

## Pantheon Report

Generated at 2019-02-05 11:06:15 (UTC).

Data path: AWS India 2 on **ens5** (*local*) → Saudi Arabia on **enp2s0** (*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 **nets.org.sg** and have been applied to correct the timestamps in logs.

### System info:

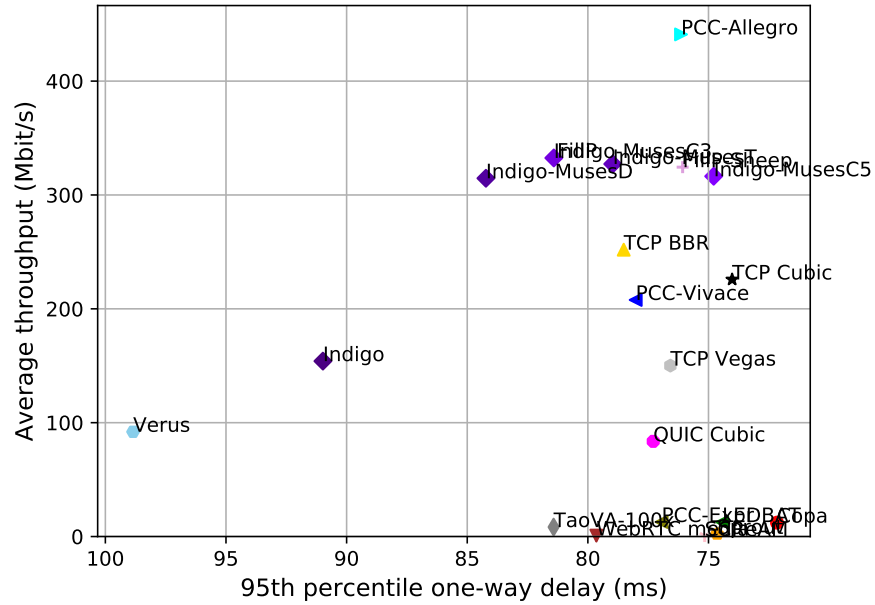
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

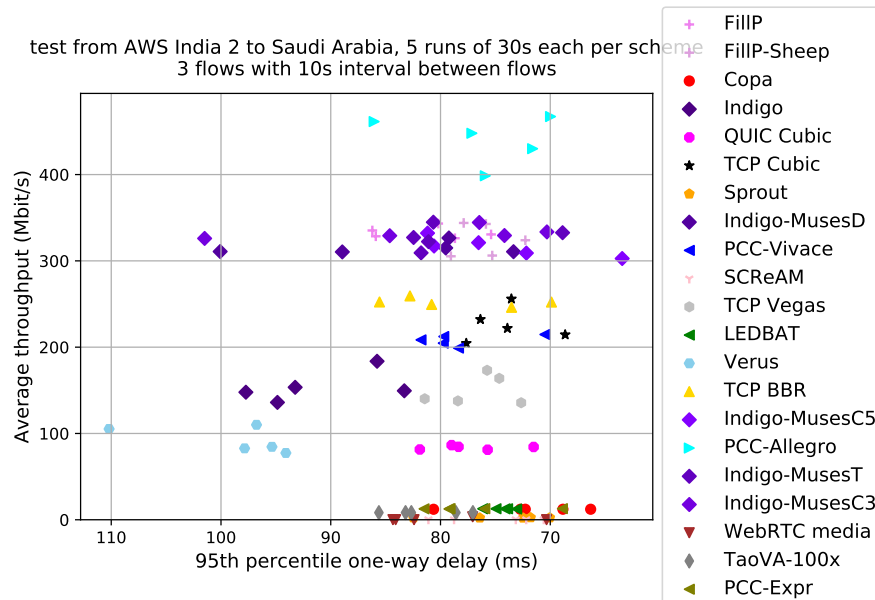
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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 India 2 to Saudi Arabia, 5 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS India 2 to Saudi Arabia, 5 runs of 30s each per scheme  
3 flows with 10s interval between flows



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	215.59	42.29	24.65	79.66	72.95	73.94	11.64	19.48	20.60
Copa	5	8.78	5.14	0.13	72.35	71.70	75.15	66.46	75.94	84.75
TCP Cubic	5	156.46	69.62	68.96	74.20	72.36	72.93	1.11	0.94	1.44
FillP	5	237.84	92.25	101.11	80.81	80.20	81.54	21.17	22.18	24.21
FillP-Sheep	5	231.76	85.72	107.50	76.04	75.69	76.30	14.29	9.88	15.42
Indigo	5	85.28	75.45	59.96	89.36	92.27	92.34	13.61	21.10	31.94
Indigo-MusesC3	5	320.63	9.11	20.83	81.44	75.38	80.68	14.23	9.77	9.96
Indigo-MusesC5	5	315.69	0.71	0.94	74.79	74.16	73.16	27.94	32.32	30.01
Indigo-MusesD	5	289.28	26.57	27.50	84.88	80.32	79.99	13.84	10.24	11.13
Indigo-MusesT	5	288.91	48.53	22.69	78.48	78.50	78.72	12.02	10.47	8.98
LEDBAT	5	8.21	5.44	2.65	74.52	74.00	73.06	0.01	0.00	0.00
PCC-Allegro	5	415.04	28.72	20.84	76.14	75.48	75.70	4.63	2.18	2.62
PCC-Expr	5	9.10	3.78	3.51	76.93	76.97	76.96	34.04	42.18	45.37
QUIC Cubic	5	49.02	38.82	27.12	76.67	77.74	78.37	0.00	0.01	0.02
SCReAM	5	0.22	0.22	0.22	74.45	74.59	74.40	0.00	0.00	0.00
Sprout	5	1.20	1.16	1.10	73.77	73.79	74.07	0.00	0.00	0.00
TaoVA-100x	5	0.01	9.05	6.86	78.65	82.82	77.96	92.16	28.60	38.15
TCP Vegas	5	67.36	65.95	116.80	76.52	77.19	76.35	1.89	2.18	1.84
Verus	5	62.91	28.72	31.90	99.30	87.44	82.84	54.83	33.02	34.72
PCC-Vivace	5	179.14	37.76	10.76	77.87	77.99	77.72	1.71	1.33	1.10
WebRTC media	5	0.42	0.27	0.12	79.01	80.09	80.47	0.00	0.00	0.00

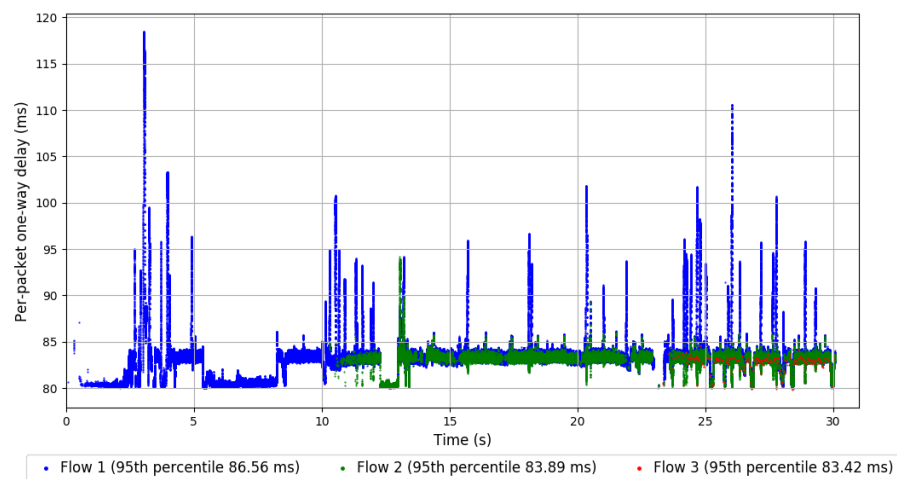
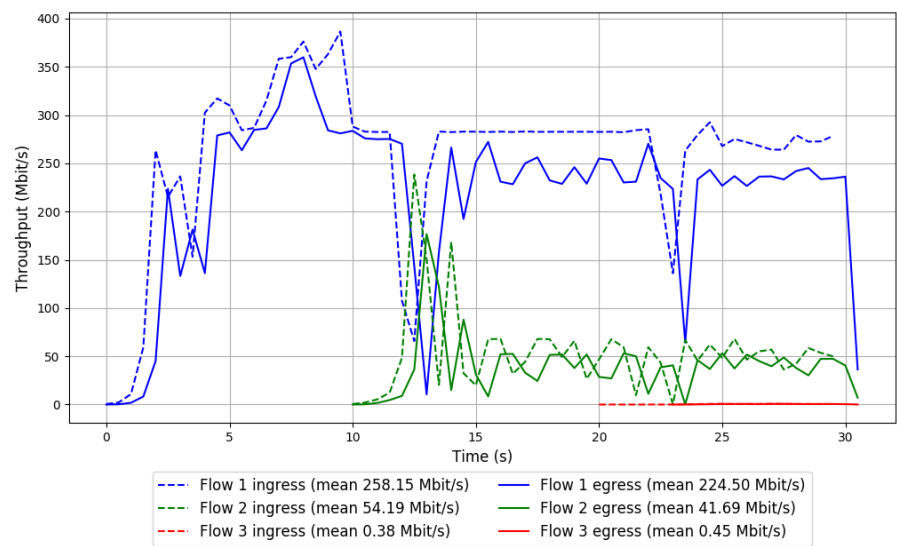


Run 1: Statistics of TCP BBR

Start at: 2019-02-05 07:27:49  
End at: 2019-02-05 07:28:19  
Local clock offset: -1.512 ms  
Remote clock offset: -27.579 ms

# Below is generated by plot.py at 2019-02-05 10:41:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 252.38 Mbit/s  
95th percentile per-packet one-way delay: 85.558 ms  
Loss rate: 14.26%  
-- Flow 1:  
Average throughput: 224.50 Mbit/s  
95th percentile per-packet one-way delay: 86.555 ms  
Loss rate: 13.02%  
-- Flow 2:  
Average throughput: 41.69 Mbit/s  
95th percentile per-packet one-way delay: 83.889 ms  
Loss rate: 23.05%  
-- Flow 3:  
Average throughput: 0.45 Mbit/s  
95th percentile per-packet one-way delay: 83.415 ms  
Loss rate: 18.83%

Run 1: Report of TCP BBR — Data Link

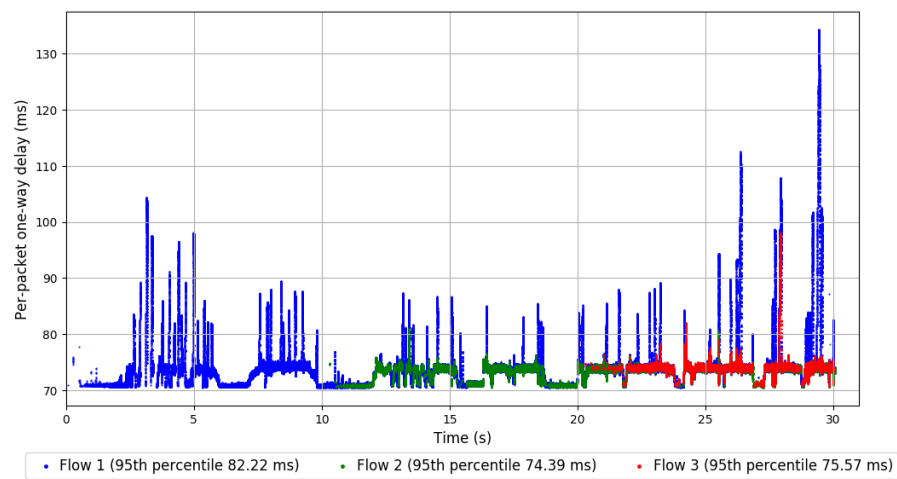
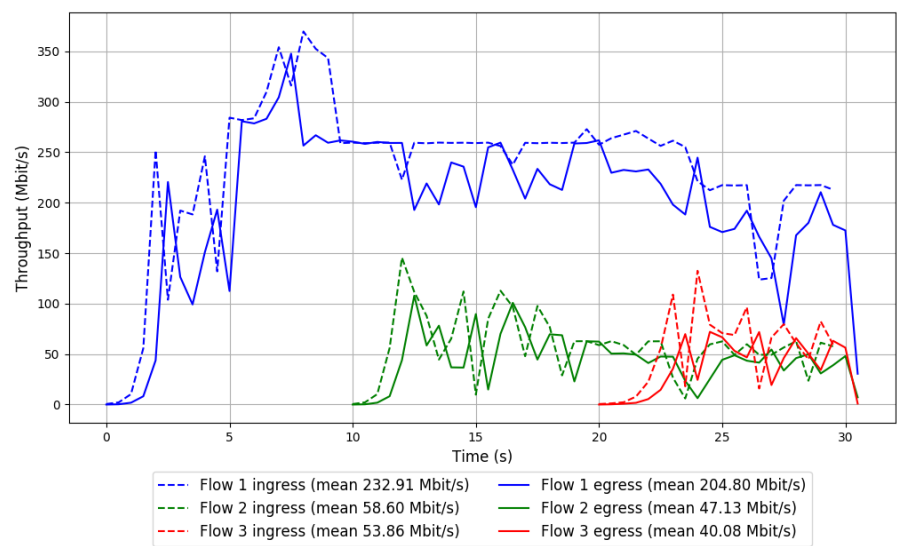


Run 2: Statistics of TCP BBR

Start at: 2019-02-05 08:09:57  
End at: 2019-02-05 08:10:27  
Local clock offset: 2.374 ms  
Remote clock offset: -34.426 ms

# Below is generated by plot.py at 2019-02-05 10:41:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 249.52 Mbit/s  
95th percentile per-packet one-way delay: 80.809 ms  
Loss rate: 13.91%  
-- Flow 1:  
Average throughput: 204.80 Mbit/s  
95th percentile per-packet one-way delay: 82.218 ms  
Loss rate: 12.06%  
-- Flow 2:  
Average throughput: 47.13 Mbit/s  
95th percentile per-packet one-way delay: 74.394 ms  
Loss rate: 19.56%  
-- Flow 3:  
Average throughput: 40.08 Mbit/s  
95th percentile per-packet one-way delay: 75.567 ms  
Loss rate: 25.59%

Run 2: Report of TCP BBR — Data Link

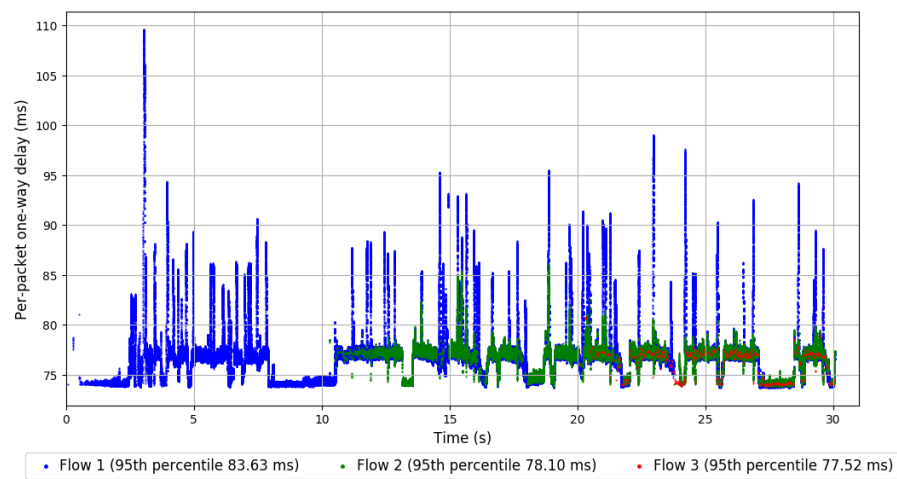
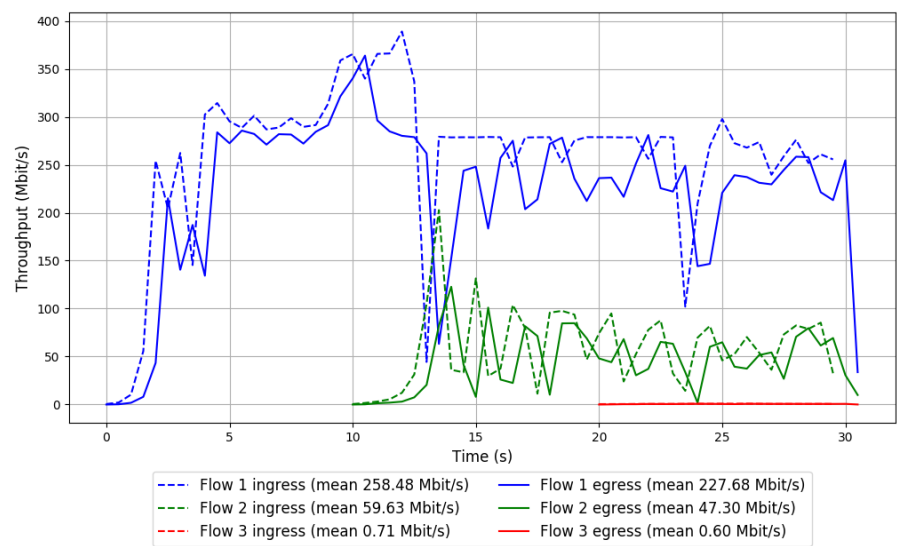


Run 3: Statistics of TCP BBR

Start at: 2019-02-05 08:46:32  
End at: 2019-02-05 08:47:02  
Local clock offset: 1.642 ms  
Remote clock offset: -31.388 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 259.39 Mbit/s  
95th percentile per-packet one-way delay: 82.784 ms  
Loss rate: 13.07%  
-- Flow 1:  
Average throughput: 227.68 Mbit/s  
95th percentile per-packet one-way delay: 83.634 ms  
Loss rate: 11.91%  
-- Flow 2:  
Average throughput: 47.30 Mbit/s  
95th percentile per-packet one-way delay: 78.101 ms  
Loss rate: 20.66%  
-- Flow 3:  
Average throughput: 0.60 Mbit/s  
95th percentile per-packet one-way delay: 77.522 ms  
Loss rate: 15.67%

Run 3: Report of TCP BBR — Data Link

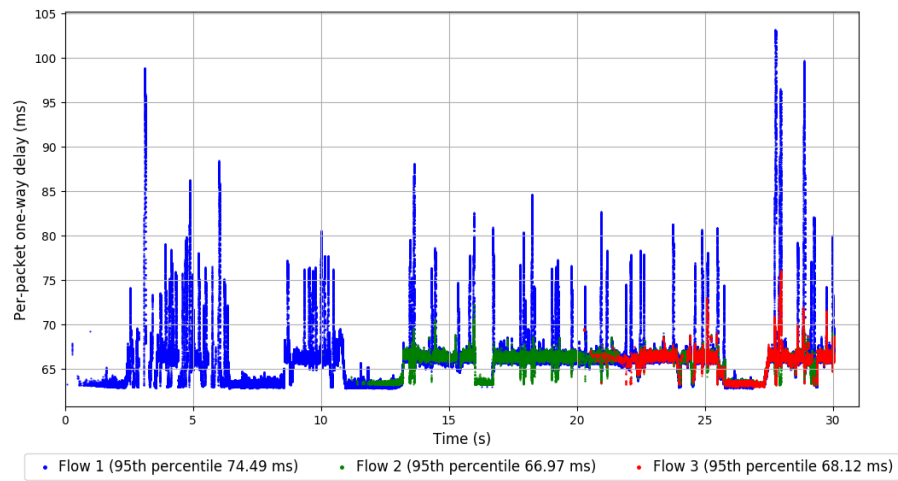
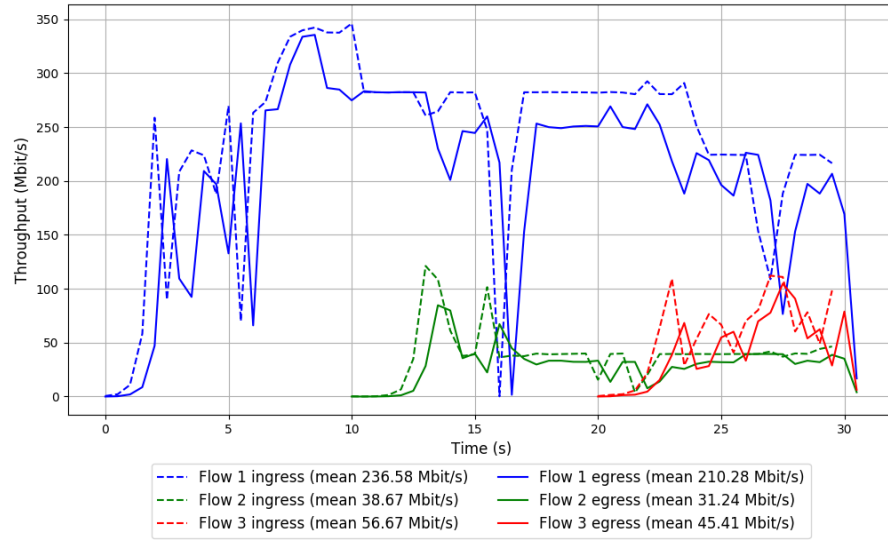


Run 4: Statistics of TCP BBR

Start at: 2019-02-05 09:23:24  
End at: 2019-02-05 09:23:54  
Local clock offset: -1.692 ms  
Remote clock offset: -43.671 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 246.19 Mbit/s  
95th percentile per-packet one-way delay: 73.526 ms  
Loss rate: 12.43%  
-- Flow 1:  
Average throughput: 210.28 Mbit/s  
95th percentile per-packet one-way delay: 74.486 ms  
Loss rate: 11.10%  
-- Flow 2:  
Average throughput: 31.24 Mbit/s  
95th percentile per-packet one-way delay: 66.968 ms  
Loss rate: 19.23%  
-- Flow 3:  
Average throughput: 45.41 Mbit/s  
95th percentile per-packet one-way delay: 68.125 ms  
Loss rate: 19.86%

# Run 4: Report of TCP BBR — Data Link



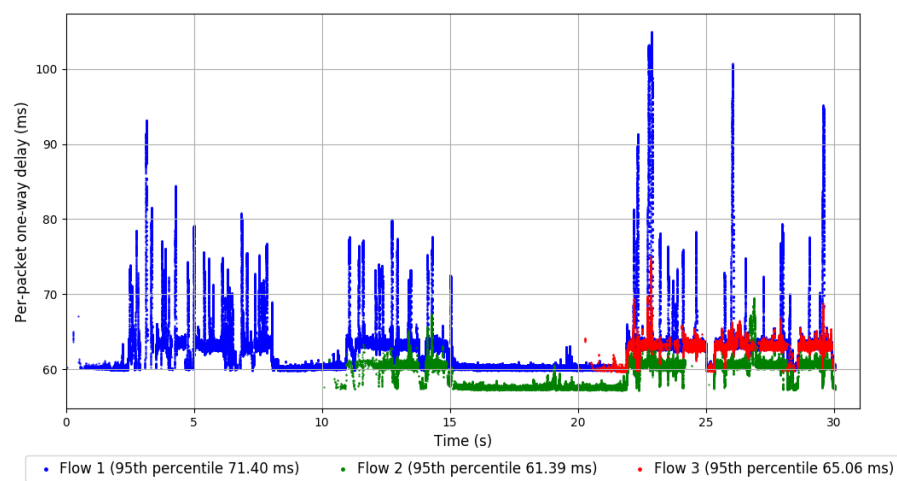
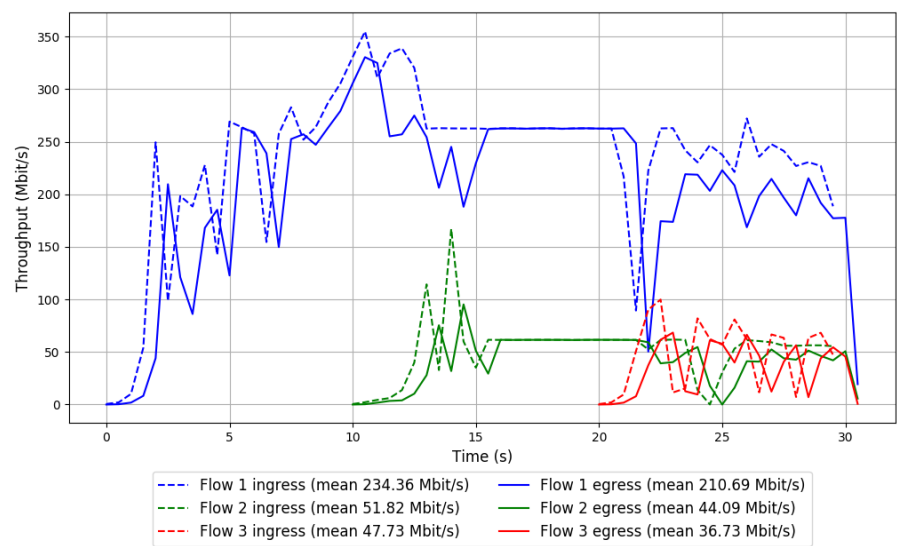


Run 5: Statistics of TCP BBR

Start at: 2019-02-05 09:59:51  
End at: 2019-02-05 10:00:21  
Local clock offset: -0.377 ms  
Remote clock offset: -48.273 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 252.27 Mbit/s  
95th percentile per-packet one-way delay: 69.891 ms  
Loss rate: 11.41%  
-- Flow 1:  
Average throughput: 210.69 Mbit/s  
95th percentile per-packet one-way delay: 71.398 ms  
Loss rate: 10.10%  
-- Flow 2:  
Average throughput: 44.09 Mbit/s  
95th percentile per-packet one-way delay: 61.387 ms  
Loss rate: 14.92%  
-- Flow 3:  
Average throughput: 36.73 Mbit/s  
95th percentile per-packet one-way delay: 65.055 ms  
Loss rate: 23.05%

Run 5: Report of TCP BBR — Data Link

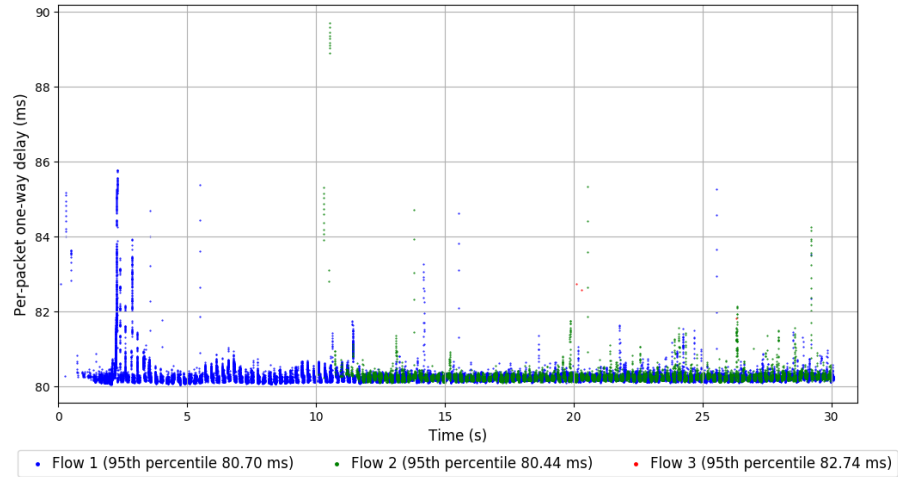
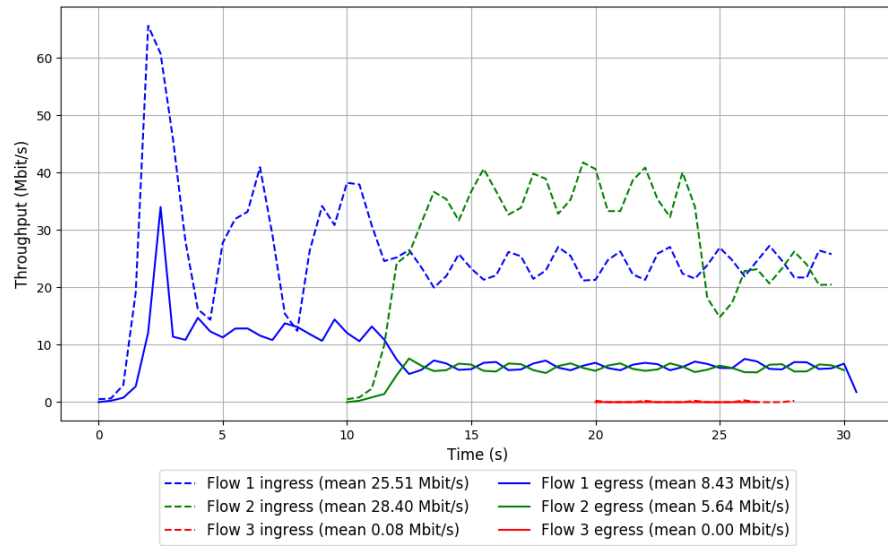


Run 1: Statistics of Copa

Start at: 2019-02-05 07:55:55  
End at: 2019-02-05 07:56:25  
Local clock offset: -0.639 ms  
Remote clock offset: -27.653 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.16 Mbit/s  
95th percentile per-packet one-way delay: 80.633 ms  
Loss rate: 72.58%  
-- Flow 1:  
Average throughput: 8.43 Mbit/s  
95th percentile per-packet one-way delay: 80.701 ms  
Loss rate: 66.97%  
-- Flow 2:  
Average throughput: 5.64 Mbit/s  
95th percentile per-packet one-way delay: 80.439 ms  
Loss rate: 80.16%  
-- Flow 3:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 82.739 ms  
Loss rate: 97.80%

## Run 1: Report of Copa — Data Link

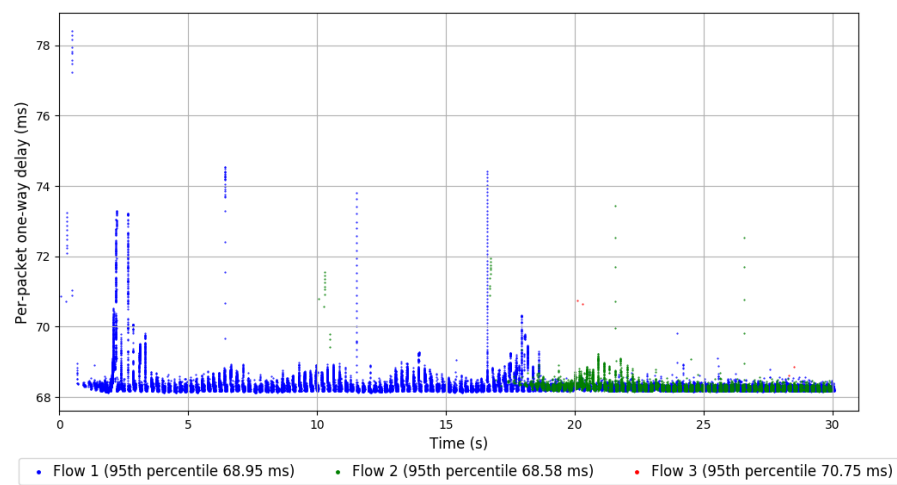
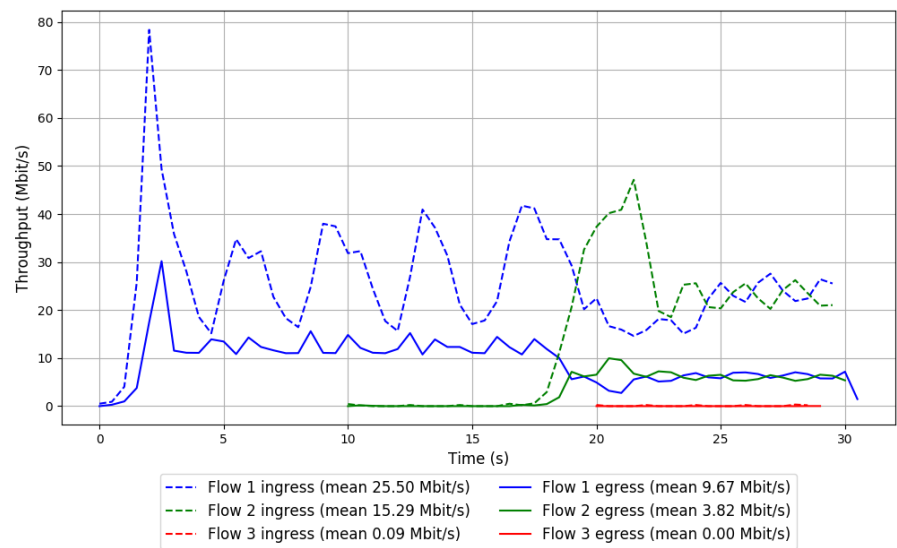


Run 2: Statistics of Copa

Start at: 2019-02-05 08:38:08  
End at: 2019-02-05 08:38:38  
Local clock offset: 0.964 ms  
Remote clock offset: -37.831 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 68.848 ms  
Loss rate: 65.78%  
-- Flow 1:  
Average throughput: 9.67 Mbit/s  
95th percentile per-packet one-way delay: 68.955 ms  
Loss rate: 62.06%  
-- Flow 2:  
Average throughput: 3.82 Mbit/s  
95th percentile per-packet one-way delay: 68.581 ms  
Loss rate: 75.05%  
-- Flow 3:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 70.750 ms  
Loss rate: 96.51%

Run 2: Report of Copa — Data Link

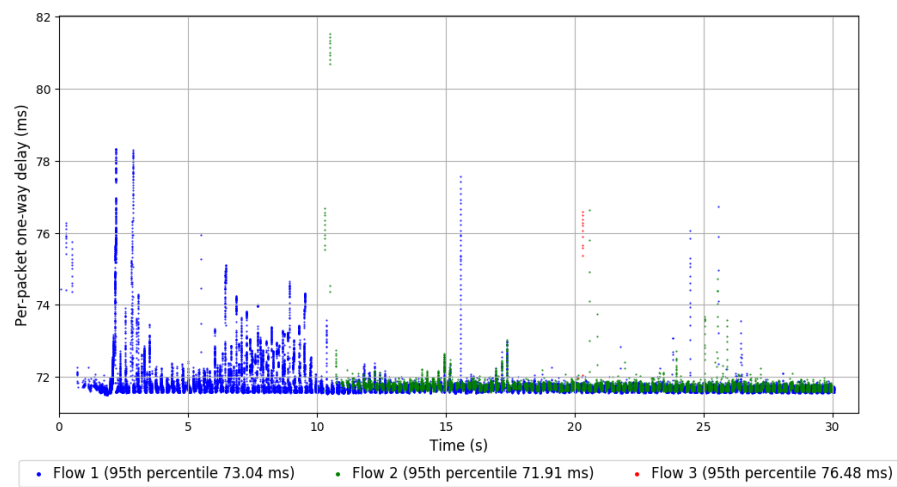
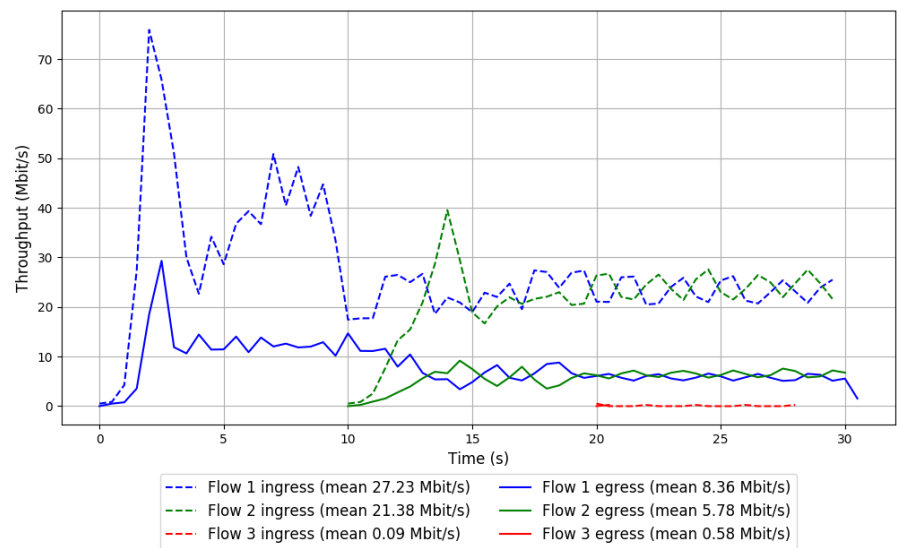


Run 3: Statistics of Copa

Start at: 2019-02-05 09:14:58  
End at: 2019-02-05 09:15:28  
Local clock offset: -1.74 ms  
Remote clock offset: -35.376 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 72.720 ms  
Loss rate: 70.55%  
-- Flow 1:  
Average throughput: 8.36 Mbit/s  
95th percentile per-packet one-way delay: 73.039 ms  
Loss rate: 69.30%  
-- Flow 2:  
Average throughput: 5.78 Mbit/s  
95th percentile per-packet one-way delay: 71.908 ms  
Loss rate: 72.94%  
-- Flow 3:  
Average throughput: 0.58 Mbit/s  
95th percentile per-packet one-way delay: 76.484 ms  
Loss rate: 83.37%

Run 3: Report of Copa — Data Link



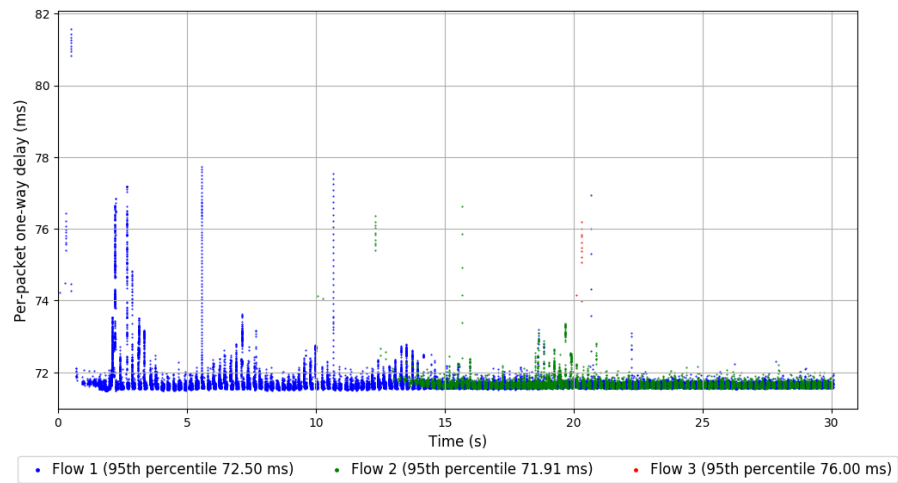
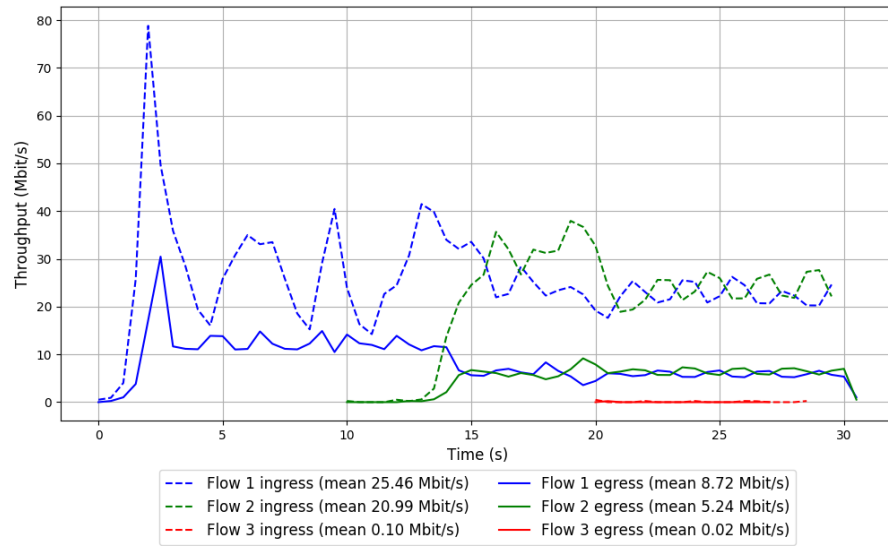


Run 4: Statistics of Copa

Start at: 2019-02-05 09:51:25  
End at: 2019-02-05 09:51:55  
Local clock offset: -1.524 ms  
Remote clock offset: -34.785 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 72.278 ms  
Loss rate: 69.06%  
-- Flow 1:  
Average throughput: 8.72 Mbit/s  
95th percentile per-packet one-way delay: 72.502 ms  
Loss rate: 65.77%  
-- Flow 2:  
Average throughput: 5.24 Mbit/s  
95th percentile per-packet one-way delay: 71.910 ms  
Loss rate: 75.04%  
-- Flow 3:  
Average throughput: 0.02 Mbit/s  
95th percentile per-packet one-way delay: 76.004 ms  
Loss rate: 85.08%

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

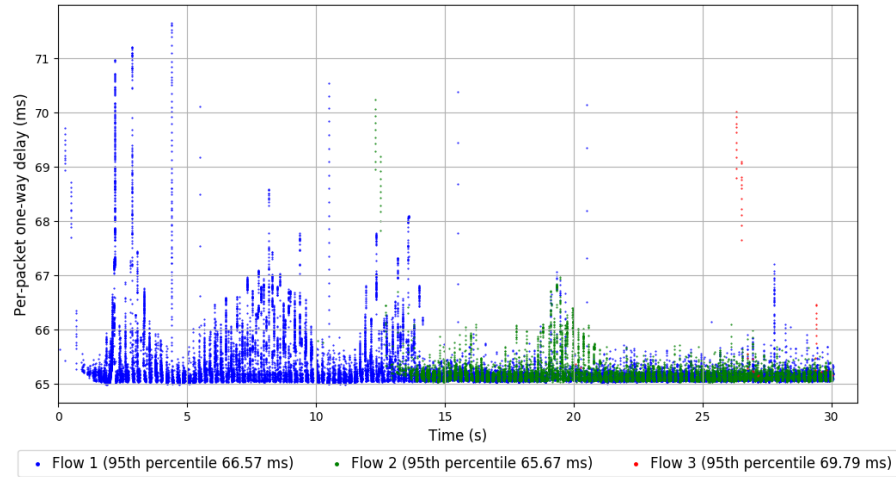
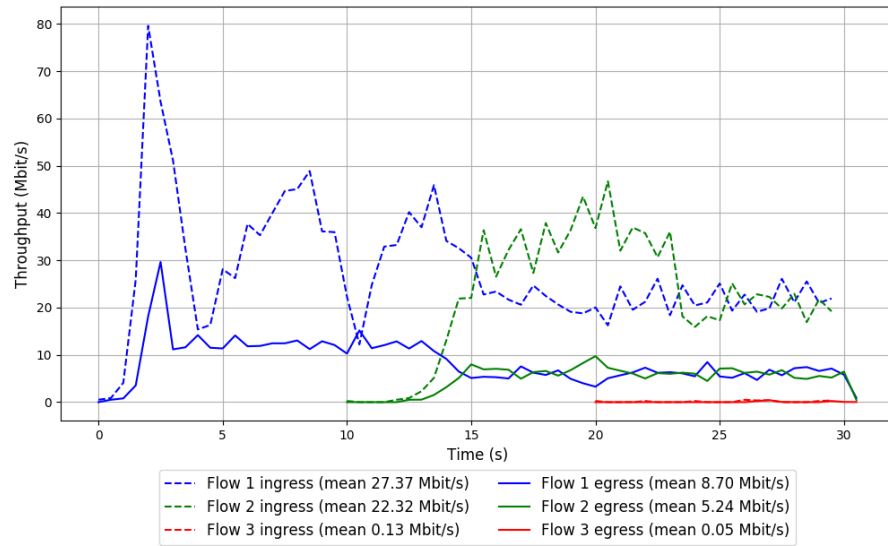


Run 5: Statistics of Copa

Start at: 2019-02-05 10:32:38  
End at: 2019-02-05 10:33:08  
Local clock offset: -5.7 ms  
Remote clock offset: -46.582 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 66.320 ms  
Loss rate: 71.13%  
-- Flow 1:  
Average throughput: 8.70 Mbit/s  
95th percentile per-packet one-way delay: 66.569 ms  
Loss rate: 68.22%  
-- Flow 2:  
Average throughput: 5.24 Mbit/s  
95th percentile per-packet one-way delay: 65.665 ms  
Loss rate: 76.53%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 69.791 ms  
Loss rate: 61.01%

## Run 5: Report of Copa — Data Link

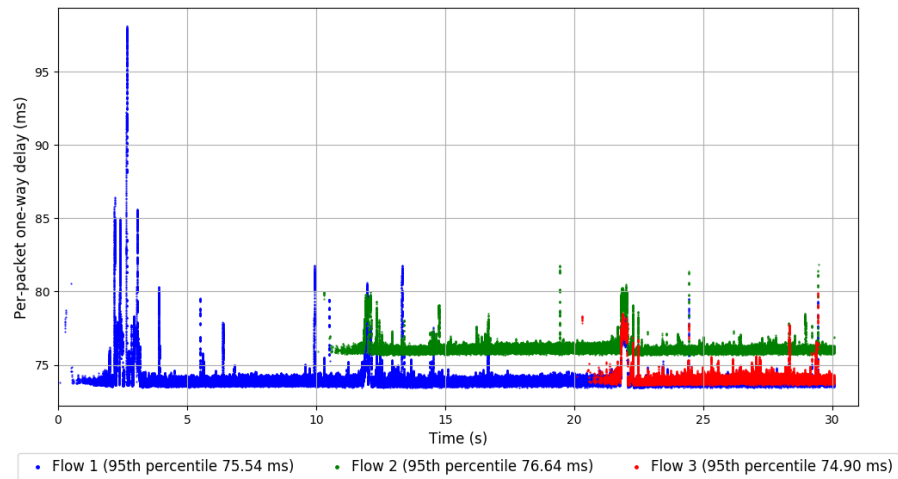
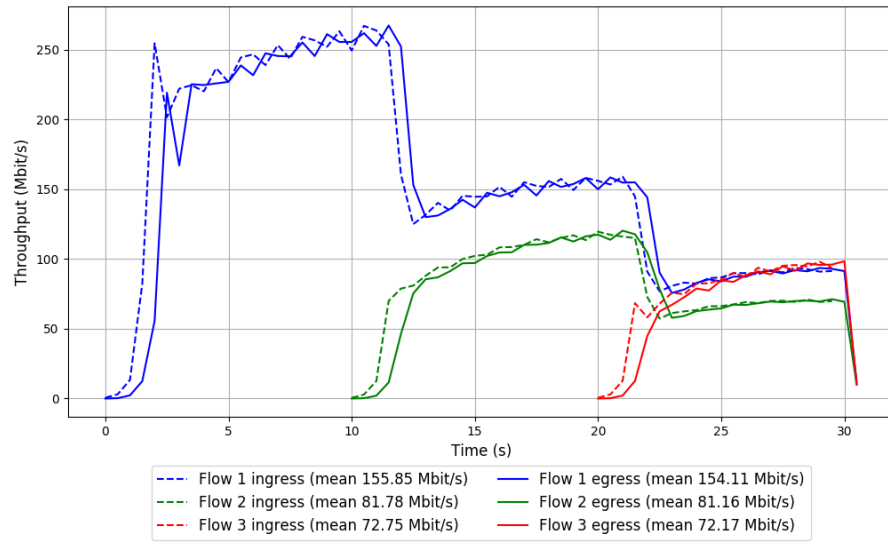


Run 1: Statistics of TCP Cubic

Start at: 2019-02-05 07:42:55  
End at: 2019-02-05 07:43:25  
Local clock offset: -1.517 ms  
Remote clock offset: -34.087 ms

# Below is generated by plot.py at 2019-02-05 10:41:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 232.16 Mbit/s  
95th percentile per-packet one-way delay: 76.363 ms  
Loss rate: 1.00%  
-- Flow 1:  
Average throughput: 154.11 Mbit/s  
95th percentile per-packet one-way delay: 75.542 ms  
Loss rate: 1.12%  
-- Flow 2:  
Average throughput: 81.16 Mbit/s  
95th percentile per-packet one-way delay: 76.640 ms  
Loss rate: 0.76%  
-- Flow 3:  
Average throughput: 72.17 Mbit/s  
95th percentile per-packet one-way delay: 74.903 ms  
Loss rate: 0.80%

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

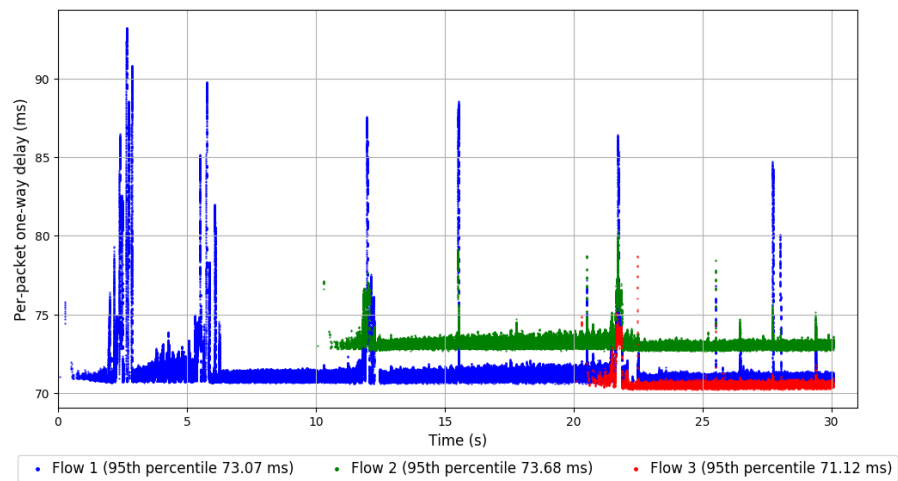
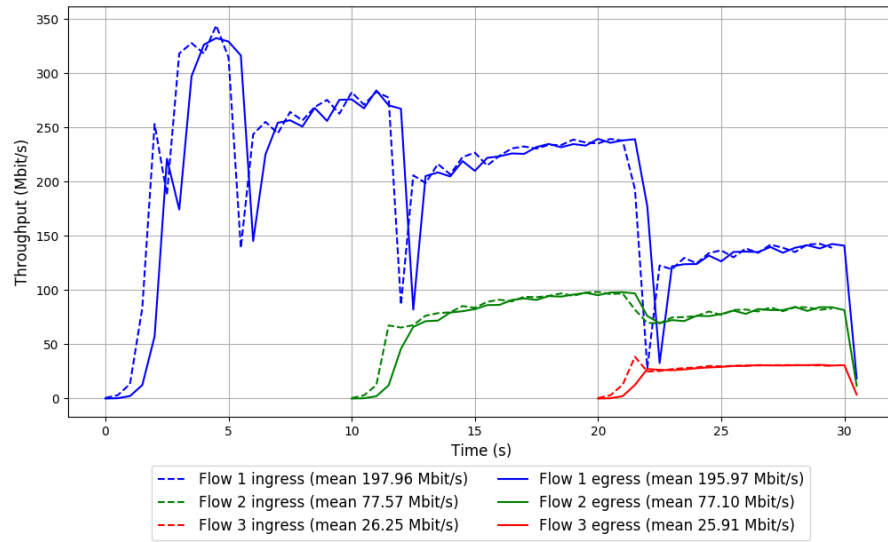


Run 2: Statistics of TCP Cubic

Start at: 2019-02-05 08:30:48  
End at: 2019-02-05 08:31:18  
Local clock offset: -1.039 ms  
Remote clock offset: -37.62 ms

# Below is generated by plot.py at 2019-02-05 10:42:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 255.94 Mbit/s  
95th percentile per-packet one-way delay: 73.541 ms  
Loss rate: 0.94%  
-- Flow 1:  
Average throughput: 195.97 Mbit/s  
95th percentile per-packet one-way delay: 73.068 ms  
Loss rate: 1.00%  
-- Flow 2:  
Average throughput: 77.10 Mbit/s  
95th percentile per-packet one-way delay: 73.680 ms  
Loss rate: 0.62%  
-- Flow 3:  
Average throughput: 25.91 Mbit/s  
95th percentile per-packet one-way delay: 71.122 ms  
Loss rate: 1.29%

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



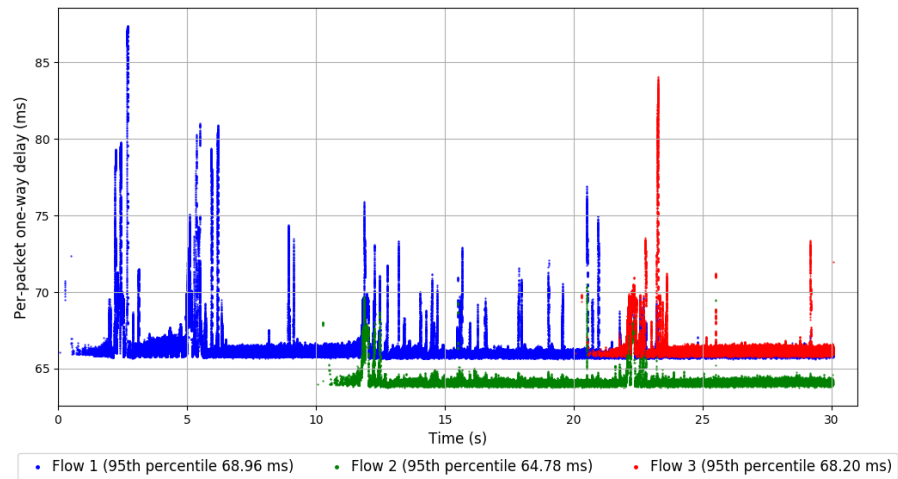
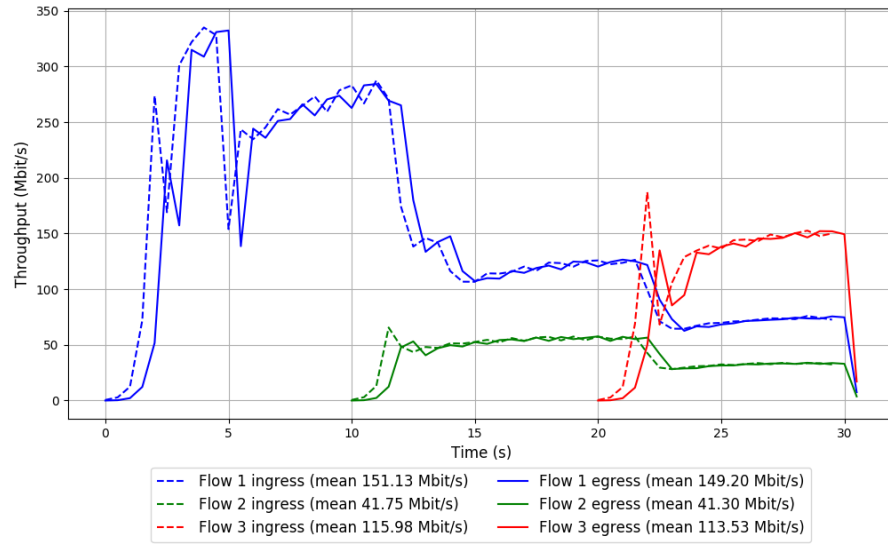


Run 3: Statistics of TCP Cubic

Start at: 2019-02-05 09:07:36  
End at: 2019-02-05 09:08:06  
Local clock offset: -1.454 ms  
Remote clock offset: -43.418 ms

# Below is generated by plot.py at 2019-02-05 10:42:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 214.44 Mbit/s  
95th percentile per-packet one-way delay: 68.641 ms  
Loss rate: 1.40%  
-- Flow 1:  
Average throughput: 149.20 Mbit/s  
95th percentile per-packet one-way delay: 68.964 ms  
Loss rate: 1.28%  
-- Flow 2:  
Average throughput: 41.30 Mbit/s  
95th percentile per-packet one-way delay: 64.780 ms  
Loss rate: 1.09%  
-- Flow 3:  
Average throughput: 113.53 Mbit/s  
95th percentile per-packet one-way delay: 68.197 ms  
Loss rate: 2.07%

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

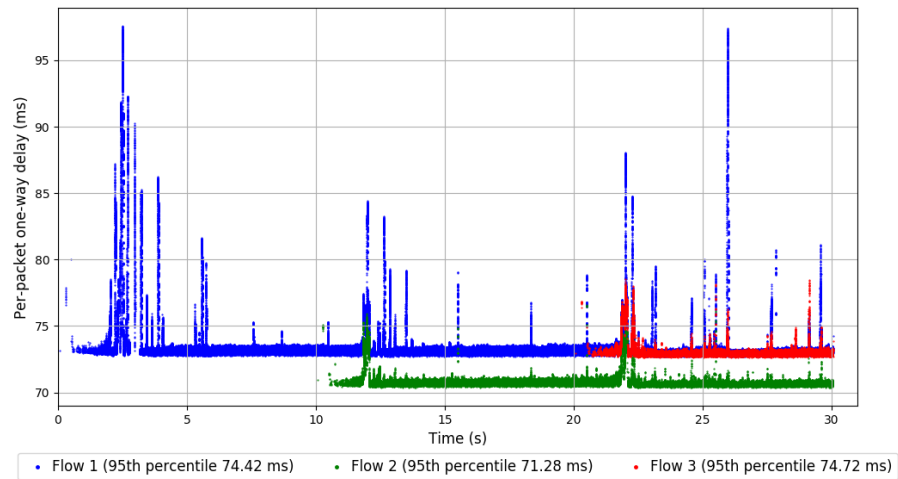
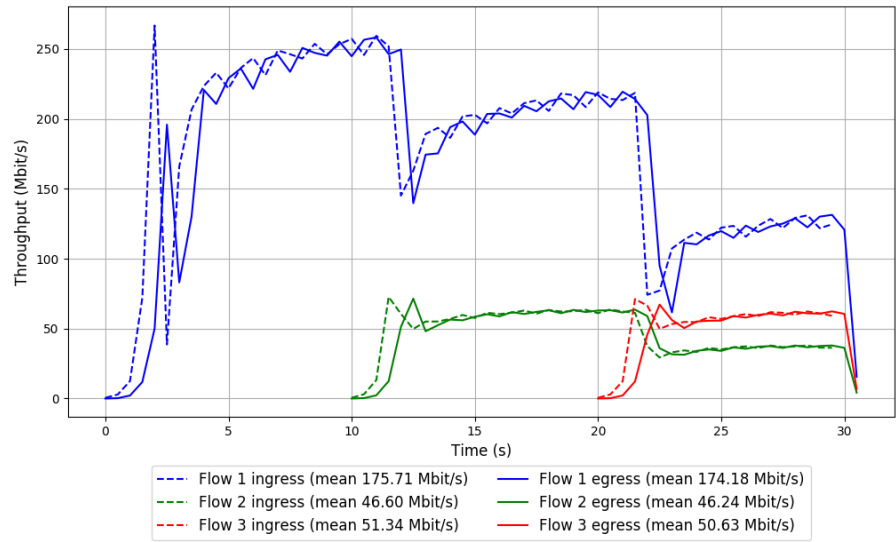


Run 4: Statistics of TCP Cubic

Start at: 2019-02-05 09:44:08  
End at: 2019-02-05 09:44:38  
Local clock offset: -2.285 ms  
Remote clock offset: -36.082 ms

# Below is generated by plot.py at 2019-02-05 10:43:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 221.85 Mbit/s  
95th percentile per-packet one-way delay: 73.904 ms  
Loss rate: 0.90%  
-- Flow 1:  
Average throughput: 174.18 Mbit/s  
95th percentile per-packet one-way delay: 74.420 ms  
Loss rate: 0.87%  
-- Flow 2:  
Average throughput: 46.24 Mbit/s  
95th percentile per-packet one-way delay: 71.284 ms  
Loss rate: 0.77%  
-- Flow 3:  
Average throughput: 50.63 Mbit/s  
95th percentile per-packet one-way delay: 74.718 ms  
Loss rate: 1.38%

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

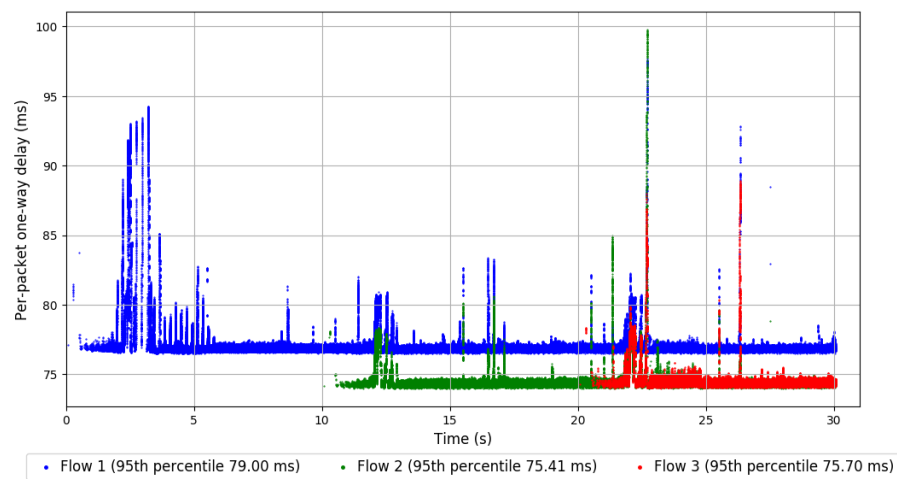
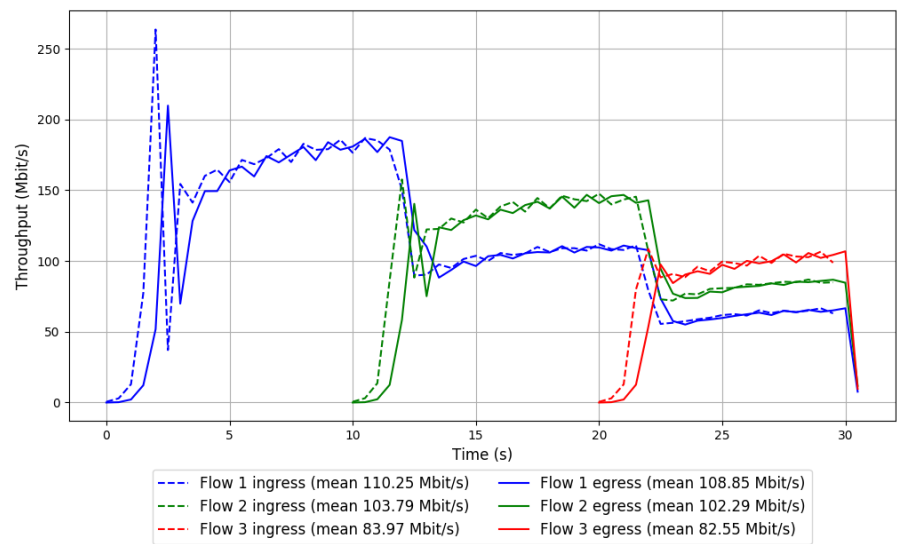


Run 5: Statistics of TCP Cubic

Start at: 2019-02-05 10:19:36  
End at: 2019-02-05 10:20:06  
Local clock offset: -1.847 ms  
Remote clock offset: -33.228 ms

# Below is generated by plot.py at 2019-02-05 10:43:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 204.45 Mbit/s  
95th percentile per-packet one-way delay: 77.651 ms  
Loss rate: 1.38%  
-- Flow 1:  
Average throughput: 108.85 Mbit/s  
95th percentile per-packet one-way delay: 79.001 ms  
Loss rate: 1.27%  
-- Flow 2:  
Average throughput: 102.29 Mbit/s  
95th percentile per-packet one-way delay: 75.414 ms  
Loss rate: 1.44%  
-- Flow 3:  
Average throughput: 82.55 Mbit/s  
95th percentile per-packet one-way delay: 75.700 ms  
Loss rate: 1.68%

Run 5: Report of TCP Cubic — Data Link

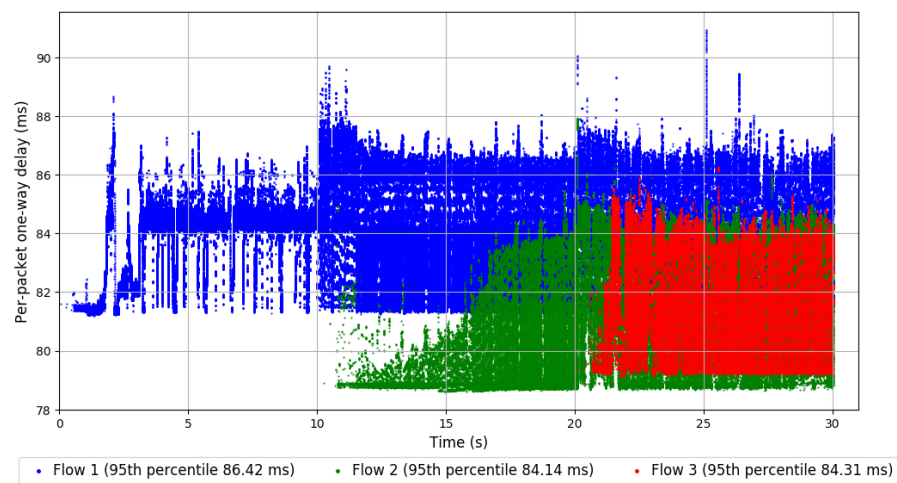
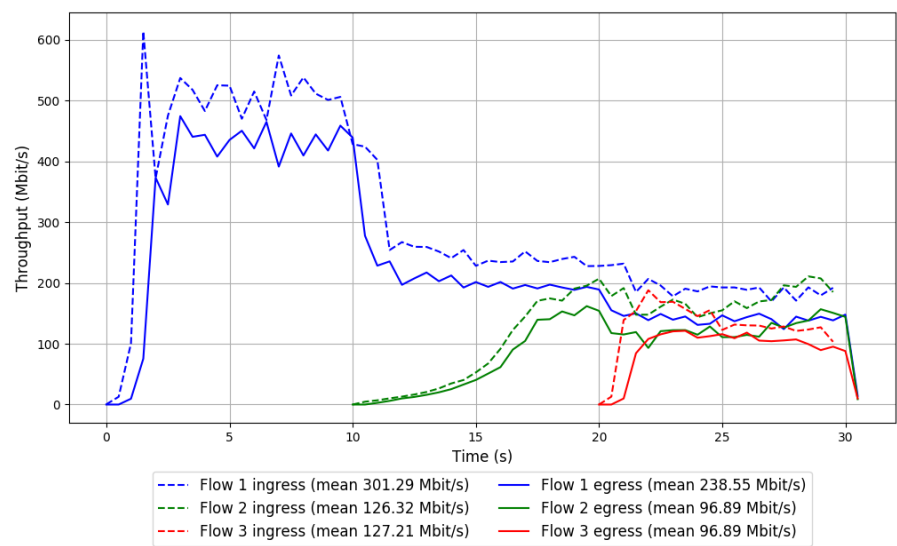


Run 1: Statistics of FillP

Start at: 2019-02-05 07:35:36  
End at: 2019-02-05 07:36:06  
Local clock offset: 1.255 ms  
Remote clock offset: -25.592 ms

# Below is generated by plot.py at 2019-02-05 10:46:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 335.22 Mbit/s  
95th percentile per-packet one-way delay: 86.211 ms  
Loss rate: 21.60%  
-- Flow 1:  
Average throughput: 238.55 Mbit/s  
95th percentile per-packet one-way delay: 86.415 ms  
Loss rate: 20.81%  
-- Flow 2:  
Average throughput: 96.89 Mbit/s  
95th percentile per-packet one-way delay: 84.136 ms  
Loss rate: 23.31%  
-- Flow 3:  
Average throughput: 96.89 Mbit/s  
95th percentile per-packet one-way delay: 84.310 ms  
Loss rate: 23.81%

Run 1: Report of FillP — Data Link



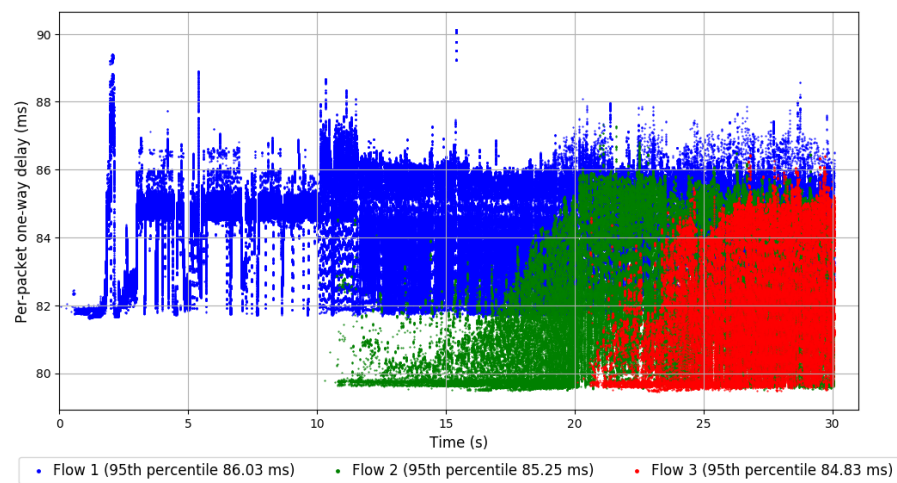
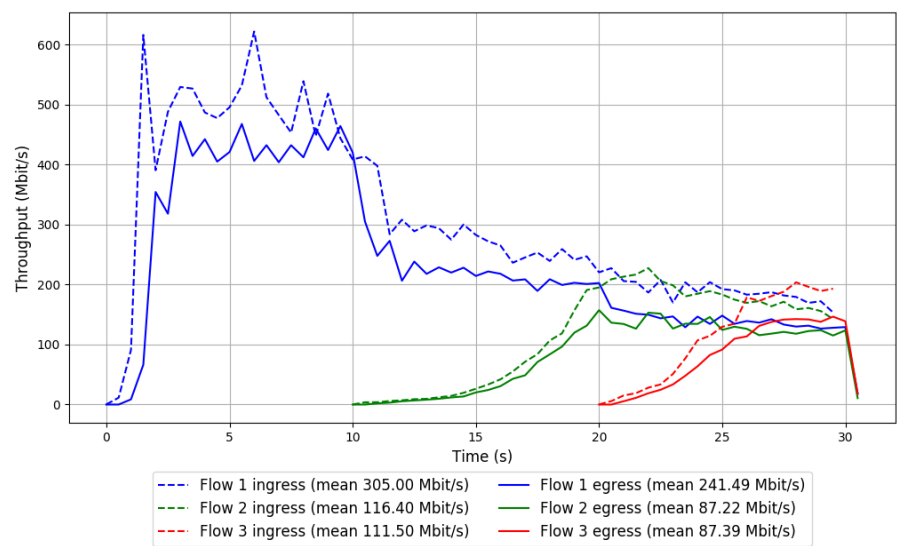


Run 2: Statistics of FillP

Start at: 2019-02-05 08:23:31  
End at: 2019-02-05 08:24:01  
Local clock offset: -2.086 ms  
Remote clock offset: -29.681 ms

# Below is generated by plot.py at 2019-02-05 10:46:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 328.49 Mbit/s  
95th percentile per-packet one-way delay: 85.897 ms  
Loss rate: 21.67%  
-- Flow 1:  
Average throughput: 241.49 Mbit/s  
95th percentile per-packet one-way delay: 86.026 ms  
Loss rate: 20.81%  
-- Flow 2:  
Average throughput: 87.22 Mbit/s  
95th percentile per-packet one-way delay: 85.252 ms  
Loss rate: 25.08%  
-- Flow 3:  
Average throughput: 87.39 Mbit/s  
95th percentile per-packet one-way delay: 84.827 ms  
Loss rate: 21.60%

Run 2: Report of FillP — Data Link

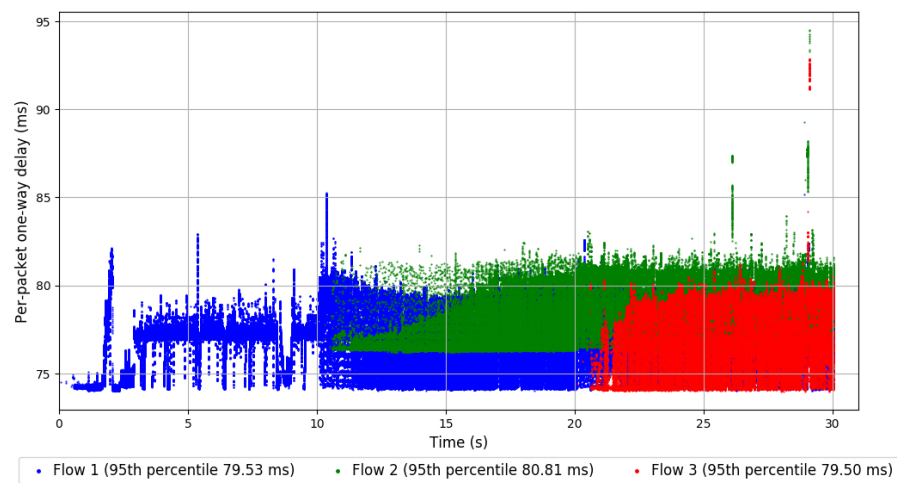
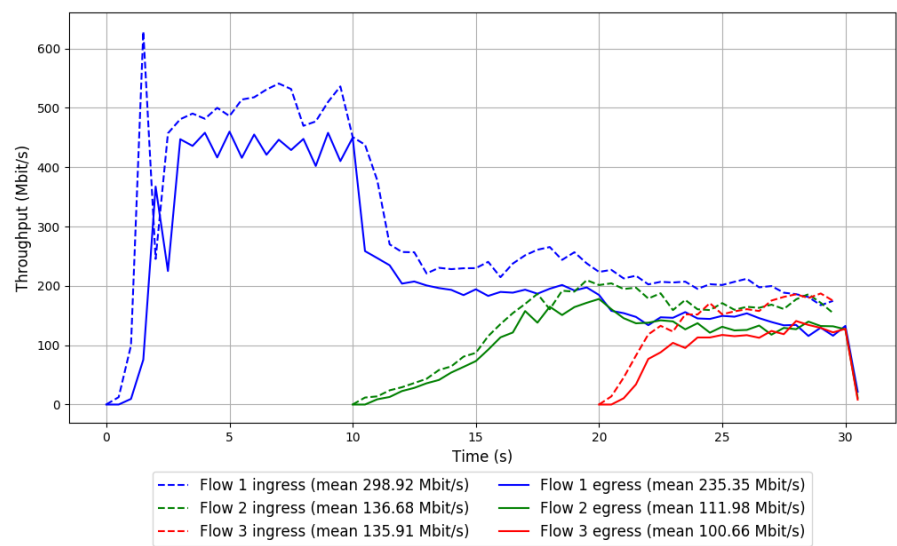


Run 3: Statistics of FillP

Start at: 2019-02-05 09:00:17  
End at: 2019-02-05 09:00:48  
Local clock offset: -2.347 ms  
Remote clock offset: -33.873 ms

# Below is generated by plot.py at 2019-02-05 10:46:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 343.24 Mbit/s  
95th percentile per-packet one-way delay: 80.204 ms  
Loss rate: 21.08%  
-- Flow 1:  
Average throughput: 235.35 Mbit/s  
95th percentile per-packet one-way delay: 79.532 ms  
Loss rate: 21.26%  
-- Flow 2:  
Average throughput: 111.98 Mbit/s  
95th percentile per-packet one-way delay: 80.809 ms  
Loss rate: 18.07%  
-- Flow 3:  
Average throughput: 100.66 Mbit/s  
95th percentile per-packet one-way delay: 79.501 ms  
Loss rate: 25.94%

Run 3: Report of FillP — Data Link

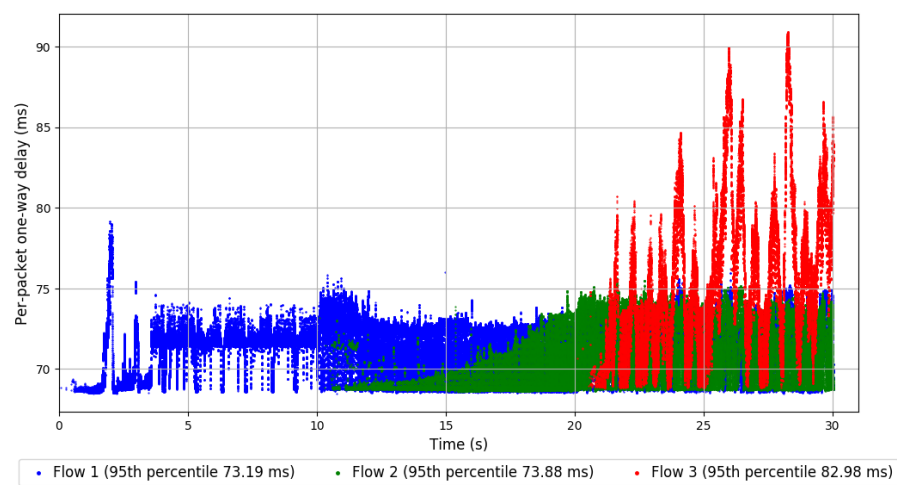
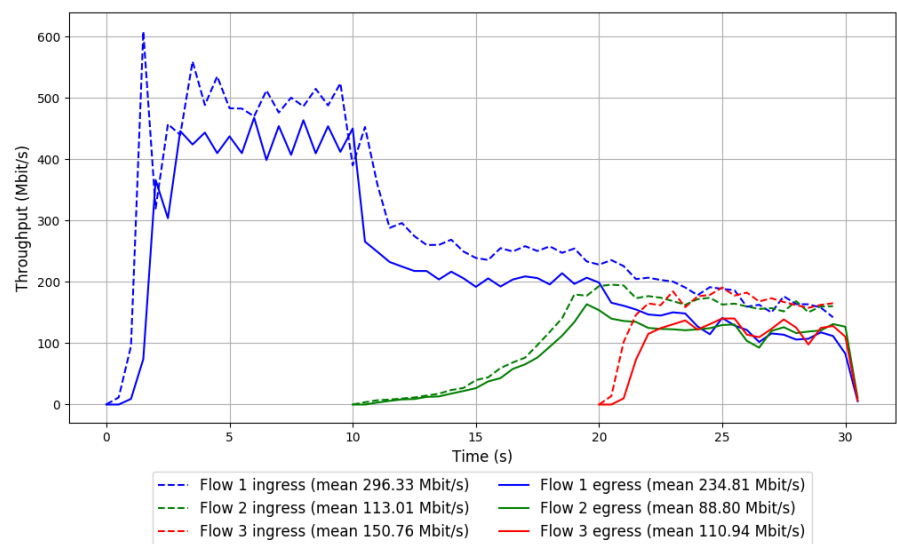


Run 4: Statistics of FillP

Start at: 2019-02-05 09:36:51  
End at: 2019-02-05 09:37:21  
Local clock offset: -0.659 ms  
Remote clock offset: -36.306 ms

# Below is generated by plot.py at 2019-02-05 10:46:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 330.64 Mbit/s  
95th percentile per-packet one-way delay: 75.393 ms  
Loss rate: 21.55%  
-- Flow 1:  
Average throughput: 234.81 Mbit/s  
95th percentile per-packet one-way delay: 73.193 ms  
Loss rate: 20.75%  
-- Flow 2:  
Average throughput: 88.80 Mbit/s  
95th percentile per-packet one-way delay: 73.882 ms  
Loss rate: 21.44%  
-- Flow 3:  
Average throughput: 110.94 Mbit/s  
95th percentile per-packet one-way delay: 82.980 ms  
Loss rate: 26.40%

Run 4: Report of FillP — Data Link

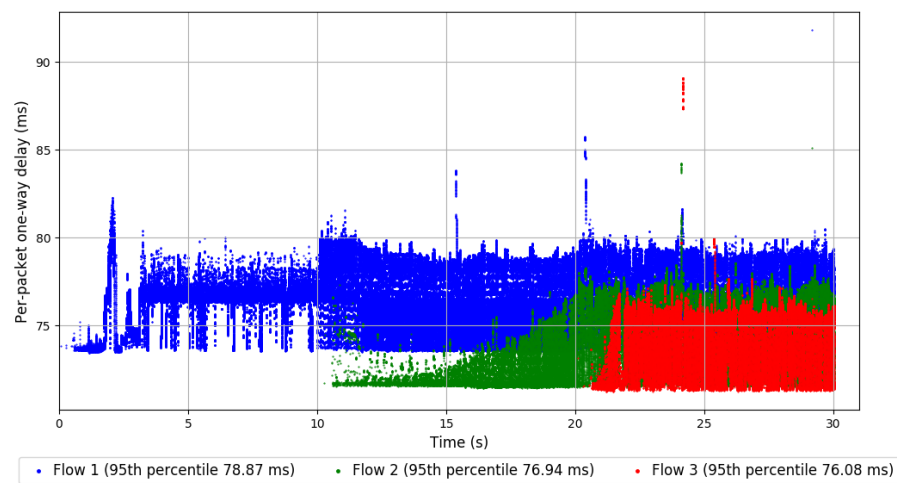
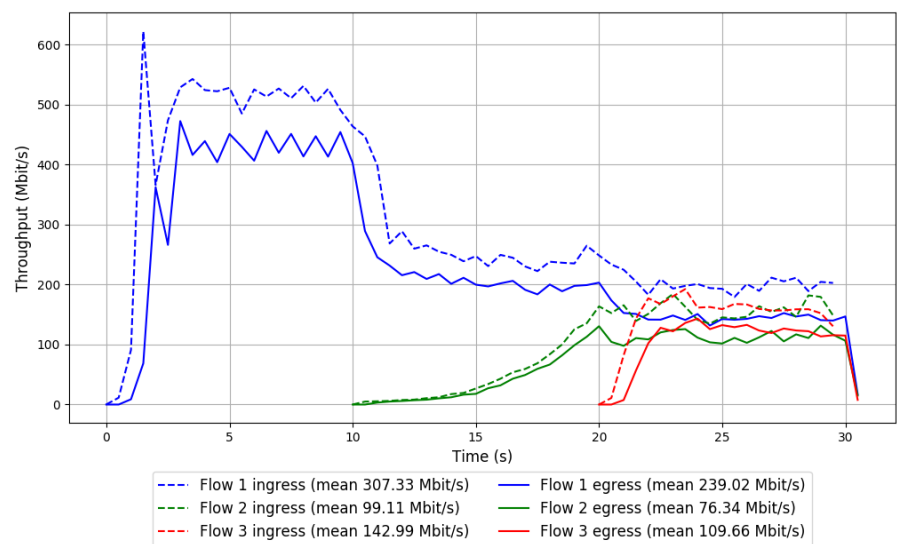


Run 5: Statistics of FillP

Start at: 2019-02-05 10:12:19  
End at: 2019-02-05 10:12:49  
Local clock offset: -2.778 ms  
Remote clock offset: -36.766 ms

# Below is generated by plot.py at 2019-02-05 10:46:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 326.22 Mbit/s  
95th percentile per-packet one-way delay: 78.687 ms  
Loss rate: 22.46%  
-- Flow 1:  
Average throughput: 239.02 Mbit/s  
95th percentile per-packet one-way delay: 78.873 ms  
Loss rate: 22.22%  
-- Flow 2:  
Average throughput: 76.34 Mbit/s  
95th percentile per-packet one-way delay: 76.940 ms  
Loss rate: 22.99%  
-- Flow 3:  
Average throughput: 109.66 Mbit/s  
95th percentile per-packet one-way delay: 76.075 ms  
Loss rate: 23.30%

Run 5: Report of FillP — Data Link



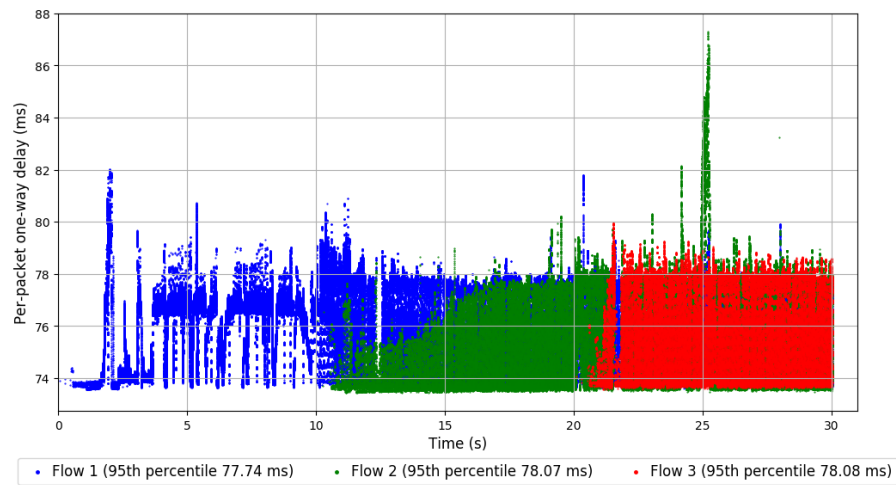
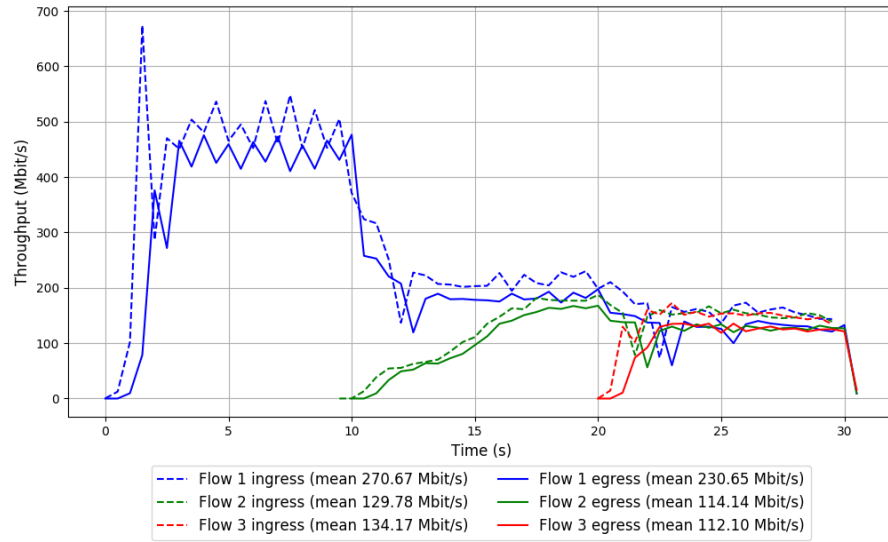


Run 1: Statistics of FillP-Sheep

Start at: 2019-02-05 07:50:04  
End at: 2019-02-05 07:50:34  
Local clock offset: 0.635 ms  
Remote clock offset: -32.278 ms

# Below is generated by plot.py at 2019-02-05 10:46:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 343.95 Mbit/s  
95th percentile per-packet one-way delay: 77.888 ms  
Loss rate: 14.38%  
-- Flow 1:  
Average throughput: 230.65 Mbit/s  
95th percentile per-packet one-way delay: 77.742 ms  
Loss rate: 14.78%  
-- Flow 2:  
Average throughput: 114.14 Mbit/s  
95th percentile per-packet one-way delay: 78.074 ms  
Loss rate: 12.06%  
-- Flow 3:  
Average throughput: 112.10 Mbit/s  
95th percentile per-packet one-way delay: 78.081 ms  
Loss rate: 16.43%

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



Run 2: Statistics of FillP-Sheep

Start at: 2019-02-05 08:32:21

End at: 2019-02-05 08:32:51

Local clock offset: -0.245 ms

Remote clock offset: -36.589 ms

# Below is generated by plot.py at 2019-02-05 10:48:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 306.16 Mbit/s

95th percentile per-packet one-way delay: 75.286 ms

Loss rate: 13.25%

-- Flow 1:

Average throughput: 233.30 Mbit/s

95th percentile per-packet one-way delay: 75.423 ms

Loss rate: 14.14%

-- Flow 2:

Average throughput: 56.43 Mbit/s

95th percentile per-packet one-way delay: 74.629 ms

Loss rate: 6.19%

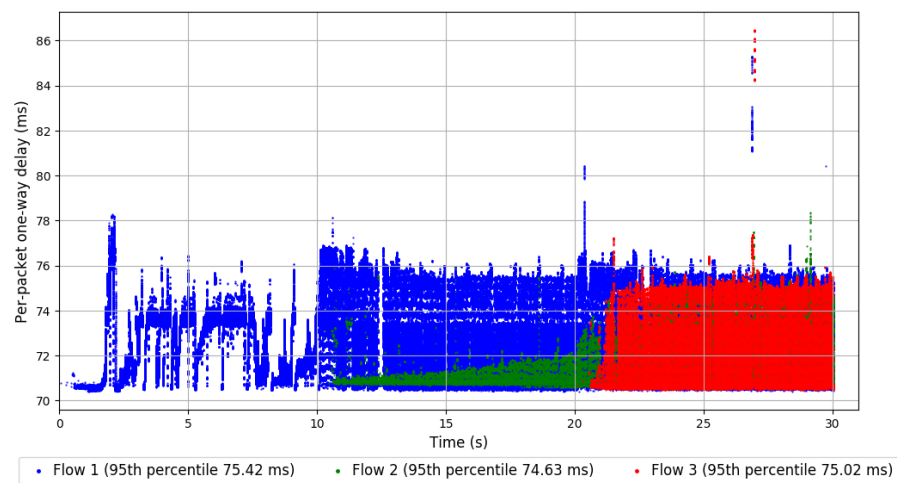
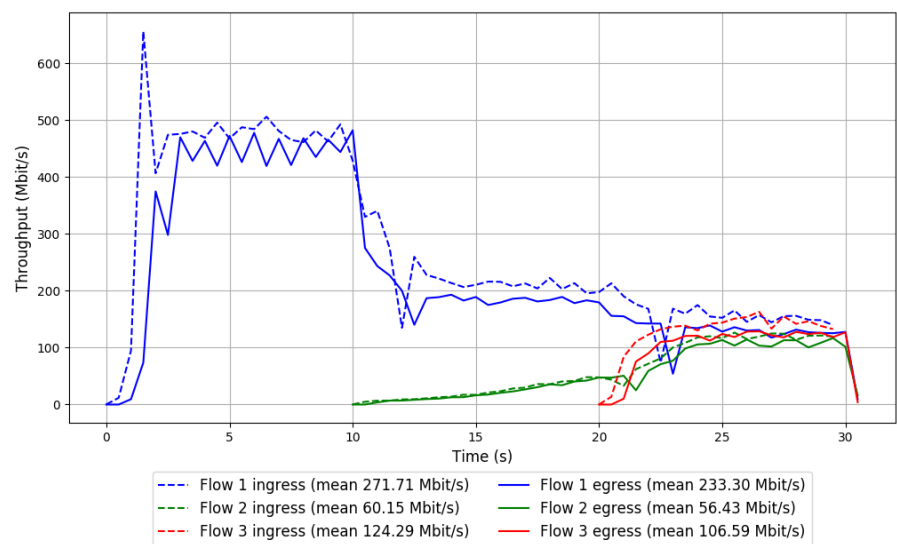
-- Flow 3:

Average throughput: 106.59 Mbit/s

95th percentile per-packet one-way delay: 75.020 ms

Loss rate: 14.24%

Run 2: Report of FillP-Sheep — Data Link

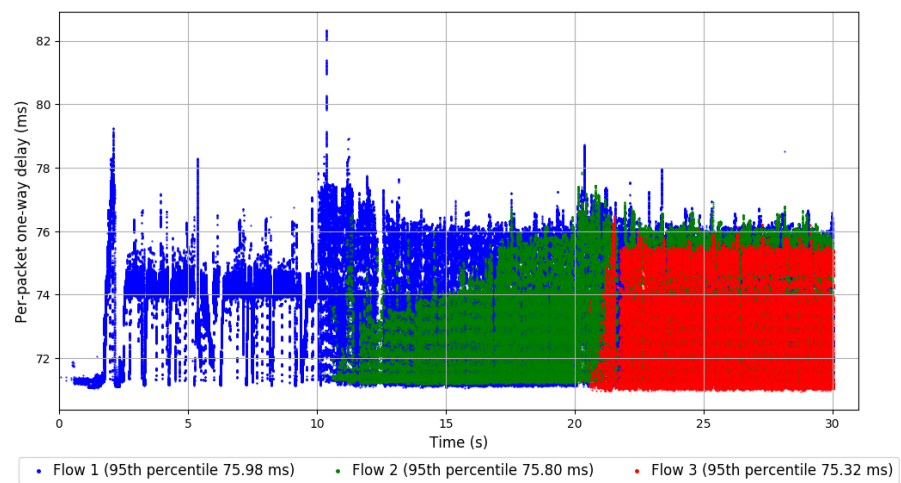
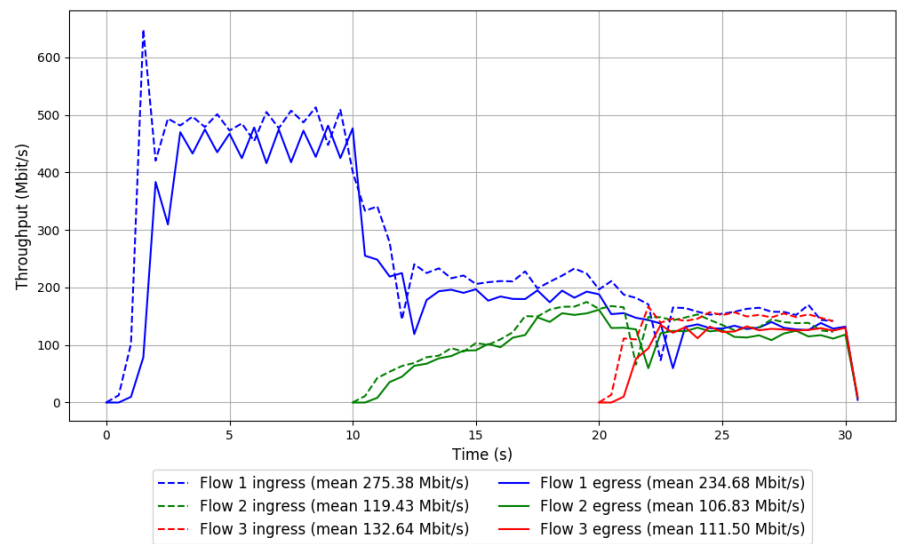


Run 3: Statistics of FillP-Sheep

Start at: 2019-02-05 09:09:07  
End at: 2019-02-05 09:09:37  
Local clock offset: -2.167 ms  
Remote clock offset: -36.29 ms

# Below is generated by plot.py at 2019-02-05 10:48:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 342.75 Mbit/s  
95th percentile per-packet one-way delay: 75.862 ms  
Loss rate: 14.06%  
-- Flow 1:  
Average throughput: 234.68 Mbit/s  
95th percentile per-packet one-way delay: 75.979 ms  
Loss rate: 14.77%  
-- Flow 2:  
Average throughput: 106.83 Mbit/s  
95th percentile per-packet one-way delay: 75.801 ms  
Loss rate: 10.56%  
-- Flow 3:  
Average throughput: 111.50 Mbit/s  
95th percentile per-packet one-way delay: 75.316 ms  
Loss rate: 15.94%

Run 3: Report of FillP-Sheep — Data Link

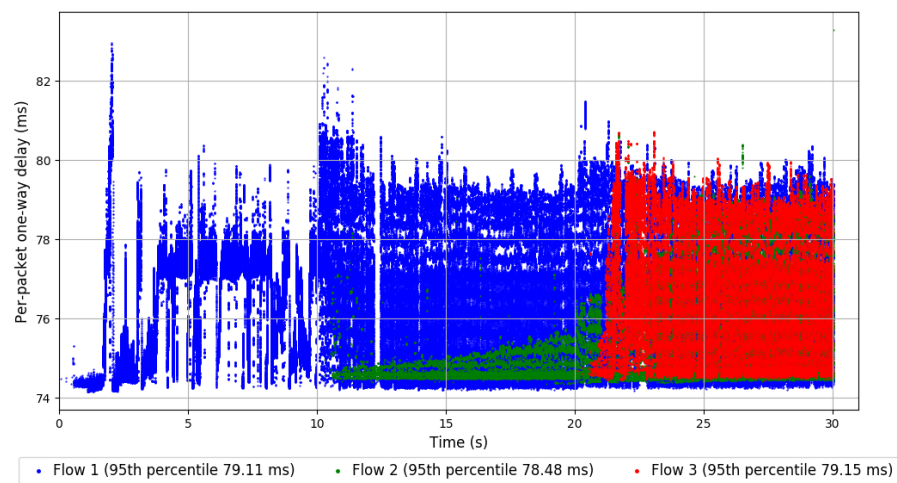
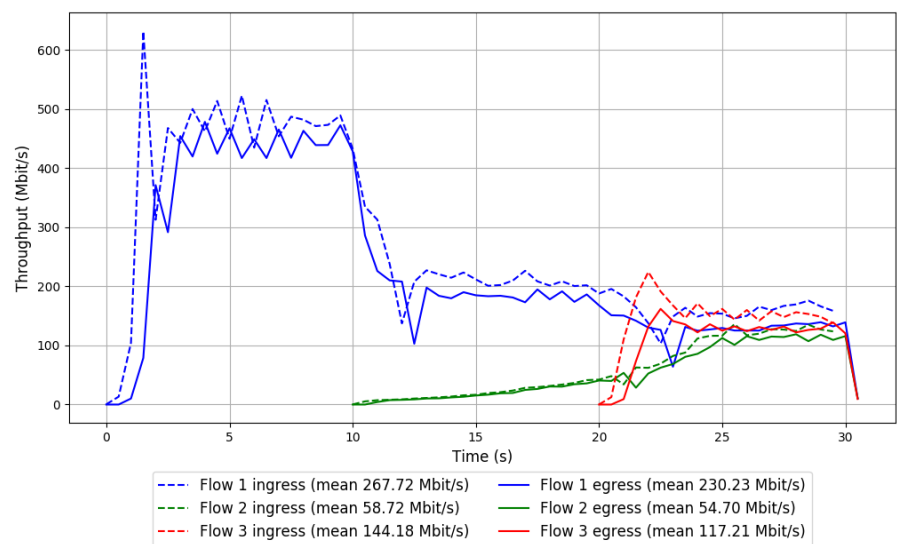


Run 4: Statistics of FillP-Sheep

Start at: 2019-02-05 09:45:39  
End at: 2019-02-05 09:46:09  
Local clock offset: -4.426 ms  
Remote clock offset: -34.153 ms

# Below is generated by plot.py at 2019-02-05 10:50:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 305.33 Mbit/s  
95th percentile per-packet one-way delay: 79.053 ms  
Loss rate: 13.84%  
-- Flow 1:  
Average throughput: 230.23 Mbit/s  
95th percentile per-packet one-way delay: 79.110 ms  
Loss rate: 14.00%  
-- Flow 2:  
Average throughput: 54.70 Mbit/s  
95th percentile per-packet one-way delay: 78.481 ms  
Loss rate: 6.82%  
-- Flow 3:  
Average throughput: 117.21 Mbit/s  
95th percentile per-packet one-way delay: 79.153 ms  
Loss rate: 18.70%

Run 4: Report of FillP-Sheep — Data Link



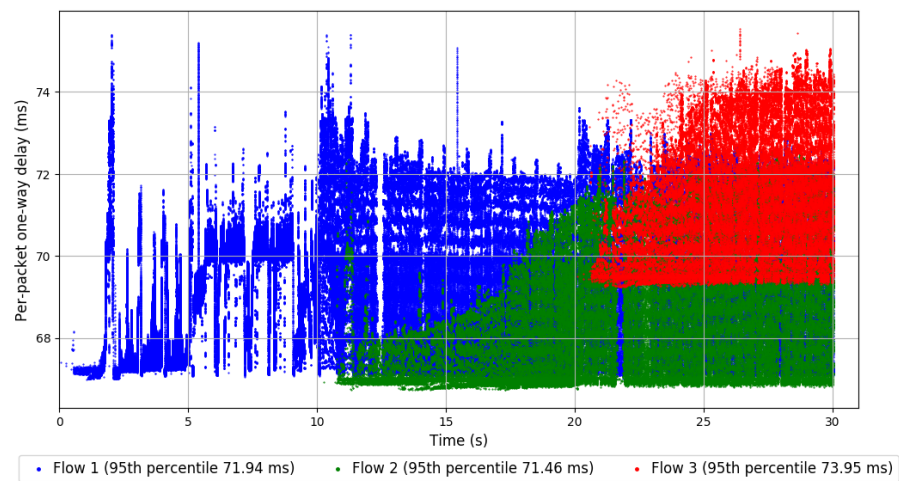
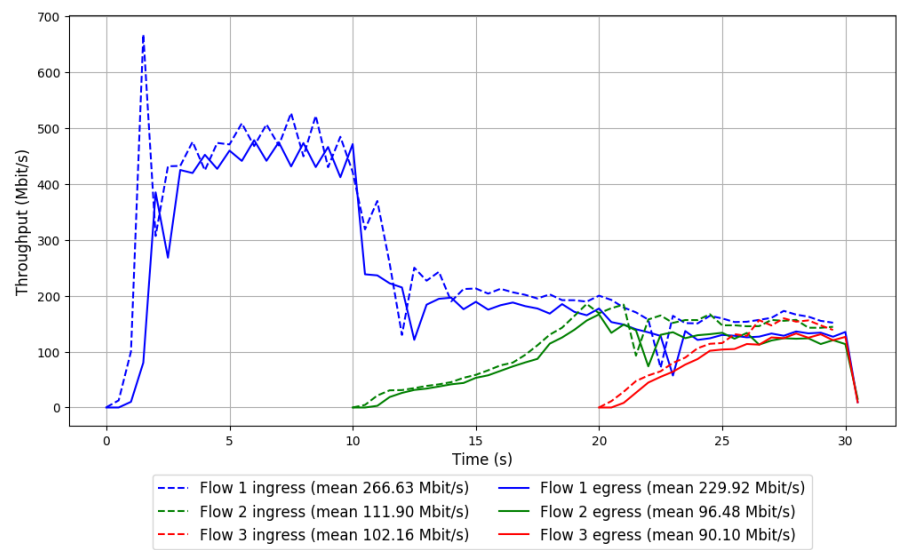


Run 5: Statistics of FillP-Sheep

Start at: 2019-02-05 10:21:07  
End at: 2019-02-05 10:21:37  
Local clock offset: -1.002 ms  
Remote clock offset: -39.41 ms

```
# Below is generated by plot.py at 2019-02-05 10:50:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 323.91 Mbit/s
95th percentile per-packet one-way delay: 72.270 ms
Loss rate: 13.59%
-- Flow 1:
Average throughput: 229.92 Mbit/s
95th percentile per-packet one-way delay: 71.935 ms
Loss rate: 13.77%
-- Flow 2:
Average throughput: 96.48 Mbit/s
95th percentile per-packet one-way delay: 71.462 ms
Loss rate: 13.78%
-- Flow 3:
Average throughput: 90.10 Mbit/s
95th percentile per-packet one-way delay: 73.950 ms
Loss rate: 11.77%
```

Run 5: Report of FillP-Sheep — Data Link

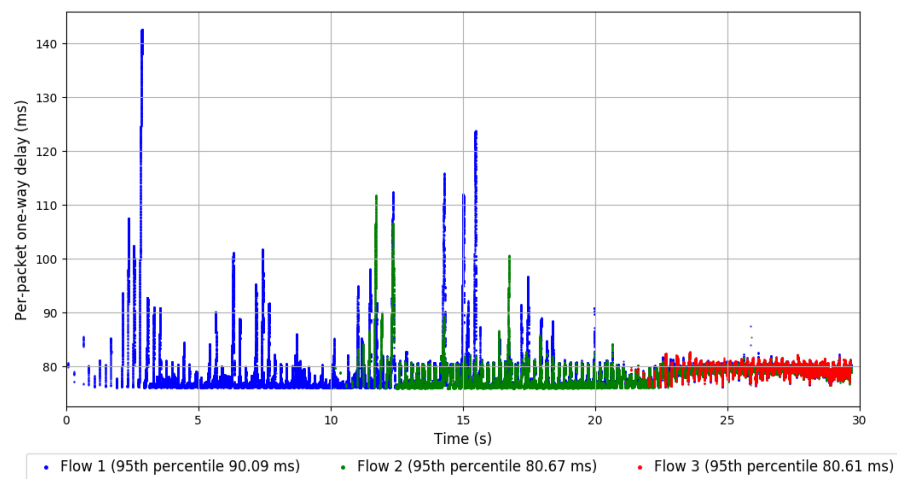
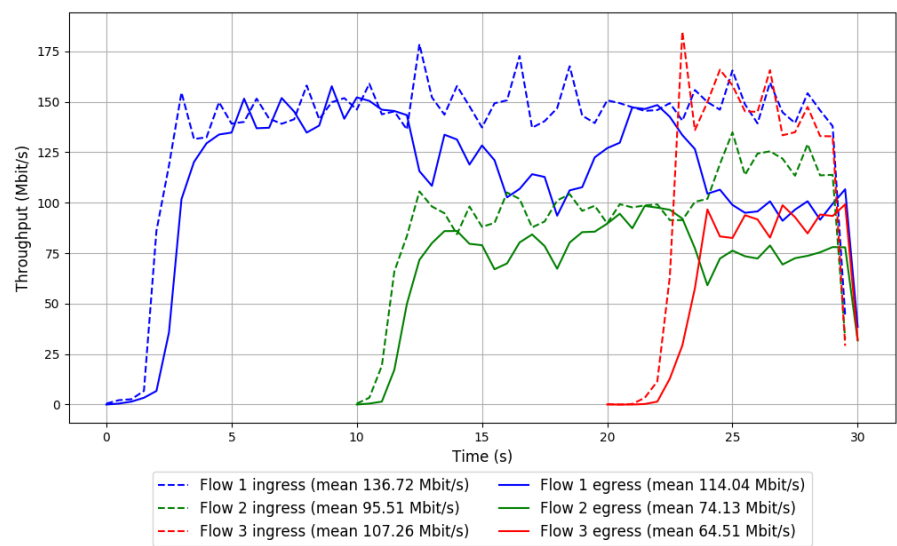


Run 1: Statistics of Indigo

Start at: 2019-02-05 07:26:16  
End at: 2019-02-05 07:26:46  
Local clock offset: -3.982 ms  
Remote clock offset: -33.906 ms

# Below is generated by plot.py at 2019-02-05 10:50:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 183.66 Mbit/s  
95th percentile per-packet one-way delay: 85.780 ms  
Loss rate: 21.57%  
-- Flow 1:  
Average throughput: 114.04 Mbit/s  
95th percentile per-packet one-way delay: 90.095 ms  
Loss rate: 16.59%  
-- Flow 2:  
Average throughput: 74.13 Mbit/s  
95th percentile per-packet one-way delay: 80.672 ms  
Loss rate: 22.37%  
-- Flow 3:  
Average throughput: 64.51 Mbit/s  
95th percentile per-packet one-way delay: 80.615 ms  
Loss rate: 39.85%

Run 1: Report of Indigo — Data Link

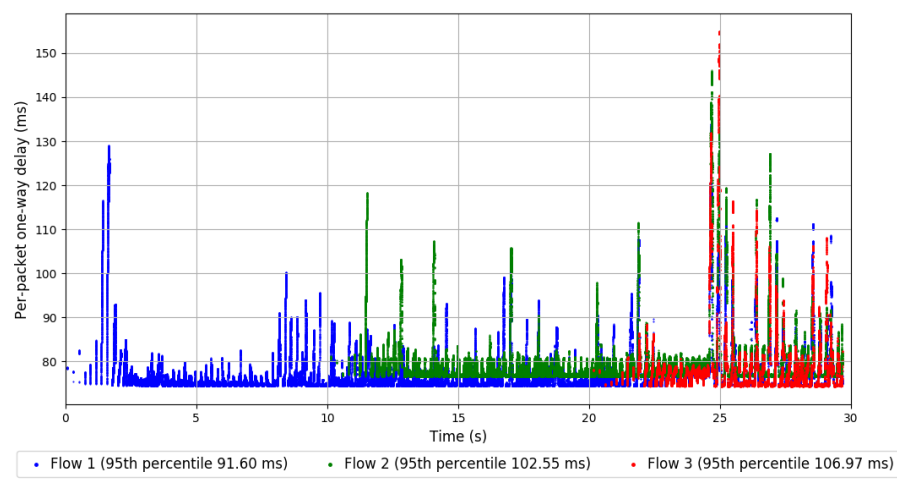
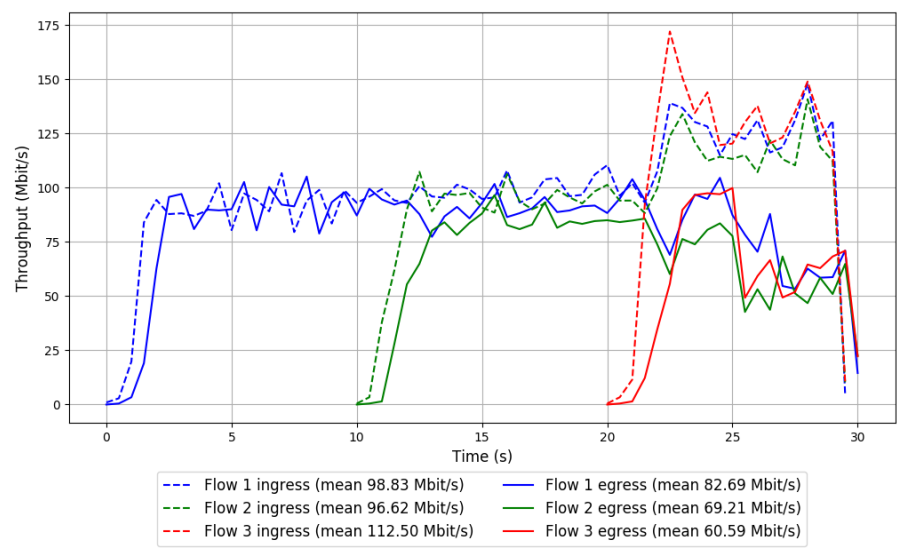


Run 2: Statistics of Indigo

Start at: 2019-02-05 08:02:50  
End at: 2019-02-05 08:03:21  
Local clock offset: 1.151 ms  
Remote clock offset: -31.756 ms

# Below is generated by plot.py at 2019-02-05 10:50:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 147.80 Mbit/s  
95th percentile per-packet one-way delay: 97.733 ms  
Loss rate: 25.61%  
-- Flow 1:  
Average throughput: 82.69 Mbit/s  
95th percentile per-packet one-way delay: 91.603 ms  
Loss rate: 16.33%  
-- Flow 2:  
Average throughput: 69.21 Mbit/s  
95th percentile per-packet one-way delay: 102.549 ms  
Loss rate: 28.37%  
-- Flow 3:  
Average throughput: 60.59 Mbit/s  
95th percentile per-packet one-way delay: 106.969 ms  
Loss rate: 46.16%

Run 2: Report of Indigo — Data Link

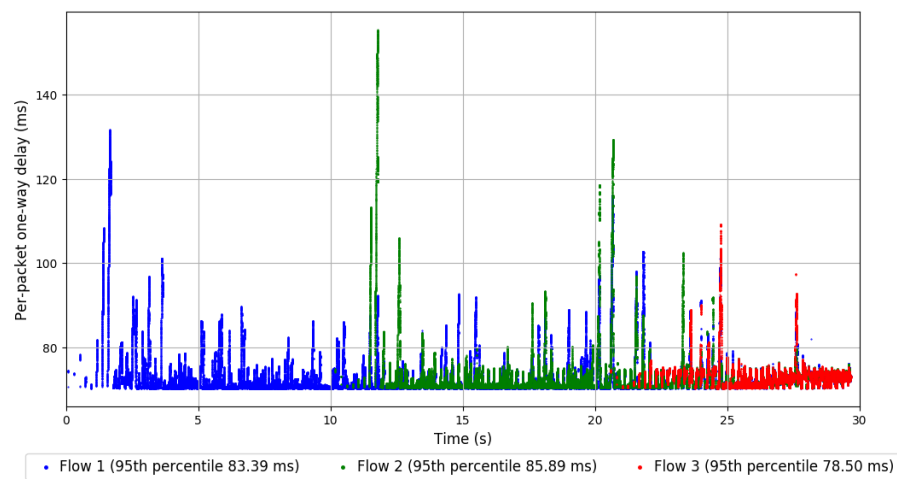
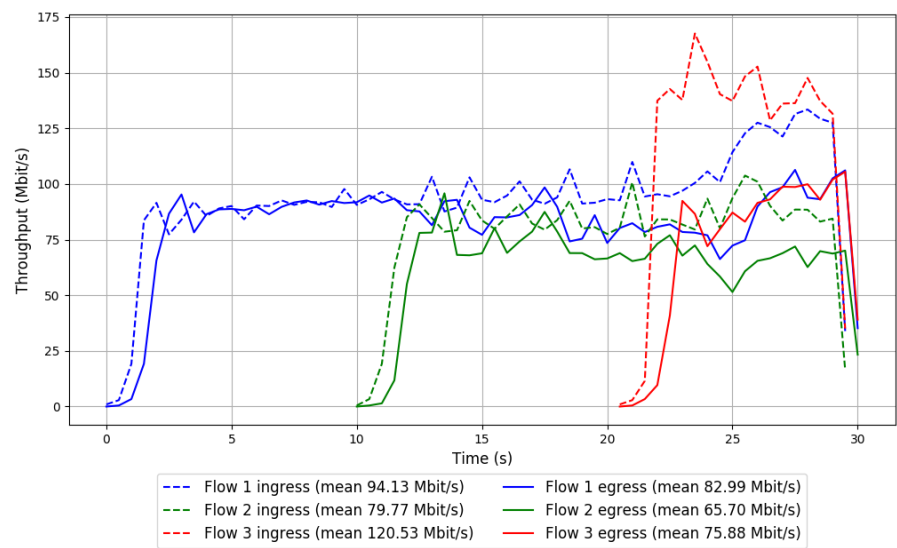


Run 3: Statistics of Indigo

Start at: 2019-02-05 08:45:02  
End at: 2019-02-05 08:45:32  
Local clock offset: 1.133 ms  
Remote clock offset: -35.43 ms

# Below is generated by plot.py at 2019-02-05 10:50:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 149.44 Mbit/s  
95th percentile per-packet one-way delay: 83.298 ms  
Loss rate: 18.57%  
-- Flow 1:  
Average throughput: 82.99 Mbit/s  
95th percentile per-packet one-way delay: 83.392 ms  
Loss rate: 11.83%  
-- Flow 2:  
Average throughput: 65.70 Mbit/s  
95th percentile per-packet one-way delay: 85.887 ms  
Loss rate: 17.64%  
-- Flow 3:  
Average throughput: 75.88 Mbit/s  
95th percentile per-packet one-way delay: 78.504 ms  
Loss rate: 37.05%

Run 3: Report of Indigo — Data Link



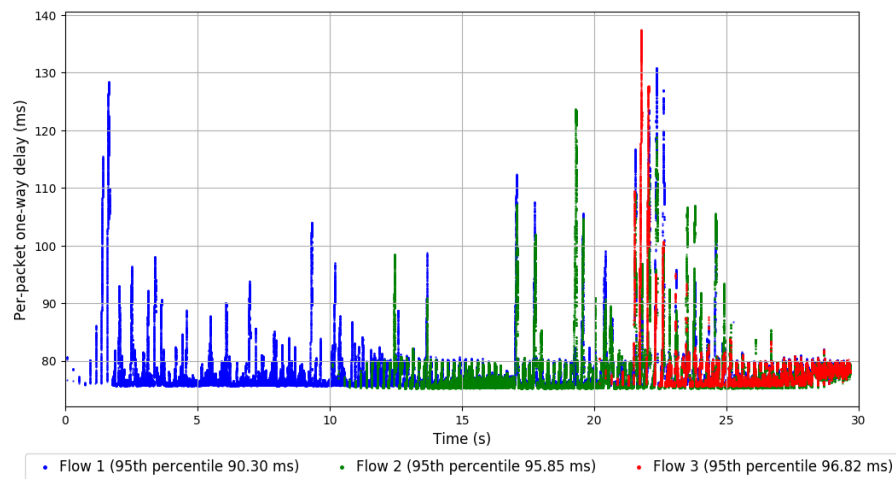
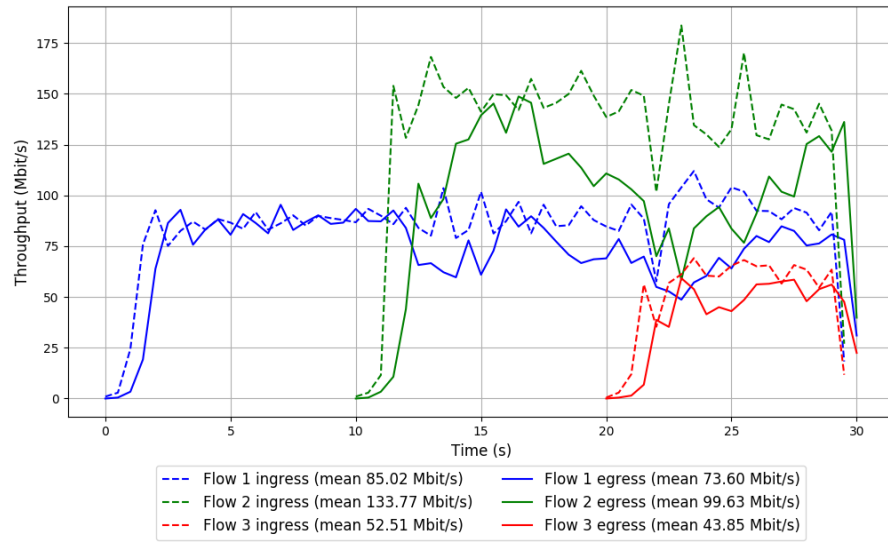


Run 4: Statistics of Indigo

Start at: 2019-02-05 09:21:54  
End at: 2019-02-05 09:22:24  
Local clock offset: -0.506 ms  
Remote clock offset: -29.946 ms

# Below is generated by plot.py at 2019-02-05 10:50:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 153.49 Mbit/s  
95th percentile per-packet one-way delay: 93.243 ms  
Loss rate: 19.31%  
-- Flow 1:  
Average throughput: 73.60 Mbit/s  
95th percentile per-packet one-way delay: 90.304 ms  
Loss rate: 13.42%  
-- Flow 2:  
Average throughput: 99.63 Mbit/s  
95th percentile per-packet one-way delay: 95.852 ms  
Loss rate: 25.52%  
-- Flow 3:  
Average throughput: 43.85 Mbit/s  
95th percentile per-packet one-way delay: 96.821 ms  
Loss rate: 16.47%

# Run 4: Report of Indigo — Data Link

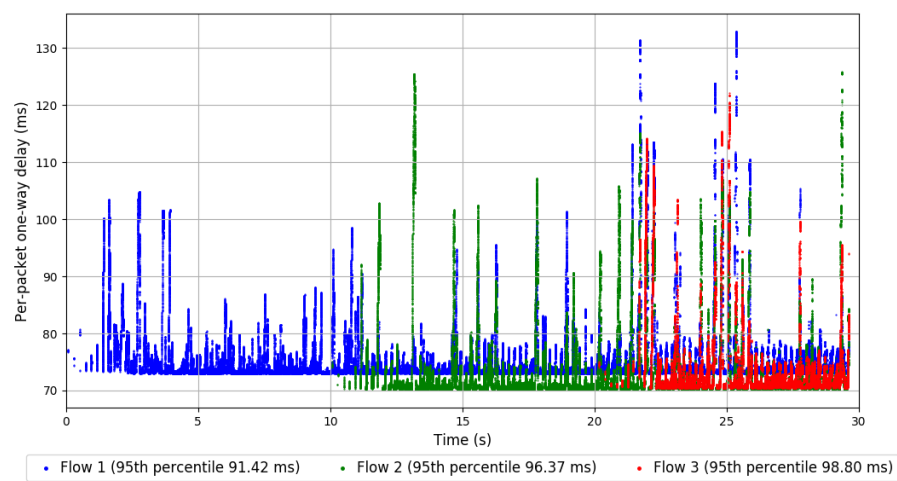
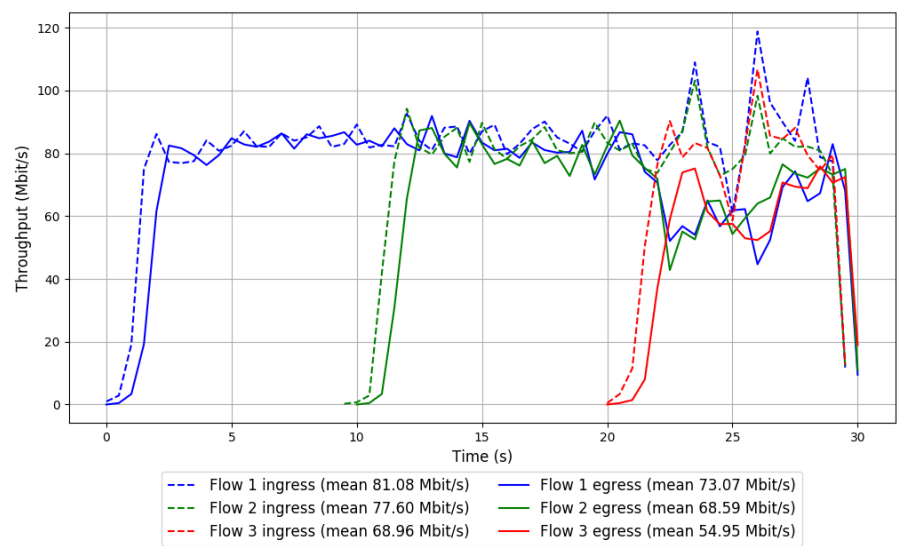


Run 5: Statistics of Indigo

Start at: 2019-02-05 09:58:22  
End at: 2019-02-05 09:58:52  
Local clock offset: -1.702 ms  
Remote clock offset: -36.511 ms

# Below is generated by plot.py at 2019-02-05 10:50:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 135.99 Mbit/s  
95th percentile per-packet one-way delay: 94.858 ms  
Loss rate: 11.92%  
-- Flow 1:  
Average throughput: 73.07 Mbit/s  
95th percentile per-packet one-way delay: 91.421 ms  
Loss rate: 9.90%  
-- Flow 2:  
Average throughput: 68.59 Mbit/s  
95th percentile per-packet one-way delay: 96.367 ms  
Loss rate: 11.58%  
-- Flow 3:  
Average throughput: 54.95 Mbit/s  
95th percentile per-packet one-way delay: 98.802 ms  
Loss rate: 20.17%

Run 5: Report of Indigo — Data Link

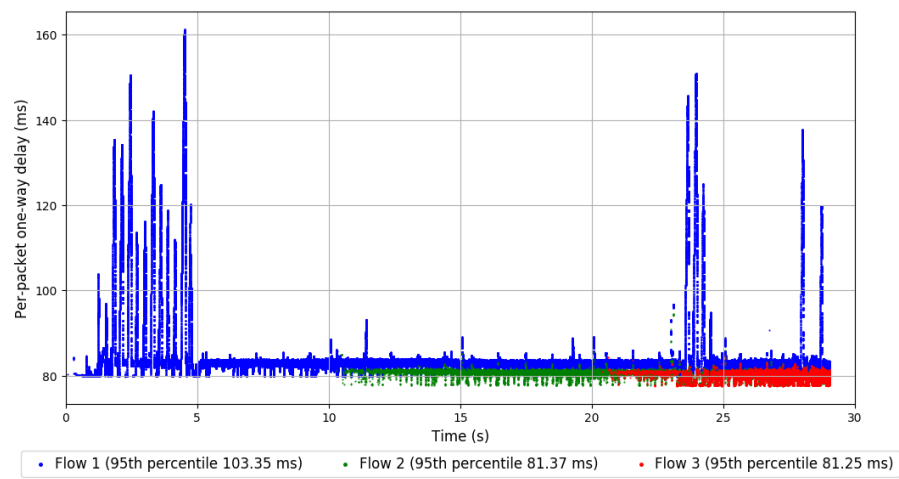
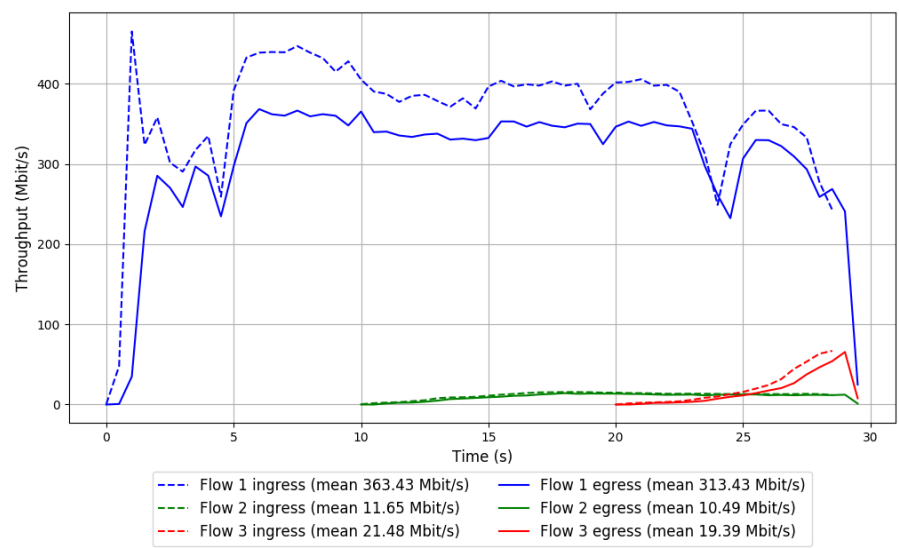


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-02-05 07:32:26  
End at: 2019-02-05 07:32:56  
Local clock offset: -1.667 ms  
Remote clock offset: -30.012 ms

# Below is generated by plot.py at 2019-02-05 10:51:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 326.00 Mbit/s  
95th percentile per-packet one-way delay: 101.492 ms  
Loss rate: 13.62%  
-- Flow 1:  
Average throughput: 313.43 Mbit/s  
95th percentile per-packet one-way delay: 103.346 ms  
Loss rate: 13.76%  
-- Flow 2:  
Average throughput: 10.49 Mbit/s  
95th percentile per-packet one-way delay: 81.373 ms  
Loss rate: 9.99%  
-- Flow 3:  
Average throughput: 19.39 Mbit/s  
95th percentile per-packet one-way delay: 81.251 ms  
Loss rate: 9.77%

Run 1: Report of Indigo-MusesC3 — Data Link

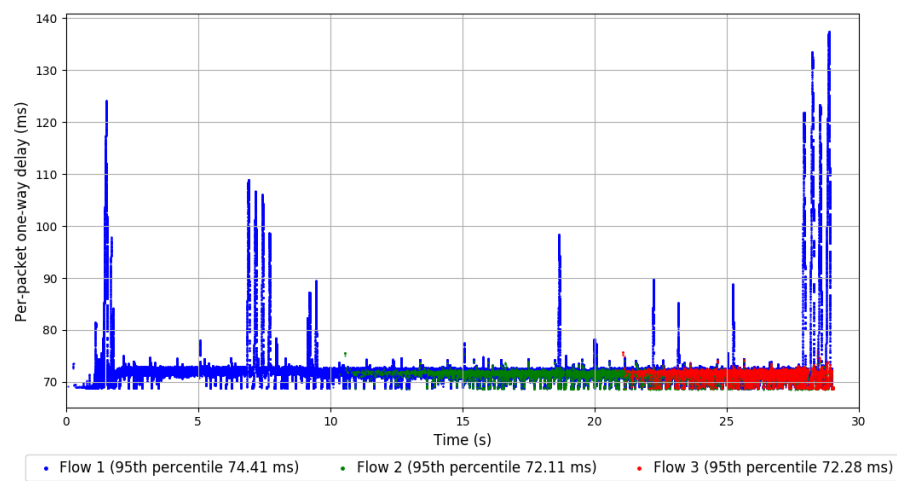
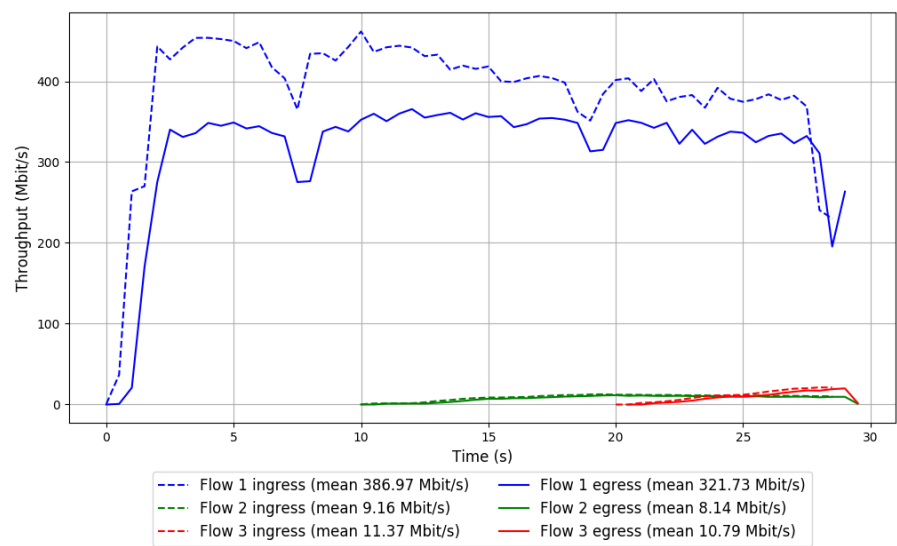


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-05 08:20:19  
End at: 2019-02-05 08:20:49  
Local clock offset: 1.56 ms  
Remote clock offset: -37.022 ms

# Below is generated by plot.py at 2019-02-05 10:51:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 329.37 Mbit/s  
95th percentile per-packet one-way delay: 74.173 ms  
Loss rate: 16.72%  
-- Flow 1:  
Average throughput: 321.73 Mbit/s  
95th percentile per-packet one-way delay: 74.410 ms  
Loss rate: 16.86%  
-- Flow 2:  
Average throughput: 8.14 Mbit/s  
95th percentile per-packet one-way delay: 72.109 ms  
Loss rate: 11.13%  
-- Flow 3:  
Average throughput: 10.79 Mbit/s  
95th percentile per-packet one-way delay: 72.283 ms  
Loss rate: 10.62%

Run 2: Report of Indigo-MusesC3 — Data Link



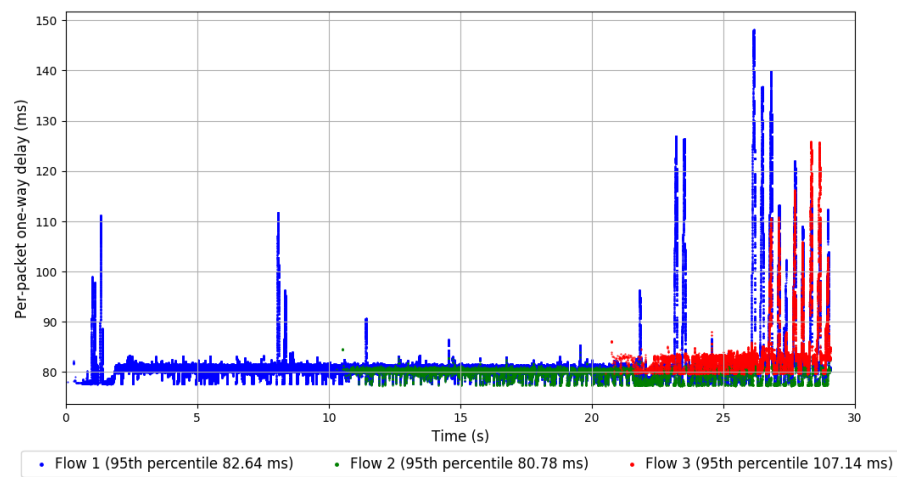
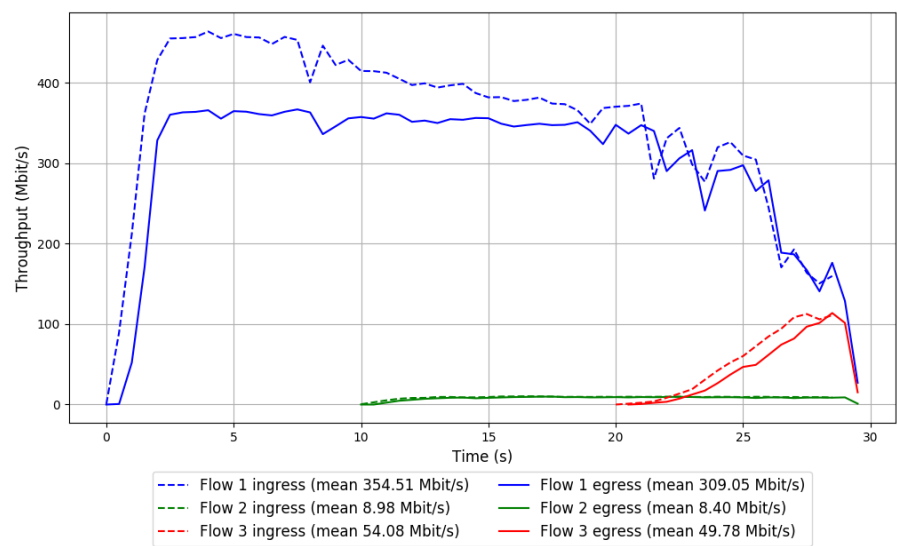


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-05 08:51:08  
End at: 2019-02-05 08:51:38  
Local clock offset: 0.083 ms  
Remote clock offset: -28.937 ms

# Below is generated by plot.py at 2019-02-05 10:51:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 329.14 Mbit/s  
95th percentile per-packet one-way delay: 84.626 ms  
Loss rate: 12.51%  
-- Flow 1:  
Average throughput: 309.05 Mbit/s  
95th percentile per-packet one-way delay: 82.645 ms  
Loss rate: 12.81%  
-- Flow 2:  
Average throughput: 8.40 Mbit/s  
95th percentile per-packet one-way delay: 80.779 ms  
Loss rate: 6.44%  
-- Flow 3:  
Average throughput: 49.78 Mbit/s  
95th percentile per-packet one-way delay: 107.145 ms  
Loss rate: 7.91%

Run 3: Report of Indigo-MusesC3 — Data Link

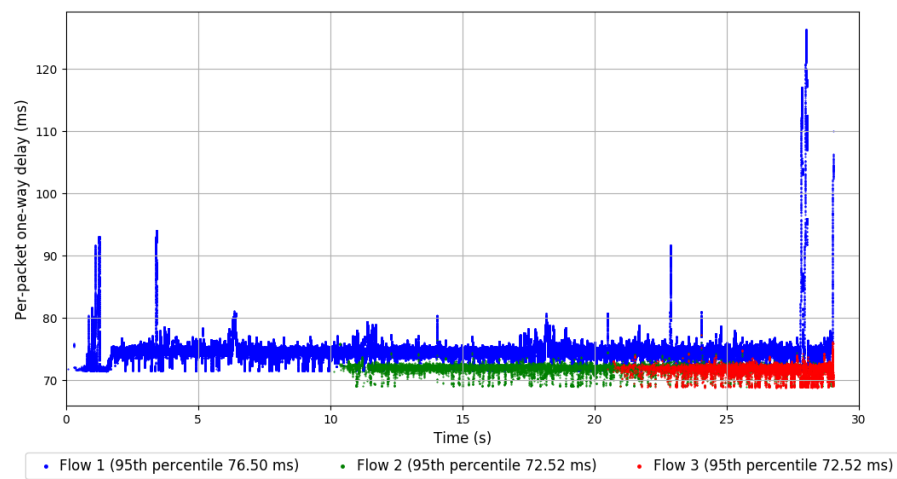
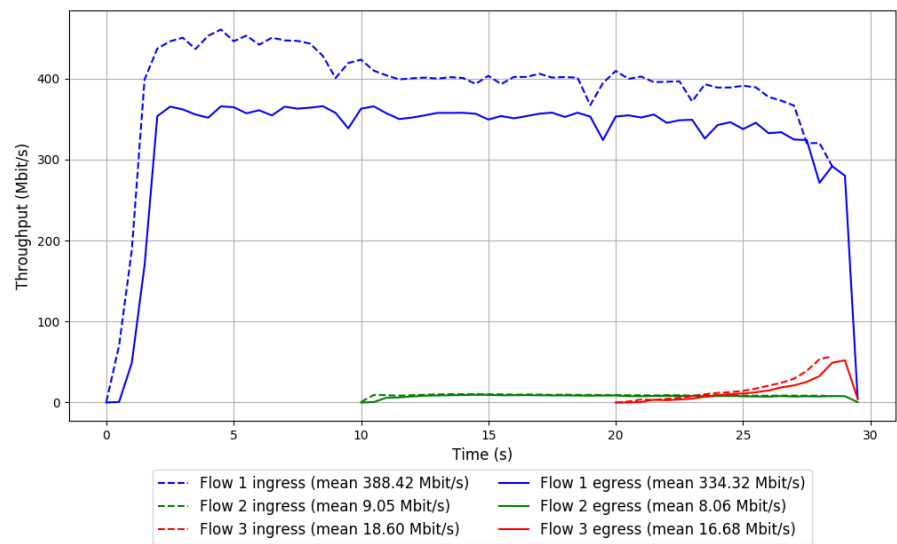


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-05 09:28:00  
End at: 2019-02-05 09:28:30  
Local clock offset: -0.382 ms  
Remote clock offset: -36.04 ms

# Below is generated by plot.py at 2019-02-05 10:52:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 344.48 Mbit/s  
95th percentile per-packet one-way delay: 76.463 ms  
Loss rate: 13.82%  
-- Flow 1:  
Average throughput: 334.32 Mbit/s  
95th percentile per-packet one-way delay: 76.504 ms  
Loss rate: 13.92%  
-- Flow 2:  
Average throughput: 8.06 Mbit/s  
95th percentile per-packet one-way delay: 72.517 ms  
Loss rate: 10.94%  
-- Flow 3:  
Average throughput: 16.68 Mbit/s  
95th percentile per-packet one-way delay: 72.515 ms  
Loss rate: 10.28%

Run 4: Report of Indigo-MusesC3 — Data Link

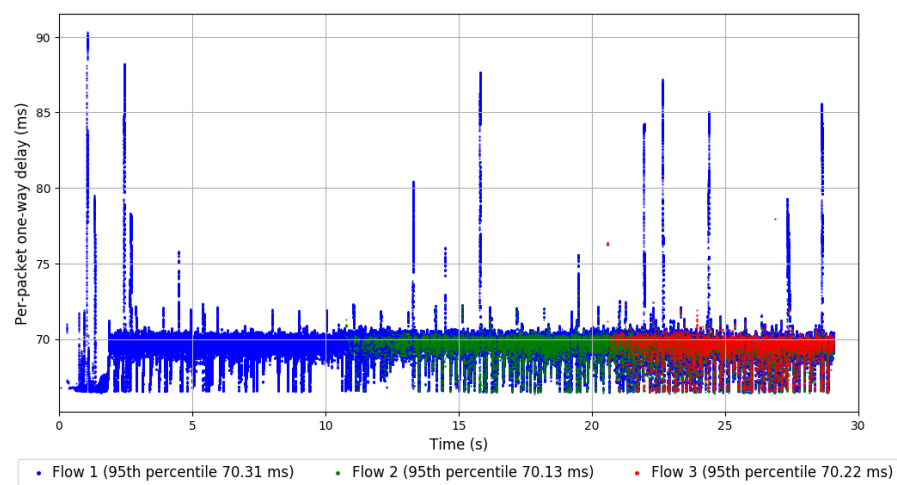
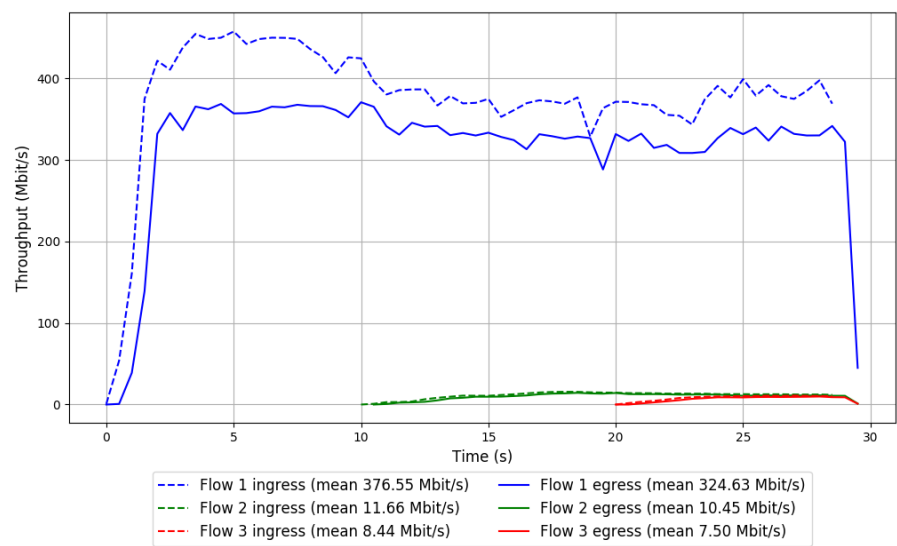


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-05 10:09:05  
End at: 2019-02-05 10:09:35  
Local clock offset: -2.592 ms  
Remote clock offset: -41.461 ms

# Below is generated by plot.py at 2019-02-05 10:52:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 333.55 Mbit/s  
95th percentile per-packet one-way delay: 70.305 ms  
Loss rate: 13.70%  
-- Flow 1:  
Average throughput: 324.63 Mbit/s  
95th percentile per-packet one-way delay: 70.309 ms  
Loss rate: 13.78%  
-- Flow 2:  
Average throughput: 10.45 Mbit/s  
95th percentile per-packet one-way delay: 70.129 ms  
Loss rate: 10.34%  
-- Flow 3:  
Average throughput: 7.50 Mbit/s  
95th percentile per-packet one-way delay: 70.225 ms  
Loss rate: 11.21%

Run 5: Report of Indigo-MusesC3 — Data Link

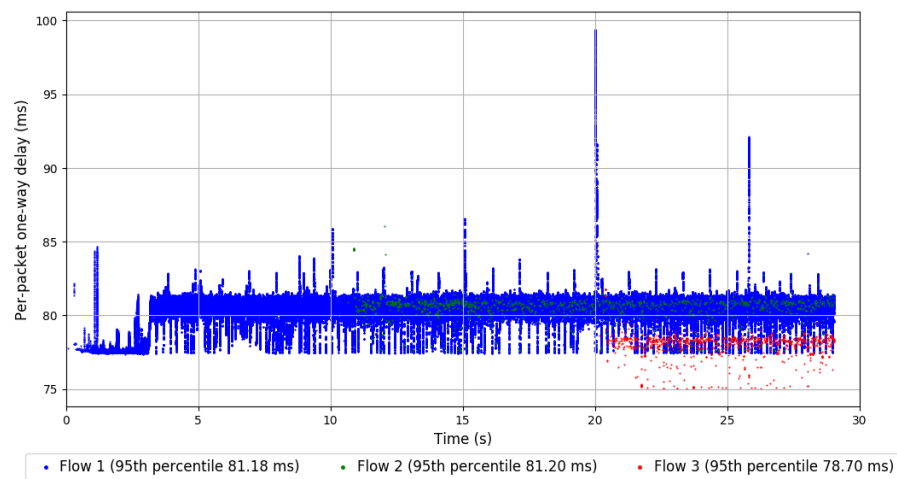
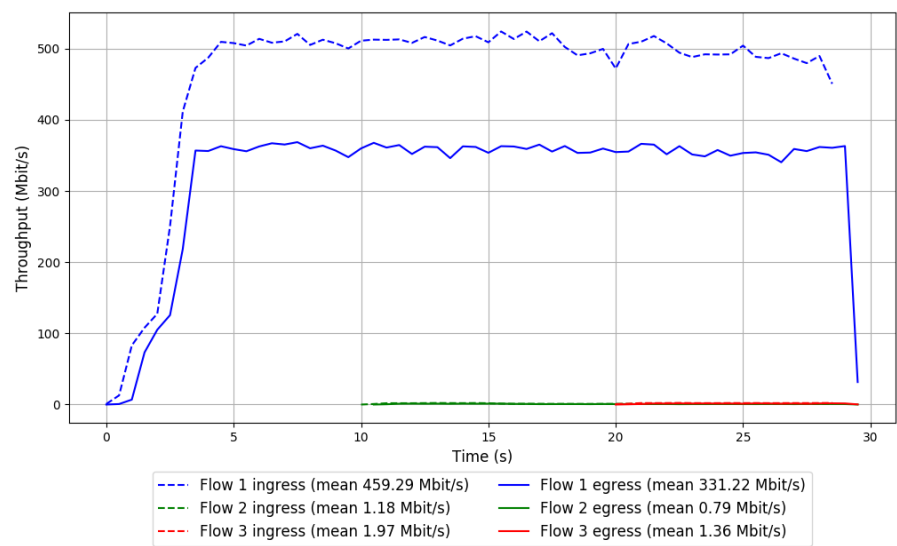


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-05 07:57:15  
End at: 2019-02-05 07:57:45  
Local clock offset: -0.126 ms  
Remote clock offset: -32.176 ms

# Below is generated by plot.py at 2019-02-05 10:53:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 332.14 Mbit/s  
95th percentile per-packet one-way delay: 81.181 ms  
Loss rate: 27.89%  
-- Flow 1:  
Average throughput: 331.22 Mbit/s  
95th percentile per-packet one-way delay: 81.181 ms  
Loss rate: 27.88%  
-- Flow 2:  
Average throughput: 0.79 Mbit/s  
95th percentile per-packet one-way delay: 81.199 ms  
Loss rate: 34.66%  
-- Flow 3:  
Average throughput: 1.36 Mbit/s  
95th percentile per-packet one-way delay: 78.701 ms  
Loss rate: 30.56%

Run 1: Report of Indigo-MusesC5 — Data Link



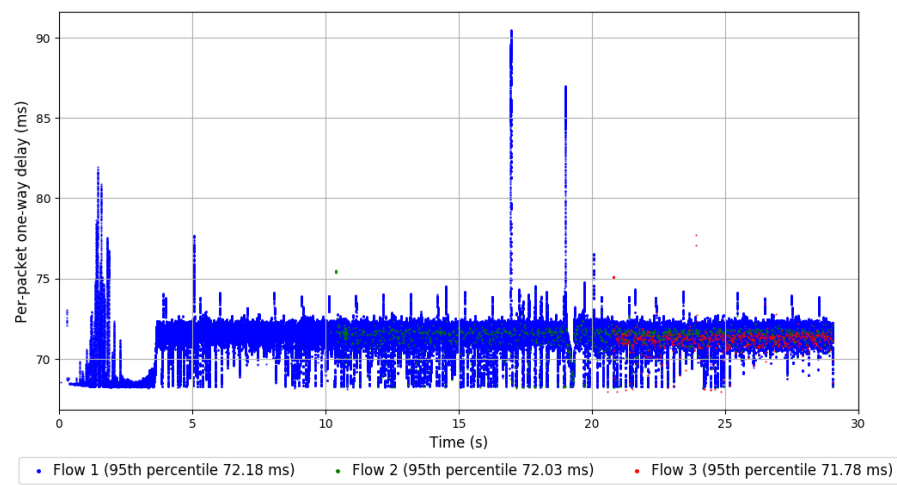
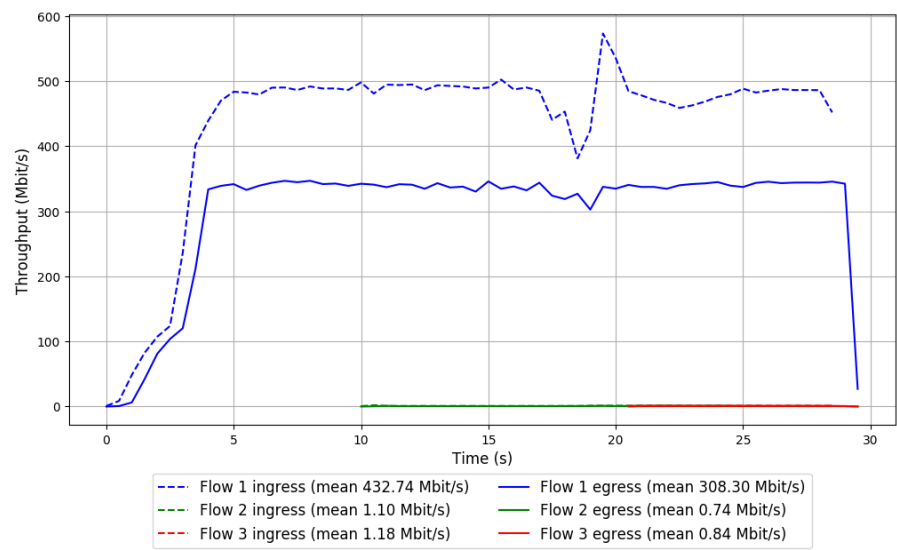


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-05 08:39:29  
End at: 2019-02-05 08:39:59  
Local clock offset: 0.157 ms  
Remote clock offset: -38.776 ms

# Below is generated by plot.py at 2019-02-05 10:53:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 309.02 Mbit/s  
95th percentile per-packet one-way delay: 72.177 ms  
Loss rate: 28.76%  
-- Flow 1:  
Average throughput: 308.30 Mbit/s  
95th percentile per-packet one-way delay: 72.177 ms  
Loss rate: 28.75%  
-- Flow 2:  
Average throughput: 0.74 Mbit/s  
95th percentile per-packet one-way delay: 72.028 ms  
Loss rate: 32.54%  
-- Flow 3:  
Average throughput: 0.84 Mbit/s  
95th percentile per-packet one-way delay: 71.778 ms  
Loss rate: 29.25%

Run 2: Report of Indigo-MusesC5 — Data Link

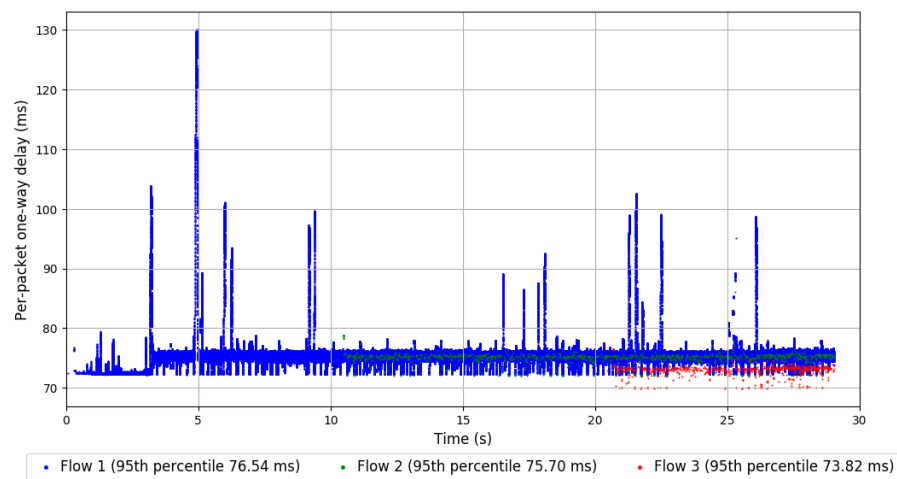
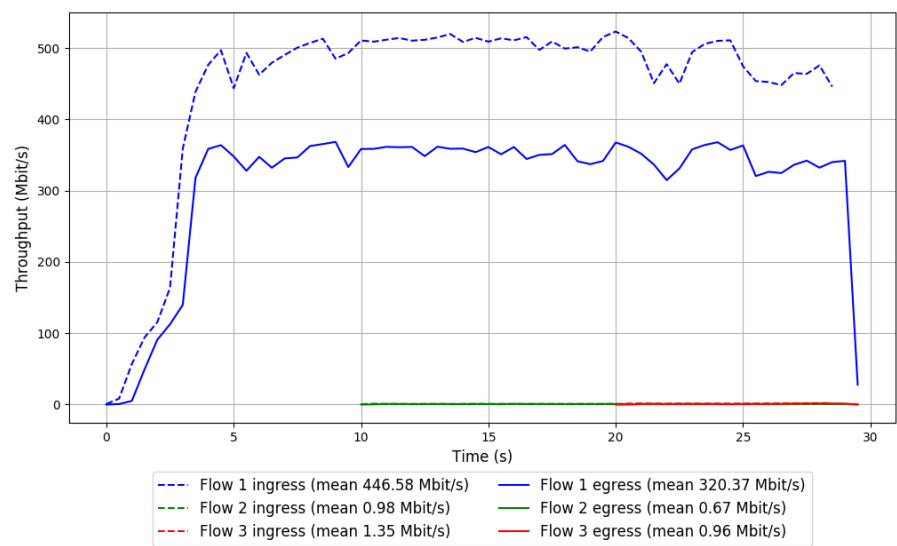


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-05 09:16:20  
End at: 2019-02-05 09:16:50  
Local clock offset: -3.435 ms  
Remote clock offset: -38.821 ms

# Below is generated by plot.py at 2019-02-05 10:54:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 321.09 Mbit/s  
95th percentile per-packet one-way delay: 76.532 ms  
Loss rate: 28.26%  
-- Flow 1:  
Average throughput: 320.37 Mbit/s  
95th percentile per-packet one-way delay: 76.536 ms  
Loss rate: 28.26%  
-- Flow 2:  
Average throughput: 0.67 Mbit/s  
95th percentile per-packet one-way delay: 75.705 ms  
Loss rate: 30.91%  
-- Flow 3:  
Average throughput: 0.96 Mbit/s  
95th percentile per-packet one-way delay: 73.821 ms  
Loss rate: 28.76%

Run 3: Report of Indigo-MusesC5 — Data Link

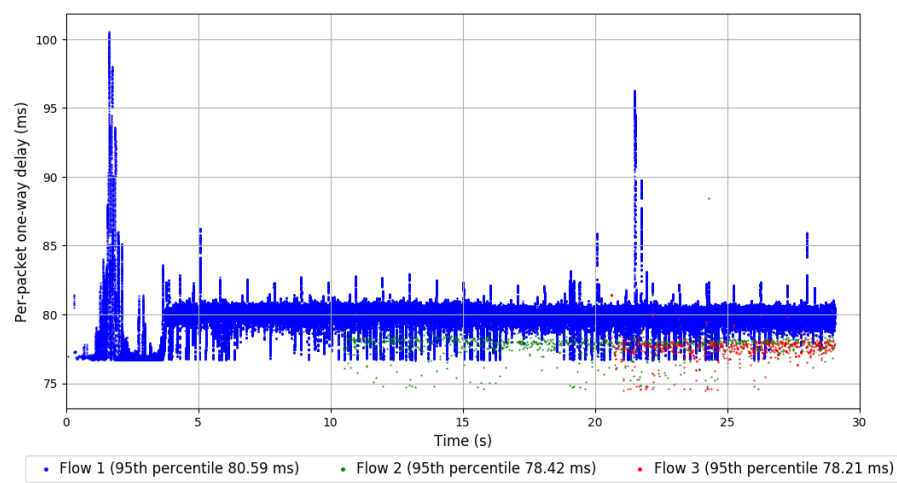
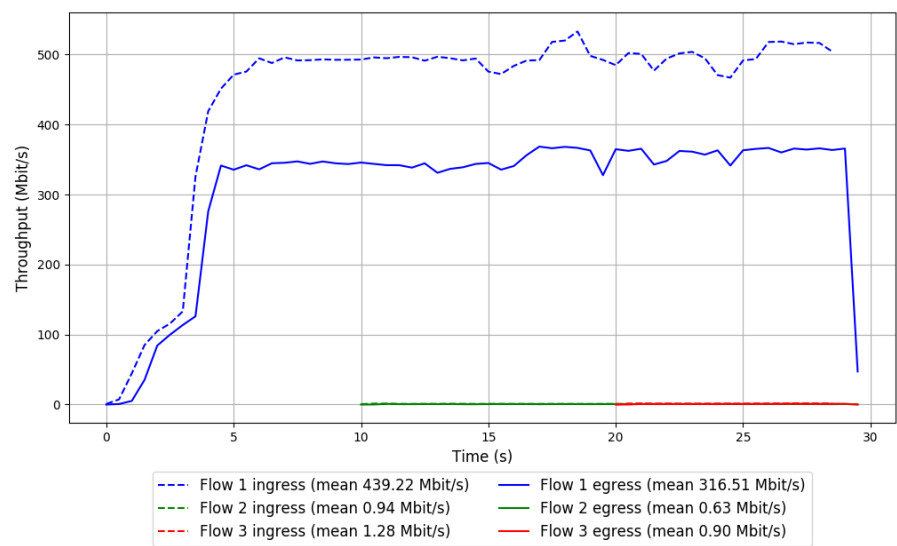


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-05 09:52:46  
End at: 2019-02-05 09:53:16  
Local clock offset: -3.153 ms  
Remote clock offset: -33.509 ms

# Below is generated by plot.py at 2019-02-05 10:55:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 317.19 Mbit/s  
95th percentile per-packet one-way delay: 80.589 ms  
Loss rate: 27.94%  
-- Flow 1:  
Average throughput: 316.51 Mbit/s  
95th percentile per-packet one-way delay: 80.590 ms  
Loss rate: 27.93%  
-- Flow 2:  
Average throughput: 0.63 Mbit/s  
95th percentile per-packet one-way delay: 78.422 ms  
Loss rate: 33.13%  
-- Flow 3:  
Average throughput: 0.90 Mbit/s  
95th percentile per-packet one-way delay: 78.210 ms  
Loss rate: 29.25%

Run 4: Report of Indigo-MusesC5 — Data Link

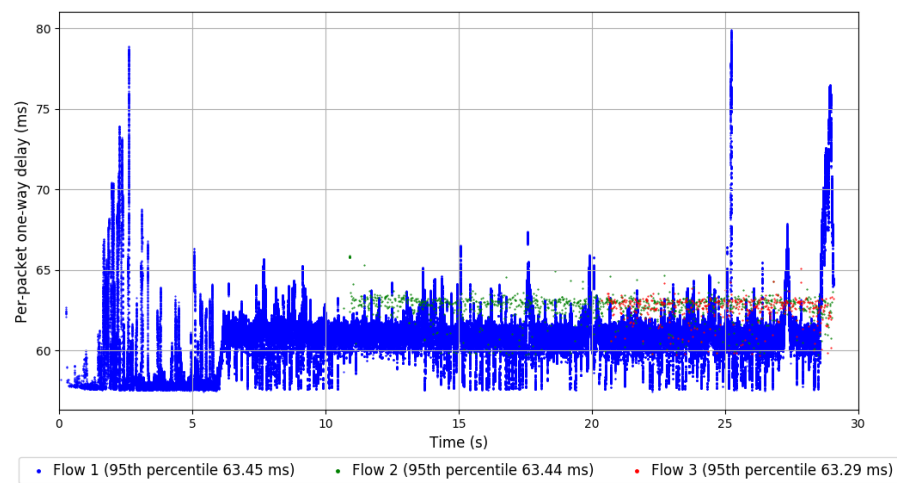
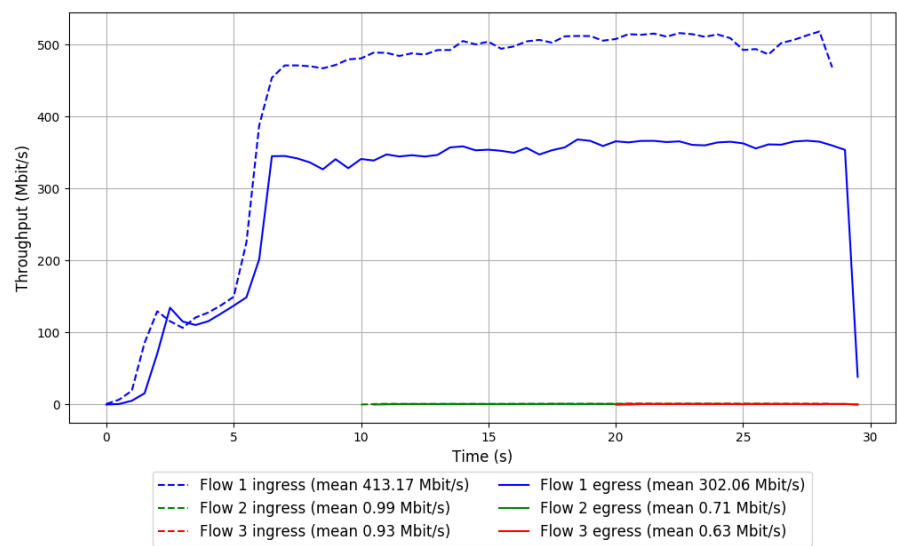


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-05 10:33:59  
End at: 2019-02-05 10:34:29  
Local clock offset: 1.456 ms  
Remote clock offset: -46.936 ms

# Below is generated by plot.py at 2019-02-05 10:55:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 302.70 Mbit/s  
95th percentile per-packet one-way delay: 63.447 ms  
Loss rate: 26.88%  
-- Flow 1:  
Average throughput: 302.06 Mbit/s  
95th percentile per-packet one-way delay: 63.448 ms  
Loss rate: 26.88%  
-- Flow 2:  
Average throughput: 0.71 Mbit/s  
95th percentile per-packet one-way delay: 63.441 ms  
Loss rate: 30.36%  
-- Flow 3:  
Average throughput: 0.63 Mbit/s  
95th percentile per-packet one-way delay: 63.291 ms  
Loss rate: 32.23%

Run 5: Report of Indigo-MusesC5 — Data Link



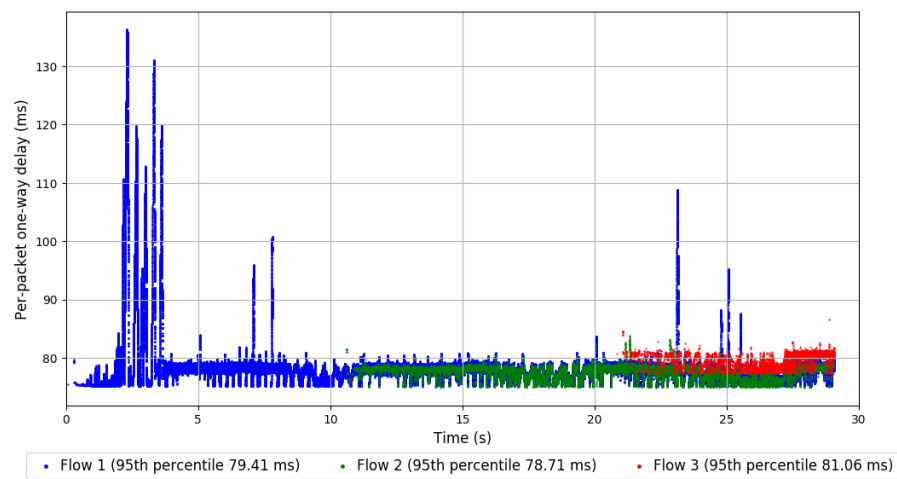
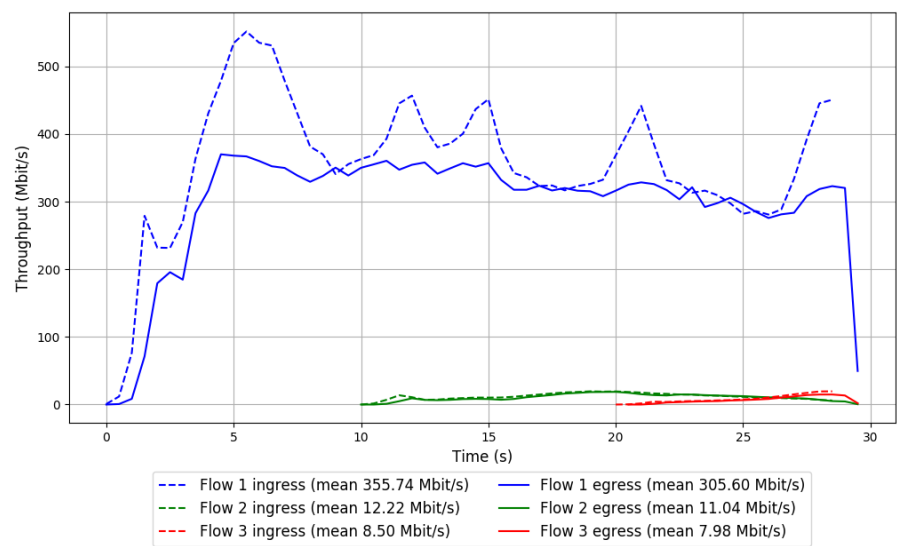


Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-05 07:37:12  
End at: 2019-02-05 07:37:42  
Local clock offset: -1.33 ms  
Remote clock offset: -32.175 ms

# Below is generated by plot.py at 2019-02-05 10:55:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 314.98 Mbit/s  
95th percentile per-packet one-way delay: 79.527 ms  
Loss rate: 13.97%  
-- Flow 1:  
Average throughput: 305.60 Mbit/s  
95th percentile per-packet one-way delay: 79.411 ms  
Loss rate: 14.09%  
-- Flow 2:  
Average throughput: 11.04 Mbit/s  
95th percentile per-packet one-way delay: 78.706 ms  
Loss rate: 9.65%  
-- Flow 3:  
Average throughput: 7.98 Mbit/s  
95th percentile per-packet one-way delay: 81.059 ms  
Loss rate: 11.50%

Run 1: Report of Indigo-MusesD — Data Link

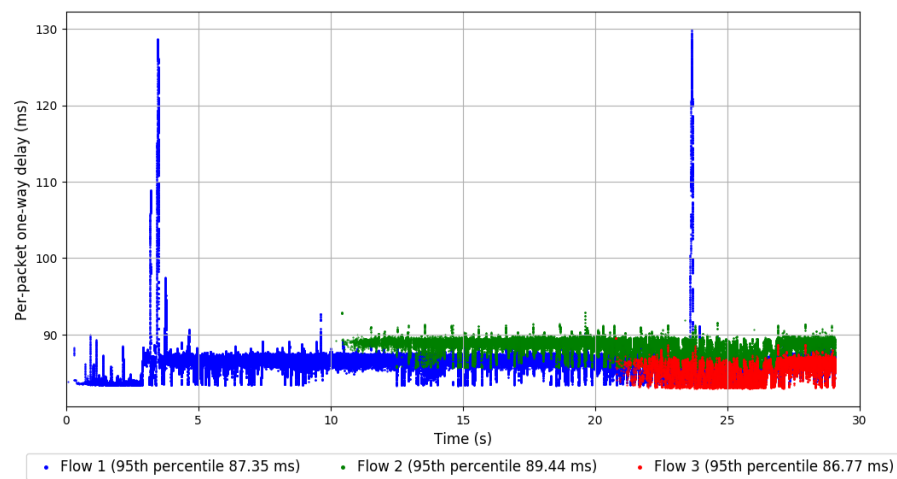
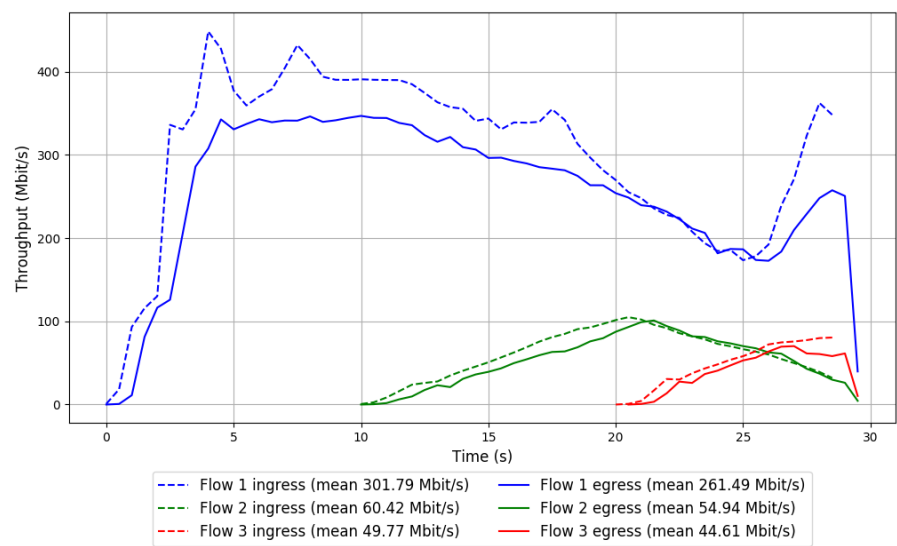


Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-05 08:25:08  
End at: 2019-02-05 08:25:38  
Local clock offset: -0.972 ms  
Remote clock offset: -24.794 ms

# Below is generated by plot.py at 2019-02-05 10:55:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 310.37 Mbit/s  
95th percentile per-packet one-way delay: 88.946 ms  
Loss rate: 12.75%  
-- Flow 1:  
Average throughput: 261.49 Mbit/s  
95th percentile per-packet one-way delay: 87.346 ms  
Loss rate: 13.35%  
-- Flow 2:  
Average throughput: 54.94 Mbit/s  
95th percentile per-packet one-way delay: 89.440 ms  
Loss rate: 9.08%  
-- Flow 3:  
Average throughput: 44.61 Mbit/s  
95th percentile per-packet one-way delay: 86.772 ms  
Loss rate: 10.39%

Run 2: Report of Indigo-MusesD — Data Link

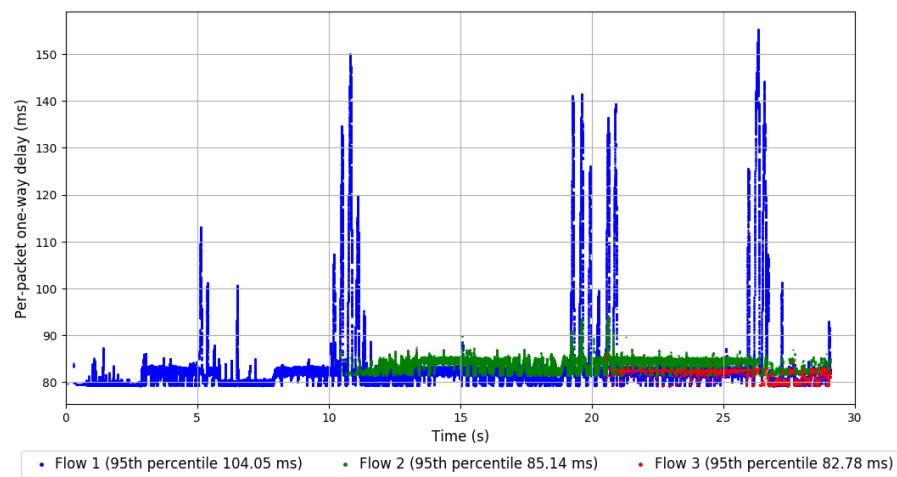
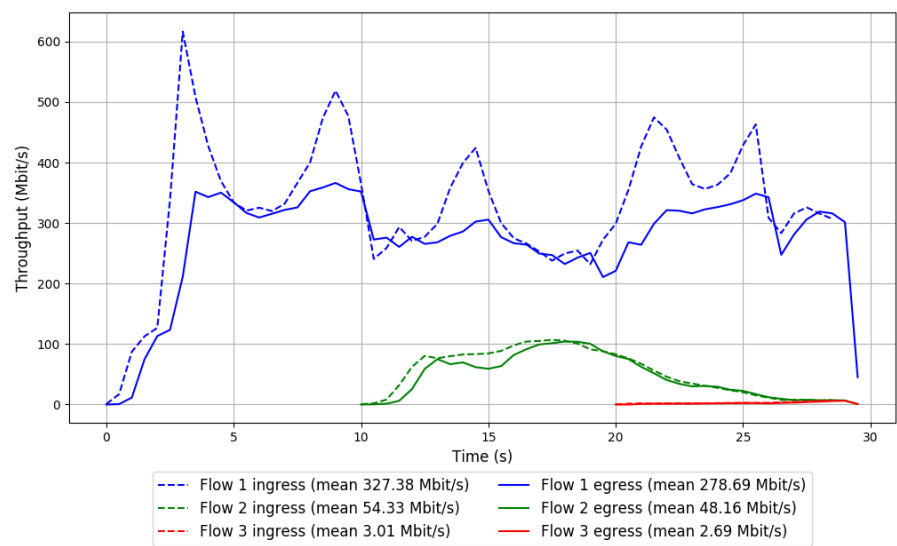


Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-05 09:01:54  
End at: 2019-02-05 09:02:24  
Local clock offset: -2.471 ms  
Remote clock offset: -28.868 ms

# Below is generated by plot.py at 2019-02-05 10:55:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 310.82 Mbit/s  
95th percentile per-packet one-way delay: 100.075 ms  
Loss rate: 14.53%  
-- Flow 1:  
Average throughput: 278.69 Mbit/s  
95th percentile per-packet one-way delay: 104.046 ms  
Loss rate: 14.88%  
-- Flow 2:  
Average throughput: 48.16 Mbit/s  
95th percentile per-packet one-way delay: 85.137 ms  
Loss rate: 11.37%  
-- Flow 3:  
Average throughput: 2.69 Mbit/s  
95th percentile per-packet one-way delay: 82.780 ms  
Loss rate: 10.69%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-05 09:38:27

End at: 2019-02-05 09:38:57

Local clock offset: -3.395 ms

Remote clock offset: -42.3 ms

# Below is generated by plot.py at 2019-02-05 10:56:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 310.64 Mbit/s

95th percentile per-packet one-way delay: 73.348 ms

Loss rate: 12.68%

-- Flow 1:

Average throughput: 292.31 Mbit/s

95th percentile per-packet one-way delay: 74.378 ms

Loss rate: 12.68%

-- Flow 2:

Average throughput: 10.30 Mbit/s

95th percentile per-packet one-way delay: 69.059 ms

Loss rate: 9.33%

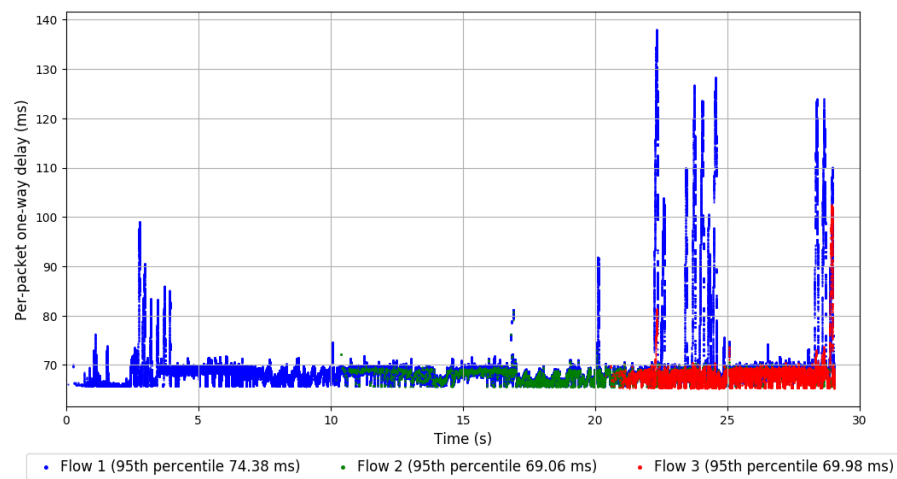
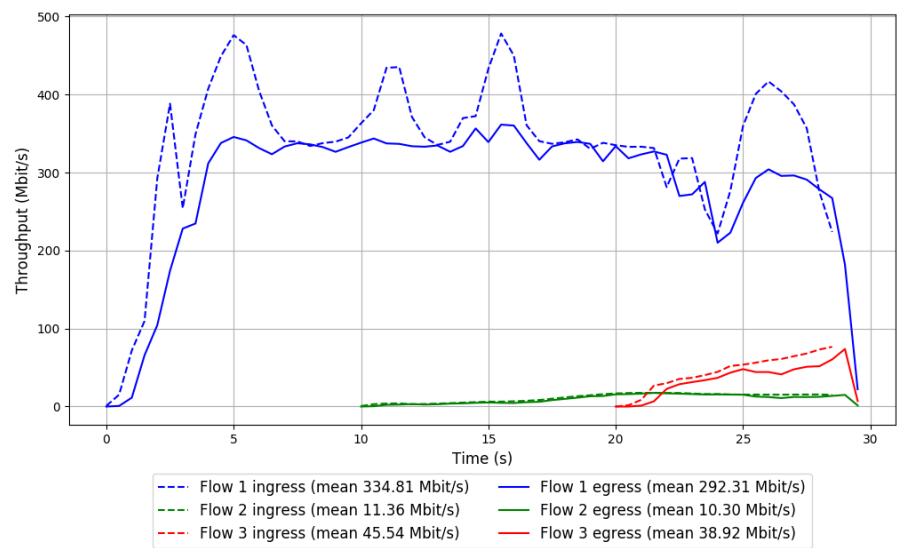
-- Flow 3:

Average throughput: 38.92 Mbit/s

95th percentile per-packet one-way delay: 69.983 ms

Loss rate: 14.52%

Run 4: Report of Indigo-MusesD — Data Link



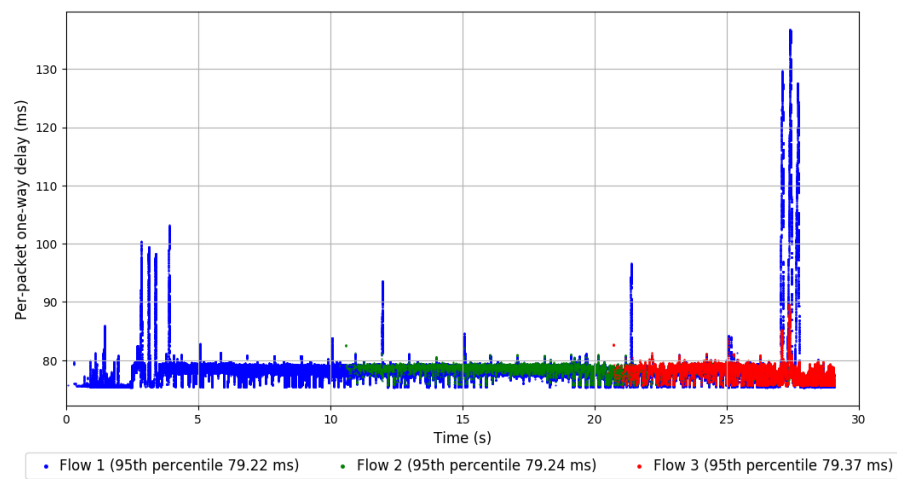
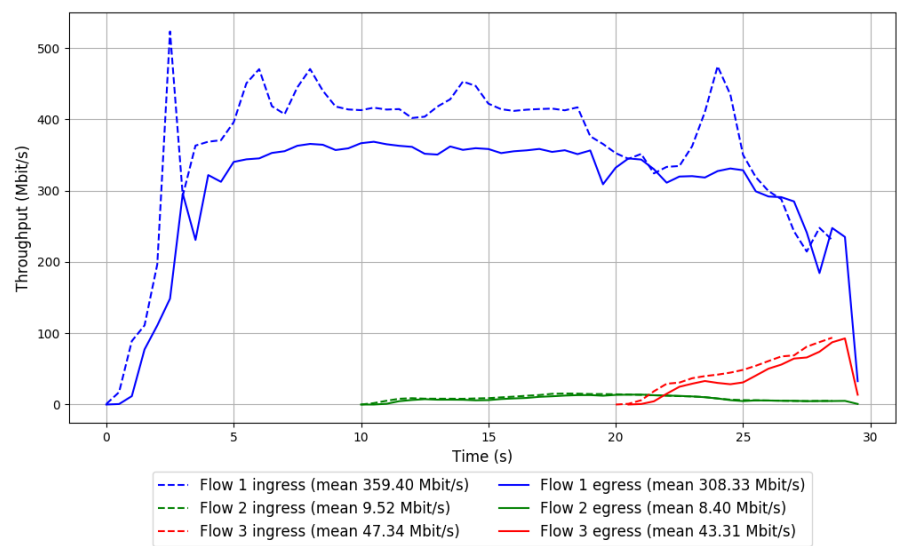


Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-05 10:13:54  
End at: 2019-02-05 10:14:25  
Local clock offset: -3.906 ms  
Remote clock offset: -33.767 ms

# Below is generated by plot.py at 2019-02-05 10:57:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 326.54 Mbit/s  
95th percentile per-packet one-way delay: 79.234 ms  
Loss rate: 13.96%  
-- Flow 1:  
Average throughput: 308.33 Mbit/s  
95th percentile per-packet one-way delay: 79.225 ms  
Loss rate: 14.21%  
-- Flow 2:  
Average throughput: 8.40 Mbit/s  
95th percentile per-packet one-way delay: 79.239 ms  
Loss rate: 11.76%  
-- Flow 3:  
Average throughput: 43.31 Mbit/s  
95th percentile per-packet one-way delay: 79.368 ms  
Loss rate: 8.53%

Run 5: Report of Indigo-MusesD — Data Link

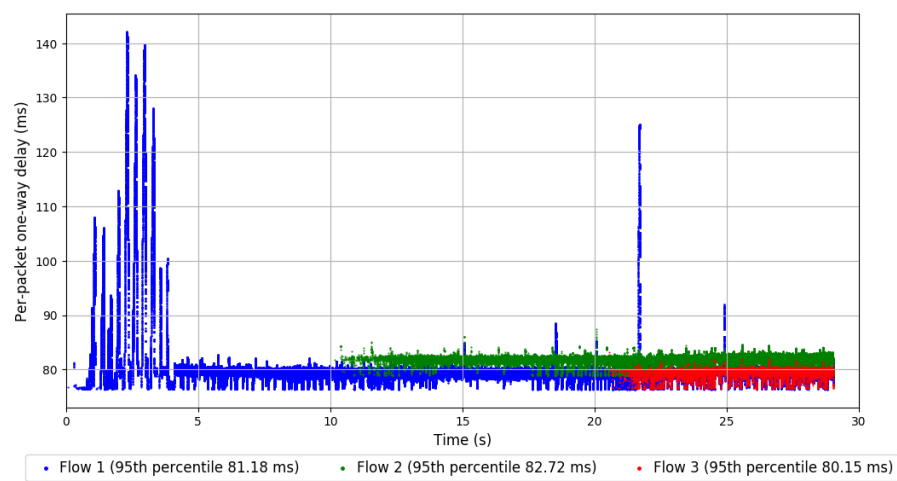
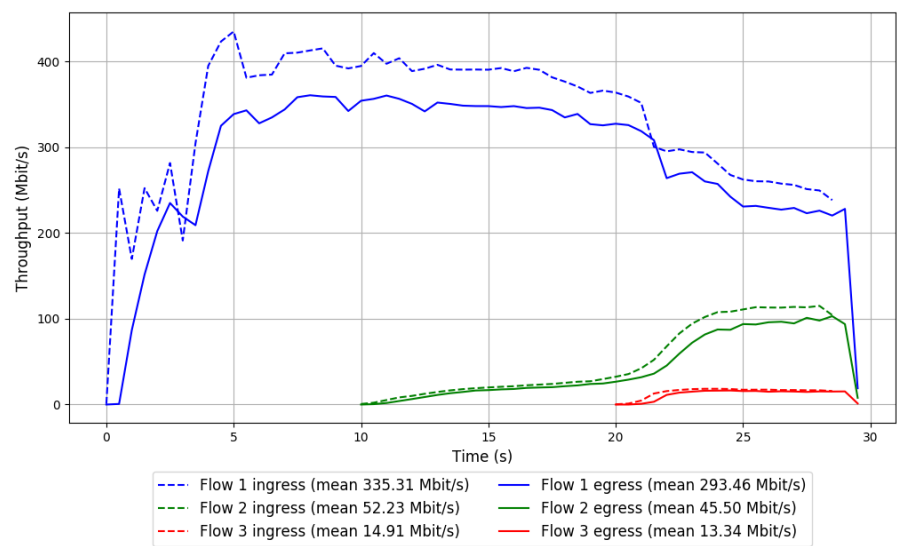


Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-05 07:30:51  
End at: 2019-02-05 07:31:21  
Local clock offset: 0.257 ms  
Remote clock offset: -29.179 ms

# Below is generated by plot.py at 2019-02-05 10:58:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 327.08 Mbit/s  
95th percentile per-packet one-way delay: 82.454 ms  
Loss rate: 12.49%  
-- Flow 1:  
Average throughput: 293.46 Mbit/s  
95th percentile per-packet one-way delay: 81.177 ms  
Loss rate: 12.47%  
-- Flow 2:  
Average throughput: 45.50 Mbit/s  
95th percentile per-packet one-way delay: 82.723 ms  
Loss rate: 12.90%  
-- Flow 3:  
Average throughput: 13.34 Mbit/s  
95th percentile per-packet one-way delay: 80.149 ms  
Loss rate: 10.53%

Run 1: Report of Indigo-MusesT — Data Link

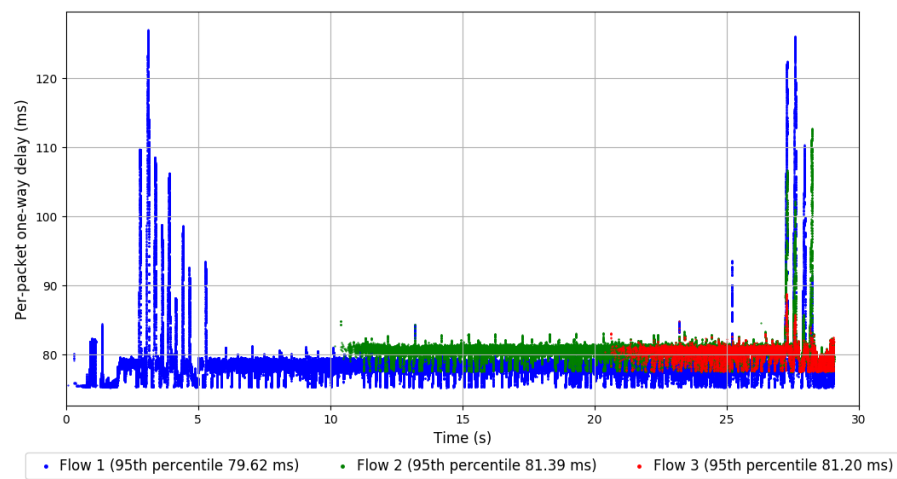
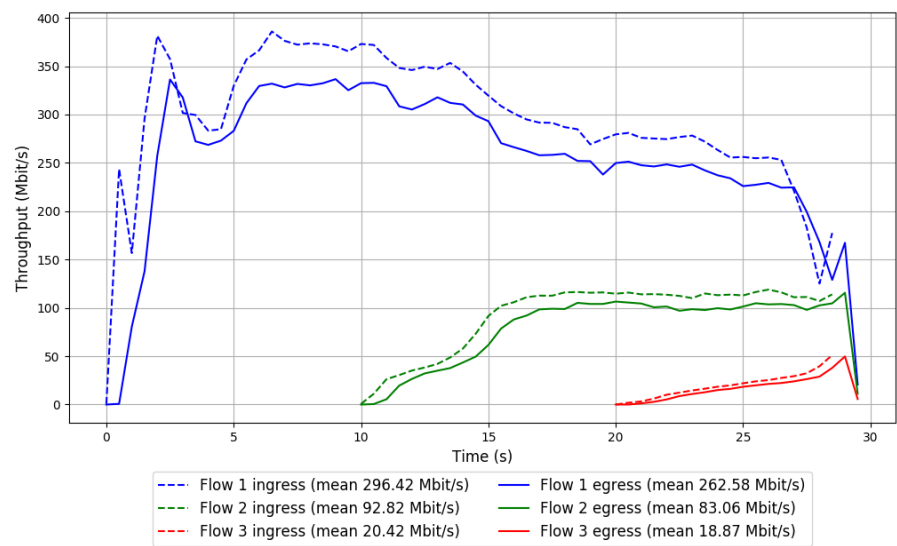


Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-05 08:13:01  
End at: 2019-02-05 08:13:31  
Local clock offset: -1.572 ms  
Remote clock offset: -33.651 ms

# Below is generated by plot.py at 2019-02-05 10:58:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 322.30 Mbit/s  
95th percentile per-packet one-way delay: 81.096 ms  
Loss rate: 11.20%  
-- Flow 1:  
Average throughput: 262.58 Mbit/s  
95th percentile per-packet one-way delay: 79.623 ms  
Loss rate: 11.41%  
-- Flow 2:  
Average throughput: 83.06 Mbit/s  
95th percentile per-packet one-way delay: 81.387 ms  
Loss rate: 10.53%  
-- Flow 3:  
Average throughput: 18.87 Mbit/s  
95th percentile per-packet one-way delay: 81.203 ms  
Loss rate: 7.60%

Run 2: Report of Indigo-MusesT — Data Link

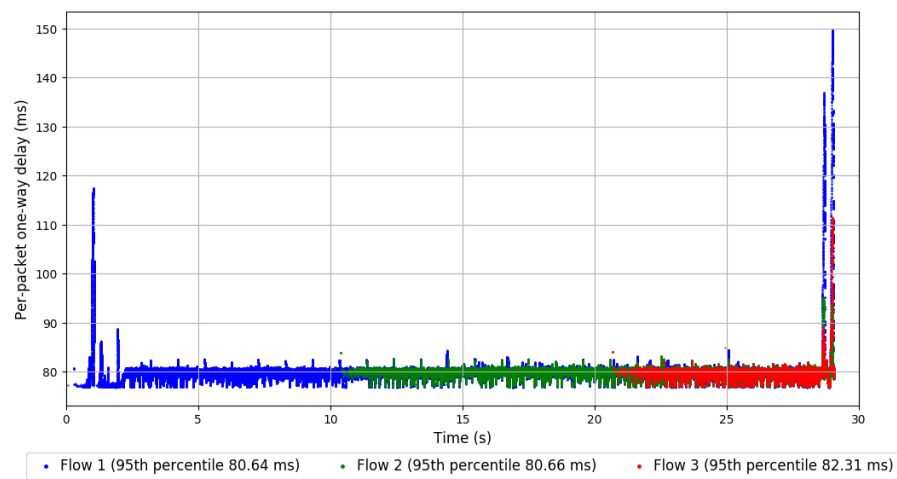
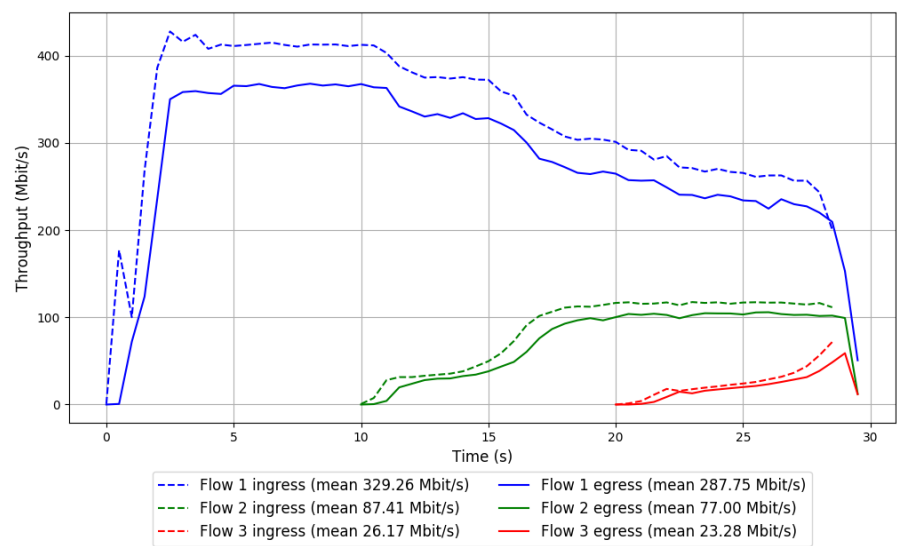


Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-05 08:49:31  
End at: 2019-02-05 08:50:01  
Local clock offset: -1.818 ms  
Remote clock offset: -31.375 ms

# Below is generated by plot.py at 2019-02-05 10:59:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 344.80 Mbit/s  
95th percentile per-packet one-way delay: 80.651 ms  
Loss rate: 12.47%  
-- Flow 1:  
Average throughput: 287.75 Mbit/s  
95th percentile per-packet one-way delay: 80.642 ms  
Loss rate: 12.60%  
-- Flow 2:  
Average throughput: 77.00 Mbit/s  
95th percentile per-packet one-way delay: 80.656 ms  
Loss rate: 11.92%  
-- Flow 3:  
Average throughput: 23.28 Mbit/s  
95th percentile per-packet one-way delay: 82.313 ms  
Loss rate: 11.03%

Run 3: Report of Indigo-MusesT — Data Link



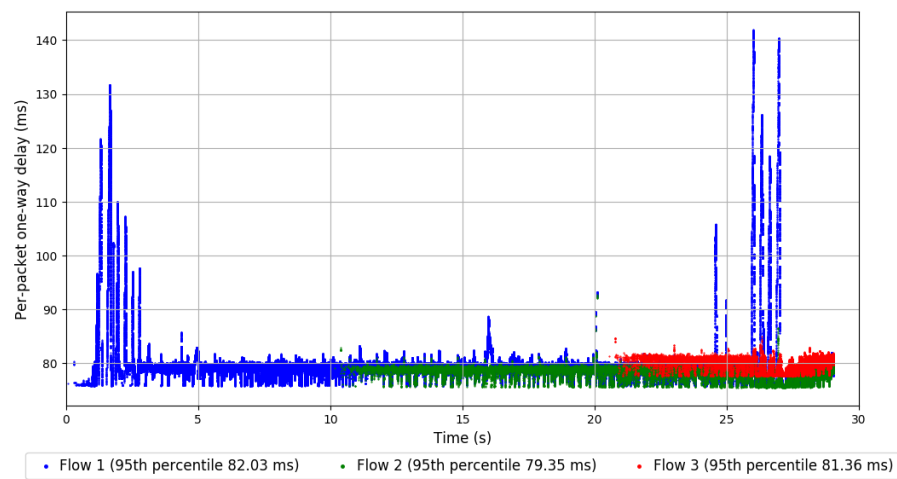
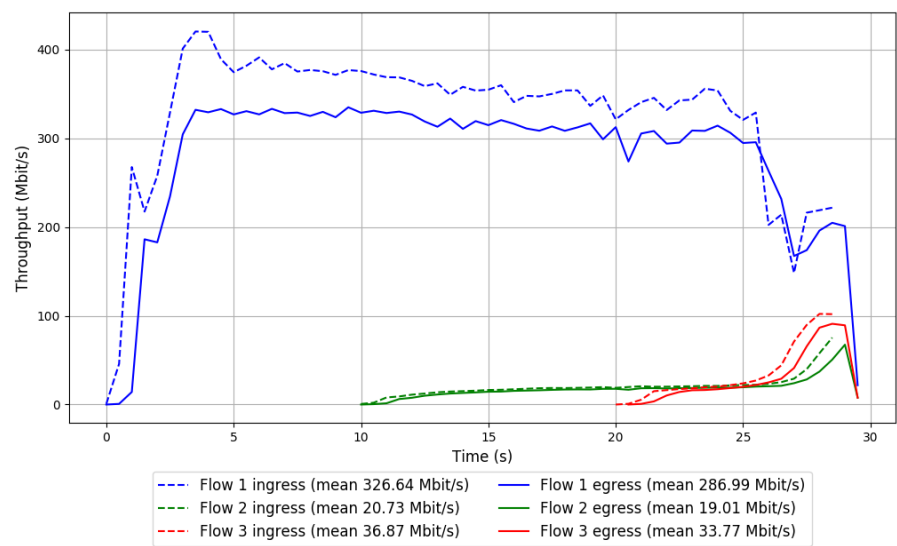


Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-05 09:26:24  
End at: 2019-02-05 09:26:54  
Local clock offset: -3.427 ms  
Remote clock offset: -32.735 ms

# Below is generated by plot.py at 2019-02-05 10:59:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 309.28 Mbit/s  
95th percentile per-packet one-way delay: 81.768 ms  
Loss rate: 11.87%  
-- Flow 1:  
Average throughput: 286.99 Mbit/s  
95th percentile per-packet one-way delay: 82.034 ms  
Loss rate: 12.13%  
-- Flow 2:  
Average throughput: 19.01 Mbit/s  
95th percentile per-packet one-way delay: 79.346 ms  
Loss rate: 8.30%  
-- Flow 3:  
Average throughput: 33.77 Mbit/s  
95th percentile per-packet one-way delay: 81.360 ms  
Loss rate: 8.45%

Run 4: Report of Indigo-MusesT — Data Link

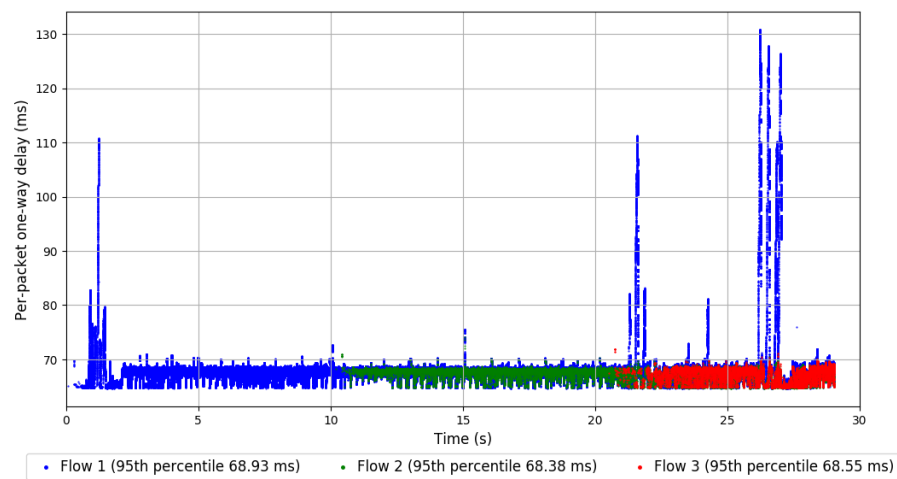
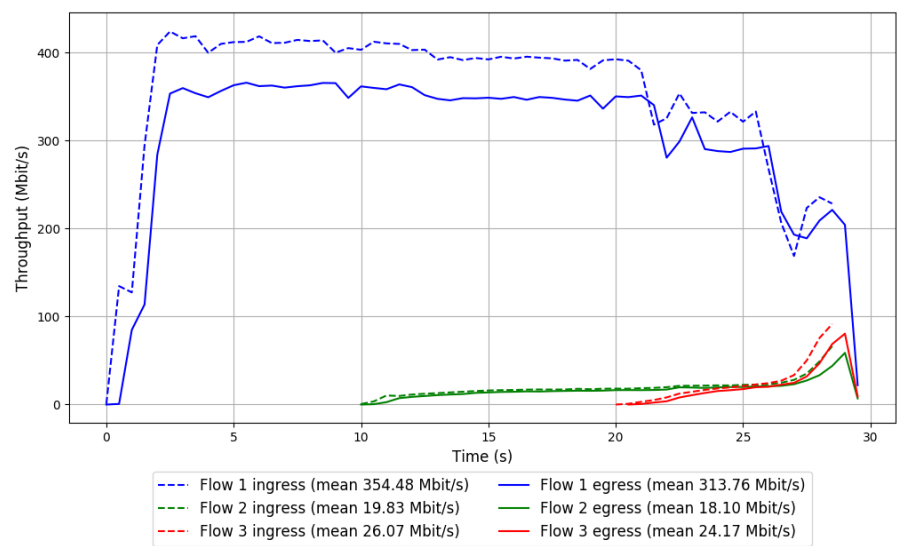


Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-05 10:02:49  
End at: 2019-02-05 10:03:19  
Local clock offset: -1.964 ms  
Remote clock offset: -42.38 ms

# Below is generated by plot.py at 2019-02-05 10:59:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 332.64 Mbit/s  
95th percentile per-packet one-way delay: 68.878 ms  
Loss rate: 11.30%  
-- Flow 1:  
Average throughput: 313.76 Mbit/s  
95th percentile per-packet one-way delay: 68.932 ms  
Loss rate: 11.48%  
-- Flow 2:  
Average throughput: 18.10 Mbit/s  
95th percentile per-packet one-way delay: 68.377 ms  
Loss rate: 8.72%  
-- Flow 3:  
Average throughput: 24.17 Mbit/s  
95th percentile per-packet one-way delay: 68.552 ms  
Loss rate: 7.28%

Run 5: Report of Indigo-MusesT — Data Link

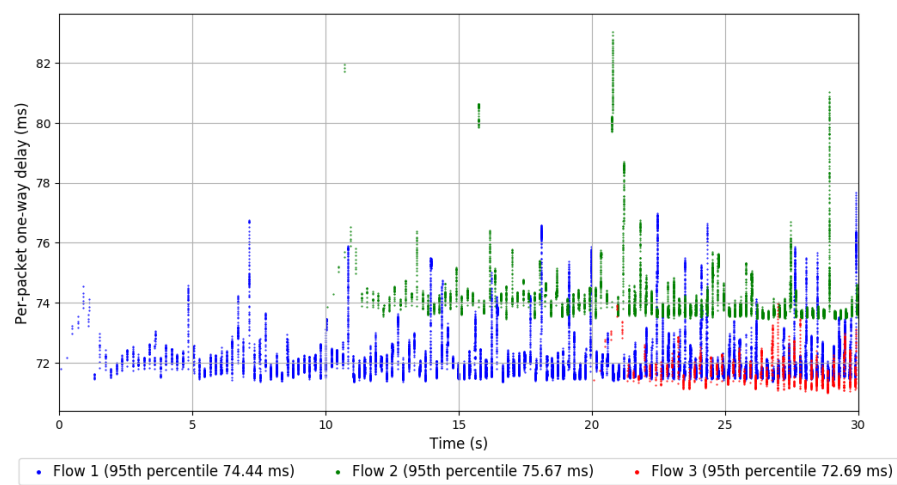
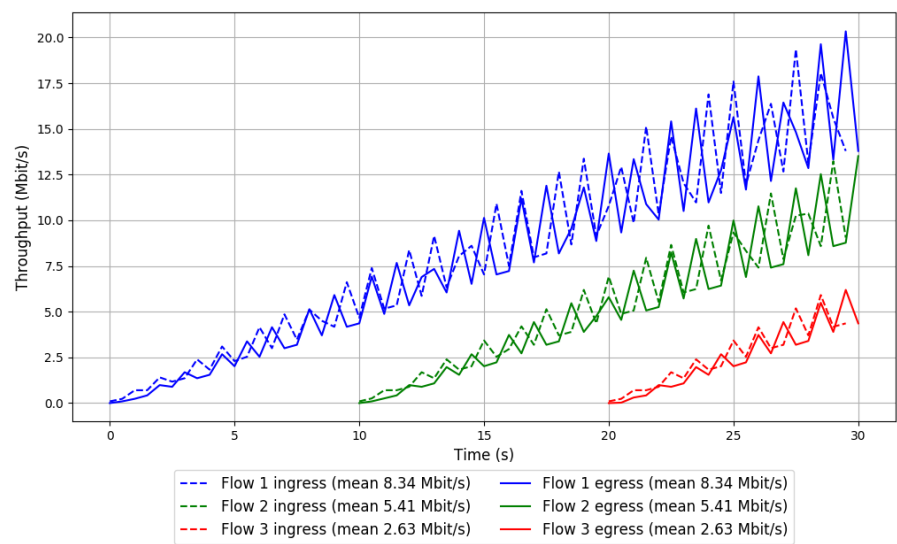


```
Run 1: Statistics of LEDBAT

Start at: 2019-02-05 07:41:35
End at: 2019-02-05 07:42:05
Local clock offset: 0.865 ms
Remote clock offset: -33.956 ms

# Below is generated by plot.py at 2019-02-05 10:59:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.79 Mbit/s
95th percentile per-packet one-way delay: 74.946 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 74.442 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.41 Mbit/s
95th percentile per-packet one-way delay: 75.667 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 72.691 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

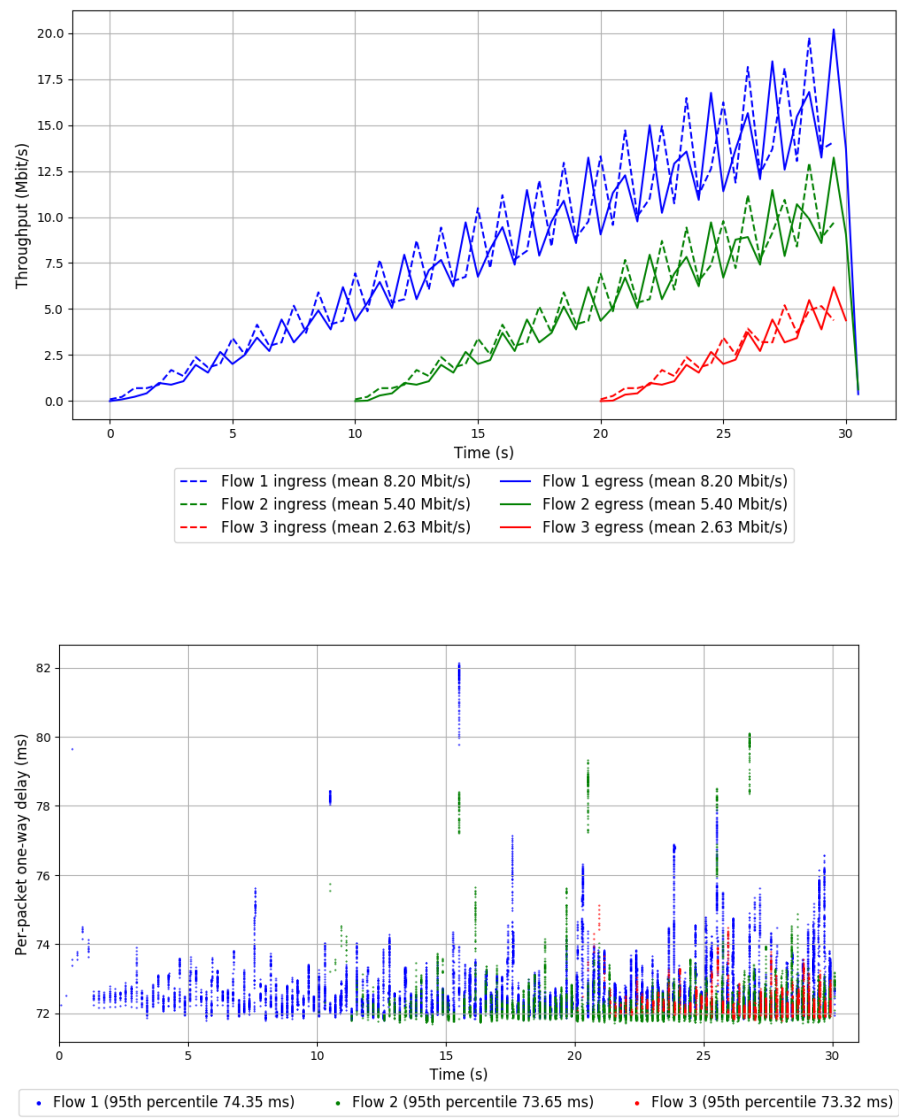


Run 2: Statistics of LEDBAT

Start at: 2019-02-05 08:29:28  
End at: 2019-02-05 08:29:58  
Local clock offset: 0.445 ms  
Remote clock offset: -34.756 ms

# Below is generated by plot.py at 2019-02-05 10:59:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.65 Mbit/s  
95th percentile per-packet one-way delay: 74.121 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 8.20 Mbit/s  
95th percentile per-packet one-way delay: 74.354 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 5.40 Mbit/s  
95th percentile per-packet one-way delay: 73.651 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 2.63 Mbit/s  
95th percentile per-packet one-way delay: 73.320 ms  
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link



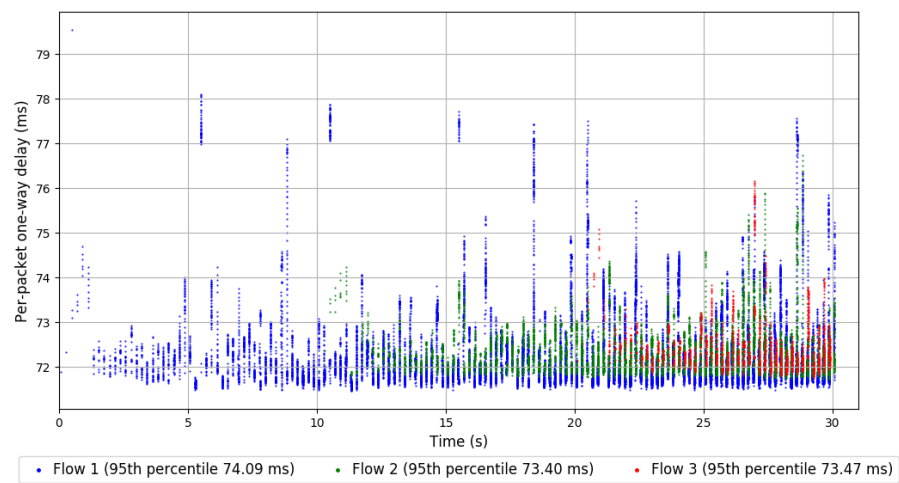
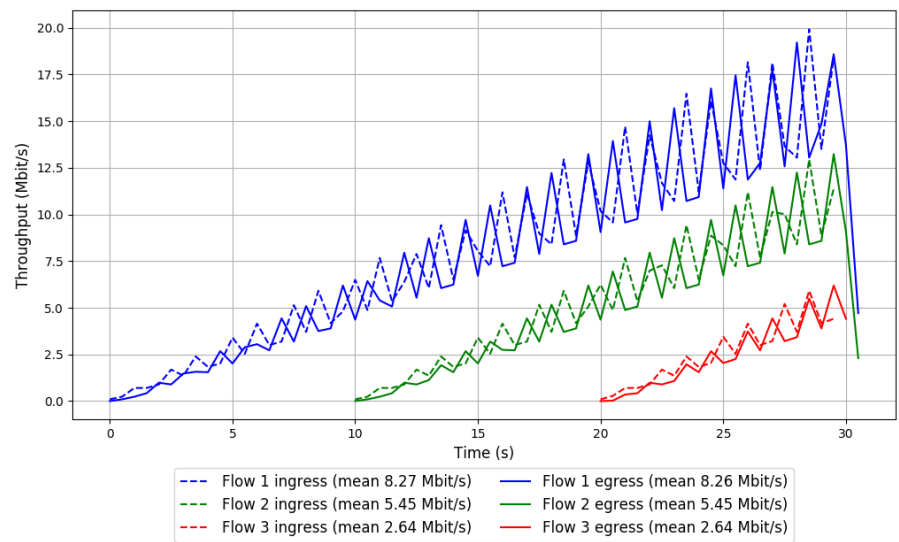


Run 3: Statistics of LEDBAT

Start at: 2019-02-05 09:06:16  
End at: 2019-02-05 09:06:46  
Local clock offset: -0.45 ms  
Remote clock offset: -34.204 ms

# Below is generated by plot.py at 2019-02-05 10:59:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.76 Mbit/s  
95th percentile per-packet one-way delay: 73.890 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 8.26 Mbit/s  
95th percentile per-packet one-way delay: 74.095 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 5.45 Mbit/s  
95th percentile per-packet one-way delay: 73.400 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 2.64 Mbit/s  
95th percentile per-packet one-way delay: 73.475 ms  
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

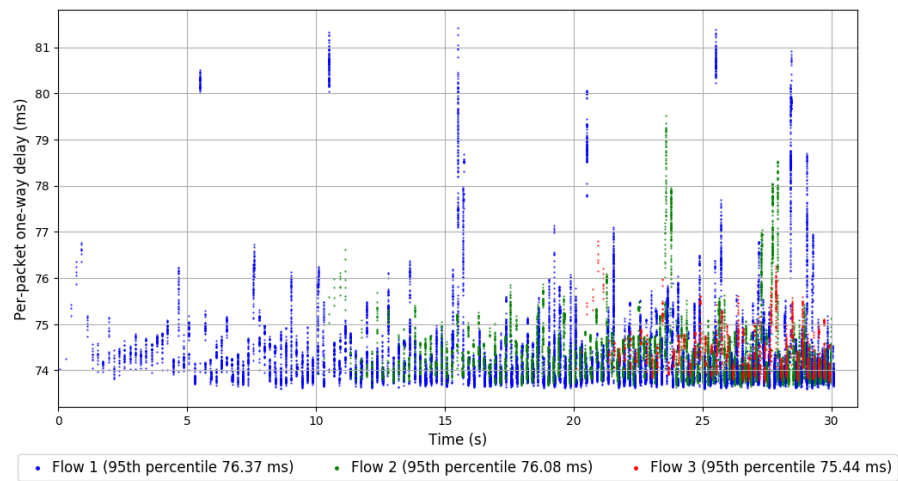
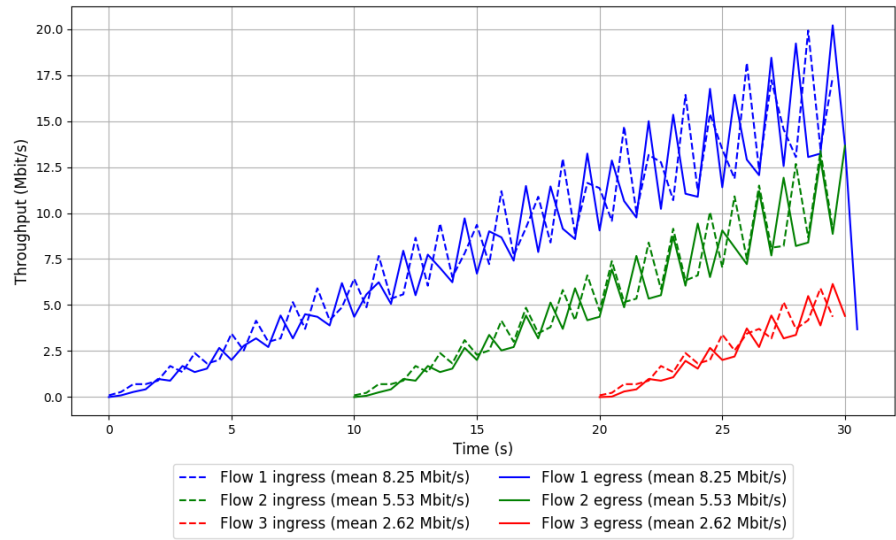


Run 4: Statistics of LEDBAT

Start at: 2019-02-05 09:42:47  
End at: 2019-02-05 09:43:17  
Local clock offset: -1.493 ms  
Remote clock offset: -32.119 ms

# Below is generated by plot.py at 2019-02-05 10:59:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.77 Mbit/s  
95th percentile per-packet one-way delay: 76.159 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 8.25 Mbit/s  
95th percentile per-packet one-way delay: 76.367 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 5.53 Mbit/s  
95th percentile per-packet one-way delay: 76.084 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 2.62 Mbit/s  
95th percentile per-packet one-way delay: 75.443 ms  
Loss rate: 0.00%

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

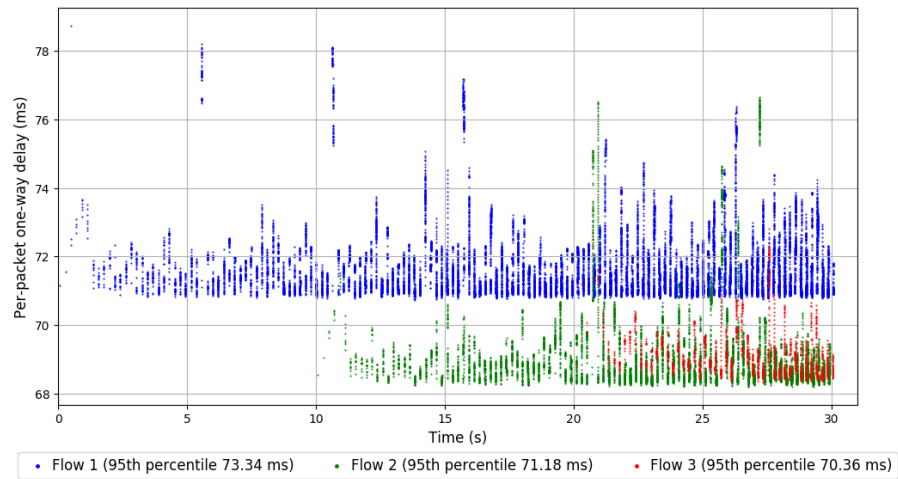
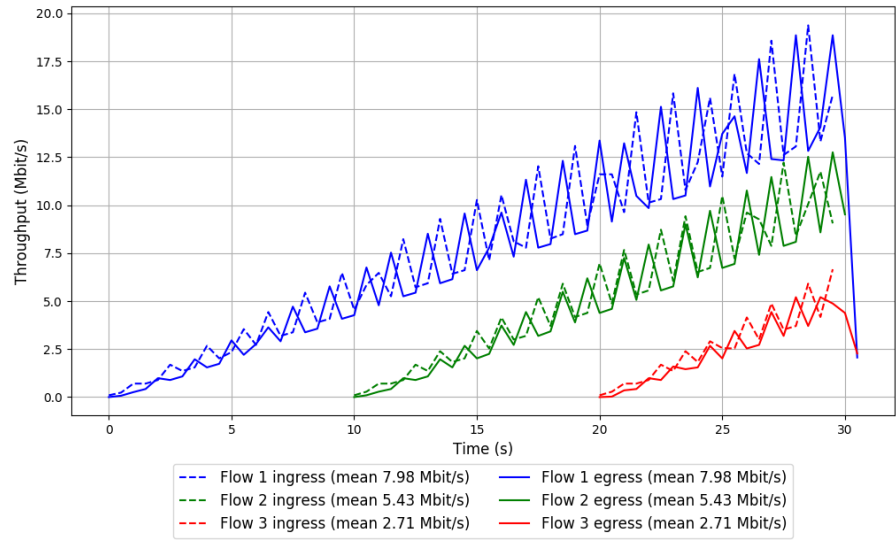


Run 5: Statistics of LEDBAT

Start at: 2019-02-05 10:18:16  
End at: 2019-02-05 10:18:46  
Local clock offset: -1.683 ms  
Remote clock offset: -38.706 ms

# Below is generated by plot.py at 2019-02-05 10:59:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.47 Mbit/s  
95th percentile per-packet one-way delay: 73.062 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 7.98 Mbit/s  
95th percentile per-packet one-way delay: 73.337 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 5.43 Mbit/s  
95th percentile per-packet one-way delay: 71.178 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 2.71 Mbit/s  
95th percentile per-packet one-way delay: 70.360 ms  
Loss rate: 0.00%

## Run 5: Report of LEDBAT — Data Link

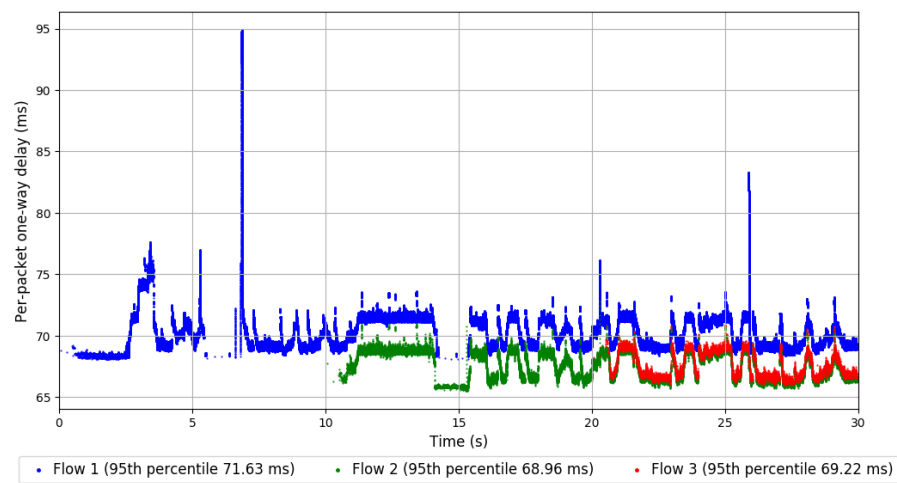
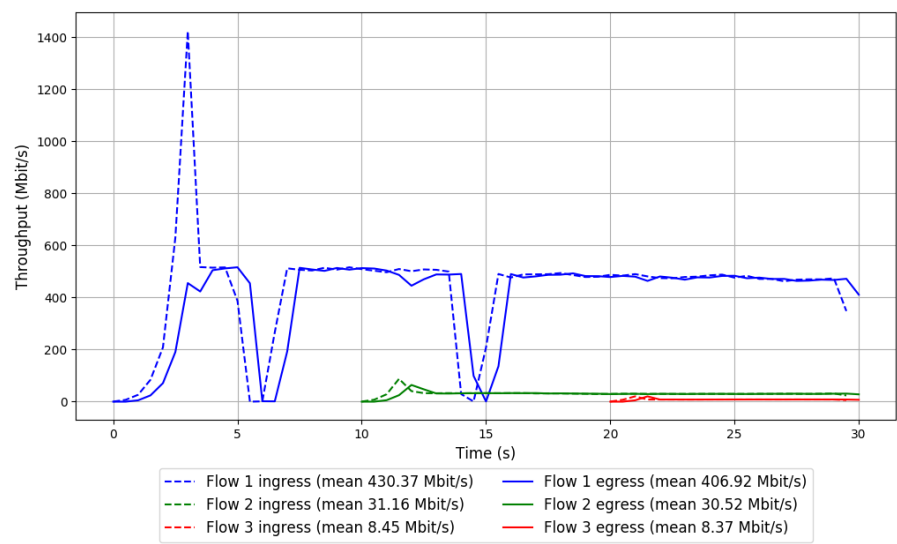


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-02-05 07:51:41
End at: 2019-02-05 07:52:11
Local clock offset: 0.761 ms
Remote clock offset: -40.051 ms

# Below is generated by plot.py at 2019-02-05 11:01:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.98 Mbit/s
95th percentile per-packet one-way delay: 71.607 ms
Loss rate: 5.27%
-- Flow 1:
Average throughput: 406.92 Mbit/s
95th percentile per-packet one-way delay: 71.630 ms
Loss rate: 5.45%
-- Flow 2:
Average throughput: 30.52 Mbit/s
95th percentile per-packet one-way delay: 68.962 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 69.221 ms
Loss rate: 0.94%
```

Run 1: Report of PCC-Allegro — Data Link





Run 2: Statistics of PCC-Allegro

Start at: 2019-02-05 08:33:53

End at: 2019-02-05 08:34:23

Local clock offset: 0.141 ms

Remote clock offset: -33.011 ms

# Below is generated by plot.py at 2019-02-05 11:02:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 447.84 Mbit/s

95th percentile per-packet one-way delay: 77.139 ms

Loss rate: 5.23%

-- Flow 1:

Average throughput: 415.47 Mbit/s

95th percentile per-packet one-way delay: 77.149 ms

Loss rate: 5.41%

-- Flow 2:

Average throughput: 33.09 Mbit/s

95th percentile per-packet one-way delay: 77.051 ms

Loss rate: 2.41%

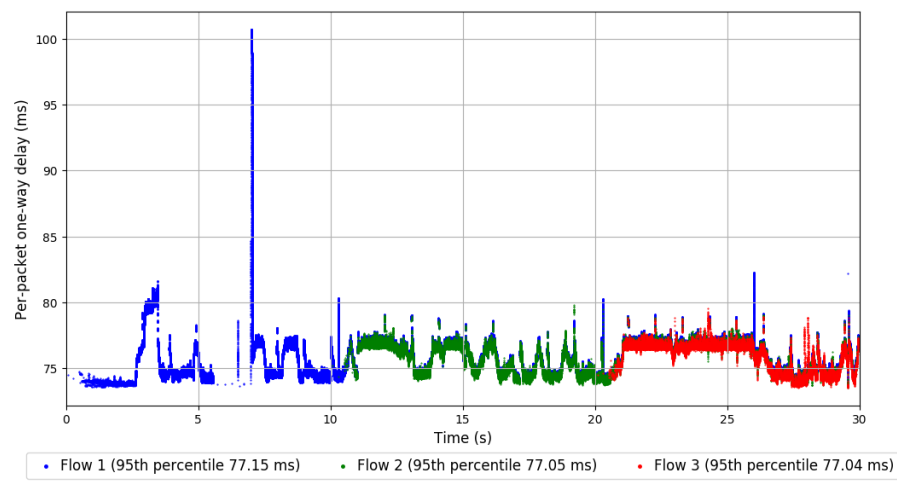
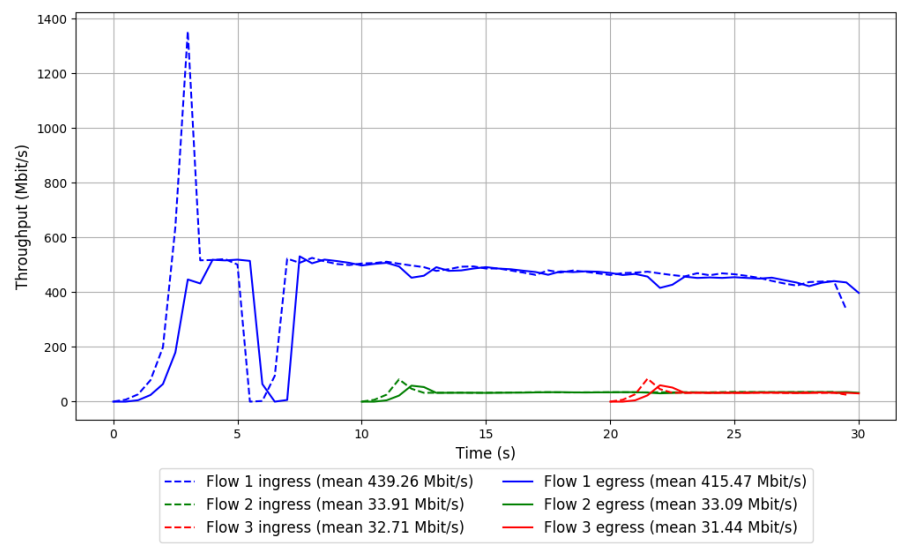
-- Flow 3:

Average throughput: 31.44 Mbit/s

95th percentile per-packet one-way delay: 77.037 ms

Loss rate: 3.86%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-02-05 09:10:42

End at: 2019-02-05 09:11:12

Local clock offset: -3.865 ms

Remote clock offset: -26.725 ms

# Below is generated by plot.py at 2019-02-05 11:03:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 461.40 Mbit/s

95th percentile per-packet one-way delay: 86.045 ms

Loss rate: 5.87%

-- Flow 1:

Average throughput: 430.51 Mbit/s

95th percentile per-packet one-way delay: 86.017 ms

Loss rate: 6.01%

-- Flow 2:

Average throughput: 31.17 Mbit/s

95th percentile per-packet one-way delay: 85.887 ms

Loss rate: 3.07%

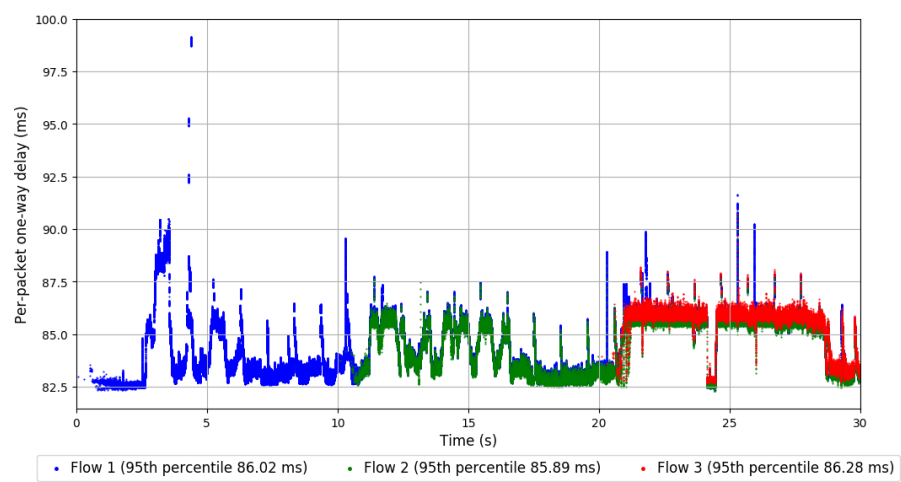
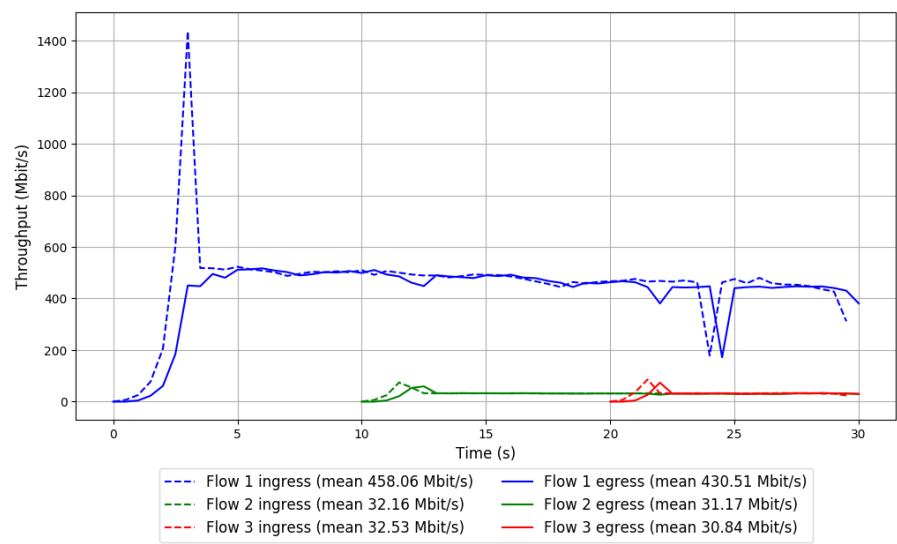
-- Flow 3:

Average throughput: 30.84 Mbit/s

95th percentile per-packet one-way delay: 86.277 ms

Loss rate: 5.22%

Run 3: Report of PCC-Allegro — Data Link

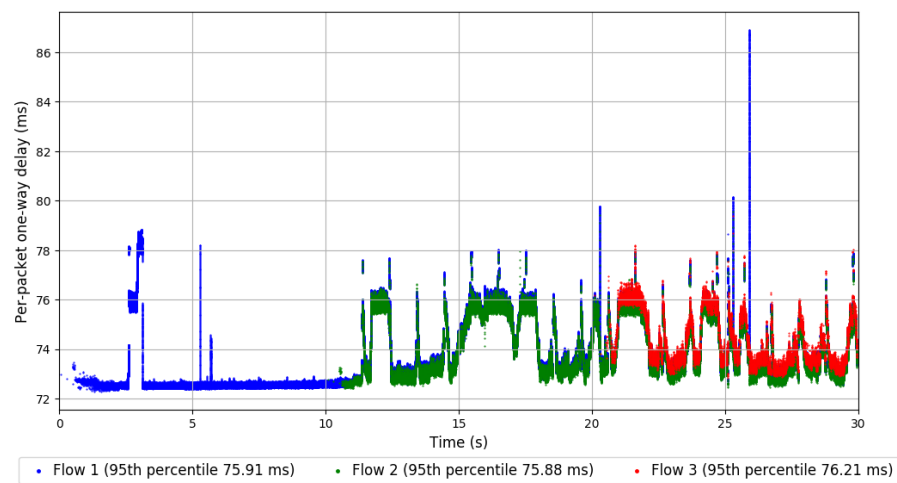
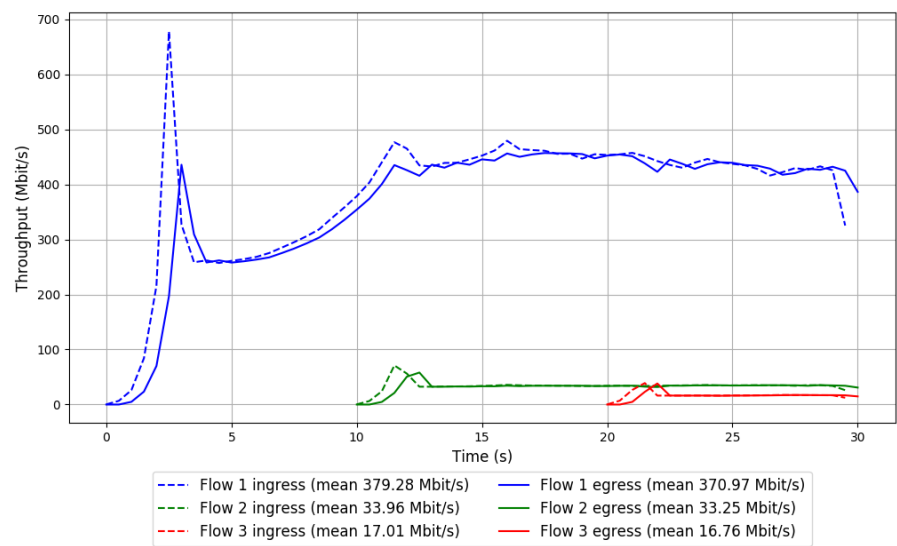


Run 4: Statistics of PCC-Allegro

Start at: 2019-02-05 09:47:12  
End at: 2019-02-05 09:47:42  
Local clock offset: -1.375 ms  
Remote clock offset: -33.286 ms

# Below is generated by plot.py at 2019-02-05 11:03:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 398.61 Mbit/s  
95th percentile per-packet one-way delay: 75.919 ms  
Loss rate: 2.17%  
-- Flow 1:  
Average throughput: 370.97 Mbit/s  
95th percentile per-packet one-way delay: 75.914 ms  
Loss rate: 2.19%  
-- Flow 2:  
Average throughput: 33.25 Mbit/s  
95th percentile per-packet one-way delay: 75.882 ms  
Loss rate: 2.08%  
-- Flow 3:  
Average throughput: 16.76 Mbit/s  
95th percentile per-packet one-way delay: 76.210 ms  
Loss rate: 1.49%

Run 4: Report of PCC-Allegro — Data Link

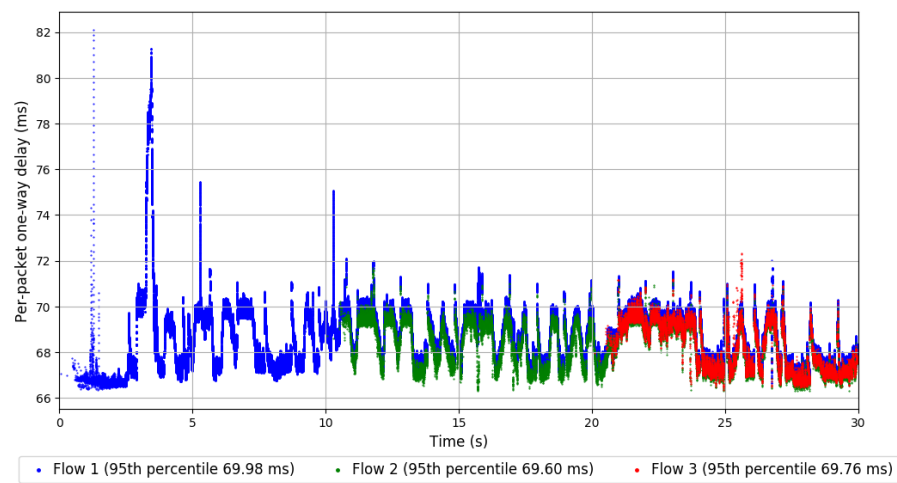
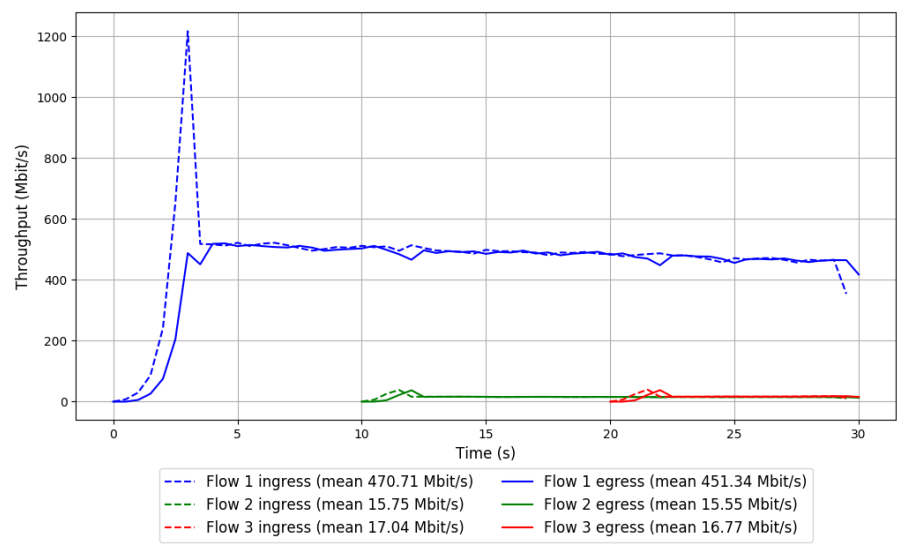


Run 5: Statistics of PCC-Allegro

Start at: 2019-02-05 10:22:42  
End at: 2019-02-05 10:23:12  
Local clock offset: -0.277 ms  
Remote clock offset: -39.462 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 467.21 Mbit/s  
95th percentile per-packet one-way delay: 69.975 ms  
Loss rate: 4.02%  
-- Flow 1:  
Average throughput: 451.34 Mbit/s  
95th percentile per-packet one-way delay: 69.982 ms  
Loss rate: 4.11%  
-- Flow 2:  
Average throughput: 15.55 Mbit/s  
95th percentile per-packet one-way delay: 69.598 ms  
Loss rate: 1.29%  
-- Flow 3:  
Average throughput: 16.77 Mbit/s  
95th percentile per-packet one-way delay: 69.762 ms  
Loss rate: 1.59%

Run 5: Report of PCC-Allegro — Data Link



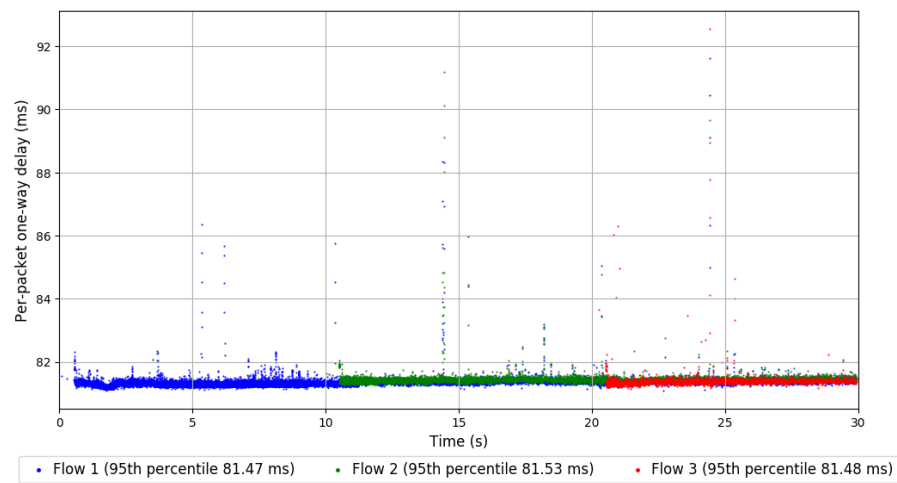
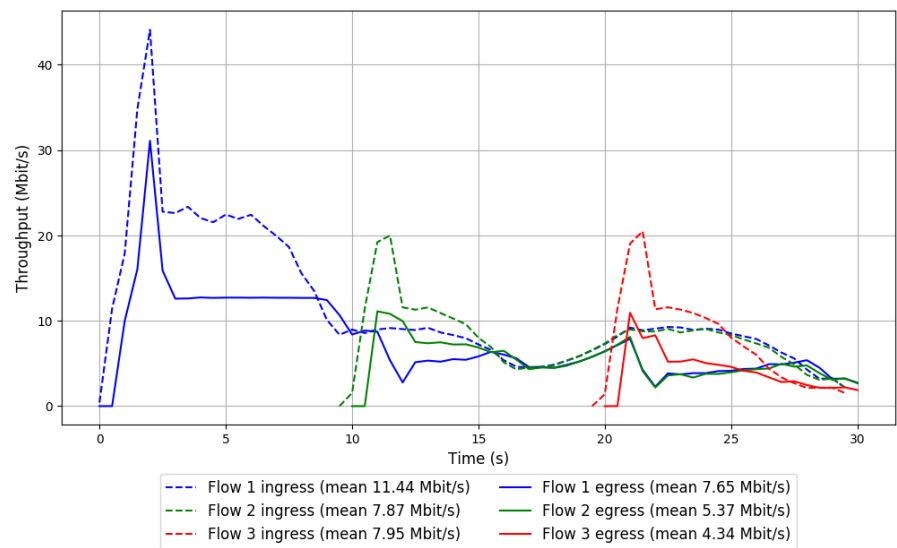


```
Run 1: Statistics of PCC-Expr

Start at: 2019-02-05 07:54:35
End at: 2019-02-05 07:55:05
Local clock offset: -2.397 ms
Remote clock offset: -28.187 ms

# Below is generated by plot.py at 2019-02-05 11:04:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.67 Mbit/s
95th percentile per-packet one-way delay: 81.503 ms
Loss rate: 34.43%
-- Flow 1:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 81.466 ms
Loss rate: 33.11%
-- Flow 2:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 81.535 ms
Loss rate: 31.82%
-- Flow 3:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 81.484 ms
Loss rate: 45.42%
```

Run 1: Report of PCC-Expr — Data Link

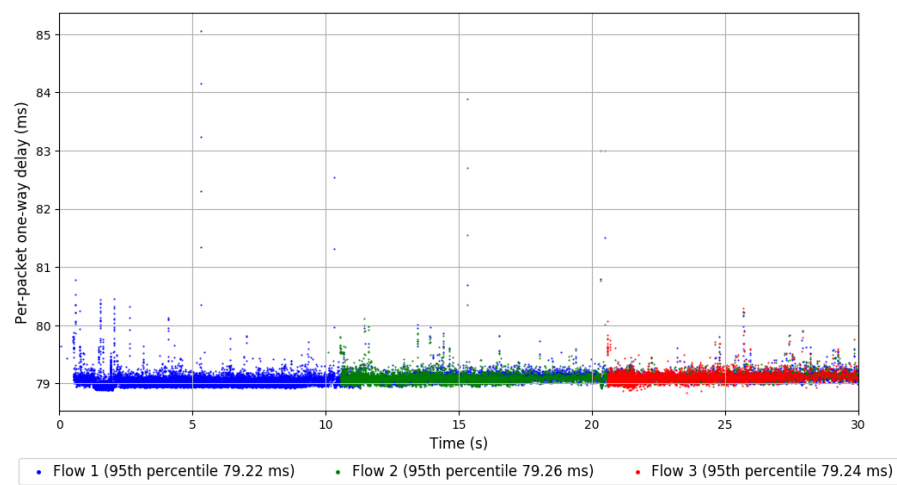
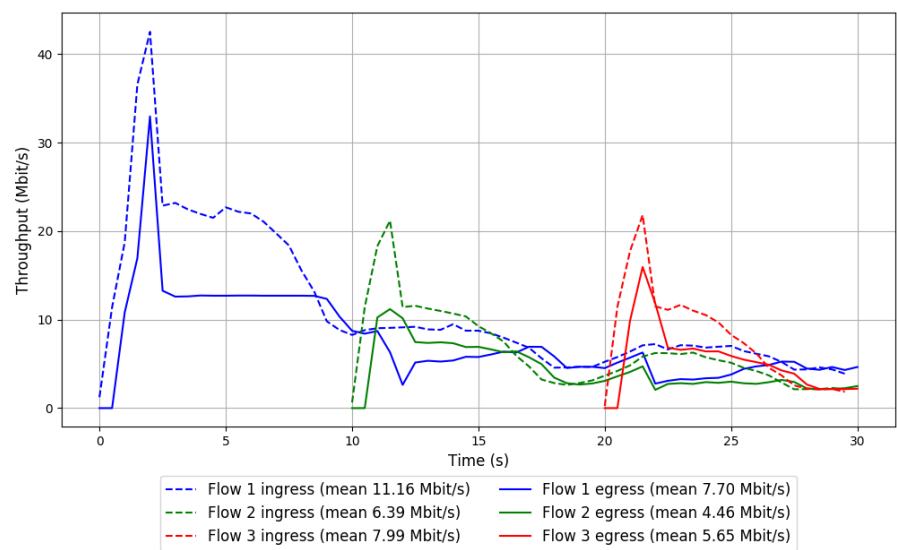


Run 2: Statistics of PCC-Expr

Start at: 2019-02-05 08:36:48  
End at: 2019-02-05 08:37:18  
Local clock offset: 0.552 ms  
Remote clock offset: -27.522 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.54 Mbit/s  
95th percentile per-packet one-way delay: 79.234 ms  
Loss rate: 30.56%  
-- Flow 1:  
Average throughput: 7.70 Mbit/s  
95th percentile per-packet one-way delay: 79.222 ms  
Loss rate: 31.02%  
-- Flow 2:  
Average throughput: 4.46 Mbit/s  
95th percentile per-packet one-way delay: 79.256 ms  
Loss rate: 30.19%  
-- Flow 3:  
Average throughput: 5.65 Mbit/s  
95th percentile per-packet one-way delay: 79.242 ms  
Loss rate: 29.24%

Run 2: Report of PCC-Expr — Data Link

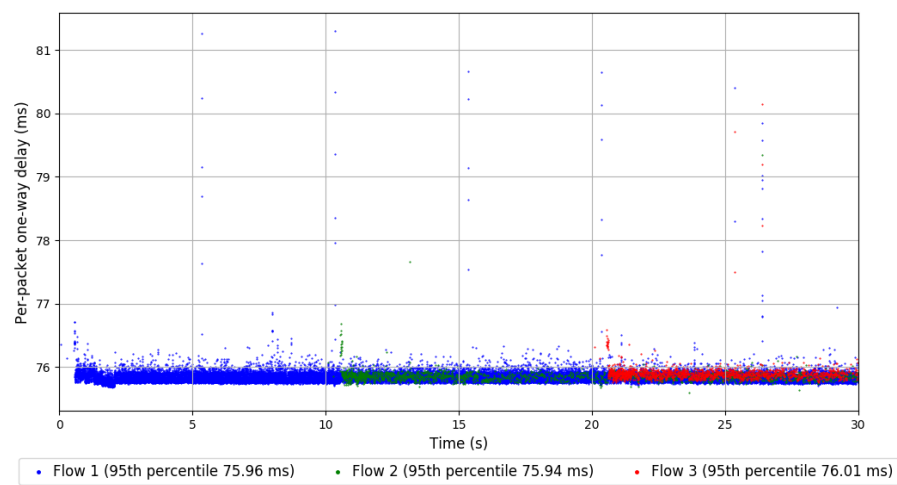
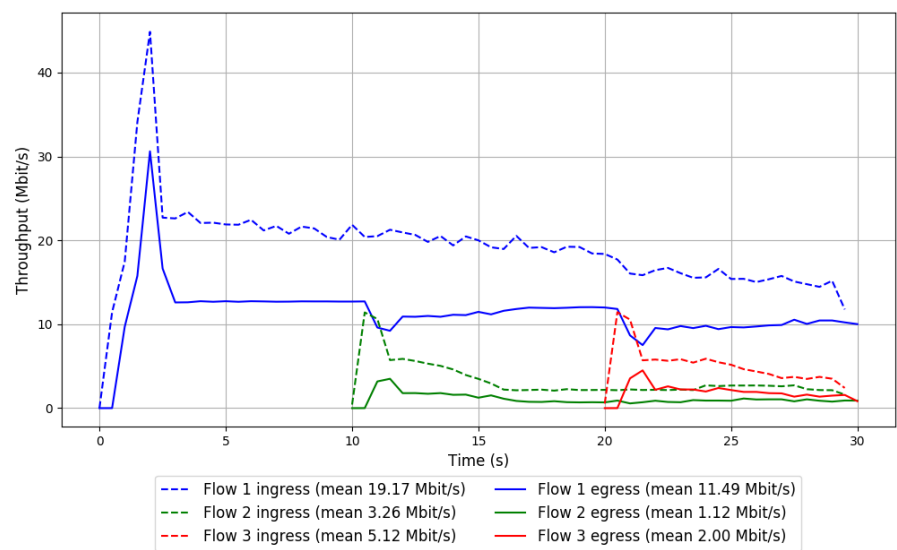


Run 3: Statistics of PCC-Expr

Start at: 2019-02-05 09:13:38  
End at: 2019-02-05 09:14:08  
Local clock offset: -1.346 ms  
Remote clock offset: -30.875 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.89 Mbit/s  
95th percentile per-packet one-way delay: 75.965 ms  
Loss rate: 43.99%  
-- Flow 1:  
Average throughput: 11.49 Mbit/s  
95th percentile per-packet one-way delay: 75.962 ms  
Loss rate: 40.06%  
-- Flow 2:  
Average throughput: 1.12 Mbit/s  
95th percentile per-packet one-way delay: 75.941 ms  
Loss rate: 65.53%  
-- Flow 3:  
Average throughput: 2.00 Mbit/s  
95th percentile per-packet one-way delay: 76.008 ms  
Loss rate: 60.89%

Run 3: Report of PCC-Expr — Data Link

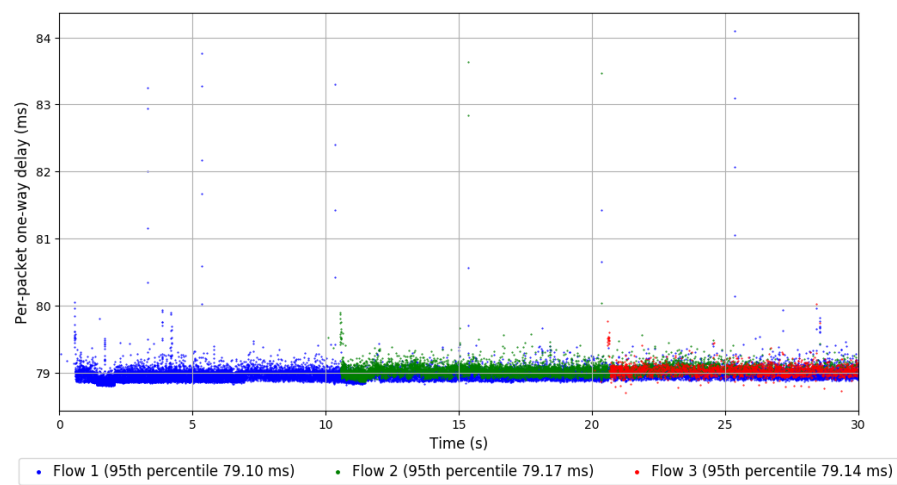
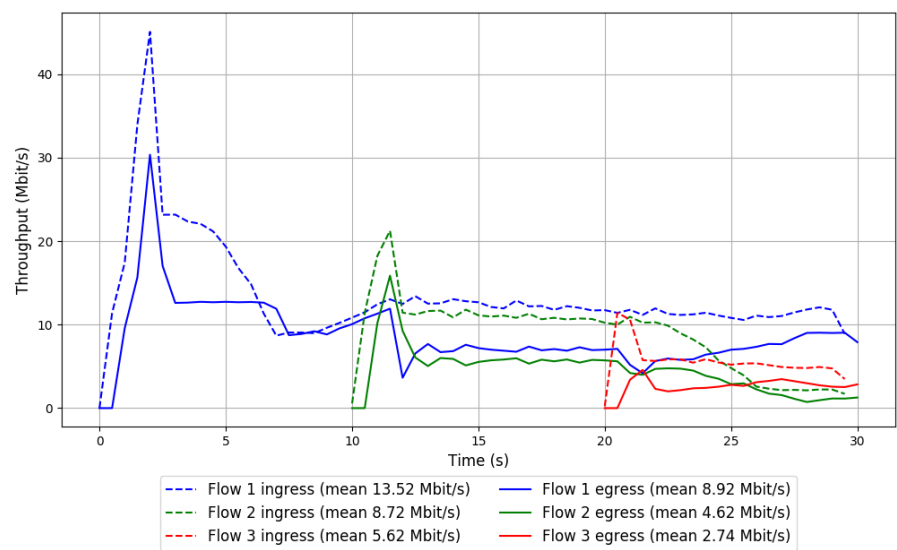


Run 4: Statistics of PCC-Expr

Start at: 2019-02-05 09:50:05  
End at: 2019-02-05 09:50:35  
Local clock offset: -3.703 ms  
Remote clock offset: -29.506 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.89 Mbit/s  
95th percentile per-packet one-way delay: 79.128 ms  
Loss rate: 39.11%  
-- Flow 1:  
Average throughput: 8.92 Mbit/s  
95th percentile per-packet one-way delay: 79.096 ms  
Loss rate: 34.04%  
-- Flow 2:  
Average throughput: 4.62 Mbit/s  
95th percentile per-packet one-way delay: 79.167 ms  
Loss rate: 47.05%  
-- Flow 3:  
Average throughput: 2.74 Mbit/s  
95th percentile per-packet one-way delay: 79.145 ms  
Loss rate: 51.29%

Run 4: Report of PCC-Expr — Data Link



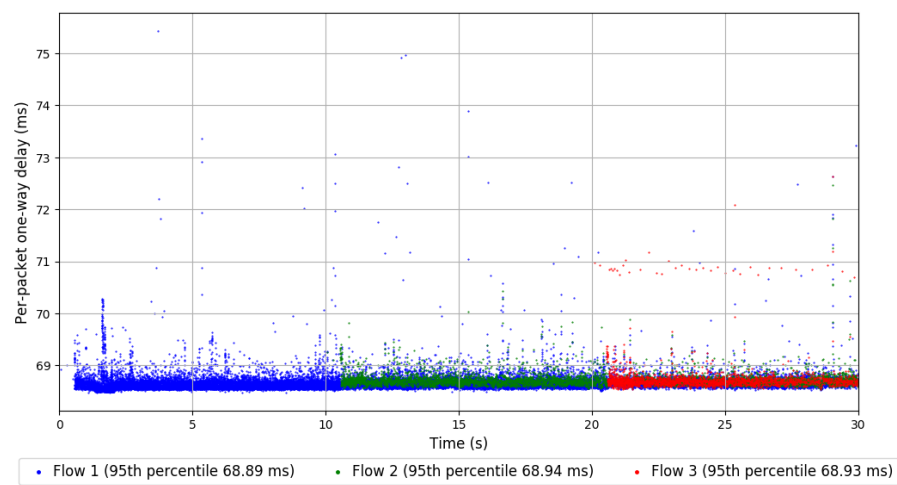
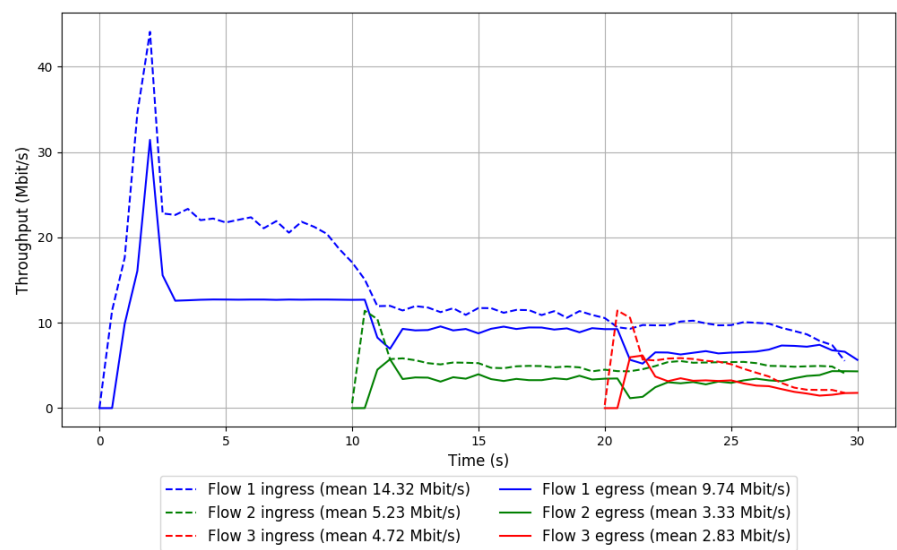


Run 5: Statistics of PCC-Expr

Start at: 2019-02-05 10:31:17  
End at: 2019-02-05 10:31:47  
Local clock offset: -0.678 ms  
Remote clock offset: -38.03 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.89 Mbit/s  
95th percentile per-packet one-way delay: 68.897 ms  
Loss rate: 33.41%  
-- Flow 1:  
Average throughput: 9.74 Mbit/s  
95th percentile per-packet one-way delay: 68.887 ms  
Loss rate: 31.99%  
-- Flow 2:  
Average throughput: 3.33 Mbit/s  
95th percentile per-packet one-way delay: 68.940 ms  
Loss rate: 36.30%  
-- Flow 3:  
Average throughput: 2.83 Mbit/s  
95th percentile per-packet one-way delay: 68.929 ms  
Loss rate: 40.03%

Run 5: Report of PCC-Expr — Data Link

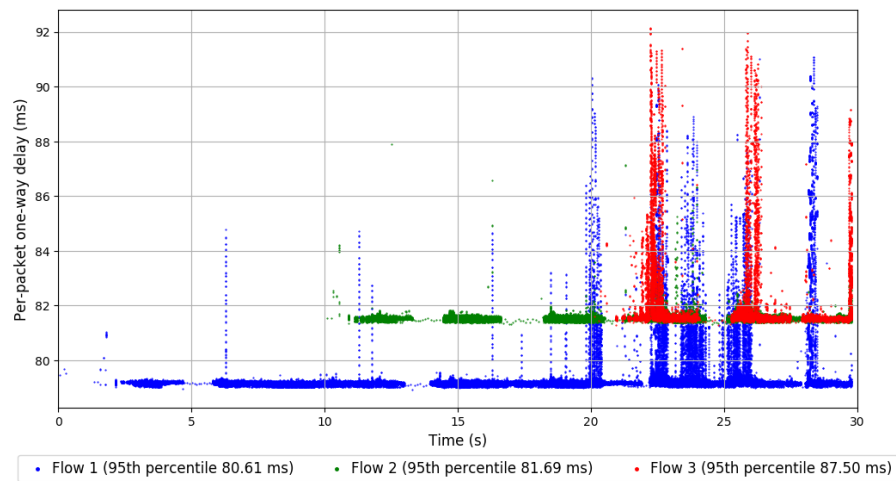
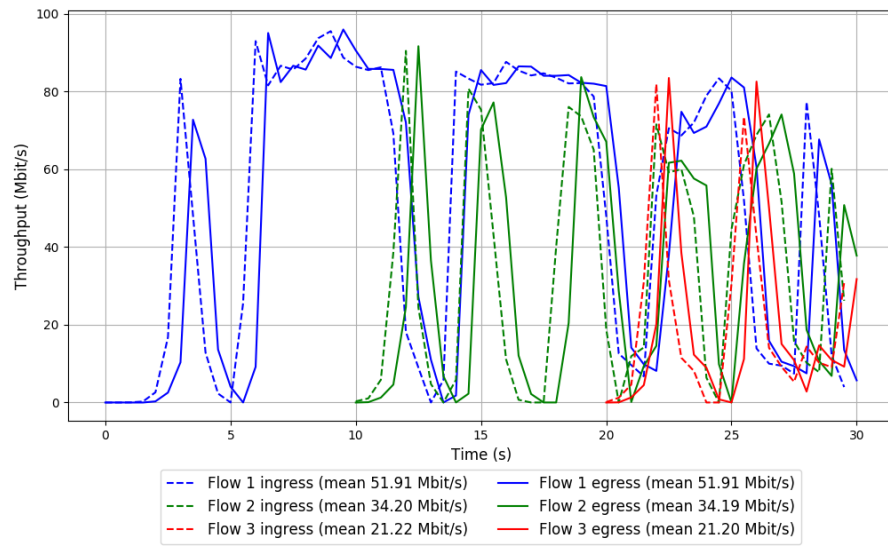


Run 1: Statistics of QUIC Cubic

Start at: 2019-02-05 07:29:23  
End at: 2019-02-05 07:29:53  
Local clock offset: 0.073 ms  
Remote clock offset: -26.778 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.45 Mbit/s  
95th percentile per-packet one-way delay: 81.885 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 51.91 Mbit/s  
95th percentile per-packet one-way delay: 80.606 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 34.19 Mbit/s  
95th percentile per-packet one-way delay: 81.694 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 21.20 Mbit/s  
95th percentile per-packet one-way delay: 87.501 ms  
Loss rate: 0.12%

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

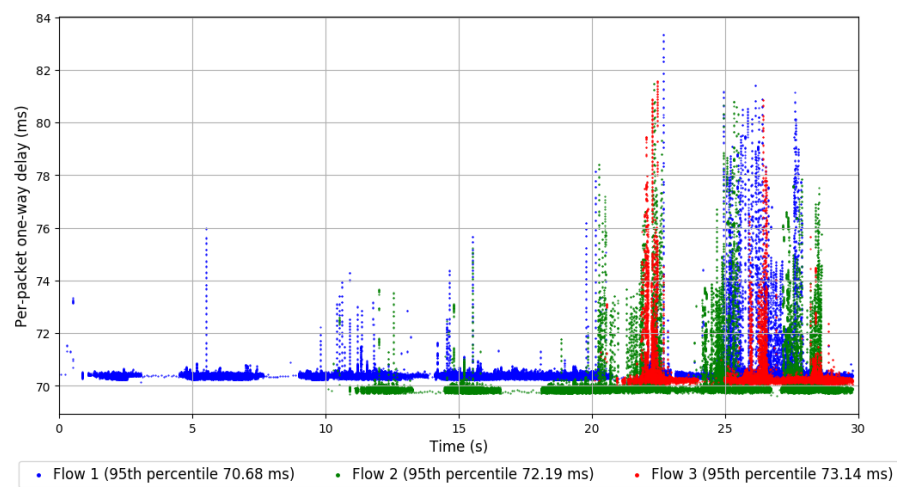
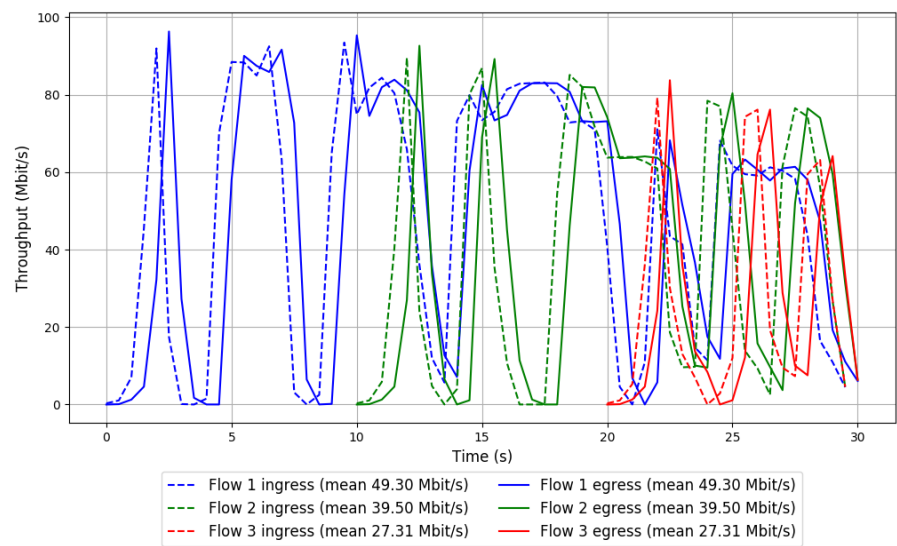


Run 2: Statistics of QUIC Cubic

Start at: 2019-02-05 08:11:36  
End at: 2019-02-05 08:12:06  
Local clock offset: 2.015 ms  
Remote clock offset: -35.43 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.36 Mbit/s  
95th percentile per-packet one-way delay: 71.516 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 49.30 Mbit/s  
95th percentile per-packet one-way delay: 70.676 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 39.50 Mbit/s  
95th percentile per-packet one-way delay: 72.191 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 27.31 Mbit/s  
95th percentile per-packet one-way delay: 73.141 ms  
Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link

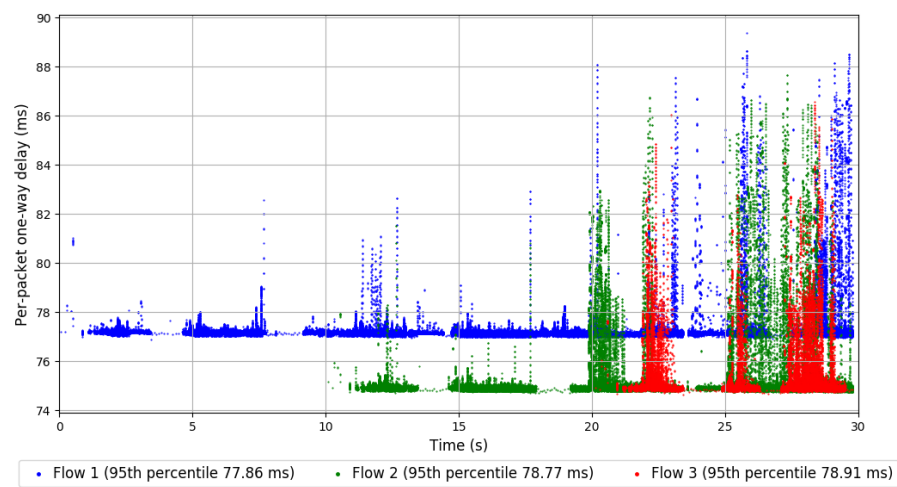
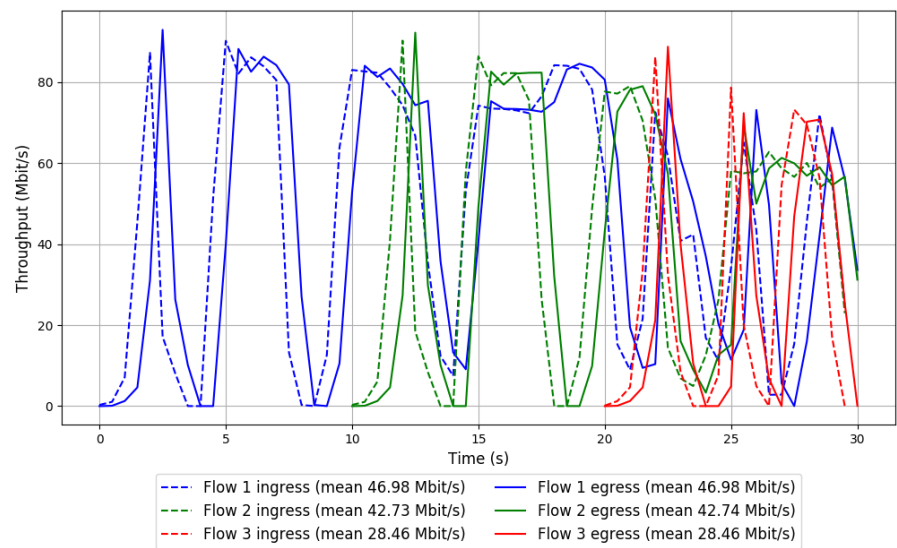


Run 3: Statistics of QUIC Cubic

Start at: 2019-02-05 08:48:07  
End at: 2019-02-05 08:48:37  
Local clock offset: 1.51 ms  
Remote clock offset: -30.279 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.53 Mbit/s  
95th percentile per-packet one-way delay: 78.358 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 46.98 Mbit/s  
95th percentile per-packet one-way delay: 77.855 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 42.74 Mbit/s  
95th percentile per-packet one-way delay: 78.766 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 28.46 Mbit/s  
95th percentile per-packet one-way delay: 78.912 ms  
Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



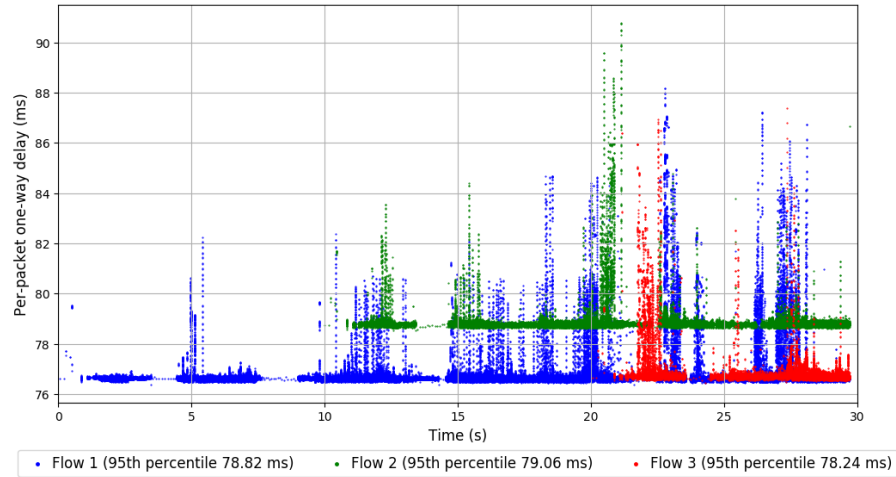
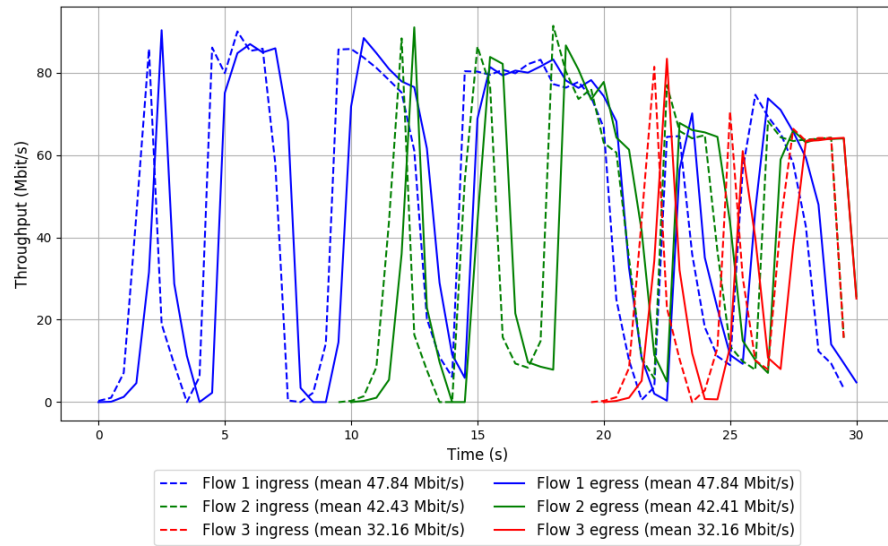


Run 4: Statistics of QUIC Cubic

Start at: 2019-02-05 09:25:00  
End at: 2019-02-05 09:25:30  
Local clock offset: -1.376 ms  
Remote clock offset: -29.701 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.49 Mbit/s  
95th percentile per-packet one-way delay: 78.988 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 47.84 Mbit/s  
95th percentile per-packet one-way delay: 78.821 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 42.41 Mbit/s  
95th percentile per-packet one-way delay: 79.056 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 32.16 Mbit/s  
95th percentile per-packet one-way delay: 78.241 ms  
Loss rate: 0.00%

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

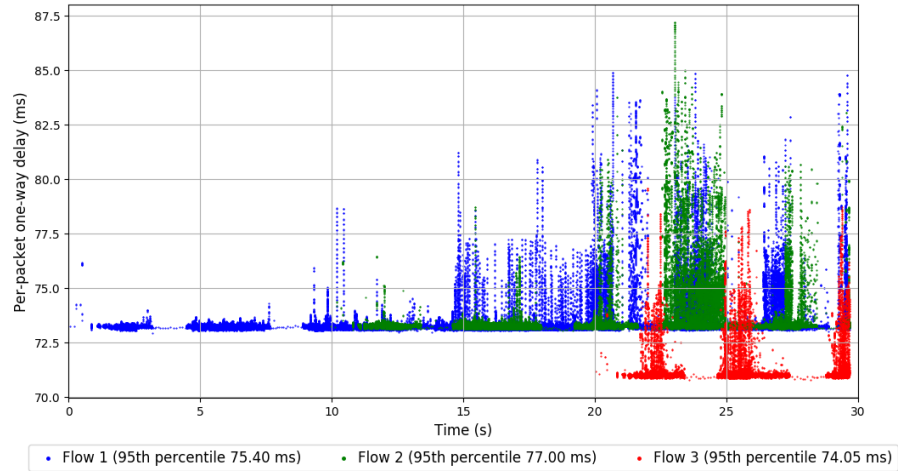
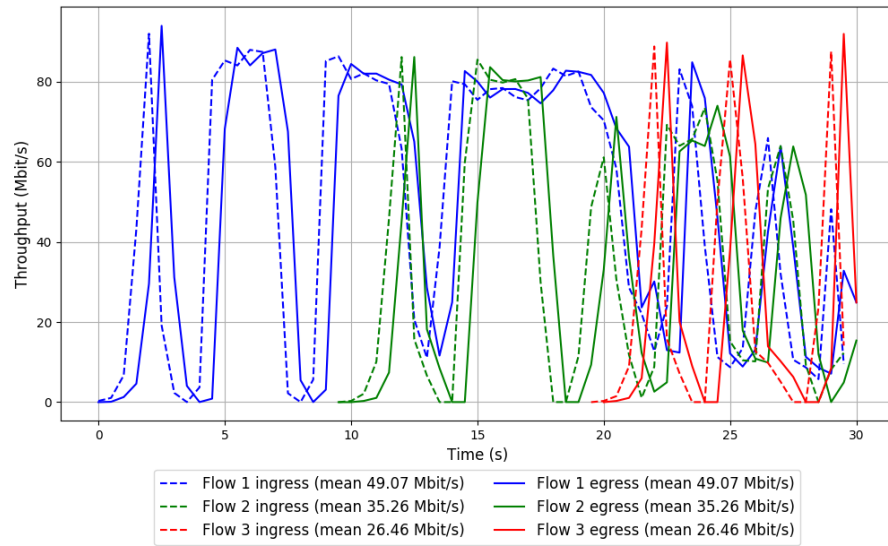


Run 5: Statistics of QUIC Cubic

Start at: 2019-02-05 10:01:25  
End at: 2019-02-05 10:01:55  
Local clock offset: -0.285 ms  
Remote clock offset: -34.553 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.15 Mbit/s  
95th percentile per-packet one-way delay: 75.707 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 49.07 Mbit/s  
95th percentile per-packet one-way delay: 75.403 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 35.26 Mbit/s  
95th percentile per-packet one-way delay: 76.995 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 26.46 Mbit/s  
95th percentile per-packet one-way delay: 74.045 ms  
Loss rate: 0.00%

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

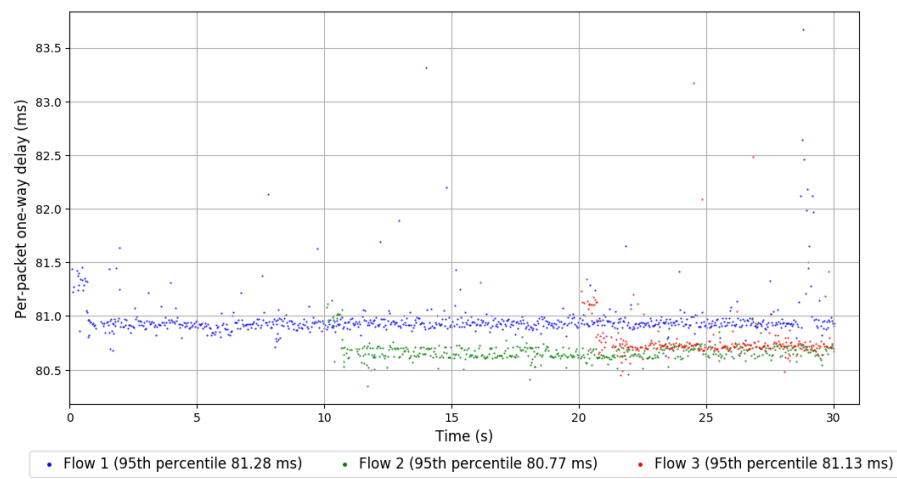
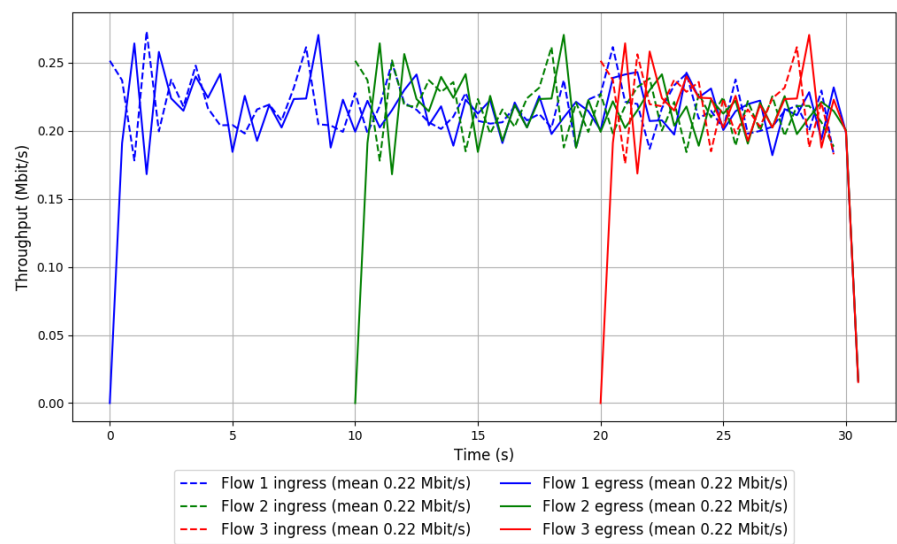


```
Run 1: Statistics of SReAM

Start at: 2019-02-05 07:22:08
End at: 2019-02-05 07:22:38
Local clock offset: -0.81 ms
Remote clock offset: -26.324 ms

# Below is generated by plot.py at 2019-02-05 11:04:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 81.103 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.283 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.771 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.128 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

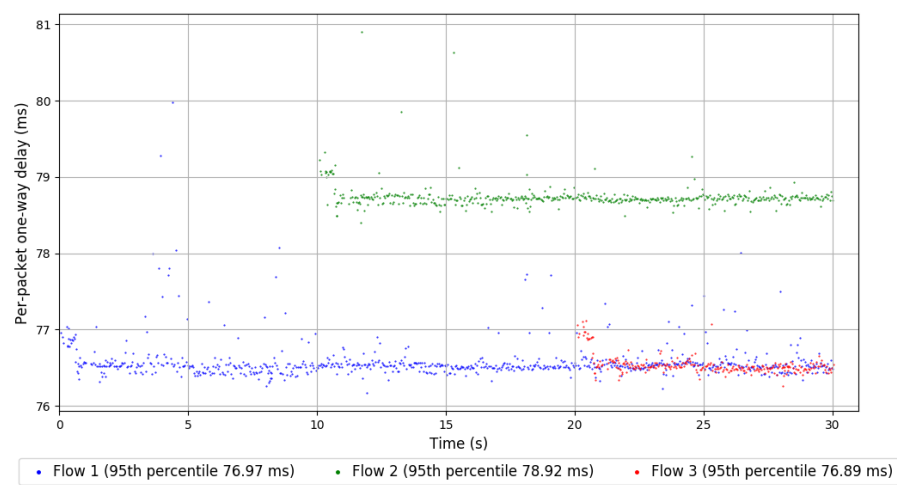
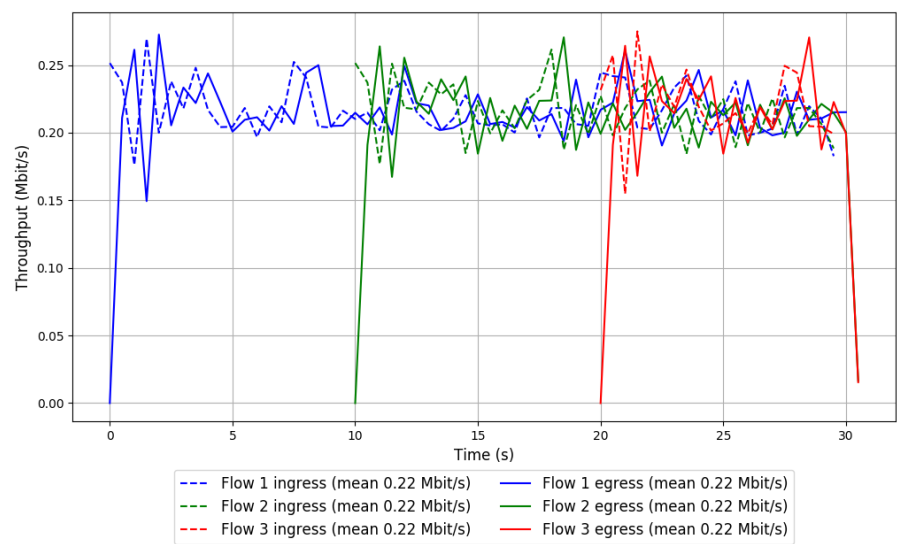


Run 2: Statistics of SReAM

Start at: 2019-02-05 07:58:50  
End at: 2019-02-05 07:59:20  
Local clock offset: 0.704 ms  
Remote clock offset: -30.215 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 78.765 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 76.966 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 78.924 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 76.893 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



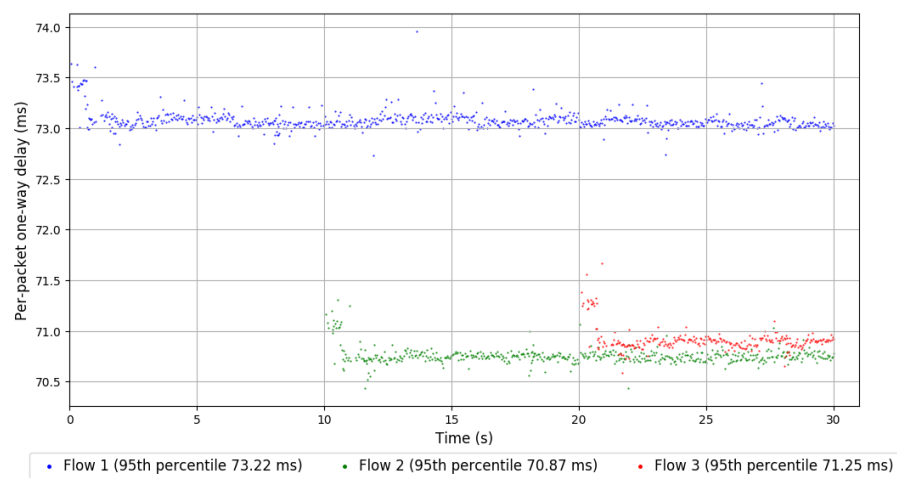
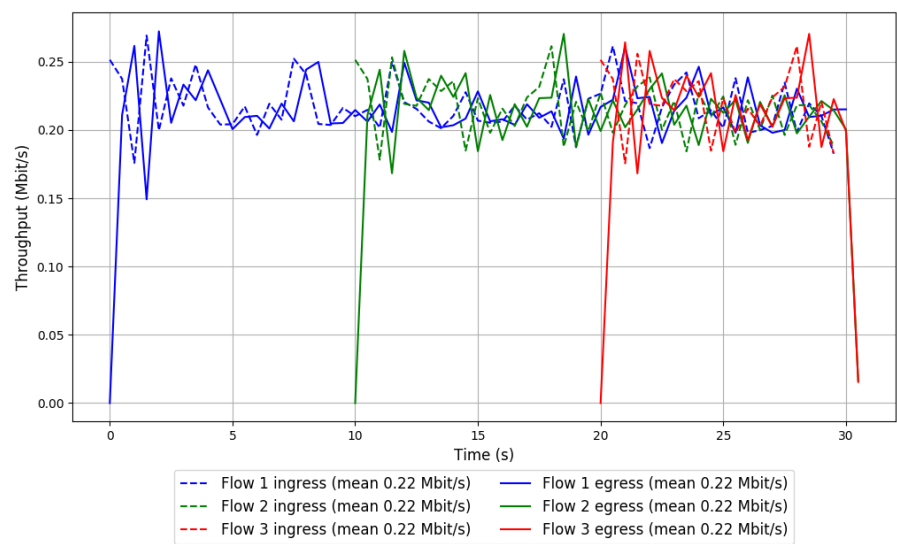


Run 3: Statistics of SReAM

Start at: 2019-02-05 08:41:04  
End at: 2019-02-05 08:41:34  
Local clock offset: 0.531 ms  
Remote clock offset: -35.687 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 73.140 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 73.220 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.866 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 71.249 ms  
Loss rate: 0.00%

Run 3: Report of SCReAM — Data Link

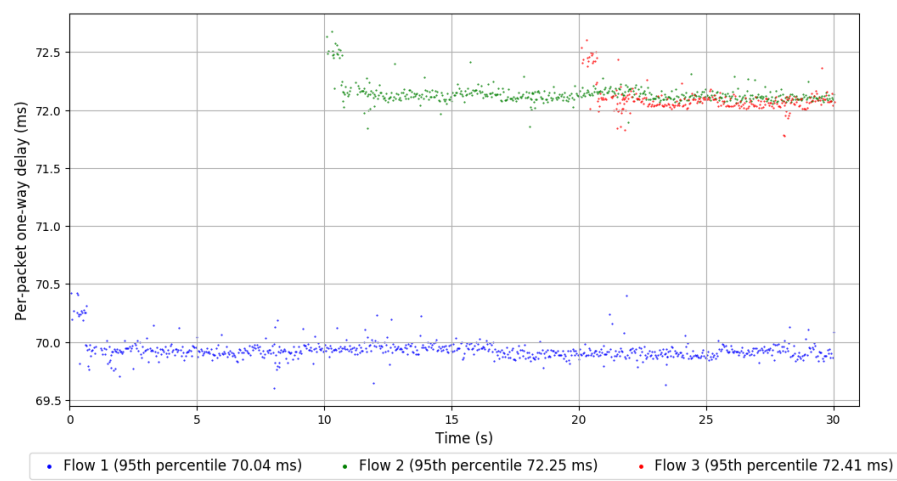
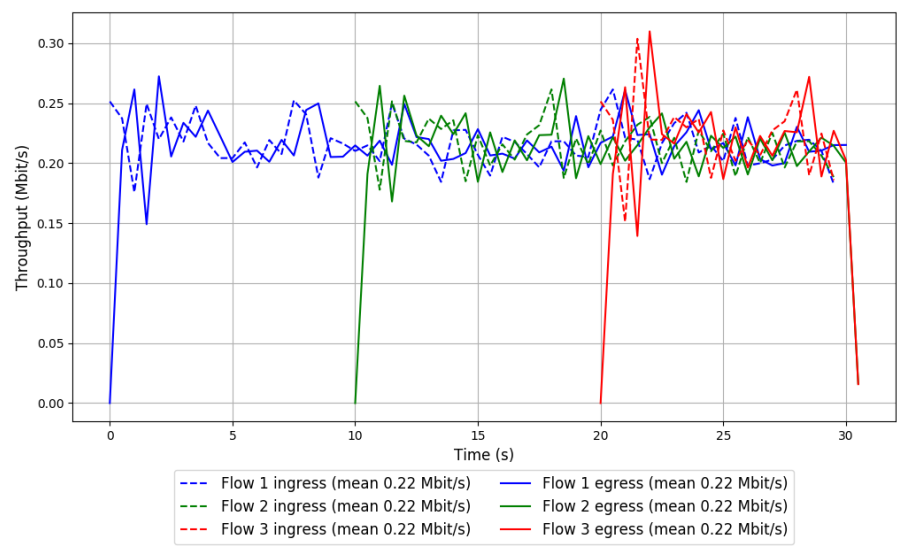


Run 4: Statistics of SReAM

Start at: 2019-02-05 09:17:54  
End at: 2019-02-05 09:18:24  
Local clock offset: 0.426 ms  
Remote clock offset: -34.964 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 72.191 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.040 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 72.250 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 72.409 ms  
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

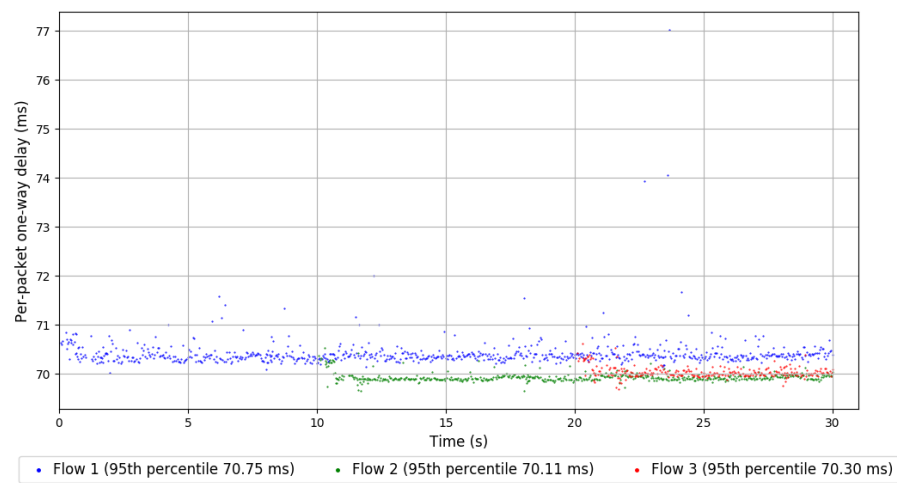
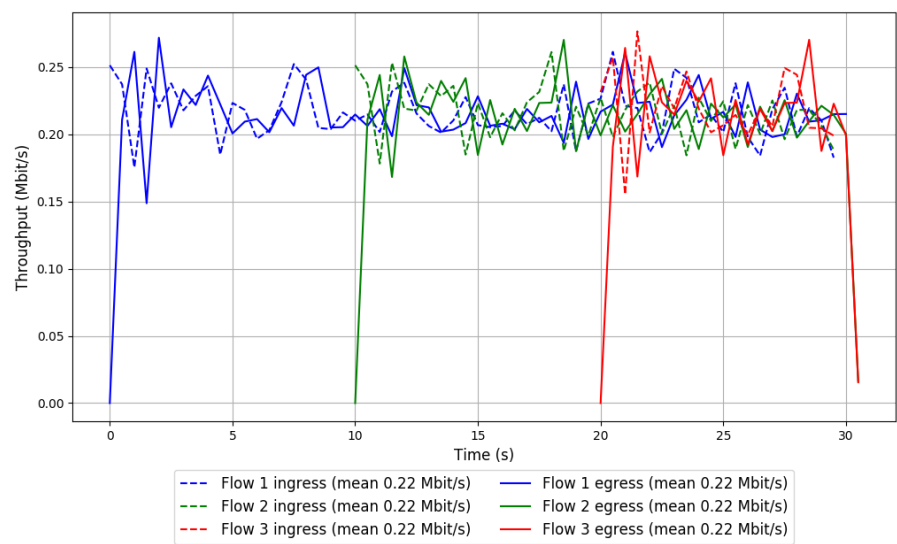


Run 5: Statistics of SReAM

Start at: 2019-02-05 09:54:21  
End at: 2019-02-05 09:54:51  
Local clock offset: -4.11 ms  
Remote clock offset: -39.283 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 70.591 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.749 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.115 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.299 ms  
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

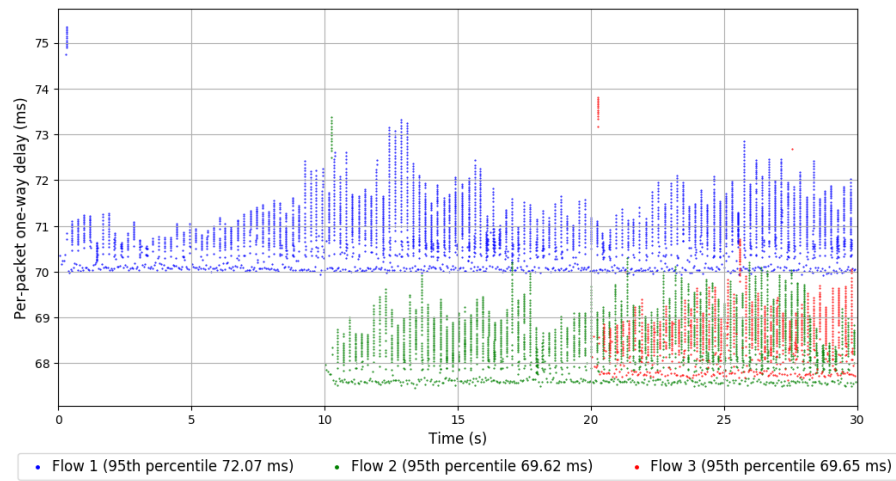
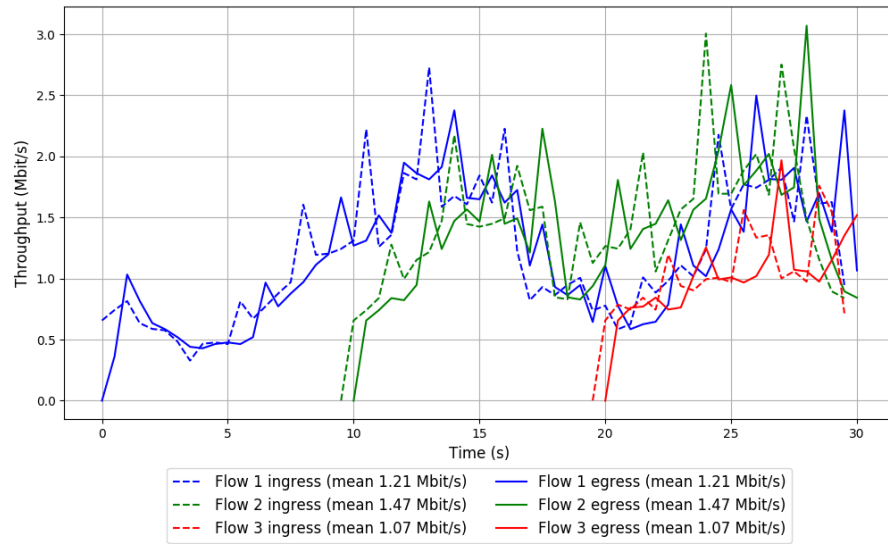


Run 1: Statistics of Sprout

Start at: 2019-02-05 07:38:47  
End at: 2019-02-05 07:39:17  
Local clock offset: -0.905 ms  
Remote clock offset: -39.275 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.54 Mbit/s  
95th percentile per-packet one-way delay: 71.796 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.21 Mbit/s  
95th percentile per-packet one-way delay: 72.066 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.47 Mbit/s  
95th percentile per-packet one-way delay: 69.620 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.07 Mbit/s  
95th percentile per-packet one-way delay: 69.647 ms  
Loss rate: 0.00%

## Run 1: Report of Sprout — Data Link



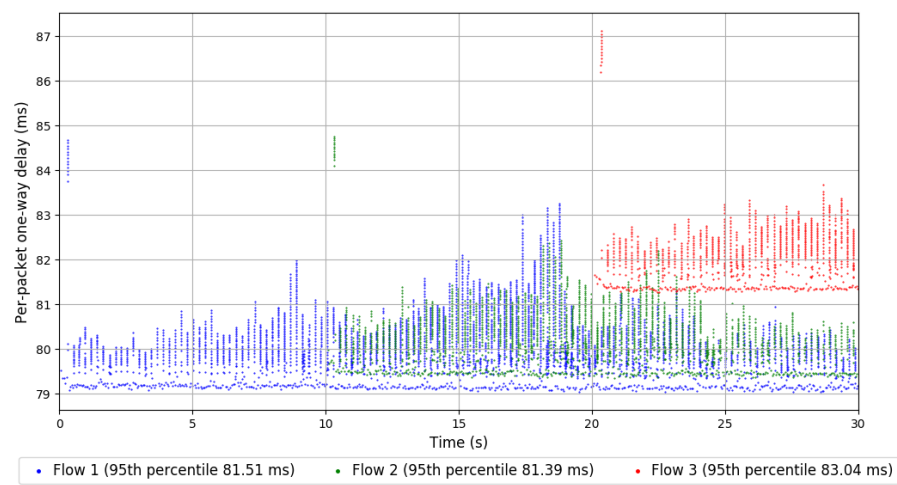
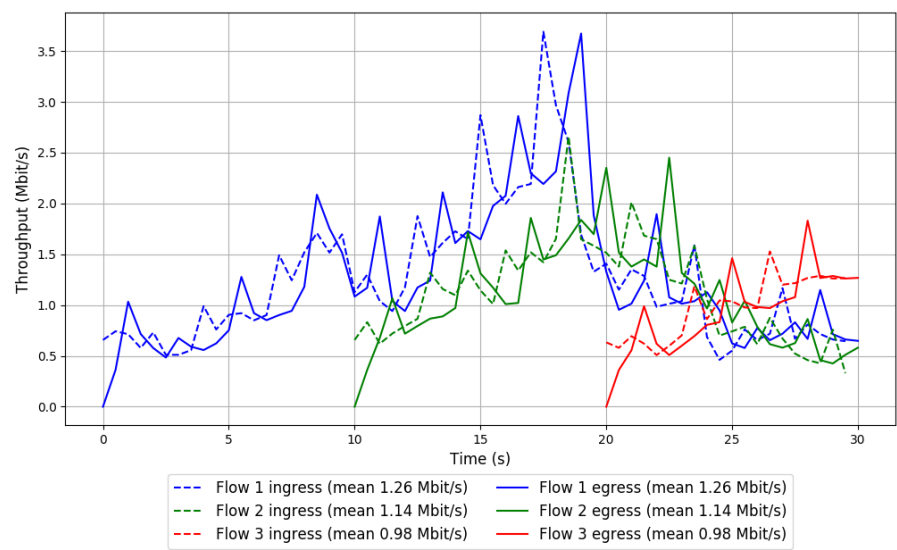


Run 2: Statistics of Sprout

Start at: 2019-02-05 08:26:44  
End at: 2019-02-05 08:27:14  
Local clock offset: -0.118 ms  
Remote clock offset: -27.906 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.34 Mbit/s  
95th percentile per-packet one-way delay: 82.463 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.26 Mbit/s  
95th percentile per-packet one-way delay: 81.513 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.14 Mbit/s  
95th percentile per-packet one-way delay: 81.388 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.98 Mbit/s  
95th percentile per-packet one-way delay: 83.040 ms  
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

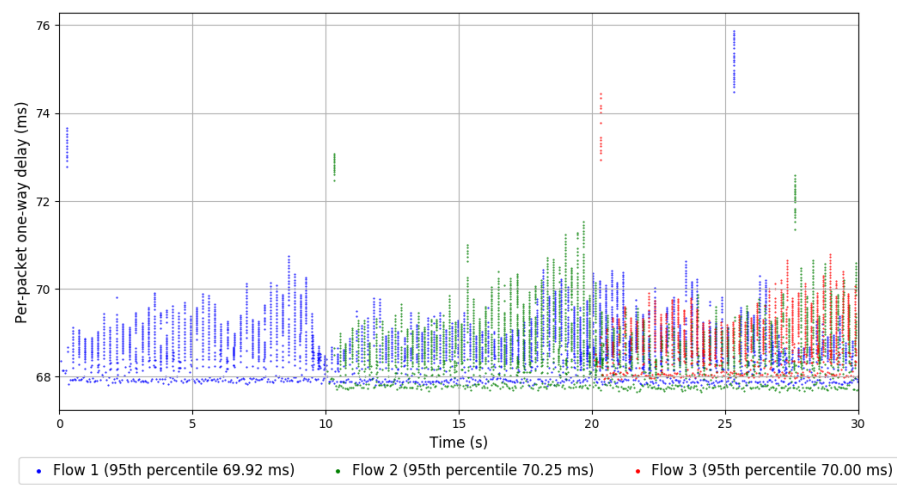
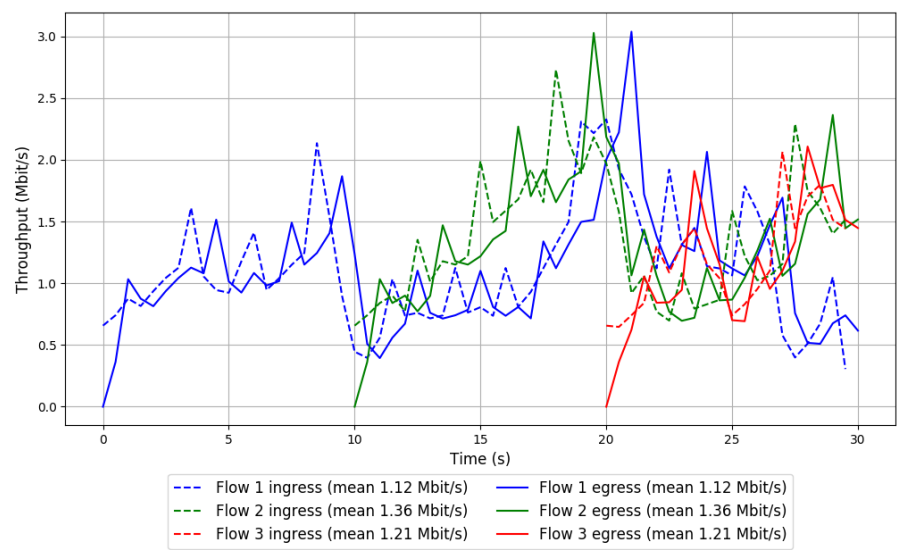


Run 3: Statistics of Sprout

Start at: 2019-02-05 09:03:28  
End at: 2019-02-05 09:03:58  
Local clock offset: -1.605 ms  
Remote clock offset: -39.377 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.43 Mbit/s  
95th percentile per-packet one-way delay: 70.049 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.12 Mbit/s  
95th percentile per-packet one-way delay: 69.922 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.36 Mbit/s  
95th percentile per-packet one-way delay: 70.245 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.21 Mbit/s  
95th percentile per-packet one-way delay: 70.002 ms  
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

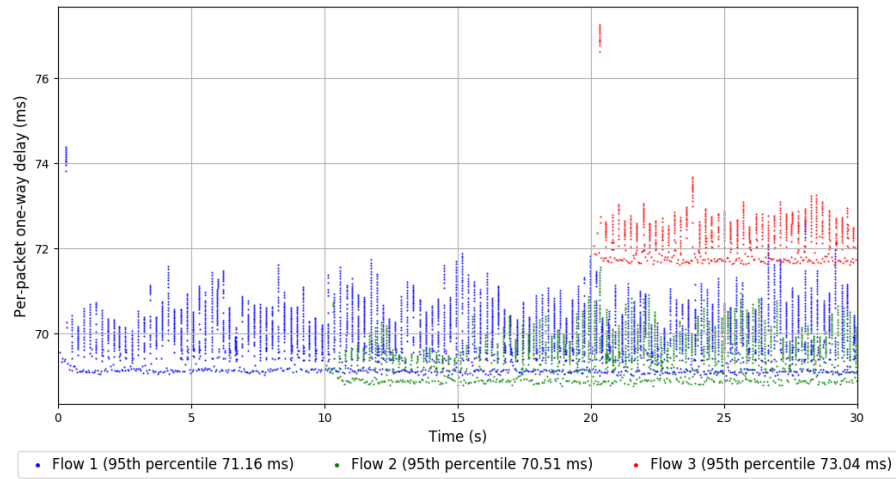
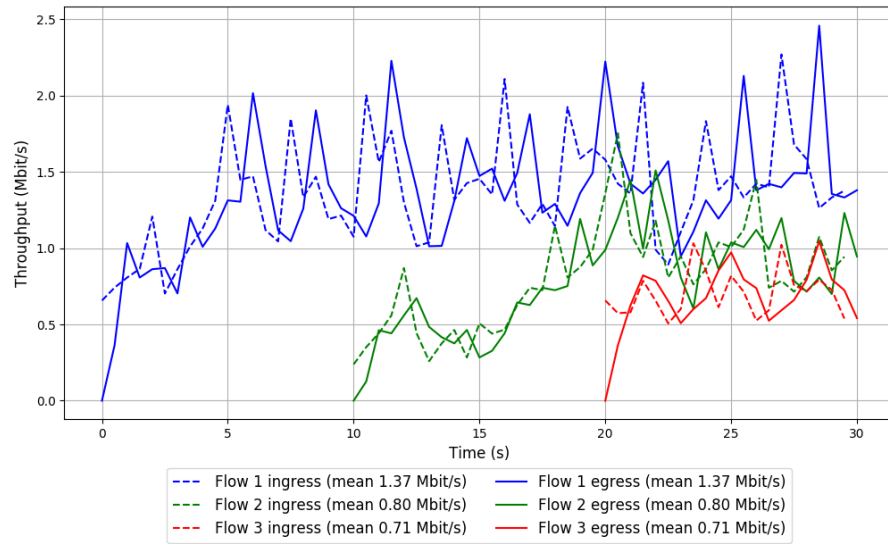


#### Run 4: Statistics of Sprout

Start at: 2019-02-05 09:40:02  
End at: 2019-02-05 09:40:32  
Local clock offset: -4.974 ms  
Remote clock offset: -40.164 ms

```
# Below is generated by plot.py at 2019-02-05 11:04:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 72.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 71.161 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 70.508 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 73.036 ms
Loss rate: 0.00%
```

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

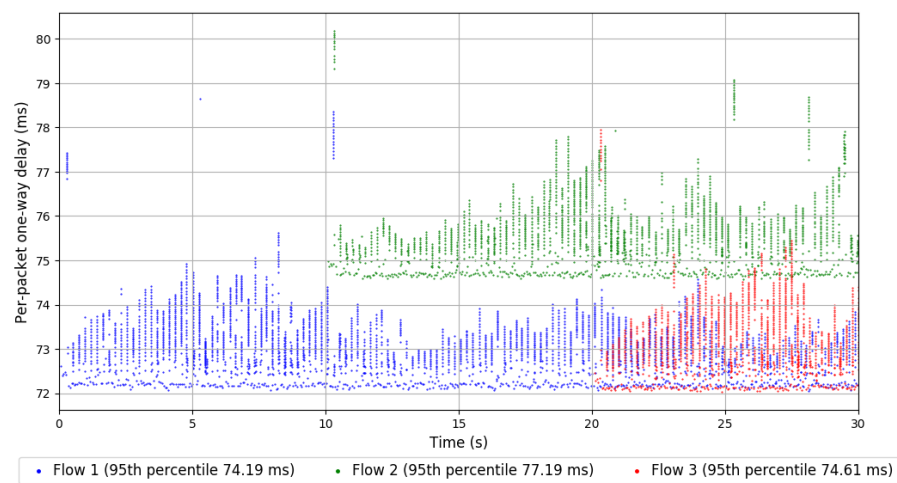
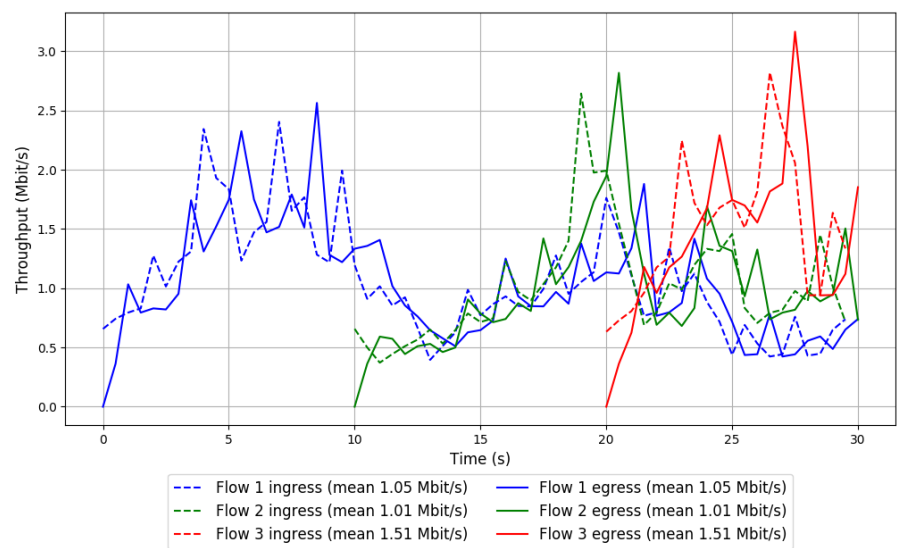


Run 5: Statistics of Sprout

Start at: 2019-02-05 10:15:31  
End at: 2019-02-05 10:16:01  
Local clock offset: -2.053 ms  
Remote clock offset: -35.111 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.22 Mbit/s  
95th percentile per-packet one-way delay: 76.426 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.05 Mbit/s  
95th percentile per-packet one-way delay: 74.188 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.01 Mbit/s  
95th percentile per-packet one-way delay: 77.190 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.51 Mbit/s  
95th percentile per-packet one-way delay: 74.607 ms  
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



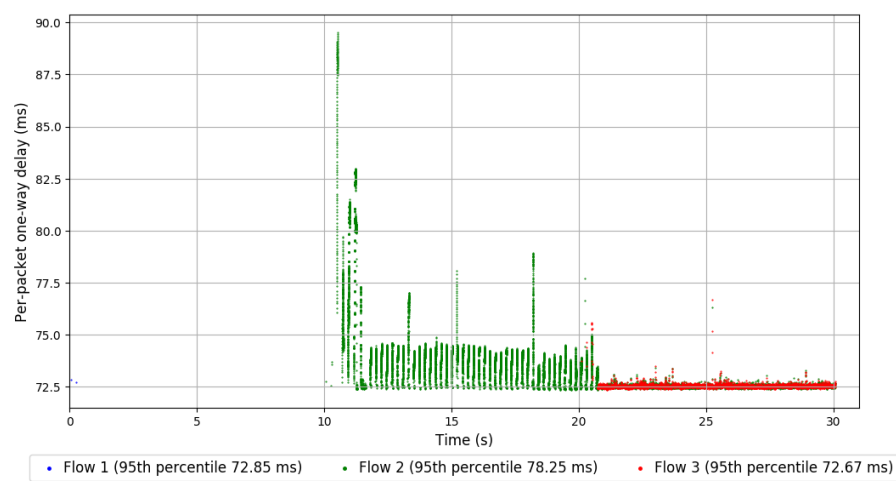
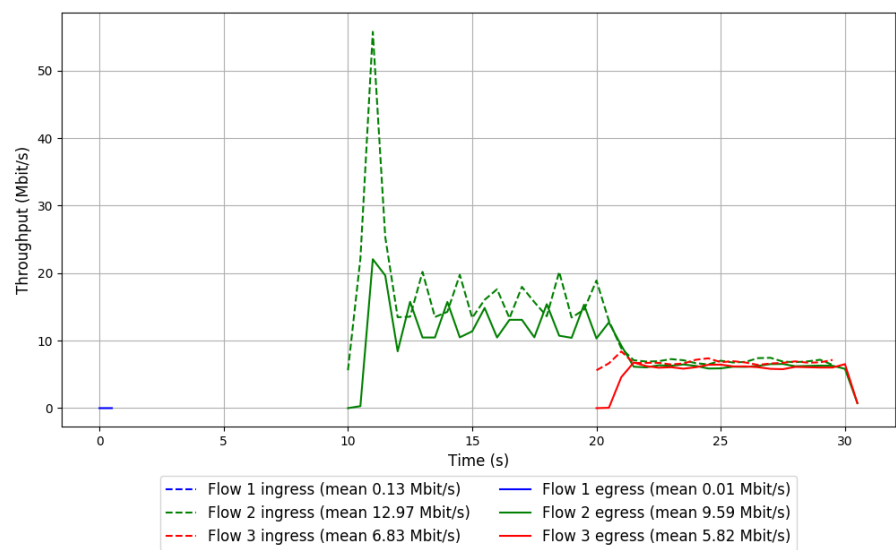


Run 1: Statistics of TaoVA-100x

Start at: 2019-02-05 07:53:15  
End at: 2019-02-05 07:53:45  
Local clock offset: -0.563 ms  
Remote clock offset: -35.168 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.33 Mbit/s  
95th percentile per-packet one-way delay: 77.048 ms  
Loss rate: 23.72%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 72.854 ms  
Loss rate: 92.16%  
-- Flow 2:  
Average throughput: 9.59 Mbit/s  
95th percentile per-packet one-way delay: 78.248 ms  
Loss rate: 26.04%  
-- Flow 3:  
Average throughput: 5.82 Mbit/s  
95th percentile per-packet one-way delay: 72.666 ms  
Loss rate: 14.89%

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

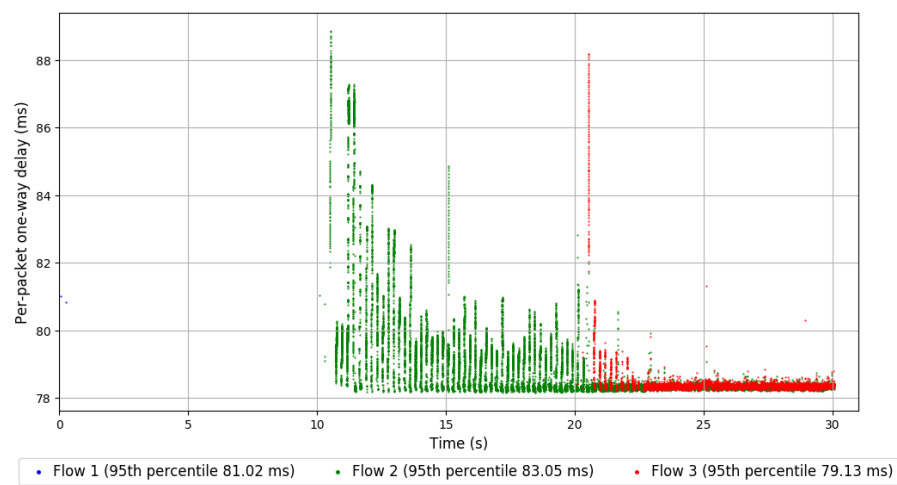
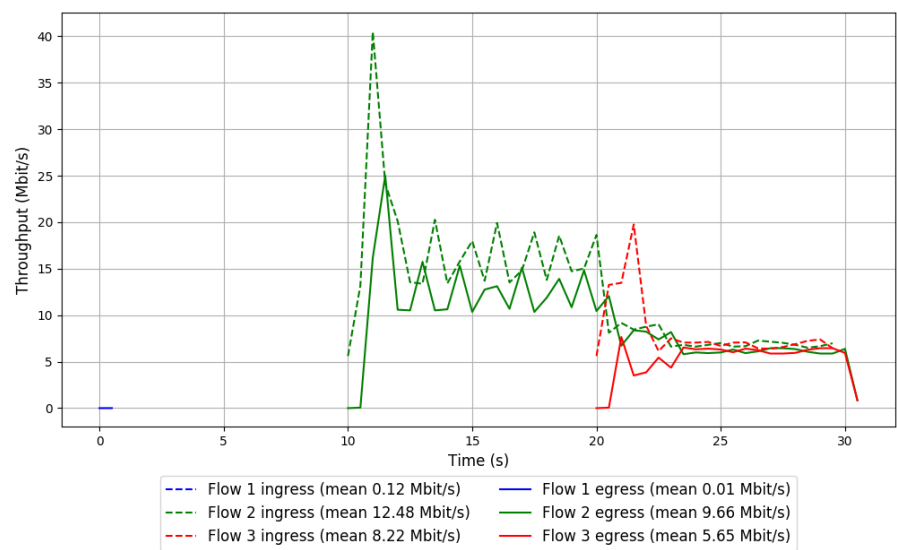


Run 2: Statistics of TaoVA-100x

Start at: 2019-02-05 08:35:29  
End at: 2019-02-05 08:35:59  
Local clock offset: -2.023 ms  
Remote clock offset: -30.851 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.32 Mbit/s  
95th percentile per-packet one-way delay: 82.657 ms  
Loss rate: 24.72%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 81.019 ms  
Loss rate: 92.16%  
-- Flow 2:  
Average throughput: 9.66 Mbit/s  
95th percentile per-packet one-way delay: 83.054 ms  
Loss rate: 22.56%  
-- Flow 3:  
Average throughput: 5.65 Mbit/s  
95th percentile per-packet one-way delay: 79.130 ms  
Loss rate: 31.27%

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

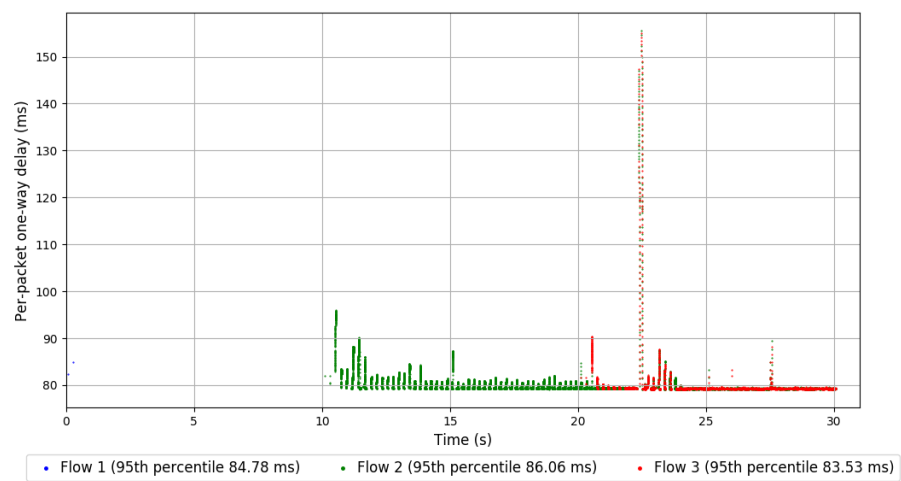
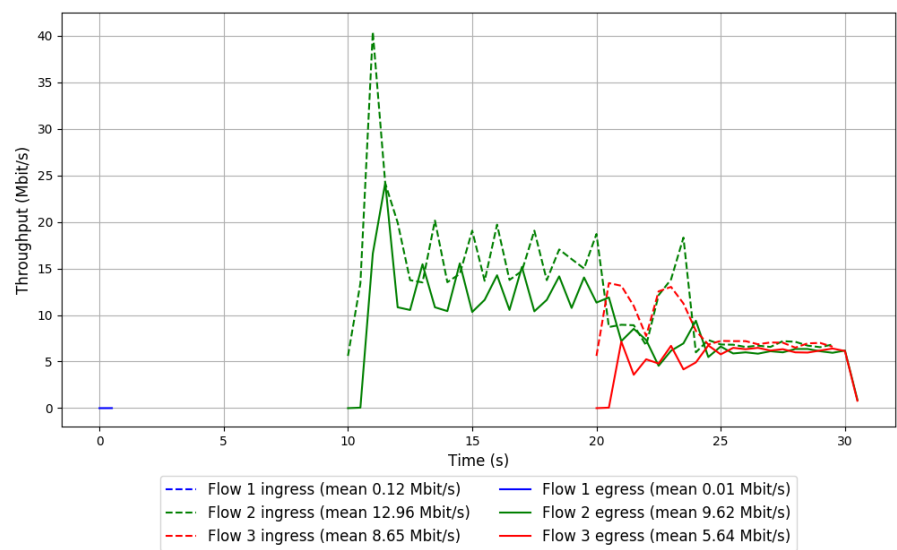


Run 3: Statistics of TaoVA-100x

Start at: 2019-02-05 09:12:19  
End at: 2019-02-05 09:12:49  
Local clock offset: -4.739 ms  
Remote clock offset: -30.989 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.28 Mbit/s  
95th percentile per-packet one-way delay: 85.613 ms  
Loss rate: 28.06%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 84.776 ms  
Loss rate: 92.16%  
-- Flow 2:  
Average throughput: 9.62 Mbit/s  
95th percentile per-packet one-way delay: 86.063 ms  
Loss rate: 25.80%  
-- Flow 3:  
Average throughput: 5.64 Mbit/s  
95th percentile per-packet one-way delay: 83.529 ms  
Loss rate: 34.84%

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

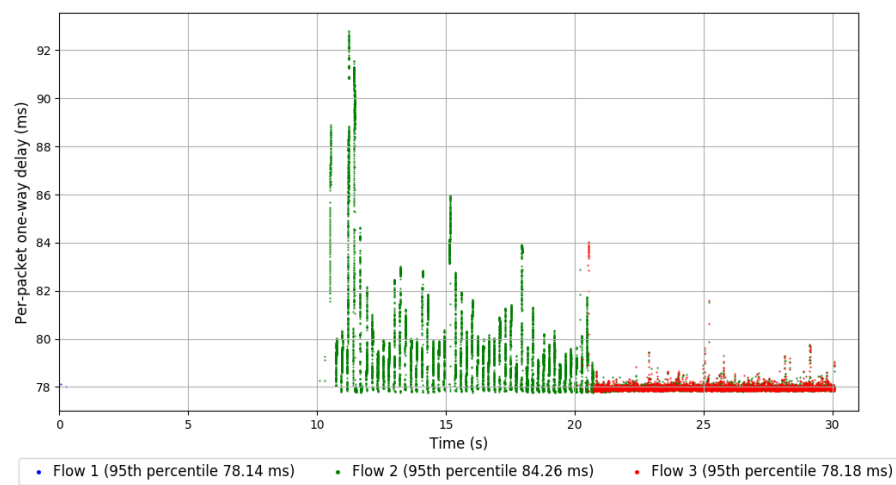
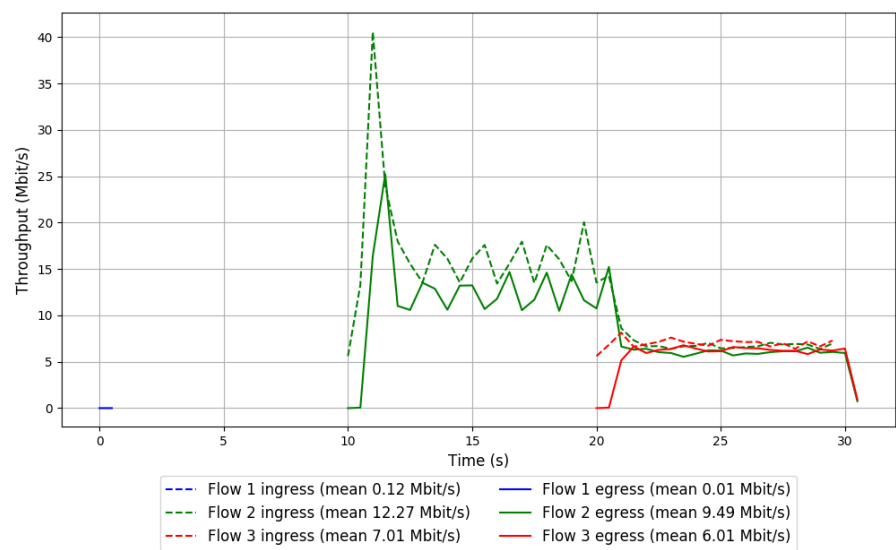


Run 4: Statistics of TaoVA-100x

Start at: 2019-02-05 09:48:46  
End at: 2019-02-05 09:49:16  
Local clock offset: -0.266 ms  
Remote clock offset: -27.096 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.32 Mbit/s  
95th percentile per-packet one-way delay: 83.187 ms  
Loss rate: 20.80%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 78.139 ms  
Loss rate: 92.16%  
-- Flow 2:  
Average throughput: 9.49 Mbit/s  
95th percentile per-packet one-way delay: 84.256 ms  
Loss rate: 22.65%  
-- Flow 3:  
Average throughput: 6.01 Mbit/s  
95th percentile per-packet one-way delay: 78.179 ms  
Loss rate: 14.26%

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



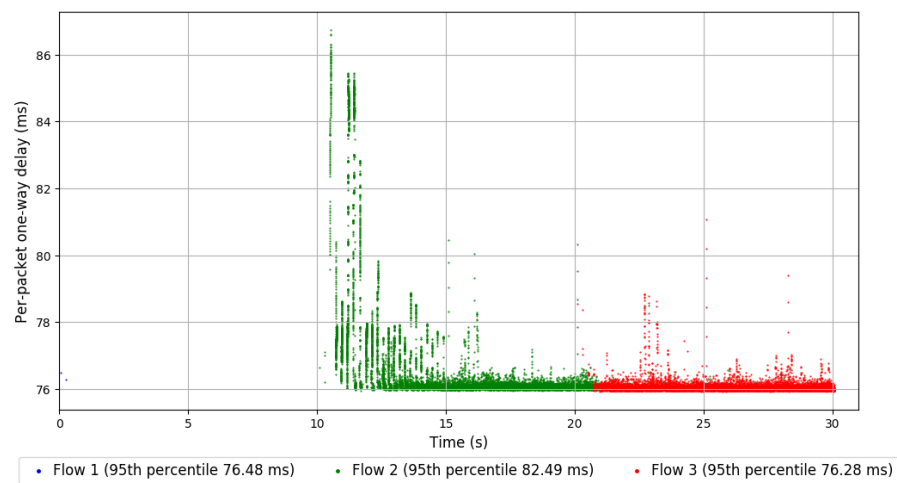
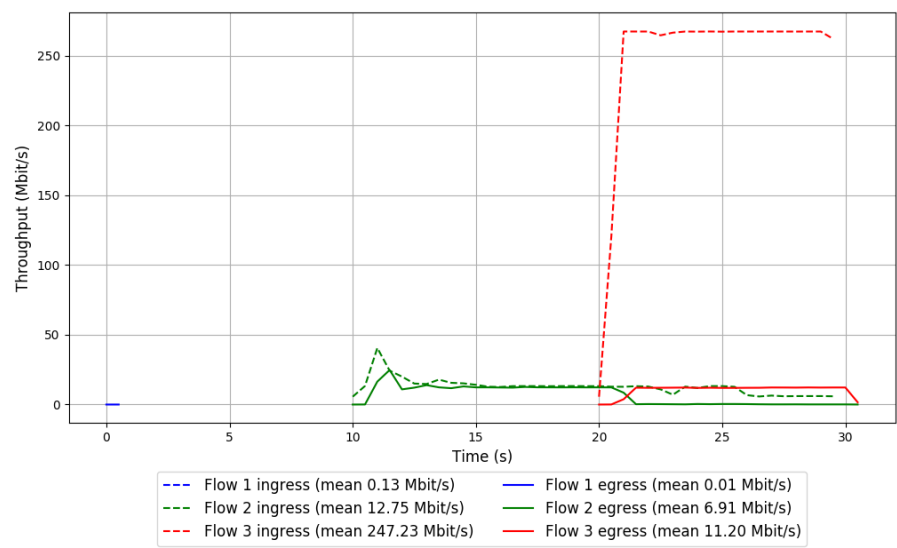


Run 5: Statistics of TaoVA-100x

Start at: 2019-02-05 10:29:52  
End at: 2019-02-05 10:30:22  
Local clock offset: -3.665 ms  
Remote clock offset: -33.556 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.31 Mbit/s  
95th percentile per-packet one-way delay: 78.596 ms  
Loss rate: 90.83%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 76.478 ms  
Loss rate: 92.16%  
-- Flow 2:  
Average throughput: 6.91 Mbit/s  
95th percentile per-packet one-way delay: 82.489 ms  
Loss rate: 45.94%  
-- Flow 3:  
Average throughput: 11.20 Mbit/s  
95th percentile per-packet one-way delay: 76.276 ms  
Loss rate: 95.47%

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

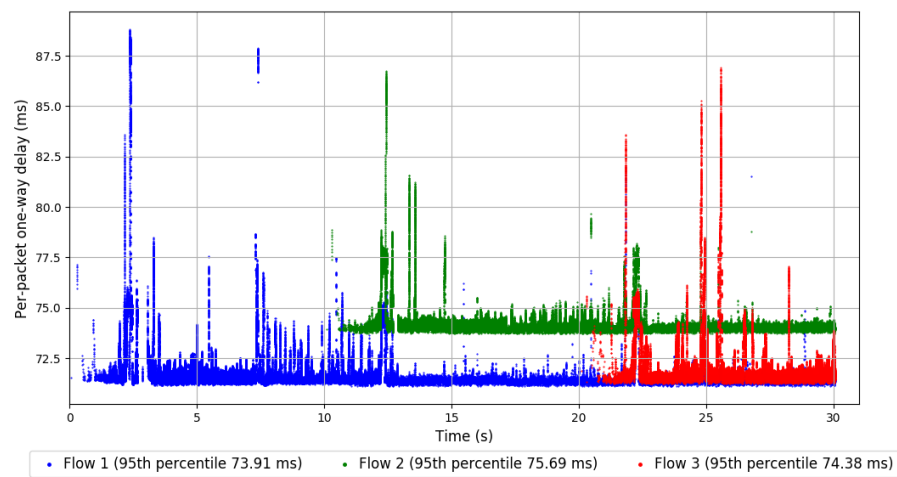
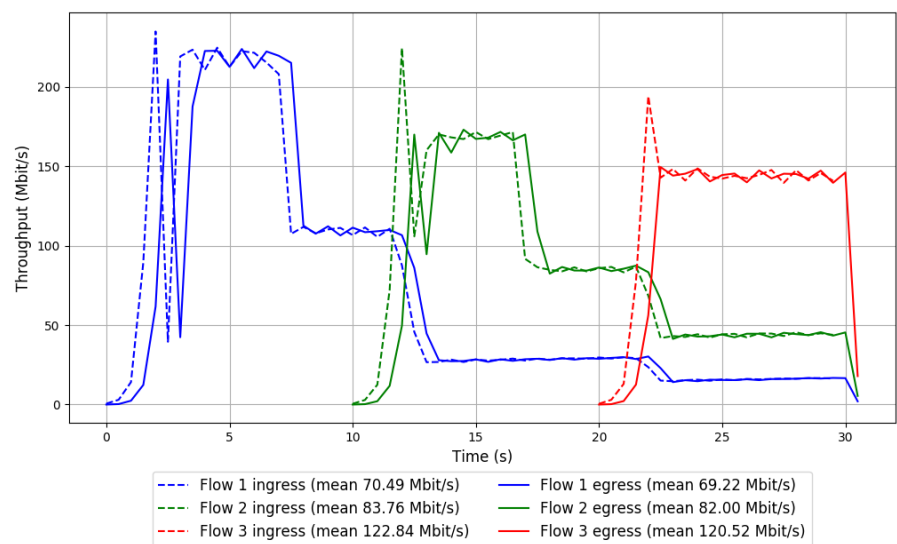


Run 1: Statistics of TCP Vegas

Start at: 2019-02-05 07:24:43  
End at: 2019-02-05 07:25:13  
Local clock offset: -0.716 ms  
Remote clock offset: -35.44 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 163.88 Mbit/s  
95th percentile per-packet one-way delay: 74.646 ms  
Loss rate: 1.93%  
-- Flow 1:  
Average throughput: 69.22 Mbit/s  
95th percentile per-packet one-way delay: 73.905 ms  
Loss rate: 1.80%  
-- Flow 2:  
Average throughput: 82.00 Mbit/s  
95th percentile per-packet one-way delay: 75.687 ms  
Loss rate: 2.12%  
-- Flow 3:  
Average throughput: 120.52 Mbit/s  
95th percentile per-packet one-way delay: 74.380 ms  
Loss rate: 1.89%

Run 1: Report of TCP Vegas — Data Link

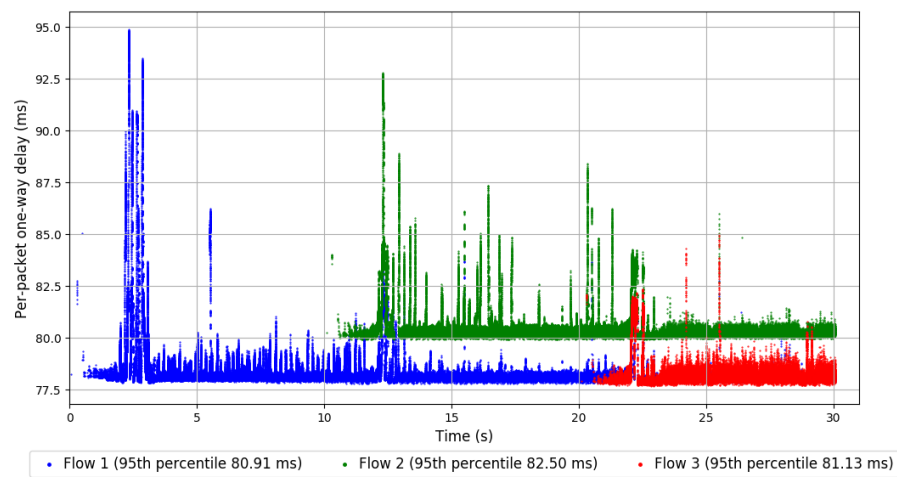
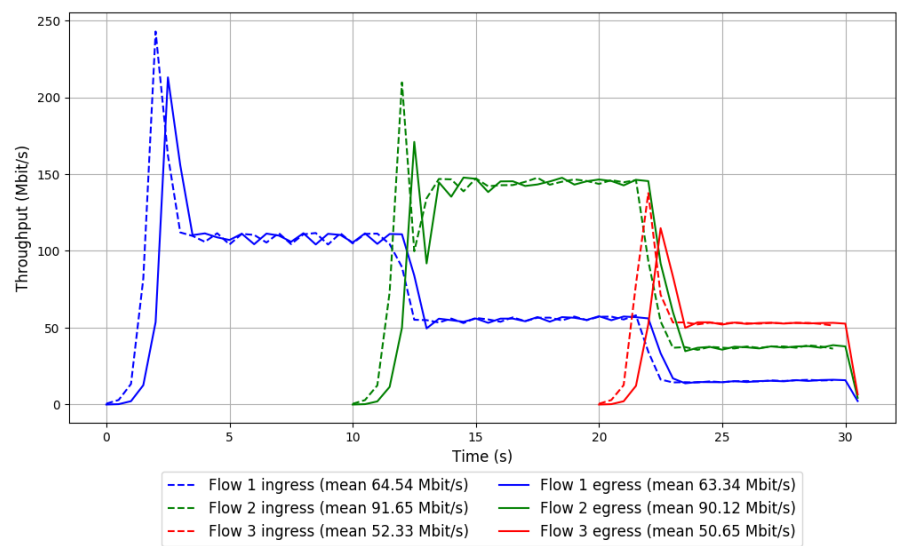


Run 2: Statistics of TCP Vegas

Start at: 2019-02-05 08:01:24  
End at: 2019-02-05 08:01:54  
Local clock offset: -1.405 ms  
Remote clock offset: -30.906 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 140.22 Mbit/s  
95th percentile per-packet one-way delay: 81.439 ms  
Loss rate: 1.94%  
-- Flow 1:  
Average throughput: 63.34 Mbit/s  
95th percentile per-packet one-way delay: 80.914 ms  
Loss rate: 1.84%  
-- Flow 2:  
Average throughput: 90.12 Mbit/s  
95th percentile per-packet one-way delay: 82.497 ms  
Loss rate: 1.68%  
-- Flow 3:  
Average throughput: 50.65 Mbit/s  
95th percentile per-packet one-way delay: 81.130 ms  
Loss rate: 3.21%

Run 2: Report of TCP Vegas — Data Link

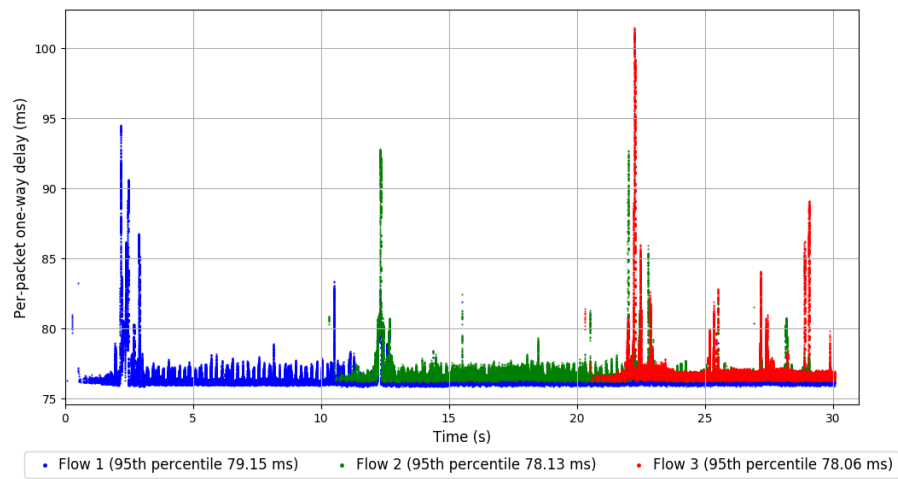
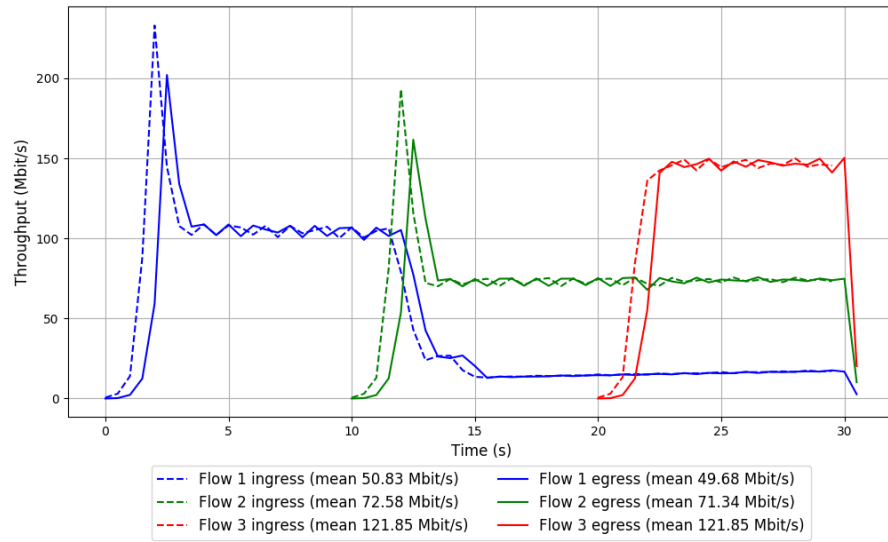


Run 3: Statistics of TCP Vegas

Start at: 2019-02-05 08:43:37  
End at: 2019-02-05 08:44:07  
Local clock offset: -0.207 ms  
Remote clock offset: -30.847 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 137.73 Mbit/s  
95th percentile per-packet one-way delay: 78.413 ms  
Loss rate: 1.42%  
-- Flow 1:  
Average throughput: 49.68 Mbit/s  
95th percentile per-packet one-way delay: 79.150 ms  
Loss rate: 2.27%  
-- Flow 2:  
Average throughput: 71.34 Mbit/s  
95th percentile per-packet one-way delay: 78.133 ms  
Loss rate: 1.71%  
-- Flow 3:  
Average throughput: 121.85 Mbit/s  
95th percentile per-packet one-way delay: 78.064 ms  
Loss rate: 0.00%

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



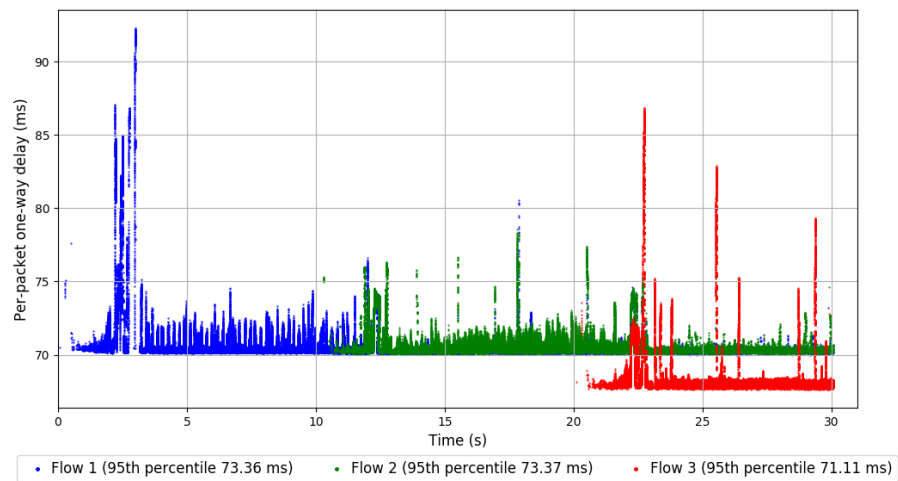
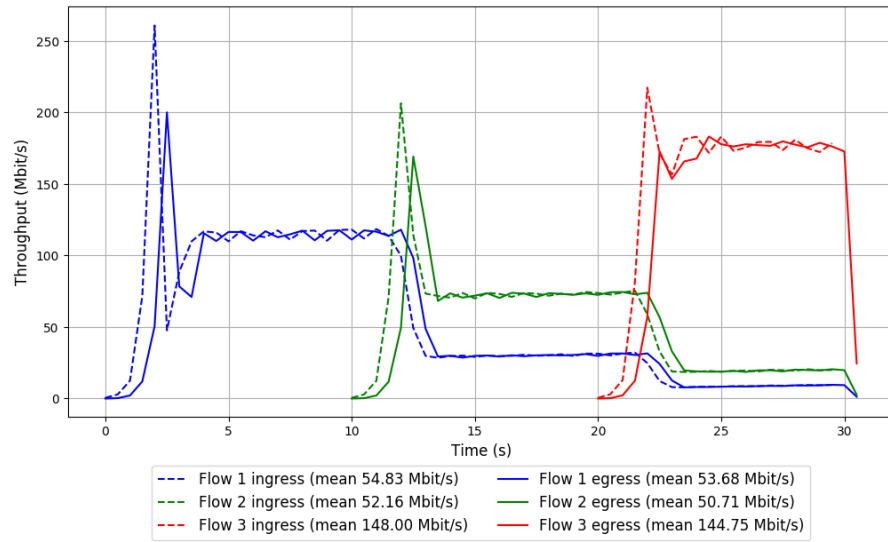


Run 4: Statistics of TCP Vegas

Start at: 2019-02-05 09:20:28  
End at: 2019-02-05 09:20:58  
Local clock offset: -3.284 ms  
Remote clock offset: -40.486 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 135.60 Mbit/s  
95th percentile per-packet one-way delay: 72.650 ms  
Loss rate: 2.30%  
-- Flow 1:  
Average throughput: 53.68 Mbit/s  
95th percentile per-packet one-way delay: 73.355 ms  
Loss rate: 2.10%  
-- Flow 2:  
Average throughput: 50.71 Mbit/s  
95th percentile per-packet one-way delay: 73.370 ms  
Loss rate: 2.77%  
-- Flow 3:  
Average throughput: 144.75 Mbit/s  
95th percentile per-packet one-way delay: 71.107 ms  
Loss rate: 2.19%

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

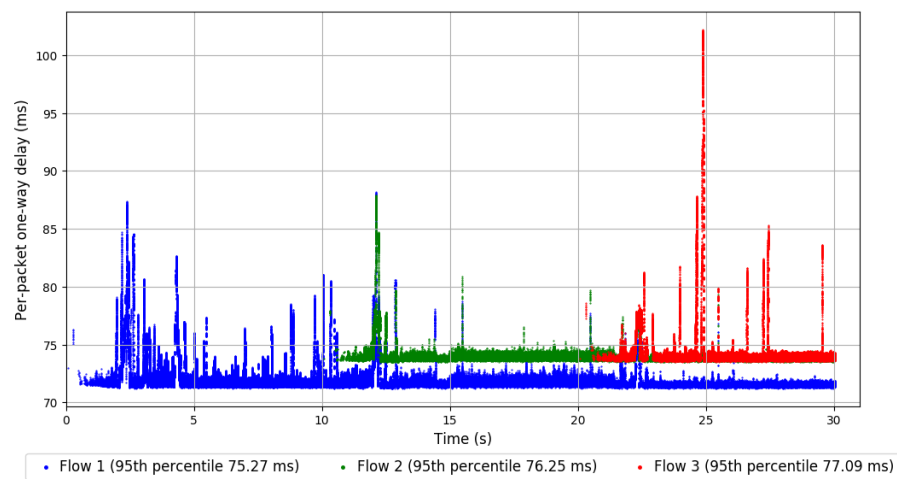
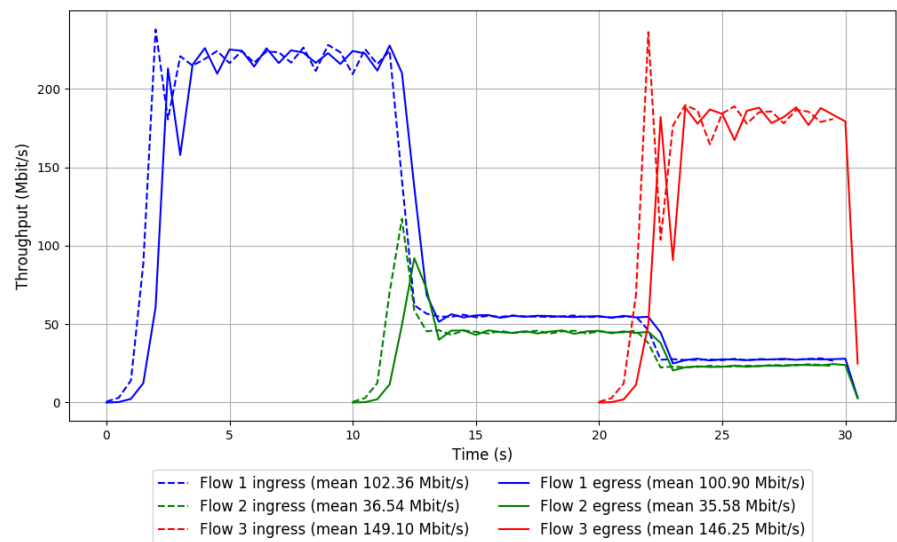


Run 5: Statistics of TCP Vegas

Start at: 2019-02-05 09:56:54  
End at: 2019-02-05 09:57:24  
Local clock offset: -2.706 ms  
Remote clock offset: -36.386 ms

# Below is generated by plot.py at 2019-02-05 11:04:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 173.20 Mbit/s  
95th percentile per-packet one-way delay: 75.754 ms  
Loss rate: 1.73%  
-- Flow 1:  
Average throughput: 100.90 Mbit/s  
95th percentile per-packet one-way delay: 75.274 ms  
Loss rate: 1.43%  
-- Flow 2:  
Average throughput: 35.58 Mbit/s  
95th percentile per-packet one-way delay: 76.255 ms  
Loss rate: 2.62%  
-- Flow 3:  
Average throughput: 146.25 Mbit/s  
95th percentile per-packet one-way delay: 77.087 ms  
Loss rate: 1.93%

Run 5: Report of TCP Vegas — Data Link

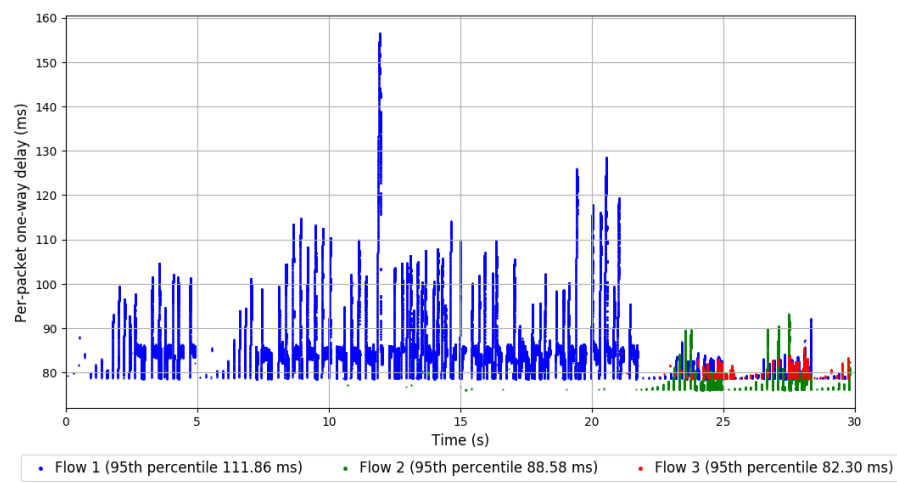
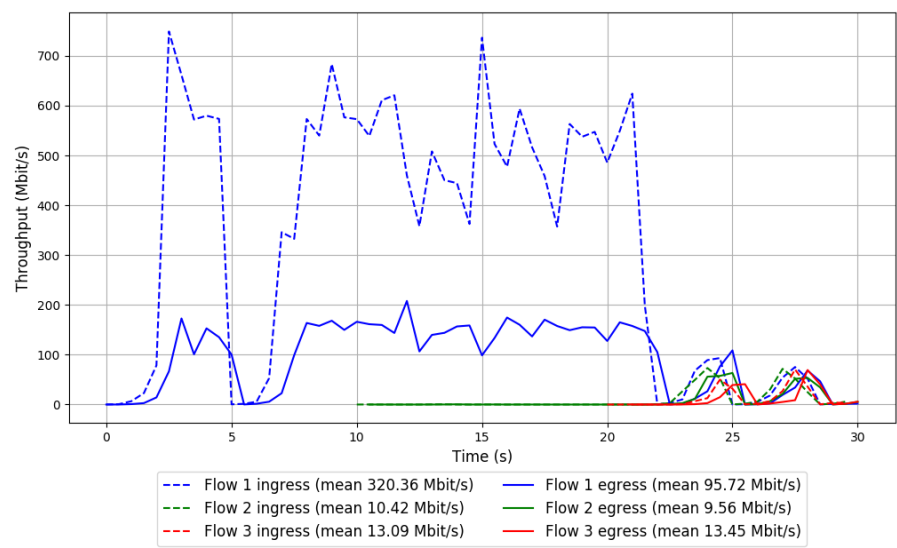


Run 1: Statistics of Verus

Start at: 2019-02-05 07:40:05  
End at: 2019-02-05 07:40:35  
Local clock offset: -2.024 ms  
Remote clock offset: -31.849 ms

# Below is generated by plot.py at 2019-02-05 11:04:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 105.22 Mbit/s  
95th percentile per-packet one-way delay: 110.195 ms  
Loss rate: 68.05%  
-- Flow 1:  
Average throughput: 95.72 Mbit/s  
95th percentile per-packet one-way delay: 111.864 ms  
Loss rate: 70.12%  
-- Flow 2:  
Average throughput: 9.56 Mbit/s  
95th percentile per-packet one-way delay: 88.581 ms  
Loss rate: 8.27%  
-- Flow 3:  
Average throughput: 13.45 Mbit/s  
95th percentile per-packet one-way delay: 82.302 ms  
Loss rate: 7.91%

Run 1: Report of Verus — Data Link

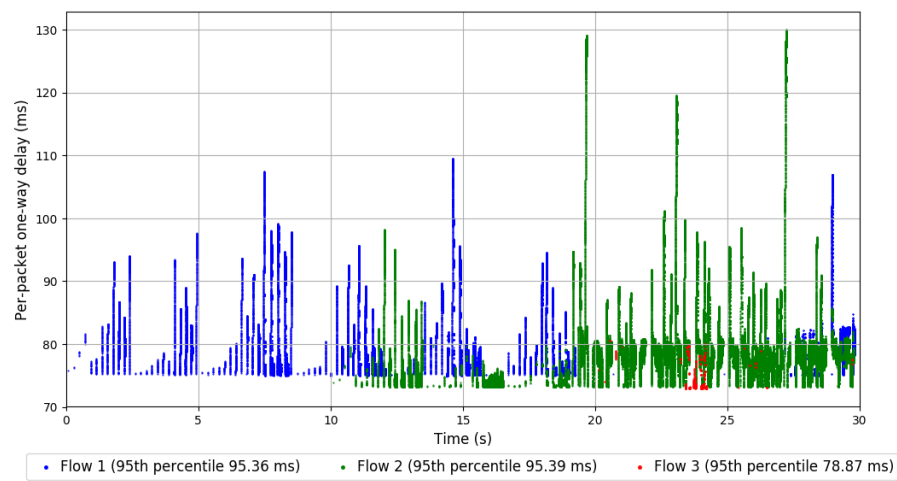
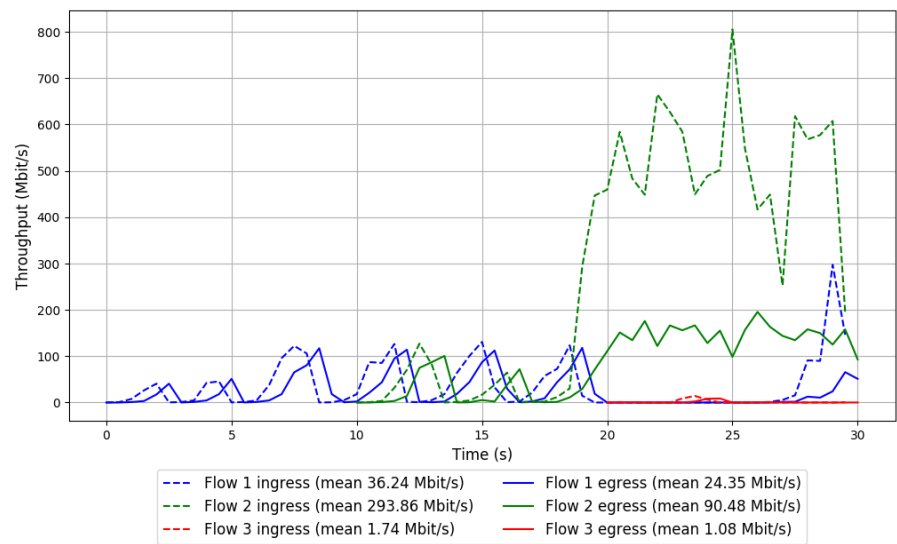


Run 2: Statistics of Verus

Start at: 2019-02-05 08:28:01  
End at: 2019-02-05 08:28:31  
Local clock offset: -0.042 ms  
Remote clock offset: -34.228 ms

# Below is generated by plot.py at 2019-02-05 11:04:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.52 Mbit/s  
95th percentile per-packet one-way delay: 95.356 ms  
Loss rate: 63.42%  
-- Flow 1:  
Average throughput: 24.35 Mbit/s  
95th percentile per-packet one-way delay: 95.358 ms  
Loss rate: 32.79%  
-- Flow 2:  
Average throughput: 90.48 Mbit/s  
95th percentile per-packet one-way delay: 95.392 ms  
Loss rate: 69.20%  
-- Flow 3:  
Average throughput: 1.08 Mbit/s  
95th percentile per-packet one-way delay: 78.874 ms  
Loss rate: 37.70%

Run 2: Report of Verus — Data Link



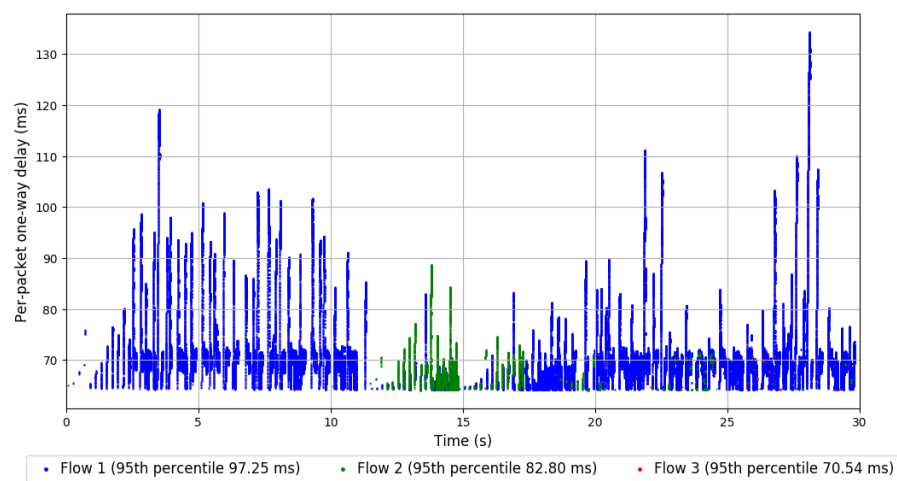
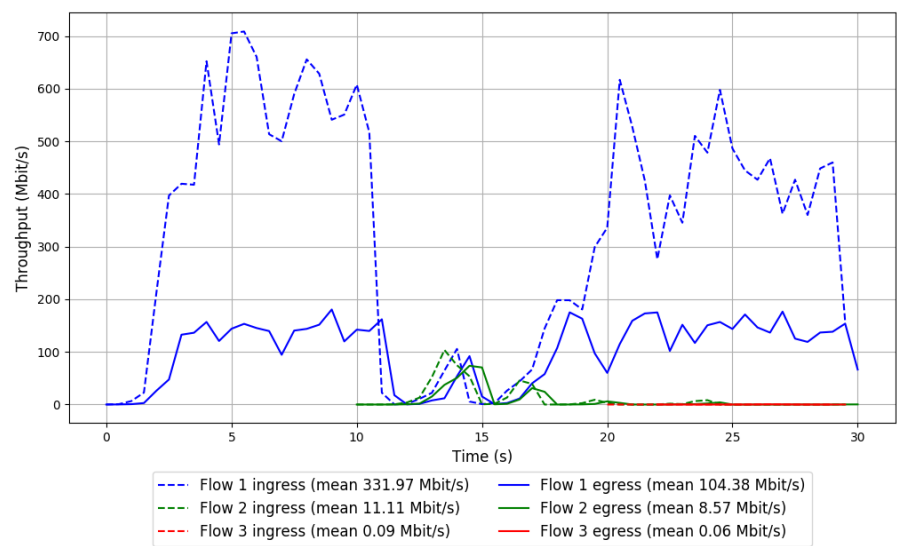


Run 3: Statistics of Verus

Start at: 2019-02-05 09:04:46  
End at: 2019-02-05 09:05:16  
Local clock offset: -1.005 ms  
Remote clock offset: -42.46 ms

# Below is generated by plot.py at 2019-02-05 11:05:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 110.04 Mbit/s  
95th percentile per-packet one-way delay: 96.763 ms  
Loss rate: 67.56%  
-- Flow 1:  
Average throughput: 104.38 Mbit/s  
95th percentile per-packet one-way delay: 97.252 ms  
Loss rate: 68.55%  
-- Flow 2:  
Average throughput: 8.57 Mbit/s  
95th percentile per-packet one-way delay: 82.803 ms  
Loss rate: 22.92%  
-- Flow 3:  
Average throughput: 0.06 Mbit/s  
95th percentile per-packet one-way delay: 70.539 ms  
Loss rate: 51.39%

Run 3: Report of Verus — Data Link

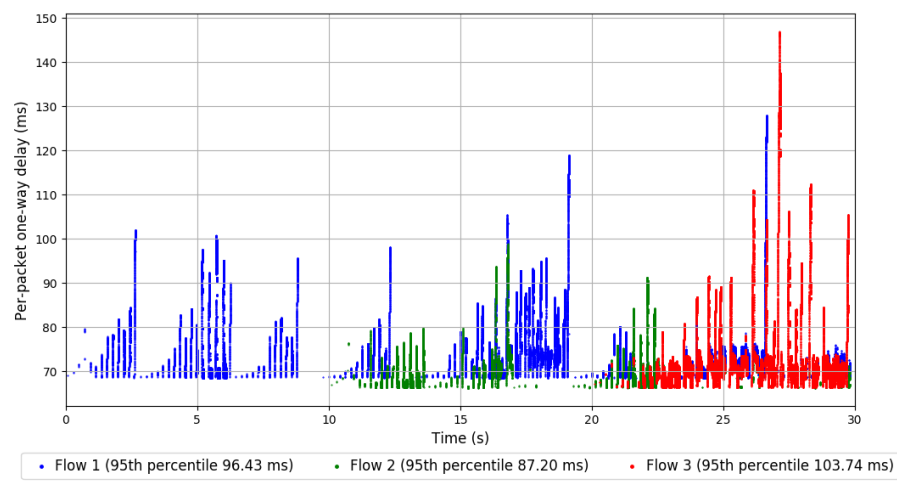
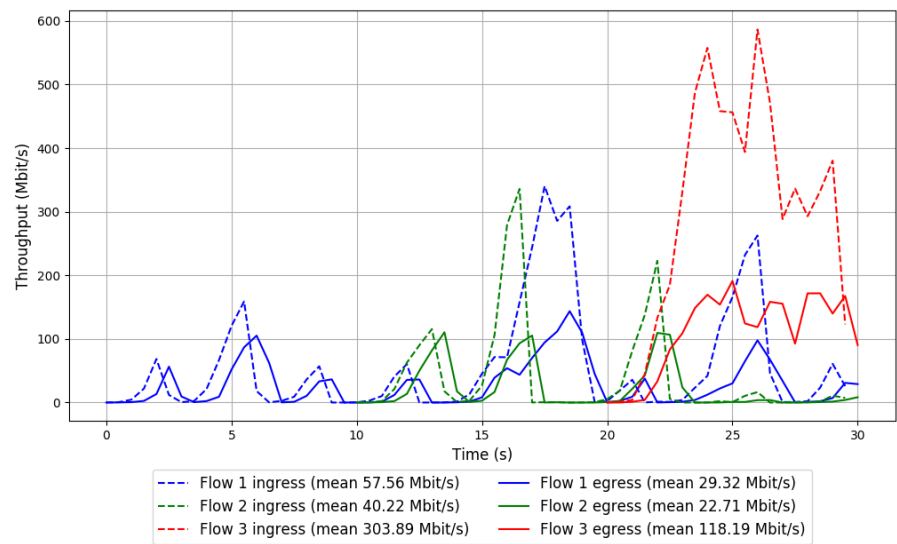


Run 4: Statistics of Verus

Start at: 2019-02-05 09:41:21  
End at: 2019-02-05 09:41:51  
Local clock offset: -2.347 ms  
Remote clock offset: -40.518 ms

# Below is generated by plot.py at 2019-02-05 11:05:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.77 Mbit/s  
95th percentile per-packet one-way delay: 97.850 ms  
Loss rate: 54.72%  
-- Flow 1:  
Average throughput: 29.32 Mbit/s  
95th percentile per-packet one-way delay: 96.429 ms  
Loss rate: 49.06%  
-- Flow 2:  
Average throughput: 22.71 Mbit/s  
95th percentile per-packet one-way delay: 87.197 ms  
Loss rate: 43.54%  
-- Flow 3:  
Average throughput: 118.19 Mbit/s  
95th percentile per-packet one-way delay: 103.742 ms  
Loss rate: 61.04%

Run 4: Report of Verus — Data Link

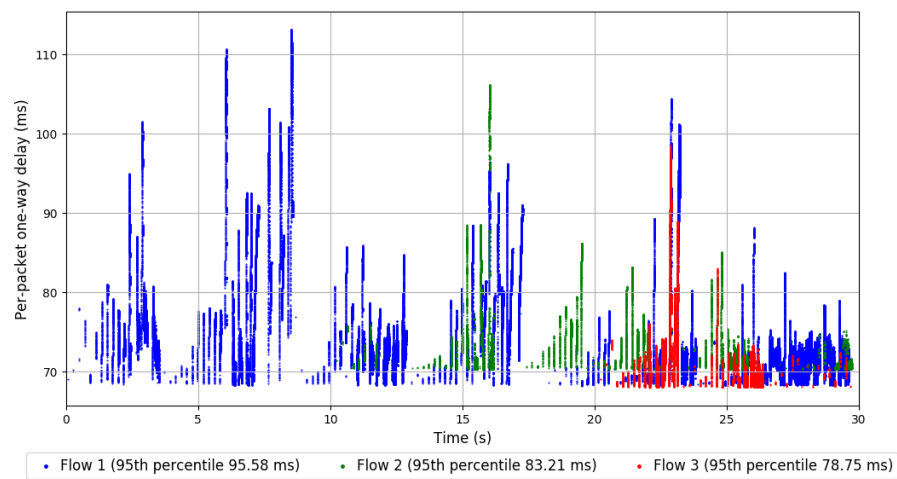
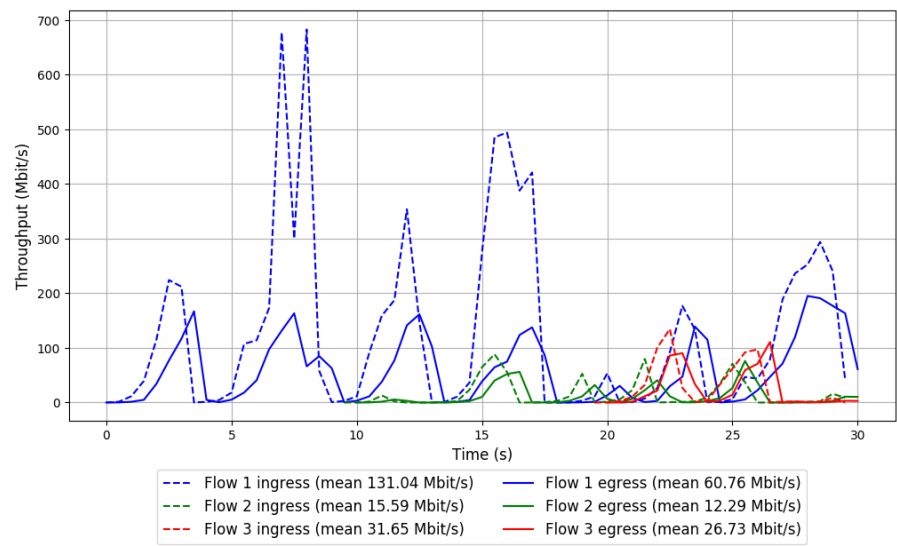


Run 5: Statistics of Verus

Start at: 2019-02-05 10:16:49  
End at: 2019-02-05 10:17:19  
Local clock offset: -0.535 ms  
Remote clock offset: -37.99 ms

# Below is generated by plot.py at 2019-02-05 11:05:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 77.40 Mbit/s  
95th percentile per-packet one-way delay: 94.089 ms  
Loss rate: 48.81%  
-- Flow 1:  
Average throughput: 60.76 Mbit/s  
95th percentile per-packet one-way delay: 95.582 ms  
Loss rate: 53.63%  
-- Flow 2:  
Average throughput: 12.29 Mbit/s  
95th percentile per-packet one-way delay: 83.214 ms  
Loss rate: 21.16%  
-- Flow 3:  
Average throughput: 26.73 Mbit/s  
95th percentile per-packet one-way delay: 78.750 ms  
Loss rate: 15.56%

Run 5: Report of Verus — Data Link

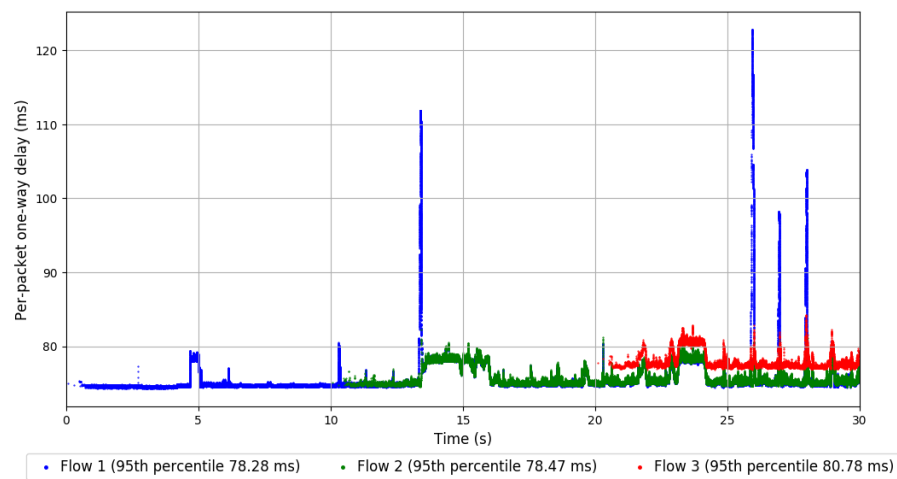
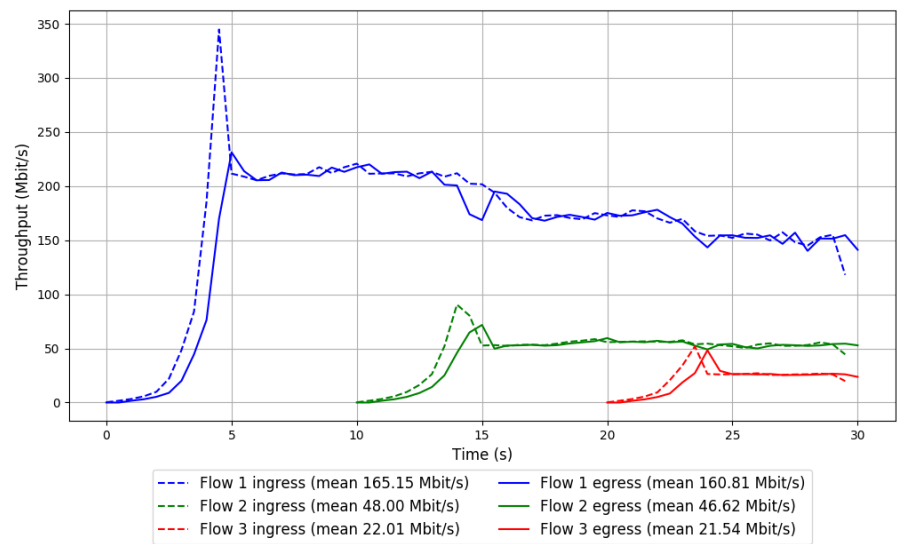


Run 1: Statistics of PCC-Vivace

Start at: 2019-02-05 07:34:03  
End at: 2019-02-05 07:34:33  
Local clock offset: 0.191 ms  
Remote clock offset: -31.059 ms

# Below is generated by plot.py at 2019-02-05 11:05:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 198.94 Mbit/s  
95th percentile per-packet one-way delay: 78.364 ms  
Loss rate: 2.64%  
-- Flow 1:  
Average throughput: 160.81 Mbit/s  
95th percentile per-packet one-way delay: 78.276 ms  
Loss rate: 2.62%  
-- Flow 2:  
Average throughput: 46.62 Mbit/s  
95th percentile per-packet one-way delay: 78.467 ms  
Loss rate: 2.88%  
-- Flow 3:  
Average throughput: 21.54 Mbit/s  
95th percentile per-packet one-way delay: 80.784 ms  
Loss rate: 2.17%

Run 1: Report of PCC-Vivace — Data Link



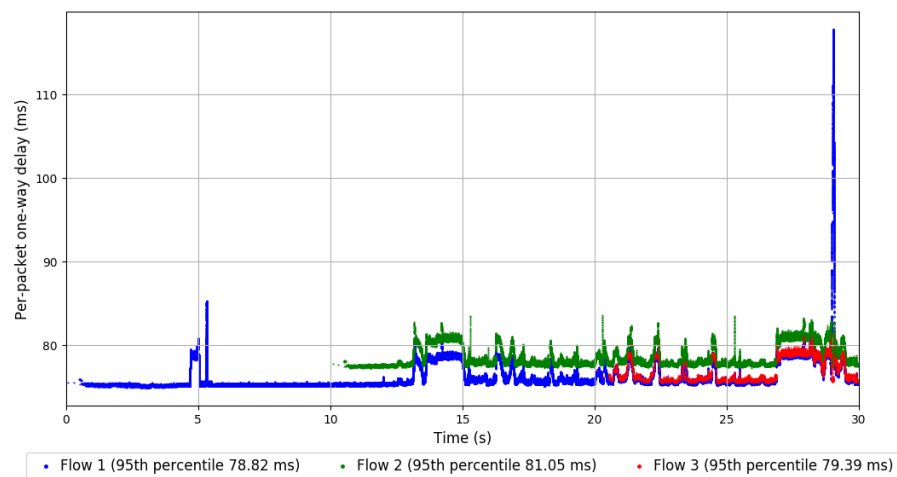
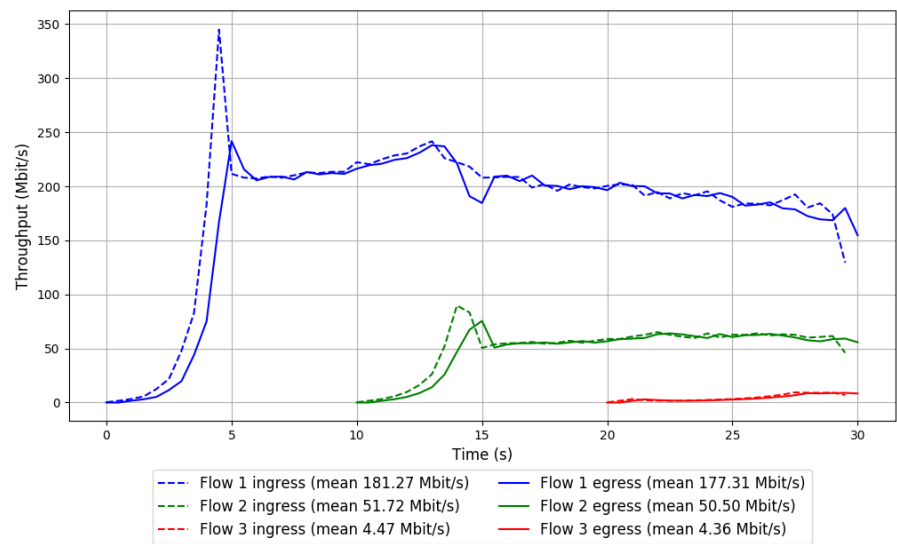


Run 2: Statistics of PCC-Vivace

Start at: 2019-02-05 08:21:56  
End at: 2019-02-05 08:22:26  
Local clock offset: -0.286 ms  
Remote clock offset: -32.27 ms

# Below is generated by plot.py at 2019-02-05 11:06:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 212.33 Mbit/s  
95th percentile per-packet one-way delay: 79.706 ms  
Loss rate: 2.21%  
-- Flow 1:  
Average throughput: 177.31 Mbit/s  
95th percentile per-packet one-way delay: 78.820 ms  
Loss rate: 2.18%  
-- Flow 2:  
Average throughput: 50.50 Mbit/s  
95th percentile per-packet one-way delay: 81.051 ms  
Loss rate: 2.37%  
-- Flow 3:  
Average throughput: 4.36 Mbit/s  
95th percentile per-packet one-way delay: 79.393 ms  
Loss rate: 2.48%

Run 2: Report of PCC-Vivace — Data Link

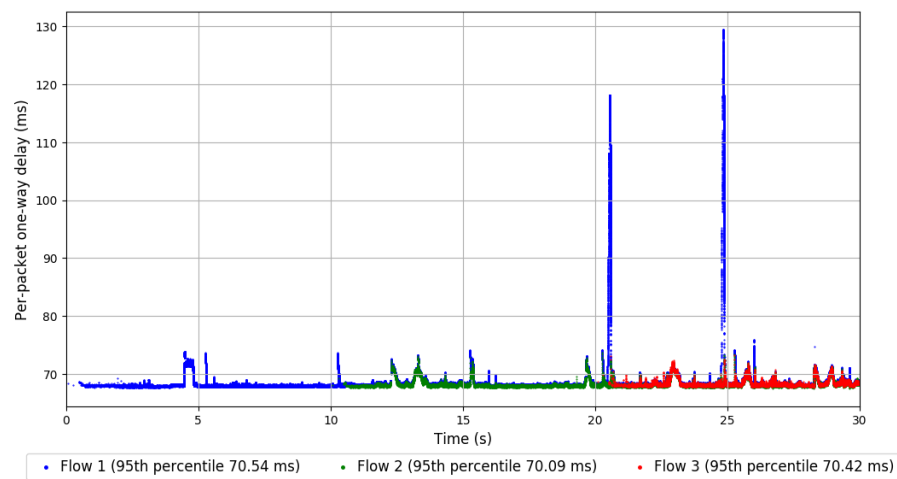
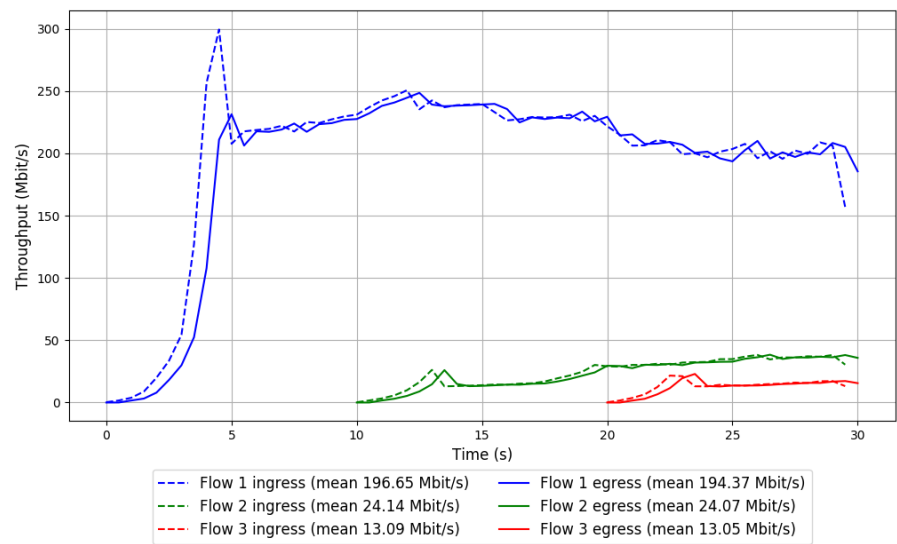


Run 3: Statistics of PCC-Vivace

Start at: 2019-02-05 08:53:04  
End at: 2019-02-05 08:53:34  
Local clock offset: -1.563 ms  
Remote clock offset: -39.805 ms

# Below is generated by plot.py at 2019-02-05 11:06:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 214.70 Mbit/s  
95th percentile per-packet one-way delay: 70.493 ms  
Loss rate: 1.08%  
-- Flow 1:  
Average throughput: 194.37 Mbit/s  
95th percentile per-packet one-way delay: 70.540 ms  
Loss rate: 1.16%  
-- Flow 2:  
Average throughput: 24.07 Mbit/s  
95th percentile per-packet one-way delay: 70.093 ms  
Loss rate: 0.28%  
-- Flow 3:  
Average throughput: 13.05 Mbit/s  
95th percentile per-packet one-way delay: 70.418 ms  
Loss rate: 0.30%

Run 3: Report of PCC-Vivace — Data Link

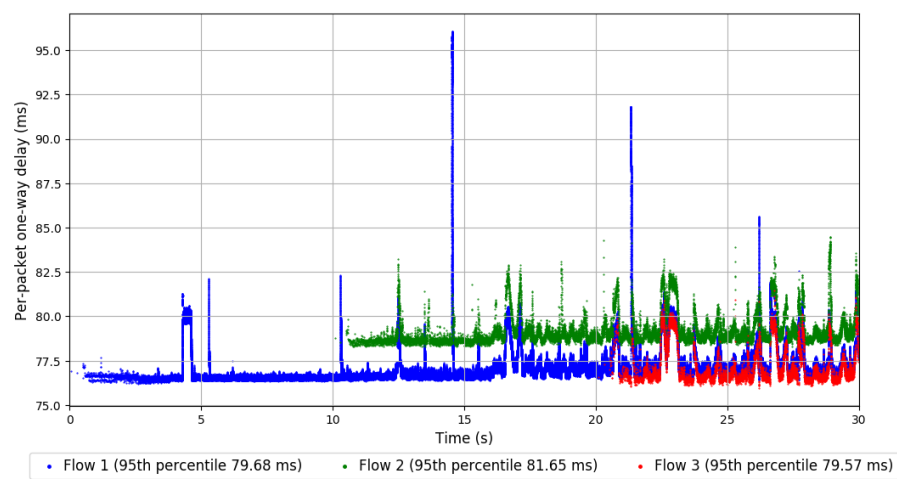
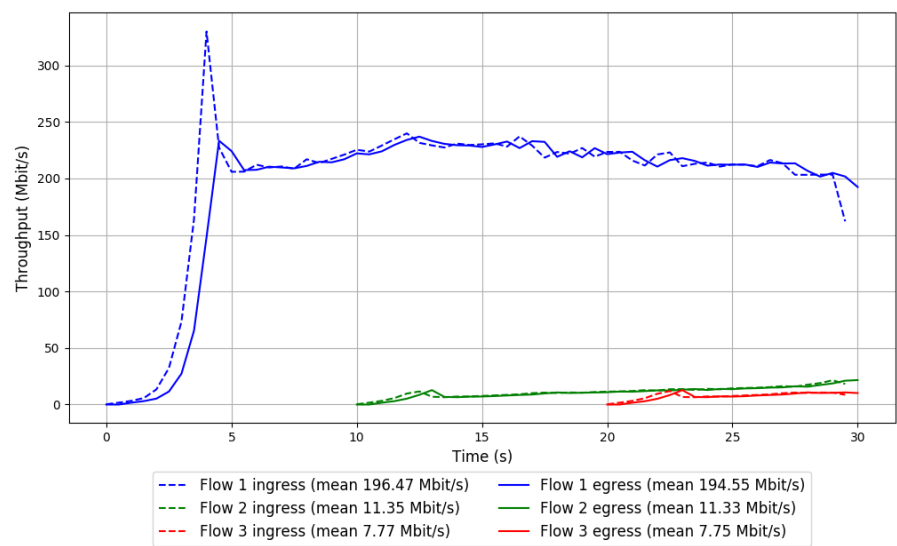


Run 4: Statistics of PCC-Vivace

Start at: 2019-02-05 09:35:17  
End at: 2019-02-05 09:35:47  
Local clock offset: -3.265 ms  
Remote clock offset: -31.627 ms

# Below is generated by plot.py at 2019-02-05 11:06:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 204.64 Mbit/s  
95th percentile per-packet one-way delay: 79.752 ms  
Loss rate: 0.93%  
-- Flow 1:  
Average throughput: 194.55 Mbit/s  
95th percentile per-packet one-way delay: 79.684 ms  
Loss rate: 0.97%  
-- Flow 2:  
Average throughput: 11.33 Mbit/s  
95th percentile per-packet one-way delay: 81.649 ms  
Loss rate: 0.16%  
-- Flow 3:  
Average throughput: 7.75 Mbit/s  
95th percentile per-packet one-way delay: 79.569 ms  
Loss rate: 0.21%

Run 4: Report of PCC-Vivace — Data Link

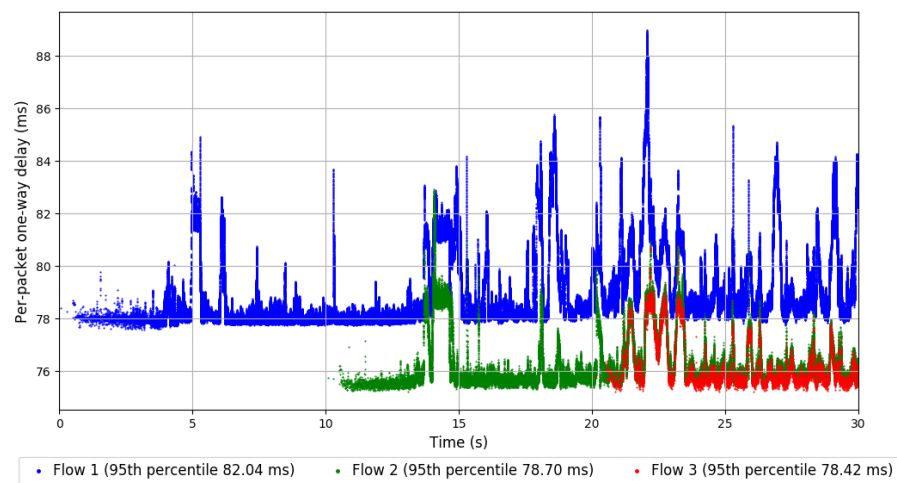
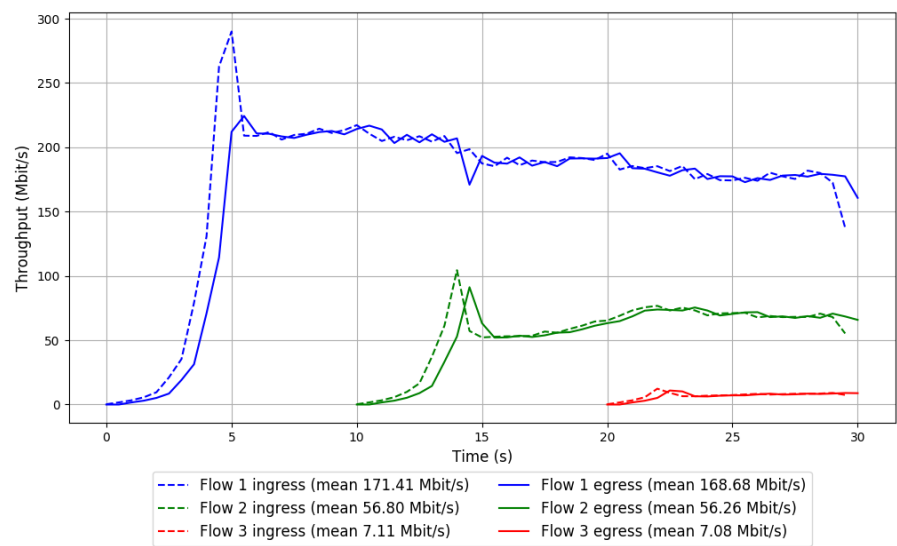


Run 5: Statistics of PCC-Vivace

Start at: 2019-02-05 10:10:45  
End at: 2019-02-05 10:11:15  
Local clock offset: -4.077 ms  
Remote clock offset: -33.906 ms

# Below is generated by plot.py at 2019-02-05 11:06:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 208.44 Mbit/s  
95th percentile per-packet one-way delay: 81.780 ms  
Loss rate: 1.47%  
-- Flow 1:  
Average throughput: 168.68 Mbit/s  
95th percentile per-packet one-way delay: 82.041 ms  
Loss rate: 1.60%  
-- Flow 2:  
Average throughput: 56.26 Mbit/s  
95th percentile per-packet one-way delay: 78.704 ms  
Loss rate: 0.95%  
-- Flow 3:  
Average throughput: 7.08 Mbit/s  
95th percentile per-packet one-way delay: 78.425 ms  
Loss rate: 0.36%

Run 5: Report of PCC-Vivace — Data Link



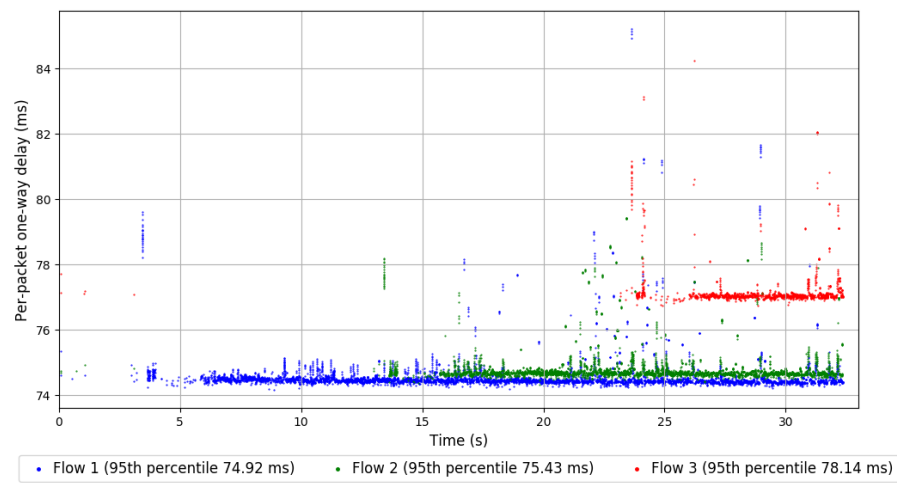
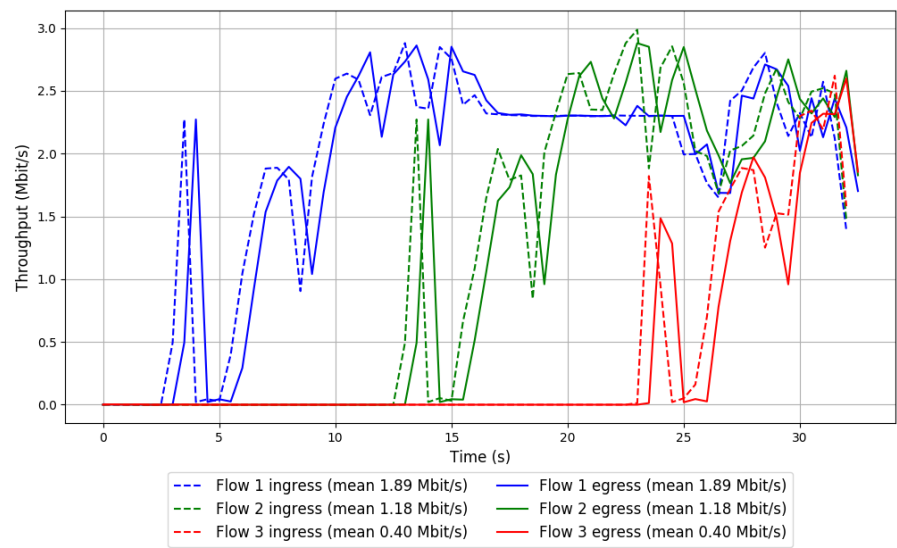


Run 1: Statistics of WebRTC media

Start at: 2019-02-05 07:23:25  
End at: 2019-02-05 07:23:55  
Local clock offset: -1.265 ms  
Remote clock offset: -32.95 ms

# Below is generated by plot.py at 2019-02-05 11:06:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.47 Mbit/s  
95th percentile per-packet one-way delay: 77.069 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.89 Mbit/s  
95th percentile per-packet one-way delay: 74.925 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.18 Mbit/s  
95th percentile per-packet one-way delay: 75.430 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.40 Mbit/s  
95th percentile per-packet one-way delay: 78.139 ms  
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

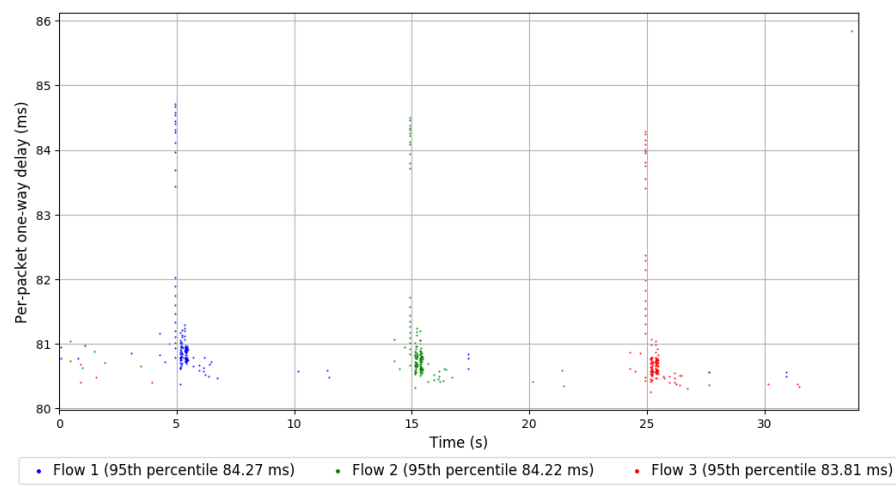
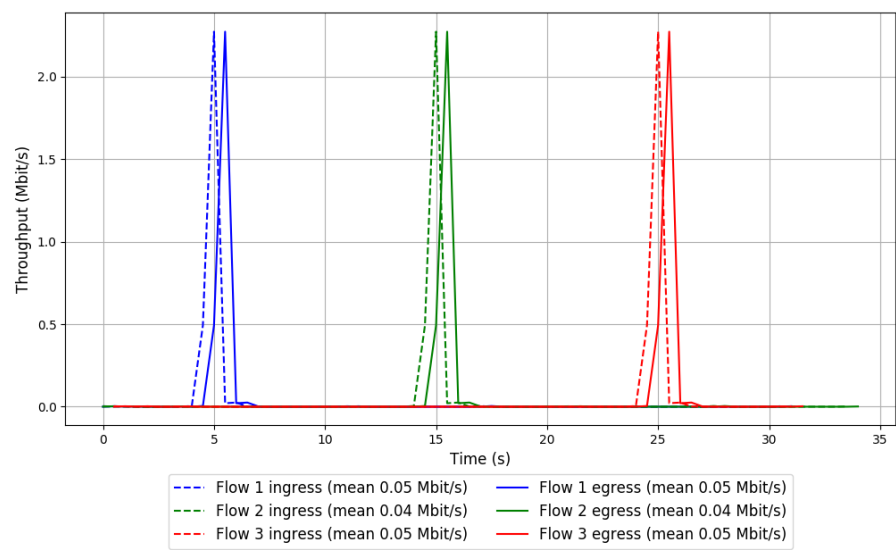


Run 2: Statistics of WebRTC media

Start at: 2019-02-05 08:00:07  
End at: 2019-02-05 08:00:37  
Local clock offset: -1.205 ms  
Remote clock offset: -28.033 ms

# Below is generated by plot.py at 2019-02-05 11:06:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 84.087 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 84.271 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 84.216 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 83.813 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

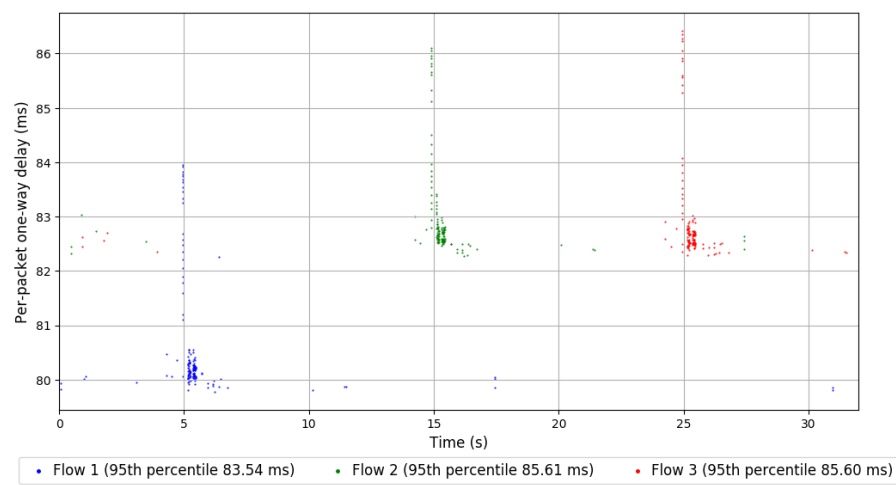
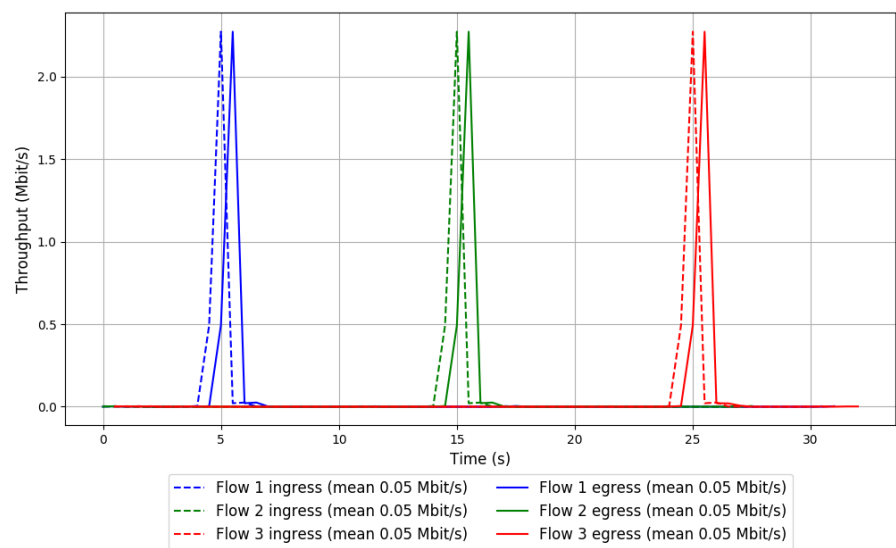


Run 3: Statistics of WebRTC media

Start at: 2019-02-05 08:42:20  
End at: 2019-02-05 08:42:50  
Local clock offset: -2.269 ms  
Remote clock offset: -29.174 ms

# Below is generated by plot.py at 2019-02-05 11:06:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 84.334 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 83.540 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 85.612 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 85.598 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

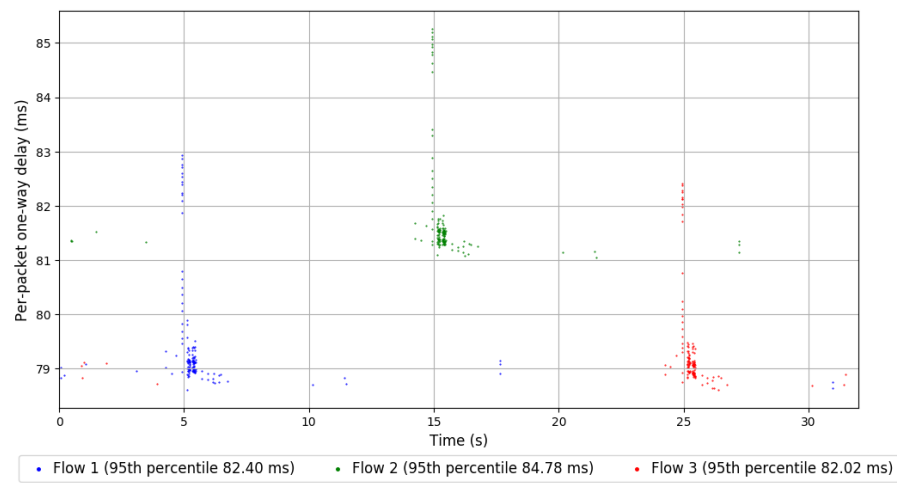
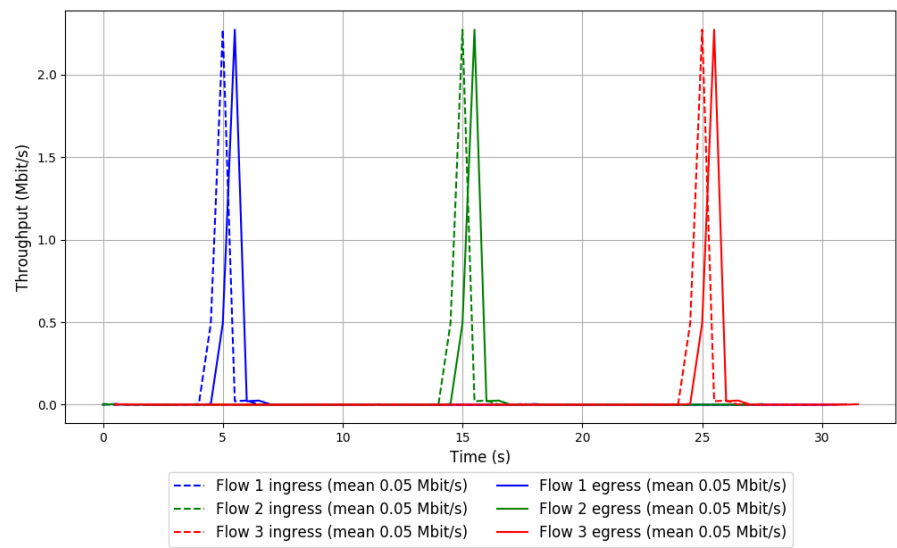


Run 4: Statistics of WebRTC media

Start at: 2019-02-05 09:19:11  
End at: 2019-02-05 09:19:41  
Local clock offset: -4.311 ms  
Remote clock offset: -30.547 ms

# Below is generated by plot.py at 2019-02-05 11:06:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 82.410 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 82.400 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 84.783 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 82.022 ms  
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link





Run 5: Statistics of WebRTC media

Start at: 2019-02-05 09:55:37  
End at: 2019-02-05 09:56:07  
Local clock offset: -3.7 ms  
Remote clock offset: -41.975 ms

# Below is generated by plot.py at 2019-02-05 11:06:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 70.339 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 69.890 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 70.406 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 72.795 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

