

## Pantheon Report

Generated at 2018-09-25 14:35:09 (UTC).

Data path: GCE Sydney on `ens4` (*local*) → GCE Iowa on `ens4` (*remote*).

Repeated the test of 19 congestion control schemes 5 times.

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

NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

### System info:

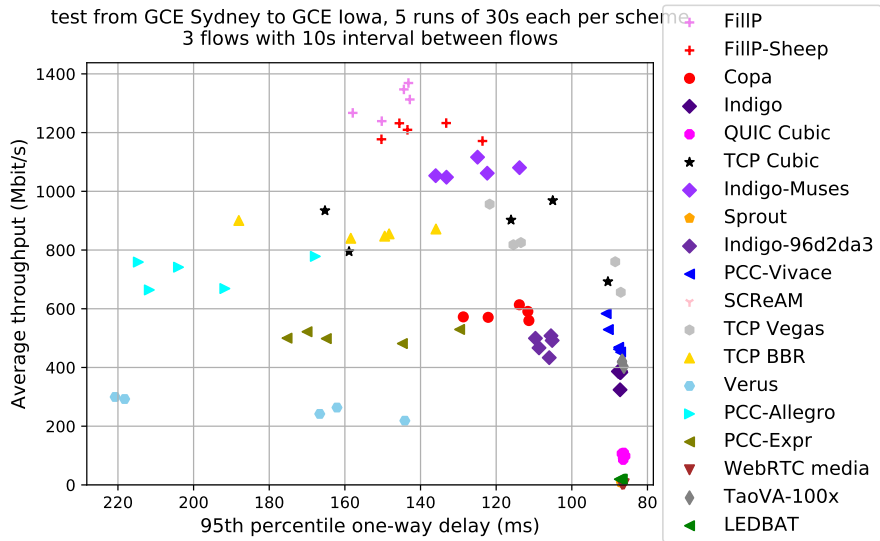
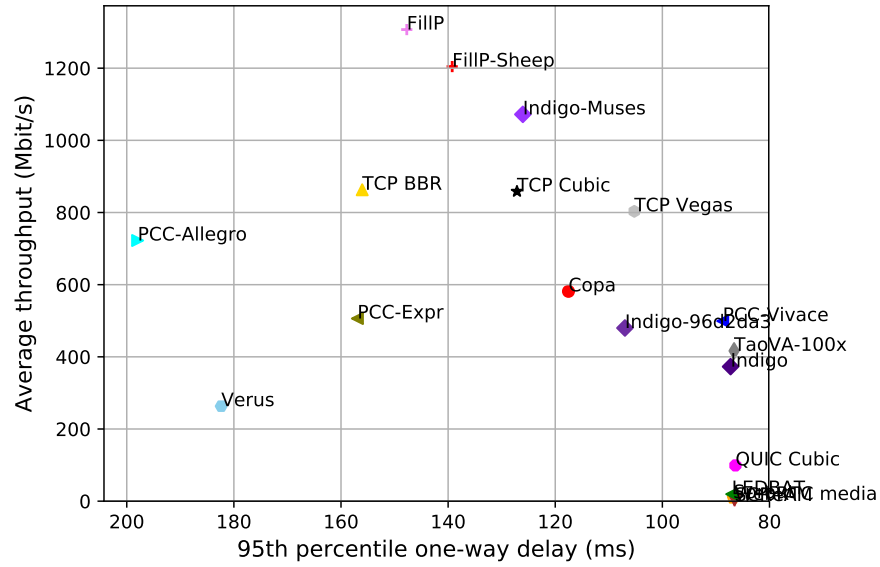
```
Linux 4.15.0-1019-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 190986 254651 381972
```

### Git summary:

```
branch: muses @ 90192f6b64ce1a1191dcca0e9ff9ee24950674d7
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ cbfce6db5ff5740dafa1771f813cd646339e1952
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 GCE Sydney to GCE Iowa, 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	455.09	415.16	395.19	152.27	141.51	161.91	0.40	0.07	0.81
Copa	5	292.46	302.76	262.62	115.14	121.75	113.31	0.00	0.02	0.09
TCP Cubic	5	462.44	392.99	403.93	128.49	94.75	127.86	0.02	0.00	0.22
FillP	5	710.90	633.00	527.35	147.42	140.66	101.85	1.76	1.09	0.04
FillP-Sheep	5	677.98	563.85	456.60	142.42	128.17	104.07	0.72	0.61	0.14
Indigo	5	197.80	186.15	160.64	86.97	87.50	87.52	0.00	0.00	0.00
Indigo-96d2da3	5	246.42	247.72	213.05	106.10	109.56	105.51	0.05	0.01	0.03
LEDBAT	5	12.57	8.35	4.10	87.15	86.82	86.56	0.00	0.00	0.00
Indigo-Muses	5	604.44	514.96	388.15	126.08	129.03	108.93	0.05	0.16	0.35
PCC-Allegro	5	419.30	336.91	242.78	201.74	140.04	125.90	2.76	1.45	0.00
PCC-Expr	5	289.18	231.26	191.60	148.47	136.79	129.45	0.58	0.86	1.11
QUIC Cubic	5	55.93	50.66	29.35	86.14	86.14	86.14	0.00	0.00	0.00
SCReAM	5	0.22	0.22	0.22	86.50	86.33	86.35	0.00	0.00	0.00
Sprout	5	4.27	4.38	3.56	86.74	86.65	86.92	0.00	0.00	0.00
TaoVA-100x	5	214.12	205.30	197.75	86.59	86.47	86.79	0.00	0.00	0.00
TCP Vegas	5	405.48	404.87	385.47	94.55	97.90	108.39	0.01	0.00	0.39
Verus	5	151.15	129.56	83.14	169.77	171.24	141.62	1.61	0.40	0.11
PCC-Vivace	5	304.27	232.39	122.32	89.09	92.44	87.15	0.00	0.00	0.00
WebRTC media	5	1.92	1.13	0.42	86.44	86.41	86.30	0.00	0.00	0.00



Run 1: Statistics of TCP BBR

Start at: 2018-09-25 09:11:02

End at: 2018-09-25 09:11:32

Local clock offset: -0.452 ms

Remote clock offset: 0.095 ms

# Below is generated by plot.py at 2018-09-25 12:12:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 847.33 Mbit/s

95th percentile per-packet one-way delay: 149.476 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 460.66 Mbit/s

95th percentile per-packet one-way delay: 142.080 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 371.07 Mbit/s

95th percentile per-packet one-way delay: 156.575 ms

Loss rate: 0.10%

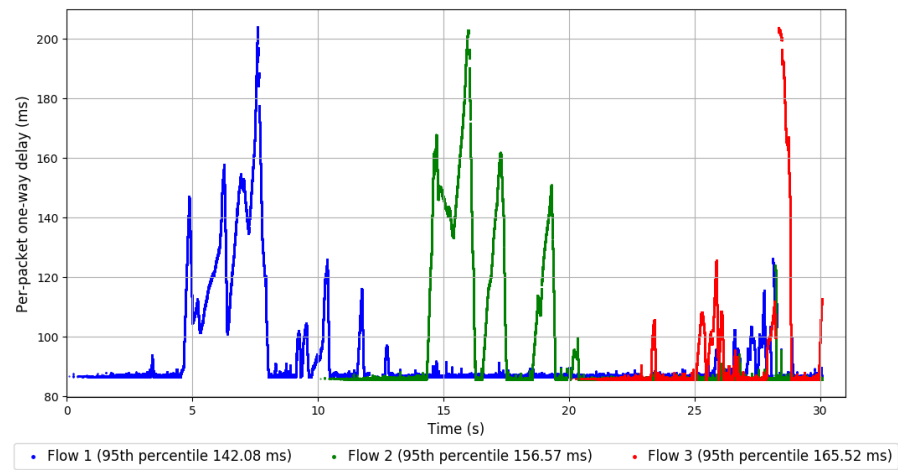
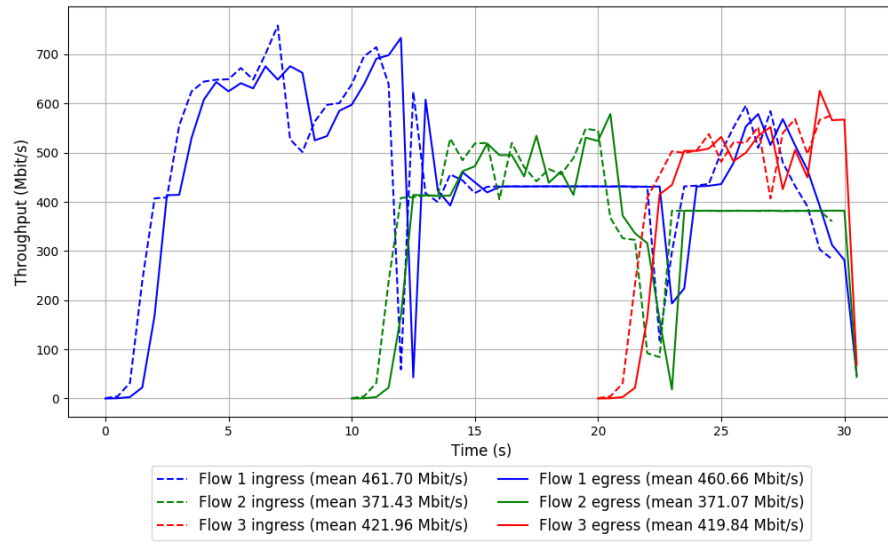
-- Flow 3:

Average throughput: 419.84 Mbit/s

95th percentile per-packet one-way delay: 165.522 ms

Loss rate: 0.50%

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



Run 2: Statistics of TCP BBR

Start at: 2018-09-25 09:45:20

End at: 2018-09-25 09:45:50

Local clock offset: -0.217 ms

Remote clock offset: 0.044 ms

# Below is generated by plot.py at 2018-09-25 12:14:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 900.78 Mbit/s

95th percentile per-packet one-way delay: 188.044 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 480.16 Mbit/s

95th percentile per-packet one-way delay: 198.775 ms

Loss rate: 1.47%

-- Flow 2:

Average throughput: 418.20 Mbit/s

95th percentile per-packet one-way delay: 122.491 ms

Loss rate: 0.09%

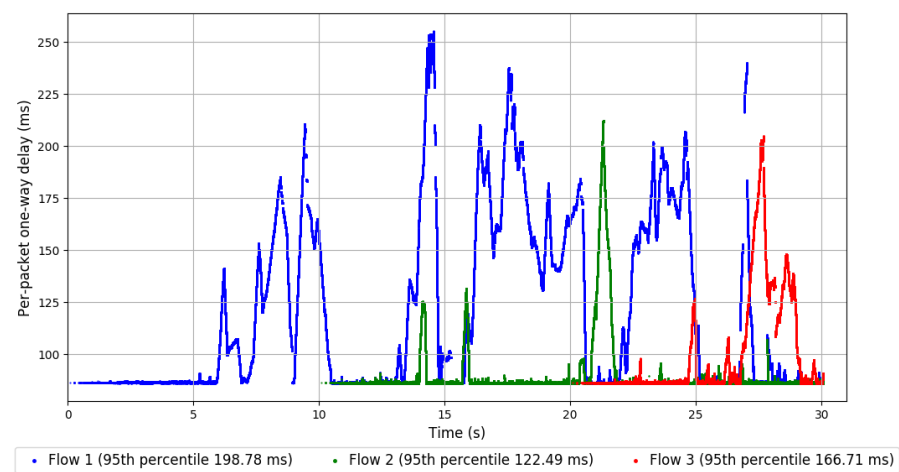
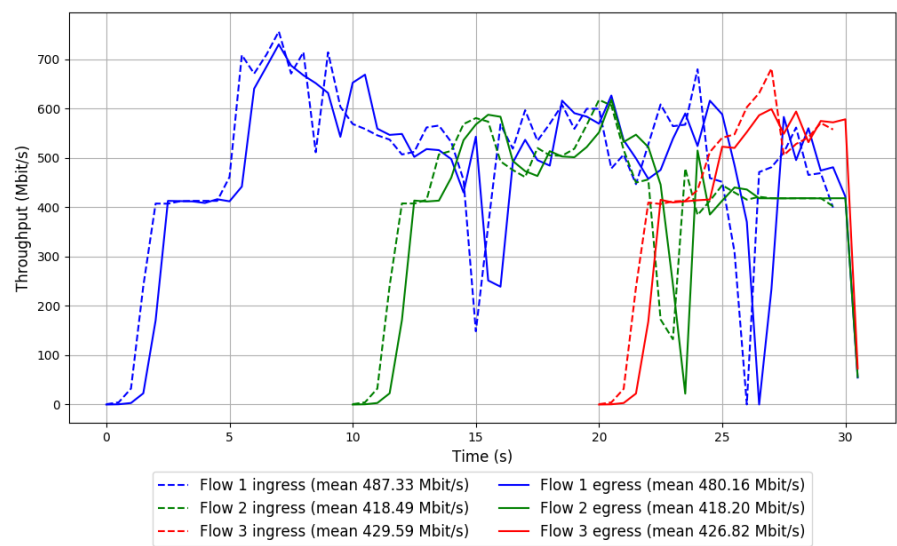
-- Flow 3:

Average throughput: 426.82 Mbit/s

95th percentile per-packet one-way delay: 166.711 ms

Loss rate: 0.64%

Run 2: Report of TCP BBR — Data Link

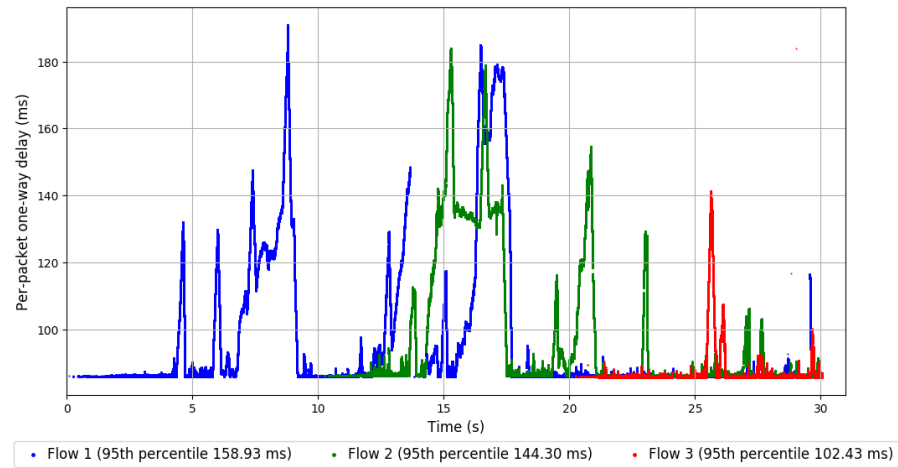
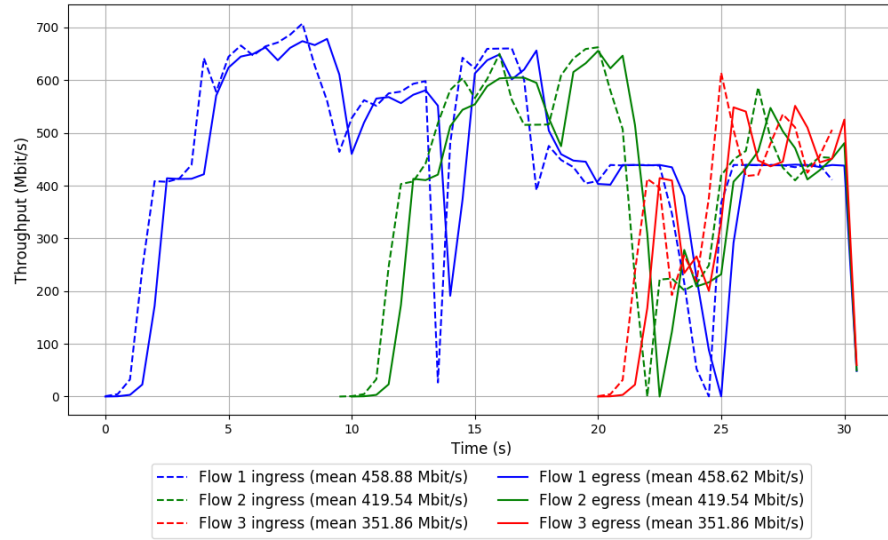


Run 3: Statistics of TCP BBR

Start at: 2018-09-25 10:19:37  
End at: 2018-09-25 10:20:07  
Local clock offset: -0.076 ms  
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-09-25 12:14:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 855.14 Mbit/s  
95th percentile per-packet one-way delay: 148.303 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 458.62 Mbit/s  
95th percentile per-packet one-way delay: 158.933 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 419.54 Mbit/s  
95th percentile per-packet one-way delay: 144.302 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 351.86 Mbit/s  
95th percentile per-packet one-way delay: 102.429 ms  
Loss rate: 0.00%

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

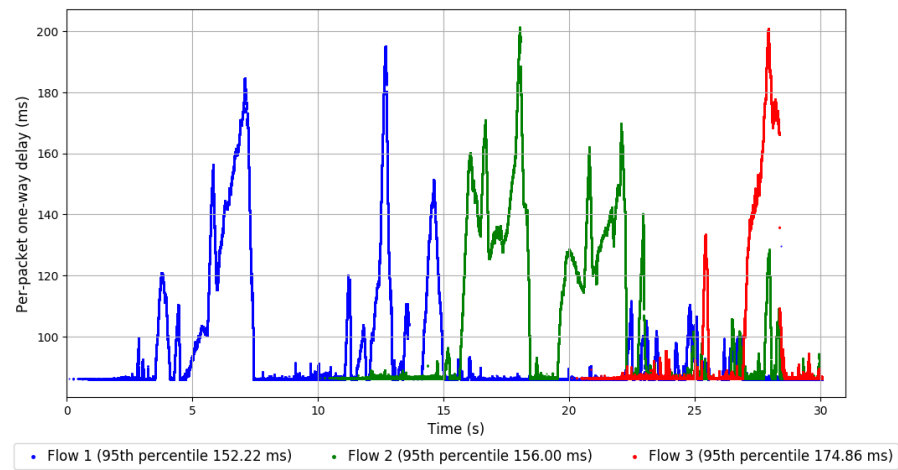
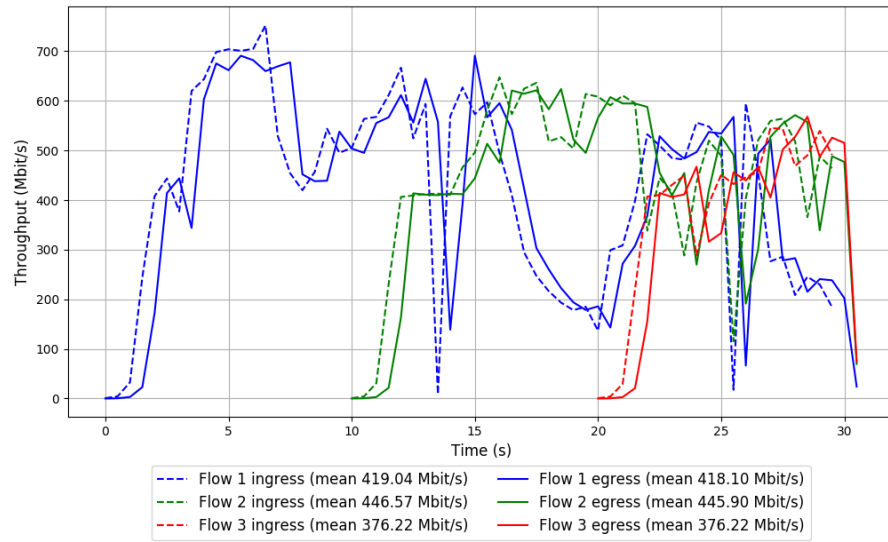


Run 4: Statistics of TCP BBR

Start at: 2018-09-25 10:53:33  
End at: 2018-09-25 10:54:03  
Local clock offset: -0.271 ms  
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-09-25 12:14:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 840.12 Mbit/s  
95th percentile per-packet one-way delay: 158.443 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 418.10 Mbit/s  
95th percentile per-packet one-way delay: 152.215 ms  
Loss rate: 0.22%  
-- Flow 2:  
Average throughput: 445.90 Mbit/s  
95th percentile per-packet one-way delay: 155.998 ms  
Loss rate: 0.15%  
-- Flow 3:  
Average throughput: 376.22 Mbit/s  
95th percentile per-packet one-way delay: 174.856 ms  
Loss rate: 0.00%

# Run 4: Report of TCP BBR — Data Link



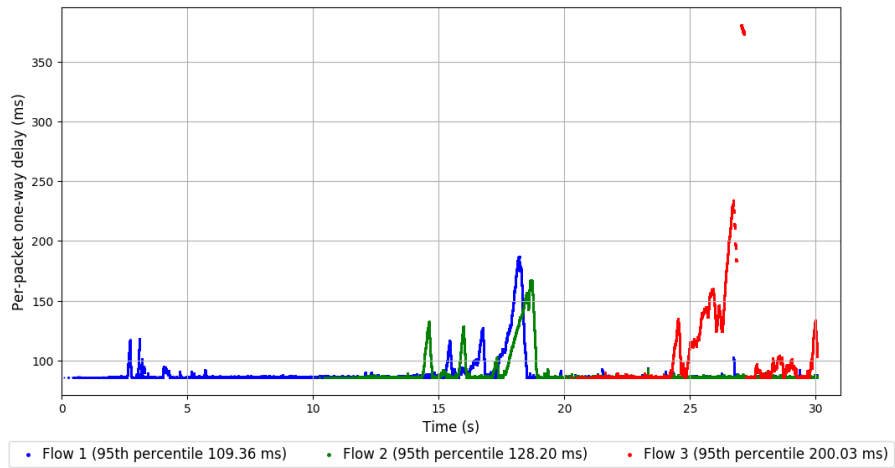
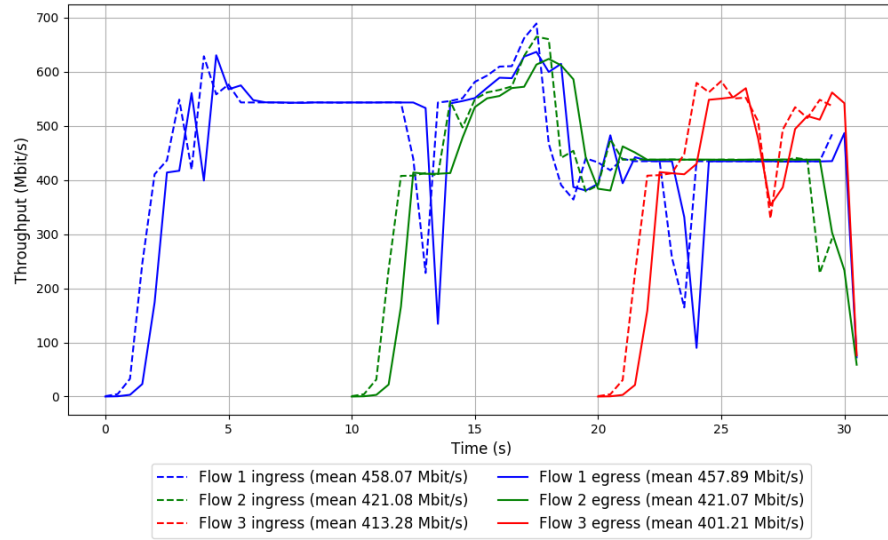


Run 5: Statistics of TCP BBR

Start at: 2018-09-25 11:27:55  
End at: 2018-09-25 11:28:25  
Local clock offset: -0.272 ms  
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-09-25 12:14:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 871.67 Mbit/s  
95th percentile per-packet one-way delay: 135.924 ms  
Loss rate: 0.48%  
-- Flow 1:  
Average throughput: 457.89 Mbit/s  
95th percentile per-packet one-way delay: 109.363 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 421.07 Mbit/s  
95th percentile per-packet one-way delay: 128.202 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 401.21 Mbit/s  
95th percentile per-packet one-way delay: 200.032 ms  
Loss rate: 2.91%

# Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-09-25 09:08:52

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

Local clock offset: -0.461 ms

Remote clock offset: 0.101 ms

# Below is generated by plot.py at 2018-09-25 12:17:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 570.73 Mbit/s

95th percentile per-packet one-way delay: 122.115 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 271.68 Mbit/s

95th percentile per-packet one-way delay: 143.574 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 309.75 Mbit/s

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

Loss rate: 0.00%

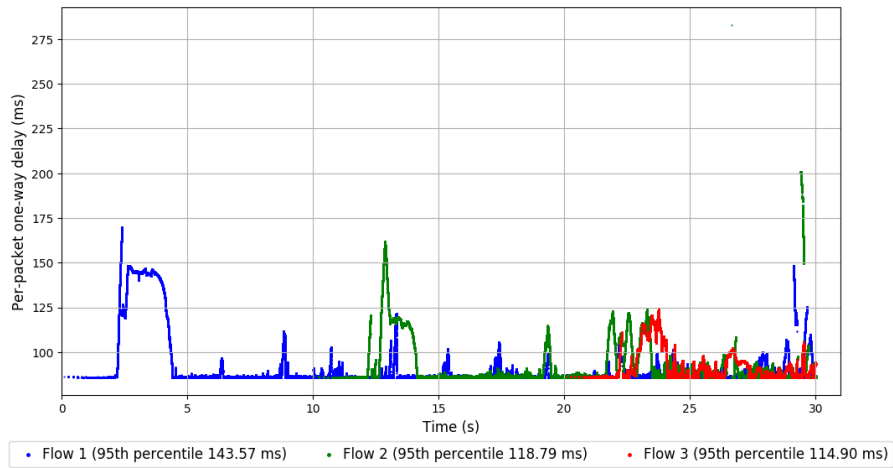
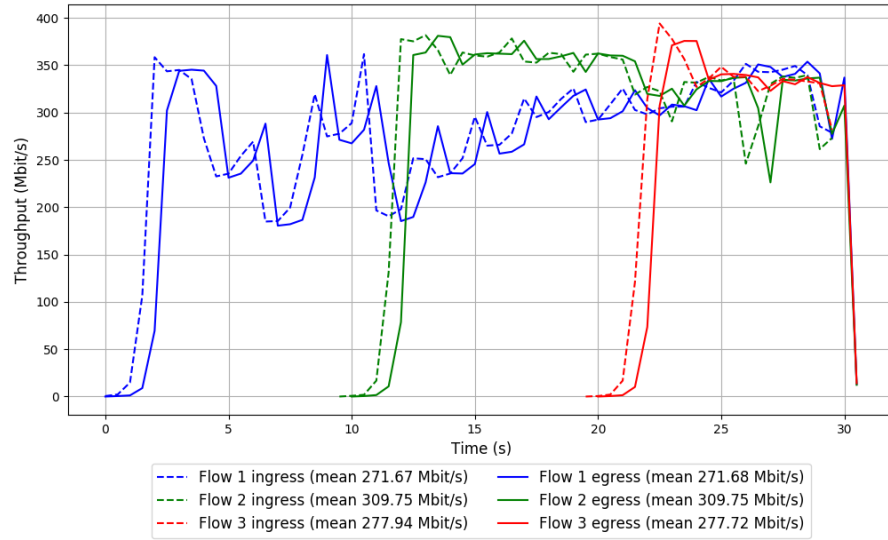
-- Flow 3:

Average throughput: 277.72 Mbit/s

95th percentile per-packet one-way delay: 114.901 ms

Loss rate: 0.07%

# Run 1: Report of Copa — Data Link

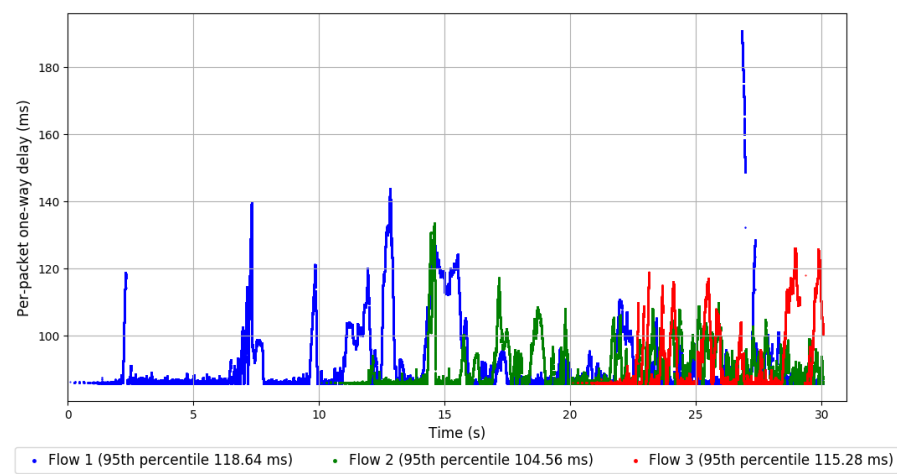
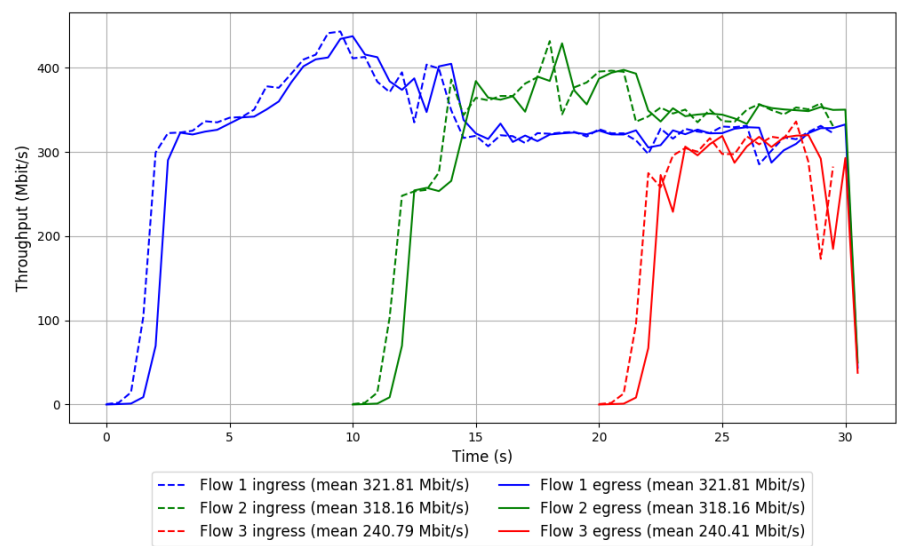


Run 2: Statistics of Copa

Start at: 2018-09-25 09:43:06  
End at: 2018-09-25 09:43:36  
Local clock offset: -0.317 ms  
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-09-25 12:18:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 613.59 Mbit/s  
95th percentile per-packet one-way delay: 113.871 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 321.81 Mbit/s  
95th percentile per-packet one-way delay: 118.645 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 318.16 Mbit/s  
95th percentile per-packet one-way delay: 104.565 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 240.41 Mbit/s  
95th percentile per-packet one-way delay: 115.278 ms  
Loss rate: 0.14%

Run 2: Report of Copa — Data Link

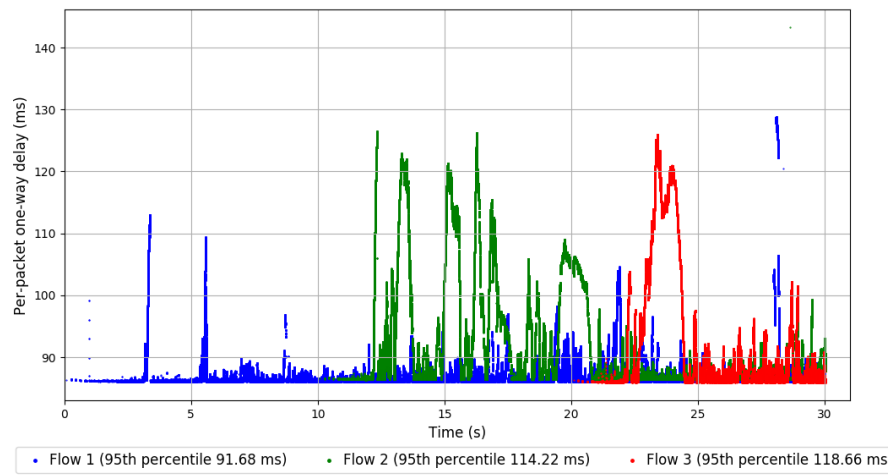
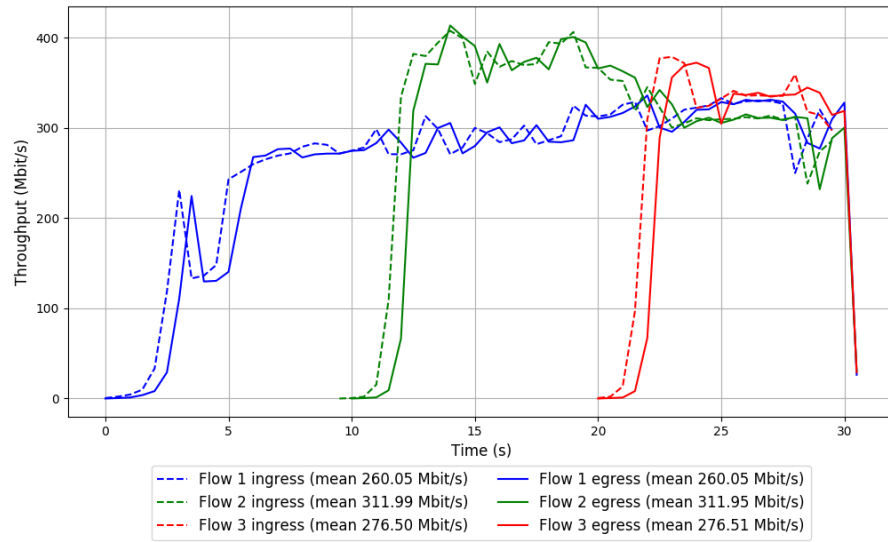


Run 3: Statistics of Copa

Start at: 2018-09-25 10:17:26  
End at: 2018-09-25 10:17:56  
Local clock offset: -0.195 ms  
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-09-25 12:18:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 559.83 Mbit/s  
95th percentile per-packet one-way delay: 111.349 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 260.05 Mbit/s  
95th percentile per-packet one-way delay: 91.678 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 311.95 Mbit/s  
95th percentile per-packet one-way delay: 114.216 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 276.51 Mbit/s  
95th percentile per-packet one-way delay: 118.662 ms  
Loss rate: 0.00%

### Run 3: Report of Copa — Data Link



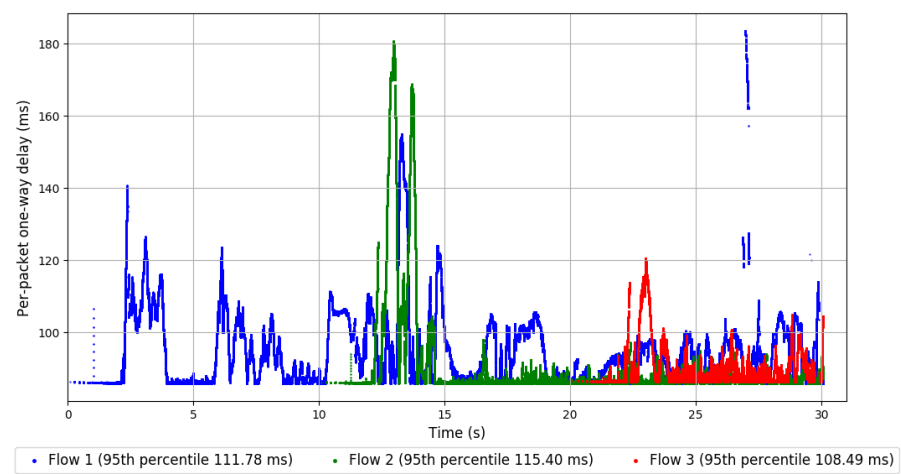
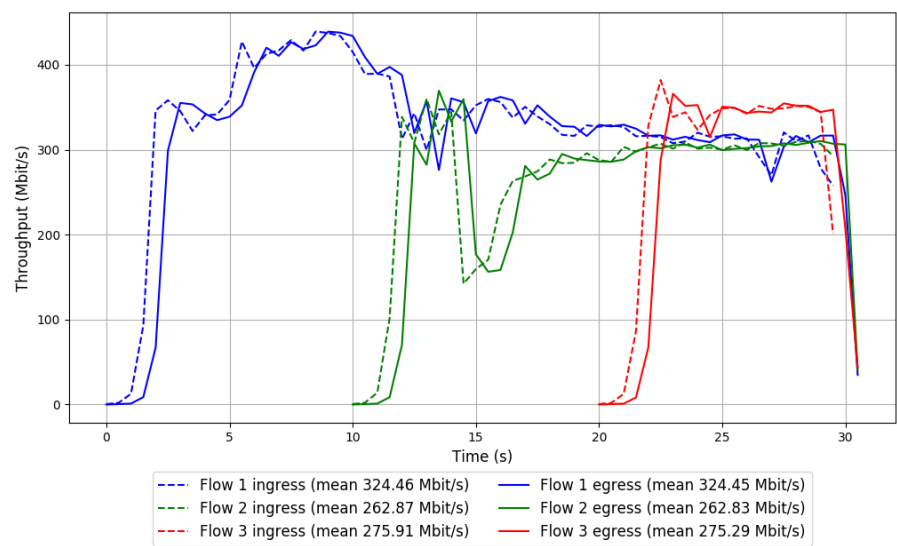


Run 4: Statistics of Copa

Start at: 2018-09-25 10:51:21  
End at: 2018-09-25 10:51:51  
Local clock offset: -0.31 ms  
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2018-09-25 12:33:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 590.94 Mbit/s  
95th percentile per-packet one-way delay: 111.630 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 324.45 Mbit/s  
95th percentile per-packet one-way delay: 111.784 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 262.83 Mbit/s  
95th percentile per-packet one-way delay: 115.398 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 275.29 Mbit/s  
95th percentile per-packet one-way delay: 108.486 ms  
Loss rate: 0.23%

Run 4: Report of Copa — Data Link

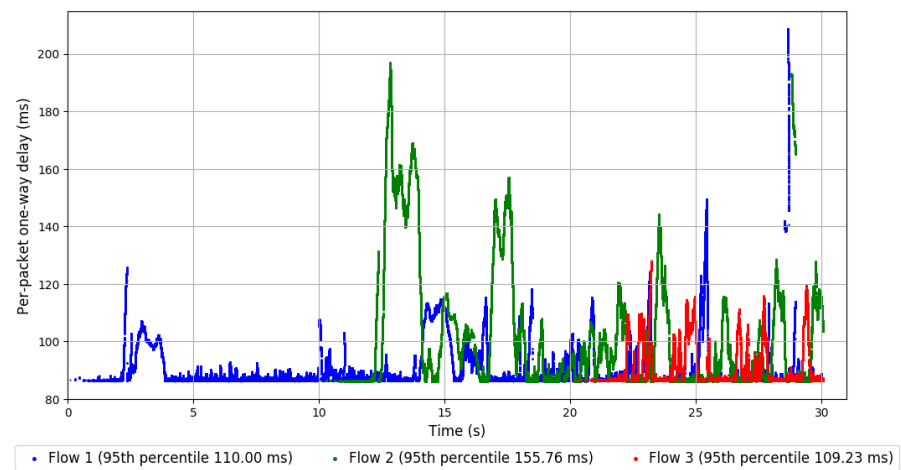
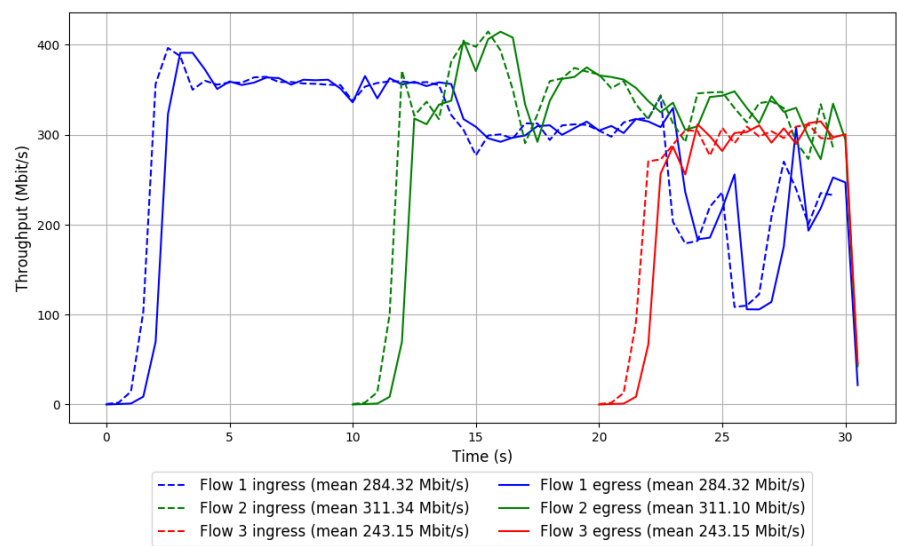


Run 5: Statistics of Copa

Start at: 2018-09-25 11:25:45  
End at: 2018-09-25 11:26:15  
Local clock offset: -0.327 ms  
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-09-25 12:33:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 572.29 Mbit/s  
95th percentile per-packet one-way delay: 128.690 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 284.32 Mbit/s  
95th percentile per-packet one-way delay: 110.000 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 311.10 Mbit/s  
95th percentile per-packet one-way delay: 155.758 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 243.15 Mbit/s  
95th percentile per-packet one-way delay: 109.231 ms  
Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-09-25 08:53:10

End at: 2018-09-25 08:53:40

Local clock offset: -0.071 ms

Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2018-09-25 12:33:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 902.32 Mbit/s

95th percentile per-packet one-way delay: 116.073 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 476.33 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 432.99 Mbit/s

95th percentile per-packet one-way delay: 92.112 ms

Loss rate: 0.00%

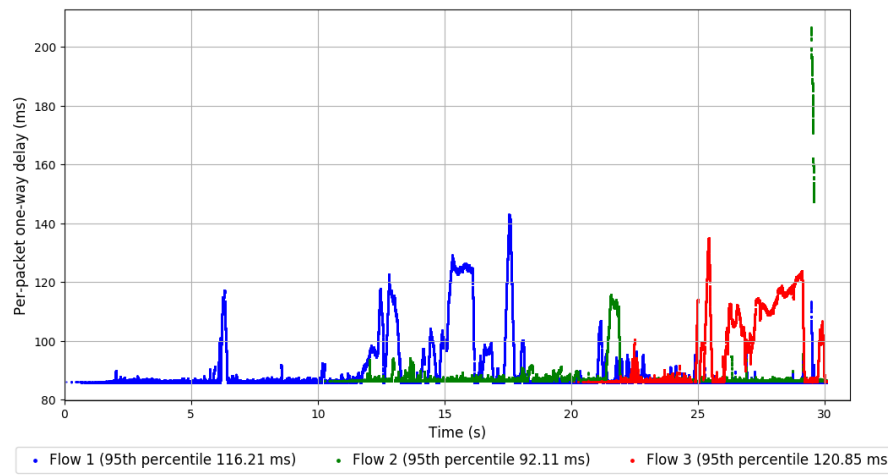
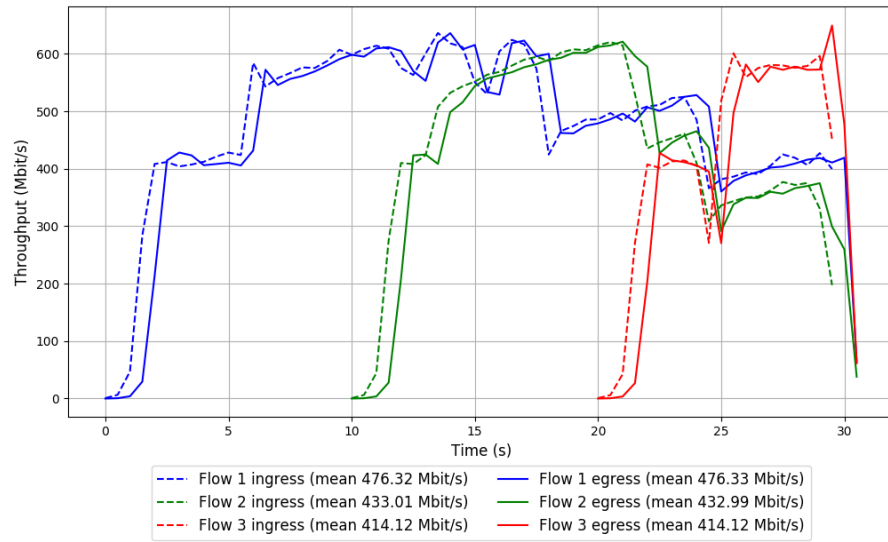
-- Flow 3:

Average throughput: 414.12 Mbit/s

95th percentile per-packet one-way delay: 120.849 ms

Loss rate: 0.00%

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



Run 2: Statistics of TCP Cubic

Start at: 2018-09-25 09:27:28

End at: 2018-09-25 09:27:58

Local clock offset: -0.341 ms

Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2018-09-25 12:33:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 692.39 Mbit/s

95th percentile per-packet one-way delay: 90.453 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 344.55 Mbit/s

95th percentile per-packet one-way delay: 87.374 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 337.22 Mbit/s

95th percentile per-packet one-way delay: 86.444 ms

Loss rate: 0.00%

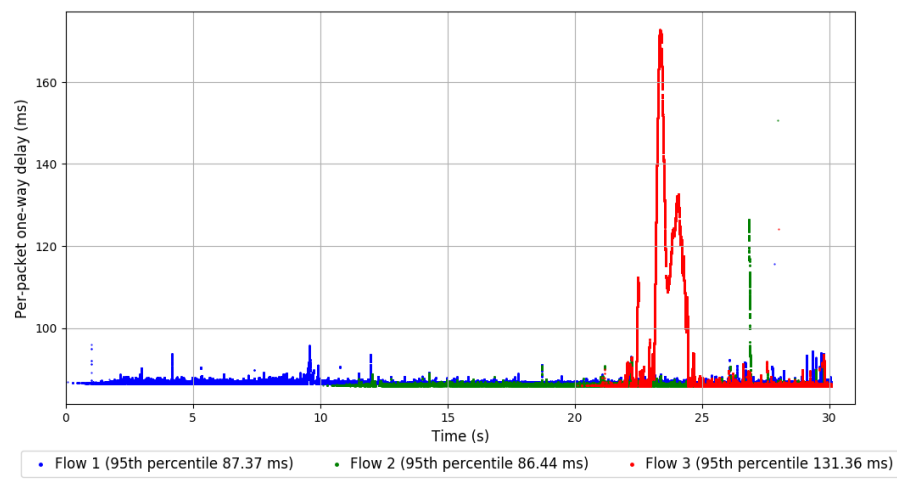
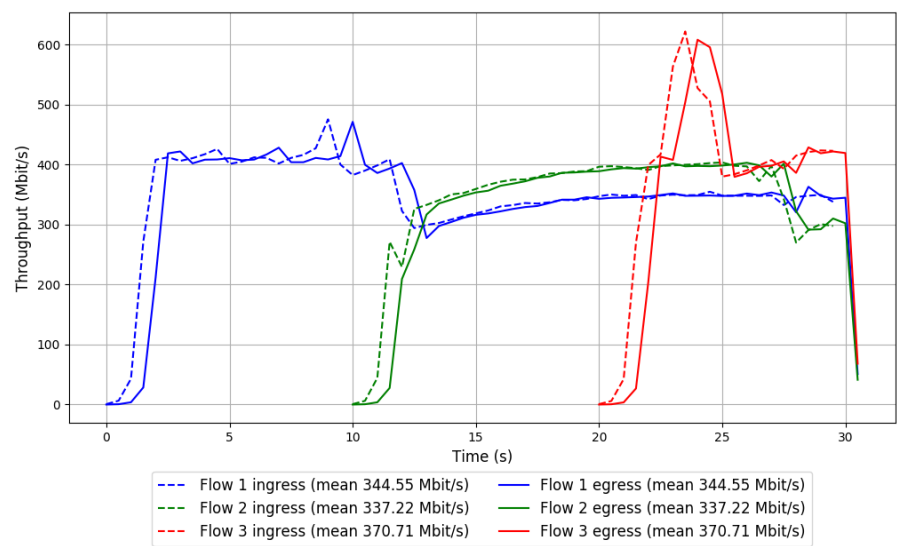
-- Flow 3:

Average throughput: 370.71 Mbit/s

95th percentile per-packet one-way delay: 131.361 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



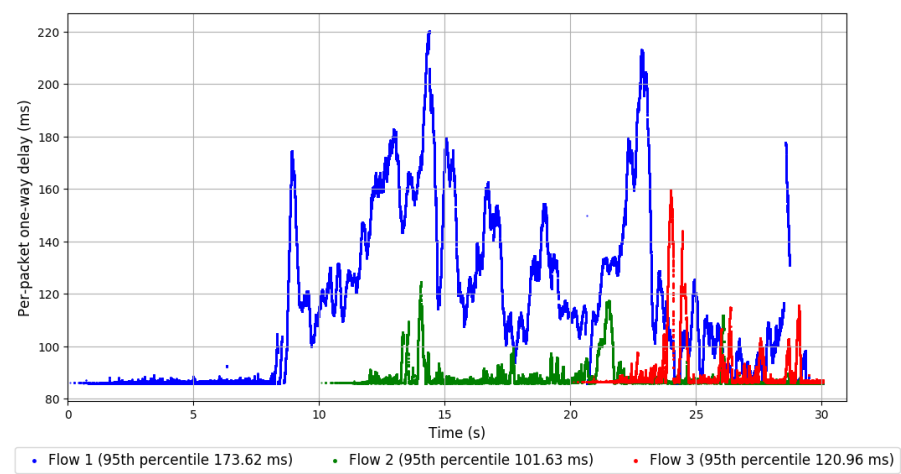
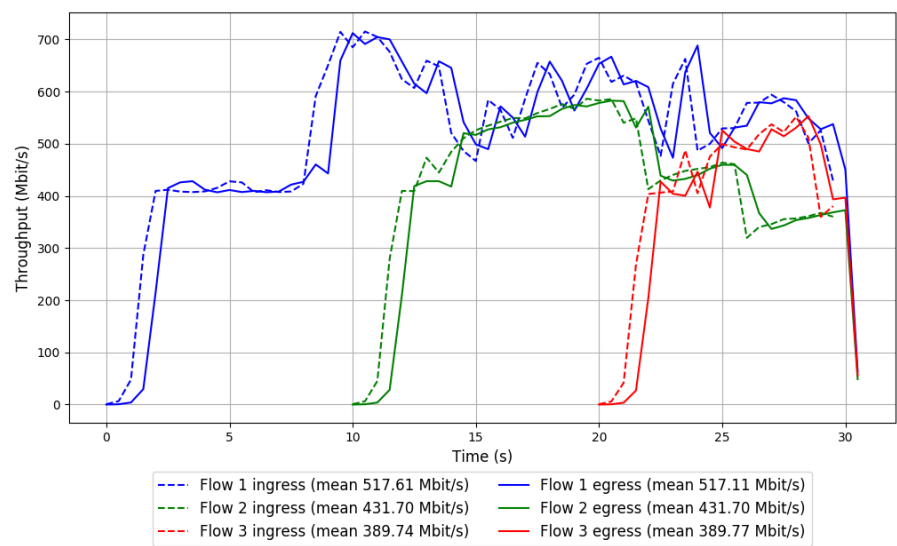


Run 3: Statistics of TCP Cubic

Start at: 2018-09-25 10:01:42  
End at: 2018-09-25 10:02:12  
Local clock offset: -0.202 ms  
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-09-25 12:33:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 934.18 Mbit/s  
95th percentile per-packet one-way delay: 165.263 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 517.11 Mbit/s  
95th percentile per-packet one-way delay: 173.620 ms  
Loss rate: 0.10%  
-- Flow 2:  
Average throughput: 431.70 Mbit/s  
95th percentile per-packet one-way delay: 101.629 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 389.77 Mbit/s  
95th percentile per-packet one-way delay: 120.962 ms  
Loss rate: 0.00%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-09-25 10:35:49

End at: 2018-09-25 10:36:19

Local clock offset: -0.269 ms

Remote clock offset: 0.025 ms

# Below is generated by plot.py at 2018-09-25 12:33:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 794.81 Mbit/s

95th percentile per-packet one-way delay: 158.899 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 437.98 Mbit/s

95th percentile per-packet one-way delay: 160.878 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 325.19 Mbit/s

95th percentile per-packet one-way delay: 87.413 ms

Loss rate: 0.00%

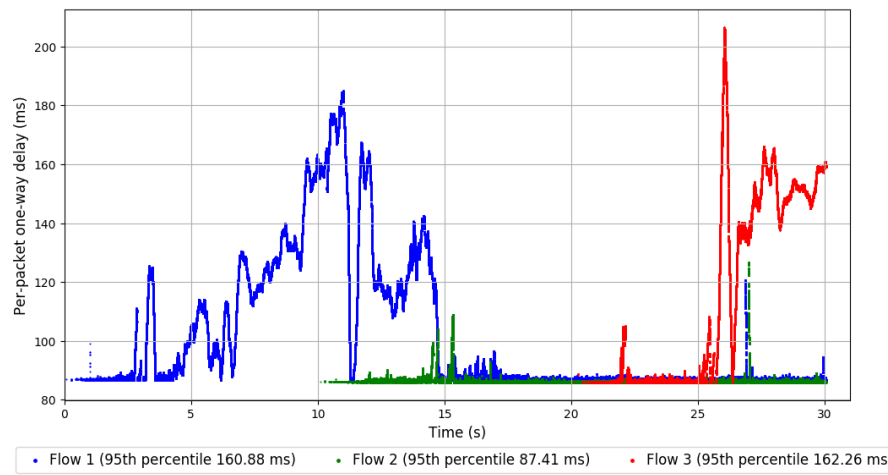
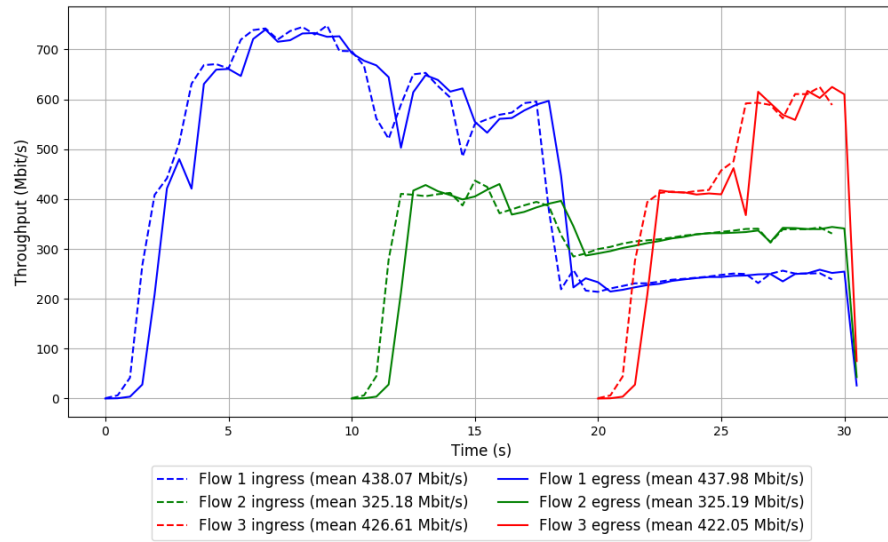
-- Flow 3:

Average throughput: 422.05 Mbit/s

95th percentile per-packet one-way delay: 162.259 ms

Loss rate: 1.06%

# Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-09-25 11:09:58

End at: 2018-09-25 11:10:28

Local clock offset: -0.373 ms

Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-09-25 12:34:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 968.47 Mbit/s

95th percentile per-packet one-way delay: 105.045 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 536.24 Mbit/s

95th percentile per-packet one-way delay: 104.349 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 437.86 Mbit/s

95th percentile per-packet one-way delay: 106.153 ms

Loss rate: 0.00%

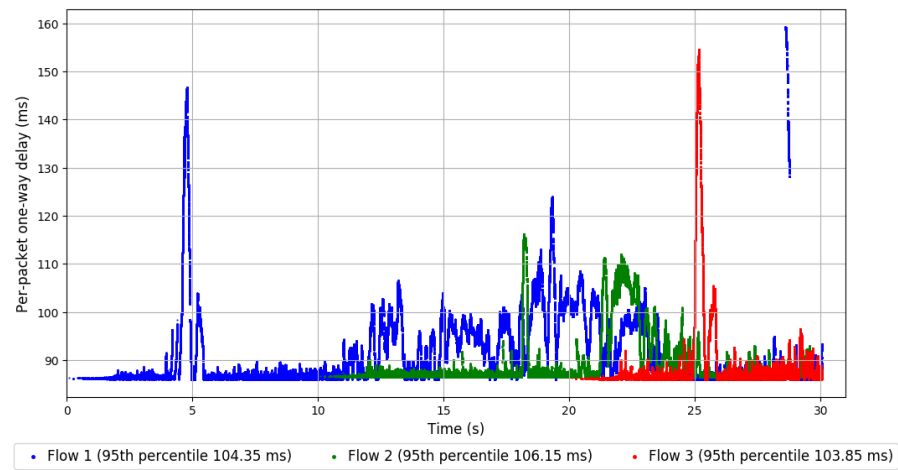
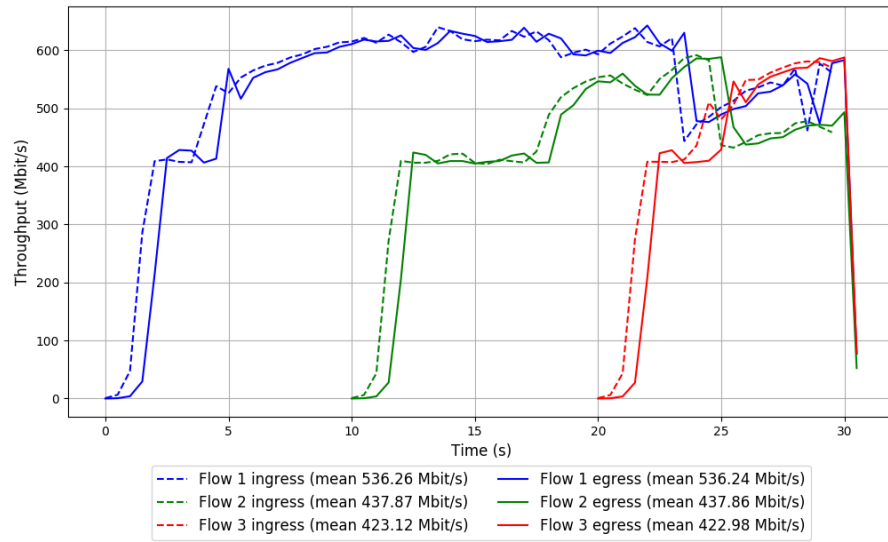
-- Flow 3:

Average throughput: 422.98 Mbit/s

95th percentile per-packet one-way delay: 103.850 ms

Loss rate: 0.02%

# Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-09-25 08:59:33

End at: 2018-09-25 09:00:03

Local clock offset: -0.256 ms

Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2018-09-25 12:45:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1267.07 Mbit/s

95th percentile per-packet one-way delay: 157.919 ms

Loss rate: 2.64%

-- Flow 1:

Average throughput: 684.42 Mbit/s

95th percentile per-packet one-way delay: 160.138 ms

Loss rate: 4.15%

-- Flow 2:

Average throughput: 616.45 Mbit/s

95th percentile per-packet one-way delay: 155.038 ms

Loss rate: 1.15%

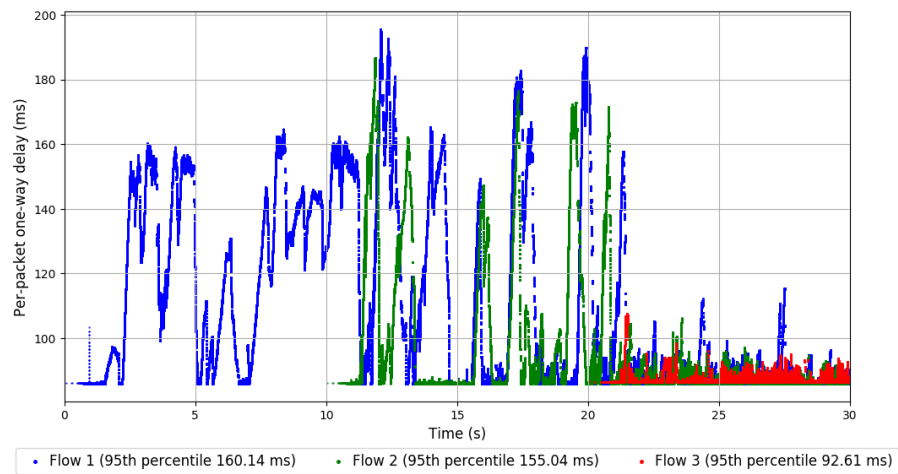
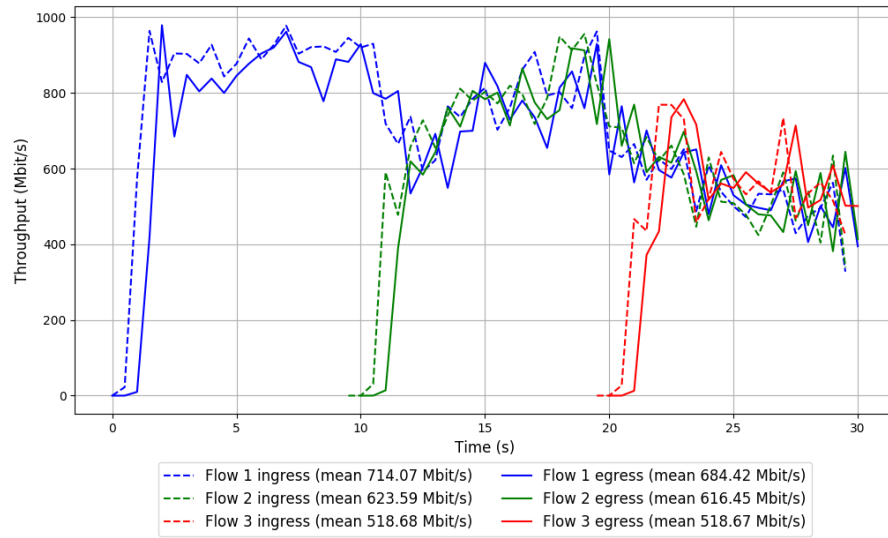
-- Flow 3:

Average throughput: 518.67 Mbit/s

95th percentile per-packet one-way delay: 92.611 ms

Loss rate: 0.00%

# Run 1: Report of FillP — Data Link



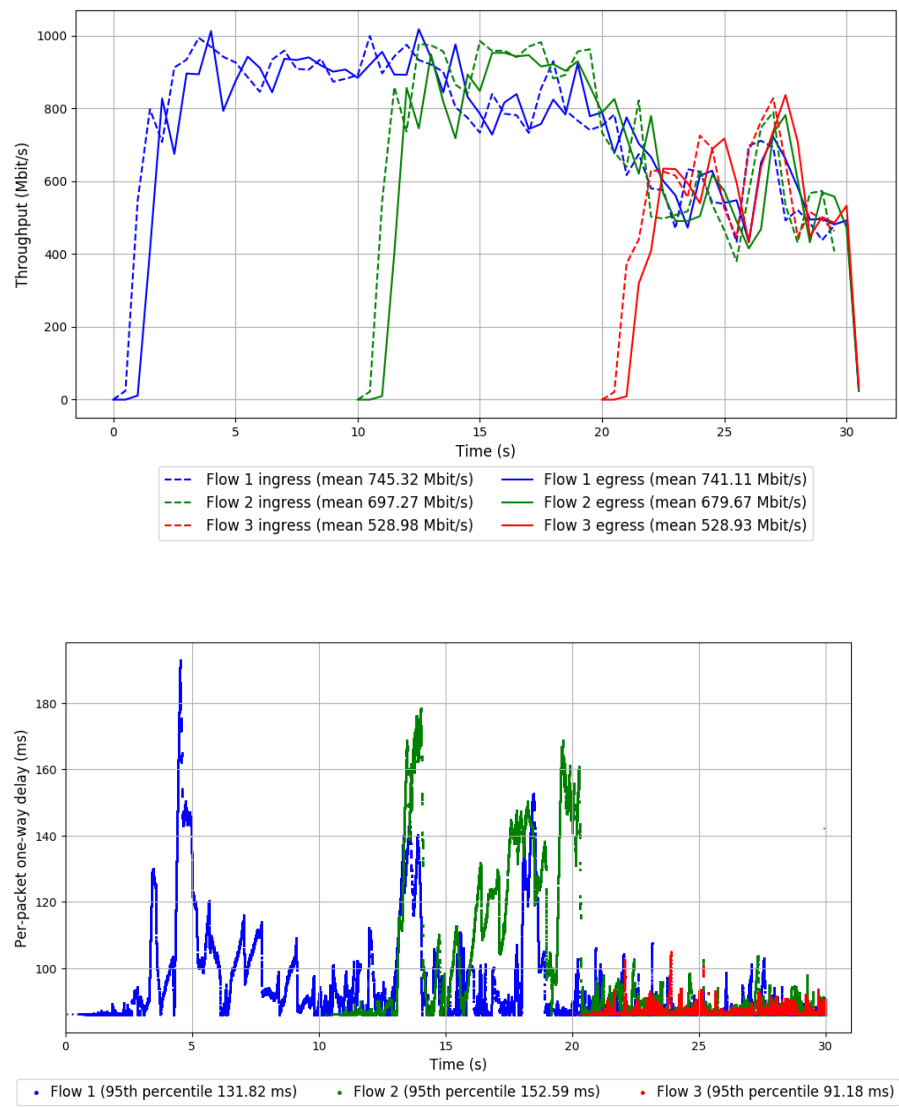


Run 2: Statistics of FillP

Start at: 2018-09-25 09:33:43  
End at: 2018-09-25 09:34:13  
Local clock offset: -0.448 ms  
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-09-25 12:56:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1368.85 Mbit/s  
95th percentile per-packet one-way delay: 143.196 ms  
Loss rate: 1.15%  
-- Flow 1:  
Average throughput: 741.11 Mbit/s  
95th percentile per-packet one-way delay: 131.822 ms  
Loss rate: 0.56%  
-- Flow 2:  
Average throughput: 679.67 Mbit/s  
95th percentile per-packet one-way delay: 152.585 ms  
Loss rate: 2.53%  
-- Flow 3:  
Average throughput: 528.93 Mbit/s  
95th percentile per-packet one-way delay: 91.181 ms  
Loss rate: 0.00%

Run 2: Report of FillP — Data Link

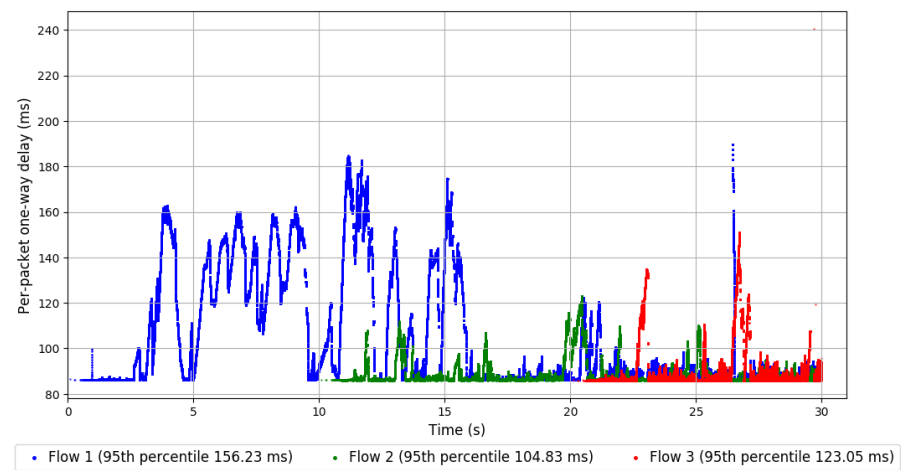
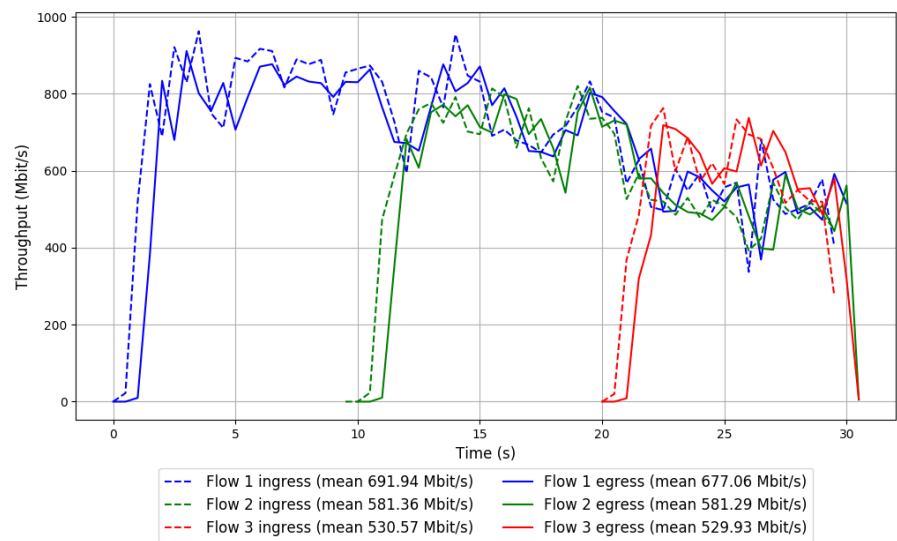


Run 3: Statistics of FillP

Start at: 2018-09-25 10:08:07  
End at: 2018-09-25 10:08:37  
Local clock offset: -0.25 ms  
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-09-25 12:56:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1238.99 Mbit/s  
95th percentile per-packet one-way delay: 150.251 ms  
Loss rate: 1.19%  
-- Flow 1:  
Average throughput: 677.06 Mbit/s  
95th percentile per-packet one-way delay: 156.233 ms  
Loss rate: 2.14%  
-- Flow 2:  
Average throughput: 581.29 Mbit/s  
95th percentile per-packet one-way delay: 104.830 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 529.93 Mbit/s  
95th percentile per-packet one-way delay: 123.049 ms  
Loss rate: 0.05%

Run 3: Report of FillP — Data Link

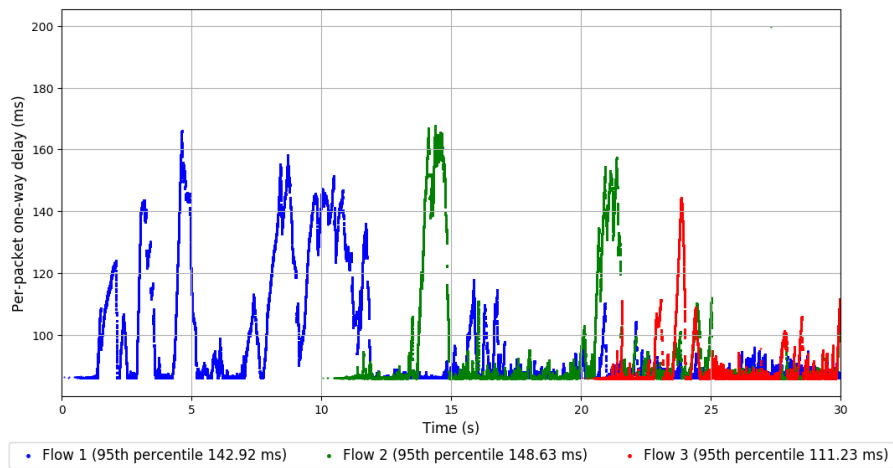
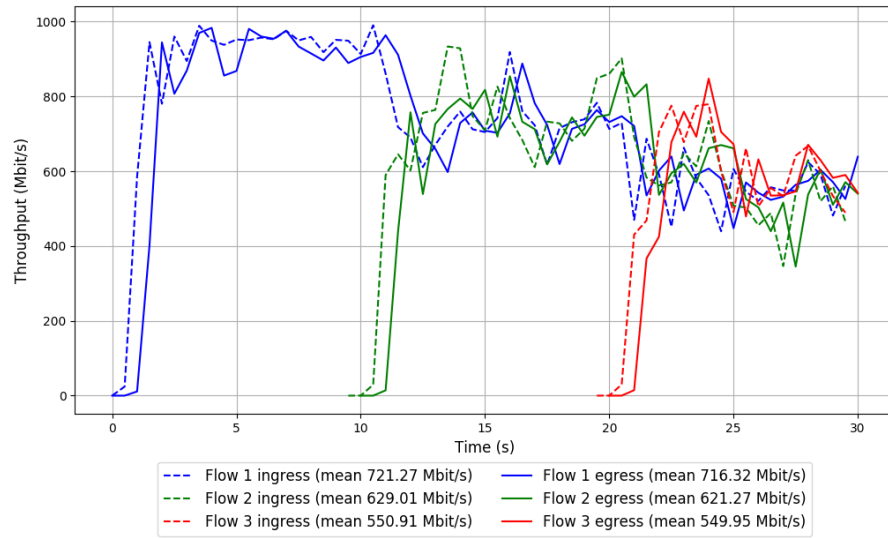


Run 4: Statistics of FillP

Start at: 2018-09-25 10:42:01  
End at: 2018-09-25 10:42:31  
Local clock offset: -0.338 ms  
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-09-25 13:00:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1312.77 Mbit/s  
95th percentile per-packet one-way delay: 142.828 ms  
Loss rate: 0.78%  
-- Flow 1:  
Average throughput: 716.32 Mbit/s  
95th percentile per-packet one-way delay: 142.922 ms  
Loss rate: 0.69%  
-- Flow 2:  
Average throughput: 621.27 Mbit/s  
95th percentile per-packet one-way delay: 148.626 ms  
Loss rate: 1.23%  
-- Flow 3:  
Average throughput: 549.95 Mbit/s  
95th percentile per-packet one-way delay: 111.227 ms  
Loss rate: 0.16%

# Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-09-25 11:16:21

End at: 2018-09-25 11:16:51

Local clock offset: -0.211 ms

Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2018-09-25 13:00:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1347.07 Mbit/s

95th percentile per-packet one-way delay: 144.398 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 735.58 Mbit/s

95th percentile per-packet one-way delay: 145.989 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 666.34 Mbit/s

95th percentile per-packet one-way delay: 142.199 ms

Loss rate: 0.55%

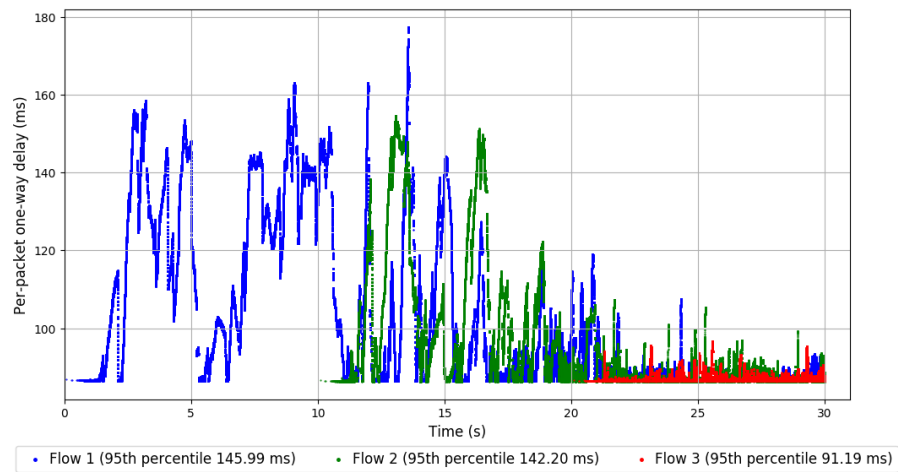
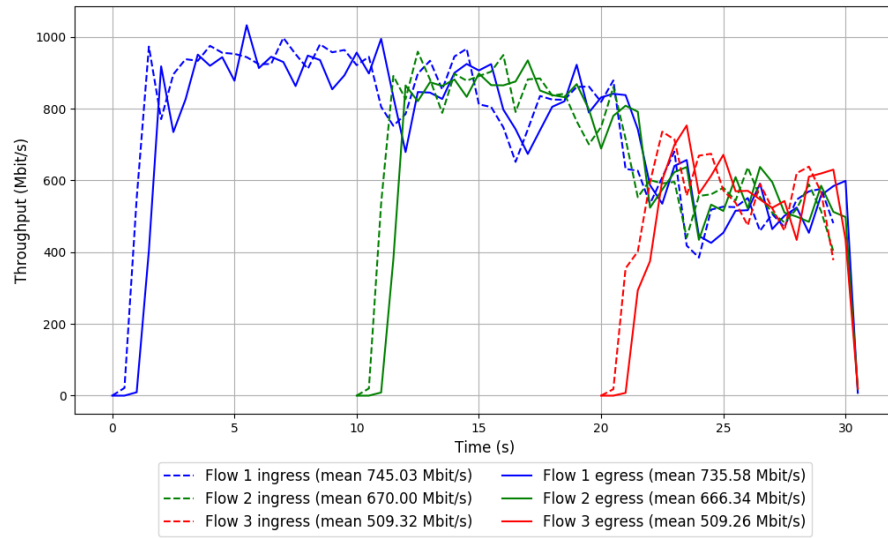
-- Flow 3:

Average throughput: 509.26 Mbit/s

95th percentile per-packet one-way delay: 91.188 ms

Loss rate: 0.01%

## Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2018-09-25 09:06:48

End at: 2018-09-25 09:07:18

Local clock offset: -0.261 ms

Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2018-09-25 13:00:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1177.20 Mbit/s

95th percentile per-packet one-way delay: 150.333 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 652.19 Mbit/s

95th percentile per-packet one-way delay: 147.513 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 567.61 Mbit/s

95th percentile per-packet one-way delay: 159.153 ms

Loss rate: 1.67%

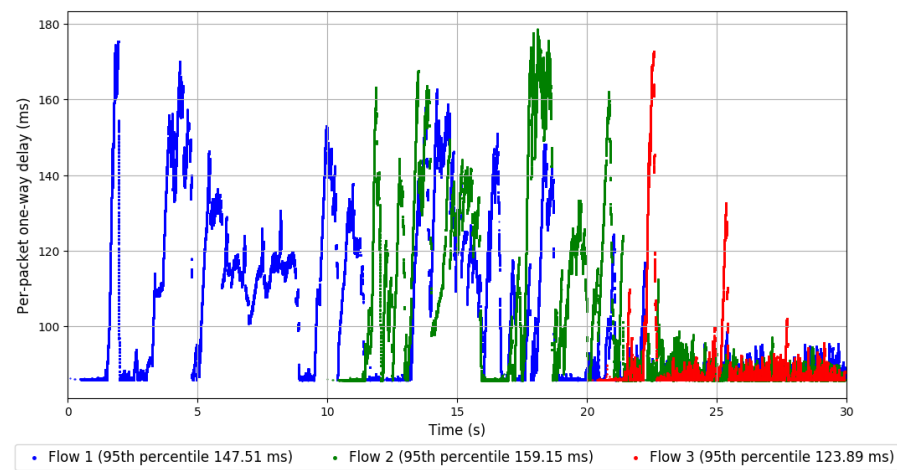
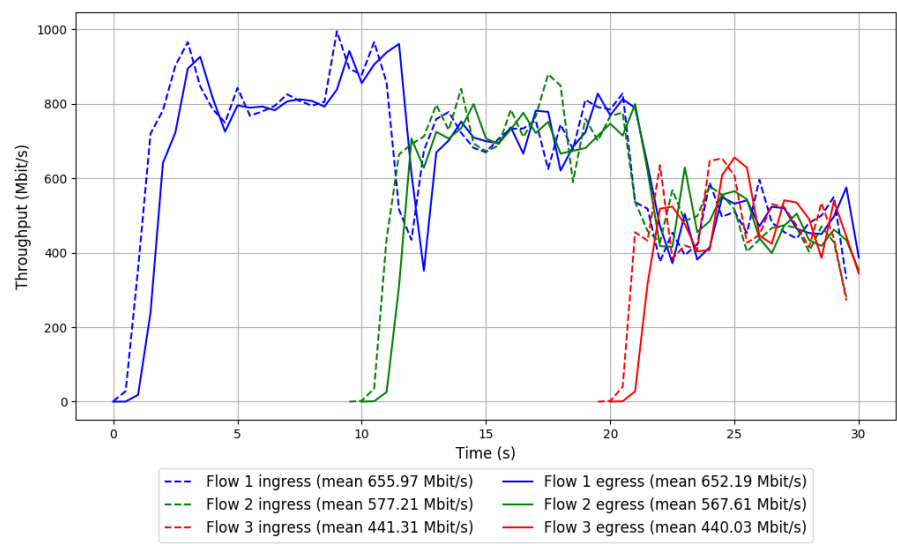
-- Flow 3:

Average throughput: 440.03 Mbit/s

95th percentile per-packet one-way delay: 123.887 ms

Loss rate: 0.27%

Run 1: Report of FillP-Sheep — Data Link

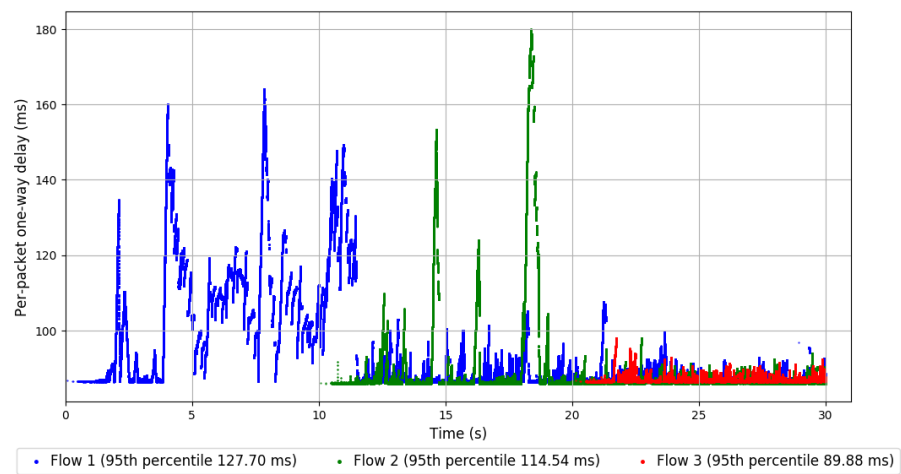
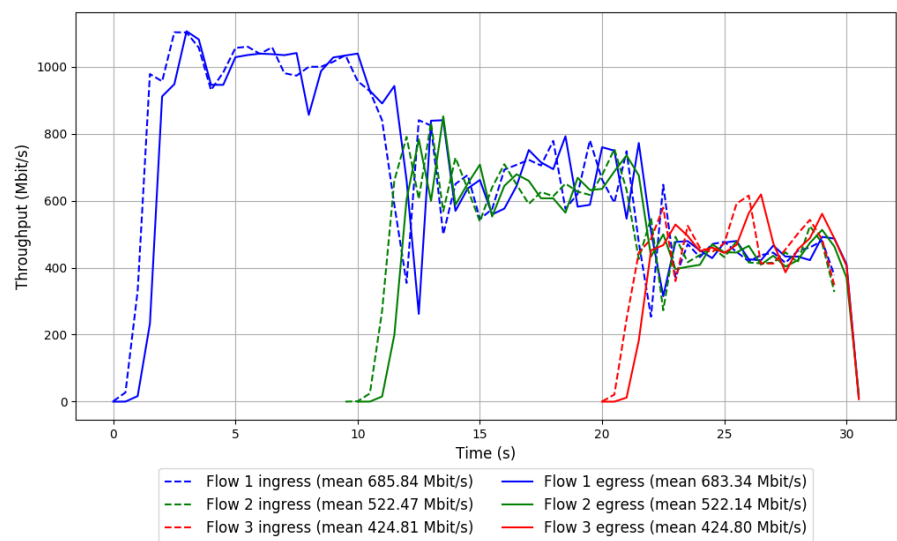


Run 2: Statistics of FillP-Sheep

Start at: 2018-09-25 09:41:00  
End at: 2018-09-25 09:41:30  
Local clock offset: -0.345 ms  
Remote clock offset: 0.001 ms

# Below is generated by plot.py at 2018-09-25 13:00:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1171.29 Mbit/s  
95th percentile per-packet one-way delay: 123.617 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 683.34 Mbit/s  
95th percentile per-packet one-way delay: 127.701 ms  
Loss rate: 0.36%  
-- Flow 2:  
Average throughput: 522.14 Mbit/s  
95th percentile per-packet one-way delay: 114.536 ms  
Loss rate: 0.06%  
-- Flow 3:  
Average throughput: 424.80 Mbit/s  
95th percentile per-packet one-way delay: 89.877 ms  
Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link

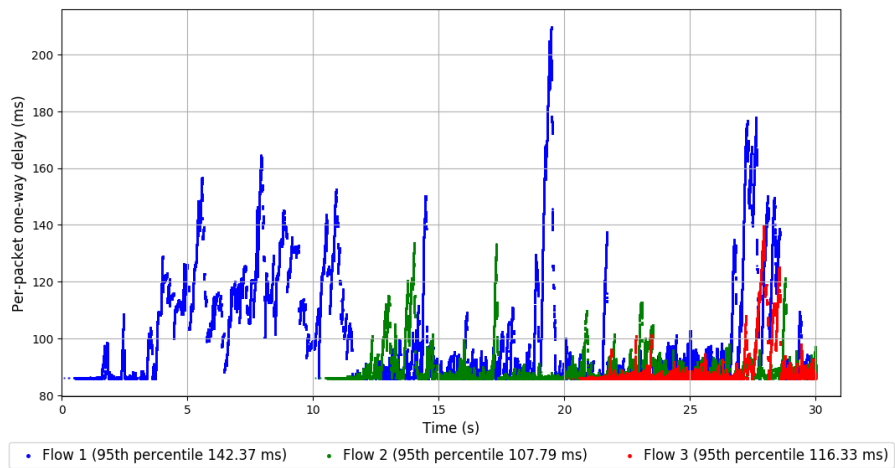
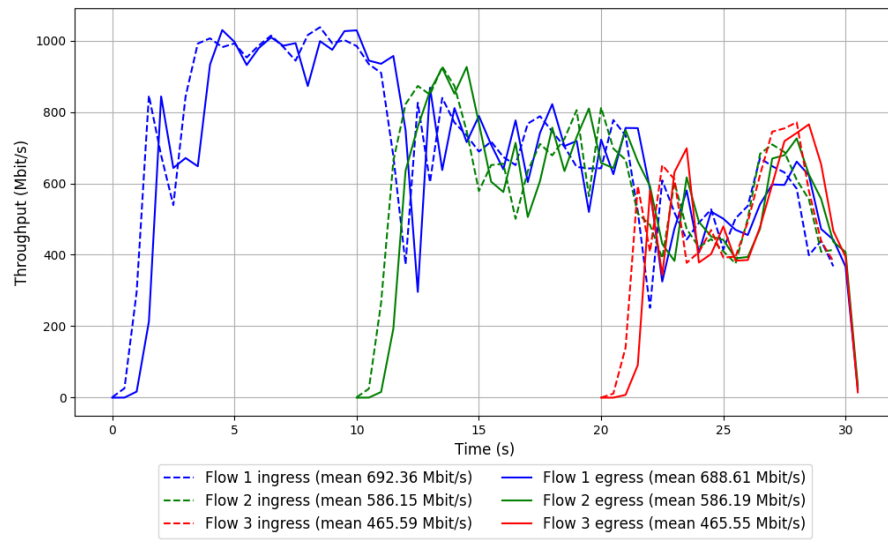


Run 3: Statistics of FillP-Sheep

Start at: 2018-09-25 10:15:19  
End at: 2018-09-25 10:15:49  
Local clock offset: -0.188 ms  
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-09-25 13:02:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1232.44 Mbit/s  
95th percentile per-packet one-way delay: 133.211 ms  
Loss rate: 0.47%  
-- Flow 1:  
Average throughput: 688.61 Mbit/s  
95th percentile per-packet one-way delay: 142.372 ms  
Loss rate: 0.69%  
-- Flow 2:  
Average throughput: 586.19 Mbit/s  
95th percentile per-packet one-way delay: 107.793 ms  
Loss rate: 0.13%  
-- Flow 3:  
Average throughput: 465.55 Mbit/s  
95th percentile per-packet one-way delay: 116.332 ms  
Loss rate: 0.34%

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

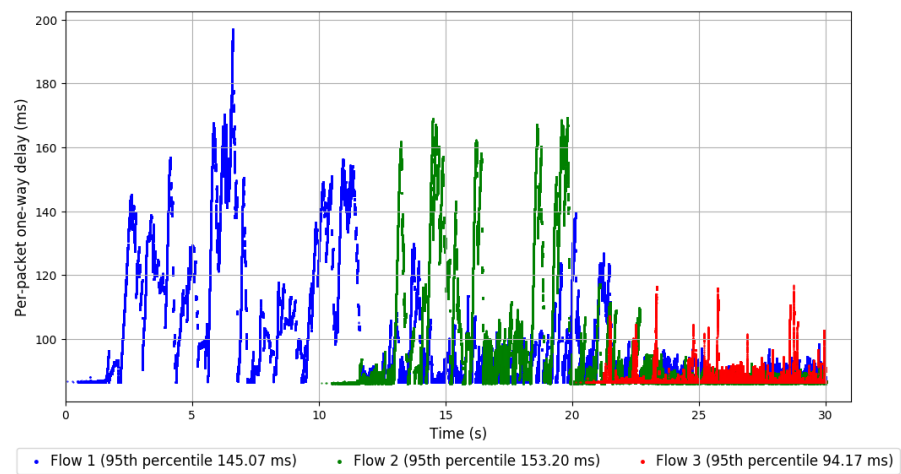
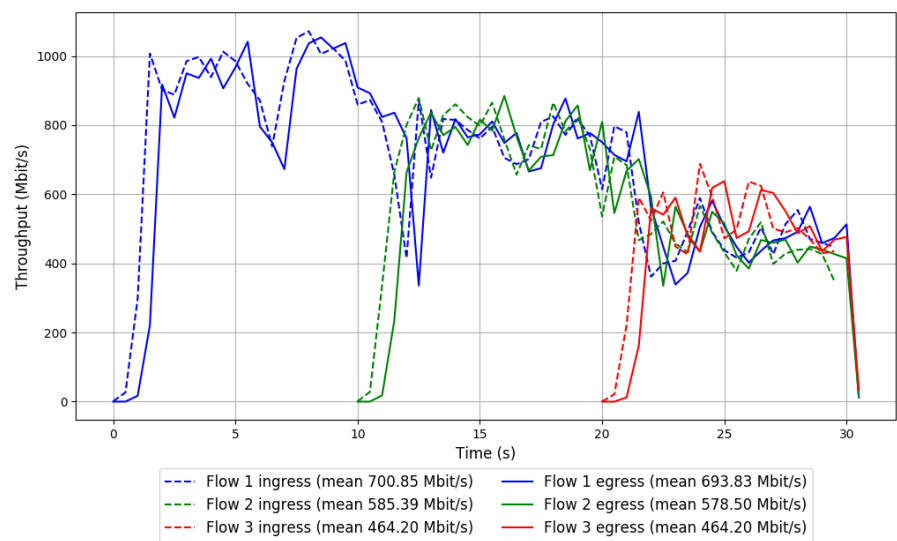


#### Run 4: Statistics of FillP-Sheep

Start at: 2018-09-25 10:49:14  
End at: 2018-09-25 10:49:44  
Local clock offset: -0.42 ms  
Remote clock offset: -0.039 ms

```
# Below is generated by plot.py at 2018-09-25 13:17:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1231.83 Mbit/s
95th percentile per-packet one-way delay: 145.594 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 693.83 Mbit/s
95th percentile per-packet one-way delay: 145.073 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 578.50 Mbit/s
95th percentile per-packet one-way delay: 153.197 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 464.20 Mbit/s
95th percentile per-packet one-way delay: 94.170 ms
Loss rate: 0.00%
```

Run 4: Report of FillP-Sheep — Data Link



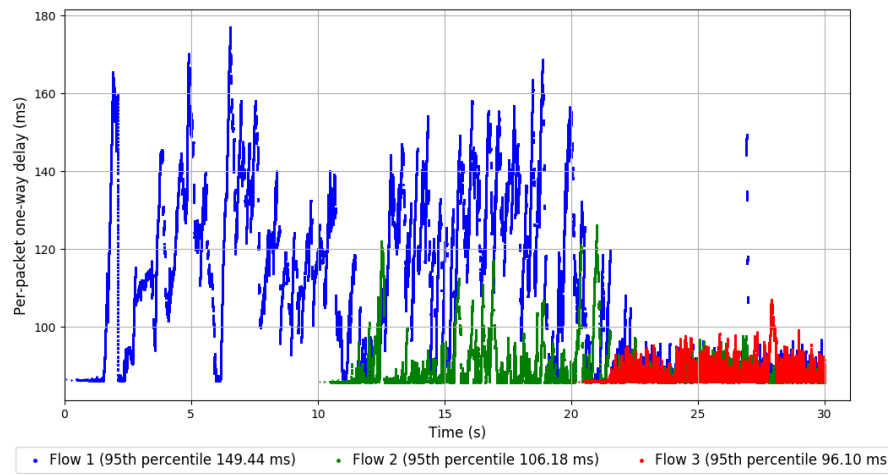
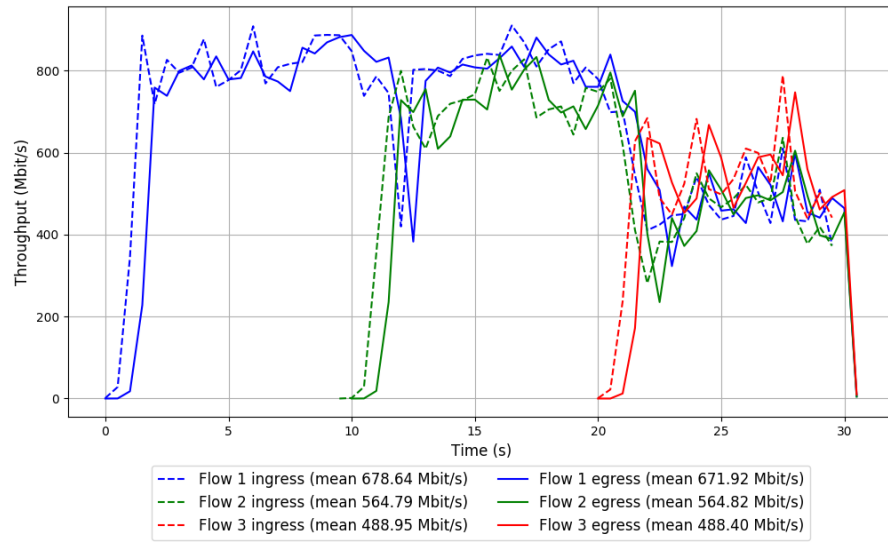


Run 5: Statistics of FillP-Sheep

Start at: 2018-09-25 11:23:38  
End at: 2018-09-25 11:24:08  
Local clock offset: -0.197 ms  
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1209.46 Mbit/s  
95th percentile per-packet one-way delay: 143.451 ms  
Loss rate: 0.56%  
-- Flow 1:  
Average throughput: 671.92 Mbit/s  
95th percentile per-packet one-way delay: 149.436 ms  
Loss rate: 0.98%  
-- Flow 2:  
Average throughput: 564.82 Mbit/s  
95th percentile per-packet one-way delay: 106.183 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 488.40 Mbit/s  
95th percentile per-packet one-way delay: 96.104 ms  
Loss rate: 0.10%

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

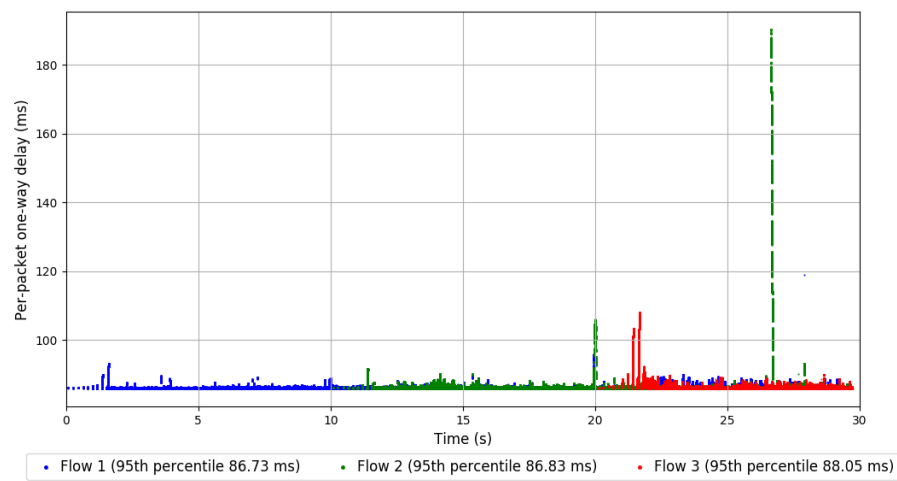
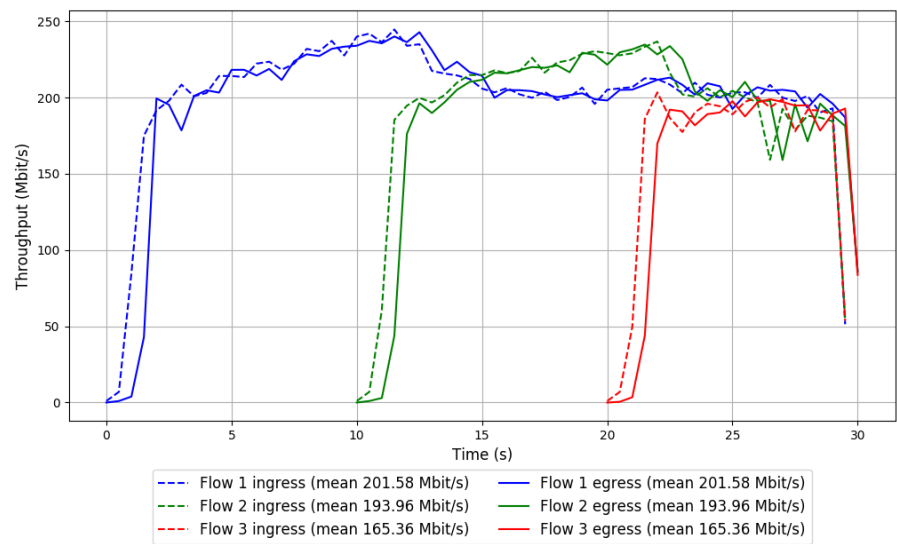


```
Run 1: Statistics of Indigo

Start at: 2018-09-25 09:13:06
End at: 2018-09-25 09:13:36
Local clock offset: -0.456 ms
Remote clock offset: 0.109 ms

# Below is generated by plot.py at 2018-09-25 13:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 383.52 Mbit/s
95th percentile per-packet one-way delay: 87.041 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.58 Mbit/s
95th percentile per-packet one-way delay: 86.732 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 193.96 Mbit/s
95th percentile per-packet one-way delay: 86.826 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 165.36 Mbit/s
95th percentile per-packet one-way delay: 88.052 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-09-25 09:47:30

End at: 2018-09-25 09:48:00

Local clock offset: -0.31 ms

Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-09-25 13:25:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 324.04 Mbit/s

95th percentile per-packet one-way delay: 87.242 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 164.89 Mbit/s

95th percentile per-packet one-way delay: 86.930 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 158.03 Mbit/s

95th percentile per-packet one-way delay: 87.563 ms

Loss rate: 0.00%

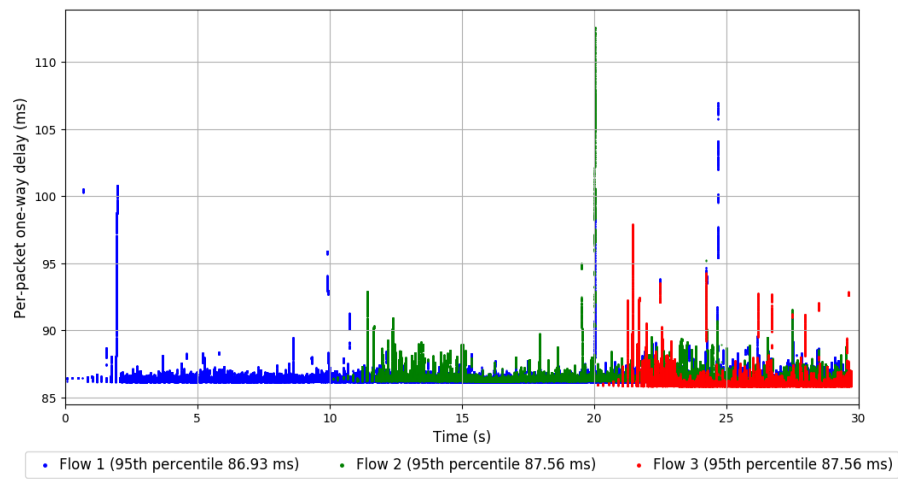
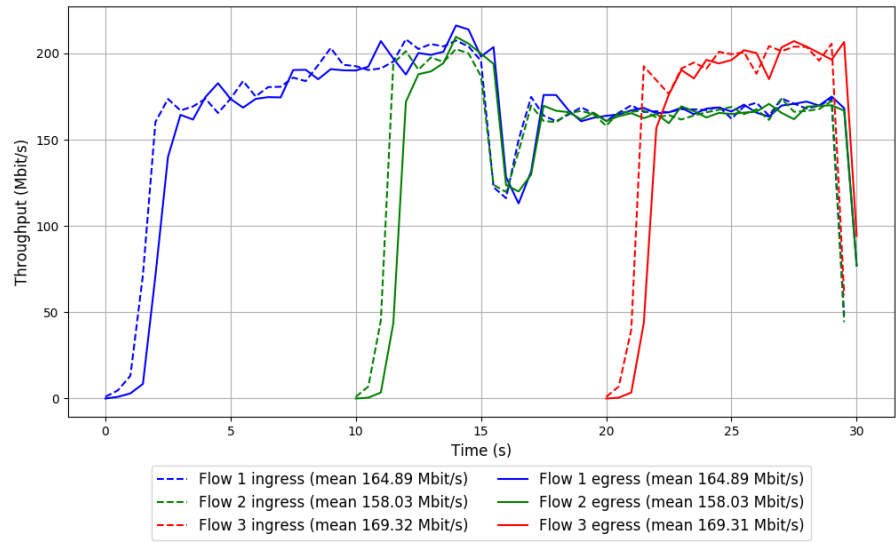
-- Flow 3:

Average throughput: 169.31 Mbit/s

95th percentile per-packet one-way delay: 87.558 ms

Loss rate: 0.00%

## Run 2: Report of Indigo — Data Link

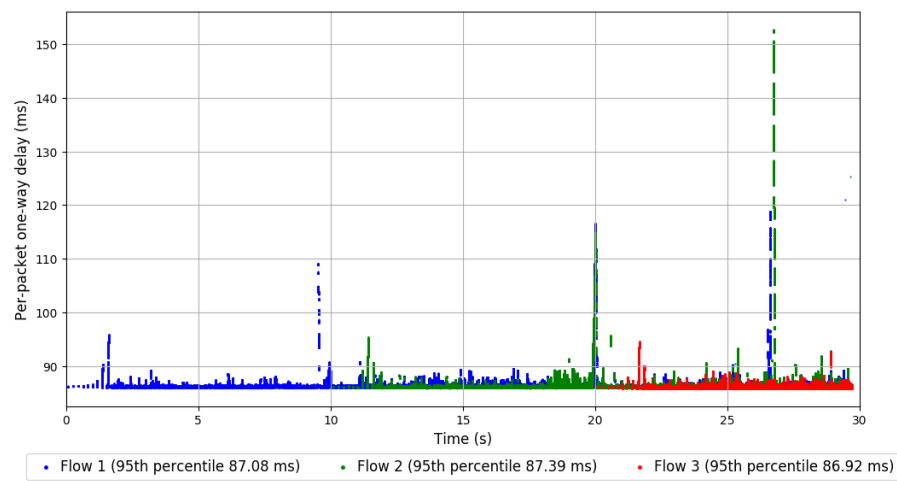
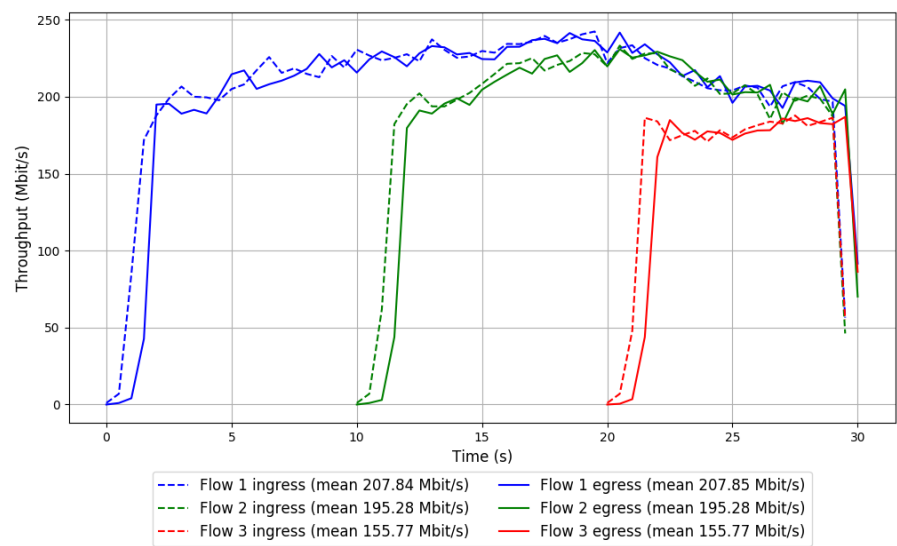


Run 3: Statistics of Indigo

Start at: 2018-09-25 10:21:41  
End at: 2018-09-25 10:22:11  
Local clock offset: -0.216 ms  
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 387.61 Mbit/s  
95th percentile per-packet one-way delay: 87.133 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 207.85 Mbit/s  
95th percentile per-packet one-way delay: 87.081 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 195.28 Mbit/s  
95th percentile per-packet one-way delay: 87.393 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 155.77 Mbit/s  
95th percentile per-packet one-way delay: 86.922 ms  
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



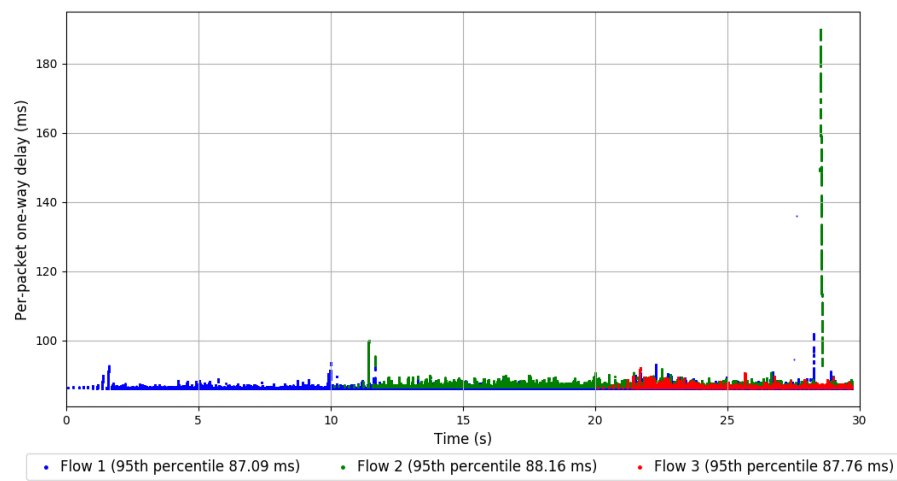
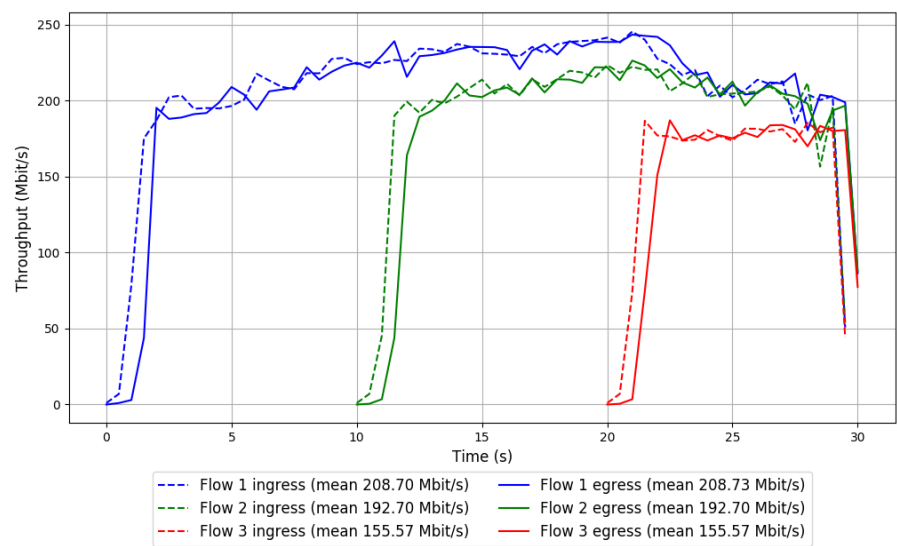


Run 4: Statistics of Indigo

Start at: 2018-09-25 10:55:38  
End at: 2018-09-25 10:56:08  
Local clock offset: -0.433 ms  
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 386.58 Mbit/s  
95th percentile per-packet one-way delay: 87.694 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 208.73 Mbit/s  
95th percentile per-packet one-way delay: 87.088 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 192.70 Mbit/s  
95th percentile per-packet one-way delay: 88.155 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 155.57 Mbit/s  
95th percentile per-packet one-way delay: 87.763 ms  
Loss rate: 0.00%

Run 4: Report of Indigo — Data Link

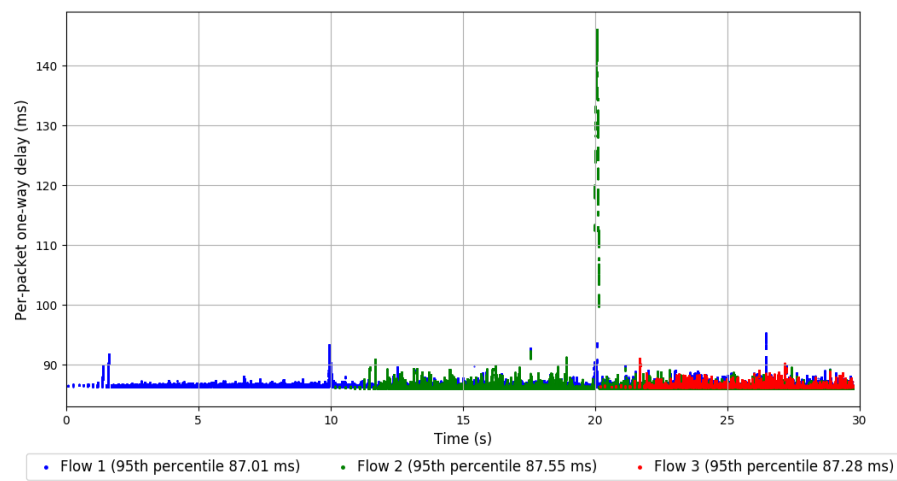
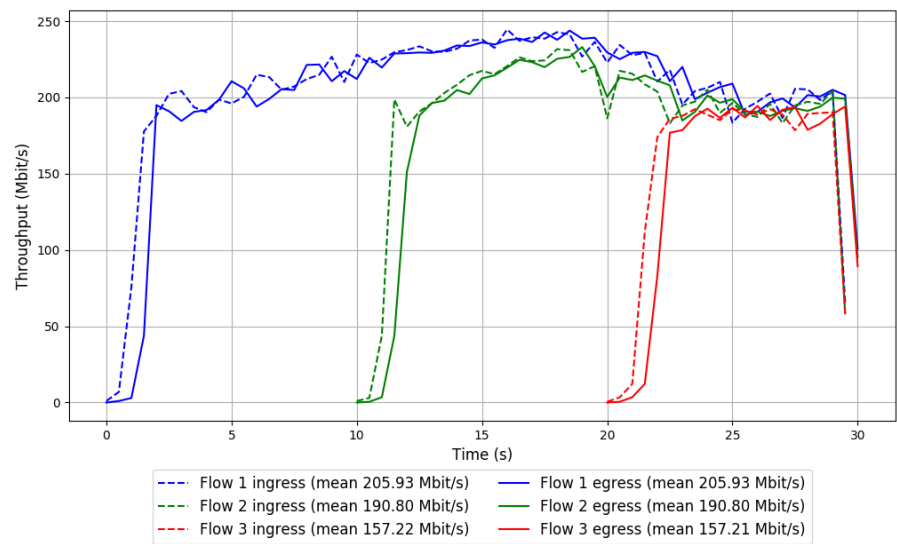


Run 5: Statistics of Indigo

Start at: 2018-09-25 11:29:59  
End at: 2018-09-25 11:30:29  
Local clock offset: -0.153 ms  
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 382.44 Mbit/s  
95th percentile per-packet one-way delay: 87.221 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 205.93 Mbit/s  
95th percentile per-packet one-way delay: 87.013 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 190.80 Mbit/s  
95th percentile per-packet one-way delay: 87.550 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 157.21 Mbit/s  
95th percentile per-packet one-way delay: 87.284 ms  
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-96d2da3

Start at: 2018-09-25 09:02:56

End at: 2018-09-25 09:03:26

Local clock offset: -0.427 ms

Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2018-09-25 13:25:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 433.40 Mbit/s

95th percentile per-packet one-way delay: 105.967 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 197.90 Mbit/s

95th percentile per-packet one-way delay: 105.531 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 254.45 Mbit/s

95th percentile per-packet one-way delay: 106.694 ms

Loss rate: 0.04%

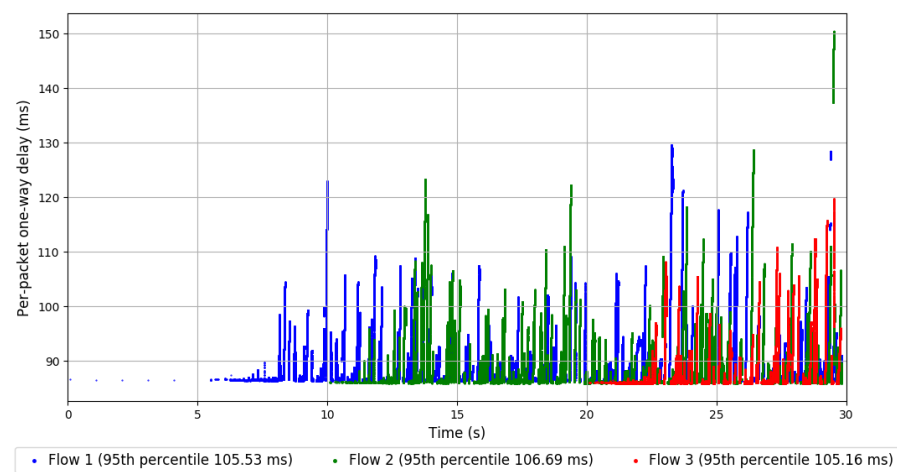
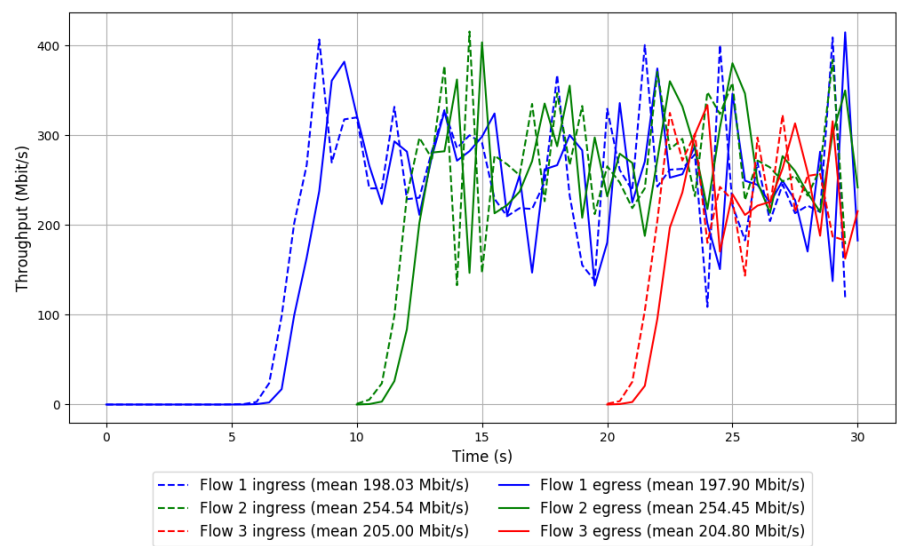
-- Flow 3:

Average throughput: 204.80 Mbit/s

95th percentile per-packet one-way delay: 105.162 ms

Loss rate: 0.00%

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

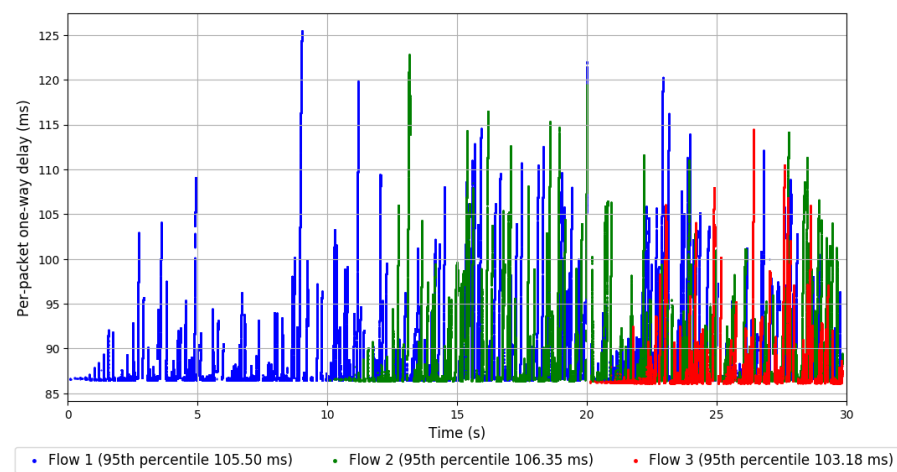
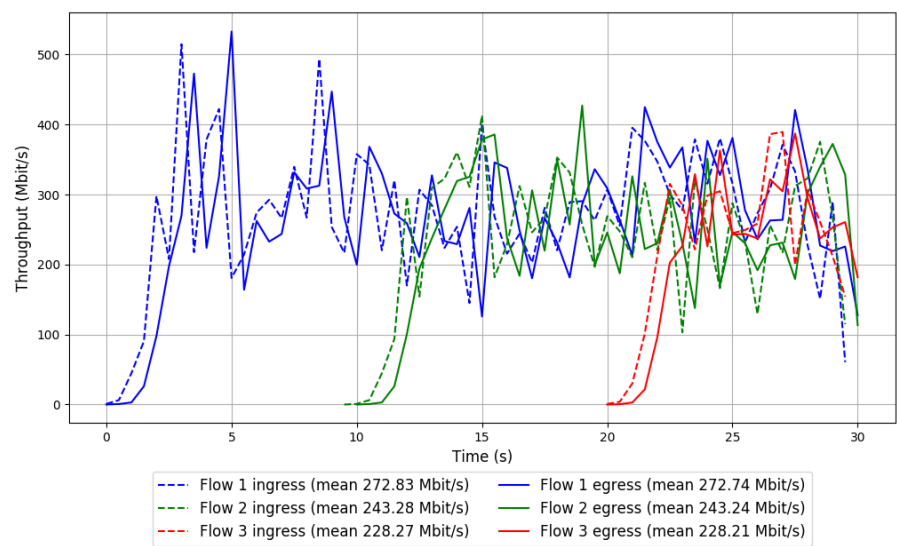


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-09-25 09:37:08  
End at: 2018-09-25 09:37:38  
Local clock offset: -0.485 ms  
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 508.04 Mbit/s  
95th percentile per-packet one-way delay: 105.508 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 272.74 Mbit/s  
95th percentile per-packet one-way delay: 105.501 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 243.24 Mbit/s  
95th percentile per-packet one-way delay: 106.346 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 228.21 Mbit/s  
95th percentile per-packet one-way delay: 103.182 ms  
Loss rate: 0.01%

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



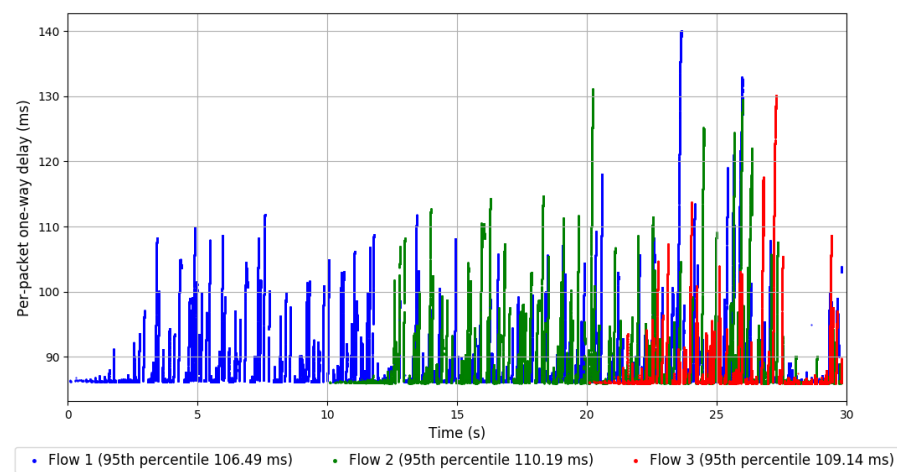
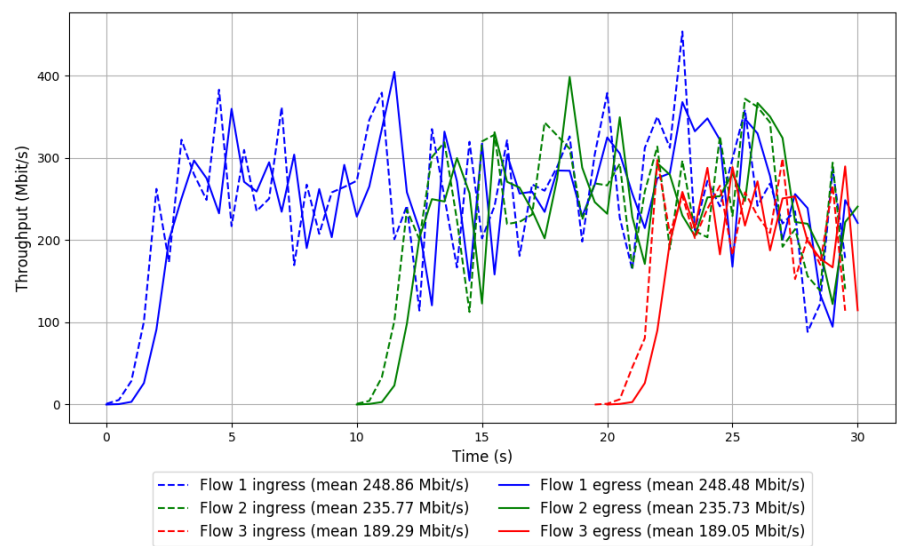


Run 3: Statistics of Indigo-96d2da3

Start at: 2018-09-25 10:11:28  
End at: 2018-09-25 10:11:58  
Local clock offset: -0.279 ms  
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 466.78 Mbit/s  
95th percentile per-packet one-way delay: 108.672 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 248.48 Mbit/s  
95th percentile per-packet one-way delay: 106.490 ms  
Loss rate: 0.15%  
-- Flow 2:  
Average throughput: 235.73 Mbit/s  
95th percentile per-packet one-way delay: 110.195 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 189.05 Mbit/s  
95th percentile per-packet one-way delay: 109.137 ms  
Loss rate: 0.12%

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

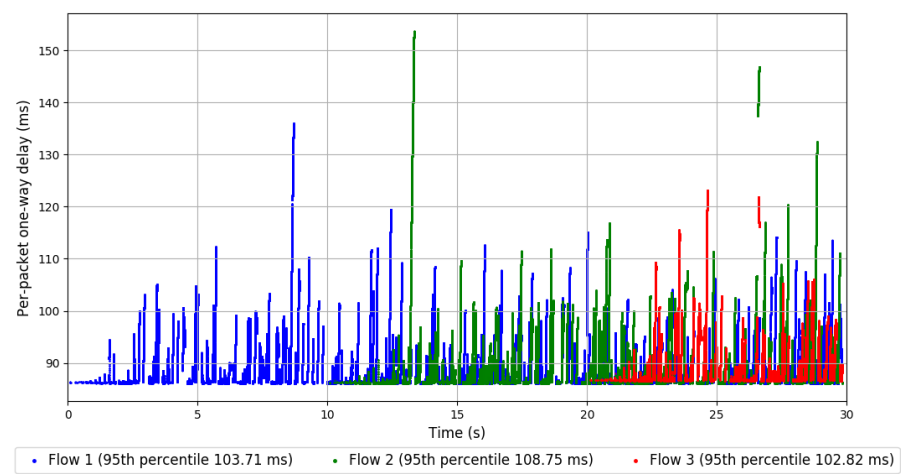
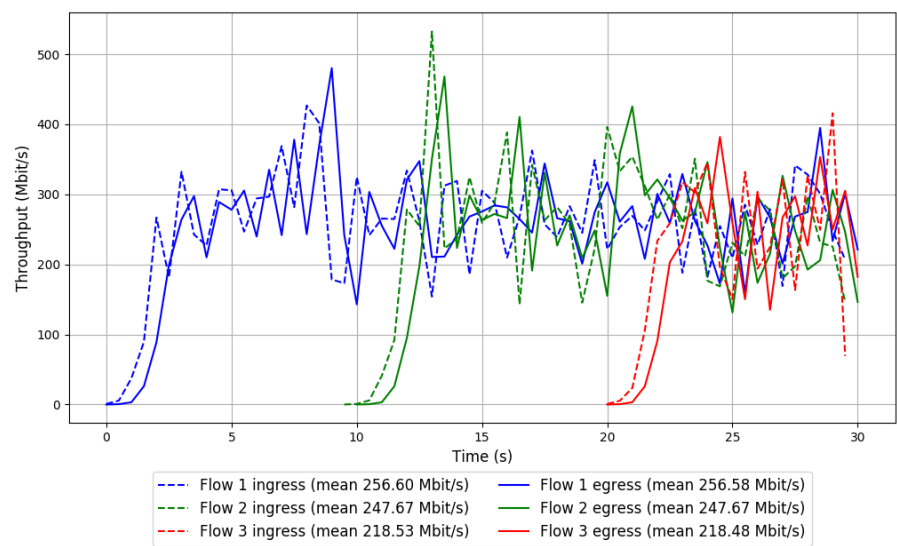


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-09-25 10:45:25  
End at: 2018-09-25 10:45:55  
Local clock offset: -0.51 ms  
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 492.00 Mbit/s  
95th percentile per-packet one-way delay: 105.193 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 256.58 Mbit/s  
95th percentile per-packet one-way delay: 103.707 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 247.67 Mbit/s  
95th percentile per-packet one-way delay: 108.749 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 218.48 Mbit/s  
95th percentile per-packet one-way delay: 102.822 ms  
Loss rate: 0.02%

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

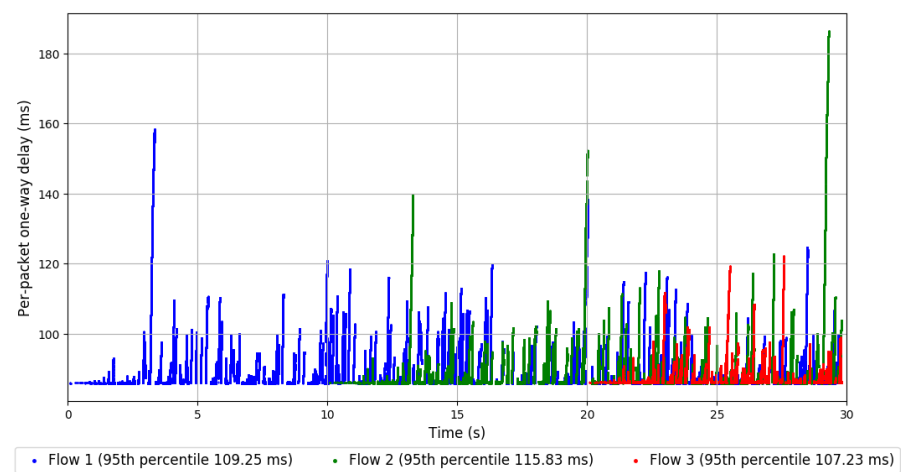
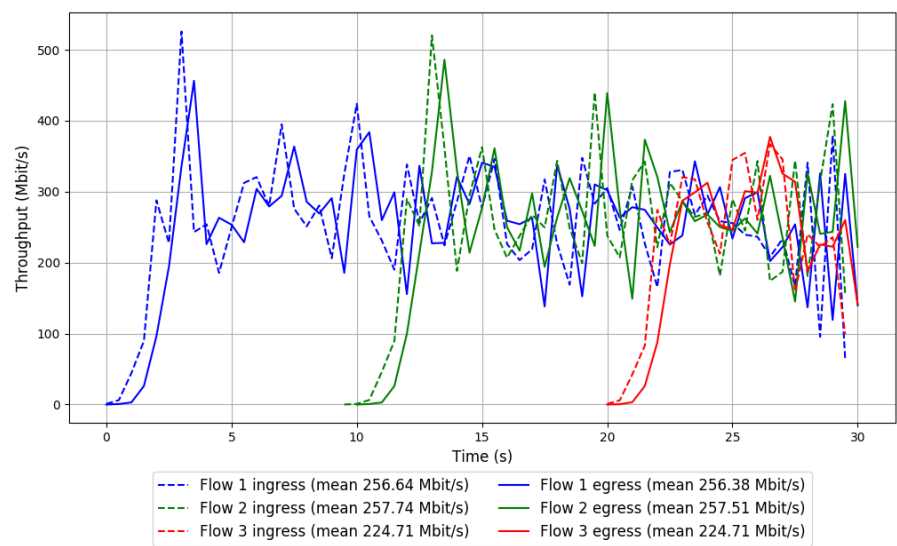


Run 5: Statistics of Indigo-96d2da3

Start at: 2018-09-25 11:19:47  
End at: 2018-09-25 11:20:17  
Local clock offset: -0.196 ms  
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 499.41 Mbit/s  
95th percentile per-packet one-way delay: 109.621 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 256.38 Mbit/s  
95th percentile per-packet one-way delay: 109.250 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 257.51 Mbit/s  
95th percentile per-packet one-way delay: 115.834 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 224.71 Mbit/s  
95th percentile per-packet one-way delay: 107.229 ms  
Loss rate: 0.00%

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

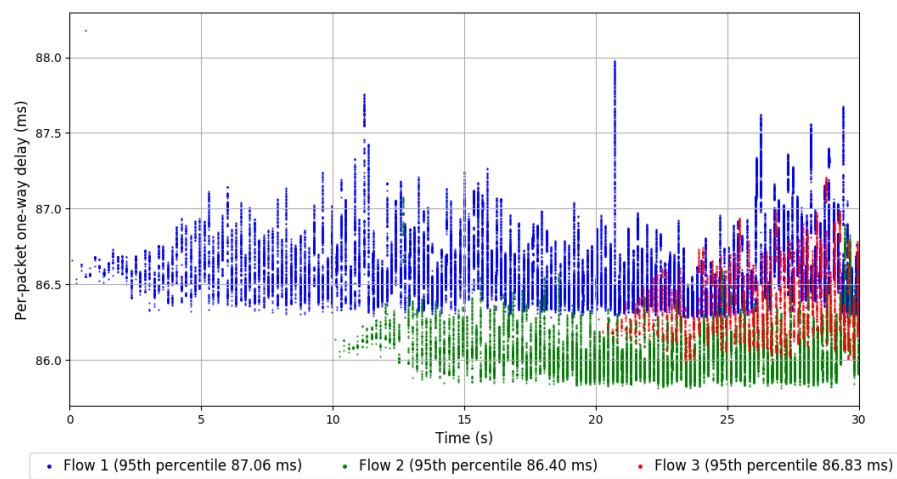
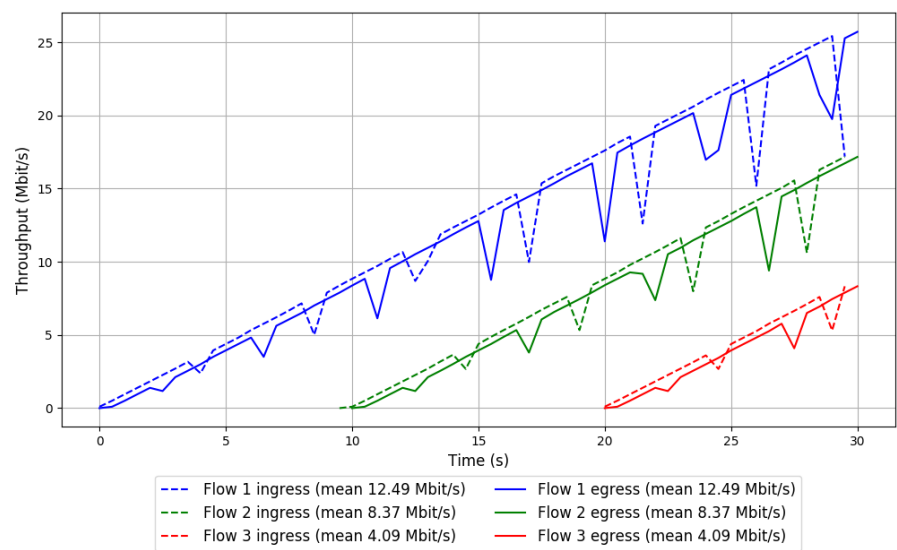


```
Run 1: Statistics of LEDBAT

Start at: 2018-09-25 08:55:13
End at: 2018-09-25 08:55:43
Local clock offset: -0.138 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2018-09-25 13:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.37 Mbit/s
95th percentile per-packet one-way delay: 86.975 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 87.064 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 86.398 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.09 Mbit/s
95th percentile per-packet one-way delay: 86.830 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link





Run 2: Statistics of LEDBAT

Start at: 2018-09-25 09:29:20

End at: 2018-09-25 09:29:50

Local clock offset: -0.33 ms

Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2018-09-25 13:25:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 19.48 Mbit/s

95th percentile per-packet one-way delay: 87.435 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.58 Mbit/s

95th percentile per-packet one-way delay: 87.528 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.34 Mbit/s

95th percentile per-packet one-way delay: 87.366 ms

Loss rate: 0.00%

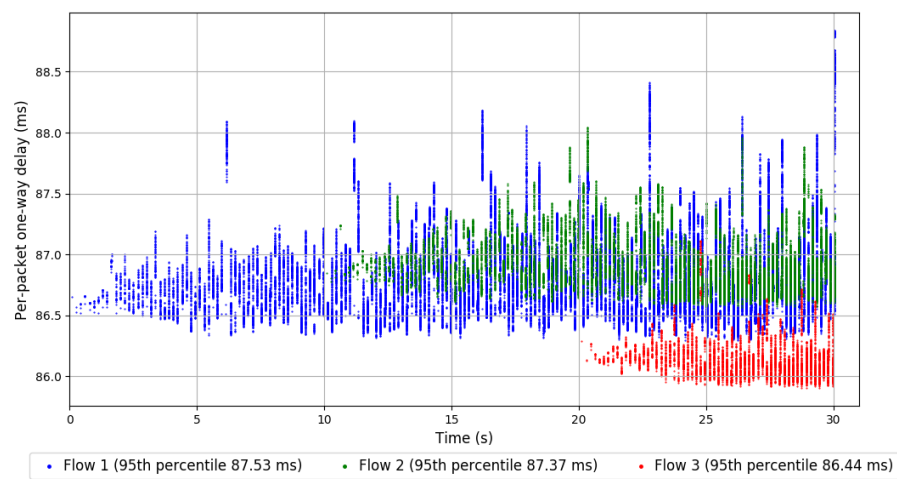
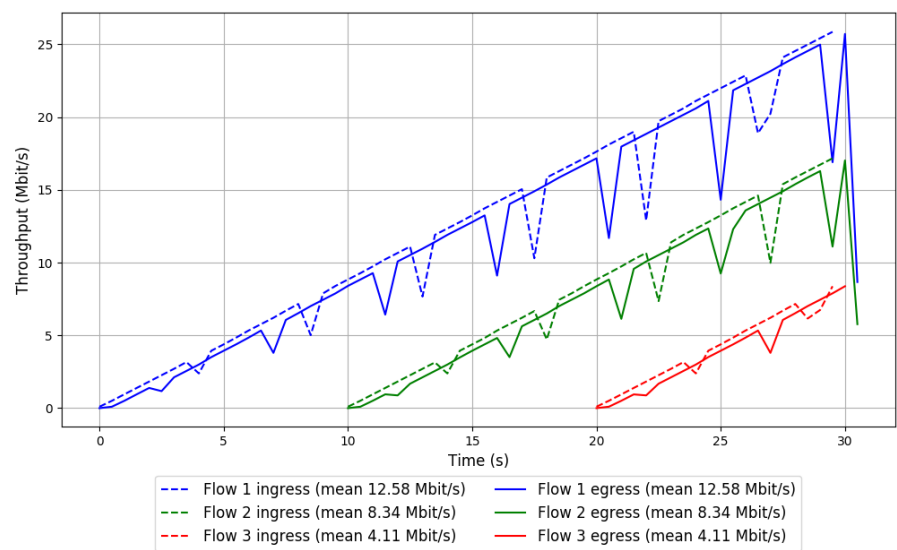
-- Flow 3:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 86.437 ms

Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

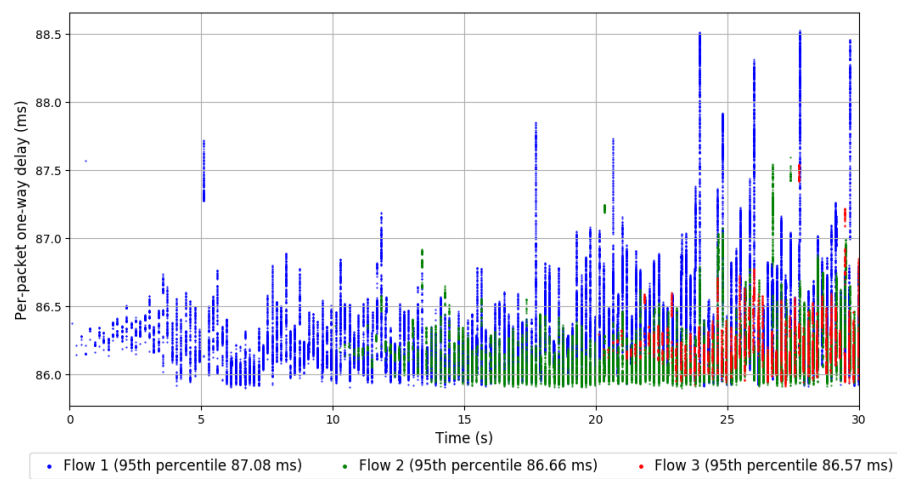
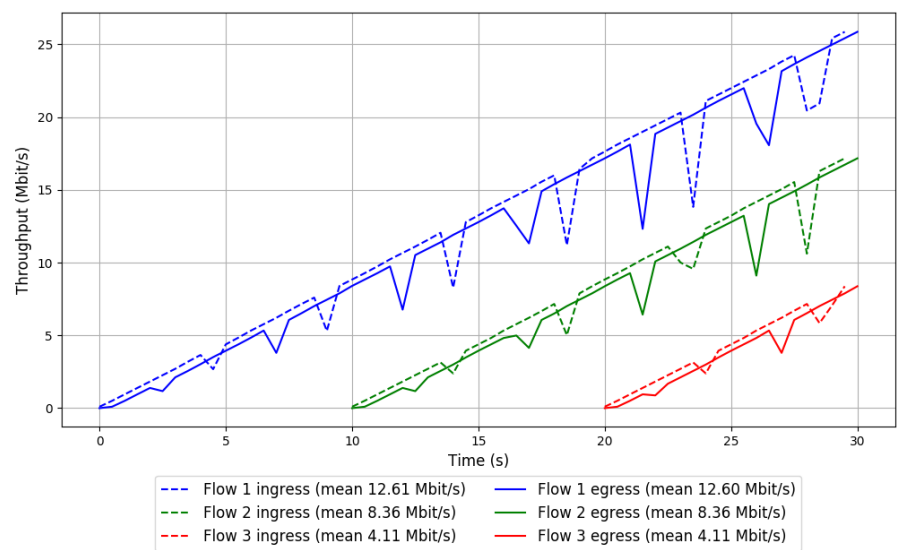


Run 3: Statistics of LEDBAT

Start at: 2018-09-25 10:03:49  
End at: 2018-09-25 10:04:19  
Local clock offset: -0.259 ms  
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.51 Mbit/s  
95th percentile per-packet one-way delay: 86.952 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 12.60 Mbit/s  
95th percentile per-packet one-way delay: 87.081 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 8.36 Mbit/s  
95th percentile per-packet one-way delay: 86.663 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 4.11 Mbit/s  
95th percentile per-packet one-way delay: 86.573 ms  
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

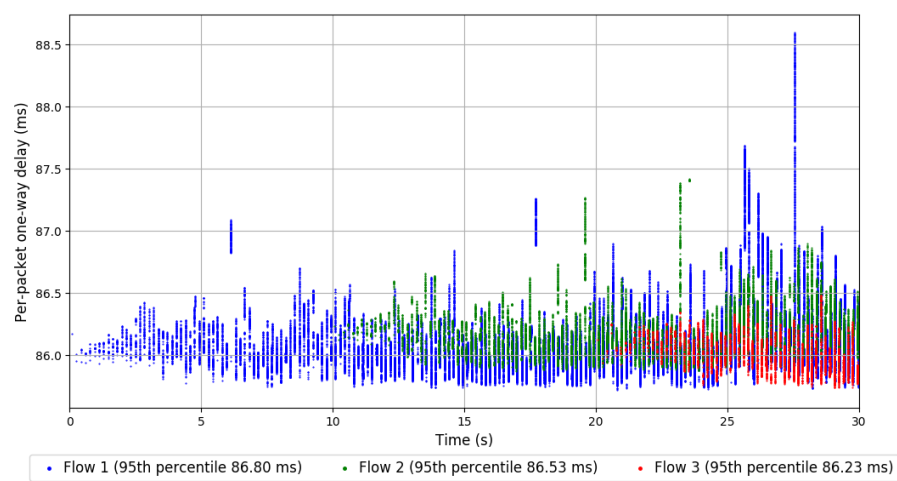
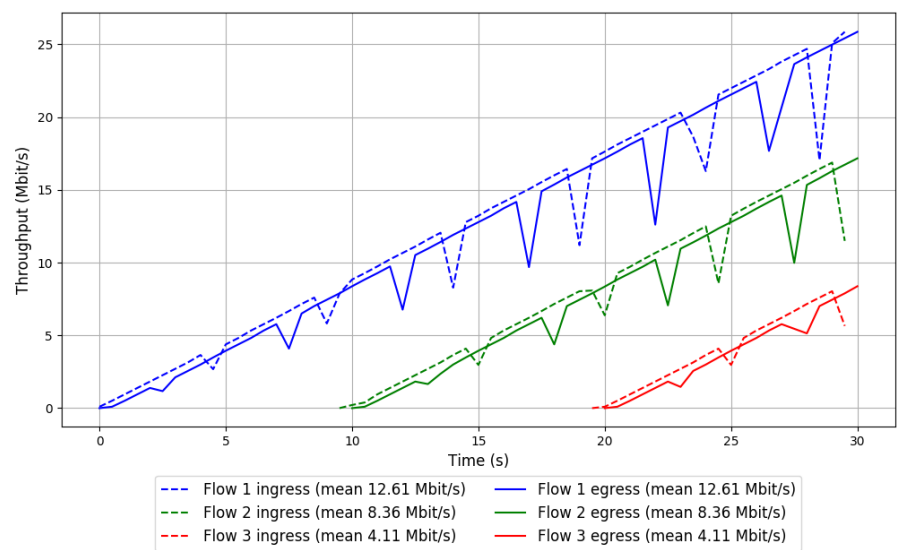


Run 4: Statistics of LEDBAT

Start at: 2018-09-25 10:37:47  
End at: 2018-09-25 10:38:17  
Local clock offset: -0.116 ms  
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.52 Mbit/s  
95th percentile per-packet one-way delay: 86.671 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 12.61 Mbit/s  
95th percentile per-packet one-way delay: 86.801 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 8.36 Mbit/s  
95th percentile per-packet one-way delay: 86.534 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 4.11 Mbit/s  
95th percentile per-packet one-way delay: 86.232 ms  
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

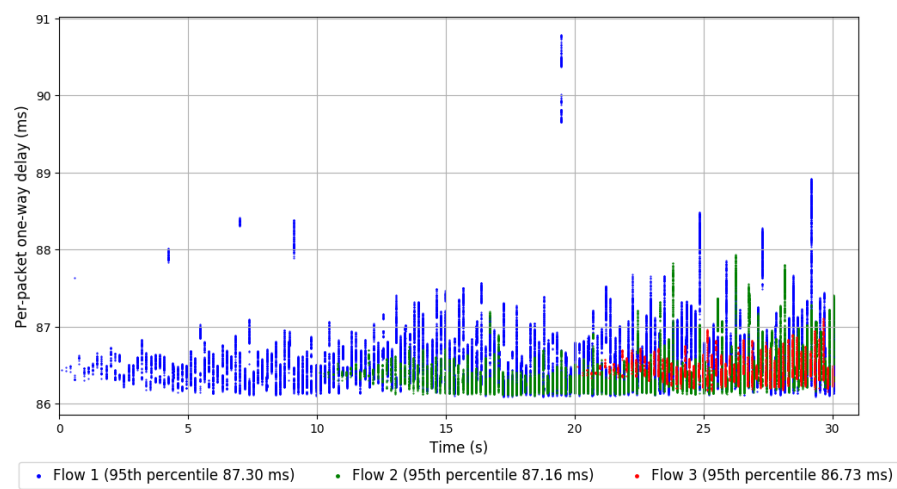
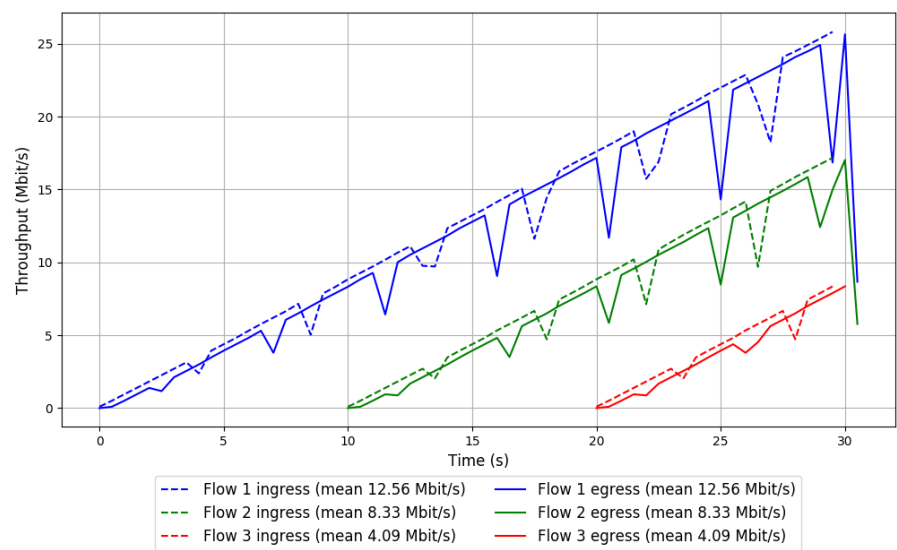


Run 5: Statistics of LEDBAT

Start at: 2018-09-25 11:12:04  
End at: 2018-09-25 11:12:34  
Local clock offset: -0.074 ms  
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-09-25 13:25:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 19.45 Mbit/s  
95th percentile per-packet one-way delay: 87.228 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 12.56 Mbit/s  
95th percentile per-packet one-way delay: 87.296 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 8.33 Mbit/s  
95th percentile per-packet one-way delay: 87.163 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 4.09 Mbit/s  
95th percentile per-packet one-way delay: 86.727 ms  
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link





Run 1: Statistics of Indigo-Muses

Start at: 2018-09-25 09:04:34

End at: 2018-09-25 09:05:04

Local clock offset: -0.447 ms

Remote clock offset: 0.114 ms

# Below is generated by plot.py at 2018-09-25 13:36:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1116.30 Mbit/s

95th percentile per-packet one-way delay: 124.924 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 626.74 Mbit/s

95th percentile per-packet one-way delay: 128.413 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 533.74 Mbit/s

95th percentile per-packet one-way delay: 124.235 ms

Loss rate: 0.09%

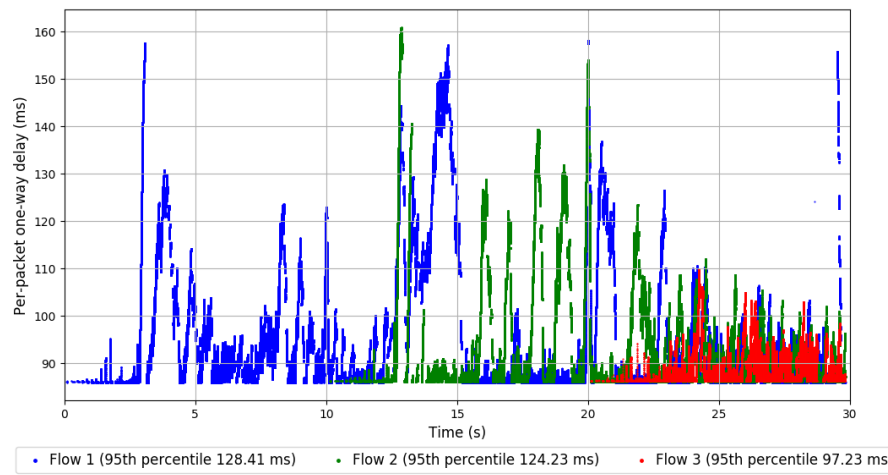
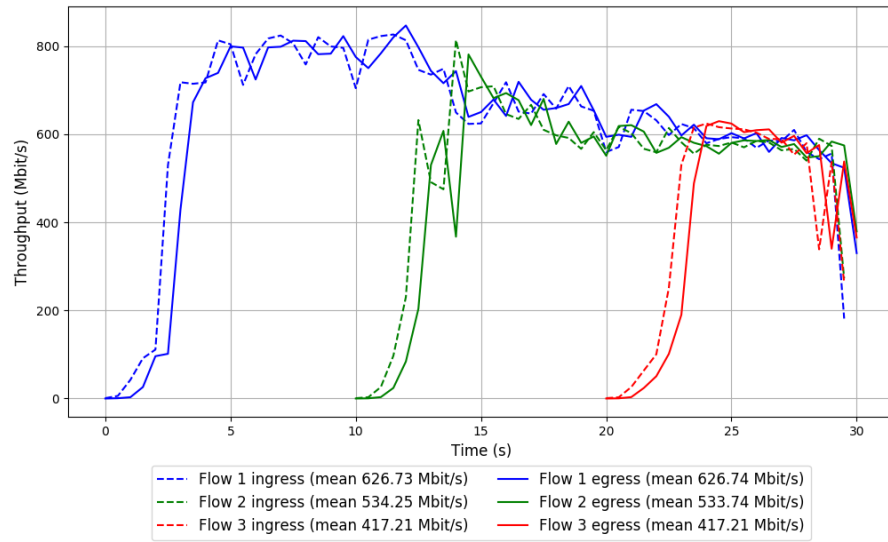
-- Flow 3:

Average throughput: 417.21 Mbit/s

95th percentile per-packet one-way delay: 97.228 ms

Loss rate: 0.00%

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



Run 2: Statistics of Indigo-Muses

Start at: 2018-09-25 09:38:49

End at: 2018-09-25 09:39:20

Local clock offset: -0.404 ms

Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2018-09-25 13:36:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1061.68 Mbit/s

95th percentile per-packet one-way delay: 122.362 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 606.11 Mbit/s

95th percentile per-packet one-way delay: 122.511 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 519.02 Mbit/s

95th percentile per-packet one-way delay: 122.900 ms

Loss rate: 0.28%

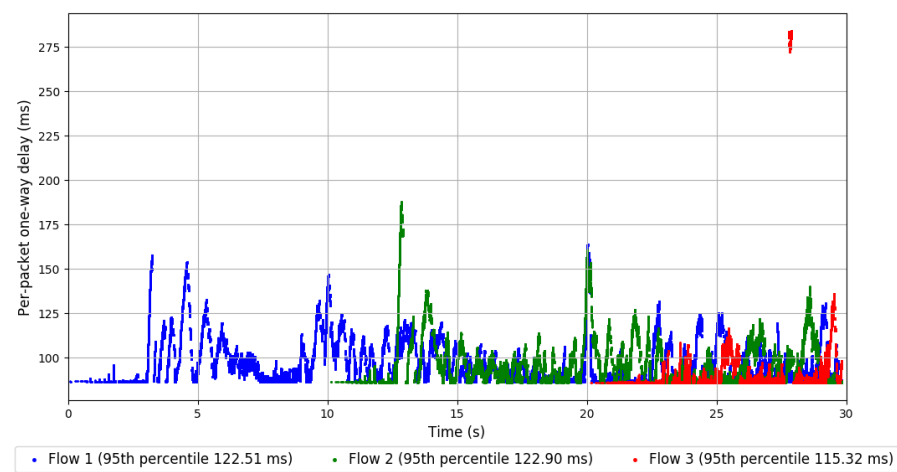
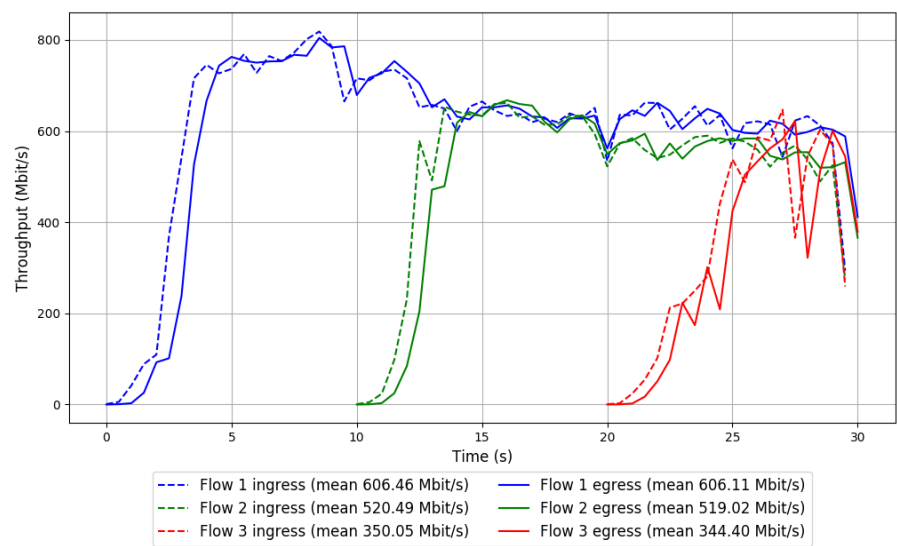
-- Flow 3:

Average throughput: 344.40 Mbit/s

95th percentile per-packet one-way delay: 115.322 ms

Loss rate: 1.59%

Run 2: Report of Indigo-Muses — Data Link



Run 3: Statistics of Indigo-Muses

Start at: 2018-09-25 10:13:08

End at: 2018-09-25 10:13:38

Local clock offset: -0.052 ms

Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-09-25 13:37:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1080.51 Mbit/s

95th percentile per-packet one-way delay: 113.830 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 606.81 Mbit/s

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

Loss rate: 0.03%

-- Flow 2:

Average throughput: 534.64 Mbit/s

95th percentile per-packet one-way delay: 115.170 ms

Loss rate: 0.19%

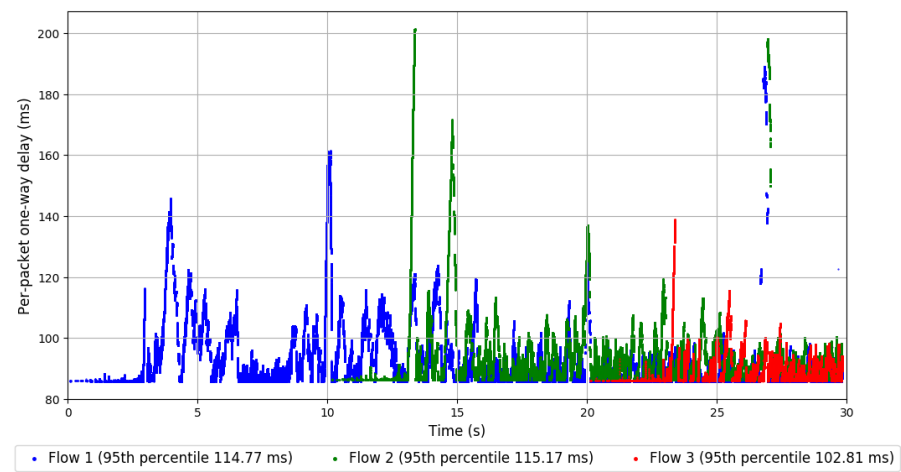
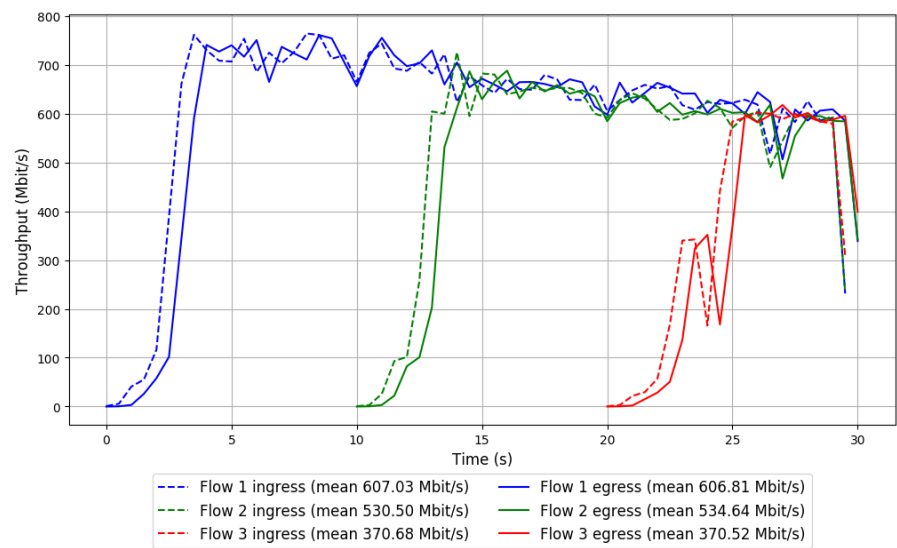
-- Flow 3:

Average throughput: 370.52 Mbit/s

95th percentile per-packet one-way delay: 102.810 ms

Loss rate: 0.03%

Run 3: Report of Indigo-Muses — Data Link

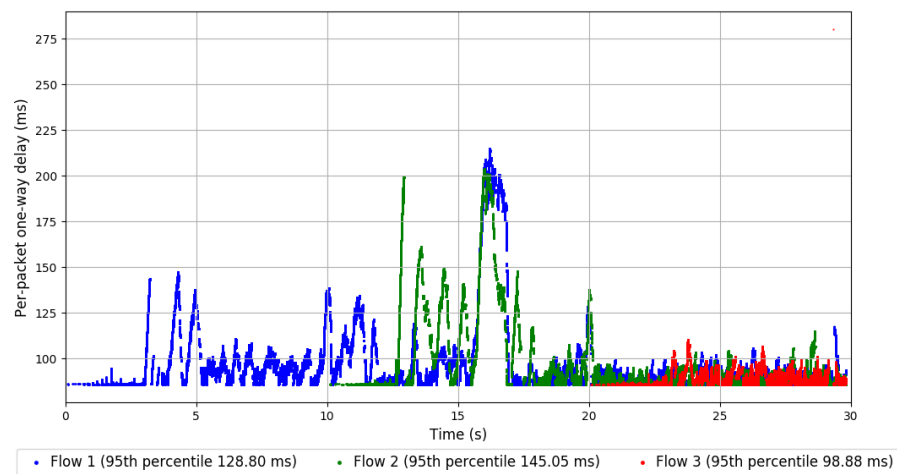
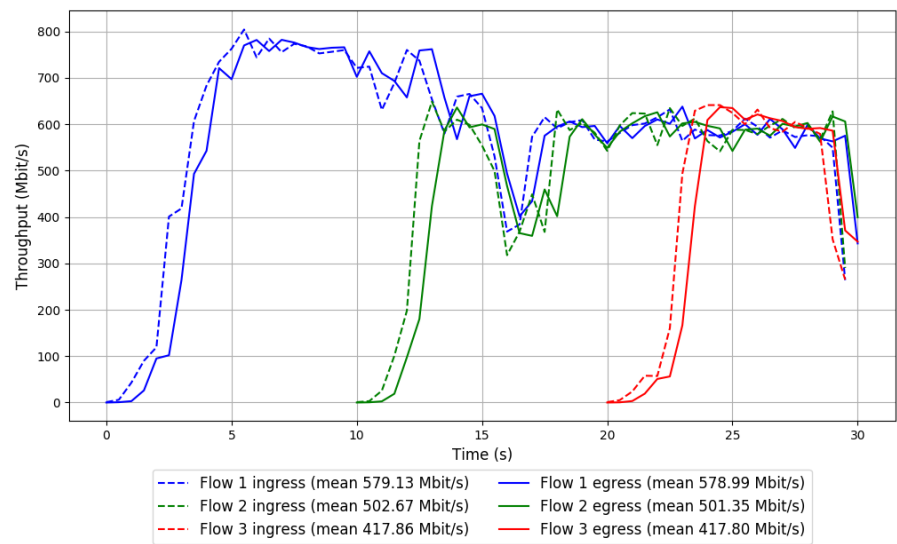


Run 4: Statistics of Indigo-Muses

Start at: 2018-09-25 10:47:05  
End at: 2018-09-25 10:47:35  
Local clock offset: -0.251 ms  
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-09-25 13:38:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1048.07 Mbit/s  
95th percentile per-packet one-way delay: 133.140 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 578.99 Mbit/s  
95th percentile per-packet one-way delay: 128.798 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 501.35 Mbit/s  
95th percentile per-packet one-way delay: 145.046 ms  
Loss rate: 0.26%  
-- Flow 3:  
Average throughput: 417.80 Mbit/s  
95th percentile per-packet one-way delay: 98.879 ms  
Loss rate: 0.05%

Run 4: Report of Indigo-Muses — Data Link





Run 5: Statistics of Indigo-Muses

Start at: 2018-09-25 11:21:29

End at: 2018-09-25 11:21:59

Local clock offset: -0.211 ms

Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-09-25 13:39:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1053.28 Mbit/s

95th percentile per-packet one-way delay: 135.992 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 603.57 Mbit/s

95th percentile per-packet one-way delay: 135.920 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 486.05 Mbit/s

95th percentile per-packet one-way delay: 137.805 ms

Loss rate: 0.00%

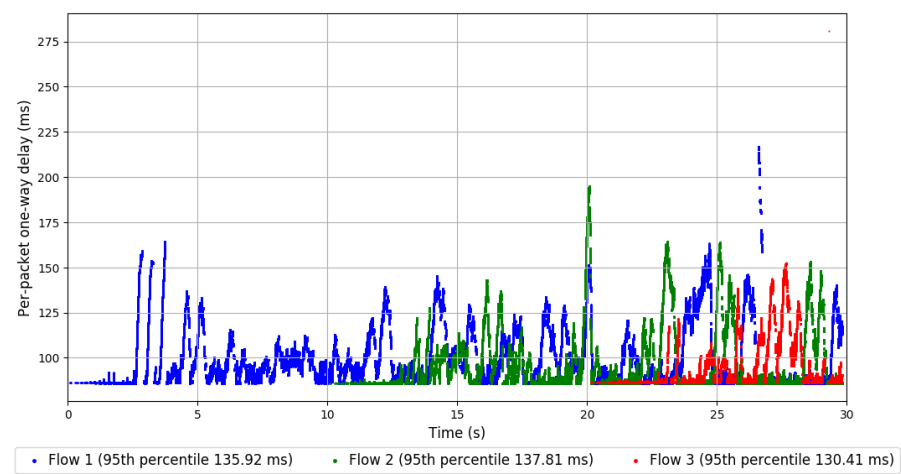
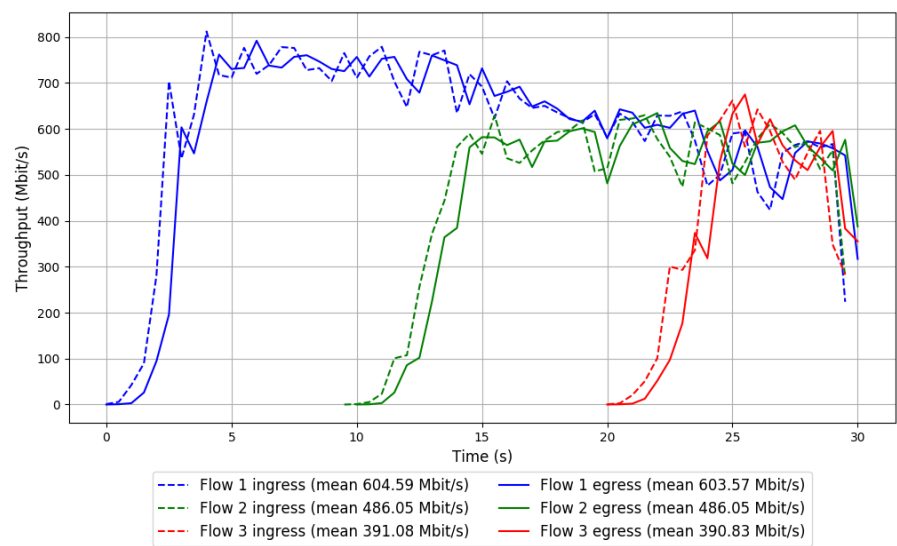
-- Flow 3:

Average throughput: 390.83 Mbit/s

95th percentile per-packet one-way delay: 130.408 ms

Loss rate: 0.07%

Run 5: Report of Indigo-Muses — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-09-25 09:16:59

End at: 2018-09-25 09:17:29

Local clock offset: -0.454 ms

Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2018-09-25 13:47:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 741.59 Mbit/s

95th percentile per-packet one-way delay: 203.983 ms

Loss rate: 3.14%

-- Flow 1:

Average throughput: 434.03 Mbit/s

95th percentile per-packet one-way delay: 210.480 ms

Loss rate: 4.54%

-- Flow 2:

Average throughput: 340.15 Mbit/s

95th percentile per-packet one-way delay: 176.755 ms

Loss rate: 1.48%

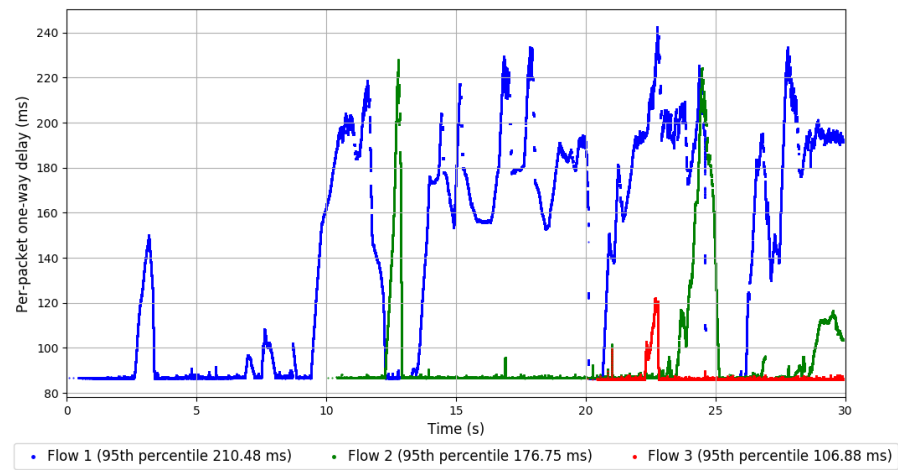
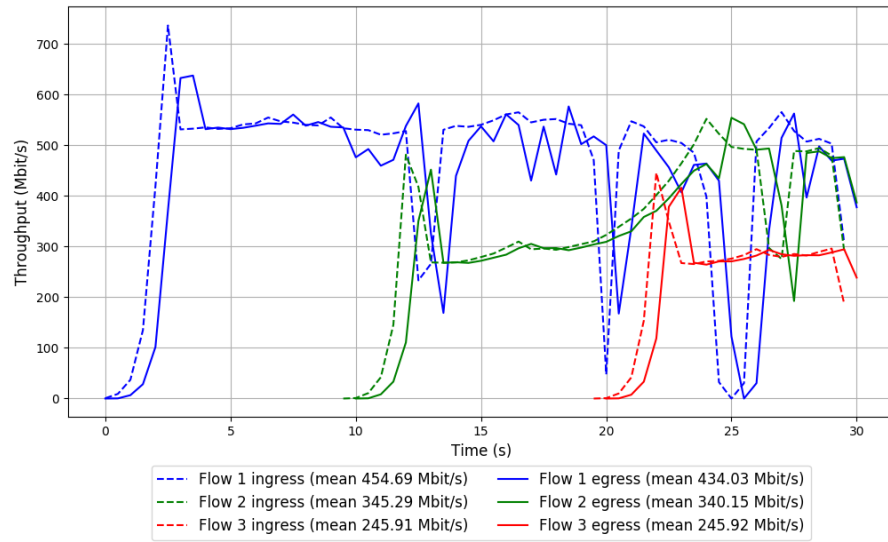
-- Flow 3:

Average throughput: 245.92 Mbit/s

95th percentile per-packet one-way delay: 106.875 ms

Loss rate: 0.00%

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



Run 2: Statistics of PCC-Allegro

Start at: 2018-09-25 09:51:18

End at: 2018-09-25 09:51:48

Local clock offset: -0.247 ms

Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-09-25 13:49:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 759.00 Mbit/s

95th percentile per-packet one-way delay: 214.607 ms

Loss rate: 4.02%

-- Flow 1:

Average throughput: 451.19 Mbit/s

95th percentile per-packet one-way delay: 209.906 ms

Loss rate: 4.48%

-- Flow 2:

Average throughput: 352.32 Mbit/s

95th percentile per-packet one-way delay: 226.769 ms

Loss rate: 4.40%

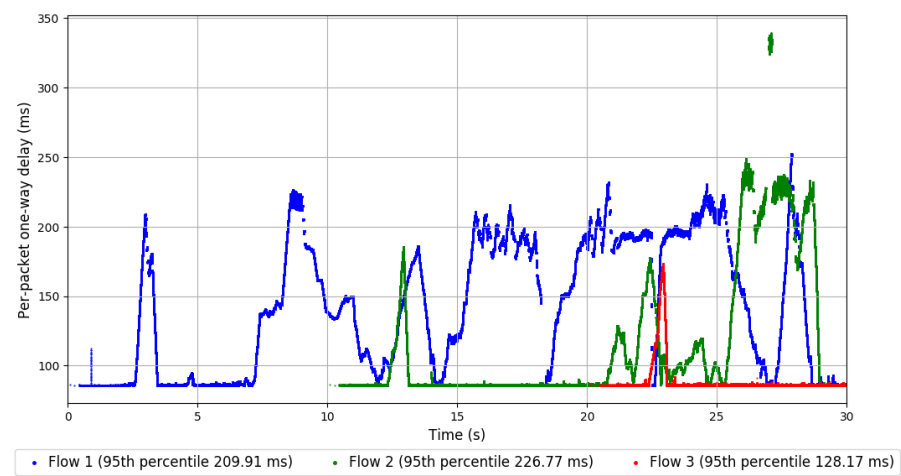
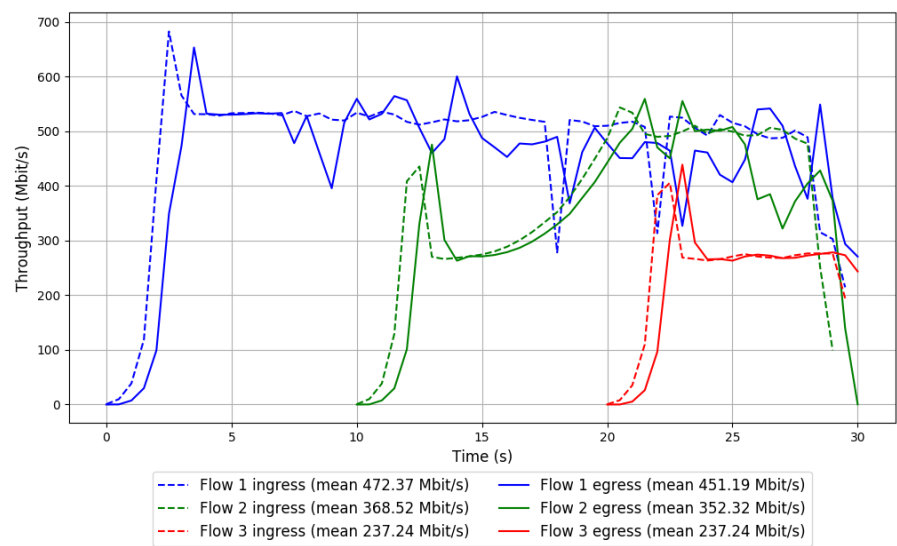
-- Flow 3:

Average throughput: 237.24 Mbit/s

95th percentile per-packet one-way delay: 128.168 ms

Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link

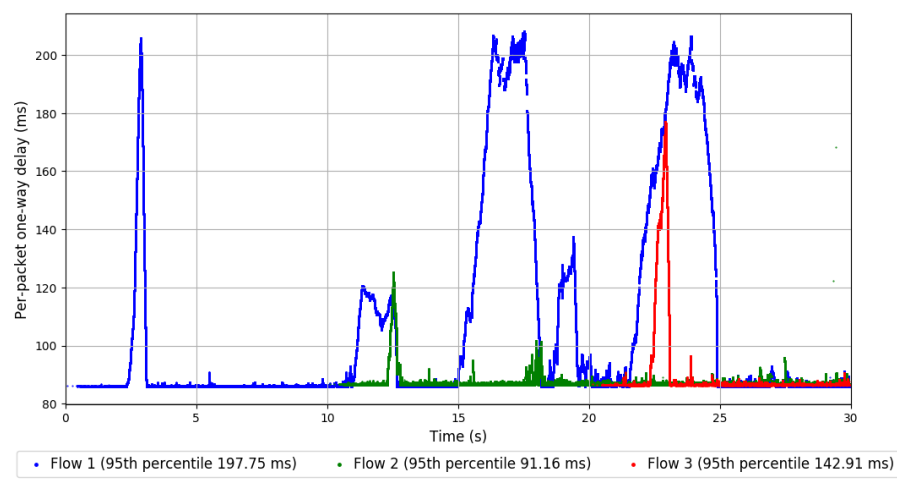
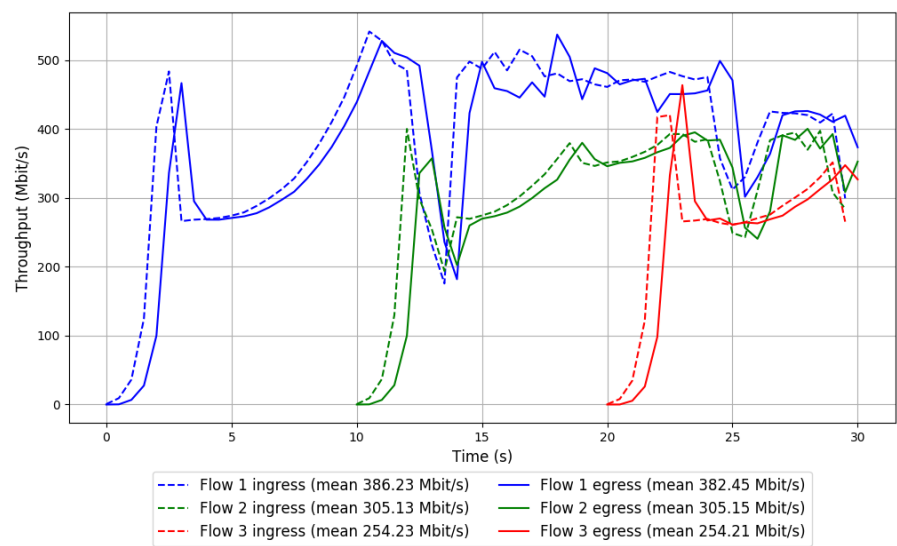


Run 3: Statistics of PCC-Allegro

Start at: 2018-09-25 10:25:36  
End at: 2018-09-25 10:26:06  
Local clock offset: -0.218 ms  
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-09-25 13:49:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 668.82 Mbit/s  
95th percentile per-packet one-way delay: 191.728 ms  
Loss rate: 0.56%  
-- Flow 1:  
Average throughput: 382.45 Mbit/s  
95th percentile per-packet one-way delay: 197.747 ms  
Loss rate: 0.98%  
-- Flow 2:  
Average throughput: 305.15 Mbit/s  
95th percentile per-packet one-way delay: 91.159 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 254.21 Mbit/s  
95th percentile per-packet one-way delay: 142.912 ms  
Loss rate: 0.00%

Run 3: Report of PCC-Allegro — Data Link



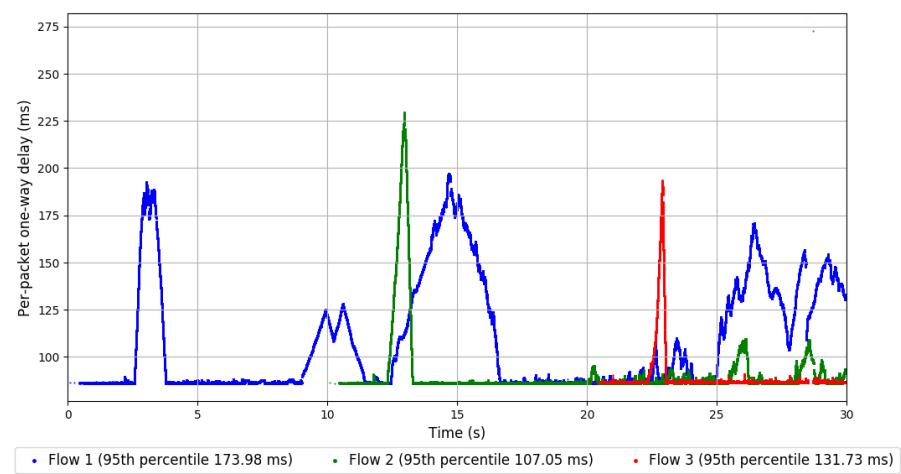
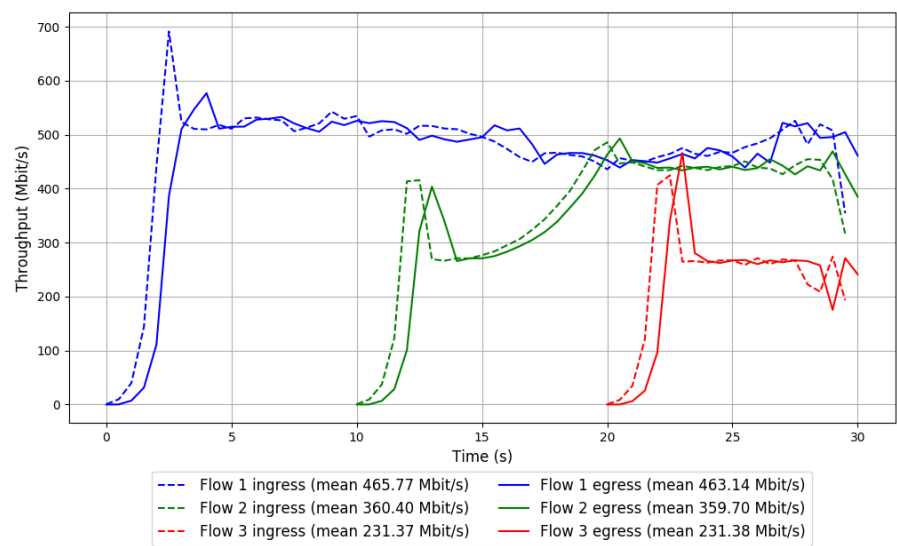


Run 4: Statistics of PCC-Allegro

Start at: 2018-09-25 10:59:37  
End at: 2018-09-25 11:00:07  
Local clock offset: -0.37 ms  
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2018-09-25 14:05:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 778.37 Mbit/s  
95th percentile per-packet one-way delay: 167.809 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 463.14 Mbit/s  
95th percentile per-packet one-way delay: 173.984 ms  
Loss rate: 0.55%  
-- Flow 2:  
Average throughput: 359.70 Mbit/s  
95th percentile per-packet one-way delay: 107.052 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 231.38 Mbit/s  
95th percentile per-packet one-way delay: 131.730 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link

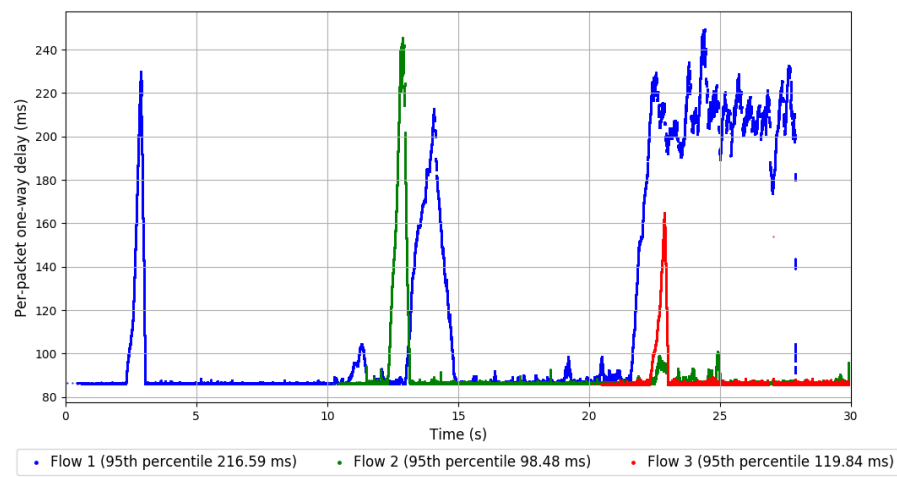
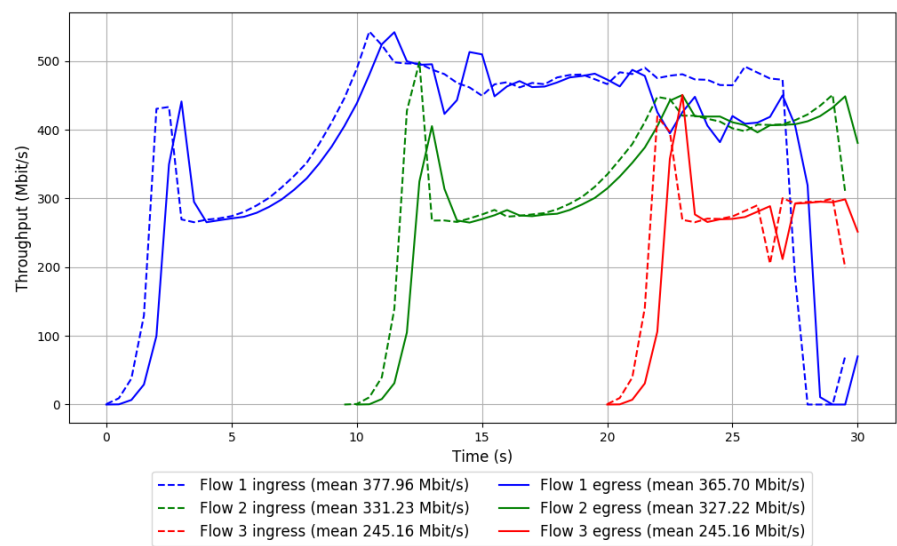


Run 5: Statistics of PCC-Allegro

Start at: 2018-09-25 11:33:57  
End at: 2018-09-25 11:34:27  
Local clock offset: -0.061 ms  
Remote clock offset: -0.065 ms

# Below is generated by plot.py at 2018-09-25 14:05:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 664.14 Mbit/s  
95th percentile per-packet one-way delay: 211.701 ms  
Loss rate: 2.20%  
-- Flow 1:  
Average throughput: 365.70 Mbit/s  
95th percentile per-packet one-way delay: 216.586 ms  
Loss rate: 3.24%  
-- Flow 2:  
Average throughput: 327.22 Mbit/s  
95th percentile per-packet one-way delay: 98.476 ms  
Loss rate: 1.21%  
-- Flow 3:  
Average throughput: 245.16 Mbit/s  
95th percentile per-packet one-way delay: 119.836 ms  
Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

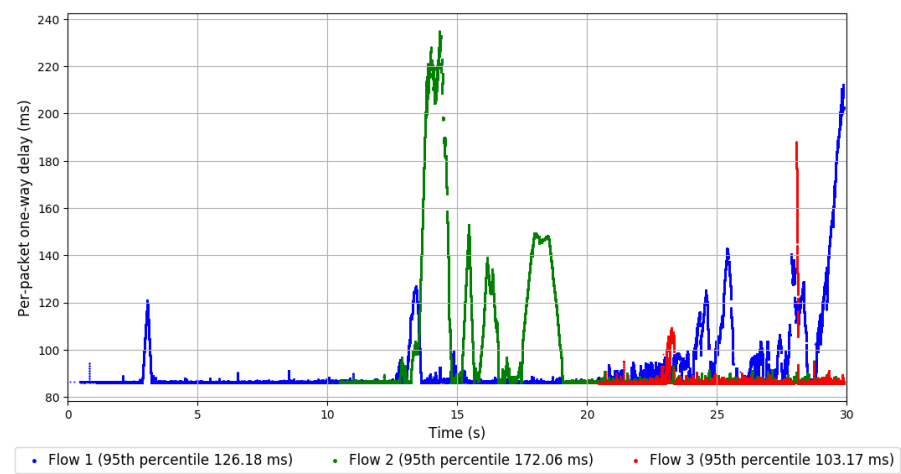
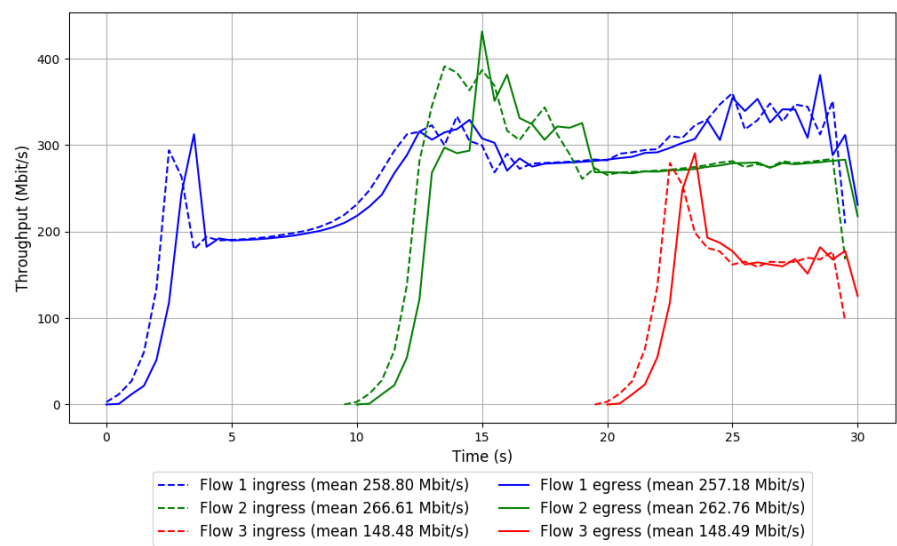


```
Run 1: Statistics of PCC-Expr

Start at: 2018-09-25 09:14:58
End at: 2018-09-25 09:15:28
Local clock offset: -0.339 ms
Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2018-09-25 14:05:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 481.50 Mbit/s
95th percentile per-packet one-way delay: 144.811 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 257.18 Mbit/s
95th percentile per-packet one-way delay: 126.179 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 262.76 Mbit/s
95th percentile per-packet one-way delay: 172.059 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 148.49 Mbit/s
95th percentile per-packet one-way delay: 103.175 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-09-25 09:49:16

End at: 2018-09-25 09:49:46

Local clock offset: -0.318 ms

Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2018-09-25 14:05:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 499.84 Mbit/s

95th percentile per-packet one-way delay: 175.302 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 270.03 Mbit/s

95th percentile per-packet one-way delay: 167.306 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 226.55 Mbit/s

95th percentile per-packet one-way delay: 102.111 ms

Loss rate: 0.00%

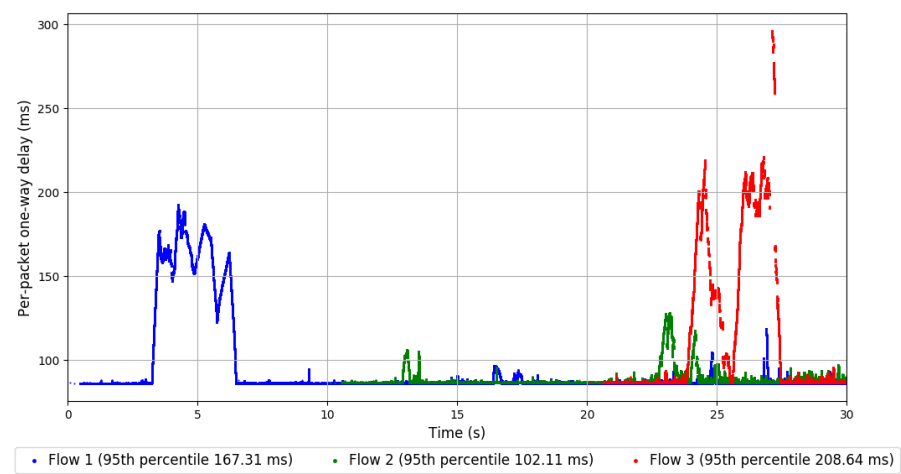
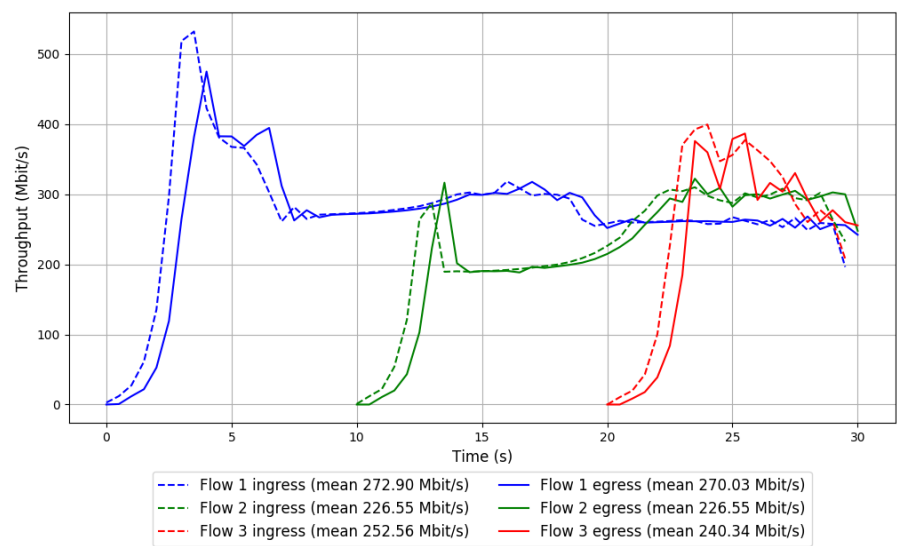
-- Flow 3:

Average throughput: 240.34 Mbit/s

95th percentile per-packet one-way delay: 208.643 ms

Loss rate: 4.84%

Run 2: Report of PCC-Expr — Data Link



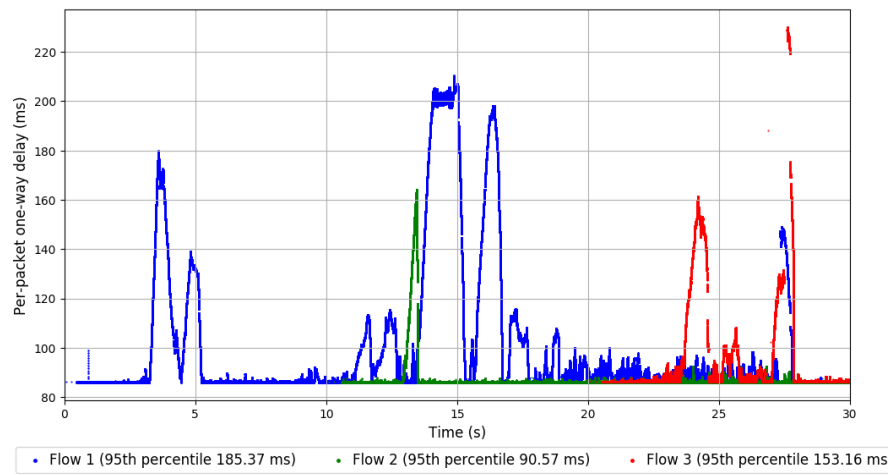
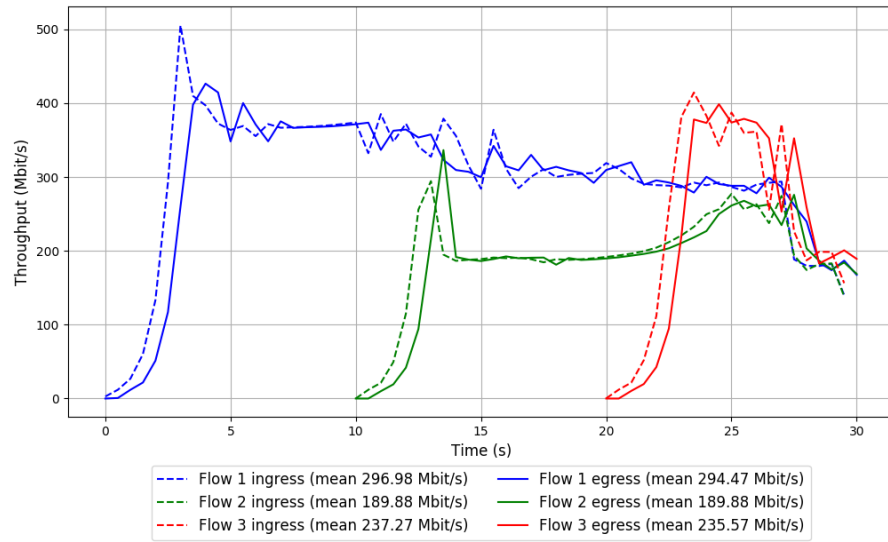


Run 3: Statistics of PCC-Expr

Start at: 2018-09-25 10:23:34  
End at: 2018-09-25 10:24:04  
Local clock offset: -0.176 ms  
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-09-25 14:05:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 498.33 Mbit/s  
95th percentile per-packet one-way delay: 164.922 ms  
Loss rate: 0.62%  
-- Flow 1:  
Average throughput: 294.47 Mbit/s  
95th percentile per-packet one-way delay: 185.367 ms  
Loss rate: 0.85%  
-- Flow 2:  
Average throughput: 189.88 Mbit/s  
95th percentile per-packet one-way delay: 90.568 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 235.57 Mbit/s  
95th percentile per-packet one-way delay: 153.163 ms  
Loss rate: 0.73%

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

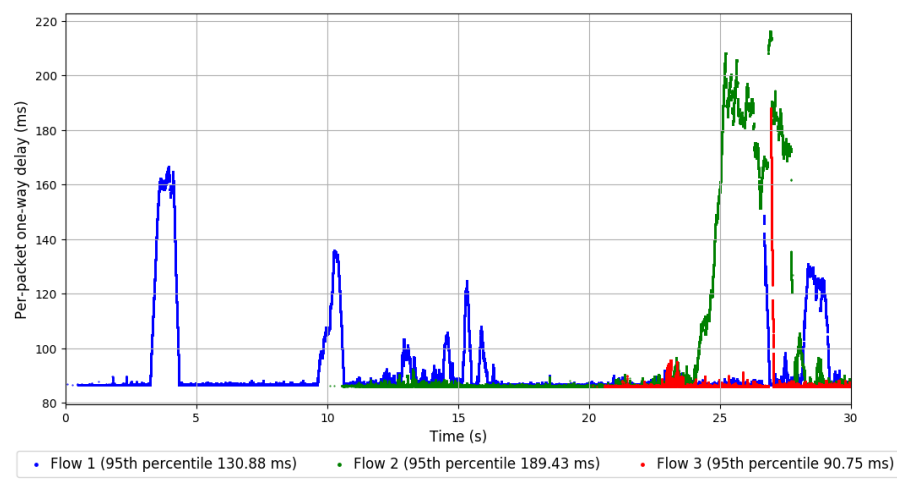
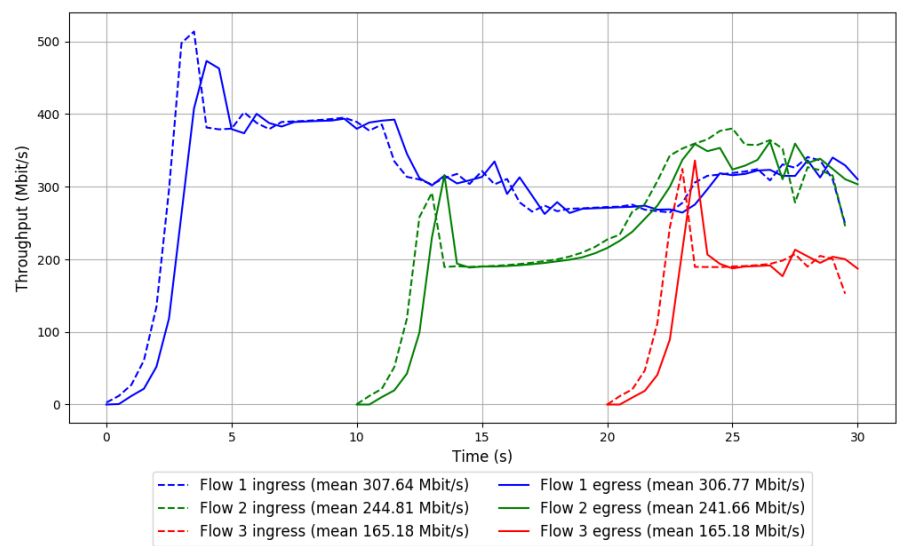


Run 4: Statistics of PCC-Expr

Start at: 2018-09-25 10:57:33  
End at: 2018-09-25 10:58:03  
Local clock offset: -0.438 ms  
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-09-25 14:07:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 521.73 Mbit/s  
95th percentile per-packet one-way delay: 170.010 ms  
Loss rate: 0.57%  
-- Flow 1:  
Average throughput: 306.77 Mbit/s  
95th percentile per-packet one-way delay: 130.879 ms  
Loss rate: 0.28%  
-- Flow 2:  
Average throughput: 241.66 Mbit/s  
95th percentile per-packet one-way delay: 189.432 ms  
Loss rate: 1.29%  
-- Flow 3:  
Average throughput: 165.18 Mbit/s  
95th percentile per-packet one-way delay: 90.747 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Expr — Data Link

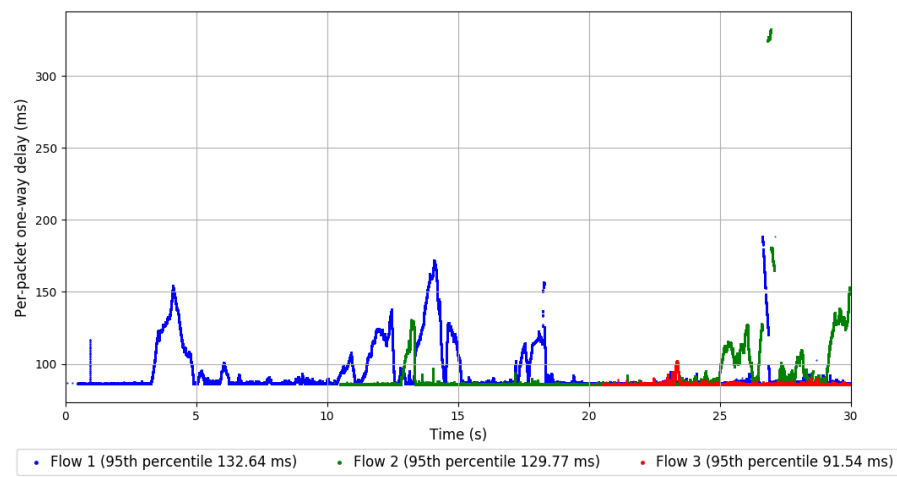
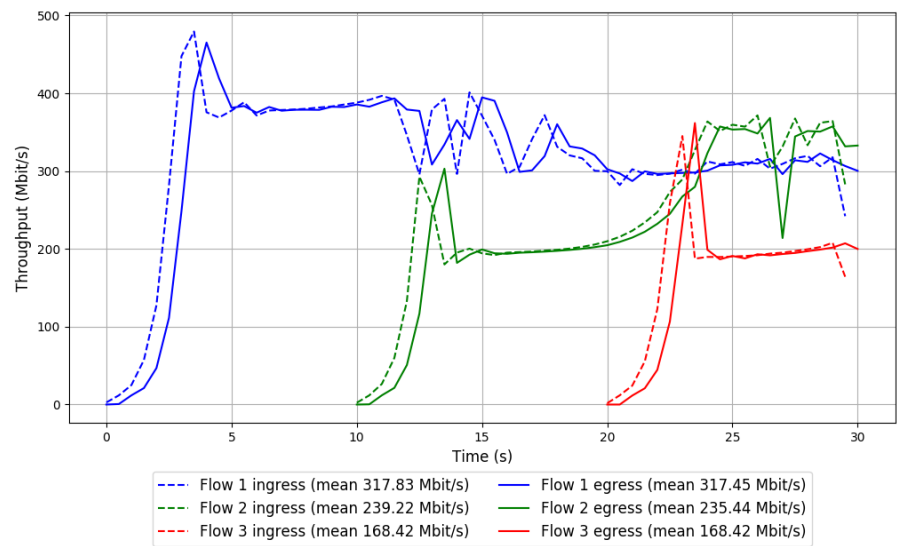


Run 5: Statistics of PCC-Expr

Start at: 2018-09-25 11:31:52  
End at: 2018-09-25 11:32:22  
Local clock offset: -0.204 ms  
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 529.54 Mbit/s  
95th percentile per-packet one-way delay: 129.671 ms  
Loss rate: 0.54%  
-- Flow 1:  
Average throughput: 317.45 Mbit/s  
95th percentile per-packet one-way delay: 132.639 ms  
Loss rate: 0.12%  
-- Flow 2:  
Average throughput: 235.44 Mbit/s  
95th percentile per-packet one-way delay: 129.773 ms  
Loss rate: 1.56%  
-- Flow 3:  
Average throughput: 168.42 Mbit/s  
95th percentile per-packet one-way delay: 91.544 ms  
Loss rate: 0.00%

Run 5: Report of PCC-Expr — Data Link

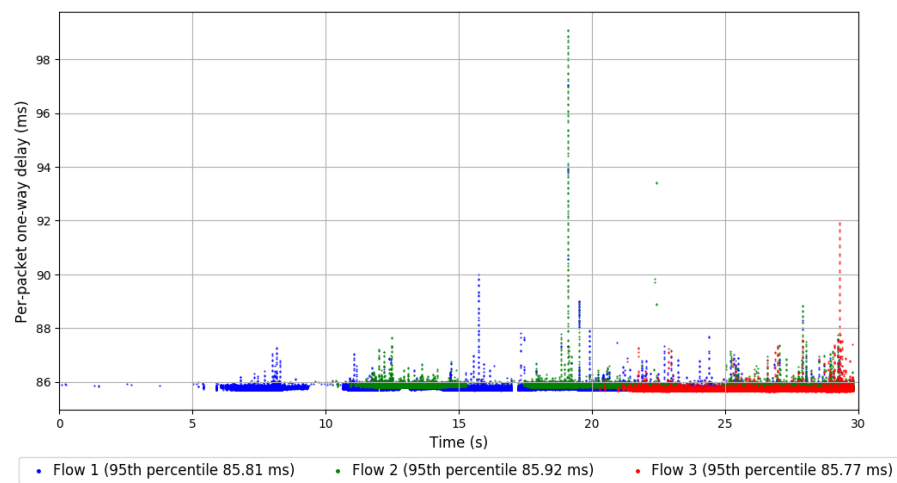
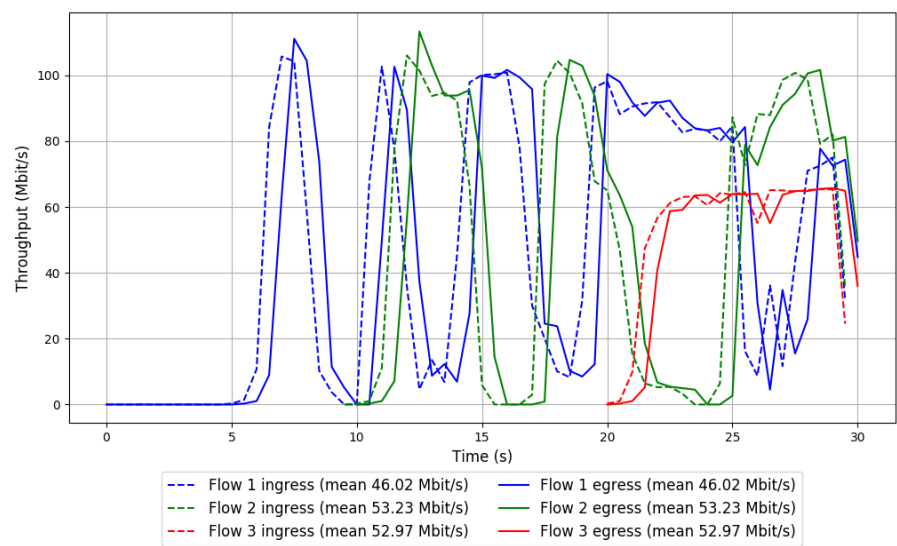


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-09-25 08:58:13
End at: 2018-09-25 08:58:43
Local clock offset: -0.058 ms
Remote clock offset: 0.071 ms

# Below is generated by plot.py at 2018-09-25 14:09:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.62 Mbit/s
95th percentile per-packet one-way delay: 85.892 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 85.808 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.23 Mbit/s
95th percentile per-packet one-way delay: 85.922 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.97 Mbit/s
95th percentile per-packet one-way delay: 85.771 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link





Run 2: Statistics of QUIC Cubic

Start at: 2018-09-25 09:32:22

End at: 2018-09-25 09:32:52

Local clock offset: -0.077 ms

Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-09-25 14:09:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.13 Mbit/s

95th percentile per-packet one-way delay: 86.269 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.03 Mbit/s

95th percentile per-packet one-way delay: 85.833 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.58 Mbit/s

95th percentile per-packet one-way delay: 86.316 ms

Loss rate: 0.00%

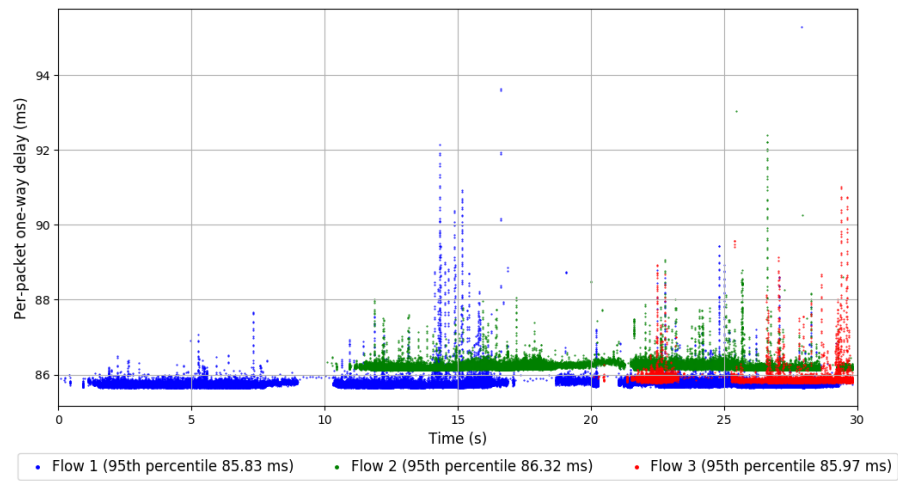
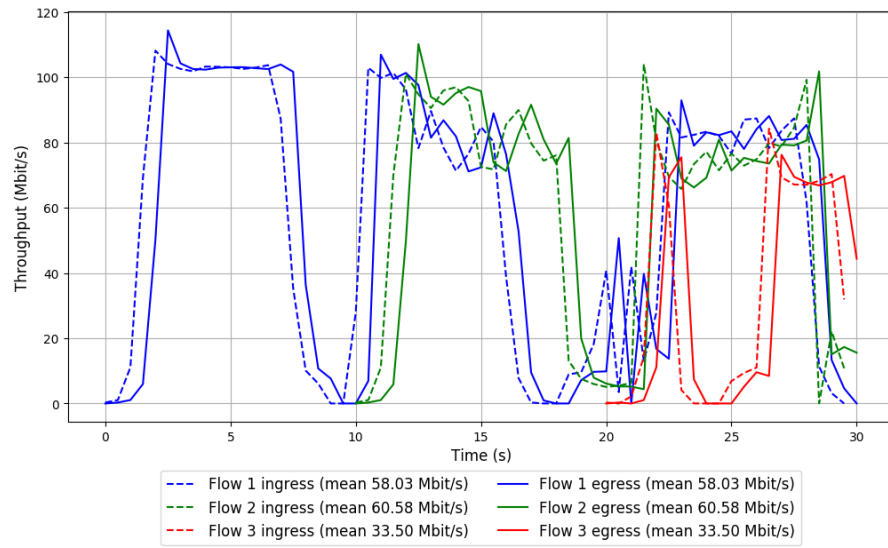
-- Flow 3:

Average throughput: 33.50 Mbit/s

95th percentile per-packet one-way delay: 85.970 ms

Loss rate: 0.00%

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

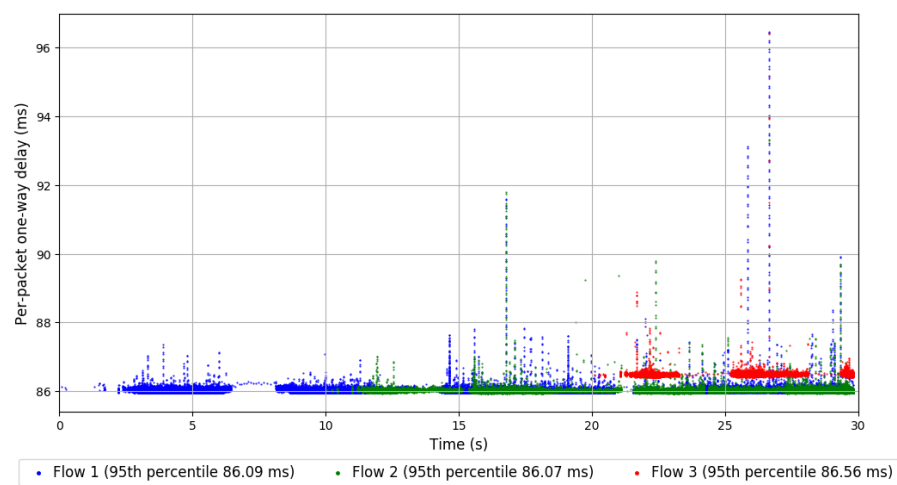
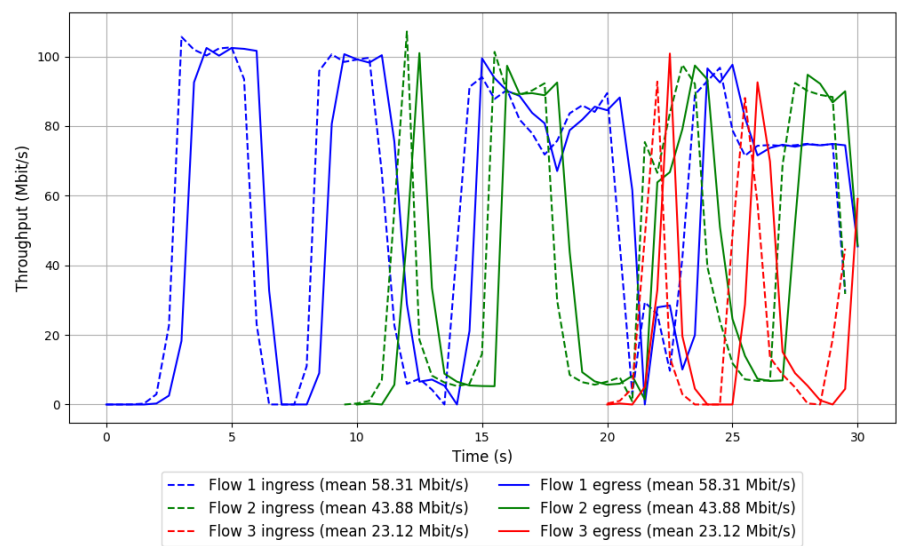


Run 3: Statistics of QUIC Cubic

Start at: 2018-09-25 10:06:44  
End at: 2018-09-25 10:07:14  
Local clock offset: -0.272 ms  
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.99 Mbit/s  
95th percentile per-packet one-way delay: 86.466 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 58.31 Mbit/s  
95th percentile per-packet one-way delay: 86.088 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 43.88 Mbit/s  
95th percentile per-packet one-way delay: 86.069 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 23.12 Mbit/s  
95th percentile per-packet one-way delay: 86.558 ms  
Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link

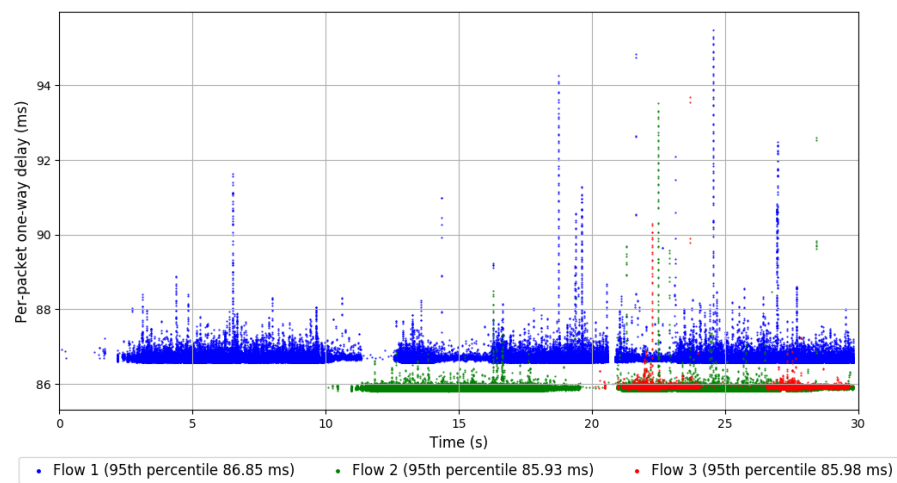
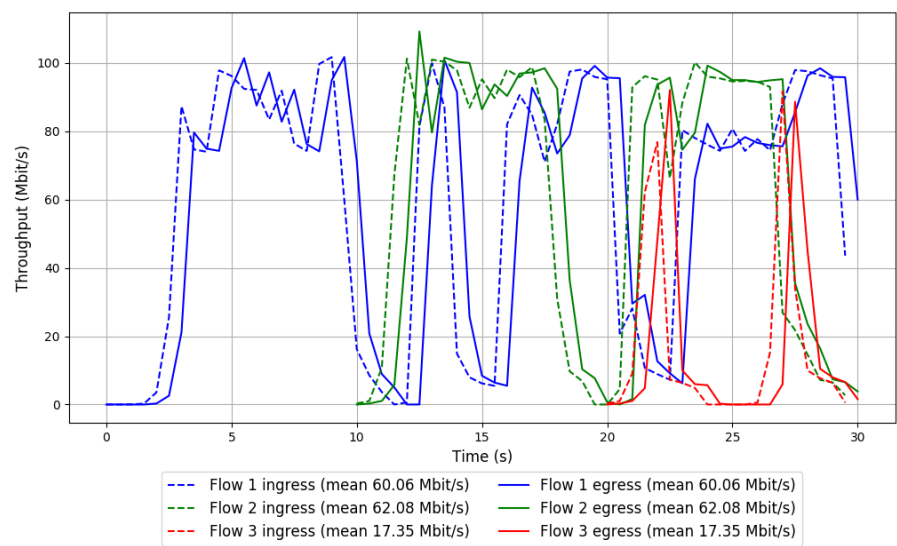


Run 4: Statistics of QUIC Cubic

Start at: 2018-09-25 10:40:40  
End at: 2018-09-25 10:41:10  
Local clock offset: -0.264 ms  
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 106.86 Mbit/s  
95th percentile per-packet one-way delay: 86.765 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 60.06 Mbit/s  
95th percentile per-packet one-way delay: 86.846 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 62.08 Mbit/s  
95th percentile per-packet one-way delay: 85.926 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 17.35 Mbit/s  
95th percentile per-packet one-way delay: 85.979 ms  
Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link

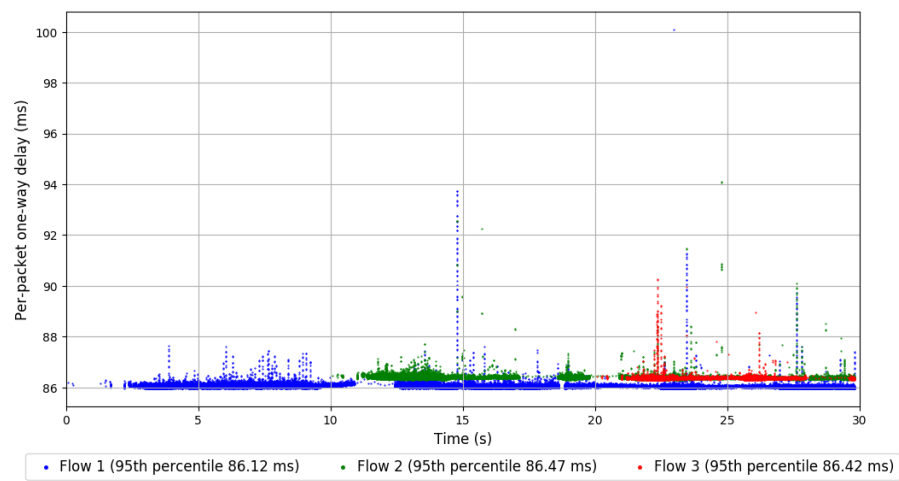
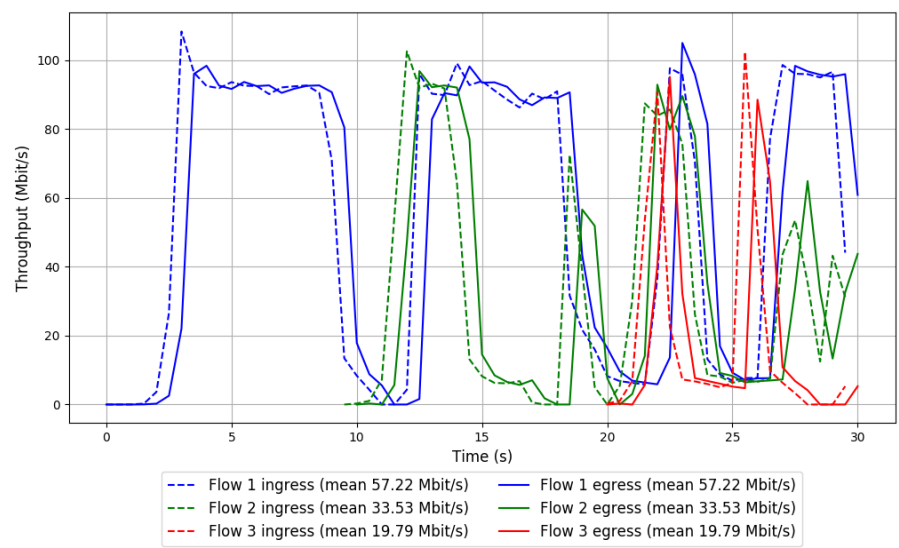


Run 5: Statistics of QUIC Cubic

Start at: 2018-09-25 11:15:01  
End at: 2018-09-25 11:15:31  
Local clock offset: -0.292 ms  
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.95 Mbit/s  
95th percentile per-packet one-way delay: 86.415 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 57.22 Mbit/s  
95th percentile per-packet one-way delay: 86.117 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 33.53 Mbit/s  
95th percentile per-packet one-way delay: 86.465 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 19.79 Mbit/s  
95th percentile per-packet one-way delay: 86.423 ms  
Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



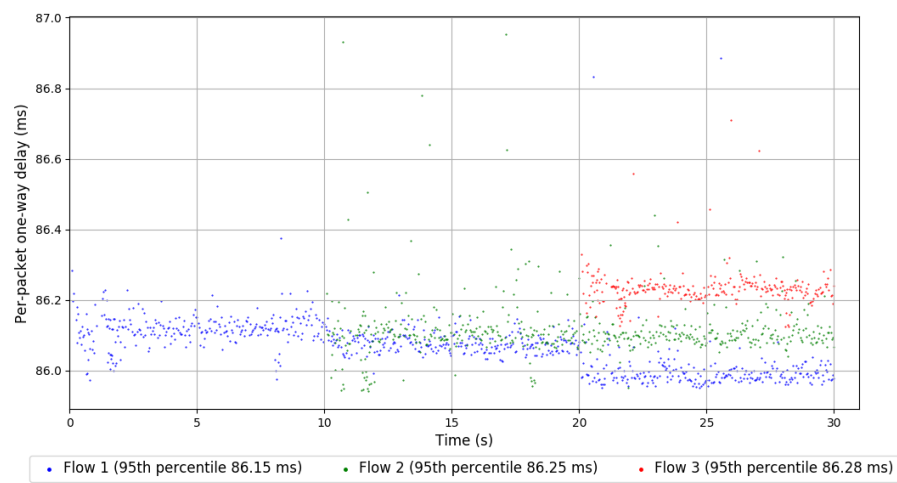
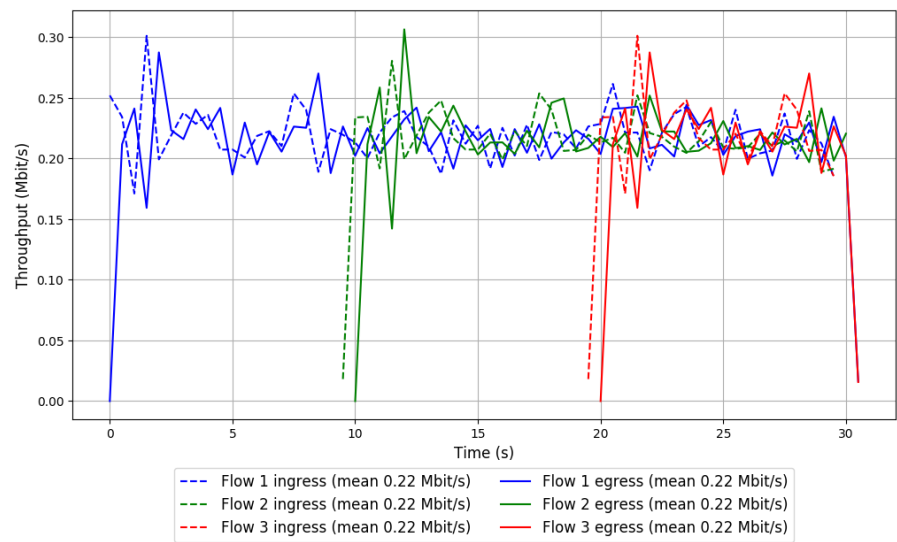


```
Run 1: Statistics of SReAM

Start at: 2018-09-25 09:01:43
End at: 2018-09-25 09:02:13
Local clock offset: -0.307 ms
Remote clock offset: 0.07 ms

# Below is generated by plot.py at 2018-09-25 14:09:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.251 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.154 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.254 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.280 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

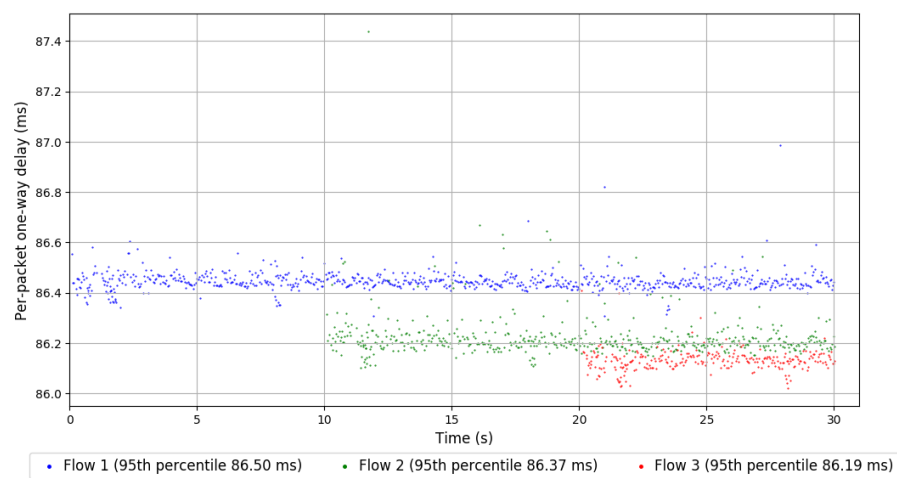
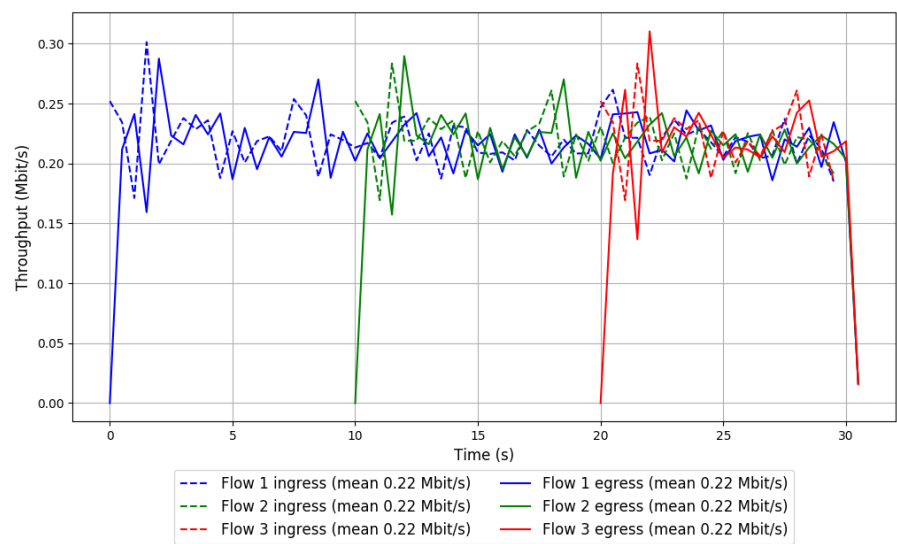


Run 2: Statistics of SReAM

Start at: 2018-09-25 09:35:55  
End at: 2018-09-25 09:36:25  
Local clock offset: -0.145 ms  
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 86.483 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.495 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.369 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.186 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

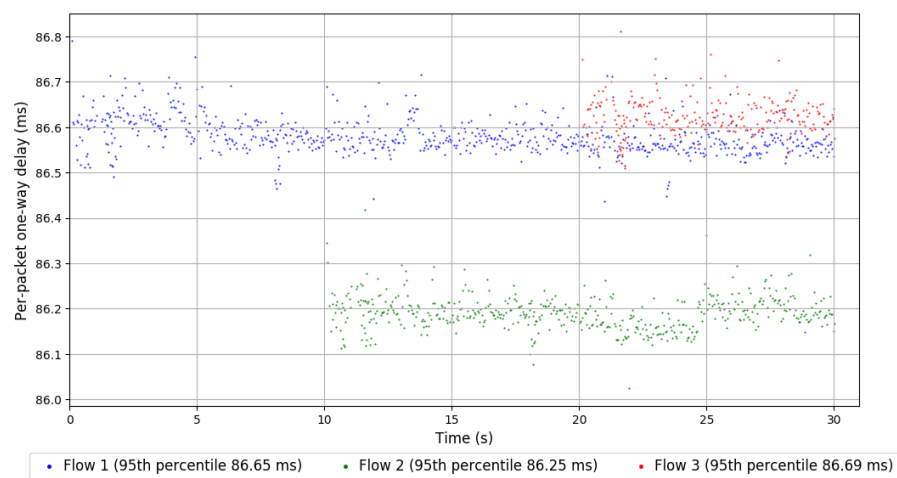
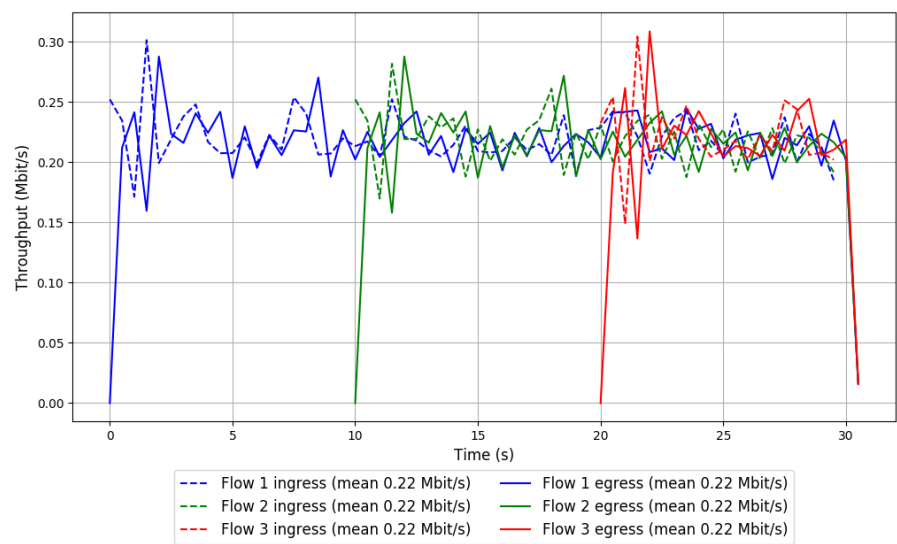


Run 3: Statistics of SReAM

Start at: 2018-09-25 10:10:14  
End at: 2018-09-25 10:10:45  
Local clock offset: -0.276 ms  
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 86.656 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.648 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.252 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.689 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

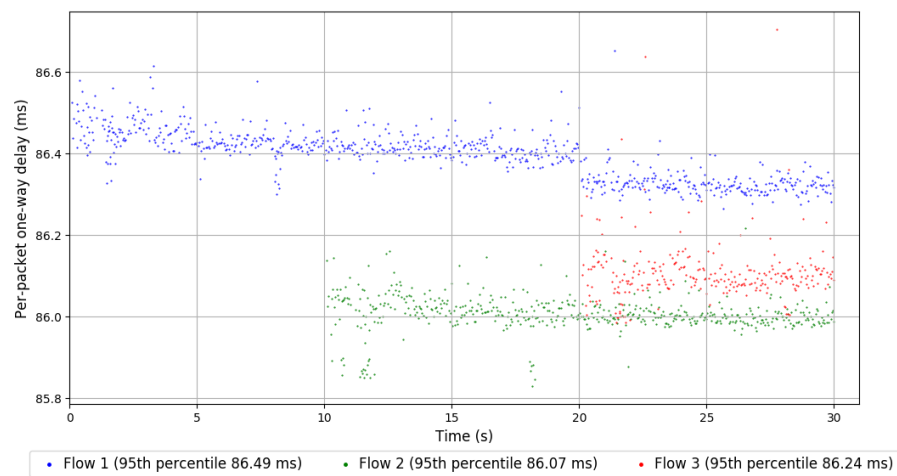
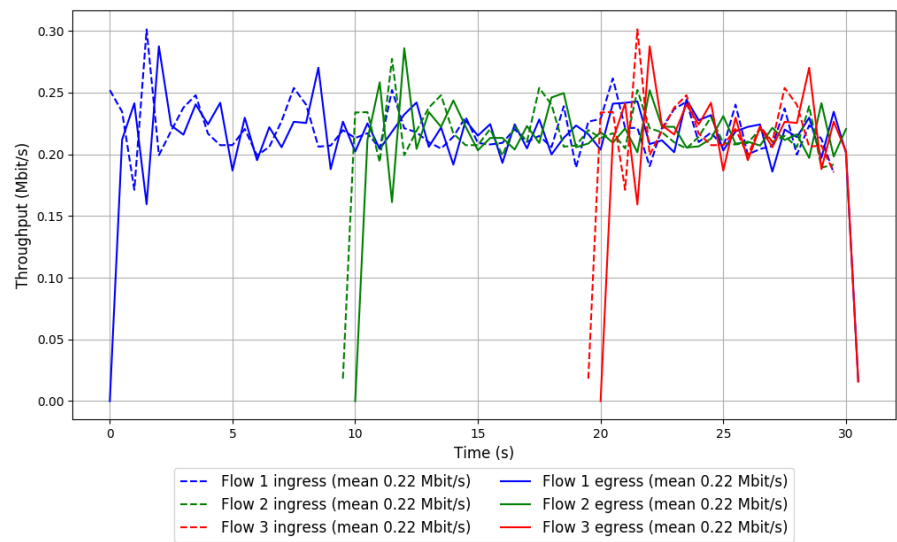


Run 4: Statistics of SReAM

Start at: 2018-09-25 10:44:11  
End at: 2018-09-25 10:44:41  
Local clock offset: -0.101 ms  
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 86.465 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.488 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.068 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.240 ms  
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



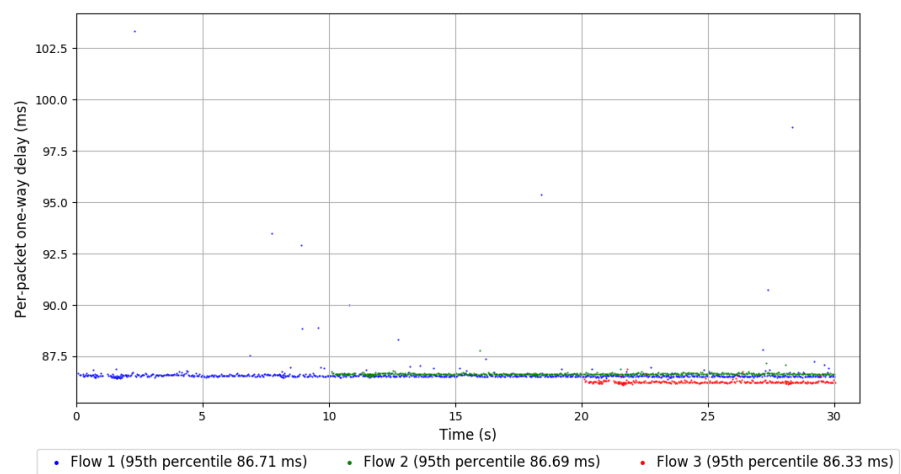
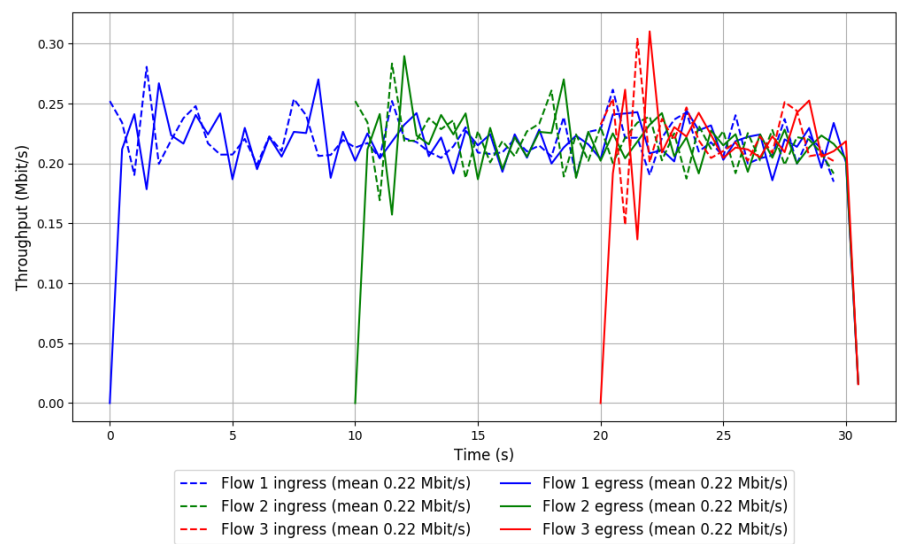


Run 5: Statistics of SReAM

Start at: 2018-09-25 11:18:33  
End at: 2018-09-25 11:19:03  
Local clock offset: -0.39 ms  
Remote clock offset: -0.036 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 86.685 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.712 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.692 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 86.333 ms  
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-09-25 08:50:06

End at: 2018-09-25 08:50:36

Local clock offset: 0.148 ms

Remote clock offset: 0.093 ms

# Below is generated by plot.py at 2018-09-25 14:09:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.42 Mbit/s

95th percentile per-packet one-way delay: 86.790 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.05 Mbit/s

95th percentile per-packet one-way delay: 86.916 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.48 Mbit/s

95th percentile per-packet one-way delay: 86.569 ms

Loss rate: 0.00%

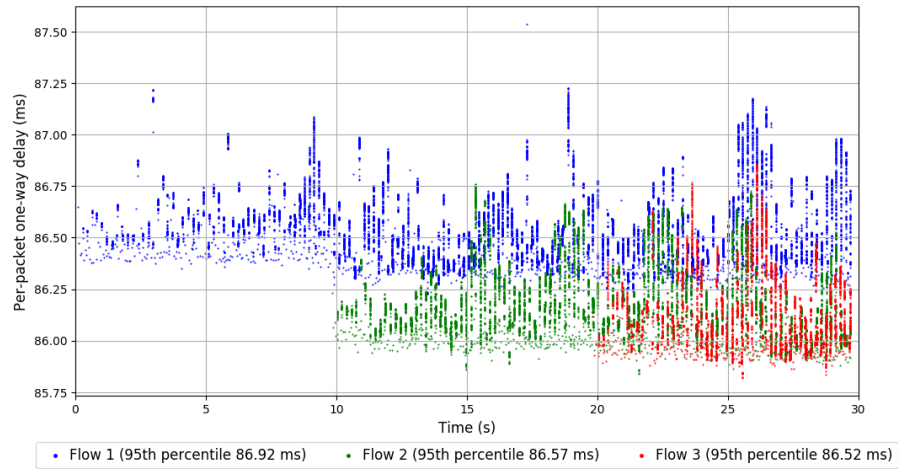
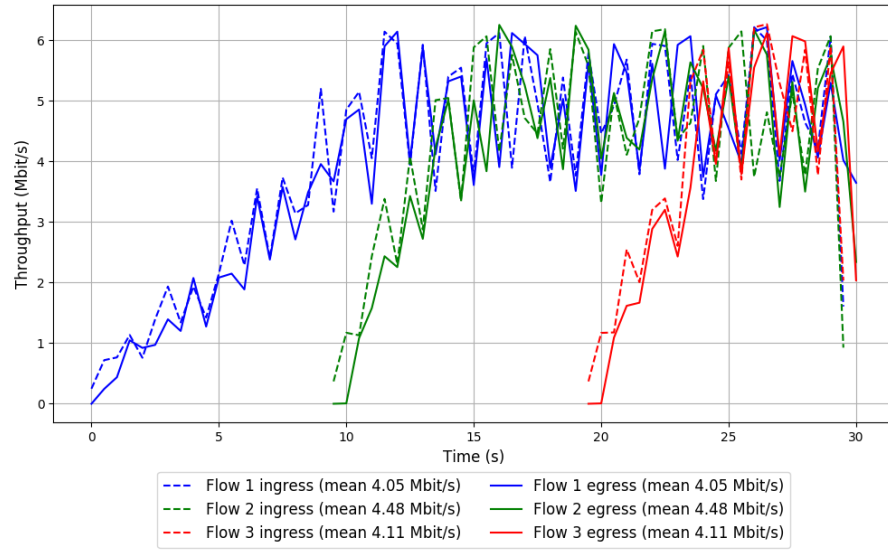
-- Flow 3:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 86.522 ms

Loss rate: 0.00%

# Run 1: Report of Sprout — Data Link

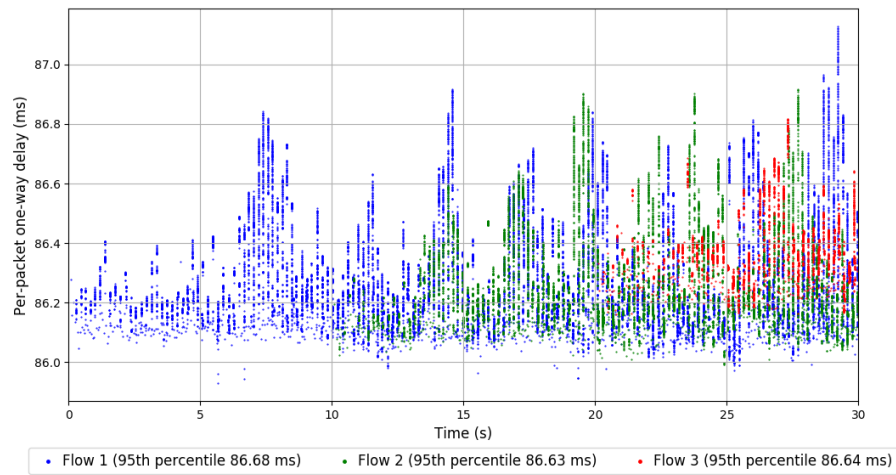
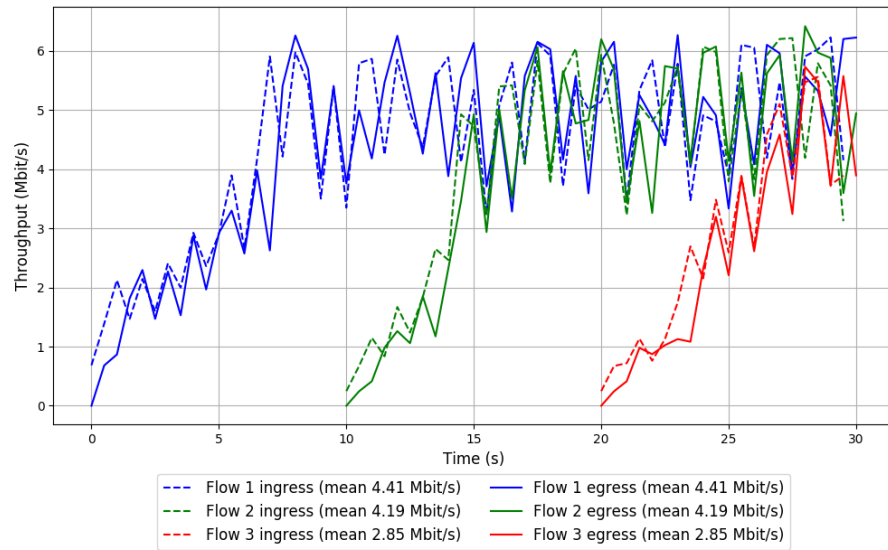


Run 2: Statistics of Sprout

Start at: 2018-09-25 09:24:08  
End at: 2018-09-25 09:24:38  
Local clock offset: -0.419 ms  
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.14 Mbit/s  
95th percentile per-packet one-way delay: 86.653 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 4.41 Mbit/s  
95th percentile per-packet one-way delay: 86.676 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 4.19 Mbit/s  
95th percentile per-packet one-way delay: 86.629 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 2.85 Mbit/s  
95th percentile per-packet one-way delay: 86.638 ms  
Loss rate: 0.00%

## Run 2: Report of Sprout — Data Link

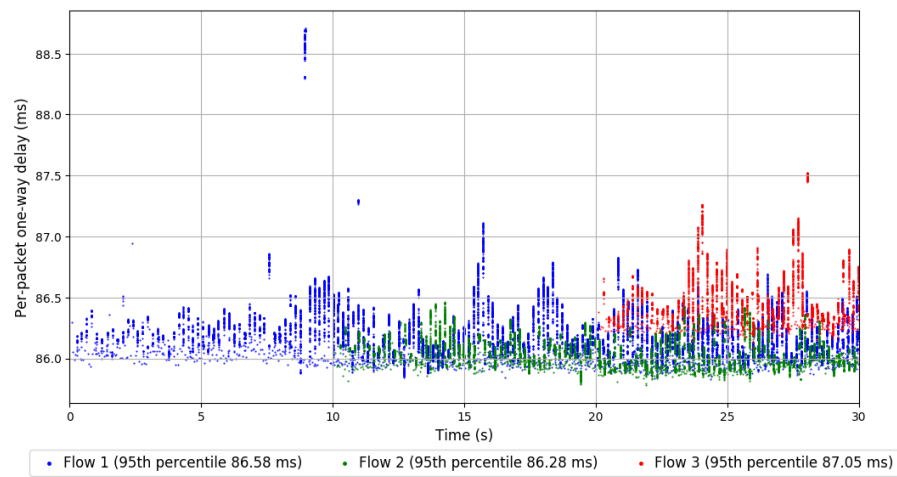
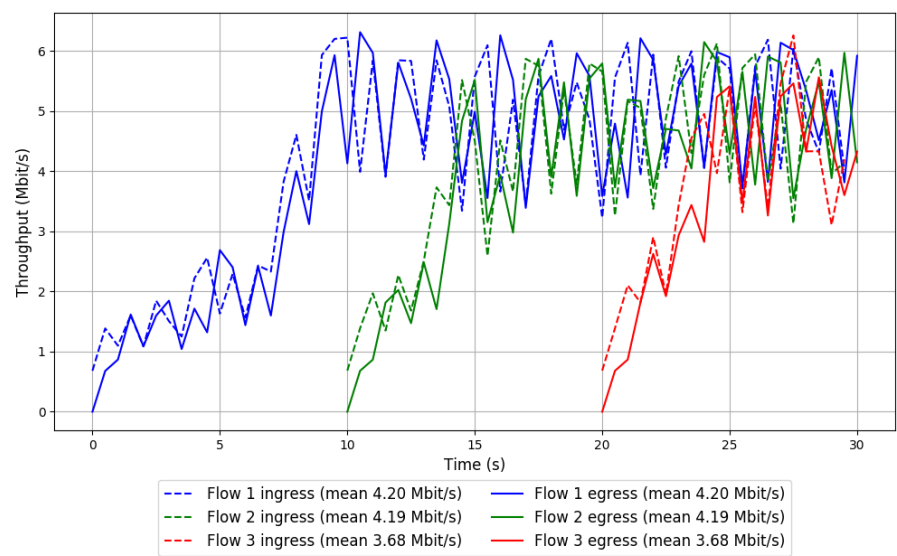


### Run 3: Statistics of Sprout

Start at: 2018-09-25 09:58:33  
End at: 2018-09-25 09:59:03  
Local clock offset: -0.087 ms  
Remote clock offset: -0.055 ms

```
# Below is generated by plot.py at 2018-09-25 14:09:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 86.653 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 86.580 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 86.277 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 87.053 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link



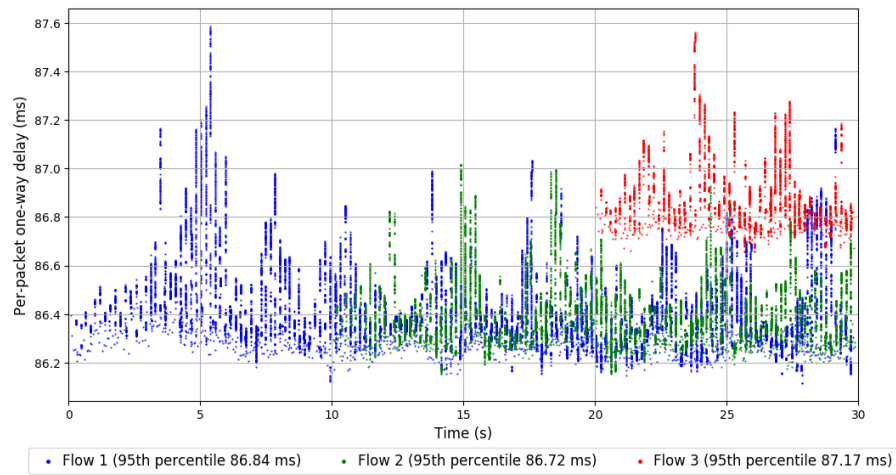
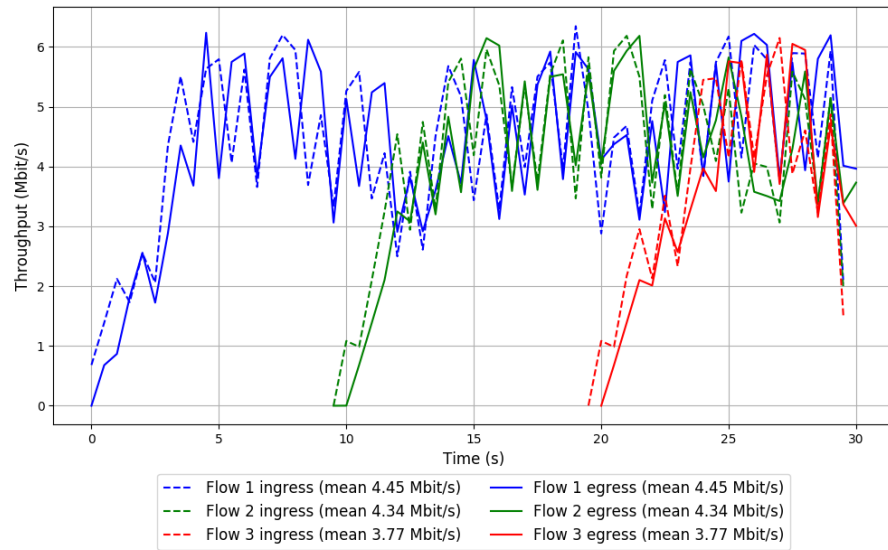


#### Run 4: Statistics of Sprout

Start at: 2018-09-25 10:32:35  
End at: 2018-09-25 10:33:05  
Local clock offset: -0.48 ms  
Remote clock offset: -0.04 ms

```
# Below is generated by plot.py at 2018-09-25 14:09:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 86.954 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 86.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 86.722 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 87.173 ms
Loss rate: 0.00%
```

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

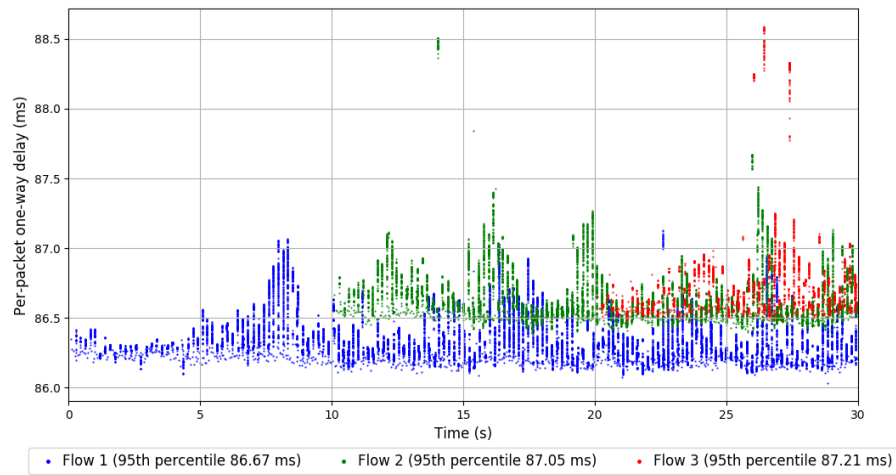
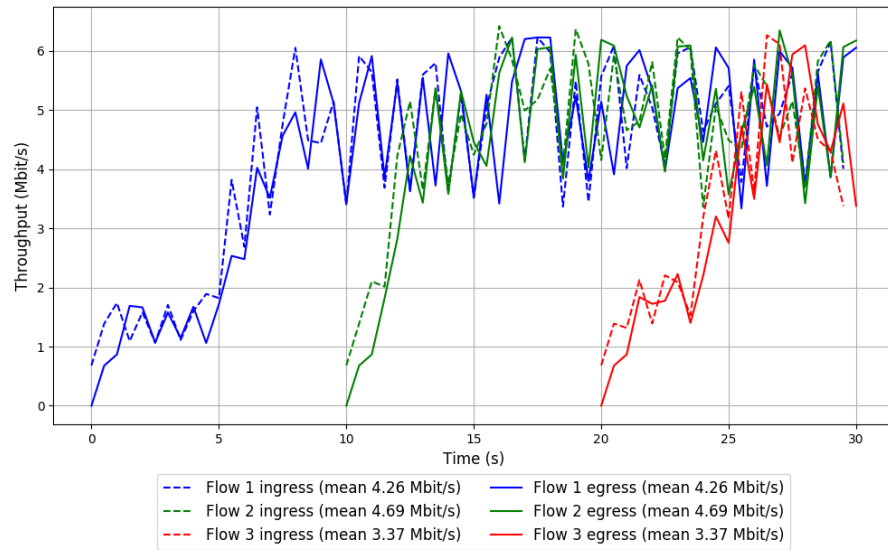


Run 5: Statistics of Sprout

Start at: 2018-09-25 11:06:45  
End at: 2018-09-25 11:07:15  
Local clock offset: -0.355 ms  
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-09-25 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.49 Mbit/s  
95th percentile per-packet one-way delay: 86.955 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 4.26 Mbit/s  
95th percentile per-packet one-way delay: 86.675 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 4.69 Mbit/s  
95th percentile per-packet one-way delay: 87.048 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.37 Mbit/s  
95th percentile per-packet one-way delay: 87.206 ms  
Loss rate: 0.00%

## Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-09-25 09:20:58

End at: 2018-09-25 09:21:28

Local clock offset: -0.344 ms

Remote clock offset: 0.014 ms

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 418.85 Mbit/s

95th percentile per-packet one-way delay: 86.872 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 213.91 Mbit/s

95th percentile per-packet one-way delay: 86.916 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 204.26 Mbit/s

95th percentile per-packet one-way delay: 86.417 ms

Loss rate: 0.00%

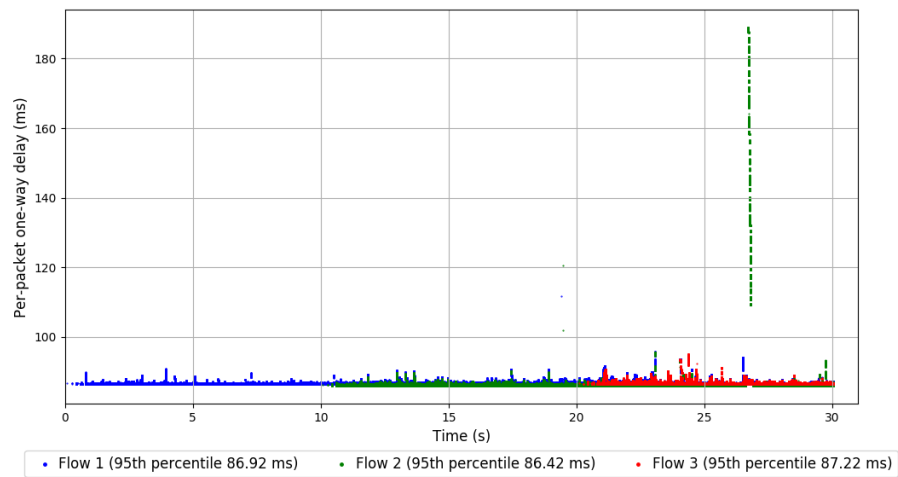
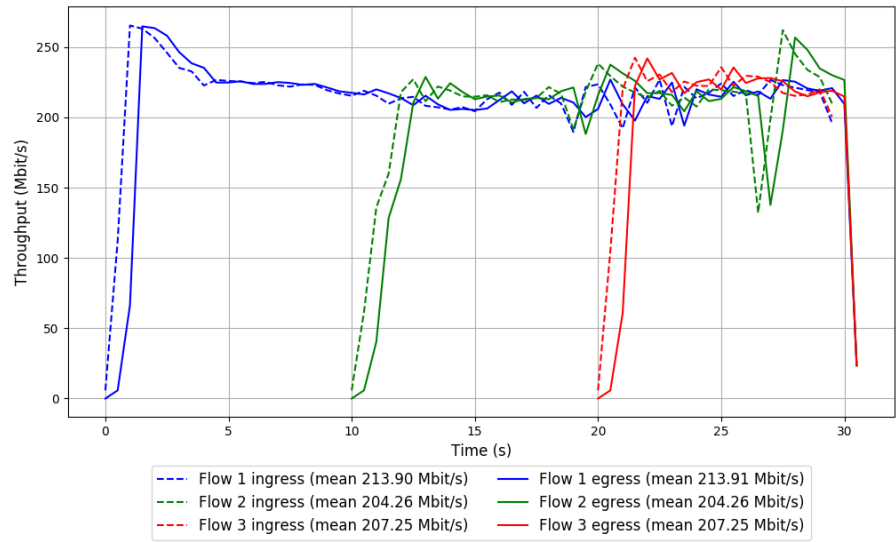
-- Flow 3:

Average throughput: 207.25 Mbit/s

95th percentile per-packet one-way delay: 87.215 ms

Loss rate: 0.00%

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

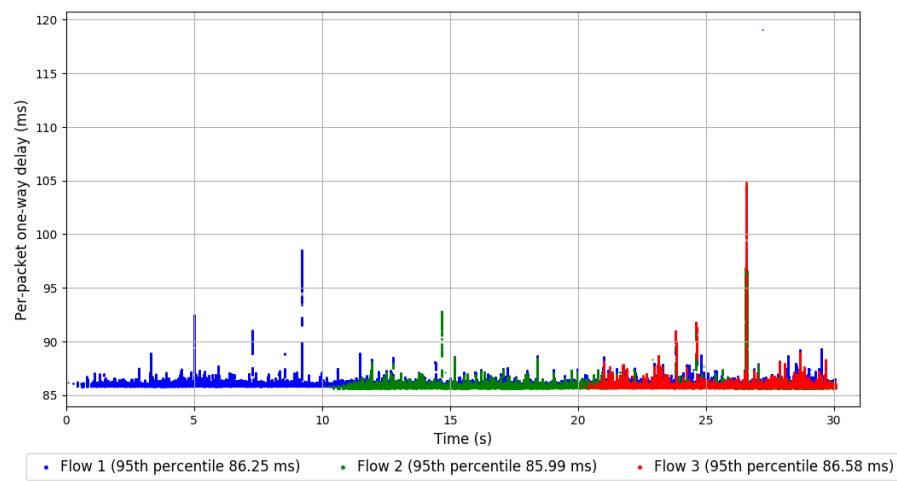
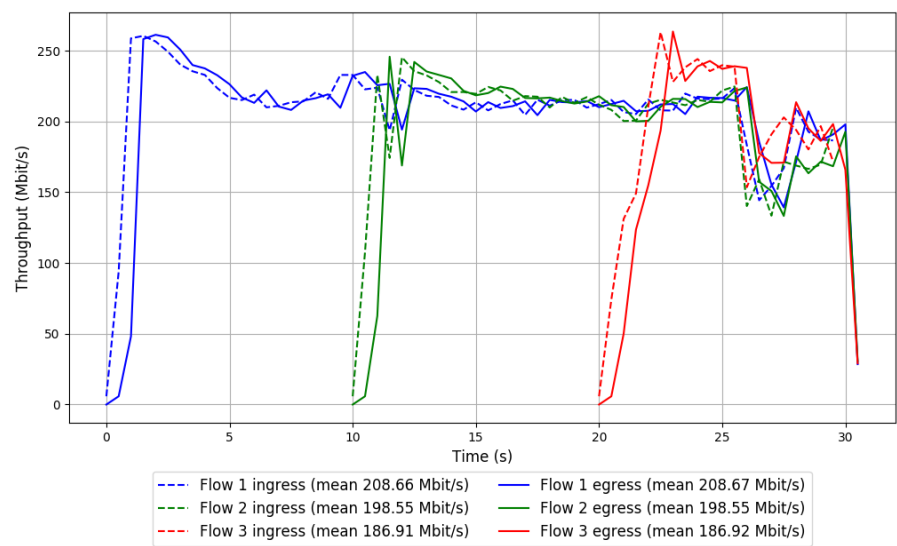


Run 2: Statistics of TaoVA-100x

Start at: 2018-09-25 09:55:24  
End at: 2018-09-25 09:55:54  
Local clock offset: 0.006 ms  
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-09-25 14:14:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 403.02 Mbit/s  
95th percentile per-packet one-way delay: 86.216 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 208.67 Mbit/s  
95th percentile per-packet one-way delay: 86.254 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 198.55 Mbit/s  
95th percentile per-packet one-way delay: 85.990 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 186.92 Mbit/s  
95th percentile per-packet one-way delay: 86.579 ms  
Loss rate: 0.00%

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



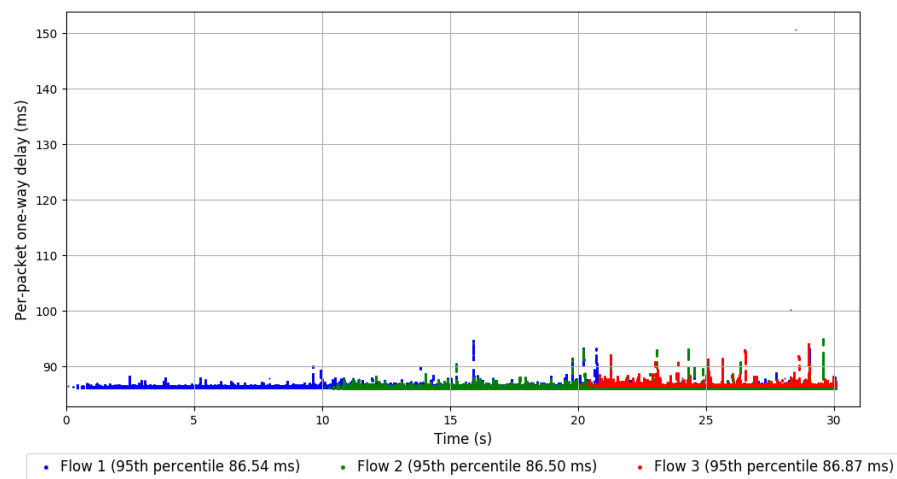
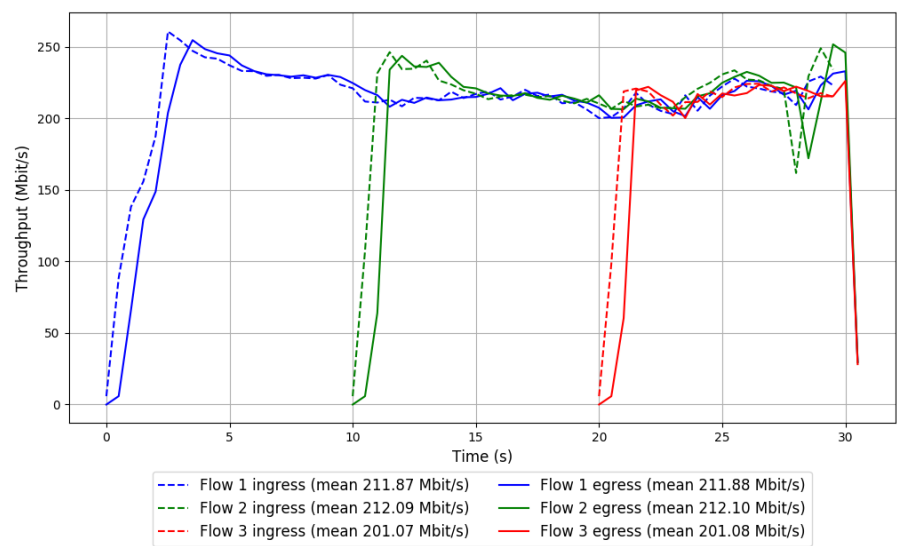


Run 3: Statistics of TaoVA-100x

Start at: 2018-09-25 10:29:26  
End at: 2018-09-25 10:29:56  
Local clock offset: -0.414 ms  
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-09-25 14:14:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 419.95 Mbit/s  
95th percentile per-packet one-way delay: 86.605 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 211.88 Mbit/s  
95th percentile per-packet one-way delay: 86.536 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 212.10 Mbit/s  
95th percentile per-packet one-way delay: 86.496 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 201.08 Mbit/s  
95th percentile per-packet one-way delay: 86.874 ms  
Loss rate: 0.00%

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

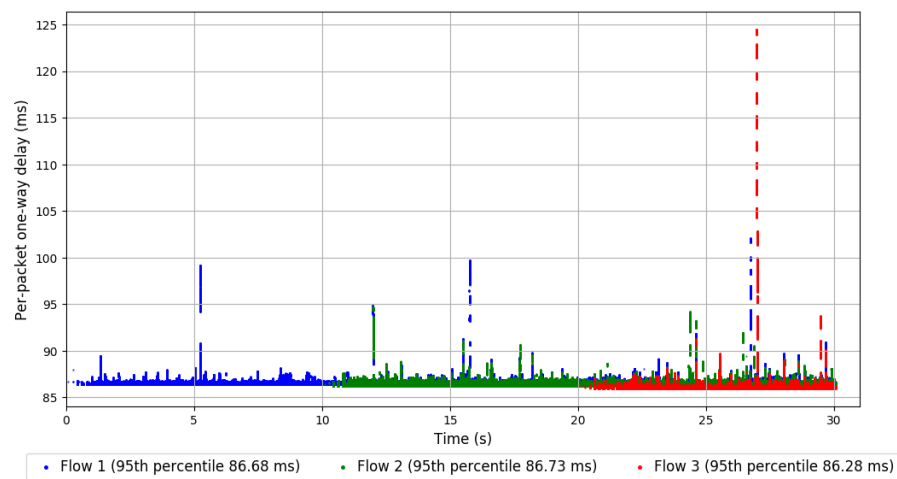
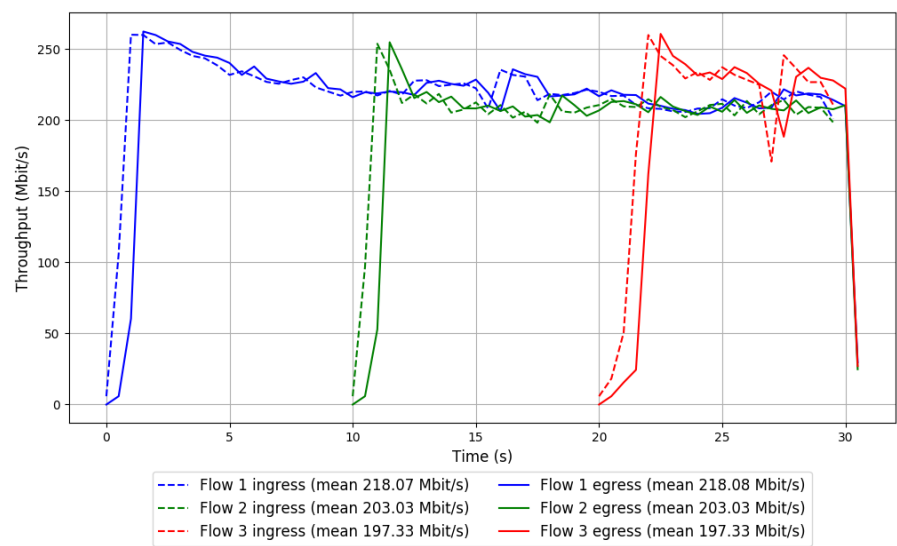


Run 4: Statistics of TaoVA-100x

Start at: 2018-09-25 11:03:34  
End at: 2018-09-25 11:04:04  
Local clock offset: -0.368 ms  
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-09-25 14:14:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 418.77 Mbit/s  
95th percentile per-packet one-way delay: 86.678 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 218.08 Mbit/s  
95th percentile per-packet one-way delay: 86.678 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 203.03 Mbit/s  
95th percentile per-packet one-way delay: 86.733 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 197.33 Mbit/s  
95th percentile per-packet one-way delay: 86.276 ms  
Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-09-25 11:37:46

End at: 2018-09-25 11:38:16

Local clock offset: -0.161 ms

Remote clock offset: 0.019 ms

# Below is generated by plot.py at 2018-09-25 14:17:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 422.18 Mbit/s

95th percentile per-packet one-way delay: 86.689 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 218.05 Mbit/s

95th percentile per-packet one-way delay: 86.589 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 208.54 Mbit/s

95th percentile per-packet one-way delay: 86.719 ms

Loss rate: 0.00%

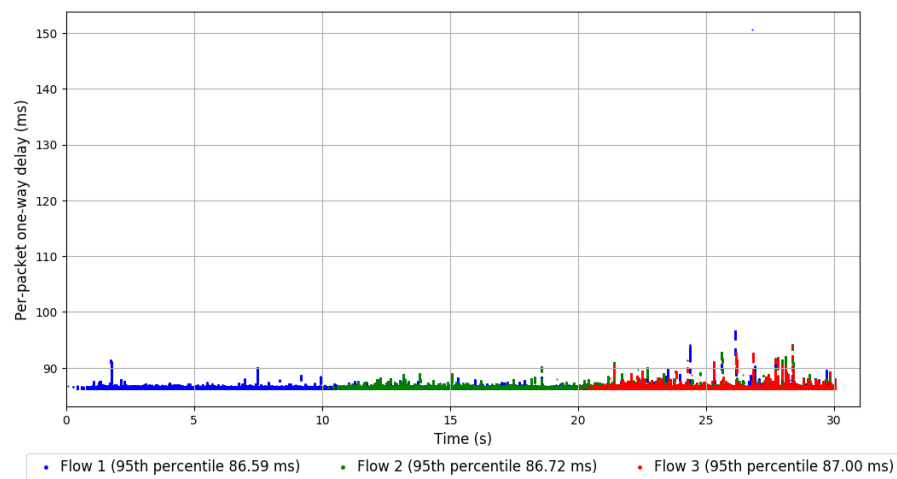
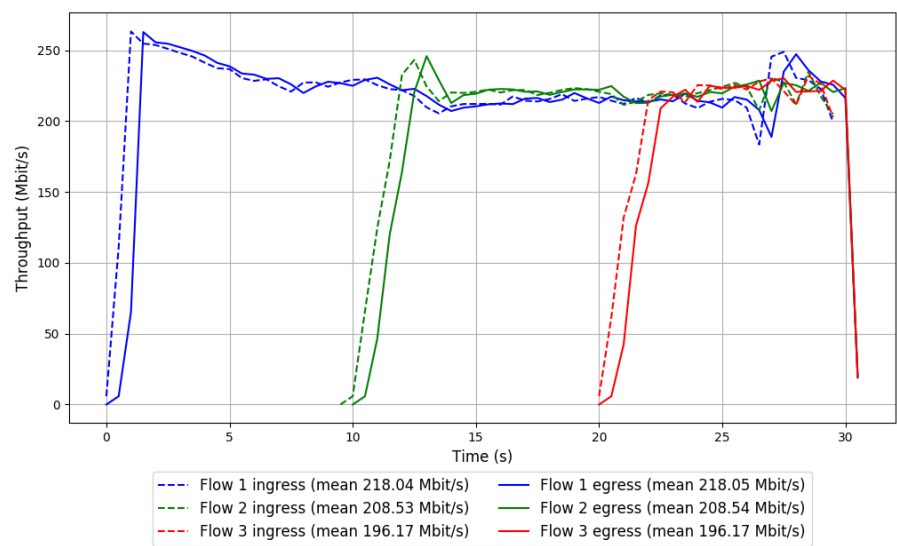
-- Flow 3:

Average throughput: 196.17 Mbit/s

95th percentile per-packet one-way delay: 87.000 ms

Loss rate: 0.00%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-09-25 08:51:21

End at: 2018-09-25 08:51:51

Local clock offset: 0.281 ms

Remote clock offset: 0.075 ms

# Below is generated by plot.py at 2018-09-25 14:18:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 656.11 Mbit/s

95th percentile per-packet one-way delay: 87.056 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 364.54 Mbit/s

95th percentile per-packet one-way delay: 86.728 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 278.27 Mbit/s

95th percentile per-packet one-way delay: 86.474 ms

Loss rate: 0.00%

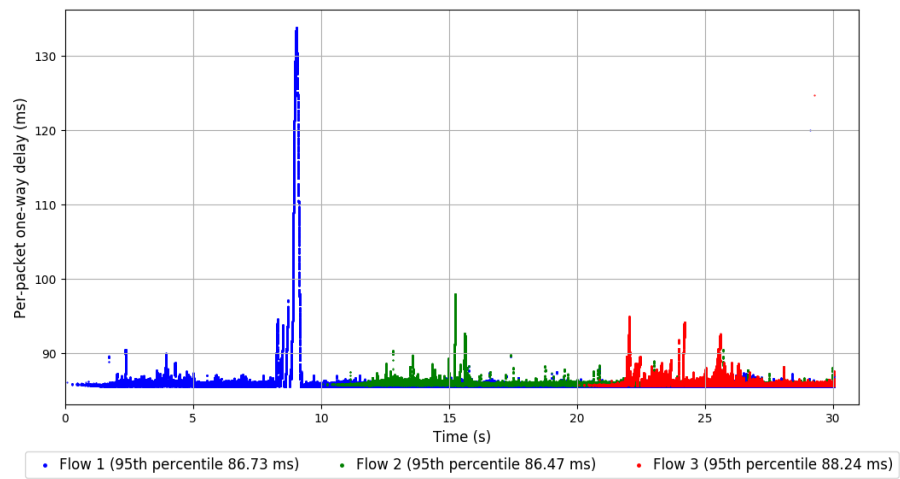
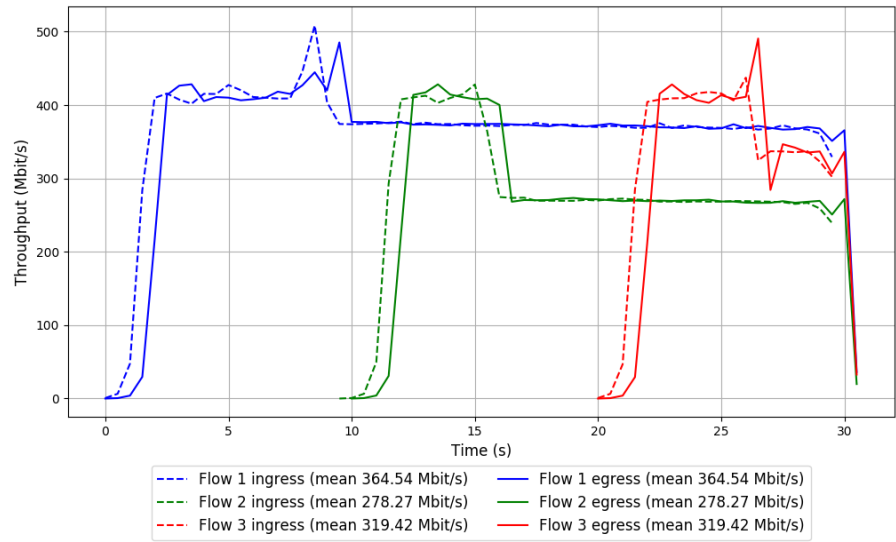
-- Flow 3:

Average throughput: 319.42 Mbit/s

95th percentile per-packet one-way delay: 88.236 ms

Loss rate: 0.00%

# Run 1: Report of TCP Vegas — Data Link





Run 2: Statistics of TCP Vegas

Start at: 2018-09-25 09:25:22

End at: 2018-09-25 09:25:52

Local clock offset: -0.196 ms

Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2018-09-25 14:27:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 956.18 Mbit/s

95th percentile per-packet one-way delay: 121.722 ms

Loss rate: 0.32%

-- Flow 1:

Average throughput: 493.02 Mbit/s

95th percentile per-packet one-way delay: 94.996 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 475.99 Mbit/s

95th percentile per-packet one-way delay: 106.587 ms

Loss rate: 0.01%

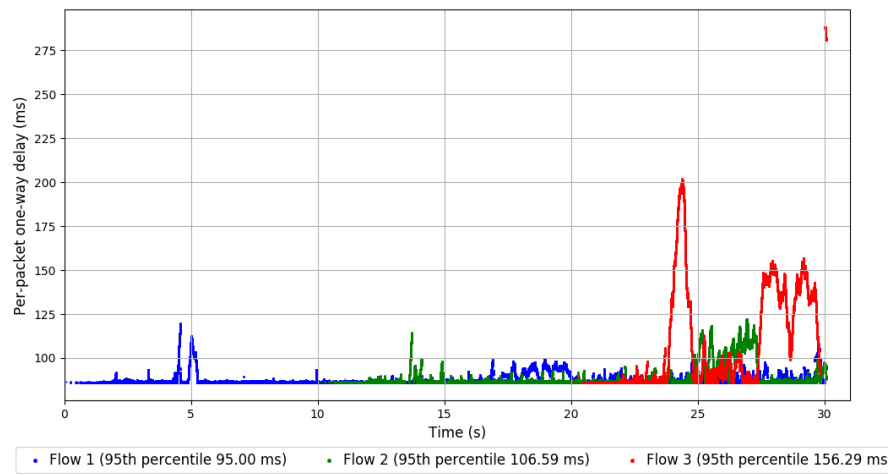
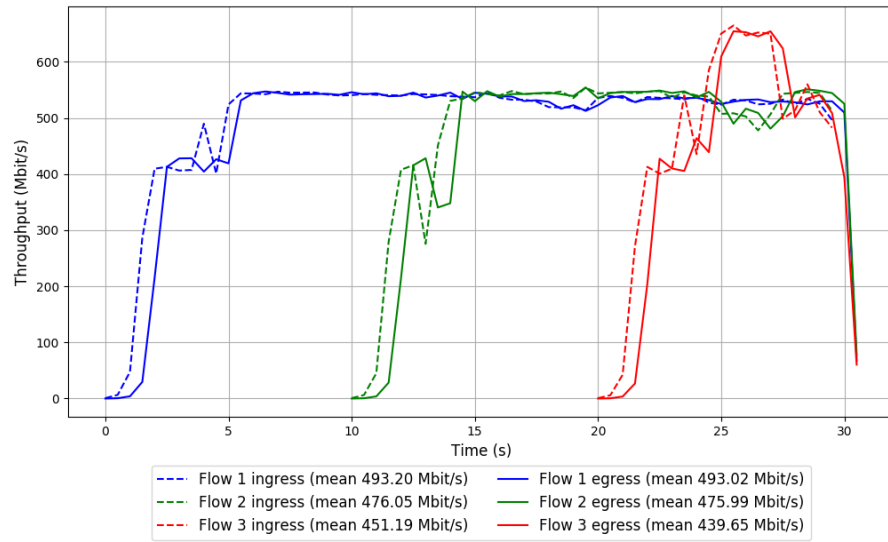
-- Flow 3:

Average throughput: 439.65 Mbit/s

95th percentile per-packet one-way delay: 156.291 ms

Loss rate: 1.95%

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



Run 3: Statistics of TCP Vegas

Start at: 2018-09-25 09:59:48

End at: 2018-09-25 10:00:18

Local clock offset: -0.46 ms

Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-09-25 14:27:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 760.13 Mbit/s

95th percentile per-packet one-way delay: 88.523 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 325.84 Mbit/s

95th percentile per-packet one-way delay: 86.685 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 488.08 Mbit/s

95th percentile per-packet one-way delay: 90.636 ms

Loss rate: 0.00%

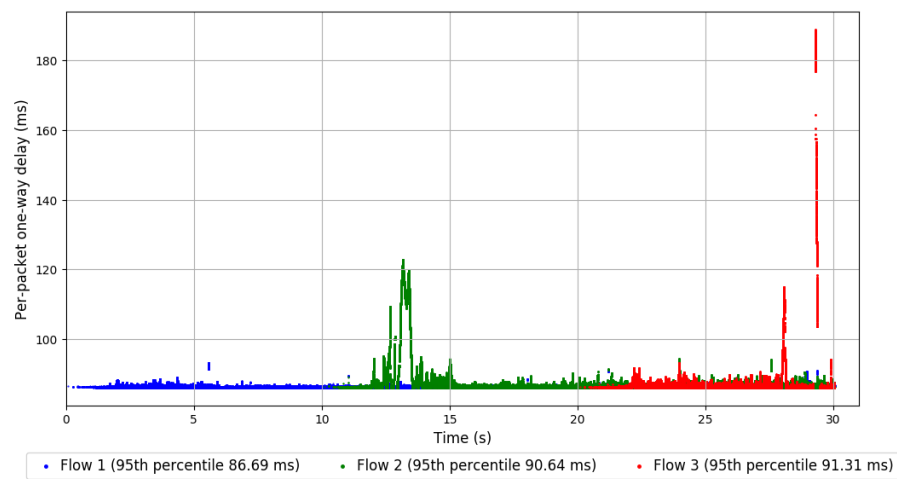
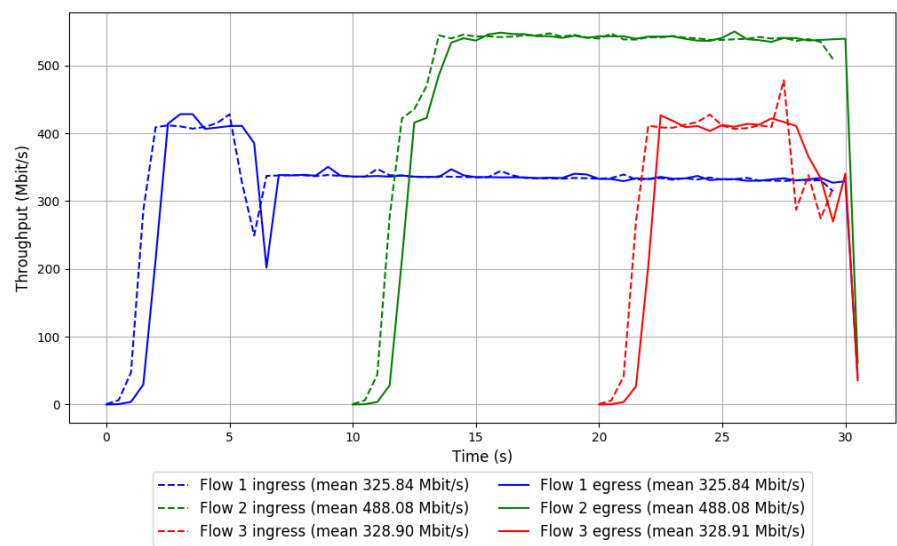
-- Flow 3:

Average throughput: 328.91 Mbit/s

95th percentile per-packet one-way delay: 91.314 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link

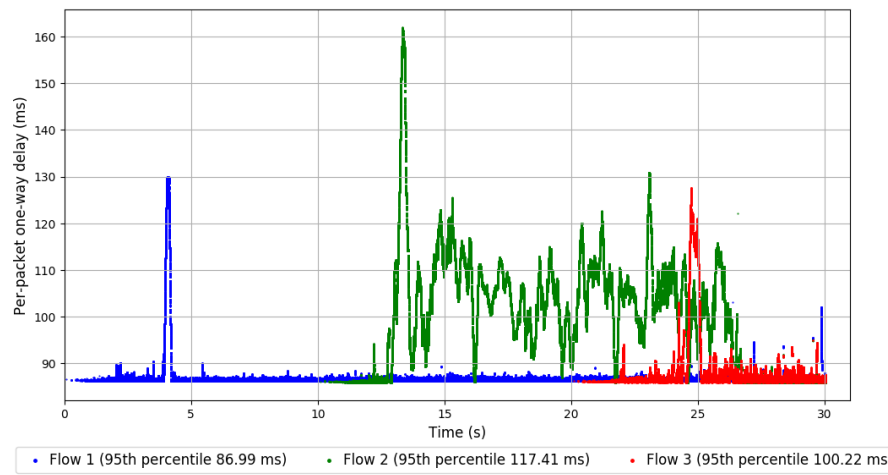
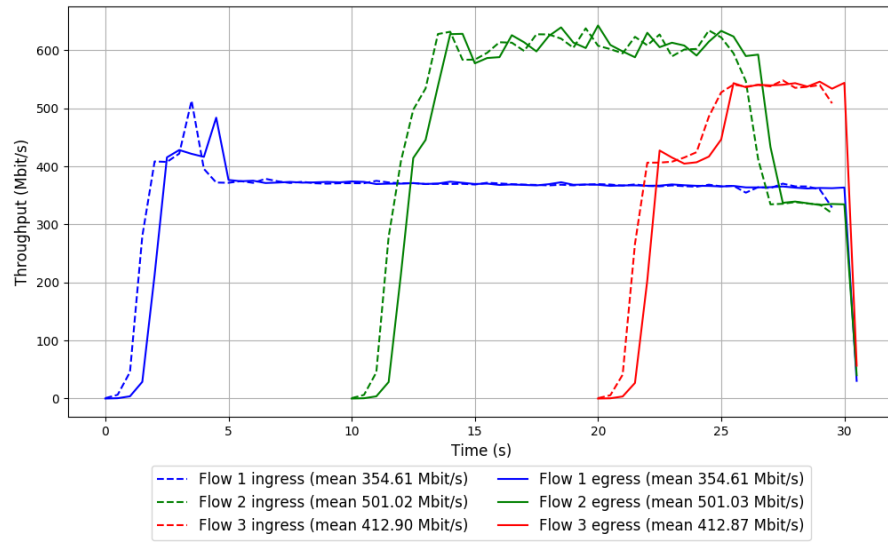


Run 4: Statistics of TCP Vegas

Start at: 2018-09-25 10:33:50  
End at: 2018-09-25 10:34:20  
Local clock offset: -0.325 ms  
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-09-25 14:30:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 825.36 Mbit/s  
95th percentile per-packet one-way delay: 113.462 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 354.61 Mbit/s  
95th percentile per-packet one-way delay: 86.993 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 501.03 Mbit/s  
95th percentile per-packet one-way delay: 117.408 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 412.87 Mbit/s  
95th percentile per-packet one-way delay: 100.223 ms  
Loss rate: 0.00%

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

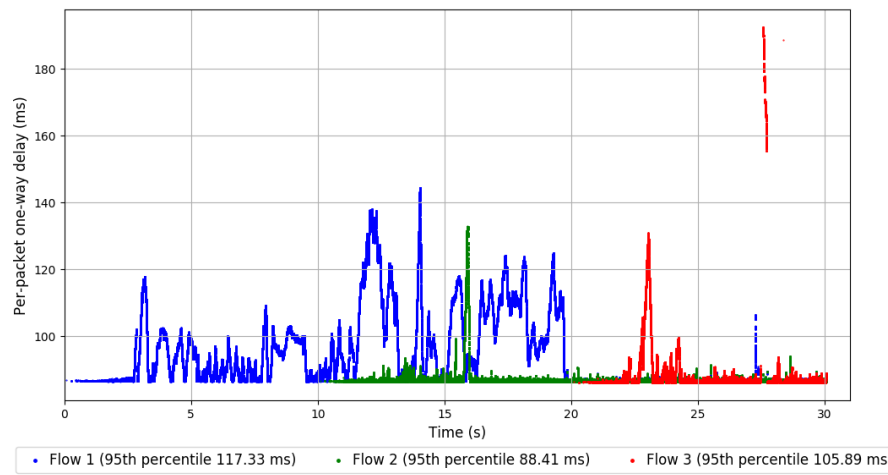
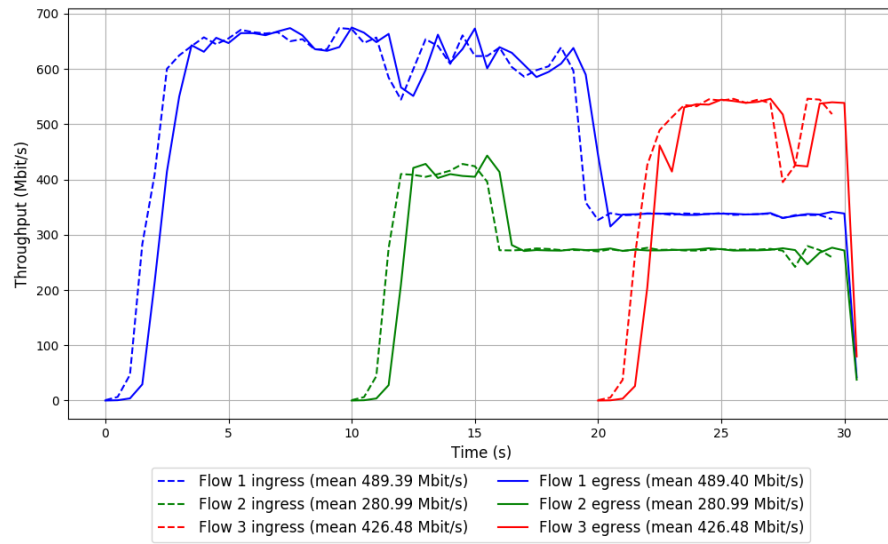


Run 5: Statistics of TCP Vegas

Start at: 2018-09-25 11:08:00  
End at: 2018-09-25 11:08:30  
Local clock offset: -0.252 ms  
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-09-25 14:30:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 818.10 Mbit/s  
95th percentile per-packet one-way delay: 115.436 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 489.40 Mbit/s  
95th percentile per-packet one-way delay: 117.334 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 280.99 Mbit/s  
95th percentile per-packet one-way delay: 88.413 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 426.48 Mbit/s  
95th percentile per-packet one-way delay: 105.888 ms  
Loss rate: 0.00%

# Run 5: Report of TCP Vegas — Data Link





Run 1: Statistics of Verus

Start at: 2018-09-25 08:56:30

End at: 2018-09-25 08:57:00

Local clock offset: -0.353 ms

Remote clock offset: 0.057 ms

# Below is generated by plot.py at 2018-09-25 14:30:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 292.56 Mbit/s

95th percentile per-packet one-way delay: 218.222 ms

Loss rate: 2.08%

-- Flow 1:

Average throughput: 163.55 Mbit/s

95th percentile per-packet one-way delay: 230.328 ms

Loss rate: 3.45%

-- Flow 2:

Average throughput: 151.37 Mbit/s

95th percentile per-packet one-way delay: 178.393 ms

Loss rate: 0.43%

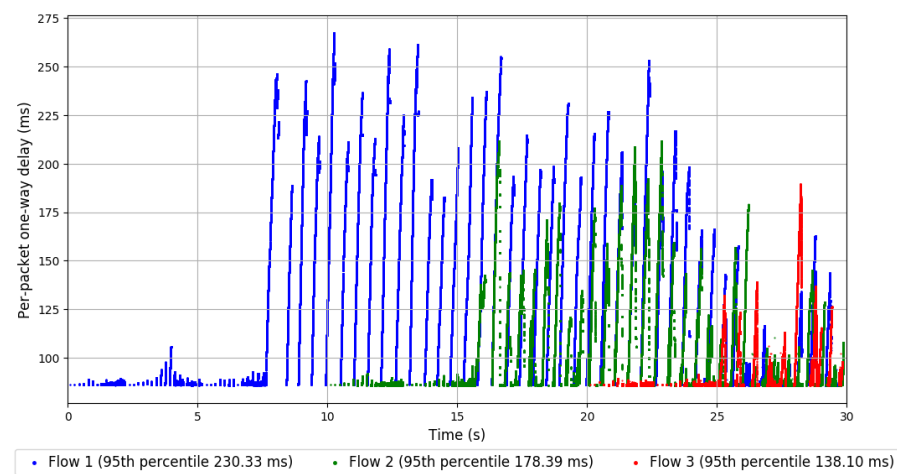
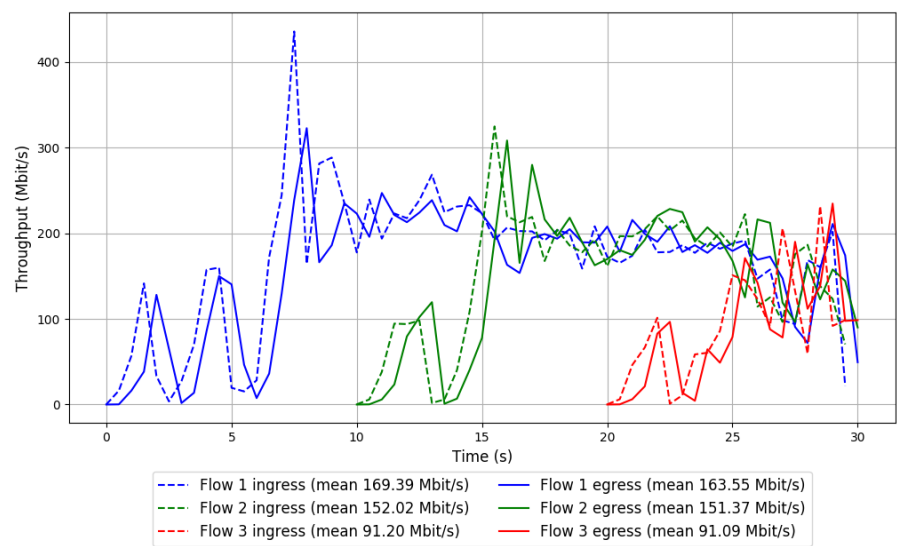
-- Flow 3:

Average throughput: 91.09 Mbit/s

95th percentile per-packet one-way delay: 138.099 ms

Loss rate: 0.00%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-09-25 09:30:36

End at: 2018-09-25 09:31:06

Local clock offset: -0.151 ms

Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2018-09-25 14:30:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 299.56 Mbit/s

95th percentile per-packet one-way delay: 220.738 ms

Loss rate: 3.39%

-- Flow 1:

Average throughput: 211.88 Mbit/s

95th percentile per-packet one-way delay: 222.643 ms

Loss rate: 4.58%

-- Flow 2:

Average throughput: 119.31 Mbit/s

95th percentile per-packet one-way delay: 216.127 ms

Loss rate: 0.49%

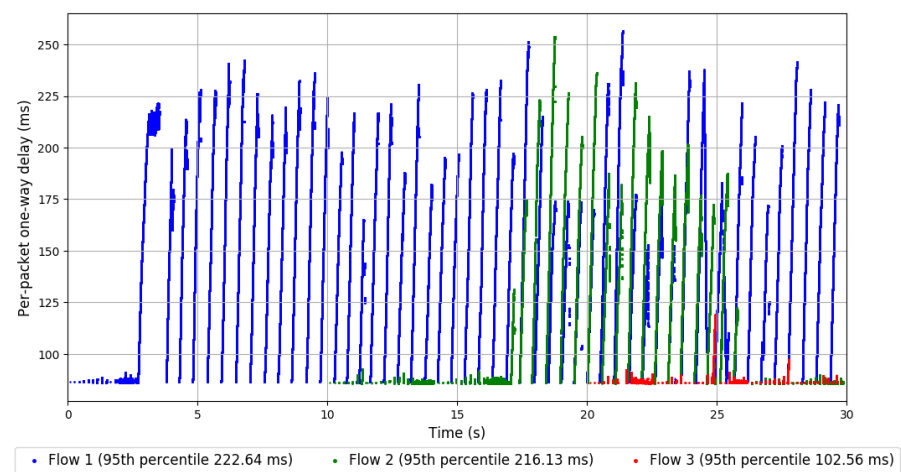
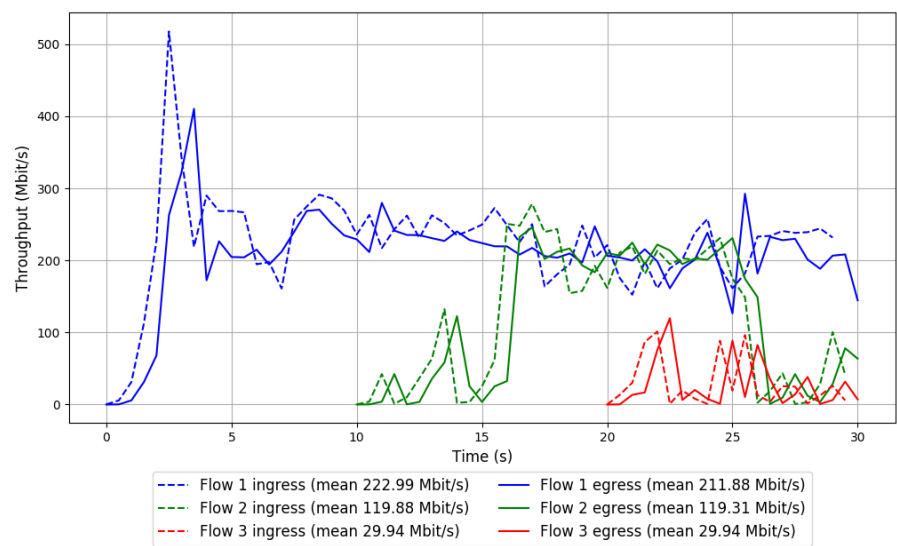
-- Flow 3:

Average throughput: 29.94 Mbit/s

95th percentile per-packet one-way delay: 102.561 ms

Loss rate: 0.00%

Run 2: Report of Verus — Data Link

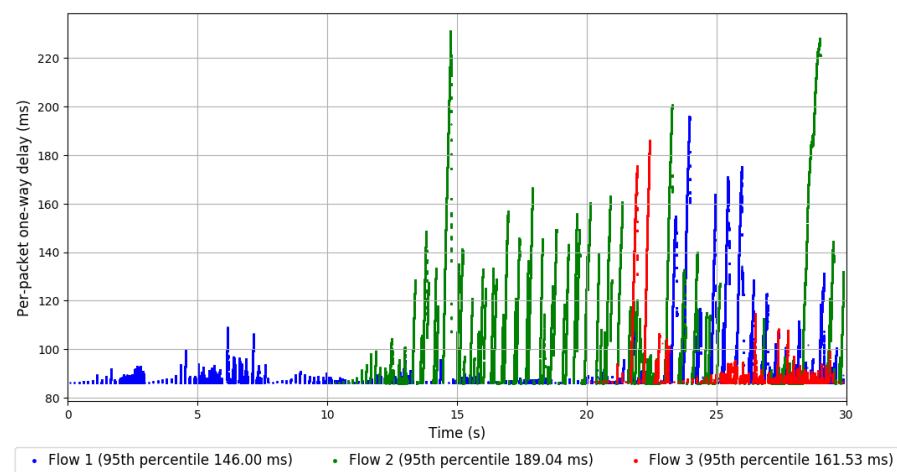
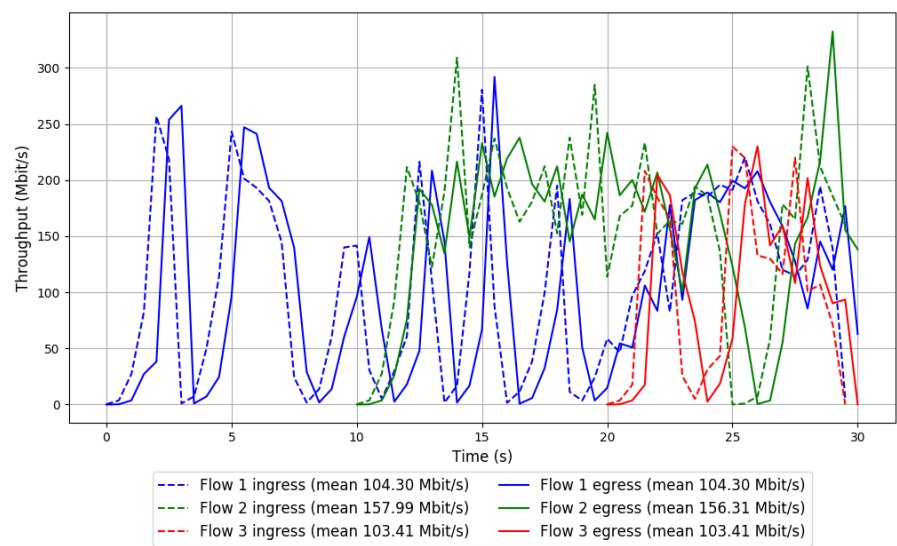


Run 3: Statistics of Verus

Start at: 2018-09-25 10:05:05  
End at: 2018-09-25 10:05:35  
Local clock offset: -0.275 ms  
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-09-25 14:30:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 241.85 Mbit/s  
95th percentile per-packet one-way delay: 166.643 ms  
Loss rate: 0.46%  
-- Flow 1:  
Average throughput: 104.30 Mbit/s  
95th percentile per-packet one-way delay: 146.002 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 156.31 Mbit/s  
95th percentile per-packet one-way delay: 189.045 ms  
Loss rate: 1.07%  
-- Flow 3:  
Average throughput: 103.41 Mbit/s  
95th percentile per-packet one-way delay: 161.534 ms  
Loss rate: 0.00%

Run 3: Report of Verus — Data Link

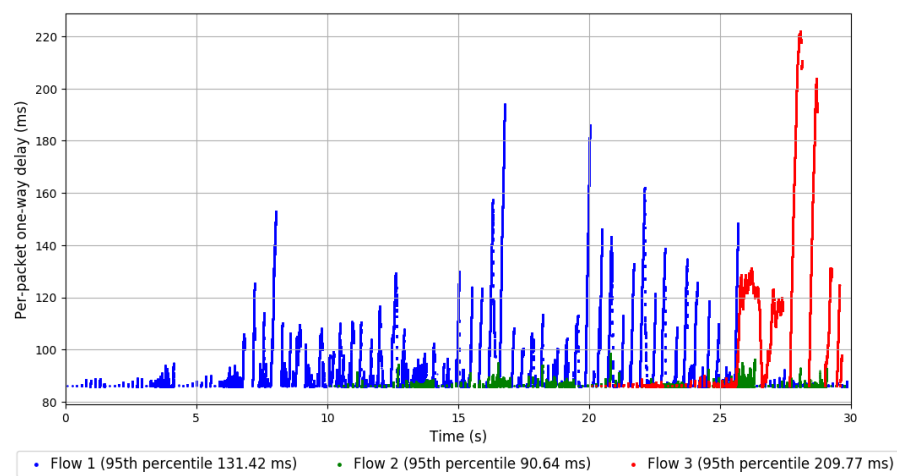
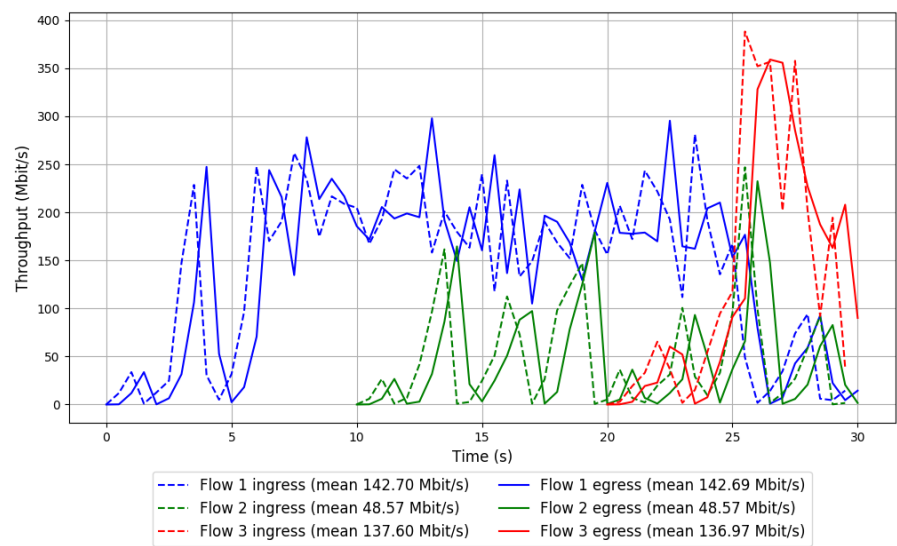


Run 4: Statistics of Verus

Start at: 2018-09-25 10:39:03  
End at: 2018-09-25 10:39:33  
Local clock offset: -0.335 ms  
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-09-25 14:30:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 218.75 Mbit/s  
95th percentile per-packet one-way delay: 144.144 ms  
Loss rate: 0.07%  
-- Flow 1:  
Average throughput: 142.69 Mbit/s  
95th percentile per-packet one-way delay: 131.417 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 48.57 Mbit/s  
95th percentile per-packet one-way delay: 90.641 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 136.97 Mbit/s  
95th percentile per-packet one-way delay: 209.769 ms  
Loss rate: 0.35%

Run 4: Report of Verus — Data Link



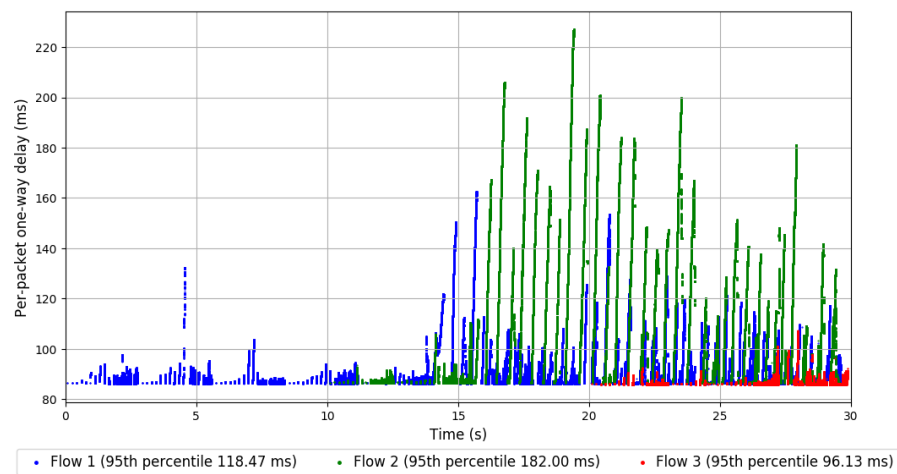
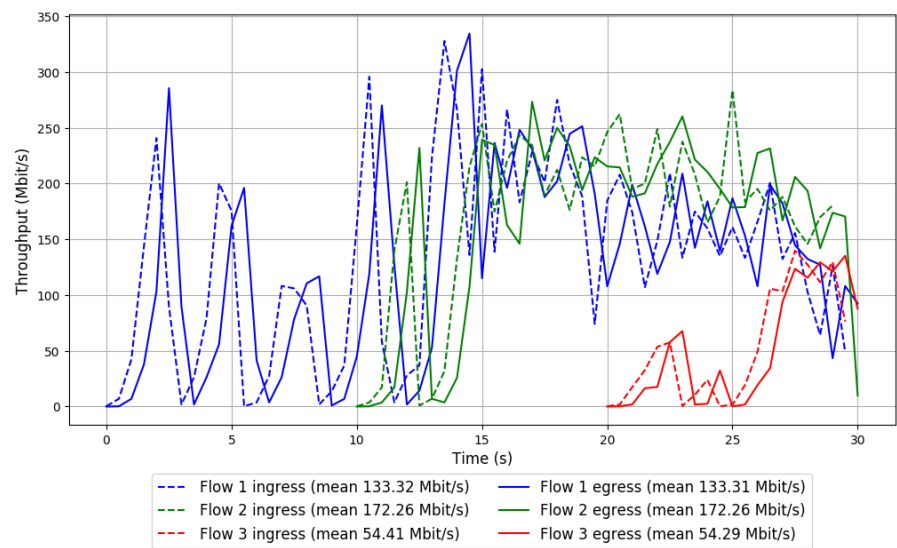


Run 5: Statistics of Verus

Start at: 2018-09-25 11:13:21  
End at: 2018-09-25 11:13:51  
Local clock offset: -0.209 ms  
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-09-25 14:34:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 263.54 Mbit/s  
95th percentile per-packet one-way delay: 162.088 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 133.31 Mbit/s  
95th percentile per-packet one-way delay: 118.466 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 172.26 Mbit/s  
95th percentile per-packet one-way delay: 181.999 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 54.29 Mbit/s  
95th percentile per-packet one-way delay: 96.128 ms  
Loss rate: 0.18%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

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

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

Local clock offset: -0.338 ms

Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2018-09-25 14:34:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 529.10 Mbit/s

95th percentile per-packet one-way delay: 90.356 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 299.76 Mbit/s

95th percentile per-packet one-way delay: 87.031 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 272.98 Mbit/s

95th percentile per-packet one-way delay: 109.035 ms

Loss rate: 0.00%

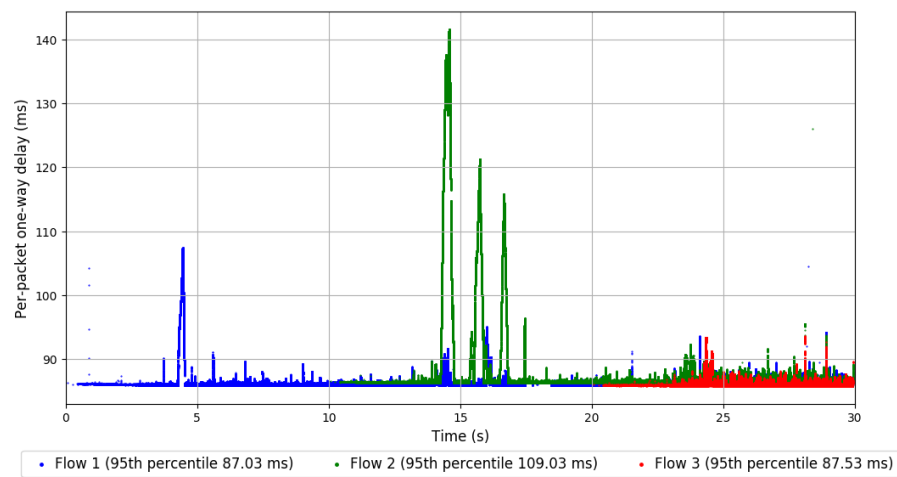
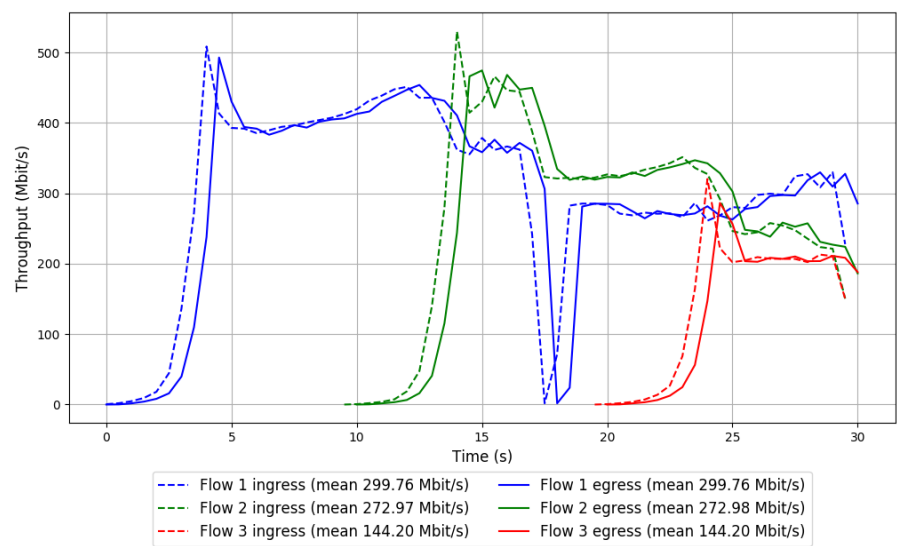
-- Flow 3:

Average throughput: 144.20 Mbit/s

95th percentile per-packet one-way delay: 87.533 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

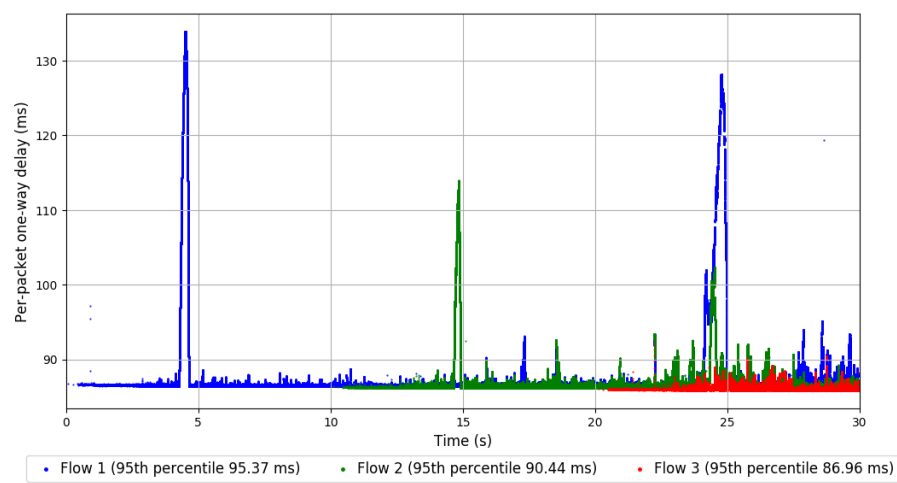
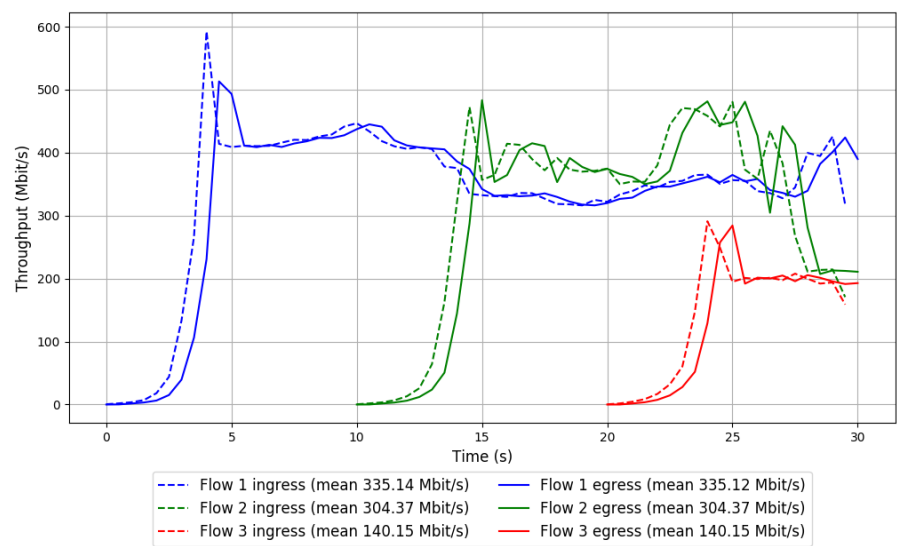


Run 2: Statistics of PCC-Vivace

Start at: 2018-09-25 09:53:27  
End at: 2018-09-25 09:53:57  
Local clock offset: -0.281 ms  
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-09-25 14:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 583.54 Mbit/s  
95th percentile per-packet one-way delay: 90.929 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 335.12 Mbit/s  
95th percentile per-packet one-way delay: 95.369 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 304.37 Mbit/s  
95th percentile per-packet one-way delay: 90.435 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 140.15 Mbit/s  
95th percentile per-packet one-way delay: 86.963 ms  
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

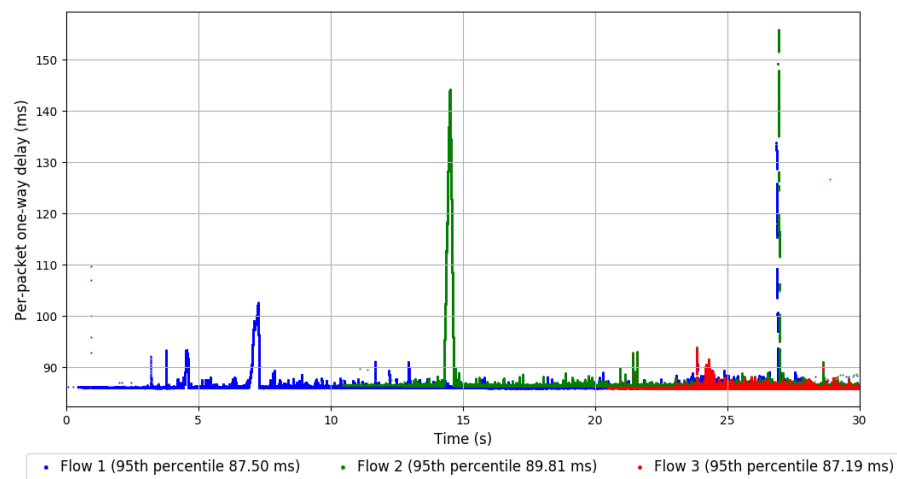
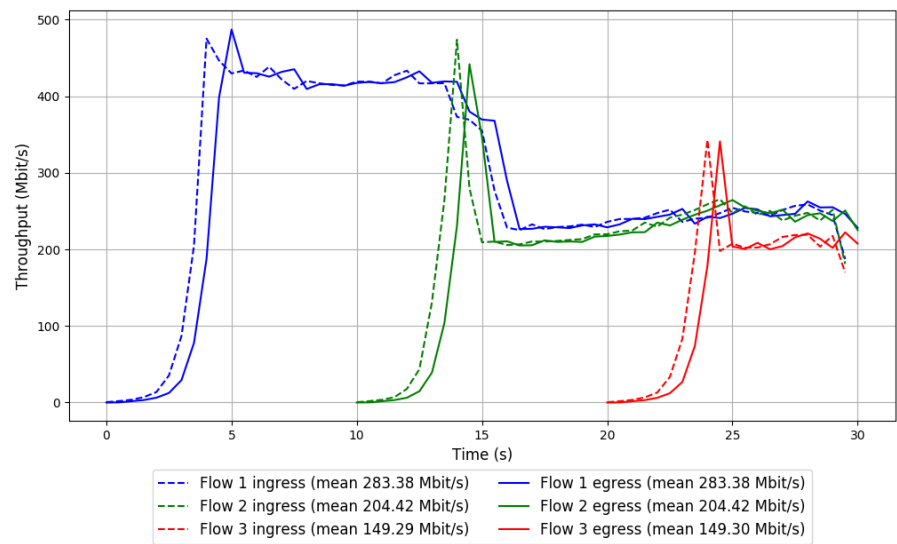


Run 3: Statistics of PCC-Vivace

Start at: 2018-09-25 10:27:36  
End at: 2018-09-25 10:28:06  
Local clock offset: -0.348 ms  
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-09-25 14:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 468.56 Mbit/s  
95th percentile per-packet one-way delay: 87.617 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 283.38 Mbit/s  
95th percentile per-packet one-way delay: 87.495 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 204.42 Mbit/s  
95th percentile per-packet one-way delay: 89.808 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 149.30 Mbit/s  
95th percentile per-packet one-way delay: 87.195 ms  
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



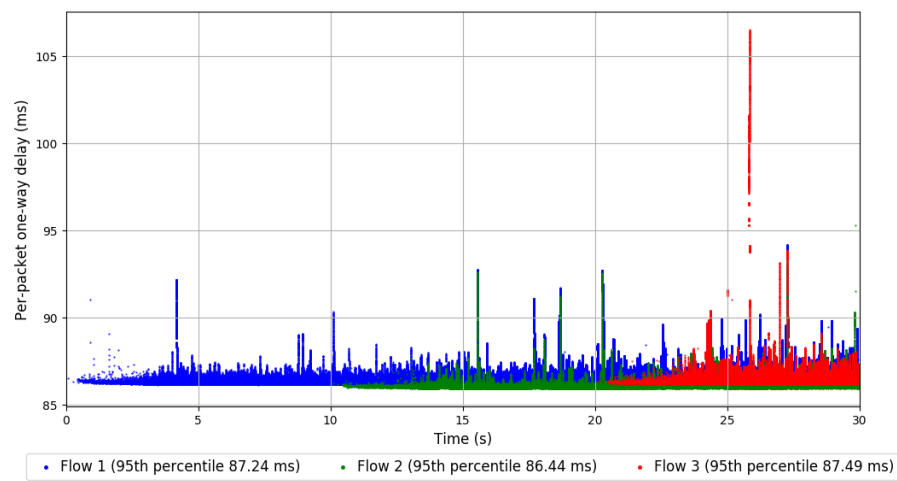
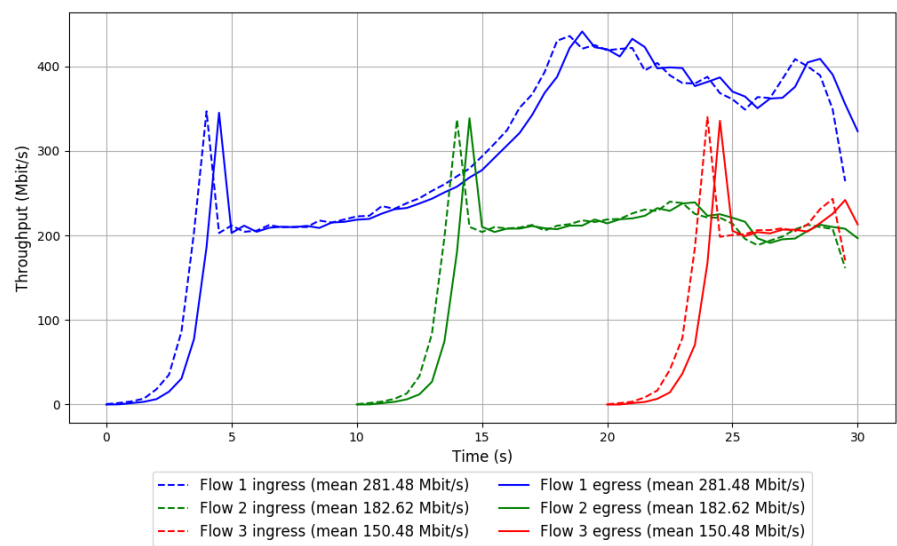


Run 4: Statistics of PCC-Vivace

Start at: 2018-09-25 11:01:47  
End at: 2018-09-25 11:02:17  
Local clock offset: -0.28 ms  
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-09-25 14:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 452.37 Mbit/s  
95th percentile per-packet one-way delay: 87.110 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 281.48 Mbit/s  
95th percentile per-packet one-way delay: 87.243 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 182.62 Mbit/s  
95th percentile per-packet one-way delay: 86.437 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 150.48 Mbit/s  
95th percentile per-packet one-way delay: 87.490 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

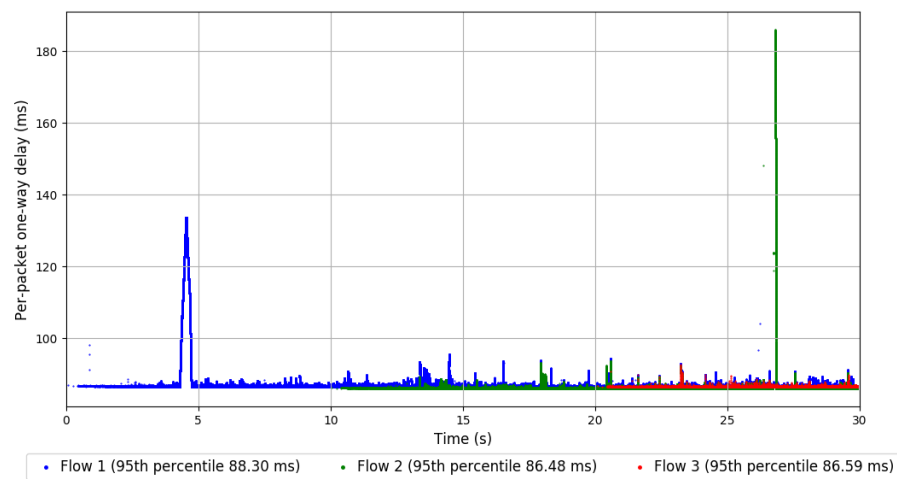
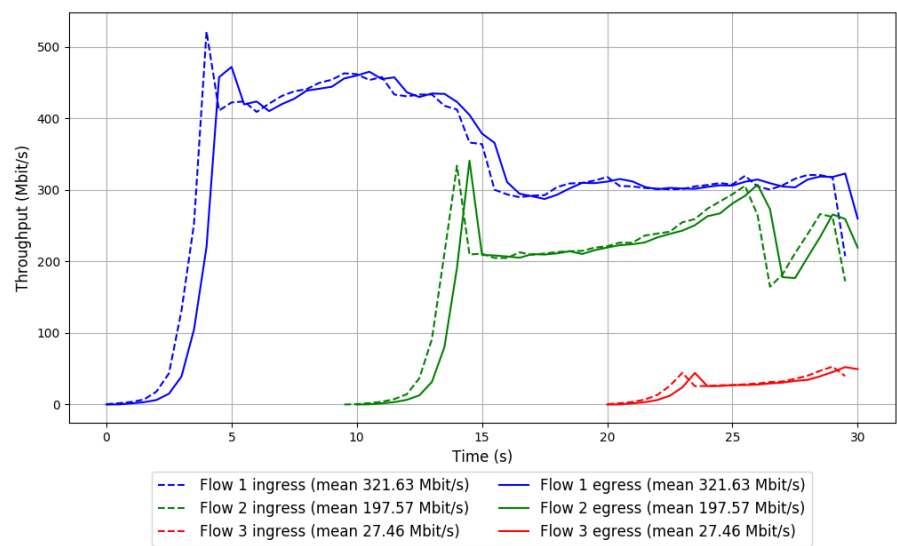


Run 5: Statistics of PCC-Vivace

Start at: 2018-09-25 11:35:58  
End at: 2018-09-25 11:36:28  
Local clock offset: -0.249 ms  
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-09-25 14:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 462.27 Mbit/s  
95th percentile per-packet one-way delay: 87.665 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 321.63 Mbit/s  
95th percentile per-packet one-way delay: 88.298 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 197.57 Mbit/s  
95th percentile per-packet one-way delay: 86.479 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 27.46 Mbit/s  
95th percentile per-packet one-way delay: 86.593 ms  
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

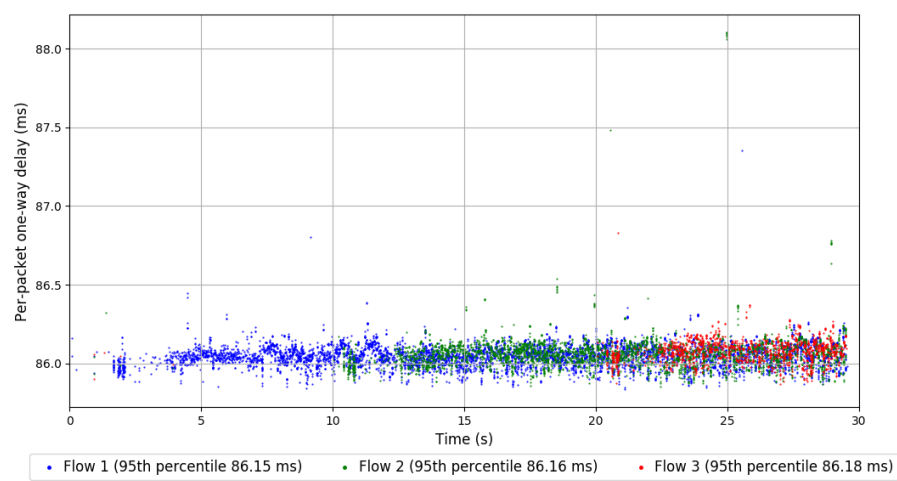
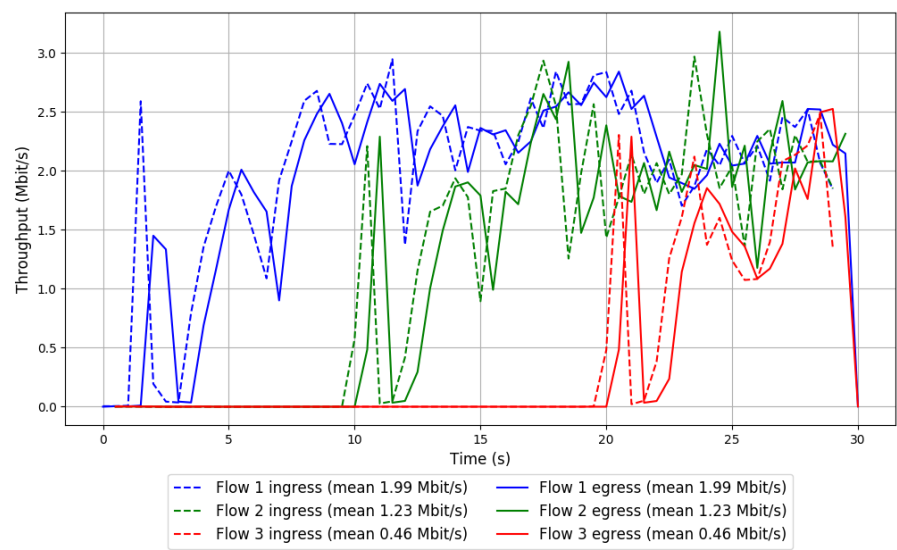


```
Run 1: Statistics of WebRTC media

Start at: 2018-09-25 09:22:54
End at: 2018-09-25 09:23:24
Local clock offset: -0.295 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-09-25 14:35:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 86.158 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 86.148 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 86.155 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 86.183 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

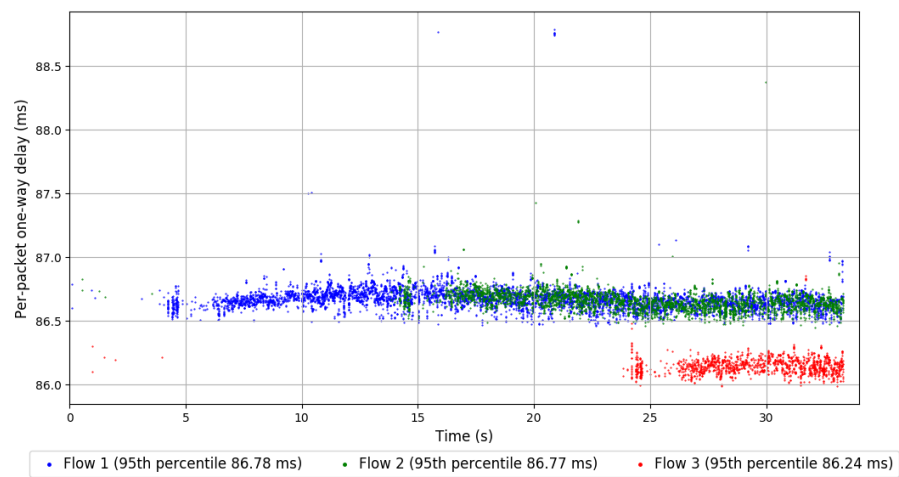
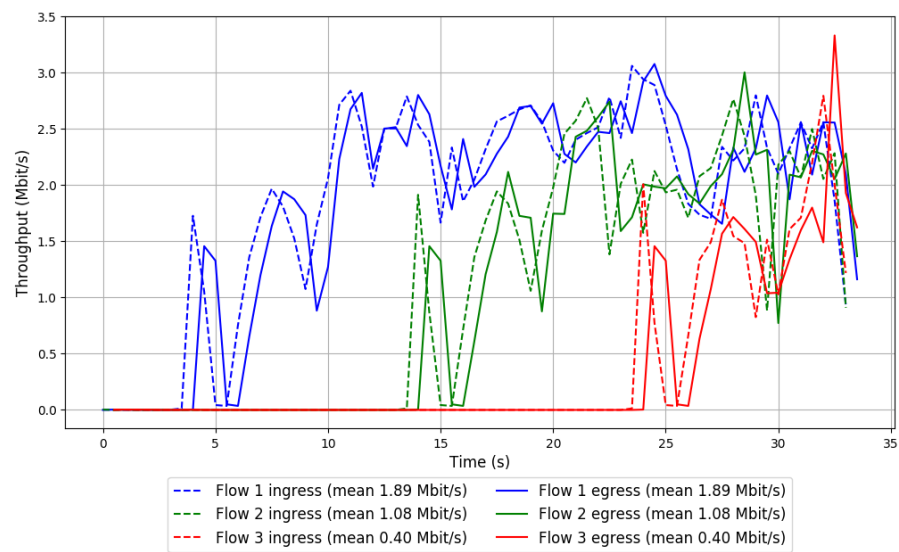


Run 2: Statistics of WebRTC media

Start at: 2018-09-25 09:57:19  
End at: 2018-09-25 09:57:49  
Local clock offset: -0.337 ms  
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-09-25 14:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.35 Mbit/s  
95th percentile per-packet one-way delay: 86.773 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.89 Mbit/s  
95th percentile per-packet one-way delay: 86.785 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.08 Mbit/s  
95th percentile per-packet one-way delay: 86.769 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.40 Mbit/s  
95th percentile per-packet one-way delay: 86.239 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



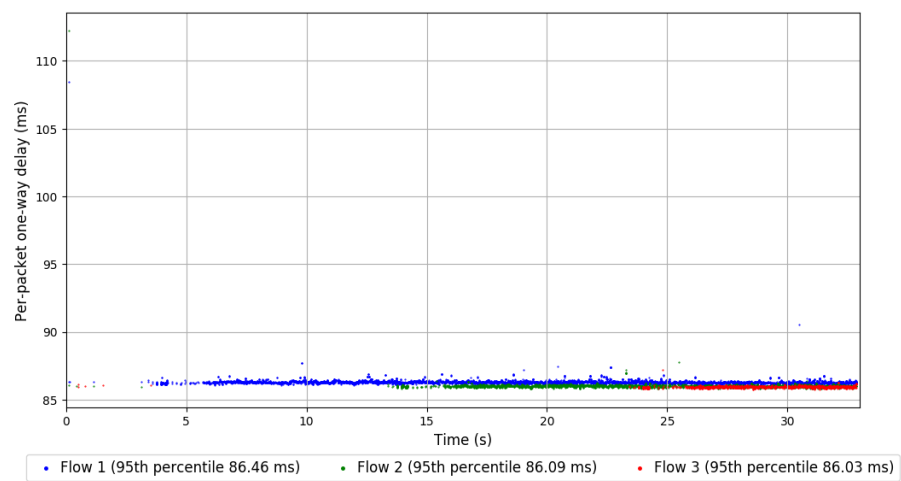
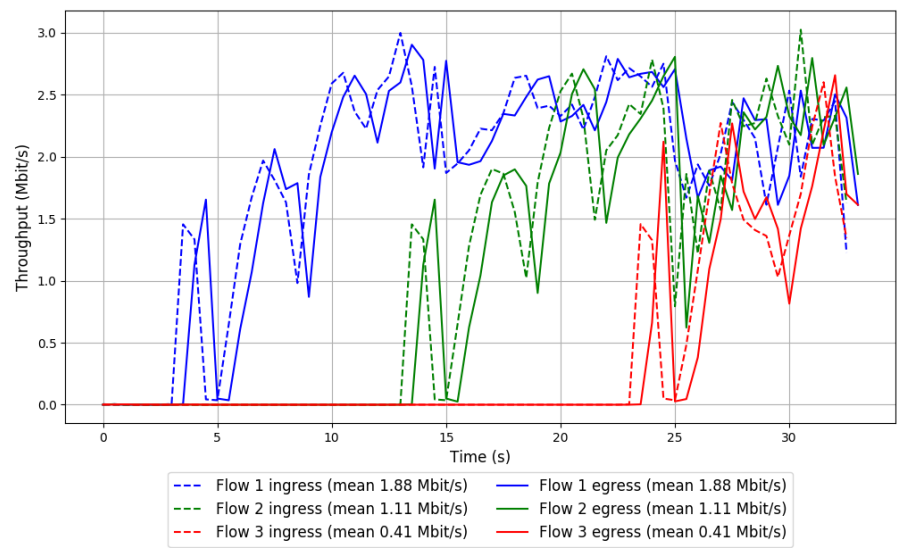


Run 3: Statistics of WebRTC media

Start at: 2018-09-25 10:31:21  
End at: 2018-09-25 10:31:51  
Local clock offset: -0.124 ms  
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-09-25 14:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.40 Mbit/s  
95th percentile per-packet one-way delay: 86.402 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.88 Mbit/s  
95th percentile per-packet one-way delay: 86.460 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.11 Mbit/s  
95th percentile per-packet one-way delay: 86.095 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.41 Mbit/s  
95th percentile per-packet one-way delay: 86.026 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

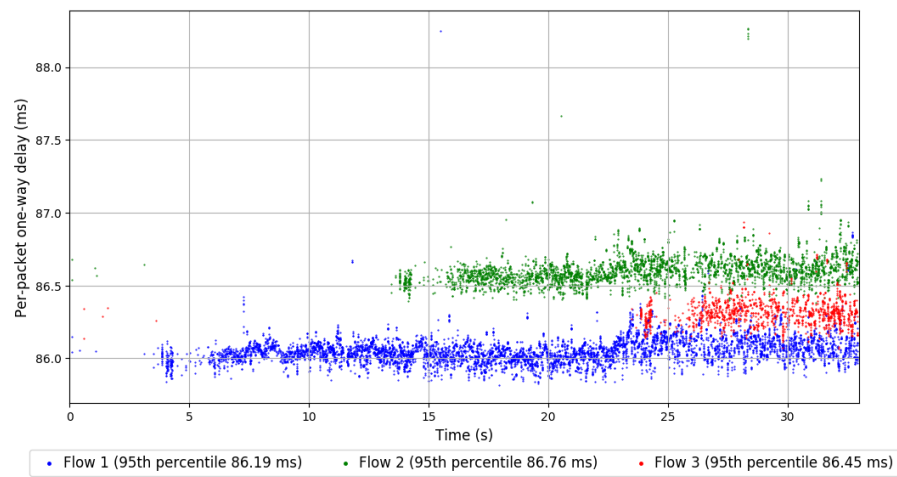
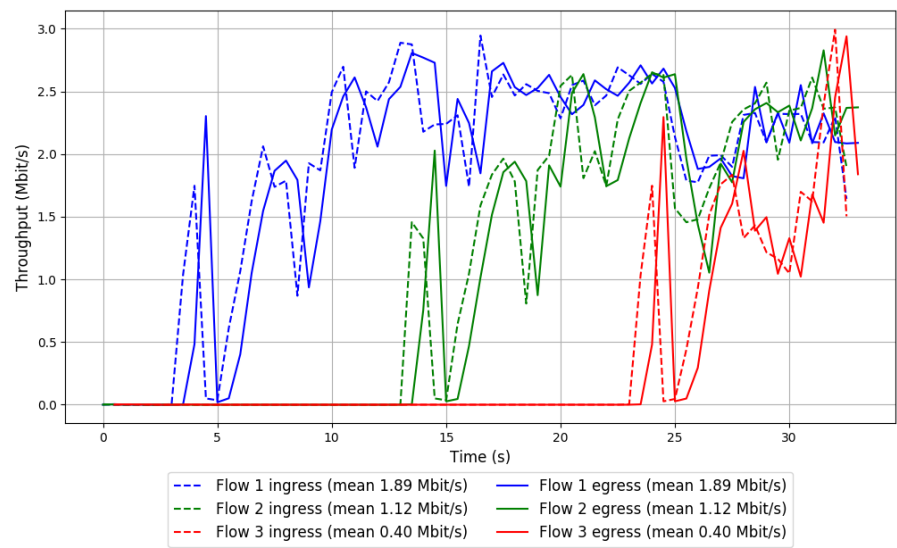


Run 4: Statistics of WebRTC media

Start at: 2018-09-25 11:05:31  
End at: 2018-09-25 11:06:01  
Local clock offset: -0.198 ms  
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2018-09-25 14:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.40 Mbit/s  
95th percentile per-packet one-way delay: 86.682 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.89 Mbit/s  
95th percentile per-packet one-way delay: 86.188 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.12 Mbit/s  
95th percentile per-packet one-way delay: 86.756 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.40 Mbit/s  
95th percentile per-packet one-way delay: 86.453 ms  
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-25 11:39:43  
End at: 2018-09-25 11:40:13  
Local clock offset: -0.249 ms  
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2018-09-25 14:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.47 Mbit/s  
95th percentile per-packet one-way delay: 86.617 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.97 Mbit/s  
95th percentile per-packet one-way delay: 86.632 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.09 Mbit/s  
95th percentile per-packet one-way delay: 86.271 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.41 Mbit/s  
95th percentile per-packet one-way delay: 86.620 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

