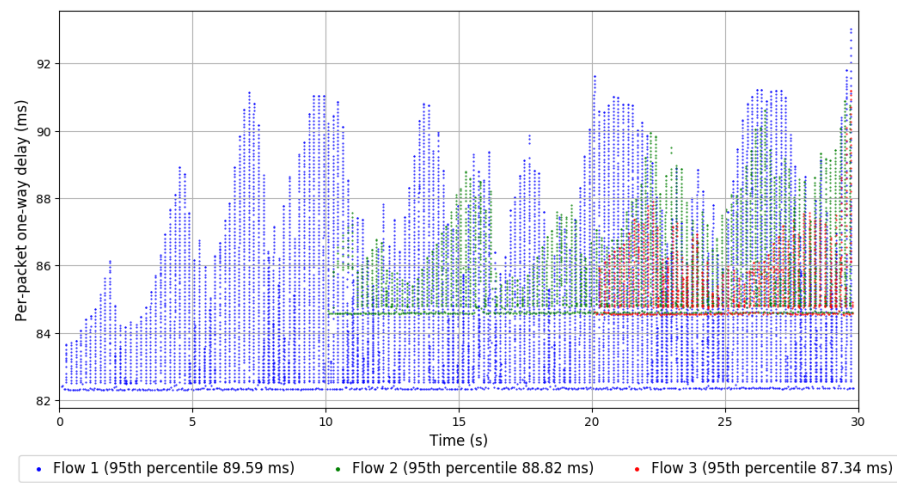
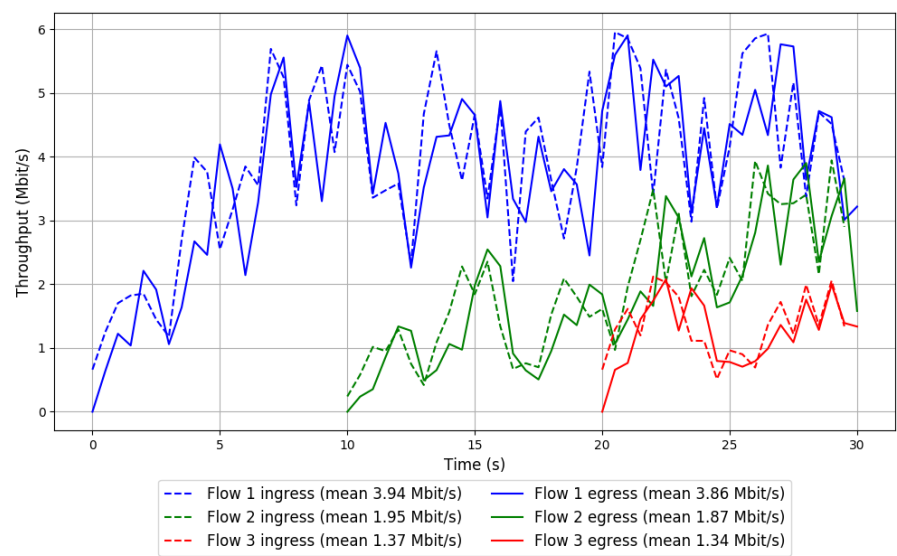


Run 5: Statistics of Sprout

Start at: 2018-09-25 20:08:23  
End at: 2018-09-25 20:08:53  
Local clock offset: -10.303 ms  
Remote clock offset: -4.24 ms

```
# Below is generated by plot.py at 2018-09-25 20:59:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.54 Mbit/s
95th percentile per-packet one-way delay: 89.300 ms
Loss rate: 3.07%
-- Flow 1:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 89.588 ms
Loss rate: 2.45%
-- Flow 2:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 88.822 ms
Loss rate: 4.47%
-- Flow 3:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 87.337 ms
Loss rate: 4.48%
```

Run 5: Report of Sprout — Data Link

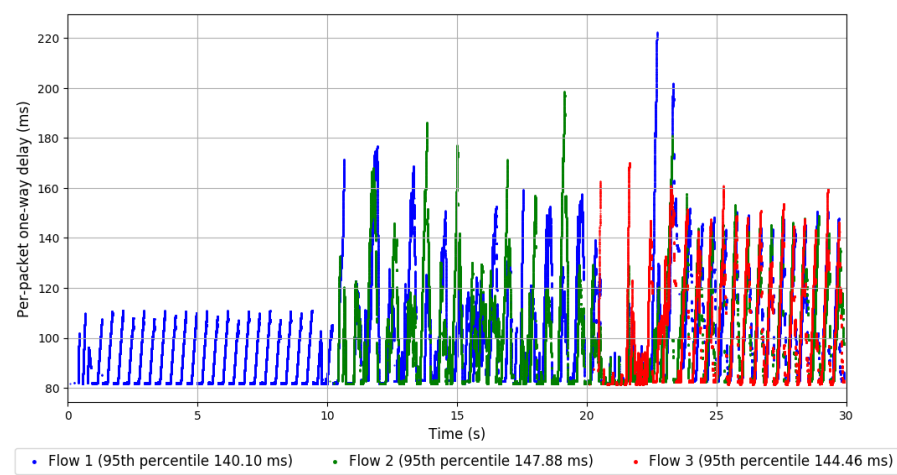
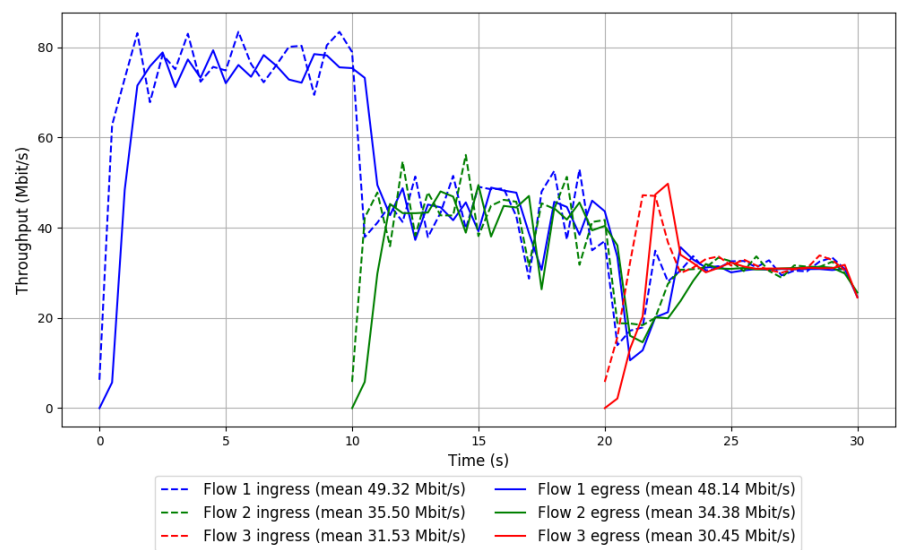


Run 1: Statistics of TaoVA-100x

Start at: 2018-09-25 16:56:50  
End at: 2018-09-25 16:57:20  
Local clock offset: -8.184 ms  
Remote clock offset: -3.386 ms

# Below is generated by plot.py at 2018-09-25 20:59:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.00 Mbit/s  
95th percentile per-packet one-way delay: 142.884 ms  
Loss rate: 3.45%  
-- Flow 1:  
Average throughput: 48.14 Mbit/s  
95th percentile per-packet one-way delay: 140.100 ms  
Loss rate: 2.90%  
-- Flow 2:  
Average throughput: 34.38 Mbit/s  
95th percentile per-packet one-way delay: 147.884 ms  
Loss rate: 3.93%  
-- Flow 3:  
Average throughput: 30.45 Mbit/s  
95th percentile per-packet one-way delay: 144.463 ms  
Loss rate: 5.02%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-09-25 17:48:16

End at: 2018-09-25 17:48:46

Local clock offset: -3.109 ms

Remote clock offset: 0.97 ms

# Below is generated by plot.py at 2018-09-25 20:59:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 83.44 Mbit/s

95th percentile per-packet one-way delay: 142.354 ms

Loss rate: 2.20%

-- Flow 1:

Average throughput: 49.49 Mbit/s

95th percentile per-packet one-way delay: 140.332 ms

Loss rate: 1.88%

-- Flow 2:

Average throughput: 36.49 Mbit/s

95th percentile per-packet one-way delay: 147.277 ms

Loss rate: 2.35%

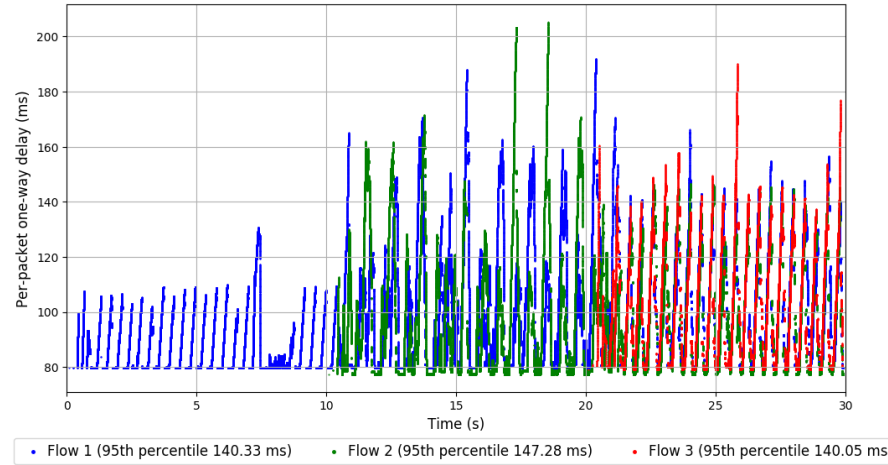
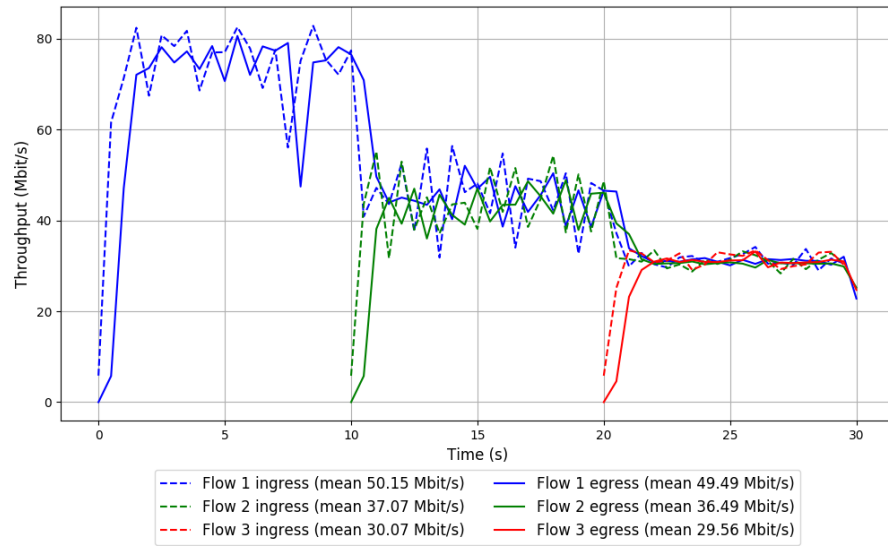
-- Flow 3:

Average throughput: 29.56 Mbit/s

95th percentile per-packet one-way delay: 140.047 ms

Loss rate: 3.48%

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





Run 3: Statistics of TaoVA-100x

Start at: 2018-09-25 18:36:39

End at: 2018-09-25 18:37:09

Local clock offset: -2.003 ms

Remote clock offset: 1.758 ms

# Below is generated by plot.py at 2018-09-25 21:00:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 82.26 Mbit/s

95th percentile per-packet one-way delay: 141.703 ms

Loss rate: 2.28%

-- Flow 1:

Average throughput: 48.61 Mbit/s

95th percentile per-packet one-way delay: 133.935 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 36.62 Mbit/s

95th percentile per-packet one-way delay: 152.158 ms

Loss rate: 2.59%

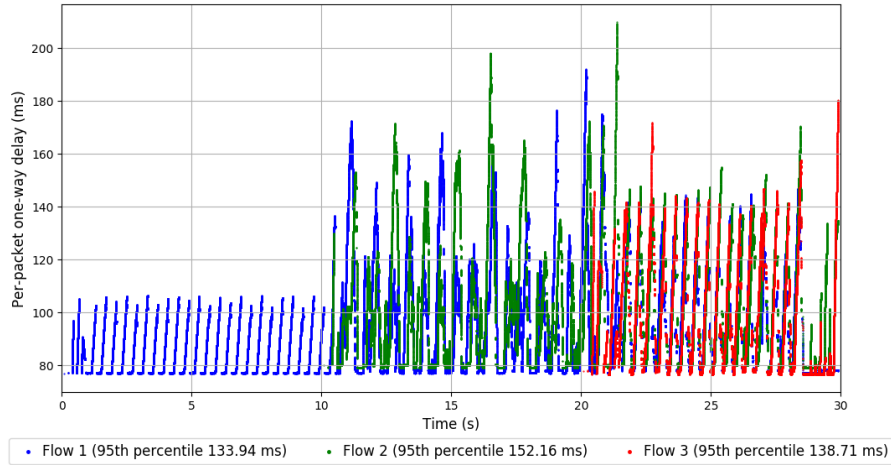
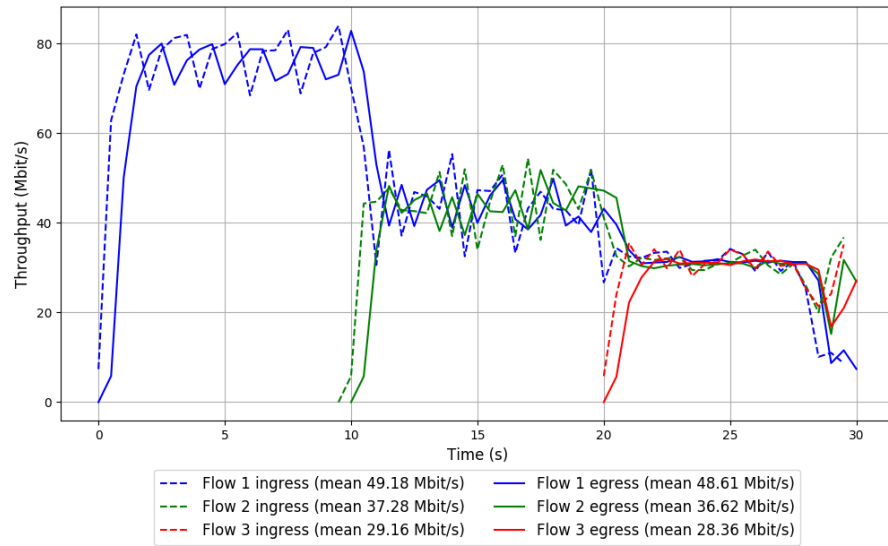
-- Flow 3:

Average throughput: 28.36 Mbit/s

95th percentile per-packet one-way delay: 138.710 ms

Loss rate: 4.35%

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

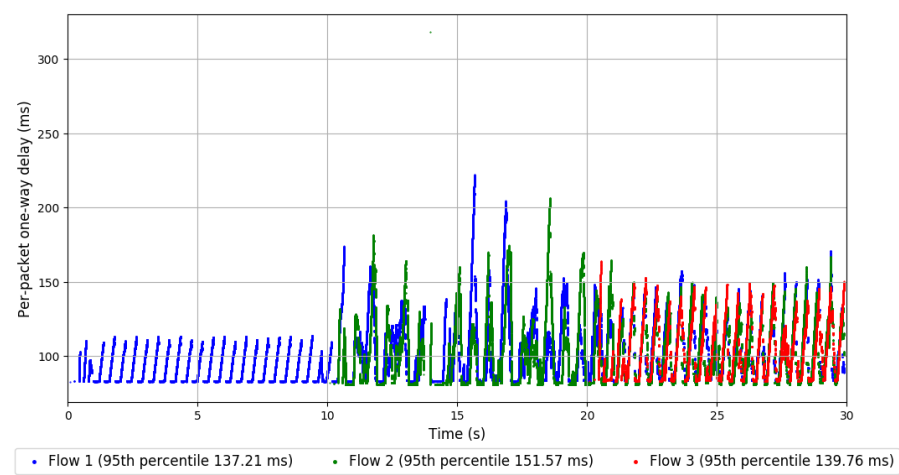
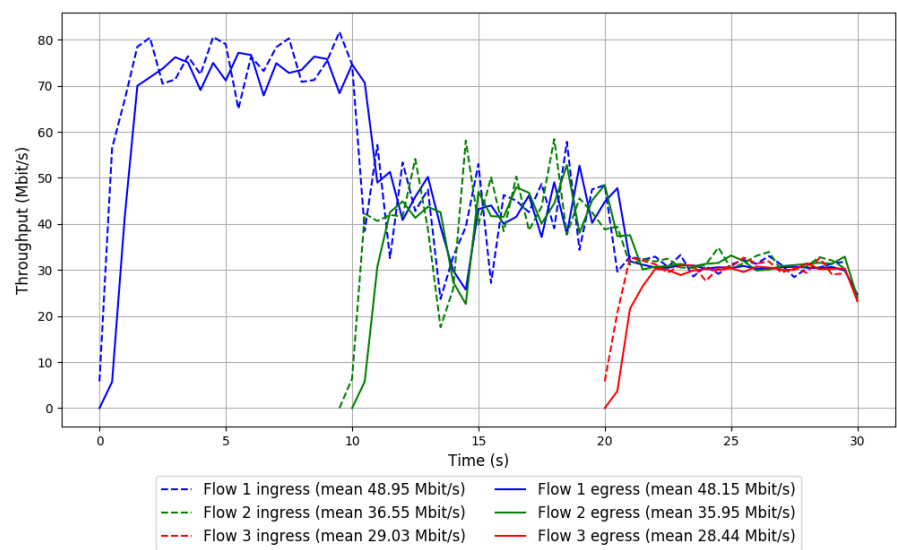


Run 4: Statistics of TaoVA-100x

Start at: 2018-09-25 19:30:22  
End at: 2018-09-25 19:30:52  
Local clock offset: -2.637 ms  
Remote clock offset: -3.351 ms

# Below is generated by plot.py at 2018-09-25 21:00:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.40 Mbit/s  
95th percentile per-packet one-way delay: 141.327 ms  
Loss rate: 2.42%  
-- Flow 1:  
Average throughput: 48.15 Mbit/s  
95th percentile per-packet one-way delay: 137.213 ms  
Loss rate: 2.17%  
-- Flow 2:  
Average throughput: 35.95 Mbit/s  
95th percentile per-packet one-way delay: 151.575 ms  
Loss rate: 2.44%  
-- Flow 3:  
Average throughput: 28.44 Mbit/s  
95th percentile per-packet one-way delay: 139.764 ms  
Loss rate: 3.66%

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

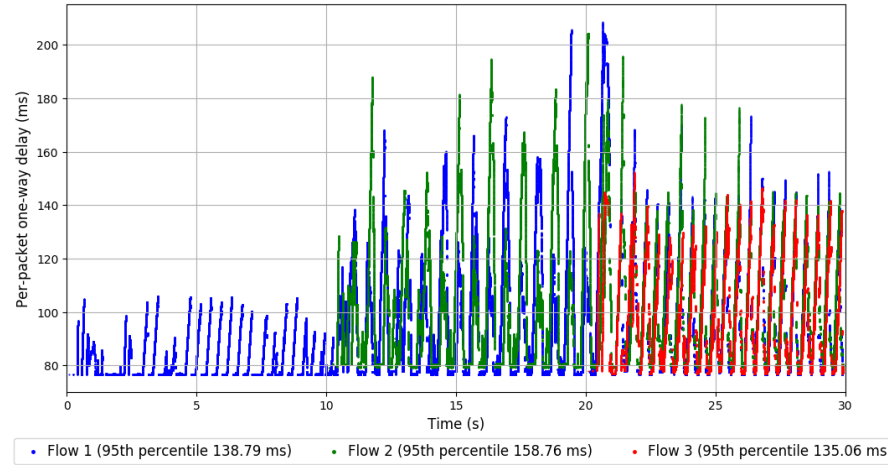
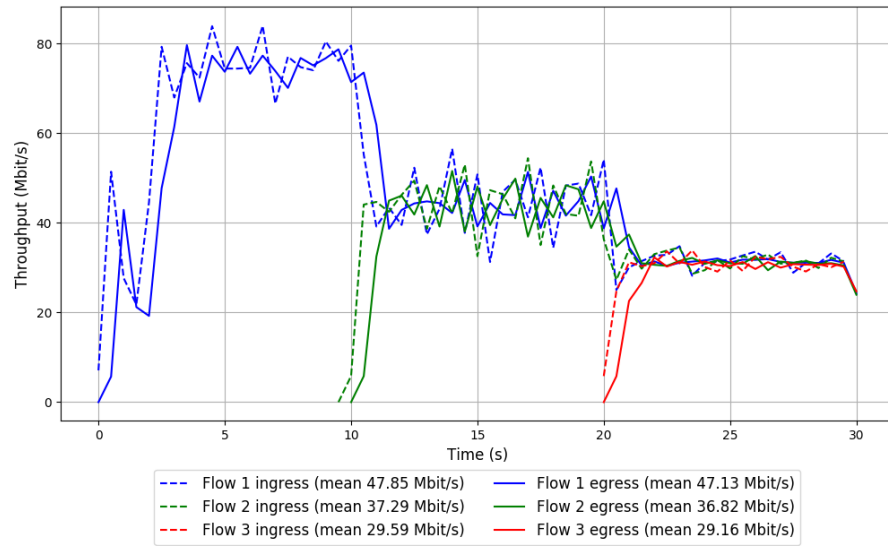


Run 5: Statistics of TaoVA-100x

Start at: 2018-09-25 20:21:10  
End at: 2018-09-25 20:21:40  
Local clock offset: -10.425 ms  
Remote clock offset: 2.017 ms

# Below is generated by plot.py at 2018-09-25 21:00:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.19 Mbit/s  
95th percentile per-packet one-way delay: 144.532 ms  
Loss rate: 2.17%  
-- Flow 1:  
Average throughput: 47.13 Mbit/s  
95th percentile per-packet one-way delay: 138.789 ms  
Loss rate: 2.03%  
-- Flow 2:  
Average throughput: 36.82 Mbit/s  
95th percentile per-packet one-way delay: 158.760 ms  
Loss rate: 2.08%  
-- Flow 3:  
Average throughput: 29.16 Mbit/s  
95th percentile per-packet one-way delay: 135.065 ms  
Loss rate: 3.07%

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

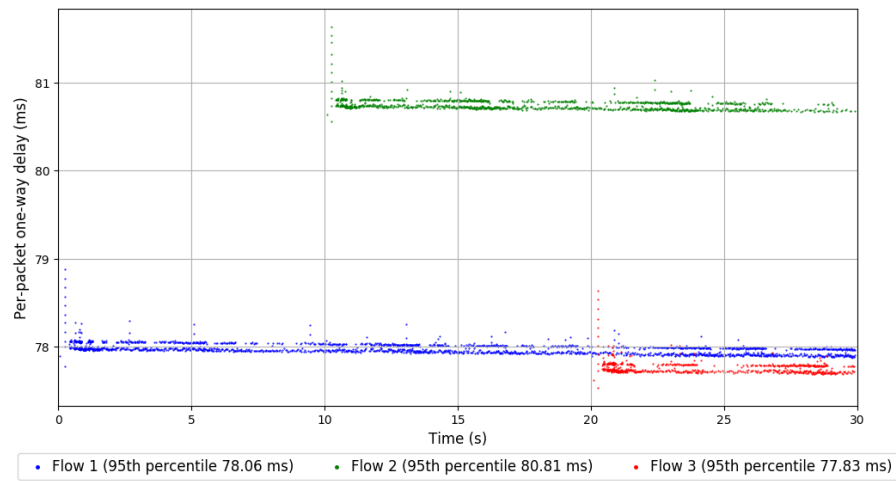
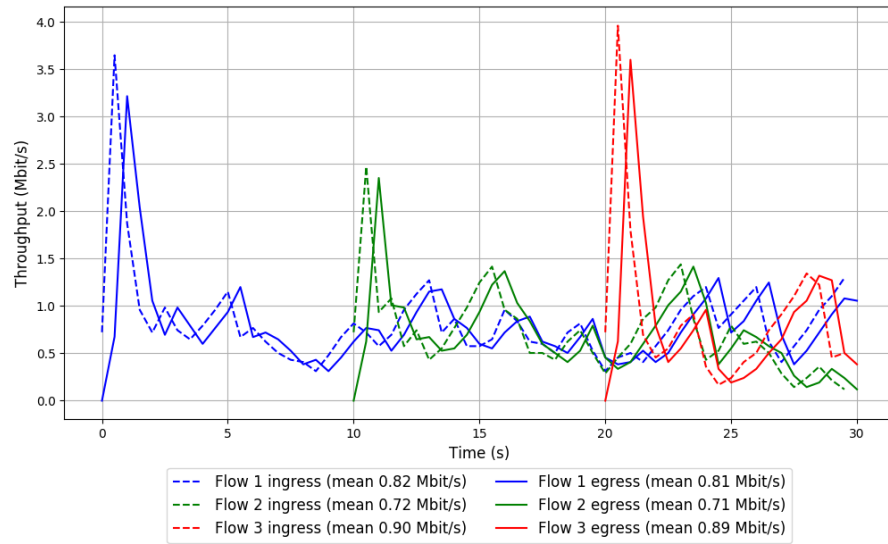


Run 1: Statistics of TCP Vegas

Start at: 2018-09-25 17:19:26  
End at: 2018-09-25 17:19:56  
Local clock offset: -5.548 ms  
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-09-25 21:00:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1.57 Mbit/s  
95th percentile per-packet one-way delay: 80.791 ms  
Loss rate: 2.03%  
-- Flow 1:  
Average throughput: 0.81 Mbit/s  
95th percentile per-packet one-way delay: 78.060 ms  
Loss rate: 2.00%  
-- Flow 2:  
Average throughput: 0.71 Mbit/s  
95th percentile per-packet one-way delay: 80.808 ms  
Loss rate: 1.59%  
-- Flow 3:  
Average throughput: 0.89 Mbit/s  
95th percentile per-packet one-way delay: 77.832 ms  
Loss rate: 2.82%

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





Run 2: Statistics of TCP Vegas

Start at: 2018-09-25 18:08:32

End at: 2018-09-25 18:09:02

Local clock offset: -1.551 ms

Remote clock offset: 0.823 ms

# Below is generated by plot.py at 2018-09-25 21:00:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 80.517 ms

Loss rate: 2.26%

-- Flow 1:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 80.525 ms

Loss rate: 1.77%

-- Flow 2:

Average throughput: 0.73 Mbit/s

95th percentile per-packet one-way delay: 78.331 ms

Loss rate: 2.43%

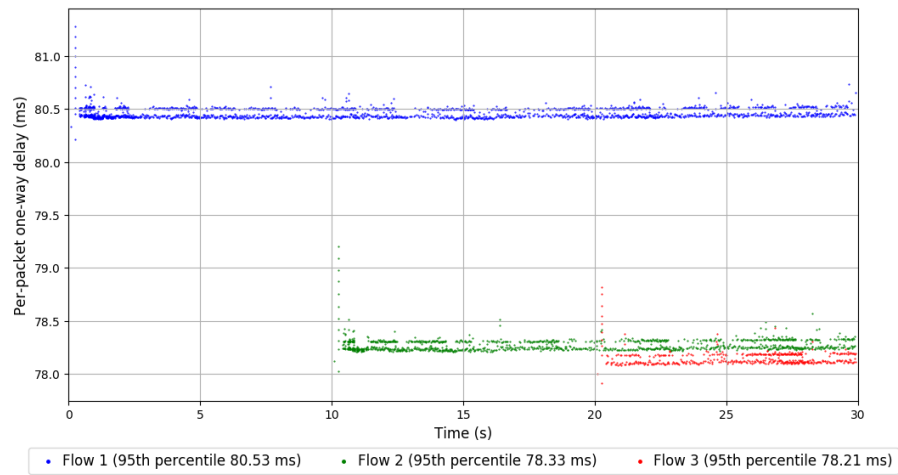
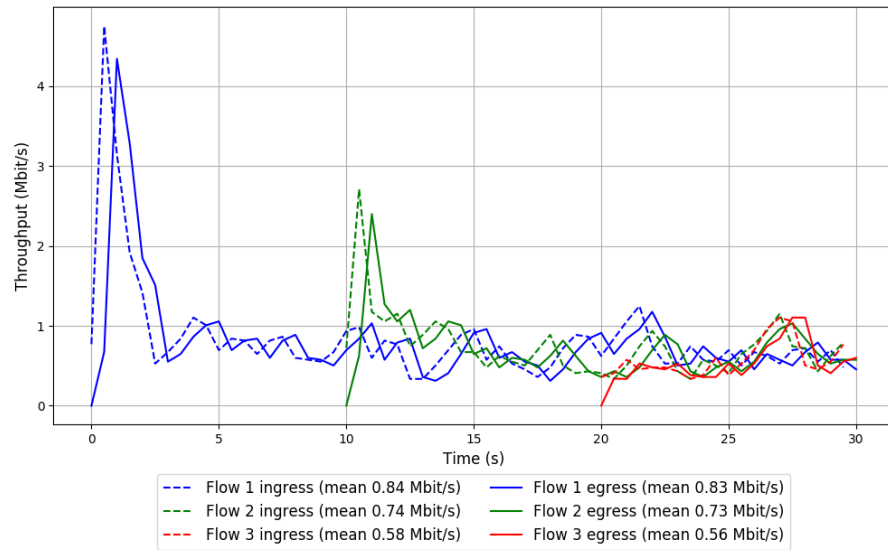
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 78.210 ms

Loss rate: 3.96%

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



Run 3: Statistics of TCP Vegas

Start at: 2018-09-25 18:59:58

End at: 2018-09-25 19:00:28

Local clock offset: -3.733 ms

Remote clock offset: -3.32 ms

# Below is generated by plot.py at 2018-09-25 21:00:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 82.216 ms

Loss rate: 3.04%

-- Flow 1:

Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 82.248 ms

Loss rate: 3.24%

-- Flow 2:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 82.049 ms

Loss rate: 3.54%

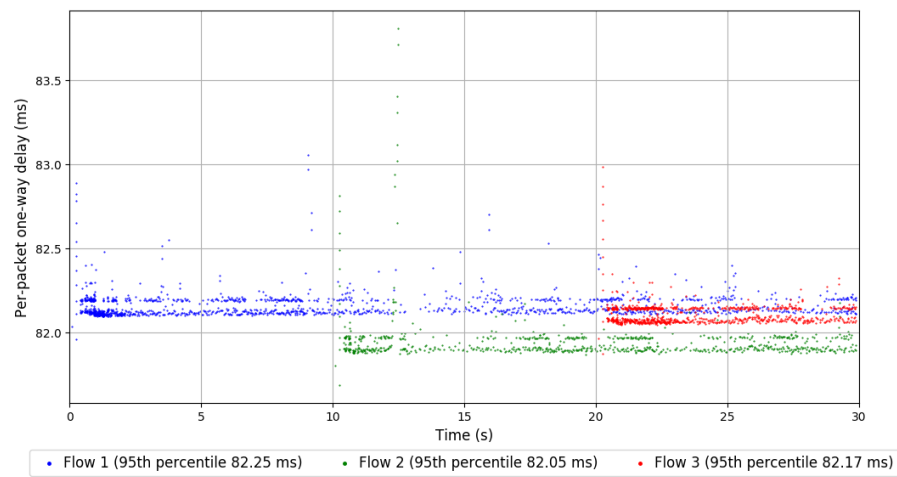
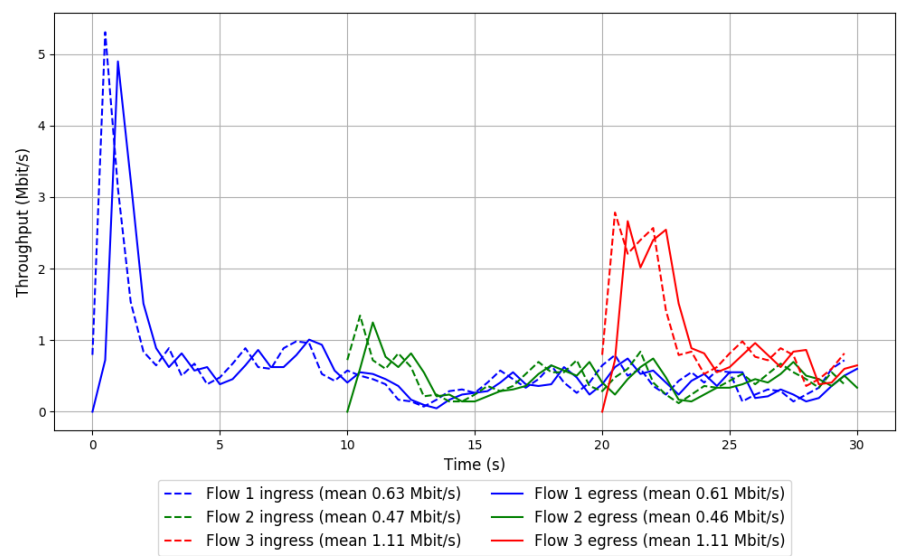
-- Flow 3:

Average throughput: 1.11 Mbit/s

95th percentile per-packet one-way delay: 82.168 ms

Loss rate: 2.27%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-09-25 19:53:05

End at: 2018-09-25 19:53:35

Local clock offset: -8.202 ms

Remote clock offset: 1.885 ms

# Below is generated by plot.py at 2018-09-25 21:00:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 78.210 ms

Loss rate: 3.54%

-- Flow 1:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 76.318 ms

Loss rate: 3.32%

-- Flow 2:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 76.603 ms

Loss rate: 3.70%

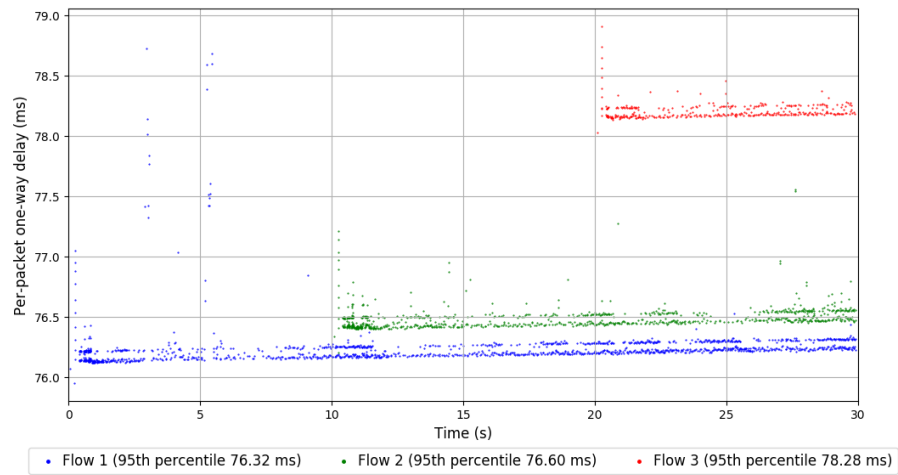
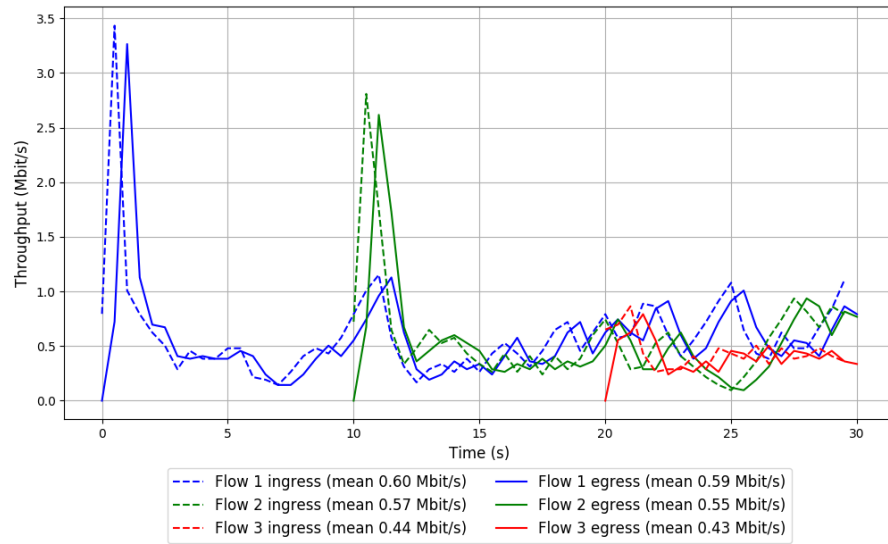
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 78.275 ms

Loss rate: 4.07%

# Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-09-25 20:41:10

End at: 2018-09-25 20:41:40

Local clock offset: -9.89 ms

Remote clock offset: 2.198 ms

# Below is generated by plot.py at 2018-09-25 21:00:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 78.557 ms

Loss rate: 2.39%

-- Flow 1:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 76.808 ms

Loss rate: 2.44%

-- Flow 2:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 78.594 ms

Loss rate: 2.44%

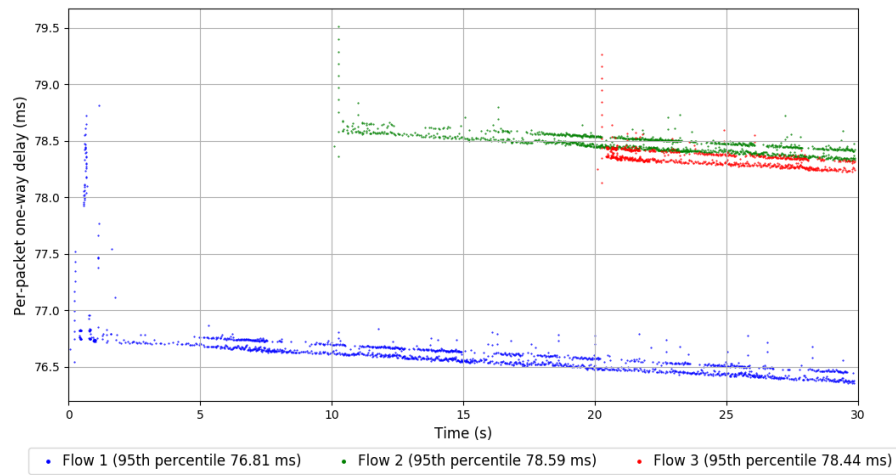
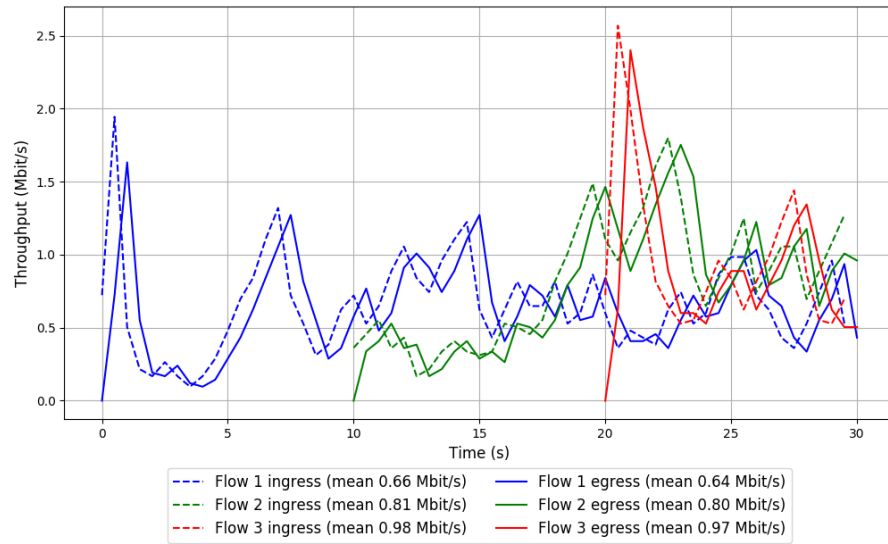
-- Flow 3:

Average throughput: 0.97 Mbit/s

95th percentile per-packet one-way delay: 78.436 ms

Loss rate: 2.22%

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



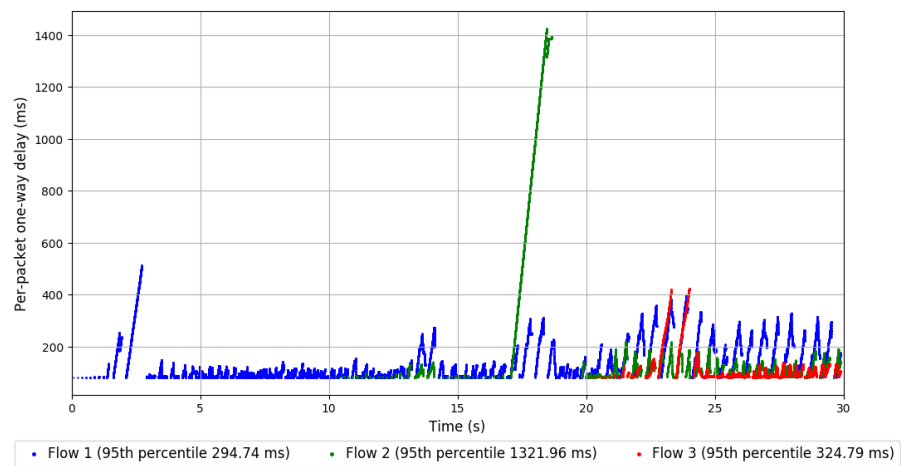
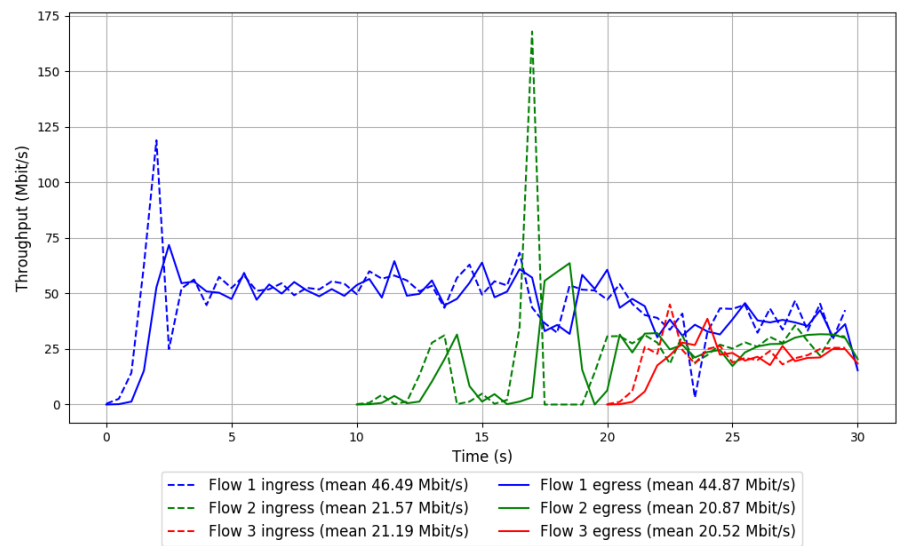


Run 1: Statistics of Verus

Start at: 2018-09-25 16:47:10  
End at: 2018-09-25 16:47:40  
Local clock offset: -7.661 ms  
Remote clock offset: -3.373 ms

# Below is generated by plot.py at 2018-09-25 21:00:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.46 Mbit/s  
95th percentile per-packet one-way delay: 394.754 ms  
Loss rate: 3.88%  
-- Flow 1:  
Average throughput: 44.87 Mbit/s  
95th percentile per-packet one-way delay: 294.743 ms  
Loss rate: 3.99%  
-- Flow 2:  
Average throughput: 20.87 Mbit/s  
95th percentile per-packet one-way delay: 1321.962 ms  
Loss rate: 3.57%  
-- Flow 3:  
Average throughput: 20.52 Mbit/s  
95th percentile per-packet one-way delay: 324.785 ms  
Loss rate: 3.73%

Run 1: Report of Verus — Data Link

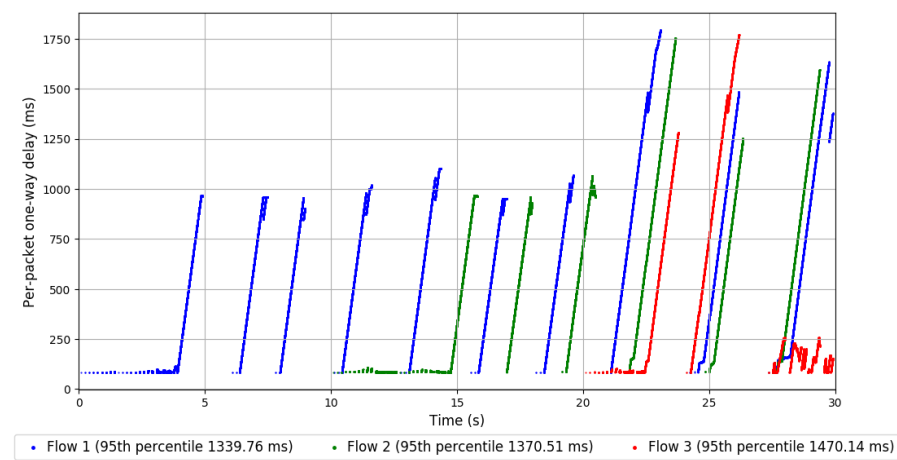
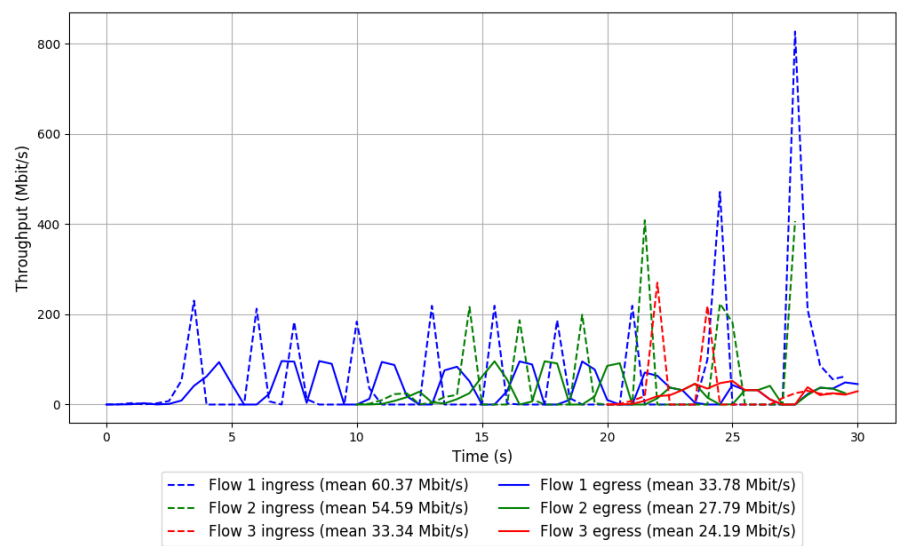


Run 2: Statistics of Verus

Start at: 2018-09-25 17:39:06  
End at: 2018-09-25 17:39:36  
Local clock offset: -2.549 ms  
Remote clock offset: -2.934 ms

# Below is generated by plot.py at 2018-09-25 21:00:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 59.70 Mbit/s  
95th percentile per-packet one-way delay: 1368.383 ms  
Loss rate: 42.70%  
-- Flow 1:  
Average throughput: 33.78 Mbit/s  
95th percentile per-packet one-way delay: 1339.757 ms  
Loss rate: 44.22%  
-- Flow 2:  
Average throughput: 27.79 Mbit/s  
95th percentile per-packet one-way delay: 1370.508 ms  
Loss rate: 44.77%  
-- Flow 3:  
Average throughput: 24.19 Mbit/s  
95th percentile per-packet one-way delay: 1470.142 ms  
Loss rate: 28.31%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-09-25 18:27:50

End at: 2018-09-25 18:28:20

Local clock offset: -2.148 ms

Remote clock offset: -3.29 ms

# Below is generated by plot.py at 2018-09-25 21:00:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 58.62 Mbit/s

95th percentile per-packet one-way delay: 749.585 ms

Loss rate: 3.52%

-- Flow 1:

Average throughput: 35.26 Mbit/s

95th percentile per-packet one-way delay: 253.878 ms

Loss rate: 3.11%

-- Flow 2:

Average throughput: 26.01 Mbit/s

95th percentile per-packet one-way delay: 641.716 ms

Loss rate: 4.02%

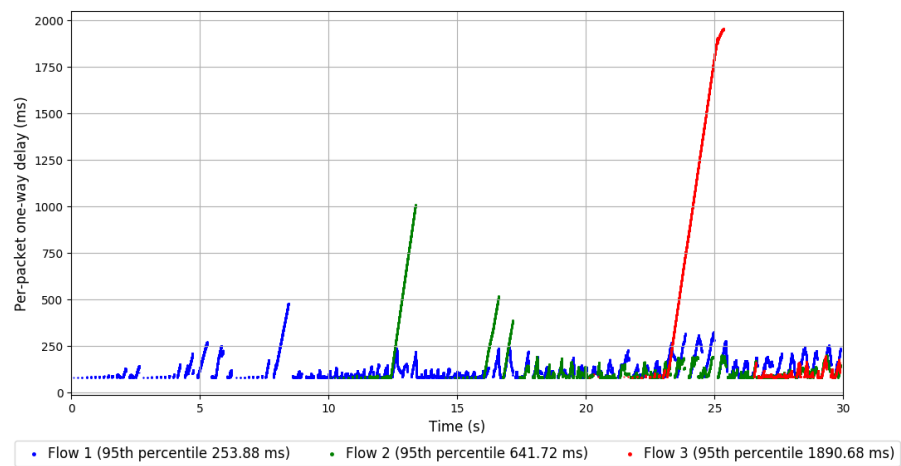
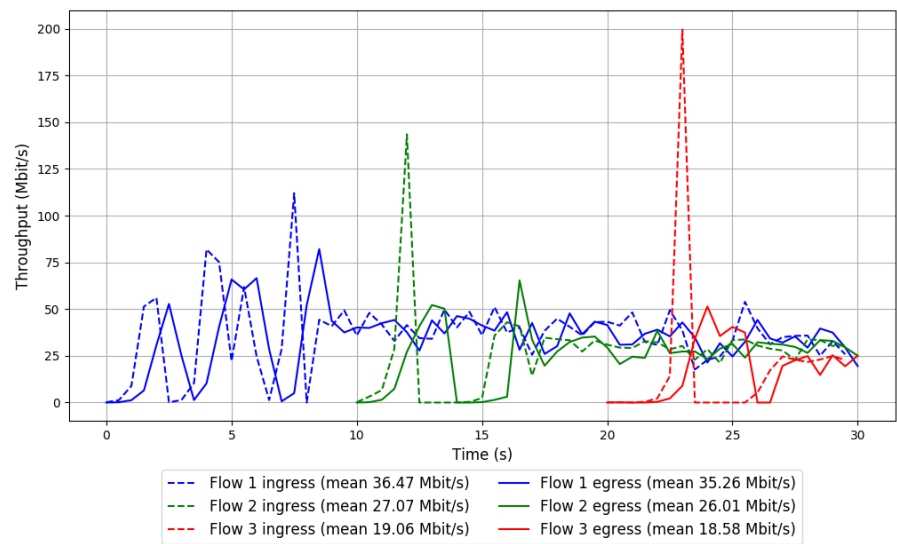
-- Flow 3:

Average throughput: 18.58 Mbit/s

95th percentile per-packet one-way delay: 1890.682 ms

Loss rate: 4.42%

Run 3: Report of Verus — Data Link

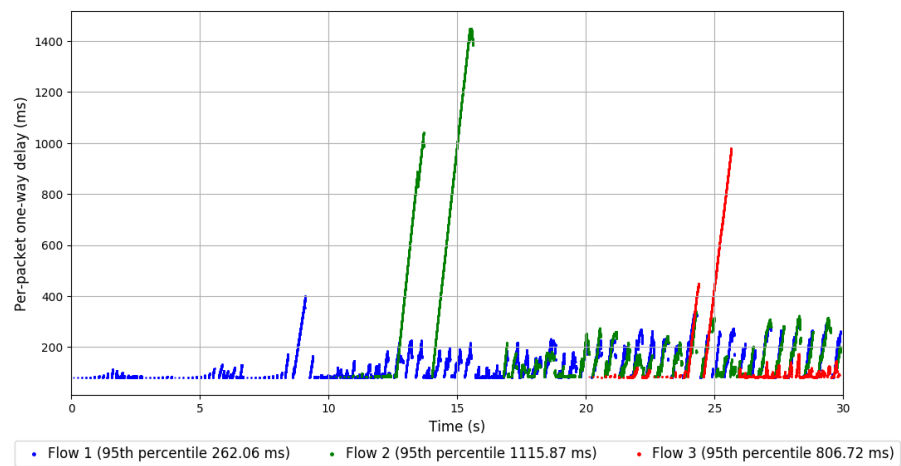
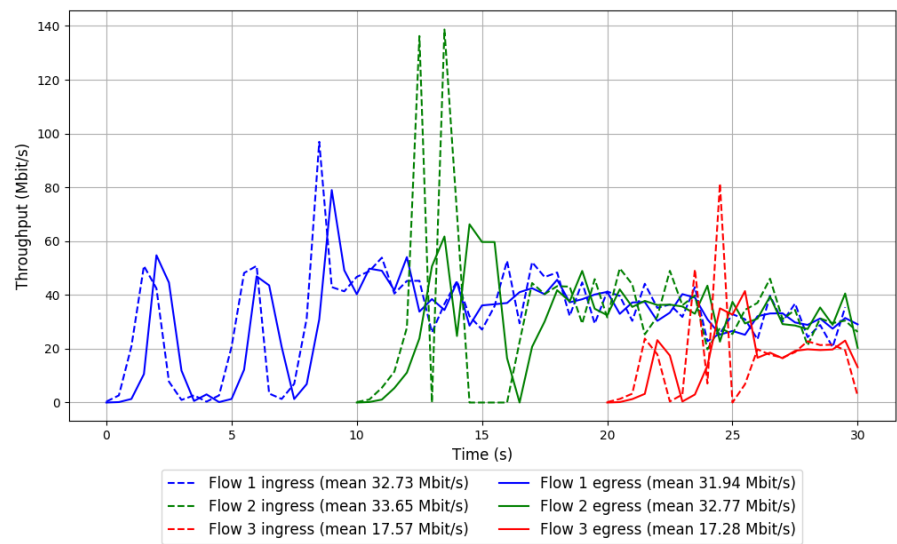


Run 4: Statistics of Verus

Start at: 2018-09-25 19:21:37  
End at: 2018-09-25 19:22:07  
Local clock offset: -3.037 ms  
Remote clock offset: -3.487 ms

# Below is generated by plot.py at 2018-09-25 21:00:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 59.37 Mbit/s  
95th percentile per-packet one-way delay: 767.371 ms  
Loss rate: 3.41%  
-- Flow 1:  
Average throughput: 31.94 Mbit/s  
95th percentile per-packet one-way delay: 262.056 ms  
Loss rate: 2.19%  
-- Flow 2:  
Average throughput: 32.77 Mbit/s  
95th percentile per-packet one-way delay: 1115.874 ms  
Loss rate: 4.75%  
-- Flow 3:  
Average throughput: 17.28 Mbit/s  
95th percentile per-packet one-way delay: 806.718 ms  
Loss rate: 4.90%

Run 4: Report of Verus — Data Link



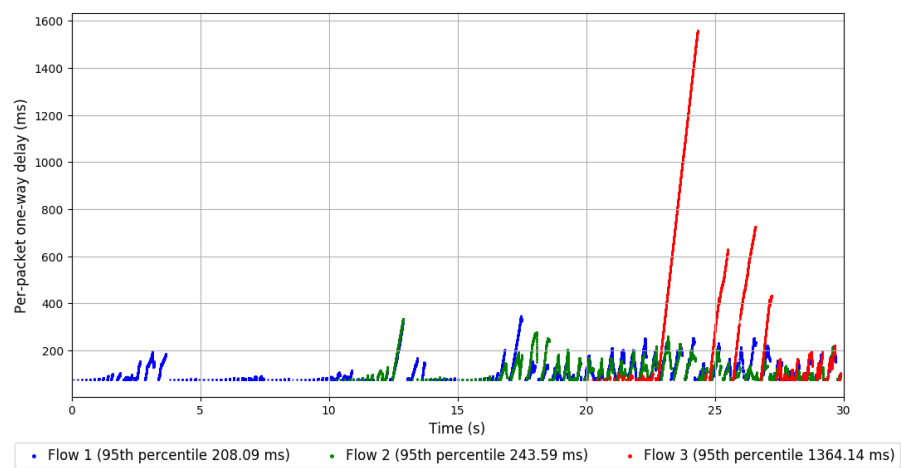
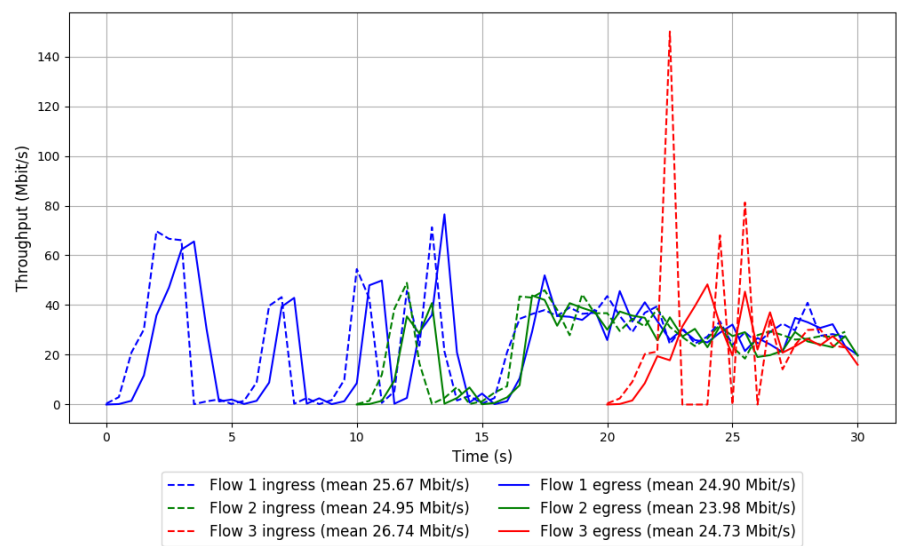


Run 5: Statistics of Verus

Start at: 2018-09-25 20:13:13  
End at: 2018-09-25 20:13:43  
Local clock offset: -10.688 ms  
Remote clock offset: 1.967 ms

# Below is generated by plot.py at 2018-09-25 21:00:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 48.95 Mbit/s  
95th percentile per-packet one-way delay: 481.943 ms  
Loss rate: 4.85%  
-- Flow 1:  
Average throughput: 24.90 Mbit/s  
95th percentile per-packet one-way delay: 208.087 ms  
Loss rate: 3.54%  
-- Flow 2:  
Average throughput: 23.98 Mbit/s  
95th percentile per-packet one-way delay: 243.585 ms  
Loss rate: 4.64%  
-- Flow 3:  
Average throughput: 24.73 Mbit/s  
95th percentile per-packet one-way delay: 1364.143 ms  
Loss rate: 9.02%

Run 5: Report of Verus — Data Link

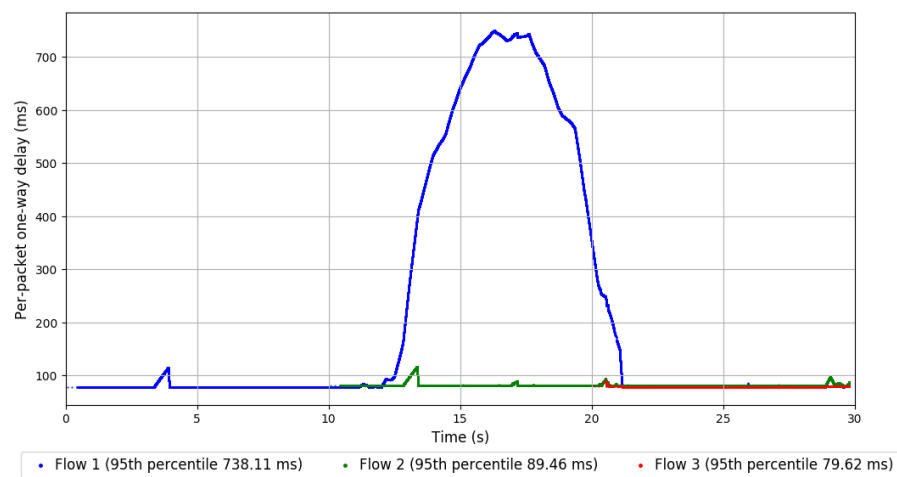
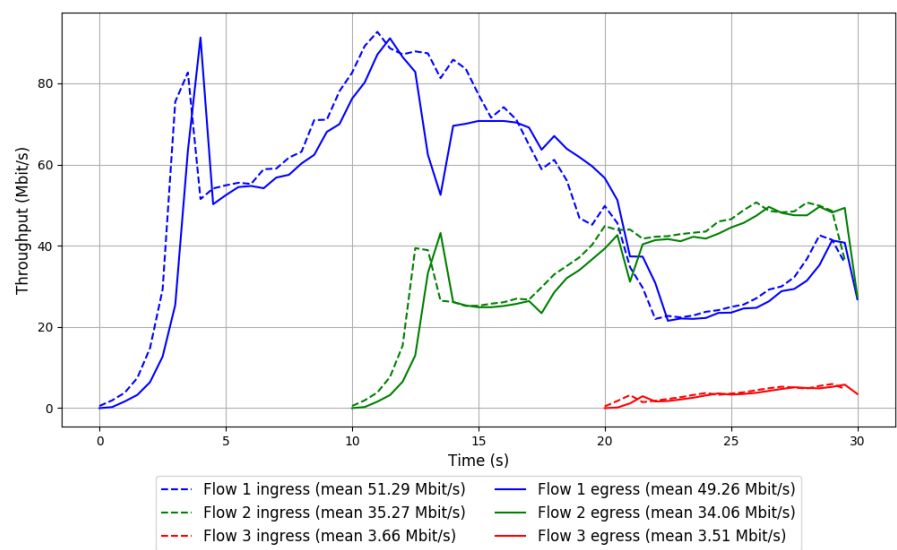


Run 1: Statistics of PCC-Vivace

Start at: 2018-09-25 17:12:50  
End at: 2018-09-25 17:13:20  
Local clock offset: -6.792 ms  
Remote clock offset: -0.232 ms

# Below is generated by plot.py at 2018-09-25 21:00:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.01 Mbit/s  
95th percentile per-packet one-way delay: 732.287 ms  
Loss rate: 4.42%  
-- Flow 1:  
Average throughput: 49.26 Mbit/s  
95th percentile per-packet one-way delay: 738.108 ms  
Loss rate: 4.47%  
-- Flow 2:  
Average throughput: 34.06 Mbit/s  
95th percentile per-packet one-way delay: 89.464 ms  
Loss rate: 4.24%  
-- Flow 3:  
Average throughput: 3.51 Mbit/s  
95th percentile per-packet one-way delay: 79.623 ms  
Loss rate: 5.49%

Run 1: Report of PCC-Vivace — Data Link

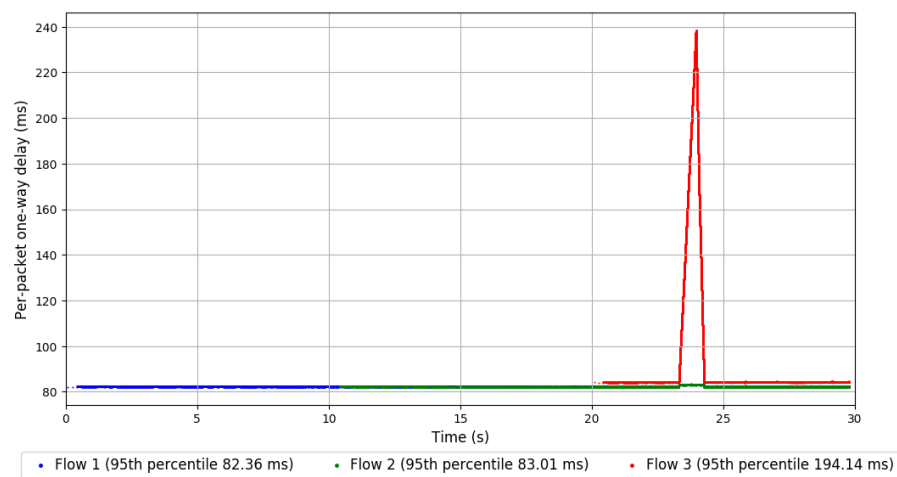
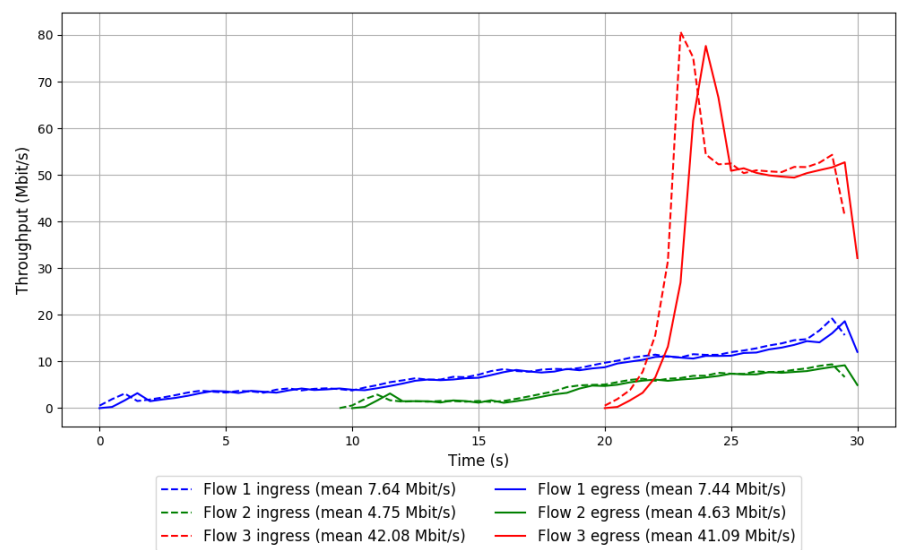


Run 2: Statistics of PCC-Vivace

Start at: 2018-09-25 18:03:34  
End at: 2018-09-25 18:04:04  
Local clock offset: -1.77 ms  
Remote clock offset: -3.177 ms

# Below is generated by plot.py at 2018-09-25 21:00:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.93 Mbit/s  
95th percentile per-packet one-way delay: 159.737 ms  
Loss rate: 3.66%  
-- Flow 1:  
Average throughput: 7.44 Mbit/s  
95th percentile per-packet one-way delay: 82.365 ms  
Loss rate: 3.17%  
-- Flow 2:  
Average throughput: 4.63 Mbit/s  
95th percentile per-packet one-way delay: 83.009 ms  
Loss rate: 3.43%  
-- Flow 3:  
Average throughput: 41.09 Mbit/s  
95th percentile per-packet one-way delay: 194.139 ms  
Loss rate: 3.98%

Run 2: Report of PCC-Vivace — Data Link

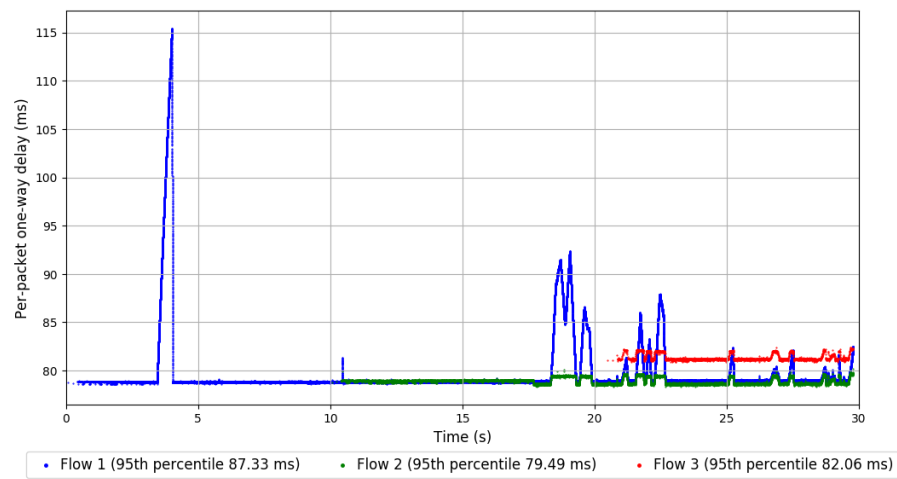
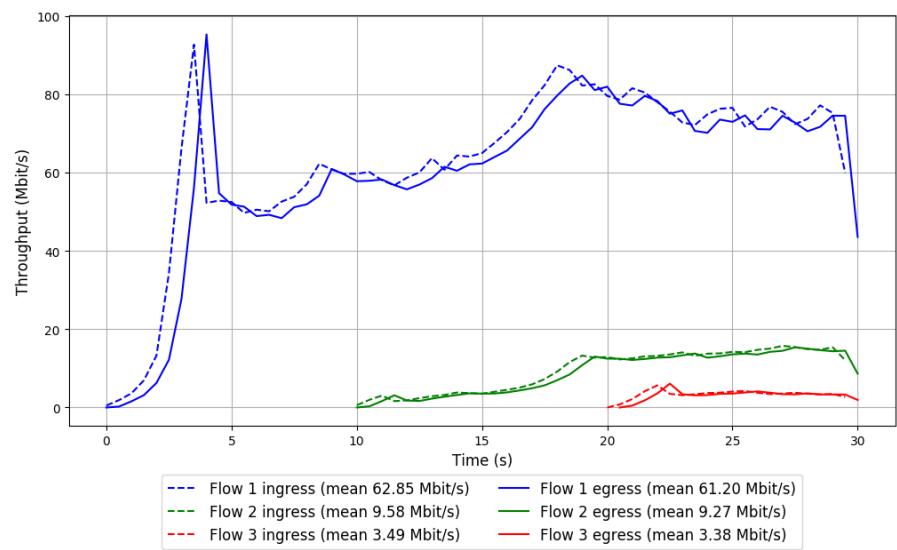


Run 3: Statistics of PCC-Vivace

Start at: 2018-09-25 18:52:30  
End at: 2018-09-25 18:53:00  
Local clock offset: -3.549 ms  
Remote clock offset: -0.493 ms

# Below is generated by plot.py at 2018-09-25 21:01:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.41 Mbit/s  
95th percentile per-packet one-way delay: 86.582 ms  
Loss rate: 3.28%  
-- Flow 1:  
Average throughput: 61.20 Mbit/s  
95th percentile per-packet one-way delay: 87.325 ms  
Loss rate: 3.18%  
-- Flow 2:  
Average throughput: 9.27 Mbit/s  
95th percentile per-packet one-way delay: 79.492 ms  
Loss rate: 4.02%  
-- Flow 3:  
Average throughput: 3.38 Mbit/s  
95th percentile per-packet one-way delay: 82.058 ms  
Loss rate: 5.04%

Run 3: Report of PCC-Vivace — Data Link



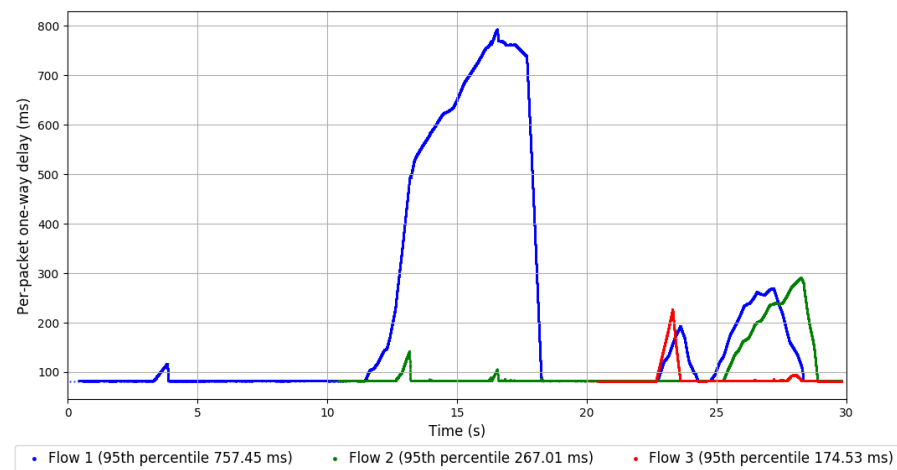
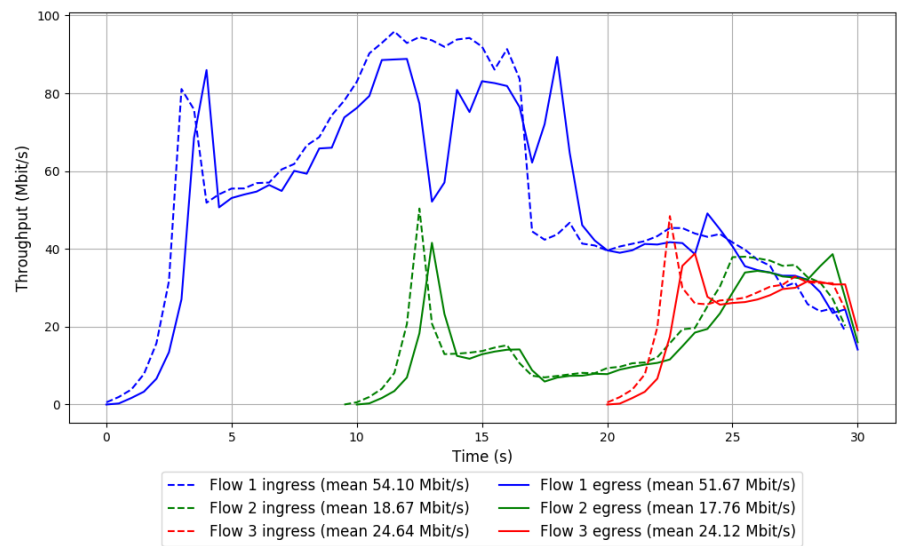


Run 4: Statistics of PCC-Vivace

Start at: 2018-09-25 19:46:54  
End at: 2018-09-25 19:47:24  
Local clock offset: -6.467 ms  
Remote clock offset: -3.234 ms

# Below is generated by plot.py at 2018-09-25 21:01:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 71.34 Mbit/s  
95th percentile per-packet one-way delay: 747.090 ms  
Loss rate: 4.96%  
-- Flow 1:  
Average throughput: 51.67 Mbit/s  
95th percentile per-packet one-way delay: 757.449 ms  
Loss rate: 5.00%  
-- Flow 2:  
Average throughput: 17.76 Mbit/s  
95th percentile per-packet one-way delay: 267.007 ms  
Loss rate: 5.63%  
-- Flow 3:  
Average throughput: 24.12 Mbit/s  
95th percentile per-packet one-way delay: 174.534 ms  
Loss rate: 3.71%

Run 4: Report of PCC-Vivace — Data Link

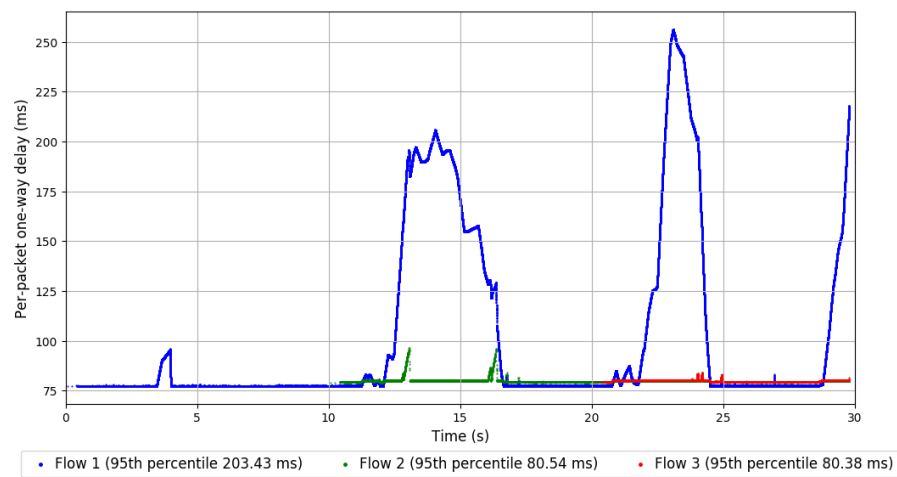
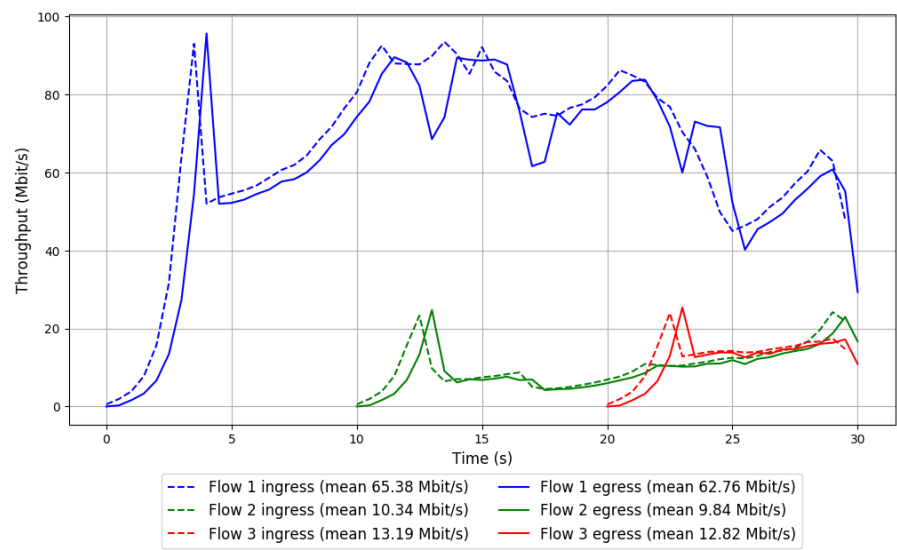


Run 5: Statistics of PCC-Vivace

Start at: 2018-09-25 20:34:54  
End at: 2018-09-25 20:35:24  
Local clock offset: -12.279 ms  
Remote clock offset: 0.887 ms

# Below is generated by plot.py at 2018-09-25 21:01:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.47 Mbit/s  
95th percentile per-packet one-way delay: 200.929 ms  
Loss rate: 4.63%  
-- Flow 1:  
Average throughput: 62.76 Mbit/s  
95th percentile per-packet one-way delay: 203.427 ms  
Loss rate: 4.54%  
-- Flow 2:  
Average throughput: 9.84 Mbit/s  
95th percentile per-packet one-way delay: 80.538 ms  
Loss rate: 5.64%  
-- Flow 3:  
Average throughput: 12.82 Mbit/s  
95th percentile per-packet one-way delay: 80.379 ms  
Loss rate: 4.41%

Run 5: Report of PCC-Vivace — Data Link

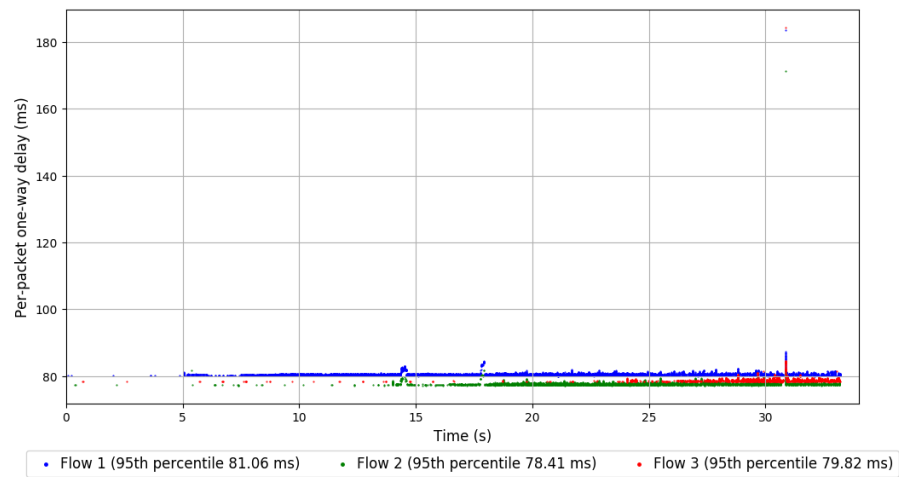
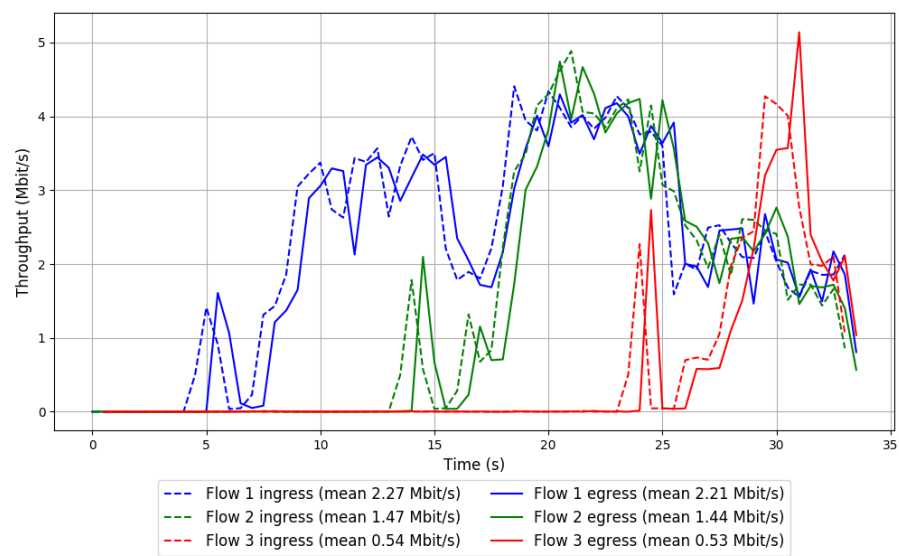


Run 1: Statistics of WebRTC media

Start at: 2018-09-25 17:21:56  
End at: 2018-09-25 17:22:26  
Local clock offset: -5.129 ms  
Remote clock offset: -0.149 ms

# Below is generated by plot.py at 2018-09-25 21:01:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.15 Mbit/s  
95th percentile per-packet one-way delay: 80.832 ms  
Loss rate: 2.81%  
-- Flow 1:  
Average throughput: 2.21 Mbit/s  
95th percentile per-packet one-way delay: 81.060 ms  
Loss rate: 2.92%  
-- Flow 2:  
Average throughput: 1.44 Mbit/s  
95th percentile per-packet one-way delay: 78.412 ms  
Loss rate: 2.67%  
-- Flow 3:  
Average throughput: 0.53 Mbit/s  
95th percentile per-packet one-way delay: 79.824 ms  
Loss rate: 2.71%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-09-25 18:11:00

End at: 2018-09-25 18:11:30

Local clock offset: -2.59 ms

Remote clock offset: 0.856 ms

# Below is generated by plot.py at 2018-09-25 21:01:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.97 Mbit/s

95th percentile per-packet one-way delay: 80.005 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 2.60 Mbit/s

95th percentile per-packet one-way delay: 77.983 ms

Loss rate: 2.12%

-- Flow 2:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 80.250 ms

Loss rate: 1.35%

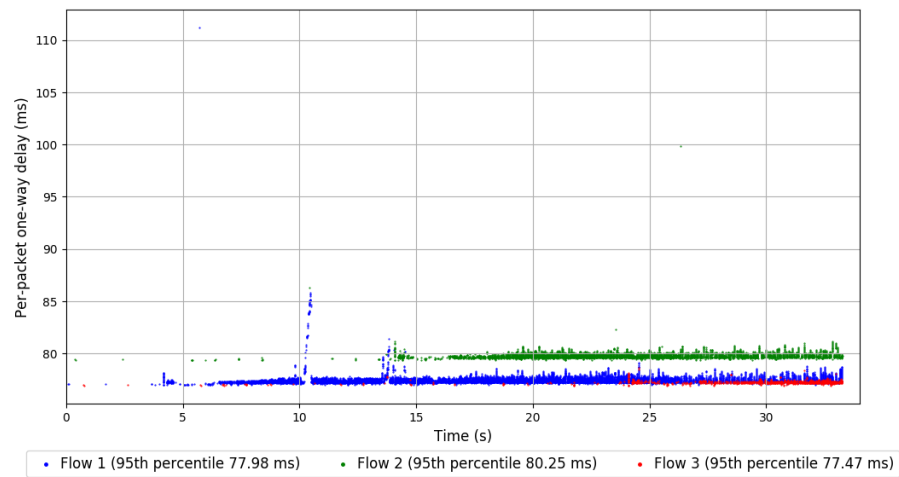
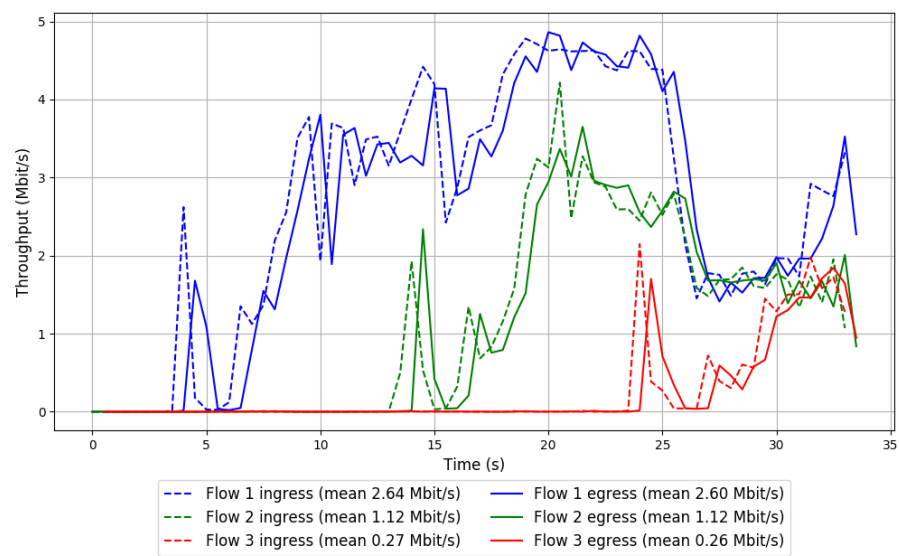
-- Flow 3:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 77.466 ms

Loss rate: 4.21%

Run 2: Report of WebRTC media — Data Link





Run 3: Statistics of WebRTC media

Start at: 2018-09-25 19:02:24

End at: 2018-09-25 19:02:54

Local clock offset: -4.67 ms

Remote clock offset: 0.695 ms

# Below is generated by plot.py at 2018-09-25 21:01:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.74 Mbit/s

95th percentile per-packet one-way delay: 80.159 ms

Loss rate: 2.36%

-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 80.279 ms

Loss rate: 1.82%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 77.714 ms

Loss rate: 2.64%

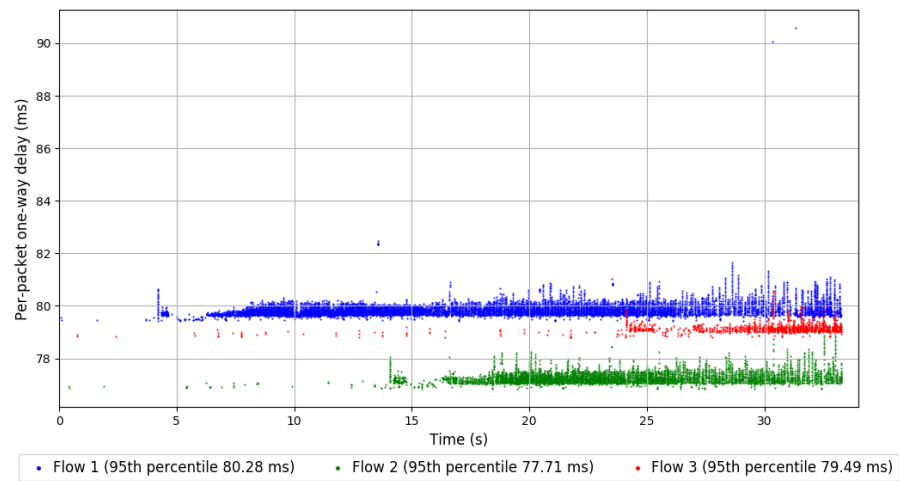
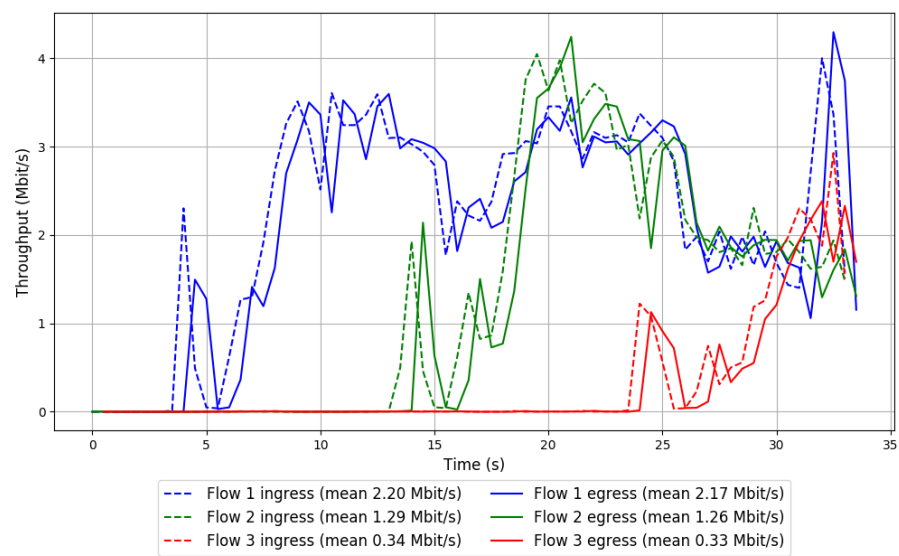
-- Flow 3:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 79.493 ms

Loss rate: 4.81%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-09-25 19:55:32

End at: 2018-09-25 19:56:02

Local clock offset: -8.676 ms

Remote clock offset: -4.32 ms

# Below is generated by plot.py at 2018-09-25 21:01:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 82.768 ms

Loss rate: 2.39%

-- Flow 1:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 82.418 ms

Loss rate: 2.30%

-- Flow 2:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 82.911 ms

Loss rate: 1.96%

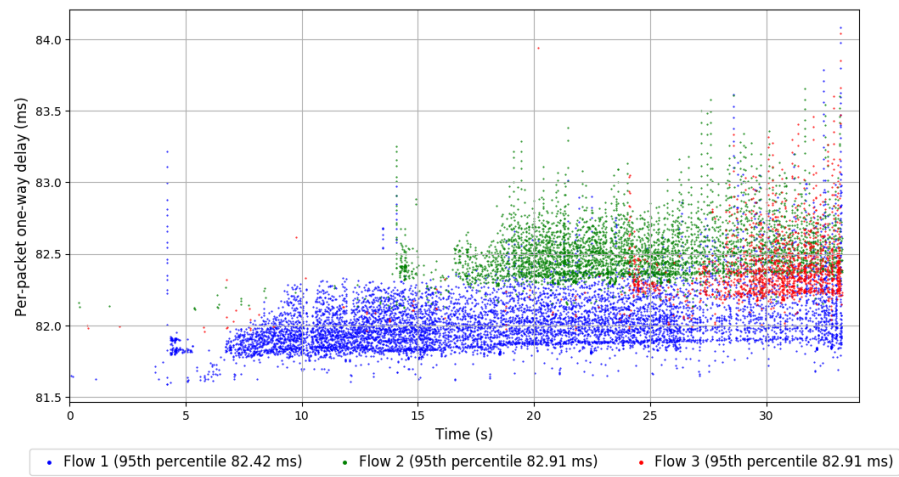
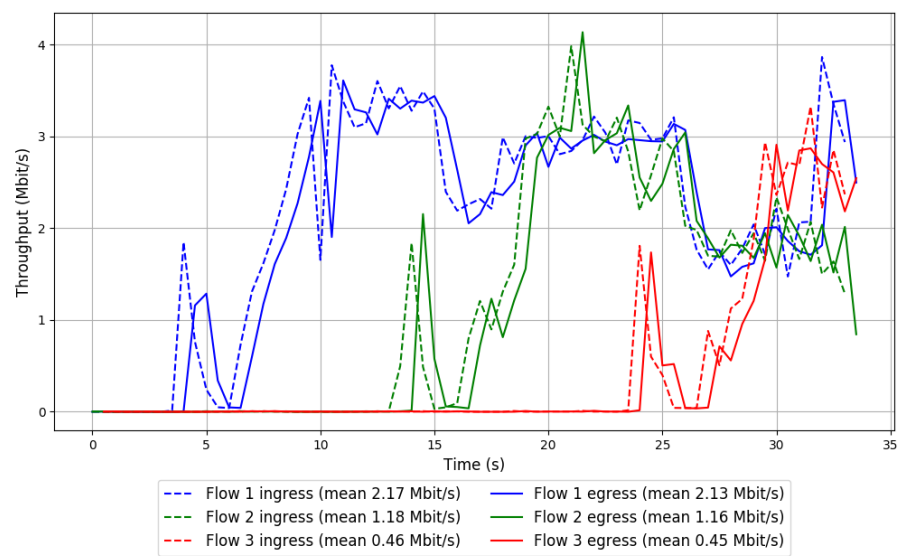
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 82.912 ms

Loss rate: 3.93%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-25 20:43:37  
End at: 2018-09-25 20:44:07  
Local clock offset: -9.136 ms  
Remote clock offset: -4.089 ms

# Below is generated by plot.py at 2018-09-25 21:01:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.20 Mbit/s  
95th percentile per-packet one-way delay: 84.063 ms  
Loss rate: 1.54%  
-- Flow 1:  
Average throughput: 2.06 Mbit/s  
95th percentile per-packet one-way delay: 84.123 ms  
Loss rate: 1.01%  
-- Flow 2:  
Average throughput: 0.90 Mbit/s  
95th percentile per-packet one-way delay: 82.161 ms  
Loss rate: 1.78%  
-- Flow 3:  
Average throughput: 0.26 Mbit/s  
95th percentile per-packet one-way delay: 82.210 ms  
Loss rate: 4.91%

Run 5: Report of WebRTC media — Data Link

