

## Pantheon Report

Generated at 2019-02-05 09:41:28 (UTC).

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

Repeated the test of 21 congestion control schemes 5 times.

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

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

### System info:

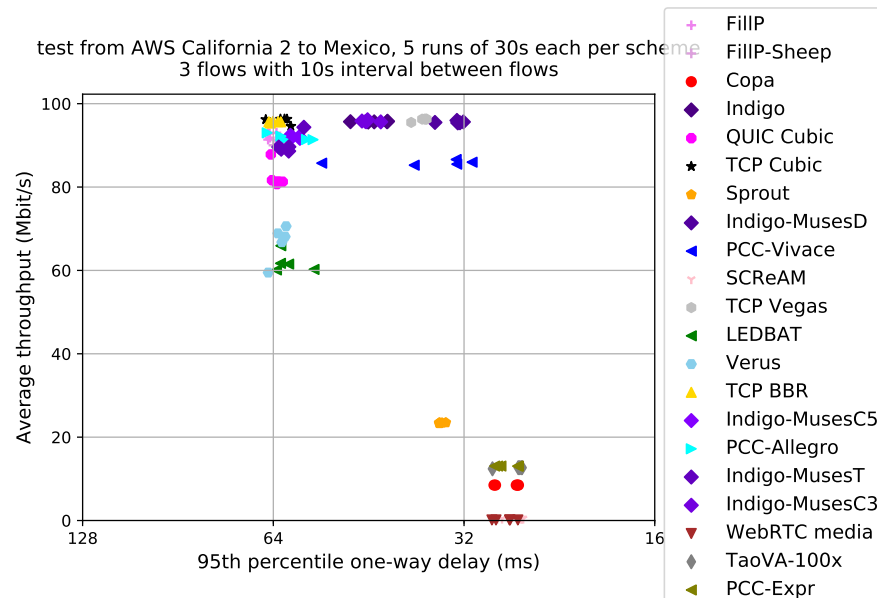
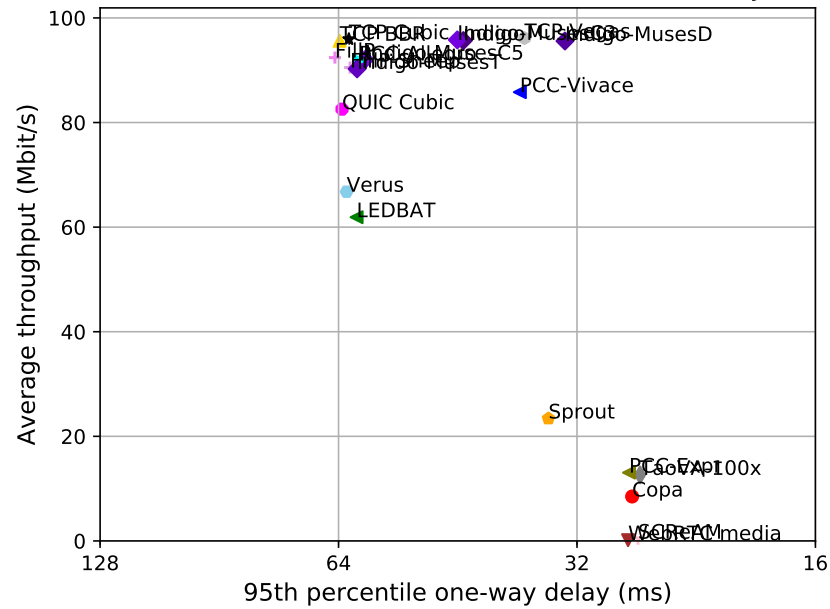
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

third\_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4  
third\_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from AWS California 2 to Mexico, 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	60.63	37.28	30.60	62.35	64.67	65.39	6.31	10.65	11.09
Copa	5	0.00	10.25	5.04	26.90	27.58	26.96	98.59	71.21	79.41
TCP Cubic	5	71.69	25.05	22.76	61.48	62.98	62.31	0.89	0.63	0.82
FillP	5	58.44	41.47	19.69	63.39	65.64	64.89	29.19	47.43	52.39
FillP-Sheep	5	55.20	42.46	21.36	60.03	63.45	62.36	9.35	17.24	17.73
Indigo	5	64.48	30.39	33.83	40.74	47.43	49.95	0.01	0.07	0.05
Indigo-MusesC3	5	52.79	51.18	32.39	41.59	45.21	54.01	0.22	0.39	2.30
Indigo-MusesC5	5	58.28	50.66	2.67	57.68	60.96	61.96	11.07	18.21	28.27
Indigo-MusesD	5	56.10	41.55	41.87	32.84	32.79	33.97	0.10	0.01	0.01
Indigo-MusesT	5	56.78	47.90	7.83	57.96	62.23	62.22	18.26	32.14	30.53
LEDBAT	5	41.02	20.93	21.01	60.46	61.89	51.82	0.21	0.21	0.04
PCC-Allegro	5	82.11	11.56	6.28	60.06	62.05	60.35	5.06	6.31	5.25
PCC-Expr	5	8.70	4.60	3.91	27.49	27.53	27.54	42.75	35.53	34.57
QUIC Cubic	5	59.50	27.36	14.86	63.19	63.63	63.57	2.88	1.17	1.12
SCReAM	5	0.21	0.21	0.22	26.79	26.79	26.78	0.00	0.00	0.00
Sprout	5	11.80	11.73	11.52	34.36	34.96	35.60	0.07	0.14	0.19
TaoVA-100x	5	7.19	6.58	4.60	27.23	27.86	30.47	82.95	67.70	83.53
TCP Vegas	5	76.71	19.57	19.22	37.65	35.08	33.83	0.34	0.00	0.00
Verus	5	44.71	25.25	17.26	62.61	62.03	61.04	31.63	28.19	32.96
PCC-Vivace	5	65.09	25.03	12.32	37.38	37.68	37.22	0.00	0.00	0.00
WebRTC media	5	0.05	0.05	0.05	27.53	27.56	27.67	0.00	0.00	0.00

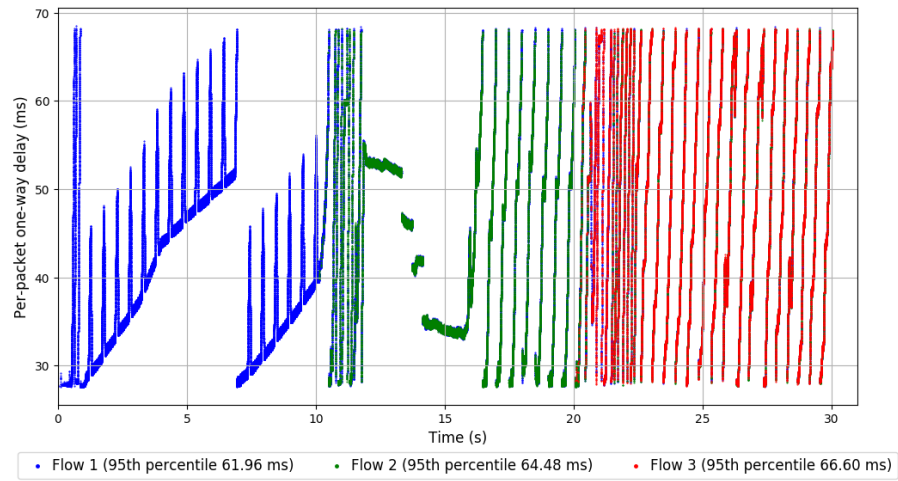
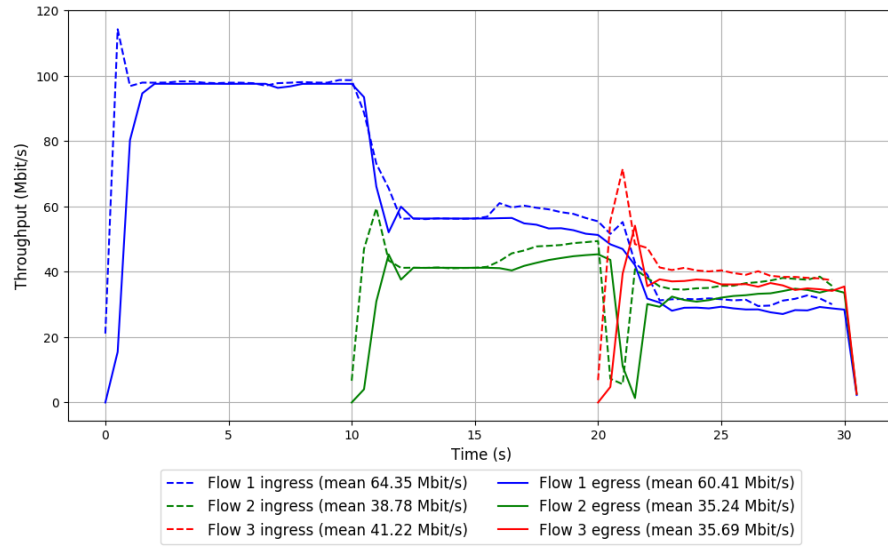


Run 1: Statistics of TCP BBR

Start at: 2019-02-05 07:24:03  
End at: 2019-02-05 07:24:33  
Local clock offset: 7.167 ms  
Remote clock offset: -7.357 ms

# Below is generated by plot.py at 2019-02-05 09:31:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.77 Mbit/s  
95th percentile per-packet one-way delay: 64.064 ms  
Loss rate: 7.72%  
-- Flow 1:  
Average throughput: 60.41 Mbit/s  
95th percentile per-packet one-way delay: 61.957 ms  
Loss rate: 6.03%  
-- Flow 2:  
Average throughput: 35.24 Mbit/s  
95th percentile per-packet one-way delay: 64.479 ms  
Loss rate: 9.06%  
-- Flow 3:  
Average throughput: 35.69 Mbit/s  
95th percentile per-packet one-way delay: 66.601 ms  
Loss rate: 13.17%

# Run 1: Report of TCP BBR — Data Link

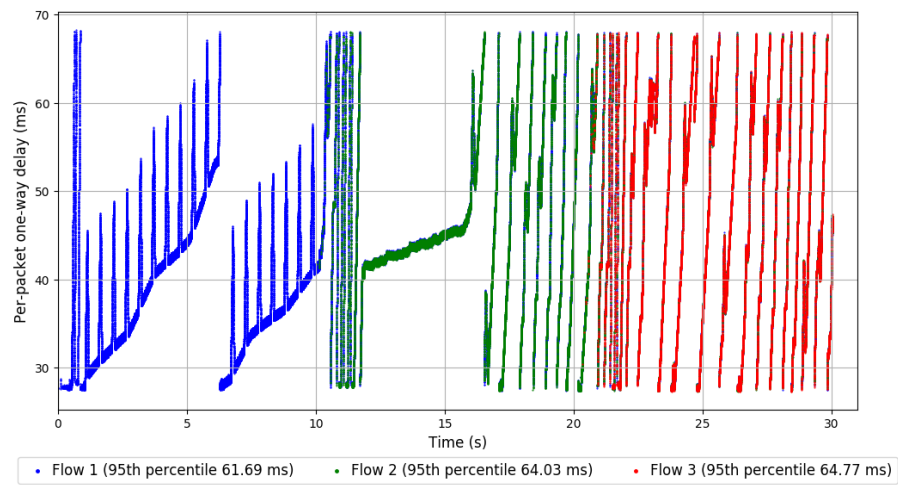
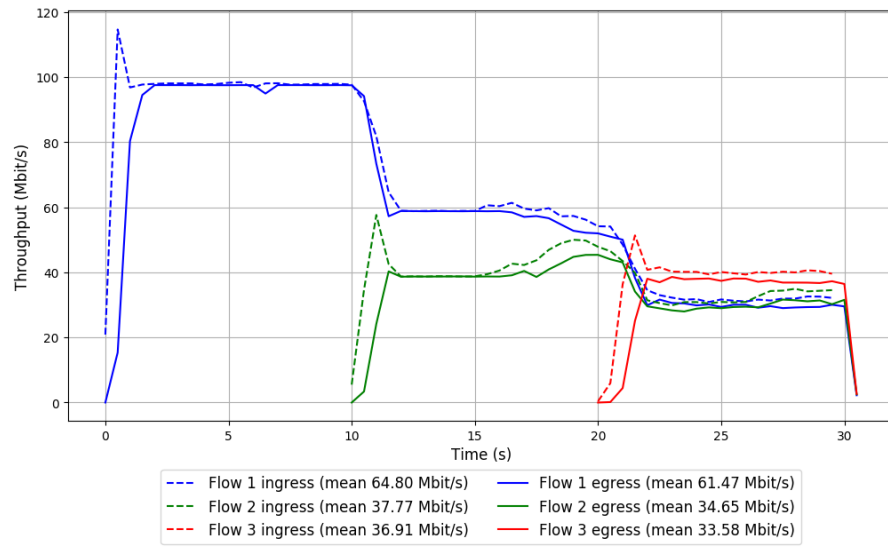


Run 2: Statistics of TCP BBR

Start at: 2019-02-05 07:49:33  
End at: 2019-02-05 07:50:03  
Local clock offset: 4.945 ms  
Remote clock offset: -6.664 ms

# Below is generated by plot.py at 2019-02-05 09:31:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.69 Mbit/s  
95th percentile per-packet one-way delay: 62.892 ms  
Loss rate: 6.34%  
-- Flow 1:  
Average throughput: 61.47 Mbit/s  
95th percentile per-packet one-way delay: 61.685 ms  
Loss rate: 5.08%  
-- Flow 2:  
Average throughput: 34.65 Mbit/s  
95th percentile per-packet one-way delay: 64.025 ms  
Loss rate: 8.25%  
-- Flow 3:  
Average throughput: 33.58 Mbit/s  
95th percentile per-packet one-way delay: 64.769 ms  
Loss rate: 9.11%

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

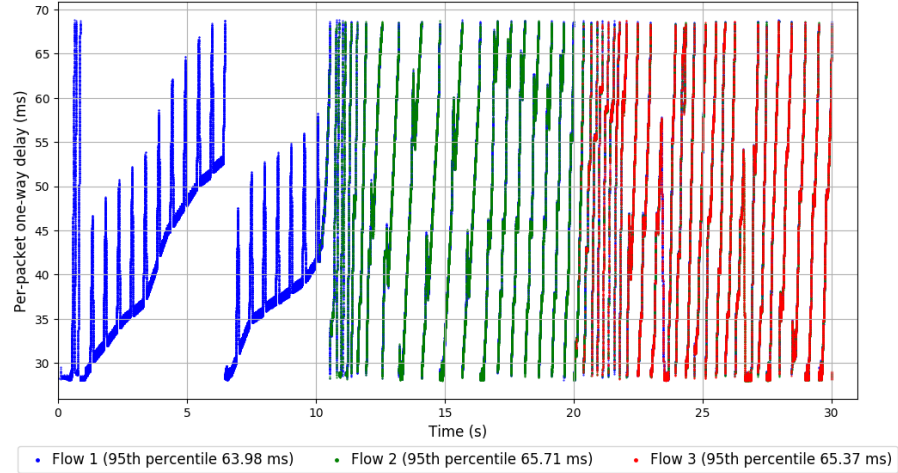
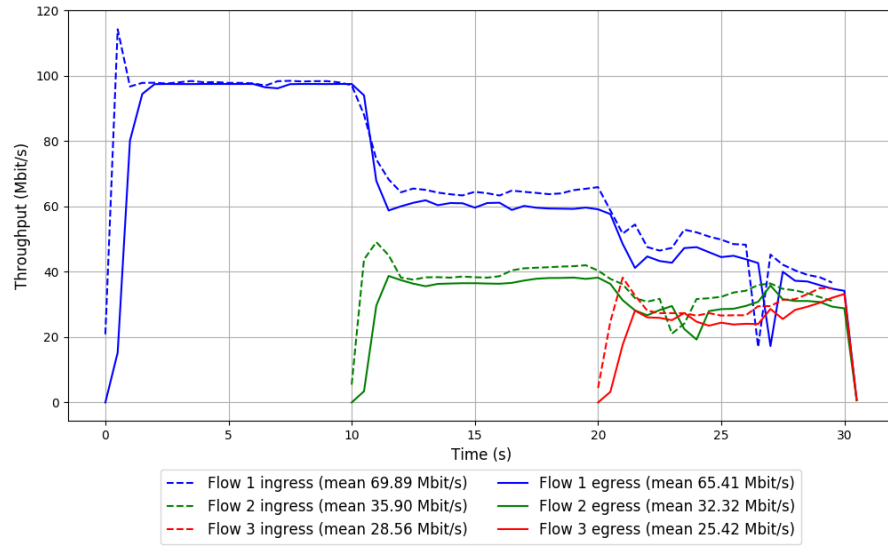


Run 3: Statistics of TCP BBR

Start at: 2019-02-05 08:15:12  
End at: 2019-02-05 08:15:42  
Local clock offset: 0.587 ms  
Remote clock offset: -5.483 ms

# Below is generated by plot.py at 2019-02-05 09:31:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.36 Mbit/s  
95th percentile per-packet one-way delay: 64.701 ms  
Loss rate: 7.69%  
-- Flow 1:  
Average throughput: 65.41 Mbit/s  
95th percentile per-packet one-way delay: 63.983 ms  
Loss rate: 6.42%  
-- Flow 2:  
Average throughput: 32.32 Mbit/s  
95th percentile per-packet one-way delay: 65.706 ms  
Loss rate: 10.10%  
-- Flow 3:  
Average throughput: 25.42 Mbit/s  
95th percentile per-packet one-way delay: 65.372 ms  
Loss rate: 11.03%

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

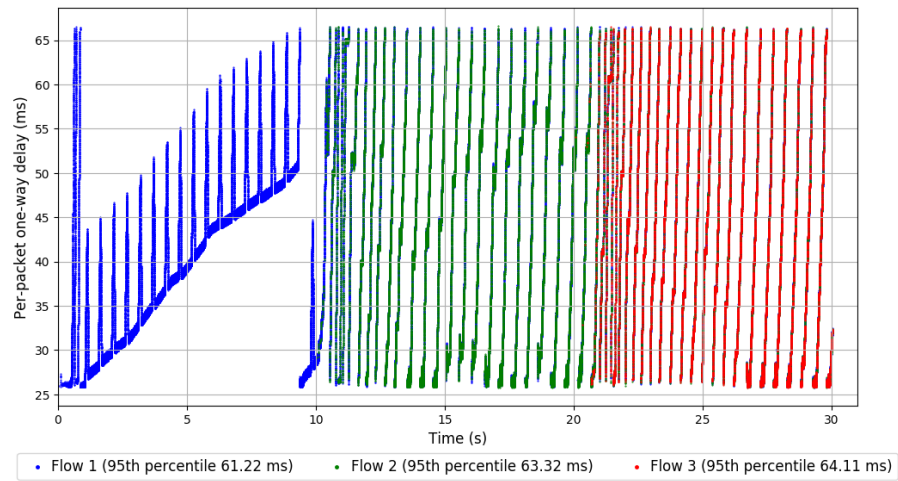
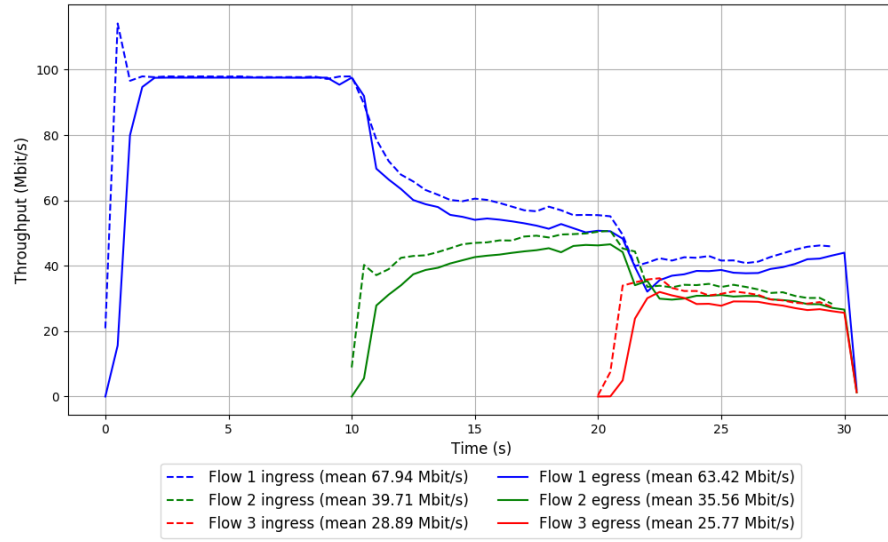


Run 4: Statistics of TCP BBR

Start at: 2019-02-05 08:40:46  
End at: 2019-02-05 08:41:16  
Local clock offset: -0.33 ms  
Remote clock offset: -7.061 ms

# Below is generated by plot.py at 2019-02-05 09:31:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.65 Mbit/s  
95th percentile per-packet one-way delay: 62.277 ms  
Loss rate: 8.01%  
-- Flow 1:  
Average throughput: 63.42 Mbit/s  
95th percentile per-packet one-way delay: 61.215 ms  
Loss rate: 6.64%  
-- Flow 2:  
Average throughput: 35.56 Mbit/s  
95th percentile per-packet one-way delay: 63.316 ms  
Loss rate: 10.43%  
-- Flow 3:  
Average throughput: 25.77 Mbit/s  
95th percentile per-packet one-way delay: 64.112 ms  
Loss rate: 10.99%

# Run 4: Report of TCP BBR — Data Link





Run 5: Statistics of TCP BBR

Start at: 2019-02-05 09:06:05

End at: 2019-02-05 09:06:35

Local clock offset: -0.623 ms

Remote clock offset: -4.41 ms

# Below is generated by plot.py at 2019-02-05 09:31:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.66 Mbit/s

95th percentile per-packet one-way delay: 65.043 ms

Loss rate: 10.69%

-- Flow 1:

Average throughput: 52.45 Mbit/s

95th percentile per-packet one-way delay: 62.902 ms

Loss rate: 7.40%

-- Flow 2:

Average throughput: 48.64 Mbit/s

95th percentile per-packet one-way delay: 65.803 ms

Loss rate: 15.41%

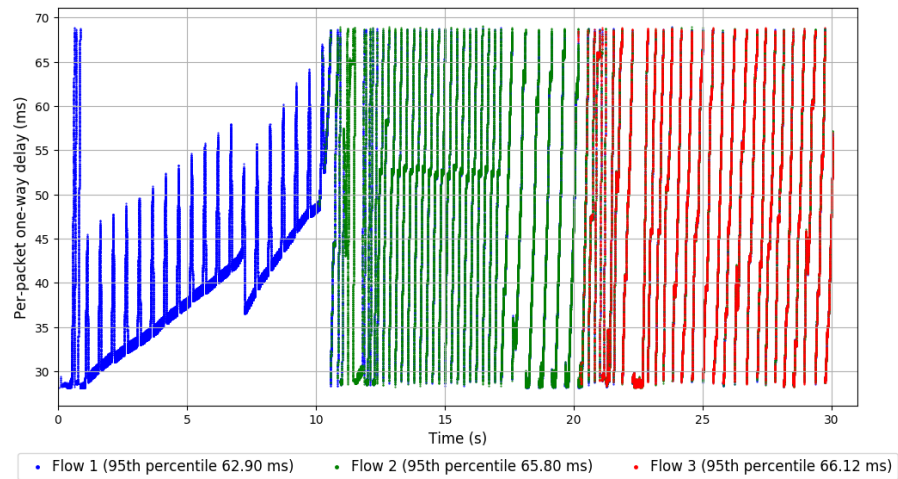
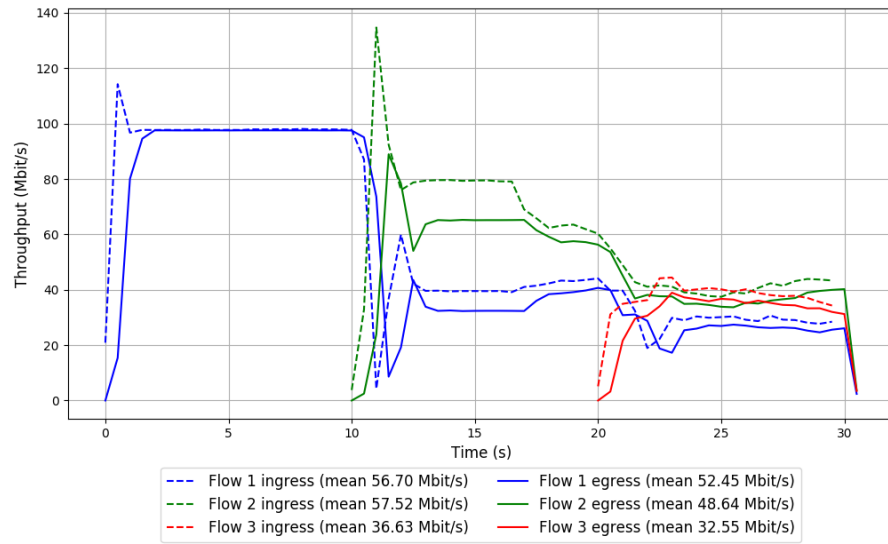
-- Flow 3:

Average throughput: 32.55 Mbit/s

95th percentile per-packet one-way delay: 66.120 ms

Loss rate: 11.14%

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

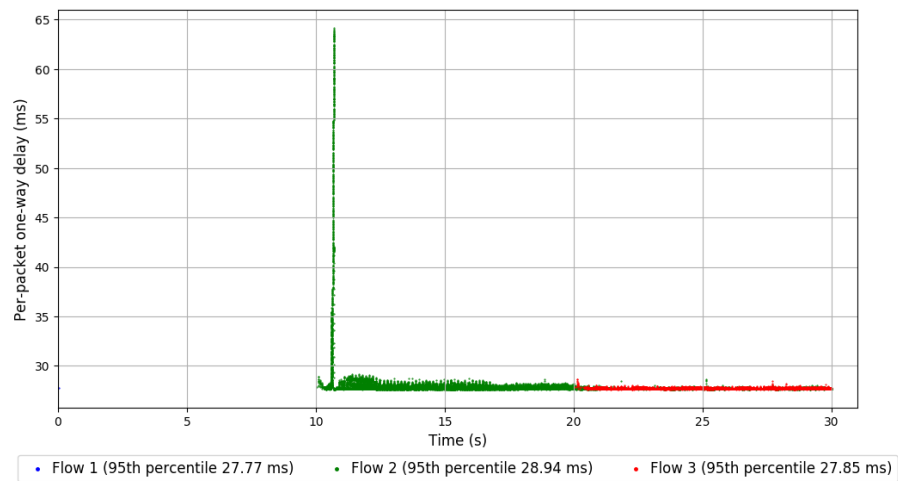
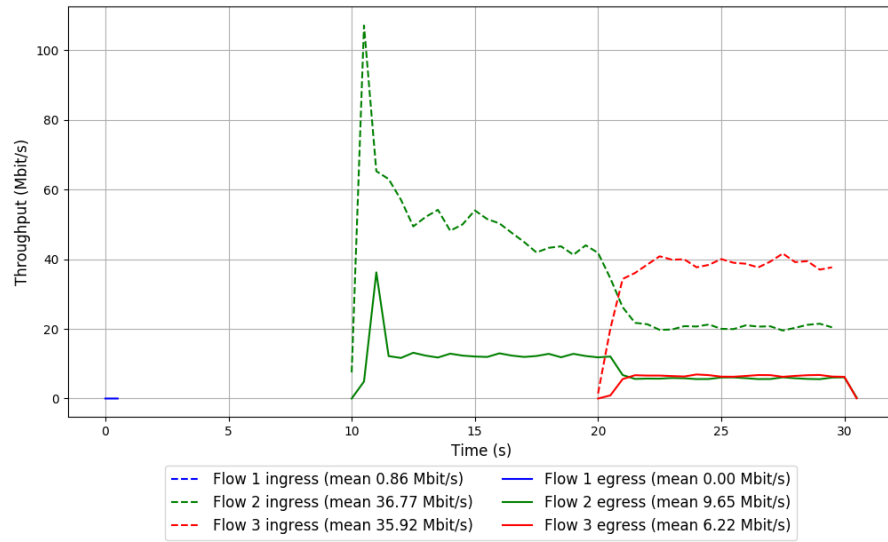


Run 1: Statistics of Copa

Start at: 2019-02-05 07:31:17  
End at: 2019-02-05 07:31:47  
Local clock offset: 6.724 ms  
Remote clock offset: -7.269 ms

# Below is generated by plot.py at 2019-02-05 09:31:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.50 Mbit/s  
95th percentile per-packet one-way delay: 28.540 ms  
Loss rate: 76.68%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 27.768 ms  
Loss rate: 98.33%  
-- Flow 2:  
Average throughput: 9.65 Mbit/s  
95th percentile per-packet one-way delay: 28.943 ms  
Loss rate: 73.74%  
-- Flow 3:  
Average throughput: 6.22 Mbit/s  
95th percentile per-packet one-way delay: 27.849 ms  
Loss rate: 82.69%

## Run 1: Report of Copa — Data Link

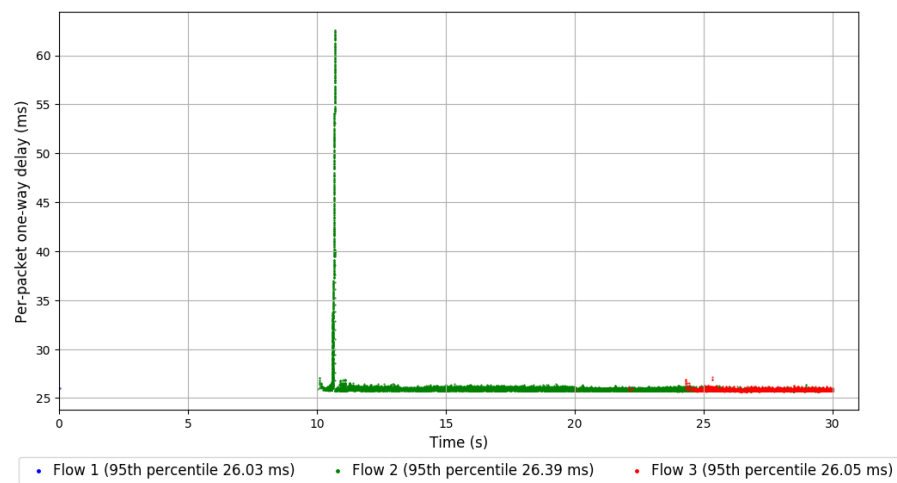
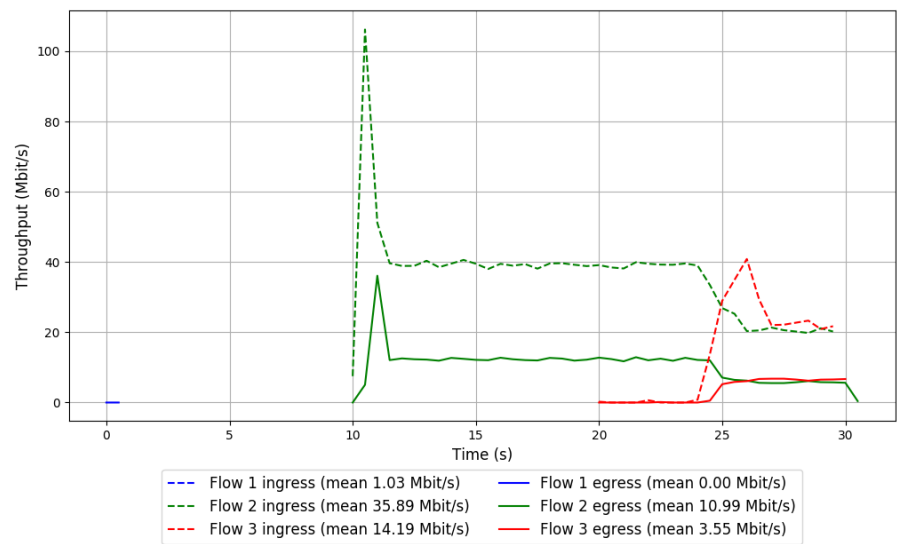


Run 2: Statistics of Copa

Start at: 2019-02-05 07:56:47  
End at: 2019-02-05 07:57:17  
Local clock offset: 2.736 ms  
Remote clock offset: -8.233 ms

# Below is generated by plot.py at 2019-02-05 09:31:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.50 Mbit/s  
95th percentile per-packet one-way delay: 26.258 ms  
Loss rate: 70.31%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 26.029 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 10.99 Mbit/s  
95th percentile per-packet one-way delay: 26.387 ms  
Loss rate: 69.38%  
-- Flow 3:  
Average throughput: 3.55 Mbit/s  
95th percentile per-packet one-way delay: 26.054 ms  
Loss rate: 74.97%

Run 2: Report of Copa — Data Link

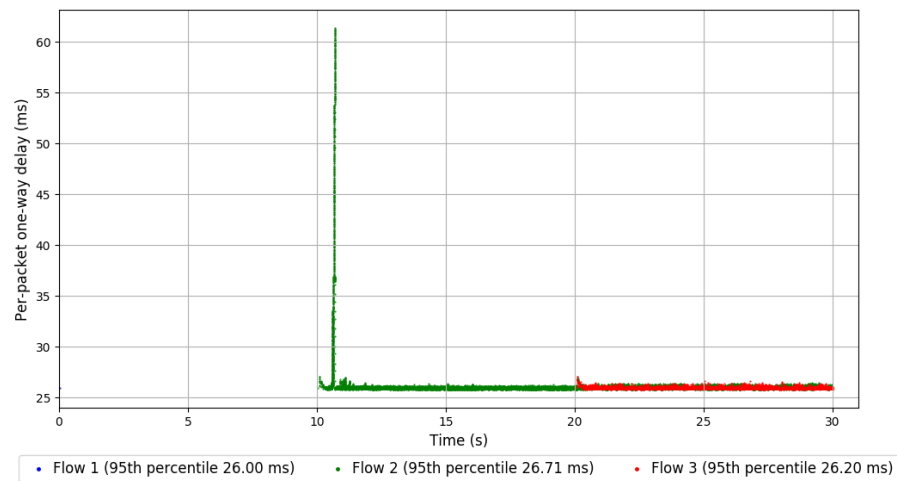
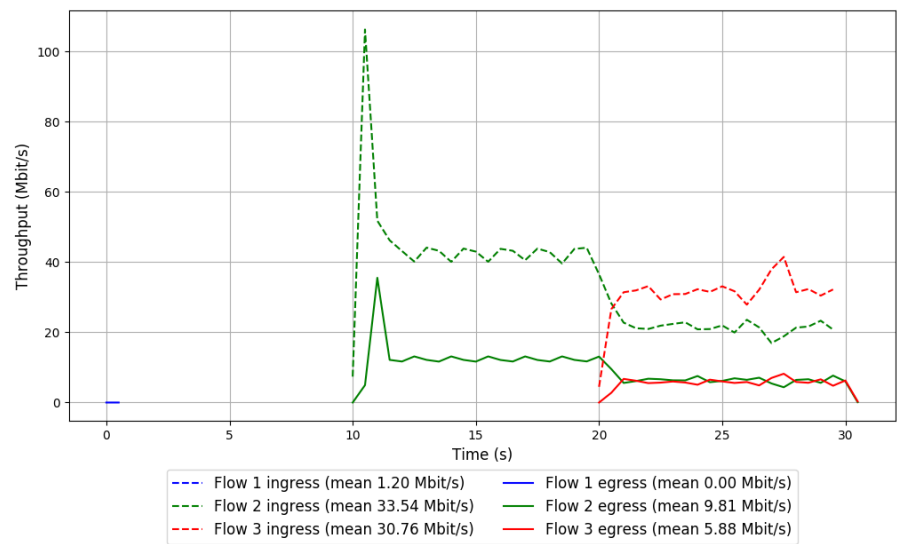


Run 3: Statistics of Copa

Start at: 2019-02-05 08:22:42  
End at: 2019-02-05 08:23:12  
Local clock offset: 0.381 ms  
Remote clock offset: -7.612 ms

# Below is generated by plot.py at 2019-02-05 09:31:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.49 Mbit/s  
95th percentile per-packet one-way delay: 26.345 ms  
Loss rate: 73.93%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 25.997 ms  
Loss rate: 98.80%  
-- Flow 2:  
Average throughput: 9.81 Mbit/s  
95th percentile per-packet one-way delay: 26.711 ms  
Loss rate: 70.75%  
-- Flow 3:  
Average throughput: 5.88 Mbit/s  
95th percentile per-packet one-way delay: 26.205 ms  
Loss rate: 80.88%

Run 3: Report of Copa — Data Link



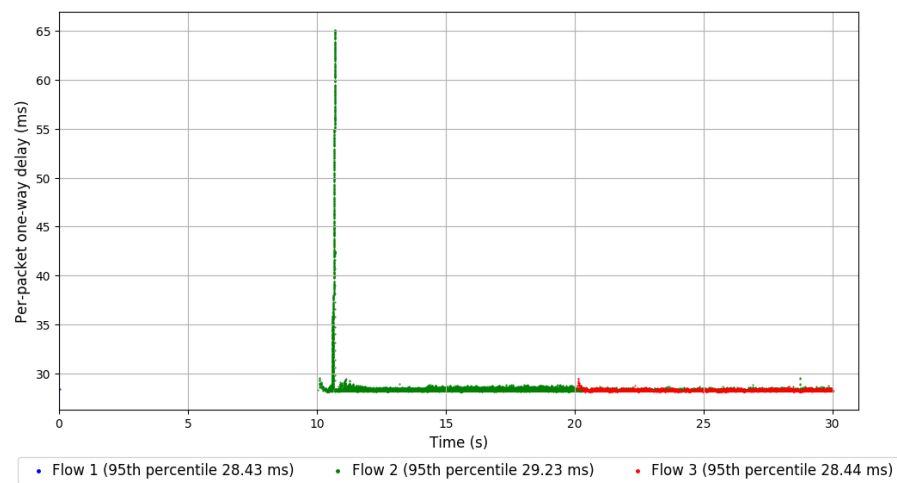
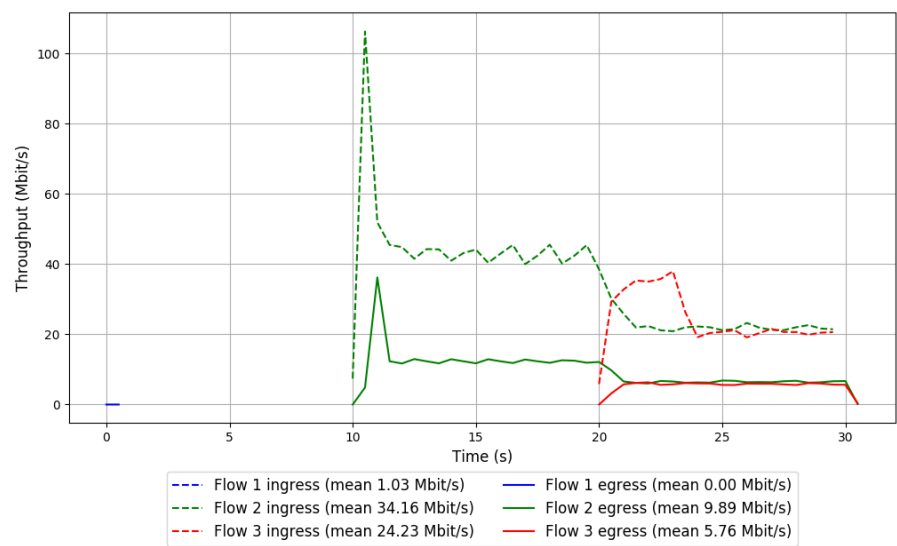


Run 4: Statistics of Copa

Start at: 2019-02-05 08:48:01  
End at: 2019-02-05 08:48:31  
Local clock offset: -0.487 ms  
Remote clock offset: -4.514 ms

# Below is generated by plot.py at 2019-02-05 09:31:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.50 Mbit/s  
95th percentile per-packet one-way delay: 28.700 ms  
Loss rate: 72.41%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 28.431 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 9.89 Mbit/s  
95th percentile per-packet one-way delay: 29.227 ms  
Loss rate: 71.05%  
-- Flow 3:  
Average throughput: 5.76 Mbit/s  
95th percentile per-packet one-way delay: 28.439 ms  
Loss rate: 76.23%

Run 4: Report of Copa — Data Link

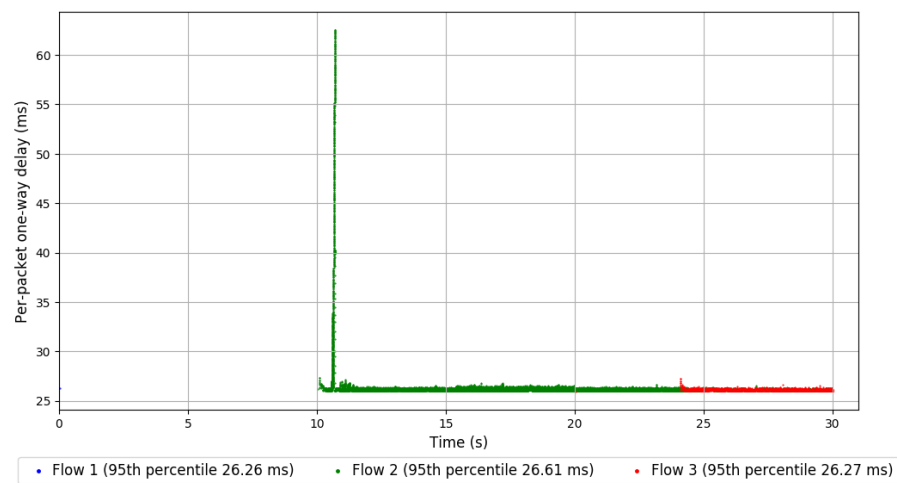
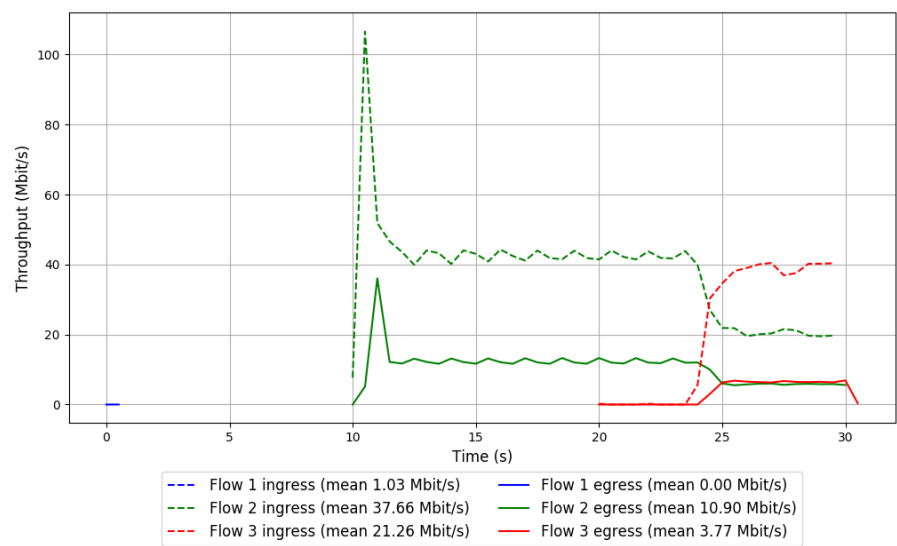


Run 5: Statistics of Copa

Start at: 2019-02-05 09:13:22  
End at: 2019-02-05 09:13:52  
Local clock offset: -0.876 ms  
Remote clock offset: -6.558 ms

# Below is generated by plot.py at 2019-02-05 09:31:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.50 Mbit/s  
95th percentile per-packet one-way delay: 26.466 ms  
Loss rate: 73.57%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 26.256 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 10.90 Mbit/s  
95th percentile per-packet one-way delay: 26.615 ms  
Loss rate: 71.11%  
-- Flow 3:  
Average throughput: 3.77 Mbit/s  
95th percentile per-packet one-way delay: 26.267 ms  
Loss rate: 82.29%

Run 5: Report of Copa — Data Link

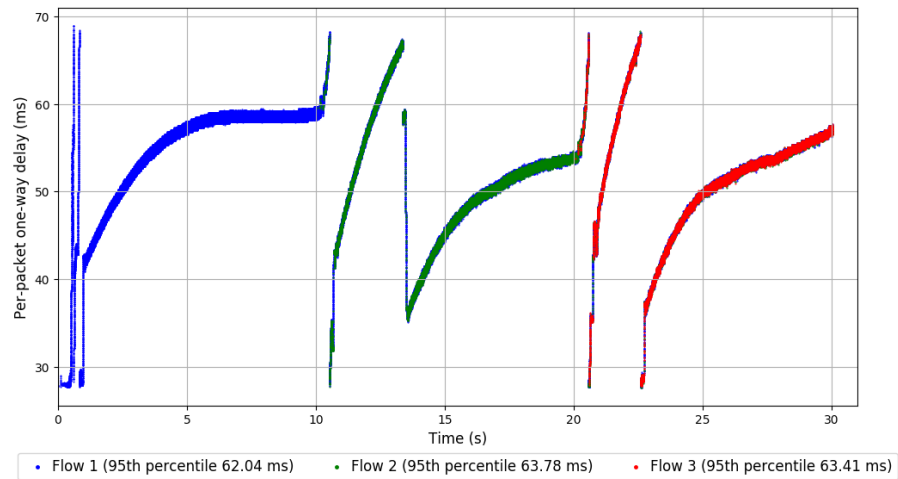
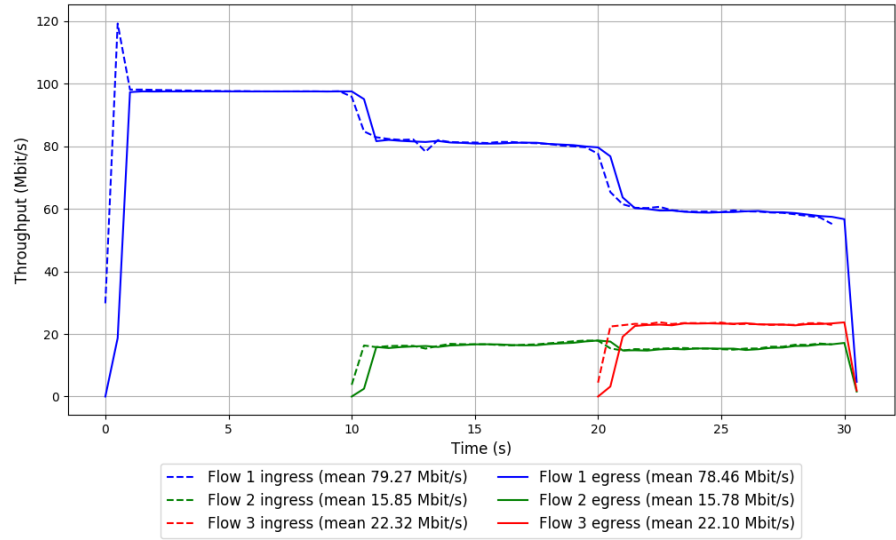


Run 1: Statistics of TCP Cubic

Start at: 2019-02-05 07:45:52  
End at: 2019-02-05 07:46:22  
Local clock offset: 6.685 ms  
Remote clock offset: -6.555 ms

# Below is generated by plot.py at 2019-02-05 09:31:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.30 Mbit/s  
95th percentile per-packet one-way delay: 62.363 ms  
Loss rate: 0.88%  
-- Flow 1:  
Average throughput: 78.46 Mbit/s  
95th percentile per-packet one-way delay: 62.036 ms  
Loss rate: 0.92%  
-- Flow 2:  
Average throughput: 15.78 Mbit/s  
95th percentile per-packet one-way delay: 63.778 ms  
Loss rate: 0.49%  
-- Flow 3:  
Average throughput: 22.10 Mbit/s  
95th percentile per-packet one-way delay: 63.405 ms  
Loss rate: 0.96%

# Run 1: Report of TCP Cubic — Data Link

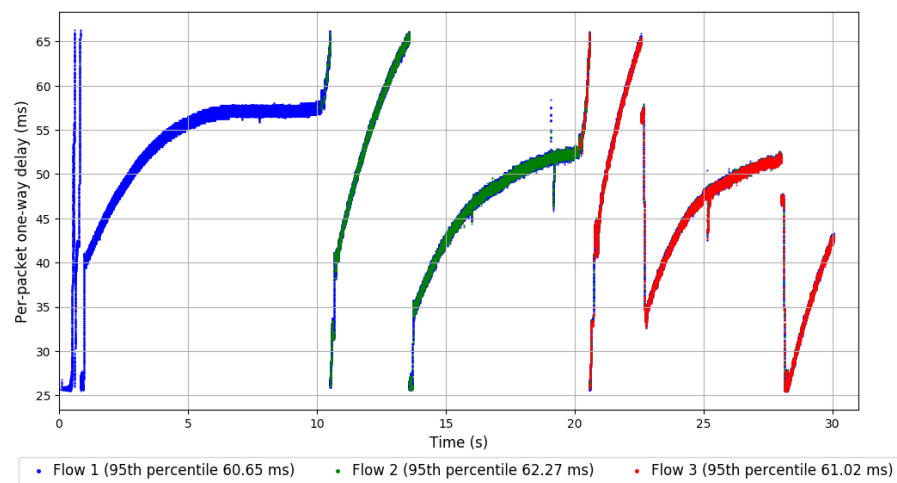
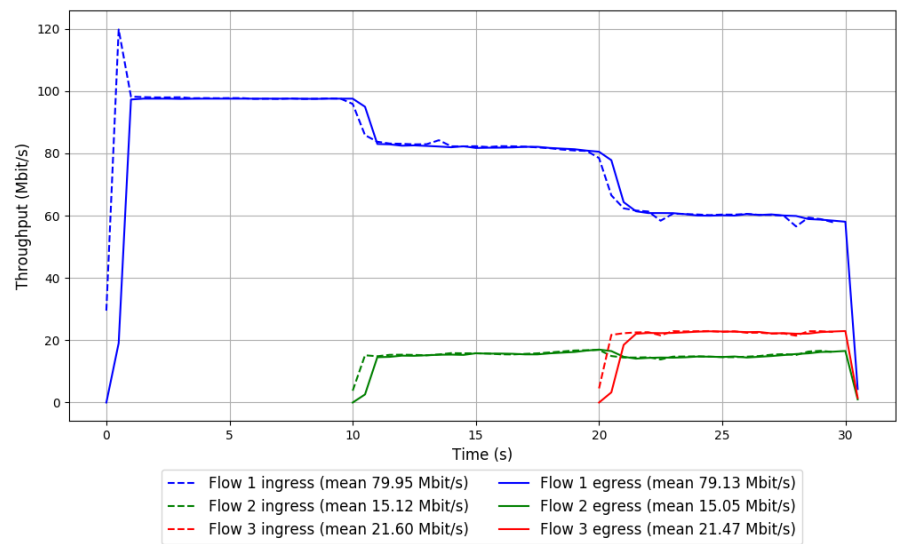


Run 2: Statistics of TCP Cubic

Start at: 2019-02-05 08:11:29  
End at: 2019-02-05 08:11:59  
Local clock offset: 0.856 ms  
Remote clock offset: -8.152 ms

# Below is generated by plot.py at 2019-02-05 09:31:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.28 Mbit/s  
95th percentile per-packet one-way delay: 60.906 ms  
Loss rate: 0.90%  
-- Flow 1:  
Average throughput: 79.13 Mbit/s  
95th percentile per-packet one-way delay: 60.654 ms  
Loss rate: 0.97%  
-- Flow 2:  
Average throughput: 15.05 Mbit/s  
95th percentile per-packet one-way delay: 62.268 ms  
Loss rate: 0.51%  
-- Flow 3:  
Average throughput: 21.47 Mbit/s  
95th percentile per-packet one-way delay: 61.017 ms  
Loss rate: 0.71%

Run 2: Report of TCP Cubic — Data Link



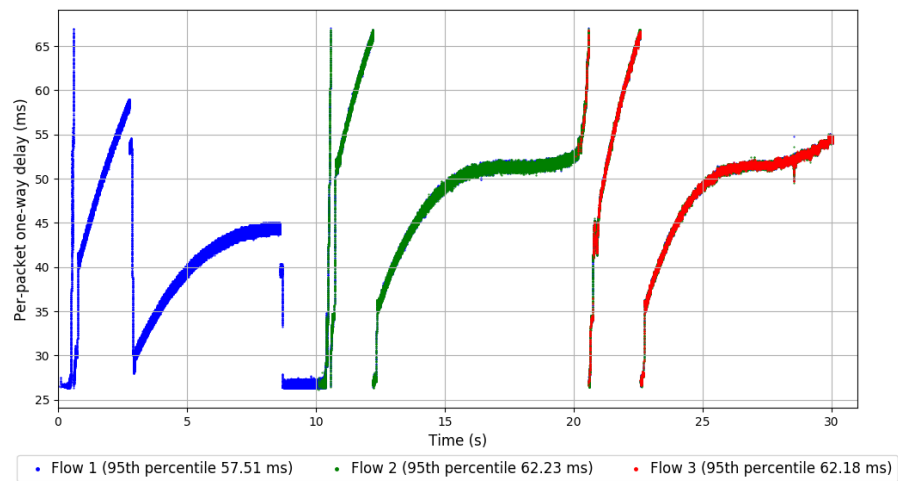
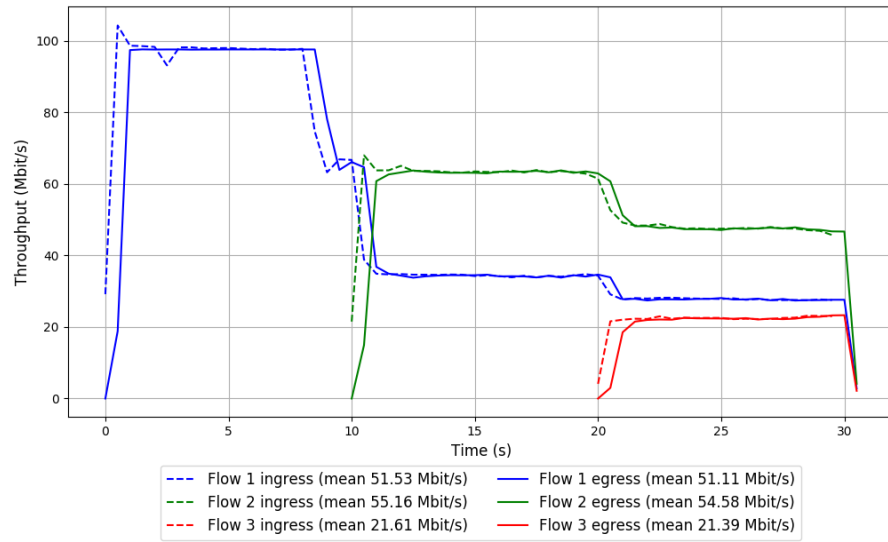


Run 3: Statistics of TCP Cubic

Start at: 2019-02-05 08:37:05  
End at: 2019-02-05 08:37:35  
Local clock offset: -0.112 ms  
Remote clock offset: -6.732 ms

# Below is generated by plot.py at 2019-02-05 09:31:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.59 Mbit/s  
95th percentile per-packet one-way delay: 60.050 ms  
Loss rate: 0.82%  
-- Flow 1:  
Average throughput: 51.11 Mbit/s  
95th percentile per-packet one-way delay: 57.509 ms  
Loss rate: 0.74%  
-- Flow 2:  
Average throughput: 54.58 Mbit/s  
95th percentile per-packet one-way delay: 62.229 ms  
Loss rate: 0.91%  
-- Flow 3:  
Average throughput: 21.39 Mbit/s  
95th percentile per-packet one-way delay: 62.182 ms  
Loss rate: 0.97%

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

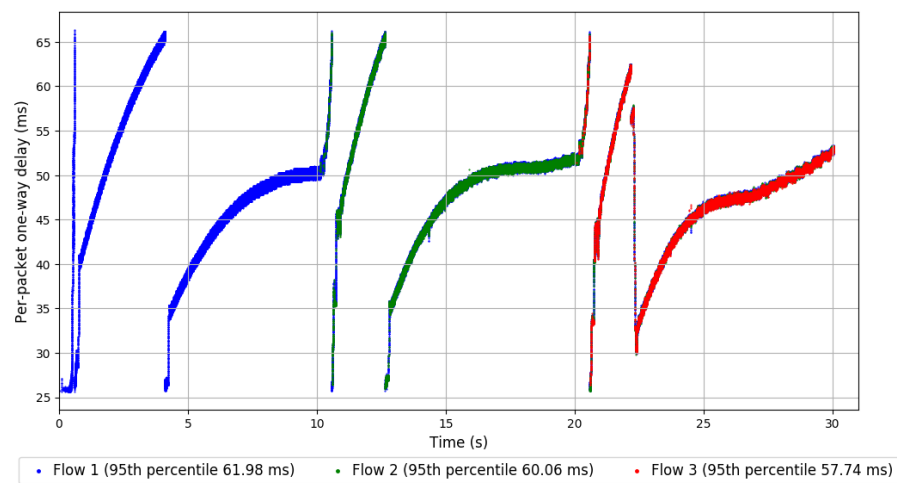
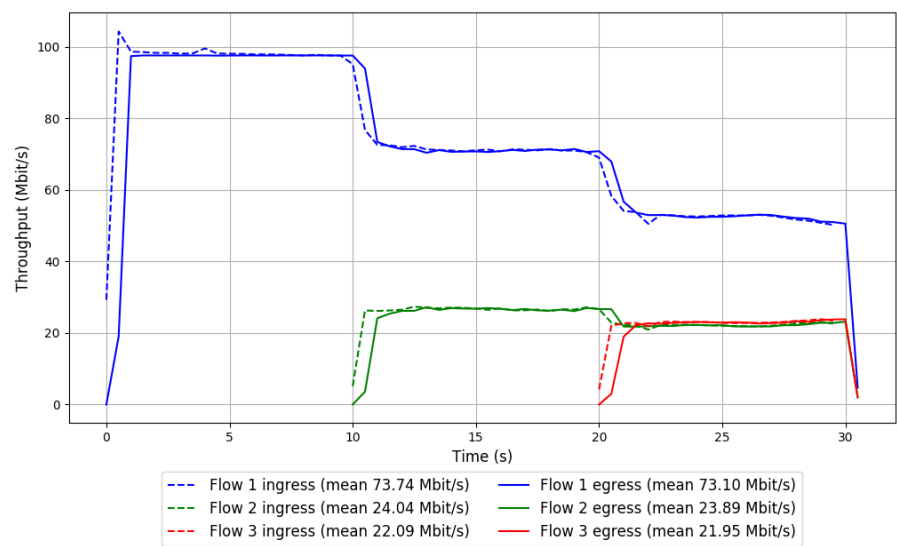


Run 4: Statistics of TCP Cubic

Start at: 2019-02-05 09:02:24  
End at: 2019-02-05 09:02:54  
Local clock offset: -0.498 ms  
Remote clock offset: -7.041 ms

# Below is generated by plot.py at 2019-02-05 09:32:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.30 Mbit/s  
95th percentile per-packet one-way delay: 61.447 ms  
Loss rate: 0.74%  
-- Flow 1:  
Average throughput: 73.10 Mbit/s  
95th percentile per-packet one-way delay: 61.984 ms  
Loss rate: 0.78%  
-- Flow 2:  
Average throughput: 23.89 Mbit/s  
95th percentile per-packet one-way delay: 60.058 ms  
Loss rate: 0.59%  
-- Flow 3:  
Average throughput: 21.95 Mbit/s  
95th percentile per-packet one-way delay: 57.736 ms  
Loss rate: 0.60%

Run 4: Report of TCP Cubic — Data Link

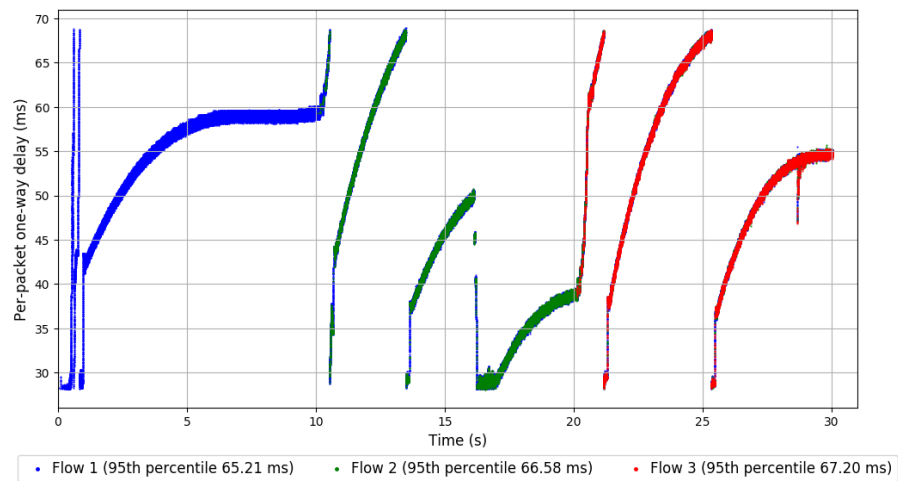
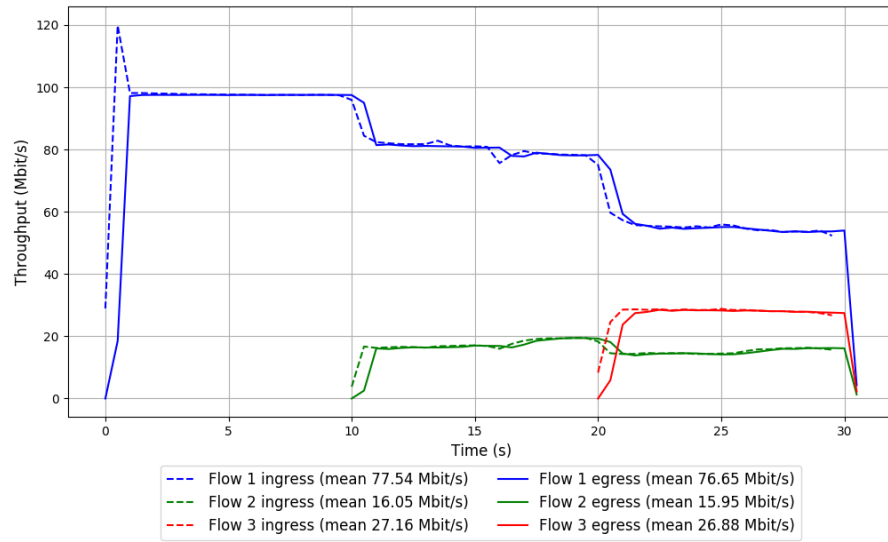


Run 5: Statistics of TCP Cubic

Start at: 2019-02-05 09:27:44  
End at: 2019-02-05 09:28:14  
Local clock offset: -0.766 ms  
Remote clock offset: -4.461 ms

# Below is generated by plot.py at 2019-02-05 09:32:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.20 Mbit/s  
95th percentile per-packet one-way delay: 65.785 ms  
Loss rate: 1.00%  
-- Flow 1:  
Average throughput: 76.65 Mbit/s  
95th percentile per-packet one-way delay: 65.207 ms  
Loss rate: 1.06%  
-- Flow 2:  
Average throughput: 15.95 Mbit/s  
95th percentile per-packet one-way delay: 66.575 ms  
Loss rate: 0.64%  
-- Flow 3:  
Average throughput: 26.88 Mbit/s  
95th percentile per-packet one-way delay: 67.200 ms  
Loss rate: 0.86%

# Run 5: Report of TCP Cubic — Data Link

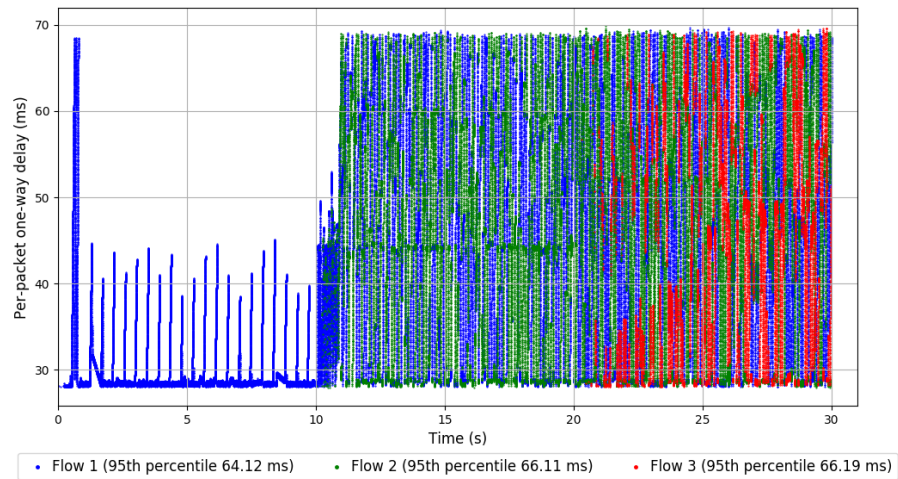
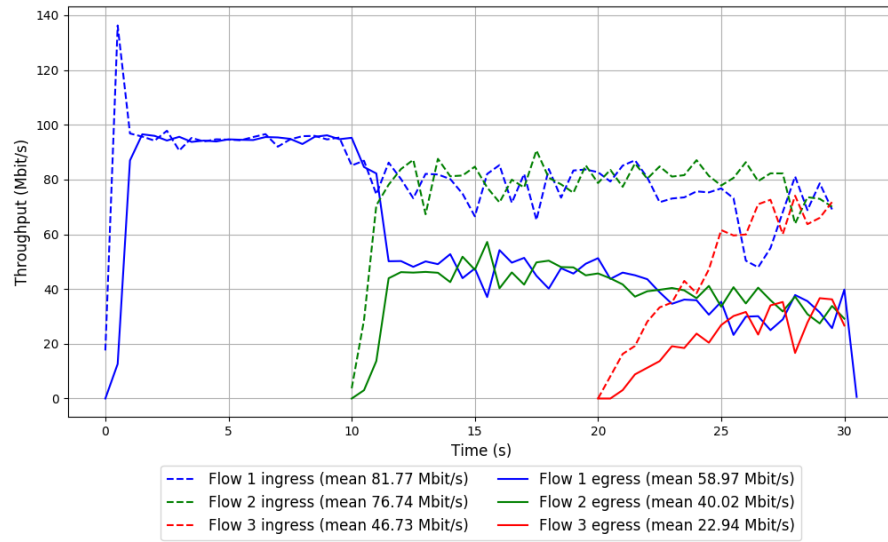


Run 1: Statistics of FillP

Start at: 2019-02-05 07:40:50  
End at: 2019-02-05 07:41:20  
Local clock offset: 6.652 ms  
Remote clock offset: -6.519 ms

# Below is generated by plot.py at 2019-02-05 09:32:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.95 Mbit/s  
95th percentile per-packet one-way delay: 65.216 ms  
Loss rate: 37.29%  
-- Flow 1:  
Average throughput: 58.97 Mbit/s  
95th percentile per-packet one-way delay: 64.124 ms  
Loss rate: 27.80%  
-- Flow 2:  
Average throughput: 40.02 Mbit/s  
95th percentile per-packet one-way delay: 66.109 ms  
Loss rate: 47.94%  
-- Flow 3:  
Average throughput: 22.94 Mbit/s  
95th percentile per-packet one-way delay: 66.193 ms  
Loss rate: 52.23%

## Run 1: Report of FillP — Data Link



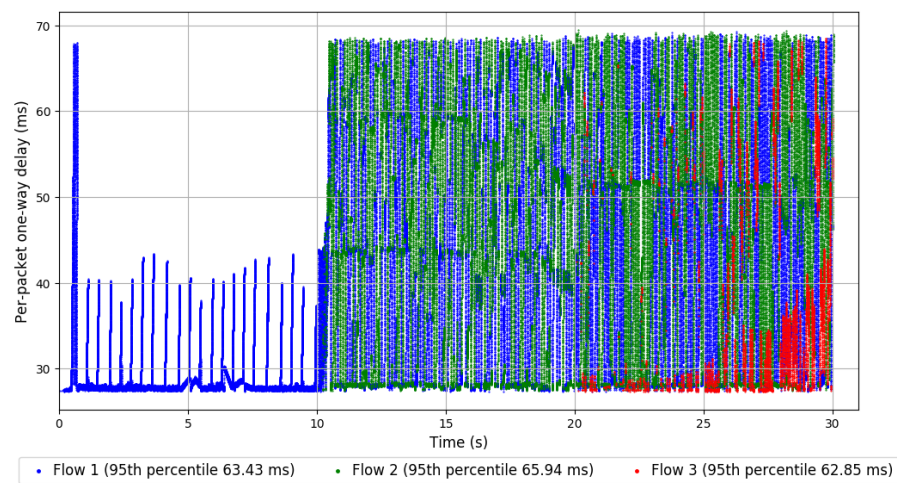
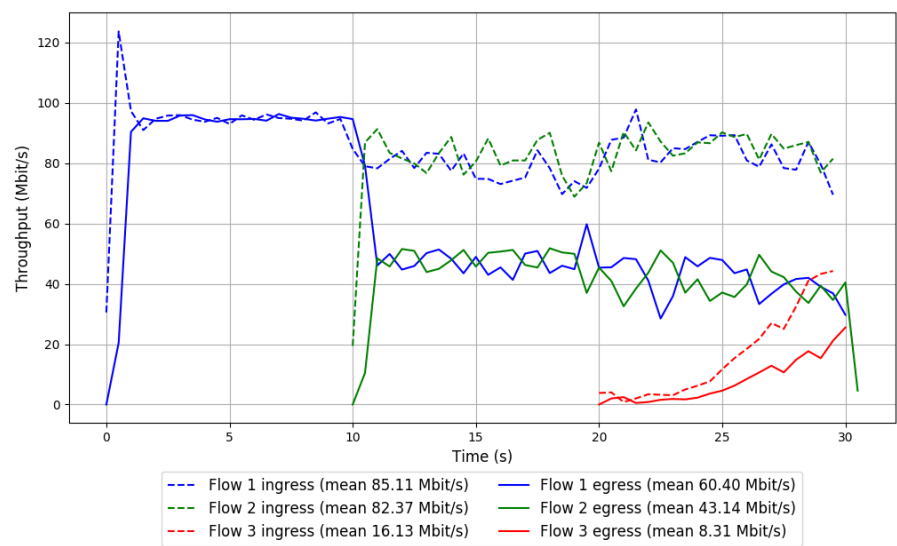


Run 2: Statistics of FillP

Start at: 2019-02-05 08:06:38  
End at: 2019-02-05 08:07:08  
Local clock offset: 1.286 ms  
Remote clock offset: -6.196 ms

# Below is generated by plot.py at 2019-02-05 09:32:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.84 Mbit/s  
95th percentile per-packet one-way delay: 64.796 ms  
Loss rate: 36.71%  
-- Flow 1:  
Average throughput: 60.40 Mbit/s  
95th percentile per-packet one-way delay: 63.433 ms  
Loss rate: 28.99%  
-- Flow 2:  
Average throughput: 43.14 Mbit/s  
95th percentile per-packet one-way delay: 65.944 ms  
Loss rate: 47.54%  
-- Flow 3:  
Average throughput: 8.31 Mbit/s  
95th percentile per-packet one-way delay: 62.852 ms  
Loss rate: 48.43%

Run 2: Report of FillP — Data Link

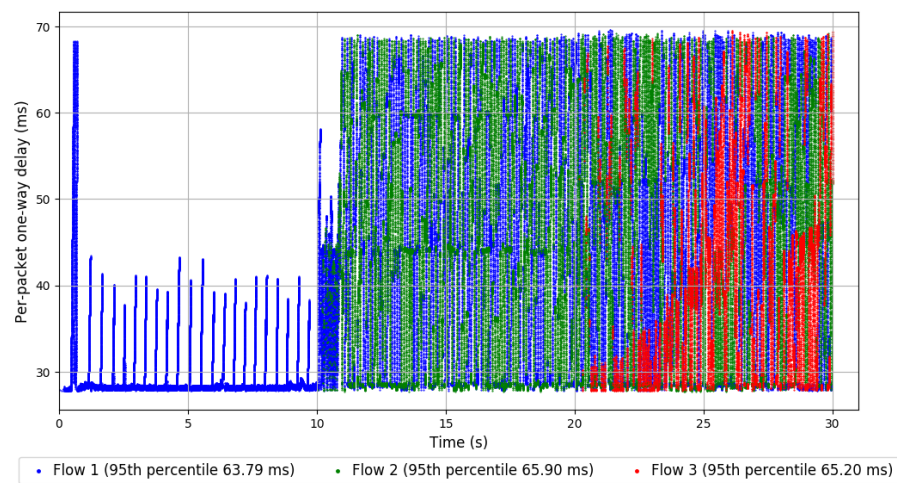
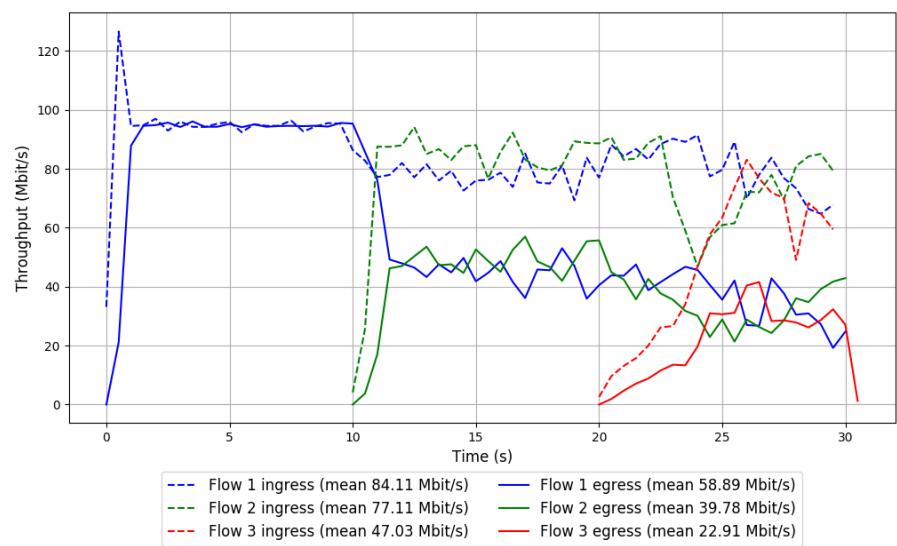


Run 3: Statistics of FillP

Start at: 2019-02-05 08:32:15  
End at: 2019-02-05 08:32:45  
Local clock offset: 0.075 ms  
Remote clock offset: -5.322 ms

# Below is generated by plot.py at 2019-02-05 09:32:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.86 Mbit/s  
95th percentile per-packet one-way delay: 64.888 ms  
Loss rate: 38.48%  
-- Flow 1:  
Average throughput: 58.89 Mbit/s  
95th percentile per-packet one-way delay: 63.794 ms  
Loss rate: 30.06%  
-- Flow 2:  
Average throughput: 39.78 Mbit/s  
95th percentile per-packet one-way delay: 65.904 ms  
Loss rate: 48.42%  
-- Flow 3:  
Average throughput: 22.91 Mbit/s  
95th percentile per-packet one-way delay: 65.201 ms  
Loss rate: 51.19%

Run 3: Report of FillP — Data Link

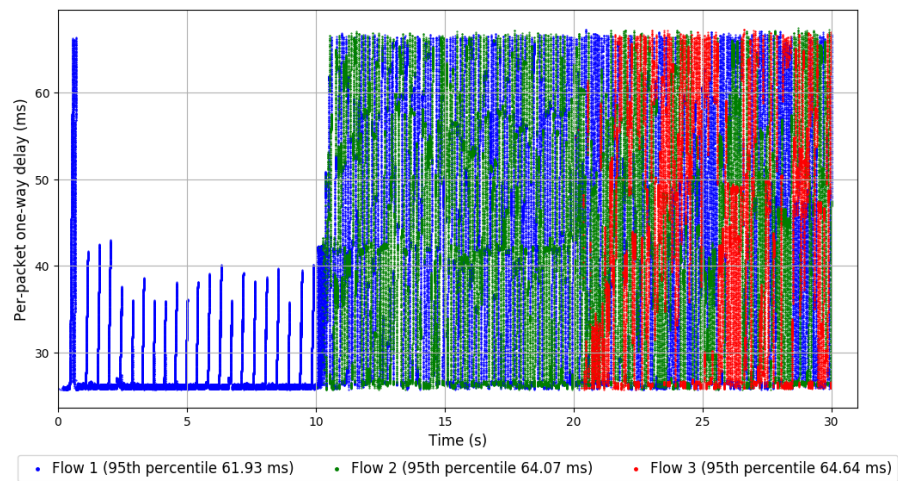
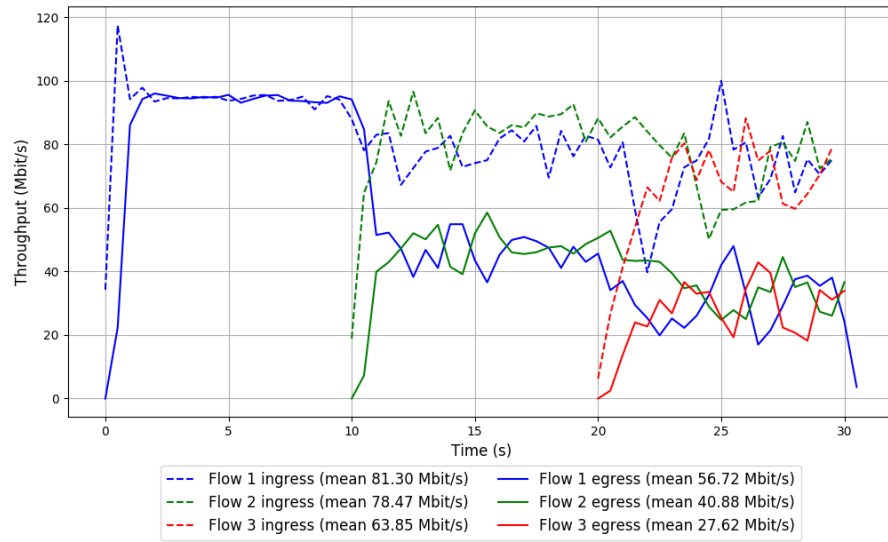


Run 4: Statistics of FillP

Start at: 2019-02-05 08:57:33  
End at: 2019-02-05 08:58:03  
Local clock offset: -0.427 ms  
Remote clock offset: -6.751 ms

# Below is generated by plot.py at 2019-02-05 09:32:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.03 Mbit/s  
95th percentile per-packet one-way delay: 63.277 ms  
Loss rate: 39.80%  
-- Flow 1:  
Average throughput: 56.72 Mbit/s  
95th percentile per-packet one-way delay: 61.930 ms  
Loss rate: 30.16%  
-- Flow 2:  
Average throughput: 40.88 Mbit/s  
95th percentile per-packet one-way delay: 64.067 ms  
Loss rate: 47.85%  
-- Flow 3:  
Average throughput: 27.62 Mbit/s  
95th percentile per-packet one-way delay: 64.640 ms  
Loss rate: 56.98%

# Run 4: Report of FillP — Data Link

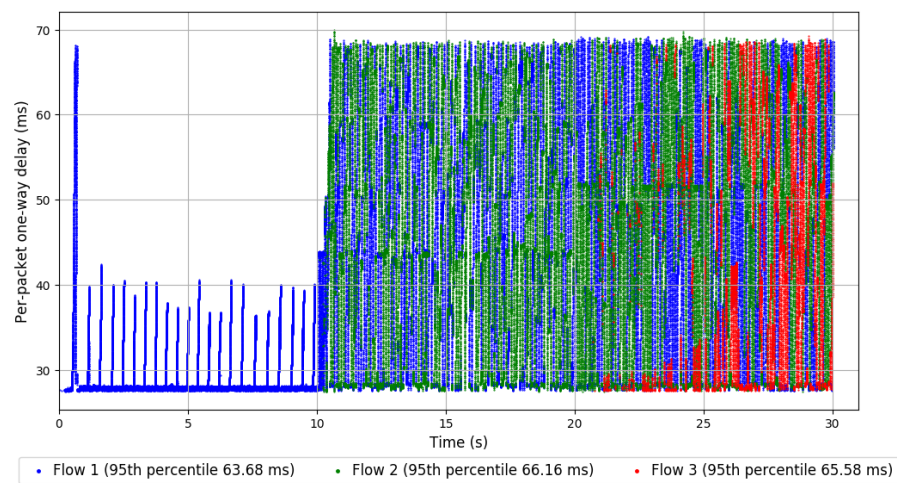
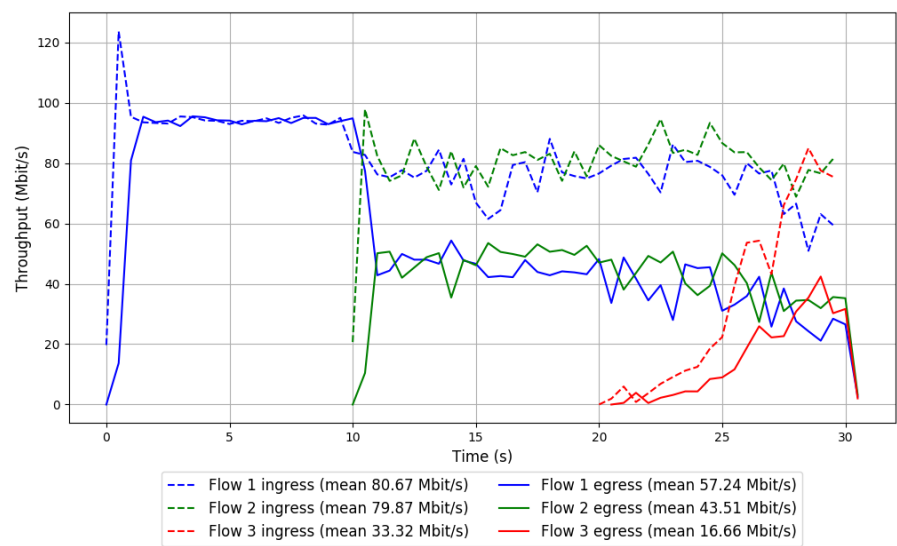


Run 5: Statistics of FillP

Start at: 2019-02-05 09:22:54  
End at: 2019-02-05 09:23:24  
Local clock offset: -0.781 ms  
Remote clock offset: -4.962 ms

# Below is generated by plot.py at 2019-02-05 09:32:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.39 Mbit/s  
95th percentile per-packet one-way delay: 65.227 ms  
Loss rate: 36.84%  
-- Flow 1:  
Average throughput: 57.24 Mbit/s  
95th percentile per-packet one-way delay: 63.683 ms  
Loss rate: 28.96%  
-- Flow 2:  
Average throughput: 43.51 Mbit/s  
95th percentile per-packet one-way delay: 66.155 ms  
Loss rate: 45.42%  
-- Flow 3:  
Average throughput: 16.66 Mbit/s  
95th percentile per-packet one-way delay: 65.585 ms  
Loss rate: 53.13%

Run 5: Report of FillP — Data Link



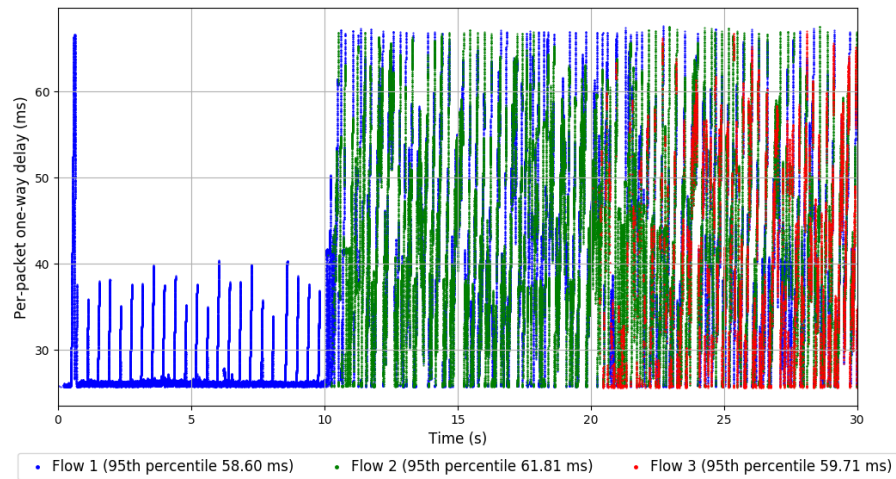
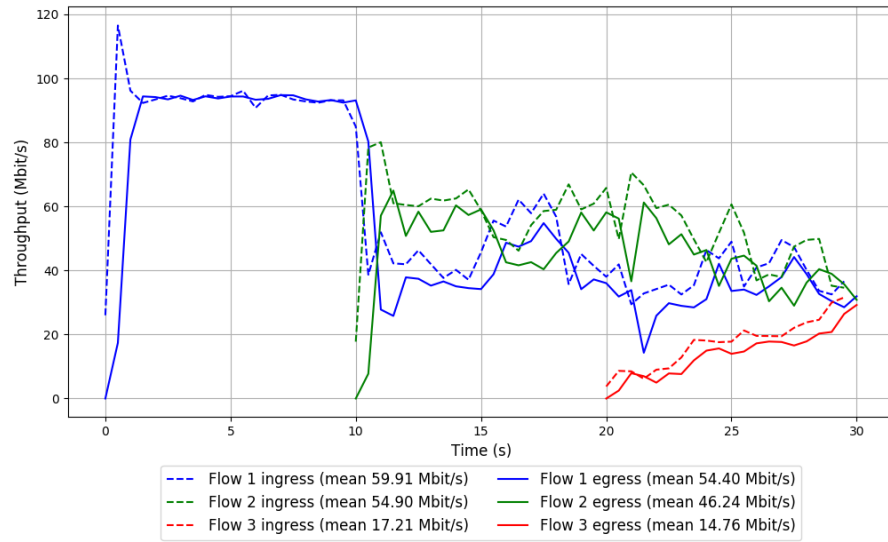


Run 1: Statistics of FillP-Sheep

Start at: 2019-02-05 07:32:27  
End at: 2019-02-05 07:32:57  
Local clock offset: 6.714 ms  
Remote clock offset: -9.087 ms

# Below is generated by plot.py at 2019-02-05 09:32:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.03 Mbit/s  
95th percentile per-packet one-way delay: 60.292 ms  
Loss rate: 11.83%  
-- Flow 1:  
Average throughput: 54.40 Mbit/s  
95th percentile per-packet one-way delay: 58.597 ms  
Loss rate: 9.20%  
-- Flow 2:  
Average throughput: 46.24 Mbit/s  
95th percentile per-packet one-way delay: 61.815 ms  
Loss rate: 15.74%  
-- Flow 3:  
Average throughput: 14.76 Mbit/s  
95th percentile per-packet one-way delay: 59.713 ms  
Loss rate: 14.38%

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

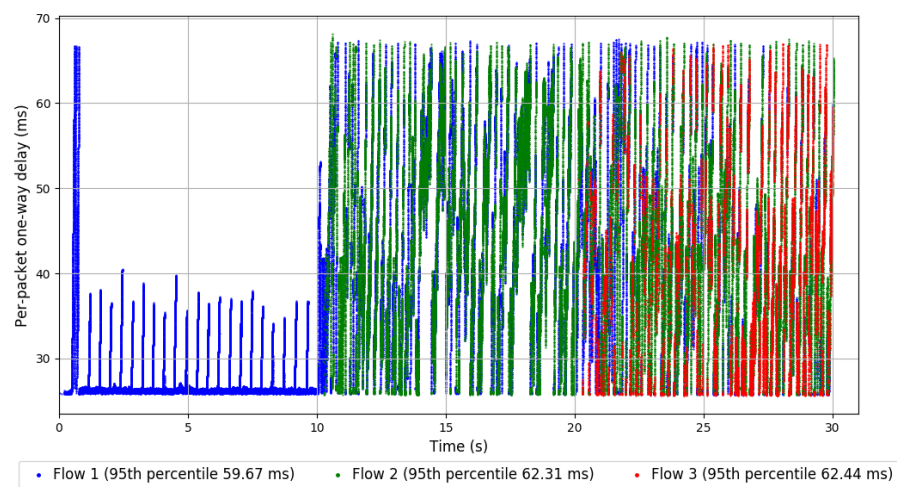
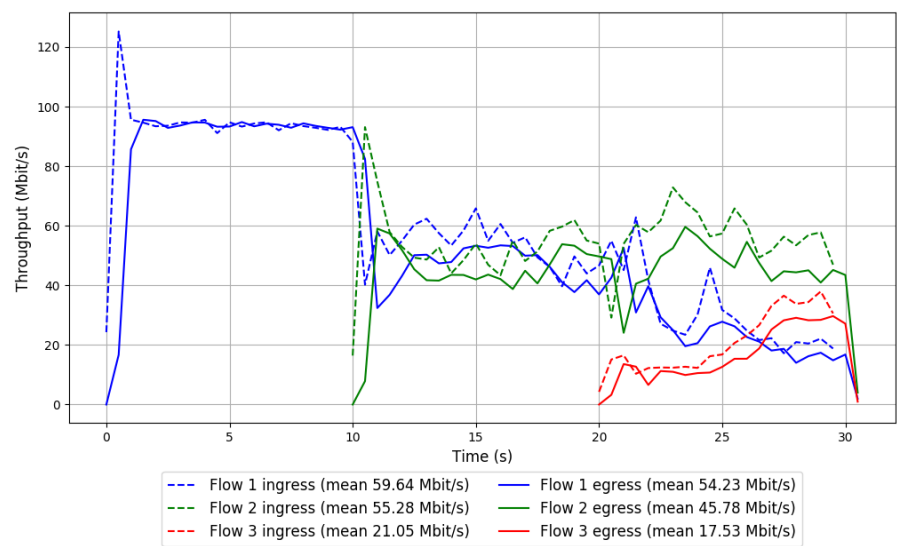


Run 2: Statistics of FillP-Sheep

Start at: 2019-02-05 07:57:57  
End at: 2019-02-05 07:58:27  
Local clock offset: 2.491 ms  
Remote clock offset: -8.105 ms

# Below is generated by plot.py at 2019-02-05 09:33:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.49 Mbit/s  
95th percentile per-packet one-way delay: 61.189 ms  
Loss rate: 12.38%  
-- Flow 1:  
Average throughput: 54.23 Mbit/s  
95th percentile per-packet one-way delay: 59.668 ms  
Loss rate: 9.00%  
-- Flow 2:  
Average throughput: 45.78 Mbit/s  
95th percentile per-packet one-way delay: 62.308 ms  
Loss rate: 17.05%  
-- Flow 3:  
Average throughput: 17.53 Mbit/s  
95th percentile per-packet one-way delay: 62.440 ms  
Loss rate: 16.57%

Run 2: Report of FillP-Sheep — Data Link

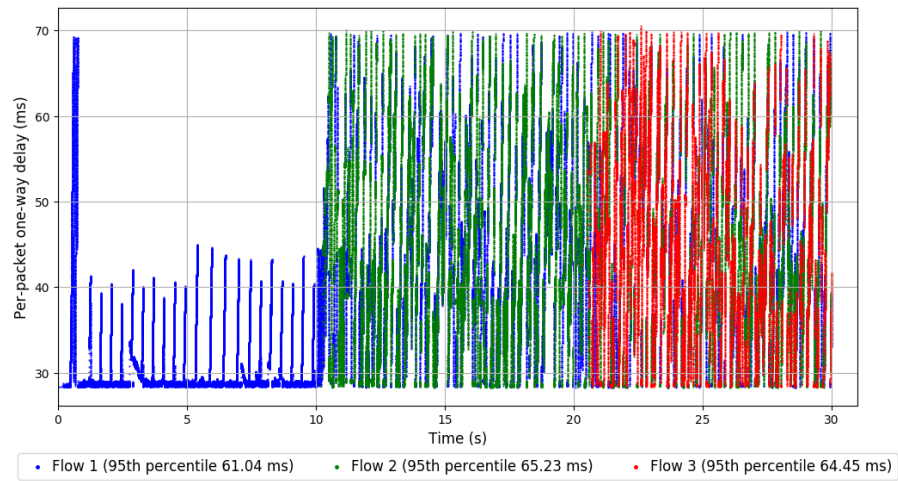
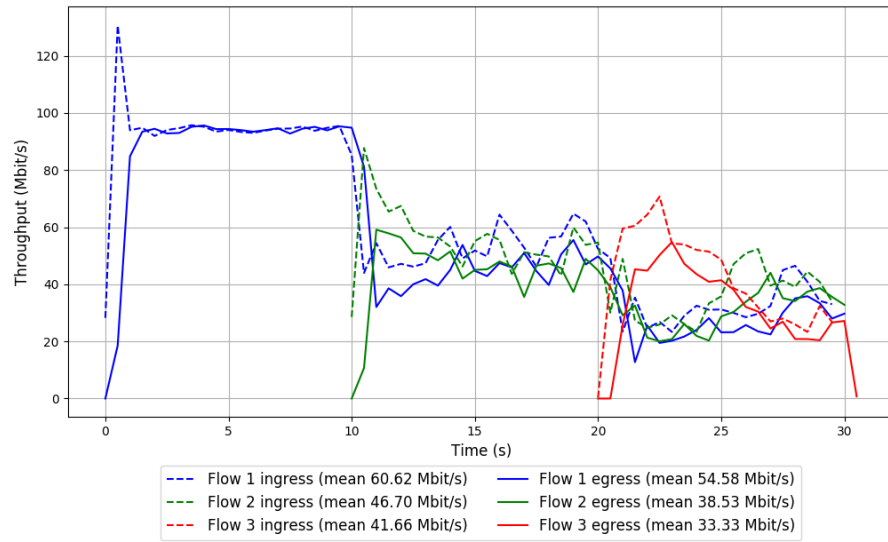


Run 3: Statistics of FillP-Sheep

Start at: 2019-02-05 08:23:52  
End at: 2019-02-05 08:24:22  
Local clock offset: 0.361 ms  
Remote clock offset: -4.931 ms

# Below is generated by plot.py at 2019-02-05 09:33:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.24 Mbit/s  
95th percentile per-packet one-way delay: 63.253 ms  
Loss rate: 13.48%  
-- Flow 1:  
Average throughput: 54.58 Mbit/s  
95th percentile per-packet one-way delay: 61.038 ms  
Loss rate: 9.95%  
-- Flow 2:  
Average throughput: 38.53 Mbit/s  
95th percentile per-packet one-way delay: 65.235 ms  
Loss rate: 17.47%  
-- Flow 3:  
Average throughput: 33.33 Mbit/s  
95th percentile per-packet one-way delay: 64.447 ms  
Loss rate: 19.99%

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

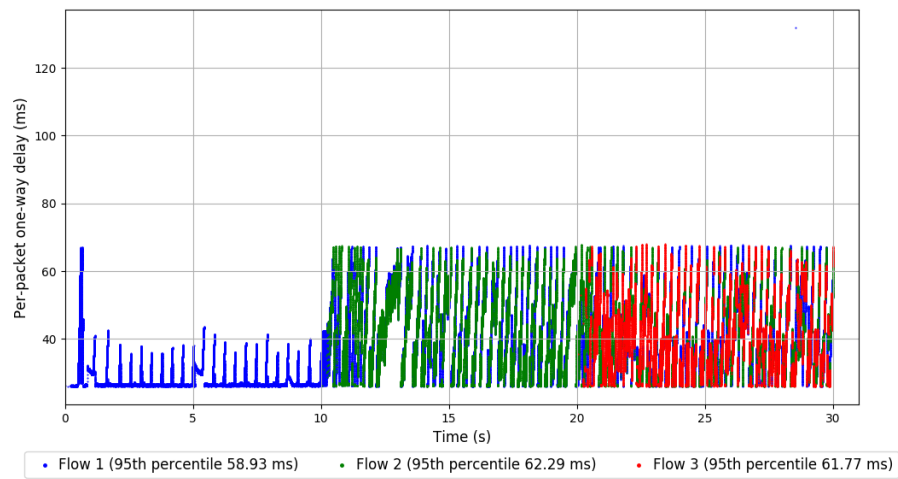
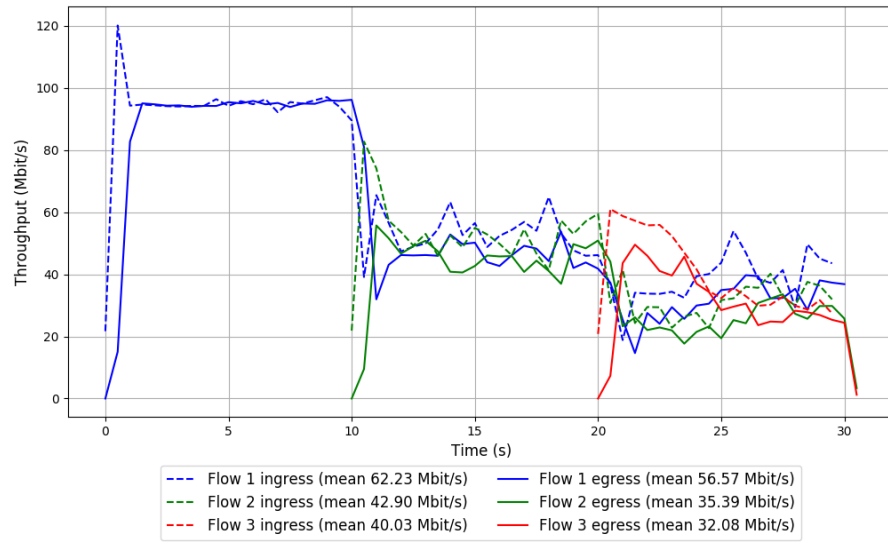


Run 4: Statistics of FillP-Sheep

Start at: 2019-02-05 08:49:10  
End at: 2019-02-05 08:49:40  
Local clock offset: -0.436 ms  
Remote clock offset: -6.466 ms

# Below is generated by plot.py at 2019-02-05 09:34:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.77 Mbit/s  
95th percentile per-packet one-way delay: 60.693 ms  
Loss rate: 12.72%  
-- Flow 1:  
Average throughput: 56.57 Mbit/s  
95th percentile per-packet one-way delay: 58.934 ms  
Loss rate: 9.10%  
-- Flow 2:  
Average throughput: 35.39 Mbit/s  
95th percentile per-packet one-way delay: 62.289 ms  
Loss rate: 17.35%  
-- Flow 3:  
Average throughput: 32.08 Mbit/s  
95th percentile per-packet one-way delay: 61.765 ms  
Loss rate: 19.69%

# Run 4: Report of FillP-Sheep — Data Link



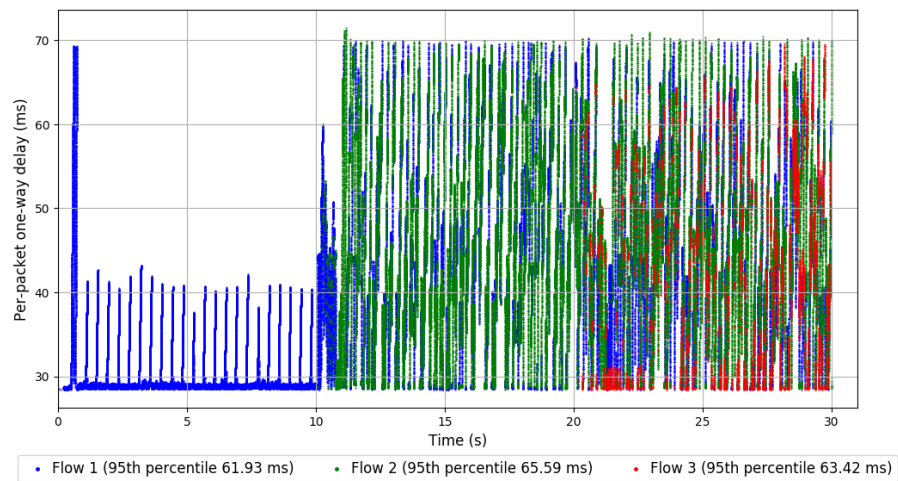
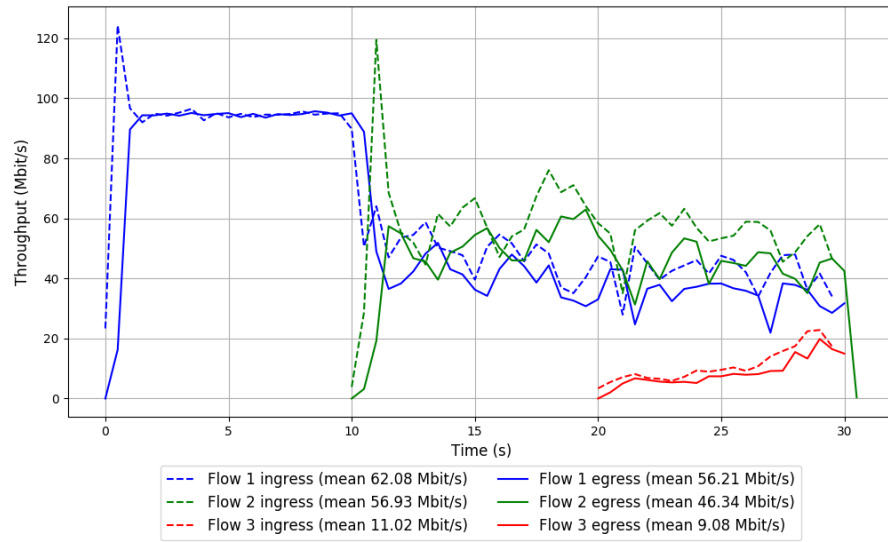


Run 5: Statistics of FillP-Sheep

Start at: 2019-02-05 09:14:32  
End at: 2019-02-05 09:15:02  
Local clock offset: -0.917 ms  
Remote clock offset: -3.977 ms

# Below is generated by plot.py at 2019-02-05 09:34:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.03 Mbit/s  
95th percentile per-packet one-way delay: 63.981 ms  
Loss rate: 13.12%  
-- Flow 1:  
Average throughput: 56.21 Mbit/s  
95th percentile per-packet one-way delay: 61.928 ms  
Loss rate: 9.49%  
-- Flow 2:  
Average throughput: 46.34 Mbit/s  
95th percentile per-packet one-way delay: 65.588 ms  
Loss rate: 18.61%  
-- Flow 3:  
Average throughput: 9.08 Mbit/s  
95th percentile per-packet one-way delay: 63.417 ms  
Loss rate: 18.03%

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

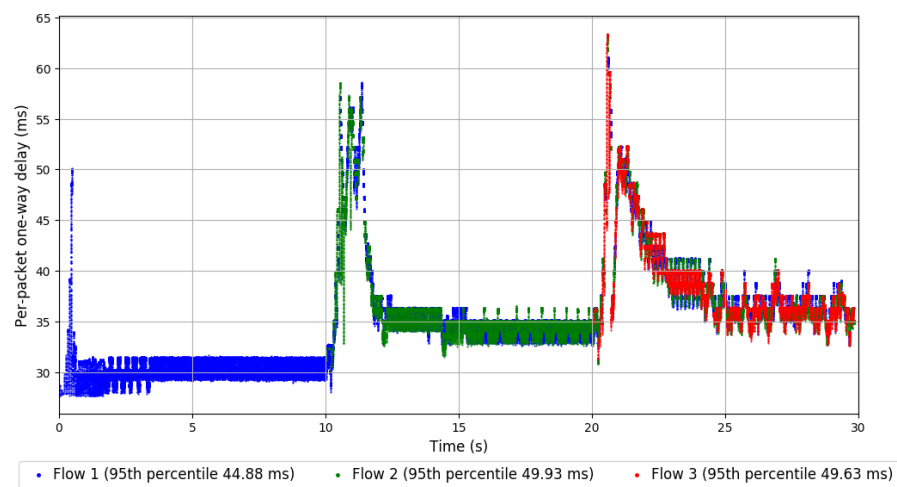
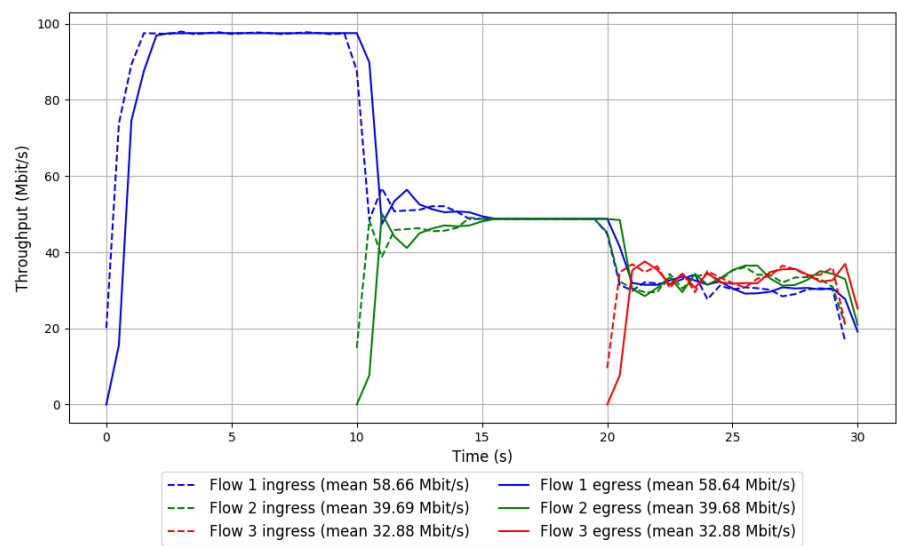


Run 1: Statistics of Indigo

Start at: 2019-02-05 07:33:39  
End at: 2019-02-05 07:34:09  
Local clock offset: 6.673 ms  
Remote clock offset: -7.189 ms

# Below is generated by plot.py at 2019-02-05 09:34:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.68 Mbit/s  
95th percentile per-packet one-way delay: 48.354 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 58.64 Mbit/s  
95th percentile per-packet one-way delay: 44.884 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 39.68 Mbit/s  
95th percentile per-packet one-way delay: 49.926 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.88 Mbit/s  
95th percentile per-packet one-way delay: 49.632 ms  
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link

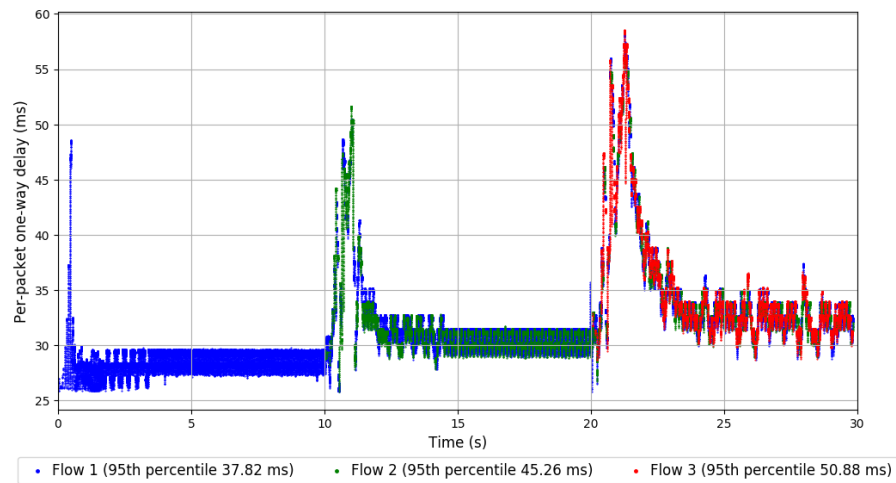
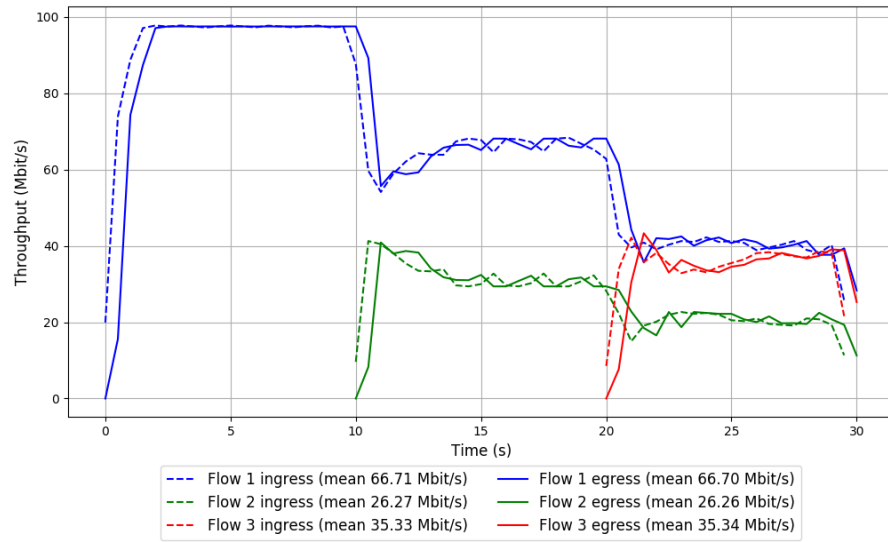


Run 2: Statistics of Indigo

Start at: 2019-02-05 07:59:12  
End at: 2019-02-05 07:59:42  
Local clock offset: 2.249 ms  
Remote clock offset: -8.144 ms

# Below is generated by plot.py at 2019-02-05 09:34:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.66 Mbit/s  
95th percentile per-packet one-way delay: 42.331 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 66.70 Mbit/s  
95th percentile per-packet one-way delay: 37.823 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 26.26 Mbit/s  
95th percentile per-packet one-way delay: 45.261 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 35.34 Mbit/s  
95th percentile per-packet one-way delay: 50.879 ms  
Loss rate: 0.00%

## Run 2: Report of Indigo — Data Link

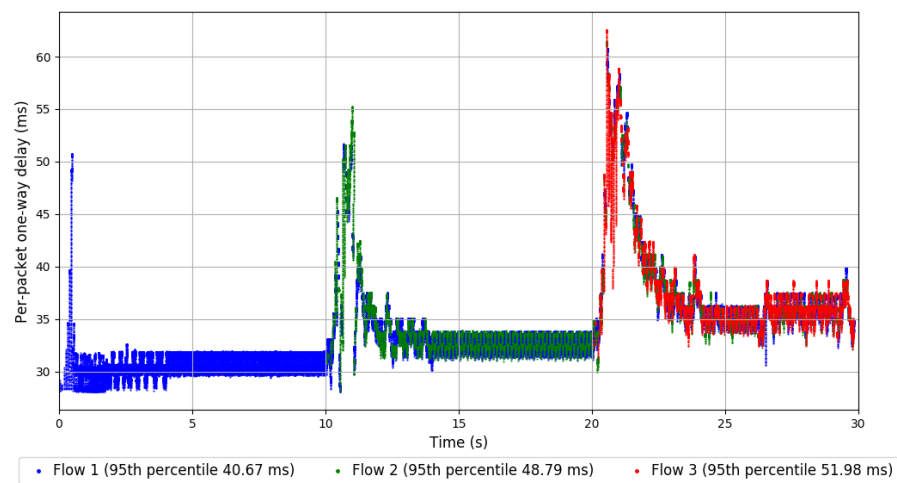
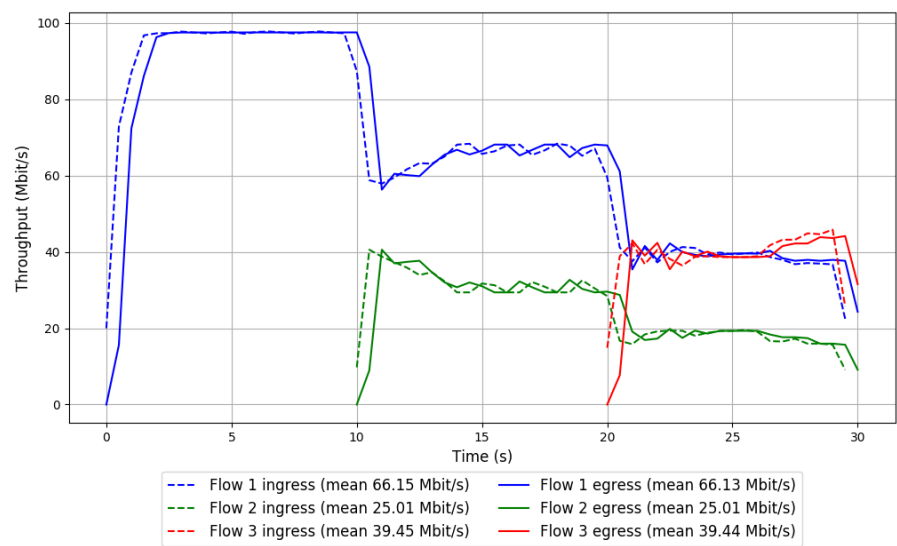


Run 3: Statistics of Indigo

Start at: 2019-02-05 08:25:06  
End at: 2019-02-05 08:25:36  
Local clock offset: 0.322 ms  
Remote clock offset: -5.294 ms

# Below is generated by plot.py at 2019-02-05 09:34:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.60 Mbit/s  
95th percentile per-packet one-way delay: 45.321 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 66.13 Mbit/s  
95th percentile per-packet one-way delay: 40.672 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 25.01 Mbit/s  
95th percentile per-packet one-way delay: 48.787 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 39.44 Mbit/s  
95th percentile per-packet one-way delay: 51.981 ms  
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



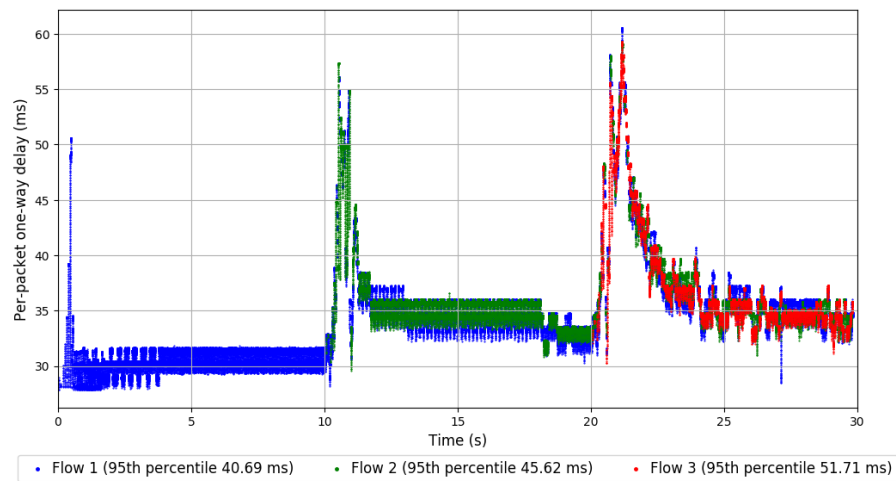
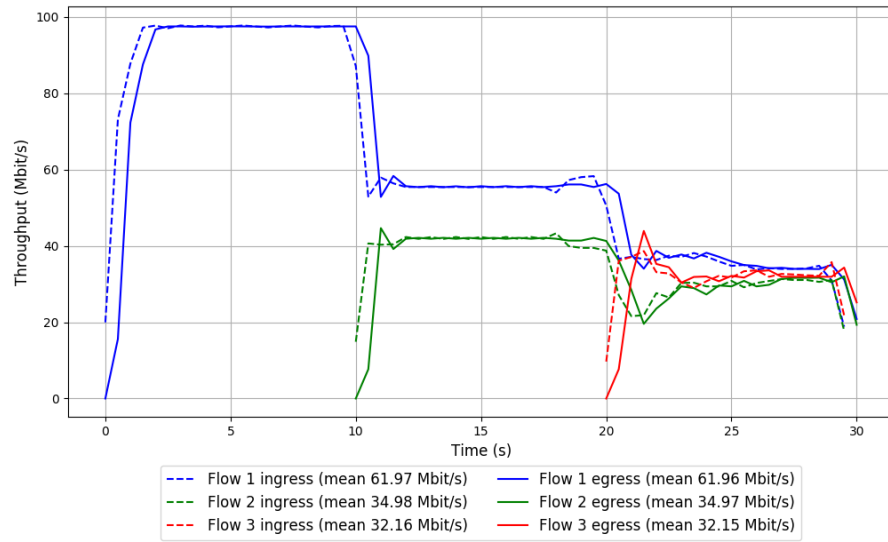


Run 4: Statistics of Indigo

Start at: 2019-02-05 08:50:23  
End at: 2019-02-05 08:50:53  
Local clock offset: -0.41 ms  
Remote clock offset: -4.749 ms

# Below is generated by plot.py at 2019-02-05 09:34:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.64 Mbit/s  
95th percentile per-packet one-way delay: 44.356 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 61.96 Mbit/s  
95th percentile per-packet one-way delay: 40.689 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 34.97 Mbit/s  
95th percentile per-packet one-way delay: 45.616 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.15 Mbit/s  
95th percentile per-packet one-way delay: 51.712 ms  
Loss rate: 0.00%

# Run 4: Report of Indigo — Data Link

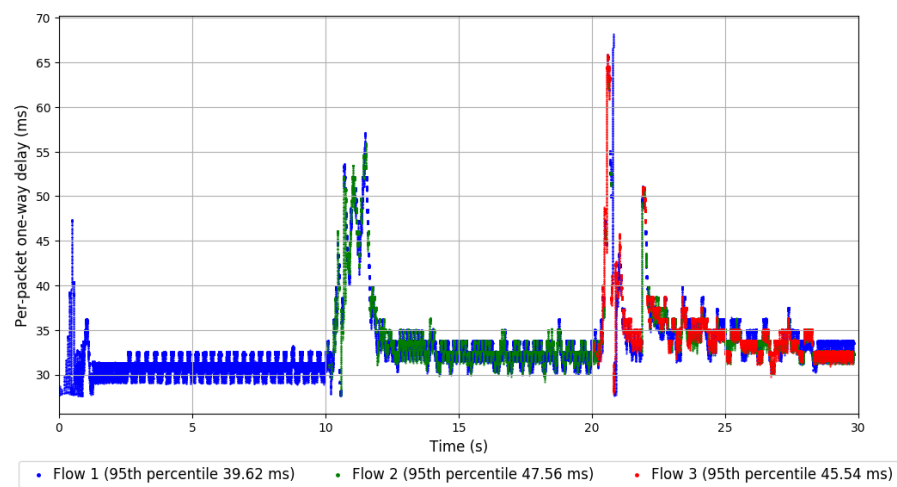
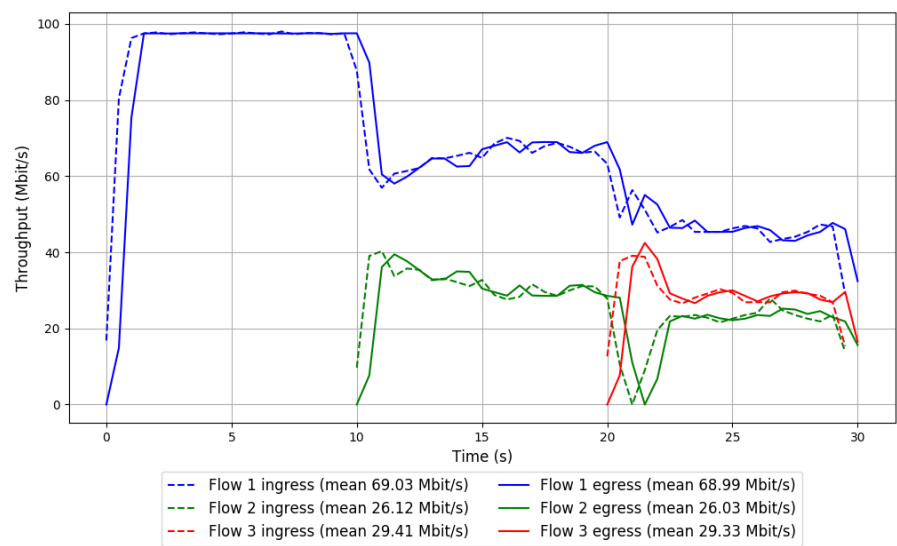


Run 5: Statistics of Indigo

Start at: 2019-02-05 09:15:45  
End at: 2019-02-05 09:16:15  
Local clock offset: -0.959 ms  
Remote clock offset: -4.976 ms

# Below is generated by plot.py at 2019-02-05 09:34:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.79 Mbit/s  
95th percentile per-packet one-way delay: 42.255 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 68.99 Mbit/s  
95th percentile per-packet one-way delay: 39.620 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 26.03 Mbit/s  
95th percentile per-packet one-way delay: 47.564 ms  
Loss rate: 0.33%  
-- Flow 3:  
Average throughput: 29.33 Mbit/s  
95th percentile per-packet one-way delay: 45.540 ms  
Loss rate: 0.27%

Run 5: Report of Indigo — Data Link

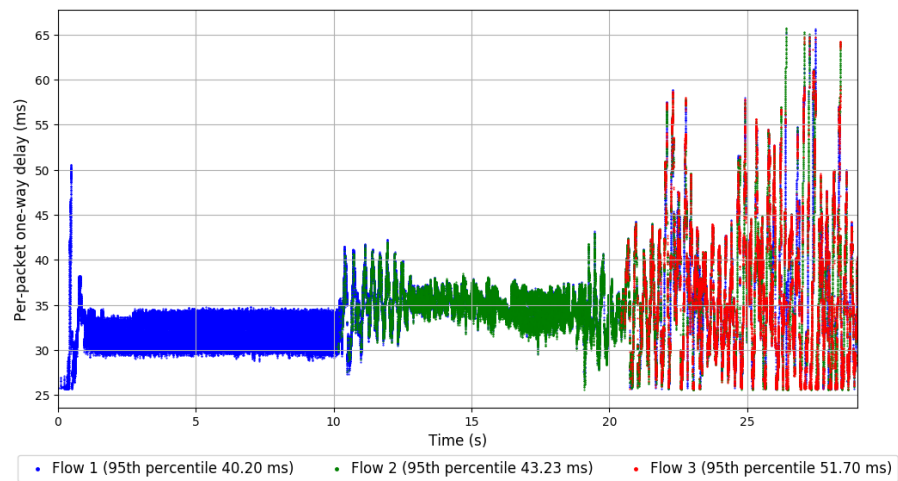
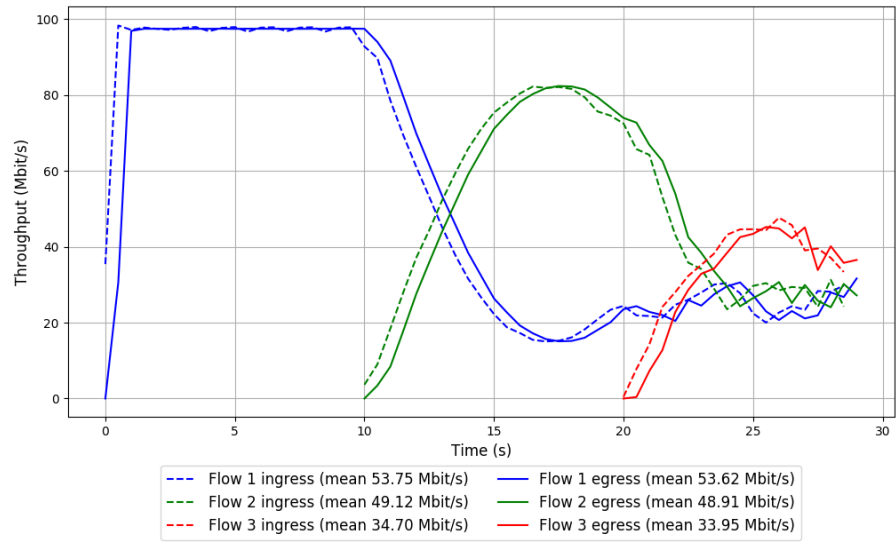


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-02-05 07:39:37  
End at: 2019-02-05 07:40:07  
Local clock offset: 6.647 ms  
Remote clock offset: -9.019 ms

# Below is generated by plot.py at 2019-02-05 09:34:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.63 Mbit/s  
95th percentile per-packet one-way delay: 43.313 ms  
Loss rate: 0.46%  
-- Flow 1:  
Average throughput: 53.62 Mbit/s  
95th percentile per-packet one-way delay: 40.197 ms  
Loss rate: 0.20%  
-- Flow 2:  
Average throughput: 48.91 Mbit/s  
95th percentile per-packet one-way delay: 43.232 ms  
Loss rate: 0.37%  
-- Flow 3:  
Average throughput: 33.95 Mbit/s  
95th percentile per-packet one-way delay: 51.703 ms  
Loss rate: 2.10%

# Run 1: Report of Indigo-MusesC3 — Data Link

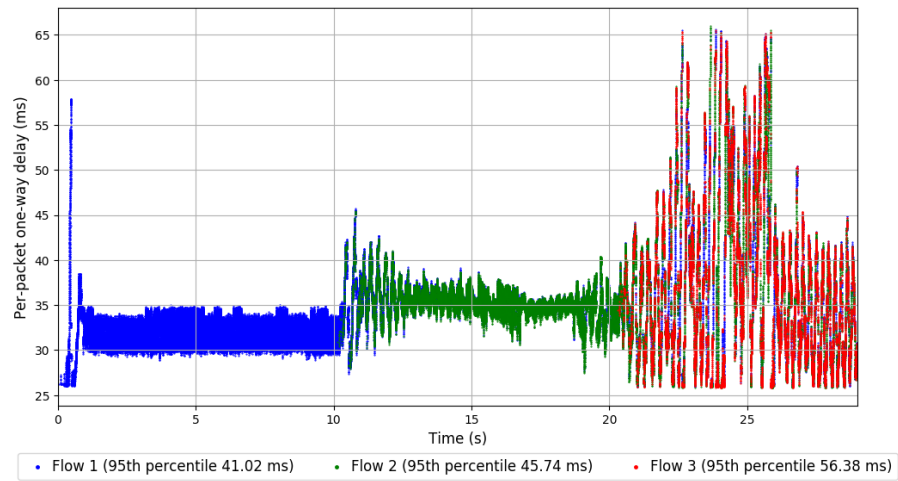
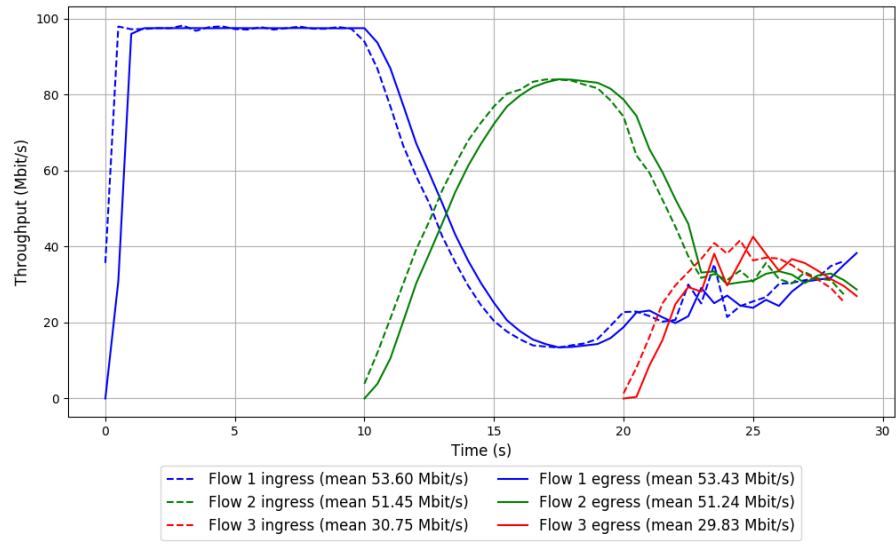


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-05 08:05:23  
End at: 2019-02-05 08:05:53  
Local clock offset: 1.427 ms  
Remote clock offset: -7.841 ms

# Below is generated by plot.py at 2019-02-05 09:34:56  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.71 Mbit/s  
95th percentile per-packet one-way delay: 45.768 ms  
Loss rate: 0.61%  
-- Flow 1:  
Average throughput: 53.43 Mbit/s  
95th percentile per-packet one-way delay: 41.019 ms  
Loss rate: 0.31%  
-- Flow 2:  
Average throughput: 51.24 Mbit/s  
95th percentile per-packet one-way delay: 45.739 ms  
Loss rate: 0.42%  
-- Flow 3:  
Average throughput: 29.83 Mbit/s  
95th percentile per-packet one-way delay: 56.375 ms  
Loss rate: 3.06%

## Run 2: Report of Indigo-MusesC3 — Data Link



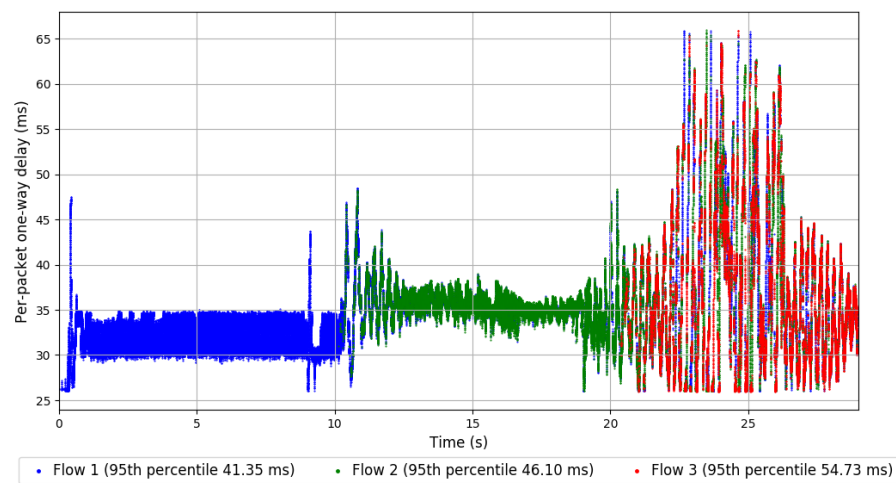
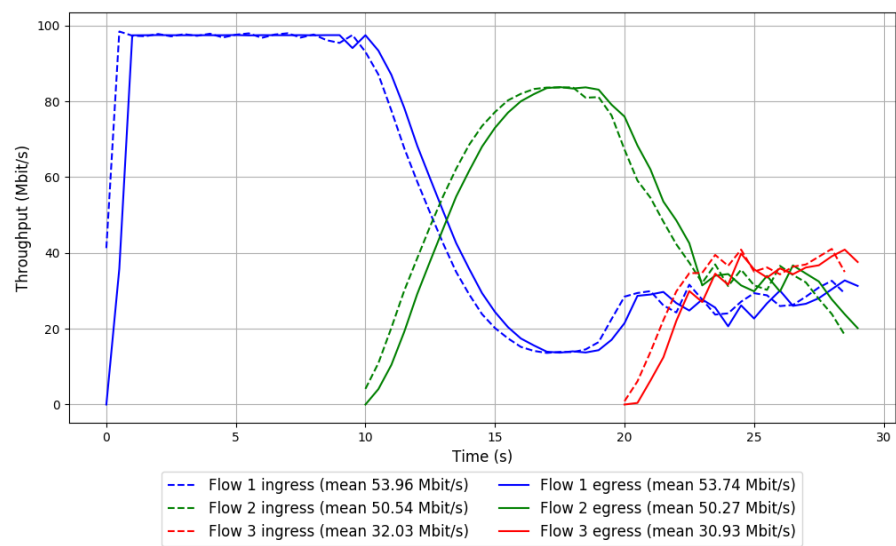


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-05 08:31:02  
End at: 2019-02-05 08:31:32  
Local clock offset: 0.118 ms  
Remote clock offset: -7.232 ms

# Below is generated by plot.py at 2019-02-05 09:35:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.67 Mbit/s  
95th percentile per-packet one-way delay: 45.674 ms  
Loss rate: 0.75%  
-- Flow 1:  
Average throughput: 53.74 Mbit/s  
95th percentile per-packet one-way delay: 41.354 ms  
Loss rate: 0.39%  
-- Flow 2:  
Average throughput: 50.27 Mbit/s  
95th percentile per-packet one-way delay: 46.105 ms  
Loss rate: 0.54%  
-- Flow 3:  
Average throughput: 30.93 Mbit/s  
95th percentile per-packet one-way delay: 54.731 ms  
Loss rate: 3.45%

Run 3: Report of Indigo-MusesC3 — Data Link

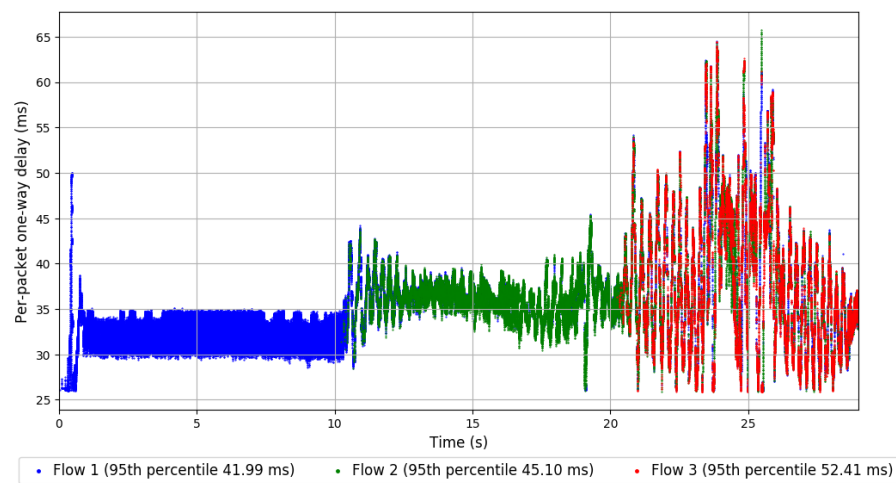
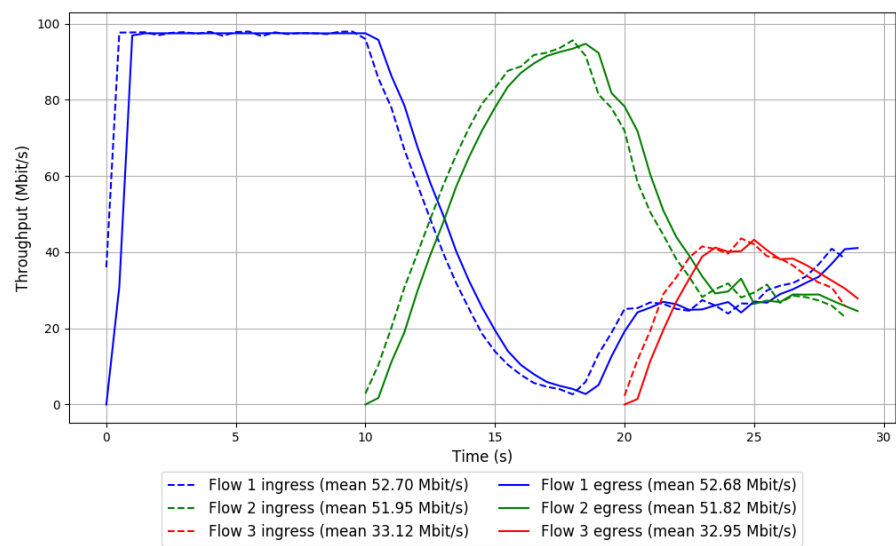


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-05 08:56:20  
End at: 2019-02-05 08:56:50  
Local clock offset: -0.416 ms  
Remote clock offset: -6.675 ms

# Below is generated by plot.py at 2019-02-05 09:35:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.15 Mbit/s  
95th percentile per-packet one-way delay: 45.440 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 52.68 Mbit/s  
95th percentile per-packet one-way delay: 41.992 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 51.82 Mbit/s  
95th percentile per-packet one-way delay: 45.096 ms  
Loss rate: 0.25%  
-- Flow 3:  
Average throughput: 32.95 Mbit/s  
95th percentile per-packet one-way delay: 52.409 ms  
Loss rate: 0.54%

Run 4: Report of Indigo-MusesC3 — Data Link

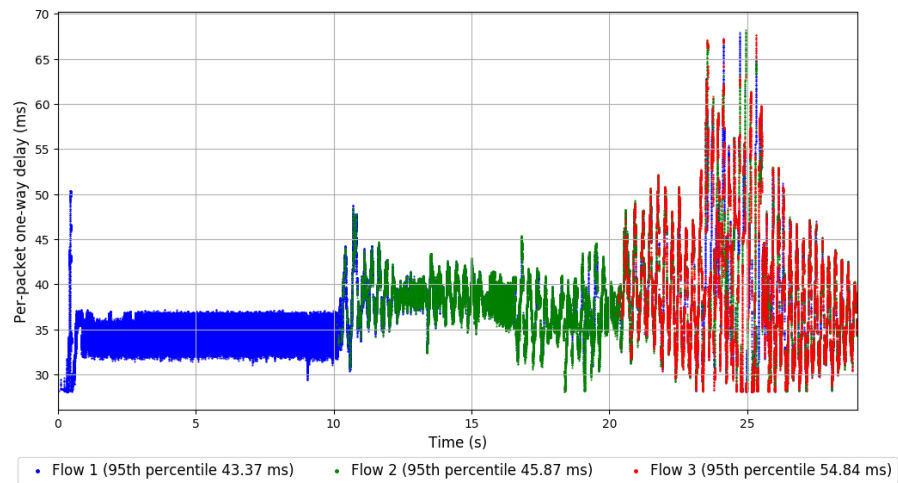
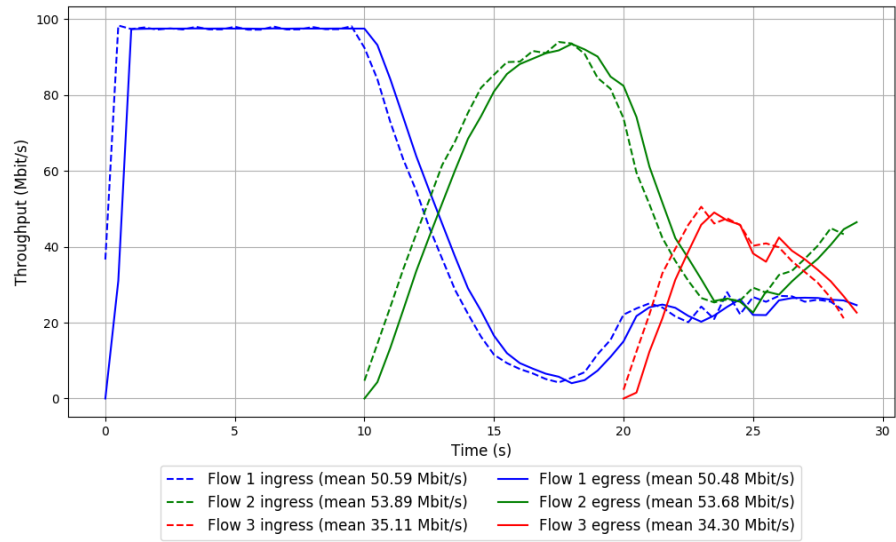


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-05 09:21:41  
End at: 2019-02-05 09:22:11  
Local clock offset: -0.775 ms  
Remote clock offset: -4.474 ms

# Below is generated by plot.py at 2019-02-05 09:35:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.84 Mbit/s  
95th percentile per-packet one-way delay: 46.373 ms  
Loss rate: 0.50%  
-- Flow 1:  
Average throughput: 50.48 Mbit/s  
95th percentile per-packet one-way delay: 43.365 ms  
Loss rate: 0.19%  
-- Flow 2:  
Average throughput: 53.68 Mbit/s  
95th percentile per-packet one-way delay: 45.871 ms  
Loss rate: 0.39%  
-- Flow 3:  
Average throughput: 34.30 Mbit/s  
95th percentile per-packet one-way delay: 54.844 ms  
Loss rate: 2.34%

# Run 5: Report of Indigo-MusesC3 — Data Link

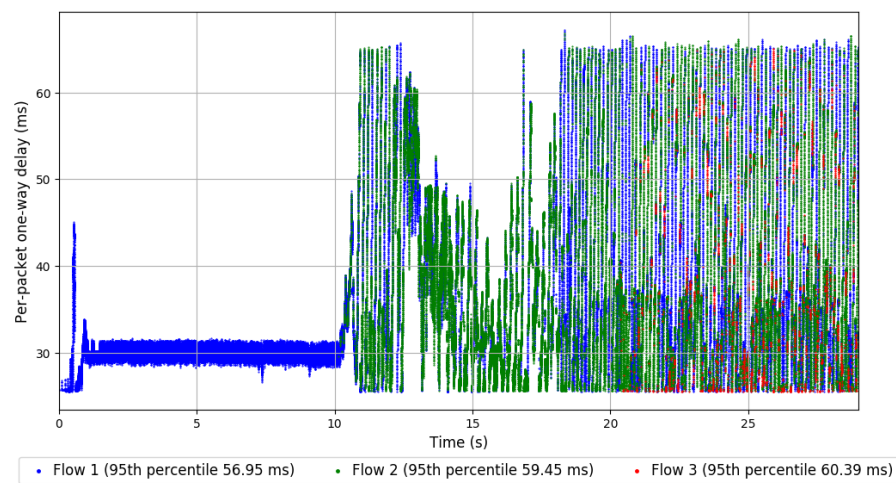
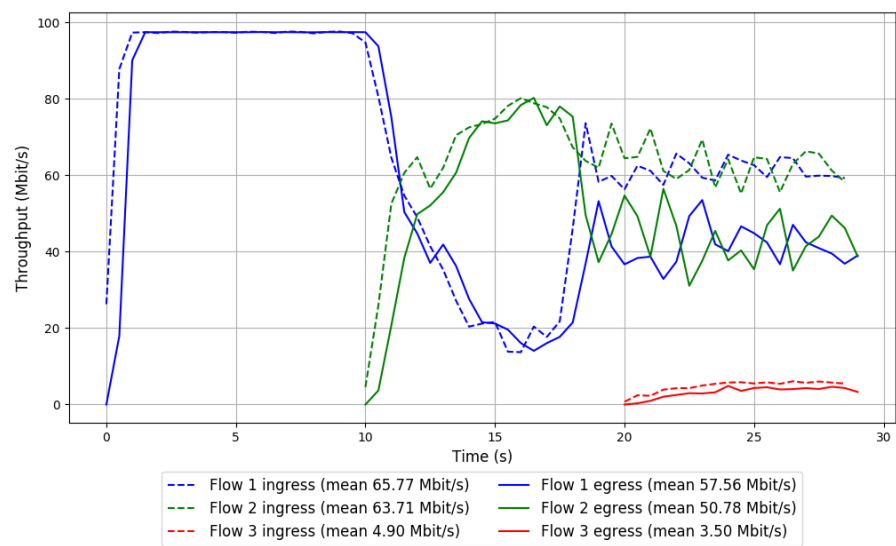


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-05 07:44:37  
End at: 2019-02-05 07:45:07  
Local clock offset: 6.688 ms  
Remote clock offset: -8.911 ms

# Below is generated by plot.py at 2019-02-05 09:35:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.69 Mbit/s  
95th percentile per-packet one-way delay: 58.110 ms  
Loss rate: 15.65%  
-- Flow 1:  
Average throughput: 57.56 Mbit/s  
95th percentile per-packet one-way delay: 56.948 ms  
Loss rate: 12.44%  
-- Flow 2:  
Average throughput: 50.78 Mbit/s  
95th percentile per-packet one-way delay: 59.452 ms  
Loss rate: 20.25%  
-- Flow 3:  
Average throughput: 3.50 Mbit/s  
95th percentile per-packet one-way delay: 60.392 ms  
Loss rate: 29.00%

Run 1: Report of Indigo-MusesC5 — Data Link



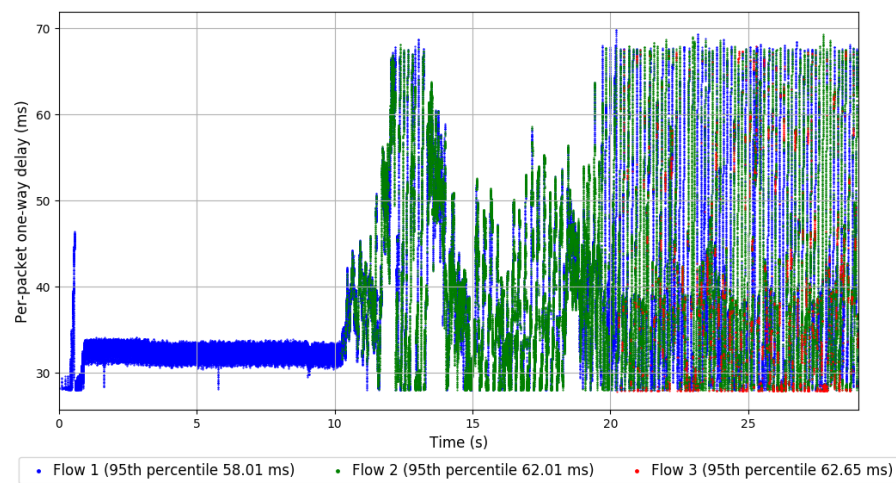
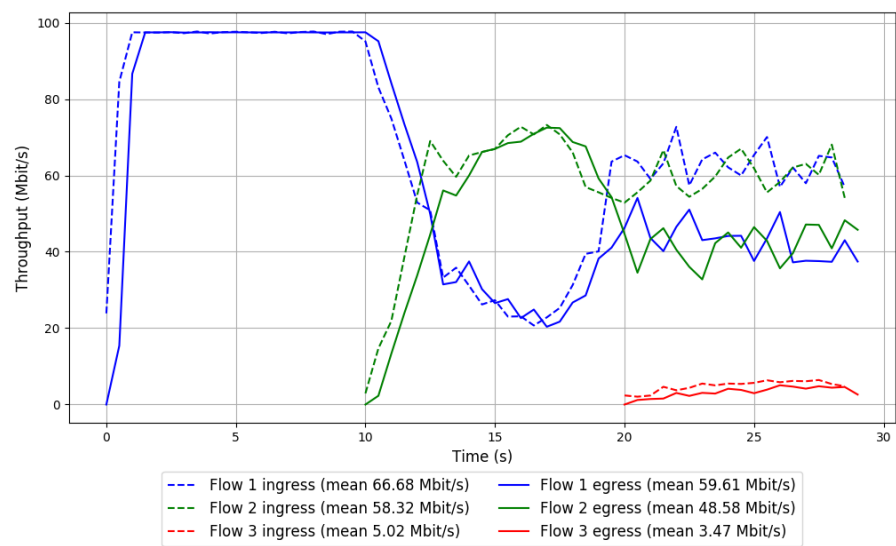


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-05 08:10:15  
End at: 2019-02-05 08:10:45  
Local clock offset: 0.964 ms  
Remote clock offset: -5.648 ms

# Below is generated by plot.py at 2019-02-05 09:35:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.18 Mbit/s  
95th percentile per-packet one-way delay: 59.942 ms  
Loss rate: 13.06%  
-- Flow 1:  
Average throughput: 59.61 Mbit/s  
95th percentile per-packet one-way delay: 58.013 ms  
Loss rate: 10.59%  
-- Flow 2:  
Average throughput: 48.58 Mbit/s  
95th percentile per-packet one-way delay: 62.010 ms  
Loss rate: 16.69%  
-- Flow 3:  
Average throughput: 3.47 Mbit/s  
95th percentile per-packet one-way delay: 62.648 ms  
Loss rate: 30.90%

Run 2: Report of Indigo-MusesC5 — Data Link

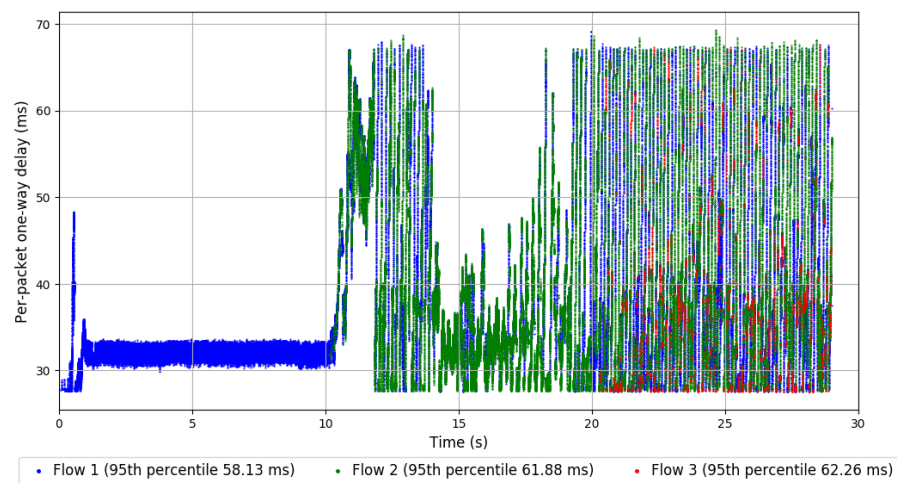
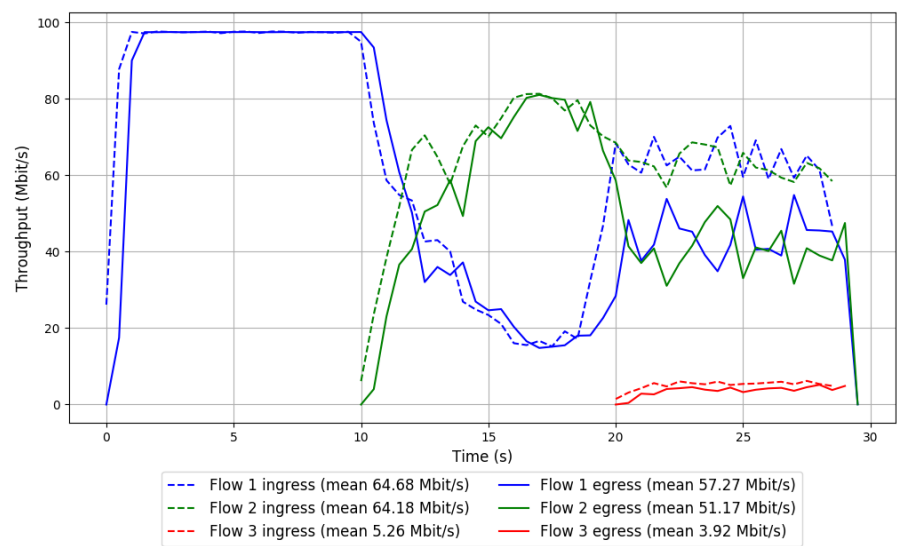


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-05 08:35:52  
End at: 2019-02-05 08:36:22  
Local clock offset: -0.057 ms  
Remote clock offset: -5.429 ms

# Below is generated by plot.py at 2019-02-05 09:35:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.80 Mbit/s  
95th percentile per-packet one-way delay: 59.968 ms  
Loss rate: 15.01%  
-- Flow 1:  
Average throughput: 57.27 Mbit/s  
95th percentile per-packet one-way delay: 58.131 ms  
Loss rate: 11.43%  
-- Flow 2:  
Average throughput: 51.17 Mbit/s  
95th percentile per-packet one-way delay: 61.878 ms  
Loss rate: 20.17%  
-- Flow 3:  
Average throughput: 3.92 Mbit/s  
95th percentile per-packet one-way delay: 62.257 ms  
Loss rate: 25.31%

Run 3: Report of Indigo-MusesC5 — Data Link

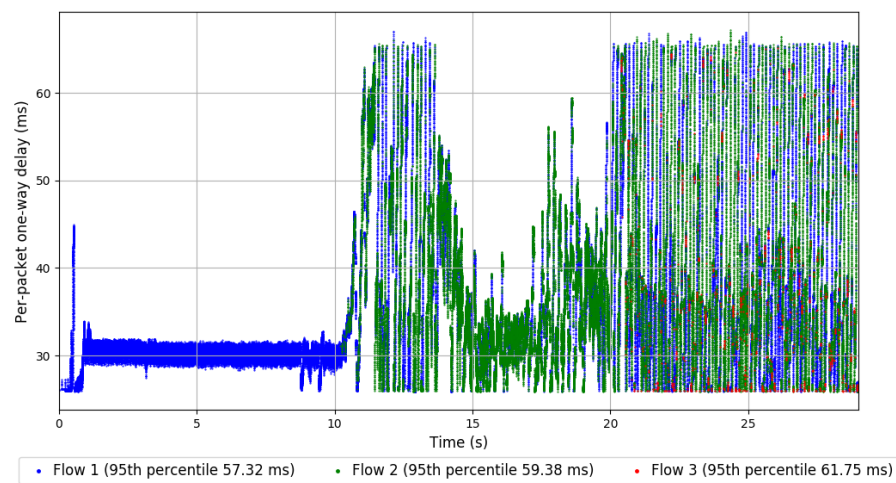
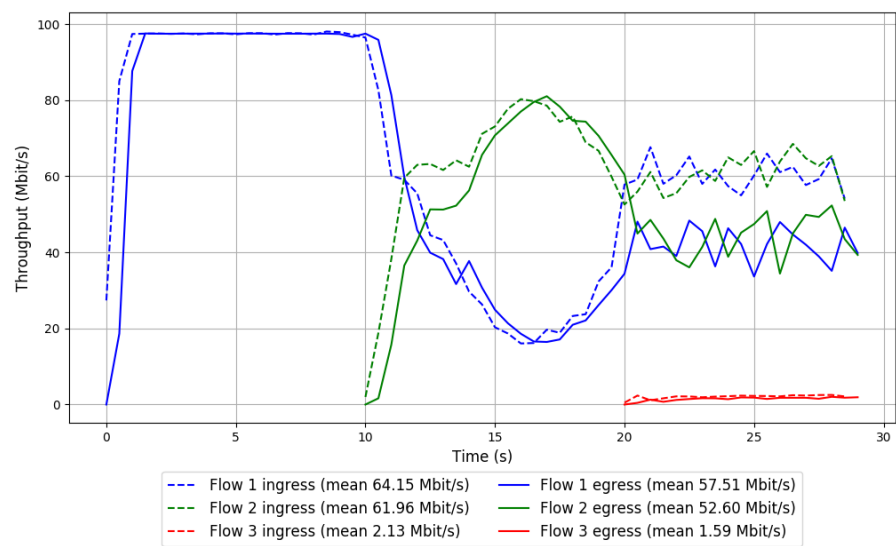


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-05 09:01:10  
End at: 2019-02-05 09:01:40  
Local clock offset: -0.492 ms  
Remote clock offset: -6.815 ms

# Below is generated by plot.py at 2019-02-05 09:35:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.07 Mbit/s  
95th percentile per-packet one-way delay: 58.224 ms  
Loss rate: 12.27%  
-- Flow 1:  
Average throughput: 57.51 Mbit/s  
95th percentile per-packet one-way delay: 57.318 ms  
Loss rate: 10.34%  
-- Flow 2:  
Average throughput: 52.60 Mbit/s  
95th percentile per-packet one-way delay: 59.377 ms  
Loss rate: 15.12%  
-- Flow 3:  
Average throughput: 1.59 Mbit/s  
95th percentile per-packet one-way delay: 61.752 ms  
Loss rate: 25.55%

Run 4: Report of Indigo-MusesC5 — Data Link

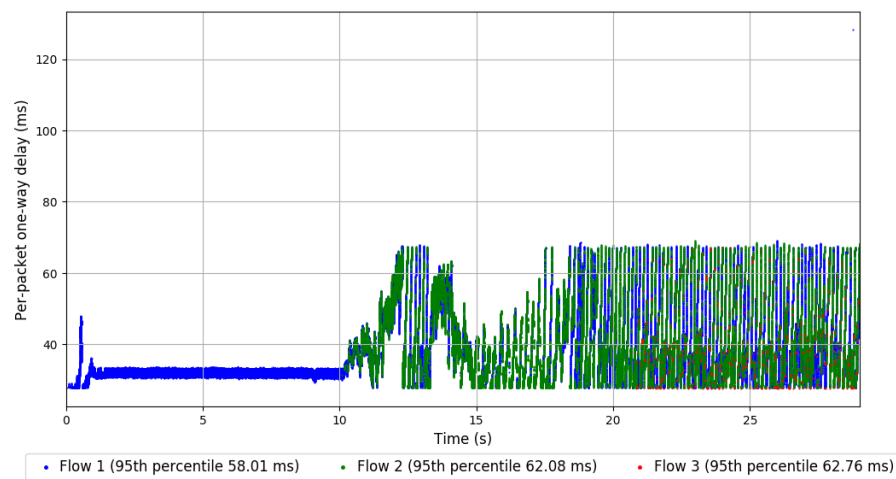
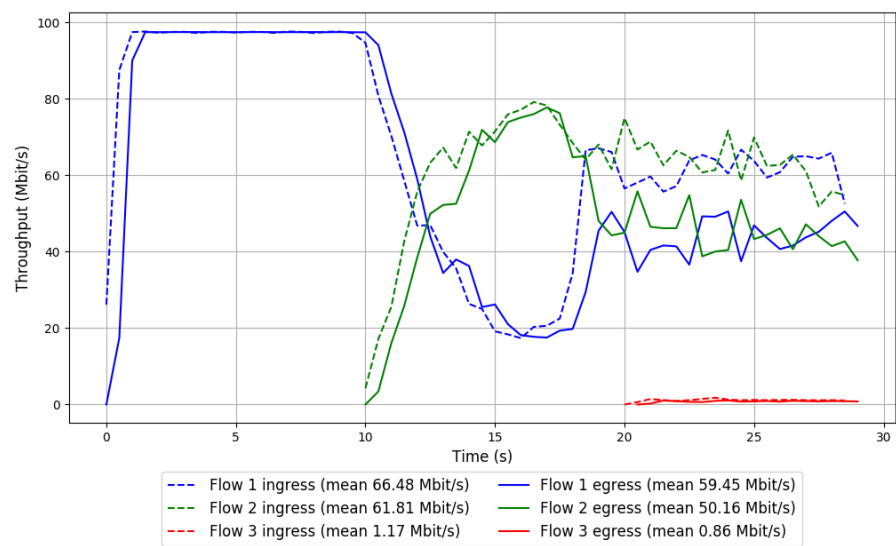


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-05 09:26:31  
End at: 2019-02-05 09:27:01  
Local clock offset: -0.757 ms  
Remote clock offset: -4.994 ms

# Below is generated by plot.py at 2019-02-05 09:36:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.42 Mbit/s  
95th percentile per-packet one-way delay: 60.147 ms  
Loss rate: 13.71%  
-- Flow 1:  
Average throughput: 59.45 Mbit/s  
95th percentile per-packet one-way delay: 58.009 ms  
Loss rate: 10.53%  
-- Flow 2:  
Average throughput: 50.16 Mbit/s  
95th percentile per-packet one-way delay: 62.080 ms  
Loss rate: 18.80%  
-- Flow 3:  
Average throughput: 0.86 Mbit/s  
95th percentile per-packet one-way delay: 62.756 ms  
Loss rate: 30.58%

Run 5: Report of Indigo-MusesC5 — Data Link



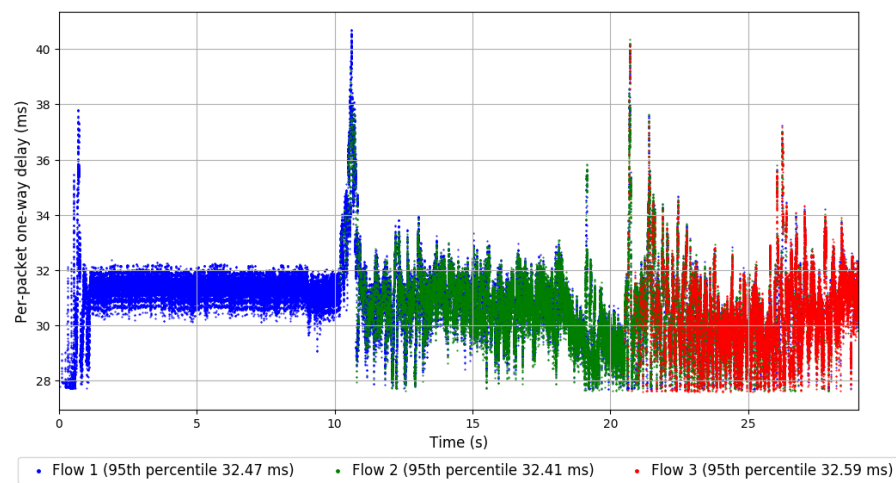
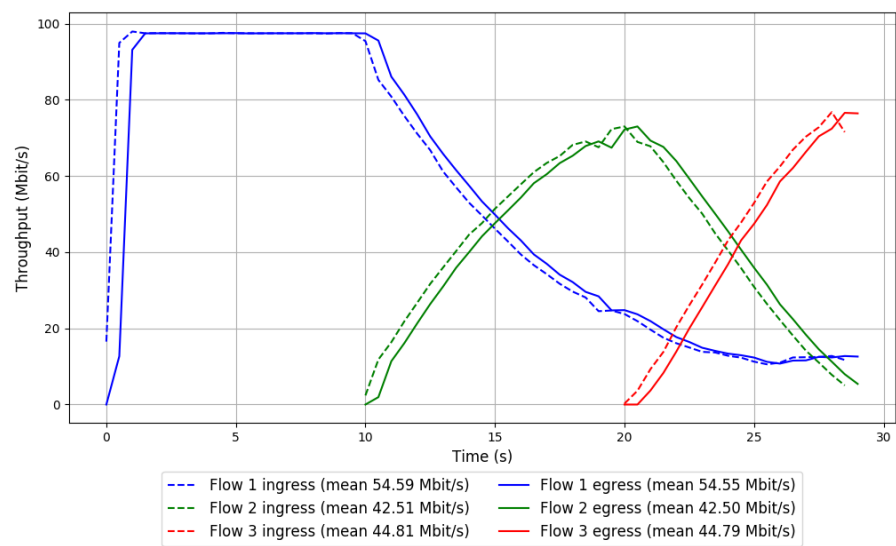


Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-05 07:42:04  
End at: 2019-02-05 07:42:34  
Local clock offset: 6.665 ms  
Remote clock offset: -6.913 ms

# Below is generated by plot.py at 2019-02-05 09:36:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.43 Mbit/s  
95th percentile per-packet one-way delay: 32.480 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 54.55 Mbit/s  
95th percentile per-packet one-way delay: 32.471 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 42.50 Mbit/s  
95th percentile per-packet one-way delay: 32.414 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 44.79 Mbit/s  
95th percentile per-packet one-way delay: 32.591 ms  
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-05 08:07:52

End at: 2019-02-05 08:08:22

Local clock offset: 1.159 ms

Remote clock offset: -7.94 ms

# Below is generated by plot.py at 2019-02-05 09:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.40 Mbit/s

95th percentile per-packet one-way delay: 32.740 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 55.60 Mbit/s

95th percentile per-packet one-way delay: 32.541 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 45.26 Mbit/s

95th percentile per-packet one-way delay: 31.884 ms

Loss rate: 0.00%

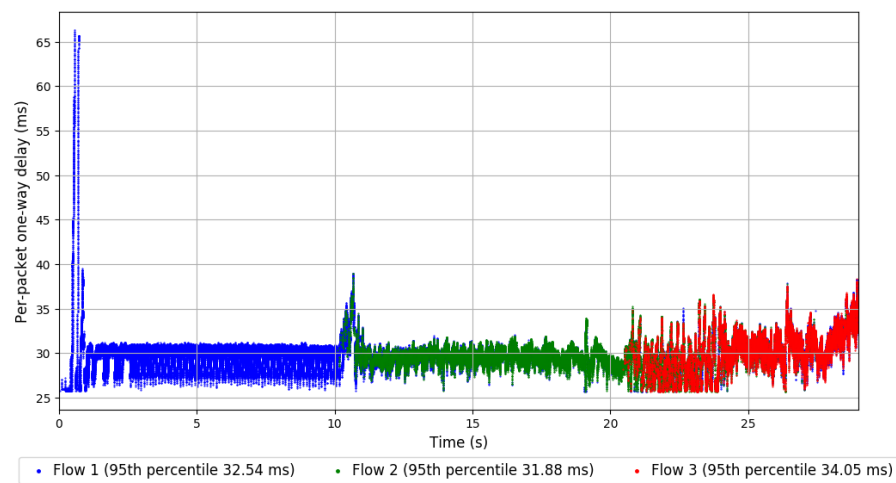
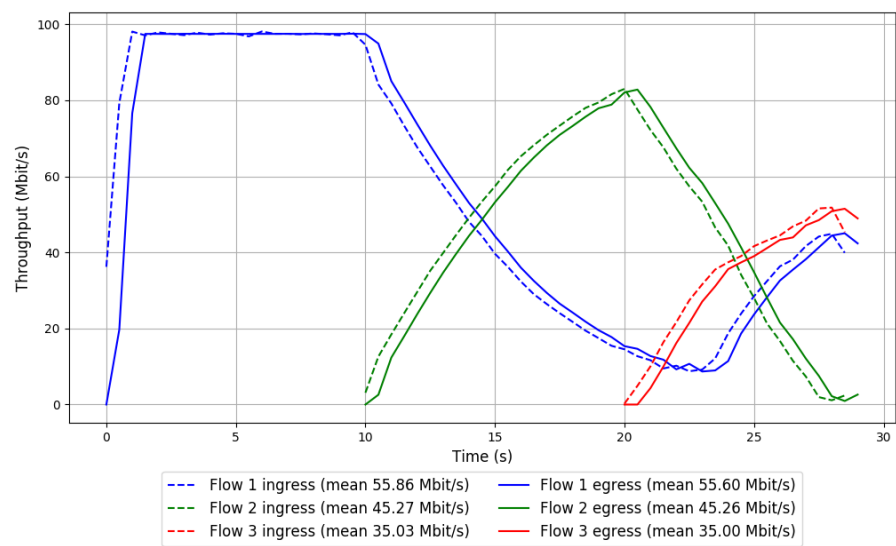
-- Flow 3:

Average throughput: 35.00 Mbit/s

95th percentile per-packet one-way delay: 34.048 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link

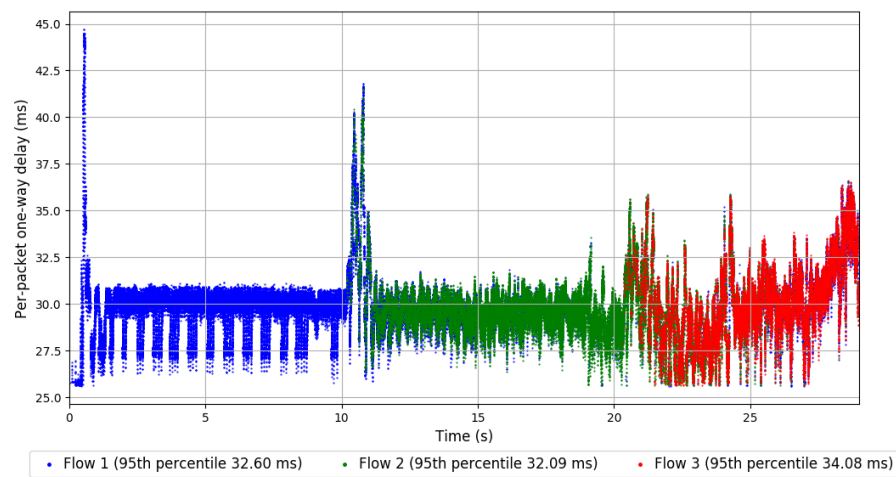
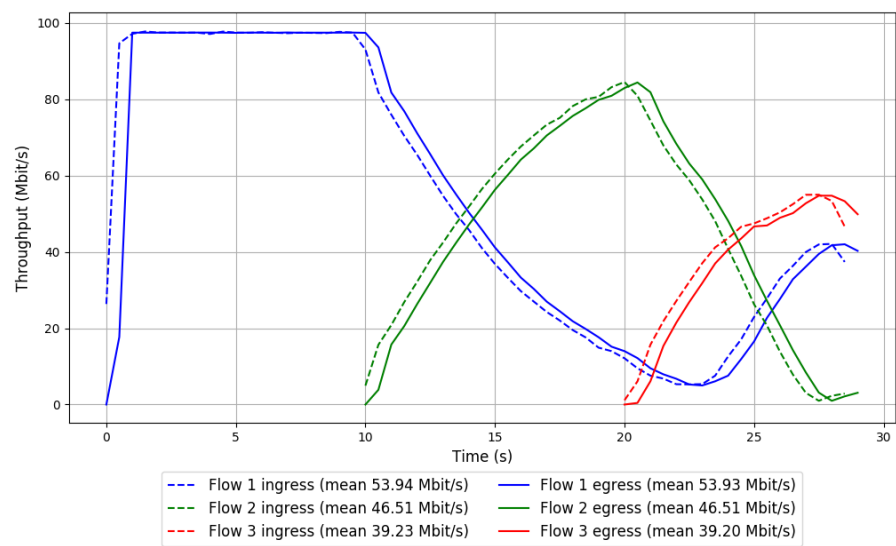


Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-05 08:33:29  
End at: 2019-02-05 08:33:59  
Local clock offset: 0.018 ms  
Remote clock offset: -7.573 ms

# Below is generated by plot.py at 2019-02-05 09:36:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.98 Mbit/s  
95th percentile per-packet one-way delay: 32.836 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 53.93 Mbit/s  
95th percentile per-packet one-way delay: 32.600 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 46.51 Mbit/s  
95th percentile per-packet one-way delay: 32.094 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 39.20 Mbit/s  
95th percentile per-packet one-way delay: 34.076 ms  
Loss rate: 0.05%

Run 3: Report of Indigo-MusesD — Data Link

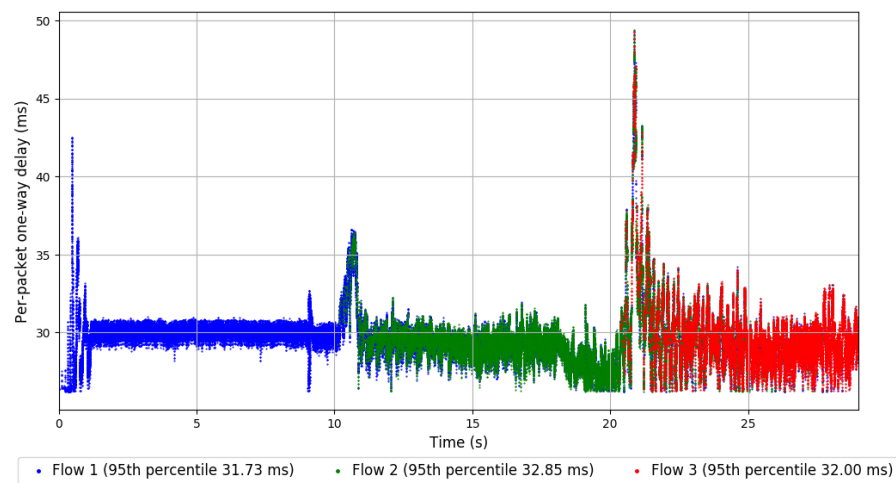
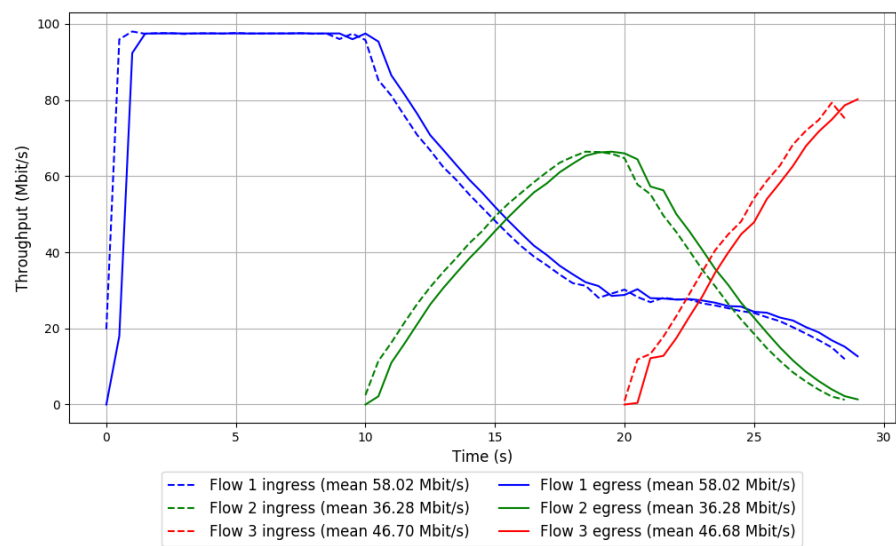


Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-05 08:58:47  
End at: 2019-02-05 08:59:17  
Local clock offset: -0.439 ms  
Remote clock offset: -6.402 ms

# Below is generated by plot.py at 2019-02-05 09:36:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.63 Mbit/s  
95th percentile per-packet one-way delay: 32.074 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 58.02 Mbit/s  
95th percentile per-packet one-way delay: 31.731 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 36.28 Mbit/s  
95th percentile per-packet one-way delay: 32.849 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 46.68 Mbit/s  
95th percentile per-packet one-way delay: 31.998 ms  
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



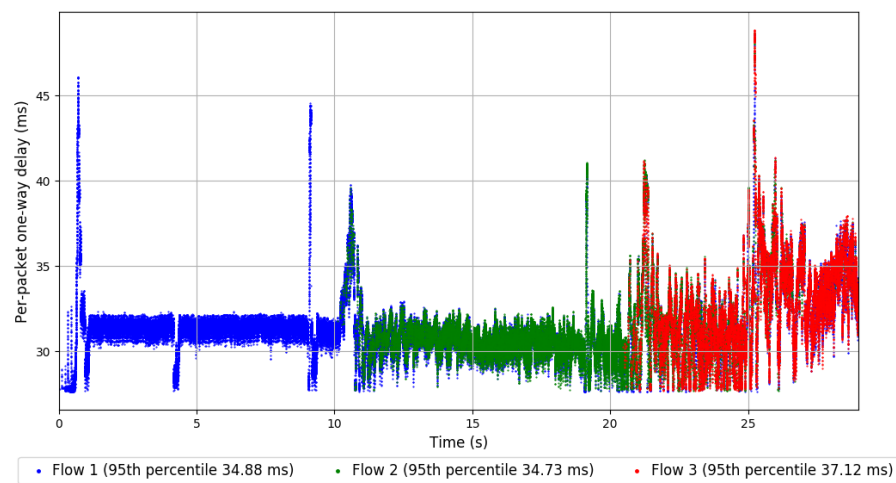
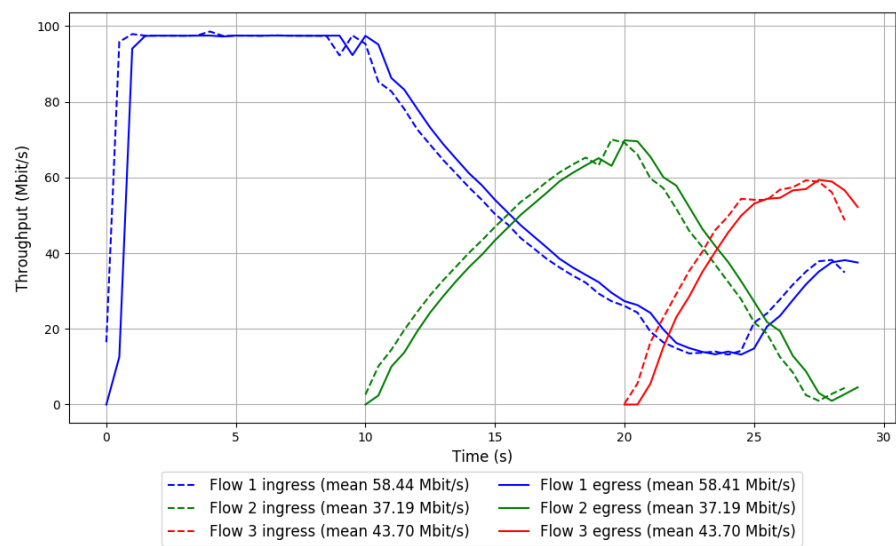


Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-05 09:24:08  
End at: 2019-02-05 09:24:38  
Local clock offset: -0.76 ms  
Remote clock offset: -4.975 ms

# Below is generated by plot.py at 2019-02-05 09:36:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.50 Mbit/s  
95th percentile per-packet one-way delay: 35.567 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 58.41 Mbit/s  
95th percentile per-packet one-way delay: 34.877 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 37.19 Mbit/s  
95th percentile per-packet one-way delay: 34.725 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 43.70 Mbit/s  
95th percentile per-packet one-way delay: 37.120 ms  
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-05 07:22:50

End at: 2019-02-05 07:23:20

Local clock offset: 7.203 ms

Remote clock offset: -9.54 ms

# Below is generated by plot.py at 2019-02-05 09:36:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.34 Mbit/s

95th percentile per-packet one-way delay: 57.276 ms

Loss rate: 9.10%

-- Flow 1:

Average throughput: 44.46 Mbit/s

95th percentile per-packet one-way delay: 51.099 ms

Loss rate: 2.60%

-- Flow 2:

Average throughput: 64.70 Mbit/s

95th percentile per-packet one-way delay: 58.265 ms

Loss rate: 10.29%

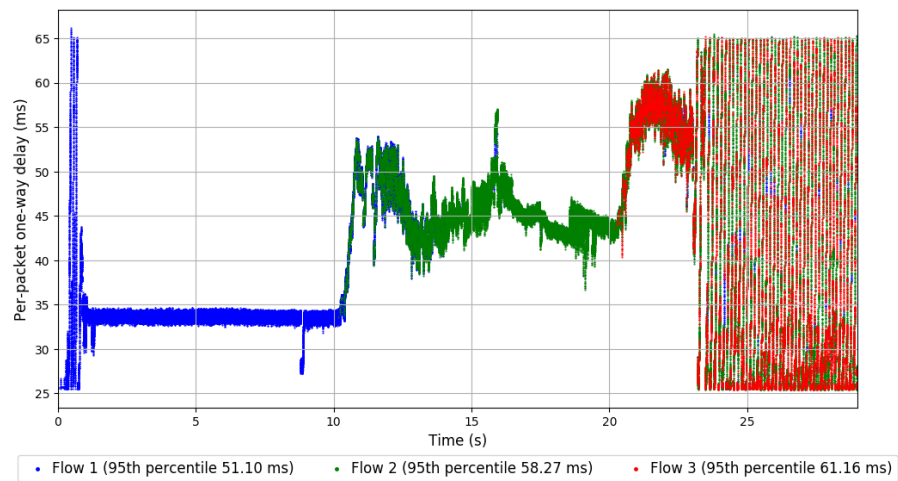
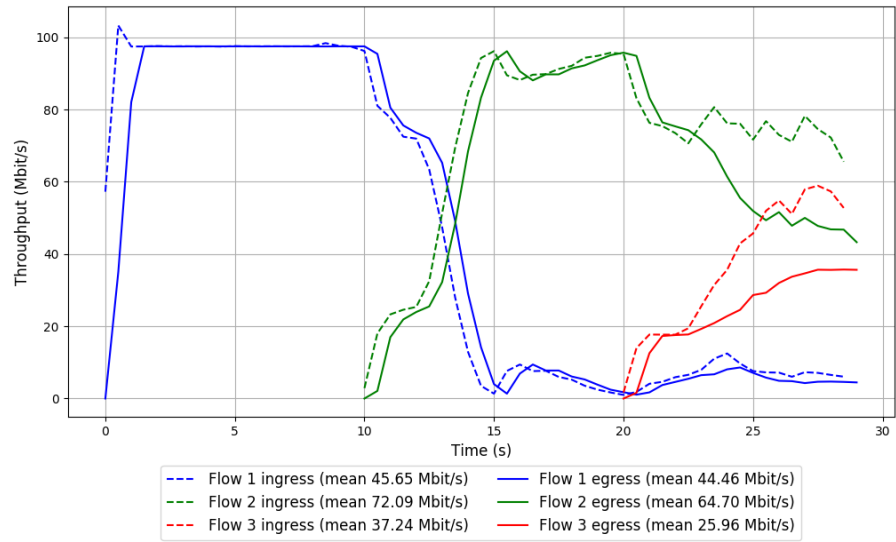
-- Flow 3:

Average throughput: 25.96 Mbit/s

95th percentile per-packet one-way delay: 61.163 ms

Loss rate: 30.43%

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



Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-05 07:48:20

End at: 2019-02-05 07:48:50

Local clock offset: 5.464 ms

Remote clock offset: -6.25 ms

# Below is generated by plot.py at 2019-02-05 09:36:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.07 Mbit/s

95th percentile per-packet one-way delay: 62.195 ms

Loss rate: 28.73%

-- Flow 1:

Average throughput: 60.65 Mbit/s

95th percentile per-packet one-way delay: 60.302 ms

Loss rate: 22.69%

-- Flow 2:

Average throughput: 42.56 Mbit/s

95th percentile per-packet one-way delay: 64.057 ms

Loss rate: 39.14%

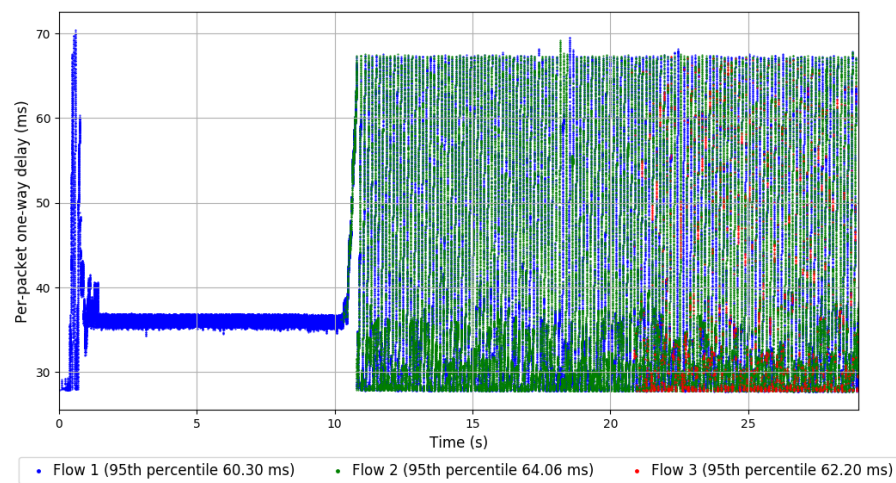
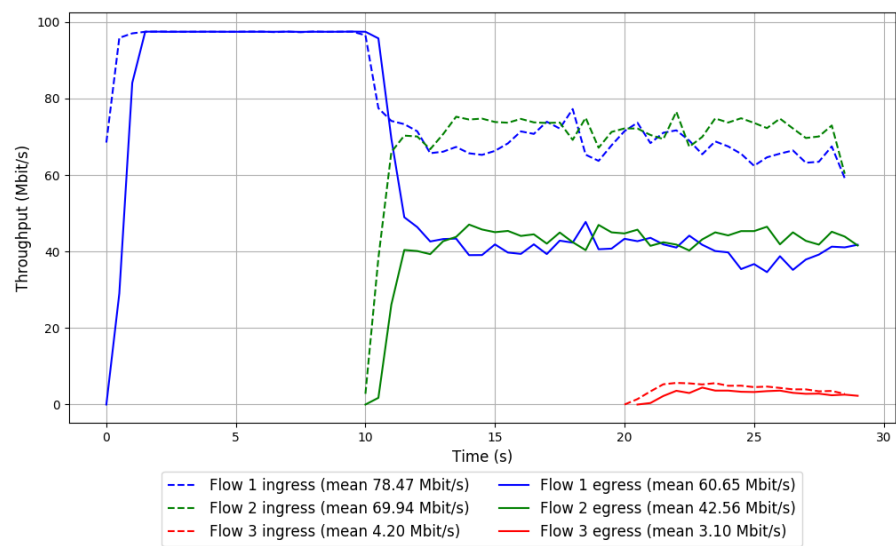
-- Flow 3:

Average throughput: 3.10 Mbit/s

95th percentile per-packet one-way delay: 62.196 ms

Loss rate: 30.80%

Run 2: Report of Indigo-MusesT — Data Link

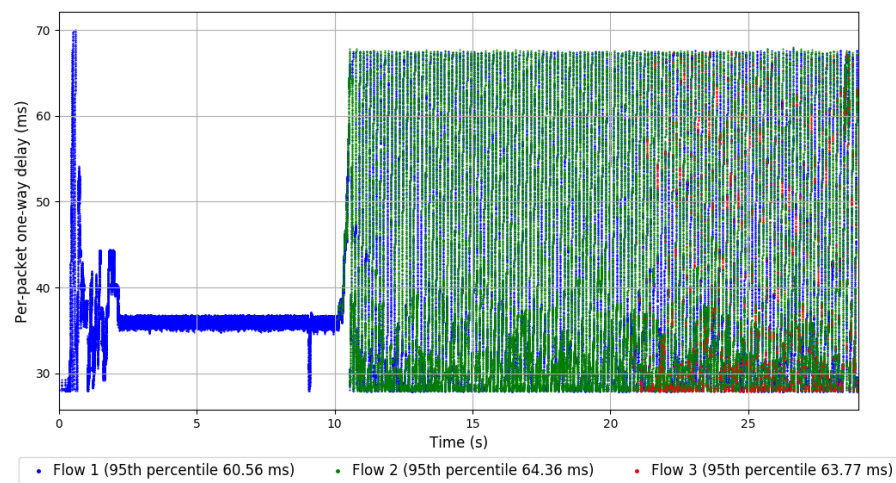
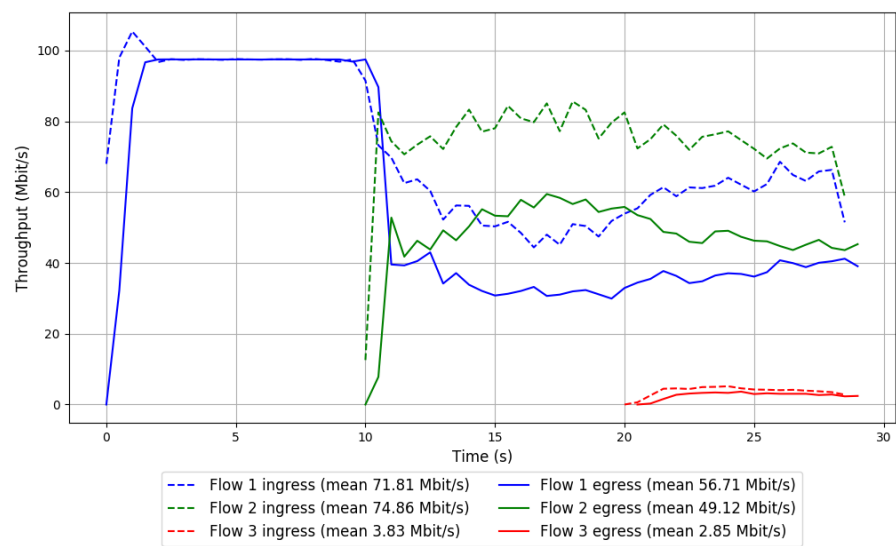


Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-05 08:13:58  
End at: 2019-02-05 08:14:28  
Local clock offset: 0.656 ms  
Remote clock offset: -5.668 ms

# Below is generated by plot.py at 2019-02-05 09:37:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.60 Mbit/s  
95th percentile per-packet one-way delay: 62.748 ms  
Loss rate: 26.48%  
-- Flow 1:  
Average throughput: 56.71 Mbit/s  
95th percentile per-packet one-way delay: 60.560 ms  
Loss rate: 21.03%  
-- Flow 2:  
Average throughput: 49.12 Mbit/s  
95th percentile per-packet one-way delay: 64.364 ms  
Loss rate: 34.41%  
-- Flow 3:  
Average throughput: 2.85 Mbit/s  
95th percentile per-packet one-way delay: 63.765 ms  
Loss rate: 29.93%

Run 3: Report of Indigo-MusesT — Data Link



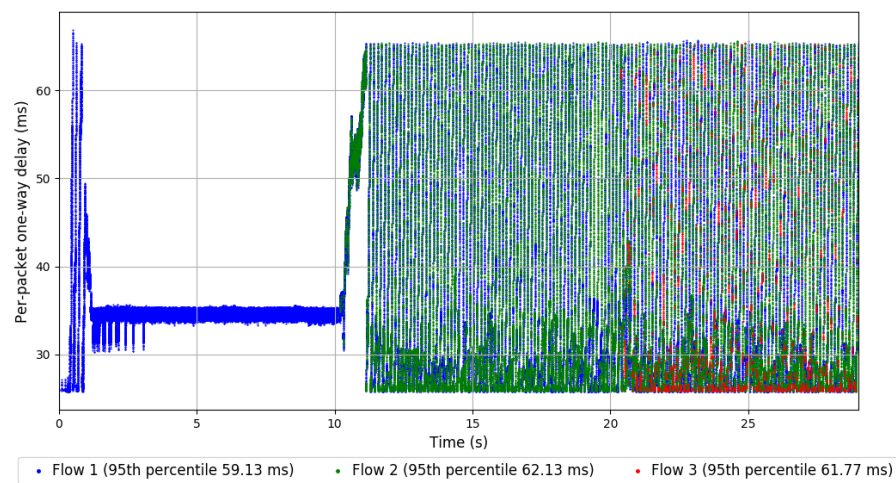
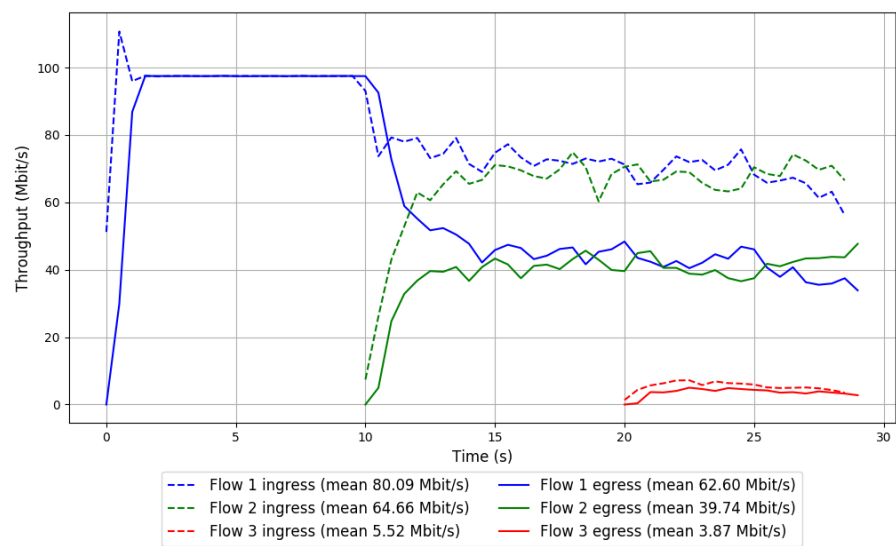


Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-05 08:39:33  
End at: 2019-02-05 08:40:03  
Local clock offset: -0.23 ms  
Remote clock offset: -7.076 ms

# Below is generated by plot.py at 2019-02-05 09:37:19  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.66 Mbit/s  
95th percentile per-packet one-way delay: 60.477 ms  
Loss rate: 27.56%  
-- Flow 1:  
Average throughput: 62.60 Mbit/s  
95th percentile per-packet one-way delay: 59.130 ms  
Loss rate: 21.77%  
-- Flow 2:  
Average throughput: 39.74 Mbit/s  
95th percentile per-packet one-way delay: 62.128 ms  
Loss rate: 38.49%  
-- Flow 3:  
Average throughput: 3.87 Mbit/s  
95th percentile per-packet one-way delay: 61.767 ms  
Loss rate: 29.77%

Run 4: Report of Indigo-MusesT — Data Link

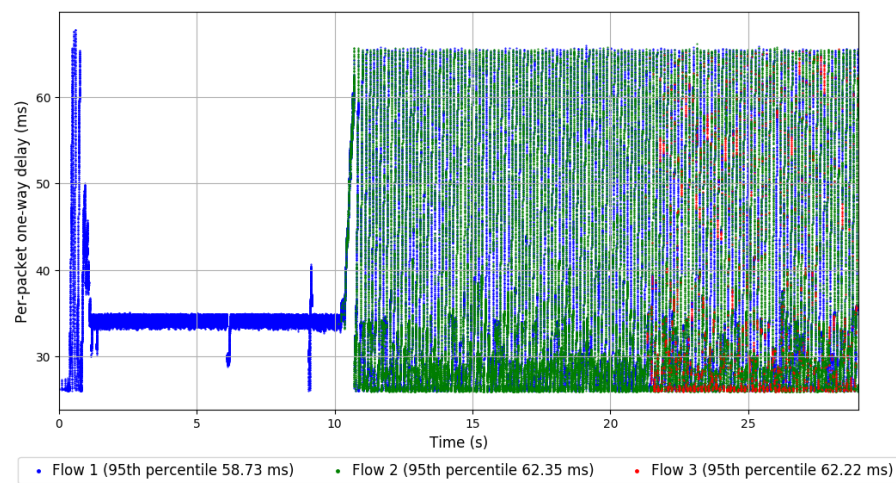
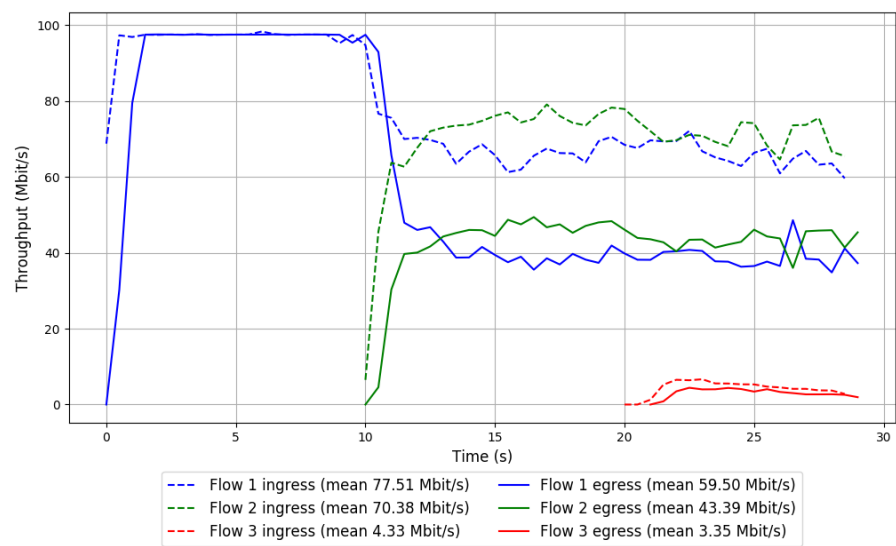


Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-05 09:04:51  
End at: 2019-02-05 09:05:21  
Local clock offset: -0.57 ms  
Remote clock offset: -6.617 ms

# Below is generated by plot.py at 2019-02-05 09:37:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 88.62 Mbit/s  
95th percentile per-packet one-way delay: 60.520 ms  
Loss rate: 28.88%  
-- Flow 1:  
Average throughput: 59.50 Mbit/s  
95th percentile per-packet one-way delay: 58.732 ms  
Loss rate: 23.23%  
-- Flow 2:  
Average throughput: 43.39 Mbit/s  
95th percentile per-packet one-way delay: 62.355 ms  
Loss rate: 38.36%  
-- Flow 3:  
Average throughput: 3.35 Mbit/s  
95th percentile per-packet one-way delay: 62.220 ms  
Loss rate: 31.71%

Run 5: Report of Indigo-MusesT — Data Link

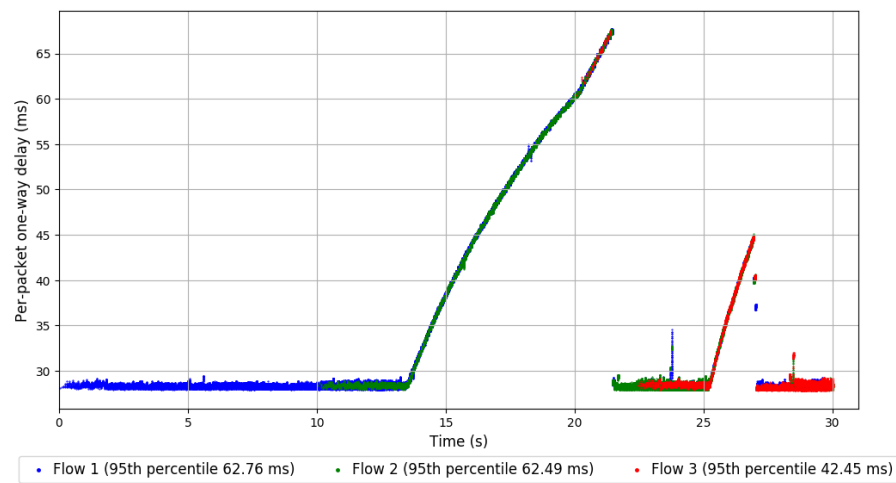
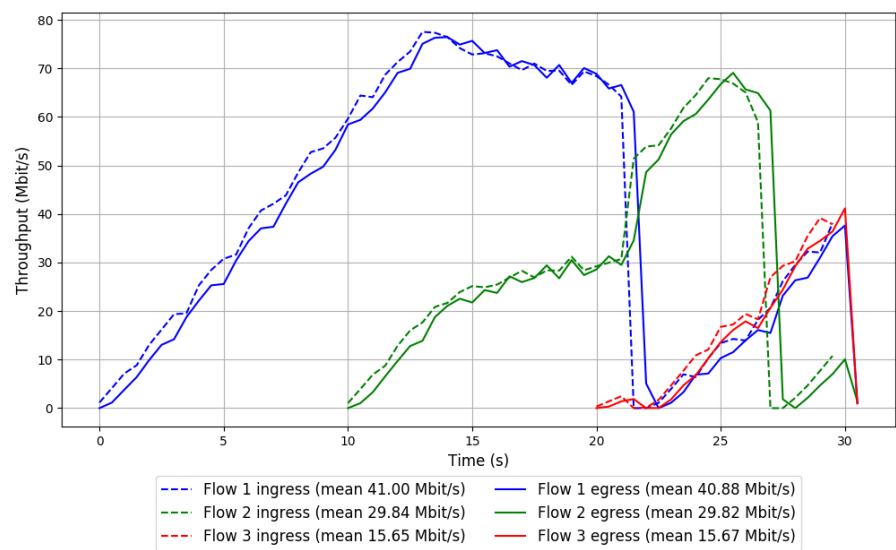


Run 1: Statistics of LEDBAT

Start at: 2019-02-05 07:26:30  
End at: 2019-02-05 07:27:00  
Local clock offset: 6.932 ms  
Remote clock offset: -7.089 ms

# Below is generated by plot.py at 2019-02-05 09:37:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.93 Mbit/s  
95th percentile per-packet one-way delay: 62.284 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 40.88 Mbit/s  
95th percentile per-packet one-way delay: 62.757 ms  
Loss rate: 0.29%  
-- Flow 2:  
Average throughput: 29.82 Mbit/s  
95th percentile per-packet one-way delay: 62.487 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 15.67 Mbit/s  
95th percentile per-packet one-way delay: 42.451 ms  
Loss rate: 0.19%

Run 1: Report of LEDBAT — Data Link

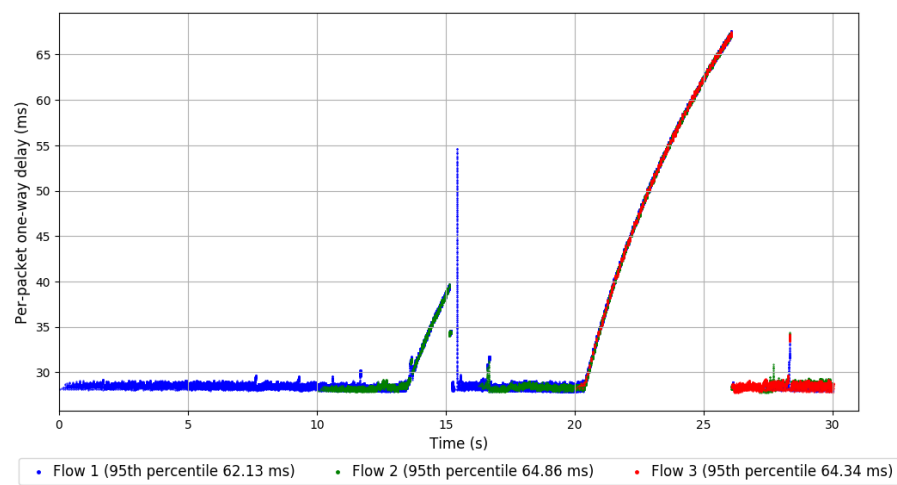
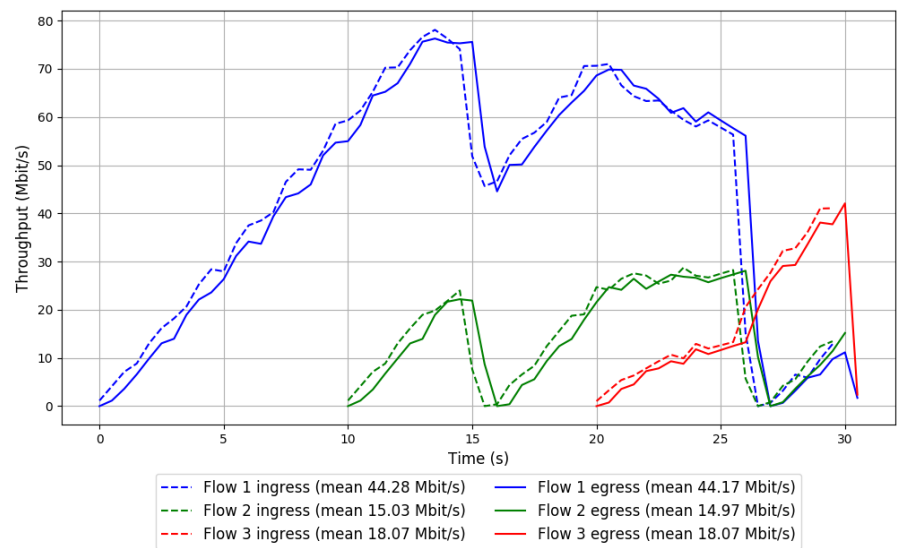


Run 2: Statistics of LEDBAT

Start at: 2019-02-05 07:52:00  
End at: 2019-02-05 07:52:30  
Local clock offset: 4.025 ms  
Remote clock offset: -6.213 ms

# Below is generated by plot.py at 2019-02-05 09:37:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 60.11 Mbit/s  
95th percentile per-packet one-way delay: 63.278 ms  
Loss rate: 0.24%  
-- Flow 1:  
Average throughput: 44.17 Mbit/s  
95th percentile per-packet one-way delay: 62.127 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 14.97 Mbit/s  
95th percentile per-packet one-way delay: 64.863 ms  
Loss rate: 0.38%  
-- Flow 3:  
Average throughput: 18.07 Mbit/s  
95th percentile per-packet one-way delay: 64.342 ms  
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link



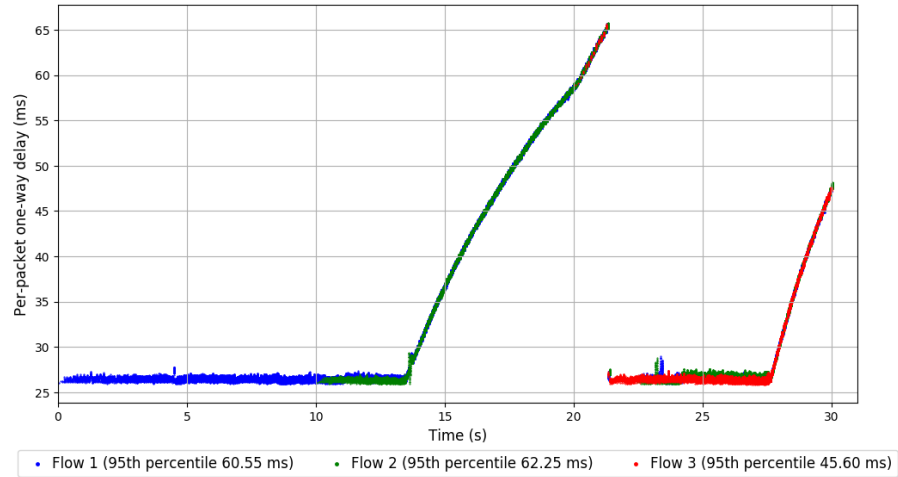
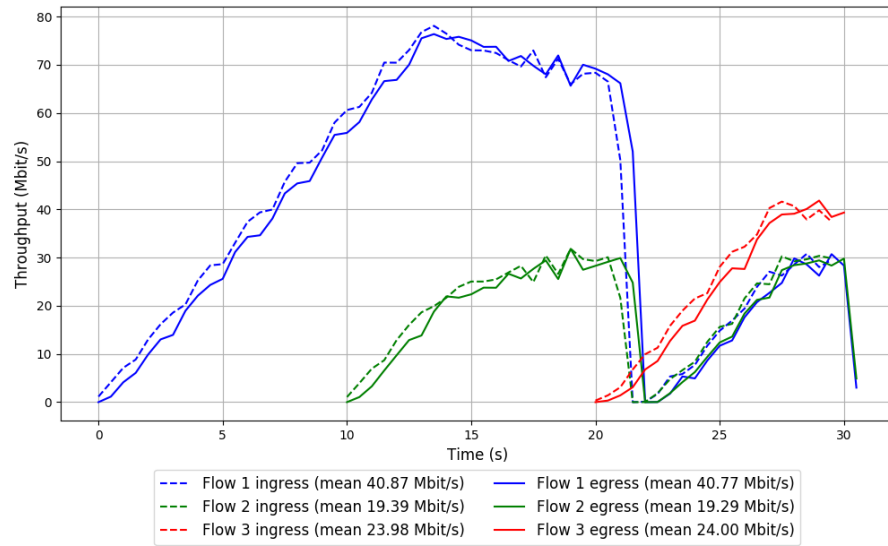


Run 3: Statistics of LEDBAT

Start at: 2019-02-05 08:17:40  
End at: 2019-02-05 08:18:10  
Local clock offset: 0.485 ms  
Remote clock offset: -7.667 ms

# Below is generated by plot.py at 2019-02-05 09:37:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.52 Mbit/s  
95th percentile per-packet one-way delay: 60.531 ms  
Loss rate: 0.20%  
-- Flow 1:  
Average throughput: 40.77 Mbit/s  
95th percentile per-packet one-way delay: 60.553 ms  
Loss rate: 0.19%  
-- Flow 2:  
Average throughput: 19.29 Mbit/s  
95th percentile per-packet one-way delay: 62.249 ms  
Loss rate: 0.38%  
-- Flow 3:  
Average throughput: 24.00 Mbit/s  
95th percentile per-packet one-way delay: 45.598 ms  
Loss rate: 0.00%

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

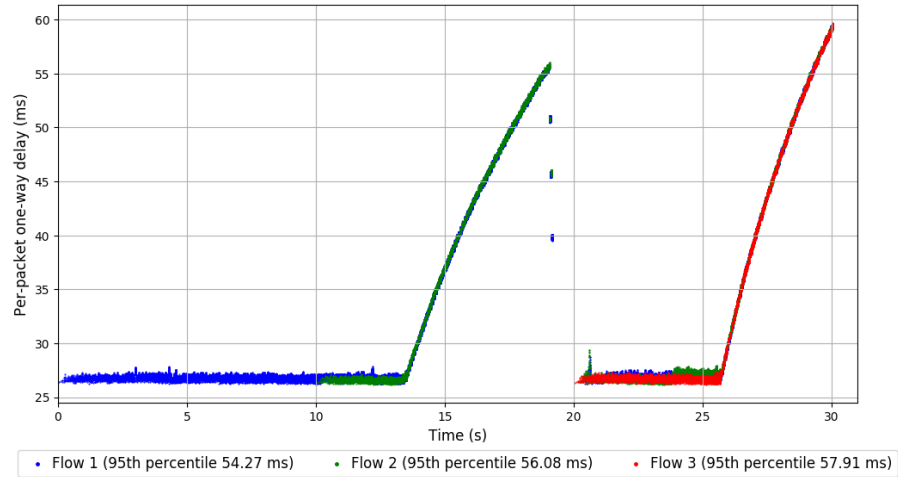
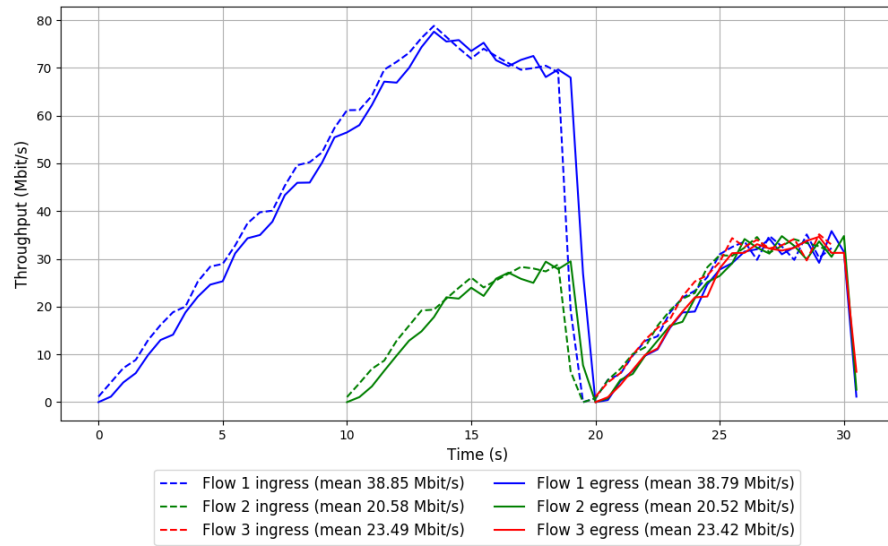


Run 4: Statistics of LEDBAT

Start at: 2019-02-05 08:43:13  
End at: 2019-02-05 08:43:43  
Local clock offset: -0.436 ms  
Remote clock offset: -6.522 ms

# Below is generated by plot.py at 2019-02-05 09:37:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 60.24 Mbit/s  
95th percentile per-packet one-way delay: 55.204 ms  
Loss rate: 0.06%  
-- Flow 1:  
Average throughput: 38.79 Mbit/s  
95th percentile per-packet one-way delay: 54.269 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 20.52 Mbit/s  
95th percentile per-packet one-way delay: 56.076 ms  
Loss rate: 0.12%  
-- Flow 3:  
Average throughput: 23.42 Mbit/s  
95th percentile per-packet one-way delay: 57.909 ms  
Loss rate: 0.00%

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

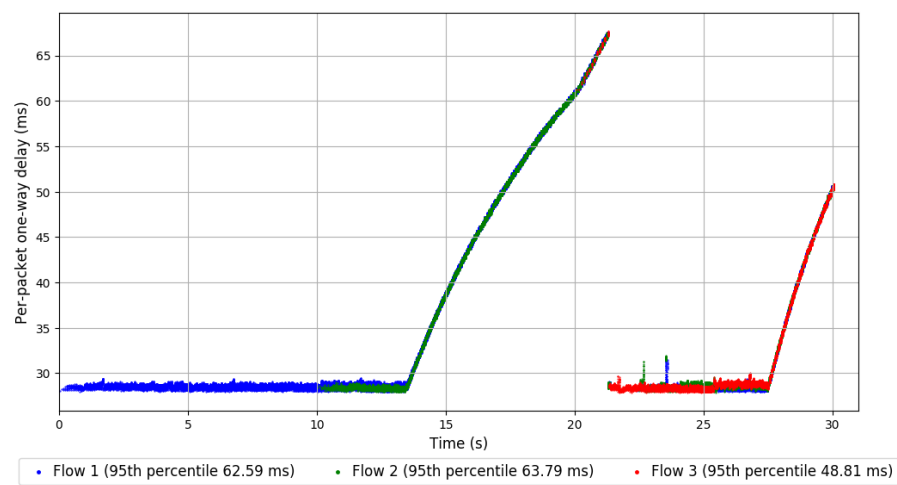
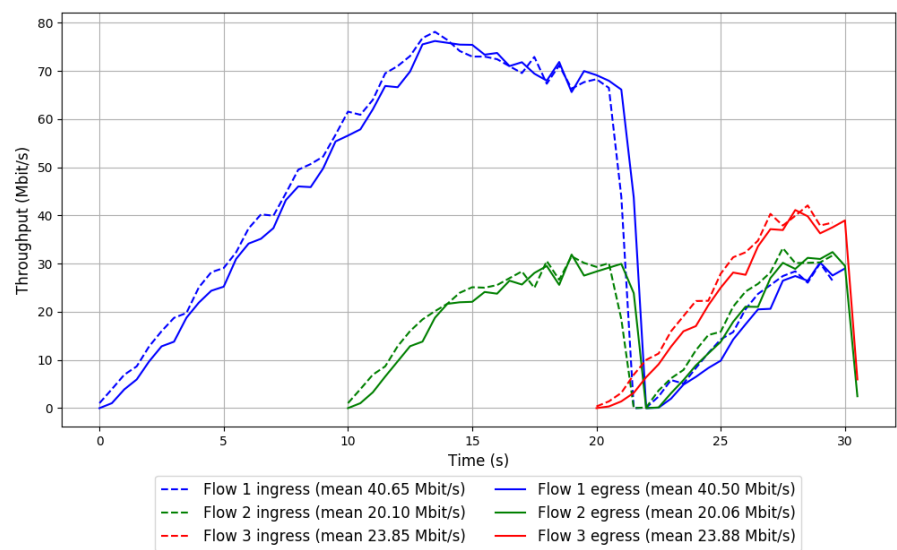


Run 5: Statistics of LEDBAT

Start at: 2019-02-05 09:08:33  
End at: 2019-02-05 09:09:03  
Local clock offset: -0.691 ms  
Remote clock offset: -4.614 ms

# Below is generated by plot.py at 2019-02-05 09:37:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.70 Mbit/s  
95th percentile per-packet one-way delay: 62.357 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 40.50 Mbit/s  
95th percentile per-packet one-way delay: 62.589 ms  
Loss rate: 0.29%  
-- Flow 2:  
Average throughput: 20.06 Mbit/s  
95th percentile per-packet one-way delay: 63.791 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 23.88 Mbit/s  
95th percentile per-packet one-way delay: 48.808 ms  
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

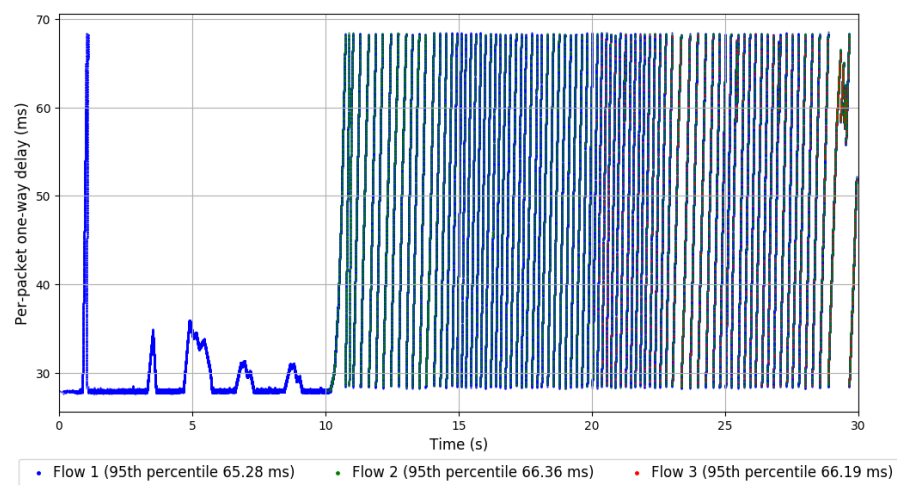
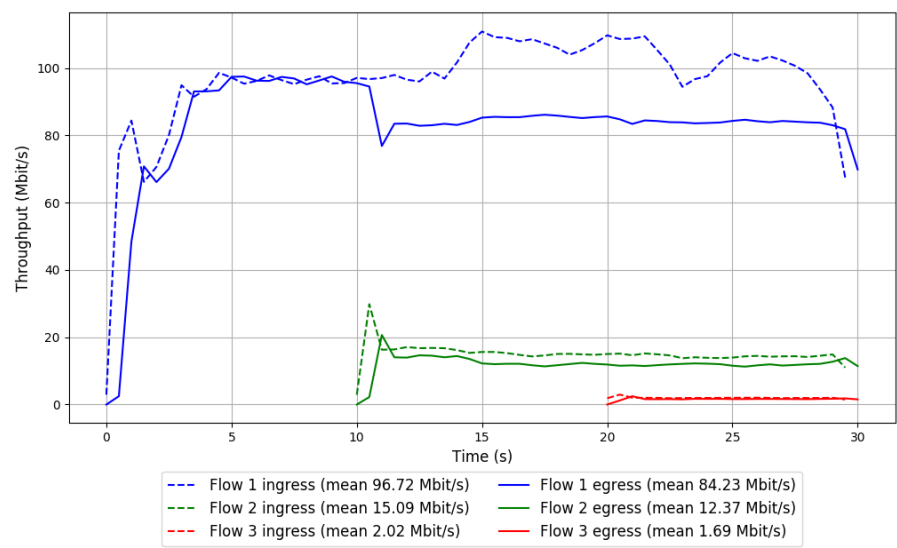


Run 1: Statistics of PCC-Allegro

Start at: 2019-02-05 07:38:25  
End at: 2019-02-05 07:38:55  
Local clock offset: 6.646 ms  
Remote clock offset: -7.006 ms

# Below is generated by plot.py at 2019-02-05 09:38:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.01 Mbit/s  
95th percentile per-packet one-way delay: 65.430 ms  
Loss rate: 13.34%  
-- Flow 1:  
Average throughput: 84.23 Mbit/s  
95th percentile per-packet one-way delay: 65.277 ms  
Loss rate: 12.84%  
-- Flow 2:  
Average throughput: 12.37 Mbit/s  
95th percentile per-packet one-way delay: 66.362 ms  
Loss rate: 17.91%  
-- Flow 3:  
Average throughput: 1.69 Mbit/s  
95th percentile per-packet one-way delay: 66.185 ms  
Loss rate: 16.62%

Run 1: Report of PCC-Allegro — Data Link



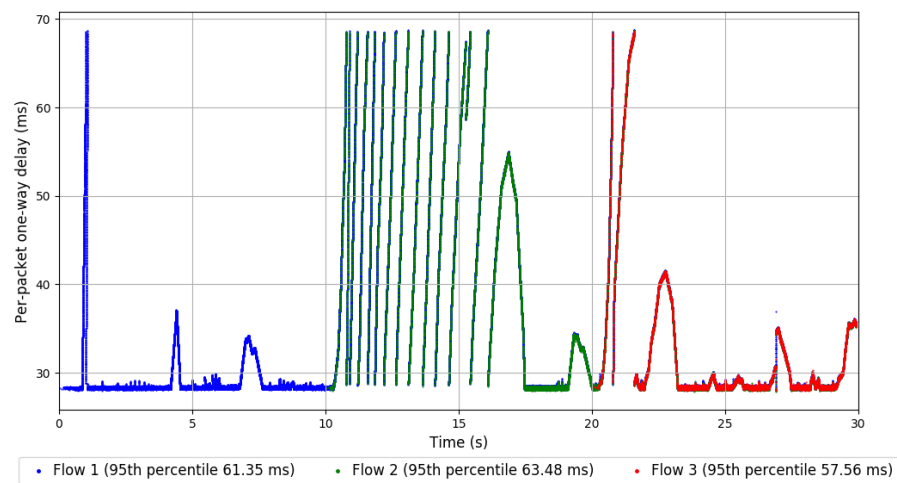
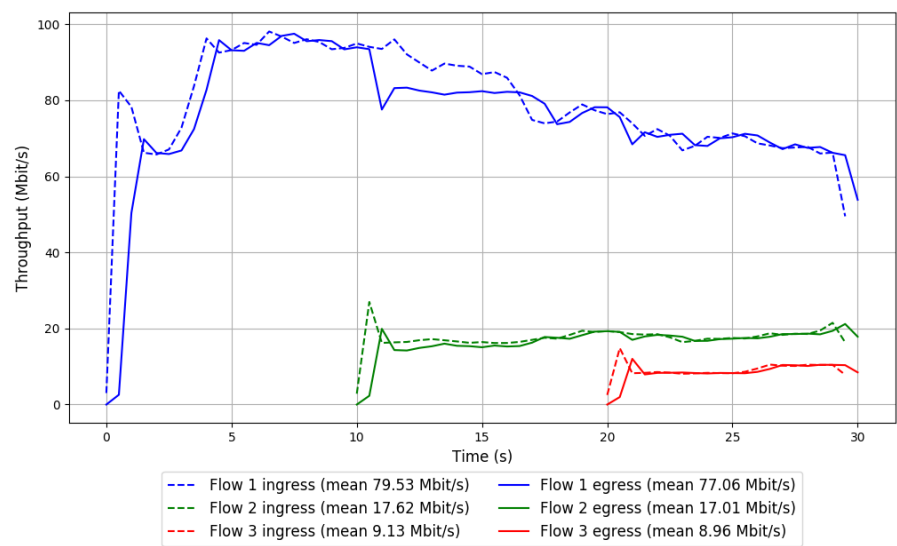


Run 2: Statistics of PCC-Allegro

Start at: 2019-02-05 08:04:08  
End at: 2019-02-05 08:04:38  
Local clock offset: 1.548 ms  
Remote clock offset: -5.804 ms

# Below is generated by plot.py at 2019-02-05 09:38:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.33 Mbit/s  
95th percentile per-packet one-way delay: 61.639 ms  
Loss rate: 3.08%  
-- Flow 1:  
Average throughput: 77.06 Mbit/s  
95th percentile per-packet one-way delay: 61.355 ms  
Loss rate: 3.08%  
-- Flow 2:  
Average throughput: 17.01 Mbit/s  
95th percentile per-packet one-way delay: 63.478 ms  
Loss rate: 3.42%  
-- Flow 3:  
Average throughput: 8.96 Mbit/s  
95th percentile per-packet one-way delay: 57.563 ms  
Loss rate: 1.80%

Run 2: Report of PCC-Allegro — Data Link

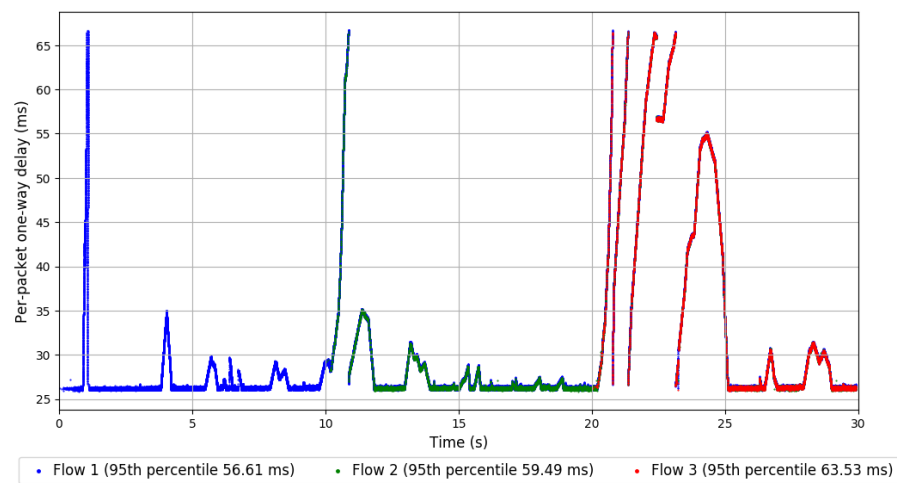
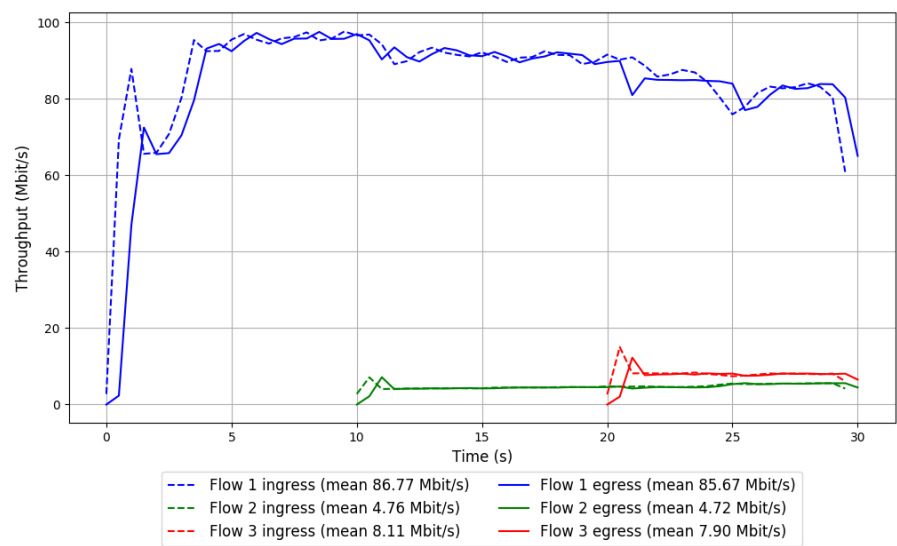


Run 3: Statistics of PCC-Allegro

Start at: 2019-02-05 08:29:50  
End at: 2019-02-05 08:30:20  
Local clock offset: 0.173 ms  
Remote clock offset: -7.289 ms

# Below is generated by plot.py at 2019-02-05 09:38:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.41 Mbit/s  
95th percentile per-packet one-way delay: 56.724 ms  
Loss rate: 1.29%  
-- Flow 1:  
Average throughput: 85.67 Mbit/s  
95th percentile per-packet one-way delay: 56.609 ms  
Loss rate: 1.27%  
-- Flow 2:  
Average throughput: 4.72 Mbit/s  
95th percentile per-packet one-way delay: 59.491 ms  
Loss rate: 0.82%  
-- Flow 3:  
Average throughput: 7.90 Mbit/s  
95th percentile per-packet one-way delay: 63.530 ms  
Loss rate: 2.57%

Run 3: Report of PCC-Allegro — Data Link

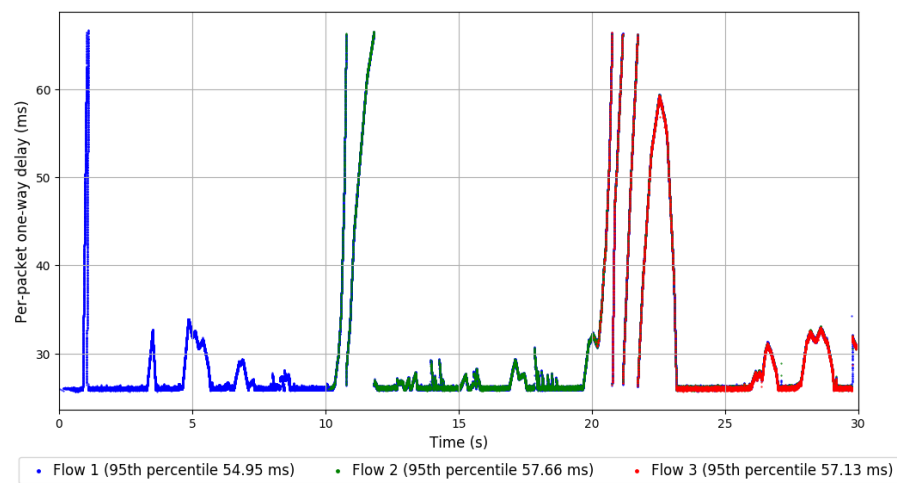
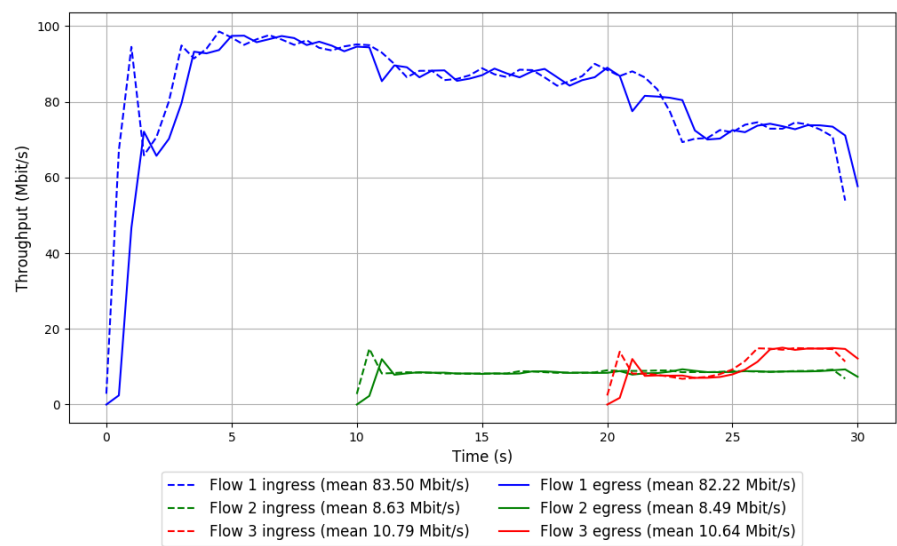


Run 4: Statistics of PCC-Allegro

Start at: 2019-02-05 08:55:08  
End at: 2019-02-05 08:55:38  
Local clock offset: -0.393 ms  
Remote clock offset: -6.808 ms

# Below is generated by plot.py at 2019-02-05 09:38:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.37 Mbit/s  
95th percentile per-packet one-way delay: 55.391 ms  
Loss rate: 1.52%  
-- Flow 1:  
Average throughput: 82.22 Mbit/s  
95th percentile per-packet one-way delay: 54.948 ms  
Loss rate: 1.52%  
-- Flow 2:  
Average throughput: 8.49 Mbit/s  
95th percentile per-packet one-way delay: 57.657 ms  
Loss rate: 1.59%  
-- Flow 3:  
Average throughput: 10.64 Mbit/s  
95th percentile per-packet one-way delay: 57.128 ms  
Loss rate: 1.39%

Run 4: Report of PCC-Allegro — Data Link

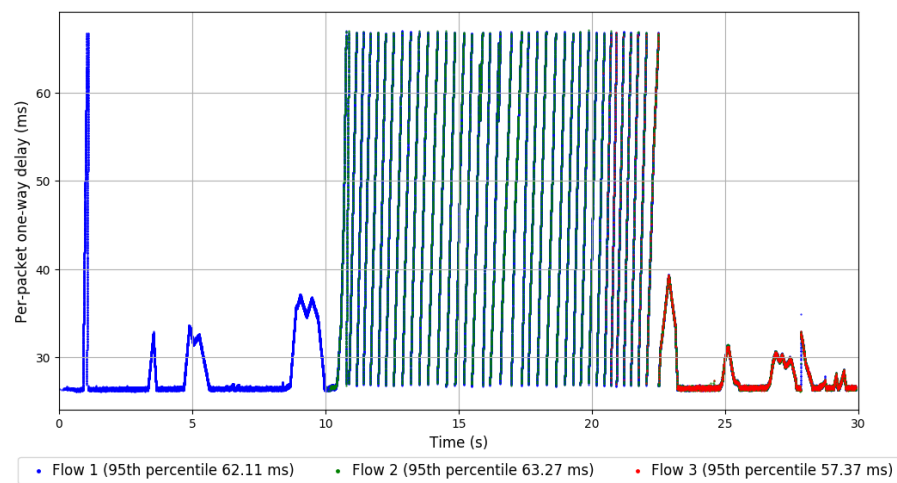
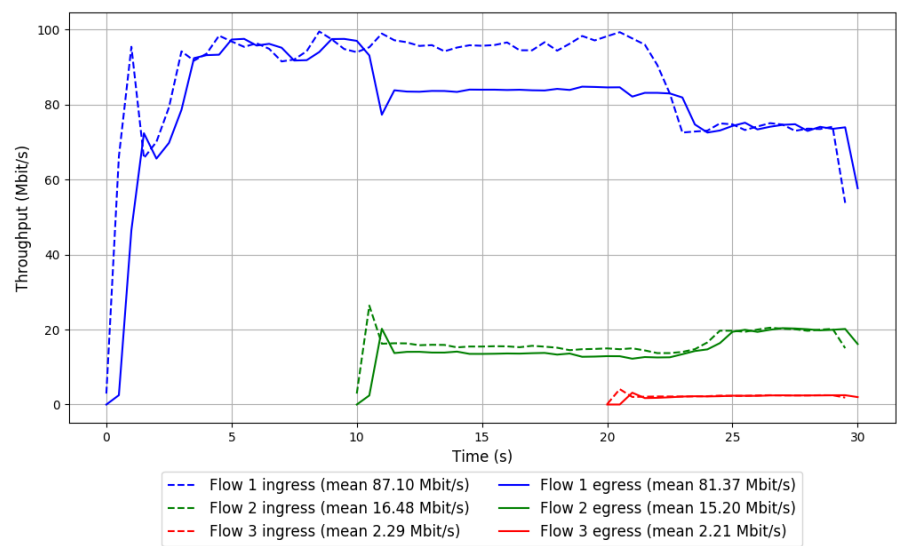


Run 5: Statistics of PCC-Allegro

Start at: 2019-02-05 09:20:29  
End at: 2019-02-05 09:20:59  
Local clock offset: -0.811 ms  
Remote clock offset: -6.334 ms

# Below is generated by plot.py at 2019-02-05 09:38:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.20 Mbit/s  
95th percentile per-packet one-way delay: 62.261 ms  
Loss rate: 6.70%  
-- Flow 1:  
Average throughput: 81.37 Mbit/s  
95th percentile per-packet one-way delay: 62.111 ms  
Loss rate: 6.59%  
-- Flow 2:  
Average throughput: 15.20 Mbit/s  
95th percentile per-packet one-way delay: 63.265 ms  
Loss rate: 7.80%  
-- Flow 3:  
Average throughput: 2.21 Mbit/s  
95th percentile per-packet one-way delay: 57.369 ms  
Loss rate: 3.87%

Run 5: Report of PCC-Allegro — Data Link



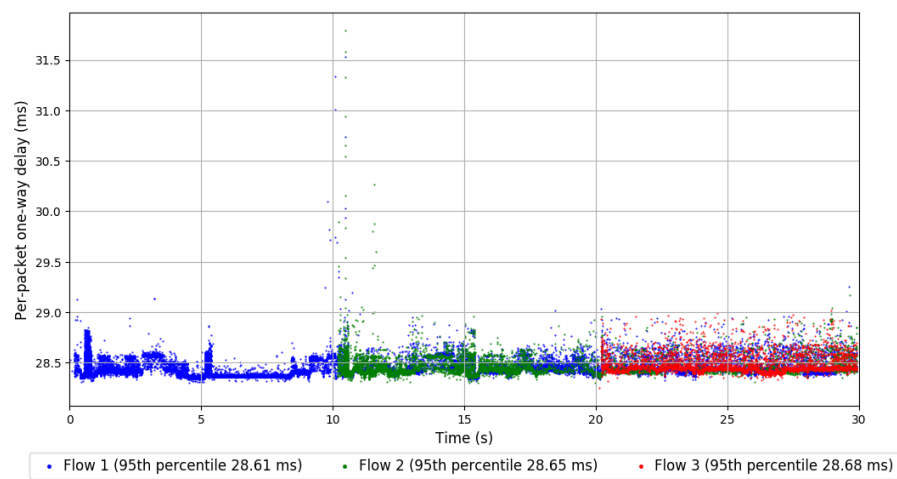
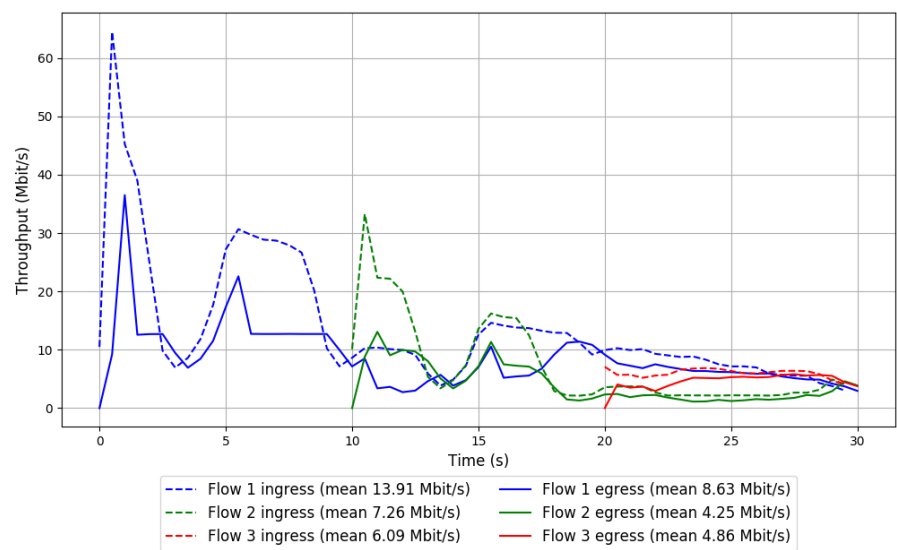


```
Run 1: Statistics of PCC-Expr

Start at: 2019-02-05 07:36:02
End at: 2019-02-05 07:36:32
Local clock offset: 6.66 ms
Remote clock offset: -6.434 ms

# Below is generated by plot.py at 2019-02-05 09:38:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 28.632 ms
Loss rate: 37.06%
-- Flow 1:
Average throughput: 8.63 Mbit/s
95th percentile per-packet one-way delay: 28.611 ms
Loss rate: 37.96%
-- Flow 2:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 28.646 ms
Loss rate: 41.49%
-- Flow 3:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 28.678 ms
Loss rate: 20.24%
```

Run 1: Report of PCC-Expr — Data Link

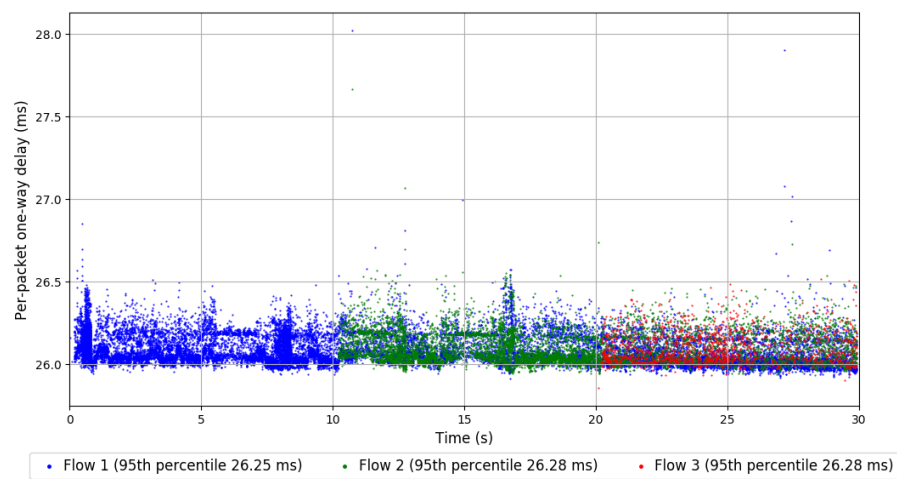
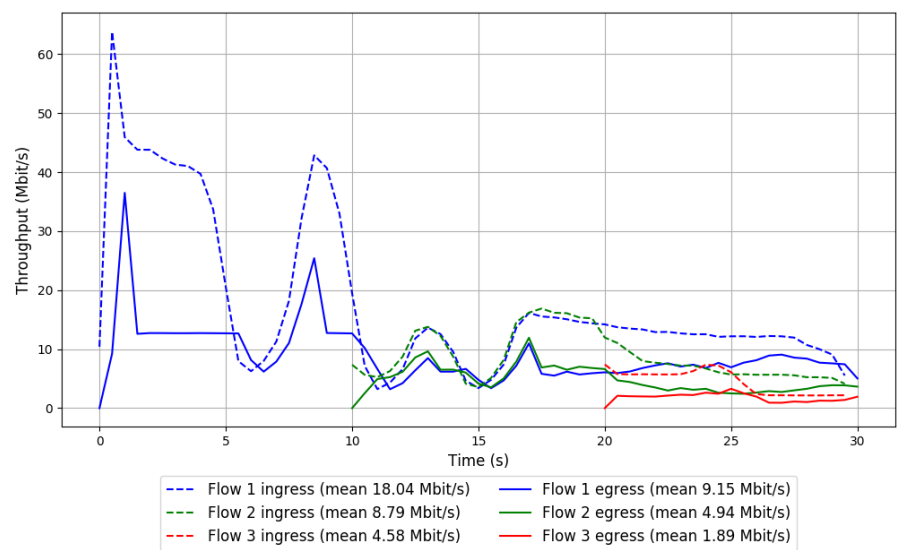


Run 2: Statistics of PCC-Expr

Start at: 2019-02-05 08:01:44  
End at: 2019-02-05 08:02:14  
Local clock offset: 1.86 ms  
Remote clock offset: -7.918 ms

# Below is generated by plot.py at 2019-02-05 09:38:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.06 Mbit/s  
95th percentile per-packet one-way delay: 26.262 ms  
Loss rate: 48.57%  
-- Flow 1:  
Average throughput: 9.15 Mbit/s  
95th percentile per-packet one-way delay: 26.255 ms  
Loss rate: 49.28%  
-- Flow 2:  
Average throughput: 4.94 Mbit/s  
95th percentile per-packet one-way delay: 26.276 ms  
Loss rate: 43.78%  
-- Flow 3:  
Average throughput: 1.89 Mbit/s  
95th percentile per-packet one-way delay: 26.278 ms  
Loss rate: 58.69%

Run 2: Report of PCC-Expr — Data Link

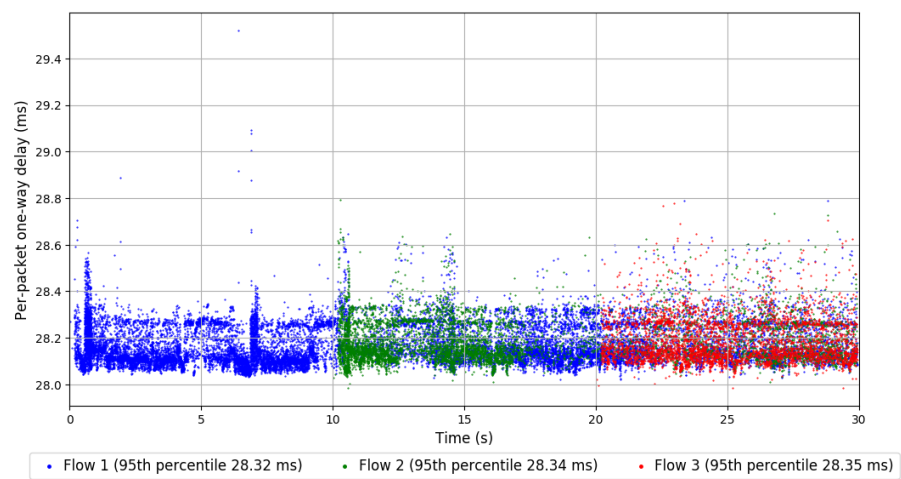
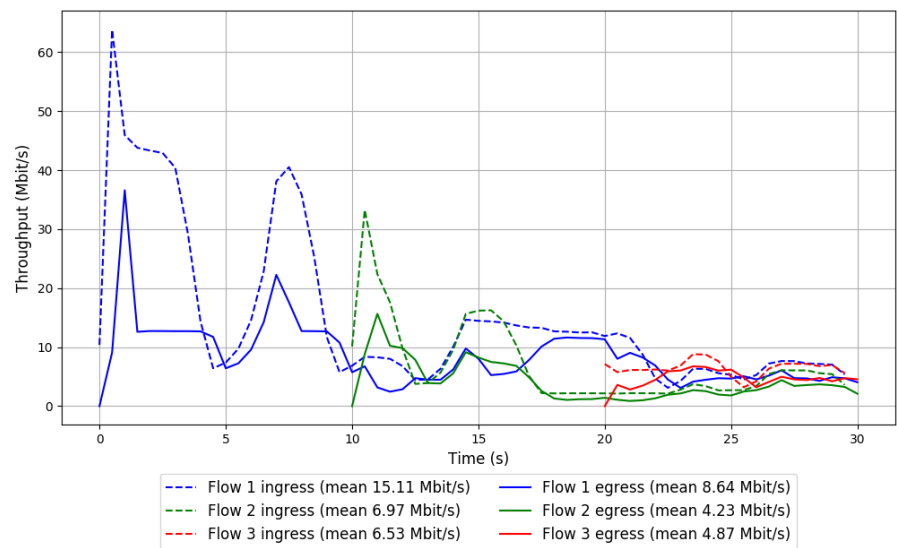


Run 3: Statistics of PCC-Expr

Start at: 2019-02-05 08:27:30  
End at: 2019-02-05 08:28:00  
Local clock offset: 0.245 ms  
Remote clock offset: -5.274 ms

# Below is generated by plot.py at 2019-02-05 09:38:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.06 Mbit/s  
95th percentile per-packet one-way delay: 28.326 ms  
Loss rate: 40.37%  
-- Flow 1:  
Average throughput: 8.64 Mbit/s  
95th percentile per-packet one-way delay: 28.318 ms  
Loss rate: 42.82%  
-- Flow 2:  
Average throughput: 4.23 Mbit/s  
95th percentile per-packet one-way delay: 28.337 ms  
Loss rate: 39.37%  
-- Flow 3:  
Average throughput: 4.87 Mbit/s  
95th percentile per-packet one-way delay: 28.350 ms  
Loss rate: 25.39%

Run 3: Report of PCC-Expr — Data Link

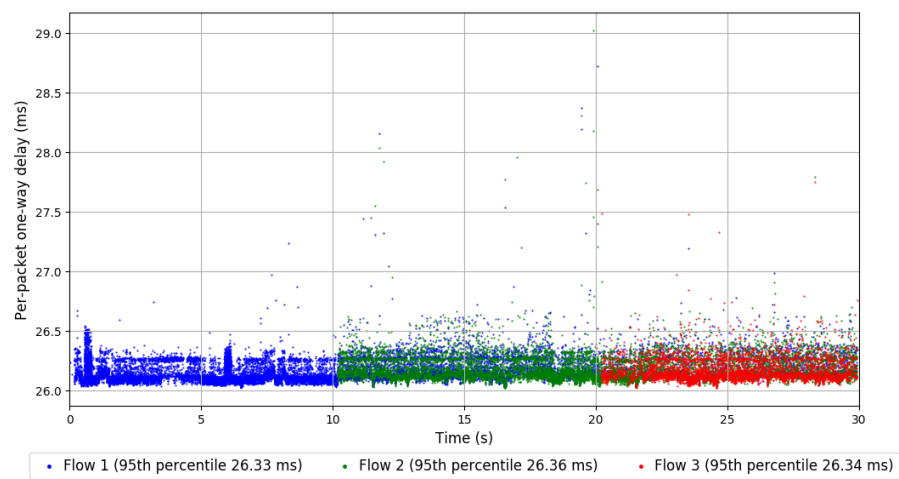
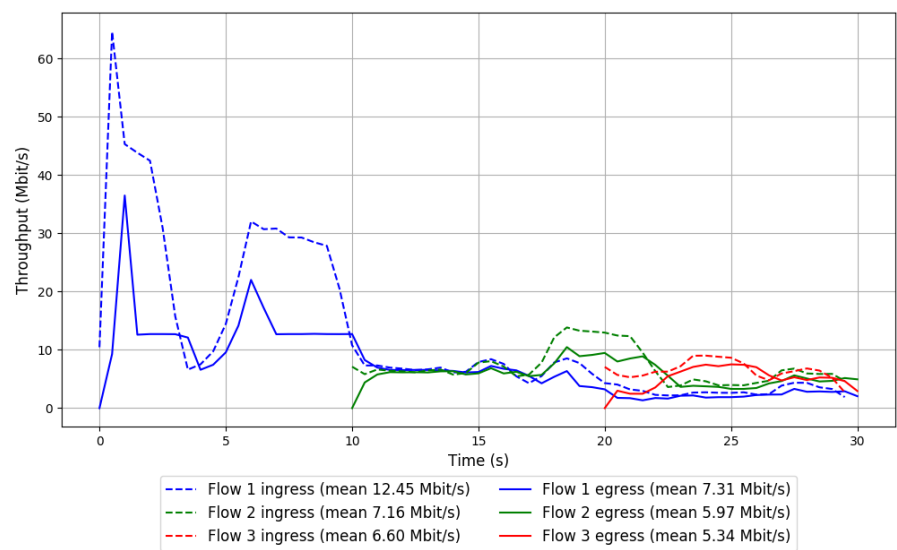


Run 4: Statistics of PCC-Expr

Start at: 2019-02-05 08:52:47  
End at: 2019-02-05 08:53:17  
Local clock offset: -0.4 ms  
Remote clock offset: -6.583 ms

# Below is generated by plot.py at 2019-02-05 09:38:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.05 Mbit/s  
95th percentile per-packet one-way delay: 26.345 ms  
Loss rate: 32.71%  
-- Flow 1:  
Average throughput: 7.31 Mbit/s  
95th percentile per-packet one-way delay: 26.333 ms  
Loss rate: 41.24%  
-- Flow 2:  
Average throughput: 5.97 Mbit/s  
95th percentile per-packet one-way delay: 26.365 ms  
Loss rate: 16.68%  
-- Flow 3:  
Average throughput: 5.34 Mbit/s  
95th percentile per-packet one-way delay: 26.344 ms  
Loss rate: 19.05%

Run 4: Report of PCC-Expr — Data Link



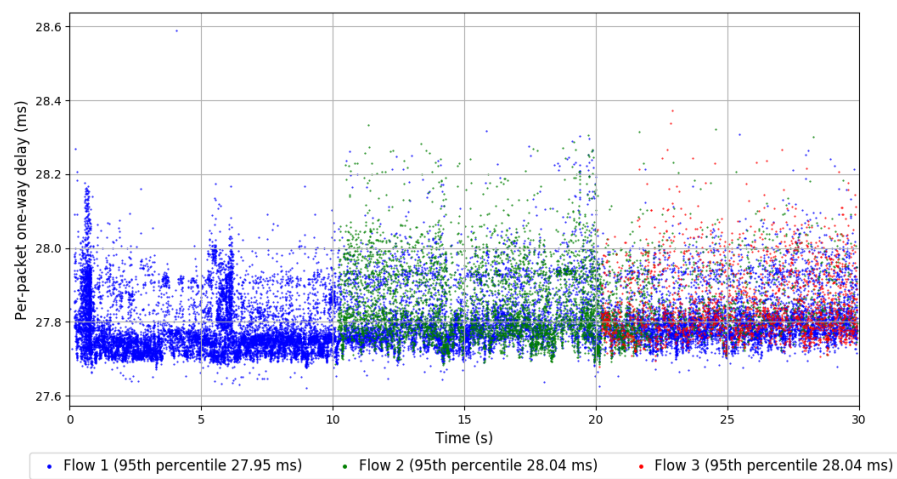
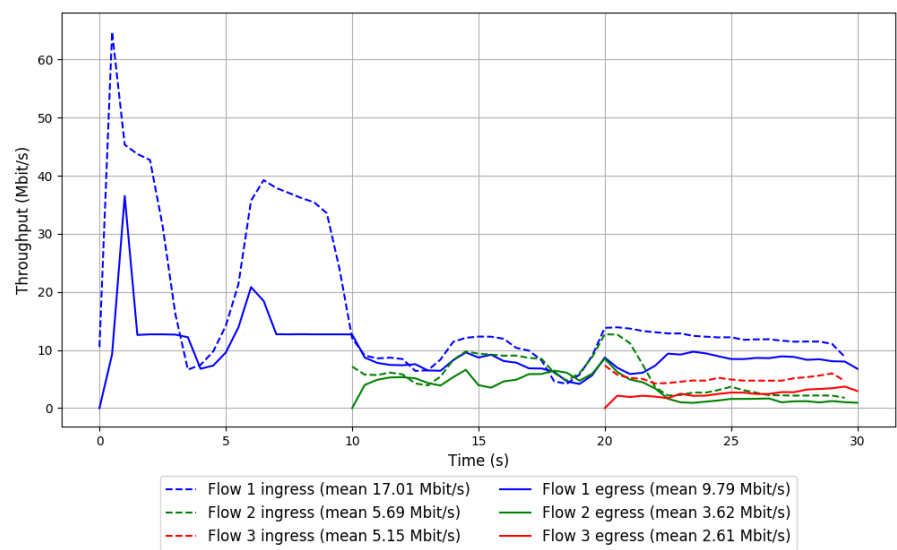


Run 5: Statistics of PCC-Expr

Start at: 2019-02-05 09:18:09  
End at: 2019-02-05 09:18:39  
Local clock offset: -0.87 ms  
Remote clock offset: -4.905 ms

# Below is generated by plot.py at 2019-02-05 09:38:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.06 Mbit/s  
95th percentile per-packet one-way delay: 27.986 ms  
Loss rate: 41.95%  
-- Flow 1:  
Average throughput: 9.79 Mbit/s  
95th percentile per-packet one-way delay: 27.954 ms  
Loss rate: 42.45%  
-- Flow 2:  
Average throughput: 3.62 Mbit/s  
95th percentile per-packet one-way delay: 28.037 ms  
Loss rate: 36.34%  
-- Flow 3:  
Average throughput: 2.61 Mbit/s  
95th percentile per-packet one-way delay: 28.036 ms  
Loss rate: 49.46%

Run 5: Report of PCC-Expr — Data Link

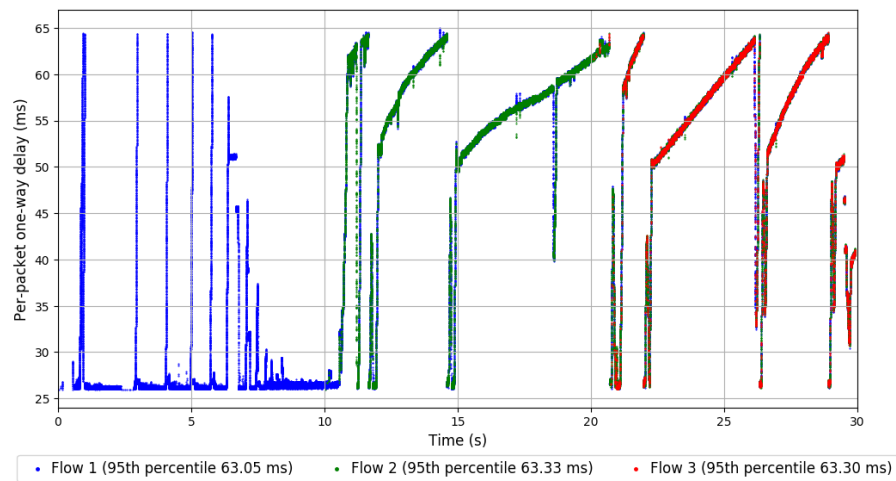
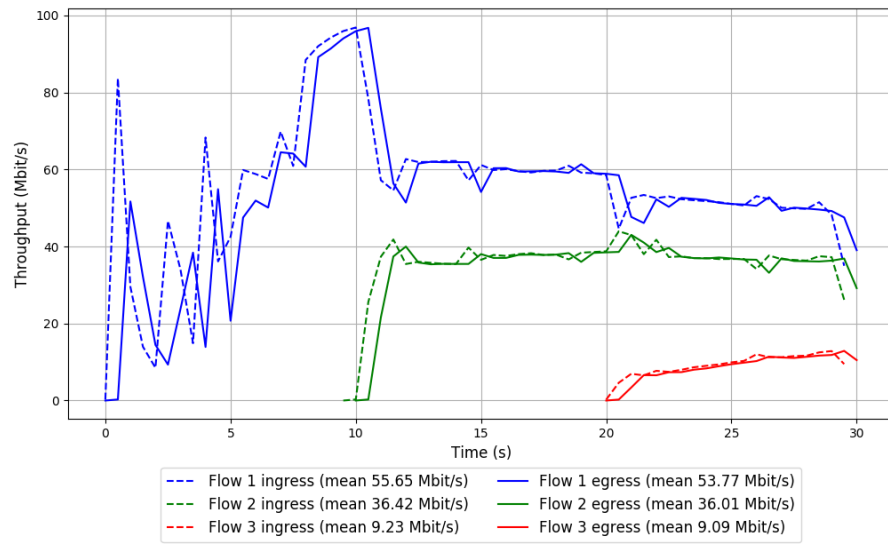


Run 1: Statistics of QUIC Cubic

Start at: 2019-02-05 07:28:56  
End at: 2019-02-05 07:29:26  
Local clock offset: 6.8 ms  
Remote clock offset: -8.859 ms

# Below is generated by plot.py at 2019-02-05 09:38:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.72 Mbit/s  
95th percentile per-packet one-way delay: 63.147 ms  
Loss rate: 2.60%  
-- Flow 1:  
Average throughput: 53.77 Mbit/s  
95th percentile per-packet one-way delay: 63.048 ms  
Loss rate: 3.33%  
-- Flow 2:  
Average throughput: 36.01 Mbit/s  
95th percentile per-packet one-way delay: 63.326 ms  
Loss rate: 1.06%  
-- Flow 3:  
Average throughput: 9.09 Mbit/s  
95th percentile per-packet one-way delay: 63.297 ms  
Loss rate: 1.70%

# Run 1: Report of QUIC Cubic — Data Link

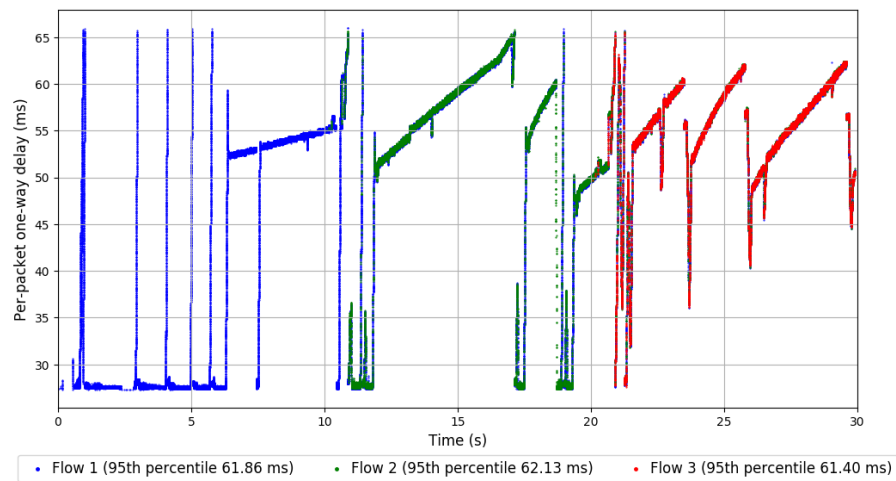
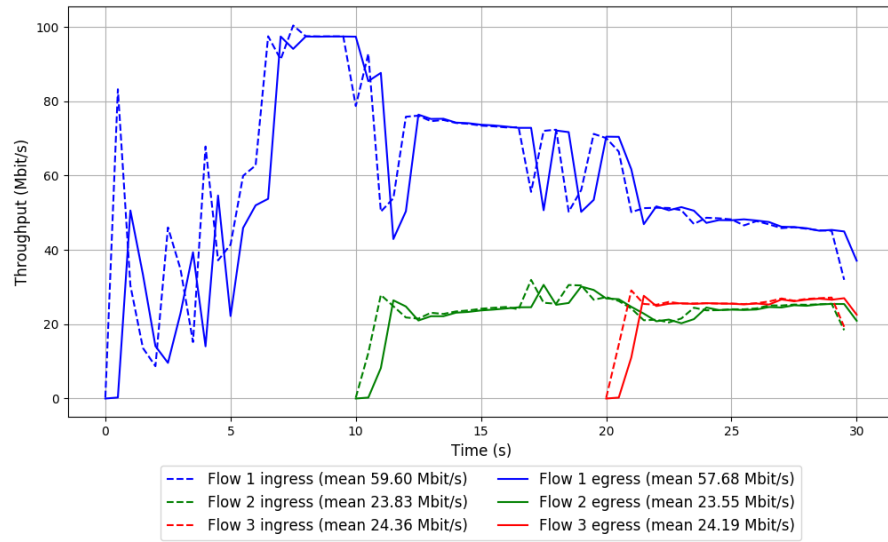


Run 2: Statistics of QUIC Cubic

Start at: 2019-02-05 07:54:25  
End at: 2019-02-05 07:54:55  
Local clock offset: 3.317 ms  
Remote clock offset: -6.549 ms

# Below is generated by plot.py at 2019-02-05 09:39:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.27 Mbit/s  
95th percentile per-packet one-way delay: 61.857 ms  
Loss rate: 2.54%  
-- Flow 1:  
Average throughput: 57.68 Mbit/s  
95th percentile per-packet one-way delay: 61.860 ms  
Loss rate: 3.14%  
-- Flow 2:  
Average throughput: 23.55 Mbit/s  
95th percentile per-packet one-way delay: 62.128 ms  
Loss rate: 1.20%  
-- Flow 3:  
Average throughput: 24.19 Mbit/s  
95th percentile per-packet one-way delay: 61.402 ms  
Loss rate: 0.68%

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

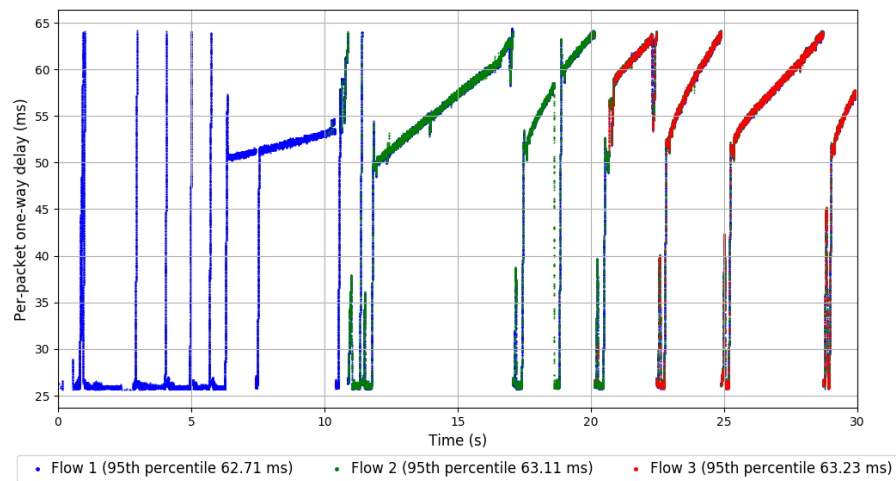
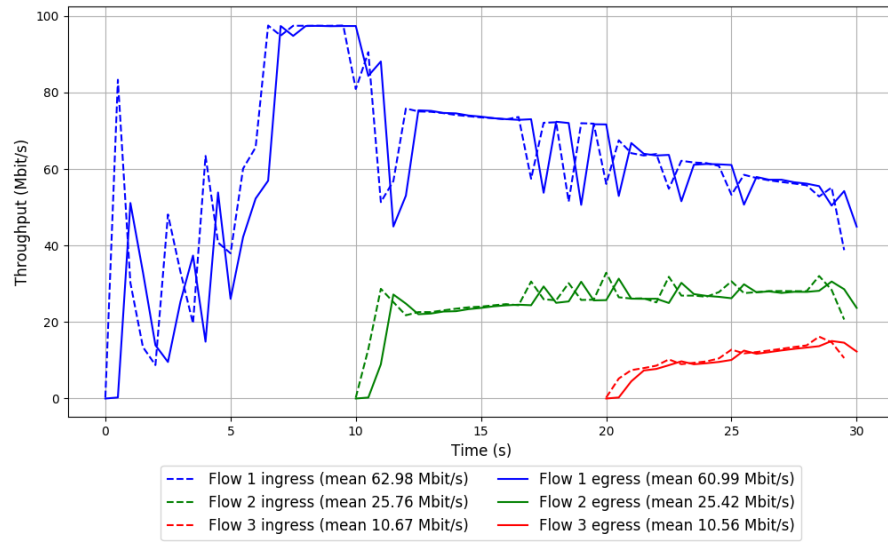


Run 3: Statistics of QUIC Cubic

Start at: 2019-02-05 08:20:14  
End at: 2019-02-05 08:20:44  
Local clock offset: 0.459 ms  
Remote clock offset: -7.675 ms

# Below is generated by plot.py at 2019-02-05 09:39:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.33 Mbit/s  
95th percentile per-packet one-way delay: 62.880 ms  
Loss rate: 2.61%  
-- Flow 1:  
Average throughput: 60.99 Mbit/s  
95th percentile per-packet one-way delay: 62.707 ms  
Loss rate: 3.05%  
-- Flow 2:  
Average throughput: 25.42 Mbit/s  
95th percentile per-packet one-way delay: 63.108 ms  
Loss rate: 1.30%  
-- Flow 3:  
Average throughput: 10.56 Mbit/s  
95th percentile per-packet one-way delay: 63.232 ms  
Loss rate: 1.13%

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



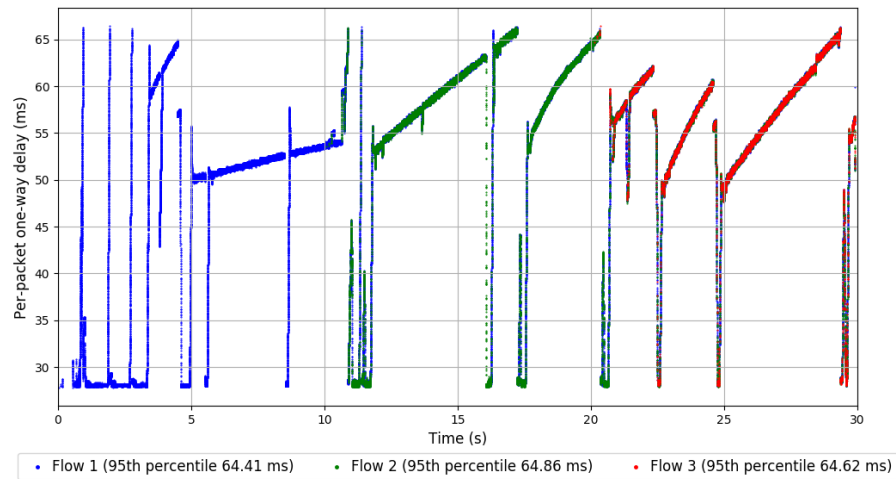
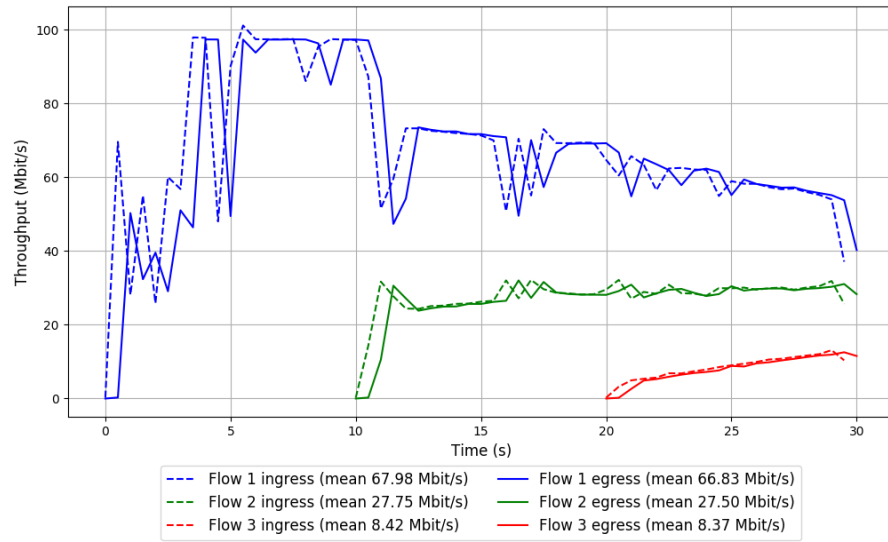


Run 4: Statistics of QUIC Cubic

Start at: 2019-02-05 08:45:39  
End at: 2019-02-05 08:46:09  
Local clock offset: -0.542 ms  
Remote clock offset: -4.803 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 87.82 Mbit/s  
95th percentile per-packet one-way delay: 64.577 ms  
Loss rate: 1.43%  
-- Flow 1:  
Average throughput: 66.83 Mbit/s  
95th percentile per-packet one-way delay: 64.413 ms  
Loss rate: 1.61%  
-- Flow 2:  
Average throughput: 27.50 Mbit/s  
95th percentile per-packet one-way delay: 64.856 ms  
Loss rate: 0.90%  
-- Flow 3:  
Average throughput: 8.37 Mbit/s  
95th percentile per-packet one-way delay: 64.616 ms  
Loss rate: 0.62%

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

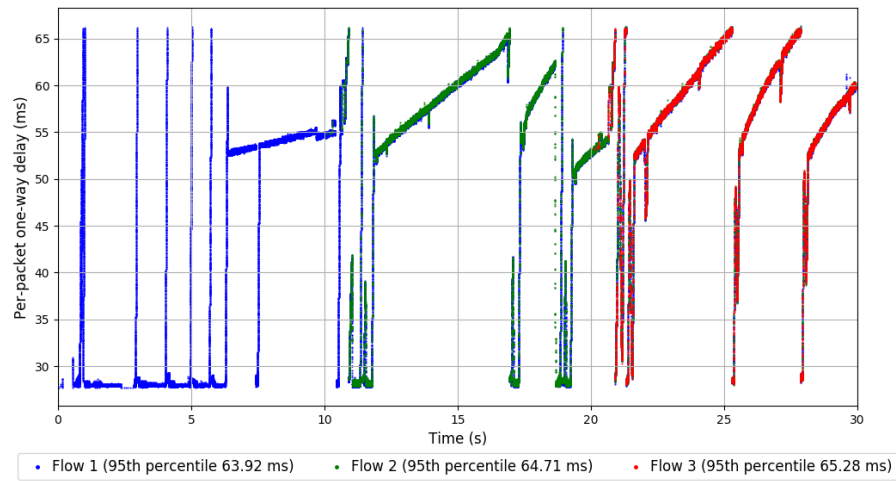
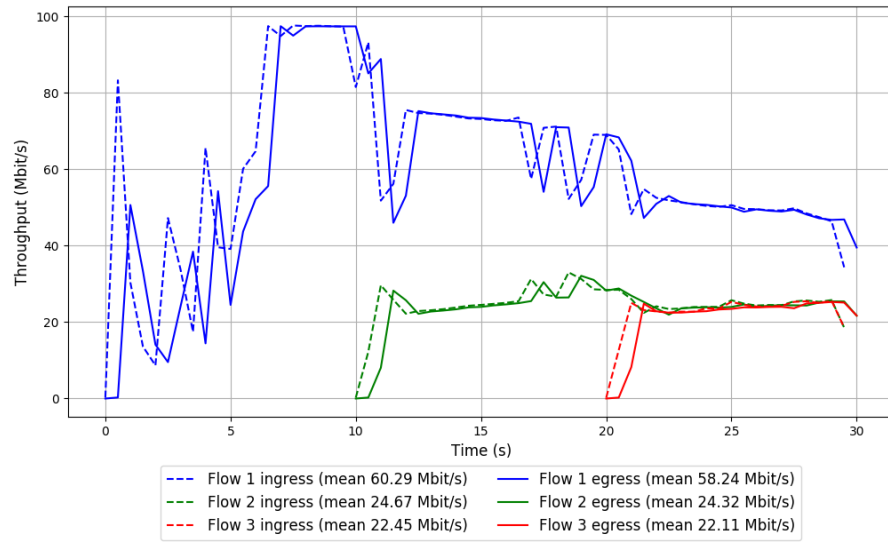


Run 5: Statistics of QUIC Cubic

Start at: 2019-02-05 09:11:00  
End at: 2019-02-05 09:11:30  
Local clock offset: -0.788 ms  
Remote clock offset: -4.692 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.64 Mbit/s  
95th percentile per-packet one-way delay: 64.303 ms  
Loss rate: 2.76%  
-- Flow 1:  
Average throughput: 58.24 Mbit/s  
95th percentile per-packet one-way delay: 63.921 ms  
Loss rate: 3.29%  
-- Flow 2:  
Average throughput: 24.32 Mbit/s  
95th percentile per-packet one-way delay: 64.709 ms  
Loss rate: 1.39%  
-- Flow 3:  
Average throughput: 22.11 Mbit/s  
95th percentile per-packet one-way delay: 65.285 ms  
Loss rate: 1.45%

# Run 5: Report of QUIC Cubic — Data Link

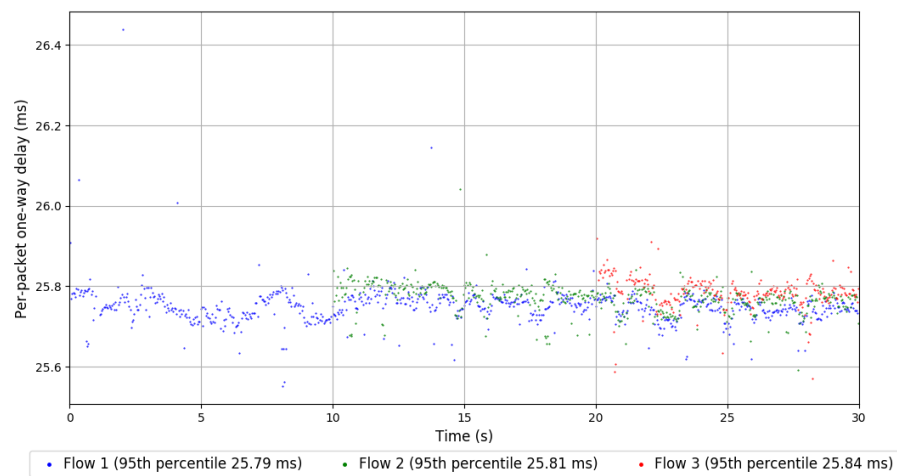
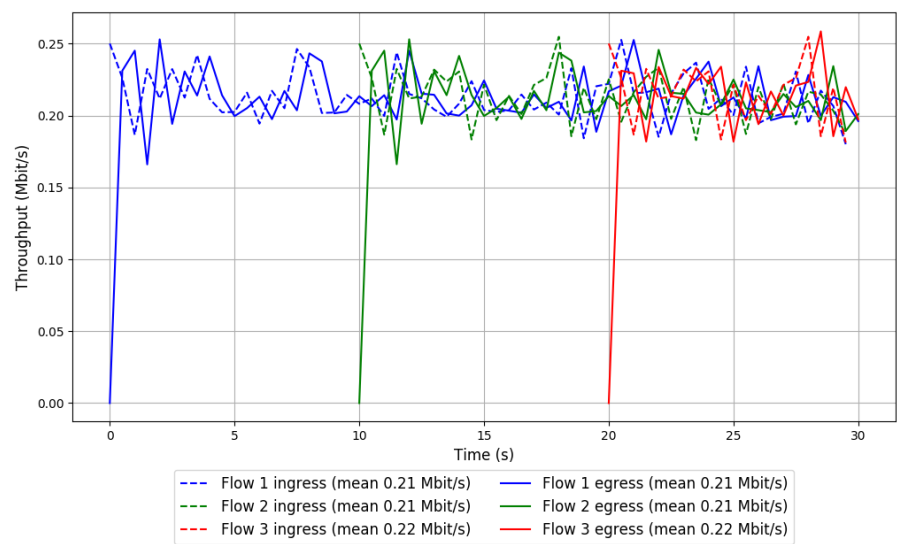


```
Run 1: Statistics of SReAM

Start at: 2019-02-05 07:30:08
End at: 2019-02-05 07:30:38
Local clock offset: 6.768 ms
Remote clock offset: -9.305 ms

# Below is generated by plot.py at 2019-02-05 09:39:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 25.814 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 25.793 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 25.814 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.839 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

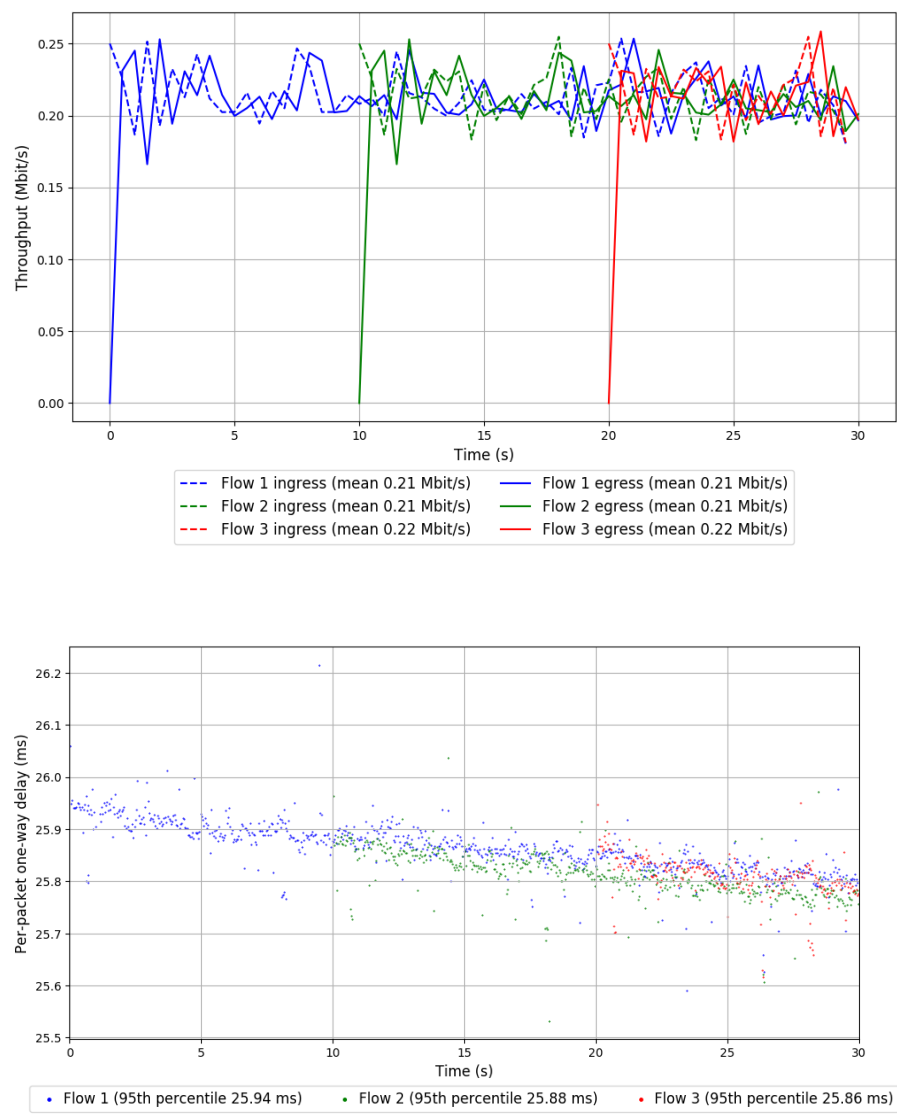


Run 2: Statistics of SReAM

Start at: 2019-02-05 07:55:39  
End at: 2019-02-05 07:56:09  
Local clock offset: 2.981 ms  
Remote clock offset: -8.315 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 25.925 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 25.938 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 25.877 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 25.862 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link





Run 3: Statistics of SReAM

Start at: 2019-02-05 08:21:33

End at: 2019-02-05 08:22:03

Local clock offset: 0.417 ms

Remote clock offset: -5.81 ms

# Below is generated by plot.py at 2019-02-05 09:39:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 27.872 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.883 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.857 ms

Loss rate: 0.00%

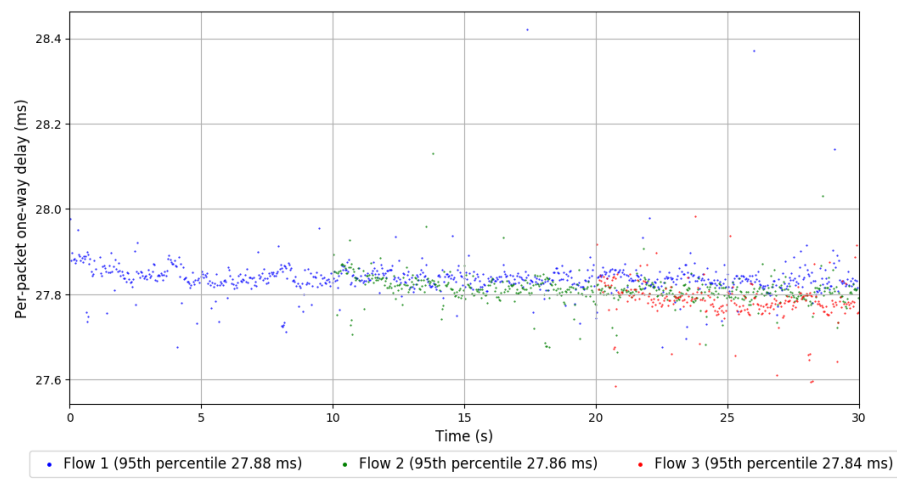
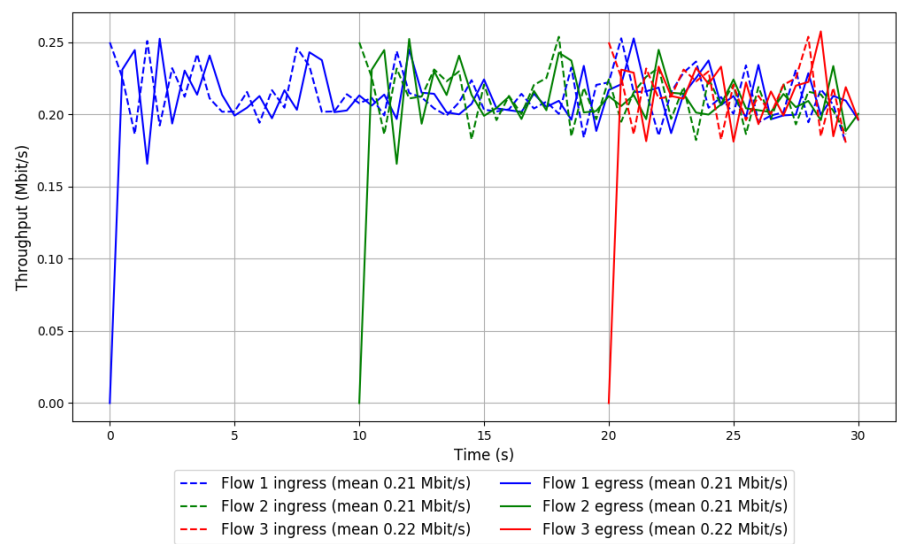
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 27.843 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

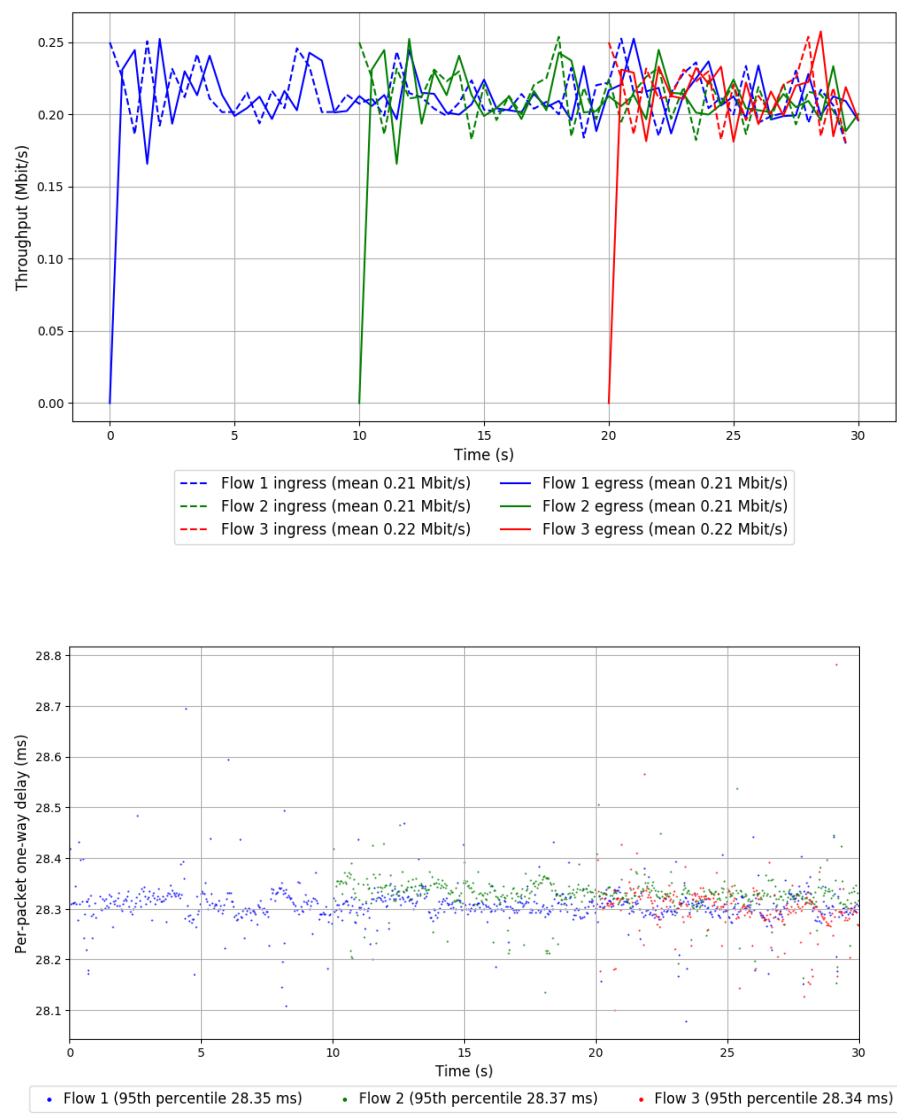


Run 4: Statistics of SReAM

Start at: 2019-02-05 08:46:52  
End at: 2019-02-05 08:47:22  
Local clock offset: -0.534 ms  
Remote clock offset: -4.561 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 28.361 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 28.351 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 28.368 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 28.345 ms  
Loss rate: 0.00%

Run 4: Report of SCRaM — Data Link

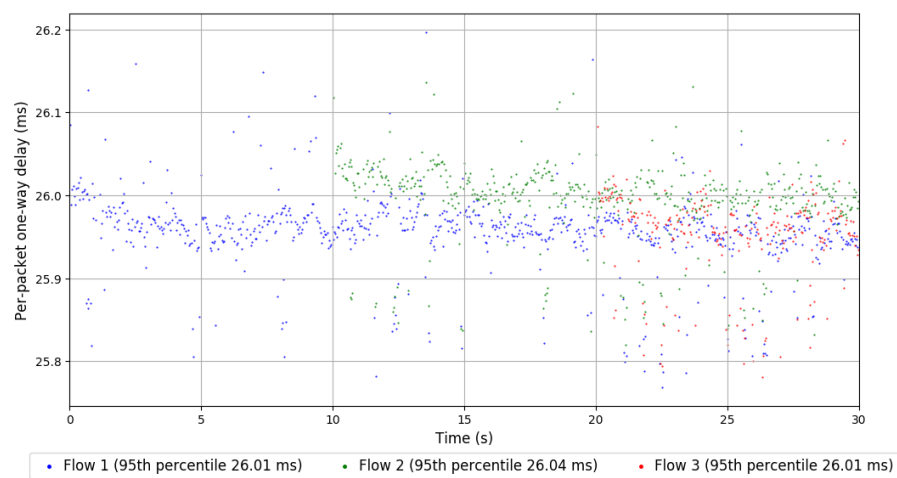
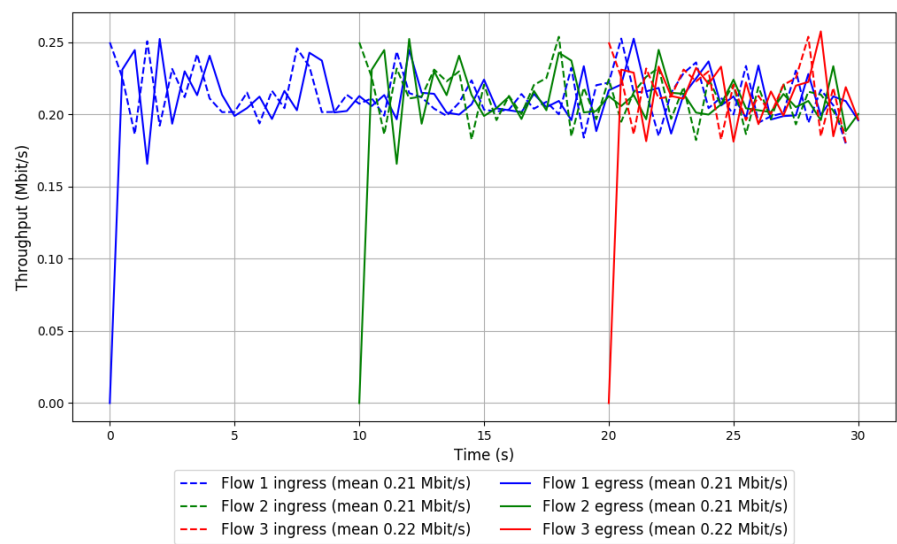


Run 5: Statistics of SReAM

Start at: 2019-02-05 09:12:14  
End at: 2019-02-05 09:12:44  
Local clock offset: -0.827 ms  
Remote clock offset: -6.726 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 26.035 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 26.008 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 26.043 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 26.008 ms  
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

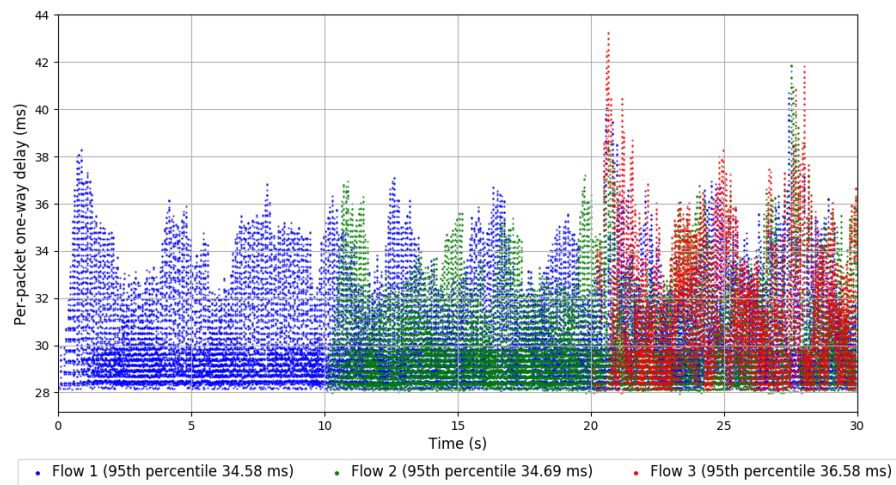
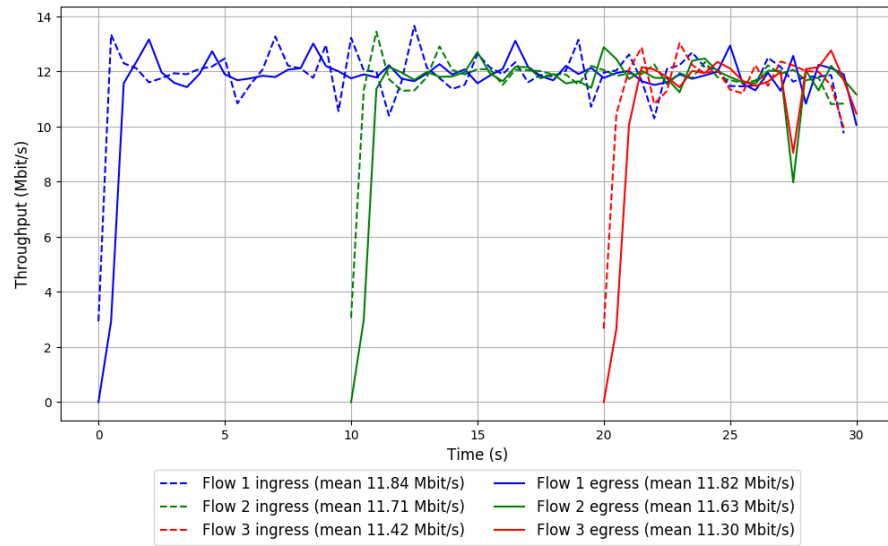


Run 1: Statistics of Sprout

Start at: 2019-02-05 07:43:26  
End at: 2019-02-05 07:43:56  
Local clock offset: 6.67 ms  
Remote clock offset: -6.408 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.29 Mbit/s  
95th percentile per-packet one-way delay: 34.975 ms  
Loss rate: 0.45%  
-- Flow 1:  
Average throughput: 11.82 Mbit/s  
95th percentile per-packet one-way delay: 34.582 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 11.63 Mbit/s  
95th percentile per-packet one-way delay: 34.692 ms  
Loss rate: 0.63%  
-- Flow 3:  
Average throughput: 11.30 Mbit/s  
95th percentile per-packet one-way delay: 36.584 ms  
Loss rate: 0.95%

# Run 1: Report of Sprout — Data Link



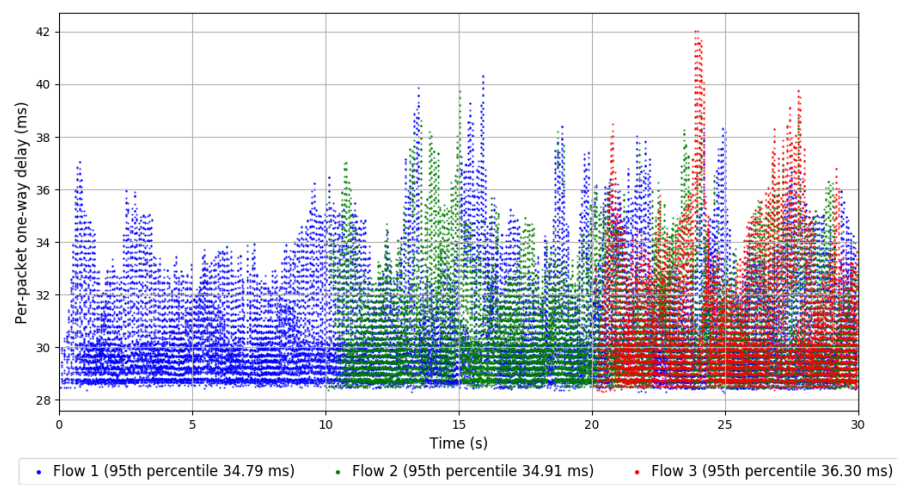
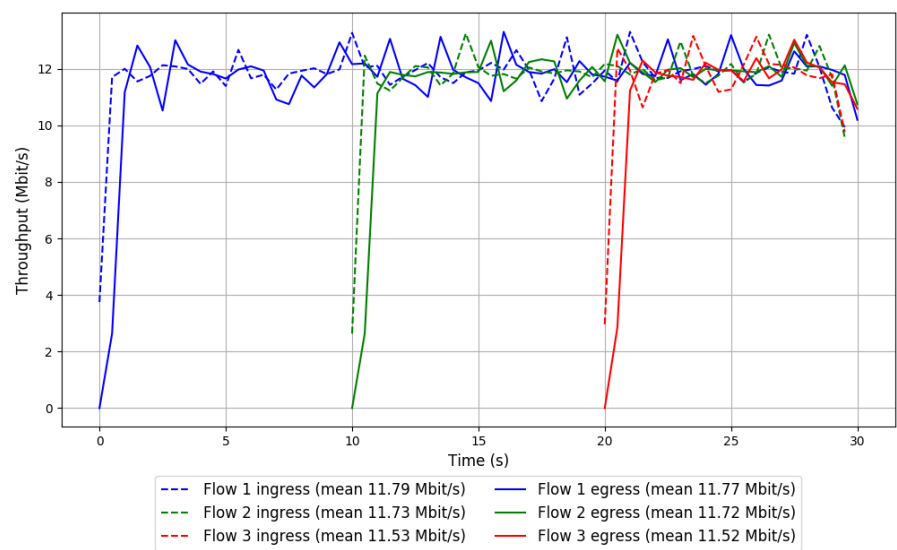


Run 2: Statistics of Sprout

Start at: 2019-02-05 08:09:05  
End at: 2019-02-05 08:09:35  
Local clock offset: 1.057 ms  
Remote clock offset: -5.277 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.36 Mbit/s  
95th percentile per-packet one-way delay: 35.034 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 11.77 Mbit/s  
95th percentile per-packet one-way delay: 34.790 ms  
Loss rate: 0.17%  
-- Flow 2:  
Average throughput: 11.72 Mbit/s  
95th percentile per-packet one-way delay: 34.915 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 11.52 Mbit/s  
95th percentile per-packet one-way delay: 36.301 ms  
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

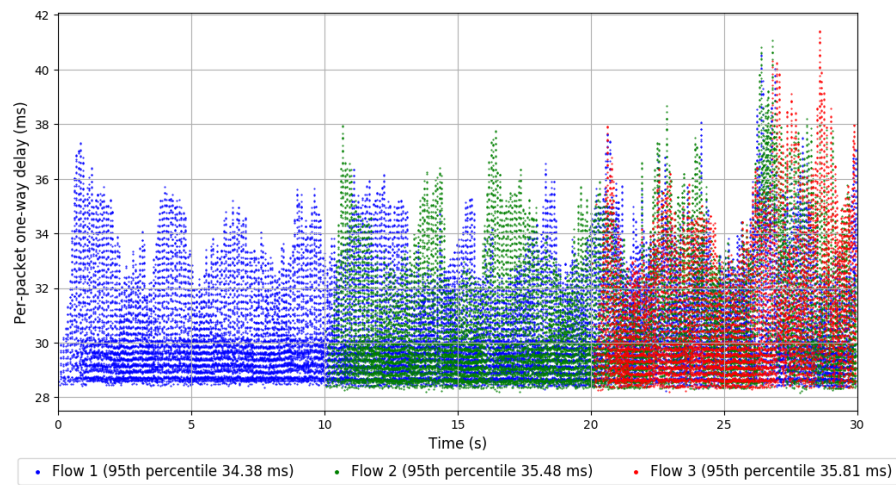
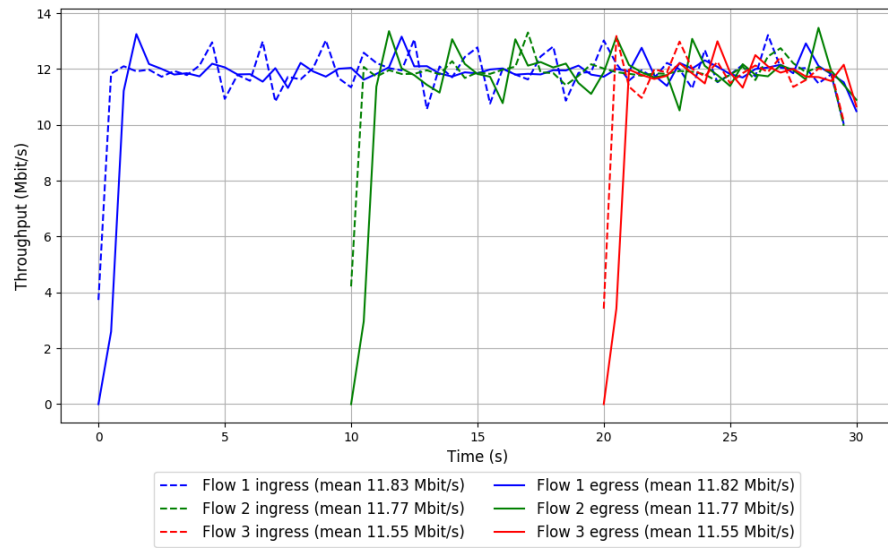


Run 3: Statistics of Sprout

Start at: 2019-02-05 08:34:42  
End at: 2019-02-05 08:35:12  
Local clock offset: -0.014 ms  
Remote clock offset: -4.774 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.47 Mbit/s  
95th percentile per-packet one-way delay: 34.979 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 11.82 Mbit/s  
95th percentile per-packet one-way delay: 34.384 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 11.77 Mbit/s  
95th percentile per-packet one-way delay: 35.479 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 11.55 Mbit/s  
95th percentile per-packet one-way delay: 35.815 ms  
Loss rate: 0.00%

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

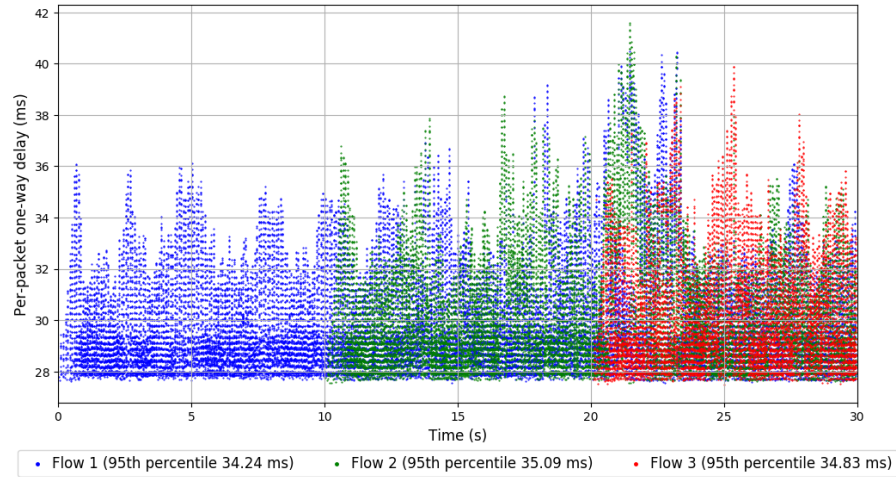
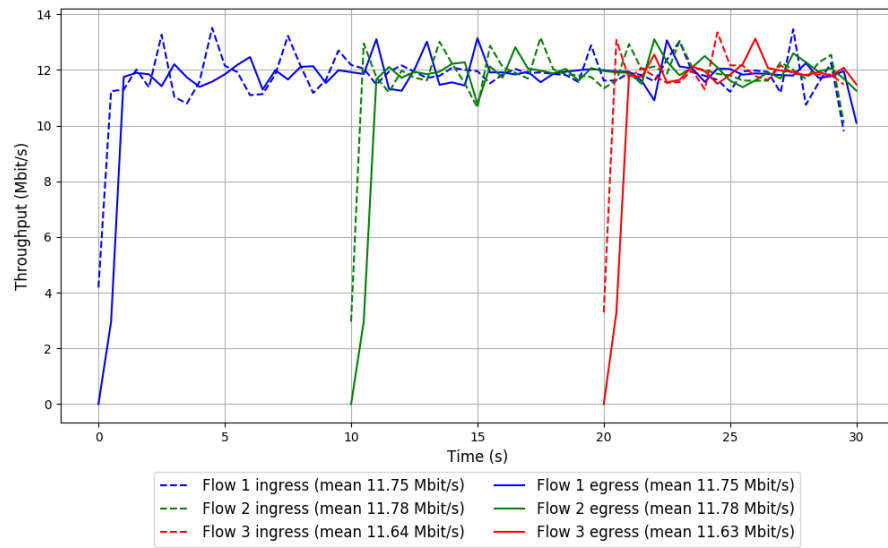


#### Run 4: Statistics of Sprout

Start at: 2019-02-05 09:00:01  
End at: 2019-02-05 09:00:31  
Local clock offset: -0.475 ms  
Remote clock offset: -4.981 ms

```
# Below is generated by plot.py at 2019-02-05 09:39:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.43 Mbit/s
95th percentile per-packet one-way delay: 34.666 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 34.239 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 35.095 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 11.63 Mbit/s
95th percentile per-packet one-way delay: 34.834 ms
Loss rate: 0.01%
```

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

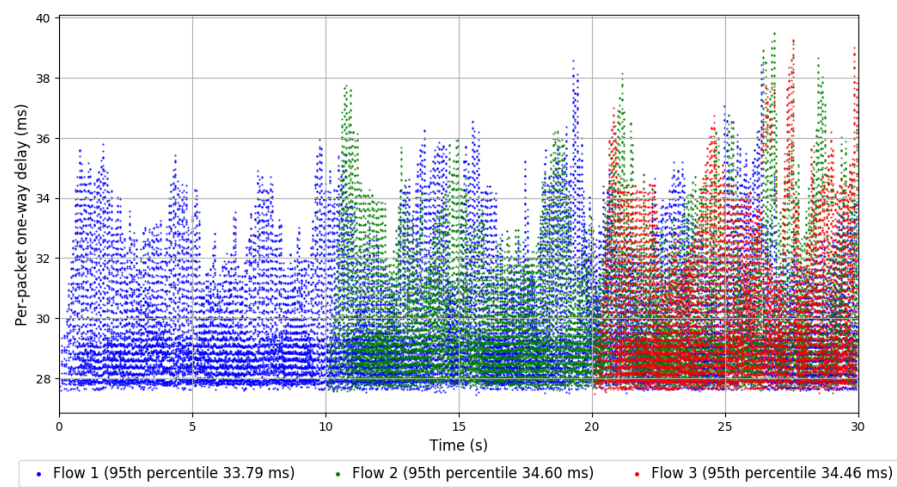
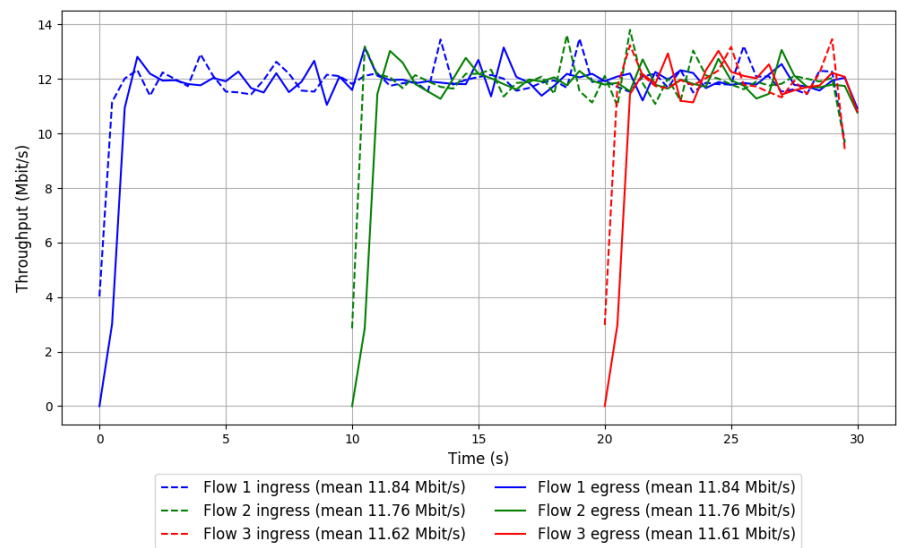


Run 5: Statistics of Sprout

Start at: 2019-02-05 09:25:21  
End at: 2019-02-05 09:25:51  
Local clock offset: -0.74 ms  
Remote clock offset: -4.934 ms

# Below is generated by plot.py at 2019-02-05 09:39:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 23.49 Mbit/s  
95th percentile per-packet one-way delay: 34.193 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 11.84 Mbit/s  
95th percentile per-packet one-way delay: 33.792 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 11.76 Mbit/s  
95th percentile per-packet one-way delay: 34.597 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 11.61 Mbit/s  
95th percentile per-packet one-way delay: 34.457 ms  
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



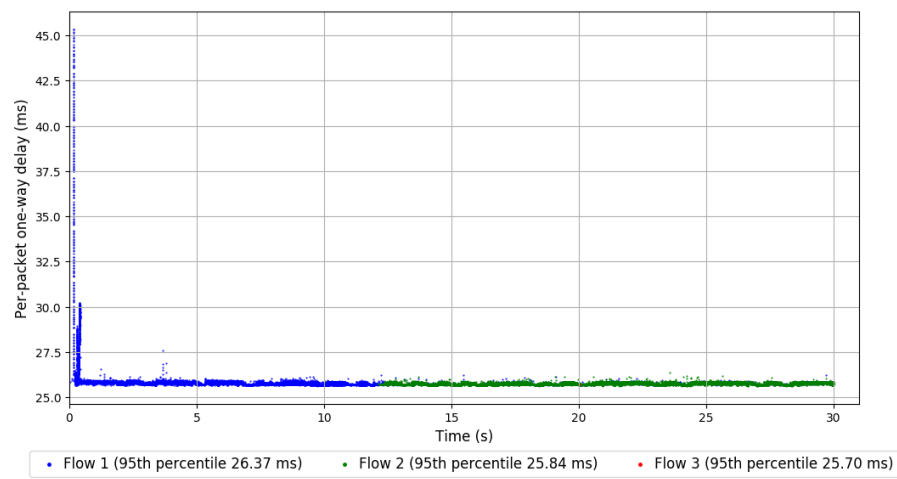
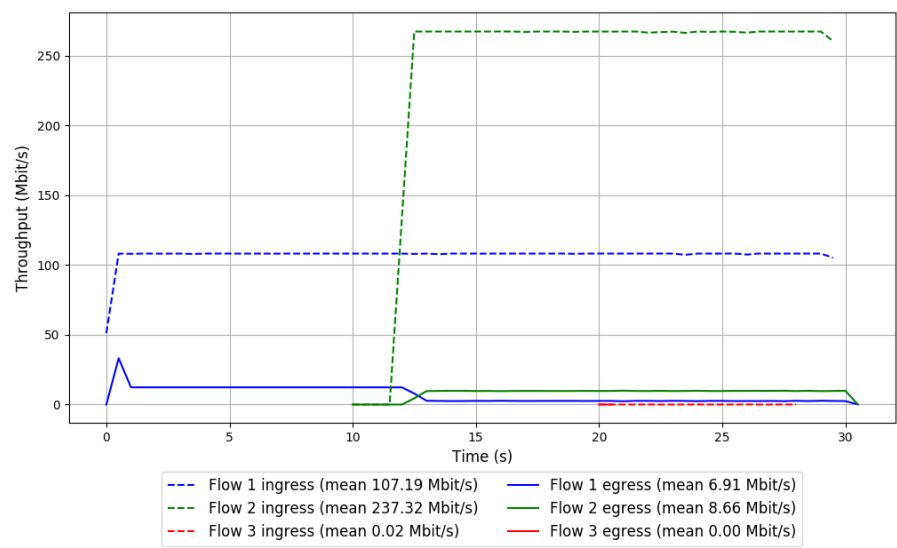


Run 1: Statistics of TaoVA-100x

Start at: 2019-02-05 07:37:12  
End at: 2019-02-05 07:37:42  
Local clock offset: 6.653 ms  
Remote clock offset: -9.096 ms

# Below is generated by plot.py at 2019-02-05 09:39:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.68 Mbit/s  
95th percentile per-packet one-way delay: 25.915 ms  
Loss rate: 95.22%  
-- Flow 1:  
Average throughput: 6.91 Mbit/s  
95th percentile per-packet one-way delay: 26.366 ms  
Loss rate: 93.56%  
-- Flow 2:  
Average throughput: 8.66 Mbit/s  
95th percentile per-packet one-way delay: 25.837 ms  
Loss rate: 96.35%  
-- Flow 3:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 25.695 ms  
Loss rate: 99.16%

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

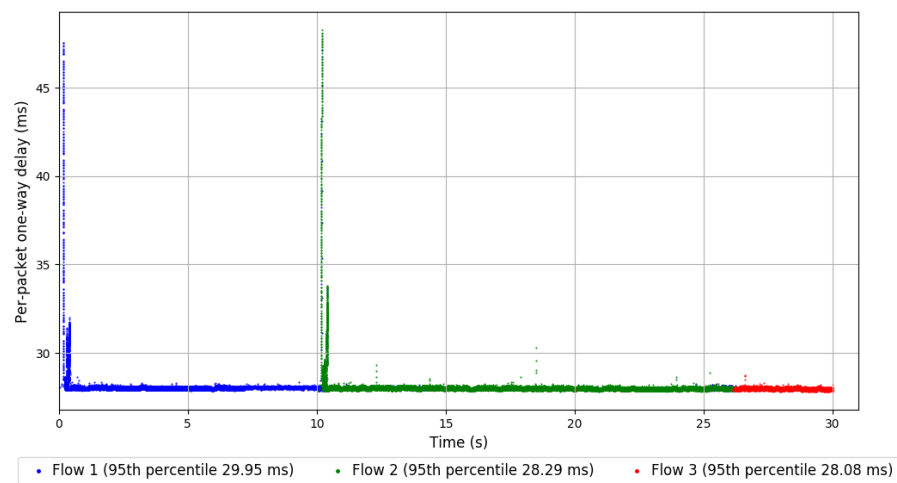
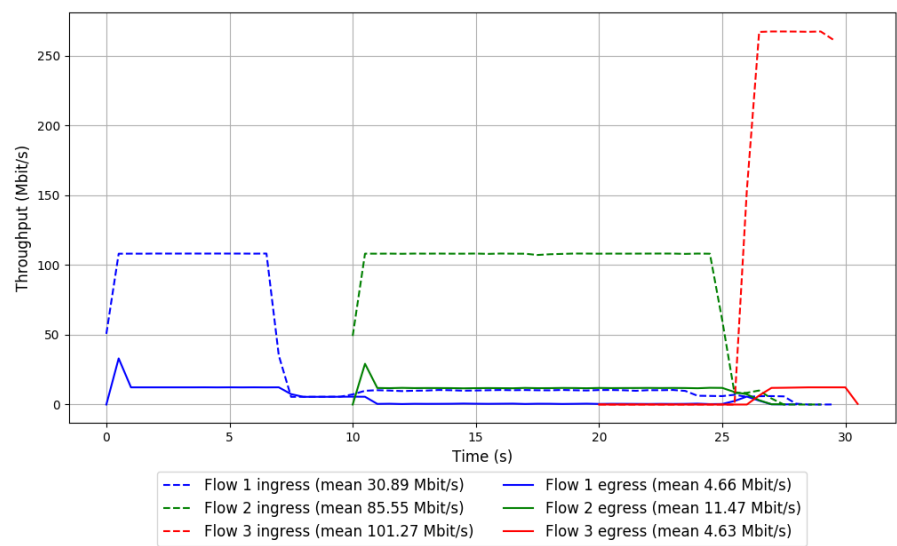


Run 2: Statistics of TaoVA-100x

Start at: 2019-02-05 08:02:56  
End at: 2019-02-05 08:03:26  
Local clock offset: 1.699 ms  
Remote clock offset: -6.015 ms

# Below is generated by plot.py at 2019-02-05 09:39:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.41 Mbit/s  
95th percentile per-packet one-way delay: 28.858 ms  
Loss rate: 89.58%  
-- Flow 1:  
Average throughput: 4.66 Mbit/s  
95th percentile per-packet one-way delay: 29.949 ms  
Loss rate: 85.95%  
-- Flow 2:  
Average throughput: 11.47 Mbit/s  
95th percentile per-packet one-way delay: 28.288 ms  
Loss rate: 88.04%  
-- Flow 3:  
Average throughput: 4.63 Mbit/s  
95th percentile per-packet one-way delay: 28.080 ms  
Loss rate: 95.43%

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

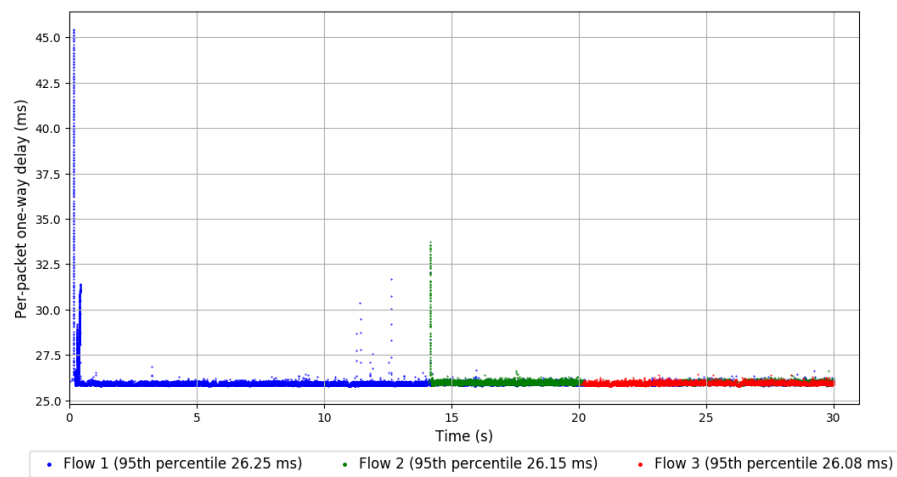
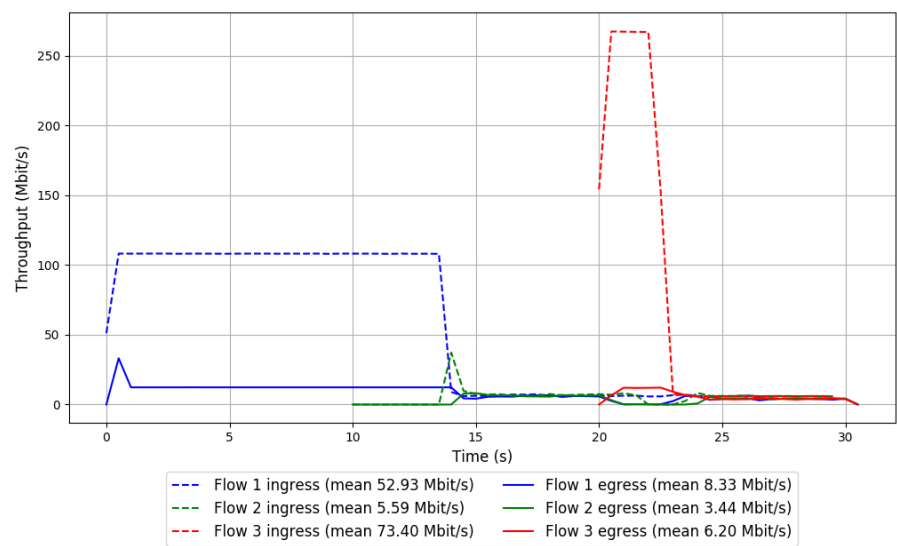


Run 3: Statistics of TaoVA-100x

Start at: 2019-02-05 08:28:39  
End at: 2019-02-05 08:29:09  
Local clock offset: 0.191 ms  
Remote clock offset: -7.479 ms

# Below is generated by plot.py at 2019-02-05 09:39:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.68 Mbit/s  
95th percentile per-packet one-way delay: 26.140 ms  
Loss rate: 84.35%  
-- Flow 1:  
Average throughput: 8.33 Mbit/s  
95th percentile per-packet one-way delay: 26.245 ms  
Loss rate: 84.26%  
-- Flow 2:  
Average throughput: 3.44 Mbit/s  
95th percentile per-packet one-way delay: 26.151 ms  
Loss rate: 38.54%  
-- Flow 3:  
Average throughput: 6.20 Mbit/s  
95th percentile per-packet one-way delay: 26.080 ms  
Loss rate: 91.56%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-02-05 08:53:56

End at: 2019-02-05 08:54:27

Local clock offset: -0.394 ms

Remote clock offset: -6.63 ms

# Below is generated by plot.py at 2019-02-05 09:39:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 26.276 ms

Loss rate: 90.02%

-- Flow 1:

Average throughput: 5.73 Mbit/s

95th percentile per-packet one-way delay: 27.637 ms

Loss rate: 83.51%

-- Flow 2:

Average throughput: 7.49 Mbit/s

95th percentile per-packet one-way delay: 26.259 ms

Loss rate: 82.58%

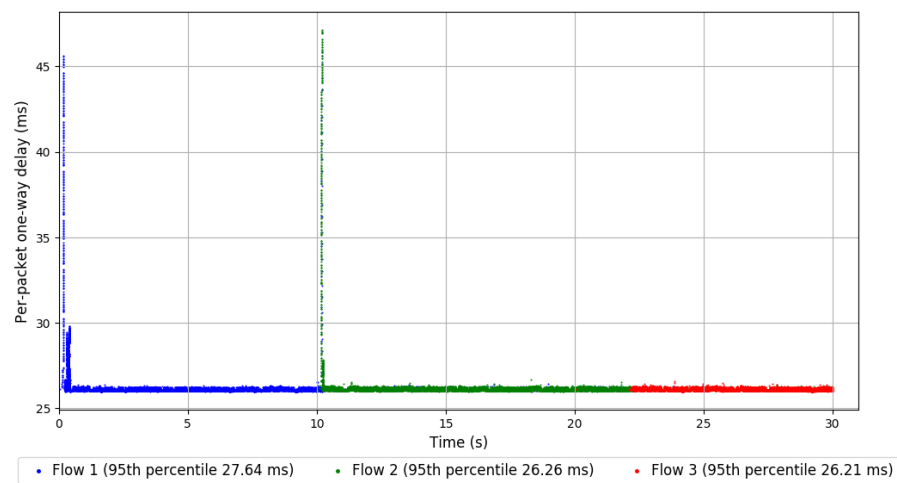
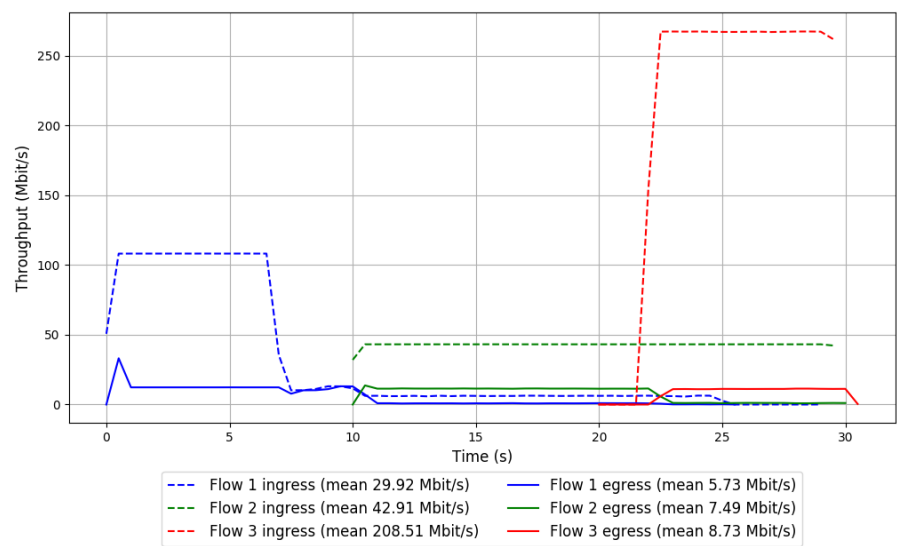
-- Flow 3:

Average throughput: 8.73 Mbit/s

95th percentile per-packet one-way delay: 26.214 ms

Loss rate: 95.81%

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



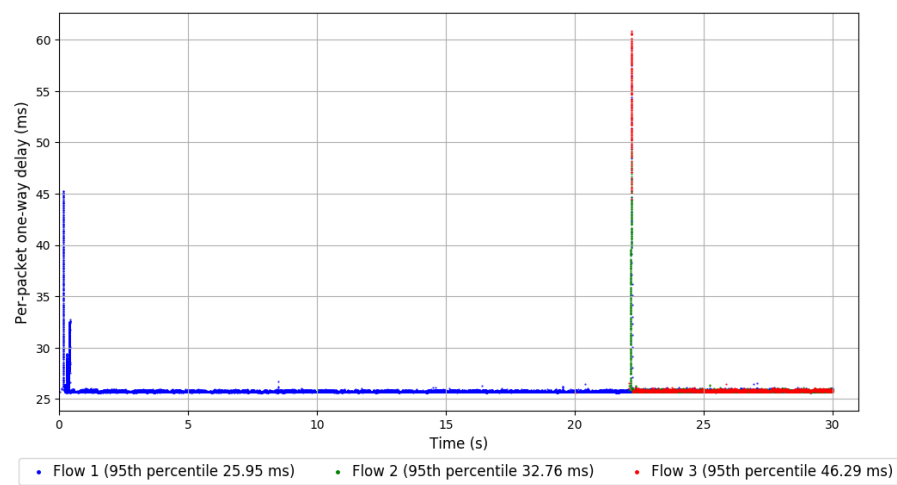
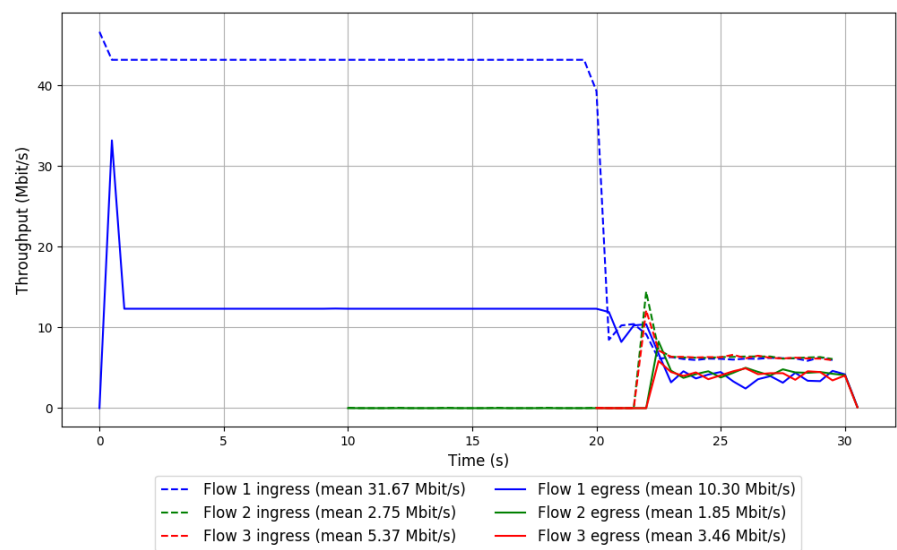


Run 5: Statistics of TaoVA-100x

Start at: 2019-02-05 09:19:19  
End at: 2019-02-05 09:19:49  
Local clock offset: -0.844 ms  
Remote clock offset: -6.942 ms

# Below is generated by plot.py at 2019-02-05 09:39:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.68 Mbit/s  
95th percentile per-packet one-way delay: 25.999 ms  
Loss rate: 64.07%  
-- Flow 1:  
Average throughput: 10.30 Mbit/s  
95th percentile per-packet one-way delay: 25.949 ms  
Loss rate: 67.47%  
-- Flow 2:  
Average throughput: 1.85 Mbit/s  
95th percentile per-packet one-way delay: 32.764 ms  
Loss rate: 33.00%  
-- Flow 3:  
Average throughput: 3.46 Mbit/s  
95th percentile per-packet one-way delay: 46.287 ms  
Loss rate: 35.67%

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

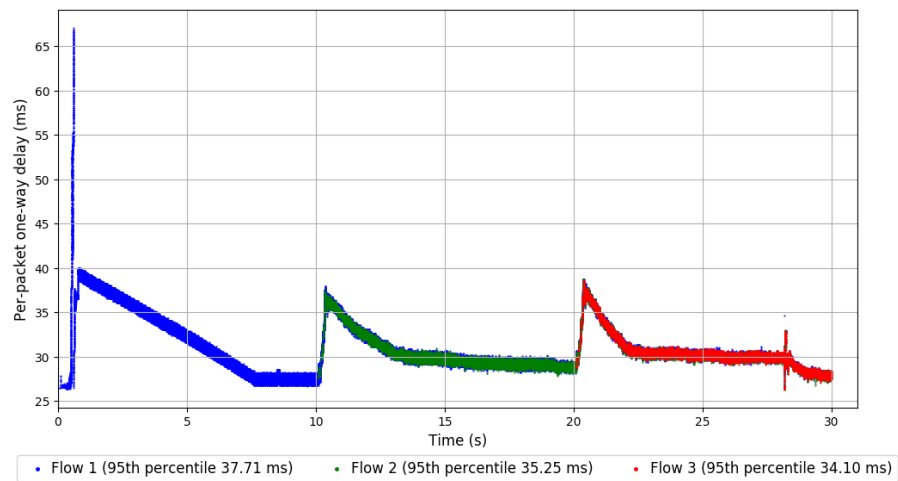
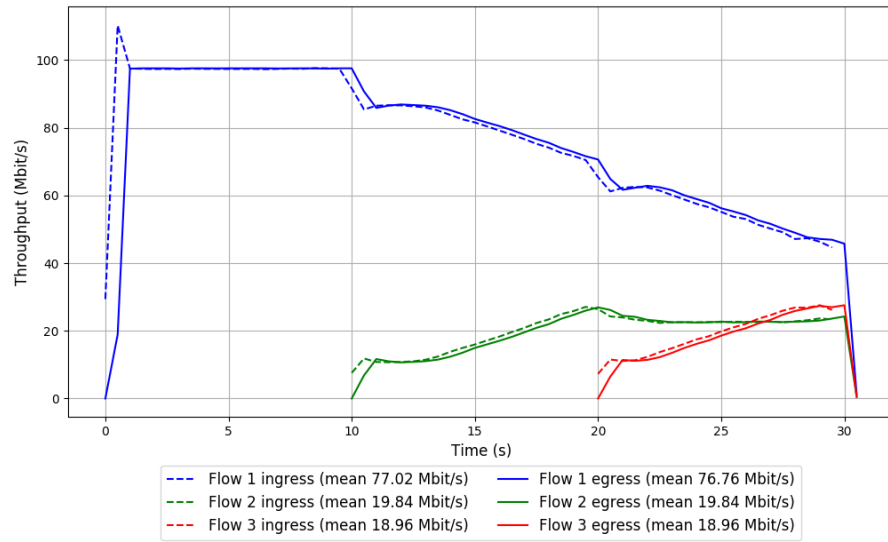


Run 1: Statistics of TCP Vegas

Start at: 2019-02-05 07:25:17  
End at: 2019-02-05 07:25:47  
Local clock offset: 6.996 ms  
Remote clock offset: -8.698 ms

# Below is generated by plot.py at 2019-02-05 09:40:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.29 Mbit/s  
95th percentile per-packet one-way delay: 37.263 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 76.76 Mbit/s  
95th percentile per-packet one-way delay: 37.706 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 19.84 Mbit/s  
95th percentile per-packet one-way delay: 35.250 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 18.96 Mbit/s  
95th percentile per-packet one-way delay: 34.098 ms  
Loss rate: 0.00%

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



Run 2: Statistics of TCP Vegas

Start at: 2019-02-05 07:50:47

End at: 2019-02-05 07:51:17

Local clock offset: 4.4 ms

Remote clock offset: -8.28 ms

# Below is generated by plot.py at 2019-02-05 09:40:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.29 Mbit/s

95th percentile per-packet one-way delay: 36.770 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 76.94 Mbit/s

95th percentile per-packet one-way delay: 37.090 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 19.71 Mbit/s

95th percentile per-packet one-way delay: 34.615 ms

Loss rate: 0.00%

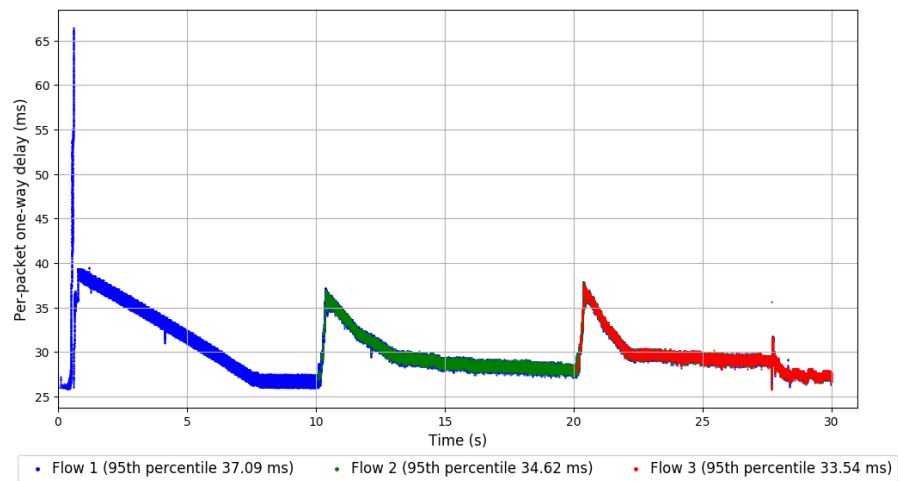
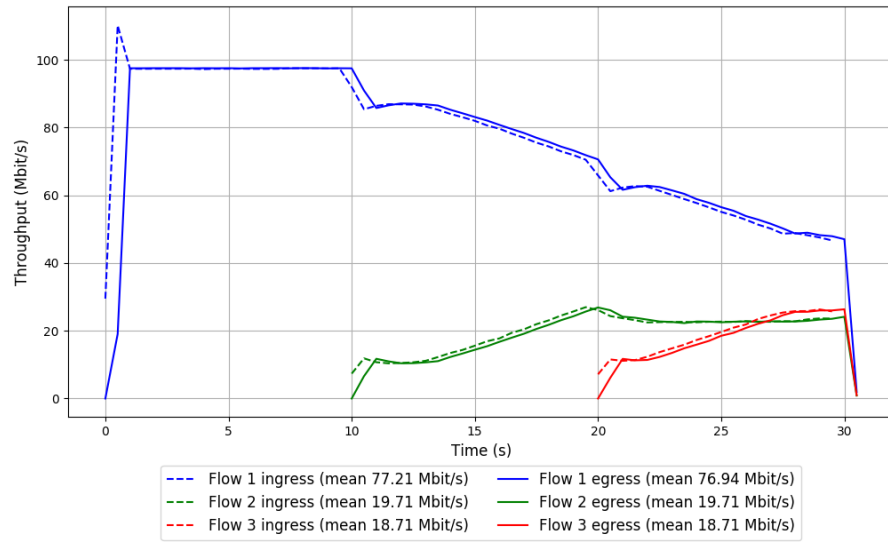
-- Flow 3:

Average throughput: 18.71 Mbit/s

95th percentile per-packet one-way delay: 33.543 ms

Loss rate: 0.00%

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

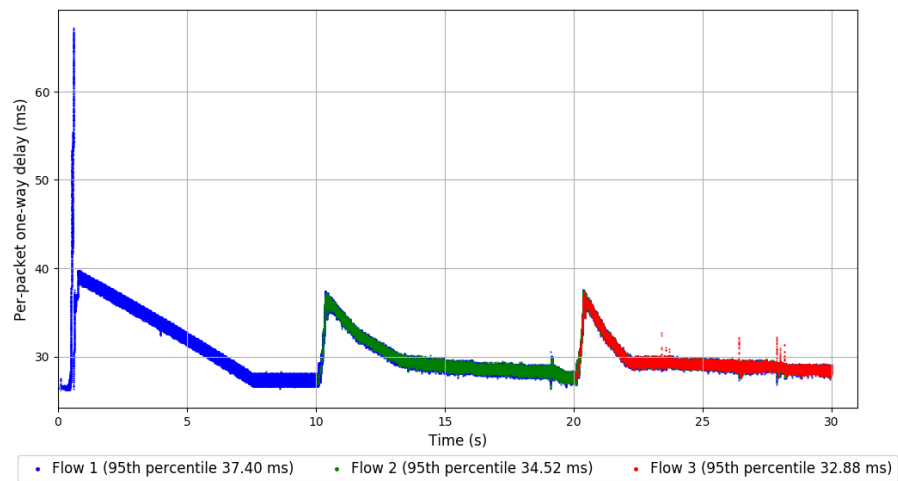
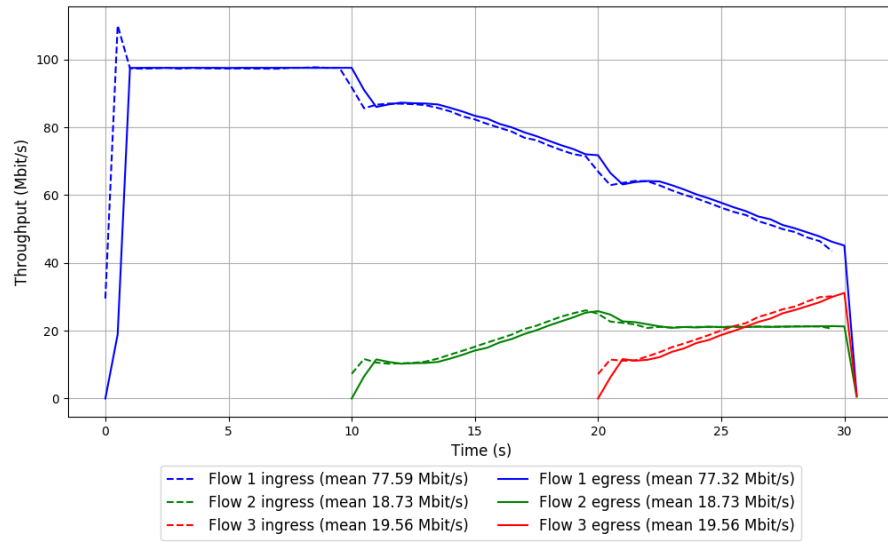


Run 3: Statistics of TCP Vegas

Start at: 2019-02-05 08:16:26  
End at: 2019-02-05 08:16:56  
Local clock offset: 0.504 ms  
Remote clock offset: -7.277 ms

# Below is generated by plot.py at 2019-02-05 09:40:23  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.30 Mbit/s  
95th percentile per-packet one-way delay: 36.945 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 77.32 Mbit/s  
95th percentile per-packet one-way delay: 37.400 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 18.73 Mbit/s  
95th percentile per-packet one-way delay: 34.521 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 19.56 Mbit/s  
95th percentile per-packet one-way delay: 32.880 ms  
Loss rate: 0.00%

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



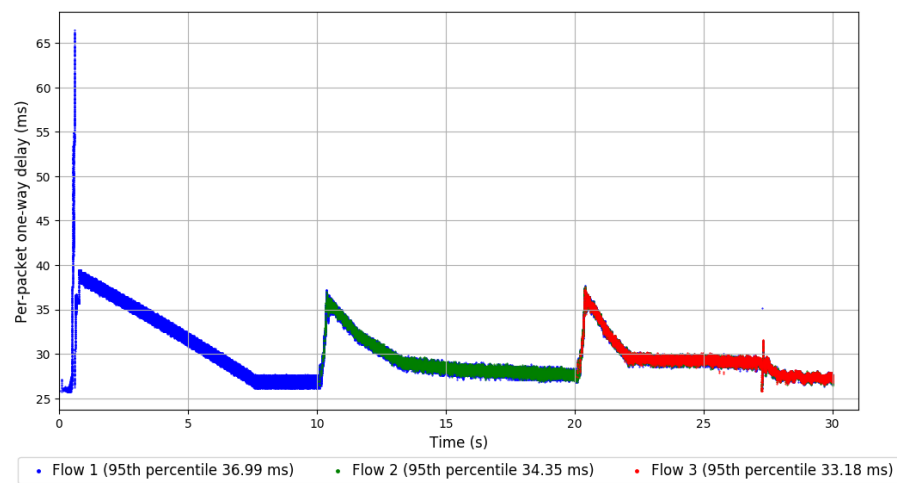
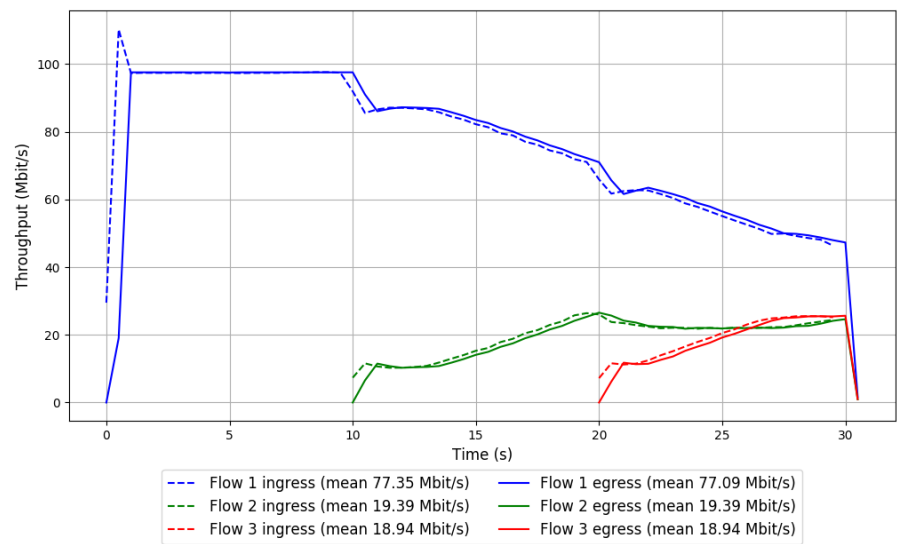


Run 4: Statistics of TCP Vegas

Start at: 2019-02-05 08:42:00  
End at: 2019-02-05 08:42:30  
Local clock offset: -0.375 ms  
Remote clock offset: -7.046 ms

# Below is generated by plot.py at 2019-02-05 09:40:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.30 Mbit/s  
95th percentile per-packet one-way delay: 36.659 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 77.09 Mbit/s  
95th percentile per-packet one-way delay: 36.993 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 19.39 Mbit/s  
95th percentile per-packet one-way delay: 34.350 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 18.94 Mbit/s  
95th percentile per-packet one-way delay: 33.178 ms  
Loss rate: 0.01%

Run 4: Report of TCP Vegas — Data Link

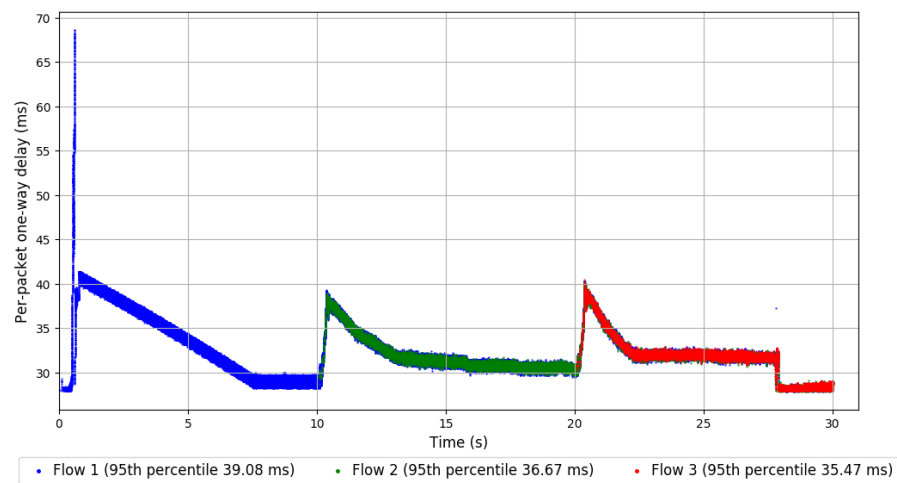
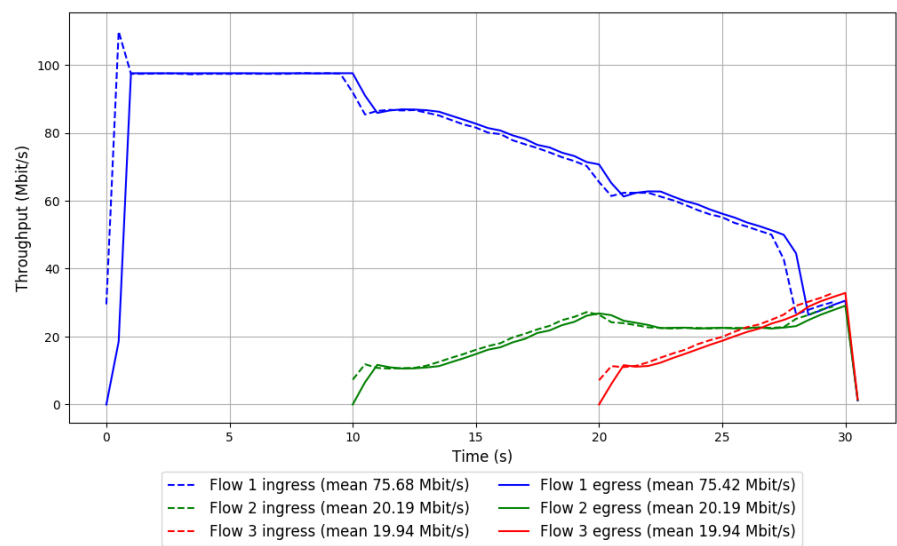


Run 5: Statistics of TCP Vegas

Start at: 2019-02-05 09:07:19  
End at: 2019-02-05 09:07:49  
Local clock offset: -0.657 ms  
Remote clock offset: -4.674 ms

# Below is generated by plot.py at 2019-02-05 09:40:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.50 Mbit/s  
95th percentile per-packet one-way delay: 38.774 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 75.42 Mbit/s  
95th percentile per-packet one-way delay: 39.077 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 20.19 Mbit/s  
95th percentile per-packet one-way delay: 36.666 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 19.94 Mbit/s  
95th percentile per-packet one-way delay: 35.470 ms  
Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

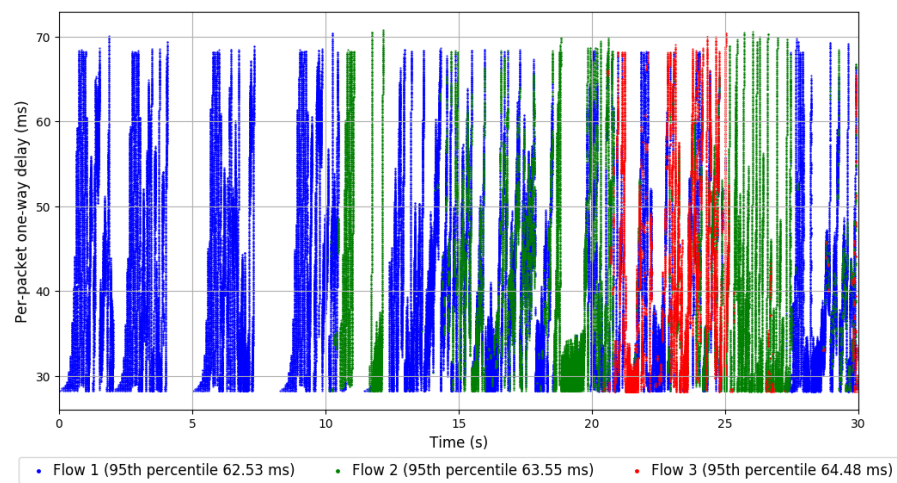
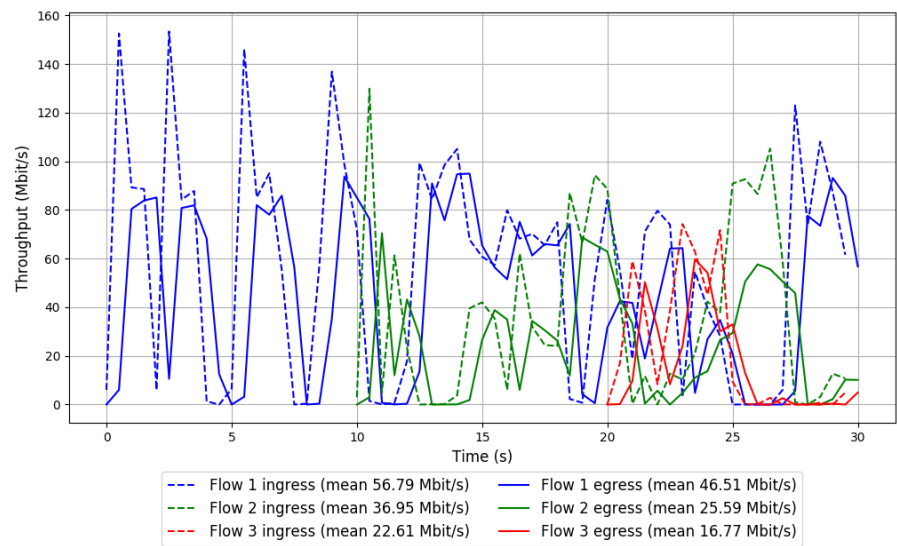


Run 1: Statistics of Verus

Start at: 2019-02-05 07:27:42  
End at: 2019-02-05 07:28:12  
Local clock offset: 6.841 ms  
Remote clock offset: -6.808 ms

# Below is generated by plot.py at 2019-02-05 09:40:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.89 Mbit/s  
95th percentile per-packet one-way delay: 62.949 ms  
Loss rate: 22.26%  
-- Flow 1:  
Average throughput: 46.51 Mbit/s  
95th percentile per-packet one-way delay: 62.534 ms  
Loss rate: 18.11%  
-- Flow 2:  
Average throughput: 25.59 Mbit/s  
95th percentile per-packet one-way delay: 63.549 ms  
Loss rate: 30.80%  
-- Flow 3:  
Average throughput: 16.77 Mbit/s  
95th percentile per-packet one-way delay: 64.479 ms  
Loss rate: 25.83%

Run 1: Report of Verus — Data Link

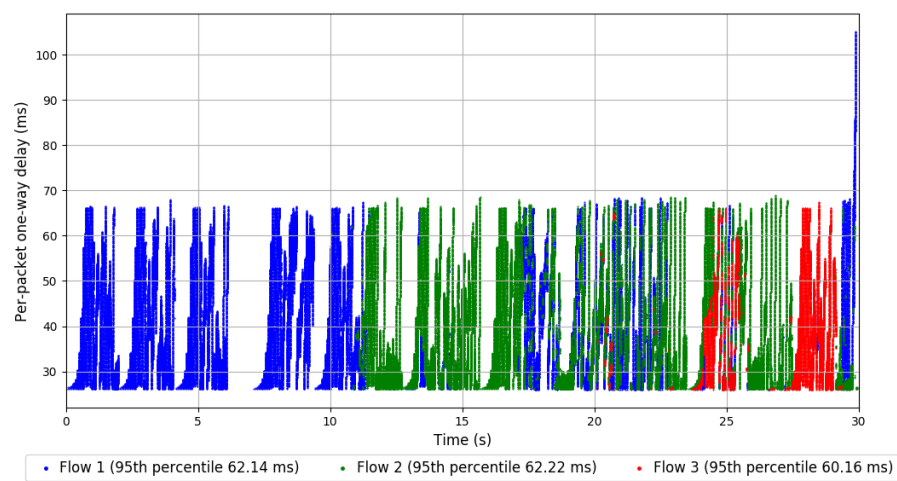
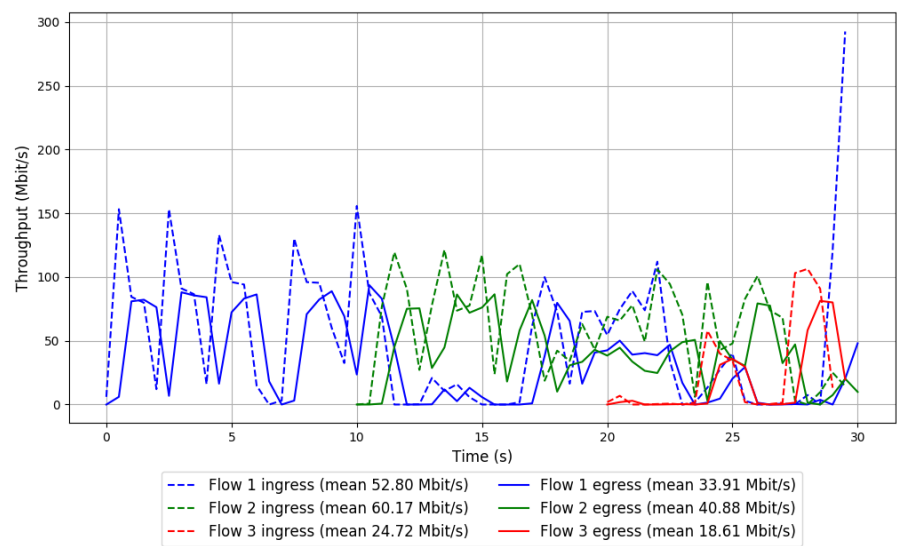


Run 2: Statistics of Verus

Start at: 2019-02-05 07:53:12  
End at: 2019-02-05 07:53:42  
Local clock offset: 3.687 ms  
Remote clock offset: -7.886 ms

# Below is generated by plot.py at 2019-02-05 09:40:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 66.77 Mbit/s  
95th percentile per-packet one-way delay: 62.048 ms  
Loss rate: 33.46%  
-- Flow 1:  
Average throughput: 33.91 Mbit/s  
95th percentile per-packet one-way delay: 62.138 ms  
Loss rate: 35.65%  
-- Flow 2:  
Average throughput: 40.88 Mbit/s  
95th percentile per-packet one-way delay: 62.215 ms  
Loss rate: 32.18%  
-- Flow 3:  
Average throughput: 18.61 Mbit/s  
95th percentile per-packet one-way delay: 60.159 ms  
Loss rate: 25.23%

Run 2: Report of Verus — Data Link



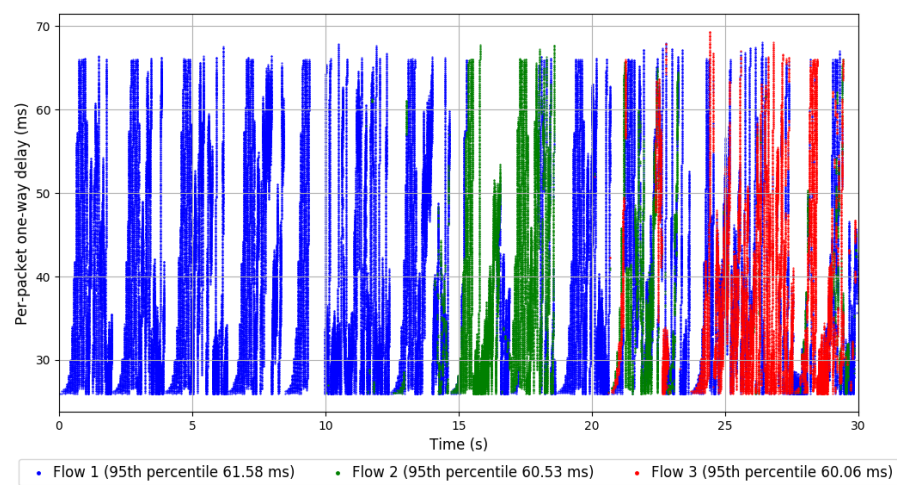
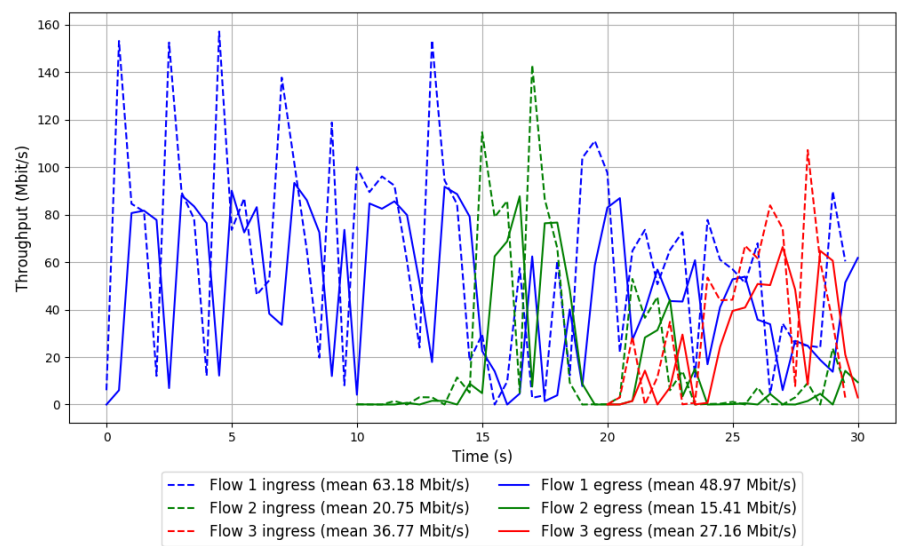


Run 3: Statistics of Verus

Start at: 2019-02-05 08:18:58  
End at: 2019-02-05 08:19:28  
Local clock offset: 0.469 ms  
Remote clock offset: -7.537 ms

# Below is generated by plot.py at 2019-02-05 09:40:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.11 Mbit/s  
95th percentile per-packet one-way delay: 61.311 ms  
Loss rate: 23.45%  
-- Flow 1:  
Average throughput: 48.97 Mbit/s  
95th percentile per-packet one-way delay: 61.576 ms  
Loss rate: 22.46%  
-- Flow 2:  
Average throughput: 15.41 Mbit/s  
95th percentile per-packet one-way delay: 60.535 ms  
Loss rate: 25.66%  
-- Flow 3:  
Average throughput: 27.16 Mbit/s  
95th percentile per-packet one-way delay: 60.062 ms  
Loss rate: 26.16%

Run 3: Report of Verus — Data Link

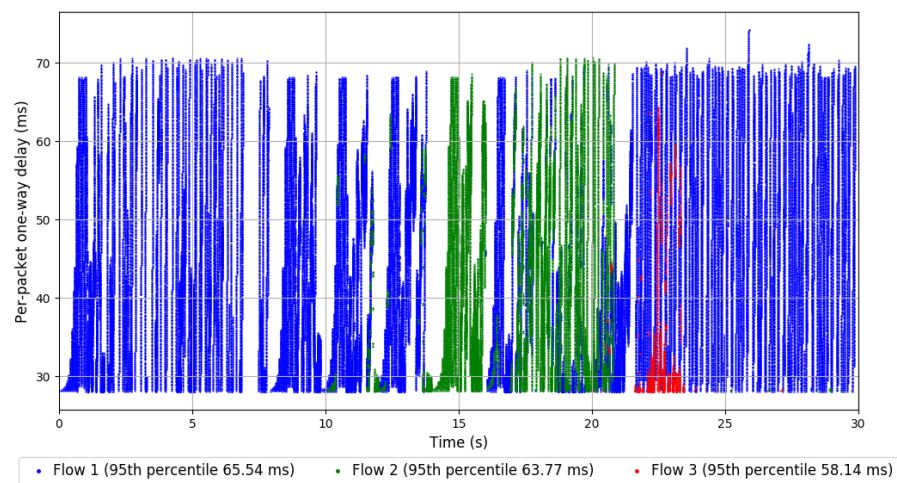
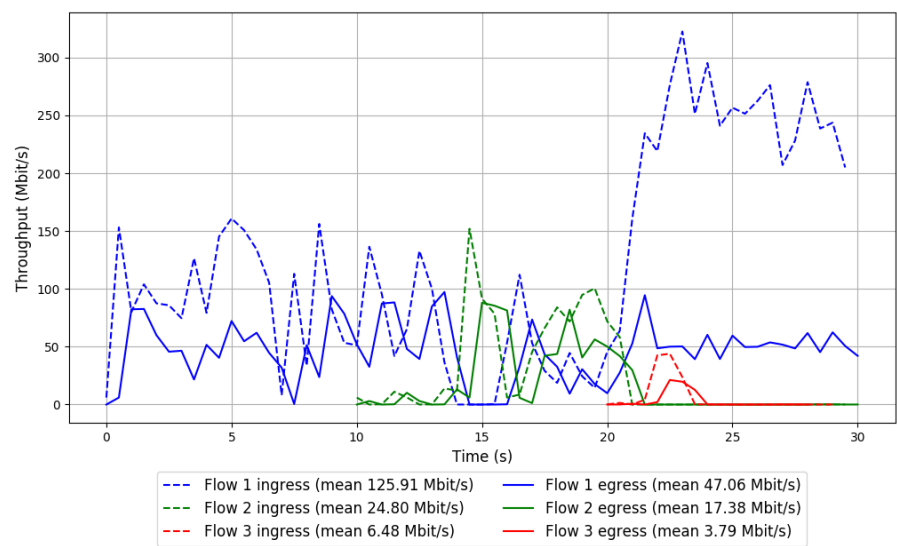


Run 4: Statistics of Verus

Start at: 2019-02-05 08:44:25  
End at: 2019-02-05 08:44:55  
Local clock offset: -0.491 ms  
Remote clock offset: -4.607 ms

# Below is generated by plot.py at 2019-02-05 09:41:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 59.48 Mbit/s  
95th percentile per-packet one-way delay: 65.191 ms  
Loss rate: 58.74%  
-- Flow 1:  
Average throughput: 47.06 Mbit/s  
95th percentile per-packet one-way delay: 65.536 ms  
Loss rate: 62.58%  
-- Flow 2:  
Average throughput: 17.38 Mbit/s  
95th percentile per-packet one-way delay: 63.770 ms  
Loss rate: 30.15%  
-- Flow 3:  
Average throughput: 3.79 Mbit/s  
95th percentile per-packet one-way delay: 58.143 ms  
Loss rate: 51.37%

Run 4: Report of Verus — Data Link

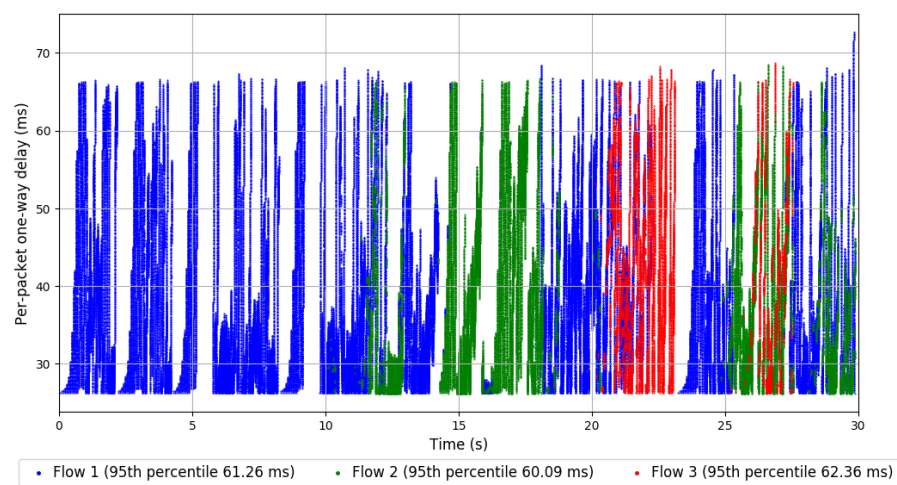
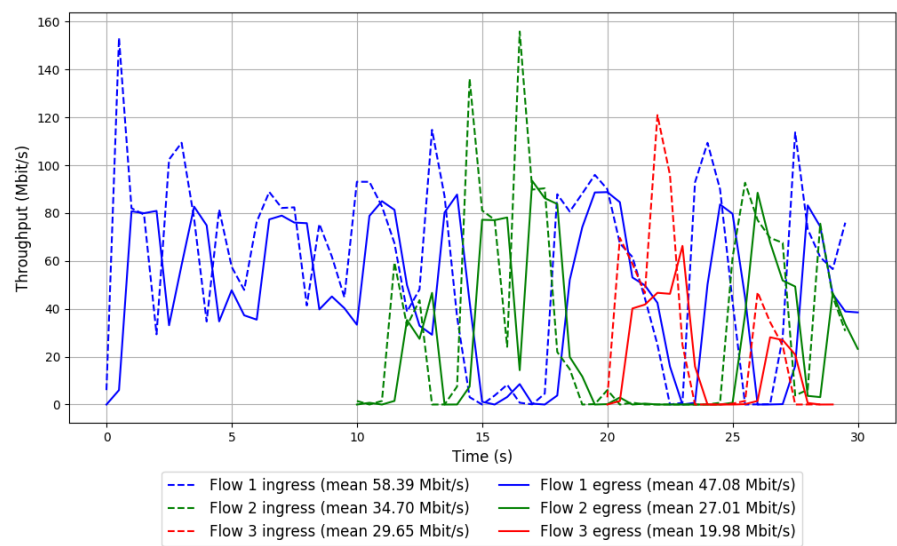


Run 5: Statistics of Verus

Start at: 2019-02-05 09:09:45  
End at: 2019-02-05 09:10:15  
Local clock offset: -0.728 ms  
Remote clock offset: -6.331 ms

# Below is generated by plot.py at 2019-02-05 09:41:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 70.60 Mbit/s  
95th percentile per-packet one-way delay: 61.096 ms  
Loss rate: 21.71%  
-- Flow 1:  
Average throughput: 47.08 Mbit/s  
95th percentile per-packet one-way delay: 61.260 ms  
Loss rate: 19.33%  
-- Flow 2:  
Average throughput: 27.01 Mbit/s  
95th percentile per-packet one-way delay: 60.091 ms  
Loss rate: 22.17%  
-- Flow 3:  
Average throughput: 19.98 Mbit/s  
95th percentile per-packet one-way delay: 62.357 ms  
Loss rate: 36.19%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-02-05 07:21:35

End at: 2019-02-05 07:22:05

Local clock offset: 7.36 ms

Remote clock offset: -9.2 ms

# Below is generated by plot.py at 2019-02-05 09:41:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.96 Mbit/s

95th percentile per-packet one-way delay: 31.079 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 67.53 Mbit/s

95th percentile per-packet one-way delay: 30.454 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.28 Mbit/s

95th percentile per-packet one-way delay: 32.314 ms

Loss rate: 0.00%

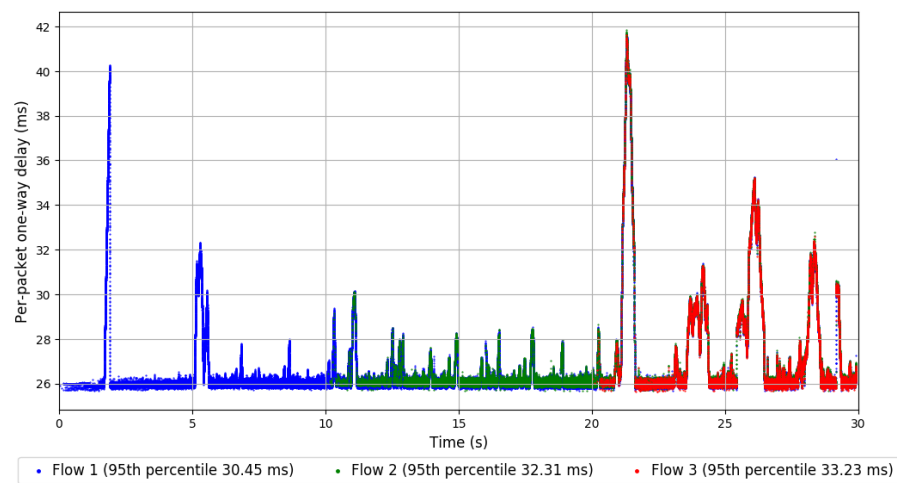
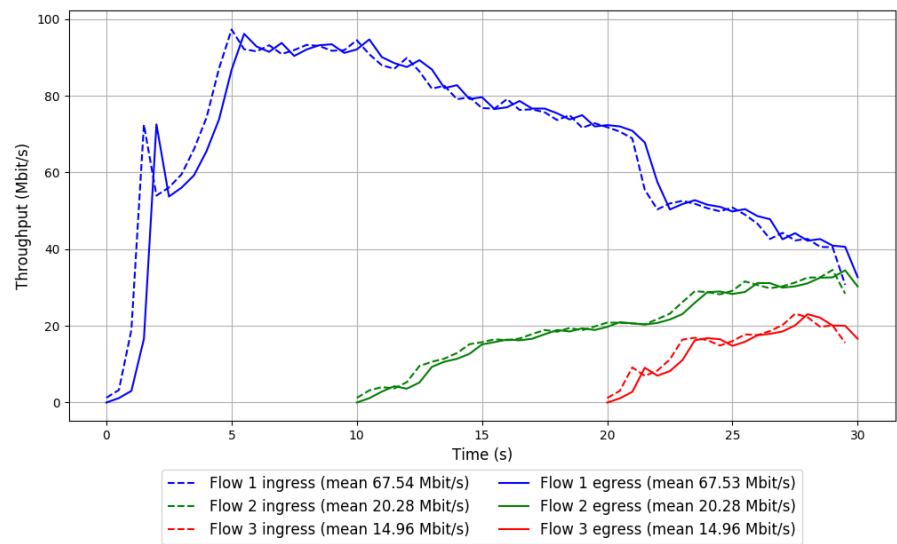
-- Flow 3:

Average throughput: 14.96 Mbit/s

95th percentile per-packet one-way delay: 33.231 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



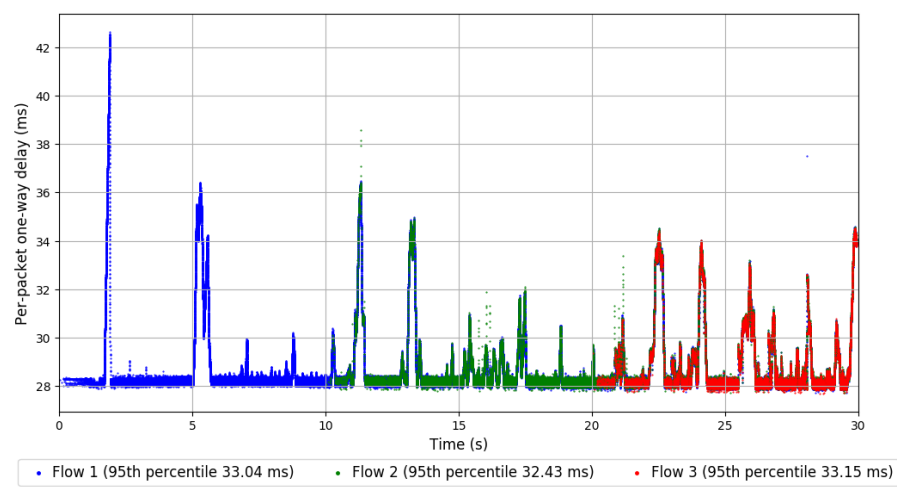
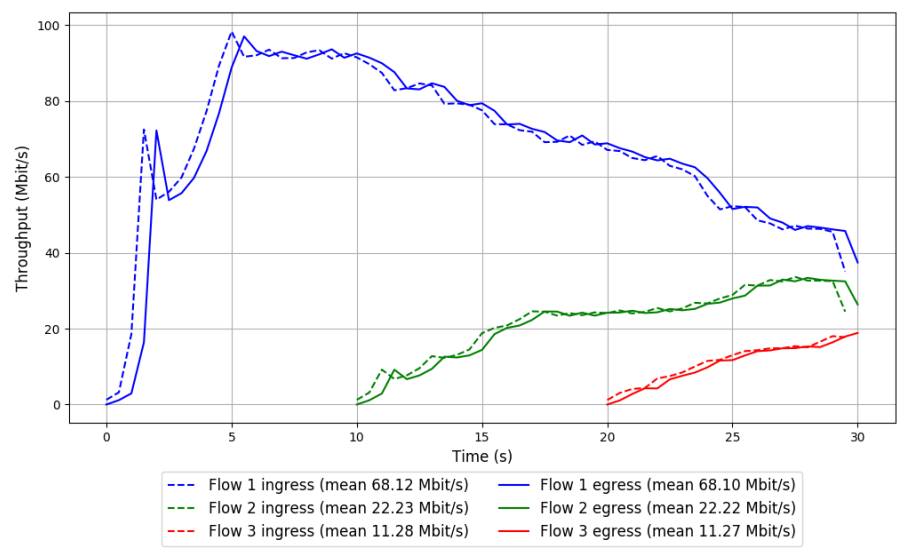


Run 2: Statistics of PCC-Vivace

Start at: 2019-02-05 07:47:05  
End at: 2019-02-05 07:47:35  
Local clock offset: 6.089 ms  
Remote clock offset: -6.097 ms

# Below is generated by plot.py at 2019-02-05 09:41:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.61 Mbit/s  
95th percentile per-packet one-way delay: 32.932 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 68.10 Mbit/s  
95th percentile per-packet one-way delay: 33.044 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 22.22 Mbit/s  
95th percentile per-packet one-way delay: 32.427 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 11.27 Mbit/s  
95th percentile per-packet one-way delay: 33.154 ms  
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

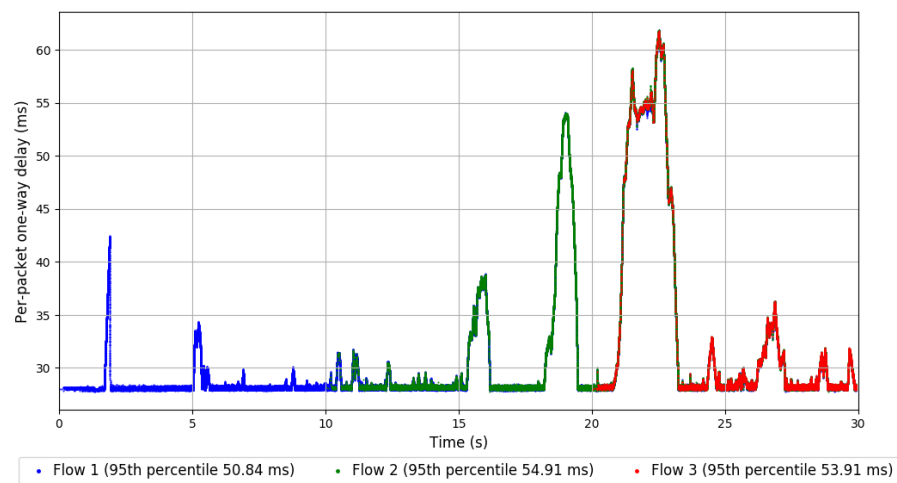
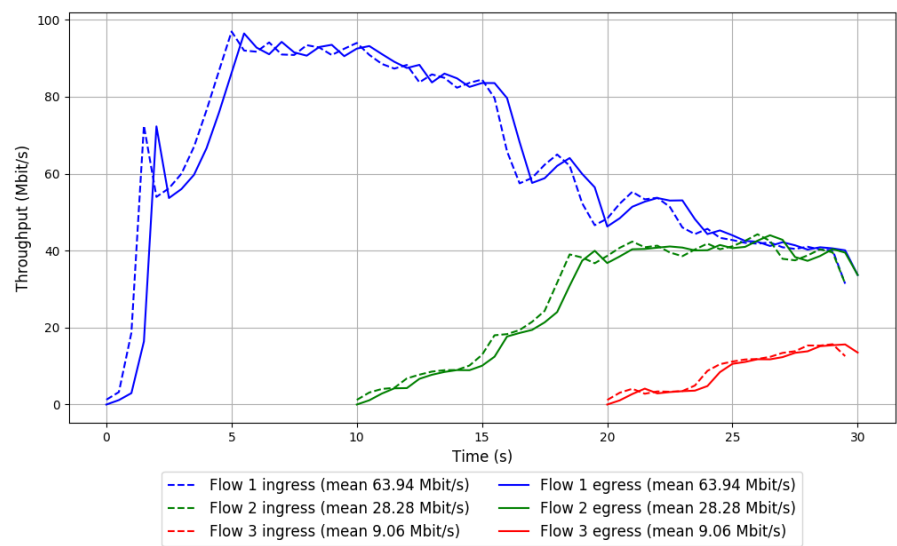


Run 3: Statistics of PCC-Vivace

Start at: 2019-02-05 08:12:42  
End at: 2019-02-05 08:13:12  
Local clock offset: 0.751 ms  
Remote clock offset: -5.689 ms

# Below is generated by plot.py at 2019-02-05 09:41:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.73 Mbit/s  
95th percentile per-packet one-way delay: 53.685 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 63.94 Mbit/s  
95th percentile per-packet one-way delay: 50.835 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 28.28 Mbit/s  
95th percentile per-packet one-way delay: 54.908 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 9.06 Mbit/s  
95th percentile per-packet one-way delay: 53.909 ms  
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

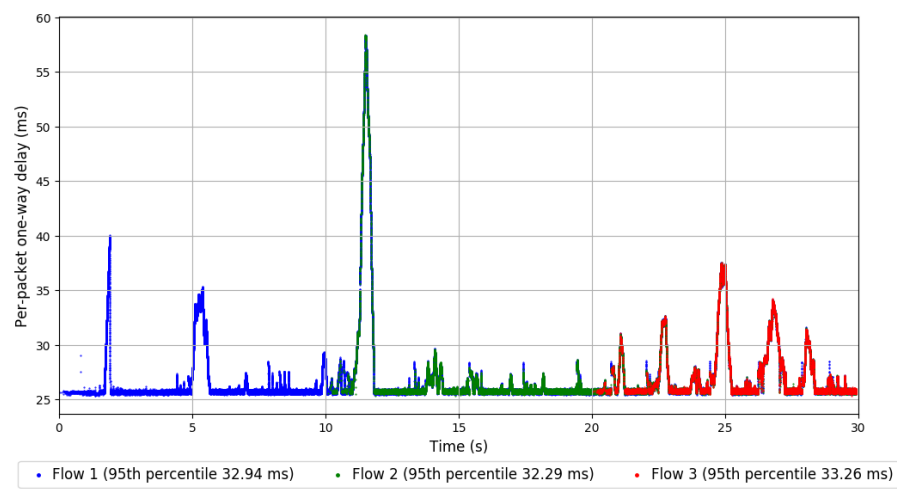
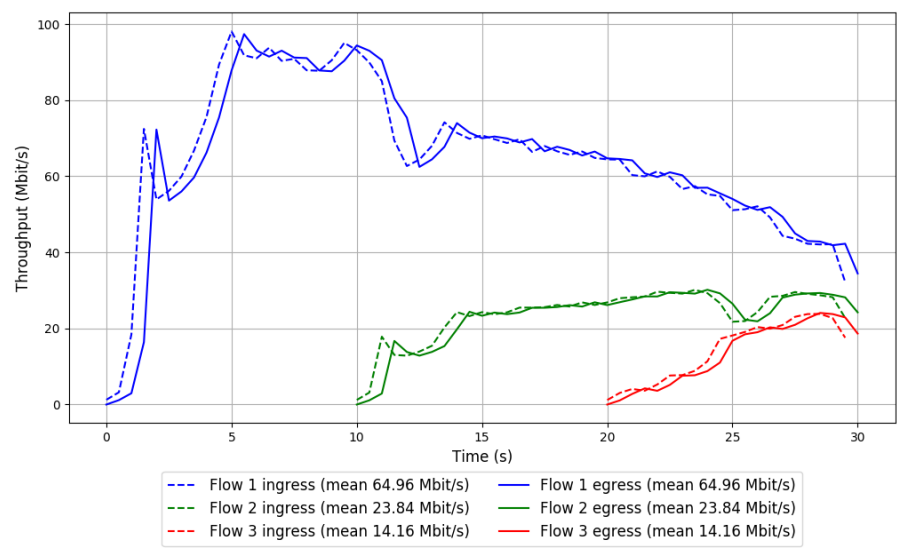


Run 4: Statistics of PCC-Vivace

Start at: 2019-02-05 08:38:19  
End at: 2019-02-05 08:38:49  
Local clock offset: -0.182 ms  
Remote clock offset: -7.393 ms

# Below is generated by plot.py at 2019-02-05 09:41:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.49 Mbit/s  
95th percentile per-packet one-way delay: 32.863 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 64.96 Mbit/s  
95th percentile per-packet one-way delay: 32.944 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 23.84 Mbit/s  
95th percentile per-packet one-way delay: 32.292 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 14.16 Mbit/s  
95th percentile per-packet one-way delay: 33.256 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

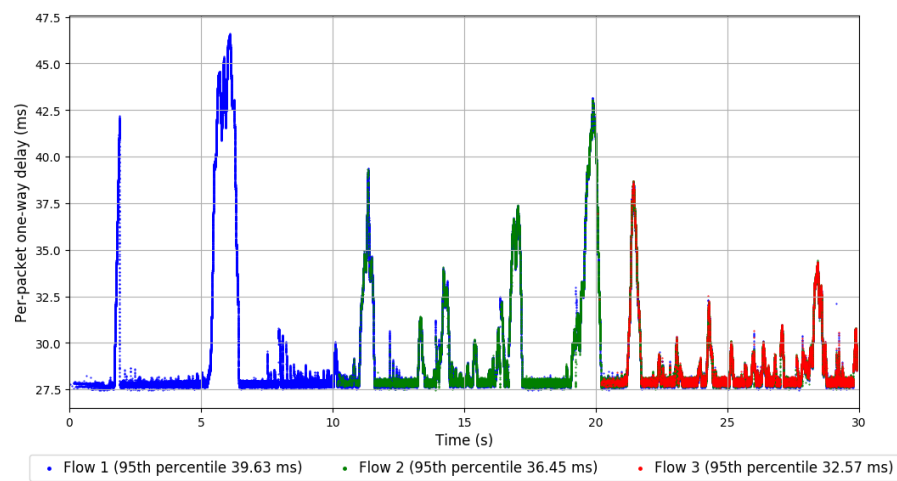
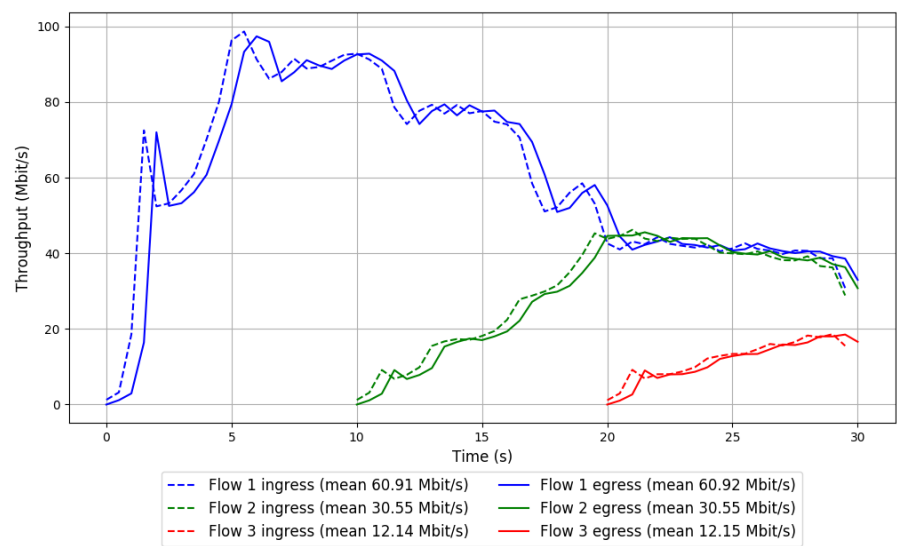


Run 5: Statistics of PCC-Vivace

Start at: 2019-02-05 09:03:37  
End at: 2019-02-05 09:04:07  
Local clock offset: -0.54 ms  
Remote clock offset: -4.984 ms

# Below is generated by plot.py at 2019-02-05 09:41:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.24 Mbit/s  
95th percentile per-packet one-way delay: 38.356 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 60.92 Mbit/s  
95th percentile per-packet one-way delay: 39.630 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 30.55 Mbit/s  
95th percentile per-packet one-way delay: 36.452 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 12.15 Mbit/s  
95th percentile per-packet one-way delay: 32.572 ms  
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



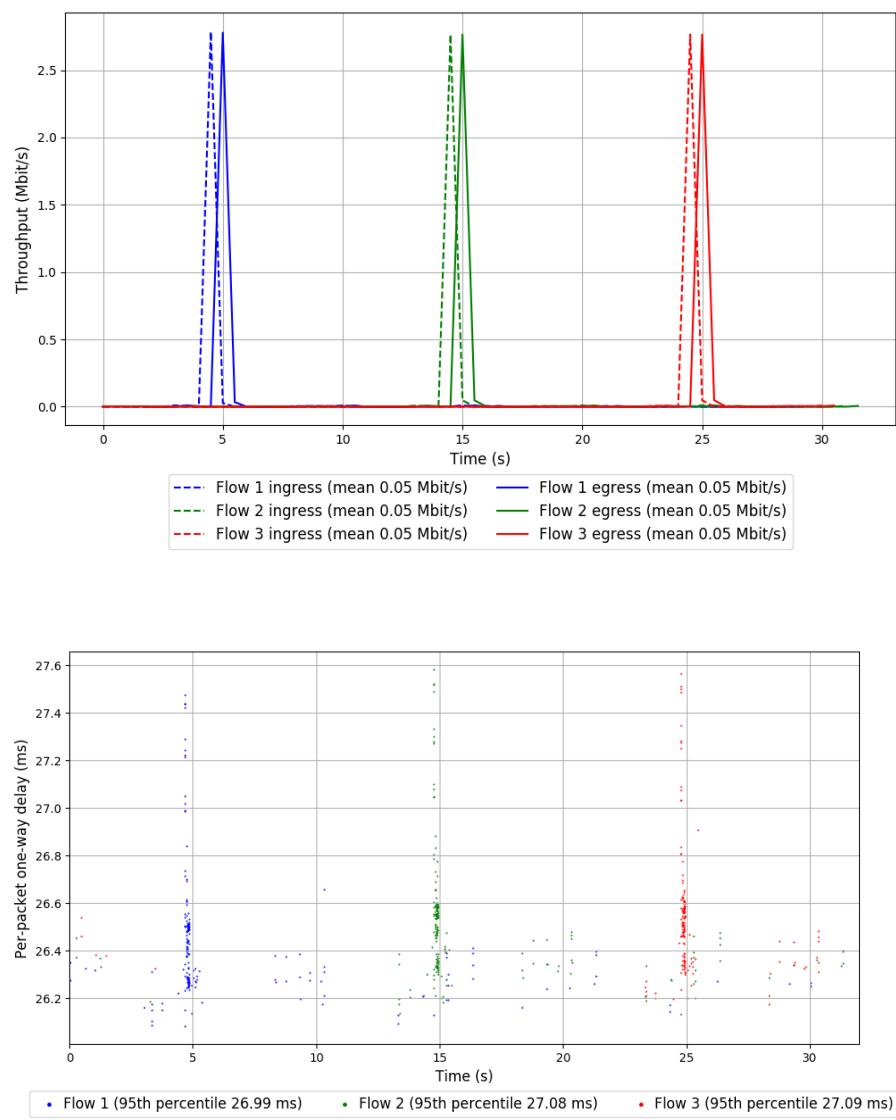


Run 1: Statistics of WebRTC media

Start at: 2019-02-05 07:34:54  
End at: 2019-02-05 07:35:24  
Local clock offset: 6.671 ms  
Remote clock offset: -8.545 ms

# Below is generated by plot.py at 2019-02-05 09:41:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 27.074 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 26.988 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 27.080 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 27.090 ms  
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

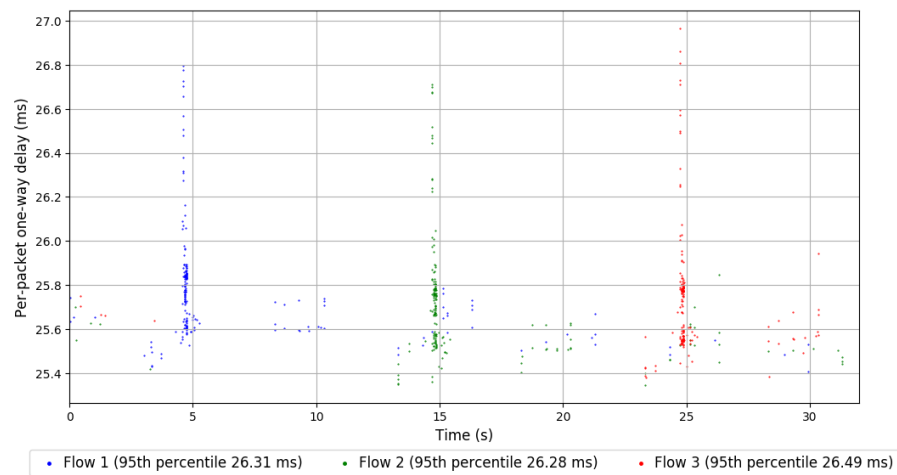
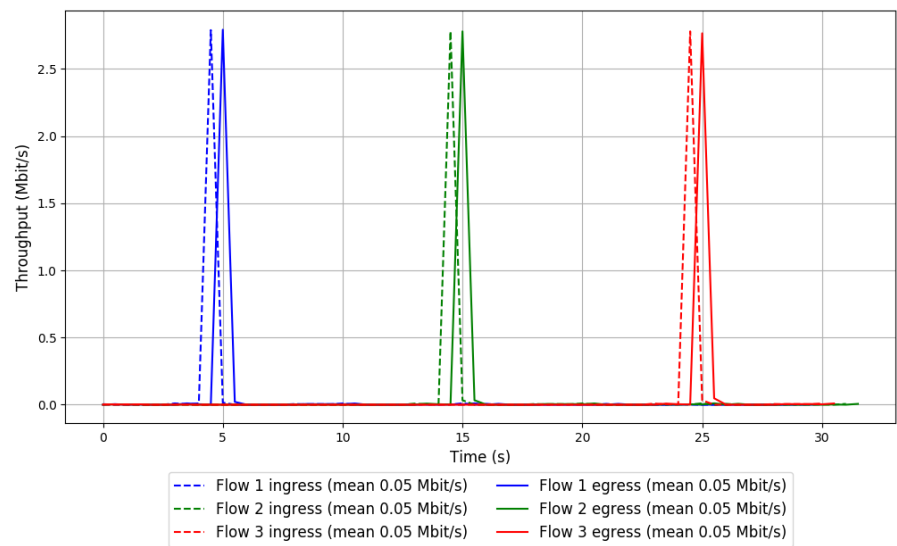


Run 2: Statistics of WebRTC media

Start at: 2019-02-05 08:00:36  
End at: 2019-02-05 08:01:06  
Local clock offset: 2.029 ms  
Remote clock offset: -8.432 ms

# Below is generated by plot.py at 2019-02-05 09:41:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 26.316 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 26.309 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 26.279 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 26.493 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

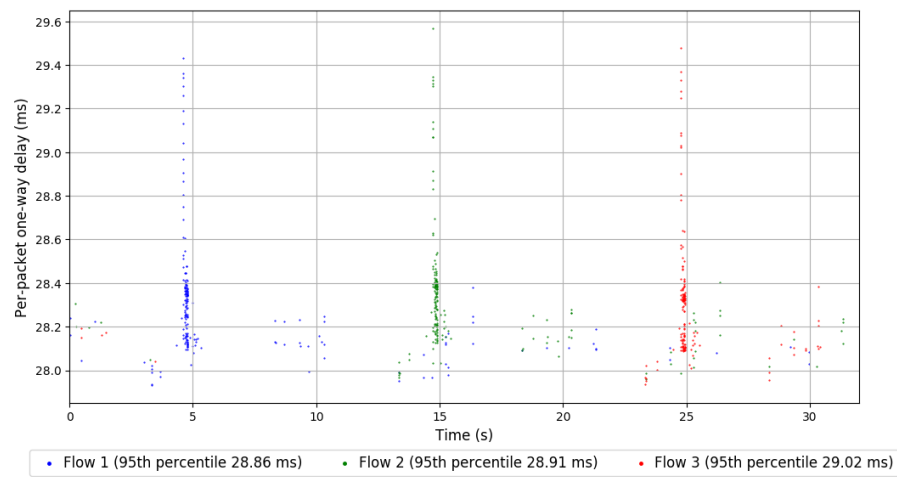
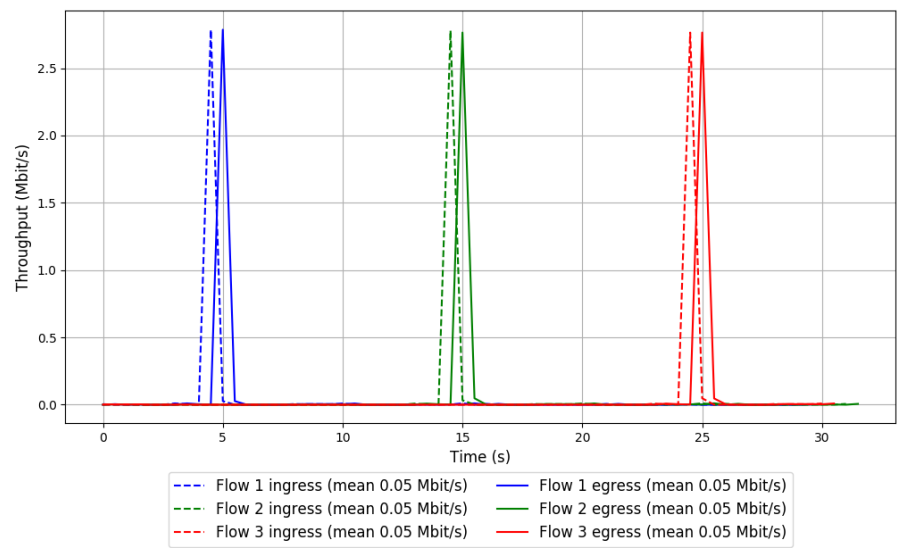


Run 3: Statistics of WebRTC media

Start at: 2019-02-05 08:26:21  
End at: 2019-02-05 08:26:51  
Local clock offset: 0.278 ms  
Remote clock offset: -5.288 ms

# Below is generated by plot.py at 2019-02-05 09:41:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 28.914 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 28.865 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 28.914 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 29.024 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

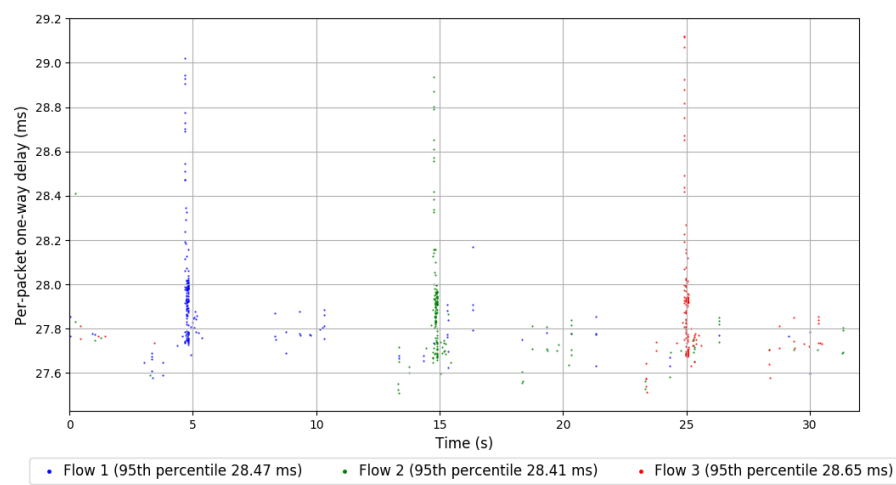
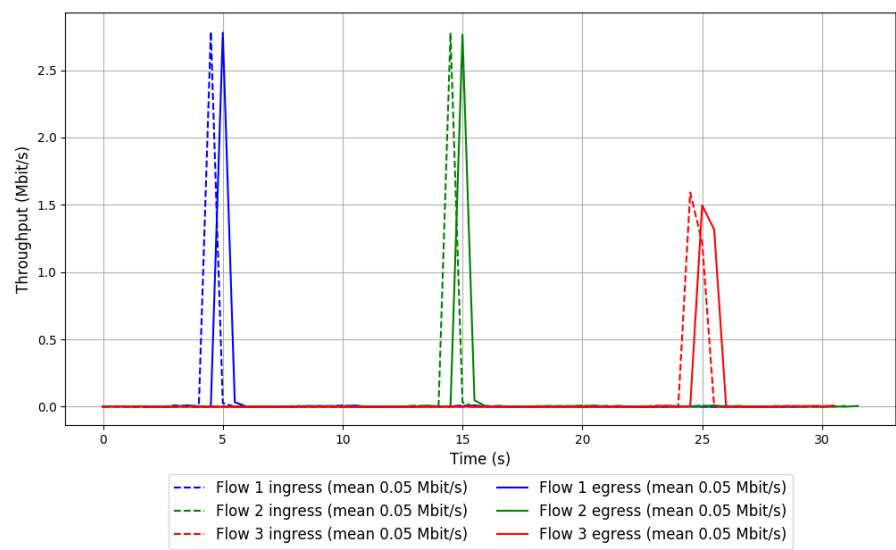


Run 4: Statistics of WebRTC media

Start at: 2019-02-05 08:51:38  
End at: 2019-02-05 08:52:08  
Local clock offset: -0.403 ms  
Remote clock offset: -4.972 ms

# Below is generated by plot.py at 2019-02-05 09:41:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 28.491 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 28.472 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 28.410 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 28.654 ms  
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link





Run 5: Statistics of WebRTC media

Start at: 2019-02-05 09:17:01  
End at: 2019-02-05 09:17:31  
Local clock offset: -0.913 ms  
Remote clock offset: -6.326 ms

# Below is generated by plot.py at 2019-02-05 09:41:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 27.123 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 27.016 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 27.141 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 27.070 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

