

## Pantheon Report

Generated at 2019-01-22 06:52:55 (UTC).

Data path: Saudi Arabia on `enp2s0` (*remote*) → AWS India 2 on `ens5` (*local*).

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:

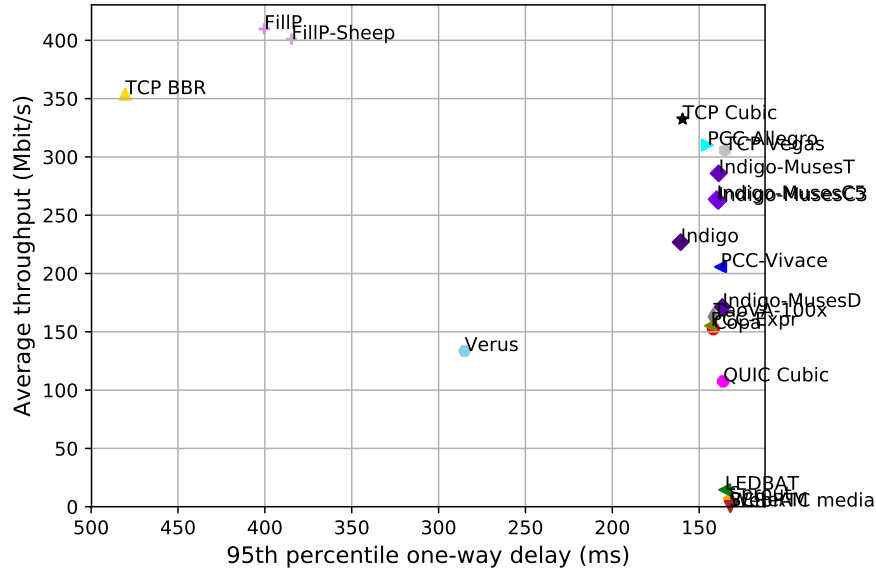
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

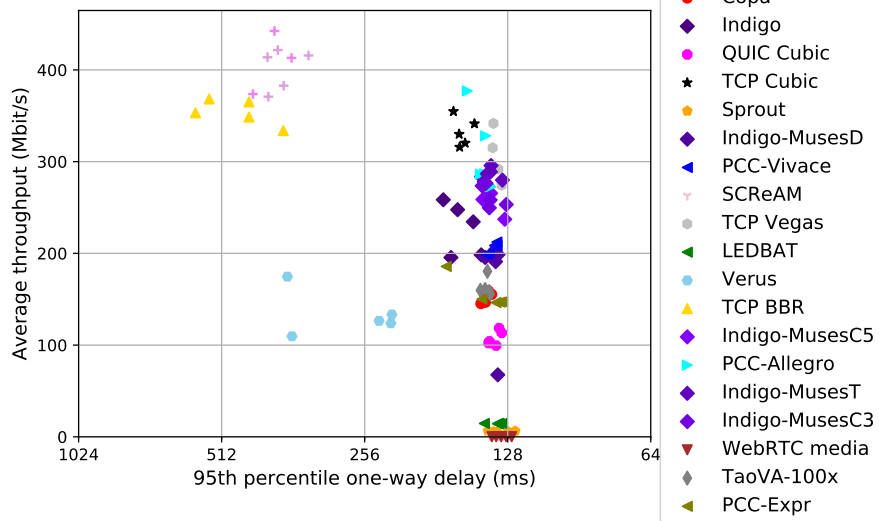
```
branch: muses @ 89d24e57783e7fbfec537a619071de937b639e38
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 1ddcff131048c6962f123bcd22b4d166a422adde
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 Saudi Arabia to AWS India 2, 5 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



test from Saudi Arabia to AWS India 2, 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	240.10	172.89	64.63	487.98	414.96	295.94	3.35	4.52	14.16
Copa	5	91.99	67.31	49.16	142.29	140.75	142.56	0.44	0.93	2.54
TCP Cubic	5	200.77	143.29	118.24	150.70	177.75	206.08	0.39	0.86	2.53
FillP	3	241.27	187.41	138.51	419.07	365.88	288.12	3.69	8.10	17.18
FillP-Sheep	5	258.73	160.78	117.37	389.22	335.70	392.00	2.26	6.31	11.57
Indigo	5	106.67	131.75	101.32	153.75	162.40	174.04	0.80	1.19	2.74
Indigo-MusesC3	5	190.46	102.18	41.76	138.73	139.02	136.89	0.20	1.45	5.16
Indigo-MusesC5	5	216.86	51.27	58.06	140.38	136.08	136.50	0.26	1.83	3.74
Indigo-MusesD	5	155.53	23.21	5.05	136.64	135.41	134.12	0.25	0.49	3.70
Indigo-MusesT	5	208.91	97.97	63.04	138.70	138.20	139.04	0.30	1.06	4.19
LEDBAT	5	9.41	6.28	2.95	134.93	134.87	135.33	1.31	1.95	4.03
PCC-Allegro	5	262.19	60.56	24.43	145.66	141.68	142.08	0.70	1.04	2.03
PCC-Expr	5	138.14	22.36	7.10	145.02	136.87	137.56	0.69	1.07	1.99
QUIC Cubic	5	52.09	57.12	53.72	135.45	135.94	135.48	0.60	0.70	1.84
SCReAM	5	0.22	0.22	0.22	131.78	132.73	132.32	0.64	1.03	1.83
Sprout	5	2.96	3.25	2.26	131.79	132.81	132.43	0.82	1.32	2.83
TaoVA-100x	5	101.96	69.24	46.01	141.26	141.77	142.44	0.46	1.10	1.68
TCP Vegas	4	213.09	99.72	80.74	134.84	134.41	135.31	0.43	0.96	2.32
Verus	5	89.25	48.99	37.38	289.00	259.49	292.21	1.91	8.03	10.25
PCC-Vivace	5	172.65	38.94	22.14	137.39	138.05	137.88	0.57	1.32	4.00
WebRTC media	5	0.05	0.05	0.05	132.79	132.47	133.22	0.03	0.01	0.02

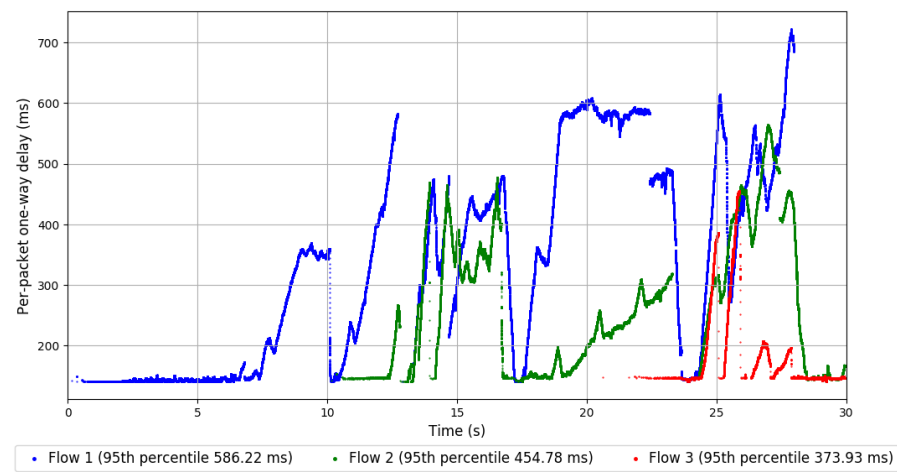
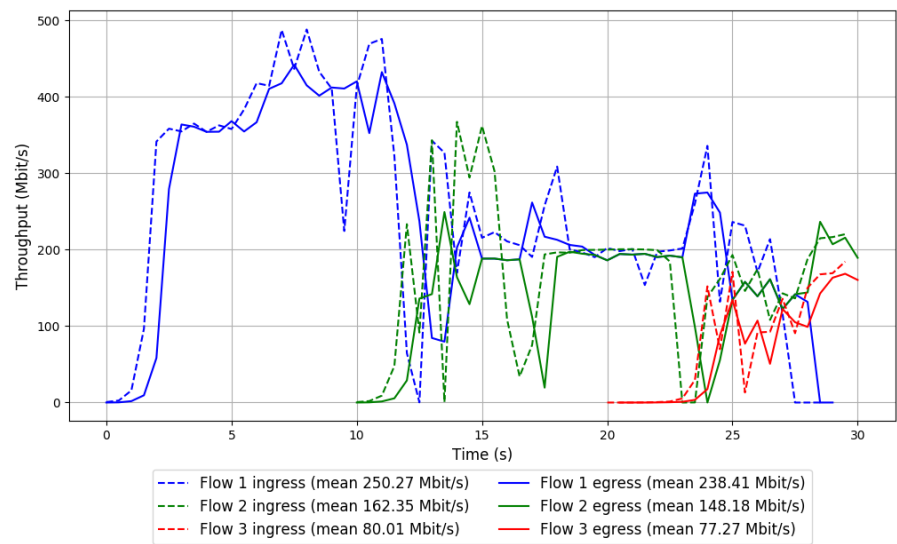


Run 1: Statistics of TCP BBR

Start at: 2019-01-22 02:28:32  
End at: 2019-01-22 02:29:02  
Local clock offset: 1.762 ms  
Remote clock offset: -45.852 ms

# Below is generated by plot.py at 2019-01-22 06:25:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 353.25 Mbit/s  
95th percentile per-packet one-way delay: 581.144 ms  
Loss rate: 6.20%  
-- Flow 1:  
Average throughput: 238.41 Mbit/s  
95th percentile per-packet one-way delay: 586.217 ms  
Loss rate: 4.73%  
-- Flow 2:  
Average throughput: 148.18 Mbit/s  
95th percentile per-packet one-way delay: 454.783 ms  
Loss rate: 9.64%  
-- Flow 3:  
Average throughput: 77.27 Mbit/s  
95th percentile per-packet one-way delay: 373.927 ms  
Loss rate: 5.51%

Run 1: Report of TCP BBR — Data Link

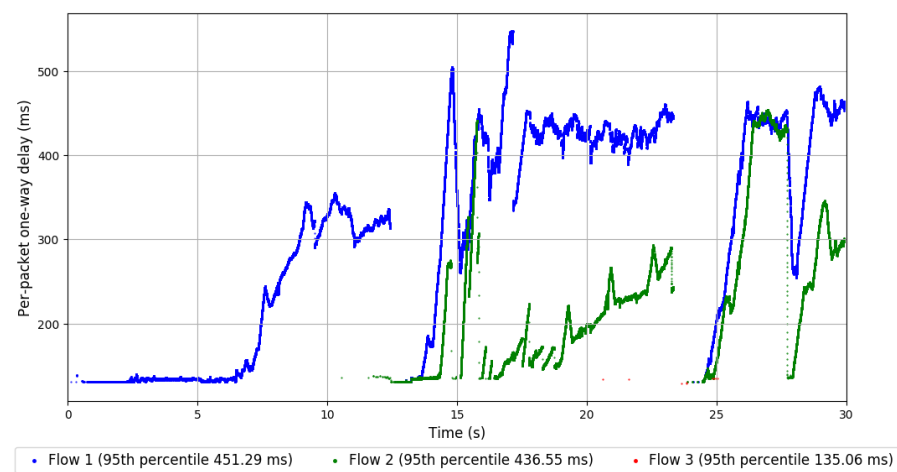
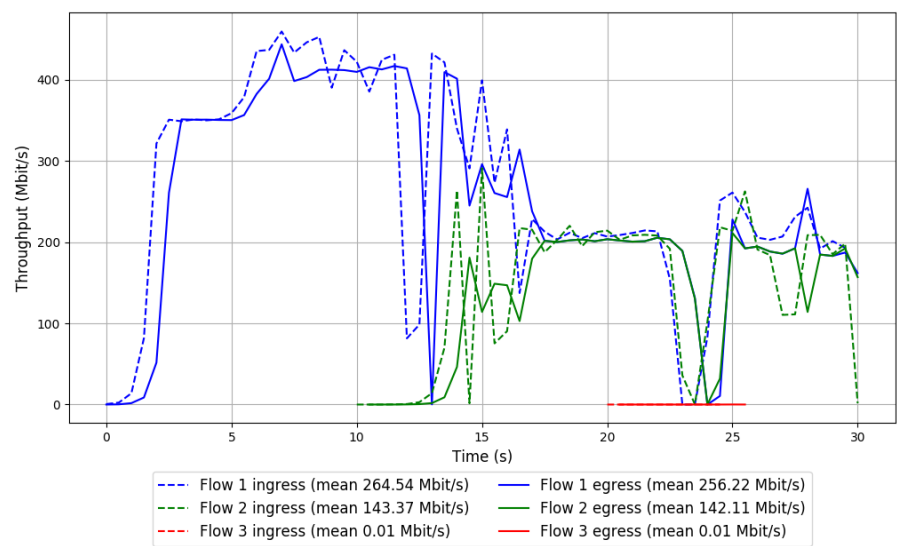


Run 2: Statistics of TCP BBR

Start at: 2019-01-22 03:14:58  
End at: 2019-01-22 03:15:28  
Local clock offset: -3.292 ms  
Remote clock offset: -38.078 ms

# Below is generated by plot.py at 2019-01-22 06:25:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 348.59 Mbit/s  
95th percentile per-packet one-way delay: 448.494 ms  
Loss rate: 3.82%  
-- Flow 1:  
Average throughput: 256.22 Mbit/s  
95th percentile per-packet one-way delay: 451.291 ms  
Loss rate: 3.79%  
-- Flow 2:  
Average throughput: 142.11 Mbit/s  
95th percentile per-packet one-way delay: 436.548 ms  
Loss rate: 3.90%  
-- Flow 3:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 135.062 ms  
Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link

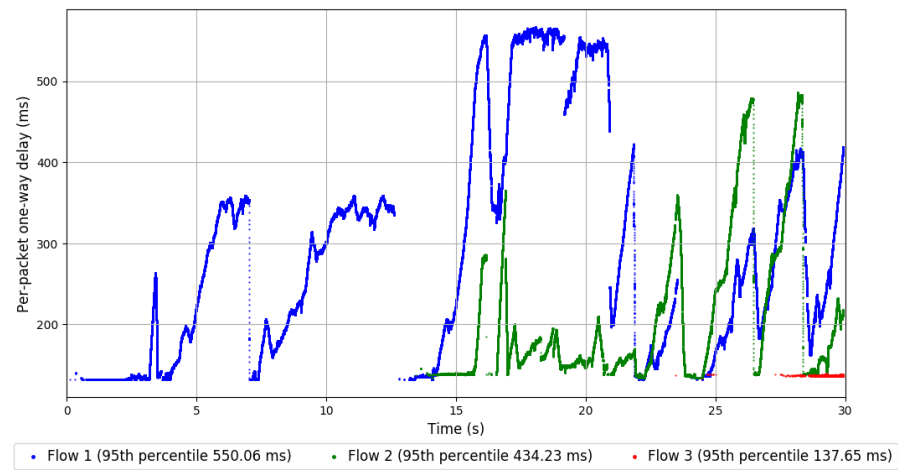
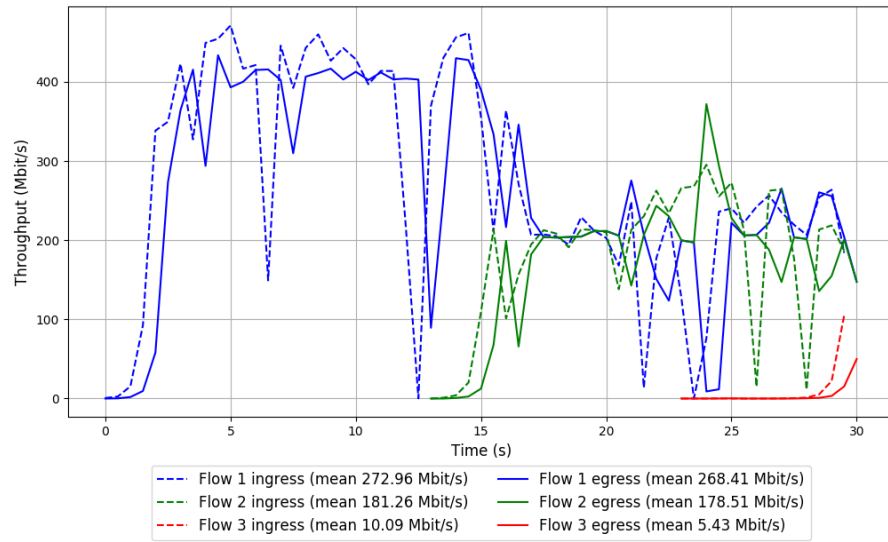


Run 3: Statistics of TCP BBR

Start at: 2019-01-22 03:46:08  
End at: 2019-01-22 03:46:38  
Local clock offset: -0.331 ms  
Remote clock offset: -40.665 ms

# Below is generated by plot.py at 2019-01-22 06:25:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 368.31 Mbit/s  
95th percentile per-packet one-way delay: 544.010 ms  
Loss rate: 2.70%  
-- Flow 1:  
Average throughput: 268.41 Mbit/s  
95th percentile per-packet one-way delay: 550.063 ms  
Loss rate: 2.32%  
-- Flow 2:  
Average throughput: 178.51 Mbit/s  
95th percentile per-packet one-way delay: 434.228 ms  
Loss rate: 2.73%  
-- Flow 3:  
Average throughput: 5.43 Mbit/s  
95th percentile per-packet one-way delay: 137.652 ms  
Loss rate: 47.86%

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

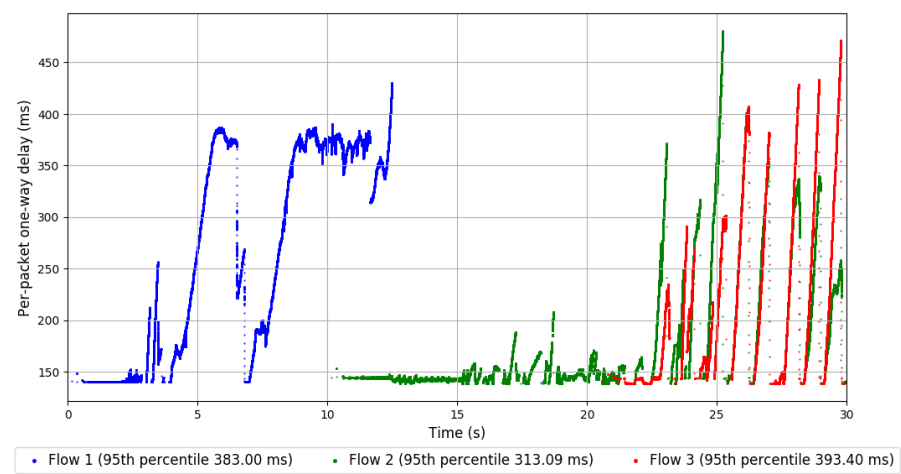
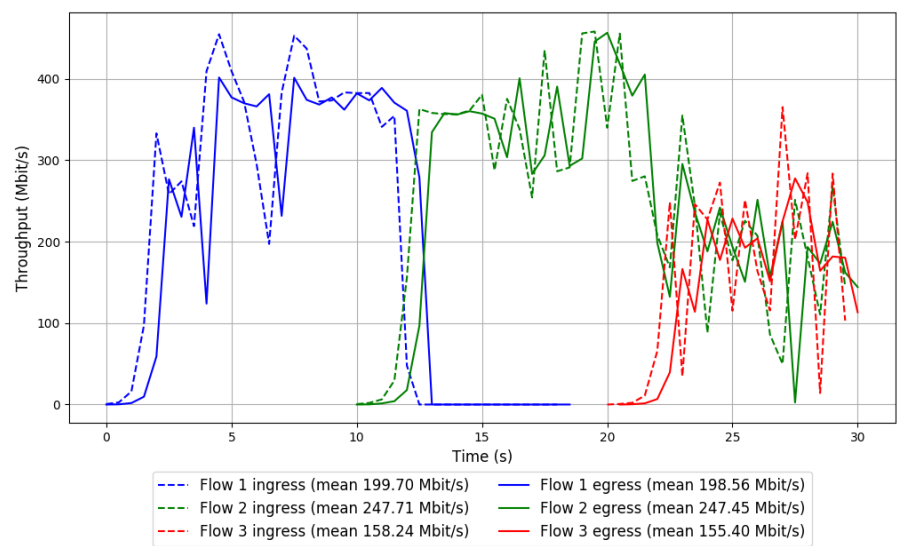


Run 4: Statistics of TCP BBR

Start at: 2019-01-22 04:27:44  
End at: 2019-01-22 04:28:14  
Local clock offset: 1.819 ms  
Remote clock offset: -45.134 ms

# Below is generated by plot.py at 2019-01-22 06:25:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 333.88 Mbit/s  
95th percentile per-packet one-way delay: 379.628 ms  
Loss rate: 1.28%  
-- Flow 1:  
Average throughput: 198.56 Mbit/s  
95th percentile per-packet one-way delay: 383.003 ms  
Loss rate: 0.57%  
-- Flow 2:  
Average throughput: 247.45 Mbit/s  
95th percentile per-packet one-way delay: 313.089 ms  
Loss rate: 1.12%  
-- Flow 3:  
Average throughput: 155.40 Mbit/s  
95th percentile per-packet one-way delay: 393.403 ms  
Loss rate: 3.55%

Run 4: Report of TCP BBR — Data Link



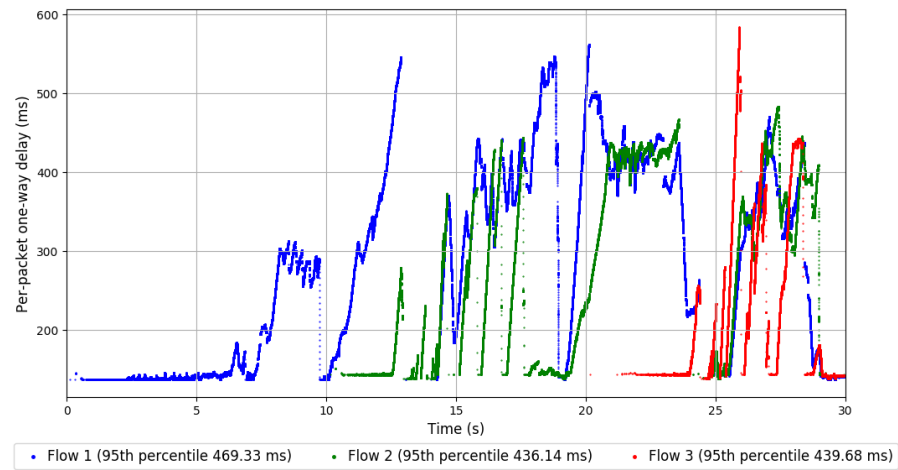
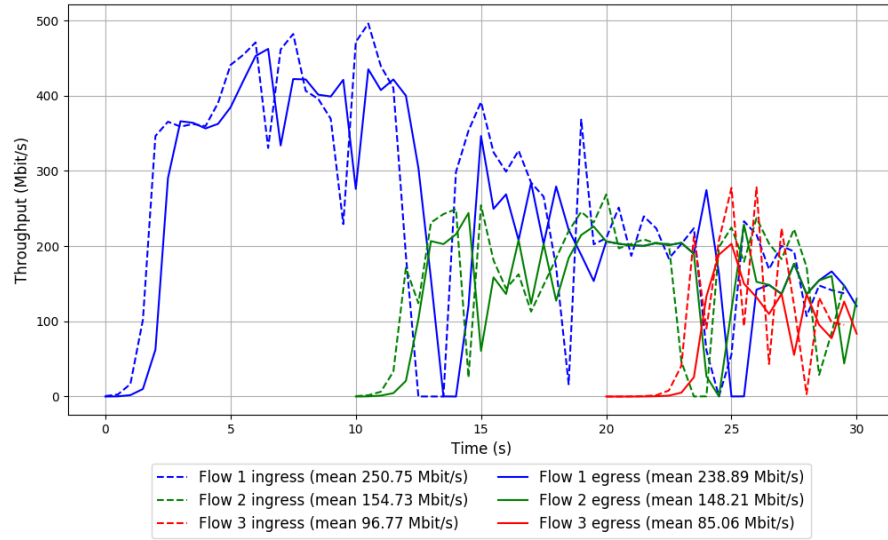


Run 5: Statistics of TCP BBR

Start at: 2019-01-22 05:29:52  
End at: 2019-01-22 05:30:22  
Local clock offset: -1.9 ms  
Remote clock offset: -47.796 ms

# Below is generated by plot.py at 2019-01-22 06:25:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 365.12 Mbit/s  
95th percentile per-packet one-way delay: 448.550 ms  
Loss rate: 6.02%  
-- Flow 1:  
Average throughput: 238.89 Mbit/s  
95th percentile per-packet one-way delay: 469.328 ms  
Loss rate: 5.35%  
-- Flow 2:  
Average throughput: 148.21 Mbit/s  
95th percentile per-packet one-way delay: 436.141 ms  
Loss rate: 5.19%  
-- Flow 3:  
Average throughput: 85.06 Mbit/s  
95th percentile per-packet one-way delay: 439.675 ms  
Loss rate: 13.90%

# Run 5: Report of TCP BBR — Data Link

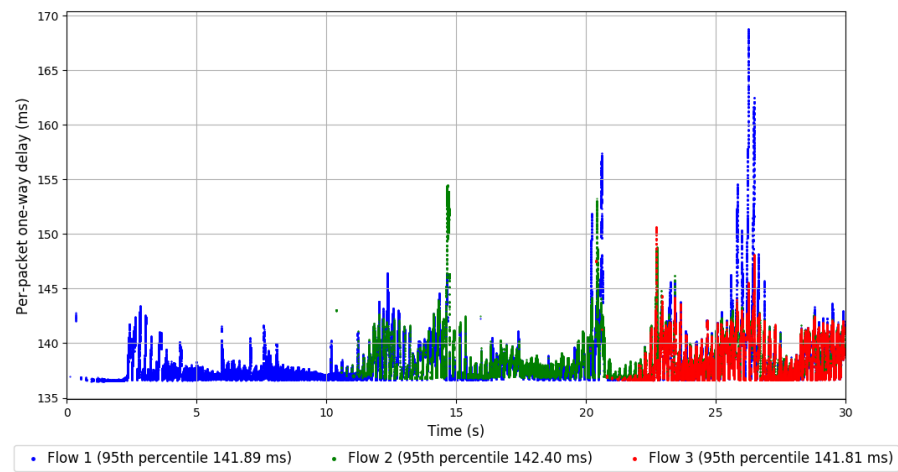
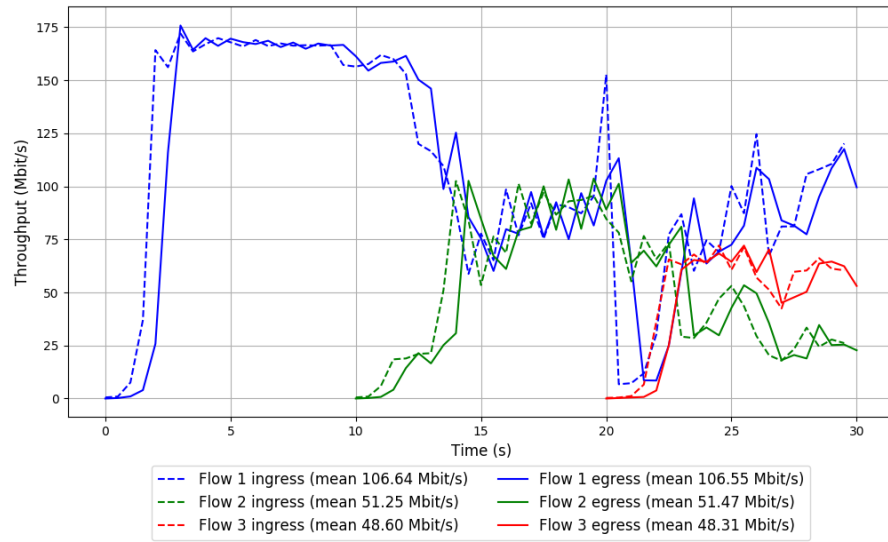


Run 1: Statistics of Copa

Start at: 2019-01-22 02:47:18  
End at: 2019-01-22 02:47:48  
Local clock offset: -1.75 ms  
Remote clock offset: -44.639 ms

# Below is generated by plot.py at 2019-01-22 06:25:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 156.53 Mbit/s  
95th percentile per-packet one-way delay: 142.013 ms  
Loss rate: 0.90%  
-- Flow 1:  
Average throughput: 106.55 Mbit/s  
95th percentile per-packet one-way delay: 141.892 ms  
Loss rate: 0.74%  
-- Flow 2:  
Average throughput: 51.47 Mbit/s  
95th percentile per-packet one-way delay: 142.402 ms  
Loss rate: 0.57%  
-- Flow 3:  
Average throughput: 48.31 Mbit/s  
95th percentile per-packet one-way delay: 141.808 ms  
Loss rate: 2.59%

# Run 1: Report of Copa — Data Link

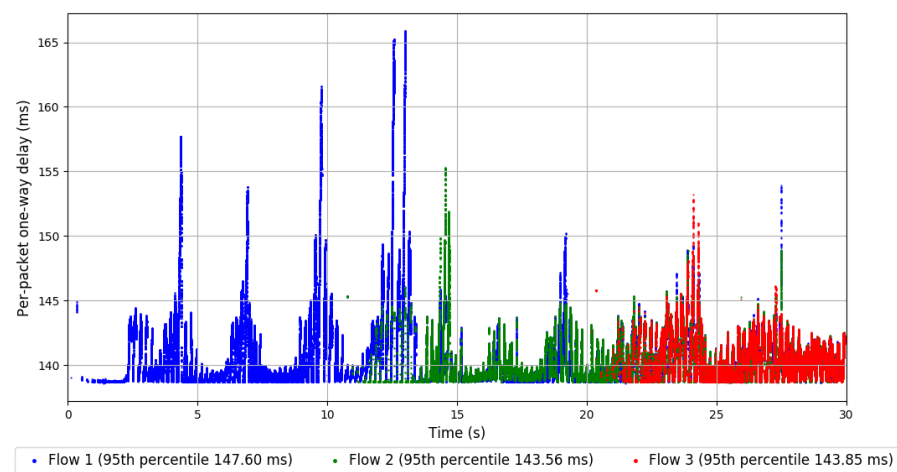
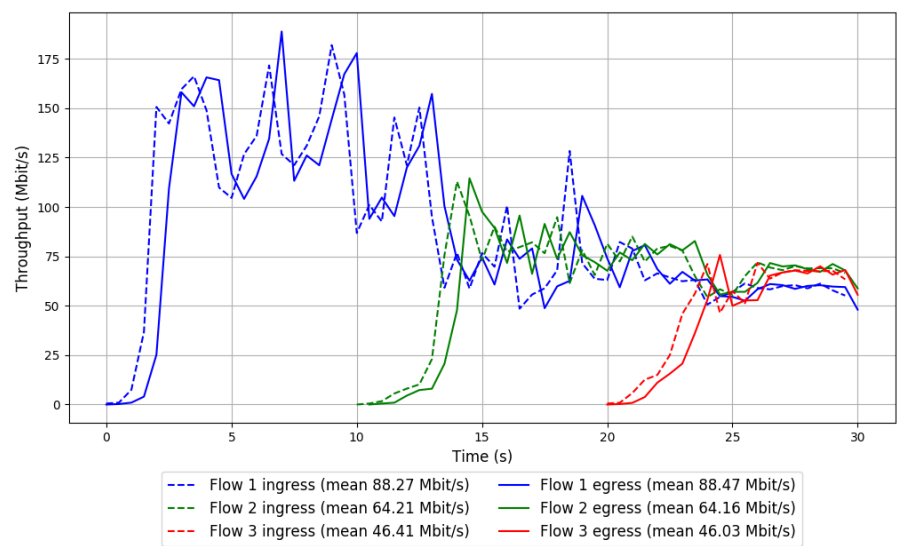


Run 2: Statistics of Copa

Start at: 2019-01-22 03:28:21  
End at: 2019-01-22 03:28:51  
Local clock offset: -0.199 ms  
Remote clock offset: -45.145 ms

# Below is generated by plot.py at 2019-01-22 06:25:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 145.27 Mbit/s  
95th percentile per-packet one-way delay: 145.775 ms  
Loss rate: 0.87%  
-- Flow 1:  
Average throughput: 88.47 Mbit/s  
95th percentile per-packet one-way delay: 147.601 ms  
Loss rate: 0.43%  
-- Flow 2:  
Average throughput: 64.16 Mbit/s  
95th percentile per-packet one-way delay: 143.560 ms  
Loss rate: 1.08%  
-- Flow 3:  
Average throughput: 46.03 Mbit/s  
95th percentile per-packet one-way delay: 143.849 ms  
Loss rate: 2.84%

Run 2: Report of Copa — Data Link

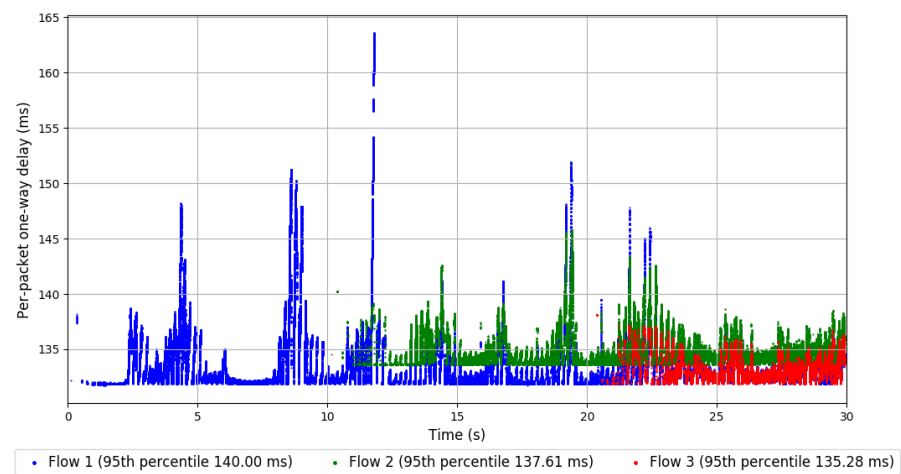
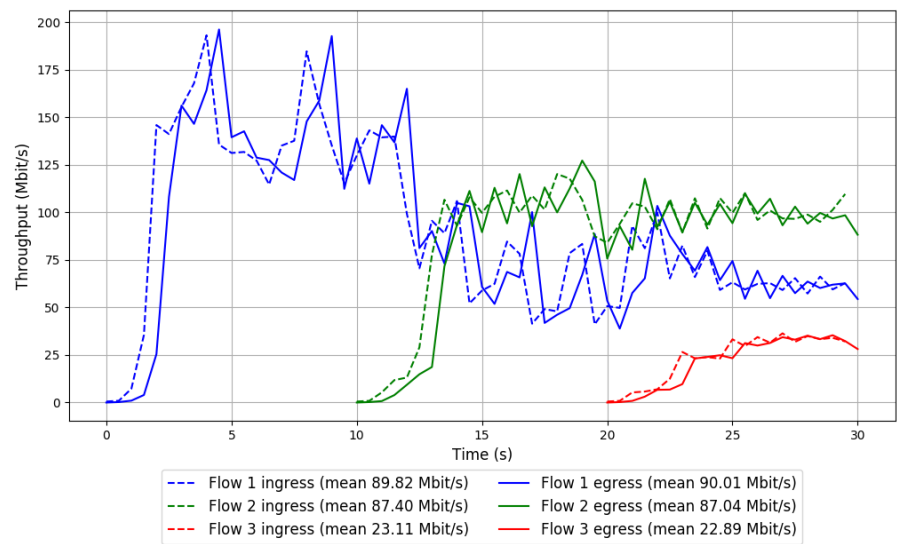


Run 3: Statistics of Copa

Start at: 2019-01-22 03:59:23  
End at: 2019-01-22 03:59:53  
Local clock offset: 0.713 ms  
Remote clock offset: -39.323 ms

# Below is generated by plot.py at 2019-01-22 06:25:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 155.28 Mbit/s  
95th percentile per-packet one-way delay: 138.332 ms  
Loss rate: 0.92%  
-- Flow 1:  
Average throughput: 90.01 Mbit/s  
95th percentile per-packet one-way delay: 140.000 ms  
Loss rate: 0.45%  
-- Flow 2:  
Average throughput: 87.04 Mbit/s  
95th percentile per-packet one-way delay: 137.614 ms  
Loss rate: 1.39%  
-- Flow 3:  
Average throughput: 22.89 Mbit/s  
95th percentile per-packet one-way delay: 135.285 ms  
Loss rate: 2.89%

Run 3: Report of Copa — Data Link



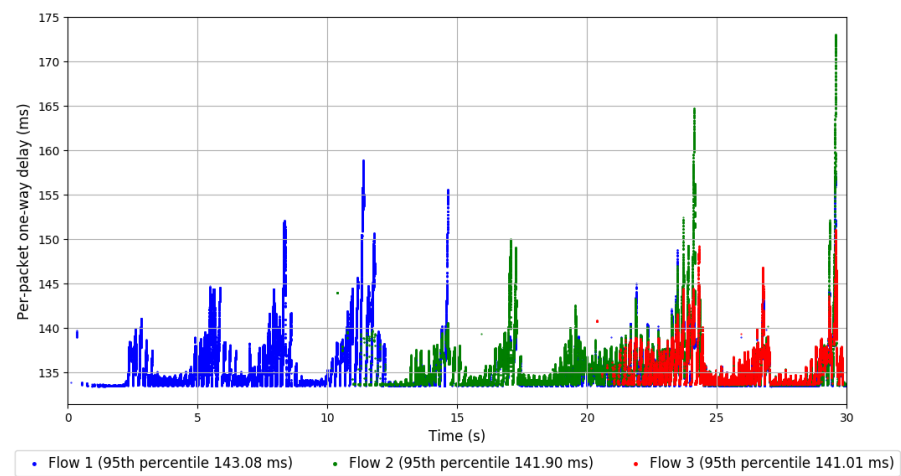
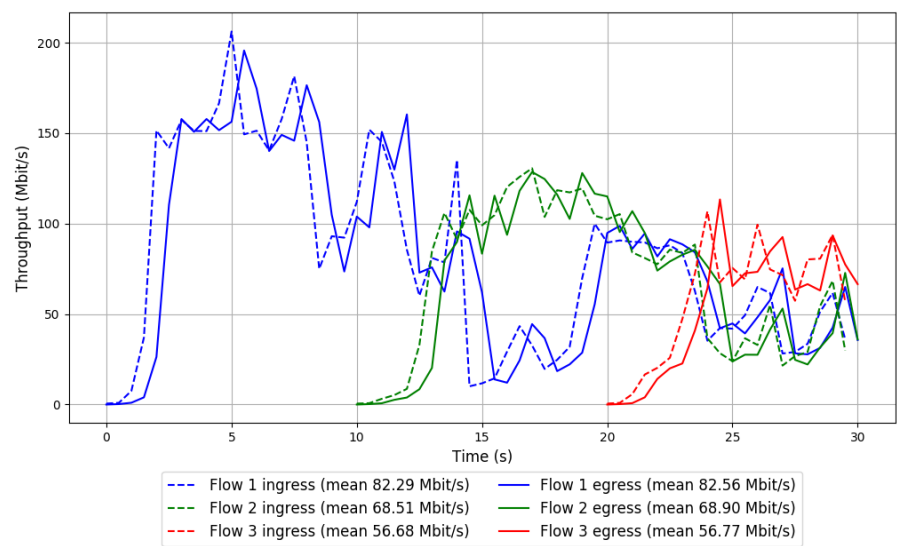


Run 4: Statistics of Copa

Start at: 2019-01-22 04:50:42  
End at: 2019-01-22 04:51:12  
Local clock offset: 0.046 ms  
Remote clock offset: -40.402 ms

# Below is generated by plot.py at 2019-01-22 06:27:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 146.75 Mbit/s  
95th percentile per-packet one-way delay: 142.574 ms  
Loss rate: 0.58%  
-- Flow 1:  
Average throughput: 82.56 Mbit/s  
95th percentile per-packet one-way delay: 143.078 ms  
Loss rate: 0.32%  
-- Flow 2:  
Average throughput: 68.90 Mbit/s  
95th percentile per-packet one-way delay: 141.898 ms  
Loss rate: 0.42%  
-- Flow 3:  
Average throughput: 56.77 Mbit/s  
95th percentile per-packet one-way delay: 141.010 ms  
Loss rate: 2.10%

Run 4: Report of Copa — Data Link

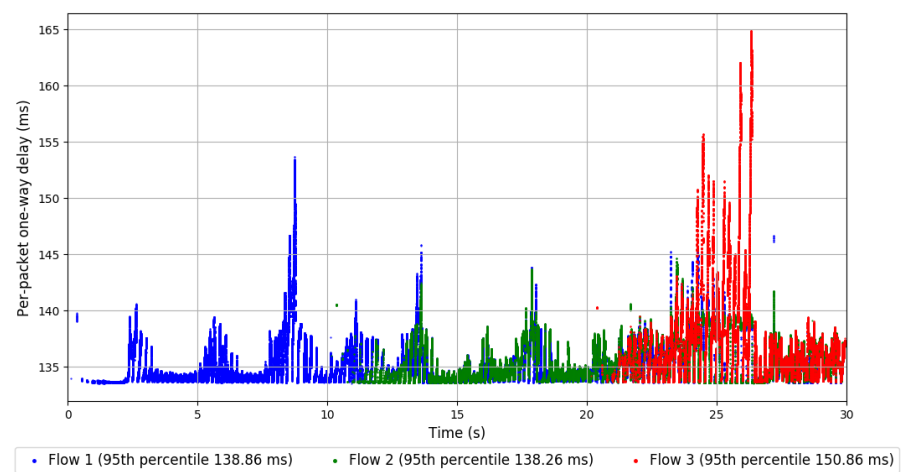
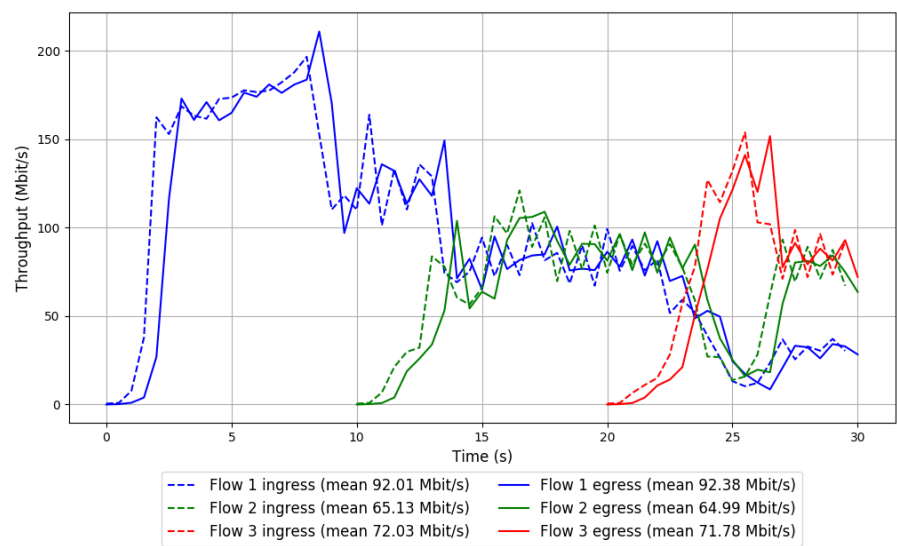


Run 5: Statistics of Copa

Start at: 2019-01-22 05:54:17  
End at: 2019-01-22 05:54:47  
Local clock offset: -0.62 ms  
Remote clock offset: -41.309 ms

# Below is generated by plot.py at 2019-01-22 06:28:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 159.06 Mbit/s  
95th percentile per-packet one-way delay: 140.538 ms  
Loss rate: 0.82%  
-- Flow 1:  
Average throughput: 92.38 Mbit/s  
95th percentile per-packet one-way delay: 138.858 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 64.99 Mbit/s  
95th percentile per-packet one-way delay: 138.257 ms  
Loss rate: 1.20%  
-- Flow 3:  
Average throughput: 71.78 Mbit/s  
95th percentile per-packet one-way delay: 150.861 ms  
Loss rate: 2.29%

Run 5: Report of Copa — Data Link

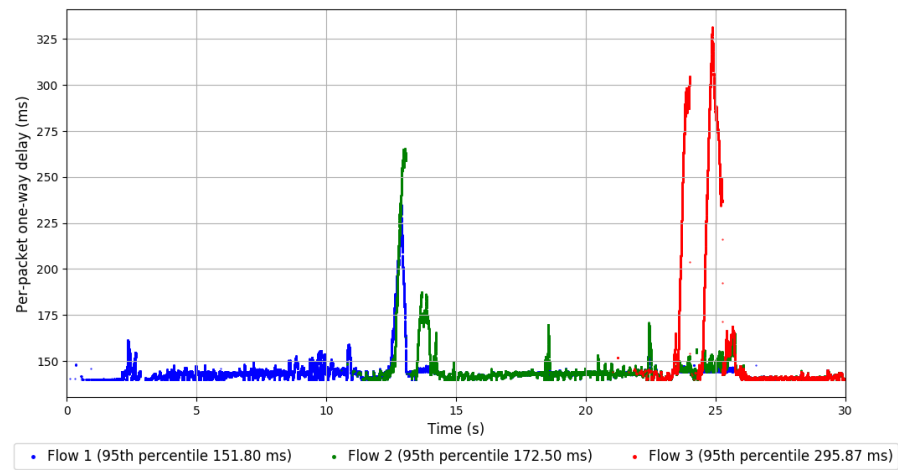
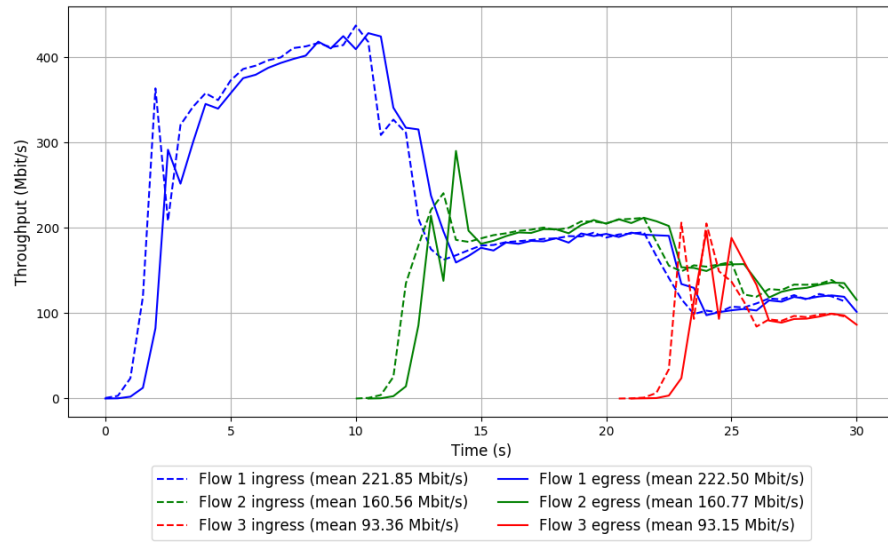


Run 1: Statistics of TCP Cubic

Start at: 2019-01-22 02:37:43  
End at: 2019-01-22 02:38:13  
Local clock offset: 1.415 ms  
Remote clock offset: -45.255 ms

# Below is generated by plot.py at 2019-01-22 06:28:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 354.75 Mbit/s  
95th percentile per-packet one-way delay: 166.489 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 222.50 Mbit/s  
95th percentile per-packet one-way delay: 151.803 ms  
Loss rate: 0.36%  
-- Flow 2:  
Average throughput: 160.77 Mbit/s  
95th percentile per-packet one-way delay: 172.501 ms  
Loss rate: 0.88%  
-- Flow 3:  
Average throughput: 93.15 Mbit/s  
95th percentile per-packet one-way delay: 295.866 ms  
Loss rate: 2.38%

# Run 1: Report of TCP Cubic — Data Link

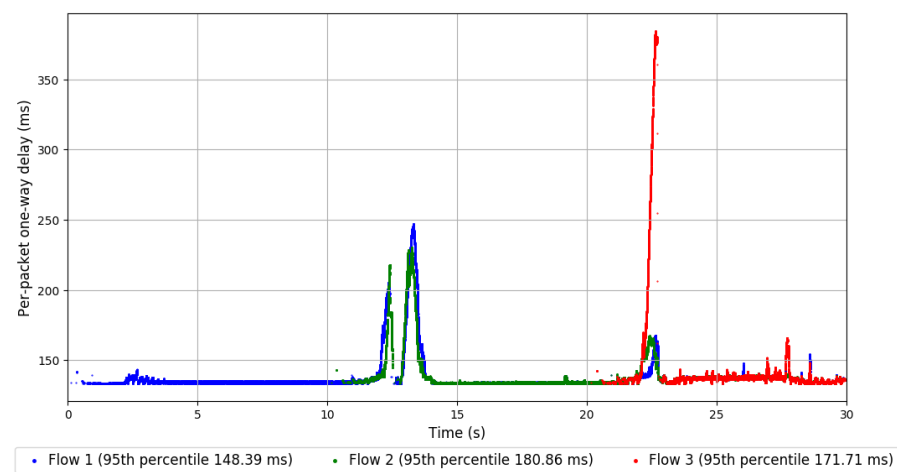
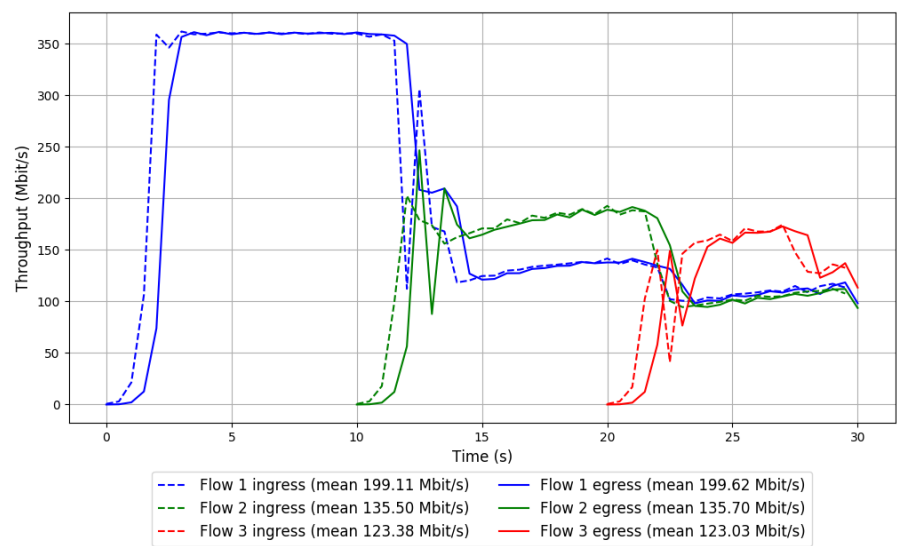


Run 2: Statistics of TCP Cubic

Start at: 2019-01-22 03:24:15  
End at: 2019-01-22 03:24:45  
Local clock offset: 0.429 ms  
Remote clock offset: -38.97 ms

# Below is generated by plot.py at 2019-01-22 06:28:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 329.94 Mbit/s  
95th percentile per-packet one-way delay: 161.959 ms  
Loss rate: 0.75%  
-- Flow 1:  
Average throughput: 199.62 Mbit/s  
95th percentile per-packet one-way delay: 148.392 ms  
Loss rate: 0.40%  
-- Flow 2:  
Average throughput: 135.70 Mbit/s  
95th percentile per-packet one-way delay: 180.860 ms  
Loss rate: 0.84%  
-- Flow 3:  
Average throughput: 123.03 Mbit/s  
95th percentile per-packet one-way delay: 171.710 ms  
Loss rate: 2.24%

Run 2: Report of TCP Cubic — Data Link



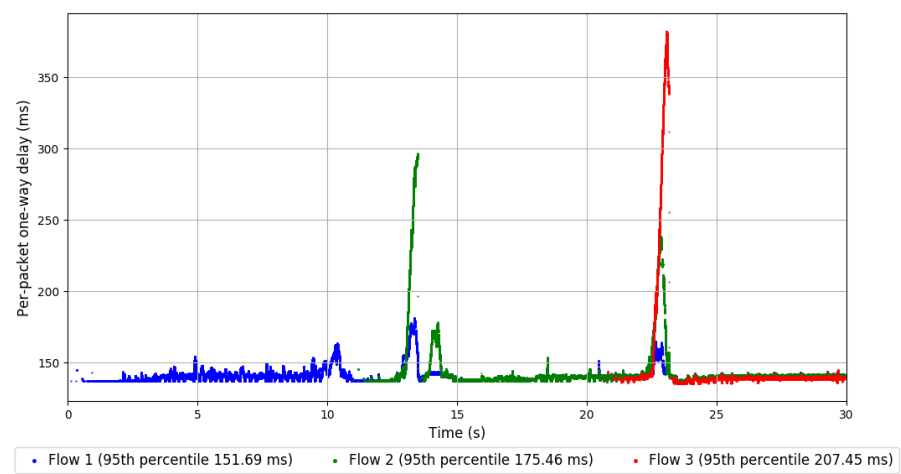
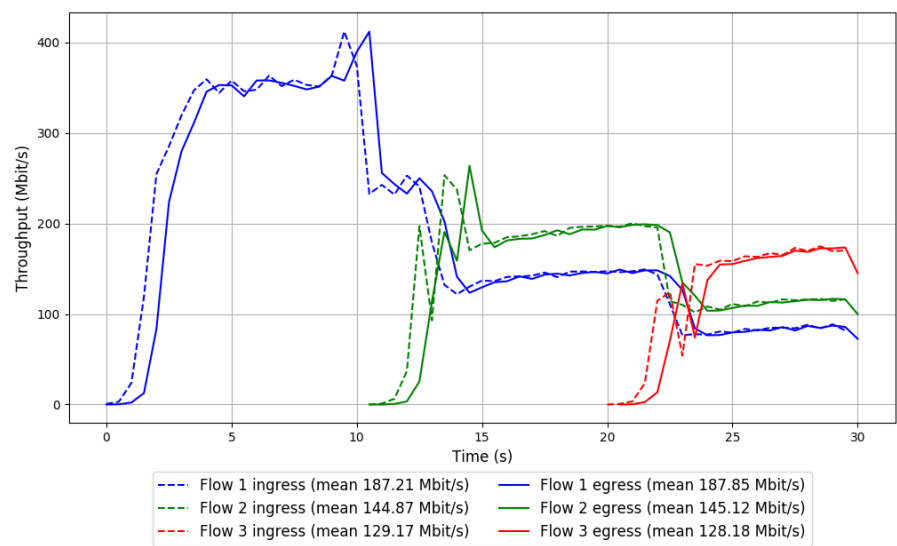


Run 3: Statistics of TCP Cubic

Start at: 2019-01-22 03:55:18  
End at: 2019-01-22 03:55:48  
Local clock offset: -1.437 ms  
Remote clock offset: -44.797 ms

# Below is generated by plot.py at 2019-01-22 06:28:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 320.29 Mbit/s  
95th percentile per-packet one-way delay: 157.345 ms  
Loss rate: 0.80%  
-- Flow 1:  
Average throughput: 187.85 Mbit/s  
95th percentile per-packet one-way delay: 151.692 ms  
Loss rate: 0.32%  
-- Flow 2:  
Average throughput: 145.12 Mbit/s  
95th percentile per-packet one-way delay: 175.459 ms  
Loss rate: 0.87%  
-- Flow 3:  
Average throughput: 128.18 Mbit/s  
95th percentile per-packet one-way delay: 207.446 ms  
Loss rate: 2.85%

Run 3: Report of TCP Cubic — Data Link

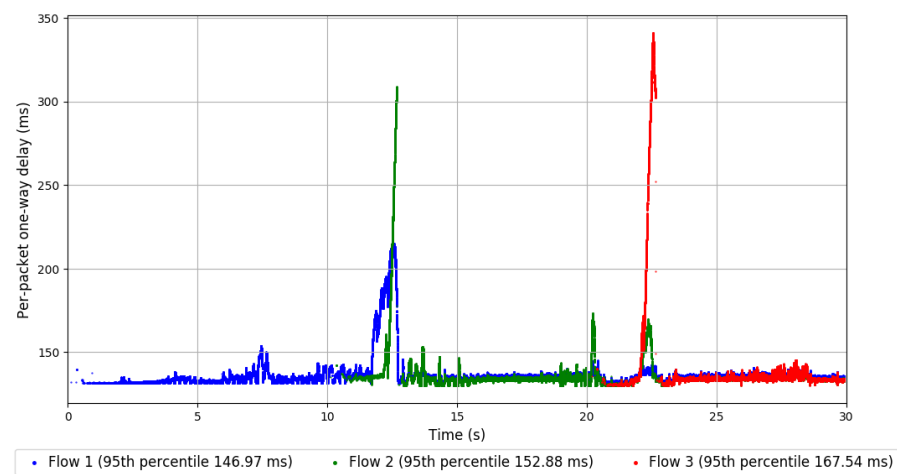
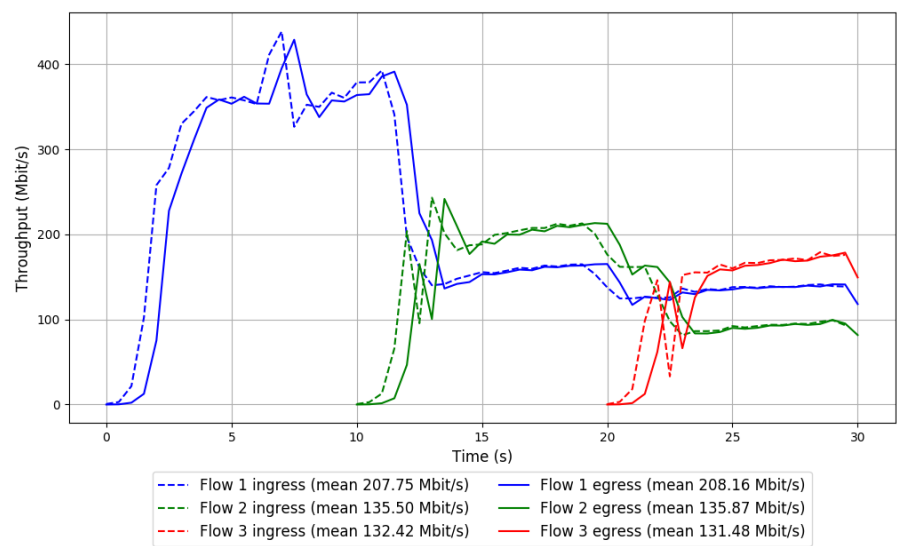


Run 4: Statistics of TCP Cubic

Start at: 2019-01-22 04:46:36  
End at: 2019-01-22 04:47:06  
Local clock offset: 0.536 ms  
Remote clock offset: -37.87 ms

# Below is generated by plot.py at 2019-01-22 06:28:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 341.34 Mbit/s  
95th percentile per-packet one-way delay: 150.371 ms  
Loss rate: 0.83%  
-- Flow 1:  
Average throughput: 208.16 Mbit/s  
95th percentile per-packet one-way delay: 146.969 ms  
Loss rate: 0.47%  
-- Flow 2:  
Average throughput: 135.87 Mbit/s  
95th percentile per-packet one-way delay: 152.880 ms  
Loss rate: 0.73%  
-- Flow 3:  
Average throughput: 131.48 Mbit/s  
95th percentile per-packet one-way delay: 167.538 ms  
Loss rate: 2.72%

Run 4: Report of TCP Cubic — Data Link

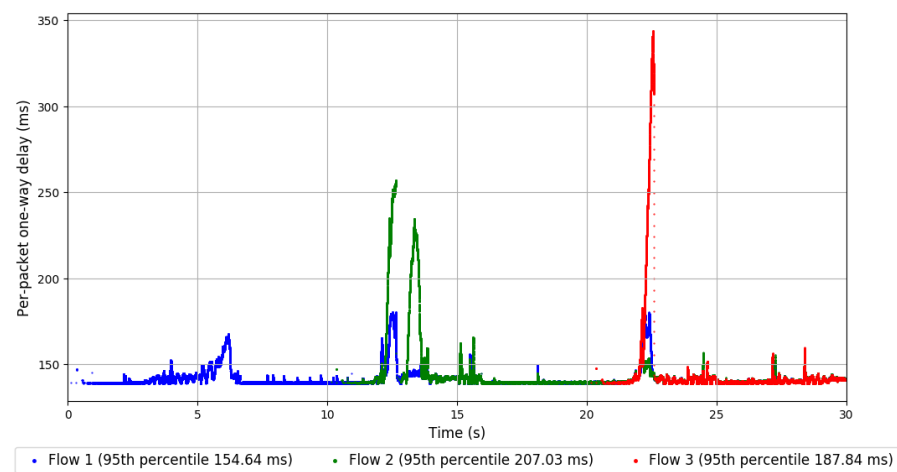
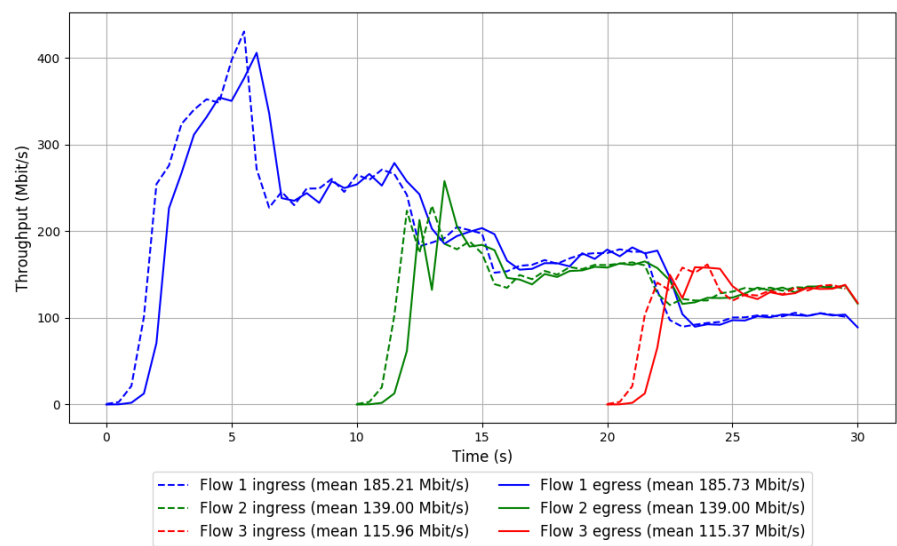


Run 5: Statistics of TCP Cubic

Start at: 2019-01-22 05:50:11  
End at: 2019-01-22 05:50:41  
Local clock offset: -1.123 ms  
Remote clock offset: -46.845 ms

# Below is generated by plot.py at 2019-01-22 06:28:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 315.86 Mbit/s  
95th percentile per-packet one-way delay: 161.607 ms  
Loss rate: 0.82%  
-- Flow 1:  
Average throughput: 185.73 Mbit/s  
95th percentile per-packet one-way delay: 154.640 ms  
Loss rate: 0.38%  
-- Flow 2:  
Average throughput: 139.00 Mbit/s  
95th percentile per-packet one-way delay: 207.026 ms  
Loss rate: 1.00%  
-- Flow 3:  
Average throughput: 115.37 Mbit/s  
95th percentile per-packet one-way delay: 187.838 ms  
Loss rate: 2.46%

Run 5: Report of TCP Cubic — Data Link

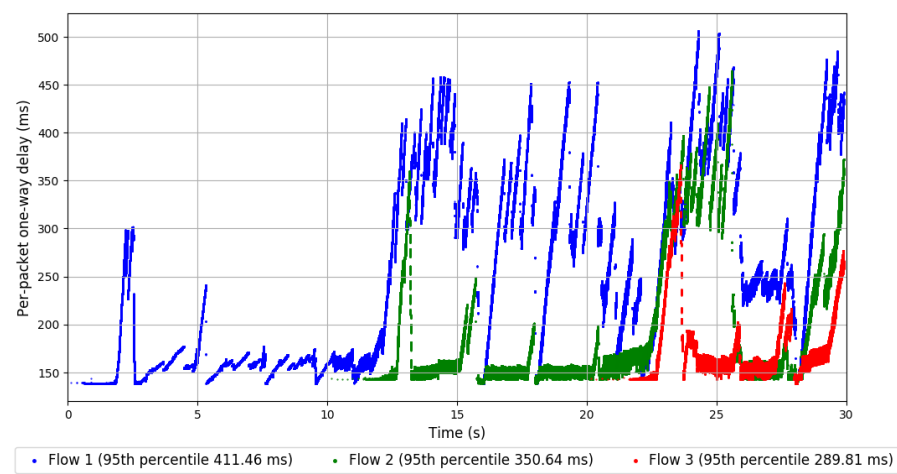
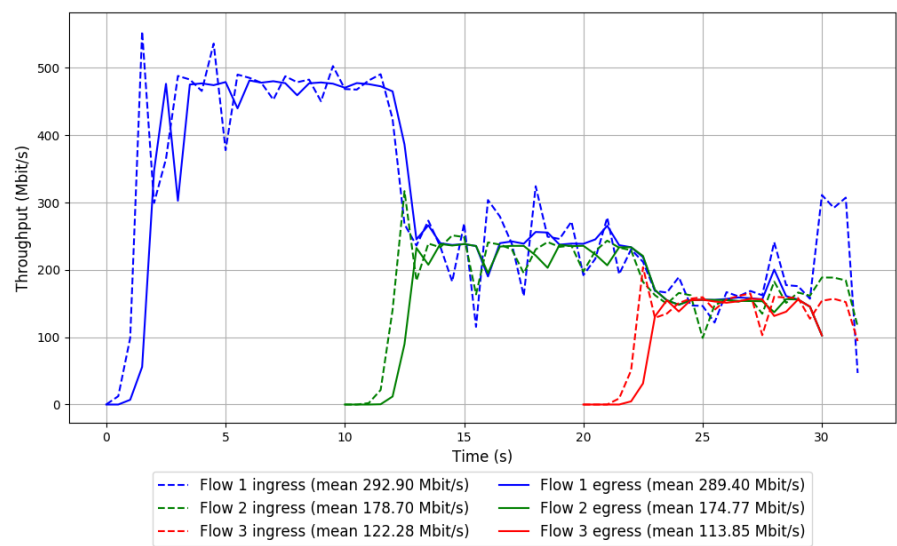


Run 1: Statistics of FillP

Start at: 2019-01-22 02:57:42  
End at: 2019-01-22 02:58:12  
Local clock offset: 0.662 ms  
Remote clock offset: -42.578 ms

# Below is generated by plot.py at 2019-01-22 06:31:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 442.44 Mbit/s  
95th percentile per-packet one-way delay: 396.378 ms  
Loss rate: 10.03%  
-- Flow 1:  
Average throughput: 289.40 Mbit/s  
95th percentile per-packet one-way delay: 411.464 ms  
Loss rate: 7.41%  
-- Flow 2:  
Average throughput: 174.77 Mbit/s  
95th percentile per-packet one-way delay: 350.644 ms  
Loss rate: 11.45%  
-- Flow 3:  
Average throughput: 113.85 Mbit/s  
95th percentile per-packet one-way delay: 289.815 ms  
Loss rate: 23.18%

Run 1: Report of FillP — Data Link



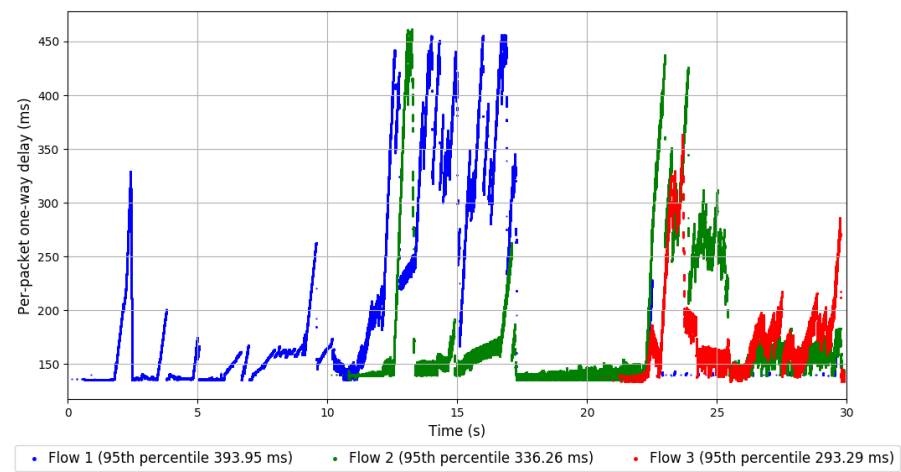
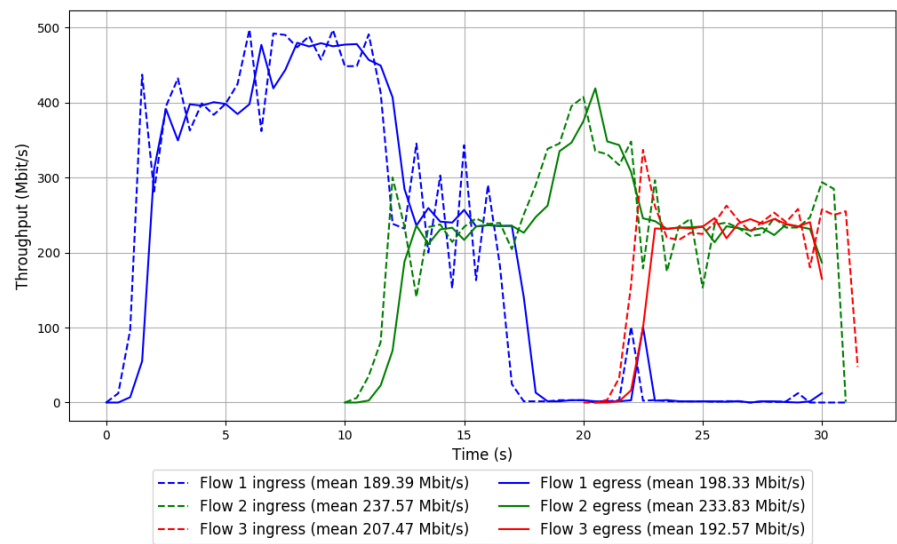


Run 2: Statistics of FillP

Start at: 2019-01-22 03:38:37  
End at: 2019-01-22 03:39:07  
Local clock offset: 1.656 ms  
Remote clock offset: -40.77 ms

# Below is generated by plot.py at 2019-01-22 06:33:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 413.10 Mbit/s  
95th percentile per-packet one-way delay: 364.874 ms  
Loss rate: 6.90%  
-- Flow 1:  
Average throughput: 198.33 Mbit/s  
95th percentile per-packet one-way delay: 393.950 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 233.83 Mbit/s  
95th percentile per-packet one-way delay: 336.259 ms  
Loss rate: 7.41%  
-- Flow 3:  
Average throughput: 192.57 Mbit/s  
95th percentile per-packet one-way delay: 293.288 ms  
Loss rate: 22.54%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-01-22 04:19:41

End at: 2019-01-22 04:20:11

Local clock offset: -0.272 ms

Remote clock offset: -33.627 ms

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

Figure is missing

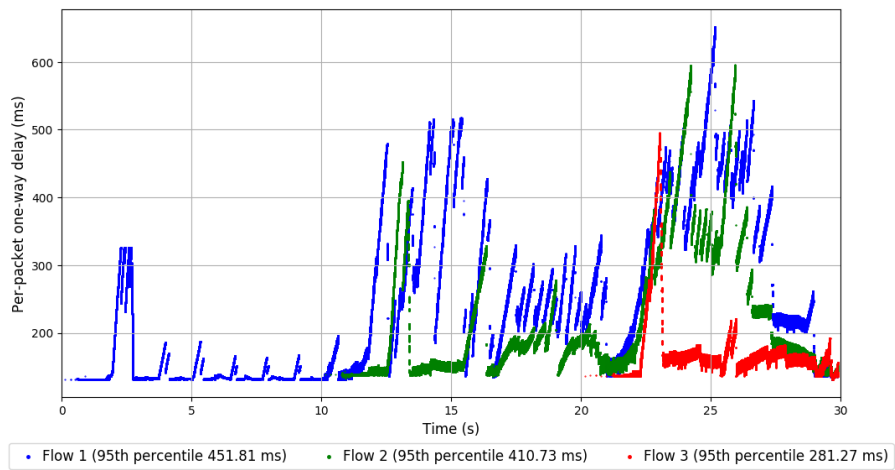
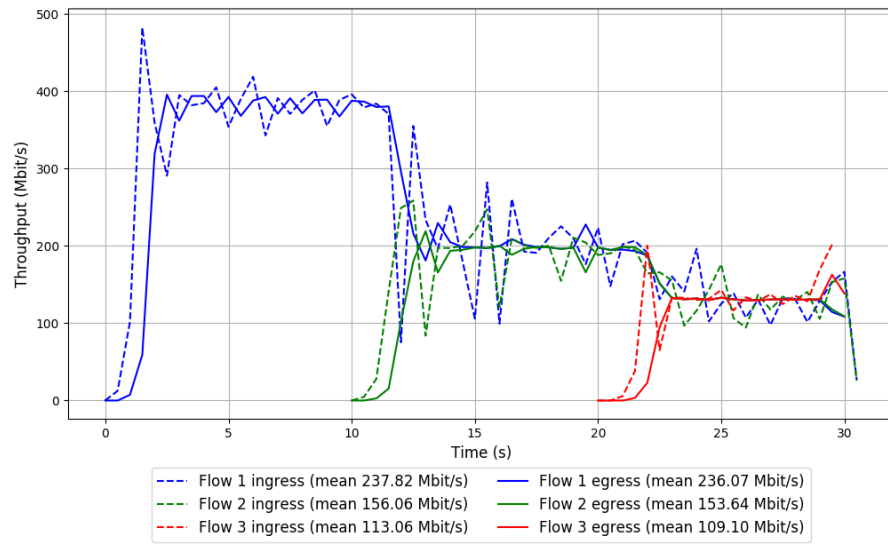
Figure is missing

Run 4: Statistics of FillP

Start at: 2019-01-22 05:16:39  
End at: 2019-01-22 05:17:09  
Local clock offset: -0.717 ms  
Remote clock offset: -41.636 ms

# Below is generated by plot.py at 2019-01-22 06:33:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 373.70 Mbit/s  
95th percentile per-packet one-way delay: 439.864 ms  
Loss rate: 4.16%  
-- Flow 1:  
Average throughput: 236.07 Mbit/s  
95th percentile per-packet one-way delay: 451.810 ms  
Loss rate: 3.33%  
-- Flow 2:  
Average throughput: 153.64 Mbit/s  
95th percentile per-packet one-way delay: 410.726 ms  
Loss rate: 5.44%  
-- Flow 3:  
Average throughput: 109.10 Mbit/s  
95th percentile per-packet one-way delay: 281.269 ms  
Loss rate: 5.83%

# Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-01-22 06:10:06

End at: 2019-01-22 06:10:36

Local clock offset: -0.057 ms

Remote clock offset: -36.034 ms

Run 5: Report of FillP — Data Link

Figure is missing

Figure is missing

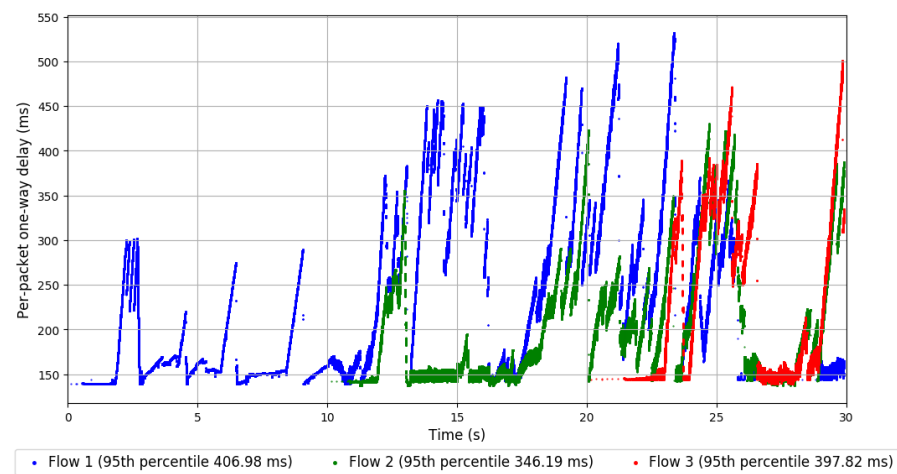
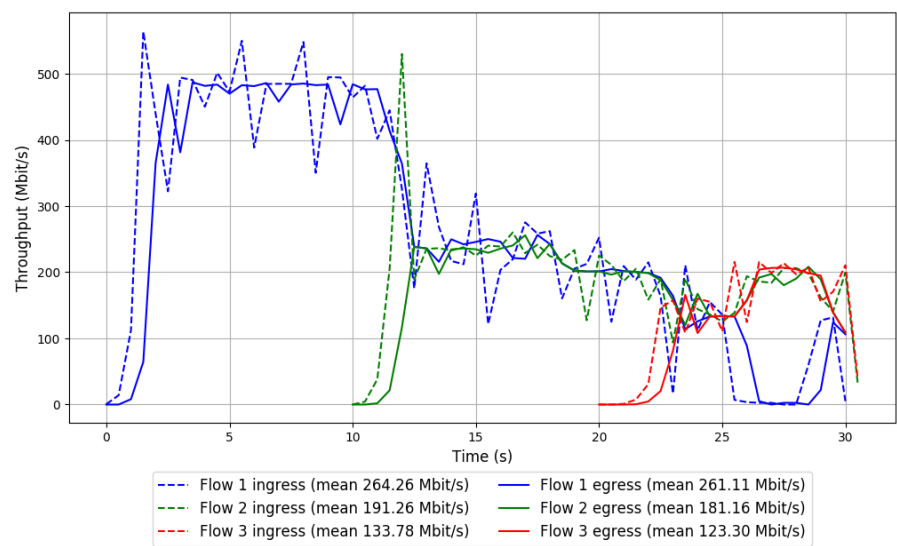


Run 1: Statistics of FillP-Sheep

Start at: 2019-01-22 03:12:03  
End at: 2019-01-22 03:12:33  
Local clock offset: -0.762 ms  
Remote clock offset: -44.242 ms

# Below is generated by plot.py at 2019-01-22 06:33:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 421.65 Mbit/s  
95th percentile per-packet one-way delay: 389.996 ms  
Loss rate: 5.46%  
-- Flow 1:  
Average throughput: 261.11 Mbit/s  
95th percentile per-packet one-way delay: 406.979 ms  
Loss rate: 2.00%  
-- Flow 2:  
Average throughput: 181.16 Mbit/s  
95th percentile per-packet one-way delay: 346.186 ms  
Loss rate: 9.00%  
-- Flow 3:  
Average throughput: 123.30 Mbit/s  
95th percentile per-packet one-way delay: 397.821 ms  
Loss rate: 15.02%

Run 1: Report of FillP-Sheep — Data Link

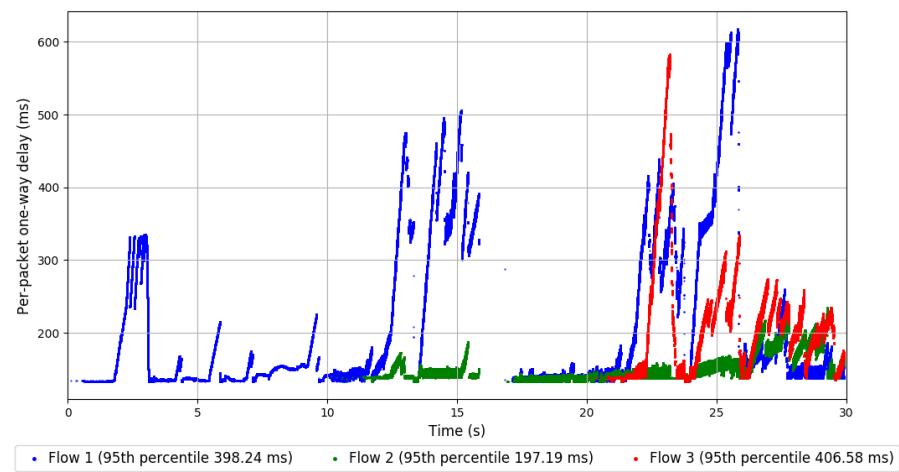
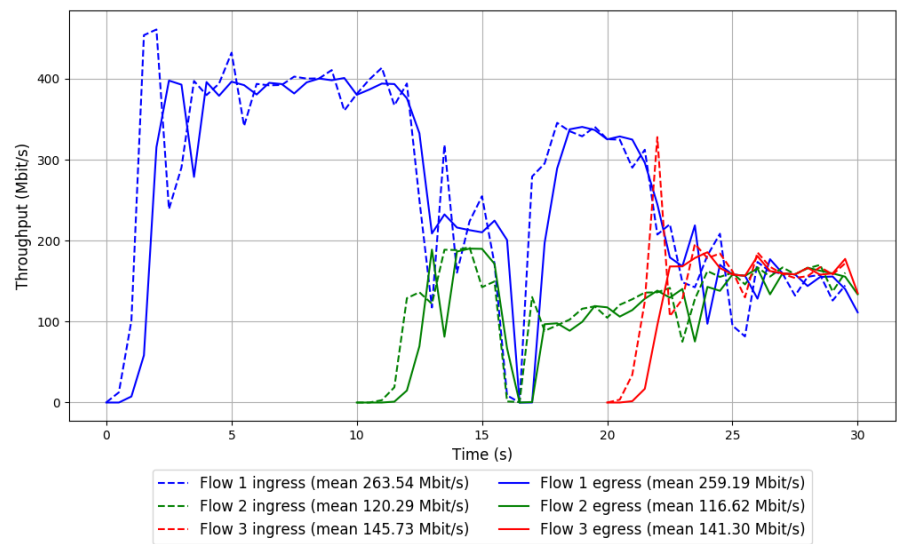


Run 2: Statistics of FillP-Sheep

Start at: 2019-01-22 03:43:15  
End at: 2019-01-22 03:43:45  
Local clock offset: 1.471 ms  
Remote clock offset: -38.738 ms

# Below is generated by plot.py at 2019-01-22 06:33:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 382.79 Mbit/s  
95th percentile per-packet one-way delay: 378.974 ms  
Loss rate: 2.97%  
-- Flow 1:  
Average throughput: 259.19 Mbit/s  
95th percentile per-packet one-way delay: 398.236 ms  
Loss rate: 2.29%  
-- Flow 2:  
Average throughput: 116.62 Mbit/s  
95th percentile per-packet one-way delay: 197.187 ms  
Loss rate: 4.05%  
-- Flow 3:  
Average throughput: 141.30 Mbit/s  
95th percentile per-packet one-way delay: 406.578 ms  
Loss rate: 4.88%

Run 2: Report of FillP-Sheep — Data Link

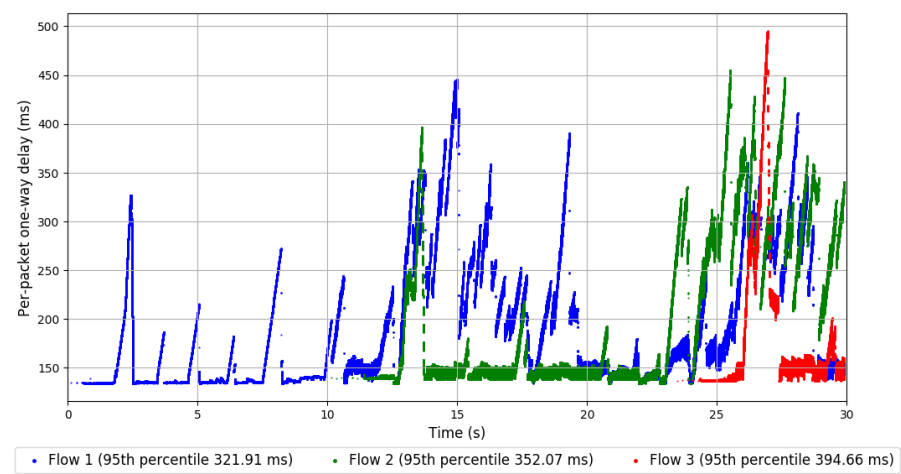
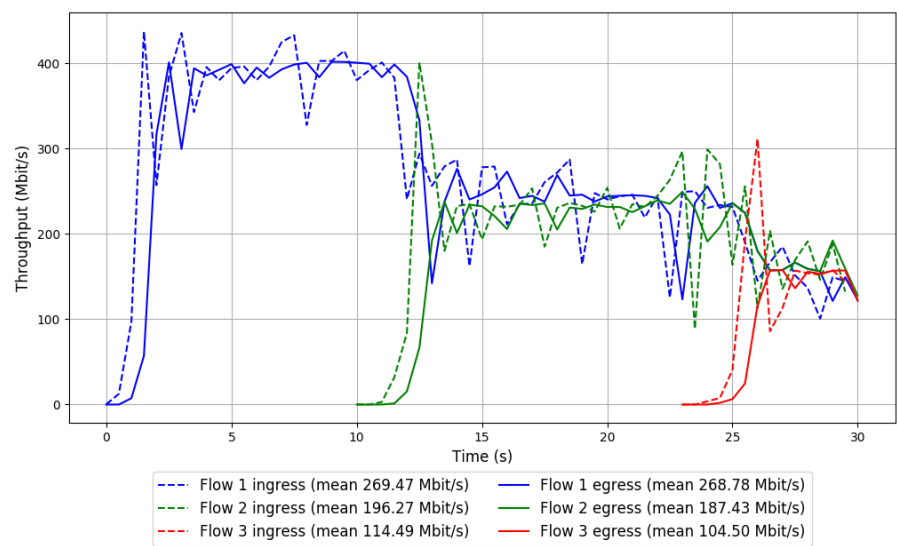


Run 3: Statistics of FillP-Sheep

Start at: 2019-01-22 04:24:49  
End at: 2019-01-22 04:25:19  
Local clock offset: 0.578 ms  
Remote clock offset: -39.95 ms

# Below is generated by plot.py at 2019-01-22 06:33:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 415.72 Mbit/s  
95th percentile per-packet one-way delay: 336.143 ms  
Loss rate: 2.94%  
-- Flow 1:  
Average throughput: 268.78 Mbit/s  
95th percentile per-packet one-way delay: 321.906 ms  
Loss rate: 0.92%  
-- Flow 2:  
Average throughput: 187.43 Mbit/s  
95th percentile per-packet one-way delay: 352.074 ms  
Loss rate: 5.45%  
-- Flow 3:  
Average throughput: 104.50 Mbit/s  
95th percentile per-packet one-way delay: 394.658 ms  
Loss rate: 11.51%

Run 3: Report of FillP-Sheep — Data Link

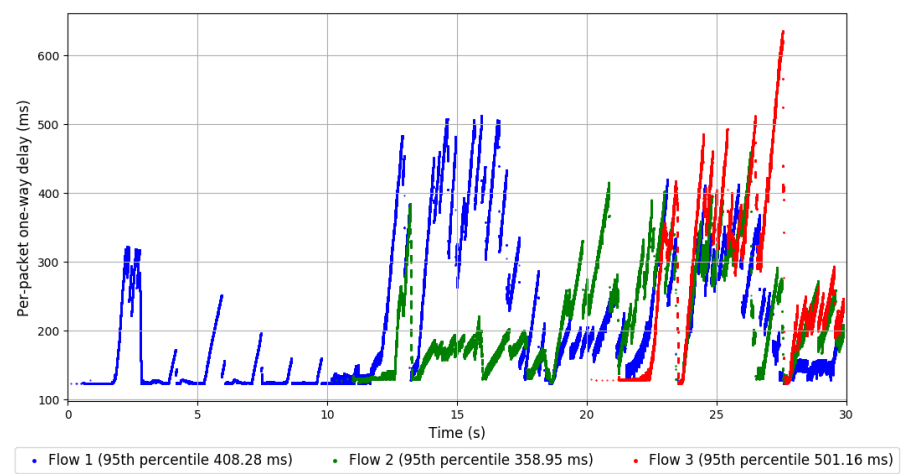
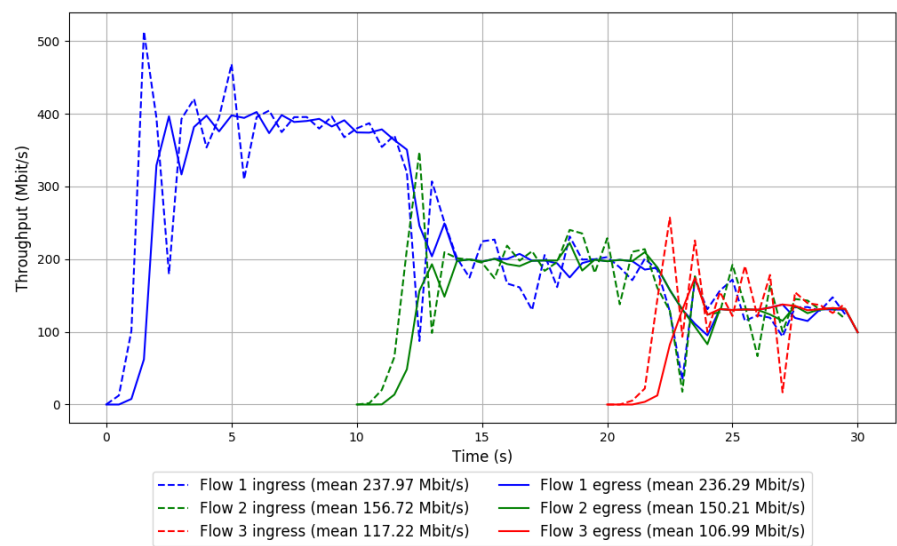


Run 4: Statistics of FillP-Sheep

Start at: 2019-01-22 05:21:17  
End at: 2019-01-22 05:21:47  
Local clock offset: -1.343 ms  
Remote clock offset: -33.262 ms

# Below is generated by plot.py at 2019-01-22 06:33:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 370.80 Mbit/s  
95th percentile per-packet one-way delay: 408.317 ms  
Loss rate: 3.30%  
-- Flow 1:  
Average throughput: 236.29 Mbit/s  
95th percentile per-packet one-way delay: 408.278 ms  
Loss rate: 1.33%  
-- Flow 2:  
Average throughput: 150.21 Mbit/s  
95th percentile per-packet one-way delay: 358.951 ms  
Loss rate: 5.10%  
-- Flow 3:  
Average throughput: 106.99 Mbit/s  
95th percentile per-packet one-way delay: 501.156 ms  
Loss rate: 10.58%

Run 4: Report of FillP-Sheep — Data Link



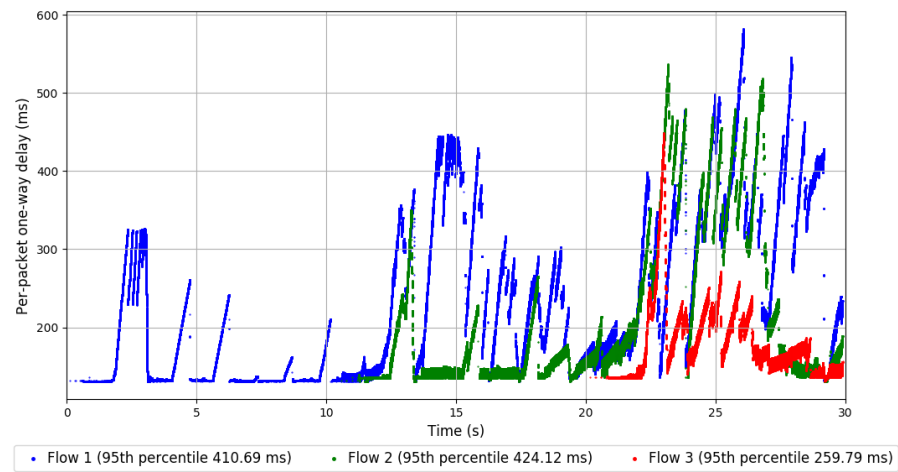
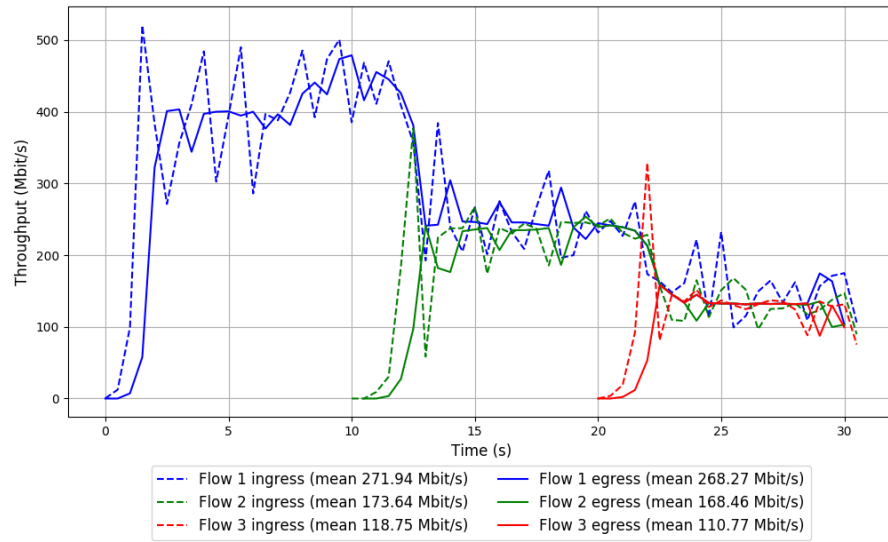


Run 5: Statistics of FillP-Sheep

Start at: 2019-01-22 06:14:47  
End at: 2019-01-22 06:15:17  
Local clock offset: -2.824 ms  
Remote clock offset: -39.881 ms

# Below is generated by plot.py at 2019-01-22 06:34:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 413.80 Mbit/s  
95th percentile per-packet one-way delay: 409.929 ms  
Loss rate: 6.68%  
-- Flow 1:  
Average throughput: 268.27 Mbit/s  
95th percentile per-packet one-way delay: 410.692 ms  
Loss rate: 4.74%  
-- Flow 2:  
Average throughput: 168.46 Mbit/s  
95th percentile per-packet one-way delay: 424.117 ms  
Loss rate: 7.97%  
-- Flow 3:  
Average throughput: 110.77 Mbit/s  
95th percentile per-packet one-way delay: 259.791 ms  
Loss rate: 15.86%

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

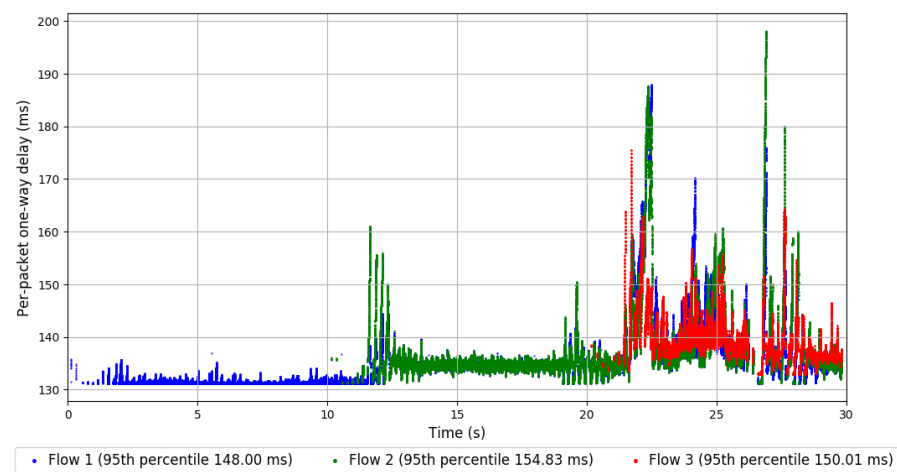
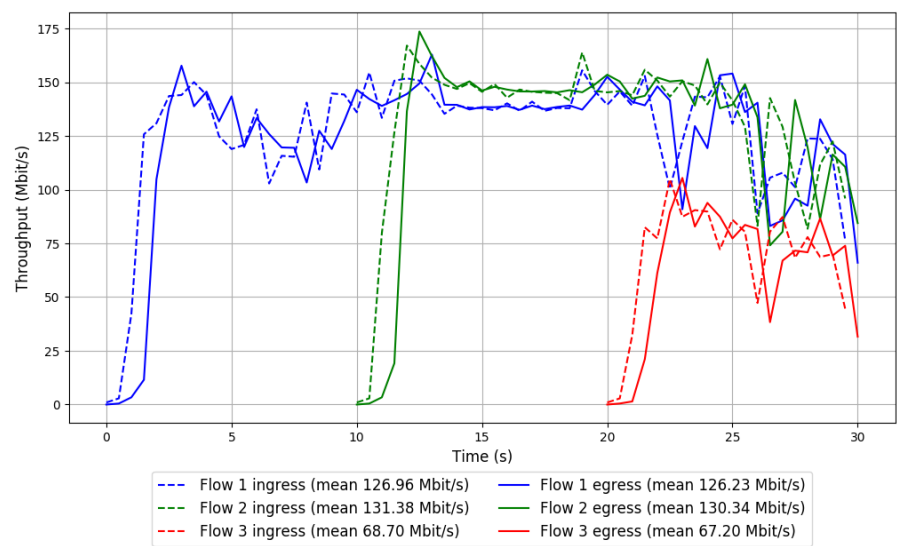


Run 1: Statistics of Indigo

Start at: 2019-01-22 02:36:11  
End at: 2019-01-22 02:36:41  
Local clock offset: 1.351 ms  
Remote clock offset: -38.082 ms

# Below is generated by plot.py at 2019-01-22 06:34:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 234.41 Mbit/s  
95th percentile per-packet one-way delay: 151.271 ms  
Loss rate: 1.71%  
-- Flow 1:  
Average throughput: 126.23 Mbit/s  
95th percentile per-packet one-way delay: 148.002 ms  
Loss rate: 1.23%  
-- Flow 2:  
Average throughput: 130.34 Mbit/s  
95th percentile per-packet one-way delay: 154.830 ms  
Loss rate: 1.77%  
-- Flow 3:  
Average throughput: 67.20 Mbit/s  
95th percentile per-packet one-way delay: 150.012 ms  
Loss rate: 4.19%

Run 1: Report of Indigo — Data Link

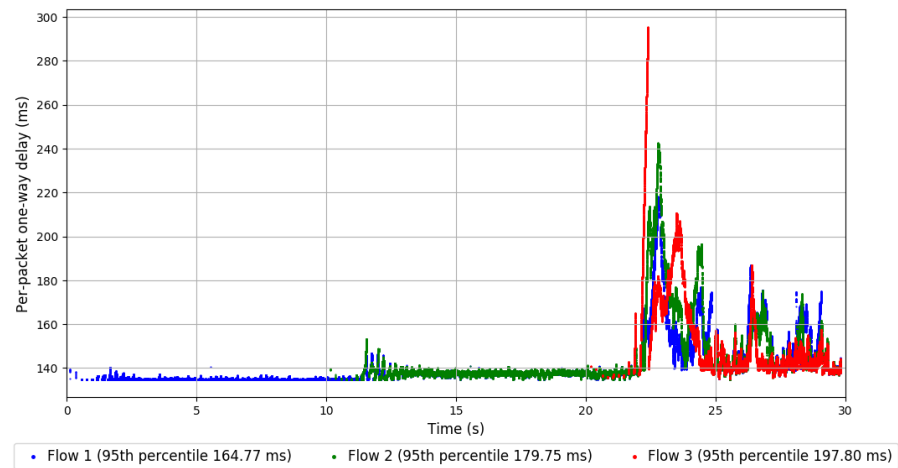
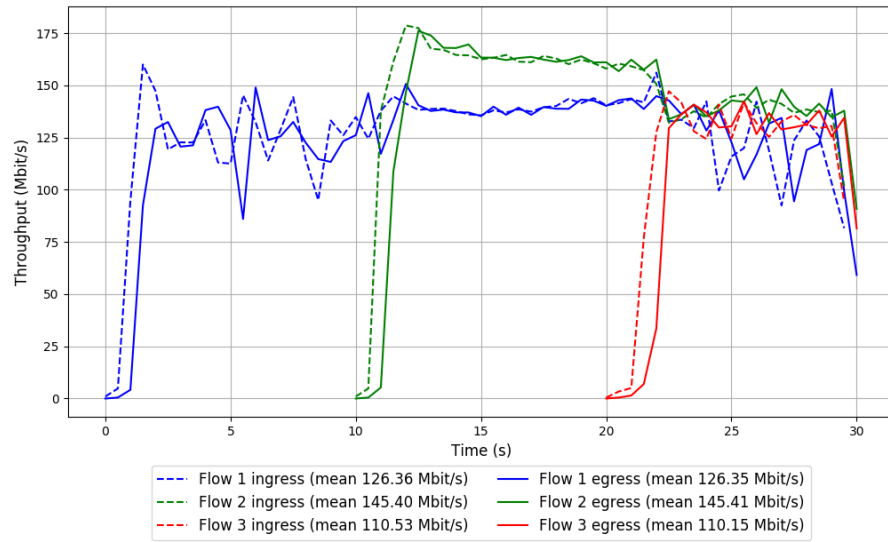


Run 2: Statistics of Indigo

Start at: 2019-01-22 03:22:41  
End at: 2019-01-22 03:23:11  
Local clock offset: 0.986 ms  
Remote clock offset: -39.406 ms

# Below is generated by plot.py at 2019-01-22 06:35:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 258.43 Mbit/s  
95th percentile per-packet one-way delay: 174.888 ms  
Loss rate: 1.03%  
-- Flow 1:  
Average throughput: 126.35 Mbit/s  
95th percentile per-packet one-way delay: 164.767 ms  
Loss rate: 0.66%  
-- Flow 2:  
Average throughput: 145.41 Mbit/s  
95th percentile per-packet one-way delay: 179.747 ms  
Loss rate: 1.00%  
-- Flow 3:  
Average throughput: 110.15 Mbit/s  
95th percentile per-packet one-way delay: 197.801 ms  
Loss rate: 2.39%

## Run 2: Report of Indigo — Data Link

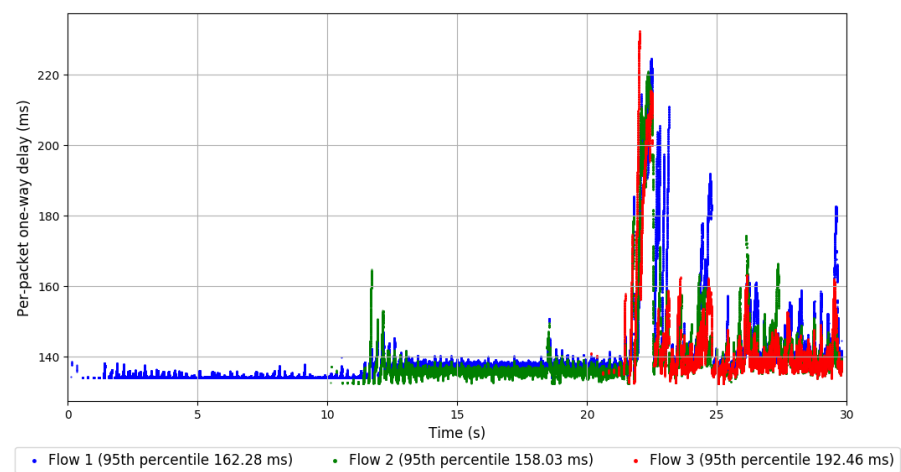
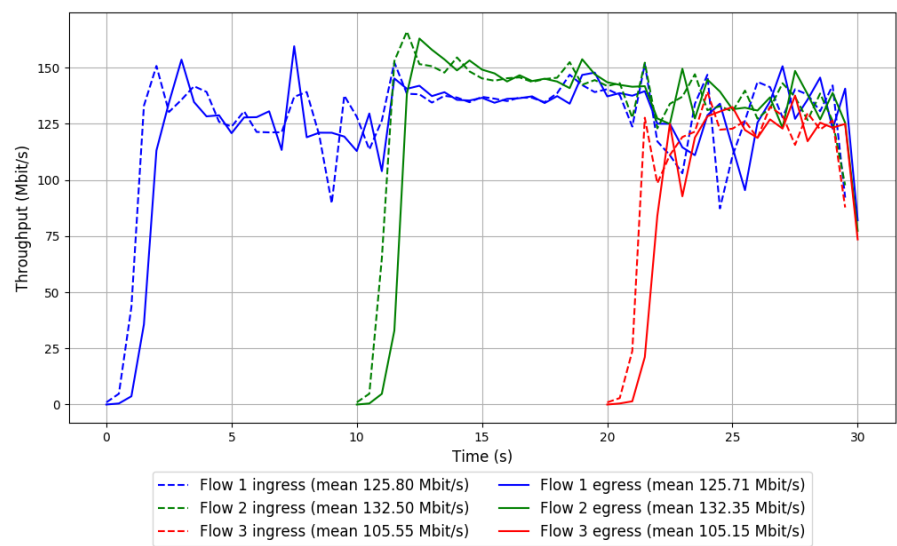


Run 3: Statistics of Indigo

Start at: 2019-01-22 03:53:45  
End at: 2019-01-22 03:54:15  
Local clock offset: -0.092 ms  
Remote clock offset: -40.641 ms

# Below is generated by plot.py at 2019-01-22 06:35:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 247.60 Mbit/s  
95th percentile per-packet one-way delay: 163.188 ms  
Loss rate: 1.10%  
-- Flow 1:  
Average throughput: 125.71 Mbit/s  
95th percentile per-packet one-way delay: 162.280 ms  
Loss rate: 0.72%  
-- Flow 2:  
Average throughput: 132.35 Mbit/s  
95th percentile per-packet one-way delay: 158.034 ms  
Loss rate: 1.10%  
-- Flow 3:  
Average throughput: 105.15 Mbit/s  
95th percentile per-packet one-way delay: 192.458 ms  
Loss rate: 2.43%

Run 3: Report of Indigo — Data Link



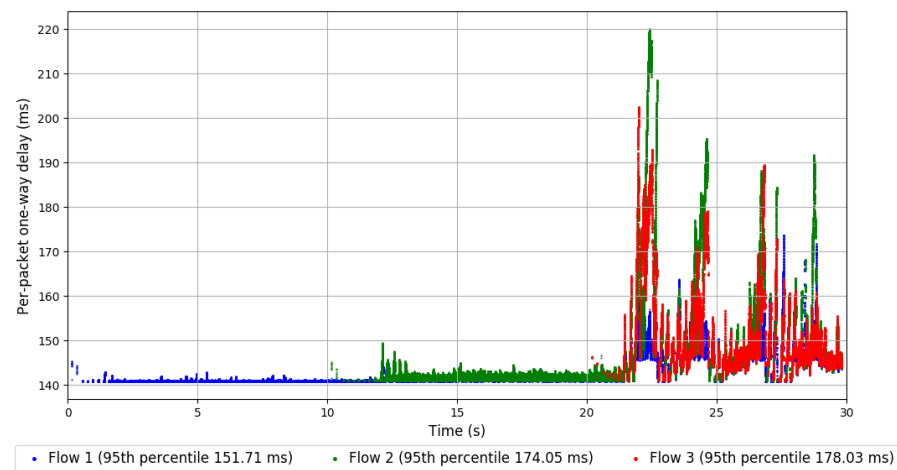
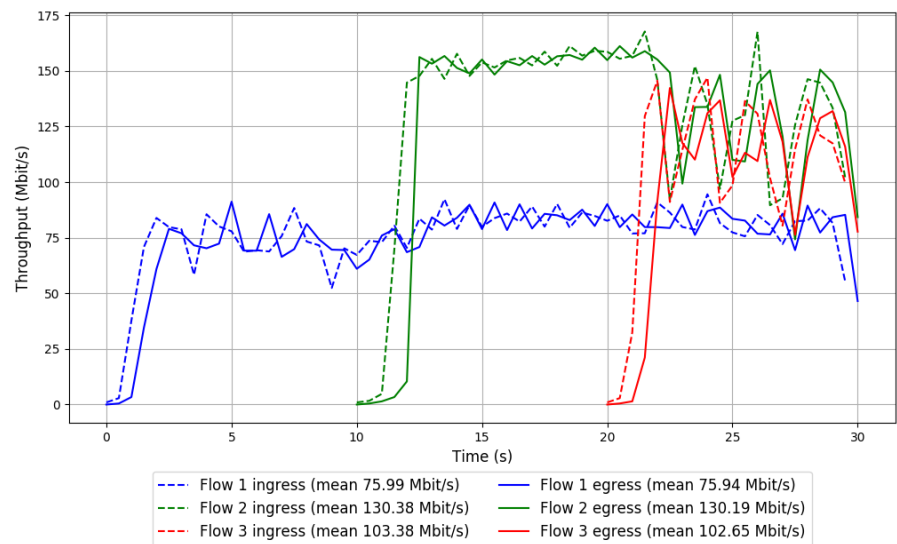


Run 4: Statistics of Indigo

Start at: 2019-01-22 04:45:05  
End at: 2019-01-22 04:45:35  
Local clock offset: -1.096 ms  
Remote clock offset: -48.641 ms

# Below is generated by plot.py at 2019-01-22 06:35:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 195.47 Mbit/s  
95th percentile per-packet one-way delay: 168.540 ms  
Loss rate: 1.27%  
-- Flow 1:  
Average throughput: 75.94 Mbit/s  
95th percentile per-packet one-way delay: 151.707 ms  
Loss rate: 0.73%  
-- Flow 2:  
Average throughput: 130.19 Mbit/s  
95th percentile per-packet one-way delay: 174.054 ms  
Loss rate: 1.15%  
-- Flow 3:  
Average throughput: 102.65 Mbit/s  
95th percentile per-packet one-way delay: 178.031 ms  
Loss rate: 2.76%

Run 4: Report of Indigo — Data Link

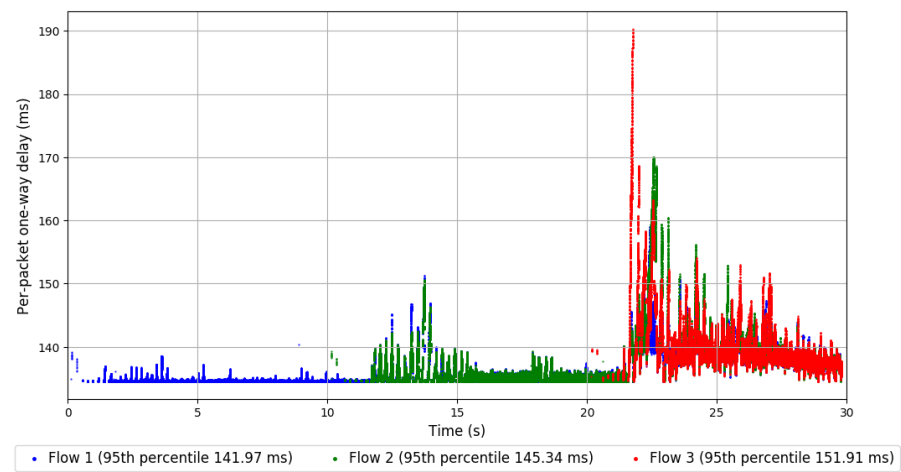
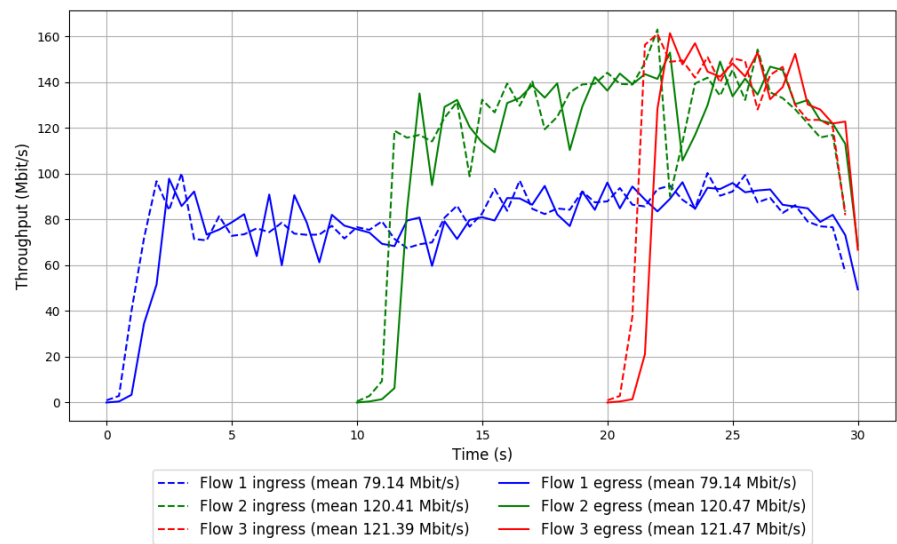


Run 5: Statistics of Indigo

Start at: 2019-01-22 05:43:07  
End at: 2019-01-22 05:43:37  
Local clock offset: -1.729 ms  
Remote clock offset: -42.533 ms

# Below is generated by plot.py at 2019-01-22 06:35:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 198.40 Mbit/s  
95th percentile per-packet one-way delay: 145.554 ms  
Loss rate: 1.03%  
-- Flow 1:  
Average throughput: 79.14 Mbit/s  
95th percentile per-packet one-way delay: 141.972 ms  
Loss rate: 0.66%  
-- Flow 2:  
Average throughput: 120.47 Mbit/s  
95th percentile per-packet one-way delay: 145.340 ms  
Loss rate: 0.95%  
-- Flow 3:  
Average throughput: 121.47 Mbit/s  
95th percentile per-packet one-way delay: 151.911 ms  
Loss rate: 1.94%

Run 5: Report of Indigo — Data Link

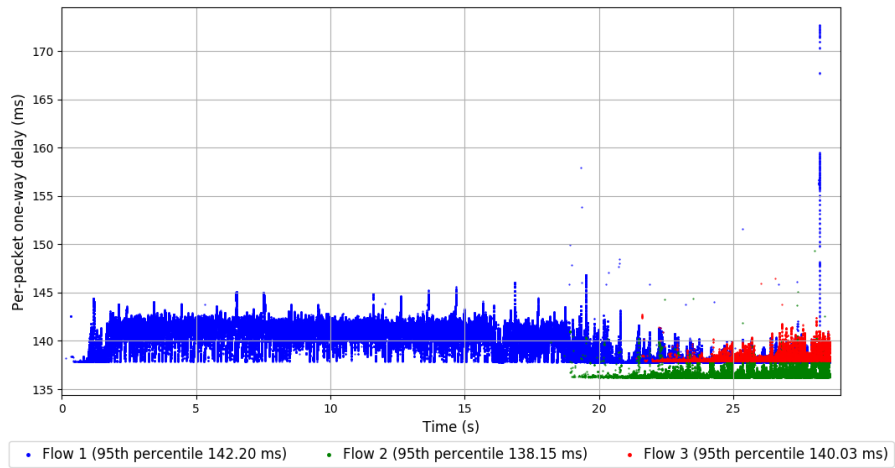
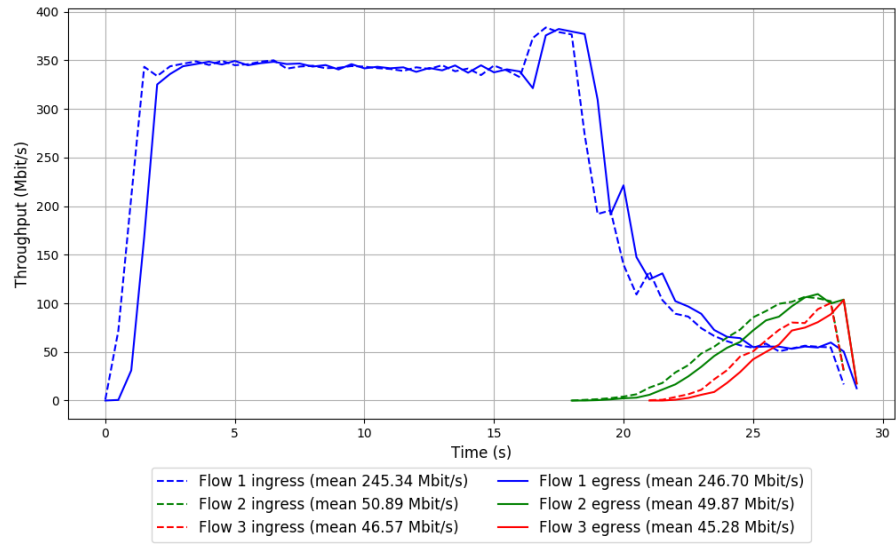


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-22 03:08:49  
End at: 2019-01-22 03:09:19  
Local clock offset: -1.384 ms  
Remote clock offset: -43.132 ms

# Below is generated by plot.py at 2019-01-22 06:36:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 276.34 Mbit/s  
95th percentile per-packet one-way delay: 142.157 ms  
Loss rate: 0.62%  
-- Flow 1:  
Average throughput: 246.70 Mbit/s  
95th percentile per-packet one-way delay: 142.202 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 49.87 Mbit/s  
95th percentile per-packet one-way delay: 138.147 ms  
Loss rate: 3.86%  
-- Flow 3:  
Average throughput: 45.28 Mbit/s  
95th percentile per-packet one-way delay: 140.029 ms  
Loss rate: 5.39%

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

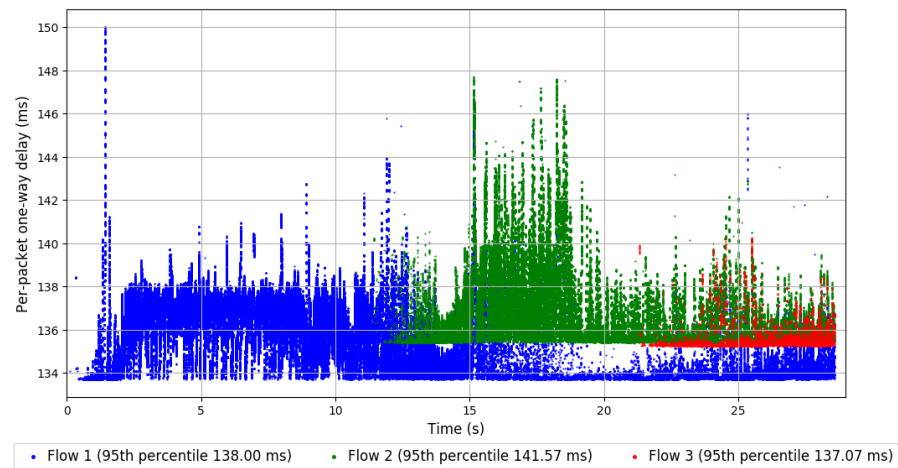
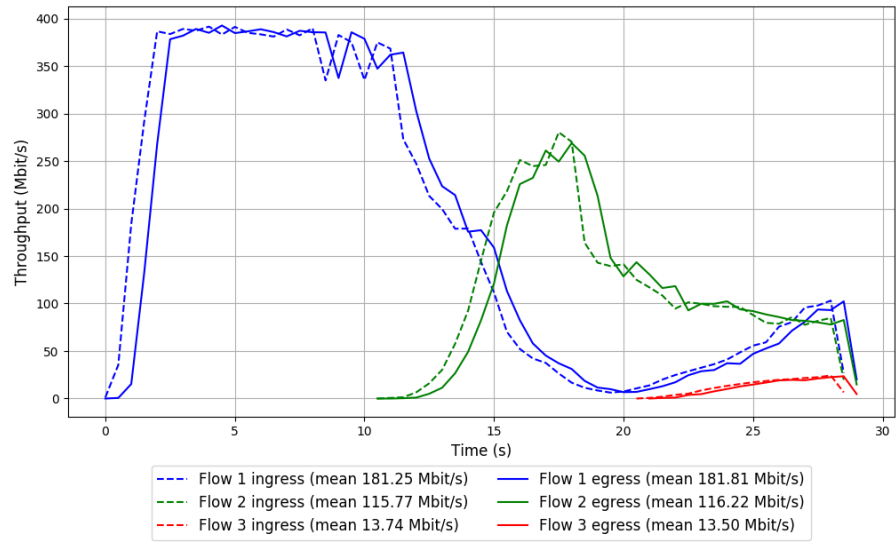


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-22 03:40:14  
End at: 2019-01-22 03:40:44  
Local clock offset: 1.349 ms  
Remote clock offset: -40.575 ms

# Below is generated by plot.py at 2019-01-22 06:36:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 258.17 Mbit/s  
95th percentile per-packet one-way delay: 139.321 ms  
Loss rate: 0.52%  
-- Flow 1:  
Average throughput: 181.81 Mbit/s  
95th percentile per-packet one-way delay: 137.999 ms  
Loss rate: 0.36%  
-- Flow 2:  
Average throughput: 116.22 Mbit/s  
95th percentile per-packet one-way delay: 141.567 ms  
Loss rate: 0.73%  
-- Flow 3:  
Average throughput: 13.50 Mbit/s  
95th percentile per-packet one-way delay: 137.068 ms  
Loss rate: 4.22%

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



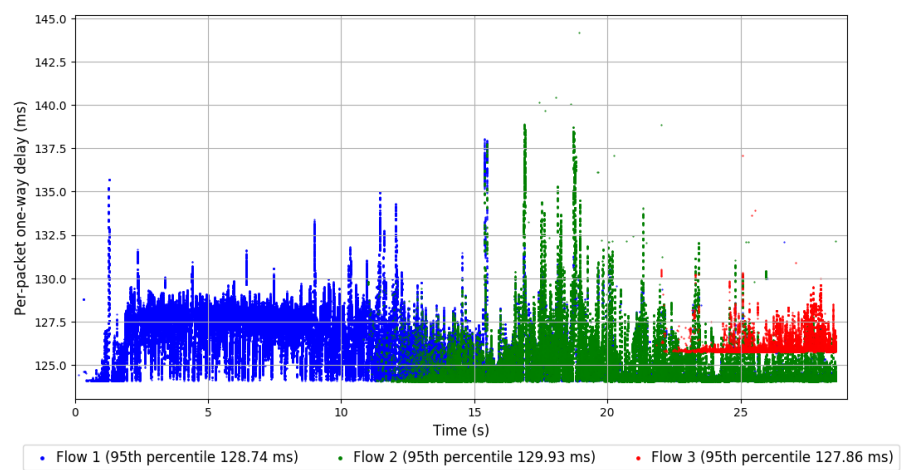
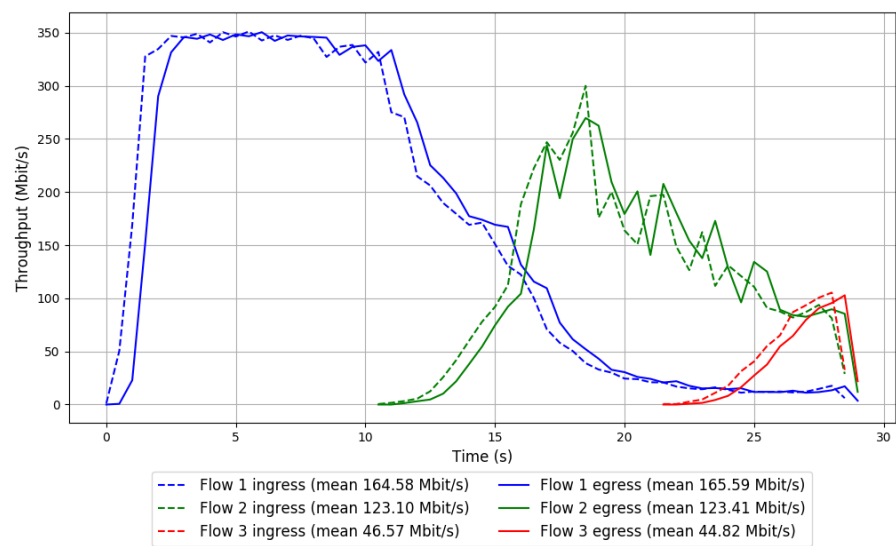


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-22 04:21:46  
End at: 2019-01-22 04:22:16  
Local clock offset: -1.922 ms  
Remote clock offset: -34.331 ms

# Below is generated by plot.py at 2019-01-22 06:37:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 253.28 Mbit/s  
95th percentile per-packet one-way delay: 128.901 ms  
Loss rate: 0.60%  
-- Flow 1:  
Average throughput: 165.59 Mbit/s  
95th percentile per-packet one-way delay: 128.743 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 123.41 Mbit/s  
95th percentile per-packet one-way delay: 129.928 ms  
Loss rate: 0.86%  
-- Flow 3:  
Average throughput: 44.82 Mbit/s  
95th percentile per-packet one-way delay: 127.859 ms  
Loss rate: 6.49%

Run 3: Report of Indigo-MusesC3 — Data Link

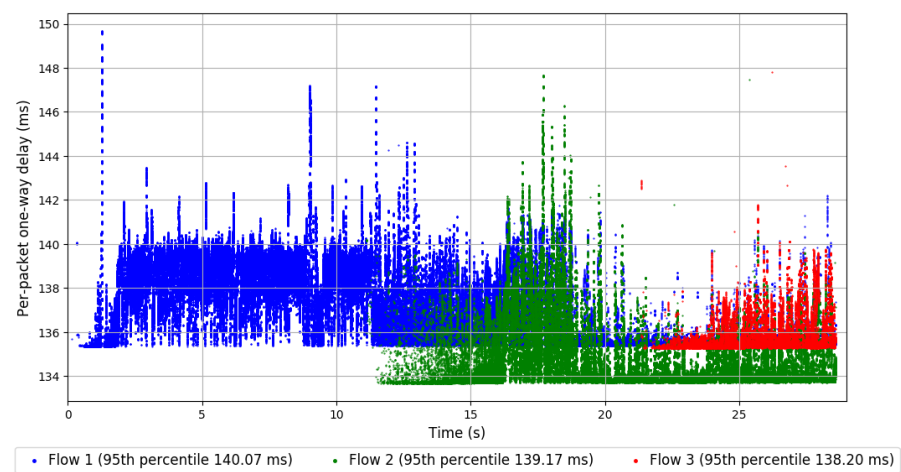
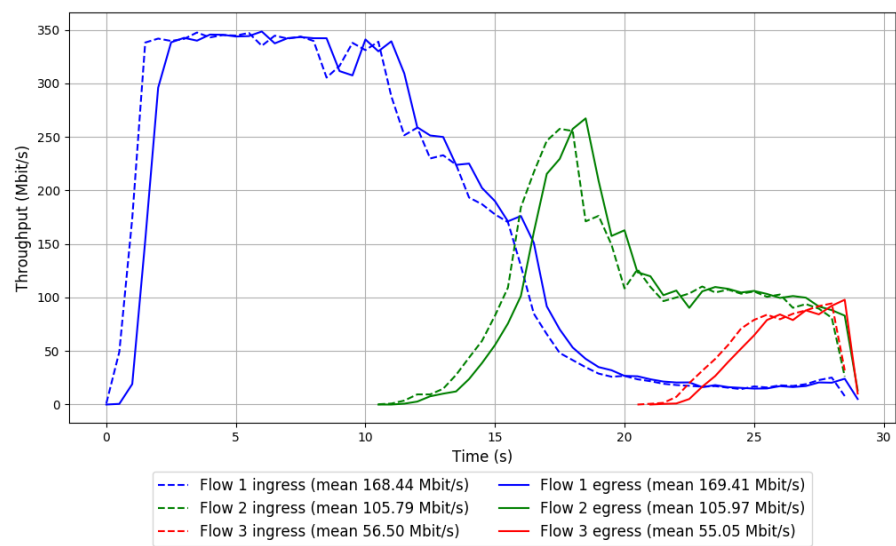


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-22 05:18:13  
End at: 2019-01-22 05:18:43  
Local clock offset: 1.31 ms  
Remote clock offset: -41.53 ms

# Below is generated by plot.py at 2019-01-22 06:37:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 249.62 Mbit/s  
95th percentile per-packet one-way delay: 139.921 ms  
Loss rate: 0.61%  
-- Flow 1:  
Average throughput: 169.41 Mbit/s  
95th percentile per-packet one-way delay: 140.075 ms  
Loss rate: 0.11%  
-- Flow 2:  
Average throughput: 105.97 Mbit/s  
95th percentile per-packet one-way delay: 139.169 ms  
Loss rate: 0.90%  
-- Flow 3:  
Average throughput: 55.05 Mbit/s  
95th percentile per-packet one-way delay: 138.202 ms  
Loss rate: 4.93%

Run 4: Report of Indigo-MusesC3 — Data Link

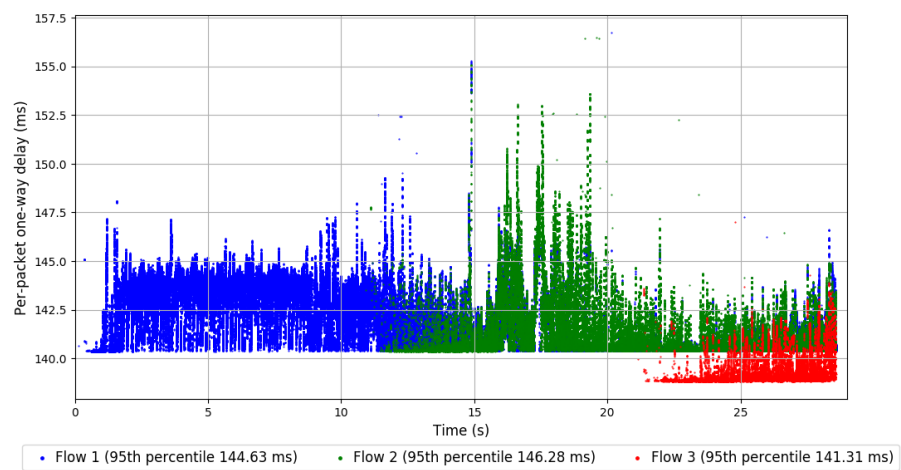
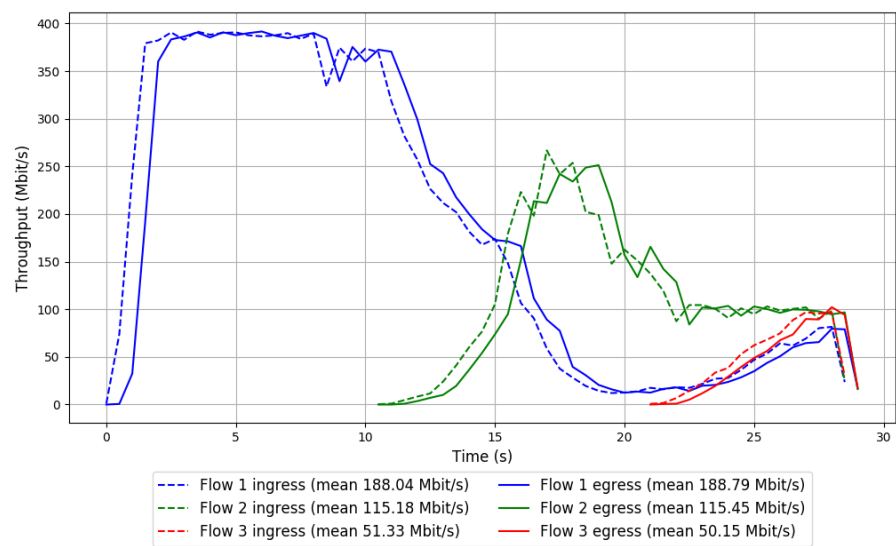


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-22 06:11:42  
End at: 2019-01-22 06:12:12  
Local clock offset: 0.237 ms  
Remote clock offset: -46.268 ms

# Below is generated by plot.py at 2019-01-22 06:38:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 273.57 Mbit/s  
95th percentile per-packet one-way delay: 144.863 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 188.79 Mbit/s  
95th percentile per-packet one-way delay: 144.626 ms  
Loss rate: 0.29%  
-- Flow 2:  
Average throughput: 115.45 Mbit/s  
95th percentile per-packet one-way delay: 146.276 ms  
Loss rate: 0.88%  
-- Flow 3:  
Average throughput: 50.15 Mbit/s  
95th percentile per-packet one-way delay: 141.312 ms  
Loss rate: 4.79%

Run 5: Report of Indigo-MusesC3 — Data Link

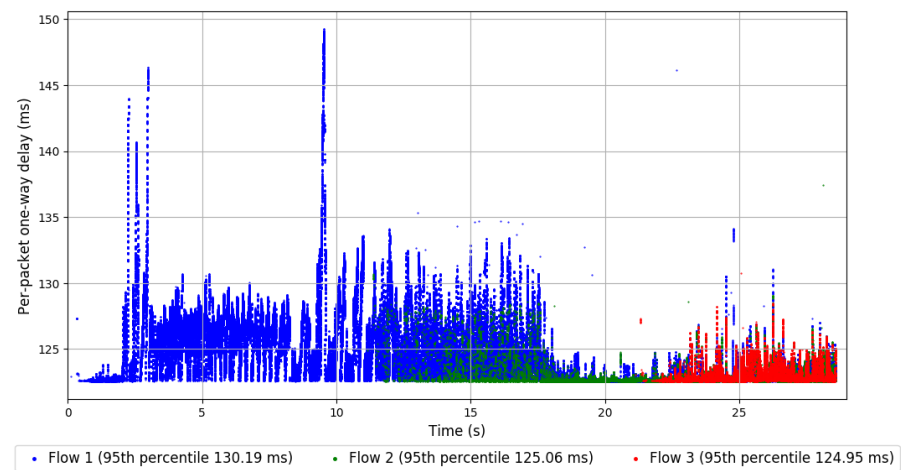
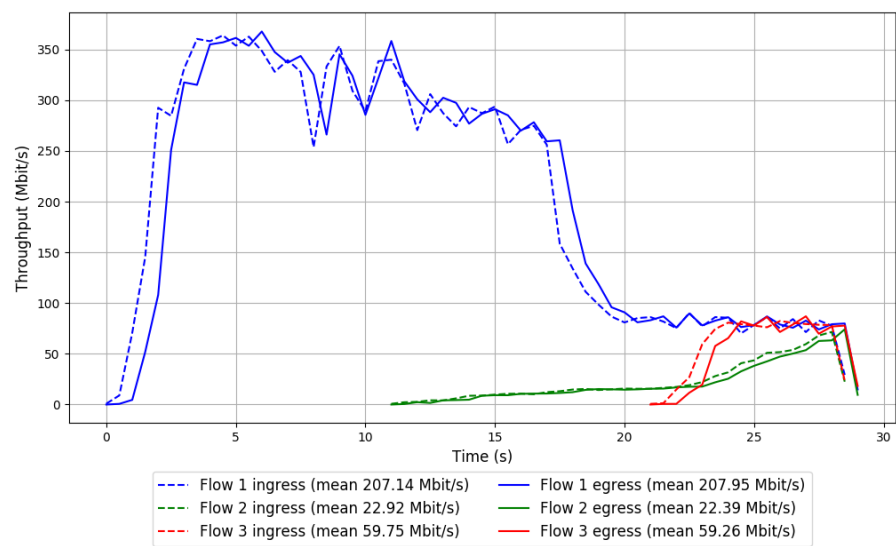


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-22 02:33:10  
End at: 2019-01-22 02:33:40  
Local clock offset: -8.714 ms  
Remote clock offset: -39.559 ms

# Below is generated by plot.py at 2019-01-22 06:38:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 237.14 Mbit/s  
95th percentile per-packet one-way delay: 129.841 ms  
Loss rate: 0.70%  
-- Flow 1:  
Average throughput: 207.95 Mbit/s  
95th percentile per-packet one-way delay: 130.194 ms  
Loss rate: 0.29%  
-- Flow 2:  
Average throughput: 22.39 Mbit/s  
95th percentile per-packet one-way delay: 125.061 ms  
Loss rate: 3.46%  
-- Flow 3:  
Average throughput: 59.26 Mbit/s  
95th percentile per-packet one-way delay: 124.951 ms  
Loss rate: 3.50%

Run 1: Report of Indigo-MusesC5 — Data Link



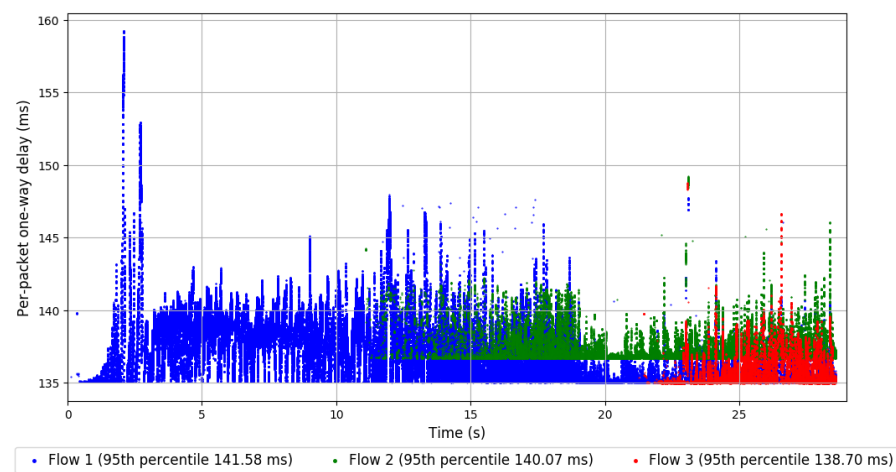
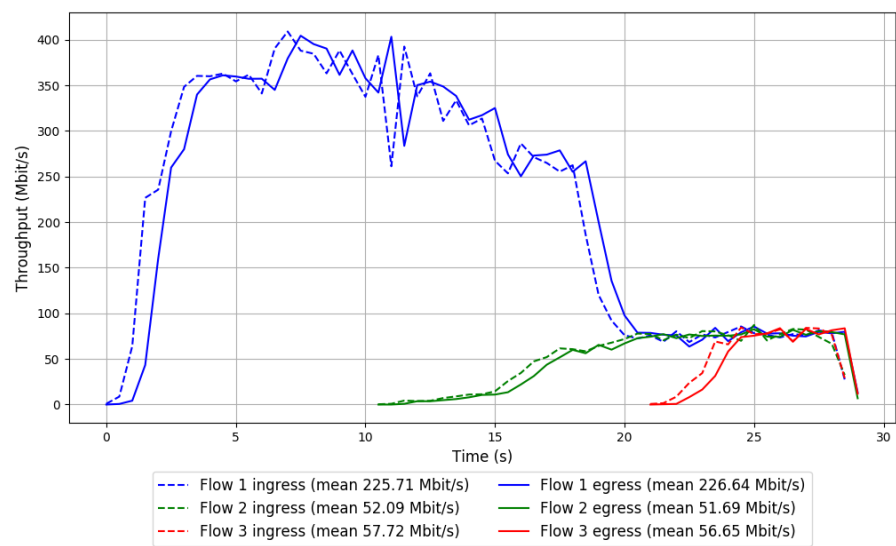


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-22 03:19:41  
End at: 2019-01-22 03:20:11  
Local clock offset: 0.265 ms  
Remote clock offset: -41.64 ms

# Below is generated by plot.py at 2019-01-22 06:38:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 273.39 Mbit/s  
95th percentile per-packet one-way delay: 141.279 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 226.64 Mbit/s  
95th percentile per-packet one-way delay: 141.578 ms  
Loss rate: 0.26%  
-- Flow 2:  
Average throughput: 51.69 Mbit/s  
95th percentile per-packet one-way delay: 140.072 ms  
Loss rate: 1.87%  
-- Flow 3:  
Average throughput: 56.65 Mbit/s  
95th percentile per-packet one-way delay: 138.699 ms  
Loss rate: 4.20%

Run 2: Report of Indigo-MusesC5 — Data Link

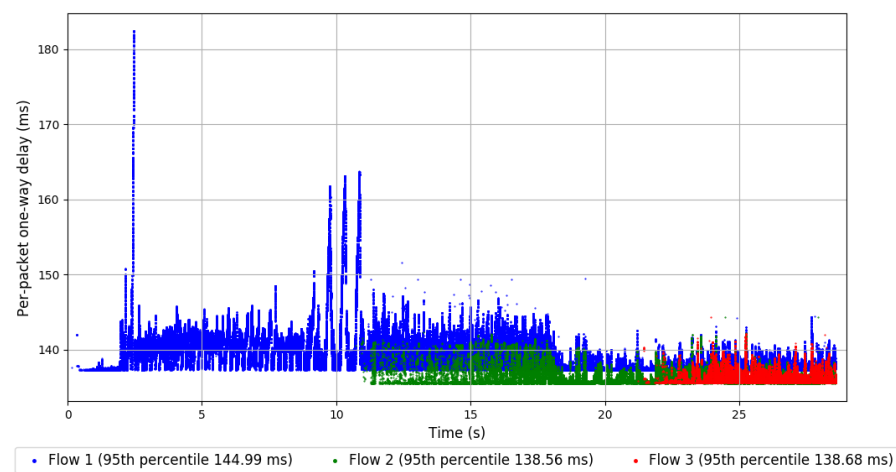
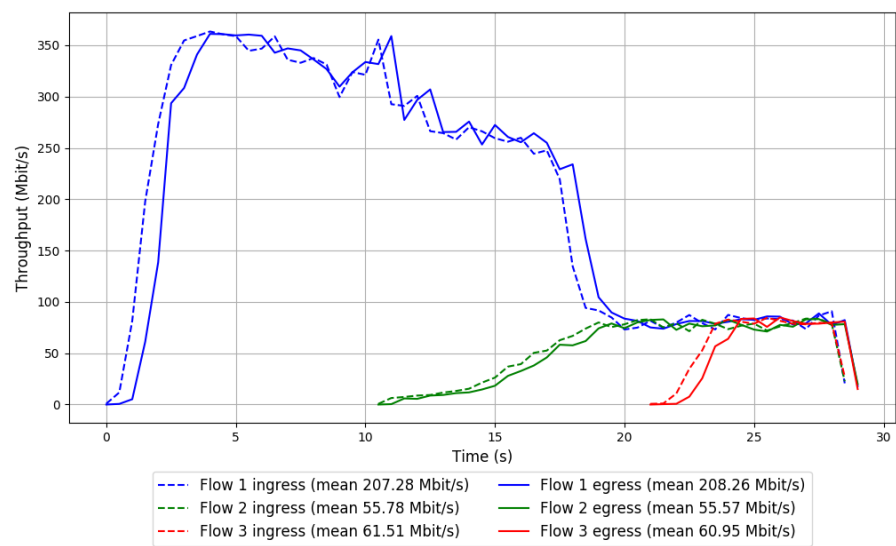


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-22 03:50:42  
End at: 2019-01-22 03:51:12  
Local clock offset: -1.103 ms  
Remote clock offset: -44.899 ms

# Below is generated by plot.py at 2019-01-22 06:38:35  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 258.76 Mbit/s  
95th percentile per-packet one-way delay: 144.357 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 208.26 Mbit/s  
95th percentile per-packet one-way delay: 144.990 ms  
Loss rate: 0.28%  
-- Flow 2:  
Average throughput: 55.57 Mbit/s  
95th percentile per-packet one-way delay: 138.559 ms  
Loss rate: 1.41%  
-- Flow 3:  
Average throughput: 60.95 Mbit/s  
95th percentile per-packet one-way delay: 138.680 ms  
Loss rate: 3.48%

Run 3: Report of Indigo-MusesC5 — Data Link

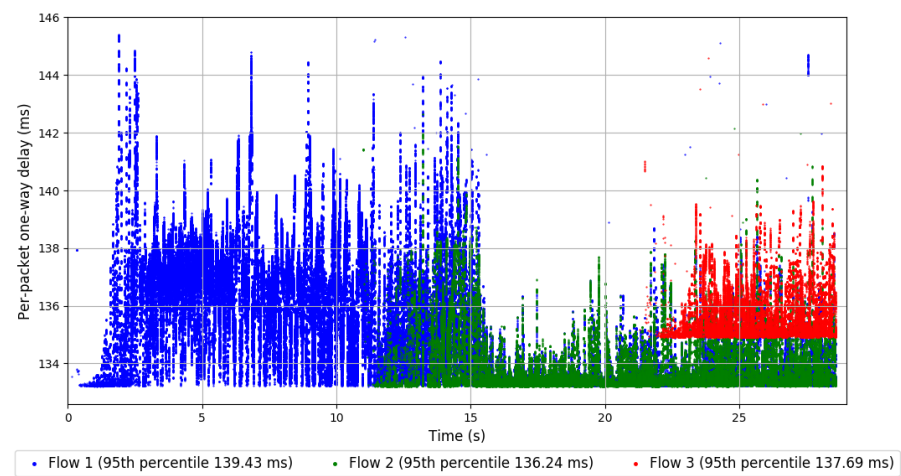
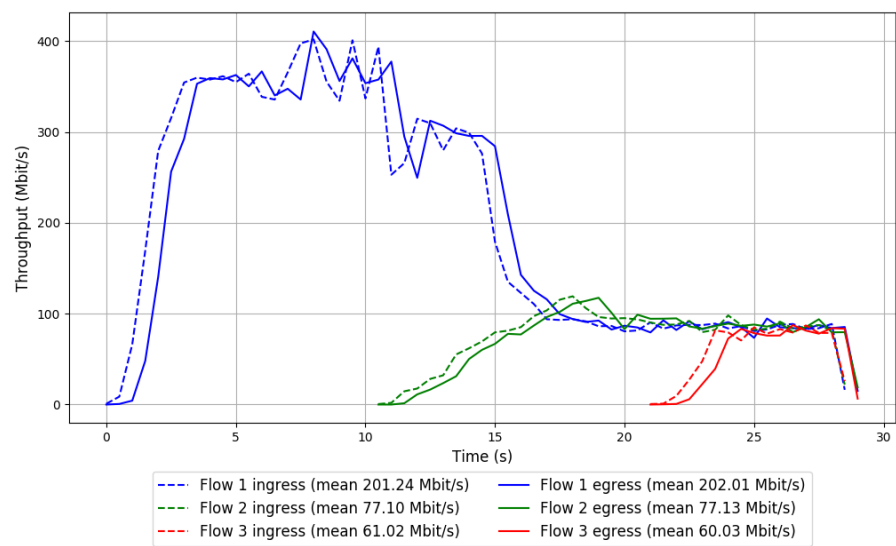


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-22 04:42:06  
End at: 2019-01-22 04:42:36  
Local clock offset: 0.852 ms  
Remote clock offset: -40.684 ms

# Below is generated by plot.py at 2019-01-22 06:39:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 265.55 Mbit/s  
95th percentile per-packet one-way delay: 139.037 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 202.01 Mbit/s  
95th percentile per-packet one-way delay: 139.427 ms  
Loss rate: 0.24%  
-- Flow 2:  
Average throughput: 77.13 Mbit/s  
95th percentile per-packet one-way delay: 136.236 ms  
Loss rate: 1.07%  
-- Flow 3:  
Average throughput: 60.03 Mbit/s  
95th percentile per-packet one-way delay: 137.690 ms  
Loss rate: 4.13%

Run 4: Report of Indigo-MusesC5 — Data Link

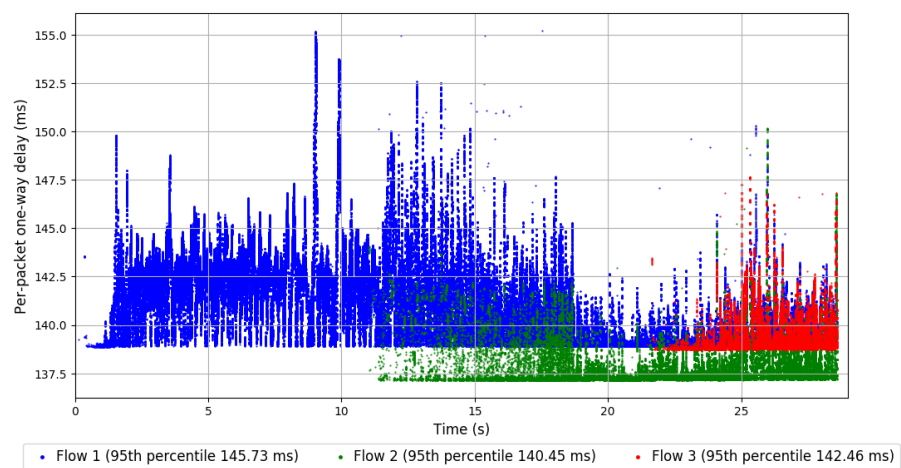
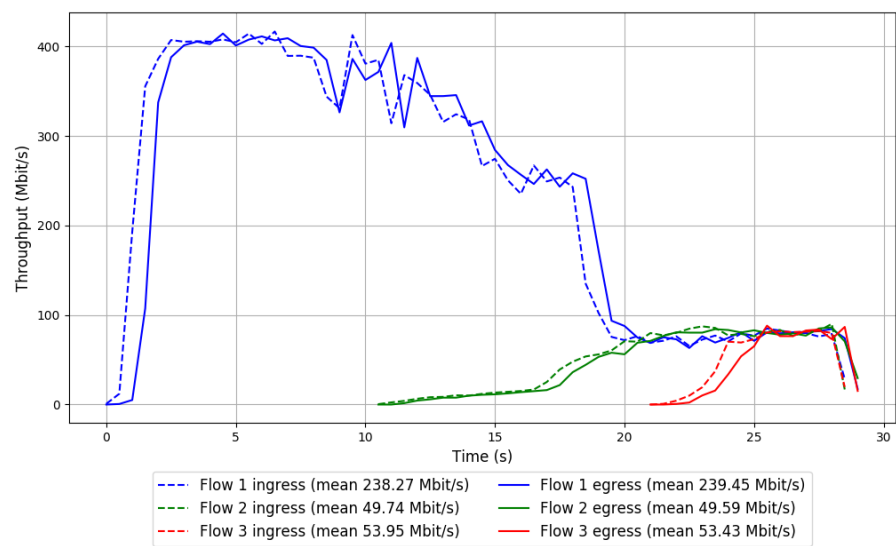


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-22 05:40:06  
End at: 2019-01-22 05:40:36  
Local clock offset: -0.184 ms  
Remote clock offset: -45.433 ms

```
# Below is generated by plot.py at 2019-01-22 06:39:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.73 Mbit/s
95th percentile per-packet one-way delay: 145.386 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 239.45 Mbit/s
95th percentile per-packet one-way delay: 145.727 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 49.59 Mbit/s
95th percentile per-packet one-way delay: 140.449 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 53.43 Mbit/s
95th percentile per-packet one-way delay: 142.464 ms
Loss rate: 3.41%
```

Run 5: Report of Indigo-MusesC5 — Data Link



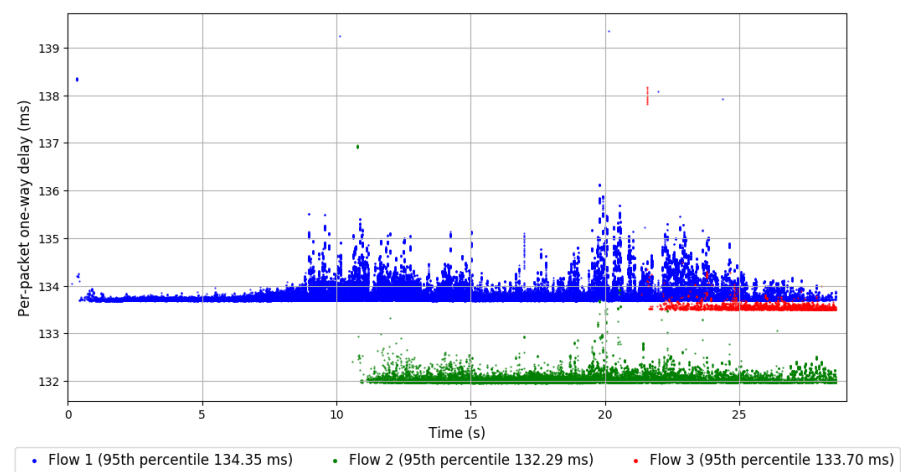
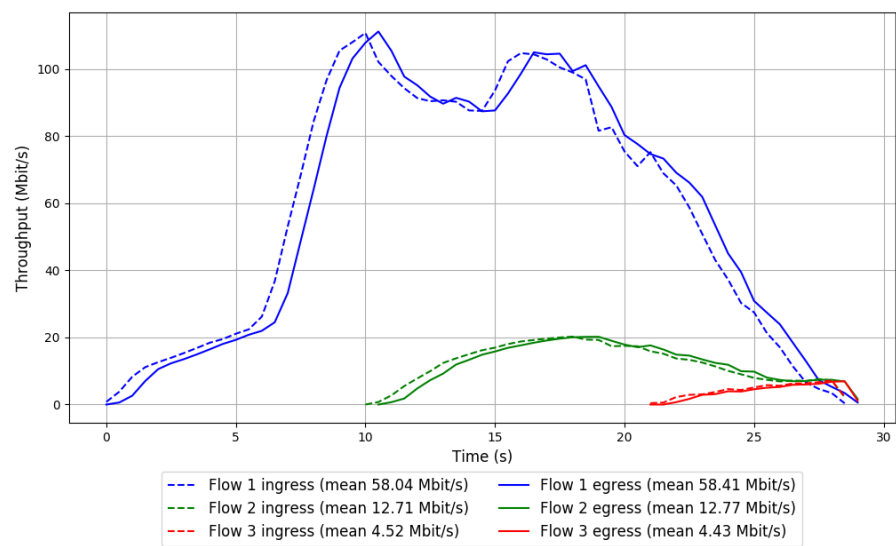


Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-22 02:30:18  
End at: 2019-01-22 02:30:48  
Local clock offset: 1.235 ms  
Remote clock offset: -39.009 ms

# Below is generated by plot.py at 2019-01-22 06:39:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.60 Mbit/s  
95th percentile per-packet one-way delay: 134.304 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 58.41 Mbit/s  
95th percentile per-packet one-way delay: 134.354 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 12.77 Mbit/s  
95th percentile per-packet one-way delay: 132.286 ms  
Loss rate: 0.59%  
-- Flow 3:  
Average throughput: 4.43 Mbit/s  
95th percentile per-packet one-way delay: 133.701 ms  
Loss rate: 4.60%

Run 1: Report of Indigo-MusesD — Data Link

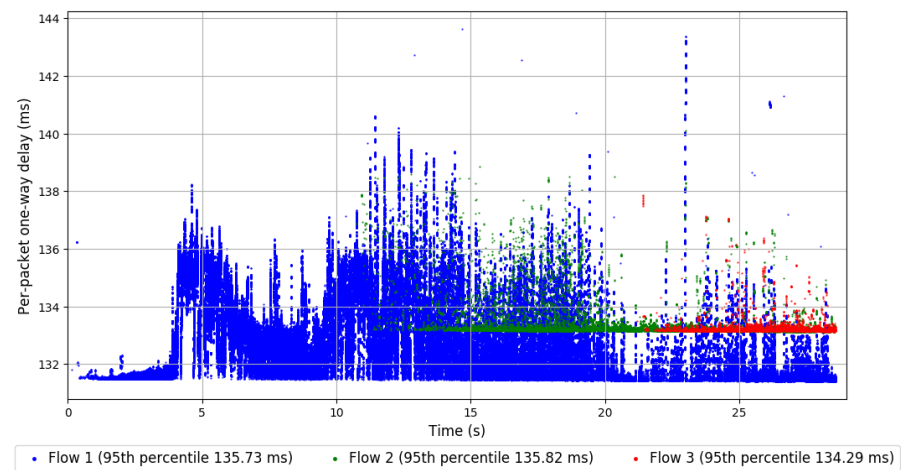
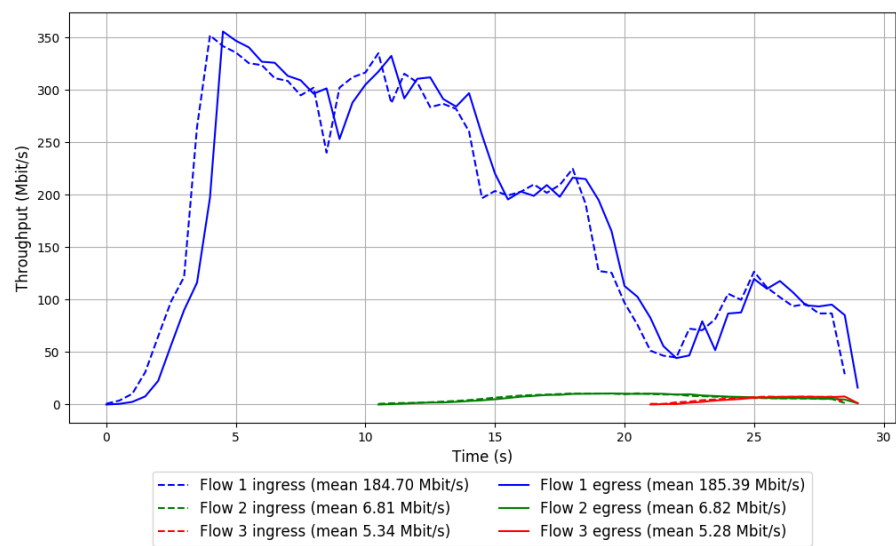


Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-22 03:16:43  
End at: 2019-01-22 03:17:13  
Local clock offset: -1.318 ms  
Remote clock offset: -39.089 ms

# Below is generated by plot.py at 2019-01-22 06:39:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 191.03 Mbit/s  
95th percentile per-packet one-way delay: 135.724 ms  
Loss rate: 0.35%  
-- Flow 1:  
Average throughput: 185.39 Mbit/s  
95th percentile per-packet one-way delay: 135.726 ms  
Loss rate: 0.31%  
-- Flow 2:  
Average throughput: 6.82 Mbit/s  
95th percentile per-packet one-way delay: 135.821 ms  
Loss rate: 0.94%  
-- Flow 3:  
Average throughput: 5.28 Mbit/s  
95th percentile per-packet one-way delay: 134.292 ms  
Loss rate: 3.69%

Run 2: Report of Indigo-MusesD — Data Link

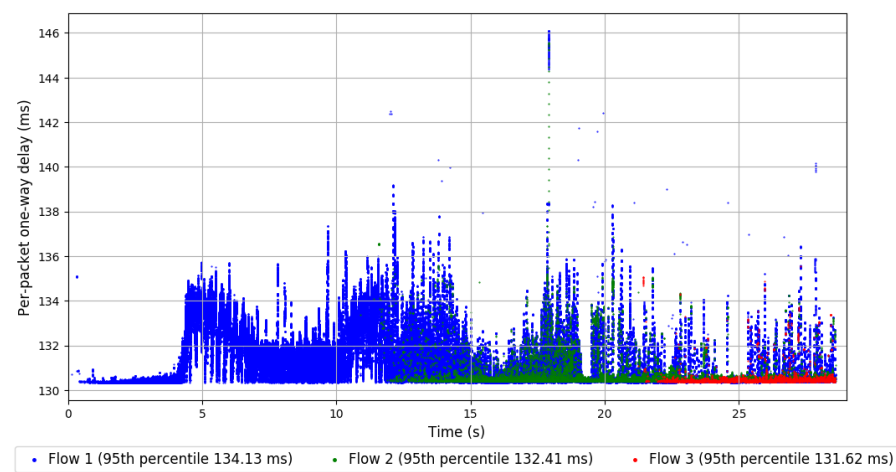
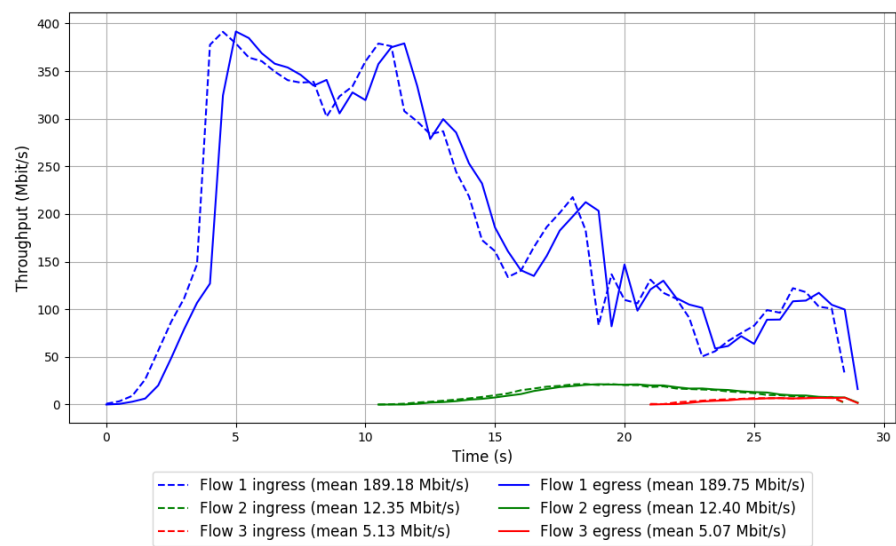


Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-22 03:47:45  
End at: 2019-01-22 03:48:15  
Local clock offset: -1.758 ms  
Remote clock offset: -40.47 ms

# Below is generated by plot.py at 2019-01-22 06:40:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 198.76 Mbit/s  
95th percentile per-packet one-way delay: 134.118 ms  
Loss rate: 0.41%  
-- Flow 1:  
Average throughput: 189.75 Mbit/s  
95th percentile per-packet one-way delay: 134.133 ms  
Loss rate: 0.38%  
-- Flow 2:  
Average throughput: 12.40 Mbit/s  
95th percentile per-packet one-way delay: 132.406 ms  
Loss rate: 0.46%  
-- Flow 3:  
Average throughput: 5.07 Mbit/s  
95th percentile per-packet one-way delay: 131.619 ms  
Loss rate: 3.63%

Run 3: Report of Indigo-MusesD — Data Link

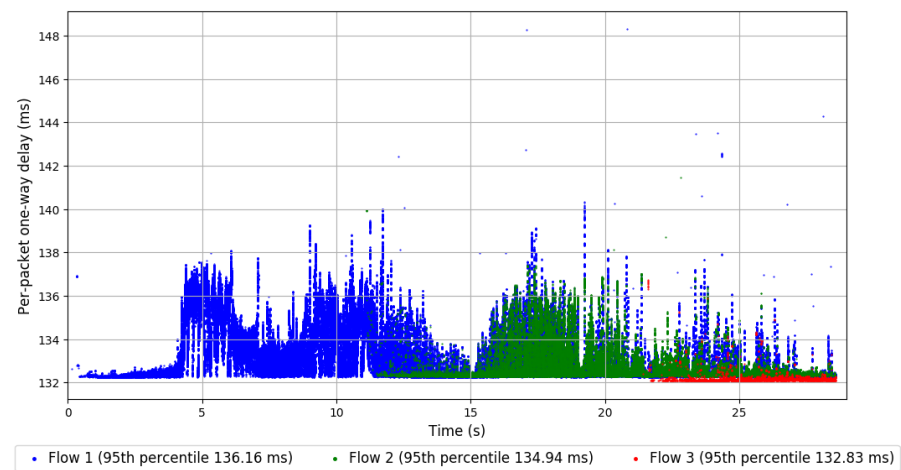
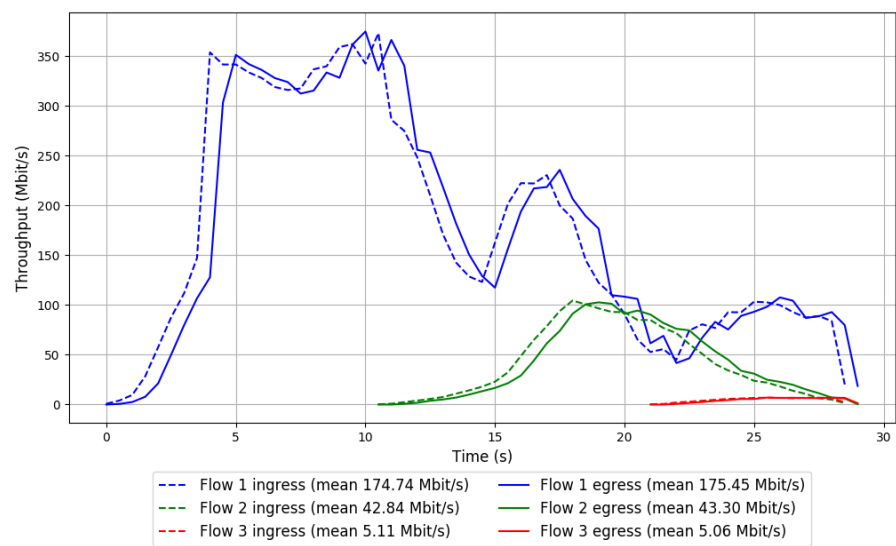


Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-22 04:38:54  
End at: 2019-01-22 04:39:24  
Local clock offset: -0.921 ms  
Remote clock offset: -39.812 ms

# Below is generated by plot.py at 2019-01-22 06:40:19  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 203.58 Mbit/s  
95th percentile per-packet one-way delay: 136.094 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 175.45 Mbit/s  
95th percentile per-packet one-way delay: 136.163 ms  
Loss rate: 0.28%  
-- Flow 2:  
Average throughput: 43.30 Mbit/s  
95th percentile per-packet one-way delay: 134.938 ms  
Loss rate: 0.11%  
-- Flow 3:  
Average throughput: 5.06 Mbit/s  
95th percentile per-packet one-way delay: 132.832 ms  
Loss rate: 3.48%

Run 4: Report of Indigo-MusesD — Data Link



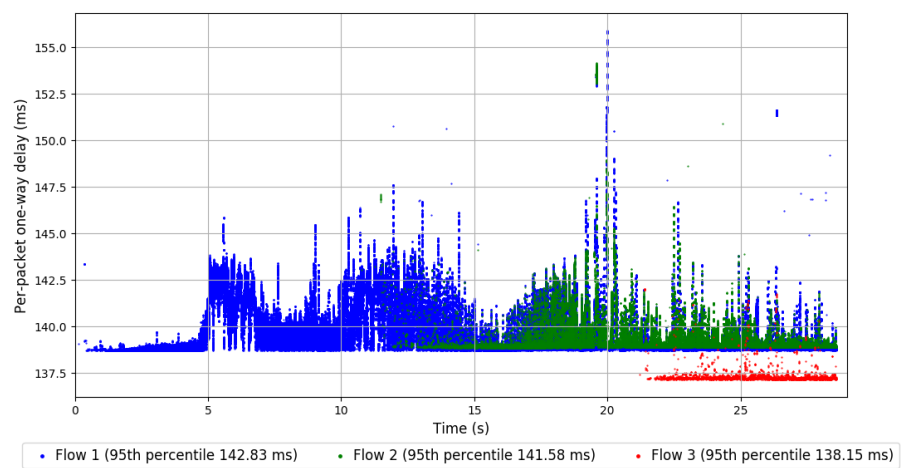
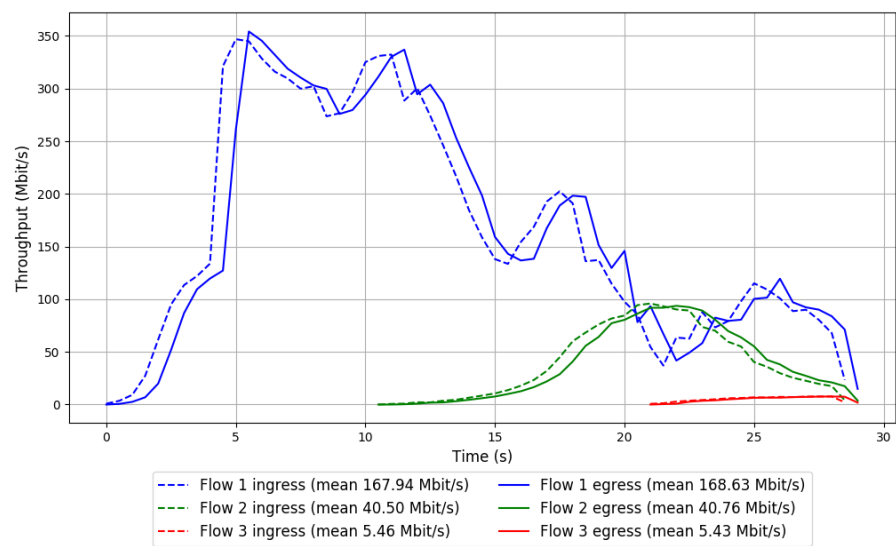


Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-22 05:31:39  
End at: 2019-01-22 05:32:09  
Local clock offset: -0.512 ms  
Remote clock offset: -45.952 ms

# Below is generated by plot.py at 2019-01-22 06:40:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 195.57 Mbit/s  
95th percentile per-packet one-way delay: 142.787 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 168.63 Mbit/s  
95th percentile per-packet one-way delay: 142.831 ms  
Loss rate: 0.28%  
-- Flow 2:  
Average throughput: 40.76 Mbit/s  
95th percentile per-packet one-way delay: 141.583 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 5.43 Mbit/s  
95th percentile per-packet one-way delay: 138.153 ms  
Loss rate: 3.11%

Run 5: Report of Indigo-MusesD — Data Link

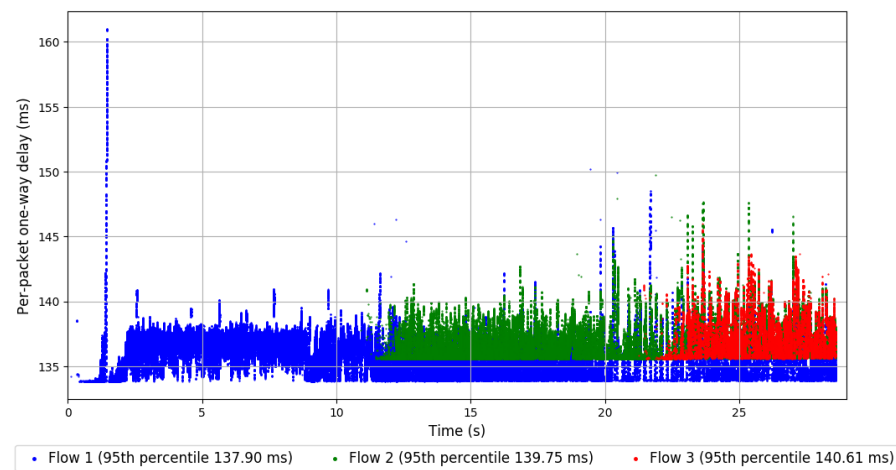
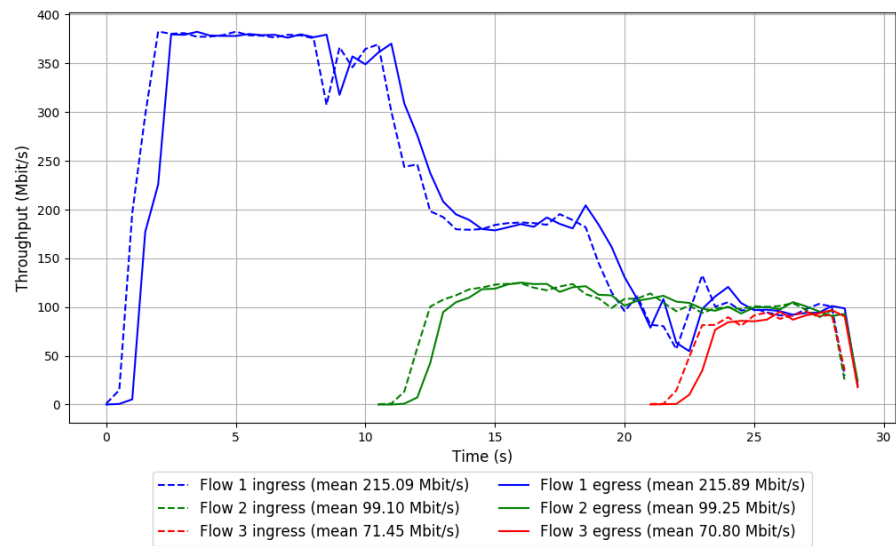


Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-22 02:54:39  
End at: 2019-01-22 02:55:09  
Local clock offset: 0.641 ms  
Remote clock offset: -39.872 ms

# Below is generated by plot.py at 2019-01-22 06:41:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 295.74 Mbit/s  
95th percentile per-packet one-way delay: 138.774 ms  
Loss rate: 0.65%  
-- Flow 1:  
Average throughput: 215.89 Mbit/s  
95th percentile per-packet one-way delay: 137.902 ms  
Loss rate: 0.31%  
-- Flow 2:  
Average throughput: 99.25 Mbit/s  
95th percentile per-packet one-way delay: 139.753 ms  
Loss rate: 0.94%  
-- Flow 3:  
Average throughput: 70.80 Mbit/s  
95th percentile per-packet one-way delay: 140.610 ms  
Loss rate: 3.64%

Run 1: Report of Indigo-MusesT — Data Link

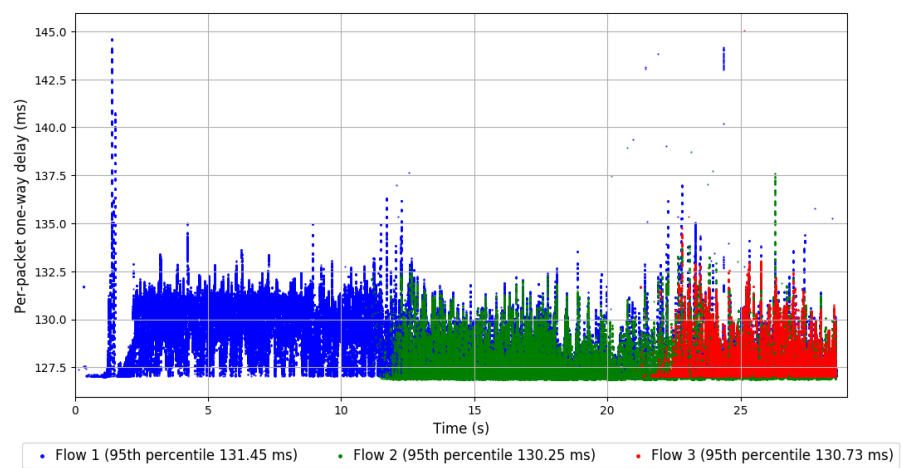
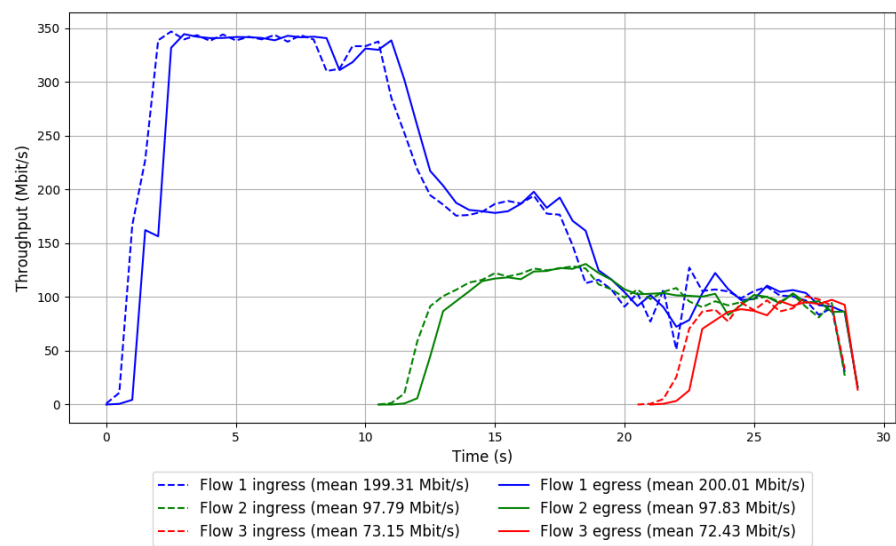


Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-22 03:35:34  
End at: 2019-01-22 03:36:04  
Local clock offset: -0.362 ms  
Remote clock offset: -33.83 ms

# Below is generated by plot.py at 2019-01-22 06:41:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 279.87 Mbit/s  
95th percentile per-packet one-way delay: 131.319 ms  
Loss rate: 0.72%  
-- Flow 1:  
Average throughput: 200.01 Mbit/s  
95th percentile per-packet one-way delay: 131.447 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 97.83 Mbit/s  
95th percentile per-packet one-way delay: 130.248 ms  
Loss rate: 1.05%  
-- Flow 3:  
Average throughput: 72.43 Mbit/s  
95th percentile per-packet one-way delay: 130.732 ms  
Loss rate: 3.66%

Run 2: Report of Indigo-MusesT — Data Link

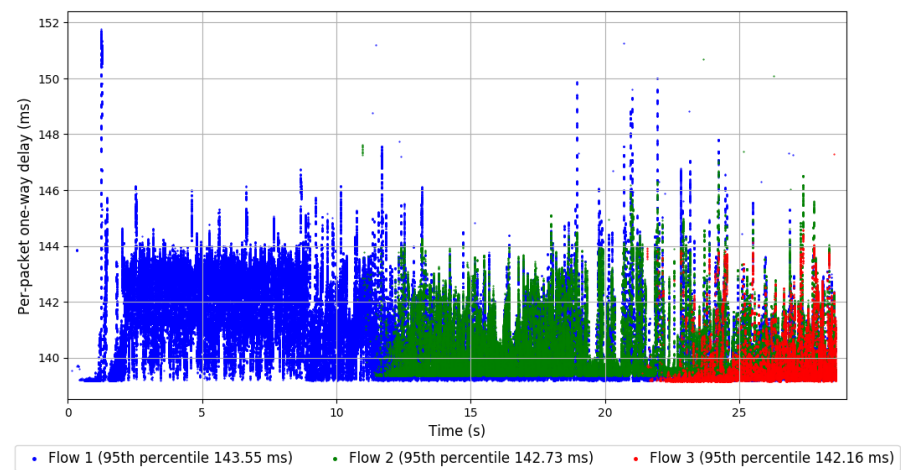
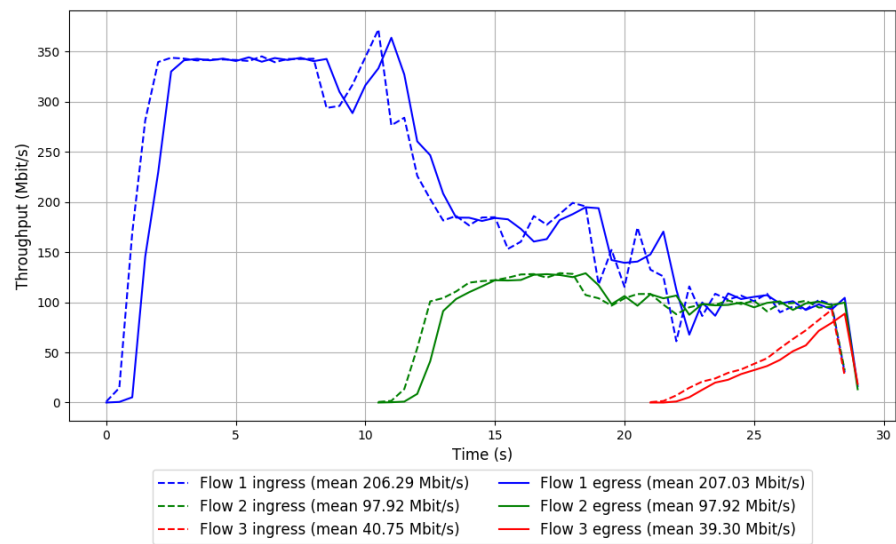


Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-22 04:11:09  
End at: 2019-01-22 04:11:39  
Local clock offset: 0.229 ms  
Remote clock offset: -45.684 ms

# Below is generated by plot.py at 2019-01-22 06:42:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 278.29 Mbit/s  
95th percentile per-packet one-way delay: 143.459 ms  
Loss rate: 0.74%  
-- Flow 1:  
Average throughput: 207.03 Mbit/s  
95th percentile per-packet one-way delay: 143.548 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 97.92 Mbit/s  
95th percentile per-packet one-way delay: 142.734 ms  
Loss rate: 1.18%  
-- Flow 3:  
Average throughput: 39.30 Mbit/s  
95th percentile per-packet one-way delay: 142.157 ms  
Loss rate: 6.12%

Run 3: Report of Indigo-MusesT — Data Link



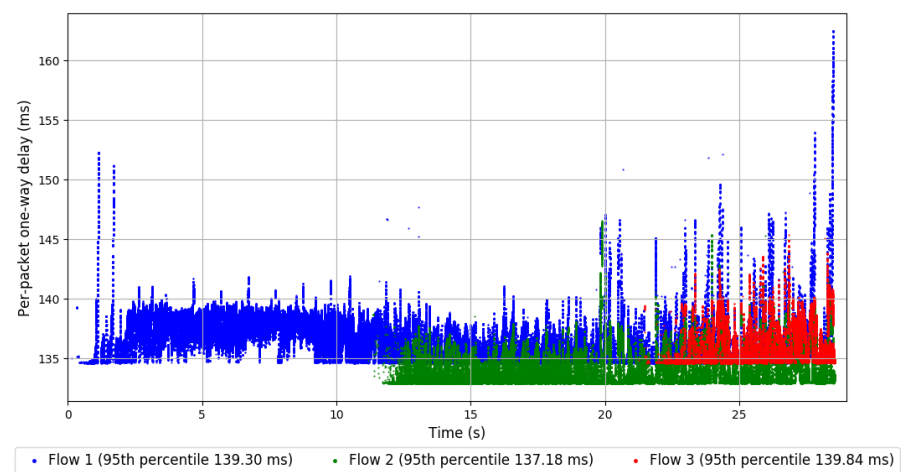
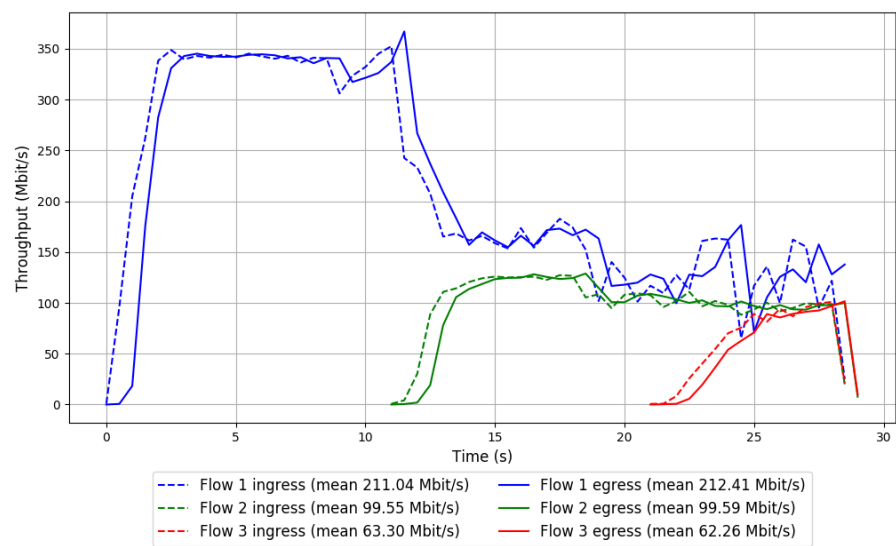


Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-22 05:07:39  
End at: 2019-01-22 05:08:09  
Local clock offset: 1.88 ms  
Remote clock offset: -40.393 ms

# Below is generated by plot.py at 2019-01-22 06:42:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 288.85 Mbit/s  
95th percentile per-packet one-way delay: 139.154 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 212.41 Mbit/s  
95th percentile per-packet one-way delay: 139.299 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 99.59 Mbit/s  
95th percentile per-packet one-way delay: 137.182 ms  
Loss rate: 1.08%  
-- Flow 3:  
Average throughput: 62.26 Mbit/s  
95th percentile per-packet one-way delay: 139.839 ms  
Loss rate: 4.11%

Run 4: Report of Indigo-MusesT — Data Link

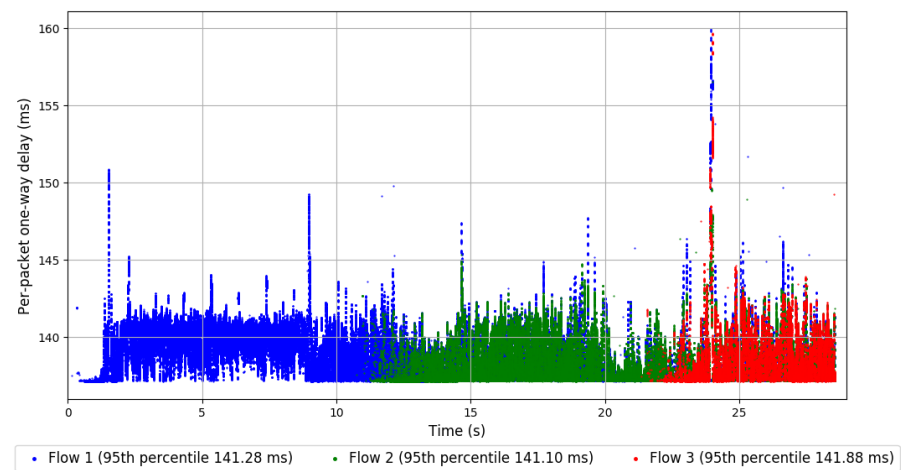
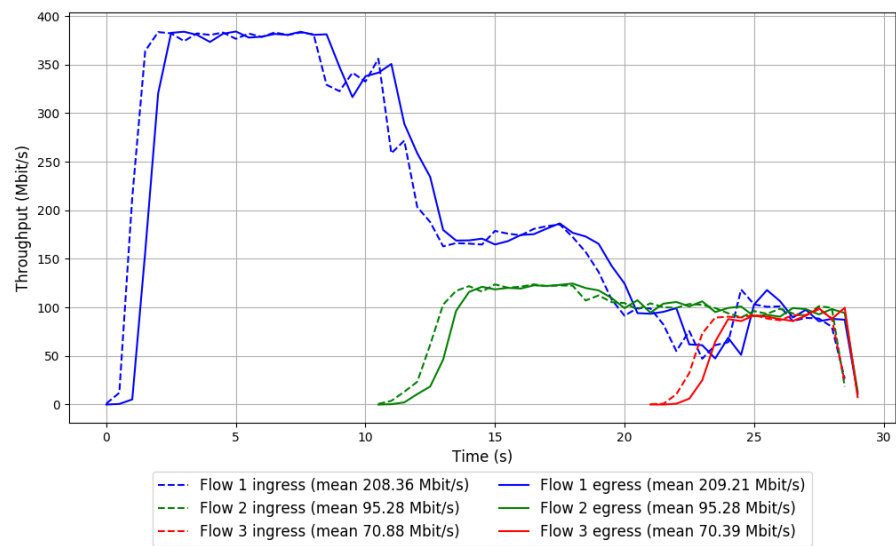


Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-22 06:01:33  
End at: 2019-01-22 06:02:03  
Local clock offset: 1.301 ms  
Remote clock offset: -44.584 ms

# Below is generated by plot.py at 2019-01-22 06:42:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 286.72 Mbit/s  
95th percentile per-packet one-way delay: 141.284 ms  
Loss rate: 0.65%  
-- Flow 1:  
Average throughput: 209.21 Mbit/s  
95th percentile per-packet one-way delay: 141.284 ms  
Loss rate: 0.29%  
-- Flow 2:  
Average throughput: 95.28 Mbit/s  
95th percentile per-packet one-way delay: 141.104 ms  
Loss rate: 1.07%  
-- Flow 3:  
Average throughput: 70.39 Mbit/s  
95th percentile per-packet one-way delay: 141.885 ms  
Loss rate: 3.43%

Run 5: Report of Indigo-MusesT — Data Link

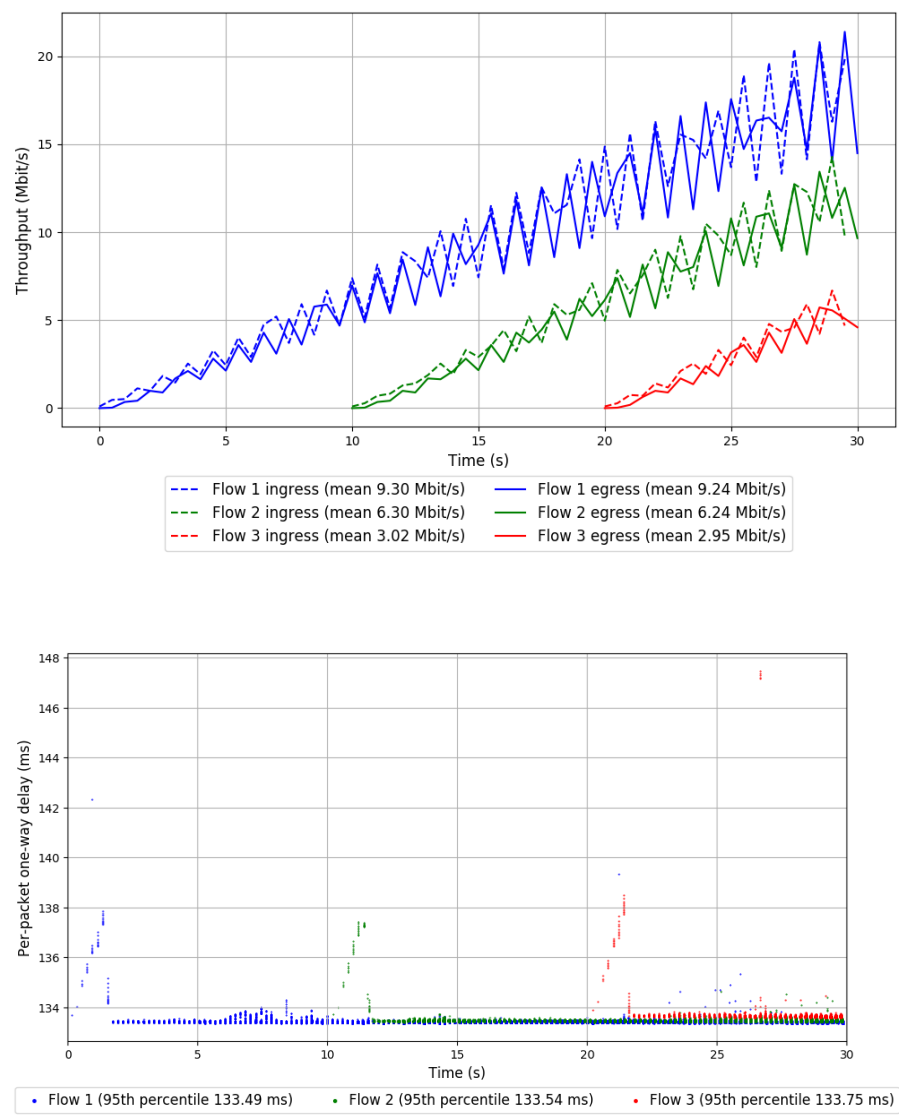


Run 1: Statistics of LEDBAT

Start at: 2019-01-22 03:13:39  
End at: 2019-01-22 03:14:09  
Local clock offset: -1.876 ms  
Remote clock offset: -39.522 ms

# Below is generated by plot.py at 2019-01-22 06:42:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.30 Mbit/s  
95th percentile per-packet one-way delay: 133.637 ms  
Loss rate: 1.69%  
-- Flow 1:  
Average throughput: 9.24 Mbit/s  
95th percentile per-packet one-way delay: 133.488 ms  
Loss rate: 1.32%  
-- Flow 2:  
Average throughput: 6.24 Mbit/s  
95th percentile per-packet one-way delay: 133.542 ms  
Loss rate: 1.97%  
-- Flow 3:  
Average throughput: 2.95 Mbit/s  
95th percentile per-packet one-way delay: 133.747 ms  
Loss rate: 4.02%

Run 1: Report of LEDBAT — Data Link

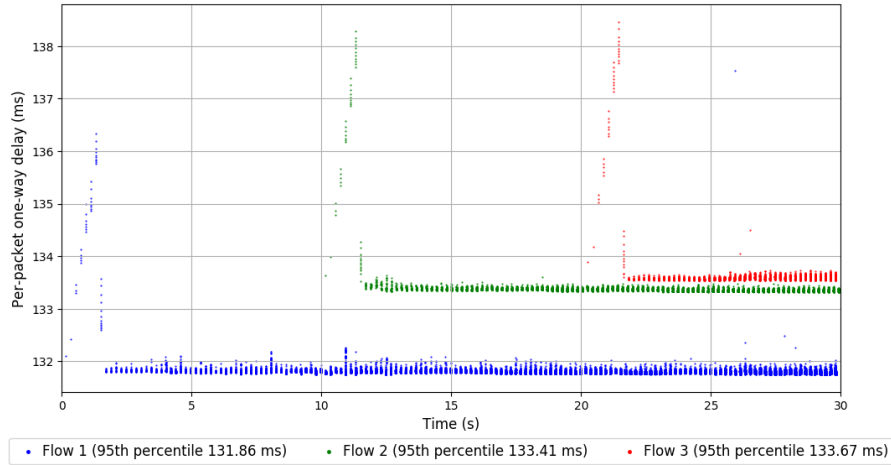
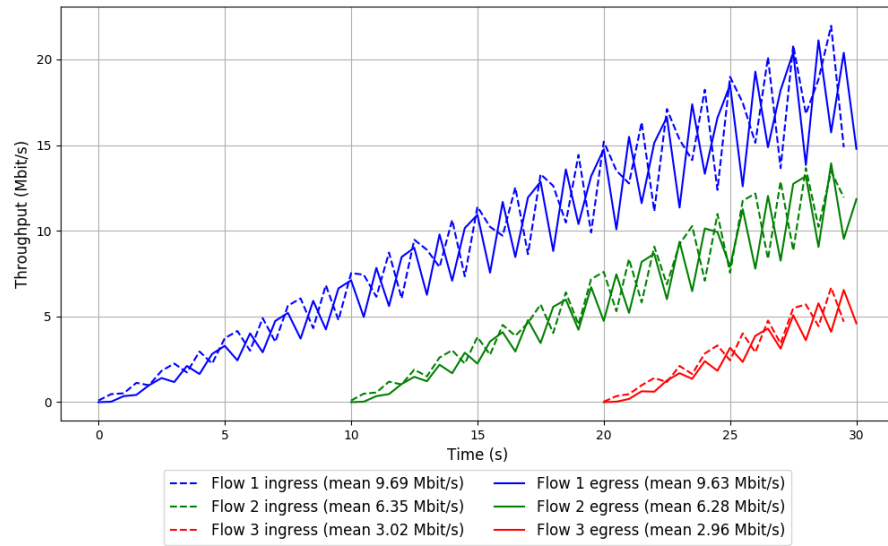


Run 2: Statistics of LEDBAT

Start at: 2019-01-22 03:44:49  
End at: 2019-01-22 03:45:19  
Local clock offset: 0.222 ms  
Remote clock offset: -39.898 ms

# Below is generated by plot.py at 2019-01-22 06:42:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.72 Mbit/s  
95th percentile per-packet one-way delay: 133.563 ms  
Loss rate: 1.65%  
-- Flow 1:  
Average throughput: 9.63 Mbit/s  
95th percentile per-packet one-way delay: 131.860 ms  
Loss rate: 1.29%  
-- Flow 2:  
Average throughput: 6.28 Mbit/s  
95th percentile per-packet one-way delay: 133.410 ms  
Loss rate: 1.94%  
-- Flow 3:  
Average throughput: 2.96 Mbit/s  
95th percentile per-packet one-way delay: 133.672 ms  
Loss rate: 4.03%

## Run 2: Report of LEDBAT — Data Link



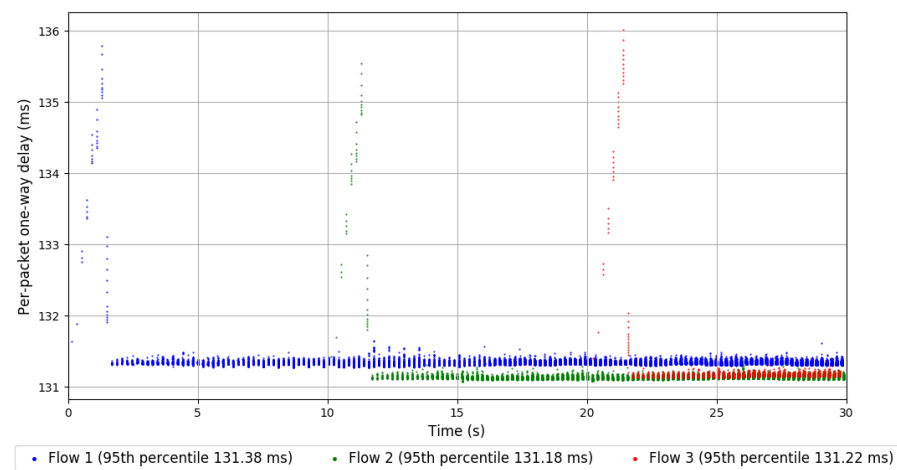
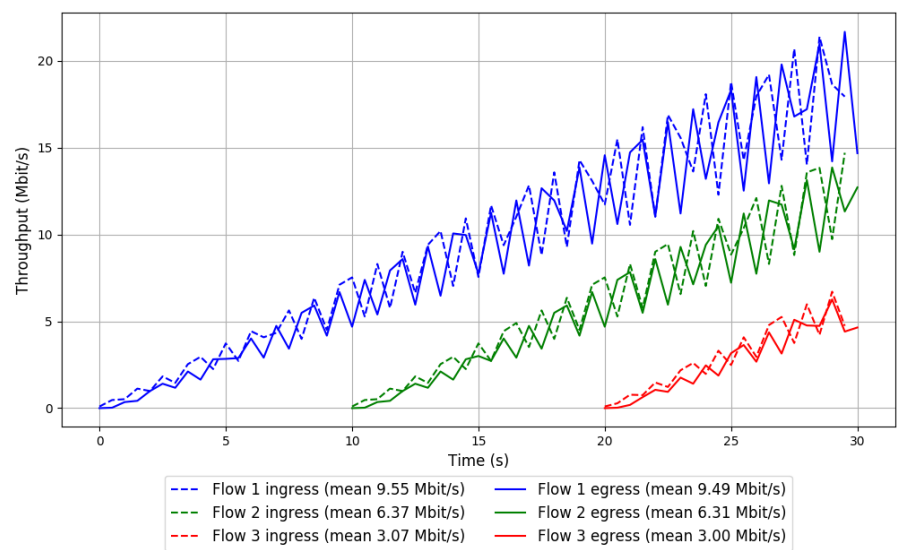


Run 3: Statistics of LEDBAT

Start at: 2019-01-22 04:26:24  
End at: 2019-01-22 04:26:54  
Local clock offset: -0.832 ms  
Remote clock offset: -38.58 ms

# Below is generated by plot.py at 2019-01-22 06:42:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.62 Mbit/s  
95th percentile per-packet one-way delay: 131.377 ms  
Loss rate: 1.67%  
-- Flow 1:  
Average throughput: 9.49 Mbit/s  
95th percentile per-packet one-way delay: 131.384 ms  
Loss rate: 1.30%  
-- Flow 2:  
Average throughput: 6.31 Mbit/s  
95th percentile per-packet one-way delay: 131.181 ms  
Loss rate: 1.95%  
-- Flow 3:  
Average throughput: 3.00 Mbit/s  
95th percentile per-packet one-way delay: 131.220 ms  
Loss rate: 4.01%

Run 3: Report of LEDBAT — Data Link

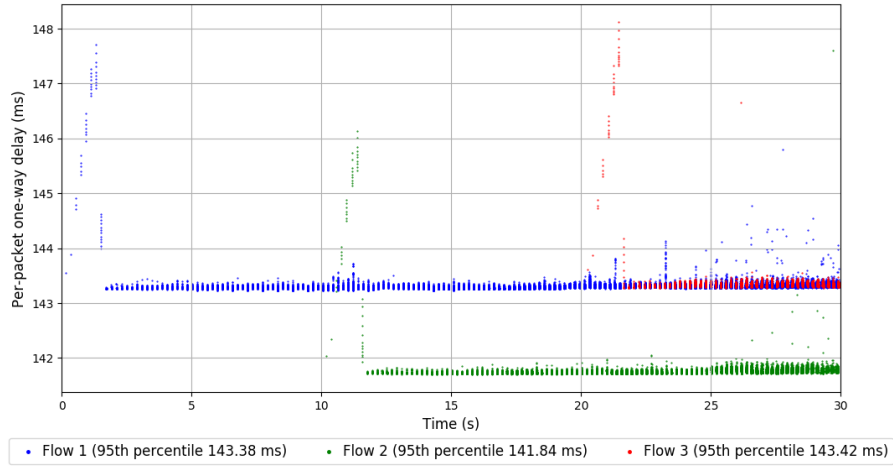
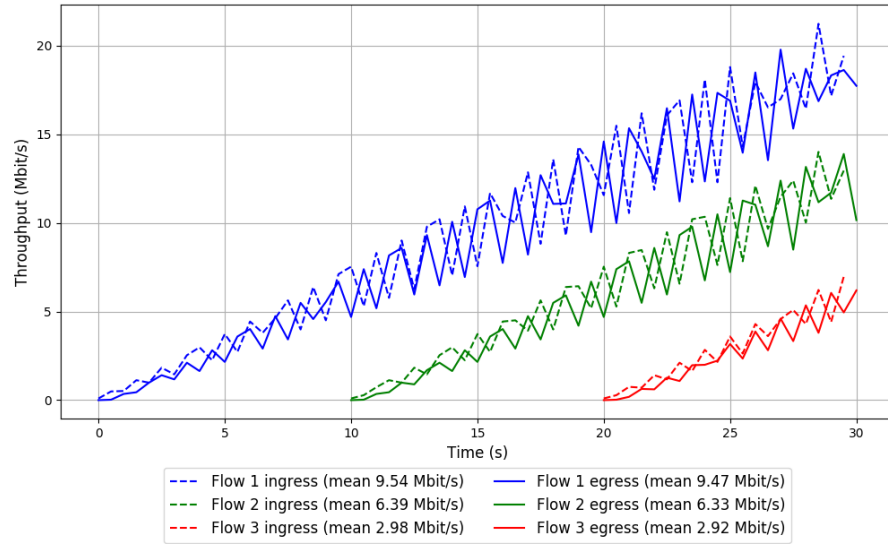


Run 4: Statistics of LEDBAT

Start at: 2019-01-22 05:23:00  
End at: 2019-01-22 05:23:30  
Local clock offset: 1.206 ms  
Remote clock offset: -49.085 ms

# Below is generated by plot.py at 2019-01-22 06:42:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.61 Mbit/s  
95th percentile per-packet one-way delay: 143.377 ms  
Loss rate: 1.67%  
-- Flow 1:  
Average throughput: 9.47 Mbit/s  
95th percentile per-packet one-way delay: 143.379 ms  
Loss rate: 1.30%  
-- Flow 2:  
Average throughput: 6.33 Mbit/s  
95th percentile per-packet one-way delay: 141.837 ms  
Loss rate: 1.95%  
-- Flow 3:  
Average throughput: 2.92 Mbit/s  
95th percentile per-packet one-way delay: 143.424 ms  
Loss rate: 4.03%

# Run 4: Report of LEDBAT — Data Link

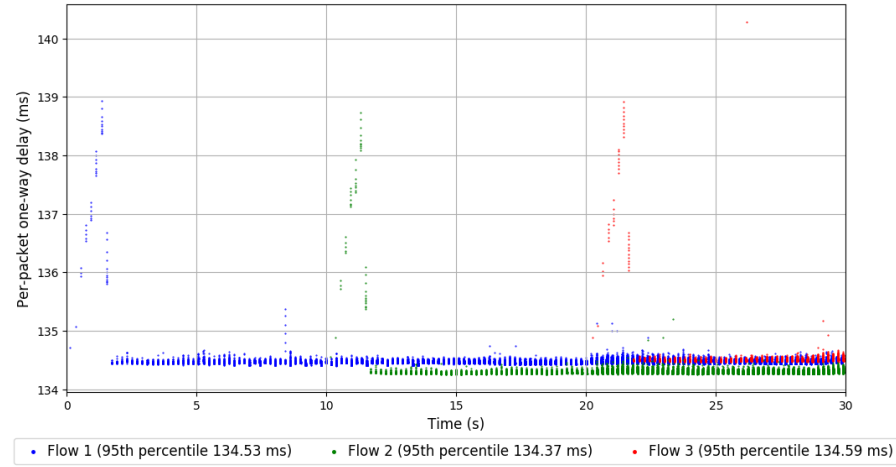
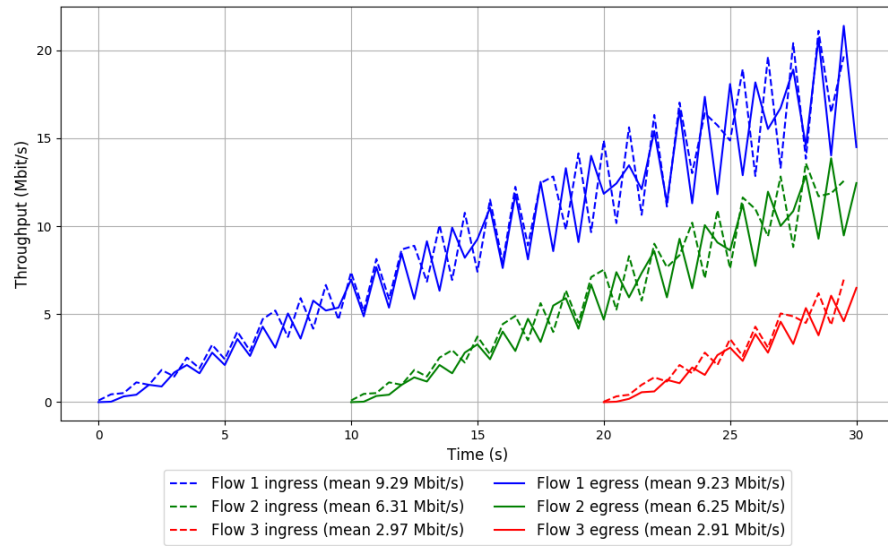


Run 5: Statistics of LEDBAT

Start at: 2019-01-22 06:16:23  
End at: 2019-01-22 06:16:53  
Local clock offset: -0.208 ms  
Remote clock offset: -40.272 ms

# Below is generated by plot.py at 2019-01-22 06:42:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.31 Mbit/s  
95th percentile per-packet one-way delay: 134.525 ms  
Loss rate: 1.69%  
-- Flow 1:  
Average throughput: 9.23 Mbit/s  
95th percentile per-packet one-way delay: 134.525 ms  
Loss rate: 1.32%  
-- Flow 2:  
Average throughput: 6.25 Mbit/s  
95th percentile per-packet one-way delay: 134.367 ms  
Loss rate: 1.95%  
-- Flow 3:  
Average throughput: 2.91 Mbit/s  
95th percentile per-packet one-way delay: 134.589 ms  
Loss rate: 4.04%

# Run 5: Report of LEDBAT — Data Link

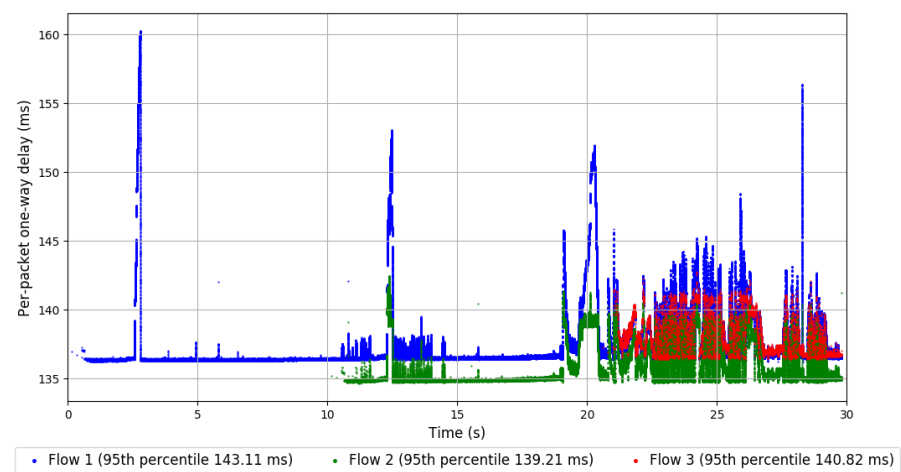
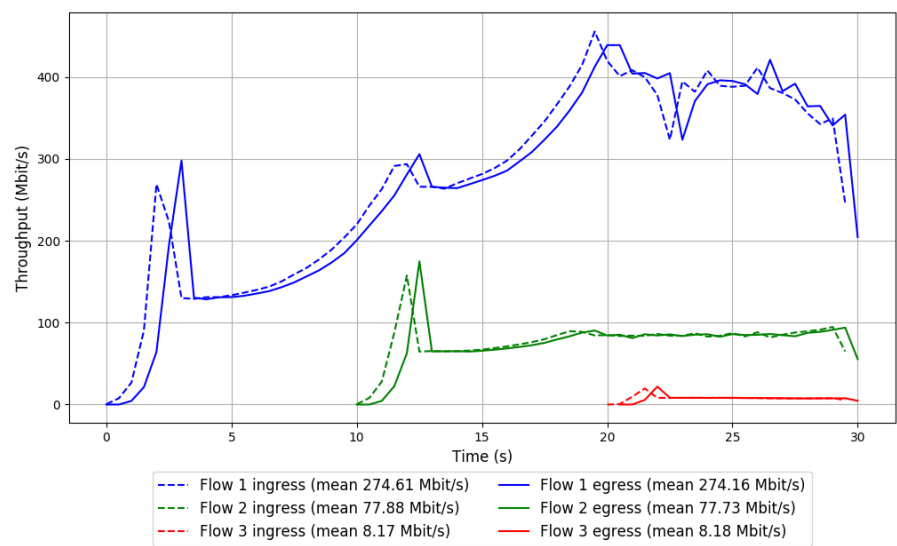


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-01-22 02:34:40
End at: 2019-01-22 02:35:10
Local clock offset: -1.595 ms
Remote clock offset: -44.666 ms

# Below is generated by plot.py at 2019-01-22 06:44:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.15 Mbit/s
95th percentile per-packet one-way delay: 142.468 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 274.16 Mbit/s
95th percentile per-packet one-way delay: 143.114 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 77.73 Mbit/s
95th percentile per-packet one-way delay: 139.213 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 8.18 Mbit/s
95th percentile per-packet one-way delay: 140.818 ms
Loss rate: 1.95%
```

Run 1: Report of PCC-Allegro — Data Link



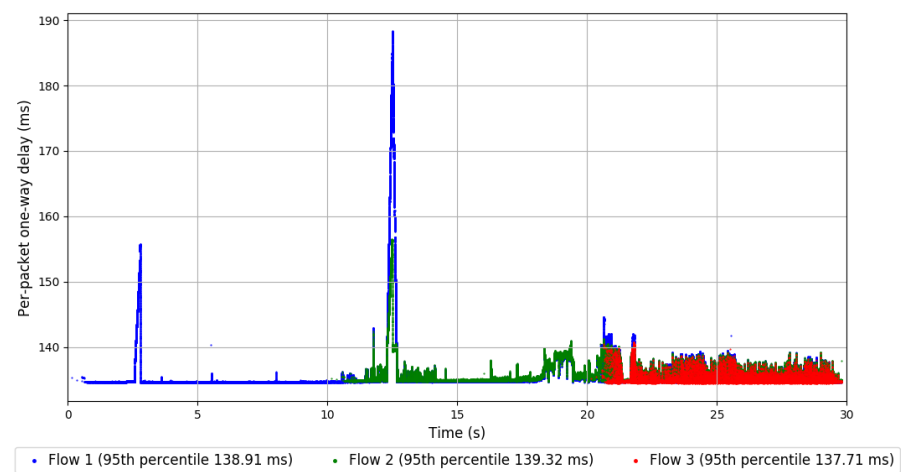
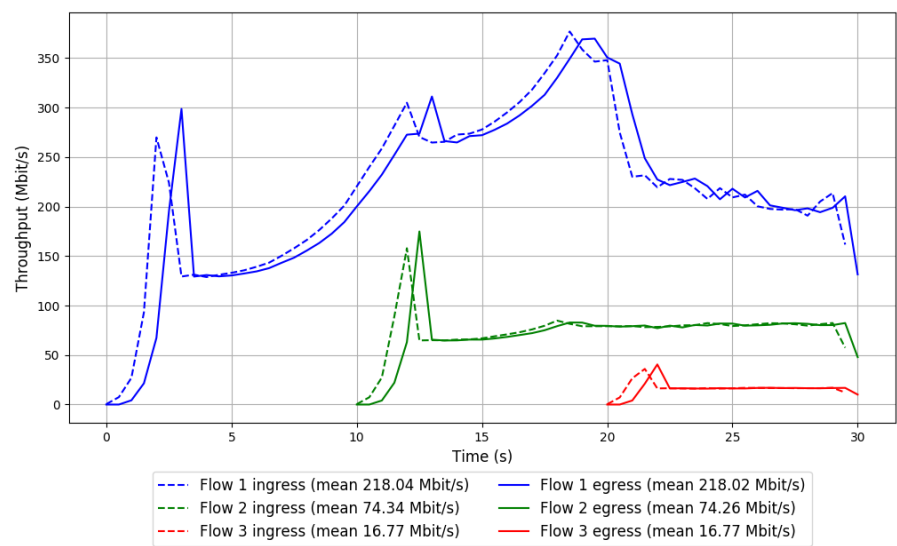


Run 2: Statistics of PCC-Allegro

Start at: 2019-01-22 03:21:12  
End at: 2019-01-22 03:21:42  
Local clock offset: -1.106 ms  
Remote clock offset: -41.277 ms

# Below is generated by plot.py at 2019-01-22 06:44:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 272.64 Mbit/s  
95th percentile per-packet one-way delay: 138.954 ms  
Loss rate: 0.78%  
-- Flow 1:  
Average throughput: 218.02 Mbit/s  
95th percentile per-packet one-way delay: 138.912 ms  
Loss rate: 0.68%  
-- Flow 2:  
Average throughput: 74.26 Mbit/s  
95th percentile per-packet one-way delay: 139.324 ms  
Loss rate: 1.07%  
-- Flow 3:  
Average throughput: 16.77 Mbit/s  
95th percentile per-packet one-way delay: 137.706 ms  
Loss rate: 2.01%

Run 2: Report of PCC-Allegro — Data Link

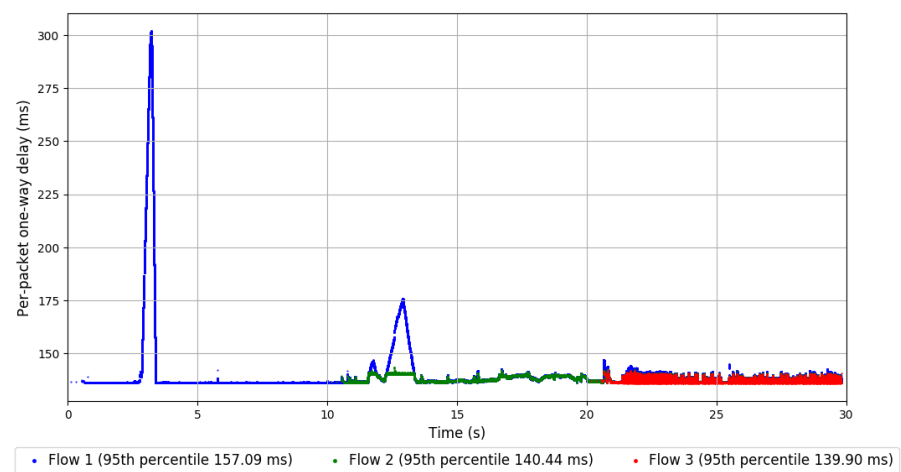
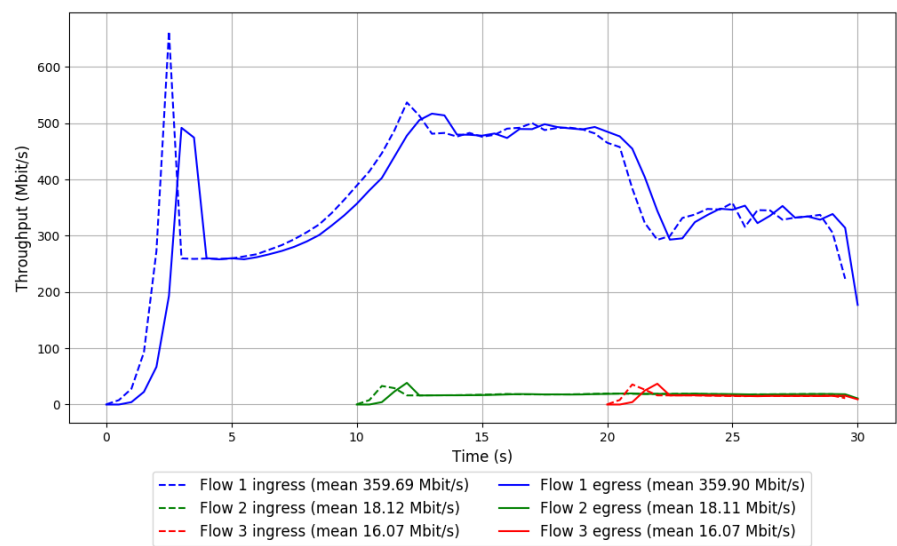


Run 3: Statistics of PCC-Allegro

Start at: 2019-01-22 03:52:13  
End at: 2019-01-22 03:52:43  
Local clock offset: 1.239 ms  
Remote clock offset: -41.395 ms

# Below is generated by plot.py at 2019-01-22 06:44:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 377.10 Mbit/s  
95th percentile per-packet one-way delay: 155.663 ms  
Loss rate: 0.64%  
-- Flow 1:  
Average throughput: 359.90 Mbit/s  
95th percentile per-packet one-way delay: 157.090 ms  
Loss rate: 0.61%  
-- Flow 2:  
Average throughput: 18.11 Mbit/s  
95th percentile per-packet one-way delay: 140.436 ms  
Loss rate: 1.02%  
-- Flow 3:  
Average throughput: 16.07 Mbit/s  
95th percentile per-packet one-way delay: 139.899 ms  
Loss rate: 2.02%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-01-22 04:43:36

End at: 2019-01-22 04:44:06

Local clock offset: 1.318 ms

Remote clock offset: -47.957 ms

# Below is generated by plot.py at 2019-01-22 06:44:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 286.39 Mbit/s

95th percentile per-packet one-way delay: 146.170 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 236.44 Mbit/s

95th percentile per-packet one-way delay: 146.268 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 67.12 Mbit/s

95th percentile per-packet one-way delay: 145.939 ms

Loss rate: 1.01%

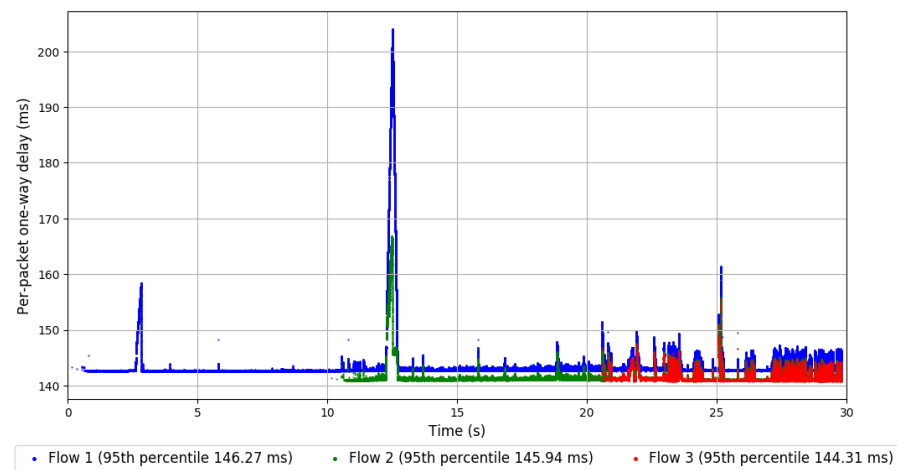
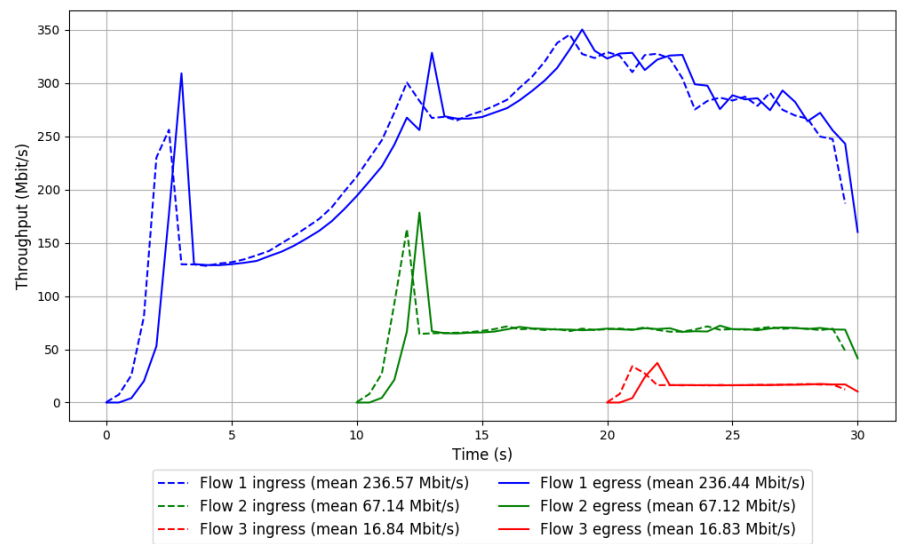
-- Flow 3:

Average throughput: 16.83 Mbit/s

95th percentile per-packet one-way delay: 144.309 ms

Loss rate: 2.02%

Run 4: Report of PCC-Allegro — Data Link

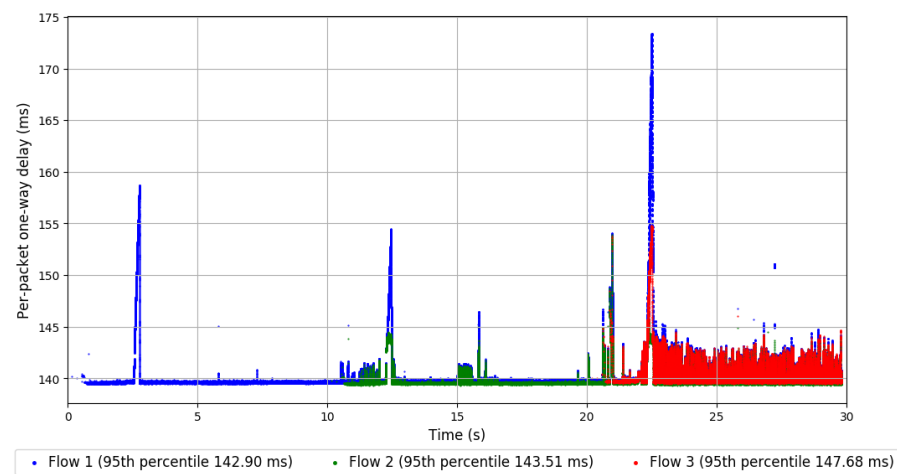
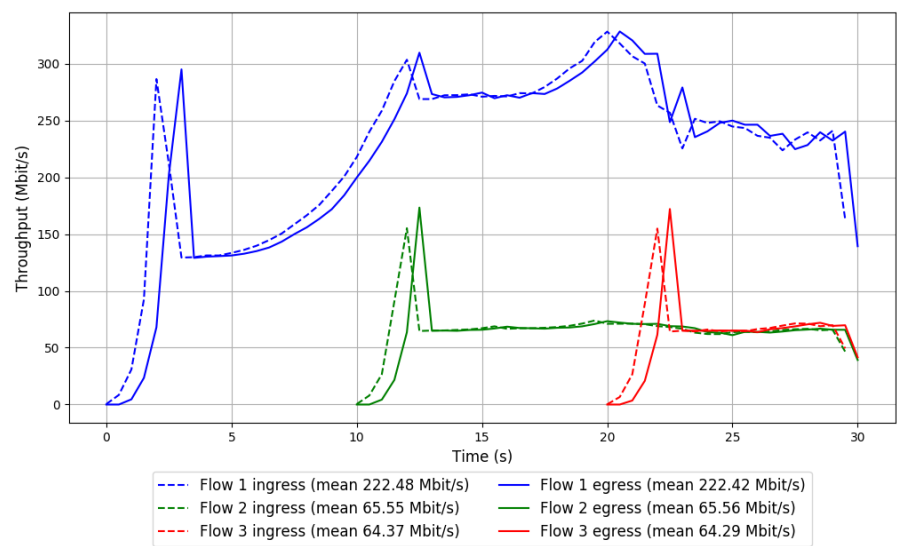


Run 5: Statistics of PCC-Allegro

Start at: 2019-01-22 05:41:38  
End at: 2019-01-22 05:42:08  
Local clock offset: -0.629 ms  
Remote clock offset: -46.543 ms

# Below is generated by plot.py at 2019-01-22 06:44:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 286.70 Mbit/s  
95th percentile per-packet one-way delay: 143.214 ms  
Loss rate: 0.84%  
-- Flow 1:  
Average throughput: 222.42 Mbit/s  
95th percentile per-packet one-way delay: 142.896 ms  
Loss rate: 0.68%  
-- Flow 2:  
Average throughput: 65.56 Mbit/s  
95th percentile per-packet one-way delay: 143.510 ms  
Loss rate: 0.98%  
-- Flow 3:  
Average throughput: 64.29 Mbit/s  
95th percentile per-packet one-way delay: 147.676 ms  
Loss rate: 2.15%

Run 5: Report of PCC-Allegro — Data Link



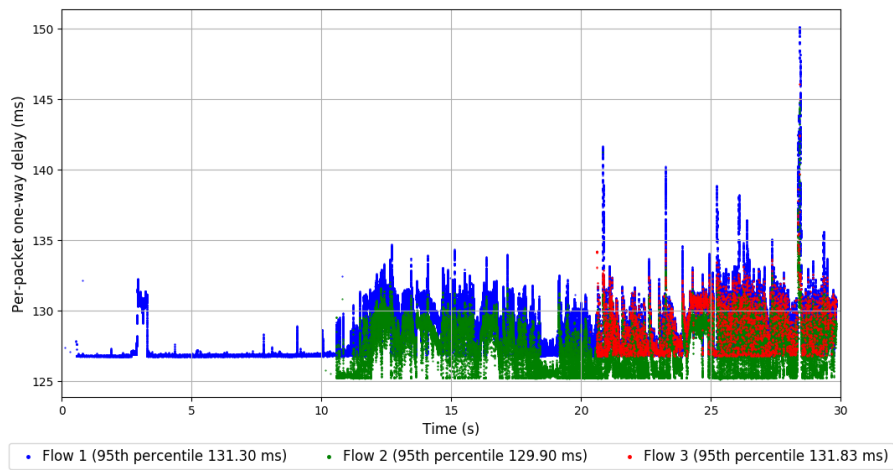
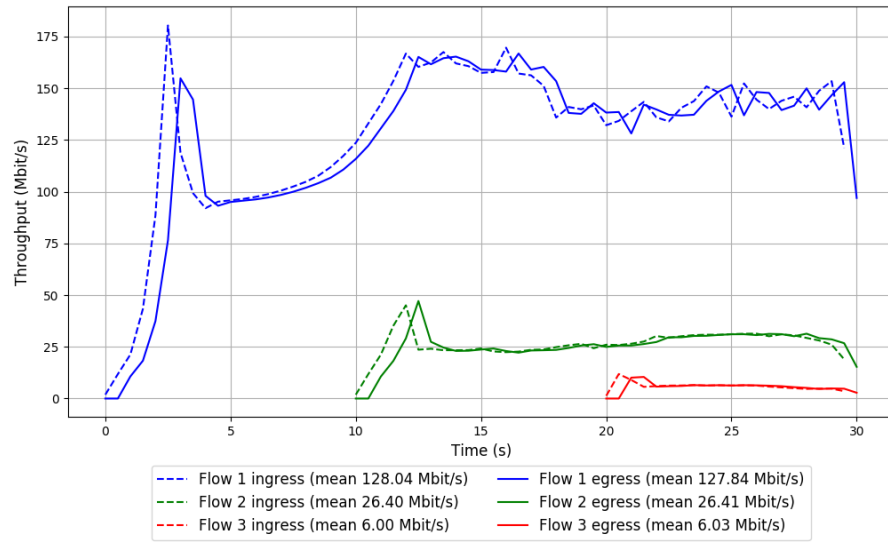


```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-22 02:31:39
End at: 2019-01-22 02:32:09
Local clock offset: 1.392 ms
Remote clock offset: -32.106 ms

# Below is generated by plot.py at 2019-01-22 06:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.31 Mbit/s
95th percentile per-packet one-way delay: 131.209 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 127.84 Mbit/s
95th percentile per-packet one-way delay: 131.296 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 26.41 Mbit/s
95th percentile per-packet one-way delay: 129.901 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 131.833 ms
Loss rate: 1.63%
```

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

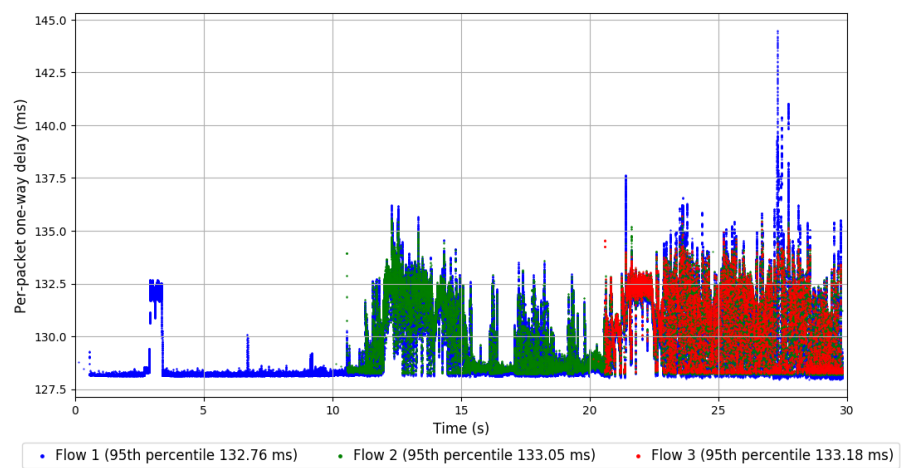
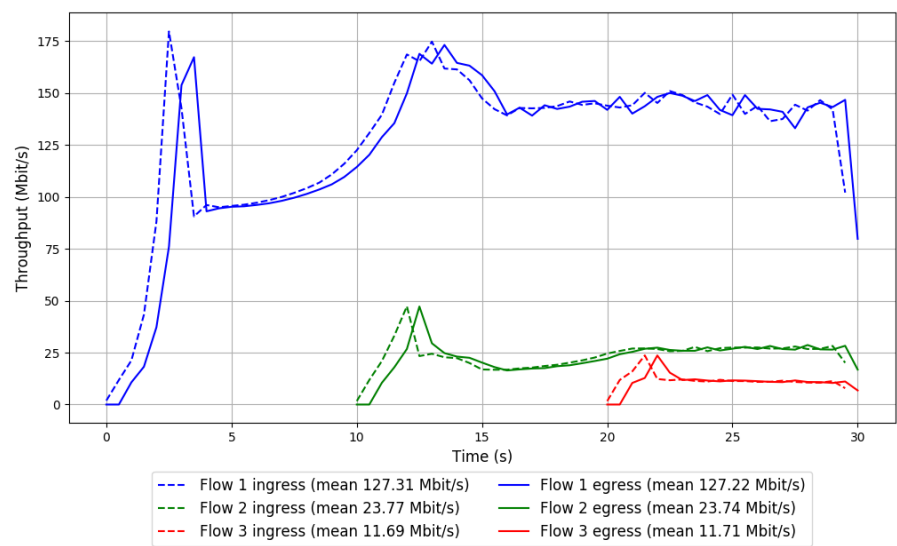


Run 2: Statistics of PCC-Expr

Start at: 2019-01-22 03:18:10  
End at: 2019-01-22 03:18:40  
Local clock offset: -0.835 ms  
Remote clock offset: -34.005 ms

# Below is generated by plot.py at 2019-01-22 06:45:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 146.76 Mbit/s  
95th percentile per-packet one-way delay: 132.816 ms  
Loss rate: 0.81%  
-- Flow 1:  
Average throughput: 127.22 Mbit/s  
95th percentile per-packet one-way delay: 132.758 ms  
Loss rate: 0.75%  
-- Flow 2:  
Average throughput: 23.74 Mbit/s  
95th percentile per-packet one-way delay: 133.052 ms  
Loss rate: 1.12%  
-- Flow 3:  
Average throughput: 11.71 Mbit/s  
95th percentile per-packet one-way delay: 133.184 ms  
Loss rate: 1.78%

Run 2: Report of PCC-Expr — Data Link

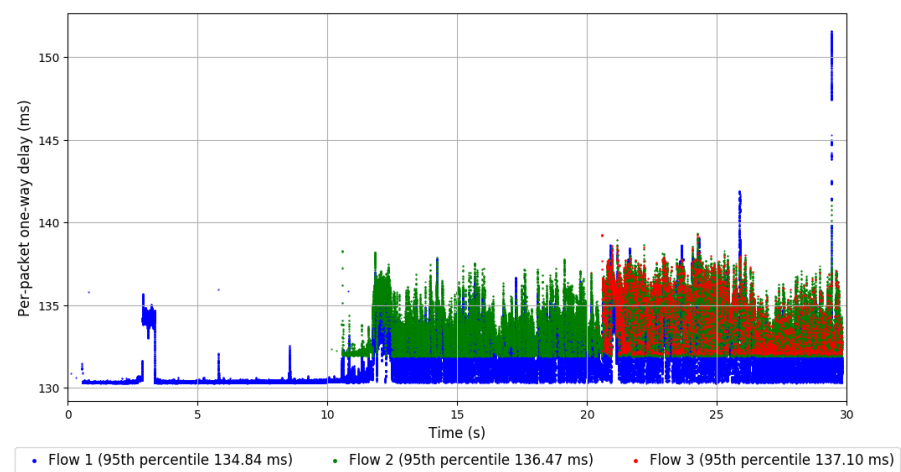
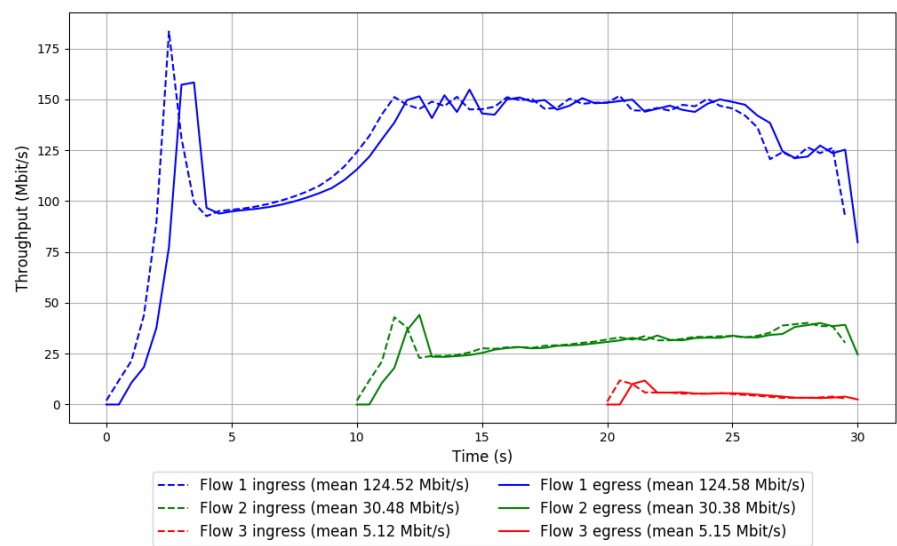


Run 3: Statistics of PCC-Expr

Start at: 2019-01-22 03:49:12  
End at: 2019-01-22 03:49:42  
Local clock offset: -0.444 ms  
Remote clock offset: -39.066 ms

# Below is generated by plot.py at 2019-01-22 06:45:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 146.39 Mbit/s  
95th percentile per-packet one-way delay: 135.482 ms  
Loss rate: 0.72%  
-- Flow 1:  
Average throughput: 124.58 Mbit/s  
95th percentile per-packet one-way delay: 134.840 ms  
Loss rate: 0.61%  
-- Flow 2:  
Average throughput: 30.38 Mbit/s  
95th percentile per-packet one-way delay: 136.468 ms  
Loss rate: 1.32%  
-- Flow 3:  
Average throughput: 5.15 Mbit/s  
95th percentile per-packet one-way delay: 137.103 ms  
Loss rate: 1.48%

Run 3: Report of PCC-Expr — Data Link

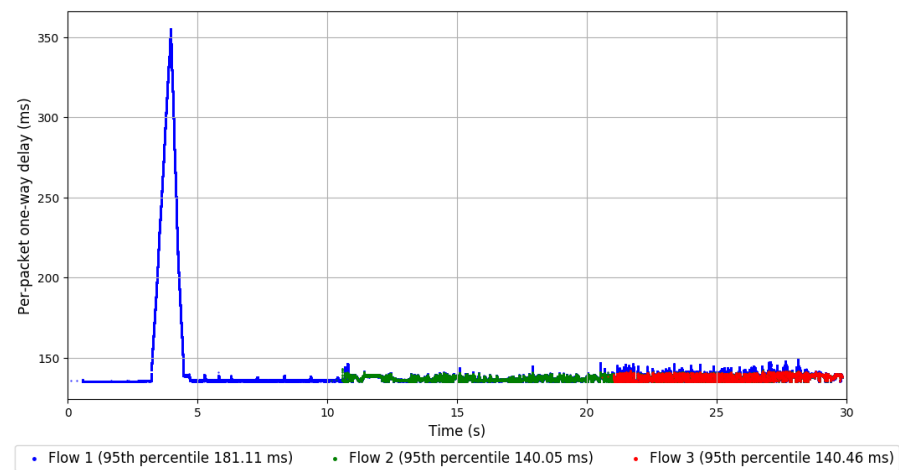
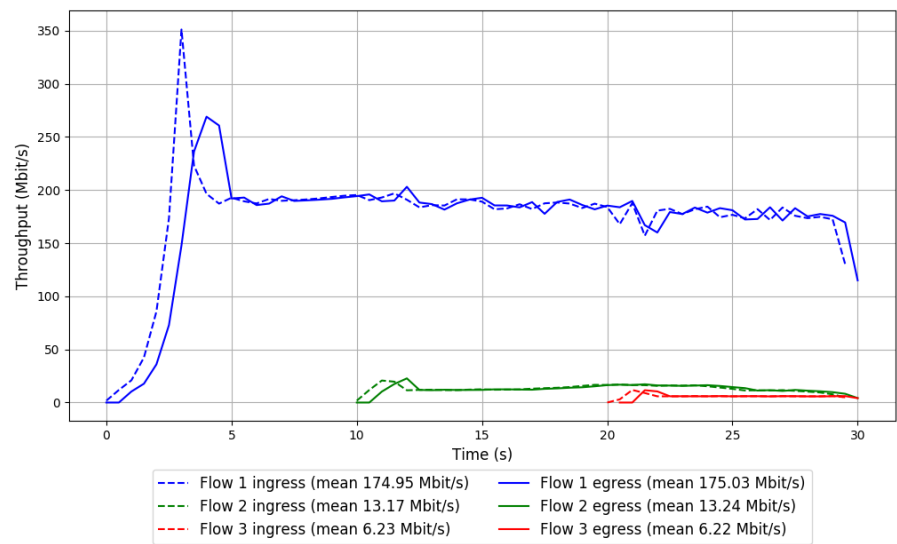


Run 4: Statistics of PCC-Expr

Start at: 2019-01-22 04:40:31  
End at: 2019-01-22 04:41:01  
Local clock offset: 0.986 ms  
Remote clock offset: -41.262 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 185.74 Mbit/s  
95th percentile per-packet one-way delay: 172.480 ms  
Loss rate: 0.64%  
-- Flow 1:  
Average throughput: 175.03 Mbit/s  
95th percentile per-packet one-way delay: 181.109 ms  
Loss rate: 0.63%  
-- Flow 2:  
Average throughput: 13.24 Mbit/s  
95th percentile per-packet one-way delay: 140.049 ms  
Loss rate: 0.48%  
-- Flow 3:  
Average throughput: 6.22 Mbit/s  
95th percentile per-packet one-way delay: 140.457 ms  
Loss rate: 2.20%

Run 4: Report of PCC-Expr — Data Link



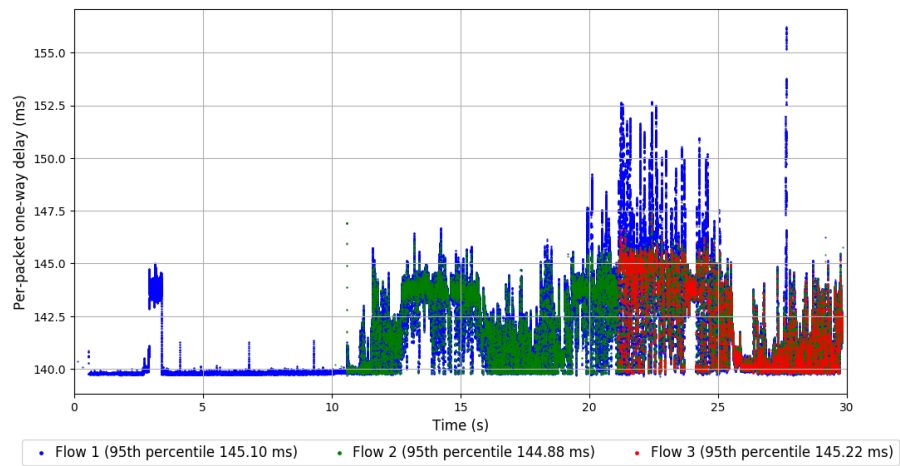
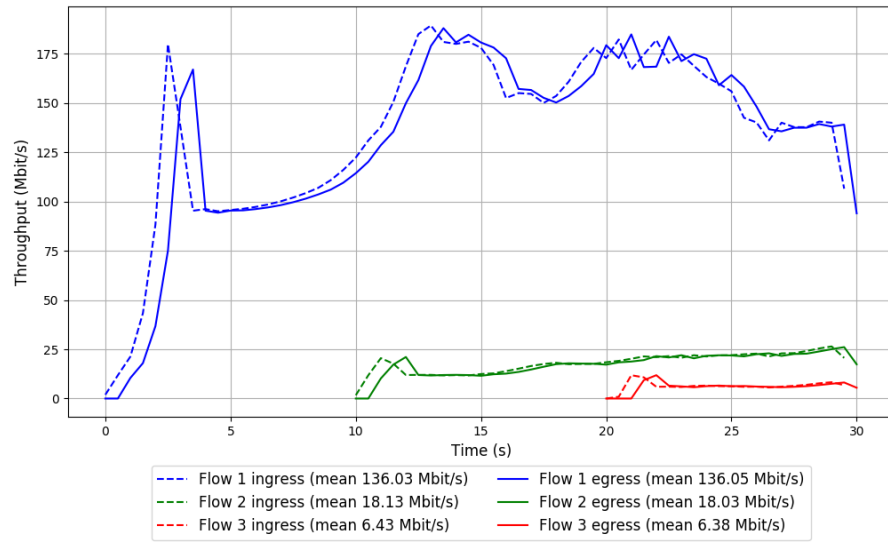


Run 5: Statistics of PCC-Expr

Start at: 2019-01-22 05:33:06  
End at: 2019-01-22 05:33:36  
Local clock offset: -0.355 ms  
Remote clock offset: -46.585 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 150.07 Mbit/s  
95th percentile per-packet one-way delay: 145.064 ms  
Loss rate: 0.76%  
-- Flow 1:  
Average throughput: 136.05 Mbit/s  
95th percentile per-packet one-way delay: 145.104 ms  
Loss rate: 0.66%  
-- Flow 2:  
Average throughput: 18.03 Mbit/s  
95th percentile per-packet one-way delay: 144.885 ms  
Loss rate: 1.49%  
-- Flow 3:  
Average throughput: 6.38 Mbit/s  
95th percentile per-packet one-way delay: 145.217 ms  
Loss rate: 2.86%

# Run 5: Report of PCC-Expr — Data Link

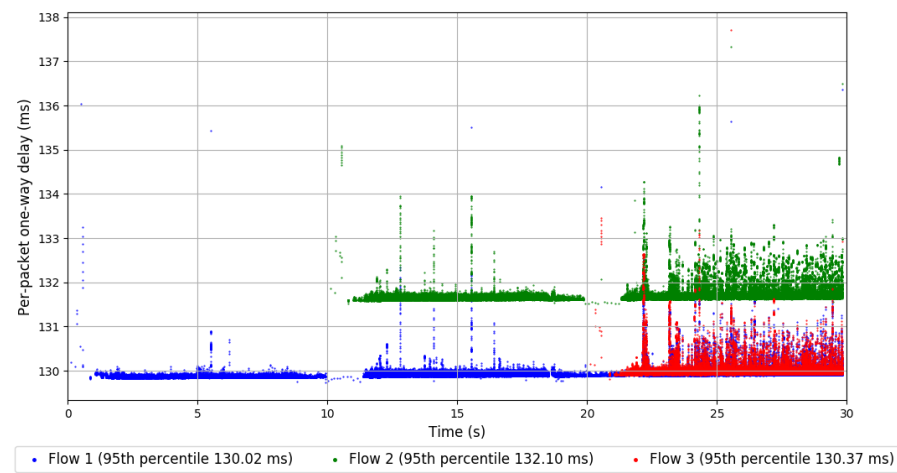
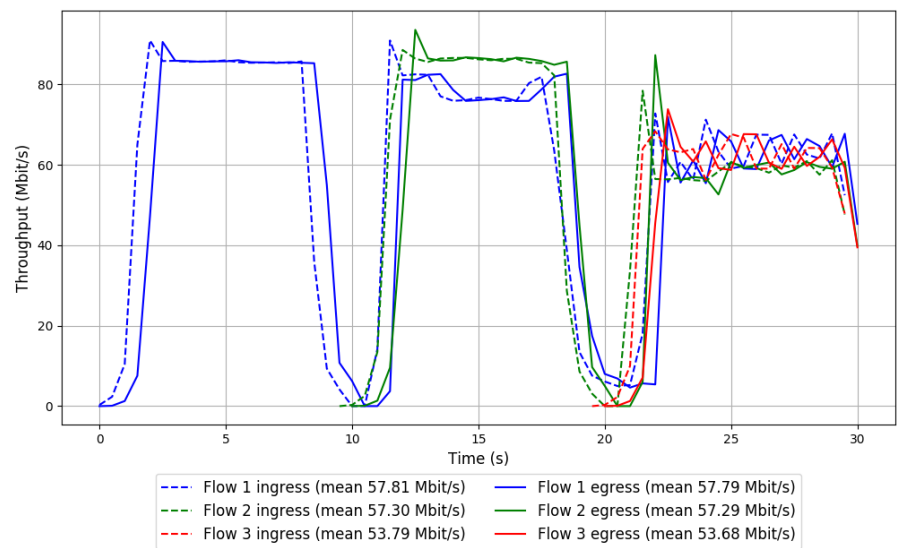


Run 1: Statistics of QUIC Cubic

Start at: 2019-01-22 02:53:14  
End at: 2019-01-22 02:53:44  
Local clock offset: -1.589 ms  
Remote clock offset: -38.297 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 113.36 Mbit/s  
95th percentile per-packet one-way delay: 131.761 ms  
Loss rate: 1.05%  
-- Flow 1:  
Average throughput: 57.79 Mbit/s  
95th percentile per-packet one-way delay: 130.024 ms  
Loss rate: 0.72%  
-- Flow 2:  
Average throughput: 57.29 Mbit/s  
95th percentile per-packet one-way delay: 132.097 ms  
Loss rate: 1.02%  
-- Flow 3:  
Average throughput: 53.68 Mbit/s  
95th percentile per-packet one-way delay: 130.372 ms  
Loss rate: 2.23%

Run 1: Report of QUIC Cubic — Data Link

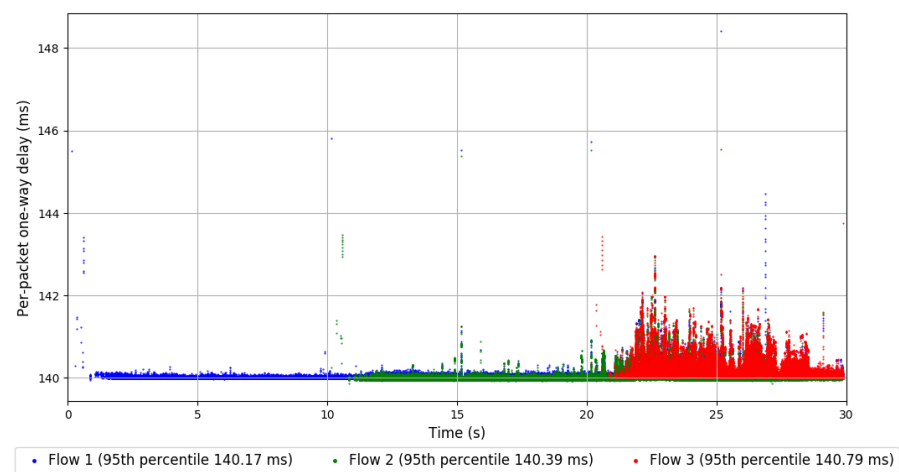
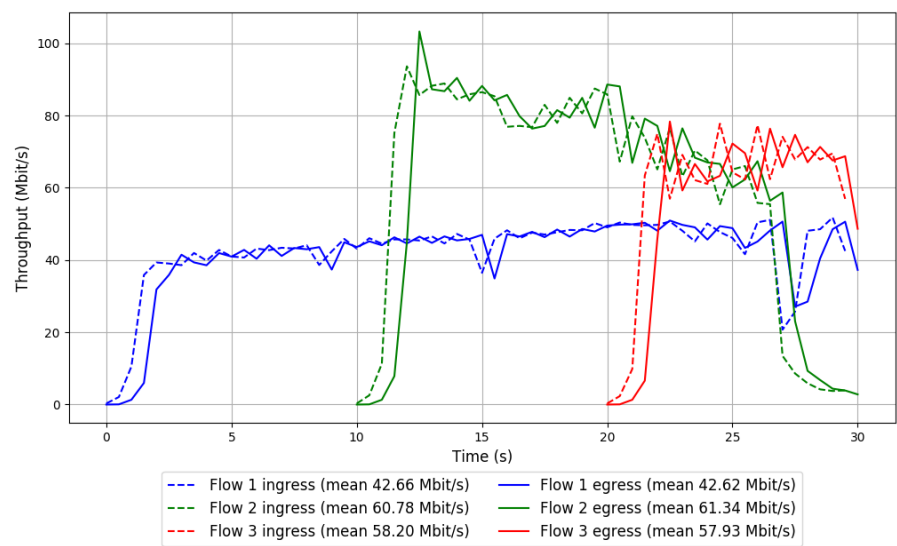


Run 2: Statistics of QUIC Cubic

Start at: 2019-01-22 03:34:10  
End at: 2019-01-22 03:34:40  
Local clock offset: 0.937 ms  
Remote clock offset: -45.574 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 102.20 Mbit/s  
95th percentile per-packet one-way delay: 140.458 ms  
Loss rate: 0.81%  
-- Flow 1:  
Average throughput: 42.62 Mbit/s  
95th percentile per-packet one-way delay: 140.169 ms  
Loss rate: 0.78%  
-- Flow 2:  
Average throughput: 61.34 Mbit/s  
95th percentile per-packet one-way delay: 140.389 ms  
Loss rate: 0.09%  
-- Flow 3:  
Average throughput: 57.93 Mbit/s  
95th percentile per-packet one-way delay: 140.789 ms  
Loss rate: 2.39%

Run 2: Report of QUIC Cubic — Data Link

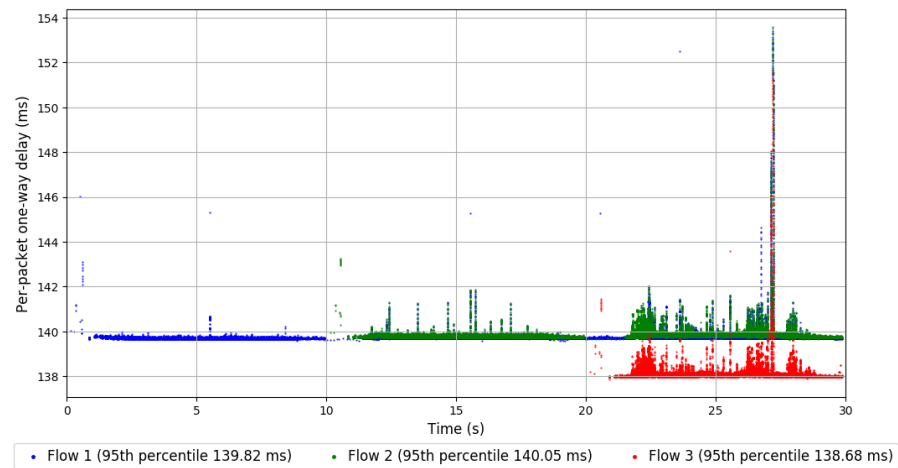
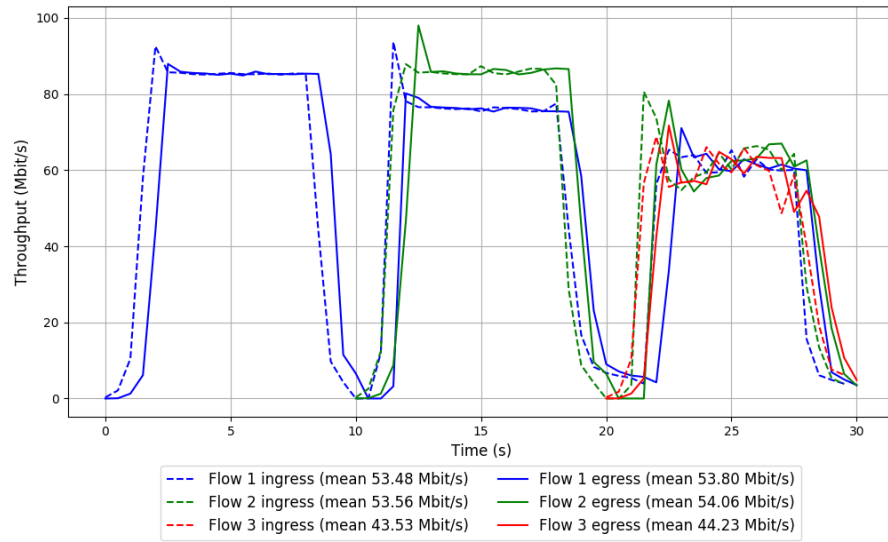


Run 3: Statistics of QUIC Cubic

Start at: 2019-01-22 04:09:36  
End at: 2019-01-22 04:10:06  
Local clock offset: -1.975 ms  
Remote clock offset: -48.271 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 104.10 Mbit/s  
95th percentile per-packet one-way delay: 139.884 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 53.80 Mbit/s  
95th percentile per-packet one-way delay: 139.819 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 54.06 Mbit/s  
95th percentile per-packet one-way delay: 140.053 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 44.23 Mbit/s  
95th percentile per-packet one-way delay: 138.676 ms  
Loss rate: 0.38%

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



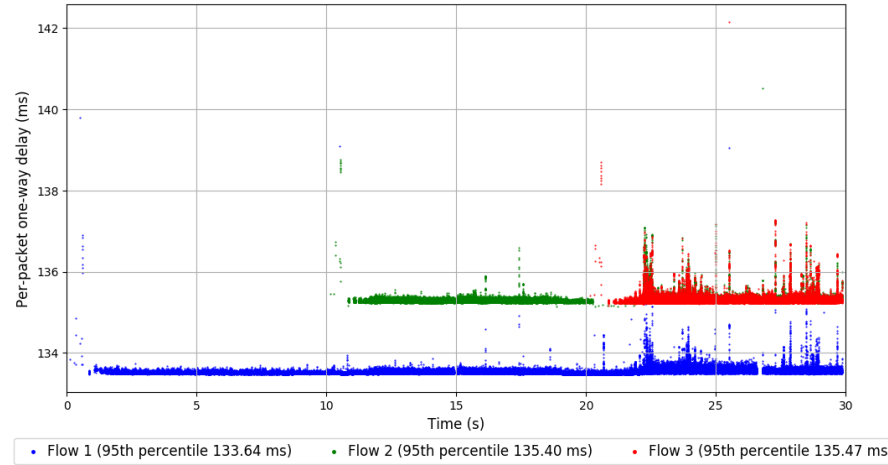
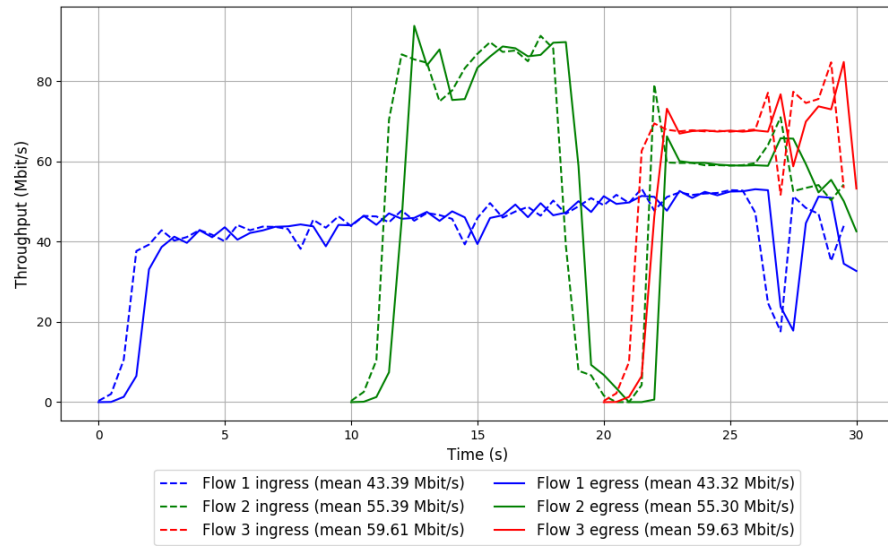


Run 4: Statistics of QUIC Cubic

Start at: 2019-01-22 05:06:16  
End at: 2019-01-22 05:06:46  
Local clock offset: 0.797 ms  
Remote clock offset: -42.039 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 99.46 Mbit/s  
95th percentile per-packet one-way delay: 135.373 ms  
Loss rate: 1.15%  
-- Flow 1:  
Average throughput: 43.32 Mbit/s  
95th percentile per-packet one-way delay: 133.639 ms  
Loss rate: 0.80%  
-- Flow 2:  
Average throughput: 55.30 Mbit/s  
95th percentile per-packet one-way delay: 135.397 ms  
Loss rate: 1.15%  
-- Flow 3:  
Average throughput: 59.63 Mbit/s  
95th percentile per-packet one-way delay: 135.465 ms  
Loss rate: 1.95%

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

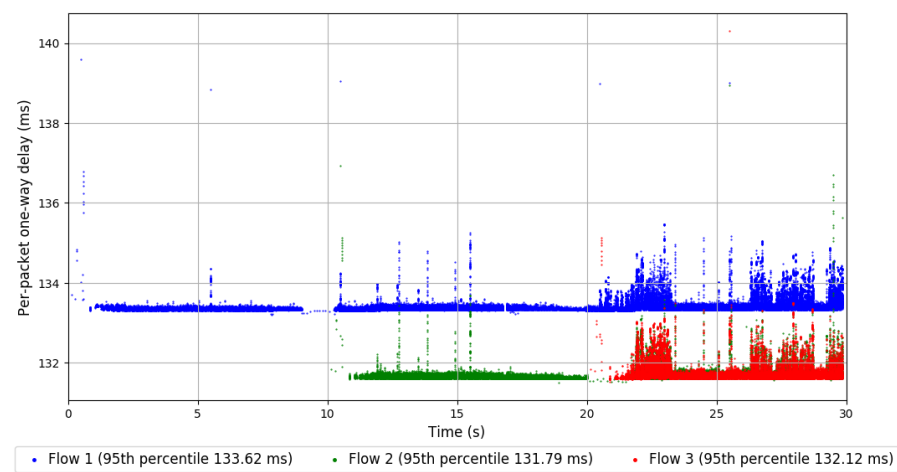
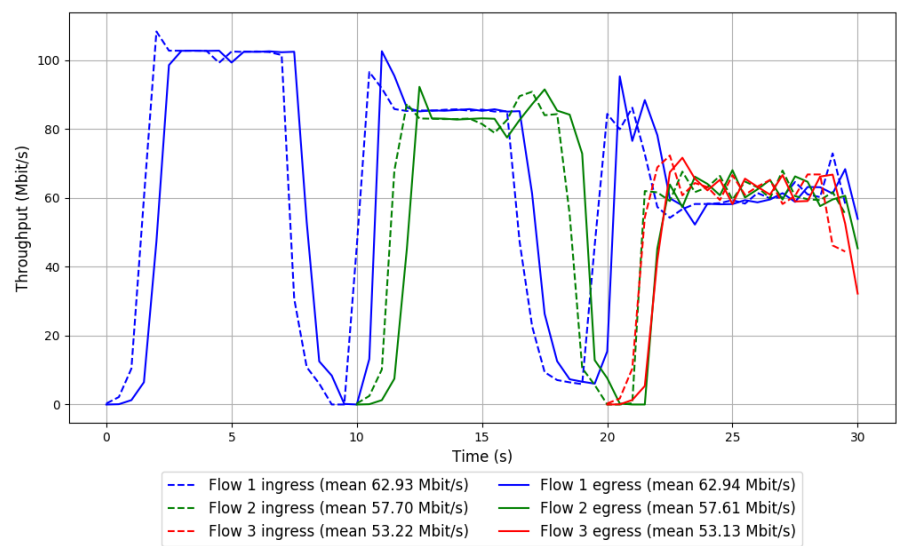


Run 5: Statistics of QUIC Cubic

Start at: 2019-01-22 06:00:08  
End at: 2019-01-22 06:00:38  
Local clock offset: -2.341 ms  
Remote clock offset: -42.705 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 118.49 Mbit/s  
95th percentile per-packet one-way delay: 133.444 ms  
Loss rate: 1.05%  
-- Flow 1:  
Average throughput: 62.94 Mbit/s  
95th percentile per-packet one-way delay: 133.621 ms  
Loss rate: 0.65%  
-- Flow 2:  
Average throughput: 57.61 Mbit/s  
95th percentile per-packet one-way delay: 131.789 ms  
Loss rate: 1.16%  
-- Flow 3:  
Average throughput: 53.13 Mbit/s  
95th percentile per-packet one-way delay: 132.123 ms  
Loss rate: 2.23%

Run 5: Report of QUIC Cubic — Data Link

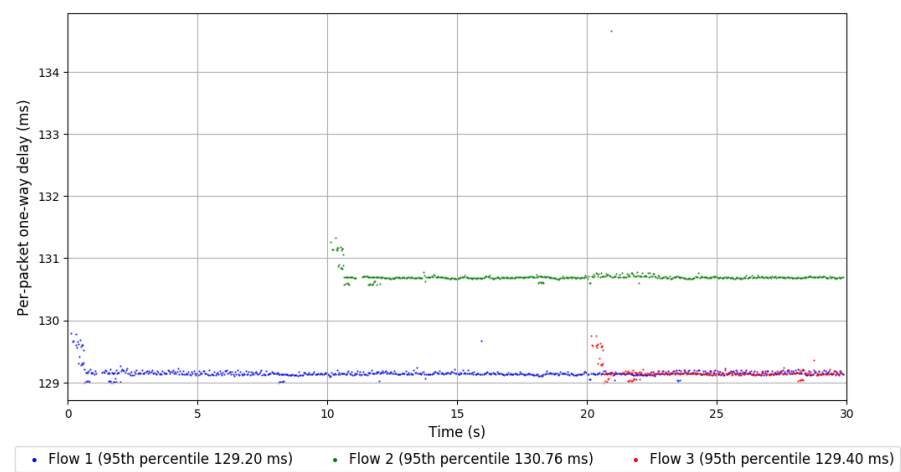
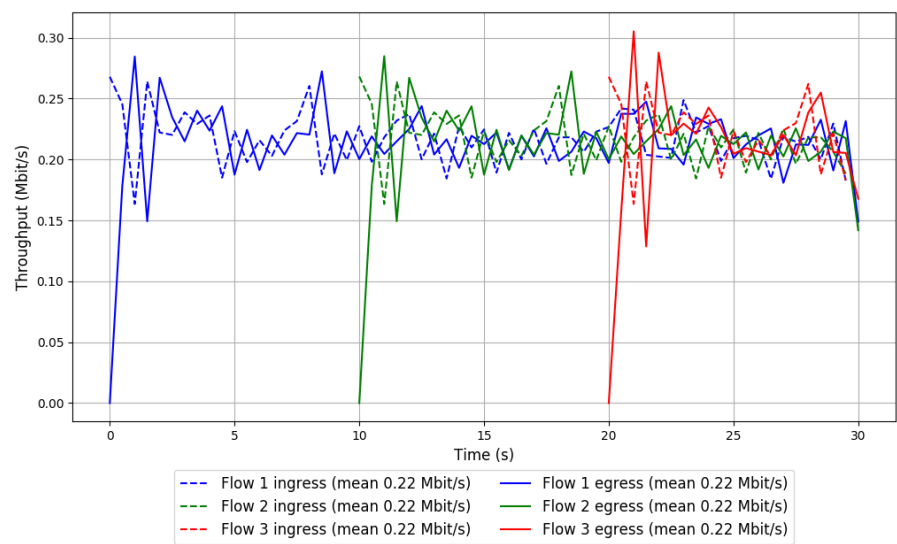


```
Run 1: Statistics of SReAM

Start at: 2019-01-22 02:44:46
End at: 2019-01-22 02:45:16
Local clock offset: -1.368 ms
Remote clock offset: -38.701 ms

# Below is generated by plot.py at 2019-01-22 06:47:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 130.708 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 129.204 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 130.762 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 129.395 ms
Loss rate: 1.84%
```

Run 1: Report of SReAM — Data Link

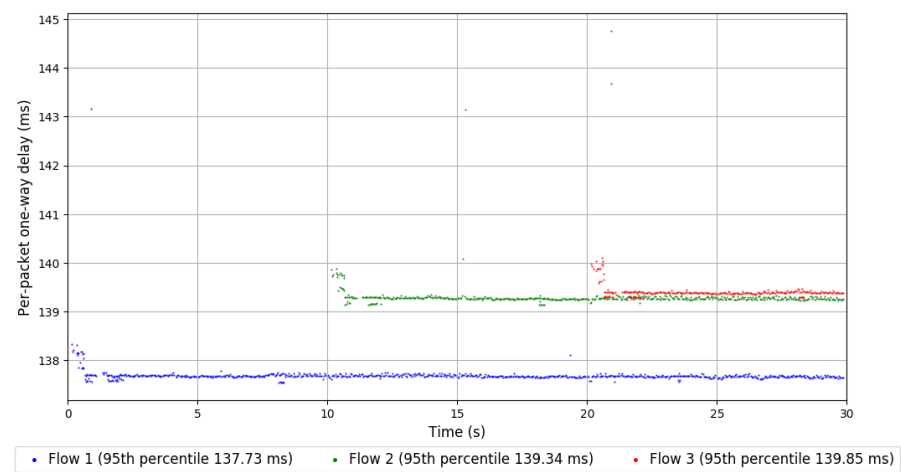
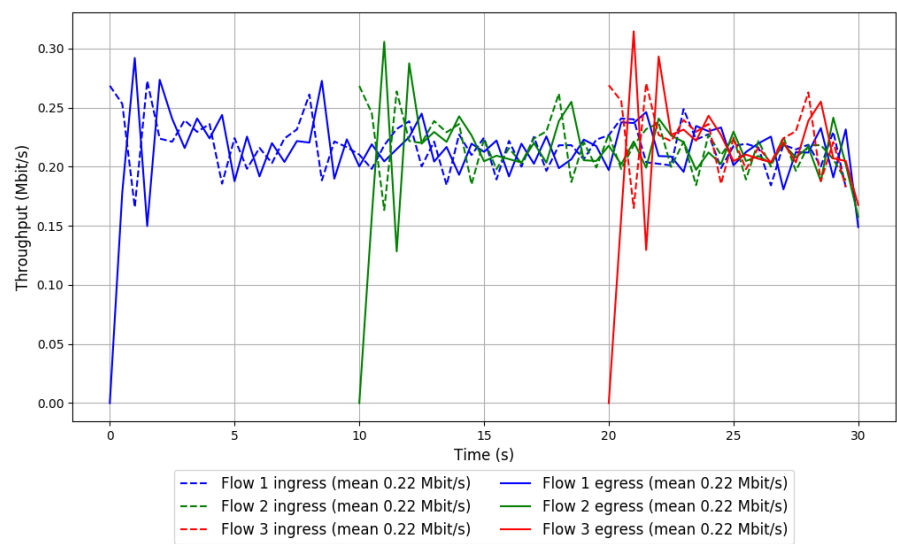


Run 2: Statistics of SReAM

Start at: 2019-01-22 03:25:50  
End at: 2019-01-22 03:26:20  
Local clock offset: -0.196 ms  
Remote clock offset: -45.388 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 139.402 ms  
Loss rate: 0.97%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 137.730 ms  
Loss rate: 0.64%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 139.336 ms  
Loss rate: 1.03%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 139.848 ms  
Loss rate: 1.82%

Run 2: Report of SCRaM — Data Link



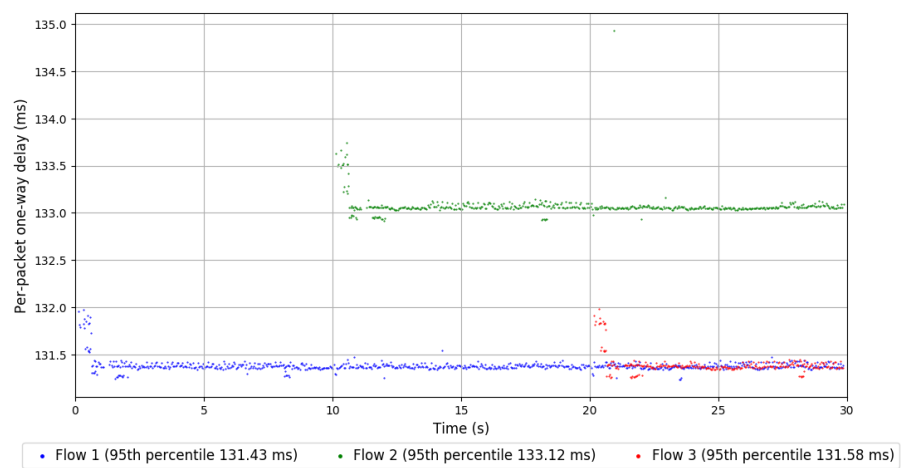
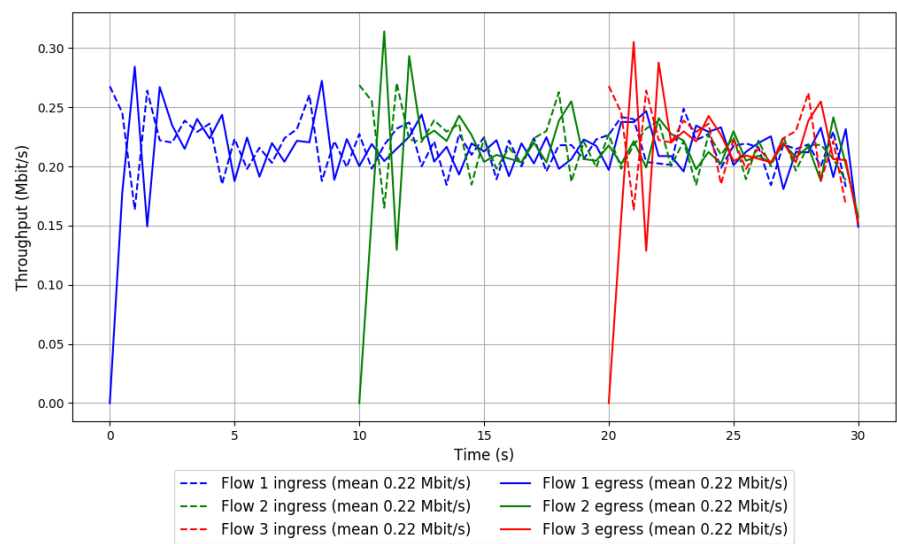


Run 3: Statistics of SReAM

Start at: 2019-01-22 03:56:51  
End at: 2019-01-22 03:57:21  
Local clock offset: -1.669 ms  
Remote clock offset: -41.122 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 133.091 ms  
Loss rate: 0.97%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 131.426 ms  
Loss rate: 0.64%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 133.123 ms  
Loss rate: 1.03%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 131.580 ms  
Loss rate: 1.86%

Run 3: Report of SReAM — Data Link

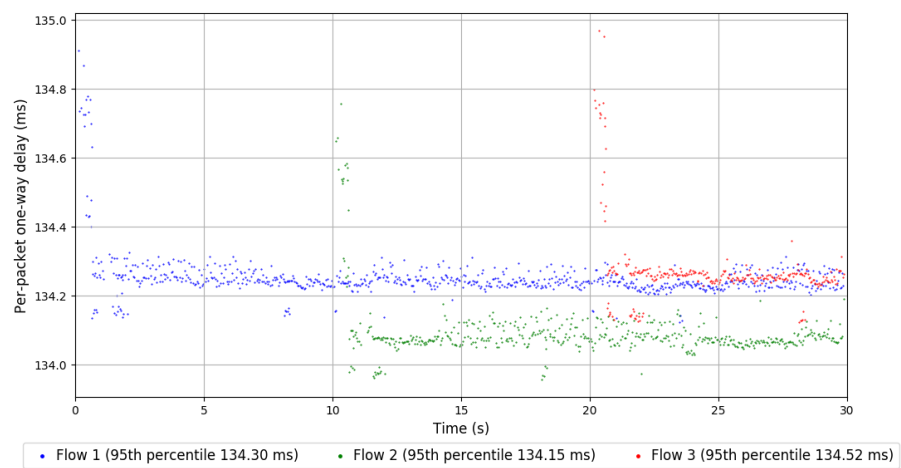
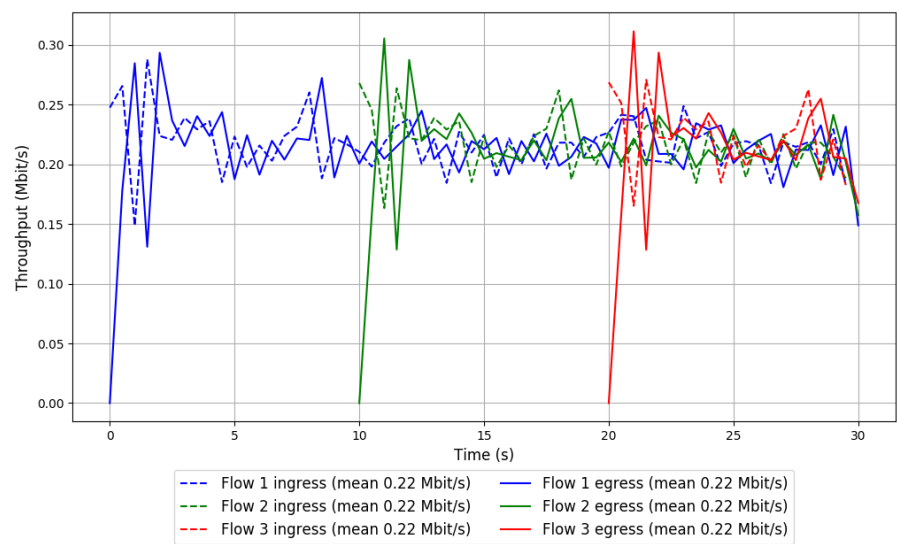


Run 4: Statistics of SReAM

Start at: 2019-01-22 04:48:10  
End at: 2019-01-22 04:48:40  
Local clock offset: 1.204 ms  
Remote clock offset: -39.655 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 134.301 ms  
Loss rate: 0.97%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 134.302 ms  
Loss rate: 0.64%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 134.150 ms  
Loss rate: 1.03%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 134.524 ms  
Loss rate: 1.83%

Run 4: Report of SReAM — Data Link

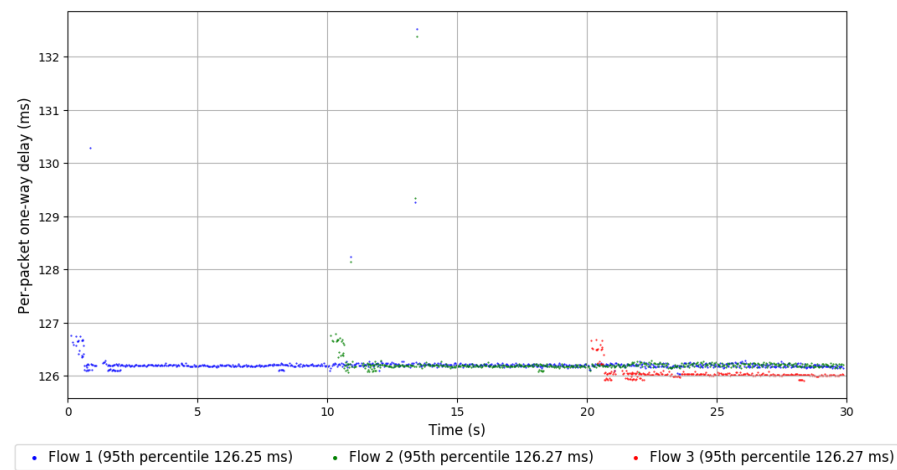
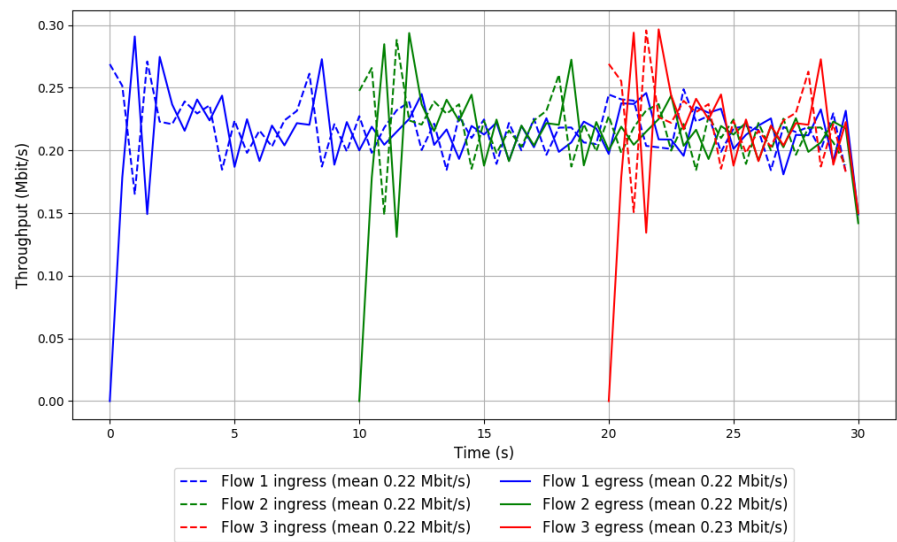


Run 5: Statistics of SCReAM

Start at: 2019-01-22 05:51:45  
End at: 2019-01-22 05:52:15  
Local clock offset: -1.51 ms  
Remote clock offset: -34.398 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 126.264 ms  
Loss rate: 0.97%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 126.251 ms  
Loss rate: 0.64%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 126.270 ms  
Loss rate: 1.03%  
-- Flow 3:  
Average throughput: 0.23 Mbit/s  
95th percentile per-packet one-way delay: 126.267 ms  
Loss rate: 1.82%

Run 5: Report of SReAM — Data Link

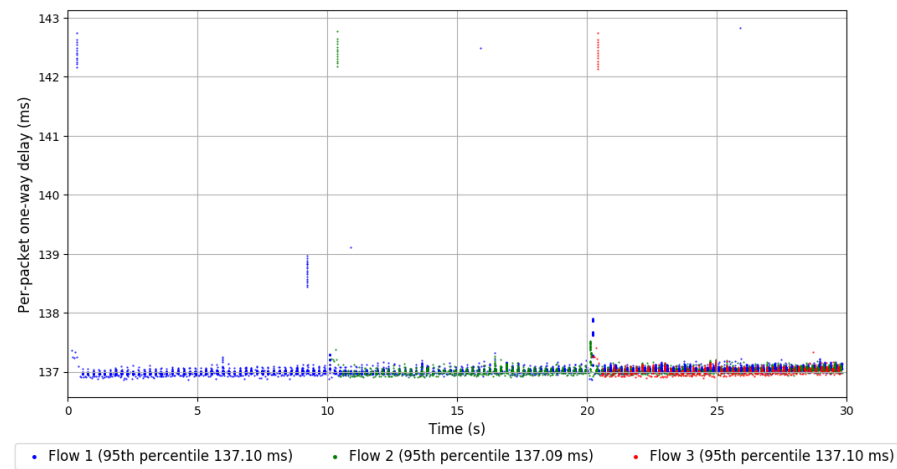
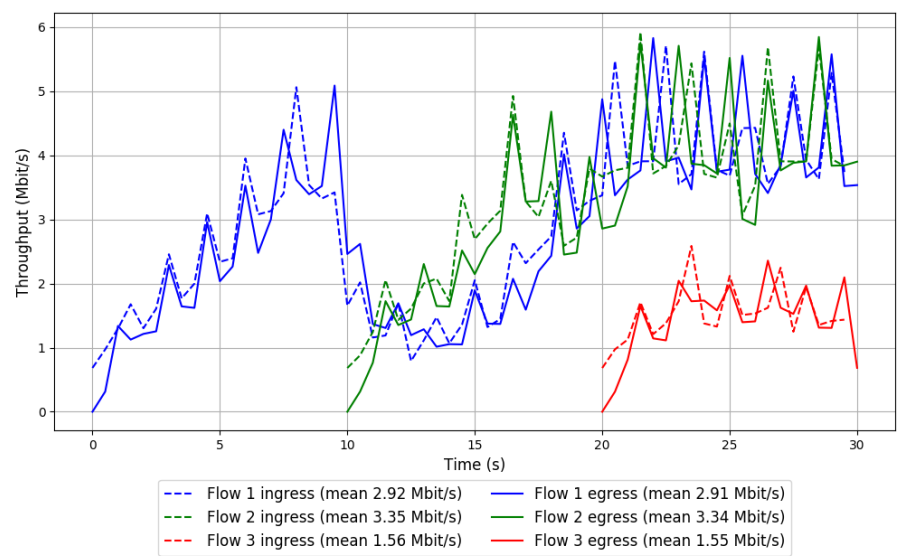


Run 1: Statistics of Sprout

Start at: 2019-01-22 02:48:57  
End at: 2019-01-22 02:49:27  
Local clock offset: -1.901 ms  
Remote clock offset: -44.79 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 5.62 Mbit/s  
95th percentile per-packet one-way delay: 137.100 ms  
Loss rate: 1.36%  
-- Flow 1:  
Average throughput: 2.91 Mbit/s  
95th percentile per-packet one-way delay: 137.105 ms  
Loss rate: 1.13%  
-- Flow 2:  
Average throughput: 3.34 Mbit/s  
95th percentile per-packet one-way delay: 137.094 ms  
Loss rate: 1.41%  
-- Flow 3:  
Average throughput: 1.55 Mbit/s  
95th percentile per-packet one-way delay: 137.100 ms  
Loss rate: 2.48%

Run 1: Report of Sprout — Data Link



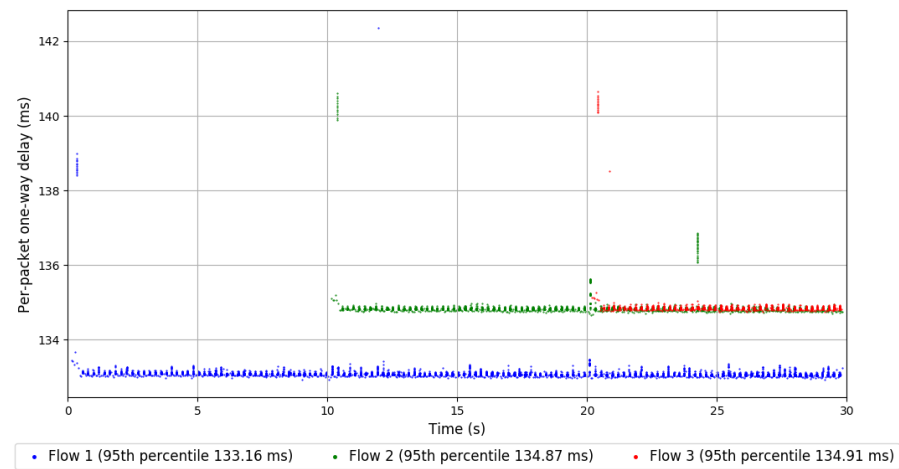
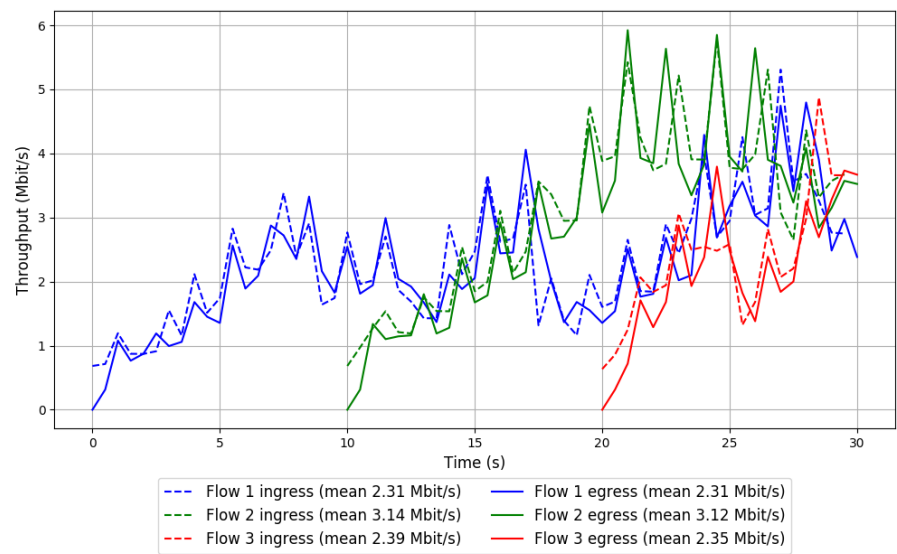


Run 2: Statistics of Sprout

Start at: 2019-01-22 03:29:53  
End at: 2019-01-22 03:30:23  
Local clock offset: 1.919 ms  
Remote clock offset: -39.032 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 5.13 Mbit/s  
95th percentile per-packet one-way delay: 134.860 ms  
Loss rate: 1.62%  
-- Flow 1:  
Average throughput: 2.31 Mbit/s  
95th percentile per-packet one-way delay: 133.160 ms  
Loss rate: 0.99%  
-- Flow 2:  
Average throughput: 3.12 Mbit/s  
95th percentile per-packet one-way delay: 134.872 ms  
Loss rate: 1.48%  
-- Flow 3:  
Average throughput: 2.35 Mbit/s  
95th percentile per-packet one-way delay: 134.906 ms  
Loss rate: 3.83%

Run 2: Report of Sprout — Data Link

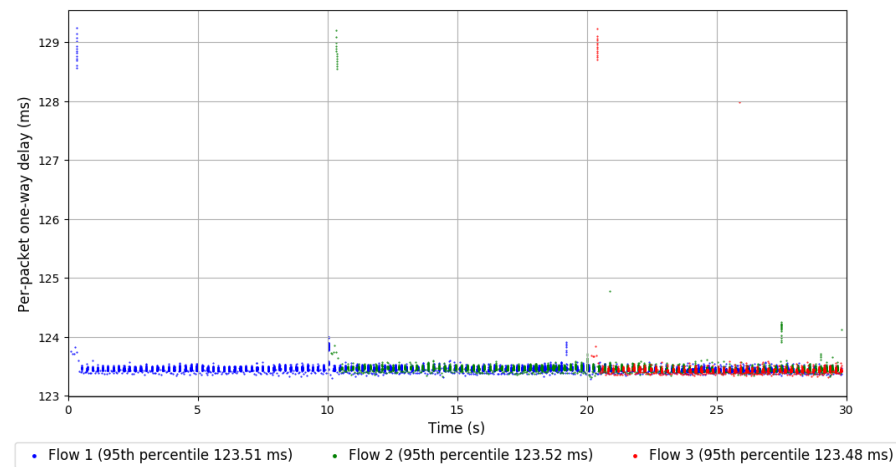
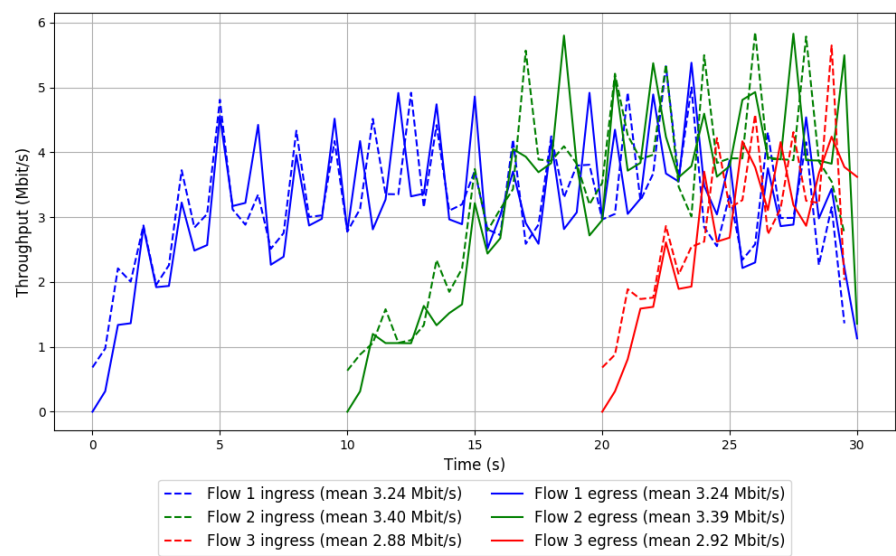


### Run 3: Statistics of Sprout

Start at: 2019-01-22 04:00:55  
End at: 2019-01-22 04:01:25  
Local clock offset: -1.637 ms  
Remote clock offset: -33.23 ms

```
# Below is generated by plot.py at 2019-01-22 06:47:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 123.510 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 123.508 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 123.515 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 123.484 ms
Loss rate: 0.51%
```

Run 3: Report of Sprout — Data Link

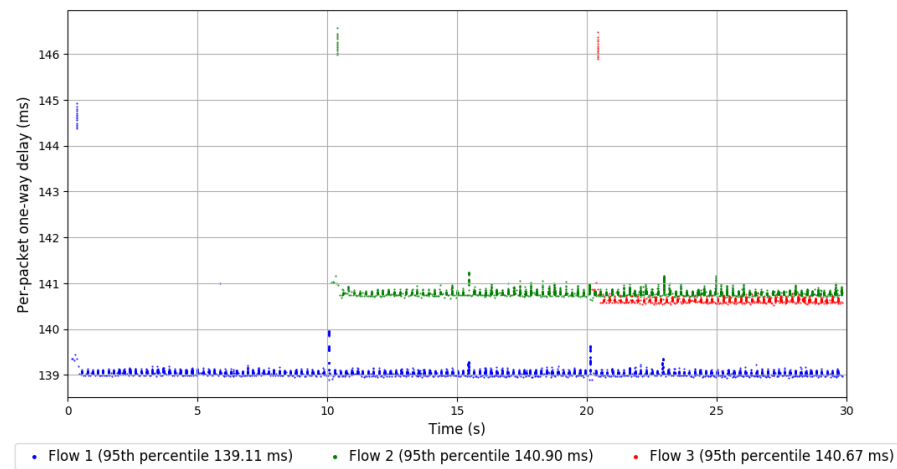
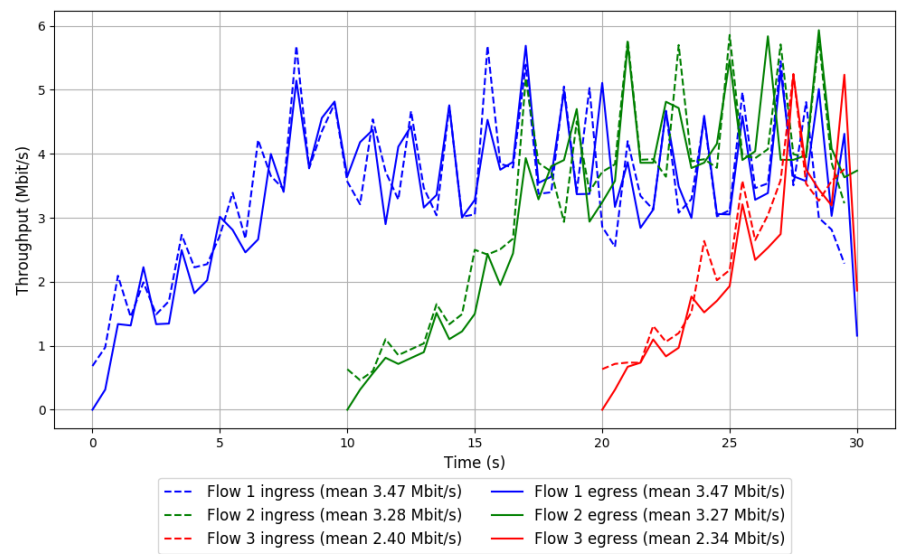


#### Run 4: Statistics of Sprout

Start at: 2019-01-22 04:52:14  
End at: 2019-01-22 04:52:44  
Local clock offset: 2.156 ms  
Remote clock offset: -45.405 ms

```
# Below is generated by plot.py at 2019-01-22 06:47:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 140.812 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 139.108 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 140.896 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 140.674 ms
Loss rate: 4.05%
```

Run 4: Report of Sprout — Data Link

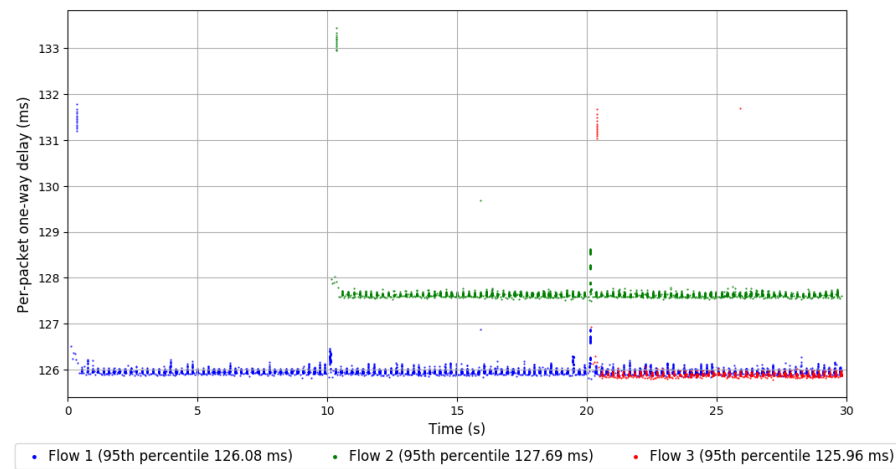
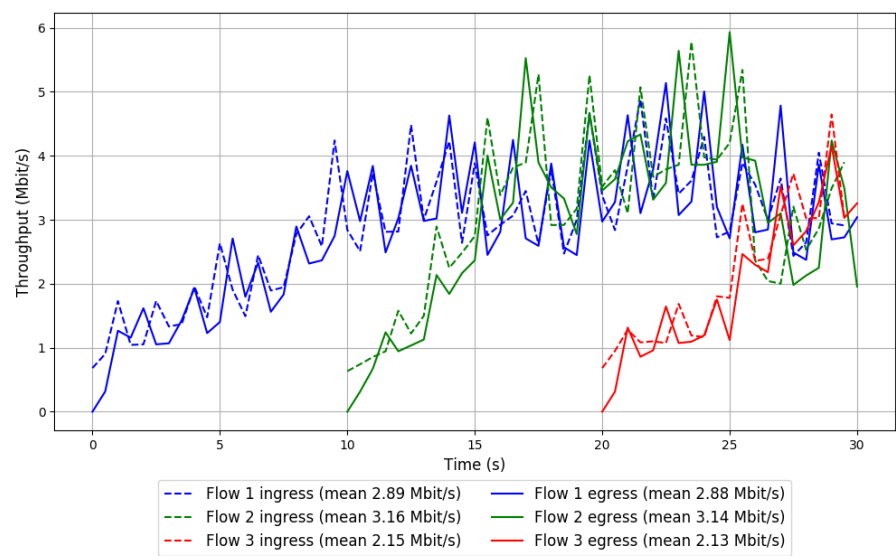


Run 5: Statistics of Sprout

Start at: 2019-01-22 05:55:50  
End at: 2019-01-22 05:56:20  
Local clock offset: -1.225 ms  
Remote clock offset: -35.76 ms

# Below is generated by plot.py at 2019-01-22 06:47:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 5.65 Mbit/s  
95th percentile per-packet one-way delay: 127.657 ms  
Loss rate: 1.41%  
-- Flow 1:  
Average throughput: 2.88 Mbit/s  
95th percentile per-packet one-way delay: 126.075 ms  
Loss rate: 0.84%  
-- Flow 2:  
Average throughput: 3.14 Mbit/s  
95th percentile per-packet one-way delay: 127.690 ms  
Loss rate: 1.55%  
-- Flow 3:  
Average throughput: 2.13 Mbit/s  
95th percentile per-packet one-way delay: 125.963 ms  
Loss rate: 3.29%

Run 5: Report of Sprout — Data Link



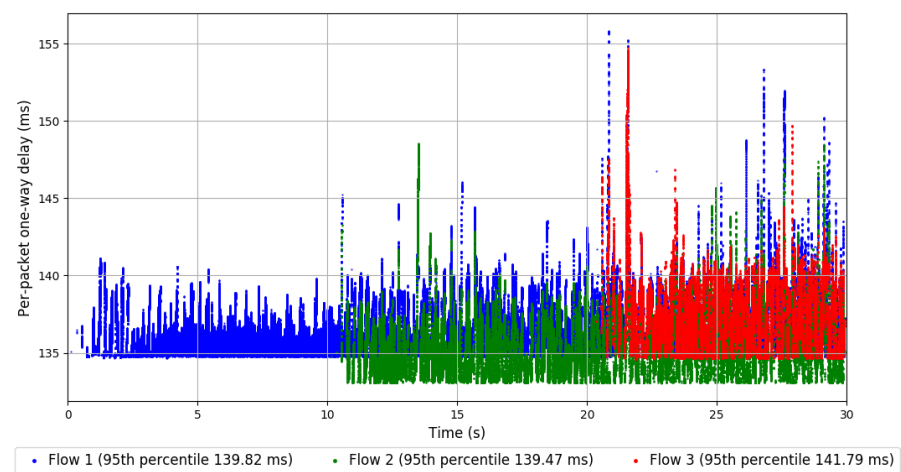
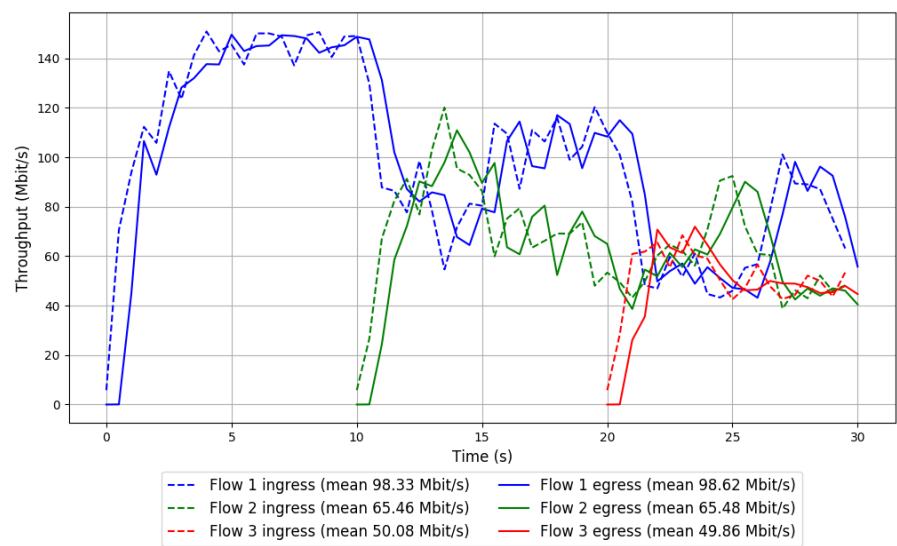


```
Run 1: Statistics of TaoVA-100x

Start at: 2019-01-22 03:10:30
End at: 2019-01-22 03:11:00
Local clock offset: -0.467 ms
Remote clock offset: -39.198 ms

# Below is generated by plot.py at 2019-01-22 06:49:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 158.41 Mbit/s
95th percentile per-packet one-way delay: 140.032 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 98.62 Mbit/s
95th percentile per-packet one-way delay: 139.818 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 65.48 Mbit/s
95th percentile per-packet one-way delay: 139.466 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 49.86 Mbit/s
95th percentile per-packet one-way delay: 141.793 ms
Loss rate: 2.46%
```

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

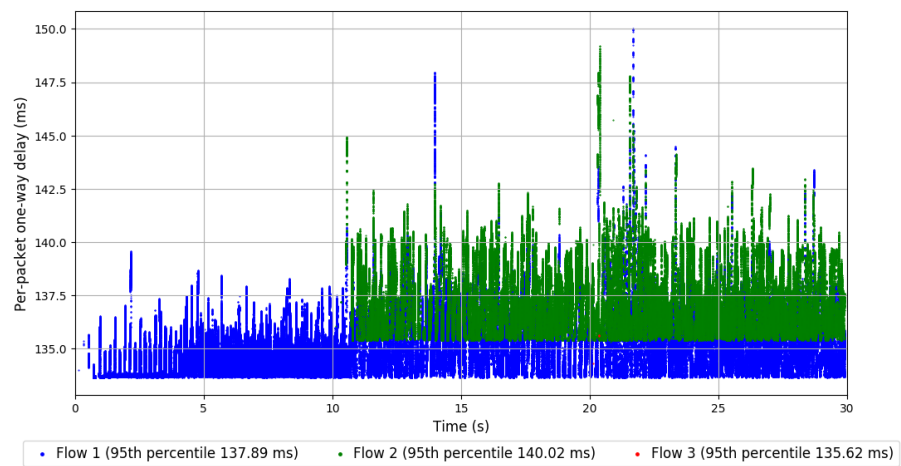
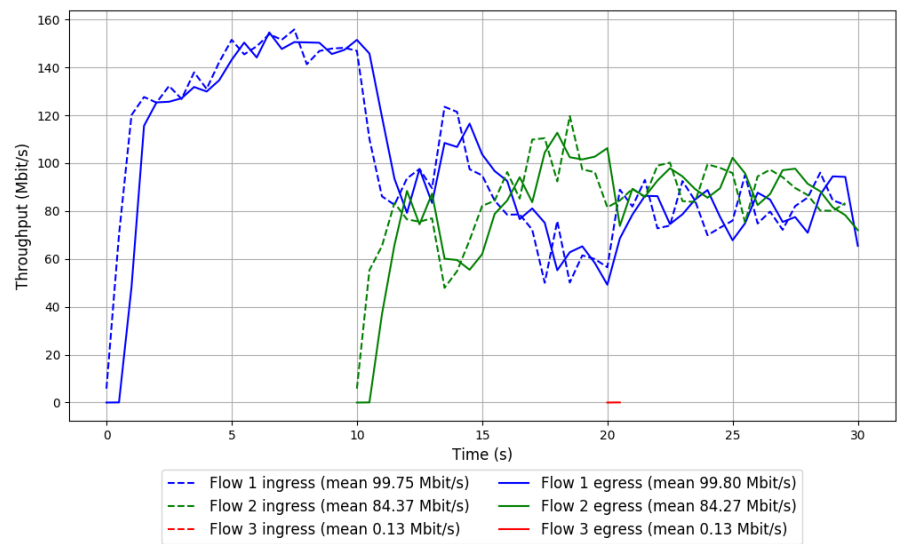


Run 2: Statistics of TaoVA-100x

Start at: 2019-01-22 03:41:44  
End at: 2019-01-22 03:42:14  
Local clock offset: -0.003 ms  
Remote clock offset: -41.903 ms

# Below is generated by plot.py at 2019-01-22 06:49:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 155.76 Mbit/s  
95th percentile per-packet one-way delay: 139.323 ms  
Loss rate: 0.73%  
-- Flow 1:  
Average throughput: 99.80 Mbit/s  
95th percentile per-packet one-way delay: 137.890 ms  
Loss rate: 0.59%  
-- Flow 2:  
Average throughput: 84.27 Mbit/s  
95th percentile per-packet one-way delay: 140.017 ms  
Loss rate: 0.97%  
-- Flow 3:  
Average throughput: 0.13 Mbit/s  
95th percentile per-packet one-way delay: 135.620 ms  
Loss rate: 0.00%

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

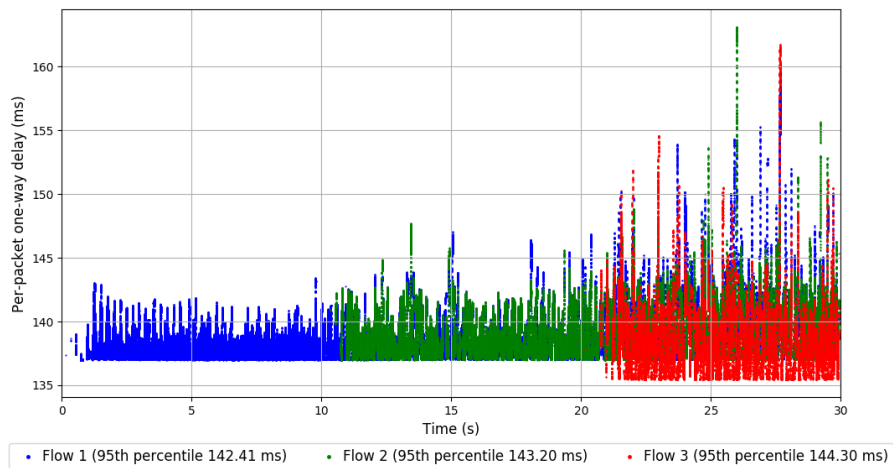
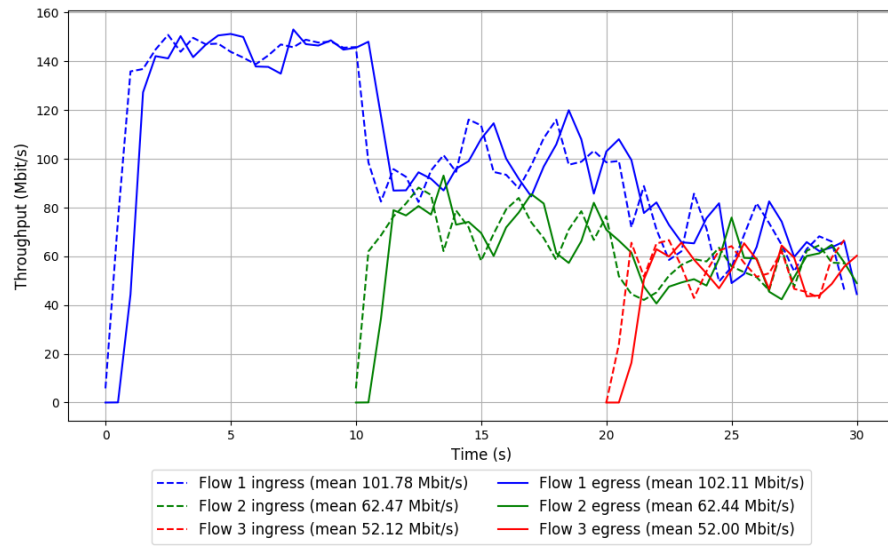


Run 3: Statistics of TaoVA-100x

Start at: 2019-01-22 04:23:16  
End at: 2019-01-22 04:23:46  
Local clock offset: -1.468 ms  
Remote clock offset: -45.166 ms

# Below is generated by plot.py at 2019-01-22 06:49:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 160.59 Mbit/s  
95th percentile per-packet one-way delay: 142.830 ms  
Loss rate: 0.70%  
-- Flow 1:  
Average throughput: 102.11 Mbit/s  
95th percentile per-packet one-way delay: 142.414 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 62.44 Mbit/s  
95th percentile per-packet one-way delay: 143.197 ms  
Loss rate: 1.03%  
-- Flow 3:  
Average throughput: 52.00 Mbit/s  
95th percentile per-packet one-way delay: 144.296 ms  
Loss rate: 2.15%

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

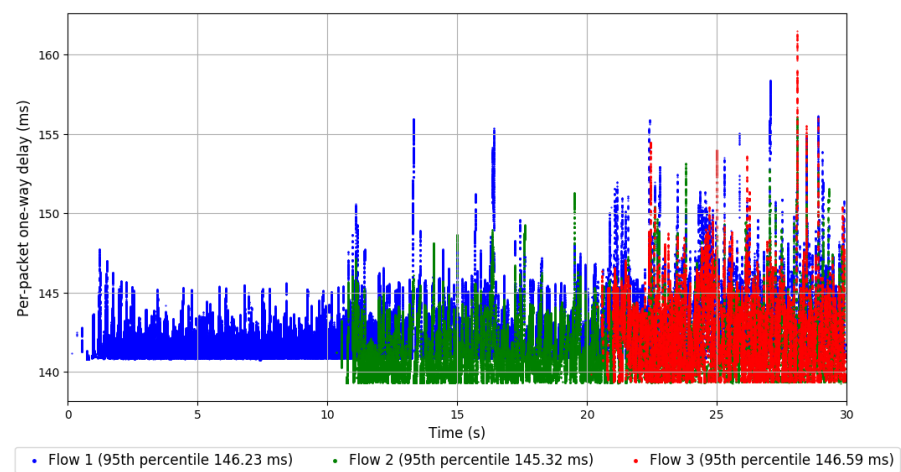
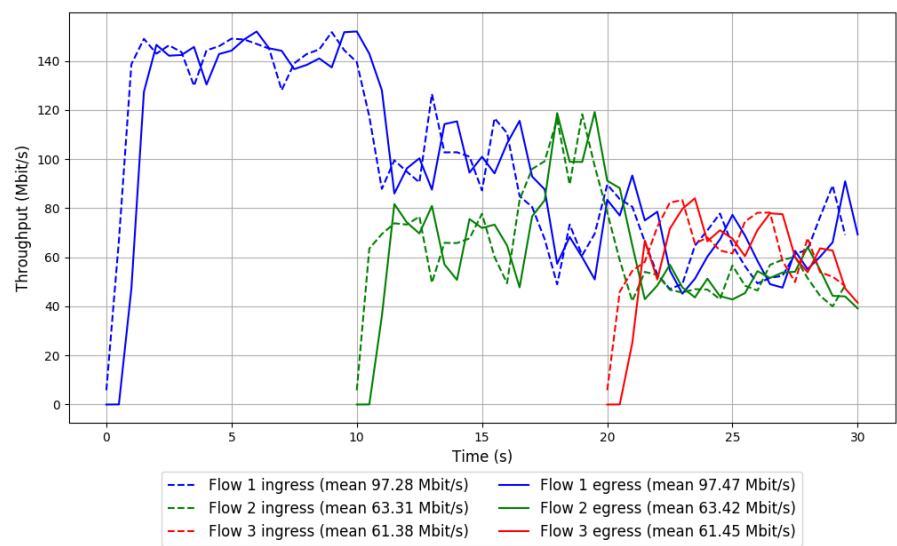


Run 4: Statistics of TaoVA-100x

Start at: 2019-01-22 05:19:44  
End at: 2019-01-22 05:20:14  
Local clock offset: 0.039 ms  
Remote clock offset: -48.235 ms

# Below is generated by plot.py at 2019-01-22 06:49:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 159.69 Mbit/s  
95th percentile per-packet one-way delay: 146.126 ms  
Loss rate: 0.70%  
-- Flow 1:  
Average throughput: 97.47 Mbit/s  
95th percentile per-packet one-way delay: 146.232 ms  
Loss rate: 0.44%  
-- Flow 2:  
Average throughput: 63.42 Mbit/s  
95th percentile per-packet one-way delay: 145.325 ms  
Loss rate: 0.74%  
-- Flow 3:  
Average throughput: 61.45 Mbit/s  
95th percentile per-packet one-way delay: 146.594 ms  
Loss rate: 1.81%

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



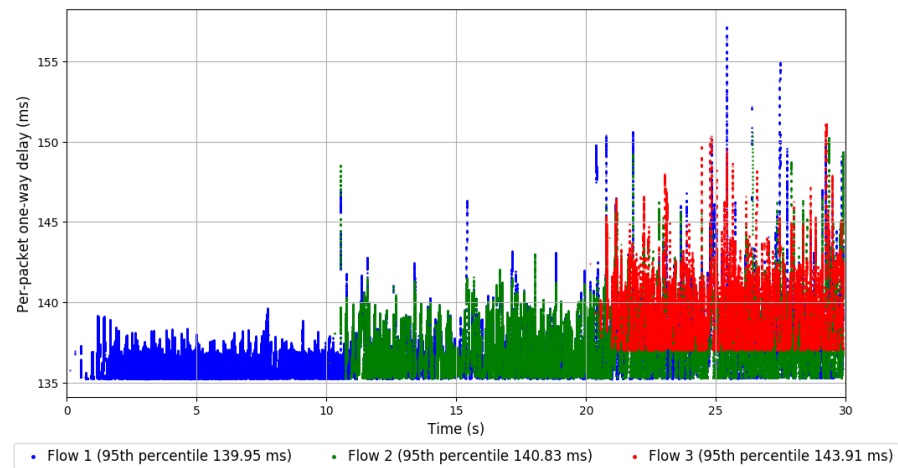
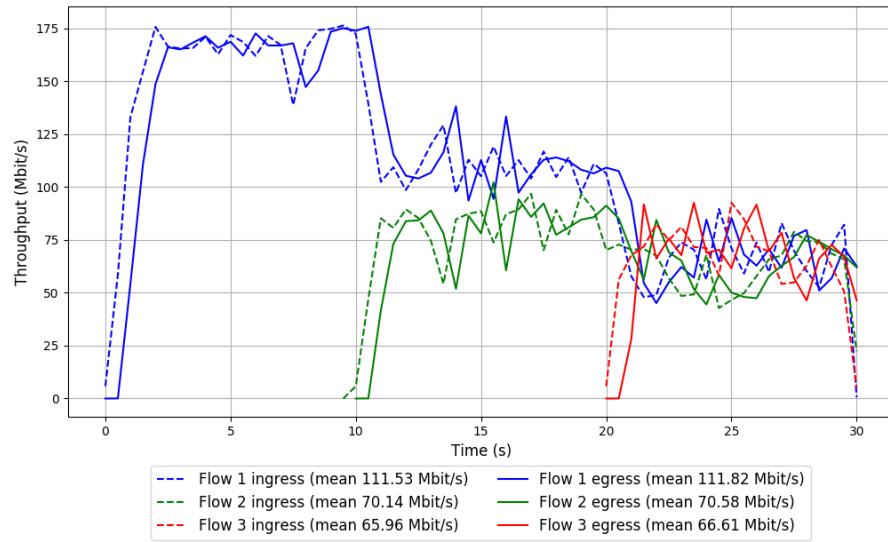


Run 5: Statistics of TaoVA-100x

Start at: 2019-01-22 06:13:12  
End at: 2019-01-22 06:13:42  
Local clock offset: -0.304 ms  
Remote clock offset: -43.165 ms

# Below is generated by plot.py at 2019-01-22 06:50:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 180.45 Mbit/s  
95th percentile per-packet one-way delay: 141.236 ms  
Loss rate: 1.06%  
-- Flow 1:  
Average throughput: 111.82 Mbit/s  
95th percentile per-packet one-way delay: 139.953 ms  
Loss rate: 0.57%  
-- Flow 2:  
Average throughput: 70.58 Mbit/s  
95th percentile per-packet one-way delay: 140.829 ms  
Loss rate: 1.79%  
-- Flow 3:  
Average throughput: 66.61 Mbit/s  
95th percentile per-packet one-way delay: 143.915 ms  
Loss rate: 1.98%

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

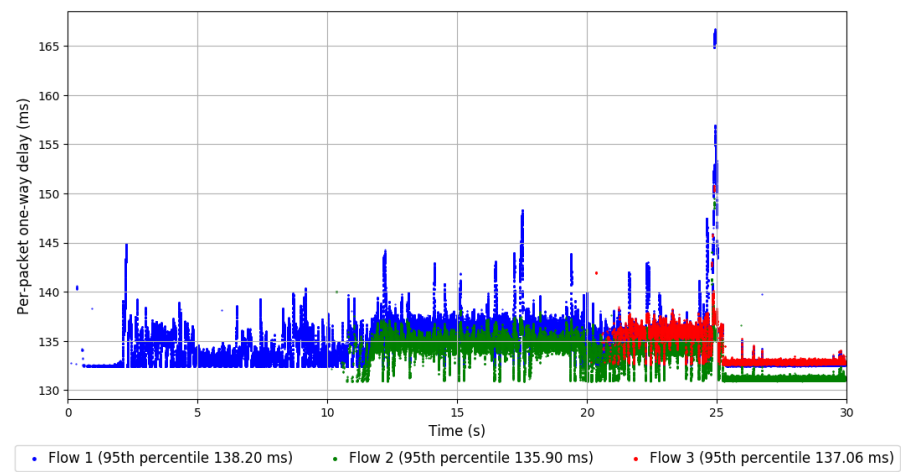
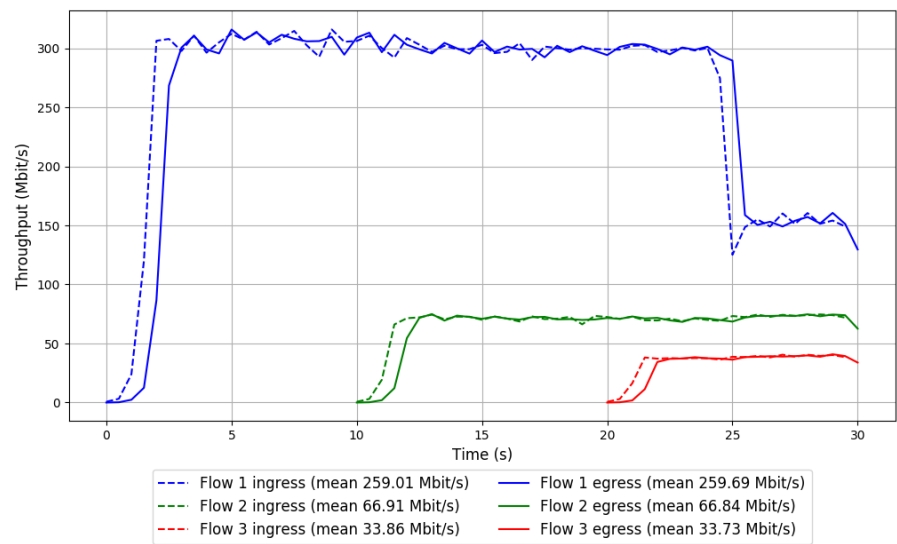


Run 1: Statistics of TCP Vegas

Start at: 2019-01-22 02:51:42  
End at: 2019-01-22 02:52:12  
Local clock offset: 0.525 ms  
Remote clock offset: -37.386 ms

# Below is generated by plot.py at 2019-01-22 06:50:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 315.11 Mbit/s  
95th percentile per-packet one-way delay: 137.710 ms  
Loss rate: 0.56%  
-- Flow 1:  
Average throughput: 259.69 Mbit/s  
95th percentile per-packet one-way delay: 138.197 ms  
Loss rate: 0.39%  
-- Flow 2:  
Average throughput: 66.84 Mbit/s  
95th percentile per-packet one-way delay: 135.897 ms  
Loss rate: 1.08%  
-- Flow 3:  
Average throughput: 33.73 Mbit/s  
95th percentile per-packet one-way delay: 137.055 ms  
Loss rate: 2.32%

Run 1: Report of TCP Vegas — Data Link

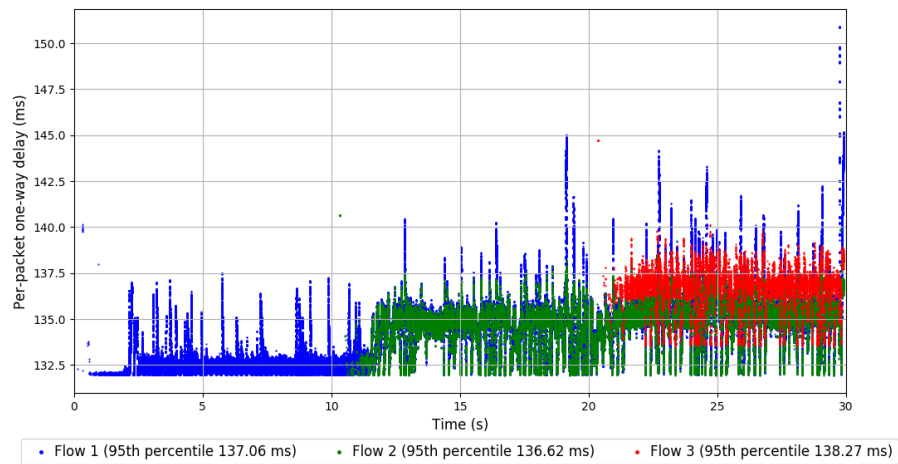
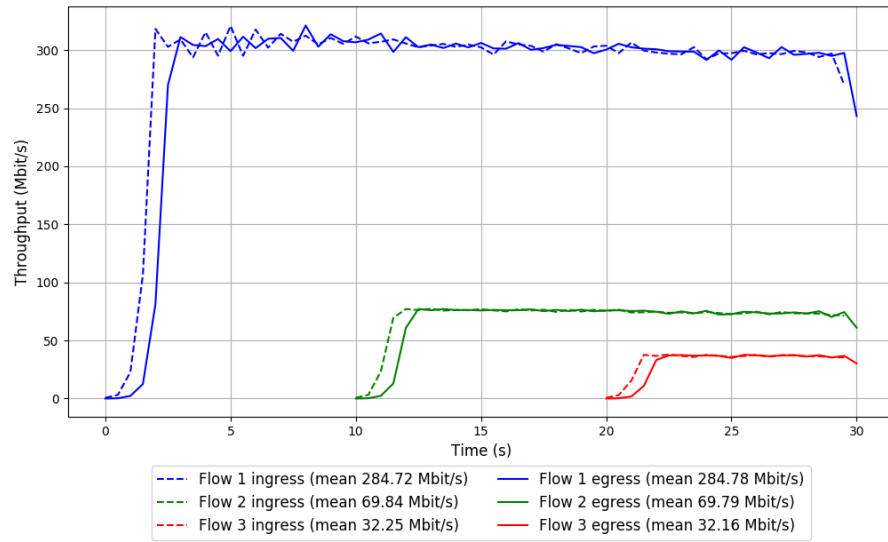


Run 2: Statistics of TCP Vegas

Start at: 2019-01-22 03:32:35  
End at: 2019-01-22 03:33:05  
Local clock offset: 1.278 ms  
Remote clock offset: -38.704 ms

# Below is generated by plot.py at 2019-01-22 06:50:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 341.64 Mbit/s  
95th percentile per-packet one-way delay: 137.170 ms  
Loss rate: 0.74%  
-- Flow 1:  
Average throughput: 284.78 Mbit/s  
95th percentile per-packet one-way delay: 137.055 ms  
Loss rate: 0.63%  
-- Flow 2:  
Average throughput: 69.79 Mbit/s  
95th percentile per-packet one-way delay: 136.619 ms  
Loss rate: 1.04%  
-- Flow 3:  
Average throughput: 32.16 Mbit/s  
95th percentile per-packet one-way delay: 138.273 ms  
Loss rate: 2.26%

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



Run 3: Statistics of TCP Vegas

/home/ubuntu/pantheon/data/2019-01-22T02-27-Saudi-Arabia-to-AWS-India-2-5-runs-3-flows/vegas

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

Figure is missing

Figure is missing

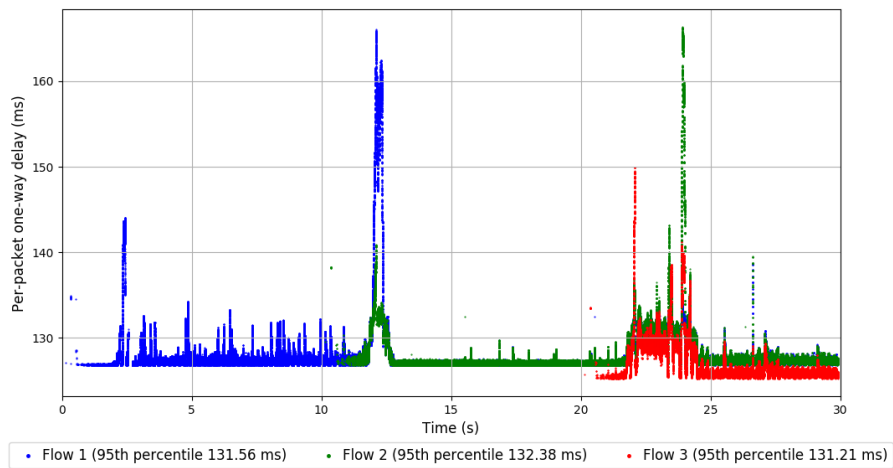
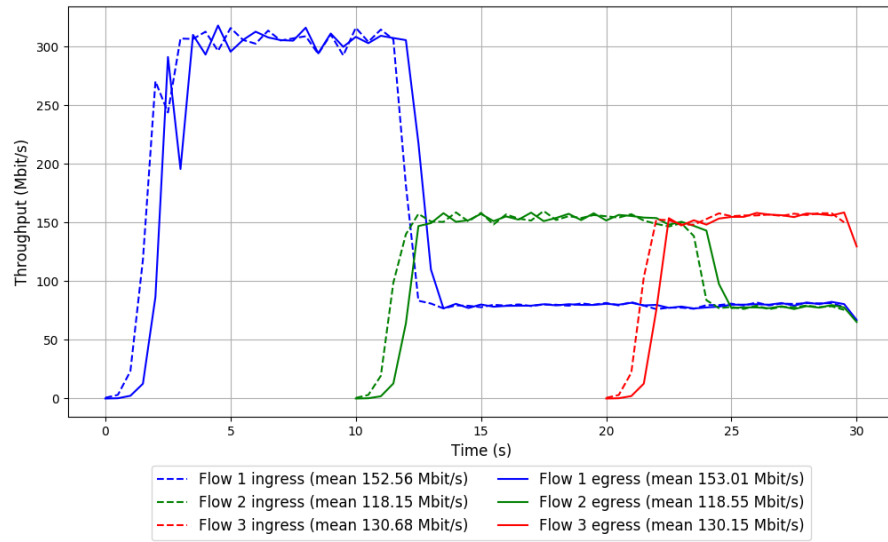


#### Run 4: Statistics of TCP Vegas

Start at: 2019-01-22 05:04:43  
End at: 2019-01-22 05:05:13  
Local clock offset: 0.22 ms  
Remote clock offset: -34.268 ms

```
# Below is generated by plot.py at 2019-01-22 06:50:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.28 Mbit/s
95th percentile per-packet one-way delay: 131.864 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 153.01 Mbit/s
95th percentile per-packet one-way delay: 131.562 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 118.55 Mbit/s
95th percentile per-packet one-way delay: 132.384 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 130.15 Mbit/s
95th percentile per-packet one-way delay: 131.210 ms
Loss rate: 2.34%
```

# Run 4: Report of TCP Vegas — Data Link

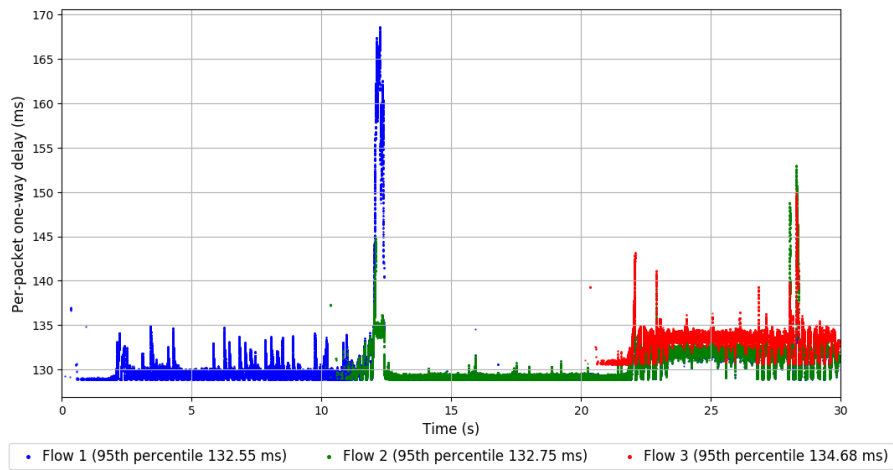
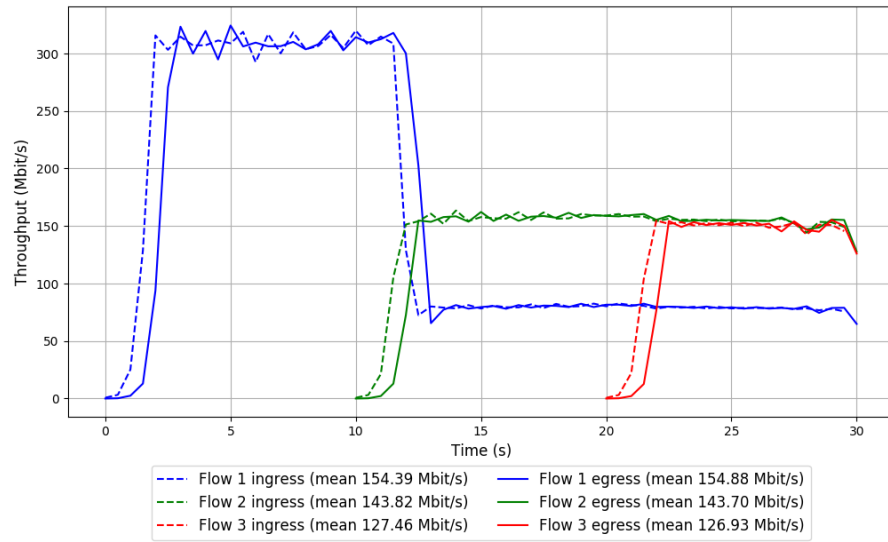


Run 5: Statistics of TCP Vegas

Start at: 2019-01-22 05:58:35  
End at: 2019-01-22 05:59:05  
Local clock offset: -2.58 ms  
Remote clock offset: -40.178 ms

# Below is generated by plot.py at 2019-01-22 06:52:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 291.92 Mbit/s  
95th percentile per-packet one-way delay: 133.974 ms  
Loss rate: 0.86%  
-- Flow 1:  
Average throughput: 154.88 Mbit/s  
95th percentile per-packet one-way delay: 132.553 ms  
Loss rate: 0.33%  
-- Flow 2:  
Average throughput: 143.70 Mbit/s  
95th percentile per-packet one-way delay: 132.755 ms  
Loss rate: 1.05%  
-- Flow 3:  
Average throughput: 126.93 Mbit/s  
95th percentile per-packet one-way delay: 134.684 ms  
Loss rate: 2.37%

# Run 5: Report of TCP Vegas — Data Link

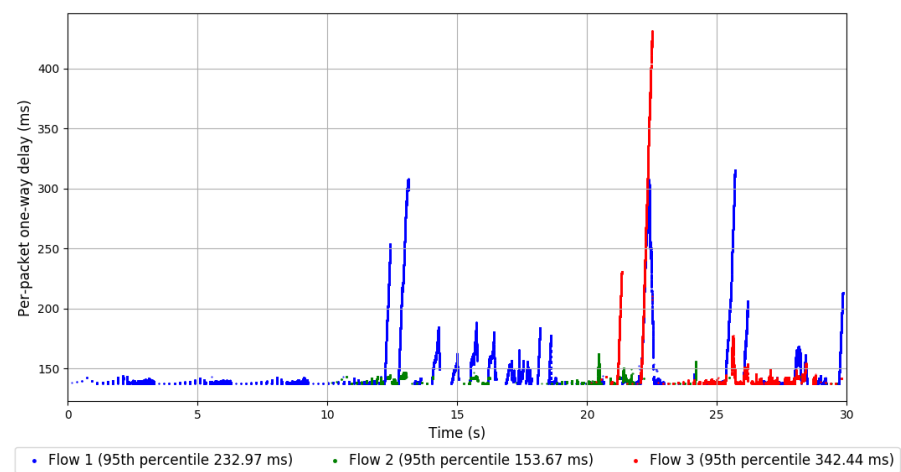
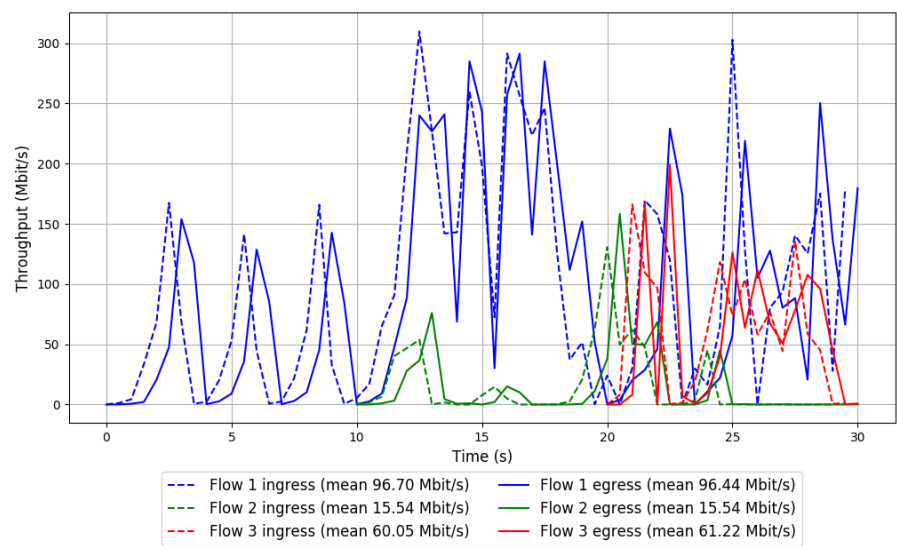


Run 1: Statistics of Verus

Start at: 2019-01-22 02:50:15  
End at: 2019-01-22 02:50:45  
Local clock offset: -0.602 ms  
Remote clock offset: -43.837 ms

# Below is generated by plot.py at 2019-01-22 06:52:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 126.46 Mbit/s  
95th percentile per-packet one-way delay: 238.763 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 96.44 Mbit/s  
95th percentile per-packet one-way delay: 232.971 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 15.54 Mbit/s  
95th percentile per-packet one-way delay: 153.667 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 61.22 Mbit/s  
95th percentile per-packet one-way delay: 342.445 ms  
Loss rate: 0.08%

Run 1: Report of Verus — Data Link

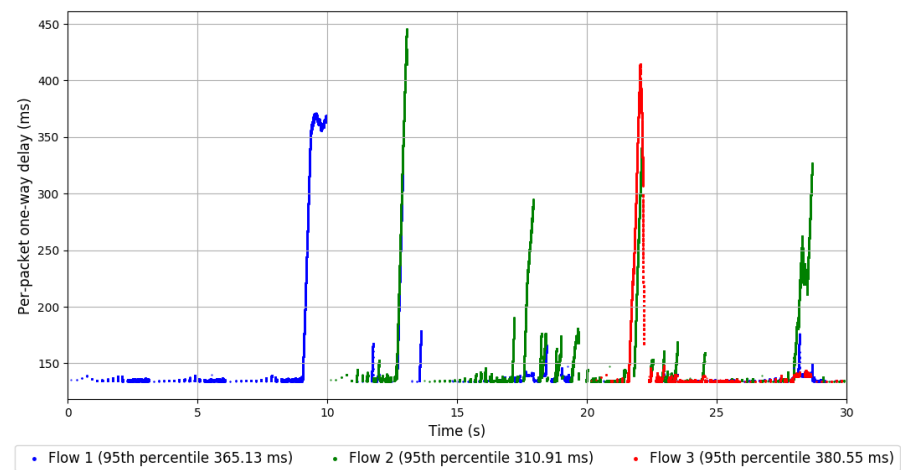
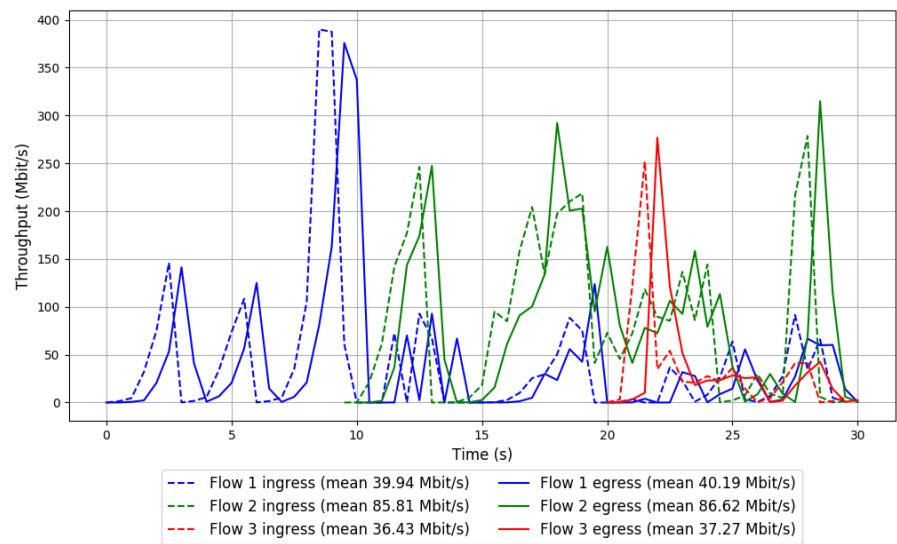


Run 2: Statistics of Verus

Start at: 2019-01-22 03:31:10  
End at: 2019-01-22 03:31:40  
Local clock offset: 1.777 ms  
Remote clock offset: -38.772 ms

# Below is generated by plot.py at 2019-01-22 06:52:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 109.63 Mbit/s  
95th percentile per-packet one-way delay: 364.090 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 40.19 Mbit/s  
95th percentile per-packet one-way delay: 365.129 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 86.62 Mbit/s  
95th percentile per-packet one-way delay: 310.914 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 37.27 Mbit/s  
95th percentile per-packet one-way delay: 380.545 ms  
Loss rate: 0.50%

Run 2: Report of Verus — Data Link



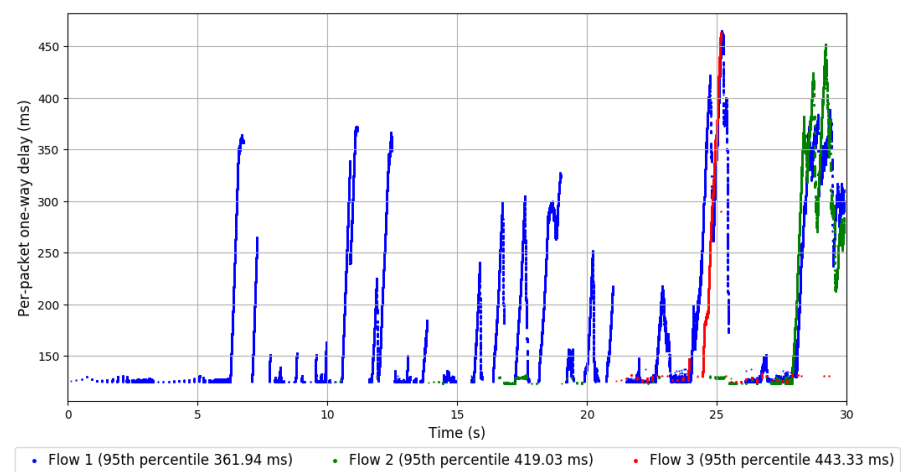
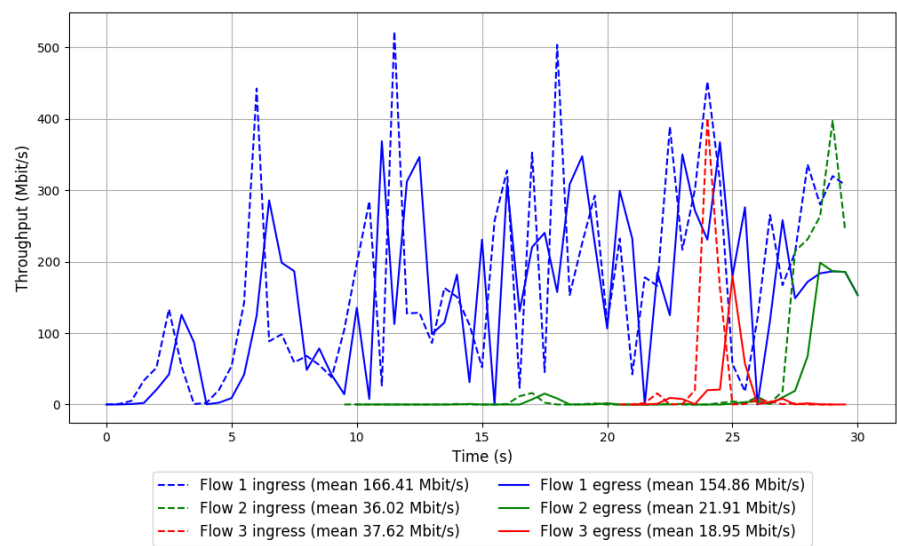


Run 3: Statistics of Verus

Start at: 2019-01-22 04:02:13  
End at: 2019-01-22 04:02:43  
Local clock offset: -0.213 ms  
Remote clock offset: -32.071 ms

# Below is generated by plot.py at 2019-01-22 06:52:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 174.64 Mbit/s  
95th percentile per-packet one-way delay: 372.360 ms  
Loss rate: 13.48%  
-- Flow 1:  
Average throughput: 154.86 Mbit/s  
95th percentile per-packet one-way delay: 361.935 ms  
Loss rate: 7.56%  
-- Flow 2:  
Average throughput: 21.91 Mbit/s  
95th percentile per-packet one-way delay: 419.028 ms  
Loss rate: 39.24%  
-- Flow 3:  
Average throughput: 18.95 Mbit/s  
95th percentile per-packet one-way delay: 443.327 ms  
Loss rate: 49.61%

Run 3: Report of Verus — Data Link

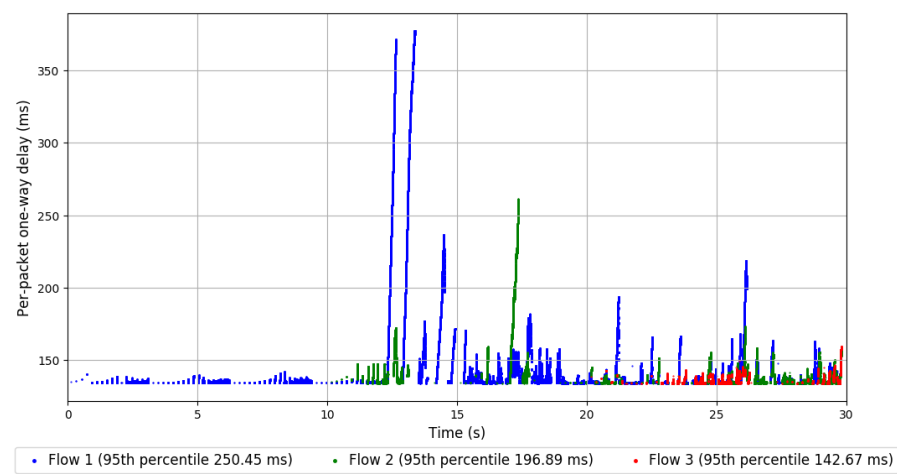
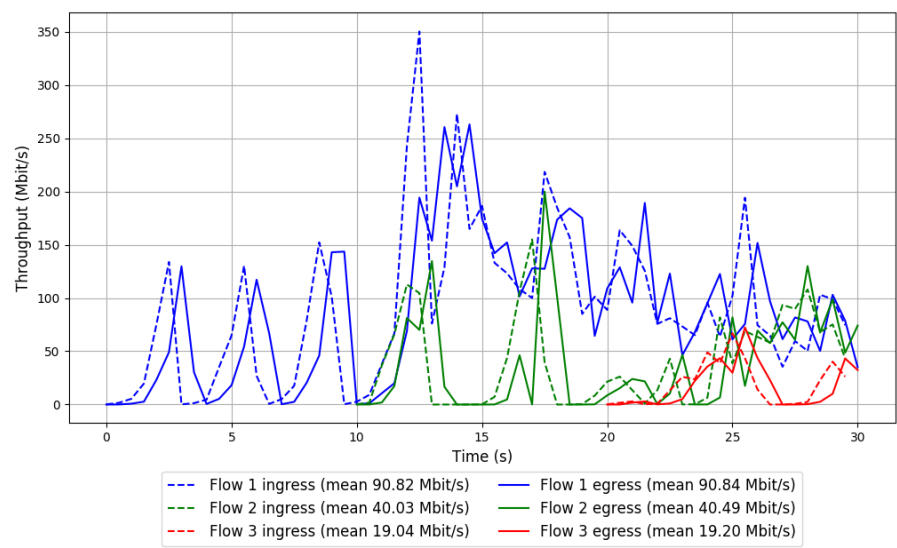


Run 4: Statistics of Verus

Start at: 2019-01-22 04:53:31  
End at: 2019-01-22 04:54:01  
Local clock offset: -0.61 ms  
Remote clock offset: -41.852 ms

# Below is generated by plot.py at 2019-01-22 06:52:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 123.80 Mbit/s  
95th percentile per-packet one-way delay: 225.448 ms  
Loss rate: 0.94%  
-- Flow 1:  
Average throughput: 90.84 Mbit/s  
95th percentile per-packet one-way delay: 250.453 ms  
Loss rate: 1.11%  
-- Flow 2:  
Average throughput: 40.49 Mbit/s  
95th percentile per-packet one-way delay: 196.892 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 19.20 Mbit/s  
95th percentile per-packet one-way delay: 142.672 ms  
Loss rate: 1.05%

Run 4: Report of Verus — Data Link

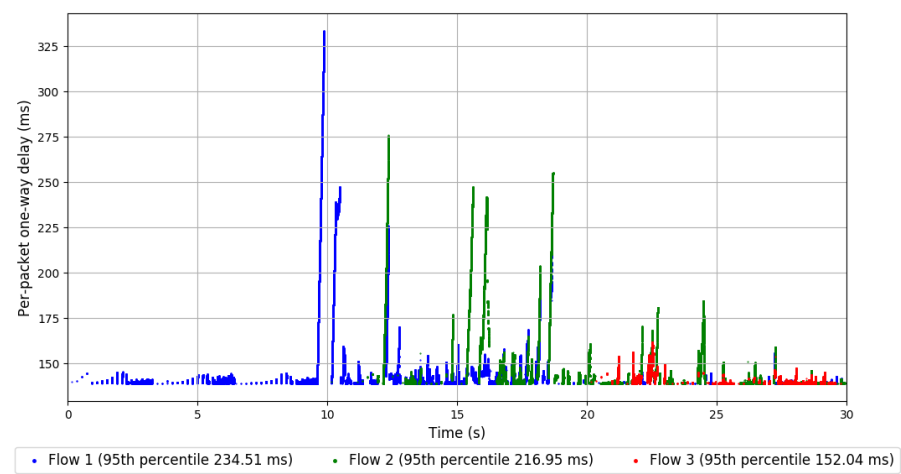
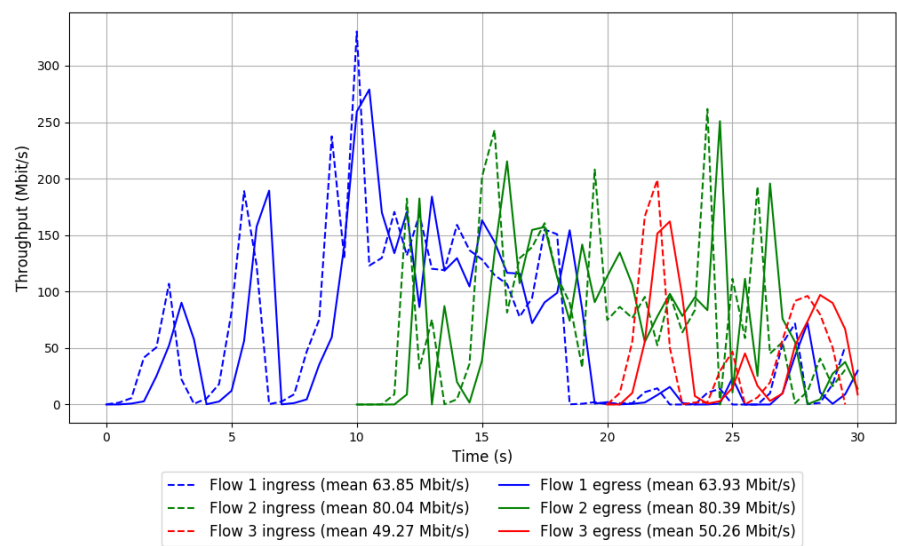


Run 5: Statistics of Verus

Start at: 2019-01-22 05:57:08  
End at: 2019-01-22 05:57:38  
Local clock offset: 0.369 ms  
Remote clock offset: -45.942 ms

# Below is generated by plot.py at 2019-01-22 06:52:28  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 133.29 Mbit/s  
95th percentile per-packet one-way delay: 224.378 ms  
Loss rate: 0.61%  
-- Flow 1:  
Average throughput: 63.93 Mbit/s  
95th percentile per-packet one-way delay: 234.514 ms  
Loss rate: 0.82%  
-- Flow 2:  
Average throughput: 80.39 Mbit/s  
95th percentile per-packet one-way delay: 216.947 ms  
Loss rate: 0.53%  
-- Flow 3:  
Average throughput: 50.26 Mbit/s  
95th percentile per-packet one-way delay: 152.037 ms  
Loss rate: 0.01%

Run 5: Report of Verus — Data Link

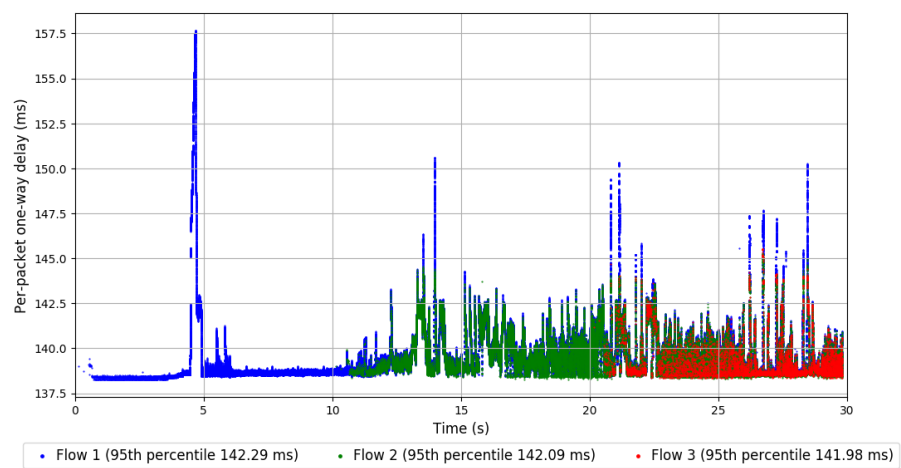
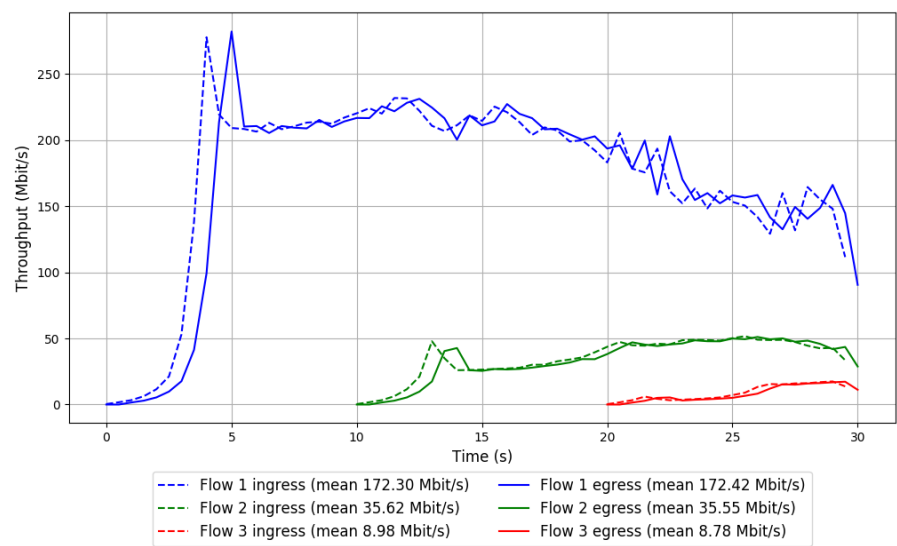


Run 1: Statistics of PCC-Vivace

Start at: 2019-01-22 02:56:10  
End at: 2019-01-22 02:56:40  
Local clock offset: -2.717 ms  
Remote clock offset: -47.588 ms

# Below is generated by plot.py at 2019-01-22 06:52:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 198.80 Mbit/s  
95th percentile per-packet one-way delay: 142.262 ms  
Loss rate: 0.73%  
-- Flow 1:  
Average throughput: 172.42 Mbit/s  
95th percentile per-packet one-way delay: 142.295 ms  
Loss rate: 0.60%  
-- Flow 2:  
Average throughput: 35.55 Mbit/s  
95th percentile per-packet one-way delay: 142.089 ms  
Loss rate: 1.20%  
-- Flow 3:  
Average throughput: 8.78 Mbit/s  
95th percentile per-packet one-way delay: 141.984 ms  
Loss rate: 4.17%

Run 1: Report of PCC-Vivace — Data Link



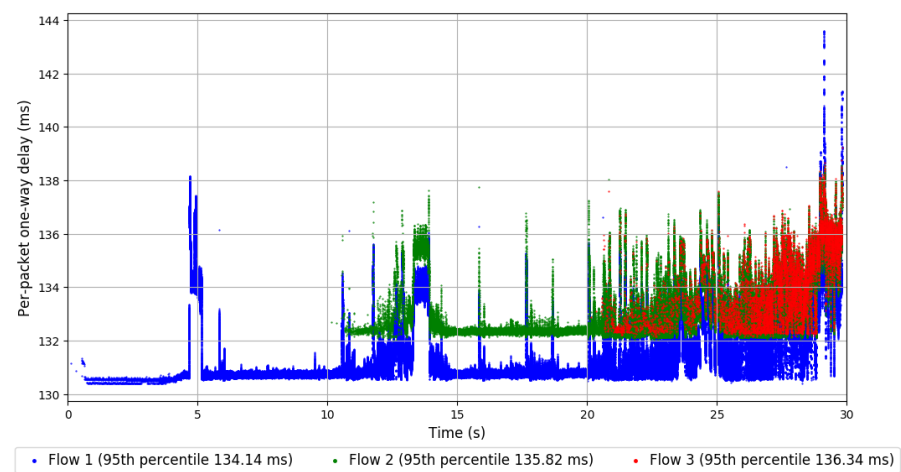
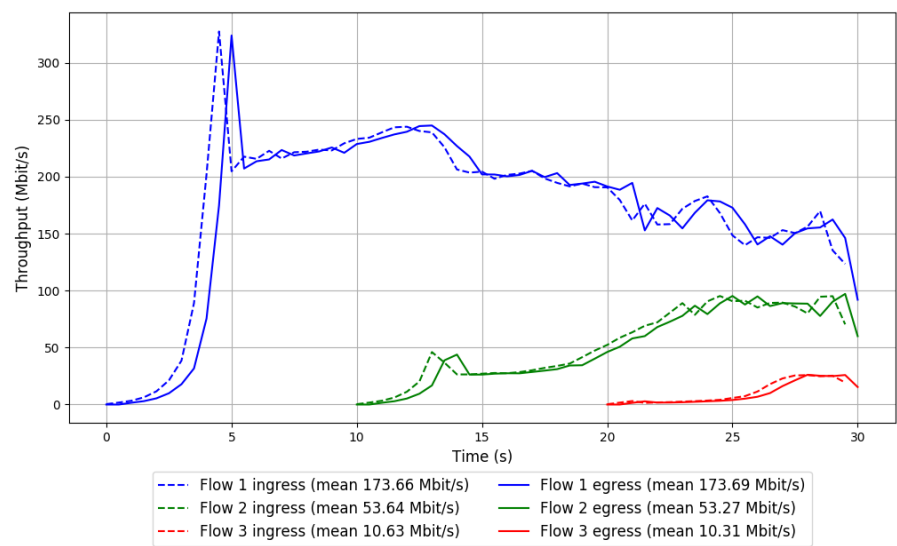


Run 2: Statistics of PCC-Vivace

Start at: 2019-01-22 03:37:05  
End at: 2019-01-22 03:37:35  
Local clock offset: 0.22 ms  
Remote clock offset: -38.501 ms

# Below is generated by plot.py at 2019-01-22 06:52:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 212.33 Mbit/s  
95th percentile per-packet one-way delay: 134.911 ms  
Loss rate: 0.90%  
-- Flow 1:  
Average throughput: 173.69 Mbit/s  
95th percentile per-packet one-way delay: 134.140 ms  
Loss rate: 0.66%  
-- Flow 2:  
Average throughput: 53.27 Mbit/s  
95th percentile per-packet one-way delay: 135.822 ms  
Loss rate: 1.69%  
-- Flow 3:  
Average throughput: 10.31 Mbit/s  
95th percentile per-packet one-way delay: 136.342 ms  
Loss rate: 4.91%

Run 2: Report of PCC-Vivace — Data Link

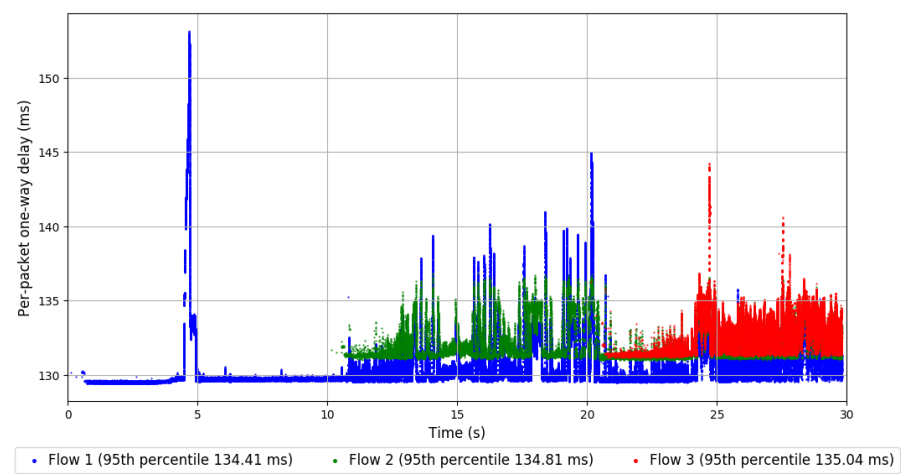
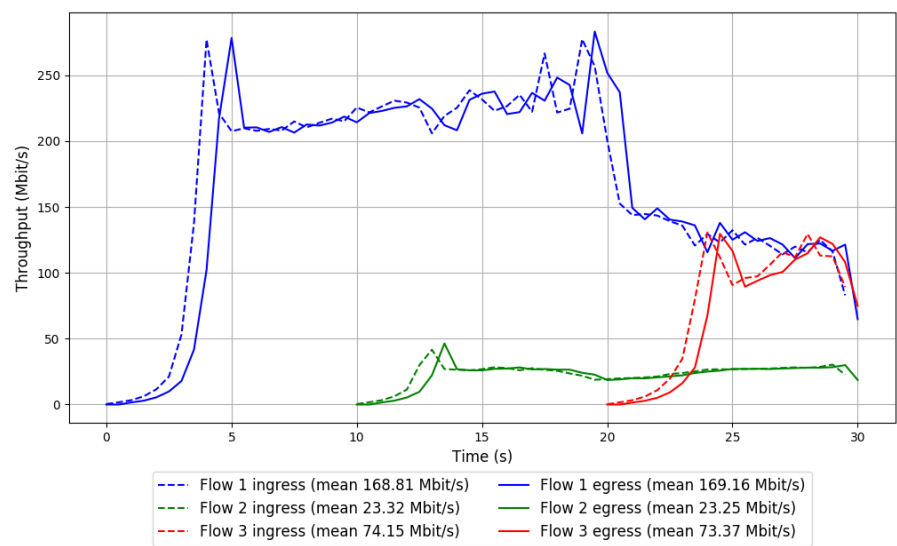


Run 3: Statistics of PCC-Vivace

Start at: 2019-01-22 04:12:42  
End at: 2019-01-22 04:13:12  
Local clock offset: -0.661 ms  
Remote clock offset: -38.546 ms

# Below is generated by plot.py at 2019-01-22 06:52:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 208.41 Mbit/s  
95th percentile per-packet one-way delay: 134.810 ms  
Loss rate: 0.82%  
-- Flow 1:  
Average throughput: 169.16 Mbit/s  
95th percentile per-packet one-way delay: 134.413 ms  
Loss rate: 0.45%  
-- Flow 2:  
Average throughput: 23.25 Mbit/s  
95th percentile per-packet one-way delay: 134.808 ms  
Loss rate: 1.29%  
-- Flow 3:  
Average throughput: 73.37 Mbit/s  
95th percentile per-packet one-way delay: 135.038 ms  
Loss rate: 3.10%

Run 3: Report of PCC-Vivace — Data Link

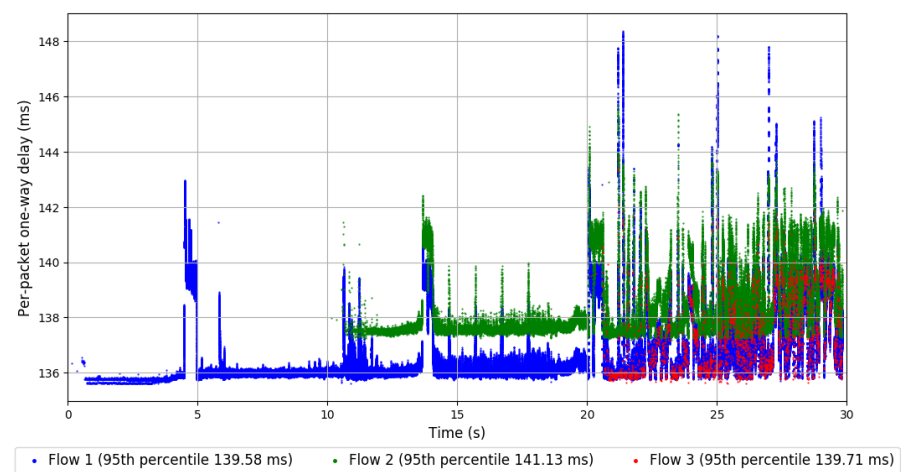
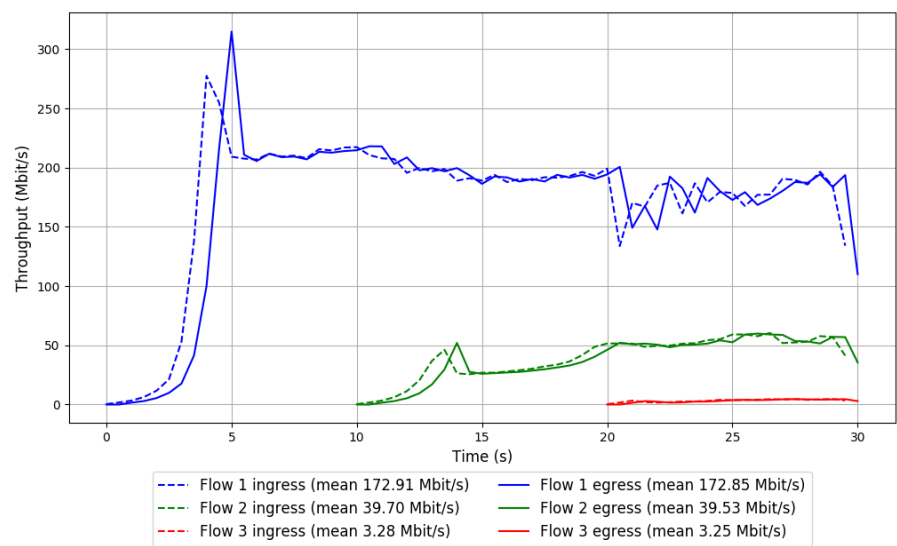


Run 4: Statistics of PCC-Vivace

Start at: 2019-01-22 05:14:59  
End at: 2019-01-22 05:15:29  
Local clock offset: 1.944 ms  
Remote clock offset: -43.495 ms

# Below is generated by plot.py at 2019-01-22 06:52:48  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 200.09 Mbit/s  
95th percentile per-packet one-way delay: 139.970 ms  
Loss rate: 0.80%  
-- Flow 1:  
Average throughput: 172.85 Mbit/s  
95th percentile per-packet one-way delay: 139.576 ms  
Loss rate: 0.69%  
-- Flow 2:  
Average throughput: 39.53 Mbit/s  
95th percentile per-packet one-way delay: 141.135 ms  
Loss rate: 1.41%  
-- Flow 3:  
Average throughput: 3.25 Mbit/s  
95th percentile per-packet one-way delay: 139.711 ms  
Loss rate: 2.87%

Run 4: Report of PCC-Vivace — Data Link

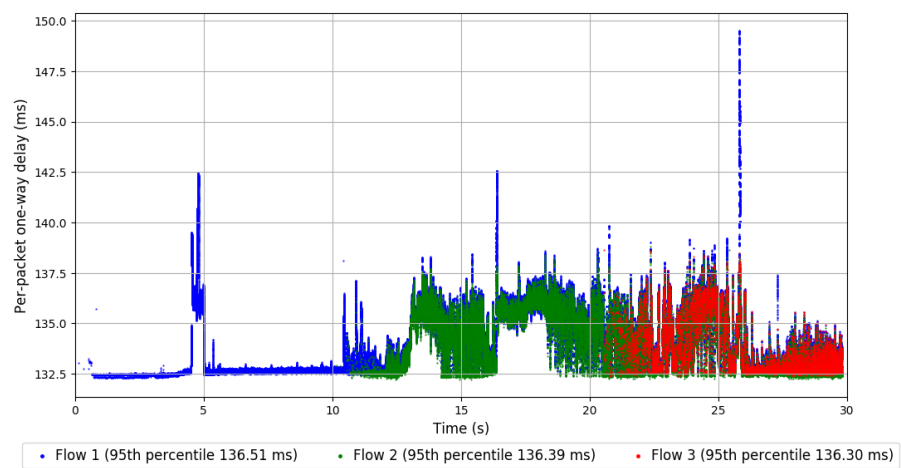
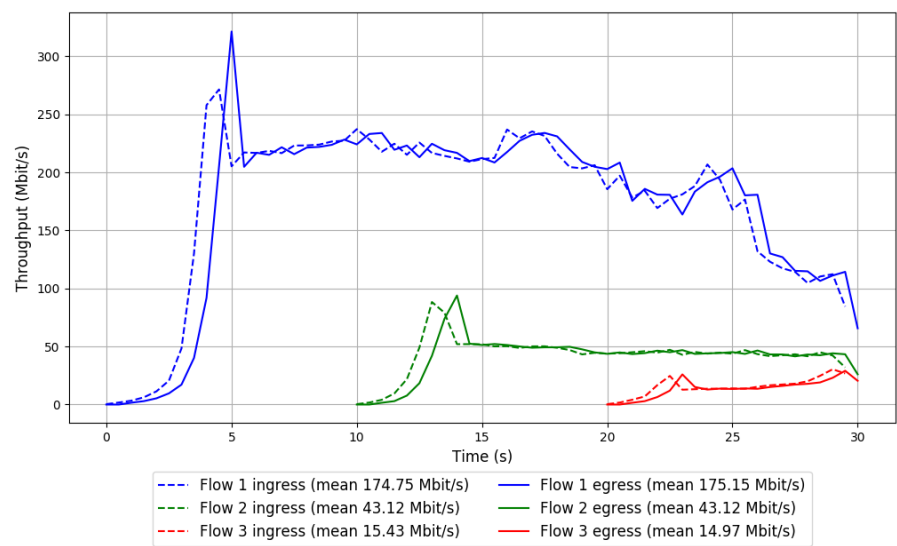


Run 5: Statistics of PCC-Vivace

Start at: 2019-01-22 06:03:04  
End at: 2019-01-22 06:03:34  
Local clock offset: -1.988 ms  
Remote clock offset: -41.378 ms

# Below is generated by plot.py at 2019-01-22 06:52:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 208.58 Mbit/s  
95th percentile per-packet one-way delay: 136.490 ms  
Loss rate: 0.63%  
-- Flow 1:  
Average throughput: 175.15 Mbit/s  
95th percentile per-packet one-way delay: 136.511 ms  
Loss rate: 0.44%  
-- Flow 2:  
Average throughput: 43.12 Mbit/s  
95th percentile per-packet one-way delay: 136.389 ms  
Loss rate: 0.99%  
-- Flow 3:  
Average throughput: 14.97 Mbit/s  
95th percentile per-packet one-way delay: 136.301 ms  
Loss rate: 4.94%

Run 5: Report of PCC-Vivace — Data Link



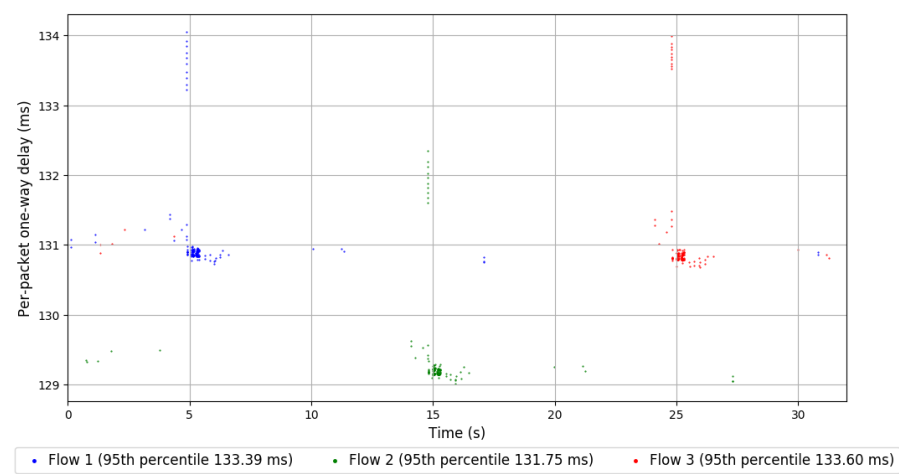
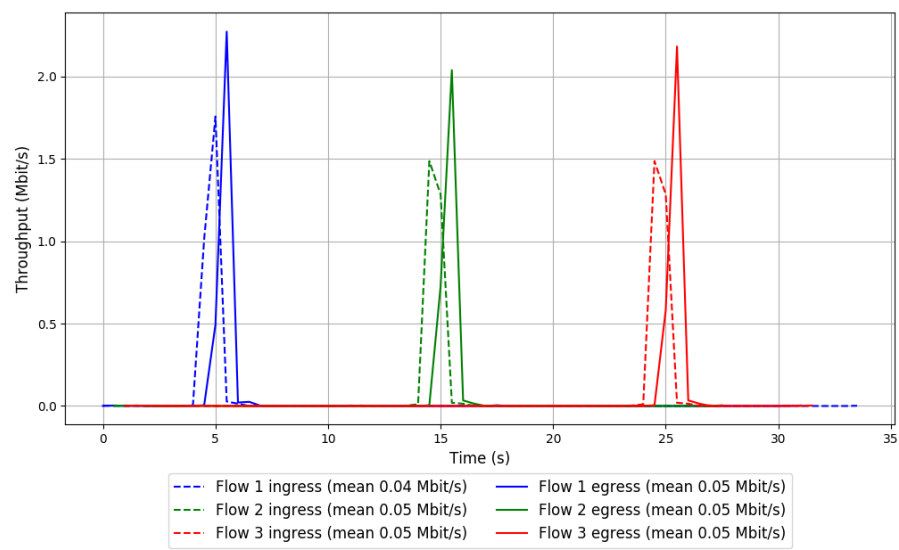


Run 1: Statistics of WebRTC media

Start at: 2019-01-22 02:46:03  
End at: 2019-01-22 02:46:33  
Local clock offset: -1.389 ms  
Remote clock offset: -38.611 ms

# Below is generated by plot.py at 2019-01-22 06:52:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 132.120 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 133.392 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 131.748 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 133.601 ms  
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

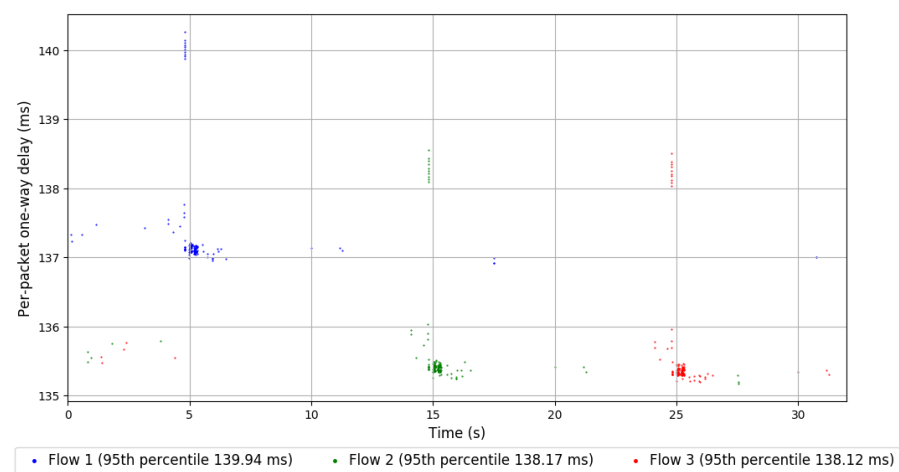
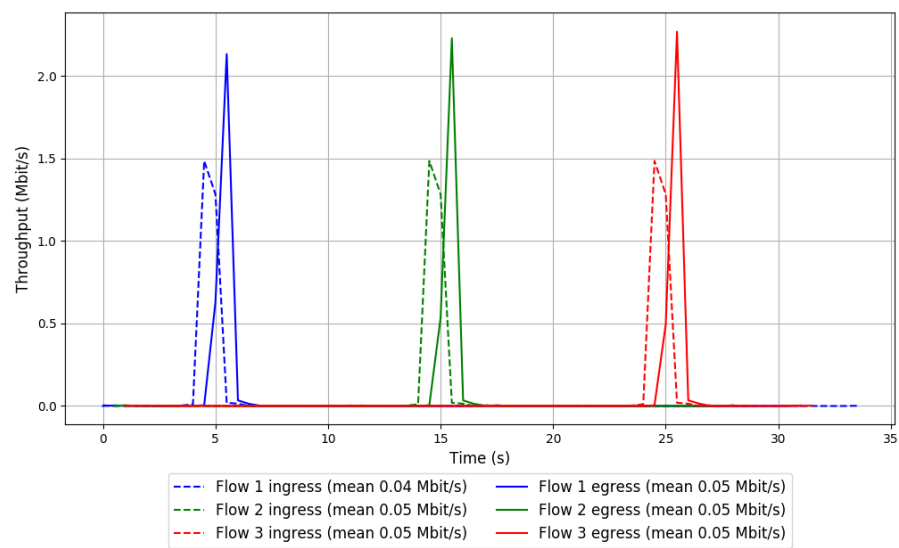


Run 2: Statistics of WebRTC media

Start at: 2019-01-22 03:27:06  
End at: 2019-01-22 03:27:36  
Local clock offset: -1.884 ms  
Remote clock offset: -44.889 ms

# Below is generated by plot.py at 2019-01-22 06:52:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 138.211 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 139.941 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 138.167 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 138.119 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

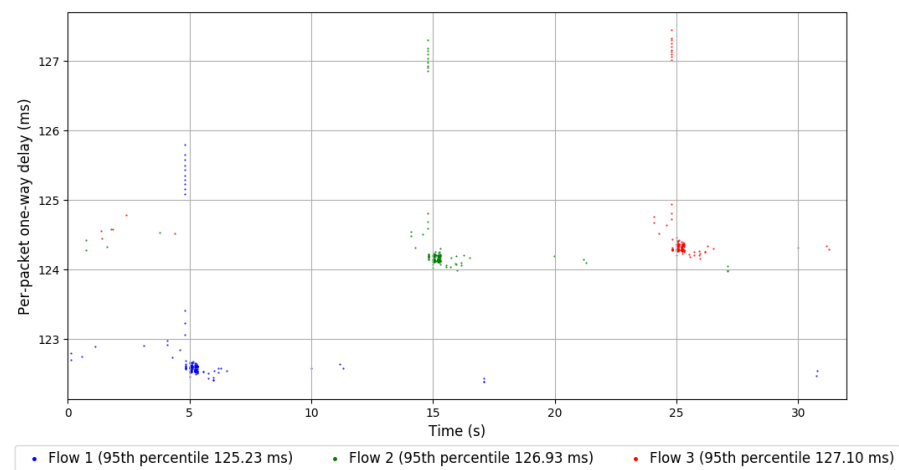
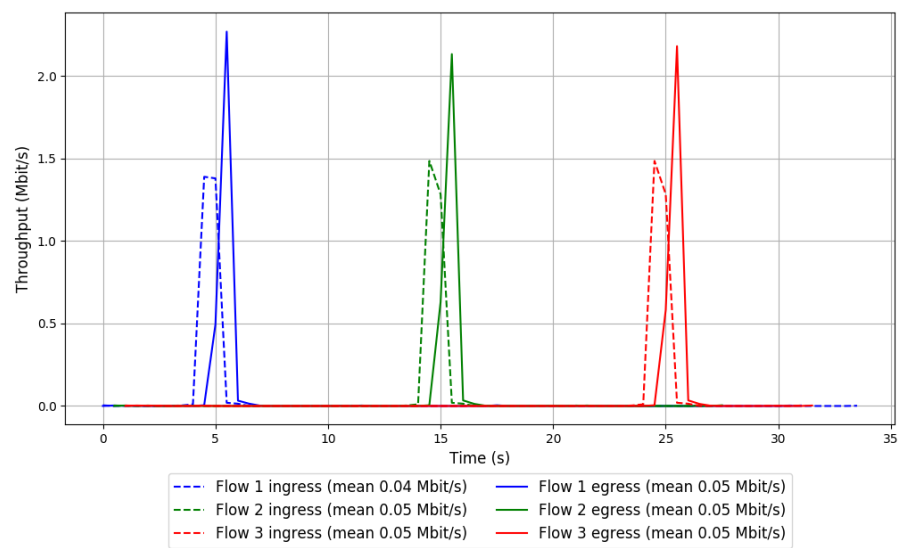


Run 3: Statistics of WebRTC media

Start at: 2019-01-22 03:58:07  
End at: 2019-01-22 03:58:37  
Local clock offset: -1.309 ms  
Remote clock offset: -32.013 ms

# Below is generated by plot.py at 2019-01-22 06:52:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 125.583 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 125.231 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 126.934 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 127.097 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

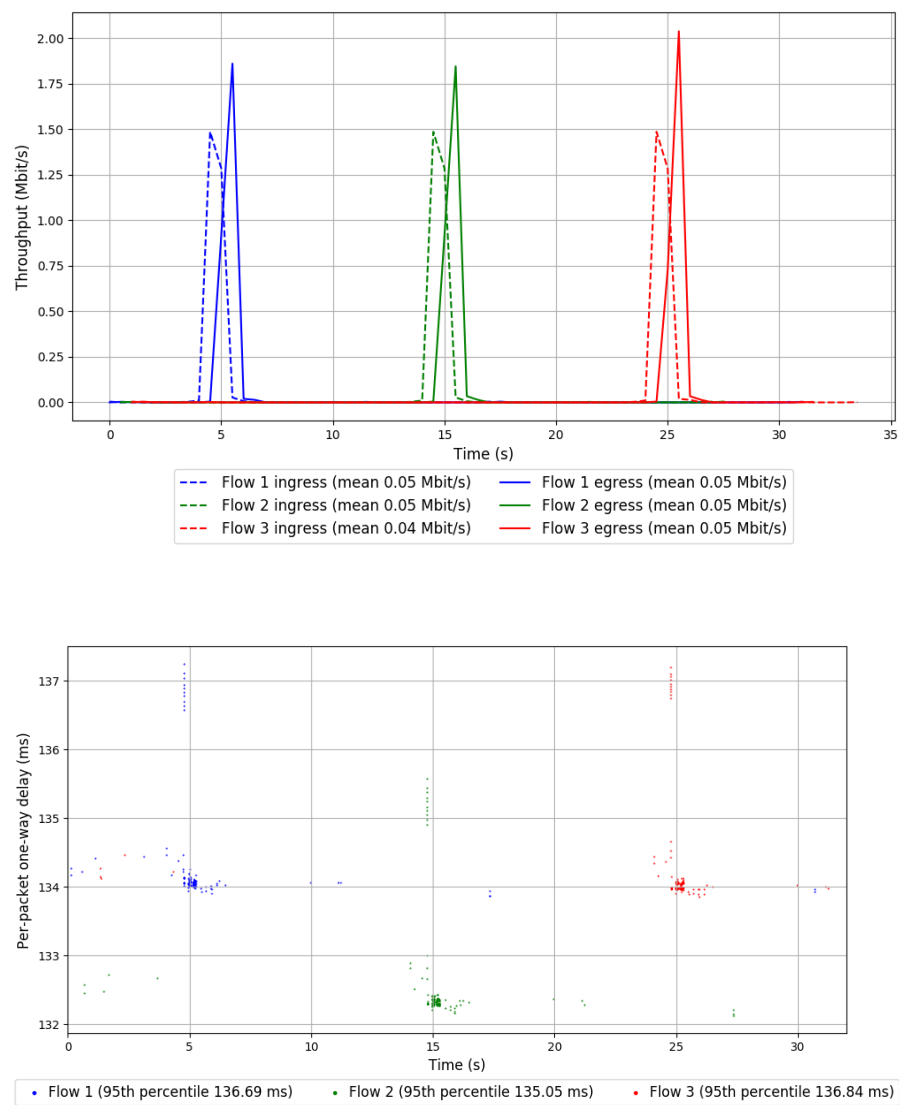


Run 4: Statistics of WebRTC media

Start at: 2019-01-22 04:49:27  
End at: 2019-01-22 04:49:57  
Local clock offset: 0.38 ms  
Remote clock offset: -40.301 ms

# Below is generated by plot.py at 2019-01-22 06:52:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 135.383 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 136.695 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 135.046 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 136.842 ms  
Loss rate: 0.05%

Run 4: Report of WebRTC media — Data Link





Run 5: Statistics of WebRTC media

Start at: 2019-01-22 05:53:02  
End at: 2019-01-22 05:53:32  
Local clock offset: -2.211 ms  
Remote clock offset: -36.593 ms

# Below is generated by plot.py at 2019-01-22 06:52:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 128.960 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 128.711 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 130.462 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 130.464 ms  
Loss rate: 0.05%

Run 5: Report of WebRTC media — Data Link

